

RUN 1 11-10-97 168-185

1829 M ASL 303.71 mm



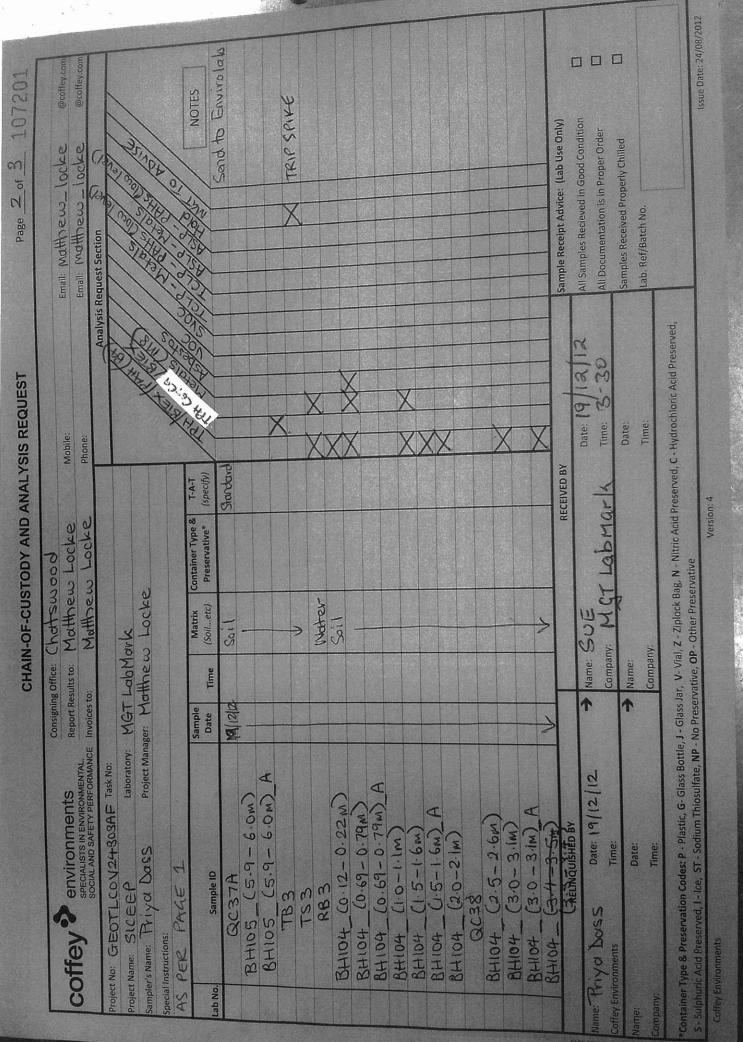




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same         Der         Total         Der         Der <thder< th=""> <thder< th=""> <thder< th=""></thder<></thder<></thder<>	Sam (Sam	Container Type &	TAT REPAIR	ACCESSION NOTES
55     Co (2 - 0 · 2.2 M)     R/4/4     Soft     Software     N       05     Ci (0 - 1 (M)     N     N     N     N       05     Ci (0 - 1 (M)     N     N     N     N       05     Ci (0 - 1 (M)     N     N     N     N       05     Ci (0 - 1 (M)     N     N     N     N       05     Ci (1 - 1 (M)     N     N     N     N       05     Ci (2 - 2 (M)     N     N     N     N       55     Ci (2 - 2 (M)     N     N     N     N       56     Ci (2 - 2 (M)     N     N     N     N       57     Ci (2 - 2 (M)     N     N     N     N       56     Ci (2 - 2 (M)     N     N     N     N       57     Ci (2 - 2 (M)     N     N     N     N       56     Ci (2 - 5 (M)     N     N     N     N       57     Ci (2 - 5 (M)     N     N     N     N       56     Ci (2 - 5 (M)     N     N     N     N       57     Ci (2 - 5 (M)     N     N     N     N       58     Ci (2 - 5 (M)     N     N     N     N       57 </td <td></td> <td>Time (Solletc) Preservative</td> <td></td> <td></td>		Time (Solletc) Preservative		
05     (0:5-0:220)     А       05     (1:5-1:10)     А       05     (1:5-1:10)     А       05     (1:5-1:10)     А       05     (1:5-1:10)     A       05     (1:5-1:10)     A       05     (1:5-1:10)     A       05     (1:5-1:10)     A       05     (1:5-2:10)     A       05     (1:5-5:10)     A       <	_CO.12-0.22m)	Soil	standard X	
05 (10 - 11 lm) 05 (15 - 16 kM) 05 (15 - 16 kM) 05 (25 - 16 kM) 05 (25 - 21 kM) 05 (25 - 51 kM) 05 (2	(6.12-0.22m)			7
05       C(10-11 (M))         05       C(15-11 (GN))         05       C(15-11 (GN))         05       C(15-11 (GN))         05       C(15-12 (M))         05       C(10-15 (M))         06       Mone         07       Mone         05       Mone         05       Mone         06       Mone         07       Mone         08       Mone         08       Mone         08       Mone         09       Mone         06       Mone         07       Mone         08       Mone         08       Mone <td>1</td> <td></td> <td>XXX</td> <td></td>	1		XXX	
05       C1:5-1: 6,40         5       C2:2:14)         5       C2:2:14)         5       C2:2:14)         5       C3:2:2:14)         5       C4:0-4:10)         5       C4:0-4:10)         5       C4:0-5:10)         5       C5:0-5:10)         6       C5:0-5:100         7       C4:12.12         10:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:	1			7
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	QC36			7
55       (20-2:1/m) A         55       (25-2:6w)         55       (25-2:6w)         55       (35-3:6w)         55       (35-3:6w)         55       (4:0-4:1w)         55       (5:0-5:1w) A         55       (5:0-5:1w) A         55       (5:0-5:1w) A         55       (5:0-5:1w) A         56       (5:0-5:1w) A         57       (5:0-5:1w) A         66       (5:0-5:1w) A         72       (5:0-5:1w) A         73       (5:0-5:1w) A         74       13 Ismpte stelevel isood condition of the stelevel	(m1.2-0-2)			7
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5       (2 8 - 2 9 M)         6       (3 5 - 3 6 M)         5       (3 5 - 3 6 M)         5       (4 0 - 4 1 M)         5       (4 - 4 - 5 M)         5       (4 + -4 - 5 M)         5       (4 + -4 - 5 M)         5       (5 - 0 - 5 1 M)         6       (5 - 5 - 6 M)         7       0.5         6       (5 - 5 - 6 M)         6       (5 - 5 - 6 M)         7       0.5         6       (5 - 5 - 6 M)         8       (5 - 5 - 6 M)         9       (5 - 1 - 2 M)         9       (5 - 1 - 2 M)         9       (5 - 2 - 5 M)				7
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15       (3:5-3:6,u) A       A         15       (4:0-4:1)       A         15       (4:0-4:1)       A         15       (4:0-4:1)       A         15       (4:0-4:1)       A         15       (5:0-5:1)       A         15       (5:5-5:6)       A         16       A       A         16       A       A         16       A       A         17       A       A         16       A       A         17       A       A         17 </td <td>(3.5-3.6m)</td> <td></td> <td></td> <td>7</td>	(3.5-3.6m)			7
55       (4+0-4+1W)         55       (4+0-4-15W)         55       (5:0-5:1M)         55       (5:0-5:1M)         5       (5:0-5:1M)         5       (5:0-5:1M)         5       (5:0-5:1M)         6       (5:0-5:1M)         9       (5:1-5:1M)         9       (5:1-5)         9       (5:1-2)         9       (5:1-2)         9       (5:1-2)         9       (5:1-2)         9       (5:1-2)         9       (5:1-2)         9       (5:1-2) <tr< td=""><td>(3.5-3.6M)</td><td></td><td>X</td><td>7</td></tr<>	(3.5-3.6M)		X	7
5       (4+4A.5w)       5       (5:0-5:1w)       5         5       (5:0-5:1w)       6       5       (5:0-5:1w)       6         5       (5:0-5:1w)       6       6       6       6       6         5       (5:5-5:6w)       6 <td< td=""><td></td><td></td><td></td><td>1</td></td<>				1
5       (5:0-5:1m)       A       A         5       (5:0-5:1m)       A       A         5       (5:0-5:1m)       A       A         5       (5:0-5:1m)       A       A         05       (5:5-5:6m)       A       A         06       (5:1-5:6m)       A       A         06       Date:       19/13/13       A         06       Date:       19/13/13       A         06       Date:       19/13/13       A         11me:       Date:       19/13/13       A         11me:       Date:       17/13       A         11me:       Date:       17/13       A         11me:       Date:       17/13       A         11me:       Date:       17/13       A         11me:       Date:       Date:       17/13         11me:       Date:       Date:       17/13         11me:       Date:       Date:	1		X	7
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S       US-55-5:6M       V       EECEIVED BY       RECEIVED BY         QC37       RELINQUISHED BY       RELINQUISHED BY       RECEIVED BY       RECEIVED BY         ACCAT       Name: BUE       Date: 19/12/12       All Samples Received in Good Condition         Socs       Date: 19/12/12       Mame: BUE       Date: 19/13/13       All Samples Received in Good Condition         Socs       Date:       Mame: BUE       Date: 19/13/13       All Documentation is in Proper Order         Socs       Date:       Mame: BUE       Date:       Date: 19/13/13       All Documentation is in Proper Order         Socs       Date:       Mame: BUE       Date:       Date:       Date:       All Documentation is in Proper Order         Inne:       Date:       Mame: Company       Mare: Arrive:	(8:0- 2·1M)			7
OCS7     RECEIVED BY     RECEIVED BY     RECEIVED BY     Receipt Advice: (Lab Use Only)       RELINQUISHED BY     Name: BUE     Date: 19/13/13     All Samples Received in Good Condition       Socs     Date: 19/12/12     Maine: BUE     Date: 19/13/13     All Samples Received in Good Condition       Socs     Date: 19/12/12     Maine: BUE     Date: 19/13/13     All Bocumentation is in Proper Order       Socs     Date: 19/12/12     Maine: BUE     Date: 19/13/13     All Bocumentation is in Proper Order       Socs     Date: 19/12/12     Maine: BUE     Date: 19/13/13     All Bocumentation is in Proper Order       Socs     Date: 19/12/12     Maine: Society Maine: Bue     Date: 19/13/13     All Bocumentation is in Proper Order       Time:     Date: 19/12/12     Maine: Society Maine: Bue     Date: 19/13/13     Date: 19/13/13     All Bocumentation is in Proper Order       Time:     Date:     Time:     Date: 10/16/16/16     Date: 10/16/16     Date: 10/16/16       Time:     Company:     Company:     Moint Add Preserved, C - Hydrochloric Add Preserved, C - Hydrochloric Add Preserved, Lab.       Served, 1 - Ice, ST - Sodium Thiosuffate, NP - No Preservative, OP - Other Preservative     Date: 10/16/16/16     Date: 10/16/16/16	1			
RELINQUISINED BY       Date:       Ig/12/12       All Samples Recieved in Good Condition         SoCS       Date:       Ig/12/12       Image:       Bate:       Ig/12/12       All Samples Recieved in Good Condition         SoCS       Date:       Ig/12/12       Image:       Bate:       Image:       All Samples Recieved in Good Condition         Time:       Time:       Image:       Image:       Image:       Image:       Image:         Date:       Time:       Image:       Image:       Image:       Image:       Image:         Date:       Time:       Image:       Image:       Image:       Image:       Image:         Time:       Time:       Image:       Image:       Image:       Image:       Image:         Time:       Time:       Time:       Image:       Image:       Image:       Image:         Time:       Time:       Time:       Time:       Image:	QC37	REG	JEIVED BY	Sample Receipt Advice: (Lab Use Only)
Socs     Date:     19 / 12 / 12     Name:     Name: <td>RELINQUISHED BY</td> <td><b><i><u><u></u></u></i></b><i></i></td> <td>Date: 10/11/2/11</td> <td>All Samples Recieved in Good Condition</td>	RELINQUISHED BY	<b><i><u><u></u></u></i></b> <i></i>	Date: 10/11/2/11	All Samples Recieved in Good Condition
Time:       Company:       T. Q. L. C.	Vame: Priga Dass Date: 19/12/12	Name: C	- 52	All Documentation is in Proper Order
Date:       Date:       Date:       Date:         Time:       Time:       Time:       Lab. Ref/Batch No.         Servation Codes: P - Plastic, G- Glass Bottle, J - Glass Jar, V- Vial, Z - Ziplock Bag, N - Nitric Acid Preserved, C - Hydrochloric Acid Preserved,       Lab. Ref/Batch No.         Served, I - Ice, ST - Sodium Thiosulfate, NP - No Preservative, OP - Other Preservative       Version: 4		Company:		Samulas Baratvad Properly Chilled
Itric Acid Preserved, C - Hydrochloric Acid Preserved, Version: 4			Date:	
litric Acid Preserved, C - Hydrachloric Acid Preserved, Version: 4	Time:	Company:	Time:	Lab, Kel/batch No.
Version: 4	pe & Preservation Codes: P - Plastic, G- Glass Bottle, J - G	ass Jar, V- Vial, Z - Ziplock Bag, N - Nitric Acid Pi communication OD - Other Preservative	reserved, C - Hydrochloric Acid Preserved,	
	Acid Preserved, 1 - Ice, S1 - Sodium Iniosultate, M No		.4	Assue Date

