

Tables

Table LR1: Results of Quality Control Soil Samples

	Primary Sample	Duplicate Sample	RPD (%)	Primary Sample	Duplicate Sample	RPD (%)	Primary Sample	Triplicate Sample	RPD (%)	Primary Sample	Duplicate Sample	RPD (%)	Primary Sample	Triplicate Sample	RPD (%)	Primary Sample	Duplicate Sample	RPD (%)
Sample ID	SS07	QC3		SS12	QC5		SS12	QC6		SS19	QC7		SS19	QC8		SS31	QC10	
Material	Soil	Soil	%RPD between SS07 and QC3	Soil	Soil	%RPD between SS12 and QC5	Soil	Soil	%RPD between SS12 and QC6	Soil	Soil	%RPD between SS19 and QC7	Soil	Soil	%RPD between SS19 and QC8	Soil	Soil	%RPD between SS31 and QC10
Date of Sampling	19-Nov-12	19-Nov-12		19-Nov-12	19-Nov-12		19-Nov-12	19-Nov-12		20-Nov-12	20-Nov-12		20-Nov-12	20-Nov-12		20-Nov-12	20-Nov-12	
Depth (m)	0.15	0.15		0.15	0.15		0.15	0.15		0.15	0.15		0.15	0.15		0.15	0.15	
Metals																		
Arsenic	10	9.9	1	5	3.6	33	5	2.8	56	6.3	5.7	10	6.3	5.5	14	7.6	8.4	10
Cadmium	0.7	0.7	0	< 0.4	< 0.4	NA	< 0.4	< 0.4	NA	< 0.4	< 0.4	NA	< 0.4	0.4	Inconsistent	< 0.4	< 0.4	NA
Chromium	< 5	< 5	NA	8.1	8.9	9	8.1	14	53	< 5	7.2	Inconsistent	< 5	8.9	Inconsistent	7.3	8.4	14
Copper	5.7	5.3	7	< 5	< 5	NA	< 5	5.2	Inconsistent	8.6	8.8	2	8.6	9.2	7	11	11	0
Lead	16	22	32	17	27	45	17	25	38	12	12	0	12	10	18	9.1	11	19
Mercury	0.86	0.95	10	0.08	0.11	32	0.08	< 0.1	Inconsistent	0.06	0.05	18	0.06	< 0.1	Inconsistent	0.08	0.09	12
Nickel	21	24	13	< 5	< 5	NA	< 5	< 5	NA	5.5	6.3	14	5.5	5.4	2	9.9	11	11
Zinc	76	92	19	20	33	49	20	35	55	64	65	2	64	61	5	58	64	10
Total Recoverable Hydrocarbons																		
TRH C ₉ -C ₉	< 10	< 10	NA	-	-	-	-	-	-	< 10	< 10	NA	< 10	< 20	NA	-	-	-
TRH C ₁₀ -C ₁₄	< 50	< 50	NA	-	-	-	-	-	-	< 50	< 50	NA	< 50	< 20	NA	-	-	-
TRH C ₁₅ -C ₂₈	< 100	< 100	NA	-	-	-	-	-	-	< 100	< 100	NA	< 100	< 50	NA	-	-	-
TRH C ₂₉ -C ₃₆	< 100	< 100	NA	-	-	-	-	-	-	< 100	< 100	NA	< 100	< 50	NA	-	-	-
TRH C ₁₀ -C ₃₆ (Total)	< 100	< 100	NA	-	-	-	-	-	-	< 100	< 100	NA	< 100	< 50	NA	-	-	-
BTEX																		
Benzene	< 0.5	< 0.5	NA	-	-	-	-	-	-	< 0.5	< 0.5	NA	< 0.5	< 0.05	NA	-	-	-
Toluene	< 0.5	< 0.5	NA	-	-	-	-	-	-	< 0.5	< 0.5	NA	< 0.5	< 0.05	NA	-	-	-
Ethylbenzene	< 0.5	< 0.5	NA	-	-	-	-	-	-	< 0.5	< 0.5	NA	< 0.5	< 0.05	NA	-	-	-
Total Xylenes	< 2.0	< 2.0	NA	-	-	-	-	-	-	< 2.0	< 2.0	NA	< 2.0	< 0.15	NA	-	-	-
Organochlorine Pesticides																		
DDD+DDE+DDT	< LOR	< LOR	NA	-	-	-	-	-	-	< LOR	< LOR	NA	< LOR	-	-	-	-	-
Chlordane	< 0.1	< 0.1	NA	-	-	-	-	-	-	< 0.1	< 0.1	NA	< 0.1	-	-	-	-	-
Aldrin+Dieldrin	< 0.1	< 0.1	NA	-	-	-	-	-	-	< 0.1	< 0.1	NA	< 0.1	-	-	-	-	-
Heptachlor	< 0.05	< 0.05	NA	-	-	-	-	-	-	< 0.05	< 0.05	NA	< 0.05	-	-	-	-	-
Organophosphorus Pesticides																		
OCP (Total)	< LOR	< LOR	NA	-	-	-	-	-	-	< LOR	< LOR	NA	< LOR	-	-	-	-	-
Polyaromatic Hydrocarbons																		
Benzo(a)pyrene	< 0.5	< 0.5	NA	-	-	-	-	-	-	< 0.5	< 0.5	NA	< 0.5	-	-	-	-	-
Total PAH	< 1	< 1	NA	-	-	-	-	-	-	< 1	< 1	NA	< 1	-	-	-	-	-
Polychlorinated Biphenyls																		
Total PCB	-	-	-	-	-	-	-	-	-	< 0.5	< 0.5	NA	< 0.5	-	-	-	-	-
Phenols																		
Total Phenolics	0.4	0.3	29	-	-	-	-	-	-	2.6	3.7	35	2.6	-	-	-	-	-

Notes:

Value RPD exceeds control limit of 50%

NA Both samples have concentrations below laboratory's Limit of Reporting (LOR)

Inconsistent One sample has concentration below LOR, the second sample has concentrations above LOR

- Not Tested

Table LR2: AEC1 - Summary of Laboratory Results for Soil Samples (all results in mg/kg)

Investigation Area	Soil Investigation Levels	AEC1												
		Civil Works Zone					Stage 1							
Sample ID		HA2	HA2	HA3	HA3	HA3	BH6	BH6	BH6	BH6	BH14	BH14	BH14	BH15
Material		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date of Sampling		19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12
Depth (m)		0.15	0.5	0.15	0.5	0.7	0.15	0.5	1	2.5	0.5	1	2	0.5
Heavy Metals														
Arsenic	200 ¹	9.9	8.8	-	5.4	6	-	8.4	6.1	8.6	8	8.1	5.7	7.5
Cadmium	40 ¹	< 0.4	< 0.4	-	< 0.4	< 0.4	-	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	200 ¹	9.9	53	-	6.8	15	-	8.3	6.9	23	8.7	6.9	8.4	12
Copper	2,000 ¹	20	14	-	11	13	-	14	64	7.1	13	32	< 5	11
Lead	600 ¹	39	220	-	20	13	-	12	270	13	14	29	7	24
Mercury	30 ¹	0.12	0.22	-	0.09	< 0.05	-	0.08	0.1	< 0.05	0.07	0.08	< 0.05	0.11
Nickel	600 ¹	8	7	-	< 5	< 5	-	12	16	< 5	13	16	< 5	6.6
Zinc	14,000 ¹	83	96	-	59	19	-	61	430	13	62	95	< 5	190
Total Recoverable Hydrocarbons														
TRH C ₆ -C ₉	65 ²	-	-	-	-	-	-	< 10	-	-	-	< 10	-	< 10
TRH C ₁₀ -C ₁₄		-	-	-	-	-	-	< 50	-	-	-	< 50	-	< 50
TRH C ₁₅ -C ₂₈		-	-	-	-	-	-	< 100	-	-	-	< 100	-	< 100
TRH C ₂₉ -C ₃₆		-	-	-	-	-	-	< 100	-	-	-	< 100	-	< 100
TRH C ₁₀ - ₃₆ (Total)	1000 ²	-	-	-	-	-	-	< 100	-	-	-	< 100	-	< 100
BTEX														
Benzene	1 ²	-	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	< 0.5
Toluene	1 ²	-	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	< 0.5
Ethylbenzene	3.1 ²	-	-	-	-	-	-	< 0.5	-	-	-	< 0.5	-	< 0.5
Total Xylenes	14.0 ²	-	-	-	-	-	-	< 2.0	-	-	-	< 2.0	-	< 2.0
Organochlorine Pesticides														
DDD+DDE+DDT	400 ¹	-	-	-	< LOR	-	-	< LOR	-	-	< LOR	-	-	-
Chlordane	100 ¹	-	-	-	0.24	-	-	< 0.1	-	-	< 0.1	-	-	-
Aldrin+Dieldrin	20 ¹	-	-	-	2	-	-	< 0.1	-	-	< 0.1	-	-	-
Heptachlor	20 ¹	-	-	-	< 0.05	-	-	< 0.05	-	-	< 0.05	-	-	-
Organophosphorus Pesticides														
OCP (Total)		-	-	-	< LOR	-	-	< LOR	-	-	< LOR	-	-	-
Polyaromatic Hydrocarbons														
Benzo(a)pyrene	1 ¹	-	-	-	-	-	-	< 0.5	< 0.5	-	< 0.5	< 0.5	-	-
Total PAH	20 ¹	-	-	-	-	-	-	< 1	< 1	-	< 1	< 1	-	-
Polychlorinated Biphenyls														
Total PCB	20 ¹	-	-	-	-	-	-	< 0.5	-	-	< 0.5	-	-	-
Phenols														
Total Phenolics	17,000 ¹	-	-	-	-	-	-	< 0.1	1.4	-	< 0.1	< 0.1	-	-
Asbestos	ND	-	ND	ND	-	-	ND	ND	-	-	ND	ND	-	ND

Notes:

- Bold** Concentration exceeds the adopted SIL
- ¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme (2nd ed) and NEPM (1999) (Parks, recreational, open space, playing fields including secondary schools NEHF-E)
- ² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites
- ND Not Detected
- Not Tested

Table LR3: AEC2 & AEC3 - Summary of Laboratory Results for Soil Samples (all results in mg/kg)

Investigation Area	Soil Investigation Levels	AEC2												AEC3		
		Stage 1												Stage 1		
		SS02	SS03	SS04	SS05	SS07	SS09	SS10	SS19	SS20	SS21	HA1	HA1	BH3	SS12	SS14
Sample ID		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Material		19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	
Date of Sampling		0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0.5	1.3	0.15	
Depth (m)																
Heavy Metals																
Arsenic	200 ¹	8.1	7.1	11	6.8	10	8	13	6.3	4.4	8.9	8.4	9.9	-	5	4.3
Cadmium	40 ¹	0.9	0.6	1.7	0.5	0.7	< 0.4	1	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	-	< 0.4	< 0.4
Chromium	200 ¹	12	9.6	20	14	< 5	14	51	< 5	6.4	6.4	13	15	-	8.1	7.7
Copper	2,000 ¹	130	86	130	67	5.7	74	190	8.6	8.9	13	7.2	5.5	-	< 5	< 5
Lead	600 ¹	56	51	89	200	16	210	920	12	210	11	21	17	-	17	29
Mercury	30 ¹	0.45	1.2	2.7	0.59	0.86	0.59	0.37	0.06	0.36	0.07	0.08	0.06	-	0.08	< 0.05
Nickel	600 ¹	10	5.3	15	16	21	6.8	26	5.5	< 5	9.7	< 5	< 5	-	< 5	< 5
Zinc	14,000 ¹	330	320	610	370	76	190	1400	64	300	63	54	21	-	20	26
Total Recoverable Hydrocarbons																
TRH C ₆ -C ₉	65 ²	< 10	-	< 10	< 10	< 10	< 10	< 10	< 10	-	< 10	-	< 10	-	-	-
TRH C ₁₀ -C ₁₄		< 50	-	< 50	< 50	< 50	< 50	< 50	< 50	-	< 50	-	< 50	-	-	-
TRH C ₁₅ -C ₂₈		< 100	-	< 100	< 100	< 100	< 100	230	< 100	-	< 100	-	< 100	-	-	-
TRH C ₂₉ -C ₃₆		< 100	-	< 100	< 100	< 100	< 100	< 100	< 100	-	< 100	-	< 100	-	-	-
TRH C ₁₀ -C ₃₆ (Total)	1000 ²	< 100	-	< 100	< 100	< 100	< 100	230	< 100	-	< 100	-	< 100	-	-	-
BTEX																
Benzene	1 ²	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	-	-	-
Toluene	1 ²	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	-	-	-
Ethylbenzene	3.1 ²	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	-	-	-
Total Xylenes	14.0 ²	< 2.0	-	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	-	< 2.0	-	< 2.0	-	-	-
Organochlorine Pesticides																
DDD+DDE+DDT	400 ¹	< LOR	< LOR	-	-	< LOR	-	< LOR	< LOR	< LOR	-	-	-	-	-	< LOR
Chlordane	100 ¹	< 0.1	< 0.1	-	-	< 0.1	-	< 0.1	< 0.1	< 0.1	-	-	-	-	-	< 0.1
Aldrin+Dieldrin	20 ¹	< 0.1	< 0.1	-	-	< 0.1	-	0.28	< 0.1	< 0.1	-	-	-	-	-	< 0.1
Heptachlor	20 ¹	< 0.05	< 0.05	-	-	< 0.05	-	< 0.05	< 0.05	< 0.05	-	-	-	-	-	< 0.05
Organophosphorus Pesticides																
OCP (Total)		< LOR	< LOR	-	-	< LOR	-	< LOR	< LOR	< LOR	-	-	-	-	-	< LOR
Polyaromatic Hydrocarbons																
Benzo(a)pyrene	1 ¹	< 0.5	-	< 0.5	< 0.5	< 0.5	-	-	< 0.5	-	-	-	< 0.5	-	-	-
Total PAH	20 ¹	< 1	-	< 1	< 1	< 1	-	-	< 1	-	-	-	< 1	-	-	-
Polychlorinated Biphenyls																
Total PCB	20 ¹	-	-	-	-	-	-	-	< 0.5	-	-	-	-	-	-	-
Phenols																
Total Phenolics	17,000 ¹	3.5		< 0.1	3	0.4	-	-	2.6	-	-	-	1	-	-	-
Asbestos	ND	ND	ND	ND	-	ND	-	ND	-	ND	ND	-	-	ND	ND	ND

Notes:

- Bold** Concentration exceeds the adopted SIL
- ¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme (2nd ed) and NEPM (1999) (Parks, recreational, open space, playing fields including secondary schools NEHF-E)
- ² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites
- ND Not Detected
- Not Tested

Table LR4: AEC4 - Summary of Laboratory Results for Surface Soil Samples (all results in mg/kg)

Investigation Area	Soil Investigation Levels	AEC4																	
		Civil Works Zone																	
		SS11	SS16	SS17	SS18	SS22	SS23	SS24	SS25	SS26	SS27	SS28	SS29	SS30	SS31	SS32	BH11	BH12	
Sample ID	Material	Date of Sampling	Depth (m)	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
				19-Nov-12	19-Nov-12	19-Nov-12	19-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12	20-Nov-12
				0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0.15	0.15
Heavy Metals																			
Arsenic	200 ¹	7.3	6.5	7.8	11	4.8	7.1	4.5	8.8	4.8	7.2	27	8	6	7.6	6	5.7	6.5	
Cadmium	40 ¹	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	200 ¹	5.8	8.7	8.6	7	8.7	11	8.3	9.1	15	11	12	9.1	7.9	7.3	7.8	9.8	9.9	
Copper	2,000 ¹	7.7	8.9	21	11	8.6	13	7.9	13	7.7	18	20	15	9.3	11	11	12	30	
Lead	600 ¹	12	11	15	13	38	50	18	85	47	25	16	27	26	9.1	11	22	65	
Mercury	30 ¹	< 0.05	0.06	0.07	0.06	0.1	0.07	< 0.05	0.51	0.08	0.1	0.17	0.85	0.95	0.08	0.08	0.06	0.16	
Nickel	600 ¹	7.9	7.2	7.8	8.6	< 5	6.4	< 5	6.5	< 5	8.3	15	8.2	5.4	9.9	8.7	7.6	6.5	
Zinc	14,000 ¹	57	39	72	53	39	61	37	120	28	99	74	82	65	58	51	72	110	
Total Recoverable Hydrocarbons																			
TRH C ₉ -C ₂₅	65 ²	< 10	-	-	-	-	-	-	-	-	-	-	< 10	-	-	-	-	-	-
TRH C ₁₀ -C ₁₄		< 50	-	-	-	-	-	-	-	-	-	-	< 50	-	-	-	-	-	-
TRH C ₁₅ -C ₂₈		< 100	-	-	-	-	-	-	-	-	-	-	< 100	-	-	-	-	-	-
TRH C ₂₉ -C ₃₆		< 100	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-
TRH C ₁₀ - ₃₆ (Total)	1000 ²	< 100	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-
BTEX																			
Benzene	1 ²	< 0.5	-	-	-	-	-	-	-	-	-	-	< 0.5	-	-	-	-	-	-
Toluene	1 ²	< 0.5	-	-	-	-	-	-	-	-	-	-	< 0.5	-	-	-	-	-	-
Ethylbenzene	3.1 ²	< 0.5	-	-	-	-	-	-	-	-	-	-	< 0.5	-	-	-	-	-	-
Total Xylenes	14.0 ²	< 2.0	-	-	-	-	-	-	-	-	-	-	< 2.0	-	-	-	-	-	-

Notes:

Bold Concentration exceeds the adopted SIL

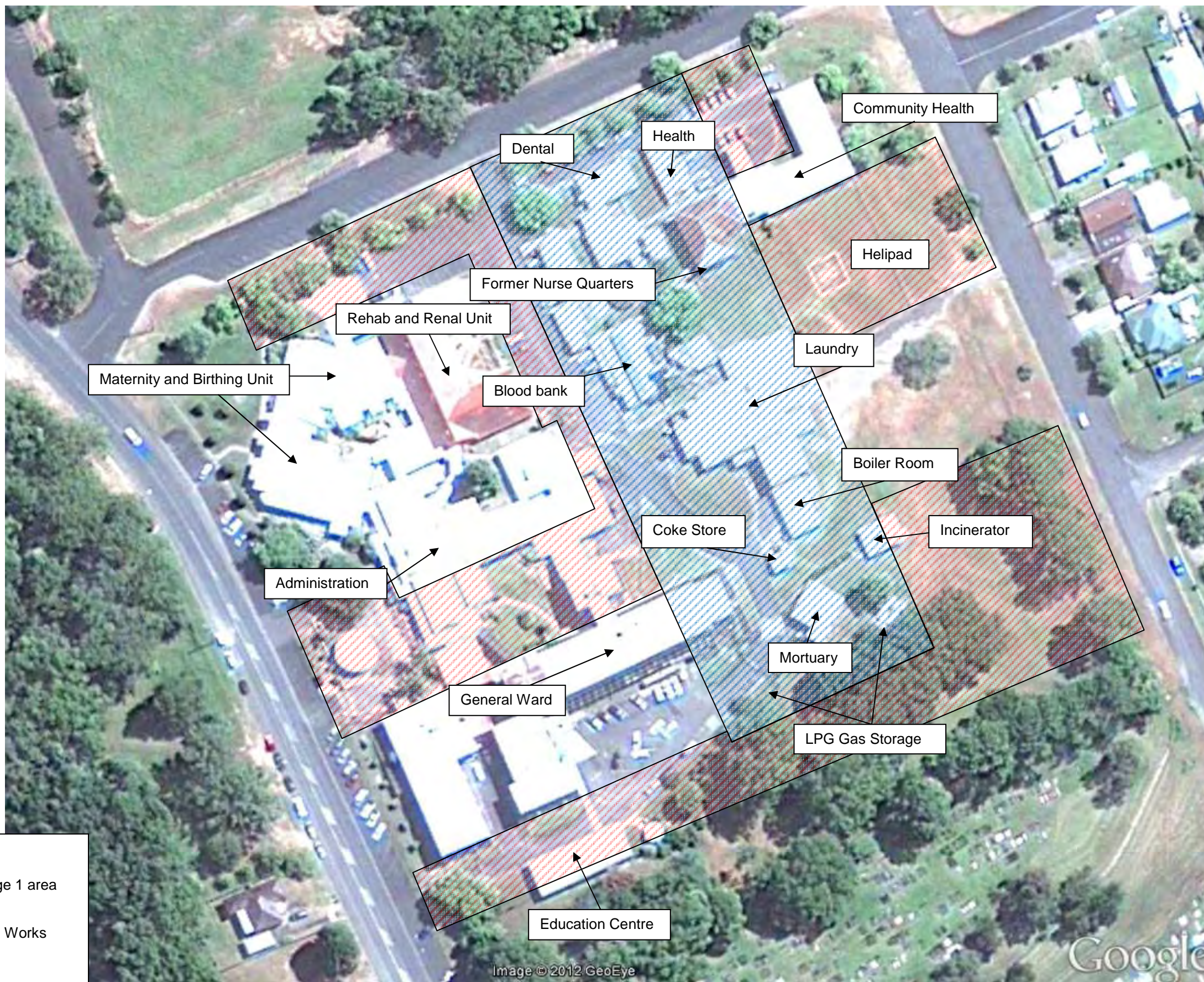
¹ Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme (2nd ed) and NEPM (1999) (Parks, recreational, open space, playing fields including secondary schools NEHF-E)

² Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites

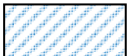
ND Not Detected


- Not Tested


Figures

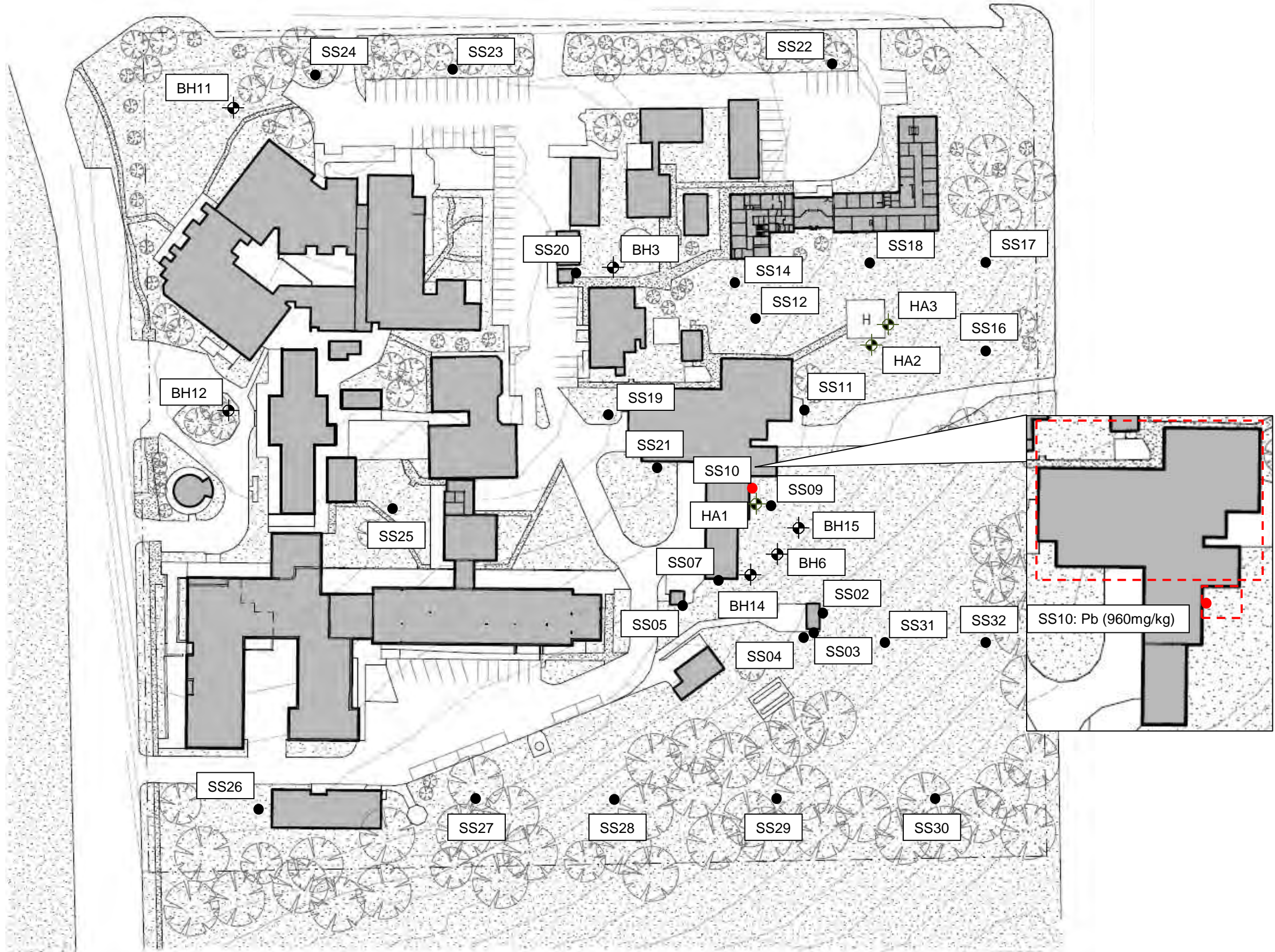


Legend:

