

CLIENT DETAILS

LABORATORY DETAILS

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 Client SMEC Australia Pty Ltd - ACT  
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 Facsimile 02 6234 1966  
 Email Nathalie.O'Toole@smec.com  
 Project **3002369 - OCB**  
 Order Number **0304-0313**  
 Samples 42

Manager Huong Crawford  
 Laboratory SGS Alexandria Environmental  
 Address Unit 16, 33 Maddox St  
 Alexandria NSW 2015  
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 Facsimile +61 2 8594 0499  
 Email au.environmental.sydney@sgs.com  
 SGS Reference SE120709 R0  
 Report Number 0000065714  
 Date Reported 20 Sep 2013  
 Date Received 12 Sep 2013

COMMENTS

Accredited for compliance with ISO/IEC 17025. NATA accredited laboratory 2562(4354).

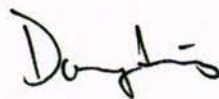
No respirable fibres detected in all samples using trace analysis technique.

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam.

SIGNATORIES



Andy Sutton  
Senior Organic Chemist



Dong Liang  
Metals/Inorganics Team Leader



Kamrul Ahsan  
Senior Chemist

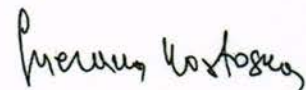
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Ravee Sivasubramaniam  
Asbestos Analyst



Sheila Lepasana  
Senior Technician



Snezana Kostoska  
2IC Inorganics Chemist

RESULTS

Fibre Identification in soil

Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w
SE120709.012	TP12-0.0	Soil	55g Soil,plantmatter	10 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.015	TP15-0.0	Soil	40g Soil,plantmatter	09 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.016	TP16-0.0	Soil	80g Soil,rocks	09 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.017	TP17-0.0	Soil	75g Soil,rocks,plant matter	09 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.022	TP23-0.5	Soil	67g Soil,clay,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.023	TP23-2.0	Soil	88g Clay,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.024	TP24-0.0	Soil	75g Soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.025	TP26-0.5	Soil	61g Clay,soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.026	TP26-2.0	Soil	70g Clay,soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.027	TP27-0.0	Soil	56g Clay,soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.028	TP28-0.5	Soil	73g Clay,soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.029	TP25-0.5	Soil	96g Clay,soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.030	TP25-2.0	Soil	74g Clay,soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.031	TP22-0.5	Soil	69g Clay,soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.032	TP22-1.0	Soil	72g Clay,soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.033	TP20-0.0	Soil	75g Soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.038	QC 111	Soil	64g Clay,soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.039	QC 112	Soil	59g Clay,soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01
SE120709.042	TP28-2.0	Soil	63g Clay,soil,rocks	11 Sep 2013	No Asbestos Found Organic Fibres Detected	<0.01

METHOD

METHODOLOGY SUMMARY

AN602

Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic 'clues', which provide a reasonable degree of certainty, dispersion staining is a mandatory 'clue' for positive identification. If sufficient 'clues' are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.

AN602

AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states: "Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

FOOTNOTES

Amosite	-	Brown Asbestos	NA	-	Not Analysed
Chrysotile	-	White Asbestos	LNR	-	Listed, Not Required
Crocidolite	-	Blue Asbestos	*	-	Not Accredited
Amphiboles	-	Amosite and/or Crocidolite	**	-	Indicative data, theoretical holding time exceeded.

This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Sampled by the client.

Where reported: 'Asbestos Detected': Asbestos detected by polarized light microscopy, including dispersion staining.

Where reported: 'No Asbestos Found': No Asbestos Found by polarized light microscopy, including dispersion staining.

Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarized light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos-containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here : <http://www.sgs.com.au/pv.sgsv3/~media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf>

This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at <http://www.sgs.com/en/Terms-and-Conditions/General-Conditions-of-Services-English.aspx>. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This test report shall not be reproduced, except in full.

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## STATEMENT OF QA/QC PERFORMANCE

SE120709 R0

### CLIENT DETAILS

Contact **Nathalie O'Toole**  
Client **SMEC Australia Pty Ltd - ACT**  
Address **Sun Micro Building  
Suite 2, Level 1  
243 Northbourne Avenue  
LYNEHAM ACT 2602**  
  
Telephone **02 6234 1900**  
Facsimile **02 6234 1966**  
Email **Nathalie.O'Toole@smec.com**  
  
Project **3002369 - OCB**  
Order Number **0304-0313**  
Samples **42**

### LABORATORY DETAILS

Manager **Huong Crawford**  
Laboratory **SGS Alexandria Environmental**  
Address **Unit 16, 33 Maddox St  
Alexandria NSW 2015**  
  
Telephone **+61 2 8594 0400**  
Facsimile **+61 2 8594 0499**  
Email **au.environmental.sydney@sgs.com**  
  
SGS Reference **SE120709 R0**  
Report Number **0000065767**  
Date Reported **20 Sep 2013**

### COMMENTS

All the laboratory data for each environmental matrix was compared to SGS Environmental Services' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document and was supplied by the Client. This QA/QC Statement must be read in conjunction with the referenced Analytical Report. The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Duplicate	Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest	1 item
	Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest	1 item
Matrix Spike	Hexavalent Chromium in Soil UV/Vis	1 item
	Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest	4 items
	Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest	3 items

### SAMPLE SUMMARY

Sample counts by matrix	38 Soils, 4 Waters	Type of documentation received	COC
Date documentation received	12/9/13@3:25pm	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	3°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice	Samples clearly labelled	Yes
Complete documentation received	Yes		

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref. GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

### Fibre identification in soil

Method: ME-(AU)-[ENV]AN802

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP12-0.0	SE120709.012	LB045113	10 Sep 2013	12 Sep 2013	10 Sep 2014	19 Sep 2013	10 Sep 2014	19 Sep 2013
TP15-0.0	SE120709.015	LB045113	09 Sep 2013	12 Sep 2013	09 Sep 2014	19 Sep 2013	09 Sep 2014	19 Sep 2013
TP16-0.0	SE120709.016	LB045113	09 Sep 2013	12 Sep 2013	09 Sep 2014	19 Sep 2013	09 Sep 2014	19 Sep 2013
TP17-0.0	SE120709.017	LB045113	09 Sep 2013	12 Sep 2013	09 Sep 2014	19 Sep 2013	09 Sep 2014	19 Sep 2013
TP23-0.5	SE120709.022	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP23-2.0	SE120709.023	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP24-0.0	SE120709.024	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP26-0.5	SE120709.025	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP26-2.0	SE120709.026	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP27-0.0	SE120709.027	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP28-0.5	SE120709.028	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP25-0.5	SE120709.029	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP25-2.0	SE120709.030	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP22-0.5	SE120709.031	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP22-1.0	SE120709.032	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP20-0.0	SE120709.033	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
QC 111	SE120709.038	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
QC 112	SE120709.039	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013
TP28-2.0	SE120709.042	LB045113	11 Sep 2013	12 Sep 2013	11 Sep 2014	19 Sep 2013	11 Sep 2014	19 Sep 2013

### Hexavalent Chromium in Soil UV/Vis

Method: ME-(AU)-[ENV]AN075/AN201

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0	SE120709.001	LB045093	10 Sep 2013	12 Sep 2013	08 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP02-0.0	SE120709.002	LB045093	10 Sep 2013	12 Sep 2013	08 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP03-0.0	SE120709.003	LB045093	10 Sep 2013	12 Sep 2013	08 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP04-0.0	SE120709.004	LB045093	10 Sep 2013	12 Sep 2013	08 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP05-0.0	SE120709.005	LB045093	09 Sep 2013	12 Sep 2013	07 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP06-0.0	SE120709.006	LB045093	09 Sep 2013	12 Sep 2013	07 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP07-0.0	SE120709.007	LB045093	09 Sep 2013	12 Sep 2013	07 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP08-0.0	SE120709.008	LB045093	09 Sep 2013	12 Sep 2013	07 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP09-0.0	SE120709.009	LB045093	09 Sep 2013	12 Sep 2013	07 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP10-0.0	SE120709.010	LB045093	10 Sep 2013	12 Sep 2013	08 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP11-0.0	SE120709.011	LB045093	10 Sep 2013	12 Sep 2013	08 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP12-0.0	SE120709.012	LB045093	10 Sep 2013	12 Sep 2013	08 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP13-0.0	SE120709.013	LB045093	10 Sep 2013	12 Sep 2013	08 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP14-0.0	SE120709.014	LB045093	09 Sep 2013	12 Sep 2013	07 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP15-0.0	SE120709.015	LB045093	09 Sep 2013	12 Sep 2013	07 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP16-0.0	SE120709.016	LB045093	09 Sep 2013	12 Sep 2013	07 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP17-0.0	SE120709.017	LB045093	09 Sep 2013	12 Sep 2013	07 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP18-0.0	SE120709.018	LB045093	10 Sep 2013	12 Sep 2013	08 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP21-0.5	SE120709.020	LB045093	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP21-1.0	SE120709.021	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP23-0.5	SE120709.022	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP23-2.0	SE120709.023	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP24-0.0	SE120709.024	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP26-0.5	SE120709.025	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP26-2.0	SE120709.026	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP27-0.0	SE120709.027	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP28-0.5	SE120709.028	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP25-0.5	SE120709.029	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP25-2.0	SE120709.030	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP22-0.5	SE120709.031	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP22-1.0	SE120709.032	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP20-0.0	SE120709.033	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP20-0.5	SE120709.034	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
QC 111	SE120709.038	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
QC 112	SE120709.039	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013
TP28-2.0	SE120709.042	LB045094	11 Sep 2013	12 Sep 2013	09 Oct 2013	19 Sep 2013	22 Sep 2013	19 Sep 2013

### Hexavalent Chromium in water by Discrete Analyser

Method: ME-(AU)-[ENV]AN283

Sample Name	Sample No.	QC Ref

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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Hexavalent Chromium in water by Discrete Analyser (continued)

Method: ME-(AU)-[ENV]AN283

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC 101	SE120709.035	LB044812	09 Sep 2013	12 Sep 2013	07 Oct 2013	13 Sep 2013	07 Oct 2013	13 Sep 2013
QC 105	SE120709.036	LB044812	10 Sep 2013	12 Sep 2013	08 Oct 2013	13 Sep 2013	08 Oct 2013	13 Sep 2013
QC 109	SE120709.037	LB044812	11 Sep 2013	12 Sep 2013	09 Oct 2013	13 Sep 2013	09 Oct 2013	13 Sep 2013

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC 101	SE120709.035	LB045071	09 Sep 2013	12 Sep 2013	07 Oct 2013	18 Sep 2013	07 Oct 2013	19 Sep 2013
QC 105	SE120709.036	LB045071	10 Sep 2013	12 Sep 2013	08 Oct 2013	18 Sep 2013	08 Oct 2013	19 Sep 2013
QC 109	SE120709.037	LB045071	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	19 Sep 2013

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0	SE120709.001	LB044936	10 Sep 2013	12 Sep 2013	08 Oct 2013	17 Sep 2013	08 Oct 2013	18 Sep 2013
TP02-0.0	SE120709.002	LB044936	10 Sep 2013	12 Sep 2013	08 Oct 2013	17 Sep 2013	08 Oct 2013	18 Sep 2013
TP03-0.0	SE120709.003	LB044936	10 Sep 2013	12 Sep 2013	08 Oct 2013	17 Sep 2013	08 Oct 2013	18 Sep 2013
TP04-0.0	SE120709.004	LB044936	10 Sep 2013	12 Sep 2013	08 Oct 2013	17 Sep 2013	08 Oct 2013	18 Sep 2013
TP05-0.0	SE120709.005	LB044936	09 Sep 2013	12 Sep 2013	07 Oct 2013	17 Sep 2013	07 Oct 2013	18 Sep 2013
TP06-0.0	SE120709.006	LB044936	09 Sep 2013	12 Sep 2013	07 Oct 2013	17 Sep 2013	07 Oct 2013	18 Sep 2013
TP07-0.0	SE120709.007	LB044936	09 Sep 2013	12 Sep 2013	07 Oct 2013	17 Sep 2013	07 Oct 2013	18 Sep 2013
TP08-0.0	SE120709.008	LB044936	09 Sep 2013	12 Sep 2013	07 Oct 2013	17 Sep 2013	07 Oct 2013	18 Sep 2013
TP09-0.0	SE120709.009	LB044936	09 Sep 2013	12 Sep 2013	07 Oct 2013	17 Sep 2013	07 Oct 2013	18 Sep 2013
TP10-0.0	SE120709.010	LB044998	10 Sep 2013	12 Sep 2013	08 Oct 2013	18 Sep 2013	08 Oct 2013	18 Sep 2013
TP11-0.0	SE120709.011	LB044998	10 Sep 2013	12 Sep 2013	08 Oct 2013	18 Sep 2013	08 Oct 2013	18 Sep 2013
TP12-0.0	SE120709.012	LB044998	10 Sep 2013	12 Sep 2013	08 Oct 2013	18 Sep 2013	08 Oct 2013	18 Sep 2013
TP13-0.0	SE120709.013	LB044998	10 Sep 2013	12 Sep 2013	08 Oct 2013	18 Sep 2013	08 Oct 2013	18 Sep 2013
TP14-0.0	SE120709.014	LB044998	09 Sep 2013	12 Sep 2013	07 Oct 2013	18 Sep 2013	07 Oct 2013	18 Sep 2013
TP15-0.0	SE120709.015	LB044998	09 Sep 2013	12 Sep 2013	07 Oct 2013	18 Sep 2013	07 Oct 2013	18 Sep 2013
TP16-0.0	SE120709.016	LB044998	09 Sep 2013	12 Sep 2013	07 Oct 2013	18 Sep 2013	07 Oct 2013	18 Sep 2013
TP17-0.0	SE120709.017	LB044998	09 Sep 2013	12 Sep 2013	07 Oct 2013	18 Sep 2013	07 Oct 2013	18 Sep 2013
TP18-0.0	SE120709.018	LB044998	10 Sep 2013	12 Sep 2013	08 Oct 2013	18 Sep 2013	08 Oct 2013	18 Sep 2013
TP21-0.5	SE120709.020	LB044998	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP21-1.0	SE120709.021	LB044998	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP23-0.5	SE120709.022	LB044998	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP23-2.0	SE120709.023	LB044998	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP24-0.0	SE120709.024	LB044998	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP26-0.5	SE120709.025	LB044998	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP26-2.0	SE120709.026	LB044998	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP27-0.0	SE120709.027	LB044998	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP28-0.5	SE120709.028	LB044998	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP25-0.5	SE120709.029	LB044998	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP25-2.0	SE120709.030	LB045000	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP22-0.5	SE120709.031	LB045000	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP22-1.0	SE120709.032	LB045000	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP20-0.0	SE120709.033	LB045000	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP20-0.5	SE120709.034	LB045000	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
QC 111	SE120709.038	LB045000	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
QC 112	SE120709.039	LB045000	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013
TP28-2.0	SE120709.042	LB045000	11 Sep 2013	12 Sep 2013	09 Oct 2013	18 Sep 2013	09 Oct 2013	18 Sep 2013

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0	SE120709.001	LB045006	10 Sep 2013	12 Sep 2013	24 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP02-0.0	SE120709.002	LB045006	10 Sep 2013	12 Sep 2013	24 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP03-0.0	SE120709.003	LB045006	10 Sep 2013	12 Sep 2013	24 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP04-0.0	SE120709.004	LB045006	10 Sep 2013	12 Sep 2013	24 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP05-0.0	SE120709.005	LB045006	09 Sep 2013	12 Sep 2013	23 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP06-0.0	SE120709.006	LB045006	09 Sep 2013	12 Sep 2013	23 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP07-0.0	SE120709.007	LB045006	09 Sep 2013	12 Sep 2013	23 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP08-0.0	SE120709.008	LB045006	09 Sep 2013	12 Sep 2013	23 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP09-0.0	SE120709.009	LB045006	09 Sep 2013	12 Sep 2013	23 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP10-0.0	SE120709.010	LB045006	10 Sep 2013	12 Sep 2013	24 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1: 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

**Moisture Content (continued)**

Method: ME-(AU)-[ENV]JAN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP11-0.0	SE120709.011	LB045006	10 Sep 2013	12 Sep 2013	24 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP12-0.0	SE120709.012	LB045006	10 Sep 2013	12 Sep 2013	24 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP13-0.0	SE120709.013	LB045006	10 Sep 2013	12 Sep 2013	24 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP14-0.0	SE120709.014	LB045006	09 Sep 2013	12 Sep 2013	23 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP15-0.0	SE120709.015	LB045006	09 Sep 2013	12 Sep 2013	23 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP16-0.0	SE120709.016	LB045006	09 Sep 2013	12 Sep 2013	23 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP17-0.0	SE120709.017	LB045006	09 Sep 2013	12 Sep 2013	23 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP18-0.0	SE120709.018	LB045006	10 Sep 2013	12 Sep 2013	24 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP19-0.0	SE120709.019	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP21-0.5	SE120709.020	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP21-1.0	SE120709.021	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP23-0.5	SE120709.022	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP23-2.0	SE120709.023	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP24-0.0	SE120709.024	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP26-0.5	SE120709.025	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP26-2.0	SE120709.026	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP27-0.0	SE120709.027	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP28-0.5	SE120709.028	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP25-0.5	SE120709.029	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP25-2.0	SE120709.030	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP22-0.5	SE120709.031	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP22-1.0	SE120709.032	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP20-0.0	SE120709.033	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP20-0.5	SE120709.034	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
QC 111	SE120709.038	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
QC 112	SE120709.039	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013
TP28-2.0	SE120709.042	LB045006	11 Sep 2013	12 Sep 2013	25 Sep 2013	18 Sep 2013	23 Sep 2013	19 Sep 2013

**OC Pesticides in Soil**

Method: ME-(AU)-[ENV]JAN00/AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0	SE120709.001	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP02-0.0	SE120709.002	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP03-0.0	SE120709.003	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP04-0.0	SE120709.004	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP05-0.0	SE120709.005	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP06-0.0	SE120709.006	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP07-0.0	SE120709.007	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP08-0.0	SE120709.008	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP09-0.0	SE120709.009	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP10-0.0	SE120709.010	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP11-0.0	SE120709.011	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP12-0.0	SE120709.012	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP13-0.0	SE120709.013	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP14-0.0	SE120709.014	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP15-0.0	SE120709.015	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP16-0.0	SE120709.016	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP17-0.0	SE120709.017	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP18-0.0	SE120709.018	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP19-0.0	SE120709.019	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-0.5	SE120709.020	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-1.0	SE120709.021	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-0.5	SE120709.022	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-2.0	SE120709.023	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP24-0.0	SE120709.024	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-0.5	SE120709.025	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-2.0	SE120709.026	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP27-0.0	SE120709.027	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-0.5	SE120709.028	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP25-0.5	SE120709.029	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP25-2.0	SE120709.030	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

### OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN400/AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP22-0.5	SE120709.031	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP22-1.0	SE120709.032	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 111	SE120709.038	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 112	SE120709.039	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-2.0	SE120709.042	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

### OC Pesticides in Water

Method: ME-(AU)-[ENV]AN400/AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC 101	SE120709.035	LB044908	09 Sep 2013	12 Sep 2013	16 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 105	SE120709.036	LB044908	10 Sep 2013	12 Sep 2013	17 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 109	SE120709.037	LB044908	11 Sep 2013	12 Sep 2013	18 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

### OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN400/AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0	SE120709.001	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP02-0.0	SE120709.002	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP03-0.0	SE120709.003	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP04-0.0	SE120709.004	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP05-0.0	SE120709.005	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP06-0.0	SE120709.006	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP07-0.0	SE120709.007	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP08-0.0	SE120709.008	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP09-0.0	SE120709.009	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP10-0.0	SE120709.010	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP11-0.0	SE120709.011	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP12-0.0	SE120709.012	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP13-0.0	SE120709.013	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP14-0.0	SE120709.014	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP15-0.0	SE120709.015	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP16-0.0	SE120709.016	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP17-0.0	SE120709.017	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP18-0.0	SE120709.018	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP19-0.0	SE120709.019	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP21-0.5	SE120709.020	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP21-1.0	SE120709.021	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP23-0.5	SE120709.022	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-2.0	SE120709.023	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP24-0.0	SE120709.024	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-0.5	SE120709.025	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-2.0	SE120709.026	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP27-0.0	SE120709.027	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-0.5	SE120709.028	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP25-0.5	SE120709.029	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP25-2.0	SE120709.030	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP22-0.5	SE120709.031	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP22-1.0	SE120709.032	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
QC 111	SE120709.038	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
QC 112	SE120709.039	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP28-2.0	SE120709.042	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013

### OP Pesticides in Water

Method: ME-(AU)-[ENV]AN400/AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC 101	SE120709.035	LB044908	09 Sep 2013	12 Sep 2013	16 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 105	SE120709.036	LB044908	10 Sep 2013	12 Sep 2013	17 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 109	SE120709.037	LB044908	11 Sep 2013	12 Sep 2013	18 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0	SE120709.001	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP02-0.0	SE120709.002	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP03-0.0	SE120709.003	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP04-0.0	SE120709.004	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013



# HOLDING TIME SUMMARY

SE120709 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1: 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP05-0.0	SE120709.005	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP06-0.0	SE120709.006	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP07-0.0	SE120709.007	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP08-0.0	SE120709.008	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP09-0.0	SE120709.009	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP10-0.0	SE120709.010	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP11-0.0	SE120709.011	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP12-0.0	SE120709.012	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP13-0.0	SE120709.013	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP14-0.0	SE120709.014	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP15-0.0	SE120709.015	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP16-0.0	SE120709.016	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP17-0.0	SE120709.017	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP18-0.0	SE120709.018	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP19-0.0	SE120709.019	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-0.5	SE120709.020	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-1.0	SE120709.021	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-0.5	SE120709.022	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-2.0	SE120709.023	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP24-0.0	SE120709.024	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-0.5	SE120709.025	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-2.0	SE120709.026	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP27-0.0	SE120709.027	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-0.5	SE120709.028	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP25-0.5	SE120709.029	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP25-2.0	SE120709.030	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP22-0.5	SE120709.031	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP22-1.0	SE120709.032	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
QC 111	SE120709.038	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
QC 112	SE120709.039	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
TP28-2.0	SE120709.042	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013

### PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC 101	SE120709.035	LB044908	09 Sep 2013	12 Sep 2013	16 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 105	SE120709.036	LB044908	10 Sep 2013	12 Sep 2013	17 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 109	SE120709.037	LB044908	11 Sep 2013	12 Sep 2013	18 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

