Exova Jones Environmental

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Attention :	Jeremy Head
Date :	31st October, 2017
Your reference :	408.05640.00021
Our reference :	Test Report 17/17411 Batch 1
Location :	Pudding Lane
Date samples received :	21st October, 2017
Status :	Final report
Issue :	1

Twenty samples were received for analysis on 21st October, 2017 of which eleven were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Compiled By:

Paul Boden BSc
Project Manager

Client Name: SLR Consulting Ltd
Reference: 408.05640.00021
Location: Pudding Lane
Contact: Jeremy Head
JE Job No.: 17/17411

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

J E Sample No.	2-3	9-10	14-15	19-20	26-27	29-30	33-35				LOD/LOR	Units	Method No.
Sample ID	TP1	TP2	TP3	TP4	TP5	TP6	WAC						
Depth	0.20	0.50	2.25	0.60	2.10	0.20							
COC No / misc													
Containers	V J	V J	V J	V J	V J	V J	V J T						
Sample Date	18/10/2017	18/10/2017	18/10/2017	18/10/2017	18/10/2017	18/10/2017	18/10/2017						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1	1	1	1						
Date of Receipt	21/10/2017	21/10/2017	21/10/2017	21/10/2017	21/10/2017	21/10/2017	21/10/2017						
Arsenic #M	14	2.5	-	1.9	-	17	9.6				<0.5	mg/kg	TM30/PM15
Cadmium #M	0.2	<0.1	-	<0.1	-	0.6	0.2				<0.1	mg/kg	TM30/PM15
Chromium #M	38	9.0	-	6.0	-	46	32				<0.5	mg/kg	TM30/PM15
Copper #M	21	4	-	2	-	47	16				<1	mg/kg	TM30/PM15
Lead #M	57	<5	-	<5	-	660	44				<5	mg/kg	TM30/PM15
Mercury #M	<0.1	<0.1	-	<0.1	-	<0.1	<0.1				<0.1	mg/kg	TM30/PM15
Nickel #M	24	5.4	-	2.8	-	26	16				<0.7	mg/kg	TM30/PM15
Selenium #M	<1	<1	-	<1	-	<1	<1				<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #M	-	-	-	-	-	-	870				<50	mg/kg	TM50/PM29
Zinc #M	86	21	-	11	-	470	86				<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #M	<0.04	<0.04	-	<0.04	-	<0.04	<0.04				<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	-	<0.03	-	<0.03	<0.03				<0.03	mg/kg	TM4/PM8
Acenaphthene #M	<0.05	<0.05	-	<0.05	-	<0.05	<0.05				<0.05	mg/kg	TM4/PM8
Fluorene #M	<0.04	<0.04	-	<0.04	-	<0.04	<0.04				<0.04	mg/kg	TM4/PM8
Phenanthrene #M	0.05	<0.03	-	<0.03	-	1.2	0.16				<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	-	<0.04	-	0.39	<0.04				<0.04	mg/kg	TM4/PM8
Fluoranthene #M	0.10	<0.03	-	<0.03	-	1.7	0.38				<0.03	mg/kg	TM4/PM8
Pyrene #	0.08	<0.03	-	<0.03	-	1.7	0.33				<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.10	<0.06	-	<0.06	-	0.95	0.22				<0.06	mg/kg	TM4/PM8
Chrysene #M	0.05	<0.02	-	<0.02	-	0.97	0.20				<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #M	<0.07	<0.07	-	<0.07	-	1.7	0.34				<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	0.06	<0.04	-	<0.04	-	0.81	0.17				<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #M	<0.04	<0.04	-	<0.04	-	0.56	0.12				<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	-	<0.04	-	<0.04	<0.04				<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	-	<0.04	-	0.74	0.12				<0.04	mg/kg	TM4/PM8
Coronene	-	-	-	-	-	-	<0.04				<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	-	<0.6	-	10.7	2.0				<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	-	<0.05	-	1.2	0.24				<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	-	<0.02	-	0.48	0.10				<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	89	72	-	87	-	83	84				<0	%	TM4/PM8
Methyl Tertiary Butyl Ether #M	-	-	-	-	<0.006	-	-				<0.006	mg/kg	TM15/PM10
Benzene #M	-	-	-	-	<0.005	-	-				<0.005	mg/kg	TM15/PM10
Toluene #M	-	-	-	-	<0.003	-	-				<0.003	mg/kg	TM15/PM10
Ethylbenzene #M	-	-	-	-	<0.003	-	-				<0.003	mg/kg	TM15/PM10
p/m-Xylene #M	-	-	-	-	<0.004	-	-				<0.004	mg/kg	TM15/PM10
o-Xylene #M	-	-	-	-	<0.004	-	-				<0.004	mg/kg	TM15/PM10
Surrogate Recovery Toluene D8	-	-	-	-	79	-	-				<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	-	-	-	-	110	-	-				<0	%	TM15/PM10
MTBE #	-	-	<0.005	-	-	-	<0.005				<0.005	mg/kg	TM31/PM12
Benzene #	-	-	<0.005	-	-	-	<0.005				<0.005	mg/kg	TM31/PM12

