



October 27, 2016

Brookfield Global Integrated Solutions
23 – 3318 Oak Street
Victoria, British Columbia, V8X 1R1

E-mail: nicola.moyles@brookfieldgis.com

Attention: Nicola Moyles
Project Manager

Re: **Green Space Remediation, Project Number: BCGV605283**
850 Burdett Avenue, Victoria, British Columbia
PWL File: 13858B

Pinchin West Ltd. (PWL) is pleased to provide Brookfield Global Integrated Solutions (Client) with the following preliminary update and cost estimate for a Green Space Remediation for the above-noted property. This represents an updated scope of work.

It is PWL's understanding that the Green Space Remediation is required as part of the due diligence requirements in relation to the cleanup of the eastern (public garden) portion of the property.

1.0 BACKGROUND

Based on your correspondence, it is PWL's understanding that the Site consists of an approximate 0.97 hectare parcel of land. The developed western portion of the Site contains a Provincial Court facility. The eastern portion of the property contains a public garden approximately 3,000 square metres in area. It was reported that a temporary human occupied shelter/civil action camp had been established on this portion of the property and as part of the removal of the camp the Client has requested a soil investigation. During decommissioning of the camp, it was reported that two suspected illegal drug manufacturing operations, numerous hypodermic needles, and an extensive rat population were identified by the Client.

PWL completed an initial round of soil investigation work in relation to the Site. The findings of the initial soil investigation completed by PWL identified soil with parameter concentrations exceeding the applicable ministry of environmental (MOE) contaminated site regulations (CSR) as summarized below:

- Soil samples 16-TP102, 16-TP103, 16-TP111, 16-TP113, 16-TP116 through 16-TP121 exceeded the Urban Park (PL) soil standard for various polycyclic aromatic hydrocarbons;
- Soil samples 16-TP109 and 16-TP116 exceeded the Commercial Land use (CL) soil standard for benzene;

- Soil samples 16-TP103, 16-TP107, 16-TP108, 16-TP110 through 16-TP121 exceeded the CL soil standard for lead;

PWL should also note that detectable concentrations of methamphetamines were also identified within the soil samples 16-TP104 and 16-TP106.

Based on the findings noted above, PWL recommended that an additional round of soil investigation be completed at the Site to vertically delineate the above-noted impacts.

A preliminary draft key map showing the Site plan and testpit locations is provided as Figure 2 (attached).

A preliminary draft summary of the current analytical results is provided as Tables 1 through 10 (attached).

2.0 SCOPE OF WORK

The work completed under this project was performed in general accordance with standard environmental consulting practices and the Canadian Standards Association publication entitled "*Phase II Environmental Site Assessment, CSA Standard Z769-00 (R 2013)*".

The scope of work for the second round of soil investigation consisted of the following activities:

- Retain the services of an independent contractor and public utility services to identify the locations of buried and overhead utility services prior to any drilling/excavation activities. Certain underground utilities (especially if constructed of plastic, fibreglass, clay, concrete pipe, repaired lines, etc.) cannot be located by standard locating practices. PWL and its utility locators will require all Site plans to be provided by the Client, Site owner or Site representatives to identify the locations of untraceable buried utilities. PWL will not be responsible for any damages to utilities that are not on plans provided or cannot be identified by standard locating practices. PWL may recommend the use of day-lighting techniques prior to any drilling/excavating. If day-lighting is recommended, PWL will notify the Client of the cost, which is additional to this proposal;
- Excavate up to seven testpits at the Site within the previously identified area of environmental concern AEC to assess soil quality and to provide information on Site-specific geological characteristics. Each testpit will be advanced to a maximum depth of 1.5 metres below ground surface, or until refusal is encountered. Re-instatement of the investigation locations will be with excavated material and visually compacted using the excavator. The proposed testpits are subject to change based on Site conditions, presence of utilities or other obstructions, and field observations. All field work will be conducted by a qualified professional (Technologist Rate);

- Field screen soil samples for the presence of petroleum/volatile organic compound (VOC)-derived vapours using visual and olfactory considerations, along with a photo-ionization detector (PID) calibrated to isobutylene or equivalent. A combination of visual, olfactory observations, PID organic vapour readings and reported locations of suspected contaminant sources will be utilized to identify the most apparent “worst-case” soil samples for laboratory analysis;
- Submit two soil samples per testpit location, based on the field screening methodologies for chemical analyses of (VOCs) including benzene, toluene, ethylbenzene and xylenes (collectively referred to as BTEX), light extractable petroleum hydrocarbons (LEPH), heavy extractable petroleum hydrocarbons (HEPH), volatile petroleum hydrocarbons (VPH), polycyclic aromatic hydrocarbons (PAHs), metals and/or methamphetamine;
- Submit soil samples to, a laboratory accredited by the Standards Council of Canada and the Canadian Association for Laboratory Accreditation. The soil samples will be submitted on regular (5 to 7 business day) turnaround time;
- Evaluate the soil analytical results by comparison to the applicable criteria stipulated in the MOE CSR; and
- Prepare a factual report for the Site documenting the findings of the assessment and recommendations (if any) related to subsurface impacts.



3.0 PROJECT ESTIMATED COST

The estimated costs to complete the initial round of soil investigation work previously outlined in the proposal entitled "*Proposal for Soil Investigation*" dated August 30, 2016 (PO#8054973) are presented below:

PWL Professional fees (including field work, project management and reporting)	\$7,000.00
Laboratory Analysis (select soil samples, analyzed for above mentioned parameters based on standard turnaround time. For budgeting purposes PWL has assumed 30 soil samples)	\$20,000.00
Disbursements (including mileage, equipment costs, etc.)	\$1,000.00

The estimated costs to complete the work program detailed above (second round of soil investigation) are presented below:

PWL Professional fees (including field work, project management and reporting)	\$5,000.00
Testpit Investigation (including excavation subcontractor and utility clearances)	\$3,000.00
Laboratory Analysis (select soil samples, analyzed for above mentioned parameters based on standard turnaround time for 7 soil samples)	\$5,000.00
Disbursements (including mileage, equipment costs, etc.)	\$1,000.00
Total Estimated Cost for Both Proposals (excluding all applicable taxes)	\$42,000.00

PWL reserves the right to modify the work program; however, no budgetary changes will be made without notification and consent from the Client. PWL will utilize our Standard Rates and Disbursement Schedule for such additional costs. The estimated cost presented is for the two rounds of work proposed as outlined herein, and does not include Client meetings, obtaining municipal or other required permits, preparation of proposals/cost estimates for follow-up work or remediation activities, or additional work beyond the Soil Investigation scope of work.



The rates and disbursements are based on the Master Service Agreement Reference No. NC2012CSLT00746000BLJC between the Pinchin Group of Companies and Brookfield Global Integrated Solutions dated January 31, 2012. Environmental Rate Fee Schedule has been attached for reference.

4.0 CLOSING

We trust that the information provided herein is sufficient for the Client to evaluate PWL's soil investigation. If you have any questions, or require additional information, please do not hesitate to contact the undersigned.

We look forward to working with you on this assignment.

Sincerely,

Pinchin West Ltd.

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Template: Phase II ESA Stage II PSI Proposal Template July 28, 2016

COURTENAY STREET

SIDEWALK



LEGEND

-  Site Building
-  Investigation Area
-  Former fire pit area
-  Former suspected drug lab area
-  Shallow Hand Excavation Location
-  Deeper Test Pit Location
- RED Location of Analytical Exceedance
-  Approximate location of trees

Notes:
 Shallow = 0.1 metres below ground surface
 Deeper = 0.5 metres below ground surface

Former drug lab and fire pit locations are as reported by the Site Representative.

Only the east portion (Site) of the subject property is shown.

PARKING RAMP

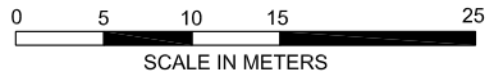
ENTRANCE

SITE BUILDING

PARKING LOT

SIDEWALK

BURDETTE AVENUE



BROOKFIELD GLOBAL INTEGRATED SOLUTIONS

ENVIRONMENTAL SOIL SAMPLING INVESTIGATION

850 BURDETTE AVENUE, VICTORIA BRITISH COLUMBIA

SITE PLAN SHOWING HAND EXCAVATION / TEST PIT LOCATIONS

DATE:
OCTOBER 2016

PROJECT NO:
13858B

DRAWN BY:
JB

SOURCE :

FIGURE:

2

CHECKED BY:
JQ

PINCHIN WEST SITE SURVEY AND
CAPITAL REGIONAL DISTRICT ONLINE GIS



Table 1: Petroleum Hydrocarbons in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
EPHs10-19	ns	ns	ns	<200	<200	<200	<200	<200	<200	<200	<200	<200
EPHs19-32	ns	ns	ns	<200	<200	<200	<200	260	<200	<200	<200	<200
LEPHs	1000	2000	1000	<200	<200	<200	<200	<200	<200	<200	<200	<200
HEPHs	1000	5000	1000	<200	<200	<200	<200	260	<200	<200	<200	<200
2-Methylnaphthalene	ns	ns	ns	<0.050	0.066	0.117	<0.050	<0.050	<0.050	<0.050	0.055	<0.050
Acenaphthene	ns	ns	ns	<0.050	0.172	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ns	ns	ns	<0.050	<0.050	0.208	0.08	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	ns	ns	ns	<0.050	0.656	0.152	0.055	<0.050	<0.050	<0.050	0.148	<0.050
Benz[a]anthracene	1	10	1	0.052	0.985	0.557	0.233	0.065	0.089	0.075	0.374	0.075
Benzo[a]pyrene (B[a]P)	1	10	1	0.054	0.794	0.771	0.300	0.077	0.146	0.077	0.336	0.065
Benzo[b]fluoranthene	1	10	1	0.099	1.14	1.02	0.453	0.151	0.241	<0.20	0.487	0.100
Benzo[g,h,i]perylene	ns	ns	ns	<0.050	0.460	0.577	0.182	0.057	0.110	<0.050	0.197	<0.050
Benzo[k]fluoranthene	1	10	1	<0.050	0.442	0.371	0.156	0.054	0.101	<0.050	0.195	<0.050
Chrysene	ns	ns	ns	<0.070	0.872	0.674	0.320	0.090	0.119	0.095	0.370	0.083
Dibenz[a,h]anthracene	1	10	1	<0.050	0.103	0.111	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene	ns	ns	ns	0.121	2.23	1.13	0.523	0.129	0.145	0.142	0.876	0.156
Fluorene	ns	ns	ns	<0.050	0.239	<0.050	<0.050	<0.050	<0.050	<0.050	0.067	<0.050
Indeno [1,2,3-cd] pyrene	1	10	1	<0.050	0.540	0.666	0.221	0.066	0.115	0.058	0.251	<0.050
Naphthalene	5	50	5	<0.050	0.113	0.097	<0.050	<0.050	<0.050	<0.050	0.079	<0.050
Phenanthrene	5	50	5	0.058	2.06	0.621	0.300	0.077	0.085	0.079	0.631	0.124
Pyrene	10	100	10	0.107	1.78	1.15	0.534	0.127	0.144	0.143	0.762	0.145

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard
EPHs = Extractable Petroleum Hydrocarbons
LEPHs = Light EPH, corrected for polycyclic aromatic hydrocarbons (PAH)
HEPHs = Heavy EPH, corrected for PAH

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 1: Petroleum Hydrocarbons in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP110	16-TP111-0.1M	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
EPHs10-19	ns	ns	ns	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
EPHs19-32	ns	ns	ns	<200	<200	<200	<200	<200	<200	370	350	320	420	<200
LEPHs	1000	2000	1000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
HEPHs	1000	5000	1000	<200	<200	<200	<200	<200	<200	330	320	290	370	<200
2-Methylnaphthalene	ns	ns	ns	<0.050	0.203	0.076	0.128	<0.050	0.258	0.975	0.879	1.15	0.342	0.183
Acenaphthene	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ns	ns	ns	0.056	0.403	0.06	0.247	0.074	0.334	1.91	2.25	1.82	1.87	0.398
Anthracene	ns	ns	ns	0.05	0.266	0.087	0.22	<0.050	0.218	1.15	1.26	1.11	1.73	0.237
Benz[a]anthracene	1	10	1	0.192	1.10	0.314	0.871	0.204	0.805	4.41	5.00	4.16	6.11	0.919
Benzo[a]pyrene (B[a]P)	1	10	1	0.186	1.19	0.294	0.962	0.219	0.847	5.65	6.86	5.51	6.55	1.05
Benzo[b]fluoranthene	1	10	1	0.277	1.53	0.403	1.22	0.295	1.08	6.98	8.46	6.71	8.21	1.45
Benzo[g,h,i]perylene	ns	ns	ns	0.102	0.669	0.188	0.533	0.132	0.484	2.85	3.68	2.81	3.56	0.568
Benzo[k]fluoranthene	1	10	1	0.120	0.605	0.159	0.465	0.117	0.401	3.08	3.52	2.73	3.83	0.570
Chrysene	ns	ns	ns	0.209	1.17	0.372	0.914	0.238	0.854	4.88	5.81	4.76	6.84	0.964
Dibenz[a,h]anthracene	1	10	1	<0.050	0.192	0.050	0.154	<0.050	0.146	0.824	1.04	0.817	0.965	0.175
Fluoranthene	ns	ns	ns	0.333	1.58	0.757	1.36	0.293	1.13	6.88	7.40	6.22	12.3	1.26
Fluorene	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.20	<0.20	<0.20	<0.20	<0.050
Indeno [1,2,3-cd] pyrene	1	10	1	0.133	0.829	0.228	0.668	0.162	0.619	3.83	4.90	3.81	4.62	0.762
Naphthalene	5	50	5	0.137	0.355	0.089	0.229	0.051	0.868	2.00	2.20	2.08	0.860	0.395
Phenanthrene	5	50	5	0.147	0.654	0.407	0.624	0.116	0.504	2.77	2.91	2.52	5.99	0.520
Pyrene	10	100	10	0.333	1.62	0.692	1.40	0.324	1.28	7.71	8.42	7.07	12.6	1.41

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard
EPHs = Extractable Petroleum Hydrocarbons
LEPHs = Light EPH, corrected for polycyclic aromatic hydrocarbons (PAH)
HEPHs = Heavy EPH, corrected for PAH

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 1: Petroleum Hydrocarbons in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP121-0.1M	16-TP201-0.6M	16-TP202-0.5M	16-TP202-1.0M	16-TP202-1.5M	16-TP203-0.5M	16-TP204-0.4M	16-TP205-0.4M	16-TP206-0.5M	16-TP207-0.5M
				9/7/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016
				0.1 mbgs	0.6 mbgs	0.5 mbgs	1.0 mbgs	1.5 mbgs	0.5 mbgs	0.4 mbgs	0.4 mbgs	0.5 mbgs	0.5 mbgs
EPHs10-19	ns	ns	ns	<200	<200	<200	-	-	<200	<200	<200	<200	<200
EPHs19-32	ns	ns	ns	<200	<200	<200	-	-	<200	<200	<200	<200	<200
LEPHs	1000	2000	1000	<200	<200	<200	-	-	<200	<200	<200	<200	<200
HEPHs	1000	5000	1000	<200	<200	<200	-	-	<200	<200	<200	<200	<200
2-Methylnaphthalene	ns	ns	ns	0.136	0.211	0.513	-	-	0.075	<0.050	<0.050	<0.050	<0.050
Acenaphthene	ns	ns	ns	<0.050	<0.050	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ns	ns	ns	0.385	<0.050	0.749	-	-	0.056	<0.050	<0.050	<0.050	0.07
Anthracene	ns	ns	ns	0.216	<0.050	0.407	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Benz[a]anthracene	1	10	1	0.86	0.155	1.74	-	-	0.121	<0.050	<0.050	<0.050	0.168
Benzo[a]pyrene (B[a]P)	1	10	1	1.09	0.168	2.28	-	-	0.171	<0.050	<0.050	<0.050	0.233
Benzo[b]fluoranthene	1	10	1	1.48	0.246	2.96	-	-	0.205	<0.050	<0.050	<0.050	0.274
Benzo[g,h,i]perylene	ns	ns	ns	0.546	0.091	1.32	-	-	0.088	<0.050	<0.050	<0.050	0.107
Benzo[k]fluoranthene	1	10	1	0.572	0.089	1.18	-	-	0.085	<0.050	<0.050	<0.050	0.118
Chrysene	ns	ns	ns	0.917	0.189	1.88	-	-	0.125	<0.050	<0.050	<0.050	0.162
Dibenz[a,h]anthracene	1	10	1	0.179	<0.050	0.386	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene	ns	ns	ns	1.19	0.335	2.58	-	-	0.184	<0.050	<0.050	<0.050	0.258
Fluorene	ns	ns	ns	<0.050	<0.050	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Indeno [1,2,3-cd] pyrene	1	10	1	0.745	0.122	1.93	-	-	0.113	<0.050	<0.050	<0.050	0.145
Naphthalene	5	50	5	0.272	0.13	0.726	-	-	0.074	<0.050	<0.050	<0.050	0.109
Phenanthrene	5	50	5	0.451	0.215	1.10	-	-	0.112	<0.050	<0.050	<0.050	0.117
Pyrene	10	100	10	1.33	0.333	2.78	-	-	0.206	<0.050	<0.050	<0.050	0.29

Notes:
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XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
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*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 2: Volatile Organic Compounds in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Urban Park Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110	16-TP111-0.1M
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
1,1,1,2-Tetrachloroethane	32	73	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,1-Trichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	4.1	9.3	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethene	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2-Hexanone	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acetone	14000	54000	ns	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Benzene	0.04	0.04	0.04	<0.0050	<0.0050	0.0107	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.349	<0.0050	0.0084
BDCM (bromodichloromethane)	8.2	18	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform (tribromomethane)	620	2200	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon Disulfide	360	720	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon Tetrachloride	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Monochlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroethane (ethyl chloride)	30	65	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloroform	5	50	5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloromethane (methyl chloride)	47	160	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-dichloroethene (cis)	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethene (trans)	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (cis)	ns	ns	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (trans)	ns	ns	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene	5	5	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
DBCM (dibromochloromethane)	11	26	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dichloromethane	5	50	5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Ethylbenzene	1	7	1	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.087	<0.015	<0.015
Ethyl ether	1800	1800	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
m&p-Xylene	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.634	<0.050	<0.050
Methyl ethyl ketone (MEK)	22000	110000	ns	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Methyl isobutyl ketone (MIBK)	5300	47000	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl tert-butyl ether (MTBE)	320	700	ns	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
n-Heptane (nC7)	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.270	<0.050	<0.050
n-Octane (nC8)	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.219	<0.050	<0.050
o-Xylene	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.419	<0.050	<0.050
Styrene	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Tetrachloroethylene (PERC)	5	5	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	1.5	2.5	1.5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.627	<0.050	<0.050
Total Xylenes	5	20	5	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	1.05	<0.075	<0.075
Trichloroethylene (TCE)	0.015	0.015	0.015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane (Freon 11)	390	2000	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Vinyl chloride (chloroethene)	0.79	7.5	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
VH	ns	ns	ns	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
VPHs	200	200	ns	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard
VH = Volatile Hydrocarbons
VPH = Volatile Petroleum Hydrocarbons

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Urban Park Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 2: Volatile Organic Compounds in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Urban Park Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M	16-TP201-0.6M
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	10/11/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.6 mbgs
1,1,1,2-Tetrachloroethane	32	73	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,1-Trichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	4.1	9.3	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethene	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2-Hexanone	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-
Acetone	14000	54000	ns	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	-
Benzene	0.04	0.04	0.04	0.0258	<0.0050	<0.0050	0.025	0.0724	0.0308	0.016	0.0072	0.0067	<0.0050	0.0169
BDCM (bromodichloromethane)	8.2	18	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform (tribromomethane)	620	2200	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon Disulfide	360	720	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-
Carbon Tetrachloride	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Monochlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroethane (ethyl chloride)	30	65	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloroform	5	50	5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloromethane (methyl chloride)	47	160	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-dichloroethene (cis)	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethene (trans)	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (cis)	ns	ns	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (trans)	ns	ns	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene	5	5	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-
DBCM (dibromochloromethane)	11	26	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dichloromethane	5	50	5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Ethylbenzene	1	7	1	<0.015	<0.015	<0.015	0.027	0.069	0.025	0.031	<0.015	<0.015	<0.015	0.018
Ethyl ether	1800	1800	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-
m&p-Xylene	ns	ns	ns	0.078	<0.050	<0.050	0.189	0.505	0.132	0.175	0.093	<0.050	<0.050	0.107
Methyl ethyl ketone (MEK)	22000	110000	ns	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	-
Methyl isobutyl ketone (MIBK)	5300	47000	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-
Methyl tert-butyl ether (MTBE)	320	700	ns	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
n-Heptane (nC7)	ns	ns	ns	<0.050	<0.050	<0.050	0.058	0.093	<0.050	0.063	<0.050	<0.050	<0.050	-
n-Octane (nC8)	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	0.102	<0.050	0.098	<0.050	<0.050	<0.050	-
o-Xylene	ns	ns	ns	0.051	<0.050	<0.050	0.106	0.361	0.115	0.164	0.076	<0.050	<0.050	0.083
Styrene	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Tetrachloroethylene (PERC)	5	5	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	1.5	2.5	1.5	0.097	<0.050	<0.050	0.185	0.33	0.084	0.087	0.051	<0.050	<0.050	0.077
Total Xylenes	5	20	5	0.129	<0.075	<0.075	0.295	0.866	0.248	0.339	0.169	<0.075	<0.075	0.19
Trichloroethylene (TCE)	0.015	0.015	0.015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane (Freon 11)	390	2000	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Vinyl chloride (chloroethene)	0.79	7.5	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
VH	ns	ns	ns	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
VPHs	200	200	ns	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard
VH = Volatile Hydrocarbons
VPH = Volatile Petroleum Hydrocarbons

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Urban Park Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 2: Volatile Organic Compounds in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Urban Park Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP202-0.5M	16-TP202-1.0M	16-TP202-1.5M	16-TP203-0.5M	16-TP204-0.4M	16-TP205-0.4M	16-TP206-0.5M	16-TP207-0.5M
				10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016
				0.5 mbgs	1.0 mbgs	1.5 mbgs	0.5 mbgs	0.4 mbgs	0.4 mbgs	0.5 mbgs	0.5 mbgs
1,1,1,2-Tetrachloroethane	32	73	ns	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,1-Trichloroethane	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	4.1	9.3	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethene	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	1	10	1	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	1	10	1	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	1	10	1	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
2-Hexanone	ns	ns	ns	-	-	-	-	-	-	-	-
Acetone	14000	54000	ns	-	-	-	-	-	-	-	-
Benzene	0.04	0.04	0.04	0.0168	-	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
BDCM (bromodichloromethane)	8.2	18	ns	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform (tribromomethane)	620	2200	ns	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon Disulfide	360	720	ns	-	-	-	-	-	-	-	-
Carbon Tetrachloride	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Monochlorobenzene	1	10	1	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroethane (ethyl chloride)	30	65	ns	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10
Chloroform	5	50	5	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10
Chloromethane (methyl chloride)	47	160	ns	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-dichloroethene (cis)	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethene (trans)	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (cis)	ns	ns	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (trans)	ns	ns	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene	5	5	5	-	-	-	-	-	-	-	-
DBCM (dibromochloromethane)	11	26	ns	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Dichloromethane	5	50	5	<0.30	-	-	<0.30	<0.30	<0.30	<0.30	<0.30
Ethylbenzene	1	7	1	0.024	-	-	<0.015	<0.015	<0.015	<0.015	<0.015
Ethyl ether	1800	1800	ns	-	-	-	-	-	-	-	-
m&p-Xylene	ns	ns	ns	0.116	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl ethyl ketone (MEK)	22000	110000	ns	-	-	-	-	-	-	-	-
Methyl isobutyl ketone (MIBK)	5300	47000	ns	-	-	-	-	-	-	-	-
Methyl tert-butyl ether (MTBE)	320	700	ns	<0.20	-	-	<0.20	<0.20	<0.20	<0.20	<0.20
n-Heptane (nC7)	ns	ns	ns	-	-	-	-	-	-	-	-
n-Octane (nC8)	ns	ns	ns	-	-	-	-	-	-	-	-
o-Xylene	ns	ns	ns	0.11	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Styrene	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Tetrachloroethylene (PERC)	5	5	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	1.5	2.5	1.5	0.075	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Total Xylenes	5	20	5	0.225	-	-	<0.075	<0.075	<0.075	<0.075	<0.075
Trichloroethylene (TCE)	0.015	0.015	0.015	<0.010	-	-	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane (Freon 11)	390	2000	ns	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10
Vinyl chloride (chloroethene)	0.79	7.5	ns	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10
VH	ns	ns	ns	<100	-	-	<100	<100	<100	<100	<100
VPHs	200	200	ns	<100	-	-	<100	<100	<100	<100	<100

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard
VH = Volatile Hydrocarbons
VPH = Volatile Petroleum Hydrocarbons

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Urban Park Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 3: Metals in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110	16-TP111-0.1M
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
pH	ns	ns		5.46	6.42	5.67	5.34	5.26	5.38	5.53	5.57	5.57	5.31	5.80
Antimony	20	40	20	0.52	0.81	0.84	0.55	0.75	0.85	0.50	0.85	0.56	0.66	1.91
Arsenic	15	15	15	3.35	4.07	4.83	4.89	3.39	5.00	4.71	4.91	4.74	4.27	5.51
Barium	400	400	400	94.4	156	179	126	104	134	70.5	102	102	112	212
Beryllium	4	8	4	0.32	0.33	0.40	0.36	0.29	0.38	0.31	0.34	0.29	0.31	0.38
Cadmium	1.5 @ pH < 6.5	1.5 @ pH < 6.5	1.5	0.236	0.423	0.798	0.545	0.424	0.464	0.466	0.663	0.575	0.411	0.605
Chromium	60	60	60	28.3	34.1	37.1	41.2	32.8	46.5	33.5	45.8	55.0	36.9	41.1
Cobalt	50	300	50	7.97	9.17	9.88	10.3	7.64	11.3	9.61	9.70	9.61	10.6	10.0
Copper	100 @ pH 5.0 — < 5.5 150 @ pH > 5.5	100 @ pH 5.0 — < 5.5 200 @ pH 5.5 - <6.0 250 @ pH > 6.0	90	32.0	49.9	62.2	43.4	43.3	44.1	31.6	39.5	30.6	30.5	39.6
Lead	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 400 @ pH >6.5	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 700 @ pH >6.5	100	52.6	66.6	200	92.1	79.0	75.9	149	128	98.9	130	303
Mercury (inorganic)	15	40	15	0.067	0.096	0.134	0.097	0.102	0.136	0.077	0.125	0.076	0.068	0.129
Molybdenum	10	40	10	0.76	0.73	0.59	0.63	1.10	1.26	0.44	0.63	0.37	0.43	0.75
Nickel	100	500	100	20.4	24.1	25.2	26.3	18.8	28.6	26.0	25.5	23.8	25.6	27.7
Selenium	3	10	3	0.26	0.25	0.30	0.27	<0.20	0.28	0.21	0.36	0.25	<0.20	0.26
Silver	20	40	20	0.11	0.17	0.31	0.21	0.19	0.20	0.11	0.26	0.18	0.15	0.23
Thallium	ns	ns	ns	0.057	0.067	0.074	0.067	0.057	0.068	0.067	0.072	0.067	0.071	0.070
Tin	50	300	50	2.0	<2.0	2.4	<2.0	<2.0	<2.0	<2.0	2.5	<2.0	2.4	2.7
Uranium	16	200	ns	0.507	0.604	1.19	1.02	0.576	0.742	0.913	1.11	0.972	0.833	1.05
Vanadium	200	ns	200	56.1	59.6	68.0	70.1	49.2	73.4	66.5	69.7	64.4	77.6	68.9
Zinc	150 @ pH < 6.5 450 @ pH >6.5	150 @ pH < 6.5 600 @ pH > 6.5	150	83.9	139	119	81.3	96.5	111	68.0	91.5	81.8	83.0	152

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 3: Metals in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M	16-TP201-0.6M
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	10/11/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.6 mbgs
pH	ns	ns		5.69	5.49	5.53	5.21	5.75	5.73	5.89	5.51	5.57	5.34	7.56
Antimony	20	40	20	1.16	0.55	0.65	0.65	0.57	0.51	0.53	0.59	0.76	0.75	0.41
Arsenic	15	15	15	3.88	4.60	4.55	4.56	5.28	4.89	5.51	4.32	4.75	4.29	4.61
Barium	400	400	400	133	136	154	158	249	241	302	134	167	165	166
Beryllium	4	8	4	0.31	0.36	0.53	0.46	0.41	0.43	0.47	0.27	0.38	0.36	0.35
Cadmium	1.5 @ pH < 6.5	1.5 @ pH < 6.5	1.5	0.402	0.388	0.717	0.545	0.526	0.562	0.677	0.503	0.554	0.377	0.208
Chromium	60	60	60	29.9	37.1	46.7	38.1	37.1	34.3	39.2	31.4	36.1	30.7	29.4
Cobalt	50	300	50	7.99	8.42	10.3	9.88	9.66	8.21	9.47	6.87	8.30	8.31	10.2
Copper	100 @ pH 5.0 — < 5.5 150 @ pH > 5.5	100 @ pH 5.0 — < 5.5 200 @ pH 5.5 - <6.0 250 @ pH > 6.0	90	32.1	31.6	41.3	39.0	32.3	33.2	35.4	27.3	34.4	36.9	34.7
Lead	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 400 @ pH >6.5	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 700 @ pH >6.5	100	197	177	118	153	207	133	219	201	241	156	127
Mercury (inorganic)	15	40	15	0.150	0.186	0.103	0.128	0.134	0.124	0.175	0.137	0.185	0.170	0.172
Molybdenum	10	40	10	0.52	0.62	1.67	1.46	0.81	1.01	0.86	0.64	0.87	0.82	0.45
Nickel	100	500	100	22.6	23.1	28.0	25.4	29.6	23.9	26.3	18.1	21.5	22.1	24.4
Selenium	3	10	3	0.24	0.25	0.27	0.27	0.25	0.24	0.28	0.24	0.32	0.26	0.23
Silver	20	40	20	0.30	0.18	0.26	0.22	0.19	0.20	0.24	0.18	0.26	0.17	0.14
Thallium	ns	ns	ns	0.068	0.073	0.094	0.083	0.073	0.067	0.073	0.052	0.080	0.066	0.057
Tin	50	300	50	2.4	<2.0	<2.0	2.2	<2.0	<2.0	4.7	11.4	3.8	2.8	2.3
Uranium	16	200	ns	0.854	0.882	1.66	1.41	0.999	1.12	1.15	0.883	1.08	0.726	0.38
Vanadium	200	ns	200	57.0	59.9	74.6	66.0	67.6	60.1	65.5	52.0	60.5	58.1	69.5
Zinc	150 @ pH < 6.5 450 @ pH >6.5	150 @ pH < 6.5 600 @ pH > 6.5	150	100	87.4	96.3	97.6	85.6	82.8	94.6	73.8	105	102	77.7

Notes:
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XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

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*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 3: Metals in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP202-0.5M	16-TP202-1.0M	16-TP202-1.5M	16-TP203-0.5M	16-TP204-0.4M	16-TP205-0.4M	16-TP206-0.5M	16-TP107-0.5M
				10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016
				0.5 mbgs	1.0 mbgs	1.5 mbgs	0.5 mbgs	0.4 mbgs	0.4 mbgs	0.5 mbgs	0.5 mbgs
pH	ns	ns		6.55	7.5	7.59	7.89	6.6	6.72	7.6	6.61
Antimony	20	40	20	0.68	0.46	0.24	0.52	1.37	0.14	0.24	0.14
Arsenic	15	15	15	6.05	5.32	4.47	4.44	5.48	4.17	3.55	3.89
Barium	400	400	400	262	228	79.6	117	57.7	57.2	182	68.5
Beryllium	4	8	4	0.43	0.4	0.32	0.25	0.32	0.28	0.34	0.28
Cadmium	1.5 @ pH < 6.5	1.5 @ pH < 6.5	1.5	0.238	0.247	0.07	0.174	0.697	0.078	0.129	0.08
Chromium	60	60	60	30.9	27.3	29.6	20	27.1	19	27.9	21.3
Cobalt	50	300	50	10.8	10.5	10.5	7.58	10.1	9.34	8.78	7.77
Copper	100 @ pH 5.0 — < 5.5 150 @ pH > 5.5	100 @ pH 5.0 — < 5.5 200 @ pH 5.5 - <6.0 250 @ pH > 6.0	90	35.6	29.1	26.7	21.6	32.6	25.7	14.0	19.9
Lead	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 400 @ pH >6.5	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 700 @ pH >6.5	100	198	100	7.37	62.6	13.5	3.46	47.4	17.1
Mercury (inorganic)	15	40	15	0.198	0.102	<0.050	0.065	<0.050	<0.050	<0.050	<0.050
Molybdenum	10	40	10	0.59	0.56	0.4	0.35	0.54	0.18	0.3	0.26
Nickel	100	500	100	28.4	26.8	24.9	18.6	27.5	21.4	20.7	19.6
Selenium	3	10	3	0.26	<0.20	<0.20	<0.20	<0.20	<0.20	0.22	<0.20
Silver	20	40	20	0.16	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Thallium	ns	ns	ns	0.078	0.071	0.066	<0.050	0.077	0.068	0.073	0.062
Tin	50	300	50	2.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Uranium	16	200	ns	0.51	0.444	0.382	0.347	0.388	0.238	0.403	0.35
Vanadium	200	ns	200	68.1	70.4	64.1	47.7	71.6	56.4	56.4	58.8
Zinc	150 @ pH < 6.5 450 @ pH >6.5	150 @ pH < 6.5 600 @ pH > 6.5	150	93.4	75.0	40.2	62.2	44.8	40.4	95.9	36.4

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 4: Toxicity Characteristic Leaching Procedure Metals in Soil

Job Number: 13858B

Site: 850 Burdett Avenue, Victoria, British Columbia

Client: Brookfield Global Integrated Solutions

Parameter	CSR Leachate Quality Standards*	16-TP201-0.6M	16-TP202-0.5M
		10/11/2016	10/11/2016
		0.6 mbgs	0.5 mbgs
1st Preliminary pH	ns	7.97	7.17
2nd Preliminary pH	ns	1.67	1.60
Final pH	ns	5.02	4.99
Extraction Solution Initial pH	ns	4.95	4.95
Antimony (Sb)-Leachable	ns	<1000	<1000
Arsenic (As)-Leachable	2500	<1000	<1000
Barium (Ba)-Leachable	100000	<2500	<2500
Beryllium (Be)-Leachable	ns	<25	<25
Boron (B)-Leachable	500000	<500	<500
Cadmium (Cd)-Leachable	500	<50	<50
Calcium (Ca)-Leachable	ns	82900	55400
Chromium (Cr)-Leachable	5000	<250	<250
Cobalt (Co)-Leachable	ns	<50	<50
Copper (Cu)-Leachable	100000	<50	<50
Iron (Fe)-Leachable	ns	<150	<150
Lead (Pb)-Leachable	5000	<250	<250
Magnesium (Mg)-Leachable	ns	2990	4490
Mercury (Hg)-Leachable	100	<1.0	<1.0
Nickel (Ni)-Leachable	ns	<250	<250
Selenium (Se)-Leachable	ns	<1000	<1000
Silver (Ag)-Leachable	5000	<50	<50
Thallium (Tl)-Leachable	ns	<1000	<1000
Vanadium (V)-Leachable	ns	<150	<150
Zinc (Zn)-Leachable	500000	<500	<500

Notes:

Values in µg/L unless otherwise stated

mbgs = metres below ground surface

ns = no standard

XXX.XX

= Exceeds Applicable Leachate Quality Soil Standard

* Leachate quality standards provided in Schedule 4, Part 3, Table 1 of the B.C. Hazardous Waste Regulation.

Table 5: Bacteria in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110	16-TP111-0.1M
	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
E. coli	143	4	<2	1020	>1820.14	635	<2	<2	<2	<2	4
Coliform Bacteria - Fecal	143	4	<2	1020	>1820.14	635	<2	<2	<2	<2	4
Coliform Bacteria - Total	>1769.88	>1830.49	247	1790	>1820.14	>1884.07	53	77	15	9	266

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX

Table 5: Bacteria in Soil

Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, Briti
Client: Brookfield Global Integrated Sol

Parameter	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M
	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
E. coli	<2	4	1810	<2	4	3	<2	<2	<2	<2
Coliform Bacteria - Fecal	<2	4	1810	<2	4	3	<2	<2	<2	<2
Coliform Bacteria - Total	4	608	1810	>1879.67	79	>1775.55	38	268	621	146

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX

Table 6: Nutrients in Soil

Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Urban Park Soil Standards*	CSR Commercial Soil Standards*	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Total Phosphate As P	ns	ns	14.0	16.8	3.98	3.38	11.5	17.2	4.82	2.47	2.08
Ammonia, Total Leachable (as N)	ns	ns	0.735	2.960	0.711	1.73	16.7	2.47	1.030	0.624	0.715

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

Table 6: Nutrients in Soil

Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Urban Park Soil Standards*	CSR Commercial Soil Standards*	16-TP110	16-TP111-0.1M	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Total Phosphate As P	ns	ns	2.74	3.60	4.49	6.59	2.42	4.39	2.34	2.91	2.74	2.20	3.57	7.47
Ammonia, Total Leachable (as N)	ns	ns	0.625	0.493	0.452	0.690	0.787	3.85	0.797	2.13	0.660	2.79	2.62	0.626

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

Table 7: Alcohols in Soil

Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Urban Park Soil Standards*	CSR Commercial Soil Standards**	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
sec-Butanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
n-Butanol	6100	61000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Isobutanol	1300	40000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Isopropanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methanol	31,000	100,000	<0.50	8.07	7.39	2.58	2.22	<0.50	1.92	6.7	4.58	3.25
Pentanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Urban Park Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

Table 7: Alcohols in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Urban Park Soil Standards*	CSR Commercial Soil Standards**	16-TP111-0.1M	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
sec-Butanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
n-Butanol	6100	61000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Isobutanol	1300	40000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Isopropanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methanol	31,000	100,000	0.66	0.98	3.97	8.80	11.3	<0.50	10.2	3.66	4.79	6.73	7.18
Pentanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Urban Park Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

Table 8: Fatty Acids in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110	16-TP111-0.1M
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Acetic Acid	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Butyric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Caproic (Hexanoic) Acid	ns	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Formic Acid	100,000	100,000	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
Isobutyric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isovaleric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Propionic Acid	ns	ns	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Valeric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (freshwater).

Table 8: Fatty Acids in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Acetic Acid	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Butyric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Caproic (Hexanoic) Acid	ns	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Formic Acid	100,000	100,000	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
Isobutyric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isovaleric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Propionic Acid	ns	ns	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Valeric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants, groundwater used for drinking water, and groundwater flow to surface water used by aquatic life (marine).

Table 9: Illicit Drugs in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110	16-TP111-0.1M
	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Methamphetamine	<0.10	<0.10	<0.10	0.15	0.40	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cocaine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Heroin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Amphetamine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Pseudoephedrine/ephedrine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
MDMA (ecstasy)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Lysergic acid diethylamide	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX

Table 9: Illicit Drugs in Soil

Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, Briti
Client: Brookfield Global Integrated Sol

Parameter	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M	16-TP204-0.4M
	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	10/11/2016
	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.4 mbgs
Methamphetamine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cocaine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-
Heroin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-
Amphetamine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-
Pseudoephedrine/ephedrine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-
MDMA (ecstasy)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-
Lysergic acid diethylamide	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX

Table 10: Iodide in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110	16-TP111-0.1M
	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Iodide	<5.6	<5.6	<5.8	<5.6	<5.7	<5.7	<5.5	<5.8	<5.4	<5.6	<5.5

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX

Table 10: Iodide in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, Briti
Client: Brookfield Global Integrated Sol

Parameter	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M
	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Iodide	<5.6	<5.8	<5.9	<5.8	<5.5	<5.6	<5.6	<5.9	<5.6	<5.7

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX

FINAL

Environmental Soil Sampling Investigation

850 Burdett Avenue
Victoria, British Columbia

Prepared for:

Brookfield Global Integrated
Solutions
23 – 3318 Oak Street
Victoria, British Columbia, V8X 1R1

Attn: Nicola Moyles
Project Manager

October 31, 2016

PWL File: 13858B



Issued To: **Brookfield Global Integrated**
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EXECUTIVE SUMMARY

Pinchin West Ltd. (PWL) was retained through an Authorization to Proceed signed by Nicola Moyles of Brookfield Global Integrated Solutions (Client) to conduct an Environmental Soil Sampling Investigation for the eastern portion of the property located at 850 Burdett Avenue in Victoria, British Columbia (hereafter referred to as the Site). The Site location is shown on Figure 1 and Figure 2 (all Figures are provided in Appendix I).

The property at 850 Burdett Avenue is developed with a Provincial Court facility. For the purposes of this report, the eastern portion of the property, a public garden that is approximately 3,000 square metres in area is considered the Site.

Based on your correspondence, it is PWL's understanding that a temporary human occupied shelter/civil action camp known in the media as Victoria's "Tent City" had been established at the Site and as part of the removal of the camp the Client has requested an Environmental Soil Sampling Investigation. During decommissioning of the camp, two suspected illegal drug manufacturing operations, numerous hypodermic needles, and an extensive rat population were reported by the Client.

The Environmental Soil Sampling Investigation was conducted at the Site between September 7, 2016 and October 11, 2016, during which PWL attended the Site to hand excavate, test pit excavate and collect soil samples. The test pits were advanced to a maximum depth of 1.5 metres below ground surface (mbgs) using a track-mounted excavator.

Select "worst case" soil samples collected during the Environmental Soil Sampling Investigation were submitted for laboratory analysis of contaminants potentially associated with camp activities including volatile organic compounds (VOCs), volatile petroleum hydrocarbons (VPH), light extractable petroleum hydrocarbons (LEPH), heavy extractable petroleum hydrocarbons (HEPH), polycyclic aromatic hydrocarbons (PAHs), metals, acetone, butanone, ethyl ether, methanol, acetic acid, formic acid, ammonia, chloroform, dichloromethane, ether, pH, iodine, pseudoephedrine, phosphorous, amphetamine, cocaine, heroin, lysergic acid diethylamide (LSD), 3,4-methylenedioxymethamphetamine (MDMA), methamphetamine, escherichia coli (E. coli), fecal coliforms and/or total coliforms.

Based on Site-specific information and information provided to PWL by the Client, the soil quality was assessed based on the BC Ministry of Environment Contaminated Sites Regulation (CSR) standards for commercial land use (CL), urban park land use (PL), soil relocation standards to non-agricultural land, intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

The reported concentrations in the soil samples submitted for analysis of VOCs, LEPH, HEPH, VPH, PAHs, metals, acetone, butanone, ethyl ether, methanol, acetic acid, formic acid, ammonia, chloroform, dichloromethane, ether, pH, iodine, pseudoephedrine, phosphorous, amphetamine, cocaine, heroin, LSD, MDMA, methamphetamine, E. coli, fecal coliforms, total coliforms satisfied their respective CSR RL, PL and soil relocation standards with the following exceptions:

- Shallow soil samples 16-TP102, 16-TP103, 16-TP111, 16-TP113, and 16-TP115 through 16-TP121 exceeded the PL soil standard for various PAHs;
- Shallow soil samples 16-TP109 and 16-TP116 exceeded the PL and CL soil standard for benzene;
- Shallow soil samples 16-TP103, 16-TP107, 16-TP108, and 16-TP110 through 16-TP121 exceeded the PL and CL soil standard for lead;
- Shallow soil sample 16-TP111 exceeded the PL and CL soil standard for zinc;
- Shallow soil samples 16-TP104 and 16-TP105 reported detectable concentrations of methamphetamine; and
- Deeper soil samples 16-TP202 exceeded the PL soil standard for various PAHs.

PWL recommends that a Remedial Excavation be conducted at the Site to remove the identified impacted soil with a subsequent Verification Soil Sampling Program (VSSP) to confirm remedial success. Furthermore, it is PWL's opinion that sufficient characterization and delineation of the soil impacts has been achieved on-Site in order to precede with this recommended Remedial Excavation and VSSP. Sufficient characterization and delineation is based on the identified local geology, absence of groundwater, analytical results and underlying bedrock.

This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.



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1.0 INTRODUCTION

Pinchin West Ltd. (PWL) was retained through an Authorization to Proceed signed by Nicola Moyles of Brookfield Global Integrated Solutions (Client) to conduct an Environmental Soil Sampling Investigation for the eastern portion of the property located at 850 Burdett Avenue in Victoria, British Columbia (hereafter referred to as the Site). The Site location is shown on Figure 1 and Figure 2 (all Figures are provided in Appendix I).

The property at 850 Burdett Avenue is developed with a Provincial Court facility. For the purposes of this report the eastern portion of the property containing a public garden approximately 3,000 square metres in area is considered the Site.

1.1 Background

Based on your correspondence, it is PWL's understanding that a temporary human occupied shelter/civil action camp known in the media as Victoria's "Tent City" had been established at the Site and as part of the removal of the camp the Client has requested an Environmental Soil Sampling Investigation. During decommissioning of the camp, two suspected illegal drug manufacturing operations, numerous hypodermic needles, and an extensive rat population were reported by the Client.

1.2 Scope of Work

The initial scope of work completed by PWL, as outlined in the PWL proposal entitled "*Proposal for Soil Investigation 850 Burdett Avenue, Victoria, British Columbia*" submitted to the Client on August 30, 2016, included the following:

- Attend Site and assess soil quality to provide information on Site-specific geological and hydrogeological characteristics and obtain soil samples using either hand excavation techniques or on-Site equipment. All field work was conducted by a qualified professional;
- Field screen soil samples for the presence of petroleum/volatile organic compound (VOC)-derived vapours using visual and olfactory considerations, along with a photo-ionization detector (PID) calibrated to isobutylene or equivalent;
- Submit initial in-situ most-apparent "worst case" soil samples, based on the field screening methodologies for chemical analyses of VOCs including benzene, toluene, ethylbenzene and xylenes (collectively referred to as BTEX), light extractable petroleum hydrocarbons (LEPH), heavy extractable petroleum hydrocarbons (HEPH), volatile petroleum hydrocarbons (VPH), polycyclic aromatic hydrocarbons (PAHs), metals, acetone, butanone, ethyl ether, methanol, acetic acid, formic acid, ammonia, chloroform, dichloromethane, ether, pH, iodine, pseudoephedrine, phosphorous, amphetamine, cocaine, heroin, lysergic acid diethylamide

(LSD), 3,4-methylenedioxymethamphetamine (MDMA), methamphetamine, escherichia coli (E. coli), fecal coliforms, total coliforms;

- Submit soil samples to a laboratory accredited by the Canadian Association for Laboratory Accreditation. The soil samples will be submitted on a regular (5 to 7 business day) turnaround time;
- Evaluate the soil analytical results by comparison to the applicable criteria stipulated in the BC Ministry of Environment Contaminated Sites Regulation (CSR); and
- Prepare a factual report for the Site documenting the findings of the assessment and recommendations (if any) related to subsurface impacts.

The scope of work described in the PWL proposal included providing support and closure sampling during remedial excavation work; however, this scope of work has yet to be initiated.

Based on the preliminary results of the initial round of soil sampling PWL identified soil with parameter concentrations exceeding the applicable MOE CSR standards for PAHs, benzene and lead. Furthermore, detectable concentrations of methamphetamine were also identified.

Based on these preliminary findings noted above, PWL recommended that an additional soil investigation be completed at the Site to vertically delineate the above-noted impacts.

The additional scope of work completed by PWL, as outlined in the PWL proposal entitled "*Green Space Remediation 850 Burdett Avenue, Victoria, British Columbia*" submitted to the Client on October 27, 2016, included the following:

- Retain the services of an independent contractor and public utility services to identify the locations of buried and overhead utility services prior to any drilling/excavation activities;
- Excavate up to seven test pits at the Site to assess soil quality and to provide information on Site-specific geological characteristics;
- Field screen soil samples for the presence of petroleum/VOC-derived vapours using visual and olfactory observations, along with a PID calibrated to isobutylene or equivalent;
- Submit two soil samples per test pit location, based on the field screening methodologies for chemical analyses of VOCs including BTEX, LEPH, HEPH, VPH, PAHs, metals and/or methamphetamine;
- Submit soil samples to, a laboratory accredited by the Standards Council of Canada and the Canadian Association for Laboratory Accreditation. The soil samples will be submitted on a regular (5 to 7 business day) turnaround time;

- Evaluate the soil analytical results by comparison to the applicable criteria stipulated in the BC MOE CSR; and
- Prepare a factual report for the Site documenting the findings of the assessment and recommendations (if any) related to subsurface impacts.

2.0 METHODOLOGY

The Environmental Soil Sampling Investigation was conducted in general accordance with the BC CSR and associated protocols and guidance documents, and PWL's standard operating procedures (SOPs).

2.1 Contractors

The test pitting excavation activities were conducted by Don Mann Excavating Ltd. (Don Mann), under contract to PWL.

2.2 Hand Excavation / Test Pit Activities

The Environmental Soil Sampling Investigation was conducted at the Site between September 7, 2016 and October 11, 2016.

The hand excavations were advanced to a maximum depth of 0.1 metres below ground surface (mbgs). The test pits were advanced to a maximum depth of approximately 1.5 mbgs using a track-mounted excavator. Soil samples were collected and containerized in laboratory-supplied glass sampling jars.

Subsurface soil conditions were logged on-Site by PWL personnel at the time of excavation activities. Soil samples were examined for visual and olfactory evidence of impacts and a portion of each sample was analyzed in the field for VOC and petroleum-derived vapour concentrations in soil headspace using a PID.

The locations of the hand excavation and test pits are shown on Figure 2 and a description of the subsurface stratigraphy encountered during the Environmental Soil Sampling Investigation is documented in the test pit logs included in Appendix II.

2.3 Soil Sampling and Laboratory Analysis

One soil sample was recovered from each hand excavation and submitted for laboratory analysis of VOCs, LEPH, HEPH, VPH, PAHs, metals, acetone, butanone, ethyl ether, methanol, acetic acid, formic acid, ammonia, chloroform, dichloromethane, ether, pH, iodine, pseudoephedrine, phosphorous, amphetamine, cocaine, heroin, LSD, MDMA, methamphetamine, E. coli, fecal coliforms, total coliforms. Based on the preliminary analytical results, several soil samples were also analyzed using the toxicity characteristic leaching procedure (TCLP).

Two "worst case" soil samples, based on vapour concentrations, visual and/or olfactory and depth considerations were recovered from each test pit and submitted for laboratory analysis of VOCs, LEPH, HEPH, VPH, PAHs, metals and/or methamphetamine.

2.4 Analytical Laboratory

Selected soil samples were delivered to ALS Limited (ALS) for analysis. ALS is an independent laboratory accredited by the Canadian Association for Laboratory Accreditation. Formal chain of custody records of the sample submissions were maintained between PWL and the staff at ALS.

2.5 QA/QC Protocols

Various quality assurance/quality control (QA/QC) protocols were followed during the Environmental Soil Sampling Investigation to ensure that representative samples were obtained and that representative analytical data were reported by the laboratory.