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Page 3 of 3 107202 Email Midthews locke Contev.com	Analysis Request Section	NOTES	Sample Receipt Advice: (Lab Use Only) Samples Received in Good Condition All Samples Received in Proper Order All Documentation is in Proper Order All Documentation is in Proper Order Lab. Ref/Batch No.
SIS REQUEST Mobile:	A LANAL		Date: 19/12/12 Time: 3-30 PM Date: Time: Hydrochloric Acid Preserved,
Office: Chetsward AND ANALYSIS REQUEST Office: Chetsward Inste: Mothlew Locke Mobile: Matthew Locke Mobile:	ocke	tix Container Type & T-A-T etc) Preservative* (specify) Condoud	NGT Labmark Time: 3-30 PM MGT Labmark Time: 3-30 PM Date: 19/12/12 Date: 3-30 PM Date: 3-30 PM Time: Time: Time: Time: Time: Time:
Consigning Report Resu Invoices to:	MGTLabMa Ber Matthew	Sample Matrix Date Time (solletc)	
Coffey & environments specialists in environmental social AND SAFETY PERFORMANCE	Project No: GEOTLCON244303AF Task No: Project Name: StCEEP Laboratory: sampler's Name: Prijy of Dorss Project Man special Instructions: AS PER PAGE 1	sample ID BH104- (3·4 - 3·6M)	RELINQUISHED BY RELINQUISHED BY Name: Pring Date: 19/12/12 Name: S Coffey Environments Time: 3:30 PM Company: Time: 3:30 PM Company: Time: Company: Company: Company: Time: Company: Company: Company: Company: Company: Company: Company: Company: Company: Coffey Environments



 Melbourne

 3-5 Kingston Town Close

 Oakleigh Vic 3166

 Phone : +61 3 8564 5000

 NATA # 1261

 Site # 1254 & 14271

Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 9900 8400 NATA # 1261 Site # 18217 Brisbane 1/21 Smallwood Place Murarrie QLD 4172 Phone : +61 7 3902 4600 NATA # 1261 Site # 20794

### Sample Receipt Advice

Company name: Coffey Geotechnics Pty Ltd Chatswood

Contact name:Matthew LockeClient job number:SICEEP GEOTLCOV24303AFCOC number:103800, 107201-02Turn around time:5 DayDate/Time received:Dec 19, 2012 4:35 PMmgt-LabMark reference:363976

### Sample information

- A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- Sample Temperature of a random sample selected from the batch as recorded by mgt-LabMark Sample Receipt : 5 degrees Celsius.
- 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.
- Sample containers for volatile analysis received with zero headspace.
- Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

### Notes

Samples QC37A sent to Envirolab as requested | Asbestos analysis condcuted by ASET | Extra sample received BH105\_(5.9-6.0m) placed on HOLD | Sample R3 metals container unspecified analysis of total M8 conducted unless otherwise stated Samples received by the laboratory after 4pm are deemed to have been received the following working day.

### **Contact notes**

ACCREDITATION

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: jean.heng@mgtlabmark.com.au

Results will be delivered electronically via e.mail to Matthew Locke - Matthew\_Locke@coffey.com.



Environmental Laboratory Air Analysis Water Analysis Soil Contamination Analysis Groundwa

NATA Accreditation Stack Emission Sampling & Analysis Trade Waste Sampling & Analysis Groundwater Sampling & Analysis



35Years of Environmental Analysis & Experience - fully Australian Owned



Coffey Geotechnics Pty Ltd Chatswood Level 18, Tower B, Citadel Tower 799 Pacific Highway Chatswood NSW 2067

### Attention:Matthew Locke

Report Client Reference

**Received Date** 

**363976-S-V2** SICEEP GEOTLCOV24303AF Dec 19, 2012

#### BH105\_(0.12-BH105\_(0.12-BH105\_(1.0-BH105\_(2.0-**Client Sample ID** 0.22m) 0.22m)\_À 1.1m) 2.1m) Sample Matrix Soil Soil Soil Soil S12-De17227 mgt-LabMark Sample No. S12-De17228 S12-De17230 S12-De17233 **Date Sampled** Dec 19, 2012 Dec 19, 2012 Dec 19, 2012 Dec 19, 2012 Test/Reference LOR Unit **Total Recoverable Hydrocarbons - 1999 NEPM Fractions** TRH C6-C9 10 < 10 < 10 mg/kg < 10 < 10 TRH C10-C14 50 mg/kg < 50 < 50 < 50 < 50 TRH C15-C28 100 mg/kg < 100 < 100 < 100 < 100 TRH C29-C36 100 < 100 < 100 < 100 < 100 mg/kg TRH C10-36 (Total) 100 < 100 < 100 mg/kg < 100 < 100 BTEX Benzene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 Toluene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 Ethylbenzene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 1 < 1 < 1 < 1 m&p-Xylenes 1 mg/kg o-Xylene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 1.5 < 1.5 < 1.5 < 1.5 Xylenes - Total 1.5 mg/kg Total BTEX 1.5 mg/kg < 1.5 < 1.5 < 1.5 < 1.5 4-Bromofluorobenzene (surr.) % 88 97 105 105 1 Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions \* Naphthalene<sup>N02</sup> < 0.5 < 0.5 < 0.5 < 0.5 0.5 mg/kg **TRH C6-C10** 20 mg/kg < 20 < 20 < 20 < 20 < 20 TRH C6-C10 less BTEX (F1)<sup>N04</sup> 20 < 20 < 20 mg/kg < 20 TRH >C10-C16 50 mg/kg < 50 < 50 < 50 < 50 TRH >C10-C16 less Naphthalene (F2)N01 50 mg/kg < 50 < 50 < 50 < 50 TRH >C16-C34 100 mg/kg < 100 < 100 < 100 < 100 < 100 TRH >C34-C40 100 mg/kg < 100 < 100 < 100 Polyaromatic Hydrocarbons (PAH) Acenaphthene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 Acenaphthylene < 0.5 < 0.5 0.5 mg/kg < 0.5 < 0.5 < 0.5 0.5 < 0.5 < 0.5 Anthracene mg/kg Benz(a)anthracene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 Benzo(a)pyrene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 Benzo(b)fluoranthene & Benzo(k)fluoranthene 1 mg/kg < 1 < 1 < 1 < 1 Benzo(g.h.i)perylene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 Chrysene 0.5 mg/kg < 0.5 Dibenz(a.h)anthracene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 Fluoranthene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 Fluorene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 Indeno(1.2.3-cd)pyrene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 Naphthalene 0.5 < 0.5 < 0.5 < 0.5 mg/kg

### Certificate of Analysis

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.

