

3 April 2013
Project No. 42213719

Darwin Waterfront Corporation
Ground Floor
Level 5, 7 Kitchener Dr
Darwin NT 0800

Attention: John Kassaras

Dear John

Subject: Classification of Stockpiled Excavated Material for Potential On-Site Reuse or Off-Site Disposal – Stage 2A – Earthworks 7 January 2013 to 15 January 2013

Introduction

URS Australia Pty Ltd (URS) has been requested by Darwin Waterfront Corporation (DWC) to provide a letter report on the status of material excavated during the construction works at Darwin Waterfront Stage 2A (the Site).

URS undertook sampling of the stockpile of spoil from the Stage 2A basement excavation at the Darwin Waterfront Precinct on 15 January 2013. As part of the environmental assessment works undertaken by URS, this material was sampled with the purpose of classification for potential on-site reuse, as per site specific acceptance criteria, or off-site disposal as per Northern Territory Waste Classification Guidelines.

Methodology

It is estimated that approximately 8,000 m³ of spoil material had been excavated from the Stage 2A Site and stockpiled in the stockpile management area. A total of 74 primary samples (1 sample per 108 m³ of bulked out spoil), four field duplicate and two field triplicate samples were taken from the excavated spoil material. All collected samples were analysed, giving an analysis rate exceeding the 1 sample per 200 m³ of bulked out spoil recommended by Victorian EPA Industrial Waste Resource Guidelines, IWRG 702 (sampling density for stockpiles >5000 m³ when using 95% UCL average).

All samples were collected with the assistance of a 5 T excavator to cut representative cross sections through the stockpile profile. Samples were collected by hand from the excavated spoil, using dedicated nitrile gloves for each sample, and placed into laboratory supplied jars for transport to the laboratory. Standard environmental protocols were followed with respect to sample collection, and laboratory analyses included quality assurance/quality control samples to enable URS' assessment of the suitability of the data for interpretive use.

Soil analytical results have been compared against the following guidelines for assessment of material for off-site disposal, as summarised in **Attachment A**:

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- The “NT Waste Classification Guidelines” adopted from NSW DECCW Waste Classification Guidelines (2008); and
- The site specific acceptance criteria (URS RAP V6 9th August 2005) based on National Environment Protection (Assessment of Site Contamination) Measure – Health Based Investigation Levels (NEPM, 1999) – HILs E and F and Ecological Intervention Levels (EILs); and Dutch Intervention Criteria (2000).

Data Validation

URS has undertaken a review of the laboratory analytical results and considers the data acceptable for interpretive use as described in **Attachment D**. The following points have been raised and considered when making this assertion.

- No Field Blank, Trip Blank or Method Blank were analysed; hence potential cross-contamination has not been assessed directly. As no samples, including the Rinsate Blank, were reported to contain BTEXN or volatile TPH and all samples were taken from the excavator's bucket, fresh gloves and placed directly into the sample container, the potential for cross-contamination is minimal; therefore, this is not considered to affect the interpretation of the results.
- Laboratory duplicate RPDs exceeded LOR based limits for Chromium, Lead and Vanadium. This apparent lack of precision is likely due to heterogeneity of the distribution of Chromium, Lead and Vanadium in soils at the site, and should be taken into consideration when evaluating individual results close to the investigation levels.
- Matrix spike recoveries were reported less than the lower data quality objective for Chromium. The accuracy of the analytical data is considered acceptable based on other quality control data including method blanks, laboratory control spikes, surrogates and matrix spikes for analytes analysed under the same analytical method.
- The Laboratory Control Spike (LCS) recoveries for Heptachlor Epoxide, trans-Chlordane, alpha-Endosulphan and 4,4-DDE were reported greater than the upper control limits by <3.5%; hence, there is the potential for the results to be biased high. Further, the LCS recoveries for 2-methylphenol was reported less than the lower control limits by 1%; hence, there is the potential for the results to be biased low. Due to the presence of other quality control data, including method blanks, matrix spikes and surrogate recoveries, and as these analytes were not reported above the laboratory LOR, the accuracy of the analytical data for these analytes is considered acceptable.

Laboratory Results

The laboratory results are summarised and assessed against the relevant off-site disposal criteria in **Attachment A**. Laboratory analytical reports and chain of custody (COC) documentation are provided as **Attachment B**.

On-Site Reuse – Site Specific Acceptance Criteria (URS RAP V6 – 9 August 2005)**Table 1 On-Site Reuse Criteria – Site Specific Acceptance Criteria**

Analyte	^a Class 1 Criteria	^a Class 2A Criteria	# of Samples	# >LOR	# > Guideline	95% UCL
Arsenic	20	200	80	47	1	8.3
Barium	300	-	80	79	6	226.7
Cadmium	3	40	80	79	1	2.25
Chromium	-	-	80	80	NA	61.6
Cobalt	-	200	80	62	NA	2.3
Copper	100	2,000	80	61	1	17.5
Lead	600	600	80	67	2	29.3
Manganese	500	3,000	80	80	0	121.5
Mercury	1		79	6	0	0.1
Nickel	60	600	80	75	0	5.4
TPH C ₁₆ -C ₃₄	-	14,000	79	2	NA	NA
TPH C ₃₄ -C ₄₀	-	-	79	1	NA	NA
Vanadium	50	100	80	80	62	121.6
Zinc	200		80	77	1	53.9

^a URS RAP V6 9th August 2005

No individual sample results, or 95% UCL of the mean, exceeded the site specific Class 1 guidelines for the following analytes:

- Chromium;
- Cobalt;
- Manganese;
- Mercury; and
- Nickel.

Individual sample results exceeded the site specific Class 1 guidelines for the following analytes. The 95% UCL of the mean for the same analytes did not exceed the site specific Class 1 guidelines:

- Arsenic;
- Barium;
- Cadmium;
- Copper;
- Lead; and
- Zinc.

Two individual sample results were well above the site specific Class 1 guidelines for barium (1,750 and 2,560 mg/kg). The exceedance in this instance is considered indicative of background

concentrations based on no historical handling of barium at the site. Both individual samples results and the 95% UCL of the mean are within the range that is considered background based on the "National Environment Protection (Assessment of Site Contamination) Measure [NEPM], Schedule B(1), "Investigation Levels for Soil and Groundwater" document (background range 100 to 3000 mg/kg). As the 95% UCL is within the adopted criterion (300 mg/kg), the reporting of two isolated results greater than 250% of this level is not considered of concern. Further, the two isolated results are well below the US EPA Regional Screening Levels (May 2010), which is 15,000 mg/kg for sensitive sites and 190,000 mg/kg for industrial sites for barium. On this basis, no unacceptable risks to human health were identified for barium.

Sixty two (of 80) individual sample results and the 95% UCL of the mean exceeded the site specific Class 1 guidelines for vanadium as reported in **Table 1**. The exceedance in this instance is considered indicative of background concentrations based on no historical handling of vanadium at the site, exceedance of the guideline was noted at 62 out of 80 samples analysed for vanadium and both individual samples results and the 95% UCL of the mean are within the range that is considered background based on the "National Environment Protection (Assessment of Site Contamination) Measure [NEPM], Schedule B(1), "Investigation Levels for Soil and Groundwater" document (background range 20 to 500 mg/kg).

There was no applicable site specific Class 1 guideline value for these analytes:

- Chromium;
- Cobalt; and
- TPH.

Off-Site Disposal Criteria – NT Waste Classification Guidelines

Table 2 Off-Site Disposal Criteria – NT Waste Classification Guideline

Analyte	NT Waste Classification Guideline (No Leach)	NT Waste Classification Guideline (with Leach)	# of Samples	# >LOR	# > Guideline	95% UCL
Arsenic	100	500	80	47	0	8.3
Barium	-	-	80	79	NA	226.7
Cadmium	20	100	80	79	0	2.25
Chromium	-	-	80	80	NA	61.6
Cobalt	-	-	80	62	NA	2.3
Copper	-	-	80	61	NA	17.5
Lead	100	1,500	80	67	2	29.3
Manganese	-	-	80	80	NA	121.5
Mercury	-	-	79	6	0	0.1
Nickel	40	1,050	80	75	0	5.4
TPH C ₁₆ -C ₃₄	-	-	79	2	NA	NA
TPH C ₃₄ -C ₄₀	-	-	79	1	NA	NA

Vanadium	-	-	80	80	NA	121.6
Zinc	-	-	80	77	NA	53.9

No individual sample results, or 95% UCL of the mean, exceeded the NT Waste Classification guidelines for the following analytes:

- Arsenic;
- Cadmium;
- Mercury; and
- Nickel.

Two individual sample results for lead (110 and 336 mg/kg) exceeded the NT Waste Classification guidelines for lead. The 95% UCL of the mean for the same analytes did not exceed the NT Waste Classification guidelines.

There was no applicable NT Waste Classification guideline value for these analytes:

- Barium;
- Chromium;
- Cobalt;
- Copper;
- Manganese;
- TPH;
- Vanadium; and
- Zinc.

Conclusion and Recommendation

The stockpiled material resultant from the Stage 2A basement excavation has been characterised based on the results of the field observations, sampling and analysis conducted by URS as presented in the attached tables.

On the basis of the analytical results for samples collected from the material excavated between 7 January 2013 and 15 January 2013 at a rate of at least 1:250 m³, the stockpiled material is classified as General Solid Waste with reference to the NT Waste Classification guidelines

On the basis of the analytical results for samples collected from the material excavated between 7 January 2013 and 15 January 2013 at a rate of at least 1:250 m³, the stockpiled material is classified as Class 1 with reference to the site specific acceptance criteria detailed in the RAP (URS, 9 August 2005) on the basis of elevated vanadium concentrations representing background conditions.

Classification and volume of assessed material

Estimated Volume and Tonnage	8,000 m ³	12,800 T
Classification On-Site Reuse	Class 1	
Classification Off-Site Disposal	General solid waste	

URS notes that this letter and the attached information is intended to support the process of on-site reuse or off-site disposal of the described soils to a suitable end-point. URS does not provide any recommendation or endorsement with respect to disposal of this material to any site; responsibility for accepting material to a third party site shall be the onus of the owner of that site.

Limitations

URS Australia Pty Ltd (URS) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of Darwin Waterfront Corporation (DWC). A complete or partial copy of the report may only be provided by DWC to the EPA (Victoria) accredited Environmental Auditor (Contaminated Land) appointed by DWC to the project and to developers and contractors (Interested Parties) working on the Darwin Waterfront Redevelopment Project if the entire limitations statement of this report is included in the complete or partial copy of this report. Whilst URS does not admit that any action may exist or be available to any Interested Party, this report may only be relied on by an Interested Party with the written consent of DWC and on the basis that subject to any law the terms of which cannot be excluded or modified by agreement:

- (i) The maximum amount payable (if any) by URS to Interested Parties or any party claiming through an Interested Party in aggregate, whether in contract, tort or otherwise, in relation to claims, damages, liabilities, losses or expenses, under or in any way related to this report and/or its appendices or the services performed by URS to prepare the Report, shall be A\$2,000,000; and
- (ii) If there is more than one Interested Party, the maximum amount payable to any and all Interested Parties in total shall be A\$2,000,000.

Except as specifically stated in this limitations statement, this report may not be used by any third party.

This report is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this report. It is prepared in accordance with the scope of work and for the purpose outlined in the proposal dated 24 August 2006 and subsequent requests for this specific task in an email dated 17 December 2012.

The methodology adopted and sources of information used by URS are outlined in this report. Where this report indicates that information has been provided to URS by third parties, URS has made no independent verification of this information except as expressly stated in this report. No indications were found during our investigations that information contained in this report as provided to URS was false.

This report was prepared between 7 February 2013 and 3 April 2013 and is based on the conditions encountered and information reviewed at the time of preparation. URS disclaims responsibility for any changes that may have occurred after this time.

We trust that the information detailed within this letter informs your requirements. Should you require further assistance please contact the undersigned.

John Kassaras

3 April 2013
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Yours sincerely
URS Australia Pty Ltd

Bek Agaard
Environmental Scientist

Tim Smith
Senior Environmental Geologist

Attachments

- Attachment A Summary of Analytical Results
- Attachment B Laboratory reports and Chain of Custody Forms
- Attachment C Data Validation and Statistical Analysis
- Attachment D Statistical Analysis

Attachment A

Table ??
Analytical Results -
Waterfront Stage 2A - Waterfront Stage 2A
Darwin Waterfront Corporation

[illegible]

Table ??
Analytical Results -
Waterfront Stage 2A - Waterfront Stage 2A
Darwin Waterfront Corporation

[illegible]

Location	SP02A 06	SP02A 07	SP02A 08	SP02A 09	SP02A 10	SP02A 11	SP02A 12	SP02A 13	SP02A 14	SP02A 15	SP02A 16	SP02A 17
Sample ID	SP02A 06 15012013	SP02A 07 15012013	SP02A 08 15012013	SP02A 09 15012013	SP02A 10 15012013	SP02A 11 15012013	SP02A 12 15012013	SP02A 13 15012013	SP02A 14 15012013	SP02A 15 15012013	SP02A 16 15012013	SP02A 17 15012013
Sampled Date Time	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013
Sample Type	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Lab Batch	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006

ChemName	output unit	EQL	Class 1	Clas 2A	Class 2B												
C10-C14 fraction	mg/kg	50				<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C15-C28 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C29-C36 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C10-C36 fraction (sum)	mg/kg	50				<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C6-C9 fraction	mg/kg	10				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
>C10-C16 fraction	mg/kg	50				<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
>C16-C34 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C34-C40 fraction	mg/kg	100				<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C10-C40 fraction (sum)	mg/kg	50				<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C6-C10 fraction (F1 minus BTEX)	mg/kg	10				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
C6-C10 fraction	mg/kg	10				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzene	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m&p-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total BTEX	mg/kg	0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Naphthalene (VOC)	mg/kg	1				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	mg/kg	0.5	2		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-cd)pyrene	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of PAHs	mg/kg	0.5	40		100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenol	mg/kg	0.5	17000		42500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol (o-Cresol)	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3-&4-Methylphenol (m&p-Cresol)	mg/kg	1				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitrophenol	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	mg/kg	0.5				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	mg/kg	2				<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Chromium (hexavalent)	mg/kg	0.5	1		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Mercury	mg/kg	0.1	1		30	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	mg/kg	5	20		200	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Barium	mg/kg	10	300		60	60	60	50	40	30	30	120	40	30	70	60	20
Beryllium	mg/kg	1			40	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium	mg/kg	1	3		40	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium	mg/kg	2			23	31	31	33	57	30	22	41	32	39	60	17	22
Cobalt	mg/kg	2			200	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Copper	mg/kg	5	100		2000	9	34	10	12	14	<5	6	<5	8	<5	5	<5
Lead	mg/kg	5	600		600	<5	8	9	5	<5	<5	<5	<5	6	<5	<5	<5
Manganese	mg/kg	5	500		3000	69	234	91	232	54	68	61	60	87	79	84	84
Nickel	mg/kg	2	60		600	4	6	5	5	6	3	4	2	4	3	6	4
Zinc	mg/kg	5	200		14000	14	42	24	21	38	10	14	8	20	10	11	11
Vanadium	mg/kg	5	50			37	45	59	71	45	42	57	66	59	112	25	41
Polychlorinated Biphenyls	mg/kg	0.1		20		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	mg/kg	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
a-BHC	mg/kg	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
b-BHC	mg/kg	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
d-BHC	mg/kg	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
g-BHC (Lindane)	mg/kg	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	mg/kg	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	mg/kg	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DDD	mg/kg	0.05				<0.05	<0.05	<0.05	<0.05	&							

Table ??
Analytical Results -
Waterfront Stage 2A - Waterfront Stage 2A
Darwin Waterfront Corporation

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Table ??
Analytical Results -
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Table ??
Analytical Results -
Waterfront Stage 2A - Waterfront Stage 2A
Darwin Waterfront Corporation

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Location	SP02A 51	SP02A 52	SP02A 53	SP02A 54	SP02A 55	SP02A 56	SP02A 57 15012013	SP02A 57
Sample ID	QC03	SP02A 52 15012013	SP02A 53 15012013	SP02A 54 15012013	SP02A 55 15012013	SP02A 56 15012013	SP02A 57 15012013	QC04
Sample Date Time	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013
Sample Type	Interlab D	Normal	Normal	Normal	Normal	Normal	Normal	Interlab D
Lab Batch	89294	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	89294
ChemName	output unit	EQL	Class 1	Clas 2A	Class 2B			
C10-C14 fraction	mg/kg	50				<50	<50	<50
C15-C28 fraction	mg/kg	100				<100	<100	<100
C29-C36 fraction	mg/kg	100				<100	<100	<100
C10-C36 fraction (sum)	mg/kg	50				<50	<50	<50
C6-C9 fraction	mg/kg	10				<25	<10	<25
>C10-C16 fraction	mg/kg	50				<50	<50	<50
>C16-C34 fraction	mg/kg	100				<100	<100	<100
>C34-C40 fraction	mg/kg	100				<100	<100	<100
>C10-C40 fraction (sum)	mg/kg	50				<50	<50	<50
C6-C10 fraction (F1 minus BTEX)	mg/kg	10				<25	<10	<25
C6-C10 fraction	mg/kg	10				<25	<10	<25
Benzene	mg/kg	0.2				<0.2	<0.2	<0.2
Toluene	mg/kg	0.5				<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	0.5				<1	<0.5	<1
m&p-Xylene	mg/kg	0.5				<2	<0.5	<2
o-Xylene	mg/kg	0.5				<1	<0.5	<1
Total Xylenes	mg/kg	0.5				<1	<0.5	<1
Total BTEX	mg/kg	0.2				<0.2	<0.2	<0.2
Naphthalene (VOC)	mg/kg	1				<1	<1	<1
Naphthalene	mg/kg	0.5				<0.1	<0.5	<0.1
Acenaphthylene	mg/kg	0.5				<0.1	<0.5	<0.1
Acenaphthene	mg/kg	0.5				<0.1	<0.5	<0.1
Anthracene	mg/kg	0.5				<0.1	<0.5	<0.1
Fluorene	mg/kg	0.5				<0.1	<0.5	<0.1
Phenanthrene	mg/kg	0.5				<0.1	<0.5	<0.1
Fluoranthene	mg/kg	0.5				<0.1	<0.5	<0.1
Benzo(a)anthracene	mg/kg	0.5				<0.1	<0.5	<0.1
Benzo(b)fluoranthene	mg/kg	0.5				<0.1	<0.5	<0.1
Benzo(k)fluoranthene	mg/kg	0.5				<0.2	<0.5	<0.2
Benzo(a)pyrene	mg/kg	0.5		2	5	0.06	<0.5	<0.05
Benzo(a)pyrene TEQ	mg/kg	0.5				<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5				<0.1	<0.5	<0.1
Pyrene	mg/kg	0.5				<0.1	<0.5	<0.1
Benzo(g,h,i)perylene	mg/kg	0.5				<0.1	<0.5	<0.1
Dibenz(a,h)anthracene	mg/kg	0.5				<0.1	<0.5	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.5				<0.1	<0.5	<0.1
Sum of PAHs	mg/kg	0.5		40	100	-	<0.5	-
Phenol	mg/kg	0.5		17000	42500	<1	<0.5	<0.5
2-Chlorophenol	mg/kg	0.5				<1	<0.5	<0.5
2-Methylphenol (o-Cresol)	mg/kg	0.5				<1	<0.5	<0.5
3,4-Methylphenol (m&p-Cresol)	mg/kg	1				<1	<1	<1
2-Nitrophenol	mg/kg	0.5				<1	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	0.5				<1	<0.5	<0.5
2,4-Dimethylphenol	mg/kg	0.5				<1	<0.5	<0.5
2,6-Dichlorophenol	mg/kg	0.5				<1	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	0.5				-	<0.5	<0.5
2,4,6-Trichlorophenol	mg/kg	0.5				<1	<0.5	<0.5
2,4,5-Trichlorophenol	mg/kg	0.5				<1	<0.5	<0.5
Pentachlorophenol	mg/kg	2				<10	<2	<2
Chromium (hexavalent)	mg/kg	0.5	1	200	500	<1	<0.5	<0.5
Mercury	mg/kg	0.1	1	30	75	-	<0.1	<0.1
Arsenic	mg/kg	5	20	200	500	6	11	8
Barium	mg/kg	10	300			72	200	70
Beryllium	mg/kg	1		40	100	<1	<1	<1
Cadmium	mg/kg	1	3	40	100	<0.5	<1	<1
Chromium	mg/kg	2				51	50	53
Cobalt	mg/kg	2		200	500	2	<2	<2
Copper	mg/kg	5	100	2000	5000	17	24	13
Lead	mg/kg	5	600	600	1500	33	43	18
Manganese	mg/kg	5	500	3000	7500	91	85	83
Nickel	mg/kg	2	60	600	3000	5	5	<2
Zinc	mg/kg	5	200	14000	35000	38	118	29
Vanadium	mg/kg	5	50			79	103	132
Polychlorinated Biphenyls	mg/kg	0.1		20	50	-	<0.1	<0.1
Aldrin	mg/kg	0.05				<0.1	<0.05	<0.05
Dieldrin	mg/kg	0.05				<0.1	<0.05	<0.05
a-BHC	mg/kg	0.05				<0.1	<0.05	<0.05
b-BHC	mg/kg	0.05				<0.1	<0.05	<0.05
d-BHC	mg/kg	0.05				<0.1	<0.05	<0.05
g-BHC (Lindane)	mg/kg	0.05				<0.1	<0.05	<0.05
cis-Chlordane	mg/kg	0.05				<0.1	<0.05	<0.05
trans-Chlordane	mg/kg	0.05				<0.1	<0.05	<0.05
DDD	mg/kg	0.05				<0.1	<0.05	<0.05
DDE	mg/kg	0.05				<0.1	<0.05	<0.05
DDT	mg/kg	0.2				<0.1	<0.2	<0.2
Endosulfan 1	mg/kg	0.05				<0.1	<0.05	<0.05
Endosulfan 2	mg/kg	0.05				<0.1	<0.05	<0.05
Endosulfan sulfate	mg/kg	0.05				<0.1	<0.05	<0.05
Endrin	mg/kg	0.05				<0.1	<0.05	<0.05
Endrin aldehyde	mg/kg	0.05				<0.1	<0.05	<0.05
Endrin ketone	mg/kg	0.05				-	<0.05	<0.05
Heptachlor	mg/kg	0.05		20	50	<0.1	<0.05	<0.05
Heptachlor epoxide	mg/kg	0.05				<0.1	<0.05	<0.05
Hexachlorobenzene (HCB)	mg/kg	0.05				<0.1	<0.05	<0.05
Methoxychlor	mg/kg	0.2				<0.1	<0.2	<0.2
Moisture Content	%	1				9.7	18.8	13
							19.9	17.6
							16	12.4
								10

Table ??
Analytical Results -
Waterfront Stage 2A - Waterfront Stage 2A
Darwin Waterfront Corporation

Location	SP01A 58	SP01A 59	SP01A 60	SP01A 60	SP01A 61	SP01A 62	SP01A 63	SP01A 64	SP01A 64	SP01A 65	SP01A 66
Sample ID	SP01A 58 15012013	SP01A 59 15012013	SP01A 60 15012013	DUP 05 15012013	SP01A 61 15012013	SP01A 62 15012013	SP01A 63 15012013	SP01A 64 15012013	DUP 06 15012013	SP01A 65 15012013	SP01A 66 15012013
Sampled Date Time	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013
Sample Type	Normal	Normal	Normal	Duplicate	Normal	Normal	Normal	Normal	Duplicate	Normal	Normal
Lab Batch	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006
NSW 2008 General Solid Waste (with leached)											
	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
10000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
650	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
18	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
518	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1080	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	<0.5	<0.5									

Table ??
Analytical Results -
Waterfront Stage 2A - Waterfront Stage 2A
Darwin Waterfront Corporation

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Table ??
Analytical Results -
Waterfront Stage 2A - Waterfront Stage 2A
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Analytical Results -
Waterfront Stage 2A - Waterfront Stage 2A
Darwin Waterfront Corporation

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Table ??
Analytical Results -
Waterfront Stage 2A - Waterfront Stage 2A
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Table ??
Analytical Results -
Waterfront Stage 2A - Waterfront Stage 2A
Darwin Waterfront Corporation

[illegible]

Table ??
Analytical Results -
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Location	SP02A 46	SP02A 47	SP02A 48	SP02A 49	SP02A 50	SP02A 51	SP02A 51	SP02A 52	SP02A 53	SP02A 54	SP02A 55
Sample ID	SP02A 46 15012013	SP02A 47 15012013	SP02A 48 15012013	SP02A 49 15012013	SP02A 50 15012013	SP02A 51 15012013	QC03	SP02A 52 15012013	SP02A 53 15012013	SP02A 54 15012013	SP02A 55 15012013
Sampled Date Time	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013	15/01/2013
Sample Type	Normal	Normal	Normal	Normal	Normal	Normal	Interlab D	Normal	Normal	Normal	Normal
Lab Batch	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	ES1301006	89294	ES1301006	ES1301006	ES1301006	ES1301006

ChemName	output unit	EQL	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)										
C10-C14 fraction	mg/kg	50			<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C15-C28 fraction	mg/kg	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C29-C36 fraction	mg/kg	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C10-C36 fraction (sum)	mg/kg	50	10000		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C6-C9 fraction	mg/kg	10	650		<10	<10	<10	<10	<10	<25	<10	<10	<10	<10
>C10-C16 fraction	mg/kg	50			<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
>C16-C34 fraction	mg/kg	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C34-C40 fraction	mg/kg	100			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>C10-C40 fraction (sum)	mg/kg	50			<50	<50	<50	<50	<50	-	<50	<50	<50	<50
C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<10	<10	<10	<25	<10	<10	<10	<10
C6-C10 fraction	mg/kg	10			<10	<10	<10	<10	<10	<25	<10	<10	<10	<10
Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5
o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2
Naphthalene (VOC)	mg/kg	1			<1	<1	<1	<1	<1	-	<1	<1	<1	<1
Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5
Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5
Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5
Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5
Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5
Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.1	<0.5	<0.5	<0.5
Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.1	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5
Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5	<0.5	<0.5	0.06	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5
Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.1	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5
Sum of PAHs	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	1.7	<0.5	-	<0.5	<0.5	<0.5
Phenol	mg/kg	0.5	518		<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
3,4-Methylphenol (m&p-Cresol)	mg/kg	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Nitrophenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	0.5			<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	mg/kg	0.5	40	72	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	mg/kg	2			<2	<2	<2	<2	<2	<10	<2	<2	<2	<2
Chromium (hexavalent)	mg/kg	0.5	100	1900	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5
Mercury	mg/kg	0.1	4	50	0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1
Arsenic	mg/kg	5	100	500	5	9	11	9	13	6	6	11	8	11
Barium	mg/kg	10			70	70	90	60	120	70	72	200	70	40
Beryllium	mg/kg	1	20	100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium	mg/kg	1	20	100	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1
Chromium	mg/kg	2			41	73	70	62	106	59	51	50	53	71
Cobalt	mg/kg	2			<2	<2	<2	<2	<2	2	<2	<2	<2	<2
Copper	mg/kg	5			7	7	8	6	20	7	12	17	24	13
Lead	mg/kg	5	100	1500	9	13	21	12	40	19	33	43	18	5
Manganese	mg/kg	5			47	67	76	72	69	59	91	85	83	52
Nickel	mg/kg	2	40	1050	3	4	4	4	5	4	5	5	5	<2
Zinc	mg/kg	5			27	17	20	21	84	33	38	118	29	10
Vanadium	mg/kg	5			126	152	160	200	241	112	79	103	132	157
Polychlorinated Biphenyls	mg/kg	0.1	50		<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
Dieldrin	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
a-BHC	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
b-BHC	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
d-BHC	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
g-BHC (Lindane)	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
DDD	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
DDE	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
DDT	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2
Endosulfan 1	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
Endosulfan 2	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
Endrin	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
Endrin ketone	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05
Heptachlor	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	mg/kg	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05
Methoxychlor	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2
Moisture Content														

Location	SP02A 56	SP02A 57 15012013	SP02A 57
Sample ID	SP02A 56 15012013	SP02A 57 15012013	SP02A 57 15012013
Sample Date Time	15/01/2013	15/01/2013	15/01/2013
Sample Type	Normal	Normal	Normal
Lab Batch	ES1301006	ES1301006	ES1301006

ChemName	output unit	EQL	NSW 2008 General Solid Waste (No Leaching)	NSW 2008 General Solid Waste (with leached)			
C10-C14 fraction	mg/kg	50			<50	<50	<50
C15-C28 fraction	mg/kg	100			<100	<100	<100
C29-C36 fraction	mg/kg	100			<100	130	130
C10-C36 fraction (sum)	mg/kg	50		10000	<50	130	130
C6-C9 fraction	mg/kg	10		650	<10	<10	<10
>C10-C16 fraction	mg/kg	50			<50	<50	<50
>C16-C34 fraction	mg/kg	100			100	150	150
>C34-C40 fraction	mg/kg	100			<100	100	100
>C10-C40 fraction (sum)	mg/kg	50			100	250	250
C6-C10 fraction (F1 minus BTEX)	mg/kg	10			<10	<10	<10
C6-C10 fraction	mg/kg	10			<10	<10	<10
Benzene	mg/kg	0.2	10	18	<0.2	<0.2	<0.2
Toluene	mg/kg	0.5	288	518	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	0.5	600	1080	<0.5	<0.5	<0.5
m&p-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5
o-Xylene	mg/kg	0.5			<0.5	<0.5	<0.5
Total Xylenes	mg/kg	0.5	1000	1800	<0.5	<0.5	<0.5
Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2
Naphthalene (VOC)	mg/kg	1			<1	<1	<1
Naphthalene	mg/kg	0.5			<0.5	<0.5	<0.5
Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5
Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5
Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5
Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5
Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5
Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5
Benz(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5
Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5
Benzo(a)pyrene	mg/kg	0.5	0.8	10	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ	mg/kg	0.5			<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5
Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5
Indeno(1,2,3-cd)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5
Sum of PAHs	mg/kg	0.5			<0.5	<0.5	<0.5
Phenol	mg/kg	0.5		518	<0.5	<0.5	<0.5
2-Chlorophenol	mg/kg	0.5			<0.5	<0.5	<0.5
2-Methylphenol (o-Cresol)	mg/kg	0.5	4000	7200	<0.5	<0.5	<0.5
3-&4 Methylphenol (m&p-Cresol)	mg/kg	1			<1	<1	<1
2-Nitrophenol	mg/kg	0.5			<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	0.5			<0.5	<0.5	<0.5
2,4-Dimethylphenol	mg/kg	0.5			<0.5	<0.5	<0.5
2,6-Dichlorophenol	mg/kg	0.5			<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	mg/kg	0.5			<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	mg/kg	0.5	40	72	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	mg/kg	0.5	8000	14400	<0.5	<0.5	<0.5
Pentachlorophenol	mg/kg	2			<2	<2	<2
Chromium (hexavalent)	mg/kg	0.5	100	1900	<0.5	<0.5	<0.5
Mercury	mg/kg	0.1	4	50	<0.1	<0.1	<0.1
Arsenic	mg/kg	5	100	500	7	9	9
Barium	mg/kg	10			110	100	100
Beryllium	mg/kg	1	20	100	<1	<1	<1
Cadmium	mg/kg	1	20	100	<1	<1	<1
Chromium	mg/kg	2			81	97	97
Cobalt	mg/kg	2			2	<2	<2
Copper	mg/kg	5			16	10	10
Lead	mg/kg	5	100	1500	18	17	17
Manganese	mg/kg	5			90	106	106
Nickel	mg/kg	2	40	1050	5	5	5
Zinc	mg/kg	5			37	29	29
Vanadium	mg/kg	5			150	165	165
Polychlorinated Biphenyls	mg/kg	0.1		50	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.05			<0.05	<0.05	<0.05
Dieldrin	mg/kg	0.05			<0.05	<0.05	<0.05
a-BHC	mg/kg	0.05			<0.05	<0.05	<0.05
b-BHC	mg/kg	0.05			<0.05	<0.05	<0.05
d-BHC	mg/kg	0.05			<0.05	<0.05	<0.05
g-BHC (Lindane)	mg/kg	0.05			<0.05	<0.05	<0.05
cis-Chlordane	mg/kg	0.05			<0.05	<0.05	<0.05
trans-Chlordane	mg/kg	0.05			<0.05	<0.05	<0.05
DDD	mg/kg	0.05			<0.05	<0.05	<0.05
DDE	mg/kg	0.05			<0.05	<0.05	<0.05
DDT	mg/kg	0.2			<0.2	<0.2	<0.2
Endosulfan 1	mg/kg	0.05			<0.05	<0.05	<0.05
Endosulfan 2	mg/kg	0.05			<0.05	<0.05	<0.05
Endosulfan sulfate	mg/kg	0.05			<0.05	<0.05	<0.05
Endrin	mg/kg	0.05			<0.05	<0.05	<0.05
Endrin aldehyde	mg/kg	0.05			<0.05	<0.05	<0.05
Endrin ketone	mg/kg	0.05			<0.05	<0.05	<0.05
Heptachlor	mg/kg	0.05			<0.05	<0.05	<0.05
Heptachlor epoxide	mg/kg	0.05			<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	mg/kg	0.05			<0.05	<0.05	<0.05
Methoxychlor	mg/kg	0.2			<0.2	<0.2	<0.2
Moisture Content	%	1			16	12.4	12.4

Attachment B

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order : **ES1301006**

Client	: URS AUSTRALIA PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: BEK AAGAARD	Contact	: Client Services
Address	: G P O BOX 2005 DARWIN NT, AUSTRALIA 0801	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: bek.aagaard@urs.com	E-mail	: sydney@alsglobal.com
Telephone	: +61 08 89802900	Telephone	: +61-2-8784 8555
Facsimile	: +61 08 89413920	Facsimile	: +61-2-8784 8500
Project	: 42213719 70061 WATERFRONT STAGE 2A	Page	: 1 of 4
Order number	: ----		
C-O-C number	: ----	Quote number	: ES2012URSNT0270 (EN/001/12)
Site	: ----		
Sampler	: BA	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Dates

Date Samples Received	: 17-JAN-2013	Issue Date	: 21-JAN-2013 09:18
Client Requested Due Date	: 25-JAN-2013	Scheduled Reporting Date	: 25-JAN-2013

Delivery Details

Mode of Delivery	: Carrier	Temperature	: 5°C - Ice present
No. of coolers/boxes	: 6 HARD	No. of samples received	: 78
Security Seal	: Intact.	No. of samples analysed	: 78

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Proactive Holding Time Report
 - Requested Deliverables
- **Samples received in appropriately pretreated and preserved containers.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (14 days), Solid (60 days) from date of completion of work order.



Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- No sample container / preservation non-compliance exist.

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.

If no sampling time is provided, the sampling time will default to 15:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory for processing purposes and will be shown bracketed without a time component.

