

Element Materials Technology

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32 New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor
EMT Job No: 22/914

Report : Solid

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

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21				Please see attached notes for all abbreviations and acronyms		
Sample ID	OR G10	OR F3	OR G4	OR J11	DT J13 01	SP03 C5 12	SP04 H4 01						
Depth	1.6	1.5	Surface	Surface	Surface	Surface	Surface						
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T						
Sample Date	19/01/2022	21/01/2022	21/01/2022	21/01/2022	21/01/2022	21/01/2022	21/01/2022						
Sample Type	Clayey Sand	Clay	Clay	Clay	Clay	Silt	Sand						
Batch Number	1	1	1	1	1	1	1				LOD/LOR	Units	Method No.
Date of Receipt	22/01/2022	22/01/2022	22/01/2022	22/01/2022	22/01/2022	22/01/2022	22/01/2022						
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2				<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<4	<4	<4	<4	<4	<4	<4				<4	mg/kg	TMS/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	<7	<7	<7	<7	<7	<7	<7				<7	mg/kg	TMS/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	55	<7	<7	<7	<7	<7	<7				<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	55	<19	<19	<19	<19	<19	<19				<19	mg/kg	TMS/PM8/PM16/PM12/PM10
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2				<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	<4	<4	<4	<4	<4	<4	<4				<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	<7	<7	<7	<7	<7	<7	<7				<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	<7	<7	<7	<7	<7	<7	<7				<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR) #	<19	<19	<19	<19	<19	<19	<19				<19	mg/kg	TMS/PM8/PM16/PM12/PM10
Total aliphatics and aromatics (C5-35) (EH+HS_CU_1D_Total)	55	<38	<38	<38	<38	<38	<38				<38	mg/kg	TMS/PM8/PM16/PM12/PM10
MTBE #	-	<5	<5	-	<5	-	-				<5	ug/kg	TM36/PM12
Benzene #	-	<5	<5	-	<5	-	-				<5	ug/kg	TM36/PM12
Toluene #	-	<5	<5	-	<5	-	-				<5	ug/kg	TM36/PM12
Ethylbenzene #	-	<5	<5	-	<5	-	-				<5	ug/kg	TM36/PM12
m/p-Xylene #	-	<5	<5	-	<5	-	-				<5	ug/kg	TM36/PM12
o-Xylene #	-	<5	<5	-	<5	-	-				<5	ug/kg	TM36/PM12
Total Phenols HPLC	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15				<0.15	mg/kg	TM26/PM21B
Natural Moisture Content	9.6	14.5	11.1	17.7	13.1	3.3	3.8				<0.1	%	PM4/PM0
Ammoniacal Nitrogen as N	<0.6	-	-	<0.6	-	<0.6	<0.6				<0.6	mg/kg	TM38/PM20
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3				<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	0.2153	0.0778	0.1052	0.1444	0.1909	0.0024	0.0023				<0.0015	g/l	TM38/PM20
Chromium III	167.9	49.9	55.0	94.1	56.5	112.1	175.7				<0.5	mg/kg	NONE/NONE
Total Cyanide #	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				<0.5	mg/kg	TM89/PM45
Organic Matter	<0.2	0.2	0.8	0.5	0.4	0.2	0.2				<0.2	%	TM21/PM24
pH #	9.63	8.48	9.26	8.82	8.86	11.60	12.16				<0.01	pH units	TM73/PM11
Sample Type	Clayey Sand	Clay	Clay	Clay	Clay	Silt	Sand					None	PM13/PM0
Sample Colour	Light Brown	Light Brown	Light Brown	Light Brown	Medium Brown	Light Brown	Light Brown					None	PM13/PM0

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

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[illegible]

EMT Sample No.	1-3	10-12	16-18	19-21							Please see attached notes for all abbreviations and acronyms		
Sample ID	OR G10	OR J11	SP03 C5 12	SP04 H4 01									
Depth	1.6	Surface	Surface	Surface									
COC No / misc													
Containers	V J T	V J T	V J T	V J T									
Sample Date	19/01/2022	21/01/2022	21/01/2022	21/01/2022									
Sample Type	Clayey Sand	Clay	Silt	Sand									
Batch Number	1	1	1	1							LOD/LOR	Units	Method No.
Date of Receipt	22/01/2022	22/01/2022	22/01/2022	22/01/2022									
SVOC MS													
Phenols													
2-Chlorophenol #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
2-Methylphenol	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Phenol #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
PAHs													
2-Chloronaphthalene #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
2-Methylnaphthalene #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Phthalates													
Bis(2-ethylhexyl) phthalate	<100	<100	<100	<100							<100	ug/kg	TM16/PM8
Butylbenzyl phthalate	<100	<100	<100	<100							<100	ug/kg	TM16/PM8
Di-n-butyl phthalate	<100	<100	<100	<100							<100	ug/kg	TM16/PM8
Di-n-Octyl phthalate	<100	<100	<100	<100							<100	ug/kg	TM16/PM8
Diethyl phthalate	<100	<100	<100	<100							<100	ug/kg	TM16/PM8
Dimethyl phthalate #	<100	<100	<100	<100							<100	ug/kg	TM16/PM8
Other SVOCs													
1,2-Dichlorobenzene	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
1,2,4-Trichlorobenzene #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
1,3-Dichlorobenzene	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
1,4-Dichlorobenzene	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
2-Nitroaniline	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
2,4-Dinitrotoluene	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
2,6-Dinitrotoluene	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
3-Nitroaniline	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
4-Bromophenylphenylether #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
4-Chloroaniline	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
4-Chlorophenylphenylether	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
4-Nitroaniline	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Azobenzene	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Bis(2-chloroethoxy)methane	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Bis(2-chloroethyl)ether	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Carbazole	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Dibenzofuran #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Hexachlorobenzene	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Hexachlorobutadiene #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Hexachlorocyclopentadiene	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Hexachloroethane	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Isophorone #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
N-nitrosodi-n-propylamine #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Nitrobenzene #	<10	<10	<10	<10							<10	ug/kg	TM16/PM8
Surrogate Recovery 2-Fluorobiphenyl	98	99	100	100							<0	%	TM16/PM8
Surrogate Recovery p-Terphenyl-d14	95	95	89	100							<0	%	TM16/PM8

