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January 31, 2012
Project No. 18435/1177C
Report No. 12/0113
DWY

Mr Simon Fenton
Lane Cove Council
48 Longueville Road
LANE COVE NSW 2066

SUBJECT: SOIL SAMPLING AND CLASSIFICATION PROGRAM, LAND AT 266 LONGUEVILLE ROAD, LANE COVE, NEW SOUTH WALES

Dear Simon,

Introduction and Background

In December 2011 SMEC Australia Pty Ltd (SMEC) completed a combined environmental and geotechnical investigation of the property at 266 Longueville Road, Lane Cove, NSW (the 'site'). The purpose of the investigation was to provide advice on the sub-surface conditions of the land that may be relevant to future redevelopment and also to assess the potential for human-health and environmental exposures at the property due to chemical contaminants in the soil. The scope of the environmental component of the investigation included a site inspection and a review of the land use history, as well as a preliminary soil sampling program.

The results of the investigation showed that the concentrations of chemical contaminants measured in the soil samples retrieved from the site are generally low and below criteria that are protective of human-health for recreational and also standard and high-density residential land use settings. However, the fill in the east of the site below 1.5 m depth was found to be impacted with lead and polycyclic aromatic hydrocarbons (PAHs) at concentrations which exceed the relevant health-based criteria. That is, the site could present a potential risk to human-health for these land use settings where exposure pathways exist.

As the contaminated soil is located at a depth which would render it generally inaccessible to site users, the site would not present an unacceptable risk to human-health provided that the existing land surface levels are retained and that an Environmental Management Plan (EMP) is also prepared to ensure that the lead and PAH remains appropriately contained in the long term. Alternatively, the risks posed by the lead and PAH contamination would need to be negated by undertaking active remedial works to remove the chemically impacted fill from the site. We understand that this approach is favoured by Council, as the site may need to be completely stripped of fill during future redevelopment.

Given that the fill on the site is impacted with elevated levels of chemical contaminants and was also observed to contain appreciable quantities of anthropogenic wastes, the fill could not be beneficially reused as clean fill. That is, if fill was required to be removed from the site it would need to be classified as a waste in accordance with the Office of Environment and Heritage (OEH) *Waste Classification Guidelines, Part 1, Classifying Waste, April 2008* (Waste Guidelines) and disposed of to landfill. This report documents the results of the waste classification of the fill based on the results of the December 2011 investigation and the additional analysis of soil samples which was performed in January 2012 specifically for the purposes of the waste classification.

Scope of Works

The scope of work was as follows:

- Appraisal of the results of the December 2011 investigation with regard to criteria outlined in the Waste Guidelines;
- Additional leachability testing on selected samples retrieved during the 2011 investigation;
- Appraisal of site geology;
- Assessment of the quality of the soils on the site, and classification of the soil in accordance with OEH guidelines; and
- Preparation of a report to Lane Cove Council detailing the findings of the soil sampling and classification program.

Sampling Procedures

The soil samples were collected from a total of 15 boreholes drilled at evenly spaced locations across the site in November 2011. The soil sampling locations are shown on Figure 3 from SMEC's December 2001 report, which is attached to this report, and the soil profile logs providing a description of the fill encountered and soil samples collected is provided in Appendix A. The methodology by which the samples were collected is described in SMEC's December 2011 report.

The soil samples collected were initially analysed for a broad screen of potential chemical contaminants including heavy metals, polycyclic aromatic hydrocarbons (PAH), total petroleum hydrocarbons (TPH), monocyclic aromatic hydrocarbons (BTEX), polychlorinated biphenyls (PCB), organochlorine pesticides (OCP), organophosphorus pesticides (OPP), phenolic compounds, fluoride, cyanide and asbestos. However, in order to appropriately classify the soil selected samples were subsequently tested for leachable lead, nickel and PAHs in January 2012.

The analytical program for the soil samples is outlined in the COC documentation, which is provided in Appendix B. Labmark was selected as the primary laboratory to undertake the analyses, and ALS Sydney was selected as the secondary laboratory for the implementation of the field quality control program. Both Labmark and ALS are NATA accredited for the analyses performed.

Site Geology

The Geological Survey of NSW 1:100,000 Sydney Geological Map (Sheet 9130) shows that the site is underlain by the Middle Triassic Age 'Hawkesbury Sandstone' which comprises medium to coarse grained quartz sandstone with minor shale and laminate lenses.

The natural soils encountered during the investigation comprised silty sand topsoil overlying silty and sandy clay subsoil, which are consistent with in-situ weathered soils derived from the Hawkesbury Sandstone formation. Sandstone bedrock was also encountered in each of the 15 boreholes at depths of between 0.2 m and 8.6 m below the ground surface, and depth to bedrock was greatest in the eastern portion of the site.

A layer of fill material between 0.2 m and 8.6 m in thickness was also observed at each sample location. The fill is heterogeneous, comprising sands, gravels and clays, and fragments of anthropogenic wastes including bricks, ash, ceramics and glass were observed in the fill at a number of borehole locations.

Our review of the Acid Sulfate Soil (ASS) risk maps provided on the OEH NSW Natural Resource Atlas (NR Atlas) also shows that the site is located on land that is not expected to be affected by ASSs. This is supported by the geology and geomorphology of the site.

Assessment Criteria

In order to classify the soil, the relevant sampling results have been compared to the threshold values for the classification of non-liquid wastes presented in OEH's Waste Guidelines. The results for the soil samples have been compared with the contaminated threshold (CT) values only, with the exception of lead, nickel and PAH species benzo(a)pyrene in selected samples which are compared with the combined total concentration (SCC) and leachable concentration (TCLP) criteria.

Results

The results of the soil sample analyses are compared to the above criteria in Table A, and the analytical laboratory reports for the testing performed are provided in Appendix C.

The results show that the concentrations of chemical contaminants in the fill are below the CT1 values for General Solid Waste, with the exception of lead, nickel and benzo(a)pyrene. However, leachability testing subsequently performed on the samples has shown that the concentrations of these contaminants are below the maximum threshold values for General Solid Waste (SCC1 and TCLP values) when used together, although the concentration of both total and leachable lead in one sample retrieved from a depth of approximately 4.5 m in borehole BH13 positioned in the east of the site exceeded its criteria for General Solid Waste.

Further, whilst the concentration of leachable lead in this sample is below the maximum allowable TCLP criterion for Restricted Solid Waste, the total lead concentration is above the SCC1 threshold for Restricted Solid Waste. Therefore, the soils across the majority of the site are classified as General Solid Waste for the purposes of landfill disposal, whilst the discrete 'hotspot' of soil in the vicinity of location BH13 is classed as Hazardous Waste based on the Waste Guidelines criteria.

However, given that the elevated levels of lead in the soil at BH13 are expected to be due to metallurgical furnace residues (ash and slag), the soil would satisfy the conditions of General Immobilisation Approval 2009/07 under the provisions of the *Protection of the Environment Operations (Waste) Regulation 1996*. Under this approval soil which is impacted with chemical contaminants (including lead) that are the result of metallurgical residues can be classified based on their leachable concentrations alone. Therefore, the soil in the vicinity of BH13 could be classified as Restricted Solid Waste by invoking the abovementioned General Immobilisation Approval.

Q***uality Assurance/Quality Control Program***

As part of the 2011 investigation, a quality assurance program was implemented in order to confirm the accuracy and precision of the analytical data, and included the collection and analysis of one intra-laboratory and one inter-laboratory field duplicate sample. The results of the duplicate sample analyses are provided in Table B.

The results of the field intra and inter-laboratory duplicate sample analyses are compared to those of the corresponding primary samples in Table B. The results show that the variations between the primary and duplicate sample results are below the allowable Relative Percentage Difference (RPD) criteria of 50% for inorganic species and 70% for organic analytes in all but four of the 67 comparable data sets, which is an acceptable rate of correlation.

The discrepancies encountered are expected to be due to the heterogeneous distribution of the contaminants within fill material. Further, the contaminant concentrations in both the primary and duplicate samples have been used in the data set from which our conclusions have been made. Therefore, the RPD discrepancies do not affect the outcome of the assessment.

Further, our review of the laboratory's internal QC program has shown that the majority of internal duplicate samples, spike recoveries, surrogate standards and laboratory blanks were within the laboratories' recommended range for acceptable reproducibility. Therefore, STS considers the laboratory data obtained in the sampling program to be of acceptable precision, accuracy and reliability and representative of the site conditions encountered.

Conclusions and Recommendations

Based on the results of the soil sampling and analyses performed, the soil on the site at 266 Longueville Road, Lane Cove, is classified as General Solid Waste with the exception of a small 'hotspot' area of soil in the east of the site which would be classed a Restricted Solid Waste under the provisions of General Immobilisation Approval 2009/07.

Preliminary 'worst case' estimates suggest that up to approximately 6 000 m^3 of fill in the east of the site may be classed as Restricted Solid Waste, however, further soil sampling to delineate the extent of the 'hotspot' area could be undertaken to provide a more accurate estimate of Restricted Solid Waste volumes. Should bulk removal of the fill from the site be proposed, we would recommend that the 'hotspot' of lead impacted soil be excavated and disposed of initially. Following validation sampling to confirm that all soil classed as Restricted Solid Waste has been removed, the larger soil mass could then be disposed of to landfill as General Solid Waste. This would be the most cost effective approach to removing the fill from the site.

Limitations

SMEC Testing Services Pty Limited has performed its services for this project in accordance with its current professional standards. Laboratory analyses were undertaken as part of this investigation by ALS which is NATA accredited for the analyses performed.

When assessing the extent of contamination from a soil sampling program there is the possibility that variations may occur between sample locations. The actual presence of contaminated material at the site may differ from this inferred herein, since no sampling program, no matter how comprehensive, can reveal all anomalies and hot spots that may be present.

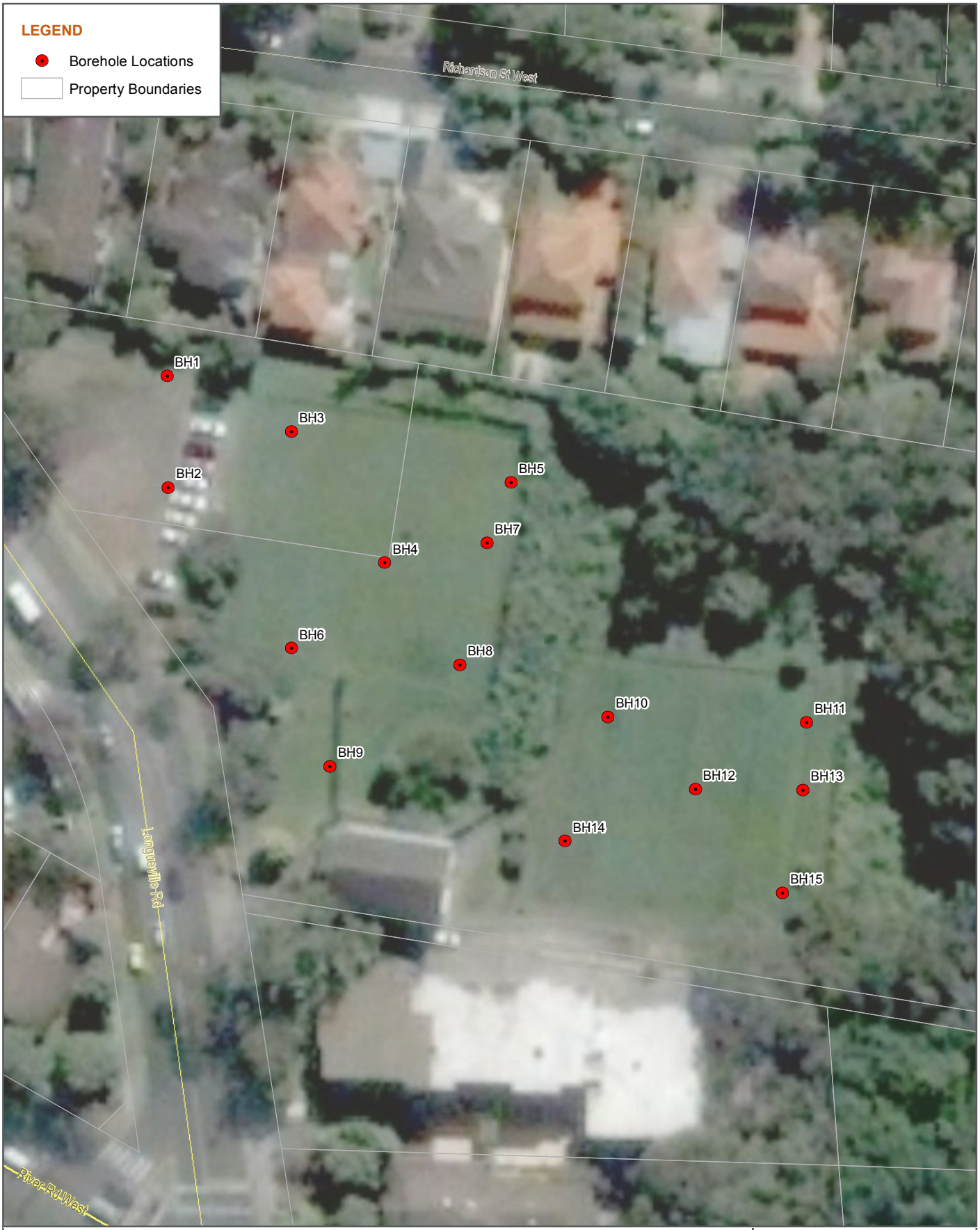
Regulatory evaluation criteria are constantly changing and as a consequence, the concentrations of contaminants in the soil subject to this sampling program may fall under different regulatory standards that could alter the soil classification.

Opinions and judgements expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal opinions.

This document and the information herein have been prepared solely for the use of Lane Cove Council for the purposes nominated in this report. No person or organisation other than Lane Cove Council is entitled to rely on any part of the report without the prior written consent of STS. Any third party relying on this report shall have no legal recourse against STS or its parent organisations or subsidiaries and shall indemnify and defend them from all an against all claims arising out of, or in conjunctions with such use or reliance.

David Yonge (BSc, MSc)
Environmental Manager,
SMEC Testing Services Pty Limited

FIGURES



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COORDINATE SYSTEM GDA 94 MGA 56

FIG NO. 3

FIGURE TITLE Borehole Plan

PROJECT NO. 30011131

PROJECT TITLE 266 Longueville Road GI

CREATED BY PR11334

SOURCES Vector Backdrop - Roadnet © Map Data Services 2011.
Aerial Imagery © Bing 2011.

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Location: I:\projects\30011131 - 266 Longueville Road GI\008 DATA\GIS\Figure3_Longueville_Road_Boreholes.mxd

TABLES OF RESULTS

Table A Analytical Results for Soil Samples - Waste Classification

Analytes	Borehole No.	BH1	BH2	BH3	BH4	BH4	BH5	BH5	BH6	BH7	BH8	BH8	BH9	BH10	OEH 2008[1] CT1 General Solid Waste Thresholds	OEH 2008[2] Combined SCC and TCLP Thresholds for General Solid Waste	OEH 2008[2] Combined SCC and TCLP Thresholds for Restricted Solid Waste	OEH 2008[3] Special Waste Criteria
	Sample Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2 (1)	0.5-0.7	1.3-1.5	2.7-2.9 (1)	0.0-0.2	0.0-0.2	0.0-0.2	1.3-1.5	0.0-0.2	0.0-0.2 (1)				
Metals																		
Arsenic		1.9		<1	<1	<1	<1	2	<1		<1	1	4	<1	100			
Barium		74		11	14	26		21	13		25	14	10	13				
Beryllium		<1		<1	<1	<1		<1	<1		<1	<1	<1	<1	20			
Cadmium		<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	20			
Chromium		17		<2	<2	2.5	4.9	4.6	<2		7.6	5.1	6.1	<2	100 (a)			
Cobalt		15		2.9	2.5	3.4		11	3.4		6.2	3.8	2.7	25				
Copper		22		2	<2	3.9	8.8	13	<2		3.2	<2	<2	42				
Total Lead		73		3.9	3	5.4	19	10	3.5		6.6	11	9.7	2.1	100	1500	6000	
Leachable Lead (mg/L)																5	20	
Manganese		230		54	56	70		34	73		150	22	15	260				
Mercury		0.28		2	1.2	1.5	0.29	0.49	0.865		3	0.24	0.21	0.59	4			
Molybdenum							<1								100			
Total Nickel		17		<1	<1	<1	<1	<1	<1		<1	<1	<1	46	40	1050		
Leachable Nickel (mg/L)														<0.05		2		
Selenium							<2								20			
Silver							0.1								100			
Tin							<1											
Vanadium		23		<5	<5	6.5		17	<5		11	15	23	<5				
Zinc		74		<5	<5	8.8	18	20	<5		9	6.6	<5	27				
Monocyclic Aromatic Hydrocarbons (MAHs)																		
Benzene			<0.5		<0.5		<0.5	<0.5				<0.5		<0.5	10			
Ethylbenzene			<0.5		<0.5		<0.5	<0.5				<0.5		<0.5	600			
Toluene			<0.5		<0.5		<0.5	<0.5				<0.5		<0.5	288			
Xylenes			<1.0		<1.0		<1.0	<1.0				<1.0		<1.0	1000			
Total MAHs above detection limits			ND		ND		ND	ND				ND		ND				
Total Petroleum Hydrocarbons (TPHs)																		
Total C_6-C_9			<10		<10		<10	<10				<10		<10	650			
Total C_{10}-C_{36}			<100		<100		<100	<100				<100		<100	10,000			
Polycyclic Aromatic Hydrocarbons (PAHs)																		
Total Benzo(a)pyrene			<0.5		<0.5		<0.5	<0.5				<0.5		<0.5	0.8	10		
Leachable Benzo(a)pyrene (mg/L)																0.04		
Total PAHs above detection limits			ND		ND		ND	ND				ND		ND	200			
Organochlorine Pesticides (OCPs)																		
4.4-DDD										0.15								
a-chlordane										0.39								
g-chlordane										0.14								
Dieldrin										0.27								
Heptachlor Epoxide										0.07								
Total OCPs above detection limits		ND					ND			1.02					<50 (b)			
Organophosphorus Pesticides (OPPs)																		
Total OPPs above detection limits		ND								ND								
Phenolic Compounds																		
Total Phenols							ND								288 (c)			
Polychlorinated Biphenyls (PCBs)																		
Total PCBs above detection limits		<0.5					<0.5			<0.5					<50			
Total Cyanide							<1								320			
Total Fluoride							<1								3000			
Asbestos (fibres)		ND								ND			ND					Presence of Any Asbestos

Notes : Results expressed as mg/kg unless otherwise indicated

ND = No individual species detected abovelaboratory detection limits.

Results shaded green exceed the DECCW (2008) CT1 threshold criteria for General Solid Waste without leachability testing

Results shaded red exceed the DECCW (2008)TCLP/SCC1 criteria for General Solid Waste based on combined total and leachable concentrations

Results shaded blue exceed the DECCW (2008)TCLP/SCC1 criteria for Restricted Solid Waste based on combined total and leachable concentrations

Results shaded yellow exceed the DECCW (2008) criteria for Special Waste

(a) Criterion for chromium (VI).

(b) Criterion for Scheduled Chemicals

(c) Criterion for non-halogenated phenols

Table A Analytical Results for Soil Samples - Waste Classification (cont)

Analytes	Borehole No.	BH10	BH11	BH11	BH11	BH12	BH12	BH12	BH13	BH13	BH13	BH14	BH15	BH15	BH15	OEH 2008[1] CT1 General Solid Waste Criteria	OEH 2008[2] Combined SCC and TCLP Criteria for General Solid Waste	OEH 2008[2] Combined SCC and TCLP Thresholds for Restricted Solid Waste	OEH 2008[3] Special Waste Criteria
	Sample Depth (m)	1.0-1.3	1.3-1.5	4.3-4.5	8.6-8.8	0.1-0.3	1.3-1.5	4.3-4.5	1.3-1.5	4.3-4.5	7.3-7.5 (1)	0.1-0.3	0.1-0.3	1.3-1.5	4.0-4.2				
Metals																			
Arsenic		<1	<1	<1	<1	<1	<1	<1	<1	1.5	<1	<1	<1	<1	2	100			
Barium		200		96	7	19		190			260	12	24	80					
Beryllium		<1		<1	<1	<1		<1			<1	<1	<1	<1		20			
Cadmium		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.6	0.1	<0.1	<0.1	<0.1	<0.1	20			
Chromium		4.3	4.5	5.7	<2	3	9.4	4.5	11	6.6	5.1	<2	3.7	8.8	5.3	100 (a)			
Cobalt		1.3		1.8	1.21	3.6		1.1			1.1	1.4	3.4	1.6					
Copper		<2	8.9	8.9	<2	4.6	15	9	38	5.2	6.8	2.2	4.9	24	10				
Total Lead		12	65	**360**	13	7.3	**130**	**640**	42	**7300**	**1400**	27	6.2	**100**	**650**	100	1500	6000	
Leachable Lead (mg/L)				1.1			0.16	1.5		**12**	0.63			0.08	0.36		5	20	
Manganese		<5		64	<5	100		69			55	70	170	97					
Mercury		0.07	0.26	0.11	<0.05	2.2	0.31	0.36	0.2	1.6	0.18	0.46	3	0.09	0.09	4			
Molybdenum			<1				<1		<1	<1					<1	100			
Total Nickel		<1	6	1.4	<1	<1	<1	<1	5.4	<1	1.9	<1	<1	1.5	2.1	40	1050		
Leachable Nickel (mg/L)																	2		
Selenium			<2				<2		<2	<2					<2	20			
Silver			0.2				0.1		0.2	0.8					0.2	100			
Tin			<1				6.5		1.6	3.1					<1				
Vanadium		9.2		19	<5	5.4		16			12	<5	6.3	21					
Zinc		<5	33	140	<5	17	74	280	26	820	430	<5	7.6	59	220				
Monocyclic Aromatic Hydrocarbons (MAHs)																			
Benzene		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	10			
Ethylbenzene		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	600			
Toluene		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	288			
Xylenes		<1.0	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0			<1.0	<1.0	1000			
Total MAHs above detection limits		ND	ND	ND	ND		ND	ND	ND	ND	ND			ND	ND				
Volatile Organic Compounds (VOCs)																			
Total VOCs above detection limits			ND				ND		ND	ND	ND				ND				
Total Petroleum Hydrocarbons (TPHs)																			
Total C_6-C_9		<10	<10	<10	<10		<10	<10	<10	<10	<10			<10	<10	650			
Total C_{10}-C_{36}		<100	<100	<100	<100		<100	<100	<100	<100	<100			<100	120	10,000			
Polycyclic Aromatic Hydrocarbons (PAHs)																			
Total Benzo(a)pyrene		<0.5	<0.5	<0.5	<0.5		**3.2**	0.5	**1.3**	<0.5	**1.1**			<0.5	**2.3**	0.8	10		
Leachable Benzo(a)pyrene (mg/L)							<0.001		<0.001		<0.001				<0.001		0.04		
Total PAHs above detection limits		ND	2.8	1.6	ND		27	1.0	11	<1	7			<1	15	200			
Organochlorine Pesticides (OCPs)																			
4.4-DDD												0.07							
a-chlordane																			
g-chlordane																			
Dieldrin																			
Heptachlor Epoxide												0.07							
Total OCPs above detection limits			ND	ND		ND		ND	ND			0.14		ND		<50 (b)			
Organophosphorus Pesticides (OPPs)																			
Total OPPs above detection limits					ND								ND						
Phenolic Compounds																			
Total Phenols			ND				ND		ND	ND						288 (c)			
Polychlorinated Biphenyls (PCBs)															ND				
Total PCBs above detection limits			<0.5		<0.5		<0.5		<0.5	<0.5			<0.5		<0.5	<50			
Total Cyanide			<1				<1		<1	<1					<1	320			
Total Flouride			1.8				1.4		1.3	1.1					1.4	3000			
Asbestos (fibres)			ND	ND	ND		ND		ND	ND	ND			ND	ND				Presence of Any Asbestos

Notes : Results expressed as mg/kg unless otherwise indicated

ND = No individual species detected abovelaboratory detection limits.

Results shaded green exceed the DECCW (2008) CT1 threshold criteria for General Solid Waste without leachability testing

Results shaded red exceed the DECCW (2008)TCLP/SCC1 criteria for General Solid Waste based on combined total and leachable concentrations

Results shaded blue exceed the DECCW (2008)TCLP/SCC1 criteria for Restricted Solid Waste based on combined total and leachable concentrations

Results shaded yellow exceed the DECCW (2008) criteria for Special Waste

(a) Criterion for chromium (VI).

