

BOREHOLE LOG

Project Harts Farm Way				BOREHOLE No WS205	
Job No 5004378	Date 04-09-17 04-09-17	Ground Level (m)	Co-Ordinates ()		
Contractor DJ Drilling				Sheet 1 of 1	

SAMPLES & TESTS			Water	Reduced Level	Legend	Depth (Thickness)	STRATA		Geology	Instrument/Backfill
Depth	Type No	Test Result					DESCRIPTION			
0.20-0.30	ES1					(1.10)	Soft to firm brown silty sandy CLAY with frequent brick, chalk and asphalt fragments (Made Ground)			
1.00						1.10 (0.70)	Reworked white CHALK with occasional fine to coarse sub-angular flint gravel (Made Ground)			
1.90-2.10 2.00	ES2					1.80 (2.20)	Grey brown silty fine to medium sub-angular flint GRAVEL			
3.00						4.00				
4.00										

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Depth	Date	Time	Casing Depth	Casing Dia. mm	Water Depth	From	To	Hours	From	To	
All dimensions in metres Scale 1:65.625						Client Salmon		Method/ Plant Used Terrier Mk2		Logged By RP	

APPENDIX 3 – GENERIC ASSESSMENT CRITERIA

SOIL - HUMAN HEALTH SCREENING VALUES

Status	End Use	Issue No	Issue Date		
ISSUE	Commercial / Industrial	1	June 2015		
SOIL ORGANIC MATTER					
Determinand	Units	1%	2.5%	6%	SOURCE
pH		<5, >9			
Asbestos	%	Presence			
HEAVY METALS/METALLOIDS					
Arsenic	mg/kg		640		S4UL
Cadmium	mg/kg		190		S4UL
Chromium (III)	mg/kg		8,600		S4UL
Chromium (VI)	mg/kg		33		S4UL
Lead	mg/kg		2300		CASL
Mercury (Elemental)	mg/kg		38		S4UL
Mercury (Inorganic)	mg/kg		1100		S4UL
Mercury (Methyl)	mg/kg		300		S4UL
Nickel	mg/kg		980		S4UL
Selenium	mg/kg		12000		S4UL
Beryllium	mg/kg		12		S4UL
Boron	mg/kg		240000		S4UL
Vanadium	mg/kg		9000		S4UL
Cobalt	mg/kg		68,000		S4UL
Zinc	mg/kg		730,000		S4UL
GENERAL INORGANICS					
Easily Liberatable Cyanide (free)	mg/kg				Acute effects infant 1 dose 3g soil
US EPA PRIORITY PAHs					
Acenaphthene	mg/kg	84,000	97,000	100,000	S4UL
Acenaphthylene	mg/kg	83,000	97,000	100,000	S4UL
Anthracene	mg/kg	520,000	540,000	540,000	S4UL
Benzo(a)Anthracene	mg/kg	170	170	180	S4UL
Benzo(b)Fluoranthene	mg/kg	44	44	45	S4UL
Benzo(k)Fluoranthene	mg/kg	1,200	1,200	1,200	S4UL
Benzo(a,h)Indenylene	mg/kg	3900	4,000	4,000	S4UL
Benzo(a)Pyrene	mg/kg	35	35	36	S4UL
Chrysene	mg/kg	350	350	350	S4UL
Di-benzo(a,h)anthracene	mg/kg	3.5	4	4	S4UL
Fluorenone	mg/kg	23,000	23,000	23,000	S4UL
Fluorene	mg/kg	68,000	71,000	71,000	S4UL
Indeno(1,2,3-cd)pyrene	mg/kg	500	510	510	S4UL
Naphthalene	mg/kg	150	460	1,100	S4UL
Phenanthrene	mg/kg	22,000	22,000	23,000	S4UL
Pyrene	mg/kg	54,000	54,000	54,000	S4UL
Total PAHs	mg/kg	No Sum	No Sum	No Sum	
Chlorinated Solvents					
1,2-Dichloroethane (DCE)	mg/kg	0.67	0.97	1.7	S4UL
1,1,1-Trichloroethane (111 TCA)	mg/kg	660	1,300	3,000	S4UL
1,1,1,2-Tetrachloroethane (1112 PCA)	mg/kg	110	250	560	S4UL
1,1,2,2-Tetrachloroethane (1122 PCA)	mg/kg	270	550	1,100	S4UL
Tetrachloroethane (TCE)	mg/kg	10	42	95	S4UL
Tetrachloromethane (Carbon Tetrachloride)	mg/kg	2.9	6.3	14	S4UL
Trichloroethane (TCE)	mg/kg	1.2	2.6	5.7	S4UL
Trichloromethane (Chloroform)	mg/kg	90	170	350	S4UL
Vinyl Chloride	mg/kg	0.059	0.077	0.12	S4UL
Chlorobenzene	mg/kg	56	130	290	S4UL
1,2-Dichlorobenzene	mg/kg	2000	4800	11000	S4UL
1,3-Dichlorobenzene	mg/kg	30	73	170	S4UL
1,4-Dichlorobenzene	mg/kg	4400	10000	25000	S4UL
1,2,3-Trichlorobenzene	mg/kg	102	250	590	S4UL
1,2,4-Trichlorobenzene	mg/kg	220	530	1300	S4UL
1,2,5-Trichlorobenzene	mg/kg	23	55	130	S4UL
1,2,3,4-Tetrachlorobenzene	mg/kg	1700	3900	4400	S4UL
1,2,3,5-Tetrachlorobenzene	mg/kg	49	120	240	S4UL
1,2,4,5-Tetrachlorobenzene	mg/kg	42	72	96	S4UL
Pentachlorobenzene	mg/kg	640	770	830	S4UL
Hexachlorobenzene	mg/kg	110	120	120	S4UL
Carbon Disulfide	mg/kg	11	22	47	S4UL
Hexachlorobutadiene	mg/kg	31	66	120	S4UL
Phenolics					
Phenol	mg/kg	760	1500	3200	S4UL
Chlorophenols	mg/kg	3500	4900	4200	S4UL
Pentachlorophenol	mg/kg	400	400	400	S4UL
Explosives					
2,4,6-Trinitrobenzene (TNT)	mg/kg	1000	1000	1000	S4UL
RDX	mg/kg	210000	210000	210000	S4UL
HMX	mg/kg	110000	110000	110000	S4UL
Insecticides/Herbicides					
Aldrin	mg/kg	170.0	170.0	170.0	S4UL
Dieldrin	mg/kg	170.0	170.0	170.0	S4UL
Atrazine	mg/kg	9300.0	9400.0	9400.0	S4UL
Dichlorvos	mg/kg	140.0	140.0	140.0	S4UL
Alpha-Endosulfan	mg/kg	5600	7400	8400	S4UL
Beta-Endosulfan	mg/kg	6300	7800	8700	S4UL
Alpha-Hexachlorocyclohexane	mg/kg	170	180	180	S4UL
Beta-Hexachlorocyclohexane	mg/kg	65	65	65	S4UL
Gamma-Hexachlorocyclohexanes (Lindane)	mg/kg	67	69	70	S4UL
TPH					
TPH Aliphatic >C5-6	mg/kg	3,200	5,900	12,000	S4UL
TPH Aliphatic >C6-8	mg/kg	7,800	17,000	40,000	S4UL
TPH Aliphatic >C9-10	mg/kg	2,600	4,400	11,000	S4UL
TPH Aliphatic >C10-12	mg/kg	9,700	23,000	41,000	S4UL
TPH Aliphatic >C12-16	mg/kg	59,000	82,000	90,000	S4UL
TPH Aliphatic >C16-25	mg/kg	1,600,000	1,700,000	1,800,000	S4UL
TPH Aliphatic >C25-44	mg/kg	1,600,000	1,700,000	1,800,000	S4UL
TPH Aromatic >EC5-7 (Benzene)	mg/kg	25,000	46,000	86,000	S4UL
TPH Aromatic >EC7-8	mg/kg	56,000	110,000	180,000	S4UL
TPH Aromatic >EC8-10	mg/kg	3,300	8,100	17,000	S4UL
TPH Aromatic >EC10-12	mg/kg	16,000	28,000	34,000	S4UL
TPH Aromatic >EC12-16	mg/kg	36,000	37,000	38,000	S4UL
TPH Aromatic >EC16-21	mg/kg	28,000	28,000	28,000	S4UL
TPH Aromatic >EC21-35	mg/kg	28,000	28,000	28,000	S4UL
TPH Aromatic >EC35-44	mg/kg	28,000	28,000	28,000	S4UL
TPH Aliphatic & Aromatic >EC44-70	mg/kg	28,000	28,000	28,000	S4UL
Total TPH	mg/kg	No Sum	No Sum	No Sum	
BTEX					
Benzene	mg/kg	27	47	90	S4UL
Toluene	mg/kg	56000 ^{***} (869)	110000 ^{***} (1920)	180000 ^{***} (4360)	S4UL
Ethylbenzene	mg/kg	5700 ^{***} (518)	13000 ^{***} (1220)	27000 ^{***} (2840)	S4UL
m-Xylene	mg/kg	6,600	15,000	33000	S4UL
p-Xylene	mg/kg	6,200	14,000	31000	S4UL
o-Xylene	mg/kg	5,900	14,000	30000	S4UL

