

Your P.O. #: CALL UP #61
 Your Project #: R.064163.001
 Site Location: DANIELS HARBOR
 Your C.O.C. #: 13839

Attention: Mark McNeil

Public Works & Government Services Canada
 St. John's
 PO Box 4600
 10 Barter's Hill
 St. John's , NL
 A1C 5T2

Report Date: 2013/06/07

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B382666

Received: 2013/05/30, 8:35

Sample Matrix: Soil
 # Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI) (1,3)	4	2013/05/31	2013/06/03	ATL SOP-00197	Based on Atl. PIRI
Metals Solids Acid Extr. ICPMS (2)	4	2013/06/04	2013/06/05	ATL SOP 00059	Based on EPA6020A
Moisture	4	N/A	2013/05/31	ATL SOP-00196	MOE Handbook 1983
PAH in sediment by GC/MS (Low Level) (2)	4	2013/06/04	2013/06/04	ATL SOP 00102	based on EPA8270C
PCBs in soil by GC/ECD (2,3)	4	2013/06/03	2013/06/06	ATL SOP 00106	Based on EPA8082
pH (5:1 DI Water Extract) (2)	4	2013/06/04	2013/06/05	ATL SOP 00003	Based on SM4500H+B
VPH in Soil (PIRI) (1)	4	2013/05/31	2013/06/03	ATL SOP 00199	Based on Atl. PIRI
Total Oil and Grease - Soil (2)	4	2013/06/04	2013/06/07	ATL SOP 00100	Based on EPA9071B
ModTPH (T1) Calc. for Soil	4	2013/05/30	2013/06/03		Based on Atl. PIRI

Remarks:

Reporting results to two significant figures at the RDL is to permit statistical evaluation and is not intended to be an indication of analytical precision.

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

- (1) Reported on a dry weight basis.
- (2) This test was performed by Bedford
- (3) Soils are reported on a dry weight basis unless otherwise specified.

Encryption Key

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

Mari Kenny, Project Manager
 Email: MKenny@maxxam.ca
 Phone# (902) 420-0203 Ext:291

=====
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section

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CERTIFICATE OF ANALYSIS

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5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 2

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 Report Date: 2013/06/07

 Public Works & Government Services Canada
 Client Project #: R.064163.001
 Site Location: DANIELS HARBOR
 Your P.O. #: CALL UP #61
 Sampler Initials: DB

ATLANTIC MUST IN SOIL (SOIL)

Maxxam ID		RR8172	RR8172	RR8173	RR8174		
Sampling Date		2013/05/27	2013/05/27	2013/05/27	2013/05/27		
COC Number		13839	13839	13839	13839		
	Units	DANIELS HARB #1	DANIELS HARB #1 Lab-Dup	DANIELS HARB #2	DANIELS HARB #3	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	ND	ND	ND	ND	0.025	3231437
Toluene	mg/kg	ND	ND	ND	ND	0.025	3231437
Ethylbenzene	mg/kg	ND	ND	ND	ND	0.025	3231437
Xylene (Total)	mg/kg	ND	ND	ND	ND	0.050	3231437
C6 - C10 (less BTEX)	mg/kg	ND	ND	ND	ND	2.5	3231437
>C10-C16 Hydrocarbons	mg/kg	ND	ND	ND	ND	10	3231440
>C16-C21 Hydrocarbons	mg/kg	ND	ND	ND	ND	10	3231440
>C21-<C32 Hydrocarbons	mg/kg	ND	ND	ND	43	15	3231440
Modified TPH (Tier1)	mg/kg	ND		ND	43	15	3229391
Reached Baseline at C32	mg/kg	Yes	Yes	Yes	No	N/A	3231440
Hydrocarbon Resemblance	mg/kg				SEECOMMENT (1)	N/A	3231440
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	91	86	95	88		3231440
n-Dotriacontane - Extractable	%	81	77	80	86		3231440
Isobutylbenzene - Volatile	%	102	114	100	99		3231437

ND = Not detected
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch
 (1) No resemblance to petroleum products in lube oil range.