Field QA/QC protocols that were employed by PWL included the following:

- Soil samples were extracted from areas not in direct contact with the excavator bucket and/or sampling equipment, where possible, to minimize the potential for cross-contamination;
- Soil samples were placed in laboratory-supplied sample jars;
- Soil samples were placed in coolers on ice immediately upon collection, with appropriate sample temperatures maintained prior submission to the laboratory;
- Dedicated and disposable nitrile gloves were used for sample handling;
- Sample collection and handling procedures were performed in general accordance with the CSR and associated protocols and guidance documents, and PWL's SOPs.

ALS's internal laboratory QA/QC consisted of the analysis of laboratory duplicate, method blank, matrix spike and spiked blank samples, an evaluation of relative percent difference (RPD) calculations for laboratory duplicate samples, and an evaluation of surrogate recoveries.

2.6 Regulatory Criteria

Environmental matters pertaining to contaminated sites in British Columbia fall under the jurisdiction of the BC MOE, pursuant to the Environmental Management Act (EMA). The two key regulations under the EMA relating to assessment and remediation of contaminated sites are the CSR, and the Hazardous Waste Regulation (HWR). The CSR sets out legal procedures for screening sites, determining if a site is a contaminated site, liability, remediation processes, and sets standards for site remediation and soil

relocation. The HWR sets out legal procedures for the identification, handling, storage, transportation and disposal of hazardous wastes.

For a given substance in soil, the CSR provides either generic or matrix numerical standards. Generic standards are listed in Schedules 4 and 10 of the CSR, and consist of concentrations that apply regardless of site-specific factors. Matrix standards take into account site-specific factors, and the applicable standard for a substance is determined by using the lowest applicable concentration in Schedule 5 of the CSR. The site-specific standards account for human exposure by intake of contaminated soil and groundwater used for drinking water. Other factors include whether there is exposure by other environmental receptors such as soil invertebrates, livestock, and aquatic life, and whether the water at the contaminated site will be used for irrigation.

In accordance with protocols developed by the MOE, the aquatic life protective soil standards apply to sites situated within 500 metres of fresh or marine water used by aquatic life. Similarly, drinking water protective soil standards apply to sites situated within 500 metres of a groundwater or surface water supply source, or if future drinking water use is applicable, as defined in MOE Protocol 21.

An examination of conditions was undertaken to determine the appropriate water use conditions at the Site so that the appropriate soil standards from the CSR could be determined. Since the Site is zoned for commercial use and a court house is located on the property, the Commercial Land Use (CL) standards apply. However, as the area of investigation and potential remediation is only a portion of the property and is a public space used like an urban park, the Urban Park Use (PL) PL standards are also considered applicable. In terms of the site specific matrix standards within Schedule 5, the strictest of the following standards apply:

- Intake of contaminated soil;
- Toxicity to soil invertebrates and plants; and
- Groundwater used for drinking water.

The aquatic life protection standard (AW) would be applicable to the larger parcel; however, as the assessment is focussed solely on the park portion of the parcel, the AW standard is not considered applicable for this assessment based on distance and absence of identified preferential flow pathways.

For the Illicit drugs, no BC CSR standards have been developed. As such, the laboratory detection limit was used as the standard. Any detectable concentration of illicit drugs in the soil was considered an exceedance.

3.0 RESULTS

The following subsections present the results of the Environmental Soil Sampling Investigation.

3.1 Site Geology and Hydrogeology

Based on the soil samples recovered during the excavation activities, the soil stratigraphy at the sampling locations below the surficial gravel generally consists of sandy gravel to the maximum test pit completion depth of 1.5 mbgs. Wet soil conditions were generally not observed. Bedrock was encountered at 0.6 mbgs at location 16-TP204. Bedrock may also have been encountered at 16-TP205. Bedrock was not encountered in any of other test pits, but is anticipated to be shallow throughout the Site based on the BC Ministry of Energy and Mines "Quaternary Geological Map of Greater Victoria". Within this reference map the surficial geology of the Site is described as shallow soils over bedrock. Scattered outcrops occur throughout this geological unit and bedrock is commonly found in the upper few metres (e.g. in utility line excavations).

Significant groundwater is not anticipated to be present above bedrock; however, a bedrock aquifer may be present. The assessment of a bedrock aquifer was outside the scope of this investigation.

A detailed description of the subsurface stratigraphy encountered during test pit advancement is documented in the test pit logs located in Appendix II.

3.2 Soil Headspace Vapour Concentrations

Vapour concentrations measured in the headspace of soil samples collected during the excavation activities are presented on the test pit logs in Appendix II and ranged from 0.0 parts per million by volume (ppm_v) to a maximum of 0.1 ppm_v.

3.3 Field Observations

No odours, staining or evidence of non-aqueous phase liquids or sheen were observed during the excavation activities.

3.4 Analytical

As indicated in Tables 1 through 9, reported concentrations of VOCs, LEPH, HEPH, VPH, PAHs, metals, acetone, butanone, ethyl ether, methanol, acetic acid, formic acid, ammonia, chloroform, dichloromethane, ether, pH, iodine, pseudoephedrine, phosphorous, amphetamine, cocaine, heroin, LSD, MDMA, methamphetamine, E. coli, fecal coliforms, total coliforms in the soil samples met the applicable BC CSR CL and PL standards, with the following exceptions:

- Shallow soil samples 16-TP102, 16-TP103, 16-TP111, 16-TP113, and 16-TP115 through 16-TP121 exceeded the PL soil standard for various PAHs;
- Shallow soil samples 16-TP109 and 16-TP116 exceeded the PI and CL soil standard for benzene;
- Shallow soil samples 16-TP103, 16-TP107, 16-TP108, and 16-TP110 through 16-TP121 exceeded the PL and CL soil standard for lead;
- Shallow soil sample 16-TP111 exceeded the PL and CL soil standard for zinc;
- Shallow soil samples 16-TP104 and 16-TP105 reported detectable concentrations of methamphetamine; and
- Deeper soil samples 16-TP202 exceeded the PL soil standard for various PAHs.

The laboratory analytical results of the Landfill Characterisation parameters including leachable metals and pH are summarized in Table 4. The parameters were below the applicable regulatory criteria. Impacted soil is therefore classified as non-hazardous, suitable for disposal at an appropriate licensed landfill.

4.0 FINDINGS AND CONCLUSIONS

Based on the work completed, the following is a summary of the activities and findings of this Environmental Soil Sampling Investigation:

- The Environmental Soil Sampling Investigation was conducted at the Site between September 7, 2016 and October 11, 2016, during which PWL attended the Site to hand excavate, test pit excavate and collect soil samples. The test pits were advanced to a maximum depth of 1.5 mbgs using a track-mounted excavator;
- The soil stratigraphy at the sampling locations below the surficial gravel generally consists of sandy gravel to the maximum test pit completion depth of 1.5 mbgs. Wet soil conditions were generally not observed. Bedrock was encountered at 0.6 mbgs at location 16-TP204;
- Based on the Site-specific information, and information provided to PWL, the soil quality was assessed based on the BC CSR standards for CL, PL, intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water;
- Select soil samples, based on the results of field screening, were submitted for laboratory analysis of VOCs, LEPH, HEPH, VPH, PAHs, metals, acetone, butanone, ethyl ether, methanol, acetic acid, formic acid, ammonia, chloroform, dichloromethane, ether, pH, iodine, pseudoephedrine, phosphorous, amphetamine, cocaine, heroin, LSD, MDMA, methamphetamine, E. coli, fecal coliforms and/or total coliforms;

- Reported concentrations in the soil samples submitted for analysis of VOCs, LEPH, HEPH, VPH, PAHs, metals, acetone, butanone, ethyl ether, methanol, acetic acid, formic acid, ammonia, chloroform, dichloromethane, ether, pH, iodine, pseudoephedrine, phosphorous, amphetamine, cocaine, heroin, LSD, MDMA, methamphetamine, E. coli, fecal coliforms, total coliforms satisfied their respective CSR CL and PL standards with the following exceptions:
 - Shallow soil samples 16-TP102, 16-TP103, 16-TP111, 16-TP113, and 16-TP115 through 16-TP121 exceeded the PL soil standard for various PAHs;
 - Shallow soil samples 16-TP109 and 16-TP116 exceeded the PL and CL soil standard for benzene;
 - Shallow soil samples 16-TP103, 16-TP107, 16-TP108, and 16-TP110 through 16-TP121 exceeded the PL and CL soil standard for lead;
 - Shallow soil sample 16-TP111 exceeded the PL and CL soil standard for zinc;
 - Shallow soil samples 16-TP104 and 16-TP105 reported detectable concentrations of methamphetamine;
 - Deeper soil samples 16-TP202 exceeded the PL soil standard for various PAHs;
- Horizontal delineation is based on the presence of a sidewalk and parking lot that denotes the Site boundary; and
- Vertical delineation is achieved through the presence of bedrock and/or clean test pit samples at a maximum depth of 1.5 m. Therefore, remediation is not anticipated to be required beyond those depths.

PWL recommends that a Remedial Excavation be conducted across the entire Site to remove the identified impacted soil with a subsequent Verification Soil Sampling Program (VSSP) to confirm remedial success. Furthermore, it is PWL's opinion that sufficient characterization and delineation of the soil impacts has been achieved on-Site in order to precede with this recommended Remedial Excavation and VSSP. This delineation and characterization is based on the identified local geology, absence of groundwater, analytical results and underlying bedrock.

5.0 LIMITATIONS

This Environmental Soil Sampling Investigation was performed for Brookfield Global Integrated Solutions on behalf of the Province of British Columbia (Client), in order to identify current and/or recognized environmental conditions at 850 Burdett Avenue in Victoria, British Columbia (Site). The term recognized environmental condition means the presence or likely presence of any hazardous substance on a property under conditions that indicate an existing release, past release, or a material threat of a release



of a hazardous substance into structures on the property or into the ground, groundwater, or surface water of the property. This Environmental Soil Sampling Investigation does not quantify the extent of the current and/or recognized environmental condition or the cost of any remediation.

Conclusions derived are specific to the immediate area of study and cannot be extrapolated extensively away from sample locations. Samples have been analysed for a limited number of contaminants that are expected to be present at the Site, and the absence of information relating to a specific contaminant does not indicate that it is not present.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions on a property. Performance of this Environmental Soil Sampling Investigation to the standards established by PWL is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions on the Site, and recognizes reasonable limits on time and cost.

This Environmental Soil Sampling Investigation was performed in general compliance with currently acceptable practices for environmental site investigations, and specific Client requests, as applicable to this Site.

This report was prepared for the exclusive use of the Client, subject to the terms, conditions and limitations contained within the duly authorized proposal for this project. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, is the sole responsibility of such third parties. PWL accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted.

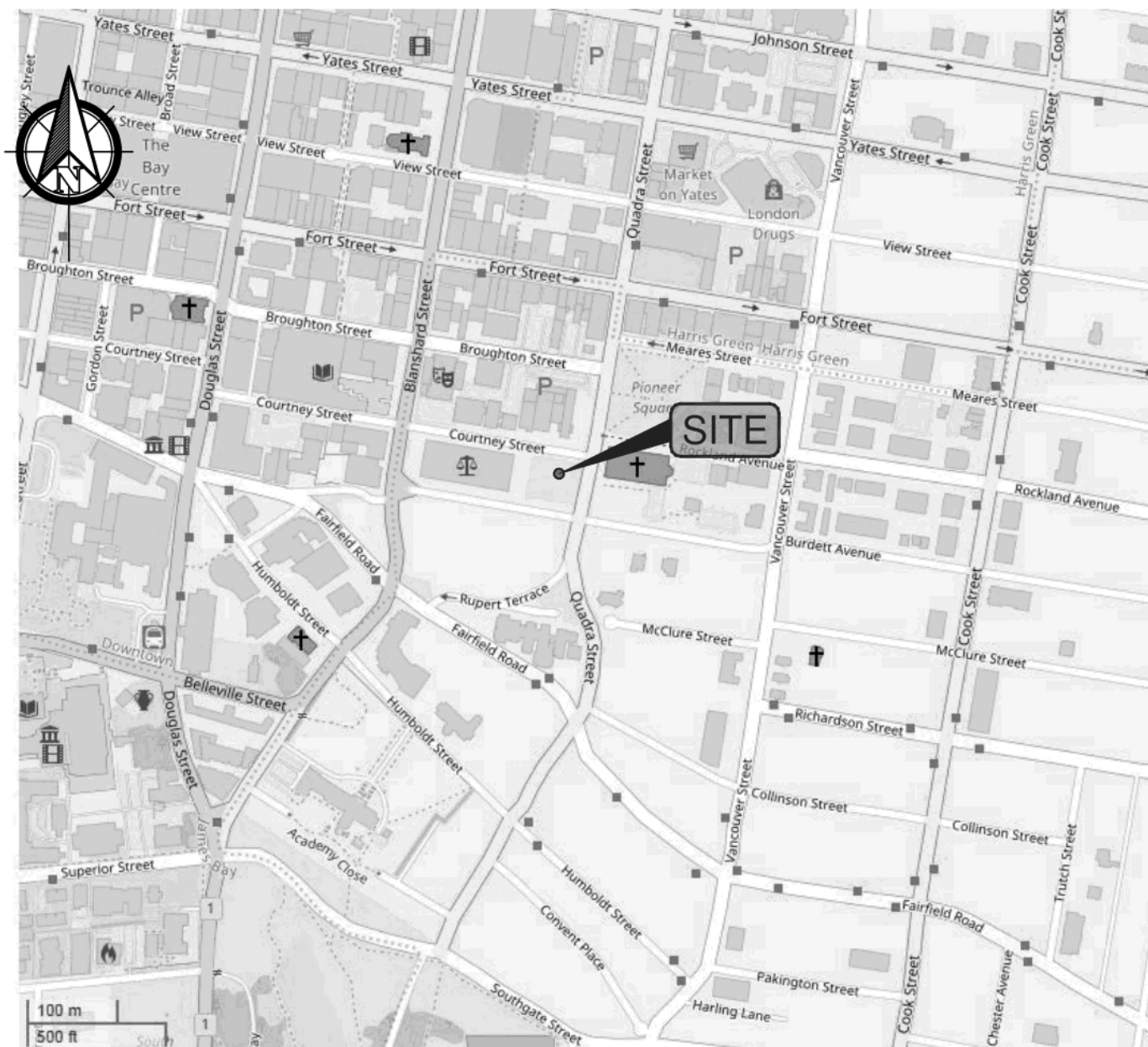
If additional parties require reliance on this report, written authorization from PWL will be required. PWL disclaims responsibility of consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. No other warranties are implied or expressed. Furthermore, this report should not be construed as legal advice. PWL will not provide results or information to any party unless disclosure by PWL is required by law.

PWL makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and these interpretations may change over time.

File: G:\Richmond\Project Files\13800-99\13851-99\13858\13858B\Report\13858B_r01_Revised Nov 10_Final.docx

Template: Master Report for Remedial Excavation, EDR, July 28, 2016

APPENDIX I
Figures



CLIENT NAME:

BROOKFIELD GLOBAL INTERGRATED SOLUTIONS

PROJECT NAME:

ENVIRONMENTAL SOIL SAMPLING INVESTIGATION

LOCATION:

850 BURDETT AVENUE, VICTORIA, BRITISH COLUMBIA

TITLE:

KEY MAP

FIGURE NO.

DATE:
OCT
2016

PROJECT NO.:
13858B

IMAGE SOURCE:
OPENSTREETMAPS.ORG

DRAWN BY:
JQ

CHECKED BY:
TB

1

COURTENAY STREET

SIDEWALK



LEGEND

-  Site Building
-  Investigation Area
-  Former fire pit area
-  Former suspected drug lab area
-  Shallow Hand Excavation Location
-  Deeper Test Pit Location
- RED Location of Analytical Exceedance
-  Approximate location of trees

Notes:
 Shallow = 0.1 metres below ground surface
 Deeper = 0.4 - 1.5 metres below ground surface

Former suspected drug lab and fire pit locations are as reported by the Site Representative.

Only the east portion (Site) of the subject property is shown.

PARKING RAMP

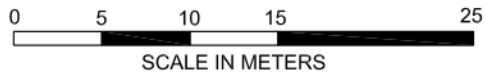
ENTRANCE

SITE BUILDING

PARKING LOT

SIDEWALK

BURDETTE AVENUE



BROOKFIELD GLOBAL INTEGRATED SOLUTIONS

ENVIRONMENTAL SOIL SAMPLING INVESTIGATION

850 BURDETTE AVENUE, VICTORIA BRITISH COLUMBIA

SITE PLAN SHOWING HAND EXCAVATION / TEST PIT LOCATIONS

DATE:
OCTOBER 2016

PROJECT NO:
13858B

DRAWN BY:
JB

SOURCE :

FIGURE:

2

CHECKED BY:
JQ

PINCHIN WEST SITE SURVEY AND
CAPITAL REGIONAL DISTRICT ONLINE GIS



PA2016010001

APPENDIX II
Test Pit Logs

Log of Test Pit: 16-TP201

Project No.: 13858B

Project: Environmental Soil Sampling Investigation

Client: Brookfield Global Integrated Solutions

Location: 850 Burdett Avenue, Victoria, British Columbia



SUBSURFACE PROFILE				SAMPLE		
Depth	Symbol	Description	Depth (m)	Sample Name	Sample Type	Vapour (ppm)
ft m 0 0		Ground Surface	0.00			
		Brown SILT, some gravel, some sand, loose, dry, no staining, no odours.	0.25			
1		Brown SAND with cobbles, some gravel and silt, dense, dry, no staining, no odours.	1.00			
2				0.6	Grab	0.0
3						
4		Brown SANDY COBBLES with gravel, dry, no staining, no odours.	1.50	1.4	Grab	0.0
5		End of Test Pit				
6						

Excavated By: Don Mann Excavating

Excavation Method: Track-Mounted Excavator

Excavation Date: 10/11/2016

Logged By: J. Bocskei

Checked By: M. Andersen

Sheet: 1 of 1

Log of Test Pit: 16-TP202

Project No.: 13858B

Project: Environmental Soil Sampling Investigation

Client: Brookfield Global Integrated Solutions

Location: 850 Burdett Avenue, Victoria, British Columbia



SUBSURFACE PROFILE				SAMPLE		
Depth	Symbol	Description	Depth (m)	Sample Name	Sample Type	Vapour (ppm)
ft m		Ground Surface	0.00			
0		Brown SILTY SAND, trace gravel, loose, dry, no staining, no odours.	0.20			
1		Brown SAND and GRAVEL, some silt and cobbles, dense, dry, no staining, no odours.				
2				0.5	Grab	0.1
3						
4				1.0	Grab	0.0
5			1.50	1.5	Grab	0.0
6		End of Test Pit				

Excavated By: Don Mann Excavating

Excavation Method: Track-Mounted Excavator

Excavation Date: 10/11/2016

Logged By: J. Bocskei

Checked By: M. Andersen

Sheet: 1 of 1

PINCHIN
WEST

Location: 850 Burdett Avenue, Victoria, British Columbia

SUBSURFACE PROFILE				SAMPLE		
Depth	Symbol	Description	Depth (m)	Sample Name	Sample Type	Vapour (ppm)
0		Ground Surface	0.00	0.5	Grab	0.0
0.40		Dark brown SILTY SAND, some gravel, loose, dry, no staining, no odours.				
1.10		Brown GRAVELY SAND, trace silt, dense, dry, no staining, no odours.				
1.50		Yellow brown SAND and GRAVEL, dense, dry, no staining, no odours.		1.0	Grab	0.0
End of Test Pit				1.5	Grab	0.0

Sheet: 1 of 1

Log of Test Pit: 16-TP204

Project No.: 13858B

Project: Environmental Soil Sampling Investigation

Client: Brookfield Global Integrated Solutions

Location: 850 Burdett Avenue, Victoria, British Columbia



SUBSURFACE PROFILE				SAMPLE		
Depth	Symbol	Description	Depth (m)	Sample Name	Sample Type	Vapour (ppm)
0 ft 0 m		Ground Surface	0.00	0.4	Grab	0.0
		Dark brown SILTY SAND, dry, no staining, no odours.				
1			0.30			
		Yellow brown GRAVELLY SAND, some cobbles, trace silt, loose, dry, no staining, no odours. Bedrock refusal at 0.6 m				
2			0.60			
		End of Test Pit				
3						
4						
5						
6						

Excavated By: Don Mann Excavating

Excavation Method: Track-Mounted Excavator

Excavation Date: 10/11/2016

Logged By: J. Bocskei

Checked By: M. Andersen

Sheet: 1 of 1

Log of Test Pit: 16-TP205

Project No.: 13858B

Project: Environmental Soil Sampling Investigation

Client: Brookfield Global Integrated Solutions

Location: 850 Burdett Avenue, Victoria, British Columbia



SUBSURFACE PROFILE				SAMPLE		
Depth	Symbol	Description	Depth (m)	Sample Name	Sample Type	Vapour (ppm)
ft m		Ground Surface	0.00			
0		Dark brown SANDY SILT, dense, damp, no staining, no odours.	0.15			
1		Yellow brown GRAVELLY SAND, trace silt, dense, dry, no staining, no odours.	0.80	0.4	Grab	0.0
2						
3		Yellow SILT, some sand, some gravel, some cobbles, very dense, dry, no staining, no odours.	1.10	0.9	Grab	0.0
4		End of Test Pit				
5						
6						

Excavated By: Don Mann Excavating

Excavation Method: Track-Mounted Excavator

Excavation Date: 10/11/2016

Logged By: J. Bocskei

Checked By: M. Andersen

Sheet: 1 of 1

Log of Test Pit: 16-TP206

Project No.: 13858B

Project: Environmental Soil Sampling Investigation

Client: Brookfield Global Integrated Solutions

Location: 850 Burdett Avenue, Victoria, British Columbia



SUBSURFACE PROFILE				SAMPLE		
Depth	Symbol	Description	Depth (m)	Sample Name	Sample Type	Vapour (ppm)
ft m 0 0		Ground Surface	0.00			
1		Brown SANDY SILT, some gravel, loose, dry, no staining, no odours.	0.40			
2		Yellow brown GRAVELLY SAND, trace silt, trace cobbles, dense, dry, no staining, no odours.		0.5	Grab	0.1
3						
4				1.0	Grab	0.0
5			1.50	1.5	Grab	0.0
6		End of Test Pit				

Excavated By: Don Mann Excavating

Excavation Method: Track-Mounted Excavator

Excavation Date: 10/11/2016

Logged By: J. Bocskei

Checked By: M. Andersen

Sheet: 1 of 1

Log of Test Pit: 16-TP207

Project No.: 13858B

Project: Environmental Soil Sampling Investigation

Client: Brookfield Global Integrated Solutions

Location: 850 Burdett Avenue, Victoria, British Columbia



SUBSURFACE PROFILE				SAMPLE		
Depth	Symbol	Description	Depth (m)	Sample Name	Sample Type	Vapour (ppm)
ft m		Ground Surface	0.00			
0		Dark brown SILTY SAND, some gravel, loose, dry, no staining, no odours.				
			0.25			
1		Yellow brown GRAVELLY SAND, some silt, dense, dry, no staining, no odours.				
				0.5	Grab	0.0
2						
				1.0	Grab	0.0
3						
4				1.4	Grab	0.0
		End of Test Pit	1.40			
5						
6						

Excavated By: Don Mann Excavating

Excavation Method: Track-Mounted Excavator

Excavation Date: 10/11/2016

Logged By: J. Bocskei

Checked By: M. Andersen

Sheet: 1 of 1

APPENDIX III
Summary Tables

Table 1: Petroleum Hydrocarbons in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
EPHs10-19	ns	ns	ns	<200	<200	<200	<200	<200	<200	<200	<200	<200
EPHs19-32	ns	ns	ns	<200	<200	<200	<200	260	<200	<200	<200	<200
LEPHs	1000	2000	1000	<200	<200	<200	<200	<200	<200	<200	<200	<200
HEPHs	1000	5000	1000	<200	<200	<200	<200	260	<200	<200	<200	<200
2-Methylnaphthalene	ns	ns	ns	<0.050	0.066	0.117	<0.050	<0.050	<0.050	<0.050	0.055	<0.050
Acenaphthene	ns	ns	ns	<0.050	0.172	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ns	ns	ns	<0.050	<0.050	0.208	0.08	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	ns	ns	ns	<0.050	0.656	0.152	0.055	<0.050	<0.050	<0.050	0.148	<0.050
Benz[a]anthracene	1	10	1	0.052	0.985	0.557	0.233	0.065	0.089	0.075	0.374	0.075
Benzo[a]pyrene (B[a]P)	1	10	1	0.054	0.794	0.771	0.300	0.077	0.146	0.077	0.336	0.065
Benzo[b]fluoranthene	1	10	1	0.099	1.14	1.02	0.453	0.151	0.241	<0.20	0.487	0.100
Benzo[g,h,i]perylene	ns	ns	ns	<0.050	0.460	0.577	0.182	0.057	0.110	<0.050	0.197	<0.050
Benzo[k]fluoranthene	1	10	1	<0.050	0.442	0.371	0.156	0.054	0.101	<0.050	0.195	<0.050
Chrysene	ns	ns	ns	<0.070	0.872	0.674	0.320	0.090	0.119	0.095	0.370	0.083
Dibenz[a,h]anthracene	1	10	1	<0.050	0.103	0.111	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene	ns	ns	ns	0.121	2.23	1.13	0.523	0.129	0.145	0.142	0.876	0.156
Fluorene	ns	ns	ns	<0.050	0.239	<0.050	<0.050	<0.050	<0.050	<0.050	0.067	<0.050
Indeno [1,2,3-cd] pyrene	1	10	1	<0.050	0.540	0.666	0.221	0.066	0.115	0.058	0.251	<0.050
Naphthalene	5	50	5	<0.050	0.113	0.097	<0.050	<0.050	<0.050	<0.050	0.079	<0.050
Phenanthrene	5	50	5	0.058	2.06	0.621	0.300	0.077	0.085	0.079	0.631	0.124
Pyrene	10	100	10	0.107	1.78	1.15	0.534	0.127	0.144	0.143	0.762	0.145

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard
EPHs = Extractable Petroleum Hydrocarbons
LEPHs = Light EPH, corrected for polycyclic aromatic hydrocarbons (PAH)
HEPHs = Heavy EPH, corrected for PAH

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 1: Petroleum Hydrocarbons in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP110	16-TP111-0.1M	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
EPHs10-19	ns	ns	ns	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
EPHs19-32	ns	ns	ns	<200	<200	<200	<200	<200	<200	370	350	320	420	<200
LEPHs	1000	2000	1000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
HEPHs	1000	5000	1000	<200	<200	<200	<200	<200	<200	330	320	290	370	<200
2-Methylnaphthalene	ns	ns	ns	<0.050	0.203	0.076	0.128	<0.050	0.258	0.975	0.879	1.15	0.342	0.183
Acenaphthene	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ns	ns	ns	0.056	0.403	0.06	0.247	0.074	0.334	1.91	2.25	1.82	1.87	0.398
Anthracene	ns	ns	ns	0.05	0.266	0.087	0.22	<0.050	0.218	1.15	1.26	1.11	1.73	0.237
Benz[a]anthracene	1	10	1	0.192	1.10	0.314	0.871	0.204	0.805	4.41	5.00	4.16	6.11	0.919
Benzo[a]pyrene (B[a]P)	1	10	1	0.186	1.19	0.294	0.962	0.219	0.847	5.65	6.86	5.51	6.55	1.05
Benzo[b]fluoranthene	1	10	1	0.277	1.53	0.403	1.22	0.295	1.08	6.98	8.46	6.71	8.21	1.45
Benzo[g,h,i]perylene	ns	ns	ns	0.102	0.669	0.188	0.533	0.132	0.484	2.85	3.68	2.81	3.56	0.568
Benzo[k]fluoranthene	1	10	1	0.120	0.605	0.159	0.465	0.117	0.401	3.08	3.52	2.73	3.83	0.570
Chrysene	ns	ns	ns	0.209	1.17	0.372	0.914	0.238	0.854	4.88	5.81	4.76	6.84	0.964
Dibenz[a,h]anthracene	1	10	1	<0.050	0.192	0.050	0.154	<0.050	0.146	0.824	1.04	0.817	0.965	0.175
Fluoranthene	ns	ns	ns	0.333	1.58	0.757	1.36	0.293	1.13	6.88	7.40	6.22	12.3	1.26
Fluorene	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.20	<0.20	<0.20	<0.20	<0.050
Indeno [1,2,3-cd] pyrene	1	10	1	0.133	0.829	0.228	0.668	0.162	0.619	3.83	4.90	3.81	4.62	0.762
Naphthalene	5	50	5	0.137	0.355	0.089	0.229	0.051	0.868	2.00	2.20	2.08	0.860	0.395
Phenanthrene	5	50	5	0.147	0.654	0.407	0.624	0.116	0.504	2.77	2.91	2.52	5.99	0.520
Pyrene	10	100	10	0.333	1.62	0.692	1.40	0.324	1.28	7.71	8.42	7.07	12.6	1.41

Notes:
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HEPHs = Heavy EPH, corrected for PAH

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
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* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 1: Petroleum Hydrocarbons in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP121-0.1M	16-TP201-0.6M	16-TP202-0.5M	16-TP202-1.0M	16-TP202-1.5M	16-TP203-0.5M	16-TP204-0.4M	16-TP205-0.4M	16-TP206-0.5M	16-TP207-0.5M
				9/7/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016
				0.1 mbgs	0.6 mbgs	0.5 mbgs	1.0 mbgs	1.5 mbgs	0.5 mbgs	0.4 mbgs	0.4 mbgs	0.5 mbgs	0.5 mbgs
EPHs10-19	ns	ns	ns	<200	<200	<200	-	-	<200	<200	<200	<200	<200
EPHs19-32	ns	ns	ns	<200	<200	<200	-	-	<200	<200	<200	<200	<200
LEPHs	1000	2000	1000	<200	<200	<200	-	-	<200	<200	<200	<200	<200
HEPHs	1000	5000	1000	<200	<200	<200	-	-	<200	<200	<200	<200	<200
2-Methylnaphthalene	ns	ns	ns	0.136	0.211	0.513	-	-	0.075	<0.050	<0.050	<0.050	<0.050
Acenaphthene	ns	ns	ns	<0.050	<0.050	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ns	ns	ns	0.385	<0.050	0.749	-	-	0.056	<0.050	<0.050	<0.050	0.07
Anthracene	ns	ns	ns	0.216	<0.050	0.407	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Benz[a]anthracene	1	10	1	0.86	0.155	1.74	-	-	0.121	<0.050	<0.050	<0.050	0.168
Benzo[a]pyrene (B[a]P)	1	10	1	1.09	0.168	2.28	-	-	0.171	<0.050	<0.050	<0.050	0.233
Benzo[b]fluoranthene	1	10	1	1.48	0.246	2.96	-	-	0.205	<0.050	<0.050	<0.050	0.274
Benzo[g,h,i]perylene	ns	ns	ns	0.546	0.091	1.32	-	-	0.088	<0.050	<0.050	<0.050	0.107
Benzo[k]fluoranthene	1	10	1	0.572	0.089	1.18	-	-	0.085	<0.050	<0.050	<0.050	0.118
Chrysene	ns	ns	ns	0.917	0.189	1.88	-	-	0.125	<0.050	<0.050	<0.050	0.162
Dibenz[a,h]anthracene	1	10	1	0.179	<0.050	0.386	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene	ns	ns	ns	1.19	0.335	2.58	-	-	0.184	<0.050	<0.050	<0.050	0.258
Fluorene	ns	ns	ns	<0.050	<0.050	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Indeno [1,2,3-cd] pyrene	1	10	1	0.745	0.122	1.93	-	-	0.113	<0.050	<0.050	<0.050	0.145
Naphthalene	5	50	5	0.272	0.13	0.726	-	-	0.074	<0.050	<0.050	<0.050	0.109
Phenanthrene	5	50	5	0.451	0.215	1.10	-	-	0.112	<0.050	<0.050	<0.050	0.117
Pyrene	10	100	10	1.33	0.333	2.78	-	-	0.206	<0.050	<0.050	<0.050	0.29

Notes:
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XXX.XX	= Exceeds Applicable Parkland Soil Standard
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** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 2: Volatile Organic Compounds in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110	16-TP111-0.1M
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
1,1,1,2-Tetrachloroethane	32	73	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,1-Trichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	4.1	9.3	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethene	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2-Hexanone	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acetone	14000	54000	ns	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Benzene	0.04	0.04	0.04	<0.0050	<0.0050	0.0107	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.349	<0.0050	0.0084
BDCM (bromodichloromethane)	8.2	18	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform (tribromomethane)	620	2200	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon Disulfide	360	720	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon Tetrachloride	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Monochlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroethane (ethyl chloride)	30	65	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloroform	5	50	5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloromethane (methyl chloride)	47	160	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-dichloroethene (cis)	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethene (trans)	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (cis)	ns	ns	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (trans)	ns	ns	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene	5	5	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
DBCM (dibromochloromethane)	11	26	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dichloromethane	5	50	5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Ethylbenzene	1	7	1	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.087	<0.015	<0.015
Ethyl ether	1800	1800	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
m&p-Xylene	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.634	<0.050	<0.050
Methyl ethyl ketone (MEK)	22000	110000	ns	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Methyl isobutyl ketone (MIBK)	5300	47000	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl tert-butyl ether (MTBE)	320	700	ns	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
n-Heptane (nC7)	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.270	<0.050	<0.050
n-Octane (nC8)	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.219	<0.050	<0.050
o-Xylene	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.419	<0.050	<0.050
Styrene	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Tetrachloroethylene (PERC)	5	5	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	1.5	2.5	1.5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.627	<0.050	<0.050
Total Xylenes	5	20	5	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	1.05	<0.075	<0.075
Trichloroethylene (TCE)	0.015	0.015	0.015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane (Freon 11)	390	2000	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Vinyl chloride (chloroethene)	0.79	7.5	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
VH	ns	ns	ns	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
VPHs	200	200	ns	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard
VH = Volatile Hydrocarbons
VPH = Volatile Petroleum Hydrocarbons

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants andgroundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 2: Volatile Organic Compounds in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M	16-TP201-0.6M
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	10/11/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.6 mbgs
1,1,1,2-Tetrachloroethane	32	73	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,1-Trichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	4.1	9.3	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethene	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2-Hexanone	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-
Acetone	14000	54000	ns	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	-
Benzene	0.04	0.04	0.04	0.0258	<0.0050	<0.0050	0.025	0.0724	0.0308	0.016	0.0072	0.0067	<0.0050	0.0169
BDCM (bromodichloromethane)	8.2	18	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform (tribromomethane)	620	2200	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon Disulfide	360	720	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-
Carbon Tetrachloride	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Monochlorobenzene	1	10	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroethane (ethyl chloride)	30	65	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloroform	5	50	5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloromethane (methyl chloride)	47	160	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-dichloroethene (cis)	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethene (trans)	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (cis)	ns	ns	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (trans)	ns	ns	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene	5	5	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-
DBCM (dibromochloromethane)	11	26	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dichloromethane	5	50	5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Ethylbenzene	1	7	1	<0.015	<0.015	<0.015	0.027	0.069	0.025	0.031	<0.015	<0.015	<0.015	0.018
Ethyl ether	1800	1800	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-
m&p-Xylene	ns	ns	ns	0.078	<0.050	<0.050	0.189	0.505	0.132	0.175	0.093	<0.050	<0.050	0.107
Methyl ethyl ketone (MEK)	22000	110000	ns	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	-
Methyl isobutyl ketone (MIBK)	5300	47000	ns	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-
Methyl tert-butyl ether (MTBE)	320	700	ns	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
n-Heptane (nC7)	ns	ns	ns	<0.050	<0.050	<0.050	0.058	0.093	<0.050	0.063	<0.050	<0.050	<0.050	-
n-Octane (nC8)	ns	ns	ns	<0.050	<0.050	<0.050	<0.050	0.102	<0.050	0.098	<0.050	<0.050	<0.050	-
o-Xylene	ns	ns	ns	0.051	<0.050	<0.050	0.106	0.361	0.115	0.164	0.076	<0.050	<0.050	0.083
Styrene	5	50	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Tetrachloroethylene (PERC)	5	5	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	1.5	2.5	1.5	0.097	<0.050	<0.050	0.185	0.33	0.084	0.087	0.051	<0.050	<0.050	0.077
Total Xylenes	5	20	5	0.129	<0.075	<0.075	0.295	0.866	0.248	0.339	0.169	<0.075	<0.075	0.19
Trichloroethylene (TCE)	0.015	0.015	0.015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane (Freon 11)	390	2000	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Vinyl chloride (chloroethene)	0.79	7.5	ns	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
VH	ns	ns	ns	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
VPHs	200	200	ns	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard
VH = Volatile Hydrocarbons
VPH = Volatile Petroleum Hydrocarbons

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants andgroundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 2: Volatile Organic Compounds in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP202-0.5M	16-TP202-1.0M	16-TP202-1.5M	16-TP203-0.5M	16-TP204-0.4M	16-TP205-0.4M	16-TP206-0.5M	16-TP207-0.5M
				10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016
				0.5 mbgs	1.0 mbgs	1.5 mbgs	0.5 mbgs	0.4 mbgs	0.4 mbgs	0.5 mbgs	0.5 mbgs
1,1,1,2-Tetrachloroethane	32	73	ns	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,1-Trichloroethane	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	4.1	9.3	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethene	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	1	10	1	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	1	10	1	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	1	10	1	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
2-Hexanone	ns	ns	ns	-	-	-	-	-	-	-	-
Acetone	14000	54000	ns	-	-	-	-	-	-	-	-
Benzene	0.04	0.04	0.04	0.0168	-	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
BDCM (bromodichloromethane)	8.2	18	ns	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform (tribromomethane)	620	2200	ns	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon Disulfide	360	720	ns	-	-	-	-	-	-	-	-
Carbon Tetrachloride	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Monochlorobenzene	1	10	1	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroethane (ethyl chloride)	30	65	ns	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10
Chloroform	5	50	5	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10
Chloromethane (methyl chloride)	47	160	ns	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-dichloroethene (cis)	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethene (trans)	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (cis)	ns	ns	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene (trans)	ns	ns	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-dichloropropene	5	5	5	-	-	-	-	-	-	-	-
DBCM (dibromochloromethane)	11	26	ns	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Dichloromethane	5	50	5	<0.30	-	-	<0.30	<0.30	<0.30	<0.30	<0.30
Ethylbenzene	1	7	1	0.024	-	-	<0.015	<0.015	<0.015	<0.015	<0.015
Ethyl ether	1800	1800	ns	-	-	-	-	-	-	-	-
m&p-Xylene	ns	ns	ns	0.116	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl ethyl ketone (MEK)	22000	110000	ns	-	-	-	-	-	-	-	-
Methyl isobutyl ketone (MIBK)	5300	47000	ns	-	-	-	-	-	-	-	-
Methyl tert-butyl ether (MTBE)	320	700	ns	<0.20	-	-	<0.20	<0.20	<0.20	<0.20	<0.20
n-Heptane (nC7)	ns	ns	ns	-	-	-	-	-	-	-	-
n-Octane (nC8)	ns	ns	ns	-	-	-	-	-	-	-	-
o-Xylene	ns	ns	ns	0.11	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Styrene	5	50	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Tetrachloroethylene (PERC)	5	5	5	<0.050	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	1.5	2.5	1.5	0.075	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Total Xylenes	5	20	5	0.225	-	-	<0.075	<0.075	<0.075	<0.075	<0.075
Trichloroethylene (TCE)	0.015	0.015	0.015	<0.010	-	-	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane (Freon 11)	390	2000	ns	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10
Vinyl chloride (chloroethene)	0.79	7.5	ns	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10
VH	ns	ns	ns	<100	-	-	<100	<100	<100	<100	<100
VPHs	200	200	ns	<100	-	-	<100	<100	<100	<100	<100

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard
VH = Volatile Hydrocarbons
VPH = Volatile Petroleum Hydrocarbons

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants andgroundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 3: Metals in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
pH	ns	ns		5.46	6.42	5.67	5.34	5.26	5.38	5.53	5.57	5.57	5.31
Antimony	20	40	20	0.52	0.81	0.84	0.55	0.75	0.85	0.50	0.85	0.56	0.66
Arsenic	15	15	15	3.35	4.07	4.83	4.89	3.39	5.00	4.71	4.91	4.74	4.27
Barium	400	400	400	94.4	156	179	126	104	134	70.5	102	102	112
Beryllium	4	8	4	0.32	0.33	0.40	0.36	0.29	0.38	0.31	0.34	0.29	0.31
Cadmium	1.5 @ pH < 6.5	1.5 @ pH < 6.5	1.5	0.236	0.423	0.798	0.545	0.424	0.464	0.466	0.663	0.575	0.411
Chromium	60	60	60	28.3	34.1	37.1	41.2	32.8	46.5	33.5	45.8	55.0	36.9
Cobalt	50	300	50	7.97	9.17	9.88	10.3	7.64	11.3	9.61	9.70	9.61	10.6
Copper	100 @ pH 5.0 — < 5.5 150 @ pH > 5.5	100 @ pH 5.0 — < 5.5 200 @ pH 5.5 - <6.0 250 @ pH > 6.0	90	32.0	49.9	62.2	43.4	43.3	44.1	31.6	39.5	30.6	30.5
Lead	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 400 @ pH >6.5	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 700 @ pH >6.5	100	52.6	66.6	200	92.1	79.0	75.9	149	128	98.9	130
Mercury (inorganic)	15	40	15	0.067	0.096	0.134	0.097	0.102	0.136	0.077	0.125	0.076	0.068
Molybdenum	10	40	10	0.76	0.73	0.59	0.63	1.10	1.26	0.44	0.63	0.37	0.43
Nickel	100	500	100	20.4	24.1	25.2	26.3	18.8	28.6	26.0	25.5	23.8	25.6
Selenium	3	10	3	0.26	0.25	0.30	0.27	<0.20	0.28	0.21	0.36	0.25	<0.20
Silver	20	40	20	0.11	0.17	0.31	0.21	0.19	0.20	0.11	0.26	0.18	0.15
Thallium	ns	ns	ns	0.057	0.067	0.074	0.067	0.057	0.068	0.067	0.072	0.067	0.071
Tin	50	300	50	2.0	<2.0	2.4	<2.0	<2.0	<2.0	<2.0	2.5	<2.0	2.4
Uranium	16	200	ns	0.507	0.604	1.19	1.02	0.576	0.742	0.913	1.11	0.972	0.833
Vanadium	200	ns	200	56.1	59.6	68.0	70.1	49.2	73.4	66.5	69.7	64.4	77.6
Zinc	150 @ pH < 6.5 450 @ pH >6.5	150 @ pH < 6.5 600 @ pH > 6.5	150	83.9	139	119	81.3	96.5	111	68.0	91.5	81.8	83.0

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 3: Metals in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP111-0.1M	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M
				9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
				0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
pH	ns	ns		5.80	5.69	5.49	5.53	5.21	5.75	5.73	5.89	5.51	5.57
Antimony	20	40	20	1.91	1.16	0.55	0.65	0.65	0.57	0.51	0.53	0.59	0.76
Arsenic	15	15	15	5.51	3.88	4.60	4.55	4.56	5.28	4.89	5.51	4.32	4.75
Barium	400	400	400	212	133	136	154	158	249	241	302	134	167
Beryllium	4	8	4	0.38	0.31	0.36	0.53	0.46	0.41	0.43	0.47	0.27	0.38
Cadmium	1.5 @ pH < 6.5	1.5 @ pH < 6.5	1.5	0.605	0.402	0.388	0.717	0.545	0.526	0.562	0.677	0.503	0.554
Chromium	60	60	60	41.1	29.9	37.1	46.7	38.1	37.1	34.3	39.2	31.4	36.1
Cobalt	50	300	50	10.0	7.99	8.42	10.3	9.88	9.66	8.21	9.47	6.87	8.30
Copper	100 @ pH 5.0 — < 5.5 150 @ pH > 5.5	100 @ pH 5.0 — < 5.5 200 @ pH 5.5 - <6.0 250 @ pH > 6.0	90	39.6	32.1	31.6	41.3	39.0	32.3	33.2	35.4	27.3	34.4
Lead	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 400 @ pH >6.5	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 700 @ pH >6.5	100	303	197	177	118	153	207	133	219	201	241
Mercury (inorganic)	15	40	15	0.129	0.150	0.186	0.103	0.128	0.134	0.124	0.175	0.137	0.185
Molybdenum	10	40	10	0.75	0.52	0.62	1.67	1.46	0.81	1.01	0.86	0.64	0.87
Nickel	100	500	100	27.7	22.6	23.1	28.0	25.4	29.6	23.9	26.3	18.1	21.5
Selenium	3	10	3	0.26	0.24	0.25	0.27	0.27	0.25	0.24	0.28	0.24	0.32
Silver	20	40	20	0.23	0.30	0.18	0.26	0.22	0.19	0.20	0.24	0.18	0.26
Thallium	ns	ns	ns	0.070	0.068	0.073	0.094	0.083	0.073	0.067	0.073	0.052	0.080
Tin	50	300	50	2.7	2.4	<2.0	<2.0	2.2	<2.0	<2.0	4.7	11.4	3.8
Uranium	16	200	ns	1.05	0.854	0.882	1.66	1.41	0.999	1.12	1.15	0.883	1.08
Vanadium	200	ns	200	68.9	57.0	59.9	74.6	66.0	67.6	60.1	65.5	52.0	60.5
Zinc	150 @ pH < 6.5 450 @ pH >6.5	150 @ pH < 6.5 600 @ pH > 6.5	150	152	100	87.4	96.3	97.6	85.6	82.8	94.6	73.8	105

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 3: Metals in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	CSR Soil Relocation Standards***	16-TP121-0.1M	16-TP201-0.6M	16-TP202-0.5M	16-TP202-1.0M	16-TP202-1.5M	16-TP203-0.5M	16-TP204-0.4M	16-TP205-0.4M	16-TP206-0.5M	16-TP107-0.5M
				9/7/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016
				0.1 mbgs	0.6 mbgs	0.5 mbgs	1.0 mbgs	1.5 mbgs	0.5 mbgs	0.4 mbgs	0.4 mbgs	0.5 mbgs	0.5 mbgs
pH	ns	ns		5.34	7.56	6.55	7.5	7.59	7.89	6.6	6.72	7.6	6.61
Antimony	20	40	20	0.75	0.41	0.68	0.46	0.24	0.52	1.37	0.14	0.24	0.14
Arsenic	15	15	15	4.29	4.61	6.05	5.32	4.47	4.44	5.48	4.17	3.55	3.89
Barium	400	400	400	165	166	262	228	79.6	117	57.7	57.2	182	68.5
Beryllium	4	8	4	0.36	0.35	0.43	0.4	0.32	0.25	0.32	0.28	0.34	0.28
Cadmium	1.5 @ pH < 6.5	1.5 @ pH < 6.5	1.5	0.377	0.208	0.238	0.247	0.07	0.174	0.697	0.078	0.129	0.08
Chromium	60	60	60	30.7	29.4	30.9	27.3	29.6	20	27.1	19	27.9	21.3
Cobalt	50	300	50	8.31	10.2	10.8	10.5	10.5	7.58	10.1	9.34	8.78	7.77
Copper	100 @ pH 5.0 — < 5.5 150 @ pH > 5.5	100 @ pH 5.0 — < 5.5 200 @ pH 5.5 - <6.0 250 @ pH > 6.0	90	36.9	34.7	35.6	29.1	26.7	21.6	32.6	25.7	14.0	19.9
Lead	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 400 @ pH >6.5	100 @ pH < 6.0 250 @ pH 6.0 — < 6.5 700 @ pH >6.5	100	156	127	198	100	7.37	62.6	13.5	3.46	47.4	17.1
Mercury (inorganic)	15	40	15	0.170	0.172	0.198	0.102	<0.050	0.065	<0.050	<0.050	<0.050	<0.050
Molybdenum	10	40	10	0.82	0.45	0.59	0.56	0.4	0.35	0.54	0.18	0.3	0.26
Nickel	100	500	100	22.1	24.4	28.4	26.8	24.9	18.6	27.5	21.4	20.7	19.6
Selenium	3	10	3	0.26	0.23	0.26	<0.20	<0.20	<0.20	<0.20	<0.20	0.22	<0.20
Silver	20	40	20	0.17	0.14	0.16	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Thallium	ns	ns	ns	0.066	0.057	0.078	0.071	0.066	<0.050	0.077	0.068	0.073	0.062
Tin	50	300	50	2.8	2.3	2.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Uranium	16	200	ns	0.726	0.38	0.51	0.444	0.382	0.347	0.388	0.238	0.403	0.35
Vanadium	200	ns	200	58.1	69.5	68.1	70.4	64.1	47.7	71.6	56.4	56.4	58.8
Zinc	150 @ pH < 6.5 450 @ pH >6.5	150 @ pH < 6.5 600 @ pH > 6.5	150	102	77.7	93.4	75.0	40.2	62.2	44.8	40.4	95.9	36.4

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard
XXX.XX	= Exceeds Applicable Soil Relocation Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

*** Soil relocation to nonagricultural land standards in Schedule 7 of the B.C. Contaminated Sites Regulation (CSR).

Table 4: Toxicity Characteristic Leaching Procedure Metals in Soil

Job Number: 13858B

Site: 850 Burdett Avenue, Victoria, British Columbia

Client: Brookfield Global Integrated Solutions

Parameter	HWR Leachate Quality Standards*	16-TP201-0.6M	16-TP202-0.5M
		10/11/2016	10/11/2016
		0.6 mbgs	0.5 mbgs
1st Preliminary pH	ns	7.97	7.17
2nd Preliminary pH	ns	1.67	1.60
Final pH	ns	5.02	4.99
Extraction Solution Initial pH	ns	4.95	4.95
Antimony (Sb)-Leachable	ns	<1000	<1000
Arsenic (As)-Leachable	2500	<1000	<1000
Barium (Ba)-Leachable	100000	<2500	<2500
Beryllium (Be)-Leachable	ns	<25	<25
Boron (B)-Leachable	500000	<500	<500
Cadmium (Cd)-Leachable	500	<50	<50
Calcium (Ca)-Leachable	ns	82900	55400
Chromium (Cr)-Leachable	5000	<250	<250
Cobalt (Co)-Leachable	ns	<50	<50
Copper (Cu)-Leachable	100000	<50	<50
Iron (Fe)-Leachable	ns	<150	<150
Lead (Pb)-Leachable	5000	<250	<250
Magnesium (Mg)-Leachable	ns	2990	4490
Mercury (Hg)-Leachable	100	<1.0	<1.0
Nickel (Ni)-Leachable	ns	<250	<250
Selenium (Se)-Leachable	ns	<1000	<1000
Silver (Ag)-Leachable	5000	<50	<50
Thallium (Tl)-Leachable	ns	<1000	<1000
Vanadium (V)-Leachable	ns	<150	<150
Zinc (Zn)-Leachable	500000	<500	<500

Notes:

Values in µg/L unless otherwise stated

mbgs = metres below ground surface

ns = no standard

XXX.XX

= Exceeds Applicable Leachate Quality Soil Standard

* Leachate quality standards provided in Schedule 4, Part 3, Table 1 of the B.C. Hazardous Waste Regulation (HWR).

