WATCHING BRIEF AND VALIDATION RECORD

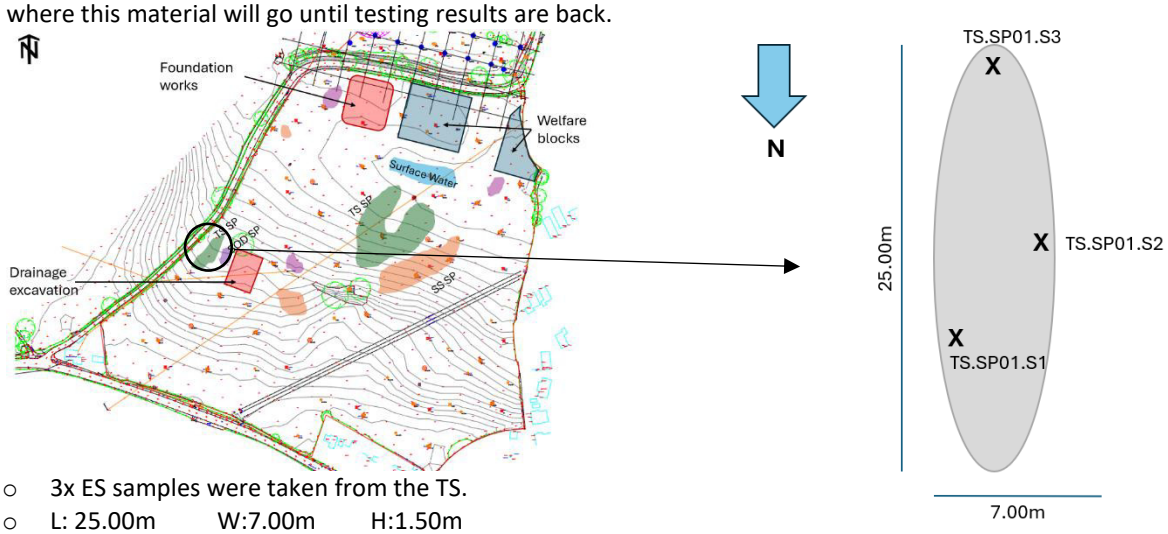
Project No:	C5984	**Date of Visit:**	14/08/2025
Site Name:	GWERNAFFIELD ROAD, MOLD	**Weather Conditions:**	Cloudy, warm
Client:	ANWYL HOMES	**Site Manager:**	SM
Engineer:	MAS	**Visit Time:**	11:20 – 13:45

Description of Works Visit

- MAS on site at 11:20 and spoke to SM about walkover and water samples.

South parcel

- Materials are still being stored in the central site area near the welfare units.
- There is generally less waterlogging on site due to the lack of rain.
- The MOT gravel has been compacted in the northern end of site, and foundations have been started for the plots in this area.
- Window spacers have been delivered and are being stored in the housing plot area to the north.
- The road has been stripped of sod, topsoil, and subsoil in the clean section of site and have been stockpiled separately in the southern end of site. These will be added to as more material is stripped. LC does not know where this material will go until testing results are back.



  - 3x ES samples were taken from the TS.
  - L: 25.00m W:7.00m H:1.50m
  - TS.SP01.S1
  - TS.SP01.S2
  - TS.SP01.S3
- Soil results found no exceedances in regards to residential with plant uptake screening criteria.
- Drainage pipes are being installed in this area of site, with trench supports being used to hold excavations open.

North parcel

- The trench in the northwestern area is nearly completed, with water stored in the fenced off area.
- The site is very dry and dusty.
- Little has changed in this parcel since the last visit.
- No pumping is underway in either field, so spoke to Lucy Crawford (Anwyl) who had requested water sampling during this visit. A set of samples was taken from each field, from the water within the manholes. They were taken by EuroGold with BSL supervision.
  - W01N and W01S.
  - Water results found elevated levels of Nitrate (N02), however these are thought to be naturally occurring.
- MAS offsite at 13:45.

