

☐ Preliminary

☒ Validated

ALcontrol Geochem Analytical Services

Table Of Results

Job Number: 03/10545/02/01

Client: CH2M Hill United Kingdom

Date of Receipt: 14/08/03
(of first sample)

Sample Type: SOIL

Location: MC SWANSEA

Client Contact: Tim Wright

Client Ref. No.: 312884

UKAS Accredited			✓	✓		✓		✓								
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/l	ug/kg							
Detection Method			ICP	ICP	ICP	ICP	Spectro	Spectro	GC-FID							
Method Detection Limit			<1	<1	<50	<1	<5	<0.05	<10							
Sample Number	Sample Identity	Depth (m)	Copper	Antimony	Total Sulphate by ICP	Zinc	Acid Soluble Sulphide	Total Cyanide in Leachate	Benzene by GC							
1	BH1	1.50-2.00	-	-	-	-	55	-	-							
2	BH1	1.50-2.00	27	-	1576	89	-	-	-							
3	BH1	1.50-2.00	-	-	-	-	-	-	<10							
4	BH2	1.50-2.00	-	-	-	-	149	<0.05	-							
5	BH2	1.50-2.00	293	-	5253	1099	-	-	-							
6	BH2	1.50-2.00	-	-	-	-	-	-	<10							
7	BH3	1.30-2.00	-	-	-	-	50	<0.05	-							
8	BH3	1.30-2.00	255	-	7892	642	-	-	-							
9	BH3	1.30-2.00	-	-	-	-	-	-	<10							
10	BH4	3.50	-	-	-	-	602	-	-							
11	BH4	3.50	237	-	6913	268	-	-	-							
12	BH4	3.50	-	-	-	-	-	-	<10							
13	BH5	2.50-3.00	-	-	-	-	48	-	-							
14	BH5	2.50-3.00	192	-	3185	92	-	-	-							
15	BH5	2.50-3.00	-	-	-	-	-	-	<10							
16	BH7	3.10	-	-	-	-	74	<0.05	-							
17	BH7	3.10	78	-	1002	135	-	-	-							
18	BH7	3.10	-	-	-	-	-	-	<10							
19	TP1	2.00	-	-	-	-	18	<0.05	-							
20	TP1	2.00	366	-	2187	1567	-	-	-							

Note: METHOD DETECTION LIMITS ARE NOT ALWAYS ACHIEVABLE DUE TO VARIOUS CIRCUMSTANCES BEYOND OUR CONTROL.

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Detection Method		ICP	ICP	ICP	ICP	Spectro	Spectro	GC-FID								
Method Detection Limit		<1	<1	<50	<1	<5	<0.05	<10								
Sample Number	Sample Identity	Depth (m)	Copper	Antimony	Total Sulphate by ICP	Zinc	Acid Soluble Sulphide	Total Cyanide in Leachate	Benzene by GC							
21	TP1	2.00	-	-	-	-	-	-	<10							
22	TP2	0.10	-	-	-	-	<5	-	-							
23	TP2	0.10	83	-	425	73	-	-	-							
24	TP2	0.10	-	-	-	-	-	-	<10							
25	TP3	0.30	-	-	-	-	32	-	-							
26	TP3	0.30	1324	-	1568	374	-	-	-							
27	TP3	0.30	-	-	-	-	-	-	<10							
28	TP3	2.00	-	-	-	-	<5	-	-							
29	TP3	2.00	275	-	1916	480	-	-	-							
30	TP3	2.00	-	-	-	-	-	-	<10							
31	TP4	0.30	-	-	-	-	21	-	-							
32	TP4	0.30	1334	35	2039	2952	-	-	-							
34	TP5	0.20	-	-	-	-	6	-	-							
35	TP5	0.20	1026	371	1870	1415	-	-	-							
36	TP5	0.20	-	-	-	-	-	-	<10							
37	TP5	2.00	-	-	-	-	<5	-	-							
38	TP5	2.00	180	10	2741	702	-	-	-							
39	TP5	2.00	-	-	-	-	-	-	<10							