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Sample ID	OR G10	OR J11	SP03 C5 12	SP04 H4 01									
Depth	1.6	Surface	Surface	Surface									
COC No / misc													
Containers	V J T	V J T	V J T	V J T									
Sample Date	19/01/2022	21/01/2022	21/01/2022	21/01/2022									
Sample Type	Clayey Sand	Clay	Silt	Sand									
Batch Number	1	1	1	1							LOD/LOR	Units	Method No.
Date of Receipt	22/01/2022	22/01/2022	22/01/2022	22/01/2022									
VOC MS													
Dichlorodifluoromethane	<2	<2	<2	<2							<2	ug/kg	TM15/PM10
Methyl Tertiary Butyl Ether #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
Chloromethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Vinyl Chloride	<2	<2	<2	<2							<2	ug/kg	TM15_A/PM10
Bromomethane	<1	<1	<1	<1							<1	ug/kg	TM15/PM10
Chloroethane #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
Trichlorofluoromethane #	7	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
Dichloromethane (DCM) #	<7	<7	<7	<7							<7	ug/kg	TM15/PM10
trans-1,2-Dichloroethene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1-Dichloroethane #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
cis-1,2-Dichloroethene #	<7	<7	<7	<7							<7	ug/kg	TM15/PM10
2,2-Dichloropropane	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Bromochloromethane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Chloroform #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
1,1,1-Trichloroethane #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
1,1-Dichloropropene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Carbon tetrachloride #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2-Dichloroethane #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
Benzene #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
Trichloroethene (TCE) #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
1,2-Dichloropropane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Dibromomethane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Bromodichloromethane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
cis-1,3-Dichloropropene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Toluene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
trans-1,3-Dichloropropene	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1,2-Trichloroethane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Tetrachloroethene (PCE) #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,3-Dichloropropane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Dibromochloromethane #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
1,2-Dibromoethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Chlorobenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,1,1,2-Tetrachloroethane #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
Ethylbenzene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
m/p-Xylene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
o-Xylene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Styrene	<3	<3	<3	<3							<3	ug/kg	TM15_A/PM10
Bromoform	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Isopropylbenzene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1,2,2-Tetrachloroethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Bromobenzene	<2	<2	<2	<2							<2	ug/kg	TM15/PM10
1,2,3-Trichloropropane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Propylbenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
2-Chlorotoluene	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,3,5-Trimethylbenzene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
4-Chlorotoluene	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
tert-Butylbenzene #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
1,2,4-Trimethylbenzene #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
sec-Butylbenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
4-Isopropyltoluene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,3-Dichlorobenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,4-Dichlorobenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
n-Butylbenzene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2-Dichlorobenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2-Dibromo-3-chloropropane	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2,4-Trichlorobenzene	<7	<7	<7	<7							<7	ug/kg	TM15/PM10
Hexachlorobutadiene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Naphthalene	<27	<27	<27	<27							<27	ug/kg	TM15/PM10
1,2,3-Trichlorobenzene	<7	<7	<7	<7							<7	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	98	98	101	100							<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	99	97	98	98							<0	%	TM15/PM10

Matrix : Solid

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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). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

Opinions, including ACM type and Asbestos level less than 0.1%, lie outside the scope of our UKAS accreditation. Asbestos quantification to 0.001% dry fibre of dry mass of sample is accredited to ISO17025.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Date Of Analysis	Analysis	Result
22/914	1	OR G10	1.6	3	26/01/2022	General Description (Bulk Analysis)	soil/stones
					26/01/2022	Asbestos Fibres	NAD
					26/01/2022	Asbestos ACM	NAD
					26/01/2022	Asbestos Type	NAD
					26/01/2022	Asbestos Level Screen	NAD
22/914	1	OR F3	1.5	6	26/01/2022	General Description (Bulk Analysis)	soil/stones
					26/01/2022	Asbestos Fibres	NAD
					26/01/2022	Asbestos ACM	NAD
					26/01/2022	Asbestos Type	NAD
					26/01/2022	Asbestos Level Screen	NAD
22/914	1	OR G4	Surface	9	26/01/2022	General Description (Bulk Analysis)	Soil/Stone
					26/01/2022	Asbestos Fibres	NAD
					26/01/2022	Asbestos ACM	NAD
					26/01/2022	Asbestos Type	NAD
					26/01/2022	Asbestos Level Screen	NAD
22/914	1	OR J11	Surface	12	26/01/2022	General Description (Bulk Analysis)	Soil/Stones
					26/01/2022	Asbestos Fibres	NAD
					26/01/2022	Asbestos ACM	NAD
					26/01/2022	Asbestos Type	NAD
					26/01/2022	Asbestos Level Screen	NAD
22/914	1	DT J13 01	Surface	15	26/01/2022	General Description (Bulk Analysis)	Soil/Stone
					26/01/2022	Asbestos Fibres	NAD
					26/01/2022	Asbestos ACM	NAD
					26/01/2022	Asbestos Type	NAD
					26/01/2022	Asbestos Level Screen	NAD
22/914	1	SP03 C5 12	Surface	18	26/01/2022	General Description (Bulk Analysis)	soil/stones
					26/01/2022	Asbestos Fibres	NAD
					26/01/2022	Asbestos ACM	NAD
					26/01/2022	Asbestos Type	NAD
					26/01/2022	Asbestos Level Screen	NAD
22/914	1	SP04 H4 01	Surface	21	26/01/2022	General Description (Bulk Analysis)	Stone
					26/01/2022	Asbestos Fibres	NAD
					26/01/2022	Asbestos ACM	NAD

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[illegible]

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[illegible]

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

EMT Job No.: 22/914

SOILS and ASH

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. Asbestos samples are retained for 6 months.

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. Limits of detection for analyses carried out on as received samples are not moisture content corrected. 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. Ash samples are dried at 37°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.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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 overestimate 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.

