

Appendix A

Soil Sampling Report

**Soil Sampling Program (Draft)
Caraquet Small Craft Harbour,
Gloucester County, New
Brunswick**

DFRP No. 04933

RPIS No. MS 02528

SCH No. 2528

**PUBLIC WORKS AND
GOVERNMENT SERVICES
CANADA FOR FISHERIES AND
OCEANS CANADA**

December 2016

Our File No.: 16-4652

Submitted by:

DILLON CONSULTING LIMITED

December 14, 2016

**PUBLIC WORKS & GOVERNMENT
SERVICES CANADA**

189 Prince William
Saint John, NB
E2L 2B9

ATTENTION: Chyann Kirby
Senior Environmental Specialist

***Soil Sampling Program (Draft), Caraquet Small Craft Harbour, Gloucester
County, New Brunswick, DFRP No.04933; RPIS No. MS 02528; SCH No. 2528***

We are pleased to provide this draft soil sampling program report for the Caraquet
Small Craft Harbour, Gloucester County, New Brunswick.

We trust this meets your present needs. If you have any questions, please feel free to
contact us at (506) 444-8820 at your convenience.

Yours truly,

DILLON CONSULTING LIMITED

Shawn Forster, M.Eng., P.Eng.
Project Manager

SAF:trw

Our File: 16-4652

EXECUTIVE SUMMARY

Dillon Consulting Limited (Dillon) was retained by Public Works Government Services Canada (PWGSC) to complete a soil sampling program at the Department of Fisheries and Oceans Canada - Small Craft Harbour (DFO-SCH) in Caraquet, Gloucester County, New Brunswick (SCH No. 02528; DFRP No. 04933)

Ten soil samples and one duplicate sample were collected by Dillon personnel from the Caraquet SCH and submitted to Maxxam Analytics Inc. (Maxxam) in Bedford, Nova Scotia for select chemical analysis in soil, including polycyclic aromatic hydrocarbons (PAHs), metals and metalloids, benzene, toluene, ethylbenzene, and xylenes (BTEX) and petroleum hydrocarbons, polychlorinated biphenyls (PCBs), sodium absorption ratio, conductivity, pH, and soil grain size.

To identify future disposal requirements, the analyzed soil samples were compared to the following:

- Loggies Pit Dredge Material Acceptance Criteria (2016);
- Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (SoQGs) for the Protection of Environment and Human Health in agricultural, residential/parkland, and commercial/industrial applications;
- CCME Canada-Wide Standards (CWS) for Petroleum Hydrocarbons (PHC) in Soil;
- The Atlantic PIRI Tier I Risk-Based Screening Levels (RBSLs) for BTEX and mTPH;
- The Atlantic PIRI Tier I Soil Ecological Screening Levels (ESLs) for BTEX and mTPH;
- Nepisiguit-Chaleur Solid Waste Commission Screening Limits;
- Health Canada Drinking Water Quality Guidelines; and
- CCME Water Quality Guidelines (Protection of Aquatic Life and Agriculture).

The Nova Scotia Guidelines for Disposal of Contaminated Solids in Landfills presented in analytical data tables (**Tables D-3 and D-7; Appendix D**) are for reference only.

The analytical results indicate that the soil did not exceed the applicable screening criteria for BTEX and petroleum hydrocarbons; PAHs; PCBs; metals or metalloids. However, exceedances of several guidelines were identified for pH and sodium absorption ratio in soil, as well as concentrations of leachable PAHs (exceeding the CCME Water Quality Guidelines protective of

freshwater aquatic life) and metals (exceeding the CCME Water Quality Guidelines: Protection of Freshwater Aquatic Life; CCME Water Quality Guidelines: Protection of Agriculture (Irrigation or Livestock); and Health Canada's Drinking Water Quality Guidelines). A summary of exceedances is presented in **Table E.1**.

Table E.1: Summary of Exceedances

Parameter/Guideline	CCME Water Quality Guidelines		Health Canada Drinking Water Quality Guidelines	CCME Soil Quality Guidelines		Loggies Pit Dredge Material Acceptance Criteria
Sample ID	PAH Leachate (SPLP)	Metal Leachate (SPLP)	Metal Leachate (SPLP)	Sodium Absorption Ratio	pH	pH
BH16-02- SA1	●	●	●	●	-	-
BH16-02-SA3	-	-	●	-	●	●
BH16-03-SA1	-	●	●	-	●	●
BH16-03-SA3	-	●	●	-	●	●
BH16-04-SA1	-	●	●	-	●	●
BH16-04-SA1-FD	-	●	●	-	●	●
BH16-04-SA3	-	●	●	-	●	●
BH16-05-SA1	-	●	●	-	●	●
BH16-05-SA3	-	-	-	-	●	●
BH16-06-SA1	-	●	●	-	●	●
BH16-06-SA4	-	●	●	●	●	●

Notes:

"---" denotes no exceedance of the screening criteria.

"●" denotes exceedance of the screening criteria.

The statements made in this Executive Summary are subject to the same limitations included in **Section 5.0** (Closure), and are to be read in conjunction with the remainder of this report

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1.0 INTRODUCTION

At the request of Public Works and Government Services Canada (PWGSC), Dillon Consulting Limited (Dillon) completed a soil sampling program at the Department of Fisheries and Oceans Canada - Small Craft Harbour (DFO-SCH) in Caraquet, Gloucester County, New Brunswick (SCH No. 02528; DFRP No. 04933). The purpose of this program was to characterize the approximately 5610 m³ of fill material (height: 2 m; length: 165 m; and width: 17 m) that is anticipated to be removed during upcoming reconstruction activities.

2.0 SOIL SAMPLING PROGRAM – DILLON 2016

2.1 Methodology

On October 28, 2016, a drilling program was conducted to assess soil conditions at Wharf 405 on the subject property. Lantech Drilling Services Inc. (Lantech) of Dieppe, NB, under the supervision of Conquest Engineering Ltd. (Conquest) installed 6 boreholes (BH16-1 to BH16-6), to depths of 2.7 m below ground surface (m bgs). The drilling program was conducted as part of Conquest's geotechnical investigation of the subject property. Borehole locations are presented on **Figure 1** in **Appendix A**.

Continuous split-spoon soil samples, collected at 0.6 m intervals, were recovered from each borehole/monitor well until sufficient depth had been achieved. Dillon field personnel logged subsurface conditions encountered in the boreholes at the time of sampling. Stratigraphic information is presented on the borehole logs presented in **Appendix B**. Soil samples were placed in laboratory supplied containers and stored in a cooler with ice. Terra Core disposable field samplers provided by the laboratory were used to measure the correct volume of soil to fill specific laboratory supplied 40 ml vials pre-charged with methanol preservation. VOC concentration measurements were obtained from the headspace of each of the recovered soil samples, at room temperature, using an Eagle Gas detector meter with methane elimination, and calibrated to hexane. Based on field observations, including the headspace readings, select soil samples from the borehole were submitted for laboratory analysis.

Site photographs as well as photographs from the soil sampling program are presented in **Appendix C**.

2.2 Laboratory Analytical Program

Following sample collection, select samples were submitted to Maxxam Analytics Inc. (Maxxam) in Bedford, Nova Scotia for analyses. Maxxam is an international standard ISO/IEC 17025 accredited laboratory certified by the Standards Council of Canada. The soil samples were analyzed for the following parameters:

- Benzene, toluene, ethylbenzene, xylenes (BTEX) and modified total petroleum hydrocarbons (mTPH);
- Polycyclic aromatic hydrocarbons (PAHs) low level analysis;
- ICP 23 full metals scan (available metals/nitrogen peroxide digest for land based disposal options);
- Sodium Absorption Ratio;
- Conductivity;
- pH;
- Polychlorinated biphenyls (PCBs); and
- Grain size distribution.

To identify future disposal requirements, the analyzed soil and leachate samples were compared to the following:

- Loggies Pit Dredge Material Acceptance Criteria (2016);
- Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (SoQGs) for the Protection of Environment and Human Health in agricultural, residential/parkland, and commercial/industrial applications;
- CCME Canada-Wide Standards (CWS) for Petroleum Hydrocarbons (PHC) in Soil;
- The Atlantic PIRI Tier I Risk-Based Screening Levels (RBSLs) for BTEX and mTPH;
- The Atlantic PIRI Tier I Soil Ecological Screening Levels (ESLs) for BTEX and mTPH;
- Nepisiguit-Chaleur Solid Waste Commission Screening Limits;
- Health Canada Drinking Water Quality Guidelines; and

- CCME Water Quality Guidelines (Protection of Aquatic Life and Agriculture).

The Nova Scotia Guidelines for Disposal of Contaminated Solids in Landfills presented in analytical data tables (**Tables D-3 and D-7; Appendix D**) are for reference only.

3.0 ANALYTICAL RESULTS

The analytical results of the soil samples obtained from Wharf 405 of the Caraquet SCH are summarized below for those parameters that have established regulatory guidelines. Analytical result tables are provided in **Appendix D**. The complete set of analytical results, laboratory QA/QC and certificates of analyses are provided in **Appendix E**.

3.1 BTEX and Petroleum Hydrocarbon Concentrations

The laboratory and analytical results are provided in **Table D-1 (Appendix D)** and the laboratory certificates of analysis are provided in **Appendix E**.

BTEX, petroleum hydrocarbon and mTPH concentrations identified in the analyzed soil samples (including the field and laboratory duplicates) do not exceed the applicable screening criteria.

3.2 Metal and Metalloid Concentrations

3.2.1 Soil

The laboratory and analytical results are provided in **Table D-2 (Appendix D)** and the laboratory certificates of analysis are provided in **Appendix E**.

Metal and metalloid concentrations identified in the analyzed soil samples do not exceed the applicable screening criteria.

3.2.2 Leachate

The laboratory and analytical results are provided in **Table D-3** (TCLP) and **D-4** (SPLP) (**Appendix D**) and the laboratory certificates of analysis are provided in **Appendix E**.

Concentrations of leachable metals or metalloids (SPLP analysis) exceeding the applicable screening criteria were identified in the following soil samples:

CCME Water Quality Guidelines – Protection of Freshwater Aquatic Life:

- BH16-02-SA1: copper and iron;
- BH16-03-SA1: iron;
- BH16-03-SA3: iron;
- BH16-04-SA1: iron;
- BH16-04-SA3: iron and lead;
- BH16-05-SA1: arsenic, copper, iron and lead;
- BH16-06-SA1: iron and lead; and
- BH16-06-SA4: arsenic, copper, iron and lead

CCME Water Quality Guidelines – Protection of Agriculture (Irrigation or Livestock):

- BH16-05-SA1: aluminum (irrigation and livestock) and iron (irrigation); and
- BH16-06-SA4: aluminum (irrigation and livestock) and iron (irrigation).

Health Canada's Drinking Water Quality Guidelines:

- BH16-02-SA1: iron;
- BH16-03-SA1: iron;
- BH16-03-SA3: iron;
- BH16-04-SA1: iron;
- BH16-04-SA3: iron;
- BH16-05-SA1: iron and manganese;
- BH16-06-SA1: iron; and
- BH16-06-SA4: iron and manganese.

3.3 Sodium Absorption Ratio, Conductivity and pH

The laboratory and analytical results are provided in **Table D-2 (Appendix D)** and the laboratory certificates of analysis are provided in **Appendix E**.

The sodium absorption ratio in soil samples BH16-02-SA1 and BH16-06-SA4 exceeded the CCME SoQGs for an Agricultural or Residential/Parkland land use scenario. Sodium absorption ratios ranged from 2.4 to 12.

With the exception of BH16-02-SA1, the soil samples analyzed exhibited pH levels below the acceptable range of 6 to 8. The pH levels ranged from 4.9 to 6.2.

The conductivity of soil samples collected did not exceed applicable screening criteria. Conductivity levels ranged from 150 to 1,400 $\mu\text{S}/\text{cm}$.

3.4 PCB Concentrations

The laboratory and analytical results are provided in **Table D-5 (Appendix D)** and the laboratory certificates of analysis are provided in **Appendix E**.

PCB concentrations identified in the analyzed soil samples do not exceed the applicable screening criteria.

3.5 PAH Concentrations

3.5.1 Soil

The laboratory and analytical results are provided in **Table D-6 (Appendix D)** and the laboratory certificates of analysis are provided in **Appendix E**.

PAH concentrations identified in the analyzed soil samples do not exceed the applicable screening criteria.

3.5.2 Leachate

The laboratory and analytical results are provided in **Table D-7 and D-8 (Appendix D)** and the laboratory certificates of analysis are provided in **Appendix E**.

Pyrene leachate (SPLP) concentrations from soil sample BH16-02-SA1 exceed the CCME Water Quality Guidelines for the Protection of Freshwater Aquatic Life. The remaining PAHs in leachate (TCLP or SPLP) do not exceed the applicable screening criteria.

3.6 Grain Size

The laboratory analytical results (**Appendix E**) for grain size analysis indicate that the analyzed soil samples are coarse-grained.

4.0 CONCLUSIONS

The analytical results indicate that the soil did not exceed the applicable screening criteria for BTEX and petroleum hydrocarbons; PAHs; PCBs; metals or metalloids. However, exceedances of several guidelines were identified for pH and sodium absorption ratio in soil, as well as concentrations of leachable PAHs (exceeding the CCME Water Quality Guidelines protective of freshwater aquatic life) and metals (exceeding the CCME Water Quality Guidelines: Protection of Freshwater Aquatic Life; CCME Water Quality Guidelines: Protection of Agriculture (Irrigation or Livestock); and Health Canada's Drinking Water Quality Guidelines). A summary of the exceedances is presented below in **Table 1**.

Table 1: Summary of Exceedances

Parameter/Guideline	CCME Water Quality Guidelines		Health Canada Drinking Water Quality Guidelines	CCME Soil Quality Guidelines		Loggies Pit Dredge Material Acceptance Criteria
Sample ID	PAH Leachate (SPLP)	Metal Leachate (SPLP)	Metal Leachate (SPLP)	Sodium Absorption Ratio	pH	pH
BH16-02- SA1	●	●	●	●	-	-
BH16-02-SA3	-	-	●	-	●	●
BH16-03-SA1	-	●	●	-	●	●
BH16-03-SA3	-	●	●	-	●	●
BH16-04-SA1	-	●	●	-	●	●
BH16-04-SA1-FD	-	●	●	-	●	●
BH16-04-SA3	-	●	●	-	●	●
BH16-05-SA1	-	●	●	-	●	●
BH16-05-SA3	-	-	-	-	●	●
BH16-06-SA1	-	●	●	-	●	●
BH16-06-SA4	-	●	●	●	●	●

Notes:

"---" denotes no exceedance of the screening criteria.

"●" denotes exceedance of the screening criteria.

5.0 CLOSURE

This report was prepared exclusively for the purposes, project, and site location(s) outlined in the report. The report is based on information provided to, or obtained by Dillon Consulting Limited ("Dillon") as indicated in the report, and applies solely to site conditions existing at the time of the site investigation(s). Although a reasonable investigation was conducted by Dillon, Dillon's investigation was by no means exhaustive and cannot be construed as a certification of the absence of any contaminants from the site(s). Rather, Dillon's report represents a reasonable review of available information within an agreed work scope, schedule and budget. It is therefore possible that currently unrecognized contamination or potentially hazardous materials may exist at the site(s), and that the levels of contamination or hazardous materials may vary across the site(s). Further review and updating of the report may be required as local and site conditions, and the regulatory and planning frameworks, change over time.

This report was prepared by Dillon for the sole benefit of Public Works and Government Services Canada and Fisheries and Oceans Canada. The material in it reflects Dillon's best judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Dillon accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

This report was prepared by Amanda Rietze, G.I.T. The report was reviewed by Shawn Forster, M.Eng., P.Eng and Sean Hanlon, P.Eng.

Shawn Forster, M.Eng, P.Eng.
Project Manager

Sean Hanlon, P.Eng.
Senior Project Team Contact (NB/PEI)

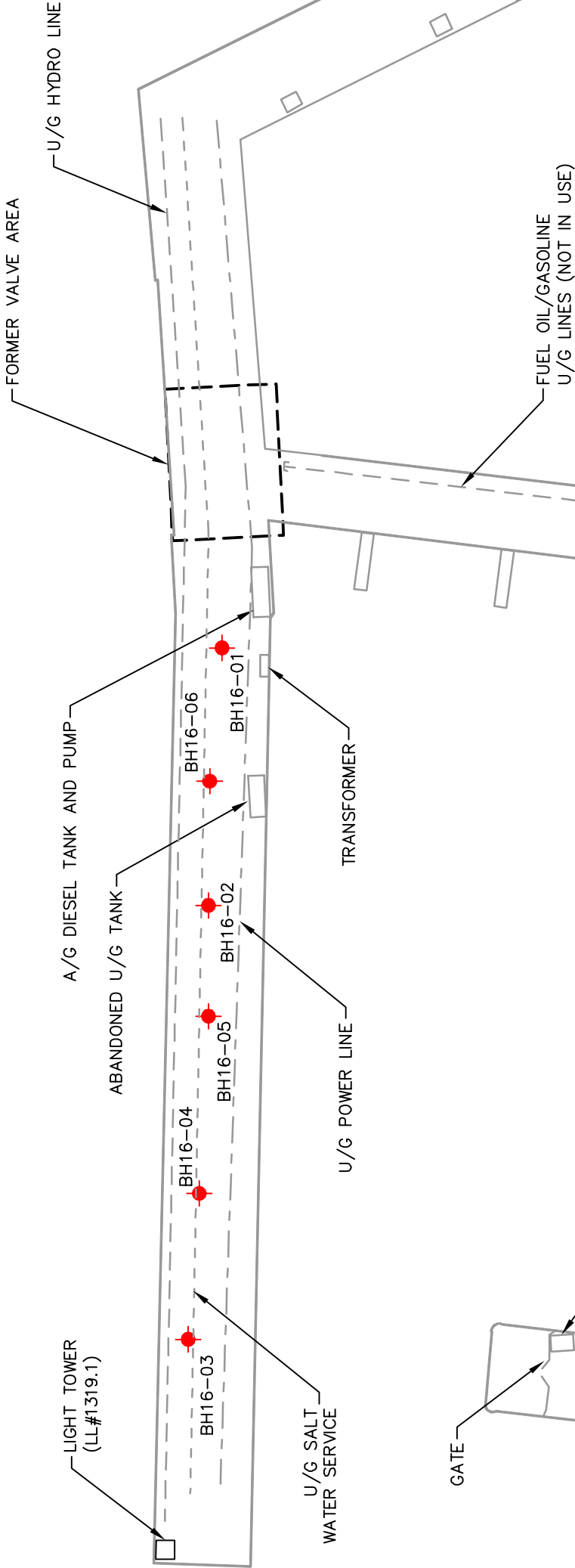
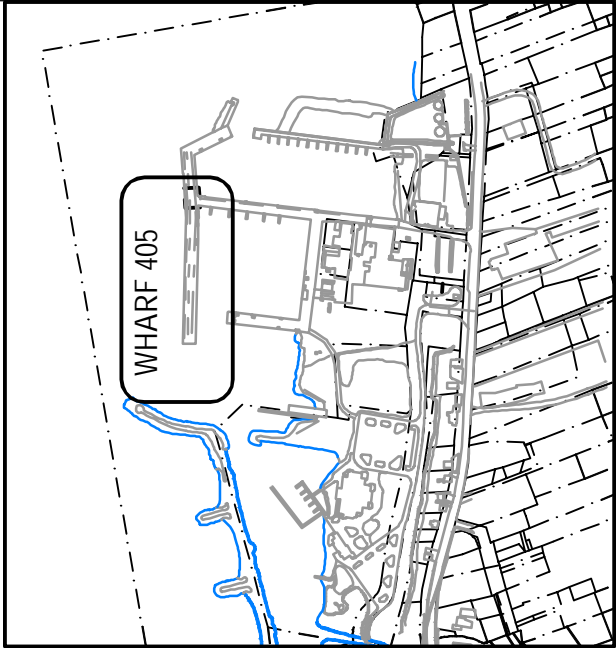
APPENDIX A

Site Figure




LEGEND

 BOREHOLE LOCATION (DILLON, 2016)



- NOTES:
1. PROPERTY BOUNDARIES ARE BASED ON SERVICE NEW BRUNSWICK RECORDS AND MAY NOT BE EXACT; THIS IS NOT A LEGAL SURVEY.
 2. INFRASTRUCTURE LOCATIONS ARE APPROXIMATE ONLY.



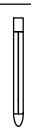
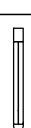


	PROJECT	SOIL SAMPLING PROGRAM CARAQUET SCH GLOUCESTER CO., NB PWGSC for FISHERIES AND OCEANS CANADA	PROJECT NO. 16-4652
	TITLE	SITE SAMPLE LOCATION PLAN (SCH# 2528, DFRP# 04933, RPIS# MS 02528)	FIGURE NO. 1
DATE		DECEMBER 2016	

APPENDIX B

Borehole Logs



Client: PWGSC Project: Caraquet Small Craft Harbour
Project No.: 16-4652 Location: Gloucester County, New Brunswick
Drilling Co.: Lantech Drilling Services Inc. Drilling Method: Split Spoon, Hollow Stem Auger
Field Representative: V. Graves Date Started: 10/28/16 Date Completed: 10/28/16

Depth Scale (m)	Stratigraphic Description	Lithology	Depth (m)	Notes	Sample					Depth Scale (m)
					Method	Number	N Value	Rec %	VOC (ppm or %LEL)	
	CONCRETE									
0.5	FILL Light brown gravel and cobbles with trace sand.		0.25			SA1	69	17	-	0.5
1.0						SA2	10	17	-	1.0
1.5						SA3	6	8	-	1.5
2.0						SA4	8	8	-	2.0
2.5										2.5
End of borehole at 2.7 m bgs (9 ft).			2.7							

DILLON BH 16-4652 CARAQUET BH LOGS 2016.GPJ DILLON TEMPLATE - JAN2011.GDT 12/1/16

LITHOLOGY
SYMBOLS



Concrete



Fill



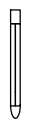


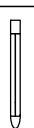
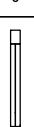
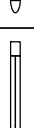

SAMPLE
TYPE



Split Spoon

* Indicates sample submitted for analysis

Client: PWGSC Project: Caraquet Small Craft Harbour
Project No.: 16-4652 Location: Gloucester County, New Brunswick
Drilling Co.: Lantech Drilling Services Inc. Drilling Method: Split Spoon, Hollow Stem Auger
Field Representative: V. Graves Date Started: 10/28/16 Date Completed: 10/28/16

Depth Scale (m)	Stratigraphic Description	Lithology	Depth (m)	Notes	Sample					Depth Scale (m)
					Method	Number	N Value	Rec %	VOC (ppm or %LEL)	
	CONCRETE									
0.5	Sand and Gravel Reddish brown sand and gravel with trace silt.		0.25			SA1*	65	58	-	0.5
	Sand Mottled reddish brown and grey sand with trace gravel.		0.5							
1.0	Gravely Sand Greyish brown sand and some gravel. Iron oxidation noted from 0.85 to 1.45 m bgs.		0.92			SA2	40	46	-	1.0
1.5						SA3*	39	50	-	1.5
2.0						SA4	14	42	-	2.0
2.5	Sand and Gravel Greyish brown sand and gravel.		2.2							2.5
	End of borehole at 2.7 m bgs (9 ft).		2.7							

DILLON BH 16-4652 CARAQUET BH LOGS 2016.GPJ DILLON TEMPLATE - JAN2011.GDT 12/1/16

LITHOLOGY SYMBOLS





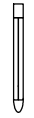

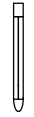
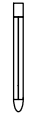
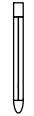
SAMPLE TYPE



* Indicates sample submitted for analysis



Client: PWGSC Project: Caraquet Small Craft Harbour
Project No.: 16-4652 Location: Gloucester County, New Brunswick
Drilling Co.: Lantech Drilling Services Inc. Drilling Method: Split Spoon, Hollow Stem Auger
Field Representative: V. Graves Date Started: 10/28/16 Date Completed: 10/28/16

Depth Scale (m)	Stratigraphic Description	Lithology	Depth (m)	Notes	Sample					Depth Scale (m)
					Method	Number	N Value	Rec %	VOC (ppm or %LEL)	
	CONCRETE									
	Sandy Gravel		0.25							
0.5	Reddish brown sandy gravel.		0.42			SA1*	44	63	25	0.5
1.0	Sand					SA2	36	46	25	1.0
1.5	Greyish brown sand with trace gravel and rock fragments. Larger rock fragments observed from 1.47 to 2.1 m bgs.					SA3*	23	63	0	1.5
2.0						SA4	51	21	15	2.0
2.5										2.5
	End of borehole at 2.7 m bgs (9 ft).		2.7							

DILLON BH 16-4652 CARAQUET BH LOGS 2016.GPJ DILLON TEMPLATE - JAN2011.GDT 12/1/16

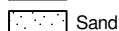
LITHOLOGY
SYMBOLS



Concrete



Sandy Gravel



Sand

SAMPLE
TYPE



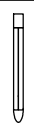

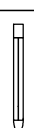
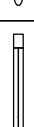
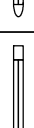


Split Spoon

* Indicates sample submitted for analysis



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Project No.: 16-4652 Location: Gloucester County, New Brunswick
Drilling Co.: Lantech Drilling Services Inc. Drilling Method: Split Spoon, Hollow Stem Auger
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Depth Scale (m)	Stratigraphic Description	Lithology	Depth (m)	Notes	Sample					Depth Scale (m)
					Method	Number	N Value	Rec %	VOC (ppm or %LEL)	
	CONCRETE									
	Sandy Gravel		0.25							
0.5	Reddish brown sandy gravel.		0.42			SA1*	71	67	0	0.5
1.0	Sand					SA2	32	17	0	1.0
1.5	Greyish brown sand with trace gravel and rock fragments.					SA3*	41	54	30	1.5
2.0						SA4	25	13	-	2.0
2.5										2.5
End of borehole at 2.7 m bgs (9 ft).			2.7							

DILLON BH 16-4652 CARAQUET BH LOGS 2016.GPJ DILLON TEMPLATE - JAN2011.GDT 12/1/16

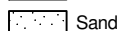
LITHOLOGY
SYMBOLS



Concrete



Sandy Gravel



Sand

SAMPLE
TYPE




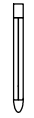
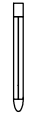
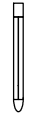
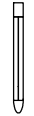


Split Spoon

* Indicates sample submitted for analysis



Client: PWGSC Project: Caraquet Small Craft Harbour
Project No.: 16-4652 Location: Gloucester County, New Brunswick
Drilling Co.: Lantech Drilling Services Inc. Drilling Method: Split Spoon, Hollow Stem Auger
Field Representative: V. Graves Date Started: 10/28/16 Date Completed: 10/28/16

Depth Scale (m)	Stratigraphic Description	Lithology	Depth (m)	Notes	Sample					Depth Scale (m)
					Method	Number	N Value	Rec %	VOC (ppm or %LEL)	
	CONCRETE									
0.5	Sandy Gravel Reddish brown sandy gravel.		0.25							
	Sand Greyish brown sand with trace gravel and rock fragments.		0.42			SA1*	60	75	-	0.5
1.0						SA2	51	67	0	1.0
1.5						SA3*	28	58	0	1.5
2.0						SA4	11	13	0	2.0
2.5										2.5
End of borehole at 2.7 m bgs (9 ft).			2.7							

DILLON BH 16-4652 CARAQUET BH LOGS 2016.GPJ DILLON TEMPLATE - JAN2011.GDT 12/1/16

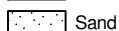
LITHOLOGY
SYMBOLS



Concrete



Sandy Gravel



Sand

SAMPLE
TYPE










Split Spoon

* Indicates sample submitted for analysis



Client: PWGSC Project: Caraquet Small Craft Harbour
Project No.: 16-4652 Location: Gloucester County, New Brunswick
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Depth Scale (m)	Stratigraphic Description	Lithology	Depth (m)	Notes	Sample					Depth Scale (m)
					Method	Number	N Value	Rec %	VOC (ppm or %LEL)	
	CONCRETE									
0.5	Sandy Gravel Reddish brown sandy gravel.		0.25							
	Sand Greyish brown sand with trace gravel and rock fragments.		0.42			SA1*	47	46	35	0.5
1.0						SA2	57	38	0	1.0
1.5						SA3	49	8	-	1.5
2.0						SA4*	30	46	0	2.0
2.5										2.5
End of borehole at 2.7 m bgs (9 ft).			2.7							

DILLON BH 16-4652 CARAQUET BH LOGS 2016.GPJ DILLON TEMPLATE - JAN2011.GDT 12/1/16

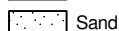
LITHOLOGY
SYMBOLS



Concrete



Sandy Gravel



Sand

SAMPLE
TYPE



Split Spoon

* Indicates sample submitted for analysis

APPENDIX C

Site Photos



Photo 1: View of Caraquet Small Craft Harbour, Gloucester County, NB.