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Units		ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	ug/l	ug/l						
Detection Method		GC-FID	GC-FID	GC-FID	GC-FID	GC-FID	HPLC	Spectro2	ICP MS	ICP MS						
Method Detection Limit		<10	<1	<10	<10	<10	<0.01	<1	<1	<5						
Sample Number	Sample Identity	Depth (m)	Ethylbenzene by GC	EPH (DRO)	Petrol Range Organics by GC	Toluene by GC	Xylene by GC	Total Phenols HPLC	Total Cyanide Soil	Copper on Leachate by ICP-MS	Antimony on Leachate by ICP-MS					
1	BH1	1.50-2.00	-	-	-	-	-	<0.01	<1	-	-					
2	BH1	1.50-2.00	-	128	-	-	-	-	-	-	-					
3	BH1	1.50-2.00	<10	-	<10	<10	<10	-	-	-	-					
4	BH2	1.50-2.00	-	-	-	-	-	0.06	<1	4	-					
5	BH2	1.50-2.00	-	309	-	-	-	-	-	-	-					
6	BH2	1.50-2.00	20	-	153	13	113	-	-	-	-					
7	BH3	1.30-2.00	-	-	-	-	-	<0.01	1.08	5	-					
8	BH3	1.30-2.00	-	2509	-	-	-	-	-	-	-					
9	BH3	1.30-2.00	12	-	99	<10	77	-	-	-	-					
10	BH4	3.50	-	-	-	-	-	<0.01	<1	-	-					
11	BH4	3.50	-	438	-	-	-	-	-	-	-					
12	BH4	3.50	11	-	1427	<10	10	-	-	-	-					
13	BH5	2.50-3.00	-	-	-	-	-	<0.01	<1	-	-					
14	BH5	2.50-3.00	-	428	-	-	-	-	-	-	-					
15	BH5	2.50-3.00	13	-	86	<10	71	-	-	-	-					
16	BH7	3.10	-	-	-	-	-	<0.01	<1	3	-					
17	BH7	3.10	-	729	-	-	-	-	-	-	-					
18	BH7	3.10	<10	-	366	<10	<10	-	-	-	-					
19	TP1	2.00	-	-	-	-	-	0.02	<1	8	-					
20	TP1	2.00	-	436	-	-	-	-	-	-	-					

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Units		ug/kg	mg/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	ug/l	ug/l						
Detection Method		GC-FID	GC-FID	GC-FID	GC-FID	GC-FID	HPLC	Spectro2	ICP MS	ICP MS						
Method Detection Limit		<10	<1	<10	<10	<10	<0.01	<1	<1	<5						
Sample Number	Sample Identity	Depth (m)	Ethylbenzene by GC	EPH (DRO)	Petrol Range Organics by GC	Toluene by GC	Xylene by GC	Total Phenols HPLC	Total Cyanide Soil	Copper on Leachate by ICP-MS	Antimony on Leachate by ICP-MS					
21	TP1	2.00	<10	-	<10	<10	<10	-	-	-	-					
22	TP2	0.10	-	-	-	-	-	0.09	<1	-	-					
23	TP2	0.10	-	8564	-	-	-	-	-	-	-					
24	TP2	0.10	<10	-	<10	<10	<10	-	-	-	-					
25	TP3	0.30	-	-	-	-	-	0.04	<1	-	-					
26	TP3	0.30	-	12977	-	-	-	-	-	-	-					
27	TP3	0.30	<10	-	49381	<10	<10	-	-	-	-					
28	TP3	2.00	-	-	-	-	-	<0.01	<1	-	-					
29	TP3	2.00	-	173	-	-	-	-	-	-	-					
30	TP3	2.00	<10	-	83	11	35	-	-	-	-					
31	TP4	0.30	-	-	-	-	-	0.01	<1	-	8					
34	TP5	0.20	-	-	-	-	-	0.09	<1	-	182					
35	TP5	0.20	-	19960	-	-	-	-	-	-	-					
36	TP5	0.20	<10	-	16	<10	<10	-	-	-	-					
37	TP5	2.00	-	-	-	-	-	0.01	<1	-	<5					
38	TP5	2.00	-	629	-	-	-	-	-	-	-					
39	TP5	2.00	12	-	84	14	53	-	-	-	-					

