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Analytical Report Number : 20-22802

Project / Site name:	Clarendon Road	Samples received on:	04/08/2020
Your job number:	6075	Sample instructed/ Analysis started on:	04/08/2020
Your order number:	S-RE6075-00005	Analysis completed by:	07/08/2020
Report Issue Number:	1	Report issued on:	07/08/2020
Samples Analysed:	14 leachate samples - 14 soil samples		

Signed:

Joanna Wawrzeczko
Technical Reviewer (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

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

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.

Iss No 20-22802-1 Clarendon Road 6075.XLS

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The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 11



Analytical Report Number: 20-22802

Project / Site name: Clarendon Road

Your Order No: S-RE6075-00005

Lab Sample Number				1581654	1581655	1581656	1581657	1581658
Sample Reference				WS04	WS04	WS04	WS04	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.00	1.50	2.00	2.50
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
Stone Content				%	0.1	NONE	< 0.1	< 0.1
Moisture Content				%	N/A	NONE	18	16
Total mass of sample received				kg	0.001	NONE	2.0	2.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	0.52	0.86	0.72	0.82	3.0
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	1000	1700	1400	1600	6100
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	525	857	718	822	3050
Ammonium as NH ₄	mg/kg	0.5	MCERTS	390	510	310	110	28

Analytical Report Number: 20-22802

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Your Order No: S-RE6075-00005

Lab Sample Number				1581659	1581660	1581661	1581662	1581663
Sample Reference				WS04	WS04	WS04	WS04	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	3.50	4.00	4.50	5.00
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
Stone Content				%	0.1	NONE	< 0.1	< 0.1
Moisture Content				%	N/A	NONE	20	21
Total mass of sample received				kg	0.001	NONE	2.0	2.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	3.2	3.5	3.6	2.5	3.1
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	6500	7100	7200	5100	6300
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	3240	3550	3610	2530	3130
Ammonium as NH ₄	mg/kg	0.5	MCERTS	13	2.0	1.1	0.8	1.0



Analytical Report Number: 20-22802

Project / Site name: Clarendon Road

Your Order No: S-RE6075-00005

Lab Sample Number				1581664	1581665	1581666	1581667	
Sample Reference				WS04	WS04	WS04	WS04	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				5.50	6.00	6.50	7.00	
Date Sampled				Deviating	Deviating	Deviating	Deviating	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	18	19	19	17	
Total mass of sample received	kg	0.001	NONE	2.0	2.0	1.9	1.7	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	
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General Inorganics

Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	3.2	2.5	1.1	0.92	
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	6500	4900	2200	1800	
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	3240	2450	1120	920	
Ammonium as NH ₄	mg/kg	0.5	MCERTS	1.7	0.8	2.7	4.3	



Analytical Report Number: 20-22802

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Your Order No: S-RE6075-00005

Lab Sample Number				1581668	1581669	1581670	1581671	1581672
Sample Reference				WS04	WS04	WS04	WS04	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.00	1.50	2.00	2.50
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)				Units	Limit of detection	Accreditation Status		

General Inorganics

Sulphate as SO ₄	mg/l	0.1	ISO 17025	80.1	133	88.9	132	463
Ammonium as NH ₄	µg/l	15	NONE	41000	47000	27000	13000	1700



Analytical Report Number: 20-22802

Project / Site name: Clarendon Road

Your Order No: S-RE6075-00005

Lab Sample Number				1581673
Sample Reference				WS04
Sample Number				None Supplied
Depth (m)				3.00
Date Sampled				Deviating
Time Taken				None Supplied
Analytical Parameter (Leachate Analysis)		Units	Limit of detection	Accreditation Status

General Inorganics

Sulphate as SO ₄	mg/l	0.1	ISO 17025	1140
Ammonium as NH ₄	µg/l	15	NONE	1100



Analytical Report Number: 20-22802

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Your Order No: S-RE6075-00005