STACK EMISSIONS

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 for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

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.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) 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.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology 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

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 22/914

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	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 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of 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 8270D v5:2014 method for the solvent extraction and determination of 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
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details	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	No
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes

EMT Job No: 22/914

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO ₂ 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.			AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma –Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	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		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH ₄ + 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923-1: 2013I	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		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH ₄ + 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923-1: 2013I	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.			AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH ₄ + 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923-1: 2013I	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

EMT Job No: 22/914

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes		AD	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 First edition (2006)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. 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 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. 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		AR	No
TM89	Modified USEPA method OIA-1667 (1999). 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, Sulphide and Thiocyanate analysis.	Yes		AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes
TM15_A	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds, Vinyl Chloride & Styrene by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

EPS Ltd
10-12 East Parade
Leeds
LS1 2BH



Attention :	Paul O'Connor
Date :	15th February, 2022
Your reference :	UK21.5634
Our reference :	Test Report 22/1812 Batch 1
Location :	32, New Lane, Havant (Pfizer), PO9 2NG
Date samples received :	5th February, 2022
Status :	Final Report
Issue :	1

Twelve samples were received for analysis on 5th February, 2022 of which twelve 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.

Authorised By:



Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32, New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor
EMT Job No: 22/1812

Report : Solid

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

EMT Sample No.	1	2	3-5	6-8	9-11	12-14	15-17	18-20	21-23	24-26	Please see attached notes for all abbreviations and acronyms		
Sample ID	SP MAC WEST	SP MAC EAST	SP03 D5 13	SP03 E5 14	SP04 J5 02	DT G11 01	OR H10	OR J10	DT J11 01	OR H8			
Depth							1.50	2.00		1.00			
COC No / misc													
Containers	T	T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	31/01/2022	31/01/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022	03/02/2022			
Sample Type	Soil	Soil	Sand	Sand	Silt	Clay	Clay	Clay	Clay	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1	LOD/LOR	Units	Method No.
Date of Receipt	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022			
Arsenic #	-	-	7.3	7.7	7.3	7.4	4.1	6.3	10.6	4.8	<0.5	mg/kg	TM30/PM15
Cadmium #	-	-	0.1	0.1	<0.1	0.5	0.3	0.5	0.4	0.4	<0.1	mg/kg	TM30/PM15
Chromium #	-	-	58.3	66.1	65.4	54.6	94.6	66.7	56.4	110.9	<0.5	mg/kg	TM30/PM15
Copper #	-	-	15	7	6	9	7	10	13	7	<1	mg/kg	TM30/PM15
Lead #	-	-	9	11	7	21	6	12	21	6	<5	mg/kg	TM30/PM15
Mercury #	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Nickel #	-	-	10.0	9.8	7.9	13.2	12.9	12.6	28.5	14.9	<0.7	mg/kg	TM30/PM15
Selenium #	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	-	-	2838	4369	4004	815	225	611	578	734	<50	mg/kg	TM50/PM29
Zinc #	-	-	40	35	39	71	23	44	67	21	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	-	-	0.46	0.11	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	-	-	0.31	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #	-	-	5.20	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	-	-	5.83	0.17	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	-	-	>>35.76	1.23	<0.03	0.09	0.33	0.06	0.12	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	-	-	12.42	0.48	<0.04	0.09	0.10	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #	-	-	>>51.44	2.34	0.08	0.19	0.43	0.15	0.22	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	-	-	>>36.77	1.78	0.07	0.15	0.35	0.17	0.19	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	-	-	20.12	1.27	0.07	0.13	0.23	0.13	0.16	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #	-	-	20.47	1.27	0.05	0.11	0.22	0.12	0.13	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	-	-	>>34.14	2.29	0.10	0.18	0.31	0.23	0.26	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	-	-	19.00	1.23	0.06	0.11	0.19	0.13	0.13	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	-	-	15.33	1.09	0.06	0.09	0.15	0.12	0.13	0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	-	-	2.47	0.19	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	-	-	12.73	0.89	0.05	0.08	0.11	0.09	0.11	<0.04	<0.04	mg/kg	TM4/PM8
PAH 16 Total	-	-	272.5	14.5	<0.6	1.2	2.4	1.2	1.5	<0.6	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	-	-	24.58	1.65	0.07	0.13	0.22	0.17	0.19	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	-	-	9.56	0.64	0.03	0.05	0.09	0.06	0.07	<0.02	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	-	-	99	92	96	91	89	83	85	87	<0	%	TM4/PM8
Naphthalene	<0.04	<0.04	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM6
Acenaphthylene	0.19	0.19	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM6
Acenaphthene	<0.05	<0.05	-	-	-	-	-	-	-	-	<0.05	mg/kg	TM4/PM6
Fluorene	<0.04	<0.04	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM6
Phenanthrene	<0.03	0.16	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM6
Anthracene	<0.04	<0.04	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM6
Fluoranthene	0.05	<0.03	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM6
Pyrene	0.06	<0.03	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM6
Benzo(a)anthracene	0.25	0.33	-	-	-	-	-	-	-	-	<0.06	mg/kg	TM4/PM6
Chrysene	0.11	0.27	-	-	-	-	-	-	-	-	<0.02	mg/kg	TM4/PM6
Benzo(bk)fluoranthene	<0.07	0.18	-	-	-	-	-	-	-	-	<0.07	mg/kg	TM4/PM6
Benzo(a)pyrene	<0.04	0.12	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM6

Element Materials Technology

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32, New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor
EMT Job No: 22/1812

Report : Solid

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

EMT Sample No.	1	2	3-5	6-8	9-11	12-14	15-17	18-20	21-23	24-26	Please see attached notes for all abbreviations and acronyms		
Sample ID	SP MAC WEST	SP MAC EAST	SP03 D5 13	SP03 E5 14	SP04 J5 02	DT G11 01	OR H10	OR J10	DT J11 01	OR H8			
Depth							1.50	2.00		1.00			
COC No / misc													
Containers	T	T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	31/01/2022	31/01/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022	03/02/2022			
Sample Type	Soil	Soil	Sand	Sand	Silt	Clay	Clay	Clay	Clay	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1	LOD/LOR	Units	Method No.
Date of Receipt	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022			
PAH MS Continued													
Indeno(123cd)pyrene	<0.04	<0.04	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM6
Dibenzo(ah)anthracene	<0.04	<0.04	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM6
Benzo(ghi)perylene	0.10	0.19	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM6
PAH 16 Total	0.8	1.4	-	-	-	-	-	-	-	-	<0.6	mg/kg	TM4/PM6
Benzo(b)fluoranthene	<0.05	0.13	-	-	-	-	-	-	-	-	<0.05	mg/kg	TM4/PM6
Benzo(k)fluoranthene	<0.02	0.05	-	-	-	-	-	-	-	-	<0.02	mg/kg	TM4/PM6
Methyl Tertiary Butyl Ether #	-	-	<2	<2	<2	<2	-	<2	<2	-	<2	ug/kg	TM15/PM10
Benzene #	-	-	<3	<3	<3	<3	-	<3	<3	-	<3	ug/kg	TM15/PM10
Toluene #	-	-	<3	<3	<3	<3	-	<3	<3	-	<3	ug/kg	TM15/PM10
Ethylbenzene #	-	-	<3	<3	<3	<3	-	<3	<3	-	<3	ug/kg	TM15/PM10
m/p-Xylene #	-	-	<5	<5	<5	<5	-	<5	<5	-	<5	ug/kg	TM15/PM10
o-Xylene #	-	-	<3	<3	<3	<3	-	<3	<3	-	<3	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	-	-	84	93	88	100	-	93	99	-	<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	-	-	91	95	88	98	-	90	96	-	<0	%	TM15/PM10
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	-	-	0.1	0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	-	-	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	-	-	12	12	<7	<7	<7	10	<7	<7	<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	-	-	29	44	<7	<7	<7	16	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	-	-	41	56	<19	<19	<19	26	<19	<19	<19	mg/kg	TM5/PM8/PM16/PM12/PM10
Aromatics													
>C5-EC7 (HS_1D_AR) #	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	-	-	10	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	-	-	73	41	<7	<7	<7	13	<7	<7	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	-	-	175	156	<7	<7	<7	68	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR) #	-	-	258	197	<19	<19	<19	81	<19	<19	<19	mg/kg	TM5/PM8/PM16/PM12/PM10
Total aliphatics and aromatics C5-35 (EH+HS_CU_1D_Total)	-	-	299	253	<38	<38	<38	107	<38	<38	<38	mg/kg	TM5/PM8/PM16/PM12/PM10
MTBE #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM36/PM12
Benzene #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM36/PM12
Toluene #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM36/PM12
Ethylbenzene #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM36/PM12
m/p-Xylene #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM36/PM12
o-Xylene #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM36/PM12

Element Materials Technology

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32, New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor
EMT Job No: 22/1812

Report : Solid

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

EMT Sample No.	27-29	30-32									Please see attached notes for all abbreviations and acronyms		
Sample ID	OR H8	OR K8											
Depth	4.50	1.80											
COC No / misc													
Containers	V J T	V J T											
Sample Date	03/02/2022	03/02/2022											
Sample Type	Clay	Clay											
Batch Number	1	1									LOD/LOR	Units	Method No.
Date of Receipt	05/02/2022	05/02/2022											
Arsenic #	6.1	6.6									<0.5	mg/kg	TM30/PM15
Cadmium #	0.4	0.5									<0.1	mg/kg	TM30/PM15
Chromium #	101.6	54.0									<0.5	mg/kg	TM30/PM15
Copper #	5	28									<1	mg/kg	TM30/PM15
Lead #	7	83									<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1									<0.1	mg/kg	TM30/PM15
Nickel #	13.7	15.2									<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1									<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	<50	1284									<50	mg/kg	TM50/PM25
Zinc #	18	143									<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05									<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	0.09									<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	0.23									<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	0.22									<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	0.16									<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	0.15									<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	0.29									<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	0.17									<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	0.14									<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	0.11									<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	1.6									<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	0.21									<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	0.08									<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	87	95									<0	%	TM4/PM8
Naphthalene	-	-									<0.04	mg/kg	TM4/PM6
Acenaphthylene	-	-									<0.03	mg/kg	TM4/PM6
Acenaphthene	-	-									<0.05	mg/kg	TM4/PM6
Fluorene	-	-									<0.04	mg/kg	TM4/PM6
Phenanthrene	-	-									<0.03	mg/kg	TM4/PM6
Anthracene	-	-									<0.04	mg/kg	TM4/PM6
Fluoranthene	-	-									<0.03	mg/kg	TM4/PM6
Pyrene	-	-									<0.03	mg/kg	TM4/PM6
Benzo(a)anthracene	-	-									<0.06	mg/kg	TM4/PM6
Chrysene	-	-									<0.02	mg/kg	TM4/PM6
Benzo(bk)fluoranthene	-	-									<0.07	mg/kg	TM4/PM6
Benzo(a)pyrene	-	-									<0.04	mg/kg	TM4/PM6

Element Materials Technology

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32, New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor
EMT Job No: 22/1812

Report : Solid

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

EMT Sample No.	27-29	30-32									Please see attached notes for all abbreviations and acronyms		
Sample ID	OR H8	OR K8											
Depth	4.50	1.80											
COC No / misc													
Containers	V J T	V J T											
Sample Date	03/02/2022	03/02/2022											
Sample Type	Clay	Clay											
Batch Number	1	1									LOD/LOR	Units	Method No.
Date of Receipt	05/02/2022	05/02/2022											
PAH MS Continued													
Indeno(123cd)pyrene	-	-									<0.04	mg/kg	TM4/PM6
Dibenzo(ah)anthracene	-	-									<0.04	mg/kg	TM4/PM6
Benzo(ghi)perylene	-	-									<0.04	mg/kg	TM4/PM6
PAH 16 Total	-	-									<0.6	mg/kg	TM4/PM6
Benzo(b)fluoranthene	-	-									<0.05	mg/kg	TM4/PM6
Benzo(k)fluoranthene	-	-									<0.02	mg/kg	TM4/PM6
Methyl Tertiary Butyl Ether [#]	-	-									<2	ug/kg	TM15/PM10
Benzene [#]	-	-									<3	ug/kg	TM15/PM10
Toluene [#]	-	-									<3	ug/kg	TM15/PM10
Ethylbenzene [#]	-	-									<3	ug/kg	TM15/PM10
m/p-Xylene [#]	-	-									<5	ug/kg	TM15/PM10
o-Xylene [#]	-	-									<3	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	-	-									<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	-	-									<0	%	TM15/PM10
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) [#]	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) [#]	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) [#]	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL) [#]	<4	<4									<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL) [#]	<7	<7									<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL) [#]	<7	13									<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	<19	<19									<19	mg/kg	TM5/PM8/PM16/PM12/PM10
Aromatics													
>C5-EC7 (HS_1D_AR) [#]	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) [#]	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) [#]	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) [#]	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) [#]	<4	<4									<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) [#]	<7	29									<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) [#]	<7	95									<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR) [#]	<19	124									<19	mg/kg	TM5/PM8/PM16/PM12/PM10
Total aliphatics and aromatics(C5-35) (EH+HS_CU_1D_Total)	<38	124									<38	mg/kg	TM5/PM8/PM16/PM12/PM10
MTBE [#]	<5	<5									<5	ug/kg	TM36/PM12
Benzene [#]	<5	<5									<5	ug/kg	TM36/PM12
Toluene [#]	<5	<5									<5	ug/kg	TM36/PM12
Ethylbenzene [#]	<5	<5									<5	ug/kg	TM36/PM12
m/p-Xylene [#]	<5	<5									<5	ug/kg	TM36/PM12
o-Xylene [#]	<5	<5									<5	ug/kg	TM36/PM12

