

Ref DP/SEJ/20040/LET/GE136

NHBC Ref: 223174

22 August 2025



Countryside Properties
i10 Railway Drive
Wolverhampton
WV1 1LH

Dear

Clean Cover Validation, Plots 167 and 180 to 200 – Drakelow Park, Burton-Upon-Trent

In accordance with the proposals made in the Remediation Strategy and Verification Plan presented in Travis Baker Geo-Environmental Ltd (TBGE) Report Ref: 20040-GA-RMS01 '*Parcels D, F and Parts of G and L, Drakelow Park, Burton-on-Trent: Geo-environmental Assessment and Remediation Strategy*' dated 29 September 2023, this letter documents the placement of a clean cover system, comprising a minimum 600mm thickness of suitably clean topsoil and subsoil beneath the garden areas of Plots 167 and 180 to 200.

Travis Baker attended site on 14 August 2025 to verify the presence of a suitable thickness of clean cover material. Inspection pits were dug in the rear gardens of Plots 167 and 180 to 200. These revealed the following:

- Plot 167 – 300mm topsoil and 300mm subsoil
- Plot 180 – 300mm topsoil and 300mm subsoil
- Plot 184 – 200mm topsoil and 400mm subsoil
- Plot 188 – 200mm topsoil and 400mm subsoil
- Plot 192 – 250mm topsoil and 350mm subsoil
- Plot 195 – 200mm topsoil and 400mm subsoil
- Plot 200 – 200mm topsoil and 400mm subsoil

Photographs showing the placed cover materials are included as Appendix 1.

The topsoil materials placed at all of the above plots are understood to have been transferred from a historically greenfield site at Walton Bypass. The subsoil materials are understood to comprise excess site-won natural glaciofluvial soils.

Site-specific laboratory tests were undertaken on samples of topsoil and subsoil recovered from each of the inspection pits. The tests were performed by i2 Analytical to UKAS and MCERTS accreditation where applicable. The test results are contained in i2 Analytical report references 25-043671, dated 22 August 2025, copies of which are enclosed as Appendix 2.

The results of testing of both the topsoil and subsoil, as presented in Appendix 2 have been compared to the compliance criteria in Appendix 3. The maximum detected concentrations of all of the tested determinants were below the respective compliance criteria specified in the Remediation Strategy.

The foregoing thus demonstrates that a sufficient thickness of suitably clean cover material has been provided to the garden areas of Plots 167 and 180 to 200.

22 August 2025

We trust the above and enclosed are satisfactory, however, if you have any queries, please do not hesitate to contact us.

Yours sincerely,

Reviewed and approved by
Sam Johnson
Associate Director
Geo-Environmental Engineering
Travis Baker Ltd
m:
e:

Prepared by
Daniel Potts
Senior Geo-Environmental Engineer

Encs

Appendix 1 – Photographs showing placed clean cover materials (Plots 167 and 180 to 200 – 14 August 2025)

Appendix 2 – Chemical laboratory test results

Appendix 3 – Proposed validation tests and compliance criteria for clean cover topsoil and subsoil



APPENDICES

APPENDIX 1
Photographs showing placed clean cover materials (Plots 167 and 180 to 200 – 14
August 2025)



View of inspection pit in rear garden of Plot 167



Depth of pit at Plot 167, proving a 600mm-thickness of clean cover system placed



View of inspection pit in rear garden of Plot 180



Depth of pit at Plot 180, proving a 600mm-thickness of clean cover system placed



View of inspection pit in rear garden of Plot 184



Depth of pit at Plot 184, proving a 600mm-thickness of clean cover system placed



View of inspection pit in rear garden of Plot 188



Depth of pit at Plot 188, proving a 600mm-thickness of clean cover system placed



View of inspection pit in rear garden of Plot 192



Depth of pit at Plot 192, proving a 600mm-thickness of clean cover system placed



View of inspection pit in rear garden of Plot 195



Depth of pit at Plot 195, proving a 600mm-thickness of clean cover system placed



View of inspection pit in rear garden of Plot 200



Depth of pit at Plot 200, proving a 600mm-thickness of clean cover system placed

APPENDIX 2
Chemical Laboratory Test Results

Travis Baker Geo-Environmental Limited
Trinity Point
New Road
Halesowen
West Midlands
B63 3HY

