



Project Scours Lane				Borehole No WS03	
Job No 53924	Start 24/09/2024 End 24/10/2024	Ground Level (mOD) 41.23	Co-Ordinates (Local Grid) E 468564.32 N 174292.08		Depth (m) 3.00
Client Weybourne Limited			SPT Energy Ratio % 81	Sheet Sheet 1 of 1	Status FINAL

SAMPLES & TESTS			Stratum Description	Depth (thickness)	Reduced Level	Water	Legend	Instrument / Backfill
Depth (m)	Type No	Test Result						
0.10	ES 1	N=0 (1,0/0,0,0,0)	Soft dark brown slightly sandy slightly gravelly CLAY with frequent rootlets (<2mm). Gravel is subangular to subrounded fine to coarse of flint and quartzite. Sand is fine to coarse.	0.00	40.93			
0.30	D 2		[TOPSOIL]	(0.30)				
0.50	D 3		Soft dark brown mottled light brown sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse of flint, black flint and red brick. Sand is fine to coarse.	0.30				
0.50	ES 4		[MADE GROUND]	(0.90)				
1.00	D 5	N=9 (2,1/2,2,3,2)	Loose dark brown locally greyish black gravelly clayey fine to coarse SAND. Gravel is angular to subrounded fine to coarse of flint, red brick and rare coal.	1.20	40.03			
1.00	ES 6			(0.80)				
1.20	SPT			(0.50)				
1.50	ES 7			(0.50)				
1.70	D 8	N=12 (3,4/4,4,2,2)	Firm brown locally orangish brown sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse of flint and red brick. Sand is fine to coarse.	2.00	39.23			
2.00	SPT			(0.50)				
2.10	ES 9			(0.50)				
2.20	D 10			(0.50)				
2.60	ES 11	N=12 (3,4/4,4,2,2)	Loose slightly gravelly slightly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of flint and rare chalk.	2.50	38.73			
2.70	D 12			(0.50)				
3.00	SPT			(0.50)				
				(0.50)				
			2.99 to 2.99m - ... becoming medium dense.		38.23			
			End of Borehole at 3.00m					

A2 Site Investigation

Borehole Log

Project

Scours Lane

Borehole No

WS04

Job No

53924

Start

24/09/2024

Ground Level (mOD)

41.45

Co-ordinates (Local Grid)

E 468573.72 N 174263.19

Depth (m)

3.00

End

24/10/2024

Client

Weybourne Limited

Status

FINAL

Standard Penetration Test Summary					
Test Type	Depth Top	Depth Casing	Depth Water	N Value	Reported Result
S	1.20			12	N=12 (2,3/2,3,3,4)
S	2.00			21	N=21 (4,5/5,6,5,5)
S	3.00			20	N=20 (4,4/4,5,5,6)

Installation / Instrument Details				
Date	Instr. Type	To (m)	Response Zone (m)	Remarks
25/09/2024	SP	3.00	1.00-3.00	

Dynamic Sampling Runs			
Depth Top	Dia. (mm)	Rec. %	Remarks

Boring Progress and Backfill									
Drilling Progress			Hole Diameter		Casing		Backfill		
Date	Time	Depth(m)	Depth(m)	Dia.(mm)	Depth (m)	Dia(mm)	Depth (m)	Backfill	
24/10/2024	16:00	3.00					0.00 - 0.20 0.20 - 1.00 1.00 - 3.00	Concrete Bentonite Gravel	

Water Observations					
Date/Time	Depth Strike (m)	Depth Casing (m)	Time Elapsed (min)	Depth Sealed (m)	Rose To (m)

General Remarks

1. Borehole scanned with GPR, CAT & Genny prior to excavation.

2. Hand excavated inspection pit to 1.20m.

3. Installation: 0.00-1.00m plain pipe, 1.00-3.00m slotted pipe.

4. No groundwater strikes encountered.

5. DCP07 and DCP08 test carried out in this location at 0.30m bgl and 0.50m bgl.

Keys

SAMPLES

ES - Environmental Sample (Tub, Vial, Jar)

AZCL Assumed Zone of Core Loss

U - 100mm Diameter Undisturbed Sample

UT - 100mm Diameter Thin Wall Undisturbed Sample

U38 - 38mm Diameter Undisturbed Sample

D - Disturbed Sample, B-Bulk Sample, LB- Large Bulk Sample, BLK-Block Sample

C - Core Sample, W-Water Sample, R-Root Sample

TESTS

S/C-SPT / CPT, V-Shear Vane, PP-Pocket Penetrometer, MP-Mackintosh Probe, VOC-Volatile Organic Compound