Client Sample ID			BH105_(0.12- 0.22m)	BH105_(0.12- 0.22m)_A	BH105_(1.0- 1.1m)	BH105_(2.0- 2.1m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De17227	S12-De17228	S12-De17230	S12-De17233
Date Sampled			Dec 19, 2012	Dec 19, 2012	Dec 19, 2012	Dec 19, 2012
Test/Reference	LOR	Unit				
Polyaromatic Hydrocarbons (PAH)						
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH	1	mg/kg	< 1	< 1	< 1	< 1
2-Fluorobiphenyl (surr.)	1	%	67	99	93	95
p-Terphenyl-d14 (surr.)	1	%	70	112	101	102
Heavy Metals						
Arsenic	2	mg/kg	3.1	2.3	2.3	-
Cadmium	0.4	mg/kg	0.5	0.4	< 0.4	-
Chromium	5	mg/kg	8.7	6.2	6.4	-
Copper	5	mg/kg	62	55	6.5	-
Lead	5	mg/kg	< 5	< 5	12	-
Mercury	0.05	mg/kg	< 0.05	< 0.05	0.20	-
Nickel	5	mg/kg	91	82	< 5	-
Zinc	5	mg/kg	43	39	28	-
% Moisture	0.1	%	5.4	5.1	7.2	8.7
Asbestos			see attached	-	-	-

Client Sample ID			BH105_(2.8- 2.9m)	BH105_(4.0- 4.1m)	BH105_(5.0- 5.1m)	ТВЗ
Sample Matrix			Soil	Soil	Soil	Soil
ngt-LabMark Sample No.			S12-De17236	S12-De17239	S12-De17241	S12-De17246
Date Sampled			Dec 19, 2012	Dec 19, 2012	Dec 19, 2012	Dec 19, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM F	ractions					
TRH C6-C9	10	mg/kg	< 10	< 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	-
втех						
Benzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	1	mg/kg	< 1	< 1	< 1	< 1
o-Xylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
4-Bromofluorobenzene (surr.)	1	%	97	95	88	109
Total Recoverable Hydrocarbons - Draft 2010 NE	PM Fractions	*				
Naphthalene <sup>N02</sup>	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	-
TRH C6-C10 less BTEX (F1) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	-
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	50	mg/kg	< 50	< 50	< 50	-

Client Sample ID			BH105_(2.8- 2.9m)	BH105_(4.0- 4.1m)	BH105_(5.0- 5.1m)	твз
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De17236	S12-De17239	S12-De17241	S12-De17246
Date Sampled			Dec 19, 2012	Dec 19, 2012	Dec 19, 2012	Dec 19, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - Draft 2010 NEP	M Fractions	*				
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	-
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	-
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	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	< 1	< 1	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Total PAH	1	mg/kg	< 1	< 1	< 1	-
2-Fluorobiphenyl (surr.)	1	%	92	93	89	-
p-Terphenyl-d14 (surr.)	1	%	99	98	100	-
% Moisture	0.1	%	23	22	17	-

Client Sample ID			тѕз	BH104_(0.12- 0.22m)	BH104_(0.69- 0.79m)	BH104_(1.5- 1.6m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De17247	S12-De17250	S12-De17251	S12-De17254
Date Sampled			Dec 19, 2012	Dec 19, 2012	Dec 19, 2012	Dec 19, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	10	mg/kg	-	< 10	< 10	< 10
TRH C10-C14	50	mg/kg	-	410	< 50	< 50
TRH C15-C28	100	mg/kg	-	2500	< 100	< 100
TRH C29-C36	100	mg/kg	-	< 100	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	-	2900	< 100	< 100
втех						
Benzene	0.5	mg/kg	104%	< 0.5	< 0.5	< 0.5
Toluene	0.5	mg/kg	104%	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	105%	< 0.5	< 0.5	< 0.5
m&p-Xylenes	1	mg/kg	106%	< 1	< 1	< 1
o-Xylene	0.5	mg/kg	105%	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	mg/kg	105%	< 1.5	< 1.5	< 1.5
Total BTEX	1.5	mg/kg	105%	< 1.5	< 1.5	< 1.5
4-Bromofluorobenzene (surr.)	1	%	126	112	114	100

Client Sample ID			TS3	BH104_(0.12- 0.22m)	BH104_(0.69- 0.79m)	BH104_(1.5- 1.6m)
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-De17247	S12-De17250	S12-De17251	S12-De17254
Date Sampled			Dec 19, 2012	Dec 19, 2012	Dec 19, 2012	Dec 19, 2012
Test/Reference	LOR	Unit	, -			
Total Recoverable Hydrocarbons - Draft 2010 NEP	_					
Naphthalene <sup>N02</sup>	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	_	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) <sup>N04</sup>	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	1300	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	50	mg/kg	-	1300	< 50	< 50
TRH >C16-C34	100	mg/kg	-	1400	< 100	< 100
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
Polyaromatic Hydrocarbons (PAH)	100					
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	-	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	< 1	< 1	< 1
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	0.9	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	2.1	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	0.8	< 0.5
Total PAH	1	mg/kg	-	2.1	1.7	< 1
2-Fluorobiphenyl (surr.)	1	%	-	90	93	98
p-Terphenyl-d14 (surr.)	1	%	-	101	93	99
Heavy Metals						
Arsenic	2	mg/kg	-	-	11	13
Cadmium	0.4	mg/kg	-	-	1.9	1.3
Chromium	5	mg/kg	-	-	27	5.1
Copper	5	mg/kg	-	-	130	100
Lead	5	mg/kg	-	-	230	500
Mercury	0.05	mg/kg	-	-	0.16	0.12
Nickel	5	mg/kg	-	-	34	13
Zinc	5	mg/kg	-	-	630	410
% Moisture	0.1	%	-	6.7	10	22
Asbestos			-	-	see attached	-

Sample Matrix ngt-LabMark Sample No. Date Sampled Test/Reference Total Recoverable Hydrocarbons - 1999 NEPM Fra TRH C6-C9 TRH C10-C14	LOR Inctions 10 50	Unit	Soil S12-De17255 Dec 19, 2012	Soil S12-De17256	Soil S12-De17259	Soil S12-De17261
Date Sampled Test/Reference Total Recoverable Hydrocarbons - 1999 NEPM Fra TRH C6-C9 TRH C10-C14	tions 10	Unit			S12-De17259	S12-De17264
est/Reference Total Recoverable Hydrocarbons - 1999 NEPM Fra RH C6-C9 RH C10-C14	tions 10	Unit	Dec 19, 2012	1		1012-001/20
est/Reference Total Recoverable Hydrocarbons - 1999 NEPM Fra RH C6-C9 RH C10-C14	tions 10	Unit		Dec 19, 2012	Dec 19, 2012	Dec 19, 2012
<mark>otal Recoverable Hydrocarbons - 1999 NEPM F</mark> ra RH C6-C9 RH C10-C14	tions 10	Onit				
RH C6-C9 RH C10-C14	10					
RH C10-C14		mg/kg	< 10	< 10	< 10	< 10
		mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28	100	mg/kg	< 100	< 100	< 100	< 100
RH C29-C36	100	mg/kg	< 100	< 100	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
oluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
n&p-Xylenes	1	mg/kg	< 1	< 1	< 1	< 1
-Xylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vienes - Total	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
otal BTEX	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
-Bromofluorobenzene (surr.)	1	%	94	90	94	78
otal Recoverable Hydrocarbons - Draft 2010 NEP	M Fractions		-			
Japhthalene <sup>N02</sup>	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
RH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
RH C6-C10 less BTEX (F1) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20
RH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
RH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	50	mg/kg	< 50	< 50	< 50	< 50
RH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
RH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	< 1	< 1	< 1
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
luoranthene	0.5	mg/kg	< 0.5	0.6	< 0.5	< 0.5
luorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
ndeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
laphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	0.6	< 0.5	< 0.5
otal PAH	1	mg/kg	< 1	1.2	< 1	< 1
P-Fluorobiphenyl (surr.)	1	%	102	100	100	98
p-Terphenyl-d14 (surr.)	1	%	105	84	84	91
6 Moisture	0.1	%	22	16	13	15



### 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
mgt-LabMark Suite 4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 20, 2012	14 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
BTEX	Sydney	Jan 29, 2013	14 Day
- Method: E029/E016 BTEX			
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions	Sydney	Dec 20, 2012	14 Day
- Method: LM-LTM-ORG2010			
Polyaromatic Hydrocarbons (PAH)	Sydney	Dec 20, 2012	14 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Metals M8	Sydney	Dec 20, 2012	28 Day
- Method: E022 Acid Extractable metals in Soils & E026 Mercury			
% Moisture	Sydney	Dec 20, 2012	28 Day
Mathad: E005 Maistura Contant			

- Method: E005 Moisture Content



Melbourne 3-5 Kingston Town Close Oakleigh VIC 3166 Phone : +61 3 8564 5000 NATA # 1261 Site # 1254 & 14271 Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 9900 8400 NATA # 1261 Site # 18217

Address:	Company Name:       Coffey Geotechnics Pty Ltd Chatswood         Address:       Level 18, Tower B, Citadel Tower 799 Pacific Highway         Chatswood       NSW 2067         Client Job No.:       SICEEP GEOTLCOV24303AF							Order No.: Report #: Phone: Fax:				06 1000 06 1002	Received: Due: Priority: Contact Name: mgt-LabM	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke Iark Client Manager: Jean Heng
	Sample Detail						НОГР	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4			
	ere analysis is c													
	oratory - NATA		271		v		x	v	x	Х	Х			
	itory - NATA Site ratory - NATA Si				Х		<u> </u>	Х	~	Χ	<u> </u>			
External Labor		10 # 20/ 54				Х								
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID										
BH105_(0.12- 0.22m)	Dec 19, 2012		Soil	S12-De17227	х	х			х		х			
BH105_(0.12- 0.22m)_A	Dec 19, 2012		Soil	S12-De17228	х				х		х			
BH105_(0.5- 0.6m)	Dec 19, 2012		Soil	S12-De17229			х							
BH105_(1.0- 1.1m)	Dec 19, 2012		Soil	S12-De17230	х				х		х			
BH105_(1.5- 1.6m)	Dec 19, 2012		Soil	S12-De17231			х							
QC36	Dec 19, 2012		Soil	S12-De17232			Х							



Melbourne 3-5 Kingston Town Close Oakleigh VIC 3166 Phone : +61 3 8564 5000 NATA # 1261 Site # 1254 & 14271 Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 9900 8400 NATA # 1261 Site # 18217