Matrix: SOIL

Laboratory sample ID	Client sampling date / time	Client sample ID	SOIL - P-13/1 (ES) NEPM Table 5A (Sydney Lab)	SOIL - S-26 8 metals/TPH/BTEX/PAH
ES1301006-001	15-JAN-2013 15:00	SP02A_01_15012013	✓	✓
ES1301006-002	15-JAN-2013 15:00	SP02A_06_15012013	✓	✓
ES1301006-003	15-JAN-2013 15:00	SP02A_10_15012013	✓	✓
ES1301006-004	15-JAN-2013 15:00	SP02A_12_15012013	✓	✓
ES1301006-005	15-JAN-2013 15:00	SP02A_17_15012013	✓	✓
ES1301006-006	15-JAN-2013 15:00	SP02A_19_15012013	✓	✓
ES1301006-007	15-JAN-2013 15:00	SP02A_24_15012013	✓	✓
ES1301006-008	15-JAN-2013 15:00	SP02A_26_15012013	✓	✓
ES1301006-009	15-JAN-2013 15:00	SP02A_29_15012013	✓	✓
ES1301006-010	15-JAN-2013 15:00	SP02A_31_15012013	✓	✓
ES1301006-011	15-JAN-2013 15:00	SP02A_35_15012013	✓	✓
ES1301006-012	15-JAN-2013 15:00	SP02A_40_15012013	✓	✓
ES1301006-013	15-JAN-2013 15:00	SP02A_43_15012013	✓	✓
ES1301006-014	15-JAN-2013 15:00	SP02A_45_15012013	✓	✓
ES1301006-015	15-JAN-2013 15:00	SP02A_46_15012013	✓	✓
ES1301006-016	15-JAN-2013 15:00	SP02A_51_15012013	✓	✓
ES1301006-017	15-JAN-2013 15:00	SP02A_54_15012013	✓	✓
ES1301006-018	15-JAN-2013 15:00	SP02A_56_15012013	✓	✓
ES1301006-019	15-JAN-2013 15:00	SP01A_60_15012013	✓	✓
ES1301006-020	15-JAN-2013 15:00	SP01A_64_15012013	✓	✓
ES1301006-021	15-JAN-2013 15:00	SP01A_68_15012013	✓	✓
ES1301006-022	15-JAN-2013 15:00	SP01A_72_15012013	✓	✓
ES1301006-023	15-JAN-2013 15:00	SP01A_74_15012013	✓	✓
ES1301006-024	15-JAN-2013 15:00	QC01_15012013	✓	✓
ES1301006-025	15-JAN-2013 15:00	QC06_15012013	✓	✓
ES1301006-026	15-JAN-2013 15:00	SP02A_02_15012013	✓	✓
ES1301006-027	15-JAN-2013 15:00	SP02A_03_15012013	✓	✓
ES1301006-028	15-JAN-2013 15:00	SP02A_04_15012013	✓	✓
ES1301006-029	15-JAN-2013 15:00	SP02A_05_15012013	✓	✓
ES1301006-030	15-JAN-2013 15:00	SP02A_07_15012013	✓	✓
ES1301006-031	15-JAN-2013 15:00	SP02A_08_15012013	✓	✓
ES1301006-032	15-JAN-2013 15:00	SP02A_09_15012013	✓	✓
ES1301006-033	15-JAN-2013 15:00	SP02A_11_15012013	✓	✓
ES1301006-034	15-JAN-2013 15:00	SP02A_13_15012013	✓	✓
ES1301006-035	15-JAN-2013 15:00	SP02A_14_15012013	✓	✓



			SOIL - P-13/1 (ES) NEPM Table 5A (Sydney Lab)	SOIL - S-26 8 metals/TPH/BTEX/PAH
ES1301006-036	15-JAN-2013 15:00	SP02A_15_15012013	✓	✓
ES1301006-037	15-JAN-2013 15:00	SP02A_16_15012013	✓	✓
ES1301006-038	15-JAN-2013 15:00	SP02A_18_15012013	✓	✓
ES1301006-039	15-JAN-2013 15:00	SP02A_20_15012013	✓	✓
ES1301006-040	15-JAN-2013 15:00	SP02A_21_15012013	✓	✓
ES1301006-041	15-JAN-2013 15:00	SP02A_22_15012013	✓	✓
ES1301006-042	15-JAN-2013 15:00	SP02A_23_15012013	✓	✓
ES1301006-043	15-JAN-2013 15:00	SP02A_25_15012013	✓	✓
ES1301006-044	15-JAN-2013 15:00	SP02A_27_15012013	✓	✓
ES1301006-045	15-JAN-2013 15:00	SP02A_28_15012013	✓	✓
ES1301006-046	15-JAN-2013 15:00	SP02A_30_15012013	✓	✓
ES1301006-047	15-JAN-2013 15:00	SP02A_32_15012013	✓	✓
ES1301006-048	15-JAN-2013 15:00	SP02A_33_15012013	✓	✓
ES1301006-049	15-JAN-2013 15:00	SP02A_34_15012013	✓	✓
ES1301006-050	15-JAN-2013 15:00	SP02A_36_15012013	✓	✓
ES1301006-051	15-JAN-2013 15:00	SP02A_37_15012013	✓	✓
ES1301006-052	15-JAN-2013 15:00	SP02A_38_15012013	✓	✓
ES1301006-053	15-JAN-2013 15:00	SP02A_39_15012013	✓	✓
ES1301006-054	15-JAN-2013 15:00	SP02A_41_15012013	✓	✓
ES1301006-055	15-JAN-2013 15:00	SP02A_42_15012013	✓	✓
ES1301006-056	15-JAN-2013 15:00	SP02A_44_15012013	✓	✓
ES1301006-057	15-JAN-2013 15:00	SP02A_47_15012013	✓	✓
ES1301006-058	15-JAN-2013 15:00	SP02A_48_15012013	✓	✓
ES1301006-059	15-JAN-2013 15:00	SP02A_49_15012013	✓	✓
ES1301006-060	15-JAN-2013 15:00	SP02A_50_15012013	✓	✓
ES1301006-061	15-JAN-2013 15:00	SP02A_52_15012013	✓	✓
ES1301006-062	15-JAN-2013 15:00	SP02A_53_15012013	✓	✓
ES1301006-063	15-JAN-2013 15:00	SP02A_55_15012013	✓	✓
ES1301006-064	15-JAN-2013 15:00	SP02A_57_15012013	✓	✓
ES1301006-065	15-JAN-2013 15:00	SP01A_58_15012013	✓	✓
ES1301006-066	15-JAN-2013 15:00	SP01A_59_15012013	✓	✓
ES1301006-067	15-JAN-2013 15:00	SP01A_61_15012013	✓	✓
ES1301006-068	15-JAN-2013 15:00	SP01A_62_15012013	✓	✓
ES1301006-069	15-JAN-2013 15:00	SP01A_63_15012013	✓	✓
ES1301006-070	15-JAN-2013 15:00	SP01A_65_15012013	✓	✓
ES1301006-071	15-JAN-2013 15:00	SP01A_66_15012013	✓	✓
ES1301006-072	15-JAN-2013 15:00	SP01A_67_15012013	✓	✓
ES1301006-073	15-JAN-2013 15:00	SP01A_69_15012013	✓	✓
ES1301006-074	15-JAN-2013 15:00	SP01A_70_15012013	✓	✓
ES1301006-075	15-JAN-2013 15:00	SP01A_71_15012013	✓	✓
ES1301006-076	15-JAN-2013 15:00	SP01A_73_15012013	✓	✓

Proactive Holding Time Report

Requested Deliverables

- A4 - AU Tax Invoice (INV)

Email Adelaide.Accounts@urscorp.com

- *AU Certificate of Analysis - NATA (COA)
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)
- A4 - AU Tax Invoice (INV)
- Chain of Custody (CoC) (COC)
- EDI Format - ENMRG (ENMRG)
- EDI Format - EQUIS V5 URS (EQUIS_V5_URS)
- EDI Format - ESDAT (ESDAT)
- EDI Format - MRED (MRED)

[illegible]

- *AU Certificate of Analysis - NATA
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep)
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA
- A4 - AU Sample Receipt Notification - Environmental HT
- A4 - AU Tax Invoice
- Chain of Custody (CoC)
- EDI Format - ENMRG
- EDI Format - EQUIS V5 URS
- EDI Format - ESDAT
- EDI Format - MRED

[illegible]

- *AU Certificate of Analysis - NATA (COA)
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)
- A4 - AU Tax Invoice (INV)
- Chain of Custody (CoC) (COC)
- EDI Format - ENMRG (ENMRG)
- EDI Format - EQUIS V5 URS (EQUIS_V5_URS)
- EDI Format - ESDAT (ESDAT)
- EDI Format - MRED (MRED)

[illegible]

CHAIN OF CUSTODY

URS Australia 3/83 Mitcell St Darwin 800 02 8980 2900 08 8941 3920		LABORATORY: ADDRESS: 277-289 Woodpark Rd Smithfield, NSW, 2164 PHONE NO: 02 8784 8555 FAX NO: 02 8784 8500		ALS email address: tim.smith@urs.com bek.agaard@urs.com darwin@urscorp.com	
PROJECT NAME: Waterfront Stage 2A		PROJECT MANAGER: Tim Smith		PURCHASE ORDER NUMBER:	
PROJECT NO: 42213719.70061		SAMPLERS: Bek Agaard		SIGNED: <i>Bek Agaard</i>	
COMMENTS: Updated COC -					

FOR LABORATORY USE ONLY					
SAMPLE ID	DATE	MATRIX	SITE	LOCATION	CONTAINER TYPE & PRESERVATIVE
LAB OF ORIGIN: DARWIN					
SP02A-01_15012013	15/01/2013	Soil	Waterfront	Stockpile 2A	Soil Glass Jars
SP02A-02_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars
SP02A-03_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars
SP02A-04_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars
SP02A-05_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars
SP02A-06_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars
SP02A-07_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars
SP02A-08_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars
SP02A-09_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars
SP02A-10_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars
SP02A-11_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars
SP02A-12_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars
SP02A-13_15012013	15/01/2013	Soil	Water		Soil Glass Jars
SP02A-14_15012013	15/01/2013	Soil	Water		Soil Glass Jars
SP02A-15_15012013	15/01/2013	Soil	Water		Soil Glass Jars
Environmental Division Sydney Work Order ES1301006					

RELINQUISHED BY: DATE: 17/1/13 TIME: 5:30		RECEIVED BY: DATE: 17/1/13 TIME: 5:30	
CUSTOMER'S SEAL?		SAMPLES COLLECTED?	
COMMENTS:		COMMENTS:	

CHAIN OF CUSTODY

ADDRESS: URS Australia 3/93 Mitchell St Darwin 800 02 8980 2900 08 8941 3920		LABORATORY: ALS 277-289 Woodpark Rd Smithfield, NSW, 2164 PHONE NO: 02 8784 8555 FAX NO: 02 8784 8500		All results to be provided in MEd format and ESDat format email address: tim.smith@urs.com bek.aagaard@urs.com darwin@urscorp.com PURCHASE ORDER NUMBER:	
PROJECT NAME: Waterfront Stage 2A		PROJECT MANAGER: Tim Smith			
PROJECT NO: 42213719.70061		SAMPLERS: Bek Aagaard		SIGNED: <i>U. Aagaard</i>	
COMMENTS: Updated COC -					

LAB ID	SAMPLE ID	DATE	MATRIX	SITE	LOCATION	CONTAINER TYPE & PRESERVATIVE	TOTAL NUMBER OF CONTAINERS	TPH C6-C36, BTEX, PAH	VIC EPA Soil Screening	S-26	P-13/1	ANALYSIS REQUIRED		HOLD
(37)	SP02A-16_15012013	15/01/2013	Soil	Waterfront	Stockpile 2A	Soil Glass Jars	1							1
(38)	SP02A-17_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
(39)	SP02A-18_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
(40)	SP02A-19_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
(41)	SP02A-20_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
(42)	SP02A-21_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
(43)	SP02A-22_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
(44)	SP02A-23_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
(45)	SP02A-24_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
(46)	SP02A-25_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
(47)	SP02A-26_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
(48)	SP02A-27_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
(49)	SP02A-28_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
(50)	SP02A-29_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
(51)	SP02A-30_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							1
TOTAL NO:							15	5	5	5	5			

RELINQUISHED BY: Y/NINA Y/NINA Y/NINA		CONTAINER TYPE AND PRESERVATIVE CODES J = Jar; A = Amber Bottle; VH = HCl Preserved Vial; P = Plastic Bottle; N = Nitric Acid Preserved; S = Sulphuric Acid Preserved; C = Sodium Hydroxide Preserved; B = Sterile Bottle; Z = Zinc Acetate Preserved; E = EDTA Preserved; O = Other	
RECEIVED BY: <i>Sten</i>		DATE: 17/1/13	
TIME: 8:30		PLEASE SIGN AND FAX TO URS UPON RECEIPT	

CHAIN OF CUSTODY

URS Australia 3/93 Mitcheil St Darwin 800 02 8980 2900 08 8541 3920		LABORATORY: ALS ADDRESS: 277-289 Woodpark Rd Smithfield, NSW, 2164 PHONE NO: 02 8784 8555 FAX NO: 02 8784 8500		All results to be provided in Ired format and ESDat format email address: tim.smith@urs.com bek.aagaard@urs.com darwin@urs.com.au PURCHASE ORDER NUMBER:	
PROJECT NAME: Waterfront Stage 2A		PROJECT MANAGER: Tim Smith		SIGNED: <i>Unbeko Aagaard</i>	
PROJECT NO: 42213719-70061		SAMPLERS: Bek Aagaard		SIGNED:	
COMMENTS: Updated COC -					

LAB ID	SAMPLE ID	DATE	MATRIX	SITE	LOCATION	CONTAINER TYPE & PRESERVATIVE	TOTAL NUMBER OF CONTAINERS	ANALYSIS REQUIRED					HOLD
								TPH C6-C36, BTEX, PAH	VIC EPA Soil Screening	S-26	P-18/1		
10	SP02A-34_15012013	15/01/2013	Soil	Waterfront	Stockpile 2A	Soil Glass Jars	1	1	1	1	1		
11	SP02A-32_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
12	SP02A-33_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
13	SP02A-34_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
14	SP02A-35_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1	1	1	1	1		
15	SP02A-36_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
16	SP02A-37_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
17	SP02A-38_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
18	SP02A-39_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
19	SP02A-40_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1	1	1	1	1		
20	SP02A-41_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
21	SP02A-42_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
22	SP02A-43_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1	1	1	1	1		
23	SP02A-44_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
24	SP02A-45_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1	1	1	1	1		
TOTAL NO:							15	5	5	3	5		

RELINQUISHED BY: DATE: 17/1/13 TIME: 8:30		RECEIVED BY: DATE: 17/1/13 TIME: 8:30	
CUSTODY SEAL? Y N NA SAMPLES COULD? Y N NA COMMENTS:		CONTAINER TYPE AND PRESERVATIVE CODES J = Jar; A = Amber Bottle; VH = HCl Preserved Vial; P = Plastic Bottle; N = Nitric Acid Preserved; S = Sulphuric Acid Preserved; C = Sodium Hydroxide Preserved; B = Sterile Bottle; Z = Zinc Acetate Preserved; E = EDTA Preserved; O = Other	

PLEASE SIGN AND FAX TO URS UPON RECEIPT

CHAIN OF CUSTODY

URS Australia ADDRESS: 3/93 Mitcheil St Darwin 800 PHONE NO: 02 8980 2900 FAX NO: 08 8941 3920		LABORATORY: ADDRESS: 277-289 Woodpark Rd Smithfield, NSW, 2164 PHONE NO: 02 8784 8555 FAX NO: 02 8784 8500		All results to be provided in MEd format and ESdat format email address: tim.smith@urs.com bek.aagaard@urs.com darwin@urscorp.com PURCHASE ORDER NUMBER:	
PROJECT NAME: Waterfront Stage 2A PROJECT NO: 42213719.70061 COMMENTS: Updated COC -		PROJECT MANAGER: Tim Smith SIGNER: <i>Wolke Aagaard</i> SAMPLERS: Bek Aagaard		PORT/LABORATORY/USE ONLY	

SAMPLE ID	DATE	MATRIX	SITE	LOCATION	CONTAINER TYPE & PRESERVATIVE	TOTAL NUMBER OF CONTAINERS	TPH C6-C36, BTEX, PAH	VIC EPA Soil Screening	S-26	P-13/1	ANALYSIS REQUIRED	HOLD
15 SP02A-46-15012013	15/01/2013	Soil	Waterfront	Stockpile 2A	Soil Glass Jars	1	1	1	1	1		
62 SP02A-47-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
59 SP02A-48-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
51 SP02A-49-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
60 SP02A-50-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
16 SP02A-51-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1	1	1	1	1		
61 SP02A-52-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
62 SP02A-53-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
17 SP02A-54-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
63 SP02A-55-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1	1	1	1	1		
18 SP02A-56-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
64 SP02A-57-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
65 SP02A-58-15012013	15/01/2013	Soil	Waterfront	Stockpile 1A	Soil Glass Jars	1						
66 SP02A-59-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
67 SP02A-60-15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1	1	1	1	1		
TOTAL NO:						15	5	5	5	5		

RELINQUISHED BY: [Signature] DATE: 17/1/13 TIME: 18:30		CONTAINER TYPE AND PRESERVATIVE CODES J = Jar; A = Amber Bottle; VH = HCl Preserved Vial; P = Plastic Bottle; N = Nitric Acid Preserved; S = Sulphuric Acid Preserved; C = Sodium Hydroxide Preserved; B = Sterile Bottle; Z = Zinc Acetate Preserved; E = EDTA Preserved; O = Other	
RECEIVED BY: [Signature] DATE: 17/1/13 TIME: 18:30		PLEASE SIGN AND FAX TO URS UPON RECEIPT	

CHAIN OF CUSTODY

ADDRESS: URS Australia 3/93 Mitcell St Darwin 800 02 8980 2900 08 8941 3920		LABORATORY: ALS 277-289 Woodpark Rd Smithfield, NSW, 2164 02 8784 8555 02 8784 8500 PHONE NO: FAX NO:		email address: tim.smith@urs.com bek.aagaard@urs.com darwin@urscorp.com PURCHASE ORDER NUMBER:		FOR LABORATORY USE ONLY All results to be provided in MrEd format and ESDat format	
PROJECT NAME: Waterfront Stage 2A		PROJECT MANAGER: Tim Smith					
PROJECT NO: 42213719, 70061		SAMPLERS: Blok Aagaard		SIGNED: <i>Wesley Aagaard</i>			
COMMENTS: Updated COC -							

LAB ID	SAMPLE ID	DATE	MATRIX	SITE	LOCATION	CONTAINER TYPE & PRESERVATIVE	TOTAL NUMBER OF CONTAINERS	TPH C6-C36, BTEX, PAH	VIC EPA Soil Screening	S-26	P-13/1	ANALYSIS REQUIRED	
												HOLD	
(67)	SP01A-61_15012013	15/01/2013	Soil	Waterfront	Stockpile A	Soil Glass Jars	1						
(68)	SP01A-62_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(69)	SP01A-63_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(70)	SP01A-64_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(71)	SP01A-65_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(72)	SP01A-66_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(73)	SP01A-67_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(74)	SP01A-68_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(75)	SP01A-69_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(76)	SP01A-70_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(77)	SP01A-71_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(78)	SP01A-72_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(79)	SP01A-73_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(80)	SP01A-74_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
(81)	QCC01_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1						
							TOTAL NO:	13	5	5	5	5	

Custody Seal?	Y/N/A
Samples Cold?	Y/N/A
Comments	
RELINQUISHED BY:	TIME:
DATE:	
RECEIVED BY: <i>Hewer</i>	TIME: <i>8:30</i>
DATE: <i>17/1/13</i>	
CONTAINER TYPE AND PRESERVATIVE CODES J = Jar; A = Amber Bottle; VH = HCl Preserved Vial; P = Plastic Bottle; N = Nitric Acid Preserved; S = Sulphuric Acid Preserved; C = Sodium Hydroxide Preserved; B = Sterile Bottle; Z = Zinc Acetate Preserved; E = EDTA Preserved; O = Other Preserved	
PLEASE SIGN AND FAX TO URS UPON RECEIPT	

ADDRESS:	URS Australia 393 Mitcell St Darwin	LABORATORY: ADDRESS:	ALS 277-289 Woodpark Rd Smithfield, NSW, 2164	All results to be provided in MEd format and eSdat format email address:
PHONE NO:	800 02 8980 2900	PHONE NO:	02 8784 8555	tim.smith@urs.com
FAX NO:	08 8941 3920	FAX NO:	02 8784 8500	bek.aagaard@urs.com daxwin@ursexp.com
PROJECT NAME:	Waterfront Stage 2A	PROJECT MANAGER:	Tim Smith	PURCHASE ORDER NUMBER:
PROJECT NO:	42213719.70061	SAMPLERS:	Bek Aagaard	SIGNED: <i>Bek Aagaard</i>
COMMENTS:	Updated COC -			

[illegible]

J = jar; A = Ambex Bottle; VH = HCl Preserved Vial; P = Plastic Bottle; N = Nitric Acid Preserved; S = Sulphuric Acid

Preserved; C = Sodium Hydroxide Preserved; B = Sterile Bottle; Z = Zinc Acetate Preserved; E = EDTA Preserved; O = Other

PLEASE SIGN AND FAX TO URS UPON RECEIPT

Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: ES1301006	Page	: 1 of 67
Client	: URS AUSTRALIA PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: BEK AAGAARD	Contact	: Client Services
Address	: G P O BOX 2005 DARWIN NT, AUSTRALIA 0801	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: bek.aagaard@urs.com	E-mail	: sydney@alsglobal.com
Telephone	: +61 08 89802900	Telephone	: +61-2-8784 8555
Facsimile	: +61 08 89413920	Facsimile	: +61-2-8784 8500
Project	: 42213719 70061 WATERFRONT STAGE 2A	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----	Date Samples Received	: 17-JAN-2013
C-O-C number	: ----	Issue Date	: 29-JAN-2013
Sampler	: BA	No. of samples received	: 78
Site	: ----	No. of samples analysed	: 78
Quote number	: EN/001/12		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

Accredited for compliance with
ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Ankit Joshi	Inorganic Chemist	Sydney Inorganics
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics
Evie.Sidarta	Inorganic Chemist	Sydney Inorganics
Phalak Inthaksone	Laboratory Manager - Organics	Sydney Organics
Phalak Inthaksone	Laboratory Manager - Organics	Sydney Organics



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

- **EG005T: Poor matrix spike recovery was obtained for Chromium on sample ES1301006-41. Results have been confirmed by re-extraction and reanalysis.**
- **EG005T: Poor precision was obtained for Chromium and Vanadium on sample ES1301006-51 due to sample heterogeneity. Results have been confirmed by re-extraction and reanalysis.**
- **EG005T: Poor precision was obtained for Vanadium and Lead on sample ES1301006-61 due to sample heterogeneity. Results have been confirmed by re-extraction and reanalysis.**



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_01_15012013	SP02A_06_15012013	SP02A_10_15012013	SP02A_12_15012013	SP02A_17_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-001	ES1301006-002	ES1301006-003	ES1301006-004	ES1301006-005
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	12.5	16.9	20.6	15.2	12.7
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	20	60	30	120	70
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	<2	<2	2	<2	<2
Manganese	7439-96-5	5	mg/kg	57	69	243	68	84
Vanadium	7440-62-2	5	mg/kg	133	37	45	57	41
Arsenic	7440-38-2	5	mg/kg	6	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	56	23	30	41	22
Copper	7440-50-8	5	mg/kg	<5	9	14	6	<5
Lead	7439-92-1	5	mg/kg	5	<5	<5	<5	<5
Nickel	7440-02-0	2	mg/kg	4	4	6	4	4
Zinc	7440-66-6	5	mg/kg	9	14	38	14	11
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_01_15012013	SP02A_06_15012013	SP02A_10_15012013	SP02A_12_15012013	SP02A_17_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-001	ES1301006-002	ES1301006-003	ES1301006-004	ES1301006-005
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_01_15012013	SP02A_06_15012013	SP02A_10_15012013	SP02A_12_15012013	SP02A_17_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-001	ES1301006-002	ES1301006-003	ES1301006-004	ES1301006-005
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	110	118	128	127	125



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_01_15012013	SP02A_06_15012013	SP02A_10_15012013	SP02A_12_15012013	SP02A_17_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-001	ES1301006-002	ES1301006-003	ES1301006-004	ES1301006-005
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	99.2	96.1	125	130	127
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	95.0	66.0	107	137	98.8
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	95.8	95.9	98.4	115	100
2-Chlorophenol-D4	93951-73-6	0.1	%	92.5	98.1	97.4	113	100
2,4,6-Tribromophenol	118-79-6	0.1	%	106	106	104	123	110
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	95.8	101	99.8	115	105
Anthracene-d10	1719-06-8	0.1	%	90.5	99.4	97.7	114	101
4-Terphenyl-d14	1718-51-0	0.1	%	98.9	106	105	124	110
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	97.4	100	101	101	102
Toluene-D8	2037-26-5	0.1	%	107	112	116	111	120
4-Bromofluorobenzene	460-00-4	0.1	%	107	106	101	110	118



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_19_15012013	SP02A_24_15012013	SP02A_26_15012013	SP02A_29_15012013	SP02A_31_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-006	ES1301006-007	ES1301006-008	ES1301006-009	ES1301006-010
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	12.7	15.3	20.2	12.3	10.8
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	800	50	70	20	40
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	<2	<2	<2	<2	<2
Manganese	7439-96-5	5	mg/kg	77	63	41	57	60
Vanadium	7440-62-2	5	mg/kg	24	56	51	62	49
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	16	38	26	34	26
Copper	7440-50-8	5	mg/kg	<5	5	<5	7	8
Lead	7439-92-1	5	mg/kg	5	6	<5	7	5
Nickel	7440-02-0	2	mg/kg	4	5	2	3	4
Zinc	7440-66-6	5	mg/kg	19	18	8	16	27
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_19_15012013	SP02A_24_15012013	SP02A_26_15012013	SP02A_29_15012013	SP02A_31_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-006	ES1301006-007	ES1301006-008	ES1301006-009	ES1301006-010
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_19_15012013	SP02A_24_15012013	SP02A_26_15012013	SP02A_29_15012013	SP02A_31_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-006	ES1301006-007	ES1301006-008	ES1301006-009	ES1301006-010
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	114	118	125	133	120



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_19_15012013	SP02A_24_15012013	SP02A_26_15012013	SP02A_29_15012013	SP02A_31_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-006	ES1301006-007	ES1301006-008	ES1301006-009	ES1301006-010
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	96.4	111	106	76.3	89.5
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	80.3	71.2	92.0	82.9	95.5
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	96.7	99.7	93.1	89.8	95.5
2-Chlorophenol-D4	93951-73-6	0.1	%	97.7	95.8	91.5	88.6	97.3
2,4,6-Tribromophenol	118-79-6	0.1	%	103	101	93.5	90.7	103
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	102	97.8	94.5	92.6	100
Anthracene-d10	1719-06-8	0.1	%	99.6	98.9	93.8	88.8	95.3
4-Terphenyl-d14	1718-51-0	0.1	%	107	105	97.0	95.0	105
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	104	113	103	107	100
Toluene-D8	2037-26-5	0.1	%	111	102	108	111	114
4-Bromofluorobenzene	460-00-4	0.1	%	108	93.6	99.8	110	99.9



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_35_15012013	SP02A_40_15012013	SP02A_43_15012013	SP02A_45_15012013	SP02A_46_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-011	ES1301006-012	ES1301006-013	ES1301006-014	ES1301006-015
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	11.9	10.1	14.8	22.8	11.4
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	40	100	70	70	70
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	2	3	<2	<2	<2
Manganese	7439-96-5	5	mg/kg	64	73	152	94	47
Vanadium	7440-62-2	5	mg/kg	49	27	113	61	126
Arsenic	7440-38-2	5	mg/kg	5	<5	6	<5	5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	28	16	55	38	41
Copper	7440-50-8	5	mg/kg	22	27	19	27	7
Lead	7439-92-1	5	mg/kg	18	28	25	65	9
Nickel	7440-02-0	2	mg/kg	5	7	3	4	3
Zinc	7440-66-6	5	mg/kg	68	79	42	143	27
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	0.5	0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_35_15012013	SP02A_40_15012013	SP02A_43_15012013	SP02A_45_15012013	SP02A_46_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-011	ES1301006-012	ES1301006-013	ES1301006-014	ES1301006-015
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_35_15012013	SP02A_40_15012013	SP02A_43_15012013	SP02A_45_15012013	SP02A_46_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-011	ES1301006-012	ES1301006-013	ES1301006-014	ES1301006-015
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	132	114	128	132	118



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_35_15012013	SP02A_40_15012013	SP02A_43_15012013	SP02A_45_15012013	SP02A_46_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-011	ES1301006-012	ES1301006-013	ES1301006-014	ES1301006-015
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	132	108	103	97.2	116
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	138	117	107	104	124
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	101	79.4	90.2	103	93.2
2-Chlorophenol-D4	93951-73-6	0.1	%	99.4	82.2	92.8	104	94.5
2,4,6-Tribromophenol	118-79-6	0.1	%	106	99.6	101	115	102
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	104	97.9	94.8	109	98.7
Anthracene-d10	1719-06-8	0.1	%	98.0	95.5	91.0	104	95.7
4-Terphenyl-d14	1718-51-0	0.1	%	107	100	98.1	114	103
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	98.1	103	104	99.1	91.0
Toluene-D8	2037-26-5	0.1	%	110	122	107	111	101
4-Bromofluorobenzene	460-00-4	0.1	%	103	108	108	112	105



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_51_15012013	SP02A_54_15012013	SP02A_56_15012013	SP01A_60_15012013	SP01A_64_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-016	ES1301006-017	ES1301006-018	ES1301006-019	ES1301006-020
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	14.7	19.9	16.0	8.8	12.9
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	70	30	110	60	100
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	<2	<2	2	<2	<2
Manganese	7439-96-5	5	mg/kg	59	52	90	75	57
Vanadium	7440-62-2	5	mg/kg	112	157	150	199	132
Arsenic	7440-38-2	5	mg/kg	6	6	7	9	7
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	59	71	81	110	75
Copper	7440-50-8	5	mg/kg	12	<5	16	<5	31
Lead	7439-92-1	5	mg/kg	19	5	18	8	30
Nickel	7440-02-0	2	mg/kg	4	<2	5	<2	4
Zinc	7440-66-6	5	mg/kg	33	10	37	7	58
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_51_15012013	SP02A_54_15012013	SP02A_56_15012013	SP01A_60_15012013	SP01A_64_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-016	ES1301006-017	ES1301006-018	ES1301006-019	ES1301006-020
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_51_15012013	SP02A_54_15012013	SP02A_56_15012013	SP01A_60_15012013	SP01A_64_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-016	ES1301006-017	ES1301006-018	ES1301006-019	ES1301006-020
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	100	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	112	131	122	134	124



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_51_15012013	SP02A_54_15012013	SP02A_56_15012013	SP01A_60_15012013	SP01A_64_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-016	ES1301006-017	ES1301006-018	ES1301006-019	ES1301006-020
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	88.6	130	93.4	102	95.3
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	86.8	129	99.1	110	91.2
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	112	81.0	95.2	91.1	93.8
2-Chlorophenol-D4	93951-73-6	0.1	%	108	70.0	93.7	92.8	95.4
2,4,6-Tribromophenol	118-79-6	0.1	%	124	75.2	108	97.8	99.9
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	114	73.0	97.1	96.4	100
Anthracene-d10	1719-06-8	0.1	%	108	70.4	93.8	94.2	98.0
4-Terphenyl-d14	1718-51-0	0.1	%	119	75.1	100	97.7	102
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	97.9	97.0	105	98.5	102
Toluene-D8	2037-26-5	0.1	%	104	103	120	120	115
4-Bromofluorobenzene	460-00-4	0.1	%	102	98.9	104	116	99.8



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP01A_68_15012013	SP01A_72_15012013	SP01A_74_15012013	QC01_15012013	QC06_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-021	ES1301006-022	ES1301006-023	ES1301006-024	ES1301006-025
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	8.6	16.4	19.7	21.3	10.9
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	1750	90	30	50	110
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	<2	4	<2	<2	<2
Manganese	7439-96-5	5	mg/kg	51	311	101	56	67
Vanadium	7440-62-2	5	mg/kg	99	36	31	22	54
Arsenic	7440-38-2	5	mg/kg	11	5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	39	34	22	15	26
Copper	7440-50-8	5	mg/kg	11	45	16	<5	7
Lead	7439-92-1	5	mg/kg	27	34	7	<5	6
Nickel	7440-02-0	2	mg/kg	4	18	7	5	4
Zinc	7440-66-6	5	mg/kg	74	137	28	14	24
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP01A_68_15012013	SP01A_72_15012013	SP01A_74_15012013	QC01_15012013	QC06_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-021	ES1301006-022	ES1301006-023	ES1301006-024	ES1301006-025
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP01A_68_15012013	SP01A_72_15012013	SP01A_74_15012013	QC01_15012013	QC06_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-021	ES1301006-022	ES1301006-023	ES1301006-024	ES1301006-025
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	110	99.7	127	106	112



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP01A_68_15012013	SP01A_72_15012013	SP01A_74_15012013	QC01_15012013	QC06_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-021	ES1301006-022	ES1301006-023	ES1301006-024	ES1301006-025
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	99.6	94.9	135	93.6	98.6
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	112	101	131	75.9	105
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	96.6	97.1	94.8	99.6	95.4
2-Chlorophenol-D4	93951-73-6	0.1	%	98.4	98.4	97.7	101	95.1
2,4,6-Tribromophenol	118-79-6	0.1	%	102	103	104	103	97.8
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	102	100	99.9	104	100
Anthracene-d10	1719-06-8	0.1	%	97.0	99.0	97.0	100	96.9
4-Terphenyl-d14	1718-51-0	0.1	%	109	108	107	111	108
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	93.2	103	102	102	104
Toluene-D8	2037-26-5	0.1	%	103	117	110	116	120
4-Bromofluorobenzene	460-00-4	0.1	%	95.4	99.1	100	103	116



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_02_15012013	SP02A_03_15012013	SP02A_04_15012013	SP02A_05_15012013	SP02A_07_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-026	ES1301006-027	ES1301006-028	ES1301006-029	ES1301006-030
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	13.2	14.8	12.2	15.5	16.2
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	30	30	120	40	60
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	2	<2	2	<2	3
Manganese	7439-96-5	5	mg/kg	158	220	302	195	234
Vanadium	7440-62-2	5	mg/kg	63	66	134	42	45
Arsenic	7440-38-2	5	mg/kg	<5	<5	21	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	4	<1	<1
Chromium	7440-47-3	2	mg/kg	39	41	38	36	31
Copper	7440-50-8	5	mg/kg	21	11	20	7	34
Lead	7439-92-1	5	mg/kg	7	6	207	<5	8
Nickel	7440-02-0	2	mg/kg	5	6	4	5	6
Zinc	7440-66-6	5	mg/kg	31	26	434	26	42
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_02_15012013	SP02A_03_15012013	SP02A_04_15012013	SP02A_05_15012013	SP02A_07_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-026	ES1301006-027	ES1301006-028	ES1301006-029	ES1301006-030
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_02_15012013	SP02A_03_15012013	SP02A_04_15012013	SP02A_05_15012013	SP02A_07_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-026	ES1301006-027	ES1301006-028	ES1301006-029	ES1301006-030
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	110	104	106	123	105



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_02_15012013	SP02A_03_15012013	SP02A_04_15012013	SP02A_05_15012013	SP02A_07_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-026	ES1301006-027	ES1301006-028	ES1301006-029	ES1301006-030
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	96.8	96.3	91.8	118	95.0
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	104	80.0	98.4	113	78.3
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	90.0	90.9	94.9	96.4	97.7
2-Chlorophenol-D4	93951-73-6	0.1	%	96.5	93.3	95.8	93.8	98.8
2,4,6-Tribromophenol	118-79-6	0.1	%	99.9	97.4	95.4	103	102
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	103	99.2	100	100	102
Anthracene-d10	1719-06-8	0.1	%	97.3	96.7	94.6	98.2	99.9
4-Terphenyl-d14	1718-51-0	0.1	%	108	105	106	108	109
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	93.7	100	106	106	116
Toluene-D8	2037-26-5	0.1	%	98.4	122	116	105	103
4-Bromofluorobenzene	460-00-4	0.1	%	90.0	108	104	95.1	94.3



