

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/06458
Issue Number: 1

Date: 09 July, 2024

Client:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Date Samples Received: 28/06/24
Date Instructions Received: 03/07/24
Date Analysis Completed: 09/07/24

Approved by:

[REDACTED]

Envirolab Job Number: 24/06458

Client Project Name: Halifax Road

Client Project Ref: N/A

Lab Sample ID	24/06458/2	24/06458/5	24/06458/8	24/06458/13				Units	Limit of Detection	Method ref
Client Sample No	D2	D2	D2	D2						
Client Sample ID	TP01	TP02	TP03	TP06						
Depth to Top	1.00	0.80	1.00	1.50						
Depth To Bottom	1.00	0.80	1.00	1.50						
Date Sampled	22-Apr-21	22-Apr-21	22-Apr-21	22-Apr-21						
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES						
Sample Matrix Code	6A	5AE	6AE	6A						
% Stones >10mm _A	<0.1	6.9	<0.1	<0.1				% w/w	0.1	A-T-044
pH _D ^{M#}	5.46	5.50	4.73	5.48				pH	0.01	A-T-031s
Cyanide (total) _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-042sTCN
Phenol _A	<0.2	<0.2	<0.2	<0.2				mg/kg	0.2	A-T-050s
Total Organic Carbon _D ^{M#}	0.21	0.54	0.54	0.31				% w/w	0.03	A-T-032s
Arsenic _D ^{M#}	2	2	2	3				mg/kg	1	A-T-024s
Cadmium _D ^{M#}	<0.5	<0.5	<0.5	<0.5				mg/kg	0.5	A-T-024s
Copper _D ^{M#}	12	10	21	20				mg/kg	1	A-T-024s
Chromium _D ^{M#}	13	15	28	22				mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1				mg/kg	1	A-T-040s
Chromium (trivalent)	13	15	28	22				mg/kg	1	Calc
Lead _D ^{M#}	12	11	13	15				mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17				mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	9	8	22	13				mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-024s
Zinc _D ^{M#}	25	22	47	40				mg/kg	5	A-T-024s

Envirolab Job Number: 24/06458

Client Project Name: Halifax Road

Client Project Ref: N/A

Lab Sample ID	24/06458/2	24/06458/5	24/06458/8	24/06458/13				Units	Limit of Detection	Method ref
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Client Sample ID	TP01	TP02	TP03	TP06						
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Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES						
Sample Matrix Code	6A	5AE	6AE	6A						
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	NAD	NAD						A-T-045
Asbestos Matrix (visual) _D	-	-	-	-						A-T-045
Asbestos Matrix (microscope) _D	-	-	-	-						A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	N/A	N/A	N/A						A-T-045

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Client Sample ID	TP01	TP02	TP03	TP06						
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Depth To Bottom	1.00	0.80	1.00	1.50						
Date Sampled	22-Apr-21	22-Apr-21	22-Apr-21	22-Apr-21						
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES						
Sample Matrix Code	6A	5AE	6AE	6A						
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	<0.02				mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04				mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	<0.04				mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	<0.05				mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05				mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	<0.07				mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06	<0.06				mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04				mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08	<0.08				mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03				mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03				mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03				mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	<0.07				mg/kg	0.07	A-T-019s
Total PAH-16MS_A^{M#}	<0.08	<0.08	<0.08	<0.08				mg/kg	0.01	A-T-019s

Envirolab Job Number: 24/06458

Client Project Name: Halifax Road

Client Project Ref: N/A

Lab Sample ID	24/06458/2	24/06458/5	24/06458/8	24/06458/13				Units	Limit of Detection	Method ref
Client Sample No	D2	D2	D2	D2						
Client Sample ID	TP01	TP02	TP03	TP06						
Depth to Top	1.00	0.80	1.00	1.50						
Depth To Bottom	1.00	0.80	1.00	1.50						
Date Sampled	22-Apr-21	22-Apr-21	22-Apr-21	22-Apr-21						
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES						
Sample Matrix Code	6A	5AE	6AE	6A						
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-055s
Total Aliphatics _A	<1	<1	<1	<1				mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-055s
Total Aromatics _A	<1	<1	<1	<1				mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1	<1	<1	<1				mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s

Report Notes

General

- This report shall not be reproduced, except in full, without written approval from Envirolab.
- The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client and can affect the validity of results.
- The results reported herein relate only to the material supplied to the laboratory.
- The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
- Analytical results reflect the quality of the sample at the time of analysis only.
- Opinions and Interpretations expressed are outside our scope of accreditation.
- A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
- If a sample is outside of the calibration range or affected by interferences then it may need diluting. This will result in the limit of detection (LOD) being raised.
- Subcontracted Analysis: Please see the appended report for any deviations, current LODs and accreditation status of the test.

Key

Superscript “#”	Accredited to ISO 17025
Superscript “M”	Accredited to MCertS
Superscript “U”	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript “A”	Analysis performed on as-received Sample
Subscript “D”	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript “D” on Asbestos	Analysis performed on a dried aliquot of sample provided.
Subscript “A”	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
Trace	Asbestos found not suitable for Gravimetric Quantification – not enough to accurately weigh.
N/A	Not applicable

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis

“Trace Asbestos Identified” will be reported if there is not enough present to verify the type.

Quantification: Generally a 2 stage process including visual identification, hand picking and weighing, and fibre counting. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres). “TRACE” will be reported as a quantification result.

PLEASE INFORM THE LABORATORY IF YOU WOULD LIKE THE STAGE 3 SEDIMENTATION PROCESS CARRIED OUT. Note this will be subcontracted.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

Soil Chemical Analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any “D” subscripts.

TPH by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.

Results “with Clean up” indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.

Where these humic substances have been identified in any IDs from “TPH CWG with clean up” please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Please contact your client manager if you require any further information.