(b) Criterion for Scheduled Chemicals

(c) Criterion for non-halogenated phenols

Table B Results of Quality Control - Intra Laboratory and Inter Laboratory Duplicate Soil Samples

	Sample Numbers					
	BH4 - 0.0-0.2 (1)	**BH4 - 0.0-0.2 (3)[1]**	**RPD (%)**	**BH4 - 0.0-0.2 (1)**	**BH4 - 0.0-0.2 (2)[2]**	**RPD (%)**
Metals						
Arsenic	<1	<1	<50	<1	<5	<50
Barium	14	22	44			
Beryllium	<1	<1	<50			
Cadmium	<0.1	<0.1	<50	<0.1	<1	<50
Chromium	<2	4.8	<50	<2	4	<50
Cobalt	2.5	4.2	<50			
Copper	<2	3.7	<50	<2	<5	<50
Lead	3	7.9	**90**	3	6	**67**
Manganese	56	140	**86**			
Mercury	1.2	3.1	**88**	1.2	1.6	29
Nickel	<1	<1	<50	<1	<2	<50
Vanadium	<5	6.8	<50			
Zinc	<5	5.9	<50	<5	10	<50
Monocyclic Aromatic Hydrocarbons (MAHs)						
Benzene	<0.5	<0.5	<50	<0.5	<0.2	<50
Ethylbenzene	<0.5	<0.5	<50	<0.5	<0.5	<50
Toluene	<0.5	<0.5	<50	<0.5	<0.5	<50
Xylenes	<1.0	<1.0	<50	<1.0	<1.0	<50
Total Petroleum Hydrocarbons (TPHs)						
Total C_6-C_9	<10	<10	<50	<10	<10	<50
Total C_{10}-C_{14}	<50	<50	<50	<50	<50	<50
Total C_{15}-C_{28}	<100	<100	<50	<100	<100	<50
Total C_{29}-C_{36}	<100	<100	<50	<100	<100	<50
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	<0.5	<0.5	<50	<0.5	<0.5	<50
Acenaphthylene	<0.5	<0.5	<50	<0.5	<0.5	<50
Anthracene	<0.5	<0.5	<50	<0.5	<0.5	<50
Benz(a)anthracene	<0.5	<0.5	<50	<0.5	<0.5	<50
Benzo(a)pyrene	<0.5	<0.5	<50	<0.5	<0.5	<50
Benzo(b)&(k)fluoranthene	<1	<1	<50	<1	<1	<50
Benzo(g,h,i)perylene	<0.5	<0.5	<50	<0.5	<0.5	<50
Chrysene	<0.5	<0.5	<50	<0.5	<0.5	<50
Dibenzo(a,h)anthracene	<0.5	<0.5	<50	<0.5	<0.5	<50
Fluoranthene	<0.5	<0.5	<50	<0.5	<0.5	<50
Fluorene	<0.5	<0.5	<50	<0.5	<0.5	<50
Indeno(1,2,3-cd)pyrene	<0.5	<0.5	<50	<0.5	<0.5	<50
Naphthalene	<0.5	<0.5	<50	<0.5	<0.5	<50
Phenanthrene	<0.5	<0.5	<50	<0.5	<0.5	<50
Pyrene	<0.5	<0.5	<50	<0.5	<0.5	<50

Note: Results expressed as mg/kg dry weight.

[1] Denotes intra-laboratory duplicate sample analysed by primary laboratory (MGT-Labmark)

[2] Denotes inter-laboratory duplicate sample analysed by secondary laboratory (ALS Sydney)

RPDs that have been shaded exceed the acceptance criteria

APPENDIX A

SOIL SAMPLE LOG SHEETS

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH1

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Car Park
CLIENT : Lane Cove Council
FEATURE : Car Park
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330825.006, N: 6256063.811 (56 MGA94) SURFACE ELEVATION : 56.000 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 10/11/11 DATE COMPLETED : 10/11/11 DATE LOGGED : 10/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
ADT		E		ES 0.20m	56.0	0.0		ML	Sandy SILT low plasticity, brown, with minor rootlets in the top 100mm	D	D	FILL
				0.60m ES 0.80m		0.30m		SC	Clayey SAND fine to medium grained, orange			RESIDUAL SOIL
		M			55.0	1.0			SANDSTONE fine to medium grained, pale grey, estimate very low to low strength becoming low to medium strength at 1.3m			WEATHERED ROCK 0.80: Low TC Bit Resistance
		H				1.50m			BOREHOLE BH1 TERMINATED AT 1.50 m Target depth			1.30: Medium TC Bit Resistance
					54.0	2.0						
					53.0	3.0						
					52.0	4.0						
					51.0	5.0						
					50.0	6.0						
					49.0	7.0						
					48.0	8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH2

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Car Park
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330825.156, N: 6256047.893 (56 MGA94) SURFACE ELEVATION : 56.000 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 10/11/11 DATE COMPLETED : 10/11/11 DATE LOGGED : 10/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AD/T		E		ES 0.20m	56.0	0.0			0.20m Sandy GRAVEL medium to coarse grained, grey brown, (Roadbase)	D		FILL
		M		0.50m ES 0.70m					SANDSTONE fine to medium grained, grey orange, estimate very low to low strength becoming low to medium strength at 0.7m			WEATHERED ROCK 0.20: Very Low TC Bit Resistance 0.70: Moderate TC Bit Resistance
		H			55.0	1.0			1.50m			
					54.0	2.0			BOREHOLE BH2 TERMINATED AT 1.50 m Target depth			
					53.0	3.0						
					52.0	4.0						
					51.0	5.0						
					50.0	6.0						
					49.0	7.0						
					48.0	8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH3

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Upper
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330842.726, N: 6256055.884 (56 MGA94) SURFACE ELEVATION : 55.200 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 11/11/11 DATE COMPLETED : 11/11/11 DATE LOGGED : 11/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AD/T		E		ES 0.20m	55.0	0.0			Silty SAND fine to medium grained, brown, with gravels from 0.2-0.4m	D		TOPSOIL
				0.50m ES 0.70m		0.40m			SANDSTONE fine to medium grained, grey orange, estimate very low to low strength			WEATHERED ROCK 0.40: Very Low TC Bit Resistance
		M			54.0	1.0						
						1.50m			BOREHOLE BH3 TERMINATED AT 1.50 m Target depth			
					53.0	2.0						
					52.0	3.0						
					51.0	4.0						
					50.0	5.0						
					49.0	6.0						
					48.0	7.0						
						8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH4

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Upper
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330856.029, N: 6256037.214 (56 MGA94) SURFACE ELEVATION : 55.200 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 11/11/11 DATE COMPLETED : 11/11/11 DATE LOGGED : 11/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AT		E		ES 0.20m	55.0	0.0		SM	Silty SAND fine to medium grained, brown, with rootlets in the top 100mm	D		TOPSOIL 0.20: Triplicate ES Taken
				0.50m ES 0.70m		0.30m		GW	GRAVEL coarse grained, to 30 mm, sub-angular, dark grey, with some sand			FILL
		M		1.10m ES 1.30m	54.0	1.00m			SANDSTONE fine to medium grained, grey orange, estimate very low to low strength becoming low to medium strength at 1.7m			WEATHERED ROCK 1.00: Very Low TC Bit Resistance 1.70: Medium TC Bit Resistance
		H				2.00m			BOREHOLE BH4 TERMINATED AT 2.00 m Target depth			
					53.0	2.0						
					52.0	3.0						
					51.0	4.0						
					50.0	5.0						
					49.0	6.0						
					48.0	7.0						
						8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH5

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Upper
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330874.040, N: 6256048.627 (56 MGA94) SURFACE ELEVATION : 55.200 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 11/11/11 DATE COMPLETED : 11/11/11 DATE LOGGED : 11/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
ADT				ES 0.20m	55.0	0.0		SM	Silty SAND fine to medium grained, brown, with rootlets in the top 100mm 0.40m			TOPSOIL
				1.30m ES **1.50m**	54.0	1.0			Gravelly Sandy CLAY medium plasticity, brown, with sub angular gravels			FILL
		E-H		SPT 3,2,3 N=5 1.95m					1.50m 1.50: As above but grey brown	D	S - F	1.50: PID = 2ppm
					53.0	2.0		CL				
				3.00m		3.0			3.00m			2.70: Duplicate ES Taken
		E		SPT 6,15,25/100mm N=>40	52.0			CL	Sandy CLAY low plasticity, orange brown, with occasional ironstone gravels, becoming grey mottled red 3.30m	M	St	RESIDUAL SOIL 3.20: Minor seepage at soil/rock interface
		M		3.40m 3.70m					SANDSTONE fine to medium grained, grey orange, estimate very low to low strength becoming low to medium strength at 3.7m			WEATHERED ROCK 3.30: Very Low TC Bit Resistance 3.70: High TC Bit Resistance
		H		ES 3.90m		4.0			4.00m			
					51.0				BOREHOLE BH5 TERMINATED AT 4.00 m Target depth			
					50.0	5.0						
					49.0	6.0						
					48.0	7.0						
						8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH6

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Upper
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330842.730, N: 6256025.009 (56 MGA94) SURFACE ELEVATION : 55.200 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 11/11/11 DATE COMPLETED : 11/11/11 DATE LOGGED : 11/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL						
PROGRESS													
DRILLING & CASING	WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
ADT		E		ES 0.20m	55.0	0.0		SM	Silty SAND fine to medium grained, brown, with rootlets in the top 100mm	D		TOPSOIL
									0.30m			
		M		0.50m 0.50m ES					SANDSTONE fine to medium grained, orange, estimate very low to low strength becoming low to medium strength and pale grey at 1.0m			WEATHERED ROCK 0.30: Very Low TC Bit Resistance
		H			54.0	1.0						1.00: Medium TC Bit Resistance
									1.50m 1.50: As above becoming pale grey, low to medium plasticity			
					53.0	2.0						
						3.0			3.00m 3.00: As above becoming grey and low strength			
					52.0	4.0						
					51.0				4.50m 4.50: As above becoming low to medium strength			
						5.0						
					50.0							
						6.0			6.00m 4.50: As above becoming medium strength BOREHOLE BH6 TERMINATED AT 1.50 m Target depth			
					49.0							
						7.0						
					48.0							
						8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH7

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Upper
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330870.600, N: 6256040.032 (56 MGA94) SURFACE ELEVATION : 55.200 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 11/11/11 DATE COMPLETED : 11/11/11 DATE LOGGED : 11/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING						MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL) / DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
ADT		E		ES 0.20m	55.0 / 0.0		SM	Silty SAND fine to medium grained, brown, with rootlets in the top 100mm 0.30m	D		TOPSOIL
							CL	Gravelly Sandy CLAY low plasticity, brown, gravels are sub-angular 1.10m			FILL
				1.30m ES **1.50m** SPT 3, 3, 7 N=10	54.0 / 1.0		CH	Sandy Silty CLAY medium to high plasticity, grey mottled orange, with ironstone gravels 1.80m	M	St	RESIDUAL SOIL 1.50: PID = 1.5ppm 1.60: P.P = 200kPa 1.70: Minor seepage at soil/rock interface
		M		1.95m	53.0 / 2.0			SANDSTONE fine to medium grained, orange brown, estimate very low to low strength becoming low to medium strength and pale grey at 2.7m			WEATHERED ROCK 1.80: Low TC Bit Resistance
		H		2.70m ES 2.90m	52.0 / 3.0			3.00m BOREHOLE BH7 TERMINATED AT 3.00 m Target depth			2.70: Medium TC Bit Resistance
					51.0 / 4.0						
					50.0 / 5.0						
					49.0 / 6.0						
					48.0 / 7.0						
					8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH8

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Upper
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330866.718, N: 6256022.623 (56 MGA94) SURFACE ELEVATION : 55.200 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 11/11/11 DATE COMPLETED : 11/11/11 DATE LOGGED : 11/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
ADT		E		ES 0.20m	55.0	0.0		SM	Silty SAND fine to medium grained, brown, with rootlets in the top 100mm	D		TOPSOIL
						0.30m						
				1.50m SPT 1, 2, 1 N=3	54.0	1.0		CL	Sandy Silty CLAY low to medium plasticity, orange brown	M	S	FILL 1.50: PID = 1.5ppm 1.60: P.P = 25kPa
				1.95m		2.0						
				2.70m ES 2.90m	53.0			CH	Silty CLAY medium to high plasticity, brown	M to W	St	RESIDUAL SOIL 3.00: PID = 2.2ppm 3.10: P.P = 150kPa
				3.00m SPT 3, 16, 14 N=30		3.0						
				3.45m	52.0				SANDSTONE fine to medium grained, orange brown, estimate very low to low strength becoming low to medium strength and pale grey at 4.3m			WEATHERED ROCK 3.35: Seepage at soil/rock interface 3.40: Low TC Bit Resistance
		M		4.20m ES 4.40m	51.0	4.0						4.30: Medium TC Bit Resistance
		H				4.50m			BOREHOLE BH8 TERMINATED AT 4.50 m Target depth			
					50.0	5.0						
					49.0	6.0						
					48.0	7.0						
						8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH9

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Upper
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330848.230, N: 6256008.151 (56 MGA94) SURFACE ELEVATION : 55.500 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 11/11/11 DATE COMPLETED : 11/11/11 DATE LOGGED : 11/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
ADT		E		ES 0.20m	55.0	0.0		SM	0.20m Silty SAND fine to medium grained, brown, with rootlets in the top 100mm	D		TOPSOIL
		M		0.50m					SANDSTONE fine to medium grained, orange grey, estimate very low to low strength becoming low to medium strength and pale grey at 0.5m			WEATHERED ROCK 0.20: Very Low TC Bit Resistance 0.50: Medium TC Bit Resistance
		H		ES 0.70m		1.0						
					54.0	1.50m			BOREHOLE BH9 TERMINATED AT 1.50 m Target depth			
					53.0	2.0						
					52.0	3.0						
					51.0	4.0						
					50.0	5.0						
					49.0	6.0						
					48.0	7.0						
						8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH10

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Lower
CLIENT : Lane Cove Council
FEATURE : Car Park
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330887.837, N: 6256015.200 (56 MGA94) SURFACE ELEVATION : 49.500 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 10/11/11 DATE COMPLETED : 10/11/11 DATE LOGGED : 10/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL) / DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AD/T		E			49.0 / 0.0		SM	Silty SAND fine to medium grained, brown, with rootlets in the top 100mm 0.30m			TOPSOIL 0.10: Triplicate ES Taken
							SM	Silty SAND fine to medium grained, grey brown, with occasional angular gravels	D	VL to L	FILL
				1.50m SPT 2, 1, 2 N=3 1.95m	48.0 / 1.0			1.90m			1.50: PID = 3.2ppm
					47.0 / 2.0		SC	Clayey SAND fine to medium grained, orange brown 2.60m	M to W	MD	RESIDUAL SOIL
		M		2.70m ES 2.90m	46.0 / 3.0			SANDSTONE fine to medium grained, pale grey, estimate very low to low strength becoming low to medium strength at 3.3m 3.50m			2.55: Seepage at soil/rock interface WEATHERED ROCK 2.60: Low TC Bit Resistance 3.30: Medium TC Bit Resistance
		H			45.0 / 4.0			BOREHOLE BH10 TERMINATED AT 3.50 m Target depth			
					44.0 / 5.0						
					43.0 / 6.0						
					42.0 / 7.0						
					8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH11

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Lower
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 2

POSITION : E: 330916.180, N: 6256014.449 (56 MGA94) SURFACE ELEVATION : 49.500 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 10/11/11 DATE COMPLETED : 10/11/11 DATE LOGGED : 10/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING								MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AD/T		E		ES 0.20m	49.0	0.0		SM	Silty SAND fine to medium grained, brown, with rootlets in the top 100mm 0.40m	D		TOPSOIL 0.20: PID = 1.1ppm
								SW	Gravelly Clayey SAND fine to coarse grained, orange brown, with high plasticity clay bands 1.00m	D to M	L	FILL
				1.30m ES **1.50m** SPT 2, 2, 1 N=3 1.95m	48.0	1.0 2.0		CH	Gravelly Sandy CLAY medium to high plasticity, grey brown, with brick fragments, ash, porcelain and glass 2.50m	M	S	1.00: Mixed penetration with cobbles and boulders in fill 1.50: PID = 1.7ppm
				3.00m SPT 8, 8, 8 N=16 3.45m	47.0	3.0			Silty Sandy GRAVEL fine to coarse grained, orange brown, with brick fragments and angular sandstone gravel			3.00: PID = 2.2ppm 3.10: P.P = 150kPa
		E-H		4.30m ES **4.50m** SPT 6, 10, 6 N=16 4.95m	46.0 45.0	4.0 5.0		GW	4.00: Clay Lenses	D	MD	4.50: PID = 10.5ppm
				5.70m ES 5.90m 6.00m SPT 7, 7, 6 N=13 6.45m	44.0 43.0	6.0 7.0						6.00: PID = 1.6ppm 7.50: PID = 1.2ppm
					42.0	8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH11

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Lower
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 2 OF 2

POSITION : E: 330916.180, N: 6256014.449 (56 MGA94) SURFACE ELEVATION : 49.500 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 10/11/11 DATE COMPLETED : 10/11/11 DATE LOGGED : 10/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING						MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL) / DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AD/T		E-H			8.0		GW	Silty Sandy GRAVEL fine to coarse grained, orange brown, with brick fragments and angular sandstone gravel *(continued)*	D	MD	
				8.60m							8.55: Seepage at soil/rock interface
		M		ES 8.80m	41.0			SANDSTONE fine to medium grained, orange brown, estimate very low to low strength becoming low to medium strength and pale grey at 9.0m			WEATHERED ROCK 8.60: Low TC Bit Resistance
		H			9.0						9.00: Medium TC Bit Resistance
					9.40m			BOREHOLE BH11 TERMINATED AT 9.40 m Target depth			
					40.0						
					10.0						
					39.0						
					11.0						
					38.0						
					12.0						
					37.0						
					13.0						
					36.0						
					14.0						
					35.0						
					15.0						
					34.0						
					16.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH12

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Lower
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330900.328, N: 6256004.913 (56 MGA94) SURFACE ELEVATION : 49.500 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 10/11/11 DATE COMPLETED : 10/11/11 DATE LOGGED : 10/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL) / DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AD/T		E		ES 0.20m	49.0 / 0.0		SM	Silty SAND fine to medium grained, brown, with rootlets in the top 100mm			TOPSOIL
								0.40m			
					1.0			Sandy Silty CLAY medium plasticity, brown, with angular gravels, brick fragments, ash and glass sand			FILL
				1.30m ES **1.50m** SPT 3, 1, 2 N=3 1.95m	48.0 / 2.0		CL		D	S	1.50: PID = 1.5ppm 1.60: P.P = 40kPa
				3.00m SPT 3, 7, 8 N=15 3.45m	47.0 / 3.0						3.00: PID = 2.7ppm 3.10: P.P = 25kPa
								3.50m			
					46.0 / 4.0		GC	Clayey Sandy GRAVEL medium to coarse grained, sub-angular, grey brown		MD	
				4.30m ES **4.50m** SPT 2, 3, 3 N=6 4.95m	45.0 / 5.0				M to W	L	4.50: PID = 3ppm 0 Slight Odour 4.80: Seepage at soil/rock interface
		M						SANDSTONE fine to medium grained, grey brown, estimate very low to low strength becoming low to medium strength and pale grey at 5.7m			WEATHERED ROCK 4.90: Low TC Bit Resistance
				5.70m	44.0 / 6.0						
		H		ES 5.90m							5.70: Medium TC Bit Resistance
								6.00m			
					43.0 / 7.0			BOREHOLE BH12 TERMINATED AT 6.00 m Target depth			
					42.0 / 8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH13

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Lower
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 2

POSITION : E: 330915.675, N: 6256004.801 (56 MGA94) SURFACE ELEVATION : 49.500 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 10/11/11 DATE COMPLETED : 10/11/11 DATE LOGGED : 10/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL) / DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AD/T		E		ES 0.20m	49.0 / 0.0		SM	Silty SAND fine to medium grained, brown, with rootlets in the top 100mm 0.40m	D		TOPSOIL 0.20: PID = 1.1ppm
				1.30m ES **1.50m** SPT 3, 2, 3 N=5 1.95m	48.0 / 1.0		CL	Gravelly Silty CLAY low to medium plasticity, pale brown to grey, with angular gravels, brick fragments, ash and glass gravel 2.50m		S to F	FILL 1.50: PID = 1.7ppm
		E-H		2.70m ES 2.90m 3.00m SPT 3, 11, 7 N=18 3.45m	47.0 / 2.0 46.0 / 3.0		SW	Silty Gravelly SAND fine to coarse grained, grey, with brick fragments, ash, porcelain and glass silt		D	3.00: PID = 1.9ppm 3.50: Mixed penetration with cobbles and boulders in fill
				4.30m ES **4.50m** SPT 11, 11, 12 N=23 4.95m	45.0 / 4.0 44.0 / 5.0						4.50: PID = 11ppm
				5.80m ES **6.00m** SPT 2, 5, 3 N=8 6.45m	43.0 / 6.0			6.40 - 7.00: Medium plasticity clay band		L - MD	6.00: PID = 1.6ppm
				7.30m ES **7.50m** SPT 2, 1, 0 N=1 7.95m	42.0 / 7.0 8.0					VL	7.30: Duplicate sample taken 7.50: PID = 1ppm

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH13

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Lower
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 2 OF 2

POSITION : E: 330915.675, N: 6256004.801 (56 MGA94) SURFACE ELEVATION : 49.500 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 10/11/11 DATE COMPLETED : 10/11/11 DATE LOGGED : 10/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING						MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL) / DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
		E-H			8.0		SW	8.10m	W	VL	8.00: Seepage at soil/rock interface
AD/T		M						SANDSTONE fine to medium grained, orange brown, estimate very low to low strength becoming low to medium strength and pale grey at 8.5m			WEATHERED ROCK 8.10: Low TC Bit Resistance
		H			41.0			8.70m			8.50: Medium TC Bit Resistance
								BOREHOLE BH13 TERMINATED AT 8.70 m Target depth			
					9.0						
					40.0						
					10.0						
					39.0						
					11.0						
					38.0						
					12.0						
					37.0						
					13.0						
					36.0						
					14.0						
					35.0						
					15.0						
					34.0						
					16.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH14

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Lower
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330881.749, N: 6255997.518 (56 MGA94) SURFACE ELEVATION : 49.500 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 10/11/11 DATE COMPLETED : 10/11/11 DATE LOGGED : 10/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING						MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL) / DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AD/T		E		1.30m ES 1.50m SPT 1, 1, 2 N=3 1.95m	49.0 / 0.0		SM	Silty SILT fine to medium, brown, with rootlets in the top 100mm	D	S	TOPSOIL 0.20: PID = 2.2ppm
					48.0 / 1.0		CH	Sandy Silty CLAY high plasticity, grey orange brown			RESIDUAL SOIL 1.50: PID = 2.7ppm
					47.0 / 2.0			SANDSTONE fine to medium grained, orange, estimate very low to low strength becoming low to medium strength and pale grey at 3.0m	M to W		WEATHERED ROCK 2.10: Low TC Bit Resistance 2.00: Seepage at soil/rock interface
		M			46.0 / 3.0						3.00: Medium TC Bit Resistance
		H									
					45.0 / 4.0			BOREHOLE BH14 TERMINATED AT 3.50 m Target depth			
					44.0 / 5.0						
					43.0 / 6.0						
					42.0 / 7.0						
					8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH15

PROJECT : 266 Longueville Road, Lane Cove GI
LOCATION : Lower
CLIENT : Lane Cove Council
FEATURE : Bowling Green
FILE / JOB NO : 30011131
SHEET : 1 OF 1

POSITION : E: 330912.721, N: 6255990.120 (56 MGA94) SURFACE ELEVATION : 49.500 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Edson 3000 MOUNTING : Truck CONTRACTOR : BHC Drilling DRILLER : C.W

DATE STARTED : 10/11/11 DATE COMPLETED : 10/11/11 DATE LOGGED : 10/11/11 LOGGED BY : A.G CHECKED BY : M.G

DRILLING							MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	ELEVATION (RL) / DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Plasticity or Particle Characteristic, Colour, Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AD/T		E		0.10m ES 0.30m	49.0 / 0.0		SM	Silty SAND fine to medium grained, brown, with rootlets in the top 100mm			TOPSOIL 0.20: PID = 1.3ppm
								0.40m			
							SW	Gravelly Silty SAND fine to coarse grained, pale brown, with brick fragments and clay layers		L	FILL
				1.30m	1.0			1.30m			
		E-H		ES 1.50m 1.70m SPT 3, 1, 3 N=4 2.15m	48.0 / 2.0		CL	Sandy Silty CLAY medium plasticity, brown, with occasional medium to coarse grained gravels		F	1.30: Mixed penetration with cobbles and boulders in fill 1.50: PID = 0.9ppm
				2.70m ES 2.90m 3.00m SPT 6, 16, 13 N=29 3.45m	47.0 / 3.0			3.20m			3.00: PID = 1.4ppm
					46.0 / 4.0			Gravelly Clayey SAND fine to coarse grained, grey to orange brown, with brick fragments, ash, porcelain and glass	D		
				4.20m ES 4.40m 4.50m SPT 12, 16, 12 N=28 4.95m	45.0 / 5.0		SW	4.70 - 6.80 - Becoming grey gravelly sand		D - VD	4.50: PID = 1.3ppm
				5.70m ES 5.90m 6.00m SPT 18, 13, >25100mm N=>38 6.45m	44.0 / 6.0						6.00: PID = 3.3ppm
					43.0			6.80m	W to M		6.70: Seepage at soil/rock interface
		M			7.0			SANDSTONE fine to medium grained, orange grey, estimate very low to low strength becoming low to medium strength and pale grey at 7.2m			WEATHERED ROCK 6.80: Low TC Bit Resistance
		H									7.20: Medium TC Bit Resistance
								7.40m			
					42.0			BOREHOLE BH15 TERMINATED AT 7.40 m Target depth			
					8.0						

See Explanatory Notes for details of abbreviations & basis of descriptions.