INSTALLATION DETAILS

SPIE - Standpipe Piezometer

SPGW - Groundwater Monitor Standpipe

SPG/GW - Gas / Groundwater Monitor Standpipe

VWP - Vibrating Wire Piezometer

ICM - Inclinator

Hole Type

IP - Inspection Pit, TP-Trial Pit TT - Trial Trench

CP - Cable Percussion, RC-Rotary Coring, R/S-Rotary/Sonic

DS -Dynamic Sampling, DS/R-Dynamic Sampling / Rotary

DC -Diamond Coring, CPR-Cable Percussion Rotary follow on



Project Scours Lane					Borehole No WS04	
Job No 53924	Start 24/09/2024 End 24/10/2024	Ground Level (mOD) 41.45	Co-Ordinates (Local Grid) E 468573.72 N 174263.19		Depth (m) 3.00	
Client Weybourne Limited			SPT Energy Ratio % 81	Sheet Sheet 1 of 1	Status FINAL	

SAMPLES & TESTS			Stratum Description	Depth (thickness)	Reduced Level	Water	Legend	Instrument / Backfill
Depth (m)	Type No	Test Result						
0.10	ES 1	N=12 (2,3/2,3,3,4)	Soft brown slightly gravelly sandy CLAY with frequent rootlets (<2mm). Gravel is subangular to subrounded fine to coarse of flint and quartzite. Sand is fine to coarse. [TOPSOIL]	0.00 (0.30)	41.15			
0.60	ES 2		Firm brown locally orangish brown sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse of flint, red brick and rare quartzite. Sand is fine to coarse. [MADE GROUND]	0.30 (0.90)				
1.00	ES 3							
1.20	SPT	N=21 (4,5/5,6,5,5)	Medium dense dark brown very gravelly slightly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of flint, red brick and rare chalk. [MADE GROUND]	1.20	40.25			
1.50 1.50	D 4 ES 5							
2.00 2.00 2.00	SPT D 6 ES 7		Firm brown slightly gravelly very sandy CLAY. Gravel is subangular to subrounded fine to coarse of flint, quartzite and rare red brick. Sand is fine to coarse. [MADE GROUND]	2.00				
2.50	D 8	N=20 (4,4/4,5,5,6)		(1.00)	38.45			
3.00 3.00	SPT D 9		End of Borehole at 3.00m					



Trial Pit Log

SAMPLES & TESTS			Stratum Description	Depth (thickness)	Reduced Level	Water	Legend
Depth (m)	Type No	Test Result					
			Soft brown slightly gravelly sandy CLAY with frequent rootlets (<2mm). Gravel is subangular to subrounded fine to coarse of flint and quartzite. Sand is fine to coarse. [TOPSOIL]	0.00 (0.30)			
			Firm brown locally orangish brown sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse of flint, red brick and rare quartzite. Sand is fine to coarse. [MADE GROUND]	0.30 (0.20)	39.90		
			<i>0.45 to 0.50m - ...concrete obstruction</i> End of Pit at 0.50m		39.70		

General Remarks

1. Pit scanned with GPR, CAT & Genny prior to excavation.
2. Hand excavated inspection pit to 0.50m.
3. Pit terminated due to concrete obstruction encountered at 0.45m bgl.
4. Pit backfilled with arisings.



Contractor

A2 Site Investigation

Method

Insulated Hand Digging Tools

Logged By
OC

Approved by
JE



Trial Pit Log

[illegible]

	All dimensions in metres Scale 1:50	Contractor A2 Site Investigation	Method Insulated Hand Digging Tools	Logged By OC	Approved by JE
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Trial Pit Log

[illegible]

	All dimensions in metres Scale 1:50	Contractor A2 Site Investigation	Method Insulated Hand Digging Tools	Logged By OC	Approved by JE
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A2 Site Investigation

Borehole Log

Project Scours Lane				Borehole No WS06	
Job No 53924	Start 24/09/2024 End 24/10/2024	Ground Level (mOD) 39.07	Co-ordinates (Local Grid) E 468608.51 N 174261.37		Depth (m) 3.00
Client Weybourne Limited				Status FINAL	