Photographs – South parcel

Photograph 1: Storage area in central site area

Photograph 2: Storage area in central site area

Photograph 3: Window spacers

Photograph 4: New welfare and compacted MOT

Photograph 5: Waterlogging in central site area

Photograph 6: Foundation bases in northern end of site

Photograph 7: Southern end of site

Photograph 8: Drain installation in southern road area

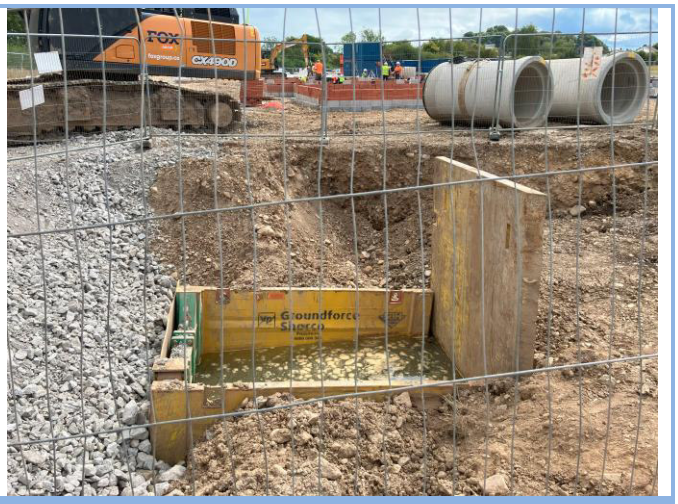
Photograph 9: TS and sod stockpiles

Photograph 10: TS.SP01.S1

Photograph 11: TS.SP01.S2

Photograph 12: TS.SP01.S3

Photograph 13: Drainage pump in northern site boundary



Photograph 14: Water sampling location

Photographs - North parcel

Photograph 1: Large contaminated stockpile near pedestrian entrance

Photograph 2: Pedestrian walkway

Photograph 3: Historical sluice with drainage gravel

Photograph 4: Small stockpiles near road area

Photograph 5: Drainage pump in road area

Photograph 6: Drainage pump in road area

Photograph 7: Trench support and stockpile near vehicle entrance

Photograph 8: Trench support in drainage area

Photograph 9: Low water levels in drainage area

Photograph 10: Water and soil samples taken

Controlled Waters Assessment Summary			Surface/Groundwater Body:			Groundwater	
			Location:			W01N	W01S
			Well Screen Stratum:				
Contaminant	Screening Level (EQS/DWS) (ug/l)	No. Samples	Min. Value	Max. Value	No. Samples ≥ Screening Level		
pH	-	2	7.60	7.60	-	8	8
Electrical Conductivity	-	2	580.00	720.00	-	720	580
Hardness	-	2	286.00	373.00	-	373	286
Disolved Organic Carbon (DOC)	-	2	2.01	2.33	-	2	2
Arsenic	10	2	0.41	0.41	0	0	0
Boron	1000	2	38.00	51.00	0	38	51
Cadmium	5	2	< LOD	0.04	0	0	< 0.02
Calcium	250	2	100.00	130.00	0	130	100
Chromium (Total)	50	0	0.00	<LOD	0		
Chromium (III)	No WQT	2	< LOD	<LOD	0	< 5.0	< 5.0
Chromium (VI)	No WQT	2	< LOD	<LOD	0	< 5.0	< 5.0
Copper	2000	2	2.90	3.30	0	3	3
Lead	10	2	< LOD	<LOD	0	< 0.2	< 0.2
Manganese	50	2	13.00	15.00	0	13	15
Mercury	1	2	< LOD	<LOD	0	< 0.05	< 0.05
Nickel	20	2	2.10	2.60	0	3	2
Selenium	10	2	2.30	2.80	0	2	3
Zinc	3000	2	2.90	13.00	0	13	3
Ammonium (NH4)	500	2	28.00	150.00	0	28	150
Chloride	250000	2	31.00	31.00	0	31	31
Sulphate	250000	2	40.90	47.00	0	41	47
Sulphide	0	2	< LOD	<LOD	0	< 5.0	< 5.0
Nitrate (as N03)	50000	2	48.60	87.10	0	87	49
Nitrate (as N02)	100	2	430.00	2200.00	2	430	2200
Phenol (Total)	No WQT	0	0.00	<LOD	0		
Naphthalene	No WQT	2	0.00	<LOD	0	<0.01	<0.01
Acenaphthylene	No WQT	2	0.00	<LOD	0	<0.01	<0.01
Anthracene	No WQT	2	0.00	<LOD	0	<0.01	<0.01
Fluoranthene	No WQT	2	0.00	<LOD	0	<0.01	<0.01
Benzo(b)fluoranthene	0.1	2	0.00	<LOD	0	<0.01	<0.01
Benzo(k)fluoranthene	0.1	2	0.00	<LOD	0	<0.01	<0.01
Benzo(a)pyrene	0.01	2	0.00	<LOD	0	<0.01	<0.01
Indeno(1,2,3,cd)pyrene	0.1	2	0.00	<LOD	0	<0.01	<0.01
Benzo(ghi)perylene	0.1	2	0.00	<LOD	0	<0.01	<0.01
Total Petroleum Hydrocarbons (Sum)	No WQT	2	< LOD	<LOD	0	< 0.16	< 0.16
Mean Average pH	**7.6**						
Mean Average Hardness	**329.5**						
	UK Drinking Water Standard (DWS)					**Values in RED are > the relevant screening levels and further assessment is required. Exceedance of the screening levels alone may not mean a risk is posed.**	
Job Number:	**C5984**					No WQT - there are no generic Water Quality Targets availble (EQS, DWS or WHO	
Client:	**Anwyl Homes**						
Site:	**Gwernaffield Road, Mold**						