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ATLANTIC MUST IN SOIL (SOIL)

Maxxam ID		RR8175		
Sampling Date		2013/05/27		
COC Number		13839		
	Units	DANIELS HARB #4	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/kg	ND	0.025	3231437
Toluene	mg/kg	ND	0.025	3231437
Ethylbenzene	mg/kg	ND	0.025	3231437
Xylene (Total)	mg/kg	ND	0.050	3231437
C6 - C10 (less BTEX)	mg/kg	ND	2.5	3231437
>C10-C16 Hydrocarbons	mg/kg	ND	10	3231440
>C16-C21 Hydrocarbons	mg/kg	ND	10	3231440
>C21-<C32 Hydrocarbons	mg/kg	ND	15	3231440
Modified TPH (Tier1)	mg/kg	ND	15	3229391
Reached Baseline at C32	mg/kg	Yes	N/A	3231440
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	94		3231440
n-Dotriacontane - Extractable	%	79		3231440
Isobutylbenzene - Volatile	%	96		3231437
ND = Not detected RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

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RESULTS OF ANALYSES OF SOIL

Maxxam ID		RR8172	RR8172	RR8173	RR8174		
Sampling Date		2013/05/27	2013/05/27	2013/05/27	2013/05/27		
COC Number		13839	13839	13839	13839		
	Units	DANIELS HARB #1	DANIELS HARB #1 Lab-Dup	DANIELS HARB #2	DANIELS HARB #3	RDL	QC Batch

Inorganics							
Moisture	%	23	25	19	30	1	3230873
Soluble (5:1) pH	pH	8.68		8.80	8.59	N/A	3236533
Petroleum Hydrocarbons							
Total Oil & Grease	mg/kg	270	310	ND	690	100	3234934

ND = Not detected
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam ID		RR8175		
Sampling Date		2013/05/27		
COC Number		13839		
	Units	DANIELS HARB #4	RDL	QC Batch

Inorganics				
Moisture	%	18	1	3230873
Soluble (5:1) pH	pH	8.99	N/A	3236533
Petroleum Hydrocarbons				
Total Oil & Grease	mg/kg	ND	100	3234934

ND = Not detected
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 QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		RR8172	RR8173	RR8174	RR8175		
Sampling Date		2013/05/27	2013/05/27	2013/05/27	2013/05/27		
COC Number		13839	13839	13839	13839		
	Units	DANIELS HARB #1	DANIELS HARB #2	DANIELS HARB #3	DANIELS HARB #4	RDL	QC Batch

Metals							
Acid Extractable Aluminum (Al)	mg/kg	5600	6000	6400	5200	10	3234292
Acid Extractable Antimony (Sb)	mg/kg	ND	ND	ND	ND	2.0	3234292
Acid Extractable Arsenic (As)	mg/kg	ND	2.1	3.5	ND	2.0	3234292
Acid Extractable Barium (Ba)	mg/kg	22	17	38	18	5.0	3234292
Acid Extractable Beryllium (Be)	mg/kg	ND	ND	ND	ND	2.0	3234292
Acid Extractable Boron (B)	mg/kg	ND	ND	ND	ND	50	3234292
Acid Extractable Cadmium (Cd)	mg/kg	ND	ND	ND	ND	0.30	3234292
Acid Extractable Chromium (Cr)	mg/kg	15	16	22	11	2.0	3234292
Acid Extractable Cobalt (Co)	mg/kg	4.0	4.0	4.7	3.3	1.0	3234292
Acid Extractable Copper (Cu)	mg/kg	6.4	7.5	10	6.3	2.0	3234292
Acid Extractable Iron (Fe)	mg/kg	13000	13000	15000	11000	50	3234292
Acid Extractable Lead (Pb)	mg/kg	3.9	4.4	5.6	6.1	0.50	3234292
Acid Extractable Manganese (Mn)	mg/kg	240	220	230	220	2.0	3234292
Acid Extractable Mercury (Hg)	mg/kg	ND	ND	ND	ND	0.10	3234292
Acid Extractable Molybdenum (Mo)	mg/kg	ND	ND	ND	ND	2.0	3234292
Acid Extractable Nickel (Ni)	mg/kg	18	18	25	15	2.0	3234292
Acid Extractable Selenium (Se)	mg/kg	ND	ND	ND	ND	1.0	3234292
Acid Extractable Silver (Ag)	mg/kg	ND	ND	ND	ND	0.50	3234292
Acid Extractable Strontium (Sr)	mg/kg	120	90	160	72	5.0	3234292
Acid Extractable Thallium (Tl)	mg/kg	ND	ND	ND	ND	0.10	3234292
Acid Extractable Tin (Sn)	mg/kg	ND	2.3	ND	ND	2.0	3234292
Acid Extractable Uranium (U)	mg/kg	0.69	0.73	0.90	0.56	0.10	3234292
Acid Extractable Vanadium (V)	mg/kg	21	18	26	14	2.0	3234292
Acid Extractable Zinc (Zn)	mg/kg	29	35	85	31	5.0	3234292