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Units		mg/l	mg/l	mg/l	ug/l	mg/l	ug/l	mg/l	ug/l	ug/l	ug/l	ug/l	mg/l				
Detection Method		Spectro	SPECTRO	spectro	GC-FID	GC-FID	GC-FID	GC-FID	GC-FID	GC-FID	GC-FID	GC-FID	HPLC				
Method Detection Limit		<0.05	<3	<0.05	<10	<0.01	<10	<0.01	<10	<10	<10	<10	<0.01				
Sample Number	Sample Identity	Depth (m)	Sulphide In Water	Sulphate (soluble)	Total Cyanide on Water	Benzene by GC	DRO by GC-FID	Ethylbenzene by GC	EPH (Mineral Oil)	MTBE GC-FID	Petrol Range Organics by GC	Toluene by GC	Xylene by GC	Total Phenols HPLC			
40	BH1	-	<0.05	73	-	-	0.023	-	<0.01	-	-	-	-	-			
41	BH1	-	-	-	-	-	-	-	-	-	-	-	-	-			
42	BH1	-	-	-	<0.05	-	-	-	-	-	-	-	-	<0.01			
43	BH1	-	-	-	-	-	-	-	-	-	-	-	-	-			
44	BH1	-	-	-	-	<10	-	<10	-	<10	<10	<10	<10	-			
47	BH5	-	<0.05	1442	-	-	0.268	-	0.174	-	-	-	-	-			
48	BH5	-	-	-	-	-	-	-	-	-	-	-	-	-			
49	BH5	-	-	-	<0.05	-	-	-	-	-	-	-	-	<0.01			
50	BH5	-	-	-	-	-	-	-	-	-	-	-	-	-			
51	BH5	-	-	-	-	<10	-	<10	-	<10	<10	<10	<10	-			
53	BH6	-	<0.05	198	-	-	<0.01	-	<0.01	-	-	-	-	-			
54	BH6	-	-	-	-	-	-	-	-	-	-	-	-	-			
55	BH6	-	-	-	<0.05	-	-	-	-	-	-	-	-	<0.01			
56	BH6	-	-	-	-	-	-	-	-	-	-	-	-	-			
57	BH6	-	-	-	-	<10	-	<10	-	<10	<10	<10	<10	-			
59	BH6A	-	<0.05	198	-	-	0.019	-	<0.01	-	-	-	-	-			
60	BH6A	-	-	-	-	-	-	-	-	-	-	-	-	-			
61	BH6A	-	-	-	<0.05	-	-	-	-	-	-	-	-	<0.01			
62	BH6A	-	-	-	-	-	-	-	-	-	-	-	-	-			
63	BH6A	-	-	-	-	<10	-	<10	-	<10	<10	<10	<10	-			

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Units			mg/l	mg/l	mg/l	ug/l	mg/l	ug/l	mg/l	ug/l	ug/l	ug/l	ug/l	mg/l			
Detection Method			Spectro	SPECTRO	spectro	GC-FID	GC-FID	GC-FID	GC-FID	GC-FID	GC-FID	GC-FID	GC-FID	HPLC			
Method Detection Limit			<0.05	<3	<0.05	<10	<0.01	<10	<0.01	<10	<10	<10	<10	<0.01			
Sample Number	Sample Identity	Depth (m)	Sulphide In Water	Sulphate (soluble)	Total Cyanide on Water	Benzene by GC	DRO by GC-FID	Ethylbenzene by GC	EPH (Mineral Oil)	MTBE GC-FID	Petrol Range Organics by GC	Toluene by GC	Xylene by GC	Total Phenols HPLC			
65	BH7	-	<0.05	89	-	-	0.345	-	0.224	-	-	-	-	-			
66	BH7	-	-	-	-	-	-	-	-	-	-	-	-	-			
67	BH7	-	-	-	<0.05	-	-	-	-	-	-	-	-	<0.01			
68	BH7	-	-	-	-	-	-	-	-	-	-	-	-	-			
69	BH7	-	-	-	-	<10	-	<10	-	<10	<10	<10	<10	-			
71	CLN SRC	-	<0.05	<3	-	-	0.013	-	<0.01	-	-	-	-	-			
72	CLN SRC	-	-	-	-	-	-	-	-	-	-	-	-	-			
73	CLN SRC	-	-	-	<0.05	-	-	-	-	-	-	-	-	<0.01			
74	CLN SRC	-	-	-	-	-	-	-	-	-	-	-	-	-			
75	CLN SRC	-	-	-	-	<10	-	<10	-	<10	<10	<10	<10	-			
77	TAP	-	<0.05	18	-	-	0.012	-	<0.01	-	-	-	-	-			
78	TAP	-	-	-	-	-	-	-	-	-	-	-	-	-			
79	TAP	-	-	-	<0.05	-	-	-	-	-	-	-	-	0.08			
80	TAP	-	-	-	-	-	-	-	-	-	-	-	-	-			
81	TAP	-	-	-	-	<10	-	<10	-	<10	42	<10	<10	-			
83	TRIP BLANK	-	-	-	-	-	<0.01	-	<0.01	-	-	-	-	-			
84	TRIP BLANK	-	-	-	-	<10	-	<10	-	<10	<10	<10	<10	-			

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