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Analytical Report Number : 25-037550

Project / Site name:	Lockwood Bar, Huddersfield	Samples received on:	15/07/2025
Your job number:	S12527	Samples instructed on/ Analysis started on:	16/07/2025
Your order number:	G03709	Analysis completed by:	23/07/2025
Report Issue Number:	1	Report issued on:	23/07/2025
Samples Analysed:	2 soil samples		

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
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: 25-037550
 Project / Site name: Lockwood Bar, Huddersfield
 Your Order No: G03709

Lab Sample Number				615572	615573
Sample Reference				SP1	SP2
Sample Number				None Supplied	None Supplied
Water Matrix				N/A	N/A
Depth (m)				None Supplied	None Supplied
Date Sampled				15/07/2025	15/07/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	19.3	< 0.1
Moisture Content	%	0.01	NONE	10	14
Total mass of sample received	kg	0.1	NONE	0.5	0.6

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SCA	SCA
Analysis completed	N/A	N/A	N/A	22/07/2025	22/07/2025
Actinolite detected	Type	N/A	ISO 17025	Not-detected	-
Amosite detected	Type	N/A	ISO 17025	Detected	-
Anthophyllite detected	Type	N/A	ISO 17025	Not-detected	-
Chrysotile detected	Type	N/A	ISO 17025	Not-detected	-
Crocidolite detected	Type	N/A	ISO 17025	Not-detected	-
Tremolite detected	Type	N/A	ISO 17025	Not-detected	-

Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	Loose Fibres	-
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General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.7	8.2
Organic Matter (automated)	%	0.1	MCERTS	2.9	2.2

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.82	0.35
Acenaphthylene	mg/kg	0.05	MCERTS	0.12	0.1
Acenaphthene	mg/kg	0.05	MCERTS	1	0.72
Fluorene	mg/kg	0.05	MCERTS	0.72	0.52
Phenanthrene	mg/kg	0.05	MCERTS	8.2	5.4
Anthracene	mg/kg	0.05	MCERTS	2.8	1.4
Fluoranthene	mg/kg	0.05	MCERTS	12	9.4
Pyrene	mg/kg	0.05	MCERTS	10	8.5
Benzo(a)anthracene	mg/kg	0.05	MCERTS	5.1	4.3
Chrysene	mg/kg	0.05	MCERTS	5.3	4.1
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	6.6	4.8
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	2.7	1.9
Benzo(a)pyrene	mg/kg	0.05	MCERTS	5.8	4.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	3.6	2.5
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.69	0.48
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	4.2	2.9

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	69.7	51.3
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Analytical Report Number: 25-037550
 Project / Site name: Lockwood Bar, Huddersfield
 Your Order No: GO3709

Lab Sample Number	615572	615573	
Sample Reference	SP1	SP2	
Sample Number	None Supplied	None Supplied	
Water Matrix	N/A	N/A	
Depth (m)	None Supplied	None Supplied	
Date Sampled	15/07/2025	15/07/2025	
Time Taken	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.6	8.5
Barium (aqua regia extractable)	mg/kg	1	MCERTS	180	180
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.78	0.69
Boron (water soluble)	mg/kg	0.2	MCERTS	1.7	2.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.3
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	43	30
Copper (aqua regia extractable)	mg/kg	1	MCERTS	41	29
Lead (aqua regia extractable)	mg/kg	1	MCERTS	69	64
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	20	15
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	28	24
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	89

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_ID_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_ID_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_ID_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_ID_AL}	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_ID_AL}	mg/kg	2	MCERTS	< 2.0	4.2
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	42	52
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_ID_AL}	mg/kg	10	NONE	42	56

TPHCWG - Aromatic >EC5 - EC7 _{HS_ID_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_ID_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_ID_AR}	mg/kg	0.02	MCERTS	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_ID_AR}	mg/kg	1	MCERTS	< 1.0	2.1
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_ID_AR}	mg/kg	2	MCERTS	2.1	6.2
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	20	24
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	78	83
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_ID_AR}	mg/kg	10	NONE	99	120

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 : 25-037550

Project / Site name: Lockwood Bar, Huddersfield

* 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 *
615572	SP1	None Supplied	None Supplied	Brown loam and sand with gravel and stones
615573	SP2	None Supplied	None Supplied	Brown loam and clay with gravel

Analytical Report Number : 25-037550
Project / Site name: Lockwood Bar, Huddersfield

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
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
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
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
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
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

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

Analytical Report Number : 25-037550

Project / Site name: Lockwood Bar, Huddersfield

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container/Insufficient material provided c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
SP1	N/A	S	615572	b	Asbestos identification in Soil	A001B	b
SP2	N/A	S	615573	b	Asbestos identification in Soil	A001B	b