NOTES

- Compare individual samples values against Soil Screening Values (SSV). If exceedences are noted consider further in relation to averaging areas and statistical analysis.
- These values are for initial screening for potential **risk to human health only**. They are **not remediation thresholds**. Screening for other receptors to be done separately as appropriate for the site, e.g. for water, ecology, building materials.
- Screening criteria denoted with an asterisk (*) were capped at the lower vapour/aqueous saturation limits for Tier 1 human health risk assessment purposes and considered **conservative**. Where concentrations are recorded at levels greater than the SSV, free phase (NAPL) contamination may be present and should be considered qualitatively. Further information to support the interpretation of assessment criteria that exceed theoretical soil saturation limits is provided in Section 4.12 of the CLEA Software Handbook (SR4).
- Screening criteria denoted with hash (#) were capped at 1000000mg/kg. It is noted that aesthetic (e.g., odour) and other site specific factors may also be relevant when providing advice relating to these compounds.
- LQM/CIEH S4ULs November 2014 - Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3439. All rights reserved.
- SSVs derived for certain constituents may be low in relation to standard laboratory Limits of Detection (LoD). It is the responsibility of the project engineer to check with the laboratory that appropriate detection limits can be achieved. As a target, an LoD would be no larger than 10% of the SSV, but this is not practicable for some constituents. Clearly an LoD greater than the SSV would prevent use of this SSV screening and/or be interpreted as if all samples exceeded the SSV.
- Human Health Soil Screening Values (SSV)** were calculated using a Soil Organic Matter (SOM) value of 1.0%, 2.5% and 6%. This is equivalent to an Fraction Organic Carbon (FOC) values of approx. 0.6%, 1.45% and 3.5% respectively (For reference FOC = 0.58*SOM). **Note that some soils have different SOM/FOC, which may give require more stringent SSVs for organic compounds. It is the responsibility of the project engineer to check the SOM with the site specific conditions.**
- In general, SSVs above 100mg/kg are rounded down to 3 significant figures. Similarly, SSVs below 100mg/kg are rounded down to 2 significant figures