Table 5: Bacteria in Soil
 Job Number: 13858B
 Site: 850 Burdett Avenue, Victoria, British Columbia
 Client: Brookfield Global Integrated Solutions

Parameter	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110
	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
E. coli	143	4	<2	1020	>1820.14	635	<2	<2	<2	<2
Coliform Bacteria - Fecal	143	4	<2	1020	>1820.14	635	<2	<2	<2	<2
Coliform Bacteria - Total	>1769.88	>1830.49	247	1790	>1820.14	>1884.07	53	77	15	9

Notes:
 Values in MPN/g unless otherwise stated
 mbgs = metres below ground surface
 ns = no standard

Table 5: Bacteria in Soil
 Job Number: 13858B
 Site: 850 Burdett Avenue, Victoria, British Columbia
 Client: Brookfield Global Integrated Solutions

Parameter	16-TP111-0.1M	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M
	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
E. coli	4	<2	4	1810	<2	4	3	<2	<2	<2	<2
Coliform Bacteria - Fecal	4	<2	4	1810	<2	4	3	<2	<2	<2	<2
Coliform Bacteria - Total	266	4	608	1810	>1879.67	79	>1775.55	38	268	621	146

Notes:
 Values in MPN/g unless otherwise stated
 mbgs = metres below ground surface
 ns = no standard

Table 6: Nutrients and Iodide in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards*	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Total Phosphate as P	ns	ns	14.00	16.80	3.98	3.38	11.50	17.20	4.82	2.47	2.08	2.74
Ammonia, Total Leachable (as N)	ns	ns	0.74	2.96	0.71	1.73	16.70	2.47	1.03	0.62	0.72	0.63
Iodide	ns	ns	<5.6	<5.6	<5.8	<5.6	<5.7	<5.7	<5.5	<5.8	<5.4	<5.6

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

Table 6: Nutrients and Iodide in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards*	16-TP111-0.1M	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Total Phosphate as P	ns	ns	3.60	4.49	6.59	2.42	4.39	2.34	2.91	2.74	2.20	3.57	7.47
Ammonia, Total Leachable (as N)	ns	ns	0.49	0.45	0.69	0.79	3.85	0.80	2.13	0.66	2.79	2.62	0.63
Iodide	ns	ns	<5.5	<5.6	<5.8	<5.9	<5.8	<5.5	<5.6	<5.6	<5.9	<5.6	<5.7

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

Table 7: Alcohols in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
sec-Butanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
n-Butanol	6100	61000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Isobutanol	1300	40000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Isopropanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methanol	31,000	100,000	<0.50	8.07	7.39	2.58	2.22	<0.50	1.92	6.7	4.58	3.25
Pentanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

Table 7: Alcohols in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	16-TP111-0.1M	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
sec-Butanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
n-Butanol	6100	61000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Isobutanol	1300	40000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Isopropanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methanol	31,000	100,000	0.66	0.98	3.97	8.80	11.3	<0.50	10.2	3.66	4.79	6.73	7.18
Pentanol	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

Table 8: Fatty Acids in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110	16-TP111-0.1M
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Acetic Acid	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Butyric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Caproic (Hexanoic) Acid	ns	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Formic Acid	100,000	100,000	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
Isobutyric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isovaleric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Propionic Acid	ns	ns	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Valeric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

Table 8: Fatty Acids in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	CSR Parkland Soil Standards*	CSR Commercial Soil Standards**	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M
			9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
			0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Acetic Acid	ns	ns	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Butyric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Caproic (Hexanoic) Acid	ns	ns	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Formic Acid	100,000	100,000	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
Isobutyric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isovaleric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Propionic Acid	ns	ns	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Valeric Acid	ns	ns	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX	= Exceeds Applicable Parkland Soil Standard
XXX.XX	= Exceeds Applicable Commerical Soil Standard

* Parkland Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

** Commercial Land Use standards provided in Schedules 4, 5 and 10 of the B.C. Contaminated Sites Regulation (CSR). Schedule 5 specific factors include intake of contaminated soil, toxicity to soil invertebrates and plants and groundwater used for drinking water.

Table 9: Illicit Drugs in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, British Columbia
Client: Brookfield Global Integrated Solutions

Parameter	16-TP101	16-TP102	16-TP103	16-TP104	16-TP105	16-TP106	16-TP107	16-TP108	16-TP109	16-TP110	16-TP111-0.1M
	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016
	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs
Methamphetamine	<0.10	<0.10	<0.10	0.15	0.40	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cocaine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Heroin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Amphetamine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Pseudoephedrine/ephedrine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
MDMA (ecstasy)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Lysergic acid diethylamide	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX

 = Concentrations reported above laboratory detection limits

Table 9: Illicit Drugs in Soil
Job Number: 13858B
Site: 850 Burdett Avenue, Victoria, Briti
Client: Brookfield Global Integrated Sol

Parameter	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M	16-TP116-0.1M	16-TP117-0.1M	16-TP118-0.1M	16-TP119-0.1M	16-TP120-0.1M	16-TP121-0.1M	16-TP204-0.4M
	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	9/7/2016	10/11/2016
	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.1 mbgs	0.4 mbgs
Methamphetamine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cocaine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-
Heroin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-
Amphetamine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-
Pseudoephedrine/ephedrine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-
MDMA (ecstasy)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-
Lysergic acid diethylamide	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-

Notes:
Values in µg/g unless otherwise stated
mbgs = metres below ground surface
ns = no standard

XXX.XX

= Concentrations reported above laboratory detection limits

APPENDIX IV
Laboratory Certificates of Analysis



Pinchin West LTD.
ATTN: Joshu Bocskei
300 – 1095 McKenzie Avenue
Victoria BC V8P 2L5

Date Received: 09-SEP-16
Report Date: 19-OCT-16 19:37 (MT)
Version: FINAL REV. 2

Client Phone: s.22

Certificate of Analysis

Lab Work Order #: L1826440

Project P.O. #: NOT SUBMITTED

Job Reference: 13858B

C of C Numbers:

Legal Site Desc: 850 BURDETT AVENUE, VICTORIA, BC

Comments: ADDITIONAL 18-OCT-16 14:07 – TCLP Metals has been added to samples 16-TP111-0.1m and 16-TP120-0.1m.

Please note, ALS Salt Lake City results can be found at the end of this attachment.

Methamphetamine

Cocaine

Heroin

Amphetamine

Pseudoephedrine/ephedrine

MDMA(ecstasy)

Lysergic acid diethylamide

Iodine

Selam Worku
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1826440-1 SOIL 07-SEP-16 16-TP101	L1826440-2 SOIL 07-SEP-16 16-TP102	L1826440-3 SOIL 07-SEP-16 16-TP103	L1826440-4 SOIL 07-SEP-16 16-TP104	L1826440-5 SOIL 07-SEP-16 16-TP105
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	9.09	12.1	10.4	9.93	11.6
	pH (1:2 soil:water) (pH)	5.46	6.42	5.67	5.34	5.26
Leachable Anions & Nutrients	Total Phosphate As P (mg/kg)	14.0	16.8	3.98	3.38	11.5
Saturated Paste Extractables	Ammonia, Total Leachable (as N) (mg/kg)	0.735	2.96	0.711	1.73	16.7
	% Saturation (%)	58.5	82.7	60.5	57.0	80.2
Bacteriological Tests	E. coli (MPN/g)	143	4	<2	1020	>1820.14
	Coliform Bacteria - Fecal (MPN/g)	143	4	<2	1020	>1820.14
	Coliform Bacteria - Total (MPN/g)	>1769.88	>1830.49	247	1790	>1820.14
Metals	Antimony (Sb) (mg/kg)	0.52	0.81	0.84	0.55	0.75
	Arsenic (As) (mg/kg)	3.35	4.07	4.83	4.89	3.39
	Barium (Ba) (mg/kg)	94.4	156	179	126	104
	Beryllium (Be) (mg/kg)	0.32	0.33	0.40	0.36	0.29
	Cadmium (Cd) (mg/kg)	0.236	0.423	0.798	0.545	0.424
	Chromium (Cr) (mg/kg)	28.3	34.1	37.1	41.2	32.8
	Cobalt (Co) (mg/kg)	7.97	9.17	9.88	10.3	7.64
	Copper (Cu) (mg/kg)	32.0	49.9	62.2	43.4	43.3
	Lead (Pb) (mg/kg)	52.6	66.6	200	92.1	79.0
	Mercury (Hg) (mg/kg)	0.067	0.096	0.134	0.097	0.102
	Molybdenum (Mo) (mg/kg)	0.76	0.73	0.59	0.63	1.10
	Nickel (Ni) (mg/kg)	20.4	24.1	25.2	26.3	18.8
	Selenium (Se) (mg/kg)	0.26	0.25	0.30	0.27	<0.20
	Silver (Ag) (mg/kg)	0.11	0.17	0.31	0.21	0.19
	Thallium (Tl) (mg/kg)	0.057	0.067	0.074	0.067	0.057
	Tin (Sn) (mg/kg)	2.0	<2.0	2.4	<2.0	<2.0
	Uranium (U) (mg/kg)	0.507	0.604	1.19	1.02	0.576
	Vanadium (V) (mg/kg)	56.1	59.6	68.0	70.1	49.2
	Zinc (Zn) (mg/kg)	83.9	139	119	81.3	96.5
TCLP Metals	1st Preliminary pH (pH)					
	2nd Preliminary pH (pH)					
	Final pH (pH)					
	Extraction Solution Initial pH (pH)					
	Antimony (Sb)-Leachable (ug/L)					
	Arsenic (As)-Leachable (ug/L)					
	Barium (Ba)-Leachable (ug/L)					
	Beryllium (Be)-Leachable (ug/L)					
	Boron (B)-Leachable (ug/L)					

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1826440-6 SOIL 07-SEP-16 16-TP106	L1826440-7 SOIL 07-SEP-16 16-TP107	L1826440-8 SOIL 07-SEP-16 16-TP108	L1826440-9 SOIL 07-SEP-16 16-TP109	L1826440-10 SOIL 07-SEP-16 16-TP110
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	14.6	6.09	8.60	15.3	6.78
	pH (1:2 soil:water) (pH)	5.38	5.53	5.57	5.57	5.31
Leachable Anions & Nutrients	Total Phosphate As P (mg/kg)	17.2	4.82	2.47	2.08	2.74
	Ammonia, Total Leachable (as N) (mg/kg)	2.47	1.03	0.624	0.715	0.625
Saturated Paste Extractables	% Saturation (%)	61.8	55.1	67.6	59.8	53.4
	E. coli (MPN/g)	635	<2	<2	<2	<2
Bacteriological Tests	Coliform Bacteria - Fecal (MPN/g)	635	<2	<2	<2	<2
	Coliform Bacteria - Total (MPN/g)	>1884.07	53	77	15	9
Metals	Antimony (Sb) (mg/kg)	0.85	0.50	0.85	0.56	0.66
	Arsenic (As) (mg/kg)	5.00	4.71	4.91	4.74	4.27
	Barium (Ba) (mg/kg)	134	70.5	102	102	112
	Beryllium (Be) (mg/kg)	0.38	0.31	0.34	0.29	0.31
	Cadmium (Cd) (mg/kg)	0.464	0.466	0.663	0.575	0.411
	Chromium (Cr) (mg/kg)	46.5	33.5	45.8	55.0	36.9
	Cobalt (Co) (mg/kg)	11.3	9.61	9.70	9.61	10.6
	Copper (Cu) (mg/kg)	44.1	31.6	39.5	30.6	30.5
	Lead (Pb) (mg/kg)	75.9	149	128	98.9	130
	Mercury (Hg) (mg/kg)	0.136	0.077	0.125	0.076	0.068
	Molybdenum (Mo) (mg/kg)	1.26	0.44	0.63	0.37	0.43
	Nickel (Ni) (mg/kg)	28.6	26.0	25.5	23.8	25.6
	Selenium (Se) (mg/kg)	0.28	0.21	0.36	0.25	<0.20
	Silver (Ag) (mg/kg)	0.20	0.11	0.26	0.18	0.15
	Thallium (Tl) (mg/kg)	0.068	0.067	0.072	0.067	0.071
	Tin (Sn) (mg/kg)	<2.0	<2.0	2.5	<2.0	2.4
	Uranium (U) (mg/kg)	0.742	0.913	1.11	0.972	0.833
	Vanadium (V) (mg/kg)	73.4	66.5	69.7	64.4	77.6
	Zinc (Zn) (mg/kg)	111	68.0	91.5	81.8	83.0
TCLP Metals	1st Preliminary pH (pH)					
	2nd Preliminary pH (pH)					
	Final pH (pH)					
	Extraction Solution Initial pH (pH)					
	Antimony (Sb)-Leachable (ug/L)					
	Arsenic (As)-Leachable (ug/L)					
	Barium (Ba)-Leachable (ug/L)					
	Beryllium (Be)-Leachable (ug/L)					
	Boron (B)-Leachable (ug/L)					

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1826440-11 SOIL 07-SEP-16 16-TP111-0.1M	L1826440-12 SOIL 07-SEP-16 16-TP112-0.1M	L1826440-13 SOIL 07-SEP-16 16-TP113-0.1M	L1826440-14 SOIL 07-SEP-16 16-TP114-0.1M	L1826440-15 SOIL 07-SEP-16 16-TP115-0.1M
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	9.74	8.84	10.8	11.3	14.4
	pH (1:2 soil:water) (pH)	5.80	5.69	5.49	5.53	5.21
Leachable Anions & Nutrients	Total Phosphate As P (mg/kg)	3.60	4.49	6.59	2.42	4.39
Saturated Paste Extractables	Ammonia, Total Leachable (as N) (mg/kg)	0.493	0.452	0.690	0.787	3.85
	% Saturation (%)	61.5	59.5	65.0	62.4	62.8
Bacteriological Tests	E. coli (MPN/g)	4	<2	4	1810	<2
	Coliform Bacteria - Fecal (MPN/g)	4	<2	4	1810	<2
	Coliform Bacteria - Total (MPN/g)	266	4	608	1810	>1879.67
Metals	Antimony (Sb) (mg/kg)	1.91	1.16	0.55	0.65	0.65
	Arsenic (As) (mg/kg)	5.51	3.88	4.60	4.55	4.56
	Barium (Ba) (mg/kg)	212	133	136	154	158
	Beryllium (Be) (mg/kg)	0.38	0.31	0.36	0.53	0.46
	Cadmium (Cd) (mg/kg)	0.605	0.402	0.388	0.717	0.545
	Chromium (Cr) (mg/kg)	41.1	29.9	37.1	46.7	38.1
	Cobalt (Co) (mg/kg)	10.0	7.99	8.42	10.3	9.88
	Copper (Cu) (mg/kg)	39.6	32.1	31.6	41.3	39.0
	Lead (Pb) (mg/kg)	303	197	177	118	153
	Mercury (Hg) (mg/kg)	0.129	0.150	0.186	0.103	0.128
	Molybdenum (Mo) (mg/kg)	0.75	0.52	0.62	1.67	1.46
	Nickel (Ni) (mg/kg)	27.7	22.6	23.1	28.0	25.4
	Selenium (Se) (mg/kg)	0.26	0.24	0.25	0.27	0.27
	Silver (Ag) (mg/kg)	0.23	0.30	0.18	0.26	0.22
	Thallium (Tl) (mg/kg)	0.070	0.068	0.073	0.094	0.083
	Tin (Sn) (mg/kg)	2.7	2.4	<2.0	<2.0	2.2
	Uranium (U) (mg/kg)	1.05	0.854	0.882	1.66	1.41
	Vanadium (V) (mg/kg)	68.9	57.0	59.9	74.6	66.0
	Zinc (Zn) (mg/kg)	152	100	87.4	96.3	97.6
TCLP Metals	1st Preliminary pH (pH)	6.46				
	2nd Preliminary pH (pH)	1.71				
	Final pH (pH)	4.97				
	Extraction Solution Initial pH (pH)	4.95				
	Antimony (Sb)-Leachable (ug/L)	<1000				
	Arsenic (As)-Leachable (ug/L)	<1000				
	Barium (Ba)-Leachable (ug/L)	<2500				
	Beryllium (Be)-Leachable (ug/L)	<25				
	Boron (B)-Leachable (ug/L)	<500				

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1826440-16 SOIL 07-SEP-16 16-TP116-0.1M	L1826440-17 SOIL 07-SEP-16 16-TP117-0.1M	L1826440-18 SOIL 07-SEP-16 16-TP118-0.1M	L1826440-19 SOIL 07-SEP-16 16-TP119-0.1M	L1826440-20 SOIL 07-SEP-16 16-TP120-0.1M
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	11.8	9.38	8.07	10.4	12.7
	pH (1:2 soil:water) (pH)	5.75	5.73	5.89	5.51	5.57
Leachable Anions & Nutrients	Total Phosphate As P (mg/kg)	2.34	2.91	2.74	2.20	3.57
Saturated Paste Extractables	Ammonia, Total Leachable (as N) (mg/kg)	0.797	2.13	0.660	2.79	2.62
	% Saturation (%)	65.0	72.1	67.4	66.4	67.0
Bacteriological Tests	E. coli (MPN/g)	4	3	<2	<2	<2
	Coliform Bacteria - Fecal (MPN/g)	4	3	<2	<2	<2
	Coliform Bacteria - Total (MPN/g)	79	>1775.55	38	268	621
Metals	Antimony (Sb) (mg/kg)	0.57	0.51	0.53	0.59	0.76
	Arsenic (As) (mg/kg)	5.28	4.89	5.51	4.32	4.75
	Barium (Ba) (mg/kg)	249	241	302	134	167
	Beryllium (Be) (mg/kg)	0.41	0.43	0.47	0.27	0.38
	Cadmium (Cd) (mg/kg)	0.526	0.562	0.677	0.503	0.554
	Chromium (Cr) (mg/kg)	37.1	34.3	39.2	31.4	36.1
	Cobalt (Co) (mg/kg)	9.66	8.21	9.47	6.87	8.30
	Copper (Cu) (mg/kg)	32.3	33.2	35.4	27.3	34.4
	Lead (Pb) (mg/kg)	207	133	219	201	241
	Mercury (Hg) (mg/kg)	0.134	0.124	0.175	0.137	0.185
	Molybdenum (Mo) (mg/kg)	0.81	1.01	0.86	0.64	0.87
	Nickel (Ni) (mg/kg)	29.6	23.9	26.3	18.1	21.5
	Selenium (Se) (mg/kg)	0.25	0.24	0.28	0.24	0.32
	Silver (Ag) (mg/kg)	0.19	0.20	0.24	0.18	0.26
	Thallium (Tl) (mg/kg)	0.073	0.067	0.073	0.052	0.080
	Tin (Sn) (mg/kg)	<2.0	<2.0	4.7	11.4	3.8
	Uranium (U) (mg/kg)	0.999	1.12	1.15	0.883	1.08
	Vanadium (V) (mg/kg)	67.6	60.1	65.5	52.0	60.5
	Zinc (Zn) (mg/kg)	85.6	82.8	94.6	73.8	105
TCLP Metals	1st Preliminary pH (pH)					6.07
	2nd Preliminary pH (pH)					1.71
	Final pH (pH)					4.98
	Extraction Solution Initial pH (pH)					4.95
	Antimony (Sb)-Leachable (ug/L)					<1000
	Arsenic (As)-Leachable (ug/L)					<1000
	Barium (Ba)-Leachable (ug/L)					<2500
	Beryllium (Be)-Leachable (ug/L)					<25
	Boron (B)-Leachable (ug/L)					<500

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L1826440-21 SOIL 07-SEP-16 16-TP121-0.1M				
Grouping	Analyte						
SOIL							
Physical Tests	Moisture (%)	10.9					
	pH (1:2 soil:water) (pH)	5.34					
Leachable Anions & Nutrients	Total Phosphate As P (mg/kg)	7.47					
Saturated Paste Extractables	Ammonia, Total Leachable (as N) (mg/kg)	0.626					
	% Saturation (%)	64.3					
Bacteriological Tests	E. coli (MPN/g)	<2					
	Coliform Bacteria - Fecal (MPN/g)	<2					
	Coliform Bacteria - Total (MPN/g)	146					
Metals	Antimony (Sb) (mg/kg)	0.75					
	Arsenic (As) (mg/kg)	4.29					
	Barium (Ba) (mg/kg)	165					
	Beryllium (Be) (mg/kg)	0.36					
	Cadmium (Cd) (mg/kg)	0.377					
	Chromium (Cr) (mg/kg)	30.7					
	Cobalt (Co) (mg/kg)	8.31					
	Copper (Cu) (mg/kg)	36.9					
	Lead (Pb) (mg/kg)	156					
	Mercury (Hg) (mg/kg)	0.170					
	Molybdenum (Mo) (mg/kg)	0.82					
	Nickel (Ni) (mg/kg)	22.1					
	Selenium (Se) (mg/kg)	0.26					
	Silver (Ag) (mg/kg)	0.17					
	Thallium (Tl) (mg/kg)	0.066					
	Tin (Sn) (mg/kg)	2.8					
	Uranium (U) (mg/kg)	0.726					
	Vanadium (V) (mg/kg)	58.1					
	Zinc (Zn) (mg/kg)	102					
TCLP Metals	1st Preliminary pH (pH)						
	2nd Preliminary pH (pH)						
	Final pH (pH)						
	Extraction Solution Initial pH (pH)						
	Antimony (Sb)-Leachable (ug/L)						
	Arsenic (As)-Leachable (ug/L)						
	Barium (Ba)-Leachable (ug/L)						
	Beryllium (Be)-Leachable (ug/L)						
	Boron (B)-Leachable (ug/L)						

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1826440-1 SOIL 07-SEP-16 16-TP101	L1826440-2 SOIL 07-SEP-16 16-TP102	L1826440-3 SOIL 07-SEP-16 16-TP103	L1826440-4 SOIL 07-SEP-16 16-TP104	L1826440-5 SOIL 07-SEP-16 16-TP105
Grouping	Analyte					
SOIL						
TCLP Metals	Cadmium (Cd)-Leachable (ug/L)					
	Calcium (Ca)-Leachable (ug/L)					
	Chromium (Cr)-Leachable (ug/L)					
	Cobalt (Co)-Leachable (ug/L)					
	Copper (Cu)-Leachable (ug/L)					
	Iron (Fe)-Leachable (ug/L)					
	Lead (Pb)-Leachable (ug/L)					
	Magnesium (Mg)-Leachable (ug/L)					
	Mercury (Hg)-Leachable (ug/L)					
	Nickel (Ni)-Leachable (ug/L)					
	Selenium (Se)-Leachable (ug/L)					
	Silver (Ag)-Leachable (ug/L)					
	Thallium (Tl)-Leachable (ug/L)					
	Vanadium (V)-Leachable (ug/L)					
	Zinc (Zn)-Leachable (ug/L)					
Volatile Organic Compounds	Acetone (mg/kg)	<4.0	<4.0	<4.0	<4.0	<4.0
	Benzene (mg/kg)	<0.0050	<0.0050	0.0107	<0.0050	<0.0050
	Bromodichloromethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Bromoform (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Carbon Disulfide (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Carbon Tetrachloride (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Chlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Dibromochloromethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Chloroethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10
	Chloroform (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10
	Chloromethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10
	1,2-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	1,3-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	1,4-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	1,1-Dichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	1,2-Dichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	1,1-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	cis-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	trans-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Dichloromethane (mg/kg)	<0.30	<0.30	<0.30	<0.30	<0.30
	1,2-Dichloropropane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	cis-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L1826440-6 SOIL 07-SEP-16 16-TP106	L1826440-7 SOIL 07-SEP-16 16-TP107	L1826440-8 SOIL 07-SEP-16 16-TP108	L1826440-9 SOIL 07-SEP-16 16-TP109	L1826440-10 SOIL 07-SEP-16 16-TP110
Grouping	Analyte						
SOIL							
TCLP Metals	Cadmium (Cd)-Leachable (ug/L)						
	Calcium (Ca)-Leachable (ug/L)						
	Chromium (Cr)-Leachable (ug/L)						
	Cobalt (Co)-Leachable (ug/L)						
	Copper (Cu)-Leachable (ug/L)						
	Iron (Fe)-Leachable (ug/L)						
	Lead (Pb)-Leachable (ug/L)						
	Magnesium (Mg)-Leachable (ug/L)						
	Mercury (Hg)-Leachable (ug/L)						
	Nickel (Ni)-Leachable (ug/L)						
	Selenium (Se)-Leachable (ug/L)						
	Silver (Ag)-Leachable (ug/L)						
	Thallium (Tl)-Leachable (ug/L)						
	Vanadium (V)-Leachable (ug/L)						
	Zinc (Zn)-Leachable (ug/L)						
Volatile Organic Compounds	Acetone (mg/kg)	<4.0	<4.0	<4.0	<4.0	<4.0	
	Benzene (mg/kg)	<0.0050	<0.0050	<0.0050	0.349	<0.0050	
	Bromodichloromethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Bromoform (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Carbon Disulfide (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Carbon Tetrachloride (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Chlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Dibromochloromethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Chloroethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	
	Chloroform (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	
	Chloromethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	
	1,2-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,3-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,4-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,1-Dichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,2-Dichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,1-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	cis-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	trans-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Dichloromethane (mg/kg)	<0.30	<0.30	<0.30	<0.30	<0.30	
	1,2-Dichloropropane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	cis-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L1826440-11 SOIL 07-SEP-16 16-TP111-0.1M	L1826440-12 SOIL 07-SEP-16 16-TP112-0.1M	L1826440-13 SOIL 07-SEP-16 16-TP113-0.1M	L1826440-14 SOIL 07-SEP-16 16-TP114-0.1M	L1826440-15 SOIL 07-SEP-16 16-TP115-0.1M
Grouping	Analyte						
SOIL							
TCLP Metals	Cadmium (Cd)-Leachable (ug/L)	<50					
	Calcium (Ca)-Leachable (ug/L)	44500					
	Chromium (Cr)-Leachable (ug/L)	<250					
	Cobalt (Co)-Leachable (ug/L)	<50					
	Copper (Cu)-Leachable (ug/L)	<50					
	Iron (Fe)-Leachable (ug/L)	270					
	Lead (Pb)-Leachable (ug/L)	<250					
	Magnesium (Mg)-Leachable (ug/L)	7620					
	Mercury (Hg)-Leachable (ug/L)	<1.0					
	Nickel (Ni)-Leachable (ug/L)	<250					
	Selenium (Se)-Leachable (ug/L)	<1000					
	Silver (Ag)-Leachable (ug/L)	<50					
	Thallium (Tl)-Leachable (ug/L)	<1000					
	Vanadium (V)-Leachable (ug/L)	<150					
	Zinc (Zn)-Leachable (ug/L)	<500					
Volatile Organic Compounds	Acetone (mg/kg)	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
	Benzene (mg/kg)	0.0084	0.0258	<0.0050	<0.0050	0.0250	0.0250
	Bromodichloromethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	Bromoform (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	Carbon Disulfide (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	Carbon Tetrachloride (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	Chlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	Dibromochloromethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	Chloroethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Chloroform (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Chloromethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	1,2-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	1,3-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	1,4-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	1,1-Dichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	1,2-Dichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	1,1-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	cis-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	trans-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	Dichloromethane (mg/kg)	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
	1,2-Dichloropropane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
	cis-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L1826440-16 SOIL 07-SEP-16 16-TP116-0.1M	L1826440-17 SOIL 07-SEP-16 16-TP117-0.1M	L1826440-18 SOIL 07-SEP-16 16-TP118-0.1M	L1826440-19 SOIL 07-SEP-16 16-TP119-0.1M	L1826440-20 SOIL 07-SEP-16 16-TP120-0.1M
Grouping	Analyte						
SOIL							
TCLP Metals	Cadmium (Cd)-Leachable (ug/L)						<50
	Calcium (Ca)-Leachable (ug/L)						46000
	Chromium (Cr)-Leachable (ug/L)						<250
	Cobalt (Co)-Leachable (ug/L)						<50
	Copper (Cu)-Leachable (ug/L)						<50
	Iron (Fe)-Leachable (ug/L)						680
	Lead (Pb)-Leachable (ug/L)						<250
	Magnesium (Mg)-Leachable (ug/L)						8500
	Mercury (Hg)-Leachable (ug/L)						<1.0
	Nickel (Ni)-Leachable (ug/L)						<250
	Selenium (Se)-Leachable (ug/L)						<1000
	Silver (Ag)-Leachable (ug/L)						<50
	Thallium (Tl)-Leachable (ug/L)						<1000
	Vanadium (V)-Leachable (ug/L)						<150
	Zinc (Zn)-Leachable (ug/L)						<500
Volatile Organic Compounds	Acetone (mg/kg)	<4.0	<4.0	<4.0	<4.0	<4.0	
	Benzene (mg/kg)	0.0724	0.0308	0.0160	0.0072	0.0067	
	Bromodichloromethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Bromoform (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Carbon Disulfide (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Carbon Tetrachloride (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Chlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Dibromochloromethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Chloroethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	
	Chloroform (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	
	Chloromethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	
	1,2-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,3-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,4-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,1-Dichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,2-Dichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,1-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	cis-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	trans-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Dichloromethane (mg/kg)	<0.30	<0.30	<0.30	<0.30	<0.30	
	1,2-Dichloropropane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	cis-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1826440-21 SOIL 07-SEP-16 16-TP121-0.1M				
Grouping	Analyte					
SOIL						
TCLP Metals	Cadmium (Cd)-Leachable (ug/L)					
	Calcium (Ca)-Leachable (ug/L)					
	Chromium (Cr)-Leachable (ug/L)					
	Cobalt (Co)-Leachable (ug/L)					
	Copper (Cu)-Leachable (ug/L)					
	Iron (Fe)-Leachable (ug/L)					
	Lead (Pb)-Leachable (ug/L)					
	Magnesium (Mg)-Leachable (ug/L)					
	Mercury (Hg)-Leachable (ug/L)					
	Nickel (Ni)-Leachable (ug/L)					
	Selenium (Se)-Leachable (ug/L)					
	Silver (Ag)-Leachable (ug/L)					
	Thallium (Tl)-Leachable (ug/L)					
	Vanadium (V)-Leachable (ug/L)					
	Zinc (Zn)-Leachable (ug/L)					
Volatile Organic Compounds	Acetone (mg/kg)	<4.0				
	Benzene (mg/kg)	<0.0050				
	Bromodichloromethane (mg/kg)	<0.050				
	Bromoform (mg/kg)	<0.050				
	Carbon Disulfide (mg/kg)	<0.050				
	Carbon Tetrachloride (mg/kg)	<0.050				
	Chlorobenzene (mg/kg)	<0.050				
	Dibromochloromethane (mg/kg)	<0.050				
	Chloroethane (mg/kg)	<0.10				
	Chloroform (mg/kg)	<0.10				
	Chloromethane (mg/kg)	<0.10				
	1,2-Dichlorobenzene (mg/kg)	<0.050				
	1,3-Dichlorobenzene (mg/kg)	<0.050				
	1,4-Dichlorobenzene (mg/kg)	<0.050				
	1,1-Dichloroethane (mg/kg)	<0.050				
	1,2-Dichloroethane (mg/kg)	<0.050				
	1,1-Dichloroethylene (mg/kg)	<0.050				
	cis-1,2-Dichloroethylene (mg/kg)	<0.050				
	trans-1,2-Dichloroethylene (mg/kg)	<0.050				
	Dichloromethane (mg/kg)	<0.30				
	1,2-Dichloropropane (mg/kg)	<0.050				
	cis-1,3-Dichloropropylene (mg/kg)	<0.050				

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L1826440-1 SOIL 07-SEP-16 16-TP101	L1826440-2 SOIL 07-SEP-16 16-TP102	L1826440-3 SOIL 07-SEP-16 16-TP103	L1826440-4 SOIL 07-SEP-16 16-TP104	L1826440-5 SOIL 07-SEP-16 16-TP105
Grouping	Analyte						
SOIL							
Volatile Organic Compounds	trans-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Ethyl ether (mg/kg)	<10	<10	<10	<10	<10	
	Ethylbenzene (mg/kg)	<0.015	<0.015	<0.015	<0.015	<0.015	
	n-Heptane (nC7) (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	2-Hexanone (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Methyl ethyl ketone (MEK) (mg/kg)	<20	<20	<20	<20	<20	
	Methyl isobutyl ketone (MIBK) (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Methyl t-butyl ether (MTBE) (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20	
	n-Octane (nC8) (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Styrene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,1,1,2-Tetrachloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,1,2,2-Tetrachloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Tetrachloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Toluene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,1,1-Trichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,1,2-Trichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Trichloroethylene (mg/kg)	<0.010	<0.010	<0.010	<0.010	<0.010	
	Trichlorofluoromethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	
	Vinyl Chloride (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	
	ortho-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	meta- & para-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Xylenes (mg/kg)	<0.075	<0.075	<0.075	<0.075	<0.075	
	Surrogate: 4-Bromofluorobenzene (%)	99.0	97.4	95.8	95.4	94.5	
	Surrogate: 4-Bromofluorobenzene (SS) (%)	96.9	96.5	105.6	99.0	93.0	
	Surrogate: 1,2-Dichloroethane d4 (%)	108.0	110.8	112.3	112.9	114.1	
	Surrogate: 1,4-Difluorobenzene (SS) (%)	93.9	93.9	111.5	96.6	91.1	
	Surrogate: Toluene d8 (%)	98.6	99.9	100.4	101.6	102.0	
Hydrocarbons	EPH10-19 (mg/kg)	<200	<200	<200	<200	<200	
	EPH19-32 (mg/kg)	<200	<200	<200	<200	260	
	LEPH (mg/kg)	<200	<200	<200	<200	<200	
	HEPH (mg/kg)	<200	<200	<200	<200	260	
	Volatile Hydrocarbons (VH6-10) (mg/kg)	<100	<100	<100	<100	<100	
	VPH (C6-C10) (mg/kg)	<100	<100	<100	<100	<100	
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	101.0	100.3	120.5	95.4	89.3	
	Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.050	0.172	<0.050	<0.050	<0.050

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		Sample ID Description Sampled Date Sampled Time Client ID	L1826440-6 SOIL 07-SEP-16 16-TP106	L1826440-7 SOIL 07-SEP-16 16-TP107	L1826440-8 SOIL 07-SEP-16 16-TP108	L1826440-9 SOIL 07-SEP-16 16-TP109	L1826440-10 SOIL 07-SEP-16 16-TP110
Grouping	Analyte						
SOIL							
Volatile Organic Compounds	trans-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Ethyl ether (mg/kg)	<10	<10	<10	<10	<10	
	Ethylbenzene (mg/kg)	<0.015	<0.015	<0.015	0.087	<0.015	
	n-Heptane (nC7) (mg/kg)	<0.050	<0.050	<0.050	0.270	<0.050	
	2-Hexanone (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Methyl ethyl ketone (MEK) (mg/kg)	<20	<20	<20	<20	<20	
	Methyl isobutyl ketone (MIBK) (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Methyl t-butyl ether (MTBE) (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20	
	n-Octane (nC8) (mg/kg)	<0.050	<0.050	<0.050	0.219	<0.050	
	Styrene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,1,1,2-Tetrachloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,1,2,2-Tetrachloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Tetrachloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Toluene (mg/kg)	<0.050	<0.050	<0.050	0.627	<0.050	
	1,1,1-Trichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	1,1,2-Trichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Trichloroethylene (mg/kg)	<0.010	<0.010	<0.010	<0.010	<0.010	
	Trichlorofluoromethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	
	Vinyl Chloride (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10	
	ortho-Xylene (mg/kg)	<0.050	<0.050	<0.050	0.419	<0.050	
	meta- & para-Xylene (mg/kg)	<0.050	<0.050	<0.050	0.634	<0.050	
	Xylenes (mg/kg)	<0.075	<0.075	<0.075	1.05	<0.075	
	Surrogate: 4-Bromofluorobenzene (%)	95.1	94.2	95.0	87.9	91.6	
	Surrogate: 4-Bromofluorobenzene (SS) (%)	96.0	77.9	85.7	91.4	82.0	
	Surrogate: 1,2-Dichloroethane d4 (%)	116.1	116.4	117.5	102.6	118.6	
	Surrogate: 1,4-Difluorobenzene (SS) (%)	94.4	74.3	85.4	90.4	80.4	
	Surrogate: Toluene d8 (%)	101.1	102.5	102.0	101.2	105.6	
Hydrocarbons	EPH10-19 (mg/kg)	<200	<200	<200	<200	<200	
	EPH19-32 (mg/kg)	<200	<200	<200	<200	<200	
	LEPH (mg/kg)	<200	<200	<200	<200	<200	
	HEPH (mg/kg)	<200	<200	<200	<200	<200	
	Volatile Hydrocarbons (VH6-10) (mg/kg)	<100	<100	<100	<100	<100	
	VPH (C6-C10) (mg/kg)	<100	<100	<100	<100	<100	
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	101.2	83.6	85.0	87.6	84.1	
	Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050

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Version: FINAL REV. 2

Sample ID Description Sampled Date Sampled Time Client ID		L1826440-11 SOIL 07-SEP-16 16-TP111-0.1M	L1826440-12 SOIL 07-SEP-16 16-TP112-0.1M	L1826440-13 SOIL 07-SEP-16 16-TP113-0.1M	L1826440-14 SOIL 07-SEP-16 16-TP114-0.1M	L1826440-15 SOIL 07-SEP-16 16-TP115-0.1M
Grouping	Analyte					
SOIL						
Volatile Organic Compounds	trans-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Ethyl ether (mg/kg)	<10	<10	<10	<10	<10
	Ethylbenzene (mg/kg)	<0.015	<0.015	<0.015	<0.015	0.027
	n-Heptane (nC7) (mg/kg)	<0.050	<0.050	<0.050	<0.050	0.058
	2-Hexanone (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Methyl ethyl ketone (MEK) (mg/kg)	<20	<20	<20	<20	<20
	Methyl isobutyl ketone (MIBK) (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Methyl t-butyl ether (MTBE) (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20
	n-Octane (nC8) (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Styrene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	1,1,1,2-Tetrachloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	1,1,2,2-Tetrachloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Tetrachloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Toluene (mg/kg)	<0.050	0.097	<0.050	<0.050	0.185
	1,1,1-Trichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	1,1,2-Trichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Trichloroethylene (mg/kg)	<0.010	<0.010	<0.010	<0.010	<0.010
	Trichlorofluoromethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10
	Vinyl Chloride (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10
	ortho-Xylene (mg/kg)	<0.050	0.051	<0.050	<0.050	0.106
	meta- & para-Xylene (mg/kg)	<0.050	0.078	<0.050	<0.050	0.189
	Xylenes (mg/kg)	<0.075	0.129	<0.075	<0.075	0.295
	Surrogate: 4-Bromofluorobenzene (%)	92.6	90.6	87.1	88.9	90.7
	Surrogate: 4-Bromofluorobenzene (SS) (%)	92.4	93.9	95.2	80.1	87.6
	Surrogate: 1,2-Dichloroethane d4 (%)	119.2	121.4	122.3	122.5	123.4
	Surrogate: 1,4-Difluorobenzene (SS) (%)	92.4	92.9	94.1	78.2	91.9
	Surrogate: Toluene d8 (%)	104.2	105.3	107.7	108.0	105.0
Hydrocarbons	EPH10-19 (mg/kg)	<200	<200	<200	<200	<200
	EPH19-32 (mg/kg)	<200	<200	<200	<200	<200
	LEPH (mg/kg)	<200	<200	<200	<200	<200
	HEPH (mg/kg)	<200	<200	<200	<200	<200
	Volatile Hydrocarbons (VH6-10) (mg/kg)	<100	<100	<100	<100	<100
	VPH (C6-C10) (mg/kg)	<100	<100	<100	<100	<100
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	91.7	89.7	100.6	85.4	134.5
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

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Version: FINAL REV. 2

Sample ID Description Sampled Date Sampled Time Client ID		L1826440-16 SOIL 07-SEP-16 16-TP116-0.1M	L1826440-17 SOIL 07-SEP-16 16-TP117-0.1M	L1826440-18 SOIL 07-SEP-16 16-TP118-0.1M	L1826440-19 SOIL 07-SEP-16 16-TP119-0.1M	L1826440-20 SOIL 07-SEP-16 16-TP120-0.1M
Grouping	Analyte					
SOIL						
Volatile Organic Compounds	trans-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Ethyl ether (mg/kg)	<10	<10	<10	<10	<10
	Ethylbenzene (mg/kg)	0.069	0.025	0.031	<0.015	<0.015
	n-Heptane (nC7) (mg/kg)	0.093	<0.050	0.063	<0.050	<0.050
	2-Hexanone (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Methyl ethyl ketone (MEK) (mg/kg)	<20	<20	<20	<20	<20
	Methyl isobutyl ketone (MIBK) (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Methyl t-butyl ether (MTBE) (mg/kg)	<0.20	<0.20	<0.20	<0.20	<0.20
	n-Octane (nC8) (mg/kg)	0.102	<0.050	0.098	<0.050	<0.050
	Styrene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	1,1,1,2-Tetrachloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	1,1,2,2-Tetrachloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Tetrachloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Toluene (mg/kg)	0.330	0.084	0.087	0.051	<0.050
	1,1,1-Trichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	1,1,2-Trichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Trichloroethylene (mg/kg)	<0.010	<0.010	<0.010	<0.010	<0.010
	Trichlorofluoromethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10
	Vinyl Chloride (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10
	ortho-Xylene (mg/kg)	0.361	0.115	0.164	0.076	<0.050
	meta- & para-Xylene (mg/kg)	0.505	0.132	0.175	0.093	<0.050
	Xylenes (mg/kg)	0.866	0.248	0.339	0.169	<0.075
	Surrogate: 4-Bromofluorobenzene (%)	90.8	90.4	90.0	90.6	87.6
	Surrogate: 4-Bromofluorobenzene (SS) (%)	96.4	94.2	93.4	114.3	93.6
	Surrogate: 1,2-Dichloroethane d4 (%)	124.4	124.6	124.5	125.4	125.5
	Surrogate: 1,4-Difluorobenzene (SS) (%)	96.2	96.0	96.4	125.5	101.1
	Surrogate: Toluene d8 (%)	105.0	105.2	104.9	103.4	103.8
Hydrocarbons	EPH10-19 (mg/kg)	<200	<200	<200	<200	<200
	EPH19-32 (mg/kg)	370	350	320	420	<200
	LEPH (mg/kg)	<200	<200	<200	<200	<200
	HEPH (mg/kg)	330	320	290	370	<200
	Volatile Hydrocarbons (VH6-10) (mg/kg)	<100	<100	<100	<100	<100
	VPH (C6-C10) (mg/kg)	<100	<100	<100	<100	<100
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	84.0	86.9	77.3	90.5	108.6
	Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.050	<0.050	<0.050	<0.050

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1826440-21 SOIL 07-SEP-16 16-TP121-0.1M				
Grouping	Analyte					
SOIL						
Volatile Organic Compounds	trans-1,3-Dichloropropylene (mg/kg)	<0.050				
	Ethyl ether (mg/kg)	<10				
	Ethylbenzene (mg/kg)	<0.015				
	n-Heptane (nC7) (mg/kg)	<0.050				
	2-Hexanone (mg/kg)	<0.050				
	Methyl ethyl ketone (MEK) (mg/kg)	<20				
	Methyl isobutyl ketone (MIBK) (mg/kg)	<0.050				
	Methyl t-butyl ether (MTBE) (mg/kg)	<0.20				
	n-Octane (nC8) (mg/kg)	<0.050				
	Styrene (mg/kg)	<0.050				
	1,1,1,2-Tetrachloroethane (mg/kg)	<0.050				
	1,1,2,2-Tetrachloroethane (mg/kg)	<0.050				
	Tetrachloroethylene (mg/kg)	<0.050				
	Toluene (mg/kg)	<0.050				
	1,1,1-Trichloroethane (mg/kg)	<0.050				
	1,1,2-Trichloroethane (mg/kg)	<0.050				
	Trichloroethylene (mg/kg)	<0.010				
	Trichlorofluoromethane (mg/kg)	<0.10				
	Vinyl Chloride (mg/kg)	<0.10				
	ortho-Xylene (mg/kg)	<0.050				
	meta- & para-Xylene (mg/kg)	<0.050				
	Xylenes (mg/kg)	<0.075				
	Surrogate: 4-Bromofluorobenzene (%)	87.1				
	Surrogate: 4-Bromofluorobenzene (SS) (%)	80.2				
	Surrogate: 1,2-Dichloroethane d4 (%)	124.6				
	Surrogate: 1,4-Difluorobenzene (SS) (%)	87.6				
	Surrogate: Toluene d8 (%)	108.5				
Hydrocarbons	EPH10-19 (mg/kg)	<200				
	EPH19-32 (mg/kg)	<200				
	LEPH (mg/kg)	<200				
	HEPH (mg/kg)	<200				
	Volatile Hydrocarbons (VH6-10) (mg/kg)	<100				
	VPH (C6-C10) (mg/kg)	<100				
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	79.6				
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.050				

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1826440-1 SOIL 07-SEP-16 16-TP101	L1826440-2 SOIL 07-SEP-16 16-TP102	L1826440-3 SOIL 07-SEP-16 16-TP103	L1826440-4 SOIL 07-SEP-16 16-TP104	L1826440-5 SOIL 07-SEP-16 16-TP105
Grouping	Analyte					
SOIL						
Polycyclic Aromatic Hydrocarbons	Acenaphthylene (mg/kg)	<0.050	<0.050	0.208	0.080	<0.050
	Anthracene (mg/kg)	<0.050	0.656	0.152	0.055	<0.050
	Benz(a)anthracene (mg/kg)	0.052	0.985	0.557	0.233	0.065
	Benzo(a)pyrene (mg/kg)	0.054	0.794	0.771	0.300	0.077
	Benzo(b)fluoranthene (mg/kg)	0.099	1.14	1.02	0.453	0.151
	Benzo(g,h,i)perylene (mg/kg)	<0.050	0.460	0.577	0.182	0.057
	Benzo(k)fluoranthene (mg/kg)	<0.050	0.442	0.371	0.156	0.054
	Chrysene (mg/kg)	<0.070 ^{DLCI}	0.872	0.674	0.320	0.090
	Dibenz(a,h)anthracene (mg/kg)	<0.050	0.103	0.111	<0.050	<0.050
	Fluoranthene (mg/kg)	0.121	2.23	1.13	0.523	0.129
	Fluorene (mg/kg)	<0.050	0.239	<0.050	<0.050	<0.050
	Indeno(1,2,3-c,d)pyrene (mg/kg)	<0.050	0.540	0.666	0.221	0.066
	2-Methylnaphthalene (mg/kg)	<0.050	0.066	0.117	<0.050	<0.050
	Naphthalene (mg/kg)	<0.050	0.113	0.097	<0.050	<0.050
	Phenanthrene (mg/kg)	0.058	2.06	0.621	0.300	0.077
	Pyrene (mg/kg)	0.107	1.78	1.15	0.534	0.127
	Surrogate: Acenaphthene d10 (%)	89.7	91.5	94.3	90.0	88.1
	Surrogate: Chrysene d12 (%)	101.5	100.5	103.2	103.7	96.2
	Surrogate: Naphthalene d8 (%)	91.8	93.0	91.6	88.3	86.8
	Surrogate: Phenanthrene d10 (%)	100.3	103.8	108.1	102.1	92.4
Alcohols	sec-Butanol (mg/kg)	<10	<10	<10	<10	<10
	n-Butanol (mg/kg)	<10	<10	<10	<10	<10
	Ethanol (mg/kg)	<10	<10	<10	<10	<10
	Isobutanol (mg/kg)	<10	<10	<10	<10	<10
	Isopropanol (mg/kg)	<10	<10	<10	<10	<10
	Methanol (mg/kg)	<0.50	8.07	7.39	2.58	2.22
	Pentanol (mg/kg)	<10	<10	<10	<10	<10
Fatty Acids	Acetic Acid (mg/kg)	<10	<10	<10	<10	<10
	Butyric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0
	Caproic (Hexanoic) Acid (mg/kg)	<2.0	<2.0	<2.0	<2.0	<2.0
	Formic Acid (mg/kg)	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}
	Isobutyric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0
	Isovaleric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0
	Propionic Acid (mg/kg)	<5.0	<5.0	<5.0	<5.0	<5.0
	Valeric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0