Lab Sample Number				1581674	1581675	1581676	1581677	1581678
Sample Reference				WS04	WS04	WS04	WS04	WS04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.50	4.00	4.50	5.00	5.50
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)				Units	Limit of detection	Accreditation Status		

General Inorganics

Sulphate as SO ₄	mg/l	0.1	ISO 17025	1480	1140	707	788	476
Ammonium as NH ₄	µg/l	15	NONE	320	120	100	120	120



Analytical Report Number: 20-22802

Project / Site name: Clarendon Road

Your Order No: S-RE6075-00005

Lab Sample Number				1581679	1581680	1581681	
Sample Reference				WS04	WS04	WS04	
Sample Number				None Supplied	None Supplied	None Supplied	
Depth (m)				6.00	6.50	7.00	
Date Sampled				Deviating	Deviating	Deviating	
Time Taken				None Supplied	None Supplied	None Supplied	
Analytical Parameter (Leachate Analysis)				Units	Limit of detection	Accreditation Status	

General Inorganics

Sulphate as SO ₄	mg/l	0.1	ISO 17025	176	165	429	
Ammonium as NH ₄	µg/l	15	NONE	75	260	100	

Analytical Report Number : 20-22802

Project / Site name: Clarendon Road

* 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 *
1581654	WS04	None Supplied	0.50	Brown clay.
1581655	WS04	None Supplied	1.00	Brown clay.
1581656	WS04	None Supplied	1.50	Brown clay.
1581657	WS04	None Supplied	2.00	Brown clay.
1581658	WS04	None Supplied	2.50	Brown clay.
1581659	WS04	None Supplied	3.00	Brown clay.
1581660	WS04	None Supplied	3.50	Brown clay.
1581661	WS04	None Supplied	4.00	Brown clay.
1581662	WS04	None Supplied	4.50	Brown clay.
1581663	WS04	None Supplied	5.00	Brown clay.
1581664	WS04	None Supplied	5.50	Brown clay.
1581665	WS04	None Supplied	6.00	Brown clay.
1581666	WS04	None Supplied	6.50	Brown clay.
1581667	WS04	None Supplied	7.00	Brown clay.

Analytical Report Number : 20-22802

Project / Site name: Clarendon Road

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Ammonium as NH ₄ in leachate	Determination of Ammonium/Ammonia/Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	NONE
Ammonium as NH ₄ in soil	Determination of Ammonium/Ammonia/Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method, 10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
NRA Leachate Prep	10:1 extract with de-ionised water shaken for 24 hours then filtered.	In-house method based on National Rivers Authority	L020-PL	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.	L019-UK/PL	D	NONE
Sulphate in leachates	Determination of sulphate in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil (1hr extraction)	Sulphate, water soluble, in soil (1hr extraction)	In-house method	L038-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' 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.

Sample Deviation Report



Sample ID	Other_ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
WS04		L	20-22802	1581668	a			
WS04		L	20-22802	1581669	a			
WS04		L	20-22802	1581670	a			
WS04		L	20-22802	1581671	a			
WS04		L	20-22802	1581672	a			
WS04		L	20-22802	1581673	a			
WS04		L	20-22802	1581674	a			
WS04		L	20-22802	1581675	a			
WS04		L	20-22802	1581676	a			
WS04		L	20-22802	1581677	a			
WS04		L	20-22802	1581678	a			
WS04		L	20-22802	1581679	a			
WS04		L	20-22802	1581680	a			
WS04		L	20-22802	1581681	a			
WS04		S	20-22802	1581654	a			
WS04		S	20-22802	1581655	a			
WS04		S	20-22802	1581656	a			
WS04		S	20-22802	1581657	a			
WS04		S	20-22802	1581658	a			
WS04		S	20-22802	1581659	a			
WS04		S	20-22802	1581660	a			
WS04		S	20-22802	1581661	a			
WS04		S	20-22802	1581662	a			
WS04		S	20-22802	1581663	a			
WS04		S	20-22802	1581664	a			
WS04		S	20-22802	1581665	a			
WS04		S	20-22802	1581666	a			
WS04		S	20-22802	1581667	a			