 Approximate Stage 1 area

 Approximate Civil Works Zones

revision	description	drawn	approved	date	drawn	JP		client:	enstruct Group Pty Ltd		
	Image sourced from Google Earth 2012				approved	AB		project:	Phase 2 Environmental Site Assessment for the Stage 1 and Civil Works Zones Redevelopment Kempsey District Hospital, Kempsey NSW		
					date	29-Jan-13		title:	Site Layout Plan		
					scale	NTS		project no:	GEOTCOFH03037AA-AJ	figure no:	Figure 1
					original size	A3					



Legend:

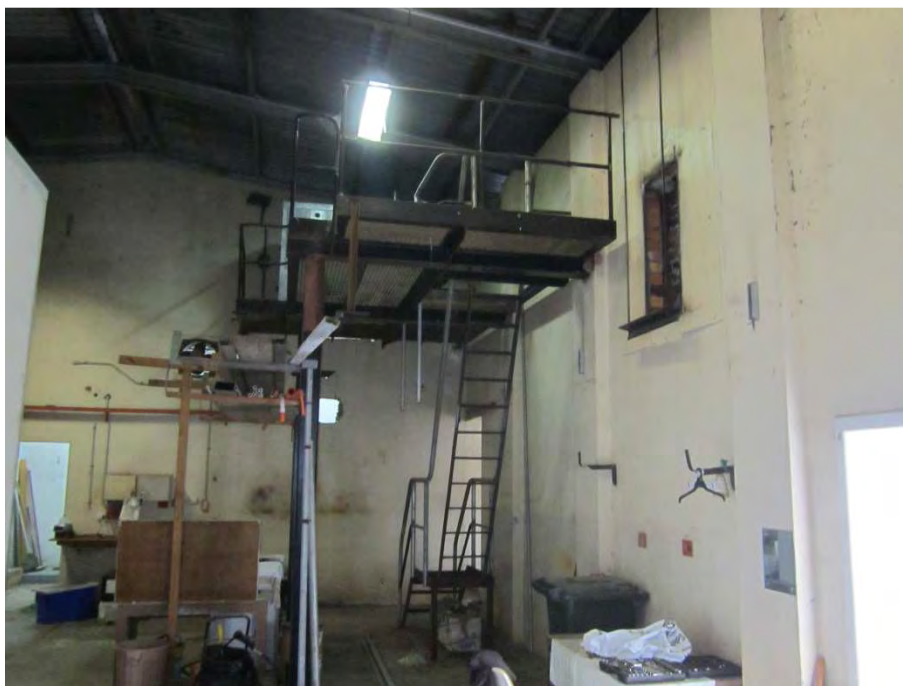
- Surface Soil Samples
- Lead Contaminated Sample
- ⊕ Hand Auger Locations
- ⊗ Borehole Locations
- ⋮ Areas of Environmental Concern

revision	description	drawn	approved	date	drawn	JP		client:	enstruct Group Pty Ltd	
	Image sourced from Health Infrastructure; Kempsey District Hospital Redevelopment, Drawing Number 5027-BVN-ARC-DWG-1SK-A00				approved	AB		project:	Phase 2 Environmental Site Assessment for the Stage 1 and Civil Works Zones Redevelopment Kempsey District Hospital, Kempsey NSW	
					date	29-Jan-13		title:	Approximate Sample Location Plan	
					scale	~1:1,000		project no:	GEOTCOFH03037AA-AJ	figure no:
				original size	A1					

Photographs



Photograph 1, Photograph shows the southeast corner of the former boiler building.



Photograph 2, Photograph shows the northeast corner of the former boiler building. It was understood that this area housed some of the boiler infrastructure.



Photograph 3, Photograph shows the raised timber flooring in the north part of the former laundry building.



Photograph 4, Photograph shows the surface soils beneath the raised timber flooring that present in the northern part of the laundry building.



Photograph 5, Photograph shows the former coke storage building, now currently used for storing bins.



Photograph 6, Photograph shows concrete flooring in former Coke storage building in relatively good condition with minor staining present.



Photograph 7, Photograph shows inside the former fumigation building located within the Stage 1 area. This building is a hospital chemicals store.



Photograph 8, Photograph shows some minor surface staining on the concrete flooring in the former fumigation building.

Appendix A

Laboratory Reports

Coffey Geotechnics Pty Ltd
 Unit 1 18 Hurley Dve
 Coffs Harbour
 NSW 2450



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Attention: Andrew Ballard

Report **360188-S**
 Client Reference GEOTCOFH03037AA
 Received Date Nov 22, 2012

Client Sample ID			SS02	SS03	SS04	SS05
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18208	S12-No18209	S12-No18210	S12-No18211
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	-	< 10	< 10
TRH C10-C14	50	mg/kg	< 50	-	< 50	< 50
TRH C15-C28	100	mg/kg	< 100	-	< 100	< 100
TRH C29-C36	100	mg/kg	< 100	-	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	-	< 100	< 100
BTEX						
Benzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Toluene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Ethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Total m+p-Xylenes	1	mg/kg	< 1	-	< 1	< 1
o-Xylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	-	< 1.5	< 1.5
Total BTEX	1.5	mg/kg	< 1.5	-	< 1.5	< 1.5
4-Bromofluorobenzene (surr.)	1	%	81	-	86	84
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	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) ^{N04}	20	mg/kg	< 20	-	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	-	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	-	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	-	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	-	< 100	< 100
Organochlorine Pesticides (OC)						
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	-
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	-
4,4'-DDT	0.2	mg/kg	< 0.2	< 0.2	-	-
a-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
a-Chlordane	0.05	mg/kg	< 0.05	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
b-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
d-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	-

Client Sample ID			SS02	SS03	SS04	SS05
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18208	S12-No18209	S12-No18210	S12-No18211
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Organochlorine Pesticides (OC)						
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	-
g-Chlordane	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	-
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	-	-
Dibutylchlorendate (surr.)	1	%	117	84	-	-
Tetrachloro-m-xylene (surr.)	1	%	75	72	-	-
Organophosphorus Pesticides (OP)						
Chlorpyrifos	0.5	mg/kg	< 0.5	< 0.5	-	-
Coumaphos	0.5	mg/kg	< 0.5	< 0.5	-	-
Demeton (total)	1	mg/kg	< 1	< 1	-	-
Diazinon	0.5	mg/kg	< 0.5	< 0.5	-	-
Dichlorvos	0.5	mg/kg	< 0.5	< 0.5	-	-
Dimethoate	0.5	mg/kg	< 0.5	< 0.5	-	-
Disulfoton	0.5	mg/kg	< 0.5	< 0.5	-	-
Ethoprop	0.5	mg/kg	< 0.5	< 0.5	-	-
Fenitrothion	0.5	mg/kg	< 0.5	< 0.5	-	-
Fensulfothion	0.5	mg/kg	< 0.5	< 0.5	-	-
Fenthion	0.5	mg/kg	< 0.5	< 0.5	-	-
Methyl azinphos	0.5	mg/kg	< 0.5	< 0.5	-	-
Malathion	0.5	mg/kg	< 0.5	< 0.5	-	-
Methyl parathion	0.5	mg/kg	< 0.5	< 0.5	-	-
Mevinphos	0.5	mg/kg	< 0.5	< 0.5	-	-
Monocrotophos	10	mg/kg	< 10	< 10	-	-
Parathion	0.5	mg/kg	< 0.5	< 0.5	-	-
Phorate	0.5	mg/kg	< 0.5	< 0.5	-	-
Profenofos	0.5	mg/kg	< 0.5	< 0.5	-	-
Prothiofos	0.5	mg/kg	< 0.5	< 0.5	-	-
Ronnel	0.5	mg/kg	< 0.5	< 0.5	-	-
Stirophos	0.5	mg/kg	< 0.5	< 0.5	-	-
Trichloronate	0.5	mg/kg	< 0.5	< 0.5	-	-
Triphenylphosphate (surr.)	1	%	92	105	-	-
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

Client Sample ID			SS02	SS03	SS04	SS05
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18208	S12-No18209	S12-No18210	S12-No18211
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Polyaromatic Hydrocarbons (PAH)						
2-Fluorobiphenyl (surr.)	1	%	89	-	98	105
p-Terphenyl-d14 (surr.)	1	%	94	-	88	99
Phenolics (Total)						
Phenolics (Total)	0.1	mg/kg	3.5	-	< 0.1	3.0
% Moisture	0.1	%	22	14	18	26
Asbestos			See attached	See attached	See attached	-
Heavy Metals						
Arsenic	2	mg/kg	8.1	7.1	11	6.8
Cadmium	0.4	mg/kg	0.9	0.6	1.7	0.5
Chromium	5	mg/kg	12	9.6	20	14
Copper	5	mg/kg	130	86	130	67
Lead	5	mg/kg	56	51	89	200
Mercury	0.05	mg/kg	0.45	1.2	2.7	0.59
Nickel	5	mg/kg	10	5.3	15	16
Zinc	5	mg/kg	330	320	610	370

Client Sample ID			SS07	SS09	SS10	SS11
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18213	S12-No18215	S12-No18216	S12-No18217
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	< 10	< 10	< 10
TRH C10-C14	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28	100	mg/kg	< 100	< 100	230	< 100
TRH C29-C36	100	mg/kg	< 100	< 100	< 100	< 100
TRH C10-36 (Total)	100	mg/kg	< 100	< 100	230	< 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
Total 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(ortho.meta and para)	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	%	94	86	84	91
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 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	240	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Organochlorine Pesticides (OC)						
4,4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4,4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-

Client Sample ID			SS07	SS09	SS10	SS11
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18213	S12-No18215	S12-No18216	S12-No18217
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Organochlorine Pesticides (OC)						
4.4'-DDT	0.2	mg/kg	< 0.2	-	< 0.2	-
a-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
a-Chlordane	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	-	0.28	-
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	-
g-Chlordane	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	-
Methoxychlor	0.2	mg/kg	< 0.2	-	< 0.2	-
Dibutylchloroendate (surr.)	1	%	78	-	85	-
Tetrachloro-m-xylene (surr.)	1	%	009A1	-	70	-
Organophosphorus Pesticides (OP)						
Chlorpyrifos	0.5	mg/kg	< 0.5	-	< 0.5	-
Coumaphos	0.5	mg/kg	< 0.5	-	< 0.5	-
Demeton (total)	1	mg/kg	< 1	-	< 1	-
Diazinon	0.5	mg/kg	< 0.5	-	< 0.5	-
Dichlorvos	0.5	mg/kg	< 0.5	-	< 0.5	-
Dimethoate	0.5	mg/kg	< 0.5	-	< 0.5	-
Disulfoton	0.5	mg/kg	< 0.5	-	< 0.5	-
Ethoprop	0.5	mg/kg	< 0.5	-	< 0.5	-
Fenitrothion	0.5	mg/kg	< 0.5	-	< 0.5	-
Fensulfothion	0.5	mg/kg	< 0.5	-	< 0.5	-
Fenthion	0.5	mg/kg	< 0.5	-	< 0.5	-
Methyl azinphos	0.5	mg/kg	< 0.5	-	< 0.5	-
Malathion	0.5	mg/kg	< 0.5	-	< 0.5	-
Methyl parathion	0.5	mg/kg	< 0.5	-	< 0.5	-
Mevinphos	0.5	mg/kg	< 0.5	-	< 0.5	-
Monocrotophos	10	mg/kg	< 10	-	< 10	-
Parathion	0.5	mg/kg	< 0.5	-	< 0.5	-
Phorate	0.5	mg/kg	< 0.5	-	< 0.5	-
Profenofos	0.5	mg/kg	< 0.5	-	< 0.5	-
Prothiofos	0.5	mg/kg	< 0.5	-	< 0.5	-
Ronnel	0.5	mg/kg	< 0.5	-	< 0.5	-
Stirophos	0.5	mg/kg	< 0.5	-	< 0.5	-
Trichloronate	0.5	mg/kg	< 0.5	-	< 0.5	-
Triphenylphosphate (surr.)	1	%	102	-	106	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			SS07	SS09	SS10	SS11
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18213	S12-No18215	S12-No18216	S12-No18217
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Polyaromatic Hydrocarbons (PAH)						
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	-	-	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	-	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-	-
Pyrene	0.5	mg/kg	< 0.5	-	-	-
Total PAH	1	mg/kg	< 1	-	-	-
2-Fluorobiphenyl (surr.)	1	%	101	-	-	-
p-Terphenyl-d14 (surr.)	1	%	95	-	-	-
Phenolics (Total)						
	0.1	mg/kg	0.4	-	-	-
% Moisture	0.1	%	7.2	16	10.0	8.2
Asbestos			See attached	-	See attached	-
Heavy Metals						
Arsenic	2	mg/kg	10	8.0	13	7.3
Cadmium	0.4	mg/kg	0.7	< 0.4	1.0	< 0.4
Chromium	5	mg/kg	< 5	14	51	5.8
Copper	5	mg/kg	5.7	74	190	7.7
Lead	5	mg/kg	16	210	920	12
Mercury	0.05	mg/kg	0.86	0.59	0.37	< 0.05
Nickel	5	mg/kg	21	6.8	26	7.9
Zinc	5	mg/kg	76	190	1400	57

Client Sample ID			SS12	SS14	SS16	SS17
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18218	S12-No18220	S12-No18222	S12-No18223
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Organochlorine Pesticides (OC)						
4,4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4,4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4,4'-DDT	0.2	mg/kg	-	< 0.2	-	-
a-BHC	0.05	mg/kg	-	< 0.05	-	-
a-Chlordane	0.05	mg/kg	-	< 0.05	-	-
Aldrin	0.05	mg/kg	-	< 0.05	-	-
b-BHC	0.05	mg/kg	-	< 0.05	-	-
d-BHC	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	< 0.05	-	-

Client Sample ID			SS12	SS14	SS16	SS17
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18218	S12-No18220	S12-No18222	S12-No18223
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Organochlorine Pesticides (OC)						
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	-
g-Chlordane	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.2	mg/kg	-	< 0.2	-	-
Dibutylchlorendate (surr.)	1	%	-	80	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	76	-	-
Organophosphorus Pesticides (OP)						
Chlorpyrifos	0.5	mg/kg	-	< 0.5	-	-
Coumaphos	0.5	mg/kg	-	< 0.5	-	-
Demeton (total)	1	mg/kg	-	< 1	-	-
Diazinon	0.5	mg/kg	-	< 0.5	-	-
Dichlorvos	0.5	mg/kg	-	< 0.5	-	-
Dimethoate	0.5	mg/kg	-	< 0.5	-	-
Disulfoton	0.5	mg/kg	-	< 0.5	-	-
Ethoprop	0.5	mg/kg	-	< 0.5	-	-
Fenitrothion	0.5	mg/kg	-	< 0.5	-	-
Fensulfothion	0.5	mg/kg	-	< 0.5	-	-
Fenthion	0.5	mg/kg	-	< 0.5	-	-
Methyl azinphos	0.5	mg/kg	-	< 0.5	-	-
Malathion	0.5	mg/kg	-	< 0.5	-	-
Methyl parathion	0.5	mg/kg	-	< 0.5	-	-
Mevinphos	0.5	mg/kg	-	< 0.5	-	-
Monocrotophos	10	mg/kg	-	< 10	-	-
Parathion	0.5	mg/kg	-	< 0.5	-	-
Phorate	0.5	mg/kg	-	< 0.5	-	-
Profenofos	0.5	mg/kg	-	< 0.5	-	-
Prothiofos	0.5	mg/kg	-	< 0.5	-	-
Ronnel	0.5	mg/kg	-	< 0.5	-	-
Stirophos	0.5	mg/kg	-	< 0.5	-	-
Trichloronate	0.5	mg/kg	-	< 0.5	-	-
Triphenylphosphate (surr.)	1	%	-	106	-	-
% Moisture						
% Moisture	0.1	%	16	14	16	21
Asbestos						
Asbestos			See attached	See attached	-	-
Heavy Metals						
Arsenic	2	mg/kg	5.0	4.3	6.5	7.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.1	7.7	8.7	8.6
Copper	5	mg/kg	< 5	< 5	8.9	21
Lead	5	mg/kg	17	29	11	15
Mercury	0.05	mg/kg	0.08	< 0.05	0.06	0.07
Nickel	5	mg/kg	< 5	< 5	7.2	7.8
Zinc	5	mg/kg	20	26	39	72

Client Sample ID			SS18	SS19	SS20	SS21
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18224	S12-No18225	S12-No18226	S12-No18227
Date Sampled			Nov 19, 2012	Nov 20, 2012	Nov 20, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	-	< 10	-	< 10
TRH C10-C14	50	mg/kg	-	< 50	-	< 50
TRH C15-C28	100	mg/kg	-	< 100	-	< 100
TRH C29-C36	100	mg/kg	-	< 100	-	< 100
TRH C10-36 (Total)	100	mg/kg	-	< 100	-	< 100
BTEX						
Benzene	0.5	mg/kg	-	< 0.5	-	< 0.5
Toluene	0.5	mg/kg	-	< 0.5	-	< 0.5
Ethylbenzene	0.5	mg/kg	-	< 0.5	-	< 0.5
Total m+p-Xylenes	1	mg/kg	-	< 1	-	< 1
o-Xylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	-	< 1.5	-	< 1.5
Total BTEX	1.5	mg/kg	-	< 1.5	-	< 1.5
4-Bromofluorobenzene (surr.)	1	%	-	93	-	94
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	-	< 50
TRH >C16-C34	100	mg/kg	-	< 100	-	< 100
TRH >C34-C40	100	mg/kg	-	< 100	-	< 100
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1232	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1242	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1248	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1254	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1260	0.5	mg/kg	-	< 0.5	-	-
Total PCB	0.5	mg/kg	-	< 0.5	-	-
Dibutylchloroendate (surr.)	1	%	-	84	-	-
Organochlorine Pesticides (OC)						
4,4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	-
4,4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	-
4,4'-DDT	0.2	mg/kg	-	< 0.2	< 0.2	-
a-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
a-Chlordane	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
d-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	-
g-Chlordane	0.05	mg/kg	-	< 0.05	< 0.05	-

Client Sample ID			SS18	SS19	SS20	SS21
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18224	S12-No18225	S12-No18226	S12-No18227
Date Sampled			Nov 19, 2012	Nov 20, 2012	Nov 20, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
Organochlorine Pesticides (OC)						
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	-
Methoxychlor	0.2	mg/kg	-	< 0.2	< 0.2	-
Dibutylchloroendate (surr.)	1	%	-	84	80	-
Tetrachloro-m-xylene (surr.)	1	%	-	74	73	-
Organophosphorus Pesticides (OP)						
Chlorpyrifos	0.5	mg/kg	-	< 0.5	< 0.5	-
Coumaphos	0.5	mg/kg	-	< 0.5	< 0.5	-
Demeton (total)	1	mg/kg	-	< 1	< 1	-
Diazinon	0.5	mg/kg	-	< 0.5	< 0.5	-
Dichlorvos	0.5	mg/kg	-	< 0.5	< 0.5	-
Dimethoate	0.5	mg/kg	-	< 0.5	< 0.5	-
Disulfoton	0.5	mg/kg	-	< 0.5	< 0.5	-
Ethoprop	0.5	mg/kg	-	< 0.5	< 0.5	-
Fenitrothion	0.5	mg/kg	-	< 0.5	< 0.5	-
Fensulfothion	0.5	mg/kg	-	< 0.5	< 0.5	-
Fenthion	0.5	mg/kg	-	< 0.5	< 0.5	-
Methyl azinphos	0.5	mg/kg	-	< 0.5	< 0.5	-
Malathion	0.5	mg/kg	-	< 0.5	< 0.5	-
Methyl parathion	0.5	mg/kg	-	< 0.5	< 0.5	-
Mevinphos	0.5	mg/kg	-	< 0.5	< 0.5	-
Monocrotophos	10	mg/kg	-	< 10	< 10	-
Parathion	0.5	mg/kg	-	< 0.5	< 0.5	-
Phorate	0.5	mg/kg	-	< 0.5	< 0.5	-
Profenofos	0.5	mg/kg	-	< 0.5	< 0.5	-
Prothiofos	0.5	mg/kg	-	< 0.5	< 0.5	-
Ronnel	0.5	mg/kg	-	< 0.5	< 0.5	-
Stirophos	0.5	mg/kg	-	< 0.5	< 0.5	-
Trichloronate	0.5	mg/kg	-	< 0.5	< 0.5	-
Triphenylphosphate (surr.)	1	%	-	101	105	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	-	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	-	< 0.5	-	-
Anthracene	0.5	mg/kg	-	< 0.5	-	-
Benzo(a)anthracene	0.5	mg/kg	-	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	-	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	< 1	-	-
Benzo(g,h,i)perylene	0.5	mg/kg	-	< 0.5	-	-
Chrysene	0.5	mg/kg	-	< 0.5	-	-
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	-	-
Fluoranthene	0.5	mg/kg	-	< 0.5	-	-
Fluorene	0.5	mg/kg	-	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	-	-
Naphthalene	0.5	mg/kg	-	< 0.5	-	-
Phenanthrene	0.5	mg/kg	-	< 0.5	-	-
Pyrene	0.5	mg/kg	-	< 0.5	-	-
Total PAH	1	mg/kg	-	< 1	-	-
2-Fluorobiphenyl (surr.)	1	%	-	99	-	-
p-Terphenyl-d14 (surr.)	1	%	-	99	-	-

Client Sample ID			SS18	SS19	SS20	SS21
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18224	S12-No18225	S12-No18226	S12-No18227
Date Sampled			Nov 19, 2012	Nov 20, 2012	Nov 20, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
Phenolics (Total)	0.1	mg/kg	-	2.6	-	-
% Moisture	0.1	%	17	7.2	9.4	5.0
Asbestos			-	-	See attached	See attached
Heavy Metals						
Arsenic	2	mg/kg	11	6.3	4.4	8.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	7.0	< 5	6.4	6.4
Copper	5	mg/kg	11	8.6	8.9	13
Lead	5	mg/kg	13	12	210	11
Mercury	0.05	mg/kg	0.06	0.06	0.36	0.07
Nickel	5	mg/kg	8.6	5.5	< 5	9.7
Zinc	5	mg/kg	53	64	300	63

Client Sample ID			SS22	SS23	SS24	SS25
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18228	S12-No18229	S12-No18230	S12-No18231
Date Sampled			Nov 20, 2012	Nov 20, 2012	Nov 20, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
% Moisture	0.1	%	14	11	11	17
Heavy Metals						
Arsenic	2	mg/kg	4.8	7.1	4.5	8.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.7	11	8.3	9.1
Copper	5	mg/kg	8.6	13	7.9	13
Lead	5	mg/kg	38	50	18	85
Mercury	0.05	mg/kg	0.10	0.07	< 0.05	0.51
Nickel	5	mg/kg	< 5	6.4	< 5	6.5
Zinc	5	mg/kg	39	61	37	120

Client Sample ID			SS26	SS27	SS28	SS29
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18232	S12-No18233	S12-No18234	S12-No18235
Date Sampled			Nov 20, 2012	Nov 20, 2012	Nov 20, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	-	-	-	< 10
TRH C10-C14	50	mg/kg	-	-	-	< 50
TRH C15-C28	100	mg/kg	-	-	-	< 100
TRH C29-C36	100	mg/kg	-	-	-	100
TRH C10-36 (Total)	100	mg/kg	-	-	-	100
BTEX						
Benzene	0.5	mg/kg	-	-	-	< 0.5
Toluene	0.5	mg/kg	-	-	-	< 0.5
Ethylbenzene	0.5	mg/kg	-	-	-	< 0.5