Element Materials Technology

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32, New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor
EMT Job No: 22/1812

Report : Solid

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

EMT Sample No.	27-29	30-32											
Sample ID	OR H8	OR K8											
Depth	4.50	1.80											
COC No / misc													
Containers	V J T	V J T											
Sample Date	03/02/2022	03/02/2022											
Sample Type	Clay	Clay											
Batch Number	1	1											
Date of Receipt	05/02/2022	05/02/2022											
Please see attached notes for all abbreviations and acronyms													
											LOD/LOR	Units	Method No.
Total Phenols HPLC	<0.15	<0.15									<0.15	mg/kg	TM26/PM21B
SEM #	-	-									<110	mg/kg	TM7/PM6
Saturates (Aliphatics)	-	-									<0.01	%	TM13/PM6
Aromatics	-	-									<0.01	%	TM13/PM6
Resins (Heterocyclics)	-	-									<0.01	%	TM13/PM6
Asphaltenes	-	-									<0.01	%	TM13/PM6
Natural Moisture Content	7.2	14.6									<0.1	%	PM4/PM0
Triterpanes 191m/z	-	-										None	TM16/PM6
Triaromatic Steranes 231m/z	-	-										None	TM16/PM6
Coal Tar	-	-									<0.1	%	TM16/PM6
Ammoniacal Nitrogen as N	-	-									<0.6	mg/kg	TM38/PM20
Hexavalent Chromium #	<0.3	<0.3									<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	0.0058	0.1699									<0.0015	g/l	TM38/PM20
Chromium III	101.6	54.0									<0.5	mg/kg	NONE/NONE
Total Cyanide #	<0.5	<0.5									<0.5	mg/kg	TM89/PM45
Organic Matter	<0.2	0.6									<0.2	%	TM21/PM24
pH #	8.08	10.14									<0.01	pH units	TM73/PM11
Sample Type	Clay	Clay										None	PM13/PM0
Sample Colour	Medium Brown	Medium Brown										None	PM13/PM0
Other Items	wet, stones	stones										None	PM13/PM0

EMT Sample No.	3-5	6-8	9-11	12-14	18-20	21-23					Please see attached notes for all abbreviations and acronyms		
Sample ID	SP03 D5 13	SP03 E5 14	SP04 J5 02	DT G11 01	OR J10	DT J11 01							
Depth					2.00								
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T							
Sample Date	02/02/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022							
Sample Type	Sand	Sand	Silt	Clay	Clay	Clay					LOD/LOR	Units	Method No.
Batch Number	1	1	1	1	1	1							
Date of Receipt	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022							
SVOC MS													
Phenols													
2-Chlorophenol #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2-Methylphenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Methylphenol	42	64	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Phenol #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
PAHs													
2-Chloronaphthalene #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2-Methylnaphthalene #	40	46	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Phthalates													
Bis(2-ethylhexyl) phthalate	118	232	<100	<100	<100	<100					<100	ug/kg	TM16/PM8
Butylbenzyl phthalate	<100	<100	<100	<100	<100	<100					<100	ug/kg	TM16/PM8
Di-n-butyl phthalate	<100	<100	<100	<100	<100	<100					<100	ug/kg	TM16/PM8
Di-n-Octyl phthalate	<100	<100	<100	<100	<100	<100					<100	ug/kg	TM16/PM8
Diethyl phthalate	<100	<100	<100	<100	<100	<100					<100	ug/kg	TM16/PM8
Dimethyl phthalate #	<100	<100	<100	<100	<100	<100					<100	ug/kg	TM16/PM8
Other SVOCs													
1,2-Dichlorobenzene	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
1,2,4-Trichlorobenzene #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
1,3-Dichlorobenzene	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
1,4-Dichlorobenzene	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2-Nitroaniline	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4-Dinitrotoluene	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,6-Dinitrotoluene	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
3-Nitroaniline	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Bromophenylphenylether #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Chloroaniline	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Chlorophenylphenylether	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Nitroaniline	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Azobenzene	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Bis(2-chloroethoxy)methane	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Bis(2-chloroethyl)ether	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Carbazole	252	223	<10	133	<10	17					<10	ug/kg	TM16/PM8
Dibenzofuran #	287	170	<10	35	<10	<10					<10	ug/kg	TM16/PM8
Hexachlorobenzene	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Hexachlorobutadiene #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Hexachlorocyclopentadiene	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Hexachloroethane	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Isophorone #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
N-nitrosodi-n-propylamine #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Nitrobenzene #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Surrogate Recovery 2-Fluorobiphenyl	105	101	102	102	101	106					<0	%	TM16/PM8
Surrogate Recovery p-Terphenyl-d14	108	105	97	102	96	100					<0	%	TM16/PM8

Element Materials Technology

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32, New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor
EMT Job No: 22/1812