Photo 2: Looking east at the track mounted drill rig at sample location BH16-06.



Photo 3: Looking west across Wharf 405 during drilling activities.



Photo 4: Deterioration of Wharf 405 observed along northern edge, looking west.

APPENDIX D

Analytical Summary Tables

Table D-1. BTEX/TPH in soil at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Sample ID		Date (mm-dd-yy)		BTEX Concentrations (mg/kg)				Petroleum Hydrocarbon (PHC) Fraction Concentrations (mg/kg)					
				Benzene	Toluene	Ethylbenzene	Xylenes	F1 (C ₆ -C ₁₀)	F2 (C ₁₀ -C ₁₆)	F3 (C ₁₆ -C ₃₄)	F4 (> C ₃₄)	Modified TPH (G/L)	Resemblance
BH16-02 SA1		28-Oct-16		<0.025	<0.025	<0.025	<0.050	<2.5	<10	<10	<15	71	Lube Oil
BH16-02 SA3		28-Oct-16		<0.025	<0.025	<0.025	<0.050	<2.5	<10	<10	<15	<15	--
BH16-02 SA3 (LD)		28-Oct-16		--	--	--	--	--	<10	<10	<15	--	--
BH16-03 SA1		28-Oct-16		<0.025	<0.025	<0.025	<0.050	<2.5	<10	<10	<15	28	Lube Oil
BH16-03 SA3		28-Oct-16		<0.025	<0.025	<0.025	<0.050	<2.5	<10	<10	<15	<15	--
BH16-04 SA1		28-Oct-16		<0.025	<0.025	<0.025	<0.050	<2.5	<10	<10	<15	<15	--
BH16-33 SA9 (FD: BH16-04 SA1)		28-Oct-16		<0.025	<0.025	<0.025	<0.050	<2.5	--	--	--	--	--
BH16-04 SA3		28-Oct-16		<0.025	<0.025	<0.025	<0.050	<2.5	<10	<10	<15	<15	--
BH16-05 SA1		28-Oct-16		<0.025	<0.025	<0.025	<0.050	<2.5	<10	<10	<15	<15	--
BH16-05 SA3		28-Oct-16		<0.025	<0.025	<0.025	<0.050	<2.5	<10	<10	<15	<15	--
BH16-06 SA1		28-Oct-16		<0.025	<0.025	<0.025	<0.050	<2.5	<10	<10	<15	<15	--
BH16-06 SA4		28-Oct-16		<0.025	<0.025	<0.025	<0.050	<2.5	<10	<10	24	24	Lube Oil
Atlantic PIRI Tier I RBSLs ¹	Agricultural	Potable	Coarse	0.042	0.35	0.043	0.73	--	--	--	--	74/270/1,100	--
		Non-potable	Coarse	0.099	77	30	8.8	--	--	--	--	74/270/1,100	--
	Residential	Potable	Coarse	0.042	0.35	0.043	0.73	--	--	--	--	74/270/1,100	--
		Non-potable	Coarse	0.099	77	30	9	--	--	--	--	74/270/1,100	--
	Commercial	Potable	Coarse	0.042	0.35	0.043	0.73	--	--	--	--	870/1,800/10,000	--
		Non-potable	Coarse	2.5	10,000	10,000	110.0	--	--	--	--	870/4,000/10,000	--
	Industrial	Potable	Coarse	0.042	0.35	0.73	0.73	--	--	--	--	870/1,800/10,000	--
		Non-potable	Coarse	2.5	10,000	110	110	--	--	--	--	870/4,000/10,000	--
Atlantic PIRI Tier I ESI ² Table 1a	Agricultural/R esidential	Coarse		31	75.00	55	95	210	150	300	2800	--	--
	Commercial/ Industrial	Coarse		180	250	300	350	320	260	1700	3300	--	--
Atlantic PIRI Tier I ESI ² Table 1b	Agricultural			18	980.00	640	2600	11000	9800	16000	8400	--	--
CCME SoQCs ⁴	Agricultural	Surface	Coarse	0.03 ^a	0.37	0.082	11	30	150	300	--	--	--
		Subsoil	Coarse	0.03 ^a	0.37	0.082	11	30	150	300	--	--	--
	Residential/ Parkland	Surface	Coarse	0.03 ^a	0.37	0.082	11	30	150	300	--	--	--
		Subsoil	Coarse	0.03 ^a	0.37	0.082	11	30	150	300	--	--	--
	Commercial/ Industrial	Surface	Coarse	0.03 ^a	0.37	0.082	11	240	260	1,700	--	--	--
		Subsoil	Coarse	0.03 ^a	0.37	0.082	11	240	260	1,700	--	--	--
Canada Wide Standards ⁵	Agricultural	Surface ⁶	Coarse	--	--	--	--	30	150	300	2,800	--	--
	Residential	Surface ⁶	Coarse	--	--	--	--	30	150	300	2,800	--	--
	Commercial	Surface ⁶	Coarse	--	--	--	--	240	260	1,700	3,300	--	--
	Industrial	Surface ⁶	Coarse	--	--	--	--	240	260	1,700	3,300	--	--
Loggies Pit Dredge Material Acceptance Criteria ⁷			Coarse	0.03	0.37	0.082	11	240	260	1,700	3,300	--	--

Notes:

"--" denotes not guideline available

^a Denotes guideline value based on "10⁻⁵ Incremental Risk"

LD denotes lab duplicate

FD denotes field duplicate

1. Tier I Risk Based Screening Level for Soil, Atlantic RBCA Version 3.0 Reference Document for Petroleum Impacted Sites (2015).

2. Tier I Soil Ecological Screening Levels for the Protection of Plants and Soil Invertebrates, Atlantic RBCA Version 3.0 Reference Document for Petroleum Impacted Sites (2015).

3. Tier I Soil Ecological Screening Levels for the Protection of Wildlife and Livestock, Atlantic RBCA Version 3.0 Reference Document for Petroleum Impacted Sites (2015).

4. Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (revised January 2008).

5. Canada-Wide Standards (CWS) for PHC in Soil Technical Supplement January 2008.

6. For CWS the most conservative value was chosen from all exposure pathways.

7. Dredge Material Acceptance Criteria for Loggies Pit Disposal

Bold values indicate concentrations exceed guidelines

Table D-2. Metals and Metalloids in soil at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	CCME SoQs ¹			Loggies Pit Dredge Material Acceptance Criteria ²	Soil Sampling by Dillon 2016					
		Agricultural	Residential/ Parkland	Commercial/ Industrial		BH16-02 SA1	BH16-02 SA3	BH16-02 SA3-LD	BH16-03 SA1	BH16-03 SA3	BH16-04 SA1
Aluminum	mg/kg	--	--	--	--	10000	11000	10000	9400	10000	12000
Antimony	mg/kg	20	20	40	40	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic	mg/kg	17	17	26	26	6.9	6.5	6.5	8.5	7.3	7.3
Barium	mg/kg	750	500	2000	2000	80	110	110	89	130	84
Beryllium	mg/kg	4	4	8	8	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bismuth	mg/kg	--	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Boron	mg/kg	--	--	--	--	<50	<50	<50	<50	<50	<50
Cadmium	mg/kg	1.4	10	22	22	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Chromium (Total)	mg/kg	64	64	87	87	21	14	13	15	16	16
Cobalt	mg/kg	40	50	300	300	8.6	9	8.8	8.8	9.1	9.9
Copper	mg/kg	63	63	91	91	63	4.8	4.7	6.5	5.9	11
Iron	mg/kg	--	--	--	--	24000	21000	20000	21000	23000	23000
Lead	mg/kg	70	140	260	260	6.5	4.4	4.4	5.5	4.5	5.7
Lithium	mg/kg	--	--	--	--	16	18	17	18	19	21
Manganese	mg/kg	--	--	--	--	840	480	470	450	390	500
Mercury	mg/kg	6.6	6.6	24	24	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Molybdenum	mg/kg	5	10	40	40	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Nickel	mg/kg	45	45	89	89	27	17	17	17	17	19
Rubidium	mg/kg	--	--	--	--	4	3.2	3.3	3.4	2.7	3.6
Selenium	mg/kg	1	1	2.9	2.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver	mg/kg	20	20	40	40	8.7	<0.50	<0.50	<0.50	<0.50	<0.50
Strontium	mg/kg	--	--	--	--	88	<5.0	<5.0	9.1	5.9	5.4
Thallium	mg/kg	1	1	1	1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tin	mg/kg	5	50	300	300	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Uranium	mg/kg	23	23	33	33	0.42	0.3	0.26	0.29	0.29	0.29
Vanadium	mg/kg	130	130	130	130	28	22	21	22	23	24
Zinc	mg/kg	200	200	360	360	36	31	30	33	34	39
Sodium Absorption Ratio	---	5	5	12	12	8.2	3.7	--	4.9	3.5	3.7
Conductivity	uS/cm	2000	2000	4000	4000	810	250	240	700	320	220
pH	---	6 to 8	6 to 8	6 to 8	6 to 8	6.2	4.9	--	5.1	4.9	5.0
Notes:						Date Sampled					
"..." no guideline available or not analyzed						28/Oct/16					
LD denotes Lab duplicate						28/Oct/16					

1. CCME Soil quality Guidelines from CCME Summary table. <http://st-ts.ccme.ca/en/index.html>. Please note that if the guideline for commercial and industrial land use was different the more stringent guideline (commercial) was used for this assessment.

2. Loggies Pit Environmental Management Plan (2016). Table 2-1: Dredge Material Acceptance Criteria.

BOLD values indicate exceedances

Table D-2. Metals and Metalloids in soil at Caraqueet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	CCME SoQs ¹			Loggies Pit Dredge Material Acceptance Criteria ²	Soil Sampling by Dillon 2016				
		Agricultural	Residential/ Parkland	Commercial/ Industrial		BH16-04 SA3	BH16-05 SA1	BH16-05 SA3	BH16-06 SA1	BH16-06 SA4
Aluminum	mg/kg	--	--	--	--	9200	11000	9400	10000	11000
Antimony	mg/kg	20	20	40	40	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic	mg/kg	17	17	26	26	11	7.9	12	7.6	13
Barium	mg/kg	750	500	2000	2000	110	89	110	88	94
Beryllium	mg/kg	4	4	8	8	<2.0	<2.0	<2.0	<2.0	<2.0
Bismuth	mg/kg	--	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0
Boron	mg/kg	--	--	--	--	<50	<50	<50	<50	<50
Cadmium	mg/kg	1.4	10	22	22	<0.30	<0.30	<0.30	0.46	<0.30
Chromium (Total)	mg/kg	64	64	87	87	11	15	11	18	14
Cobalt	mg/kg	40	50	300	300	8.8	9.5	8.6	9.1	10
Copper	mg/kg	63	63	91	91	6.9	8.1	6.2	7.7	6.2
Iron	mg/kg	--	--	--	--	21000	22000	21000	22000	23000
Lead	mg/kg	70	140	260	260	14	6.8	6.3	6.8	4.9
Lithium	mg/kg	--	--	--	--	17	21	16	16	21
Manganese	mg/kg	--	--	--	--	600	470	560	680	500
Mercury	mg/kg	6.6	6.6	24	24	<0.10	<0.10	<0.10	<0.10	<0.10
Molybdenum	mg/kg	5	10	40	40	<2.0	<2.0	<2.0	<2.0	<2.0
Nickel	mg/kg	45	45	89	89	15	18	14	20	19
Rubidium	mg/kg	--	--	--	--	2.8	4.1	2.7	3.6	3.2
Selenium	mg/kg	1	1	2.9	2.9	<1.0	<1.0	<1.0	<1.0	<1.0
Silver	mg/kg	20	20	40	40	<0.50	<0.50	<0.50	<0.50	<0.50
Strontium	mg/kg	--	--	--	--	<5.0	6.5	<5.0	37	9.6
Thallium	mg/kg	1	1	1	1	<0.10	<0.10	<0.10	<0.10	<0.10
Tin	mg/kg	5	50	300	300	<2.0	<2.0	<2.0	<2.0	<2.0
Uranium	mg/kg	23	23	33	33	0.22	0.34	0.24	0.35	0.49
Vanadium	mg/kg	130	130	130	130	19	24	21	27	24
Zinc	mg/kg	200	200	360	360	30	36	28	35	33
Sodium Absorption Ratio	---	5	5	12	12	NC	2.4	5	3.4	12
Conductivity	uS/cm	2000	2000	4000	4000	150	210	300	380	1400
pH	---	6 to 8	6 to 8	6 to 8	6 to 8	4.9	4.9	4.9	5.6	5.0
					Date Sampled	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16

1. CCME Soil quality Guidelines from CCME Summary table. <http://st-ts.ccme.ca/en/index.html>. Please note that if the guideline for commercial and industrial land use was different the more stringent guideline (commercial) was used for this assessment.

2. Loggies Pit Environmental Management Plan (2016). Table 2-1: Dredge Material Acceptance Criteria.

BOLD values indicate exceedances

Table D-3. Metal Leachate (TCLP) in soil at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	Nova Scotia Guidelines for Disposal of Contaminated Solids in Landfills ¹	Nepisiguit-Chaleur Solid Waste Commission Screening Limits ²	Metal Leachate by TCLP Analysis collected by Dillon 2016											
				BH16-02 SA1	BH16-02 SA3	BH16-03 SA1	BH16-03 SA1-LD	BH16-03 SA3	BH16-04 SA1	BH16-04 SA3	BH16-05 SA1	BH16-05 SA3	BH16-06 SA1	BH16-06 SA4	
Aluminum	µg/L	500,000	--	<100	2100	330	230	410	970	440	510	650	110	420	
Antimony	µg/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Arsenic	µg/L	5,000	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Barium	µg/L	100,000	--	960	1100	1200	1300	1100	850	810	680	800	1300	650	
Beryllium	µg/L	10,000	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Boron	µg/L	--	--	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	
Cadmium	µg/L	500	--	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	
Calcium	µg/L	--	--	830000	11000	170000	250000 ^a	30000	23000	5300	31000	24000	480000	23000	
Chromium	µg/L	5,000	500	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Cobalt	µg/L	5,000	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Copper	µg/L	100,000	500	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Iron	µg/L	--	5000	<500	3100	<500	<500	<500	<500	<500	<500	<500	<500	<500	
Lead	µg/L	5,000	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Lithium	µg/L	250,000	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Magnesium	µg/L	--	--	9300	2700	8200	8000	3500	2900	3400	3000	3100	6400	8400	
Manganese	µg/L	--	--	5600	780	1800	1800	600	680	690	1200	1000	3100	980	
Molybdenum	µg/L	5,000	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Nickel	µg/L	20,000	500	43	<20	<20	<20	<20	<20	<20	31	<20	<20	<20	
Potassium	µg/L	--	--	8900	2800	5400	4800	2900	4200	2900	4100	2600	3100	6700	
Selenium	µg/L	1,000	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Silver	µg/L	5,000	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Strontium	µg/L	--	--	1500	<50	470	600	97	89	54	130	100	1400	170	
Thallium	µg/L	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Tin	µg/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Uranium	µg/L	2,000	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Vanadium	µg/L	10,000	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Zinc	µg/L	500,000	500	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Date Sampled				28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	

Notes:

"--" no guideline available or not analyzed

LD denotes Lab duplicate

TCLP denotes Toxicity Characteristics Leaching Procedure

^a Poor RPD due to sample inhomogeneity, <10 % of compounds in multi-component analysis in violation.1. Nova Scotia Guidelines for Disposal of Contaminated Solids in Landfills (2005). <https://novascotia.ca/nse/dept/docs/policy/Guidelines-Industrial-Landfill.pdf>

2. Nepisiguit-Chaleur Solid Waste Commission Screening Limits

BOLD values indicates exceedances

Table D-4. Metal Leachate (SPLP) in soil at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	CCME Water Quality Guidelines (Aquatic Life) ¹			CCME Water Quality Guidelines (Protection of Agriculture) ²			HC Drinking Water Quality ³		Metal Leachate by SPLP Analysis collected by Dillon 2016							
		Freshwater	Marine		Irrigation	Livestock		MAC	AO	BH16-02 SA1	BH16-02 SA3	BH16-03 SA1	BH16-03 SA3	BH16-04 SA1	BH16-04 SA3	BH16-04 SA1	BH16-04 SA3
Aluminum	µg/L	--	--		5000	5000		--	--	1000	230	580	1000	1100	1500		
Antimony	µg/L	--	--		--	--		6	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Arsenic	µg/L	5	12.5		100	25		10	--	2.1	<2.0	<2.0	<2.0	<2.0	2.1		
Barium	µg/L	--	--		--	--		1000	--	53	44	30	39	42	42		
Beryllium	µg/L	--	--		100	100		--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Boron	µg/L	--	--		--	--		--	--	--	--	--	--	--	--		
Cadmium	µg/L	0.09	0.12		5.1	80		5	--	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30		
Calcium	µg/L	--	--		--	--		--	--	10000	11000	10000	2800	9100	1500		
Chromium	µg/L	--	--		--	--		50	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Cobalt	µg/L	--	--		50	1000		--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Copper ⁴	µg/L	2	--		--	--		--	1000	2.9	<2.0	<2.0	<2.0	<2.0	<2.0		
Iron	µg/L	300	--		5000	--		--	300	890	280	640	1700	940	2200		
Lead ⁴	µg/L	1	--		200	100		10	--	0.59	<0.50	0.52	0.88	0.5	1.4		
Lithium	µg/L	--	--		2500	--		--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Magnesium	µg/L	--	--		--	--		--	--	510	1000	1300	890	760	540		
Manganese	µg/L	--	--		200	--		--	50	36	9.4	13	17	25	50		
Molybdenum	µg/L	73	--		--	500		--	--	4.3	2.2	2.5	<2.0	<2.0	<2.0		
Nickel ⁴	µg/L	25	--		200	1000		--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Potassium	µg/L	--	--		--	--		--	--	3300	500	2200	590	3300	490		
Selenium	µg/L	1	--		--	50		50	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Silver	µg/L	0.1	--		--	--		--	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		
Strontium	µg/L	--	--		--	--		--	--	23	21	28	12	26	<5.0		
Thallium	µg/L	0.8	--		--	--		--	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		
Tin	µg/L	--	--		--	--		--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Uranium	µg/L	15	--		10	200		20	--	0.25	<0.10	0.18	0.11	0.23	<0.10		
Vanadium	µg/L	--	--		100	100		--	--	2.9	<2.0	<2.0	2.4	2.9	3.4		
Zinc ⁵	µg/L	30	--		5000	50000		--	5000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		

Notes:

"--" no guideline available or not analyzed

AO denotes Aesthetic Objective

LD denotes Lab duplicate

^a Poor RPD due to sample inhomogeneity, <10 % of compounds in multi-component analysis in violation.

1. CCME Water Quality Guidelines from CCME Summary table protection of Aquatic Life.

<http://st-ts.ccme.ca/en/index.html>

2. CCME Water Quality Guidelines from CCME Summary table protection of Agriculture.

<http://st-ts.ccme.ca/en/index.html>

3. Health Canada Drinking Water Quality Guidelines

4. As Hardness was not measured the most stringent guideline value for Copper and Lead was used.

5. Value is determined through an equation. = 1000 µg/L when soil pH < 6.5; = 5000 µg/L when soil pH > 6.5

BOLD values indicates exceedances

Table D-4. Metal Leachate (SPLP) in soil at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	CCME Water Quality Guidelines (Aquatic Life) ¹			CCME Water Quality Guidelines (Protection of Agriculture) ²			HC Drinking Water Quality ³		Metal Leachate by SPLP Analysis collected by Dillon 2016					
		Freshwater	Marine		Irrigation	Livestock		MAC	AO	BH16-05 SAI	BH16-05 SA3	BH16-05 SA3-LD	BH16-06 SAI	BH16-06 SA4	
Aluminum	µg/L	--	--		5000	5000		--	---	8500	41	35	2900	6900	
Antimony	µg/L	--	--		--	--		6	--	<2.0	<2.0	<2.0	<2.0	<2.0	
Arsenic	µg/L	5	12.5		100	25		10	--	5.6	<2.0	<2.0	2.7	7.7	
Barium	µg/L	--	--		--	--		1000	---	79	15	25	48	110	
Beryllium	µg/L	--	--		100	100		--	--	<2.0	<2.0	<2.0	<2.0	<2.0	
Boron	µg/L	--	--		--	--		--	--	--	--	--	--	--	
Cadmium	µg/L	0.09	0.12		5.1	80		5	--	<0.30	<0.30	<0.30	<0.30	<0.30	
Calcium	µg/L	--	--		--	--		--	--	3100	1300	930 ^a	10000	2200	
Chromium	µg/L	--	--		--	--		50	--	9.1	<2.0	<2.0	3.3	7.3	
Cobalt	µg/L	--	--		50	1000		--	--	3	<1.0	<1.0	<1.0	2.9	
Copper ⁴	µg/L	2	--		--	--		--	1000	3.6	<2.0	<2.0	<2.0	3.8	
Iron	µg/L	300	--		5000	--		--	300	8700	68	85	2600	8600	
Lead ⁴	µg/L	1	--		200	100		10	--	3.5	<0.50	<0.50	1.3	3	
Lithium	µg/L	--	--		2500	--		--	--	5.8	<2.0	<2.0	<2.0	7.3	
Magnesium	µg/L	--	--		--	--		--	--	1500	600	620	1100	2100	
Manganese	µg/L	--	--		200	--		--	50	150	28	18 ^a	45	120	
Molybdenum	µg/L	73	--		--	500		--	--	2.9	<2.0	<2.0	<2.0	3.7	
Nickel ⁴	µg/L	25	--		200	1000		--	--	6.1	<2.0	<2.0	<2.0	4.8	
Potassium	µg/L	--	--		--	--		--	--	2400	860	960	1000	4000	
Selenium	µg/L	1	--		--	50		50	--	<1.0	<1.0	<1.0	<1.0	<1.0	
Silver	µg/L	0.1	--		--	--		--	--	<0.50	<0.50	<0.50	<0.50	<0.50	
Strontium	µg/L	--	--		--	--		--	--	12	6.2	6	26	20	
Thallium	µg/L	0.8	--		--	--		--	--	<0.10	<0.10	<0.10	<0.10	<0.10	
Tin	µg/L	--	--		--	--		--	--	<2.0	<2.0	<2.0	<2.0	<2.0	
Uranium	µg/L	15	--		10	200		20	---	0.39	<0.10	<0.10	0.39	0.49	
Vanadium	µg/L	--	--		100	100		--	--	17	<2.0	<2.0	5.7	16	
Zinc ⁵	µg/L	30	--		5000	50000		--	5000	15	<5.0	<5.0	5.9	11	

Notes:

"--" no guideline available or not analyzed

AO denotes Aesthetic Objective

LD denotes Lab duplicate

^a Poor RPD due to sample inhomogeneity, <10 % of compounds in multi-component analysis in violation.