Standard Penetration Test Summary					
Test Type	Depth Top	Depth Casing	Depth Water	N Value	Reported Result
S	1.20			27	N=27 (3,3/3,8,9,7)
S	2.00			27	N=27 (6,7/7,7,6,7)
S	3.00			18	N=18 (5,4/4,4,5,5)

Installation / Instrument Details				
Date	Instr. Type	To (m)	Response Zone (m)	Remarks

Dynamic Sampling Runs			
Depth Top	Dia. (mm)	Rec. %	Remarks

Boring Progress and Backfill								
Drilling Progress			Hole Diameter		Casing		Backfill	
Date	Time	Depth(m)	Depth(m)	Dia.(mm)	Depth (m)	Dia(mm)	Depth (m)	Backfill
24/10/2024	14:00	3.00					0.00 - 3.00	Arisings

Water Observations					
Date/Time	Depth Strike (m)	Depth Casing (m)	Time Elapsed (min)	Depth Sealed (m)	Rose To (m)

General Remarks

1. Borehole scanned with GPR, CAT & Genny prior to excavation.

2. Hand excavated inspection pit to 1.20m.

3. No groundwater strikes encountered.

4. Borehole backfilled with arisings.

5. DCP07 and DCP08 test carried out in this location at 0.30m bgl and 0.50m bgl.

6. Borehole terminated at scheduled depth.

Keys

SAMPLES

ES - Environmental Sample (Tub, Vial, Jar)

AZCL Assumed Zone of Core Loss

U - 100mm Diameter Undisturbed Sample

UT - 100mm Diameter Thin Wall Undisturbed Sample

U38 - 38mm Diameter Undisturbed Sample

D - Disturbed Sample, B-Bulk Sample, LB- Large Bulk Sample, BLK-Block Sample

C - Core Sample, W-Water Sample, R-Root Sample

TESTS

S/C-SPT / CPT, V-Shear Vane, PP-Pocket Penetrometer, MP-Mackintosh Probe, VOC-Volatile Organic Compound

INSTALLATION DETAILS

SPIE - Standpipe Piezometer

SPGW - Groundwater Monitor Standpipe

SPG/GW - Gas / Groundwater Monitor Standpipe

VWP - Vibrating Wire Piezometer

ICM - Inclinator

Hole Type

IP - Inspection Pit, TP-Trial Pit TT - Trial Trench

CP - Cable Percussion, RC-Rotary Coring, R/S-Rotary/Sonic

DS -Dynamic Sampling, DS/R-Dynamic Sampling / Rotary

DC -Diamond Coring, CPR-Cable Percussion Rotary follow on



Project Scours Lane					Borehole No WS06	
Job No 53924	Start 24/09/2024 End 24/10/2024	Ground Level (mOD) 39.07	Co-Ordinates (Local Grid) E 468608.51 N 174261.37		Depth (m) 3.00	
Client Weybourne Limited			SPT Energy Ratio % 81	Sheet Sheet 1 of 1	Status FINAL	

SAMPLES & TESTS			Stratum Description	Depth (thickness)	Reduced Level	Water	Legend	Instrument / Backfill
Depth (m)	Type No	Test Result						
0.10	ES 1	N=27 (3,3/3,8,9,7)	Soft dark brown slightly gravelly sandy CLAY with frequent rootlets (<2mm). Gravel is subangular to subrounded fine to coarse of flint and quartzite. Sand is fine to coarse. [TOPSOIL]	0.00 (0.30)	38.77			
0.60 0.60	D 2 ES 3		Firm brown locally orangish brown sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse of flint and red brick and rare quartzite. Sand is fine to coarse. [MADE GROUND]	0.30 (0.90)				
1.00 1.00	D 4 ES 5							
1.20	SPT			1.20				
1.50 1.50	D 6 ES 7	N=27 (6,7/7,7,6,7)	Medium dense light brown gravelly slightly clayey fine to coarse SAND. Gravel is angular to subrounded fine to coarse of flint, rare chalk and rare red brick. [MADE GROUND]	(1.10)	37.87			
2.00 2.00 2.00	SPT D 9 ES 8							
2.50	ES 10		Firm brown locally mottled orangish brown sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse of flint, rare chalk and rare quartzite. Sand is fine to coarse. [TAPLOW GRAVEL MEMBER]	2.30 (0.70)				
3.00 3.00 3.00	SPT D 12 ES 11		End of Borehole at 3.00m					
					36.77			
					36.07			



A2 Site Investigation

SOIL INFILTRATION TEST

In accordance with BRE Digest 365

Client: Weybourne Limited

Engineer: WT

Project: Scours Lane

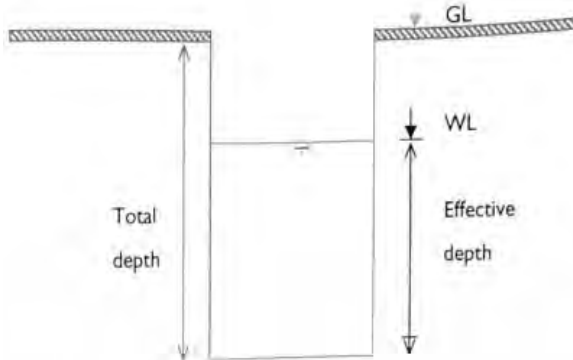
Date: 29.09.24

Job Number: 53924

INF01 - Test 1 (TP01)

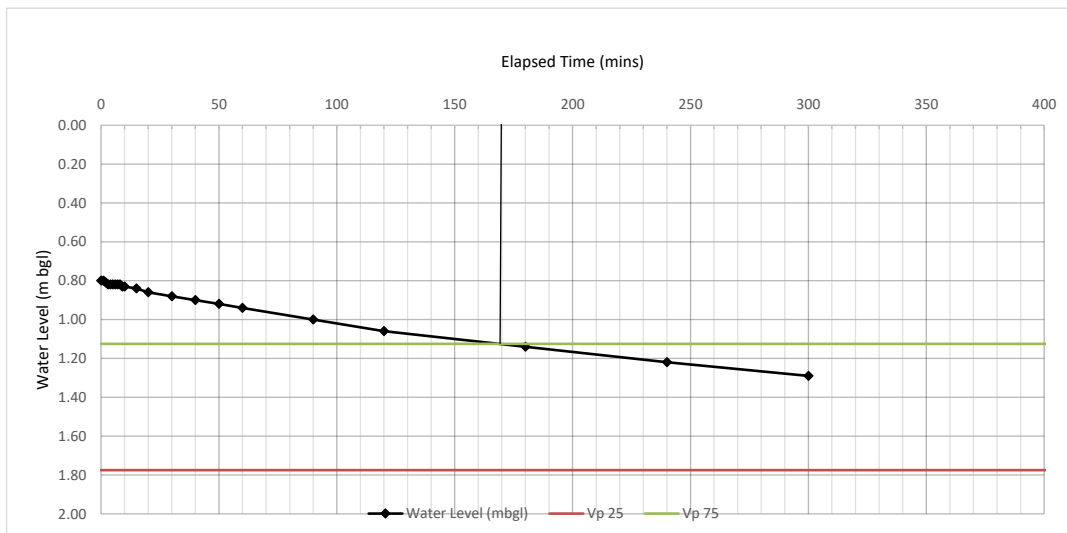
Pit Dimensions

Length (m)	Width (m)	Total depth (m)	Effective depth (m)
1.7	0.5	2.1	1.3



Elapsed Time (mins)	Water Level (mbgl)	Head (m)	Head (%)
0	0.80	1.30	100.0
1	0.80	1.3	100.0
2	0.81	1.29	99.2
3	0.82	1.28	98.5
4	0.82	1.28	98.5
5	0.82	1.28	98.5
6	0.82	1.28	98.5
7	0.82	1.28	98.5
8	0.82	1.28	98.5
9	0.83	1.27	97.7
10	0.83	1.27	97.7
15	0.84	1.26	96.9
20	0.86	1.24	95.4
30	0.88	1.22	93.8
40	0.90	1.2	92.3
50	0.92	1.18	90.8
60	0.94	1.16	89.2
90	1.00	1.1	84.6
120	1.06	1.04	80.0
180	1.14	0.96	73.8
240	1.22	0.88	67.7
300	1.29	0.81	62.3
360	1.33	0.77	59.2
392	1.35	0.75	57.7

Soil Infiltration Rate: 4.26E-06 m/s





A2 Site Investigation

SOIL INFILTRATION TEST

In accordance with BRE Digest 365

Client: Weybourne Limited

Engineer: WT

Project: Scours Lane

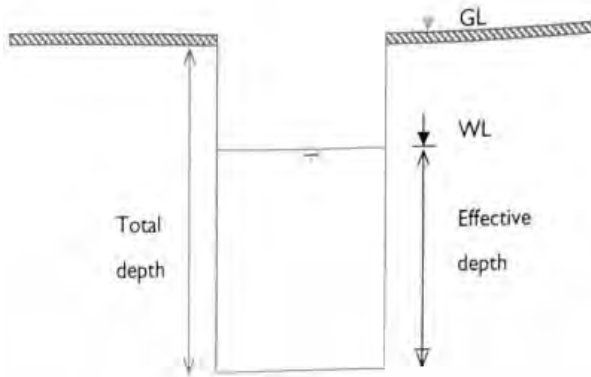
Date: 29.09.24

Job Number: 53924

INF01 - Test 1 (TP01)

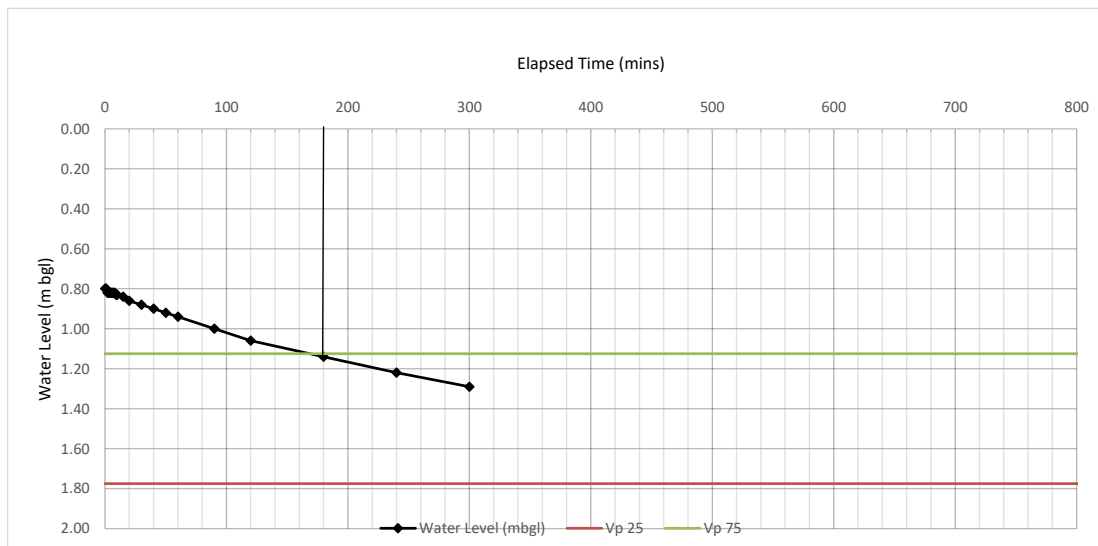
Pit Dimensions

Length (m)	Width (m)	Total depth (m)	Effective depth (m)
1.7	0.5	2.1	1.30



Elapsed Time (mins)	Water Level (mbgl)	Head (m)	Head (%)
0	0.80	1.30	100.0
1	0.80	1.30	100.0
2	0.82	1.28	98.5
3	0.82	1.28	98.5
4	0.82	1.28	98.5
5	0.82	1.28	98.5
6	0.82	1.28	98.5
7	0.82	1.28	98.5
8	0.82	1.28	98.5
9	0.83	1.27	97.7
10	0.83	1.27	97.7
15	0.84	1.26	96.9
20	0.86	1.24	95.4
30	0.88	1.22	93.8
40	0.90	1.20	92.3
50	0.92	1.18	90.8
60	0.94	1.16	89.2
90	1.00	1.10	84.6
120	1.06	1.04	80.0
180	1.14	0.96	73.8
240	1.22	0.88	67.7
300	1.29	0.81	62.3

Soil Infiltration Rate: 5.36E-06 m/s



Penetration Data Report

Project Name: Scours Lane

Chainage (km):
Direction: WS01- DCP01
Location/Offset: Lay-by / other
Cone Angle: 60 degrees
Zero Error (mm): 30
Test Date: 24/09/2024

Surface Type: Unpaved
Thickness (mm): 0
Base Type:
Thickness (mm):
Surface Moisture: Unknown
Moisture adjustment factor: Not adjusted

No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)	No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)
1	0	0	30	0.00					
2	1	1	60	30.00					
3	1	2	120	60.00					
4	1	3	160	40.00					
5	1	4	180	20.00					
6	1	5	200	20.00					
7	1	6	220	20.00					
8	2	8	250	15.00					
9	2	10	290	20.00					
10	2	12	330	20.00					
11	2	14	410	40.00					
12	1	15	470	60.00					
13	1	16	520	50.00					
14	1	17	570	50.00					
15	1	18	600	30.00					
16	1	19	640	40.00					
17	1	20	680	40.00					

Remarks: Test carried out at 0.30m bgl

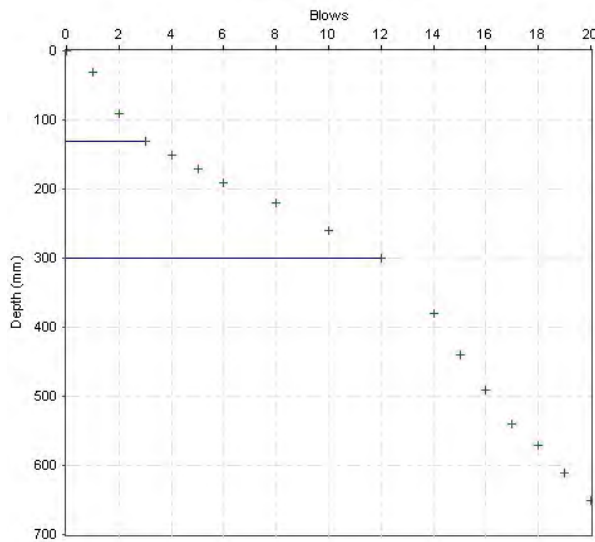
DCP Layer Strength Analysis Report

Project Name: Scours Lane

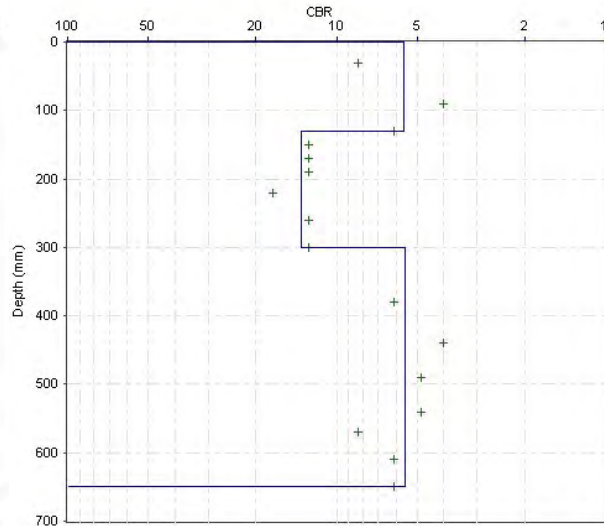
Chainage (km):
 Direction: WS01- DCP01
 Location/Offset: Lay-by / other
 Cone Angle: 60 degrees
 Zero Error (mm): 30
 Test Date: 24/09/2024

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Unknown
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 0.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)	Position	Strength Coefficient	SN	SNC	SNP
1	43.33	6	130	130	Base	0.02	0.08	0.08	0.08
2	18.89	14	170	300	Base	0.04	0.24	0.24	0.24
3	43.75	6	350	650	Base	0.02	0.22	0.22	0.22

Pavement Strength

Layer	Layer Contribution		
	SN	SNC	SNP
Surface	--	--	--
Base	0.54	0.54	0.54
Sub-Base	--	--	--
Subgrade	--	--	--
Pavement Strength	0.54	0.54	0.54

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

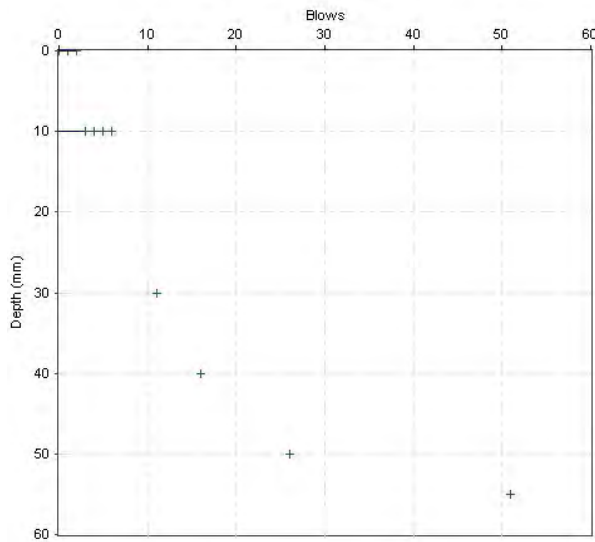
DCP Layer Strength Analysis Report

Project Name: Scours Lane

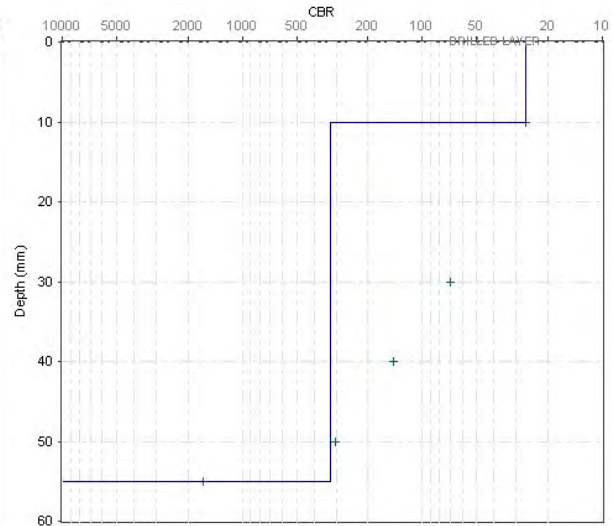
Chainage (km):
 Direction: WS01- DCP02
 Location/Offset: Lay-by / other
 Cone Angle: 60 degrees
 Zero Error (mm): 0
 Test Date: 24/09/2024

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Unknown
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 0.100



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)	Position	Strength Coefficient	SN	SNC	SNP
1	0.00	0	0	0	Base	0.00	0.00	0.00	0.00
2	10.00	26	10	10	Base	0.06	0.03	0.03	0.03
3	0.94	323	45	55	Base	0.14	0.26	0.26	0.26

Pavement Strength

Layer	Layer Contribution		
	SN	SNC	SNP
Surface	--	--	--
Base	0.28	0.28	0.28
Sub-Base	--	--	--
Subgrade	--	--	--
Pavement Strength	0.28	0.28	0.28

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

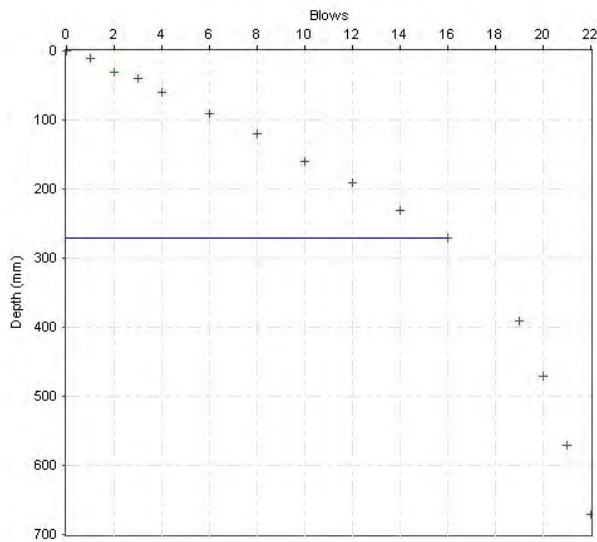
DCP Layer Strength Analysis Report

Project Name: Scours Lane

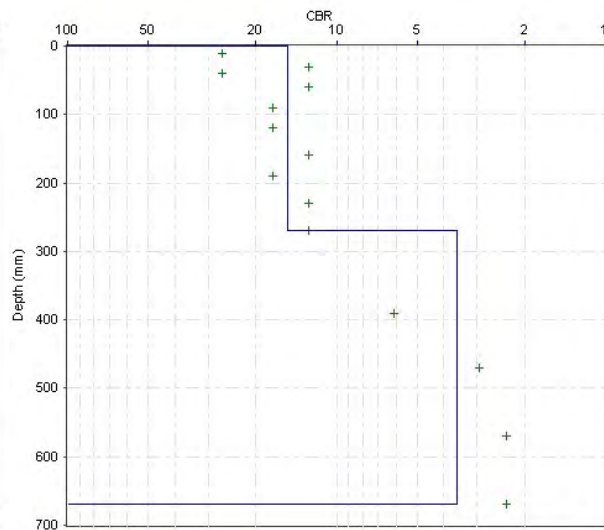
Chainage (km):
 Direction: WS02 - DCP03
 Location/Offset: Lay-by / other
 Cone Angle: 60 degrees
 Zero Error (mm): 30
 Test Date: 24/09/2024