SMEC AUSTRALIA

APPENDIX B

CHAIN OF CUSTODY DOCUMENTATION

mgt LabMark
ENVIRONMENTAL LABORATORIES

ABN – 50 005 085 521 e.mail : mgt@mgtenv.com.au web : www.mgtenv.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 9564 7055
NATA # 1261 & 1645
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 8215 6222
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600

Sample Receipt Advice

Company name:	**SMEC Testing Services Pty Ltd**
Contact name:	David Yonge
Client job number:	18435/1017C
COC number:	P18435
Turn around time:	5 Day
Date/Time received:	Nov 18, 2011 5:00 PM
MGT lab reference:	**319060**

Sample information

☒ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☒ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☒ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Organic samples had Teflon liners.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Sample BH4 0.0 -0.2 was not received
Samples received by the laboratory after 4pm are deemed to have been received the following working day..

Contact notes

If you have any questions with respect to these samples please contact:

Bob Symons on Phone : +61 2 8215 6222 or by e.mail: enviro.sydney@mgtlabmark.com.au

Results will be delivered electronically via e.mail to David Yonge - dyonge@smectesting.com.au.

mgt Labmark Sample Receipt

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164
Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Job No: 18435/1017C Order No: 8877

Laboratory: MGT Labmark
Unit F3-6, Building F, 16 Mars Road, LANE COVE NSW 2066
Telephone: (02) 8215 6222 Fax: (02) 9420 2977 Contact: -

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	ANALYSIS M13	C4	C15	VOC	R6	Asbestos
	300/1/31 -BH1 - 0.0-0.2	1		10/11/2011		soil	No11911	X		X			X
	300/1/31 -BH1 - 0.6-0.7	1		10/11/2011		soil	72						
	300/1/31 -BH2 - 0.0-0.2	1		10/11/2011		soil	73		X				
	300/1/31 -BH2 - 0.5-0.7	1		10/11/2011		soil	74						
	300/1/31 -BH3 - 0.0-0.2	1		11/11/2011		soil	75	X					
	300/1/31 -BH3 - 0.5-0.7	1		11/11/2011		soil	76						
	300/1/31 -BH4 - 0.0-0.2	1		11/11/2011		soil	77	X		X			
	300/1/31 -BH4 - 0.0-0.2 (1)	1		11/11/2011		soil	78	X	X				
	300/1/31 -BH4 - 0.0-0.2 (3)	1		11/11/2011		soil	79	X	X				
	300/1/31 -BH4 - 0.5-0.7	1		11/11/2011		soil	80	X					
	300/1/31 -BH4 - 1.1-1.3	1		11/11/2011		soil	81						
	300/1/31 -BH5 - 0.0-0.2	1		11/11/2011		soil	82						
	300/1/31 -BH5 - 1.3-1.5	1		11/11/2011		soil	83					X	
	300/1/31 -BH5 - 2.7-2.9 (1)	1		11/11/2011		soil	84	X	X				
	300/1/31 -BH5 - 2.7-2.9 (2)	1		11/11/2011		soil	85						
	300/1/31 -BH5 - 3.7-3.9	1		11/11/2011		soil	86						
	300/1/31 -BH6 - 0.0-0.2	1		11/11/2011		soil	87	X					
	300/1/31 -BH6 - 0.5-0.7	1		11/11/2011		soil	88						
	300/1/31 -BH7 - 0.0-0.2	1		11/11/2011		soil	89			X			X
	300/1/31 -BH7 - 1.3-1.5	1		11/11/2011		soil	90						
	300/1/31 -BH7 - 2.7-2.9	1		11/11/2011		soil	91						

recd 5pm 18/7/11
#319060

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164
Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Job No: 18435/1017C Order No: 8877

Laboratory: MGT Labmark
Unit F3-6, Building F, 16 Mars Road, LANE COVE NSW 2066
Telephone: (02) 8215 6222 Fax: (02) 9420 2977 Contact: -

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	ANALYSIS M13	C4	C15	VOC	R6	Asbestos
	300/1/31 -BH8 - 0.0-0.2	1		11/11/2011		soil	No11992	X					
	300/1/31 -BH8 - 1.3-1.5	1		11/11/2011		soil	93	X	X				
	300/1/31 -BH8 - 2.7-2.9	1		11/11/2011		soil	94						
	300/1/31 -BH9 - 0.0-0.2	1		11/11/2011		soil	95	X					X
	300/1/31 -BH9 - 0.5-0.7	1		11/11/2011		soil	96						
	300/1/31 -BH10 - 0.0-0.2 (1)	1		10/11/2011		soil	97	X	X				
	300/1/31 -BH10 - 0.0-0.2 (3)	1		10/11/2011		soil	98						
	300/1/31 -BH10 - 1.0-1.3	1		10/11/2011		soil	99	X	X				
	300/1/31 -BH10 - 2.7-2.9	1		10/11/2011		soil	No12000						
	300/1/31 -BH11 - 0.0-0.2	1		10/11/2011		soil	01						
	300/1/31 -BH11 - 1.3-1.5	1		10/11/2011		soil	02				X	X	X
	300/1/31 -BH11 - 4.3-4.5	1		10/11/2011		soil	03	X	X				X
	300/1/31 -BH11 -5.7-5.9	1		10/11/2011		soil	04						
	300/1/31 -BH11 - 8.6-8.8	1		10/11/2011		soil	05	X	X	X			X
	300/1/31 -BH12 - 0.1-0.3	1		10/11/2011		soil	06	X					
	300/1/31 -BH12 - 1.3-1.5	1		10/11/2011		soil	07				X	X	X
	300/1/31 -BH12 - 4.3-4.5	1		10/11/2011		soil	08	X	X				
	300/1/31 -BH13 - 0.0-0.2	1		10/11/2011		soil	09						
	300/1/31 -BH13 - 1.3-1.5	1		10/11/2011		soil	10				X	X	X
	300/1/31 -BH13 - 2.7-2.9	1		10/11/2011		soil	11						
	300/1/31 -BH13 - 4.3-4.5	1		10/11/2011		soil	12				X	X	X

5pm 18/11/11 dmx.
#319060

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164
Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Job No: 18435/1017C Order No: 8877

Laboratory: MGT Labmark
Unit F3-6, Building F, 16 Mars Road, LANE COVE NSW 2066
Telephone: (02) 8215 6222 Fax: (02) 9420 2977 Contact: -

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	ANALYSIS M13	C4	C15	VOC	R6	Asbestos
	300/1/31 -BH13 - 5.8-6.0	1		10/11/2011		soil	N012013						
	300/1/31 -BH13 - 7.3-7.5 (1)	1		10/11/2011		soil	14	X	X				X
	300/1/31 -BH14 - 0.1-0.3	1		10/11/2011		soil	15	X					
	300/1/31 -BH14 - 1.3-1.5	1		10/11/2011		soil	16						
	300/1/31 -BH15 - 0.1-0.3	1		10/11/2011		soil	17	X		X			
	300/1/31 -BH15 - 1.3-1.5	1		10/11/2011		soil	18	X	X				X
	300/1/31 -BH15 - 2.7-2.9	1		10/11/2011		soil	19						
	300/1/31 -BH15 - 4.0-4.2	1		10/11/2011		soil	20				X	X	X
	300/1/31 -BH15 - 5.7-5.9	1		10/11/2011		soil	21						
TOTAL		51						21	12	5	5	5	12

Released by SMEC Testing Services
David Yonge
Signed: DYonge
Date: 18/11/2011
Time: 2:00 PM

CoC Number: P18435 - COC1
Your quotation:

Received by:
Signed:
Date:
Time:

Preliminary results by: Fri 25 November 2011
Final results by: Fri 25 November 2011

Comments:

Standard Detection Limits Apply

5pm 18/11/11 Ltr.
#319060.

ALS Group
Environmental Division

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order : **ES1125776**

Client	: **SMEC TESTING SERVICES PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR DAVID YONGE	Contact	: Client Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: dyonge@smectesting.com.au	E-mail	: sydney@alsglobal.com
Telephone	: +61 02 9756 2166	Telephone	: +61-2-8784 8555
Facsimile	: +61 02 9756 1137	Facsimile	: +61-2-8784 8500
Project	: 18435 1017C	Page	: 1 of 2
Order number	: 8879		
C-O-C number	: ----	Quote number	: ES2010SMETES0264 (EN/025/10)
Site	: ----		
Sampler	: ----	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Dates

Date Samples Received	: 23-NOV-2011	Issue Date	: 24-NOV-2011 00:08
Client Requested Due Date	: 30-NOV-2011	Scheduled Reporting Date	: **30-NOV-2011**

Delivery Details

Mode of Delivery	: Client Drop off	Temperature	: 8.8'C
No. of coolers/boxes	: 1 BAG	No. of samples received	: 3
Security Seal	: Intact.	No. of samples analysed	: 1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Samples received in appropriately pretreated and preserved containers.
- Insufficient time received for analysis of some analytes within 'analytical holding times'. Samples should be submitted with at least half the holding time remaining to minimize the possibility of holding time breaches.
- **Samples received in appropriately pretreated and preserved containers.**
- **Samples BH10 and BH13 have been placed on hold**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (14 days), Solid (90 days) from date of completion of work order.

Sample Container(s)/Preservation Non-Compliances

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

- **No sample container / preservation non-compliance exist.**

Any sample identifications that cannot be displayed entirely in the analysis summary table will be listed below.

ES1125776-001 : 11-NOV-2011 15:00 : 300/1/31-BH4-0.0-0.2(2)
ES1125776-002 : 10-NOV-2011 15:00 : 300/1/31-BH10-0.0-0.2(2)
ES1125776-003 : 10-NOV-2011 15:00 : 300/1/31-BH13-7.3-7.5(2)

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process neccessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default to 15:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory for processing purposes and will be shown bracketed without a time component.

Matrix: **SOIL**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	(On Hold) SOIL No analysis requested	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-07 TPH/BTEX/PAH (SIM)
ES1125776-001	11-NOV-2011 15:00	300/1/31-BH4-0.0-0.2...		✓	✓
ES1125776-002	10-NOV-2011 15:00	300/1/31-BH10-0.0-0....	✓		
ES1125776-003	10-NOV-2011 15:00	300/1/31-BH13-7.3-7....	✓		

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS

- A4 - AU Tax Invoice (INV)	Email	accounts@smectesting.com.au

MR DAVID YONGE

- *AU Certificate of Analysis - NATA (COA)	Email	dyonge@smectesting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	dyonge@smectesting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	dyonge@smectesting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	dyonge@smectesting.com.au
- A4 - AU Tax Invoice (INV)	Email	dyonge@smectesting.com.au
- Chain of Custody (CoC) (COC)	Email	dyonge@smectesting.com.au
- EDI Format - ENMRG (ENMRG)	Email	dyonge@smectesting.com.au

REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	enquiries@smectesting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	enquiries@smectesting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	enquiries@smectesting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	enquiries@smectesting.com.au
- Chain of Custody (CoC) (COC)	Email	enquiries@smectesting.com.au
- EDI Format - ENMRG (ENMRG)	Email	enquiries@smectesting.com.au

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164
Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Job No: 18435/1017C Order No: 8879

Laboratory: ALS Laboratory Group - Sydney Environmental Division
277-289 Woodpark Road, SMITHFIELD NSW 2164
Telephone: (02) 8784 8555 Fax: (02) 8784 8500 Contact: Jacob Waugh

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	ANALYSIS S2	ANALYSIS S7
1	300/1/31 -BH4 - 0.0-0.2 (2)	1		11/11/2011		soil		X	X
2	300/1/31 -BH10 - 0.0-0.2 (2)	1		10/11/2011		soil			
3	300/1/31 -BH13 - 7.3-7.5 (2)	1		10/11/2011		soil			
TOTAL		3							

Environmental Division Sydney
Work Order
ES1125776
Telephone : +61-2-8784 8555

Released by SMEC Testing Services David Yonge Signed:	Date: 23/11/2011	Time: 3:30 PM	CoC Number: P18435 - SCOC1
			Your quotation: SMEC 2010 (EN/025/10)
Received by: Frank Signed:	Date: 23-11-11	Time: 1545	Preliminary results by: Wed 30 November 2011 / Final results by: Wed 30 November 2011

Comments:

Standard Detection Limits Apply

mgt LabMark ENVIRONMENTAL LABORATORIES

ABN – 50 005 085 521 e.mail : mgt@mgtenv.com.au web : www.mgtenv.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 9564 7055
NATA # 1261 & 1645
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 8215 6222
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600

Sample Receipt Advice

Company name:	**SMEC Testing Services Pty Ltd**
Contact name:	David Yonge
Client job number:	TCLP 18435/1177C:- ADDITIONAL
COC number:	P18435-COC2
Turn around time:	5 Day
Date/Time received:	Jan 11, 2012 3:00 PM
MGT lab reference:	**323778**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☒ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Organic samples had Teflon liners.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Additional analysis from report 319060 | Analysed outside recomended holding time for PAHs.

Contact notes

If you have any questions with respect to these samples please contact:

Onur Mehmet on Phone : (+61) (3) 9564 7055 or by e.mail: onur.mehmet@mgtlabmark.com.au

Results will be delivered electronically via e.mail to David Yonge - dyonge@smectesting.com.au.

mgt Labmark Sample Receipt

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164
Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Job No: 18435/1177C Order No: 8887

Laboratory: MGT Labmark
Unit F3-6, Building F, 16 Mars Road, LANE COVE NSW 2066
Telephone: (02) 8215 6222 Fax: (02) 9420 2977 Contact: -

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	ANALYSIS: TCLP Lead	TCLP Nickel	TCLP PAH
	300/1/31 -BH1 - 0.0-0.2	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH1 - 0.6-0.7	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH2 - 0.0-0.2	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH2 - 0.5-0.7	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH3 - 0.0-0.2	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH3 - 0.5-0.7	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH4 - 0.0-0.2	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH4 - 0.0-0.2 (1)	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH4 - 0.0-0.2 (3)	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH4 - 0.5-0.7	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH4 - 1.1-1.3	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH5 - 0.0-0.2	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH5 - 1.3-1.5	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH5 - 2.7-2.9 (1)	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH5 - 2.7-2.9 (2)	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH5 - 3.7-3.9	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH6 - 0.0-0.2	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH6 - 0.5-0.7	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH7 - 0.0-0.2	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH7 - 1.3-1.5	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH7 - 2.7-2.9	1		11/11/2011		soil	Held In Custody			

Received: 11/01/12 15:00 mgt labmark #323778

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (office), Wetherill Park NSW 2164
Telephone: (02) 9756 2166 Fax: (02) 9756 1137
E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Job No: 18435/1177C Order No: 8887

Laboratory: MGT Labmark
Unit F3-6 Building F, 16 Mars Road, LANE COVE NSW 2066
Telephone: (02) 8215 6222 Fax: (02) 9420 2977 Contact:

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type	Comments	ANALYSIS: TCLP Lead	TCLP Nickel	TCLP PAH
	300/1/31 -BH8 - 0.0-0.2	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH8 - 1.3-1.5	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH8 - 2.7-2.9	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH9 - 0.0-0.2	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH9 - 0.5-0.7	1		11/11/2011		soil	Held In Custody			
	300/1/31 -BH10 - 0.0-0.2 (1)	1		10/11/2011		soil	JA02961 Held In Custody		X	
	300/1/31 -BH10 - 0.0-0.2 (3)	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH10 - 1.0-1.3	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH10 - 2.7-2.9	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH11 - 0.0-0.2	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH11 - 1.3-1.5	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH11 - 4.3-4.5	1		10/11/2011		soil	JA02971 Held In Custody	X		
	300/1/31 -BH11 -5.7-5.9	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH11 - 8.6-8.8	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH12 - 0.1-0.3	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH12 - 1.3-1.5	1		10/11/2011		soil	JA02972 Held In Custody	X		X
	300/1/31 -BH12 - 4.3-4.5	1		10/11/2011		soil	JA02973 Held In Custody	X		
	300/1/31 -BH13 - 0.0-0.2	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH13 - 1.3-1.5	1		10/11/2011		soil	JA02974 Held In Custody			X
	300/1/31 -BH13 - 2.7-2.9	1		10/11/2011		soil	Held In Custody			
	300/1/31 -BH13 - 4.3-4.5	1		10/11/2011		soil	JA02975 Held In Custody	X		

Received: 11/01/12 15:00 mgt Labmark # 323778

CHAIN OF CUSTODY RECORD

SMEC Testing Services Pty Ltd Job No: 18435/117?C Order No: 8887

PO Box 6989 (postal)

14/1 Cowpasture Place (office), Wetherill Park NSW 2164

Telephone: (02) 9756 2166 Fax: (02) 9756 1137

E-Mail: dyonge@smectesting.com.au Contact: David Yonge

Laboratory: MGT Labmark

Unit F3-6, Building F, 16 Mars Road, LANE COVE NSW 2066

Telephone: (02) 8215 6222 Fax: (02) 9420 2977 Contact:

Laboratory number	Sample number	jar/ bottle	bag	Date sampled	Composite number	Sample type		Comments	TCLP Lead	TCLP Nickel	TCLP PAH
	300/1/31 -BH13 - 5.8-6.0	1		10/11/2011		soil		Held In Custody			
	300/1/31 -BH13 - 7.3-7.5 (1	1		10/11/2011		soil	JA02976	Held In Custody	X		X
	300/1/31 -BH14 - 0.1-0.3	1		10/11/2011		soil		Held In Custody			
	300/1/31 -BH14 - 1.3-1.5	1		10/11/2011		soil		Held In Custody			
	300/1/31 -BH15 - 0.1-0.3	1		10/11/2011		soil		Held In Custody			
	300/1/31 -BH15 - 1.3-1.5	1		10/11/2011		soil	JA02977	Held In Custody	X		
	300/1/31 -BH15 - 2.7-2.9	1		10/11/2011		soil		Held In Custody			
	300/1/31 -BH15 - 4.0-4.2	1		10/11/2011		soil	JA02978	Held In Custody	X		X
	300/1/31 -BH15 - 5.7-5.9	1		10/11/2011		soil		Held In Custody			
TOTAL		51							7	1	4

ANALYSIS

Released by SMEC Testing Services
David Yonge
Signed: [signature]
Date: 11/01/2012
Time: 2:30PM

Received by: Ellen WG
Signed: [signature]
Date: 11/01/12
Time: 15:00

CoC Number: P18435 - COC2

Your quotation:

Preliminary results by: Wed 18 January 2012

Final results by: Wed 18 January 2012

Comments:

Standard Detection Limits Apply

323778

Enquiries Syd

Subject: FW: REBATCH REQUEST for mgt-Labmark Test Results - Report 319060 : Site 18435/1017C

Attachments: 18435 - COC2.pdf; AVG Certification.txt

-----Original Message-----
From: David Yonge [mailto:dyonge@smectesting.com.au]
Sent: Wednesday, 11 January 2012 2:58 PM
To: Enviro Syd
Cc: Onur Mehmet; Bob Symons
Subject: RE: REBATCH REQUEST for mgt-Labmark Test Results - Report 319060 : Site 18435/1017C

Hi Sample Receipt,

We would like to commission some additional analyses from sample batch 319060 - please find our COC attached outlining the analytical requirements.

Should you have any queries, please do not hesitate to contact me.

Regards,

David Yonge | Environmental Manager
SMEC Testing Services Pty Ltd
PO Box 6989 (postal)
14/1 Cowpasture Place (street)
Wetherill Park NSW 2164
dyonge@smectesting.com.au | www.smectesting.com.au T (02) 9756 2166 | F (02) 9756 1137 | M 0411 442 520 enquiries@smectesting.com.au (office)

Work # 323778

APPENDIX C

ANALYTICAL LABORATORY REPORTS

mgt LabMark
ENVIRONMENTAL LABORATORIES

Certificate of Analysis

SMEC Testing Services Pty Ltd
14/1 Cowpasture Place
Wetherill Park
NSW 2164

Attention: David Yonge

NATA
WORLD RECOGNISED ACCREDITATION

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.

Report	319060-S
Client Reference	18435/1017C
Received Date	Nov 18, 2011

Client Sample ID			**300/1/31-BH1-0.0-0.2**	**300/1/31-BH1-0.6-0.7**	**300/1/31-BH2-0.0-0.2**	**300/1/31-BH2-0.5-0.7**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No11971**	**S11-No11972**	**S11-No11973**	**S11-No11974**
Date Sampled			**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	-	-	< 10	-
TRH C10-C14	50	mg/kg	-	-	< 50	-
TRH C15-C28	100	mg/kg	-	-	< 100	-
TRH C29-C36	100	mg/kg	-	-	< 100	-
TRH C10-36 (Total)	100	mg/kg	-	-	< 100	-
Volatile Organic Compounds (VOC)						
Benzene	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.5	mg/kg	-	-	< 0.5	-
o-Xylene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.5	mg/kg	-	-	< 0.5	-
Total m+p-Xylenes	1	mg/kg	-	-	< 1	-
4-Bromofluorobenzene (surr.)	1	%	-	-	121	-
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene[N02]	0.5	mg/kg	-	-	[N04]< 0.5	-
TRH C6-C10	20	mg/kg	-	-	< 20	-
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	-	-	< 20	-
TRH >C10-C16	50	mg/kg	-	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	< 50	-
TRH >C16-C34	100	mg/kg	-	-	< 100	-
TRH >C34-C40	100	mg/kg	-	-	< 100	-
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	-	-	< 1.5	-
Total BTEX	1.5	mg/kg	-	-	< 1.5	-
Polychlorinated Biphenyls (PCB)						
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	%	112	-	-	-
Organochlorine Pesticides (OC)						
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDT	0.2	mg/kg	< 0.2	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-

Client Sample ID			300/1/31-BH1-0.0-0.2	300/1/31-BH1-0.6-0.7	300/1/31-BH2-0.0-0.2	300/1/31-BH2-0.5-0.7
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No11971	S11-No11972	S11-No11973	S11-No11974
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
a-Chlordane	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	-	-	-
g-Chlordane	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	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	88	-	-	-
Organophosphorus Pesticides (OP)						
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	-	-	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	-	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	-
Anthracene	0.5	mg/kg	-	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			**300/1/31-BH1-0.0-0.2**	**300/1/31-BH1-0.6-0.7**	**300/1/31-BH2-0.0-0.2**	**300/1/31-BH2-0.5-0.7**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No11971**	**S11-No11972**	**S11-No11973**	**S11-No11974**
Date Sampled			**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**
Test/Reference	LOR	Unit				
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	-	< 1	-
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	< 0.5	-
Chrysene	0.5	mg/kg	-	-	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	< 0.5	-
Fluoranthene	0.5	mg/kg	-	-	< 0.5	-
Fluorene	0.5	mg/kg	-	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	-
Naphthalene	0.5	mg/kg	-	-	< 0.5	-
Phenanthrene	0.5	mg/kg	-	-	< 0.5	-
Pyrene	0.5	mg/kg	-	-	< 0.5	-
Total PAH	1	mg/kg	-	-	< 1	-
2-Fluorobiphenyl (surr.)	1	%	-	-	105	-
p-Terphenyl-d14 (surr.)	1	%	-	-	113	-
% Moisture	0.1	%	14	-	11	-
Asbestos			ASET Report	-	-	-
Heavy Metals						
Arsenic	1	mg/kg	1.9	-	-	-
Cadmium	0.1	mg/kg	< 0.1	-	-	-
Chromium	2	mg/kg	17	-	-	-
Copper	2	mg/kg	22	-	-	-
Lead	2	mg/kg	73	-	-	-
Nickel	1	mg/kg	17	-	-	-
Zinc	5	mg/kg	74	-	-	-
Mercury	0.05	mg/kg	0.28	-	-	-
Barium	5	mg/kg	74	-	-	-
Beryllium	1	mg/kg	< 1	-	-	-
Cobalt	1	mg/kg	15	-	-	-
Manganese	5	mg/kg	230	-	-	-
Vanadium	5	mg/kg	23	-	-	-

Client Sample ID			300/1/31-BH3-0.0-0.2	300/1/31-BH3-0.5-0.7	300/1/31-BH4-0.0-0.2	300/1/31-BH4-0.0-0.2 (1)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No11975	S11-No11976	S11-No11977	S11-No11978
Date Sampled			Nov 11, 2011	Nov 11, 2011	Nov 11, 2011	Nov 11, 2011
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	-	-	-	< 10
TRH C10-C14	50	mg/kg	-	-	-	< 50
TRH C15-C28	100	mg/kg	-	-	-	< 100
TRH C29-C36	100	mg/kg	-	-	-	< 100
TRH C10-36 (Total)	100	mg/kg	-	-	-	< 100
Volatile Organic Compounds (VOC)						
Benzene	0.5	mg/kg	-	-	-	< 0.5
Ethylbenzene	0.5	mg/kg	-	-	-	< 0.5
o-Xylene	0.5	mg/kg	-	-	-	< 0.5
Toluene	0.5	mg/kg	-	-	-	< 0.5
Total m+p-Xylenes	1	mg/kg	-	-	-	< 1
4-Bromofluorobenzene (surr.)	1	%	-	-	-	125
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene[N02]	0.5	mg/kg	-	-	-	[N04]< 0.5
TRH C6-C10	20	mg/kg	-	-	-	< 20
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	-	-	-	< 20
TRH >C10-C16	50	mg/kg	-	-	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	-	< 50
TRH >C16-C34	100	mg/kg	-	-	-	< 100
TRH >C34-C40	100	mg/kg	-	-	-	< 100
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	-	-	-	< 1.5
Total BTEX	1.5	mg/kg	-	-	-	< 1.5
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	-	-	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	-	< 0.5
Anthracene	0.5	mg/kg	-	-	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	-	-	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	-	-	< 1
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	-	< 0.5
Chrysene	0.5	mg/kg	-	-	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	-	< 0.5
Fluoranthene	0.5	mg/kg	-	-	-	< 0.5
Fluorene	0.5	mg/kg	-	-	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	-	< 0.5
Naphthalene	0.5	mg/kg	-	-	-	< 0.5
Phenanthrene	0.5	mg/kg	-	-	-	< 0.5
Pyrene	0.5	mg/kg	-	-	-	< 0.5
Total PAH	1	mg/kg	-	-	-	< 1
2-Fluorobiphenyl (surr.)	1	%	-	-	-	103
p-Terphenyl-d14 (surr.)	1	%	-	-	-	108
% Moisture	0.1	%	4.1	-	-	4.2
CANCELLED			-	-		-
Heavy Metals						
Arsenic	1	mg/kg	< 1	-	-	< 1

