

By Email

Our Ref: 21-763.05L



10th December 2025

Dear Sakhile,

Re: Clean Cover Verification - Plots 56 – 61 inclusive, at Hollin Bank, Hollingworth Road, Littleborough

Please find attached the following documents:

- Photographic Record Sheet
- Insitu Soil Test Results (Chemtech Analytical Report Ref. 25-12014)

As requested by Vistry West Yorkshire, a site visit was undertaken on 4th December 2025, by a representative from Arc Environmental Ltd, to confirm the suitability and thickness of imported topsoil placed within the gardens of Plots 56-61 inclusive, at the above referenced site.

In order to negate any potential risk to future site users (i.e., human health), it was recommended that a minimum of 600mm cover soils with basal high-visibility marker / separator layer, be emplaced within garden / soft landscaping areas, where made ground was present, in accordance with the Remediation Statement & Validation Proposal Sheets produced for this site by Arc Environmental Ltd (Report No. 21-763).

Prior to the site visit, trial pits were excavated by the groundworkers within the gardens of all Plots 55-61, although due to the heavy rain at the time these had filled with water. As such, a tape measure was lowered into all of the trial pits, which confirmed the placement of a minimum 600mm of imported topsoil (recorded as a dark brown very clayey very sandy silty soil with some rootlets and fine gravel of mudstone, coal and sandstone). In addition, the rainwater was bailed out of the trial pits within Plots 57 and 60 such that the geotextile membrane was visible. The location of the trial pits and the confirmation of the thickness of emplaced soils is included on the attached Photographic Record Sheet.

Pre-importation testing of the topsoil is attached to this letter report which confirmed that these materials would be suitable for re-use within a residential end use setting. In addition to the above, additional samples of the emplaced topsoil were also recovered from Plots 57 and 61 during the visit in order to undertake confirmatory laboratory testing. The samples recovered during the site visit were stored at approximately c.2°C to c.8°C using cool boxes and ice packs prior to delivery to a UKAS / MCERTS accredited laboratory.



Re: Clean Cover Verification - Plots 56 – 61, at Hollin Bank, Hollingworth Road, Littleborough (Cont'd)

The catalogue of testing results can be found in the Chemtech Analytical Report (Ref. 25-12014) attached to this letter report, with the total analysis carried out summarised below.

Soil Samples

- 2 no. soil samples screened for a generic (metals and non-organics) soil suite including Arsenic, Cadmium, Chromium (III & VI), Copper, Lead, Mercury, Nickel, Selenium, Zinc, Cyanide and Total Organic Carbon (TOC).
- 2 no. soil samples screened for Speciated Polycyclic Aromatic Hydrocarbons (PAH's) & Speciated Total Petroleum Hydrocarbons (based on full Aliphatic / Aromatic Split & BTEX).
- 2 no. samples screened for the presence of asbestos.

The soil screening results from have been assessed by comparing the maximum values (C_M) recorded for each analyte to the critical concentration values (C_C) adopted for this site i.e., based on a the most sensitive proposed end use of 'residential with home grown produce' at 6% SOM and are summarised in Table 1 below and on the following page.

Table 1

Bold = result exceeds critical concentration

Analyte	Critical Conc. (C_C)	No. of Samples Screened	Max. Conc. (C_M) Recorded	No. of Samples > C_C
Arsenic	37 ⁽¹⁾	2	13.2	0
Cadmium	11 ⁽¹⁾	2	<1.6	0
Chromium III	910 ⁽¹⁾	2	14.4	0
Chromium VI	6 ⁽¹⁾	2	<0.04	0
Copper	2400 ⁽¹⁾	2	26.2	0
Lead	200 ⁽²⁾	2	55.2	0
Mercury	40 ⁽¹⁾	2	<0.7	0
Nickel	130 ⁽¹⁾	2	8.9	0
Selenium	250 ⁽¹⁾	2	<3	0
Zinc	3700 ⁽¹⁾	2	55.6	0
Cyanide	34 ⁽³⁾	2	<1	0
Speciated PAH's				
Acenaphthene	1100 ⁽¹⁾	2	0.02	0
Acenaphthylene	920 ⁽¹⁾	2	<0.015	0
Anthracene	11000 ⁽¹⁾	2	0.041	0
Benzo(a)anthracene	13 ⁽¹⁾	2	0.134	0
Benzo(a)pyrene	3 ⁽¹⁾	2	0.127	0
Benzo(b)fluoranthene	3.7 ⁽¹⁾	2	0.158	0
Benzo(ghi)perylene	350 ⁽¹⁾	2	0.092	0
Benzo(k)fluoranthene	100 ⁽¹⁾	2	0.061	0
Chrysene	27 ⁽¹⁾	2	0.144	0
Dibenz(ah)anthracene	0.30 ⁽¹⁾	2	<0.017	0
Fluoranthene	890 ⁽¹⁾	2	0.278	0
Fluorene	860 ⁽¹⁾	2	0.014	0
Indeno(123cd)pyrene	41 ⁽¹⁾	2	0.117	0
Naphthalene	13 ⁽¹⁾	2	<0.016	0
Phenanthrene	440 ⁽¹⁾	2	0.158	0
Pyrene	2000 ⁽¹⁾	2	0.249	0