Client Sample ID			SS26	SS27	SS28	SS29
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18232	S12-No18233	S12-No18234	S12-No18235
Date Sampled			Nov 20, 2012	Nov 20, 2012	Nov 20, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
BTEX						
Total m+p-Xylenes	1	mg/kg	-	-	-	< 1
o-Xylene	0.5	mg/kg	-	-	-	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	-	-	-	< 1.5
Total BTEX	1.5	mg/kg	-	-	-	< 1.5
4-Bromofluorobenzene (surr.)	1	%	-	-	-	89
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	-	-	-	< 0.5
TRH C6-C10	20	mg/kg	-	-	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	-	-	< 20
TRH >C10-C16	50	mg/kg	-	-	-	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	-	-	< 50
TRH >C16-C34	100	mg/kg	-	-	-	110
TRH >C34-C40	100	mg/kg	-	-	-	< 100
% Moisture						
	0.1	%	18	13	14	23
Heavy Metals						
Arsenic	2	mg/kg	4.8	7.2	27	8.0
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	11	12	9.1
Copper	5	mg/kg	7.7	18	20	15
Lead	5	mg/kg	47	25	16	27
Mercury	0.05	mg/kg	0.08	0.10	0.17	0.85
Nickel	5	mg/kg	< 5	8.3	15	8.2
Zinc	5	mg/kg	28	99	74	82

Client Sample ID			SS30	SS31	SS32	HA1_0.5
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18236	S12-No18237	S12-No18238	S12-No18240
Date Sampled			Nov 20, 2012	Nov 20, 2012	Nov 20, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
% Moisture						
	0.1	%	14	14	13	21
Heavy Metals						
Arsenic	2	mg/kg	6.0	7.6	6.0	8.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	7.9	7.3	7.8	13
Copper	5	mg/kg	9.3	11	11	7.2
Lead	5	mg/kg	26	9.1	11	21
Mercury	0.05	mg/kg	0.95	0.08	0.08	0.08
Nickel	5	mg/kg	5.4	9.9	8.7	< 5
Zinc	5	mg/kg	65	58	51	54

Client Sample ID			HA1_1.3	HA2_0.15	HA2_0.5	HA3_0.15
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18242	S12-No18243	S12-No18244	S12-No18245
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	-	-	-
TRH C10-C14	50	mg/kg	< 50	-	-	-
TRH C15-C28	100	mg/kg	< 100	-	-	-
TRH C29-C36	100	mg/kg	< 100	-	-	-
TRH C10-36 (Total)	100	mg/kg	< 100	-	-	-
BTEX						
Benzene	0.5	mg/kg	< 0.5	-	-	-
Toluene	0.5	mg/kg	< 0.5	-	-	-
Ethylbenzene	0.5	mg/kg	< 0.5	-	-	-
Total m+p-Xylenes	1	mg/kg	< 1	-	-	-
o-Xylene	0.5	mg/kg	< 0.5	-	-	-
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	-	-	-
Total BTEX	1.5	mg/kg	< 1.5	-	-	-
4-Bromofluorobenzene (surr.)	1	%	89	-	-	-
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	-	-	-
TRH C6-C10	20	mg/kg	< 20	-	-	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	-	-	-
TRH >C10-C16	50	mg/kg	< 50	-	-	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	-	-	-
TRH >C16-C34	100	mg/kg	< 100	-	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	-	-	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	-	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-	-
Pyrene	0.5	mg/kg	< 0.5	-	-	-
Total PAH	1	mg/kg	< 1	-	-	-
2-Fluorobiphenyl (surr.)	1	%	94	-	-	-
p-Terphenyl-d14 (surr.)	1	%	88	-	-	-
Phenolics (Total)						
Phenolics (Total)	0.1	mg/kg	1.0	-	-	-
% Moisture	0.1	%	25	18	19	-
Asbestos			-	-	See attached	See attached
Heavy Metals						
Arsenic	2	mg/kg	9.9	9.9	8.8	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	15	9.9	53	-

Client Sample ID			HA1_1.3	HA2_0.15	HA2_0.5	HA3_0.15
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18242	S12-No18243	S12-No18244	S12-No18245
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Heavy Metals						
Copper	5	mg/kg	5.5	20	14	-
Lead	5	mg/kg	17	39	220	-
Mercury	0.05	mg/kg	0.06	0.12	0.22	-
Nickel	5	mg/kg	< 5	8.0	7.0	-
Zinc	5	mg/kg	21	83	96	-

Client Sample ID			HA3_0.5	HA3_0.7	BH6_0.5	BH6_1
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18246	S12-No18247	S12-No18253	S12-No18254
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	-	-	< 10	-
TRH C10-C14	50	mg/kg	-	-	< 50	-
TRH C15-C28	100	mg/kg	-	-	< 100	-
TRH C29-C36	100	mg/kg	-	-	< 100	-
TRH C10-36 (Total)	100	mg/kg	-	-	< 100	-
BTEX						
Benzene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.5	mg/kg	-	-	< 0.5	-
Total m+p-Xylenes	1	mg/kg	-	-	< 1	-
o-Xylene	0.5	mg/kg	-	-	< 0.5	-
Xylenes(ortho.meta and para)	1.5	mg/kg	-	-	< 1.5	-
Total BTEX	1.5	mg/kg	-	-	< 1.5	-
4-Bromofluorobenzene (surr.)	1	%	-	-	94	-
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	-	-	< 0.5	-
TRH C6-C10	20	mg/kg	-	-	< 20	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	-	< 20	-
TRH >C10-C16	50	mg/kg	-	-	< 50	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	-	< 50	-
TRH >C16-C34	100	mg/kg	-	-	< 100	-
TRH >C34-C40	100	mg/kg	-	-	< 100	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1232	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1242	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1248	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1254	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1260	0.5	mg/kg	-	-	< 0.5	-
Total PCB	0.5	mg/kg	-	-	< 0.5	-
Dibutylchloroendate (surr.)	1	%	-	-	78	-
Organochlorine Pesticides (OC)						
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDT	0.2	mg/kg	< 0.2	-	< 0.2	-

Client Sample ID			HA3_05	HA3_07	BH6_05	BH6_1
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18246	S12-No18247	S12-No18253	S12-No18254
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Organochlorine Pesticides (OC)						
a-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
a-Chlordane	0.05	mg/kg	0.15	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Dieldrin	0.05	mg/kg	2.0	-	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	-
g-Chlordane	0.05	mg/kg	0.09	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	-
Methoxychlor	0.2	mg/kg	< 0.2	-	< 0.2	-
Dibutylchlorendate (surr.)	1	%	84	-	78	-
Tetrachloro-m-xylene (surr.)	1	%	70	-	70	-
Organophosphorus Pesticides (OP)						
Chlorpyrifos	0.5	mg/kg	< 0.5	-	< 0.5	-
Coumaphos	0.5	mg/kg	< 0.5	-	< 0.5	-
Demeton (total)	1	mg/kg	< 1	-	< 1	-
Diazinon	0.5	mg/kg	< 0.5	-	< 0.5	-
Dichlorvos	0.5	mg/kg	< 0.5	-	< 0.5	-
Dimethoate	0.5	mg/kg	< 0.5	-	< 0.5	-
Disulfoton	0.5	mg/kg	< 0.5	-	< 0.5	-
Ethoprop	0.5	mg/kg	< 0.5	-	< 0.5	-
Fenitrothion	0.5	mg/kg	< 0.5	-	< 0.5	-
Fensulfothion	0.5	mg/kg	< 0.5	-	< 0.5	-
Fenthion	0.5	mg/kg	< 0.5	-	< 0.5	-
Methyl azinphos	0.5	mg/kg	< 0.5	-	< 0.5	-
Malathion	0.5	mg/kg	< 0.5	-	< 0.5	-
Methyl parathion	0.5	mg/kg	< 0.5	-	< 0.5	-
Mevinphos	0.5	mg/kg	< 0.5	-	< 0.5	-
Monocrotophos	10	mg/kg	< 10	-	< 10	-
Parathion	0.5	mg/kg	< 0.5	-	< 0.5	-
Phorate	0.5	mg/kg	< 0.5	-	< 0.5	-
Profenofos	0.5	mg/kg	< 0.5	-	< 0.5	-
Prothiofos	0.5	mg/kg	< 0.5	-	< 0.5	-
Ronnel	0.5	mg/kg	< 0.5	-	< 0.5	-
Stirophos	0.5	mg/kg	< 0.5	-	< 0.5	-
Trichloronate	0.5	mg/kg	< 0.5	-	< 0.5	-
Triphenylphosphate (surr.)	1	%	78	-	106	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	-	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5

Client Sample ID			HA3_0.5	HA3_0.7	BH6_0.5	BH6_1
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18246	S12-No18247	S12-No18253	S12-No18254
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Polyaromatic Hydrocarbons (PAH)						
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	-	< 1	< 1
Benzo(g,h,i)perylene	0.5	mg/kg	-	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Total PAH	1	mg/kg	-	-	< 1	< 1
2-Fluorobiphenyl (surr.)	1	%	-	-	99	98
p-Terphenyl-d14 (surr.)	1	%	-	-	93	78
Phenolics (Total)						
	0.1	mg/kg	-	-	< 0.1	1.4
% Moisture	0.1	%	15	23	8.1	23
Asbestos			-	-	See attached	-
Heavy Metals						
Arsenic	2	mg/kg	5.4	6.0	8.4	6.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	6.8	15	8.3	6.9
Copper	5	mg/kg	11	13	14	64
Lead	5	mg/kg	20	13	12	270
Mercury	0.05	mg/kg	0.09	< 0.05	0.08	0.10
Nickel	5	mg/kg	< 5	< 5	12	16
Zinc	5	mg/kg	59	19	61	430

Client Sample ID			BH6_2.5	BH11_0.15	BH12_0.15	BH14_0.5
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18256	S12-No18262	S12-No18263	S12-No18266
Date Sampled			Nov 19, 2012	Nov 20, 2012	Nov 20, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1232	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	-	-	< 0.5
Total PCB	0.5	mg/kg	-	-	-	< 0.5
Dibutylchloroendate (surr.)	1	%	-	-	-	84
Organochlorine Pesticides (OC)						
4.4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDT	0.2	mg/kg	-	-	-	< 0.2
a-BHC	0.05	mg/kg	-	-	-	< 0.05

Client Sample ID			BH6_2.5	BH11_0.15	BH12_0.15	BH14_0.5
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18256	S12-No18262	S12-No18263	S12-No18266
Date Sampled			Nov 19, 2012	Nov 20, 2012	Nov 20, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Organochlorine Pesticides (OC)						
a-Chlordane	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
b-BHC	0.05	mg/kg	-	-	-	< 0.05
d-BHC	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	-	-	< 0.05
g-Chlordane	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.2	mg/kg	-	-	-	< 0.2
Dibutylchloroendate (surr.)	1	%	-	-	-	84
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	74
Organophosphorus Pesticides (OP)						
Chlorpyrifos	0.5	mg/kg	-	-	-	< 0.5
Coumaphos	0.5	mg/kg	-	-	-	< 0.5
Demeton (total)	1	mg/kg	-	-	-	< 1
Diazinon	0.5	mg/kg	-	-	-	< 0.5
Dichlorvos	0.5	mg/kg	-	-	-	< 0.5
Dimethoate	0.5	mg/kg	-	-	-	< 0.5
Disulfoton	0.5	mg/kg	-	-	-	< 0.5
Ethoprop	0.5	mg/kg	-	-	-	< 0.5
Fenitrothion	0.5	mg/kg	-	-	-	< 0.5
Fensulfothion	0.5	mg/kg	-	-	-	< 0.5
Fenthion	0.5	mg/kg	-	-	-	< 0.5
Methyl azinphos	0.5	mg/kg	-	-	-	< 0.5
Malathion	0.5	mg/kg	-	-	-	< 0.5
Methyl parathion	0.5	mg/kg	-	-	-	< 0.5
Mevinphos	0.5	mg/kg	-	-	-	< 0.5
Monocrotophos	10	mg/kg	-	-	-	< 10
Parathion	0.5	mg/kg	-	-	-	< 0.5
Phorate	0.5	mg/kg	-	-	-	< 0.5
Profenofos	0.5	mg/kg	-	-	-	< 0.5
Prothiofos	0.5	mg/kg	-	-	-	< 0.5
Ronnel	0.5	mg/kg	-	-	-	< 0.5
Stirophos	0.5	mg/kg	-	-	-	< 0.5
Trichloronate	0.5	mg/kg	-	-	-	< 0.5
Triphenylphosphate (surr.)	1	%	-	-	-	103
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	-	-	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	-	< 0.5
Anthracene	0.5	mg/kg	-	-	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	-	-	< 0.5

Client Sample ID			BH6_2.5	BH11_0.15	BH12_0.15	BH14_0.5
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18256	S12-No18262	S12-No18263	S12-No18266
Date Sampled			Nov 19, 2012	Nov 20, 2012	Nov 20, 2012	Nov 19, 2012
Test/Reference	LOR	Unit				
Polyaromatic Hydrocarbons (PAH)						
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	-	-	< 1
Benzo(g,h,i)perylene	0.5	mg/kg	-	-	-	< 0.5
Chrysene	0.5	mg/kg	-	-	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	-	-	< 0.5
Fluoranthene	0.5	mg/kg	-	-	-	< 0.5
Fluorene	0.5	mg/kg	-	-	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	-	< 0.5
Naphthalene	0.5	mg/kg	-	-	-	< 0.5
Phenanthrene	0.5	mg/kg	-	-	-	< 0.5
Pyrene	0.5	mg/kg	-	-	-	< 0.5
Total PAH	1	mg/kg	-	-	-	< 1
2-Fluorobiphenyl (surr.)	1	%	-	-	-	104
p-Terphenyl-d14 (surr.)	1	%	-	-	-	94
Phenolics (Total)						
Phenolics (Total)	0.1	mg/kg	-	-	-	< 0.1
% Moisture	0.1	%	24	19	13	13
Asbestos			-	-	-	See attached
Heavy Metals						
Arsenic	2	mg/kg	8.6	5.7	6.5	8.0
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	23	9.8	9.9	8.7
Copper	5	mg/kg	7.1	12	30	13
Lead	5	mg/kg	13	22	65	14
Mercury	0.05	mg/kg	< 0.05	0.06	0.16	0.07
Nickel	5	mg/kg	< 5	7.6	6.5	13
Zinc	5	mg/kg	13	72	110	62

Client Sample ID			BH14_1	BH14_2	BH15_0.5	BH3_0.15
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18267	S12-No18268	S12-No18271	S12-No18274
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	< 10	-	< 10	-
TRH C10-C14	50	mg/kg	< 50	-	< 50	-
TRH C15-C28	100	mg/kg	< 100	-	< 100	-
TRH C29-C36	100	mg/kg	< 100	-	< 100	-
TRH C10-36 (Total)	100	mg/kg	< 100	-	< 100	-
BTEX						
Benzene	0.5	mg/kg	< 0.5	-	< 0.5	-
Toluene	0.5	mg/kg	< 0.5	-	< 0.5	-
Ethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
Total m+p-Xylenes	1	mg/kg	< 1	-	< 1	-
o-Xylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Xylenes(ortho.meta and para)	1.5	mg/kg	< 1.5	-	< 1.5	-
Total BTEX	1.5	mg/kg	< 1.5	-	< 1.5	-
4-Bromofluorobenzene (surr.)	1	%	93	-	91	-

Client Sample ID			BH14_1	BH14_2	BH15_0.5	BH3_0.15
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18267	S12-No18268	S12-No18271	S12-No18274
Date Sampled			Nov 19, 2012	Nov 19, 2012	Nov 19, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	-	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	-	< 20	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	-	< 20	-
TRH >C10-C16	50	mg/kg	< 50	-	< 50	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	-	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-	< 100	-
TRH >C34-C40	100	mg/kg	< 100	-	< 100	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	< 1	-	-	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	-	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-	-
Pyrene	0.5	mg/kg	< 0.5	-	-	-
Total PAH	1	mg/kg	< 1	-	-	-
2-Fluorobiphenyl (surr.)	1	%	92	-	-	-
p-Terphenyl-d14 (surr.)	1	%	85	-	-	-
Phenolics (Total)						
Phenolics (Total)	0.1	mg/kg	< 0.1	-	-	-
% Moisture	0.1	%	18	19	14	-
Asbestos			See attached	-	See attached	See attached
Heavy Metals						
Arsenic	2	mg/kg	8.1	5.7	7.5	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	6.9	8.4	12	-
Copper	5	mg/kg	32	< 5	11	-
Lead	5	mg/kg	29	7.0	24	-
Mercury	0.05	mg/kg	0.08	< 0.05	0.11	-
Nickel	5	mg/kg	16	< 5	6.6	-
Zinc	5	mg/kg	95	< 5	190	-

Client Sample ID			BH6_0.15	QC3	QC5	QC7
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18275	S12-No18278	S12-No18280	S12-No18281
Date Sampled			Nov 20, 2012	Nov 19, 2012	Nov 19, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	10	mg/kg	-	< 10	-	< 10

Client Sample ID			BH6_0.15	QC3	QC5	QC7
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18275	S12-No18278	S12-No18280	S12-No18281
Date Sampled			Nov 20, 2012	Nov 19, 2012	Nov 19, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	50	mg/kg	-	< 50	-	< 50
TRH C15-C28	100	mg/kg	-	< 100	-	< 100
TRH C29-C36	100	mg/kg	-	< 100	-	< 100
TRH C10-36 (Total)	100	mg/kg	-	< 100	-	< 100
BTEX						
Benzene	0.5	mg/kg	-	< 0.5	-	< 0.5
Toluene	0.5	mg/kg	-	< 0.5	-	< 0.5
Ethylbenzene	0.5	mg/kg	-	< 0.5	-	< 0.5
Total m+p-Xylenes	1	mg/kg	-	< 1	-	< 1
o-Xylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Xylenes(ortho.meta and para)	1.5	mg/kg	-	< 1.5	-	< 1.5
Total BTEX	1.5	mg/kg	-	< 1.5	-	< 1.5
4-Bromofluorobenzene (surr.)	1	%	-	98	-	97
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	-	< 50
TRH >C16-C34	100	mg/kg	-	< 100	-	< 100
TRH >C34-C40	100	mg/kg	-	< 100	-	< 100
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1232	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	-	-	< 0.5
Total PCB	0.5	mg/kg	-	-	-	< 0.5
Dibutylchloroendate (surr.)	1	%	-	-	-	88
Organochlorine Pesticides (OC)						
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDT	0.2	mg/kg	-	< 0.2	-	< 0.2
a-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
a-Chlordane	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05
g-Chlordane	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05

Client Sample ID			BH6_0.15	QC3	QC5	QC7
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18275	S12-No18278	S12-No18280	S12-No18281
Date Sampled			Nov 20, 2012	Nov 19, 2012	Nov 19, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
Organochlorine Pesticides (OC)						
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	-	< 0.2
Dibutylchloroendate (surr.)	1	%	-	81	-	88
Tetrachloro-m-xylene (surr.)	1	%	-	71	-	74
Organophosphorus Pesticides (OP)						
Chlorpyrifos	0.5	mg/kg	-	< 0.5	-	< 0.5
Coumaphos	0.5	mg/kg	-	< 0.5	-	< 0.5
Demeton (total)	1	mg/kg	-	< 1	-	< 1
Diazinon	0.5	mg/kg	-	< 0.5	-	< 0.5
Dichlorvos	0.5	mg/kg	-	< 0.5	-	< 0.5
Dimethoate	0.5	mg/kg	-	< 0.5	-	< 0.5
Disulfoton	0.5	mg/kg	-	< 0.5	-	< 0.5
Ethoprop	0.5	mg/kg	-	< 0.5	-	< 0.5
Fenitrothion	0.5	mg/kg	-	< 0.5	-	< 0.5
Fensulfothion	0.5	mg/kg	-	< 0.5	-	< 0.5
Fenthion	0.5	mg/kg	-	< 0.5	-	< 0.5
Methyl azinphos	0.5	mg/kg	-	< 0.5	-	< 0.5
Malathion	0.5	mg/kg	-	< 0.5	-	< 0.5
Methyl parathion	0.5	mg/kg	-	< 0.5	-	< 0.5
Mevinphos	0.5	mg/kg	-	< 0.5	-	< 0.5
Monocrotophos	10	mg/kg	-	< 10	-	< 10
Parathion	0.5	mg/kg	-	< 0.5	-	< 0.5
Phorate	0.5	mg/kg	-	< 0.5	-	< 0.5
Profenofos	0.5	mg/kg	-	< 0.5	-	< 0.5
Prothiofos	0.5	mg/kg	-	< 0.5	-	< 0.5
Ronnel	0.5	mg/kg	-	< 0.5	-	< 0.5
Stirophos	0.5	mg/kg	-	< 0.5	-	< 0.5
Trichloronate	0.5	mg/kg	-	< 0.5	-	< 0.5
Triphenylphosphate (surr.)	1	%	-	94	-	107
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(b)fluoranthene & Benzo(k)fluoranthene	1	mg/kg	-	< 1	-	< 1
Benzo(g,h,i)perylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Total PAH	1	mg/kg	-	< 1	-	< 1
2-Fluorobiphenyl (surr.)	1	%	-	95	-	98
p-Terphenyl-d14 (surr.)	1	%	-	83	-	87
Phenolics (Total)						
	0.1	mg/kg	-	0.3	-	3.7

Client Sample ID			BH6_0.15	QC3	QC5	QC7
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			S12-No18275	S12-No18278	S12-No18280	S12-No18281
Date Sampled			Nov 20, 2012	Nov 19, 2012	Nov 19, 2012	Nov 20, 2012
Test/Reference	LOR	Unit				
% Moisture	0.1	%	-	4.6	14	5.6
Asbestos			See attached	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	-	9.9	3.6	5.7
Cadmium	0.4	mg/kg	-	0.7	< 0.4	< 0.4
Chromium	5	mg/kg	-	< 5	8.9	7.2
Copper	5	mg/kg	-	5.3	< 5	8.8
Lead	5	mg/kg	-	22	27	12
Mercury	0.05	mg/kg	-	0.95	0.11	0.05
Nickel	5	mg/kg	-	24	< 5	6.3
Zinc	5	mg/kg	-	92	33	65

Client Sample ID			QC10
Sample Matrix			Soil
mgt-LabMark Sample No.			S12-No18283
Date Sampled			Nov 20, 2012
Test/Reference	LOR	Unit	
% Moisture	0.1	%	15
Heavy Metals			
Arsenic	2	mg/kg	8.4
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	8.4
Copper	5	mg/kg	11
Lead	5	mg/kg	11
Mercury	0.05	mg/kg	0.09
Nickel	5	mg/kg	11
Zinc	5	mg/kg	64

Sample History

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: E004 Petroleum Hydrocarbons (TPH)	Sydney	Nov 26, 2012	14 Day
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * - Method: LM-LTM-ORG2010	Sydney	Nov 23, 2012	14 Day
BTEX - Method: E029/E016 BTEX	Sydney	Nov 23, 2012	14 Day
Polychlorinated Biphenyls (PCB) - Method: E013 Polychlorinated Biphenyls (PCB)	Sydney	Nov 23, 2012	14 Day
Organochlorine Pesticides (OC) - Method: E013 Organochlorine Pesticides (OC)	Sydney	Nov 23, 2012	14 Day
Organophosphorus Pesticides (OP) - Method: E014 Organophosphorus Pesticides (OP)	Sydney	Nov 23, 2012	14 Day
Polyaromatic Hydrocarbons (PAH) - Method: E007 Polyaromatic Hydrocarbons (PAH)	Sydney	Nov 26, 2012	14 Day
Phenolics (Total) - Method: E041 /E055 Total Phenolics	Sydney	Nov 23, 2012	14 Day
% Moisture - Method: E005 Moisture Content	Sydney	Nov 23, 2012	28 Day
Metals M8 - Method: E022 Acid Extractable metals in Soils & E026 Mercury	Sydney	Nov 23, 2012	28 Day