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

t: 01923 225404
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e: reception@i2analytical.com

e:

Analytical Report Number : 25-043671

Project / Site name:	Drakelow, Burton-on-Trent	Samples received on:	15/08/2025
Your job number:	20040	Samples instructed on/ Analysis started on:	15/08/2025
Your order number:	PKG21977	Analysis completed by:	22/08/2025
Report Issue Number:	1	Report issued on:	22/08/2025
Samples Analysed:	14 soil samples		

Signed:

Rafał Szczepańczyk
Technical Reviewer
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
air	- once the analysis is complete

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

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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.

Analytical Report Number: 25-043671

Project / Site name: Drakelow, Burton-on-Trent

Your Order No: PKG21977

Lab Sample Number				649782	649783	649784	649785	649786
Sample Reference				Plot 167 (T)	Plot 167 (S)	Plot 180 (T)	Plot 180 (S)	Plot 184 (T)
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.10	0.50	0.10	0.50	0.10
Date Sampled				14/08/2025	14/08/2025	14/08/2025	14/08/2025	14/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	5	4.2	4.2	1.1	5.4
Total mass of sample received	kg	0.1	NONE	0.8	1.1	1.2	1.1	1.2

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	PDO	PDO	PDO	PDO	PDO
Analysis completed	N/A	N/A	N/A	21/08/2025	21/08/2025	21/08/2025	21/08/2025	21/08/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.6	7.4	7.9	8.4	7.8
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	180	540	180	180	150
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0905	0.272	0.0909	0.0906	0.0752
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	90.5	272	90.9	90.6	75.2

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.15	0.24	< 0.05	0.19	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.05	< 0.05	0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.33	0.34	0.06	0.48	0.1
Pyrene	mg/kg	0.05	MCERTS	0.3	0.32	0.07	0.47	0.09
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.17	0.14	< 0.05	0.22	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.19	0.18	< 0.05	0.26	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.3	0.22	< 0.05	0.35	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.14	0.11	< 0.05	0.15	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.22	0.15	< 0.05	0.26	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.15	0.09	< 0.05	0.17	< 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	0.19	0.11	< 0.05	0.22	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	2.13	1.97	< 0.80	2.84	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	6.2	6.1	9.8	6.9
Boron (water soluble)	mg/kg	0.2	MCERTS	1.6	2	0.9	1.5	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.9	0.3	< 0.2	0.3	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	36	41	29	28	25
Copper (aqua regia extractable)	mg/kg	1	MCERTS	71	57	22	35	31
Lead (aqua regia extractable)	mg/kg	1	MCERTS	52	32	27	44	30
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	26	35	23	30	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.7	1.4	1.1	1	1.2
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	180	170	81	120	88

Analytical Report Number: 25-043671

Project / Site name: Drakelow, Burton-on-Trent

Your Order No: PKG21977

Lab Sample Number				649782	649783	649784	649785	649786
Sample Reference				Plot 167 (T)	Plot 167 (S)	Plot 180 (T)	Plot 180 (S)	Plot 184 (T)
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.10	0.50	0.10	0.50	0.10
Date Sampled				14/08/2025	14/08/2025	14/08/2025	14/08/2025	14/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	< 0.010	-	< 0.010	-
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	< 0.010	-	< 0.010	-
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	< 0.010	-	< 0.010	-
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	-	< 2.0	-	< 2.0	-
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	-	< 8.0	-	< 8.0	-
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	-	< 8.0	-	16	-
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	-	< 10	-	16	-

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	-	< 0.010	-	< 0.010	-
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	-	< 0.010	-	< 0.010	-
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	-	< 0.020	-	< 0.020	-
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	-	< 2.0	-	< 2.0	-
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	-	< 10	-	< 10	-
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	-	< 10	-	15	-
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	-	< 10	-	15	-

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Benzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Toluene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
Ethylbenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-
p & m-Xylene	µg/kg	8	MCERTS	-	< 8.0	-	< 8.0	-
o-Xylene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0	-