1. CCME Water Quality Guidelines from CCME Summary table protection of Aquatic Life.

<http://st-ts.ccme.ca/en/index.html>

2. CCME Water Quality Guidelines from CCME Summary table protection of Agriculture.

<http://st-ts.ccme.ca/en/index.html>

3. Health Canada Drinking Water Quality Guidelines

4. As Hardness was not measured the most stringent guideline value for Copper and Lead was used.

5. Value is determined through an equation. = 1000 µg/L when soil pH < 6.5; = 5000 µg/L when soil pH > 6.5

BOLD values indicates exceedances

Table D-5. PCBs in soil at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	CCME SoQs ¹			Loggies Pit Dredge Material Acceptance Criteria ²	Soil Sampling by Dillon 2016							
		Agricultural	Residential/ Parkland	Commercial/ Industrial		BH16-02 SA1	BH16-02 SA3	BH16-03 SA1	BH16-03 SA3	BH16-04 SA1	BH16-04 SA3	BH16-05 SA1	BH16-05 SA3
Aroclor 1016	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Aroclor 1221	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Aroclor 1232	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Aroclor 1242	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Aroclor 1248	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Aroclor 1254	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Aroclor 1260	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Total PCB Calculated	ug/kg	500	1300	33000	33000	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Notes:						28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16

"--" no guideline available or not analyzed
LD denotes Lab duplicate

1. CCME Soil quality Guidelines from CCME Summary table. <http://st-ts.ccme.ca/en/index.html>.
2. Loggies Pit Environmental Management Plan (2016). Table 2-1: Dredge Material Acceptance Criteria.

BOLD values indicate exceedances.

Table D-5. PCBs in soil at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	CCME SoQs ¹			Loggies Pit Dredge Material Acceptance Criteria ²	Soil Sampling by Dillon 2016				
		Agricultural	Residential/ Parkland	Commercial/ Industrial		BH16-05 SA3	BH16-06 SA1	BH16-06 SA1-LD	BH16-06 SA4	
Aroclor 1016	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	
Aroclor 1221	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	
Aroclor 1232	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	
Aroclor 1242	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	
Aroclor 1248	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	
Aroclor 1254	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	
Aroclor 1260	ug/kg	--	--	--	--	<0.050	<0.050	<0.050	<0.050	
Total PCB Calculated	ug/kg	500	1300	33000	33000	<0.050	<0.050	<0.050	<0.050	
Notes:						28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16

"--" no guideline available or not analyzed

LD denotes Lab duplicate

1. CCME Soil quality Guidelines from CCME Summary table. <http://st-ts.ccme.ca/en/index.html>.

2. Loggies Pit Environmental Management Plan (2016). Table 2-1: Dredge Material Acceptance Criteria.

BOLD values indicate exceedances.

Table D-6. PAH in soils at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	CCME SoQs ¹			Loggies Pit Dredge Material Acceptance Criteria ²	Soil Sampling by Dillon 2016					
		Agricultural	Residential/ Parkland	Commercial/ Industrial		BH16-02 SA1	BH16-02 SA3	BH16-03 SA1	BH16-03 SA3	BH16-04 SA1	BH16-04 SA3
1-Methylnaphthalene	mg/kg	--	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
2-Methylnaphthalene	mg/kg	--	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthene	mg/kg	21.5	21.5	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthylene	mg/kg	320	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Anthracene	mg/kg	2.5	2.5	32	32	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)anthracene	mg/kg	6.2	6.2	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)pyrene	mg/kg	20	20	72	72	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(b)fluoranthene	mg/kg	6.2	6.2	--	10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(g,h,i)perylene	mg/kg	see B(a)P TPE and IACR				<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(j)fluoranthene	mg/kg	see B(a)P TPE and IACR				<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(k)fluoranthene	mg/kg	6.2	6.2	--	10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chrysene	mg/kg	6.2	6.2	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Dibenz(a,h)anthracene	mg/kg	see B(a)P TPE and IACR				<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Fluoranthene	mg/kg	50	50	180	180	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Fluorene	mg/kg	15.4	15.4	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Indeno(1,2,3-cd)pyrene	mg/kg	see B(a)P TPE and IACR				<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Naphthalene	mg/kg	8.8	8.8	--	22	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Perylene	mg/kg	--	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Phenanthrene	mg/kg	43	43	--	50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Pyrene	mg/kg	7.7	7.7	--	100	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Total PAH	mg/kg	--	--	--	--	--	--	--	--	--	--
IACR*	mg/kg	1	1	1	1	0.15	0.15	0.15	0.15	0.15	0.15
B(a)P TPE*	mg/kg	5.3	5.3	5.3	5.3	0.013	0.013	0.013	0.013	0.013	0.013
Creosote or Coal Tar source suspected/known?	Yes or No	--	--	--	--	No	No	No	No	No	No
					Date Sampled	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16

Notes:

"--" no guideline available or not analyzed

* The RDL was used in the calculation of B(a)P TPE and IACR, when a carcinogenic PAH soil concentration was <RDL.

B(a)P TPE and IACR were calculated as indicated in CCME (2010).

1. CCME Soil quality Guidelines from CCME Summary table. <http://st-ts.ccme.ca/en/index.html>.

2. Loggies Pit Environmental Management Plan (2016). Table 2-1: Dredge Material Acceptance Criteria.

BOLD values indicate exceedances.

Table D-6. PAH in soils at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	CCME SoQs ¹			Loggies Pit Dredge Material Acceptance Criteria ²	Soil Sampling by Dillon 2016			
		Agricultural	Residential/ Parkland	Commercial/ Industrial		BH16-05 SA1	BH16-05 SA3	BH16-06 SA1	BH16-06 SA4
1-Methylnaphthalene	mg/kg	--	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
2-Methylnaphthalene	mg/kg	--	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthene	mg/kg	21.5	21.5	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthylene	mg/kg	320	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Anthracene	mg/kg	2.5	2.5	32	32	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)anthracene	mg/kg	6.2	6.2	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)pyrene	mg/kg	20	20	72	72	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(b)fluoranthene	mg/kg	6.2	6.2	--	10	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(g,h,i)perylene	mg/kg	see B(a)P TPE and IACR				<0.0050	<0.0050	<0.0050	<0.0050
Benzo(j)fluoranthene	mg/kg	see B(a)P TPE and IACR				<0.0050	<0.0050	<0.0050	<0.0050
Benzo(k)fluoranthene	mg/kg	6.2	6.2	--	10	<0.0050	<0.0050	<0.0050	<0.0050
Chrysene	mg/kg	6.2	6.2	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Dibenz(a,h)anthracene	mg/kg	see B(a)P TPE and IACR				<0.0050	<0.0050	<0.0050	<0.0050
Fluoranthene	mg/kg	50	50	180	180	<0.0050	<0.0050	<0.0050	<0.0050
Fluorene	mg/kg	15.4	15.4	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Indeno(1,2,3-cd)pyrene	mg/kg	see B(a)P TPE and IACR				<0.0050	<0.0050	<0.0050	<0.0050
Naphthalene	mg/kg	8.8	8.8	--	22	<0.0050	<0.0050	<0.0050	<0.0050
Perylene	mg/kg	--	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Phenanthrene	mg/kg	43	43	--	50	<0.0050	<0.0050	<0.0050	<0.0050
Pyrene	mg/kg	7.7	7.7	--	100	<0.0050	<0.0050	<0.0050	<0.0050
Total PAH	mg/kg	--	--	--	--	--	--	--	--
IACR*	mg/kg	1	1	1	1	0.15	0.15	0.15	0.15
B(a)P TPE*	mg/kg	5.3	5.3	5.3	5.3	0.013	0.013	0.013	0.013
Creosote or Coal Tar source suspected/known?	Yes or No	--	--	--	--	No	No	No	No
					Date Sampled	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16

"--" no guideline available or not analyzed

* The RDL was used in the calculation of B(a)P TPE and IACR, when a carcinogenic PAH soil concentration was <RDL.

B(a)P TPE and IACR were calculated as indicated in CCME (2010).

1. CCME Soil quality Guidelines from CCME Summary table. <http://st-ts.ccme.ca/en/index.html>.

2. Loggies Pit Environmental Management Plan (2016). Table 2-1: Dredge Material Acceptance Criteria.

BOLD values indicate exceedances.

Table D-7. PAH Leachate (TCLP) in soil at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	Nova Scotia Guidelines for Disposal of Contaminated Solids in Landfills (2005) ¹	PAH Leachate by TCLP Analysis collected by Dillon 2016							
			BH16-02 SA1	BH16-02 SA3	BH16-03 SA1	BH16-03 SA1-LD	BH16-03 SA3	BH16-04 SA1	BH16-04 SA3	
1-Methylnaphthalene	ug/L	--	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
2-Methylnaphthalene	ug/L	--	0.014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Acenaphthene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthylene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Anthracene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)anthracene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)pyrene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(b)fluoranthene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(g,h,i)perylene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(j)fluoranthene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(k)fluoranthene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chrysene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Dibenz(a,h)anthracene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Fluoranthene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Fluorene	ug/L	--	0.0057	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Indeno(1,2,3-cd)pyrene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Naphthalene	ug/L	--	0.023	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Perylene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Phenanthrene	ug/L	--	0.0093	<0.0050	<0.0050	<0.0050	<0.0089 ^a	<0.0050	<0.0050	<0.0065 ^a
Pyrene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Total PAH	ug/L	10	0.062	--	--	--	--	--	--	--
		Date Sampled	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16

Notes:

"--" no guideline available or not analyzed

LD denotes Lab duplicate

TCLP denotes Toxicity Characteristics Leaching Procedure

^a Elevated RDL(s) due to detected levels in the leachate blank.

1. Nova Scotia Guidelines for Disposal of Contaminated Solids in Landfills (2005). <https://novascotia.ca/nse/dept/docs/policy/Guidelines-IndustrialLandfill.pdf>

BOLD values indicate exceedances.

Table D-7. PAH Leachate (TCLP) in soil at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	Nova Scotia Guidelines for Disposal of Contaminated Solids in Landfills (2005) ¹	PAH Leachate by TCLP Analysis collected by Dillon 2016			
			BH16-05 SA1	BH16-05 SA3	BH16-06 SA1	BH16-06 SA4
1-Methylnaphthalene	ug/L	--	<0.010	<0.010	<0.010	<0.010
2-Methylnaphthalene	ug/L	--	<0.010	<0.010	<0.010	<0.010
Acenaphthene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthylene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Anthracene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)anthracene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)pyrene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(b)fluoranthene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(g,h,i)perylene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(j)fluoranthene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(k)fluoranthene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Chrysene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Dibenz(a,h)anthracene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Fluoranthene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Fluorene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Indeno(1,2,3-cd)pyrene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Naphthalene	ug/L	--	<0.020	<0.020	<0.020	<0.020
Perylene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Phenanthrene	ug/L	--	<0.0065 ^a	<0.0065 ^a	<0.0089 ^a	<0.0089 ^a
Pyrene	ug/L	--	<0.0050	<0.0050	<0.0050	<0.0050
Total PAH	ug/L	10	--	--	--	--
		Date Sampled	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16

Notes:

"--" no guideline available or not analyzed

LD denotes Lab duplicate

TCLP denotes Toxicity Characteristics Leaching Procedure

^a Elevated RDL(s) due to detected levels in the leachate blank.

1. Nova Scotia Guidelines for Disposal of Contaminated Solids in Landfills (2005). <https://novascotia.ca/nse/dept/docs/policy/Guidelines-IndustrialLandfill.pdf>

BOLD values indicate exceedances.

Table D-8. PAH Leachate (SPLP) in soil at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	CCME SoQs ¹		HC Drinking Water Quality ³	PAH Leachate by SPLP Analysis collected by Dillon 2016									
		Freshwater	Marine		BH16-02-SAI	BH16-02-SA3	BH16-03-SAI	BH16-03-SA3	BH16-04-SAI	BH16-04-SA3	BH16-05-SAI			
1-Methylnaphthalene	ug/L	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
2-Methylnaphthalene	ug/L	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Acenaphthene	ug/L	5.8	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Acenaphthylene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Anthracene	ug/L	0.012	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Benzo(a)anthracene	ug/L	0.018	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Benzo(a)pyrene	ug/L	0.015	--	0.01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Benzo(b)fluoranthene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Benzo(g,h,i)perylene	ug/L	--	--	--	0.0089	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Benzo(j)fluoranthene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Benzo(k)fluoranthene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Chrysene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Dibenz(a,h)anthracene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Fluoranthene	ug/L	0.04	--	--	0.012	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Fluorene	ug/L	3	--	--	0.0051	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Indeno(1,2,3-cd)pyrene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Naphthalene	ug/L	1.1	1.4	--	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	
Perylene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Phenanthrene	ug/L	0.4	--	--	<0.014 ^a	<0.014 ^a	<0.014 ^a	<0.014 ^a	<0.014 ^a	<0.014 ^a	<0.014 ^a	<0.014 ^a	<0.014 ^a	
Pyrene	ug/L	0.025	--	--	0.042	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.011	
Total PAH	ug/L	--	--	--	0.068	--	--	--	--	--	--	--	0.011	
				Date Sampled	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	28/Oct/16	

Notes:

"--" no guideline available or not analyzed

LD denotes Lab duplicate

MAC denotes Maximum Acceptable Concentration

SPLP = Synthetic Precipitation Leaching Procedure

^a Elevated RDL(s) due to detected levels in the leachate blank.

1. CCME Water Quality Guidelines from CCME Summary table protection of Aquatic Life.
<http://st-ts.ccme.ca/en/index.html>

2. CCME Water Quality Guidelines from CCME Summary table protection of Agriculture.
<http://st-ts.ccme.ca/en/index.html>

3. Health Canada Drinking Water Quality Guidelines

BOLD values indicate exceedances.

Table D-8. PAH Leachate (SPLP) in soil at Caraquet Small Craft Harbour (SCH), Gloucester County, NB.

Parameter	Units	CCME SoQs ¹		HC Drinking Water Quality ³	PAH Leachate by SPLP Analysis collected by Dillon 2016			
		Freshwater	Marine		BH16-05 SA3	BH16-05 SA3-LD	BH16-06 SA1	BH16-06 SA4
1-Methylnaphthalene	ug/L	--	--	--	<0.010	<0.010	<0.010	<0.010
2-Methylnaphthalene	ug/L	--	--	--	<0.010	<0.010	<0.010	<0.010
Acenaphthene	ug/L	5.8	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthylene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Anthracene	ug/L	0.012	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)anthracene	ug/L	0.018	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)pyrene	ug/L	0.015	--	0.01	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(b)fluoranthene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(g,h,i)perylene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(j)fluoranthene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(k)fluoranthene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Chrysene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Dibenz(a,h)anthracene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Fluoranthene	ug/L	0.04	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Fluorene	ug/L	3	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Indeno(1,2,3-cd)pyrene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Naphthalene	ug/L	1.1	1.4	--	<0.020	<0.020	<0.020	<0.020
Perylene	ug/L	--	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Phenanthrene	ug/L	0.4	--	--	<0.014 ^a	<0.014 ^a	<0.014 ^a	<0.014 ^a
Pyrene	ug/L	0.025	--	--	<0.0050	<0.0050	<0.0050	<0.0050
Total PAH	ug/L	--	--	--	--	--	--	--
Notes:					Date Sampled	28/Oct/16	28/Oct/16	28/Oct/16

"--" no guideline available or not analyzed
LD denotes Lab duplicate

MAC denotes Maximum Acceptable Concentration

SPLP = Synthetic Precipitation Leaching Procedure

^a Elevated RDL(s) due to detected levels in the leachate blank.

1. CCME Water Quality Guidelines from CCME Summary table protection of Aquatic Life.
<http://st-ts.ccme.ca/en/index.html>

2. CCME Water Quality Guidelines from CCME Summary table protection of Agriculture.
<http://st-ts.ccme.ca/en/index.html>

3. Health Canada Drinking Water Quality Guidelines

BOLD values indicate exceedances.

APPENDIX E

Laboratory Certificates of Analysis

Your Project #: 16-4652
Site Location: CARAQUET SCH
Your C.O.C. #: N/A

Attention: Shawn Forster

Dillon Consulting Limited
1149 Smythe St
Fredericton, NB
E3B 3H4

Report Date: 2016/11/15

Report #: R4247140

Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B6N6386

Received: 2016/11/01, 10:20

Sample Matrix: Soil
Samples Received: 21

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Conductance - soil	10	2016/11/07	2016/11/08	ATL SOP 00004	SM 22 2510B m
TEH in Soil (PIRI) (1)	10	2016/11/08	2016/11/08	ATL SOP 00111	Atl. RBCA v3 m
Metals Leach TCLP/CGSB extraction	4	2016/11/04	2016/11/07	ATL SOP 00058	EPA 6020A R1 m
Metals Leach TCLP/CGSB extraction	6	2016/11/08	2016/11/09	ATL SOP 00058	EPA 6020A R1 m
SAR - ICP Metals (2)	10	N/A	2016/11/08	ATL SOP 00058	EPA 6020A R1 m
Metals Leach, SPLP Extraction	10	2016/11/08	2016/11/08	ATL SOP 00058	EPA 6020A R1 m
Metals Solids Acid Extr. ICPMS	5	2016/11/03	2016/11/03	ATL SOP 00058	EPA 6020A R1 m
Metals Solids Acid Extr. ICPMS	5	2016/11/04	2016/11/04	ATL SOP 00058	EPA 6020A R1 m
Moisture	10	N/A	2016/11/03	ATL SOP 00001	OMOE Handbook 1983 m
PAH in Leachates GC/MS (Low Level)	6	2016/11/08	2016/11/09	ATL SOP 00103	EPA 8270D 2007 m
PAH in Leachates GC/MS (Low Level)	14	2016/11/08	2016/11/10	ATL SOP 00103	EPA 8270D 2007 m
PAH in sediment by GC/MS (Low Level) (1)	7	2016/11/02	2016/11/09	ATL SOP 00102	EPA 8270D 2007 m
PAH in sediment by GC/MS (Low Level) (1)	2	2016/11/04	2016/11/09	ATL SOP 00102	EPA 8270D 2007 m
PAH in sediment by GC/MS (Low Level) (1)	1	2016/11/09	2016/11/10	ATL SOP 00102	EPA 8270D 2007 m
PCBs in soil by GC/ECD (1)	10	2016/11/04	2016/11/08	ATL SOP 00106	EPA 8082A m
PCB Aroclor sum (soil)	10	N/A	2016/11/08	N/A	Auto Calc.
pH (5:1 DI Water Extract)	10	2016/11/07	2016/11/07	ATL SOP 00003	SM 22 4500-H+ B m
Grain Size - Calculated	10	N/A	2016/11/08		
Particle Size (Sieve), Sieve/pan 75um	10	N/A	2016/11/08	ATL SOP 00053	ASTM D1140-00 m
Sodium Adsorption Ratio in soil (1:5) (3)	1	N/A	2016/11/08	ATL SOP 00050	Carter2e15.4.4/CCMEm
Sodium Adsorption Ratio in soil (1:5) (3)	9	N/A	2016/11/09	ATL SOP 00050	Carter2e15.4.4/CCMEm
SPLP Inorganic extraction - pH	10	N/A	2016/11/05	ATL SOP 00036	EPA 1312 m
SPLP Inorganic extraction - Weight	10	N/A	2016/11/05	ATL SOP 00036	EPA 1312 m
TCLP Inorganic extraction - pH	4	N/A	2016/11/04	ATL SOP 00035	EPA 1311 m
TCLP Inorganic extraction - pH	3	N/A	2016/11/05	ATL SOP 00035	EPA 1311 m
TCLP Inorganic extraction - pH	3	N/A	2016/11/06	ATL SOP 00035	EPA 1311 m
TCLP Inorganic extraction - Weight	4	N/A	2016/11/04	ATL SOP 00035	EPA 1311 m
TCLP Inorganic extraction - Weight	3	N/A	2016/11/05	ATL SOP 00035	EPA 1311 m
TCLP Inorganic extraction - Weight	3	N/A	2016/11/06	ATL SOP 00035	EPA 1311 m
ModTPH (T1) Calc. for Soil	10	N/A	2016/11/09	N/A	Atl. RBCA v3.1 m

Your Project #: 16-4652
Site Location: CARAQUET SCH
Your C.O.C. #: N/A

Attention: Shawn Forster

Dillon Consulting Limited
1149 Smythe St
Fredericton, NB
E3B 3H4

Report Date: 2016/11/15

Report #: R4247140

Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B6N6386

Received: 2016/11/01, 10:20

Sample Matrix: Soil
Samples Received: 21

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
VPH in Soil (PIRI) - Field Preserved (4)	11	N/A	2016/11/03	ATL SOP 00119	Atl. RBCA v3.1 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

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

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

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

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

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

(2) Sample filtered in laboratory prior to analysis for dissolved metals.

(3) Sodium Adsorption Ratio is not accredited.

(4) No lab extraction date is given for C6-C10/BTEX and VOC samples that are field preserved with methanol. Extraction date is date sampled unless otherwise stated.

Your Project #: 16-4652
Site Location: CARAQUET SCH
Your C.O.C. #: N/A

Attention:Shawn Forster

Dillon Consulting Limited
1149 Smythe St
Fredericton, NB
E3B 3H4

Report Date: 2016/11/15
Report #: R4247140
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B6N6386

Received: 2016/11/01, 10:20

Encryption Key



Rachael Mansfield
Customer Service - Bedford
15 Nov 2016 11:35:29

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

Heather Macumber, Project Manager

Email: HMacumber@maxxam.ca

Phone# (902)420-0203 Ext:226

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DJC896	DJC897	DJC897	DJC898		DJC898	
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28		2016/10/28	
COC Number		N/A	N/A	N/A	N/A		N/A	
	UNITS	BH16-02 SA1	BH16-02 SA3	BH16-02 SA3 Lab-Dup	BH16-03 SA1	RDL	BH16-03 SA1 Lab-Dup	QC Batch
Calculated Parameters								
Grain Size	N/A	COARSE	COARSE		COARSE	N/A		4728170
Sieve - #200 (>0.075mm)	%	79	77		71	1		4736553
Sieve - Pan	%	21	23		29	1		4736553
Inorganics								
Conductivity	uS/cm	810	250	240	700	1.0		4738430
Moisture	%	7.4	7.6		11	1.0		4729263
Soluble (5:1) pH	pH	8.61	6.49	6.42	7.83	N/A		4737048
Sample Weight (as received)	g	100	100		100	N/A	100	4731765
Initial pH	N/A	5.0	4.9		4.9		4.9	4731771
Sodium Adsorption Ratio	N/A	8.2	3.7		4.9	N/A		4728171
Final pH	N/A	6.2	4.9		5.1		5.2	4731771
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate N/A = Not Applicable								

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DJC899		DJC900		DJC901	DJC901	DJC902		
Sampling Date		2016/10/28		2016/10/28		2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A		N/A		N/A	N/A	N/A		
	UNITS	BH16-03 SA3	QC Batch	BH16-04 SA1	QC Batch	BH16-04 SA3	BH16-04 SA3 Lab-Dup	BH16-05 SA1	RDL	QC Batch

Calculated Parameters										
Grain Size	N/A	COARSE	4728170	COARSE	4728170	COARSE	COARSE	COARSE	N/A	4728170
Sieve - #200 (>0.075mm)	%	83	4736553	81	4736553	87	80	78	1	4736553
Sieve - Pan	%	17	4736553	19	4736553	13	20 (1)	22	1	4736553

Inorganics										
Conductivity	uS/cm	320	4738430	220	4738430	150		210	1.0	4738430
Moisture	%	7.5	4729263	6.8	4729263	7.0		7.1	1.0	4729263
Soluble (5:1) pH	pH	7.14	4737048	6.95	4737048	6.13		7.55	N/A	4737048
Sample Weight (as received)	g	75	4735884	100	4731765	100		100	N/A	4733479
Initial pH	N/A	4.9	4735897	4.9	4731771	4.9		4.9		4733500
Sodium Adsorption Ratio	N/A	3.5	4728171	3.7	4728171	NC		2.4	N/A	4728171
Final pH	N/A	4.9	4735897	5.0	4731771	4.9		4.9		4733500

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

(1) Duplicate %RPD violation not applicable. Absolute % Difference within 10%.