Client Sample ID			300/1/31-BH3-0.0-0.2	300/1/31-BH3-0.5-0.7	300/1/31-BH4-0.0-0.2	300/1/31-BH4-0.0-0.2 (1)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No11975**	**S11-No11976**	**S11-No11977**	**S11-No11978**
Date Sampled			**Nov 11, 2011**	**Nov 11, 2011**	**Nov 11, 2011**	**Nov 11, 2011**
Test/Reference	LOR	Unit				
Cadmium	0.1	mg/kg	< 0.1	-	-	< 0.1
Chromium	2	mg/kg	< 2	-	-	< 2
Copper	2	mg/kg	2.0	-	-	< 2
Lead	2	mg/kg	3.9	-	-	3.0
Nickel	1	mg/kg	< 1	-	-	< 1
Zinc	5	mg/kg	< 5	-	-	< 5
Mercury	0.05	mg/kg	2.0	-	-	1.2
Barium	5	mg/kg	11	-	-	14
Beryllium	1	mg/kg	< 1	-	-	< 1
Cobalt	1	mg/kg	2.9	-	-	2.5
Manganese	5	mg/kg	54	-	-	56
Vanadium	5	mg/kg	< 5	-	-	< 5

Client Sample ID			300/1/31-BH4-0.0-0.2 (3)	300/1/31-BH4-0.5-0.7	300/1/31-BH4-1.1-1.3	300/1/31-BH5-0.0-0.2
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No11979	S11-No11980	S11-No11981	S11-No11982
Date Sampled			Nov 11, 2011	Nov 11, 2011	Nov 11, 2011	Nov 11, 2011
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	-	-	-
TRH C10-C14	50	mg/kg	< 50	-	-	-
TRH C15-C28	100	mg/kg	< 100	-	-	-
TRH C29-C36	100	mg/kg	< 100	-	-	-
TRH C10-36 (Total)	100	mg/kg	< 100	-	-	-
Volatile Organic Compounds (VOC)						
Benzene	0.5	mg/kg	< 0.5	-	-	-
Ethylbenzene	0.5	mg/kg	< 0.5	-	-	-
o-Xylene	0.5	mg/kg	< 0.5	-	-	-
Toluene	0.5	mg/kg	< 0.5	-	-	-
Total m+p-Xylenes	1	mg/kg	< 1	-	-	-
4-Bromofluorobenzene (surr.)	1	%	109	-	-	-
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene[N02]	0.5	mg/kg	[N04]< 0.5	-	-	-
TRH C6-C10	20	mg/kg	< 20	-	-	-
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	< 20	-	-	-
TRH >C10-C16	50	mg/kg	< 50	-	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	-	-
TRH >C16-C34	100	mg/kg	< 100	-	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-	-
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	-	-	-
Total BTEX	1.5	mg/kg	< 1.5	-	-	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	-	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-	-
Pyrene	0.5	mg/kg	< 0.5	-	-	-
Total PAH	1	mg/kg	< 1	-	-	-
2-Fluorobiphenyl (surr.)	1	%	94	-	-	-
p-Terphenyl-d14 (surr.)	1	%	102	-	-	-
% Moisture	0.1	%	8.3	2.6	-	-
Heavy Metals						
Arsenic	1	mg/kg	< 1	< 1	-	-
Cadmium	0.1	mg/kg	< 0.1	< 0.1	-	-

Client Sample ID			300/1/31-BH4-0.0-0.2 (3)	300/1/31-BH4-0.5-0.7	300/1/31-BH4-1.1-1.3	300/1/31-BH5-0.0-0.2
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No11979**	**S11-No11980**	**S11-No11981**	**S11-No11982**
Date Sampled			**Nov 11, 2011**	**Nov 11, 2011**	**Nov 11, 2011**	**Nov 11, 2011**
Test/Reference	LOR	Unit				
Chromium	2	mg/kg	4.8	2.5	-	-
Copper	2	mg/kg	3.7	3.9	-	-
Lead	2	mg/kg	7.9	5.4	-	-
Nickel	1	mg/kg	< 1	< 1	-	-
Zinc	5	mg/kg	5.9	8.8	-	-
Mercury	0.05	mg/kg	3.1	1.5	-	-
Barium	5	mg/kg	22	26	-	-
Beryllium	1	mg/kg	< 1	< 1	-	-
Cobalt	1	mg/kg	4.2	3.4	-	-
Manganese	5	mg/kg	140	70	-	-
Vanadium	5	mg/kg	6.8	6.5	-	-

Client Sample ID			300/1/31-BH5-1.3-1.5	300/1/31-BH5-2.7-2.9 (1)	300/1/31-BH5-2.7-2.9 (2)	300/1/31-BH5-3.7-3.9
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No11983	S11-No11984	S11-No11985	S11-No11986
Date Sampled			Nov 11, 2011	Nov 11, 2011	Nov 11, 2011	Nov 11, 2011
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	< 10	-	-
TRH C10-C14	50	mg/kg	< 50	< 50	-	-
TRH C15-C28	100	mg/kg	< 100	< 100	-	-
TRH C29-C36	100	mg/kg	< 100	< 100	-	-
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	-	-
Volatile Organic Compounds (VOC)						
Benzene	0.5	mg/kg	< 0.5	< 0.5	-	-
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Toluene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total m+p-Xylenes	1	mg/kg	< 1	< 1	-	-
4-Bromofluorobenzene (surr.)	1	%	118	120	-	-
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene[N02]	0.5	mg/kg	[N04]< 0.5	[N04]< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	< 100	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	< 1.5	-	-
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	-	-
Polychlorinated Biphenyls (PCB)						
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	%	107	-	-	-
Speciated Phenols						
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	-	-	-
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	%	117	-	-	-
Organochlorine Pesticides (OC)						
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-

Client Sample ID			300/1/31-BH5-1.3-1.5	300/1/31-BH5-2.7-2.9 (1)	300/1/31-BH5-2.7-2.9 (2)	300/1/31-BH5-3.7-3.9
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No11983	S11-No11984	S11-No11985	S11-No11986
Date Sampled			Nov 11, 2011	Nov 11, 2011	Nov 11, 2011	Nov 11, 2011
Test/Reference	LOR	Unit				
4.4'-DDT	0.2	mg/kg	< 0.2	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-
a-Chlordane	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	-	-	-
g-Chlordane	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	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	99	-	-	-
Polyaromatic Hydrocarbons (PAH)						
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)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	< 1	-	-
Benzo(g.h.i)perylene	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	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PAH	1	mg/kg	< 1	< 1	-	-
2-Fluorobiphenyl (surr.)	1	%	111	105	-	-
p-Terphenyl-d14 (surr.)	1	%	120	114	-	-
Cyanide (total)	1	mg/kg	< 1	-	-	-
Fluoride (soluble)	1	mg/kg	< 1	-	-	-
% Moisture	0.1	%	11	13	-	-
Heavy Metals						
Arsenic	1	mg/kg	< 1	1.7	-	-
Cadmium	0.1	mg/kg	< 0.1	< 0.1	-	-
Chromium	2	mg/kg	4.9	4.6	-	-
Copper	2	mg/kg	8.8	13	-	-

Client Sample ID			300/1/31-BH5-1.3-1.5	300/1/31-BH5-2.7-2.9 (1)	300/1/31-BH5-2.7-2.9 (2)	300/1/31-BH5-3.7-3.9
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No11983**	**S11-No11984**	**S11-No11985**	**S11-No11986**
Date Sampled			**Nov 11, 2011**	**Nov 11, 2011**	**Nov 11, 2011**	**Nov 11, 2011**
Test/Reference	LOR	Unit				
Lead	2	mg/kg	19	10	-	-
Molybdenum	1	mg/kg	< 1	-	-	-
Nickel	1	mg/kg	< 1	< 1	-	-
Selenium	2	mg/kg	< 2	-	-	-
Silver	0.1	mg/kg	0.1	-	-	-
Tin	1	mg/kg	< 1	-	-	-
Zinc	5	mg/kg	18	20	-	-
Mercury	0.05	mg/kg	0.29	0.49	-	-
Barium	5	mg/kg	-	21	-	-
Beryllium	1	mg/kg	-	< 1	-	-
Cobalt	1	mg/kg	-	11	-	-
Manganese	5	mg/kg	-	34	-	-
Vanadium	5	mg/kg	-	17	-	-

Client Sample ID			300/1/31-BH6-0.0-0.2	300/1/31-BH6-0.5-0.7	300/1/31-BH7-0.0-0.2	300/1/31-BH7-1.3-1.5
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No11987	S11-No11988	S11-No11989	S11-No11990
Date Sampled			Nov 11, 2011	Nov 11, 2011	Nov 11, 2011	Nov 11, 2011
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls (PCB)						
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	%	-	-	108	-
Organochlorine Pesticides (OC)						
4.4'-DDD	0.05	mg/kg	-	-	0.15	-
4.4'-DDE	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDT	0.2	mg/kg	-	-	< 0.2	-
a-BHC	0.05	mg/kg	-	-	< 0.05	-
a-Chlordane	0.05	mg/kg	-	-	0.39	-
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	-	-	0.27	-
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	-
g-Chlordane	0.05	mg/kg	-	-	0.14	-
Heptachlor	0.05	mg/kg	-	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	-	0.07	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	-
Methoxychlor	0.2	mg/kg	-	-	< 0.2	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	97	-
Organophosphorus Pesticides (OP)						
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	-

Client Sample ID			**300/1/31-BH6-0.0-0.2**	**300/1/31-BH6-0.5-0.7**	**300/1/31-BH7-0.0-0.2**	**300/1/31-BH7-1.3-1.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No11987**	**S11-No11988**	**S11-No11989**	**S11-No11990**
Date Sampled			**Nov 11, 2011**	**Nov 11, 2011**	**Nov 11, 2011**	**Nov 11, 2011**
Test/Reference	LOR	Unit				
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	%	-	-	77	-
% Moisture	0.1	%	4.0	-	4.9	-
Asbestos			-	-	ASET Report	-
Heavy Metals						
Arsenic	1	mg/kg	< 1	-	-	-
Cadmium	0.1	mg/kg	< 0.1	-	-	-
Chromium	2	mg/kg	< 2	-	-	-
Copper	2	mg/kg	< 2	-	-	-
Lead	2	mg/kg	3.5	-	-	-
Nickel	1	mg/kg	< 1	-	-	-
Zinc	5	mg/kg	< 5	-	-	-
Mercury	0.05	mg/kg	0.85	-	-	-
Barium	5	mg/kg	13	-	-	-
Beryllium	1	mg/kg	< 1	-	-	-
Cobalt	1	mg/kg	3.4	-	-	-
Manganese	5	mg/kg	73	-	-	-
Vanadium	5	mg/kg	< 5	-	-	-

Client Sample ID			300/1/31-BH7-2.7-2.9	300/1/31-BH8-0.0-0.2	300/1/31-BH8-1.3-1.5	300/1/31-BH8-2.7-2.9
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No11991	S11-No11992	S11-No11993	S11-No11994
Date Sampled			Nov 11, 2011	Nov 11, 2011	Nov 11, 2011	Nov 11, 2011
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	-	-	< 10	-
TRH C10-C14	50	mg/kg	-	-	< 50	-
TRH C15-C28	100	mg/kg	-	-	< 100	-
TRH C29-C36	100	mg/kg	-	-	< 100	-
TRH C10-36 (Total)	100	mg/kg	-	-	< 100	-
Volatile Organic Compounds (VOC)						
Benzene	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.5	mg/kg	-	-	< 0.5	-
o-Xylene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.5	mg/kg	-	-	< 0.5	-
Total m+p-Xylenes	1	mg/kg	-	-	< 1	-
4-Bromofluorobenzene (surr.)	1	%	-	-	114	-
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene[N02]	0.5	mg/kg	-	-	[N04]< 0.5	-
TRH C6-C10	20	mg/kg	-	-	< 20	-
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	-	-	< 20	-
TRH >C10-C16	50	mg/kg	-	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	< 50	-
TRH >C16-C34	100	mg/kg	-	-	< 100	-
TRH >C34-C40	100	mg/kg	-	-	< 100	-
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	-	-	< 1.5	-
Total BTEX	1.5	mg/kg	-	-	< 1.5	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	-	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	-
Anthracene	0.5	mg/kg	-	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	-	< 1	-
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	< 0.5	-
Chrysene	0.5	mg/kg	-	-	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	< 0.5	-
Fluoranthene	0.5	mg/kg	-	-	< 0.5	-
Fluorene	0.5	mg/kg	-	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	-
Naphthalene	0.5	mg/kg	-	-	< 0.5	-
Phenanthrene	0.5	mg/kg	-	-	< 0.5	-
Pyrene	0.5	mg/kg	-	-	< 0.5	-
Total PAH	1	mg/kg	-	-	< 1	-
2-Fluorobiphenyl (surr.)	1	%	-	-	110	-
p-Terphenyl-d14 (surr.)	1	%	-	-	118	-
% Moisture	0.1	%	-	4.6	16	-
Heavy Metals						
Arsenic	1	mg/kg	-	< 1	1.2	-
Cadmium	0.1	mg/kg	-	< 0.1	< 0.1	-
Chromium	2	mg/kg	-	7.6	5.1	-

Client Sample ID Sample Matrix mgt-LabMark Sample No. Date Sampled Test/Reference	LOR	Unit	300/1/31-BH7-2.7-2.9 Soil S11-No11991 Nov 11, 2011	300/1/31-BH8-0.0-0.2 Soil S11-No11992 Nov 11, 2011	300/1/31-BH8-1.3-1.5 Soil S11-No11993 Nov 11, 2011	300/1/31-BH8-2.7-2.9 Soil S11-No11994 Nov 11, 2011
Copper	2	mg/kg	-	3.2	< 2	-
Lead	2	mg/kg	-	6.6	11	-
Nickel	1	mg/kg	-	< 1	< 1	-
Zinc	5	mg/kg	-	9.0	6.6	-
Mercury	0.05	mg/kg	-	3.0	0.24	-
Barium	5	mg/kg	-	25	14	-
Beryllium	1	mg/kg	-	< 1	< 1	-
Cobalt	1	mg/kg	-	6.2	3.8	-
Manganese	5	mg/kg	-	150	22	-
Vanadium	5	mg/kg	-	11	15	-

Client Sample ID			300/1/31-BH9-0.0-0.2	300/1/31-BH9-0.5-0.7	300/1/31-BH10-0.0-0.2 (1)	300/1/31-BH10-0.0-0.2 (3)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No11995	S11-No11996	S11-No11997	S11-No11998
Date Sampled			Nov 11, 2011	Nov 11, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	-	-	< 10	-
TRH C10-C14	50	mg/kg	-	-	< 50	-
TRH C15-C28	100	mg/kg	-	-	< 100	-
TRH C29-C36	100	mg/kg	-	-	< 100	-
TRH C10-36 (Total)	100	mg/kg	-	-	< 100	-
Volatile Organic Compounds (VOC)						
Benzene	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.5	mg/kg	-	-	< 0.5	-
o-Xylene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.5	mg/kg	-	-	< 0.5	-
Total m+p-Xylenes	1	mg/kg	-	-	< 1	-
4-Bromofluorobenzene (surr.)	1	%	-	-	126	-
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene[N02]	0.5	mg/kg	-	-	[N04]< 0.5	-
TRH C6-C10	20	mg/kg	-	-	< 20	-
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	-	-	< 20	-
TRH >C10-C16	50	mg/kg	-	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	< 50	-
TRH >C16-C34	100	mg/kg	-	-	< 100	-
TRH >C34-C40	100	mg/kg	-	-	< 100	-
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	-	-	< 1.5	-
Total BTEX	1.5	mg/kg	-	-	< 1.5	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	-	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	-
Anthracene	0.5	mg/kg	-	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	-	< 1	-
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	< 0.5	-
Chrysene	0.5	mg/kg	-	-	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	< 0.5	-
Fluoranthene	0.5	mg/kg	-	-	< 0.5	-
Fluorene	0.5	mg/kg	-	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	-
Naphthalene	0.5	mg/kg	-	-	< 0.5	-
Phenanthrene	0.5	mg/kg	-	-	< 0.5	-
Pyrene	0.5	mg/kg	-	-	< 0.5	-
Total PAH	1	mg/kg	-	-	< 1	-
2-Fluorobiphenyl (surr.)	1	%	-	-	104	-
p-Terphenyl-d14 (surr.)	1	%	-	-	113	-
% Moisture	0.1	%	6.6	-	4.8	-
Asbestos			ASET Report	-	-	-
Heavy Metals						
Arsenic	1	mg/kg	3.7	-	< 1	-

Client Sample ID			**300/1/31-BH9-0.0-0.2**	**300/1/31-BH9-0.5-0.7**	**300/1/31-BH10-0.0-0.2 (1)**	**300/1/31-BH10-0.0-0.2 (3)**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No11995**	**S11-No11996**	**S11-No11997**	**S11-No11998**
Date Sampled			**Nov 11, 2011**	**Nov 11, 2011**	**Nov 10, 2011**	**Nov 10, 2011**
Test/Reference	LOR	Unit				
Cadmium	0.1	mg/kg	< 0.1	-	< 0.1	-
Chromium	2	mg/kg	6.1	-	< 2	-
Copper	2	mg/kg	< 2	-	42	-
Lead	2	mg/kg	9.7	-	2.1	-
Nickel	1	mg/kg	< 1	-	46	-
Zinc	5	mg/kg	< 5	-	27	-
Mercury	0.05	mg/kg	0.21	-	0.59	-
Barium	5	mg/kg	9.6	-	13	-
Beryllium	1	mg/kg	< 1	-	< 1	-
Cobalt	1	mg/kg	2.7	-	25	-
Manganese	5	mg/kg	15	-	260	-
Vanadium	5	mg/kg	23	-	< 5	-

Client Sample ID			300/1/31-BH10 -1.0-1.3	300/1/31-BH10 -2.7-2.9	300/1/31-BH11 -0.0-0.2	300/1/31-BH11 -1.3-1.5
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No11999	S11-No12000	S11-No12001	S11-No12002
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	-	-	< 10
TRH C10-C14	50	mg/kg	< 50	-	-	< 50
TRH C15-C28	100	mg/kg	< 100	-	-	< 100
TRH C29-C36	100	mg/kg	< 100	-	-	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	-	-	< 100
Volatile Organic Compounds (VOC)						
1.1-Dichloroethene	0.5	mg/kg	-	-	-	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	-	-	-	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	-	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	-	-	-	< 0.5
1.2-Dibromo-3-chloropropane	0.5	mg/kg	-	-	-	< 0.5
1.2-Dibromoethane	0.5	mg/kg	-	-	-	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	-	-	-	< 0.5
1.2-Dichloroethane	0.5	mg/kg	-	-	-	< 0.5
1.2-Dichloropropane	0.5	mg/kg	-	-	-	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	-	-	-	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	-	-	-	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	-	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	-	-	-	< 0.5
1.3-Dichloropropane	0.5	mg/kg	-	-	-	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	-	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	-	-	-	< 0.5
2-Butanone (MEK)	5	mg/kg	-	-	-	< 5
2-Chlorotoluene	0.5	mg/kg	-	-	-	< 0.5
2-Hexanone	5	mg/kg	-	-	-	< 5
2-Pentanone	5	mg/kg	-	-	-	< 5
4-Chlorotoluene	0.5	mg/kg	-	-	-	< 0.5
4-Methyl-2-pentanone (MIBK)	5	mg/kg	-	-	-	< 5
Benzene	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromobenzene	0.5	mg/kg	-	-	-	< 0.5
Bromodichloromethane	0.5	mg/kg	-	-	-	< 0.5
Bromoform	0.5	mg/kg	-	-	-	< 0.5
Bromomethane	5	mg/kg	-	-	-	< 5
Carbon disulfide	0.5	mg/kg	-	-	-	< 0.5
Carbon Tetrachloride	0.5	mg/kg	-	-	-	< 0.5
Chlorobenzene	0.5	mg/kg	-	-	-	< 0.5
Chloroethane	5	mg/kg	-	-	-	< 5
Chloroform	0.5	mg/kg	-	-	-	< 0.5
Chloromethane	5	mg/kg	-	-	-	< 5
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	-	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	-	< 0.5
Dibromochloromethane	0.5	mg/kg	-	-	-	< 0.5
Dichlorodifluoromethane	5	mg/kg	-	-	-	< 5
Ethylbenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
Hexachlorobutadiene	0.5	mg/kg	-	-	-	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	-	< 0.5
Methylene Chloride	5	mg/kg	-	-	-	< 5
n-Butylbenzene	0.5	mg/kg	-	-	-	< 0.5
n-Propylbenzene	0.5	mg/kg	-	-	-	< 0.5

Client Sample ID			300/1/31-BH10 -1.0-1.3	300/1/31-BH10 -2.7-2.9	300/1/31-BH11 -0.0-0.2	300/1/31-BH11 -1.3-1.5
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No11999	S11-No12000	S11-No12001	S11-No12002
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
o-Xylene	0.5	mg/kg	< 0.5	-	-	< 0.5
p-Isopropyltoluene	0.5	mg/kg	-	-	-	< 0.5
sec-Butylbenzene	0.5	mg/kg	-	-	-	< 0.5
Styrene	0.5	mg/kg	-	-	-	< 0.5
tert-Butylbenzene	0.5	mg/kg	-	-	-	< 0.5
Tetrachloroethene	0.5	mg/kg	-	-	-	< 0.5
Toluene	0.5	mg/kg	< 0.5	-	-	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1	-	-	< 1
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	-	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	-	< 0.5
Trichloroethene	0.5	mg/kg	-	-	-	< 0.5
Trichlorofluoromethane	5	mg/kg	-	-	-	< 5
Vinyl acetate	5	mg/kg	-	-	-	< 5
Vinyl chloride	5	mg/kg	-	-	-	< 5
4-Bromofluorobenzene (surr.)	1	%	121	-	-	100
Toluene-d8 (surr.)	1	%	-	-	-	98
Pentafluorobenzene (surr.)	1	%	-	-	-	103
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene[N02]	0.5	mg/kg	[N04]< 0.5	-	-	< 0.5
TRH C6-C10	20	mg/kg	< 20	-	-	< 20
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	< 20	-	-	< 20
TRH >C10-C16	50	mg/kg	< 50	-	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	-	< 50
TRH >C16-C34	100	mg/kg	< 100	-	-	< 100
TRH >C34-C40	100	mg/kg	< 100	-	-	< 100
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	-	-	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	-	-	< 1.5
Polychlorinated Biphenyls (PCB)						
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	%	-	-	-	112
Speciated Phenols						
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
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	%	-	-	-	91

Client Sample ID			300/1/31-BH10	300/1/31-BH10	300/1/31-BH11	300/1/31-BH11
			-1.0-1.3	-2.7-2.9	-0.0-0.2	-1.3-1.5
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No11999	S11-No12000	S11-No12001	S11-No12002
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
Organochlorine Pesticides (OC)						
4.4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDT	0.2	mg/kg	-	-	-	< 0.2
a-BHC	0.05	mg/kg	-	-	-	< 0.05
a-Chlordane	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
g-Chlordane	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
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	101
Polyaromatic Hydrocarbons (PAH)						
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)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	-	-	< 1
Benzo(g.h.i)perylene	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	-	-	1.0
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
Phenanthrene	0.5	mg/kg	< 0.5	-	-	1.0
Pyrene	0.5	mg/kg	< 0.5	-	-	0.8
Total PAH	1	mg/kg	< 1	-	-	2.8
2-Fluorobiphenyl (surr.)	1	%	74	-	-	88
p-Terphenyl-d14 (surr.)	1	%	71	-	-	103
Cyanide (total)	1	mg/kg	-	-	-	< 1
Fluoride (soluble)	1	mg/kg	-	-	-	1.8
% Moisture	0.1	%	12	-	-	13
Asbestos			-	-	-	ASET Report
Heavy Metals						
Arsenic	1	mg/kg	< 1	-	-	< 1

