Date: 2nd June 2025
Reference: 15-719-V45

GARDEN VALIDATION – YORK STREET

Project Name:	York Street, Bury
Project Number:	15-719
Client:	Kellen Homes
Date:	22-05-2025/23-05-2025
Project Manager:	M. Dyer
E3P Engineer:	S. Mulk
Plots:	90, 93-96

OVERVIEW

An E3P engineer attended the above site to validate the thickness of the cover system placed within the rear garden of plots 90, 93-96 at the site off York Street in Bury.

Five hand excavated trial pits were advanced, with the resulting strata detailed at the rear of this letter.

The trial pits were completed to highlight the required cover system of 600 mm (150 mm topsoil and 450 mm subsoil).

E3P can confirm that our independent validation demonstrates that the rear gardens have been installed with 150 mm of certified topsoil and at least 450 mm subsoil.

TOPSOIL

Topsoil was sourced from Marchington Stone. E3P attended site on 21st October 2024 to obtain three samples of the imported topsoil stockpiled in the area of plots 184-189. In addition, topsoil samples were tested from plots 190 and 193. Chemical analysis confirmed that these topsoil deposits were chemically suitable for use within the proposed garden areas. Chemical analysis results are included within lab reports 24-34411 and 24-37357 (attached to this letter).

Three samples were collected from a stockpile in November 2024. Sample TS SP102 recorded an elevated concentration for Banded TPH C21-C35. It was not possible to split the TPH from the original sample into aliphatic and aromatic fractions for further assessment, therefore an additional sample was collected from plot 205, given the topsoil from this area of the stockpile was placed in this garden. The additional testing in plot 205 did not identify any elevated concentrations. Chemical analysis results are included within lab reports 24-35924 and 24-37359.

Five further topsoil samples were collected from a stockpile in November 2024. Chemical analysis confirmed that these topsoil deposits were chemically suitable for use within the proposed garden areas. Chemical analysis results are included within lab report 24-39231.

Samples were collected from plots 39, 40, 199 and 200 in January 2025. Chemical analysis confirmed that these topsoil deposits were chemically suitable for use within the proposed garden areas. Chemical analysis results are included within lab report 25-02199.

Samples were collected from plots 98 and 105 in March 2025. Chemical analysis confirmed that these topsoil deposits were chemically suitable for use within the proposed garden areas. Chemical analysis results are included within lab report 25-08517.

Samples were collected from plots 83, 88 and 93 in April 2025. Chemical analysis confirmed that these topsoil deposits were chemically suitable for use within the proposed garden areas. Chemical analysis results are included within lab report 25-13664.

Analysis for topsoil undertaken by Eurofins Chemtest Ltd using UKAS accredited methods where applicable.

The chemical analysis suite comprises heavy metals, sulphates, phenols, speciated Polycyclic Aromatic Hydrocarbons (PAHs), speciated and total Petroleum Hydrocarbons (TPH) and asbestos. The sampling frequency follows the agreed Remediation Strategy.

SUBSOIL

Subsoil was sourced from the site located off Roman Way, Preston, PR2 5BD. E3P completed sampling of the subsoil at source in January 2024. In addition, E3P attended site on 24th June 2024 to obtain three samples of the imported subsoil. Three further samples were collected from plots 151, 153 and 155 on 16th July 2024. Chemical analysis confirmed that these subsoil deposits were chemically suitable for use within the proposed garden areas. Chemical analysis results are included within lab reports 24-77927, 24-20171 and 24-22832 (attached to this letter).

Additional subsoil samples were collected in November 2024 (lab report ref: 24-38646) and December 2024 (lab report ref 24-39885). A sample was also collected from plot 102 in March 2025 (lab report 25-08517). Chemical analysis confirmed that these subsoil deposits were chemically suitable for use within the proposed garden areas.

Samples were collected from plots 83 and 93 in April 2025. Chemical analysis confirmed that these subsoil deposits were chemically suitable for use within the proposed garden areas. Chemical analysis results are included within lab report 25-13665.

Analysis for subsoil undertaken by Eurofins Chemtest Ltd and I2 Analytical using UKAS accredited methods where applicable.

The chemical analysis suite comprises heavy metals, sulphates, phenols, speciated Polycyclic Aromatic Hydrocarbons (PAHs), speciated and total Petroleum Hydrocarbons (TPH) and asbestos. The sampling frequency follows the agreed Remediation Strategy.

CHEMICAL ANALYSIS

TOPSOIL/SUBSOIL	SOURCE	LAB REFERENCE	SAMPLE REFERENCE	PASS/FAIL
Topsoil	Marchington Stone	24-34411	TS101 TS102 TS103	Pass
Topsoil	Marchington Stone	24-37357	TS Plot 190 TS Plot 193	Pass
Topsoil	Marchington Stone	24-35924	TS SP101 TS SP102 TS SP103	See Notes Above
Topsoil	Marchington Stone	24-37359	TS Plot 205	Pass
Topsoil	Marchington Stone	24-39231	Topsoil 101 – 105	Pass
Topsoil	Marchington Stone	25-02199	TS Plot 39 TS Plot 40 TS Plot 199 TS Plot 200	Pass
Topsoil	Marchington Stone	25-08517	TS Plot 98 TS Plot 105	Pass
Topsoil	Marchington Stone	25-13664	TS101 Plot 93 TS102 Plot 88 TS103 Plot 83	Pass
Subsoil	Roman Way, Preston	24-77927	SS001-SS003	Pass
Subsoil	Roman Way, Preston	24-20171	SS101-SS103	Pass
Subsoil	Roman Way, Preston	24-22832	Plot 151 Plot 153 Plot 155	Pass
Subsoil	Roman Way, Preston	24-38646	SS101	Pass
Subsoil	Roman Way, Preston	24-39885	SS Plot 33 SS Plot 209	Pass
Subsoil	Roman Way, Preston	25-08517	SS Plot 102	Pass
Subsoil	Roman Way, Preston	25-13665	SS101 Plot 93 SS102 Plot 83	Pass

The cover system validation photographs are enclosed within this letter. For information, Table 1 includes references and validation dates of previously validated plots.

Table 1 – Validation Letter Reference

PLOT NUMBER	DATE	REPORT REFERENCE
140-150	24th June 2024	V1
2-4, 7-10, 12-16	16th July 2024	V2
17-18, 21-22	24th July 2024	V3
5, 6, 11	20th August 2024	V4
1	16th September 2024	V5
19-20	4th October 2024	V6
25, 26, 28	30th September 2024	V7
23, 24, 27, 29	8th October 2024	V8
153	1st November 2024	V9
151, 152, 154	6th November 2024	V10
187-189, 191	1st November 2024	V11
30	6th November 2024	V12
31, 192-194	22nd November 2024	V13
190	27th November 2024	V14
195	3rd December 2024	V15
34, 196, 206-208, 211	3rd December 2024	V16
32-33, 35-36, 179	4th December 2024	V17
197-198	10th December 2024	V18
43-45	17th December 2024	V19
155-158	15th January 2025	V20
181-182, 185-186	15th January 2025	V21
159	27th January 2025	V22
37-38, 41, 180, 183, 201-202	17th January 2025	V23
39	22nd January 2025	V24
184, 199, 209-210	27th January 2025	V25
40, 203-205	30th January 2025	V26
178	25th February 2025	V27
200	14th March 2025	V28
97-103	11th March 2025	V29
104	14th March 2025	V30
105	24th March 2025	V31
106-107	24th March 2025	V32
108	24th March 2025	V33
47-50	28th March 2025	V34
42	4th April 2025	V35
46, 51-53	4th April 2025	V36
54	23rd April 2025	V37
55-58	23rd April 2025	V38
59, 61, 63-64	23rd April 2025	V39
68, 72, 74-82	24th/25th April 2025	V40
60, 62, 65-67, 69-71	6th May 2025	V41
73, 171-174	12th/14th May 2025	V42
91-92	16th May 2025	V43
83-89, 175-177	19th May 2025	V44
90, 93-96	22nd May 2025/23rd May 2025	V45