Please see attached notes for all abbreviations and acronyms

Client Name: SLR Consulting Ltd
Reference: 408.05640.00021
Location: Pudding Lane
Contact: Jeremy Head
JE Job No.: 17/17411

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

J E Sample No.	2-3	9-10	14-15	19-20	26-27	29-30	33-35				LOD/LOR	Units	Method No.
Sample ID	TP1	TP2	TP3	TP4	TP5	TP6	WAC						
Depth	0.20	0.50	2.25	0.60	2.10	0.20							
COC No / misc													
Containers	V J	V J	V J	V J	V J	V J	V J T						
Sample Date	18/10/2017	18/10/2017	18/10/2017	18/10/2017	18/10/2017	18/10/2017	18/10/2017						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1	1	1	1						
Date of Receipt	21/10/2017	21/10/2017	21/10/2017	21/10/2017	21/10/2017	21/10/2017	21/10/2017						
Toluene #	-	-	<0.005	-	-	-	<0.005				<0.005	mg/kg	TM31/PM12
Ethylbenzene #	-	-	<0.005	-	-	-	<0.005				<0.005	mg/kg	TM31/PM12
m/p-Xylene #	-	-	<0.005	-	-	-	<0.005				<0.005	mg/kg	TM31/PM12
o-Xylene #	-	-	<0.005	-	-	-	<0.005				<0.005	mg/kg	TM31/PM12
Xylenes (sum of isomers) #	-	-	<0.01	-	-	-	<0.01				<0.01	mg/kg	TM31/PM12
EPH (C8-C40) #M	-	-	-	-	-	-	150				<30	mg/kg	TM5/PM8
TPH CWG													
Aliphatics													
>C5-C6 #M	-	-	<0.1	-	<0.1	-	-				<0.1	mg/kg	TM36/PM12
>C6-C8 #M	-	-	<0.1	-	<0.1	-	-				<0.1	mg/kg	TM36/PM12
>C8-C10	-	-	<0.1	-	<0.1	-	-				<0.1	mg/kg	TM36/PM12
>C10-C12 #M	-	-	<0.2	-	<0.2	-	-				<0.2	mg/kg	TM5/PM16
>C12-C16 #M	-	-	<4	-	<4	-	-				<4	mg/kg	TM5/PM16
>C16-C21 #M	-	-	<7	-	<7	-	-				<7	mg/kg	TM5/PM16
>C21-C35 #M	-	-	<7	-	<7	-	-				<7	mg/kg	TM5/PM16
Total aliphatics C5-35	-	-	<19	-	<19	-	-				<19	mg/kg	TM5/TM36/PM12/PM16
Aromatics													
>C5-EC7 #	-	-	<0.1	-	<0.1	-	-				<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	-	-	<0.1	-	<0.1	-	-				<0.1	mg/kg	TM36/PM12
>EC8-EC10 #M	-	-	<0.1	-	<0.1	-	-				<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	-	-	<0.2	-	<0.2	-	-				<0.2	mg/kg	TM5/PM16
>EC12-EC16 #	-	-	<4	-	<4	-	-				<4	mg/kg	TM5/PM16
>EC16-EC21 #	-	-	<7	-	<7	-	-				<7	mg/kg	TM5/PM16
>EC21-EC35 #	-	-	<7	-	<7	-	-				<7	mg/kg	TM5/PM16
Total aromatics C5-35 #	-	-	<19	-	<19	-	-				<19	mg/kg	TM5/TM36/PM12/PM16
Total aliphatics and aromatics(C5-35)	-	-	<38	-	<38	-	-				<38	mg/kg	TM5/TM36/PM12/PM16
Total Phenols HPLC	-	-	-	-	-	-	<0.15				<0.15	mg/kg	TM26/PM21
Natural Moisture Content	18.2	18.8	21.4	27.1	22.8	18.9	16.2				<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	-	<0.3	-	<0.3	<0.3				<0.3	mg/kg	TM38/PM20
Free Cyanide	<0.5	<0.5	-	<0.5	-	<0.5	-				<0.5	mg/kg	TM89/PM45
Total Cyanide #M	<0.5	<0.5	-	<0.5	-	1.9	2.8				<0.5	mg/kg	TM89/PM45
Sample Type	Clay	Clay	Clay	Clay	Clay	Clay	Clay					None	PM13/PM0
Sample Colour	Medium Brown	White	White	Light Brown	Light Brown	Medium Brown	Medium Grey					None	PM13/PM0
Other Items	loam, stones, roots, wood	stones, chalk	stones, chalk	stones, chalk	stones, chalk	loam, roots, stones	chalk, stones					None	PM13/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: SLR Consulting Ltd
Reference: 408.05640.00021
Location: Pudding Lane
Contact: Jeremy Head
JE Job No.: 17/17411