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

Analytical Report Number: 25-043671
Project / Site name: Drakelow, Burton-on-Trent
Your Order No: PKG21977

Lab Sample Number	649787	649788	649789	649790	649791
Sample Reference	Plot 184 (S)	Plot 188 (T)	Plot 188 (S)	Plot 192 (T)	Plot 192 (S)
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.50	0.10	0.50	0.10	0.50
Date Sampled	14/08/2025	14/08/2025	14/08/2025	14/08/2025	14/08/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	1.2	7.6	1	4.4	1.2
Total mass of sample received	kg	0.1	NONE	1.1	1.2	1.1	1.2	1

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	MWI	MWI	MWI	MWI	MWI
Analysis completed	N/A	N/A	N/A	21/08/2025	21/08/2025	21/08/2025	21/08/2025	21/08/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.3	8.1	8	7.5	8
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	240	300	170	79	140
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.12	0.152	0.0863	0.0396	0.0708
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	120	152	86.3	39.6	70.8

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.06	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.08	< 0.05	0.06	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1	0.1	0.77	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.34	< 0.05	0.32	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.7	0.22	2.1	< 0.05	0.15
Pyrene	mg/kg	0.05	MCERTS	1.5	0.21	1.9	< 0.05	0.15
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.66	0.12	0.92	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.71	0.14	0.94	< 0.05	0.06
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.76	0.2	1.1	< 0.05	0.1
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.33	0.08	0.41	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.56	0.14	0.89	< 0.05	0.07
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.29	0.1	0.43	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.09	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.32	0.1	0.51	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	8.42	1.41	10.6	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.4	14	9.2	6.6	6.1
Boron (water soluble)	mg/kg	0.2	MCERTS	1.1	1.7	1.3	0.7	0.8
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.4	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	26	28	27	18	23
Copper (aqua regia extractable)	mg/kg	1	MCERTS	27	26	39	210	21
Lead (aqua regia extractable)	mg/kg	1	MCERTS	28	38	56	29	18
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	24	22	23	14	21
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1	1.7	1.1	< 1.0	1
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	95	98	130	69	61

Analytical Report Number: 25-043671

Project / Site name: Drakelow, Burton-on-Trent

Your Order No: PKG21977

Lab Sample Number	649787	649788	649789	649790	649791
Sample Reference	Plot 184 (S)	Plot 188 (T)	Plot 188 (S)	Plot 192 (T)	Plot 192 (S)
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.50	0.10	0.50	0.10	0.50
Date Sampled	14/08/2025	14/08/2025	14/08/2025	14/08/2025	14/08/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	< 2.0	-	< 2.0	-	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	-	< 8.0	-	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	-	14	-	< 8.0
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	-	14	-	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	-	< 0.020	-	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	< 2.0	-	< 2.0	-	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	-	< 10	-	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	-	14	-	< 10
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	-	14	-	< 10

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	-	< 5.0	-	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	-	< 5.0	-	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	-	< 5.0	-	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	-	< 5.0	-	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	-	< 8.0	-	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	-	< 5.0	-	< 5.0

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

Analytical Report Number: 25-043671
Project / Site name: Drakelow, Burton-on-Trent
Your Order No: PKG21977

Lab Sample Number				649792	649793	649794	649795
Sample Reference				Plot 195 (T)	Plot 195 (S)	Plot 200 (T)	Plot 200 (S)
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A
Depth (m)				0.10	0.50	0.10	0.50
Date Sampled				14/08/2025	14/08/2025	14/08/2025	14/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status				

Stone Content	%	0.1	NONE	< 0.1	< 0.1	16	< 0.1
Moisture Content	%	0.01	NONE	8.4	4.2	3	1.6
Total mass of sample received	kg	0.1	NONE	1.2	1.1	1.2	1.1

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	MWI	MWI	MWI	MWI
Analysis completed	N/A	N/A	N/A	21/08/2025	21/08/2025	21/08/2025	21/08/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.3	9.3	7.5	8.4
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	150	450	340	480
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0755	0.224	0.17	0.242
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	75.5	224	170	242