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SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		RR8172	RR8172	RR8173	RR8174		
Sampling Date		2013/05/27	2013/05/27	2013/05/27	2013/05/27		
COC Number		13839	13839	13839	13839		
	Units	DANIELS HARB #1	DANIELS HARB #1 Lab-Dup	DANIELS HARB #2	DANIELS HARB #3	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	mg/kg	ND	ND	ND	ND	0.0050	3234258
2-Methylnaphthalene	mg/kg	ND	ND	ND	ND	0.0050	3234258
Acenaphthene	mg/kg	ND	ND	0.011	0.011	0.0050	3234258
Acenaphthylene	mg/kg	ND	ND	ND	ND	0.0050	3234258
Anthracene	mg/kg	0.013	0.012	0.011	0.040	0.0050	3234258
Benzo(a)anthracene	mg/kg	0.014	0.016	0.018	0.17	0.0050	3234258
Benzo(a)pyrene	mg/kg	0.0072	0.0081	0.0074	0.069	0.0050	3234258
Benzo(b)fluoranthene	mg/kg	0.010	0.012	0.012	0.085	0.0050	3234258
Benzo(g,h,i)perylene	mg/kg	ND	ND	ND	0.022	0.0050	3234258
Benzo(j)fluoranthene	mg/kg	ND	ND	ND	0.042	0.0050	3234258
Benzo(k)fluoranthene	mg/kg	ND	0.0068	ND	0.050	0.0050	3234258
Chrysene	mg/kg	0.013	0.012	0.012	0.12	0.0050	3234258
Dibenz(a,h)anthracene	mg/kg	ND	ND	ND	ND	0.0050	3234258
Fluoranthene	mg/kg	0.059	0.065	0.097	0.57	0.0050	3234258
Fluorene	mg/kg	0.0098	0.011	0.014	0.023	0.0050	3234258
Indeno(1,2,3-cd)pyrene	mg/kg	ND	ND	ND	0.021	0.0050	3234258
Naphthalene	mg/kg	0.010	ND	0.011	0.016	0.0050	3234258
Perylene	mg/kg	ND	ND	ND	0.023	0.0050	3234258
Phenanthrene	mg/kg	0.020	0.026	0.032	0.12	0.0050	3234258
Pyrene	mg/kg	0.040	0.045	0.054	0.35	0.0050	3234258
Surrogate Recovery (%)							
D10-Anthracene	%	80	81	83	85		3234258
D14-Terphenyl	%	96	101	99	99		3234258
D8-Acenaphthylene	%	77	82	83	82		3234258

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SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		RR8175		
Sampling Date		2013/05/27		
COC Number		13839		
	Units	DANIELS HARB #4	RDL	QC Batch