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

J E Sample No.	2-3	9-10	14-15	19-20	26-27	29-30	33-35				LOD/LOR	Units	Method No.
Sample ID	TP1	TP2	TP3	TP4	TP5	TP6	WAC						
Depth	0.20	0.50	2.25	0.60	2.10	0.20							
COC No / misc													
Containers	V J	V J	V J	V J	V J	V J	V J T						
Sample Date	18/10/2017	18/10/2017	18/10/2017	18/10/2017	18/10/2017	18/10/2017	18/10/2017						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1	1	1	1						
Date of Receipt	21/10/2017	21/10/2017	21/10/2017	21/10/2017	21/10/2017	21/10/2017	21/10/2017						
PAH MS													
PAH 17 Total	-	-	-	-	-	-	2.04				<0.64	mg/kg	TM4/PM8
Mineral Oil (C10-C40)	-	-	-	-	-	-	<30				<30	mg/kg	TM5/PM16
PCB 28 #	-	-	-	-	-	-	<0.005				<0.005	mg/kg	TM17/PM8
PCB 52 #	-	-	-	-	-	-	<0.005				<0.005	mg/kg	TM17/PM8
PCB 101 #	-	-	-	-	-	-	<0.005				<0.005	mg/kg	TM17/PM8
PCB 118 #	-	-	-	-	-	-	<0.005				<0.005	mg/kg	TM17/PM8
PCB 138 #	-	-	-	-	-	-	<0.005				<0.005	mg/kg	TM17/PM8
PCB 153 #	-	-	-	-	-	-	<0.005				<0.005	mg/kg	TM17/PM8
PCB 180 #	-	-	-	-	-	-	<0.005				<0.005	mg/kg	TM17/PM8
Total 7 PCBs #	-	-	-	-	-	-	<0.035				<0.035	mg/kg	TM17/PM8
Total Organic Carbon #	-	-	-	-	-	-	0.96				<0.02	%	TM21/PM24
Sulphide	-	-	-	-	-	-	<10				<10	mg/kg	TM106/PM119
Thiocyanate	<0.6	<0.6	-	<0.6	-	<0.6	-				<0.6	mg/kg	TM107/PM119
pH #M	8.2	8.5	-	9.0	-	8.1	8.1				<0.01	pH units	TM73/PM11

Please see attached notes for all abbreviations and acronyms

Client Name: SLR Consulting Ltd
Reference: 408.05640.00021
Location: Pudding Lane
Contact: Jeremy Head
JE Job No.: 17/17411

VOC Report : **Solid**

J E Sample No.	26-27												
Sample ID	TP5												
Depth	2.10												
COC No / misc													
Containers	V J												
Sample Date	18/10/2017												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	21/10/2017												