### PCBs In Soil

Method: ME-(AU)-[ENV]AN400/AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0	SE120709.001	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP02-0.0	SE120709.002	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP03-0.0	SE120709.003	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP04-0.0	SE120709.004	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP05-0.0	SE120709.005	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP06-0.0	SE120709.006	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP07-0.0	SE120709.007	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP08-0.0	SE120709.008	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP09-0.0	SE120709.009	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP10-0.0	SE120709.010	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP11-0.0	SE120709.011	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP12-0.0	SE120709.012	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP13-0.0	SE120709.013	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP14-0.0	SE120709.014	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP15-0.0	SE120709.015	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP16-0.0	SE120709.016	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP17-0.0	SE120709.017	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP18-0.0	SE120709.018	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP19-0.0	SE120709.019	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-0.5	SE120709.020	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-1.0	SE120709.021	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1: 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

### PCBs in Soil (continued)

Method: ME-(AU)-[ENV]AN400/AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP23-0.5	SE120709.022	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-2.0	SE120709.023	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP24-0.0	SE120709.024	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-0.5	SE120709.025	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-2.0	SE120709.026	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP27-0.0	SE120709.027	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-0.5	SE120709.028	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP25-0.5	SE120709.029	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP25-2.0	SE120709.030	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP22-0.5	SE120709.031	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP22-1.0	SE120709.032	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 111	SE120709.038	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 112	SE120709.039	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-2.0	SE120709.042	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

### PCBs in Water

Method: ME-(AU)-[ENV]AN400/AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC 101	SE120709.035	LB044908	09 Sep 2013	12 Sep 2013	16 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 105	SE120709.036	LB044908	10 Sep 2013	12 Sep 2013	17 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 109	SE120709.037	LB044908	11 Sep 2013	12 Sep 2013	18 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

### Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP23-0.5	SE120709.022	LB045103	11 Sep 2013	12 Sep 2013	25 Sep 2013	19 Sep 2013	25 Sep 2013	19 Sep 2013
TP23-2.0	SE120709.023	LB045103	11 Sep 2013	12 Sep 2013	25 Sep 2013	19 Sep 2013	25 Sep 2013	19 Sep 2013
TP24-0.0	SE120709.024	LB045103	11 Sep 2013	12 Sep 2013	25 Sep 2013	19 Sep 2013	25 Sep 2013	19 Sep 2013
TP26-0.5	SE120709.025	LB045103	11 Sep 2013	12 Sep 2013	25 Sep 2013	19 Sep 2013	25 Sep 2013	19 Sep 2013
TP26-2.0	SE120709.026	LB045103	11 Sep 2013	12 Sep 2013	25 Sep 2013	19 Sep 2013	25 Sep 2013	19 Sep 2013
TP27-0.0	SE120709.027	LB045103	11 Sep 2013	12 Sep 2013	25 Sep 2013	19 Sep 2013	25 Sep 2013	19 Sep 2013
TP28-0.5	SE120709.028	LB045103	11 Sep 2013	12 Sep 2013	25 Sep 2013	19 Sep 2013	25 Sep 2013	19 Sep 2013
TP25-0.5	SE120709.029	LB045103	11 Sep 2013	12 Sep 2013	25 Sep 2013	19 Sep 2013	25 Sep 2013	19 Sep 2013
TP25-2.0	SE120709.030	LB045103	11 Sep 2013	12 Sep 2013	25 Sep 2013	19 Sep 2013	25 Sep 2013	19 Sep 2013
QC 111	SE120709.038	LB045103	11 Sep 2013	12 Sep 2013	25 Sep 2013	19 Sep 2013	25 Sep 2013	19 Sep 2013
TP28-2.0	SE120709.042	LB045103	11 Sep 2013	12 Sep 2013	25 Sep 2013	19 Sep 2013	25 Sep 2013	19 Sep 2013

### Total Phenolics in Water

Method: ME-(AU)-[ENV]AN289

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC 101	SE120709.035	LB044854	09 Sep 2013	12 Sep 2013	07 Oct 2013	16 Sep 2013	07 Oct 2013	16 Sep 2013
QC 105	SE120709.036	LB044854	10 Sep 2013	12 Sep 2013	08 Oct 2013	16 Sep 2013	08 Oct 2013	16 Sep 2013
QC 109	SE120709.037	LB044854	11 Sep 2013	12 Sep 2013	09 Oct 2013	16 Sep 2013	09 Oct 2013	16 Sep 2013

### Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0	SE120709.001	LB044930	10 Sep 2013	12 Sep 2013	09 Mar 2014	17 Sep 2013	09 Mar 2014	19 Sep 2013
TP02-0.0	SE120709.002	LB044930	10 Sep 2013	12 Sep 2013	09 Mar 2014	17 Sep 2013	09 Mar 2014	19 Sep 2013
TP03-0.0	SE120709.003	LB044930	10 Sep 2013	12 Sep 2013	09 Mar 2014	17 Sep 2013	09 Mar 2014	19 Sep 2013
TP04-0.0	SE120709.004	LB044930	10 Sep 2013	12 Sep 2013	09 Mar 2014	17 Sep 2013	09 Mar 2014	19 Sep 2013
TP05-0.0	SE120709.005	LB044930	09 Sep 2013	12 Sep 2013	08 Mar 2014	17 Sep 2013	08 Mar 2014	19 Sep 2013
TP06-0.0	SE120709.006	LB044930	09 Sep 2013	12 Sep 2013	08 Mar 2014	17 Sep 2013	08 Mar 2014	19 Sep 2013
TP07-0.0	SE120709.007	LB044930	09 Sep 2013	12 Sep 2013	08 Mar 2014	17 Sep 2013	08 Mar 2014	19 Sep 2013
TP08-0.0	SE120709.008	LB044930	09 Sep 2013	12 Sep 2013	08 Mar 2014	17 Sep 2013	08 Mar 2014	19 Sep 2013
TP09-0.0	SE120709.009	LB044930	09 Sep 2013	12 Sep 2013	08 Mar 2014	17 Sep 2013	08 Mar 2014	19 Sep 2013
TP10-0.0	SE120709.010	LB044995	10 Sep 2013	12 Sep 2013	09 Mar 2014	18 Sep 2013	09 Mar 2014	19 Sep 2013
TP11-0.0	SE120709.011	LB044995	10 Sep 2013	12 Sep 2013	09 Mar 2014	18 Sep 2013	09 Mar 2014	19 Sep 2013
TP12-0.0	SE120709.012	LB044995	10 Sep 2013	12 Sep 2013	09 Mar 2014	18 Sep 2013	09 Mar 2014	19 Sep 2013
TP13-0.0	SE120709.013	LB044995	10 Sep 2013	12 Sep 2013	09 Mar 2014	18 Sep 2013	09 Mar 2014	19 Sep 2013
TP14-0.0	SE120709.014	LB044995	09 Sep 2013	12 Sep 2013	08 Mar 2014	18 Sep 2013	08 Mar 2014	19 Sep 2013
TP15-0.0	SE120709.015	LB044995	09 Sep 2013	12 Sep 2013	08 Mar 2014	18 Sep 2013	08 Mar 2014	19 Sep 2013
TP16-0.0	SE120709.016	LB044995	09 Sep 2013	12 Sep 2013	08 Mar 2014	18 Sep 2013	08 Mar 2014	19 Sep 2013
TP17-0.0	SE120709.017	LB044995	09 Sep 2013	12 Sep 2013	08 Mar 2014	18 Sep 2013	08 Mar 2014	19 Sep 2013
TP18-0.0	SE120709.018	LB044995	10 Sep 2013	12 Sep 2013	09 Mar 2014	18 Sep 2013	09 Mar 2014	19 Sep 2013
TP21-0.5	SE120709.020	LB044995	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

**Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest (continued)**

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP21-1.0	SE120709.021	LB044995	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP23-0.5	SE120709.022	LB044995	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP23-2.0	SE120709.023	LB044995	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP24-0.0	SE120709.024	LB044995	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP26-0.5	SE120709.025	LB044995	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP26-2.0	SE120709.026	LB044995	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP27-0.0	SE120709.027	LB044995	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP28-0.5	SE120709.028	LB044995	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP25-0.5	SE120709.029	LB044995	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP25-2.0	SE120709.030	LB044996	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP22-0.5	SE120709.031	LB044996	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP22-1.0	SE120709.032	LB044996	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP20-0.0	SE120709.033	LB044996	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP20-0.5	SE120709.034	LB044996	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
QC 111	SE120709.038	LB044996	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
QC 112	SE120709.039	LB044996	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013
TP28-2.0	SE120709.042	LB044996	11 Sep 2013	12 Sep 2013	10 Mar 2014	18 Sep 2013	10 Mar 2014	19 Sep 2013

**Trace Metals (Dissolved) in Water by ICPMS**

Method: ME-(AU)-[ENV]ANS18

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC 101	SE120709.035	LB044860	09 Sep 2013	12 Sep 2013	08 Mar 2014	16 Sep 2013	08 Mar 2014	17 Sep 2013
QC 105	SE120709.036	LB044860	10 Sep 2013	12 Sep 2013	09 Mar 2014	16 Sep 2013	09 Mar 2014	17 Sep 2013
QC 109	SE120709.037	LB044860	11 Sep 2013	12 Sep 2013	10 Mar 2014	16 Sep 2013	10 Mar 2014	17 Sep 2013

**TRH (Total Recoverable Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0	SE120709.001	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP02-0.0	SE120709.002	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP03-0.0	SE120709.003	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP04-0.0	SE120709.004	LB044915	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP05-0.0	SE120709.005	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP06-0.0	SE120709.006	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP07-0.0	SE120709.007	LB044915	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP08-0.0	SE120709.008	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP09-0.0	SE120709.009	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP10-0.0	SE120709.010	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP11-0.0	SE120709.011	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP12-0.0	SE120709.012	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP13-0.0	SE120709.013	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP14-0.0	SE120709.014	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP15-0.0	SE120709.015	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP16-0.0	SE120709.016	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP17-0.0	SE120709.017	LB044916	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP18-0.0	SE120709.018	LB044916	10 Sep 2013	12 Sep 2013	24 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP19-0.0	SE120709.019	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-0.5	SE120709.020	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-1.0	SE120709.021	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-0.5	SE120709.022	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-2.0	SE120709.023	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP24-0.0	SE120709.024	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-0.5	SE120709.025	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-2.0	SE120709.026	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP27-0.0	SE120709.027	LB044916	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-0.5	SE120709.028	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP25-0.5	SE120709.029	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP25-2.0	SE120709.030	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP22-0.5	SE120709.031	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP22-1.0	SE120709.032	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 111	SE120709.038	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 112	SE120709.039	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-2.0	SE120709.042	LB044917	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1: 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

**TRH (Total Recoverable Hydrocarbons) in Water**

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC 101	SE120709.035	LB044908	09 Sep 2013	12 Sep 2013	16 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 105	SE120709.036	LB044908	10 Sep 2013	12 Sep 2013	17 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 109	SE120709.037	LB044908	11 Sep 2013	12 Sep 2013	18 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

**VOC's in Soil**

Method: ME-(AU)-[ENV]AN433/AN434

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP15-0.0	SE120709.015	LB044824	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP16-0.0	SE120709.016	LB044824	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP17-0.0	SE120709.017	LB044824	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP19-0.0	SE120709.019	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-0.5	SE120709.020	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-1.0	SE120709.021	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-0.5	SE120709.022	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-2.0	SE120709.023	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP24-0.0	SE120709.024	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-0.5	SE120709.025	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-2.0	SE120709.026	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP27-0.0	SE120709.027	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-0.5	SE120709.028	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP25-0.5	SE120709.029	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP25-2.0	SE120709.030	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP22-0.5	SE120709.031	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP22-1.0	SE120709.032	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 111	SE120709.038	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 112	SE120709.039	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
Trip Spike	SE120709.041	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-2.0	SE120709.042	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

**VOCs in Water**

Method: ME-(AU)-[ENV]AN433/AN434

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC 101	SE120709.035	LB045062	09 Sep 2013	12 Sep 2013	16 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
QC 105	SE120709.036	LB045062	10 Sep 2013	12 Sep 2013	17 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
QC 109	SE120709.037	LB045062	11 Sep 2013	12 Sep 2013	18 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
Trip Blank	SE120709.040	LB045062	09 Sep 2013	12 Sep 2013	16 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013

**Volatile Petroleum Hydrocarbons in Soil**

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP15-0.0	SE120709.015	LB044824	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP16-0.0	SE120709.016	LB044824	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP17-0.0	SE120709.017	LB044824	09 Sep 2013	12 Sep 2013	23 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP19-0.0	SE120709.019	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-0.5	SE120709.020	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP21-1.0	SE120709.021	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-0.5	SE120709.022	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP23-2.0	SE120709.023	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP24-0.0	SE120709.024	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-0.5	SE120709.025	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP26-2.0	SE120709.026	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP27-0.0	SE120709.027	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-0.5	SE120709.028	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP25-0.5	SE120709.029	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP25-2.0	SE120709.030	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP22-0.5	SE120709.031	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP22-1.0	SE120709.032	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 111	SE120709.038	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
QC 112	SE120709.039	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
Trip Spike	SE120709.041	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013
TP28-2.0	SE120709.042	LB044824	11 Sep 2013	12 Sep 2013	25 Sep 2013	16 Sep 2013	26 Oct 2013	19 Sep 2013

**Volatile Petroleum Hydrocarbons in Water**

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Sample Name	Sample No.	QC Ref
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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Volatile Petroleum Hydrocarbons in Water (continued)

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC 101	SE120709.035	LB045062	09 Sep 2013	12 Sep 2013	16 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
QC 105	SE120709.036	LB045062	10 Sep 2013	12 Sep 2013	17 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
QC 109	SE120709.037	LB045062	11 Sep 2013	12 Sep 2013	18 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013
Trip Blank	SE120709.040	LB045062	09 Sep 2013	12 Sep 2013	16 Sep 2013	16 Sep 2013	26 Oct 2013	20 Sep 2013

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Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref. MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN400/AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	TP01-0.0	SE120709.001	%	60 - 130%	101
	TP02-0.0	SE120709.002	%	60 - 130%	105
	TP03-0.0	SE120709.003	%	60 - 130%	123
	TP04-0.0	SE120709.004	%	60 - 130%	109
	TP05-0.0	SE120709.005	%	60 - 130%	101
	TP06-0.0	SE120709.006	%	60 - 130%	101
	TP07-0.0	SE120709.007	%	60 - 130%	105
	TP08-0.0	SE120709.008	%	60 - 130%	109
	TP09-0.0	SE120709.009	%	60 - 130%	107
	TP10-0.0	SE120709.010	%	60 - 130%	109
	TP11-0.0	SE120709.011	%	60 - 130%	113
	TP12-0.0	SE120709.012	%	60 - 130%	107
	TP13-0.0	SE120709.013	%	60 - 130%	105
	TP14-0.0	SE120709.014	%	60 - 130%	102
	TP18-0.0	SE120709.018	%	60 - 130%	111
	TP23-0.5	SE120709.022	%	60 - 130%	75
	TP23-2.0	SE120709.023	%	60 - 130%	99
	TP24-0.0	SE120709.024	%	60 - 130%	108
	TP26-0.5	SE120709.025	%	60 - 130%	95
	TP26-2.0	SE120709.026	%	60 - 130%	111
	TP27-0.0	SE120709.027	%	60 - 130%	107
	TP28-0.5	SE120709.028	%	60 - 130%	108
	TP25-0.5	SE120709.029	%	60 - 130%	113
	TP25-2.0	SE120709.030	%	60 - 130%	107
	QC 111	SE120709.038	%	60 - 130%	115
	TP28-2.0	SE120709.042	%	60 - 130%	118

### OC Pesticides in Water

Method: ME-(AU)-[ENV]AN400/AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	QC 101	SE120709.035	%	40 - 130%	68
	QC 105	SE120709.036	%	40 - 130%	71
	QC 109	SE120709.037	%	40 - 130%	68

### OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN400/AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %	
2-fluorobiphenyl (Surrogate)	TP01-0.0	SE120709.001	%	60 - 130%	106	
	TP02-0.0	SE120709.002	%	60 - 130%	108	
	TP03-0.0	SE120709.003	%	60 - 130%	120	
	TP04-0.0	SE120709.004	%	60 - 130%	104	
	TP05-0.0	SE120709.005	%	60 - 130%	110	
	TP06-0.0	SE120709.006	%	60 - 130%	112	
	TP07-0.0	SE120709.007	%	60 - 130%	110	
	TP08-0.0	SE120709.008	%	60 - 130%	102	
	TP09-0.0	SE120709.009	%	60 - 130%	110	
	TP10-0.0	SE120709.010	%	60 - 130%	102	
	TP11-0.0	SE120709.011	%	60 - 130%	120	
	TP12-0.0	SE120709.012	%	60 - 130%	112	
	TP13-0.0	SE120709.013	%	60 - 130%	106	
	TP14-0.0	SE120709.014	%	60 - 130%	104	
	TP18-0.0	SE120709.018	%	60 - 130%	100	
	TP23-0.5	SE120709.022	%	60 - 130%	92	
	TP23-2.0	SE120709.023	%	60 - 130%	86	
	TP24-0.0	SE120709.024	%	60 - 130%	88	
	TP26-0.5	SE120709.025	%	60 - 130%	92	
	TP26-2.0	SE120709.026	%	60 - 130%	102	
	TP27-0.0	SE120709.027	%	60 - 130%	90	
	TP28-0.5	SE120709.028	%	60 - 130%	102	
	TP25-0.5	SE120709.029	%	60 - 130%	96	
	TP25-2.0	SE120709.030	%	60 - 130%	106	
	QC 111	SE120709.038	%	60 - 130%	94	
	TP28-2.0	SE120709.042	%	60 - 130%	92	
	d 14-p-terphenyl (Surrogate)	TP01-0.0	SE120709.001	%	60 - 130%	108

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref. MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### OP Pesticides In Soil (continued)

Method: ME-(AU)-[ENV]AN400/AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	TP02-0.0	SE120709.002	%	60 - 130%	112
	TP03-0.0	SE120709.003	%	60 - 130%	122
	TP04-0.0	SE120709.004	%	60 - 130%	110
	TP05-0.0	SE120709.005	%	60 - 130%	116
	TP06-0.0	SE120709.006	%	60 - 130%	116
	TP07-0.0	SE120709.007	%	60 - 130%	118
	TP08-0.0	SE120709.008	%	60 - 130%	106
	TP09-0.0	SE120709.009	%	60 - 130%	114
	TP10-0.0	SE120709.010	%	60 - 130%	104
	TP11-0.0	SE120709.011	%	60 - 130%	128
	TP12-0.0	SE120709.012	%	60 - 130%	116
	TP13-0.0	SE120709.013	%	60 - 130%	110
	TP14-0.0	SE120709.014	%	60 - 130%	108
	TP18-0.0	SE120709.018	%	60 - 130%	104
	TP23-0.5	SE120709.022	%	60 - 130%	112
	TP23-2.0	SE120709.023	%	60 - 130%	106
	TP24-0.0	SE120709.024	%	60 - 130%	110
	TP26-0.5	SE120709.025	%	60 - 130%	114
	TP26-2.0	SE120709.026	%	60 - 130%	112
	TP27-0.0	SE120709.027	%	60 - 130%	108
	TP28-0.5	SE120709.028	%	60 - 130%	108
	TP25-0.5	SE120709.029	%	60 - 130%	104
	TP25-2.0	SE120709.030	%	60 - 130%	114
	QC 111	SE120709.038	%	60 - 130%	102
	TP28-2.0	SE120709.042	%	60 - 130%	116

### OP Pesticides In Water

Method: ME-(AU)-[ENV]AN400/AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	QC 101	SE120709.035	%	40 - 130%	88
	QC 105	SE120709.036	%	40 - 130%	96
	QC 109	SE120709.037	%	40 - 130%	104
d14-p-terphenyl (Surrogate)	QC 101	SE120709.035	%	40 - 130%	116
	QC 105	SE120709.036	%	40 - 130%	124
	QC 109	SE120709.037	%	40 - 130%	120

### PAH (Polynuclear Aromatic Hydrocarbons) In Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %	
2-fluorobiphenyl (Surrogate)	TP15-0.0	SE120709.015	%	60 - 130%	92	
	TP16-0.0	SE120709.016	%	60 - 130%	92	
	TP17-0.0	SE120709.017	%	60 - 130%	92	
	TP19-0.0	SE120709.019	%	60 - 130%	86	
	TP21-0.5	SE120709.020	%	60 - 130%	90	
	TP21-1.0	SE120709.021	%	60 - 130%	90	
	TP23-0.5	SE120709.022	%	60 - 130%	92	
	TP23-2.0	SE120709.023	%	60 - 130%	86	
	TP24-0.0	SE120709.024	%	60 - 130%	88	
	TP26-0.5	SE120709.025	%	60 - 130%	92	
	TP26-2.0	SE120709.026	%	60 - 130%	102	
	TP27-0.0	SE120709.027	%	60 - 130%	90	
	TP28-0.5	SE120709.028	%	60 - 130%	102	
	TP25-0.5	SE120709.029	%	60 - 130%	96	
	TP25-2.0	SE120709.030	%	60 - 130%	106	
	TP22-0.5	SE120709.031	%	60 - 130%	98	
	TP22-1.0	SE120709.032	%	60 - 130%	86	
	QC 111	SE120709.038	%	60 - 130%	94	
	QC 112	SE120709.039	%	60 - 130%	92	
	TP28-2.0	SE120709.042	%	60 - 130%	92	
	d14-p-terphenyl (Surrogate)	TP15-0.0	SE120709.015	%	60 - 130%	108
		TP16-0.0	SE120709.016	%	60 - 130%	116
		TP17-0.0	SE120709.017	%	60 - 130%	108
TP19-0.0		SE120709.019	%	60 - 130%	112	
TP21-0.5		SE120709.020	%	60 - 130%	106	