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/07439
Issue Number: 1

Date: 15 August, 2024

Client:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
Project Ref: N/A
Order No: n/a
Date Samples Received: 28/06/24
Date Instructions Received: 30/07/24
Date Analysis Completed: 15/08/24

Approved by:

[REDACTED]

Envirolab Job Number: 24/07439

Client Project Name: Halifax Road

Client Project Ref: N/A

Lab Sample ID	24/07439/1	24/07439/4						Units	Limit of Detection	Method ref
Client Sample No	B2	B1								
Client Sample ID	TP01	TP03								
Depth to Top	1.00	1.00								
Depth To Bottom										
Date Sampled	22-Apr-24	22-Apr-24								
Sample Type	SOIL - B	SOIL - B								
Sample Matrix Code	4A	6A								
% Stones >10mm _A	25.4	6.6						% w/w	0.1	A-T-044
pH BRE _D ^{M#}	5.27	4.67						pH	0.01	A-T-031s
Chloride BRE, SO4 equiv. (water sol 2:1) _D	<7	<7						mg/l	7	A-T-026s
Nitrate BRE, SO4 equiv. (water sol 2:1) _D	0.5	<0.4						mg/l	0.4	A-T-026s
Sulphate BRE (water sol 2:1) _D ^{M#}	<10	39						mg/l	10	A-T-026s
(1.01) Item 1a Moisture Content of Soil (Oven Dried Method) _A [#]	Appended	Appended								Subcon IFA
(1.10a) Item 12a Particle Size Distribution (Wet Sieving Method) _A [#]	Appended	Appended								Subcon IFA

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Where these humic substances have been identified in any IDs from “TPH CWG with clean up” please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Please contact your client manager if you require any further information.

APPENDIX 7

GEOTECHNICAL LABORATORY ANALYTICAL REPORT

F.A.O.

Final Test Report - 2282133 / 1

Site: Halifax Road

Job Number: 2282133

Originating Client: Envirolab

Originating Reference: 24/07439

Date Sampled: Not Given

Date Scheduled: 02/08/2024

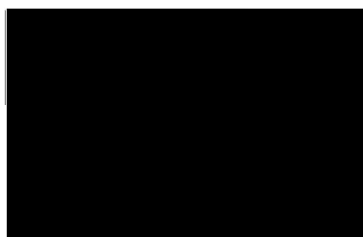
Date Testing Started: 05/08/2024

Date Testing Finished: 14/08/2024

Previous Reports		Amendments	Date Issued

Amendments:

Authorised By:



Report Issue Date: 15/08/2024

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Results reported relate only to the samples tested.

Site: Halifax Road

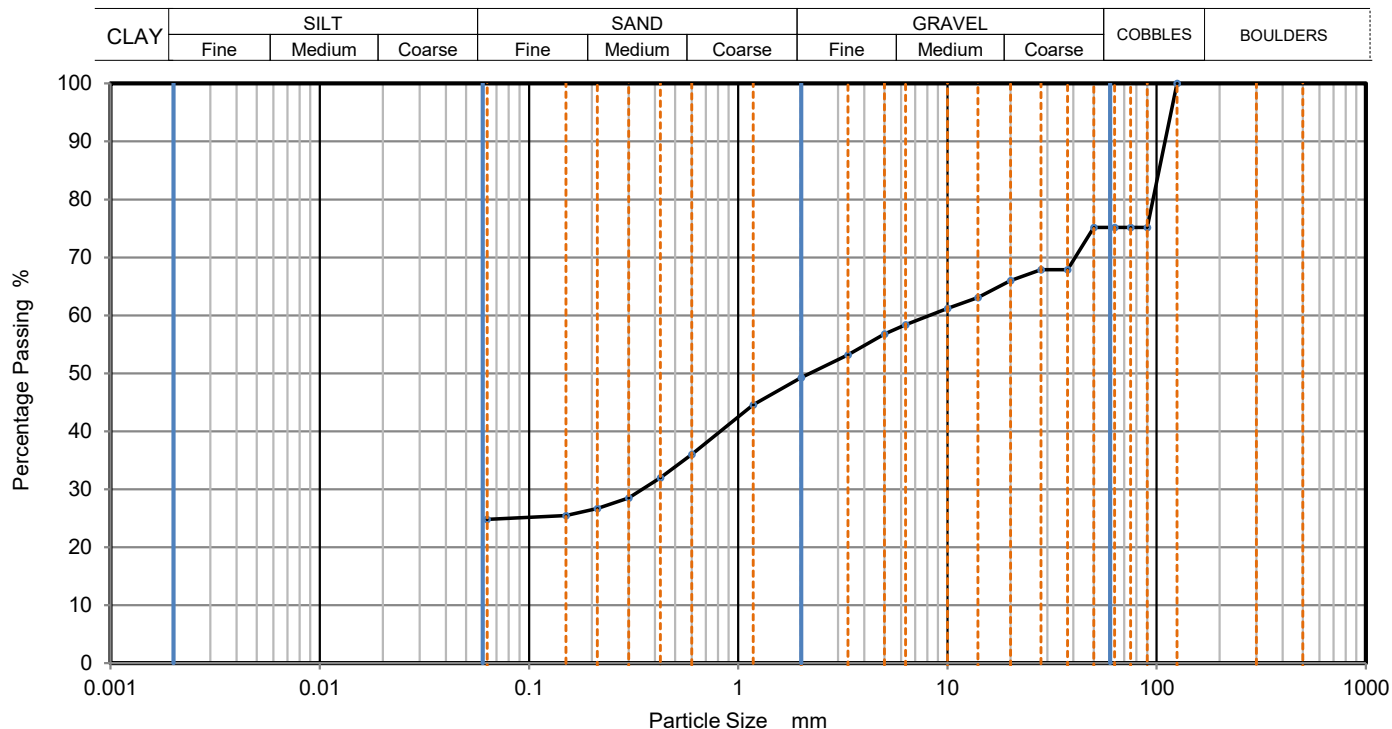
Job Number: 2282133

Client: Envirolab

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DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Trial Pit	Depth (m)	Sample	Testing Type	Description
TP01	1.00	B	Wet Sieve	Brown very gravelly, sandy, silty CLAY