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
VOC MS													
Surrogate Recovery Toluene D8	79										<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	110										<0	%	TM15/PM10
Dichlorodifluoromethane	<0.002										<0.002	mg/kg	TM15/PM10
Methyl Tertiary Butyl Ether #M	<0.006										<0.006	mg/kg	TM15/PM10
Chloromethane #	<0.003										<0.003	mg/kg	TM15/PM10
Vinyl Chloride	<0.002										<0.002	mg/kg	TM15_A/PM10
Bromomethane	<0.001										<0.001	mg/kg	TM15/PM10
Chloroethane #M	<0.006										<0.006	mg/kg	TM15/PM10
Trichlorofluoromethane #M	<0.003										<0.003	mg/kg	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #M	<0.006										<0.006	mg/kg	TM15/PM10
Dichloromethane (DCM) #	<0.03										<0.03	mg/kg	TM15/PM10
trans-1-2-Dichloroethene #	<0.003										<0.003	mg/kg	TM15/PM10
1,1-Dichloroethane #M	<0.006										<0.006	mg/kg	TM15/PM10
cis-1-2-Dichloroethene #M	<0.007										<0.007	mg/kg	TM15/PM10
2,2-Dichloropropane	<0.004										<0.004	mg/kg	TM15/PM10
Bromochloromethane #M	<0.004										<0.004	mg/kg	TM15/PM10
Chloroform #M	<0.005										<0.005	mg/kg	TM15/PM10
1,1,1-Trichloroethane #M	<0.005										<0.005	mg/kg	TM15/PM10
1,1-Dichloropropene #	<0.003										<0.003	mg/kg	TM15/PM10
Carbon tetrachloride #M	<0.004										<0.004	mg/kg	TM15/PM10
1,2-Dichloroethane #M	<0.005										<0.005	mg/kg	TM15/PM10
Benzene #M	<0.005										<0.005	mg/kg	TM15/PM10
Trichloroethene (TCE) #M	<0.005										<0.005	mg/kg	TM15/PM10
1,2-Dichloropropane #M	<0.004										<0.004	mg/kg	TM15/PM10
Dibromomethane #M	<0.004										<0.004	mg/kg	TM15/PM10
Bromodichloromethane #M	<0.004										<0.004	mg/kg	TM15/PM10
cis-1-3-Dichloropropene	<0.004										<0.004	mg/kg	TM15/PM10
Toluene #M	<0.003										<0.003	mg/kg	TM15/PM10
trans-1-3-Dichloropropene	<0.003										<0.003	mg/kg	TM15/PM10
1,1,2-Trichloroethane #M	<0.004										<0.004	mg/kg	TM15/PM10
Tetrachloroethene (PCE) #	<0.003										<0.003	mg/kg	TM15/PM10
1,3-Dichloropropane #M	<0.004										<0.004	mg/kg	TM15/PM10
Dibromochloromethane #M	<0.005										<0.005	mg/kg	TM15/PM10
1,2-Dibromoethane #	<0.003										<0.003	mg/kg	TM15/PM10
Chlorobenzene #M	<0.004										<0.004	mg/kg	TM15/PM10
1,1,1,2-Tetrachloroethane #M	<0.005										<0.005	mg/kg	TM15/PM10
Ethylbenzene #M	<0.003										<0.003	mg/kg	TM15/PM10
p/m-Xylene #M	<0.004										<0.004	mg/kg	TM15/PM10
o-Xylene #M	<0.004										<0.004	mg/kg	TM15/PM10
Styrene	<0.003										<0.003	mg/kg	TM15_A/PM10
Bromoform	<0.004										<0.004	mg/kg	TM15/PM10
Isopropylbenzene #	<0.003										<0.003	mg/kg	TM15/PM10
1,1,2,2-Tetrachloroethane #M	<0.003										<0.003	mg/kg	TM15/PM10
Bromobenzene	<0.002										<0.002	mg/kg	TM15/PM10
1,2,3-Trichloropropane #M	<0.004										<0.004	mg/kg	TM15/PM10
Propylbenzene #	<0.004										<0.004	mg/kg	TM15/PM10
2-Chlorotoluene	<0.003										<0.003	mg/kg	TM15/PM10
1,3,5-Trimethylbenzene #	<0.003										<0.003	mg/kg	TM15/PM10
4-Chlorotoluene	<0.003										<0.003	mg/kg	TM15/PM10
tert-Butylbenzene #	<0.005										<0.005	mg/kg	TM15/PM10
1,2,4-Trimethylbenzene #	<0.006										<0.006	mg/kg	TM15/PM10
sec-Butylbenzene #	<0.004										<0.004	mg/kg	TM15/PM10
4-Isopropyltoluene #	<0.004										<0.004	mg/kg	TM15/PM10
1,3-Dichlorobenzene #M	<0.004										<0.004	mg/kg	TM15/PM10
1,4-Dichlorobenzene #	<0.004										<0.004	mg/kg	TM15/PM10
n-Butylbenzene #	<0.004										<0.004	mg/kg	TM15/PM10
1,2-Dichlorobenzene #M	<0.004										<0.004	mg/kg	TM15/PM10
1,2-Dibromo-3-chloropropane #	<0.004										<0.004	mg/kg	TM15/PM10
1,2,4-Trichlorobenzene #	<0.007										<0.007	mg/kg	TM15/PM10
Hexachlorobutadiene	<0.004										<0.004	mg/kg	TM15/PM10
Naphthalene	<0.027										<0.027	mg/kg	TM15/PM10
1,2,3-Trichlorobenzene #	<0.007										<0.007	mg/kg	TM15/PM10