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	TP21-1.0	SE120709.021	%	60 - 130%	106
	TP23-0.5	SE120709.022	%	60 - 130%	112
	TP23-2.0	SE120709.023	%	60 - 130%	106
	TP24-0.0	SE120709.024	%	60 - 130%	110
	TP26-0.5	SE120709.025	%	60 - 130%	114
	TP26-2.0	SE120709.026	%	60 - 130%	112
	TP27-0.0	SE120709.027	%	60 - 130%	108
	TP28-0.5	SE120709.028	%	60 - 130%	108
	TP25-0.5	SE120709.029	%	60 - 130%	104
	TP25-2.0	SE120709.030	%	60 - 130%	114
	TP22-0.5	SE120709.031	%	60 - 130%	110
	TP22-1.0	SE120709.032	%	60 - 130%	104
	QC 111	SE120709.038	%	60 - 130%	102
	QC 112	SE120709.039	%	60 - 130%	104
	TP28-2.0	SE120709.042	%	60 - 130%	116
	d5-nitrobenzene (Surrogate)	TP15-0.0	SE120709.015	%	60 - 130%
TP16-0.0		SE120709.016	%	60 - 130%	96
TP17-0.0		SE120709.017	%	60 - 130%	96
TP19-0.0		SE120709.019	%	60 - 130%	92
TP21-0.5		SE120709.020	%	60 - 130%	92
TP21-1.0		SE120709.021	%	60 - 130%	92
TP23-0.5		SE120709.022	%	60 - 130%	94
TP23-2.0		SE120709.023	%	60 - 130%	86
TP24-0.0		SE120709.024	%	60 - 130%	90
TP26-0.5		SE120709.025	%	60 - 130%	88
TP26-2.0		SE120709.026	%	60 - 130%	94
TP27-0.0		SE120709.027	%	60 - 130%	94
TP28-0.5		SE120709.028	%	60 - 130%	98
TP25-0.5		SE120709.029	%	60 - 130%	102
TP25-2.0		SE120709.030	%	60 - 130%	106
TP22-0.5		SE120709.031	%	60 - 130%	90
TP22-1.0	SE120709.032	%	60 - 130%	84	
QC 111	SE120709.038	%	60 - 130%	94	
QC 112	SE120709.039	%	60 - 130%	88	
TP28-2.0	SE120709.042	%	60 - 130%	92	

### PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	QC 101	SE120709.035	%	40 - 130%	88
	QC 105	SE120709.036	%	40 - 130%	96
	QC 109	SE120709.037	%	40 - 130%	104
d14-p-terphenyl (Surrogate)	QC 101	SE120709.035	%	40 - 130%	116
	QC 105	SE120709.036	%	40 - 130%	124
	QC 109	SE120709.037	%	40 - 130%	120
d5-nitrobenzene (Surrogate)	QC 101	SE120709.035	%	40 - 130%	76
	QC 105	SE120709.036	%	40 - 130%	84
	QC 109	SE120709.037	%	40 - 130%	96

### PCBs in Soil

Method: ME-(AU)-[ENV]AN400/AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	TP23-0.5	SE120709.022	%	60 - 130%	75
	TP23-2.0	SE120709.023	%	60 - 130%	99
	TP24-0.0	SE120709.024	%	60 - 130%	108
	TP26-0.5	SE120709.025	%	60 - 130%	95
	TP26-2.0	SE120709.026	%	60 - 130%	111
	TP27-0.0	SE120709.027	%	60 - 130%	107
	TP28-0.5	SE120709.028	%	60 - 130%	108
	TP25-0.5	SE120709.029	%	60 - 130%	113
	TP25-2.0	SE120709.030	%	60 - 130%	107
	QC 111	SE120709.038	%	60 - 130%	115
	TP28-2.0	SE120709.042	%	60 - 130%	118

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PCBs in Water

Method: ME-(AU)-[ENV]AN400/AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (Surrogate)	QC 101	SE120709.035	%	40 - 130%	68
	QC 105	SE120709.036	%	40 - 130%	71
	QC 109	SE120709.037	%	40 - 130%	68

VOC's in Soil

Method: ME-(AU)-[ENV]AN433/AN434

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %	
Bromofluorobenzene (Surrogate)	TP15-0.0	SE120709.015	%	60 - 130%	103	
	TP16-0.0	SE120709.016	%	60 - 130%	96	
	TP17-0.0	SE120709.017	%	60 - 130%	109	
	TP19-0.0	SE120709.019	%	60 - 130%	106	
	TP21-0.5	SE120709.020	%	60 - 130%	100	
	TP21-1.0	SE120709.021	%	60 - 130%	94	
	TP23-0.5	SE120709.022	%	60 - 130%	92	
	TP23-2.0	SE120709.023	%	60 - 130%	104	
	TP24-0.0	SE120709.024	%	60 - 130%	97	
	TP26-0.5	SE120709.025	%	60 - 130%	116	
	TP26-2.0	SE120709.026	%	60 - 130%	109	
	TP27-0.0	SE120709.027	%	60 - 130%	111	
	TP28-0.5	SE120709.028	%	60 - 130%	111	
	TP25-0.5	SE120709.029	%	60 - 130%	100	
	TP25-2.0	SE120709.030	%	60 - 130%	99	
	TP22-0.5	SE120709.031	%	60 - 130%	96	
	TP22-1.0	SE120709.032	%	60 - 130%	103	
	QC 111	SE120709.038	%	60 - 130%	118	
	QC 112	SE120709.039	%	60 - 130%	103	
	Trip Spike	SE120709.041	%	60 - 130%	107	
	TP28-2.0	SE120709.042	%	60 - 130%	88	
	d4-1,2-dichloroethane (Surrogate)	TP15-0.0	SE120709.015	%	60 - 130%	82
		TP16-0.0	SE120709.016	%	60 - 130%	85
TP17-0.0		SE120709.017	%	60 - 130%	105	
TP19-0.0		SE120709.019	%	60 - 130%	91	
TP21-0.5		SE120709.020	%	60 - 130%	86	
TP21-1.0		SE120709.021	%	60 - 130%	87	
TP23-0.5		SE120709.022	%	60 - 130%	80	
TP23-2.0		SE120709.023	%	60 - 130%	91	
TP24-0.0		SE120709.024	%	60 - 130%	95	
TP26-0.5		SE120709.025	%	60 - 130%	107	
TP26-2.0		SE120709.026	%	60 - 130%	105	
TP27-0.0		SE120709.027	%	60 - 130%	106	
TP28-0.5		SE120709.028	%	60 - 130%	103	
TP25-0.5		SE120709.029	%	60 - 130%	102	
TP25-2.0		SE120709.030	%	60 - 130%	98	
TP22-0.5		SE120709.031	%	60 - 130%	100	
TP22-1.0		SE120709.032	%	60 - 130%	101	
QC 111		SE120709.038	%	60 - 130%	116	
QC 112		SE120709.039	%	60 - 130%	108	
Trip Spike		SE120709.041	%	60 - 130%	105	
TP28-2.0		SE120709.042	%	60 - 130%	90	
d8-loluene (Surrogate)		TP15-0.0	SE120709.015	%	60 - 130%	84
		TP16-0.0	SE120709.016	%	60 - 130%	85
	TP17-0.0	SE120709.017	%	60 - 130%	108	
	TP19-0.0	SE120709.019	%	60 - 130%	88	
	TP21-0.5	SE120709.020	%	60 - 130%	84	
	TP21-1.0	SE120709.021	%	60 - 130%	85	
	TP23-0.5	SE120709.022	%	60 - 130%	80	
	TP23-2.0	SE120709.023	%	60 - 130%	90	
	TP24-0.0	SE120709.024	%	60 - 130%	93	
	TP26-0.5	SE120709.025	%	60 - 130%	101	
	TP26-2.0	SE120709.026	%	60 - 130%	102	
	TP27-0.0	SE120709.027	%	60 - 130%	103	
	TP28-0.5	SE120709.028	%	60 - 130%	101	

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for chartered surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### VOCs in Soil (continued)

Method: ME-(AU)-[ENV]AN433/AN434

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d8-toluene (Surrogate)	TP25-0.5	SE120709.029	%	60 - 130%	96
	TP25-2.0	SE120709.030	%	60 - 130%	95
	TP22-0.5	SE120709.031	%	60 - 130%	95
	TP22-1.0	SE120709.032	%	60 - 130%	99
	QC 111	SE120709.038	%	60 - 130%	115
	QC 112	SE120709.039	%	60 - 130%	104
	Trip Spike	SE120709.041	%	60 - 130%	105
	TP28-2.0	SE120709.042	%	60 - 130%	85
	Dibromofluoromethane (Surrogate)	TP15-0.0	SE120709.015	%	60 - 130%
TP16-0.0		SE120709.016	%	60 - 130%	74
TP17-0.0		SE120709.017	%	60 - 130%	93
TP19-0.0		SE120709.019	%	60 - 130%	76
TP21-0.5		SE120709.020	%	60 - 130%	71
TP21-1.0		SE120709.021	%	60 - 130%	71
TP23-0.5		SE120709.022	%	60 - 130%	70
TP23-2.0		SE120709.023	%	60 - 130%	73
TP24-0.0		SE120709.024	%	60 - 130%	78
TP26-0.5		SE120709.025	%	60 - 130%	86
TP26-2.0		SE120709.026	%	60 - 130%	85
TP27-0.0		SE120709.027	%	60 - 130%	86
TP28-0.5		SE120709.028	%	60 - 130%	79
TP25-0.5		SE120709.029	%	60 - 130%	80
TP25-2.0		SE120709.030	%	60 - 130%	77
TP22-0.5		SE120709.031	%	60 - 130%	77
TP22-1.0		SE120709.032	%	60 - 130%	77
QC 111		SE120709.038	%	60 - 130%	90
QC 112		SE120709.039	%	60 - 130%	82
Trip Spike		SE120709.041	%	60 - 130%	80
TP28-2.0		SE120709.042	%	60 - 130%	71

### VOCs in Water

Method: ME-(AU)-[ENV]AN433/AN434

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	QC 101	SE120709.035	%	40 - 130%	100
	QC 105	SE120709.036	%	40 - 130%	99
	QC 109	SE120709.037	%	40 - 130%	100
	Trip Blank	SE120709.040	%	40 - 130%	100
	d4-1,2-dichloroethane (Surrogate)	QC 101	SE120709.035	%	40 - 130%
d8-toluene (Surrogate)	QC 105	SE120709.036	%	40 - 130%	115
	QC 109	SE120709.037	%	40 - 130%	115
	Trip Blank	SE120709.040	%	40 - 130%	117
	QC 101	SE120709.035	%	40 - 130%	106
	QC 105	SE120709.036	%	40 - 130%	108
Dibromofluoromethane (Surrogate)	QC 109	SE120709.037	%	40 - 130%	106
	Trip Blank	SE120709.040	%	40 - 130%	106
	QC 101	SE120709.035	%	40 - 130%	103
	QC 105	SE120709.036	%	40 - 130%	106
	QC 109	SE120709.037	%	40 - 130%	106
Trip Blank	SE120709.040	%	40 - 130%	107	

### Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433/AN434

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	TP15-0.0	SE120709.015	%	60 - 130%	103
	TP16-0.0	SE120709.016	%	60 - 130%	96
	TP17-0.0	SE120709.017	%	60 - 130%	109
	TP19-0.0	SE120709.019	%	60 - 130%	106
	TP21-0.5	SE120709.020	%	60 - 130%	100
	TP21-1.0	SE120709.021	%	60 - 130%	94
	TP23-0.5	SE120709.022	%	60 - 130%	92
	TP23-2.0	SE120709.023	%	60 - 130%	104
	TP24-0.0	SE120709.024	%	60 - 130%	97
	TP26-0.5	SE120709.025	%	60 - 130%	116
	TP26-2.0	SE120709.026	%	60 - 130%	109

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref. MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

**Volatiles Petroleum Hydrocarbons in Soil (continued)**

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %	
Bromofluorobenzene (Surrogate)	TP27-0.0	SE120709.027	%	60 - 130%	111	
	TP28-0.5	SE120709.028	%	60 - 130%	111	
	TP25-0.5	SE120709.029	%	60 - 130%	100	
	TP25-2.0	SE120709.030	%	60 - 130%	99	
	TP22-0.5	SE120709.031	%	60 - 130%	96	
	TP22-1.0	SE120709.032	%	60 - 130%	103	
	QC 111	SE120709.038	%	60 - 130%	118	
	QC 112	SE120709.039	%	60 - 130%	103	
	TP28-2.0	SE120709.042	%	60 - 130%	88	
	d4-1,2-dichloroethane (Surrogate)	TP15-0.0	SE120709.015	%	60 - 130%	82
		TP16-0.0	SE120709.016	%	60 - 130%	85
		TP17-0.0	SE120709.017	%	60 - 130%	105
		TP19-0.0	SE120709.019	%	60 - 130%	91
TP21-0.5		SE120709.020	%	60 - 130%	86	
TP21-1.0		SE120709.021	%	60 - 130%	87	
TP23-0.5		SE120709.022	%	60 - 130%	80	
TP23-2.0		SE120709.023	%	60 - 130%	91	
TP24-0.0		SE120709.024	%	60 - 130%	95	
TP26-0.5		SE120709.025	%	60 - 130%	107	
TP26-2.0		SE120709.026	%	60 - 130%	105	
TP27-0.0		SE120709.027	%	60 - 130%	106	
TP28-0.5		SE120709.028	%	60 - 130%	103	
TP25-0.5		SE120709.029	%	60 - 130%	102	
TP25-2.0		SE120709.030	%	60 - 130%	98	
TP22-0.5		SE120709.031	%	60 - 130%	100	
TP22-1.0		SE120709.032	%	60 - 130%	101	
QC 111		SE120709.038	%	60 - 130%	116	
QC 112		SE120709.039	%	60 - 130%	108	
d8-toluene (Surrogate)		TP28-2.0	SE120709.042	%	60 - 130%	90
	TP15-0.0	SE120709.015	%	60 - 130%	84	
	TP16-0.0	SE120709.016	%	60 - 130%	85	
	TP17-0.0	SE120709.017	%	60 - 130%	108	
	TP19-0.0	SE120709.019	%	60 - 130%	88	
	TP21-0.5	SE120709.020	%	60 - 130%	84	
	TP21-1.0	SE120709.021	%	60 - 130%	85	
	TP23-0.5	SE120709.022	%	60 - 130%	80	
	TP23-2.0	SE120709.023	%	60 - 130%	90	
	TP24-0.0	SE120709.024	%	60 - 130%	93	
	TP26-0.5	SE120709.025	%	60 - 130%	101	
	TP26-2.0	SE120709.026	%	60 - 130%	102	
	TP27-0.0	SE120709.027	%	60 - 130%	103	
	TP28-0.5	SE120709.028	%	60 - 130%	101	
	TP25-0.5	SE120709.029	%	60 - 130%	96	
	TP25-2.0	SE120709.030	%	60 - 130%	95	
	TP22-0.5	SE120709.031	%	60 - 130%	95	
	TP22-1.0	SE120709.032	%	60 - 130%	99	
	QC 111	SE120709.038	%	60 - 130%	115	
	QC 112	SE120709.039	%	60 - 130%	104	
Dibromofluoromethane (Surrogate)	TP28-2.0	SE120709.042	%	60 - 130%	85	
	TP15-0.0	SE120709.015	%	60 - 130%	74	
	TP16-0.0	SE120709.016	%	60 - 130%	74	
	TP17-0.0	SE120709.017	%	60 - 130%	93	
	TP19-0.0	SE120709.019	%	60 - 130%	76	
	TP21-0.5	SE120709.020	%	60 - 130%	71	
	TP21-1.0	SE120709.021	%	60 - 130%	71	
	TP23-0.5	SE120709.022	%	60 - 130%	70	
	TP23-2.0	SE120709.023	%	60 - 130%	73	
	TP24-0.0	SE120709.024	%	60 - 130%	78	
	TP26-0.5	SE120709.025	%	60 - 130%	86	
	TP26-2.0	SE120709.026	%	60 - 130%	85	
	TP27-0.0	SE120709.027	%	60 - 130%	86	

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref. MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons In Soil (continued)

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Dibromofluoromethane (Surrogate)	TP28-0.5	SE120709.028	%	60 - 130%	79
	TP25-0.5	SE120709.029	%	60 - 130%	80
	TP25-2.0	SE120709.030	%	60 - 130%	77
	TP22-0.5	SE120709.031	%	60 - 130%	77
	TP22-1.0	SE120709.032	%	60 - 130%	77
	QC 111	SE120709.038	%	60 - 130%	90
	QC 112	SE120709.039	%	60 - 130%	82
	TP28-2.0	SE120709.042	%	60 - 130%	71

Volatile Petroleum Hydrocarbons In Water

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	QC 101	SE120709.035	%	60 - 130%	100
	QC 105	SE120709.036	%	60 - 130%	99
	QC 109	SE120709.037	%	60 - 130%	100
	Trip Blank	SE120709.040	%	60 - 130%	100
d4-1,2-dichloroethane (Surrogate)	QC 101	SE120709.035	%	60 - 130%	111
	QC 105	SE120709.036	%	60 - 130%	115
	QC 109	SE120709.037	%	60 - 130%	115
	Trip Blank	SE120709.040	%	60 - 130%	117
d8-toluene (Surrogate)	QC 101	SE120709.035	%	60 - 130%	106
	QC 105	SE120709.036	%	60 - 130%	108
	QC 109	SE120709.037	%	60 - 130%	106
	Trip Blank	SE120709.040	%	60 - 130%	106
Dibromofluoromethane (Surrogate)	QC 101	SE120709.035	%	60 - 130%	103
	QC 105	SE120709.036	%	60 - 130%	106
	QC 109	SE120709.037	%	60 - 130%	106
	Trip Blank	SE120709.040	%	60 - 130%	107

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Hexavalent Chromium in Soil UV/Vis

Method: ME-(AU)-(ENV)AN075/AN201

Sample Number	Parameter	Units	LOR	Result
LB045093.001	Hexavalent Chromium, Cr6+	mg/kg	0.5	<0.5
LB045094.001	Hexavalent Chromium, Cr6+	mg/kg	0.5	<0.5

Hexavalent Chromium in water by Discrete Analyser

Method: ME-(AU)-(ENV)AN283

Sample Number	Parameter	Units	LOR	Result
LB044812.001	Hexavalent Chromium, Cr6+	mg/L	0.005	<0.005

Mercury (dissolved) in Water

Method: ME-(AU)-(ENV)AN311/AN312

Sample Number	Parameter	Units	LOR	Result
LB045071.001	Mercury	mg/L	0.0001	<0.0001

Mercury in Soil

Method: ME-(AU)-(ENV)AN312

Sample Number	Parameter	Units	LOR	Result
LB044936.001	Mercury	mg/kg	0.01	<0.01
LB044998.001	Mercury	mg/kg	0.01	<0.01
LB045000.001	Mercury	mg/kg	0.01	<0.01

OC Pesticides in Soil

Method: ME-(AU)-(ENV)AN400/AN420

Sample Number	Parameter	Units	LOR	Result
LB044915.001	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
	Alpha BHC	mg/kg	0.1	<0.1
	Lindane	mg/kg	0.1	<0.1
	Heptachlor	mg/kg	0.1	<0.1
	Aldrin	mg/kg	0.1	<0.1
	Beta BHC	mg/kg	0.1	<0.1
	Delta BHC	mg/kg	0.1	<0.1
	Heptachlor epoxide	mg/kg	0.1	<0.1
	Alpha Endosulfan	mg/kg	0.2	<0.2
	Gamma Chlordane	mg/kg	0.1	<0.1
	Alpha Chlordane	mg/kg	0.1	<0.1
	p,p'-DDE	mg/kg	0.1	<0.1
	Dieldrin	mg/kg	0.2	<0.2
	Endrin	mg/kg	0.2	<0.2
	Beta Endosulfan	mg/kg	0.2	<0.2
	p,p'-DDD	mg/kg	0.1	<0.1
	p,p'-DDT	mg/kg	0.1	<0.1
	Endosulfan sulphate	mg/kg	0.1	<0.1
	Endrin Aldehyde	mg/kg	0.1	<0.1
	Methoxychlor	mg/kg	0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	
Isodrin	mg/kg	0.1	<0.1	
Mirex	mg/kg	0.1	<0.1	
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	96
LB044916.001	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
	Alpha BHC	mg/kg	0.1	<0.1
	Lindane	mg/kg	0.1	<0.1
	Heptachlor	mg/kg	0.1	<0.1
	Aldrin	mg/kg	0.1	<0.1
	Beta BHC	mg/kg	0.1	<0.1
	Delta BHC	mg/kg	0.1	<0.1
	Heptachlor epoxide	mg/kg	0.1	<0.1
	Alpha Endosulfan	mg/kg	0.2	<0.2
	Gamma Chlordane	mg/kg	0.1	<0.1
	Alpha Chlordane	mg/kg	0.1	<0.1
	p,p'-DDE	mg/kg	0.1	<0.1
	Dieldrin	mg/kg	0.2	<0.2
	Endrin	mg/kg	0.2	<0.2
	Beta Endosulfan	mg/kg	0.2	<0.2

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN400/AN420

Sample Number	Parameter	Units	LOR	Result	
LB044916.001	p,p'-DDD	mg/kg	0.1	<0.1	
	p,p'-DDT	mg/kg	0.1	<0.1	
	Endosulfan sulphate	mg/kg	0.1	<0.1	
	Endrin Aldehyde	mg/kg	0.1	<0.1	
	Methoxychlor	mg/kg	0.1	<0.1	
	Endrin Ketone	mg/kg	0.1	<0.1	
	Isodrin	mg/kg	0.1	<0.1	
	Mirex	mg/kg	0.1	<0.1	
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	101
LB044917.001	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	
	Alpha BHC	mg/kg	0.1	<0.1	
	Lindane	mg/kg	0.1	<0.1	
	Heptachlor	mg/kg	0.1	<0.1	
	Aldrin	mg/kg	0.1	<0.1	
	Beta BHC	mg/kg	0.1	<0.1	
	Delta BHC	mg/kg	0.1	<0.1	
	Heptachlor epoxide	mg/kg	0.1	<0.1	
	Alpha Endosulfan	mg/kg	0.2	<0.2	
	Gamma Chlordane	mg/kg	0.1	<0.1	
	Alpha Chlordane	mg/kg	0.1	<0.1	
	p,p'-DDE	mg/kg	0.1	<0.1	
	Dieldrin	mg/kg	0.2	<0.2	
	Endrin	mg/kg	0.2	<0.2	
	Beta Endosulfan	mg/kg	0.2	<0.2	
	p,p'-DDD	mg/kg	0.1	<0.1	
	p,p'-DDT	mg/kg	0.1	<0.1	
	Endosulfan sulphate	mg/kg	0.1	<0.1	
	Endrin Aldehyde	mg/kg	0.1	<0.1	
	Methoxychlor	mg/kg	0.1	<0.1	
	Endrin Ketone	mg/kg	0.1	<0.1	
	Isodrin	mg/kg	0.1	<0.1	
	Mirex	mg/kg	0.1	<0.1	
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	110

OC Pesticides in Water

Method: ME-(AU)-[ENV]AN400/AN420

Sample Number	Parameter	Units	LOR	Result	
LB044908.001	Alpha BHC	µg/L	0.1	<0.1	
	Hexachlorobenzene (HCB)	µg/L	0.1	<0.1	
	Beta BHC	µg/L	0.1	<0.1	
	Lindane (gamma BHC)	µg/L	0.1	<0.1	
	Delta BHC	µg/L	0.1	<0.1	
	Heptachlor	µg/L	0.1	<0.1	
	Aldrin	µg/L	0.1	<0.1	
	Heptachlor epoxide	µg/L	0.1	<0.1	
	Gamma Chlordane	µg/L	0.1	<0.1	
	Alpha Chlordane	µg/L	0.1	<0.1	
	Alpha Endosulfan	µg/L	0.1	<0.1	
	p,p'-DDE	µg/L	0.1	<0.1	
	Dieldrin	µg/L	0.1	<0.1	
	Endrin	µg/L	0.1	<0.1	
	Beta Endosulfan	µg/L	0.1	<0.1	
	p,p'-DDD	µg/L	0.1	<0.1	
	Endosulfan sulphate	µg/L	0.1	<0.1	
	p,p'-DDT	µg/L	0.1	<0.1	
	Endrin ketone	µg/L	0.1	<0.1	
	Methoxychlor	µg/L	0.1	<0.1	
	Endrin aldehyde	µg/L	0.1	<0.1	
	Isodrin	µg/L	0.1	<0.1	
	Mirex	µg/L	0.1	<0.1	
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	88

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

### OP Pesticides in Soil

Method: ME-(AU)-ENVJAN400/JAN420

Sample Number	Parameter	Units	LOR	Result	
LB044915.001	Dichlorvos	mg/kg	0.5	<0.5	
	Dimethoate	mg/kg	0.5	<0.5	
	Diazinon (Dimpylate)	mg/kg	0.5	<0.5	
	Fenitrothion	mg/kg	0.2	<0.2	
	Malathion	mg/kg	0.2	<0.2	
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	
	Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	
	Bromophos Ethyl	mg/kg	0.2	<0.2	
	Methodathion	mg/kg	0.5	<0.5	
	Ethion	mg/kg	0.2	<0.2	
	Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	106
		d14-p-terphenyl (Surrogate)	%	-	106
	LB044916.001	Dichlorvos	mg/kg	0.5	<0.5
Dimethoate		mg/kg	0.5	<0.5	
Diazinon (Dimpylate)		mg/kg	0.5	<0.5	
Fenitrothion		mg/kg	0.2	<0.2	
Malathion		mg/kg	0.2	<0.2	
Chlorpyrifos (Chlorpyrifos Ethyl)		mg/kg	0.2	<0.2	
Parathion-ethyl (Parathion)		mg/kg	0.2	<0.2	
Bromophos Ethyl		mg/kg	0.2	<0.2	
Methodathion		mg/kg	0.5	<0.5	
Ethion		mg/kg	0.2	<0.2	
Azinphos-methyl (Guthion)		mg/kg	0.2	<0.2	
Surrogates		2-fluorobiphenyl (Surrogate)	%	-	112
		d14-p-terphenyl (Surrogate)	%	-	118
LB044917.001		Dichlorvos	mg/kg	0.5	<0.5
	Dimethoate	mg/kg	0.5	<0.5	
	Diazinon (Dimpylate)	mg/kg	0.5	<0.5	
	Fenitrothion	mg/kg	0.2	<0.2	
	Malathion	mg/kg	0.2	<0.2	
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	
	Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	
	Bromophos Ethyl	mg/kg	0.2	<0.2	
	Methodathion	mg/kg	0.5	<0.5	
	Ethion	mg/kg	0.2	<0.2	
	Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	100
		d14-p-terphenyl (Surrogate)	%	-	100

### OP Pesticides in Water

Method: ME-(AU)-ENVJAN400/JAN420

Sample Number	Parameter	Units	LOR	Result	
LB044908.001	Dichlorvos	µg/L	0.5	<0.5	
	Dimethoate	µg/L	0.5	<0.5	
	Diazinon (Dimpylate)	µg/L	0.5	<0.5	
	Fenitrothion	µg/L	0.2	<0.2	
	Malathion	µg/L	0.2	<0.2	
	Chlorpyrifos (Chlorpyrifos Ethyl)	µg/L	0.2	<0.2	
	Parathion-ethyl (Parathion)	µg/L	0.2	<0.2	
	Bromophos Ethyl	µg/L	0.2	<0.2	
	Methodathion	µg/L	0.5	<0.5	
	Ethion	µg/L	0.2	<0.2	
	Azinphos-methyl	µg/L	0.2	<0.2	
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	77
		d14-p-terphenyl (Surrogate)	%	-	104

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-ENVJAN420

Sample Number	Parameter	Units	LOR	Result
LB044916.001	Naphthalene	mg/kg	0.1	<0.1
	2-methylnaphthalene	mg/kg	0.1	<0.1
	1-methylnaphthalene	mg/kg	0.1	<0.1
	Acenaphthylene	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result
LB044916.001	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(a)pyrene	mg/kg	0.1	<0.1
	Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
	Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1
	Benzo(ghi)perylene	mg/kg	0.1	<0.1
	Total PAH	mg/kg	0.8	<0.8
	Surrogates	d5-nitrobenzene (Surrogate)	%	-
2-fluorobiphenyl (Surrogate)		%	-	110
d14-p-terphenyl (Surrogate)		%	-	118
LB044917.001	Naphthalene	mg/kg	0.1	<0.1
	2-methylnaphthalene	mg/kg	0.1	<0.1
	1-methylnaphthalene	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(a)pyrene	mg/kg	0.1	<0.1
	Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
	Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1
	Benzo(ghi)perylene	mg/kg	0.1	<0.1
	Total PAH	mg/kg	0.8	<0.8
	Surrogates	d5-nitrobenzene (Surrogate)	%	-
2-fluorobiphenyl (Surrogate)		%	-	100
d14-p-terphenyl (Surrogate)		%	-	100

### PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	
LB044908.001	Naphthalene	µg/L	0.1	<0.1	
	2-methylnaphthalene	µg/L	0.1	<0.1	
	1-methylnaphthalene	µg/L	0.1	<0.1	
	Acenaphthylene	µg/L	0.1	<0.1	
	Acenaphthene	µg/L	0.1	<0.1	
	Fluorene	µg/L	0.1	<0.1	
	Phenanthrene	µg/L	0.1	<0.1	
	Anthracene	µg/L	0.1	<0.1	
	Fluoranthene	µg/L	0.1	<0.1	
	Pyrene	µg/L	0.1	<0.1	
	Benzo(a)anthracene	µg/L	0.1	<0.1	
	Chrysene	µg/L	0.1	<0.1	
	Benzo(a)pyrene	µg/L	0.1	<0.1	
	Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	
	Dibenzo(a&h)anthracene	µg/L	0.1	<0.1	
	Benzo(ghi)perylene	µg/L	0.1	<0.1	
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	80
		2-fluorobiphenyl (Surrogate)	%	-	86
d14-p-terphenyl (Surrogate)		%	-	82	

### PCBs In Soil

Method: ME-(AU)-[ENV]AN400/AN420

Sample Number	Parameter	Units	LOR
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Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

### PCBs in Soil (continued)

Method: ME-(AU)-(ENV)AN400/AN420

Sample Number	Parameter	Units	LOR	Result
LB044916.001	Arochlor 1016	mg/kg	0.2	<0.2
	Arochlor 1221	mg/kg	0.2	<0.2
	Arochlor 1232	mg/kg	0.2	<0.2
	Arochlor 1242	mg/kg	0.2	<0.2
	Arochlor 1248	mg/kg	0.2	<0.2
	Arochlor 1254	mg/kg	0.2	<0.2
	Arochlor 1260	mg/kg	0.2	<0.2
	Arochlor 1262	mg/kg	0.2	<0.2
	Arochlor 1268	mg/kg	0.2	<0.2
	Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-
LB044917.001	Arochlor 1016	mg/kg	0.2	<0.2
	Arochlor 1221	mg/kg	0.2	<0.2
	Arochlor 1232	mg/kg	0.2	<0.2
	Arochlor 1242	mg/kg	0.2	<0.2
	Arochlor 1248	mg/kg	0.2	<0.2
	Arochlor 1254	mg/kg	0.2	<0.2
	Arochlor 1260	mg/kg	0.2	<0.2
	Arochlor 1262	mg/kg	0.2	<0.2
	Arochlor 1268	mg/kg	0.2	<0.2
	Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-

### PCBs in Water

Method: ME-(AU)-(ENV)AN400/AN420

Sample Number	Parameter	Units	LOR	Result
LB044908.001	Arochlor 1016	µg/L	1	<1
	Arochlor 1221	µg/L	1	<1
	Arochlor 1232	µg/L	1	<1
	Arochlor 1242	µg/L	1	<1
	Arochlor 1248	µg/L	1	<1
	Arochlor 1254	µg/L	1	<1
	Arochlor 1260	µg/L	1	<1
	Arochlor 1262	µg/L	1	<1
	Arochlor 1268	µg/L	1	<1

### Total Phenolics in Soil

Method: ME-(AU)-(ENV)AN289

Sample Number	Parameter	Units	LOR	Result
LB045103.001	Total Phenols	mg/kg	0.1	<0.1

### Total Phenolics in Water

Method: ME-(AU)-(ENV)AN289

Sample Number	Parameter	Units	LOR	Result
LB044854.001	Total Phenols	mg/L	0.01	<0.01

### Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest

Method: ME-(AU)-(ENV)AN400/AN320

Sample Number	Parameter	Units	LOR	Result
LB044930.001	Arsenic, As	mg/kg	3	<3
	Beryllium, Be	mg/kg	0.3	<0.3
	Cadmium, Cd	mg/kg	0.3	<0.3
	Cobalt, Co	mg/kg	0.3	<0.3
	Copper, Cu	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Manganese, Mn	mg/kg	0.3	<0.3
	Nickel, Ni	mg/kg	0.5	<0.5
	Selenium, Se	mg/kg	2	<2
	Zinc, Zn	mg/kg	0.5	<0.5
	LB044995.001	Arsenic, As	mg/kg	3
Beryllium, Be		mg/kg	0.3	<0.3
Cadmium, Cd		mg/kg	0.3	<0.3
Cobalt, Co		mg/kg	0.3	<0.3

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

**Total Recoverable Metals In Soil by ICPOES from EPA 200.8 Digest (continued)**

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB044995.001	Copper, Cu	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Manganese, Mn	mg/kg	0.3	<0.3
	Nickel, Ni	mg/kg	0.5	<0.5
	Selenium, Se	mg/kg	2	<2
LB044996.001	Zinc, Zn	mg/kg	0.5	<0.5
	Arsenic, As	mg/kg	3	<1
	Beryllium, Be	mg/kg	0.3	-4.0368E-006
	Cadmium, Cd	mg/kg	0.3	<0.3
	Cobalt, Co	mg/kg	0.3	0.004328825
	Copper, Cu	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Manganese, Mn	mg/kg	0.3	0.13921525
	Nickel, Ni	mg/kg	0.5	<0.5
	Selenium, Se	mg/kg	2	0.20826825
Zinc, Zn	mg/kg	0.5	<2.0	

**Trace Metals (Dissolved) in Water by ICPMS**

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB044860.001	Arsenic, As	µg/L	1	<1
	Beryllium, Be	µg/L	1	<1
	Boron, B	µg/L	5	<5
	Cadmium, Cd	µg/L	0.1	<0.1
	Cobalt, Co	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Manganese, Mn	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Selenium, Se	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

**TRH (Total Recoverable Hydrocarbons) In Soil**

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB044916.001	TRH C10-C14	mg/kg	20	<20
	TRH C15-C28	mg/kg	45	<45
	TRH C29-C36	mg/kg	45	<45
	TRH C37-C40	mg/kg	100	<100
	TRH C10-C36 Total	mg/kg	110	<110
LB044917.001	TRH C10-C14	mg/kg	20	<20
	TRH C15-C28	mg/kg	45	<45
	TRH C29-C36	mg/kg	45	<45
	TRH C37-C40	mg/kg	100	<100
TRH C10-C36 Total	mg/kg	110	<110	

**TRH (Total Recoverable Hydrocarbons) in Water**

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB044908.001	TRH C10-C14	µg/L	50	<50
	TRH C15-C28	µg/L	200	<200
	TRH C29-C36	µg/L	200	<200
	TRH C37-C40	µg/L	200	<200

**VOC's in Soil**

Method: ME-(AU)-[ENV]AN433/AN434

Sample Number	Parameter	Units	LOR	Result	
LB044824.001	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
	Polycyclic VOCs Surrogates	Naphthalene	mg/kg	0.1	<0.1
		Dibromofluoromethane (Surrogate)	%	-	76
		d4-1,2-dichloroethane (Surrogate)	%	-	88
		d8-toluene (Surrogate)	%	-	90
		Bromofluorobenzene (Surrogate)	%	-	110

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

### VOC's in Soil (continued)

Method: ME-(AU)-(ENV)AN433/AN434

Sample Number	Parameter	Units	LOR	Result
LB044824.001	Totals Total BTEX*	mg/kg	0.6	<0.6

### VOCs in Water

Method: ME-(AU)-(ENV)AN433/AN434

Sample Number	Parameter	Units	LOR	Result	
LB045062.001	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5
		Toluene	µg/L	0.5	<0.5
	Polycyclic VOCs	Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
	Surrogates	Naphthalene	µg/L	0.5	<0.5
		Dibromofluoromethane (Surrogate)	%	-	93
		d4-1,2-dichloroethane (Surrogate)	%	-	103
		d8-toluene (Surrogate)	%	-	103
		Bromofluorobenzene (Surrogate)	%	-	102

### Volatile Petroleum Hydrocarbons In Soil

Method: ME-(AU)-(ENV)AN433/AN434/AN410

Sample Number	Parameter	Units	LOR	Result	
LB044824.001	TRH C6-C9	mg/kg	20	<20	
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	76
		d4-1,2-dichloroethane (Surrogate)	%	-	88
		d8-toluene (Surrogate)	%	-	90

### Volatile Petroleum Hydrocarbons In Water

Method: ME-(AU)-(ENV)AN433/AN434/AN410

Sample Number	Parameter	Units	LOR	Result	
LB045062.001	TRH C6-C9	µg/L	40	<40	
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	93
		d4-1,2-dichloroethane (Surrogate)	%	-	103
		d8-toluene (Surrogate)	%	-	103
		Bromofluorobenzene (Surrogate)	%	-	102

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### Hexavalent Chromium in Soil UV/Vis

Method: ME-(AU)-[ENV]AN075/AN201

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120709.001	LB045093.004	Hexavalent Chromium, Cr6+	mg/kg	0.5	<0.5	<0.5	200	0
SE120709.011	LB045093.016	Hexavalent Chromium, Cr6+	mg/kg	0.5	<0.5	<0.5	200	0
SE120709.020	LB045093.026	Hexavalent Chromium, Cr6+	mg/kg	0.5	<0.5	<0.5	200	0
SE120709.030	LB045094.013	Hexavalent Chromium, Cr6+	mg/kg	0.5	<0.5	<0.5	200	0

### Hexavalent Chromium in water by Discrete Analyser

Method: ME-(AU)-[ENV]AN283

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120683.001	LB044812.004	Hexavalent Chromium, Cr6+	mg/L	0.005	<0.005	<0.005	174	0

### Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120765.002	LB045071.015	Mercury	µg/L	0.0001	<0.0001	<0.0001	200	0

### Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120708.011	LB044936.014	Mercury	mg/kg	0.01	0.0060242397	0.0052803424	200	0
SE120709.009	LB044936.024	Mercury	mg/kg	0.01	0.02	0.02	94	8
SE120709.020	LB044998.014	Mercury	mg/kg	0.01	0.02	0.02	83	11
SE120709.029	LB044998.024	Mercury	mg/kg	0.01	0.03	0.02	70	3
SE120734.001	LB045000.014	Mercury	mg/kg	0.01	<0.01	<0.01	148	0
SE120734.003	LB045000.017	Mercury	mg/kg	0.01	0.01	<0.01	141	4

### OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN400/AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120708.001	LB044915.009	Hexachlorobenzene (HCB)	mg/kg	0.1	0	0	200	0
		Alpha BHC	mg/kg	0.1	0	0	200	0
		Lindane	mg/kg	0.1	0	0	200	0
		Heptachlor	mg/kg	0.1	0	0	200	0
		Aldrin	mg/kg	0.1	0	0	200	0
		Beta BHC	mg/kg	0.1	0	0	200	0
		Delta BHC	mg/kg	0.1	0	0	200	0
		Heptachlor epoxide	mg/kg	0.1	0	0	200	0
		o,p'-DDE	mg/kg	0.1	0	0	200	0
		Alpha Endosulfan	mg/kg	0.2	0	0	200	0
		Gamma Chlordane	mg/kg	0.1	0	0	200	0
		Alpha Chlordane	mg/kg	0.1	0	0	200	0
		trans-Nonachlor	mg/kg	0.1	0	0	200	0
		p,p'-DDE	mg/kg	0.1	0	0	200	0
		Dieldrin	mg/kg	0.2	0	0	200	0
		Endrin	mg/kg	0.2	0	0	200	0
		o,p'-DDD	mg/kg	0.1	0	0	200	0
		o,p'-DDT	mg/kg	0.1	0	0	200	0
		Beta Endosulfan	mg/kg	0.2	0	0	200	0
		p,p'-DDD	mg/kg	0.1	0	0	200	0
		p,p'-DDT	mg/kg	0.1	0	0	200	0
		Endosulfan sulphate	mg/kg	0.1	0	0	200	0
		Endrin Aldehyde	mg/kg	0.1	0	0	200	0
		Methoxychlor	mg/kg	0.1	0	0	200	0
		Endrin Ketone	mg/kg	0.1	0	0	200	0
		Isodrin	mg/kg	0.1	0	0	200	0
Mirex	mg/kg	0.1	0	0	200	0		
Surrogates		Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.103	0.101	30	2
SE120709.004	LB044915.022	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Lindane	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
		Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN400/AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %		
SE120709.004	LB044915.022	Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0		
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0		
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0		
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0		
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0		
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0		
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0		
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0		
		Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0		
		Endrin	mg/kg	0.2	<0.2	<0.2	200	0		
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0		
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0		
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0		
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0		
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0		
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0		
		Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0		
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0		
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0		
		Isodrin	mg/kg	0.1	<0.1	<0.1	200	0		
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0		
			Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	4
		SE120709.008	LB044916.004	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
Alpha BHC	mg/kg			0.1	<0.1	<0.1	200	0		
Lindane	mg/kg			0.1	<0.1	<0.1	200	0		
Heptachlor	mg/kg			0.1	<0.1	<0.1	200	0		
Aldrin	mg/kg			0.1	<0.1	<0.1	200	0		
Beta BHC	mg/kg			0.1	<0.1	<0.1	200	0		
Delta BHC	mg/kg			0.1	<0.1	<0.1	200	0		
Heptachlor epoxide	mg/kg			0.1	<0.1	<0.1	200	0		
o,p'-DDE	mg/kg			0.1	<0.1	<0.1	200	0		
Alpha Endosulfan	mg/kg			0.2	<0.2	<0.2	200	0		
Gamma Chlordane	mg/kg			0.1	<0.1	<0.1	200	0		
Alpha Chlordane	mg/kg			0.1	<0.1	<0.1	200	0		
trans-Nonachlor	mg/kg			0.1	<0.1	<0.1	200	0		
p,p'-DDE	mg/kg			0.1	<0.1	<0.1	200	0		
Dieldrin	mg/kg			0.2	<0.2	<0.2	200	0		
Endrin	mg/kg			0.2	<0.2	<0.2	200	0		
o,p'-DDD	mg/kg			0.1	<0.1	<0.1	200	0		
o,p'-DDT	mg/kg			0.1	<0.1	<0.1	200	0		
Beta Endosulfan	mg/kg			0.2	<0.2	<0.2	200	0		
p,p'-DDD	mg/kg			0.1	<0.1	<0.1	200	0		
p,p'-DDT	mg/kg			0.1	<0.1	<0.1	200	0		
Endosulfan sulphate	mg/kg			0.1	<0.1	<0.1	200	0		
Endrin Aldehyde	mg/kg			0.1	<0.1	<0.1	200	0		
Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0				
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0				
Isodrin	mg/kg	0.1	<0.1	<0.1	200	0				
Mirex	mg/kg	0.1	<0.1	<0.1	200	0				
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	4		
SE120709.025	LB044916.023	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0		
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0		
		Lindane	mg/kg	0.1	<0.1	<0.1	200	0		
		Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0		
		Aldrin	mg/kg	0.1	<0.1	<0.1	200	0		
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0		
		Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0		
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0		
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0		
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0		
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0		

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN400/AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120709.025	LB044916.023	Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
		Endrin	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
		Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0
SE120709.029	LB044917.005	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Lindane	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
		Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
		Endrin	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
		Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	2

### OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN400/AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %		
SE120708.001	LB044915.011	Dichlorvos	mg/kg	0.5	0	0	200	0		
		Dimethoate	mg/kg	0.5	0	0	200	0		
		Diazinon (Dimpylate)	mg/kg	0.5	0	0	200	0		
		Fenitrothion	mg/kg	0.2	0	0	200	0		
		Malathion	mg/kg	0.2	0	0	200	0		
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	0	0	200	0		
		Parathion-ethyl (Parathion)	mg/kg	0.2	0	0	200	0		
		Bromophos Ethyl	mg/kg	0.2	0	0	200	0		
		Methidathion	mg/kg	0.5	0	0	200	0		
		Ethion	mg/kg	0.2	0	0	200	0		
		Azinphos-methyl (Guthion)	mg/kg	0.2	0	0	200	0		
			Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.52	0.53	30	2
				d14-p-terphenyl (Surrogate)	mg/kg	-	0.55	0.54	30	2

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### OP Pesticides In Soil (continued)

Method: ME-(AU)-(ENV)AN400/AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE120709.004	LB044915.022	Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0	
		Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0	
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0	
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0	
		Malathion	mg/kg	0.2	<0.2	<0.2	200	0	
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0	
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0	
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0	
		Methidathion	mg/kg	0.5	<0.5	<0.5	200	0	
		Ethion	mg/kg	0.2	<0.2	<0.2	200	0	
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0	
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.6	30	2	
		SE120709.008	LB044916.004	Dichlorvos	mg/kg	0.5	<0.5	<0.5	200
Dimethoate	mg/kg			0.5	<0.5	<0.5	200	0	
Diazinon (Dimpylate)	mg/kg			0.5	<0.5	<0.5	200	0	
Fenitrothion	mg/kg			0.2	<0.2	<0.2	200	0	
Malathion	mg/kg			0.2	<0.2	<0.2	200	0	
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg			0.2	<0.2	<0.2	200	0	
Parathion-ethyl (Parathion)	mg/kg			0.2	<0.2	<0.2	200	0	
Bromophos Ethyl	mg/kg			0.2	<0.2	<0.2	200	0	
Methidathion	mg/kg			0.5	<0.5	<0.5	200	0	
Ethion	mg/kg			0.2	<0.2	<0.2	200	0	
Azinphos-methyl (Guthion)	mg/kg			0.2	<0.2	<0.2	200	0	
Surrogates	2-fluorobiphenyl (Surrogate)			mg/kg	-	0.5	0.5	30	0
d14-p-terphenyl (Surrogate)	mg/kg			-	0.5	0.5	30	2	
SE120709.023	LB044916.021			Dichlorvos	mg/kg	0.5	<0.5	<0.5	200
		Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0	
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0	
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0	
		Malathion	mg/kg	0.2	<0.2	<0.2	200	0	
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0	
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0	
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0	
		Methidathion	mg/kg	0.5	<0.5	<0.5	200	0	
		Ethion	mg/kg	0.2	<0.2	<0.2	200	0	
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0	
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	5
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0	
		SE120709.028	LB044917.004	Dichlorvos	mg/kg	0.5	<0.5	<0.5	200
Dimethoate	mg/kg			0.5	<0.5	<0.5	200	0	
Diazinon (Dimpylate)	mg/kg			0.5	<0.5	<0.5	200	0	
Fenitrothion	mg/kg			0.2	<0.2	<0.2	200	0	
Malathion	mg/kg			0.2	<0.2	<0.2	200	0	
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg			0.2	<0.2	<0.2	200	0	
Parathion-ethyl (Parathion)	mg/kg			0.2	<0.2	<0.2	200	0	
Bromophos Ethyl	mg/kg			0.2	<0.2	<0.2	200	0	
Methidathion	mg/kg			0.5	<0.5	<0.5	200	0	
Ethion	mg/kg			0.2	<0.2	<0.2	200	0	
Azinphos-methyl (Guthion)	mg/kg			0.2	<0.2	<0.2	200	0	
Surrogates	2-fluorobiphenyl (Surrogate)			mg/kg	-	0.5	0.5	30	4
d14-p-terphenyl (Surrogate)	mg/kg			-	0.5	0.5	30	2	

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-(ENV)AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120709.023	LB044916.020	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluorene	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### PAH (Polynuclear Aromatic Hydrocarbons) In Soil (continued)

Method: ME-(AU)-(ENV)AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE120709.023	LB044916.020	Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0	
		Anthracene	mg/kg	0.1	<0.1	<0.1	200	0	
		Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0	
		Pyrene	mg/kg	0.1	<0.1	<0.1	200	0	
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0	
		Chrysene	mg/kg	0.1	<0.1	<0.1	200	0	
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0	
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0	
		Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0	
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0	
		Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	200	0	
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0	
		Total PAH	mg/kg	0.8	<0.8	<0.8	200	0	
		Carcinogenic PAHs (as BaP TEQ)*	TEQ (mg/kg)	0.2	<0.2	<0.2	200	0	
		Surrogates							
		SE120709.028	LB044917.004	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30
2-fluorobiphenyl (Surrogate)	mg/kg			-	0.4	0.4	30	5	
d14-p-terphenyl (Surrogate)	mg/kg			-	0.5	0.5	30	0	
Naphthalene	mg/kg			0.1	<0.1	<0.1	200	0	
2-methylnaphthalene	mg/kg			0.1	<0.1	<0.1	200	0	
1-methylnaphthalene	mg/kg			0.1	<0.1	<0.1	200	0	
Acenaphthylene	mg/kg			0.1	<0.1	<0.1	200	0	
Acenaphthene	mg/kg			0.1	<0.1	<0.1	200	0	
Fluorene	mg/kg			0.1	<0.1	<0.1	200	0	
Phenanthrene	mg/kg			0.1	<0.1	0.1	200	10	
Anthracene	mg/kg			0.1	<0.1	<0.1	200	0	
Fluoranthene	mg/kg			0.1	<0.1	<0.1	200	0	
Pyrene	mg/kg			0.1	<0.1	<0.1	200	0	
Benzo(a)anthracene	mg/kg			0.1	<0.1	<0.1	200	0	
Chrysene	mg/kg			0.1	<0.1	<0.1	200	0	
Benzo(b&j)fluoranthene	mg/kg			0.1	<0.1	<0.1	200	0	
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0			
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0			
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0			
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	200	0			
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0			
Total PAH	mg/kg	0.8	<0.8	<0.8	200	0			
Carcinogenic PAHs (as BaP TEQ)*	TEQ (mg/kg)	0.2	<0.2	<0.2	200	0			
Surrogates									

### PCBs In Soil

Method: ME-(AU)-(ENV)AN400/AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120709.025	LB044916.021	Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
		Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates						
SE120709.029	LB044917.005	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	9
		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0		

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### PCBs In Soil (continued)

Method: ME-(AU)-(ENV)AN400/AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120709.029	LB044917.005	Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
		Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	-	0	0	30	2

### Total Phenolics In Soil

Method: ME-(AU)-(ENV)AN288

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120709.042	LB045103.016	Total Phenols	mg/kg	0.1	<0.1	<0.1	200	0

### Total Phenolics in Water

Method: ME-(AU)-(ENV)AN288

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120709.035	LB044854.004	Total Phenols	mg/L	0.01	<0.01	<0.01	131	0

### Total Recoverable Metals In Soil by ICPOES from EPA 200.8 Digest

Method: ME-(AU)-(ENV)AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120708.011	LB044930.014	Arsenic, As	mg/kg	3	2.83537095952.5057126147		142	12
		Cadmium, Cd	mg/kg	0.3	0.06438303660.0899082160		200	0
		Copper, Cu	mg/kg	0.5	6.11250852276.0031056119		38	2
		Lead, Pb	mg/kg	1	9.23729166669.8732704583		40	7
		Nickel, Ni	mg/kg	0.5	3.27226609843.2985345203		45	1
		Zinc, Zn	mg/kg	0.5	25.63432922925.6430949721		38	0
SE120709.009	LB044930.024	Arsenic, As	mg/kg	3	6	9	70	37
		Beryllium, Be	mg/kg	0.3	0.5	0.5	125	0
		Boron, B	mg/kg	5	<5	<5	200	0
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Cobalt, Co	mg/kg	0.3	6.7	6.8	37	2
		Copper, Cu	mg/kg	0.5	11	12	34	6
		Lead, Pb	mg/kg	1	52	58	32	10
		Manganese, Mn	mg/kg	0.3	410	380	30	8
		Nickel, Ni	mg/kg	0.5	7.9	8.3	36	4
		Selenium, Se	mg/kg	2	<2	<2	200	0
		Zinc, Zn	mg/kg	0.5	75	74	33	1
SE120709.020	LB044995.014	Arsenic, As	mg/kg	3	5	5	95	4
		Beryllium, Be	mg/kg	0.3	0.6	0.5	123	11
		Boron, B	mg/kg	5	<5	<5	200	0
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Cobalt, Co	mg/kg	0.3	5.5	5.2	39	6
		Copper, Cu	mg/kg	0.5	30	20	32	41 @
		Lead, Pb	mg/kg	1	34	32	33	5
		Manganese, Mn	mg/kg	0.3	350	310	30	14
		Nickel, Ni	mg/kg	0.5	12	15	34	23
		Selenium, Se	mg/kg	2	<2	<2	200	0
		Zinc, Zn	mg/kg	0.5	93	91	32	1
SE120709.029	LB044995.024	Arsenic, As	mg/kg	3	12	13	54	9
		Beryllium, Be	mg/kg	0.3	0.7	0.7	99	7
		Boron, B	mg/kg	5	<5	<5	200	0
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Cobalt, Co	mg/kg	0.3	12	13	34	14
		Copper, Cu	mg/kg	0.5	21	22	32	1
		Lead, Pb	mg/kg	1	31	33	33	6
		Manganese, Mn	mg/kg	0.3	720	580	30	21
		Nickel, Ni	mg/kg	0.5	22	21	32	2
		Selenium, Se	mg/kg	2	<2	<2	200	0
		Zinc, Zn	mg/kg	0.5	74	69	33	7
SE120734.003	LB044996.019	Arsenic, As	mg/kg	3	10	10	59	5
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	153	0
		Copper, Cu	mg/kg	0.5	14	21	33	38 @

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### Total Recoverable Metals In Soil by ICPOES from EPA 200.8 Digest (continued)

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120734.003	LB044996.019	Lead, Pb	mg/kg	1	18	17	36	1
		Nickel, Ni	mg/kg	0.5	6.1	4.6	39	28
		Zinc, Zn	mg/kg	0.5	15	15	44	2

### Trace Metals (Dissolved) In Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120709.037	LB044860.007	Arsenic, As	µg/L	1	<1	<1	200	0
		Beryllium, Be	µg/L	1	<1	<1	200	0
		Boron, B	µg/L	5	<5	<5	128	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Cobalt, Co	µg/L	1	<1	<1	200	0
		Copper, Cu	µg/L	1	<1	<1	200	0
		Lead, Pb	µg/L	1	<1	<1	200	0
		Manganese, Mn	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	<1	<1	200	0
		Selenium, Se	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	7	<5	128	28

### TRH (Total Recoverable Hydrocarbons) In Soil

Method: ME-(AU)-[ENV]AN403

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE120709.023	LB044916.019	TRH C10-C14	mg/kg	20	<20	<20	200	0
		TRH C15-C28	mg/kg	45	<45	<45	200	0
		TRH C29-C36	mg/kg	45	<45	<45	200	0
		TRH C37-C40	mg/kg	100	<100	<100	200	0
		TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
		TRH C10-C40 Total	mg/kg	210	<210	<210	200	0
		TRH F Bands						
		TRH >C10-C16 (F2)	mg/kg	25	<25	<25	200	0
		TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
		TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE120709.028	LB044917.004	TRH C10-C14	mg/kg	20	<20	<20	200	0
		TRH C15-C28	mg/kg	45	<45	<45	200	0
		TRH C29-C36	mg/kg	45	<45	<45	200	0
		TRH C37-C40	mg/kg	100	<100	<100	200	0
		TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
		TRH C10-C40 Total	mg/kg	210	<210	<210	200	0
		TRH F Bands						
		TRH >C10-C16 (F2)	mg/kg	25	<25	<25	200	0
		TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
		TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

### VOC's In Soil

Method: ME-(AU)-[ENV]AN433/AN434

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE120709.025	LB044824.015	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	4.3	4.4	50	3
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	5.4	5.4	50	1
			d8-toluene (Surrogate)	mg/kg	-	5.1	5.2	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	5.8	5.6	50	4
		Totals	Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX*	mg/kg	0.6	<0.6	<0.6	200	0

### VOCs In Water

Method: ME-(AU)-[ENV]AN433/AN434

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE120709.035	LB045062.009	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	0.0	0.0	30	1

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### VOCs In Water (continued)

Method: ME-(AU)-[ENV]AN433/AN434

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE120709.035	LB045062.009	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	0.0	0.0	30	0
			d8-toluene (Surrogate)	µg/L	-	0.0	0.0	30	0
			Bromofluorobenzene (Surrogate)	µg/L	-	0.0	0.0	30	2

### Volatile Petroleum Hydrocarbons In Soil

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE120709.025	LB044824.015		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	4.3	4.4	30	3
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	5.4	5.4	30	1
			d8-toluene (Surrogate)	mg/kg	-	5.1	5.2	30	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	5.8	5.6	30	4
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0

### Volatile Petroleum Hydrocarbons In Water

Method: ME-(AU)-[ENV]AN433/AN434/AN410

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE120709.035	LB045062.009		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	0.0	0.0	30	1
			d4-1,2-dichloroethane (Surrogate)	µg/L	-	0.0	0.0	30	0
			d8-toluene (Surrogate)	µg/L	-	0.0	0.0	30	0
			Bromofluorobenzene (Surrogate)	µg/L	-	0.0	0.0	30	2
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0

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Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Hexavalent Chromium In Soil UV/Vis

Method: ME-(AU)-[ENV]AN075/AN201

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB045093.002	Hexavalent Chromium, Cr6+	mg/kg	0.5	20	20	70 - 130	99
LB045094.002	Hexavalent Chromium, Cr6+	mg/kg	0.5	20	20	70 - 130	102

Hexavalent Chromium in water by Discrete Analyser

Method: ME-(AU)-[ENV]AN283

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044812.002	Hexavalent Chromium, Cr6+	mg/L	0.005	0.054	0.05	80 - 120	108

Mercury In Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044936.002	Mercury	mg/kg	0.01	0.23	0.2	70 - 130	113
LB044998.002	Mercury	mg/kg	0.01	0.22	0.2	70 - 130	109
LB045000.002	Mercury	mg/kg	0.01	0.22	0.2	70 - 130	110

OC Pesticides In Soil

Method: ME-(AU)-[ENV]AN400/AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044915.002	Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	110
	Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	106
	Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	98
	Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	98
	Endrin	mg/kg	0.2	0.2	0.2	60 - 140	114
	p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	96
LB044916.002	Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	111
	Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	106
	Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	99
	Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	98
	Endrin	mg/kg	0.2	0.2	0.2	60 - 140	113
	p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	90
LB044917.002	Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	114
	Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	112
	Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	103
	Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	107
	Endrin	mg/kg	0.2	0.2	0.2	60 - 140	113
	p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	98

OC Pesticides in Water

Method: ME-(AU)-[ENV]AN400/AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044908.002	Delta BHC	µg/L	0.1	0.2	0.2	60 - 140	83
	Heptachlor	µg/L	0.1	0.2	0.2	60 - 140	94
	Aldrin	µg/L	0.1	0.2	0.2	60 - 140	90
	Dieldrin	µg/L	0.1	0.2	0.2	60 - 140	84
	Endrin	µg/L	0.1	0.2	0.2	60 - 140	101
	p,p'-DDT	µg/L	0.1	0.2	0.2	60 - 140	86

OP Pesticides In Soil

Method: ME-(AU)-[ENV]AN400/AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB044915.002	Dichlorvos	mg/kg	0.5	2.5	2	60 - 140	124	
	Diazinon (Dimpylate)	mg/kg	0.5	2.1	2	60 - 140	107	
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.3	2	60 - 140	115	
	Ethion	mg/kg	0.2	2.7	2	60 - 140	133	
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 140	100
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	40 - 140	112	
LB044916.002	Dichlorvos	mg/kg	0.5	2.0	2	60 - 140	98	
	Diazinon (Dimpylate)	mg/kg	0.5	1.6	2	60 - 140	78	
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.9	2	60 - 140	94	
	Ethion	mg/kg	0.2	1.7	2	60 - 140	84	
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 140	90
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	40 - 140	110	
LB044917.002	Dichlorvos	mg/kg	0.5	1.9	2	60 - 140	94	
	Diazinon (Dimpylate)	mg/kg	0.5	1.6	2	60 - 140	82	
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.6	2	60 - 140	82	

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-(ENV)QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

### OP Pesticides in Soil (continued)

Method: ME-(AU)-(ENV)AN400/AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044917.002	Ethion	mg/kg	0.2	1.6	2	60 - 140	80
	Surrogates						
	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 140	98
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 140	96

### OP Pesticides in Water

Method: ME-(AU)-(ENV)AN400/AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044908.002	Dichlorvos	µg/L	0.5	<0.5	0.4	60 - 140	112
	Diazinon (Dimpylate)	µg/L	0.5	<0.5	0.4	60 - 140	100
	Chlorpyrifos (Chlorpyrifos Ethyl)	µg/L	0.2	0.4	0.4	60 - 140	94
	Ethion	µg/L	0.2	0.4	0.4	60 - 140	106

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-(ENV)AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044916.002	Naphthalene	mg/kg	0.1	4.2	4	60 - 140	104
	Acenaphthylene	mg/kg	0.1	4.3	4	60 - 140	106
	Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	106
	Phenanthrene	mg/kg	0.1	4.4	4	60 - 140	110
	Anthracene	mg/kg	0.1	4.4	4	60 - 140	110
	Fluoranthene	mg/kg	0.1	4.3	4	60 - 140	109
	Pyrene	mg/kg	0.1	4.3	4	60 - 140	106
	Benzo(a)pyrene	mg/kg	0.1	4.3	4	60 - 140	108
	Surrogates						
	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	60 - 140	88
LB044917.002	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	60 - 140	88
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	60 - 140	94
	Naphthalene	mg/kg	0.1	4.4	4	60 - 140	111
	Acenaphthylene	mg/kg	0.1	4.8	4	60 - 140	121
	Acenaphthene	mg/kg	0.1	4.6	4	60 - 140	114
	Phenanthrene	mg/kg	0.1	4.9	4	60 - 140	122
	Anthracene	mg/kg	0.1	5.0	4	60 - 140	125
	Fluoranthene	mg/kg	0.1	4.7	4	60 - 140	117
	Pyrene	mg/kg	0.1	4.9	4	60 - 140	123
	Benzo(a)pyrene	mg/kg	0.1	4.6	4	60 - 140	114
Surrogates							
d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	60 - 140	94	
2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	60 - 140	98	
d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	60 - 140	96	

### PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-(ENV)AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044908.002	Naphthalene	µg/L	0.1	45	40	60 - 140	114
	Acenaphthylene	µg/L	0.1	47	40	60 - 140	118
	Acenaphthene	µg/L	0.1	48	40	60 - 140	121
	Phenanthrene	µg/L	0.1	47	40	60 - 140	118
	Anthracene	µg/L	0.1	46	40	60 - 140	116
	Fluoranthene	µg/L	0.1	49	40	60 - 140	121
	Pyrene	µg/L	0.1	47	40	60 - 140	117
	Benzo(a)pyrene	µg/L	0.1	50	40	60 - 140	124

### PCBs in Soil

Method: ME-(AU)-(ENV)AN400/AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044916.002	Arochlor 1260	mg/kg	0.2	0.4	0.4	60 - 140	107
LB044917.002	Arochlor 1260	mg/kg	0.2	0.4	0.4	60 - 140	112

### PCBs in Water

Method: ME-(AU)-(ENV)AN400/AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044908.002	Arochlor 1260	µg/L	1	<1	0.4	60 - 140	101

### Total Phenolics in Soil

Method: ME-(AU)-(ENV)AN289

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB045103.002	Total Phenols	mg/kg	0.1	2.5	2.5	70 - 130	100

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Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

### Total Phenolics in Water

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044854.002	Total Phenols	mg/L	0.01	0.24	0.25	80 - 120	97

### Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044930.002	Arsenic, As	mg/kg	3	51	50	80 - 120	101
	Beryllium, Be	mg/kg	0.3	47	50	80 - 120	94
	Boron, B	mg/kg	5	47	50	80 - 120	93
	Cadmium, Cd	mg/kg	0.3	51	50	80 - 120	102
	Cobalt, Co	mg/kg	0.3	50	50	80 - 120	101
	Copper, Cu	mg/kg	0.5	51	50	80 - 120	101
	Lead, Pb	mg/kg	1	51	50	80 - 120	101
	Manganese, Mn	mg/kg	0.3	52	50	80 - 120	104
	Nickel, Ni	mg/kg	0.5	52	50	80 - 120	103
	Selenium, Se	mg/kg	2	46	50	80 - 120	92
LB044995.002	Zinc, Zn	mg/kg	0.5	51	50	80 - 120	103
	Arsenic, As	mg/kg	3	48	50	80 - 120	96
	Beryllium, Be	mg/kg	0.3	45	50	80 - 120	90
	Boron, B	mg/kg	5	47	50	80 - 120	93
	Cadmium, Cd	mg/kg	0.3	49	50	80 - 120	97
	Cobalt, Co	mg/kg	0.3	48	50	80 - 120	97
	Copper, Cu	mg/kg	0.5	48	50	80 - 120	96
	Lead, Pb	mg/kg	1	48	50	80 - 120	96
	Manganese, Mn	mg/kg	0.3	50	50	80 - 120	100
	Nickel, Ni	mg/kg	0.5	50	50	80 - 120	99
LB044996.002	Selenium, Se	mg/kg	2	44	50	80 - 120	88
	Zinc, Zn	mg/kg	0.5	49	50	80 - 120	98
	Arsenic, As	mg/kg	3	47	50	80 - 120	93
	Beryllium, Be	mg/kg	0.3	43.64625	50	80 - 120	87
	Boron, B	mg/kg	5	51.2525	50	80 - 120	103
	Cadmium, Cd	mg/kg	0.3	47	50	80 - 120	95
	Cobalt, Co	mg/kg	0.3	47.209	50	80 - 120	94
	Copper, Cu	mg/kg	0.5	47	50	80 - 120	94
	Lead, Pb	mg/kg	1	47	50	80 - 120	94
	Manganese, Mn	mg/kg	0.3	48.204	50	80 - 120	96
	Nickel, Ni	mg/kg	0.5	48	50	80 - 120	96
	Selenium, Se	mg/kg	2	42.55875	50	80 - 120	85
	Zinc, Zn	mg/kg	0.5	48	50	80 - 120	96

### Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB044860.002	Arsenic, As	µg/L	1	19	20	80 - 120	94
	Beryllium, Be	µg/L	1	20	20	80 - 120	99
	Boron, B	µg/L	5	16	20	80 - 120	82
	Cadmium, Cd	µg/L	0.1	20	20	80 - 120	100
	Cobalt, Co	µg/L	1	19	20	80 - 120	96
	Copper, Cu	µg/L	1	19	20	80 - 120	96
	Lead, Pb	µg/L	1	20	20	80 - 120	101
	Manganese, Mn	µg/L	1	20	20	80 - 120	101
	Nickel, Ni	µg/L	1	19	20	80 - 120	97
	Selenium, Se	µg/L	1	19	20	80 - 120	97
	Zinc, Zn	µg/L	5	20	20	80 - 120	101

### TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB044916.002	TRH C10-C14	mg/kg	20	41	40	60 - 140	103	
	TRH C15-C28	mg/kg	45	<45	40	60 - 140	103	
	TRH C29-C36	mg/kg	45	<45	40	60 - 140	98	
	TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	41	40	60 - 140	103
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	103
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	90

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-(ENV)QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

### TRH (Total Recoverable Hydrocarbons) In Soil (continued)

Method: ME-(AU)-(ENV)AN403

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB044917.002	TRH C10-C14	mg/kg	20	42	40	60 - 140	105	
	TRH C15-C28	mg/kg	45	<45	40	60 - 140	103	
	TRH C29-C36	mg/kg	45	<45	40	60 - 140	90	
	TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	42	40	60 - 140	105
	TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	103	
	TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	90	