Client Sample ID			**300/1/31-BH10**	**300/1/31-BH10**	**300/1/31-BH11**	**300/1/31-BH11**
			-1.0-1.3	**-2.7-2.9**	**-0.0-0.2**	**-1.3-1.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No11999**	**S11-No12000**	**S11-No12001**	**S11-No12002**
Date Sampled			**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**
Test/Reference	LOR	Unit				
Cadmium	0.1	mg/kg	< 0.1	-	-	< 0.1
Chromium	2	mg/kg	4.3	-	-	4.5
Copper	2	mg/kg	< 2	-	-	8.9
Lead	2	mg/kg	12	-	-	65
Molybdenum	1	mg/kg	-	-	-	< 1
Nickel	1	mg/kg	< 1	-	-	6.0
Selenium	2	mg/kg	-	-	-	< 2
Silver	0.1	mg/kg	-	-	-	0.2
Tin	1	mg/kg	-	-	-	< 1
Zinc	5	mg/kg	< 5	-	-	33
Mercury	0.05	mg/kg	0.07	-	-	0.26
Barium	5	mg/kg	200	-	-	-
Beryllium	1	mg/kg	< 1	-	-	-
Cobalt	1	mg/kg	1.3	-	-	-
Manganese	5	mg/kg	< 5	-	-	-
Vanadium	5	mg/kg	9.2	-	-	-

Client Sample ID			300/1/31-BH11 -4.3-4.5	300/1/31-BH11 -5.7-5.9	300/1/31-BH11 -8.6-8.8	300/1/31-BH12 -0.1-0.3
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No12003	S11-No12004	S11-No12005	S11-No12006
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	-	< 10	-
TRH C10-C14	50	mg/kg	< 50	-	< 50	-
TRH C15-C28	100	mg/kg	< 100	-	< 100	-
TRH C29-C36	100	mg/kg	< 100	-	< 100	-
TRH C10-36 (Total)	100	mg/kg	< 100	-	< 100	-
Volatile Organic Compounds (VOC)						
Benzene	0.5	mg/kg	< 0.5	-	< 0.5	-
Ethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
o-Xylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Toluene	0.5	mg/kg	< 0.5	-	< 0.5	-
Total m+p-Xylenes	1	mg/kg	< 1	-	< 1	-
4-Bromofluorobenzene (surr.)	1	%	118	-	112	-
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene[N02]	0.5	mg/kg	[N04]< 0.5	-	[N04]< 0.5	-
TRH C6-C10	20	mg/kg	< 20	-	< 20	-
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	< 20	-	< 20	-
TRH >C10-C16	50	mg/kg	< 50	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-	< 100	-
TRH >C34-C40	100	mg/kg	< 100	-	< 100	-
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	-	< 1.5	-
Total BTEX	1.5	mg/kg	< 1.5	-	< 1.5	-
Polychlorinated Biphenyls (PCB)						
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	%	-	-	107	-
Organochlorine Pesticides (OC)						
4.4'-DDD	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDT	0.2	mg/kg	-	-	< 0.2	-
a-BHC	0.05	mg/kg	-	-	< 0.05	-
a-Chlordane	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	-

Client Sample ID			300/1/31-BH11	300/1/31-BH11	300/1/31-BH11	300/1/31-BH12
			-4.3-4.5	-5.7-5.9	-8.6-8.8	-0.1-0.3
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No12003	S11-No12004	S11-No12005	S11-No12006
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
g-Chlordane	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	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	107	-
Organophosphorus Pesticides (OP)						
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	%	-	-	77	-
Polyaromatic Hydrocarbons (PAH)						
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)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	-	< 1	-
Benzo(g.h.i)perylene	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	-
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Pyrene	0.5	mg/kg	0.6	-	< 0.5	-
Total PAH	1	mg/kg	1.6	-	< 1	-
2-Fluorobiphenyl (surr.)	1	%	94	-	94	-

Client Sample ID Sample Matrix mgt-LabMark Sample No. Date Sampled Test/Reference	LOR	Unit	300/1/31-BH11 -4.3-4.5 Soil S11-No12003 Nov 10, 2011	300/1/31-BH11 -5.7-5.9 Soil S11-No12004 Nov 10, 2011	300/1/31-BH11 -8.6-8.8 Soil S11-No12005 Nov 10, 2011	300/1/31-BH12 -0.1-0.3 Soil S11-No12006 Nov 10, 2011
p-Terphenyl-d14 (surr.)	1	%	120	-	115	-
% Moisture	0.1	%	14	-	13	5.0
Asbestos			ASET Report	-	ASET Report	-
Heavy Metals						
Arsenic	1	mg/kg	< 1	-	< 1	< 1
Cadmium	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Chromium	2	mg/kg	5.7	-	< 2	3.0
Copper	2	mg/kg	8.9	-	< 2	4.6
Lead	2	mg/kg	360	-	13	7.3
Nickel	1	mg/kg	1.4	-	< 1	< 1
Zinc	5	mg/kg	140	-	< 5	17
Mercury	0.05	mg/kg	0.11	-	< 0.05	2.2
Barium	5	mg/kg	96	-	6.5	19
Beryllium	1	mg/kg	< 1	-	< 1	< 1
Cobalt	1	mg/kg	1.8	-	1.1	3.6
Manganese	5	mg/kg	64	-	< 5	100
Vanadium	5	mg/kg	19	-	< 5	5.4

Client Sample ID			300/1/31-BH12 -1.3-1.5	300/1/31-BH12 -4.3-4.5	300/1/31-BH13 -0.0-0.2	300/1/31-BH13 -1.3-1.5
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No12007	S11-No12008	S11-No12009	S11-No12010
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	< 10	-	< 10
TRH C10-C14	50	mg/kg	< 50	< 50	-	< 50
TRH C15-C28	100	mg/kg	< 100	< 100	-	< 100
TRH C29-C36	100	mg/kg	< 100	< 100	-	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	-	< 100
Volatile Organic Compounds (VOC)						
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dibromo-3-chloropropane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
2-Butanone (MEK)	5	mg/kg	< 5	-	-	< 5
2-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	< 0.5
2-Hexanone	5	mg/kg	< 5	-	-	< 5
2-Pentanone	5	mg/kg	< 5	-	-	< 5
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	< 0.5
4-Methyl-2-pentanone (MIBK)	5	mg/kg	< 5	-	-	< 5
Benzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Bromobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromoform	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromomethane	5	mg/kg	< 5	-	-	< 5
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
Chloroethane	5	mg/kg	< 5	-	-	< 5
Chloroform	0.5	mg/kg	< 0.5	-	-	< 0.5
Chloromethane	5	mg/kg	< 5	-	-	< 5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Dichlorodifluoromethane	5	mg/kg	< 5	-	-	< 5
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	-	-	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	-	< 0.5
Methylene Chloride	5	mg/kg	< 5	-	-	< 5
n-Butylbenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
n-Propylbenzene	0.5	mg/kg	< 0.5	-	-	< 0.5

Client Sample ID			300/1/31-BH12	300/1/31-BH12	300/1/31-BH13	300/1/31-BH13
			-1.3-1.5	-4.3-4.5	-0.0-0.2	-1.3-1.5
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No12007	S11-No12008	S11-No12009	S11-No12010
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
p-Isopropyltoluene	0.5	mg/kg	< 0.5	-	-	< 0.5
sec-Butylbenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
Styrene	0.5	mg/kg	< 0.5	-	-	< 0.5
tert-Butylbenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
Toluene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1	< 1	-	< 1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
Trichlorofluoromethane	5	mg/kg	< 5	-	-	< 5
Vinyl acetate	5	mg/kg	< 5	-	-	< 5
Vinyl chloride	5	mg/kg	< 5	-	-	< 5
4-Bromofluorobenzene (surr.)	1	%	100	126	-	98
Toluene-d8 (surr.)	1	%	99	-	-	99
Pentafluorobenzene (surr.)	1	%	110	-	-	103
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene[N02]	0.5	mg/kg	< 0.5	[N04]< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	-	< 20
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	< 20	< 20	-	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	< 50
TRH >C16-C34	100	mg/kg	130	< 100	-	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	-	< 100
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	< 1.5	-	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	-	< 1.5
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	< 0.5
Total PCB	0.5	mg/kg	< 0.5	-	-	< 0.5
Dibutylchlorendate (surr.)	1	%	100	-	-	110
Speciated Phenols						
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	-	-	< 0.5
2.4.5-Trichlorophenol	0.5	mg/kg	< 0.5	-	-	< 0.5
2.4.6-Trichlorophenol	0.5	mg/kg	< 0.5	-	-	< 0.5
Phenol	0.5	mg/kg	< 0.5	-	-	< 0.5
2-Methylphenol (o-Cresol)	0.5	mg/kg	< 0.5	-	-	< 0.5
3&4-Methylphenol (m&p-Cresol)	1	mg/kg	< 1	-	-	< 1
2-Chlorophenol	0.5	mg/kg	< 0.5	-	-	< 0.5
2-Nitrophenol	0.5	mg/kg	< 0.5	-	-	< 0.5
4-Chloro-3-methylphenol	0.5	mg/kg	< 0.5	-	-	< 0.5
Pentachlorophenol	1	mg/kg	< 1	-	-	< 1
Phenol-d5 (surr.)	1	%	94	-	-	88

Client Sample ID			300/1/31-BH12 -1.3-1.5	300/1/31-BH12 -4.3-4.5	300/1/31-BH13 -0.0-0.2	300/1/31-BH13 -1.3-1.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No12007**	**S11-No12008**	**S11-No12009**	**S11-No12010**
Date Sampled			**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**
Test/Reference	LOR	Unit				
Organochlorine Pesticides (OC)						
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDT	0.2	mg/kg	< 0.2	-	-	< 0.2
a-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
a-Chlordane	0.05	mg/kg	< 0.05	-	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
d-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	< 0.05
g-Chlordane	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	-	-	< 0.2
Tetrachloro-m-xylene (surr.)	1	%	98	-	-	96
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	0.8	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	2.8	< 0.5	-	1.0
Benzo(a)pyrene	0.5	mg/kg	3.2	0.5	-	1.3
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	4.2	< 1	-	1.9
Benzo(g.h.i)perylene	0.5	mg/kg	1.7	< 0.5	-	0.7
Chrysene	0.5	mg/kg	2.2	< 0.5	-	1.1
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	3.9	< 0.5	-	1.8
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	1.3	< 0.5	-	0.6
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	2.3	< 0.5	-	0.8
Pyrene	0.5	mg/kg	4.6	0.5	-	1.9
Total PAH	1	mg/kg	27	1.0	-	11
2-Fluorobiphenyl (surr.)	1	%	90	101	-	85
p-Terphenyl-d14 (surr.)	1	%	116	122	-	106
Cyanide (total)	1	mg/kg	< 1	-	-	< 1
Fluoride (soluble)	1	mg/kg	1.4	-	-	1.3
% Moisture	0.1	%	14	13	-	16
Asbestos			ASET Report	-	-	ASET Report
Heavy Metals						
Arsenic	1	mg/kg	< 1	< 1	-	< 1

Client Sample ID			300/1/31-BH12 -1.3-1.5	300/1/31-BH12 -4.3-4.5	300/1/31-BH13 -0.0-0.2	300/1/31-BH13 -1.3-1.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No12007**	**S11-No12008**	**S11-No12009**	**S11-No12010**
Date Sampled			**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**
Test/Reference	LOR	Unit				
Cadmium	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Chromium	2	mg/kg	9.4	4.5	-	11
Copper	2	mg/kg	15	9.0	-	38
Lead	2	mg/kg	130	640	-	42
Molybdenum	1	mg/kg	< 1	-	-	< 1
Nickel	1	mg/kg	< 1	< 1	-	5.4
Selenium	2	mg/kg	< 2	-	-	< 2
Silver	0.1	mg/kg	0.1	-	-	0.2
Tin	1	mg/kg	6.5	-	-	1.6
Zinc	5	mg/kg	74	280	-	26
Mercury	0.05	mg/kg	0.31	0.36	-	0.20
Barium	5	mg/kg	-	190	-	-
Beryllium	1	mg/kg	-	< 1	-	-
Cobalt	1	mg/kg	-	1.1	-	-
Manganese	5	mg/kg	-	69	-	-
Vanadium	5	mg/kg	-	16	-	-

Client Sample ID			300/1/31-BH13 -2.7-2.9	300/1/31-BH13 -4.3-4.5	300/1/31-BH13 -5.8-6.0	300/1/31-BH13 -7.3-7.5 (1)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No12011	S11-No12012	S11-No12013	S11-No12014
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	-	< 10	-	< 10
TRH C10-C14	50	mg/kg	-	< 50	-	< 50
TRH C15-C28	100	mg/kg	-	< 100	-	< 100
TRH C29-C36	100	mg/kg	-	< 100	-	< 100
TRH C10-36 (Total)	100	mg/kg	-	< 100	-	< 100
Volatile Organic Compounds (VOC)						
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	-	-
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	-	-
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	-	-
1.2-Dibromo-3-chloropropane	0.5	mg/kg	-	< 0.5	-	-
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	-	-
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-	-
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	-	-
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	-	-
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	-	-
1.2.4-Trichlorobenzene	0.5	mg/kg	-	< 0.5	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	-	-
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-	-
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	-	-
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-	-
2-Butanone (MEK)	5	mg/kg	-	< 5	-	-
2-Chlorotoluene	0.5	mg/kg	-	< 0.5	-	-
2-Hexanone	5	mg/kg	-	< 5	-	-
2-Pentanone	5	mg/kg	-	< 5	-	-
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	-	-
4-Methyl-2-pentanone (MIBK)	5	mg/kg	-	< 5	-	-
Benzene	0.5	mg/kg	-	< 0.5	-	< 0.5
Bromobenzene	0.5	mg/kg	-	< 0.5	-	-
Bromodichloromethane	0.5	mg/kg	-	< 0.5	-	-
Bromoform	0.5	mg/kg	-	< 0.5	-	-
Bromomethane	5	mg/kg	-	< 5	-	-
Carbon disulfide	0.5	mg/kg	-	< 0.5	-	-
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	-	-
Chlorobenzene	0.5	mg/kg	-	< 0.5	-	-
Chloroethane	5	mg/kg	-	< 5	-	-
Chloroform	0.5	mg/kg	-	< 0.5	-	-
Chloromethane	5	mg/kg	-	< 5	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	-	-
Dibromochloromethane	0.5	mg/kg	-	< 0.5	-	-
Dichlorodifluoromethane	5	mg/kg	-	< 5	-	-
Ethylbenzene	0.5	mg/kg	-	< 0.5	-	< 0.5
Hexachlorobutadiene	0.5	mg/kg	-	< 0.5	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	-	-
Methylene Chloride	5	mg/kg	-	< 5	-	-
n-Butylbenzene	0.5	mg/kg	-	< 0.5	-	-

Client Sample ID			300/1/31-BH13 -2.7-2.9	300/1/31-BH13 -4.3-4.5	300/1/31-BH13 -5.8-6.0	300/1/31-BH13 -7.3-7.5 (1)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No12011	S11-No12012	S11-No12013	S11-No12014
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
n-Propylbenzene	0.5	mg/kg	-	< 0.5	-	-
o-Xylene	0.5	mg/kg	-	< 0.5	-	< 0.5
p-Isopropyltoluene	0.5	mg/kg	-	< 0.5	-	-
sec-Butylbenzene	0.5	mg/kg	-	< 0.5	-	-
Styrene	0.5	mg/kg	-	< 0.5	-	-
tert-Butylbenzene	0.5	mg/kg	-	< 0.5	-	-
Tetrachloroethene	0.5	mg/kg	-	< 0.5	-	-
Toluene	0.5	mg/kg	-	< 0.5	-	< 0.5
Total m+p-Xylenes	1	mg/kg	-	< 1	-	< 1
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	-	-
Trichloroethene	0.5	mg/kg	-	< 0.5	-	-
Trichlorofluoromethane	5	mg/kg	-	< 5	-	-
Vinyl acetate	5	mg/kg	-	< 5	-	-
Vinyl chloride	5	mg/kg	-	< 5	-	-
4-Bromofluorobenzene (surr.)	1	%	-	100	-	116
Toluene-d8 (surr.)	1	%	-	98	-	-
Pentafluorobenzene (surr.)	1	%	-	104	-	-
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	-	[N04]< 0.5
TRH C6-C10	20	mg/kg	-	< 20	-	< 20
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	-	< 20	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	-	< 50
TRH >C16-C34	100	mg/kg	-	< 100	-	< 100
TRH >C34-C40	100	mg/kg	-	< 100	-	< 100
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	-	< 1.5	-	< 1.5
Total BTEX	1.5	mg/kg	-	< 1.5	-	< 1.5
Polychlorinated Biphenyls (PCB)						
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	%	-	118	-	-
Speciated Phenols						
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	-	-
2-Nitrophenol	0.5	mg/kg	-	< 0.5	-	-
4-Chloro-3-methylphenol	0.5	mg/kg	-	< 0.5	-	-

Client Sample ID			300/1/31-BH13 -2.7-2.9	300/1/31-BH13 -4.3-4.5	300/1/31-BH13 -5.8-6.0	300/1/31-BH13 -7.3-7.5 (1)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No12011	S11-No12012	S11-No12013	S11-No12014
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
Pentachlorophenol	1	mg/kg	-	< 1	-	-
Phenol-d5 (surr.)	1	%	-	90	-	-
Organochlorine Pesticides (OC)						
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDT	0.2	mg/kg	-	< 0.2	-	-
a-BHC	0.05	mg/kg	-	< 0.05	-	-
a-Chlordane	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	-	-
g-Chlordane	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	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	107	-	-
Polyaromatic Hydrocarbons (PAH)						
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	-	0.7
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	-	1.1
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	< 1	-	1.3
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	-	0.7
Chrysene	0.5	mg/kg	-	< 0.5	-	0.6
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	-	0.7
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
Phenanthrene	0.5	mg/kg	-	< 0.5	-	0.5
Pyrene	0.5	mg/kg	-	0.5	-	0.9
Total PAH	1	mg/kg	-	< 1	-	7.0
2-Fluorobiphenyl (surr.)	1	%	-	89	-	88
p-Terphenyl-d14 (surr.)	1	%	-	106	-	105
Cyanide (total)	1	mg/kg	-	< 1	-	-
Fluoride (soluble)	1	mg/kg	-	1.1	-	-
% Moisture	0.1	%	-	14	-	16

Client Sample ID			300/1/31-BH13 -2.7-2.9	300/1/31-BH13 -4.3-4.5	300/1/31-BH13 -5.8-6.0	300/1/31-BH13 -7.3-7.5 (1)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No12011**	**S11-No12012**	**S11-No12013**	**S11-No12014**
Date Sampled			**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**
Test/Reference	LOR	Unit				
Asbestos			-	ASET Report	-	ASET Report
Heavy Metals						
Arsenic	1	mg/kg	-	1.5	-	< 1
Cadmium	0.1	mg/kg	-	0.6	-	0.1
Chromium	2	mg/kg	-	6.6	-	5.1
Copper	2	mg/kg	-	5.2	-	6.8
Lead	2	mg/kg	-	7300	-	1400
Molybdenum	1	mg/kg	-	< 1	-	-
Nickel	1	mg/kg	-	< 1	-	1.9
Selenium	2	mg/kg	-	< 2	-	-
Silver	0.1	mg/kg	-	0.8	-	-
Tin	1	mg/kg	-	3.1	-	-
Zinc	5	mg/kg	-	820	-	430
Mercury	0.05	mg/kg	-	1.6	-	0.18
Barium	5	mg/kg	-	-	-	260
Beryllium	1	mg/kg	-	-	-	< 1
Cobalt	1	mg/kg	-	-	-	1.1
Manganese	5	mg/kg	-	-	-	55
Vanadium	5	mg/kg	-	-	-	12

Client Sample ID			300/1/31-BH14 -0.1-0.3	300/1/31-BH14 -1.3-1.5	300/1/31-BH15 -0.1-0.3	300/1/31-BH15 -1.3-1.5
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No12015	S11-No12016	S11-No12017	S11-No12018
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	-	-	-	< 10
TRH C10-C14	50	mg/kg	-	-	-	< 50
TRH C15-C28	100	mg/kg	-	-	-	< 100
TRH C29-C36	100	mg/kg	-	-	-	< 100
TRH C10-36 (Total)	100	mg/kg	-	-	-	< 100
Volatile Organic Compounds (VOC)						
Benzene	0.5	mg/kg	-	-	-	< 0.5
Ethylbenzene	0.5	mg/kg	-	-	-	< 0.5
o-Xylene	0.5	mg/kg	-	-	-	< 0.5
Toluene	0.5	mg/kg	-	-	-	< 0.5
Total m+p-Xylenes	1	mg/kg	-	-	-	< 1
4-Bromofluorobenzene (surr.)	1	%	-	-	-	118
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene[N02]	0.5	mg/kg	-	-	-	[N04]< 0.5
TRH C6-C10	20	mg/kg	-	-	-	< 20
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	-	-	-	< 20
TRH >C10-C16	50	mg/kg	-	-	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	-	< 50
TRH >C16-C34	100	mg/kg	-	-	-	< 100
TRH >C34-C40	100	mg/kg	-	-	-	< 100
BTEX						
Xylenes(ortho.meta and para)	1.5	mg/kg	-	-	-	< 1.5
Total BTEX	1.5	mg/kg	-	-	-	< 1.5
Polychlorinated Biphenyls (PCB)						
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	%	-	-	109	-
Organochlorine Pesticides (OC)						
4.4'-DDD	0.05	mg/kg	-	-	0.07	-
4.4'-DDE	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDT	0.2	mg/kg	-	-	< 0.2	-
a-BHC	0.05	mg/kg	-	-	< 0.05	-
a-Chlordane	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	-

Client Sample ID			300/1/31-BH14 -0.1-0.3	300/1/31-BH14 -1.3-1.5	300/1/31-BH15 -0.1-0.3	300/1/31-BH15 -1.3-1.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No12015**	**S11-No12016**	**S11-No12017**	**S11-No12018**
Date Sampled			**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**
Test/Reference	LOR	Unit				
g-Chlordane	0.05	mg/kg	-	-	< 0.05	-
Heptachlor	0.05	mg/kg	-	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	-	0.07	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	-
Methoxychlor	0.2	mg/kg	-	-	< 0.2	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	102	-
Organophosphorus Pesticides (OP)						
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	%	-	-	80	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	-	-	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	-	< 0.5
Anthracene	0.5	mg/kg	-	-	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	-	-	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	-	-	< 1
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	-	< 0.5
Chrysene	0.5	mg/kg	-	-	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	-	< 0.5
Fluoranthene	0.5	mg/kg	-	-	-	< 0.5
Fluorene	0.5	mg/kg	-	-	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	-	< 0.5
Naphthalene	0.5	mg/kg	-	-	-	< 0.5
Phenanthrene	0.5	mg/kg	-	-	-	< 0.5
Pyrene	0.5	mg/kg	-	-	-	< 0.5
Total PAH	1	mg/kg	-	-	-	< 1
2-Fluorobiphenyl (surr.)	1	%	-	-	-	98

Client Sample ID Sample Matrix mgt-LabMark Sample No. Date Sampled Test/Reference	LOR	Unit	300/1/31-BH14 -0.1-0.3 Soil S11-No12015 Nov 10, 2011	300/1/31-BH14 -1.3-1.5 Soil S11-No12016 Nov 10, 2011	300/1/31-BH15 -0.1-0.3 Soil S11-No12017 Nov 10, 2011	300/1/31-BH15 -1.3-1.5 Soil S11-No12018 Nov 10, 2011
p-Terphenyl-d14 (surr.)	1	%	-	-	-	115
% Moisture	0.1	%	6.3	-	6.8	12
Asbestos			-	-	-	ASET Report
Heavy Metals						
Arsenic	1	mg/kg	< 1	-	< 1	< 1
Cadmium	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Chromium	2	mg/kg	< 2	-	3.7	8.8
Copper	2	mg/kg	2.2	-	4.9	24
Lead	2	mg/kg	2.7	-	6.2	100
Nickel	1	mg/kg	< 1	-	< 1	1.5
Zinc	5	mg/kg	< 5	-	7.6	59
Mercury	0.05	mg/kg	0.46	-	3.0	0.09
Barium	5	mg/kg	12	-	24	80
Beryllium	1	mg/kg	< 1	-	< 1	< 1
Cobalt	1	mg/kg	1.4	-	3.4	1.6
Manganese	5	mg/kg	70	-	170	97
Vanadium	5	mg/kg	< 5	-	6.3	21

Client Sample ID			300/1/31-BH15 -2.7-2.9	300/1/31-BH15 -4.0-4.2	300/1/31-BH15 -5.7-5.9
Sample Matrix			Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No12019	S11-No12020	S11-No12021
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	10	mg/kg	-	< 10	-
TRH C10-C14	50	mg/kg	-	< 50	-
TRH C15-C28	100	mg/kg	-	120	-
TRH C29-C36	100	mg/kg	-	< 100	-
TRH C10-36 (Total)	100	mg/kg	-	120	-
Volatile Organic Compounds (VOC)					
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	-
1.2-Dibromo-3-chloropropane	0.5	mg/kg	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	-
1.2.4-Trichlorobenzene	0.5	mg/kg	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-
2-Butanone (MEK)	5	mg/kg	-	< 5	-
2-Chlorotoluene	0.5	mg/kg	-	< 0.5	-
2-Hexanone	5	mg/kg	-	< 5	-
2-Pentanone	5	mg/kg	-	< 5	-
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	5	mg/kg	-	< 5	-
Benzene	0.5	mg/kg	-	< 0.5	-
Bromobenzene	0.5	mg/kg	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	< 0.5	-
Bromoform	0.5	mg/kg	-	< 0.5	-
Bromomethane	5	mg/kg	-	< 5	-
Carbon disulfide	0.5	mg/kg	-	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	< 0.5	-
Chloroethane	5	mg/kg	-	< 5	-
Chloroform	0.5	mg/kg	-	< 0.5	-
Chloromethane	5	mg/kg	-	< 5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	< 0.5	-
Dichlorodifluoromethane	5	mg/kg	-	< 5	-
Ethylbenzene	0.5	mg/kg	-	< 0.5	-
Hexachlorobutadiene	0.5	mg/kg	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	-
Methylene Chloride	5	mg/kg	-	< 5	-
n-Butylbenzene	0.5	mg/kg	-	< 0.5	-
n-Propylbenzene	0.5	mg/kg	-	< 0.5	-