Polyaromatic Hydrocarbons				
1-Methylnaphthalene	mg/kg	ND	0.0050	3234258
2-Methylnaphthalene	mg/kg	ND	0.0050	3234258
Acenaphthene	mg/kg	0.0067	0.0050	3234258
Acenaphthylene	mg/kg	ND	0.0050	3234258
Anthracene	mg/kg	0.0063	0.0050	3234258
Benzo(a)anthracene	mg/kg	0.022	0.0050	3234258
Benzo(a)pyrene	mg/kg	0.010	0.0050	3234258
Benzo(b)fluoranthene	mg/kg	0.017	0.0050	3234258
Benzo(g,h,i)perylene	mg/kg	ND	0.0050	3234258
Benzo(j)fluoranthene	mg/kg	0.0079	0.0050	3234258
Benzo(k)fluoranthene	mg/kg	0.0082	0.0050	3234258
Chrysene	mg/kg	0.018	0.0050	3234258
Dibenz(a,h)anthracene	mg/kg	ND	0.0050	3234258
Fluoranthene	mg/kg	0.079	0.0050	3234258
Fluorene	mg/kg	0.0082	0.0050	3234258
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0050	3234258
Naphthalene	mg/kg	0.0072	0.0050	3234258
Perylene	mg/kg	ND	0.0050	3234258
Phenanthrene	mg/kg	0.026	0.0050	3234258
Pyrene	mg/kg	0.041	0.0050	3234258
Surrogate Recovery (%)				
D10-Anthracene	%	76		3234258
D14-Terphenyl	%	91		3234258
D8-Acenaphthylene	%	79		3234258
ND = Not detected RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: B382666
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Public Works & Government Services Canada
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POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		RR8172	RR8173	RR8174	RR8175		
Sampling Date		2013/05/27	2013/05/27	2013/05/27	2013/05/27		
COC Number		13839	13839	13839	13839		
	Units	DANIELS HARB #1	DANIELS HARB #2	DANIELS HARB #3	DANIELS HARB #4	RDL	QC Batch

PCBs							
Total PCB	ug/g	ND	ND	ND	ND	0.050	3233378
Surrogate Recovery (%)							
Decachlorobiphenyl	%	103	98	100	99		3233378

ND = Not detected
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B382666
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Public Works & Government Services Canada
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Package 1	10.7°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

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Quality Assurance Report

Maxxam Job Number: ZB382666

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3230873 MCT	RPD [RR8172-01]	Moisture	2013/05/31	5.0		%	25
3231437 MDL	Spiked Blank	Isobutylbenzene - Volatile	2013/06/03		110	%	60 - 140
		Benzene	2013/06/03		80	%	60 - 140
		Toluene	2013/06/03		78	%	60 - 140
		Ethylbenzene	2013/06/03		74	%	60 - 140