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_08_15012013	SP02A_09_15012013	SP02A_11_15012013	SP02A_13_15012013	SP02A_14_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-031	ES1301006-032	ES1301006-033	ES1301006-034	ES1301006-035
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	14.8	17.1	12.2	13.0	11.8
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	50	40	30	30	70
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	<2	<2	<2	<2	<2
Manganese	7439-96-5	5	mg/kg	91	232	54	61	60
Vanadium	7440-62-2	5	mg/kg	59	71	42	66	59
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	33	57	22	32	39
Copper	7440-50-8	5	mg/kg	10	12	<5	<5	8
Lead	7439-92-1	5	mg/kg	9	5	<5	<5	6
Nickel	7440-02-0	2	mg/kg	5	5	3	2	4
Zinc	7440-66-6	5	mg/kg	24	21	10	8	20
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_08_15012013	SP02A_09_15012013	SP02A_11_15012013	SP02A_13_15012013	SP02A_14_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-031	ES1301006-032	ES1301006-033	ES1301006-034	ES1301006-035
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_08_15012013	SP02A_09_15012013	SP02A_11_15012013	SP02A_13_15012013	SP02A_14_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-031	ES1301006-032	ES1301006-033	ES1301006-034	ES1301006-035
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	115	103	129	107	102



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

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				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-031	ES1301006-032	ES1301006-033	ES1301006-034	ES1301006-035
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	106	94.7	134	101	87.0
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	97.3	82.1	136	101	92.6
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	92.8	95.9	98.5	92.5	89.2
2-Chlorophenol-D4	93951-73-6	0.1	%	97.6	98.8	95.4	92.9	93.7
2,4,6-Tribromophenol	118-79-6	0.1	%	97.5	99.4	102	95.9	95.2
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	101	104	102	97.2	98.7
Anthracene-d10	1719-06-8	0.1	%	99.7	99.1	100	95.4	95.6
4-Terphenyl-d14	1718-51-0	0.1	%	109	108	110	104	105
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	111	116	108	102	111
Toluene-D8	2037-26-5	0.1	%	93.2	89.3	93.3	100	97.2
4-Bromofluorobenzene	460-00-4	0.1	%	91.8	97.4	96.6	92.8	92.4



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

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				SP02A_15_15012013	SP02A_16_15012013	SP02A_18_15012013	SP02A_20_15012013	SP02A_21_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-036	ES1301006-037	ES1301006-038	ES1301006-039	ES1301006-040
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	13.9	16.2	15.1	15.6	11.8
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	60	20	<10	20	30
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	2	<2	<2	<2	<2
Manganese	7439-96-5	5	mg/kg	87	79	67	35	34
Vanadium	7440-62-2	5	mg/kg	112	25	29	150	80
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	6	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	60	17	24	58	37
Copper	7440-50-8	5	mg/kg	<5	5	<5	<5	<5
Lead	7439-92-1	5	mg/kg	<5	<5	<5	5	<5
Nickel	7440-02-0	2	mg/kg	3	6	4	<2	<2
Zinc	7440-66-6	5	mg/kg	10	11	10	<5	5
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

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				SP02A_15_15012013	SP02A_16_15012013	SP02A_18_15012013	SP02A_20_15012013	SP02A_21_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-036	ES1301006-037	ES1301006-038	ES1301006-039	ES1301006-040
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

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Client sampling date / time

				SP02A_15_15012013	SP02A_16_15012013	SP02A_18_15012013	SP02A_20_15012013	SP02A_21_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-036	ES1301006-037	ES1301006-038	ES1301006-039	ES1301006-040
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	102	111	98.2	96.0	103



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_15_15012013	SP02A_16_15012013	SP02A_18_15012013	SP02A_20_15012013	SP02A_21_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-036	ES1301006-037	ES1301006-038	ES1301006-039	ES1301006-040
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	94.6	106	98.7	90.0	102
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	87.3	60.4	59.2	79.7	92.7
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	93.7	86.1	94.7	95.9	93.1
2-Chlorophenol-D4	93951-73-6	0.1	%	95.5	94.3	95.8	95.8	97.0
2,4,6-Tribromophenol	118-79-6	0.1	%	99.5	99.5	98.9	99.6	97.6
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	101	100	102	104	101
Anthracene-d10	1719-06-8	0.1	%	99.2	95.9	98.3	99.1	97.5
4-Terphenyl-d14	1718-51-0	0.1	%	107	105	107	107	107
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	117	100	114	112	115
Toluene-D8	2037-26-5	0.1	%	102	89.9	101	95.2	102
4-Bromofluorobenzene	460-00-4	0.1	%	100	90.0	95.9	97.9	89.2



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_22_15012013	SP02A_23_15012013	SP02A_25_15012013	SP02A_27_15012013	SP02A_28_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-041	ES1301006-042	ES1301006-043	ES1301006-044	ES1301006-045
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	11.7	11.1	23.1	15.3	16.4
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	20	40	20	50	20
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	<2	<2	2	<2	<2
Manganese	7439-96-5	5	mg/kg	46	40	140	104	62
Vanadium	7440-62-2	5	mg/kg	199	169	25	26	236
Arsenic	7440-38-2	5	mg/kg	12	8	<5	<5	18
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	105	67	20	21	115
Copper	7440-50-8	5	mg/kg	<5	5	11	9	<5
Lead	7439-92-1	5	mg/kg	11	12	6	6	17
Nickel	7440-02-0	2	mg/kg	2	3	9	9	2
Zinc	7440-66-6	5	mg/kg	7	10	21	21	<5
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_22_15012013	SP02A_23_15012013	SP02A_25_15012013	SP02A_27_15012013	SP02A_28_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-041	ES1301006-042	ES1301006-043	ES1301006-044	ES1301006-045
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_22_15012013	SP02A_23_15012013	SP02A_25_15012013	SP02A_27_15012013	SP02A_28_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-041	ES1301006-042	ES1301006-043	ES1301006-044	ES1301006-045
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	132	126	126	135	134



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_22_15012013	SP02A_23_15012013	SP02A_25_15012013	SP02A_27_15012013	SP02A_28_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-041	ES1301006-042	ES1301006-043	ES1301006-044	ES1301006-045
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	91.5	96.2	113	98.2	99.1
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	98.4	105	113	89.4	110
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	103	104	105	95.2	94.5
2-Chlorophenol-D4	93951-73-6	0.1	%	99.9	102	104	92.8	93.2
2,4,6-Tribromophenol	118-79-6	0.1	%	78.7	81.8	81.8	81.0	82.3
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	96.8	98.6	99.5	99.6	99.6
Anthracene-d10	1719-06-8	0.1	%	92.0	93.2	94.1	93.6	93.8
4-Terphenyl-d14	1718-51-0	0.1	%	94.9	96.1	97.2	96.1	96.4
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	104	121	86.3	84.3	86.6
Toluene-D8	2037-26-5	0.1	%	97.4	113	98.8	84.4	84.3
4-Bromofluorobenzene	460-00-4	0.1	%	94.7	103	94.1	92.6	80.8



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_30_15012013	SP02A_32_15012013	SP02A_33_15012013	SP02A_34_15012013	SP02A_36_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-046	ES1301006-047	ES1301006-048	ES1301006-049	ES1301006-050
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	12.4	9.2	13.1	9.9	10.9
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	20	40	40	40	40
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	<2	<2	3	<2	<2
Manganese	7439-96-5	5	mg/kg	44	64	163	58	66
Vanadium	7440-62-2	5	mg/kg	76	95	128	110	116
Arsenic	7440-38-2	5	mg/kg	<5	6	11	6	8
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	27	32	86	85	94
Copper	7440-50-8	5	mg/kg	8	8	13	6	7
Lead	7439-92-1	5	mg/kg	8	9	13	11	10
Nickel	7440-02-0	2	mg/kg	5	5	7	6	5
Zinc	7440-66-6	5	mg/kg	20	13	30	10	14
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_30_15012013	SP02A_32_15012013	SP02A_33_15012013	SP02A_34_15012013	SP02A_36_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-046	ES1301006-047	ES1301006-048	ES1301006-049	ES1301006-050
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_30_15012013	SP02A_32_15012013	SP02A_33_15012013	SP02A_34_15012013	SP02A_36_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-046	ES1301006-047	ES1301006-048	ES1301006-049	ES1301006-050
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	130	130	125	122	121



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_30_15012013	SP02A_32_15012013	SP02A_33_15012013	SP02A_34_15012013	SP02A_36_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-046	ES1301006-047	ES1301006-048	ES1301006-049	ES1301006-050
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	96.8	98.5	99.0	95.2	91.6
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	101	103	99.5	92.6	95.4
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	95.0	96.0	98.3	98.8	98.4
2-Chlorophenol-D4	93951-73-6	0.1	%	92.8	92.0	96.3	96.1	95.2
2,4,6-Tribromophenol	118-79-6	0.1	%	80.9	78.9	86.3	85.5	84.9
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	98.3	98.6	102	102	101
Anthracene-d10	1719-06-8	0.1	%	92.3	92.4	97.4	97.3	96.2
4-Terphenyl-d14	1718-51-0	0.1	%	95.3	95.4	100	99.8	99.5
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	98.0	114	109	108	113
Toluene-D8	2037-26-5	0.1	%	90.3	102	99.0	95.2	99.6
4-Bromofluorobenzene	460-00-4	0.1	%	87.8	92.9	90.5	88.3	93.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_37_15012013	SP02A_38_15012013	SP02A_39_15012013	SP02A_41_15012013	SP02A_42_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-051	ES1301006-052	ES1301006-053	ES1301006-054	ES1301006-055
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	11.4	11.1	11.7	12.4	9.0
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	70	80	40	20	50
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	<2	<2	3	<2	<2
Manganese	7439-96-5	5	mg/kg	67	67	100	37	55
Vanadium	7440-62-2	5	mg/kg	83	104	41	279	480
Arsenic	7440-38-2	5	mg/kg	6	7	11	15	22
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	37	39	24	98	261
Copper	7440-50-8	5	mg/kg	10	11	51	<5	<5
Lead	7439-92-1	5	mg/kg	7	16	236	13	15
Nickel	7440-02-0	2	mg/kg	6	7	12	<2	4
Zinc	7440-66-6	5	mg/kg	17	27	50	<5	19
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_37_15012013	SP02A_38_15012013	SP02A_39_15012013	SP02A_41_15012013	SP02A_42_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-051	ES1301006-052	ES1301006-053	ES1301006-054	ES1301006-055
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_37_15012013	SP02A_38_15012013	SP02A_39_15012013	SP02A_41_15012013	SP02A_42_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-051	ES1301006-052	ES1301006-053	ES1301006-054	ES1301006-055
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	138	122	130	136	137



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_37_15012013	SP02A_38_15012013	SP02A_39_15012013	SP02A_41_15012013	SP02A_42_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-051	ES1301006-052	ES1301006-053	ES1301006-054	ES1301006-055
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	105	96.1	98.3	105	110
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	113	101	101	101	113
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	100	93.9	105	105	98.4
2-Chlorophenol-D4	93951-73-6	0.1	%	97.7	92.3	102	95.3	95.7
2,4,6-Tribromophenol	118-79-6	0.1	%	86.5	81.1	82.8	84.2	85.2
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	103	98.1	99.8	101	103
Anthracene-d10	1719-06-8	0.1	%	96.9	90.5	93.7	95.2	96.7
4-Terphenyl-d14	1718-51-0	0.1	%	104	94.4	96.8	98.9	101
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	103	108	105	105	107
Toluene-D8	2037-26-5	0.1	%	88.1	97.0	93.8	95.0	99.1
4-Bromofluorobenzene	460-00-4	0.1	%	81.9	90.1	87.0	89.4	89.7



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_44_15012013	SP02A_47_15012013	SP02A_48_15012013	SP02A_49_15012013	SP02A_50_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-056	ES1301006-057	ES1301006-058	ES1301006-059	ES1301006-060
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	20.0	12.9	19.5	13.9	12.9
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	80	70	90	60	120
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	2	<2	<2	<2	<2
Manganese	7439-96-5	5	mg/kg	160	67	76	72	69
Vanadium	7440-62-2	5	mg/kg	70	152	160	200	241
Arsenic	7440-38-2	5	mg/kg	7	9	11	9	13
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	45	73	70	62	106
Copper	7440-50-8	5	mg/kg	39	7	8	6	20
Lead	7439-92-1	5	mg/kg	61	13	21	12	40
Nickel	7440-02-0	2	mg/kg	8	4	4	4	5
Zinc	7440-66-6	5	mg/kg	96	17	20	21	84
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.3	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_44_15012013	SP02A_47_15012013	SP02A_48_15012013	SP02A_49_15012013	SP02A_50_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-056	ES1301006-057	ES1301006-058	ES1301006-059	ES1301006-060
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	0.6
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	0.6
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_44_15012013	SP02A_47_15012013	SP02A_48_15012013	SP02A_49_15012013	SP02A_50_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-056	ES1301006-057	ES1301006-058	ES1301006-059	ES1301006-060
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	1.7
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	125	123	120	131	115



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_44_15012013	SP02A_47_15012013	SP02A_48_15012013	SP02A_49_15012013	SP02A_50_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-056	ES1301006-057	ES1301006-058	ES1301006-059	ES1301006-060
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	102	95.8	99.1	108	109
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	107	99.4	108	116	94.6
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	96.2	106	99.9	95.7	103
2-Chlorophenol-D4	93951-73-6	0.1	%	93.8	103	97.8	94.3	97.7
2,4,6-Tribromophenol	118-79-6	0.1	%	79.9	80.1	80.1	78.2	81.8
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	99.2	99.9	103	100	105
Anthracene-d10	1719-06-8	0.1	%	94.0	93.6	98.4	94.7	98.9
4-Terphenyl-d14	1718-51-0	0.1	%	95.8	95.6	98.0	94.7	99.2
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	100	89.4	118	104	100
Toluene-D8	2037-26-5	0.1	%	93.5	88.3	108	102	92.9
4-Bromofluorobenzene	460-00-4	0.1	%	85.7	83.8	101	91.2	86.2



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_52_15012013	SP02A_53_15012013	SP02A_55_15012013	SP02A_57_15012013	SP01A_58_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-061	ES1301006-062	ES1301006-063	ES1301006-064	ES1301006-065
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	18.8	13.0	17.6	12.4	11.8
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	200	70	40	100	230
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	<2	<2	<2	<2	<2
Manganese	7439-96-5	5	mg/kg	85	83	100	106	65
Vanadium	7440-62-2	5	mg/kg	103	132	210	165	225
Arsenic	7440-38-2	5	mg/kg	11	8	11	9	15
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	50	53	65	97	96
Copper	7440-50-8	5	mg/kg	24	13	11	10	46
Lead	7439-92-1	5	mg/kg	43	18	14	17	64
Nickel	7440-02-0	2	mg/kg	5	5	5	5	4
Zinc	7440-66-6	5	mg/kg	118	29	21	29	121
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_52_15012013	SP02A_53_15012013	SP02A_55_15012013	SP02A_57_15012013	SP01A_58_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-061	ES1301006-062	ES1301006-063	ES1301006-064	ES1301006-065
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_52_15012013	SP02A_53_15012013	SP02A_55_15012013	SP02A_57_15012013	SP01A_58_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-061	ES1301006-062	ES1301006-063	ES1301006-064	ES1301006-065
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	130	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	130	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	150	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	250	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	85.0	106	87.0	62.0	69.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP02A_52_15012013	SP02A_53_15012013	SP02A_55_15012013	SP02A_57_15012013	SP01A_58_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-061	ES1301006-062	ES1301006-063	ES1301006-064	ES1301006-065
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	99.0	107	98.3	96.4	104
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	108	126	112	105	115
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	91.7	85.7	92.4	90.3	93.0
2-Chlorophenol-D4	93951-73-6	0.1	%	95.4	89.4	91.6	89.0	92.4
2,4,6-Tribromophenol	118-79-6	0.1	%	77.9	76.7	77.9	76.8	77.8
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	98.7	95.6	98.4	96.5	99.0
Anthracene-d10	1719-06-8	0.1	%	95.2	90.2	93.1	91.7	94.5
4-Terphenyl-d14	1718-51-0	0.1	%	94.8	90.5	93.5	92.4	94.4
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	91.5	104	113	106	101
Toluene-D8	2037-26-5	0.1	%	85.5	93.8	99.1	104	96.6
4-Bromofluorobenzene	460-00-4	0.1	%	80.1	84.3	90.8	90.6	86.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP01A_59_15012013	SP01A_61_15012013	SP01A_62_15012013	SP01A_63_15012013	SP01A_65_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-066	ES1301006-067	ES1301006-068	ES1301006-069	ES1301006-070
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	9.7	10.0	7.8	12.0	10.2
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	2560	660	110	400	750
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	2	<2	<2	<2	<2
Manganese	7439-96-5	5	mg/kg	134	59	51	25	158
Vanadium	7440-62-2	5	mg/kg	184	64	118	122	53
Arsenic	7440-38-2	5	mg/kg	14	5	7	6	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	117	35	79	31	50
Copper	7440-50-8	5	mg/kg	25	11	13	<5	9
Lead	7439-92-1	5	mg/kg	85	13	12	8	12
Nickel	7440-02-0	2	mg/kg	5	6	4	2	6
Zinc	7440-66-6	5	mg/kg	158	24	18	10	30
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP01A_59_15012013	SP01A_61_15012013	SP01A_62_15012013	SP01A_63_15012013	SP01A_65_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-066	ES1301006-067	ES1301006-068	ES1301006-069	ES1301006-070
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP01A_59_15012013	SP01A_61_15012013	SP01A_62_15012013	SP01A_63_15012013	SP01A_65_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-066	ES1301006-067	ES1301006-068	ES1301006-069	ES1301006-070
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	65.0	62.0	67.0	62.0	91.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP01A_59_15012013	SP01A_61_15012013	SP01A_62_15012013	SP01A_63_15012013	SP01A_65_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-066	ES1301006-067	ES1301006-068	ES1301006-069	ES1301006-070
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	98.7	91.4	99.5	94.5	125
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	111	97.3	111	104	84.9
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	94.9	93.7	91.9	89.3	88.0
2-Chlorophenol-D4	93951-73-6	0.1	%	93.2	93.6	91.1	95.1	91.1
2,4,6-Tribromophenol	118-79-6	0.1	%	79.5	79.0	77.7	78.4	76.7
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	100	99.8	97.7	101	98.4
Anthracene-d10	1719-06-8	0.1	%	98.3	94.4	93.0	96.4	95.9
4-Terphenyl-d14	1718-51-0	0.1	%	96.1	94.8	92.9	96.3	96.4
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	106	110	108	96.5	102
Toluene-D8	2037-26-5	0.1	%	94.3	102	98.3	86.8	96.6
4-Bromofluorobenzene	460-00-4	0.1	%	88.7	90.4	88.0	78.2	86.3



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP01A_66_15012013	SP01A_67_15012013	SP01A_69_15012013	SP01A_70_15012013	SP01A_71_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-071	ES1301006-072	ES1301006-073	ES1301006-074	ES1301006-075
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	6.4	9.7	17.1	8.6	12.3
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	230	130	110	70	230
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Cobalt	7440-48-4	2	mg/kg	<2	<2	4	<2	3
Manganese	7439-96-5	5	mg/kg	85	70	183	48	114
Vanadium	7440-62-2	5	mg/kg	109	139	72	121	160
Arsenic	7440-38-2	5	mg/kg	10	10	9	11	9
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	50	55	33	54	62
Copper	7440-50-8	5	mg/kg	13	45	36	8	14
Lead	7439-92-1	5	mg/kg	18	49	98	14	26
Nickel	7440-02-0	2	mg/kg	6	5	10	4	6
Zinc	7440-66-6	5	mg/kg	37	64	285	22	82
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

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				SP01A_66_15012013	SP01A_67_15012013	SP01A_69_15012013	SP01A_70_15012013	SP01A_71_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-071	ES1301006-072	ES1301006-073	ES1301006-074	ES1301006-075
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

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				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-071	ES1301006-072	ES1301006-073	ES1301006-074	ES1301006-075
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	79.0	96.0	88.0	96.0	96.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

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				SP01A_66_15012013	SP01A_67_15012013	SP01A_69_15012013	SP01A_70_15012013	SP01A_71_15012013
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00
Compound	CAS Number	LOR	Unit	ES1301006-071	ES1301006-072	ES1301006-073	ES1301006-074	ES1301006-075
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	89.2	102	97.5	109	99.4
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	99.7	81.4	103	119	107
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	95.8	88.7	89.6	88.6	87.1
2-Chlorophenol-D4	93951-73-6	0.1	%	94.2	89.9	93.5	87.1	88.6
2,4,6-Tribromophenol	118-79-6	0.1	%	80.4	75.7	77.5	74.0	76.4
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	103	94.1	99.8	94.5	98.6
Anthracene-d10	1719-06-8	0.1	%	98.7	92.1	95.0	92.5	93.6
4-Terphenyl-d14	1718-51-0	0.1	%	97.4	92.0	93.3	91.8	94.0
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	102	105	103	106	108
Toluene-D8	2037-26-5	0.1	%	96.8	95.0	91.9	94.2	95.4
4-Bromofluorobenzene	460-00-4	0.1	%	86.0	87.0	84.2	87.8	85.7



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

Client sampling date / time

				SP01A_73_15012013	QC02_15012013	QC05_15012013	----	----
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	----	----
Compound	CAS Number	LOR	Unit	ES1301006-076	ES1301006-077	ES1301006-078	----	----
EA055: Moisture Content								
Moisture Content (dried @ 103°C)	----	1.0	%	11.7	18.9	19.5	----	----
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	140	70	90	----	----
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	----	----
Cobalt	7440-48-4	2	mg/kg	5	<2	<2	----	----
Manganese	7439-96-5	5	mg/kg	75	69	66	----	----
Vanadium	7440-62-2	5	mg/kg	79	78	262	----	----
Arsenic	7440-38-2	5	mg/kg	12	<5	11	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	----	----
Chromium	7440-47-3	2	mg/kg	49	44	167	----	----
Copper	7440-50-8	5	mg/kg	110	7	<5	----	----
Lead	7439-92-1	5	mg/kg	44	8	15	----	----
Nickel	7440-02-0	2	mg/kg	8	4	2	----	----
Zinc	7440-66-6	5	mg/kg	102	16	8	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	----	----
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

Client sample ID

				SP01A_73_15012013	QC02_15012013	QC05_15012013	----	----
Client sampling date / time				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	----	----
Compound	CAS Number	LOR	Unit	ES1301006-076	ES1301006-077	ES1301006-078	----	----
EP068A: Organochlorine Pesticides (OC) - Continued								
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	1.0	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	0.9	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	0.7	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	0.8	<0.5	<0.5	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)

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				SP01A_73_15012013	QC02_15012013	QC05_15012013	----	----
				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	----	----
Compound	CAS Number	LOR	Unit	ES1301006-076	ES1301006-077	ES1301006-078	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	1.2	<0.5	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	0.5	<0.5	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	0.8	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	0.6	<0.5	<0.5	----	----
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	1.1	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	7.6	<0.5	<0.5	----	----
Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	1.1	<0.5	<0.5	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	<10	<10	----	----
^ C6 - C10 Fraction minus BTEX (F1)	----	10	mg/kg	<10	<10	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
EP080: BTEXN								
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
^ Total Xylenes	1330-20-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	67.0	101	96.0	----	----



Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)

Client sample ID

				SP01A_73_15012013	QC02_15012013	QC05_15012013	----	----
Client sampling date / time				15-JAN-2013 15:00	15-JAN-2013 15:00	15-JAN-2013 15:00	----	----
Compound	CAS Number	LOR	Unit	ES1301006-076	ES1301006-077	ES1301006-078	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	113	103	93.1	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	93.9	104	100	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	94.4	94.0	84.7	----	----
2-Chlorophenol-D4	93951-73-6	0.1	%	94.8	93.1	86.0	----	----
2,4,6-Tribromophenol	118-79-6	0.1	%	73.1	72.4	71.9	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	102	93.2	93.4	----	----
Anthracene-d10	1719-06-8	0.1	%	91.5	89.6	91.7	----	----
4-Terphenyl-d14	1718-51-0	0.1	%	91.3	87.3	88.3	----	----
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	100	102	105	----	----
Toluene-D8	2037-26-5	0.1	%	91.2	90.2	92.8	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	80.5	80.4	86.8	----	----



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	29.4	145
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	145
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	32	142
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	127
2-Chlorophenol-D4	93951-73-6	64	126
2,4,6-Tribromophenol	118-79-6	36	136
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	64	130
Anthracene-d10	1719-06-8	69	135
4-Terphenyl-d14	1718-51-0	64	136
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	72.8	133.2
Toluene-D8	2037-26-5	73.9	132.1
4-Bromofluorobenzene	460-00-4	71.6	130.0

Environmental Division

QUALITY CONTROL REPORT

Work Order	: ES1301006	Page	: 1 of 43
Client	: URS AUSTRALIA PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: BEK AAGAARD	Contact	: Client Services
Address	: G P O BOX 2005 DARWIN NT, AUSTRALIA 0801	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: bek.aagaard@urs.com	E-mail	: sydney@alsglobal.com
Telephone	: +61 08 89802900	Telephone	: +61-2-8784 8555
Facsimile	: +61 08 89413920	Facsimile	: +61-2-8784 8500
Project	: 42213719 70061 WATERFRONT STAGE 2A	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----	Date Samples Received	: 17-JAN-2013
C-O-C number	: ----	Issue Date	: 29-JAN-2013
Sampler	: BA	No. of samples received	: 78
Order number	: ----	No. of samples analysed	: 78
Quote number	: EN/001/12		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits



NATA Accredited Laboratory 825

Accredited for compliance with
ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Ankit Joshi	Inorganic Chemist	Sydney Inorganics
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics
Evie.Sidarta	Inorganic Chemist	Sydney Inorganics
Phalak Inthaksone	Laboratory Manager - Organics	Sydney Organics
Phalak Inthaksone	Laboratory Manager - Organics	Sydney Organics



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
 CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
 LOR = Limit of reporting
 RPD = Relative Percentage Difference
 # = Indicates failed QC



Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:- 0% - 20%.

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EA055: Moisture Content (QC Lot: 2693785)									
ES1301006-003	SP02A_10_15012013	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	20.6	20.7	0.7	0% - 20%
ES1301006-014	SP02A_45_15012013	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	22.8	23.0	0.9	0% - 20%
EA055: Moisture Content (QC Lot: 2693786)									
ES1301006-023	SP01A_74_15012013	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	19.7	20.3	3.2	0% - 20%
ES1301006-034	SP02A_13_15012013	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	13.0	12.5	3.2	0% - 50%
EA055: Moisture Content (QC Lot: 2693787)									
ES1301006-043	SP02A_25_15012013	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	23.1	23.9	3.2	0% - 20%
EA055: Moisture Content (QC Lot: 2695745)									
ES1301006-051	SP02A_37_15012013	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	11.4	11.3	0.0	0% - 50%
ES1301006-062	SP02A_53_15012013	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	13.0	13.3	2.3	0% - 50%
EA055: Moisture Content (QC Lot: 2695749)									
ES1301006-071	SP01A_66_15012013	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	6.4	6.7	4.5	No Limit
ES1301253-001	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	4.0	3.3	17.3	No Limit
EG005T: Total Metals by ICP-AES (QC Lot: 2690096)									
ES1300591-001	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	3	2	0.0	0% - 20%
		EG005T: Barium	7440-39-3	10	mg/kg	180	200	10.2	0% - 50%
		EG005T: Chromium	7440-47-3	2	mg/kg	94	104	10.4	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	12	16	25.7	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	16	19	16.2	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	101	119	16.4	0% - 20%
		EG005T: Copper	7440-50-8	5	mg/kg	528	606	13.8	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	465	573	# 20.9	0% - 20%
		EG005T: Manganese	7439-96-5	5	mg/kg	401	434	8.1	0% - 20%
		EG005T: Vanadium	7440-62-2	5	mg/kg	25	26	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	12400	7760	# 46.0	0% - 20%
ES1300591-011	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	1	1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	20	20	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	30	31	5.4	0% - 50%
		EG005T: Cobalt	7440-48-4	2	mg/kg	16	16	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	25	26	0.0	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	5	6	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	16	17	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	10	11	0.0	No Limit

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 Work Order : ES1301006
 Client : URS AUSTRALIA PTY LTD
 Project : 42213719 70061 WATERFRONT STAGE 2A



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG005T: Total Metals by ICP-AES (QC Lot: 2690096) - continued									
ES1300591-011	Anonymous	EG005T: Manganese	7439-96-5	5	mg/kg	92	96	4.6	0% - 50%
		EG005T: Vanadium	7440-62-2	5	mg/kg	45	47	5.8	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	103	105	2.2	0% - 20%
EG005T: Total Metals by ICP-AES (QC Lot: 2693952)									
ES1301006-001	SP02A_01_15012013	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	20	40	52.9	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	56	46	19.5	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	4	3	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	6	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	5	7	29.2	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	57	49	14.1	0% - 50%
		EG005T: Vanadium	7440-62-2	5	mg/kg	133	160	18.2	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	9	16	59.4	No Limit
ES1301006-011	SP02A_35_15012013	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	40	60	21.7	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	28	23	22.4	0% - 50%
		EG005T: Cobalt	7440-48-4	2	mg/kg	2	2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	5	4	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	22	22	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	18	20	9.6	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	64	63	0.0	0% - 50%
		EG005T: Vanadium	7440-62-2	5	mg/kg	49	38	24.5	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	68	60	12.3	0% - 50%
EG005T: Total Metals by ICP-AES (QC Lot: 2693954)									
ES1301006-021	SP01A_68_15012013	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	1750	1560	11.4	0% - 20%
		EG005T: Chromium	7440-47-3	2	mg/kg	39	38	0.0	0% - 50%
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	4	4	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	11	11	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	11	10	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	27	23	15.2	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	51	63	20.8	0% - 50%
		EG005T: Vanadium	7440-62-2	5	mg/kg	99	83	16.9	0% - 50%

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 Work Order : ES1301006
 Client : URS AUSTRALIA PTY LTD
 Project : 42213719 70061 WATERFRONT STAGE 2A



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG005T: Total Metals by ICP-AES (QC Lot: 2693954) - continued									
ES1301006-021	SP01A_68_15012013	EG005T: Zinc	7440-66-6	5	mg/kg	74	65	12.9	0% - 50%
ES1301006-031	SP02A_08_15012013	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	50	50	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	33	39	17.6	0% - 50%
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	5	4	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	10	8	20.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	9	6	38.6	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	91	76	17.1	0% - 50%
		EG005T: Vanadium	7440-62-2	5	mg/kg	59	60	0.0	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	24	27	12.1	No Limit
EG005T: Total Metals by ICP-AES (QC Lot: 2695832)									
ES1301006-041	SP02A_22_15012013	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	20	20	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	105	89	16.2	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	2	2	0.0	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	12	11	9.4	0% - 20%
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	11	11	0.0	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	46	52	11.3	0% - 50%
		EG005T: Vanadium	7440-62-2	5	mg/kg	199	176	12.5	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	7	7	0.0	No Limit
ES1301006-051	SP02A_37_15012013	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	70	50	32.9	0% - 20%
		EG005T: Chromium	7440-47-3	2	mg/kg	37	58	# 44.6	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	6	5	24.7	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	9	37.2	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	10	9	14.5	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	7	12	45.5	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	67	75	11.3	0% - 50%
		EG005T: Vanadium	7440-62-2	5	mg/kg	83	136	# 47.6	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	17	18	0.0	No Limit
EG005T: Total Metals by ICP-AES (QC Lot: 2695834)									
ES1301006-061	SP02A_52_15012013	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG005T: Total Metals by ICP-AES (QC Lot: 2695834) - continued									
ES1301006-061	SP02A_52_15012013	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	200	220	11.6	0% - 20%
		EG005T: Chromium	7440-47-3	2	mg/kg	50	58	14.4	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	5	5	0.0	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	11	14	26.9	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	24	32	26.3	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	43	138	# 104	0% - 20%
		EG005T: Manganese	7439-96-5	5	mg/kg	85	88	3.6	0% - 50%
		EG005T: Vanadium	7440-62-2	5	mg/kg	103	149	# 36.2	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	118	142	18.2	0% - 20%
ES1301006-071	SP01A_66_15012013	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	230	190	17.3	0% - 20%
		EG005T: Chromium	7440-47-3	2	mg/kg	50	42	18.3	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	6	5	0.0	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	10	7	35.8	0% - 20%
		EG005T: Copper	7440-50-8	5	mg/kg	13	9	28.7	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	18	16	8.8	0% - 20%
		EG005T: Manganese	7439-96-5	5	mg/kg	85	79	7.0	0% - 20%
		EG005T: Vanadium	7440-62-2	5	mg/kg	109	119	9.1	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	37	29	22.8	0% - 20%
EG005T: Total Metals by ICP-AES (QC Lot: 2696510)									
EB1301000-001	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	1	1	0.0	0% - 20%
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	320	380	17.9	0% - 20%
		EG005T: Chromium	7440-47-3	2	mg/kg	19	19	0.0	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	12	17	29.2	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	16	17	9.6	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	20	21	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	33	33	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	27	34	25.0	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	767	1380	# 56.8	0% - 20%
		EG005T: Vanadium	7440-62-2	5	mg/kg	72	74	2.3	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	56	55	0.0	0% - 20%
ES1301385-001	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	140	140	0.0	0% - 50%
		EG005T: Chromium	7440-47-3	2	mg/kg	17	19	7.9	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG005T: Total Metals by ICP-AES (QC Lot: 2696510) - continued									
ES1301385-001	Anonymous	EG005T: Cobalt	7440-48-4	2	mg/kg	13	11	19.8	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	26	25	0.0	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	12	19	44.4	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	241	307	# 24.1	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	454	460	1.3	0% - 20%
		EG005T: Manganese	7439-96-5	5	mg/kg	404	395	2.4	0% - 20%
		EG005T: Vanadium	7440-62-2	5	mg/kg	43	41	3.5	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	224	281	# 22.6	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2693953)									
ES1301006-001	SP02A_01_15012013	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1301006-011	SP02A_35_15012013	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2693955)									
ES1301006-021	SP01A_68_15012013	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1301006-031	SP02A_08_15012013	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2695833)									
ES1301006-041	SP02A_22_15012013	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1301006-051	SP02A_37_15012013	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2695835)									
ES1301006-061	SP02A_52_15012013	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1301006-071	SP01A_66_15012013	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 2694903)									
ES1301006-001	SP02A_01_15012013	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1301006-010	SP02A_31_15012013	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 2694904)									
ES1301006-021	SP01A_68_15012013	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1301006-030	SP02A_07_15012013	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 2694905)									
ES1301006-041	SP02A_22_15012013	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1301006-050	SP02A_36_15012013	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 2694906)									
ES1301006-061	SP02A_52_15012013	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1301006-070	SP01A_65_15012013	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2693654)									
ES1301006-002	SP02A_06_15012013	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1301006-012	SP02A_40_15012013	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2694098)									
ES1301006-022	SP01A_72_15012013	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1301006-032	SP02A_09_15012013	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit



Sub-Matrix: SOIL					Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2694186)									
ES1301006-042	SP02A_23_15012013	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1301006-052	SP02A_38_15012013	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2694942)									
ES1301006-061	SP02A_52_15012013	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1301006-071	SP01A_66_15012013	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2693653)									
ES1301006-002	SP02A_06_15012013	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES1301006-012	SP02A_40_15012013	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2693653) - continued									
ES1301006-012	SP02A_40_15012013	EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2694097)									
ES1301006-022	SP01A_72_15012013	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES1301006-032	SP02A_09_15012013	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2694097) - continued									
ES1301006-032	SP02A_09_15012013	EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2694185)									
ES1301006-042	SP02A_23_15012013	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
ES1301006-052	SP02A_38_15012013	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2694185) - continued									
ES1301006-052	SP02A_38_15012013	EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2694941)									
ES1301006-061	SP02A_52_15012013	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES1301006-071	SP01A_66_15012013	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2694941) - continued									
ES1301006-071	SP01A_66_15012013	EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EP068: 4,4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP075(SIM)A: Phenolic Compounds (QC Lot: 2693644)									
ES1301006-001	SP02A_01_15012013	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
ES1301006-011	SP02A_35_15012013	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)A: Phenolic Compounds (QC Lot: 2693644) - continued									
ES1301006-011	SP02A_35_15012013	EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 2694100)									
ES1301006-021	SP01A_68_15012013	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
ES1301006-031	SP02A_08_15012013	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 2694184)									
ES1301006-041	SP02A_22_15012013	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)A: Phenolic Compounds (QC Lot: 2694184) - continued									
ES1301006-051	SP02A_37_15012013	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
	EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit	
EP075(SIM)A: Phenolic Compounds (QC Lot: 2695374)									
ES1301006-061	SP02A_52_15012013	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
	EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit	
ES1301006-071	SP01A_66_15012013	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
	EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2693644)									
ES1301006-001	SP02A_01_15012013	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2693644) - continued									
ES1301006-001	SP02A_01_15012013	EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1301006-011	SP02A_35_15012013	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2694100)									
ES1301006-021	SP01A_68_15012013	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2694100) - continued									
ES1301006-021	SP01A_68_15012013	EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1301006-031	SP02A_08_15012013	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2694184)							
ES1301006-041	SP02A_22_15012013	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2694184) - continued									
ES1301006-041	SP02A_22_15012013	EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1301006-051	SP02A_37_15012013	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2695374)							
ES1301006-061	SP02A_52_15012013	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2695374) - continued											
ES1301006-061	SP02A_52_15012013	EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		ES1301006-071	SP01A_66_15012013	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM): Acenaphthylene	208-96-8			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Acenaphthene	83-32-9			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Fluorene	86-73-7			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Phenanthrene	85-01-8			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Anthracene	120-12-7			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Fluoranthene	206-44-0			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Pyrene	129-00-0			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Benz(a)anthracene	56-55-3			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Chrysene	218-01-9			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Benzo(b)fluoranthene	205-99-2			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Benzo(k)fluoranthene	207-08-9			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Benzo(a)pyrene	50-32-8			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Dibenz(a,h)anthracene	53-70-3			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Benzo(g,h,i)perylene	191-24-2			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Benzo(a)pyrene TEQ (WHO)	----			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2693290)											
ES1301006-001	SP02A_01_15012013			EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1301006-011	SP02A_35_15012013			EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2693451)											
ES1301006-021	SP01A_68_15012013	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit		
ES1301006-031	SP02A_08_15012013	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit		
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2693545)											



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2693545) - continued									
ES1301006-041	SP02A_22_15012013	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1301006-051	SP02A_37_15012013	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2693643)									
ES1301006-001	SP02A_01_15012013	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1301006-011	SP02A_35_15012013	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2694099)									
ES1301006-021	SP01A_68_15012013	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1301006-031	SP02A_08_15012013	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2694183)									
ES1301006-041	SP02A_22_15012013	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1301006-051	SP02A_37_15012013	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2694938)									
ES1301006-061	SP02A_52_15012013	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1301006-071	SP01A_66_15012013	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2695373)									
ES1301006-061	SP02A_52_15012013	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1301006-071	SP01A_66_15012013	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2693290)									
ES1301006-001	SP02A_01_15012013	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1301006-011	SP02A_35_15012013	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2693451)									
ES1301006-021	SP01A_68_15012013	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1301006-031	SP02A_08_15012013	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2693545)									
ES1301006-041	SP02A_22_15012013	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1301006-051	SP02A_37_15012013	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2693643)									
ES1301006-001	SP02A_01_15012013	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1301006-011	SP02A_35_15012013	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2694099)									
ES1301006-021	SP01A_68_15012013	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1301006-031	SP02A_08_15012013	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2694183)									
ES1301006-041	SP02A_22_15012013	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1301006-051	SP02A_37_15012013	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2694938)									
ES1301006-061	SP02A_52_15012013	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1301006-071	SP01A_66_15012013	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QC Lot: 2695373)									
ES1301006-061	SP02A_52_15012013	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1301006-071	SP01A_66_15012013	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080: BTEXN (QC Lot: 2693290)									
ES1301006-001	SP02A_01_15012013	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080: BTEXN (QC Lot: 2693290) - continued									
ES1301006-001	SP02A_01_15012013	EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES1301006-011	SP02A_35_15012013	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP080: BTEXN (QC Lot: 2693451)									
ES1301006-021	SP01A_68_15012013	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES1301006-031	SP02A_08_15012013	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP080: BTEXN (QC Lot: 2693545)									
ES1301006-041	SP02A_22_15012013	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES1301006-051	SP02A_37_15012013	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP080: BTEXN (QC Lot: 2694938)									

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 Work Order : ES1301006
 Client : URS AUSTRALIA PTY LTD
 Project : 42213719 70061 WATERFRONT STAGE 2A



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080: BTEXN (QC Lot: 2694938) - continued									
ES1301006-061	SP02A_52_15012013	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1301006-071	SP01A_66_15012013	EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
		EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit



Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result			LCS	Low
EG005T: Total Metals by ICP-AES (QCLot: 2693952)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	111	84	128
EG005T: Barium	7440-39-3	10	mg/kg	<10	143 mg/kg	98.6	83	125
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.63 mg/kg	111	88	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	99.0	79	119
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	93.9	70	130
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	16.0 mg/kg	106	83	127
EG005T: Copper	7440-50-8	5	mg/kg	<5	32.0 mg/kg	103	83	127
EG005T: Lead	7439-92-1	5	mg/kg	<5	40.0 mg/kg	107	81	117
EG005T: Manganese	7439-96-5	5	mg/kg	<5	130 mg/kg	106	83	121
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.0 mg/kg	106	79	127
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	29.6 mg/kg	104	89	131
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	104	78	130
EG005T: Total Metals by ICP-AES (QCLot: 2693954)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	116	84	128
EG005T: Barium	7440-39-3	10	mg/kg	<10	143 mg/kg	104	83	125
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.63 mg/kg	109	88	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	114	79	119
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	99.3	70	130
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	16.0 mg/kg	111	83	127
EG005T: Copper	7440-50-8	5	mg/kg	<5	32.0 mg/kg	104	83	127
EG005T: Lead	7439-92-1	5	mg/kg	<5	40.0 mg/kg	105	81	117
EG005T: Manganese	7439-96-5	5	mg/kg	<5	130 mg/kg	106	83	121
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.0 mg/kg	109	79	127
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	29.6 mg/kg	109	89	131
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	108	78	130
EG005T: Total Metals by ICP-AES (QCLot: 2695832)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	118	84	128
EG005T: Barium	7440-39-3	10	mg/kg	<10	143 mg/kg	123	83	125
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.63 mg/kg	113	88	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	108	79	119
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	123	70	130
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	16.0 mg/kg	119	83	127
EG005T: Copper	7440-50-8	5	mg/kg	<5	32.0 mg/kg	120	83	127
EG005T: Lead	7439-92-1	5	mg/kg	<5	40.0 mg/kg	112	81	117



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EG005T: Total Metals by ICP-AES (QCLot: 2695832) - continued								
EG005T: Manganese	7439-96-5	5	mg/kg	<5	130 mg/kg	115	83	121
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.0 mg/kg	125	79	127
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	29.6 mg/kg	121	89	131
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	124	78	130
EG005T: Total Metals by ICP-AES (QCLot: 2695834)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	120	84	128
EG005T: Barium	7440-39-3	10	mg/kg	<10	143 mg/kg	122	83	125
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.63 mg/kg	108	88	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	108	79	119
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	124	70	130
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	16.0 mg/kg	118	83	127
EG005T: Copper	7440-50-8	5	mg/kg	<5	32.0 mg/kg	114	83	127
EG005T: Lead	7439-92-1	5	mg/kg	<5	40.0 mg/kg	112	81	117
EG005T: Manganese	7439-96-5	5	mg/kg	<5	130 mg/kg	115	83	121
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.0 mg/kg	124	79	127
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	29.6 mg/kg	121	89	131
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	126	78	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2693953)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	84.6	72	114
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2693955)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	80.6	72	114
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2695833)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	102	72	114
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2695835)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	95.5	72	114
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694903)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	98.2	71	123
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694904)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	121	71	123
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694905)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	121	71	123
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694906)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	99.2	71	123
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2693654)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	109	57.4	117
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2694098)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	113	57.4	117



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit		Spike	Spike Recovery (%)	Recovery Limits (%)	
				Concentration	LCS	Low	High	
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2694186)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	113	57.4	117
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2694942)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	112	57.4	117
EP068A: Organochlorine Pesticides (OC) (QCLot: 2693653)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	106	60.8	116
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	106	59.4	115
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	108	59.8	117
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	110	59.8	118
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	109	65.8	114
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	98.7	65.6	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	92.8	67	113
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	# 117	65.6	113
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	# 116	60.7	113
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	99.8	65.8	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	113	57.3	120
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	115	67.4	116
EP068: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	# 117	67.5	114
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	115	63	121
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	117	66.1	117
EP068: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	65.3	116
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	105	57.3	115
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	63.6	119
EP068: 4,4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	100	58.4	127
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	110	63.6	117
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	111	50.4	132
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694097)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	87.1	60.8	116
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	86.4	59.4	115
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	92.9	59.8	117
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.4	59.8	118
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	94.6	65.8	114
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	84.0	65.6	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	78.8	67	113
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	92.3	65.6	113
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	99.6	60.7	113
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	# 117	65.8	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	95.1	57.3	120
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	98.6	67.4	116
EP068: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	100	67.5	114



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694097) - continued								
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	99.9	63	121
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	66.1	117
EP068: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	65.3	116
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	91.8	57.3	115
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	85.9	63.6	119
EP068: 4,4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	89.5	58.4	127
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	87.6	63.6	117
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	88.3	50.4	132
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694185)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	103	60.8	116
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	102	59.4	115
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	101	59.8	117
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	107	59.8	118
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	92.5	65.8	114
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	65.6	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	94.6	67	113
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	98.1	65.6	113
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	113	60.7	113
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	109	65.8	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	111	57.3	120
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	97.2	67.4	116
EP068: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	94.5	67.5	114
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	112	63	121
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	116	66.1	117
EP068: 4,4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	106	65.3	116
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	100	57.3	115
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	63.6	119
EP068: 4,4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	92.1	58.4	127
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	96.0	63.6	117
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	112	50.4	132
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694941)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	96.7	60.8	116
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	96.6	59.4	115
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	101	59.8	117
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	95.2	59.8	118
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	91.2	65.8	114
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	95.6	65.6	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	96.9	67	113
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	97.6	65.6	113



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result			Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694941) - continued								
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	99.5	60.7	113
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	65.8	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	101	57.3	120
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	96.0	67.4	116
EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	98.8	67.5	114
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	99.6	63	121
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	102	66.1	117
EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	65.3	116
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	98.5	57.3	115
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	115	63.6	119
EP068: 4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	107	58.4	127
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	113	63.6	117
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	115	50.4	132
EP075(SIM)A: Phenolic Compounds (QCLot: 2693644)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	4 mg/kg	95.8	73.9	115
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	4 mg/kg	93.3	80.2	115
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	4 mg/kg	91.4	76.8	114
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1	8 mg/kg	83.3	72	119
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	4 mg/kg	71.2	60.3	117
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	4 mg/kg	84.9	74.5	119
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	4 mg/kg	83.2	71.6	113
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	4 mg/kg	88.8	74.8	115
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	4 mg/kg	87.0	76.4	114
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	4 mg/kg	82.9	62.2	115
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	4 mg/kg	71.3	68.9	112
EP075(SIM): Pentachlorophenol	87-86-5	1.0	mg/kg	<1	8 mg/kg	14.0	1.23	91.6
EP075(SIM)A: Phenolic Compounds (QCLot: 2694100)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	4 mg/kg	82.8	73.9	115
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	4 mg/kg	85.0	80.2	115
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	4 mg/kg	# 76.0	76.8	114
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1	8 mg/kg	79.6	72	119
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	4 mg/kg	65.2	60.3	117
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	4 mg/kg	79.0	74.5	119
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	4 mg/kg	81.0	71.6	113
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	4 mg/kg	89.0	74.8	115
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	4 mg/kg	90.1	76.4	114
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	4 mg/kg	73.5	62.2	115
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	4 mg/kg	77.9	68.9	112
EP075(SIM): Pentachlorophenol	87-86-5	1.0	mg/kg	<1	8 mg/kg	11.7	1.23	91.6



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit		Spike	Spike Recovery (%)	Recovery Limits (%)	
					Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 2694184)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	4 mg/kg	82.0	73.9	115
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	4 mg/kg	81.5	80.2	115
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	4 mg/kg	91.4	76.8	114
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1	8 mg/kg	92.4	72	119
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	4 mg/kg	96.5	60.3	117
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	4 mg/kg	95.8	74.5	119
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	4 mg/kg	87.8	71.6	113
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	4 mg/kg	95.5	74.8	115
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	4 mg/kg	88.9	76.4	114
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	4 mg/kg	91.0	62.2	115
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	4 mg/kg	92.5	68.9	112
EP075(SIM): Pentachlorophenol	87-86-5	1.0	mg/kg	<1	8 mg/kg	35.8	1.23	91.6
EP075(SIM)A: Phenolic Compounds (QCLot: 2695374)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	4 mg/kg	85.8	73.9	115
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	4 mg/kg	85.9	80.2	115
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	4 mg/kg	89.6	76.8	114
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1	8 mg/kg	93.9	72	119
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	4 mg/kg	89.0	60.3	117
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	4 mg/kg	93.6	74.5	119
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	4 mg/kg	83.5	71.6	113
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	4 mg/kg	89.6	74.8	115
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	4 mg/kg	86.4	76.4	114
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	4 mg/kg	82.9	62.2	115
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	4 mg/kg	85.7	68.9	112
EP075(SIM): Pentachlorophenol	87-86-5	1.0	mg/kg	<1	8 mg/kg	31.0	1.23	91.6
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2693644)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	4 mg/kg	95.3	81.9	113
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	4 mg/kg	93.9	79.6	113
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	4 mg/kg	94.6	81.5	112
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	4 mg/kg	94.2	79.9	112
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	4 mg/kg	97.2	79.4	114
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	4 mg/kg	100	81.1	112
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	4 mg/kg	97.2	78.8	113
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	4 mg/kg	98.1	78.9	113
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	4 mg/kg	94.4	77.2	112
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	4 mg/kg	100	79.8	114
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	4 mg/kg	89.5	71.8	118
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	4 mg/kg	104	74.2	117
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	4 mg/kg	95.0	76.4	113



Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2693644) - continued								
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	4 mg/kg	91.3	71	113
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	4 mg/kg	89.9	71.7	113
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	4 mg/kg	92.8	72.4	114
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2694100)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	4 mg/kg	93.0	81.9	113
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	4 mg/kg	88.0	79.6	113
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	4 mg/kg	89.7	81.5	112
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	4 mg/kg	89.5	79.9	112
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	4 mg/kg	91.5	79.4	114
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	4 mg/kg	94.5	81.1	112
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	4 mg/kg	91.2	78.8	113
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	4 mg/kg	91.6	78.9	113
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	4 mg/kg	88.5	77.2	112
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	4 mg/kg	93.5	79.8	114
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	4 mg/kg	84.2	71.8	118
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	4 mg/kg	98.9	74.2	117
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	4 mg/kg	88.6	76.4	113
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	4 mg/kg	85.0	71	113
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	4 mg/kg	82.8	71.7	113
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	4 mg/kg	88.4	72.4	114
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2694184)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	4 mg/kg	96.4	81.9	113
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	4 mg/kg	94.8	79.6	113
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	4 mg/kg	93.7	81.5	112
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	4 mg/kg	94.7	79.9	112
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	4 mg/kg	99.7	79.4	114
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	4 mg/kg	101	81.1	112
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	4 mg/kg	97.8	78.8	113
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	4 mg/kg	101	78.9	113
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	4 mg/kg	88.2	77.2	112
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	4 mg/kg	98.4	79.8	114
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	4 mg/kg	88.1	71.8	118
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	4 mg/kg	98.5	74.2	117
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	4 mg/kg	94.3	76.4	113
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	4 mg/kg	84.5	71	113
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	4 mg/kg	88.3	71.7	113
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	4 mg/kg	87.7	72.4	114
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2695374)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	4 mg/kg	99.4	81.9	113



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
Method: Compound	CAS Number	LOR	Unit		Result	Spike	Spike Recovery (%)	Recovery Limits (%)	
						Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2695374) - continued									
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	4 mg/kg	98.9	79.6	113	
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	4 mg/kg	104	81.5	112	
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	4 mg/kg	98.6	79.9	112	
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	4 mg/kg	105	79.4	114	
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	4 mg/kg	109	81.1	112	
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	4 mg/kg	102	78.8	113	
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	4 mg/kg	104	78.9	113	
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	4 mg/kg	92.3	77.2	112	
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	4 mg/kg	99.8	79.8	114	
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	4 mg/kg	95.2	71.8	118	
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	4 mg/kg	104	74.2	117	
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	4 mg/kg	97.2	76.4	113	
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	4 mg/kg	85.2	71	113	
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	4 mg/kg	82.8	71.7	113	
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	4 mg/kg	85.2	72.4	114	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693290)									
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	96.6	68.4	128	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693451)									
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	98.8	68.4	128	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693545)									
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	117	68.4	128	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693643)									
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	200 mg/kg	79.5	59	131	
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	300 mg/kg	84.9	74	138	
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	200 mg/kg	85.3	63	131	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2694099)									
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	200 mg/kg	113	59	131	
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	300 mg/kg	110	74	138	
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	200 mg/kg	108	63	131	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2694183)									
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	200 mg/kg	108	59	131	
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	300 mg/kg	118	74	138	
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	200 mg/kg	98.8	63	131	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2694938)									
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	127	68.4	128	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2695373)									
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	200 mg/kg	98.0	59	131	
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	300 mg/kg	97.1	74	138	

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result		LCS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2695373) - continued								
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	200 mg/kg	103	63	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693290)								
EP080: C6 - C10 Fraction	----	10	mg/kg	<10	31 mg/kg	95.6	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693451)								
EP080: C6 - C10 Fraction	----	10	mg/kg	<10	31 mg/kg	97.6	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693545)								
EP080: C6 - C10 Fraction	----	10	mg/kg	<10	31 mg/kg	100	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693643)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	250 mg/kg	89.3	59	131
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	350 mg/kg	82.4	74	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----
		50	mg/kg	----	150 mg/kg	77.1	63	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2694099)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	250 mg/kg	114	59	131
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	350 mg/kg	108	74	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----
		50	mg/kg	----	150 mg/kg	105	63	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2694183)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	250 mg/kg	109	59	131
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	350 mg/kg	129	74	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----
		50	mg/kg	----	150 mg/kg	117	63	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2694938)								
EP080: C6 - C10 Fraction	----	10	mg/kg	<10	31 mg/kg	112	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2695373)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	250 mg/kg	99.0	59	131
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	350 mg/kg	99.0	74	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----
		50	mg/kg	----	150 mg/kg	106	63	131
EP080: BTEXN (QCLot: 2693290)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	118	62	120
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	106	62	128
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	88.4	58	118
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	98.2	60	120
	106-42-3							
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	96.8	60	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	83.4	62	138
EP080: BTEXN (QCLot: 2693451)								



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP080: BTEXN (QCLot: 2693451) - continued								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	98.5	62	120
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	104	62	128
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	91.2	58	118
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	95.2	60	120
	106-42-3							
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	94.7	60	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	80.5	62	138
EP080: BTEXN (QCLot: 2693545)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	104	62	120
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	113	62	128
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	108	58	118
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	108	60	120
	106-42-3							
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	114	60	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	88.5	62	138
EP080: BTEXN (QCLot: 2694938)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	89.9	62	120
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	97.6	62	128
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	91.0	58	118
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	92.9	60	120
	106-42-3							
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	96.4	60	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	73.5	62	138

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	Spike Recovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 2693952)							
ES1301006-001	SP02A_01_15012013	EG005T: Arsenic	7440-38-2	50 mg/kg	97.0	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	97.3	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	130	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	108	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	95.8	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	97.9	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	97.7	70	130

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 2693954)							
ES1301006-021	SP01A_68_15012013	EG005T: Arsenic	7440-38-2	50 mg/kg	97.4	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	99.0	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	86.7	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	104	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	96.3	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	98.0	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	91.1	70	130
EG005T: Total Metals by ICP-AES (QCLot: 2695832)							
ES1301006-041	SP02A_22_15012013	EG005T: Arsenic	7440-38-2	50 mg/kg	100	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	110	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	# 6.2	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	109	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	106	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	112	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	107	70	130
EG005T: Total Metals by ICP-AES (QCLot: 2695834)							
ES1301006-061	SP02A_52_15012013	EG005T: Arsenic	7440-38-2	50 mg/kg	113	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	108	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	111	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	113	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	110	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	113	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	117	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2693953)							
ES1301006-001	SP02A_01_15012013	EG035T: Mercury	7439-97-6	5 mg/kg	94.6	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2693955)							
ES1301006-021	SP01A_68_15012013	EG035T: Mercury	7439-97-6	5 mg/kg	92.3	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2695833)							
ES1301006-041	SP02A_22_15012013	EG035T: Mercury	7439-97-6	5 mg/kg	113	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2695835)							
ES1301006-061	SP02A_52_15012013	EG035T: Mercury	7439-97-6	5 mg/kg	108	70	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694903)							
ES1301006-001	SP02A_01_15012013	EG048G: Hexavalent Chromium	18540-29-9	40 mg/kg	77.6	70	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694904)							
ES1301006-021	SP01A_68_15012013	EG048G: Hexavalent Chromium	18540-29-9	40 mg/kg	92.5	70	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694905)							



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694905) - continued							
ES1301006-041	SP02A_22_15012013	EG048G: Hexavalent Chromium	18540-29-9	40 mg/kg	70.4	70	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694906)							
ES1301006-061	SP02A_52_15012013	EG048G: Hexavalent Chromium	18540-29-9	40 mg/kg	80.2	70	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2693654)							
ES1301006-002	SP02A_06_15012013	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	100	70	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2694098)							
ES1301006-022	SP01A_72_15012013	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	106	70	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2694186)							
ES1301006-042	SP02A_23_15012013	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	103	70	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2694942)							
ES1301006-061	SP02A_52_15012013	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	98.0	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2693653)							
ES1301006-002	SP02A_06_15012013	EP068: gamma-BHC	58-89-9	0.5 mg/kg	93.8	70	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	96.6	70	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	84.3	70	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	96.2	70	130
		EP068: Endrin	72-20-8	2 mg/kg	85.8	70	130
		EP068: 4,4'-DDT	50-29-3	2 mg/kg	127	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694097)							
ES1301006-022	SP01A_72_15012013	EP068: gamma-BHC	58-89-9	0.5 mg/kg	84.1	70	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	82.2	70	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	76.2	70	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	99.7	70	130
		EP068: Endrin	72-20-8	2 mg/kg	100	70	130
		EP068: 4,4'-DDT	50-29-3	2 mg/kg	91.3	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694185)							
ES1301006-042	SP02A_23_15012013	EP068: gamma-BHC	58-89-9	0.5 mg/kg	106	70	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	89.3	70	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	94.1	70	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	88.4	70	130
		EP068: Endrin	72-20-8	2 mg/kg	102	70	130
		EP068: 4,4'-DDT	50-29-3	2 mg/kg	97.3	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694941)							
ES1301006-061	SP02A_52_15012013	EP068: gamma-BHC	58-89-9	0.5 mg/kg	118	70	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	90.5	70	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	89.5	70	130

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694941) - continued							
ES1301006-061	SP02A_52_15012013	EP068: Dieldrin	60-57-1	0.5 mg/kg	87.9	70	130
		EP068: Endrin	72-20-8	2 mg/kg	109	70	130
		EP068: 4,4'-DDT	50-29-3	2 mg/kg	103	70	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2693644)							
ES1301006-001	SP02A_01_15012013	EP075(SIM): Phenol	108-95-2	10 mg/kg	107	70	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	104	70	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	91.8	60	130
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	10 mg/kg	98.4	70	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	60.6	20	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2694100)							
ES1301006-021	SP01A_68_15012013	EP075(SIM): Phenol	108-95-2	10 mg/kg	93.1	70	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	91.3	70	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	82.9	60	130
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	10 mg/kg	94.3	70	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	41.9	20	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2694184)							
ES1301006-041	SP02A_22_15012013	EP075(SIM): Phenol	108-95-2	10 mg/kg	88.1	70	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	85.0	70	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	83.8	60	130
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	10 mg/kg	88.5	70	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	85.6	20	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2695374)							
ES1301006-061	SP02A_52_15012013	EP075(SIM): Phenol	108-95-2	10 mg/kg	103	70	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	92.4	70	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	99.4	60	130
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	10 mg/kg	95.8	70	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	84.5	20	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2693644)							
ES1301006-001	SP02A_01_15012013	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	103	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	105	70	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2694100)							
ES1301006-021	SP01A_68_15012013	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	96.0	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	96.6	70	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2694184)							
ES1301006-041	SP02A_22_15012013	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	87.9	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	95.3	70	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2695374)							



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2695374) - continued							
ES1301006-061	SP02A_52_15012013	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	101	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	112	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693290)							
ES1301006-001	SP02A_01_15012013	EP080: C6 - C9 Fraction	----	32.5 mg/kg	110	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693451)							
ES1301006-021	SP01A_68_15012013	EP080: C6 - C9 Fraction	----	32.5 mg/kg	112	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693545)							
ES1301006-041	SP02A_22_15012013	EP080: C6 - C9 Fraction	----	32.5 mg/kg	128	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693643)							
ES1301006-001	SP02A_01_15012013	EP071: C10 - C14 Fraction	----	640 mg/kg	105	73	137
		EP071: C15 - C28 Fraction	----	3140 mg/kg	117	53	131
		EP071: C29 - C36 Fraction	----	2860 mg/kg	90.2	52	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2694099)							
ES1301006-021	SP01A_68_15012013	EP071: C10 - C14 Fraction	----	640 mg/kg	98.8	73	137
		EP071: C15 - C28 Fraction	----	3140 mg/kg	111	53	131
		EP071: C29 - C36 Fraction	----	2860 mg/kg	88.0	52	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2694183)							
ES1301006-041	SP02A_22_15012013	EP071: C10 - C14 Fraction	----	640 mg/kg	94.0	73	137
		EP071: C15 - C28 Fraction	----	3140 mg/kg	103	53	131
		EP071: C29 - C36 Fraction	----	2860 mg/kg	79.7	52	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2694938)							
ES1301006-061	SP02A_52_15012013	EP080: C6 - C9 Fraction	----	32.5 mg/kg	100	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2695373)							
ES1301006-061	SP02A_52_15012013	EP071: C10 - C14 Fraction	----	640 mg/kg	90.8	73	137
		EP071: C15 - C28 Fraction	----	3140 mg/kg	104	53	131
		EP071: C29 - C36 Fraction	----	2860 mg/kg	82.2	52	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693290)							
ES1301006-001	SP02A_01_15012013	EP080: C6 - C10 Fraction	----	37.5 mg/kg	109	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693451)							
ES1301006-021	SP01A_68_15012013	EP080: C6 - C10 Fraction	----	37.5 mg/kg	109	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693545)							
ES1301006-041	SP02A_22_15012013	EP080: C6 - C10 Fraction	----	37.5 mg/kg	109	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693643)							
ES1301006-001	SP02A_01_15012013	EP071: >C10 - C16 Fraction	----	850 mg/kg	129	73	137
		EP071: >C16 - C34 Fraction	----	4800 mg/kg	106	53	131



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693643) - continued							
ES1301006-001	SP02A_01_15012013	EP071: >C34 - C40 Fraction	----	2400 mg/kg	58.5	52	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2694099)							
ES1301006-021	SP01A_68_15012013	EP071: >C10 - C16 Fraction	----	850 mg/kg	117	73	137
		EP071: >C16 - C34 Fraction	----	4800 mg/kg	103	53	131
		EP071: >C34 - C40 Fraction	----	2400 mg/kg	54.2	52	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2694183)							
ES1301006-041	SP02A_22_15012013	EP071: >C10 - C16 Fraction	----	850 mg/kg	110	73	137
		EP071: >C16 - C34 Fraction	----	4800 mg/kg	94.5	53	131
		EP071: >C34 - C40 Fraction	----	2400 mg/kg	53.8	52	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2694938)							
ES1301006-061	SP02A_52_15012013	EP080: C6 - C10 Fraction	----	37.5 mg/kg	87.0	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2695373)							
ES1301006-061	SP02A_52_15012013	EP071: >C10 - C16 Fraction	----	850 mg/kg	119	73	137
		EP071: >C16 - C34 Fraction	----	4800 mg/kg	94.0	53	131
		EP071: >C34 - C40 Fraction	----	2400 mg/kg	58.7	52	132
EP080: BTEXN (QCLot: 2693290)							
ES1301006-001	SP02A_01_15012013	EP080: Benzene	71-43-2	2.5 mg/kg	112	70	130
		EP080: Toluene	108-88-3	2.5 mg/kg	102	70	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	87.9	70	130
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	102	70	130
			106-42-3				
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	101	70	130
	EP080: Naphthalene	91-20-3	2.5 mg/kg	89.7	70	130	
EP080: BTEXN (QCLot: 2693451)							
ES1301006-021	SP01A_68_15012013	EP080: Benzene	71-43-2	2.5 mg/kg	98.6	70	130
		EP080: Toluene	108-88-3	2.5 mg/kg	105	70	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	95.6	70	130
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	96.0	70	130
			106-42-3				
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	92.9	70	130
	EP080: Naphthalene	91-20-3	2.5 mg/kg	90.9	70	130	
EP080: BTEXN (QCLot: 2693545)							
ES1301006-041	SP02A_22_15012013	EP080: Benzene	71-43-2	2.5 mg/kg	104	70	130
		EP080: Toluene	108-88-3	2.5 mg/kg	117	70	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	114	70	130
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	114	70	130
			106-42-3				

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 Work Order : ES1301006
 Client : URS AUSTRALIA PTY LTD
 Project : 42213719 70061 WATERFRONT STAGE 2A



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080: BTEXN (QCLot: 2693545) - continued							
ES1301006-041	SP02A_22_15012013	EP080: ortho-Xylene	95-47-6	2.5 mg/kg	120	70	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	83.6	70	130
EP080: BTEXN (QCLot: 2694938)							
ES1301006-061	SP02A_52_15012013	EP080: Benzene	71-43-2	2.5 mg/kg	78.0	70	130
		EP080: Toluene	108-88-3	2.5 mg/kg	89.8	70	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	88.8	70	130
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	89.2	70	130
			106-42-3				
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	93.0	70	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	75.4	70	130

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

The quality control term Matrix Spike (MS) and Matrix Spike Duplicate (MSD) refers to intralaboratory split samples spiked with a representative set of target analytes. The purpose of these QC parameters are to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: SOIL				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	MSD	Low	High	Value	Control Limit
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693290)										
ES1301006-001	SP02A_01_15012013	EP080: C6 - C9 Fraction	----	32.5 mg/kg	110	----	70	130	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693290)										
ES1301006-001	SP02A_01_15012013	EP080: C6 - C10 Fraction	----	37.5 mg/kg	109	----	70	130	----	----
EP080: BTEXN (QCLot: 2693290)										
ES1301006-001	SP02A_01_15012013	EP080: Benzene	71-43-2	2.5 mg/kg	112	----	70	130	----	----
		EP080: Toluene	108-88-3	2.5 mg/kg	102	----	70	130	----	----
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	87.9	----	70	130	----	----
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	102	----	70	130	----	----
			106-42-3							
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	101	----	70	130	----	----
		EP080: Naphthalene	91-20-3	2.5 mg/kg	89.7	----	70	130	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693451)										
ES1301006-021	SP01A_68_15012013	EP080: C6 - C9 Fraction	----	32.5 mg/kg	112	----	70	130	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693451)										
ES1301006-021	SP01A_68_15012013	EP080: C6 - C10 Fraction	----	37.5 mg/kg	109	----	70	130	----	----
EP080: BTEXN (QCLot: 2693451)										
ES1301006-021	SP01A_68_15012013	EP080: Benzene	71-43-2	2.5 mg/kg	98.6	----	70	130	----	----
		EP080: Toluene	108-88-3	2.5 mg/kg	105	----	70	130	----	----
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	95.6	----	70	130	----	----



Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number							
EP080: BTEXN (QCLot: 2693451) - continued										
ES1301006-021	SP01A_68_15012013	EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	96.0	----	70	130	----	----
			106-42-3							
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	92.9	----	70	130	----	----
		EP080: Naphthalene	91-20-3	2.5 mg/kg	90.9	----	70	130	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693545)										
ES1301006-041	SP02A_22_15012013	EP080: C6 - C9 Fraction	----	32.5 mg/kg	128	----	70	130	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693545)										
ES1301006-041	SP02A_22_15012013	EP080: C6 - C10 Fraction	----	37.5 mg/kg	109	----	70	130	----	----
EP080: BTEXN (QCLot: 2693545)										
ES1301006-041	SP02A_22_15012013	EP080: Benzene	71-43-2	2.5 mg/kg	104	----	70	130	----	----
		EP080: Toluene	108-88-3	2.5 mg/kg	117	----	70	130	----	----
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	114	----	70	130	----	----
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	114	----	70	130	----	----
			106-42-3							
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	120	----	70	130	----	----
		EP080: Naphthalene	91-20-3	2.5 mg/kg	83.6	----	70	130	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2693643)										
ES1301006-001	SP02A_01_15012013	EP071: C10 - C14 Fraction	----	640 mg/kg	105	----	73	137	----	----
		EP071: C15 - C28 Fraction	----	3140 mg/kg	117	----	53	131	----	----
		EP071: C29 - C36 Fraction	----	2860 mg/kg	90.2	----	52	132	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2693643)										
ES1301006-001	SP02A_01_15012013	EP071: >C10 - C16 Fraction	----	850 mg/kg	129	----	73	137	----	----
		EP071: >C16 - C34 Fraction	----	4800 mg/kg	106	----	53	131	----	----
		EP071: >C34 - C40 Fraction	----	2400 mg/kg	58.5	----	52	132	----	----
EP075(SIM)A: Phenolic Compounds (QCLot: 2693644)										
ES1301006-001	SP02A_01_15012013	EP075(SIM): Phenol	108-95-2	10 mg/kg	107	----	70	130	----	----
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	104	----	70	130	----	----
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	91.8	----	60	130	----	----
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	10 mg/kg	98.4	----	70	130	----	----
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	60.6	----	20	130	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2693644)										
ES1301006-001	SP02A_01_15012013	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	103	----	70	130	----	----
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	105	----	70	130	----	----
EP068A: Organochlorine Pesticides (OC) (QCLot: 2693653)										
ES1301006-002	SP02A_06_15012013	EP068: gamma-BHC	58-89-9	0.5 mg/kg	93.8	----	70	130	----	----
		EP068: Heptachlor	76-44-8	0.5 mg/kg	96.6	----	70	130	----	----
		EP068: Aldrin	309-00-2	0.5 mg/kg	84.3	----	70	130	----	----
		EP068: Dieldrin	60-57-1	0.5 mg/kg	96.2	----	70	130	----	----