Mass of sample taken (kg)	-	Moisture Content Ratio (%) =	19.1
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	84.0
Particle Size <4mm =	>95%		

		Landfill Waste Acceptance Criteria Limits		
JEFL Job No	**17/17411**	**Inert Waste Landfill**	**Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill**	**Hazardous Waste Landfill**
Sample No	**35**			
Client Sample No	**WAC**			
Depth/Other				
Sample Date	**18/10/2017**			
Batch No	**1**			
Solid Waste Analysis				
Total Organic Carbon (%)	0.96	3	5	6
Loss on Ignition (%)	-	-	-	10
Sum of BTEX (mg/kg)	<0.025	6	-	-
Sum of 7 PCBs (mg/kg)	<0.035	1	-	-
Mineral Oil (mg/kg)	<30	500	-	-
PAH Sum of 17(mg/kg)	2.04	100	-	-
pH (pH Units)	-	-	>6	-
ANC to pH 7 (mol/kg)	-	-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	-	-	to be evaluated	to be evaluated

Eluate Analysis	**10:1 conc^{n} leached**		**Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg**		
	C_{10}	**A_{10}**			
	mg/l	**mg/kg**	**mg/kg**		
Arsenic	0.0041	0.041	0.5	2	25
Barium	0.005	0.05	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	0.003	0.03	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	<0.002	<0.02	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	<0.003	<0.03	4	50	200
Chloride	2.2	22	800	15000	25000
Fluoride	<0.3	<3	10	150	500
Sulphate as SO4	47	470	1000	20000	50000
Total Dissolved Solids	150	1500	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	5	50	500	800	1000

Client Name: SLR Consulting Ltd
Reference: 408.05640.00021
Location: Pudding Lane
Contact: Jeremy Head

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Samples are retained for not less than 6 months from the date of analysis unless specifically requested.

Opinions, including ACM type and Asbestos level, lie outside the scope of our UKAS accreditation.

Where the sample is not taken by a Jones Environmental Laboratory consultant, Jones Environmental Laboratory cannot be responsible for inaccurate or unrepresentative sampling.

Signed on behalf of Jones Environmental Laboratory:

Ryan Butterworth
Asbestos Team Leader

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
17/17411	1	TP1	0.00-0.20	1	24/10/2017	**General Description (Bulk Analysis)**	soil/stones
					24/10/2017	**Asbestos Fibres**	NAD
					24/10/2017	**Asbestos Fibres (2)**	NAD
					24/10/2017	**Asbestos ACM**	NAD
					24/10/2017	**Asbestos ACM (2)**	NAD
					24/10/2017	**Asbestos Type**	NAD
					24/10/2017	**Asbestos Type (2)**	NAD
					24/10/2017	**Asbestos Level Screen**	NAD
17/17411	1	TP2	0.00-0.20	6	24/10/2017	**General Description (Bulk Analysis)**	soil/stones
					24/10/2017	**Asbestos Fibres**	NAD
					24/10/2017	**Asbestos Fibres (2)**	NAD
					24/10/2017	**Asbestos ACM**	NAD
					24/10/2017	**Asbestos ACM (2)**	NAD
					24/10/2017	**Asbestos Type**	NAD
					24/10/2017	**Asbestos Type (2)**	NAD
					24/10/2017	**Asbestos Level Screen**	NAD
17/17411	1	TP4	0.00-0.20	16	24/10/2017	**General Description (Bulk Analysis)**	soil/stones
					24/10/2017	**Asbestos Fibres**	Free Fibres
					24/10/2017	**Asbestos ACM**	Asbestos Cement
					24/10/2017	**Asbestos Type**	Chrysotile
					24/10/2017	**Asbestos Level Screen**	Asbestos level cannot be determined from Screen. Quantification required.
17/17411	1	TP6	0.00-0.20	28	24/10/2017	**General Description (Bulk Analysis)**	soil/stones
					24/10/2017	**Asbestos Fibres**	Free Fibres
					24/10/2017	**Asbestos ACM**	Asbestos Cement
					24/10/2017	**Asbestos Type**	Chrysotile
					24/10/2017	**Asbestos Level Screen**	Asbestos level cannot be determined from Screen. Quantification required.