		Xylene (Total)	2013/06/03		86	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2013/06/03		104	%	60 - 140
		Benzene	2013/06/03	ND, RDL=0.025		mg/kg	
		Toluene	2013/06/03	ND, RDL=0.025		mg/kg	
		Ethylbenzene	2013/06/03	ND, RDL=0.025		mg/kg	
		Xylene (Total)	2013/06/03	ND, RDL=0.050		mg/kg	
	RPD [RR8172-01]	C6 - C10 (less BTEX)	2013/06/03	ND, RDL=2.5		mg/kg	
		Benzene	2013/06/03	NC		%	50
		Toluene	2013/06/03	NC		%	50
		Ethylbenzene	2013/06/03	NC		%	50
		Xylene (Total)	2013/06/03	NC		%	50
		C6 - C10 (less BTEX)	2013/06/03	NC		%	50
3231440 SPI	Matrix Spike [RR8172-01]	Isobutylbenzene - Extractable	2013/06/03		84	%	30 - 130
		n-Dotriacontane - Extractable	2013/06/03		80	%	30 - 130
		>C10-C16 Hydrocarbons	2013/06/03		74	%	30 - 130
		>C16-C21 Hydrocarbons	2013/06/03		91	%	30 - 130
		>C21-<C32 Hydrocarbons	2013/06/03		97	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2013/06/03		89	%	30 - 130
		n-Dotriacontane - Extractable	2013/06/03		91	%	30 - 130
		>C10-C16 Hydrocarbons	2013/06/03		78	%	30 - 130
		>C16-C21 Hydrocarbons	2013/06/03		95	%	30 - 130
		>C21-<C32 Hydrocarbons	2013/06/03		85	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2013/06/03		91	%	30 - 130
		n-Dotriacontane - Extractable	2013/06/03		90	%	30 - 130
		>C10-C16 Hydrocarbons	2013/06/03	ND, RDL=10		mg/kg	
		>C16-C21 Hydrocarbons	2013/06/03	ND, RDL=10		mg/kg	
		>C21-<C32 Hydrocarbons	2013/06/03	ND, RDL=15		mg/kg	
	RPD [RR8172-01]	>C10-C16 Hydrocarbons	2013/06/03	NC		%	50
		>C16-C21 Hydrocarbons	2013/06/03	NC		%	50
		>C21-<C32 Hydrocarbons	2013/06/03	NC		%	50
3233378 KJO	Matrix Spike	Decachlorobiphenyl	2013/06/05		97	%	30 - 130
		Total PCB	2013/06/05		121	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2013/06/05		95	%	30 - 130
		Total PCB	2013/06/05		114	%	70 - 130
	Method Blank	Decachlorobiphenyl	2013/06/05		103	%	30 - 130
		Total PCB	2013/06/05	ND, RDL=0.050		ug/g	
	RPD	Total PCB	2013/06/05	NC		%	50
3234258 LGE	Matrix Spike [RR8172-01]	D10-Anthracene	2013/06/04		83	%	30 - 130
		D14-Terphenyl	2013/06/04		99	%	30 - 130
		D8-Acenaphthylene	2013/06/04		83	%	30 - 130
		1-Methylnaphthalene	2013/06/04		83	%	30 - 130
		2-Methylnaphthalene	2013/06/04		97	%	30 - 130
		Acenaphthene	2013/06/04		90	%	30 - 130
		Acenaphthylene	2013/06/04		88	%	30 - 130
		Anthracene	2013/06/04		81	%	30 - 130
		Benzo(a)anthracene	2013/06/04		78	%	30 - 130
		Benzo(a)pyrene	2013/06/04		94	%	30 - 130
		Benzo(b)fluoranthene	2013/06/04		100	%	30 - 130