Garden Cover System Validation

	Complete
Score	(100%)
Site Name	York street
Location	1 Candle Grove Manchester England M26 2GL United Kingdom (53.57244888938279, -2.305399281863974)
Project Number	15719
Developer	Kellen homes
Project Manager	Nicola Sellars
Conducted By	Sufianne Mulk
Date of visit	22 May 2025 1:00 PM BST

Subsoil/Topsoil Material Source (If the site manager can't supply you with detail of where the soil is sourced STOP THE INSPECTION and call the PM)	
Where has the Subsoil been sourced	Roman Way
Where has the Topsoil been sourced	Marchington Stone

Plot Validation 1	5 / 5 (100%)
Plot Number	96
Garden position	Rear
Is Plot Ready	Yes
Installation Standard	Pass
Depth of Cover System Materials (record the depth and support with Photo down the hole)	600

Photo 1

Photo 2

Depth of Topsoil (mm)	150
Depth of Subsoil (mm)	450
Depth of Cover System at Ground Level (Photo)	600

Photo 3

Depth of Cover System in Relation to Plot (Ensure the whole plot can be seen in the photo)	600

Photo 4

Soil suitable (Must be free from Brick, concrete, wood, plastics, glass, metal and anything none natural) if identified contact PM.	Yes
If soil is unsuitable please add a FULL description and support with photos.	-
Geotextile membrane present	N/A

Plot Validation 2	5 / 5 (100%)
Plot Number	95
Garden position	Rear
Is Plot Ready	Yes
Installation Standard	Pass
Depth of Cover System Materials (record the depth and support with Photo down the hole)	600

Photo 5

Photo 6

Depth of Topsoil (mm)	150
Depth of Subsoil (mm)	450
Depth of Cover System at Ground Level (Photo)	600

Photo 7

Depth of Cover System in Relation to Plot (Ensure the whole plot can be seen in the photo)	600

Photo 8

Soil suitable (Must be free from Brick, concrete, wood, plastics, glass, metal and anything none natural) if identified contact PM.	Yes
If soil is unsuitable please add a FULL description and support with photos.	-
Geotextile membrane present	N/A

Plot Validation 3	5 / 5 (100%)
Plot Number	94
Garden position	Rear
Is Plot Ready	Yes
Installation Standard	Pass
Depth of Cover System Materials (record the depth and support with Photo down the hole)	600

Photo 9

Photo 10

Depth of Topsoil (mm)	150
Depth of Subsoil (mm)	450
Depth of Cover System at Ground Level (Photo)	600

Photo 11

Depth of Cover System in Relation to Plot (Ensure the whole plot can be seen in the photo)	600

Photo 12

Soil suitable (Must be free from Brick, concrete, wood, plastics, glass, metal and anything none natural) if identified contact PM.	Yes
If soil is unsuitable please add a FULL description and support with photos.	-
Geotextile membrane present	N/A

Plot Validation 4	5 / 5 (100%)
Plot Number	93
Garden position	Rear
Is Plot Ready	Yes
Installation Standard	Pass
Depth of Cover System Materials (record the depth and support with Photo down the hole)	600

Photo 13

Photo 14

Depth of Topsoil (mm)	150
Depth of Subsoil (mm)	450
Depth of Cover System at Ground Level (Photo)	600

Photo 15

Depth of Cover System in Relation to Plot (Ensure the whole plot can be seen in the photo)	600

Photo 16

Soil suitable (Must be free from Brick, concrete, wood, plastics, glass, metal and anything none natural) if identified contact PM.	Yes
If soil is unsuitable please add a FULL description and support with photos.	-
Geotextile membrane present	Yes

Photo 17

Plot Validation 5	5 / 5 (100%)
Plot Number	90
Garden position	Rear
Is Plot Ready	Yes
Installation Standard	Pass
Depth of Cover System Materials (record the depth and support with Photo down the hole)	600

Photo 18

Photo 19

Depth of Topsoil (mm)	150
Depth of Subsoil (mm)	450
Depth of Cover System at Ground Level (Photo)	600

Photo 20

Depth of Cover System in Relation to Plot (Ensure the whole plot can be seen in the photo)	600

Photo 21

Soil suitable (Must be free from Brick, concrete, wood, plastics, glass, metal and anything none natural) if identified contact PM.	Yes
If soil is unsuitable please add a FULL description and support with photos.	-
Geotextile membrane present	N/A

Site Manager or Representative	
Name	J salkeld
Signature	J salkeld 23 May 2025 1:29 PM BST

Media summary

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

Photo 10

Photo 11

Photo 12

Photo 13

Photo 14

Photo 15

Photo 16

Photo 17

Photo 18

Photo 19

Photo 20

Photo 21

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-34411-1		
Initial Date of Issue:	29-Oct-2024		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street - Marchington Stone Topsoil		
Quotation No.:	Q23-31421	**Date Received:**	24-Oct-2024
Order No.:	9779	**Date Instructed:**	24-Oct-2024
No. of Samples:	3		
Turnaround (Wkdays):	4	**Results Due:**	29-Oct-2024
Date Approved:	29-Oct-2024		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street - Marchington Stone Topsoil

Client: E3P					**Chemtest Job No.:**	24-34411	24-34411	24-34411
Quotation No.: Q23-31421					**Chemtest Sample ID.:**	1884739	1884740	1884741
					Client Sample ID.:	TS101	TS102	TS103
					Sample Type:	SOIL	SOIL	SOIL
					Date Sampled:	21-Oct-2024	21-Oct-2024	21-Oct-2024
					Time Sampled:	12:00	12:00	12:00
					Asbestos Lab:	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**			
ACM Type		U	2192		N/A	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	26	26	22
Soil Colour		N	2040		N/A	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones and Roots	Stones and Roots	Stones, Roots and
Soil Texture		N	2040		N/A	Loam	Loam	Loam
pH at 20C		M	2010		4.0	8.4	8.3	8.6
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.046	0.071	0.060
Total Sulphur		U	2175	%	0.010	0.17	0.12	0.081
Cyanide (Total)		M	2300	mg/kg	0.50	0.60	0.50	0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	2.4	4.4	2.6
Sulphate (Total)		U	2430	%	0.010	0.17	0.15	0.31
Arsenic		M	2455	mg/kg	0.5	3.8	4.6	9.3
Cadmium		M	2455	mg/kg	0.10	0.15	0.14	0.42
Chromium		M	2455	mg/kg	0.5	31	6.1	13
Copper		M	2455	mg/kg	0.50	17	16	33
Mercury		M	2455	mg/kg	0.05	< 0.05	< 0.05	0.08
Nickel		M	2455	mg/kg	0.50	5.4	5.2	11
Lead		M	2455	mg/kg	0.50	22	23	44
Selenium		M	2455	mg/kg	0.25	< 0.25	< 0.25	0.44
Zinc		M	2455	mg/kg	0.50	48	46	99
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	13	14	13
Total Organic Carbon		M	2625	%	0.20	7.5	8.1	7.3
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	< 10	< 10	< 10
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: 15-719 York Street - Marchington Stone Topsoil

Client: E3P				**Chemtest Job No.:**		24-34411	24-34411	24-34411
Quotation No.: Q23-31421				**Chemtest Sample ID.:**		1884739	1884740	1884741
				Client Sample ID.:		TS101	TS102	TS103
				Sample Type:		SOIL	SOIL	SOIL
				Date Sampled:		21-Oct-2024	21-Oct-2024	21-Oct-2024
				Time Sampled:		12:00	12:00	12:00
				Asbestos Lab:		DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**			
Phenanthrene		M	2800	mg/kg	0.10	0.56	0.40	0.19
Anthracene		M	2800	mg/kg	0.10	< 0.10	0.12	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	0.76	0.56	0.33
Pyrene		M	2800	mg/kg	0.10	0.66	0.50	0.32
Benzo[a]anthracene		M	2800	mg/kg	0.10	0.33	0.24	0.18
Chrysene		M	2800	mg/kg	0.10	0.33	0.26	0.22
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	0.44	0.40	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	0.14	0.16	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	0.32	0.23	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	0.22	0.17	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	0.19	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	3.8	3.2	< 2.0
Total Phenols		M	2920	mg/kg	0.10	0.38	0.60	0.41