VOC Report : Solid

EMT Sample No.	3-5	6-8	9-11	12-14	18-20	21-23					Please see attached notes for all abbreviations and acronyms		
Sample ID	SP03 D5 13	SP03 E5 14	SP04 J5 02	DT G11 01	OR J10	DT J11 01							
Depth					2.00								
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T							
Sample Date	02/02/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022							
Sample Type	Sand	Sand	Silt	Clay	Clay	Clay							
Batch Number	1	1	1	1	1	1					LOD/LOR	Units	Method No.
Date of Receipt	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022	05/02/2022							
VOC MS													
Dichlorodifluoromethane	<2	<2	<2	<2	<2	<2					<2	ug/kg	TM15/PM10
Methyl Tertiary Butyl Ether #	<2	<2	<2	<2	<2	<2					<2	ug/kg	TM15/PM10
Chloromethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Vinyl Chloride	<2	<2	<2	<2	<2	<2					<2	ug/kg	TM15_A/PM10
Bromomethane	<1	<1	<1	<1	<1	<1					<1	ug/kg	TM15/PM10
Chloroethane #	<2	<2	<2	<2	<2	<2					<2	ug/kg	TM15/PM10
Trichlorofluoromethane #	22	28	7	<2	2	4					<2	ug/kg	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<6	<6	<6	<6	<6	<6					<6	ug/kg	TM15/PM10
Dichloromethane (DCM) #	<7	<7	<7	<7	<7	<7					<7	ug/kg	TM15/PM10
trans-1,2-Dichloroethene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1-Dichloroethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
cis-1,2-Dichloroethene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
2,2-Dichloropropane	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
Bromochloromethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Chloroform #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1,1-Trichloroethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1-Dichloropropene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Carbon tetrachloride #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,2-Dichloroethane #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
Benzene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Trichloroethene (TCE) #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,2-Dichloropropane #	<6	<6	<6	<6	<6	<6					<6	ug/kg	TM15/PM10
Dibromomethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Bromodichloromethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
cis-1,3-Dichloropropene	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
Toluene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
trans-1,3-Dichloropropene	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1,2-Trichloroethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Tetrachloroethene (PCE) #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,3-Dichloropropane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Dibromochloromethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,2-Dibromoethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Chlorobenzene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1,1,2-Tetrachloroethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Ethylbenzene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
m/p-Xylene #	<5	<5	<5	<5	<5	<5					<5	ug/kg	TM15/PM10
o-Xylene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Styrene	<3	3	<3	<3	<3	<3					<3	ug/kg	TM15_A/PM10
Bromoform	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Isopropylbenzene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1,2,2-Tetrachloroethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Bromobenzene	<2	<2	<2	<2	<2	<2					<2	ug/kg	TM15/PM10
1,2,3-Trichloropropane #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
Propylbenzene #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
2-Chlorotoluene	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,3,5-Trimethylbenzene #	6	5	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
4-Chlorotoluene	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
tert-Butylbenzene #	<5	<5	<5	<5	<5	<5					<5	ug/kg	TM15/PM10
1,2,4-Trimethylbenzene #	25	15	<6	<6	<6	<6					<6	ug/kg	TM15/PM10
sec-Butylbenzene #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
4-Isopropyltoluene	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,3-Dichlorobenzene #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,4-Dichlorobenzene #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
n-Butylbenzene	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,2-Dichlorobenzene #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,2-Dibromo-3-chloropropane	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,2,4-Trichlorobenzene	<7	<7	<7	<7	<7	<7					<7	ug/kg	TM15/PM10
Hexachlorobutadiene	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
Naphthalene	79	<27	<27	<27	<27	<27					<27	ug/kg	TM15/PM10
1,2,3-Trichlorobenzene	<7	<7	<7	<7	<7	<7					<7	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	84	93	88	100	93	99					<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	91	95	88	98	90	96					<0	%	TM15/PM10

Matrix : Solid

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Client Name: EPS Ltd
Reference: UK21.5634
Location: 32, New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor

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). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
22/1812	1	SP03 D5 13		5	Simon Postlewhite	15/02/2022	General Description (Bulk Analysis)	Soil/Stones
					Simon Postlewhite	15/02/2022	Asbestos Fibres	NAD
					Simon Postlewhite	15/02/2022	Asbestos ACM	NAD
					Simon Postlewhite	15/02/2022	Asbestos Type	NAD
					Simon Postlewhite	15/02/2022	Asbestos Level Screen	NAD
22/1812	1	SP03 E5 14		8	Simon Postlewhite	15/02/2022	General Description (Bulk Analysis)	Soil/Stones
					Simon Postlewhite	15/02/2022	Asbestos Fibres	NAD
					Simon Postlewhite	15/02/2022	Asbestos ACM	NAD
					Simon Postlewhite	15/02/2022	Asbestos Type	NAD
					Simon Postlewhite	15/02/2022	Asbestos Level Screen	NAD
22/1812	1	SP04 J5 02		11	Andrew Alker	14/02/2022	General Description (Bulk Analysis)	soil
					Andrew Alker	14/02/2022	Asbestos Fibres	NAD
					Andrew Alker	14/02/2022	Asbestos ACM	NAD
					Andrew Alker	14/02/2022	Asbestos Type	NAD
					Andrew Alker	14/02/2022	Asbestos Level Screen	NAD
22/1812	1	DT G11 01		14	Charlotte Taylor	15/02/2022	General Description (Bulk Analysis)	soil/stones
					Charlotte Taylor	15/02/2022	Asbestos Fibres	NAD
					Charlotte Taylor	15/02/2022	Asbestos ACM	NAD
					Charlotte Taylor	15/02/2022	Asbestos Type	NAD
					Charlotte Taylor	15/02/2022	Asbestos Level Screen	NAD
22/1812	1	OR H10	1.50	17	Charlotte Taylor	15/02/2022	General Description (Bulk Analysis)	soil/stones
					Charlotte Taylor	15/02/2022	Asbestos Fibres	NAD
					Charlotte Taylor	15/02/2022	Asbestos ACM	NAD
					Charlotte Taylor	15/02/2022	Asbestos Type	NAD
					Charlotte Taylor	15/02/2022	Asbestos Level Screen	NAD
22/1812	1	OR J10	2.00	20	Charlotte Taylor	15/02/2022	General Description (Bulk Analysis)	soil/stones
					Charlotte Taylor	15/02/2022	Asbestos Fibres	NAD
					Charlotte Taylor	15/02/2022	Asbestos ACM	NAD
					Charlotte Taylor	15/02/2022	Asbestos Type	NAD
					Charlotte Taylor	15/02/2022	Asbestos Level Screen	NAD
22/1812	1	DT J11 01		23	Kevin Hughes	15/02/2022	General Description (Bulk Analysis)	soil
					Kevin Hughes	15/02/2022	Asbestos Fibres	NAD
					Kevin Hughes	15/02/2022	Asbestos ACM	NAD

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32, New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor

[illegible]

Client Name: EPS Ltd
Reference: UK21.5634
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[illegible]

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

EMT Job No.: 22/1812

SOILS and ASH

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. Asbestos samples are retained for 6 months.