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Quality Assurance Report (Continued)

Maxxam Job Number: ZB382666

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3234258 LGE	Matrix Spike [RR8172-01]	Benzo(g,h,i)perylene	2013/06/04		98	%	30 - 130
		Benzo(j)fluoranthene	2013/06/04		97	%	30 - 130
		Benzo(k)fluoranthene	2013/06/04		95	%	30 - 130
		Chrysene	2013/06/04		81	%	30 - 130
		Dibenz(a,h)anthracene	2013/06/04		91	%	30 - 130
		Fluoranthene	2013/06/04		101	%	30 - 130
		Fluorene	2013/06/04		92	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2013/06/04		92	%	30 - 130
		Naphthalene	2013/06/04		87	%	30 - 130
		Perylene	2013/06/04		96	%	30 - 130
		Phenanthrene	2013/06/04		99	%	30 - 130
		Pyrene	2013/06/04		99	%	30 - 130
	Spiked Blank	D10-Anthracene	2013/06/04		79	%	30 - 130
		D14-Terphenyl	2013/06/04		91	%	30 - 130
		D8-Acenaphthylene	2013/06/04		79	%	30 - 130
		1-Methylnaphthalene	2013/06/04		79	%	30 - 130
		2-Methylnaphthalene	2013/06/04		101	%	30 - 130
		Acenaphthene	2013/06/04		87	%	30 - 130
		Acenaphthylene	2013/06/04		84	%	30 - 130
		Anthracene	2013/06/04		75	%	30 - 130
		Benzo(a)anthracene	2013/06/04		82	%	30 - 130
		Benzo(a)pyrene	2013/06/04		88	%	30 - 130
		Benzo(b)fluoranthene	2013/06/04		92	%	30 - 130
		Benzo(g,h,i)perylene	2013/06/04		92	%	30 - 130
		Benzo(j)fluoranthene	2013/06/04		91	%	30 - 130
		Benzo(k)fluoranthene	2013/06/04		88	%	30 - 130
		Chrysene	2013/06/04		83	%	30 - 130
		Dibenz(a,h)anthracene	2013/06/04		83	%	30 - 130
		Fluoranthene	2013/06/04		90	%	30 - 130
		Fluorene	2013/06/04		89	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2013/06/04		86	%	30 - 130
		Naphthalene	2013/06/04		92	%	30 - 130
		Perylene	2013/06/04		91	%	30 - 130
		Phenanthrene	2013/06/04		95	%	30 - 130
		Pyrene	2013/06/04		88	%	30 - 130
	Method Blank	D10-Anthracene	2013/06/04		88	%	30 - 130
		D14-Terphenyl	2013/06/04		100	%	30 - 130
		D8-Acenaphthylene	2013/06/04		86	%	30 - 130
		1-Methylnaphthalene	2013/06/04	ND, RDL=0.0050		mg/kg	
		2-Methylnaphthalene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Acenaphthene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Acenaphthylene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Anthracene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Benzo(a)anthracene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Benzo(a)pyrene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Benzo(b)fluoranthene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Benzo(g,h,i)perylene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Benzo(j)fluoranthene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Benzo(k)fluoranthene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Chrysene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Dibenz(a,h)anthracene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Fluoranthene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Fluorene	2013/06/04	ND, RDL=0.0050		mg/kg	
		Indeno(1,2,3-cd)pyrene	2013/06/04	ND, RDL=0.0050		mg/kg	