APPENDIX 4 – SOIL SCREENING SUMMARY

Project Name: Harts Farm Way
Project Ref: 5004378

Sample ID	Depth to Top Depth to Bottom Date Sampled	Units	GAC	WS2001	WS2002	WS2002	WS2002	WS2002	WS2003	WS2003	WS2004	WS2004	WS2005	WS2005	
				WS2001	WS2002	WS2002	WS2002	WS2002	WS2003	WS2003	WS2004	WS2004	WS2005	WS2005	
				0.30	1.70	0.20	1.00	1.80	0.20	0.30	1.90	0.20	1.80	0.20	1.90
GAC				0.50	2.00	0.40	1.20	2.00	2.10	0.40	0.40	2.00	0.30	2.10	
				04-Sep-17	04-Sep-17	04-Sep-17	04-Sep-17	04-Sep-17	04-Sep-17	04-Sep-17	04-Sep-17	04-Sep-17	04-Sep-17	04-Sep-17	04-Sep-17
				<0.1	<0.1	<0.1	1.5	8.66	8.74	9	8.76	8.95	9.09	<0.1	<0.1
				pH	9.17	9.85	8.77	8.66	8.74	9	8.76	8.95	9.09	<0.1	<0.1
				% Stones >10mm	10.29	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
				Cyanide (free)	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
				Phends - Total by HPLC	0.7	<0.2	0.4	<0.2	0.6	0.5	<0.2	0.2	<0.2	0.9	<0.2
				Organic matter	0.38	<0.06	0.25	<0.06	0.33	0.31	0.1	0.13	0.09	0.5	0.08
				Total Organic Carbon	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
				Antimony	4	<1	2	<1	<1	<1	<1	<1	3	3	<1
Arsenic	640	<1	6	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.6	<0.5			
Cadmium	190	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.6	<0.5			
Copper	68000	10	3	18	2	2	2	4	8	2	8	5			
Chromium	14	8	10	<1	7	2	2	11	7	7	9	9			
Lead	2300	19	3	20	2	4	3	3	28	4	41	3			
Mercury	1100	0.3	0.42	0.34	0.56	0.41	0.64	<0.17	0.5	0.42	0.21	0.21			
Nickel	980	8	4	6	<1	3	2	11	7	3	5	4			
Selenium	12000	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Zinc	730000	49	11	65	12	11	18	12	43	12	53	8			
Asbestos in Soil (inc. matrix)															
Asbestos in soil				NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	
Asbestos ACM - Suitable for Water Absorption Test?				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
PAH-16MS															
Naphthalene				<0.03	<0.03	<0.03	<0.30	<0.03	<0.03	<0.03	<0.03	<0.03	0.25	<0.03	
Acenaphthylene				0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	<0.01	
Acenaphthene				84000	0.22	<0.01	0.07	0.61	0.04	0.01	0.01	<0.01	0.91	<0.01	
Fluorene				63000	0.28	<0.01	0.07	1.49	0.05	<0.01	0.01	<0.01	0.94	<0.01	
Phenanthrene				22000	4.86	<0.03	0.96	3.16	0.62	<0.03	0.3	<0.03	9.9	<0.03	
Anthracene				520000	0.94	<0.02	0.21	<0.02	0.13	<0.02	0.07	<0.02	2	<0.02	
Fluoranthene				23000	11.5	<0.08	2.4	<0.08	<0.80	0.76	1.38	<0.08	13.8	<0.08	
Pyrene				54000	9.74	<0.07	1.8	<0.70	0.5	<0.07	1.3	<0.07	11.5	<0.07	
Benz(a)anthracene				170	5.07	<0.04	1.2	<0.04	0.43	<0.04	1.3	<0.04	5.63	<0.04	
Chrysene				350	5.82	<0.06	1.24	<0.06	0.4	<0.06	1.33	<0.06	4.64	<0.06	
Benzo(b)fluoranthene				44	6.59	<0.05	1.66	<0.05	0.41	<0.05	1.81	<0.05	5.84	<0.05	
Benzo(k)fluoranthene				1200	2.42	0.66	0.66	<0.70	0.16	<0.07	0.79	<0.07	2.36	<0.07	
Benzo(a)pyrene				35	5.06	<0.04	1.43	<0.04	0.37	<0.04	1.78	<0.04	5.28	<0.04	
Indeno(1,23-cd)pyrene				500	3.67	<0.03	1.06	<0.03	<0.30	0.24	<0.03	1.2	<0.03	3.17	<0.03
Dibenz(a,h)anthracene				3.5	0.71	<0.04	0.2	<0.04	<0.40	0.06	<0.04	0.24	<0.04	0.6	<0.04
Benzo(g,h,i)perylene				2.96	<0.05	0.89	<0.05	<0.50	0.18	<0.05	1.03	<0.05	2.59	<0.05	
PAH (total 16)				59.8	<0.08	13.8	<0.08	5.27	4.35	<0.08	12.6	<0.08	69.3	<0.08	
TPH CWG															
Ali >C5-C6				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Ali >C6-C8				<0.01	<0.01	<0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Ali >C8-C10				<0.01	<0.01	<0.01	0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Ali >C10-C12				<0.1	<0.1	<0.1	55.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Ali >C12-C21				<0.1	<0.1	<0.1	38.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Ali >C16-C21				<0.1	<0.1	25.8	<0.1	56.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Ali >C21-C35				<0.1	<0.1	32.1	<0.1	17.0	<0.1	<0.1	<0.1	<0.1	16.7	<0.1	
Total Aliphatics				<0.1	<0.1	61.5	<0.1	117.0	<0.1	<0.1	<0.1	<0.1	16.7	<0.1	
Aro >C5-C7				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Aro >C7-C8				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Aro >C8-C9				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Aro >C9-C10				<0.01	<0.01	<0.01	0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Aro >C10-C12				<0.1	<0.1	<0.1	<0.1	56.4	<0.1	<0.1	<0.1	<0.1	0.9	<0.1	
Aro >C12-C16				0.4	<0.1	<0.1	<0.1	288	<0.1	<0.1	<0.1	<0.1	4.9	<0.1	
Aro >C16-C21				15.1	<0.1	3.9	<0.1	280	<0.1	<0.1	2.6	<0.1	11.4	<0.1	
Aro >C21-C35				35.7	<0.1	14.2	<0.1	89.2	<0.1	<0.1	7.4	<0.1	29	<0.1	
Total Aromatics				51.1	<0.1	18.2	<0.1	71.3	<0.1	<0.1	10	<0.1	46.2	<0.1	
TPH (Ali & Aro)				51.1	<0.1	79.8	<0.1	189.0	<0.1	<0.1	10	<0.1	63	<0.1	
BTEX - Benzene				27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
BTEX - Toluene				869	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
BTEX - Ethyl Benzene				518	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
BTEX - m & p Xylene				5900	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
BTEX - o Xylene				6200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
MTBE				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	