Address:	Company Name:       Coffey Geotechnics Pty Ltd Chatswood         Address:       Level 18, Tower B, Citadel Tower 799 Pacific Highway         Chatswood       NSW 2067         Client Job No.:       SICEEP GEOTLCOV24303AF										2 94	06 1000 06 1002	Received: Due: Priority: Contact Name: mqt-LabM	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke Mark Client Manager: Jean Heng
	Sample Detail							TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4			
Laboratory wh														
Melbourne Lab					V		V	Х	х	Х	Х			
Sydney Labora Brisbane Labo					X		Х	<u> </u>	~	<u> </u>	~			
External Labor			110 <del>4</del>			Х								
BH105_(2.0- 2.1m)	Dec 19, 2	2012	Soil	S12-De17233	х						х			
BH105_(2.0- 2.1m)_A	Dec 19, 3	2012	Soil	S12-De17234			х							
BH105_(2.5- 3.6m)	Dec 19, 2		Soil	S12-De17235			х							
BH105_(2.8- 2.9m)	Dec 19, 2	2012	Soil	S12-De17236	х						х			
BH105_(3.5- 3.6m)	Dec 19, 2	2012	Soil	S12-De17237			х							
BH105_(3.5- 3.6m)_A	Dec 19, 2	2012	Soil	S12-De17238			х							
BH105_(4.0- 4.1m)	Dec 19, 2	2012	Soil	S12-De17239	х						х			



Melbourne 3-5 Kingston Town Close Oakleigh VIC 3166 Phone : +61 3 8564 5000 NATA # 1261 Site # 1254 & 14271 Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 9900 8400 NATA # 1261 Site # 18217

Address:	Company Name:       Coffey Geotechnics Pty Ltd Chatswood         Address:       Level 18, Tower B, Citadel Tower 799 Pacific Highway         Chatswood       NSW 2067         Client Job No.:       SICEEP GEOTLCOV24303AF							No.: t #: ::			2 94	06 1000 06 1002	Received: Due: Priority: Contact Name: mgt-Labl	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke <b>//ark Client Manager: Jean Heng</b>
	Sample Detail							TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4			
		sis is conducted												
		NATA Site # 1254 & 14	271		X		V	V	х	Х				
		TA Site # 18217 ATA Site # 20794			<u>^</u>		Х	Х	~	×	Х			
External Labo		ATA Sile # 20134				Х								
BH105_(4.4- 4.5m)	Dec 19, 2	2012	Soil	S12-De17240			х							
BH105_(5.0- 5.1m)	Dec 19, 2	2012	Soil	S12-De17241	х						х			
BH105_(5.0- 5.1m)_A	Dec 19, 2	2012	Soil	S12-De17242			х							
BH105_(5.5- 5.6m)	Dec 19, 2	2012	Soil	S12-De17243			х							
QC37	Dec 19, 2	2012	Soil	S12-De17244			Х							
BH105_(5.9- 6.0m)_A	Dec 19, 2	2012	Soil	S12-De17245			х							
ТВЗ	Dec 19, 2	2012	Soil	S12-De17246				Х						
TS3	Dec 19, 2	2012	Soil	S12-De17247						Х				



Melbourne 3-5 Kingston Town Close Oakleigh VIC 3166 Phone : +61 3 8564 5000 NATA # 1261 Site # 1254 & 14271 Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 9900 8400 NATA # 1261 Site # 18217

Address:	Company Name:Coffey Geotechnics Pty Ltd Chatswood Level 18, Tower B, Citadel Tower 799 Pacific Highway Chatswood NSW 2067Client Job No.:SICEEP GEOTLCOV24303AF				Order No.:Report #:363976Phone:+61 2 9406 1000Fax:+61 2 9406 1002					2 94	Received: Due: Priority: Contact Name: mgt-Lab	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke Mark Client Manager: Jean Heng	
		Sample Detail			% Moisture	Asbestos	НОГр	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4		
Laboratory wh	ere analysis is	conducted											
		A Site # 1254 & 14	1271										
Sydney Labora					Х		Х	Х	Х	Х	Х		
Brisbane Labo		Site # 20794			-								
External Labor TSLAB3			Soil	S12 De17240		X				Х			
RB3	Dec 19, 2012 Dec 19, 2012		Water	S12-De17248 S12-De17249					х	X	х		
BH104_(0.12- 0.22m)	Dec 19, 2012 Dec 19, 2012		Soil	S12-De17249	x						x		
BH104_(0.69- 0.79m)	Dec 19, 2012		Soil	S12-De17251	х	х			х		х		
BH104_(0.69- 0.79m)_A	Dec 19, 2012		Soil	S12-De17252			х						
BH104_(1.0- 1.1m)	Dec 19, 2012		Soil	S12-De17253			х						
BH104_(1.5- 1.6m)	Dec 19, 2012		Soil	S12-De17254	х				х		х		



Melbourne 3-5 Kingston Town Close Oakleigh VIC 3166 Phone : +61 3 8564 5000 NATA # 1261 Site # 1254 & 14271 Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 9900 8400 NATA # 1261 Site # 18217

Address:	Company Name:Coffey Geotechnics Pty Ltd Chatswood Level 18, Tower B, Citadel Tower 799 Pacific Highway Chatswood NSW 2067Client Job No.:SICEEP GEOTLCOV24303AF			<b>Phone:</b> +61			+61		06 1000 06 1002	Received: Due: Priority: Contact Name: mgt-LabM	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke Iark Client Manager: Jean Heng			
		Sample Detail			% Moisture	Asbestos	DUD	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4			
		sis is conducted												
		NATA Site # 1254 & 14	271		V		V	V	V	~	Х			
		TA Site # 18217 ATA Site # 20794			X		Х	Х	Х	Х	~			
External Labo		ATA Sile # 20754				х								
BH104_(1.5- 1.6m)_A	Dec 19, 2	2012	Soil	S12-De17255	х						х			
BH104_(2.0- 2.1m)	Dec 19, 2	2012	Soil	S12-De17256	х						х			
QC38	Dec 19, 2	2012	Soil	S12-De17257			Х							
BH104_(2.5- 2.6m)	Dec 19, 2	2012	Soil	S12-De17258			х							
BH104_(3.0- 3.1m)	Dec 19, 2	2012	Soil	S12-De17259	х						х			
BH104_(3.0- 3.1m)_A	Dec 19, 2	2012	Soil	S12-De17260			х							
BH104_(3.3- 3.4m)	Dec 19, 2	2012	Soil	S12-De17261	х						х			



Melbourne 3-5 Kingston Town Close Oakleigh VIC 3166 Phone : +61 3 8564 5000 NATA # 1261 Site # 1254 & 14271 Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 9900 8400 NATA # 1261 Site # 18217

Address:	Company Name:       Coffey Geotechnics Pty Ltd Chatswood         Address:       Level 18, Tower B, Citadel Tower 799 Pacific Highway         Chatswood       NSW 2067         Client Job No.:       SICEEP GEOTLCOV24303AF				Order No.: Report #: 363976 Phone: +61 2 9406 1000 Fax: +61 2 9406 1002					2 94	 Received: Due: Priority: Contact Name: mgt-Labl	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke Mark Client Manager: Jean Heng	
		Sample Detail			% Moisture	Asbestos	НОГД	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4		
Laboratory whe	ere analysis is	conducted											
		Site # 1254 & 14	271										
Sydney Labora	tory - NATA Sit	e # 18217			Х		Х	Х	Х	Х	Х		
Brisbane Labor		Site # 20794											
External Labora		1		-1		Х							
BH104_(3.4- 3.6m)	Dec 19, 2012		Soil	S12-De17262			х						
BH105_(5.9-	Dec 19, 2012		Soil	S12-De17385			х						



### mgt-LabMark Internal Quality Control Review and Glossary

### General

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

#### **Holding Times**

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

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

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported. Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

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

### UNITS

 mg/kg: milligrams per Kilogram
 mg/l: milligrams per litre

 ug/l: micrograms per litre
 ppm: Parts per million

 ppb: Parts per billion
 %: Percentage

 org/100ml: Organisms per 100 millilitres
 NTU: Units

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

#### TERMS

IERIVIS	
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 clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environment Protection Authority
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
СР	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.
- 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.
- 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.

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Method Blank				Linito	2	0000
Fotal Recoverable Hydrocarbons - 1999 NEPM Fraction	s 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						
BTEX E029/E016 BTEX		0.5		0.5	Dese	
Benzene	mg/kg	< 0.5		0.5	Pass	
Toluene	mg/kg	< 0.5		0.5	Pass	
Ethylbenzene	mg/kg	< 0.5		0.5	Pass	
m&p-Xylenes	mg/kg	< 1		1	Pass	
o-Xylene	mg/kg	< 0.5		0.5	Pass	
Xylenes - Total	mg/kg	< 1.5		1.5	Pass	
Total BTEX	mg/kg	< 1.5		1.5	Pass	
Method Blank		[				
Fotal Recoverable Hydrocarbons - Draft 2010 NEPM Fra _TM-ORG2010	ICTIONS LIVI-					
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		•	<b>F</b>		•	
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic I PAH)	lydrocarbons					
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						
Metals M8 E022 Acid Extractable metals in Soils & E026	6 Mercury					
Arsenic	mg/kg	< 2		2	Pass	
Cadmium	mg/kg	< 0.4		0.4	Pass	
Chromium	mg/kg	< 5		5	Pass	
Copper	mg/kg	< 5		5	Pass	
Lead	mg/kg	< 5		5	Pass	
Mercury	mg/kg	< 0.05		0.05	Pass	
Nickel	mg/kg	< 5		5	Pass	
					Pass	
Zinc	mg/kg	< 5		5	F a 55	