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	75		
75	75		
63	75		
50	75		
37.5	68		
28	68		
20	66		
14	63		
10	61		
6.3	58		
5	57		
3.35	53		
2	49		
1.18	45		
0.6	36		
0.425	32		
0.3	29		
0.212	27		
0.15	26		
0.063	25		

Dry Mass of sample, g
8361

Sample Proportions	% dry mass
Very coarse	25
Gravel	26
Sand	25
Fines <0.063mm	25

Grading Analysis		
D100	mm	125
D60	mm	8.19
D30	mm	0.349
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Method of Preparation: BS 1377:Part 1:1990, clause 7.3 Initial preparation
BS 1377:Part 1:1990, clause 7.4.5 Preparation of particle size tests

Method of Test: BS1377:Part 2:1990, clause 9.2 Determination of particle size distribution by wet sieving method

Site: Halifax Road

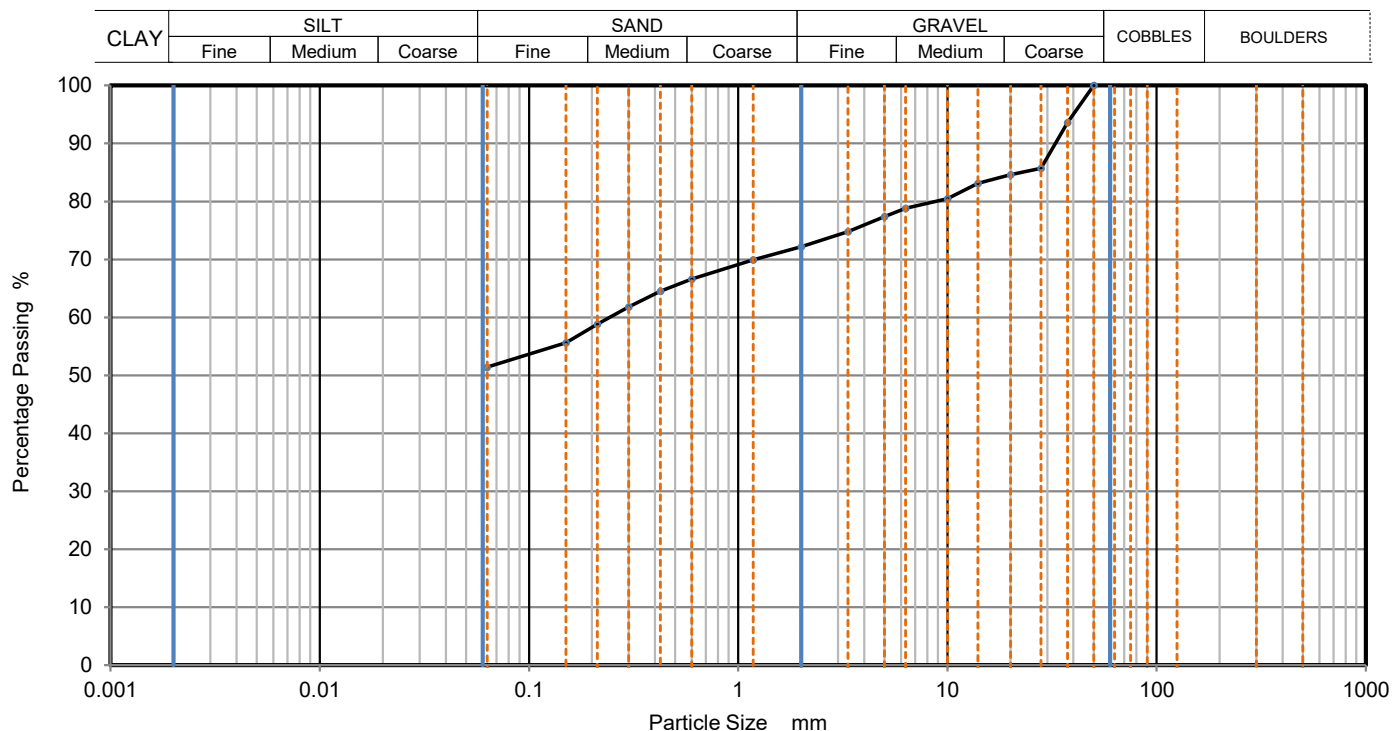
Job Number: 2282133

Client: Envirolab

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DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Trial Pit	Depth (m)	Sample	Testing Type	Description
TP03	1.00	B	Wet Sieve	Brown sandy, gravelly, silty CLAY



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
50	100		
37.5	94		
28	86		
20	85		
14	83		
10	81		
6.3	79		
5	77		
3.35	75		
2	72		
1.18	70		
0.6	67		
0.425	65		
0.3	62		
0.212	59		
0.15	56		
0.063	51		

Dry Mass of sample, g
1905

Sample Proportions	% dry mass
Very coarse	0
Gravel	28
Sand	21
Fines <0.063mm	51

Grading Analysis		
D100	mm	50
D60	mm	0.243
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Method of Preparation: BS 1377:Part 1:1990, clause 7.3 Initial preparation
BS 1377:Part 1:1990, clause 7.4.5 Preparation of particle size tests

Method of Test: BS1377:Part 2:1990, clause 9.2 Determination of particle size distribution by wet sieving method



Final Test Report - 2282133 / 1

Site: Halifax Road

Job Number: 2282133

Originating Client: Envirolab

All opinions and interpretations contained within this report are outside of our Scope of Accreditation.

This test report shall not be reproduced, except in full and only with the written permission of Ian Farmer Associates Ltd.

Samples will be retained for 28 days from date of issue of the final test report before being disposed of, unless we receive written instruction to the contrary.