BROWNFIELD SOLUTIONS LTD

Summary Assessment Sheet - Human Health

Human Health Assessment Summary - Soils Test Data						Soil Type:	Topsoil	Topsoil	Topsoil
						Location:	TS.SP01.S1	TS.SP01.S2	TS.SP01.S3
Contaminant	GAC (mg/kg)	No. Samples	Min. Value	Max. Value	No. Samples ≥GAC	Depth:			
Moisture Content	-	3	1.80	3.50	-		3.5	2.6	1.8
Soil Organic Matter	-	3	6.40	7.00	-		7.0	6.4	6.7
pH	-	3	7.10	7.40	-		7.1	7.4	7.1
Water Soluble Sulphate (2:1 Leachate Equivalent) (mg/l)	Note mg/l	3	13.40	17.60	-		15.9	17.6	13.4
Arsenic	37	3	11.00	12.00	0		12.0	11.0	11.0
Cadmium	11	3	0.30	0.50	0		0.5	0.4	0.3
Copper	2400	3	33.00	36.00	0		36.0	34.0	33.0
Lead	200	3	150.00	190.00	0		190.0	150.0	160.0
Mercury	1.2	3	< LOD	<LOD	0		< 0.3	< 0.3	< 0.3
Nickel	130	3	23.00	27.00	0		23.0	23.0	27.0
Selenium	250	3	< LOD	1.40	0		1.4	1.1	< 1.0
Zinc	3700	3	110.00	140.00	0		140.0	110.0	120.0
Naphthalene	5.6	3	< LOD	<LOD	0		< 0.05	< 0.05	< 0.05
Acenaphthylene	420	3	< LOD	<LOD	0		< 0.05	< 0.05	< 0.05
Acenaphthene	510	3	< LOD	<LOD	0		< 0.05	< 0.05	< 0.05
Fluorene	400	3	< LOD	<LOD	0		< 0.05	< 0.05	< 0.05
Phenanthrene	220	3	< LOD	0.09	0		< 0.05	0.1	0.1
Anthracene	5400	3	< LOD	<LOD	0		< 0.05	< 0.05	< 0.05
Fluoranthene	560	3	0.09	0.14	0		0.1	0.1	0.1
Pyrene	1200	3	0.08	0.16	0		0.1	0.2	0.1
Benzo(a)anthracene	11	3	< LOD	0.08	0		< 0.05	0.1	0.1
Chrysene	22	3	< LOD	0.12	0		< 0.05	0.1	0.1
Benzo(b)fluoranthene	3.3	3	< LOD	0.13	0		< 0.05	0.1	< 0.05
Benzo(k)fluoranthene	93	3	< LOD	0.06	0		< 0.05	0.1	< 0.05
Benzo(a)pyrene	2.2	3	< LOD	0.10	0		< 0.05	0.1	< 0.05
Indeno(1,2,3-cd)pyrene	36	3	< LOD	<LOD	0		< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	0.28	3	< LOD	<LOD	0		< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	340	3	< LOD	<LOD	0		< 0.05	< 0.05	< 0.05
Asbestos Detected (Detected or Not-Detected)	Y	3	0.00	0.00	0		Not-detected	Not-detected	Not-detected
Asbestos Quantification (% w/w)	0.001	3	0.00	<LOD	0		-	-	-
Petroleum Hydrocarbons Aliphatic >EC5-EC6	78	3	< LOD	<LOD	0		< 0.010	< 0.010	< 0.010
Petroleum Hydrocarbons Aliphatic >EC6-EC8	230	3	< LOD	<LOD	0		< 0.010	< 0.010	< 0.010
Petroleum Hydrocarbons Aliphatic >EC8-EC10	65	3	< LOD	<LOD	0		< 0.010	< 0.010	< 0.010
Petroleum Hydrocarbons Aliphatic >EC10-EC12	330	3	< LOD	<LOD	0		< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons Aliphatic >EC12-EC16	2400	3	< LOD	<LOD	0		< 2.0	< 2.0	< 2.0
Petroleum Hydrocarbons Aliphatic >EC16-EC35	92000	3	< LOD	<LOD	0		< 10	< 10	< 10
Petroleum Hydrocarbons Aliphatic >EC35-EC40	92000	3	< LOD	<LOD	0		< 10	< 10	< 10
Petroleum Hydrocarbons Aromatic >EC5-EC7	140	3	< LOD	<LOD	0		< 0.010	< 0.010	< 0.010
Petroleum Hydrocarbons Aromatic >EC7-EC8	290	3	< LOD	<LOD	0		< 0.010	< 0.010	< 0.010
Petroleum Hydrocarbons Aromatic >EC8-EC10	83	3	< LOD	<LOD	0		< 0.020	< 0.020	< 0.020
Petroleum Hydrocarbons Aromatic >EC10-EC12	180	3	< LOD	<LOD	0		< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons Aromatic >EC12-EC16	330	3	< LOD	<LOD	0		< 2.0	< 2.0	< 2.0
Petroleum Hydrocarbons Aromatic >EC16-EC21	540	3	< LOD	<LOD	0		< 10	< 10	< 10
Petroleum Hydrocarbons Aromatic >EC21-EC35	1500	3	< LOD	<LOD	0		< 10	< 10	< 10
Petroleum Hydrocarbons Aromatic >EC35-EC40	1500	3	< LOD	<LOD	0		< 10	< 10	< 10
Benzene	0.17	3	< LOD	<LOD	0		< 0.005	< 0.005	< 0.005
Toluene	290	3	< LOD	<LOD	0		< 0.005	< 0.005	< 0.005
Ethyl benzene	110	3	< LOD	<LOD	0		< 0.005	< 0.005	< 0.005
o-Xylene	140	3	< LOD	<LOD	0		< 0.005	< 0.005	< 0.005
m- & p-Xylene	270	3	< LOD	<LOD	0		< 0.008	< 0.008	< 0.008
MTBE	84	3	< LOD	<LOD	0		< 0.005	< 0.005	< 0.005
Mean Average SOM	**6.7**								
Mean Average pH	**7.2**								
	Residential with Homegrown Produce 2.5% SOM						**Values in RED are > the relevant screening lev**		
Job Number:	**C5984**								
Client:	**Anwyl Homes**								
Site:	**Mold**								
Soil Group Type	**Natural TS**								