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DJC903		DJC904	DJC905		DJD321	DJD322	
Sampling Date		2016/10/28		2016/10/28	2016/10/28		2016/10/28	2016/10/28	
COC Number		N/A		N/A	N/A		N/A	N/A	
	UNITS	BH16-05 SA3	QC Batch	BH16-06 SA1	BH16-06 SA4	RDL	(SPLP) BH16-02-SA1	(SPLP) BH16-02 SA3	QC Batch

Calculated Parameters									
Grain Size	N/A	COARSE	4728170	COARSE	COARSE	N/A			4728170
Sieve - #200 (>0.075mm)	%	81	4736553	77	78	1			4736553
Sieve - Pan	%	19	4736553	23	22	1			4736553

Charge/Prep Analysis									
Sample Weight (as received)	g						50	50	4733826
Final pH	N/A						9.24	8.16	4733836

Inorganics									
Conductivity	uS/cm	300	4738430	380	1400	1.0			4738430
Moisture	%	7.4	4729263	8.7	9.7	1.0			4729263
Soluble (5:1) pH	pH	5.94	4737048	7.89	7.28	N/A			4737048
Sample Weight (as received)	g	100	4733479	80	97	N/A			4735884
Initial pH	N/A	4.9	4733500	4.9	4.9				4735897
Sodium Adsorption Ratio	N/A	5.0	4728171	3.4	12	N/A			4728171
Final pH	N/A	4.9	4733500	5.6	5.0				4735897

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

Maxxam ID		DJD323	DJD324	DJD325	DJD326	
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28	
COC Number		N/A	N/A	N/A	N/A	
	UNITS	(SPLP) BH16-03 SA1	(SPLP) BH16-03 SA3	(SPLP) BH16-04 SA1	(SPLP) BH16-04 SA3	QC Batch

Charge/Prep Analysis						
Sample Weight (as received)	g	50	50	50	50	4733826
Final pH	N/A	9.18	6.96	9.23	6.66	4733836

QC Batch = Quality Control Batch

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DJD327	DJD328	DJD328	DJD329	
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28	
COC Number		N/A	N/A	N/A	N/A	
	UNITS	(SPLP) BH16-05 SA1	(SPLP) BH16-05 SA3	(SPLP) BH16-05 SA3 Lab-Dup	(SPLP) BH16-06 SA1	QC Batch
Charge/Prep Analysis						
Sample Weight (as received)	g	50	50	50	50	4733826
Final pH	N/A	8.33	5.89	5.69	9.02	4733836
QC Batch = Quality Control Batch						
Lab-Dup = Laboratory Initiated Duplicate						

Maxxam ID		DJD330	
Sampling Date		2016/10/28	
COC Number		N/A	
	UNITS	(SPLP) BH16-06 SA4	QC Batch
Charge/Prep Analysis			
Sample Weight (as received)	g	50	4733826
Final pH	N/A	8.07	4733836
QC Batch = Quality Control Batch			

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

ELEMENTS BY ICP/MS (SOIL)

Maxxam ID		DJC896	DJC897	DJC897	DJC898	DJC898		
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A	N/A	N/A		
	UNITS	BH16-02 SA1	BH16-02 SA3	BH16-02 SA3 Lab-Dup	BH16-03 SA1	BH16-03 SA1 Lab-Dup	RDL	QC Batch
Metals								
Leachable Aluminum (Al)	ug/L	<100	2100		330	230	100	4733486
Leachable Antimony (Sb)	ug/L	<20	<20		<20	<20	20	4733486
Leachable Arsenic (As)	ug/L	<20	<20		<20	<20	20	4733486
Leachable Barium (Ba)	ug/L	960	1100		1200	1300	50	4733486
Leachable Beryllium (Be)	ug/L	<20	<20		<20	<20	20	4733486
Leachable Boron (B)	ug/L	<500	<500		<500	<500	500	4733486
Leachable Cadmium (Cd)	ug/L	<3.0	<3.0		<3.0	<3.0	3.0	4733486
Dissolved Calcium (Ca)	ug/L	18000	4400	4800	20000		100	4737154
Leachable Calcium (Ca)	ug/L	830000	11000		170000	250000 (1)	1000	4733486
Leachable Chromium (Cr)	ug/L	<20	<20		<20	<20	20	4733486
Leachable Cobalt (Co)	ug/L	<10	<10		<10	<10	10	4733486
Leachable Copper (Cu)	ug/L	<20	<20		<20	<20	20	4733486
Leachable Iron (Fe)	ug/L	<500	3100		<500	<500	500	4733486
Leachable Lead (Pb)	ug/L	<5.0	<5.0		<5.0	<5.0	5.0	4733486
Leachable Lithium (Li)	ug/L	<20	<20		<20	<20	20	4733486
Dissolved Magnesium (Mg)	ug/L	430	1300	1300	4600		100	4737154
Leachable Magnesium (Mg)	ug/L	9300	2700		8200	8000	1000	4733486
Leachable Manganese (Mn)	ug/L	5600	780		1800	1800	20	4733486
Leachable Molybdenum (Mo)	ug/L	<20	<20		<20	<20	20	4733486
Leachable Nickel (Ni)	ug/L	43	<20		<20	<20	20	4733486
Leachable Potassium (K)	ug/L	8900	2800		5400	4800	1000	4733486
Leachable Selenium (Se)	ug/L	<10	<10		<10	<10	10	4733486
Leachable Silver (Ag)	ug/L	<5.0	<5.0		<5.0	<5.0	5.0	4733486
Dissolved Sodium (Na)	ug/L	130000	34000	34000	95000		100	4737154
Leachable Strontium (Sr)	ug/L	1500	<50		470	600	50	4733486
Leachable Thallium (Tl)	ug/L	<1.0	<1.0		<1.0	<1.0	1.0	4733486
Leachable Tin (Sn)	ug/L	<20	<20		<20	<20	20	4733486
Leachable Uranium (U)	ug/L	<1.0	<1.0		<1.0	<1.0	1.0	4733486
Leachable Vanadium (V)	ug/L	<20	<20		<20	<20	20	4733486
Leachable Zinc (Zn)	ug/L	<50	<50		<50	<50	50	4733486
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								
(1) Poor RPD due to sample inhomogeneity. < 10 % of compounds in multi-component analysis in violation.								

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

ELEMENTS BY ICP/MS (SOIL)

Maxxam ID		DJC899		DJC900		DJC901	DJC902	DJC903		
Sampling Date		2016/10/28		2016/10/28		2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A		N/A		N/A	N/A	N/A		
	UNITS	BH16-03 SA3	QC Batch	BH16-04 SA1	QC Batch	BH16-04 SA3	BH16-05 SA1	BH16-05 SA3	RDL	QC Batch

Metals										
Leachable Aluminum (Al)	ug/L	410	4738309	970	4733486	440	510	650	100	4738309
Leachable Antimony (Sb)	ug/L	<20	4738309	<20	4733486	<20	<20	<20	20	4738309
Leachable Arsenic (As)	ug/L	<20	4738309	<20	4733486	<20	<20	<20	20	4738309
Leachable Barium (Ba)	ug/L	1100	4738309	850	4733486	810	680	800	50	4738309
Leachable Beryllium (Be)	ug/L	<20	4738309	<20	4733486	<20	<20	<20	20	4738309
Leachable Boron (B)	ug/L	<500	4738309	<500	4733486	<500	<500	<500	500	4738309
Leachable Cadmium (Cd)	ug/L	<3.0	4738309	<3.0	4733486	<3.0	<3.0	<3.0	3.0	4738309
Dissolved Calcium (Ca)	ug/L	8700	4737154	4100	4737154	<100	8900	3200	100	4737154
Leachable Calcium (Ca)	ug/L	30000	4738309	23000	4733486	5300	31000	24000	1000	4738309
Leachable Chromium (Cr)	ug/L	<20	4738309	<20	4733486	<20	<20	<20	20	4738309
Leachable Cobalt (Co)	ug/L	<10	4738309	<10	4733486	<10	<10	<10	10	4738309
Leachable Copper (Cu)	ug/L	<20	4738309	<20	4733486	<20	<20	<20	20	4738309
Leachable Iron (Fe)	ug/L	<500	4738309	<500	4733486	<500	<500	<500	500	4738309
Leachable Lead (Pb)	ug/L	<5.0	4738309	<5.0	4733486	<5.0	<5.0	<5.0	5.0	4738309
Leachable Lithium (Li)	ug/L	<20	4738309	<20	4733486	<20	<20	<20	20	4738309
Dissolved Magnesium (Mg)	ug/L	2000	4737154	1000	4737154	<100	1200	1800	100	4737154
Leachable Magnesium (Mg)	ug/L	3500	4738309	2900	4733486	3400	3000	3100	1000	4738309
Leachable Manganese (Mn)	ug/L	600	4738309	680	4733486	690	1200	1000	20	4738309
Leachable Molybdenum (Mo)	ug/L	<20	4738309	<20	4733486	<20	<20	<20	20	4738309
Leachable Nickel (Ni)	ug/L	<20	4738309	<20	4733486	<20	31	<20	20	4738309
Leachable Potassium (K)	ug/L	2900	4738309	4200	4733486	2900	4100	2600	1000	4738309
Leachable Selenium (Se)	ug/L	<10	4738309	<10	4733486	<10	<10	<10	10	4738309
Leachable Silver (Ag)	ug/L	<5.0	4738309	<5.0	4733486	<5.0	<5.0	<5.0	5.0	4738309
Dissolved Sodium (Na)	ug/L	44000	4737154	32000	4737154	26000	28000	45000	100	4737154
Leachable Strontium (Sr)	ug/L	97	4738309	89	4733486	54	130	100	50	4738309
Leachable Thallium (Tl)	ug/L	<1.0	4738309	<1.0	4733486	<1.0	<1.0	<1.0	1.0	4738309
Leachable Tin (Sn)	ug/L	<20	4738309	<20	4733486	<20	<20	<20	20	4738309
Leachable Uranium (U)	ug/L	<1.0	4738309	<1.0	4733486	<1.0	<1.0	<1.0	1.0	4738309
Leachable Vanadium (V)	ug/L	<20	4738309	<20	4733486	<20	<20	<20	20	4738309
Leachable Zinc (Zn)	ug/L	<50	4738309	<50	4733486	<50	<50	<50	50	4738309

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

ELEMENTS BY ICP/MS (SOIL)

Maxxam ID		DJC904	DJC905			DJD321	DJD322		
Sampling Date		2016/10/28	2016/10/28			2016/10/28	2016/10/28		
COC Number		N/A	N/A			N/A	N/A		
	UNITS	BH16-06 SA1	BH16-06 SA4	RDL	QC Batch	(SPLP) BH16-02-SA1	(SPLP) BH16-02 SA3	RDL	QC Batch

Metals									
Leachable Aluminum (Al)	ug/L	110	420	100	4738309	1000	230	10	4738228
Leachable Antimony (Sb)	ug/L	<20	<20	20	4738309	<2.0	<2.0	2.0	4738228
Leachable Arsenic (As)	ug/L	<20	<20	20	4738309	2.1	<2.0	2.0	4738228
Leachable Barium (Ba)	ug/L	1300	650	50	4738309	53	44	5.0	4738228
Leachable Beryllium (Be)	ug/L	<20	<20	20	4738309	<2.0	<2.0	2.0	4738228
Leachable Boron (B)	ug/L	<500	<500	500	4738309				
Leachable Cadmium (Cd)	ug/L	<3.0	<3.0	3.0	4738309	<0.30	<0.30	0.30	4738228
Dissolved Calcium (Ca)	ug/L	15000	7500	100	4737154				
Leachable Calcium (Ca)	ug/L	480000	23000	1000	4738309	10000	11000	100	4738228
Leachable Chromium (Cr)	ug/L	<20	<20	20	4738309	<2.0	<2.0	2.0	4738228
Leachable Cobalt (Co)	ug/L	<10	<10	10	4738309	<1.0	<1.0	1.0	4738228
Leachable Copper (Cu)	ug/L	<20	<20	20	4738309	2.9	<2.0	2.0	4738228
Leachable Iron (Fe)	ug/L	<500	<500	500	4738309	890	280	50	4738228
Leachable Lead (Pb)	ug/L	<5.0	<5.0	5.0	4738309	0.59	<0.50	0.50	4738228
Leachable Lithium (Li)	ug/L	<20	<20	20	4738309	<2.0	<2.0	2.0	4738228
Dissolved Magnesium (Mg)	ug/L	1600	12000	100	4737154				
Leachable Magnesium (Mg)	ug/L	6400	8400	1000	4738309	510	1000	100	4738228
Leachable Manganese (Mn)	ug/L	3100	980	20	4738309	36	9.4	2.0	4738228
Leachable Molybdenum (Mo)	ug/L	<20	<20	20	4738309	4.3	2.2	2.0	4738228
Leachable Nickel (Ni)	ug/L	<20	<20	20	4738309	<2.0	<2.0	2.0	4738228
Leachable Potassium (K)	ug/L	3100	6700	1000	4738309	3300	500	100	4738228
Leachable Selenium (Se)	ug/L	<10	<10	10	4738309	<1.0	<1.0	1.0	4738228
Leachable Silver (Ag)	ug/L	<5.0	<5.0	5.0	4738309	<0.50	<0.50	0.50	4738228
Dissolved Sodium (Na)	ug/L	52000	240000	100	4737154				
Leachable Strontium (Sr)	ug/L	1400	170	50	4738309	23	21	5.0	4738228
Leachable Thallium (Tl)	ug/L	<1.0	<1.0	1.0	4738309	<0.10	<0.10	0.10	4738228
Leachable Tin (Sn)	ug/L	<20	<20	20	4738309	<2.0	<2.0	2.0	4738228
Leachable Uranium (U)	ug/L	<1.0	<1.0	1.0	4738309	0.25	<0.10	0.10	4738228
Leachable Vanadium (V)	ug/L	<20	<20	20	4738309	2.9	<2.0	2.0	4738228
Leachable Zinc (Zn)	ug/L	<50	<50	50	4738309	<5.0	<5.0	5.0	4738228

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

ELEMENTS BY ICP/MS (SOIL)

Maxxam ID		DJD323	DJD324	DJD325	DJD326		
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A	N/A		
	UNITS	(SPLP) BH16-03 SA1	(SPLP) BH16-03 SA3	(SPLP) BH16-04 SA1	(SPLP) BH16-04 SA3	RDL	QC Batch
Metals							
Leachable Aluminum (Al)	ug/L	580	1000	1100	1500	10	4738228
Leachable Antimony (Sb)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	4738228
Leachable Arsenic (As)	ug/L	<2.0	<2.0	<2.0	2.1	2.0	4738228
Leachable Barium (Ba)	ug/L	30	39	42	42	5.0	4738228
Leachable Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	4738228
Leachable Cadmium (Cd)	ug/L	<0.30	<0.30	<0.30	<0.30	0.30	4738228
Leachable Calcium (Ca)	ug/L	10000	2800	9100	1500	100	4738228
Leachable Chromium (Cr)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	4738228
Leachable Cobalt (Co)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	4738228
Leachable Copper (Cu)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	4738228
Leachable Iron (Fe)	ug/L	640	1700	940	2200	50	4738228
Leachable Lead (Pb)	ug/L	0.52	0.88	0.50	1.4	0.50	4738228
Leachable Lithium (Li)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	4738228
Leachable Magnesium (Mg)	ug/L	1300	890	760	540	100	4738228
Leachable Manganese (Mn)	ug/L	13	17	25	50	2.0	4738228
Leachable Molybdenum (Mo)	ug/L	2.5	<2.0	<2.0	<2.0	2.0	4738228
Leachable Nickel (Ni)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	4738228
Leachable Potassium (K)	ug/L	2200	590	3300	490	100	4738228
Leachable Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	4738228
Leachable Silver (Ag)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4738228
Leachable Strontium (Sr)	ug/L	28	12	26	<5.0	5.0	4738228
Leachable Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	4738228
Leachable Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	4738228
Leachable Uranium (U)	ug/L	0.18	0.11	0.23	<0.10	0.10	4738228
Leachable Vanadium (V)	ug/L	<2.0	2.4	2.9	3.4	2.0	4738228
Leachable Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	5.6	5.0	4738228
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

ELEMENTS BY ICP/MS (SOIL)

Maxxam ID		DJD327	DJD328	DJD328	DJD329		
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A	N/A		
	UNITS	(SPLP) BH16-05 SA1	(SPLP) BH16-05 SA3	(SPLP) BH16-05 SA3 Lab-Dup	(SPLP) BH16-06 SA1	RDL	QC Batch

Metals							
Leachable Aluminum (Al)	ug/L	8500	41	35	2900	10	4738228
Leachable Antimony (Sb)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	4738228
Leachable Arsenic (As)	ug/L	5.6	<2.0	<2.0	2.7	2.0	4738228
Leachable Barium (Ba)	ug/L	79	15	25	48	5.0	4738228
Leachable Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	4738228
Leachable Cadmium (Cd)	ug/L	<0.30	<0.30	<0.30	<0.30	0.30	4738228
Leachable Calcium (Ca)	ug/L	3100	1300	930 (1)	10000	100	4738228
Leachable Chromium (Cr)	ug/L	9.1	<2.0	<2.0	3.3	2.0	4738228
Leachable Cobalt (Co)	ug/L	3.0	<1.0	<1.0	<1.0	1.0	4738228
Leachable Copper (Cu)	ug/L	3.6	<2.0	<2.0	<2.0	2.0	4738228
Leachable Iron (Fe)	ug/L	8700	68	85	2600	50	4738228
Leachable Lead (Pb)	ug/L	3.5	<0.50	<0.50	1.3	0.50	4738228
Leachable Lithium (Li)	ug/L	5.8	<2.0	<2.0	<2.0	2.0	4738228
Leachable Magnesium (Mg)	ug/L	1500	600	620	1100	100	4738228
Leachable Manganese (Mn)	ug/L	150	28	18 (1)	45	2.0	4738228
Leachable Molybdenum (Mo)	ug/L	2.9	<2.0	<2.0	<2.0	2.0	4738228
Leachable Nickel (Ni)	ug/L	6.1	<2.0	<2.0	<2.0	2.0	4738228
Leachable Potassium (K)	ug/L	2400	860	960	1000	100	4738228
Leachable Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	4738228
Leachable Silver (Ag)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4738228
Leachable Strontium (Sr)	ug/L	12	6.2	6.0	26	5.0	4738228
Leachable Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	4738228
Leachable Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	4738228
Leachable Uranium (U)	ug/L	0.39	<0.10	<0.10	0.39	0.10	4738228
Leachable Vanadium (V)	ug/L	17	<2.0	<2.0	5.7	2.0	4738228
Leachable Zinc (Zn)	ug/L	15	<5.0	<5.0	5.9	5.0	4738228

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

(1) Poor RPD due to sample inhomogeneity. < 10 % of compounds in multi-component analysis in violation.

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

ELEMENTS BY ICP/MS (SOIL)

Maxxam ID		DJD330		
Sampling Date		2016/10/28		
COC Number		N/A		
	UNITS	(SPLP) BH16-06 SA4	RDL	QC Batch
Metals				
Leachable Aluminum (Al)	ug/L	6900	10	4738228
Leachable Antimony (Sb)	ug/L	<2.0	2.0	4738228
Leachable Arsenic (As)	ug/L	7.7	2.0	4738228
Leachable Barium (Ba)	ug/L	110	5.0	4738228
Leachable Beryllium (Be)	ug/L	<2.0	2.0	4738228
Leachable Cadmium (Cd)	ug/L	<0.30	0.30	4738228
Leachable Calcium (Ca)	ug/L	2200	100	4738228
Leachable Chromium (Cr)	ug/L	7.3	2.0	4738228
Leachable Cobalt (Co)	ug/L	2.9	1.0	4738228
Leachable Copper (Cu)	ug/L	3.8	2.0	4738228
Leachable Iron (Fe)	ug/L	8600	50	4738228
Leachable Lead (Pb)	ug/L	3.0	0.50	4738228
Leachable Lithium (Li)	ug/L	7.3	2.0	4738228
Leachable Magnesium (Mg)	ug/L	2100	100	4738228
Leachable Manganese (Mn)	ug/L	120	2.0	4738228
Leachable Molybdenum (Mo)	ug/L	3.7	2.0	4738228
Leachable Nickel (Ni)	ug/L	4.8	2.0	4738228
Leachable Potassium (K)	ug/L	4000	100	4738228
Leachable Selenium (Se)	ug/L	<1.0	1.0	4738228
Leachable Silver (Ag)	ug/L	<0.50	0.50	4738228
Leachable Strontium (Sr)	ug/L	20	5.0	4738228
Leachable Thallium (Tl)	ug/L	<0.10	0.10	4738228
Leachable Tin (Sn)	ug/L	<2.0	2.0	4738228
Leachable Uranium (U)	ug/L	0.49	0.10	4738228
Leachable Vanadium (V)	ug/L	16	2.0	4738228
Leachable Zinc (Zn)	ug/L	11	5.0	4738228
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJC896		DJC897	DJC897		DJC898		
Sampling Date		2016/10/28		2016/10/28	2016/10/28		2016/10/28		
COC Number		N/A		N/A	N/A		N/A		
	UNITS	BH16-02 SA1	QC Batch	BH16-02 SA3	BH16-02 SA3 Lab-Dup	QC Batch	BH16-03 SA1	RDL	QC Batch

Metals									
Acid Extractable Aluminum (Al)	mg/kg	10000	4731189	11000	10000	4733558	9400	10	4731189
Acid Extractable Antimony (Sb)	mg/kg	<2.0	4731189	<2.0	<2.0	4733558	<2.0	2.0	4731189
Acid Extractable Arsenic (As)	mg/kg	6.9	4731189	6.5	6.5	4733558	8.5	2.0	4731189
Acid Extractable Barium (Ba)	mg/kg	80	4731189	110	110	4733558	89	5.0	4731189
Acid Extractable Beryllium (Be)	mg/kg	<2.0	4731189	<2.0	<2.0	4733558	<2.0	2.0	4731189
Acid Extractable Bismuth (Bi)	mg/kg	<2.0	4731189	<2.0	<2.0	4733558	<2.0	2.0	4731189
Acid Extractable Boron (B)	mg/kg	<50	4731189	<50	<50	4733558	<50	50	4731189
Acid Extractable Cadmium (Cd)	mg/kg	<0.30	4731189	<0.30	<0.30	4733558	<0.30	0.30	4731189
Acid Extractable Chromium (Cr)	mg/kg	21	4731189	14	13	4733558	15	2.0	4731189
Acid Extractable Cobalt (Co)	mg/kg	8.6	4731189	9.0	8.8	4733558	8.8	1.0	4731189
Acid Extractable Copper (Cu)	mg/kg	63	4731189	4.8	4.7	4733558	6.5	2.0	4731189
Acid Extractable Iron (Fe)	mg/kg	24000	4731189	21000	20000	4733558	21000	50	4731189
Acid Extractable Lead (Pb)	mg/kg	6.5	4731189	4.4	4.4	4733558	5.5	0.50	4731189
Acid Extractable Lithium (Li)	mg/kg	16	4731189	18	17	4733558	18	2.0	4731189
Acid Extractable Manganese (Mn)	mg/kg	840	4731189	480	470	4733558	450	2.0	4731189
Acid Extractable Mercury (Hg)	mg/kg	<0.10	4731189	<0.10	<0.10	4733558	<0.10	0.10	4731189
Acid Extractable Molybdenum (Mo)	mg/kg	<2.0	4731189	<2.0	<2.0	4733558	<2.0	2.0	4731189
Acid Extractable Nickel (Ni)	mg/kg	27	4731189	17	17	4733558	17	2.0	4731189
Acid Extractable Rubidium (Rb)	mg/kg	4.0	4731189	3.2	3.3	4733558	3.4	2.0	4731189
Acid Extractable Selenium (Se)	mg/kg	<1.0	4731189	<1.0	<1.0	4733558	<1.0	1.0	4731189
Acid Extractable Silver (Ag)	mg/kg	8.7	4731189	<0.50	<0.50	4733558	<0.50	0.50	4731189
Acid Extractable Strontium (Sr)	mg/kg	88	4731189	<5.0	<5.0	4733558	9.1	5.0	4731189
Acid Extractable Thallium (Tl)	mg/kg	<0.10	4731189	<0.10	<0.10	4733558	<0.10	0.10	4731189
Acid Extractable Tin (Sn)	mg/kg	<2.0	4731189	<2.0	<2.0	4733558	<2.0	2.0	4731189
Acid Extractable Uranium (U)	mg/kg	0.42	4731189	0.30	0.26	4733558	0.29	0.10	4731189
Acid Extractable Vanadium (V)	mg/kg	28	4731189	22	21	4733558	22	2.0	4731189
Acid Extractable Zinc (Zn)	mg/kg	36	4731189	31	30	4733558	33	5.0	4731189

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJC899	DJC900	DJC901		DJC902	DJC903		
Sampling Date		2016/10/28	2016/10/28	2016/10/28		2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A		N/A	N/A		
	UNITS	BH16-03 SA3	BH16-04 SA1	BH16-04 SA3	QC Batch	BH16-05 SA1	BH16-05 SA3	RDL	QC Batch