⁽¹⁾ = LQM/CIEH S4UL's –Residential with Homegrown Produce (6% SOM), ⁽²⁾ = CL:AIRE C4SLs –residential with homegrown produce, ⁽³⁾ = Atkins ATRISK SSV (Mar 2011). * = Site Value (C_M) less than analytical detection limit, NAD = No Asbestos Detected.

Re: Clean Cover Verification - Plots 56 – 61, at Hollin Bank, Hollingworth Road, Littleborough (Cont'd)

Table 1 (Cont'd)

Bold = result exceeds critical concentration

Analyte	Critical Conc. (C _c)	No. of Samples Screened	Max. Conc. (C _M) Recorded	No. of Samples > C _c
Speciated TPH's				
VPH Aliphatic (>C5-C6)	160 ⁽¹⁾	2	<0.1	0
VPH Aliphatic (>C6-C8)	530 ⁽¹⁾	2	<0.1	0
VPH Aliphatic (>C8-C10)	150 ⁽¹⁾	2	<0.1	0
EPH Aliphatic (>C10-C12)	760 ⁽¹⁾	2	<1	0
EPH Aliphatic (>C12-C16)	4300 ⁽¹⁾	2	<0.5	0
EPH Aliphatic (>C16-C35)	110000 ⁽¹⁾	2	<3	0
EPH Aliphatic (>C35-C44)	110000 ⁽¹⁾	2	<0.5	0
VPH Aromatic (>EC5-EC7)	300 ⁽¹⁾	2	<0.01	0
VPH Aromatic (>EC7-EC8)	660 ⁽¹⁾	2	<0.01	0
VPH Aromatic (>EC8-EC10)	190 ⁽¹⁾	2	<0.01	0
EPH Aromatic (>EC10-EC12)	380 ⁽¹⁾	2	<0.6	0
EPH Aromatic (>EC12-EC16)	660 ⁽¹⁾	2	<1	0
EPH Aromatic (>EC16-EC21)	930 ⁽¹⁾	2	<2	0
EPH Aromatic (>EC21-EC35)	1700 ⁽¹⁾	2	<4.5	0
EPH Aromatic (>EC35-EC44)	1700 ⁽¹⁾	2	<>2	0
BTEX				
Benzene	0.37 ⁽¹⁾	2	<0.001	0
Toluene	660 ⁽¹⁾	2	<0.001	0
Ethylbenzene	260 ⁽¹⁾	2	<0.001	0
m & p-Xylene	310 ⁽¹⁾	2	<0.002	0
o-Xylene	330 ⁽¹⁾	2	<0.002	0
Asbestos	Presence	2	NAD	0

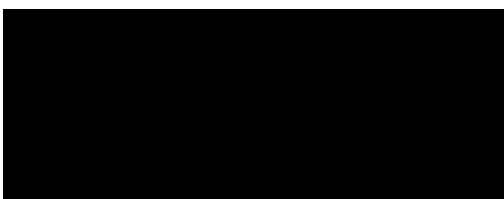
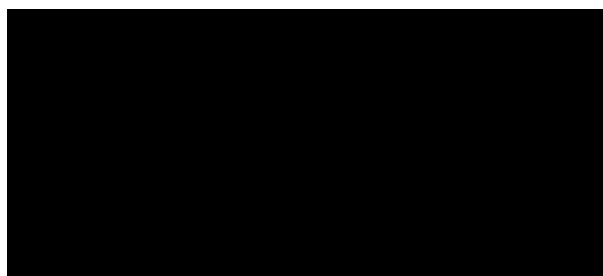
⁽¹⁾ = LQM/CIEH S4UL's – residential with homegrown produce (6% SOM), ⁽²⁾ = CL:AIRE C4SLs – residential with homegrown produce, ⁽³⁾ = Atkins ATRISK SSV (Mar 2011). * = Site Value (C_M) less than analytical detection limit, NAD = No Asbestos Detected.