# ENVIRONMENTAL LABORATORIES

Test			Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C9			%	79		70-130	Pass	
TRH C10-C14			%	80		70-130	Pass	
LCS - % Recovery								
BTEX E029/E016 BTEX								
Benzene			%	89		70-130	Pass	
Toluene			%	87		70-130	Pass	
Ethylbenzene			%	87		70-130	Pass	
m&p-Xylenes			%	87		70-130	Pass	
o-Xylene			%	86		70-130	Pass	
Xylenes - Total			%	87		70-130	Pass	
LCS - % Recovery				1	1	T		
Total Recoverable Hydrocarbons - LTM-ORG2010	Draft 2010 NEPM	Fractions	s LM-					
Naphthalene			%	90		70-130	Pass	
TRH C6-C10			%	87		70-130	Pass	
TRH >C10-C16			%	74		70-130	Pass	
LCS - % Recovery								
Polyaromatic Hydrocarbons (PAH) (PAH)	E007 Polyaromati	ic Hydrod	arbons					
Acenaphthene			%	106		70-130	Pass	
Acenaphthylene			%	92		70-130	Pass	
Anthracene			%	104		70-130	Pass	
Benz(a)anthracene			%	80		70-130	Pass	
Benzo(a)pyrene			%	80		70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluo	pranthene		%	85		70-130	Pass	
Benzo(g.h.i)perylene			%	83		70-130	Pass	
Chrysene			%	107		70-130	Pass	
Dibenz(a.h)anthracene			%	75		70-130	Pass	
Fluoranthene			%	89		70-130	Pass	
Fluorene			%	96		70-130	Pass	
Indeno(1.2.3-cd)pyrene			%	78		70-130	Pass	
Naphthalene			%	101		70-130	Pass	
Phenanthrene			%	99		70-130	Pass	
Pyrene			%	95		70-130	Pass	
LCS - % Recovery				·				
Metals M8 E022 Acid Extractable m	etals in Soils & E	026 Merc	ury					
Arsenic			%	81		70-130	Pass	
Cadmium			%	84		70-130	Pass	
Chromium			%	85		70-130	Pass	
Copper			%	125		70-130	Pass	
Lead			%	85		70-130	Pass	
Mercury			%	123		70-130	Pass	
Nickel			%	86		70-130	Pass	
Zinc			%	94		70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery					· · ·			
Total Recoverable Hydrocarbons -	1999 NEPM Fracti			Result 1				
TRH C6-C9	S12-De18948	NCP	%	84		70-130	Pass	
TRH C10-C14	S12-De17227	CP	%	94		70-130	Pass	
Spike - % Recovery				1	1	-		
Total Recoverable Hydrocarbons -		1		Result 1				
TRH >C10-C16	S12-De17227	CP	%	86		70-130	Pass	
Spike - % Recovery					1		1	
Polyaromatic Hydrocarbons (PAH)		,		Result 1				
Acenaphthene	S12-De17227	CP	%	98		70-130	Pass	

### **S LabMark** Environmental Laboratories

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Acenaphthylene	S12-De17227	CP	%	88			70-130	Pass	Code
Anthracene	S12-De17227	CP	%	102			70-130	Pass	
Benz(a)anthracene	S12-De17227	CP	%	88			70-130	Pass	
Benzo(a)pyrene	S12-De17227	CP CP	%	85			70-130	Pass	
Benzo(b)fluoranthene &	312-De17227	CF	-70	00			70-130	Fd55	
Benzo(k)fluoranthene	S12-De17227	CP	%	91			70-130	Pass	
Benzo(g.h.i)perylene	S12-De17227	CP	%	78			70-130	Pass	
Chrysene	S12-De17227	СР	%	101			70-130	Pass	
Dibenz(a.h)anthracene	S12-De17227	СР	%	74			70-130	Pass	
Fluoranthene	S12-De17227	CP	%	95			70-130	Pass	
Fluorene	S12-De17227	CP	%	90			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S12-De17227	CP	%	79			70-130	Pass	
Naphthalene	S12-De17227	CP	%	98			70-130	Pass	
Phenanthrene	S12-De17227	CP	%	94			70-130	Pass	
Pyrene	S12-De17227	CP	%	98			70-130	Pass	
Spike - % Recovery	012 001221		70	50			10-100	1 433	
Metals M8				Result 1			1		
Arsenic	S12-De17267	NCP	%	82			70-130	Pass	
Cadmium	S12-De17267 S12-De17267	NCP	%	96			70-130	Pass	
Chromium	S12-De17267	NCP	%	90			70-130	Pass	
	S12-De17267	NCP	%	93 72			70-130		
Copper				94				Pass	
Lead	N12-De16999	NCP	%	-			70-130	Pass	
Mercury	S12-De17267	NCP	%	110			70-130	Pass	
Nickel	S12-De17267	NCP	%	82			70-130	Pass	
Zinc	N12-De16999	NCP	%	122			70-130	Pass	
Spike - % Recovery				<b> </b>			1		
BTEX				Result 1				_	
Benzene	S12-De18948	NCP	%	86			70-130	Pass	
Toluene	S12-De18948	NCP	%	88			70-130	Pass	
Ethylbenzene	S12-De18948	NCP	%	88			70-130	Pass	
m&p-Xylenes	S12-De18948	NCP	%	87			70-130	Pass	
o-Xylene	S12-De18948	NCP	%	88			70-130	Pass	
Xylenes - Total	S12-De18948	NCP	%	87			70-130	Pass	
Spike - % Recovery				1					
Total Recoverable Hydrocarbons -			s	Result 1					
Naphthalene	S12-De18948	NCP	%	77			70-130	Pass	
TRH C6-C10	S12-De18948	NCP	%	92			70-130	Pass	
Test	Lab Sample ID	QA	Units	Result 1			Acceptance	Pass	Qualifying
	Lub Gampie ib	Source	01110	nooun i			Limits	Limits	Code
Duplicate				<b></b>			1		
Total Recoverable Hydrocarbons -				Result 1	Result 2	RPD		_	
TRH C6-C9	S12-De18948	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
TRH C10-C14	S12-De17227	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C15-C28	S12-De17227	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH C29-C36	S12-De17227	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate				1			1		
Total Deservenship the deserves	Draft 2010 NEPM	Fraction	s	Result 1	Result 2	RPD			
Total Recoverable Hydrocarbons -	Dialt 2010 NET M			< 50	< 50	<1	30%	Pass	
Total Recoverable Hydrocarbons - TRH >C10-C16	S12-De17227	CP	mg/kg						
· · · · · ·		CP CP	mg/kg mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C10-C16	S12-De17227		00			<1 <1	30% 30%	Pass Pass	
TRH >C10-C16 TRH >C16-C34	S12-De17227 S12-De17227	СР	mg/kg	< 100	< 100				
TRH >C10-C16 TRH >C16-C34 TRH >C34-C40	S12-De17227 S12-De17227 S12-De17227	СР	mg/kg	< 100	< 100				
TRH >C10-C16 TRH >C16-C34 TRH >C34-C40 Duplicate	S12-De17227 S12-De17227 S12-De17227	СР	mg/kg	< 100 < 100	< 100 < 100	<1			
TRH >C10-C16 TRH >C16-C34 TRH >C34-C40 Duplicate Polyaromatic Hydrocarbons (PAH)	S12-De17227 S12-De17227 S12-De17227	CP CP	mg/kg mg/kg	< 100 < 100 Result 1	< 100 < 100 Result 2	<1 RPD	30%	Pass	
TRH >C10-C16 TRH >C16-C34 TRH >C34-C40 Duplicate Polyaromatic Hydrocarbons (PAH) Acenaphthene	S12-De17227 S12-De17227 S12-De17227 S12-De17227	CP CP CP	mg/kg mg/kg mg/kg	< 100 < 100 Result 1 < 0.5	< 100 < 100 Result 2 < 0.5	<1 RPD <1	30% 30%	Pass Pass	

Duplicate									
Polyaromatic Hydrocarbons (PA	H)			Result 1	Result 2	RPD			
Benzo(a)pyrene	S12-De17227	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De17227	СР	mg/kg	< 1	< 1	<1	30%	Pass	
Benzo(g.h.i)perylene	S12-De17227	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S12-De17227	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S12-De17227	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S12-De17227	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S12-De17227	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S12-De17227	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S12-De17227	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S12-De17227	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S12-De17227	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S12-De18948	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	S12-De18948	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	S12-De18948	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
m&p-Xylenes	S12-De18948	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
o-Xylene	S12-De18948	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes - Total	S12-De18948	NCP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Total BTEX	S12-De18948	NCP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons	s - Draft 2010 NEPM	Fraction	s	Result 1	Result 2	RPD			
Naphthalene	S12-De18948	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S12-De18948	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S12-De18948	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	S12-De17254	CP	mg/kg	13	15	13	30%	Pass	
Cadmium	S12-De17254	CP	mg/kg	1.3	1.5	13	30%	Pass	
Chromium	S12-De17254	CP	mg/kg	5.1	5.1	1.0	30%	Pass	
Copper	S12-De17254	CP	mg/kg	100	110	8.0	30%	Pass	
Lead	S12-De17254	CP	mg/kg	500	150	110	30%	Fail	Q15
Mercury	S12-De17254	CP	mg/kg	0.12	0.12	3.0	30%	Pass	
Nickel	S12-De17254	CP	mg/kg	13	13	2.0	30%	Pass	
Zinc	S12-De17254	CP	mg/kg	410	450	10	30%	Pass	



### Comments

### Please note: Asbestos analysed by ASET (Job : ASET32006/35186/1-2) NATA Accreditation : 14484

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

### **Qualifier Codes/Comments**

### Code Description

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).

Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.

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

Jean Heng	Client Services
Laura Schofield	Senior Analyst-Volatile (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
James Norford	Senior Analyst-Metal (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

mgH-LabMark shall not be liable for loss, cost, damages or expenses incurred by the client, or any other preson or company, resulting from the use of any information or interpretation given in this report. In no case shall mgH-LabMark shall be fording on the liable for loss, cost, damages or expenses incurred by the client, or any other preson or company, resulting from the use of any information or interpretation given in this report. In no case shall mgH-LabMark shall be fording on the use of any information or interpretation given in this report. In on case shall mgH-LabMark shall be fording on the use of the experiment execution (bit and realises onit) to the import testing. Unless indicated otherwise, the tests were been deviced as indicated otherwise, the tests were as indicated otherwise, the tests were as indicated otherwise, the tests were associated as ind



Coffey Geotechnics Pty Ltd Chatswood Level 18, Tower B, Citadel Tower 799 Pacific Highway Chatswood NSW 2067

### Attention:Matthew Locke

Report

**Client Reference** 

**Received Date** 

**363976-W** SICEEP GEOTLCOV24303AF Dec 19, 2012

Client Sample ID			RB3
Sample Matrix			Water
mgt-LabMark Sample No.			S12-De17249
Date Sampled			Dec 19, 2012
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Frac	-	Onit	
TRH C6-C9	0.02	mg/L	< 0.02
TRH C10-C14	0.02	mg/L	< 0.02
TRH C15-C28	0.1	mg/L	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1
BTEX	0.1		
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
Total m+p-Xylenes	0.001	mg/L	< 0.001
o-Xylene	0.002	mg/L	< 0.002
Xylenes(ortho.meta and para)	0.003	mg/L	< 0.003
Total BTEX	0.000	mg/L	< 0.01
4-Bromofluorobenzene (surr.)	1	%	91
Total Recoverable Hydrocarbons - Draft 2010 NEPI			01
Naphthalene <sup>N02</sup>	0.005	mg/L	< 0.005
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1) <sup>N04</sup>	0.02	mg/L	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
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

### Certificate of Analysis

NATA Accredited Accreditation Number 1261 Site Number 18217

NATA

WORLD RECOGNISED

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.