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits	
3234258 LGE	Method Blank	Naphthalene	2013/06/04	ND, RDL=0.0050		mg/kg		
		Perylene	2013/06/04	ND, RDL=0.0050		mg/kg		
		Phenanthrene	2013/06/04	ND, RDL=0.0050		mg/kg		
		Pyrene	2013/06/04	ND, RDL=0.0050		mg/kg		
	RPD [RR8172-01]	1-Methylnaphthalene	2013/06/04	NC		%	50	
		2-Methylnaphthalene	2013/06/04	NC		%	50	
		Acenaphthene	2013/06/04	NC		%	50	
		Acenaphthylene	2013/06/04	NC		%	50	
		Anthracene	2013/06/04	NC		%	50	
		Benzo(a)anthracene	2013/06/04	NC		%	50	
		Benzo(a)pyrene	2013/06/04	NC		%	50	
		Benzo(b)fluoranthene	2013/06/04	NC		%	50	
		Benzo(g,h,i)perylene	2013/06/04	NC		%	50	
		Benzo(j)fluoranthene	2013/06/04	NC		%	50	
		Benzo(k)fluoranthene	2013/06/04	NC		%	50	
		Chrysene	2013/06/04	NC		%	50	
		Dibenz(a,h)anthracene	2013/06/04	NC		%	50	
		Fluoranthene	2013/06/04	9.6		%	50	
		Fluorene	2013/06/04	NC		%	50	
		Indeno(1,2,3-cd)pyrene	2013/06/04	NC		%	50	
		Naphthalene	2013/06/04	NC		%	50	
Perylene	2013/06/04	NC		%	50			
Phenanthrene	2013/06/04	NC		%	50			
Pyrene	2013/06/04	12.0		%	50			
3234292 DLB	Matrix Spike	Acid Extractable Antimony (Sb)	2013/06/05		107	%	75 - 125	
		Acid Extractable Arsenic (As)	2013/06/05		103	%	75 - 125	
		Acid Extractable Barium (Ba)	2013/06/05		101	%	75 - 125	
		Acid Extractable Beryllium (Be)	2013/06/05		98	%	75 - 125	
		Acid Extractable Boron (B)	2013/06/05		100	%	75 - 125	
		Acid Extractable Cadmium (Cd)	2013/06/05		97	%	75 - 125	
		Acid Extractable Chromium (Cr)	2013/06/05		99	%	75 - 125	
		Acid Extractable Cobalt (Co)	2013/06/05		100	%	75 - 125	
		Acid Extractable Copper (Cu)	2013/06/05		99	%	75 - 125	
		Acid Extractable Lead (Pb)	2013/06/05		100	%	75 - 125	
		Acid Extractable Manganese (Mn)	2013/06/05		103	%	75 - 125	
		Acid Extractable Mercury (Hg)	2013/06/05		101	%	75 - 125	
		Acid Extractable Molybdenum (Mo)	2013/06/05		105	%	75 - 125	
		Acid Extractable Nickel (Ni)	2013/06/05		101	%	75 - 125	
		Acid Extractable Selenium (Se)	2013/06/05		102	%	75 - 125	
		Acid Extractable Silver (Ag)	2013/06/05		106	%	75 - 125	
		Acid Extractable Strontium (Sr)	2013/06/05		103	%	75 - 125	
		Acid Extractable Thallium (Tl)	2013/06/05		105	%	75 - 125	
		Acid Extractable Tin (Sn)	2013/06/05		110	%	75 - 125	
		Acid Extractable Uranium (U)	2013/06/05		103	%	75 - 125	
		Acid Extractable Vanadium (V)	2013/06/05		101	%	75 - 125	
		Acid Extractable Zinc (Zn)	2013/06/05		103	%	75 - 125	
		Spiked Blank	Acid Extractable Antimony (Sb)	2013/06/05		115	%	75 - 125
			Acid Extractable Arsenic (As)	2013/06/05		104	%	75 - 125
			Acid Extractable Barium (Ba)	2013/06/05		100	%	75 - 125
			Acid Extractable Beryllium (Be)	2013/06/05		97	%	75 - 125
			Acid Extractable Boron (B)	2013/06/05		99	%	75 - 125
	Acid Extractable Cadmium (Cd)		2013/06/05		98	%	75 - 125	
		Acid Extractable Chromium (Cr)	2013/06/05		100	%	75 - 125	
		Acid Extractable Cobalt (Co)	2013/06/05		100	%	75 - 125	
		Acid Extractable Copper (Cu)	2013/06/05		101	%	75 - 125	