Metals									
Acid Extractable Aluminum (Al)	mg/kg	10000	12000	9200	4731189	11000	9400	10	4733558
Acid Extractable Antimony (Sb)	mg/kg	<2.0	<2.0	<2.0	4731189	<2.0	<2.0	2.0	4733558
Acid Extractable Arsenic (As)	mg/kg	7.3	7.3	11	4731189	7.9	12	2.0	4733558
Acid Extractable Barium (Ba)	mg/kg	130	84	110	4731189	89	110	5.0	4733558
Acid Extractable Beryllium (Be)	mg/kg	<2.0	<2.0	<2.0	4731189	<2.0	<2.0	2.0	4733558
Acid Extractable Bismuth (Bi)	mg/kg	<2.0	<2.0	<2.0	4731189	<2.0	<2.0	2.0	4733558
Acid Extractable Boron (B)	mg/kg	<50	<50	<50	4731189	<50	<50	50	4733558
Acid Extractable Cadmium (Cd)	mg/kg	<0.30	<0.30	<0.30	4731189	<0.30	<0.30	0.30	4733558
Acid Extractable Chromium (Cr)	mg/kg	16	16	11	4731189	15	11	2.0	4733558
Acid Extractable Cobalt (Co)	mg/kg	9.1	9.9	8.8	4731189	9.5	8.6	1.0	4733558
Acid Extractable Copper (Cu)	mg/kg	5.9	11	6.9	4731189	8.1	6.2	2.0	4733558
Acid Extractable Iron (Fe)	mg/kg	23000	23000	21000	4731189	22000	21000	50	4733558
Acid Extractable Lead (Pb)	mg/kg	4.5	5.7	14	4731189	6.8	6.3	0.50	4733558
Acid Extractable Lithium (Li)	mg/kg	19	21	17	4731189	21	16	2.0	4733558
Acid Extractable Manganese (Mn)	mg/kg	390	500	600	4731189	470	560	2.0	4733558
Acid Extractable Mercury (Hg)	mg/kg	<0.10	<0.10	<0.10	4731189	<0.10	<0.10	0.10	4733558
Acid Extractable Molybdenum (Mo)	mg/kg	<2.0	<2.0	<2.0	4731189	<2.0	<2.0	2.0	4733558
Acid Extractable Nickel (Ni)	mg/kg	17	19	15	4731189	18	14	2.0	4733558
Acid Extractable Rubidium (Rb)	mg/kg	2.7	3.6	2.8	4731189	4.1	2.7	2.0	4733558
Acid Extractable Selenium (Se)	mg/kg	<1.0	<1.0	<1.0	4731189	<1.0	<1.0	1.0	4733558
Acid Extractable Silver (Ag)	mg/kg	<0.50	<0.50	<0.50	4731189	<0.50	<0.50	0.50	4733558
Acid Extractable Strontium (Sr)	mg/kg	5.9	5.4	<5.0	4731189	6.5	<5.0	5.0	4733558
Acid Extractable Thallium (Tl)	mg/kg	<0.10	<0.10	<0.10	4731189	<0.10	<0.10	0.10	4733558
Acid Extractable Tin (Sn)	mg/kg	<2.0	<2.0	<2.0	4731189	<2.0	<2.0	2.0	4733558
Acid Extractable Uranium (U)	mg/kg	0.29	0.29	0.22	4731189	0.34	0.24	0.10	4733558
Acid Extractable Vanadium (V)	mg/kg	23	24	19	4731189	24	21	2.0	4733558
Acid Extractable Zinc (Zn)	mg/kg	34	39	30	4731189	36	28	5.0	4733558
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJC904	DJC905		
Sampling Date		2016/10/28	2016/10/28		
COC Number		N/A	N/A		
	UNITS	BH16-06 SA1	BH16-06 SA4	RDL	QC Batch
Metals					
Acid Extractable Aluminum (Al)	mg/kg	10000	11000	10	4733558
Acid Extractable Antimony (Sb)	mg/kg	<2.0	<2.0	2.0	4733558
Acid Extractable Arsenic (As)	mg/kg	7.6	13	2.0	4733558
Acid Extractable Barium (Ba)	mg/kg	88	94	5.0	4733558
Acid Extractable Beryllium (Be)	mg/kg	<2.0	<2.0	2.0	4733558
Acid Extractable Bismuth (Bi)	mg/kg	<2.0	<2.0	2.0	4733558
Acid Extractable Boron (B)	mg/kg	<50	<50	50	4733558
Acid Extractable Cadmium (Cd)	mg/kg	0.46	<0.30	0.30	4733558
Acid Extractable Chromium (Cr)	mg/kg	18	14	2.0	4733558
Acid Extractable Cobalt (Co)	mg/kg	9.1	10	1.0	4733558
Acid Extractable Copper (Cu)	mg/kg	7.7	6.2	2.0	4733558
Acid Extractable Iron (Fe)	mg/kg	22000	23000	50	4733558
Acid Extractable Lead (Pb)	mg/kg	6.8	4.9	0.50	4733558
Acid Extractable Lithium (Li)	mg/kg	16	21	2.0	4733558
Acid Extractable Manganese (Mn)	mg/kg	680	500	2.0	4733558
Acid Extractable Mercury (Hg)	mg/kg	<0.10	<0.10	0.10	4733558
Acid Extractable Molybdenum (Mo)	mg/kg	<2.0	<2.0	2.0	4733558
Acid Extractable Nickel (Ni)	mg/kg	20	19	2.0	4733558
Acid Extractable Rubidium (Rb)	mg/kg	3.6	3.2	2.0	4733558
Acid Extractable Selenium (Se)	mg/kg	<1.0	<1.0	1.0	4733558
Acid Extractable Silver (Ag)	mg/kg	<0.50	<0.50	0.50	4733558
Acid Extractable Strontium (Sr)	mg/kg	37	9.6	5.0	4733558
Acid Extractable Thallium (Tl)	mg/kg	<0.10	<0.10	0.10	4733558
Acid Extractable Tin (Sn)	mg/kg	<2.0	<2.0	2.0	4733558
Acid Extractable Uranium (U)	mg/kg	0.35	0.49	0.10	4733558
Acid Extractable Vanadium (V)	mg/kg	27	24	2.0	4733558
Acid Extractable Zinc (Zn)	mg/kg	35	33	5.0	4733558
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DJC896	DJC897	DJC898	DJC898		
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A	N/A		
	UNITS	BH16-02 SA1	BH16-02 SA3	BH16-03 SA1	BH16-03 SA1 Lab-Dup	RDL	QC Batch
Polyaromatic Hydrocarbons							
Leachable 1-Methylnaphthalene	ug/L	0.010	<0.010	<0.010	<0.010	0.010	4738103
Leachable 2-Methylnaphthalene	ug/L	0.014	<0.010	<0.010	<0.010	0.010	4738103
Leachable Acenaphthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Acenaphthylene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Anthracene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Benzo(a)anthracene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Benzo(a)pyrene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Benzo(b)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Benzo(g,h,i)perylene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Benzo(j)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Benzo(k)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Chrysene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Dibenz(a,h)anthracene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Fluorene	ug/L	0.0057	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Indeno(1,2,3-cd)pyrene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Naphthalene	ug/L	0.023	<0.020	<0.020	<0.020	0.020	4738103
Leachable Perylene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Phenanthrene	ug/L	0.0093	<0.0050	<0.0050	<0.0050	0.0050	4738103
Leachable Pyrene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738103
1-Methylnaphthalene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
2-Methylnaphthalene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Acenaphthene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Acenaphthylene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Anthracene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Benzo(a)anthracene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Benzo(a)pyrene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Benzo(b)fluoranthene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Benzo(g,h,i)perylene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Benzo(j)fluoranthene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Benzo(k)fluoranthene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Chrysene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Lab-Dup = Laboratory Initiated Duplicate							

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DJC896	DJC897	DJC898	DJC898		
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A	N/A		
	UNITS	BH16-02 SA1	BH16-02 SA3	BH16-03 SA1	BH16-03 SA1 Lab-Dup	RDL	QC Batch
Dibenz(a,h)anthracene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Fluoranthene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Fluorene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Naphthalene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Perylene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Phenanthrene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Pyrene	mg/kg	<0.0050	<0.0050	<0.0050		0.0050	4733307
Surrogate Recovery (%)							
Leachable D10-Anthracene	%	79	75	80	77		4738103
Leachable D14-Terphenyl	%	83	82	86	84		4738103
Leachable D8-Acenaphthylene	%	79	72	77	78		4738103
D10-Anthracene	%	85	85	86			4733307
D14-Terphenyl	%	91	90	91			4733307
D8-Acenaphthylene	%	84	83	83			4733307
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Lab-Dup = Laboratory Initiated Duplicate							

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DJC899			DJC900			DJC901		
Sampling Date		2016/10/28			2016/10/28			2016/10/28		
COC Number		N/A			N/A			N/A		
	UNITS	BH16-03 SA3	RDL	QC Batch	BH16-04 SA1	RDL	QC Batch	BH16-04 SA3	RDL	QC Batch

Polyaromatic Hydrocarbons										
Leachable 1-Methylnaphthalene	ug/L	<0.010	0.010	4738110	<0.010	0.010	4738103	<0.010	0.010	4738109
Leachable 2-Methylnaphthalene	ug/L	<0.010	0.010	4738110	<0.010	0.010	4738103	<0.010	0.010	4738109
Leachable Acenaphthene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Acenaphthylene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Anthracene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Benzo(a)anthracene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Benzo(a)pyrene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Benzo(b)fluoranthene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Benzo(g,h,i)perylene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Benzo(j)fluoranthene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Benzo(k)fluoranthene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Chrysene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Dibenz(a,h)anthracene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Fluoranthene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Fluorene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Indeno(1,2,3-cd)pyrene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Naphthalene	ug/L	<0.020	0.020	4738110	<0.020	0.020	4738103	<0.020	0.020	4738109
Leachable Perylene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
Leachable Phenanthrene	ug/L	<0.0089 (1)	0.0089	4738110	<0.0050	0.0050	4738103	<0.0065 (1)	0.0065	4738109
Leachable Pyrene	ug/L	<0.0050	0.0050	4738110	<0.0050	0.0050	4738103	<0.0050	0.0050	4738109
1-Methylnaphthalene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
2-Methylnaphthalene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Acenaphthene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Acenaphthylene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Anthracene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Benzo(a)anthracene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Benzo(a)pyrene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Benzo(b)fluoranthene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Benzo(g,h,i)perylene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Benzo(j)fluoranthene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Benzo(k)fluoranthene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Chrysene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated RDL(s) due to detected levels in the leachate blank.

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DJC899			DJC900			DJC901		
Sampling Date		2016/10/28			2016/10/28			2016/10/28		
COC Number		N/A			N/A			N/A		
	UNITS	BH16-03 SA3	RDL	QC Batch	BH16-04 SA1	RDL	QC Batch	BH16-04 SA3	RDL	QC Batch
Dibenz(a,h)anthracene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Fluoranthene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Fluorene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Naphthalene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Perylene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Phenanthrene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Pyrene	mg/kg	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307	<0.0050	0.0050	4733307
Surrogate Recovery (%)										
Leachable D10-Anthracene	%	77		4738110	80		4738103	85		4738109
Leachable D14-Terphenyl	%	80		4738110	87		4738103	83		4738109
Leachable D8-Acenaphthylene	%	79		4738110	82		4738103	81		4738109
D10-Anthracene	%	80		4733307	80		4733307	86		4733307
D14-Terphenyl	%	86		4733307	86		4733307	90		4733307
D8-Acenaphthylene	%	83		4733307	80		4733307	84		4733307
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DJC902	DJC903			DJC904		DJC905		
Sampling Date		2016/10/28	2016/10/28			2016/10/28		2016/10/28		
COC Number		N/A	N/A			N/A		N/A		
	UNITS	BH16-05 SA1	BH16-05 SA3	RDL	QC Batch	BH16-06 SA1	QC Batch	BH16-06 SA4	RDL	QC Batch

Polyaromatic Hydrocarbons										
Leachable 1-Methylnaphthalene	ug/L	<0.010	<0.010	0.010	4738109	<0.010	4738110	<0.010	0.010	4738110
Leachable 2-Methylnaphthalene	ug/L	<0.010	<0.010	0.010	4738109	<0.010	4738110	<0.010	0.010	4738110
Leachable Acenaphthene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Acenaphthylene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Anthracene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Benzo(a)anthracene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Benzo(a)pyrene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Benzo(b)fluoranthene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Benzo(g,h,i)perylene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Benzo(j)fluoranthene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Benzo(k)fluoranthene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Chrysene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Dibenz(a,h)anthracene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Fluoranthene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Fluorene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Indeno(1,2,3-cd)pyrene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Naphthalene	ug/L	<0.020	<0.020	0.020	4738109	<0.020	4738110	<0.020	0.020	4738110
Leachable Perylene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
Leachable Phenanthrene	ug/L	<0.0065 (1)	<0.0065 (1)	0.0065	4738109	<0.0089 (1)	4738110	<0.0089 (1)	0.0089	4738110
Leachable Pyrene	ug/L	<0.0050	<0.0050	0.0050	4738109	<0.0050	4738110	<0.0050	0.0050	4738110
1-Methylnaphthalene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
2-Methylnaphthalene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Acenaphthene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Acenaphthylene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Anthracene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Benzo(a)anthracene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Benzo(a)pyrene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Benzo(b)fluoranthene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Benzo(g,h,i)perylene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Benzo(j)fluoranthene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Benzo(k)fluoranthene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Chrysene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated RDL(s) due to detected levels in the leachate blank.

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DJC902	DJC903			DJC904		DJC905		
Sampling Date		2016/10/28	2016/10/28			2016/10/28		2016/10/28		
COC Number		N/A	N/A			N/A		N/A		
	UNITS	BH16-05 SA1	BH16-05 SA3	RDL	QC Batch	BH16-06 SA1	QC Batch	BH16-06 SA4	RDL	QC Batch
Dibenz(a,h)anthracene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Fluoranthene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Fluorene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Naphthalene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Perylene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Phenanthrene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Pyrene	mg/kg	<0.0050	<0.0050	0.0050	4733307	<0.0050	4733307	<0.0050	0.0050	4740167
Surrogate Recovery (%)										
Leachable D10-Anthracene	%	54	88		4738109	81	4738110	80		4738110
Leachable D14-Terphenyl	%	77	90		4738109	81	4738110	81		4738110
Leachable D8-Acenaphthylene	%	80	91		4738109	84	4738110	84		4738110
D10-Anthracene	%	80	81		4733307	81	4733307	84		4740167
D14-Terphenyl	%	90	86		4733307	84	4733307	83		4740167
D8-Acenaphthylene	%	77	79		4733307	81	4733307	77		4740167
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DJD321	DJD322	DJD323	DJD324		
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A	N/A		
	UNITS	(SPLP) BH16-02-SA1	(SPLP) BH16-02 SA3	(SPLP) BH16-03 SA1	(SPLP) BH16-03 SA3	RDL	QC Batch

Polyaromatic Hydrocarbons							
Leachable 1-Methylnaphthalene	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	4738112
Leachable 2-Methylnaphthalene	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	4738112
Leachable Acenaphthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Acenaphthylene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Anthracene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(a)anthracene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(a)pyrene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(b)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(g,h,i)perylene	ug/L	0.0089	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(j)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(k)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Chrysene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Dibenz(a,h)anthracene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Fluoranthene	ug/L	0.012	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Fluorene	ug/L	0.0051	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Indeno(1,2,3-cd)pyrene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Naphthalene	ug/L	<0.020	<0.020	<0.020	<0.020	0.020	4738112
Leachable Perylene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Phenanthrene	ug/L	<0.014 (1)	<0.014 (1)	<0.014 (1)	<0.014 (1)	0.014	4738112
Leachable Pyrene	ug/L	0.042	<0.0050	<0.0050	<0.0050	0.0050	4738112
Surrogate Recovery (%)							
Leachable D10-Anthracene	%	98	81	77	76		4738112
Leachable D14-Terphenyl	%	94	84	81	80		4738112
Leachable D8-Acenaphthylene	%	102	88	78	71		4738112

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated RDL(s) due to detected levels in the leachate blank.

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DJD325	DJD326	DJD327	DJD328		
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A	N/A		
	UNITS	(SPLP) BH16-04 SA1	(SPLP) BH16-04 SA3	(SPLP) BH16-05 SA1	(SPLP) BH16-05 SA3	RDL	QC Batch
Polyaromatic Hydrocarbons							
Leachable 1-Methylnaphthalene	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	4738112
Leachable 2-Methylnaphthalene	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	4738112
Leachable Acenaphthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Acenaphthylene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Anthracene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(a)anthracene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(a)pyrene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(b)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(g,h,i)perylene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(j)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(k)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Chrysene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Dibenz(a,h)anthracene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Fluorene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Indeno(1,2,3-cd)pyrene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Naphthalene	ug/L	<0.020	<0.020	<0.020	<0.020	0.020	4738112
Leachable Perylene	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Phenanthrene	ug/L	<0.014 (1)	<0.014 (1)	<0.014 (1)	<0.014 (1)	0.014	4738112
Leachable Pyrene	ug/L	<0.0050	<0.0050	0.011	<0.0050	0.0050	4738112
Surrogate Recovery (%)							
Leachable D10-Anthracene	%	79	81	95	82		4738112
Leachable D14-Terphenyl	%	84	87	97	85		4738112
Leachable D8-Acenaphthylene	%	79	85	94	82		4738112
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
(1) Elevated RDL(s) due to detected levels in the leachate blank.							

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DJD328	DJD329	DJD330		
Sampling Date		2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A		
	UNITS	(SPLP) BH16-05 SA3 Lab-Dup	(SPLP) BH16-06 SA1	(SPLP) BH16-06 SA4	RDL	QC Batch
Polyaromatic Hydrocarbons						
Leachable 1-Methylnaphthalene	ug/L	<0.010	<0.010	<0.010	0.010	4738112
Leachable 2-Methylnaphthalene	ug/L	<0.010	<0.010	<0.010	0.010	4738112
Leachable Acenaphthene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Acenaphthylene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Anthracene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(a)anthracene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(a)pyrene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(b)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(g,h,i)perylene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(j)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Benzo(k)fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Chrysene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Dibenz(a,h)anthracene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Fluoranthene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Fluorene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Indeno(1,2,3-cd)pyrene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Naphthalene	ug/L	<0.020	<0.020	<0.020	0.020	4738112
Leachable Perylene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Leachable Phenanthrene	ug/L	<0.014 (1)	<0.014 (1)	<0.014 (1)	0.014	4738112
Leachable Pyrene	ug/L	<0.0050	<0.0050	<0.0050	0.0050	4738112
Surrogate Recovery (%)						
Leachable D10-Anthracene	%	78	84	86		4738112
Leachable D14-Terphenyl	%	83	91	94		4738112
Leachable D8-Acenaphthylene	%	81	79	85		4738112
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) Elevated RDL(s) due to detected levels in the leachate blank.						

Maxxam Job #: B6N6386
Report Date: 2016/11/15

Dillon Consulting Limited
Client Project #: 16-4652
Site Location: CARAQUET SCH
Sampler Initials: VG

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJC896	DJC897	DJC897	DJC898	DJC899	DJC900		
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A	N/A	N/A	N/A		
	UNITS	BH16-02 SA1	BH16-02 SA3	BH16-02 SA3 Lab-Dup	BH16-03 SA1	BH16-03 SA3	BH16-04 SA1	RDL	QC Batch

Petroleum Hydrocarbons									
Benzene	mg/kg	<0.025	<0.025		<0.025	<0.025	<0.025	0.025	4731184
Toluene	mg/kg	<0.025	<0.025		<0.025	<0.025	<0.025	0.025	4731184
Ethylbenzene	mg/kg	<0.025	<0.025		<0.025	<0.025	<0.025	0.025	4731184
Total Xylenes	mg/kg	<0.050	<0.050		<0.050	<0.050	<0.050	0.050	4731184
C6 - C10 (less BTEX)	mg/kg	<2.5	<2.5		<2.5	<2.5	<2.5	2.5	4731184
>C10-C16 Hydrocarbons	mg/kg	<10	<10	<10	<10	<10	<10	10	4738124
>C16-C21 Hydrocarbons	mg/kg	<10	<10	<10	<10	<10	<10	10	4738124
>C21-<C32 Hydrocarbons	mg/kg	71	<15	<15	28	<15	<15	15	4738124
Modified TPH (Tier1)	mg/kg	71	<15		28	<15	<15	15	4727421
Reached Baseline at C32	mg/kg	Yes	NA		Yes	NA	NA	N/A	4738124
Hydrocarbon Resemblance	mg/kg	COMMENT (1)	NA		COMMENT (1)	NA	NA	N/A	4738124

Surrogate Recovery (%)									
Isobutylbenzene - Extractable	%	104	104	100	105	100	99		4738124
n-Dotriacontane - Extractable	%	85	94	97	93	101	98		4738124
Isobutylbenzene - Volatile	%	114	110		115	110	107		4731184

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Lube oil fraction.

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ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJC901	DJC902	DJC903	DJC904	DJC905	DJC906		
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A	N/A	N/A	N/A		
	UNITS	BH16-04 SA3	BH16-05 SA1	BH16-05 SA3	BH16-06 SA1	BH16-06 SA4	BH16-33 SA9	RDL	QC Batch

Petroleum Hydrocarbons									
Benzene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	4731184
Toluene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	4731184
Ethylbenzene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	4731184
Total Xylenes	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4731184
C6 - C10 (less BTEX)	mg/kg	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	2.5	4731184
>C10-C16 Hydrocarbons	mg/kg	<10	<10	<10	<10	<10		10	4738124
>C16-C21 Hydrocarbons	mg/kg	<10	<10	<10	<10	<10		10	4738124
>C21-C32 Hydrocarbons	mg/kg	<15	<15	<15	<15	24		15	4738124
Modified TPH (Tier1)	mg/kg	<15	<15	<15	<15	24		15	4727421
Reached Baseline at C32	mg/kg	NA	NA	NA	NA	Yes		N/A	4738124
Hydrocarbon Resemblance	mg/kg	NA	NA	NA	NA	COMMENT (1)		N/A	4738124

Surrogate Recovery (%)									
Isobutylbenzene - Extractable	%	102	100	105	104	103			4738124
n-Dotriacontane - Extractable	%	105	102	112	100	103			4738124
Isobutylbenzene - Volatile	%	110	111	113	102	114	103		4731184

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Lube oil fraction.

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Dillon Consulting Limited
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POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DJC896	DJC897	DJC898	DJC899	DJC900	DJC901		
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A	N/A	N/A	N/A		
	UNITS	BH16-02 SA1	BH16-02 SA3	BH16-03 SA1	BH16-03 SA3	BH16-04 SA1	BH16-04 SA3	RDL	QC Batch

PCBs									
Aroclor 1016	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1221	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1232	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1248	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1242	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1254	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1260	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Calculated Total PCB	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4727417
Surrogate Recovery (%)									
Decachlorobiphenyl	%	109	101	101	106	113	108		4733235
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									

Maxxam ID		DJC902	DJC903	DJC904	DJC904	DJC905		
Sampling Date		2016/10/28	2016/10/28	2016/10/28	2016/10/28	2016/10/28		
COC Number		N/A	N/A	N/A	N/A	N/A		
	UNITS	BH16-05 SA1	BH16-05 SA3	BH16-06 SA1	BH16-06 SA1 Lab-Dup	BH16-06 SA4	RDL	QC Batch

PCBs								
Aroclor 1016	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1221	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1232	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1248	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1242	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1254	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Aroclor 1260	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4733235
Calculated Total PCB	ug/g	<0.050	<0.050	<0.050		<0.050	0.050	4727417
Surrogate Recovery (%)								
Decachlorobiphenyl	%	106	104	101	100	101		4733235
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								

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GENERAL COMMENTS

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

Package 1	2.3°C
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Revised Report- Changed sample IDs for SPLP Samples. HM Nov 15/16

Sample DJC899 [BH16-03 SA3] : Method Deviation Comment: Reduced sample weight used for leachate procedure due to insufficient sample. All extraction ratios maintained. Minimal impact on sample data quality.

Sample DJC901 [BH16-04 SA3] : SAR Analysis: NC = Not Calculable as Calcium and Magnesium were not detected.

Sample DJC904 [BH16-06 SA1] : Method Deviation Comment: Reduced sample weight used for leachate procedure due to insufficient sample. All extraction ratios maintained. Minimal impact on sample data quality.