Client Sample ID Sample Matrix mgt-LabMark Sample No. Date Sampled Test/Reference	LOR	Unit	RB3 Water S12-De17249 Dec 19, 2012
Polyaromatic Hydrocarbons (PAH)	Lon	Onit	
Pyrene	0.001	mg/L	< 0.001
Total PAH	0.002	mg/L	< 0.002
2-Fluorobiphenyl (surr.)	1	%	103
p-Terphenyl-d14 (surr.)	1	%	102
Heavy Metals			
Arsenic	0.005	mg/L	< 0.005
Cadmium	0.0005	mg/L	< 0.0005
Chromium	0.005	mg/L	< 0.005
Copper	0.005	mg/L	< 0.005
Lead	0.005	mg/L	< 0.005
Mercury	0.0001	mg/L	< 0.0001
Nickel	0.005	mg/L	< 0.005
Zinc	0.005	mg/L	< 0.005



Description	Testing Site	Extracted	Holding Time
mgt-LabMark Suite 4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 21, 2012	7 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
BTEX	Sydney	Dec 19, 2012	14 Day
- Method: E029/E016 BTEX			
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *	Sydney	Dec 21, 2012	7 Day
- Method: LM-LTM-ORG2010			
Polyaromatic Hydrocarbons (PAH)	Sydney	Dec 21, 2012	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Metals M8	Sydney	Dec 20, 2012	28 Day
- Method: E022/E030 Unfiltered Metals in Water & E026 Mercury			



Melbourne 3-5 Kingston Town Close Oakleigh VIC 3166 Phone : +61 3 8564 5000 NATA # 1261 Site # 1254 & 14271 Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 9900 8400 NATA # 1261 Site # 18217

Company Na Address: Client Job No	Level 18 Chatswo NSW 20	Coffey Geotechnics Pty Ltd Chatswood Level 18, Tower B, Citadel Tower 799 Pacific Highway Chatswood NSW 2067 SICEEP GEOTLCOV24303AF						No.: t #: :			2 94	06 1000 06 1002	Received: Due: Priority: Contact Name:	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke
Sample Detail						Asbestos	HOLD	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4		тдт-∟арм	lark Client Manager: Jean Heng
Loboratory wh														
	ere analysis is c oratory - NATA		1271											
	tory - NATA Site				Х		Х	Х	Х	Х	Х			
	ratory - NATA Si													
External Labor	atory			-		Х								
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID										
BH105_(0.12- 0.22m)	Dec 19, 2012		Soil	S12-De17227	х	х			х		х			
BH105_(0.12- 0.22m)_A	Dec 19, 2012		Soil	S12-De17228	x				х		х			
BH105_(0.5- 0.6m)	Dec 19, 2012		Soil	S12-De17229			х							
BH105_(1.0- 1.1m)	Dec 19, 2012		Soil	S12-De17230	х				х		х			
BH105_(1.5- 1.6m)	Dec 19, 2012		Soil	S12-De17231			х							
QC36	Dec 19, 2012		Soil	S12-De17232			Х							



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Company Na Address: Client Job N	 ( 	Coffey Geotechnics Pty Ltd Chatswood Level 18, Tower B, Citadel Tower 799 Pacific Highway Chatswood NSW 2067 SICEEP GEOTLCOV24303AF					R	order epor hone ax:	t #:		+61		06 1000 06 1002	Received: Due: Priority: Contact Name:	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke Mark Client Manager: Jean Heng
						% M	Asbe	HOLD	TRH	Meta	BTEX	mgt-			
	Sample Detail					% Moisture	Asbestos	D	TRH C6-C9	Metals M8	X	mgt-LabMark Suite 4			
Laboratory wh	nere analy	vsis is co	nducted												
			ite # 1254 & 14	271											
Sydney Labor						X		Х	Х	Х	Х	Х			
Brisbane Labo		NATA Site	e # 20794												
External Labo		2010		Soil	C40 D-47000		Х								
BH105_(2.0- 2.1m)	Dec 19,	2012		2011	S12-De17233	Х						Х			
BH105_(2.0- 2.1m)_A	Dec 19,	2012		Soil	S12-De17234			х							
BH105_(2.5- 3.6m)	Dec 19,	2012		Soil	S12-De17235			х							
BH105_(2.8- 2.9m)	Dec 19,	2012		Soil	S12-De17236	х						х			
BH105_(3.5- 3.6m)	Dec 19,	2012		Soil	S12-De17237			х							
BH105_(3.5- 3.6m)_A	Dec 19,	2012		Soil	S12-De17238			х							
BH105_(4.0- 4.1m)	Dec 19,	2012		Soil	S12-De17239	х						х			



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Company Na Address: Client Job No	Leve Chat NSW	Coffey Geotechnics Pty Ltd Chatswood Level 18, Tower B, Citadel Tower 799 Pacific Highway Chatswood NSW 2067 SICEEP GEOTLCOV24303AF					rder eport hone ax:	t #:		+61		06 1000 06 1002	Received: Due: Priority: Contact Name: mgt-LabM	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke Mark Client Manager: Jean Heng
	Sample Detail					Asbestos	HOLD	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4			
Laboratory wh														
		TA Site # 1254 & 14	1271				×		X		×			
Sydney Labora Brisbane Labo					Х		Х	Х	Х	Х	X			
External Labor		A Sile # 207 94				Х								
BH105_(4.4- 4.5m)	Dec 19, 2012	2	Soil	S12-De17240			х							
BH105_(5.0- 5.1m)	Dec 19, 2012	2	Soil	S12-De17241	х						х			
BH105_(5.0- 5.1m)_A	Dec 19, 2012	2	Soil	S12-De17242			х							
BH105_(5.5- 5.6m)	Dec 19, 2012	2	Soil	S12-De17243			х							
QC37	Dec 19, 2012		Soil	S12-De17244			Х							
BH105_(5.9- 6.0m)_A	Dec 19, 2012	2	Soil	S12-De17245			х							
ТВЗ	Dec 19, 2012							Х						
TS3	Dec 19, 2012	2	Soil	S12-De17247						Х				



Melbourne 3-5 Kingston Town Close Oakleigh VIC 3166 Phone : +61 3 8564 5000 NATA # 1261 Site # 1254 & 14271 Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 9900 8400 NATA # 1261 Site # 18217

Company Na Address: Client Job No	Level 1 Chatsw NSW 2	Coffey Geotechnics Pty Ltd Chatswood Level 18, Tower B, Citadel Tower 799 Pacific Highway Chatswood NSW 2067 SICEEP GEOTLCOV24303AF						No.: t #: :			2 94	06 1000 06 1002	Received: Due: Priority: Contact Name: mgt-Lab	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke Mark Client Manager: Jean Heng
	Sample Detail					Asbestos	ДОН	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4			
Laboratory wh														
		Site # 1254 & 14	271											
Sydney Labora					Х		Х	Х	Х	Х	Х			
Brisbane Labo		Site # 20794												
External Labor						Х								
TSLAB3	Dec 19, 2012		Soil	S12-De17248					X	Х	X			
RB3 BH104_(0.12- 0.22m)	Dec 19, 2012 Dec 19, 2012		Water Soil	S12-De17249 S12-De17250	x				X		x x			
BH104_(0.69- 0.79m)	Dec 19, 2012		Soil	S12-De17251	х	х			х		х			
BH104_(0.69- 0.79m)_A	Dec 19, 2012		Soil	S12-De17252			х							
BH104_(1.0- 1.1m)	Dec 19, 2012		Soil	S12-De17253			х							
BH104_(1.5- 1.6m)	Dec 19, 2012		Soil	S12-De17254	х				х		х			



Melbourne 3-5 Kingston Town Close Oakleigh VIC 3166 Phone : +61 3 8564 5000 NATA # 1261 Site # 1254 & 14271 Sydney Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 9900 8400 NATA # 1261 Site # 18217

Company Na Address: Client Job N	Level 1 Chatsv NSW 2	Coffey Geotechnics Pty Ltd Chatswood Level 18, Tower B, Citadel Tower 799 Pacific Highway Chatswood NSW 2067 SICEEP GEOTLCOV24303AF						No.: : #: :			2 94	06 1000 06 1002	Received: Due: Priority: Contact Name: mgt-Labl	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke Mark Client Manager: Jean Heng
	Sample Detail					Asbestos	HOLD	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4			
Laboratory wh														
		A Site # 1254 & 14	271		V		v	Х	x	Х	х			
Sydney Labora Brisbane Labo					X		Х	Χ	<u> </u>		×			
External Labor		Sile # 207 94				х								
BH104_(1.5- 1.6m)_A	Dec 19, 2012		Soil	S12-De17255	x						х			
BH104_(2.0- 2.1m)	Dec 19, 2012		Soil	S12-De17256	х						х			
QC38	Dec 19, 2012		Soil	S12-De17257			Х							
BH104_(2.5- 2.6m)	Dec 19, 2012		Soil	S12-De17258			х							
BH104_(3.0- 3.1m)	Dec 19, 2012		Soil	S12-De17259	х						х			
BH104_(3.0- 3.1m)_A	Dec 19, 2012		Soil	S12-De17260			х							
BH104_(3.3- 3.4m)	Dec 19, 2012		Soil	S12-De17261	x						х			



Melbourne 3-5 Kingston Town Close Oakleigh VIC 3166 Phone : +61 3 8564 5000 NATA # 1261 Site # 1254 & 14271 **Sydney** Unit F6, Building F 16 Mars Road Lane Cove West NSW 2066 Phone : +61 2 9900 8400 NATA # 1261 Site # 18217

Company Nan Address: Client Job No.	Level 18, Tower B, Citadel Tower 799 Pacific Highway Chatswood NSW 2067					R P	epor hone ax:	t #:		363976 +61 2 9406 1000 +61 2 9406 1002			Received: Due: Priority: Contact Name: mgt-Labl	Dec 19, 2012 4:35 PM Jan 3, 2013 5 Day Matthew Locke Mark Client Manager: Jean Heng
		Sample Detail			% Moisture	Asbestos	НОГД	TRH C6-C9	Metals M8	BTEX	mgt-LabMark Suite 4			
Laboratory whe														
		Site # 1254 & 14	271											
Sydney Laborat	ory - NATA Si	te # 18217			X		Х	Х	Х	Х	Х			
	isbane Laboratory - NATA Site # 20794													
External Labora	tory	-	<b>.</b>			Х								
BH104_(3.4- 3.6m)	Dec 19, 2012		Soil	S12-De17262			х							
BH105_(5.9- 6.0m)	Dec 19, 2012		Soil	S12-De17385			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 RPD

### UNITS

 mg/kg: milligrams per Kilogram
 mg/l: milligrams per litre

 ug/l: micrograms per litre
 ppm: Parts per million

 ppb: Parts per billion
 %: Percentage

 org/100ml: Organisms per 100 millilitres
 NTU: Units

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

#### TERMS

IERIVIS	
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 clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environment Protection Authority
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
СР	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.
- 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.
- 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.