APPENDIX 5 – CHEMICAL ANALYSIS RESULTS

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 17/05649
Issue Number: 1

Date: 01 September, 2017

Client: Ridge and Partners Ltd
Partnership House
Moorside Road
Winchester
UK
SO23 7RX

Project Manager: Antony Platt
Project Name: Quay Lane
Project Ref: 5004262
Order No: 603040
Date Samples Received: 18/08/17
Date Instructions Received: 21/08/17
Date Analysis Completed: 01/09/17

Prepared by:


Melanie Marshall
Laboratory Coordinator

Approved by:


Richard Wong
Client Manager

Envirolab Job Number: 17/05649

Client Project Name: Quay Lane

Client Project Ref: 5004262

Lab Sample ID	17/05649/1	17/05649/2	17/05649/3	17/05649/4	17/05649/5	17/05649/6			Units	Method ref
Client Sample No										
Client Sample ID	WS101	WS101	WS102	WS102	WS103	WS103				
Depth to Top	0.20	0.80	0.20	1.00	0.40	1.00				
Depth To Bottom	0.45	1.20	0.60	1.20	0.60	1.20				
Date Sampled	16-Aug-17	16-Aug-17	16-Aug-17	16-Aug-17	16-Aug-17	16-Aug-17				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil				
Sample Matrix Code	4A	5A	4AB	5A	4A	5A				
% Stones >10mm _A	21.2	4.7	<0.1	29.4	17.8	18.1			% w/w	A-T-044
pH _D ^{M#}	8.18	8.39	8.45	8.43	7.93	8.34			pH	A-T-031s
Cyanide (free) _A ^{M#}	<1	<1	<1	<1	<1	<1			mg/kg	A-T-042sFCN
Phenols - Total by HPLC _A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			mg/kg	A-T-050s
Organic matter _D ^{M#}	4.9	1.3	5.9	0.2	0.6	<0.1			% w/w	A-T-032 OM
Total Organic Carbon _D ^{M#}	2.81	0.79	3.44	0.11	0.32	0.05			% w/w	A-T-032s
Antimony _D	<5	<5	<5	<5	<5	<5			mg/kg	A-T-024s
Arsenic _D ^{M#}	4	<1	10	2	2	10			mg/kg	A-T-024s
Cadmium _D ^{M#}	1.2	1.0	1.3	0.8	0.6	1.6			mg/kg	A-T-024s
Copper _D ^{M#}	85	11	38	2	3	4			mg/kg	A-T-024s
Chromium _D ^{M#}	13	17	13	10	8	19			mg/kg	A-T-024s
Lead _D ^{M#}	465	64	223	11	12	8			mg/kg	A-T-024s
Mercury _D	9.76	1.82	1.52	<0.17	<0.17	<0.17			mg/kg	A-T-024s
Nickel _D ^{M#}	11	9	15	8	6	12			mg/kg	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1			mg/kg	A-T-024s
Zinc _D ^{M#}	145	36	223	16	24	21			mg/kg	A-T-024s
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil _A [#]	NAD	NAD	Chrysotile	NAD	NAD	NAD				A-T-045
Asbestos Matrix (visual) _A	-	-	Cement	-	-	-				A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	Yes	N/A	N/A	N/A				
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing) _D	-	-	3.412	-	-	-			% w/w	A-T-054