The results have identified the following:

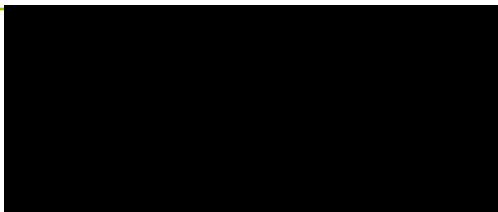
- None of the Maximum Concentration (C_M) values exceed the Critical Concentration (C_c) values taken for the site.
- No asbestos was detected within any of the soil samples tested.

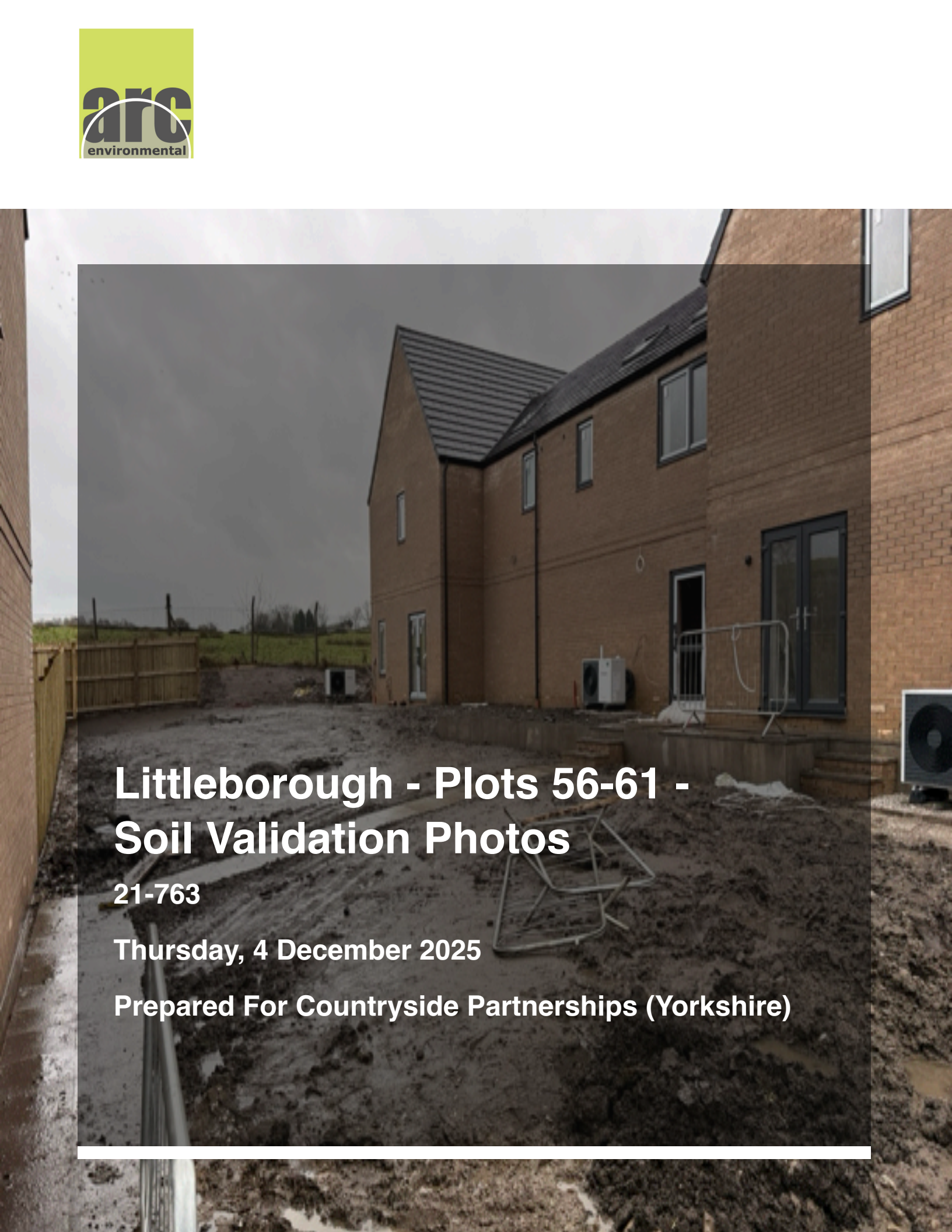
From the results of the site visit, it has been confirmed that a minimum of 600mm of imported topsoil has been placed above a high visibility geotextile within garden areas of Plots 56 to 61 inclusive. Laboratory testing has confirmed that the emplaced topsoil is suitable for re-use within a residential end use setting.