# **S LabMark** Environmental laboratories

Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Method Blank				Linito	0000
Fotal Recoverable Hydrocarbons - 1999 NEPM Fractions E	004				
Petroleum Hydrocarbons (TPH)					
TRH C6-C9	mg/L	< 0.02	0.02	Pass	
TRH C10-C14	mg/L	< 0.05	0.05	Pass	
TRH C15-C28	mg/L	< 0.1	0.1	Pass	
TRH C29-C36	mg/L	< 0.1	0.1	Pass	
Method Blank				1	
3TEX E029/E016 BTEX		0.004			
Benzene	mg/L	< 0.001	0.001	Pass	
Toluene	mg/L	< 0.001	0.001	Pass	
Ethylbenzene	mg/L	< 0.001	0.001	Pass	
Total m+p-Xylenes	mg/L	< 0.002	0.002	Pass	
o-Xylene	mg/L	< 0.001	0.001	Pass	
Xylenes(ortho.meta and para) Total BTEX	mg/L	< 0.003	0.003	Pass	
	mg/L	< 0.01	0.01	Pass	
Aethod Blank	ono *   M				
Fotal Recoverable Hydrocarbons - Draft 2010 NEPM Fraction TM-ORG2010	UNS LIVI-				
Naphthalene	mg/L	< 0.005	0.005	Pass	
TRH C6-C10	mg/L	< 0.02	0.02	Pass	
TRH C6-C10 less BTEX (F1)	mg/L	< 0.02	0.02	Pass	
TRH >C10-C16	mg/L	< 0.05	0.05	Pass	
TRH >C16-C34	mg/L	< 0.1	0.1	Pass	
TRH >C34-C40	mg/L	< 0.1	0.1	Pass	
Method Blank					
Роlyaromatic Hydrocarbons (РАН) E007 Polyaromatic Hyd РАН)	rocarbons				
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					
Metals M8 E022/E030 Unfiltered Metals in Water & E026 Me	ercury				
Arsenic	mg/L	< 0.005	0.005	Pass	
Cadmium	mg/L	< 0.0005	0.0005	Pass	
Chromium	mg/L	< 0.005	0.005	Pass	
Copper	mg/L	< 0.005	0.005	Pass	
Lead	mg/L	< 0.005	0.005	Pass	
Mercury	mg/L	< 0.0001	0.0001	Pass	
Nickel	mg/L	< 0.005	0.005	Pass	
	mg/L	< 0.005	0.005	Pass	
Zinc	ing, E				

# **S LabMark** ENVIRONMENTAL LABORATORIES

Test			Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C9			%	99		70-130	Pass	
TRH C10-C14			%	95		70-130	Pass	
LCS - % Recovery				I	1	I		
BTEX E029/E016 BTEX								
Benzene			%	101		70-130	Pass	
Toluene			%	101		70-130	Pass	
Ethylbenzene			%	101		70-130	Pass	
Total m+p-Xylenes			%	100		70-130	Pass	
o-Xylene			%	99		70-130	Pass	
Xylenes(ortho.meta and para)			%	100		70-130	Pass	
LCS - % Recovery				-			-	
Total Recoverable Hydrocarbons LTM-ORG2010	- Draft 2010 NEPM	Fraction	s * LM-					
Naphthalene			%	84		70-130	Pass	
TRH C6-C10			%	100		70-130	Pass	
TRH >C10-C16			%	83		70-130	Pass	
LCS - % Recovery								
Polyaromatic Hydrocarbons (PAH (PAH)	) E007 Polyaromat	ic Hydrod	carbons					
Acenaphthene			%	71		70-130	Pass	
Acenaphthylene			%	71		70-130	Pass	
Anthracene			%	72		70-130	Pass	
Benz(a)anthracene			%	78		70-130	Pass	
Benzo(a)pyrene			%	79		70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)flu	Joranthene		%	90		70-130	Pass	
Benzo(g.h.i)perylene			%	71		70-130	Pass	
Chrysene			%	74		70-130	Pass	
Dibenz(a.h)anthracene			%	75		70-130	Pass	
Fluoranthene			%	73		70-130	Pass	
Fluorene			%	71		70-130	Pass	
Indeno(1.2.3-cd)pyrene			%	75		70-130	Pass	
Naphthalene			%	86		70-130	Pass	
Phenanthrene			%	71		70-130	Pass	
Pyrene			%	73		70-130	Pass	
LCS - % Recovery				-	1 1			
Metals M8 E022/E030 Unfiltered M	etals in Water & E	026 Merci	urv					
Arsenic			%	101		70-130	Pass	
Cadmium			%	104		70-130	Pass	
Chromium			%	98		70-130	Pass	
Copper			%	102		70-130	Pass	
Lead			%	97		70-130	Pass	
Mercury			%	109		70-130	Pass	
Nickel			%	100		70-130	Pass	
Zinc			%	106		70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance	Pass Limits	Qualifying Code
Spike - % Recovery		000100		I	<u> </u>			5046
Metals M8				Result 1				
Arsenic	S12-De17830	NCP	%	102		70-130	Pass	
Cadmium	S12-De17830	NCP	%	107		70-130	Pass	
Chromium	S12-De17830	NCP	%	104		70-130	Pass	
Copper	S12-De17830	NCP	%	105		70-130	Pass	
Lead	S12-De17830	NCP	%	97		70-130	Pass	
Mercury	S12-De17562	NCP	%	98		70-130	Pass	
Nickel	S12-De17830	NCP	%	106		70-130	Pass	
Zinc	S12-De17830	NCP	%	105	1 1	70-130	Pass	

	MENTAL LABO	BATOR	IFS						
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons	- 1999 NEPM Fract	ions		Result 1	Result 2	RPD			
TRH C10-C14	S12-De17249	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S12-De17249	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S12-De17249	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons	- Draft 2010 NEPM	Fraction	s *	Result 1	Result 2	RPD			
TRH >C10-C16	S12-De17249	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S12-De17249	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S12-De17249	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polyaromatic Hydrocarbons (PAF	I)			Result 1	Result 2	RPD			
Acenaphthene	S12-De17249	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	S12-De17249	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S12-De17249	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S12-De17249	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S12-De17249	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-De17249	СР	mg/L	< 0.002	< 0.002	<1	30%	Pass	
Benzo(g.h.i)perylene	S12-De17249	СР	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S12-De17249	СР	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	S12-De17249	СР	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S12-De17249	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S12-De17249	СР	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S12-De17249	СР	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S12-De17249	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	S12-De17249	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	S12-De17249	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	S12-De17829	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Cadmium	S12-De17829	NCP	mg/L	< 0.0005	< 0.0005	8.0	30%	Pass	
Chromium	N12-De17270	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Copper	S12-De17829	NCP	mg/L	0.012	0.011	12	30%	Pass	
Lead	S12-De17829	NCP	mg/L	0.010	0.0080	15	30%	Pass	
Mercury	S12-De17561	NCP	mg/L	< 0.0001	< 0.0001	25	30%	Pass	
Nickel	S12-De17829	NCP	mg/L	0.020	0.020	1.0	30%	Pass	
Zinc	S12-De17829	NCP	mg/L	0.083	0.071	15	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	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

#### **Qualifier Codes/Comments**

Code Description

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).

Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.

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.

#### Authorised By

Jean Heng	Client Services
Laura Schofield	Senior Analyst-Volatile (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
James Norford	Senior Analyst-Metal (NSW)

#### Dr. Bob Symons Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

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# AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112



Our ref: ASET32006/ 35186 / 1 - 2 Your ref: 363976 NATA Accreditation No: 14484

2 January 2013

MGT- Labmark Environmental Pty Ltd Unit F3, Building F, 16, Mars Road Lane Cove NSW 2066

#### Attn: Mr Robert Symonds

Dear Bob

#### **Asbestos Identification**

This report presents the results of two samples, forwarded by MGT-Labmark Environmental Pty Ltd on 21 December 2012, for analysis for asbestos.

1.Introduction: Two 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. ASET32006 / 35186 / 1. BH105 - (0.12 - 0.22m) - De17227. Approx dimensions 5.8 cm x 5.6 cm x 4.7 cm The sample consisted of a mixture of soil, stones and plant matter. No asbestos detected.

> Sample No. 2. ASET32006 / 35186 / 2. BH104 - (0.69 - 0.79m) - De17251. Approx dimensions 4.5 cm x 3.6 cm x 3.2 cm The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster and bitumen. No asbestos detected.