### TRH (Total Recoverable Hydrocarbons) In Water

Method: ME-(AU)-(ENV)AN403

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB044908.002	TRH C10-C14	µg/L	50	1000	1200	60 - 140	86	
	TRH C15-C28	µg/L	200	1100	1200	60 - 140	92	
	TRH C29-C36	µg/L	200	1000	1200	60 - 140	87	
	TRH F Bands	TRH >C10-C16 (F2)	µg/L	60	1100	1200	60 - 140	88
	TRH >C16-C34 (F3)	µg/L	500	1100	1200	60 - 140	93	
	TRH >C34-C40 (F4)	µg/L	500	520	600	60 - 140	86	

### VOCs in Soil

Method: ME-(AU)-(ENV)AN433/AN434

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB044824.002	Monocyclic	Benzene	mg/kg	0.1	2.1	2.9	60 - 140	72
		Aromatic	Toluene	mg/kg	0.1	1.9	2.9	60 - 140
	Ethylbenzene		mg/kg	0.1	2.1	2.9	60 - 140	71
	m/p-xylene		mg/kg	0.2	4.1	5.8	60 - 140	71
	Surrogates	o-xylene	mg/kg	0.1	2.1	2.9	60 - 140	73
		Dibromofluoromethane (Surrogate)	mg/kg	-	3.6	5	60 - 140	72
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.3	5	60 - 140	85
		d8-toluene (Surrogate)	mg/kg	-	4.5	5	60 - 140	90
		Bromofluorobenzene (Surrogate)	mg/kg	-	5.6	5	60 - 140	112

### VOCs in Water

Method: ME-(AU)-(ENV)AN433/AN434

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB045062.002	Monocyclic	Benzene	µg/L	0.5	47	45.45	60 - 140	104
		Aromatic	Toluene	µg/L	0.5	47	45.45	60 - 140
	Ethylbenzene		µg/L	0.5	48	45.45	60 - 140	106
	m/p-xylene		µg/L	1	95	90.9	60 - 140	104
	o-xylene		µg/L	0.5	48	45.45	60 - 140	105

### Volatile Petroleum Hydrocarbons In Soil

Method: ME-(AU)-(ENV)AN433/AN434/AN410

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB044824.002	Surrogates	TRH C6-C10	mg/kg	25	<25	24.85	60 - 140	91
		TRH C6-C9	mg/kg	20	<20	23.2	60 - 140	85
	Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	3.6	5	60 - 140	72
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.3	5	60 - 140	85
		d8-toluene (Surrogate)	mg/kg	-	4.5	5	60 - 140	90
		Bromofluorobenzene (Surrogate)	mg/kg	-	5.6	5	60 - 140	112
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	7.25	60 - 140	138

### Volatile Petroleum Hydrocarbons In Water

Method: ME-(AU)-(ENV)AN433/AN434/AN410

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB045062.002	Surrogates	TRH C6-C10	µg/L	50	1100	946.63	60 - 140	117
		TRH C6-C9	µg/L	40	870	818.71	60 - 140	106
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	820	639.67	60 - 140	129

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Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref. MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### Hexavalent Chromium in Soil UV/Vis

Method: ME-(AU)-[ENV]AN075/AN201

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120709.002	LB045093.006	Hexavalent Chromium, Cr6+	mg/kg	0.5	16	<0.5	20	78
SE120709.012	LB045093.018	Hexavalent Chromium, Cr6+	mg/kg	0.5	10	<0.5	20	52 ⊕
SE120709.042	LB045094.021	Hexavalent Chromium, Cr6+	mg/kg	0.5	16	<0.5	20	80

### Hexavalent Chromium in water by Discrete Analyser

Method: ME-(AU)-[ENV]AN283

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120709.037	LB044812.011	Hexavalent Chromium, Cr6+	mg/L	0.005	0.049	<0.005	0.05	94
SE120718.001	LB044812.013	Hexavalent Chromium, Cr6+	mg/L	0.005	0.051	<0.005	0.05	96

### Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311/AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120683.001	LB045071.006	Mercury	mg/L	0.0001	0.0081	<0.0001	0.008	101

### Mercury in Soil

Method: ME-(AU)-[ENV]AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120705.004	LB044936.004	Mercury	mg/kg	0.01	0.19	<0.01	0.2	93
SE120709.010	LB044998.004	Mercury	mg/kg	0.01	0.22	0.03	0.2	94
SE120709.030	LB045000.004	Mercury	mg/kg	0.01	0.24	0.04	0.2	101

### OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN400/AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120708.003	LB044915.012	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	0	-	-
		Alpha BHC	mg/kg	0.1	<0.1	0	-	-
		Lindane	mg/kg	0.1	<0.1	0	-	-
		Heptachlor	mg/kg	0.1	0.2	0	0.2	112
		Aldrin	mg/kg	0.1	0.2	0	0.2	107
		Beta BHC	mg/kg	0.1	<0.1	0	-	-
		Delta BHC	mg/kg	0.1	0.2	0	0.2	100
		Heptachlor epoxide	mg/kg	0.1	<0.1	0	-	-
		o,p'-DDE	mg/kg	0.1	<0.1	0	-	-
		Alpha Endosulfan	mg/kg	0.2	<0.2	0	-	-
		Gamma Chlordane	mg/kg	0.1	<0.1	0	-	-
		Alpha Chlordane	mg/kg	0.1	<0.1	0	-	-
		trans-Nonachlor	mg/kg	0.1	<0.1	0	-	-
		p,p'-DDE	mg/kg	0.1	<0.1	0	-	-
		Dieldrin	mg/kg	0.2	<0.2	0	0.2	98
		Endrin	mg/kg	0.2	0.2	0	0.2	114
		o,p'-DDD	mg/kg	0.1	<0.1	0	-	-
		o,p'-DDT	mg/kg	0.1	<0.1	0	-	-
		Beta Endosulfan	mg/kg	0.2	<0.2	0	-	-
		p,p'-DDD	mg/kg	0.1	<0.1	0	-	-
		p,p'-DDT	mg/kg	0.1	0.2	0	0.2	96
		Endosulfan sulphate	mg/kg	0.1	<0.1	0	-	-
		Endrin Aldehyde	mg/kg	0.1	<0.1	0	-	-
		Methoxychlor	mg/kg	0.1	<0.1	0	-	-
		Endrin Ketone	mg/kg	0.1	<0.1	0	-	-
		Isodrin	mg/kg	0.1	<0.1	0	-	-
		Mirex	mg/kg	0.1	<0.1	0	-	-
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0.1	-	100	
SE120709.009	LB044916.006	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Lindane	mg/kg	0.1	<0.1	<0.1	-	-
		Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	117
		Aldrin	mg/kg	0.1	0.2	<0.1	0.2	108
		Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	103
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-(ENV)QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### OC Pesticides in Soil (continued)

Method: ME-(AU)-(ENV)AN400/AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120709.009	LB044916.006	Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
		Dieldrin	mg/kg	0.2	0.2	<0.2	0.2	101
		Endrin	mg/kg	0.2	0.2	<0.2	0.2	118
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	-
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDT	mg/kg	0.1	0.2	<0.1	0.2	97
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
		Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-
		Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
		Mirex	mg/kg	0.1	<0.1	<0.1	-	-
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	-	107	

### OP Pesticides in Soil

Method: ME-(AU)-(ENV)AN400/AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%	
SE120708.004	LB044915.015	Dichlorvos	mg/kg	0.5	2.5	0	2	124	
		Dimethoate	mg/kg	0.5	<0.5	0	-	-	
		Diazinon (Dimpylate)	mg/kg	0.5	2.4	0	2	120	
		Fenitrothion	mg/kg	0.2	<0.2	0	-	-	
		Malathion	mg/kg	0.2	<0.2	0	-	-	
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.3	0	2	117	
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	0	-	-	
		Bromophos Ethyl	mg/kg	0.2	<0.2	0	-	-	
		Methidathion	mg/kg	0.5	<0.5	0	-	-	
		Ethion	mg/kg	0.2	2.2	0	2	110	
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	0	-	-	
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.52	0.5	102
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.52	0.5	98	
		SE120709.022	LB044916.019	Dichlorvos	mg/kg	0.5	2.0	<0.5	2
Dimethoate	mg/kg			0.5	<0.5	<0.5	-	-	
Diazinon (Dimpylate)	mg/kg			0.5	1.7	<0.5	2	84	
Fenitrothion	mg/kg			0.2	<0.2	<0.2	-	-	
Malathion	mg/kg			0.2	<0.2	<0.2	-	-	
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg			0.2	1.7	<0.2	2	85	
Parathion-ethyl (Parathion)	mg/kg			0.2	<0.2	<0.2	-	-	
Bromophos Ethyl	mg/kg			0.2	<0.2	<0.2	-	-	
Methidathion	mg/kg			0.5	<0.5	<0.5	-	-	
Ethion	mg/kg			0.2	1.6	<0.2	2	81	
Azinphos-methyl (Guthion)	mg/kg			0.2	<0.2	<0.2	-	-	
Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	0.5	86		
d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.6	0.5	90			

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-(ENV)AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120709.022	LB044916.018	Naphthalene	mg/kg	0.1	4.7	<0.1	4	117
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Acenaphthylene	mg/kg	0.1	4.9	<0.1	4	122
		Acenaphthene	mg/kg	0.1	4.9	<0.1	4	121
		Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
		Phenanthrene	mg/kg	0.1	5.0	<0.1	4	126
		Anthracene	mg/kg	0.1	5.0	<0.1	4	126
		Fluoranthene	mg/kg	0.1	5.0	<0.1	4	125
		Pyrene	mg/kg	0.1	4.8	<0.1	4	121
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref. MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%	
SE120709.022	LB044916.018	Chrysene	mg/kg	0.1	<0.1	<0.1	-	-	
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-	
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-	
		Benzo(a)pyrene	mg/kg	0.1	4.5	<0.1	4	113	
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	-	
		Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	-	-	
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	-	-	
		Total PAH	mg/kg	0.8	39	<0.8	-	-	
		Carcinogenic PAHs (as BaP TEQ)*	TEQ	0.2	4.5	<0.2	-	-	
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	-	86
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	86
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.6	-	90

### Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120709.022	LB045103.004	Total Phenols	mg/kg	0.1	2.9	0.1	2.5	110

### Total Phenolics in Water

Method: ME-(AU)-[ENV]AN289

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120745.001	LB044854.009	Total Phenols	mg/L	0.01	0.25	0.01	0.25	93

### Total Recoverable Metals In Soil by ICPOES from EPA 200.8 Digest

Method: ME-(AU)-[ENV]AN40/AN320

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120705.004	LB044930.004	Arsenic, As	mg/kg	3	40	<3	50	77
		Cadmium, Cd	mg/kg	0.3	43	<0.3	50	85
		Copper, Cu	mg/kg	0.5	50	6.7	50	87
		Lead, Pb	mg/kg	1	48	7	50	82
		Nickel, Ni	mg/kg	0.5	52	5.5	50	92
		Zinc, Zn	mg/kg	0.5	54	7.2	50	94
SE120709.010	LB044995.004	Arsenic, As	mg/kg	3	42	4	50	76
		Beryllium, Be	mg/kg	0.3	2.5	0.8	2.5	69
		Boron, B	mg/kg	5	7	<5	10	72
		Cadmium, Cd	mg/kg	0.3	42	<0.3	50	85
		Cobalt, Co	mg/kg	0.3	55	18	50	74
		Copper, Cu	mg/kg	0.5	60	23	50	73
		Lead, Pb	mg/kg	1	82	62	50	40
		Manganese, Mn	mg/kg	0.3	1200	1500	50	-618
		Nickel, Ni	mg/kg	0.5	50	9.0	50	82
		Selenium, Se	mg/kg	2	7	<2	10	68
SE120709.030	LB044996.004	Zinc, Zn	mg/kg	0.5	73	34	50	76
		Arsenic, As	mg/kg	3	50	10	50	79
		Beryllium, Be	mg/kg	0.3	2.64396313364	0.8	2.5	73
		Boron, B	mg/kg	5	12.67518433175	7	10	56
		Cadmium, Cd	mg/kg	0.3	40	<0.3	50	79
		Cobalt, Co	mg/kg	0.3	50.66198156682	13	50	76
		Copper, Cu	mg/kg	0.5	61	20	50	83
		Lead, Pb	mg/kg	1	70	32	50	76
		Manganese, Mn	mg/kg	0.3	76.3894009216	640	50	-125
		Nickel, Ni	mg/kg	0.5	61	24	50	75
		Selenium, Se	mg/kg	2	6.73546082949	<2	10	64
		Zinc, Zn	mg/kg	0.5	120	79	50	75

### Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120709.035	LB044860.004	Arsenic, As	µg/L	1	19	<1	20	96
		Beryllium, Be	µg/L	1	21	<1	20	103
		Boron, B	µg/L	5	16	<5	20	102
		Cadmium, Cd	µg/L	0.1	20	<0.1	20	100

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Trace Metals (Dissolved) in Water by ICPMS (continued)

Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE120709.035	LB044860.004	Cobalt, Co	µg/L	1	19	<1	20	94
		Copper, Cu	µg/L	1	19	<1	20	96
		Lead, Pb	µg/L	1	20	<1	20	99
		Manganese, Mn	µg/L	1	20	<1	20	99
		Nickel, Ni	µg/L	1	19	<1	20	94
		Selenium, Se	µg/L	1	20	<1	20	100
		Zinc, Zn	µg/L	5	24	<5	20	100

VOC's in Soil

Method: ME-(AU)-[ENV]AN433/AN434

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%			
SE120709.015	LB044824.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	2.6	<0.1	2.9	88		
			Toluene	mg/kg	0.1	2.4	<0.1	2.9	82		
			Ethylbenzene	mg/kg	0.1	2.8	<0.1	2.9	95		
			m/p-xylene	mg/kg	0.2	5.6	<0.2	5.8	96		
			o-xylene	mg/kg	0.1	2.9	<0.1	2.9	99		
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-		
			Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	4.5	3.7	5	91	
		d4-1,2-dichloroethane (Surrogate)		mg/kg	-	5.1	4.1	5	102		
		d8-toluene (Surrogate)		mg/kg	-	5.2	4.2	5	104		
		Bromofluorobenzene (Surrogate)		mg/kg	-	6.4	5.2	5	128		
		Totals	Total Xylenes*	mg/kg	0.3	8.4	<0.3	-	-		
			Total BTEX*	mg/kg	0.6	16	<0.6	-	-		
		SE120709.042	LB044824.026	Monocyclic Aromatic	Benzene	mg/kg	0.1	2.3	<0.1	2.9	80
					Toluene	mg/kg	0.1	2.3	<0.1	2.9	80
	Ethylbenzene			mg/kg	0.1	2.3	<0.1	2.9	78		
	m/p-xylene			mg/kg	0.2	4.6	<0.2	5.8	79		
	o-xylene			mg/kg	0.1	2.3	<0.1	2.9	80		
Polycyclic	Naphthalene			mg/kg	0.1	<0.1	<0.1	-	-		
	Surrogates			Dibromofluoromethane (Surrogate)	mg/kg	-	4.2	3.5	5	85	
d4-1,2-dichloroethane (Surrogate)				mg/kg	-	5.7	4.5	5	114		
d8-toluene (Surrogate)				mg/kg	-	5.3	4.2	5	106		
Bromofluorobenzene (Surrogate)				mg/kg	-	5.8	4.4	5	115		
Totals	Total Xylenes*			mg/kg	0.3	6.9	<0.3	-	-		
	Total BTEX*			mg/kg	0.6	14	<0.6	-	-		

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433/AN434/AN410

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%			
SE120709.015	LB044824.005	Surrogates	TRH C6-C10	mg/kg	25	<25	<25	24.65	91		
			TRH C6-C9	mg/kg	20	21	<20	23.2	92		
			Dibromofluoromethane (Surrogate)	mg/kg	-	4.5	3.7	5	91		
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	5.1	4.1	5	102		
			d8-toluene (Surrogate)	mg/kg	-	5.2	4.2	5	104		
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.4	5.2	5	128		
		VPH F	Benzene (F0)	mg/kg	0.1	2.6	<0.1	-	-		
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	7.25	87		
		SE120709.042	LB044824.026	Surrogates	TRH C6-C10	mg/kg	25	<25	<25	24.65	88
					TRH C6-C9	mg/kg	20	22	<20	23.2	93
	Dibromofluoromethane (Surrogate)			mg/kg	-	4.2	3.5	5	85		
	d4-1,2-dichloroethane (Surrogate)			mg/kg	-	5.7	4.5	5	114		
	d8-toluene (Surrogate)			mg/kg	-	5.3	4.2	5	106		
	Bromofluorobenzene (Surrogate)			mg/kg	-	5.8	4.4	5	115		
VPH F	Benzene (F0)			mg/kg	0.1	2.3	<0.1	-	-		
Bands	TRH C6-C10 minus BTEX (F1)			mg/kg	25	<25	<25	7.25	109		

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Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here:  
<http://www.au.sgs.com/sgs-mp-au-env-qu-022-qa-qc-plan-en-11.pdf>

- \* Non-accredited analysis.
- Sample not analysed for this analyte.
- ^ Analysis performed by external laboratory.

- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.

- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- ⑥ LOR was raised due to sample matrix interference.
- ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- ⑨ Recovery failed acceptance criteria due to sample heterogeneity.
- † Refer to Analytical Report comments for further information.

This document is issued, on the Client's behalf, by the Company under its General Conditions of Service, available on request and accessible at <http://www.sgs.com/en/Terms-and-Conditions/General-Conditions-of-Services-English.aspx>. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any other holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This test report shall not be reproduced, except in full.

CoC received 12/11/13 @ 3:25 PM

0304

### CHAIN OF CUSTODY FORM

1/10

0304

**SMEC OFFICE:** Canberra  
**PROJECT:** OCB  
**PROJECT NUMBER:** 302269  
**PROJECT MANAGER:** Nathalie O'Keefe  
**SAMPLED BY:** John O'Brien  
**DATE SAMPLED:** 12/9/13  
**RELINQUISHED BY:** John O'Brien  
**RECEIVED BY:** Benji  
**DATE/TIME:** 12/9/13 10:00

**TURNAROUND REQUIREMENTS:**  Standard - 5 day TAT  
 Non Standard (TAT due date):  
**LAB QUOTE NO:** ENV1-24568  
**CONTRACT PH:** G239 1967  
**COC SEQUENCE NUMBER (Circle):** 1  
**OFF:** 1 2 3 4 5 6 7  
**RECEIVED BY:** [Signature]  
**DATE/TIME:** 12/9/13

**LAB:** SGS Australia  
**ATTENTION:**  
**DISPATCH TO ADDRESS & PHONE NO.:** 16/33 Maddox St Alexandria NSW 2015  
**RECEIVED BY:** Benji  
**DATE/TIME:** 12/9/13

**Special Laboratory Instructions:**

SAMPLE DETAILS					ANALYSIS REQUIRED			COMMENTS	
LAB ID	SAMPLE ID	DATE/TIME	SAMPLE MATRIX	CONTAINER TYPE & PRESERVATIVE	TOTAL NO. CONTAINERS	Hold	IR4	ATX	
1	TR01-0-0	10/9/13	S	JAR	1	X	X	X	
	TR01-0-5	10/9/13	S		1	X	X	X	
	TR01-1-D	10/9/13	S		1	X	X	X	
2	TR02-0-0	10/9/13	1		1	X	X	X	
	TR02-0-5	10/9/13	1		1	X	X	X	
	TR02-1-0	10/9/13	1		1	X	X	X	
	TR02-1-3	10/9/13	1		1	X	X	X	
	TR02-2-0	10/9/13	1		1	X	X	X	
3	TR03-0-0	10/9/13	1		1	X	X	X	
	TR03-0-5	10/9/13	1		1	X	X	X	
	TR03-1-0	10/9/13	1		1	X	X	X	
<b>TOTAL</b>					11	8	8	8	

Received by: [Signature] 12/9/13  
 By: [Signature] 10:00  
 Samples Intact: [Signature]  
 Dec/Cooler Park: [Signature]  
 Temperature on Receipt: 5°C  
 Storage Location: [Signature]  
 SCS REF No: 302269-1A

Notes: Low reporting limits required for groundwater as specified by SMEC Australia Pty Ltd. Copies: WHITE: send to lab, YELLOW: to be placed in project file, PINK: to be retained in CoC book



# CHAIN OF CUSTODY FORM

6/10

0309

**SMEC OFFICE:** CANBERRA  
**PROJECT:** 006  
**PROJECT NUMBER:** 5007304  
**PROJECT MANAGER:** NATHAN OTOOLE  
**SAMPLED BY:** JOHN O'BRIEN  
**DATE SAMPLED:** 10/9/2013  
**REQUISITIONED BY:** [Signature]  
**RECEIVED BY:** [Signature]  
**LAB QUOTE NO.:** 02011904  
**CONTACT PH:** 02611904  
**RELINQUISHED BY:** [Signature]  
**RECEIVED BY:** [Signature]  
**LAB:** S&S AUSTRALIA  
**ATTENTION:**  
**DISPATCH TO (ADDRESS & PHONE NO.):** 16/33 MADDOX ST. ALEXANDRIA NSW 2015  
**DATE/TIME:** 10/9/2013

SAMPLE DETAILS					ANALYSIS REQUIRED							COMMENTS
LAB ID	SAMPLE ID	DATE / TIME	SAMPLE MATRIX	CONTAINER TYPE & PRESERVATIVE	TOTAL NO. CONTAINERS	TRH	BTEX	OCPI/OP	13 Metals NEPM	PAH	Explosive Site	
18	TP18-1.0	9/9/2013	S	JAR	1	X			X			
	TP18-0.5	10/9/2013			1	X						
	TP18-1.0				1	X						
	TP18-0.5				1	X						
19	TP19-0.5	10/9/2013			1	X				X		
	TP19-1.0				1	X						
	TP19-0.5				1	X						
	TP19-1.0				1	X						
20	TP20-0.5				1	X				X		
	TP20-1.0				1	X						
21	TP21-0.5				1	X				X		
	TP21-1.0				1	X						
	TP21-0.5				1	X						
	TP21-1.0				1	X						
<b>TOTAL</b>					11	8	3	3	1	3	3	1

Notes: Low reporting limits required for groundwater as specified by SMEC Australia Pty Ltd.

Copy: WHITE: send to lab, YELLOW: to be placed in project file, PINK: to be retained in OAC book

0157





# CHAIN OF CUSTODY FORM

10/10

0313

SMEC OFFICE: Canberra

PROJECT: OC2

PROJECT NUMBER: 2007309

PROJECT MANAGER: ANTHONY O'CONNOR

SAMPLED BY: ANTHONY O'CONNOR

DATE SAMPLED: 10/9/2013

RELIQUISHED BY: [Signature]

RECEIVED BY: ALEXANDRIA NSW 2015

TURNAROUND REQUIREMENTS:  Standard - 5 day TAT  Non Standard TAT (List due date):

LAB: 665 AUSTRALIA

ATTENTION:

DISPATCH TO ADDRESS & PHONE NO: 16/33 MADDER ST.