We trust this correspondence and attachments are of benefit and if you require any further information or clarification, please do not hesitate to contact us.



Photographic Record Sheet



A photograph of a residential plot in Littleborough. The plot is muddy and appears to be under construction or recently cleared. In the background, there is a row of brick houses with dark roofs. The sky is overcast and grey. The text is overlaid on the lower half of the image.

Littleborough - Plots 56-61 - Soil Validation Photos

21-763

Thursday, 4 December 2025

Prepared For Countryside Partnerships (Yorkshire)



Photo 1
Plots 56-58



Photo 2
Plot 56



Photo 3
600mm capping present in plot 56



Photo 4
Plot 57



Photo 5
Plot 57 600mm capping before
water bailed out



Photo 6
Plot 57 600mm capping before
water bailed out



Photo 7
Plot 57 after water bailed out
showing geotextile membrane
beneath capping layer



Photo 8
Plot 58 600mm capping layer



Photo 9
Plot 60



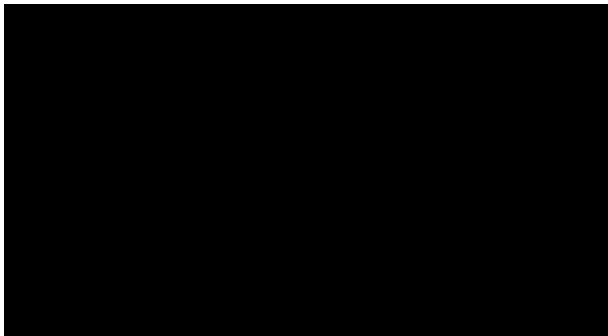
Photo 10
Plot 59



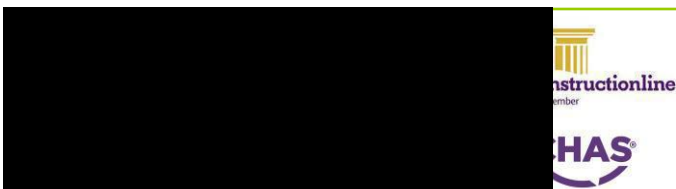
Photo 11
Plot 60 300mm capping layer



Photo 12
Plot 60 geotextile at base of
capping layer



Insitu Soil Testing Results





ANALYTICAL TEST REPORT

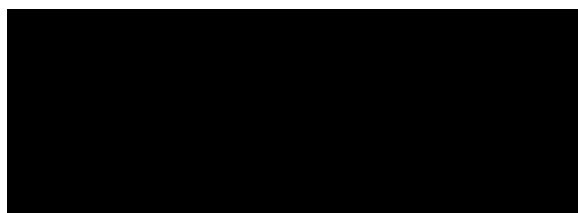
Report Number 25-12014, issue number 1

Contract name: Hollin Bank, Littleborough

Client reference: 21-763

Clients name: ARC Environmental Ltd

Clients address:



Samples received: 05/12/2025

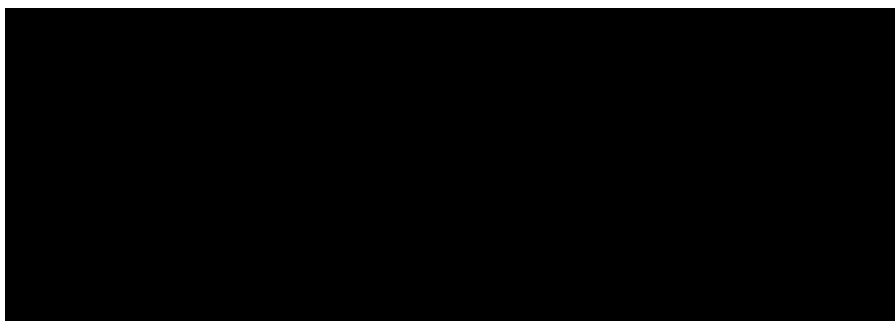
Analysis started: 05/12/2025

Analysis completed: 09/12/2025

Report issued: 09/12/2025

Key

U UKAS accredited test
M MCERTS & UKAS accredited test
(B) Analysis performed at Southampton Site
I/S Insufficient sample to carry out test
U/S Sample not suitable for testing
NAD No Asbestos Detected