Report End

Report Issue Date: 15/08/2024

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/07439
Issue Number: 1

Date: 15 August, 2024

Client:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

Order No: n/a
Date Samples Received: 28/06/24
Date Instructions Received: 30/07/24
Date Analysis Completed: 15/08/24

Approved by:

[REDACTED]

Envirolab Job Number: 24/07439

Client Project Name: Halifax Road

Client Project Ref: N/A

Lab Sample ID	24/07439/1	24/07439/4						Units	Limit of Detection	Method ref
Client Sample No	B2	B1								
Client Sample ID	TP01	TP03								
Depth to Top	1.00	1.00								
Depth To Bottom										
Date Sampled	22-Apr-24	22-Apr-24								
Sample Type	SOIL - B	SOIL - B								
Sample Matrix Code	4A	6A								
% Stones >10mm _A	25.4	6.6						% w/w	0.1	A-T-044
pH BRE _D ^{M#}	5.27	4.67						pH	0.01	A-T-031s
Chloride BRE, SO4 equiv. (water sol 2:1) _D	<7	<7						mg/l	7	A-T-026s
Nitrate BRE, SO4 equiv. (water sol 2:1) _D	0.5	<0.4						mg/l	0.4	A-T-026s
Sulphate BRE (water sol 2:1) _D ^{M#}	<10	39						mg/l	10	A-T-026s
(1.01) Item 1a Moisture Content of Soil (Oven Dried Method) _A [#]	Appended	Appended								Subcon IFA
(1.10a) Item 12a Particle Size Distribution (Wet Sieving Method) _A [#]	Appended	Appended								Subcon IFA

Report Notes

General

- This report shall not be reproduced, except in full, without written approval from Envirolab.
- The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client and can affect the validity of results.
- The results reported herein relate only to the material supplied to the laboratory.
- The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
- Analytical results reflect the quality of the sample at the time of analysis only.
- Opinions and Interpretations expressed are outside our scope of accreditation.
- A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
- If a sample is outside of the calibration range or affected by interferences then it may need diluting. This will result in the limit of detection (LOD) being raised.
- Subcontracted Analysis: Please see the appended report for any deviations, current LODs and accreditation status of the test.

Key

Superscript “#”	Accredited to ISO 17025
Superscript “M”	Accredited to MCertS
Superscript “U”	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript “A”	Analysis performed on as-received Sample
Subscript “D”	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript “D” on Asbestos	Analysis performed on a dried aliquot of sample provided.
Subscript “A”	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
Trace	Asbestos found not suitable for Gravimetric Quantification – not enough to accurately weigh.
N/A	Not applicable

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis

“Trace Asbestos Identified” will be reported if there is not enough present to verify the type.

Quantification: Generally a 2 stage process including visual identification, hand picking and weighing, and fibre counting. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres). “TRACE” will be reported as a quantification result.

PLEASE INFORM THE LABORATORY IF YOU WOULD LIKE THE STAGE 3 SEDIMENTATION PROCESS CARRIED OUT. Note this will be subcontracted.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

Soil Chemical Analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any “D” subscripts.

TPH by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.

Results “with Clean up” indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.

Where these humic substances have been identified in any IDs from “TPH CWG with clean up” please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Please contact your client manager if you require any further information.

APPENDIX 8

SOIL SCREENING GENERIC ACCEPTANCE CRITERIA

Determinand	Units	With Plant Uptake		
		1% SOM	2.5% SOM	5% SOM
Metals/Metalloids				
Asbestos		Not Detected		
Arsenic (inorganic)	mg/kg	32		
Cadmium	mg/kg	10		
Chromium VI	mg/kg	0.5		
Chromium III	mg/kg	3000		
Boron	mg/kg	290		
Nickel	mg/kg	130		
Lead	mg/kg	450		
Inorganic Mercury	mg/kg	170		
Selenium	mg/kg	350		
Copper	mg/kg	200		
Zinc	mg/kg	450		
PAHs				
Acenaphthene	mg/kg	200	460	840
Anthracene	mg/kg	2200	4900	8200
Naphthalene	mg/kg	0.68	1.6	3.2
Phenanthrene	mg/kg	92	200	330
Fluorene	mg/kg	160	370	660
Fluoranthene	mg/kg	260	460	630
Benzo(a)anthracene	mg/kg	3.3	4.9	5.8
Benzo(a)pyrene	mg/kg	0.83	0.94	1
Benzo(b)fluoranthene	mg/kg	5.6	6.5	7
Benzo(g,hi)perylene	mg/kg	44	46	47
Benzo(k)fluoranthene	mg/kg	8.5	9.6	10
Chrysene	mg/kg	6.1	8.1	9.1
Dibenzo(a,h)anthracene	mg/kg	0.77	0.86	0.9
Indeno(1,2,3-c,d)pyrene	mg/kg	3.2	3.9	4.1
Pyrene	mg/kg	560	1000	1500
Total PAHs	mg/kg	100	100	100
Phenol	mg/kg	1	1	1
BTEX and Related				
Benzene	mg/kg	0.054	0.11	0.2
Toluene	mg/kg	92	210	410
Ethyl benzene	mg/kg	42	100	200
Total Xylene	mg/kg	20	47	92
TPH				
TPH (EC5-6) aliphatic	mg/kg	17	28	47
TPH (>EC6-8) aliphatic	mg/kg	36	77	150
TPH (>EC8-10) aliphatic	mg/kg	8.8	22	42
TPH (>EC10-12) aliphatic	mg/kg	43	110	210
TPH (>EC12-16) aliphatic	mg/kg	350	850	1600
TPH (>EC16-35) aliphatic	mg/kg	29000	48000	62000
TPH (>EC35-44) aliphatic	mg/kg	29000	48000	62000
TPH (>EC5-7) aromatic	mg/kg	0.054	0.11	0.2
TPH (>EC7-8) aromatic	mg/kg	92	210	410

TPH (>EC8-10) aromatic	mg/kg	14	34	68
TPH (>EC10-12) aromatic	mg/kg	54	130	250
TPH (>EC12-16) aromatic	mg/kg	140	300	520
TPH (>EC16-21) aromatic	mg/kg	250	480	710
TPH (>EC21-35) aromatic	mg/kg	890	1100	1200
TPH (>EC35-44) aromatic	mg/kg	890	1100	1200