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.06	< 0.05	< 0.05	0.24
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.14	0.14	< 0.05	0.46
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.14	< 0.05	0.42
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.2
Chrysene	mg/kg	0.05	MCERTS	0.07	0.07	< 0.05	0.2
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.12	< 0.05	< 0.05	0.25
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	0.07
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.08	0.05	< 0.05	0.16
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.06
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.1	< 0.05	< 0.05	0.14

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	2.19
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.4	9.4	14	6.4
Boron (water soluble)	mg/kg	0.2	MCERTS	1.3	1.6	3.5	2.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	< 0.2	< 0.2	0.4
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	19	25	22	34
Copper (aqua regia extractable)	mg/kg	1	MCERTS	28	22	25	100
Lead (aqua regia extractable)	mg/kg	1	MCERTS	30	41	33	35
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	18	21	20	71
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	1	1.5	1.5
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	84	90	83	220

Analytical Report Number: 25-043671

Project / Site name: Drakelow, Burton-on-Trent

Your Order No: PKG21977

Lab Sample Number				649792	649793	649794	649795
Sample Reference				Plot 195 (T)	Plot 195 (S)	Plot 200 (T)	Plot 200 (S)
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A
Depth (m)				0.10	0.50	0.10	0.50
Date Sampled				14/08/2025	14/08/2025	14/08/2025	14/08/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status				

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	< 0.010	-	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	< 0.010	-	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	< 0.010	-	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	-	< 2.0	-	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	-	< 8.0	-	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	-	9.2	-	11
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	-	< 10	-	11

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	-	< 0.010	-	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	-	< 0.010	-	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	-	< 0.020	-	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	-	< 2.0	-	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	-	< 10	-	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	-	< 10	-	< 10
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	-	< 10	-	< 10

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0
Benzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0
Toluene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	-	< 8.0	-	< 8.0
o-Xylene	µg/kg	5	MCERTS	-	< 5.0	-	< 5.0

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

Analytical Report Number : 25-043671
Project / Site name: Drakelow, Burton-on-Trent

* 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 *
649782	Plot 167 (T)	None Supplied	0.1	Brown loam and sand with gravel and vegetation
649783	Plot 167 (S)	None Supplied	0.5	Brown clay and sand with gravel
649784	Plot 180 (T)	None Supplied	0.1	Brown loam and sand with gravel
649785	Plot 180 (S)	None Supplied	0.5	Brown clay and sand with gravel and vegetation
649786	Plot 184 (T)	None Supplied	0.1	Brown loam and sand with gravel
649787	Plot 184 (S)	None Supplied	0.5	Brown clay and sand with gravel
649788	Plot 188 (T)	None Supplied	0.1	Brown loam and sand with gravel
649789	Plot 188 (S)	None Supplied	0.5	Brown clay and sand with gravel
649790	Plot 192 (T)	None Supplied	0.1	Brown sand with gravel
649791	Plot 192 (S)	None Supplied	0.5	Brown clay and sand with gravel
649792	Plot 195 (T)	None Supplied	0.1	Brown loam and clay with gravel
649793	Plot 195 (S)	None Supplied	0.5	Brown clay and sand with gravel
649794	Plot 200 (T)	None Supplied	0.1	Brown loam and sand with stones
649795	Plot 200 (S)	None Supplied	0.5	Brown clay and sand with gravel

Analytical Report Number : 25-043671

Project / Site name: Drakelow, Burton-on-Trent

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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, 2021	A001B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
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.	L019B	D	NONE
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	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	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
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID with carbon banding aliphatic and aromatic	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE
Total petroleum hydrocarbons with carbon banding by HS-GC/MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC/MS with carbon banding aliphatic and aromatic	In-house method	L088-PL	W	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 30°C.