Client Sample ID			300/1/31-BH15 -2.7-2.9	300/1/31-BH15 -4.0-4.2	300/1/31-BH15 -5.7-5.9
Sample Matrix			Soil	Soil	Soil
mgt-LabMark Sample No.			S11-No12019	S11-No12020	S11-No12021
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit			
o-Xylene	0.5	mg/kg	-	< 0.5	-
p-Isopropyltoluene	0.5	mg/kg	-	< 0.5	-
sec-Butylbenzene	0.5	mg/kg	-	< 0.5	-
Styrene	0.5	mg/kg	-	< 0.5	-
tert-Butylbenzene	0.5	mg/kg	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	< 0.5	-
Toluene	0.5	mg/kg	-	< 0.5	-
Total m+p-Xylenes	1	mg/kg	-	< 1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	-
Trichloroethene	0.5	mg/kg	-	< 0.5	-
Trichlorofluoromethane	5	mg/kg	-	< 5	-
Vinyl acetate	5	mg/kg	-	< 5	-
Vinyl chloride	5	mg/kg	-	< 5	-
4-Bromofluorobenzene (surr.)	1	%	-	100	-
Toluene-d8 (surr.)	1	%	-	98	-
Pentafluorobenzene (surr.)	1	%	-	104	-
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *					
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	-
TRH C6-C10	20	mg/kg	-	< 20	-
TRH C6-C10 less BTEX (F1)[N03]	20	mg/kg	-	< 20	-
TRH >C10-C16	50	mg/kg	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	-
TRH >C16-C34	100	mg/kg	-	190	-
TRH >C34-C40	100	mg/kg	-	< 100	-
BTEX					
Xylenes(ortho.meta and para)	1.5	mg/kg	-	< 1.5	-
Total BTEX	1.5	mg/kg	-	< 1.5	-
Polychlorinated Biphenyls (PCB)					
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	%	-	114	-
Speciated Phenols					
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	-
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	%	-	110	-

Client Sample ID			300/1/31-BH15 -2.7-2.9	300/1/31-BH15 -4.0-4.2	300/1/31-BH15 -5.7-5.9
Sample Matrix			**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No12019**	**S11-No12020**	**S11-No12021**
Date Sampled			**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**
Test/Reference	LOR	Unit			
Organochlorine Pesticides (OC)					
4.4'-DDD	0.05	mg/kg	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	-
4.4'-DDT	0.2	mg/kg	-	< 0.2	-
a-BHC	0.05	mg/kg	-	< 0.05	-
a-Chlordane	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	-
g-Chlordane	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	-
Tetrachloro-m-xylene (surr.)	1	%	-	100	-
Polyaromatic Hydrocarbons (PAH)					
Acenaphthene	0.5	mg/kg	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	< 0.5	-
Anthracene	0.5	mg/kg	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	-	1.7	-
Benzo(a)pyrene	0.5	mg/kg	-	2.3	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	2.8	-
Benzo(g.h.i)perylene	0.5	mg/kg	-	1.2	-
Chrysene	0.5	mg/kg	-	1.6	-
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	-
Fluoranthene	0.5	mg/kg	-	1.3	-
Fluorene	0.5	mg/kg	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	1.0	-
Naphthalene	0.5	mg/kg	-	< 0.5	-
Phenanthrene	0.5	mg/kg	-	1.3	-
Pyrene	0.5	mg/kg	-	1.8	-
Total PAH	1	mg/kg	-	15	-
2-Fluorobiphenyl (surr.)	1	%	-	105	-
p-Terphenyl-d14 (surr.)	1	%	-	130	-
Cyanide (total)	1	mg/kg	-	< 1	-
Fluoride (soluble)	1	mg/kg	-	1.4	-
% Moisture	0.1	%	-	11	-
Asbestos			-	ASET Report	-
Heavy Metals					
Arsenic	1	mg/kg	-	1.6	-

Client Sample ID			300/1/31-BH15 -2.7-2.9	300/1/31-BH15 -4.0-4.2	300/1/31-BH15 -5.7-5.9
Sample Matrix			**Soil**	**Soil**	**Soil**
mgt-LabMark Sample No.			**S11-No12019**	**S11-No12020**	**S11-No12021**
Date Sampled			**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**
Test/Reference	LOR	Unit			
Cadmium	0.1	mg/kg	-	< 0.1	-
Chromium	2	mg/kg	-	5.3	-
Copper	2	mg/kg	-	10	-
Lead	2	mg/kg	-	650	-
Molybdenum	1	mg/kg	-	< 1	-
Nickel	1	mg/kg	-	2.1	-
Selenium	2	mg/kg	-	< 2	-
Silver	0.1	mg/kg	-	0.2	-
Tin	1	mg/kg	-	< 1	-
Zinc	5	mg/kg	-	220	-
Mercury	0.05	mg/kg	-	0.09	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: E004 Petroleum Hydrocarbons (TPH)	Sydney	Nov 21, 2011	14 Day
Volatile Organic Compounds (VOC) - Method: E016 Volatile Organic Compounds (VOC)	Sydney	Nov 21, 2011	14 Day
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * - Method: LM-LTM-ORG2010	Sydney	Nov 21, 2011	14 Day
BTEX - Method: E029/E016 BTEX	Sydney	Nov 21, 2011	14 Day
Polychlorinated Biphenyls (PCB) - Method: E013 Polychlorinated Biphenyls (PCB)	Sydney	Nov 21, 2011	14 Day
Speciated Phenols - Method: E008 Speciated Phenols	Sydney	Nov 21, 2011	14 Day
Organochlorine Pesticides (OC) - Method: E013 Organochlorine Pesticides (OC)	Sydney	Nov 21, 2011	14 Day
Organophosphorus Pesticides (OP) - Method: E014 Organophosphorus Pesticides (OP)	Sydney	Nov 21, 2011	14 Day
Polyaromatic Hydrocarbons (PAH) - Method: E007 Polyaromatic Hydrocarbons (PAH)	Sydney	Nov 21, 2011	14 Day
Cyanide (total) - Method: E040 /E054 Total Cyanide	Sydney	Nov 21, 2011	14 Day
Fluoride (soluble) - Method: E034 /E045 Fluoride	Sydney	Nov 21, 2011	28 Day
% Moisture - Method: E005 Moisture Content	Sydney	Nov 21, 2011	28 Day
IWRG 621 Metals : Metals M12 - Method: E022 Acid Extractable metals in Soils & E026 Mercury	Sydney	Nov 21, 2011	28 Day
Metals M13 - Method: E022 Acid Extractable metals in Soils & E026 Mercury	Sydney	Nov 21, 2011	28 Day

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Company Name: SMEC Testing Services Pty Ltd
Address: 14/1 Cowpasture Place
Wetherill Park
NSW 2164

Order No.:
Report #: 319060
Phone: 02 9756 2166
Fax: 02 9756 1137

Received: Nov 18, 2011 5:00 PM
Due: Nov 28, 2011 4:00 PM
Priority: 5 Day
Contact name: David Yonge

Client Job No.: 18435/1017C

mgt-LabMark Client Manager: Onur Mehmet

Sample Detail					% Moisture	Asbestos	ASET Reporting Fee	CANCELLED	HOLD	Metals M13	Volatile Organic Compounds (VOC)	mgt-LabMark Suite 15	Vic EPA Short Screen	mgt-LabMark Suite 4
Laboratory where analysis is conducted														
Melbourne Laboratory - NATA Site #1261														
Sydney Laboratory - NATA Site #1645					X	X	X	X	X	X	X	X	X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
300/1/31-BH1-0.0-0.2	Nov 10, 2011		Soil	S11-No11971	X	X	X			X		X		
300/1/31-BH1-0.6-0.7	Nov 10, 2011		Soil	S11-No11972					X					
300/1/31-BH2-0.0-0.2	Nov 10, 2011		Soil	S11-No11973	X									X
300/1/31-BH2-0.5-0.7	Nov 10, 2011		Soil	S11-No11974					X					
300/1/31-BH3-0.0-0.2	Nov 11, 2011		Soil	S11-No11975	X					X				
300/1/31-BH3-0.5-0.7	Nov 11, 2011		Soil	S11-No11976					X					
300/1/31-BH4-0.0-0.2	Nov 11, 2011		Soil	S11-No11977				X						
300/1/31-BH4-0.0-0.2 (1)	Nov 11, 2011		Soil	S11-No11978	X					X				X

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Murarrie QLD 4172
Phone : +61 7 3902 4600

Company Name: SMEC Testing Services Pty Ltd
Address: 14/1 Cowpasture Place
Wetherill Park
NSW 2164

Order No.:
Report #: 319060
Phone: 02 9756 2166
Fax: 02 9756 1137

Received: Nov 18, 2011 5:00 PM
Due: Nov 28, 2011 4:00 PM
Priority: 5 Day
Contact name: David Yonge

Client Job No.: 18435/1017C

mgt-LabMark Client Manager: Onur Mehmet

Sample Detail					% Moisture	Asbestos	ASET Reporting Fee	CANCELLED	HOLD	Metals M13	Volatile Organic Compounds (VOC)	mgt-LabMark Suite 15	Vic EPA Short Screen	mgt-LabMark Suite 4
Laboratory where analysis is conducted														
Melbourne Laboratory - NATA Site #1261														
Sydney Laboratory - NATA Site #1645					X	X	X	X	X	X	X	X	X	X
300/1/31-BH4-0.0-0.2 (3)	Nov 11, 2011		Soil	S11-No11979	X					X				X
300/1/31-BH4-0.5-0.7	Nov 11, 2011		Soil	S11-No11980	X					X				
300/1/31-BH4-1.1-1.3	Nov 11, 2011		Soil	S11-No11981					X					
300/1/31-BH5-0.0-0.2	Nov 11, 2011		Soil	S11-No11982					X					
300/1/31-BH5-1.3-1.5	Nov 11, 2011		Soil	S11-No11983	X								X	
300/1/31-BH5-2.7-2.9 (1)	Nov 11, 2011		Soil	S11-No11984	X					X				X
300/1/31-BH5-2.7-2.9 (2)	Nov 11, 2011		Soil	S11-No11985					X					
300/1/31-BH5-3.7-3.9	Nov 11, 2011		Soil	S11-No11986					X					
300/1/31-BH6-0.0-0.2	Nov 11, 2011		Soil	S11-No11987	X					X				

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Laboratory where analysis is conducted														
Melbourne Laboratory - NATA Site #1261														
Sydney Laboratory - NATA Site #1645					X	X	X	X	X	X	X	X	X	X
300/1/31-BH6-0.5-0.7	Nov 11, 2011		Soil	S11-No11988					X					
300/1/31-BH7-0.0-0.2	Nov 11, 2011		Soil	S11-No11989	X	X						X		
300/1/31-BH7-1.3-1.5	Nov 11, 2011		Soil	S11-No11990					X					
300/1/31-BH7-2.7-2.9	Nov 11, 2011		Soil	S11-No11991					X					
300/1/31-BH8-0.0-0.2	Nov 11, 2011		Soil	S11-No11992	X					X				
300/1/31-BH8-1.3-1.5	Nov 11, 2011		Soil	S11-No11993	X					X				X
300/1/31-BH8-2.7-2.9	Nov 11, 2011		Soil	S11-No11994					X					
300/1/31-BH9-0.0-0.2	Nov 11, 2011		Soil	S11-No11995	X	X				X				
300/1/31-BH9-0.5-0.7	Nov 11, 2011		Soil	S11-No11996					X					

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Sample Detail					% Moisture	Asbestos	ASET Reporting Fee	CANCELLED	HOLD	Metals M13	Volatile Organic Compounds (VOC)	mgt-LabMark Suite 15	Vic EPA Short Screen	mgt-LabMark Suite 4
Laboratory where analysis is conducted														
Melbourne Laboratory - NATA Site #1261														
Sydney Laboratory - NATA Site #1645					X	X	X	X	X	X	X	X	X	X
300/1/31-BH10 -0.0-0.2 (1)	Nov 10, 2011		Soil	S11-No11997	X					X				X
300/1/31-BH10 -0.0-0.2 (3)	Nov 10, 2011		Soil	S11-No11998					X					
300/1/31-BH10 -1.0-1.3	Nov 10, 2011		Soil	S11-No11999	X					X				X
300/1/31-BH10 -2.7-2.9	Nov 10, 2011		Soil	S11-No12000					X					
300/1/31-BH11 -0.0-0.2	Nov 10, 2011		Soil	S11-No12001					X					
300/1/31-BH11 -1.3-1.5	Nov 10, 2011		Soil	S11-No12002	X	X					X		X	
300/1/31-BH11 -4.3-4.5	Nov 10, 2011		Soil	S11-No12003	X	X				X				X
300/1/31-BH11 -5.7-5.9	Nov 10, 2011		Soil	S11-No12004					X					
300/1/31-BH11 -8.6-8.8	Nov 10, 2011		Soil	S11-No12005	X	X				X		X		X

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Sample Detail					% Moisture	Asbestos	ASET Reporting Fee	CANCELLED	HOLD	Metals M13	Volatile Organic Compounds (VOC)	mgt-LabMark Suite 15	Vic EPA Short Screen	mgt-LabMark Suite 4
Laboratory where analysis is conducted														
Melbourne Laboratory - NATA Site #1261														
Sydney Laboratory - NATA Site #1645					X	X	X	X	X	X	X	X	X	X
300/1/31-BH12 -0.1-0.3	Nov 10, 2011		Soil	S11-No12006	X					X				
300/1/31-BH12 -1.3-1.5	Nov 10, 2011		Soil	S11-No12007	X	X					X		X	
300/1/31-BH12 -4.3-4.5	Nov 10, 2011		Soil	S11-No12008	X					X				X
300/1/31-BH13 -0.0-0.2	Nov 10, 2011		Soil	S11-No12009					X					
300/1/31-BH13 -1.3-1.5	Nov 10, 2011		Soil	S11-No12010	X	X					X		X	
300/1/31-BH13 -2.7-2.9	Nov 10, 2011		Soil	S11-No12011					X					
300/1/31-BH13 -4.3-4.5	Nov 10, 2011		Soil	S11-No12012	X	X					X		X	
300/1/31-BH13 -5.8-6.0	Nov 10, 2011		Soil	S11-No12013					X					
300/1/31-BH13 -7.3-7.5 (1)	Nov 10, 2011		Soil	S11-No12014	X	X				X				X

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Sample Detail					% Moisture	Asbestos	ASET Reporting Fee	CANCELLED	HOLD	Metals M13	Volatile Organic Compounds (VOC)	mgt-LabMark Suite 15	Vic EPA Short Screen	mgt-LabMark Suite 4
Laboratory where analysis is conducted														
Melbourne Laboratory - NATA Site #1261														
Sydney Laboratory - NATA Site #1645					X	X	X	X	X	X	X	X	X	X
300/1/31-BH14 -0.1-0.3	Nov 10, 2011		Soil	S11-No12015	X					X				
300/1/31-BH14 -1.3-1.5	Nov 10, 2011		Soil	S11-No12016					X					
300/1/31-BH15 -0.1-0.3	Nov 10, 2011		Soil	S11-No12017	X					X		X		
300/1/31-BH15 -1.3-1.5	Nov 10, 2011		Soil	S11-No12018	X	X				X				X
300/1/31-BH15 -2.7-2.9	Nov 10, 2011		Soil	S11-No12019					X					
300/1/31-BH15 -4.0-4.2	Nov 10, 2011		Soil	S11-No12020	X	X					X		X	
300/1/31-BH15 -5.7-5.9	Nov 10, 2011		Soil	S11-No12021					X					

mgt-LabMark Internal Quality Control Review

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 an RPD

UNITS

mg/kg:milligrams per Kilogram

mg/L:milligrams per litre

µg/L:micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%:Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