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3234292	DLB	Spiked Blank					
		Acid Extractable Lead (Pb)	2013/06/05		100	%	75 - 125
		Acid Extractable Manganese (Mn)	2013/06/05		102	%	75 - 125
		Acid Extractable Mercury (Hg)	2013/06/05		103	%	75 - 125
		Acid Extractable Molybdenum (Mo)	2013/06/05		108	%	75 - 125
		Acid Extractable Nickel (Ni)	2013/06/05		100	%	75 - 125
		Acid Extractable Selenium (Se)	2013/06/05		106	%	75 - 125
		Acid Extractable Silver (Ag)	2013/06/05		106	%	75 - 125
		Acid Extractable Strontium (Sr)	2013/06/05		100	%	75 - 125
		Acid Extractable Thallium (Tl)	2013/06/05		106	%	75 - 125
		Acid Extractable Tin (Sn)	2013/06/05		111	%	75 - 125
		Acid Extractable Uranium (U)	2013/06/05		104	%	75 - 125
		Acid Extractable Vanadium (V)	2013/06/05		101	%	75 - 125
		Acid Extractable Zinc (Zn)	2013/06/05		102	%	75 - 125
	Method Blank	Acid Extractable Aluminum (Al)	2013/06/05	ND, RDL=10		mg/kg	
		Acid Extractable Antimony (Sb)	2013/06/05	ND, RDL=2.0		mg/kg	
		Acid Extractable Arsenic (As)	2013/06/05	ND, RDL=2.0		mg/kg	
		Acid Extractable Barium (Ba)	2013/06/05	ND, RDL=5.0		mg/kg	
		Acid Extractable Beryllium (Be)	2013/06/05	ND, RDL=2.0		mg/kg	
		Acid Extractable Boron (B)	2013/06/05	ND, RDL=50		mg/kg	
		Acid Extractable Cadmium (Cd)	2013/06/05	ND, RDL=0.30		mg/kg	
		Acid Extractable Chromium (Cr)	2013/06/05	ND, RDL=2.0		mg/kg	
		Acid Extractable Cobalt (Co)	2013/06/05	ND, RDL=1.0		mg/kg	
		Acid Extractable Copper (Cu)	2013/06/05	ND, RDL=2.0		mg/kg	
		Acid Extractable Iron (Fe)	2013/06/05	ND, RDL=50		mg/kg	
		Acid Extractable Lead (Pb)	2013/06/05	ND, RDL=0.50		mg/kg	
		Acid Extractable Manganese (Mn)	2013/06/05	ND, RDL=2.0		mg/kg	
		Acid Extractable Mercury (Hg)	2013/06/05	ND, RDL=0.10		mg/kg	
		Acid Extractable Molybdenum (Mo)	2013/06/05	ND, RDL=2.0		mg/kg	
		Acid Extractable Nickel (Ni)	2013/06/05	ND, RDL=2.0		mg/kg	
		Acid Extractable Selenium (Se)	2013/06/05	ND, RDL=1.0		mg/kg	
		Acid Extractable Silver (Ag)	2013/06/05	ND, RDL=0.50		mg/kg	
		Acid Extractable Strontium (Sr)	2013/06/05	ND, RDL=5.0		mg/kg	
		Acid Extractable Thallium (Tl)	2013/06/05	ND, RDL=0.10		mg/kg	
		Acid Extractable Tin (Sn)	2013/06/05	ND, RDL=2.0		mg/kg	
		Acid Extractable Uranium (U)	2013/06/05	ND, RDL=0.10		mg/kg	
		Acid Extractable Vanadium (V)	2013/06/05	ND, RDL=2.0		mg/kg	
		Acid Extractable Zinc (Zn)	2013/06/05	ND, RDL=5.0		mg/kg	
	RPD	Acid Extractable Aluminum (Al)	2013/06/05	NC		%	35
		Acid Extractable Antimony (Sb)	2013/06/05	NC		%	35
		Acid Extractable Arsenic (As)	2013/06/05	NC		%	35
		Acid Extractable Barium (Ba)	2013/06/05	NC		%	35
		Acid Extractable Beryllium (Be)	2013/06/05	NC		%	35
		Acid Extractable Boron (B)	2013/06/05	NC		%	35
		Acid Extractable Cadmium (Cd)	2013/06/05	NC		%	35
		Acid Extractable Chromium (Cr)	2013/06/05	NC		%	35
		Acid Extractable Cobalt (Co)	2013/06/05	NC		%	35
		Acid Extractable Copper (Cu)	2013/06/05	NC		%	35
		Acid Extractable Iron (Fe)	2013/06/05	NC		%	35
		Acid Extractable Lead (Pb)	2013/06/05	NC		%	35
		Acid Extractable Manganese (Mn)	2013/06/05	NC		%	35
		Acid Extractable Mercury (Hg)	2013/06/05	NC		%	35
		Acid Extractable Molybdenum (Mo)	2013/06/05	NC		%	35
		Acid Extractable Nickel (Ni)	2013/06/05	NC		%	35
		Acid Extractable Selenium (Se)	2013/06/05	NC		%	35
		Acid Extractable Silver (Ag)	2013/06/05	NC		%	35

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3234292 DLB	RPD	Acid Extractable Strontium (Sr)	2013/06/05	NC		%	35
		Acid Extractable Thallium (Tl)	2013/06/05	NC		%	35
		Acid Extractable Tin (Sn)	2013/06/05	NC		%	35
		Acid Extractable Uranium (U)	2013/06/05	NC		%	35
		Acid Extractable Vanadium (V)	2013/06/05	NC		%	35
		Acid Extractable Zinc (Zn)	2013/06/05	NC		%	35
3234934 CDS	Matrix Spike						
	[RR8172-01]	Total Oil & Grease	2013/06/07		43 (1)	%	30 - 130
	Spiked Blank	Total Oil & Grease	2013/06/07		90	%	30 - 130
	Method Blank	Total Oil & Grease	2013/06/07	ND, RDL=100		mg/kg	
	RPD [RR8172-01]	Total Oil & Grease	2013/06/07	NC		%	50
3236533 SCR	RPD	Soluble (5:1) pH	2013/06/05	0.5		%	N/A

N/A = Not Applicable

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

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

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

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

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

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Matrix Spike: results are outside acceptance limit. Analysis was repeated with similar results.