APPENDIX 9

GROUND GAS AND GROUNDWATER MONITORING RESULTS

GROUND GAS AND GROUNDWATER MONITORING RESULTS

JOB DETAILS:	Halifax Road	Job No:			
Client:	Fourways Project	Visit No:	1	of	9
Site:	Longley Hey Farm	Operator:	Istvan Burjan		
Date:	18/07/2024	Project Manager:	Umo Antia		



Monitoring Point	GAS CONCENTRATIONS												FLOW DATA		Water Depth (mbgl)	Well Depth Drilled (mbgl)	Response Zone	Notes
	Methane (%v/v)		%LEL		Carbon dioxide (%v/v)		Carbon monoxide (ppm)		PID (ppm)		Oxygen (%v/v)		Flow rate (l/hr)					
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Lowest	Steady	Peak	Steady				
BH01	0.0	0.0	0.0	0.0	3.1	3.0	0.0	0.0	1.0	1.0	17.2	17.1	0.2	0.1	Dry	3.00	Made Ground	
BH02	0.0	0.0	0.0	0.0	6.9	6.9	0.0	0.0	1.0	1.0	15.8	15.8	0.2	0.1	Dry	4.00	Made Ground	
BH03	0.0	0.0	0.0	0.0	4.7	4.7	0.0	0.0	1.0	1.0	14.9	14.9	0.1	0.1	Dry	3.00	Made Ground	
Max	0.0	0.0	0.0	0.0	6.9	6.9	0.0	0.0	1.0	1.0	17.2	17.1	0.2	0.1				
Min	0.0	0.0	0.0	0.0	3.1	3.0	0.0	0.0	1.0	1.0	14.9	14.9	0.1	0.1				

METEOROLOGICAL AND SITE INFORMATION:
State of ground: Dry
Wind: Moderate
Cloud cover: Cloudy
Precipitation: Nil
Barometric pressure (mbar): 964
Pressure trend: Rising
Ground gas meter: GA
Ambient Gas concentration:
CO ₂ : ND
CH ₄ : ND
O ₂ : 20.4

GROUND GAS AND GROUNDWATER MONITORING RESULTS

JOB DETAILS:	Halifax Road	Job No:			
Client:	Fourways Project	Visit No:	2	of	9
Site:	Longley Hey Farm	Operator:	Istvan Burjan		
Date:	02/08/2024	Project Manager:	Umo Antia		



Monitoring Point	GAS CONCENTRATIONS												FLOW DATA		Water Depth (mbgl)	Well Depth Drilled (mbgl)	Response Zone	Notes
	Methane (%v/v)		%LEL		Carbon dioxide (%v/v)		Carbon monoxide (ppm)		PID (ppm)		Oxygen (%v/v)		Flow rate (l/hr)					
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Lowest	Steady	Peak	Steady				
BH01	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	1.0	1.0	17.2	17.2	0.1	0.0	Dry	3.00	Made Ground	
BH02	0.0	0.0	0.0	0.0	6.1	5.9	0.0	0.0	1.0	1.0	16.8	16.6	0.1	0.0	Dry	4.00	Made Ground	
BH03	0.0	0.0	0.0	0.0	4.3	4.3	0.0	0.0	1.0	1.0	14.4	14.4	0.1	0.0	Dry	3.00	Made Ground	
Max	0.0	0.0	0.0	0.0	6.1	5.9	0.0	0.0	1.0	1.0	17.2	17.2	0.1	0.0				
Min	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	1.0	1.0	14.4	14.4	0.1	0.0				

METEOROLOGICAL AND SITE INFORMATION:
State of ground: Dry
Wind: Moderate
Cloud cover: Cloudy
Precipitation: Nil
Barometric pressure (mbar): 964
Pressure trend: Rising
Ground gas meter: GA
Ambient Gas concentration:
CO ₂ : ND
CH ₄ : ND
O ₂ : 20.4

GROUND GAS AND GROUNDWATER MONITORING RESULTS

JOB DETAILS:	Halifax Road	Job No:			
Client:	Fourways Project	Visit No:	3	of	9
Site:	Longley Hey Farm	Operator:	Istvan Burjan		
Date:	31/08/2024	Project Manager:	Umo Antia		



Monitoring Point	GAS CONCENTRATIONS												FLOW DATA		Water Depth (mbgl)	Well Depth Drilled (mbgl)	Response Zone	Notes
	Methane (%v/v)		%LEL		Carbon dioxide (%v/v)		Carbon monoxide (ppm)		PID (ppm)		Oxygen (%v/v)		Flow rate (l/hr)					
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Lowest	Steady	Peak	Steady				
BH01	0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0	1.0	1.0	18.3	18.5	0.2	0.1	Dry	3.00	Made Ground	
BH02	0.0	0.0	0.0	0.0	6.1	5.9	0.0	0.0	1.0	1.0	16.6	16.6	0.1	0.0	Dry	4.00	Made Ground	
BH03	0.0	0.0	0.0	0.0	2.3	2.3	0.0	0.0	1.0	1.0	16.4	16.6	0.0	0.0	Dry	3.00	Made Ground	
Max	0.0	0.0	0.0	0.0	6.1	5.9	0.0	0.0	1.0	1.0	18.3	18.5	0.2	0.1				
Min	0.0	0.0	0.0	0.0	2.3	2.3	0.0	0.0	1.0	1.0	16.4	16.6	0.1	0.0				

METEOROLOGICAL AND SITE INFORMATION:
State of ground: Dry
Wind: Moderate
Cloud cover: Cloudy
Precipitation: Nil
Barometric pressure (mbar): 1001
Pressure trend: Falling
Ground gas meter: GA
Ambient Gas concentration:
CO ₂ : ND
CH ₄ : ND
O ₂ : 20.4