TERMS

Dry:	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR:	Limit Of Reporting.
SPIKE:	Addition of the analyte to the sample and reported as percentage recovery.
RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
LCS:	Laboratory Control Sample - reported as percent recovery.
CRM:	Certified Reference Material - reported as percent recovery.
Method Blank:	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.
Surr - Surrogate:	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate:	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate:	A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis.
Batch SPIKE:	Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.
USEPA:	U.S Environmental Protection Agency
APHA:	American Public Health Association
ASLP:	Australian Standard Leaching Procedure (AS4439.3)
TCLP:	Toxicity Characteristic Leaching Procedure
COC:	Chain Of Custody
SRA:	Sample Receipt Advice
CP:	Client Parent - QC was performed on samples pertaining to this report
NCP:	Non-Client Parent - QC was performed on samples not pertaining to this report, however 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 below the LOR with a positive RPD - eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							
TRH C6-C9	mg/kg	< 10			10	Pass	
TRH C10-C14	mg/kg	< 50			50	Pass	
TRH C15-C28	mg/kg	< 100			100	Pass	
TRH C29-C36	mg/kg	< 100			100	Pass	
Method Blank							
Volatile Organic Compounds (VOC) E016 Volatile Organic Compounds (VOC)							
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromo-3-chloropropane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 5			5	Pass	
2-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
2-Hexanone	mg/kg	< 5			5	Pass	
2-Pentanone	mg/kg	< 5			5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 5			5	Pass	
Benzene	mg/kg	< 0.5			0.5	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 5			5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 5			5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 5			5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 5			5	Pass	
Ethylbenzene	mg/kg	< 0.5			0.5	Pass	
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 5			5	Pass	
n-Butylbenzene	mg/kg	< 0.5			0.5	Pass	
n-Propylbenzene	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.5			0.5	Pass	
p-Isopropyltoluene	mg/kg	< 0.5			0.5	Pass	
sec-Butylbenzene	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
tert-Butylbenzene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.5			0.5	Pass	
Total m+p-Xylenes	mg/kg	< 1			1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 5			5	Pass	
Vinyl acetate	mg/kg	< 5			5	Pass	
Vinyl chloride	mg/kg	< 5			5	Pass	
Method Blank							
Volatile Organic Compounds (VOC) E016 Volatile Organic Compounds (VOC)							
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	
Method Blank							
BTEX E029/E016 BTEX							
Xylenes(ortho.meta and para)	mg/kg	< 1.5			1.5	Pass	
Total BTEX	mg/kg	< 1.5			1.5	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphenyls (PCB)							
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	
Method Blank							
Speciated Phenols E008 Speciated Phenols							
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	
Method Blank							
Organochlorine Pesticides (OC) E013 Organochlorine Pesticides (OC)							
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	< 0.2			0.2	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
a-Chlordane	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	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	
g-Chlordane	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	
Method Blank							
Organophosphorus Pesticides (OP) E014 Organophosphorus Pesticides (OP)							
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	
Ronnel	mg/kg	< 0.5			0.5	Pass	
Stirophos	mg/kg	< 0.5			0.5	Pass	
Trichloronate	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons (PAH)							
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)fluoranthene & Benzo(k)fluoranthene	mg/kg	< 1			1	Pass	
Benzo(g.h.i)perylene	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	
Method Blank							
Cyanide (total)	mg/kg	< 1			1	Pass	
Fluoride (soluble)	mg/kg	< 1			1	Pass	
Method Blank							
IWRG 621 Metals : Metals M12 E022 Acid Extractable metals in Soils & E026 Mercury							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Arsenic	mg/kg	< 1			1	Pass	
Cadmium	mg/kg	< 0.1			0.1	Pass	
Chromium	mg/kg	< 2			2	Pass	
Copper	mg/kg	< 2			2	Pass	
Lead	mg/kg	< 2			2	Pass	
Molybdenum	mg/kg	< 1			1	Pass	
Nickel	mg/kg	< 1			1	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 0.1			0.1	Pass	
Tin	mg/kg	< 1			1	Pass	
Zinc	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.05			0.05	Pass	
Barium	mg/kg	< 5			5	Pass	
Beryllium	mg/kg	< 1			1	Pass	
Cobalt	mg/kg	< 1			1	Pass	
Manganese	mg/kg	< 5			5	Pass	
Vanadium	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)							
TRH C6-C9	%	83			70-130	Pass	
TRH C10-C14	%	99			70-130	Pass	
LCS - % Recovery							
Volatile Organic Compounds (VOC) E016 Volatile Organic Compounds (VOC)							
1.1-Dichloroethene	%	96			70-130	Pass	
1.1.1-Trichloroethane	%	95			70-130	Pass	
1.1.1.2-Tetrachloroethane	%	94			70-130	Pass	
1.1.2-Trichloroethane	%	97			70-130	Pass	
1.2-Dibromo-3-chloropropane	%	94			70-130	Pass	
1.2-Dibromoethane	%	92			70-130	Pass	
1.2-Dichlorobenzene	%	99			70-130	Pass	
1.2-Dichloroethane	%	88			70-130	Pass	
1.2-Dichloropropane	%	99			70-130	Pass	
1.2.3-Trichloropropane	%	95			70-130	Pass	
1.2.4-Trichlorobenzene	%	99			70-130	Pass	
1.2.4-Trimethylbenzene	%	100			70-130	Pass	
1.3-Dichlorobenzene	%	99			70-130	Pass	
1.3-Dichloropropane	%	96			70-130	Pass	
1.3.5-Trimethylbenzene	%	100			70-130	Pass	
1.4-Dichlorobenzene	%	98			70-130	Pass	
2-Butanone (MEK)	%	96			70-130	Pass	
2-Chlorotoluene	%	100			70-130	Pass	
2-Hexanone	%	94			70-130	Pass	
2-Pentanone	%	105			70-130	Pass	
4-Chlorotoluene	%	100			70-130	Pass	
4-Methyl-2-pentanone (MIBK)	%	95			70-130	Pass	
Benzene	%	99			70-130	Pass	
Bromobenzene	%	100			70-130	Pass	
Bromodichloromethane	%	93			70-130	Pass	
Bromoform	%	89			70-130	Pass	
Bromomethane	%	106			70-130	Pass	
Carbon disulfide	%	93			70-130	Pass	
Carbon Tetrachloride	%	93			70-130	Pass	
Chlorobenzene	%	95			70-130	Pass	
Chloroethane	%	102			70-130	Pass	
Chloroform	%	97			70-130	Pass	
Chloromethane	%	98			70-130	Pass	
cis-1.2-Dichloroethene	%	100			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
cis-1.3-Dichloropropene	%	96			70-130	Pass	
Dibromochloromethane	%	92			70-130	Pass	
Dichlorodifluoromethane	%	93			70-130	Pass	
Ethylbenzene	%	104			70-130	Pass	
Hexachlorobutadiene	%	98			70-130	Pass	
Isopropyl benzene (Cumene)	%	95			70-130	Pass	
Methylene Chloride	%	94			70-130	Pass	
n-Butylbenzene	%	103			70-130	Pass	
n-Propylbenzene	%	101			70-130	Pass	
o-Xylene	%	111			70-130	Pass	
p-Isopropyltoluene	%	101			70-130	Pass	
sec-Butylbenzene	%	102			70-130	Pass	
Styrene	%	98			70-130	Pass	
tert-Butylbenzene	%	100			70-130	Pass	
Tetrachloroethene	%	95			70-130	Pass	
Toluene	%	100			70-130	Pass	
Total m+p-Xylenes	%	104			70-130	Pass	
trans-1.2-Dichloroethene	%	99			70-130	Pass	
trans-1.3-Dichloropropene	%	96			70-130	Pass	
Trichloroethene	%	96			70-130	Pass	
Trichlorofluoromethane	%	96			70-130	Pass	
Vinyl acetate	%	93			70-130	Pass	
Vinyl chloride	%	91			70-130	Pass	
LCS - % Recovery							
Volatile Organic Compounds (VOC) E016 Volatile Organic Compounds (VOC)							
Naphthalene	%	98			70-130	Pass	
TRH C6-C10	%	88			70-130	Pass	
TRH >C10-C16	%	94			70-130	Pass	
LCS - % Recovery							
BTEX E029/E016 BTEX							
Xylenes(ortho.meta and para)	%	100			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphenyls (PCB)							
Aroclor-1260	%	79			70-130	Pass	
LCS - % Recovery							
Speciated Phenols E008 Speciated Phenols							
2.4-Dichlorophenol	%	92			70-130	Pass	
2.4-Dimethylphenol	%	93			70-130	Pass	
2.4.5-Trichlorophenol	%	96			70-130	Pass	
2.4.6-Trichlorophenol	%	82			70-130	Pass	
Phenol	%	96			70-130	Pass	
2-Methylphenol (o-Cresol)	%	94			70-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	93			70-130	Pass	
2-Chlorophenol	%	97			70-130	Pass	
2-Nitrophenol	%	88			70-130	Pass	
4-Chloro-3-methylphenol	%	85			70-130	Pass	
Pentachlorophenol	%	121			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides (OC) E013 Organochlorine Pesticides (OC)							
4.4'-DDD	%	122			70-130	Pass	
4.4'-DDE	%	97			70-130	Pass	
4.4'-DDT	%	102			70-130	Pass	
a-BHC	%	112			70-130	Pass	
a-Chlordane	%	111			70-130	Pass	
Aldrin	%	106			70-130	Pass	
b-BHC	%	111			70-130	Pass	
d-BHC	%	121			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dieldrin	%	112			70-130	Pass	
Endosulfan I	%	108			70-130	Pass	
Endosulfan II	%	114			70-130	Pass	
Endosulfan sulphate	%	93			70-130	Pass	
Endrin	%	102			70-130	Pass	
Endrin aldehyde	%	117			70-130	Pass	
Endrin ketone	%	115			70-130	Pass	
g-BHC (Lindane)	%	104			70-130	Pass	
g-Chlordane	%	110			70-130	Pass	
Heptachlor	%	106			70-130	Pass	
Heptachlor epoxide	%	109			70-130	Pass	
Hexachlorobenzene	%	112			70-130	Pass	
Methoxychlor	%	114			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides (OP) E014 Organophosphorus Pesticides (OP)							
Chlorpyrifos	%	93			70-130	Pass	
Coumaphos	%	92			70-130	Pass	
Demeton (total)	%	115			70-130	Pass	
Diazinon	%	89			70-130	Pass	
Dichlorvos	%	104			70-130	Pass	
Dimethoate	%	112			70-130	Pass	
Disulfoton	%	84			70-130	Pass	
Ethoprop	%	110			70-130	Pass	
Fenitrothion	%	97			70-130	Pass	
Fensulfothion	%	74			70-130	Pass	
Fenthion	%	96			70-130	Pass	
Methyl azinphos	%	99			70-130	Pass	
Malathion	%	92			70-130	Pass	
Methyl parathion	%	113			70-130	Pass	
Mevinphos	%	103			70-130	Pass	
Monocrotophos	%	120			70-130	Pass	
Parathion	%	88			70-130	Pass	
Phorate	%	105			70-130	Pass	
Profenofos	%	87			70-130	Pass	
Prothiofos	%	86			70-130	Pass	
Ronnel	%	86			70-130	Pass	
Stirophos	%	87			70-130	Pass	
Trichloronate	%	99			70-130	Pass	
LCS - % Recovery							
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	%	90			70-130	Pass	
Acenaphthylene	%	85			70-130	Pass	
Anthracene	%	94			70-130	Pass	
Benz(a)anthracene	%	79			70-130	Pass	
Benzo(a)pyrene	%	88			70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	%	82			70-130	Pass	
Benzo(g.h.i)perylene	%	81			70-130	Pass	
Chrysene	%	87			70-130	Pass	
Dibenz(a.h)anthracene	%	72			70-130	Pass	
Fluoranthene	%	82			70-130	Pass	
Fluorene	%	87			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	72			70-130	Pass	
Naphthalene	%	94			70-130	Pass	
Phenanthrene	%	97			70-130	Pass	
Pyrene	%	89			70-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Cyanide (total)	%	123			70-130	Pass	
Fluoride (soluble)	%	82			70-130	Pass	
LCS - % Recovery							
IWRG 621 Metals : Metals M12 E022 Acid Extractable metals in Soils & E026 Mercury							
Arsenic	%	70			70-130	Pass	
Cadmium	%	77			70-130	Pass	
Chromium	%	102			70-130	Pass	
Copper	%	88			70-130	Pass	
Lead	%	89			70-130	Pass	
Molybdenum	%	103			70-130	Pass	
Nickel	%	96			70-130	Pass	
Selenium	%	94			70-130	Pass	
Silver	%	98			70-130	Pass	
Tin	%	110			70-130	Pass	
Zinc	%	85			70-130	Pass	
Mercury	%	90			70-130	Pass	
Barium	%	104			70-130	Pass	
Beryllium	%	104			70-130	Pass	
Cobalt	%	96			70-130	Pass	
Manganese	%	101			70-130	Pass	
Vanadium	%	107			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polychlorinated Biphenyls (PCB)				Result 1					
Aroclor-1260	S11-No11971	CP	%	107			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides (OP)				Result 1					
Chlorpyrifos	S11-No11971	CP	%	102			70-130	Pass	
Coumaphos	S11-No11971	CP	%	108			70-130	Pass	
Demeton (total)	S11-No11971	CP	%	117			70-130	Pass	
Diazinon	S11-No11971	CP	%	95			70-130	Pass	
Dichlorvos	S11-No11971	CP	%	97			70-130	Pass	
Dimethoate	S11-No11971	CP	%	118			70-130	Pass	
Disulfoton	S11-No11971	CP	%	83			70-130	Pass	
Ethoprop	S11-No11971	CP	%	114			70-130	Pass	
Fenitrothion	S11-No11971	CP	%	119			70-130	Pass	
Fensulfothion	S11-No11971	CP	%	124			70-130	Pass	
Fenthion	S11-No11971	CP	%	104			70-130	Pass	
Methyl azinphos	S11-No11971	CP	%	107			70-130	Pass	
Malathion	S11-No11971	CP	%	107			70-130	Pass	
Methyl parathion	S11-No11971	CP	%	115			70-130	Pass	
Mevinphos	S11-No11971	CP	%	107			70-130	Pass	
Monocrotophos	S11-No11971	CP	%	106			70-130	Pass	
Parathion	S11-No11971	CP	%	100			70-130	Pass	
Phorate	S11-No11971	CP	%	113			70-130	Pass	
Profenofos	S11-No11971	CP	%	114			70-130	Pass	
Prothiofos	S11-No11971	CP	%	111			70-130	Pass	
Ronnel	S11-No11971	CP	%	84			70-130	Pass	
Stirophos	S11-No11971	CP	%	106			70-130	Pass	
Trichloronate	S11-No11971	CP	%	108			70-130	Pass	
Spike - % Recovery									
IWRG 621 Metals : Metals M12				Result 1					
Arsenic	S11-No11971	CP	%	92			70-130	Pass	
Cadmium	S11-No11971	CP	%	87			70-130	Pass	
Chromium	S11-No11971	CP	%	76			70-130	Pass	
Copper	S11-No11971	CP	%	74			70-130	Pass	
Lead	S11-No11971	CP	%	80			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Nickel	S11-No11971	CP	%	75			70-130	Pass	
Barium	S11-No11971	CP	%	85			70-130	Pass	
Beryllium	S11-No11971	CP	%	109			70-130	Pass	
Cobalt	S11-No11971	CP	%	84			70-130	Pass	
Manganese	S11-No11971	CP	%	85			70-130	Pass	
Vanadium	S11-No11971	CP	%	71			70-130	Pass	
Spike - % Recovery									
				Result 1					
Cyanide (total)	S11-No11366	NCP	%	122			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S11-No12002	CP	%	89			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1					
TRH >C10-C16	S11-No12002	CP	%	90			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls (PCB)				Result 1					
Aroclor-1260	S11-No12002	CP	%	86			70-130	Pass	
Spike - % Recovery									
Speciated Phenols				Result 1					
2.4-Dichlorophenol	S11-No12002	CP	%	99			70-130	Pass	
2.4-Dimethylphenol	S11-No12002	CP	%	91			70-130	Pass	
2.4.5-Trichlorophenol	S11-No12002	CP	%	99			70-130	Pass	
2.4.6-Trichlorophenol	S11-No12002	CP	%	87			70-130	Pass	
Phenol	S11-No12002	CP	%	101			70-130	Pass	
2-Methylphenol (o-Cresol)	S11-No12002	CP	%	96			70-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S11-No12002	CP	%	95			70-130	Pass	
2-Chlorophenol	S11-No12002	CP	%	100			70-130	Pass	
2-Nitrophenol	S11-No12002	CP	%	97			70-130	Pass	
4-Chloro-3-methylphenol	S11-No12002	CP	%	97			70-130	Pass	
Pentachlorophenol	S11-No12002	CP	%	109			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides (OC)				Result 1					
4.4'-DDD	S11-No12002	CP	%	124			70-130	Pass	
4.4'-DDE	S11-No12002	CP	%	96			70-130	Pass	
4.4'-DDT	S11-No12002	CP	%	100			70-130	Pass	
a-BHC	S11-No12002	CP	%	105			70-130	Pass	
a-Chlordane	S11-No12002	CP	%	108			70-130	Pass	
Aldrin	S11-No12002	CP	%	95			70-130	Pass	
b-BHC	S11-No12002	CP	%	94			70-130	Pass	
d-BHC	S11-No12002	CP	%	110			70-130	Pass	
Dieldrin	S11-No12002	CP	%	108			70-130	Pass	
Endosulfan I	S11-No12002	CP	%	100			70-130	Pass	
Endosulfan II	S11-No12002	CP	%	107			70-130	Pass	
Endosulfan sulphate	S11-No12002	CP	%	98			70-130	Pass	
Endrin	S11-No12002	CP	%	101			70-130	Pass	
Endrin aldehyde	S11-No12002	CP	%	119			70-130	Pass	
Endrin ketone	S11-No12002	CP	%	115			70-130	Pass	
g-BHC (Lindane)	S11-No12002	CP	%	96			70-130	Pass	
g-Chlordane	S11-No12002	CP	%	98			70-130	Pass	
Heptachlor	S11-No12002	CP	%	100			70-130	Pass	
Heptachlor epoxide	S11-No12002	CP	%	101			70-130	Pass	
Hexachlorobenzene	S11-No12002	CP	%	101			70-130	Pass	
Methoxychlor	S11-No12002	CP	%	117			70-130	Pass	
Spike - % Recovery									
Polyaromatic Hydrocarbons (PAH)				Result 1					
Acenaphthene	S11-No12002	CP	%	103			70-130	Pass	
Acenaphthylene	S11-No12002	CP	%	105			70-130	Pass	
Anthracene	S11-No12002	CP	%	106			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benz(a)anthracene	S11-No12002	CP	%	83			70-130	Pass	
Benzo(a)pyrene	S11-No12002	CP	%	104			70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S11-No12002	CP	%	94			70-130	Pass	
Benzo(g.h.i)perylene	S11-No12002	CP	%	103			70-130	Pass	
Chrysene	S11-No12002	CP	%	98			70-130	Pass	
Dibenz(a.h)anthracene	S11-No12002	CP	%	90			70-130	Pass	
Fluoranthene	S11-No12002	CP	%	71			70-130	Pass	
Fluorene	S11-No12002	CP	%	100			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S11-No12002	CP	%	95			70-130	Pass	
Naphthalene	S11-No12002	CP	%	105			70-130	Pass	
Phenanthrene	S11-No12002	CP	%	75			70-130	Pass	
Pyrene	S11-No12002	CP	%	87			70-130	Pass	
Spike - % Recovery									
IWRG 621 Metals : Metals M12				Result 1					
Arsenic	S11-No12005	CP	%	72			70-130	Pass	
Cadmium	S11-No12005	CP	%	78			70-130	Pass	
Chromium	S11-No12005	CP	%	97			70-130	Pass	
Copper	S11-No12005	CP	%	93			70-130	Pass	
Lead	S11-No12005	CP	%	119			70-130	Pass	
Nickel	S11-No12005	CP	%	95			70-130	Pass	
Zinc	S11-No12005	CP	%	99			70-130	Pass	
Mercury	S11-No12005	CP	%	98			70-130	Pass	
Barium	S11-No12005	CP	%	111			70-130	Pass	
Beryllium	S11-No12005	CP	%	105			70-130	Pass	
Cobalt	S11-No12005	CP	%	94			70-130	Pass	
Manganese	S11-No12005	CP	%	103			70-130	Pass	
Vanadium	S11-No12005	CP	%	106			70-130	Pass	
Spike - % Recovery									
IWRG 621 Metals : Metals M12				Result 1					
Arsenic	S11-No12007	CP	%	80			70-130	Pass	
Cadmium	S11-No12007	CP	%	94			70-130	Pass	
Copper	S11-No12007	CP	%	99			70-130	Pass	
Molybdenum	S11-No12007	CP	%	82			70-130	Pass	
Nickel	S11-No12007	CP	%	104			70-130	Pass	
Silver	S11-No12007	CP	%	105			70-130	Pass	
Zinc	S11-No12007	CP	%	95			70-130	Pass	
Mercury	S11-No12007	CP	%	102			70-130	Pass	
Barium	S11-No12007	CP	%	74			70-130	Pass	
Beryllium	S11-No12007	CP	%	107			70-130	Pass	
Cobalt	S11-No12007	CP	%	101			70-130	Pass	
Vanadium	S11-No12007	CP	%	73			70-130	Pass	
Spike - % Recovery									
				Result 1					
Fluoride (soluble)	S11-No12012	CP	%	93			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S11-No12020	CP	%	78			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1					
TRH >C10-C16	S11-No12020	CP	%	75			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls (PCB)				Result 1					
Aroclor-1260	S11-No12020	CP	%	98			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides (OC)				Result 1					
4.4'-DDD	S11-No12020	CP	%	123			70-130	Pass	
4.4'-DDE	S11-No12020	CP	%	105			70-130	Pass	
4.4'-DDT	S11-No12020	CP	%	116			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
a-BHC	S11-No12020	CP	%	121			70-130	Pass	
a-Chlordane	S11-No12020	CP	%	102			70-130	Pass	
Aldrin	S11-No12020	CP	%	95			70-130	Pass	
b-BHC	S11-No12020	CP	%	93			70-130	Pass	
d-BHC	S11-No12020	CP	%	112			70-130	Pass	
Dieldrin	S11-No12020	CP	%	106			70-130	Pass	
Endosulfan I	S11-No12020	CP	%	105			70-130	Pass	
Endosulfan II	S11-No12020	CP	%	107			70-130	Pass	
Endosulfan sulphate	S11-No12020	CP	%	99			70-130	Pass	
Endrin	S11-No12020	CP	%	103			70-130	Pass	
Endrin aldehyde	S11-No12020	CP	%	108			70-130	Pass	
Endrin ketone	S11-No12020	CP	%	112			70-130	Pass	
g-BHC (Lindane)	S11-No12020	CP	%	94			70-130	Pass	
g-Chlordane	S11-No12020	CP	%	97			70-130	Pass	
Heptachlor	S11-No12020	CP	%	98			70-130	Pass	
Heptachlor epoxide	S11-No12020	CP	%	101			70-130	Pass	
Hexachlorobenzene	S11-No12020	CP	%	102			70-130	Pass	
Methoxychlor	S11-No12020	CP	%	115			70-130	Pass	
Duplicate									
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD			
Aroclor-1016	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1232	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides (OC)				Result 1	Result 2	RPD			
4.4'-DDD	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S11-No11971	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
a-BHC	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-Chlordane	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-Chlordane	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S11-No11971	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S11-No11971	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides (OP)				Result 1	Result 2	RPD			
Chlorpyrifos	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Coumaphos	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Demeton (total)	S11-No11971	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Diazinon	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorvos	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethoate	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Disulfoton	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethoprop	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Fenitrothion	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fensulfothion	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fenthion	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methyl azinphos	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Malathion	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methyl parathion	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Mevinphos	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Monocrotophos	S11-No11971	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Parathion	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phorate	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Profenofos	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Prothiofos	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ronnel	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Stirophos	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloronate	S11-No11971	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S11-No11973	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Volatile Organic Compounds (VOC)				Result 1	Result 2	RPD			
Benzene	S11-No11973	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	S11-No11973	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
o-Xylene	S11-No11973	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	S11-No11973	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total m+p-Xylenes	S11-No11973	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
TRH C6-C10	S11-No11973	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S11-No11973	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Xylenes(ortho.meta and para)	S11-No11973	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Total BTEX	S11-No11973	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Cyanide (total)	S11-No11366	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S11-No12002	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C15-C28	S11-No12002	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH C29-C36	S11-No12002	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
TRH >C10-C16	S11-No12002	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S11-No12002	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S11-No12002	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD			
Aroclor-1016	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1232	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Speciated Phenols				Result 1	Result 2	RPD			
2.4-Dichlorophenol	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dimethylphenol	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.4.6-Trichlorophenol	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenol	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S11-No12002	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Chlorophenol	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitrophenol	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorophenol	S11-No12002	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides (OC)				Result 1	Result 2	RPD			
4.4'-DDD	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S11-No12002	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
a-BHC	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-Chlordane	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-Chlordane	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S11-No12002	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S11-No12002	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD			
Acenaphthene	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S11-No12002	CP	mg/kg	< 0.5	< 0.5	28	30%	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S11-No12002	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Benzo(g.h.i)perylene	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S11-No12002	CP	mg/kg	1.0	0.6	47	30%	Fail	Q15
Fluorene	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S11-No12002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S11-No12002	CP	mg/kg	1.0	< 0.5	75	30%	Fail	Q15
Pyrene	S11-No12002	CP	mg/kg	0.8	0.6	29	30%	Pass	
Duplicate									
IWRG 621 Metals : Metals M12				Result 1	Result 2	RPD			
Arsenic	S11-No12003	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Cadmium	S11-No12003	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Chromium	S11-No12003	CP	mg/kg	5.7	5.6	3	30%	Pass	
Copper	S11-No12003	CP	mg/kg	8.9	8.6	3	30%	Pass	
Lead	S11-No12003	CP	mg/kg	360	360	1	30%	Pass	
Nickel	S11-No12003	CP	mg/kg	1.4	< 1	<1	30%	Pass	
Zinc	S11-No12003	CP	mg/kg	140	140	1	30%	Pass	
Mercury	S11-No12003	CP	mg/kg	0.11	0.11	2	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Barium	S11-No12003	CP	mg/kg	96	87	10	30%	Pass	
Beryllium	S11-No12003	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Cobalt	S11-No12003	CP	mg/kg	1.8	1.8	5	30%	Pass	
Manganese	S11-No12003	CP	mg/kg	64	57	11	30%	Pass	
Vanadium	S11-No12003	CP	mg/kg	19	20	4	30%	Pass	
Duplicate									
Volatile Organic Compounds (VOC)				Result 1	Result 2	RPD			
Benzene	S11-No12005	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	S11-No12005	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
o-Xylene	S11-No12005	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	S11-No12005	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total m+p-Xylenes	S11-No12005	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
TRH C6-C10	S11-No12005	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S11-No12005	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Xylenes(ortho.meta and para)	S11-No12005	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Total BTEX	S11-No12005	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Duplicate									
IWRG 621 Metals : Metals M12				Result 1	Result 2	RPD			
Arsenic	S11-No12006	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Cadmium	S11-No12006	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Chromium	S11-No12006	CP	mg/kg	3.0	3.0	1	30%	Pass	
Copper	S11-No12006	CP	mg/kg	4.6	4.3	5	30%	Pass	
Lead	S11-No12006	CP	mg/kg	7.3	6.4	13	30%	Pass	
Molybdenum	S11-No12006	CP	mg/kg	< 1	< 1	4	30%	Pass	
Nickel	S11-No12006	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Selenium	S11-No12006	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	S11-No12006	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Tin	S11-No12006	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Zinc	S11-No12006	CP	mg/kg	17	13	21	30%	Pass	
Mercury	S11-No12006	CP	mg/kg	2.2	2.5	13	30%	Pass	
Barium	S11-No12006	CP	mg/kg	19	20	3	30%	Pass	
Beryllium	S11-No12006	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Cobalt	S11-No12006	CP	mg/kg	3.6	3.7	3	30%	Pass	
Manganese	S11-No12006	CP	mg/kg	100	110	8	30%	Pass	
Vanadium	S11-No12006	CP	mg/kg	5.4	5.7	6	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Fluoride (soluble)	S11-No12012	CP	mg/kg	1.1	< 1	18	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S11-No12020	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C15-C28	S11-No12020	CP	mg/kg	120	100	18	30%	Pass	
TRH C29-C36	S11-No12020	CP	mg/kg	< 100	< 100	1.6	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
TRH >C10-C16	S11-No12020	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S11-No12020	CP	mg/kg	190	170	11	30%	Pass	
TRH >C34-C40	S11-No12020	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD			
Aroclor-1016	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1232	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1260	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Speciated Phenols				Result 1	Result 2	RPD			
2.4-Dichlorophenol	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dimethylphenol	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.6-Trichlorophenol	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenol	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S11-No12020	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Chlorophenol	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitrophenol	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorophenol	S11-No12020	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides (OC)				Result 1	Result 2	RPD			
4.4'-DDD	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S11-No12020	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
a-BHC	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-Chlordane	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-Chlordane	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S11-No12020	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S11-No12020	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD			
Acenaphthene	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S11-No12020	CP	mg/kg	1.7	1.0	52	30%	Fail	Q15
Benzo(a)pyrene	S11-No12020	CP	mg/kg	2.3	1.6	39	30%	Fail	Q15
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S11-No12020	CP	mg/kg	2.8	1.9	41	30%	Fail	Q15
Benzo(g.h.i)perylene	S11-No12020	CP	mg/kg	1.2	1.0	24	30%	Pass	
Chrysene	S11-No12020	CP	mg/kg	1.6	1.0	48	30%	Fail	Q15
Dibenz(a.h)anthracene	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S11-No12020	CP	mg/kg	1.3	0.9	40	30%	Fail	Q15
Fluorene	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S11-No12020	CP	mg/kg	1.0	0.7	31	30%	Fail	Q15
Naphthalene	S11-No12020	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S11-No12020	CP	mg/kg	1.3	0.7	63	30%	Fail	Q15
Pyrene	S11-No12020	CP	mg/kg	1.8	1.2	45	30%	Fail	Q15

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
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	No

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 haved passed all QAQC acceptance criteria, and are entirely technically valid.
N03	The method has been audited and technically assessed by NATA. NATA accreditation is pending.
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.
Q15	The RPD reported passes mgt-LabMark's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Onur Mehmet	Client Services

NATA Signatories:

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

AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref: ASET28136/ 31316 / 1 - 12
Your ref: 319060
NATA Accreditation No: 14484

23 November 2011

MGT Labmark Environmental Laboratories
Unit F3, 16 Mars Road
Lane Cove West NSW 2066

Attn: Ms Leanne Knowles

Dear Leanne,

Asbestos Identification
This report presents the results of twelve samples, forwarded by MGT Labmark Environmental Laboratories on 23 November 2011, for analysis for asbestos.

1.Introduction: Twelve samples forwarded were examined and analysed for the presence of asbestos.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining Method **(Safer Environment Method 1.)**

3. Results :

Sample No. 1. ASET28136 / 31316 / 1. BH1 0.0 - 0.2 - No11971
Approx dimensions 5.1 cm x 5.1 cm x 1.8 cm
The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster and glass.
No asbestos detected.

Sample No. 2. ASET28136 / 31316 / 2. BH7 0.0 - 0.2 - No11989
Approx dimensions 4.1 cm x 4.1 cm x 1.1 cm
The sample consisted of a mixture of soil, stones, fragments of plaster, glass, plant and insect matter,
No asbestos detected.

Sample No. 3. ASET28136 / 31316 / 3. BH9 0.0 - 0.2 - No11995
Approx dimensions 4.8 cm x 4.8 cm x 2.0 cm
The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster and brick like material.
No asbestos detected.

Sample No. 4. ASET28136 / 31316 / 4. BH11 1.3 - 1.5 - No12002
Approx dimensions 4.0 cm x 4.0 cm x 1.3 cm
The sample consisted of a mixture of clayish soil, stones, fragments of plaster, brick and glass.
No asbestos detected.

Sample No. 5. ASET28136 / 31316 / 5. BH1 4.3 - 4.5 - No12003
Approx dimensions 4.0 cm x 4.0 cm x 1.0 cm
The sample consisted of a mixture of clayish soil, stones, fragments of plaster, cement and brick.
No asbestos detected.

Sample No. 6. ASET28136 / 31316 / 6. BH11 8.6 - 8.8 - No12005
Approx dimensions 5.0 cm x 5.0 cm x 1.5 cm
The sample consisted of a mixture of clayish soil, stones and fragments of plaster.
No asbestos detected.

Sample No. 7. ASET28136 / 31316 / 7. BH12 1.3 - 1.5 - No12007
Approx dimensions 4.5 cm x 4.5 cm x 1.3 cm
The sample consisted of a mixture of clayish soil, stones, fragments of plaster and glass.
No asbestos detected.

Sample No. 8. ASET28136 / 31316 / 8. BH13 1.3 - 1.5 - No12010
Approx dimensions 4.0 cm x 4.0 cm x 1.0 cm
The sample consisted of a mixture of clayish soil, stones, fragments of plaster and brick like material.
No asbestos detected.

Sample No. 9. ASET28136 / 31316 / 9. BH13 4.3 - 4.5 - No12012
Approx dimensions 4.5 cm x 4.5 cm x 1.5 cm
The sample consisted of a mixture of clayish soil, stones, fragments of plaster and brick.
No asbestos detected.

Sample No. 10. ASET28136 / 31316 / 10. BH13 7.3 - 7.5 - No12014
Approx dimensions 5.4 cm x 5.3 cm x 2.1 cm
The sample consisted of a mixture of clayish soil, stones, fragments of plaster, cement and glass.
No asbestos detected.

Sample No. 11. ASET 28136 / 31316 / 11. BH15 1.3 - 1.5 - No12018
Approx dimensions 4.0 cm x 4.0 cm x 1.5 cm
The sample consisted of a mixture of clayish soil, stones, fragments of plaster and brick.
No asbestos detected.