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Analytical Report Number : 25-043637

Project / Site name:	Gwernaffield Road, Mold	**Samples received on:**	15/08/2025
Your job number:	C5984	**Samples instructed on/ Analysis started on:**	15/08/2025
Your order number:	6769	**Analysis completed by:**	23/08/2025
Report Issue Number:	1	**Report issued on:**	25/08/2025
Samples Analysed:	3 soil samples - 2 water 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

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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: 25-043637
Project / Site name: Gwernaffield Road, Mold
Your Order No: 6769

Lab Sample Number				649574	649575	649576
Sample Reference				TS.SP01.S1	TS.SP01.S2	TS.SP01.S3
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				14/08/2025	14/08/2025	14/08/2025
Time Taken				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	38
Moisture Content	%	0.01	NONE	3.5	2.6	1.8
Total mass of sample received	kg	0.1	NONE	1.2	1.1	1.2
Asbestos						
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	PDO	PDO	PDO
Analysis completed	N/A	N/A	N/A	21/08/2025	21/08/2025	21/08/2025
General Inorganics						
pH (L099)	pH Units	N/A	MCERTS	7.1	7.4	7.1
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	32	35	27
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	15.9	17.6	13.4
Organic Matter (automated)	%	0.1	MCERTS	7	6.4	6.7
Speciated PAHs						
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.09	0.07
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.09	0.14	0.12
Pyrene	mg/kg	0.05	MCERTS	0.08	0.16	0.11
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.08	0.06
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.12	0.08
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.13	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.06	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.1	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Total PAH						
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	0.87	< 0.80