GROUND GAS AND GROUNDWATER MONITORING RESULTS

JOB DETAILS:	Halifax Road	Job No:			
Client:	Fourways Project	Visit No:	4	of	9
Site:	Longley Hey Farm	Operator:	Istvan Burjan		
Date:	05/09/2024	Project Manager:	Umo Antia		



Monitoring Point	GAS CONCENTRATIONS												FLOW DATA		Water Depth (mbgl)	Well Depth Drilled (mbgl)	Response Zone	Notes
	Methane (%v/v)		%LEL		Carbon dioxide (%v/v)		Carbon monoxide (ppm)		PID (ppm)		Oxygen (%v/v)		Flow rate (l/hr)					
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Lowest	Steady	Peak	Steady				
BH01	0.0	0.0	0.0	0.0	3.1	3.0	0.0	0.0	1.0	1.0	16.9	17.1	0.1	0.0	Dry	3.00	Made Ground	
BH02	0.0	0.0	0.0	0.0	7.9	7.5	0.0	0.0	1.0	1.0	15.2	15.9	0.3	0.1	Dry	4.00	Made Ground	
BH03	0.0	0.0	0.0	0.0	4.9	4.8	0.0	0.0	1.0	1.0	11.4	11.6	0.1	0.0	Dry	3.00	Made Ground	
Max	0.0	0.0	0.0	0.0	7.9	7.5	0.0	0.0	1.0	1.0	16.9	17.1	0.3	0.1				
Min	0.0	0.0	0.0	0.0	3.1	3.0	0.0	0.0	1.0	1.0	11.4	11.6	0.1	0.0				

METEOROLOGICAL AND SITE INFORMATION:
State of ground: Dry
Wind: Moderate
Cloud cover: Cloudy
Precipitation: Nil
Barometric pressure (mbar): 990
Pressure trend: Falling
Ground gas meter: GA
Ambient Gas concentration:
CO ₂ : ND
CH ₄ : ND
O ₂ : 20.4

GROUND GAS AND GROUNDWATER MONITORING RESULTS

JOB DETAILS:	Halifax Road	Job No:			
Client:	Fourways Project	Visit No:	5	of	9
Site:	Longley Hey Farm	Operator:	Carl Hill		
Date:	19/09/2024	Project Manager:	Umo Antia		



Monitoring Point	GAS CONCENTRATIONS												FLOW DATA		Water Depth (mbgl)	Well Depth Drilled (mbgl)	Response Zone	Notes
	Methane (%v/v)		%LEL		Carbon dioxide (%v/v)		Carbon monoxide (ppm)		PID (ppm)		Oxygen (%v/v)		Flow rate (l/hr)					
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Lowest	Steady	Peak	Steady				
BH01	0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0	1.0	1.0	18.5	18.3	0.2	0.1	Dry	3.00	Made Ground	
BH02	0.0	0.0	0.0	0.0	6.1	5.9	0.0	0.0	1.0	1.0	16.6	16.6	0.1	0.0	3.80	4.00	Made Ground	
BH03	0.0	0.0	0.0	0.0	2.3	2.3	0.0	0.0	1.0	1.0	17.6	17.4	0.0	0.0	Dry	3.00	Made Ground	
Max	0.0	0.0	0.0	0.0	6.1	5.9	0.0	0.0	1.0	1.0	18.5	18.3	0.2	0.1				
Min	0.0	0.0	0.0	0.0	2.3	2.3	0.0	0.0	1.0	1.0	16.6	16.6	0.1	0.0				

METEOROLOGICAL AND SITE INFORMATION:
State of ground: Wet
Wind: Mild
Cloud cover: Cloudy
Precipitation: Nil
Barometric pressure (mbar): 1012
Pressure trend: Rising
Ground gas meter: GA
Ambient Gas concentration:
CO ₂ : ND
CH ₄ : ND
O ₂ : 20.4

GROUND GAS AND GROUNDWATER MONITORING RESULTS

JOB DETAILS:	Halifax Road	Job No:			
Client:	Fourways Project	Visit No:	6	of	9
Site:	Longley Hey Farm	Operator:	Carl Hill		
Date:	10/10/2024	Project Manager:	Umo Antia		



Monitoring Point	GAS CONCENTRATIONS												FLOW DATA		Water Depth (mbgl)	Well Depth Drilled (mbgl)	Response Zone	Notes
	Methane (%v/v)		%LEL		Carbon dioxide (%v/v)		Carbon monoxide (ppm)		PID (ppm)		Oxygen (%v/v)		Flow rate (l/hr)					
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Lowest	Steady	Peak	Steady				
BH01	0.0	0.0	0.0	0.0	17.1	17.1	0.0	0.0	1.0	1.0	2.8	2.9	0.2	0.0	Dry	3.00	Made Ground	
BH02	0.0	0.0	0.0	0.0	11.7	11.7	0.0	0.0	1.0	1.0	0.0	0.0	2.8	0.0	3.80	4.00	Made Ground	
BH03	0.0	0.0	0.0	0.0	5.6	5.6	0.0	0.0	1.0	1.0	0.4	0.6	0.0	0.0	Dry	3.00	Made Ground	
Max	0.0	0.0	0.0	0.0	17.1	17.1	0.0	0.0	1.0	1.0	2.8	2.9	2.8	0.0				
Min	0.0	0.0	0.0	0.0	5.6	5.6	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0				

METEOROLOGICAL AND SITE INFORMATION:
State of ground: Dry
Wind: Mild
Cloud cover: Cloudy
Precipitation: Nil
Barometric pressure (mbar): 989
Pressure trend: Rising
Ground gas meter: GA
Ambient Gas concentration:
CO ₂ : ND
CH ₄ : ND
O ₂ : 20.4

GROUND GAS AND GROUNDWATER MONITORING RESULTS

JOB DETAILS:	Halifax Road	Job No:			
Client:	Fourways Project	Visit No:	7	of	9
Site:	Longley Hey Farm	Operator:	Carl Hill		
Date:	24/10/2024	Project Manager:	Umo Antia		