Company Name:	Coffey Geotechnics Pty Ltd COFFS	Order No.:		Received:	Nov 22, 2012 9:00 AM
Address:	Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Report #:	360188	Due:	Nov 29, 2012
Client Job No.:	GEOTCOFH03037AA	Phone:	02 6651 3213	Priority:	5 Day
		Fax:	02 6651 5194	Contact Name:	Andrew Ballard

mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	HOLD	Phenolics (Total)	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Organochlorine Pesticides (OC)	Organophosphorus Pesticides (OP)	Polyaromatic Hydrocarbons (PAH)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory						X									
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID											
SS01	Nov 19, 2012		Soil	S12-No18207			X								
SS02	Nov 19, 2012		Soil	S12-No18208	X	X		X	X	X		X	X	X	X
SS03	Nov 19, 2012		Soil	S12-No18209	X	X			X			X	X		
SS04	Nov 19, 2012		Soil	S12-No18210	X	X		X	X	X				X	X
SS05	Nov 19, 2012		Soil	S12-No18211	X			X	X	X				X	X
SS06	Nov 19, 2012		Soil	S12-No18212			X								
SS07	Nov 19, 2012		Soil	S12-No18213	X	X		X	X	X		X	X	X	X
SS08	Nov 19, 2012		Soil	S12-No18214			X								
SS09	Nov 19, 2012		Soil	S12-No18215	X				X	X					X
SS10	Nov 19, 2012		Soil	S12-No18216	X	X			X	X		X	X		X

Company Name: Coffey Geotechnics Pty Ltd COFFS
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Received: Nov 22, 2012 9:00 AM
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Contact Name: Andrew Ballard

mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	HOLD	Phenolics (Total)	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Organochlorine Pesticides (OC)	Organophosphorus Pesticides (OP)	Polyaromatic Hydrocarbons (PAH)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory						X									
SS11	Nov 19, 2012		Soil	S12-No18217	X			X	X						X
SS12	Nov 19, 2012		Soil	S12-No18218	X	X		X							
SS13	Nov 19, 2012		Soil	S12-No18219			X								
SS14	Nov 19, 2012		Soil	S12-No18220	X	X		X			X	X			
SS15	Nov 19, 2012		Soil	S12-No18221			X								
SS16	Nov 19, 2012		Soil	S12-No18222	X			X							
SS17	Nov 19, 2012		Soil	S12-No18223	X			X							
SS18	Nov 19, 2012		Soil	S12-No18224	X			X							
SS19	Nov 20, 2012		Soil	S12-No18225	X			X	X	X	X	X	X	X	X
SS20	Nov 20, 2012		Soil	S12-No18226	X	X		X			X	X			
SS21	Nov 20, 2012		Soil	S12-No18227	X	X		X	X						X

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		Fax:	02 6651 5194	Contact Name:	Andrew Ballard

mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	HOLD	Phenolics (Total)	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Organochlorine Pesticides (OC)	Organophosphorus Pesticides (OP)	Polyaromatic Hydrocarbons (PAH)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory						X									
SS22	Nov 20, 2012		Soil	S12-No18228	X				X						
SS23	Nov 20, 2012		Soil	S12-No18229	X				X						
SS24	Nov 20, 2012		Soil	S12-No18230	X				X						
SS25	Nov 20, 2012		Soil	S12-No18231	X				X						
SS26	Nov 20, 2012		Soil	S12-No18232	X				X						
SS27	Nov 20, 2012		Soil	S12-No18233	X				X						
SS28	Nov 20, 2012		Soil	S12-No18234	X				X						
SS29	Nov 20, 2012		Soil	S12-No18235	X				X	X					X
SS30	Nov 20, 2012		Soil	S12-No18236	X				X						
SS31	Nov 20, 2012		Soil	S12-No18237	X				X						
SS32	Nov 20, 2012		Soil	S12-No18238	X				X						

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Sample Detail					% Moisture	Asbestos	HOLD	Phenolics (Total)	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Organochlorine Pesticides (OC)	Organophosphorus Pesticides (OP)	Polyaromatic Hydrocarbons (PAH)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory						X									
HA1_0.15	Nov 19, 2012		Soil	S12-No18239			X								
HA1_0.5	Nov 19, 2012		Soil	S12-No18240	X			X							
HA1_1	Nov 19, 2012		Soil	S12-No18241			X								
HA1_1.3	Nov 19, 2012		Soil	S12-No18242	X			X	X	X				X	X
HA2_0.15	Nov 19, 2012		Soil	S12-No18243	X				X						
HA2_0.5	Nov 19, 2012		Soil	S12-No18244	X	X			X						
HA3_0.15	Nov 19, 2012		Soil	S12-No18245		X									
HA3_0.5	Nov 19, 2012		Soil	S12-No18246	X				X			X	X		
HA3_0.7	Nov 19, 2012		Soil	S12-No18247	X				X						
BH1_0.15	Nov 20, 2012		Soil	S12-No18248			X								
BH2_0.15	Nov 20, 2012		Soil	S12-No18249			X								

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	Phone: 02 6651 3213	Priority: 5 Day
	Fax: 02 6651 5194	Contact Name: Andrew Ballard
Client Job No.: GEOTCOFH03037AA		

mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	HOLD	Phenolics (Total)	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Organochlorine Pesticides (OC)	Organophosphorus Pesticides (OP)	Polyaromatic Hydrocarbons (PAH)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory						X									
BH3_0.15	Nov 20, 2012		Soil	S12-No18250			X								
BH5_0.15	Nov 20, 2012		Soil	S12-No18251			X								
BH6_0.15	Nov 19, 2012		Soil	S12-No18252			X								
BH6_0.5	Nov 19, 2012		Soil	S12-No18253	X	X		X	X	X	X	X	X	X	X
BH6_1	Nov 19, 2012		Soil	S12-No18254	X			X	X					X	
BH6_1.5	Nov 19, 2012		Soil	S12-No18255			X								
BH6_2.5	Nov 19, 2012		Soil	S12-No18256	X				X						
BH6_5.5	Nov 19, 2012		Soil	S12-No18257			X								
BH6_7	Nov 19, 2012		Soil	S12-No18258			X								
BH6_10	Nov 19, 2012		Soil	S12-No18259			X								
BH8_0.15	Nov 20, 2012		Soil	S12-No18260			X								

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	Phone: 02 6651 3213	Priority: 5 Day
	Fax: 02 6651 5194	Contact Name: Andrew Ballard
Client Job No.: GEOTCOFH03037AA		

mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	HOLD	Phenolics (Total)	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Organochlorine Pesticides (OC)	Organophosphorus Pesticides (OP)	Polyaromatic Hydrocarbons (PAH)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory						X									
BH10_0.15	Nov 20, 2012		Soil	S12-No18261			X								
BH11_0.15	Nov 20, 2012		Soil	S12-No18262	X			X							
BH12_0.15	Nov 20, 2012		Soil	S12-No18263	X			X							
BH13_0.15	Nov 20, 2012		Soil	S12-No18264			X								
BH14_0.15	Nov 19, 2012		Soil	S12-No18265			X								
BH14_0.5	Nov 19, 2012		Soil	S12-No18266	X	X	X	X		X	X	X	X	X	
BH14_1	Nov 19, 2012		Soil	S12-No18267	X	X	X	X	X					X	X
BH14_2	Nov 19, 2012		Soil	S12-No18268	X			X							
BH14_2.5	Nov 19, 2012		Soil	S12-No18269			X								
BH15_0.15	Nov 19, 2012		Soil	S12-No18270			X								
BH15_0.5	Nov 19, 2012		Soil	S12-No18271	X	X		X	X						X

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mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	HOLD	Phenolics (Total)	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Organochlorine Pesticides (OC)	Organophosphorus Pesticides (OP)	Polyaromatic Hydrocarbons (PAH)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory						X									
BH15_1	Nov 19, 2012		Soil	S12-No18272			X								
BH15_2	Nov 19, 2012		Soil	S12-No18273			X								
BH3_0.15	Nov 20, 2012		Soil	S12-No18274		X									
BH6_0.15	Nov 20, 2012		Soil	S12-No18275		X									
QC1	Nov 19, 2012		Soil	S12-No18276			X								
QC2	Nov 19, 2012		Soil	S12-No18277			X								
QC3	Nov 19, 2012		Soil	S12-No18278	X			X	X	X		X	X	X	X
QC4	Nov 19, 2012		Soil	S12-No18279			X								
QC5	Nov 19, 2012		Soil	S12-No18280	X				X						
QC7	Nov 20, 2012		Soil	S12-No18281	X			X	X	X	X	X	X	X	X
QC9	Nov 20, 2012		Soil	S12-No18282			X								

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mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	Asbestos	HOLD	Phenolics (Total)	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Organochlorine Pesticides (OC)	Organophosphorus Pesticides (OP)	Polyaromatic Hydrocarbons (PAH)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X		X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory						X									
QC10	Nov 20, 2012		Soil	S12-No18283	X				X						

mgt-LabMark Internal Quality Control Review

General

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

Holding Times

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

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

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

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

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

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the 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
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Method Blank						
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)						
TRH C6-C9	mg/kg	< 10		10	Pass	
TRH C10-C14	mg/kg	< 50		50	Pass	
TRH C15-C28	mg/kg	< 100		100	Pass	
TRH C29-C36	mg/kg	< 100		100	Pass	
Method Blank						
BTEX E029/E016 BTEX						
Benzene	mg/kg	< 0.5		0.5	Pass	
Toluene	mg/kg	< 0.5		0.5	Pass	
Ethylbenzene	mg/kg	< 0.5		0.5	Pass	
Total m+p-Xylenes	mg/kg	< 1		1	Pass	
o-Xylene	mg/kg	< 0.5		0.5	Pass	
Xylenes(ortho.meta and para)	mg/kg	< 1.5		1.5	Pass	
Total BTEX	mg/kg	< 1.5		1.5	Pass	
Method Blank						
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010						
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						
Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphenyls (PCB)						
Aroclor-1016	mg/kg	< 0.5		0.5	Pass	
Aroclor-1232	mg/kg	< 0.5		0.5	Pass	
Aroclor-1242	mg/kg	< 0.5		0.5	Pass	
Aroclor-1248	mg/kg	< 0.5		0.5	Pass	
Aroclor-1254	mg/kg	< 0.5		0.5	Pass	
Aroclor-1260	mg/kg	< 0.5		0.5	Pass	
Total PCB	mg/kg	< 0.5		0.5	Pass	
Method Blank						
Organochlorine Pesticides (OC) E013 Organochlorine Pesticides (OC)						
4,4'-DDD	mg/kg	< 0.05		0.05	Pass	
4,4'-DDE	mg/kg	< 0.05		0.05	Pass	
4,4'-DDT	mg/kg	< 0.2		0.2	Pass	
a-BHC	mg/kg	< 0.05		0.05	Pass	
a-Chlordane	mg/kg	< 0.05		0.05	Pass	
Aldrin	mg/kg	< 0.05		0.05	Pass	
b-BHC	mg/kg	< 0.05		0.05	Pass	
d-BHC	mg/kg	< 0.05		0.05	Pass	
Dieldrin	mg/kg	< 0.05		0.05	Pass	
Endosulfan I	mg/kg	< 0.05		0.05	Pass	
Endosulfan II	mg/kg	< 0.05		0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05		0.05	Pass	
Endrin	mg/kg	< 0.05		0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05		0.05	Pass	
Endrin ketone	mg/kg	< 0.05		0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05		0.05	Pass	
g-Chlordane	mg/kg	< 0.05		0.05	Pass	
Heptachlor	mg/kg	< 0.05		0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Organophosphorus Pesticides (OP) E014 Organophosphorus Pesticides (OP)							
Chlorpyrifos	mg/kg	< 0.5			0.5	Pass	
Coumaphos	mg/kg	< 0.5			0.5	Pass	
Demeton (total)	mg/kg	< 1			1	Pass	
Diazinon	mg/kg	< 0.5			0.5	Pass	
Dichlorvos	mg/kg	< 0.5			0.5	Pass	
Dimethoate	mg/kg	< 0.5			0.5	Pass	
Disulfoton	mg/kg	< 0.5			0.5	Pass	
Ethoprop	mg/kg	< 0.5			0.5	Pass	
Fenitrothion	mg/kg	< 0.5			0.5	Pass	
Fensulfothion	mg/kg	< 0.5			0.5	Pass	
Fenthion	mg/kg	< 0.5			0.5	Pass	
Methyl azinphos	mg/kg	< 0.5			0.5	Pass	
Malathion	mg/kg	< 0.5			0.5	Pass	
Methyl parathion	mg/kg	< 0.5			0.5	Pass	
Mevinphos	mg/kg	< 0.5			0.5	Pass	
Monocrotophos	mg/kg	< 10			10	Pass	
Parathion	mg/kg	< 0.5			0.5	Pass	
Phorate	mg/kg	< 0.5			0.5	Pass	
Profenofos	mg/kg	< 0.5			0.5	Pass	
Prothiofos	mg/kg	< 0.5			0.5	Pass	
Ronnel	mg/kg	< 0.5			0.5	Pass	
Stirophos	mg/kg	< 0.5			0.5	Pass	
Trichloronate	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	mg/kg	< 1			1	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenolics (Total)	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Metals M8 E022 Acid Extractable metals in Soils & E026 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	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Lead	mg/kg	< 5		5	Pass	
Mercury	mg/kg	< 0.05		0.05	Pass	
Nickel	mg/kg	< 5		5	Pass	
Zinc	mg/kg	< 5		5	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons - 1999 NEPM Fractions E004 Petroleum Hydrocarbons (TPH)						
TRH C6-C9	%	101		70-130	Pass	
TRH C10-C14	%	87		70-130	Pass	
LCS - % Recovery						
BTEX E029/E016 BTEX						
Benzene	%	107		70-130	Pass	
Toluene	%	105		70-130	Pass	
Ethylbenzene	%	105		70-130	Pass	
Total m+p-Xylenes	%	104		70-130	Pass	
o-Xylene	%	104		70-130	Pass	
Xylenes(ortho.meta and para)	%	104		70-130	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010						
Naphthalene	%	93		70-130	Pass	
TRH C6-C10	%	113		70-130	Pass	
TRH >C10-C16	%	81		70-130	Pass	
LCS - % Recovery						
Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphenyls (PCB)						
Aroclor-1260	%	93		70-130	Pass	
LCS - % Recovery						
Organochlorine Pesticides (OC) E013 Organochlorine Pesticides (OC)						
4,4'-DDD	%	98		70-130	Pass	
4,4'-DDE	%	87		70-130	Pass	
4,4'-DDT	%	70		70-130	Pass	
a-BHC	%	110		70-130	Pass	
a-Chlordane	%	90		70-130	Pass	
Aldrin	%	94		70-130	Pass	
b-BHC	%	104		70-130	Pass	
d-BHC	%	90		70-130	Pass	
Dieldrin	%	89		70-130	Pass	
Endosulfan I	%	93		70-130	Pass	
Endosulfan II	%	91		70-130	Pass	
Endosulfan sulphate	%	76		70-130	Pass	
Endrin	%	93		70-130	Pass	
Endrin aldehyde	%	90		70-130	Pass	
Endrin ketone	%	81		70-130	Pass	
g-BHC (Lindane)	%	95		70-130	Pass	
g-Chlordane	%	90		70-130	Pass	
Heptachlor	%	91		70-130	Pass	
Heptachlor epoxide	%	94		70-130	Pass	
Hexachlorobenzene	%	120		70-130	Pass	
Methoxychlor	%	83		70-130	Pass	
LCS - % Recovery						
Organophosphorus Pesticides (OP) E014 Organophosphorus Pesticides (OP)						
Chlorpyrifos	%	92		70-130	Pass	
Coumaphos	%	75		70-130	Pass	
Diazinon	%	90		70-130	Pass	
Dichlorvos	%	101		70-130	Pass	

Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code		
Dimethoate	%	82	70-130	Pass			
Disulfoton	%	89	70-130	Pass			
Ethoprop	%	91	70-130	Pass			
Fenitrothion	%	78	70-130	Pass			
Fensulfothion	%	90	70-130	Pass			
Fenthion	%	93	70-130	Pass			
Methyl azinphos	%	74	70-130	Pass			
Malathion	%	86	70-130	Pass			
Methyl parathion	%	83	70-130	Pass			
Mevinphos	%	90	70-130	Pass			
Monocrotophos	%	81	70-130	Pass			
Parathion	%	90	70-130	Pass			
Phorate	%	90	70-130	Pass			
Profenofos	%	87	70-130	Pass			
Prothiofos	%	92	70-130	Pass			
Ronnel	%	93	70-130	Pass			
Stirophos	%	81	70-130	Pass			
Trichloronate	%	93	70-130	Pass			
LCS - % Recovery							
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons (PAH)							
Acenaphthene	%	103	70-130	Pass			
Acenaphthylene	%	97	70-130	Pass			
Anthracene	%	103	70-130	Pass			
Benz(a)anthracene	%	96	70-130	Pass			
Benzo(a)pyrene	%	89	70-130	Pass			
Benzo(b)fluoranthene & Benzo(k)fluoranthene	%	98	70-130	Pass			
Benzo(g,h,i)perylene	%	82	70-130	Pass			
Chrysene	%	104	70-130	Pass			
Dibenz(a,h)anthracene	%	86	70-130	Pass			
Fluoranthene	%	101	70-130	Pass			
Fluorene	%	99	70-130	Pass			
Indeno(1,2,3-cd)pyrene	%	87	70-130	Pass			
Naphthalene	%	104	70-130	Pass			
Phenanthrene	%	95	70-130	Pass			
Pyrene	%	105	70-130	Pass			
LCS - % Recovery							
Phenolics (Total)	%	102	70-130	Pass			
LCS - % Recovery							
Metals M8 E022 Acid Extractable metals in Soils & E026 Mercury							
Arsenic	%	83	70-130	Pass			
Cadmium	%	81	70-130	Pass			
Chromium	%	81	70-130	Pass			
Copper	%	79	70-130	Pass			
Lead	%	84	70-130	Pass			
Mercury	%	90	70-130	Pass			
Nickel	%	84	70-130	Pass			
Zinc	%	84	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 Fractions				Result 1			
TRH C6-C9	S12-No18208	CP	%	78	70-130	Pass	
TRH C10-C14	S12-No18208	CP	%	97	70-130	Pass	
Spike - % Recovery							

