



DETS

Certificate of Analysis

Certificate Number 22-26572

Issued: 03-Jan-23

Client Earth Science Partnership
33 Cardiff Road
Taffs Well
Cardiff
CF15 7RB

Our Reference 22-26572

Client Reference 8144

Order No 11189

Contract Title Heol Tabor

Description 5 Soil samples.

Date Received 20-Dec-22

Date Started 20-Dec-22

Date Completed 03-Jan-23

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By



Kirk Bridgewood
General Manager



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Summary of Chemical Analysis

Soil Samples

Our Ref 22-26572

Client Ref 8144

Contract Title Heol Tabor

Lab No	2102087	2102088	2102089	2102090	2102091
Sample ID	HP01	HP02	HP04A	HP02	HP03
Depth	0.20	0.30	0.30	0.90	0.50
Other ID					
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	08/12/2022	08/12/2022	08/12/2022	08/12/2022	08/12/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
Metals								
Arsenic	DETSC 2301#	0.2	mg/kg	170	30	230		
Barium	DETSC 2301#	1.5	mg/kg	100	140	110		
Beryllium	DETSC 2301#	0.2	mg/kg	0.8	0.9	0.8		
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	< 0.2	< 0.2	< 0.2		
Cadmium	DETSC 2301#	0.1	mg/kg	0.3	0.4	0.9		
Chromium	DETSC 2301#	0.15	mg/kg	14	26	27		
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0		
Copper	DETSC 2301#	0.2	mg/kg	230	93	160		
Lead	DETSC 2301#	0.3	mg/kg	56	68	77		
Mercury	DETSC 2325#	0.05	mg/kg	0.09	0.08	0.12		
Nickel	DETSC 2301#	1	mg/kg	22	29	22		
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	0.7		
Vanadium	DETSC 2301#	0.8	mg/kg	23	34	41		
Zinc	DETSC 2301#	1	mg/kg	120	150	150		
Inorganics								
pH	DETSC 2008#		pH	7.4	6.9	7.6	9.0	7.2
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.1	0.1	< 0.1		
Organic matter	DETSC 2002#	0.1	%	4.1	3.9	2.8		
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l				17	16
Sulphur as S, Total	DETSC 2320	0.01	%				0.04	0.04
Sulphate as SO4, Total	DETSC 2321#	0.01	%				0.07	0.07
PAHs								
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.03	< 0.03	< 0.03		
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03		
Anthracene	DETSC 3303	0.03	mg/kg	0.04	0.03	0.04		
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.14	0.11	0.18		
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.11	0.06	0.14		
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.20	0.12	0.25		
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.08	< 0.03	0.07		
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.07	0.04	0.09		
Chrysene	DETSC 3303	0.03	mg/kg	0.19	0.14	0.25		
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03		
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.40	0.35	0.57		
Fluorene	DETSC 3303	0.03	mg/kg	0.04	< 0.03	0.03		
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.06	< 0.03	0.07		
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03		
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.26	0.17	0.30		
Pyrene	DETSC 3303#	0.03	mg/kg	0.30	0.27	0.43		
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.9	1.3	2.4		



Summary of Chemical Analysis

Soil Samples

Our Ref 22-26572

Client Ref 8144

Contract Title Heol Tabor

Lab No	2102087	2102088	2102089	2102090	2102091
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Depth	0.20	0.30	0.30	0.90	0.50
Other ID					
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	08/12/2022	08/12/2022	08/12/2022	08/12/2022	08/12/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units
Phenols			
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg

Summary of Asbestos Analysis

Soil Samples

Our Ref 22-26572

Client Ref 8144

Contract Title Heol Tabor

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2102087	HP01 0.20	SOIL	NAD	none	Ben Rose
2102088	HP02 0.30	SOIL	NAD	none	Ben Rose
2102089	HP04A 0.30	SOIL	NAD	none	Ben Rose

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * - not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 22-26572
 Client Ref 8144
 Contract Heol Tabor

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2102087	HP01 0.20 SOIL	08/12/22	GJ 250ml, PT 1L	pH + Conductivity (7 days)	
2102088	HP02 0.30 SOIL	08/12/22	GJ 250ml, PT 1L	pH + Conductivity (7 days)	
2102089	HP04A 0.30 SOIL	08/12/22	GJ 250ml, PT 1L	pH + Conductivity (7 days)	
2102090	HP02 0.90 SOIL	08/12/22	GJ 250ml, PT 1L	Total Sulphur ICP (7 days), pH + Conductivity (7 days)	
2102091	HP03 0.50 SOIL	08/12/22	GJ 250ml, PT 1L	Total Sulphur ICP (7 days), pH + Conductivity (7 days)	

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report