SAMPLE INFORMATION

MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

% Moisture reported as MCERTS drying at 30°C

Lab ref	Sample ID	Depth (m)	Sample description	Material removed	% Removed	% Moisture
79655	Plot 57	0.20	Black Clayey Sand with Gravel and Vegetation.	-	-	25.0
79656	Plot 61	0.30	Black Clayey Sand with Gravel and Vegetation.	-	-	24.3

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.
For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.
Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

- a Sampling date not provided
- b Sampling time not provided (waters only)
- c Sample not received in appropriate containers
- d Storage Temperature
- e Headspace present in sample container
- f Sample exceeded sampling to receipt
- g Sample exceeded holding time(s)

Lab ref	Sample ID	Depth (m)	Deviating	Tests (Reason for deviation)
79655	Plot 57	0.20	N	
79656	Plot 61	0.30	N	

SOILS

Lab Number					79655	79656
Client Reference					1	2
Sample ID					Plot 57	Plot 61
Depth (m)					0.20	0.30
Sampling Date					04/12/2025	04/12/2025
Test	Method	Accred	LoD	Units		
Moisture Content	CE001	N	0.1	%	25.0	24.3
Arsenic	CE264	U	1.8	mg/kg	13.2	12.6
Cadmium	CE264	M	1.6	mg/kg	< 1.6	< 1.6
Chromium	CE264	U	2	mg/kg	13.7	14.4
Chromium III	CE208	N	2	mg/kg	13.7	14.4
Water Soluble Chromium VI	CE263	N	0.04	mg/kg	< 0.040	< 0.040
Copper	CE264	U	1.6	mg/kg	25.6	26.2
Lead	CE264	U	2.3	mg/kg	55.1	55.2
Mercury	CE264	U	0.7	mg/kg	< 0.7	< 0.7
Nickel	CE264	M	2.1	mg/kg	8.7	8.9
Selenium	CE264	U	3	mg/kg	< 3.0	< 3.0
Zinc	CE264	M	4	mg/kg	55.6	52.8
pH	CE004	M	0.1	pH units	6.1	6.9
Water Soluble Sulphate	CE061	M	10	mg/l	608	111
Free Cyanide	CE077	N	1	mg/kg	< 1.0	< 1.0
Total Organic Carbon	CE197	M	0.1	%	5.93	4.68
Polyaromatic hydrocarbons						
Acenaphthene	CE087	M	0.013	mg/kg	0.020	0.020
Acenaphthylene	CE087	M	0.015	mg/kg	< 0.015	< 0.015
Anthracene	CE087	U	0.017	mg/kg	0.035	0.041
Benzo(a)anthracene	CE087	U	0.012	mg/kg	0.126	0.134
Benzo(a)pyrene	CE087	U	0.019	mg/kg	0.107	0.127
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	0.135	0.158
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	0.073	0.092
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	< 0.025	0.061
Chrysene	CE087	M	0.028	mg/kg	0.128	0.144
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	< 0.017	< 0.017
Fluoranthene	CE087	M	0.017	mg/kg	0.238	0.278
Fluorene	CE087	U	0.013	mg/kg	0.014	0.014
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	0.089	0.117
Naphthalene	CE087	M	0.016	mg/kg	< 0.016	< 0.016