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.
Any comments or interpretations are outside the scope of UKAS accreditation.
The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.
Uncertainty of measurement for the determinands tested are available upon request .
None of the results in this report have been recovery corrected.
All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at ≤ 30°C prior to analysis.
All Asbestos testing is performed at the indicated laboratory .
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.
All water samples will be retained for 14 days from the date of receipt.
Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-37357-1		
Initial Date of Issue:	21-Nov-2024		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street - Topsoil		
Quotation No.:	Q23-31421	**Date Received:**	15-Nov-2024
Order No.:	010033	**Date Instructed:**	15-Nov-2024
No. of Samples:	2		
Turnaround (Wkdays):	4	**Results Due:**	20-Nov-2024
Date Approved:	21-Nov-2024		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street - Topsoil

Client: E3P							
Quotation No.: Q23-31421					**Chemtest Job No.:**	24-37357	24-37357
					Chemtest Sample ID.:	1895537	1895538
					Client Sample ID.:	TS PLOT 190	TS PLOT 193
					Sample Type:	SOIL	SOIL
					Date Sampled:	13-Nov-2024	13-Nov-2024
					Time Sampled:	12:00	12:00
					Asbestos Lab:	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**		
ACM Type		U	2192		N/A	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	24	24
Soil Colour		N	2040		N/A	Brown	Brown
Other Material		N	2040		N/A	Stones and Roots	Stones and Roots
Soil Texture		N	2040		N/A	Clay	Clay
pH at 20C		M	2010		4.0	8.0	8.1
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.015	< 0.010
Total Sulphur		U	2175	%	0.010	0.080	0.060
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	2.2	2.2
Sulphate (Total)		U	2430	%	0.010	0.15	0.21
Arsenic		M	2455	mg/kg	0.5	21	20
Cadmium		M	2455	mg/kg	0.10	0.66	0.83
Chromium		M	2455	mg/kg	0.5	30	29
Copper		M	2455	mg/kg	0.50	75	96
Mercury		M	2455	mg/kg	0.05	0.31	0.41
Nickel		M	2455	mg/kg	0.50	50	45
Lead		M	2455	mg/kg	0.50	150	140
Selenium		M	2455	mg/kg	0.25	1.2	1.4
Zinc		M	2455	mg/kg	0.50	470	460
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	6.4	4.8
Total Organic Carbon		M	2625	%	0.20	3.7	2.8
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	13	< 1.0
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	33	16
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	57	11
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	130	30
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	7.9	4.5
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	250	61
Naphthalene		M	2800	mg/kg	0.10	0.24	0.23
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	0.25	0.28
Fluorene		M	2800	mg/kg	0.10	0.25	0.17

Results - Soil

Project: 15-719 York Street - Topsoil

Client: E3P							
Quotation No.: Q23-31421					**Chemtest Job No.:**	24-37357	24-37357
					Chemtest Sample ID.:	1895537	1895538
					Client Sample ID.:	TS PLOT 190	TS PLOT 193
					Sample Type:	SOIL	SOIL
					Date Sampled:	13-Nov-2024	13-Nov-2024
					Time Sampled:	12:00	12:00
					Asbestos Lab:	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**		
Phenanthrene		M	2800	mg/kg	0.10	1.6	1.5
Anthracene		M	2800	mg/kg	0.10	0.44	0.43
Fluoranthene		M	2800	mg/kg	0.10	2.9	2.6
Pyrene		M	2800	mg/kg	0.10	2.5	2.1
Benzo[a]anthracene		M	2800	mg/kg	0.10	1.3	1.2
Chrysene		M	2800	mg/kg	0.10	1.2	1.1
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	1.8	1.5
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	0.60	0.50
Benzo[a]pyrene		M	2800	mg/kg	0.10	1.5	1.1
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	0.86	0.75
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	0.21	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	0.96	0.77
Total Of 16 PAH's		N	2800	mg/kg	2.0	17	14
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.
Any comments or interpretations are outside the scope of UKAS accreditation.
The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.
Uncertainty of measurement for the determinands tested are available upon request .
None of the results in this report have been recovery corrected.
All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at ≤ 30°C prior to analysis.
All Asbestos testing is performed at the indicated laboratory .
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.
All water samples will be retained for 14 days from the date of receipt.
Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-20171-1		
Initial Date of Issue:	01-Jul-2024		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	York Street - Subsoil Sampling		
Quotation No.:	Q23-31421	**Date Received:**	25-Jun-2024
Order No.:	008586	**Date Instructed:**	25-Jun-2024
No. of Samples:	3		
Turnaround (Wkdays):	5	**Results Due:**	01-Jul-2024
Date Approved:	01-Jul-2024		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: York Street - Subsoil Sampling

Client: E3P								
Quotation No.: Q23-31421					**Chemtest Job No.:**	24-20171	24-20171	24-20171
Order No.: 008586					**Chemtest Sample ID.:**	1826387	1826388	1826389
					Client Sample Ref.:	SS101	SS102	SS103
					Client Sample ID.:	SS101	SS102	SS103
					Sample Type:	SOIL	SOIL	SOIL
					Date Sampled:	24-Jun-2024	24-Jun-2024	24-Jun-2024
					Time Sampled:	0:00	0:00	0:00
					Asbestos Lab:	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**			
ACM Type		U	2192		N/A	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	38	9.6	41
Soil Colour		N	2040		N/A	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Clay	Clay	Clay
pH at 20C		M	2010		4.0	8.4	8.1	8.1
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.049	0.15	0.048
Total Sulphur		U	2175	%	0.010	0.037	0.043	0.032
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	6.6	5.8	3.9
Sulphate (Total)		U	2430	%	0.010	0.081	0.13	0.087
Arsenic		M	2455	mg/kg	0.5	11	9.6	7.7
Cadmium		M	2455	mg/kg	0.10	< 0.10	0.19	< 0.10
Chromium		M	2455	mg/kg	0.5	46	23	34
Copper		M	2455	mg/kg	0.50	25	18	21
Mercury		M	2455	mg/kg	0.05	< 0.05	0.11	< 0.05
Nickel		M	2455	mg/kg	0.50	43	23	32
Lead		M	2455	mg/kg	0.50	29	39	28
Selenium		M	2455	mg/kg	0.25	0.56	0.52	0.28
Zinc		M	2455	mg/kg	0.50	65	67	50
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	1.3	1.8	2.1
Total Organic Carbon		M	2625	%	0.20	0.72	1.0	1.2
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Total TPH >C6-C40	EH_1D_Total	M	2670	mg/kg	10	< 10	< 10	< 10
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: York Street - Subsoil Sampling

Client: E3P						**Chemtest Job No.:**	24-20171	24-20171	24-20171
Quotation No.: Q23-31421						**Chemtest Sample ID.:**	1826387	1826388	1826389
Order No.: 008586						Client Sample Ref.:	SS101	SS102	SS103
						Client Sample ID.:	SS101	SS102	SS103
						Sample Type:	SOIL	SOIL	SOIL
						Date Sampled:	24-Jun-2024	24-Jun-2024	24-Jun-2024
						Time Sampled:	0:00	0:00	0:00
						Asbestos Lab:	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**				
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	0.19	0.25
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	0.28	0.33
Pyrene		M	2800	mg/kg	0.10	< 0.10	0.20	0.31
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

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NA - Not Applicable

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HWOL Acronym System

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1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Matt Dee
e3p
Taylor Road
Urmston
Manchester
M41 7JQ

[redacted]

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 24-77927

Project / Site name:	Roman Road	**Samples received on:**	11/01/2024
Your job number:	17 401	**Samples instructed on/ Analysis started on:**	11/01/2024
Your order number:	007151	**Analysis completed by:**	17/01/2024
Report Issue Number:	1	**Report issued on:**	17/01/2024
Samples Analysed:	6 soil samples		

[redacted]

Signed:

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 24-77927
Project / Site name: Roman Road
Your Order No: 007151

Lab Sample Number				2926718	2926719	2926720	2926721	2926722
Sample Reference				TS001	TS002	TS003	SS001	SS002
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				10/01/2024	10/01/2024	10/01/2024	10/01/2024	10/01/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	25	20	17	19	17
Total mass of sample received	kg	0.001	NONE	0.3	0.4	0.3	0.1	0.3