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Sample Reference				TS.SP01.S1	TS.SP01.S2	TS.SP01.S3
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				14/08/2025	14/08/2025	14/08/2025
Time Taken				None Supplied	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	12	11	11
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	0.4	0.3
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S *U/S g	U/S *U/S g	U/S *U/S g
Chromium (III)	mg/kg	1	NONE	U/S	U/S	U/S
Chromium (VI) by IC	mg/kg	1.8	NONE	< 1.80	< 1.80	< 1.80
Chromium (III) by IC	mg/kg	1	NONE	23	22	27
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	22	27
Copper (aqua regia extractable)	mg/kg	1	MCERTS	36	34	33
Lead (aqua regia extractable)	mg/kg	1	MCERTS	190	150	160
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23	23	27
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.4	1.1	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	140	110	120
Petroleum Hydrocarbons						
TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC5 - EC10 HS_1D_AL	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0
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 >EC10 - EC16 EH_CU_1D_AL	mg/kg	3	NONE	< 3.0	< 3.0	< 3.0
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 >EC16 - EC35 EH_CU_1D_AL	mg/kg	10	MCERTS	< 10	< 10	< 10
TPHCWG - Aliphatic >EC16 - EC40 EH_CU_1D_AL	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC35 - EC40 EH_CU_1D_AL	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC40 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC5 - EC10 HS_1D_AR	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0
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 >EC10 - EC16 EH_CU_1D_AR	mg/kg	3	NONE	< 3.0	< 3.0	< 3.0
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 >EC16 - EC40 EH_CU_1D_AR	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	< 10
TPHCWG - Aromatic >EC35 - EC40 EH_CU_1D_AR	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC40 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	< 10	< 10
TPH Total >EC5 - EC40 EH_CU+HS_1D_TOTAL	mg/kg	10	NONE	< 10	< 10	< 10

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Your Order No: 6769

Lab Sample Number				649574	649575	649576
Sample Reference				TS.SP01.S1	TS.SP01.S2	TS.SP01.S3
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				14/08/2025	14/08/2025	14/08/2025
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**			
VOCs						
MTBE (Methyl Tertiary Butyl Ether)	mg/kg	0.005	MCERTS	< 0.005	< 0.005	< 0.005
Benzene	mg/kg	0.005	MCERTS	< 0.005	< 0.005	< 0.005
Toluene	mg/kg	0.005	MCERTS	< 0.005	< 0.005	< 0.005
Ethylbenzene	mg/kg	0.005	MCERTS	< 0.005	< 0.005	< 0.005
p & m-xylene	mg/kg	0.008	MCERTS	< 0.008	< 0.008	< 0.008
o-Xylene	mg/kg	0.005	MCERTS	< 0.005	< 0.005	< 0.005
Total BTEX	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010

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

Analytical Report Number: 25-043637
Project / Site name: Gwernaffield Road, Mold

Your Order No: 6769

Lab Sample Number				649572	649573
Sample Reference				W01N	W01S
Sample Number				None Supplied	None Supplied
Water Matrix				Other water	Other water
Depth (m)				None Supplied	None Supplied
Date Sampled				14/08/2025	14/08/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**		
General Inorganics					
pH (L099)	pH Units	N/A	NONE	7.6	7.6
Electrical Conductivity at 20°C	µS/cm	10	NONE	720	580
Sulphate as SO_4	mg/l	0.045	NONE	40.9	47
Sulphide	µg/l	5	NONE	< 5.0	< 5.0
Chloride	mg/l	0.15	NONE	31	31
Ammoniacal Nitrogen as NH_4^+	µg/l	15	NONE	28	150
Dissolved Organic Carbon (DOC)	mg/l	0.1	NONE	2.01	2.33
Nitrate as N	mg/l	0.01	NONE	19.7	11
Nitrate as NO_3	mg/l	0.05	NONE	87.1	48.6
Nitrite as NO_2	µg/l	5	NONE	430	2200
Hardness - Total	mgCaCO3/l	1	NONE	373	286
Speciated PAHs					
Naphthalene	µg/l	0.01	NONE	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	NONE	< 0.01	< 0.01
Fluorene	µg/l	0.01	NONE	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	NONE	< 0.01	< 0.01
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01
Pyrene	µg/l	0.01	NONE	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01
Total PAH					
Total EPA-16 PAHs	µg/l	0.16	NONE	< 0.16	< 0.16
Heavy Metals / Metalloids					
Arsenic (dissolved)	µg/l	0.15	NONE	0.41	0.41
Cadmium (dissolved)	µg/l	0.02	NONE	0.04	< 0.02
Chromium (dissolved)	µg/l	0.2	NONE	0.4	0.6
Copper (dissolved)	µg/l	0.5	NONE	3.3	2.9
Lead (dissolved)	µg/l	0.2	NONE	< 0.2	< 0.2
Manganese (dissolved)	µg/l	0.05	NONE	13	15
Mercury (dissolved)	µg/l	0.05	NONE	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	NONE	2.6	2.1
Selenium (dissolved)	µg/l	0.6	NONE	2.3	2.8
Zinc (dissolved)	µg/l	0.5	NONE	13	2.9