Sample DJC905 [BH16-06 SA4] : Method Deviation Comment: Reduced sample weight used for leachate procedure due to insufficient sample. All extraction ratios maintained. Minimal impact on sample data quality.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
4731184	THL	Matrix Spike	Isobutylbenzene - Volatile	2016/11/04		94 (1)	%	60 - 130
			Benzene	2016/11/04		87	%	60 - 130
			Toluene	2016/11/04		NC	%	60 - 130
			Ethylbenzene	2016/11/04		NC	%	60 - 130
			Total Xylenes	2016/11/04		NC	%	60 - 130
4731184	THL	Spiked Blank	Isobutylbenzene - Volatile	2016/11/03		108	%	60 - 130
			Benzene	2016/11/03		95	%	60 - 140
			Toluene	2016/11/03		96	%	60 - 140
			Ethylbenzene	2016/11/03		98	%	60 - 140
			Total Xylenes	2016/11/03		98	%	60 - 140
4731184	THL	Method Blank	Isobutylbenzene - Volatile	2016/11/03		108	%	60 - 130
			Benzene	2016/11/03	<0.025		mg/kg	
			Toluene	2016/11/03	<0.025		mg/kg	
			Ethylbenzene	2016/11/03	<0.025		mg/kg	
			Total Xylenes	2016/11/03	<0.050		mg/kg	
			C6 - C10 (less BTEX)	2016/11/03	<2.5		mg/kg	
4731184	THL	RPD	Benzene	2016/11/04	9.1		%	50
			Toluene	2016/11/04	8.8		%	50
			Ethylbenzene	2016/11/04	0.86		%	50
			Total Xylenes	2016/11/04	1.3		%	50
			C6 - C10 (less BTEX)	2016/11/04	1.4		%	50
4731189	BAN	Matrix Spike	Acid Extractable Antimony (Sb)	2016/11/03		98	%	75 - 125
			Acid Extractable Arsenic (As)	2016/11/03		98	%	75 - 125
			Acid Extractable Barium (Ba)	2016/11/03		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2016/11/03		99	%	75 - 125
			Acid Extractable Bismuth (Bi)	2016/11/03		101	%	75 - 125
			Acid Extractable Boron (B)	2016/11/03		96	%	75 - 125
			Acid Extractable Cadmium (Cd)	2016/11/03		97	%	75 - 125
			Acid Extractable Chromium (Cr)	2016/11/03		99	%	75 - 125
			Acid Extractable Cobalt (Co)	2016/11/03		98	%	75 - 125
			Acid Extractable Copper (Cu)	2016/11/03		99	%	75 - 125
			Acid Extractable Lead (Pb)	2016/11/03		95	%	75 - 125
			Acid Extractable Lithium (Li)	2016/11/03		108	%	75 - 125
			Acid Extractable Manganese (Mn)	2016/11/03		NC	%	75 - 125
			Acid Extractable Mercury (Hg)	2016/11/03		97	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2016/11/03		100	%	75 - 125
			Acid Extractable Nickel (Ni)	2016/11/03		101	%	75 - 125
			Acid Extractable Rubidium (Rb)	2016/11/03		98	%	75 - 125
			Acid Extractable Selenium (Se)	2016/11/03		99	%	75 - 125
			Acid Extractable Silver (Ag)	2016/11/03		102	%	75 - 125
			Acid Extractable Strontium (Sr)	2016/11/03		106	%	75 - 125
			Acid Extractable Thallium (Tl)	2016/11/03		100	%	75 - 125
			Acid Extractable Tin (Sn)	2016/11/03		99	%	75 - 125
			Acid Extractable Uranium (U)	2016/11/03		98	%	75 - 125
			Acid Extractable Vanadium (V)	2016/11/03		98	%	75 - 125
			Acid Extractable Zinc (Zn)	2016/11/03		NC	%	75 - 125
4731189	BAN	Spiked Blank	Acid Extractable Antimony (Sb)	2016/11/03		102	%	75 - 125
			Acid Extractable Arsenic (As)	2016/11/03		100	%	75 - 125
			Acid Extractable Barium (Ba)	2016/11/03		94	%	75 - 125
			Acid Extractable Beryllium (Be)	2016/11/03		97	%	75 - 125
			Acid Extractable Bismuth (Bi)	2016/11/03		101	%	75 - 125
			Acid Extractable Boron (B)	2016/11/03		99	%	75 - 125

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Dillon Consulting Limited
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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
4731189	BAN	Method Blank	Acid Extractable Cadmium (Cd)	2016/11/03		98	%	75 - 125
			Acid Extractable Chromium (Cr)	2016/11/03		97	%	75 - 125
			Acid Extractable Cobalt (Co)	2016/11/03		98	%	75 - 125
			Acid Extractable Copper (Cu)	2016/11/03		99	%	75 - 125
			Acid Extractable Lead (Pb)	2016/11/03		95	%	75 - 125
			Acid Extractable Lithium (Li)	2016/11/03		100	%	75 - 125
			Acid Extractable Manganese (Mn)	2016/11/03		100	%	75 - 125
			Acid Extractable Mercury (Hg)	2016/11/03		103	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2016/11/03		100	%	75 - 125
			Acid Extractable Nickel (Ni)	2016/11/03		99	%	75 - 125
			Acid Extractable Rubidium (Rb)	2016/11/03		95	%	75 - 125
			Acid Extractable Selenium (Se)	2016/11/03		101	%	75 - 125
			Acid Extractable Silver (Ag)	2016/11/03		99	%	75 - 125
			Acid Extractable Strontium (Sr)	2016/11/03		96	%	75 - 125
			Acid Extractable Thallium (Tl)	2016/11/03		99	%	75 - 125
			Acid Extractable Tin (Sn)	2016/11/03		102	%	75 - 125
			Acid Extractable Uranium (U)	2016/11/03		97	%	75 - 125
			Acid Extractable Vanadium (V)	2016/11/03		96	%	75 - 125
			Acid Extractable Zinc (Zn)	2016/11/03		98	%	75 - 125
			Acid Extractable Aluminum (Al)	2016/11/03	<10		mg/kg	
			Acid Extractable Antimony (Sb)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Arsenic (As)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Barium (Ba)	2016/11/03	<5.0		mg/kg	
			Acid Extractable Beryllium (Be)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Bismuth (Bi)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Boron (B)	2016/11/03	<50		mg/kg	
			Acid Extractable Cadmium (Cd)	2016/11/03	<0.30		mg/kg	
			Acid Extractable Chromium (Cr)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Cobalt (Co)	2016/11/03	<1.0		mg/kg	
			Acid Extractable Copper (Cu)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Iron (Fe)	2016/11/03	<50		mg/kg	
			Acid Extractable Lead (Pb)	2016/11/03	<0.50		mg/kg	
			Acid Extractable Lithium (Li)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Manganese (Mn)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Mercury (Hg)	2016/11/03	<0.10		mg/kg	
			Acid Extractable Molybdenum (Mo)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Nickel (Ni)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Rubidium (Rb)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Selenium (Se)	2016/11/03	<1.0		mg/kg	
			Acid Extractable Silver (Ag)	2016/11/03	<0.50		mg/kg	
			Acid Extractable Strontium (Sr)	2016/11/03	<5.0		mg/kg	
			Acid Extractable Thallium (Tl)	2016/11/03	<0.10		mg/kg	
			Acid Extractable Tin (Sn)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Uranium (U)	2016/11/03	<0.10		mg/kg	
			Acid Extractable Vanadium (V)	2016/11/03	<2.0		mg/kg	
			Acid Extractable Zinc (Zn)	2016/11/03	<5.0		mg/kg	
4731189	BAN	RPD	Acid Extractable Aluminum (Al)	2016/11/03	6.0		%	35
			Acid Extractable Antimony (Sb)	2016/11/03	NC		%	35
			Acid Extractable Arsenic (As)	2016/11/03	NC		%	35
			Acid Extractable Barium (Ba)	2016/11/03	5.2		%	35
			Acid Extractable Beryllium (Be)	2016/11/03	NC		%	35
			Acid Extractable Boron (B)	2016/11/03	NC		%	35

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Cadmium (Cd)	2016/11/03	NC		%	35
			Acid Extractable Chromium (Cr)	2016/11/03	0.63		%	35
			Acid Extractable Cobalt (Co)	2016/11/03	2.6		%	35
			Acid Extractable Copper (Cu)	2016/11/03	5.3		%	35
			Acid Extractable Iron (Fe)	2016/11/03	1.5		%	35
			Acid Extractable Lead (Pb)	2016/11/03	4.6		%	35
			Acid Extractable Manganese (Mn)	2016/11/03	1.0		%	35
			Acid Extractable Mercury (Hg)	2016/11/03	NC		%	35
			Acid Extractable Molybdenum (Mo)	2016/11/03	NC		%	35
			Acid Extractable Nickel (Ni)	2016/11/03	5.0		%	35
			Acid Extractable Selenium (Se)	2016/11/03	NC		%	35
			Acid Extractable Silver (Ag)	2016/11/03	NC		%	35
			Acid Extractable Strontium (Sr)	2016/11/03	NC		%	35
			Acid Extractable Thallium (Tl)	2016/11/03	NC		%	35
			Acid Extractable Tin (Sn)	2016/11/03	NC		%	35
			Acid Extractable Uranium (U)	2016/11/03	NC		%	35
			Acid Extractable Vanadium (V)	2016/11/03	1.2		%	35
			Acid Extractable Zinc (Zn)	2016/11/03	3.3		%	35
4731765	EDL	Method Blank	Sample Weight (as received)	2016/11/04	NA		g	
4731765	EDL	RPD [DJC898-01]	Sample Weight (as received)	2016/11/04	0.016		%	N/A
4733235	LGE	Matrix Spike [DJC904-01]	Decachlorobiphenyl	2016/11/08		99	%	30 - 130
			Aroclor 1254	2016/11/08		94	%	30 - 130
4733235	LGE	Spiked Blank	Decachlorobiphenyl	2016/11/08		102	%	30 - 130
			Aroclor 1254	2016/11/08		101	%	30 - 130
4733235	LGE	Method Blank	Decachlorobiphenyl	2016/11/08		102	%	30 - 130
			Aroclor 1016	2016/11/08	<0.050		ug/g	
			Aroclor 1221	2016/11/08	<0.050		ug/g	
			Aroclor 1232	2016/11/08	<0.050		ug/g	
			Aroclor 1248	2016/11/08	<0.050		ug/g	
			Aroclor 1242	2016/11/08	<0.050		ug/g	
			Aroclor 1254	2016/11/08	<0.050		ug/g	
			Aroclor 1260	2016/11/08	<0.050		ug/g	
4733235	LGE	RPD [DJC904-01]	Aroclor 1016	2016/11/08	NC		%	50
			Aroclor 1221	2016/11/08	NC		%	50
			Aroclor 1232	2016/11/08	NC		%	50
			Aroclor 1248	2016/11/08	NC		%	50
			Aroclor 1242	2016/11/08	NC		%	50
			Aroclor 1254	2016/11/08	NC		%	50
			Aroclor 1260	2016/11/08	NC		%	50
4733307	GTH	Matrix Spike	D10-Anthracene	2016/11/09		81	%	30 - 130
			D14-Terphenyl	2016/11/09		88	%	30 - 130
			D8-Acenaphthylene	2016/11/09		77	%	30 - 130
			1-Methylnaphthalene	2016/11/09		81	%	30 - 130
			2-Methylnaphthalene	2016/11/09		84	%	30 - 130
			Acenaphthene	2016/11/09		91	%	30 - 130
			Acenaphthylene	2016/11/09		92	%	30 - 130
			Anthracene	2016/11/09		75	%	30 - 130
			Benzo(a)anthracene	2016/11/09		105	%	30 - 130
			Benzo(a)pyrene	2016/11/09		101	%	30 - 130
			Benzo(b)fluoranthene	2016/11/09		103	%	30 - 130
			Benzo(g,h,i)perylene	2016/11/09		107	%	30 - 130
			Benzo(j)fluoranthene	2016/11/09		85	%	30 - 130

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4733307	GTH	Spiked Blank	Benzo(k)fluoranthene	2016/11/09		95	%	30 - 130
			Chrysene	2016/11/09		103	%	30 - 130
			Dibenz(a,h)anthracene	2016/11/09		96	%	30 - 130
			Fluoranthene	2016/11/09		95	%	30 - 130
			Fluorene	2016/11/09		94	%	30 - 130
			Indeno(1,2,3-cd)pyrene	2016/11/09		100	%	30 - 130
			Naphthalene	2016/11/09		79	%	30 - 130
			Perylene	2016/11/09		96	%	30 - 130
			Phenanthrene	2016/11/09		110	%	30 - 130
			Pyrene	2016/11/09		94	%	30 - 130
			D10-Anthracene	2016/11/09		79	%	30 - 130
			D14-Terphenyl	2016/11/09		90	%	30 - 130
			D8-Acenaphthylene	2016/11/09		78	%	30 - 130
			1-Methylnaphthalene	2016/11/09		86	%	30 - 130
			2-Methylnaphthalene	2016/11/09		91	%	30 - 130
			Acenaphthene	2016/11/09		96	%	30 - 130
			Acenaphthylene	2016/11/09		95	%	30 - 130
			Anthracene	2016/11/09		80	%	30 - 130
			Benzo(a)anthracene	2016/11/09		105	%	30 - 130
			Benzo(a)pyrene	2016/11/09		99	%	30 - 130
			Benzo(b)fluoranthene	2016/11/09		107	%	30 - 130
			Benzo(g,h,i)perylene	2016/11/09		100	%	30 - 130
			Benzo(j)fluoranthene	2016/11/09		87	%	30 - 130
			Benzo(k)fluoranthene	2016/11/09		94	%	30 - 130
			Chrysene	2016/11/09		107	%	30 - 130
			Dibenz(a,h)anthracene	2016/11/09		94	%	30 - 130
			Fluoranthene	2016/11/09		98	%	30 - 130
			Fluorene	2016/11/09		96	%	30 - 130
			Indeno(1,2,3-cd)pyrene	2016/11/09		96	%	30 - 130
			Naphthalene	2016/11/09		88	%	30 - 130
			Perylene	2016/11/09		94	%	30 - 130
			Phenanthrene	2016/11/09		88	%	30 - 130
			Pyrene	2016/11/09		95	%	30 - 130
4733307	GTH	Method Blank	D10-Anthracene	2016/11/09		83	%	30 - 130
			D14-Terphenyl	2016/11/09		91	%	30 - 130
			D8-Acenaphthylene	2016/11/09		76	%	30 - 130
			1-Methylnaphthalene	2016/11/09	<0.0050		mg/kg	
			2-Methylnaphthalene	2016/11/09	<0.0050		mg/kg	
			Acenaphthene	2016/11/09	<0.0050		mg/kg	
			Acenaphthylene	2016/11/09	<0.0050		mg/kg	
			Anthracene	2016/11/09	<0.0050		mg/kg	
			Benzo(a)anthracene	2016/11/09	<0.0050		mg/kg	
			Benzo(a)pyrene	2016/11/09	<0.0050		mg/kg	
			Benzo(b)fluoranthene	2016/11/09	<0.0050		mg/kg	
			Benzo(g,h,i)perylene	2016/11/09	<0.0050		mg/kg	
			Benzo(j)fluoranthene	2016/11/09	<0.0050		mg/kg	
			Benzo(k)fluoranthene	2016/11/09	<0.0050		mg/kg	
			Chrysene	2016/11/09	<0.0050		mg/kg	
			Dibenz(a,h)anthracene	2016/11/09	<0.0050		mg/kg	
			Fluoranthene	2016/11/09	<0.0050		mg/kg	
			Fluorene	2016/11/09	<0.0050		mg/kg	
			Indeno(1,2,3-cd)pyrene	2016/11/09	<0.0050		mg/kg	

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4733307	GTH	RPD	Naphthalene	2016/11/09	<0.0050		mg/kg	
			Perylene	2016/11/09	<0.0050		mg/kg	
			Phenanthrene	2016/11/09	<0.0050		mg/kg	
			Pyrene	2016/11/09	<0.0050		mg/kg	
			1-Methylnaphthalene	2016/11/09	NC		%	50
			2-Methylnaphthalene	2016/11/09	NC		%	50
			Acenaphthene	2016/11/09	NC		%	50
			Acenaphthylene	2016/11/09	NC		%	50
			Anthracene	2016/11/09	NC		%	50
			Benzo(a)anthracene	2016/11/09	NC		%	50
			Benzo(a)pyrene	2016/11/09	NC		%	50
			Benzo(b)fluoranthene	2016/11/09	NC		%	50
			Benzo(g,h,i)perylene	2016/11/09	NC		%	50
			Benzo(j)fluoranthene	2016/11/09	NC		%	50
			Benzo(k)fluoranthene	2016/11/09	NC		%	50
			Chrysene	2016/11/09	NC		%	50
			Dibenz(a,h)anthracene	2016/11/09	NC		%	50
			Fluoranthene	2016/11/09	NC		%	50
			Fluorene	2016/11/09	NC		%	50
			Indeno(1,2,3-cd)pyrene	2016/11/09	NC		%	50
			Naphthalene	2016/11/09	NC		%	50
			Perylene	2016/11/09	NC		%	50
			Phenanthrene	2016/11/09	NC		%	50
			Pyrene	2016/11/09	NC		%	50
4733479	EDL	Method Blank	Sample Weight (as received)	2016/11/05	NA		g	
4733486	BAN	Matrix Spike [DJC898-01]	Leachable Antimony (Sb)	2016/11/07		104	%	75 - 125
			Leachable Arsenic (As)	2016/11/07		98	%	75 - 125
			Leachable Barium (Ba)	2016/11/07		NC	%	75 - 125
			Leachable Beryllium (Be)	2016/11/07		96	%	75 - 125
			Leachable Boron (B)	2016/11/07		94	%	75 - 125
			Leachable Cadmium (Cd)	2016/11/07		96	%	75 - 125
			Leachable Chromium (Cr)	2016/11/07		94	%	75 - 125
			Leachable Cobalt (Co)	2016/11/07		93	%	75 - 125
			Leachable Copper (Cu)	2016/11/07		92	%	75 - 125
			Leachable Lead (Pb)	2016/11/07		95	%	75 - 125
			Leachable Lithium (Li)	2016/11/07		101	%	75 - 125
			Leachable Manganese (Mn)	2016/11/07		NC	%	75 - 125
			Leachable Molybdenum (Mo)	2016/11/07		103	%	75 - 125
			Leachable Nickel (Ni)	2016/11/07		92	%	75 - 125
			Leachable Selenium (Se)	2016/11/07		96	%	75 - 125
			Leachable Silver (Ag)	2016/11/07		95	%	75 - 125
			Leachable Strontium (Sr)	2016/11/07		98	%	75 - 125
			Leachable Thallium (Tl)	2016/11/07		98	%	75 - 125
			Leachable Tin (Sn)	2016/11/07		104	%	75 - 125
			Leachable Uranium (U)	2016/11/07		103	%	75 - 125
			Leachable Vanadium (V)	2016/11/07		96	%	75 - 125
			Leachable Zinc (Zn)	2016/11/07		95	%	75 - 125
4733486	BAN	Spiked Blank	Leachable Aluminum (Al)	2016/11/07		110	%	80 - 120
			Leachable Antimony (Sb)	2016/11/07		102	%	80 - 120
			Leachable Arsenic (As)	2016/11/07		99	%	80 - 120
			Leachable Barium (Ba)	2016/11/07		99	%	80 - 120
			Leachable Beryllium (Be)	2016/11/07		99	%	80 - 120

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4733486	BAN	Method Blank	Leachable Boron (B)	2016/11/07		100	%	80 - 120
			Leachable Cadmium (Cd)	2016/11/07		99	%	80 - 120
			Leachable Calcium (Ca)	2016/11/07		105	%	80 - 120
			Leachable Chromium (Cr)	2016/11/07		99	%	80 - 120
			Leachable Cobalt (Co)	2016/11/07		100	%	80 - 120
			Leachable Copper (Cu)	2016/11/07		98	%	80 - 120
			Leachable Iron (Fe)	2016/11/07		104	%	80 - 120
			Leachable Lead (Pb)	2016/11/07		101	%	80 - 120
			Leachable Lithium (Li)	2016/11/07		105	%	80 - 120
			Leachable Magnesium (Mg)	2016/11/07		108	%	80 - 120
			Leachable Manganese (Mn)	2016/11/07		103	%	80 - 120
			Leachable Molybdenum (Mo)	2016/11/07		103	%	80 - 120
			Leachable Nickel (Ni)	2016/11/07		100	%	80 - 120
			Leachable Potassium (K)	2016/11/07		111	%	80 - 120
			Leachable Selenium (Se)	2016/11/07		98	%	80 - 120
			Leachable Silver (Ag)	2016/11/07		98	%	80 - 120
			Leachable Strontium (Sr)	2016/11/07		105	%	80 - 120
			Leachable Thallium (Tl)	2016/11/07		104	%	80 - 120
			Leachable Tin (Sn)	2016/11/07		105	%	80 - 120
			Leachable Uranium (U)	2016/11/07		107	%	80 - 120
			Leachable Vanadium (V)	2016/11/07		101	%	80 - 120
			Leachable Zinc (Zn)	2016/11/07		100	%	80 - 120
			Leachable Aluminum (Al)	2016/11/07	<100		ug/L	
			Leachable Antimony (Sb)	2016/11/07	<20		ug/L	
			Leachable Arsenic (As)	2016/11/07	<20		ug/L	
			Leachable Barium (Ba)	2016/11/07	<50		ug/L	
			Leachable Beryllium (Be)	2016/11/07	<20		ug/L	
			Leachable Boron (B)	2016/11/07	<500		ug/L	
			Leachable Cadmium (Cd)	2016/11/07	<3.0		ug/L	
			Leachable Calcium (Ca)	2016/11/07	<1000		ug/L	
			Leachable Chromium (Cr)	2016/11/07	<20		ug/L	
			Leachable Cobalt (Co)	2016/11/07	<10		ug/L	
			Leachable Copper (Cu)	2016/11/07	<20		ug/L	
			Leachable Iron (Fe)	2016/11/07	<500		ug/L	
			Leachable Lead (Pb)	2016/11/07	<5.0		ug/L	
			Leachable Lithium (Li)	2016/11/07	<20		ug/L	
			Leachable Magnesium (Mg)	2016/11/07	<1000		ug/L	
			Leachable Manganese (Mn)	2016/11/07	<20		ug/L	
			Leachable Molybdenum (Mo)	2016/11/07	<20		ug/L	
			Leachable Nickel (Ni)	2016/11/07	<20		ug/L	
			Leachable Potassium (K)	2016/11/07	<1000		ug/L	
			Leachable Selenium (Se)	2016/11/07	<10		ug/L	
			Leachable Silver (Ag)	2016/11/07	<5.0		ug/L	
			Leachable Strontium (Sr)	2016/11/07	<50		ug/L	
			Leachable Thallium (Tl)	2016/11/07	<1.0		ug/L	
			Leachable Tin (Sn)	2016/11/07	<20		ug/L	
			Leachable Uranium (U)	2016/11/07	<1.0		ug/L	
			Leachable Vanadium (V)	2016/11/07	<20		ug/L	
			Leachable Zinc (Zn)	2016/11/07	<50		ug/L	
4733486	BAN	RPD [DJC898-01]	Leachable Aluminum (Al)	2016/11/07	NC		%	35
			Leachable Antimony (Sb)	2016/11/07	NC		%	35
			Leachable Arsenic (As)	2016/11/07	NC		%	35

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			Leachable Barium (Ba)	2016/11/07	13		%	35
			Leachable Beryllium (Be)	2016/11/07	NC		%	35
			Leachable Boron (B)	2016/11/07	NC		%	35
			Leachable Cadmium (Cd)	2016/11/07	NC		%	35
			Leachable Calcium (Ca)	2016/11/07	36 (2)		%	35
			Leachable Chromium (Cr)	2016/11/07	NC		%	35
			Leachable Cobalt (Co)	2016/11/07	NC		%	35
			Leachable Copper (Cu)	2016/11/07	NC		%	35
			Leachable Iron (Fe)	2016/11/07	NC		%	35
			Leachable Lead (Pb)	2016/11/07	NC		%	35
			Leachable Lithium (Li)	2016/11/07	NC		%	35
			Leachable Magnesium (Mg)	2016/11/07	1.6		%	35
			Leachable Manganese (Mn)	2016/11/07	0.58		%	35
			Leachable Molybdenum (Mo)	2016/11/07	NC		%	35
			Leachable Nickel (Ni)	2016/11/07	NC		%	35
			Leachable Potassium (K)	2016/11/07	NC		%	35
			Leachable Selenium (Se)	2016/11/07	NC		%	35
			Leachable Silver (Ag)	2016/11/07	NC		%	35
			Leachable Strontium (Sr)	2016/11/07	24		%	35
			Leachable Thallium (Tl)	2016/11/07	NC		%	35
			Leachable Tin (Sn)	2016/11/07	NC		%	35
			Leachable Uranium (U)	2016/11/07	NC		%	35
			Leachable Vanadium (V)	2016/11/07	NC		%	35
			Leachable Zinc (Zn)	2016/11/07	NC		%	35
4733558	BAN	Matrix Spike [DJC897-01]	Acid Extractable Antimony (Sb)	2016/11/04		97	%	75 - 125
			Acid Extractable Arsenic (As)	2016/11/04		99	%	75 - 125
			Acid Extractable Barium (Ba)	2016/11/04		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2016/11/04		97	%	75 - 125
			Acid Extractable Bismuth (Bi)	2016/11/04		104	%	75 - 125
			Acid Extractable Boron (B)	2016/11/04		93	%	75 - 125
			Acid Extractable Cadmium (Cd)	2016/11/04		97	%	75 - 125
			Acid Extractable Chromium (Cr)	2016/11/04		96	%	75 - 125
			Acid Extractable Cobalt (Co)	2016/11/04		96	%	75 - 125
			Acid Extractable Copper (Cu)	2016/11/04		95	%	75 - 125
			Acid Extractable Lead (Pb)	2016/11/04		101	%	75 - 125
			Acid Extractable Lithium (Li)	2016/11/04		96	%	75 - 125
			Acid Extractable Manganese (Mn)	2016/11/04		NC	%	75 - 125
			Acid Extractable Mercury (Hg)	2016/11/04		96	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2016/11/04		102	%	75 - 125
			Acid Extractable Nickel (Ni)	2016/11/04		94	%	75 - 125
			Acid Extractable Rubidium (Rb)	2016/11/04		99	%	75 - 125
			Acid Extractable Selenium (Se)	2016/11/04		98	%	75 - 125
			Acid Extractable Silver (Ag)	2016/11/04		98	%	75 - 125
			Acid Extractable Strontium (Sr)	2016/11/04		102	%	75 - 125
			Acid Extractable Thallium (Tl)	2016/11/04		103	%	75 - 125
			Acid Extractable Tin (Sn)	2016/11/04		106	%	75 - 125
			Acid Extractable Uranium (U)	2016/11/04		106	%	75 - 125
			Acid Extractable Vanadium (V)	2016/11/04		97	%	75 - 125
			Acid Extractable Zinc (Zn)	2016/11/04		NC	%	75 - 125
4733558	BAN	Spiked Blank	Acid Extractable Antimony (Sb)	2016/11/04		103	%	75 - 125
			Acid Extractable Arsenic (As)	2016/11/04		100	%	75 - 125
			Acid Extractable Barium (Ba)	2016/11/04		102	%	75 - 125