SOILS

Lab Number					79655	79656
Client Reference					1	2
Sample ID					Plot 57	Plot 61
Depth (m)					0.20	0.30
Sampling Date					04/12/2025	04/12/2025
Test	Method	Accred	LoD	Units		
Phenanthrene	CE087	M	0.014	mg/kg	0.146	0.158
Pyrene	CE087	M	0.016	mg/kg	0.211	0.249
Total PAH(16)	CE087	N	0.28	mg/kg	1.32	1.59
BTEX & Total Petroleum Hydrocarbons						
Benzene	CE267	U	0.001	mg/kg	< 0.001	< 0.001
Toluene	CE267	U	0.001	mg/kg	< 0.001	< 0.001
Ethylbenzene	CE267	U	0.001	mg/kg	< 0.001	< 0.001
MTBE	CE267	N	0.002	mg/kg	< 0.002	< 0.002
m,p-Xylene	CE267	U	0.002	mg/kg	< 0.002	< 0.002
oXylenes	CE267	U	0.002	mg/kg	< 0.002	< 0.002
>C5-C6 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10	< 0.10
>C6-C8 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10	< 0.10
>C8-C10 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10	< 0.10
>C10-C12 Aliphatic (EH_2D_AL)	CE250	N	1	mg/kg	< 1.0	< 1.0
>C12-C16 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	< 0.5	< 0.5
>C16-C35 Aliphatic (EH_2D_AL)	CE250	N	3	mg/kg	< 3.0	< 3.0
>C35-C44 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	< 0.5	< 0.5
>C5-C7 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010	< 0.010
>C7-C8 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010	< 0.010
>C8-C10 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010	< 0.010
>C10-C12 Aromatic (EH_2D_AR)	CE250	N	0.6	mg/kg	< 0.6	< 0.6
>C12-C16 Aromatic (EH_2D_AR)	CE250	N	1	mg/kg	< 1.0	< 1.0
>C16-C21 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	< 2.0	< 2.0
>C21-C35 Aromatic (EH_2D_AR)	CE250	N	4.5	mg/kg	< 4.5	< 4.5
>C35-C44 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	< 2.0	< 2.0
>C5-C44 Total (HS_1D_MS+EH_2D_Total)	CE250	N	14	mg/kg	< 14.0	< 14.0
Asbestos						
Asbestos Identification	SUBCO N	SU	0	-	NAD	NAD

METHOD DETAILS

METHOD	TESTNAME	METHOD SUMMARY	ANALYSIS BASIS
CE267	VPH in Soil	HS-GCFID	As submitted sample
CE250	GCXGC in Soil	DCM Extraction and GCxGC-FID	As submitted sample
SUBCON	Asbestos Soil	HSG248	Air Dried Sample
CE061	W. Sol Metals	ICPOES	Air dried sample
CE264	Metals by ICP in Soil	ICPOES	Air dried sample
CE267	BTEX in Soils	Analysis by HSGCFID	As submitted sample
CE263	ChromiumVI by Discrete Analyser in Soil	Gallery	Air dried sample
CE087	PAH in Soil	DCM Extraction and GCMS	As submitted sample
CE077	Cyanides in Soils	Continuous Flow Analyser	As submitted sample
CE208	Chromium Hexavalent in Soil	Colorimetry	Air dried sample
CE197	Primacs in Soil	Primacs	Air dried sample

REPORT INFORMATION

Report No.:25-12014, issue number 1

Key

U	ISO17025 Accredited Result
M	ISO17025 and MCERTS Accredited Result
N	Do not currently hold accreditation
^	MCERTS accreditation not applicable for sample matrix
*	ISO17025 accreditation not applicable for sample matrix
S	Subcontracted
I/S	Insufficient Sample
U/S	Unsuitable sample
N/T	Not tested
<	Means "less than"
>	Means "greater than"

LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.

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

Opinions and interpretations expressed herein are outside the UKAS accreditation scope.

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

The results relate only to the sample received.

Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Moisture Content Calculated on a Wet Weight basis (at 30°C)

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

Where sampling was undertaken by Chemtech Environmental Limited it is outside the UKAS accreditation scope.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

BTEX compounds are identified by retention time only and may include interference from co-eluting compounds.

For soils and solids, all results are reported on a dry basis (30°C). Samples dried at no more than 30°C in a drying cabinet.

For soils and solids, analytical results are inclusive of stones and 'inert' material, where applicable.

'Client Reference', 'Sample ID', 'Sample Location', 'Sample Type', 'Depth', 'Sample Date' and 'Sample Time' information is provided by the customer

Sample Retention and Disposal

All soil samples will be retained for a period of 4 weeks from the point of receipt

All water samples will be retained for a period of 2 weeks from the point of Reporting

Charges may apply to extended sample storage

TPH Classification - 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	Aromatics only
2D	GC-GC - Double coil gas chromatography
#1	EH_Total but with humics mathematically subtracted
#2	EH_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry

Unless specifically identified (noted as "(B)" in analyte name) all internal analysis performed at Durham site

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