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
BTEX				Result 1				
Benzene	S12-No18208	CP	%	86		70-130	Pass	
Toluene	S12-No18208	CP	%	88		70-130	Pass	
Ethylbenzene	S12-No18208	CP	%	92		70-130	Pass	
Total m+p-Xylenes	S12-No18208	CP	%	91		70-130	Pass	
o-Xylene	S12-No18208	CP	%	90		70-130	Pass	
Xylenes(ortho.meta and para)	S12-No18208	CP	%	91		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1				
TRH C6-C10	S12-No18208	CP	%	87		70-130	Pass	
TRH >C10-C16	S12-No18208	CP	%	94		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides (OC)				Result 1				
4.4'-DDD	S12-No18208	CP	%	94		70-130	Pass	
4.4'-DDE	S12-No18208	CP	%	97		70-130	Pass	
4.4'-DDT	S12-No18208	CP	%	101		70-130	Pass	
a-BHC	S12-No18208	CP	%	99		70-130	Pass	
a-Chlordane	S12-No18208	CP	%	99		70-130	Pass	
Aldrin	S12-No18208	CP	%	98		70-130	Pass	
b-BHC	S12-No18208	CP	%	92		70-130	Pass	
d-BHC	S12-No18208	CP	%	90		70-130	Pass	
Dieldrin	S12-No18208	CP	%	96		70-130	Pass	
Endosulfan I	S12-No18208	CP	%	96		70-130	Pass	
Endosulfan II	S12-No18208	CP	%	97		70-130	Pass	
Endosulfan sulphate	S12-No18208	CP	%	85		70-130	Pass	
Endrin	S12-No18208	CP	%	108		70-130	Pass	
Endrin aldehyde	S12-No18208	CP	%	83		70-130	Pass	
Endrin ketone	S12-No18208	CP	%	85		70-130	Pass	
g-BHC (Lindane)	S12-No18208	CP	%	91		70-130	Pass	
g-Chlordane	S12-No18208	CP	%	96		70-130	Pass	
Heptachlor	S12-No18208	CP	%	99		70-130	Pass	
Heptachlor epoxide	S12-No18208	CP	%	98		70-130	Pass	
Hexachlorobenzene	S12-No18208	CP	%	113		70-130	Pass	
Methoxychlor	S12-No18208	CP	%	96		70-130	Pass	
Spike - % Recovery								
Organophosphorus Pesticides (OP)				Result 1				
Chlorpyrifos	S12-No18208	CP	%	103		70-130	Pass	
Coumaphos	S12-No18208	CP	%	113		70-130	Pass	
Diazinon	S12-No18208	CP	%	101		70-130	Pass	
Dichlorvos	S12-No18208	CP	%	105		70-130	Pass	
Dimethoate	S12-No18208	CP	%	100		70-130	Pass	
Disulfoton	S12-No18208	CP	%	82		70-130	Pass	
Ethoprop	S12-No18208	CP	%	102		70-130	Pass	
Fenitrothion	S12-No18208	CP	%	102		70-130	Pass	
Fensulfothion	S12-No18208	CP	%	112		70-130	Pass	
Fenthion	S12-No18208	CP	%	101		70-130	Pass	
Methyl azinphos	S12-No18208	CP	%	92		70-130	Pass	
Malathion	S12-No18208	CP	%	107		70-130	Pass	
Methyl parathion	S12-No18208	CP	%	107		70-130	Pass	
Mevinphos	S12-No18208	CP	%	88		70-130	Pass	
Monocrotophos	S12-No18208	CP	%	98		70-130	Pass	
Parathion	S12-No18208	CP	%	98		70-130	Pass	
Phorate	S12-No18208	CP	%	92		70-130	Pass	
Profenofos	S12-No18208	CP	%	108		70-130	Pass	
Prothiofos	S12-No18208	CP	%	107		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Ronnel	S12-No18208	CP	%	102		70-130	Pass	
Stirophos	S12-No18208	CP	%	109		70-130	Pass	
Trichloronate	S12-No18208	CP	%	102		70-130	Pass	
Spike - % Recovery								
Polyaromatic Hydrocarbons (PAH)				Result 1				
Acenaphthene	S12-No18208	CP	%	112		70-130	Pass	
Acenaphthylene	S12-No18208	CP	%	103		70-130	Pass	
Anthracene	S12-No18208	CP	%	90		70-130	Pass	
Benz(a)anthracene	S12-No18208	CP	%	82		70-130	Pass	
Benzo(a)pyrene	S12-No18208	CP	%	100		70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-No18208	CP	%	107		70-130	Pass	
Benzo(g,h,i)perylene	S12-No18208	CP	%	121		70-130	Pass	
Chrysene	S12-No18208	CP	%	106		70-130	Pass	
Dibenz(a,h)anthracene	S12-No18208	CP	%	122		70-130	Pass	
Fluoranthene	S12-No18208	CP	%	101		70-130	Pass	
Fluorene	S12-No18208	CP	%	106		70-130	Pass	
Indeno(1,2,3-cd)pyrene	S12-No18208	CP	%	123		70-130	Pass	
Naphthalene	S12-No18208	CP	%	110		70-130	Pass	
Phenanthrene	S12-No18208	CP	%	104		70-130	Pass	
Pyrene	S12-No18208	CP	%	100		70-130	Pass	
Spike - % Recovery								
				Result 1				
Phenolics (Total)	S12-No18208	CP	%	115		70-130	Pass	
Spike - % Recovery								
Metals M8				Result 1				
Arsenic	S12-No18213	CP	%	94		70-130	Pass	
Cadmium	S12-No18213	CP	%	74		70-130	Pass	
Chromium	S12-No18213	CP	%	82		70-130	Pass	
Copper	S12-No18213	CP	%	87		70-130	Pass	
Lead	S12-No18213	CP	%	86		70-130	Pass	
Mercury	S12-No18213	CP	%	80		70-130	Pass	
Nickel	S12-No18213	CP	%	75		70-130	Pass	
Spike - % Recovery								
Metals M8				Result 1				
Arsenic	S12-No18224	CP	%	92		70-130	Pass	
Cadmium	S12-No18224	CP	%	90		70-130	Pass	
Chromium	S12-No18224	CP	%	92		70-130	Pass	
Copper	S12-No18224	CP	%	88		70-130	Pass	
Lead	S12-No18224	CP	%	93		70-130	Pass	
Mercury	S12-No18224	CP	%	90		70-130	Pass	
Nickel	S12-No18224	CP	%	95		70-130	Pass	
Zinc	S12-No18224	CP	%	94		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls (PCB)				Result 1				
Aroclor-1260	S12-No18532	NCP	%	86		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides (OC)				Result 1				
4,4'-DDD	S12-No18226	CP	%	109		70-130	Pass	
4,4'-DDE	S12-No18226	CP	%	90		70-130	Pass	
4,4'-DDT	S12-No18226	CP	%	54		70-130	Fail	Q13
a-BHC	S12-No18226	CP	%	95		70-130	Pass	
a-Chlordane	S12-No18226	CP	%	98		70-130	Pass	
Aldrin	S12-No18226	CP	%	93		70-130	Pass	
b-BHC	S12-No18226	CP	%	90		70-130	Pass	
d-BHC	S12-No18226	CP	%	88		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Dieldrin	S12-No18226	CP	%	110		70-130	Pass	
Endosulfan I	S12-No18226	CP	%	92		70-130	Pass	
Endosulfan II	S12-No18226	CP	%	96		70-130	Pass	
Endosulfan sulphate	S12-No18226	CP	%	83		70-130	Pass	
Endrin	S12-No18226	CP	%	98		70-130	Pass	
Endrin aldehyde	S12-No18226	CP	%	90		70-130	Pass	
Endrin ketone	S12-No18226	CP	%	84		70-130	Pass	
g-BHC (Lindane)	S12-No18226	CP	%	91		70-130	Pass	
g-Chlordane	S12-No18226	CP	%	93		70-130	Pass	
Heptachlor	S12-No18226	CP	%	87		70-130	Pass	
Heptachlor epoxide	S12-No18226	CP	%	95		70-130	Pass	
Hexachlorobenzene	S12-No18226	CP	%	107		70-130	Pass	
Methoxychlor	S12-No18226	CP	%	89		70-130	Pass	
Spike - % Recovery								
Metals M8				Result 1				
Arsenic	S12-No18233	CP	%	94		70-130	Pass	
Cadmium	S12-No18233	CP	%	86		70-130	Pass	
Chromium	S12-No18233	CP	%	82		70-130	Pass	
Copper	S12-No18233	CP	%	89		70-130	Pass	
Lead	S12-No18233	CP	%	86		70-130	Pass	
Mercury	S12-No18233	CP	%	93		70-130	Pass	
Nickel	S12-No18233	CP	%	88		70-130	Pass	
Zinc	S12-No18233	CP	%	98		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	S12-No18242	CP	%	83		70-130	Pass	
Toluene	S12-No18242	CP	%	84		70-130	Pass	
Ethylbenzene	S12-No18242	CP	%	86		70-130	Pass	
Total m+p-Xylenes	S12-No18242	CP	%	86		70-130	Pass	
o-Xylene	S12-No18242	CP	%	88		70-130	Pass	
Xylenes(ortho.meta and para)	S12-No18242	CP	%	87		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1				
Naphthalene	S12-No18242	CP	%	73		70-130	Pass	
TRH C6-C10	S12-No18242	CP	%	79		70-130	Pass	
Spike - % Recovery								
Metals M8				Result 1				
Arsenic	S12-No18243	CP	%	81		70-130	Pass	
Cadmium	S12-No18243	CP	%	85		70-130	Pass	
Chromium	S12-No18243	CP	%	87		70-130	Pass	
Copper	S12-No18243	CP	%	94		70-130	Pass	
Lead	S12-No18243	CP	%	98		70-130	Pass	
Mercury	S12-No18243	CP	%	92		70-130	Pass	
Nickel	S12-No18243	CP	%	90		70-130	Pass	
Zinc	S12-No18243	CP	%	99		70-130	Pass	
Spike - % Recovery								
Metals M8				Result 1				
Arsenic	S12-No18266	CP	%	93		70-130	Pass	
Cadmium	S12-No18266	CP	%	91		70-130	Pass	
Chromium	S12-No18266	CP	%	90		70-130	Pass	
Copper	S12-No18266	CP	%	92		70-130	Pass	
Lead	S12-No18266	CP	%	86		70-130	Pass	
Mercury	S12-No18266	CP	%	92		70-130	Pass	
Nickel	S12-No18266	CP	%	91		70-130	Pass	
Zinc	S12-No18266	CP	%	92		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 Fractions				Result 1				
TRH C6-C9	S	NCP	%	72		70-130	Pass	
TRH C10-C14	S12-No18278	CP	%	84		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1				
TRH >C10-C16	S12-No18278	CP	%	75		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides (OC)				Result 1				
4.4'-DDD	S12-No18278	CP	%	110		70-130	Pass	
4.4'-DDE	S12-No18278	CP	%	89		70-130	Pass	
4.4'-DDT	S12-No18278	CP	%	84		70-130	Pass	
a-BHC	S12-No18278	CP	%	97		70-130	Pass	
a-Chlordane	S12-No18278	CP	%	100		70-130	Pass	
Aldrin	S12-No18278	CP	%	94		70-130	Pass	
b-BHC	S12-No18278	CP	%	91		70-130	Pass	
d-BHC	S12-No18278	CP	%	86		70-130	Pass	
Dieldrin	S12-No18278	CP	%	94		70-130	Pass	
Endosulfan I	S12-No18278	CP	%	93		70-130	Pass	
Endosulfan II	S12-No18278	CP	%	91		70-130	Pass	
Endosulfan sulphate	S12-No18278	CP	%	80		70-130	Pass	
Endrin	S12-No18278	CP	%	97		70-130	Pass	
Endrin aldehyde	S12-No18278	CP	%	87		70-130	Pass	
Endrin ketone	S12-No18278	CP	%	82		70-130	Pass	
g-BHC (Lindane)	S12-No18278	CP	%	89		70-130	Pass	
g-Chlordane	S12-No18278	CP	%	94		70-130	Pass	
Heptachlor	S12-No18278	CP	%	86		70-130	Pass	
Heptachlor epoxide	S12-No18278	CP	%	95		70-130	Pass	
Hexachlorobenzene	S12-No18278	CP	%	112		70-130	Pass	
Methoxychlor	S12-No18278	CP	%	89		70-130	Pass	
Spike - % Recovery								
Organophosphorus Pesticides (OP)				Result 1				
Chlorpyrifos	S12-No18278	CP	%	95		70-130	Pass	
Coumaphos	S12-No18278	CP	%	91		70-130	Pass	
Diazinon	S12-No18278	CP	%	95		70-130	Pass	
Dichlorvos	S12-No18278	CP	%	98		70-130	Pass	
Dimethoate	S12-No18278	CP	%	82		70-130	Pass	
Disulfoton	S12-No18278	CP	%	71		70-130	Pass	
Ethoprop	S12-No18278	CP	%	95		70-130	Pass	
Fenitrothion	S12-No18278	CP	%	85		70-130	Pass	
Fensulfothion	S12-No18278	CP	%	108		70-130	Pass	
Fenthion	S12-No18278	CP	%	91		70-130	Pass	
Methyl azinphos	S12-No18278	CP	%	78		70-130	Pass	
Malathion	S12-No18278	CP	%	90		70-130	Pass	
Methyl parathion	S12-No18278	CP	%	88		70-130	Pass	
Mevinphos	S12-No18278	CP	%	88		70-130	Pass	
Monocrotophos	S12-No18278	CP	%	71		70-130	Pass	
Parathion	S12-No18278	CP	%	91		70-130	Pass	
Phorate	S12-No18278	CP	%	73		70-130	Pass	
Profenofos	S12-No18278	CP	%	89		70-130	Pass	
Prothiofos	S12-No18278	CP	%	94		70-130	Pass	
Ronnel	S12-No18278	CP	%	94		70-130	Pass	
Stirophos	S12-No18278	CP	%	83		70-130	Pass	
Trichloronate	S12-No18278	CP	%	91		70-130	Pass	
Spike - % Recovery								

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Polyaromatic Hydrocarbons (PAH)				Result 1					
Acenaphthene	S12-No18278	CP	%	103			70-130	Pass	
Acenaphthylene	S12-No18278	CP	%	96			70-130	Pass	
Anthracene	S12-No18278	CP	%	97			70-130	Pass	
Benz(a)anthracene	S12-No18278	CP	%	73			70-130	Pass	
Benzo(a)pyrene	S12-No18278	CP	%	105			70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-No18278	CP	%	104			70-130	Pass	
Benzo(g,h,i)perylene	S12-No18278	CP	%	122			70-130	Pass	
Chrysene	S12-No18278	CP	%	104			70-130	Pass	
Dibenz(a,h)anthracene	S12-No18278	CP	%	126			70-130	Pass	
Fluoranthene	S12-No18278	CP	%	82			70-130	Pass	
Fluorene	S12-No18278	CP	%	94			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S12-No18278	CP	%	118			70-130	Pass	
Naphthalene	S12-No18278	CP	%	103			70-130	Pass	
Phenanthrene	S12-No18278	CP	%	95			70-130	Pass	
Pyrene	S12-No18278	CP	%	81			70-130	Pass	
Spike - % Recovery									
				Result 1					
Phenolics (Total)	S12-No18278	CP	%	84			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S12-No18208	CP	mg/kg	< 10	< 10	<1	30%	Pass	
TRH C10-C14	S12-No18208	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C15-C28	S12-No18208	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH C29-C36	S12-No18208	CP	mg/kg	< 100	< 100	19	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total m+p-Xylenes	S12-No18208	CP	mg/kg	< 1	< 1	<1	30%	Pass	
o-Xylene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes(ortho,meta and para)	S12-No18208	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Total BTEX	S12-No18208	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
Naphthalene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S12-No18208	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S12-No18208	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S12-No18208	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S12-No18208	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S12-No18208	CP	mg/kg	< 100	< 100	16	30%	Pass	
Duplicate									
Organochlorine Pesticides (OC)				Result 1	Result 2	RPD			
4,4'-DDD	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDE	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDT	S12-No18208	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
a-BHC	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-Chlordane	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate								
Organochlorine Pesticides (OC)				Result 1	Result 2	RPD		
Endosulfan I	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-Chlordane	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S12-No18208	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S12-No18208	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Duplicate								
Organophosphorus Pesticides (OP)				Result 1	Result 2	RPD		
Chlorpyrifos	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Coumaphos	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Diazinon	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorvos	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dimethoate	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Disulfoton	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethoprop	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fenitrothion	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fensulfthion	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fenthion	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Methyl azinphos	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Malathion	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Methyl parathion	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Mevinphos	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Monocrotophos	S12-No18208	CP	mg/kg	< 10	< 10	<1	30%	Pass
Parathion	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phorate	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Profenofos	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Prothiofos	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ronnel	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Stirophos	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloronate	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD		
Acenaphthene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-No18208	CP	mg/kg	< 1	< 1	<1	30%	Pass
Benzo(g,h,i)perylene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S12-No18208	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
				Result 1	Result 2	RPD		
Phenolics (Total)	S12-No18208	CP	mg/kg	3.5	3.5	<1	30%	Pass
Duplicate								
Metals M8				Result 1	Result 2	RPD		
Arsenic	S12-No18211	CP	mg/kg	6.8	9.0	28	30%	Pass
Cadmium	S12-No18211	CP	mg/kg	0.5	0.4	15	30%	Pass
Chromium	S12-No18211	CP	mg/kg	14	14	3.0	30%	Pass
Copper	S12-No18211	CP	mg/kg	67	55	20	30%	Pass
Lead	S12-No18211	CP	mg/kg	200	210	9.0	30%	Pass
Mercury	S12-No18211	CP	mg/kg	0.59	0.57	5.0	30%	Pass
Nickel	S12-No18211	CP	mg/kg	16	17	5.0	30%	Pass
Zinc	S12-No18211	CP	mg/kg	370	390	4.0	30%	Pass
Duplicate								
Metals M8				Result 1	Result 2	RPD		
Arsenic	S12-No18223	CP	mg/kg	7.8	8.8	12	30%	Pass
Cadmium	S12-No18223	CP	mg/kg	< 0.4	< 0.4	68	30%	Fail
Chromium	S12-No18223	CP	mg/kg	8.6	8.6	<1	30%	Pass
Copper	S12-No18223	CP	mg/kg	21	25	18	30%	Pass
Lead	S12-No18223	CP	mg/kg	15	16	5.0	30%	Pass
Mercury	S12-No18223	CP	mg/kg	0.07	0.06	9.0	30%	Pass
Nickel	S12-No18223	CP	mg/kg	7.8	8.1	3.0	30%	Pass
Zinc	S12-No18223	CP	mg/kg	72	73	2.0	30%	Pass
Duplicate								
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD		
Aroclor-1016	S12-No18532	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1232	S12-No18532	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S12-No18532	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S12-No18532	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S12-No18532	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S12-No18532	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides (OC)				Result 1	Result 2	RPD		
4,4'-DDD	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S12-No18226	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
a-BHC	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-Chlordane	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-Chlordane	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S12-No18226	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S12-No18226	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Duplicate								
Organophosphorus Pesticides (OP)				Result 1	Result 2	RPD		
Chlorpyrifos	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate									
Organophosphorus Pesticides (OP)				Result 1	Result 2	RPD			
Coumaphos	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diazinon	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorvos	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethoate	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Disulfoton	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethoprop	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fenitrothion	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fensulfothion	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fenthion	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methyl azinphos	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Malathion	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methyl parathion	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Mevinphos	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Monocrotophos	S12-No18226	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Parathion	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phorate	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Profenofos	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Prothiofos	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ronnel	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Stirophos	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloronate	S12-No18226	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	S12-No18232	CP	mg/kg	4.8	6.4	28	30%	Pass	
Cadmium	S12-No18232	CP	mg/kg	< 0.4	< 0.4	200	30%	Fail	Q15
Chromium	S12-No18232	CP	mg/kg	15	16	2.0	30%	Pass	
Copper	S12-No18232	CP	mg/kg	7.7	6.6	15	30%	Pass	
Lead	S12-No18232	CP	mg/kg	47	39	18	30%	Pass	
Mercury	S12-No18232	CP	mg/kg	0.08	0.08	6.0	30%	Pass	
Nickel	S12-No18232	CP	mg/kg	< 5	< 5	22	30%	Pass	
Zinc	S12-No18232	CP	mg/kg	28	25	10	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S12-No18242	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	S12-No18242	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	S12-No18242	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total m+p-Xylenes	S12-No18242	CP	mg/kg	< 1	< 1	<1	30%	Pass	
o-Xylene	S12-No18242	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes(ortho.meta and para)	S12-No18242	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Total BTEX	S12-No18242	CP	mg/kg	< 1.5	< 1.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
Naphthalene	S12-No18242	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S12-No18242	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S12-No18242	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	S12-No18242	CP	mg/kg	9.9	9.4	5.0	30%	Pass	
Cadmium	S12-No18242	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S12-No18242	CP	mg/kg	15	12	18	30%	Pass	
Copper	S12-No18242	CP	mg/kg	5.5	5.7	4.0	30%	Pass	
Lead	S12-No18242	CP	mg/kg	17	17	2.0	30%	Pass	
Mercury	S12-No18242	CP	mg/kg	0.06	0.06	1.0	30%	Pass	
Nickel	S12-No18242	CP	mg/kg	< 5	< 5	35	30%	Fail	Q15
Zinc	S12-No18242	CP	mg/kg	21	20	7.0	30%	Pass	

Duplicate								
Metals M8				Result 1	Result 2	RPD		
Arsenic	S12-No18263	CP	mg/kg	6.5	8.1	23	30%	Pass
Cadmium	S12-No18263	CP	mg/kg	< 0.4	< 0.4	7.0	30%	Pass
Chromium	S12-No18263	CP	mg/kg	9.9	10	1.0	30%	Pass
Copper	S12-No18263	CP	mg/kg	30	30	1.0	30%	Pass
Lead	S12-No18263	CP	mg/kg	65	67	3.0	30%	Pass
Mercury	S12-No18263	CP	mg/kg	0.16	0.16	1.0	30%	Pass
Nickel	S12-No18263	CP	mg/kg	6.5	7.9	19	30%	Pass
Zinc	S12-No18263	CP	mg/kg	110	120	7.0	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C10-C14	S12-No18278	CP	mg/kg	< 50	< 50	17	30%	Pass
TRH C15-C28	S12-No18278	CP	mg/kg	< 100	< 100	9.0	30%	Pass
TRH C29-C36	S12-No18278	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD		
TRH >C10-C16	S12-No18278	CP	mg/kg	< 50	< 50	17	30%	Pass
TRH >C16-C34	S12-No18278	CP	mg/kg	< 100	< 100	16	30%	Pass
TRH >C34-C40	S12-No18278	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Organochlorine Pesticides (OC)				Result 1	Result 2	RPD		
4.4'-DDD	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	S12-No18278	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
a-BHC	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-Chlordane	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-Chlordane	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S12-No18278	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S12-No18278	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Duplicate								
Organophosphorus Pesticides (OP)				Result 1	Result 2	RPD		
Chlorpyrifos	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Coumaphos	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Diazinon	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorvos	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dimethoate	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Disulfoton	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethoprop	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fenitrothion	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fensulfthion	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fenthion	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Methyl azinphos	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Malathion	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate									
Organophosphorus Pesticides (OP)				Result 1	Result 2	RPD			
Methyl parathion	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Mevinphos	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Monocrotophos	S12-No18278	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Parathion	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phorate	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Profenofos	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Prothiofos	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ronnel	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Stirophos	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloronate	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polyaromatic Hydrocarbons (PAH)				Result 1	Result 2	RPD			
Acenaphthene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	S12-No18278	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Benzo(g,h,i)perylene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S12-No18278	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenolics (Total)				Result 1	Result 2	RPD			
Phenolics (Total)	S12-No18278	CP	mg/kg	0.3	0.3	13	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	S12-No18283	CP	mg/kg	8.4	7.1	17	30%	Pass	
Cadmium	S12-No18283	CP	mg/kg	< 0.4	< 0.4	100	30%	Fail	Q15
Chromium	S12-No18283	CP	mg/kg	8.4	7.4	12	30%	Pass	
Copper	S12-No18283	CP	mg/kg	11	10	9.0	30%	Pass	
Lead	S12-No18283	CP	mg/kg	11	10	3.0	30%	Pass	
Mercury	S12-No18283	CP	mg/kg	0.09	0.09	2.0	30%	Pass	
Nickel	S12-No18283	CP	mg/kg	11	9.6	15	30%	Pass	
Zinc	S12-No18283	CP	mg/kg	64	60	7.0	30%	Pass	

Comments

Please note: Asbestos analysed by ASET (Job : ASET31703/34883/1-17) 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
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q09A	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference and is unquantifiable. A result of 1 has been reported for the purposes of providing a numerical result. Acceptance criteria were met for all other QC.
Q13	Some elements for this test have failed in the QC sample. However when at least 80% have passed the QC can be released. All other QC has passed in this test batch
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
Bob Symons	Senior Analyst-Inorganic (NSW)
Laura Schofield	Senior Analyst-Volatile (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
James Norford	Senior Analyst-Metal (NSW)



Dr. Bob Symons

Laboratory Manager

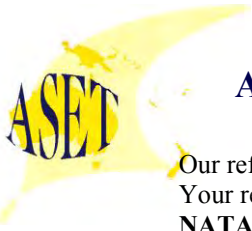
Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

mgt-LabMark shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall mgt-LabMark be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.



AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET31703/ 34883 / 1 - 17
Your ref :360188
NATA Accreditation No: 14484

26 November 2012

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

Attn: Ms Leanne Knowles

Dear Leanne

Asbestos Identification

This report presents the results of seventeen samples, forwarded by MGT- Labmark Environmental Pty Ltd on 22 November 2012, for analysis for asbestos.

1.Introduction:Seventeen 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. ASET31703 / 34883 / 1. 360188 - SS02 - No18208.**
Approx dimensions 88.0 cm x 8.0 cm x 5.0 cm
The sample consisted of a mixture of clayish soil, stones and plant matter.
No asbestos detected.

Sample No. 2. ASET31703 / 34883 / 2. 360188 - SS03 - No18209.
Approx dimensions 8.0 cm x 8.0 cm x 4.75 cm
The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of plaster, cement and brick.
No asbestos detected.

Sample No. 3. ASET31703 / 34883 / 3. 360188 - SS04 - No18210.
Approx dimensions 8.0 cm x 8.0 cm x 4.5 cm
The sample consisted of a mixture of soil, stones, plant matter and fragments of plaster, cement and brick.
No asbestos detected.

Sample No. 4. ASET31703 / 34883 / 4. 360188 - SS07 - No18213.
Approx dimensions 8.0 cm x 8.0 cm x 5.0 cm
The sample consisted of a mixture of clayish soil, stones and plant matter.
No asbestos detected.

Sample No. 5. ASET31703 / 34883 / 5. 360188 - SS10 - No18216.
Approx dimensions 8.0 cm x 8.0 cm x 4.75 cm
The sample consisted of a mixture of clayish soil, stones and plant matter.
No asbestos detected.

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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ASBESTOS DETECTION & IDENTIFICATION • REPAIR & CALIBRATION OF SCIENTIFIC EQUIPMENT • AIRBORNE FIBRE & SILICA MONITORING



Sample No. 6. ASET31703 / 34883 / 6. 360188 - SS12 - No18218.

Approx dimensions 8.0 cm x 8.0 cm x 4.25 cm

The sample consisted of a mixture of clayish soil, stones and plant matter.

No asbestos detected.

Sample No. 7. ASET31703 / 34883 / 7. 360188 - SS14 - No18220.

Approx dimensions 7.0 cm x 8.0 cm x 4.25 cm

The sample consisted of a mixture of clayish soil, stones and plant matter.

No asbestos detected.

Sample No. 8. ASET31703 / 34883 / 8. 360188 - SS20 - No18226.

Approx dimensions 8.0 cm x 8.0 cm x 4.5 cm

The sample consisted of a mixture of clayish soil, stones and plant matter.

No asbestos detected.

Sample No. 9. ASET31703 / 34883 / 9. 360188 - SS21 - No18227.

Approx dimensions 8.0 cm x 8.0 cm x 4.5 cm

The sample consisted of a mixture of sandy soil, stones, plant matter and fragments of plaster.

No asbestos detected.

Sample No. 10. ASET31703 / 34883 / 10. 360188 - HA2 - 0.5 - No18244.

Approx dimensions 8.0 cm x 8.0 cm x 4.0 cm

The sample consisted of a mixture of clayish soil, stones and plant matter.

No asbestos detected.

Sample No. 11. ASET31703 / 34883 / 11. 360188 - HA3 - 0.15 - No18245.

Approx dimensions 8.0 cm x 8.0 cm x 4.5 cm

The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of plaster and cement.

No asbestos detected.

Sample No. 12. ASET31703 / 34883 / 12. 360188 - BH6 - 0.5 - No18253.

Approx dimensions 8.0 cm x 8.0 cm x 5.0 cm

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 13. ASET31703 / 34883 / 13. 360188 - BH14 - 0.5 - No18266.

Approx dimensions 8.0 cm x 8.0 cm x 3.75 cm

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 14. ASET31703 / 34883 / 14. 360188 - BH14 - 1.0 - No18267.

Approx dimensions 8.0 cm x 8.0 cm x 4.25 cm

The sample consisted of a mixture of clayish sandy soil, stones, fragments of plaster and glass.

No asbestos detected.

Sample No. 15. ASET31703 / 34883 / 15. 360188 - BH15 - 0.5 - No18271.

Approx dimensions 8.0 cm x 8.0 cm x 5.0 cm

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.



Sample No. 16. ASET31703 / 34883 / 16. 360188 - BH3 - 0.15 - No18274.
Approx dimensions 8.0 cm x 8.0 cm x 5.0 cm
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 17. ASET31703 / 34883 / 17. 360188 - BH6 - 0.15 - No18275.
Approx dimensions 8.0 cm x 8.0 cm x 4.75 cm
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Analysed and reported by,

A handwritten signature in black ink, appearing to read "Mahen De Silva", is written over a horizontal line.

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



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

Sample Receipt Advice

Company name: **Coffey Geotechnics Pty Ltd COFFS**
Contact name: Andrew Ballard
Client job number: GEOTCOFH03037AA
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Nov 22, 2012 9:00 AM
mgt-LabMark reference: **360188**

Sample information

- A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- All samples have been received as described on the above COC.
- COC has been completed correctly.
- Attempt to chill was evident.
- Appropriately preserved sample containers have been used.
- All samples were received in good condition.
- Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- Organic samples had Teflon liners.
- Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Analysis for OCP/OPP and M8 added to sample HA3_0.5 in place of broken sample HA3_0.15 as per client request. | Asbestos analysis conducted by ASET | Sample date for BH6_0.15 (zip lock bag for asbestos) presumed 20/11/12 as per jar | Sample date for BH3_0.15 as per sample bag - 19/11/12 | HA3_0.15 received broken - analysis cancelled except for asbestos - sample bag sent to ASET

Contact notes

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 Andrew Ballard - Andrew_Ballard@coffey.com.