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Sample ID Description Sampled Date Sampled Time Client ID		L1826440-6 SOIL 07-SEP-16 16-TP106	L1826440-7 SOIL 07-SEP-16 16-TP107	L1826440-8 SOIL 07-SEP-16 16-TP108	L1826440-9 SOIL 07-SEP-16 16-TP109	L1826440-10 SOIL 07-SEP-16 16-TP110
Grouping	Analyte					
SOIL						
Polycyclic Aromatic Hydrocarbons	Acenaphthylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	0.056
	Anthracene (mg/kg)	<0.050	<0.050	0.148	<0.050	0.050
	Benz(a)anthracene (mg/kg)	0.089	0.075	0.374	0.075	0.192
	Benzo(a)pyrene (mg/kg)	0.146	0.077	0.336	0.065	0.186
	Benzo(b)fluoranthene (mg/kg)	0.241	<0.20 ^{DLQ}	0.487	0.100	0.277
	Benzo(g,h,i)perylene (mg/kg)	0.110	<0.050	0.197	<0.050	0.102
	Benzo(k)fluoranthene (mg/kg)	0.101	<0.050	0.195	<0.050	0.120
	Chrysene (mg/kg)	0.119	0.095	0.370	0.083	0.209
	Dibenz(a,h)anthracene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Fluoranthene (mg/kg)	0.145	0.142	0.876	0.156	0.333
	Fluorene (mg/kg)	<0.050	<0.050	0.067	<0.050	<0.050
	Indeno(1,2,3-c,d)pyrene (mg/kg)	0.115	0.058	0.251	<0.050	0.133
	2-Methylnaphthalene (mg/kg)	<0.050	<0.050	0.055	<0.050	<0.050
	Naphthalene (mg/kg)	<0.050	<0.050	0.079	<0.050	0.137
	Phenanthrene (mg/kg)	0.085	0.079	0.631	0.124	0.147
	Pyrene (mg/kg)	0.144	0.143	0.762	0.145	0.333
	Surrogate: Acenaphthene d10 (%)	93.6	88.9	86.4	82.1	92.2
	Surrogate: Chrysene d12 (%)	103.9	97.1	99.6	105.8	103.3
	Surrogate: Naphthalene d8 (%)	93.5	91.6	83.2	83.5	96.1
	Surrogate: Phenanthrene d10 (%)	100.8	100.8	101.8	98.3	104.7
Alcohols	sec-Butanol (mg/kg)	<10	<10	<10	<10	<10
	n-Butanol (mg/kg)	<10	<10	<10	<10	<10
	Ethanol (mg/kg)	<10	<10	<10	<10	<10
	Isobutanol (mg/kg)	<10	<10	<10	<10	<10
	Isopropanol (mg/kg)	<10	<10	<10	<10	<10
	Methanol (mg/kg)	<0.50	1.92	6.70	4.58	3.25
	Pentanol (mg/kg)	<10	<10	<10	<10	<10
Fatty Acids	Acetic Acid (mg/kg)	<10	<10	<10	<10	<10
	Butyric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0
	Caproic (Hexanoic) Acid (mg/kg)	<2.0	<2.0	<2.0	<2.0	<2.0
	Formic Acid (mg/kg)	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}
	Isobutyric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0
	Isovaleric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0
	Propionic Acid (mg/kg)	<5.0	<5.0	<5.0	<5.0	<5.0
	Valeric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID	L1826440-11	L1826440-12	L1826440-13	L1826440-14	L1826440-15
		Description	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled Date	07-SEP-16	07-SEP-16	07-SEP-16	07-SEP-16	07-SEP-16
		Sampled Time					
		Client ID	16-TP111-0.1M	16-TP112-0.1M	16-TP113-0.1M	16-TP114-0.1M	16-TP115-0.1M
Grouping	Analyte						
SOIL							
Polycyclic Aromatic Hydrocarbons	Acenaphthylene (mg/kg)	0.403	0.060	0.247	0.074	0.334	
	Anthracene (mg/kg)	0.266	0.087	0.220	<0.050	0.218	
	Benz(a)anthracene (mg/kg)	1.10	0.314	0.871	0.204	0.805	
	Benzo(a)pyrene (mg/kg)	1.19	0.294	0.962	0.219	0.847	
	Benzo(b)fluoranthene (mg/kg)	1.53	0.403	1.22	0.295	1.08	
	Benzo(g,h,i)perylene (mg/kg)	0.669	0.188	0.533	0.132	0.484	
	Benzo(k)fluoranthene (mg/kg)	0.605	0.159	0.465	0.117	0.401	
	Chrysene (mg/kg)	1.17	0.372	0.914	0.238	0.854	
	Dibenz(a,h)anthracene (mg/kg)	0.192	0.050	0.154	<0.050	0.146	
	Fluoranthene (mg/kg)	1.58	0.757	1.36	0.293	1.13	
	Fluorene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050	
	Indeno(1,2,3-c,d)pyrene (mg/kg)	0.829	0.228	0.668	0.162	0.619	
	2-Methylnaphthalene (mg/kg)	0.203	0.076	0.128	<0.050	0.258	
	Naphthalene (mg/kg)	0.355	0.089	0.229	0.051	0.868	
	Phenanthrene (mg/kg)	0.654	0.407	0.624	0.116	0.504	
	Pyrene (mg/kg)	1.62	0.692	1.40	0.324	1.28	
	Surrogate: Acenaphthene d10 (%)	94.5	89.9	87.8	83.4	86.7	
	Surrogate: Chrysene d12 (%)	105.0	104.6	103.7	99.4	98.7	
	Surrogate: Naphthalene d8 (%)	94.5	87.4	85.6	80.4	85.7	
	Surrogate: Phenanthrene d10 (%)	105.0	103.6	101.7	96.1	97.6	
Alcohols	sec-Butanol (mg/kg)	<10	<10	<10	<10	<10	
	n-Butanol (mg/kg)	<10	<10	<10	<10	<10	
	Ethanol (mg/kg)	<10	<10	<10	<10	<10	
	Isobutanol (mg/kg)	<10	<10	<10	<10	<10	
	Isopropanol (mg/kg)	<10	<10	<10	<10	<10	
	Methanol (mg/kg)	0.66	0.98	3.97	8.80	11.3	
	Pentanol (mg/kg)	<10	<10	<10	<10	<10	
Fatty Acids	Acetic Acid (mg/kg)	<10	<10	<10	<10	<10	
	Butyric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0	
	Caproic (Hexanoic) Acid (mg/kg)	<2.0	<2.0	<2.0	<2.0	<2.0	
	Formic Acid (mg/kg)	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}	
	Isobutyric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0	
	Isovaleric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0	
	Propionic Acid (mg/kg)	<5.0	<5.0	<5.0	<5.0	<5.0	
	Valeric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0	

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1826440-16 SOIL 07-SEP-16 16-TP116-0.1M	L1826440-17 SOIL 07-SEP-16 16-TP117-0.1M	L1826440-18 SOIL 07-SEP-16 16-TP118-0.1M	L1826440-19 SOIL 07-SEP-16 16-TP119-0.1M	L1826440-20 SOIL 07-SEP-16 16-TP120-0.1M
Grouping	Analyte					
SOIL						
Polycyclic Aromatic Hydrocarbons	Acenaphthylene (mg/kg)	1.91	2.25	1.82	1.87	0.398
	Anthracene (mg/kg)	1.15	1.26	1.11	1.73	0.237
	Benz(a)anthracene (mg/kg)	4.41	5.00	4.16	6.11	0.919
	Benzo(a)pyrene (mg/kg)	5.65	6.86	5.51	6.55	1.05
	Benzo(b)fluoranthene (mg/kg)	6.98	8.46	6.71	8.21	1.45
	Benzo(g,h,i)perylene (mg/kg)	2.85	3.68	2.81	3.56	0.568
	Benzo(k)fluoranthene (mg/kg)	3.08	3.52	2.73	3.83	0.570
	Chrysene (mg/kg)	4.88	5.81	4.76	6.84	0.964
	Dibenz(a,h)anthracene (mg/kg)	0.824	1.04	0.817	0.965	0.175
	Fluoranthene (mg/kg)	6.88	7.40	6.22	12.3	1.26
	Fluorene (mg/kg)	<0.20 ^{DLCI}	<0.20 ^{DLCI}	<0.20 ^{DLCI}	<0.20 ^{DLCI}	<0.050
	Indeno(1,2,3-c,d)pyrene (mg/kg)	3.83	4.90	3.81	4.62	0.762
	2-Methylnaphthalene (mg/kg)	0.975	0.879	1.15	0.342	0.183
	Naphthalene (mg/kg)	2.00	2.20	2.08	0.860	0.395
	Phenanthrene (mg/kg)	2.77	2.91	2.52	5.99	0.520
	Pyrene (mg/kg)	7.71	8.42	7.07	12.6	1.41
	Surrogate: Acenaphthene d10 (%)	79.4	101.6	86.6	89.7	91.1
	Surrogate: Chrysene d12 (%)	84.6	109.9	92.9	99.1	101.9
	Surrogate: Naphthalene d8 (%)	78.1	100.7	85.3	84.0	90.8
	Surrogate: Phenanthrene d10 (%)	88.3	115.7	95.6	101.6	105.2
Alcohols	sec-Butanol (mg/kg)	<10	<10	<10	<10	<10
	n-Butanol (mg/kg)	<10	<10	<10	<10	<10
	Ethanol (mg/kg)	<10	<10	<10	<10	<10
	Isobutanol (mg/kg)	<10	<10	<10	<10	<10
	Isopropanol (mg/kg)	<10	<10	<10	<10	<10
	Methanol (mg/kg)	<0.50	10.2	3.66	4.79	6.73
	Pentanol (mg/kg)	<10	<10	<10	<10	<10
Fatty Acids	Acetic Acid (mg/kg)	<10	<10	<10	<10	<10
	Butyric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0
	Caproic (Hexanoic) Acid (mg/kg)	<2.0	<2.0	<2.0	<2.0	<2.0
	Formic Acid (mg/kg)	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}	<300 ^{DLM}
	Isobutyric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0
	Isovaleric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0
	Propionic Acid (mg/kg)	<5.0	<5.0	<5.0	<5.0	<5.0
	Valeric Acid (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L1826440-21 SOIL 07-SEP-16 16-TP121-0.1M				
Grouping	Analyte						
SOIL							
Polycyclic Aromatic Hydrocarbons	Acenaphthylene (mg/kg)	0.385					
	Anthracene (mg/kg)	0.216					
	Benz(a)anthracene (mg/kg)	0.860					
	Benzo(a)pyrene (mg/kg)	1.09					
	Benzo(b)fluoranthene (mg/kg)	1.48					
	Benzo(g,h,i)perylene (mg/kg)	0.546					
	Benzo(k)fluoranthene (mg/kg)	0.572					
	Chrysene (mg/kg)	0.917					
	Dibenz(a,h)anthracene (mg/kg)	0.179					
	Fluoranthene (mg/kg)	1.19					
	Fluorene (mg/kg)	<0.050					
	Indeno(1,2,3-c,d)pyrene (mg/kg)	0.745					
	2-Methylnaphthalene (mg/kg)	0.136					
	Naphthalene (mg/kg)	0.272					
	Phenanthrene (mg/kg)	0.451					
	Pyrene (mg/kg)	1.33					
	Surrogate: Acenaphthene d10 (%)	87.2					
	Surrogate: Chrysene d12 (%)	99.2					
	Surrogate: Naphthalene d8 (%)	82.3					
	Surrogate: Phenanthrene d10 (%)	101.1					
Alcohols	sec-Butanol (mg/kg)	<10					
	n-Butanol (mg/kg)	<10					
	Ethanol (mg/kg)	<10					
	Isobutanol (mg/kg)	<10					
	Isopropanol (mg/kg)	<10					
	Methanol (mg/kg)	7.18					
	Pentanol (mg/kg)	<10					
Fatty Acids	Acetic Acid (mg/kg)	<10					
	Butyric Acid (mg/kg)	<1.0					
	Caproic (Hexanoic) Acid (mg/kg)	<2.0					
	Formic Acid (mg/kg)	<300 ^{DLM}					
	Isobutyric Acid (mg/kg)	<1.0					
	Isovaleric Acid (mg/kg)	<1.0					
	Propionic Acid (mg/kg)	<5.0					
	Valeric Acid (mg/kg)	<1.0					

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

Qualifiers for Individual Samples Listed:

Sample Number	Client Sample ID	Qualifier	Description
L1826440-20	16-TP120-0.1M	LTIS	Limited sample was available for TCLP inorganics and semi-volatiles extraction (< 100 grams). Extraction fluid volume and/or other elements of the TCLP method were scaled down proportionately to permit analysis. Test results from modified TCLP procedures may be unsuitable for regulatory purposes.

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Method Blank	Ammonia, Total Leachable (as N)	B	L1826440-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9
Duplicate	E. coli	DUP-H	L1826440-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -3, -4, -5, -6, -7, -8, -9
Duplicate	Coliform Bacteria - Fecal	DUP-H	L1826440-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -3, -4, -5, -6, -7, -8, -9
Duplicate	Coliform Bacteria - Total	DUP-H	L1826440-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -3, -4, -5, -6, -7, -8, -9
Laboratory Control Sample	Bromoform	LCS-ND	L1826440-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -2, -3, -4, -5, -6, -7, -8, -9
Laboratory Control Sample	Bromoform	LCS-ND	L1826440-19, -20, -21
Laboratory Control Sample	cis-1,3-Dichloropropylene	LCS-ND	L1826440-19, -20, -21
Laboratory Control Sample	trans-1,3-Dichloropropylene	LCS-ND	L1826440-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -2, -3, -4, -5, -6, -7, -8, -9
Laboratory Control Sample	trans-1,3-Dichloropropylene	LCS-ND	L1826440-19, -20, -21
Laboratory Control Sample	Acetone	LCS-ND	L1826440-19, -20, -21
Laboratory Control Sample	Methyl ethyl ketone (MEK)	LCS-ND	L1826440-19, -20, -21

Qualifiers for Individual Parameters Listed:

Qualifier	Description
B	Method Blank exceeds ALS DQO. All associated sample results are at least 5 times greater than blank levels and are considered reliable.
DLCI	Detection Limit Raised: Chromatographic Interference due to co-elution.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DLQ	Detection Limit raised due to co-eluting interference. GCMS qualifier ion ratio did not meet acceptance criteria.
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.
LCS-ND	Lab Control Sample recovery was slightly outside ALS DQO. Reported non-detect results for associated samples were unaffected.
SURR-ND	Surrogate recovery marginally exceeded ALS DQO. Reported non-detect results for associated samples were deemed to be unaffected.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALCOHOL-7-CL	Soil	Alcohol Screen	EPA 3550C, EPA 8015D
This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 8015D and 3550C, published by the United States Environmental Protection Agency (EPA). The procedure involves extraction of a subsample of the sediment/soil with de-ionized water, followed by ultrasonic bath. The water extract is then analyzed by GC-FID direct aqueous injection.			
ECOLI-COLI-VA	Soil	E. coli by MPN	TMECC 07.00 PATHOGENS
This analysis is carried out using procedures adapted from TMECC 07.00 PATHOGENS. This method describes multiple-tube fermentation technique for the detection and enumeration of Escherichia coli. Serial dilutions of the sample are incubated with the appropriate growth medium, and Escherichia coli are quantified by a statistical estimation of bacteria density (most probable number). The test involves initial 48 hour incubation (presumptive test); positive results are further tested (up to an additional 24 hours) to confirm and quantify Escherichia coli.			
EPH-TUMB-FID-VA	Soil	EPH in Solids by Tumbler and GCFID	BC MOE EPH GCFID
Analysis is in accordance with BC MOE Lab Manual method "Extractable Petroleum Hydrocarbons in Solids by GC/FID", v2.1, July 1999. Soil samples are extracted with a 1:1 mixture of hexane and acetone using a rotary extraction technique modified from EPA 3570 prior to gas chromatography with flame ionization detection (GC-FID). EPH results include Polycyclic Aromatic Hydrocarbons (PAH) and are therefore not equivalent to Light and Heavy Extractable Petroleum Hydrocarbons (LEPH/HEPH).			
FCOLI-DRY-MTF-VA	Soil	Fecal coliform by MPN	EPA Method 1680
This analysis is carried out using procedures adapted from EPA Method 1680 "Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC medium". Serial dilutions of the sample are incubated with the appropriate growth medium, and fecal coliforms are quantified by a statistical estimation of bacteria density (most probable number). The test involves initial 48 hour incubation (presumptive test), positive results are further tested (up to an additional 24 hours) to confirm and quantify fecal coliforms.			
HG-200.2-CVAF-VA	Soil	Mercury in Soil by CVAFS	EPA 200.2/1631E (mod)

Reference Information

Soil samples are digested with nitric and hydrochloric acids, followed by analysis by CVAFS.

HG-TCLP-CVAFS-VA Soil Mercury by CVAFS (TCLP) EPA 1311/245.7

This analysis is carried out in accordance with the extraction procedure outlined in "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods Volume 1C" SW-846 EPA Method 1311, published by the United States Environmental Protection Agency (EPA). In summary, the sample is extracted at a 20:1 liquid to solids ratio for 16 to 20 hours using either extraction fluid #1 (glacial acetic acid, water and sodium hydroxide) or extraction fluid #2 (glacial acetic acid), depending on the pH of the original sample. The extract is then filtered through a 0.6 to 0.8 micron glass fibre filter and analysed using atomic fluorescence spectrophotometry or atomic absorption spectrophotometry (EPA 245.7).

LEPH/HEPH-CALC-VA Soil LEPHs and HEPHs BC MOE LABORATORY MANUAL (2005)

Light and Heavy Extractable Petroleum Hydrocarbons in Solids. These results are determined according to the British Columbia Ministry of Environment, Lands, and Parks Analytical Method for Contaminated Sites "Calculation of Light and Heavy Extractable Petroleum Hydrocarbons in Solids or Water". According to this method, LEPH and HEPH are calculated by subtracting selected Polycyclic Aromatic Hydrocarbon results from Extractable Petroleum Hydrocarbon results. To calculate LEPH, the individual results for Naphthalene and Phenanthrene are subtracted from EPH(C10-19). To calculate HEPH, the individual results for Benz(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, and Pyrene are subtracted from EPH(C19-32). Analysis of Extractable Petroleum Hydrocarbons adheres to all prescribed elements of the BCMELP method "Extractable Petroleum Hydrocarbons in Solids by GC/FID" (Version 2.1, July 20, 1999).

MET-200.2-CCMS-VA Soil Metals in Soil by CRC ICPMS EPA 200.2/6020A (mod)

Soil samples are digested with nitric and hydrochloric acids, followed by analysis by CRC ICPMS.

Method Limitation: This method is not a total digestion technique. It is a very strong acid digestion that is intended to dissolve those metals that may be environmentally available. This method does not dissolve all silicate materials and may result in a partial extraction, depending on the sample matrix, for some metals, including, but not limited to Al, Ba, Be, Cr, Sr, Ti, Tl, and V.

MET-TCLP-ICP-VA Soil Metals by ICPOES (TCLP) EPA 1311/6010B

This analysis is carried out in accordance with the extraction procedure outlined in "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods Volume 1C" SW-846 EPA Method 1311, published by the United States Environmental Protection Agency (EPA). In summary, the sample is extracted at a 20:1 liquid to solids ratio for 16 to 20 hours using either extraction fluid #1 (glacial acetic acid, water and sodium hydroxide) or extraction fluid #2 (glacial acetic acid), depending on the pH of the original sample. The extract is then filtered through a 0.6 to 0.8 micron glass fibre filter and analysed using inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).

MOISTURE-VA Soil Moisture content ASTM D2974-00 Method A

This analysis is carried out gravimetrically by drying the sample at 105 C for a minimum of six hours.

NH3-PASTE-F-VA Soil Ammonia (as N) in Soil (Paste) by Fluor. CARTER-CSSS / J. ENVIRON. MONIT., 2005

A soil extract produced by the saturated paste extraction procedure is analyzed for ammonia (as N) by using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

PAH-TMB-H/A-MS-VA Soil PAH - Rotary Extraction (Hexane/Acetone) EPA 3570/8270

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Methods 3570 & 8270, published by the United States Environmental Protection Agency (EPA). The procedure uses a mechanical shaking technique to extract a subsample of the sediment/soil with a 1:1 mixture of hexane and acetone. The extract is then solvent exchanged to toluene. The final extract is analysed by capillary column gas chromatography with mass spectrometric detection (GC/MS). Surrogate recoveries may not be reported in cases where interferences from the sample matrix prevent accurate quantitation. Because the two isomers cannot be readily chromatographically separated, benzo(j)fluoranthene is reported as part of the benzo(b)fluoranthene parameter.

PH-1:2-VA Soil pH in Soil (1:2 Soil:Water Extraction) BC WLAP METHOD: PH, ELECTROMETRIC, SOIL

This analysis is carried out in accordance with procedures described in the pH, Electrometric in Soil and Sediment method - Section B Physical/Inorganic and Misc. Constituents, BC Environmental Laboratory Manual 2007. The procedure involves mixing the dried (at <60 C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water. The pH of the solution is then measured using a standard pH probe.

PO4-T-LEACH-COL-VA Soil Total PO4 leach (1:10) by Colour APHA 4500-P PHOSPHOROUS

This analysis is carried out using a leaching procedure which involves the gentle tumbling of the sample in a specified leaching solution (typically deionized water) for a specific length of time. The extract solution is then analyzed using procedures adapted from APHA Method 4500-P "Phosphorus". All forms of phosphate are determined by the ascorbic acid colourimetric method. Dissolved ortho-phosphate (dissolved reactive phosphorus) is determined by direct measurement. Total phosphate (total phosphorous) is determined after persulphate digestion of a sample. Total dissolved phosphate (total dissolved phosphorous) is determined by filtering a sample through a 0.45 micron membrane filter followed by persulfate digestion of the filtrate.

SAT-PCNT-VA Soil Saturation Percentage Carter-CSSS

Saturation Percentage (SP) is the total volume of water present in a saturated paste (in mL) divided by the dry weight of the sample (in grams), expressed as a percentage, as described in "Soil Sampling and Methods of Analysis" by M. Carter.

TCOLI-DRY-MTF-VA Soil Total coliform by MPN TMECC 07.00 PATHOGENS

Reference Information

This analysis is carried out using procedures adapted from TMECC 07.00 PATHOGENS. This method describes multiple-tube fermentation technique for the detection and enumeration of total coliforms. Serial dilutions of the sample are incubated with the appropriate growth medium, and total coliforms are quantified by a statistical estimation of bacteria density (most probable number). The test involves initial 48 hour incubation (presumptive test); positive results do not require further testing for confirmation of total coliforms.

VFA-WP Soil Volatile fatty/carboxylic acids EPA 8260B, 1996

In the field, water and soil samples are collected in certified clean glass jars. In the laboratory, water samples are filtered and transferred to an autosampler vial for analysis. Soil samples are extracted with water and an aliquot of water is filtered. All extracts have internal standard added prior to injection. Analysis is performed by GC/MS in the selected ion monitoring (SIM) mode.

VH-HSFID-VA Soil VH in soil by Headspace GC/FID BC Env. Lab Manual (VH in Solids)

This analysis involves the extraction of a subsample of the sediment/soil with methanol. Aliquots of the methanol extract are then added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is analyzed for Volatile Hydrocarbons (VH) by capillary column gas chromatography with flame-ionization detection (GC/FID). The methanol extraction and VH analysis are carried out in accordance with the British Columbia Ministry of Environment, Lands and Parks (BCMELP) Analytical Method for Contaminated Sites "Volatile Hydrocarbons in Solids by GC/FID" (Version 2.1 July 1999).

VH-SURR-FID-VA Soil VH Surrogates for Soils BC Env. Lab Manual (VH in Solids)

VOC-HSMS-VA Soil VOCs in soil by Headspace GCMS EPA 5035A/5021A/8260C

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

VOC-M2-HSMS-VA Soil Misc VOCs in soil by Headspace GCMS EPA 5035A/5021A/8260C

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

VOC-SOLVENTS-CL Soil Volatile Solvent Screen SW 846 5021/8260-Headspace GC/MS

Samples are stored with no headspace under refrigeration. Each sample (or sample extract) is transferred to a 10 mL CombiPal vial and sealed with a Teflon-lined silicon septa cap. The volatile compounds are then heated in an incubator and a portion of headspace is drawn up and injected onto the GC/MS. The solvents are identified and calculated from the MSD data.

VOC7-L-HSMS-VA Soil VOCs in soil by Headspace GCMS EPA 5035A/5021A/8260C

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

VOC7/VOC-SURR-MS-VA Soil VOC7 and/or VOC Surrogates for Soils EPA 5035A/5021A/8260C

VPH-CALC-VA Soil VPH is VH minus select aromatics BC MOE LABORATORY MANUAL (2005)

These results are determined according to the British Columbia Ministry of Environment, Lands, and Parks Analytical Method for Contaminated Sites "Calculation of Volatile Petroleum Hydrocarbons in Solids or Water" (Version 2.1, July 20, 1999). According to this method, the concentrations of specific Monocyclic Aromatic Hydrocarbons (Benzene, Toluene, Ethylbenzene, Xylenes and Styrene) are subtracted from the collective concentration of Volatile Hydrocarbons (VH) that elute between n-hexane (nC6) and n-decane (nC10). Analysis of Volatile Hydrocarbons adheres to all prescribed elements of BCMELP method "Volatile Hydrocarbons in Solids by GC/FID" (Version 2.1, July 20, 1999).

XYLENES-CALC-VA Soil Sum of Xylene Isomer Concentrations EPA 8260B & 524.2

Calculation of Total Xylenes

Total Xylenes is the sum of the concentrations of the ortho, meta, and para Xylene isomers. Results below detection limit (DL) are treated as zero. The DL for Total Xylenes is set to a value no less than the square root of the sum of the squares of the DLs of the individual Xylenes.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
CL	ALS ENVIRONMENTAL - CALGARY, ALBERTA, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

Reference Information

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg ww - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1826440

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Client: Pinchin West LTD.
300 - 1095 McKenzie Avenue
Victoria BC V8P 2L5

Contact: Joshu Bocskei

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALCOHOL-7-CL		Soil						
Batch R3549865								
WG2390238-2	DUP	L1826440-1						
Ethanol		<10	<10	RPD-NA	mg/kg	N/A	30	15-SEP-16
Isobutanol		<10	<10	RPD-NA	mg/kg	N/A	30	15-SEP-16
Isopropanol		<10	<10	RPD-NA	mg/kg	N/A	30	15-SEP-16
Methanol		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	15-SEP-16
Pentanol		<10	<10	RPD-NA	mg/kg	N/A	30	15-SEP-16
n-Butanol		<10	<10	RPD-NA	mg/kg	N/A	30	15-SEP-16
sec-Butanol		<10	<10	RPD-NA	mg/kg	N/A	30	15-SEP-16
WG2390238-9	DUP	L1826440-21						
Ethanol		<10	<10	RPD-NA	mg/kg	N/A	30	16-SEP-16
Isobutanol		<10	<10	RPD-NA	mg/kg	N/A	30	16-SEP-16
Isopropanol		<10	<10	RPD-NA	mg/kg	N/A	30	16-SEP-16
Methanol		7.18	5.65		mg/kg	24	30	16-SEP-16
Pentanol		<10	<10	RPD-NA	mg/kg	N/A	30	16-SEP-16
n-Butanol		<10	<10	RPD-NA	mg/kg	N/A	30	16-SEP-16
sec-Butanol		<10	<10	RPD-NA	mg/kg	N/A	30	16-SEP-16
WG2390238-3	LCS							
Ethanol			94.9		%		70-130	16-SEP-16
Isobutanol			97.1		%		70-130	16-SEP-16
Isopropanol			97.7		%		70-130	16-SEP-16
Methanol			98.8		%		70-130	16-SEP-16
Pentanol			95.5		%		70-130	16-SEP-16
n-Butanol			96.8		%		70-130	16-SEP-16
sec-Butanol			97.3		%		70-130	16-SEP-16
WG2390238-7	LCS							
Ethanol			87.7		%		70-130	16-SEP-16
Isobutanol			90.3		%		70-130	16-SEP-16
Isopropanol			91.8		%		70-130	16-SEP-16
Methanol			93.4		%		70-130	16-SEP-16
Pentanol			88.6		%		70-130	16-SEP-16
n-Butanol			90.0		%		70-130	16-SEP-16
sec-Butanol			90.7		%		70-130	16-SEP-16
WG2390238-1	MB							
Ethanol			<10		mg/kg		10	15-SEP-16
Isobutanol			<10		mg/kg		10	15-SEP-16
Isopropanol			<10		mg/kg		10	15-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALCOHOL-7-CL Soil								
Batch	R3549865							
WG2390238-1	MB							
Methanol			<0.50		mg/kg		0.5	15-SEP-16
Pentanol			<10		mg/kg		10	15-SEP-16
n-Butanol			<10		mg/kg		10	15-SEP-16
sec-Butanol			<10		mg/kg		10	15-SEP-16
WG2390238-5	MB							
Ethanol			<10		mg/kg		10	15-SEP-16
Isobutanol			<10		mg/kg		10	15-SEP-16
Isopropanol			<10		mg/kg		10	15-SEP-16
Methanol			<0.50		mg/kg		0.5	15-SEP-16
Pentanol			<10		mg/kg		10	15-SEP-16
n-Butanol			<10		mg/kg		10	15-SEP-16
sec-Butanol			<10		mg/kg		10	15-SEP-16
ECOLI-COLI-VA Soil								
Batch	R3549949							
WG2385664-1	DUP	L1826440-21						
E. coli		<2	<2	RPD-NA	MPN/g	N/A	65	09-SEP-16
WG2385664-3	DUP	L1826440-1						
E. coli		143	7	DUP-H	MPN/g	182	65	09-SEP-16
WG2385664-2	MB							
E. coli			<2		MPN/g		2	09-SEP-16
EPH-TUMB-FID-VA Soil								
Batch	R3549115							
WG2389820-3	IRM	ALS PHC2 RM						
EPH10-19			87.3		%		70-130	17-SEP-16
EPH19-32			98.7		%		70-130	17-SEP-16
WG2389829-3	IRM	ALS PHC2 RM						
EPH10-19			97.5		%		70-130	17-SEP-16
EPH19-32			108.8		%		70-130	17-SEP-16
WG2389820-1	MB							
EPH10-19			<200		mg/kg		200	17-SEP-16
EPH19-32			<200		mg/kg		200	17-SEP-16
WG2389829-1	MB							
EPH10-19			<200		mg/kg		200	17-SEP-16
EPH19-32			<200		mg/kg		200	17-SEP-16
FCOLI-DRY-MTF-VA Soil								

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
FCOLI-DRY-MTF-VA Soil								
Batch	R3549951							
WG2385663-1	DUP	L1826440-21						
Coliform Bacteria - Fecal		<2	<2	RPD-NA	MPN/g	N/A	65	09-SEP-16
WG2385663-3	DUP	L1826440-1						
Coliform Bacteria - Fecal		143	7	DUP-H	MPN/g	182	65	09-SEP-16
WG2385663-2	MB							
Coliform Bacteria - Fecal			<2		MPN/g		2	09-SEP-16
HG-200.2-CVAF-VA Soil								
Batch	R3550090							
WG2389811-4	CRM	VA-NRC-STSD-3						
Mercury (Hg)			78.7		%		70-130	16-SEP-16
WG2389811-2	DUP	L1826440-12						
Mercury (Hg)		0.150	0.115		mg/kg	26	40	16-SEP-16
WG2389811-3	LCS							
Mercury (Hg)			106.4		%		70-130	16-SEP-16
WG2389811-1	MB							
Mercury (Hg)			<0.0050		mg/kg		0.005	16-SEP-16
Batch	R3551758							
WG2389830-4	CRM	VA-NRC-STSD-3						
Mercury (Hg)			99.6		%		70-130	19-SEP-16
WG2389830-3	LCS							
Mercury (Hg)			87.9		%		70-130	19-SEP-16
WG2389830-1	MB							
Mercury (Hg)			<0.0050		mg/kg		0.005	19-SEP-16
HG-TCLP-CVAFS-VA Soil								
Batch	R3574890							
WG2412893-1	MB							
Mercury (Hg)-Leachable			<0.0010		mg/L		0.001	19-OCT-16
WG2412893-4	MB							
Mercury (Hg)-Leachable			<0.0010		mg/L		0.001	19-OCT-16
MET-200.2-CCMS-VA Soil								
Batch	R3550352							
WG2389811-4	CRM	VA-NRC-STSD-3						
Antimony (Sb)			94.6		%		70-130	16-SEP-16
Arsenic (As)			83.1		%		70-130	16-SEP-16
Barium (Ba)			87.9		%		70-130	16-SEP-16
Beryllium (Be)			91.8		%		70-130	16-SEP-16
Cadmium (Cd)			105.6		%		70-130	16-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-VA	Soil							
Batch	R3550352							
WG2389811-4 CRM		VA-NRC-STSD-3						
Chromium (Cr)			92.2		%		70-130	16-SEP-16
Cobalt (Co)			91.7		%		70-130	16-SEP-16
Copper (Cu)			87.5		%		70-130	16-SEP-16
Lead (Pb)			94.6		%		70-130	16-SEP-16
Molybdenum (Mo)			94.5		%		70-130	16-SEP-16
Nickel (Ni)			86.8		%		70-130	16-SEP-16
Selenium (Se)			96.1		%		70-130	16-SEP-16
Thallium (Tl)			95.2		%		70-130	16-SEP-16
Uranium (U)			94.4		%		70-130	16-SEP-16
Vanadium (V)			92.0		%		70-130	16-SEP-16
Zinc (Zn)			87.2		%		70-130	16-SEP-16
WG2389811-3 LCS								
Antimony (Sb)			104.3		%		80-120	16-SEP-16
Arsenic (As)			105.7		%		80-120	16-SEP-16
Barium (Ba)			104.1		%		80-120	16-SEP-16
Beryllium (Be)			102.1		%		80-120	16-SEP-16
Cadmium (Cd)			103.1		%		80-120	16-SEP-16
Chromium (Cr)			104.5		%		80-120	16-SEP-16
Cobalt (Co)			103.9		%		80-120	16-SEP-16
Copper (Cu)			100.7		%		80-120	16-SEP-16
Lead (Pb)			102.8		%		80-120	16-SEP-16
Molybdenum (Mo)			107.8		%		80-120	16-SEP-16
Nickel (Ni)			102.9		%		80-120	16-SEP-16
Selenium (Se)			101.4		%		80-120	16-SEP-16
Silver (Ag)			104.2		%		80-120	16-SEP-16
Thallium (Tl)			104.2		%		80-120	16-SEP-16
Tin (Sn)			104.1		%		80-120	16-SEP-16
Uranium (U)			106.8		%		80-120	16-SEP-16
Vanadium (V)			106.6		%		80-120	16-SEP-16
Zinc (Zn)			98.0		%		80-120	16-SEP-16
WG2389811-1 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	16-SEP-16
Arsenic (As)			<0.10		mg/kg		0.1	16-SEP-16
Barium (Ba)			<0.50		mg/kg		0.5	16-SEP-16
Beryllium (Be)			<0.10		mg/kg		0.1	16-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-VA	Soil							
Batch	R3550352							
WG2389811-1 MB								
Cadmium (Cd)			<0.020		mg/kg		0.02	16-SEP-16
Chromium (Cr)			<0.50		mg/kg		0.5	16-SEP-16
Cobalt (Co)			<0.10		mg/kg		0.1	16-SEP-16
Copper (Cu)			<0.50		mg/kg		0.5	16-SEP-16
Lead (Pb)			<0.50		mg/kg		0.5	16-SEP-16
Molybdenum (Mo)			<0.10		mg/kg		0.1	16-SEP-16
Nickel (Ni)			<0.50		mg/kg		0.5	16-SEP-16
Selenium (Se)			<0.20		mg/kg		0.2	16-SEP-16
Silver (Ag)			<0.10		mg/kg		0.1	16-SEP-16
Thallium (Tl)			<0.050		mg/kg		0.05	16-SEP-16
Tin (Sn)			<2.0		mg/kg		2	16-SEP-16
Uranium (U)			<0.050		mg/kg		0.05	16-SEP-16
Vanadium (V)			<0.20		mg/kg		0.2	16-SEP-16
Zinc (Zn)			<2.0		mg/kg		2	16-SEP-16
Batch	R3552404							
WG2389811-2 DUP		L1826440-12						
Antimony (Sb)		1.16	1.11		mg/kg	5.1	30	19-SEP-16
Arsenic (As)		3.88	3.98		mg/kg	2.5	30	19-SEP-16
Barium (Ba)		133	131		mg/kg	2.0	40	19-SEP-16
Beryllium (Be)		0.31	0.29		mg/kg	6.9	30	19-SEP-16
Cadmium (Cd)		0.402	0.379		mg/kg	6.0	30	19-SEP-16
Chromium (Cr)		29.9	27.8		mg/kg	7.2	30	19-SEP-16
Cobalt (Co)		7.99	8.11		mg/kg	1.5	30	19-SEP-16
Copper (Cu)		32.1	30.7		mg/kg	4.4	30	19-SEP-16
Lead (Pb)		197	182		mg/kg	8.1	40	19-SEP-16
Molybdenum (Mo)		0.52	0.56		mg/kg	7.4	40	19-SEP-16
Nickel (Ni)		22.6	22.0		mg/kg	2.9	30	19-SEP-16
Selenium (Se)		0.24	0.27		mg/kg	9.7	30	19-SEP-16
Silver (Ag)		0.30	0.28		mg/kg	6.1	40	19-SEP-16
Thallium (Tl)		0.068	0.078		mg/kg	13	30	19-SEP-16
Tin (Sn)		2.4	2.1		mg/kg	14	40	19-SEP-16
Uranium (U)		0.854	0.782		mg/kg	8.8	30	19-SEP-16
Vanadium (V)		57.0	55.2		mg/kg	3.2	30	19-SEP-16
Zinc (Zn)		100	96.6		mg/kg	3.4	30	19-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-VA	Soil							
Batch	R3552613							
WG2389830-4 CRM		VA-NRC-STSD-3						
Antimony (Sb)			104.5		%		70-130	19-SEP-16
Arsenic (As)			87.0		%		70-130	19-SEP-16
Barium (Ba)			91.8		%		70-130	19-SEP-16
Beryllium (Be)			97.1		%		70-130	19-SEP-16
Cadmium (Cd)			106.0		%		70-130	19-SEP-16
Chromium (Cr)			94.3		%		70-130	19-SEP-16
Cobalt (Co)			92.1		%		70-130	19-SEP-16
Copper (Cu)			89.9		%		70-130	19-SEP-16
Lead (Pb)			99.3		%		70-130	19-SEP-16
Molybdenum (Mo)			99.8		%		70-130	19-SEP-16
Nickel (Ni)			85.8		%		70-130	19-SEP-16
Selenium (Se)			93.6		%		70-130	19-SEP-16
Thallium (Tl)			96.2		%		70-130	19-SEP-16
Uranium (U)			99.8		%		70-130	19-SEP-16
Vanadium (V)			91.8		%		70-130	19-SEP-16
Zinc (Zn)			87.8		%		70-130	19-SEP-16
WG2389830-3 LCS								
Antimony (Sb)			101.1		%		80-120	19-SEP-16
Arsenic (As)			101.1		%		80-120	19-SEP-16
Barium (Ba)			97.1		%		80-120	19-SEP-16
Beryllium (Be)			97.4		%		80-120	19-SEP-16
Cadmium (Cd)			97.1		%		80-120	19-SEP-16
Chromium (Cr)			98.4		%		80-120	19-SEP-16
Cobalt (Co)			95.7		%		80-120	19-SEP-16
Copper (Cu)			94.6		%		80-120	19-SEP-16
Lead (Pb)			97.8		%		80-120	19-SEP-16
Molybdenum (Mo)			104.9		%		80-120	19-SEP-16
Nickel (Ni)			93.4		%		80-120	19-SEP-16
Selenium (Se)			98.0		%		80-120	19-SEP-16
Silver (Ag)			99.1		%		80-120	19-SEP-16
Thallium (Tl)			98.7		%		80-120	19-SEP-16
Tin (Sn)			96.6		%		80-120	19-SEP-16
Uranium (U)			98.7		%		80-120	19-SEP-16
Vanadium (V)			99.9		%		80-120	19-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-VA		Soil						
Batch R3552613								
WG2389830-3 LCS								
Zinc (Zn)			92.8		%		80-120	19-SEP-16
WG2389830-1 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	19-SEP-16
Arsenic (As)			<0.10		mg/kg		0.1	19-SEP-16
Barium (Ba)			<0.50		mg/kg		0.5	19-SEP-16
Beryllium (Be)			<0.10		mg/kg		0.1	19-SEP-16
Cadmium (Cd)			<0.020		mg/kg		0.02	19-SEP-16
Chromium (Cr)			<0.50		mg/kg		0.5	19-SEP-16
Cobalt (Co)			<0.10		mg/kg		0.1	19-SEP-16
Copper (Cu)			<0.50		mg/kg		0.5	19-SEP-16
Lead (Pb)			<0.50		mg/kg		0.5	19-SEP-16
Molybdenum (Mo)			<0.10		mg/kg		0.1	19-SEP-16
Nickel (Ni)			<0.50		mg/kg		0.5	19-SEP-16
Selenium (Se)			<0.20		mg/kg		0.2	19-SEP-16
Silver (Ag)			<0.10		mg/kg		0.1	19-SEP-16
Thallium (Tl)			<0.050		mg/kg		0.05	19-SEP-16
Tin (Sn)			<2.0		mg/kg		2	19-SEP-16
Uranium (U)			<0.050		mg/kg		0.05	19-SEP-16
Vanadium (V)			<0.20		mg/kg		0.2	19-SEP-16
Zinc (Zn)			<2.0		mg/kg		2	19-SEP-16
MET-TCLP-ICP-VA		Soil						
Batch R3575007								
WG2412893-1 MB								
Antimony (Sb)-Leachable			<1.0		mg/L		1	19-OCT-16
Arsenic (As)-Leachable			<1.0		mg/L		1	19-OCT-16
Barium (Ba)-Leachable			<2.5		mg/L		2.5	19-OCT-16
Beryllium (Be)-Leachable			<0.025		mg/L		0.025	19-OCT-16
Boron (B)-Leachable			<0.50		mg/L		0.5	19-OCT-16
Cadmium (Cd)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Calcium (Ca)-Leachable			<2.0		mg/L		2	19-OCT-16
Chromium (Cr)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Cobalt (Co)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Copper (Cu)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Iron (Fe)-Leachable			<0.15		mg/L		0.15	19-OCT-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-ICP-VA		Soil						
Batch R3575007								
WG2412893-1 MB								
Lead (Pb)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Magnesium (Mg)-Leachable			<0.50		mg/L		0.5	19-OCT-16
Nickel (Ni)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Selenium (Se)-Leachable			<1.0		mg/L		1	19-OCT-16
Silver (Ag)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Thallium (Tl)-Leachable			<1.0		mg/L		1	19-OCT-16
Vanadium (V)-Leachable			<0.15		mg/L		0.15	19-OCT-16
Zinc (Zn)-Leachable			<0.50		mg/L		0.5	19-OCT-16
WG2412893-4 MB								
Antimony (Sb)-Leachable			<1.0		mg/L		1	19-OCT-16
Arsenic (As)-Leachable			<1.0		mg/L		1	19-OCT-16
Barium (Ba)-Leachable			<2.5		mg/L		2.5	19-OCT-16
Beryllium (Be)-Leachable			<0.025		mg/L		0.025	19-OCT-16
Boron (B)-Leachable			<0.50		mg/L		0.5	19-OCT-16
Cadmium (Cd)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Calcium (Ca)-Leachable			<2.0		mg/L		2	19-OCT-16
Chromium (Cr)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Cobalt (Co)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Copper (Cu)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Iron (Fe)-Leachable			<0.15		mg/L		0.15	19-OCT-16
Lead (Pb)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Magnesium (Mg)-Leachable			<0.50		mg/L		0.5	19-OCT-16
Nickel (Ni)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Selenium (Se)-Leachable			<1.0		mg/L		1	19-OCT-16
Silver (Ag)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Thallium (Tl)-Leachable			<1.0		mg/L		1	19-OCT-16
Vanadium (V)-Leachable			<0.15		mg/L		0.15	19-OCT-16
Zinc (Zn)-Leachable			<0.50		mg/L		0.5	19-OCT-16
MOISTURE-VA		Soil						
Batch R3549427								
WG2389793-2 LCS								
Moisture			99.7		%		90-110	15-SEP-16
WG2389793-6 LCS								
Moisture			100.1		%		90-110	15-SEP-16
WG2389793-1 MB								

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MOISTURE-VA								
Soil								
Batch R3549427								
WG2389793-1 MB								
Moisture			<0.25		%		0.25	15-SEP-16
WG2389793-5 MB								
Moisture			<0.25		%		0.25	15-SEP-16
Batch R3549440								
WG2389722-2 LCS								
Moisture			99.7		%		90-110	15-SEP-16
WG2389722-6 LCS								
Moisture			100.1		%		90-110	15-SEP-16
WG2389722-1 MB								
Moisture			<0.25		%		0.25	15-SEP-16
WG2389722-5 MB								
Moisture			<0.25		%		0.25	15-SEP-16
NH3-PASTE-F-VA								
Soil								
Batch R3554832								
WG2389515-1 MB								
Ammonia, Total Leachable (as N)			0.065	B	mg/L		0.01	22-SEP-16
WG2389549-1 MB								
Ammonia, Total Leachable (as N)			<0.010		mg/L		0.01	22-SEP-16
PAH-TMB-H/A-MS-VA								
Soil								
Batch R3550065								
WG2389820-2 LCS								
Acenaphthene			99.95		%		60-130	19-SEP-16
Acenaphthylene			96.9		%		60-130	19-SEP-16
Anthracene			94.2		%		60-130	19-SEP-16
Benz(a)anthracene			106.9		%		60-130	19-SEP-16
Benzo(a)pyrene			105.5		%		60-130	19-SEP-16
Benzo(b)fluoranthene			106.8		%		60-130	19-SEP-16
Benzo(g,h,i)perylene			99.6		%		60-130	19-SEP-16
Benzo(k)fluoranthene			100.4		%		60-130	19-SEP-16
Chrysene			102.9		%		60-130	19-SEP-16
Dibenz(a,h)anthracene			98.8		%		60-130	19-SEP-16
Fluoranthene			103.2		%		60-130	19-SEP-16
Fluorene			96.6		%		60-130	19-SEP-16
Indeno(1,2,3-c,d)pyrene			97.9		%		60-130	19-SEP-16
2-Methylnaphthalene			85.8		%		60-130	19-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-TMB-H/A-MS-VA								
Soil								
Batch R3550065								
WG2389820-2 LCS								
Naphthalene			98.6		%		50-130	19-SEP-16
Phenanthrene			99.2		%		60-130	19-SEP-16
Pyrene			103.5		%		60-130	19-SEP-16
WG2389820-1 MB								
Acenaphthene			<0.0050		mg/kg		0.005	19-SEP-16
Acenaphthylene			<0.0050		mg/kg		0.005	19-SEP-16
Anthracene			<0.0040		mg/kg		0.004	19-SEP-16
Benz(a)anthracene			<0.010		mg/kg		0.01	19-SEP-16
Benzo(a)pyrene			<0.010		mg/kg		0.01	19-SEP-16
Benzo(b)fluoranthene			<0.010		mg/kg		0.01	19-SEP-16
Benzo(g,h,i)perylene			<0.010		mg/kg		0.01	19-SEP-16
Benzo(k)fluoranthene			<0.010		mg/kg		0.01	19-SEP-16
Chrysene			<0.010		mg/kg		0.01	19-SEP-16
Dibenz(a,h)anthracene			<0.0050		mg/kg		0.005	19-SEP-16
Fluoranthene			<0.010		mg/kg		0.01	19-SEP-16
Fluorene			<0.010		mg/kg		0.01	19-SEP-16
Indeno(1,2,3-c,d)pyrene			<0.010		mg/kg		0.01	19-SEP-16
2-Methylnaphthalene			<0.010		mg/kg		0.01	19-SEP-16
Naphthalene			<0.010		mg/kg		0.01	19-SEP-16
Phenanthrene			<0.010		mg/kg		0.01	19-SEP-16
Pyrene			<0.010		mg/kg		0.01	19-SEP-16
Surrogate: Naphthalene d8			90.1		%		50-130	19-SEP-16
Surrogate: Acenaphthene d10			86.3		%		60-130	19-SEP-16
Surrogate: Phenanthrene d10			87.6		%		60-130	19-SEP-16
Surrogate: Chrysene d12			101.0		%		60-130	19-SEP-16
Batch R3552006								
WG2389829-2 LCS								
Acenaphthene			97.9		%		60-130	19-SEP-16
Acenaphthylene			93.7		%		60-130	19-SEP-16
Anthracene			93.7		%		60-130	19-SEP-16
Benz(a)anthracene			111.7		%		60-130	19-SEP-16
Benzo(a)pyrene			99.8		%		60-130	19-SEP-16
Benzo(b)fluoranthene			109.4		%		60-130	19-SEP-16
Benzo(g,h,i)perylene			90.3		%		60-130	19-SEP-16
Benzo(k)fluoranthene			108.9		%		60-130	19-SEP-16

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PAH-TMB-H/A-MS-VA	Soil							
Batch	R3552006							
WG2389829-2 LCS								
Chrysene			109.9		%		60-130	19-SEP-16
Dibenz(a,h)anthracene			96.7		%		60-130	19-SEP-16
Fluoranthene			102.7		%		60-130	19-SEP-16
Fluorene			97.8		%		60-130	19-SEP-16
Indeno(1,2,3-c,d)pyrene			95.8		%		60-130	19-SEP-16
2-Methylnaphthalene			82.1		%		60-130	19-SEP-16
Naphthalene			94.1		%		50-130	19-SEP-16
Phenanthrene			98.0		%		60-130	19-SEP-16
Pyrene			103.9		%		60-130	19-SEP-16
WG2389829-1 MB								
Acenaphthene			<0.0050		mg/kg		0.005	19-SEP-16
Acenaphthylene			<0.0050		mg/kg		0.005	19-SEP-16
Anthracene			<0.0040		mg/kg		0.004	19-SEP-16
Benz(a)anthracene			<0.010		mg/kg		0.01	19-SEP-16
Benzo(a)pyrene			<0.010		mg/kg		0.01	19-SEP-16
Benzo(b)fluoranthene			<0.010		mg/kg		0.01	19-SEP-16
Benzo(g,h,i)perylene			<0.010		mg/kg		0.01	19-SEP-16
Benzo(k)fluoranthene			<0.010		mg/kg		0.01	19-SEP-16
Chrysene			<0.010		mg/kg		0.01	19-SEP-16
Dibenz(a,h)anthracene			<0.0050		mg/kg		0.005	19-SEP-16
Fluoranthene			<0.010		mg/kg		0.01	19-SEP-16
Fluorene			<0.010		mg/kg		0.01	19-SEP-16
Indeno(1,2,3-c,d)pyrene			<0.010		mg/kg		0.01	19-SEP-16
2-Methylnaphthalene			<0.010		mg/kg		0.01	19-SEP-16
Naphthalene			<0.010		mg/kg		0.01	19-SEP-16
Phenanthrene			<0.010		mg/kg		0.01	19-SEP-16
Pyrene			<0.010		mg/kg		0.01	19-SEP-16
Surrogate: Naphthalene d8			89.1		%		50-130	19-SEP-16
Surrogate: Acenaphthene d10			89.1		%		60-130	19-SEP-16
Surrogate: Phenanthrene d10			91.9		%		60-130	19-SEP-16
Surrogate: Chrysene d12			103.5		%		60-130	19-SEP-16
PH-1:2-VA	Soil							