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				Acid Extractable Beryllium (Be)	2016/11/04		95	%	75 - 125
				Acid Extractable Bismuth (Bi)	2016/11/04		108	%	75 - 125
				Acid Extractable Boron (B)	2016/11/04		97	%	75 - 125
				Acid Extractable Cadmium (Cd)	2016/11/04		99	%	75 - 125
				Acid Extractable Chromium (Cr)	2016/11/04		98	%	75 - 125
				Acid Extractable Cobalt (Co)	2016/11/04		98	%	75 - 125
				Acid Extractable Copper (Cu)	2016/11/04		95	%	75 - 125
				Acid Extractable Lead (Pb)	2016/11/04		104	%	75 - 125
				Acid Extractable Lithium (Li)	2016/11/04		100	%	75 - 125
				Acid Extractable Manganese (Mn)	2016/11/04		101	%	75 - 125
				Acid Extractable Mercury (Hg)	2016/11/04		105	%	75 - 125
				Acid Extractable Molybdenum (Mo)	2016/11/04		105	%	75 - 125
				Acid Extractable Nickel (Ni)	2016/11/04		96	%	75 - 125
				Acid Extractable Rubidium (Rb)	2016/11/04		103	%	75 - 125
				Acid Extractable Selenium (Se)	2016/11/04		99	%	75 - 125
				Acid Extractable Silver (Ag)	2016/11/04		103	%	75 - 125
				Acid Extractable Strontium (Sr)	2016/11/04		102	%	75 - 125
				Acid Extractable Thallium (Tl)	2016/11/04		106	%	75 - 125
				Acid Extractable Tin (Sn)	2016/11/04		113	%	75 - 125
				Acid Extractable Uranium (U)	2016/11/04		106	%	75 - 125
				Acid Extractable Vanadium (V)	2016/11/04		99	%	75 - 125
				Acid Extractable Zinc (Zn)	2016/11/04		97	%	75 - 125
4733558	BAN		Method Blank	Acid Extractable Aluminum (Al)	2016/11/04	<10		mg/kg	
				Acid Extractable Antimony (Sb)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Arsenic (As)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Barium (Ba)	2016/11/04	<5.0		mg/kg	
				Acid Extractable Beryllium (Be)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Bismuth (Bi)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Boron (B)	2016/11/04	<50		mg/kg	
				Acid Extractable Cadmium (Cd)	2016/11/04	<0.30		mg/kg	
				Acid Extractable Chromium (Cr)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Cobalt (Co)	2016/11/04	<1.0		mg/kg	
				Acid Extractable Copper (Cu)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Iron (Fe)	2016/11/04	<50		mg/kg	
				Acid Extractable Lead (Pb)	2016/11/04	<0.50		mg/kg	
				Acid Extractable Lithium (Li)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Manganese (Mn)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Mercury (Hg)	2016/11/04	<0.10		mg/kg	
				Acid Extractable Molybdenum (Mo)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Nickel (Ni)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Rubidium (Rb)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Selenium (Se)	2016/11/04	<1.0		mg/kg	
				Acid Extractable Silver (Ag)	2016/11/04	<0.50		mg/kg	
				Acid Extractable Strontium (Sr)	2016/11/04	<5.0		mg/kg	
				Acid Extractable Thallium (Tl)	2016/11/04	<0.10		mg/kg	
				Acid Extractable Tin (Sn)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Uranium (U)	2016/11/04	<0.10		mg/kg	
				Acid Extractable Vanadium (V)	2016/11/04	<2.0		mg/kg	
				Acid Extractable Zinc (Zn)	2016/11/04	<5.0		mg/kg	
4733558	BAN		RPD [DJC897-01]	Acid Extractable Aluminum (Al)	2016/11/04	3.3		%	35
				Acid Extractable Antimony (Sb)	2016/11/04	NC		%	35
				Acid Extractable Arsenic (As)	2016/11/04	NC		%	35

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			Acid Extractable Barium (Ba)	2016/11/04	1.8		%	35
			Acid Extractable Beryllium (Be)	2016/11/04	NC		%	35
			Acid Extractable Bismuth (Bi)	2016/11/04	NC		%	35
			Acid Extractable Boron (B)	2016/11/04	NC		%	35
			Acid Extractable Cadmium (Cd)	2016/11/04	NC		%	35
			Acid Extractable Chromium (Cr)	2016/11/04	3.2		%	35
			Acid Extractable Cobalt (Co)	2016/11/04	1.5		%	35
			Acid Extractable Copper (Cu)	2016/11/04	NC		%	35
			Acid Extractable Iron (Fe)	2016/11/04	3.2		%	35
			Acid Extractable Lead (Pb)	2016/11/04	0.32		%	35
			Acid Extractable Lithium (Li)	2016/11/04	4.7		%	35
			Acid Extractable Manganese (Mn)	2016/11/04	1.1		%	35
			Acid Extractable Mercury (Hg)	2016/11/04	NC		%	35
			Acid Extractable Molybdenum (Mo)	2016/11/04	NC		%	35
			Acid Extractable Nickel (Ni)	2016/11/04	0.49		%	35
			Acid Extractable Rubidium (Rb)	2016/11/04	NC		%	35
			Acid Extractable Selenium (Se)	2016/11/04	NC		%	35
			Acid Extractable Silver (Ag)	2016/11/04	NC		%	35
			Acid Extractable Strontium (Sr)	2016/11/04	NC		%	35
			Acid Extractable Thallium (Tl)	2016/11/04	NC		%	35
			Acid Extractable Tin (Sn)	2016/11/04	NC		%	35
			Acid Extractable Uranium (U)	2016/11/04	NC		%	35
			Acid Extractable Vanadium (V)	2016/11/04	5.3		%	35
			Acid Extractable Zinc (Zn)	2016/11/04	1.9		%	35
4733826	EDL	Method Blank	Sample Weight (as received)	2016/11/05	NA		g	
4733826	EDL	RPD [DJD328-01]	Sample Weight (as received)	2016/11/05	0.050		%	N/A
4733836	EDL	Method Blank	Final pH	2016/11/05	4.02		N/A	
4733836	EDL	RPD [DJD328-01]	Final pH	2016/11/05	3.5		%	N/A
4735884	EDL	Method Blank	Sample Weight (as received)	2016/11/06	NA		g	
4736553	BBD	QC Standard	Sieve - #200 (>0.075mm)	2016/11/08		102	%	90 - 110
4736553	BBD	Method Blank	Sieve - #200 (>0.075mm)	2016/11/08	<1		%	
			Sieve - Pan	2016/11/08	100, RDL=1		%	
4736553	BBD	RPD [DJC901-01]	Sieve - #200 (>0.075mm)	2016/11/08	8.0		%	25
			Sieve - Pan	2016/11/08	41 (3)		%	25
4737048	TPE	RPD [DJC897-01]	Soluble (5:1) pH	2016/11/07	1.1		%	N/A
4737154	MLB	Matrix Spike [DJC897-01]	Dissolved Calcium (Ca)	2016/11/08		94	%	80 - 120
			Dissolved Magnesium (Mg)	2016/11/08		97	%	80 - 120
			Dissolved Sodium (Na)	2016/11/08		NC	%	80 - 120
4737154	MLB	Spiked Blank	Dissolved Calcium (Ca)	2016/11/08		100	%	80 - 120
			Dissolved Magnesium (Mg)	2016/11/08		102	%	80 - 120
			Dissolved Sodium (Na)	2016/11/08		98	%	80 - 120
4737154	MLB	Method Blank	Dissolved Calcium (Ca)	2016/11/08	<100		ug/L	
			Dissolved Magnesium (Mg)	2016/11/08	<100		ug/L	
			Dissolved Sodium (Na)	2016/11/08	<100		ug/L	
4737154	MLB	RPD [DJC897-01]	Dissolved Calcium (Ca)	2016/11/08	7.8		%	35
			Dissolved Magnesium (Mg)	2016/11/08	3.5		%	35
			Dissolved Sodium (Na)	2016/11/08	0.95		%	35
4738103	GTH	Leachate Blank	Leachable 1-Methylnaphthalene	2016/11/09	<0.010		ug/L	
			Leachable 2-Methylnaphthalene	2016/11/09	<0.010		ug/L	
			Leachable Acenaphthene	2016/11/09	<0.0050		ug/L	
			Leachable Acenaphthylene	2016/11/09	<0.0050		ug/L	

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4738103	GTH	Spiked Blank	Leachable Anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(a)anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(a)pyrene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(b)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(g,h,i)perylene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(j)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(k)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Chrysene	2016/11/09	<0.0050		ug/L	
			Leachable D10-Anthracene	2016/11/09		63	%	30 - 130
			Leachable D14-Terphenyl	2016/11/09		66	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/09		77	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Fluorene	2016/11/09	<0.0050		ug/L	
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/09	<0.0050		ug/L	
			Leachable Naphthalene	2016/11/09	<0.020		ug/L	
			Leachable Perylene	2016/11/09	<0.0050		ug/L	
			Leachable Phenanthrene	2016/11/09	<0.0050		ug/L	
			Leachable Pyrene	2016/11/09	<0.0050		ug/L	
			Leachable 1-Methylnaphthalene	2016/11/09		93	%	30 - 130
			Leachable 2-Methylnaphthalene	2016/11/09		99	%	30 - 130
			Leachable Acenaphthene	2016/11/09		101	%	30 - 130
			Leachable Acenaphthylene	2016/11/09		101	%	30 - 130
			Leachable Anthracene	2016/11/09		112	%	30 - 130
			Leachable Benzo(a)anthracene	2016/11/09		103	%	30 - 130
			Leachable Benzo(a)pyrene	2016/11/09		109	%	30 - 130
			Leachable Benzo(b)fluoranthene	2016/11/09		98	%	30 - 130
			Leachable Benzo(g,h,i)perylene	2016/11/09		111	%	30 - 130
			Leachable Benzo(j)fluoranthene	2016/11/09		103	%	30 - 130
			Leachable Benzo(k)fluoranthene	2016/11/09		107	%	30 - 130
			Leachable Chrysene	2016/11/09		92	%	30 - 130
			Leachable D10-Anthracene	2016/11/09		79	%	30 - 130
			Leachable D14-Terphenyl	2016/11/09		82	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/09		81	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/09		107	%	30 - 130
			Leachable Fluoranthene	2016/11/09		103	%	30 - 130
			Leachable Fluorene	2016/11/09		105	%	30 - 130
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/09		109	%	30 - 130
			Leachable Naphthalene	2016/11/09		94	%	30 - 130
			Leachable Perylene	2016/11/09		108	%	30 - 130
			Leachable Phenanthrene	2016/11/09		88	%	30 - 130
			Leachable Pyrene	2016/11/09		105	%	30 - 130
4738103	GTH	Method Blank	Leachable 1-Methylnaphthalene	2016/11/09	<0.010		ug/L	
			Leachable 2-Methylnaphthalene	2016/11/09	<0.010		ug/L	
			Leachable Acenaphthene	2016/11/09	<0.0050		ug/L	
			Leachable Acenaphthylene	2016/11/09	<0.0050		ug/L	
			Leachable Anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(a)anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(a)pyrene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(b)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(g,h,i)perylene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(j)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(k)fluoranthene	2016/11/09	<0.0050		ug/L	

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4738103	GTH	RPD [DJC898-01]	Leachable Benzo(k)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Chrysene	2016/11/09	<0.0050		ug/L	
			Leachable D10-Anthracene	2016/11/09		74	%	30 - 130
			Leachable D14-Terphenyl	2016/11/09		76	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/09		74	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Fluorene	2016/11/09	<0.0050		ug/L	
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/09	<0.0050		ug/L	
			Leachable Naphthalene	2016/11/09	<0.020		ug/L	
			Leachable Perylene	2016/11/09	<0.0050		ug/L	
			Leachable Phenanthrene	2016/11/09	<0.0050		ug/L	
			Leachable Pyrene	2016/11/09	<0.0050		ug/L	
			Leachable 1-Methylnaphthalene	2016/11/09	NC		%	40
			Leachable 2-Methylnaphthalene	2016/11/09	NC		%	40
			Leachable Acenaphthene	2016/11/09	NC		%	40
			Leachable Acenaphthylene	2016/11/09	NC		%	40
			Leachable Anthracene	2016/11/09	NC		%	40
			Leachable Benzo(a)anthracene	2016/11/09	NC		%	40
			Leachable Benzo(a)pyrene	2016/11/09	NC		%	40
			Leachable Benzo(b)fluoranthene	2016/11/09	NC		%	40
			Leachable Benzo(g,h,i)perylene	2016/11/09	NC		%	40
			Leachable Benzo(j)fluoranthene	2016/11/09	NC		%	40
			Leachable Benzo(k)fluoranthene	2016/11/09	NC		%	40
			Leachable Chrysene	2016/11/09	NC		%	40
			Leachable Dibenz(a,h)anthracene	2016/11/09	NC		%	40
			Leachable Fluoranthene	2016/11/09	NC		%	40
			Leachable Fluorene	2016/11/09	NC		%	40
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/09	NC		%	40
			Leachable Naphthalene	2016/11/09	NC		%	40
			Leachable Perylene	2016/11/09	NC		%	40
			Leachable Phenanthrene	2016/11/09	NC		%	40
			Leachable Pyrene	2016/11/09	NC		%	40
4738109	GTH	Leachate Blank	Leachable 1-Methylnaphthalene	2016/11/09	<0.010		ug/L	
			Leachable 2-Methylnaphthalene	2016/11/09	<0.010		ug/L	
			Leachable Acenaphthene	2016/11/09	<0.0050		ug/L	
			Leachable Acenaphthylene	2016/11/09	<0.0050		ug/L	
			Leachable Anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(a)anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(a)pyrene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(b)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(g,h,i)perylene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(j)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(k)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Chrysene	2016/11/09	<0.0050		ug/L	
			Leachable D10-Anthracene	2016/11/09		77	%	30 - 130
			Leachable D14-Terphenyl	2016/11/09		78	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/09		74	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Fluorene	2016/11/09	<0.0050		ug/L	
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/09	<0.0050		ug/L	

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4738109	GTH	Spiked Blank	Leachable Naphthalene	2016/11/09	<0.020		ug/L	
			Leachable Perylene	2016/11/09	<0.0050		ug/L	
			Leachable Phenanthrene	2016/11/09	0.0064, RDL=0.0050		ug/L	
			Leachable Pyrene	2016/11/09	<0.0050		ug/L	
			Leachable 1-Methylnaphthalene	2016/11/09		86	%	30 - 130
			Leachable 2-Methylnaphthalene	2016/11/09		91	%	30 - 130
			Leachable Acenaphthene	2016/11/09		93	%	30 - 130
			Leachable Acenaphthylene	2016/11/09		96	%	30 - 130
			Leachable Anthracene	2016/11/09		109	%	30 - 130
			Leachable Benzo(a)anthracene	2016/11/09		104	%	30 - 130
			Leachable Benzo(a)pyrene	2016/11/09		105	%	30 - 130
			Leachable Benzo(b)fluoranthene	2016/11/09		94	%	30 - 130
			Leachable Benzo(g,h,i)perylene	2016/11/09		105	%	30 - 130
			Leachable Benzo(j)fluoranthene	2016/11/09		98	%	30 - 130
			Leachable Benzo(k)fluoranthene	2016/11/09		104	%	30 - 130
			Leachable Chrysene	2016/11/09		99	%	30 - 130
			Leachable D10-Anthracene	2016/11/09		81	%	30 - 130
			Leachable D14-Terphenyl	2016/11/09		78	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/09		79	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/09		99	%	30 - 130
			Leachable Fluoranthene	2016/11/09		103	%	30 - 130
			Leachable Fluorene	2016/11/09		100	%	30 - 130
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/09		104	%	30 - 130
			Leachable Naphthalene	2016/11/09		87	%	30 - 130
			Leachable Perylene	2016/11/09		102	%	30 - 130
			Leachable Phenanthrene	2016/11/09		82	%	30 - 130
			Leachable Pyrene	2016/11/09		102	%	30 - 130
4738109	GTH	Method Blank	Leachable 1-Methylnaphthalene	2016/11/09	<0.010		ug/L	
			Leachable 2-Methylnaphthalene	2016/11/09	<0.010		ug/L	
			Leachable Acenaphthene	2016/11/09	<0.0050		ug/L	
			Leachable Acenaphthylene	2016/11/09	<0.0050		ug/L	
			Leachable Anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(a)anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(a)pyrene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(b)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(g,h,i)perylene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(j)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Benzo(k)fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Chrysene	2016/11/09	<0.0050		ug/L	
			Leachable D10-Anthracene	2016/11/09		81	%	30 - 130
			Leachable D14-Terphenyl	2016/11/09		84	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/09		80	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/09	<0.0050		ug/L	
			Leachable Fluoranthene	2016/11/09	<0.0050		ug/L	
			Leachable Fluorene	2016/11/09	<0.0050		ug/L	
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/09	<0.0050		ug/L	
			Leachable Naphthalene	2016/11/09	<0.020		ug/L	
			Leachable Perylene	2016/11/09	<0.0050		ug/L	
			Leachable Phenanthrene	2016/11/09	<0.0065 (4)		ug/L	
			Leachable Pyrene	2016/11/09	<0.0050		ug/L	
4738110	GTH	Leachate Blank	Leachable 1-Methylnaphthalene	2016/11/10	<0.010		ug/L	

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			Leachable 2-Methylnaphthalene	2016/11/10	<0.010		ug/L	
			Leachable Acenaphthene	2016/11/10	<0.0050		ug/L	
			Leachable Acenaphthylene	2016/11/10	<0.0050		ug/L	
			Leachable Anthracene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(a)anthracene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(a)pyrene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(b)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(g,h,i)perylene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(j)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(k)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Chrysene	2016/11/10	<0.0050		ug/L	
			Leachable D10-Anthracene	2016/11/10		76	%	30 - 130
			Leachable D14-Terphenyl	2016/11/10		78	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/10		78	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/10	<0.0050		ug/L	
			Leachable Fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Fluorene	2016/11/10	<0.0050		ug/L	
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/10	<0.0050		ug/L	
			Leachable Naphthalene	2016/11/10	<0.020		ug/L	
			Leachable Perylene	2016/11/10	<0.0050		ug/L	
			Leachable Phenanthrene	2016/11/10	0.0088, RDL=0.0050		ug/L	
			Leachable Pyrene	2016/11/10	<0.0050		ug/L	
4738110	GTH	Spiked Blank	Leachable 1-Methylnaphthalene	2016/11/10		85	%	30 - 130
			Leachable 2-Methylnaphthalene	2016/11/10		89	%	30 - 130
			Leachable Acenaphthene	2016/11/10		92	%	30 - 130
			Leachable Acenaphthylene	2016/11/10		96	%	30 - 130
			Leachable Anthracene	2016/11/10		111	%	30 - 130
			Leachable Benzo(a)anthracene	2016/11/10		106	%	30 - 130
			Leachable Benzo(a)pyrene	2016/11/10		101	%	30 - 130
			Leachable Benzo(b)fluoranthene	2016/11/10		96	%	30 - 130
			Leachable Benzo(g,h,i)perylene	2016/11/10		104	%	30 - 130
			Leachable Benzo(j)fluoranthene	2016/11/10		95	%	30 - 130
			Leachable Benzo(k)fluoranthene	2016/11/10		106	%	30 - 130
			Leachable Chrysene	2016/11/10		100	%	30 - 130
			Leachable D10-Anthracene	2016/11/10		75	%	30 - 130
			Leachable D14-Terphenyl	2016/11/10		77	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/10		75	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/10		100	%	30 - 130
			Leachable Fluoranthene	2016/11/10		102	%	30 - 130
			Leachable Fluorene	2016/11/10		97	%	30 - 130
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/10		102	%	30 - 130
			Leachable Naphthalene	2016/11/10		85	%	30 - 130
			Leachable Perylene	2016/11/10		100	%	30 - 130
			Leachable Phenanthrene	2016/11/10		112	%	30 - 130
			Leachable Pyrene	2016/11/10		100	%	30 - 130
4738110	GTH	Method Blank	Leachable 1-Methylnaphthalene	2016/11/10	<0.010		ug/L	
			Leachable 2-Methylnaphthalene	2016/11/10	<0.010		ug/L	
			Leachable Acenaphthene	2016/11/10	<0.0050		ug/L	
			Leachable Acenaphthylene	2016/11/10	<0.0050		ug/L	
			Leachable Anthracene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(a)anthracene	2016/11/10	<0.0050		ug/L	

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4738112	GTH	Leachate Blank	Leachable Benzo(a)pyrene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(b)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(g,h,i)perylene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(j)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(k)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Chrysene	2016/11/10	<0.0050		ug/L	
			Leachable D10-Anthracene	2016/11/10		74	%	30 - 130
			Leachable D14-Terphenyl	2016/11/10		76	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/10		74	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/10	<0.0050		ug/L	
			Leachable Fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Fluorene	2016/11/10	<0.0050		ug/L	
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/10	<0.0050		ug/L	
			Leachable Naphthalene	2016/11/10	<0.020		ug/L	
			Leachable Perylene	2016/11/10	<0.0050		ug/L	
			Leachable Phenanthrene	2016/11/10	<0.0089 (4)		ug/L	
			Leachable Pyrene	2016/11/10	<0.0050		ug/L	
			Leachable 1-Methylnaphthalene	2016/11/10	<0.010		ug/L	
			Leachable 2-Methylnaphthalene	2016/11/10	<0.010		ug/L	
			Leachable Acenaphthene	2016/11/10	<0.0050		ug/L	
			Leachable Acenaphthylene	2016/11/10	<0.0050		ug/L	
			Leachable Anthracene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(a)anthracene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(a)pyrene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(b)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(g,h,i)perylene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(j)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(k)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Chrysene	2016/11/10	<0.0050		ug/L	
			Leachable D10-Anthracene	2016/11/10		83	%	30 - 130
			Leachable D14-Terphenyl	2016/11/10		88	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/10		82	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/10	<0.0050		ug/L	
			Leachable Fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Fluorene	2016/11/10	<0.0050		ug/L	
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/10	<0.0050		ug/L	
			Leachable Naphthalene	2016/11/10	<0.020		ug/L	
			Leachable Perylene	2016/11/10	<0.0050		ug/L	
			Leachable Phenanthrene	2016/11/10	0.014, RDL=0.0050		ug/L	
4738112	GTH	Spiked Blank	Leachable Pyrene	2016/11/10	<0.0050		ug/L	
			Leachable 1-Methylnaphthalene	2016/11/10		82	%	30 - 130
			Leachable 2-Methylnaphthalene	2016/11/10		83	%	30 - 130
			Leachable Acenaphthene	2016/11/10		91	%	30 - 130
			Leachable Acenaphthylene	2016/11/10		101	%	30 - 130
			Leachable Anthracene	2016/11/10		80	%	30 - 130
			Leachable Benzo(a)anthracene	2016/11/10		111	%	30 - 130
			Leachable Benzo(a)pyrene	2016/11/10		103	%	30 - 130
			Leachable Benzo(b)fluoranthene	2016/11/10		106	%	30 - 130
			Leachable Benzo(g,h,i)perylene	2016/11/10		111	%	30 - 130
			Leachable Benzo(j)fluoranthene	2016/11/10		92	%	30 - 130
			Leachable Benzo(k)fluoranthene	2016/11/10		98	%	30 - 130

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4738112	GTH	Method Blank	Leachable Chrysene	2016/11/10		114	%	30 - 130
			Leachable D10-Anthracene	2016/11/10		85	%	30 - 130
			Leachable D14-Terphenyl	2016/11/10		86	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/10		85	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/10		103	%	30 - 130
			Leachable Fluoranthene	2016/11/10		97	%	30 - 130
			Leachable Fluorene	2016/11/10		96	%	30 - 130
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/10		107	%	30 - 130
			Leachable Naphthalene	2016/11/10		80	%	30 - 130
			Leachable Perylene	2016/11/10		98	%	30 - 130
			Leachable Phenanthrene	2016/11/10		116	%	30 - 130
			Leachable Pyrene	2016/11/10		97	%	30 - 130
			Leachable 1-Methylnaphthalene	2016/11/10	<0.010		ug/L	
			Leachable 2-Methylnaphthalene	2016/11/10	<0.010		ug/L	
			Leachable Acenaphthene	2016/11/10	<0.0050		ug/L	
			Leachable Acenaphthylene	2016/11/10	<0.0050		ug/L	
			Leachable Anthracene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(a)anthracene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(a)pyrene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(b)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(g,h,i)perylene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(j)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Benzo(k)fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Chrysene	2016/11/10	<0.0050		ug/L	
			Leachable D10-Anthracene	2016/11/10		89	%	30 - 130
			Leachable D14-Terphenyl	2016/11/10		94	%	30 - 130
			Leachable D8-Acenaphthylene	2016/11/10		87	%	30 - 130
			Leachable Dibenz(a,h)anthracene	2016/11/10	<0.0050		ug/L	
			Leachable Fluoranthene	2016/11/10	<0.0050		ug/L	
			Leachable Fluorene	2016/11/10	<0.0050		ug/L	
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/10	<0.0050		ug/L	
			Leachable Naphthalene	2016/11/10	<0.020		ug/L	
			Leachable Perylene	2016/11/10	<0.0050		ug/L	
			Leachable Phenanthrene	2016/11/10	<0.0050		ug/L	
			Leachable Pyrene	2016/11/10	<0.0050		ug/L	
4738112	GTH	RPD [DJD328-01]	Leachable 1-Methylnaphthalene	2016/11/10	NC		%	40
			Leachable 2-Methylnaphthalene	2016/11/10	NC		%	40
			Leachable Acenaphthene	2016/11/10	NC		%	40
			Leachable Acenaphthylene	2016/11/10	NC		%	40
			Leachable Anthracene	2016/11/10	NC		%	40
			Leachable Benzo(a)anthracene	2016/11/10	NC		%	40
			Leachable Benzo(a)pyrene	2016/11/10	NC		%	40
			Leachable Benzo(b)fluoranthene	2016/11/10	NC		%	40
			Leachable Benzo(g,h,i)perylene	2016/11/10	NC		%	40
			Leachable Benzo(j)fluoranthene	2016/11/10	NC		%	40
			Leachable Benzo(k)fluoranthene	2016/11/10	NC		%	40
			Leachable Chrysene	2016/11/10	NC		%	40
			Leachable Dibenz(a,h)anthracene	2016/11/10	NC		%	40
			Leachable Fluoranthene	2016/11/10	NC		%	40
			Leachable Fluorene	2016/11/10	NC		%	40
			Leachable Indeno(1,2,3-cd)pyrene	2016/11/10	NC		%	40
			Leachable Naphthalene	2016/11/10	NC		%	40