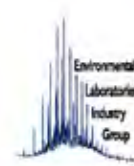
mgt-LabMark Sample Receipt



Environmental Laboratory
Air Analysis
Water Analysis
Soil Contamination Analysis

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

35Years of Environmental Analysis & Experience – fully Australian Owned



#20188

Chain of Custody		Laboratory Quotation/ Order No:				Project No.: GEOTCOFH03037AA		Sheet 1 of 5										
Dispatch to: mgt LabMark		Sampled By: JP		Consigning Officer: JP		Date Dispatched: 21-Nov-12												
Attention: Sample Receipt		Project Manager: (report results to) <u>andrew.ballard@coffey.com</u>		Courier Service: TOLL		Consignment Note No.: 00903P2T57												
Relinquished By: Coffey Geotechnics		Date:	Time:	Received By: <i>Priscilla</i>		Date: 22/11		Time: 0900										
Coffs Harbour																		
Comments:	Sample Matrix	Container Type & Preservative	Sample No.	Sample Depth (m)	Date Sampled:	Analyses Required										Sample Condition on Receipt		
						PAHS/ Phenols (Total)	TPHs/ BTEX	MAHs=BTEX	Metals: 8	OCF/OPP	PCBs	Asbestos	Forward to Melbourne Lab					HOLD
No 18207	Soil	250ml Glass Jar	SS01		19-Nov-12													X
08	Soil	250ml + zip lock bag	SS02		19-Nov-12	X	X		X	X		X						
09	Soil	250ml + zip lock bag	SS03		19-Nov-12				X	X		X						
10	Soil	250ml + zip lock bag	SS04		19-Nov-12	X	X		X			X						
11	Soil	250ml Glass Jar	SS05		19-Nov-12	X	X		X									
12	Soil	250ml Glass Jar	SS06		19-Nov-12													X
13	Soil	250ml + zip lock bag	SS07		19-Nov-12	X	X		X	X		X						
14	Soil	250ml Glass Jar	SS08		19-Nov-12													X
15	Soil	250ml Glass Jar	SS09		19-Nov-12		X		X									
16	Soil	250ml + zip lock bag	SS10		19-Nov-12		X		X	X		X						
17	Soil	250ml Glass Jar	SS11		19-Nov-12		X		X									
18	Soil	250ml + zip lock bag	SS12		19-Nov-12				X									X
19	Soil	250ml Glass Jar	SS13		19-Nov-12													X
20	Soil	250ml + zip lock bag	SS14		19-Nov-12				X	X		X						
21	Soil	250ml Glass Jar	SS15		19-Nov-12													X
22	Soil	250ml Glass Jar	SS16		19-Nov-12				X									
23	Soil	250ml Glass Jar	SS17		19-Nov-12				X									
Special Laboratory Instructions:		Metals 8: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn / Phenols (Total)																
Detection Limits:		Standard		Turnaround Required:		Normal (5day TAT)												

#3601968

Chain of Custody			Laboratory Quotation/ Order No:			Project No.: GEOTCOFH03037AA		Sheet 2 of 5										
Dispatch to: mgt LabMark			Sampled By: JP		Consigning Officer: JP													
Attention: Sample Receipt			Project Manager: (report results to) andrew_ballard@coffey.com		Date Dispatched: 41234													
Relenquished By: Coffey Geotechnics			Date:		Time:		Recieved By: <i>Prisulla</i>		Date: <i>22/11</i>									
Coffs Harbour									Time: <i>0900</i>									
Comments:	Sample Matrix	Container Type & Preservative	Sample No.	Sample Depth (m)	Date Sampled:	Analyses Required										Sample Condition on Receipt		
						PAHS/ Phenols (Total)	TPHs/ BTEX	MAHs=BTEX	Metals: 8	OCPI/OPP	PCBs	Asbestos	Forward to Melbourne Lab				HOLD	
<i>No 182-24</i>	Soil	250ml Glass Jar	SS18	19-Nov-12	19-Nov-12				X									
<i>25</i>	Soil	250ml Glass Jar	SS19	20-Nov-12	20-Nov-12	X	X		X	X	X							
<i>26</i>	Soil	250ml + zip lock bag	SS20	20-Nov-12	20-Nov-12				X	X		X						
<i>27</i>	Soil	250ml + zip lock bag	SS21	20-Nov-12	20-Nov-12		X		X			X						
<i>28</i>	Soil	250ml Glass Jar	SS22	20-Nov-12	20-Nov-12				X									
<i>29</i>	Soil	250ml Glass Jar	SS23	20-Nov-12	20-Nov-12				X									
<i>30</i>	Soil	250ml Glass Jar	SS24	20-Nov-12	20-Nov-12				X									
<i>31</i>	Soil	250ml Glass Jar	SS25	20-Nov-12	20-Nov-12				X									
<i>32</i>	Soil	250ml Glass Jar	SS26	20-Nov-12	20-Nov-12				X									
<i>33</i>	Soil	250ml Glass Jar	SS27	20-Nov-12	20-Nov-12				X									
<i>34</i>	Soil	250ml Glass Jar	SS28	20-Nov-12	20-Nov-12				X									
<i>35</i>	Soil	250ml Glass Jar	SS29	20-Nov-12	20-Nov-12		X		X									
<i>36</i>	Soil	250ml Glass Jar	SS30	20-Nov-12	20-Nov-12				X									
<i>37</i>	Soil	250ml Glass Jar	SS31	20-Nov-12	20-Nov-12				X									
<i>38</i>	Soil	250ml Glass Jar	SS32	20-Nov-12	20-Nov-12				X									
<i>39</i>	Soil	250ml Glass Jar	HA1	0.15	19-Nov-12													X
Special Laboratory Instructions:			Metals 8: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn / Phenols (Total)															
Detection Limits: Standard			Turnaround Required: Normal (5day TAT)															

#3601558

Chain of Custody						Laboratory Quotation/ Order No:				Project No.: GEOTCOFH03037AA		Sheet 3 of 5											
Dispatch to: mgt LabMark			Sampled By: JP		Consigning Officer JP		Date Dispatched 41234		Courier Service: TOLL		Consignment Note No.: 00903P2T57												
Attention: Sample Receipt			Project Manager: (report results to) andrew.ballard@coffey.com		Relenquished By: Coffey Geotechnics		Date: Coffs Harbour		Time: Coffs Harbour		Date: 22/11		Time: 0900										
Date:			Time:		Received By: Priscilla [Signature]		Date:		Time:		Date:		Time:										
Comments:	Sample Matrix	Container Type & Preservative	Sample No.	Sample Depth (m)	Date Sampled:	Analyses Required											Sample Condition on Receipt						
						PAHS/ Phenols (Total)	TPHS/ BTEX	MAHS=BTEX	Metals: 8	OC/OPP	PCBs	Asbestos	Forward to Melbourne Lab	HOLD									
No 40	Soil	250ml Glass Jar	HA1'	0.5	19-Nov-12				X														
41	Soil	250ml Glass Jar	HA1	1	19-Nov-12												X						
42	Soil	250ml Glass Jar	HA1	1.3	19-Nov-12	X	X		X														
43	Soil	250ml Glass Jar	HA2	0.15	19-Nov-12				X														
44	Soil	250ml + zip lock bag	HA2	0.5	19-Nov-12				X			X											
45	Soil	250ml + zip lock bag	HA3	0.15	19-Nov-12				X	X		X											
46	Soil	250ml Glass Jar	HA3	0.5	19-Nov-12												X						
47	Soil	250ml Glass Jar	HA3	0.7	19-Nov-12				X														
48	Soil	250ml Glass Jar	BH1	0.15	20-Nov-12												X						
49	Soil	250ml Glass Jar	BH2	0.15	20-Nov-12												X						
50	Soil	250ml Glass Jar	BH3	0.15	20-Nov-12												X						
51	Soil	250ml Glass Jar	BH5	0.15	20-Nov-12												X						
52	Soil	250ml Glass Jar	BH6	0.15	19-Nov-12												X						
53	Soil	250ml + zip lock bag	BH6	0.5	19-Nov-12	X	X		X	X	X	X											
54	Soil	250ml Glass Jar	BH6	1	19-Nov-12	X			X														
55	Soil	250ml Glass Jar	BH6	1.5	19-Nov-12												X						
56	Soil	250ml Glass Jar	BH6	2.5	19-Nov-12				X														
Special Laboratory Instructions:						Metals 8: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn / Phenols (Total)																	
Detection Limits:						Standard						Turnaround Required:						Normal (5day TAT)					

#360188

Chain of Custody			Laboratory Quotation/ Order No:			Project No.: GEOTCOFH03037AA		Sheet 4 of 5											
Dispatch to:		mgt LabMark		Sampled By:		JP		Consigning Officer: JP											
Attention:		Sample Receipt		Project Manager: (report results to)		andrew.ballard@coffey.com		Date Dispatched: 41234											
Relinquished By:		Coffey Geotechnics		Date:		Time:		Received By: <i>Priscilla</i>											
		Coffs Harbour						Date: <i>22/11</i> Time: <i>0900</i>											
Comments:	Sample Matrix	Container Type & Preservative	Sample No.	Sample Depth (m)	Date Sampled:	Analyses Required										Sample Condition on Receipt			
						PAHS/ Phenols (Total)	TPHS/ BTEX	MAHS=BTEX	Metals: 8	OCP/OPP	PCBs	Asbestos	Forward to Melbourne Lab					HOLD	
<i>No 18257</i>	Soil	250ml Glass Jar	BH6	5.5	19-Nov-12													X	
<i>58</i>	Soil	250ml Glass Jar	BH6	7	19-Nov-12													X	
<i>59</i>	Soil	250ml Glass Jar	BH6	10	19-Nov-12													X	
<i>60</i>	Soil	250ml Glass Jar	BH8	0.15	20-Nov-12													X	
<i>61</i>	Soil	250ml Glass Jar	BH10	0.15	20-Nov-12													X	
<i>62</i>	Soil	250ml Glass Jar	BH11	0.15	20-Nov-12				X										
<i>63</i>	Soil	250ml Glass Jar	BH12	0.15	20-Nov-12				X										
<i>64</i>	Soil	250ml Glass Jar	BH13	0.15	20-Nov-12													X	
<i>65</i>	Soil	250ml Glass Jar	BH14	0.15	19-Nov-12													X	
<i>66</i>	Soil	250ml + zip lock bag	BH14	0.5	19-Nov-12	X			X	X	X	X							
<i>67</i>	Soil	250ml + zip lock bag	BH14	1	19-Nov-12	X	X		X			X							
<i>68</i>	Soil	250ml Glass Jar	BH14	2	19-Nov-12				X										
<i>69</i>	Soil	250ml Glass Jar	BH14	2.5	19-Nov-12													X	
<i>70</i>	Soil	250ml Glass Jar	BH15	0.15	19-Nov-12													X	
<i>71</i>	Soil	250ml + zip lock bag	BH15	0.5	19-Nov-12		X		X			X							
<i>72</i>	Soil	250ml Glass Jar	BH15	1	19-Nov-12													X	
<i>73</i>	Soil	250ml Glass Jar	BH15	2	19-Nov-12													X	
Special Laboratory Instructions:			Metals 8: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn / Phenols (Total)																
Detection Limits:			Standard			Turnaround Required:			Normal (5day TAT)										

#3601886

Chain of Custody					Laboratory Quotation/ Order No:					Project No.: GEOTCOFH03037AA		Sheet 5 of 5						
Dispatch to: mgt LabMark			Sampled By: JP		Consigning Officer: JP			Date Dispatched: 41234										
Attention: Sample Receipt			Project Manager: (report results to) andrew_ballard@coffey.com		Courier Service: TOLL			Consignment Note No.: 00903P2T57										
Relinquished By: Coffey Geotechnics			Date:	Time:	Received By: <i>Anscilla Gnamuz</i>			Date:	Time:									
Coffs Harbour								22/11	0900.									
Comments:	Sample Matrix	Container Type & Preservative	Sample No.	Sample Depth (m)	Date Sampled:	Analyses Required										Sample Condition on Receipt		
						PAHS/ Phenols (Total)	TPHs/ BTEX	MAHs=BTEX	Metals: 8	OCPI/OPP	PCBs	Asbestos	Forward to Melbourne Lab					HOLD
<i>No 18274</i>	Soil	Zip lock bag	BH3	0.15														
<i>75</i>	Soil	Zip lock bag	BH6	0.15														
<i>76</i>	Soil	250ml Glass Jar	QC1		19-Nov-12													X
<i>77</i>	Soil	250ml Glass Jar	QC2		19-Nov-12													X
<i>78</i>	Soil	250ml Glass Jar	QC3		19-Nov-12	X	X		X	X								
<i>79</i>	Soil	250ml Glass Jar	QC4		19-Nov-12													X
<i>80</i>	Soil	250ml Glass Jar	QC5		19-Nov-12				X									
	Soil	250ml Glass Jar	QC6		19-Nov-12				X				X					
<i>81</i>	Soil	250ml Glass Jar	QC7		20-Nov-12	X	X		X	X	X							
	Soil	250ml Glass Jar	QC8		20-Nov-12		X		X				X					
<i>82</i>	Soil	250ml Glass Jar	QC9		20-Nov-12													X
<i>83</i>	Soil	250ml Glass Jar	QC10		20-Nov-12				X									
Special Laboratory Instructions:					Metals 8: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn / Phenols (Total)													
Detection Limits: Standard					Turnaround Required: Normal (5day TAT)													

#360188 Grammy.

Enquiries Syd

From: Joel Parkin [Joel_Parkin@coffey.com]
Sent: Thursday, 22 November 2012 2:12 PM
To: Enviro Syd
Cc: Andrew Ballard
Subject: Updated COC for "360188"
Attachments: img-Y22141112-0001.pdf

Hi Priscilla,

Please see attached updated COC with regards to the broken sample you received for mgt LabMark report reference 360188.

The dates you presumed for BH6 and BH3 are correct.

Any other problems just let me know

Cheers,

JOEL PARKIN

Environmental Scientist
Coffey Geotechnics Pty Ltd
1/18 Hurley Drive, Coffs Harbour, NSW 2450 Australia
T (+61) (2) 6651 3213 F (+61) (2) 6651 5194 M 0418 545 465
coffey.com

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Handwritten: 1/18/12

Chain of Custody		Laboratory Quotation/ Order No:				Project No.: GEOTCOFH03037AA		Sheet 1 of 5												
Dispatch to: mgt LabMark		Sampled By: JP		Consigning Officer: JP		Date Dispatched: 21-Nov-12														
Attention: Sample Receipt		Project Manager: (report results to) andrew.ballard@coffey.com		Courier Service: TOLL		Consignment Note No.: 00903P2T57														
Relinquished By: Coffey Geotechnics		Date:	Time:	Received By: <i>Priscilla</i>		Date:	Time:													
Coffs Harbour						<i>22/11</i>	<i>0900</i>													
Comments:	Sample Matrix	Container Type & Preservative	Sample No.	Sample Depth (m)	Date Sampled:	Analyses Required										Sample Condition on Receipt				
						PAHS/ Phenols (Total)	TPHS/ BTEX	MAHs=BTEX	Metals: 8	OCP/OPP	PCBs	Asbestos	Forward to Melbourne Lab					HOLD		
<i>No 182.07</i>	Soil	250ml Glass Jar	SS01		19-Nov-12													X		
<i>08</i>	Soil	250ml + zip lock bag	SS02		19-Nov-12	X	X		X	X		X								
<i>09</i>	Soil	250ml + zip lock bag	SS03		19-Nov-12				X	X		X								
<i>10</i>	Soil	250ml + zip lock bag	SS04		19-Nov-12	X	X		X			X								
<i>11</i>	Soil	250ml Glass Jar	SS05		19-Nov-12	X	X		X											
<i>12</i>	Soil	250ml Glass Jar	SS06		19-Nov-12													X		
<i>13</i>	Soil	250ml + zip lock bag	SS07		19-Nov-12	X	X		X	X		X								
<i>14</i>	Soil	250ml Glass Jar	SS08		19-Nov-12													X		
<i>15</i>	Soil	250ml Glass Jar	SS09		19-Nov-12		X		X											
<i>16</i>	Soil	250ml + zip lock bag	SS10		19-Nov-12		X		X	X		X								
<i>17</i>	Soil	250ml Glass Jar	SS11		19-Nov-12		X		X											
<i>18</i>	Soil	250ml + zip lock bag	SS12		19-Nov-12				X			X								
<i>19</i>	Soil	250ml Glass Jar	SS13		19-Nov-12													X		
<i>20</i>	Soil	250ml + zip lock bag	SS14		19-Nov-12				X	X		X								
<i>21</i>	Soil	250ml Glass Jar	SS15		19-Nov-12													X		
<i>22</i>	Soil	250ml Glass Jar	SS16		19-Nov-12				X											
<i>23</i>	Soil	250ml Glass Jar	SS17		19-Nov-12				X											
Special Laboratory Instructions:		Metals 8: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn / Phenols (Total)																		
Detection Limits:		Standard			Turnaround Required:			Normal (5day TAT)												

#2601968

Chain of Custody		Laboratory Quotation/ Order No:				Project No.: GEOTCOFH03037AA		Sheet 2 of 5											
Dispatch to:		mgt LabMark		Sampled By:		JP													
Attention:		Sample Receipt		Project Manager: (report results to)		andrew.ballard@coffey.com													
Relinquished By:		Coffey Geotechnics		Date:		Time:		Received By: <i>Priscilla</i>											
		Coffs Harbour						Date: <i>22/11</i>											
								Time: <i>0900</i>											
Comments:	Sample Matrix	Container Type & Preservative	Sample No.	Sample Depth (m)	Date Samples:	Analyses Required										Sample Condition on Receipt			
						PAHS/ Phenols (Total)	TPHS/ BTEX	MAHS=BTX	Metals: 8	OC/OPP	PCBs	Asbestos	Forward to Melbourne Lab					HOLD	
<i>No 182.2A</i>	Soil	250ml Glass Jar	SS18	19-Nov-12	19-Nov-12				X										
<i>25</i>	Soil	250ml Glass Jar	SS19	20-Nov-12	20-Nov-12	X	X		X	X									
<i>26</i>	Soil	250ml + zip lock bag	SS20	20-Nov-12	20-Nov-12				X			X							
<i>27</i>	Soil	250ml + zip lock bag	SS21	20-Nov-12	20-Nov-12		X		X			X							
<i>28</i>	Soil	250ml Glass Jar	SS22	20-Nov-12	20-Nov-12				X										
<i>29</i>	Soil	250ml Glass Jar	SS23	20-Nov-12	20-Nov-12				X										
<i>30</i>	Soil	250ml Glass Jar	SS24	20-Nov-12	20-Nov-12				X										
<i>31</i>	Soil	250ml Glass Jar	SS25	20-Nov-12	20-Nov-12				X										
<i>32</i>	Soil	250ml Glass Jar	SS26	20-Nov-12	20-Nov-12				X										
<i>33</i>	Soil	250ml Glass Jar	SS27	20-Nov-12	20-Nov-12				X										
<i>34</i>	Soil	250ml Glass Jar	SS28	20-Nov-12	20-Nov-12				X										
<i>35</i>	Soil	250ml Glass Jar	SS29	20-Nov-12	20-Nov-12		X		X										
<i>36</i>	Soil	250ml Glass Jar	SS30	20-Nov-12	20-Nov-12				X										
<i>37</i>	Soil	250ml Glass Jar	SS31	20-Nov-12	20-Nov-12				X										
<i>38</i>	Soil	250ml Glass Jar	SS32	20-Nov-12	20-Nov-12				X										
<i>39</i>	Soil	250ml Glass Jar	HA1	0.15	19-Nov-12														X
Special Laboratory Instructions:		Metals 8: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn / Phenols (Total)																	
Detection Limits:		Standard			Turnaround Required:			Normal (5day TAT)											

Handwritten signature/initials

Chain of Custody			Laboratory Quotation/ Order No.			Project No.: GEOTCOFH03037AA		Sheet 3 of 5										
Dispatch to: mgt LabMark			Sampled By: JP		Consigning Officer: JP		Date Dispatched: 41234											
Attention: Sample Receipt			Project Manager (report results to): andrew.ballard@coffey.com		Courier Service: TOLL		Consignment Note No.: 00903P2T57											
Relinquished By: Coffey Geotechnics			Date:	Time:	Received By: <i>Priscilla</i>		Date:	Time:										
Coffs Harbour							<i>22/11</i>	<i>07:00</i>										
Comments:	Sample Matrix	Container Type & Preservative	Sample No.	Sample Depth (m)	Date Sampled:	Analyses Required										Sample Condition on Receipt		
						PAHS/ Phenols (Total)	TPHs/ BTEX	MAHs-BTEX	Metals: 8	OCPI/OPP	PCBs	Asbestos	Forward to Melbourne Lab					HOLD
<i>10 to 1852</i>	Soil	250ml Glass Jar	HA1	0.5	19-Nov-12				X									
<i>41</i>	Soil	250ml Glass Jar	HA1	1	19-Nov-12													X
<i>42</i>	Soil	250ml Glass Jar	HA1	1.3	19-Nov-12	X	X		X									
<i>43</i>	Soil	250ml Glass Jar	HA2	0.15	19-Nov-12				X									
<i>44</i>	Soil	250ml + zip lock bag	HA2	0.5	19-Nov-12				X			X						
<i>45</i>	Soil	250ml + zip lock bag	HA3	0.15	19-Nov-12				X	X		X						
<i>46</i>	Soil	250ml Glass Jar	HA3	0.5	19-Nov-12				X	X								X
<i>47</i>	Soil	250ml Glass Jar	HA3	0.7	19-Nov-12				X									
<i>48</i>	Soil	250ml Glass Jar	BH1	0.15	20-Nov-12													X
<i>49</i>	Soil	250ml Glass Jar	BH2	0.15	20-Nov-12													X
<i>50</i>	Soil	250ml Glass Jar	BH3	0.15	20-Nov-12													X
<i>51</i>	Soil	250ml Glass Jar	BH5	0.15	20-Nov-12													X
<i>52</i>	Soil	250ml Glass Jar	BH6	0.15	19-Nov-12													X
<i>53</i>	Soil	250ml + zip lock bag	BH6	0.5	19-Nov-12	X	X		X	X	X							
<i>54</i>	Soil	250ml Glass Jar	BH6	1	19-Nov-12	X			X									
<i>55</i>	Soil	250ml Glass Jar	BH6	1.5	19-Nov-12													X
<i>56</i>	Soil	250ml Glass Jar	BH6	2.5	19-Nov-12				X									
Special Laboratory Instructions:			Metals 8: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn / Phenols (Total)															
Detection Limits:			Standard			Turnaround Required:			Normal (5day TAT)									

#260588

Chain of Custody						Laboratory Quotation/ Order No:				Project No.: GEOTCOFH03037AA		Sheet 4 of 5						
Dispatch to:			mgt LabMark		Sampled By:		JP				Consigning Officer		JP					
Attention:			Sample Receipt		Project Manager:		andrew.ballard@colley.com				Date Dispatched		41234					
Relinquished By:			Coffey Geotechnics		Date:		Time:		Received By: <i>Patricia</i>				Date:		Time:			
			Coffs Harbour										<i>22/11</i>		<i>0900</i>			
Comments:	Sample Matrix	Container Type & Preservative	Sample No.	Sample Depth (m)	Date Sampled:	Analyses Required											Sample Condition on Receipt	
						PAHS/ Phenols (Total)	TPHS/ BTEX	MAHs=BTEX	Metals: 8	OC/POPP	PCBs	Asbestos	Forward to Melbourne Lab					HOLD
<i>No 102.57</i>	Soil	250ml Glass Jar	BH6	5.5	19-Nov-12													X
<i>58</i>	Soil	250ml Glass Jar	BH6	7	19-Nov-12													X
<i>59</i>	Soil	250ml Glass Jar	BH6	10	19-Nov-12													X
<i>60</i>	Soil	250ml Glass Jar	BH8	0.15	20-Nov-12													X
<i>61</i>	Soil	250ml Glass Jar	BH10	0.15	20-Nov-12													X
<i>62</i>	Soil	250ml Glass Jar	BH11	0.15	20-Nov-12				X									
<i>63</i>	Soil	250ml Glass Jar	BH12	0.15	20-Nov-12				X									
<i>64</i>	Soil	250ml Glass Jar	BH13	0.15	20-Nov-12													X
<i>65</i>	Soil	250ml Glass Jar	BH14	0.15	19-Nov-12													X
<i>66</i>	Soil	250ml + zip lock bag	BH14	0.5	19-Nov-12	X			X	X	X	X						
<i>67</i>	Soil	250ml + zip lock bag	BH14	1	19-Nov-12	X	X		X			X						
<i>68</i>	Soil	250ml Glass Jar	BH14	2	19-Nov-12				X									
<i>69</i>	Soil	250ml Glass Jar	BH14	2.5	19-Nov-12													X
<i>70</i>	Soil	250ml Glass Jar	BH15	0.15	19-Nov-12													X
<i>71</i>	Soil	250ml + zip lock bag	BH15	0.5	19-Nov-12		X		X			X						
<i>72</i>	Soil	250ml Glass Jar	BH15	1	19-Nov-12													X
<i>73</i>	Soil	250ml Glass Jar	BH15	2	19-Nov-12													X
Special Laboratory Instructions:						Metals 8: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn / Phenols (Total)												
Detection Limits:			Standard			Turnaround Required:			Normal (5day TAT)									