Client Name: SLR Consulting Ltd
Reference: 408.05640.00021
Location: Pudding Lane
Contact: Jeremy Head

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Analysis	Reason
No deviating sample report results for job 17/17411						

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.
Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

JE Job No.: 17/17411

SOILS

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

DEVIATING SAMPLES

Samples must be received in a condition appropriate to the requested analyses. All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. If this is not the case you will be informed and any test results that may be compromised highlighted on your deviating samples report.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.
Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS) accredited - UK.
SA	ISO17025 (SANAS) accredited - South Africa.
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
++	Result outside calibration range, results should be considered as indicative only and are not accredited.
*	Analysis subcontracted to a Jones Environmental approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range

JE Job No: 17/17411

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.				
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes	Yes	AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes	Yes	AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes	Yes	AR	Yes
TM5/TM36	TM005: Modified USEPA 8015B. Determination of solvent Extractable Petroleum Hydrocarbons (EPH) including column fractionation in the carbon range of C10-35 into aliphatic and aromatic fractions by GC-FID. TM036: Modified USEPA 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C5-10 by headspace GC-FID. Including determination of BTEX and calculation of Aliphatic fractions	PM12/PM16	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis./Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes

JE Job No: 17/17411

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM5/TM36	TM005: Modified USEPA 8015B: Determination of solvent Extractable Petroleum Hydrocarbons (EPH) including column fractionation in the carbon range of C10-35 into aliphatic and aromatic fractions by GC-FID. TM036: Modified USEPA 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C5-10 by headspace GC-FID. Including determination of BTEX and calculation of Aliphatic fractions	PM12/PM16	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis./Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
PM13	A visual examination of the solid sample is carried out to ascertain sample make up, colour and any other inclusions. This is not a geotechnical description.	PM0	No preparation is required.			AR	
TM15	Modified USEPA 8260. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM15	Modified USEPA 8260. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM15	Modified USEPA 8260. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes	Yes	AR	Yes
TM17	Modified US EPA method 8270. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3: 1990/USEPA 160.3 Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.			AR	Yes
TM21	Modified USEPA 415.1. Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21	As received solid or water samples are extracted in Methanol: Sodium Hydroxide (0.1M NaOH) (60:40) by orbital shaker.			AR	Yes

JE Job No: 17/17411

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes	Yes	AD	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM17	Modified method EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.	Yes		AR	Yes
TM31	Modified USEPA 8015B. Determination of Methyltertbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM31	Modified USEPA 8015B. Determination of Methyltertbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes	Yes	AR	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	Dried and ground solid sample is boiled with dilute hydrochloric acid, the resulting liquor is then analysed.	Yes	Yes	AD	Yes

JE Job No: 17/17411

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM60	Modified USEPA 9060. Determination of TOC by calculation from Total Carbon and Inorganic Carbon using a TOC analyser, the carbon in the sample is converted to CO2 and then passed through a non-dispersive infrared gas analyser (NDIR).	PM0	No preparation is required.			AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248.	PM42	Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes	Yes	AR	No
TM89	Modified USEPA method OIA-1667. Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide and Thiocyanate analysis.			AR	Yes
TM89	Modified USEPA method OIA-1667. Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide and Thiocyanate analysis.	Yes	Yes	AR	Yes
TM106	Determination of Sulphide by Skalar Continuous Flow Analyser	PM119	As received solid samples are extracted with 1M NaOH by orbital shaker for Sulphide and Thiocyanate analysis.			AR	Yes
TM107	Determination of Thiocyanate by Skalar Continuous Flow Analyser	PM119	As received solid samples are extracted with 1M NaOH by orbital shaker for Sulphide and Thiocyanate analysis.			AR	Yes
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 340.2	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.			AR	
TM15_A	Modified USEPA 8260. Quantitative Determination of Volatile Organic Compounds, Vinyl Chloride & Styrene by Headspace GC-MS.	PM10	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes