

Appendix V

Soil Test Results

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/12494
Issue Number: 1

Date: 09 January, 2023

Client: MET Engineers Ltd
Southgate House
Pontefract Road
Leeds
LS10 1SW

Project Manager: Thomas White/Yasemin Kolsuz
Project Name: Parkside Sports and Community Centre, Hoyland
Project Ref: P22-01115
Order No: PO-07493
Date Samples Received: 19/12/22
Date Instructions Received: 20/12/22
Date Analysis Completed: 09/01/23

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 22/12494

Client Project Name: Parkside Sports and Community Centre, Hoyland

Client Project Ref: P22-01115

Lab Sample ID	22/12494/1	22/12494/2	22/12494/3	22/12494/4	22/12494/5	22/12494/6	22/12494/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP01a	TP01b	CP01	CP01	CP01	CP01	CP01			
Depth to Top	1.00	1.00	0.00	1.00	1.20	5.00	8.10			
Depth To Bottom			0.40	2.00	1.35	6.00	9.00			
Date Sampled	16-Dec-22	16-Dec-22	16-Dec-22	16-Dec-22	16-Dec-22	16-Dec-22	16-Dec-22			
Sample Type	Soil - B	Soil - B	Soil - B	Soil - B	Soil - D	Soil - B	Soil - B			
Sample Matrix Code	6A	6A			6A					
% Stones >10mm _A	<0.1	<0.1	-	-	<0.1	-	-	% w/w	0.1	A-T-044
pH _D ^{M#}	8.16	4.86	-	-	8.30	-	-	pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.04	0.03	-	-	0.01	-	-	g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	320	250	-	-	-	-	-	mg/kg	200	A-T-028s
(1.01) Item 1a Moisture Content of Soil (Oven Dried Method) _A	Appended	Appended	Appended	-	-	-	-			Subcon IFA
(1.02) Item 2a 4 Point Liquid & Plastic Limit by Cone Penetrometer _A	Appended	Appended	Appended	-	-	-	-			Subcon IFA
(1.10a) Item 12a Particle Size Distribution (Wet Sieving Method) _A	-	-	-	Appended	-	Appended	Appended			Subcon IFA

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

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 with the same delivery, will be disposed of six weeks after 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 the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples 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.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

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 analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

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.

Asbestos:

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.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. 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) quantification by sedimentation is performed. 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.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these humic substances is not included in the quantified results and are included in the ID for information.

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: MET Engineers Ltd, Southgate House, Pontefract Road, Leeds, LS10 1SW

Project No: 22/12494

Project: Parkside Sports and Community Centre, Hoyland

Date Received: 20/12/2022 (am)

Cool Box Temperatures (°C): 9.3, 9.1, 9.2, 9.3, 9.0, 9.1

Clients Project No: P22-01115

NO DEVIATIONS IDENTIFIED with respect to sampling dates or containers received.

Note: If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3 (for water samples $5 \pm 3^{\circ}\text{C}$), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	22/12494/1	22/12494/2	22/12494/3	22/12494/4	22/12494/5	22/12494/6	22/12494/7
Client Sample No							
Client Sample ID/Depth	TP01a 1.00m	TP01b 1.00m	CP01 0.00- 0.40m	CP01 1.00- 2.00m	CP01 1.20- 1.35m	CP01 5.00- 6.00m	CP01 8.10- 9.00m
Date Sampled	16/12/22	16/12/22	16/12/22	16/12/22	16/12/22	16/12/22	16/12/22
A-T-026s	23/12/2022	23/12/2022			23/12/2022		
A-T-028s	23/12/2022	23/12/2022					
A-T-031s	23/12/2022	23/12/2022			23/12/2022		
A-T-044	22/12/2022	22/12/2022			22/12/2022		

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

F.A.O.

Final Test Report - 2281327 / 1

Site: Parkside Sports

Job Number: 2281327

Originating Client: Envirolab

Originating Reference: 22/12494

Date Sampled: Not Given

Date Scheduled: 21/12/2022

Date Testing Started: 22/12/2022

Date Testing Finished: 09/01/2023

Previous Reports		Amendments	Date Issued

Amendments:

Authorised By:

Tim Robinson
Quality Supervisor

Report Issue Date: 09/01/2023

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Results reported relate only to the samples tested.

Site: Parkside Sports

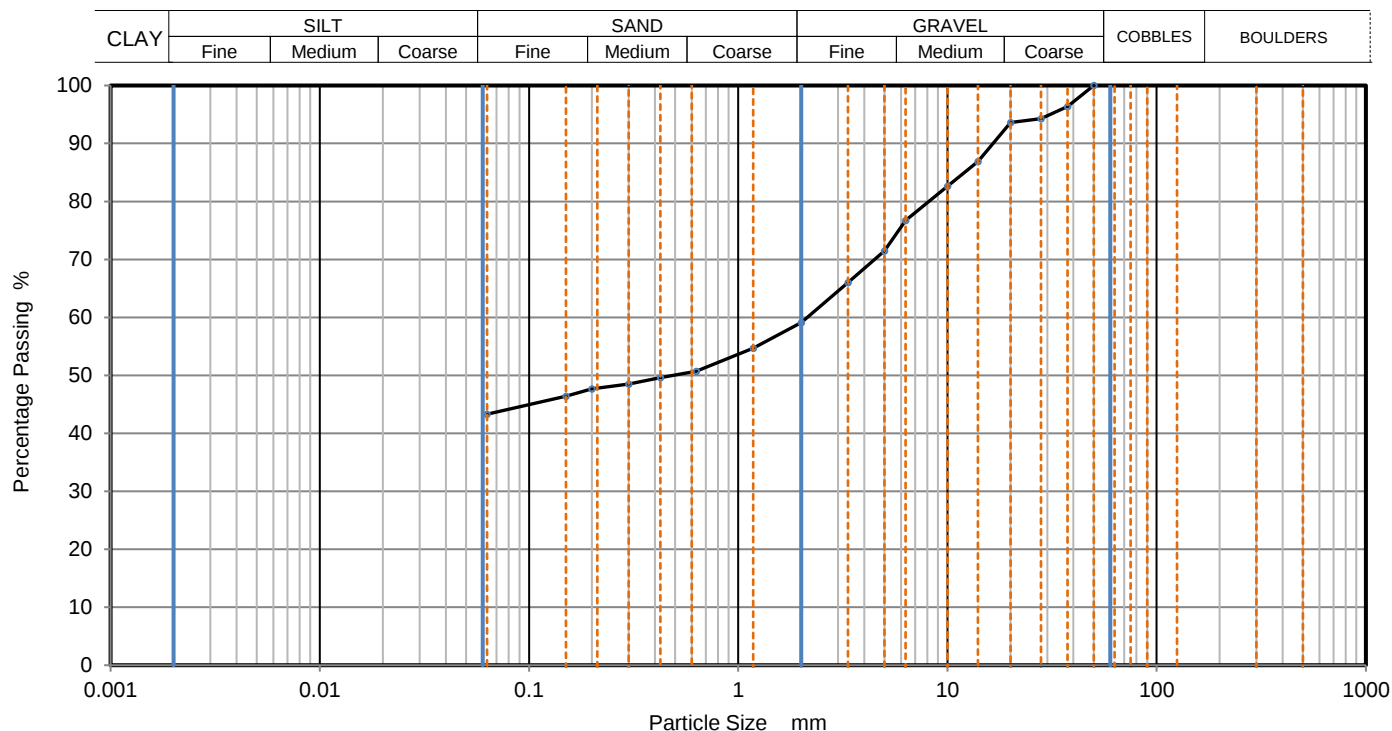
Job Number: 2281327

Client: Envirolab

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DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Trial Pit	Depth (m)	Sample	Testing Type	Description
CP01	1.00		Wet Sieve	Grey sandy, clayey, silty GRAVEL



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
50	100		
37.5	96		
28	94		
20	94		
14	87		
10	83		
6.3	77		
5	72		
3.35	66		
2	59		
1.18	55		
0.63	51		
0.425	50		
0.3	49		
0.2	48		
0.15	46		
0.063	43		

Dry Mass of sample, g
1966

Sample Proportions	% dry mass
Very coarse	0
Gravel	41
Sand	16
Fines <0.063mm	43

Grading Analysis		
D100	mm	50
D60	mm	2.14
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

Site: Parkside Sports

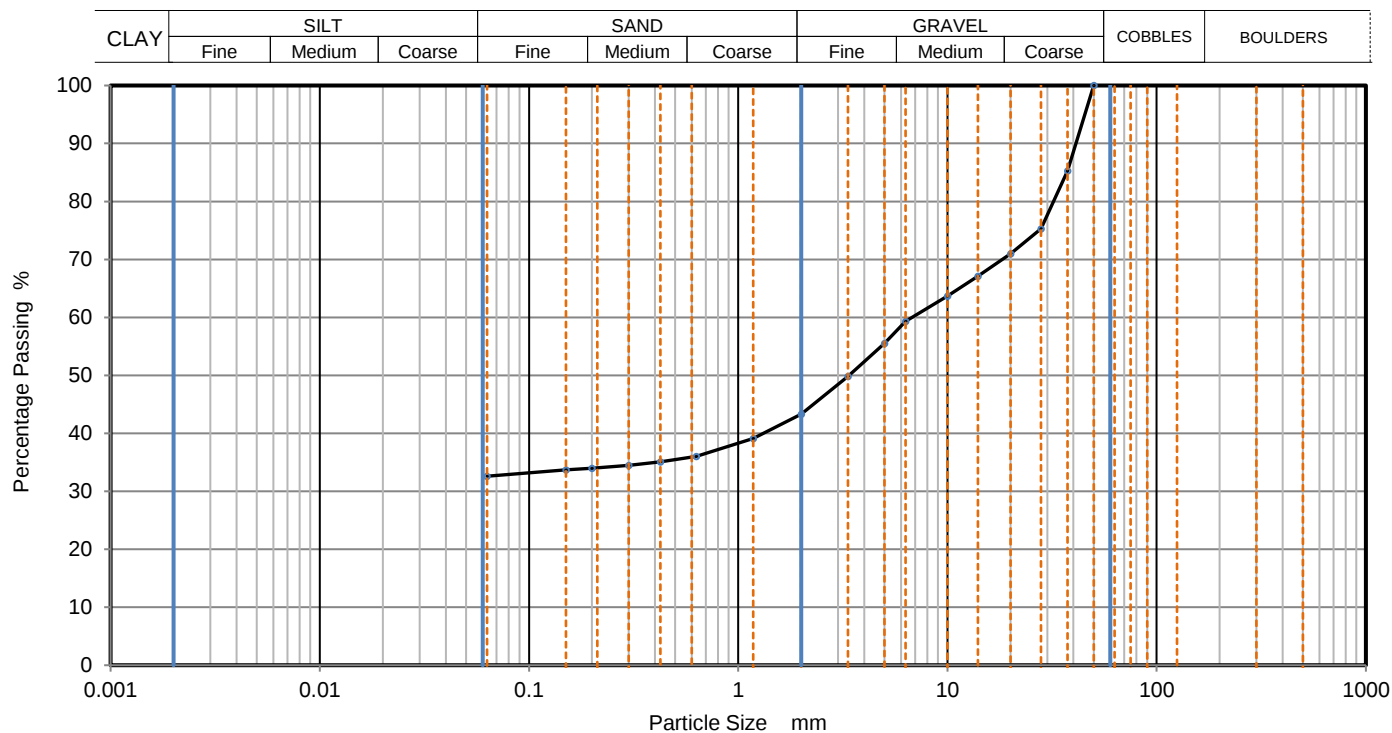
Job Number: 2281327

Client: Envirolab

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DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Trial Pit	Depth (m)	Sample	Testing Type	Description
CP01	5.00		Wet Sieve	Grey sandy, silty GRAVEL



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
50	100		
37.5	85		
28	75		
20	71		
14	67		
10	64		
6.3	59		
5	56		
3.35	50		
2	43		
1.18	39		
0.63	36		
0.425	35		
0.3	35		
0.2	34		
0.15	34		
0.063	33		

Dry Mass of sample, g
3222

Sample Proportions	% dry mass
Very coarse	0
Gravel	57
Sand	11
Fines <0.063mm	33

Grading Analysis		
D100	mm	50
D60	mm	6.77
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

Site: Parkside Sports

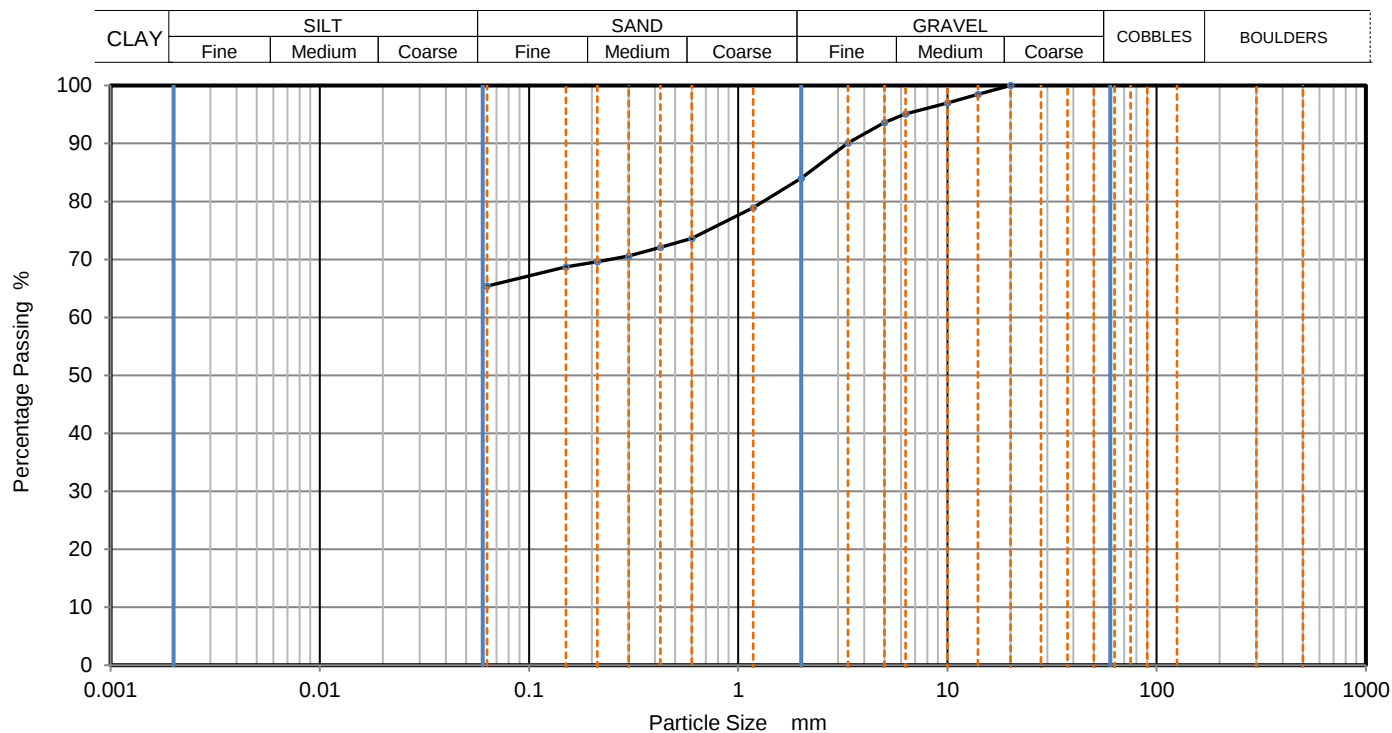
Job Number: 2281327

Client: Envirolab

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DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Trial Pit	Depth (m)	Sample	Testing Type	Description
CP01	8.10		Wet Sieve	Grey gravelly, sandy, clayey SILT



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
20	100		
14	99		
10	97		
6.3	95		
5	94		
3.35	90		
2	84		
1.18	79		
0.6	74		
0.425	72		
0.3	71		
0.212	70		
0.15	69		
0.063	65		

Dry Mass of sample, g
1358

Sample Proportions	% dry mass
Very coarse	0
Gravel	16
Sand	19
Fines <0.063mm	65

Grading Analysis		
D100	mm	20
D60	mm	
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 - 2281327 / 1

Site: Parkside Sports

Job Number: 2281327

Originating Client: Envirolab

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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 Issue Date: 09/01/2023

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 23/00512
Issue Number: 1

Date: 27 January, 2023

Client: MET Engineers Ltd
Southgate House
Pontefract Road
Leeds
LS10 1SW

Project Manager: Thomas White/Yasemin Kolsuz
Project Name: Parkside Sports and Community Centre, Hoyland
Project Ref: P22-01115
Order No: PO-07624
Date Samples Received: 23/01/23
Date Instructions Received: 23/01/23
Date Analysis Completed: 27/01/23

Approved by:



Gemma Berrisford
Client Manager

Envirolab Job Number: 23/00512

Client Project Name: Parkside Sports and Community
Centre, Hoyland

Client Project Ref: P22-01115

Lab Sample ID	23/00512/1	23/00512/2	23/00512/3	23/00512/4				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS02	WS02	WS04	WS05						
Depth to Top	1.20	1.50	0.80	1.50						
Depth To Bottom	1.65	2.00		2.00						
Date Sampled	20-Jan-23	20-Jan-23	20-Jan-23	20-Jan-23						
Sample Type	Soil - D	Soil - B	Soil - D	Soil - D						
Sample Matrix Code	3A		3A	3A						
% Stones >10mm _A	<0.1	-	<0.1	<0.1				% w/w	0.1	A-T-044
pH _D ^{M#}	5.97	-	8.75	5.45				pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.07	-	0.02	0.02				g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	390	-	340	<200				mg/kg	200	A-T-028s
(1.01) Item 1a Moisture Content of Soil (Oven Dried Method) _A	-	Appended	-	-						Subcon IFA
(1.02) Item 2a 4 Point Liquid & Plastic Limit by Cone Penetrometer _A	-	Appended	-	-						Subcon IFA

REPORT NOTES

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Analytical results reflect the quality of the sample at the time of analysis only.

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A deviating samples 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.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

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 analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

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.

Asbestos:

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.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. 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) quantification by sedimentation is performed. 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.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: MET Engineers Ltd, Southgate House, Pontefract Road, Leeds, LS10 1SW

Project No: 23/00512

Project: Parkside Sports and Community Centre, Hoyland

Date Received: 23/01/2023 (pm)

Clients Project No: P22-01115

Cool Box Temperatures (°C): 7.9

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	23/00512/1	23/00512/2	23/00512/3	23/00512/4
Client Sample No				
Client Sample ID/Depth	WS02 1.20-1.65m	WS02 1.50-2.00m	WS04 0.80m	WS05 1.50-2.00m
Date Sampled	20/01/23	20/01/23	20/01/23	20/01/23
A-T-026s	25/01/2023		25/01/2023	25/01/2023
A-T-028s	25/01/2023		25/01/2023	25/01/2023
A-T-031s	25/01/2023		25/01/2023	25/01/2023
A-T-044	24/01/2023		24/01/2023	24/01/2023

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

F.A.O.

Final Test Report - 2281352 / 1

Site: P22-01115

Job Number: 2281352

Originating Client: Envirolab

Originating Reference: 23/00512

Date Sampled: Not Given

Date Scheduled: 25/01/2023

Date Testing Started: 25/01/2023

Date Testing Finished: 27/01/2023

Previous Reports		Amendments	Date Issued

Amendments:

Authorised By:

Tim Robinson
Quality Supervisor

Report Issue Date: 27/01/2023

Page. 1

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Results reported relate only to the samples tested.



Final Test Report - 2281352 / 1

Site: P22-01115

Job Number: 2281352

Originating Client: Envirolab

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

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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 Issue Date: 27/01/2023

Appendix VI

Gas Monitoring Results and Gas Monitor Calibration Certificate



MET Engineers Ltd
 Southgate House, Pontefract Road,
 Leeds, W. Yorkshire, LS10 1SW
 Tel: 0113 200 8900 Fax: 0113 200 8901
 Web: www.metengineers.com

Gas Monitoring Record

Client	Barnsley MBC
Project No.	P22-01115
Project Title:	Parkside, Hoyland
Borehole No:	CP01
Response Zone:	1.0 - 3.0mbgl
Grid Reference:	E:435957, N:399770
Equipment:	Geo Tech GA5000

Date	Time	Weather	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	H ₂ S (%)	CO (ppm)	Balance (%)	Atmospheric Pressure (mb)	Relative Pressure (mb)	Pressure Trend*	Flow (l/h)	Water (mBGL)	BH Depth (mBGL)
02.02.23	11.45	Clear	0	0.1	21.1	0	0	78.8	1008	-0.1	↓	-0.1	Dry	3

* Pressure trend taken from nearest Met Office observation point.



MET Engineers Ltd
 Southgate House, Pontefract Road,
 Leeds, W. Yorkshire, LS10 1SW
 Tel: 0113 200 8900 Fax: 0113 200 8901
 Web: www.metengineers.com

Gas Monitoring Record

Client	Barnsley MBC
Project No.	P22-01115
Project Title:	Parkside, Hoyland
Borehole No:	WS04
Response Zone:	0.5 - 1.0mbgl
Grid Reference:	E:435928, N:399798
Equipment:	Geo Tech GA5000

Date	Time	Weather	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	H ₂ S (%)	CO (ppm)	Balance (%)	Atmospheric Pressure (mb)	Relative Pressure (mb)	Pressure Trend*	Flow (l/h)	Water (mBGL)	BH Depth (mBGL)
02.02.23	11.53	Clear	0	0.1	21.7	0	0	78.1	1008	0.02	↓	-0.6	0.6	1

* Pressure trend taken from nearest Met Office observation point.



MET Engineers Ltd
 Southgate House, Pontefract Road,
 Leeds, W. Yorkshire, LS10 1SW
 Tel: 0113 200 8900 Fax: 0113 200 8901
 Web: www.metengineers.com

Gas Monitoring Record

Client	Barnsley MBC
Project No.	P22-01115
Project Title:	Parkside, Hoyland
Borehole No:	WS05
Response Zone:	0.3 - 1.8mbgl
Grid Reference:	E:435919, N:399790
Equipment:	Geo Tech GA5000

Date	Time	Weather	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	H ₂ S (%)	CO (ppm)	Balance (%)	Atmospheric Pressure (mb)	Relative Pressure (mb)	Pressure Trend*	Flow (l/h)	Water (mBGL)	BH Depth (mBGL)
02.02.23	11.59	Clear	0	3.2	17.7	0	0	79.1	1008	-0.02	↓	-0.1	Dry	1.8

* Pressure trend taken from nearest Met Office observation point.

CERTIFICATION OF CALIBRATION



Date Of Calibration: 08-Nov-2022

Certificate Number: G500155_1/31567

Issued by: QED Environmental Systems Ltd.

Customer: Met Engineers
Southgate House Pontefract Road LEEDS
LS10 1SW UNITED KINGDOM

Description: Gas Analyser

Model: GA5000

Serial Number: G500155

UKAS Accredited results:

Results after adjustment :

Methane (CH ₄)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	5.0	0.072
15.0	15.1	0.13
60.0	59.8	0.42

Carbon Dioxide (CO ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.9	0.074
15.0	14.9	0.13
40.0	40.1	0.29

Oxygen (O ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
21.2	21.3	0.25

The inwards assessment was carried out 07-Nov-2022.

The maximum adjustment is larger than the specification limit.

Inwards assessment data is available if requested.

All concentrations are molar.

CH₄, CO₂ readings recorded at : 31.4 °C ± 2.5 °C

O₂ readings recorded at : 23.0 °C ± 2.5 °C

Barometric Pressure : 0983 mbar ± 4 mbar

Method of Test : The analyser is calibrated in a temperature controlled chamber using a series of reference gases, in compliance with procedure LP004.

Instrument has passed calibration as the measurement result is within the specification limit. The specification limit takes into account the measurement uncertainty.

The results relate only to the item calibrated

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance: 114 IGC Instance: 114

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www.qedenv.com +44 (0) 333 800 0088 sales@qedenv.co.uk

QED Environmental Systems Ltd. Cyan Park - Unit 3, Jimmy Hill Way, Coventry, CV2 4QP, UNITED KINGDOM

Registered in England and Wales 1898734

CERTIFICATION OF CALIBRATION



Date Of Calibration: 08-Nov-2022

Certificate Number: G500155_1/31567

Issued by: QED Environmental Systems Ltd.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Calibrations marked 'Non-UKAS Accredited results' on this certificate have been included for completeness.

Non-UKAS accredited results after adjustment:

Barometer (mbar)	
Reference	Instrument Reading
983	984

Additional Gas Cells		
Gas	Certified Gas (ppm)	Instrument Reading (ppm)
H ₂ S	260	260
CO	505	506

Internal Flow	
Applied (l/hr)	Instrument Reading (l/hr)
5.0	5.0
10.0	10.0

Date of Issue : 10-Nov-2022

Approved by Signatory

Keeley Knight

Laboratory Inspection

End of Certificate

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance:114 IGC Instance:114

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Appendix VII

Photoionisation Detector (PID) Calibration Certificate



Certificate of Calibration

Customer: MET Consulting Group

Instrument: MiniRAE Lite

Job: Service, Test & Calibration

Serial number: 595-003350

Fleet Number: N/A

Certificate no: 003350/070422

Next calibration due date: 07. Apr. 2023

Tested on: 07. Apr. 2022

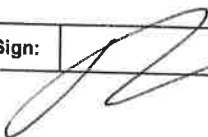
Calibrated for: Isobutylene

<u>Applied Gas Concentration:</u>	<u>Cylinder Reference:</u>	<u>Final Sensor Reading</u>	<u>Accuracy Limits</u>	<u>Pass / Fail</u>
Isobutylene: 100ppm	1055/3021	100.0ppm	± 10%	Pass

The Instrument has been calibrated after Re-Zeroing & Introducing Span Calibration Gas, using gas that is traceable to national standards and has been prepared in accordance with BS EN ISO6145-6:2017

Calibration Engineer: Chris Shillitoe

Sign: 

Quality Assessed by (Print): <u>Dan</u>	Sign: 
--	--

Appendix VIII

Proposed Site Layout and Additional Investigation Plan



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1. Do not scale dimensions from this drawing in either paper or electronic format.
2. To be read in conjunction with all relevant Engineer's, Architect's and Other drawings and specifications.
3. All building products to be used in strict accordance with the manufacturer's recommendations.
4. Any discrepancies are to be reported to the Engineer immediately.
5. Main Contractor to provide a detailed method statement for all works prior to commencement on site.

= Approximate Proposed Pile Location

= Approximate Proposed Rotary Borehole Location

= Observed Opencast Highwall Location

01	10.02.23	TAW	Initial Proposal	IFL
Issue	Date	Drawn	Description	Chk'd

Met
ENGINEERS

Met Engineers Ltd
Southgate House
Pontefract Road,
Stourton, Leeds
West Yorkshire
LS10 1SW

Tel: 0113 200 8900
Fax: 0113 200 8901
email: admin@metengineers.com
www.metengineers.com

Client
Barnsley Metropolitan Borough Council

Project
Parkside Sports and Community Centre
P22-01115

Title
Proposed Site Layout and
Additional Investigation Plan

Drawn	TAW	Checked		Scale	NTS
Date	10.02.2023	Date		Original Size	A3
Status	Final				

Drawing No
P22-01115-Met-RP-GE-002

Version
1