Envirolab Job Number: 17/05649

Client Project Name: Quay Lane

Client Project Ref: 5004262

Lab Sample ID	17/05649/1	17/05649/2	17/05649/3	17/05649/4	17/05649/5	17/05649/6			Units	Method ref
Client Sample No										
Client Sample ID	WS101	WS101	WS102	WS102	WS103	WS103				
Depth to Top	0.20	0.80	0.20	1.00	0.40	1.00				
Depth To Bottom	0.45	1.20	0.60	1.20	0.60	1.20				
Date Sampled	16-Aug-17	16-Aug-17	16-Aug-17	16-Aug-17	16-Aug-17	16-Aug-17				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil				
Sample Matrix Code	4A	5A	4AB	5A	4A	5A				
PAH-16MS										
Naphthalene _A ^{M#}	<0.03	<0.03	0.13	<0.03	<0.03	<0.03			mg/kg	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-019s
Acenaphthene _A ^{M#}	<0.01	<0.01	0.05	<0.01	<0.01	<0.01			mg/kg	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	0.04	<0.01	<0.01	<0.01			mg/kg	A-T-019s
Phenanthrene _A ^{M#}	0.07	<0.03	0.45	<0.03	<0.03	<0.03			mg/kg	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	0.07	<0.02	<0.02	<0.02			mg/kg	A-T-019s
Fluoranthene _A ^{M#}	0.15	<0.08	1.13	<0.08	0.09	<0.08			mg/kg	A-T-019s
Pyrene _A ^{M#}	0.13	<0.07	0.68	<0.07	0.09	<0.07			mg/kg	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.13	<0.04	0.52	<0.04	0.07	<0.04			mg/kg	A-T-019s
Chrysene _A ^{M#}	0.14	<0.06	0.51	<0.06	0.09	<0.06			mg/kg	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.19	<0.05	0.59	<0.05	0.13	<0.05			mg/kg	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	0.09	<0.07	0.26	<0.07	<0.07	<0.07			mg/kg	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.18	<0.04	0.51	<0.04	0.11	<0.04			mg/kg	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.13	<0.03	0.32	<0.03	0.10	<0.03			mg/kg	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	0.08	<0.04	<0.04	<0.04			mg/kg	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.12	<0.05	0.28	<0.05	0.10	<0.05			mg/kg	A-T-019s
PAH (total 16) _A ^{M#}	1.33	<0.08	5.61	<0.08	0.87	<0.08			mg/kg	A-T-019s

Envirolab Job Number: 17/05649

Client Project Name: Quay Lane

Client Project Ref: 5004262

Lab Sample ID	17/05649/1	17/05649/2	17/05649/3	17/05649/4	17/05649/5	17/05649/6			Units	Method ref
Client Sample No										
Client Sample ID	WS101	WS101	WS102	WS102	WS103	WS103				
Depth to Top	0.20	0.80	0.20	1.00	0.40	1.00				
Depth To Bottom	0.45	1.20	0.60	1.20	0.60	1.20				
Date Sampled	16-Aug-17	16-Aug-17	16-Aug-17	16-Aug-17	16-Aug-17	16-Aug-17				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil				
Sample Matrix Code	4A	5A	4AB	5A	4A	5A				
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
Ali >C8-C10 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
Ali >C10-C12 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			mg/kg	A-T-023s
Ali >C12-C16 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			mg/kg	A-T-023s
Ali >C16-C21 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			mg/kg	A-T-023s
Ali >C21-C35 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			mg/kg	A-T-023s
Total Aliphatics _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			mg/kg	A-T-023s
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
Aro >C8-C9 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
Aro >C9-C10 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
Aro >C10-C12 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			mg/kg	A-T-023s
Aro >C12-C16 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			mg/kg	A-T-023s
Aro >C16-C21 _A [#]	0.3	<0.1	0.7	<0.1	0.3	<0.1			mg/kg	A-T-023s
Aro >C21-C35 _A [#]	0.3	<0.1	0.6	<0.1	0.4	<0.1			mg/kg	A-T-023s
Total Aromatics _A	0.7	<0.1	1.4	<0.1	0.7	<0.1			mg/kg	A-T-023s
TPH (Ali & Aro) _A	0.7	<0.1	1.4	<0.1	0.7	<0.1			mg/kg	A-T-023s
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	A-T-022s

REPORT NOTES

General:

This report shall not be reproduced, except in full, without written approval from Envirolab.

All samples contained within this report, and any received with the same delivery, will be disposed of one month after the date of this report.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure and there is insufficient sample to repeat the analysis. These are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 17/05752
Issue Number: 1

Date: 04 September, 2017

Client: Ridge and Partners Ltd
Partnership House
Moorside Road
Winchester
UK
SO23 7RX

Project Manager: Antony Platt
Project Name: Quay Lane
Project Ref: 5004262
Order No: 5004262
Date Samples Received: 23/08/17
Date Instructions Received: 23/08/17
Date Analysis Completed: 04/09/17

Prepared by:


Melanie Marshall
Laboratory Coordinator

Approved by:


Georgia King
Admins & Client Services Supervisor

Envirolab Job Number: 17/05752

Client Project Name: Quay Lane

Client Project Ref: 5004262

Lab Sample ID	17/05752/1	17/05752/2	17/05752/3	17/05752/4	17/05752/5	17/05752/6	17/05752/7	17/05752/8	Units	Method ref
Client Sample No										
Client Sample ID	WS104	WS104	WS105	WS105	WS106	WS106	WS107	WS107		
Depth to Top	0.60	1.00	0.30	0.80	0.10	1.00	0.50	1.20		
Depth To Bottom	0.70	1.20	0.60	1.20	0.40	1.20	0.70	1.40		
Date Sampled	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	4A	5A	4A	5A	4A	5A	4A	6AE		
% Stones >10mm _A	<0.1	23.0	37.4	8.5	34.0	23.0	19.7	15.7	% w/w	A-T-044
pH _D ^{M#}	9.22	8.68	10.72	8.48	9.41	8.46	8.34	8.25	pH	A-T-031s
Cyanide (free) _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-042sFCN
Phenols - Total by HPLC _A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	A-T-050s
Organic matter _D ^{M#}	1.2	0.6	1.1	<0.1	<0.1	<0.1	5.3	1.9	% w/w	A-T-032 OM
Total Organic Carbon _D ^{M#}	0.72	0.34	0.61	<0.03	0.03	<0.03	3.07	1.12	% w/w	A-T-032s
Antimony _D	<5	<5	<5	<5	<5	<5	<5	<5	mg/kg	A-T-024s
Arsenic _D ^{M#}	7	11	8	6	5	8	4	8	mg/kg	A-T-024s
Cadmium _D ^{M#}	0.7	<0.5	0.9	<0.5	<0.5	1.0	<0.5	0.6	mg/kg	A-T-024s
Copper _D ^{M#}	16	4	6	<1	<1	2	3	48	mg/kg	A-T-024s
Chromium _D ^{M#}	10	6	6	4	3	5	9	11	mg/kg	A-T-024s
Lead _D ^{M#}	37	14	37	2	1	26	5	146	mg/kg	A-T-024s
Mercury _D	0.34	<0.17	0.30	<0.17	<0.17	0.52	<0.17	0.75	mg/kg	A-T-024s
Nickel _D ^{M#}	8	6	4	2	1	2	7	9	mg/kg	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-024s
Zinc _D ^{M#}	93	21	137	<5	<5	114	18	74	mg/kg	A-T-024s
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil _A [#]	Amosite	NAD	NAD	NAD	NAD	NAD	NAD	NAD		A-T-045
Asbestos Matrix (microscope) _A	Loose fibres & Board	-	-	-	-	-	-	-		A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing) _D	0.004	-	-	-	-	-	-	-	% w/w	A-T-054

Envirolab Job Number: 17/05752

Client Project Name: Quay Lane

Client Project Ref: 5004262

Lab Sample ID	17/05752/1	17/05752/2	17/05752/3	17/05752/4	17/05752/5	17/05752/6	17/05752/7	17/05752/8	Units	Method ref
Client Sample No										
Client Sample ID	WS104	WS104	WS105	WS105	WS106	WS106	WS107	WS107		
Depth to Top	0.60	1.00	0.30	0.80	0.10	1.00	0.50	1.20		
Depth To Bottom	0.70	1.20	0.60	1.20	0.40	1.20	0.70	1.40		
Date Sampled	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	4A	5A	4A	5A	4A	5A	4A	6AE		
PAH-16MS										
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	mg/kg	A-T-019s
Acenaphthene _A ^{M#}	0.05	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	mg/kg	A-T-019s
Fluorene _A ^{M#}	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.02	<0.01	mg/kg	A-T-019s
Phenanthrene _A ^{M#}	0.65	<0.03	<0.03	<0.03	0.14	<0.03	0.55	0.07	mg/kg	A-T-019s
Anthracene _A ^{M#}	0.22	<0.02	<0.02	<0.02	0.03	<0.02	0.08	<0.02	mg/kg	A-T-019s
Fluoranthene _A ^{M#}	4.12	<0.08	<0.08	<0.08	<0.08	<0.08	1.30	0.13	mg/kg	A-T-019s
Pyrene _A ^{M#}	4.16	<0.07	<0.07	<0.07	<0.07	<0.07	1.10	0.12	mg/kg	A-T-019s
Benzo(a)anthracene _A ^{M#}	2.35	<0.04	<0.04	<0.04	<0.04	<0.04	0.74	0.09	mg/kg	A-T-019s
Chrysene _A ^{M#}	2.10	<0.06	<0.06	<0.06	<0.06	<0.06	0.78	0.13	mg/kg	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	2.52	<0.05	<0.05	<0.05	<0.05	<0.05	1.03	0.15	mg/kg	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	0.93	<0.07	<0.07	<0.07	<0.07	<0.07	0.40	<0.07	mg/kg	A-T-019s
Benzo(a)pyrene _A ^{M#}	2.21	<0.04	<0.04	<0.04	<0.04	<0.04	0.85	0.11	mg/kg	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	1.50	<0.03	<0.03	<0.03	0.04	<0.03	0.63	0.13	mg/kg	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	0.26	<0.04	<0.04	<0.04	<0.04	<0.04	0.13	<0.04	mg/kg	A-T-019s
Benzo(ghi)perylene _A ^{M#}	1.14	<0.05	<0.05	<0.05	<0.05	<0.05	0.49	0.11	mg/kg	A-T-019s
PAH (total 16) _A ^{M#}	22.2	<0.08	<0.08	<0.08	0.39	<0.08	8.11	1.01	mg/kg	A-T-019s

Envirolab Job Number: 17/05752

Client Project Name: Quay Lane

Client Project Ref: 5004262

Lab Sample ID	17/05752/1	17/05752/2	17/05752/3	17/05752/4	17/05752/5	17/05752/6	17/05752/7	17/05752/8	Units	Method ref
Client Sample No										
Client Sample ID	WS104	WS104	WS105	WS105	WS106	WS106	WS107	WS107		
Depth to Top	0.60	1.00	0.30	0.80	0.10	1.00	0.50	1.20		
Depth To Bottom	0.70	1.20	0.60	1.20	0.40	1.20	0.70	1.40		
Date Sampled	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	4A	5A	4A	5A	4A	5A	4A	6AE		
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Ali >C8-C10 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Ali >C10-C12 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	A-T-023s
Ali >C12-C16 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	A-T-023s
Ali >C16-C21 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	A-T-023s
Ali >C21-C35 _A [#]	<0.1	<0.1	<0.1	<0.1	10.2	<0.1	<0.1	<0.1	mg/kg	A-T-023s
Total Aliphatics _A	<0.1	<0.1	<0.1	<0.1	10.2	<0.1	<0.1	<0.1	mg/kg	A-T-023s
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C8-C9 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C9-C10 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C10-C12 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	A-T-023s
Aro >C12-C16 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	A-T-023s
Aro >C16-C21 _A [#]	7.5	<0.1	<0.1	<0.1	1.6	<0.1	1.6	<0.1	mg/kg	A-T-023s
Aro >C21-C35 _A [#]	24.1	<0.1	<0.1	<0.1	14.8	<0.1	7.3	<0.1	mg/kg	A-T-023s
Total Aromatics _A	31.6	<0.1	<0.1	<0.1	16.4	<0.1	8.9	<0.1	mg/kg	A-T-023s
TPH (Ali & Aro) _A	31.6	<0.1	<0.1	<0.1	26.5	<0.1	8.9	<0.1	mg/kg	A-T-023s
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s

REPORT NOTES

General:

This report shall not be reproduced, except in full, without written approval from Envirolab.

All samples contained within this report, and any received with the same delivery, will be disposed of one month after the date of this report.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure and there is insufficient sample to repeat the analysis. These are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

FINAL ANALYTICAL TEST REPORT

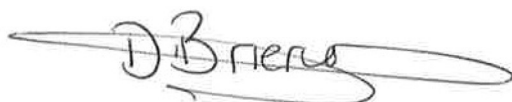
Envirolab Job Number: 17/05844
Issue Number: 1

Date: 08 September, 2017

Client: Ridge and Partners Ltd
Partnership House
Moorside Road
Winchester
UK
SO23 7RX

Project Manager: Antony Platt
Project Name: Quay Lane
Project Ref: 5004262
Order No: 603075
Date Samples Received: 25/08/17
Date Instructions Received: 29/08/17
Date Analysis Completed: 08/09/17

Prepared by:

A handwritten signature in blue ink, appearing to read "D Brierley".

Danielle Brierley
Client Manager

Approved by:

A handwritten signature in blue ink, appearing to read "I Haslock".

Iain Haslock
Analytical Consultant

Envirolab Job Number: 17/05844

Client Project Name: Quay Lane

Client Project Ref: 5004262

Lab Sample ID	17/05844/1	17/05844/2	17/05844/3	17/05844/4	17/05844/5	17/05844/6	17/05844/7	17/05844/8	Units	Method ref
Client Sample No										
Client Sample ID	WS108	WS108	WS109	WS109	WS110	WS110	WS111	WS111		
Depth to Top	0.10	1.10	0.10	1.20	0.60	1.90	0.40	3.60		
Depth To Bottom	0.40	1.30	0.30	1.50	0.70	2.10	0.60	3.90		
Date Sampled	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	4A	5A	4A	5AE	4A	5A	4A	5A		
% Stones >10mm _A	11.1	5.7	15.8	13.0	<0.1	8.2	<0.1	13.5	% w/w	A-T-044
pH _D ^{M#}	9.00	8.22	8.40	7.90	8.88	8.23	8.47	7.60	pH	A-T-031s
Cyanide (free) _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-042sFCN
Phenols - Total by HPLC _A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	A-T-050s
Organic matter _D ^{M#}	1.1	0.4	2.9	2.0	0.5	3.5	2.4	1.3	% w/w	A-T-032 OM
Total Organic Carbon _D ^{M#}	0.60	0.21	1.72	1.18	0.30	2.03	1.40	0.74	% w/w	A-T-032s
Antimony _D	<5	<5	<5	<5	<5	<5	<5	<5	mg/kg	A-T-024s
Arsenic _D ^{M#}	10	5	6	2	2	4	4	<1	mg/kg	A-T-024s
Cadmium _D ^{M#}	1.2	1.6	1.4	0.8	1.5	0.7	1.1	<0.5	mg/kg	A-T-024s
Copper _D ^{M#}	10	7	34	17	53	27	131	5	mg/kg	A-T-024s
Chromium _D ^{M#}	12	31	17	14	28	11	15	7	mg/kg	A-T-024s
Lead _D ^{M#}	50	13	104	70	47	102	66	16	mg/kg	A-T-024s
Mercury _D	0.36	<0.17	0.29	<0.17	<0.17	0.22	<0.17	<0.17	mg/kg	A-T-024s
Nickel _D ^{M#}	9	16	12	8	14	8	13	5	mg/kg	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-024s
Zinc _D ^{M#}	118	33	113	23	69	43	90	19	mg/kg	A-T-024s
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil _A [#]	NAD	NAD	NAD	NAD	Amosite	NAD	Chrysotile	NAD		A-T-045
Asbestos Matrix (microscope) _A	-	-	-	-	Loose fibres	-	Loose fibres	-		A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing) _D	-	-	-	-	0.003	-	<0.001	-	% w/w	A-T-054

Envirolab Job Number: 17/05844

Client Project Name: Quay Lane

Client Project Ref: 5004262

Lab Sample ID	17/05844/1	17/05844/2	17/05844/3	17/05844/4	17/05844/5	17/05844/6	17/05844/7	17/05844/8	Units	Method ref
Client Sample No										
Client Sample ID	WS108	WS108	WS109	WS109	WS110	WS110	WS111	WS111		
Depth to Top	0.10	1.10	0.10	1.20	0.60	1.90	0.40	3.60		
Depth To Bottom	0.40	1.30	0.30	1.50	0.70	2.10	0.60	3.90		
Date Sampled	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	4A	5A	4A	5AE	4A	5A	4A	5A		
PAH-16MS										
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-019s
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	mg/kg	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	mg/kg	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	0.06	0.31	0.38	0.03	0.04	<0.03	mg/kg	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	0.03	0.06	0.09	<0.02	<0.02	<0.02	mg/kg	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	0.14	0.41	0.81	<0.08	<0.08	<0.08	mg/kg	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	0.13	0.34	0.74	<0.07	0.08	<0.07	mg/kg	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	0.12	0.34	0.58	0.05	0.08	<0.04	mg/kg	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	0.15	0.36	0.60	0.08	0.12	<0.06	mg/kg	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.07	<0.05	0.19	0.42	0.68	0.09	0.16	<0.05	mg/kg	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	0.12	0.21	0.35	<0.07	0.09	<0.07	mg/kg	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.06	<0.04	0.15	0.32	0.55	0.08	0.13	<0.04	mg/kg	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.04	<0.03	0.11	0.21	0.37	0.05	0.13	<0.03	mg/kg	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	0.05	<0.04	<0.04	<0.04	mg/kg	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	0.10	0.18	0.29	<0.05	0.13	<0.05	mg/kg	A-T-019s
PAH (total 16) _A ^{M#}	0.21	<0.08	1.29	3.24	5.55	0.38	0.94	<0.08	mg/kg	A-T-019s

Envirolab Job Number: 17/05844

Client Project Name: Quay Lane

Client Project Ref: 5004262

Lab Sample ID	17/05844/1	17/05844/2	17/05844/3	17/05844/4	17/05844/5	17/05844/6	17/05844/7	17/05844/8	Units	Method ref
Client Sample No										
Client Sample ID	WS108	WS108	WS109	WS109	WS110	WS110	WS111	WS111		
Depth to Top	0.10	1.10	0.10	1.20	0.60	1.90	0.40	3.60		
Depth To Bottom	0.40	1.30	0.30	1.50	0.70	2.10	0.60	3.90		
Date Sampled	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	4A	5A	4A	5AE	4A	5A	4A	5A		
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Ali >C8-C10 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Ali >C10-C12 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	A-T-023s
Ali >C12-C16 _A [#]	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	mg/kg	A-T-023s
Ali >C16-C21 _A [#]	<0.1	<0.1	<0.1	<0.1	6.6	<0.1	5.8	<0.1	mg/kg	A-T-023s
Ali >C21-C35 _A [#]	<0.1	<0.1	<0.1	<0.1	36.6	<0.1	23.6	<0.1	mg/kg	A-T-023s
Total Aliphatics _A	<0.1	<0.1	<0.1	<0.1	44.0	<0.1	29.3	<0.1	mg/kg	A-T-023s
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C8-C9 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C9-C10 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C10-C12 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	A-T-023s
Aro >C12-C16 _A [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	A-T-023s
Aro >C16-C21 _A [#]	<0.1	<0.1	1.3	0.3	0.7	<0.1	2.5	<0.1	mg/kg	A-T-023s
Aro >C21-C35 _A [#]	<0.1	<0.1	2.5	0.3	0.6	<0.1	11.4	<0.1	mg/kg	A-T-023s
Total Aromatics _A	<0.1	<0.1	3.8	0.6	1.4	<0.1	13.7	<0.1	mg/kg	A-T-023s
TPH (Ali & Aro) _A	<0.1	<0.1	3.8	0.6	45.5	<0.1	43.1	<0.1	mg/kg	A-T-023s
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s

Envirolab Job Number: 17/05844

Client Project Name: Quay Lane

Client Project Ref: 5004262

Lab Sample ID	17/05844/9	17/05844/10	17/05844/11	17/05844/12	17/05844/13	17/05844/14	17/05844/15	17/05844/16	Units	Method ref
Client Sample No										
Client Sample ID	WS112	WS112	WS113	WS113	WS114	WS114	WS116	WS116		
Depth to Top	0.40	1.60	0.30	1.20	0.30	1.00	0.50	1.00		
Depth To Bottom	0.50	1.80	0.40	1.50	0.50	1.30	0.70	1.40		
Date Sampled	22-Aug-17	22-Aug-17	22-Aug-17	22-Aug-17	23-Aug-17	23-Aug-17	23-Aug-17	23-Aug-17		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	5A	5	6A	4A	6A	1A	5A	1A		
% Stones >10mm _A	9.9	<0.1	17.6	19.3	30.7	7.3	15.4	36.5	% w/w	A-T-044
pH _D ^{M#}	8.27	8.01	8.29	8.23	7.83	8.12	7.36	8.09	pH	A-T-031s
Cyanide (free) _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-042sFCN
Phenols - Total by HPLC _A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	A-T-050s
Organic matter _D ^{M#}	3.2	<0.1	2.9	0.4	3.4	<0.1	0.8	<0.1	% w/w	A-T-032 OM
Total Organic Carbon _D ^{M#}	1.85	<0.03	1.66	0.24	1.95	0.04	0.42	<0.03	% w/w	A-T-032s
Antimony _D	<5	<5	<5	<5	<5	<5	<5	<5	mg/kg	A-T-024s
Arsenic _D ^{M#}	6	5	5	2	5	<1	2	<1	mg/kg	A-T-024s
Cadmium _D ^{M#}	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	mg/kg	A-T-024s
Copper _D ^{M#}	26	1	23	4	21	2	5	1	mg/kg	A-T-024s
Chromium _D ^{M#}	14	4	13	8	12	5	8	1	mg/kg	A-T-024s
Lead _D ^{M#}	116	6	101	9	107	4	12	<1	mg/kg	A-T-024s
Mercury _D	0.55	<0.17	<0.17	<0.17	0.21	<0.17	<0.17	<0.17	mg/kg	A-T-024s
Nickel _D ^{M#}	10	4	9	6	10	5	6	<1	mg/kg	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-024s
Zinc _D ^{M#}	54	17	49	12	48	7	20	<5	mg/kg	A-T-024s
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil _A [#]	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD		A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		