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH-1:2-VA	Soil							
Batch R3550910								
WG2389811-2 DUP		L1826440-12						
pH (1:2 soil:water)		5.69	5.72	J	pH	0.03	0.2	18-SEP-16
PO4-T-LEACH-COL-VA	Soil							
Batch R3551942								
WG2391234-4 DUP		L1826440-17						
Total Phosphate As P		2.91	3.21		mg/kg	9.8	30	20-SEP-16
WG2390711-1 MB								
Total Phosphate As P			<0.020		mg/kg		0.02	20-SEP-16
WG2391234-1 MB								
Total Phosphate As P			<0.020		mg/kg		0.02	20-SEP-16
Batch R3553243								
WG2390711-4 DUP		L1826440-1						
Total Phosphate As P		14.0	15.6		mg/kg	11	30	21-SEP-16
SAT-PCNT-VA	Soil							
Batch R3550085								
WG2389515-3 IRM		VA-ALP-SRS1507						
% Saturation			96.3		%		80-120	16-SEP-16
Batch R3550832								
WG2389549-3 IRM		VA-ALP-SRS1507						
% Saturation			104.0		%		80-120	17-SEP-16
TCOLI-DRY-MTF-VA	Soil							
Batch R3549957								
WG2385661-1 DUP		L1826440-21						
Coliform Bacteria - Total		146	27	DUP-H	MPN/g	138	65	09-SEP-16
WG2385661-3 DUP		L1826440-1						
WG2385661-2 MB								
Coliform Bacteria - Total			<2		MPN/g		2	09-SEP-16
VFA-WP	Soil							
Batch R3551463								
WG2390164-3 DUP		L1826440-1						
Formic Acid		<300	<300	RPD-NA	mg/kg	N/A	30	16-SEP-16
Acetic Acid		<10	<10	RPD-NA	mg/kg	N/A	30	16-SEP-16
Propionic Acid		<5.0	<5.0	RPD-NA	mg/kg	N/A	30	16-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VFA-WP		Soil						
Batch	R3551463							
WG2390164-3	DUP	L1826440-1						
Butyric Acid		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	16-SEP-16
Isobutyric Acid		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	16-SEP-16
Valeric Acid		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	16-SEP-16
Isovaleric Acid		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	16-SEP-16
Caproic (Hexanoic) Acid		<2.0	<2.0	RPD-NA	mg/kg	N/A	30	16-SEP-16
WG2390164-7	DUP	L1826440-21						
Formic Acid		<300	<300	RPD-NA	mg/kg	N/A	30	16-SEP-16
Acetic Acid		<10	<10	RPD-NA	mg/kg	N/A	30	16-SEP-16
Propionic Acid		<5.0	<5.0	RPD-NA	mg/kg	N/A	30	16-SEP-16
Butyric Acid		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	16-SEP-16
Isobutyric Acid		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	16-SEP-16
Valeric Acid		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	16-SEP-16
Isovaleric Acid		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	16-SEP-16
Caproic (Hexanoic) Acid		<2.0	<2.0	RPD-NA	mg/kg	N/A	30	16-SEP-16
WG2390164-2	LCS							
Formic Acid			127.4		%		70-130	17-SEP-16
Acetic Acid			115.4		%		70-130	17-SEP-16
Propionic Acid			95.8		%		70-130	17-SEP-16
Butyric Acid			96.3		%		70-130	17-SEP-16
Isobutyric Acid			95.9		%		70-130	17-SEP-16
Valeric Acid			90.9		%		70-130	17-SEP-16
Isovaleric Acid			92.1		%		70-130	17-SEP-16
Caproic (Hexanoic) Acid			88.9		%		70-130	17-SEP-16
WG2390164-6	LCS							
Formic Acid			95.1		%		70-130	16-SEP-16
Acetic Acid			117.4		%		70-130	16-SEP-16
Propionic Acid			77.1		%		70-130	16-SEP-16
Butyric Acid			75.6		%		70-130	16-SEP-16
Isobutyric Acid			83.1		%		70-130	16-SEP-16
Valeric Acid			72.6		%		70-130	16-SEP-16
Isovaleric Acid			75.5		%		70-130	16-SEP-16
Caproic (Hexanoic) Acid			78.4		%		70-130	16-SEP-16
WG2390164-1	MB							
Formic Acid			<30		mg/kg		30	16-SEP-16
Acetic Acid			<10		mg/kg		10	16-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VFA-WP	Soil							
Batch	R3551463							
WG2390164-1 MB								
Propionic Acid			<5.0		mg/kg		5	16-SEP-16
Butyric Acid			<1.0		mg/kg		1	16-SEP-16
Isobutyric Acid			<1.0		mg/kg		1	16-SEP-16
Valeric Acid			<1.0		mg/kg		1	16-SEP-16
Isovaleric Acid			<1.0		mg/kg		1	16-SEP-16
Caproic (Hexanoic) Acid			<2.0		mg/kg		2	16-SEP-16
WG2390164-5 MB								
Formic Acid			<30		mg/kg		30	16-SEP-16
Acetic Acid			<10		mg/kg		10	16-SEP-16
Propionic Acid			<5.0		mg/kg		5	16-SEP-16
Butyric Acid			<1.0		mg/kg		1	16-SEP-16
Isobutyric Acid			<1.0		mg/kg		1	16-SEP-16
Valeric Acid			<1.0		mg/kg		1	16-SEP-16
Isovaleric Acid			<1.0		mg/kg		1	16-SEP-16
Caproic (Hexanoic) Acid			<2.0		mg/kg		2	16-SEP-16
WG2390164-4 MS		L1826440-2						
Formic Acid			117.6		%		70-130	18-SEP-16
Acetic Acid			122.8		%		70-130	18-SEP-16
Propionic Acid			118.1		%		70-130	18-SEP-16
Butyric Acid			124.1		%		70-130	18-SEP-16
Isobutyric Acid			125.9		%		70-130	18-SEP-16
Valeric Acid			128.8		%		70-130	18-SEP-16
Isovaleric Acid			125.9		%		70-130	18-SEP-16
Caproic (Hexanoic) Acid			123.8		%		70-130	18-SEP-16
WG2390164-8 MS		L1826440-21						
Formic Acid			124.1		%		70-130	18-SEP-16
Acetic Acid			117.2		%		70-130	18-SEP-16
Propionic Acid			102.5		%		70-130	18-SEP-16
Butyric Acid			118.6		%		70-130	18-SEP-16
Isobutyric Acid			117.6		%		70-130	18-SEP-16
Valeric Acid			112.7		%		70-130	18-SEP-16
Isovaleric Acid			107.4		%		70-130	18-SEP-16
Caproic (Hexanoic) Acid			107.1		%		70-130	18-SEP-16
VH-HSFID-VA	Soil							

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VH-HSFID-VA Soil								
Batch	R3549977							
WG2389563-3	DUP	L1826440-18						
Volatile Hydrocarbons (VH6-10)		<100	<100	RPD-NA	mg/kg	N/A	40	16-SEP-16
WG2389563-2	LCS							
Volatile Hydrocarbons (VH6-10)			109.8		%		70-130	16-SEP-16
WG2390654-2	LCS							
Volatile Hydrocarbons (VH6-10)			102.4		%		70-130	18-SEP-16
WG2389563-1	MB							
Volatile Hydrocarbons (VH6-10)			<100		mg/kg		100	16-SEP-16
WG2390654-1	MB							
Volatile Hydrocarbons (VH6-10)			<100		mg/kg		100	18-SEP-16
VOC-HSMS-VA Soil								
Batch	R3549065							
WG2389563-3	DUP	L1826440-18						
Bromodichloromethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
Bromoform		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
Carbon Tetrachloride		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
Chlorobenzene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
Dibromochloromethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
Chloroethane		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	16-SEP-16
Chloroform		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	16-SEP-16
Chloromethane		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	16-SEP-16
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
1,4-Dichlorobenzene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
Dichloromethane		<0.30	<0.30	RPD-NA	mg/kg	N/A	50	16-SEP-16
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
cis-1,3-Dichloropropylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
trans-1,3-Dichloropropylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
Tetrachloroethylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HSMS-VA								
Soil								
Batch	R3549065							
WG2389563-3	DUP	L1826440-18						
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
Trichloroethylene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	16-SEP-16
Trichlorofluoromethane		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	16-SEP-16
Vinyl Chloride		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	16-SEP-16
WG2389563-2	LCS							
Bromodichloromethane			79.2		%		70-130	16-SEP-16
Bromoform			67.4	LCS-ND	%		70-130	16-SEP-16
Carbon Tetrachloride			89.1		%		70-130	16-SEP-16
Chlorobenzene			96.6		%		70-130	16-SEP-16
Dibromochloromethane			78.4		%		70-130	16-SEP-16
Chloroethane			78.4		%		60-140	16-SEP-16
Chloroform			92.1		%		70-130	16-SEP-16
Chloromethane			66.9		%		60-140	16-SEP-16
1,2-Dichlorobenzene			97.7		%		70-130	16-SEP-16
1,3-Dichlorobenzene			97.0		%		70-130	16-SEP-16
1,4-Dichlorobenzene			98.8		%		70-140	16-SEP-16
1,1-Dichloroethane			88.2		%		70-130	16-SEP-16
1,2-Dichloroethane			91.3		%		70-130	16-SEP-16
1,1-Dichloroethylene			87.5		%		70-130	16-SEP-16
cis-1,2-Dichloroethylene			93.8		%		70-130	16-SEP-16
trans-1,2-Dichloroethylene			90.8		%		70-130	16-SEP-16
Dichloromethane			92.7		%		60-140	16-SEP-16
1,2-Dichloropropane			89.0		%		70-130	16-SEP-16
cis-1,3-Dichloropropylene			77.3		%		70-130	16-SEP-16
trans-1,3-Dichloropropylene			69.4	LCS-ND	%		70-130	16-SEP-16
1,1,1,2-Tetrachloroethane			85.1		%		70-130	16-SEP-16
1,1,2,2-Tetrachloroethane			82.3		%		70-130	16-SEP-16
Tetrachloroethylene			103.0		%		70-130	16-SEP-16
1,1,1-Trichloroethane			88.8		%		70-130	16-SEP-16
1,1,2-Trichloroethane			90.6		%		70-130	16-SEP-16
Trichloroethylene			98.2		%		70-130	16-SEP-16
Trichlorofluoromethane			91.0		%		60-140	16-SEP-16
Vinyl Chloride			69.7		%		60-140	16-SEP-16
WG2390654-2								

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HSMS-VA	Soil							
Batch	R3549065							
WG2390654-2	LCS							
Bromodichloromethane			83.8		%		70-130	18-SEP-16
Bromoform			65.2	LCS-ND	%		70-130	18-SEP-16
Carbon Tetrachloride			102.5		%		70-130	18-SEP-16
Chlorobenzene			99.8		%		70-130	18-SEP-16
Dibromochloromethane			82.4		%		70-130	18-SEP-16
Chloroethane			80.8		%		60-140	18-SEP-16
Chloroform			102.6		%		70-130	18-SEP-16
Chloromethane			67.4		%		60-140	18-SEP-16
1,2-Dichlorobenzene			99.4		%		70-130	18-SEP-16
1,3-Dichlorobenzene			96.9		%		70-130	18-SEP-16
1,4-Dichlorobenzene			95.3		%		70-140	18-SEP-16
1,1-Dichloroethane			95.4		%		70-130	18-SEP-16
1,2-Dichloroethane			99.8		%		70-130	18-SEP-16
1,1-Dichloroethylene			96.7		%		70-130	18-SEP-16
cis-1,2-Dichloroethylene			98.7		%		70-130	18-SEP-16
trans-1,2-Dichloroethylene			91.0		%		70-130	18-SEP-16
Dichloromethane			98.7		%		60-140	18-SEP-16
1,2-Dichloropropane			90.8		%		70-130	18-SEP-16
cis-1,3-Dichloropropylene			50.1	LCS-ND	%		70-130	18-SEP-16
trans-1,3-Dichloropropylene			38.6	LCS-ND	%		70-130	18-SEP-16
1,1,1,2-Tetrachloroethane			92.1		%		70-130	18-SEP-16
1,1,2,2-Tetrachloroethane			84.3		%		70-130	18-SEP-16
Tetrachloroethylene			109.0		%		70-130	18-SEP-16
1,1,1-Trichloroethane			97.3		%		70-130	18-SEP-16
1,1,2-Trichloroethane			94.0		%		70-130	18-SEP-16
Trichloroethylene			101.4		%		70-130	18-SEP-16
Trichlorofluoromethane			105.8		%		60-140	18-SEP-16
Vinyl Chloride			70.9		%		60-140	18-SEP-16
WG2389563-1	MB							
Bromodichloromethane			<0.050		mg/kg		0.05	16-SEP-16
Bromoform			<0.050		mg/kg		0.05	16-SEP-16
Carbon Tetrachloride			<0.050		mg/kg		0.05	16-SEP-16
Chlorobenzene			<0.050		mg/kg		0.05	16-SEP-16
Dibromochloromethane			<0.050		mg/kg		0.05	16-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HSMS-VA	Soil							
Batch	R3549065							
WG2389563-1 MB								
Chloroethane			<0.10		mg/kg		0.1	16-SEP-16
Chloroform			<0.10		mg/kg		0.1	16-SEP-16
Chloromethane			<0.10		mg/kg		0.1	16-SEP-16
1,2-Dichlorobenzene			<0.050		mg/kg		0.05	16-SEP-16
1,3-Dichlorobenzene			<0.050		mg/kg		0.05	16-SEP-16
1,4-Dichlorobenzene			<0.050		mg/kg		0.05	16-SEP-16
1,1-Dichloroethane			<0.050		mg/kg		0.05	16-SEP-16
1,2-Dichloroethane			<0.050		mg/kg		0.05	16-SEP-16
1,1-Dichloroethylene			<0.050		mg/kg		0.05	16-SEP-16
cis-1,2-Dichloroethylene			<0.050		mg/kg		0.05	16-SEP-16
trans-1,2-Dichloroethylene			<0.050		mg/kg		0.05	16-SEP-16
Dichloromethane			<0.30		mg/kg		0.3	16-SEP-16
1,2-Dichloropropane			<0.050		mg/kg		0.05	16-SEP-16
cis-1,3-Dichloropropylene			<0.050		mg/kg		0.05	16-SEP-16
trans-1,3-Dichloropropylene			<0.050		mg/kg		0.05	16-SEP-16
1,1,1,2-Tetrachloroethane			<0.050		mg/kg		0.05	16-SEP-16
1,1,2,2-Tetrachloroethane			<0.050		mg/kg		0.05	16-SEP-16
Tetrachloroethylene			<0.050		mg/kg		0.05	16-SEP-16
1,1,1-Trichloroethane			<0.050		mg/kg		0.05	16-SEP-16
1,1,2-Trichloroethane			<0.050		mg/kg		0.05	16-SEP-16
Trichloroethylene			<0.010		mg/kg		0.01	16-SEP-16
Trichlorofluoromethane			<0.10		mg/kg		0.1	16-SEP-16
Vinyl Chloride			<0.10		mg/kg		0.1	16-SEP-16
WG2390654-1 MB								
Bromodichloromethane			<0.050		mg/kg		0.05	18-SEP-16
Bromoform			<0.050		mg/kg		0.05	18-SEP-16
Carbon Tetrachloride			<0.050		mg/kg		0.05	18-SEP-16
Chlorobenzene			<0.050		mg/kg		0.05	18-SEP-16
Dibromochloromethane			<0.050		mg/kg		0.05	18-SEP-16
Chloroethane			<0.10		mg/kg		0.1	18-SEP-16
Chloroform			<0.10		mg/kg		0.1	18-SEP-16
Chloromethane			<0.10		mg/kg		0.1	18-SEP-16
1,2-Dichlorobenzene			<0.050		mg/kg		0.05	18-SEP-16
1,3-Dichlorobenzene			<0.050		mg/kg		0.05	18-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HSMS-VA		Soil						
Batch R3549065								
WG2390654-1 MB								
1,4-Dichlorobenzene			<0.050		mg/kg		0.05	18-SEP-16
1,1-Dichloroethane			<0.050		mg/kg		0.05	18-SEP-16
1,2-Dichloroethane			<0.050		mg/kg		0.05	18-SEP-16
1,1-Dichloroethylene			<0.050		mg/kg		0.05	18-SEP-16
cis-1,2-Dichloroethylene			<0.050		mg/kg		0.05	18-SEP-16
trans-1,2-Dichloroethylene			<0.050		mg/kg		0.05	18-SEP-16
Dichloromethane			<0.30		mg/kg		0.3	18-SEP-16
1,2-Dichloropropane			<0.050		mg/kg		0.05	18-SEP-16
cis-1,3-Dichloropropylene			<0.050		mg/kg		0.05	18-SEP-16
trans-1,3-Dichloropropylene			<0.050		mg/kg		0.05	18-SEP-16
1,1,1,2-Tetrachloroethane			<0.050		mg/kg		0.05	18-SEP-16
1,1,2,2-Tetrachloroethane			<0.050		mg/kg		0.05	18-SEP-16
Tetrachloroethylene			<0.050		mg/kg		0.05	18-SEP-16
1,1,1-Trichloroethane			<0.050		mg/kg		0.05	18-SEP-16
1,1,2-Trichloroethane			<0.050		mg/kg		0.05	18-SEP-16
Trichloroethylene			<0.010		mg/kg		0.01	18-SEP-16
Trichlorofluoromethane			<0.10		mg/kg		0.1	18-SEP-16
Vinyl Chloride			<0.10		mg/kg		0.1	18-SEP-16
VOC-M2-HSMS-VA		Soil						
Batch R3549065								
WG2389563-3 DUP		L1826440-18						
Acetone		<4.0	<4.0	RPD-NA	mg/kg	N/A	50	16-SEP-16
Carbon Disulfide		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
2-Hexanone		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
Methyl ethyl ketone (MEK)		<20	<20	RPD-NA	mg/kg	N/A	50	16-SEP-16
Methyl isobutyl ketone (MIBK)		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	16-SEP-16
n-Heptane (nC7)		0.063	0.063		mg/kg	0.1	50	16-SEP-16
n-Octane (nC8)		0.098	0.101		mg/kg	2.6	50	16-SEP-16
WG2389563-2 LCS								
Acetone			72.5		%		70-130	16-SEP-16
Carbon Disulfide			71.2		%		70-130	16-SEP-16
2-Hexanone			87.9		%		70-130	16-SEP-16
Methyl ethyl ketone (MEK)			87.2		%		70-130	16-SEP-16
Methyl isobutyl ketone (MIBK)			96.8		%		70-130	16-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-M2-HSMS-VA		Soil						
Batch	R3549065							
WG2389563-2	LCS							
n-Heptane (nC7)			84.4		%		70-130	16-SEP-16
n-Octane (nC8)			86.5		%		70-130	16-SEP-16
WG2390654-2	LCS							
Acetone			25.4	LCS-ND	%		70-130	18-SEP-16
Carbon Disulfide			91.4		%		70-130	19-SEP-16
2-Hexanone			100.3		%		70-130	19-SEP-16
Methyl ethyl ketone (MEK)			2.2	LCS-ND	%		70-130	18-SEP-16
Methyl isobutyl ketone (MIBK)			111.5		%		70-130	19-SEP-16
n-Heptane (nC7)			101.3		%		70-130	19-SEP-16
n-Octane (nC8)			97.7		%		70-130	19-SEP-16
WG2389563-1	MB							
Acetone			<4.0		mg/kg		4	16-SEP-16
Carbon Disulfide			<0.050		mg/kg		0.05	16-SEP-16
2-Hexanone			<0.050		mg/kg		0.05	16-SEP-16
Methyl ethyl ketone (MEK)			<20		mg/kg		20	16-SEP-16
Methyl isobutyl ketone (MIBK)			<0.050		mg/kg		0.05	16-SEP-16
n-Heptane (nC7)			<0.050		mg/kg		0.05	16-SEP-16
n-Octane (nC8)			<0.050		mg/kg		0.05	16-SEP-16
WG2390654-1	MB							
Acetone			<4.0		mg/kg		4	18-SEP-16
Carbon Disulfide			<0.050		mg/kg		0.05	18-SEP-16
2-Hexanone			<0.050		mg/kg		0.05	18-SEP-16
Methyl ethyl ketone (MEK)			<20		mg/kg		20	18-SEP-16
Methyl isobutyl ketone (MIBK)			<0.050		mg/kg		0.05	18-SEP-16
n-Heptane (nC7)			<0.050		mg/kg		0.05	18-SEP-16
n-Octane (nC8)			<0.050		mg/kg		0.05	18-SEP-16
VOC-SOLVENTS-CL		Soil						
Batch	R3549777							
WG2389093-2	DUP	L1826440-1						
Ethyl ether		<10	<10	RPD-NA	mg/kg	N/A	50	15-SEP-16
WG2389093-5	DUP	L1826440-21						
Ethyl ether		<10	<10	RPD-NA	mg/kg	N/A	50	16-SEP-16
WG2389093-3	LCS							
Ethyl ether			122.6		%		50-150	15-SEP-16
WG2389093-6	LCS							

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-SOLVENTS-CL		Soil						
Batch	R3549777							
WG2389093-6	LCS							
Ethyl ether			123.7		%		50-150	16-SEP-16
WG2389093-1	MB							
Ethyl ether			<10		mg/kg		10	15-SEP-16
Surrogate: 1,2-Dichloroethane d4			106.3		%		70-130	15-SEP-16
Surrogate: Toluene d8			100.3		%		70-130	15-SEP-16
Surrogate: 4-Bromofluorobenzene			99.1		%		70-130	15-SEP-16
WG2389093-4	MB							
Ethyl ether			<10		mg/kg		10	15-SEP-16
Surrogate: 1,2-Dichloroethane d4			121.4		%		70-130	15-SEP-16
Surrogate: Toluene d8			103.8		%		70-130	15-SEP-16
Surrogate: 4-Bromofluorobenzene			92.2		%		70-130	15-SEP-16
VOC7-L-HSMS-VA		Soil						
Batch	R3549065							
WG2389563-3	DUP	L1826440-18						
Benzene		0.0160	0.0181		mg/kg	12	40	16-SEP-16
Ethylbenzene		0.031	0.032		mg/kg	2.0	40	16-SEP-16
Methyl t-butyl ether (MTBE)		<0.20	<0.20	RPD-NA	mg/kg	N/A	40	16-SEP-16
Styrene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	16-SEP-16
Toluene		0.087	0.090		mg/kg	4.2	40	16-SEP-16
meta- & para-Xylene		0.175	0.180		mg/kg	2.6	40	16-SEP-16
ortho-Xylene		0.164	0.172		mg/kg	4.7	40	16-SEP-16
WG2389563-2	LCS							
Benzene			93.5		%		70-130	16-SEP-16
Ethylbenzene			94.6		%		70-130	16-SEP-16
Methyl t-butyl ether (MTBE)			96.2		%		70-130	16-SEP-16
Styrene			88.9		%		70-130	16-SEP-16
Toluene			95.1		%		70-130	16-SEP-16
meta- & para-Xylene			95.9		%		70-130	16-SEP-16
ortho-Xylene			93.8		%		70-130	16-SEP-16
WG2390654-2	LCS							
Benzene			98.6		%		70-130	18-SEP-16
Ethylbenzene			95.3		%		70-130	18-SEP-16
Methyl t-butyl ether (MTBE)			97.0		%		70-130	18-SEP-16
Styrene			84.3		%		70-130	18-SEP-16
Toluene			96.6		%		70-130	18-SEP-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC7-L-HSMS-VA	Soil							
Batch	R3549065							
WG2390654-2	LCS							
meta- & para-Xylene			98.1		%		70-130	18-SEP-16
ortho-Xylene			94.1		%		70-130	18-SEP-16
WG2389563-1	MB							
Benzene			<0.0050		mg/kg		0.005	16-SEP-16
Ethylbenzene			<0.015		mg/kg		0.015	16-SEP-16
Methyl t-butyl ether (MTBE)			<0.20		mg/kg		0.2	16-SEP-16
Styrene			<0.050		mg/kg		0.05	16-SEP-16
Toluene			<0.050		mg/kg		0.05	16-SEP-16
meta- & para-Xylene			<0.050		mg/kg		0.05	16-SEP-16
ortho-Xylene			<0.050		mg/kg		0.05	16-SEP-16
WG2390654-1	MB							
Benzene			<0.0050		mg/kg		0.005	18-SEP-16
Ethylbenzene			<0.015		mg/kg		0.015	18-SEP-16
Methyl t-butyl ether (MTBE)			<0.20		mg/kg		0.2	18-SEP-16
Styrene			<0.050		mg/kg		0.05	18-SEP-16
Toluene			<0.050		mg/kg		0.05	18-SEP-16
meta- & para-Xylene			<0.050		mg/kg		0.05	18-SEP-16
ortho-Xylene			<0.050		mg/kg		0.05	18-SEP-16

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
B	Method Blank exceeds ALS DQO. All associated sample results are at least 5 times greater than blank levels and are considered reliable.
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.
J	Duplicate results and limits are expressed in terms of absolute difference.
LCS-ND	Lab Control Sample recovery was slightly outside ALS DQO. Reported non-detect results for associated samples were unaffected.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

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Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Saturated Paste Extractables							
Ammonia (as N) in Soil (Paste) by Fluor.							
	1	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	2	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	3	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	4	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	5	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	6	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	7	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	8	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	9	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	10	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	11	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	12	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	13	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	14	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	15	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	16	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	17	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	18	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	19	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	20	07-SEP-16	15-SEP-16 13:30	3	8	days	EHTL
	21	07-SEP-16	15-SEP-16 15:10	3	8	days	EHTL

Bacteriological Tests

E. coli by MPN

	1	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	2	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	3	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	4	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	5	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	6	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	7	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	8	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	9	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	10	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	11	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	12	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	13	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	14	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	15	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	16	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	17	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	18	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	19	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	20	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	21	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR

Fecal coliform by MPN

	1	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	2	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	3	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	4	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	5	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	6	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	7	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	8	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	9	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	10	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	11	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	12	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR

Quality Control Report

Workorder: L1826440

Report Date: 19-OCT-16

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Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Bacteriological Tests							
Fecal coliform by MPN							
	13	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	14	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	15	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	16	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	17	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	18	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	19	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	20	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	21	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
Total coliform by MPN							
	1	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	2	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	3	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	4	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	5	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	6	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	7	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	8	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	9	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	10	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	11	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	12	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	13	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	14	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	15	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	16	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	17	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	18	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	19	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	20	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
	21	07-SEP-16	09-SEP-16 15:45	48	52	hours	EHTR
TCLP Metals							
Mercury by CVAFS (TCLP)							
	11	07-SEP-16	18-OCT-16 17:27	28	41	days	EHT
	20	07-SEP-16	18-OCT-16 17:27	28	41	days	EHT

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
 EHTR: Exceeded ALS recommended hold time prior to sample receipt.
 EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
 EHT: Exceeded ALS recommended hold time prior to analysis.
 Rec. HT: ALS recommended hold time (see units).

Notes*:

Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
 Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1826440 were received on 09-SEP-16 12:50.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

Quality Control Report

Workorder: L1826440

Report Date: 19-OCT-16

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The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Quality Control Sample Batch Report

Analysis Information

Workorder: **1626358**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: Illicit Drugs by LC/MS
Batch: LCMS/4606 (HBN: 177031)
Analyzed By: Thomas Bosch

Blank

LMB: 519225 Analyzed: 09/21/2016 00:00 Units: ug/sample			
Analyte	Result	MDL	RL
Methamphetamine	ND	0.03	0.100
Cocaine	ND	0.03	0.100
Heroin	ND	0.039	0.100
Amphetamine	ND	0.033	0.100
pseudoephedrine/ephedrine	ND	NA	0.100
MDMA(ecstasy)	ND	0.03	0.100
Lysergic acid diethylamide	ND	0.032	0.100

LMB: 519228 Analyzed: 09/21/2016 00:00 Units: ug/sample			
Analyte	Result	MDL	RL
Methamphetamine	ND	0.03	0.100
Cocaine	ND	0.03	0.100
Heroin	ND	0.039	0.100
Amphetamine	ND	0.033	0.100
pseudoephedrine/ephedrine	ND	NA	0.100
MDMA(ecstasy)	ND	0.03	0.100
Lysergic acid diethylamide	ND	0.032	0.100

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 519226 Analyzed: 09/21/2016 00:00 Dilution: 1 Units: ug/sample					LCSD: 519227 Analyzed: 09/21/2016 00:00 Dilution: 1 Units: ug/sample				
Analyte	Result	Target	% Rec	QC Limits	Result	% Rec	RPD	QC Limits	
Methamphetamine	10.8	10.0	108	85.4 120.1	10.7	107	1.49	0.0	20.0
Cocaine	10.8	10.0	108	100.2 121.8	10.9	109	1.01	0.0	20.0
Heroin	10.7	10.0	107	80.8 116.3	10.5	105	2.45	0.0	20.0
Amphetamine	11.3	10.0	* 113	98.0 111.6	10.8	108	4.28	0.0	20.0
pseudoephedrine/ephedrine	11.5	10.0	115	80.0 120.0	10.9	109	4.86	0.0	20.0
MDMA(ecstasy)	11.0	10.0	110	92.4 121.6	11.1	111	0.389	0.0	20.0
Lysergic acid diethylamide	10.6	10.0	106	80.0 120.0	10.4	104	2.06	0.0	20.0

LCS: 519229 Analyzed: 09/21/2016 00:00 Dilution: 1 Units: ug/sample					LCSD: 519230 Analyzed: 09/21/2016 00:00 Dilution: 1 Units: ug/sample				
Analyte	Result	Target	% Rec	QC Limits	Result	% Rec	RPD	QC Limits	
Methamphetamine	10.3	10.0	103	85.4 120.1	10.3	103	0.349	0.0	20.0



Quality Control Sample Batch Report

Analysis Information

Workorder: **1626358**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: Illicit Drugs by LC/MS
Batch: LCMS/4606 (HBN: 177031)
Analyzed By: Thomas Bosch

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 519229 Analyzed: 09/21/2016 00:00 Dilution: 1 Units: ug/sample						LCSD: 519230 Analyzed: 09/21/2016 00:00 Dilution: 1 Units: ug/sample				
Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Cocaine	10.8	10.0	108	100.2	121.8	10.7	107	0.158	0.0	20.0
Heroin	11.0	10.0	110	80.8	116.3	10.6	106	3.58	0.0	20.0
Amphetamine	10.3	10.0	103	98.0	111.6	10.2	102	0.322	0.0	20.0
pseudoephedrine/ephedrine	10.6	10.0	106	80.0	120.0	10.7	107	0.667	0.0	20.0
MDMA(ecstasy)	10.5	10.0	105	92.4	121.6	10.7	107	1.95	0.0	20.0
Lysergic acid diethylamide	10.6	10.0	106	80.0	120.0	11.0	110	4.38	0.0	20.0

Comments

The recovery for Amphetamine (519226) was outside of QC acceptance limits (biased high). As there were no positive results for this analyte, no further action was taken.

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Thomas Bosch 09/22/2016 14:20	/S/ Christopher Winter 09/23/2016 00:09

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- - Sample and Matrix Duplicate less than 5 times the reporting limit
- - Result is above the calibration range

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable



ANALYTICAL REPORT

Report Date: September 23, 2016

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CANADA

Phone: (604) 253-4188

E-mail: selam.worku@ALSGlobal.com

Workorder: **34-1626359**

Project ID: L1826440 091616

Purchase Order: L1826440

Project Manager Jessica Helland

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
16-TP101	1626359001	09/07/16	09/16/16	L1826440
16-TP102	1626359002	09/07/16	09/16/16	L1826440
16-TP103	1626359003	09/07/16	09/16/16	L1826440
16-TP104	1626359004	09/07/16	09/16/16	L1826440
16-TP105	1626359005	09/07/16	09/16/16	L1826440
16-TP106	1626359006	09/07/16	09/16/16	L1826440
16-TP107	1626359007	09/07/16	09/16/16	L1826440
16-TP108	1626359008	09/07/16	09/16/16	L1826440
16-TP109	1626359009	09/07/16	09/16/16	L1826440
16-TP110	1626359010	09/07/16	09/16/16	L1826440
16-TP111-0.1M	1626359011	09/07/16	09/16/16	L1826440
16-TP112-0.1M	1626359012	09/07/16	09/16/16	L1826440
16-TP113-0.1M	1626359013	09/07/16	09/16/16	L1826440
16-TP114-0.1M	1626359014	09/07/16	09/16/16	L1826440
16-TP115-0.1M	1626359015	09/07/16	09/16/16	L1826440
16-TP116-0.1M	1626359016	09/07/16	09/16/16	L1826440
16-TP117-0.1M	1626359017	09/07/16	09/16/16	L1826440
16-TP118-0.1M	1626359018	09/07/16	09/16/16	L1826440
16-TP119-0.1M	1626359019	09/07/16	09/16/16	L1826440
16-TP120-0.1M	1626359020	09/07/16	09/16/16	L1826440
16-TP121-0.1M	1626359021	09/07/16	09/16/16	L1826440

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ANALYTICAL REPORT

Workorder: **34-1626359**

Client: ALS Environmental

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP101		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359001		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.0101 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 88.6
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/22/2016 23:11		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.6	5.6	1		

Sample ID: 16-TP102		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359002		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.0339 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 88.8
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/22/2016 23:38		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.6	5.6	1		

Sample ID: 16-TP103		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359003		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.1363 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 85.5
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 00:05		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.8	5.8	1		

Sample ID: 16-TP104		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359004		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.0357 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 89.2
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 00:32		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.6	5.6	1		



ANALYTICAL REPORT

Workorder: **34-1626359**

Client: ALS Environmental

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP105		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359005		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.0027 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 87.6
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 00:59		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.7	5.7	1		

Sample ID: 16-TP106		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359006		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.1658 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 87.1
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 02:19		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.7	5.7	1		

Sample ID: 16-TP107		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359007		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.1375 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 91.6
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 02:46		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.5	5.5	1		

Sample ID: 16-TP108		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359008		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.0348 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 85.6
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 03:13		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.8	5.8	1		



ANALYTICAL REPORT

Workorder: **34-1626359**

Client: ALS Environmental

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP109		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359009		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.1674 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 92
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 03:40		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.4	5.4	1		

Sample ID: 16-TP110		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359010		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.1879 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 90
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 04:07		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.6	5.6	1		

Sample ID: 16-TP111-0.1M		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359011		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.0415 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 91.5
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 04:33		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.5	5.5	1		

Sample ID: 16-TP112-0.1M		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359012		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.1108 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 89.6
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 05:00		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.6	5.6	1		



ANALYTICAL REPORT

Workorder: **34-1626359**

Client: ALS Environmental

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP113-0.1M		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359013		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.0867 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 86.9
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 05:27		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.8	5.8	1		

Sample ID: 16-TP114-0.1M		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359014		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.0279 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 84.2
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 05:54		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.9	5.9	1		

Sample ID: 16-TP115-0.1M		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359015		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		Weight/Volume	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.1227 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 85.8
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 06:21		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.8	5.8	1		

Sample ID: 16-TP116-0.1M		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359016		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.1123 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 91.6
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 07:41		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.5	5.5	1		



ANALYTICAL REPORT

Workorder: **34-1626359**

Client: ALS Environmental

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP117-0.1M		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359017		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		Weight/Volume	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.0343 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 89.5
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 08:08		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.6	5.6	1		

Sample ID: 16-TP118-0.1M		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359018		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.0091 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 89.7
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 08:35		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.6	5.6	1		

Sample ID: 16-TP119-0.1M		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359019		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.031 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 85.1
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 09:02		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.9	5.9	1		

Sample ID: 16-TP120-0.1M		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359020		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		Weight/Volume	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.0057 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 88.9
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 09:29		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.6	5.6	1		



ANALYTICAL REPORT

Workorder: **34-1626359**

Client: ALS Environmental

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP121-0.1M		Sampling Site: L1826440		Collected: 09/07/2016	
Lab ID: 1626359021		Media: Bulk		Received: 09/16/2016	
Matrix: Soil/Solid/Sediment		Sampling Parameter: NA			
Analysis Method - EPA 300.0/SW 9056					
Preparation: EPA 300.0/SW 9056, Soil Prep		<u>Weight/Volume</u>	Analysis: EPA 300.0/SW 9056, Soil		Instrument ID: IC06
Batch: EIC/1713 (HBN: 177091)		Initial: 1.1214 grams	Batch: EIC/1715 (HBN: 177097)		Percent Solid: 87.1
Prepared: 09/22/2016		Final: 10 mL	Analyzed: 09/23/2016 09:56		Report Basis: Dry
Analyte	Result (ug/g)	RL (ug/g)	Dilution	Qual	
Iodide	<5.7	5.7	1		

Comments

Quality Control: EPA 300.0/SW 9056 - (HBN: 177097)

MS/MSD recoveries for iodide were above the standard limit of 120% due to positive matrix interference.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA 300.0/SW 9056	/S/ Nadja Borges 09/23/2016 16:29	/S/ Thomas T. McKay 09/23/2016 16:57
Solids/Moisture Determination	/S/ Ilse J. Ovalle 09/22/2016 05:54	/S/ Jeff Ward 09/22/2016 11:31

Laboratory Contact Information

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ANALYTICAL REPORT

Workorder: **34-1626359**

Client: ALS Environmental

Project Manager: Jessica Helland

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ANAB (DoD ELAP)	ADE-1420	http://www.anab.org/accredited-organizations/
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdwlabservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
	Washington	C596-16	http://www.ecy.wa.gov/programs/eap/labs/index.html
	Kansas	E-10416	http://www.kdheks.gov/lipo/index.html
Industrial Hygiene	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
	Washington	C596-16	http://www.ecy.wa.gov/programs/eap/labs/index.html
Lead Testing:			
CPSC	ANAB (ISO 17025, CPSC)	ADE-1420	http://www.anab.org/accredited-organizations/
Soil, Dust, Paint ,Air	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aiclasscorp.com

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.



ANALYTICAL REPORT

Report Date: September 23, 2016

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E-mail: selam.worku@ALSGlobal.com

Workorder: **34-1626358**

Client Project ID: L1826440 091616

Purchase Order: L1826440

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP101		Collected: 09/07/2016
Lab ID: 1626358001	Sampling Location: L1826440	Received: 09/16/2016
Method: Illicit Drugs by LC/MS		Media: Bulk
Sampling Parameter: Volume Not Provided		Analyzed: 09/21/2016
Analyte	Result (ug/g)	RL (ug/g)
Methamphetamine	<0.10	0.10
Cocaine	<0.10	0.10
Heroin	<0.10	0.10
Amphetamine	<0.10	0.10
pseudoephedrine/ephedrine	<0.10	0.10
MDMA(ecstasy)	<0.10	0.10
Lysergic acid diethylamide	<0.10	0.10

Sample ID: 16-TP102		Collected: 09/07/2016
Lab ID: 1626358002	Sampling Location: L1826440	Received: 09/16/2016
Method: Illicit Drugs by LC/MS		Media: Bulk
Sampling Parameter: Volume Not Provided		Analyzed: 09/21/2016
Analyte	Result (ug/g)	RL (ug/g)
Methamphetamine	<0.10	0.10
Cocaine	<0.10	0.10
Heroin	<0.10	0.10
Amphetamine	<0.10	0.10
pseudoephedrine/ephedrine	<0.10	0.10
MDMA(ecstasy)	<0.10	0.10
Lysergic acid diethylamide	<0.10	0.10

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ANALYTICAL REPORT

Workorder: **34-1626358**

Client Project ID: L1826440 091616

Purchase Order: L1826440

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP103		Collected: 09/07/2016	
Lab ID: 1626358003		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP104		Collected: 09/07/2016	
Lab ID: 1626358004		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	0.15	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP105		Collected: 09/07/2016	
Lab ID: 1626358005		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	0.40	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	



ANALYTICAL REPORT

Workorder: **34-1626358**

Client Project ID: L1826440 091616

Purchase Order: L1826440

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP106		Collected: 09/07/2016	
Lab ID: 1626358006		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP107		Collected: 09/07/2016	
Lab ID: 1626358007		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP108		Collected: 09/07/2016	
Lab ID: 1626358008		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	



ANALYTICAL REPORT

Workorder: **34-1626358**

Client Project ID: L1826440 091616

Purchase Order: L1826440

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP109		Collected: 09/07/2016	
Lab ID: 1626358009		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP110		Collected: 09/07/2016	
Lab ID: 1626358010		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP111-0.1M		Collected: 09/07/2016	
Lab ID: 1626358011		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	



ANALYTICAL REPORT

Workorder: **34-1626358**

Client Project ID: L1826440 091616

Purchase Order: L1826440

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP112-0.1M		Collected: 09/07/2016	
Lab ID: 1626358012		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP113-0.1M		Collected: 09/07/2016	
Lab ID: 1626358013		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP114-0.1M		Collected: 09/07/2016	
Lab ID: 1626358014		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	



ANALYTICAL REPORT

Workorder: **34-1626358**

Client Project ID: L1826440 091616

Purchase Order: L1826440

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP115-0.1M		Collected: 09/07/2016	
Lab ID: 1626358015		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP116-0.1M		Collected: 09/07/2016	
Lab ID: 1626358016		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP117-0.1M		Collected: 09/07/2016	
Lab ID: 1626358017		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	



ANALYTICAL REPORT

Workorder: **34-1626358**

Client Project ID: L1826440 091616

Purchase Order: L1826440

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP118-0.1M		Collected: 09/07/2016	
Lab ID: 1626358018		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP119-0.1M		Collected: 09/07/2016	
Lab ID: 1626358019		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Sample ID: 16-TP120-0.1M		Collected: 09/07/2016	
Lab ID: 1626358020		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	



ANALYTICAL REPORT

Workorder: **34-1626358**

Client Project ID: L1826440 091616

Purchase Order: L1826440

Project Manager: Jessica Helland

Analytical Results

Sample ID: 16-TP121-0.1M		Collected: 09/07/2016	
Lab ID: 1626358021		Received: 09/16/2016	
Method: Illicit Drugs by LC/MS		Media: Bulk	Analyzed: 09/21/2016
Sampling Parameter: Volume Not Provided			
Analyte	Result (ug/g)	RL (ug/g)	
Methamphetamine	<0.10	0.10	
Cocaine	<0.10	0.10	
Heroin	<0.10	0.10	
Amphetamine	<0.10	0.10	
pseudoephedrine/ephedrine	<0.10	0.10	
MDMA(ecstasy)	<0.10	0.10	
Lysergic acid diethylamide	<0.10	0.10	

Comments

Quality Control: Illicit Drugs by LC/MS - (HBN: 177031)

The recovery for Amphetamine (519226) was outside of QC acceptance limits (biased high). As there were no positive results for this analyte, no further action was taken.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
Illicit Drugs by LC/MS	/S/ Thomas Bosch 09/22/2016 14:20	/S/ Christopher Winter 09/23/2016 00:09

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com



ANALYTICAL REPORT

Workorder: **34-1626358**

Client Project ID: L1826440 091616

Purchase Order: L1826440

Project Manager: Jessica Helland

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ANAB (DoD ELAP)	ADE-1420	http://www.anab.org/accredited-organizations/
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdwlabservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
	Washington	C596-16	http://www.ecy.wa.gov/programs/eap/labs/index.html
	Kansas	E-10416	http://www.kdheks.gov/lipo/index.html
Industrial Hygiene	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
	Washington	C596-16	http://www.ecy.wa.gov/programs/eap/labs/index.html
Lead Testing:			
CPSC	ANAB (ISO 17025, CPSC)	ADE-1420	http://www.anab.org/accredited-organizations/
Soil, Dust, Paint ,Air	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aiclasscorp.com

Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.

LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.

ND = Not Detected, Testing result not detected above the LOD or LOQ.

NA = Not Applicable.

** No result could be reported, see sample comments for details.

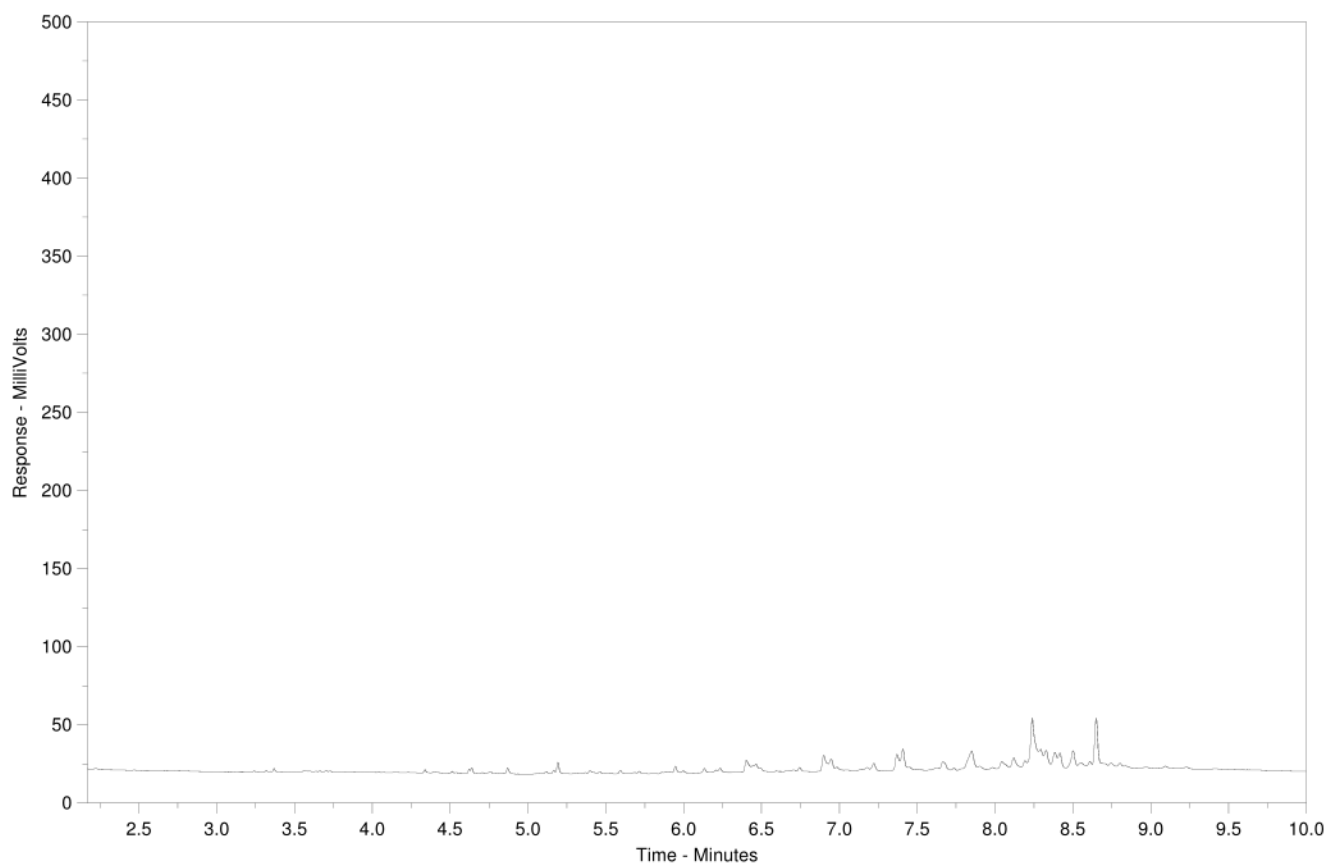
< This testing result is less than the numerical value.