Sub-Matrix: SOIL				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number							
EP068A: Organochlorine Pesticides (OC) (QCLot: 2693653) - continued										
ES1301006-002	SP02A_06_15012013	EP068: Endrin	72-20-8	2 mg/kg	85.8	----	70	130	----	----
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	127	----	70	130	----	----
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2693654)										
ES1301006-002	SP02A_06_15012013	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	100	----	70	130	----	----
EG005T: Total Metals by ICP-AES (QCLot: 2693952)										
ES1301006-001	SP02A_01_15012013	EG005T: Arsenic	7440-38-2	50 mg/kg	97.0	----	70	130	----	----
		EG005T: Cadmium	7440-43-9	50 mg/kg	97.3	----	70	130	----	----
		EG005T: Chromium	7440-47-3	50 mg/kg	130	----	70	130	----	----
		EG005T: Copper	7440-50-8	250 mg/kg	108	----	70	130	----	----
		EG005T: Lead	7439-92-1	250 mg/kg	95.8	----	70	130	----	----
		EG005T: Nickel	7440-02-0	50 mg/kg	97.9	----	70	130	----	----
		EG005T: Zinc	7440-66-6	250 mg/kg	97.7	----	70	130	----	----
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2693953)										
ES1301006-001	SP02A_01_15012013	EG035T: Mercury	7439-97-6	5 mg/kg	94.6	----	70	130	----	----
EG005T: Total Metals by ICP-AES (QCLot: 2693954)										
ES1301006-021	SP01A_68_15012013	EG005T: Arsenic	7440-38-2	50 mg/kg	97.4	----	70	130	----	----
		EG005T: Cadmium	7440-43-9	50 mg/kg	99.0	----	70	130	----	----
		EG005T: Chromium	7440-47-3	50 mg/kg	86.7	----	70	130	----	----
		EG005T: Copper	7440-50-8	250 mg/kg	104	----	70	130	----	----
		EG005T: Lead	7439-92-1	250 mg/kg	96.3	----	70	130	----	----
		EG005T: Nickel	7440-02-0	50 mg/kg	98.0	----	70	130	----	----
		EG005T: Zinc	7440-66-6	250 mg/kg	91.1	----	70	130	----	----
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2693955)										
ES1301006-021	SP01A_68_15012013	EG035T: Mercury	7439-97-6	5 mg/kg	92.3	----	70	130	----	----
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694097)										
ES1301006-022	SP01A_72_15012013	EP068: gamma-BHC	58-89-9	0.5 mg/kg	84.1	----	70	130	----	----
		EP068: Heptachlor	76-44-8	0.5 mg/kg	82.2	----	70	130	----	----
		EP068: Aldrin	309-00-2	0.5 mg/kg	76.2	----	70	130	----	----
		EP068: Dieldrin	60-57-1	0.5 mg/kg	99.7	----	70	130	----	----
		EP068: Endrin	72-20-8	2 mg/kg	100	----	70	130	----	----
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	91.3	----	70	130	----	----
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2694098)										
ES1301006-022	SP01A_72_15012013	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	106	----	70	130	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2694099)										
ES1301006-021	SP01A_68_15012013	EP071: C10 - C14 Fraction	----	640 mg/kg	98.8	----	73	137	----	----
		EP071: C15 - C28 Fraction	----	3140 mg/kg	111	----	53	131	----	----
		EP071: C29 - C36 Fraction	----	2860 mg/kg	88.0	----	52	132	----	----

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 Work Order : ES1301006
 Client : URS AUSTRALIA PTY LTD
 Project : 42213719 70061 WATERFRONT STAGE 2A



Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number							
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2694099)										
ES1301006-021	SP01A_68_15012013	EP071: >C10 - C16 Fraction	----	850 mg/kg	117	----	73	137	----	----
		EP071: >C16 - C34 Fraction	----	4800 mg/kg	103	----	53	131	----	----
		EP071: >C34 - C40 Fraction	----	2400 mg/kg	54.2	----	52	132	----	----
EP075(SIM)A: Phenolic Compounds (QCLot: 2694100)										
ES1301006-021	SP01A_68_15012013	EP075(SIM): Phenol	108-95-2	10 mg/kg	93.1	----	70	130	----	----
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	91.3	----	70	130	----	----
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	82.9	----	60	130	----	----
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	10 mg/kg	94.3	----	70	130	----	----
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	41.9	----	20	130	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2694100)										
ES1301006-021	SP01A_68_15012013	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	96.0	----	70	130	----	----
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	96.6	----	70	130	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2694183)										
ES1301006-041	SP02A_22_15012013	EP071: C10 - C14 Fraction	----	640 mg/kg	94.0	----	73	137	----	----
		EP071: C15 - C28 Fraction	----	3140 mg/kg	103	----	53	131	----	----
		EP071: C29 - C36 Fraction	----	2860 mg/kg	79.7	----	52	132	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2694183)										
ES1301006-041	SP02A_22_15012013	EP071: >C10 - C16 Fraction	----	850 mg/kg	110	----	73	137	----	----
		EP071: >C16 - C34 Fraction	----	4800 mg/kg	94.5	----	53	131	----	----
		EP071: >C34 - C40 Fraction	----	2400 mg/kg	53.8	----	52	132	----	----
EP075(SIM)A: Phenolic Compounds (QCLot: 2694184)										
ES1301006-041	SP02A_22_15012013	EP075(SIM): Phenol	108-95-2	10 mg/kg	88.1	----	70	130	----	----
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	85.0	----	70	130	----	----
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	83.8	----	60	130	----	----
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	10 mg/kg	88.5	----	70	130	----	----
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	85.6	----	20	130	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2694184)										
ES1301006-041	SP02A_22_15012013	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	87.9	----	70	130	----	----
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	95.3	----	70	130	----	----
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694185)										
ES1301006-042	SP02A_23_15012013	EP068: gamma-BHC	58-89-9	0.5 mg/kg	106	----	70	130	----	----
		EP068: Heptachlor	76-44-8	0.5 mg/kg	89.3	----	70	130	----	----
		EP068: Aldrin	309-00-2	0.5 mg/kg	94.1	----	70	130	----	----
		EP068: Dieldrin	60-57-1	0.5 mg/kg	88.4	----	70	130	----	----
		EP068: Endrin	72-20-8	2 mg/kg	102	----	70	130	----	----
		EP068: 4,4`-DDT	50-29-3	2 mg/kg	97.3	----	70	130	----	----
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2694186)										
ES1301006-042	SP02A_23_15012013	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	103	----	70	130	----	----

Sub-Matrix: SOIL				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number							
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694903)										
ES1301006-001	SP02A_01_15012013	EG048G: Hexavalent Chromium	18540-29-9	40 mg/kg	77.6	----	70	130	----	----
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694904)										
ES1301006-021	SP01A_68_15012013	EG048G: Hexavalent Chromium	18540-29-9	40 mg/kg	92.5	----	70	130	----	----
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694905)										
ES1301006-041	SP02A_22_15012013	EG048G: Hexavalent Chromium	18540-29-9	40 mg/kg	70.4	----	70	130	----	----
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 2694906)										
ES1301006-061	SP02A_52_15012013	EG048G: Hexavalent Chromium	18540-29-9	40 mg/kg	80.2	----	70	130	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2694938)										
ES1301006-061	SP02A_52_15012013	EP080: C6 - C9 Fraction	----	32.5 mg/kg	100	----	70	130	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2694938)										
ES1301006-061	SP02A_52_15012013	EP080: C6 - C10 Fraction	----	37.5 mg/kg	87.0	----	70	130	----	----
EP080: BTEXN (QCLot: 2694938)										
ES1301006-061	SP02A_52_15012013	EP080: Benzene	71-43-2	2.5 mg/kg	78.0	----	70	130	----	----
		EP080: Toluene	108-88-3	2.5 mg/kg	89.8	----	70	130	----	----
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	88.8	----	70	130	----	----
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	89.2	----	70	130	----	----
			106-42-3							
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	93.0	----	70	130	----	----
		EP080: Naphthalene	91-20-3	2.5 mg/kg	75.4	----	70	130	----	----
EP068A: Organochlorine Pesticides (OC) (QCLot: 2694941)										
ES1301006-061	SP02A_52_15012013	EP068: gamma-BHC	58-89-9	0.5 mg/kg	118	----	70	130	----	----
		EP068: Heptachlor	76-44-8	0.5 mg/kg	90.5	----	70	130	----	----
		EP068: Aldrin	309-00-2	0.5 mg/kg	89.5	----	70	130	----	----
		EP068: Dieldrin	60-57-1	0.5 mg/kg	87.9	----	70	130	----	----
		EP068: Endrin	72-20-8	2 mg/kg	109	----	70	130	----	----
		EP068: 4.4'-DDT	50-29-3	2 mg/kg	103	----	70	130	----	----
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2694942)										
ES1301006-061	SP02A_52_15012013	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	98.0	----	70	130	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2695373)										
ES1301006-061	SP02A_52_15012013	EP071: C10 - C14 Fraction	----	640 mg/kg	90.8	----	73	137	----	----
		EP071: C15 - C28 Fraction	----	3140 mg/kg	104	----	53	131	----	----
		EP071: C29 - C36 Fraction	----	2860 mg/kg	82.2	----	52	132	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2695373)										
ES1301006-061	SP02A_52_15012013	EP071: >C10 - C16 Fraction	----	850 mg/kg	119	----	73	137	----	----
		EP071: >C16 - C34 Fraction	----	4800 mg/kg	94.0	----	53	131	----	----
		EP071: >C34 - C40 Fraction	----	2400 mg/kg	58.7	----	52	132	----	----
EP075(SIM)A: Phenolic Compounds (QCLot: 2695374)										



Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					MS	MSD	Low	High	Value	Control Limit
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number							
EP075(SIM)A: Phenolic Compounds (QCLot: 2695374) - continued										
ES1301006-061	SP02A_52_15012013	EP075(SIM): Phenol	108-95-2	10 mg/kg	103	----	70	130	----	----
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	92.4	----	70	130	----	----
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	99.4	----	60	130	----	----
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	10 mg/kg	95.8	----	70	130	----	----
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	84.5	----	20	130	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2695374)										
ES1301006-061	SP02A_52_15012013	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	101	----	70	130	----	----
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	112	----	70	130	----	----
EG005T: Total Metals by ICP-AES (QCLot: 2695832)										
ES1301006-041	SP02A_22_15012013	EG005T: Arsenic	7440-38-2	50 mg/kg	100	----	70	130	----	----
		EG005T: Cadmium	7440-43-9	50 mg/kg	110	----	70	130	----	----
		EG005T: Chromium	7440-47-3	50 mg/kg	# 6.2	----	70	130	----	----
		EG005T: Copper	7440-50-8	250 mg/kg	109	----	70	130	----	----
		EG005T: Lead	7439-92-1	250 mg/kg	106	----	70	130	----	----
		EG005T: Nickel	7440-02-0	50 mg/kg	112	----	70	130	----	----
		EG005T: Zinc	7440-66-6	250 mg/kg	107	----	70	130	----	----
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2695833)										
ES1301006-041	SP02A_22_15012013	EG035T: Mercury	7439-97-6	5 mg/kg	113	----	70	130	----	----
EG005T: Total Metals by ICP-AES (QCLot: 2695834)										
ES1301006-061	SP02A_52_15012013	EG005T: Arsenic	7440-38-2	50 mg/kg	113	----	70	130	----	----
		EG005T: Cadmium	7440-43-9	50 mg/kg	108	----	70	130	----	----
		EG005T: Chromium	7440-47-3	50 mg/kg	111	----	70	130	----	----
		EG005T: Copper	7440-50-8	250 mg/kg	113	----	70	130	----	----
		EG005T: Lead	7439-92-1	250 mg/kg	110	----	70	130	----	----
		EG005T: Nickel	7440-02-0	50 mg/kg	113	----	70	130	----	----
		EG005T: Zinc	7440-66-6	250 mg/kg	117	----	70	130	----	----
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2695835)										
ES1301006-061	SP02A_52_15012013	EG035T: Mercury	7439-97-6	5 mg/kg	108	----	70	130	----	----

Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: ES1301006	Page	: 1 of 18
Client	: URS AUSTRALIA PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: BEK AAGAARD	Contact	: Client Services
Address	: G P O BOX 2005 DARWIN NT, AUSTRALIA 0801	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: bek.aagaard@urs.com	E-mail	: sydney@alsglobal.com
Telephone	: +61 08 89802900	Telephone	: +61-2-8784 8555
Facsimile	: +61 08 89413920	Facsimile	: +61-2-8784 8500
Project	: 42213719 70061 WATERFRONT STAGE 2A	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----	Date Samples Received	: 17-JAN-2013
C-O-C number	: ----	Issue Date	: 29-JAN-2013
Sampler	: BA	No. of samples received	: 78
Order number	: ----	No. of samples analysed	: 78
Quote number	: EN/001/12		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers



Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis									
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation							
EA055: Moisture Content														
Soil Glass Jar - Unpreserved (EA055-103)	15-JAN-2013	----	----	----	21-JAN-2013	29-JAN-2013	✓							
SP02A_01_15012013, SP02A_06_15012013,														
SP02A_10_15012013, SP02A_12_15012013,														
SP02A_17_15012013, SP02A_19_15012013,														
SP02A_24_15012013, SP02A_26_15012013,														
SP02A_29_15012013, SP02A_31_15012013,														
SP02A_35_15012013, SP02A_40_15012013,														
SP02A_43_15012013, SP02A_45_15012013,														
SP02A_46_15012013, SP02A_51_15012013,														
SP02A_54_15012013, SP02A_56_15012013,														
SP01A_60_15012013, SP01A_64_15012013,														
SP01A_68_15012013, SP01A_72_15012013,														
SP01A_74_15012013, QC01_15012013,														
QC06_15012013, SP02A_02_15012013,														
SP02A_03_15012013, SP02A_04_15012013,														
SP02A_05_15012013, SP02A_07_15012013,														
SP02A_08_15012013, SP02A_09_15012013,														
SP02A_11_15012013, SP02A_13_15012013,														
SP02A_14_15012013, SP02A_15_15012013,														
SP02A_16_15012013, SP02A_18_15012013,														
SP02A_20_15012013, SP02A_21_15012013,														
SP02A_22_15012013, SP02A_23_15012013,														
SP02A_25_15012013, SP02A_27_15012013,														
SP02A_28_15012013, SP02A_30_15012013,														
SP02A_32_15012013, SP02A_33_15012013														
Soil Glass Jar - Unpreserved (EA055-103)														

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 Work Order : ES1301006
 Client : URS AUSTRALIA PTY LTD
 Project : 42213719 70061 WATERFRONT STAGE 2A



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content - Continued								
SP02A_34_15012013, SP02A_37_15012013, SP02A_39_15012013, SP02A_42_15012013, SP02A_47_15012013, SP02A_49_15012013, SP02A_52_15012013, SP02A_55_15012013, SP01A_58_15012013, SP01A_61_15012013, SP01A_63_15012013, SP01A_66_15012013, SP01A_69_15012013, SP01A_71_15012013, QC02_15012013,	SP02A_36_15012013, SP02A_38_15012013, SP02A_41_15012013, SP02A_44_15012013, SP02A_48_15012013, SP02A_50_15012013, SP02A_53_15012013, SP02A_57_15012013, SP01A_59_15012013, SP01A_62_15012013, SP01A_65_15012013, SP01A_67_15012013, SP01A_70_15012013, SP01A_73_15012013, QC05_15012013	15-JAN-2013	----	----	----	22-JAN-2013	29-JAN-2013	✓



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)	15-JAN-2013	21-JAN-2013	14-JUL-2013	✓	23-JAN-2013	14-JUL-2013	✓
SP02A_01_15012013, SP02A_06_15012013,							
SP02A_10_15012013, SP02A_12_15012013,							
SP02A_17_15012013, SP02A_19_15012013,							
SP02A_24_15012013, SP02A_26_15012013,							
SP02A_29_15012013, SP02A_31_15012013,							
SP02A_35_15012013, SP02A_40_15012013,							
SP02A_43_15012013, SP02A_45_15012013,							
SP02A_46_15012013, SP02A_51_15012013,							
SP02A_54_15012013, SP02A_56_15012013,							
SP01A_60_15012013, SP01A_64_15012013,							
SP01A_68_15012013, SP01A_72_15012013,							
SP01A_74_15012013, QC01_15012013,							
QC06_15012013, SP02A_02_15012013,							
SP02A_03_15012013, SP02A_04_15012013,							
SP02A_05_15012013, SP02A_07_15012013,							
SP02A_08_15012013, SP02A_09_15012013,							
SP02A_11_15012013, SP02A_13_15012013,							
SP02A_14_15012013, SP02A_15_15012013,							
SP02A_16_15012013, SP02A_18_15012013,							
SP02A_20_15012013, SP02A_21_15012013							
Soil Glass Jar - Unpreserved (EG005T)	15-JAN-2013	22-JAN-2013	14-JUL-2013	✓	23-JAN-2013	14-JUL-2013	✓
SP02A_22_15012013, SP02A_23_15012013,							
SP02A_25_15012013, SP02A_27_15012013,							
SP02A_28_15012013, SP02A_30_15012013,							
SP02A_32_15012013, SP02A_33_15012013,							
SP02A_34_15012013, SP02A_36_15012013,							
SP02A_37_15012013, SP02A_38_15012013,							
SP02A_39_15012013, SP02A_41_15012013,							
SP02A_42_15012013, SP02A_44_15012013,							
SP02A_47_15012013, SP02A_48_15012013,							
SP02A_49_15012013, SP02A_50_15012013,							
SP02A_52_15012013, SP02A_53_15012013,							
SP02A_55_15012013, SP02A_57_15012013,							
SP01A_58_15012013, SP01A_59_15012013,							
SP01A_61_15012013, SP01A_62_15012013,							
SP01A_63_15012013, SP01A_65_15012013,							
SP01A_66_15012013, SP01A_67_15012013,							
SP01A_69_15012013, SP01A_70_15012013,							
SP01A_71_15012013, SP01A_73_15012013,							
QC02_15012013, QC05_15012013							



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)	15-JAN-2013	21-JAN-2013	12-FEB-2013	✓	23-JAN-2013	12-FEB-2013	✓
SP02A_01_15012013, SP02A_10_15012013, SP02A_17_15012013, SP02A_24_15012013, SP02A_29_15012013, SP02A_35_15012013, SP02A_43_15012013, SP02A_46_15012013, SP02A_54_15012013, SP01A_60_15012013, SP01A_68_15012013, SP01A_74_15012013, QC06_15012013, SP02A_03_15012013, SP02A_05_15012013, SP02A_08_15012013, SP02A_11_15012013, SP02A_14_15012013, SP02A_16_15012013, SP02A_20_15012013,	SP02A_06_15012013, SP02A_12_15012013, SP02A_19_15012013, SP02A_26_15012013, SP02A_31_15012013, SP02A_40_15012013, SP02A_45_15012013, SP02A_51_15012013, SP02A_56_15012013, SP01A_64_15012013, SP01A_72_15012013, QC01_15012013, SP02A_02_15012013, SP02A_04_15012013, SP02A_07_15012013, SP02A_09_15012013, SP02A_13_15012013, SP02A_15_15012013, SP02A_18_15012013, SP02A_21_15012013						
Soil Glass Jar - Unpreserved (EG035T)	15-JAN-2013	22-JAN-2013	12-FEB-2013	✓	23-JAN-2013	12-FEB-2013	✓
SP02A_22_15012013, SP02A_25_15012013, SP02A_28_15012013, SP02A_32_15012013, SP02A_34_15012013, SP02A_37_15012013, SP02A_39_15012013, SP02A_42_15012013, SP02A_47_15012013, SP02A_49_15012013, SP02A_52_15012013, SP02A_55_15012013, SP01A_58_15012013, SP01A_61_15012013, SP01A_63_15012013, SP01A_66_15012013, SP01A_69_15012013, SP01A_71_15012013, QC02_15012013,	SP02A_23_15012013, SP02A_27_15012013, SP02A_30_15012013, SP02A_33_15012013, SP02A_36_15012013, SP02A_38_15012013, SP02A_41_15012013, SP02A_44_15012013, SP02A_48_15012013, SP02A_50_15012013, SP02A_53_15012013, SP02A_57_15012013, SP01A_59_15012013, SP01A_62_15012013, SP01A_65_15012013, SP01A_67_15012013, SP01A_70_15012013, SP01A_73_15012013, QC05_15012013						



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G)								
SP02A_01_15012013, SP02A_10_15012013, SP02A_17_15012013, SP02A_24_15012013, SP02A_29_15012013, SP02A_35_15012013, SP02A_43_15012013, SP02A_46_15012013, SP02A_54_15012013, SP01A_60_15012013, SP01A_68_15012013, SP01A_74_15012013, QC06_15012013, SP02A_03_15012013, SP02A_05_15012013, SP02A_08_15012013, SP02A_11_15012013, SP02A_14_15012013, SP02A_16_15012013, SP02A_20_15012013, SP02A_22_15012013, SP02A_25_15012013, SP02A_28_15012013, SP02A_32_15012013, SP02A_34_15012013, SP02A_37_15012013, SP02A_39_15012013, SP02A_42_15012013, SP02A_47_15012013, SP02A_49_15012013, SP02A_52_15012013, SP02A_55_15012013, SP01A_58_15012013, SP01A_61_15012013, SP01A_63_15012013, SP01A_66_15012013, SP01A_69_15012013, SP01A_71_15012013, QC02_15012013,	SP02A_06_15012013, SP02A_12_15012013, SP02A_19_15012013, SP02A_26_15012013, SP02A_31_15012013, SP02A_40_15012013, SP02A_45_15012013, SP02A_51_15012013, SP02A_56_15012013, SP01A_64_15012013, SP01A_72_15012013, QC01_15012013, SP02A_02_15012013, SP02A_04_15012013, SP02A_07_15012013, SP02A_09_15012013, SP02A_13_15012013, SP02A_15_15012013, SP02A_18_15012013, SP02A_21_15012013, SP02A_23_15012013, SP02A_27_15012013, SP02A_30_15012013, SP02A_33_15012013, SP02A_36_15012013, SP02A_38_15012013, SP02A_41_15012013, SP02A_44_15012013, SP02A_48_15012013, SP02A_50_15012013, SP02A_53_15012013, SP02A_57_15012013, SP01A_59_15012013, SP01A_62_15012013, SP01A_65_15012013, SP01A_67_15012013, SP01A_70_15012013, SP01A_73_15012013, QC05_15012013	15-JAN-2013	24-JAN-2013	12-FEB-2013	✓	24-JAN-2013	31-JAN-2013	✓



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066)								
SP02A_01_15012013, SP02A_10_15012013, SP02A_17_15012013, SP02A_24_15012013, SP02A_29_15012013, SP02A_35_15012013, SP02A_43_15012013, SP02A_46_15012013, SP02A_54_15012013, SP01A_60_15012013, SP01A_68_15012013, SP01A_74_15012013, QC06_15012013, SP02A_03_15012013, SP02A_05_15012013, SP02A_08_15012013, SP02A_11_15012013, SP02A_14_15012013, SP02A_16_15012013, SP02A_20_15012013, SP02A_22_15012013, SP02A_25_15012013, SP02A_28_15012013, SP02A_32_15012013, SP02A_34_15012013, SP02A_37_15012013, SP02A_39_15012013, SP02A_42_15012013, SP02A_47_15012013, SP02A_49_15012013,	SP02A_06_15012013, SP02A_12_15012013, SP02A_19_15012013, SP02A_26_15012013, SP02A_31_15012013, SP02A_40_15012013, SP02A_45_15012013, SP02A_51_15012013, SP02A_56_15012013, SP01A_64_15012013, SP01A_72_15012013, QC01_15012013, SP02A_02_15012013, SP02A_04_15012013, SP02A_07_15012013, SP02A_09_15012013, SP02A_13_15012013, SP02A_15_15012013, SP02A_18_15012013, SP02A_21_15012013, SP02A_23_15012013, SP02A_27_15012013, SP02A_30_15012013, SP02A_33_15012013, SP02A_36_15012013, SP02A_38_15012013, SP02A_41_15012013, SP02A_44_15012013, SP02A_48_15012013, SP02A_50_15012013	15-JAN-2013	21-JAN-2013	29-JAN-2013	✓	23-JAN-2013	02-MAR-2013	✓
Soil Glass Jar - Unpreserved (EP066)								
SP02A_52_15012013, SP02A_55_15012013, SP01A_58_15012013, SP01A_61_15012013, SP01A_63_15012013, SP01A_66_15012013, SP01A_69_15012013, SP01A_71_15012013, QC02_15012013,	SP02A_53_15012013, SP02A_57_15012013, SP01A_59_15012013, SP01A_62_15012013, SP01A_65_15012013, SP01A_67_15012013, SP01A_70_15012013, SP01A_73_15012013, QC05_15012013	15-JAN-2013	22-JAN-2013	29-JAN-2013	✓	24-JAN-2013	03-MAR-2013	✓



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP068A: Organochlorine Pesticides (OC)								
Soil Glass Jar - Unpreserved (EP068)								
SP02A_01_15012013, SP02A_10_15012013, SP02A_17_15012013, SP02A_24_15012013, SP02A_29_15012013, SP02A_35_15012013, SP02A_43_15012013, SP02A_46_15012013, SP02A_54_15012013, SP01A_60_15012013, SP01A_68_15012013, SP01A_74_15012013, QC06_15012013, SP02A_03_15012013, SP02A_05_15012013, SP02A_08_15012013, SP02A_11_15012013, SP02A_14_15012013, SP02A_16_15012013, SP02A_20_15012013, SP02A_22_15012013, SP02A_25_15012013, SP02A_28_15012013, SP02A_32_15012013, SP02A_34_15012013, SP02A_37_15012013, SP02A_39_15012013, SP02A_42_15012013, SP02A_47_15012013, SP02A_49_15012013,	SP02A_06_15012013, SP02A_12_15012013, SP02A_19_15012013, SP02A_26_15012013, SP02A_31_15012013, SP02A_40_15012013, SP02A_45_15012013, SP02A_51_15012013, SP02A_56_15012013, SP01A_64_15012013, SP01A_72_15012013, QC01_15012013, SP02A_02_15012013, SP02A_04_15012013, SP02A_07_15012013, SP02A_09_15012013, SP02A_13_15012013, SP02A_15_15012013, SP02A_18_15012013, SP02A_21_15012013, SP02A_23_15012013, SP02A_27_15012013, SP02A_30_15012013, SP02A_33_15012013, SP02A_36_15012013, SP02A_38_15012013, SP02A_41_15012013, SP02A_44_15012013, SP02A_48_15012013, SP02A_50_15012013	15-JAN-2013	21-JAN-2013	29-JAN-2013	✓	23-JAN-2013	02-MAR-2013	✓
Soil Glass Jar - Unpreserved (EP068)								
SP02A_52_15012013, SP02A_55_15012013, SP01A_58_15012013, SP01A_61_15012013, SP01A_63_15012013, SP01A_66_15012013, SP01A_69_15012013, SP01A_71_15012013, QC02_15012013,	SP02A_53_15012013, SP02A_57_15012013, SP01A_59_15012013, SP01A_62_15012013, SP01A_65_15012013, SP01A_67_15012013, SP01A_70_15012013, SP01A_73_15012013, QC05_15012013	15-JAN-2013	22-JAN-2013	29-JAN-2013	✓	24-JAN-2013	03-MAR-2013	✓



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP071)		15-JAN-2013	21-JAN-2013	29-JAN-2013	✓	22-JAN-2013	02-MAR-2013	✓
SP01A_68_15012013,	SP01A_72_15012013,							
SP01A_74_15012013,	QC01_15012013,							
QC06_15012013,	SP02A_02_15012013,							
SP02A_03_15012013,	SP02A_04_15012013,							
SP02A_05_15012013,	SP02A_07_15012013,							
SP02A_08_15012013,	SP02A_09_15012013,							
SP02A_11_15012013,	SP02A_13_15012013,							
SP02A_14_15012013,	SP02A_15_15012013,							
SP02A_16_15012013,	SP02A_18_15012013,							
SP02A_20_15012013,	SP02A_21_15012013,							
SP02A_22_15012013,	SP02A_23_15012013,							
SP02A_25_15012013,	SP02A_27_15012013,							
SP02A_28_15012013,	SP02A_30_15012013,							
SP02A_32_15012013,	SP02A_33_15012013,							
SP02A_34_15012013,	SP02A_36_15012013,							
SP02A_37_15012013,	SP02A_38_15012013,							
SP02A_39_15012013,	SP02A_41_15012013,							
SP02A_42_15012013,	SP02A_44_15012013,							
SP02A_47_15012013,	SP02A_48_15012013,							
SP02A_49_15012013,	SP02A_50_15012013							
Soil Glass Jar - Unpreserved (EP071)		15-JAN-2013	21-JAN-2013	29-JAN-2013	✓	23-JAN-2013	02-MAR-2013	✓
SP02A_01_15012013,	SP02A_06_15012013,							
SP02A_10_15012013,	SP02A_12_15012013,							
SP02A_17_15012013,	SP02A_19_15012013,							
SP02A_24_15012013,	SP02A_26_15012013,							
SP02A_29_15012013,	SP02A_31_15012013,							
SP02A_35_15012013,	SP02A_40_15012013,							
SP02A_43_15012013,	SP02A_45_15012013,							
SP02A_46_15012013,	SP02A_51_15012013,							
SP02A_54_15012013,	SP02A_56_15012013,							
SP01A_60_15012013,	SP01A_64_15012013							
Soil Glass Jar - Unpreserved (EP071)		15-JAN-2013	22-JAN-2013	29-JAN-2013	✓	23-JAN-2013	03-MAR-2013	✓
SP02A_52_15012013,	SP02A_53_15012013,							
SP02A_55_15012013,	SP02A_57_15012013,							
SP01A_58_15012013,	SP01A_59_15012013,							
SP01A_61_15012013,	SP01A_62_15012013,							
SP01A_63_15012013,	SP01A_65_15012013,							
SP01A_66_15012013,	SP01A_67_15012013,							
SP01A_69_15012013,	SP01A_70_15012013,							
SP01A_71_15012013,	SP01A_73_15012013,							
QC02_15012013,	QC05_15012013							



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)A: Phenolic Compounds								
Soil Glass Jar - Unpreserved (EP075(SIM))		15-JAN-2013	21-JAN-2013	29-JAN-2013	✓	22-JAN-2013	02-MAR-2013	✓
SP01A_68_15012013, SP01A_74_15012013, QC06_15012013, SP02A_03_15012013, SP02A_05_15012013, SP02A_08_15012013, SP02A_11_15012013, SP02A_14_15012013, SP02A_16_15012013, SP02A_20_15012013, SP02A_22_15012013, SP02A_25_15012013, SP02A_28_15012013, SP02A_32_15012013, SP02A_34_15012013, SP02A_37_15012013, SP02A_39_15012013, SP02A_42_15012013, SP02A_47_15012013, SP02A_49_15012013,	SP01A_72_15012013, QC01_15012013, SP02A_02_15012013, SP02A_04_15012013, SP02A_07_15012013, SP02A_09_15012013, SP02A_13_15012013, SP02A_15_15012013, SP02A_18_15012013, SP02A_21_15012013, SP02A_23_15012013, SP02A_27_15012013, SP02A_30_15012013, SP02A_33_15012013, SP02A_36_15012013, SP02A_38_15012013, SP02A_41_15012013, SP02A_44_15012013, SP02A_48_15012013, SP02A_50_15012013							
Soil Glass Jar - Unpreserved (EP075(SIM))		15-JAN-2013	21-JAN-2013	29-JAN-2013	✓	23-JAN-2013	02-MAR-2013	✓
SP02A_01_15012013, SP02A_10_15012013, SP02A_17_15012013, SP02A_24_15012013, SP02A_29_15012013, SP02A_35_15012013, SP02A_43_15012013, SP02A_46_15012013, SP02A_54_15012013, SP01A_60_15012013,	SP02A_06_15012013, SP02A_12_15012013, SP02A_19_15012013, SP02A_26_15012013, SP02A_31_15012013, SP02A_40_15012013, SP02A_45_15012013, SP02A_51_15012013, SP02A_56_15012013, SP01A_64_15012013							
Soil Glass Jar - Unpreserved (EP075(SIM))		15-JAN-2013	22-JAN-2013	29-JAN-2013	✓	23-JAN-2013	03-MAR-2013	✓
SP02A_52_15012013, SP02A_55_15012013, SP01A_58_15012013, SP01A_61_15012013, SP01A_63_15012013, SP01A_66_15012013, SP01A_69_15012013, SP01A_71_15012013, QC02_15012013,	SP02A_53_15012013, SP02A_57_15012013, SP01A_59_15012013, SP01A_62_15012013, SP01A_65_15012013, SP01A_67_15012013, SP01A_70_15012013, SP01A_73_15012013, QC05_15012013							



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075(SIM))		15-JAN-2013	21-JAN-2013	29-JAN-2013	✓	22-JAN-2013	02-MAR-2013	✓
SP01A_68_15012013, SP01A_74_15012013, QC06_15012013, SP02A_03_15012013, SP02A_05_15012013, SP02A_08_15012013, SP02A_11_15012013, SP02A_14_15012013, SP02A_16_15012013, SP02A_20_15012013, SP02A_22_15012013, SP02A_25_15012013, SP02A_28_15012013, SP02A_32_15012013, SP02A_34_15012013, SP02A_37_15012013, SP02A_39_15012013, SP02A_42_15012013, SP02A_47_15012013, SP02A_49_15012013,	SP01A_72_15012013, QC01_15012013, SP02A_02_15012013, SP02A_04_15012013, SP02A_07_15012013, SP02A_09_15012013, SP02A_13_15012013, SP02A_15_15012013, SP02A_18_15012013, SP02A_21_15012013, SP02A_23_15012013, SP02A_27_15012013, SP02A_30_15012013, SP02A_33_15012013, SP02A_36_15012013, SP02A_38_15012013, SP02A_41_15012013, SP02A_44_15012013, SP02A_48_15012013, SP02A_50_15012013							
Soil Glass Jar - Unpreserved (EP075(SIM))		15-JAN-2013	21-JAN-2013	29-JAN-2013	✓	23-JAN-2013	02-MAR-2013	✓
SP02A_01_15012013, SP02A_10_15012013, SP02A_17_15012013, SP02A_24_15012013, SP02A_29_15012013, SP02A_35_15012013, SP02A_43_15012013, SP02A_46_15012013, SP02A_54_15012013, SP01A_60_15012013,	SP02A_06_15012013, SP02A_12_15012013, SP02A_19_15012013, SP02A_26_15012013, SP02A_31_15012013, SP02A_40_15012013, SP02A_45_15012013, SP02A_51_15012013, SP02A_56_15012013, SP01A_64_15012013							
Soil Glass Jar - Unpreserved (EP075(SIM))		15-JAN-2013	22-JAN-2013	29-JAN-2013	✓	23-JAN-2013	03-MAR-2013	✓
SP02A_52_15012013, SP02A_55_15012013, SP01A_58_15012013, SP01A_61_15012013, SP01A_63_15012013, SP01A_66_15012013, SP01A_69_15012013, SP01A_71_15012013, QC02_15012013,	SP02A_53_15012013, SP02A_57_15012013, SP01A_59_15012013, SP01A_62_15012013, SP01A_65_15012013, SP01A_67_15012013, SP01A_70_15012013, SP01A_73_15012013, QC05_15012013							