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Your Order No: 6769

Lab Sample Number				649572	649573
Sample Reference				W01N	W01S
Sample Number				None Supplied	None Supplied
Water Matrix				Other water	Other water
Depth (m)				None Supplied	None Supplied
Date Sampled				14/08/2025	14/08/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**		
Boron (dissolved)	µg/l	10	NONE	38	51
Calcium (dissolved)	mg/l	0.012	NONE	130	100
Chromium (hexavalent)	µg/l	5	NONE	< 5.0	< 5.0
Chromium (III)	µg/l	5	NONE	< 5.0	< 5.0

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

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* 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 *
649574	TS.SP01.S1	None Supplied	None Supplied	Brown sand with gravel
649575	TS.SP01.S2	None Supplied	None Supplied	Brown sand with gravel and vegetation
649576	TS.SP01.S3	None Supplied	None Supplied	Brown sand with stones and vegetation

Analytical Report Number : 25-043637
Project / Site name: Gwernaffield Road, Mold

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
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited matrices: SW, PW, GW, except B - SW,GW, Hg - SW,PW, Al - SW,PW	In-house method based on USEPA Method 6020 & 200.8 for the determination of trace elements in water by ICP-MS	L012B	W	NONE
Sulphide in water	Determination of sulphide in water by ion selective electrode	In-house method	L029-PL	W	NONE
Electrical Conductivity at 20°C in water	Determination of electrical conductivity in water by electrochemical measurement. Accredited matrices: SW, PW, GW, FSE	In-house method	L031B	W	NONE
Dissolved Organic Carbon in water	Determination of dissolved organic carbon in water by TOC/DOC NDIR Analyser. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	NONE
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited matrices: SW, PW, GW, FSE, LL; PrW, DI PrW (Al, Cu, Fe,Zn)	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	NONE
Total Hardness of water	Determination of total hardness of water by calculation from calcium and magnesium. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045B	W	NONE
Nitrate as N in water	Determination of nitrate by reaction with sodium salicylate followed by colorimetry. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08	L078-PL	W	NONE
Nitrate in water	Determination of nitrate by reaction with sodium salicylate followed by colorimetry. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08	L078-PL	W	NONE
Chromium(III) in water	In-house method by calculation from total Cr and Cr(VI)	In-house method by calculation	L080-PL	W	NONE
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5-diphenylcarbazide, followed by colorimetry. Accredited matrices: SW, PW, GW, FSE, LL	In-house method by continuous flow analyser	L080-PL	W	NONE
Chloride in water	Determination of chloride in water by colorimetry using discrete analyser. Accredited matrices: SW, PW, GW, FSE, LL	In-house based on MEWAM Method ISBN 0117516260	L082B	W	NONE
Ammonium as NH4 in water	Determination of ammonium/ammonia/ammoniacal nitrogen by the colorimetric salicylate/nitroprusside method using discrete analyser. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082B	W	NONE
Nitrite in water	Determination of nitrite in water by addition of sulphanilamide and NED followed by colorimetry using discrete analyser. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082B	W	NONE
pH of water at 20°C (automated)	Determination of pH of water by electrochemical measurement. Accredited matrices: SW, PW, GW, FSE, LL	In-house method	L099-PL	W	NONE
Speciated PAHs and/or Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds (including PAHs) in water by extraction in dichloromethane followed by GC-MS. Accredited matrices (PAHs): SW, PW, GW	In-house method based on USEPA 8270	L102B	W	NONE
Sulphate in water	Determination of sulphate in water after filtration by acidification followed by ICP-OES. Accredited matrices: SW, PW, GW, PrW, DI PrW, FSE, LL	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	NONE

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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
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	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
Cr(VI) in soils by Ion chromatography	Determination of hexavalent chromium in alkaline soil extract by use of ion chromatography with spectrophotometric detection	In-house method	L130B	W	NONE
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
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
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080-PL/L130B	W	NONE
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
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

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Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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 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.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

*U/S g- Unsuitable for analysis due to high colour intensity.