() This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-1
Client Sample ID: 16-TP101



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

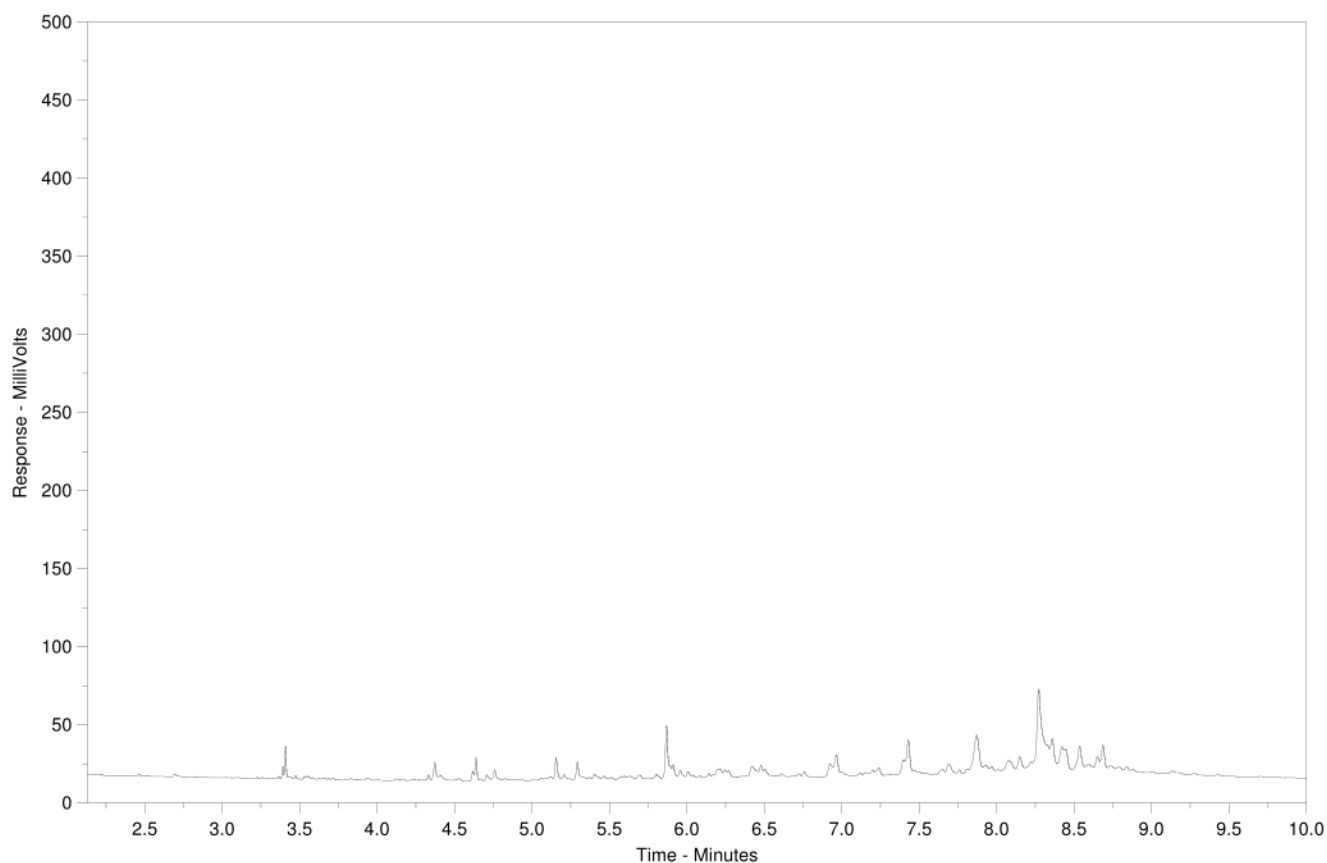
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-2
Client Sample ID: 16-TP102



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

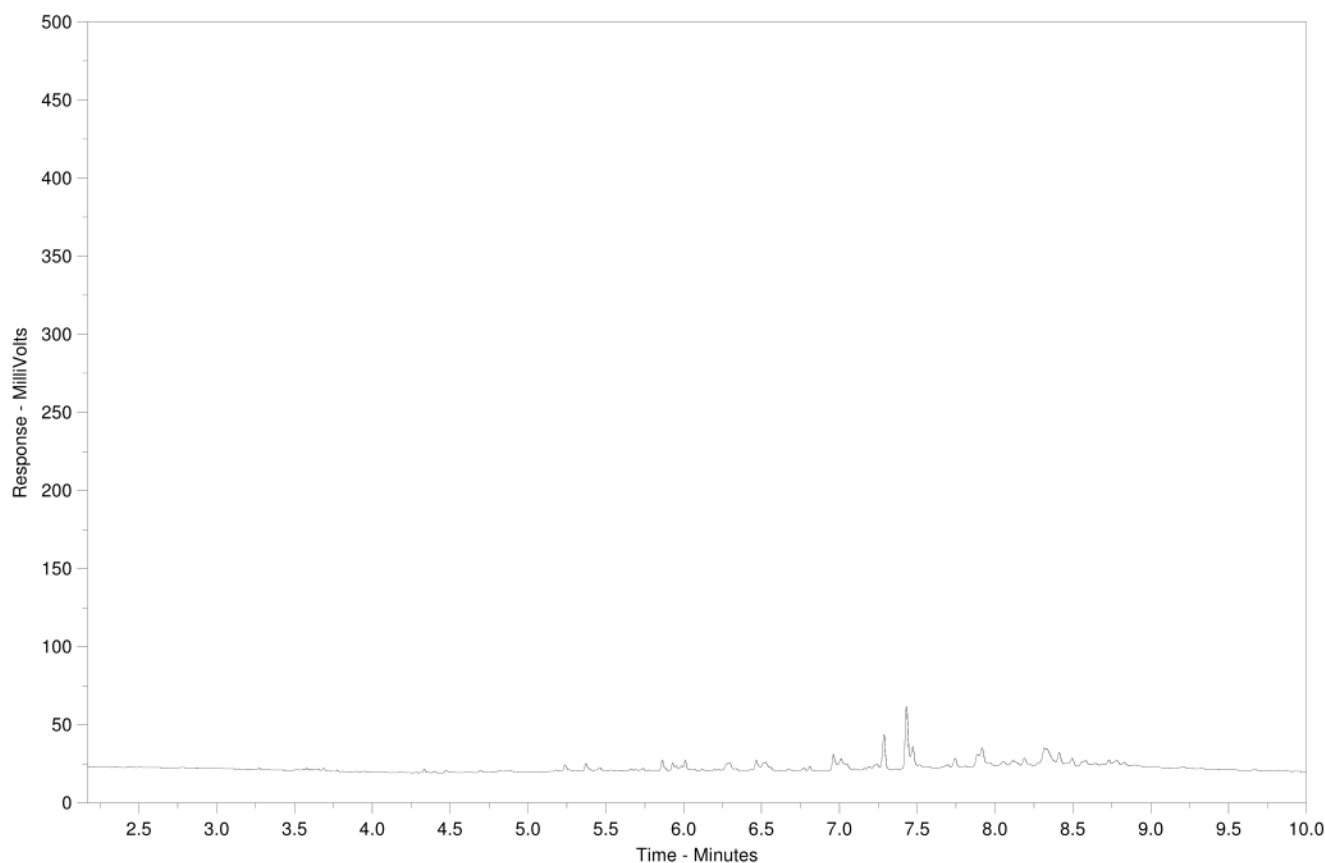
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-3
Client Sample ID: 16-TP103



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

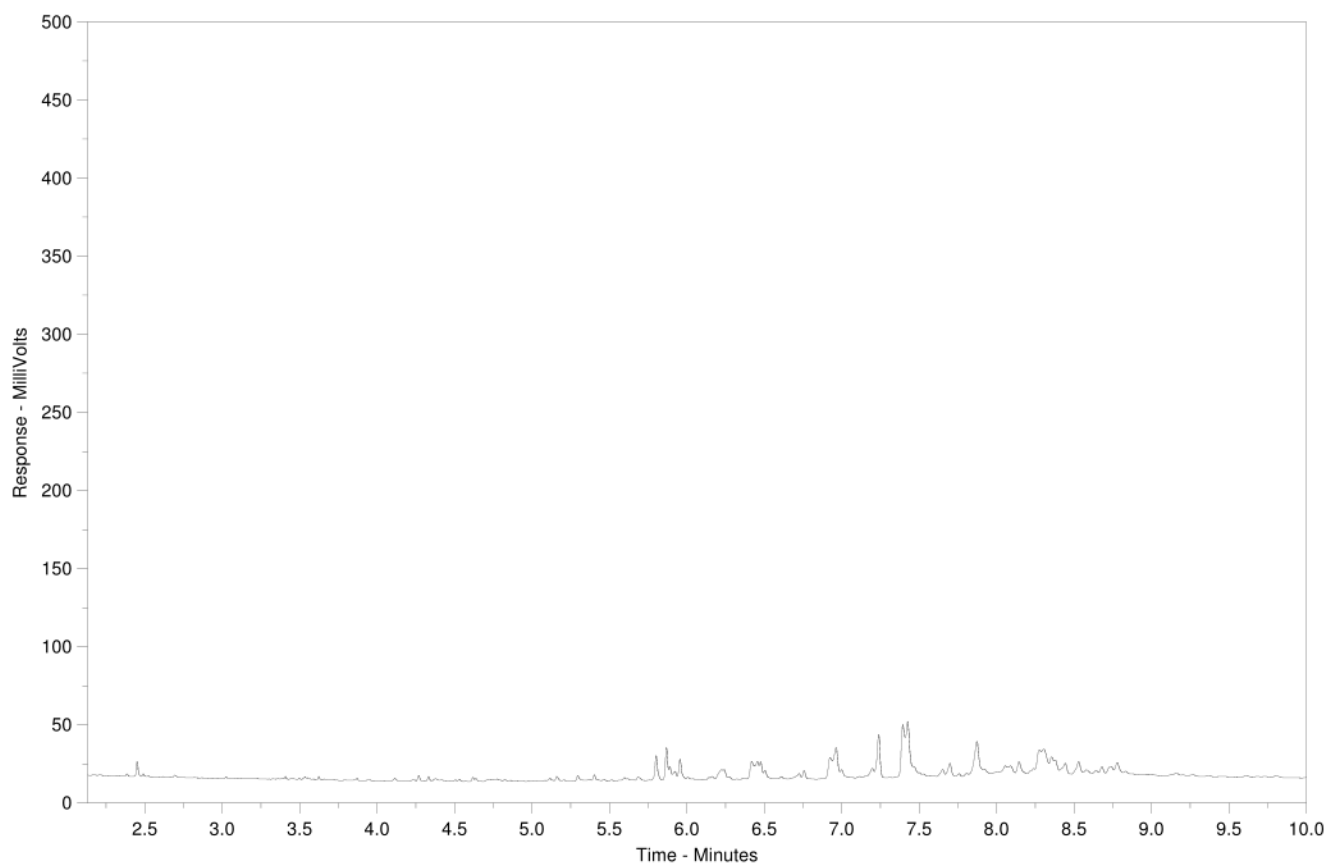
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-4
Client Sample ID: 16-TP104



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

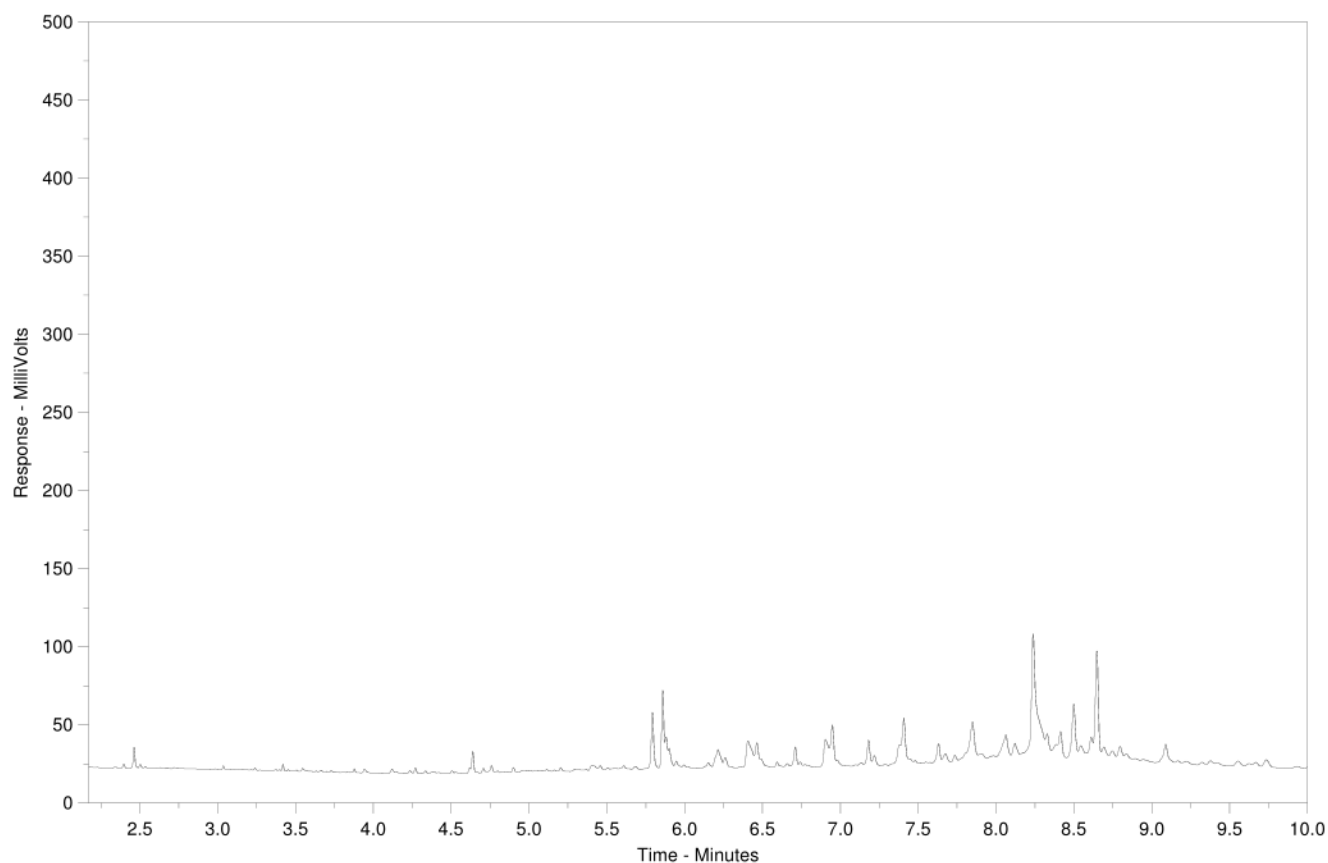
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-5
Client Sample ID: 16-TP105



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

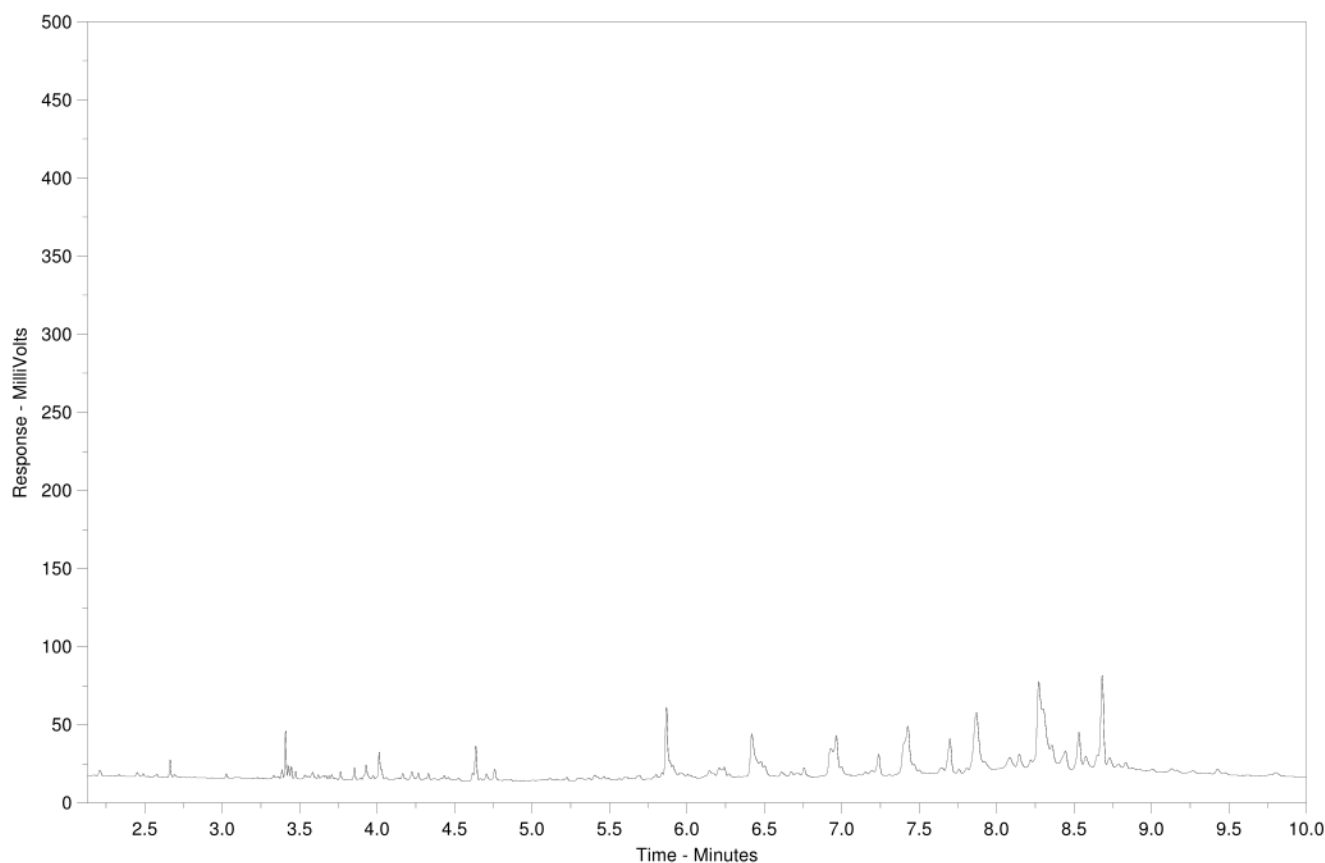
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-6
Client Sample ID: 16-TP106



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

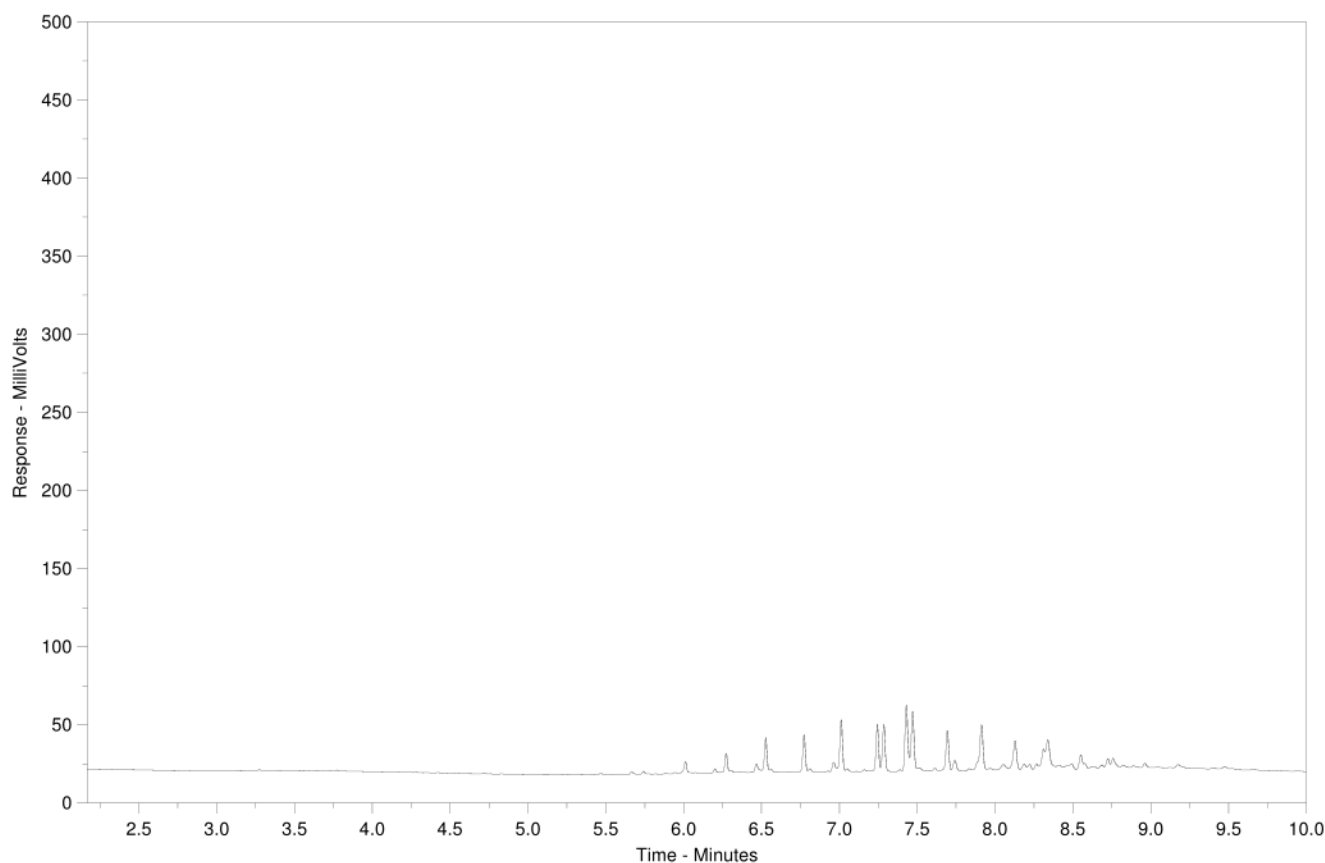
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-7
Client Sample ID: 16-TP107



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

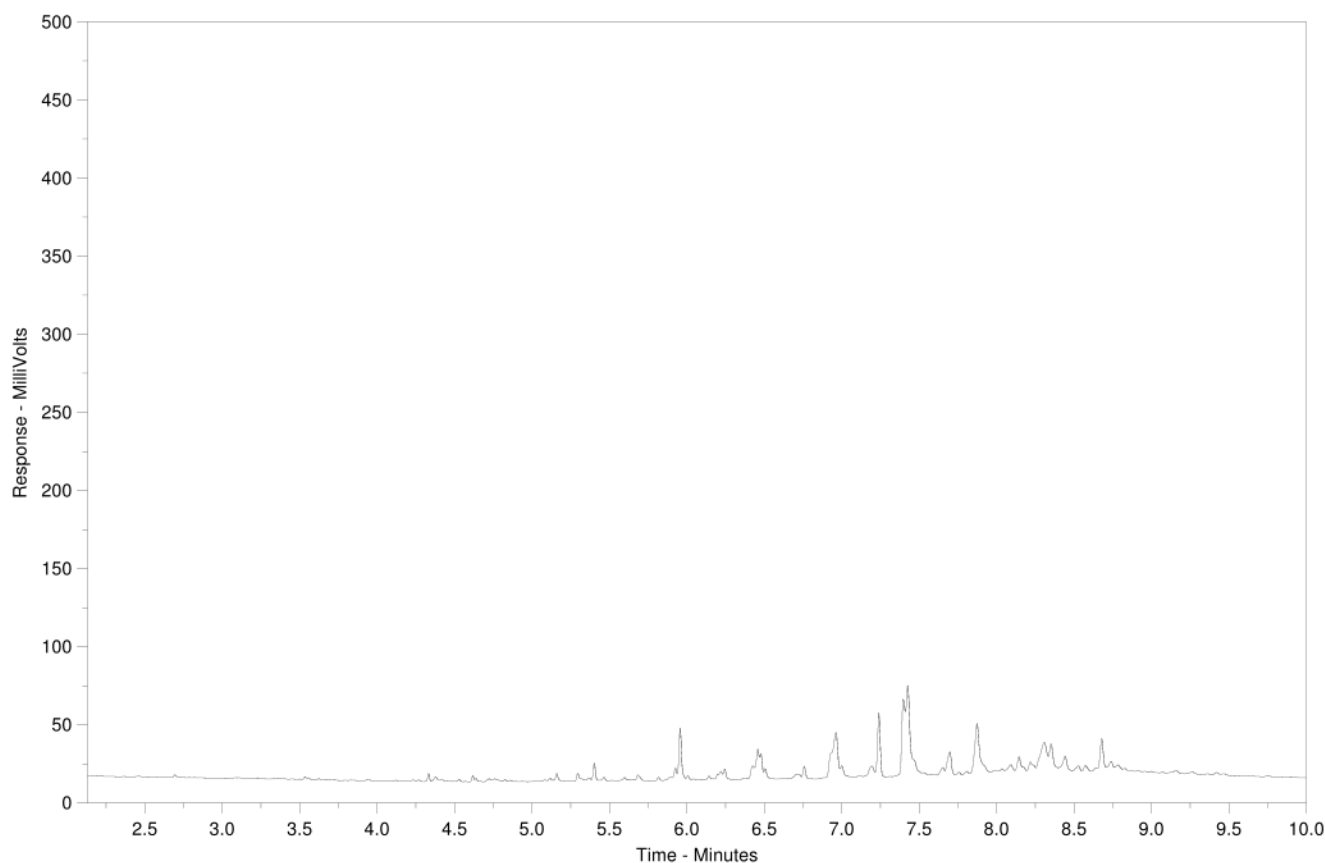
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-8
Client Sample ID: 16-TP108



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

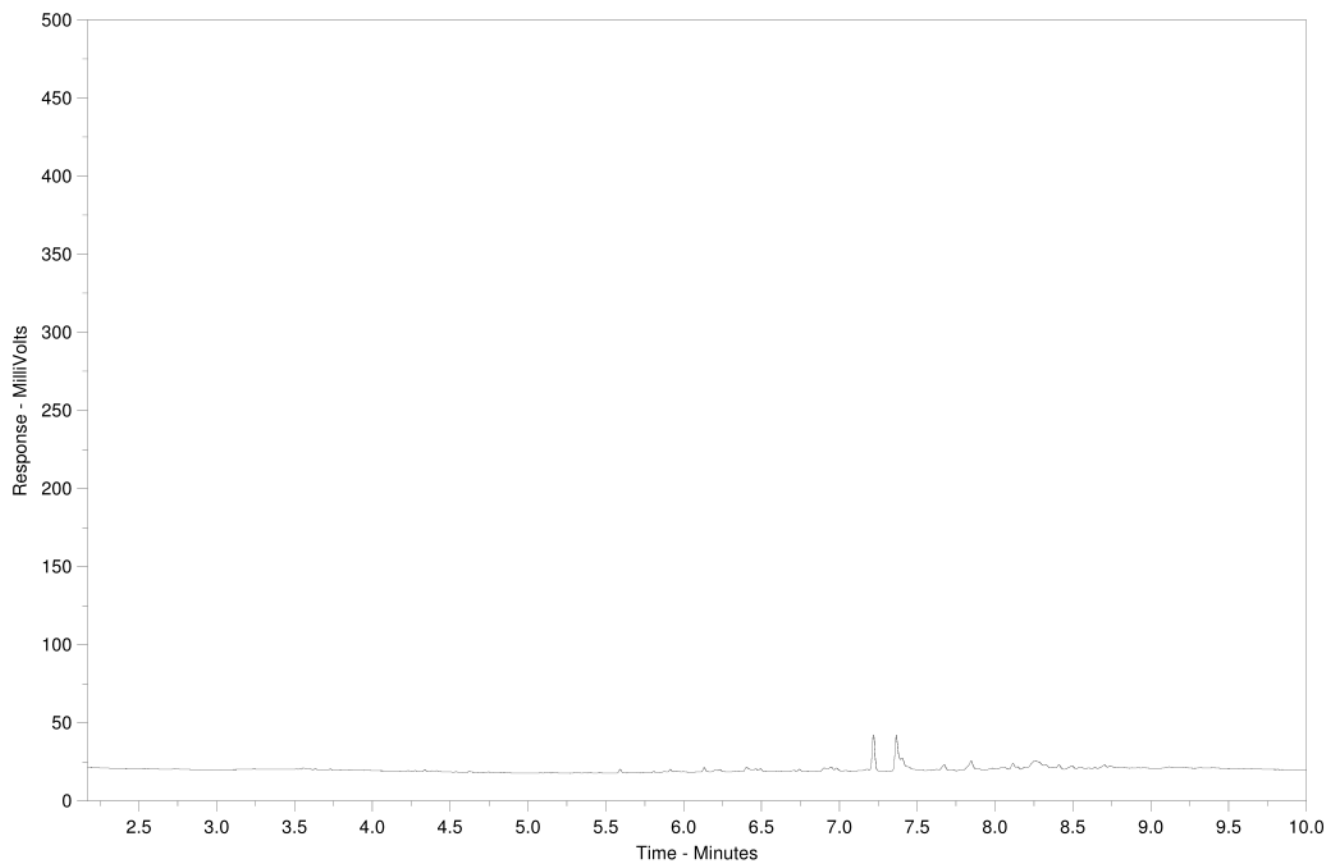
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-9
Client Sample ID: 16-TP109



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

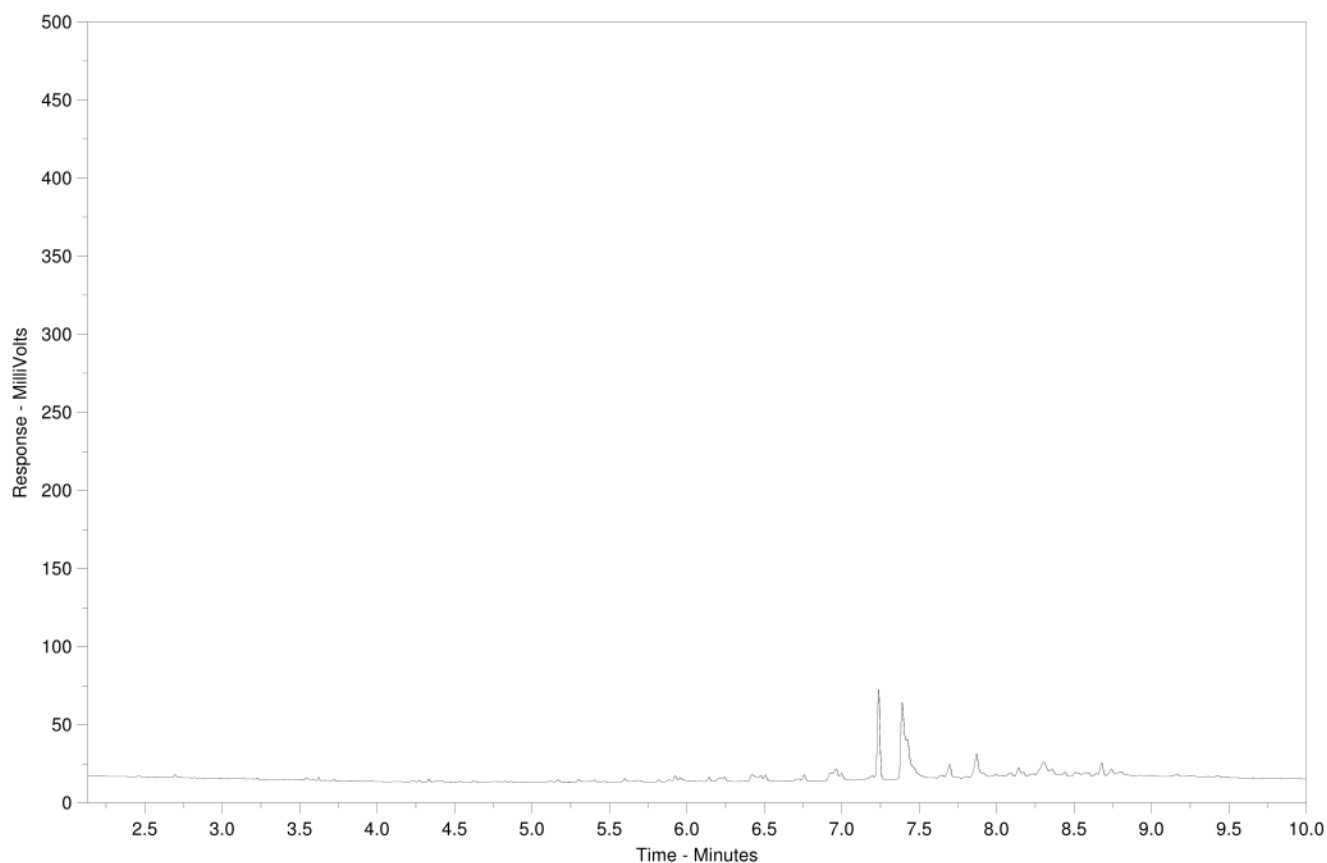
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-10
Client Sample ID: 16-TP110



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

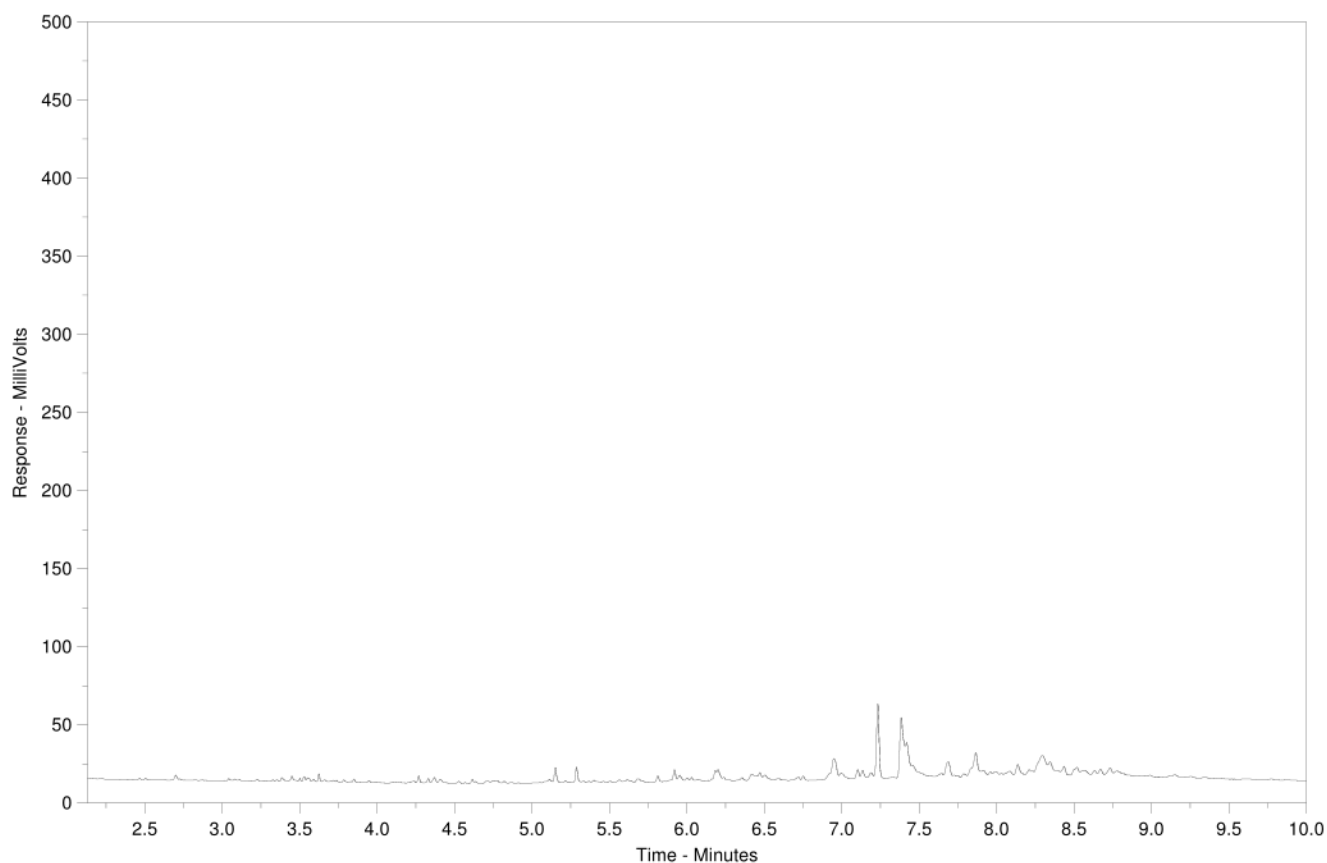
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-11
Client Sample ID: 16-TP111-0.1M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

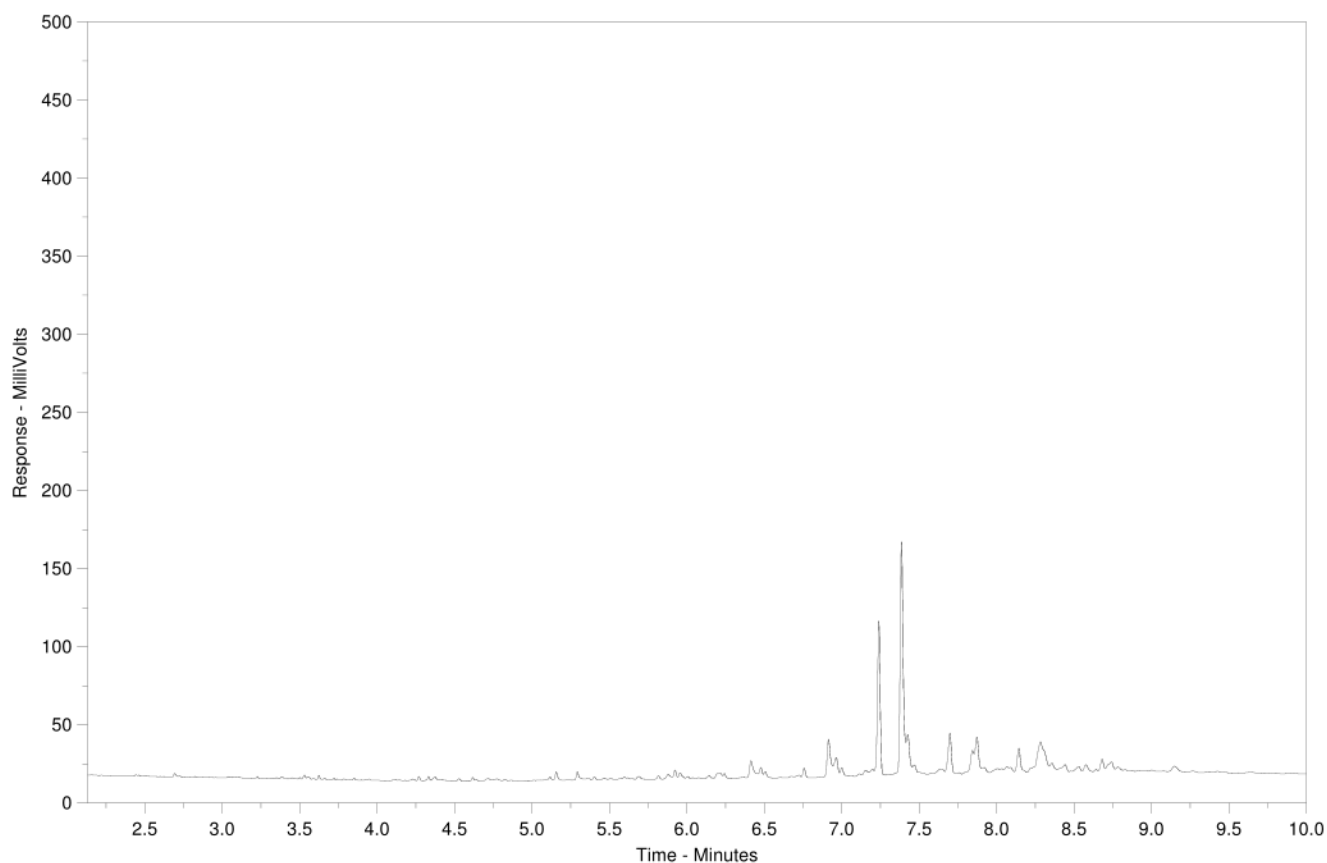
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-12
Client Sample ID: 16-TP112-0.1M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

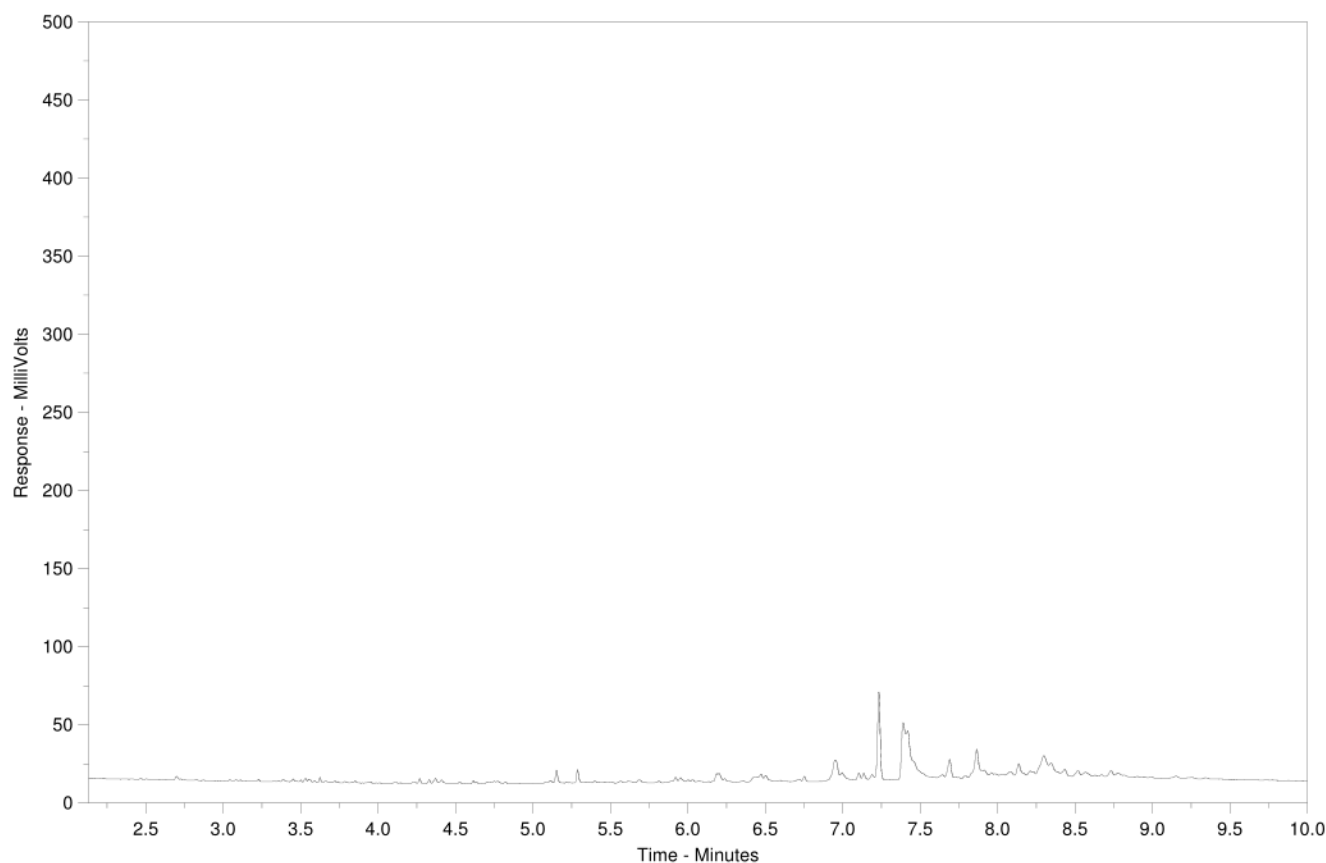
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-13
Client Sample ID: 16-TP113-0.1M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

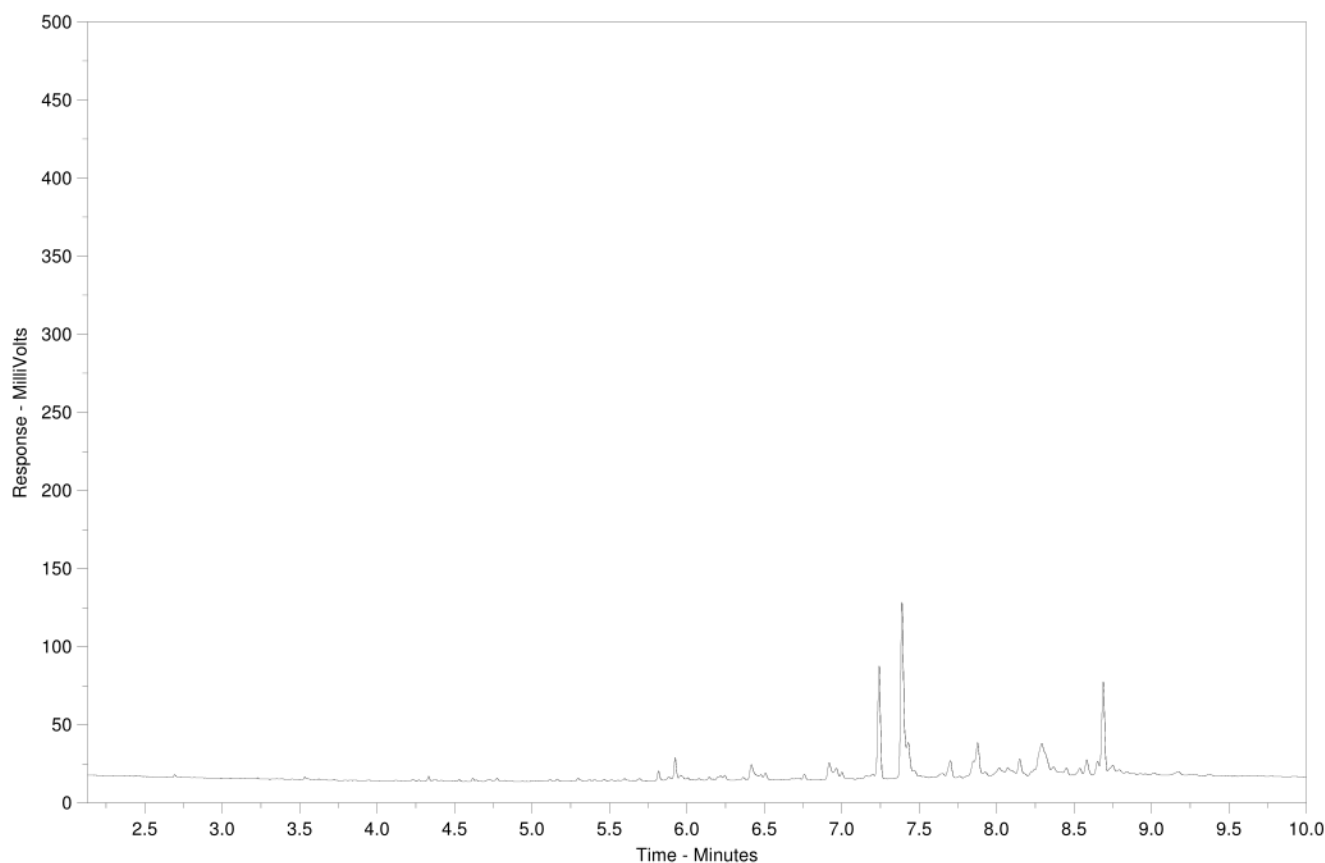
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-14
Client Sample ID: 16-TP114-0.1M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

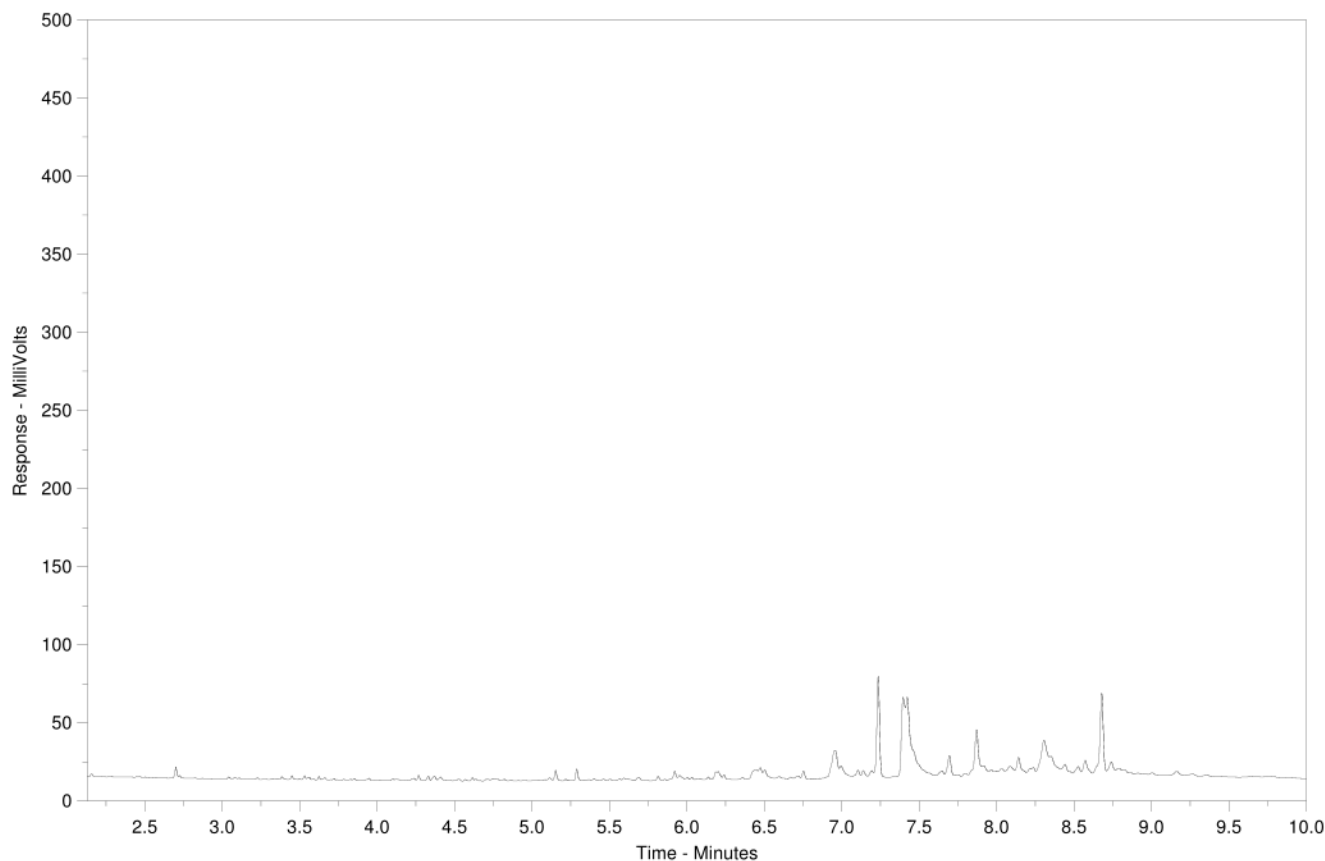
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-15
Client Sample ID: 16-TP115-0.1M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

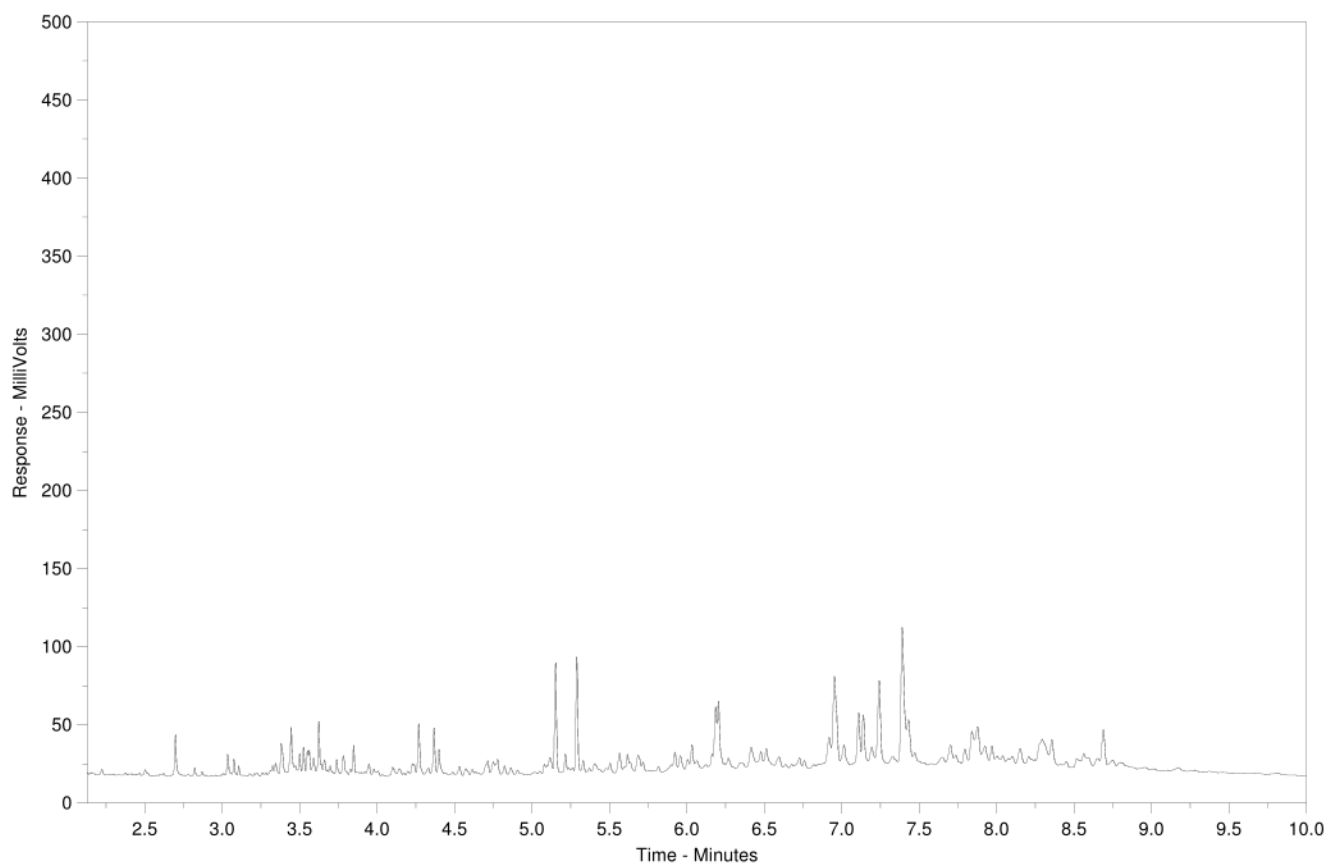
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-16
Client Sample ID: 16-TP116-0.1M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

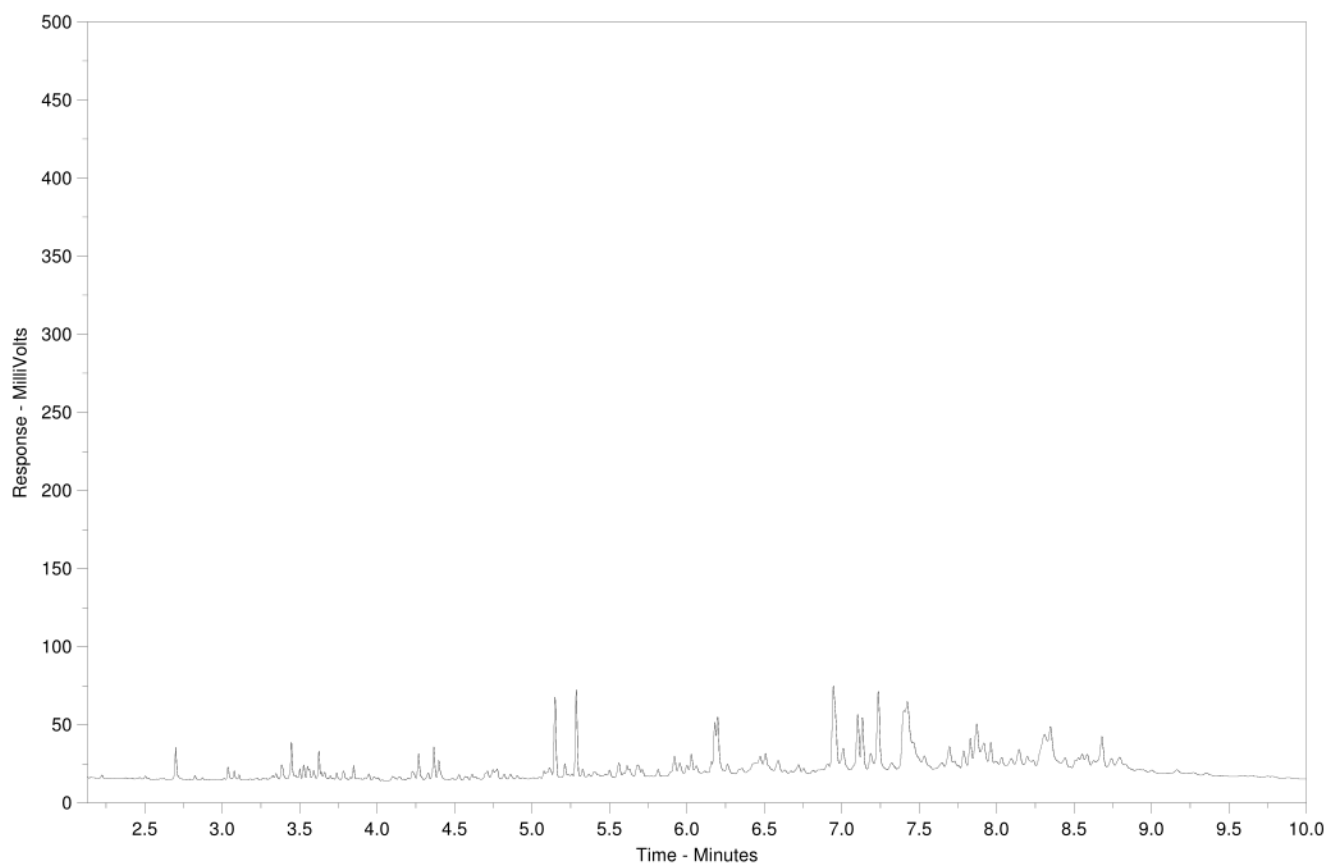
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-17
Client Sample ID: 16-TP117-0.1M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