#360566

Chain of Custody			Laboratory Quotation/ Order No:			Project No.: GEOTCOFH03037AA		Sheet 5 of 5										
Dispatch to:		mg1 LabMark		Sampled By:		JP												
Attention:		Sample Receipt		Project Manager:		(report results to) andrew.ballard@coffey.com												
Relinquished By:		Coffey Geotechnics		Date:		Time:		Received By: Priscilla [Signature]										
		Coffs Harbour						Date: 22/11 Time: 0900.										
Comments:	Sample Matrix	Container Type & Preservative	Sample No.	Sample Depth (m)	Date Sampled:	Analyses Required										Sample Condition on Receipt		
						PAHS/ Phenols (Total)	TPHs/ BTEX	MAHs=BTEX	Metals: 8	OCP/OPP	PCBs	Asbestos	Forward to Melbourne Lab					HOLD
No 182-74	Soil	Zip lock bag	BH3	0.15														
75	Soil	Zip lock bag	BH6	0.15														
76	Soil	250ml Glass Jar	QC1		19-Nov-12													X
77	Soil	250ml Glass Jar	QC2		19-Nov-12													X
78	Soil	250ml Glass Jar	QC3		19-Nov-12	X	X		X	X								X
79	Soil	250ml Glass Jar	QC4		19-Nov-12													X
80	Soil	250ml Glass Jar	QC5		19-Nov-12				X									
	Soil	250ml Glass Jar	QC6		19-Nov-12				X									
81	Soil	250ml Glass Jar	QC7		20-Nov-12	X	X		X	X	X			X				
	Soil	250ml Glass Jar	QC8		20-Nov-12		X		X					X				
82	Soil	250ml Glass Jar	QC9		20-Nov-12													X
83	Soil	250ml Glass Jar	QC10		20-Nov-12				X									
Special Laboratory Instructions:			Metals 8: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn / Phenols (Total)															
Detection Limits:			Standard			Turnaround Required:			Normal (5day TAT)									

Coffey Geotechnics Pty Ltd
 Unit 1 18 Hurley Dve
 Coffs Harbour
 NSW 2450

Attention: Andrew Ballard

Report **360521-S**
 Client Reference GEOTCOFH03037AA
 Received Date Nov 23, 2012



NATA Accredited
 Accreditation Number 1261
 Site Number 1254

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			QC6	QC8
Sample Matrix			Soil	Soil
mgt-LabMark Sample No.			M12-No20964	M12-No20965
Date Sampled			Nov 19, 2012	Nov 20, 2012
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	20	mg/kg	-	< 20
TRH C10-C14	20	mg/kg	-	< 20
TRH C15-C28	50	mg/kg	-	< 50
TRH C29-C36	50	mg/kg	-	< 50
TRH C10-36 (Total)	50	mg/kg	-	< 50
BTEX				
Benzene	0.05	mg/kg	-	< 0.05
Toluene	0.05	mg/kg	-	< 0.05
Ethylbenzene	0.05	mg/kg	-	< 0.05
o-Xylene	0.05	mg/kg	-	< 0.05
Total m+p-Xylenes	0.10	mg/kg	-	< 0.1
Xylenes(ortho.meta and para)	0.15	mg/kg	-	< 0.15
Fluorobenzene (surr.)	1	%	-	125
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50
TRH >C16-C34	100	mg/kg	-	< 100
TRH >C34-C40	100	mg/kg	-	< 100
Heavy Metals				
Arsenic	2	mg/kg	2.8	5.5
Cadmium	0.4	mg/kg	< 0.4	0.4
Chromium	5	mg/kg	14	8.9
Copper	5	mg/kg	5.2	9.2
Lead	5	mg/kg	25	10
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	5.4
Zinc	5	mg/kg	35	61
% Moisture				
	0.1	%	15	6.7

Sample History

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: TRH C6-C36 - MGT 100A	Melbourne	Nov 26, 2012	14 Day
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * - Method: LM-LTM-ORG2010	Melbourne	Nov 26, 2012	14 Day
BTEX - Method: USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons and MGT 100A	Melbourne	Nov 26, 2012	14 Day
Metals M8 - Method: USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury	Melbourne	Nov 26, 2012	28 Day
% Moisture - Method: Method 102 - ANZECC - % Moisture	Melbourne	Nov 26, 2012	14 Day

Company Name: Coffey Geotechnics Pty Ltd COFFS	Order No.:	Received: Nov 23, 2012 10:09 AM
Address: Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Report #: 360521	Due: Nov 30, 2012
	Phone: 02 6651 3213	Priority: 5 Day
	Fax: 02 6651 5194	Contact Name: Andrew Ballard
Client Job No.: GEOTCOFH03037AA		

mgt-LabMark Client Manager: Jean Heng

Sample Detail					% Moisture	BTEX	Metals M8	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted								
Melbourne Laboratory - NATA Site # 1254 & 14271					X	X	X	X
Sydney Laboratory - NATA Site # 18217								
Brisbane Laboratory - NATA Site # 20794								
External Laboratory								
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
QC6	Nov 19, 2012		Soil	M12-No20964	X		X	
QC8	Nov 20, 2012		Soil	M12-No20965	X	X	X	X

mgt-LabMark Internal Quality Control Review

General

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

Holding Times

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

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

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

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

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

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the 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
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Method Blank						
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A						
TRH C6-C9	mg/kg	< 20		20	Pass	
TRH C10-C14	mg/kg	< 20		20	Pass	
TRH C15-C28	mg/kg	< 50		50	Pass	
TRH C29-C36	mg/kg	< 50		50	Pass	
Method Blank						
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons and MGT 100A						
Benzene	mg/kg	< 0.05		0.05	Pass	
Toluene	mg/kg	< 0.05		0.05	Pass	
Ethylbenzene	mg/kg	< 0.05		0.05	Pass	
o-Xylene	mg/kg	< 0.05		0.05	Pass	
Total m+p-Xylenes	mg/kg	< 0.1		0.10	Pass	
Xylenes(ortho.meta and para)	mg/kg	< 0.15		0.15	Pass	
Method Blank						
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010						
Naphthalene	mg/kg	< 0.5		0.5	Pass	
TRH C6-C10	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						
Metals M8 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 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	< 0.1		0.1	Pass	
Nickel	mg/kg	< 5		5	Pass	
Zinc	mg/kg	< 5		5	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A						
TRH C6-C9	%	105		70-130	Pass	
TRH C10-C14	%	104		70-130	Pass	
LCS - % Recovery						
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons and MGT 100A						
Benzene	%	113		70-130	Pass	
Toluene	%	124		70-130	Pass	
Ethylbenzene	%	104		70-130	Pass	
Total m+p-Xylenes	%	100		70-130	Pass	
Xylenes(ortho.meta and para)	%	97		70-130	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010						
TRH C6-C10	%	105		70-130	Pass	
TRH >C10-C16	%	98		70-130	Pass	
LCS - % Recovery						
Metals M8 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury						
Arsenic	%	97		80-120	Pass	
Cadmium	%	100		80-120	Pass	

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chromium				%	104			80-120	Pass	
Copper				%	107			80-120	Pass	
Lead				%	103			80-120	Pass	
Mercury				%	110			75-125	Pass	
Nickel				%	105			80-120	Pass	
Zinc				%	107			80-120	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1				Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery										
Metals M8					Result 1					
Arsenic	M12-No20833	NCP	%	91				75-125	Pass	
Cadmium	M12-No20833	NCP	%	102				75-125	Pass	
Chromium	M12-No20833	NCP	%	101				75-125	Pass	
Copper	M12-No20833	NCP	%	122				75-125	Pass	
Lead	M12-No20833	NCP	%	101				75-125	Pass	
Mercury	M12-No20941	NCP	%	102				70-130	Pass	
Nickel	M12-No20833	NCP	%	93				75-125	Pass	
Zinc	M12-No21449	NCP	%	109				75-125	Pass	
Spike - % Recovery										
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					Result 1					
TRH C6-C9	M12-No21218	NCP	%	98				70-130	Pass	
TRH C10-C14	M12-No21218	NCP	%	109				70-130	Pass	
Spike - % Recovery										
BTEX					Result 1					
Benzene	M12-No21218	NCP	%	104				70-130	Pass	
Toluene	M12-No21218	NCP	%	113				70-130	Pass	
Ethylbenzene	M12-No21218	NCP	%	97				70-130	Pass	
o-Xylene	M12-No21218	NCP	%	86				70-130	Pass	
Total m+p-Xylenes	M12-No21218	NCP	%	93				70-130	Pass	
Xylenes(ortho.meta and para)	M12-No21218	NCP	%	91				70-130	Pass	
Spike - % Recovery										
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *					Result 1					
TRH C6-C10	M12-No21218	NCP	%	98				70-130	Pass	
TRH >C10-C16	M12-No21218	NCP	%	102				70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1				Acceptance Limits	Pass Limits	Qualifying Code
Duplicate										
Metals M8					Result 1	Result 2	RPD			
Arsenic	M12-No20833	NCP	mg/kg	4.8	4.1	17		30%	Pass	
Cadmium	M12-No20833	NCP	mg/kg	< 0.4	< 0.4	3.0		30%	Pass	
Chromium	M12-No20833	NCP	mg/kg	17	17	3.0		30%	Pass	
Copper	M12-No20833	NCP	mg/kg	19	20	5.0		30%	Pass	
Lead	M12-No20833	NCP	mg/kg	66	62	7.0		30%	Pass	
Mercury	M12-No20941	NCP	mg/kg	< 0.1	< 0.1	94		30%	Fail	Q15
Nickel	M12-No20833	NCP	mg/kg	8.9	8.7	2.0		30%	Pass	
Zinc	M12-No20833	NCP	mg/kg	120	120	5.0		30%	Pass	
Duplicate										
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					Result 1	Result 2	RPD			
TRH C6-C9	M12-No21228	NCP	mg/kg	< 20	< 20	<1		30%	Pass	
TRH C10-C14	M12-No21218	NCP	mg/kg	< 20	< 20	<1		30%	Pass	
TRH C15-C28	M12-No21218	NCP	mg/kg	< 50	< 50	<1		30%	Pass	
TRH C29-C36	M12-No21218	NCP	mg/kg	< 50	< 50	<1		30%	Pass	
Duplicate										
BTEX					Result 1	Result 2	RPD			
Benzene	M12-No21228	NCP	mg/kg	< 0.05	< 0.05	<1		30%	Pass	
Toluene	M12-No21228	NCP	mg/kg	< 0.05	< 0.05	<1		30%	Pass	

Duplicate								
BTEX				Result 1	Result 2	RPD		
Ethylbenzene	M12-No21228	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
o-Xylene	M12-No21228	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Total m+p-Xylenes	M12-No21228	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes(ortho.meta and para)	M12-No21228	NCP	mg/kg	< 0.15	< 0.15	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD		
Naphthalene	M12-No21228	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	M12-No21228	NCP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	M12-No21218	NCP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M12-No21218	NCP	mg/kg	< 100	< 100	7.0	30%	Pass
TRH >C34-C40	M12-No21218	NCP	mg/kg	< 100	< 100	<1	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	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
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
Stacey Jenkins	Senior Analyst-Organic (VIC)
Carroll Lee	Senior Analyst-Volatile (VIC)
Emily Rosenberg	Senior Analyst-Metal (VIC)



Glenn Jackson

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

mgt-LabMark shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall mgt-LabMark be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Sample Receipt Advice

Company name: **Coffey Geotechnics Pty Ltd COFFS**
Contact name: Andrew Ballard
Client job number: GEOTCOFH03037AA
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Nov 23, 2012 10:09 AM
mgt-LabMark reference: **360521**

Sample information

- A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- All samples have been received as described on the above COC.
- COC has been completed correctly.
- Attempt to chill was evident.
- Appropriately preserved sample containers have been used.
- All samples were received in good condition.
- Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- Organic samples had Teflon liners.
- Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Contact notes

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 Andrew Ballard - Andrew_Ballard@coffey.com.

mgt-LabMark Sample Receipt

VIA CAME LOCK

Chain of Custody					Laboratory Quotation/ Order No:		Project No.: GEOTCOFH03037AA		Sheet 5 of 5										
Dispatch to: mgt LabMark			Sampled By: JP		Consigning Officer: JP		Date Dispatched: 41234												
Attention: Sample Receipt			Project Manager: (report results to) <u>andrew_ballard@coffey.com</u>		Courier Service: TOLL		Consignment Note No.: 00903P2T57												
Relinquished By: Coffey Geotechnics			Date:	Time:	Received By: <i>[Signature]</i>				Date:	Time:									
Coffs Harbour																			
Comments:	Sample Matrix	Container Type & Preservative	Sample No.	Sample Depth (m)	Date Sampled:	Analyses Required										Sample Condition on Receipt			
						PAHS/ Phenols (Total)	TPHS/ BTEX	MAHS=BTEX	Metals: 8	OCPI/OPP	PCBs	Asbestos	Forward to Melbourne Lab					HOLD	
136 18294	Soil	Zip lock bag	BH3	0.15															
85	Soil	Zip lock bag	BH6	0.15															
86	Soil	250ml Glass Jar	QC1		19-Nov-12														X
87	Soil	250ml Glass Jar	QC2		19-Nov-12														X
88	Soil	250ml Glass Jar	QC3		19-Nov-12	X	X		X	X									
89	Soil	250ml Glass Jar	QC4		19-Nov-12														X
90	Soil	250ml Glass Jar	QC5		19-Nov-12				X										
	Soil	250ml Glass Jar	QC6		19-Nov-12				X					X					
81	Soil	250ml Glass Jar	QC7		20-Nov-12	X	X		X	X	X								
	Soil	250ml Glass Jar	QC8		20-Nov-12		X		X					X					
82	Soil	250ml Glass Jar	QC9		20-Nov-12														X
92	Soil	250ml Glass Jar	QC10		20-Nov-12				X										
Special Laboratory Instructions:						Metals 8: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn / Phenols (Total)													
Detection Limits:			Standard			Turnaround Required:			Normal (5day TAT)										

REVIEW: CHRISTINE
22/11/12
12:00PM

Tony W
23/11 10:09

REPORT:
360521

Appendix B


Engineering Logs





Borehole No. **HA1**
 Sheet 1 of 1
 Project No. **GEOTCOFH03037AA**
 Date started: **19.11.2012**
 Date completed: **19.11.2012**
 Logged by: **JP**
 Checked by: **TGN**

Engineering Log - Borehole

Client: **Health Infrastructure NSW**
 Principal: **enstruct Group Pty Ltd**
 Project: **Phase 2 ESA, Kempsey District Hospital**
 Borehole Location: **Refer to Figure 2**

drill model and mounting: Hand Auger Easting: 15249.279 slope: -90° R.L. Surface:
 hole diameter: 100 mm Northing 3104.059 bearing: datum:

drilling information				material substance									
method	penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	pocket penetrometer kPa	structure and additional observations
1 2 3									soil type: plasticity or particle characteristics, colour, secondary and minor components.			100 200 300 400	
HA		N	Water not observed	E		1			FILL: CLAY, medium plasticity, brown.	<Wp			FILL
				E									
				E									
				E					SILTY CLAY: Medium plasticity, brown/pale orange mottled, white/pale grey.	>Wp			
						2			Refusal on base of concrete bund Borehole HA1 terminated at 1.3m				
						3							
						4							
						5							
						6							
						7							
						8							


method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool HA hand auger DT diatube B blank bit V V bit T TC bit *bit shown by suffix e.g. ADT	support M mud N nil C casing penetration 1 2 3 4  no resistance ranging to refusal water  10/1/98 water level on date shown  water inflow  water outflow	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	classification symbols and soil description based on unified classification system moisture D dry M moist W wet Wp plastic limit W _L liquid limit	consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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Borehole No. **HA2**
 Sheet 1 of 1
 Project No. **GEOTCOFH03037AA**
 Date started: **19.11.2012**
 Date completed: **19.11.2012**
 Logged by: **JP**
 Checked by: **TGN**

Engineering Log - Borehole

Client: **Health Infrastructure NSW**
 Principal: **enstruct Group Pty Ltd**
 Project: **Phase 2 ESA, Kempsey District Hospital**
 Borehole Location: **Refer to Figure 2**

drill model and mounting: Hand Auger Easting: 15249.279 slope: -90° R.L. Surface:
 hole diameter: 100 mm Northing 3104.033 bearing: datum:

drilling information				material substance									
method	penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	pocket penetrometer	structure and additional observations
1 2 3									soil type: plasticity or particle characteristics, colour, secondary and minor components.			100 200 300 400	
HA		N	Water not observed	E					FILL: SILT, dark brown, Clay low plasticity.	D			FILL
				F		1			Unable to recover sample Borehole HA2 terminated at 0.5m				
						2							
						3							
						4							
						5							
						6							
						7							
						8							

method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool HA hand auger DT diatube B blank bit V V bit T TC bit *bit shown by suffix e.g. ADT	support M mud N nil C casing penetration  1 no resistance 2 ranging to 3 refusal 4 water  10/1/98 water level on date shown  water inflow  water outflow	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	classification symbols and soil description based on unified classification system moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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Borehole No. **HA3**

Engineering Log - Borehole

Sheet 1 of 1
Project No: **GEOTCOFH03037AA**

Client: **Health Infrastructure NSW**

Date started: **19.11.2012**

Principal: **enstruct Group Pty Ltd**

Date completed: **19.11.2012**

Project: **Phase 2 ESA, Kempsey District Hospital**

Logged by: **JP**

Borehole Location: **Refer to Figure 2**

Checked by: **TGN**

drill model and mounting: Hand Auger Easting: 15249.278 slope: -90° R.L. Surface:
hole diameter: 100 mm Northing 3104.033 bearing: datum:

drilling information				material substance								
method	penetration 1 2 3	support water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	pocket penetro- meter kPa 100 200 300 400	structure and additional observations
HA		N Water not observed	E					FILL: SILT, brown/dark brown. FILL: Gravelly CLAY, medium plasticity, brown mottled, dark yellow.	D <Wp			FILL
			E					FILL: Sandy CLAY medium to high plasticity, dark grey, Sand fine to medium grained.	>Wp			RESIDUAL SOIL, minor sample return
			E		1		CL	CLAY: Medium to high plasticity, dark brown/dark red. Borehole HA3 terminated at 0.8m				
					2							
					3							
					4							
					5							
					6							
					7							
					8							

method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool HA hand auger DT diatube B blank bit V V bit T TC bit *bit shown by suffix e.g. ADT	support M mud N nil C casing penetration 1 2 3 4 no resistance ranging to refusal water 10/1/98 water level on date shown water inflow water outflow	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	classification symbols and soil description based on unified classification system moisture D dry M moist W wet Wp plastic limit W _L liquid limit	consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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BOREHOLE GINT LOGS, PHASE 2 ESA.GPJ COFFEY.GDT 12.12.12

Borehole No. **BH6**
 Sheet 1 of 4
 Project No. **GEOTCOFH03037AA**
 Date started: **9.11.2012**
 Date completed: **9.11.2012**
 Logged by: **MH**
 Checked by: **TGN**

Engineering Log - Borehole

Client: **Health Infrastructure NSW**
 Principal: **enstruct Group Pty Ltd**
 Project: **Phase 2 ESA, Kempsey District Hospital**
 Borehole Location: **Refer to Figure 2**

drill model and mounting: MD20 Easting: 482954 slope: -90° R.L. Surface:
 hole diameter: 100 mm Northing 6562882 bearing: datum:

drilling information				material substance									
method	penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	pocket penetrometer	structure and additional observations
1 2 3									soil type: plasticity or particle characteristics, colour, secondary and minor components.			100 200 300 400	
ADT		N							FILL: SANDY CLAY, low plasticity, pale brown/dark brown, some gravel.	D/<Wp			FILL
				Ex2		1			FILL: SILTY SAND, dark brown to black, some fine to coarse gravel, pale grey.				Suspected fly ash to 1.2m
				Ex2 SPT 3,3,3 N*=6 E		2			FILL: CLAY, high plasticity, mottled grey/red/orange, some silt.	M/>Wp			
				E SPT 3,6,7 N*=13		3		CH	CLAY: high plasticity, dark red mottled grey, trace sand.	>Wp	H		RESIDUAL SOIL
						4		CH	CLAY: Medium plasticity, pale grey mottled orange and red, some silt.	Wp	H/Fb		EXTREMELY WEATHERED SILTSTONE
				SPT 4,11,15 N*=26		5					VSt/H		
				E SPT 5,10,11 N*=21		6			dark grey lines in grey bands.				
						7							
				E SPT 6,12,15 N*=27		8			some sections approaching rock strength				

method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool HA hand auger DT diatube B blank bit V V bit T TC bit *bit shown by suffix e.g. ADT	support M mud N nil C casing penetration 1 2 3 4 no resistance ranging to refusal water 10/1/98 water level on date shown water inflow water outflow	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	classification symbols and soil description based on unified classification system moisture D dry M moist W wet Wp plastic limit W _L liquid limit	consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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Borehole No. **BH6**
 Sheet 2 of 4
 Project No. **GEOTCOFH03037AA**
 Date started: **9.11.2012**
 Date completed: **9.11.2012**
 Logged by: **MH**
 Checked by: **TGN**

Engineering Log - Borehole

Client: **Health Infrastructure NSW**
 Principal: **enstruct Group Pty Ltd**
 Project: **Phase 2 ESA, Kempsey District Hospital**
 Borehole Location: **Refer to Figure 2**

drill model and mounting: MD20 Easting: 482954 slope: -90° R.L. Surface:
 hole diameter: 100 mm Northing 6562882 bearing: datum:

drilling information				material substance									
method	penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	pocket penetrometer	structure and additional observations
1 2 3									soil type: plasticity or particle characteristics, colour, secondary and minor components.			100 200 300 400 kPa	
ADT		N				9		CH	CLAY: Medium plasticity, pale grey mottled orange and red, some silt. (continued)	Wp	VSt/H		
				SPT 4,8,9 N*=17		10							approaching highly weathered siltstone
				E SPT 4,17,25/100 N=R		11			HIGHLY WEATHERED SILTSTONE: Dark grey mottled orange brown, distinct layered and fissured fabric. Approx 30% as silty clay.	D			HIGHLY WEATHERED SILTSTONE
				SPT 25/120 N*=R		12			Borehole BH6 continued as cored hole				
						13							
						14							
						15							
						16							

method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool HA hand auger DT diatube B blank bit V V bit T TC bit *bit shown by suffix e.g. ADT	support M mud N nil C casing penetration 1 2 3 4 no resistance ranging to refusal water 10/1/98 water level on date shown water inflow water outflow	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	classification symbols and soil description based on unified classification system moisture D dry M moist W wet Wp plastic limit W _L liquid limit	consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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



Borehole No. **BH14**
 Sheet 1 of 1
 Project No. **GEOTCOFH03037AA**
 Date started: **19.11.2012**
 Date completed: **19.11.2012**
 Logged by: **MH**
 Checked by: **TGN**

Engineering Log - Borehole

Client: **Health Infrastructure NSW**
 Principal: **enstruct Group Pty Ltd**
 Project: **Phase 2 ESA, Kempsey District Hospital**
 Borehole Location: **Refer to Figure 2**

drill model and mounting: MD20 Easting: 482951 slope: -90° R.L. Surface:
 hole diameter: 100 mm Northing 6562872 bearing: datum:

drilling information				material substance									
method	penetration	support	water	notes samples, tests, etc	RL	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	pocket penetrometer	structure and additional observations
	1 2 3								soil type: plasticity or particle characteristics, colour, secondary and minor components.			100 200 300 400	
ADT		N	Water not observed			0			FILL: SANDY CLAY, low plasticity, dark brown to black, some gravel. colour change to pale brown/yellow	D/<Wp			FILL
				E		1			FILL: SANDY CLAY, low plasticity, dark brown to black, some orange/grey gravel, pale grey to dark grey friable material (fly ash)				suspected fly ash
				E		2		CL	CLAY: Low plasticity, dark brown to black, trace sand/ fine gravel, trace fine roots.	M/>Wp	F/St?		TOPSOIL?
				E		2		CH	CLAY: High plasticity, orange-brown to brown, trace orange gravel, fine to coarse grained, subangular.	>Wp	St?		SLOPE WASH/RESIDUAL SOIL
				F		2		CH	CLAY: High plasticity, dark orange mottled pale brown.		VSt?		RESIDUAL SOIL
						3			Borehole BH14 terminated at 2.5m				
						4							
						5							
						6							
						7							
						8							

method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool HA hand auger DT diatube B blank bit V V bit T TC bit *bit shown by suffix e.g. ADT	support M mud N nil C casing penetration 1 2 3 4  no resistance ranging to refusal water  10/1/98 water level on date shown  water inflow  water outflow	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	classification symbols and soil description based on unified classification system moisture D dry M moist W wet Wp plastic limit W _L liquid limit	consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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Engineering Log - Borehole

 Client: **Health Infrastructure NSW**

 Date started: **9.11.2012**

 Principal: **enstruct Group Pty Ltd**

 Date completed: **9.11.2012**

 Project: **Phase 2 ESA, Kempsey District Hospital**





 Logged by: **MH**

 Borehole Location: **Refer to Figure 2**

 Checked by: **TGN**

drill model and mounting:	MD20 LANDCRUISER	Easting:	482955	slope:	-90°	R.L. Surface:
hole diameter:	100 mm	Northing:	6562891	bearing:		datum:

drilling information				material substance			
method	penetration 1 2 3	support water	notes samples, tests, etc	depth metres	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components.	structure and additional observations
ADT		N Water not observed	E	1		FILL: SANDY CLAY, low plasticity, dark brown to black, some gravel, fine to coarse grained, subrounded to subangular. Some gravel is weathered rock, orange.	FILL
			E	1.5	CH	CLAY: Medium to high plasticity, brown to black, trace gravel.	TOPSOIL?
			E	2	CH	CLAY: High plasticity, dark orange mottled pale brown.	RESIDUAL SOIL
				2.5		approaching extremely weathered material, trace gravel.	
				3		Borehole BH15 terminated at 2.5m	
				4			
				5			
				6			
				7			
				8			

method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool HA hand auger DT diatube B blank bit V V bit T TC bit *bit shown by suffix e.g. ADT	support M mud N nil C casing penetration 1 2 3 4  no resistance ranging to refusal water  10/1/98 water level on date shown  water inflow  water outflow	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter U ₆₃ undisturbed sample 63mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone V vane shear (kPa) P pressuremeter Bs bulk sample E environmental sample R refusal	classification symbols and soil description based on unified classification system moisture D dry M moist W wet Wp plastic limit W _L liquid limit	consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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BOREHOLE GINT LOGS_PHASE 2 ESA.GPJ COFFEY.GDT 12.12.12

Soil Description Explanation Sheet (1 of 2)

DEFINITION:

In engineering terms soil includes every type of uncemented or partially cemented inorganic or organic material found in the ground. In practice, if the material can be remoulded or disintegrated by hand in its field condition or in water it is described as a soil. Other materials are described using rock description terms.