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEX								
Soil Glass Jar - Unpreserved (EP080)		15-JAN-2013	21-JAN-2013	29-JAN-2013	✓	23-JAN-2013	29-JAN-2013	✓
SP02A_01_15012013, SP02A_10_15012013, SP02A_17_15012013, SP02A_24_15012013, SP02A_29_15012013, SP02A_35_15012013, SP02A_43_15012013, SP02A_46_15012013, SP02A_54_15012013, SP01A_60_15012013, SP01A_68_15012013, SP01A_74_15012013, QC06_15012013, SP02A_03_15012013, SP02A_05_15012013, SP02A_08_15012013, SP02A_11_15012013, SP02A_14_15012013, SP02A_16_15012013, SP02A_20_15012013,	SP02A_06_15012013, SP02A_12_15012013, SP02A_19_15012013, SP02A_26_15012013, SP02A_31_15012013, SP02A_40_15012013, SP02A_45_15012013, SP02A_51_15012013, SP02A_56_15012013, SP01A_64_15012013, SP01A_72_15012013, QC01_15012013, SP02A_02_15012013, SP02A_04_15012013, SP02A_07_15012013, SP02A_09_15012013, SP02A_13_15012013, SP02A_15_15012013, SP02A_18_15012013, SP02A_21_15012013							
Soil Glass Jar - Unpreserved (EP080)		15-JAN-2013	22-JAN-2013	29-JAN-2013	✓	23-JAN-2013	29-JAN-2013	✓
SP02A_22_15012013, SP02A_25_15012013, SP02A_28_15012013, SP02A_32_15012013, SP02A_34_15012013, SP02A_37_15012013, SP02A_39_15012013, SP02A_42_15012013, SP02A_47_15012013, SP02A_49_15012013, SP02A_52_15012013, SP02A_55_15012013, SP01A_58_15012013, SP01A_61_15012013, SP01A_63_15012013, SP01A_66_15012013, SP01A_69_15012013, SP01A_71_15012013, QC02_15012013,	SP02A_23_15012013, SP02A_27_15012013, SP02A_30_15012013, SP02A_33_15012013, SP02A_36_15012013, SP02A_38_15012013, SP02A_41_15012013, SP02A_44_15012013, SP02A_48_15012013, SP02A_50_15012013, SP02A_53_15012013, SP02A_57_15012013, SP01A_59_15012013, SP01A_62_15012013, SP01A_65_15012013, SP01A_67_15012013, SP01A_70_15012013, SP01A_73_15012013, QC05_15012013							



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080: BTEXN									
Soil Glass Jar - Unpreserved (EP080)	SP02A_01_15012013, SP02A_10_15012013, SP02A_17_15012013, SP02A_24_15012013, SP02A_29_15012013, SP02A_35_15012013, SP02A_43_15012013, SP02A_46_15012013, SP02A_54_15012013, SP01A_60_15012013, SP01A_68_15012013, SP01A_74_15012013, QC06_15012013, SP02A_03_15012013, SP02A_05_15012013, SP02A_08_15012013, SP02A_11_15012013, SP02A_14_15012013, SP02A_16_15012013, SP02A_20_15012013,	SP02A_06_15012013, SP02A_12_15012013, SP02A_19_15012013, SP02A_26_15012013, SP02A_31_15012013, SP02A_40_15012013, SP02A_45_15012013, SP02A_51_15012013, SP02A_56_15012013, SP01A_64_15012013, SP01A_72_15012013, QC01_15012013, SP02A_02_15012013, SP02A_04_15012013, SP02A_07_15012013, SP02A_09_15012013, SP02A_13_15012013, SP02A_15_15012013, SP02A_18_15012013, SP02A_21_15012013	15-JAN-2013	21-JAN-2013	29-JAN-2013	✓	23-JAN-2013	29-JAN-2013	✓
Soil Glass Jar - Unpreserved (EP080)	SP02A_22_15012013, SP02A_25_15012013, SP02A_28_15012013, SP02A_32_15012013, SP02A_34_15012013, SP02A_37_15012013, SP02A_39_15012013, SP02A_42_15012013, SP02A_47_15012013, SP02A_49_15012013, SP02A_52_15012013, SP02A_55_15012013, SP01A_58_15012013, SP01A_61_15012013, SP01A_63_15012013, SP01A_66_15012013, SP01A_69_15012013, SP01A_71_15012013, QC02_15012013,	SP02A_23_15012013, SP02A_27_15012013, SP02A_30_15012013, SP02A_33_15012013, SP02A_36_15012013, SP02A_38_15012013, SP02A_41_15012013, SP02A_44_15012013, SP02A_48_15012013, SP02A_50_15012013, SP02A_53_15012013, SP02A_57_15012013, SP01A_59_15012013, SP01A_62_15012013, SP01A_65_15012013, SP01A_67_15012013, SP01A_70_15012013, SP01A_73_15012013, QC05_15012013	15-JAN-2013	22-JAN-2013	29-JAN-2013	✓	23-JAN-2013	29-JAN-2013	✓



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080)		15-JAN-2013	21-JAN-2013	29-JAN-2013	✓	23-JAN-2013	29-JAN-2013	✓
SP02A_01_15012013,	SP02A_06_15012013,							
SP02A_10_15012013,	SP02A_12_15012013,							
SP02A_17_15012013,	SP02A_19_15012013,							
SP02A_24_15012013,	SP02A_26_15012013,							
SP02A_29_15012013,	SP02A_31_15012013,							
SP02A_35_15012013,	SP02A_40_15012013,							
SP02A_43_15012013,	SP02A_45_15012013,							
SP02A_46_15012013,	SP02A_51_15012013,							
SP02A_54_15012013,	SP02A_56_15012013,							
SP01A_60_15012013,	SP01A_64_15012013,							
SP01A_68_15012013,	SP01A_72_15012013,							
SP01A_74_15012013,	QC01_15012013,							
QC06_15012013,	SP02A_02_15012013,							
SP02A_03_15012013,	SP02A_04_15012013,							
SP02A_05_15012013,	SP02A_07_15012013,							
SP02A_08_15012013,	SP02A_09_15012013,							
SP02A_11_15012013,	SP02A_13_15012013,							
SP02A_14_15012013,	SP02A_15_15012013,							
SP02A_16_15012013,	SP02A_18_15012013,							
SP02A_20_15012013,	SP02A_21_15012013							
Soil Glass Jar - Unpreserved (EP080)		15-JAN-2013	22-JAN-2013	29-JAN-2013	✓	23-JAN-2013	29-JAN-2013	✓
SP02A_22_15012013,	SP02A_23_15012013,							
SP02A_25_15012013,	SP02A_27_15012013,							
SP02A_28_15012013,	SP02A_30_15012013,							
SP02A_32_15012013,	SP02A_33_15012013,							
SP02A_34_15012013,	SP02A_36_15012013,							
SP02A_37_15012013,	SP02A_38_15012013,							
SP02A_39_15012013,	SP02A_41_15012013,							
SP02A_42_15012013,	SP02A_44_15012013,							
SP02A_47_15012013,	SP02A_48_15012013,							
SP02A_49_15012013,	SP02A_50_15012013,							
SP02A_52_15012013,	SP02A_53_15012013,							
SP02A_55_15012013,	SP02A_57_15012013,							
SP01A_58_15012013,	SP01A_59_15012013,							
SP01A_61_15012013,	SP01A_62_15012013,							
SP01A_63_15012013,	SP01A_65_15012013,							
SP01A_66_15012013,	SP01A_67_15012013,							
SP01A_69_15012013,	SP01A_70_15012013,							
SP01A_71_15012013,	SP01A_73_15012013,							
QC02_15012013,	QC05_15012013							



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: ✖ = Quality Control frequency not within specification ; ✔ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification	
Analytical Methods	Method	QC	Regular	Actual	Expected		Evaluation
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	8	80	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Moisture Content	EA055-103	9	88	10.2	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	8	78	10.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	8	78	10.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	8	78	10.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	8	78	10.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	8	77	10.4	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	8	78	10.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	8	80	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	80	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	4	78	5.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	4	78	5.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	4	78	5.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	4	78	5.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	4	77	5.2	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	4	78	5.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	4	80	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	80	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	4	78	5.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	4	78	5.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	4	78	5.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	4	78	5.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	4	77	5.2	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	4	78	5.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	4	80	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	80	5.0	5.0	✓	ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	4	78	5.1	5.0	✓	ALS QCS3 requirement
Pesticides by GCMS	EP068	4	78	5.1	5.0	✓	ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	4	78	5.1	5.0	✓	ALS QCS3 requirement
Total Mercury by FIMS	EG035T	4	78	5.1	5.0	✓	ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	4	77	5.2	5.0	✓	ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	4	78	5.1	5.0	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	4	80	5.0	5.0	✓	ALS QCS3 requirement



Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (2010 Draft) Schedule B(3) Section 7.1 and Table 1 (14 day holding time).
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (1999) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3)
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	USEPA SW846, Method 3060A. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazine. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Polychlorinated Biphenyls (PCB)	EP066	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 504)
Pesticides by GCMS	EP068	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (1999) Schedule B(3) (Method 504,505)
TPH - Semivolatile Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (1999) Schedule B(3) (Method 506.1)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 502 and 507)
TPH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 501)
Preparation Methods	Method	Matrix	Method Descriptions
Methanolic Extraction of Soils for Purge and Trap	* ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option A - Concentrating)	ORG17A	SOIL	In-house, Mechanical agitation (tumbler). 20g of sample, Na ₂ SO ₄ and surrogate are extracted with 150mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
Tumbler Extraction of Solids (Option B - Non-concentrating)	ORG17B	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na ₂ SO ₄ and surrogate are extracted with 20mL 1:1 DCM/Acetone by end over end tumble. The solvent is transferred directly to a GC vial for analysis.





Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005T: Total Metals by ICP-AES	ES1301006-051	SP02A_37_15012013	Chromium	7440-47-3	44.6 %	0-20%	RPD exceeds LOR based limits
EG005T: Total Metals by ICP-AES	ES1301006-061	SP02A_52_15012013	Lead	7439-92-1	104 %	0-20%	RPD exceeds LOR based limits
EG005T: Total Metals by ICP-AES	ES1301006-051	SP02A_37_15012013	Vanadium	7440-62-2	47.6 %	0-20%	RPD exceeds LOR based limits
EG005T: Total Metals by ICP-AES	ES1301006-061	SP02A_52_15012013	Vanadium	7440-62-2	36.2 %	0-20%	RPD exceeds LOR based limits
Laboratory Control Spike (LCS) Recoveries							
EP068A: Organochlorine Pesticides (OC)	3195260-002	----	Heptachlor epoxide	1024-57-3	117 %	65.6-113%	Recovery greater than upper control limit
EP068A: Organochlorine Pesticides (OC)	3195260-002	----	trans-Chlordane	5103-74-2	116 %	60.7-113%	Recovery greater than upper control limit
EP068A: Organochlorine Pesticides (OC)	3195775-002	----	alpha-Endosulfan	959-98-8	117 %	65.8-116%	Recovery greater than upper control limit
EP068A: Organochlorine Pesticides (OC)	3195260-002	----	4,4'-DDE	72-55-9	117 %	67.5-114%	Recovery greater than upper control limit
EP075(SIM)A: Phenolic Compounds	3195776-007	----	2-Methylphenol	95-48-7	76.0 %	76.8-114%	Recovery less than lower control limit
Matrix Spike (MS) Recoveries							
EG005T: Total Metals by ICP-AES	ES1301006-041	SP02A_22_15012013	Chromium	7440-47-3	6.2 %	70-130%	Recovery less than lower data quality objective

- For all matrices, no Method Blank value outliers occur.

Regular Sample Surrogates

- For all regular sample matrices, no surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- No Quality Control Sample Frequency Outliers exist.

ADDRESS:	URS Australia 3/93 Mithcell St Darwin 800	LABORATORY: ADDRESS:	ALS 277-289 Woodpark Rd Smithfield, NSW, 2164	All results to be provided in MrEd format and ESDat format email address:		FOR LABORATORY USE ONLY
PHONE NO:	02 8980 2900	PHONE NO:	02 8784 8555	tim.smith@urs.com		
FAX NO:	08 8941 3920	FAX NO:	02 8784 8500	bek.aagaard@urs.com		
				darwin@urscorp.com		
				PURCHASE ORDER NUMBER:		
PROJECT NAME:	Waterfront Stage 2A	PROJECT MANAGER:	Tim Smith			
PROJECT NO:	42213719.70061	SAMPLERS:	Bek Aagaard	SIGNED:	Bek Aagaard	
COMMENTS:	Updated COC PLEASE FORWARDED TO ENVIRO LAB					

LAB ID	SAMPLE ID	DATE	MATRIX	SITE	LOCATION	CONTAINER TYPE & PRESERVATIVE	TOTAL NUMBER OF CONTAINERS	TPH C6-C36, BTEX, PAH	VIC EPA Soil Screening	TPH/BTEX, PAH, mg S-26	13 metals P-13/1	ANALYSIS REQUIRED		HOLD
	QC03 _15012013	15/01/2013	Soil	Waterfront	Stockpile	Soil Glass Jars	1	1	1	1	1			
	QC04 _15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1	1	1	1	1			
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
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	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
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	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
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	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							
	_15012013	15/01/2013	Soil	Waterfront		Soil Glass Jars	1							

Comments

DATE:

TIME:

PLEASE SIGN AND FAX TO URS UPON RECEIPT

CERTIFICATE OF ANALYSIS

84294

Client:

URS Australia (NT)
GPO Box 2005
Darwin
NT 0800

Attention: Tim Smith

Sample log in details:

Your Reference:	<u>Darwin Waterfront Stage 2</u>
No. of samples:	2 Soils
Date samples received / completed instructions received	17/01/13 / 17/01/13


Analysis Details:

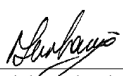
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

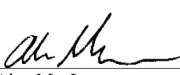
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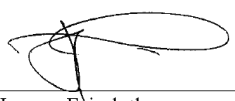
Date results requested by: / Issue Date: 24/01/13 / 24/01/13
Date of Preliminary Report: Not issued
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Results Approved By:


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Chemist


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Chemist

VOCs in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	84294-1 QC03 15/01/2013 Soil	84294-2 QC04 15/01/2013 Soil
Date extracted	-	18/01/2013	18/01/2013
Date analysed	-	18/01/2013	18/01/2013
Dichlorodifluoromethane	mg/kg	<1	<1
Chloromethane	mg/kg	<1	<1
Vinyl Chloride	mg/kg	<1	<1
Bromomethane	mg/kg	<1	<1
Chloroethane	mg/kg	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1
1,1-dichloroethane	mg/kg	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1
bromochloromethane	mg/kg	<1	<1
chloroform	mg/kg	<1	<1
2,2-dichloropropane	mg/kg	<1	<1
1,2-dichloroethane	mg/kg	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1
1,1-dichloropropene	mg/kg	<1	<1
Cyclohexane	mg/kg	<1	<1
carbon tetrachloride	mg/kg	<1	<1
Benzene	mg/kg	<0.2	<0.2
dibromomethane	mg/kg	<1	<1
1,2-dichloropropane	mg/kg	<1	<1
trichloroethene	mg/kg	<1	<1
bromodichloromethane	mg/kg	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1
Toluene	mg/kg	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1
dibromochloromethane	mg/kg	<1	<1
1,2-dibromoethane	mg/kg	<1	<1
tetrachloroethene	mg/kg	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1
chlorobenzene	mg/kg	<1	<1
Ethylbenzene	mg/kg	<1	<1
bromoform	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
styrene	mg/kg	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1
o-Xylene	mg/kg	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1

VOCs in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	84294-1 QC03 15/01/2013 Soil	84294-2 QC04 15/01/2013 Soil
isopropylbenzene	mg/kg	<1	<1
bromobenzene	mg/kg	<1	<1
n-propyl benzene	mg/kg	<1	<1
2-chlorotoluene	mg/kg	<1	<1
4-chlorotoluene	mg/kg	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1
tert-butyl benzene	mg/kg	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1
sec-butyl benzene	mg/kg	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1
4-isopropyl toluene	mg/kg	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1
n-butyl benzene	mg/kg	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1
hexachlorobutadiene	mg/kg	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1
Surrogate Dibromofluorometha	%	94	94
Surrogate aaa-Trifluorotoluene	%	106	116
Surrogate Toluene-d8	%	102	101
Surrogate 4-Bromofluorobenzene	%	102	102

vTRH(C6-C10)/BTEXN in Soil			
Our Reference:	UNITS	84294-1	84294-2
Your Reference	-----	QC03	QC04
Date Sampled	-----	15/01/2013	15/01/2013
Type of sample		Soil	Soil
Date extracted	-	18/01/2013	18/01/2013
Date analysed	-	18/01/2013	18/01/2013
TRHC ₆ - C ₉	mg/kg	<25	<25
TRHC ₆ - C ₁₀	mg/kg	<25	<25
vTPHC ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	106	116

svTRH (C10-C40) in Soil			
Our Reference:	UNITS	84294-1	84294-2
Your Reference	-----	QC03	QC04
Date Sampled	-----	15/01/2013	15/01/2013
Type of sample		Soil	Soil
Date extracted	-	18/01/2013	18/01/2013
Date analysed	-	19/01/2013	19/01/2013
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100
TRH>C ₁₀ -C ₁₆	mg/kg	<50	<50
TRH>C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50
TRH>C ₁₆ -C ₃₄	mg/kg	<100	<100
TRH>C ₃₄ -C ₄₀	mg/kg	<100	<100
Surrogate o-Terphenyl	%	97	105

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	84294-1 QC03 15/01/2013 Soil	84294-2 QC04 15/01/2013 Soil
Date extracted	-	18/01/2013	18/01/2013
Date analysed	-	18/01/2013	18/01/2013
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.06	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Benzo(a)pyrene TEQ	mg/kg	<0.5	<0.5
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	89	89

Speciated Phenols in Soil			
Our Reference:	UNITS	84294-1	84294-2
Your Reference	-----	QC03	QC04
Date Sampled	-----	15/01/2013	15/01/2013
Type of sample		Soil	Soil
Date extracted	-	18/01/2013	18/01/2013
Date analysed	-	18/01/2013	18/01/2013
Phenol	mg/kg	<1	<1
2-Chlorophenol	mg/kg	<1	<1
2-Methylphenol	mg/kg	<1	<1
3/4-Methylphenol	mg/kg	<2	<2
2-Nitrophenol	mg/kg	<1	<1
2,4-Dimethylphenol	mg/kg	<1	<1
2,4-Dichlorophenol	mg/kg	<1	<1
2,6-dichlorophenol	mg/kg	<1	<1
2,4,6-trichlorophenol	mg/kg	<1	<1
2,4,5-trichlorophenol	mg/kg	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10
4-nitrophenol	mg/kg	<10	<10
2,3,4,6-tetrachlorophenol	mg/kg	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10
pentachlorophenol	mg/kg	<10	<10
Surrogate 2-fluorophenol	%	136	129
Surrogate Phenol-d ₆	%	122	136
Surrogate 2,4,6-Tribromophenol	%	99	101
Surrogate p-Terphenyl-d ₁₄	%	78	84

Organochlorine Pesticides in soil	UNITS	84294-1	84294-2
Our Reference:	-----	QC03	QC04
Your Reference	-----	15/01/2013	15/01/2013
Date Sampled		Soil	Soil
Type of sample			
Date extracted	-	18/01/2013	18/01/2013
Date analysed	-	18/01/2013	18/01/2013
HCB	mg/kg	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Surrogate TCMX	%	98	102

PCBs in Soil			
Our Reference:	UNITS	84294-1	84294-2
Your Reference	-----	QC03	QC04
Date Sampled	-----	15/01/2013	15/01/2013
Type of sample		Soil	Soil
Date extracted	-	18/01/2013	18/01/2013
Date analysed	-	18/01/2013	18/01/2013
Arochlor 1016	mg/kg	<0.1	<0.1
Arochlor 1221	mg/kg	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	98	102

Acid Extractable metals in soil			
Our Reference:	UNITS	84294-1	84294-2
Your Reference	-----	QC03	QC04
Date Sampled	-----	15/01/2013	15/01/2013
Type of sample		Soil	Soil
Date digested	-	18/01/2013	18/01/2013
Date analysed	-	18/01/2013	18/01/2013
Arsenic	mg/kg	6	6
Cadmium	mg/kg	<0.5	<0.5
Chromium	mg/kg	51	60
Copper	mg/kg	17	10
Lead	mg/kg	33	16
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	5	5
Zinc	mg/kg	38	25
Silver	mg/kg	<1	<1
Manganese	mg/kg	91	76
Selenium	mg/kg	<2	<2
Tin	mg/kg	<1	1
Barium	mg/kg	72	74
Beryllium	mg/kg	<1	<1
Cobalt	mg/kg	2	2
Vanadium	mg/kg	79	95
Molybdenum	mg/kg	<1	<1

Miscellaneous Inorg - soil			
Our Reference:	UNITS	84294-1	84294-2
Your Reference	-----	QC03	QC04
Date Sampled	-----	15/01/2013	15/01/2013
Type of sample		Soil	Soil
Date prepared	-	22/01/2013	22/01/2013
Date analysed	-	22/01/2013	22/01/2013
Hexavalent Chromium, Cr ⁶⁺	mg/kg	<1	<1
Total Fluoride	mg/kg	230	250
Total Cyanide	mg/kg	<0.5	<0.5

Moisture			
Our Reference:	UNITS	84294-1	84294-2
Your Reference	-----	QC03	QC04
Date Sampled	-----	15/01/2013	15/01/2013
Type of sample		Soil	Soil
Date prepared	-	18/01/13	18/01/13
Date analysed	-	21/01/13	21/01/13
Moisture	%	9.7	10

MethodID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 draft Guideline on Investigation Levels for Soil and Groundwater.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 draft Guideline on Investigation Levels for Soil and Groundwater.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM draft B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-024	Hexavalent Chromium (Cr6+) - determined colourimetrically based upon APHA 22nd, 3500-Cr-B.
NEPM-404	Analysed by ISE after caustic fusion at 600degC.
Inorg-013	Cyanide - total determined colourimetrically after distillation, based on APHA 22nd ED, 4500-CN_C,E. Free cyanide determined colourimetrically after filtration and confirmed by diffusion.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.

Client Reference: Darwin Waterfront Stage 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
Date extracted	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Date analysed	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	LCS-1	82%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	84294-1	<1 <1	LCS-1	95%
2,2-dichloropropane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	LCS-1	86%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	LCS-1	86%
1,1-dichloropropene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
Benzene	mg/kg	0.2	Org-014	<0.2	84294-1	<0.2 <0.2	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	84294-1	<1 <1	LCS-1	89%
bromodichloromethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	LCS-1	93%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	84294-1	<0.5 <0.5	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	LCS-1	102%
1,2-dibromoethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	84294-1	<1 <1	LCS-1	99%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	84294-1	<2 <2	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
o-Xylene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]

Client Reference: Darwin Waterfront Stage 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
isopropylbenzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	95	84294-1	94 94 RPD: 0	LCS-1	96%
Surrogate aaa-Trifluorotoluene	%		Org-014	121	84294-1	106 117 RPD: 10	LCS-1	112%
Surrogate Toluene-d8	%		Org-014	99	84294-1	102 101 RPD: 1	LCS-1	102%
Surrogate 4-Bromofluorobenzene	%		Org-014	102	84294-1	102 103 RPD: 1	LCS-1	103%

Client Reference: Darwin Waterfront Stage 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH(C6-C10)/BTEXN in Soil						Base II Duplicate II %RPD		
Date extracted	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Date analysed	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
TRHC ₆ - C ₉	mg/kg	25	Org-016	<25	84294-1	<25 <25	LCS-1	97%
TRHC ₆ - C ₁₀	mg/kg	25	Org-016	<25	84294-1	<25 <25	LCS-1	97%
vTPHC ₆ - C ₁₀ less BTEX(F1)	mg/kg	25	Org-016	[NT]	84294-1	<25 <25	[NR]	[NR]
Benzene	mg/kg	0.2	Org-016	<0.2	84294-1	<0.2 <0.2	LCS-1	100%
Toluene	mg/kg	0.5	Org-016	<0.5	84294-1	<0.5 <0.5	LCS-1	101%
Ethylbenzene	mg/kg	1	Org-016	<1	84294-1	<1 <1	LCS-1	94%
m+p-xylene	mg/kg	2	Org-016	<2	84294-1	<2 <2	LCS-1	96%
o-Xylene	mg/kg	1	Org-016	<1	84294-1	<1 <1	LCS-1	96%
naphthalene	mg/kg	1	Org-014	<1	84294-1	<1 <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	121	84294-1	106 117 RPD: 10	LCS-1	101%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
svTRH (C10-C40) in Soil						Base II Duplicate II %RPD		
Date extracted	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Date analysed	-			19/01/2013	84294-1	19/01/2013 19/01/2013	LCS-1	19/01/2013
TRHC ₁₀ - C ₁₄	mg/kg	50	Org-003	<50	84294-1	<50 <50	LCS-1	89%
TRHC ₁₅ - C ₂₈	mg/kg	100	Org-003	<100	84294-1	<100 <100	LCS-1	109%
TRHC ₂₉ - C ₃₆	mg/kg	100	Org-003	<100	84294-1	<100 <100	LCS-1	91%
TRH>C ₁₀ -C ₁₆	mg/kg	50	Org-003	<50	84294-1	<50 <50	LCS-1	89%
TRH>C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	50	Org-003	[NT]	84294-1	<50 <50	[NR]	[NR]
TRH>C ₁₆ -C ₃₄	mg/kg	100	Org-003	<100	84294-1	<100 <100	LCS-1	109%
TRH>C ₃₄ -C ₄₀	mg/kg	100	Org-003	<100	84294-1	<100 <100	LCS-1	91%
Surrogate o-Terphenyl	%		Org-003	101	84294-1	97 121 RPD: 22	LCS-1	73%

Client Reference: Darwin Waterfront Stage 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Date extracted	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Date analysed	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	LCS-1	106%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	LCS-1	109%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	LCS-1	108%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	LCS-1	107%
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	LCS-1	111%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	LCS-1	103%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	84294-1	<0.2 <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	84294-1	0.06 <0.05	LCS-1	102%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Benzo(a)pyrene TEQ	mg/kg	0.5	Org-012 subset	[NT]	84294-1	<0.5 <0.5	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	75	84294-1	89 80 RPD: 11	LCS-1	80%

Client Reference: Darwin Waterfront Stage 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Speciated Phenols in Soil						Base II Duplicate II %RPD		
Date extracted	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Date analysed	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Phenol	mg/kg	1	Org-012	<1	84294-1	<1 <1	LCS-1	119%
2-Chlorophenol	mg/kg	1	Org-012	<1	84294-1	<1 <1	LCS-1	120%
2-Methylphenol	mg/kg	1	Org-012	<1	84294-1	<1 <1	[NR]	[NR]
3/4-Methylphenol	mg/kg	2	Org-012	<2	84294-1	<2 <2	[NR]	[NR]
2-Nitrophenol	mg/kg	1	Org-012	<1	84294-1	<1 <1	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	1	Org-012	<1	84294-1	<1 <1	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	1	Org-012	<1	84294-1	<1 <1	[NR]	[NR]
2,6-dichlorophenol	mg/kg	1	Org-012	<1	84294-1	<1 <1	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	1	Org-012	<1	84294-1	<1 <1	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	1	Org-012	<1	84294-1	<1 <1	[NR]	[NR]
2,4-dinitrophenol	mg/kg	10	Org-012	<10	84294-1	<10 <10	[NR]	[NR]
4-nitrophenol	mg/kg	10	Org-012	<10	84294-1	<10 <10	LCS-1	111%
2,3,4,6-tetrachlorophenol	mg/kg	1	Org-012	<1	84294-1	<1 <1	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	84294-1	<10 <10	[NR]	[NR]
pentachlorophenol	mg/kg	10	Org-012	<10	84294-1	<10 <10	[NR]	[NR]
Surrogate 2-fluorophenol	%		Org-012	125	84294-1	136 129 RPD: 5	LCS-1	137%
Surrogate Phenol-d6	%		Org-012	130	84294-1	122 123 RPD: 1	LCS-1	132%
Surrogate 2,4,6-Tribromophenol	%		Org-012	96	84294-1	99 108 RPD: 9	LCS-1	115%
Surrogate p-Terphenyl-d14	%		Org-012	88	84294-1	78 88 RPD: 12	LCS-1	92%

Client Reference: Darwin Waterfront Stage 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Date analysed	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
HCB	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	LCS-1	91%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	LCS-1	113%
Heptachlor	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	LCS-1	99%
delta-BHC	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	LCS-1	114%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	LCS-1	102%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	LCS-1	103%
Dieldrin	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	LCS-1	98%
Endrin	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	LCS-1	101%
pp-DDD	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	LCS-1	102%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	LCS-1	108%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Surrogate TCMX	%		Org-005	99	84294-1	98 115 RPD: 16	LCS-1	97%

Client Reference: Darwin Waterfront Stage 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCBs in Soil						Base II Duplicate II %RPD		
Date extracted	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Date analysed	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1221	mg/kg	0.1	Org-006	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	84294-1	<0.1 <0.1	LCS-1	96%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	84294-1	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	99	84294-1	98 115 RPD: 16	LCS-1	95%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Date digested	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Date analysed	-			18/01/2013	84294-1	18/01/2013 18/01/2013	LCS-1	18/01/2013
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	84294-1	6 7 RPD: 15	LCS-1	99%
Cadmium	mg/kg	0.5	Metals-020 ICP-AES	<0.5	84294-1	<0.5 <0.5	LCS-1	100%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	51 43 RPD: 17	LCS-1	100%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	17 20 RPD: 16	LCS-1	102%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	33 27 RPD: 20	LCS-1	98%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	84294-1	<0.1 <0.1	LCS-1	97%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	5 6 RPD: 18	LCS-1	100%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	38 52 RPD: 31	LCS-1	100%
Silver	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	<1 <1	LCS-1	106%
Manganese	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	91 77 RPD: 17	LCS-1	107%
Selenium	mg/kg	2	Metals-020 ICP-AES	<2	84294-1	<2 <2	LCS-1	102%
Tin	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	<1 <1	LCS-1	102%
Barium	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	72 89 RPD: 21	LCS-1	108%
Beryllium	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	<1 <1	LCS-1	106%
Cobalt	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	2 2 RPD: 0	LCS-1	103%

Client Reference: Darwin Waterfront Stage 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Vanadium	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	79 63 RPD: 23	LCS-1	95%
Molybdenum	mg/kg	1	Metals-020 ICP-AES	<1	84294-1	<1 <1	LCS-1	104%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			22/01/2013	[NT]	[NT]	LCS-1	22/01/2013
Date analysed	-			22/01/2013	[NT]	[NT]	LCS-1	22/01/2013
Hexavalent Chromium, Cr ⁶⁺	mg/kg	1	Inorg-024	<1	[NT]	[NT]	LCS-1	103%
Total Fluoride	mg/kg	50	NEPM-404	<50	[NT]	[NT]	LCS-1	92%
Total Cyanide	mg/kg	0.5	Inorg-013	<0.5	[NT]	[NT]	LCS-1	120%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Moisture								
Date prepared	-			[NT]				
Date analysed	-			[NT]				
Moisture	%	0.1	Inorg-008	[NT]				
QUALITYCONTROL	UNITS	Dup. Sm#		Duplicate		Spike Sm#	Spike % Recovery	
VOCs in soil				Base + Duplicate + %RPD				
Date extracted	-	[NT]		[NT]		84294-2	18/01/2013	
Date analysed	-	[NT]		[NT]		84294-2	18/01/2013	
Dichlorodifluoromethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
Chloromethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
Vinyl Chloride	mg/kg	[NT]		[NT]		[NR]	[NR]	
Bromomethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
Chloroethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
Trichlorofluoromethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
1,1-Dichloroethene	mg/kg	[NT]		[NT]		[NR]	[NR]	
trans-1,2-dichloroethene	mg/kg	[NT]		[NT]		[NR]	[NR]	
1,1-dichloroethane	mg/kg	[NT]		[NT]		84294-2	86%	
cis-1,2-dichloroethene	mg/kg	[NT]		[NT]		[NR]	[NR]	
bromochloromethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
chloroform	mg/kg	[NT]		[NT]		84294-2	95%	
2,2-dichloropropane	mg/kg	[NT]		[NT]		[NR]	[NR]	
1,2-dichloroethane	mg/kg	[NT]		[NT]		84294-2	109%	
1,1,1-trichloroethane	mg/kg	[NT]		[NT]		84294-2	85%	
1,1-dichloropropene	mg/kg	[NT]		[NT]		[NR]	[NR]	
Cyclohexane	mg/kg	[NT]		[NT]		[NR]	[NR]	
carbon tetrachloride	mg/kg	[NT]		[NT]		[NR]	[NR]	
Benzene	mg/kg	[NT]		[NT]		[NR]	[NR]	

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QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
dibromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	[NT]	[NT]	84294-2	88%
bromodichloromethane	mg/kg	[NT]	[NT]	84294-2	90%
trans-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	[NT]	[NT]	84294-2	96%
1,2-dibromoethane	mg/kg	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	[NT]	[NT]	84294-2	97%
1,1,1,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%	[NT]	[NT]	84294-2	97%

Client Reference: Darwin Waterfront Stage 2

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
<i>Surrogate</i> aaa- Trifluorotoluene	%	[NT]	[NT]	84294-2	113%
<i>Surrogate</i> Toluene-d ₈	%	[NT]	[NT]	84294-2	100%
<i>Surrogate</i> 4- Bromofluorobenzene	%	[NT]	[NT]	84294-2	103%
QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	84294-2	18/01/2013
Date analysed	-	[NT]	[NT]	84294-2	18/01/2013
TRHC ₆ - C ₉	mg/kg	[NT]	[NT]	84294-2	103%
TRHC ₆ - C ₁₀	mg/kg	[NT]	[NT]	84294-2	103%
vTPHC ₆ - C ₁₀ less BTEX (F1)	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	[NT]	[NT]	84294-2	108%
Toluene	mg/kg	[NT]	[NT]	84294-2	107%
Ethylbenzene	mg/kg	[NT]	[NT]	84294-2	101%
m+p-xylene	mg/kg	[NT]	[NT]	84294-2	100%
o-Xylene	mg/kg	[NT]	[NT]	84294-2	102%
naphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
<i>Surrogate</i> aaa- Trifluorotoluene	%	[NT]	[NT]	84294-2	106%
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	84294-2	18/01/2013
Date analysed	-	[NT]	[NT]	84294-2	19/01/2013
TRHC ₁₀ - C ₁₄	mg/kg	[NT]	[NT]	84294-2	88%
TRHC ₁₅ - C ₂₈	mg/kg	[NT]	[NT]	84294-2	113%
TRHC ₂₉ - C ₃₆	mg/kg	[NT]	[NT]	84294-2	96%
TRH>C ₁₀ -C ₁₆	mg/kg	[NT]	[NT]	84294-2	88%
TRH>C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	[NT]	[NT]	[NR]	[NR]
TRH>C ₁₆ -C ₃₄	mg/kg	[NT]	[NT]	84294-2	113%
TRH>C ₃₄ -C ₄₀	mg/kg	[NT]	[NT]	84294-2	96%
<i>Surrogate</i> o-Terphenyl	%	[NT]	[NT]	84294-2	84%

Client Reference: Darwin Waterfront Stage 2

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	84294-2	18/01/2013
Date analysed	-	[NT]	[NT]	84294-2	18/01/2013
Naphthalene	mg/kg	[NT]	[NT]	84294-2	100%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	84294-2	103%
Phenanthrene	mg/kg	[NT]	[NT]	84294-2	102%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	84294-2	102%
Pyrene	mg/kg	[NT]	[NT]	84294-2	104%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	84294-2	97%
Benzo(b+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	84294-2	98%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene TEQ	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl- d14	%	[NT]	[NT]	84294-2	71%
QUALITY CONTROL Speciated Phenols in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	84294-2	18/01/2013
Date analysed	-	[NT]	[NT]	84294-2	18/01/2013
Phenol	mg/kg	[NT]	[NT]	84294-2	122%
2-Chlorophenol	mg/kg	[NT]	[NT]	84294-2	117%
2-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	[NT]	[NT]	84294-2	101%
2,3,4,6-tetrachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate 2-fluorophenol	%	[NT]	[NT]	84294-2	132%
Surrogate Phenol-d6	%	[NT]	[NT]	84294-2	127%
Surrogate 2,4,6-Tribromophenol	%	[NT]	[NT]	84294-2	102%

Client Reference: Darwin Waterfront Stage 2

QUALITY CONTROL Speciated Phenols in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
<i>Surrogate p</i> -Terphenyl- d ₁₄	%	[NT]	[NT]	84294-2	80%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	84294-2	18/01/2013
Date analysed	-	[NT]	[NT]	84294-2	18/01/2013
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	84294-2	93%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	84294-2	112%
Heptachlor	mg/kg	[NT]	[NT]	84294-2	100%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	84294-2	111%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	84294-2	102%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	84294-2	103%
Dieldrin	mg/kg	[NT]	[NT]	84294-2	98%
Endrin	mg/kg	[NT]	[NT]	84294-2	99%
pp-DDD	mg/kg	[NT]	[NT]	84294-2	98%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	84294-2	110%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
<i>Surrogate</i> TCMX	%	[NT]	[NT]	84294-2	94%

Client Reference: Darwin Waterfront Stage 2

QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	84294-2	18/01/2013
Date analysed	-	[NT]	[NT]	84294-2	18/01/2013
Arochlor 1016	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1221	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	[NT]	[NT]	84294-2	100%
Arochlor 1260	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	84294-2	93%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	84294-2	18/01/2013
Date analysed	-	[NT]	[NT]	84294-2	18/01/2013
Arsenic	mg/kg	[NT]	[NT]	84294-2	89%
Cadmium	mg/kg	[NT]	[NT]	84294-2	89%
Chromium	mg/kg	[NT]	[NT]	84294-2	103%
Copper	mg/kg	[NT]	[NT]	84294-2	105%
Lead	mg/kg	[NT]	[NT]	84294-2	94%
Mercury	mg/kg	[NT]	[NT]	84294-2	92%
Nickel	mg/kg	[NT]	[NT]	84294-2	95%
Zinc	mg/kg	[NT]	[NT]	84294-2	92%
Silver	mg/kg	[NT]	[NT]	84294-2	94%
Manganese	mg/kg	[NT]	[NT]	84294-2	119%
Selenium	mg/kg	[NT]	[NT]	84294-2	#
Tin	mg/kg	[NT]	[NT]	84294-2	95%
Barium	mg/kg	[NT]	[NT]	84294-2	106%
Beryllium	mg/kg	[NT]	[NT]	84294-2	98%
Cobalt	mg/kg	[NT]	[NT]	84294-2	94%
Vanadium	mg/kg	[NT]	[NT]	84294-2	104%
Molybdenum	mg/kg	[NT]	[NT]	84294-2	85%

Report Comments:

Acid Extractable Metals in Soil: # Percent recovery not available due to matrix interference, however an acceptable recovery was achieved for the LCS.