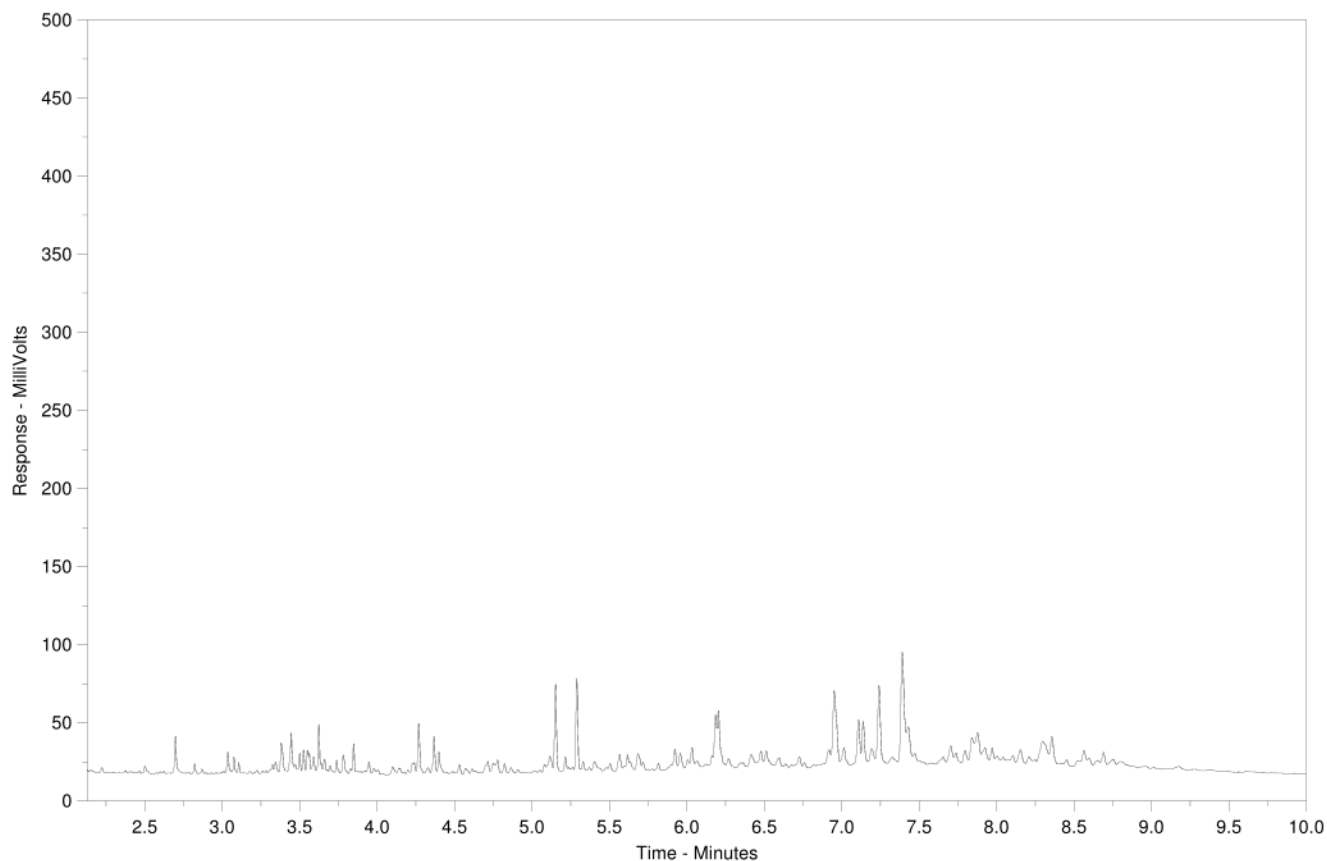
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-18
Client Sample ID: 16-TP118-0.1M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

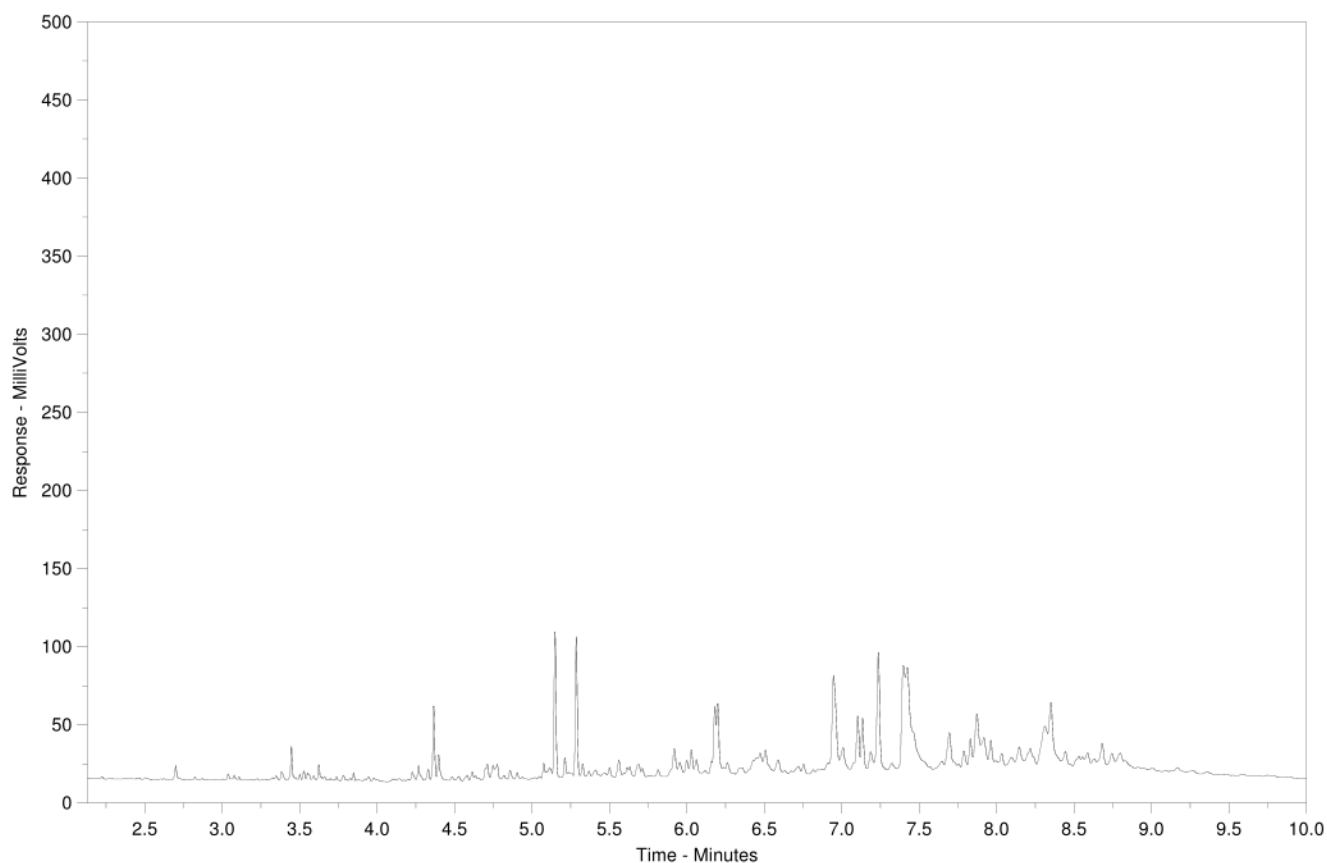
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-19
Client Sample ID: 16-TP119-0.1M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

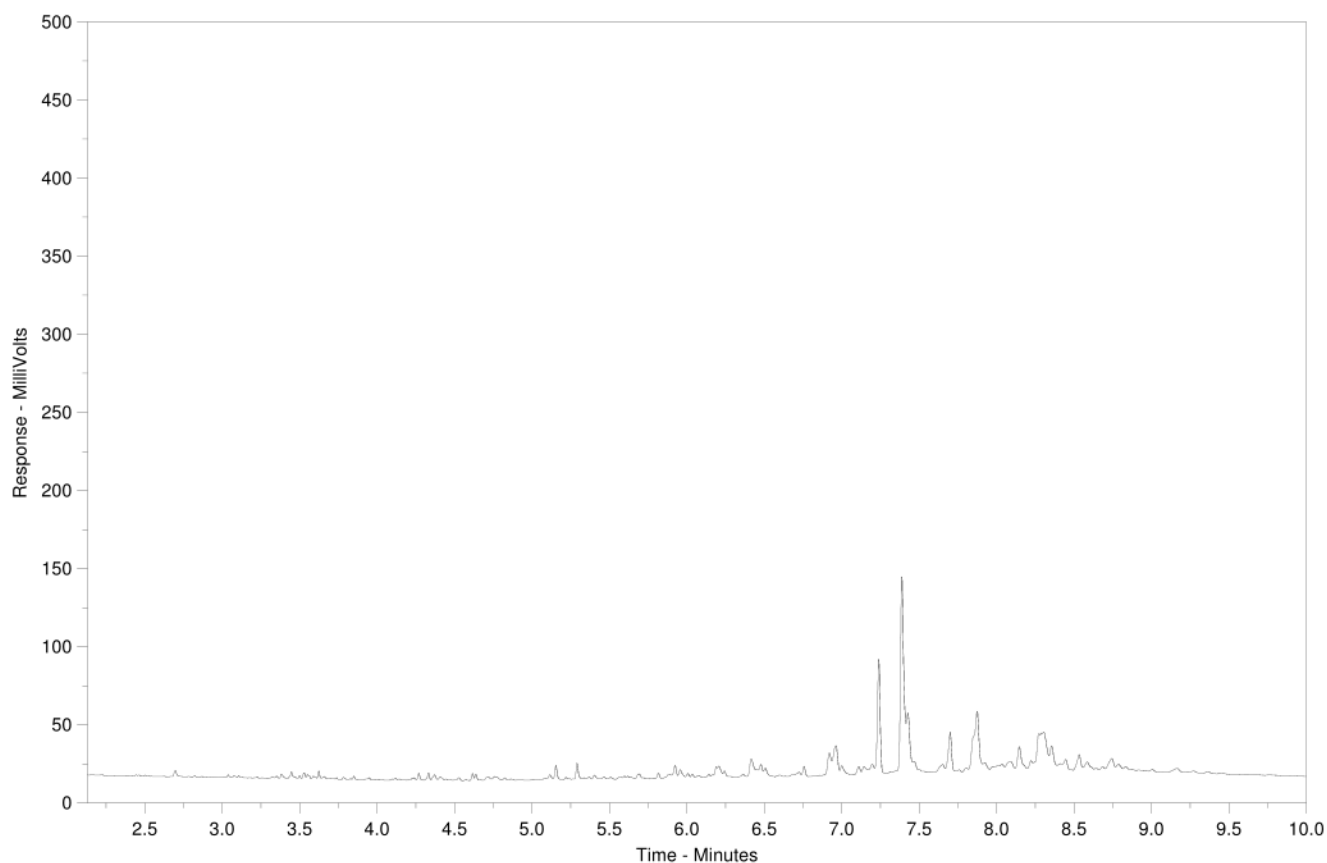
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-20
Client Sample ID: 16-TP120-0.1M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

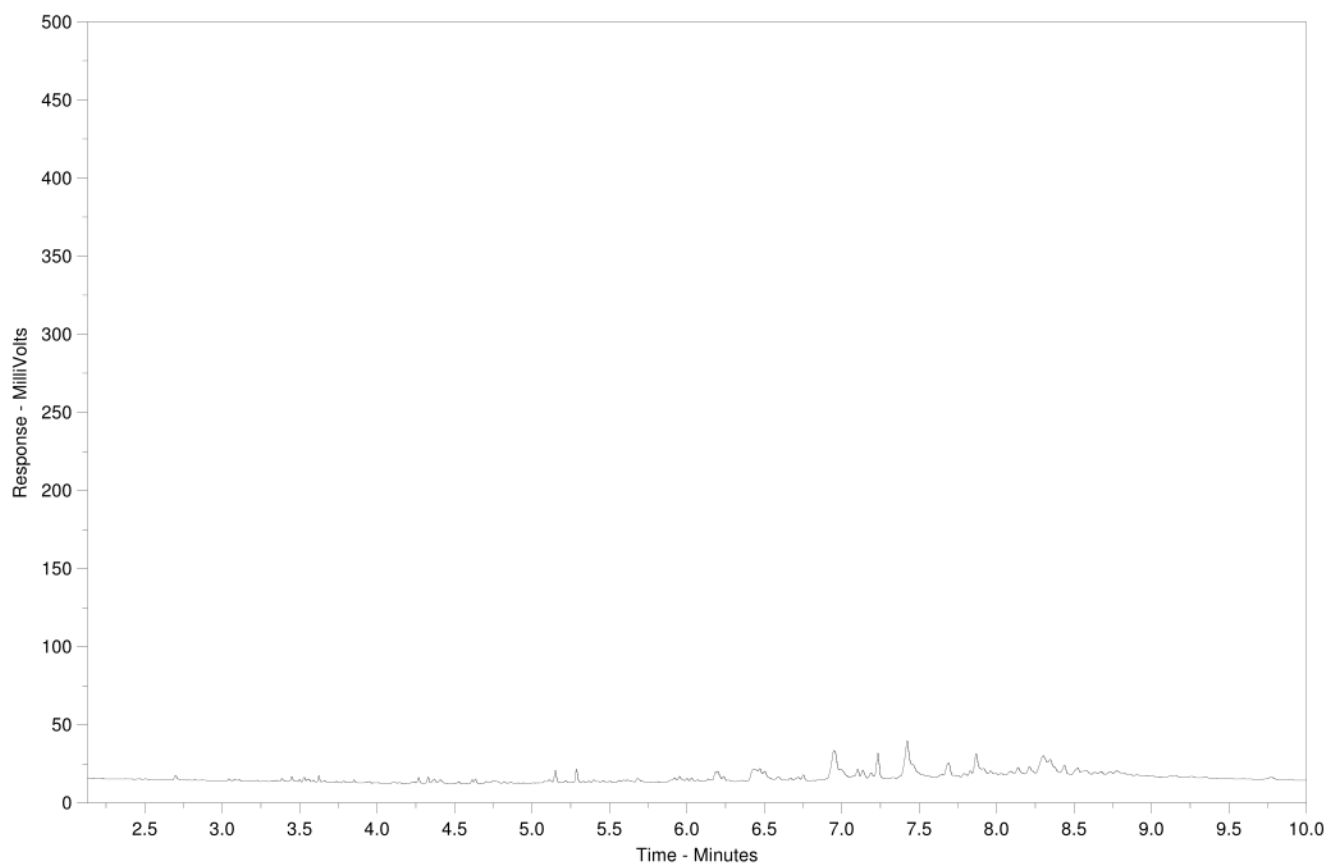
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1826440-21
Client Sample ID: 16-TP121-0.1M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.



Charge

Ground

Report To		Report Format / Distribution		Service Requested (Rush for routine analysis subject to availability)													
Company: Pinchin West Ltd.		☐ Standard ☐ Other		☒ Regular (Standard Turnaround Times - Business Days)													
Contact: Joshu Bocskei		☒ PDF ☒ Excel ☐ Digital ☐ Fax		☐ Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT													
Address: 329-1095 McKenzie Ave, Victoria, BC		Email 1: jboscskei@pinchinwest.com		☐ Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT													
		Email 2: jquamme@pinchinwest.com		☐ Same Day or Weekend Emergency - Contact ALS to Confirm TAT													
Phone: s.22 Fax:		Email 3:		Analysis Request													
Invoice To Same as Report? ☐ Yes ☐ No		Client / Project Information		Please indicate below Filtered, Preserved or both (F, P, F/P)													
Hardcopy of Invoice with Report? ☐ Yes ☐ No		Job #: 13858B															
Company:		PO / AFE:															
Contact:		LSD: 850 Burdett Avenue, Victoria, BC															
Address:																	
Phone: Fax:		Quote #:															
Lab Work Order # (lab use only)		ALS Contact: selam		Sampler: joshu bocskei													
Sample	Sample Identification			Date (dd-mm-yy)	Time (hh:mm)	Sample Type	LEPH, HEPH, PAH, VOC, VPH	metals	acetone, butanone, ethyl ether	methanol, acetic acid, formic acid	ammonia, chloroform, dichloromethane	ether, pH, iodine, pseudophedrine	phosphorous, amphetamine, cocaine	heroin, LSD, MDMA, methamphetamine	E. Coli, fecal coliforms, total coliforms	Number of Containers	
	(This description will appear on the report)																
	16-TP101				07-Sep-16		soil	X	X	X	X	X	X	X	X		
	16-TP102							X	X	X	X	X	X	X	X		
	16-TP103							X	X	X	X	X	X	X	X		
	16-TP104							X	X	X	X	X	X	X	X		
	16-TP105							X	X	X	X	X	X	X	X		
	16-TP106							X	X	X	X	X	X	X	X		
	16-TP107							X	X	X	X	X	X	X	X		
	16-TP108							X	X	X	X	X	X	X	X		
	16-TP109							X	X	X	X	X	X	X	X		
	16-TP110							X	X	X	X	X	X	X	X		

Special Instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details

CSR RL

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.

Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

SHIPMENT RELEASE (client use)		SHIPMENT RECEPTION (lab use only)		SHIPMENT VERIFICATION (lab use only)	
Released by: <i>[Signature]</i>	Date (dd-mm-yy): <i>SEP - 9 2016</i>	Received by: <i>[Signature]</i>	Date (dd-mm-yy): <i>SEP - 9 2016</i>	Verified by: <i>[Signature]</i>	Date (dd-mm-yy): <i>SEP - 9 2016</i>

Short Holding Time

Rush Processing

Released By Josh Bocskei Sept 7, 2016

SEP - 9 2016 12:50

**Short Holding Time****Rush Processing**

Chain of Custody / Analytical Request Form

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

COC #

Page 2 of 2

Report To		Report Format / Distribution		Service Requested (Rush for routine analysis subject to availability)															
Company: Pinchin West Ltd.		☐ Standard ☐ Other		☒ Regular (Standard Turnaround Times - Business Days)															
Contact: Joshu Bocskei		☒ PDF ☒ Excel ☐ Digital ☐ Fax		☐ Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT															
Address: 329-1095 McKenzie Ave, Victoria, BC		Email 1: jboskei@pinchinwest.com		☐ Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT															
		Email 2: jguamme@pinchinwest.com		☐ Same Day or Weekend Emergency - Contact ALS to Confirm TAT															
Phone: s.22 Fax:		Email 3:		Analysis Request															
Invoice To Same as Report? ☐ Yes ☐ No		Client / Project Information		Please indicate below Filtered, Preserved or both (F, P, F/P)															
Hardcopy of Invoice with Report? ☐ Yes ☐ No		Job #: 13858B																	
Company:		PO / AFE:																	
Contact:		LSD: 850 Burdett Avenue, Victoria, BC																	
Address:																			
Phone: Fax:		Quote #:																	
Lab Work Order # (lab use only)		ALS Contact: selam		Sampler: joshu bocskei															
Sample Identification		Date (dd-mm-yy)		Time (hh:mm)		Sample Type													
(This description will appear on the r																			
16-TP111-0.1m		07-Sep-16				soil													
16-TP112-0.1m																			
16-TP113-0.1m																			
16-TP114-0.1m																			
16-TP115-0.1m																			
16-TP116-0.1m																			
16-TP117-0.1m																			
16-TP118-0.1m																			
16-TP119-0.1m																			
16-TP120-0.1m																			
16-TP121-0.1m																			

Special Instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details

CSR RL

Released by Joshu Bocskei Sept 7, 2016

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By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.

Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

SHIPMENT RELEASE (client use) SHIPMENT RECEPTION (lab use only) SHIPMENT VERIFICATION (lab use only)

Released by: Date (dd-mm-yy) Time (hh:mm) Received by: Date: SEP-9 2016 Time: 7:50 Temperature: Verified by: Date: Page 16 of 203 (Observations)



Pinchin West LTD.
ATTN: Joshu Bocskei
300 – 1095 McKenzie Avenue
Victoria BC V8P 2L5

Date Received: 12-OCT-16
Report Date: 26-OCT-16 11:20 (MT)
Version: FINAL

Client Phone: s.22

Certificate of Analysis

Lab Work Order #: L1842325

Project P.O. #: NOT SUBMITTED

Job Reference: 13858B

C of C Numbers:

Legal Site Desc: 850 BURDETT AVENUE, VICTORIA, BC

Comments: Result for methamphetamine analysis attached at the end of this report.

Selam Worku
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

26-OCT-16 11:20 (MT)

Version: FINAL

Sample ID Description Sampled Date Sampled Time Client ID		L1842325-1 SOIL 11-OCT-16 16-TP201-0.6M	L1842325-3 SOIL 11-OCT-16 16-TP202-0.5M	L1842325-4 SOIL 11-OCT-16 16-TP202-1.0M	L1842325-5 SOIL 11-OCT-16 16-TP202-1.5M	L1842325-6 SOIL 11-OCT-16 16-TP203-0.5M
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	6.19	5.92			6.33
	pH (1:2 soil:water) (pH)	7.56	6.55	7.50	7.59	7.89
Metals	Antimony (Sb) (mg/kg)	0.41	0.68	0.46	0.24	0.52
	Arsenic (As) (mg/kg)	4.61	6.05	5.32	4.47	4.44
	Barium (Ba) (mg/kg)	166	262	228	79.6	117
	Beryllium (Be) (mg/kg)	0.35	0.43	0.40	0.32	0.25
	Cadmium (Cd) (mg/kg)	0.208	0.238	0.247	0.070	0.174
	Chromium (Cr) (mg/kg)	29.4	30.9	27.3	29.6	20.0
	Cobalt (Co) (mg/kg)	10.2	10.8	10.5	10.5	7.58
	Copper (Cu) (mg/kg)	34.7	35.6	29.1	26.7	21.6
	Lead (Pb) (mg/kg)	127	198	100	7.37	62.6
	Mercury (Hg) (mg/kg)	0.172	0.198	0.102	<0.050	0.065
	Molybdenum (Mo) (mg/kg)	0.45	0.59	0.56	0.40	0.35
	Nickel (Ni) (mg/kg)	24.4	28.4	26.8	24.9	18.6
	Selenium (Se) (mg/kg)	0.23	0.26	<0.20	<0.20	<0.20
	Silver (Ag) (mg/kg)	0.14	0.16	0.11	<0.10	<0.10
	Thallium (Tl) (mg/kg)	0.057	0.078	0.071	0.066	<0.050
	Tin (Sn) (mg/kg)	2.3	2.4	<2.0	<2.0	<2.0
	Uranium (U) (mg/kg)	0.380	0.510	0.444	0.382	0.347
	Vanadium (V) (mg/kg)	69.5	68.1	70.4	64.1	47.7
	Zinc (Zn) (mg/kg)	77.7	93.4	75.0	40.2	62.2
TCLP Metals	1st Preliminary pH (pH)	7.97	7.17			
	2nd Preliminary pH (pH)	1.67	1.60			
	Final pH (pH)	5.02	4.99			
	Extraction Solution Initial pH (pH)	4.95	4.95			
	Antimony (Sb)-Leachable (ug/L)	<1000	<1000			
	Arsenic (As)-Leachable (ug/L)	<1000	<1000			
	Barium (Ba)-Leachable (ug/L)	<2500	<2500			
	Beryllium (Be)-Leachable (ug/L)	<25	<25			
	Boron (B)-Leachable (ug/L)	<500	<500			
	Cadmium (Cd)-Leachable (ug/L)	<50	<50			
	Calcium (Ca)-Leachable (ug/L)	82900	55400			
	Chromium (Cr)-Leachable (ug/L)	<250	<250			
	Cobalt (Co)-Leachable (ug/L)	<50	<50			
	Copper (Cu)-Leachable (ug/L)	<50	<50			
	Iron (Fe)-Leachable (ug/L)	<150	<150			
	Lead (Pb)-Leachable (ug/L)	<250	<250			

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L1842325-9 SOIL 11-OCT-16 16-TP204-0.4M	L1842325-10 SOIL 11-OCT-16 16-TP205-0.4M	L1842325-12 SOIL 11-OCT-16 16-TP206-0.5M	L1842325-15 SOIL 11-OCT-16 16-TP107-0.5M	
Grouping	Analyte						
SOIL							
Physical Tests	Moisture (%)	3.22	3.17	7.67	3.70		
	pH (1:2 soil:water) (pH)	6.60	6.72	7.60	6.61		
Metals	Antimony (Sb) (mg/kg)	1.37	0.14	0.24	0.14		
	Arsenic (As) (mg/kg)	5.48	4.17	3.55	3.89		
	Barium (Ba) (mg/kg)	57.7	57.2	182	68.5		
	Beryllium (Be) (mg/kg)	0.32	0.28	0.34	0.28		
	Cadmium (Cd) (mg/kg)	0.697	0.078	0.129	0.080		
	Chromium (Cr) (mg/kg)	27.1	19.0	27.9	21.3		
	Cobalt (Co) (mg/kg)	10.1	9.34	8.78	7.77		
	Copper (Cu) (mg/kg)	32.6	25.7	14.0	19.9		
	Lead (Pb) (mg/kg)	13.5	3.46	47.4	17.1		
	Mercury (Hg) (mg/kg)	<0.050	<0.050	<0.050	<0.050		
	Molybdenum (Mo) (mg/kg)	0.54	0.18	0.30	0.26		
	Nickel (Ni) (mg/kg)	27.5	21.4	20.7	19.6		
	Selenium (Se) (mg/kg)	<0.20	<0.20	0.22	<0.20		
	Silver (Ag) (mg/kg)	<0.10	<0.10	<0.10	<0.10		
	Thallium (Tl) (mg/kg)	0.077	0.068	0.073	0.062		
	Tin (Sn) (mg/kg)	<2.0	<2.0	<2.0	<2.0		
	Uranium (U) (mg/kg)	0.388	0.238	0.403	0.350		
	Vanadium (V) (mg/kg)	71.6	56.4	56.4	58.8		
	Zinc (Zn) (mg/kg)	44.8	40.4	95.9	36.4		
TCLP Metals	1st Preliminary pH (pH)						
	2nd Preliminary pH (pH)						
	Final pH (pH)						
	Extraction Solution Initial pH (pH)						
	Antimony (Sb)-Leachable (ug/L)						
	Arsenic (As)-Leachable (ug/L)						
	Barium (Ba)-Leachable (ug/L)						
	Beryllium (Be)-Leachable (ug/L)						
	Boron (B)-Leachable (ug/L)						
	Cadmium (Cd)-Leachable (ug/L)						
	Calcium (Ca)-Leachable (ug/L)						
	Chromium (Cr)-Leachable (ug/L)						
	Cobalt (Co)-Leachable (ug/L)						
	Copper (Cu)-Leachable (ug/L)						
	Iron (Fe)-Leachable (ug/L)						
	Lead (Pb)-Leachable (ug/L)						

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1842325-1 SOIL 11-OCT-16 16-TP201-0.6M	L1842325-3 SOIL 11-OCT-16 16-TP202-0.5M	L1842325-4 SOIL 11-OCT-16 16-TP202-1.0M	L1842325-5 SOIL 11-OCT-16 16-TP202-1.5M	L1842325-6 SOIL 11-OCT-16 16-TP203-0.5M
Grouping	Analyte					
SOIL						
TCLP Metals	Magnesium (Mg)-Leachable (ug/L)	2990	4490			
	Mercury (Hg)-Leachable (ug/L)	<1.0	<1.0			
	Nickel (Ni)-Leachable (ug/L)	<250	<250			
	Selenium (Se)-Leachable (ug/L)	<1000	<1000			
	Silver (Ag)-Leachable (ug/L)	<50	<50			
	Thallium (Tl)-Leachable (ug/L)	<1000	<1000			
	Vanadium (V)-Leachable (ug/L)	<150	<150			
	Zinc (Zn)-Leachable (ug/L)	<500	<500			
Volatile Organic Compounds	VOC Sample Container	Field MeOH	Field MeOH			Field MeOH
	Benzene (mg/kg)	0.0169	0.0168			<0.0050
	Bromodichloromethane (mg/kg)	<0.050	<0.050			<0.050
	Bromoform (mg/kg)	<0.050	<0.050			<0.050
	Carbon Tetrachloride (mg/kg)	<0.050	<0.050			<0.050
	Chlorobenzene (mg/kg)	<0.050	<0.050			<0.050
	Dibromochloromethane (mg/kg)	<0.050	<0.050			<0.050
	Chloroethane (mg/kg)	<0.10	<0.10			<0.10
	Chloroform (mg/kg)	<0.10	<0.10			<0.10
	Chloromethane (mg/kg)	<0.10	<0.10			<0.10
	1,2-Dichlorobenzene (mg/kg)	<0.050	<0.050			<0.050
	1,3-Dichlorobenzene (mg/kg)	<0.050	<0.050			<0.050
	1,4-Dichlorobenzene (mg/kg)	<0.050	<0.050			<0.050
	1,1-Dichloroethane (mg/kg)	<0.050	<0.050			<0.050
	1,2-Dichloroethane (mg/kg)	<0.050	<0.050			<0.050
	1,1-Dichloroethylene (mg/kg)	<0.050	<0.050			<0.050
	cis-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050			<0.050
	trans-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050			<0.050
	Dichloromethane (mg/kg)	<0.30	<0.30			<0.30
	1,2-Dichloropropane (mg/kg)	<0.050	<0.050			<0.050
	cis-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050			<0.050
	trans-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050			<0.050
	Ethylbenzene (mg/kg)	0.018	0.024			<0.015
	Methyl t-butyl ether (MTBE) (mg/kg)	<0.20	<0.20			<0.20
	Styrene (mg/kg)	<0.050	<0.050			<0.050
	1,1,1,2-Tetrachloroethane (mg/kg)	<0.050	<0.050			<0.050
	1,1,2,2-Tetrachloroethane (mg/kg)	<0.050	<0.050			<0.050
	Tetrachloroethylene (mg/kg)	<0.050	<0.050			<0.050
	Toluene (mg/kg)	0.077	0.075			<0.050

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1842325-9 SOIL 11-OCT-16 16-TP204-0.4M	L1842325-10 SOIL 11-OCT-16 16-TP205-0.4M	L1842325-12 SOIL 11-OCT-16 16-TP206-0.5M	L1842325-15 SOIL 11-OCT-16 16-TP107-0.5M	
Grouping	Analyte					
SOIL						
TCLP Metals	Magnesium (Mg)-Leachable (ug/L)					
	Mercury (Hg)-Leachable (ug/L)					
	Nickel (Ni)-Leachable (ug/L)					
	Selenium (Se)-Leachable (ug/L)					
	Silver (Ag)-Leachable (ug/L)					
	Thallium (Tl)-Leachable (ug/L)					
	Vanadium (V)-Leachable (ug/L)					
	Zinc (Zn)-Leachable (ug/L)					
Volatile Organic Compounds	VOC Sample Container	Field MeOH	Field MeOH	Field MeOH	Field MeOH	
	Benzene (mg/kg)	<0.0050	<0.0050	<0.0050	<0.0050	
	Bromodichloromethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Bromoform (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Carbon Tetrachloride (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Chlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Dibromochloromethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Chloroethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	
	Chloroform (mg/kg)	<0.10	<0.10	<0.10	<0.10	
	Chloromethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	
	1,2-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	1,3-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	1,4-Dichlorobenzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	1,1-Dichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	1,2-Dichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	1,1-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	cis-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	trans-1,2-Dichloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Dichloromethane (mg/kg)	<0.30	<0.30	<0.30	<0.30	
	1,2-Dichloropropane (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	cis-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	trans-1,3-Dichloropropylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Ethylbenzene (mg/kg)	<0.015	<0.015	<0.015	<0.015	
	Methyl t-butyl ether (MTBE) (mg/kg)	<0.20	<0.20	<0.20	<0.20	
	Styrene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	1,1,1,2-Tetrachloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	1,1,2,2-Tetrachloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Tetrachloroethylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Toluene (mg/kg)	<0.050	<0.050	<0.050	<0.050	

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L1842325-1 SOIL 11-OCT-16 16-TP201-0.6M	L1842325-3 SOIL 11-OCT-16 16-TP202-0.5M	L1842325-4 SOIL 11-OCT-16 16-TP202-1.0M	L1842325-5 SOIL 11-OCT-16 16-TP202-1.5M	L1842325-6 SOIL 11-OCT-16 16-TP203-0.5M
Grouping	Analyte						
SOIL							
Volatile Organic Compounds	1,1,1-Trichloroethane (mg/kg)	<0.050	<0.050				<0.050
	1,1,2-Trichloroethane (mg/kg)	<0.050	<0.050				<0.050
	Trichloroethylene (mg/kg)	<0.010	<0.010				<0.010
	Trichlorofluoromethane (mg/kg)	<0.10	<0.10				<0.10
	Vinyl Chloride (mg/kg)	<0.10	<0.10				<0.10
	ortho-Xylene (mg/kg)	0.083	0.110				<0.050
	meta- & para-Xylene (mg/kg)	0.107	0.116				<0.050
	Xylenes (mg/kg)	0.190	0.225				<0.075
	Surrogate: 4-Bromofluorobenzene (SS) (%)	89.6	93.6				84.6
	Surrogate: 1,4-Difluorobenzene (SS) (%)	95.6	98.7				90.1
Hydrocarbons	EPH10-19 (mg/kg)	<200	<200				<200
	EPH19-32 (mg/kg)	<200	<200				<200
	LEPH (mg/kg)	<200	<200				<200
	HEPH (mg/kg)	<200	<200				<200
	Volatile Hydrocarbons (VH6-10) (mg/kg)	<100	<100				<100
	VPH (C6-C10) (mg/kg)	<100	<100				<100
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	86.2	97.2				89.5
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.050	<0.050				<0.050
	Acenaphthylene (mg/kg)	<0.050	0.749				0.056
	Anthracene (mg/kg)	<0.050	0.407				<0.050
	Benz(a)anthracene (mg/kg)	0.155	1.74				0.121
	Benzo(a)pyrene (mg/kg)	0.168	2.28				0.171
	Benzo(b)fluoranthene (mg/kg)	0.246	2.96				0.205
	Benzo(g,h,i)perylene (mg/kg)	0.091	1.32				0.088
	Benzo(k)fluoranthene (mg/kg)	0.089	1.18				0.085
	Chrysene (mg/kg)	0.189	1.88				0.125
	Dibenz(a,h)anthracene (mg/kg)	<0.050	0.386				<0.050
	Fluoranthene (mg/kg)	0.335	2.58				0.184
	Fluorene (mg/kg)	<0.050	<0.050				<0.050
	Indeno(1,2,3-c,d)pyrene (mg/kg)	0.122	1.93				0.113
	2-Methylnaphthalene (mg/kg)	0.211	0.513				0.075
	Naphthalene (mg/kg)	0.130	0.726				0.074
	Phenanthrene (mg/kg)	0.215	1.10				0.112
	Pyrene (mg/kg)	0.333	2.78				0.206
	Surrogate: Acenaphthene d10 (%)	93.5	87.8				92.0
	Surrogate: Chrysene d12 (%)	103.7	92.9				103.1

ALS ENVIRONMENTAL ANALYTICAL REPORT

26-OCT-16 11:20 (MT)

Version: FINAL

Sample ID Description Sampled Date Sampled Time Client ID		L1842325-9 SOIL 11-OCT-16 16-TP204-0.4M	L1842325-10 SOIL 11-OCT-16 16-TP205-0.4M	L1842325-12 SOIL 11-OCT-16 16-TP206-0.5M	L1842325-15 SOIL 11-OCT-16 16-TP107-0.5M	
Grouping	Analyte					
SOIL						
Volatile Organic Compounds	1,1,1-Trichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	1,1,2-Trichloroethane (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Trichloroethylene (mg/kg)	<0.010	<0.010	<0.010	<0.010	
	Trichlorofluoromethane (mg/kg)	<0.10	<0.10	<0.10	<0.10	
	Vinyl Chloride (mg/kg)	<0.10	<0.10	<0.10	<0.10	
	ortho-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	meta- & para-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Xylenes (mg/kg)	<0.075	<0.075	<0.075	<0.075	
	Surrogate: 4-Bromofluorobenzene (SS) (%)	88.5	88.6	89.9	96.8	
	Surrogate: 1,4-Difluorobenzene (SS) (%)	94.1	95.9	95.0	103.5	
Hydrocarbons	EPH10-19 (mg/kg)	<200	<200	<200	<200	
	EPH19-32 (mg/kg)	<200	<200	<200	<200	
	LEPH (mg/kg)	<200	<200	<200	<200	
	HEPH (mg/kg)	<200	<200	<200	<200	
	Volatile Hydrocarbons (VH6-10) (mg/kg)	<100	<100	<100	<100	
	VPH (C6-C10) (mg/kg)	<100	<100	<100	<100	
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	90.1	91.0	95.4	101.8	
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Acenaphthylene (mg/kg)	<0.050	<0.050	<0.050	0.070	
	Anthracene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Benz(a)anthracene (mg/kg)	<0.050	<0.050	<0.050	0.168	
	Benzo(a)pyrene (mg/kg)	<0.050	<0.050	<0.050	0.233	
	Benzo(b)fluoranthene (mg/kg)	<0.050	<0.050	<0.050	0.274	
	Benzo(g,h,i)perylene (mg/kg)	<0.050	<0.050	<0.050	0.107	
	Benzo(k)fluoranthene (mg/kg)	<0.050	<0.050	<0.050	0.118	
	Chrysene (mg/kg)	<0.050	<0.050	<0.050	0.162	
	Dibenz(a,h)anthracene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Fluoranthene (mg/kg)	<0.050	<0.050	<0.050	0.258	
	Fluorene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Indeno(1,2,3-c,d)pyrene (mg/kg)	<0.050	<0.050	<0.050	0.145	
	2-Methylnaphthalene (mg/kg)	<0.050	<0.050	<0.050	<0.050	
	Naphthalene (mg/kg)	<0.050	<0.050	<0.050	0.109	
	Phenanthrene (mg/kg)	<0.050	<0.050	<0.050	0.117	
	Pyrene (mg/kg)	<0.050	<0.050	<0.050	0.290	
	Surrogate: Acenaphthene d10 (%)	87.1	88.5	86.3	86.4	
	Surrogate: Chrysene d12 (%)	100.4	94.7	92.7	90.4	

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID	L1842325-1	L1842325-3	L1842325-4	L1842325-5	L1842325-6
		Description	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled Date	11-OCT-16	11-OCT-16	11-OCT-16	11-OCT-16	11-OCT-16
		Sampled Time					
		Client ID	16-TP201-0.6M	16-TP202-0.5M	16-TP202-1.0M	16-TP202-1.5M	16-TP203-0.5M
Grouping	Analyte						
SOIL							
Polycyclic Aromatic Hydrocarbons	Surrogate: Naphthalene d8 (%)		85.5	79.6			87.1
	Surrogate: Phenanthrene d10 (%)		103.8	97.9			102.0

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID	L1842325-9	L1842325-10	L1842325-12	L1842325-15	
		Description	SOIL	SOIL	SOIL	SOIL	
		Sampled Date	11-OCT-16	11-OCT-16	11-OCT-16	11-OCT-16	
		Sampled Time					
		Client ID	16-TP204-0.4M	16-TP205-0.4M	16-TP206-0.5M	16-TP107-0.5M	
Grouping	Analyte						
SOIL							
Polycyclic Aromatic Hydrocarbons	Surrogate: Naphthalene d8 (%)		85.6	87.3	85.7	83.8	
	Surrogate: Phenanthrene d10 (%)		96.7	94.1	93.9	92.8	

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
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Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
EPH-TUMB-FID-VA	Soil	EPH in Solids by Tumbler and GCFID	BC MOE EPH GCFID
Analysis is in accordance with BC MOE Lab Manual method "Extractable Petroleum Hydrocarbons in Solids by GC/FID", v2.1, July 1999. Soil samples are extracted with a 1:1 mixture of hexane and acetone using a rotary extraction technique modified from EPA 3570 prior to gas chromatography with flame ionization detection (GC-FID). EPH results include Polycyclic Aromatic Hydrocarbons (PAH) and are therefore not equivalent to Light and Heavy Extractable Petroleum Hydrocarbons (LEPH/HEPH).			
HG-200.2-CVAF-VA	Soil	Mercury in Soil by CVAFS	EPA 200.2/1631E (mod)
Soil samples are digested with nitric and hydrochloric acids, followed by analysis by CVAFS.			
HG-TCLP-CVAFS-VA	Soil	Mercury by CVAFS (TCLP)	EPA 1311/245.7
This analysis is carried out in accordance with the extraction procedure outlined in "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods Volume 1C" SW-846 EPA Method 1311, published by the United States Environmental Protection Agency (EPA). In summary, the sample is extracted at a 20:1 liquid to solids ratio for 16 to 20 hours using either extraction fluid #1 (glacial acetic acid, water and sodium hydroxide) or extraction fluid #2 (glacial acetic acid), depending on the pH of the original sample. The extract is then filtered through a 0.6 to 0.8 micron glass fibre filter and analysed using atomic fluorescence spectrophotometry or atomic absorption spectrophotometry (EPA 245.7).			
LEPH/HEPH-CALC-VA	Soil	LEPHs and HEPHs	BC MOE LABORATORY MANUAL (2005)
Light and Heavy Extractable Petroleum Hydrocarbons in Solids. These results are determined according to the British Columbia Ministry of Environment, Lands, and Parks Analytical Method for Contaminated Sites "Calculation of Light and Heavy Extractable Petroleum Hydrocarbons in Solids or Water". According to this method, LEPH and HEPH are calculated by subtracting selected Polycyclic Aromatic Hydrocarbon results from Extractable Petroleum Hydrocarbon results. To calculate LEPH, the individual results for Naphthalene and Phenanthrene are subtracted from EPH(C10-19). To calculate HEPH, the individual results for Benz(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, and Pyrene are subtracted from EPH(C19-32). Analysis of Extractable Petroleum Hydrocarbons adheres to all prescribed elements of the BCMELP method "Extractable Petroleum Hydrocarbons in Solids by GC/FID" (Version 2.1, July 20, 1999).			
MET-200.2-CCMS-VA	Soil	Metals in Soil by CRC ICPMS	EPA 200.2/6020A (mod)
Soil samples are digested with nitric and hydrochloric acids, followed by analysis by CRC ICPMS.			
Method Limitation: This method is not a total digestion technique. It is a very strong acid digestion that is intended to dissolve those metals that may be environmentally available. This method does not dissolve all silicate materials and may result in a partial extraction. depending on the sample matrix, for some metals, including, but not limited to Al, Ba, Be, Cr, Sr, Ti, Tl, and V.			
MET-TCLP-ICP-VA	Soil	Metals by ICPOES (TCLP)	EPA 1311/6010B
This analysis is carried out in accordance with the extraction procedure outlined in "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods Volume 1C" SW-846 EPA Method 1311, published by the United States Environmental Protection Agency (EPA). In summary, the sample is extracted at a 20:1 liquid to solids ratio for 16 to 20 hours using either extraction fluid #1 (glacial acetic acid, water and sodium hydroxide) or extraction fluid #2 (glacial acetic acid), depending on the pH of the original sample. The extract is then filtered through a 0.6 to 0.8 micron glass fibre filter and analysed using inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
MOISTURE-VA	Soil	Moisture content	ASTM D2974-00 Method A
This analysis is carried out gravimetrically by drying the sample at 105 C for a minimum of six hours.			
PAH-TMB-H/A-MS-VA	Soil	PAH - Rotary Extraction (Hexane/Acetone)	EPA 3570/8270
This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Methods 3570 & 8270, published by the United States Environmental Protection Agency (EPA). The procedure uses a mechanical shaking technique to extract a subsample of the sediment/soil with a 1:1 mixture of hexane and acetone. The extract is then solvent exchanged to toluene. The final extract is analysed by capillary column gas chromatography with mass spectrometric detection (GC/MS). Surrogate recoveries may not be reported in cases where interferences from the sample matrix prevent accurate quantitation. Because the two isomers cannot be readily chromatographically separated, benzo(j)fluoranthene is reported as part of the benzo(b)fluoranthene parameter.			
PH-1:2-VA	Soil	pH in Soil (1:2 Soil:Water Extraction)	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL
This analysis is carried out in accordance with procedures described in the pH, Electrometric in Soil and Sediment method - Section B Physical/Inorganic and Misc. Constituents, BC Environmental Laboratory Manual 2007. The procedure involves mixing the dried (at <60 C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water. The pH of the solution is then measured using a standard pH probe.			
VH-HSFID-VA	Soil	VH in soil by Headspace GCFID	BC Env. Lab Manual (VH in Solids)
This analysis involves the extraction of a subsample of the sediment/soil with methanol. Aliquots of the methanol extract are then added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is analyzed for Volatile Hydrocarbons (VH) by capillary column gas chromatography with flame-ionization detection (GC/FID). The methanol extraction and VH analysis are carried out in accordance with the British Columbia Ministry of Environment, Lands and Parks (BCMELP) Analytical Method for Contaminated Sites "Volatile Hydrocarbons in Solids by GC/FID" (Version 2.1 July 1999).			
VH-SURR-FID-VA	Soil	VH Surrogates for Soils	BC Env. Lab Manual (VH in Solids)
VOC-HSMS-VA	Soil	VOCs in soil by Headspace GCMS	EPA 5035A/5021A/8260C

Reference Information

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

VOC7-L-HSMS-VA Soil VOCs in soil by Headspace GCMS EPA 5035A/5021A/8260C

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

VOC7/VOC-SURR-MS-VA Soil VOC7 and/or VOC Surrogates for Soils EPA 5035A/5021A/8260C

VPH-CALC-VA Soil VPH is VH minus select aromatics BC MOE LABORATORY MANUAL (2005)

These results are determined according to the British Columbia Ministry of Environment, Lands, and Parks Analytical Method for Contaminated Sites "Calculation of Volatile Petroleum Hydrocarbons in Solids or Water" (Version 2.1, July 20, 1999). According to this method, the concentrations of specific Monocyclic Aromatic Hydrocarbons (Benzene, Toluene, Ethylbenzene, Xylenes and Styrene) are subtracted from the collective concentration of Volatile Hydrocarbons (VH) that elute between n-hexane (nC6) and n-decane (nC10). Analysis of Volatile Hydrocarbons adheres to all prescribed elements of BCMELP method "Volatile Hydrocarbons in Solids by GC/FID" (Version 2.1, July 20, 1999).