Sample No. 12. ASET 28136 / 31316 / 12. BH15 4.0 - 4.2 - No012020
Approx dimensions 4.1 cm x 4.1 cm x 1.4 cm
The sample consisted of a mixture of clayish soil, stones, fragments of plaster, cement, brick and glass.
No asbestos detected.

Analysed and reported by,

Mahen De Silva . BSc. MSc. Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Signatory.
Approved Identifier

NATA
WORLD RECOGNISED
ACCREDITATION

This document is issued in accordance with NATA's Accreditation requirements. Accredited for compliance with ISO/IEC 17025.

ALS Group
Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: **ES1125776**	Page	: 1 of 5
Client	: **SMEC TESTING SERVICES PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR DAVID YONGE	Contact	: Client Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: dyonge@smectesting.com.au	E-mail	: sydney@alsglobal.com
Telephone	: +61 02 9756 2166	Telephone	: +61-2-8784 8555
Facsimile	: +61 02 9756 1137	Facsimile	: +61-2-8784 8500
Project	: 18435 1017C	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: 8879		
C-O-C number	: ----	Date Samples Received	: 23-NOV-2011
Sampler	: ----	Issue Date	: 02-DEC-2011
Site	: ----		
		No. of samples received	: 3
Quote number	: EN/025/10	No. of samples analysed	: 1

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

NATA
WORLD RECOGNISED ACCREDITATION

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

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

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Organics
Evie.Sidarta	Inorganic Chemist	Sydney Inorganics
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics

General Comments

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

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

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

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

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

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting

Analytical Results

Sub-Matrix: SOIL				Client sample ID	300/1/31-BH4-0.0-0.2(2)	----	----	----	----
				Client sampling date / time	11-NOV-2011 15:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES1125776-001	----	----	----	----
EA055: Moisture Content									
Moisture Content (dried @ 103°C)	----	1.0	%		4.6	----	----	----	----
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	----	----	----	----
Cadmium	7440-43-9	1	mg/kg		<1	----	----	----	----
Chromium	7440-47-3	2	mg/kg		4	----	----	----	----
Copper	7440-50-8	5	mg/kg		<5	----	----	----	----
Lead	7439-92-1	5	mg/kg		6	----	----	----	----
Nickel	7440-02-0	2	mg/kg		<2	----	----	----	----
Zinc	7440-66-6	5	mg/kg		10	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		1.6	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	----	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	----	----	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	----	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	----	----	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	----	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	----	----	----	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	----	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	----	----	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	----	----	----	----
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg		<0.5	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	----	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	----	----	----	----
C10 - C14 Fraction	----	50	mg/kg		<50	----	----	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	----	----	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	----	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	----	----	----	----

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 300/1/31-BH4-0.0-0.2(2)	----	----	----	----
				Client sampling date / time: 11-NOV-2011 15:00	----	----	----	----
				ES1125776-001	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft								
C6 - C10 Fraction	----	10	mg/kg	<10	----	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	----	10	mg/kg	<10	----	----	----	----
>C10 - C16 Fraction	----	50	mg/kg	<50	----	----	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	----	----	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg	<50	----	----	----	----
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	----	----	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	----	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	----	----
EP080: BTEXN								
^ **Sum of BTEX**	----	0.2	mg/kg	<0.2	----	----	----	----
^ **Total Xylenes**	1330-20-7	0.5	mg/kg	<0.5	----	----	----	----
Naphthalene	91-20-3	1	mg/kg	<1	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	**94.6**	----	----	----	----
2-Chlorophenol-D4	93951-73-6	0.1	%	**92.4**	----	----	----	----
2.4.6-Tribromophenol	118-79-6	0.1	%	**96.0**	----	----	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	**90.9**	----	----	----	----
Anthracene-d10	1719-06-8	0.1	%	**89.3**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%	**91.3**	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	%	**108**	----	----	----	----
Toluene-D8	2037-26-5	0.1	%	**102**	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	**104**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	56.3	133.3
2-Chlorophenol-D4	93951-73-6	53.8	133.8
2.4.6-Tribromophenol	118-79-6	23.1	134.9
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	58.9	132.7
Anthracene-d10	1719-06-8	55.0	137.6
4-Terphenyl-d14	1718-51-0	54.0	147.8
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	72.8	133.2
Toluene-D8	2037-26-5	73.9	132.1
4-Bromofluorobenzene	460-00-4	71.6	130.0

ALS Group
Environmental Division

QUALITY CONTROL REPORT

Work Order	: **ES1125776**	Page	: 1 of 8
Client	: **SMEC TESTING SERVICES PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR DAVID YONGE	Contact	: Client Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: dyonge@smectesting.com.au	E-mail	: sydney@alsglobal.com
Telephone	: +61 02 9756 2166	Telephone	: +61-2-8784 8555
Facsimile	: +61 02 9756 1137	Facsimile	: +61-2-8784 8500
Project	: 18435 1017C	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----		
C-O-C number	: ----	Date Samples Received	: 23-NOV-2011
Sampler	: ----	Issue Date	: 02-DEC-2011
Order number	: 8879		
		No. of samples received	: 3
Quote number	: EN/025/10	No. of samples analysed	: 1

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

This Quality Control Report contains the following information:

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

NATA
WORLD RECOGNISED ACCREDITATION

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

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

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Organics
Evie.Sidarta	Inorganic Chemist	Sydney Inorganics
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics

General Comments

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

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

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

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

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
ES1125717-001	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	38.2	37.2	2.6	0% - 20%
ES1126132-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	6	6	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.0	No Limit
ES1126132-011	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	14	15	9.2	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	9	10	12.3	No Limit
ES1126132-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1126132-011	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES1125528-001	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	0.7	0.5	22.8	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	0.7	0.6	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
ES1125528-001	Anonymous	EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	1.4	1.1	24.0	No Limit
ES1125613-006	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	8.7	7.9	9.0	0% - 50%
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.8	<0.8	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.8	<0.8	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	0.9	<0.8	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	2.5	2.4	5.9	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.8	<0.8	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	2.9	2.8	5.1	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	2.8	2.6	6.9	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	1.0	1.0	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	1.2	1.1	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	1.4	1.3	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.8	<0.8	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.8	<0.8	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.8	<0.8	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.8	<0.8	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.8	<0.8	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	21.4	19.1	11.4	0% - 20%
ES1125576-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1125576-011	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1125528-001	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1125613-006	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	2840	2880	1.3	0% - 20%
		EP071: C29 - C36 Fraction	----	100	mg/kg	1640	1640	0.0	0% - 50%
		EP071: C10 - C14 Fraction	----	50	mg/kg	1930	1700	12.5	0% - 20%
ES1125576-001	Anonymous	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1125576-011	Anonymous	EP080: C6 - C10 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1125528-001	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1125613-006	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	3750	3980	6.0	0% - 20%
		EP071: >C34 - C40 Fraction	----	100	mg/kg	890	1030	14.5	0% - 50%

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
ES1125613-006	Anonymous	EP071: >C10 - C16 Fraction	----	50	mg/kg	2010	1780	12.2	0% - 20%
ES1125576-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES1125576-011	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit

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

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

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 2065546)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	13.11 mg/kg	128	70	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	2.76 mg/kg	106	83.3	111
EG005T: Chromium	7440-47-3	2	mg/kg	<2	60.93 mg/kg	112	89.2	117
EG005T: Copper	7440-50-8	5	mg/kg	<5	54.68 mg/kg	106	90.1	114
EG005T: Lead	7439-92-1	5	mg/kg	<5	54.76 mg/kg	110	85.2	111
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.23 mg/kg	116	88.3	116
EG005T: Zinc	7440-66-6	5	mg/kg	<5	103.88 mg/kg	110	88.9	112
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2065547)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	1.4 mg/kg	84.4	67	118
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2059087)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	4 mg/kg	107	81.9	113
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	4 mg/kg	101	79.6	113
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	4 mg/kg	103	81.5	112
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	4 mg/kg	97.9	79.9	112
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	4 mg/kg	101	79.4	114
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	4 mg/kg	103	81.1	112
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	4 mg/kg	97.7	78.8	113
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	4 mg/kg	97.8	78.9	113
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	4 mg/kg	88.2	77.2	112
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	4 mg/kg	92.4	79.8	114
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	4 mg/kg	84.4	71.8	118
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	4 mg/kg	90.7	74.2	117
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	4 mg/kg	86.0	76.4	113
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	4 mg/kg	84.3	71	113
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	4 mg/kg	82.6	71.7	113
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	4 mg/kg	83.2	72.4	114
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2057100)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	86.2	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2059088)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	200 mg/kg	102	59	131
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	300 mg/kg	123	74	138
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	200 mg/kg	99.6	63	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2057100)								
EP080: C6 - C10 Fraction	----	10	mg/kg	<10	31 mg/kg	86.0	68.4	128

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2059088)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	250 mg/kg	104	59	131
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	350 mg/kg	122	74	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----
		50	mg/kg	----	150 mg/kg	87.6	63	131
EP080: BTEXN (QCLot: 2057100)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	81.6	62	120
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	83.5	62	128
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	82.2	58	118
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	82.8	60	120
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	85.6	60	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	88.4	62	138

Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 2065546)							
ES1126132-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	113	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	91.9	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	94.2	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	107	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	89.0	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	85.2	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	88.3	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2065547)							
ES1126132-001	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	89.8	70	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2059087)							
ES1125528-001	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	80.3	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	83.8	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2057100)							
ES1125576-001	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	92.4	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2059088)							
ES1125528-001	Anonymous	EP071: C10 - C14 Fraction	----	640 mg/kg	90.1	73	137
		EP071: C15 - C28 Fraction	----	3140 mg/kg	95.8	53	131
		EP071: C29 - C36 Fraction	----	2860 mg/kg	73.5	52	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2057100)							
ES1125576-001	Anonymous	EP080: C6 - C10 Fraction	----	37.5 mg/kg	96.4	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft (QCLot: 2059088)							
ES1125528-001	Anonymous	EP071: >C10 - C16 Fraction	----	850 mg/kg	105	73	137
		EP071: >C16 - C34 Fraction	----	4800 mg/kg	90.4	53	131
		EP071: >C34 - C40 Fraction	----	2400 mg/kg	57.3	52	132
EP080: BTEXN (QCLot: 2057100)							
ES1125576-001	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	75.5	70	130
		EP080: Toluene	108-88-3	2.5 mg/kg	94.2	70	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	98.0	70	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	92.5	70	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	95.7	70	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	95.4	70	130

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: **ES1125776**	Page	: 1 of 5
Client	: SMEC TESTING SERVICES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: MR DAVID YONGE	Contact	: Client Services
Address	: P O BOX 6989 WETHERILL PARK NSW, AUSTRALIA 2164	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: dyonge@smectesting.com.au	E-mail	: sydney@alsglobal.com
Telephone	: +61 02 9756 2166	Telephone	: +61-2-8784 8555
Facsimile	: +61 02 9756 1137	Facsimile	: +61-2-8784 8500
Project	: 18435 1017C	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----		
C-O-C number	: ----	Date Samples Received	: 23-NOV-2011
Sampler	: ----	Issue Date	: 02-DEC-2011
Order number	: 8879		
		No. of samples received	: 3
Quote number	: EN/025/10	No. of samples analysed	: 1

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

This Interpretive Quality Control Report contains the following information:

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

Analysis Holding Time Compliance

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

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

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content							
Soil Glass Jar - Unpreserved (EA055-103)							
300/1/31-BH4-0.0-0.2(2)	**11-NOV-2011**	**----**	----	----	**24-NOV-2011**	25-NOV-2011	✓
EG005T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
300/1/31-BH4-0.0-0.2(2)	**11-NOV-2011**	**29-NOV-2011**	09-MAY-2012	✓	**30-NOV-2011**	09-MAY-2012	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
300/1/31-BH4-0.0-0.2(2)	**11-NOV-2011**	**29-NOV-2011**	09-DEC-2011	✓	**30-NOV-2011**	09-DEC-2011	✓
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP071)							
300/1/31-BH4-0.0-0.2(2)	**11-NOV-2011**	**24-NOV-2011**	25-NOV-2011	✓	**25-NOV-2011**	03-JAN-2012	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM))							
300/1/31-BH4-0.0-0.2(2)	**11-NOV-2011**	**24-NOV-2011**	25-NOV-2011	✓	**25-NOV-2011**	03-JAN-2012	✓
EP080: BTEX							
Soil Glass Jar - Unpreserved (EP080)							
300/1/31-BH4-0.0-0.2(2)	**11-NOV-2011**	**23-NOV-2011**	25-NOV-2011	✓	**25-NOV-2011**	25-NOV-2011	✓
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080)							
300/1/31-BH4-0.0-0.2(2)	**11-NOV-2011**	**23-NOV-2011**	25-NOV-2011	✓	**25-NOV-2011**	25-NOV-2011	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft							
Soil Glass Jar - Unpreserved (EP080)							
300/1/31-BH4-0.0-0.2(2)	**11-NOV-2011**	**23-NOV-2011**	25-NOV-2011	✓	**25-NOV-2011**	25-NOV-2011	✓

Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055-103	1	4	**25.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	2	19	**10.5**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	20	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	20	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	19	**10.5**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	20	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	19	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	19	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	19	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	19	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	19	**5.3**	**5.0**	✓	ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.0**	**5.0**	✓	ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	**5.0**	**5.0**	✓	ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	19	**5.3**	**5.0**	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	**5.0**	**5.0**	✓	ALS QCS3 requirement

Brief Method Summaries

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

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (2010 Draft) Schedule B(3) Section 7.1 and Table 1 (14 day holding time).
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (1999) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3)
TPH - Semivolatile Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (1999) Schedule B(3) (Method 506.1)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 502 and 507)
TPH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 501)

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	USEPA 200.2 Mod. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (1999) Schedule B(3) (Method 202)
Methanolic Extraction of Soils for Purge and Trap	* ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option B - Non-concentrating)	ORG17B	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 20mL 1:1 DCM/Acetone by end over end tumble. The solvent is transferred directly to a GC vial for analysis.

Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW 846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

- **For all matrices, no Method Blank value outliers occur.**
- **For all matrices, no Duplicate outliers occur.**
- **For all matrices, no Laboratory Control outliers occur.**
- **For all matrices, no Matrix Spike outliers occur.**

Regular Sample Surrogates

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

Outliers : Analysis Holding Time Compliance

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

- **No Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

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

- **No Quality Control Sample Frequency Outliers exist.**

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Certificate of Analysis

SMEC Testing Services Pty Ltd
14/1 Cowpasture Place
Wetherill Park
NSW 2164

Attention: David Yonge

NATA
WORLD RECOGNISED ACCREDITATION

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.

Report	323778-S
Client Reference	TCLP 18435/1177C:- ADDITIONAL
Received Date	Jan 11, 2012

Client Sample ID			**300/1/31-BH10**	**300/1/31-BH11**	**300/1/31-BH12**	**300/1/31-BH12**
			2.0-0.2(1)	**4.3-4.5**	**1.3-1.5**	**4.3-4.5**
Sample Matrix			**TCLP**	**TCLP**	**TCLP**	**TCLP**
mgt-LabMark Sample No.			**S12-Ja02961**	**S12-Ja02971**	**S12-Ja02972**	**S12-Ja02973**
Date Sampled			**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**	**Nov 10, 2011**
Test/Reference	LOR	Unit				
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.001	mg/L	-	-	< 0.001	-
Acenaphthylene	0.001	mg/L	-	-	< 0.001	-
Anthracene	0.001	mg/L	-	-	< 0.001	-
Benz(a)anthracene	0.001	mg/L	-	-	< 0.001	-
Benzo(a)pyrene	0.001	mg/L	-	-	< 0.001	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	0.002	mg/L	-	-	< 0.002	-
Benzo(g.h.i)perylene	0.001	mg/L	-	-	< 0.001	-
Chrysene	0.001	mg/L	-	-	< 0.001	-
Dibenz(a.h)anthracene	0.001	mg/L	-	-	< 0.001	-
Fluoranthene	0.001	mg/L	-	-	< 0.001	-
Fluorene	0.001	mg/L	-	-	< 0.001	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	-	-	< 0.001	-
Naphthalene	0.001	mg/L	-	-	< 0.001	-
Phenanthrene	0.001	mg/L	-	-	< 0.001	-
Pyrene	0.001	mg/L	-	-	< 0.001	-
Total PAH	0.002	mg/L	-	-	< 0.002	-
2-Fluorobiphenyl (surr.)	1	%	-	-	104	-
p-Terphenyl-d14 (surr.)	1	%	-	-	125	-
Heavy Metals						
Lead	0.01	mg/L	-	1.1	0.16	1.5
Nickel	0.05	mg/L	< 0.05	-	-	-
% Moisture	0.1	%	5.1	14	14	13
Toxicity Characteristic Leaching Procedure (TCLP)						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (TCLP - HCl addition)	0.1	units	1.7	1.7	1.7	1.8
pH (TCLP - initial)	0.1	units	9.0	9.3	8.8	9.2
pH (TCLP - off)	0.1	units	5.0	6.0	5.0	6.0

Client Sample ID			300/1/31-BH13	300/1/31-BH13	300/1/31-BH13	300/1/31-BH15
			1.3-1.5	4.3-4.5	7.3-7.5	1.3-1.5
Sample Matrix			TCLP	TCLP	TCLP	TCLP
mgt-LabMark Sample No.			S12-Ja02974	S12-Ja02975	S12-Ja02976	S12-Ja02977
Date Sampled			Nov 10, 2011	Nov 10, 2011	Nov 10, 2011	Nov 10, 2011
Test/Reference	LOR	Unit				
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.001	mg/L	< 0.001	-	< 0.001	-
Acenaphthylene	0.001	mg/L	< 0.001	-	< 0.001	-
Anthracene	0.001	mg/L	< 0.001	-	< 0.001	-
Benz(a)anthracene	0.001	mg/L	< 0.001	-	< 0.001	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	-	< 0.001	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	0.002	mg/L	< 0.002	-	< 0.002	-
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	-	< 0.001	-
Chrysene	0.001	mg/L	< 0.001	-	< 0.001	-
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	-	< 0.001	-
Fluoranthene	0.001	mg/L	< 0.001	-	< 0.001	-
Fluorene	0.001	mg/L	< 0.001	-	< 0.001	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	-	< 0.001	-
Naphthalene	0.001	mg/L	0.003	-	0.003	-
Phenanthrene	0.001	mg/L	< 0.001	-	< 0.001	-
Pyrene	0.001	mg/L	< 0.001	-	< 0.001	-
Total PAH	0.002	mg/L	0.003	-	0.003	-
2-Fluorobiphenyl (surr.)	1	%	96	-	93	-
p-Terphenyl-d14 (surr.)	1	%	115	-	119	-
Heavy Metals						
Lead	0.01	mg/L	-	12	0.63	0.08
% Moisture	0.1	%	15	13	19	12
Toxicity Characteristic Leaching Procedure (TCLP)						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (TCLP - HCl addition)	0.1	units	1.8	1.8	1.8	1.6
pH (TCLP - initial)	0.1	units	9.2	9.1	9.2	8.9
pH (TCLP - off)	0.1	units	6.4	6.2	6.5	5.0

Client Sample ID			300/1/31-BH15
			4.0-4.2
Sample Matrix			TCLP
mgt-LabMark Sample No.			S12-Ja02978
Date Sampled			Nov 10, 2011
Test/Reference	LOR	Unit	
Polyaromatic Hydrocarbons (PAH)			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b)fluoranthene & Benzo(k)fluoranthene	0.002	mg/L	< 0.002
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH	0.002	mg/L	< 0.002
2-Fluorobiphenyl (surr.)	1	%	99
p-Terphenyl-d14 (surr.)	1	%	123
Heavy Metals			
Lead	0.01	mg/L	0.36
% Moisture	0.1	%	9.8
Toxicity Characteristic Leaching Procedure (TCLP)			
Leachate Fluid[C01]		comment	1.0
pH (TCLP - HCl addition)	0.1	units	1.8
pH (TCLP - initial)	0.1	units	9.4
pH (TCLP - off)	0.1	units	6.1

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
Polyaromatic Hydrocarbons (PAH) - Method: E007 Polyaromatic Hydrocarbons (PAH)	Sydney	Jan 16, 2012	14 Day
Heavy Metals - Method: E022 Acid Extractable metals in Soils	Sydney	Jan 13, 2012	180 Day
% Moisture - Method: E005 Moisture Content	Sydney	Jan 13, 2012	28 Day
Toxicity Characteristic Leaching Procedure (TCLP) - Method: E019 TCLP Preparation	Sydney	Jan 13, 2012	14 Day

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NATA # 1261 & 1645
Site # 1254 & 14271

Sydney
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Phone : +61 2 8215 6222
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600

Company Name: SMEC Testing Services Pty Ltd
Address: 14/1 Cowpasture Place
Wetherill Park
NSW 2164

Order No.:
Report #: 323778
Phone: 02 9756 2166
Fax: 02 9756 1137

Received: Jan 11, 2012 3:00 PM
Due: Jan 18, 2012 4:00 PM
Priority: 5 Day
Contact name: David Yonge

Client Job No.: TCLP 18435/1177C:- ADDITIONAL

mgt-LabMark Client Manager: Onur Mehmet

Sample Detail					% Moisture	Lead	Nickel	Toxicity Characteristic Leaching Procedure (TCLP)	Polyaromatic Hydrocarbons (PAH)
Laboratory where analysis is conducted									
Melbourne Laboratory - NATA Site #1261									
Sydney Laboratory - NATA Site #1645					X	X	X	X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
300/1/31-BH10 2.0-0.2(1)	Nov 10, 2011		TCLP	S12-Ja02961	X		X	X	
300/1/31-BH11 4.3-4.5	Nov 10, 2011		TCLP	S12-Ja02971	X	X		X	
300/1/31-BH12 1.3-1.5	Nov 10, 2011		TCLP	S12-Ja02972	X	X		X	X
300/1/31-BH12 4.3-4.5	Nov 10, 2011		TCLP	S12-Ja02973	X	X		X	
300/1/31-BH13 1.3-1.5	Nov 10, 2011		TCLP	S12-Ja02974	X			X	X

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NATA # 1261 Site # 18217

Brisbane
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Murarrie QLD 4172
Phone : +61 7 3902 4600

Company Name: SMEC Testing Services Pty Ltd
Address: 14/1 Cowpasture Place
Wetherill Park
NSW 2164

Order No.:
Report #: 323778
Phone: 02 9756 2166
Fax: 02 9756 1137

Received: Jan 11, 2012 3:00 PM
Due: Jan 18, 2012 4:00 PM
Priority: 5 Day
Contact name: David Yonge

Client Job No.: TCLP 18435/1177C:- ADDITIONAL

mgt-LabMark Client Manager: Onur Mehmet

Sample Detail					% Moisture	Lead	Nickel	Toxicity Characteristic Leaching Procedure (TCLP)	Polyaromatic Hydrocarbons (PAH)
Laboratory where analysis is conducted									
Melbourne Laboratory - NATA Site #1261									
Sydney Laboratory - NATA Site #1645					X	X	X	X	X
300/1/31-BH13 4.3-4.5	Nov 10, 2011		TCLP	S12-Ja02975	X	X		X	
300/1/31-BH13 7.3-7.5	Nov 10, 2011		TCLP	S12-Ja02976	X	X		X	X
300/1/31-BH15 1.3-1.5	Nov 10, 2011		TCLP	S12-Ja02977	X	X		X	
300/1/31-BH15 4.0-4.2	Nov 10, 2011		TCLP	S12-Ja02978	X	X		X	X

mgt-LabMark Internal Quality Control Review

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 an RPD

UNITS

mg/kg:milligrams per Kilogram

mg/L:milligrams per litre

µg/L:micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%:Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 milliltres

TERMS

Dry:	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR:	Limit Of Reporting.
SPIKE:	Addition of the analyte to the sample and reported as percentage recovery.
RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
LCS:	Laboratory Control Sample - reported as percent recovery.
CRM:	Certified Reference Material - reported as percent recovery.
Method Blank:	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.
Surr - Surrogate:	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate:	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate:	A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis.
Batch SPIKE:	Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.
USEPA:	U.S Environmental Protection Agency
APHA:	American Public Health Association
ASLP:	Australian Standard Leaching Procedure (AS4439.3)
TCLP:	Toxicity Characteristic Leaching Procedure
COC:	Chain Of Custody
SRA:	Sample Receipt Advice
CP:	Client Parent - QC was performed on samples pertaining to this report
NCP:	Non-Client Parent - QC was performed on samples not pertaining to this report, however 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 below the LOR with a positive RPD - eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data.

mgt LabMark
ENVIRONMENTAL LABORATORIES

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	mg/L	< 0.002			0.002	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Heavy Metals E022 Acid Extractable metals in Soils							
Lead	mg/L	< 0.01			0.01	Pass	
Nickel	mg/L	< 0.05			0.05	Pass	
LCS - % Recovery							
Heavy Metals E022 Acid Extractable metals in Soils							
Lead	%	101			70-130	Pass	
Nickel	%	103			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	S12-Ja02971	CP	%	86			70-130	Pass	
Nickel	S12-Ja02971	CP	%	88			70-130	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead	S12-Ja02961	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Nickel	S12-Ja02961	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead	S12-Ja01687	NCP	mg/L	**	< 0.01	11	30%	Pass	

Comments

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	N/A
Samples received within HoldingTime	No
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0, 2 - pH 2.9, 3 - pH 9.2, 4 - Reagent (DI) water, 5 - Client sample, 6 - other

Authorised By

Onur Mehmet	Client Services
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (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