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.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

APPENDIX 3
Proposed validation tests and compliance criteria for clean cover topsoil and subsoil

APPENDIX 3 – DRAKELOW, BURTON-UPON-TRENT

Proposed Validation Tests and Compliance Criteria for Top Soil / Sub Soil

Table 1 – Minimum test suite for materials from ‘Greenfield’ sources

Determinant	Compliance criterion (mg/kg)	Source
Arsenic	37	C4SL (residential with homegrown produce)
Cadmium	22	C4SL (residential with homegrown produce)
Chromium (total)	630	S4UL (residential with homegrown produce)
Lead	200	C4SL (residential with homegrown produce)
Mercury (inorganic)	40	S4UL (residential with homegrown produce)
Selenium	250	S4UL (residential with homegrown produce)
Copper	2400	S4UL (residential with homegrown produce)
Nickel	180	S4UL (residential with homegrown produce)
Zinc	3700	S4UL (residential with homegrown produce)
Boron	290	S4UL (residential with homegrown produce)
Acenaphthene	210	S4UL (residential with homegrown produce)
Acenaphthylene	170	S4UL (residential with homegrown produce)
Anthracene	2,400	S4UL (residential with homegrown produce)
Benzo(a)anthracene	7.2	S4UL (residential with homegrown produce)
Benzo(a)pyrene	2.2	S4UL (residential with homegrown produce)
Benzo(b)fluoranthene	2.6	S4UL (residential with homegrown produce)
Benzo(ghi)perylene	320	S4UL (residential with homegrown produce)
Benzo(k)fluoranthene	77	S4UL (residential with homegrown produce)
Chrysene	15	S4UL (residential with homegrown produce)
Dibenzo(ah)anthracene	0.24	S4UL (residential with homegrown produce)
Fluoranthene	280	S4UL (residential with homegrown produce)
Fluorene	170	S4UL (residential with homegrown produce)
Indeno(123-cd)pyrene	27	S4UL (residential with homegrown produce)
Naphthalene	2.3	S4UL (residential with homegrown produce)
Phenanthrene	95	S4UL (residential with homegrown produce)
Pyrene	620	S4UL (residential with homegrown produce)

Table 2 – Additional tests as required for materials sourced from ‘Brownfield’ sites or ‘mixed’ sources (including treatment hubs)

Determinant	Compliance criterion (mg/kg)	Source
TPH (aliphatic C ₅ -C ₆)	42	S4UL (residential with homegrown produce)
TPH (aliphatic C ₆ -C ₈)	100	S4UL (residential with homegrown produce)
TPH (aliphatic C ₈ -C ₁₀)	27	S4UL (residential with homegrown produce)
TPH (aliphatic C ₁₀ -C ₁₂)	130	S4UL (residential with homegrown produce)
TPH (aliphatic C ₁₂ -C ₁₆)	1,100	S4UL (residential with homegrown produce)
TPH (aliphatic C ₁₆ -C ₃₅)	65,000	S4UL (residential with homegrown produce)
TPH (aliphatic C ₃₅ -C ₄₀)	65,000	S4UL (residential with homegrown produce)
TPH (aromatic C ₅ -C ₇)	70	S4UL (residential with homegrown produce)
TPH (aromatic C ₇ -C ₈)	130	S4UL (residential with homegrown produce)
TPH (aromatic C ₈ -C ₁₀)	34	S4UL (residential with homegrown produce)
TPH (aromatic C ₁₀ -C ₁₂)	74	S4UL (residential with homegrown produce)
TPH (aromatic C ₁₂ -C ₁₆)	140	S4UL (residential with homegrown produce)
TPH (aromatic C ₁₆ -C ₂₁)	260	S4UL (residential with homegrown produce)
TPH (aromatic C ₂₁ -C ₃₅)	1,100	S4UL (residential with homegrown produce)
TPH (aromatic C ₃₅ -C ₄₀)	1,100	S4UL (residential with homegrown produce)
Benzene	0.87	C4SL (residential with homegrown produce)
Toluene	130	S4UL (residential with homegrown produce)
Ethylbenzene	47	S4UL (residential with homegrown produce)
m&p-Xylene	59	S4UL (residential with homegrown produce)
o-xylene	56	S4UL (residential with homegrown produce)
Asbestos	<0.001% *	Derived ‘in house’ by TBGE

Notes:

C4SL = Category 4 Screening Level (DEFRA, 2014) S4UL
= Suitable 4 Use Level (LQM and CIEH, 2015).

Values assume a soil organic matter (SOM) content of 1%, where applicable.

* If asbestos fibres are positively identified at <0.001%, further sampling may be necessary to verify that the test result is not indicative of more substantial contamination in the immediate locality.