COG SEQUENCE NUMBER (CIMA):

COG: 1 2 3 4 5 6 7

OP: 1 2 3 4 5 6 7

Special Laboratory Instructions:

ANALYSIS REQUIRED

COMMENTS

\* Please FUD OC110 + OC113 to Eurofins Sydney, chilled condition

LAB ID	SAMPLE ID	DATE / TIME	SAMPLE MATRIX	CONTAINER TYPE & PRESERVATIVE	TOTAL NO. CONTAINERS	TRH	BTEX	PAH	PCB	13 Metals Nept	Phenols	OC/OPP	Asbestos	TRH Cert	Explosive Site
	OC 108	10/9/2013	S	JAR	1	X	X	X	X	X	X	X	X		X
	OC 109	11/09/2013	W		1	X	X	X	X	X	X	X	X		
	OC 110	11/09/2013			1	X	X	X	X	X	X	X	X		
	OC 111	11/09/2013			1	X	X	X	X	X	X	X	X		
	OC 112	11/09/2013			1	X	X	X	X	X	X	X	X		
	OC 113	11/09/2013			1	X	X	X	X	X	X	X	X		
	The Spade	9/9/2013	W	jar	2	X	X	X	X	X	X	X	X		
	The Spade	11/09/2013	S	jar	1	X	X	X	X	X	X	X	X		
	The Spade	10/9/2013	S	jar	1	X	X	X	X	X	X	X	X		
	TP28 - 1-0	11/9/13	S	jar	1	X	X	X	X	X	X	X	X		
	TP28 - 2-0	11/9/13	S	jar	1	X	X	X	X	X	X	X	X		
<b>TOTAL</b>					10/13	7	8	6	4	6	4	4	5	1	1

Notes: Low reporting limits required for groundwater as specified by SMEC Australia Pty Ltd.

Copies: WHITE: send to lab, YELLOW: to be placed in project file, PINK: to be retained in COC book

13/9/13  
ToceFast  
6601608



AUSTRALIA – ENVIRONMENTAL SERVICES SYDNEY – PROFORMA FORM  
SAMPLE INFORMATION

Approved: D. Liang

JOB No. SE 120709 <sup>M</sup>

Sample No.	P 100ml UP	P 250ml UP	P 500ml UP	P 1L UP	G 100 Amber UP	G 200 Amber UP	G 500 Amber UP	G 1L Amber UP	G 40ml vial UP	G 40ml Vial <del>HCl</del> <sup>HNO<sub>3</sub></sup>	P 100ml HCl	G 40ml Vial H <sub>2</sub> SO <sub>4</sub>	P 100ml H <sub>2</sub> SO <sub>4</sub>	P 250ml H <sub>2</sub> SO <sub>4</sub>	G 500ml Amber H <sub>2</sub> SO <sub>4</sub>	G 1L H <sub>2</sub> SO <sub>4</sub>	P 100/250ml HN03 Total	P 100ml HN03 Filtered	P 250ml NaOH	P 250ml Zn Acetate	Plastic Bag	G 250ml Soil Jar	100ml water bottle	Sample Matrix	Lab Bottles Supplied By	Comments	
1-3435, 39, 42																								Soil	SGS	Full	
35, 36, 37					1				2															Water	SGS	Full	
40								2																"	"	"	
41								1																Soil	SGS	Full	
66 samples on hold																											



## SAMPLE RECEIPT ADVICE

SE120709A

### CLIENT DETAILS

Contact Nathalie O'Toole  
Client SMEC Australia Pty Ltd - ACT  
Address Sun Micro Building  
Suite 2, Level 1  
243 Northbourne Avenue  
LYNEHAM ACT 2602  
Telephone 02 6234 1900  
Facsimile 02 6234 1966  
Email Nathalie.O'Toole@smec.com  
Project **3002369 - OCB - Explosives**  
Order Number **0309-0313**  
Samples 2

### LABORATORY DETAILS

Manager Huong Crawford  
Laboratory SGS Alexandria Environmental  
Address Unit 16, 33 Maddox St  
Alexandria NSW 2015  
Telephone +61 2 8594 0400  
Facsimile +61 2 8594 0499  
Email au.environmental.sydney@sgs.com  
Samples Received Thu 12/9/2013  
Report Due Mon 23/9/2013  
SGS Reference **SE120709A**

### SUBMISSION DETAILS

This is to confirm that 2 samples were received on Thursday 12/9/2013. Results are expected to be ready by Monday 23/9/2013. Please quote SGS reference SE120709A when making enquiries. Refer below for details relating to sample integrity upon receipt.

Sample counts by matrix	1 Soil, 1 Water	Type of documentation received	COC
Date documentation received	12/9/13@3:25pm	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	3°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice	Samples clearly labelled	Yes
Complete documentation received	Yes		

Samples will be held for one month for water samples and two months for soil samples from date of report, unless otherwise instructed.

### COMMENTS

Explosives subcontracted to Leeder Consulting, 4 - 5, 18 Redland Drive Mitcham VIC, NATA Accreditation Number 14429.

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To the extent not inconsistent with the other provisions of this document and unless specifically agreed otherwise in writing by SGS, all SGS services are rendered in accordance with the applicable SGS General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions/General-Conditions-of-Services-English.aspx> as at the date of this document. Attention is drawn to the limitations of liability and to the clauses of indemnification.



# SAMPLE RECEIPT ADVICE

SE120709A

## CLIENT DETAILS

Client SMEC Australia Pty Ltd - ACT

Project 3002369 - OCB - Explosives

## SUMMARY OF ANALYSIS

No.	Sample ID	Explosives in Soil
019	TP19-0.0	16

CONTINUED OVERLEAF

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.



# SAMPLE RECEIPT ADVICE

SE120709A

## CLIENT DETAILS

Client **SMEC Australia Pty Ltd - ACT**

Project **3002369 - OCB - Explosives**

## SUMMARY OF ANALYSIS

No.	Sample ID	Explosives in Water
037	QC 109	16

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The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.



A.B.N. 44 000 964 278  
3 - 5, 18 Redland Drive  
Mitcham, Vic, 3132  
Telephone: (03) 9874 1988  
Fax: (03) 9874 1933

Chartered Chemists  
27-Sep-2013

**REPORT NUMBER: M132032**  
Site/Client Ref: SE120709A

SMEC Canberra  
Sun Micro Building  
Suite 2, Level 1  
243 Northbourne Avenue  
Australian Capital Territory 2602  
Attention: Nathalie O'Toole

## CERTIFICATE OF ANALYSIS

**SAMPLES:** Two samples were received for analysis

**DATE RECEIVED:** 16-Sep-2013

**DATE COMMENCED:** 16-Sep-2013

**METHODS:** See Attached Results

**RESULTS:** Please refer to attached pages for results.

Note: Results are based on samples as received at SGS Leeder Consulting's laboratories

Note: insufficient water sample for duplicate analysis.

**REPORTED BY:**

Yan Wang  
Senior Chemist



NATA Accredited Laboratory Number: 2562

Accredited for compliance  
with ISO/IEC 17025.

**(I) RESULTS**

**Report N°: M132032**

**Matrix: Soil**

**Method: MA-1129.SL.01 Explosives**

Sample units are expressed in mg/kg on a dry weight basis unless otherwise stated

Analyte Name	PQL	Leeder ID	2013024356	2013024357	2013024358
		Client ID	SE120709A-19 TP19-0.0	SE120709A-19 TP19-0.0	Method
				Duplicate	Blank
HMX	0.1		nd	nd	nd
RDX	0.1		nd	nd	nd
1,3,5-TNB	0.1		nd	nd	nd
1,3-DNB	0.1		nd	nd	nd
Tetryl	0.1		nd	nd	nd
NB	0.1		nd	nd	nd
TNT	0.1		nd	nd	nd
4-Amino-2,6-Dinitrotoluene	0.1		nd	nd	nd
2-Amino-4,6-Dinitrotoluene	0.1		nd	nd	nd
DNT	0.1		nd	nd	nd
2-MNT	0.1		nd	nd	nd
3-MNT	0.1		nd	nd	nd
4-MNT	0.1		nd	nd	nd
PETN	0.1		nd	nd	nd
NG	0.1		nd	nd	nd
1,4-DNB	0.1		nd	nd	nd

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**(I) RESULTS**

**Report N°: M132032**

**Matrix: Water**

**Method: MA-1129.WW.01 Explosives**

Sample units are expressed in mg/L

Analyte Name	PQL	Leeder ID	2013024359	2013024361
		Client ID	SE120709A-37 QC109	Method
				Blank
2-Amino-4,6-Dinitrotoluene	0.001		nd	nd
4-Amino-2,6-Dinitrotoluene	0.001		nd	nd
1,3-DNB	0.001		nd	nd
1,4-DNB	0.001		nd	nd
DNT	0.001		nd	nd
HMX	0.001		nd	nd
2-MNT	0.001		nd	nd
3-MNT	0.001		nd	nd
4-MNT	0.001		nd	nd
NB	0.001		nd	nd
NG	0.001		nd	nd
PETN	0.001		nd	nd
RDX	0.001		nd	nd
Tetryl	0.001		nd	nd
1,3,5-TNB	0.001		nd	nd
TNT	0.001		nd	nd



## (II) QUALITY CONTROL

Report N°: M132032

Matrix: Soil

Method: MA-1129.SL.01 Explosives

Quality Control Results are expressed in Percent Recovery of expected result

Analyte Name	Leeder ID	2013024362	2013024363
	Client ID	SE120709A-19 TP19-0.0	SE120709A-19 TP19-0.0
	PQL	Spike	Spike Dup
HMX		101	99
RDX		102	94
1.3.5-TNB		97	97
1.3-DNB		99	97
Tetryl		99	98
NB		97	100
TNT		82	85
4-Amino-2,6-Dinitrotoluene		96	96
2-Amino-4,6-Dinitrotoluene		96	96
DNT		98	98
2-MNT		95	95
3-MNT		95	95
4-MNT		95	93
1.4-DNB		99	97

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## (II) QUALITY CONTROL

Report N°: M132032

Matrix: Water

Method: MA-1129.WW.01 Explosives

Quality Control Results are expressed in Percent Recovery of expected result

Leeder ID	2013024364	2013024365
Client ID	SE120709A-37 QC109	SE120709A-37 QC109
PQL	Spike	Spike Dup

Analyte Name

Analyte Name	PQL	Spike	Spike Dup
2-Amino-4,6-Dinitrotoluene		73	74
4-Amino-2,6-Dinitrotoluene		71	74
1,3-DNB		84	84
1,4-DNB		84	84
DNT		82	86
HMX		107	113
2-MNT		68	65
3-MNT		67	70
4-MNT		68	89
NB		69	86
RDX		93	87
Tetryl		70	69

**QUALIFIERS / NOTES FOR REPORTED RESULTS**

PQL	Practical Quantitation Limit
<i>is</i>	Insufficient Sample to perform this analysis.
T	Tentative identification based on computer library search of mass spectra.
ND	Not Detected – The analyte was not detected above the reported PQL.
NC	Not calculated, Results below PQL
<i>nr</i>	Not Requested for analysis.
R	Rejected Result – results for this analysis failed QC checks.
SQ	Semi-Quantitative result – quantitation based on a generic response factor for this class of analyte.
IM	Inappropriate method of analysis for this compound
U	Unable to provide Quality Control data – high levels of compounds in sample interfered with analysis of QC results.
UF	Unable to provide Quality Control data- Surrogates failed QC checks due to sample matrix effects
L	Analyte detected at a level above the linear response of calibration curve.
E	Estimated result. NATA accreditation does not cover estimated results.
C1	These compounds co-elute.
C2	These compounds co-elute.
CT	Elevated concentration. Results reported from carbon tube analysis
**	Sample shows non-petroleum hydrocarbon profile

**SGS**



**APPENDIX ONE.**

**CHAIN OF CUSTODY DOCUMENT**



## Certificate of Analysis

SMEC Australia Pty Ltd  
Suite 2, Level 1, 243 Northbourne Avenue  
Lyneham  
ACT 2602



NATA Accredited  
Accreditation Number 1261  
Site Number 18217

Accredited for compliance with ISO/IEC 17025.  
The results of the tests, calibrations and/or  
measurements included in this document are traceable  
to Australian/national standards.

Attention: Nathalie O'Toole

Report 392824-S  
Client Reference OCB 3002369  
Received Date Sep 13, 2013

Client Sample ID			QC110 Soil S13-Se10280 Sep 11, 2013	QC113 Soil S13-Se10281 Sep 11, 2013
Sample Matrix				
Eurofins   mgt Sample No.				
Date Sampled				
Test/Reference	LOR	Unit		
<b>Total Recoverable Hydrocarbons - 1999 NEPM Fractions</b>				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	51
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	51
<b>BTEX</b>				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	111	107
<b>Total Recoverable Hydrocarbons - 2013 NEPM Fractions</b>				
Naphthalene <sup>N02</sup>	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1) <sup>N04</sup>	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
<b>Polycyclic Aromatic Hydrocarbons</b>				
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene <sup>N07</sup>	0.5	mg/kg	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5



Client Sample ID			QC110	QC113
Sample Matrix			Soil	Soil
Eurofins   mgt Sample No.			S13-Se10280	S13-Se10281
Date Sampled			Sep 11, 2013	Sep 11, 2013
Test/Reference	LOR	Unit		
<b>Polycyclic Aromatic Hydrocarbons</b>				
Phenanthrene	0.5	mg/kg	< 0.5	0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH	1	mg/kg	< 0.5	0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6
2-Fluorobiphenyl (surr.)	1	%	102	107
p-Terphenyl-d14 (surr.)	1	%	73	89
<b>Organochlorine Pesticides</b>				
Chlordane	0.1	mg/kg	< 0.1	-
4,4'-DDD	0.05	mg/kg	< 0.05	-
4,4'-DDE	0.05	mg/kg	< 0.05	-
4,4'-DDT	0.05	mg/kg	< 0.05	-
a-BHC	0.05	mg/kg	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-
Methoxychlor	0.2	mg/kg	< 0.2	-
Toxaphene	1	mg/kg	< 1	-
Dibutylchlorendate (surr.)	1	%	101	-
Tetrachloro-m-xylene (surr.)	1	%	87	-
<b>Polychlorinated Biphenyls (PCB)</b>				
Aroclor-1016	0.5	mg/kg	< 0.5	-
Aroclor-1232	0.5	mg/kg	< 0.5	-
Aroclor-1242	0.5	mg/kg	< 0.5	-
Aroclor-1248	0.5	mg/kg	< 0.5	-
Aroclor-1254	0.5	mg/kg	< 0.5	-
Aroclor-1260	0.5	mg/kg	< 0.5	-
Total PCB	0.5	mg/kg	< 0.5	-
Dibutylchlorendate (surr.)	1	%	101	-
<b>Speciated Phenols</b>				
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	-
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	-
2,4,5-Trichlorophenol	0.5	mg/kg	< 0.5	-
2,4,6-Trichlorophenol	0.5	mg/kg	< 0.5	-
Phenol	0.5	mg/kg	< 0.5	-
2-Methylphenol (o-Cresol)	0.5	mg/kg	< 0.5	-
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	< 1	-
2-Chlorophenol	0.5	mg/kg	< 0.5	-

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Client Sample ID			QC110	QC113
Sample Matrix			Soil	Soil
Eurofins   mgt Sample No.			S13-Se10280	S13-Se10281
Date Sampled			Sep 11, 2013	Sep 11, 2013
Test/Reference	LOR	Unit		
<b>Speciated Phenols</b>				
2-Nitrophenol	0.5	mg/kg	< 0.5	-
4-Chloro-3-methylphenol	0.5	mg/kg	< 0.5	-
Pentachlorophenol	1	mg/kg	< 1	-
Phenol-d5 (surr.)	1	%	89	-
<b>Organophosphorus Pesticides (OP)</b>				
Chlorpyrifos	0.5	mg/kg	< 0.5	-
Coumaphos	0.5	mg/kg	< 0.5	-
Demeton (total)	1	mg/kg	< 1	-
Diazinon	0.5	mg/kg	< 0.5	-
Dichlorvos	0.5	mg/kg	< 0.5	-
Dimethoate	0.5	mg/kg	< 0.5	-
Disulfoton	0.5	mg/kg	< 0.5	-
Ethoprop	0.5	mg/kg	< 0.5	-
Fenitrothion	0.5	mg/kg	< 0.5	-
Fensulfothion	0.5	mg/kg	< 0.5	-
Fenthion	0.5	mg/kg	< 0.5	-
Methyl azinphos	0.5	mg/kg	< 0.5	-
Malathion	0.5	mg/kg	< 0.5	-
Methyl parathion	0.5	mg/kg	< 0.5	-
Mevinphos	0.5	mg/kg	< 0.5	-
Monocrotophos	10	mg/kg	< 10	-
Parathion	0.5	mg/kg	< 0.5	-
Phorate	0.5	mg/kg	< 0.5	-
Profenofos	0.5	mg/kg	< 0.5	-
Prothiofos	0.5	mg/kg	< 0.5	-
Ronnel	0.5	mg/kg	< 0.5	-
Stirophos	0.5	mg/kg	< 0.5	-
Trichloronate	0.5	mg/kg	< 0.5	-
Triphenylphosphate (surr.)	1	%	91	-
Chromium (hexavalent)	1	mg/kg	< 1	< 1
% Moisture	0.1	%	12	15
Asbestos			see attached	see attached
<b>Heavy Metals</b>				
Arsenic	2	mg/kg	3.2	3.8
Beryllium	2	mg/kg	< 2	< 2
Boron	10	mg/kg	< 10	< 10
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Cobalt	5	mg/kg	6.7	9.1
Copper	5	mg/kg	11	16
Lead	5	mg/kg	25	36
Manganese	5	mg/kg	480	470
Mercury	0.05	mg/kg	< 0.05	< 0.05
Nickel	5	mg/kg	9.0	15
Selenium	2	mg/kg	< 2	2.1
Zinc	5	mg/kg	33	120

**Sample History**

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.  
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: E004 Petroleum Hydrocarbons (TPH)	Sydney	Sep 18, 2013	14 Day
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LM-LTM-ORG2010	Sydney	Sep 18, 2013	14 Day
BTEX - Method: E029/E016 BTEX	Sydney	Sep 17, 2013	14 Day
Polycyclic Aromatic Hydrocarbons - Method: E007 Polyaromatic Hydrocarbons (PAH)	Sydney	Sep 18, 2013	14 Day
Organochlorine Pesticides - Method: E013 Organochlorine Pesticides (OC)	Sydney	Sep 18, 2013	14 Day
Polychlorinated Biphenyls (PCB) - Method: E013 Polychlorinated Biphenyls (PCB)	Sydney	Sep 18, 2013	28 Day
Speciated Phenols - Method: E008 Speciated Phenols	Sydney	Sep 18, 2013	14 Day
Organophosphorus Pesticides (OP) - Method: E014 Organophosphorus Pesticides (OP)	Sydney	Sep 18, 2013	14 Day
% Moisture - Method: E005 Moisture Content	Sydney	Sep 17, 2013	28 Day
Chromium (hexavalent) - Method: E043 /E057 Total Speciated Chromium	Sydney	Sep 17, 2013	28 Day
Heavy Metals - Method: E022 Acid Extractable metals in Soils	Sydney	Sep 17, 2013	180 Day

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**Company Name:** SMEC Australia Pty Ltd (ACT)  
**Address:** Suite 2, Level 1, 243 Northbourne Avenue  
Lyneham  
ACT 2602  
**Client Job No.:** OCB 3002369

**Order No.:**  
**Report #:** 392824  
**Phone:** 02 6234 1800  
**Fax:**

**Received:** Sep 13, 2013 1:05 PM  
**Due:** Sep 20, 2013  
**Priority:** 5 Day  
**Contact Name:** Nathalie O'Toole

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	BTEX	Polychlorinated Biphenyls (PCB)	Speciated Phenols	Organophosphorus Pesticides (OP)	Total Recoverable Hydrocarbons	NEPM 2013 Metals : Metals M13
Laboratory where analysis is conducted														
Melbourne Laboratory - NATA Site # 1254 & 14271														
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794														
External Laboratory						X								
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID										
QC110	Sep 11, 2013		Soil	S13-Se10280	X	X	X	X	X	X	X	X	X	X
QC113	Sep 11, 2013		Soil	S13-Se10281	X	X	X		X				X	X

## Eurofins | mgt Internal Quality Control Review and Glossary

### General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

### Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

**\*\*NOTE:** pH duplicates are reported as a range NOT as RPD

### UNITS

**mg/kg:** milligrams per Kilogram

**ug/l:** micrograms per litre

**ppb:** Parts per billion

**org/100ml:** Organisms per 100 millilitres

**MPN/100mL:** Most Probable Number of organisms per 100 millilitres

**mg/l:** milligrams per litre

**ppm:** Parts per million

**%:** Percentage

**NTU:** Units

### TERMS

<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>LOR</b>	Limit of Reporting.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery
<b>CRM</b>	Certified Reference Material - reported as percent recovery
<b>Method Blank</b>	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>Batch Duplicate</b>	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
<b>Batch SPIKE</b>	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
<b>USEPA</b>	United States Environment Protection Authority
<b>APHA</b>	American Public Health Association
<b>ASLP</b>	Australian Standard Leaching Procedure (AS4439.3)
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>COC</b>	Chain of Custody
<b>SRA</b>	Sample Receipt Advice
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>NCP</b>	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within

### QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

### QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

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Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
<b>Method Blank</b>						
<b>Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)</b>						
TRH C6-C9	mg/kg	< 20		20	Pass	
TRH C10-C14	mg/kg	< 20		20	Pass	
TRH C15-C28	mg/kg	< 50		50	Pass	
TRH C29-C36	mg/kg	< 50		50	Pass	
<b>Method Blank</b>						
<b>BTEX E029/E016 BTEX</b>						
Benzene	mg/kg	< 0.1		0.1	Pass	
Toluene	mg/kg	< 0.1		0.1	Pass	
Ethylbenzene	mg/kg	< 0.1		0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2		0.2	Pass	
o-Xylene	mg/kg	< 0.1		0.1	Pass	
Xylenes - Total	mg/kg	< 0.3		0.3	Pass	
<b>Method Blank</b>						
<b>Total Recoverable Hydrocarbons - 2013 NEPM Fractions LM-LTM-ORG2010</b>						
Naphthalene	mg/kg	< 0.5		0.5	Pass	
TRH C6-C10	mg/kg	< 20		20	Pass	
TRH C6-C10 less BTEX (F1)	mg/kg	< 20		20	Pass	
TRH >C10-C16	mg/kg	< 50		50	Pass	
TRH >C16-C34	mg/kg	< 100		100	Pass	
TRH >C34-C40	mg/kg	< 100		100	Pass	
<b>Method Blank</b>						
<b>Polycyclic Aromatic Hydrocarbons E007 Polyaromatic Hydrocarbons (PAH)</b>						
Acenaphthene	mg/kg	< 0.5		0.5	Pass	
Acenaphthylene	mg/kg	< 0.5		0.5	Pass	
Anthracene	mg/kg	< 0.5		0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5		0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5		0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5		0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5		0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5		0.5	Pass	
Chrysene	mg/kg	< 0.5		0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5		0.5	Pass	
Fluoranthene	mg/kg	< 0.5		0.5	Pass	
Fluorene	mg/kg	< 0.5		0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5		0.5	Pass	
Naphthalene	mg/kg	< 0.5		0.5	Pass	
Phenanthrene	mg/kg	< 0.5		0.5	Pass	
Pyrene	mg/kg	< 0.5		0.5	Pass	
<b>Method Blank</b>						
<b>Organochlorine Pesticides E013 Organochlorine Pesticides (OC)</b>						
4,4'-DDD	mg/kg	< 0.05		0.05	Pass	
4,4'-DDE	mg/kg	< 0.05		0.05	Pass	
4,4'-DDT	mg/kg	< 0.05		0.05	Pass	
a-BHC	mg/kg	< 0.05		0.05	Pass	
Aldrin	mg/kg	< 0.05		0.05	Pass	
b-BHC	mg/kg	< 0.05		0.05	Pass	
d-BHC	mg/kg	< 0.05		0.05	Pass	
Dieldrin	mg/kg	< 0.05		0.05	Pass	
Endosulfan I	mg/kg	< 0.05		0.05	Pass	
Endosulfan II	mg/kg	< 0.05		0.05	Pass	



Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05		0.05	Pass	
Endrin	mg/kg	< 0.05		0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05		0.05	Pass	
Endrin ketone	mg/kg	< 0.05		0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05		0.05	Pass	
Heptachlor	mg/kg	< 0.05		0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05		0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05		0.05	Pass	
Methoxychlor	mg/kg	< 0.2		0.2	Pass	
<b>Method Blank</b>						
<b>Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphenyls (PCB)</b>						
Aroclor-1016	mg/kg	< 0.5		0.5	Pass	
Aroclor-1232	mg/kg	< 0.5		0.5	Pass	
Aroclor-1242	mg/kg	< 0.5		0.5	Pass	
Aroclor-1248	mg/kg	< 0.5		0.5	Pass	
Aroclor-1254	mg/kg	< 0.5		0.5	Pass	
Aroclor-1260	mg/kg	< 0.5		0.5	Pass	
Total PCB	mg/kg	< 0.5		0.5	Pass	
<b>Method Blank</b>						
<b>Speciated Phenols E008 Speciated Phenols</b>						
2,4-Dichlorophenol	mg/kg	< 0.5		0.5	Pass	
2,4-Dimethylphenol	mg/kg	< 0.5		0.5	Pass	
2,4,5-Trichlorophenol	mg/kg	< 0.5		0.5	Pass	
2,4,6-Trichlorophenol	mg/kg	< 0.5		0.5	Pass	
Phenol	mg/kg	< 0.5		0.5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.5		0.5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 1		1	Pass	
2-Chlorophenol	mg/kg	< 0.5		0.5	Pass	
2-Nitrophenol	mg/kg	< 0.5		0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 0.5		0.5	Pass	
Pentachlorophenol	mg/kg	< 1		1	Pass	
<b>Method Blank</b>						
<b>Organophosphorus Pesticides (OP) E014 Organophosphorus Pesticides (OP)</b>						
Chlorpyrifos	mg/kg	< 0.5		0.5	Pass	
Coumaphos	mg/kg	< 0.5		0.5	Pass	
Demeton (total)	mg/kg	< 1		1	Pass	
Diazinon	mg/kg	< 0.5		0.5	Pass	
Dichlorvos	mg/kg	< 0.5		0.5	Pass	
Dimethoate	mg/kg	< 0.5		0.5	Pass	
Disulfoton	mg/kg	< 0.5		0.5	Pass	
Ethoprop	mg/kg	< 0.5		0.5	Pass	
Fenitrothion	mg/kg	< 0.5		0.5	Pass	
Fensulfothion	mg/kg	< 0.5		0.5	Pass	
Fenthion	mg/kg	< 0.5		0.5	Pass	
Methyl azinphos	mg/kg	< 0.5		0.5	Pass	
Malathion	mg/kg	< 0.5		0.5	Pass	
Methyl parathion	mg/kg	< 0.5		0.5	Pass	
Mevinphos	mg/kg	< 0.5		0.5	Pass	
Monocrotophos	mg/kg	< 10		10	Pass	
Parathion	mg/kg	< 0.5		0.5	Pass	
Phorate	mg/kg	< 0.5		0.5	Pass	
Profenofos	mg/kg	< 0.5		0.5	Pass	
Prothiofos	mg/kg	< 0.5		0.5	Pass	

Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Ronnel	mg/kg	< 0.5	0.5	Pass	
Stirophos	mg/kg	< 0.5	0.5	Pass	
Trichloronate	mg/kg	< 0.5	0.5	Pass	
<b>Method Blank</b>					
Chromium (hexavalent)	mg/kg	< 1	1	Pass	
<b>Method Blank</b>					
<b>Heavy Metals E022 Acid Extractable metals in Soils</b>					
Arsenic	mg/kg	< 2	2	Pass	
Beryllium	mg/kg	< 2	2	Pass	
Boron	mg/kg	< 10	10	Pass	
Cadmium	mg/kg	< 0.4	0.4	Pass	
Cobalt	mg/kg	< 5	5	Pass	
Copper	mg/kg	< 5	5	Pass	
Lead	mg/kg	< 5	5	Pass	
Manganese	mg/kg	< 5	5	Pass	
Mercury	mg/kg	< 0.05	0.05	Pass	
Nickel	mg/kg	< 5	5	Pass	
Selenium	mg/kg	< 2	2	Pass	
Zinc	mg/kg	< 5	5	Pass	
<b>LCS - % Recovery</b>					
<b>Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)</b>					
TRH C6-C9	%	87	70-130	Pass	
TRH C10-C14	%	90	70-130	Pass	
<b>LCS - % Recovery</b>					
<b>BTEX E029/E016 BTEX</b>					
Benzene	%	104	70-130	Pass	
Toluene	%	90	70-130	Pass	
Ethylbenzene	%	86	70-130	Pass	
m&p-Xylenes	%	79	70-130	Pass	
o-Xylene	%	87	70-130	Pass	
Xylenes - Total	%	82	70-130	Pass	
<b>LCS - % Recovery</b>					
<b>Total Recoverable Hydrocarbons - 2013 NEPM Fractions LM-LTM-ORG2010</b>					
Naphthalene	%	92	70-130	Pass	
TRH C6-C10	%	89	70-130	Pass	
TRH >C10-C16	%	96	70-130	Pass	
<b>LCS - % Recovery</b>					
<b>Polycyclic Aromatic Hydrocarbons E007 Polyaromatic Hydrocarbons (PAH)</b>					
Acenaphthene	%	94	70-130	Pass	
Acenaphthylene	%	129	70-130	Pass	
Anthracene	%	127	70-130	Pass	
Benz(a)anthracene	%	86	70-130	Pass	
Benzo(a)pyrene	%	109	70-130	Pass	
Benzo(b&j)fluoranthene	%	115	70-130	Pass	
Benzo(g,h,i)perylene	%	128	70-130	Pass	
Benzo(k)fluoranthene	%	103	70-130	Pass	
Chrysene	%	118	70-130	Pass	
Dibenz(a,h)anthracene	%	128	70-130	Pass	
Fluoranthene	%	123	70-130	Pass	
Fluorene	%	118	70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	119	70-130	Pass	
Naphthalene	%	110	70-130	Pass	



Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Phenanthrene	%	123	70-130	Pass	
Pyrene	%	123	70-130	Pass	
<b>LCS - % Recovery</b>					
<b>Organochlorine Pesticides E013 Organochlorine Pesticides (OC)</b>					
4.4'-DDD	%	90	70-130	Pass	
4.4'-DDE	%	95	70-130	Pass	
4.4'-DDT	%	97	70-130	Pass	
a-BHC	%	86	70-130	Pass	
Aldrin	%	95	70-130	Pass	
b-BHC	%	101	70-130	Pass	
d-BHC	%	90	70-130	Pass	
Dieldrin	%	92	70-130	Pass	
Endosulfan I	%	94	70-130	Pass	
Endosulfan II	%	92	70-130	Pass	
Endosulfan sulphate	%	93	70-130	Pass	
Endrin	%	98	70-130	Pass	
Endrin aldehyde	%	79	70-130	Pass	
Endrin ketone	%	89	70-130	Pass	
g-BHC (Lindane)	%	93	70-130	Pass	
Heptachlor	%	94	70-130	Pass	
Heptachlor epoxide	%	94	70-130	Pass	
Hexachlorobenzene	%	92	70-130	Pass	
Methoxychlor	%	90	70-130	Pass	
<b>LCS - % Recovery</b>					
<b>Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphenyls (PCB)</b>					
Aroclor-1260	%	104	70-130	Pass	
<b>LCS - % Recovery</b>					
<b>Speciated Phenols E008 Speciated Phenols</b>					
2.4-Dichlorophenol	%	111	30-130	Pass	
2.4-Dimethylphenol	%	112	30-130	Pass	
2.4.5-Trichlorophenol	%	89	30-130	Pass	
2.4.6-Trichlorophenol	%	85	30-130	Pass	
Phenol	%	111	30-130	Pass	
2-Methylphenol (o-Cresol)	%	107	30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	114	30-130	Pass	
2-Chlorophenol	%	107	30-130	Pass	
2-Nitrophenol	%	110	30-130	Pass	
4-Chloro-3-methylphenol	%	93	30-130	Pass	
Pentachlorophenol	%	86	30-130	Pass	
<b>LCS - % Recovery</b>					
<b>Organophosphorus Pesticides (OP) E014 Organophosphorus Pesticides (OP)</b>					
Chlorpyrifos	%	98	70-130	Pass	
Coumaphos	%	89	70-130	Pass	
Diazinon	%	88	70-130	Pass	
Dichlorvos	%	104	70-130	Pass	
Dimethoate	%	91	70-130	Pass	
Disulfoton	%	86	70-130	Pass	
Ethoprop	%	90	70-130	Pass	
Fenitrothion	%	87	70-130	Pass	
Fensulfothion	%	72	70-130	Pass	
Fenthion	%	93	70-130	Pass	
Methyl azinphos	%	86	70-130	Pass	
Malathion	%	96	70-130	Pass	

0105



Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code		
Methyl parathion	%	110	70-130	Pass			
Mevinphos	%	99	70-130	Pass			
Monocrotophos	%	93	70-130	Pass			
Parathion	%	97	70-130	Pass			
Phorate	%	90	70-130	Pass			
Profenofos	%	92	70-130	Pass			
Prothiofos	%	92	70-130	Pass			
Ronnel	%	95	70-130	Pass			
Stirophos	%	87	70-130	Pass			
Trichloronate	%	92	70-130	Pass			
<b>LCS - % Recovery</b>							
Chromium (hexavalent)	%	105	70-130	Pass			
<b>LCS - % Recovery</b>							
<b>Heavy Metals E022 Acid Extractable metals in Soils</b>							
Arsenic	%	92	70-130	Pass			
Beryllium	%	94	70-130	Pass			
Boron	%	86	70-130	Pass			
Cadmium	%	94	70-130	Pass			
Cobalt	%	93	70-130	Pass			
Copper	%	79	70-130	Pass			
Lead	%	97	70-130	Pass			
Manganese	%	103	70-130	Pass			
Mercury	%	94	70-130	Pass			
Nickel	%	98	70-130	Pass			
Selenium	%	93	70-130	Pass			
Zinc	%	95	70-130	Pass			
Test	Lab Sample ID	QA Source	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
<b>Spike - % Recovery</b>							
<b>Total Recoverable Hydrocarbons - 1999 NEPM Fractions</b>				Result 1			
TRH C6-C9	S13-Se10608	NCP	%	83	70-130	Pass	
TRH C10-C14	S13-Se11505	NCP	%	90	70-130	Pass	
<b>Spike - % Recovery</b>							
<b>BTEX</b>				Result 1			
Benzene	S13-Se10608	NCP	%	103	70-130	Pass	
Toluene	S13-Se10608	NCP	%	87	70-130	Pass	
Ethylbenzene	S13-Se10608	NCP	%	82	70-130	Pass	
m&p-Xylenes	S13-Se10608	NCP	%	76	70-130	Pass	
o-Xylene	S13-Se10608	NCP	%	82	70-130	Pass	
Xylenes - Total	S13-Se10608	NCP	%	78	70-130	Pass	
<b>Spike - % Recovery</b>							
<b>Total Recoverable Hydrocarbons - 2013 NEPM Fractions</b>				Result 1			
Naphthalene	S13-Se10608	NCP	%	83	70-130	Pass	
TRH C6-C10	S13-Se10608	NCP	%	84	70-130	Pass	
TRH >C10-C16	S13-Se11505	NCP	%	99	70-130	Pass	
<b>Spike - % Recovery</b>							
<b>Polycyclic Aromatic Hydrocarbons</b>				Result 1			
Acenaphthene	S13-Se10829	NCP	%	91	70-130	Pass	
Acenaphthylene	S13-Se10829	NCP	%	87	70-130	Pass	
Anthracene	S13-Se10829	NCP	%	92	70-130	Pass	
Benz(a)anthracene	S13-Se10829	NCP	%	54	70-130	Fail	Q08
Benzo(a)pyrene	S13-Se10829	NCP	%	88	70-130	Pass	
Benzo(b&j)fluoranthene	S13-Se10829	NCP	%	81	70-130	Pass	
Benzo(g,h,i)perylene	S13-Se10829	NCP	%	91	70-130	Pass	



Test	Lab Sample ID	QA Source	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Benzo(k)fluoranthene	S13-Se10829	NCP	%	92	70-130	Pass	
Chrysene	S13-Se10829	NCP	%	93	70-130	Pass	
Dibenz(a,h)anthracene	S13-Se10829	NCP	%	81	70-130	Pass	
Fluoranthene	S13-Se10829	NCP	%	74	70-130	Pass	
Fluorene	S13-Se10829	NCP	%	88	70-130	Pass	
Indeno(1,2,3-cd)pyrene	S13-Se10829	NCP	%	85	70-130	Pass	
Naphthalene	S13-Se10829	NCP	%	93	70-130	Pass	
Phenanthrene	S13-Se10829	NCP	%	82	70-130	Pass	
Pyrene	S13-Se10829	NCP	%	75	70-130	Pass	
<b>Spike - % Recovery</b>							
<b>Polychlorinated Biphenyls (PCB)</b>				Result 1			
Aroclor-1260	S13-Se09537	NCP	%	80	70-130	Pass	
<b>Spike - % Recovery</b>							
<b>Speciated Phenols</b>				Result 1			
2,4-Dichlorophenol	S13-Se10829	NCP	%	100	30-130	Pass	
2,4-Dimethylphenol	S13-Se10829	NCP	%	109	30-130	Pass	
2,4,5-Trichlorophenol	S13-Se10829	NCP	%	68	30-130	Pass	
2,4,6-Trichlorophenol	S13-Se10829	NCP	%	79	30-130	Pass	
Phenol	S13-Se10829	NCP	%	107	30-130	Pass	
2-Methylphenol (o-Cresol)	S13-Se10829	NCP	%	107	30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S13-Se10829	NCP	%	95	30-130	Pass	
2-Chlorophenol	S13-Se10829	NCP	%	101	30-130	Pass	
2-Nitrophenol	S13-Se10829	NCP	%	101	30-130	Pass	
4-Chloro-3-methylphenol	S13-Se10829	NCP	%	82	30-130	Pass	
Pentachlorophenol	S13-Se10829	NCP	%	81	30-130	Pass	
<b>Spike - % Recovery</b>							
<b>Organophosphorus Pesticides (OP)</b>				Result 1			
Chlorpyrifos	S13-Se05989	NCP	%	98	70-130	Pass	
Coumaphos	S13-Se05989	NCP	%	93	70-130	Pass	
Diazinon	S13-Se05989	NCP	%	92	70-130	Pass	
Dichlorvos	S13-Se05989	NCP	%	123	70-130	Pass	
Dimethoate	S13-Se05989	NCP	%	101	70-130	Pass	
Disulfoton	S13-Se05989	NCP	%	77	70-130	Pass	
Ethoprop	S13-Se05989	NCP	%	102	70-130	Pass	
Fenitrothion	S13-Se05989	NCP	%	99	70-130	Pass	
Fensulfothion	S13-Se05989	NCP	%	119	70-130	Pass	
Fenthion	S13-Se05989	NCP	%	90	70-130	Pass	
Methyl azinphos	S13-Se05989	NCP	%	76	70-130	Pass	
Malathion	S13-Se05989	NCP	%	97	70-130	Pass	
Methyl parathion	S13-Se05989	NCP	%	121	70-130	Pass	
Mevinphos	S13-Se05989	NCP	%	107	70-130	Pass	
Monocrotophos	S13-Se05989	NCP	%	92	70-130	Pass	
Parathion	S13-Se05989	NCP	%	97	70-130	Pass	
Phorate	S13-Se05989	NCP	%	93	70-130	Pass	
Profenofos	S13-Se05989	NCP	%	115	70-130	Pass	
Prothiofos	S13-Se05989	NCP	%	118	70-130	Pass	
Ronnel	S13-Se05989	NCP	%	93	70-130	Pass	
Stirophos	S13-Se05989	NCP	%	78	70-130	Pass	
Trichloronate	S13-Se05989	NCP	%	93	70-130	Pass	
<b>Spike - % Recovery</b>							
<b>Heavy Metals</b>				Result 1			
Arsenic	S13-Se10616	NCP	%	77	70-130	Pass	
Cadmium	S13-Se10829	NCP	%	85	70-130	Pass	
Copper	S13-Se10616	NCP	%	86	70-130	Pass	
Lead	S13-Se10829	NCP	%	93	70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mercury	S13-Se10616	NCP	%	90			70-130	Pass	
Nickel	S13-Se10829	NCP	%	100			70-130	Pass	
Selenium	S13-Se10616	NCP	%	86			70-130	Pass	
Zinc	S13-Se10829	NCP	%	94			70-130	Pass	
<b>Spike - % Recovery</b>									
<b>Heavy Metals</b>				Result 1					
Beryllium	S13-Se11442	NCP	%	92			70-130	Pass	
Boron	S13-Se11442	NCP	%	96			70-130	Pass	
Cobalt	S13-Se11442	NCP	%	76			70-130	Pass	
Manganese	S13-Se10843	NCP	%	100			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Total Recoverable Hydrocarbons - 1999 NEPM Fractions</b>				Result 1	Result 2	RPD			
TRH C6-C9	S13-Se10608	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S13-Se11505	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S13-Se11505	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S13-Se11505	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
<b>Duplicate</b>									
<b>BTEX</b>				Result 1	Result 2	RPD			
Benzene	S13-Se10608	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S13-Se10608	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S13-Se10608	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S13-Se10608	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S13-Se10608	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S13-Se10608	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
<b>Duplicate</b>									
<b>Total Recoverable Hydrocarbons - 2013 NEPM Fractions</b>				Result 1	Result 2	RPD			
Naphthalene	S13-Se10608	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S13-Se10608	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S13-Se10608	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S13-Se11505	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S13-Se11505	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S13-Se11505	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
<b>Duplicate</b>									
<b>Polycyclic Aromatic Hydrocarbons</b>				Result 1	Result 2	RPD			
Acenaphthene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
<b>Duplicate</b>									
<b>Organochlorine Pesticides</b>				Result 1	Result 2	RPD			
4,4'-DDD	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	



Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
4,4'-DDE	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-BHC	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S13-Se09537	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S13-Se09537	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD		
Aroclor-1016	S13-Se09537	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1232	S13-Se09537	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S13-Se09537	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S13-Se09537	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S13-Se09537	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S13-Se09537	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Speciated Phenols				Result 1	Result 2	RPD		
2,4-Dichlorophenol	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dimethylphenol	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,6-Trichlorophenol	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenol	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Methylphenol (o-Cresol)	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	S13-Se10829	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2-Chlorophenol	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Nitrophenol	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	S13-Se10829	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pentachlorophenol	S13-Se10829	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Organophosphorus Pesticides (OP)				Result 1	Result 2	RPD		
Chlorpyrifos	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Coumaphos	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Diazinon	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorvos	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dimethoate	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Disulfoton	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethoprop	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fenitrothion	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fensulfothion	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fenthion	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Methyl azinphos	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Malathion	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Methyl parathion	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

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<b>Duplicate</b>								
<b>Organophosphorus Pesticides (OP)</b>				Result 1	Result 2	RPD		
Mevinphos	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Monocrotophos	S13-Se05989	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Parathion	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phorate	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Profenofos	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Prothiofos	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ronnel	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Stirophos	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloronate	S13-Se05989	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
<b>Duplicate</b>								
<b>Heavy Metals</b>				Result 1	Result 2	RPD		
Arsenic	S13-Se10829	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Cadmium	S13-Se10829	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Copper	S13-Se10829	NCP	mg/kg	42	54	25	30%	Pass
Lead	S13-Se10829	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Mercury	S13-Se10616	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Nickel	S13-Se10829	NCP	mg/kg	6.4	8.5	29	30%	Pass
Selenium	S13-Se10829	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Zinc	S13-Se10829	NCP	mg/kg	8.4	11	26	30%	Pass
<b>Duplicate</b>								
<b>Heavy Metals</b>				Result 1	Result 2	RPD		
Beryllium	S13-Se11442	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Boron	S13-Se11442	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Cobalt	S13-Se11442	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Manganese	S13-Se11442	NCP	mg/kg	180	220	18	30%	Pass

**Comments**

Asbestos was analysed by ASET. NATA accreditation number 14484. Report reference ASET35208/38388/1-2.

**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

**Qualifier Codes/Comments**

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference

**Authorised By**

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Bob Symons	Senior Analyst-Inorganic (NSW)
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)



**Dr. Bob Symons**

**Laboratory Manager**

**Final report - this Report replaces any previously issued Report**

- Indicates Not Requested

\* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

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