CLASSIFICATION SYMBOL & SOIL NAME

Soils are described in accordance with the Unified Soil Classification (UCS) as shown in the table on Sheet 2.

PARTICLE SIZE DESCRIPTIVE TERMS

NAME	SUBDIVISION	SIZE
Boulders		>200 mm
Cobbles		63 mm to 200 mm
Gravel	coarse	20 mm to 63 mm
	medium	6 mm to 20 mm
	fine	2.36 mm to 6 mm
Sand	coarse	600 μ m to 2.36 mm
	medium	200 μ m to 600 μ m
	fine	75 μ m to 200 μ m

MOISTURE CONDITION

Dry Looks and feels dry. Cohesive and cemented soils are hard, friable or powdery. Uncemented granular soils run freely through hands.

Moist Soil feels cool and darkened in colour. Cohesive soils can be moulded. Granular soils tend to cohere.

Wet As for moist but with free water forming on hands when handled.

CONSISTENCY OF COHESIVE SOILS

TERM	UNDRAINED STRENGTH S_u (kPa)	FIELD GUIDE
Very Soft	<12	A finger can be pushed well into the soil with little effort.
Soft	12 - 25	A finger can be pushed into the soil to about 25mm depth.
Firm	25 - 50	The soil can be indented about 5mm with the thumb, but not penetrated.
Stiff	50 - 100	The surface of the soil can be indented with the thumb, but not penetrated.
Very Stiff	100 - 200	The surface of the soil can be marked, but not indented with thumb pressure.
Hard	>200	The surface of the soil can be marked only with the thumbnail.
Friable	-	Crumbles or powders when scraped by thumbnail.

DENSITY OF GRANULAR SOILS

TERM	DENSITY INDEX (%)
Very loose	Less than 15
Loose	15 - 35
Medium Dense	35 - 65
Dense	65 - 85
Very Dense	Greater than 85

MINOR COMPONENTS

TERM	ASSESSMENT GUIDE	PROPORTION OF MINOR COMPONENT IN:
Trace of	Presence just detectable by feel or eye, but soil properties little or no different to general properties of primary component.	Coarse grained soils: <5% Fine grained soils: <15%
With some	Presence easily detected by feel or eye, soil properties little different to general properties of primary component.	Coarse grained soils: 5 - 12% Fine grained soils: 15 - 30%

SOIL STRUCTURE

ZONING	CEMENTING
Layers Continuous across exposure or sample.	Weakly cemented Easily broken up by hand in air or water.
Lenses Discontinuous layers of lenticular shape.	Moderately cemented Effort is required to break up the soil by hand in air or water.
Pockets Irregular inclusions of different material.	

GEOLOGICAL ORIGIN

WEATHERED IN PLACE SOILS

Extremely weathered material Structure and fabric of parent rock visible.

Residual soil Structure and fabric of parent rock not visible.

TRANSPORTED SOILS

Aeolian soil Deposited by wind.

Alluvial soil Deposited by streams and rivers.

Colluvial soil Deposited on slopes (transported downslope by gravity).

Fill Man made deposit. Fill may be significantly more variable between tested locations than naturally occurring soils.

Lacustrine soil Deposited by lakes.

Marine soil Deposited in ocean basins, bays, beaches and estuaries.

Soil Description Explanation Sheet (2 of 2)

SOIL CLASSIFICATION INCLUDING IDENTIFICATION AND DESCRIPTION

FIELD IDENTIFICATION PROCEDURES (Excluding particles larger than 60 mm and basing fractions on estimated mass)				USC	PRIMARY NAME	
COARSE GRAINED SOILS More than 50% of materials less than 63 mm is larger than 0.075 mm	GRAVELS More than half of coarse fraction is larger than 2.36 mm	CLEAN GRAVELS (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes.	GW	GRAVEL	
		GRAVELS WITH FINES (Appreciable amount of fines)	Predominantly one size or a range of sizes with more intermediate sizes missing.	GP	GRAVEL	
		CLEAN SANDS (Little or no fines)	Non-plastic fines (for identification procedures see ML below)	GM	SILTY GRAVEL	
			Plastic fines (for identification procedures see CL below)	GC	CLAYEY GRAVEL	
	SANDS More than half of coarse fraction is smaller than 2.36 mm	CLEAN SANDS (Little or no fines)	Wide range in grain sizes and substantial amounts of all intermediate sizes	SW	SAND	
		SANDS WITH FINES (Appreciable amount of fines)	Predominantly one size or a range of sizes with some intermediate sizes missing.	SP	SAND	
		SANDS WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML below).	SM	SILTY SAND	
			Plastic fines (for identification procedures see CL below).	SC	CLAYEY SAND	
FINE GRAINED SOILS More than 50% of material less than 63 mm is smaller than 0.075 mm (A 0.075 mm particle is about the smallest particle visible to the naked eye)	IDENTIFICATION PROCEDURES ON FRACTIONS <0.2 mm.					
	SILTS & CLAYS Liquid limit less than 50	DRY STRENGTH	DILATANCY	TOUGHNESS		
		None to Low	Quick to slow	None	ML	SILT
		Medium to High	None	Medium	CL	CLAY
	SILTS & CLAYS Liquid limit greater than 50	Low to medium	Slow to very slow	Low	OL	ORGANIC SILT
		Low to medium	Slow to very slow	Low to medium	MH	SILT
		High	None	High	CH	CLAY
		Medium to High	None	Low to medium	OH	ORGANIC CLAY
HIGHLY ORGANIC SOILS	Readily identified by colour, odour, spongy feel and frequently by fibrous texture.			Pt	PEAT	

• Low plasticity – Liquid Limit w_L less than 35%. • Medium plasticity – w_L between 35% and 50%. • High plasticity – w_L greater than 50%.

COMMON DEFECTS IN SOIL

TERM	DEFINITION	DIAGRAM	TERM	DEFINITION	DIAGRAM
PARTING	A surface or crack across which the soil has little or no tensile strength. Parallel or sub parallel to layering (eg bedding). May be open or closed.		SOFTENED ZONE	A zone in clayey soil, usually adjacent to a defect in which the soil has a higher moisture content than elsewhere.	
JOINT	A surface or crack across which the soil has little or no tensile strength but which is not parallel or sub parallel to layering. May be open or closed. The term 'fissure' may be used for irregular joints <0.2 m in length.		TUBE	Tubular cavity. May occur singly or as one of a large number of separate or inter-connected tubes. Walls often coated with clay or strengthened by denser packing of grains. May contain organic matter	
SHEARED ZONE	Zone in clayey soil with roughly parallel near planar, curved or undulating boundaries containing closely spaced, smooth or slickensided, curved intersecting joints which divide the mass into lenticular or wedge shaped blocks.		TUBE CAST	Roughly cylindrical elongated body of soil different from the soil mass in which it occurs. In some cases the soil which makes up the tube cast is cemented.	
SHEARED SURFACE	A near planar curved or undulating, smooth, polished or slickensided surface in clayey soil. The polished or slickensided surface indicates that movement (in many cases very little) has occurred along the defect.		INFILLED SEAM	Sheet or wall like body of soil substance or mass with roughly planar to irregular near parallel boundaries which cuts through a soil mass. Formed by infilling of open joints.	



Rock Description Explanation Sheet (1 of 2)

The descriptive terms used by Coffey are given below. They are broadly consistent with Australian Standard AS1726-1993.

DEFINITIONS: Rock substance, defect and mass are defined as follows:

Rock Substance In engineering terms rock substance is any naturally occurring aggregate of minerals and organic material which cannot be disintegrated or remoulded by hand in air or water. Other material is described using soil descriptive terms. Effectively homogenous material, may be isotropic or anisotropic.

Defect Discontinuity or break in the continuity of a substance or substances.

Mass Any body of material which is not effectively homogeneous. It can consist of two or more substances without defects, or one or more substances with one or more defects.

SUBSTANCE DESCRIPTIVE TERMS:

ROCK NAME Simple rock names are used rather than precise geological classification.

PARTICLE SIZE Grain size terms for sandstone are:
 Coarse grained Mainly 0.6mm to 2mm
 Medium grained Mainly 0.2mm to 0.6mm
 Fine grained Mainly 0.06mm (just visible) to 0.2mm

FABRIC Terms for layering of penetrative fabric (eg. bedding, cleavage etc.) are:

Massive No layering or penetrative fabric.

Indistinct Layering or fabric just visible. Little effect on properties.

Distinct Layering or fabric is easily visible. Rock breaks more easily parallel to layering of fabric.

CLASSIFICATION OF WEATHERING PRODUCTS

Term	Abbreviation	Definition
Residual Soil	RS	Soil derived from the weathering of rock; the mass structure and substance fabric are no longer evident; there is a large change in volume but the soil has not been significantly transported.
Extremely Weathered Material	XW	Material is weathered to such an extent that it has soil properties, ie, it either disintegrates or can be remoulded in water. Original rock fabric still visible.
Highly Weathered Rock	HW	Rock strength is changed by weathering. The whole of the rock substance is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable. Some minerals are decomposed to clay minerals. Porosity may be increased by leaching or may be decreased due to the deposition of minerals in pores.
Moderately Weathered Rock	MW	The whole of the rock substance is discoloured, usually by iron staining or bleaching, to the extent that the colour of the fresh rock is no longer recognisable.
Slightly Weathered Rock	SW	Rock substance affected by weathering to the extent that partial staining or partial discolouration of the rock substance (usually by limonite) has taken place. The colour and texture of the fresh rock is recognisable; strength properties are essentially those of the fresh rock substance.
Fresh Rock	FR	Rock substance unaffected by weathering.

Notes on Weathering:

- AS1726 suggests the term "Distinctly Weathered" (DW) to cover the range of substance weathering conditions between XW and SW. For projects where it is not practical to delineate between HW and MW or it is judged that there is no advantage in making such a distinction. DW may be used with the definition given in AS1726.
- Where physical and chemical changes were caused by hot gasses and liquids associated with igneous rocks, the term "altered" may be substituted for "weathering" to give the abbreviations XA, HA, MA, SA and DA.

ROCK SUBSTANCE STRENGTH TERMS

Term	Abbreviation	Point Load Index, $I_{p(50)}$ (MPa)	Field Guide
Very Low	VL	Less than 0.1	Material crumbles under firm blows with sharp end of pick; can be peeled with a knife; pieces up to 30mm thick can be broken by finger pressure.
Low	L	0.1 to 0.3	Easily scored with a knife; indentations 1mm to 3mm show with firm bows of a pick point; has a dull sound under hammer. Pieces of core 150mm long by 50mm diameter may be broken by hand. Sharp edges of core may be friable and break during handling.
Medium	M	0.3 to 1.0	Readily scored with a knife; a piece of core 150mm long by 50mm diameter can be broken by hand with difficulty.
High	H	1 to 3	A piece of core 150mm long by 50mm can not be broken by hand but can be broken by a pick with a single firm blow; rock rings under hammer.
Very High	VH	3 to 10	Hand specimen breaks after more than one blow of a pick; rock rings under hammer.
Extremely High	EH	More than 10	Specimen requires many blows with geological pick to break; rock rings under hammer.

Notes on Rock Substance Strength:

- In anisotropic rocks the field guide to strength applies to the strength perpendicular to the anisotropy. High strength anisotropic rocks may break readily parallel to the planar anisotropy.
- The term "extremely low" is not used as a rock substance strength term. While the term is used in AS1726-1993, the field guide therein makes it clear that materials in that strength range are soils in engineering terms.
- The unconfined compressive strength for isotropic rocks (and anisotropic rocks which fall across the planar anisotropy) is typically 10 to 25 times the point load index $I_p(50)$. The ratio may vary for different rock types. Lower strength rocks often have lower ratios than higher strength rocks.

Rock Description Explanation Sheet (2 of 2)

COMMON DEFECTS IN ROCK MASSES		Diagram	Map Symbol	Graphic Log (Note 1)	DEFECT SHAPE	TERMS
Term	Definition				Planar	The defect does not vary in orientation
Parting	A surface or crack across which the rock has little or no tensile strength. Parallel or sub parallel to layering (eg bedding) or a planar anisotropy in the rock substance (eg, cleavage). May be open or closed.		20 	Bedding 20 		Curved The defect has a gradual change in orientation
Joint	A surface or crack across which the rock has little or no tensile strength, but which is not parallel or sub parallel to layering or planar anisotropy in the rock substance. May be open or closed.		60 		Undulating The defect has a wavy surface	Stepped The defect has one or more well defined steps
Sheared Zone (Note 3)	Zone of rock substance with roughly parallel near planar, curved or undulating boundaries cut by closely spaced joints, sheared surfaces or other defects. Some of the defects are usually curved and intersect to divide the mass into lenticular or wedge shaped blocks.		35 		Irregular The defect has many sharp changes of orientation	Note: The assessment of defect shape is partly influenced by the scale of the observation.
Sheared Surface (Note 3)	A near planar, curved or undulating surface which is usually smooth, polished or slickensided.		40 		ROUGHNESS TERMS	
Crushed Seam (Note 3)	Seam with roughly parallel almost planar boundaries, composed of disoriented, usually angular fragments of the host rock substance which may be more weathered than the host rock. The seam has soil properties.		50 		Slickensided Grooved or striated surface, usually polished	Polished Shiny smooth surface
Infilled Seam	Seam of soil substance usually with distinct roughly parallel boundaries formed by the migration of soil into an open cavity or joint, infilled seams less than 1mm thick may be described as veneer or coating on joint surface.		65 		Smooth Smooth to touch. Few or no surface irregularities	Rough Many small surface irregularities (amplitude generally less than 1mm). Feels like fine to coarse sand paper.
Extremely Weathered Seam	Seam of soil substance, often with gradational boundaries. Formad by weathering of the rock substance in place.		32 		Very Rough Many large surface irregularities (amplitude generally more than 1mm). Feels like, or coarser than very coarse sand paper.	COATING TERMS
Notes on Defects:					Clean No visible coating	Stained No visible coating but surfaces are discoloured
1. Usually borehole logs show the true dip of defects and face sketches and sections the apparent dip.					Veneer A visible coating of soil or mineral, too thin to measure; may be patchy	Coating A visible coating up to 1mm thick. Thicker soil material is usually described using appropriate defect terms (eg, infilled seam). Thicker rock strength material is usually described as a vein.
2. Partings and joints are not usually shown on the graphic log unless considered significant.					BLOCK SHAPE TERMS	
3. Sheared zones, sheared surfaces and crushed seams are faults in geological terms.					Blocky Approximately equidimensional	Tabular Thickness much less than length or width
					Columnar Height much greater than cross section	

Appendix C

Addendum letter, ref GEOTCOFH03037AA-AI, date 24 January 2013

24 January 2013

Health Infrastructure NSW
c/o enstruct Group Pty Ltd
Level 4 Glen St,
Milsons Point, NSW, 2061

Attention: Tim Boulton

Dear Tim,

RE: Addendum Phase 2 ESA Report - Soil Remediation Area and Estimated Stripping Volume

The Phase 2 Environmental Site Assessment (ESA) prepared for the Stage 1 and Civil Works Zone Redevelopment at Kempsey District Hospital, ref GEOTCOFH03037AA-AH dated 12 December 2012, identified an area of localised lead contamination within the surface soils of the Stage 1 area at the eastern perimeter of the former Boiler and Laundry building, see Figure 1.

Surface sample SS10 collected from this location reported an elevated concentration of lead (Pb) (960mg/kg) which was above the adopted guideline value for Pb of 600mg/kg. Surface sample SS10 was collected from adjacent to the eastern wall of the boiler room building. The source of the elevated levels of lead is flaking paint (potential lead based paint) observed on the eaves around this building.

The ESA report recommended that soils in this area be stripped to a depth of 0.2m below ground surface as part of the demolition and early works for the project. A waste classification will be required for these stripped soils to allow their removal off-site for proper disposal to a licensed landfill.

The purpose of this letter is to provide further details on the estimated area and volume of soil (cubic metres) to be stripped and removed from the site in AEC 2, and current rates for disposal of clean soil and contaminated soil to nearby landfill.

Based on an area of 30m² the estimated volume is about 6 cubic metres of impacted soil which is to be stripped from this area of the Site, see Figure 1. Using a bulking factor of 1.6 to convert this volume to an equivalent weight is about 9.6 tonnes.

The nearest regional landfill to the Kempsey Hospital site which is licenced to accept contaminated soil is the Cairncross Waste Management Facility, located at 8395 Pacific Highway, Telegraph Point.

Advice was sought from Port Macquarie Hastings Council on current landfill tip fees for soil and contaminated soil, see below:

Waste Soil Description	Disposal Cost / tonne (incl. GST)
VENM Clean Soil	\$110
General Solid Waste	\$170
Asbestos Waste	\$281

If you require further information please contact the undersigned in our Coffs Harbour office on 1300 513 213.

For and on behalf of Coffey Geotechnics Pty Ltd

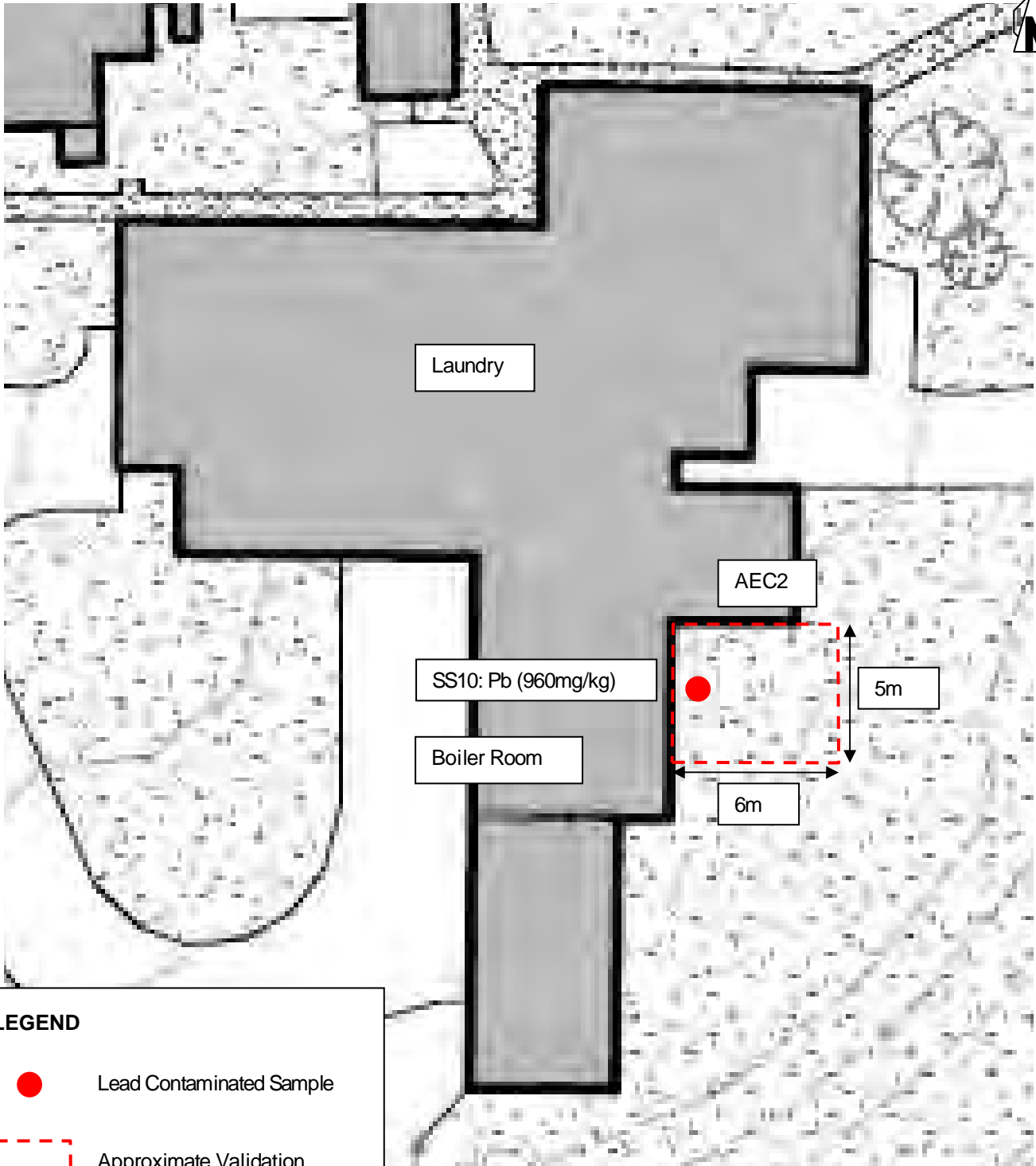


Andrew Ballard

Associate Environmental Scientist
Environmental Team Leader – Coffs Harbour

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1 Copy (electronic adobe.pdf copy) enstruct Group Pty Ltd

Attachment: Figure 1 – Soil Remediation Area and Estimated Soil Volume



LEGEND




Lead Contaminated Sample



Approximate Validation Dimensions

Estimated Soil Volume

AEC 2 = 6m³

drawn:	JP		client:	enstruct Group Pty Ltd		
approved:	AB		project:	Stage 1 and Civil Works Zone Redevelopment Kempsey District Hospital, Kempsey NSW		
date:	24 January 2013		title:	Soil Remediation Area and Estimated Soil Volume		
scale:	NTS		project no.:	GEOTCOFH03037AA	drawing no:	Figure 1
original size:	A4					