Monitoring Point	GAS CONCENTRATIONS												FLOW DATA		Water Depth (mbgl)	Well Depth Drilled (mbgl)	Response Zone	Notes
	Methane (%v/v)		%LEL		Carbon dioxide (%v/v)		Carbon monoxide (ppm)		PID (ppm)		Oxygen (%v/v)		Flow rate (l/hr)					
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Lowest	Steady	Peak	Steady				
BH01	0.0	0.0	0.0	0.0	17.0	16.9	0.0	0.0	1.0	1.0	2.5	2.7	0.0	0.0	Dry	3.00	Made Ground	
BH02	0.0	0.0	0.0	0.0	11.7	11.5	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	3.70	4.00	Made Ground	
BH03	0.0	0.0	0.0	0.0	5.3	5.3	0.0	0.0	1.0	1.0	0.4	0.9	1.8	0.1	Dry	3.00	Made Ground	
Max	0.0	0.0	0.0	0.0	17.0	16.9	0.0	0.0	1.0	1.0	2.5	2.7	1.8	0.1				
Min	0.0	0.0	0.0	0.0	5.3	5.3	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0				

METEOROLOGICAL AND SITE INFORMATION:
State of ground: Dry
Wind: Mild
Cloud cover: Cloudy
Precipitation: Nil
Barometric pressure (mbar): 1006
Pressure trend: Falling
Ground gas meter: GA
Ambient Gas concentration:
CO ₂ : ND
CH ₄ : ND
O ₂ : 20.4

GROUND GAS AND GROUNDWATER MONITORING RESULTS

JOB DETAILS:	Halifax Road	Job No:			
Client:	Fourways Project	Visit No:	8	of	9
Site:	Longley Hey Farm	Operator:	Carl Hill		
Date:	09/11/2024	Project Manager:	Umo Antia		



Monitoring Point	GAS CONCENTRATIONS												FLOW DATA		Water Depth (mbgl)	Well Depth Drilled (mbgl)	Response Zone	Notes
	Methane (%v/v)		%LEL		Carbon dioxide (%v/v)		Carbon monoxide (ppm)		PID (ppm)		Oxygen (%v/v)		Flow rate (l/hr)					
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Lowest	Steady	Peak	Steady				
BH01	0.0	0.0	0.0	0.0	16.1	16.1	0.0	0.0	1.0	1.0	1.3	1.9	0.0	0.0	Dry	3.00	Made Ground	
BH02	0.0	0.0	0.0	0.0	11.5	11.3	0.0	0.0	1.0	1.0	0.0	0.1	3.2	0.2	3.70	4.00	Made Ground	
BH03	0.0	0.0	0.0	0.0	6.5	5.5	0.0	0.0	1.0	1.0	6.2	6.5	0.0	0.0	Dry	3.00	Made Ground	
Max	0.0	0.0	0.0	0.0	16.1	16.1	0.0	0.0	1.0	1.0	6.2	6.5	3.2	0.2				
Min	0.0	0.0	0.0	0.0	6.5	5.5	0.0	0.0	1.0	1.0	0.0	0.1	0.0	0.0				

METEOROLOGICAL AND SITE INFORMATION:
State of ground: Dry
Wind: Mild
Cloud cover: Cloudy
Precipitation: Nil
Barometric pressure (mbar): 996
Pressure trend: Rising
Ground gas meter: GA
Ambient Gas concentration:
CO ₂ : ND
CH ₄ : ND
O ₂ : 20.4

GROUND GAS AND GROUNDWATER MONITORING RESULTS

JOB DETAILS:	Halifax Road	Job No:			
Client:	Fourways Project	Visit No:	9	of	9
Site:	Longley Hey Farm	Operator:	Carl Hill		
Date:	16/11/2024	Project Manager:	Umo Antia		



Monitoring Point	GAS CONCENTRATIONS												FLOW DATA		Water Depth (mbgl)	Well Depth Drilled (mbgl)	Response Zone	Notes
	Methane (%v/v)		%LEL		Carbon dioxide (%v/v)		Carbon monoxide (ppm)		PID (ppm)		Oxygen (%v/v)		Flow rate (l/hr)					
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Lowest	Steady	Peak	Steady				
BH01	0.0	0.0	0.0	0.0	14.9	14.6	0.0	0.0	1.0	1.0	2.8	3.0	0.0	0.0	Dry	3.00	Made Ground	
BH02	0.0	0.0	0.0	0.0	11.5	11.1	0.0	0.0	1.0	1.0	0.5	0.7	3.6	0.0	3.70	4.00	Made Ground	
BH03	0.0	0.0	0.0	0.0	5.5	5.3	0.0	0.0	1.0	1.0	4.1	4.3	0.0	0.0	Dry	3.00	Made Ground	
Max	0.0	0.0	0.0	0.0	14.9	14.6	0.0	0.0	1.0	1.0	4.1	4.3	3.6	0.0				
Min	0.0	0.0	0.0	0.0	5.5	5.3	0.0	0.0	1.0	1.0	0.5	0.7	0.0	0.0				

METEOROLOGICAL AND SITE INFORMATION:
State of ground: Dry
Wind: Mild
Cloud cover: Cloudy
Precipitation: Nil
Barometric pressure (mbar): 1014
Pressure trend: Falling
Ground gas meter: GA
Ambient Gas concentration:
CO ₂ : ND
CH ₄ : ND
O ₂ : 20.4

TEST DATE AND CONDITIONS			
Date		19/12/2023	
Atmospheric Pressure		1000	mB
Ambient Temperature		23.0	°C
EnviroNics Serial No.		5089	