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. Limits of detection for analyses carried out on as received samples are not moisture content corrected. 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. Ash samples are dried at 37°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.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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 overestimate 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.

STACK EMISSIONS

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 for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

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.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) 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.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology 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

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 22/1812

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	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 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM6	Samples are extracted using Soxtec apparatus and solvent.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of 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 8270D v5:2014 method for the solvent extraction and determination of 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
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details	Yes		AR	Yes
TM7	Modified USEPA 3540C:1996 and 9071B:1998 for oily wastes. In house method for the gravimetric determination of a sample following solvent extraction.	PM6	Samples are extracted using Soxtec apparatus and solvent.	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	No

EMT Job No: 22/1812

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM13	Determination of Saturates, Aromatics, Resins and Asphaltenes by Thin Layer Chromatography with Flame Ionisation Detection.	PM6	Samples are extracted using Soxtec apparatus and solvent.			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM6	Samples are extracted using Soxtec apparatus and solvent.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM6	Samples are extracted using Soxtec apparatus and solvent.			AR	
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO ₂ 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.			AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma –Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEPA 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	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		AD	Yes

EMT Job No: 22/1812

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923-1: 2013	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		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923-1: 2013	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.			AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923-1: 2013	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	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.	Yes		AD	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. 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 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. 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		AR	No
TM89	Modified USEPA method OIA-1667 (1999). 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, Sulphide and Thiocyanate analysis.	Yes		AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes

EMT Job No: 22/1812

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM15_A	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds, Vinyl Chloride & Styrene by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

EPS Ltd
10-12 East Parade
Leeds
LS1 2BH

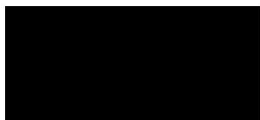


Attention :	Paul O'Connor
Date :	16th February, 2022
Your reference :	UK21.5634
Our reference :	Test Report 22/1897 Batch 1
Location :	32 New Lane, Havant (Pfizer), PO9 2NG
Date samples received :	8th February, 2022
Status :	Final Report
Issue :	1

Four samples were received for analysis on 8th February, 2022 of which four 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.

Authorised By:



Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32 New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor
EMT Job No: 22/1897

Report : Solid

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

EMT Sample No.	1-3	4-6	7-9	10-12							Please see attached notes for all abbreviations and acronyms		
Sample ID	OR G5 DRAIN	OR G4 INT1	OR G4 INT2	OR G4 INT3									
Depth	1.30	3.00	1.50	3.50-4.00									
COC No / misc													
Containers	V J T	V J T	V J T	V J T									
Sample Date	04/02/2022	05/02/2022	05/02/2022	05/02/2022									
Sample Type	Clayey Sand	Clay	Clay	Clay									
Batch Number	1	1	1	1									
Date of Receipt	08/02/2022	08/02/2022	08/02/2022	08/02/2022							LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL) #	<0.1	<0.1	<0.1	<0.1							<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL) #	<0.1	<0.1	<0.1	0.1							<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1	<0.1	<0.1	<0.1							<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL) #	<0.2	<0.2	<0.2	<0.2							<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 (EH_CU_1D_AL) #	<4	<4	<4	<4							<4	mg/kg	TMS/PM8/PM16
>C16-C21 (EH_CU_1D_AL) #	8	<7	<7	<7							<7	mg/kg	TMS/PM8/PM16
>C21-C35 (EH_CU_1D_AL) #	<7	13	<7	20							<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	<19	<19	<19	20							<19	mg/kg	TMS/PM8/PM16/PM12/PM10
Aromatics													
>C5-EC7 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1							<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1							<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR) #	<0.1	<0.1	<0.1	<0.1							<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR) #	<0.2	<0.2	<0.2	<0.2							<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR) #	<4	<4	<4	<4							<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR) #	<7	<7	<7	10							<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR) #	10	47	<7	46							<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR) #	<19	47	<19	56							<19	mg/kg	TMS/PM8/PM16/PM12/PM10
Total aliphatics and aromatics (C5-35) (EH+HS_CU_1D_Total)	<38	47	<38	76							<38	mg/kg	TMS/PM8/PM16/PM12/PM10
Total Phenols HPLC	<0.15	<0.15	<0.15	<0.15							<0.15	mg/kg	TM26/PM21B
Natural Moisture Content	5.7	14.0	16.7	26.7							<0.1	%	PM4/PM0
Ammoniacal Nitrogen as N	<0.6	<0.6	<0.6	<0.6							<0.6	mg/kg	TM38/PM20
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3							<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	0.0370	0.1850	0.0248	0.1163							<0.0015	g/l	TM38/PM20
Chromium III	31.2	62.8	57.7	67.4							<0.5	mg/kg	NONE/NONE
Total Cyanide #	<0.5	<0.5	<0.5	<0.5							<0.5	mg/kg	TM89/PM45
Organic Matter	<0.2	0.6	0.5	0.6							<0.2	%	TM21/PM24
pH #	9.40	9.80	8.97	11.20							<0.01	pH units	TM73/PM11
Sample Type	Clayey Sand	Clay	Clay	Clay								None	PM13/PM0
Sample Colour	Medium Brown	Medium Brown	Medium Brown	Medium Brown								None	PM13/PM0
Other Items	stones, chalk	stones, sand	stones, chalk	stones, water, sand								None	PM13/PM0

Element Materials Technology

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32 New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor
EMT Job No: 22/1897