XYLENES-CALC-VA Soil Sum of Xylene Isomer Concentrations EPA 8260B & 524.2

Calculation of Total Xylenes

Total Xylenes is the sum of the concentrations of the ortho, meta, and para Xylene isomers. Results below detection limit (DL) are treated as zero. The DL for Total Xylenes is set to a value no less than the square root of the sum of the squares of the DLs of the individual Xylenes.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
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VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA
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Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg ww - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1842325

Report Date: 26-OCT-16

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Client: Pinchin West LTD.
300 - 1095 McKenzie Avenue
Victoria BC V8P 2L5

Contact: Joshu Bocskei

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EPH-TUMB-FID-VA Soil								
Batch	R3573053							
WG2410134-3	IRM	ALS PHC2 RM						
EPH10-19			80.2		%		70-130	18-OCT-16
EPH19-32			91.7		%		70-130	18-OCT-16
WG2410134-1	MB							
EPH10-19			<200		mg/kg		200	18-OCT-16
EPH19-32			<200		mg/kg		200	18-OCT-16
HG-200.2-CVAF-VA Soil								
Batch	R3571365							
WG2410132-4	CRM	VA-NRC-STSD-3						
Mercury (Hg)			110.4		%		70-130	14-OCT-16
WG2410132-3	LCS							
Mercury (Hg)			102.2		%		70-130	14-OCT-16
WG2410132-1	MB							
Mercury (Hg)			<0.0050		mg/kg		0.005	14-OCT-16
Batch	R3574890							
WG2413085-4	CRM	VA-NRC-STSD-3						
Mercury (Hg)			101.3		%		70-130	19-OCT-16
WG2413085-3	LCS							
Mercury (Hg)			110.3		%		70-130	19-OCT-16
WG2413085-1	MB							
Mercury (Hg)			<0.0050		mg/kg		0.005	19-OCT-16
HG-TCLP-CVAFS-VA Soil								
Batch	R3574890							
WG2412893-1	MB							
Mercury (Hg)-Leachable			<0.0010		mg/L		0.001	19-OCT-16
WG2412893-4	MB							
Mercury (Hg)-Leachable			<0.0010		mg/L		0.001	19-OCT-16
WG2412893-2	MS	L1842325-3						
Mercury (Hg)-Leachable			99.2		%		50-140	19-OCT-16
MET-200.2-CCMS-VA Soil								
Batch	R3572959							
WG2410132-4	CRM	VA-NRC-STSD-3						
Antimony (Sb)			108.5		%		70-130	14-OCT-16
Arsenic (As)			95.2		%		70-130	14-OCT-16
Barium (Ba)			104.6		%		70-130	14-OCT-16
Beryllium (Be)			104.0		%		70-130	14-OCT-16
Cadmium (Cd)			114.9		%		70-130	14-OCT-16

Quality Control Report

Workorder: L1842325

Report Date: 26-OCT-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-VA	Soil							
Batch	R3572959							
WG2410132-4 CRM		VA-NRC-STSD-3						
Chromium (Cr)			102.7		%		70-130	14-OCT-16
Cobalt (Co)			104.4		%		70-130	14-OCT-16
Copper (Cu)			97.9		%		70-130	14-OCT-16
Lead (Pb)			106.1		%		70-130	14-OCT-16
Molybdenum (Mo)			104.9		%		70-130	14-OCT-16
Nickel (Ni)			97.5		%		70-130	14-OCT-16
Selenium (Se)			104.0		%		70-130	14-OCT-16
Thallium (Tl)			106.1		%		70-130	14-OCT-16
Uranium (U)			108.4		%		70-130	14-OCT-16
Vanadium (V)			104.7		%		70-130	14-OCT-16
Zinc (Zn)			100.4		%		70-130	14-OCT-16
WG2410132-3 LCS								
Antimony (Sb)			99.3		%		80-120	14-OCT-16
Arsenic (As)			99.6		%		80-120	14-OCT-16
Barium (Ba)			95.8		%		80-120	14-OCT-16
Beryllium (Be)			89.2		%		80-120	14-OCT-16
Cadmium (Cd)			93.1		%		80-120	14-OCT-16
Chromium (Cr)			89.6		%		80-120	14-OCT-16
Cobalt (Co)			89.4		%		80-120	14-OCT-16
Copper (Cu)			86.6		%		80-120	14-OCT-16
Lead (Pb)			89.4		%		80-120	14-OCT-16
Molybdenum (Mo)			100.8		%		80-120	14-OCT-16
Nickel (Ni)			88.9		%		80-120	14-OCT-16
Selenium (Se)			101.9		%		80-120	14-OCT-16
Silver (Ag)			90.5		%		80-120	14-OCT-16
Thallium (Tl)			90.6		%		80-120	14-OCT-16
Tin (Sn)			96.4		%		80-120	14-OCT-16
Uranium (U)			91.5		%		80-120	14-OCT-16
Vanadium (V)			92.0		%		80-120	14-OCT-16
Zinc (Zn)			87.5		%		80-120	14-OCT-16
WG2410132-1 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	14-OCT-16
Arsenic (As)			<0.10		mg/kg		0.1	14-OCT-16
Barium (Ba)			<0.50		mg/kg		0.5	14-OCT-16
Beryllium (Be)			<0.10		mg/kg		0.1	14-OCT-16

Quality Control Report

Workorder: L1842325

Report Date: 26-OCT-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-VA Soil								
Batch R3572959								
WG2410132-1 MB								
Cadmium (Cd)			<0.020		mg/kg		0.02	14-OCT-16
Chromium (Cr)			<0.50		mg/kg		0.5	14-OCT-16
Cobalt (Co)			<0.10		mg/kg		0.1	14-OCT-16
Copper (Cu)			<0.50		mg/kg		0.5	14-OCT-16
Lead (Pb)			<0.50		mg/kg		0.5	14-OCT-16
Molybdenum (Mo)			<0.10		mg/kg		0.1	14-OCT-16
Nickel (Ni)			<0.50		mg/kg		0.5	14-OCT-16
Selenium (Se)			<0.20		mg/kg		0.2	14-OCT-16
Silver (Ag)			<0.10		mg/kg		0.1	14-OCT-16
Thallium (Tl)			<0.050		mg/kg		0.05	14-OCT-16
Tin (Sn)			<2.0		mg/kg		2	14-OCT-16
Uranium (U)			<0.050		mg/kg		0.05	14-OCT-16
Vanadium (V)			<0.20		mg/kg		0.2	14-OCT-16
Zinc (Zn)			<2.0		mg/kg		2	14-OCT-16
Batch R3574978								
WG2413085-4 CRM VA-NRC-STSD-3								
Antimony (Sb)			101.8		%		70-130	19-OCT-16
Arsenic (As)			87.0		%		70-130	19-OCT-16
Barium (Ba)			94.7		%		70-130	19-OCT-16
Beryllium (Be)			99.2		%		70-130	19-OCT-16
Cadmium (Cd)			104.3		%		70-130	19-OCT-16
Chromium (Cr)			99.0		%		70-130	19-OCT-16
Cobalt (Co)			96.5		%		70-130	19-OCT-16
Copper (Cu)			92.1		%		70-130	19-OCT-16
Lead (Pb)			97.1		%		70-130	19-OCT-16
Molybdenum (Mo)			99.1		%		70-130	19-OCT-16
Nickel (Ni)			92.1		%		70-130	19-OCT-16
Selenium (Se)			96.2		%		70-130	19-OCT-16
Silver (Ag)			94.8		%		70-130	19-OCT-16
Thallium (Tl)			97.3		%		70-130	19-OCT-16
Uranium (U)			96.6		%		70-130	19-OCT-16
Vanadium (V)			99.3		%		70-130	19-OCT-16
Zinc (Zn)			93.7		%		70-130	19-OCT-16
WG2413085-3 LCS								
Antimony (Sb)			91.8		%		80-120	19-OCT-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-VA	Soil							
Batch	R3574978							
WG2413085-3	LCS							
Arsenic (As)			92.5		%		80-120	19-OCT-16
Barium (Ba)			101.3		%		80-120	19-OCT-16
Beryllium (Be)			97.4		%		80-120	19-OCT-16
Cadmium (Cd)			97.6		%		80-120	19-OCT-16
Chromium (Cr)			99.9		%		80-120	19-OCT-16
Cobalt (Co)			96.6		%		80-120	19-OCT-16
Copper (Cu)			95.3		%		80-120	19-OCT-16
Lead (Pb)			97.4		%		80-120	19-OCT-16
Molybdenum (Mo)			94.5		%		80-120	19-OCT-16
Nickel (Ni)			97.5		%		80-120	19-OCT-16
Selenium (Se)			87.4		%		80-120	19-OCT-16
Silver (Ag)			99.9		%		80-120	19-OCT-16
Thallium (Tl)			96.5		%		80-120	19-OCT-16
Tin (Sn)			90.6		%		80-120	19-OCT-16
Uranium (U)			98.8		%		80-120	19-OCT-16
Vanadium (V)			101.4		%		80-120	19-OCT-16
Zinc (Zn)			92.7		%		80-120	19-OCT-16
WG2413085-1	MB							
Antimony (Sb)			<0.10		mg/kg		0.1	19-OCT-16
Arsenic (As)			<0.10		mg/kg		0.1	19-OCT-16
Barium (Ba)			<0.50		mg/kg		0.5	19-OCT-16
Beryllium (Be)			<0.10		mg/kg		0.1	19-OCT-16
Cadmium (Cd)			<0.020		mg/kg		0.02	19-OCT-16
Chromium (Cr)			<0.50		mg/kg		0.5	19-OCT-16
Cobalt (Co)			<0.10		mg/kg		0.1	19-OCT-16
Copper (Cu)			<0.50		mg/kg		0.5	19-OCT-16
Lead (Pb)			<0.50		mg/kg		0.5	19-OCT-16
Molybdenum (Mo)			<0.10		mg/kg		0.1	19-OCT-16
Nickel (Ni)			<0.50		mg/kg		0.5	19-OCT-16
Selenium (Se)			<0.20		mg/kg		0.2	19-OCT-16
Silver (Ag)			<0.10		mg/kg		0.1	19-OCT-16
Thallium (Tl)			<0.050		mg/kg		0.05	19-OCT-16
Tin (Sn)			<2.0		mg/kg		2	19-OCT-16
Uranium (U)			<0.050		mg/kg		0.05	19-OCT-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-VA	Soil							
Batch	R3574978							
WG2413085-1 MB								
Vanadium (V)			<0.20		mg/kg		0.2	19-OCT-16
Zinc (Zn)			<2.0		mg/kg		2	19-OCT-16
MET-TCLP-ICP-VA	Soil							
Batch	R3575007							
WG2412893-1 MB								
Antimony (Sb)-Leachable			<1.0		mg/L		1	19-OCT-16
Arsenic (As)-Leachable			<1.0		mg/L		1	19-OCT-16
Barium (Ba)-Leachable			<2.5		mg/L		2.5	19-OCT-16
Beryllium (Be)-Leachable			<0.025		mg/L		0.025	19-OCT-16
Boron (B)-Leachable			<0.50		mg/L		0.5	19-OCT-16
Cadmium (Cd)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Calcium (Ca)-Leachable			<2.0		mg/L		2	19-OCT-16
Chromium (Cr)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Cobalt (Co)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Copper (Cu)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Iron (Fe)-Leachable			<0.15		mg/L		0.15	19-OCT-16
Lead (Pb)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Magnesium (Mg)-Leachable			<0.50		mg/L		0.5	19-OCT-16
Nickel (Ni)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Selenium (Se)-Leachable			<1.0		mg/L		1	19-OCT-16
Silver (Ag)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Thallium (Tl)-Leachable			<1.0		mg/L		1	19-OCT-16
Vanadium (V)-Leachable			<0.15		mg/L		0.15	19-OCT-16
Zinc (Zn)-Leachable			<0.50		mg/L		0.5	19-OCT-16
WG2412893-4 MB								
Antimony (Sb)-Leachable			<1.0		mg/L		1	19-OCT-16
Arsenic (As)-Leachable			<1.0		mg/L		1	19-OCT-16
Barium (Ba)-Leachable			<2.5		mg/L		2.5	19-OCT-16
Beryllium (Be)-Leachable			<0.025		mg/L		0.025	19-OCT-16
Boron (B)-Leachable			<0.50		mg/L		0.5	19-OCT-16
Cadmium (Cd)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Calcium (Ca)-Leachable			<2.0		mg/L		2	19-OCT-16
Chromium (Cr)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Cobalt (Co)-Leachable			<0.050		mg/L		0.05	19-OCT-16

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-ICP-VA								
Soil								
Batch	R3575007							
WG2412893-4	MB							
Copper (Cu)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Iron (Fe)-Leachable			<0.15		mg/L		0.15	19-OCT-16
Lead (Pb)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Magnesium (Mg)-Leachable			<0.50		mg/L		0.5	19-OCT-16
Nickel (Ni)-Leachable			<0.25		mg/L		0.25	19-OCT-16
Selenium (Se)-Leachable			<1.0		mg/L		1	19-OCT-16
Silver (Ag)-Leachable			<0.050		mg/L		0.05	19-OCT-16
Thallium (Tl)-Leachable			<1.0		mg/L		1	19-OCT-16
Vanadium (V)-Leachable			<0.15		mg/L		0.15	19-OCT-16
Zinc (Zn)-Leachable			<0.50		mg/L		0.5	19-OCT-16
WG2412893-2	MS	L1842325-3						
Antimony (Sb)-Leachable			107.1		%		50-140	19-OCT-16
Arsenic (As)-Leachable			104.8		%		50-140	19-OCT-16
Barium (Ba)-Leachable			111.8		%		50-140	19-OCT-16
Beryllium (Be)-Leachable			102.7		%		50-140	19-OCT-16
Boron (B)-Leachable			104.7		%		50-140	19-OCT-16
Cadmium (Cd)-Leachable			98.1		%		50-140	19-OCT-16
Calcium (Ca)-Leachable			104.4		%		50-140	19-OCT-16
Chromium (Cr)-Leachable			99.2		%		50-140	19-OCT-16
Cobalt (Co)-Leachable			103.5		%		50-140	19-OCT-16
Copper (Cu)-Leachable			104.4		%		50-140	19-OCT-16
Iron (Fe)-Leachable			99.2		%		50-140	19-OCT-16
Lead (Pb)-Leachable			99.1		%		50-140	19-OCT-16
Magnesium (Mg)-Leachable			106.6		%		50-140	19-OCT-16
Nickel (Ni)-Leachable			99.8		%		50-140	19-OCT-16
Selenium (Se)-Leachable			107.4		%		50-140	19-OCT-16
Silver (Ag)-Leachable			106.7		%		50-140	19-OCT-16
Thallium (Tl)-Leachable			100.3		%		50-140	19-OCT-16
Vanadium (V)-Leachable			108.7		%		50-140	19-OCT-16
Zinc (Zn)-Leachable			99.4		%		50-140	19-OCT-16
MOISTURE-VA								
Soil								
Batch	R3570637							
WG2410130-2	LCS							
Moisture			99.0		%		90-110	13-OCT-16
WG2410130-1	MB							

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MOISTURE-VA								
	Soil							
Batch	R3570637							
WG2410130-1 MB								
Moisture			<0.25		%		0.25	13-OCT-16
PAH-TMB-H/A-MS-VA								
	Soil							
Batch	R3571825							
WG2410134-2 LCS								
Acenaphthene			89.4		%		60-130	18-OCT-16
Acenaphthylene			84.2		%		60-130	18-OCT-16
Anthracene			76.2		%		60-130	18-OCT-16
Benz(a)anthracene			86.9		%		60-130	18-OCT-16
Benzo(a)pyrene			100.1		%		60-130	18-OCT-16
Benzo(b)fluoranthene			91.8		%		60-130	18-OCT-16
Benzo(g,h,i)perylene			76.6		%		60-130	18-OCT-16
Benzo(k)fluoranthene			96.0		%		60-130	18-OCT-16
Chrysene			98.3		%		60-130	18-OCT-16
Dibenz(a,h)anthracene			85.5		%		60-130	18-OCT-16
Fluoranthene			91.8		%		60-130	18-OCT-16
Fluorene			83.6		%		60-130	18-OCT-16
Indeno(1,2,3-c,d)pyrene			82.3		%		60-130	18-OCT-16
2-Methylnaphthalene			76.4		%		60-130	18-OCT-16
Naphthalene			85.5		%		50-130	18-OCT-16
Phenanthrene			88.4		%		60-130	18-OCT-16
Pyrene			93.1		%		60-130	18-OCT-16
WG2410134-1 MB								
Acenaphthene			<0.0050		mg/kg		0.005	18-OCT-16
Acenaphthylene			<0.0050		mg/kg		0.005	18-OCT-16
Anthracene			<0.0040		mg/kg		0.004	18-OCT-16
Benz(a)anthracene			<0.010		mg/kg		0.01	18-OCT-16
Benzo(a)pyrene			<0.010		mg/kg		0.01	18-OCT-16
Benzo(b)fluoranthene			<0.010		mg/kg		0.01	18-OCT-16
Benzo(g,h,i)perylene			<0.010		mg/kg		0.01	18-OCT-16
Benzo(k)fluoranthene			<0.010		mg/kg		0.01	18-OCT-16
Chrysene			<0.010		mg/kg		0.01	18-OCT-16
Dibenz(a,h)anthracene			<0.0050		mg/kg		0.005	18-OCT-16
Fluoranthene			<0.010		mg/kg		0.01	18-OCT-16
Fluorene			<0.010		mg/kg		0.01	18-OCT-16

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PAH-TMB-H/A-MS-VA Soil								
Batch R3571825								
WG2410134-1 MB								
Indeno(1,2,3-c,d)pyrene			<0.010		mg/kg		0.01	18-OCT-16
2-Methylnaphthalene			<0.010		mg/kg		0.01	18-OCT-16
Naphthalene			<0.010		mg/kg		0.01	18-OCT-16
Phenanthrene			<0.010		mg/kg		0.01	18-OCT-16
Pyrene			<0.010		mg/kg		0.01	18-OCT-16
Surrogate: Naphthalene d8			88.2		%		50-130	18-OCT-16
Surrogate: Acenaphthene d10			88.4		%		60-130	18-OCT-16
Surrogate: Phenanthrene d10			88.9		%		60-130	18-OCT-16
Surrogate: Chrysene d12			103.3		%		60-130	18-OCT-16
VH-HSFID-VA Soil								
Batch R3570411								
WG2411082-3 DUP L1842325-15								
Volatile Hydrocarbons (VH6-10)		<100	<100	RPD-NA	mg/kg	N/A	40	17-OCT-16
WG2411082-2 LCS								
Volatile Hydrocarbons (VH6-10)			119.6		%		70-130	17-OCT-16
WG2411082-1 MB								
Volatile Hydrocarbons (VH6-10)			<100		mg/kg		100	17-OCT-16
VOC-HSMS-VA Soil								
Batch R3569528								
WG2411082-3 DUP L1842325-15								
Bromodichloromethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
Bromoform		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
Carbon Tetrachloride		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
Chlorobenzene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
Dibromochloromethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
Chloroethane		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	15-OCT-16
Chloroform		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	15-OCT-16
Chloromethane		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	15-OCT-16
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
1,4-Dichlorobenzene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16

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VOC-HSMS-VA		Soil						
Batch	R3569528							
WG2411082-3	DUP	L1842325-15						
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
Dichloromethane		<0.30	<0.30	RPD-NA	mg/kg	N/A	50	15-OCT-16
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
cis-1,3-Dichloropropylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
trans-1,3-Dichloropropylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
Tetrachloroethylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	15-OCT-16
Trichloroethylene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	15-OCT-16
Trichlorofluoromethane		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	15-OCT-16
Vinyl Chloride		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	15-OCT-16
WG2411082-2	LCS							
Bromodichloromethane			108.2		%		70-130	15-OCT-16
Bromoform			111.4		%		70-130	15-OCT-16
Carbon Tetrachloride			114.6		%		70-130	15-OCT-16
Chlorobenzene			109.5		%		70-130	15-OCT-16
Dibromochloromethane			112.1		%		70-130	15-OCT-16
Chloroethane			90.8		%		60-140	15-OCT-16
Chloroform			112.5		%		70-130	15-OCT-16
Chloromethane			72.9		%		60-140	15-OCT-16
1,2-Dichlorobenzene			108.9		%		70-130	15-OCT-16
1,3-Dichlorobenzene			108.6		%		70-130	15-OCT-16
1,4-Dichlorobenzene			109.4		%		70-140	15-OCT-16
1,1-Dichloroethane			106.7		%		70-130	15-OCT-16
1,2-Dichloroethane			107.6		%		70-130	15-OCT-16
1,1-Dichloroethylene			102.2		%		70-130	15-OCT-16
cis-1,2-Dichloroethylene			105.0		%		70-130	15-OCT-16
trans-1,2-Dichloroethylene			105.1		%		70-130	15-OCT-16
Dichloromethane			103.0		%		60-140	15-OCT-16
1,2-Dichloropropane			106.4		%		70-130	15-OCT-16
cis-1,3-Dichloropropylene			96.8		%		70-130	15-OCT-16
trans-1,3-Dichloropropylene			98.2		%		70-130	15-OCT-16

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VOC-HSMS-VA	Soil							
Batch	R3569528							
WG2411082-2 LCS								
1,1,1,2-Tetrachloroethane			112.5		%		70-130	15-OCT-16
1,1,2,2-Tetrachloroethane			105.6		%		70-130	15-OCT-16
Tetrachloroethylene			109.0		%		70-130	15-OCT-16
1,1,1-Trichloroethane			114.7		%		70-130	15-OCT-16
1,1,2-Trichloroethane			104.9		%		70-130	15-OCT-16
Trichloroethylene			107.9		%		70-130	15-OCT-16
Trichlorofluoromethane			105.2		%		60-140	15-OCT-16
Vinyl Chloride			76.7		%		60-140	15-OCT-16
WG2411082-1 MB								
Bromodichloromethane			<0.050		mg/kg		0.05	15-OCT-16
Bromoform			<0.050		mg/kg		0.05	15-OCT-16
Carbon Tetrachloride			<0.050		mg/kg		0.05	15-OCT-16
Chlorobenzene			<0.050		mg/kg		0.05	15-OCT-16
Dibromochloromethane			<0.050		mg/kg		0.05	15-OCT-16
Chloroethane			<0.10		mg/kg		0.1	15-OCT-16
Chloroform			<0.10		mg/kg		0.1	15-OCT-16
Chloromethane			<0.10		mg/kg		0.1	15-OCT-16
1,2-Dichlorobenzene			<0.050		mg/kg		0.05	15-OCT-16
1,3-Dichlorobenzene			<0.050		mg/kg		0.05	15-OCT-16
1,4-Dichlorobenzene			<0.050		mg/kg		0.05	15-OCT-16
1,1-Dichloroethane			<0.050		mg/kg		0.05	15-OCT-16
1,2-Dichloroethane			<0.050		mg/kg		0.05	15-OCT-16
1,1-Dichloroethylene			<0.050		mg/kg		0.05	15-OCT-16
cis-1,2-Dichloroethylene			<0.050		mg/kg		0.05	15-OCT-16
trans-1,2-Dichloroethylene			<0.050		mg/kg		0.05	15-OCT-16
Dichloromethane			<0.30		mg/kg		0.3	15-OCT-16
1,2-Dichloropropane			<0.050		mg/kg		0.05	15-OCT-16
cis-1,3-Dichloropropylene			<0.050		mg/kg		0.05	15-OCT-16
trans-1,3-Dichloropropylene			<0.050		mg/kg		0.05	15-OCT-16
1,1,1,2-Tetrachloroethane			<0.050		mg/kg		0.05	15-OCT-16
1,1,2,2-Tetrachloroethane			<0.050		mg/kg		0.05	15-OCT-16
Tetrachloroethylene			<0.050		mg/kg		0.05	15-OCT-16
1,1,1-Trichloroethane			<0.050		mg/kg		0.05	15-OCT-16
1,1,2-Trichloroethane			<0.050		mg/kg		0.05	15-OCT-16

Quality Control Report

Workorder: L1842325

Report Date: 26-OCT-16

Page 11 of 12

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HSMS-VA Soil								
Batch	R3569528							
WG2411082-1 MB								
Trichloroethylene			<0.010		mg/kg		0.01	15-OCT-16
Trichlorofluoromethane			<0.10		mg/kg		0.1	15-OCT-16
Vinyl Chloride			<0.10		mg/kg		0.1	15-OCT-16
VOC7-L-HSMS-VA Soil								
Batch	R3569528							
WG2411082-3 DUP		L1842325-15						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	40	15-OCT-16
Ethylbenzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	40	15-OCT-16
Methyl t-butyl ether (MTBE)		<0.20	<0.20	RPD-NA	mg/kg	N/A	40	15-OCT-16
Styrene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	15-OCT-16
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	15-OCT-16
meta- & para-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	15-OCT-16
ortho-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	15-OCT-16
WG2411082-2 LCS								
Benzene			107.7		%		70-130	15-OCT-16
Ethylbenzene			111.8		%		70-130	15-OCT-16
Methyl t-butyl ether (MTBE)			107.6		%		70-130	15-OCT-16
Styrene			112.0		%		70-130	15-OCT-16
Toluene			109.4		%		70-130	15-OCT-16
meta- & para-Xylene			115.0		%		70-130	15-OCT-16
ortho-Xylene			112.8		%		70-130	15-OCT-16
WG2411082-1 MB								
Benzene			<0.0050		mg/kg		0.005	15-OCT-16
Ethylbenzene			<0.015		mg/kg		0.015	15-OCT-16
Methyl t-butyl ether (MTBE)			<0.20		mg/kg		0.2	15-OCT-16
Styrene			<0.050		mg/kg		0.05	15-OCT-16
Toluene			<0.050		mg/kg		0.05	15-OCT-16
meta- & para-Xylene			<0.050		mg/kg		0.05	15-OCT-16
ortho-Xylene			<0.050		mg/kg		0.05	15-OCT-16

Quality Control Report

Workorder: L1842325

Report Date: 26-OCT-16

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



ANALYTICAL REPORT

Report Date: October 24, 2016

Selam Worku
ALS Laboratory Group
8081 Lougheed Hwy
Suite 100
Burnaby, BC V5A 1W9
CANADA

Phone: (604) 253-4188

E-mail: selam.worku@ALSGlobal.com

Workorder: **34-1629157**

Client Project ID: L1842325 101716

Purchase Order: L1842325

Project Manager: Paul Pope

Analytical Results

Sample ID: 16-TP204-0.4M		Collected: 10/11/2016
Lab ID: 1629157001	Sampling Location: L1842325	Received: 10/17/2016
Method: Illicit Drugs by LC/MS	Media: Bulk	Analyzed: 10/20/2016
Sampling Parameter: Volume Not Provided		
Analyte	Result (ug/g)	RL (ug/g)
Methamphetamine	ND	0.10

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
Illicit Drugs by LC/MS	/S/ Trenton Stewart 10/24/2016 13:16	/S/ Thomas Bosch 10/24/2016 14:19

Laboratory Contact Information

ALS Environmental
960 W LeVoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
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Environmental

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ANALYTICAL REPORT

Workorder: **34-1629157**

Client Project ID: L1842325 101716

Purchase Order: L1842325

Project Manager: Paul Pope

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ANAB (DoD ELAP)	ADE-1420	http://www.anab.org/accredited-organizations/
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdwlabservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
	Washington	C596-16	http://www.ecy.wa.gov/programs/eap/labs/index.html
	Kansas	E-10416	http://www.kdheks.gov/lipo/index.html
Industrial Hygiene	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
	Washington	C596-16	http://www.ecy.wa.gov/programs/eap/labs/index.html
Lead Testing:			
CPSC	ANAB (ISO 17025, CPSC)	ADE-1420	http://www.anab.org/accredited-organizations/
Soil, Dust, Paint ,Air	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aiclasscorp.com

Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.

LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.

ND = Not Detected, Testing result not detected above the LOD or LOQ.

NA = Not Applicable.

** No result could be reported, see sample comments for details.

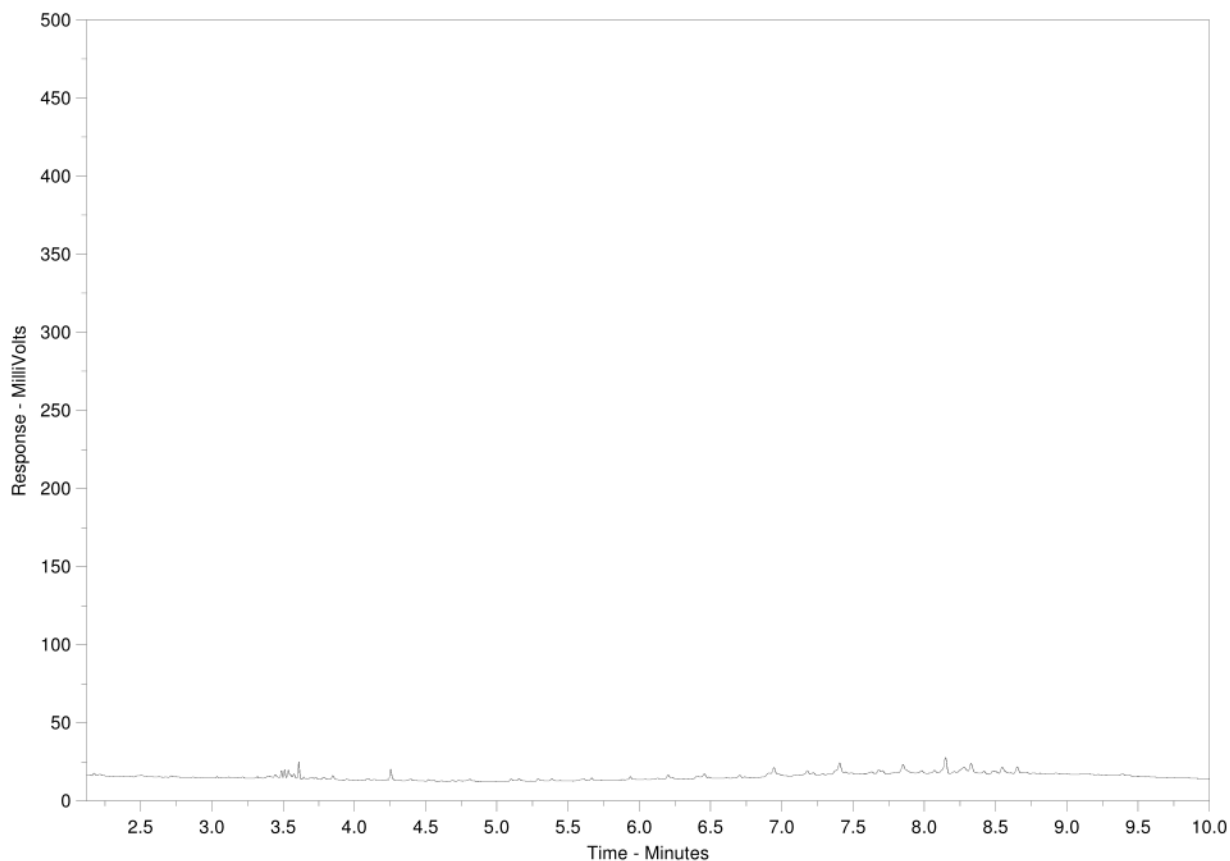
< This testing result is less than the numerical value.

() This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.

Hydrocarbon Distribution Report



ALS Sample ID: L1842325-1
Client Sample ID: 16-TP201-0.6M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

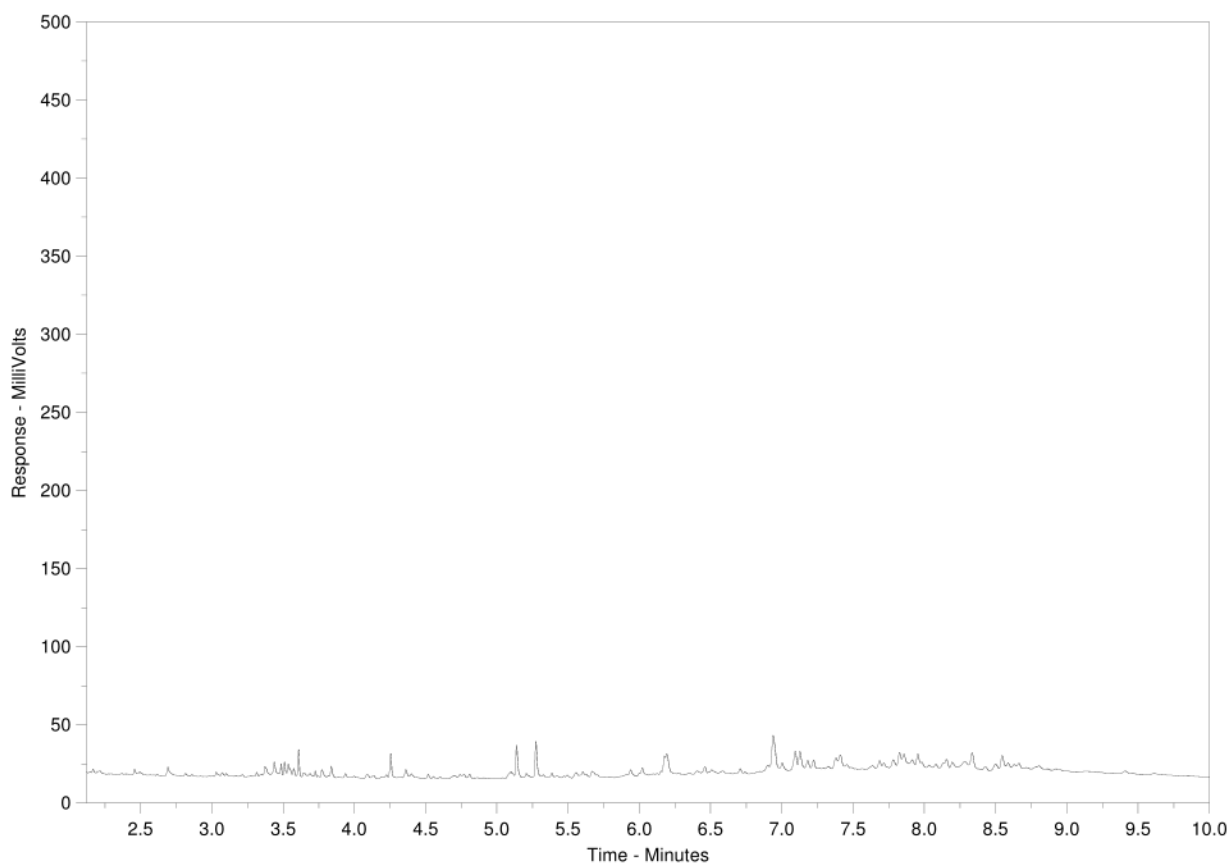
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1842325-3
Client Sample ID: 16-TP202-0.5M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

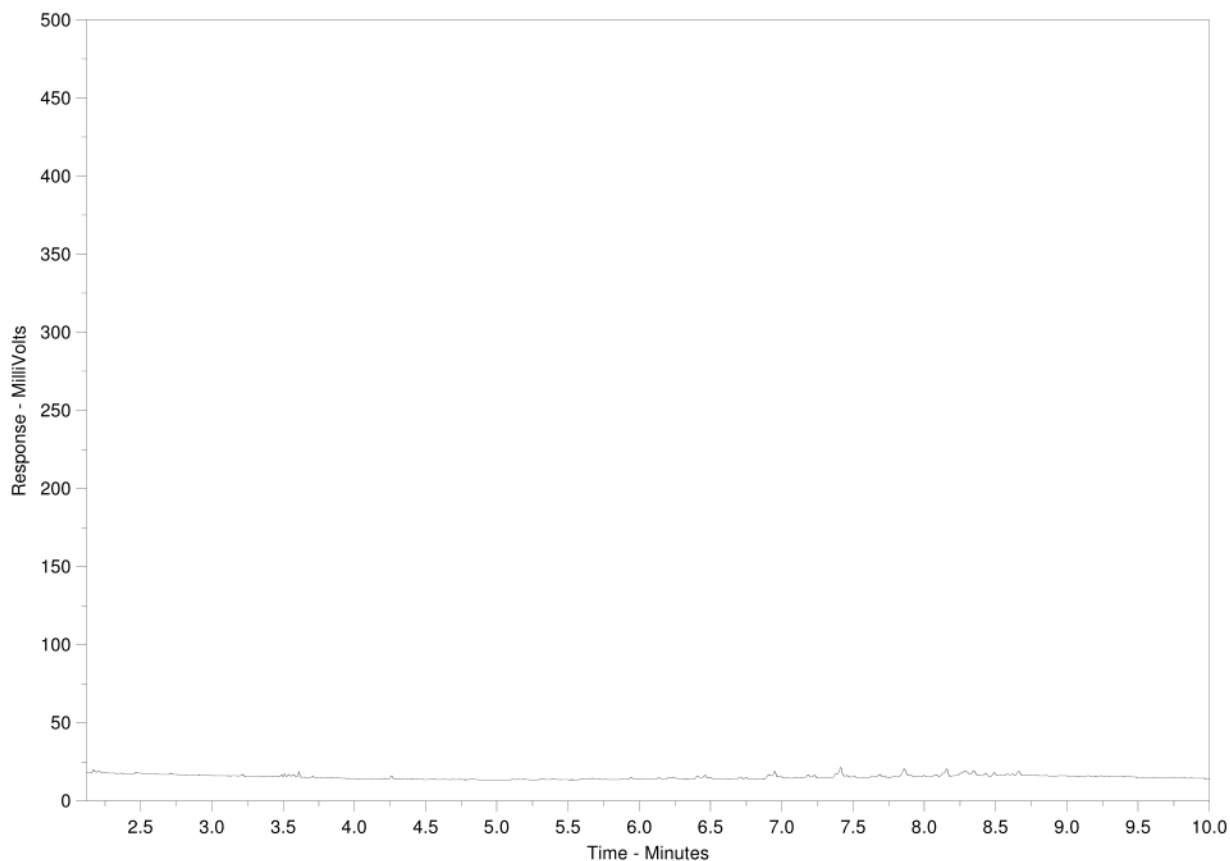
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1842325-6
Client Sample ID: 16-TP203-0.5M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

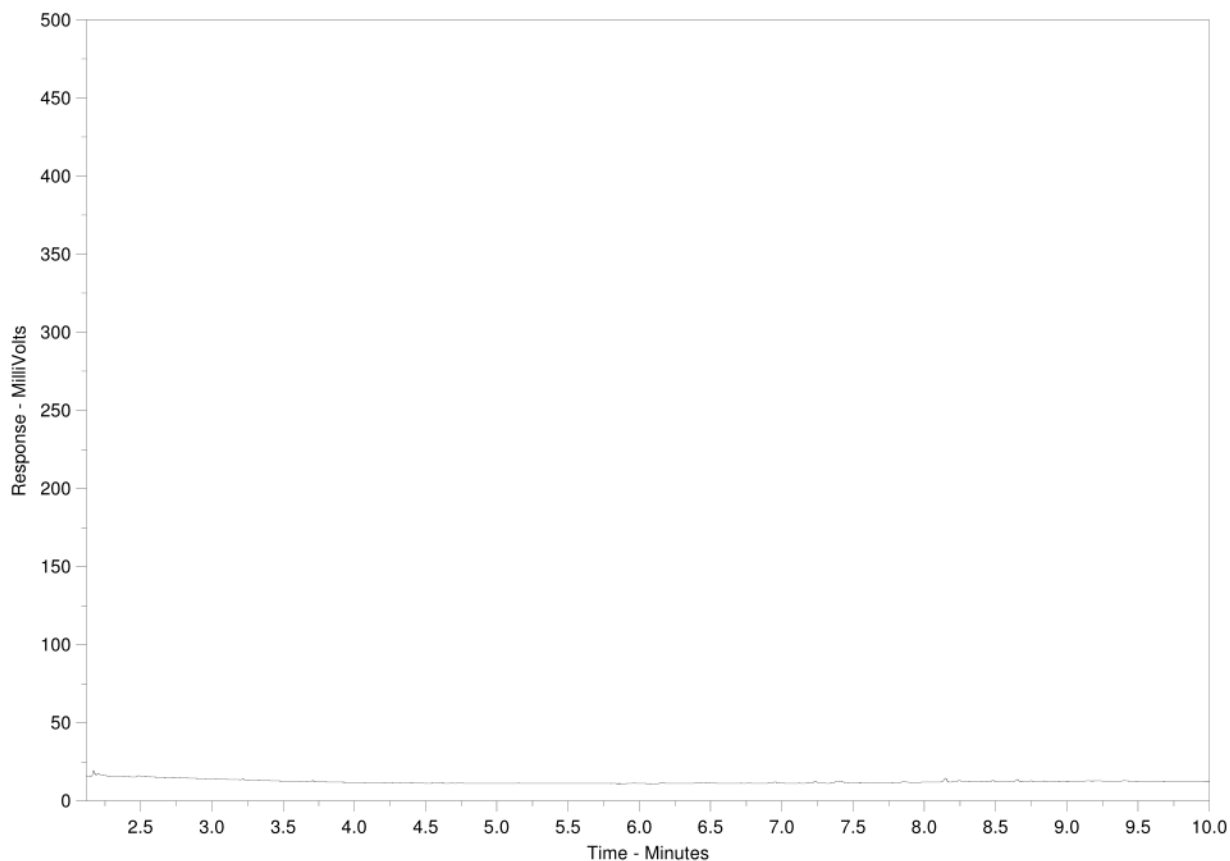
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1842325-9
Client Sample ID: 16-TP204-0.4M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

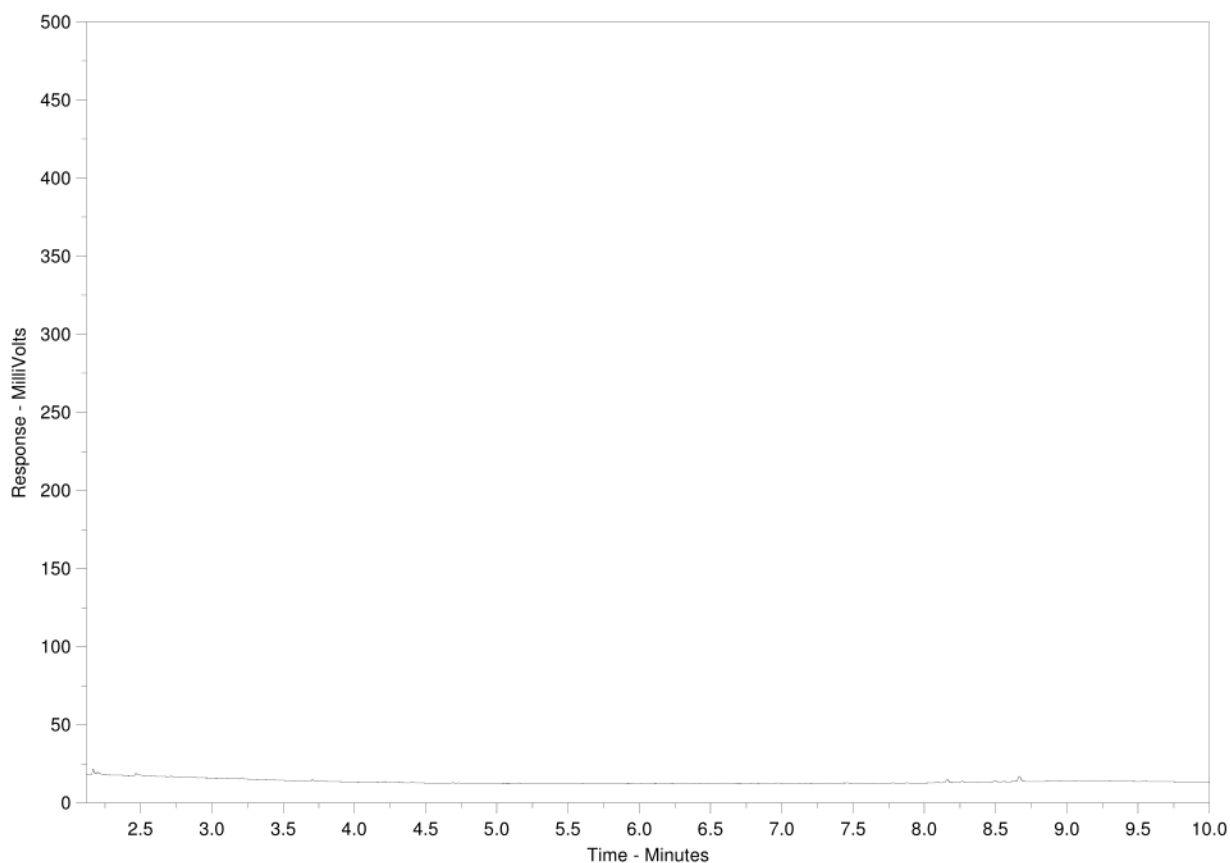
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1842325-10
Client Sample ID: 16-TP205-0.4M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

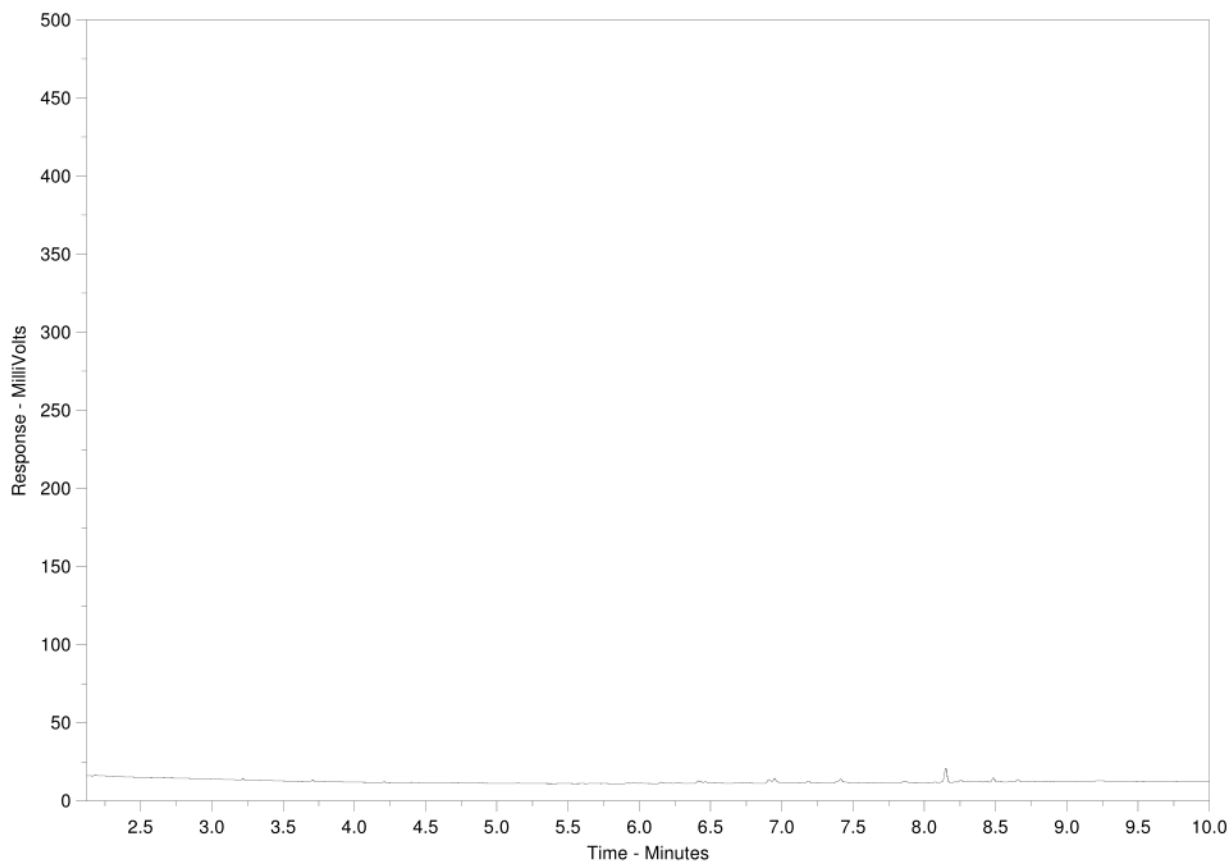
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1842325-12
Client Sample ID: 16-TP206-0.5M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

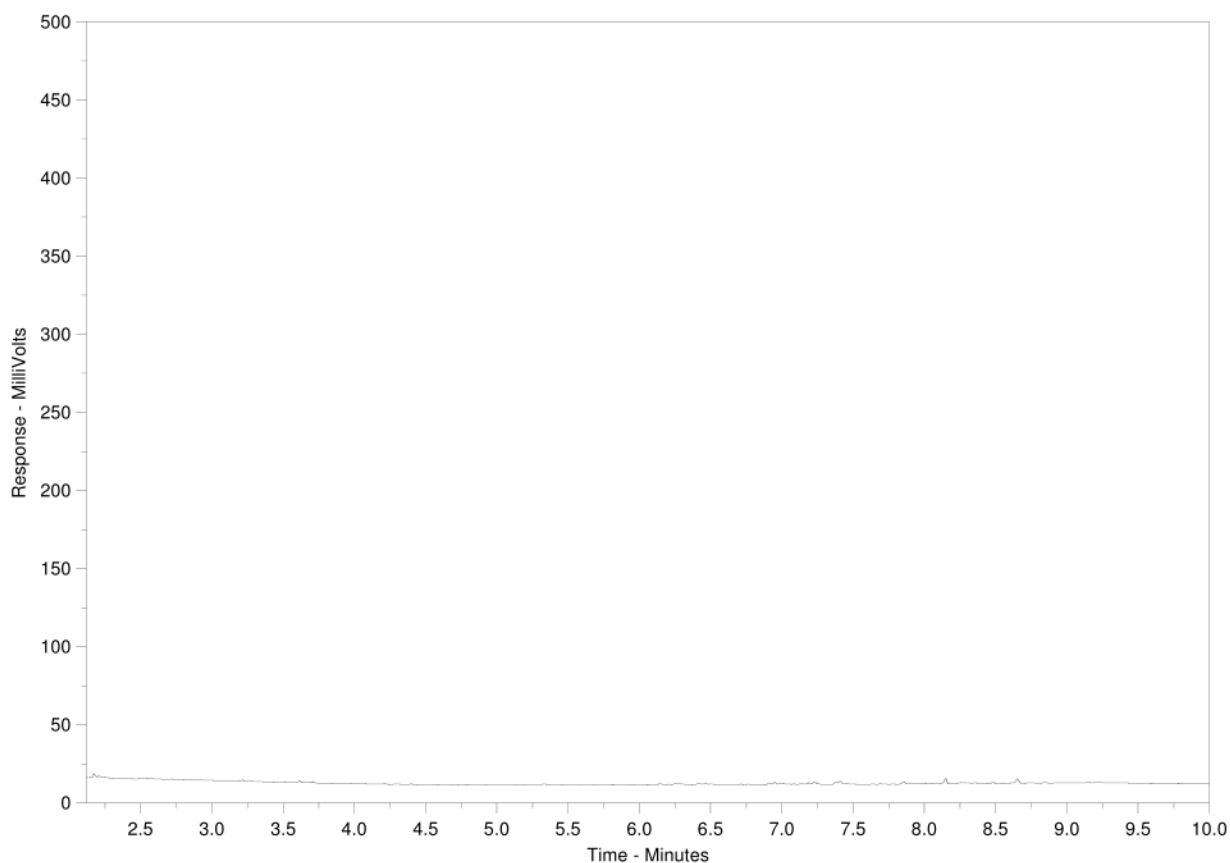
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Hydrocarbon Distribution Report



ALS Sample ID: L1842325-15
Client Sample ID: 16-TP107-0.5M



nC10	nC19	nC32
174°C	330°C	467°C
346°F	626°F	873°F
← Gasoline → ← Diesel / Jet Fuels → ← Motor Oils / Lube Oils / Grease →		

The EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample. For further interpretation, a current library of reference products is available on www.alsglobal.com or upon request.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products, and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples by as much as 0.5 minutes.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the response scale at the left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Report To			Report Format / Distribution			Service Requested (Rush for routine analysis subject to availability)											
Company: Pinchin West Ltd.			☐ Standard ☐ Other			☒ Regular (Standard Turnaround Times - Business Days)											
Contact: Joshu Bocskai			☒ PDF ☒ Excel ☐ Digital ☐ Fax			☐ Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT											
Address: 329-1095 McKenzie Ave, Victoria, BC			Email 1: jbocskai@pinchinwest.com			☐ Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT											
Phone: s.22			Email 2: jquamme@pinchinwest.com			☐ Same Day or Weekend Emergency - Contact ALS to Confirm TAT											
Fax:			Email 3:			Analysis Request											
Invoice To: Same as Report? ☐ Yes ☐ No			Client / Project Information			Please indicate below Filtered, Preserved or both (F, P, F/P)											
Hardcopy of Invoice with Report? ☐ Yes ☐ No			Job #: 13858B														
Company:			PO / AFE:														
Contact:			LSD: 850 Burdett Avenue, Victoria, BC														
Address:			Quote #:														
Phone:			Fax:														
Lab Work Order # (lab use only)			ALS Contact: selam Sampler: joshu bocskai														
Sample	Sample Identification		Date (dd-mm-yy)	Time (hh:mm)	Sample Type	LEPH, HEPH, PAH, VOC, VPH	metals	methamphetamine					HOLD	Number of Containers			
	(This description will appear on the report)																
1	16-TP201 - 0.6m		11-Oct-16		soil	X	X										
2	16-TP201 - 1.4m												X				
3	16-TP202 - 0.5m					X	X										
4	16-TP202 - 1.0m												X				
5	16-TP202 - 1.5m												X				
6	16-TP203 - 0.5m					X	X										
7	16-TP203 - 1.0m												X				
8	16-TP203 - 1.5m												X				
9	16-TP204 - 0.4m					X	X	X									
10	16-TP205 - 0.4m					X	X										
11	16-TP205 - 0.9m												X				
12	16-TP206 - 0.5m					X	X										

L1842325-COFC

Special Instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details

CSR RL

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.

Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)			SHIPMENT VERIFICATION (lab use only)		
Released by:	Date (dd-mm-yy):	Time (hh-mm):	Received by:	Date:	Time:	Temperature:	Verified by:	Date:
	Oct 11 2016		Wister	Oct 11	13:30	14.6	HMC	Oct 12/16 11:05

[illegible]

Special Instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details

CSR RL

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.

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SHIPMENT RELEASE (client use)

SHIPMENT RECEPTION (lab use only)

SHIPMENT VERIFICATION (lab use only)

Released by: <u>[Signature]</u>	Date (dd-mm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Page 103 of 203	Observations: 0430
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11 Oct 16 ~~Karla~~ ~~Wanda~~ ~~NATH~~ 13:30 14.6

Verified by: _____ Date: _____ Page 113 of 203 Observations: 0430