Asbestos ID was analysed by Approved Identifier:	Not applicable for this job
Asbestos ID was authorised by Approved Signatory:	Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

Attachment C

DATA VALIDATION SUMMARY REPORT; SOIL

Date: 07/02/2013

Site: Waterfront Precinct
 Project No.: 42213719
 Project Manager: Tim Smith
 Matrix: Soil
 Laboratory: ALS/EnviroLab
 Lab Batch Nos: ES1301006/89294
 Sample Date: 15/01/2013

Validation Conducted by: Bek Aagaard

Authorised by: Tim Smith

Number of Samples Taken

Primary samples: 74
 Inter-laboratory duplicates: 2
 Intra-laboratory duplicates: 4

Component		Assessment				Comments
Frequency of laboratory QA/QC		OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	
Number of tests requested/reported		OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	
Sample handling/preservation/holding times		OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	
Limits of reporting		OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	
Blank Analysis	Field Blank	OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	Refer to Note 1
	Rinsate Blank	OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	
	Trip Blank	OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	
	Method Blank	OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	
Field duplicate RPDs		OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	
Laboratory duplicate RPDs		OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	Refer to Note 2
Matrix Spikes	% Recoveries	OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	Refer to Note 3
LCS	% Recoveries	OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	Refer to Note 4
Surrogate recoveries		OK	<input checked="" type="checkbox"/>	NOT OK	<input type="checkbox"/>	

Other observations

Note 1	No Field Blank, Rinsate Blank or Trip Blank were analysed; hence potential cross-contamination has not been assessed directly. As no samples were reported to contain BTEXN or volatile TPH and all samples were taken from the excavator's bucket, fresh gloves and placed directly into the sample container, the potential for cross-contamination is minimal; therefore, this is not considered to affect the interpretation of the results.
Note 2	Laboratory duplicate RPDs exceeded LOR based limits for Chromium and Lead in field samples SP02A_37_15012013 and SP02A_52_15012013, respectively. Laboratory duplicate RPDs exceeded LOR based limits for Vanadium in field samples SP02A_37_15012013 and SP02A_52_1501201, respectively. This apparent lack of precision is likely due to heterogeneity of the distribution of Chromium, Lead and Vanadium in soils at the site, and should be taken into consideration when evaluating individual results close to the investigation levels.
Note 3	Matrix spike recoveries were reported less than the lower data quality objective for Chromium (SP02A_22_15012013). The accuracy of the analytical data is considered acceptable based on other quality control data including method blanks, laboratory control spikes, surrogates and matrix spikes for analytes analysed under the same analytical method.
Note 4	The Laboratory Control Spike (LCS) recoveries for Heptachlor Epoxide, trans-Chlordane, alpha-Endosulphan and 4,4-DDE were reported greater than the upper control limits by <3.5% in laboratory Batch ES1301006; hence, there is the potential for the results to be biased high. The LCS recoveries for 2-methylphenol was reported less than the lower control limits by <1% in laboratory Batch ES1301006; hence, there is the potential for the results to be biased low. Due to the presence of other quality control data, including method blanks, matrix spikes and surrogate recoveries, and as these analytes were not reported above the laboratory LOR, the accuracy of the analytical data for these analytes is considered acceptable.

Summary Comments:

Soil analytical data can be used as a basis of interpretation, subject to the limitations outlined above.

Recommended Corrective Action

None

Site:
Project No.:
Project Manager:
Matrix:
Laboratory:
Lab Batch Nos:

Waterfront Precinct
42213719
Tim Smith
Soil
ALS/Envirolab
ES1301006/89294

Analytical Method	Analytical Parameter	Number of Tests Requested	Number of Tests Reported	Number of Primary Samples	Holding Times (a)	Limits of Reporting (b)	Field Blank (1 per day)		Rinsate Blank (1 per day)		Trip Blank (1 per esky with VOCs)		Method Blank (1 per batch)		Intra-Laboratory Duplicate Sample (1 in 20)		Inter-Laboratory Duplicate Sample (1 in 20)		Lab Duplicate (1 in 10)		Matrix Spike (1 in 20)		LCS (1 per batch)		Surrogates (GC-MS organics)	
							Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Reported	OK
SEMIVOLATILES ANALYSIS/ALS/EP068A	4.4'-DDD	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	4.4'-DDE	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	4.4'-DDT	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	Aldrin	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	alpha-BHC	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	alpha-Endosulfan	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	beta-BHC	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	beta-Endosulfan	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	cis-Chlordane	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	delta-BHC	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Dieldrin	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	Endosulfan sulfate	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Endrin	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	Endrin aldehyde	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Endrin ketone	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	0	0	8	8	0	0	4	4	✓	✓
	gamma-BHC	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	Heptachlor	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	Heptachlor epoxide	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Hexachlorobenzene (HCB)	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	0	0	8	8	0	0	4	4	✓	✓
	Methoxychlor	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	trans-Chlordane	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
SEMIVOLATILES ANALYSIS/ALS/EP075(SIM)A	2,4,5-Trichlorophenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	2,4,6-Trichlorophenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	2,4-Dichlorophenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	2,4-Dimethylphenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	2,6-Dichlorophenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	2-Chlorophenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	2-Methylphenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	2-Nitrophenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	3- & 4-Methylphenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	4-Chloro-3-Methylphenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	0	0	8	8	4	4	4	4	✓	✓
	Pentachlorophenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	Phenol	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
SEMIVOLATILES ANALYSIS/ALS/EP075(SIM)B	Acenaphthene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	Acenaphthylene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Anthracene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Benzo(a)anthracene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Benzo(a)pyrene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Benzo(a)pyrene TEQ (WHO)	25	80	74	✓	✓	0	0	0	0	0	0	0	0	4	4	2	2	8	8	0	0	0	0	✓	✓
	Benzo(b)fluoranthene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Benzo(g,h,i)perylene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Benzo(k)fluoranthene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	0	0	8	8	0	0	4	4	✓	✓
	Chrysene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Dibenz(a,h)anthracene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Fluoranthene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Fluorene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Indeno(1,2,3-cd)pyrene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Naphthalene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	8	2	2	8	8	0	0	4	4	✓	✓
	Phenanthrene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	✓	✓
	Pyrene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
VOLATILES ANALYSIS/ALS/EP080	Benzene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	Ethylbenzene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	meta- & para-Xylene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	Naphthalene	25	78	74	✓	✓	0	0	0	0	0	0	1	4	4	8	2	2	8	8	4	4	4	4	✓	✓
	ortho-Xylene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	Toluene	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓

Site:
Project No.:
Project Manager:
Matrix:
Laboratory:
Lab Batch Nos:

Waterfront Precinct
42213719
Tim Smith
Soil
ALS/Envirolab
ES1301006/89294

Analytical Method	Analytical Parameter	Number of Tests Requested	Number of Tests Reported	Number of Primary Samples	Holding Times (a)	Limits of Reporting (b)	Field Blank (1 per day)		Rinsate Blank (1 per day)		Trip Blank (1 per esky with VOCs)		Method Blank (1 per batch)		Intra-Laboratory Duplicate Sample (1 in 20)		Inter-Laboratory Duplicate Sample (1 in 20)		Lab Duplicate (1 in 10)		Matrix Spike (1 in 20)		LCS (1 per batch)		Surrogates (GC-MS organics)	
							Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Number Required	Number Reported	Reported	OK
VOLATILES ANALYSIS/ALS/EP080/071	C6 - C10 Fraction	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	C6 - C10 Fraction minus BTEX (F1)	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
	C6 - C9 Fraction	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	✓	✓
SEMIVOLATILES ANALYSIS/ALS/EP080/071	>C10 - C16 Fraction	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
	>C16 - C34 Fraction	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
	>C34 - C40 Fraction	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
	C10 - C14 Fraction	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
	C15 - C28 Fraction	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
	C29 - C36 Fraction	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
METALS ANALYSIS/ALS/EG035T	Mercury	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
INSTRUMENT LABORATORY (NON-METALLICS)/ALS/EG048	Hexavalent Chromium	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
METALS ANALYSIS/ALS/EG005T	Arsenic	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
	Barium	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	-	-
	Beryllium	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	-	-
	Cadmium	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
	Chromium	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
	Cobalt	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	-	-
	Copper	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
	Lead	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
	Manganese	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	-	-
	Nickel	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
	Vanadium	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	0	0	4	4	-	-
	Zinc	25	80	74	✓	✓	0	0	0	0	0	0	1	4	4	4	2	2	8	8	4	4	4	4	-	-
SOIL PREPARATION/ALS/EA055	Moisture Content (dried @ 103 °C)	25	80	74	✓	✓	0	0	0	0	0	0	1	0	4	4	2	2	8	9	0	0	0	0	-	-

Site Name Waterfront Precinct
Project No. 42213719
Project Manager Tim Smith
Field Duplicates (Soil)

Chem_Group	ChemName	Units	LOR	ES1301006				ES1301006			
				Field_ID	Sampled_Date-Time	RPD	Category1	Field_ID	Sampled_Date-Time	RPD	Category1
Inorganics	Moisture Content	%	1	P02A_17_1501201	15/01/2013	51	Fail	P02A_24_1501201	15/01/2013	21	Pass
Metals	Arsenic	mg/kg	5			0	Pass			0	Pass
	Barium	mg/kg	10			33	Pass 1			33	Pass 1
	Beryllium	mg/kg	1			0	Pass			0	Pass
	Cadmium	mg/kg	1			0	Pass			0	Pass
	Chromium	mg/kg	2			38	Pass 2			15	Pass
	Chromium (hexavalent)	mg/kg	0.5			0	Pass			0	Pass
	Cobalt	mg/kg	2			0	Pass			0	Pass
	Copper	mg/kg	5			0	Pass			33	Pass 1
	Lead	mg/kg	5			0	Pass			29	Pass
	Manganese	mg/kg	5			40	Pass 2			9	Pass
	Mercury	mg/kg	0.1			0	Pass			0	Pass
	Nickel	mg/kg	2			22	Pass			22	Pass
	Zinc	mg/kg	5			24	Pass			12	Pass
	Vanadium	mg/kg	5			60	Pass 1			33	Pass 2
Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.2			0	Pass			0	Pass
	Toluene	mg/kg	0.5			0	Pass			0	Pass
	Ethylbenzene	mg/kg	0.5			0	Pass			0	Pass
	m&p-Xylene	mg/kg	0.5			0	Pass			0	Pass
	o-Xylene	mg/kg	0.5			0	Pass			0	Pass
	Total Xylenes	mg/kg	0.5			0	Pass			0	Pass
	Total BTEX	mg/kg	0.2			0	Pass			0	Pass
Naphthalene	Naphthalene (VOC)	mg/kg	1			0	Pass			0	Pass
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.05			0	Pass			0	Pass
	Dieldrin	mg/kg	0.05			0	Pass			0	Pass
	a-BHC	mg/kg	0.05			0	Pass			0	Pass
	b-BHC	mg/kg	0.05			0	Pass			0	Pass
	d-BHC	mg/kg	0.05			0	Pass			0	Pass
	g-BHC (Lindane)	mg/kg	0.05			0	Pass			0	Pass
	cis-Chlordane	mg/kg	0.05			0	Pass			0	Pass
	trans-Chlordane	mg/kg	0.05			0	Pass			0	Pass
	DDD	mg/kg	0.05			0	Pass			0	Pass
	DDE	mg/kg	0.05			0	Pass			0	Pass
	DDT	mg/kg	0.2			0	Pass			0	Pass
	Endosulfan 1	mg/kg	0.05			0	Pass			0	Pass
	Endosulfan 2	mg/kg	0.05			0	Pass			0	Pass
	Endosulfan sulfate	mg/kg	0.05			0	Pass			0	Pass
	Endrin	mg/kg	0.05			0	Pass			0	Pass
	Endrin aldehyde	mg/kg	0.05			0	Pass			0	Pass
	Endrin ketone	mg/kg	0.05			0	Pass			0	Pass
	Heptachlor	mg/kg	0.05			0	Pass			0	Pass
	Heptachlor epoxide	mg/kg	0.05			0	Pass			0	Pass
	Hexachlorobenzene (HCB)	mg/kg	0.05			0	Pass			0	Pass
	Methoxychlor	mg/kg	0.2			0	Pass			0	Pass

Site Name Waterfront Precinct
Project No. 42213719
Project Manager Tim Smith
Field Duplicates (Soil)

			SDG	ES1301006			Category1	ES1301006			Category1
			Field_ID	P02A_17_1501201	QC01_15012013	RPD		P02A_24_1501201	QC02_15012013	RPD	
			Sampled_Date-Time	15/01/2013	15/01/2013			15/01/2013	15/01/2013		
Phenolic Compounds	Phenol	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2-Chlorophenol	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2-Methylphenol (o-Cresol)	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1	<1	<1	0	Pass	<1	<1	0	Pass
	2-Nitrophenol	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2,4-Dichlorophenol	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2,4-Dimethylphenol	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2,6-Dichlorophenol	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	4-Chloro-3-methylphenol	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2,4,6-Trichlorophenol	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
Polychlorinated Biphenyls	2,4,5-Trichlorophenol	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Pentachlorophenol	mg/kg	2	<2	<2	0	Pass	<2	<2	0	Pass
	Polychlorinated Biphenyls	mg/kg	0.1	<0.1	<0.1	0	Pass	<0.1	<0.1	0	Pass
Polynuclear Aromatic Hydrocarbons	Naphthalene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Acenaphthylene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Acenaphthene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Anthracene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Fluorene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Phenanthrene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Fluoranthene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benz(a)anthracene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(b)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(k)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(a)pyrene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(a)pyrene TEQ	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Chrysene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Pyrene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(g,h,i)perylene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Dibenz(a,h)anthracene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Sum of PAHs	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
Total Petroleum Hydrocarbons	C6-C9 fraction	mg/kg	10	<10	<10	0	Pass	<10	<10	0	Pass
	C10-C14 fraction	mg/kg	50	<50	<50	0	Pass	<50	<50	0	Pass
	C15-C28 fraction	mg/kg	100	<100	<100	0	Pass	<100	<100	0	Pass
	C29-C36 fraction	mg/kg	100	<100	<100	0	Pass	<100	<100	0	Pass
	C10-C36 fraction (sum)	mg/kg	50	<50	<50	0	Pass	<50	<50	0	Pass
Total Recoverable Hydrocarbons											
	C6-C10 fraction (F1 minus BTEX)	mg/kg	10	<10	<10	0	Pass	<10	<10	0	Pass
	C6-C10 fraction	mg/kg	10	<10	<10	0	Pass	<10	<10	0	Pass
	>C10-C16 fraction	mg/kg	50	<50	<50	0	Pass	<50	<50	0	Pass
	>C16-C34 fraction	mg/kg	100	<100	<100	0	Pass	<100	<100	0	Pass
	>C34-C40 fraction	mg/kg	100	<100	<100	0	Pass	<100	<100	0	Pass
	>C10-C40 fraction (sum)	mg/kg	50	<50	<50	0	Pass	<50	<50	0	Pass

Pass RPD <= 30%
Pass-1 RPD > 30%, Analysis result < 10 times LOR
Pass-2 RPD <= 50%, Analysis result > 10 times LOR and < 20 times LOR

Site Name Waterfront Precinct
Project No. 42213719
Project Manager Tim Smith
Field Duplicates (Soil)

Chem_Group	ChemName	ES1301006 P01A_60_1501201 15/01/2013	ES1301006 QC05_15012013 15/01/2013	RPD	Category1	ES1301006 P01A_64_1501201 15/01/2013	ES1301006 QC06_15012013 15/01/2013	RPD	Category1
Inorganics	Moisture Content	8.8	19.5	76	Fail	12.9	10.9	17	Pass
Metals	Arsenic	9	11	20	Pass	7	<5	33	Pass 1
	Barium	60	90	40	Pass 1	100	110	10	Pass
	Beryllium	<1	<1	0	Pass	<1	<1	0	Pass
	Cadmium	<1	<1	0	Pass	<1	<1	0	Pass
	Chromium	110	167	41	Fail	75	26	97	Fail
	Chromium (hexavalent)	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Cobalt	<2	<2	0	Pass	<2	<2	0	Pass
	Copper	<5	<5	0	Pass	31	7	126	Fail
	Lead	8	15	61	Pass 1	30	6	133	Fail
	Manganese	75	66	13	Pass	57	67	16	Pass
	Mercury	<0.1	<0.1	0	Pass	<0.1	<0.1	0	Pass
	Nickel	<2	2	0	Pass	4	4	0	Pass
	Zinc	7	8	13	Pass	58	24	83	Fail
	Vanadium	199	262	27	Pass	132	54	84	Fail
Monocyclic Aromatic Hydrocarbons	Benzene	<0.2	<0.2	0	Pass	<0.2	<0.2	0	Pass
	Toluene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Ethylbenzene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	m&p-Xylene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	o-Xylene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Total Xylenes	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Total BTEX	<0.2	<0.2	0	Pass	<0.2	<0.2	0	Pass
Naphthalene	Naphthalene (VOC)	<1	<1	0	Pass	<1	<1	0	Pass
Organochlorine Pesticides (OC)	Aldrin	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	Dieldrin	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	a-BHC	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	b-BHC	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	d-BHC	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	g-BHC (Lindane)	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	cis-Chlordane	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	trans-Chlordane	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	DDD	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	DDE	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	DDT	<0.2	<0.2	0	Pass	<0.2	<0.2	0	Pass
	Endosulfan 1	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	Endosulfan 2	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	Endosulfan sulfate	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	Endrin	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	Endrin aldehyde	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	Endrin ketone	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	Heptachlor	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	Heptachlor epoxide	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	Hexachlorobenzene (HCB)	<0.05	<0.05	0	Pass	<0.05	<0.05	0	Pass
	Methoxychlor	<0.2	<0.2	0	Pass	<0.2	<0.2	0	Pass

Site Name Waterfront Precinct
Project No. 42213719
Project Manager Tim Smith
Field Duplicates (Soil)

		ES1301006	ES1301006	RPD	Category1	ES1301006	ES1301006	RPD	Category1
		P01A_60_1501201	QC05_15012013			P01A_64_1501201	QC06_15012013		
		15/01/2013	15/01/2013			15/01/2013	15/01/2013		
Phenolic Compounds	Phenol	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2-Chlorophenol	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2-Methylphenol (o-Cresol)	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	3-&4-Methylphenol (m&p-Cresol)	<1	<1	0	Pass	<1	<1	0	Pass
	2-Nitrophenol	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2,4-Dichlorophenol	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2,4-Dimethylphenol	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2,6-Dichlorophenol	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	4-Chloro-3-methylphenol	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2,4,6-Trichlorophenol	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	2,4,5-Trichlorophenol	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Pentachlorophenol	<2	<2	0	Pass	<2	<2	0	Pass
Polychlorinated Biphenyls	Polychlorinated Biphenyls	<0.1	<0.1	0	Pass	<0.1	<0.1	0	Pass
Polynuclear Aromatic Hydrocarbons	Naphthalene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Acenaphthylene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Acenaphthene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Anthracene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Fluorene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Phenanthrene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Fluoranthene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benz(a)anthracene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(b)fluoranthene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(k)fluoranthene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(a)pyrene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(a)pyrene TEQ	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Chrysene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Pyrene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Benzo(g,h,i)perylene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Dibenz(a,h)anthracene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Indeno(1,2,3-cd)pyrene	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Sum of PAHs	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
Total Petroleum Hydrocarbons	C6-C9 fraction	<10	<10	0	Pass	<10	<10	0	Pass
	C10-C14 fraction	<50	<50	0	Pass	<50	<50	0	Pass
	C15-C28 fraction	<100	<100	0	Pass	<100	<100	0	Pass
	C29-C36 fraction	<100	<100	0	Pass	<100	<100	0	Pass
	C10-C36 fraction (sum)	<50	<50	0	Pass	<50	<50	0	Pass
Total Recoverable Hydrocarbons	C6-C10 fraction (F1 minus BTEX)	<10	<10	0	Pass	<10	<10	0	Pass
	C6-C10 fraction	<10	<10	0	Pass	<10	<10	0	Pass
	>C10-C16 fraction	<50	<50	0	Pass	<50	<50	0	Pass
	>C16-C34 fraction	<100	<100	0	Pass	<100	<100	0	Pass
	>C34-C40 fraction	<100	<100	0	Pass	<100	<100	0	Pass
	>C10-C40 fraction (sum)	<50	<50	0	Pass	<50	<50	0	Pass

Pass RPD <= 30%
Pass-1 RPD > 30%, Analysis result < 10 times L
Pass-2 RPD <= 50%, Analysis result > 10 times

Site Name Waterfront Precinct
Project No. 42213719
Project Manager Tim Smith
Field Duplicates (Soil)

SDG	ES1301006	Interlab_D			ES1301006	Interlab_D			
Field_ID	SP02A_51_15012013	QC03	RPD	Category1	SP02A_57_15012013	QC04	RPD	Category1	
Sampled_Date-Time	15/01/2013	15/01/2013			15/01/2013	15/01/2013			

Chem_Group	ChemName	Units	EQL								
Inorganics	Moisture Content	%	0.1	14.7	9.7	41	Fail	12.4	10	21	Pass
Metals	Arsenic	mg/kg	4	6	6	0	Pass	9	6	40	Pass 1
	Barium	mg/kg	1	70	72	3	Pass	100	74	30	Pass
	Beryllium	mg/kg	1	<1	<1	0	Pass	<1	<1	0	Pass
	Cadmium	mg/kg	0.5	<1	<0.5	0	Pass	<1	<0.5	0	Pass
	Chromium	mg/kg	1	59	51	15	Pass	97	60	47	Fail
	Chromium (hexavalent)	mg/kg	1	<0.5	<1	0	Pass	<0.5	<1	0	Pass
	Cobalt	mg/kg	1	<2	2	0	Pass	<2	2	0	Pass
	Copper	mg/kg	1	12	17	34	Pass 2	10	10	0	Pass
	Lead	mg/kg	1	19	33	54	Fail	17	16	6	Pass
	Manganese	mg/kg	1	59	91	43	Fail	106	76	33	Fail
	Mercury	mg/kg	0.1	<0.1	<0.1	0	Pass	<0.1	<0.1	0	Pass
	Nickel	mg/kg	1	4	5	22	Pass	5	5	0	Pass
	Zinc	mg/kg	1	33	38	14	Pass	29	25	15	Pass
	Vanadium	mg/kg	1	112	79	35	Fail	165	95	54	Fail
Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.2	<0.2	<0.2	0	Pass	<0.2	<0.2	0	Pass
	Toluene	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Ethylbenzene	mg/kg	1	<0.5	<1	0	Pass	<0.5	<1	0	Pass
	m&p-Xylene	mg/kg	2	<0.5	<2	0	Pass	<0.5	<2	0	Pass
	o-Xylene	mg/kg	1	<0.5	<1	0	Pass	<0.5	<1	0	Pass
	Total Xylenes	mg/kg	0.5	-	-	-	-	-	-	-	-
	Total BTEX	mg/kg	0.2	-	-	-	-	-	-	-	-
Naphthalene	Naphthalene (VOC)	mg/kg	1	-	-	-	-	-	-	-	-
Organochlorine Pesticides (OC)	Aldrin	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	Dieldrin	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	a-BHC	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	b-BHC	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	d-BHC	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	g-BHC (Lindane)	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	cis-Chlordane	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	trans-Chlordane	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	DDD	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	DDE	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	DDT	mg/kg	0.1	<0.2	<0.1	0	Pass	<0.2	<0.1	0	Pass
	Endosulfan 1	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	Endosulfan 2	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	Endosulfan sulfate	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	Endrin	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	Endrin aldehyde	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	Endrin ketone	mg/kg	0.05	-	-	-	-	-	-	-	-
	Heptachlor	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	Heptachlor epoxide	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.05	<0.1	0	Pass	<0.05	<0.1	0	Pass
	Methoxychlor	mg/kg	0.1	<0.2	<0.1	0	Pass	<0.2	<0.1	0	Pass
Phenolic Compounds	Phenol	mg/kg	0.5	<0.5	<1	0	Pass	<0.5	<1	0	Pass
	2-Chlorophenol	mg/kg	0.5	<0.5	<1	0	Pass	<0.5	<1	0	Pass
	2-Methylphenol (o-Cresol)	mg/kg	0.5	<0.5	<1	0	Pass	<0.5	<1	0	Pass

Site Name Waterfront Precinct
Project No. 42213719
Project Manager Tim Smith
Field Duplicates (Soil)

			SDG Field_ID Sampled_Date-Time	ES1301006 SP02A_51_15012013 15/01/2013	Interlab_D QC03 15/01/2013	RPD	Category1	ES1301006 SP02A_57_15012013 15/01/2013	Interlab_D QC04 15/01/2013	RPD	Category1
	3-&4-Methylphenol (m&p-Cresol)	mg/kg	1	-	-	-	-	-	-	-	-
	2-Nitrophenol	mg/kg	0.5	<0.5	<1	0	Pass	<0.5	<1	0	Pass
	2,4-Dichlorophenol	mg/kg	0.5	<0.5	<1	0	Pass	<0.5	<1	0	Pass
	2,4-Dimethylphenol	mg/kg	0.5	<0.5	<1	0	Pass	<0.5	<1	0	Pass
	2,6-Dichlorophenol	mg/kg	0.5	<0.5	<1	0	Pass	<0.5	<1	0	Pass
	4-Chloro-3-methylphenol	mg/kg	0.5	-	-	-	-	-	-	-	-
	2,4,6-Trichlorophenol	mg/kg	0.5	<0.5	<1	0	Pass	<0.5	<1	0	Pass
	2,4,5-Trichlorophenol	mg/kg	0.5	<0.5	<1	0	Pass	<0.5	<1	0	Pass
	Pentachlorophenol	mg/kg	10	<2	<10	0	Pass	<2	<10	0	Pass
											Pass
	Polychlorinated Biphenyls	mg/kg	0.1	-	-	-	-	-	-	-	-
	Polynuclear Aromatic Hydrocarbons	mg/kg	1	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Naphthalene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Acenaphthylene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Acenaphthene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Anthracene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Fluorene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Phenanthrene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Fluoranthene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Benz(a)anthracene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Benzo(b)fluoranthene	mg/kg	0.5	-	-	-	-	-	-	-	-
	Benzo(k)fluoranthene	mg/kg	0.5	-	-	-	-	-	-	-	-
	Benzo(a)pyrene	mg/kg	0.05	<0.5	0.06	157	Pass	<0.5	<0.05	0	Pass
	Benzo(a)pyrene TEQ	mg/kg	0.5	<0.5	<0.5	0	Pass	<0.5	<0.5	0	Pass
	Chrysene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Pyrene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Benzo(g,h,i)perylene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Dibenz(a,h)anthracene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Indeno(1,2,3-cd)pyrene	mg/kg	0.5	<0.5	<0.1	0	Pass	<0.5	<0.1	0	Pass
	Sum of PAHs	mg/kg	0.5	-	-	-	-	-	-	-	-
	Total Petroleum Hydrocarbons	mg/kg	25	<10	<25	0	Pass	<10	<25	0	Pass
	C6-C9 fraction	mg/kg	50	<50	<50	0	Pass	<50	<50	0	Pass
	C10-C14 fraction	mg/kg	100	<100	<100	0	Pass	<100	<100	0	Pass
	C15-C28 fraction	mg/kg	100	<100	<100	0	Pass	<100	<100	0	Pass
	C29-C36 fraction	mg/kg	100	<100	<100	0	Pass	130	<100	26	Pass
	C10-C36 fraction (sum)	mg/kg	50	-	-	-	-	-	-	-	-
											Pass
	Total Recoverable Hydrocarbons	mg/kg	25	<10	<25	0	Pass	<10	<25	0	Pass
	C6-C10 fraction	mg/kg	25	<10	<25	0	Pass	<10	<25	0	Pass
	>C10-C16 fraction	mg/kg	50	<50	<50	0	Pass	<50	<50	0	Pass
	>C16-C34 fraction	mg/kg	100	<100	<100	0	Pass	150	<100	40	Pass 1
	>C34-C40 fraction	mg/kg	100	<100	<100	0	Pass	100	<100	0	Pass
	>C10-C40 fraction (sum)	mg/kg	50	-	-	-	-	-	-	-	-

Pass RPD <= 30%
Pass-1 RPD > 30%, Analysis result < 10 times LOR
Pass-2 RPD <= 50%, Analysis result > 10 times LOR and < 20 times LOR

Attachment D

	A	B	C	D	E	F	G	H	I	J	K	L		
1	User Selected Options			General UCL Statistics for Data Sets with Non-Detects										
2														
3	From File			WorkSheet.wst										
4	Full Precision			OFF										
5	Confidence Coefficient			95%										
6	Number of Bootstrap Operations			2000										
7														
8														
9	Arsenic													
10														
11	General Statistics													
12	Number of Valid Data				80		Number of Detected Data				47			
13	Number of Distinct Detected Data				14		Number of Non-Detect Data				33			
14							Percent Non-Detects				41.25%			
15														
16	Raw Statistics					Log-transformed Statistics								
17	Minimum Detected				5		Minimum Detected				1.609			
18	Maximum Detected				22		Maximum Detected				3.091			
19	Mean of Detected				9.489		Mean of Detected				2.177			
20	SD of Detected				3.945		SD of Detected				0.378			
21	Minimum Non-Detect				5		Minimum Non-Detect				1.609			
22	Maximum Non-Detect				6		Maximum Non-Detect				1.792			
23														
24	Note: Data have multiple DLs - Use of KM Method is recommended					Number treated as Non-Detect							37	
25	For all methods (except KM, DL/2, and ROS Methods),					Number treated as Detected							43	
26	Observations < Largest ND are treated as NDs					Single DL Non-Detect Percentage							46.25%	
27														
28	UCL Statistics													
29	Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only								
30	Shapiro Wilk Test Statistic				0.864		Shapiro Wilk Test Statistic				0.942			
31	5% Shapiro Wilk Critical Value				0.946		5% Shapiro Wilk Critical Value				0.946			
32	Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level								
33														
34	Assuming Normal Distribution					Assuming Lognormal Distribution								
35	DL/2 Substitution Method						DL/2 Substitution Method							
36	Mean				6.613		Mean				1.659			
37	SD				4.583		SD				0.686			
38	95% DL/2 (t) UCL				7.465		95% H-Stat (DL/2) UCL				7.741			
39														
40	Maximum Likelihood Estimate(MLE) Method					Log ROS Method								
41	Mean				6.119		Mean in Log Scale				1.781			
42	SD				5.422		SD in Log Scale				0.59			
43	95% MLE (t) UCL				7.128		Mean in Original Scale				7.031			
44	95% MLE (Tiku) UCL				7.317		SD in Original Scale				4.262			
45							95% t UCL				7.824			
46							95% Percentile Bootstrap UCL				7.835			
47							95% BCA Bootstrap UCL				7.917			
48							95% H UCL				8.027			
49														
50	Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only								
51	k star (bias corrected)				6.558		Data Follow Appr. Gamma Distribution at 5% Significance Level							
52	Theta Star				1.447									
53	nu star				616.5									
54														
55	A-D Test Statistic				0.879		Nonparametric Statistics							
56	5% A-D Critical Value				0.752		Kaplan-Meier (KM) Method							
57	K-S Test Statistic				0.752		Mean				7.638			
58	5% K-S Critical Value				0.129		SD				3.719			
59	Data follow Appr. Gamma Distribution at 5% Significance Level					SE of Mean								
60							95% KM (t) UCL				8.337			
61	Assuming Gamma Distribution					95% KM (z) UCL								
62	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL							
63	Minimum				0.000001		95% KM (bootstrap t) UCL							
64	Maximum				22		95% KM (BCA) UCL							
65	Mean				5.671		95% KM (Percentile Bootstrap) UCL							
66	Median				6		95% KM (Chebyshev) UCL							
67	SD				5.498		97.5% KM (Chebyshev) UCL							
68	k star				0.153		99% KM (Chebyshev) UCL							
69	Theta star				37.09									
70	Nu star				24.46		Potential UCLs to Use							
71	AppChi2				14.2		95% KM (t) UCL				8.337			
72	95% Gamma Approximate UCL (Use when n >= 40)				9.769									
73	95% Adjusted Gamma UCL (Use when n < 40)				9.869									
74	Note: DL/2 is not a recommended method.													
75														
76	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.													
77	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).													
78	For additional insight, the user may want to consult a statistician.													
79														
80														