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSA	DSA	DSA	DSA	DSA

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.8	7.9	8.1	6.9	7.1
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	250	210	79	190	200
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	0.011	0.013	0.005	0.0069	0.0058
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	22	26	10	14	12
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	10.9	12.8	5	6.9	5.8
Sulphide	mg/kg	1	MCERTS	1.8	2.2	1.3	< 1.0	< 1.0
Total Sulphur	mg/kg	50	MCERTS	420	390	180	270	260
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	2.8	2.4	0.8	1.5	0.9

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.07	0.08	< 0.05	0.11	0.09
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.06	0.06	0.08	0.08	0.07
Fluorene	mg/kg	0.05	MCERTS	0.06	0.06	0.05	0.08	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.1	0.11	< 0.05	0.22	0.07
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.17	0.13	< 0.05	0.31	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.16	0.12	< 0.05	0.28	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.09	0.09	< 0.05	0.14	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.1	0.07	< 0.05	0.17	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.12	0.11	< 0.05	0.14	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.06	< 0.05	< 0.05	0.06	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.09	< 0.05	< 0.05	0.08	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	1.08	0.83	< 0.80	1.67	< 0.80

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 24-77927
Project / Site name: Roman Road
Your Order No: 007151

Lab Sample Number				2926718	2926719	2926720	2926721	2926722
Sample Reference				TS001	TS002	TS003	SS001	SS002
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				10/01/2024	10/01/2024	10/01/2024	10/01/2024	10/01/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.7	7.9	7.6	6.6	5.1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31	33	42	33	30
Copper (aqua regia extractable)	mg/kg	1	MCERTS	23	25	20	18	11
Lead (aqua regia extractable)	mg/kg	1	MCERTS	37	31	14	20	11
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	22	23	30	20	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	73	71	50	40	31
Petroleum Hydrocarbons								
TPH (C5 - C6) $_{HS_1D_TOTAL}$	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C6 - C8) $_{HS_1D_TOTAL}$	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C8 - C10) $_{HS_1D_TOTAL}$	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C10 - C12) $_{EH_CU_1D_TOTAL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH (C12 - C16) $_{EH_CU_1D_TOTAL}$	mg/kg	4	MCERTS	6.6	< 4.0	< 4.0	< 4.0	< 4.0
TPH (C16 - C21) $_{EH_CU_1D_TOTAL}$	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH (C21 - C35) $_{EH_CU_1D_TOTAL}$	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH (C35 - C40) $_{EH_CU_1D_TOTAL}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH Total C5 - C40 $_{EH_CU+HS_1D_TOTAL}$	mg/kg	10	NONE	11	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number: 24-77927
Project / Site name: Roman Road
Your Order No: 007151

Lab Sample Number				2926723
Sample Reference				SS003
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				10/01/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	16
Total mass of sample received	kg	0.001	NONE	0.3

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSA

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7
Total Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	150
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	0.0061
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	12
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	6.1
Sulphide	mg/kg	1	MCERTS	< 1.0
Total Sulphur	mg/kg	50	MCERTS	240
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.3

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.11
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.1
Fluorene	mg/kg	0.05	MCERTS	0.07
Phenanthrene	mg/kg	0.05	MCERTS	0.08
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80

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Analytical Report Number: 24-77927
Project / Site name: Roman Road
Your Order No: 007151

Lab Sample Number				2926723
Sample Reference				SS003
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				10/01/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	5.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	24
Copper (aqua regia extractable)	mg/kg	1	MCERTS	12
Lead (aqua regia extractable)	mg/kg	1	MCERTS	15
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	27

Petroleum Hydrocarbons

TPH (C5 - C6) $_{HS_1D_TOTAL}$	mg/kg	0.1	NONE	< 0.1
TPH (C6 - C8) $_{HS_1D_TOTAL}$	mg/kg	1	NONE	< 1.0
TPH (C8 - C10) $_{HS_1D_TOTAL}$	mg/kg	1	NONE	< 1.0
TPH (C10 - C12) $_{EH_CU_1D_TOTAL}$	mg/kg	2	MCERTS	< 2.0
TPH (C12 - C16) $_{EH_CU_1D_TOTAL}$	mg/kg	4	MCERTS	< 4.0
TPH (C16 - C21) $_{EH_CU_1D_TOTAL}$	mg/kg	10	MCERTS	< 10
TPH (C21 - C35) $_{EH_CU_1D_TOTAL}$	mg/kg	10	MCERTS	< 10
TPH (C35 - C40) $_{EH_CU_1D_TOTAL}$	mg/kg	10	NONE	< 10
TPH Total C5 - C40 $_{EH_CU+HS_1D_TOTAL}$	mg/kg	10	NONE	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number : 24-77927
Project / Site name: Roman Road

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2926718	TS001	None Supplied	None Supplied	Brown clay and loam with gravel and vegetation.
2926719	TS002	None Supplied	None Supplied	Brown clay and loam with gravel and vegetation.
2926720	TS003	None Supplied	None Supplied	Brown clay and loam with gravel and vegetation.
2926721	SS001	None Supplied	None Supplied	Brown clay and loam with gravel and vegetation.
2926722	SS002	None Supplied	None Supplied	Brown clay and loam with gravel and vegetation.
2926723	SS003	None Supplied	None Supplied	Brown clay and loam with gravel and vegetation.

Analytical Report Number : 24-77927
Project / Site name: Roman Road

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards. Refer to CoA for analyte specific accreditation.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

Analytical Report Number : 24-77927
Project / Site name: Roman Road

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (1hr extraction)	Sulphate, water soluble, in soil (1hr extraction)	In-house method	L038-PL	D	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-22832-1		
Initial Date of Issue:	26-Jul-2024		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street - Subsoil from Roman Way		
Quotation No.:	Q23-31421	**Date Received:**	18-Jul-2024
Order No.:	8824	**Date Instructed:**	18-Jul-2024
No. of Samples:	3		
Turnaround (Wkdays):	5	**Results Due:**	24-Jul-2024
Date Approved:	26-Jul-2024		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street - Subsoil from Roman Way

Client: E3P								
					Chemtest Job No.:	24-22832	24-22832	24-22832
Quotation No.: Q23-31421					**Chemtest Sample ID.:**	1837391	1837392	1837393
Order No.: 8824					Client Sample Ref.:	PLOT 151	PLOT 153	PLOT 155
					Client Sample ID.:	SS201	SS202	SS203
					Sample Type:	SOIL	SOIL	SOIL
					Date Sampled:	16-Jul-2024	16-Jul-2024	16-Jul-2024
					Time Sampled:	0:00	0:00	0:00
					Asbestos Lab:	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**			
ACM Type		U	2192		N/A	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	19	19	17
Soil Colour		N	2040		N/A	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones and Roots
Soil Texture		N	2040		N/A	Clay	Clay	Clay
pH at 20C		M	2010		4.0	8.2	8.1	8.3
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.055	0.026	0.19
Total Sulphur		U	2175	%	0.010	0.030	0.036	0.032
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	3.6	7.2	4.9
Sulphate (Total)		U	2430	%	0.010	0.078	0.079	0.11
Arsenic		M	2455	mg/kg	0.5	8.3	9.0	5.9
Cadmium		M	2455	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Chromium		M	2455	mg/kg	0.5	40	40	25
Copper		M	2455	mg/kg	0.50	21	52	16
Mercury		M	2455	mg/kg	0.05	< 0.05	< 0.05	< 0.05
Nickel		M	2455	mg/kg	0.50	35	35	24
Lead		M	2455	mg/kg	0.50	21	21	18
Selenium		M	2455	mg/kg	0.25	0.60	0.60	0.29
Zinc		M	2455	mg/kg	0.50	50	52	39
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	1.0	1.1	2.2
Total Organic Carbon		M	2625	%	0.20	0.60	0.61	1.3
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Total TPH >C6-C40	EH_1D_Total	M	2670	mg/kg	10	< 10	< 10	< 10
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: 15-719 York Street - Subsoil from Roman Way

Client: E3P				**Chemtest Job No.:**		24-22832	24-22832	24-22832
Quotation No.: Q23-31421				**Chemtest Sample ID.:**		1837391	1837392	1837393
Order No.: 8824				Client Sample Ref.:		PLOT 151	PLOT 153	PLOT 155
				Client Sample ID.:		SS201	SS202	SS203
				Sample Type:		SOIL	SOIL	SOIL
				Date Sampled:		16-Jul-2024	16-Jul-2024	16-Jul-2024
				Time Sampled:		0:00	0:00	0:00
				Asbestos Lab:		DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**			
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.34
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.45
Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.43
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.
Any comments or interpretations are outside the scope of UKAS accreditation.
The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.
Uncertainty of measurement for the determinands tested are available upon request .
None of the results in this report have been recovery corrected.
All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at ≤ 30°C prior to analysis.
All Asbestos testing is performed at the indicated laboratory .
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.
All water samples will be retained for 14 days from the date of receipt.
Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-38646-1		
Initial Date of Issue:	05-Dec-2024		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street - Roman Way Subsoil		
Quotation No.:	Q23-31421	**Date Received:**	26-Nov-2024
Order No.:	010098	**Date Instructed:**	26-Nov-2024
No. of Samples:	1		
Turnaround (Wkdays):	5	**Results Due:**	02-Dec-2024
Date Approved:	05-Dec-2024		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street - Roman Way Subsoil

Client: E3P				**Chemtest Job No.:**		24-38646
Quotation No.: Q23-31421				**Chemtest Sample ID.:**		1900637
				Client Sample ID.:		SS101
				Sample Type:		SOIL
				Date Sampled:		22-Nov-2024
				Time Sampled:		0:00
				Asbestos Lab:		DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**	
ACM Type		U	2192		N/A	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected
Moisture		N	2030	%	0.020	23
Soil Colour		N	2040		N/A	Brown
Other Material		N	2040		N/A	None
Soil Texture		N	2040		N/A	Clay
pH at 20C		M	2010		4.0	8.2
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.090
Total Sulphur		U	2175	%	0.010	0.030
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	3.7
Sulphate (Total)		U	2430	%	0.010	0.030
Arsenic		M	2455	mg/kg	0.5	3.6
Cadmium		M	2455	mg/kg	0.10	< 0.10
Chromium		M	2455	mg/kg	0.5	18
Copper		M	2455	mg/kg	0.50	11
Mercury		M	2455	mg/kg	0.05	< 0.05
Nickel		M	2455	mg/kg	0.50	18
Lead		M	2455	mg/kg	0.50	6.9
Selenium		M	2455	mg/kg	0.25	< 0.25
Zinc		M	2455	mg/kg	0.50	26
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50
Organic Matter		M	2625	%	0.40	0.69
Total Organic Carbon		M	2625	%	0.20	0.40
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	< 10
Naphthalene		M	2800	mg/kg	0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10

Results - Soil

Project: 15-719 York Street - Roman Way Subsoil

Client: E3P				**Chemtest Job No.:**		24-38646
Quotation No.: Q23-31421				**Chemtest Sample ID.:**		1900637
				Client Sample ID.:		SS101
				Sample Type:		SOIL
				Date Sampled:		22-Nov-2024
				Time Sampled:		0:00
				Asbestos Lab:		DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**	
Anthracene		M	2800	mg/kg	0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10
Pyrene		M	2800	mg/kg	0.10	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0
Total Phenols		M	2920	mg/kg	0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

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TS - Treated Sewage
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HWOL Acronym System

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EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
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Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-39885-1		
Initial Date of Issue:	10-Dec-2024		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street		
Quotation No.:	Q23-31421	**Date Received:**	05-Dec-2024
Order No.:	010178	**Date Instructed:**	05-Dec-2024
No. of Samples:	2		
Turnaround (Wkdays):	4	**Results Due:**	10-Dec-2024
Date Approved:	10-Dec-2024		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street

Client: E3P							
Quotation No.: Q23-31421					**Chemtest Job No.:**	24-39885	24-39885
					Chemtest Sample ID.:	1905381	1905382
					Client Sample ID.:	SS PLOT 33	SS PLOT 209
					Sample Type:	SOIL	SOIL
					Date Sampled:	03-Dec-2024	03-Dec-2024
					Time Sampled:	0:00	0:00
					Asbestos Lab:	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**		
ACM Type		U	2192		N/A	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	3.8	6.4
Soil Colour		N	2040		N/A	Brown	Brown
Other Material		N	2040		N/A	Stones, Roots and	Stones and
Soil Texture		N	2040		N/A	Clay	Clay
pH at 20C		M	2010		4.0	8.6	8.8
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.035	0.073
Total Sulphur		U	2175	%	0.010	0.030	0.030
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	2.8	2.5
Sulphate (Total)		U	2430	%	0.010	0.089	0.041
Arsenic		M	2455	mg/kg	0.5	6.1	5.0
Cadmium		M	2455	mg/kg	0.10	0.10	< 0.10
Chromium		M	2455	mg/kg	0.5	29	26
Copper		M	2455	mg/kg	0.50	17	13
Mercury		M	2455	mg/kg	0.05	< 0.05	< 0.05
Nickel		M	2455	mg/kg	0.50	28	22
Lead		M	2455	mg/kg	0.50	21	19
Selenium		M	2455	mg/kg	0.25	0.42	0.37
Zinc		M	2455	mg/kg	0.50	52	37
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	1.3	0.71
Total Organic Carbon		M	2625	%	0.20	0.77	0.41
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	< 10	< 10
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10

Results - Soil

Project: 15-719 York Street

Client: E3P							
Quotation No.: Q23-31421					**Chemtest Job No.:**	24-39885	24-39885
					Chemtest Sample ID.:	1905381	1905382
					Client Sample ID.:	SS PLOT 33	SS PLOT 209
					Sample Type:	SOIL	SOIL
					Date Sampled:	03-Dec-2024	03-Dec-2024
					Time Sampled:	0:00	0:00
					Asbestos Lab:	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**		
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.
Any comments or interpretations are outside the scope of UKAS accreditation.
The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.
Uncertainty of measurement for the determinands tested are available upon request .
None of the results in this report have been recovery corrected.
All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at ≤ 30°C prior to analysis.
All Asbestos testing is performed at the indicated laboratory .
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.
All water samples will be retained for 14 days from the date of receipt.
Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-35924-1		
Initial Date of Issue:	11-Nov-2024		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street - Marchington Stone Topsoil		
Quotation No.:	Q23-31421	**Date Received:**	05-Nov-2024
Order No.:	9932	**Date Instructed:**	05-Nov-2024
No. of Samples:	3		
Turnaround (Wkdays):	5	**Results Due:**	11-Nov-2024
Date Approved:	11-Nov-2024		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street - Marchington Stone Topsoil

Client: E3P								
Quotation No.: Q23-31421					**Chemtest Job No.:**	24-35924	24-35924	24-35924
					Chemtest Sample ID.:	1890305	1890306	1890307
					Client Sample ID.:	TS SP101	TS SP102	TS SP103
					Sample Type:	SOIL	SOIL	SOIL
					Date Sampled:	01-Nov-2024	01-Nov-2024	01-Nov-2024
					Time Sampled:	0:00	0:00	0:00
					Asbestos Lab:	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**			
ACM Type		U	2192		N/A	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	20	20	20
Soil Colour		N	2040		N/A	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones and Roots	Stones and Roots	Stones and Roots
Soil Texture		N	2040		N/A	Sand	Sand	Sand
pH at 20C		M	2010		4.0	8.4	8.4	8.3
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.11	0.057	0.068
Total Sulphur		U	2175	%	0.010	0.080	0.13	0.12
Cyanide (Total)		M	2300	mg/kg	0.50	1.0	1.0	1.1
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	4.1	5.8	4.4
Sulphate (Total)		U	2430	%	0.010	0.28	0.26	0.26
Arsenic		M	2455	mg/kg	0.5	8.4	6.6	6.9
Cadmium		M	2455	mg/kg	0.10	0.32	0.18	0.24
Chromium		M	2455	mg/kg	0.5	12	14	9.8
Copper		M	2455	mg/kg	0.50	31	27	21
Mercury		M	2455	mg/kg	0.05	0.06	0.05	0.05
Nickel		M	2455	mg/kg	0.50	9.2	9.4	7.4
Lead		M	2455	mg/kg	0.50	41	35	35
Selenium		M	2455	mg/kg	0.25	< 0.25	< 0.25	< 0.25
Zinc		M	2455	mg/kg	0.50	91	79	80
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	9.3	8.6	17
Total Organic Carbon		M	2625	%	0.20	5.4	5.0	9.8
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	16	< 1.0
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	47	< 1.0
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	250	< 1.0
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	1600	< 1.0
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	680	< 1.0
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	< 10	2600	< 10
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: 15-719 York Street - Marchington Stone Topsoil

Client: E3P					**Chemtest Job No.:**	24-35924	24-35924	24-35924
Quotation No.: Q23-31421					**Chemtest Sample ID.:**	1890305	1890306	1890307
					Client Sample ID.:	TS SP101	TS SP102	TS SP103
					Sample Type:	SOIL	SOIL	SOIL
					Date Sampled:	01-Nov-2024	01-Nov-2024	01-Nov-2024
					Time Sampled:	0:00	0:00	0:00
					Asbestos Lab:	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**			
Phenanthrene		M	2800	mg/kg	0.10	0.25	0.28	0.34
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	0.54	0.37	0.53
Pyrene		M	2800	mg/kg	0.10	0.48	0.34	0.45
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.23
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.26
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0
Total Phenols		M	2920	mg/kg	0.10	0.31	0.34	0.25

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key	
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S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
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U/S	Unsuitable Sample
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All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at ≤ 30°C prior to analysis.
All Asbestos testing is performed at the indicated laboratory .
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.
All water samples will be retained for 14 days from the date of receipt.
Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-37359-1		
Initial Date of Issue:	20-Nov-2024		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street - Marchington Stone Topsoil		
Quotation No.:	Q23-31421	**Date Received:**	15-Nov-2024
Order No.:	010034	**Date Instructed:**	15-Nov-2024
No. of Samples:	1		
Turnaround (Wkdays):	4	**Results Due:**	20-Nov-2024
Date Approved:	20-Nov-2024		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street - Marchington Stone Topsoil

Client: E3P				**Chemtest Job No.:**		24-37359
Quotation No.: Q23-31421				**Chemtest Sample ID.:**		1895544
				Client Sample ID.:		TS PLOT 205
				Sample Type:		SOIL
				Date Sampled:		13-Nov-2024
				Time Sampled:		12:00
				Asbestos Lab:		DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**	
ACM Type		U	2192		N/A	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected
Moisture		N	2030	%	0.020	21
Soil Colour		N	2040		N/A	Brown
Other Material		N	2040		N/A	Roots and Stones
Soil Texture		N	2040		N/A	Loam
pH at 20C		M	2010		4.0	8.0
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.020
Total Sulphur		U	2175	%	0.010	0.14
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	2.3
Sulphate (Total)		U	2430	%	0.010	0.16
Arsenic		M	2455	mg/kg	0.5	4.1
Cadmium		M	2455	mg/kg	0.10	0.20
Chromium		M	2455	mg/kg	0.5	12
Copper		M	2455	mg/kg	0.50	16
Mercury		M	2455	mg/kg	0.05	< 0.05
Nickel		M	2455	mg/kg	0.50	8.2
Lead		M	2455	mg/kg	0.50	24
Selenium		M	2455	mg/kg	0.25	0.26
Zinc		M	2455	mg/kg	0.50	42
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50
Organic Matter		M	2625	%	0.40	14
Total Organic Carbon		M	2625	%	0.20	8.4
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	< 10
Naphthalene		M	2800	mg/kg	0.10	0.11
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10

Results - Soil

Project: 15-719 York Street - Marchington Stone Topsoil

Client: E3P				**Chemtest Job No.:**		24-37359
Quotation No.: Q23-31421				**Chemtest Sample ID.:**		1895544
				Client Sample ID.:		TS PLOT 205
				Sample Type:		SOIL
				Date Sampled:		13-Nov-2024
				Time Sampled:		12:00
				Asbestos Lab:		DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**	
Phenanthrene		M	2800	mg/kg	0.10	0.56
Anthracene		M	2800	mg/kg	0.10	0.14
Fluoranthene		M	2800	mg/kg	0.10	0.78
Pyrene		M	2800	mg/kg	0.10	0.66
Benzo[a]anthracene		M	2800	mg/kg	0.10	0.33
Chrysene		M	2800	mg/kg	0.10	0.32
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	2.9
Total Phenols		M	2920	mg/kg	0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

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Uncertainty of measurement for the determinands tested are available upon request .
None of the results in this report have been recovery corrected.
All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at ≤ 30°C prior to analysis.
All Asbestos testing is performed at the indicated laboratory .
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.
All water samples will be retained for 14 days from the date of receipt.
Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-39231-1		
Initial Date of Issue:	06-Dec-2024		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street - Marchington Stone Topsoil		
Quotation No.:	Q23-31421	**Date Received:**	29-Nov-2024
Order No.:	010136	**Date Instructed:**	29-Nov-2024
No. of Samples:	5		
Turnaround (Wkdays):	5	**Results Due:**	05-Dec-2024
Date Approved:	06-Dec-2024		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street - Marchington Stone Topsoil

Client: E3P					**Chemtest Job No.:**	24-39231	24-39231	24-39231	24-39231	24-39231
Quotation No.: Q23-31421					**Chemtest Sample ID.:**	1902928	1902929	1902930	1902931	1902932
					Client Sample ID.:	TOPSOIL 101	TOPSOIL 102	TOPSOIL 103	TOPSOIL 104	TOPSOIL 105
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
					Date Sampled:	27-Nov-2024	27-Nov-2024	27-Nov-2024	27-Nov-2024	27-Nov-2024
					Time Sampled:	0:00	0:00	0:00	0:00	0:00
					Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**					
ACM Type		U	2192		N/A	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	21	21	24	22	25
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones and Roots	Stones and Roots	Stones, Roots and Wood	Stones, Roots and Wood	Stones, Roots and Wood
Soil Texture		N	2040		N/A	Loam	Loam	Loam	Loam	Loam
pH at 20C		M	2010		4.0	8.2	8.2	8.2	8.2	8.1
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.073	0.12	0.090	0.051	0.083
Total Sulphur		U	2175	%	0.010	0.090	0.080	0.080	0.080	0.13
Cyanide (Total)		M	2300	mg/kg	0.50	0.60	< 0.50	0.50	0.90	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	2.2	1.8	2.0	2.9	2.6
Sulphate (Total)		U	2430	%	0.010	0.20	0.22	0.29	0.25	0.22
Arsenic		M	2455	mg/kg	0.5	6.8	7.0	7.2	7.4	5.9
Cadmium		M	2455	mg/kg	0.10	0.19	0.67	0.24	0.22	0.14
Chromium		M	2455	mg/kg	0.5	10	8.4	65	9.5	8.4
Copper		M	2455	mg/kg	0.50	29	25	29	30	20
Mercury		M	2455	mg/kg	0.05	0.07	0.06	0.08	0.07	0.05
Nickel		M	2455	mg/kg	0.50	8.7	7.2	35	8.4	6.5
Lead		M	2455	mg/kg	0.50	34	83	40	35	25
Selenium		M	2455	mg/kg	0.25	< 0.25	< 0.25	0.26	< 0.25	< 0.25
Zinc		M	2455	mg/kg	0.50	69	140	83	71	55
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	10	11	21	17	22
Total Organic Carbon		M	2625	%	0.20	6.0	6.1	12	10	13
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	16	< 1.0
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	14	< 1.0
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	< 10	< 10	< 10	30	< 10
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: 15-719 York Street - Marchington Stone Topsoil

Client: E3P				**Chemtest Job No.:**		24-39231	24-39231	24-39231	24-39231	24-39231
Quotation No.: Q23-31421				**Chemtest Sample ID.:**		1902928	1902929	1902930	1902931	1902932
				Client Sample ID.:		TOPSOIL 101	TOPSOIL 102	TOPSOIL 103	TOPSOIL 104	TOPSOIL 105
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL
				Date Sampled:		27-Nov-2024	27-Nov-2024	27-Nov-2024	27-Nov-2024	27-Nov-2024
				Time Sampled:		0:00	0:00	0:00	0:00	0:00
				Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**					
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	0.39	0.29	0.28	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	0.58	0.63	0.42	0.47	0.51
Pyrene		M	2800	mg/kg	0.10	0.57	0.63	0.46	0.46	0.49
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

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Total - Aliphatics & Aromatics
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AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	25-02199-1		
Initial Date of Issue:	03-Feb-2025		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street - Marchington Stone Topsoil		
Quotation No.:	Q23-31421	**Date Received:**	23-Jan-2025
Order No.:	010399	**Date Instructed:**	23-Jan-2025
No. of Samples:	4		
Turnaround (Wkdays):	5	**Results Due:**	29-Jan-2025
Date Approved:	03-Feb-2025		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street - Marchington Stone Topsoil

Client: E3P						**Chemtest Job No.:**	25-02199	25-02199	25-02199	25-02199
Quotation No.: Q23-31421						**Chemtest Sample ID.:**	1921448	1921449	1921450	1921451
						Client Sample ID.:	TS PLOT 39	TS PLOT 40	TS PLOT 199	TS PLOT 200
						Sample Type:	SOIL	SOIL	SOIL	SOIL
						Date Sampled:	22-Jan-2025	22-Jan-2025	22-Jan-2025	22-Jan-2025
						Time Sampled:	0:00	0:00	0:00	0:00
						Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**					
ACM Type		U	2192		N/A	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	31	31	26	26
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones and Roots	Stones and Roots	Stones and Roots	Stones
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand
pH at 20C		M	2010		4.0	8.8	8.5	8.6	8.6
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.030	0.022	0.040	0.030
Total Sulphur		U	2175	%	0.010	0.070	0.070	0.070	0.070
Cyanide (Total)		M	2300	mg/kg	0.50	1.0	0.50	0.60	0.80
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	2.0	4.1	8.8	3.4
Sulphate (Total)		U	2430	%	0.010	0.26	0.25	0.18	0.25
Arsenic		M	2455	mg/kg	0.5	6.4	5.8	3.8	9.6
Cadmium		M	2455	mg/kg	0.10	0.31	0.29	0.14	0.30
Chromium		M	2455	mg/kg	0.5	15	12	6.3	18
Copper		M	2455	mg/kg	0.50	34	33	16	31
Mercury		M	2455	mg/kg	0.05	0.07	0.07	< 0.05	0.15
Nickel		M	2455	mg/kg	0.50	13	12	6.5	19
Lead		M	2455	mg/kg	0.50	40	38	23	59
Selenium		M	2455	mg/kg	0.25	0.34	0.33	< 0.25	0.49
Zinc		M	2455	mg/kg	0.50	82	84	47	79
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	33	8.6	18	6.0
Total Organic Carbon		M	2625	%	0.20	19	5.0	11	3.5
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	5.4	5.6	7.1	5.5
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	31	29	50	39
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	55	60	72	89
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	160	130	260	300
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	19	17	31	36
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	270	240	420	470
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.18	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: 15-719 York Street - Marchington Stone Topsoil

Client: E3P						**Chemtest Job No.:**	25-02199	25-02199	25-02199	25-02199
Quotation No.: Q23-31421						**Chemtest Sample ID.:**	1921448	1921449	1921450	1921451
						Client Sample ID.:	TS PLOT 39	TS PLOT 40	TS PLOT 199	TS PLOT 200
						Sample Type:	SOIL	SOIL	SOIL	SOIL
						Date Sampled:	22-Jan-2025	22-Jan-2025	22-Jan-2025	22-Jan-2025
						Time Sampled:	0:00	0:00	0:00	0:00
						Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**					
Phenanthrene		M	2800	mg/kg	0.10		0.31	0.43	0.80	0.66
Anthracene		M	2800	mg/kg	0.10		< 0.10	0.13	0.20	0.17
Fluoranthene		M	2800	mg/kg	0.10		0.67	0.81	1.1	1.0
Pyrene		M	2800	mg/kg	0.10		0.62	0.74	1.0	0.91
Benzo[a]anthracene		M	2800	mg/kg	0.10		0.26	0.24	0.46	0.41
Chrysene		M	2800	mg/kg	0.10		0.25	0.26	0.52	0.36
Benzo[b]fluoranthene		M	2800	mg/kg	0.10		< 0.10	< 0.10	0.55	0.55
Benzo[k]fluoranthene		M	2800	mg/kg	0.10		< 0.10	< 0.10	0.24	0.18
Benzo[a]pyrene		M	2800	mg/kg	0.10		< 0.10	< 0.10	0.41	0.39
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10		< 0.10	< 0.10	0.32	0.30
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10		< 0.10	< 0.10	0.33	0.32
Total Of 16 PAH's		N	2800	mg/kg	2.0		2.1	2.6	6.1	5.3
Total Phenols		M	2920	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.
Any comments or interpretations are outside the scope of UKAS accreditation.
The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.
Uncertainty of measurement for the determinands tested are available upon request .
None of the results in this report have been recovery corrected.
All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at ≤ 30°C prior to analysis.
All Asbestos testing is performed at the indicated laboratory .
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

NEW_ASB	Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL
DURHAM	Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.
All water samples will be retained for 14 days from the date of receipt.
Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

Report Information

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	25-08517-1		
Initial Date of Issue:	21-Mar-2025		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street		
Quotation No.:	Q23-31421	**Date Received:**	12-Mar-2025
Order No.:	010739	**Date Instructed:**	12-Mar-2025
No. of Samples:	3		
Turnaround (Wkdays):	5	**Results Due:**	18-Mar-2025
Date Approved:	21-Mar-2025		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street

Client: E3P								
Quotation No.: Q23-31421					**Chemtest Job No.:**	25-08517	25-08517	25-08517
					Chemtest Sample ID.:	1946031	1946033	1946035
					Client Sample ID.:	TS PLOT 98	TS PLOT 105	SS PLOT 102
					Sample Type:	SOIL	SOIL	SOIL
					Date Sampled:	11-Mar-2025	11-Mar-2025	11-Mar-2025
					Time Sampled:	0:00	0:00	0:00
					Asbestos Lab:	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**			
ACM Type		N	2192		N/A	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	35	24	19
Soil Colour		N	2040		N/A	Black	Brown	Brown
Other Material		N	2040		N/A	Stones and Roots	Stones and Roots	Stones and Roots
Soil Texture		N	2040		N/A	Loam	Loam	Clay
pH at 20C		M	2010		4.0	9.0	8.9	8.0
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.028	0.084	0.23
Total Sulphur		U	2175	%	0.010	0.050	0.070	0.050
Cyanide (Total)		M	2300	mg/kg	0.50	0.70	< 0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	6.1	3.5	9.5
Sulphate (Total)		U	2430	%	0.010	0.22	0.19	0.24
Arsenic		M	2455	mg/kg	0.5	6.4	7.1	9.3
Cadmium		M	2455	mg/kg	0.10	0.17	0.22	0.23
Chromium		M	2455	mg/kg	0.5	8.1	21	33
Copper		M	2455	mg/kg	0.50	23	28	35
Mercury		M	2455	mg/kg	0.05	< 0.05	0.07	0.12
Nickel		M	2455	mg/kg	0.50	7.6	19	30
Lead		M	2455	mg/kg	0.50	27	42	49
Selenium		M	2455	mg/kg	0.25	< 0.25	0.37	0.92
Zinc		M	2455	mg/kg	0.50	58	74	100
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	8.5	5.0	3.1
Total Organic Carbon		M	2625	%	0.20	4.9	2.9	1.8
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	1.5	1.7	1.8
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	11	16	9.8
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	6.8	36	35
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	36	110	27
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	7.7	16	3.0
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	62	180	77
Naphthalene		M	2800	mg/kg	0.10	< 0.10	0.33	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: 15-719 York Street

Client: E3P								
Quotation No.: Q23-31421					**Chemtest Job No.:**	25-08517	25-08517	25-08517
					Chemtest Sample ID.:	1946031	1946033	1946035
					Client Sample ID.:	TS PLOT 98	TS PLOT 105	SS PLOT 102
					Sample Type:	SOIL	SOIL	SOIL
					Date Sampled:	11-Mar-2025	11-Mar-2025	11-Mar-2025
					Time Sampled:	0:00	0:00	0:00
					Asbestos Lab:	DURHAM	DURHAM	DURHAM
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**			
Phenanthrene		M	2800	mg/kg	0.10	0.29	1.0	0.76
Anthracene		M	2800	mg/kg	0.10	< 0.10	0.30	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	0.35	1.3	1.0
Pyrene		M	2800	mg/kg	0.10	0.34	1.2	1.0
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	0.49	0.50
Chrysene		M	2800	mg/kg	0.10	< 0.10	0.57	0.49
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	0.68	0.61
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	0.26	0.22
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	0.57	0.50
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	0.34	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	0.32	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	7.4	5.1
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

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All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

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NEW_ASB	Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL
DURHAM	Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - The required amount of sample for analysis was not received
H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.
All water samples will be retained for 14 days from the date of receipt.
Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water
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HWOL Acronym System

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1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	25-13664-1		
Initial Date of Issue:	02-May-2025		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street - Topsoil		
Quotation No.:	Q23-31421	**Date Received:**	25-Apr-2025
Order No.:	010998	**Date Instructed:**	25-Apr-2025
No. of Samples:	3		
Turnaround (Wkdays):	5	**Results Due:**	01-May-2025
Date Approved:	02-May-2025		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street - Topsoil

Client: E3P								
Quotation No.: Q23-31421					**Chemtest Job No.:**	25-13664	25-13664	25-13664
					Chemtest Sample ID.:	1964779	1964780	1964781
					Client Sample ID.:	TS101 PLOT 93	TS102 PLOT 88	TS103 PLOT 83
					Sample Type:	SOIL	SOIL	SOIL
					Date Sampled:	23-Apr-2025	23-Apr-2025	23-Apr-2025
					Time Sampled:	0:00	0:00	0:00
					Asbestos Lab:	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**			
ACM Type		N	2192		N/A	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	31	14	9.4
Soil Colour		N	2040		N/A	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones, Roots and	Stones and	Stones, Roots and
Soil Texture		N	2040		N/A	Sand	Clay	Sand
pH at 20C		M	2010		4.0	7.8	7.3	7.3
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.081	< 0.010	< 0.010
Total Sulphur		U	2175	%	0.010	0.13	0.030	0.020
Cyanide (Total)		M	2300	mg/kg	0.50	0.70	< 0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	5.6	4.0	2.4
Sulphate (Total)		U	2430	%	0.010	0.17	0.053	0.087
Arsenic		M	2455	mg/kg	0.5	5.7	13	19
Cadmium		M	2455	mg/kg	0.10	0.12	0.17	0.35
Chromium		M	2455	mg/kg	0.5	6.4	10	18
Copper		M	2455	mg/kg	0.50	22	30	59
Mercury		M	2455	mg/kg	0.05	0.05	0.08	0.16
Nickel		M	2455	mg/kg	0.50	8.1	10	17
Lead		M	2455	mg/kg	0.50	28	40	83
Selenium		M	2455	mg/kg	0.25	< 0.25	0.31	0.61
Zinc		M	2455	mg/kg	0.50	59	52	93
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	9.5	2.1	1.9
Total Organic Carbon		M	2625	%	0.20	5.5	1.2	1.1
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	1.1	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	7.3	< 1.0	5.8
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	3.2	< 1.0	1.4
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	4.5	< 1.0	1.4
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	6.6	< 1.0	4.9
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	4.7	< 1.0	3.2
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	50	< 1.0	20
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	2.5	< 1.0	1.1
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	80	< 10	38
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: 15-719 York Street - Topsoil

Client: E3P				**Chemtest Job No.:**		25-13664	25-13664	25-13664
Quotation No.: Q23-31421				**Chemtest Sample ID.:**		1964779	1964780	1964781
				Client Sample ID.:		TS101 PLOT 93	TS102 PLOT 88	TS103 PLOT 83
				Sample Type:		SOIL	SOIL	SOIL
				Date Sampled:		23-Apr-2025	23-Apr-2025	23-Apr-2025
				Time Sampled:		0:00	0:00	0:00
				Asbestos Lab:		NEW-ASB	NEW-ASB	NEW-ASB
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**			
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	0.38
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	0.49	0.63	0.64
Pyrene		M	2800	mg/kg	0.10	0.48	0.72	0.56
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0
Total Phenols		M	2920	mg/kg	0.10	< 0.10	0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.
Any comments or interpretations are outside the scope of UKAS accreditation.
The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.
Uncertainty of measurement for the determinands tested are available upon request .
None of the results in this report have been recovery corrected.
All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at ≤ 30°C prior to analysis.
All Asbestos testing is performed at the indicated laboratory .
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

NEW_ASB	Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL
DURHAM	Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - The required amount of sample for analysis was not received
H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.
All water samples will be retained for 14 days from the date of receipt.
Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	25-13665-1		
Initial Date of Issue:	02-May-2025		
Re-Issue Details:			
Client	E3P		
Client Address:	Taylor Road Trafford Park Urmston Manchester M41 7JQ		
Contact(s):	[redacted]		
Project	15-719 York Street - Subsoil		
Quotation No.:	Q23-31421	**Date Received:**	25-Apr-2025
Order No.:	010998	**Date Instructed:**	25-Apr-2025
No. of Samples:	2		
Turnaround (Wkdays):	5	**Results Due:**	01-May-2025
Date Approved:	02-May-2025		
Approved By:	[redacted]		
Details:	David Smith, Technical Director		

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 15-719 York Street - Subsoil

Client: E3P							
Quotation No.: Q23-31421					**Chemtest Job No.:**	25-13665	25-13665
					Chemtest Sample ID.:	1964782	1964783
					Client Sample ID.:	SS101 PLOT 93	SS102 PLOT 83
					Sample Type:	SOIL	SOIL
					Date Sampled:	23-Apr-2025	23-Apr-2025
					Time Sampled:	0:00	0:00
					Asbestos Lab:	NEW-ASB	NEW-ASB
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**		
ACM Type		N	2192		N/A	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	17	16
Soil Colour		N	2040		N/A	Brown	Brown
Other Material		N	2040		N/A	Stones and	Stones, Roots and
Soil Texture		N	2040		N/A	Clay	Clay
pH at 20C		M	2010		4.0	7.6	7.7
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.14	0.011
Total Sulphur		U	2175	%	0.010	0.060	0.020
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	5.6	5.0
Sulphate (Total)		U	2430	%	0.010	0.20	0.056
Arsenic		M	2455	mg/kg	0.5	8.9	11
Cadmium		M	2455	mg/kg	0.10	0.11	0.13
Chromium		M	2455	mg/kg	0.5	30	45
Copper		M	2455	mg/kg	0.50	29	31
Mercury		M	2455	mg/kg	0.05	0.42	0.06
Nickel		M	2455	mg/kg	0.50	31	45
Lead		M	2455	mg/kg	0.50	44	31
Selenium		M	2455	mg/kg	0.25	0.67	0.96
Zinc		M	2455	mg/kg	0.50	76	86
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	1.6	1.4
Total Organic Carbon		M	2625	%	0.20	0.90	0.81
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	6.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	2.5	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	4.2	< 1.0
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	17	< 1.0
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	6.3	< 1.0
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	27	< 1.0
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	1.6	< 1.0
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	65	< 10
Naphthalene		M	2800	mg/kg	0.10	0.47	0.41
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	0.49	< 0.10

Results - Soil

Project: 15-719 York Street - Subsoil

Client: E3P				**Chemtest Job No.:**		25-13665	25-13665
Quotation No.: Q23-31421				**Chemtest Sample ID.:**		1964782	1964783
				Client Sample ID.:		SS101 PLOT 93	SS102 PLOT 83
				Sample Type:		SOIL	SOIL
				Date Sampled:		23-Apr-2025	23-Apr-2025
				Time Sampled:		0:00	0:00
				Asbestos Lab:		NEW-ASB	NEW-ASB
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**		
Fluorene		M	2800	mg/kg	0.10	0.45	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	4.2	< 0.10
Anthracene		M	2800	mg/kg	0.10	1.1	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	5.0	< 0.10
Pyrene		M	2800	mg/kg	0.10	4.4	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	2.1	< 0.10
Chrysene		M	2800	mg/kg	0.10	2.3	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	2.6	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	0.98	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	1.9	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	1.1	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	1.2	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	28	< 2.0
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

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AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com