Analysed and reported by,

Laxman Dias. BSc Analyst / Approved Identifier. Approved Signatory



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

SUITE 710 / 90 GEORGE STREET, HORNSBY NSW 2077 – P.O. BOX 1644 HORNSBY WESTFIELD NSW 1635 PHONE: (02) 99872183 FAX: (02)99872151 EMAIL: aset@bigpond.net.au WEBSITE: www.Ausset.com.au

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**Envirolab Services Pty Ltd** ABN 37 112 535 645 12 Ashley St Chatswood NSW 2067 ph 02 9910 6200 fax 02 9910 6201 enquiries@envirolabservices.com.au www.envirolabservices.com.au

#### **CERTIFICATE OF ANALYSIS**

82441

#### **Client: Coffey Environment**

Level 19, Tower B, Citadel Tower 799 Pacific Hwy Chatswood NSW 2067

Attention: Matthew Locke

#### Sample log in details:

Your Reference:	GEOTLCOV24303AF	
No. of samples:	1 Soil	
Date samples received / completed instructions received	30/11/12	/ 30/11/12

#### **Analysis Details:**

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

#### **Report Details:**

Date results requested by: / Issue Date: 7/12/12 / 5/12/12 Date of Preliminary Report: Not issued NATA accreditation number 2901. This document shall not be reproduced except in full. Accredited for compliance with ISO/IEC 17025. Tests not covered by NATA are denoted with \*.

# **Results Approved By:**

Jacinta/Hurst

Laboratory Manager

Ulian Morgen

Rhian Morgan Reporting Supervisor

Chemist

Jeremy Faircloth



## Client Reference: GEOT

GEOTLCOV24303AF	GEOT	LCOV	2430	3AF
-----------------	------	------	------	-----

vTRH&BTEX in Soil		
Our Reference:	UNITS	82441-1
Your Reference		QC1A
Date Sampled		29/11/2012
Type of sample		Soil
Date extracted	-	03/12/2012
Date analysed	-	03/12/2012
TRHC6 - C9	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	101

sTRH in Soil (C10-C36)		
Our Reference:	UNITS	82441-1
Your Reference		QC1A
Date Sampled		29/11/2012
Type of sample		Soil
Date extracted	-	03/12/2012
Date analysed	-	04/12/2012
TRHC10 - C14	mg/kg	<50
TRHC15 - C28	mg/kg	<100
TRHC₂ - C₃	mg/kg	<100
Surrogate o-Terphenyl	%	101

PAHs in Soil		
Our Reference:	UNITS	82441-1
Your Reference		QC1A
Date Sampled		29/11/2012
Type of sample		Soil
Date extracted	-	03/12/2012
Date analysed	-	04/12/2012
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Surrogate p-Terphenyl-d14	%	102

Acid Extractable metals in soil		
Our Reference:	UNITS	82441-1
	UNITS	
Your Reference		QC1A
DateSampled		29/11/2012
Type of sample		Soil
Date digested	-	03/12/2012
Date analysed	-	03/12/2012
Arsenic	mg/kg	<4
Cadmium	mg/kg	<0.5
Chromium	mg/kg	10
Copper	mg/kg	3
Lead	mg/kg	9
Mercury	mg/kg	<0.1
Nickel	mg/kg	3
Zinc	mg/kg	58

Moisture		
Our Reference:	UNITS	82441-1
Your Reference		QC1A
Date Sampled		29/11/2012
Type of sample		Soil
Date prepared	-	03/12/12
Date analysed	-	04/12/12
Moisture	%	4.7

# Client Reference: GEOTLCOV24303AF

MethodID	Methodology Summary
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 draft Guideline on Investigation Levels for Soil and Groundwater.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 draft Guideline on Investigation Levels for Soil and Groundwater.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM draft B1 Guideline on Investigation Levels for Soil and Groundwater.
Metals-020 ICP- AES	Determination of various metals by ICP-AES.
Metals-021 CV- AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.

		Clie	nt Referenc	e: Gl	EOTLCOV24	303AF		
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH&BTEX in Soil						Base II Duplicate II % RPD		
Date extracted	-			03/12/2 012	[NT]	[T/]	LCS-4	03/12/2012
Date analysed	-			03/12/2 012	[NT]	[TN]	LCS-4	03/12/2012
TRHC6 - C9	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-4	88%
Benzene	mg/kg	0.2	Org-016	<0.2	[NT]	[NT]	LCS-4	90%
Toluene	mg/kg	0.5	Org-016	<0.5	[NT]	[NT]	LCS-4	88%
Ethylbenzene	mg/kg	1	Org-016	<1	[NT]	[NT]	LCS-4	84%
m+p-xylene	mg/kg	2	Org-016	~2	[NT]	[NT]	LCS-4	88%
o-Xylene	mg/kg	1	Org-016	<1	[NT]	[NT]	LCS-4	85%
<i>Surrogate</i> aaa- Trifluorotoluene	%		Org-016	96	[NT]	[TN]	LCS-4	98%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Soil (C10-C36)					0	Base II Duplicate II % RPD		
Date extracted	_			03/12/2	[NT]	[NT]	LCS-4	03/12/2012
				012				
Date analysed	-			04/12/2 012	[NT]	[NT]	LCS-4	04/12/2012
TRHC 10 - C 14	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-4	90%
TRHC 15 - C28	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-4	108%
TRHC 29 - C 36	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-4	98%
Surrogate o-Terphenyl	%		Org-003	100	[NT]	[NT]	LCS-4	107%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II % RPD		
Date extracted	-			03/12/2 012	[NT]	[NT]	LCS-4	03/12/2012
Date analysed	-			04/12/2 012	[NT]	[NT]	LCS-4	04/12/2012
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	101%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	99%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	92%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	97%
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	92%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[ТИ]	LCS-4	95%

Client Reference: GEOTLCOV24303AF								
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II % RPD		,
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	[NT]	[NT]	LCS-4	122%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl- d14	%		Org-012 subset	97	[NT]	[NT]	LCS-4	97%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil					On m	Base II Duplicate II % RPD		Recovery
Date digested	-			03/12/2 012	[NT]	[NT]	LCS-3	03/12/2012
Date analysed	-			03/12/2 012	[NT]	[NT]	LCS-3	03/12/2012
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	LCS-3	86%
Cadmium	mg/kg	0.5	Metals-020 ICP-AES	<0.5	[NT]	[NT]	LCS-3	80%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-3	88%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-3	88%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-3	86%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	LCS-3	93%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-3	88%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[TN]	LCS-3	88%

QUALITYCONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			[NT]
Date analysed	-			[NT]
Moisture	%	0.1	Inorg-008	[NT]

#### **Report Comments:**

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

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: No
NA: Test not required	RPD: Relative Percent Difference	NA: Te
<: Less than	>: Greater than	LCS: L

NT: Not tested NA: Test not required LCS: Laboratory Control Sample

#### **Quality Control Definitions**

**Blank**: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples. **Duplicate**: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist. LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

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

#### Laboratory Acceptance Criteria

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

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable. Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



**Envirolab Services Pty Ltd** ABN 37 112 535 645 12 Ashley St Chatswood NSW 2067 ph 02 9910 6200 fax 02 9910 6201 enquiries@envirolabservices.com.au www.envirolabservices.com.au

#### **CERTIFICATE OF ANALYSIS**

82623

#### **Client: Coffey Environment**

Level 19, Tower B, Citadel Tower 799 Pacific Hwy Chatswood NSW 2067

Attention: Matthew Locke

#### Sample log in details:

Your Reference:	GEOTL00V04	303A	F
No. of samples:	1 Soil		_
Date samples received / completed instructions received	05/12/2012	/	07/12/12

#### **Analysis Details:**

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

#### **Report Details:**

Date results requested by: / Issue Date: 14/12/12 / 12/12/12 Date of Preliminary Report: Not issued NATA accreditation number 2901. This document shall not be reproduced except in full. Accredited for compliance with ISO/IEC 17025. Tests not covered by NATA are denoted with \*.

#### **Results Approved By:**

-Alana Nancy Zhang

Chemist

Khian Morgen

Rhian Morgan Reporting Supervisor

Jeremy Faircloth Chemist

Envirolab Reference: 82623 **Revision No:** R 00



## Client Reference: GEO

GLU1100004303AI	GEOT	L00V04	4303AF
-----------------	------	--------	--------

vTRH(C6-C10)/BTEXN in Soil		
Our Reference:	UNITS	82623-1
Your Reference		QC9A
Type of sample		Soil
Date extracted	-	10/12/2012
Date analysed	-	11/12/2012
TRHC6 - C9	mg/kg	<25
<b>TRHC6 - C10</b>	mg/kg	<25
vTPHC6 - C 10 less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
naphthalene	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	102

svTRH (C10-C40) in Soil		
Our Reference:	UNITS	82623-1
Your Reference		QC9A
Type of sample		Soil
Date extracted	-	10/12/2012
Date analysed	-	11/12/2012
TRHC 10 - C14	mg/kg	<50
TRHC 15 - C28	mg/kg	<100
TRHC29 - C36	mg/kg	<100
TRH>C10-C16	mg/kg	<50
TRH>C10 - C16 less Naphthalene (F2)	mg/kg	<50
TRH>C16-C34	mg/kg	<100
TRH>C34-C40	mg/kg	<100
Surrogate o-Terphenyl	%	90

PAHs in Soil		
Our Reference:	UNITS	82623-1
Your Reference		QC9A
Type of sample		Soil
Date extracted	-	10/12/2012
Date analysed	-	12/12/2012
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	0.4
Pyrene	mg/kg	0.4
Benzo(a)anthracene	mg/kg	0.1
Chrysene	mg/kg	0.2
Benzo(b+k)fluoranthene	mg/kg	0.3
Benzo(a)pyrene	mg/kg	0.18
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1
Benzo(a)pyrene TEQ	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	105

Acid Extractable metals in soil		
Acid Extractable metals in soli		
Our Reference:	UNITS	82623-1
Your Reference		QC9A
Type of sample		Soil
Date digested	-	10/12/2012
Date analysed	-	11/12/2012
Arsenic	mg/kg	<4
Cadmium	mg/kg	<0.5
Chromium	mg/kg	10
Copper	mg/kg	15
Lead	mg/kg	19
Mercury	mg/kg	<0.1
Nickel	mg/kg	8
Zinc	mg/kg	41

Moisture		
Our Reference:	UNITS	82623-1
Your Reference		QC9A
Type of sample		Soil
Date prepared	-	10/12/12
Date analysed	-	11/12/12
Moisture	%	11

# Client Reference: GEOTL00V04303AF

MethodID	Methodology Summary
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 draft Guideline on Investigation Levels for Soil and Groundwater.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 draft Guideline on Investigation Levels for Soil and Groundwater.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM draft B1 Guideline on Investigation Levels for Soil and Groundwater.
Metals-020 ICP- AES	Determination of various metals by ICP-AES.
Metals-021 CV- AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.