	A	B	C	D	E	F	G	H	I	J	K	L	
81	Barium												
82													
83	General Statistics												
84	Number of Valid Data					80	Number of Detected Data					79	
85	Number of Distinct Detected Data					22	Number of Non-Detect Data					1	
86							Percent Non-Detects					1.25%	
87													
88	Raw Statistics					Log-transformed Statistics							
89	Minimum Detected					20	Minimum Detected					2.996	
90	Maximum Detected					2560	Maximum Detected					7.848	
91	Mean of Detected					152.3	Mean of Detected					4.258	
92	SD of Detected					360	SD of Detected					0.984	
93	Minimum Non-Detect					10	Minimum Non-Detect					2.303	
94	Maximum Non-Detect					10	Maximum Non-Detect					2.303	
95													
96													
97	UCL Statistics												
98	Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only							
99	Lilliefors Test Statistic					0.387	Lilliefors Test Statistic					0.144	
100	5% Lilliefors Critical Value					0.0997	5% Lilliefors Critical Value					0.0997	
101	Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level							
102													
103	Assuming Normal Distribution					Assuming Lognormal Distribution							
104	DL/2 Substitution Method						DL/2 Substitution Method						
105	Mean					150.5	Mean					4.225	
106	SD					358.1	SD					1.022	
107	95% DL/2 (t) UCL					217.1	95% H-Stat (DL/2) UCL					150	
108													
109	Maximum Likelihood Estimate(MLE) Method						Log ROS Method						
110	Mean					147.5	Mean in Log Scale					4.227	
111	SD					358.7	SD in Log Scale					1.018	
112	95% MLE (t) UCL					214.2	Mean in Original Scale					150.5	
113	95% MLE (Tiku) UCL					206.7	SD in Original Scale					358.1	
114							95% t UCL					217.1	
115							95% Percentile Bootstrap UCL					223.4	
116							95% BCA Bootstrap UCL					252.7	
117							95% H UCL					149.4	
118													
119	Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only							
120	k star (bias corrected)					0.755	Data do not follow a Discernable Distribution (0.05)						
121	Theta Star					201.6							
122	nu star					119.3							
123													
124	A-D Test Statistic					8.108	Nonparametric Statistics						
125	5% A-D Critical Value					0.792	Kaplan-Meier (KM) Method						
126	K-S Test Statistic					0.792	Mean					150.7	
127	5% K-S Critical Value					0.104	SD					355.8	
128	Data not Gamma Distributed at 5% Significance Level						SE of Mean					40.03	
129							95% KM (t) UCL					217.3	
130	Assuming Gamma Distribution						95% KM (z) UCL					216.5	
131	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL					217.3	
132	Minimum					0.000001	95% KM (bootstrap t) UCL					299.3	
133	Maximum					2560	95% KM (BCA) UCL					226.7	
134	Mean					150.4	95% KM (Percentile Bootstrap) UCL					218.6	
135	Median					70	95% KM (Chebyshev) UCL					325.1	
136	SD					358.1	97.5% KM (Chebyshev) UCL					400.6	
137	k star					0.611	99% KM (Chebyshev) UCL					548.9	
138	Theta star					246.2							
139	Nu star					97.74	Potential UCLs to Use						
140	AppChi2					75.94	95% KM (BCA) UCL					226.7	
141	95% Gamma Approximate UCL (Use when n >= 40)					193.6							
142	95% Adjusted Gamma UCL (Use when n < 40)					194.5							
143	Note: DL/2 is not a recommended method.												
144													
145	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.												
146	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).												
147	For additional insight, the user may want to consult a statistician.												
148													
149													

	A	B	C	D	E	F	G	H	I	J	K	L
210	Copper											
211												
212	General Statistics											
213	Number of Valid Data				80	Number of Detected Data				61		
214	Number of Distinct Detected Data				27	Number of Non-Detect Data				19		
215						Percent Non-Detects				23.75%		
216												
217	Raw Statistics					Log-transformed Statistics						
218	Minimum Detected				5	Minimum Detected				1.609		
219	Maximum Detected				110	Maximum Detected				4.7		
220	Mean of Detected				17.34	Mean of Detected				2.586		
221	SD of Detected				16.65	SD of Detected				0.678		
222	Minimum Non-Detect				5	Minimum Non-Detect				1.609		
223	Maximum Non-Detect				5	Maximum Non-Detect				1.609		
224												
225												
226	UCL Statistics											
227	Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only						
228	Lilliefors Test Statistic				0.235	Lilliefors Test Statistic				0.135		
229	5% Lilliefors Critical Value				0.113	5% Lilliefors Critical Value				0.113		
230	Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level						
231												
232	Assuming Normal Distribution					Assuming Lognormal Distribution						
233	DL/2 Substitution Method					DL/2 Substitution Method						
234	Mean				13.82	Mean				2.189		
235	SD				15.84	SD				0.927		
236	95% DL/2 (t) UCL				16.77	95% H-Stat (DL/2) UCL				17.26		
237												
238	Maximum Likelihood Estimate(MLE) Method					Log ROS Method						
239	Mean				11.38	Mean in Log Scale				2.21		
240	SD				18.61	SD in Log Scale				0.919		
241	95% MLE (t) UCL				14.85	Mean in Original Scale				13.92		
242	95% MLE (Tiku) UCL				14.87	SD in Original Scale				15.78		
243						95% t UCL				16.85		
244						95% Percentile Bootstrap UCL				17.07		
245						95% BCA Bootstrap UCL				17.54		
246						95% H UCL				17.44		
247												
248	Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only						
249	k star (bias corrected)				1.93	Data do not follow a Discernable Distribution (0.05)						
250	Theta Star				8.986							
251	nu star				235.5							
252												
253	A-D Test Statistic				2.418	Nonparametric Statistics						
254	5% A-D Critical Value				0.763	Kaplan-Meier (KM) Method						
255	K-S Test Statistic				0.763	Mean				14.41		
256	5% K-S Critical Value				0.115	SD				15.35		
257	Data not Gamma Distributed at 5% Significance Level					SE of Mean				1.73		
258						95% KM (t) UCL				17.29		
259	Assuming Gamma Distribution					95% KM (z) UCL				17.26		
260	Gamma ROS Statistics using Extrapolated Data					95% KM (jackknife) UCL				17.29		
261	Minimum				0.000001	95% KM (bootstrap t) UCL				18.54		
262	Maximum				110	95% KM (BCA) UCL				17.53		
263	Mean				13.23	95% KM (Percentile Bootstrap) UCL				17.26		
264	Median				9	95% KM (Chebyshev) UCL				21.95		
265	SD				16.3	97.5% KM (Chebyshev) UCL				25.22		
266	k star				0.192	99% KM (Chebyshev) UCL				31.63		
267	Theta star				68.98							
268	Nu star				30.67	Potential UCLs to Use						
269	AppChi2				19.02	95% KM (BCA) UCL				17.53		
270	95% Gamma Approximate UCL (Use when n >= 40)				21.32							
271	95% Adjusted Gamma UCL (Use when n < 40)				21.51							
272	Note: DL/2 is not a recommended method.											
273												
274	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
275	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
276	For additional insight, the user may want to consult a statistician.											
277												
278												

	A	B	C	D	E	F	G	H	I	J	K	L
279	Lead											
280												
281	General Statistics											
282	Number of Valid Data				80	Number of Detected Data				67		
283	Number of Distinct Detected Data				34	Number of Non-Detect Data				13		
284						Percent Non-Detects				16.25%		
285												
286	Raw Statistics					Log-transformed Statistics						
287	Minimum Detected				5	Minimum Detected				1.609		
288	Maximum Detected				236	Maximum Detected				5.464		
289	Mean of Detected				25.75	Mean of Detected				2.73		
290	SD of Detected				39.61	SD of Detected				0.898		
291	Minimum Non-Detect				5	Minimum Non-Detect				1.609		
292	Maximum Non-Detect				5	Maximum Non-Detect				1.609		
293												
294												
295	UCL Statistics											
296	Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only						
297	Lilliefors Test Statistic				0.3	Lilliefors Test Statistic				0.131		
298	5% Lilliefors Critical Value				0.108	5% Lilliefors Critical Value				0.108		
299	Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level						
300												
301	Assuming Normal Distribution					Assuming Lognormal Distribution						
302	DL/2 Substitution Method					DL/2 Substitution Method						
303	Mean				21.97	Mean				2.435		
304	SD				37.22	SD				1.062		
305	95% DL/2 (t) UCL				28.89	95% H-Stat (DL/2) UCL				26.51		
306												
307	Maximum Likelihood Estimate(MLE) Method					Log ROS Method						
308	Mean				17.69	Mean in Log Scale				2.397		
309	SD				41.38	SD in Log Scale				1.133		
310	95% MLE (t) UCL				25.39	Mean in Original Scale				21.91		
311	95% MLE (Tiku) UCL				25.07	SD in Original Scale				37.25		
312						95% t UCL				28.84		
313						95% Percentile Bootstrap UCL				29.2		
314						95% BCA Bootstrap UCL				31.6		
315						95% H UCL				28.34		
316												
317	Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only						
318	k star (bias corrected)				1.062	Data do not follow a Discernable Distribution (0.05)						
319	Theta Star				24.24							
320	nu star				142.4							
321												
322	A-D Test Statistic				3.773	Nonparametric Statistics						
323	5% A-D Critical Value				0.778	Kaplan-Meier (KM) Method						
324	K-S Test Statistic				0.778	Mean				22.38		
325	5% K-S Critical Value				0.112	SD				36.78		
326	Data not Gamma Distributed at 5% Significance Level					SE of Mean				4.143		
327						95% KM (t) UCL				29.27		
328	Assuming Gamma Distribution					95% KM (z) UCL				29.19		
329	Gamma ROS Statistics using Extrapolated Data					95% KM (jackknife) UCL				29.26		
330	Minimum				0.000001	95% KM (bootstrap t) UCL				34.86		
331	Maximum				236	95% KM (BCA) UCL				29.03		
332	Mean				21.56	95% KM (Percentile Bootstrap) UCL				29.49		
333	Median				11.5	95% KM (Chebyshev) UCL				40.43		
334	SD				37.44	97.5% KM (Chebyshev) UCL				48.25		
335	k star				0.236	99% KM (Chebyshev) UCL				63.6		
336	Theta star				91.36							
337	Nu star				37.76	Potential UCLs to Use						
338	AppChi2				24.69	95% KM (BCA) UCL				29.03		
339	95% Gamma Approximate UCL (Use when n >= 40)				32.98							
340	95% Adjusted Gamma UCL (Use when n < 40)				33.24							
341	Note: DL/2 is not a recommended method.											
342												
343	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
344	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
345	For additional insight, the user may want to consult a statistician.											
346												
347												

	A	B	C	D	E	F	G	H	I	J	K	L		
348	Manganese													
349														
350	General Statistics													
351	Number of Valid Observations				80		Number of Distinct Observations				61			
352														
353	Raw Statistics					Log-transformed Statistics								
354	Minimum				25		Minimum of Log Data				3.219			
355	Maximum				311		Maximum of Log Data				5.74			
356	Mean				92.59		Mean of log Data				4.38			
357	Geometric Mean				79.83		SD of log Data				0.517			
358	Median				69									
359	SD				59.27									
360	Std. Error of Mean				6.626									
361	Coefficient of Variation				0.64									
362	Skewness				1.959									
363														
364	Relevant UCL Statistics													
365	Normal Distribution Test					Lognormal Distribution Test								
366	Lilliefors Test Statistic				0.223		Lilliefors Test Statistic				0.128			
367	Lilliefors Critical Value				0.0991		Lilliefors Critical Value				0.0991			
368	Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level								
369														
370	Assuming Normal Distribution					Assuming Lognormal Distribution								
371	95% Student's-t UCL				103.6		95% H-UCL				101.8			
372	95% UCLs (Adjusted for Skewness)					95% Chebyshev (MVUE) UCL							115.4	
373	95% Adjusted-CLT UCL (Chen-1995)				105		97.5% Chebyshev (MVUE) UCL				125.9			
374	95% Modified-t UCL (Johnson-1978)				103.9		99% Chebyshev (MVUE) UCL				146.6			
375														
376	Gamma Distribution Test					Data Distribution								
377	k star (bias corrected)				3.405		Data do not follow a Discernable Distribution (0.05)							
378	Theta Star				27.19									
379	MLE of Mean				92.59									
380	MLE of Standard Deviation				50.17									
381	nu star				544.9									
382	Approximate Chi Square Value (.05)				491.7		Nonparametric Statistics							
383	Adjusted Level of Significance				0.047		95% CLT UCL				103.5			
384	Adjusted Chi Square Value				490.8		95% Jackknife UCL				103.6			
385							95% Standard Bootstrap UCL				103.8			
386	Anderson-Darling Test Statistic				3.243		95% Bootstrap-t UCL				105.6			
387	Anderson-Darling 5% Critical Value				0.758		95% Hall's Bootstrap UCL				105.9			
388	Kolmogorov-Smirnov Test Statistic				0.162		95% Percentile Bootstrap UCL				103.9			
389	Kolmogorov-Smirnov 5% Critical Value				0.1		95% BCA Bootstrap UCL				105.5			
390	Data not Gamma Distributed at 5% Significance Level					95% Chebyshev(Mean, Sd) UCL							121.5	
391							97.5% Chebyshev(Mean, Sd) UCL				134			
392	Assuming Gamma Distribution					99% Chebyshev(Mean, Sd) UCL							158.5	
393	95% Approximate Gamma UCL (Use when n >= 40)				102.6									
394	95% Adjusted Gamma UCL (Use when n < 40)				102.8									
395														
396	Potential UCL to Use					Use 95% Chebyshev (Mean, Sd) UCL							121.5	
397														
398	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.													
399	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)													
400	and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.													
401														
402														
403	Nickel													
404														
405	General Statistics													
406	Number of Valid Data				80		Number of Detected Data				75			
407	Number of Distinct Detected Data				11		Number of Non-Detect Data				5			
408							Percent Non-Detects				6.25%			
409														
410	Raw Statistics					Log-transformed Statistics								
411	Minimum Detected				2		Minimum Detected				0.693			
412	Maximum Detected				18		Maximum Detected				2.89			
413	Mean of Detected				5.067		Mean of Detected				1.538			
414	SD of Detected				2.379		SD of Detected				0.405			
415	Minimum Non-Detect				2		Minimum Non-Detect				0.693			
416	Maximum Non-Detect				2		Maximum Non-Detect				0.693			
417														
418														

	A	B	C	D	E	F	G	H	I	J	K	L	
419	UCL Statistics												
420	Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only							
421	Lilliefors Test Statistic					0.231	Lilliefors Test Statistic					0.194	
422	5% Lilliefors Critical Value					0.102	5% Lilliefors Critical Value					0.102	
423	Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level							
424													
425	Assuming Normal Distribution					Assuming Lognormal Distribution							
426	DL/2 Substitution Method						DL/2 Substitution Method						
427	Mean					4.813	Mean					1.442	
428	SD					2.506	SD					0.542	
429	95% DL/2 (t) UCL					5.279	95% H-Stat (DL/2) UCL					5.496	
430													
431	Maximum Likelihood Estimate(MLE) Method						Log ROS Method						
432	Mean					4.795	Mean in Log Scale					1.481	
433	SD					2.533	SD in Log Scale					0.452	
434	95% MLE (t) UCL					5.266	Mean in Original Scale					4.867	
435	95% MLE (Tiku) UCL					5.255	SD in Original Scale					2.431	
436							95% t UCL					5.319	
437							95% Percentile Bootstrap UCL					5.321	
438							95% BCA Bootstrap UCL					5.378	
439							95% H UCL					5.344	
440													
441	Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only							
442	k star (bias corrected)					5.851	Data do not follow a Discernable Distribution (0.05)						
443	Theta Star					0.866							
444	nu star					877.6							
445													
446	A-D Test Statistic					2.228	Nonparametric Statistics						
447	5% A-D Critical Value					0.754	Kaplan-Meier (KM) Method						
448	K-S Test Statistic					0.754	Mean						4.875
449	5% K-S Critical Value					0.103	SD						2.405
450	Data not Gamma Distributed at 5% Significance Level						SE of Mean						0.271
451							95% KM (t) UCL						5.326
452	Assuming Gamma Distribution						95% KM (z) UCL						5.32
453	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL						5.325
454	Minimum					0.000001	95% KM (bootstrap t) UCL						5.426
455	Maximum					18	95% KM (BCA) UCL						5.363
456	Mean					4.752	95% KM (Percentile Bootstrap) UCL						5.35
457	Median					5	95% KM (Chebyshev) UCL						6.055
458	SD					2.608	97.5% KM (Chebyshev) UCL						6.566
459	k star					0.706	99% KM (Chebyshev) UCL						7.568
460	Theta star					6.734							
461	Nu star					112.9	Potential UCLs to Use						
462	AppChi2					89.38	95% KM (BCA) UCL						5.363
463	95% Gamma Approximate UCL (Use when n >= 40)					6.003							
464	95% Adjusted Gamma UCL (Use when n < 40)					6.029							
465	Note: DL/2 is not a recommended method.												
466													
467	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.												
468	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).												
469	For additional insight, the user may want to consult a statistician.												
470													
471													
472	Zinc												
473													
474	General Statistics												
475	Number of Valid Data					80	Number of Detected Data					77	
476	Number of Distinct Detected Data					43	Number of Non-Detect Data					3	
477							Percent Non-Detects					3.75%	
478													
479	Raw Statistics					Log-transformed Statistics							
480	Minimum Detected					5	Minimum Detected					1.609	
481	Maximum Detected					434	Maximum Detected					6.073	
482	Mean of Detected					43.78	Mean of Detected					3.279	
483	SD of Detected					63.31	SD of Detected					0.91	
484	Minimum Non-Detect					5	Minimum Non-Detect					1.609	
485	Maximum Non-Detect					5	Maximum Non-Detect					1.609	
486													
487													

	A	B	C	D	E	F	G	H	I	J	K	L	
488	UCL Statistics												
489	Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only							
490	Lilliefors Test Statistic					0.29	Lilliefors Test Statistic					0.122	
491	5% Lilliefors Critical Value					0.101	5% Lilliefors Critical Value					0.101	
492	Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level							
493													
494	Assuming Normal Distribution					Assuming Lognormal Distribution							
495	DL/2 Substitution Method						DL/2 Substitution Method						
496	Mean					42.23	Mean					3.191	
497	SD					62.6	SD					1	
498	95% DL/2 (t) UCL					53.88	95% H-Stat (DL/2) UCL					51.74	
499													
500	Maximum Likelihood Estimate(MLE) Method						Log ROS Method						
501	Mean					40.83	Mean in Log Scale					3.197	
502	SD					63.81	SD in Log Scale					0.988	
503	95% MLE (t) UCL					52.7	Mean in Original Scale					42.25	
504	95% MLE (Tiku) UCL					51.67	SD in Original Scale					62.59	
505							95% t UCL					53.9	
506							95% Percentile Bootstrap UCL					54.17	
507							95% BCA Bootstrap UCL					58.89	
508							95% H UCL					51.17	
509													
510	Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only							
511	k star (bias corrected)					1.103	Data do not follow a Discernable Distribution (0.05)						
512	Theta Star					39.7							
513	nu star					169.8							
514													
515	A-D Test Statistic					3.559	Nonparametric Statistics						
516	5% A-D Critical Value					0.778	Kaplan-Meier (KM) Method						
517	K-S Test Statistic					0.778	Mean						42.33
518	5% K-S Critical Value					0.104	SD						62.15
519	Data not Gamma Distributed at 5% Significance Level						SE of Mean						6.994
520							95% KM (t) UCL						53.97
521	Assuming Gamma Distribution						95% KM (z) UCL						53.83
522	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL						53.9
523	Minimum					0.000001	95% KM (bootstrap t) UCL						61.97
524	Maximum					434	95% KM (BCA) UCL						53.95
525	Mean					42.14	95% KM (Percentile Bootstrap) UCL						53.75
526	Median					21.5	95% KM (Chebyshev) UCL						72.81
527	SD					62.66	97.5% KM (Chebyshev) UCL						86
528	k star					0.553	99% KM (Chebyshev) UCL						111.9
529	Theta star					76.26							
530	Nu star					88.4	Potential UCLs to Use						
531	AppChi2					67.73	95% KM (BCA) UCL						53.95
532	95% Gamma Approximate UCL (Use when n >= 40)					55							
533	95% Adjusted Gamma UCL (Use when n < 40)					55.27							
534	Note: DL/2 is not a recommended method.												
535													
536	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.												
537	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).												
538	For additional insight, the user may want to consult a statistician.												
539													
540													
541	Vanadium												
542													
543	General Statistics												
544	Number of Valid Observations					80	Number of Distinct Observations					66	
545													
546	Raw Statistics					Log-transformed Statistics							
547	Minimum					22	Minimum of Log Data					3.091	
548	Maximum					480	Maximum of Log Data					6.174	
549	Mean					107.5	Mean of log Data					4.458	
550	Geometric Mean					86.35	SD of log Data					0.678	
551	Median					89							
552	SD					75.1							
553	Std. Error of Mean					8.396							
554	Coefficient of Variation					0.699							
555	Skewness					1.931							
556													

	A	B	C	D	E	F	G	H	I	J	K	L
557	Relevant UCL Statistics											
558	Normal Distribution Test					Lognormal Distribution Test						
559	Lilliefors Test Statistic					0.13	Lilliefors Test Statistic					0.0845
560	Lilliefors Critical Value					0.0991	Lilliefors Critical Value					0.0991
561	Data not Normal at 5% Significance Level					Data appear Lognormal at 5% Significance Level						
562												
563	Assuming Normal Distribution					Assuming Lognormal Distribution						
564	95% Student's-t UCL					121.4	95% H-UCL					126.2
565	95% UCLs (Adjusted for Skewness)						95% Chebyshev (MVUE) UCL					147.4
566	95% Adjusted-CLT UCL (Chen-1995)					123.2	97.5% Chebyshev (MVUE) UCL					164.4
567	95% Modified-t UCL (Johnson-1978)					121.7	99% Chebyshev (MVUE) UCL					197.7
568												
569	Gamma Distribution Test					Data Distribution						
570	k star (bias corrected)					2.357	Data appear Gamma Distributed at 5% Significance Level					
571	Theta Star					45.59						
572	MLE of Mean					107.5						
573	MLE of Standard Deviation					69.99						
574	nu star					377.1						
575	Approximate Chi Square Value (.05)					333.1	Nonparametric Statistics					
576	Adjusted Level of Significance					0.047	95% CLT UCL					121.3
577	Adjusted Chi Square Value					332.4	95% Jackknife UCL					121.4
578							95% Standard Bootstrap UCL					121.4
579	Anderson-Darling Test Statistic					0.407	95% Bootstrap-t UCL					123.9
580	Anderson-Darling 5% Critical Value					0.761	95% Hall's Bootstrap UCL					126.7
581	Kolmogorov-Smirnov Test Statistic					0.0744	95% Percentile Bootstrap UCL					122.2
582	Kolmogorov-Smirnov 5% Critical Value					0.101	95% BCA Bootstrap UCL					123.4
583	Data appear Gamma Distributed at 5% Significance Level						95% Chebyshev(Mean, Sd) UCL					144
584							97.5% Chebyshev(Mean, Sd) UCL					159.9
585	Assuming Gamma Distribution						99% Chebyshev(Mean, Sd) UCL					191
586	95% Approximate Gamma UCL (Use when n >= 40)					121.6						
587	95% Adjusted Gamma UCL (Use when n < 40)					121.9						
588												
589	Potential UCL to Use						Use 95% Approximate Gamma UCL					121.6
590												
591	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
592	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
593	and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.											
594												
595												
596	Mercury											
597												
598	General Statistics											
599	Number of Valid Data					79	Number of Detected Data					5
600	Number of Distinct Detected Data					3	Number of Non-Detect Data					74
601							Percent Non-Detects					93.67%
602												
603	Raw Statistics					Log-transformed Statistics						
604	Minimum Detected					0.1	Minimum Detected					-2.303
605	Maximum Detected					0.5	Maximum Detected					-0.693
606	Mean of Detected					0.22	Mean of Detected					-1.761
607	SD of Detected					0.179	SD of Detected					0.763
608	Minimum Non-Detect					0.1	Minimum Non-Detect					-2.303
609	Maximum Non-Detect					0.1	Maximum Non-Detect					-2.303
610												
611												
612	Warning: There are only 3 Distinct Detected Values in this data set											
613	The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.											
614	Those methods will return a 'N/A' value on your output display!											
615												
616	It is necessary to have 4 or more Distinct Values for bootstrap methods.											
617	However, results obtained using 4 to 9 distinct values may not be reliable.											
618	It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.											
619												
620												
621	UCL Statistics											
622	Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only						
623	Shapiro Wilk Test Statistic					0.771	Shapiro Wilk Test Statistic					0.764
624	5% Shapiro Wilk Critical Value					0.762	5% Shapiro Wilk Critical Value					0.762
625	Data appear Normal at 5% Significance Level					Data appear Lognormal at 5% Significance Level						
626												

	A	B	C	D	E	F	G	H	I	J	K	L
627	Assuming Normal Distribution					Assuming Lognormal Distribution						
628	DL/2 Substitution Method					DL/2 Substitution Method						
629	Mean					0.0608	Mean					-2.918
630	SD					0.0581	SD					0.348
631	95% DL/2 (t) UCL					0.0716	95% H-Stat (DL/2) UCL					0.0616
632												
633	Maximum Likelihood Estimate(MLE) Method					N/A	Log ROS Method					
634	MLE yields a negative mean						Mean in Log Scale					-6.806
635							SD in Log Scale					2.564
636							Mean in Original Scale					0.0184
637							SD in Original Scale					0.0671
638							95% t UCL					0.031
639							95% Percentile Bootstrap UCL					0.0323
640							95% BCA Bootstrap UCL					0.039
641							95% H-UCL					0.0999
642												
643	Gamma Distribution Test with Detected Values Only						Data Distribution Test with Detected Values Only					
644	k star (bias corrected)					1.004	Data appear Normal at 5% Significance Level					
645	Theta Star					0.219						
646	nu star					10.04						
647												
648	A-D Test Statistic					0.709	Nonparametric Statistics					
649	5% A-D Critical Value					0.684	Kaplan-Meier (KM) Method					
650	K-S Test Statistic					0.684	Mean					0.108
651	5% K-S Critical Value					0.36	SD					0.0497
652	Data not Gamma Distributed at 5% Significance Level						SE of Mean					0.00626
653							95% KM (t) UCL					0.118
654	Assuming Gamma Distribution						95% KM (z) UCL					0.118
655	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL					N/A
656	Minimum					0.000001	95% KM (bootstrap t) UCL					N/A
657	Maximum					0.5	95% KM (BCA) UCL					N/A
658	Mean					0.0139	95% KM (Percentile Bootstrap) UCL					N/A
659	Median					0.000001	95% KM (Chebyshev) UCL					0.135
660	SD					0.0674	97.5% KM (Chebyshev) UCL					0.147
661	k star					0.0982	99% KM (Chebyshev) UCL					0.17
662	Theta star					0.142						
663	Nu star					15.52	Potential UCLs to Use					
664	AppChi2					7.622	95% KM (t) UCL					0.118
665	95% Gamma Approximate UCL (Use when n >= 40)					0.0283	95% KM (Percentile Bootstrap) UCL					N/A
666	95% Adjusted Gamma UCL (Use when n < 40)					0.0287						
667	Note: DL/2 is not a recommended method.											
668												
669	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
670	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
671	For additional insight, the user may want to consult a statistician.											
672												
673												
674	Cadmium											
675												
676	General Statistics											
677	Number of Valid Data					80	Number of Detected Data					1
678	Number of Distinct Detected Data					1	Number of Non-Detect Data					79
679							Percent Non-Detects					98.75%
680												
681	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!											
682	It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).											
683												
684	The data set for variable Cadmium was not processed!											
685												
686												
687												
688	Cobalt											
689												
690	General Statistics											
691	Number of Valid Data					80	Number of Detected Data					18
692	Number of Distinct Detected Data					4	Number of Non-Detect Data					62
693							Percent Non-Detects					77.50%
694												
695	Raw Statistics						Log-transformed Statistics					
696	Minimum Detected					2	Minimum Detected					0.693
697	Maximum Detected					5	Maximum Detected					1.609
698	Mean of Detected					2.667	Mean of Detected					0.934
699	SD of Detected					0.907	SD of Detected					0.305
700	Minimum Non-Detect					2	Minimum Non-Detect					0.693
701	Maximum Non-Detect					2	Maximum Non-Detect					0.693
702												
703												

A	B	C	D	E	F	G	H	I	J	K	L	
704	Warning: There are only 4 Distinct Detected Values in this data											
705	Note: It should be noted that even though bootstrap may be performed on this data set											
706	the resulting calculations may not be reliable enough to draw conclusions											
707												
708	It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.											
709												
710												
711	UCL Statistics											
712	Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only						
713	Shapiro Wilk Test Statistic					0.75	Shapiro Wilk Test Statistic					0.764
714	5% Shapiro Wilk Critical Value					0.897	5% Shapiro Wilk Critical Value					0.897
715	Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level						
716												
717	Assuming Normal Distribution					Assuming Lognormal Distribution						
718	DL/2 Substitution Method						DL/2 Substitution Method					
719	Mean					1.375	Mean					0.21
720	SD					0.817	SD					0.417
721	95% DL/2 (t) UCL					1.527	95% H-Stat (DL/2) UCL					1.465
722												
723	Maximum Likelihood Estimate(MLE) Method						Log ROS Method					
724	Mean					0.883	Mean in Log Scale					0.0337
725	SD					1.402	SD in Log Scale					0.669
726	95% MLE (t) UCL					1.144	Mean in Original Scale					1.289
727	95% MLE (Tiku) UCL					1.463	SD in Original Scale					0.924
728							95% t UCL					1.461
729							95% Percentile Bootstrap UCL					1.457
730							95% BCA Bootstrap UCL					1.489
731							95% H UCL					1.5
732												
733	Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only						
734	k star (bias corrected)					9.014	Data do not follow a Discernable Distribution (0.05)					
735	Theta Star					0.296						
736	nu star					324.5						
737												
738	A-D Test Statistic					1.95	Nonparametric Statistics					
739	5% A-D Critical Value					0.739	Kaplan-Meier (KM) Method					
740	K-S Test Statistic					0.739	Mean					2.15
741	5% K-S Critical Value					0.203	SD					0.502
742	Data not Gamma Distributed at 5% Significance Level						SE of Mean					0.0578
743							95% KM (t) UCL					2.246
744	Assuming Gamma Distribution						95% KM (z) UCL					2.245
745	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL					2.244
746	Minimum					0.000001	95% KM (bootstrap t) UCL					2.3
747	Maximum					5	95% KM (BCA) UCL					2.225
748	Mean					0.649	95% KM (Percentile Bootstrap) UCL					2.25
749	Median					0.000001	95% KM (Chebyshev) UCL					2.402
750	SD					1.187	97.5% KM (Chebyshev) UCL					2.511
751	k star					0.0967	99% KM (Chebyshev) UCL					2.725
752	Theta star					6.711						
753	Nu star					15.47	Potential UCLs to Use					
754	AppChi2					7.587	95% KM (t) UCL					2.246
755	95% Gamma Approximate UCL (Use when n >= 40)					1.322	95% KM (% Bootstrap) UCL					2.25
756	95% Adjusted Gamma UCL (Use when n < 40)					1.34						
757	Note: DL/2 is not a recommended method.											
758												
759	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
760	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
761	For additional insight, the user may want to consult a statistician.											
762												
763												
764	C16-C34 fraction											
765												
766	General Statistics											
767	Number of Valid Data					79	Number of Detected Data					2
768	Number of Distinct Detected Data					2	Number of Non-Detect Data					77
769							Percent Non-Detects					97.47%
770												
771	Raw Statistics						Log-transformed Statistics					
772	Minimum Detected					100	Minimum Detected					4.605
773	Maximum Detected					150	Maximum Detected					5.011
774	Mean of Detected					125	Mean of Detected					4.808
775	SD of Detected					35.36	SD of Detected					0.287
776	Minimum Non-Detect					100	Minimum Non-Detect					4.605
777	Maximum Non-Detect					100	Maximum Non-Detect					4.605
778												
779												

A	B	C	D	E	F	G	H	I	J	K	L
780	Warning: Data set has only 2 Distinct Detected Values.										
781	This may not be adequate enough to compute meaningful and reliable test statistics and estimates.										
782	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).										
783											
784	Unless Data Quality Objectives (DQOs) have been met, it is suggested to collect additional observations.										
785											
786	The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.										
787	Those methods will return a 'N/A' value on your output display!										
788											
789	It is necessary to have 4 or more Distinct Values for bootstrap methods.										
790	However, results obtained using 4 to 9 distinct values may not be reliable.										
791	It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.										
792											
793											
794	UCL Statistics										
795	Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only					
796	Shapiro Wilk Test Statistic				N/A	Shapiro Wilk Test Statistic				N/A	
797	5% Shapiro Wilk Critical Value				N/A	5% Shapiro Wilk Critical Value				N/A	
798	Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level					
799											
800	Assuming Normal Distribution					Assuming Lognormal Distribution					
801	DL/2 Substitution Method					DL/2 Substitution Method					
802	Mean				51.9	Mean				3.935	
803	SD				12.51	SD				0.145	
804	95% DL/2 (t) UCL				54.24	95% H-Stat (DL/2) UCL				53.15	
805											
806	Maximum Likelihood Estimate(MLE) Method				N/A	Log ROS Method					
807	MLE method failed to converge properly					Mean in Log Scale				N/A	
808						SD in Log Scale				N/A	
809						Mean in Original Scale				N/A	
810						SD in Original Scale				N/A	
811						95% t UCL				N/A	
812						95% Percentile Bootstrap UCL				N/A	
813						95% BCA Bootstrap UCL				N/A	
814						95% H-UCL				N/A	
815											
816	Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only					
817	k star (bias corrected)				N/A	Data do not follow a Discernable Distribution (0.05)					
818	Theta Star				N/A						
819	nu star				N/A						
820											
821	A-D Test Statistic				N/A	Nonparametric Statistics					
822	5% A-D Critical Value				N/A	Kaplan-Meier (KM) Method					
823	K-S Test Statistic				N/A	Mean				100.6	
824	5% K-S Critical Value				N/A	SD				5.59	
825	Data not Gamma Distributed at 5% Significance Level					SE of Mean				0.889	
826						95% KM (t) UCL				102.1	
827	Assuming Gamma Distribution					95% KM (z) UCL				102.1	
828	Gamma ROS Statistics using Extrapolated Data					95% KM (jackknife) UCL				N/A	
829	Minimum				N/A	95% KM (bootstrap t) UCL				N/A	
830	Maximum				N/A	95% KM (BCA) UCL				N/A	
831	Mean				N/A	95% KM (Percentile Bootstrap) UCL				N/A	
832	Median				N/A	95% KM (Chebyshev) UCL				104.5	
833	SD				N/A	97.5% KM (Chebyshev) UCL				106.2	
834	k star				N/A	99% KM (Chebyshev) UCL				109.5	
835	Theta star				N/A						
836	Nu star				N/A	Potential UCLs to Use					
837	AppChi2				N/A	95% KM (t) UCL				102.1	
838	95% Gamma Approximate UCL (Use when n >= 40)				N/A	95% KM (% Bootstrap) UCL				N/A	
839	95% Adjusted Gamma UCL (Use when n < 40)				N/A						
840	Note: DL/2 is not a recommended method.										
841											
842	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
843	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
844	For additional insight, the user may want to consult a statistician.										
845											
846											
847	C34-C40 fraction										
848											
849	General Statistics										
850	Number of Valid Data				79	Number of Detected Data				1	
851	Number of Distinct Detected Data				1	Number of Non-Detect Data				78	
852						Percent Non-Detects				98.73%	
853											
854	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!										
855	It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).										
856											
857	The data set for variable C34-C40 fraction was not processed!										