VOC Report : Solid

EMT Sample No.	1-3	4-6	7-9	10-12							Please see attached notes for all abbreviations and acronyms		
Sample ID	OR G5 DRAIN	OR G4 INT1	OR G4 INT2	OR G4 INT3									
Depth	1.30	3.00	1.50	3.50-4.00									
COC No / misc													
Containers	V J T	V J T	V J T	V J T									
Sample Date	04/02/2022	05/02/2022	05/02/2022	05/02/2022									
Sample Type	Clayey Sand	Clay	Clay	Clay									
Batch Number	1	1	1	1							LOD/LOR	Units	Method No.
Date of Receipt	08/02/2022	08/02/2022	08/02/2022	08/02/2022									
VOC MS													
Dichlorodifluoromethane	<2	<2	<2	<2							<2	ug/kg	TM15/PM10
Methyl Tertiary Butyl Ether #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
Chloromethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Vinyl Chloride	<2	<2	<2	<2							<2	ug/kg	TM15_A/PM10
Bromomethane	<1	<1	<1	<1							<1	ug/kg	TM15/PM10
Chloroethane #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
Trichlorofluoromethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
Dichloromethane (DCM) #	<7	<7	<7	<7							<7	ug/kg	TM15/PM10
trans-1,2-Dichloroethene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1-Dichloroethane #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
cis-1,2-Dichloroethene #	<7	<7	<7	<7							<7	ug/kg	TM15/PM10
2,2-Dichloropropane	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Bromochloromethane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Chloroform #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
1,1,1-Trichloroethane #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
1,1-Dichloropropene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Carbon tetrachloride #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2-Dichloroethane #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
Benzene #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
Trichloroethene (TCE) #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
1,2-Dichloropropane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Dibromomethane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Bromodichloromethane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
cis-1,3-Dichloropropene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Toluene #	7	<3	18	20							<3	ug/kg	TM15/PM10
trans-1,3-Dichloropropene	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1,2-Trichloroethane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Tetrachloroethene (PCE) #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,3-Dichloropropane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Dibromochloromethane #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
1,2-Dibromoethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Chlorobenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,1,1,2-Tetrachloroethane #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
Ethylbenzene #	<3	<3	<3	5							<3	ug/kg	TM15/PM10
m/p-Xylene #	<4	<4	<4	16							<4	ug/kg	TM15/PM10
o-Xylene #	<4	<4	<4	5							<4	ug/kg	TM15/PM10
Styrene	<3	<3	<3	<3							<3	ug/kg	TM15_A/PM10
Bromoform	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Isopropylbenzene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,1,2,2-Tetrachloroethane #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
Bromobenzene	<2	<2	<2	<2							<2	ug/kg	TM15/PM10
1,2,3-Trichloropropane #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Propylbenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
2-Chlorotoluene	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
1,3,5-Trimethylbenzene #	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
4-Chlorotoluene	<3	<3	<3	<3							<3	ug/kg	TM15/PM10
tert-Butylbenzene #	<5	<5	<5	<5							<5	ug/kg	TM15/PM10
1,2,4-Trimethylbenzene #	<6	<6	<6	<6							<6	ug/kg	TM15/PM10
sec-Butylbenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
4-Isopropyltoluene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,3-Dichlorobenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,4-Dichlorobenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
n-Butylbenzene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2-Dichlorobenzene #	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2-Dibromo-3-chloropropane	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
1,2,4-Trichlorobenzene	<7	<7	<7	<7							<7	ug/kg	TM15/PM10
Hexachlorobutadiene	<4	<4	<4	<4							<4	ug/kg	TM15/PM10
Naphthalene	<27	<27	<27	<27							<27	ug/kg	TM15/PM10
1,2,3-Trichlorobenzene	<7	<7	<7	<7							<7	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	114	99	110	97							<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	112	93	106	93							<0	%	TM15/PM10

Matrix : Solid

6 of 15

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32 New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor

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). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
22/1897	1	OR G5 DRAIN	1.30	3	Simon Postlewhite	16/02/2022	General Description (Bulk Analysis)	Soil/Stones
					Simon Postlewhite	16/02/2022	Asbestos Fibres	NAD
					Simon Postlewhite	16/02/2022	Asbestos ACM	NAD
					Simon Postlewhite	16/02/2022	Asbestos Type	NAD
					Simon Postlewhite	16/02/2022	Asbestos Level Screen	NAD
22/1897	1	OR G4 INT1	3.00	6	Simon Postlewhite	16/02/2022	General Description (Bulk Analysis)	Soil/Stones
					Simon Postlewhite	16/02/2022	Asbestos Fibres	NAD
					Simon Postlewhite	16/02/2022	Asbestos ACM	NAD
					Simon Postlewhite	16/02/2022	Asbestos Type	NAD
					Simon Postlewhite	16/02/2022	Asbestos Level Screen	NAD
22/1897	1	OR G4 INT2	1.50	9	Simon Postlewhite	16/02/2022	General Description (Bulk Analysis)	Soil/Stones
					Simon Postlewhite	16/02/2022	Asbestos Fibres	NAD
					Simon Postlewhite	16/02/2022	Asbestos ACM	NAD
					Simon Postlewhite	16/02/2022	Asbestos Type	NAD
					Simon Postlewhite	16/02/2022	Asbestos Level Screen	NAD
22/1897	1	OR G4 INT3	3.50-4.00	12	Simon Postlewhite	16/02/2022	General Description (Bulk Analysis)	Soil/Stones
					Simon Postlewhite	16/02/2022	Asbestos Fibres	NAD
					Simon Postlewhite	16/02/2022	Asbestos ACM	NAD
					Simon Postlewhite	16/02/2022	Asbestos Type	NAD
					Simon Postlewhite	16/02/2022	Asbestos Level Screen	NAD

Client Name: EPS Ltd
Reference: UK21.5634
Location: 32 New Lane, Havant (Pfizer), PO9 2NG
Contact: Paul O'Connor

[illegible]

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

EMT Job No.: 22/1897

SOILS and ASH

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. Asbestos samples are retained for 6 months.

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. Limits of detection for analyses carried out on as received samples are not moisture content corrected. 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. Ash samples are dried at 37°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.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

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 overestimate 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.

STACK EMISSIONS

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 for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

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

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

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.

Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) 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.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology 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

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 22/1897

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	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 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of 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 8270D v5:2014 method for the solvent extraction and determination of 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
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details	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	No
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes

EMT Job No: 22/1897

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO ₂ 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.			AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma –Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	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		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH ₄ + 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923-1: 2013	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		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH ₄ + 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923-1: 2013	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.			AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH ₄ + 350.1 (Rev.2 1993) –Al anions comparable to BS ISO 15923-1: 2013	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