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4738124	CMI	Matrix Spike [DJC897-01]	Leachable Perylene	2016/11/10	NC		%	40
			Leachable Phenanthrene	2016/11/10	NC (4)		%	40
			Leachable Pyrene	2016/11/10	NC		%	40
			Isobutylbenzene - Extractable	2016/11/08		104	%	30 - 130
			n-Dotriacontane - Extractable	2016/11/08		98	%	30 - 130
			>C10-C16 Hydrocarbons	2016/11/08		100	%	30 - 130
			>C16-C21 Hydrocarbons	2016/11/08		88	%	30 - 130
4738124	CMI	Spiked Blank	>C21-<C32 Hydrocarbons	2016/11/08		95	%	30 - 130
			Isobutylbenzene - Extractable	2016/11/08		105	%	30 - 130
			n-Dotriacontane - Extractable	2016/11/08		94	%	30 - 130
			>C10-C16 Hydrocarbons	2016/11/08		108	%	30 - 130
			>C16-C21 Hydrocarbons	2016/11/08		96	%	30 - 130
			>C21-<C32 Hydrocarbons	2016/11/08		106	%	30 - 130
			Isobutylbenzene - Extractable	2016/11/08		101	%	30 - 130
4738124	CMI	Method Blank	n-Dotriacontane - Extractable	2016/11/08		97	%	30 - 130
			>C10-C16 Hydrocarbons	2016/11/08	<10		mg/kg	
			>C16-C21 Hydrocarbons	2016/11/08	<10		mg/kg	
			>C21-<C32 Hydrocarbons	2016/11/08	<15		mg/kg	
			>C10-C16 Hydrocarbons	2016/11/08	NC		%	50
			>C16-C21 Hydrocarbons	2016/11/08	NC		%	50
			>C21-<C32 Hydrocarbons	2016/11/08	NC		%	50
4738228	BAN	Matrix Spike [DJD328-01]	Leachable Aluminum (Al)	2016/11/08		104	%	80 - 120
			Leachable Antimony (Sb)	2016/11/08		100	%	80 - 120
			Leachable Arsenic (As)	2016/11/08		94	%	80 - 120
			Leachable Barium (Ba)	2016/11/08		91	%	80 - 120
			Leachable Beryllium (Be)	2016/11/08		91	%	80 - 120
			Leachable Cadmium (Cd)	2016/11/08		96	%	80 - 120
			Leachable Calcium (Ca)	2016/11/08		100	%	80 - 120
			Leachable Chromium (Cr)	2016/11/08		91	%	80 - 120
			Leachable Cobalt (Co)	2016/11/08		93	%	80 - 120
			Leachable Copper (Cu)	2016/11/08		92	%	80 - 120
			Leachable Iron (Fe)	2016/11/08		101	%	80 - 120
			Leachable Lead (Pb)	2016/11/08		96	%	80 - 120
			Leachable Lithium (Li)	2016/11/08		99	%	80 - 120
			Leachable Magnesium (Mg)	2016/11/08		102	%	80 - 120
			Leachable Manganese (Mn)	2016/11/08		95	%	80 - 120
			Leachable Molybdenum (Mo)	2016/11/08		101	%	80 - 120
			Leachable Nickel (Ni)	2016/11/08		94	%	80 - 120
			Leachable Potassium (K)	2016/11/08		106	%	80 - 120
			Leachable Selenium (Se)	2016/11/08		94	%	80 - 120
			Leachable Silver (Ag)	2016/11/08		95	%	80 - 120
			Leachable Strontium (Sr)	2016/11/08		96	%	80 - 120
			Leachable Thallium (Tl)	2016/11/08		98	%	80 - 120
			Leachable Tin (Sn)	2016/11/08		99	%	80 - 120
			Leachable Uranium (U)	2016/11/08		103	%	80 - 120
			Leachable Vanadium (V)	2016/11/08		92	%	80 - 120
			Leachable Zinc (Zn)	2016/11/08		96	%	80 - 120
		Spiked Blank	Leachable Aluminum (Al)	2016/11/08		103	%	80 - 120
			Leachable Antimony (Sb)	2016/11/08		101	%	80 - 120
			Leachable Arsenic (As)	2016/11/08		96	%	80 - 120
			Leachable Barium (Ba)	2016/11/08		92	%	80 - 120
			Leachable Beryllium (Be)	2016/11/08		96	%	80 - 120

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4738228	BAN	Method Blank	Leachable Cadmium (Cd)	2016/11/08		98	%	80 - 120
			Leachable Calcium (Ca)	2016/11/08		100	%	80 - 120
			Leachable Chromium (Cr)	2016/11/08		96	%	80 - 120
			Leachable Cobalt (Co)	2016/11/08		97	%	80 - 120
			Leachable Copper (Cu)	2016/11/08		97	%	80 - 120
			Leachable Iron (Fe)	2016/11/08		101	%	80 - 120
			Leachable Lead (Pb)	2016/11/08		97	%	80 - 120
			Leachable Lithium (Li)	2016/11/08		102	%	80 - 120
			Leachable Magnesium (Mg)	2016/11/08		103	%	80 - 120
			Leachable Manganese (Mn)	2016/11/08		98	%	80 - 120
			Leachable Molybdenum (Mo)	2016/11/08		103	%	80 - 120
			Leachable Nickel (Ni)	2016/11/08		97	%	80 - 120
			Leachable Potassium (K)	2016/11/08		104	%	80 - 120
			Leachable Selenium (Se)	2016/11/08		96	%	80 - 120
			Leachable Silver (Ag)	2016/11/08		97	%	80 - 120
			Leachable Strontium (Sr)	2016/11/08		99	%	80 - 120
			Leachable Thallium (Tl)	2016/11/08		101	%	80 - 120
			Leachable Tin (Sn)	2016/11/08		102	%	80 - 120
			Leachable Uranium (U)	2016/11/08		104	%	80 - 120
			Leachable Vanadium (V)	2016/11/08		96	%	80 - 120
			Leachable Zinc (Zn)	2016/11/08		99	%	80 - 120
			Leachable Aluminum (Al)	2016/11/08	<10		ug/L	
			Leachable Antimony (Sb)	2016/11/08	<2.0		ug/L	
			Leachable Arsenic (As)	2016/11/08	<2.0		ug/L	
			Leachable Barium (Ba)	2016/11/08	6.6, RDL=5.0		ug/L	
			Leachable Beryllium (Be)	2016/11/08	<2.0		ug/L	
			Leachable Cadmium (Cd)	2016/11/08	<0.30		ug/L	
			Leachable Calcium (Ca)	2016/11/08	360, RDL=100 (5)		ug/L	
			Leachable Chromium (Cr)	2016/11/08	<2.0		ug/L	
			Leachable Cobalt (Co)	2016/11/08	<1.0		ug/L	
			Leachable Copper (Cu)	2016/11/08	2.1, RDL=2.0		ug/L	
			Leachable Iron (Fe)	2016/11/08	<50		ug/L	
			Leachable Lead (Pb)	2016/11/08	<0.50		ug/L	
			Leachable Lithium (Li)	2016/11/08	<2.0		ug/L	
			Leachable Magnesium (Mg)	2016/11/08	<100		ug/L	
			Leachable Manganese (Mn)	2016/11/08	<2.0		ug/L	
			Leachable Molybdenum (Mo)	2016/11/08	<2.0		ug/L	
			Leachable Nickel (Ni)	2016/11/08	<2.0		ug/L	
			Leachable Potassium (K)	2016/11/08	120, RDL=100		ug/L	
			Leachable Selenium (Se)	2016/11/08	<1.0		ug/L	
			Leachable Silver (Ag)	2016/11/08	<0.50		ug/L	
			Leachable Strontium (Sr)	2016/11/08	<5.0		ug/L	
			Leachable Thallium (Tl)	2016/11/08	<0.10		ug/L	
			Leachable Tin (Sn)	2016/11/08	<2.0		ug/L	
			Leachable Uranium (U)	2016/11/08	<0.10		ug/L	
			Leachable Vanadium (V)	2016/11/08	<2.0		ug/L	
			Leachable Zinc (Zn)	2016/11/08	<5.0		ug/L	
4738228	BAN	RPD [DJD328-01]	Leachable Aluminum (Al)	2016/11/08	NC		%	35

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			Leachable Antimony (Sb)	2016/11/08	NC		%	35
			Leachable Arsenic (As)	2016/11/08	NC		%	35
			Leachable Barium (Ba)	2016/11/08	NC		%	35
			Leachable Beryllium (Be)	2016/11/08	NC		%	35
			Leachable Cadmium (Cd)	2016/11/08	NC		%	35
			Leachable Calcium (Ca)	2016/11/08	36 (2)		%	35
			Leachable Chromium (Cr)	2016/11/08	NC		%	35
			Leachable Cobalt (Co)	2016/11/08	NC		%	35
			Leachable Copper (Cu)	2016/11/08	NC		%	35
			Leachable Iron (Fe)	2016/11/08	NC		%	35
			Leachable Lead (Pb)	2016/11/08	NC		%	35
			Leachable Lithium (Li)	2016/11/08	NC		%	35
			Leachable Magnesium (Mg)	2016/11/08	4.4		%	35
			Leachable Manganese (Mn)	2016/11/08	42 (2)		%	35
			Leachable Molybdenum (Mo)	2016/11/08	NC		%	35
			Leachable Nickel (Ni)	2016/11/08	NC		%	35
			Leachable Potassium (K)	2016/11/08	10		%	35
			Leachable Selenium (Se)	2016/11/08	NC		%	35
			Leachable Silver (Ag)	2016/11/08	NC		%	35
			Leachable Strontium (Sr)	2016/11/08	NC		%	35
			Leachable Thallium (Tl)	2016/11/08	NC		%	35
			Leachable Tin (Sn)	2016/11/08	NC		%	35
			Leachable Uranium (U)	2016/11/08	NC		%	35
			Leachable Vanadium (V)	2016/11/08	NC		%	35
			Leachable Zinc (Zn)	2016/11/08	NC		%	35
4738309	BAN	Matrix Spike	Leachable Aluminum (Al)	2016/11/09		3.2	%	N/A
			Leachable Antimony (Sb)	2016/11/09		109	%	75 - 125
			Leachable Arsenic (As)	2016/11/09		103	%	75 - 125
			Leachable Barium (Ba)	2016/11/09		NC	%	75 - 125
			Leachable Beryllium (Be)	2016/11/09		99	%	75 - 125
			Leachable Boron (B)	2016/11/09		99	%	75 - 125
			Leachable Cadmium (Cd)	2016/11/09		104	%	75 - 125
			Leachable Calcium (Ca)	2016/11/09		109	%	N/A
			Leachable Chromium (Cr)	2016/11/09		98	%	75 - 125
			Leachable Cobalt (Co)	2016/11/09		99	%	75 - 125
			Leachable Copper (Cu)	2016/11/09		98	%	75 - 125
			Leachable Iron (Fe)	2016/11/09		3.5	%	N/A
			Leachable Lead (Pb)	2016/11/09		101	%	75 - 125
			Leachable Lithium (Li)	2016/11/09		107	%	75 - 125
			Leachable Magnesium (Mg)	2016/11/09		5.6	%	N/A
			Leachable Manganese (Mn)	2016/11/09		NC	%	75 - 125
			Leachable Molybdenum (Mo)	2016/11/09		107	%	75 - 125
			Leachable Nickel (Ni)	2016/11/09		101	%	75 - 125
			Leachable Potassium (K)	2016/11/09		5.9	%	N/A
			Leachable Selenium (Se)	2016/11/09		103	%	75 - 125
			Leachable Silver (Ag)	2016/11/09		102	%	75 - 125
			Leachable Strontium (Sr)	2016/11/09		NC	%	75 - 125
			Leachable Thallium (Tl)	2016/11/09		103	%	75 - 125
			Leachable Tin (Sn)	2016/11/09		107	%	75 - 125
			Leachable Uranium (U)	2016/11/09		112	%	75 - 125
			Leachable Vanadium (V)	2016/11/09		99	%	75 - 125
			Leachable Zinc (Zn)	2016/11/09		102	%	75 - 125

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4738309	BAN	Spiked Blank	Leachable Aluminum (Al)	2016/11/09		102	%	80 - 120
			Leachable Antimony (Sb)	2016/11/09		104	%	80 - 120
			Leachable Arsenic (As)	2016/11/09		98	%	80 - 120
			Leachable Barium (Ba)	2016/11/09		95	%	80 - 120
			Leachable Beryllium (Be)	2016/11/09		95	%	80 - 120
			Leachable Boron (B)	2016/11/09		96	%	80 - 120
			Leachable Cadmium (Cd)	2016/11/09		100	%	80 - 120
			Leachable Calcium (Ca)	2016/11/09		100	%	80 - 120
			Leachable Chromium (Cr)	2016/11/09		97	%	80 - 120
			Leachable Cobalt (Co)	2016/11/09		99	%	80 - 120
			Leachable Copper (Cu)	2016/11/09		98	%	80 - 120
			Leachable Iron (Fe)	2016/11/09		100	%	80 - 120
			Leachable Lead (Pb)	2016/11/09		100	%	80 - 120
			Leachable Lithium (Li)	2016/11/09		103	%	80 - 120
			Leachable Magnesium (Mg)	2016/11/09		101	%	80 - 120
			Leachable Manganese (Mn)	2016/11/09		101	%	80 - 120
			Leachable Molybdenum (Mo)	2016/11/09		103	%	80 - 120
			Leachable Nickel (Ni)	2016/11/09		101	%	80 - 120
			Leachable Potassium (K)	2016/11/09		105	%	80 - 120
			Leachable Selenium (Se)	2016/11/09		97	%	80 - 120
			Leachable Silver (Ag)	2016/11/09		101	%	80 - 120
			Leachable Strontium (Sr)	2016/11/09		103	%	80 - 120
			Leachable Thallium (Tl)	2016/11/09		102	%	80 - 120
			Leachable Tin (Sn)	2016/11/09		102	%	80 - 120
			Leachable Uranium (U)	2016/11/09		108	%	80 - 120
			Leachable Vanadium (V)	2016/11/09		97	%	80 - 120
			Leachable Zinc (Zn)	2016/11/09		99	%	80 - 120
4738309	BAN	Method Blank	Leachable Aluminum (Al)	2016/11/09	<100		ug/L	
			Leachable Antimony (Sb)	2016/11/09	<20		ug/L	
			Leachable Arsenic (As)	2016/11/09	<20		ug/L	
			Leachable Barium (Ba)	2016/11/09	<50		ug/L	
			Leachable Beryllium (Be)	2016/11/09	<20		ug/L	
			Leachable Boron (B)	2016/11/09	<500		ug/L	
			Leachable Cadmium (Cd)	2016/11/09	<3.0		ug/L	
			Leachable Calcium (Ca)	2016/11/09	<1000		ug/L	
			Leachable Chromium (Cr)	2016/11/09	<20		ug/L	
			Leachable Cobalt (Co)	2016/11/09	<10		ug/L	
			Leachable Copper (Cu)	2016/11/09	<20		ug/L	
			Leachable Iron (Fe)	2016/11/09	<500		ug/L	
			Leachable Lead (Pb)	2016/11/09	<5.0		ug/L	
			Leachable Lithium (Li)	2016/11/09	<20		ug/L	
			Leachable Magnesium (Mg)	2016/11/09	<1000		ug/L	
			Leachable Manganese (Mn)	2016/11/09	<20		ug/L	
			Leachable Molybdenum (Mo)	2016/11/09	<20		ug/L	
			Leachable Nickel (Ni)	2016/11/09	<20		ug/L	
			Leachable Potassium (K)	2016/11/09	<1000		ug/L	
			Leachable Selenium (Se)	2016/11/09	<10		ug/L	
			Leachable Silver (Ag)	2016/11/09	<5.0		ug/L	
			Leachable Strontium (Sr)	2016/11/09	<50		ug/L	
			Leachable Thallium (Tl)	2016/11/09	<1.0		ug/L	
			Leachable Tin (Sn)	2016/11/09	<20		ug/L	
			Leachable Uranium (U)	2016/11/09	<1.0		ug/L	

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
4738309	BAN	RPD	Leachable Vanadium (V)	2016/11/09	<20		ug/L	
			Leachable Zinc (Zn)	2016/11/09	<50		ug/L	
			Leachable Aluminum (Al)	2016/11/09	NC (6)		%	35
			Leachable Antimony (Sb)	2016/11/09	NC		%	35
			Leachable Arsenic (As)	2016/11/09	NC		%	35
			Leachable Barium (Ba)	2016/11/09	0.82		%	35
			Leachable Beryllium (Be)	2016/11/09	NC		%	35
			Leachable Boron (B)	2016/11/09	NC		%	35
			Leachable Cadmium (Cd)	2016/11/09	NC		%	35
			Leachable Calcium (Ca)	2016/11/09	22		%	35
			Leachable Chromium (Cr)	2016/11/09	NC		%	35
			Leachable Cobalt (Co)	2016/11/09	NC		%	35
			Leachable Copper (Cu)	2016/11/09	NC		%	35
			Leachable Iron (Fe)	2016/11/09	NC		%	35
			Leachable Lead (Pb)	2016/11/09	NC (6)		%	35
			Leachable Lithium (Li)	2016/11/09	NC		%	35
			Leachable Magnesium (Mg)	2016/11/09	0.95		%	35
			Leachable Manganese (Mn)	2016/11/09	3.6		%	35
			Leachable Molybdenum (Mo)	2016/11/09	NC		%	35
			Leachable Nickel (Ni)	2016/11/09	NC		%	35
			Leachable Potassium (K)	2016/11/09	7.2		%	35
			Leachable Selenium (Se)	2016/11/09	NC		%	35
			Leachable Silver (Ag)	2016/11/09	NC		%	35
			Leachable Strontium (Sr)	2016/11/09	15		%	35
			Leachable Thallium (Tl)	2016/11/09	NC		%	35
			Leachable Tin (Sn)	2016/11/09	NC		%	35
			Leachable Uranium (U)	2016/11/09	NC		%	35
			Leachable Vanadium (V)	2016/11/09	NC		%	35
			Leachable Zinc (Zn)	2016/11/09	NC (6)		%	35
4738430	TPE	Leachate Blank	Conductivity	2016/11/08	2.5, RDL=1.0		uS/cm	
4738430	TPE	Spiked Blank	Conductivity	2016/11/08		100	%	N/A
4738430	TPE	Method Blank	Conductivity	2016/11/08	1.1, RDL=1.0		uS/cm	
4738430	TPE	RPD [DJC897-01]	Conductivity	2016/11/08	2.4		%	35
4740167	GTH	Matrix Spike	D10-Anthracene	2016/11/10		82	%	30 - 130
			D14-Terphenyl	2016/11/10		91	%	30 - 130
			D8-Acenaphthylene	2016/11/10		78	%	30 - 130
			1-Methylnaphthalene	2016/11/10		84	%	30 - 130
			2-Methylnaphthalene	2016/11/10		87	%	30 - 130
			Acenaphthene	2016/11/10		90	%	30 - 130
			Acenaphthylene	2016/11/10		94	%	30 - 130
			Anthracene	2016/11/10		99	%	30 - 130
			Benzo(a)anthracene	2016/11/10		101	%	30 - 130
			Benzo(a)pyrene	2016/11/10		86	%	30 - 130
			Benzo(b)fluoranthene	2016/11/10		93	%	30 - 130
			Benzo(g,h,i)perylene	2016/11/10		84	%	30 - 130
			Benzo(j)fluoranthene	2016/11/10		74	%	30 - 130
			Benzo(k)fluoranthene	2016/11/10		84	%	30 - 130
			Chrysene	2016/11/10		102	%	30 - 130
			Dibenz(a,h)anthracene	2016/11/10		84	%	30 - 130
			Fluoranthene	2016/11/10		87	%	30 - 130

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QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
4740167	GTH	Spiked Blank	Fluorene		2016/11/10		92	%	30 - 130
			Indeno(1,2,3-cd)pyrene		2016/11/10		83	%	30 - 130
			Naphthalene		2016/11/10		81	%	30 - 130
			Perylene		2016/11/10		78	%	30 - 130
			Phenanthrene		2016/11/10		81	%	30 - 130
			Pyrene		2016/11/10		88	%	30 - 130
			D10-Anthracene		2016/11/10		81	%	30 - 130
			D14-Terphenyl		2016/11/10		80	%	30 - 130
			D8-Acenaphthylene		2016/11/10		77	%	30 - 130
			1-Methylnaphthalene		2016/11/10		84	%	30 - 130
			2-Methylnaphthalene		2016/11/10		88	%	30 - 130
			Acenaphthene		2016/11/10		94	%	30 - 130
			Acenaphthylene		2016/11/10		89	%	30 - 130
			Anthracene		2016/11/10		103	%	30 - 130
			Benzo(a)anthracene		2016/11/10		102	%	30 - 130
			Benzo(a)pyrene		2016/11/10		90	%	30 - 130
			Benzo(b)fluoranthene		2016/11/10		95	%	30 - 130
			Benzo(g,h,i)perylene		2016/11/10		99	%	30 - 130
			Benzo(j)fluoranthene		2016/11/10		79	%	30 - 130
			Benzo(k)fluoranthene		2016/11/10		84	%	30 - 130
			Chrysene		2016/11/10		106	%	30 - 130
			Dibenz(a,h)anthracene		2016/11/10		92	%	30 - 130
			Fluoranthene		2016/11/10		88	%	30 - 130
			Fluorene		2016/11/10		89	%	30 - 130
			Indeno(1,2,3-cd)pyrene		2016/11/10		94	%	30 - 130
			Naphthalene		2016/11/10		86	%	30 - 130
			Perylene		2016/11/10		86	%	30 - 130
			Phenanthrene		2016/11/10		85	%	30 - 130
			Pyrene		2016/11/10		86	%	30 - 130
4740167	GTH	Method Blank	D10-Anthracene		2016/11/10		88	%	30 - 130
			D14-Terphenyl		2016/11/10		94	%	30 - 130
			D8-Acenaphthylene		2016/11/10		79	%	30 - 130
			1-Methylnaphthalene		2016/11/10	<0.0050		mg/kg	
			2-Methylnaphthalene		2016/11/10	<0.0050		mg/kg	
			Acenaphthene		2016/11/10	<0.0050		mg/kg	
			Acenaphthylene		2016/11/10	<0.0050		mg/kg	
			Anthracene		2016/11/10	<0.0050		mg/kg	
			Benzo(a)anthracene		2016/11/10	<0.0050		mg/kg	
			Benzo(a)pyrene		2016/11/10	<0.0050		mg/kg	
			Benzo(b)fluoranthene		2016/11/10	<0.0050		mg/kg	
			Benzo(g,h,i)perylene		2016/11/10	<0.0050		mg/kg	
			Benzo(j)fluoranthene		2016/11/10	<0.0050		mg/kg	
			Benzo(k)fluoranthene		2016/11/10	<0.0050		mg/kg	
			Chrysene		2016/11/10	<0.0050		mg/kg	
			Dibenz(a,h)anthracene		2016/11/10	<0.0050		mg/kg	
			Fluoranthene		2016/11/10	<0.0050		mg/kg	
			Fluorene		2016/11/10	<0.0050		mg/kg	
			Indeno(1,2,3-cd)pyrene		2016/11/10	<0.0050		mg/kg	
			Naphthalene		2016/11/10	<0.0050		mg/kg	
			Perylene		2016/11/10	<0.0050		mg/kg	
			Phenanthrene		2016/11/10	<0.0050		mg/kg	
			Pyrene		2016/11/10	<0.0050		mg/kg	

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4740167	GTH	RPD	1-Methylnaphthalene	2016/11/10	NC		%	50
			2-Methylnaphthalene	2016/11/10	NC		%	50
			Acenaphthene	2016/11/10	NC		%	50
			Acenaphthylene	2016/11/10	NC		%	50
			Anthracene	2016/11/10	NC		%	50
			Benzo(a)anthracene	2016/11/10	NC		%	50
			Benzo(a)pyrene	2016/11/10	NC		%	50
			Benzo(b)fluoranthene	2016/11/10	NC		%	50
			Benzo(g,h,i)perylene	2016/11/10	NC		%	50
			Benzo(j)fluoranthene	2016/11/10	NC		%	50
			Benzo(k)fluoranthene	2016/11/10	NC		%	50
			Chrysene	2016/11/10	4.8		%	50
			Dibenz(a,h)anthracene	2016/11/10	NC		%	50
			Fluoranthene	2016/11/10	6.3		%	50
			Fluorene	2016/11/10	NC		%	50
			Indeno(1,2,3-cd)pyrene	2016/11/10	NC		%	50
			Naphthalene	2016/11/10	NC		%	50
			Perylene	2016/11/10	NC		%	50
			Phenanthrene	2016/11/10	NC		%	50
			Pyrene	2016/11/10	4.4		%	50

N/A = Not Applicable

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

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

Leachate Blank: A blank matrix containing all reagents used in the leaching procedure. Used to determine any process contamination.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) VPH samples were extracted using a flat-bed shaker instead of the accelerated mechanical shaker due to matrix incompatibility.

(2) Poor RPD due to sample inhomogeneity. < 10 % of compounds in multi-component analysis in violation.

(3) Duplicate %RPD violation not applicable. Absolute % Difference within 10%.

(4) Elevated RDL(s) due to detected levels in the leachate blank.

(5) Low level lab contamination. Minimal impact on data quality.

(6) Poor RPD due to sample inhomogeneity. Insufficient sample for repeat extraction.

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Eric Dearman, Scientific Specialist



Rosemarie MacDonald, Scientific Specialist (Organics)

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.