*GFM436 Final Inspection & Calibration
Check Certificate*

GAS DATA LTD

Unit D
Earlplace Business Park
Fletchamstead Highway
Coventry
CV4 9XL



GAS DATA
SYSTEMS - ANALYSIS - TRAINING

Tel 02476303311 Fax 02476307711

Customer	Ribble Enviro Ltd
Certificate Number	124805
Order Number	336328

Serial Number	12168
Software Version	G436-00.0027/0008

Recalibration DUE Date
19/12/24

Instrument Checks					
Keyboard	✓		Display Contrast	✓	
Pump Flow In	450	Accept > 200 cc/min	Pump Flow @ -200mB	300	Accept > 200 cc/min
Clock Set / Running	✓		Labels Fitted	✓	

Gas Checks						
Sensor	CH ₄		CO ₂		O ₂	
	Instrument Gas	True Gas Value %	Instrument Gas	True Gas Value %	Instrument Gas	True Gas Value %
	Readings %		Readings %		Readings %	
	59.8	60	39.3	40	20.9	20.9
	Accept ±3.0		Accept ±3.0		Accept ±0.5	
Zero Reading 100% N2	5.0	5	4.9	5	6.0	6
	Accept ±0.3		Accept ±0.3		Accept ±0.3	
Zero Reading 100% N2	0.0	0	0.0	0	0.0	0
	Accept ±0.0		Accept ±0.0		Accept ±0.1	

Optional Gas Checks						
Applied Gas & Range		Concentration Tested @ (ppm)	Instrument Readings (ppm)			
Gas Type	Range (ppm)		Zero Reading		Instrument Gas Reading	
H2S	5000	1500	0	Accept ±0.0	1500	Accept ±5.0%
CO	2000	1000	0	Accept ±0.0	999	Accept ±5.0%
Hexane	2.0%	2.0%	0	Accept ±0.0	1.99	Accept ±10.0%

Cross Gas Effects								
Applied Gas (ppm)		Instrument Readings (ppm)						
Gas Type	Concentration	Toxic 1:	H2S	Toxic 2:	CO	Toxic 3:	HEX	
H2S	1500	1500		0		0		
CO	1000	110		999		0		
Hexane	2.0%	0		0		1.99		

Pressure Checks			
Atmospheric Pressure [AP] (mB)			
Current Atmospheric Pressure (mB)		Instrument Atmospheric Pressure Reading (mB)	
AP Open Ports		1000	Accept ± 2.0
AP Port (Internal)	+800 mB	800	Accept ± 5.0
	+1200mb	1200	Accept ± 5.0

Flow Checks					
Borehole Flow			Differential Pressure		
Applied Reading (l/h)	Instrument Reading (l/h)		Applied Pressure (Pa)	Instrument Reading (Pa)	
-30	-30.0	Accept ± 3.0	-307	-308	Accept ± 50
-3	-3.0	Accept ± 1.0	-14	-15	Accept ± 6.0
0	0.0	Accept ± 0.0	0	0	Accept ± 0.5
3	3.0	Accept ± 0.5	15	15	Accept ± 3.0
30	29.9	Accept ± 3.0	347	344	Accept ± 50
60	59.8	Accept ± 6.0	1054	1047	Accept ± 130
90	91.0	Accept ± 9.0	2080	2144	Accept ± 250

Temperature Checks		
Calibration Temperature	Instrument Temperature Reading °C	
Applied Temperature °C		
-10	-10.0	Accept ± 2.0
0	0.0	Accept ± 1.0
30	30.0	Accept ± 1.0
60	60.0	Accept ± 1.0
100	100.0	Accept ± 1.0

Technician:
Jack Rutland

Date Tested:
19/12/2023

The instrument identified by the serial number stated above has been tested by Gas Data personnel for calibration accuracy on the date and under the ambient conditions stated. Gas Data Ltd internal BS EN ISO9001:2015, BS EN ISO14001:2015, BS EN ISO45001:2018 compliant workshop procedures were followed to apply known calibration test gases, gas flow rates, pressures and temperatures of the values stated. The results displayed on the instrument at each stage are recorded above.

Gas Data Ltd is certified to BS EN ISO9001:2015, BS EN ISO14001:2015, BS EN ISO45001:2018.

APPENDIX 10

CHEMICAL LEACHATE ACCEPTABILITY CRITERIA

Chemical Leachate Acceptability Criteria

Determinand	Units	DWS / WHO	Threshold Value (µg/l)
Arsenic	µg/l	10	80
Boron	µg/l	1,000	8,000
Cadmium	µg/l	5	40
Chromium (total)	µg/l	50	400
Copper	µg/l	2,000	16,000
Lead	µg/l	10	80
Mercury	µg/l	1	8
Nickel	µg/l	20	160
Selenium	µg/l	10	80
Zinc	µg/l	6,000	48,000
Total Cyanide	µg/l	50	400
Ammoniacal nitrogen (as NH ₄)	µg/l	500	4,000
Sulphate	mg/l	250	2,000
TPH Aliphatics C6-C8	µg/l	15,000	120,000
TPH Aliphatics C8-C10	µg/l	300	2,400
TPH Aliphatics C10-C12	µg/l	300	2,400
TPH Aliphatics C12-C16	µg/l	300	2,400
TPH Aliphatics C16-C21	µg/l	300	2,400
TPH Aliphatics C21-C35	µg/l	300	2,400
TPH Aromatics C5-C7 (benzene)	µg/l	1	8
TPH Aromatics C7-C8	µg/l	700	560
TPH Aromatics C8-C10	µg/l	300	2,400
TPH Aromatics C10-C12	µg/l	90	720
TPH Aromatics C12-C16	µg/l	90	720
TPH Aromatics C16-C21	µg/l	90	720
TPH Aromatics C21-C35	µg/l	90	720
Phenol*	µg/l	5,800	46,400
2,4-dimethylphenol*	µg/l	360	2,880
2,6-dimethylphenol*	µg/l	11	88
3,4-dimethylphenol*	µg/l	18	144
2-methylphenol*	µg/l	930	7,440
3-methylphenol*	µg/l	930	7,440
4-methylphenol*	µg/l	1,900	15,200
Anthracene	µg/l	90	900
Acenaphthylene	µg/l	18	144