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Unknown
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 0.200



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)	Position	Strength Coefficient	SN	SNC	SNP
1	16.88	15	270	270	Base	0.04	0.42	0.42	0.42
2	66.67	4	400	670	Base	0.01	0.16	0.16	0.16

Pavement Strength

Layer	Layer Contribution		
	SN	SNC	SNP
Surface	--	--	--
Base	0.58	0.58	0.58
Sub-Base	--	--	--
Subgrade	--	--	--
Pavement Strength	0.58	0.58	0.58

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

Penetration Data Report

Project Name: Scours Lane

Chainage (km):
Direction: WS02 - DCP04
Location/Offset: Lay-by / other
Cone Angle: 60 degrees
Zero Error (mm): 0
Test Date: 24/09/2024

Surface Type:	Unpaved
Thickness (mm):	0
Base Type:	
Thickness (mm):	
Surface Moisture:	Unknown
Moisture adjustment factor:	Not adjusted

[illegible]

Remarks: Test carried out at 0.50m bgl

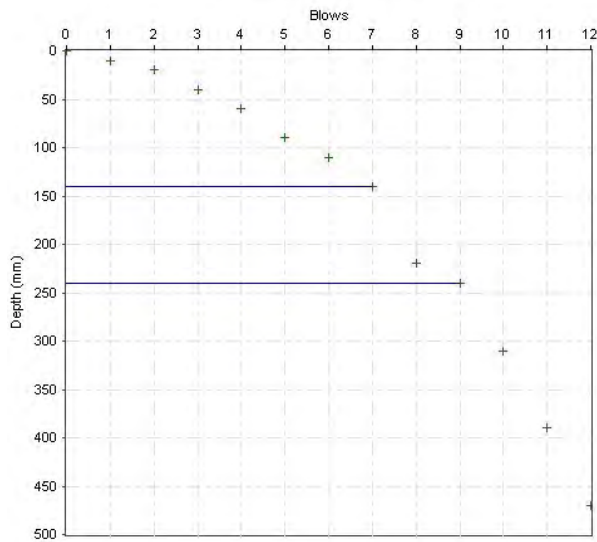
DCP Layer Strength Analysis Report

Project Name: Scours Lane

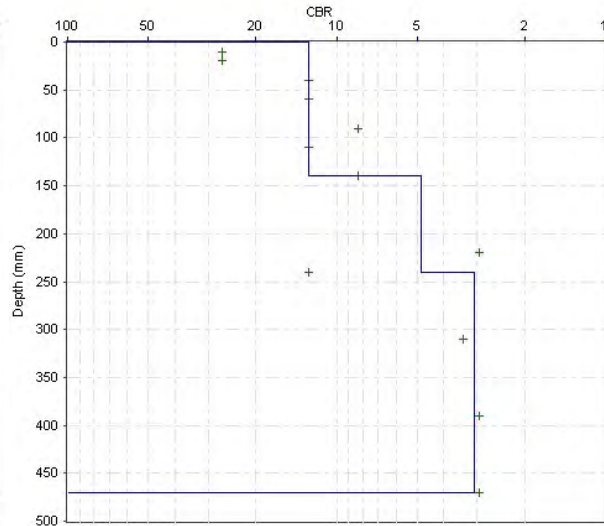
Chainage (km):
 Direction: WS02 - DCP04
 Location/Offset: Lay-by / other
 Cone Angle: 60 degrees
 Zero Error (mm): 0
 Test Date: 24/09/2024

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Unknown
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 0.300



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)	Position	Strength Coefficient	SN	SNC	SNP
1	20.00	13	140	140	Base	0.03	0.19	0.19	0.19
2	50.00	5	100	240	Base	0.01	0.05	0.05	0.05
3	76.67	3	230	470	Base	0.01	0.08	0.08	0.08

Pavement Strength

Layer	Layer Contribution		
	SN	SNC	SNP
Surface	--	--	--
Base	0.32	0.32	0.32
Sub-Base	--	--	--
Subgrade	--	--	--
Pavement Strength	0.32	0.32	0.32

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

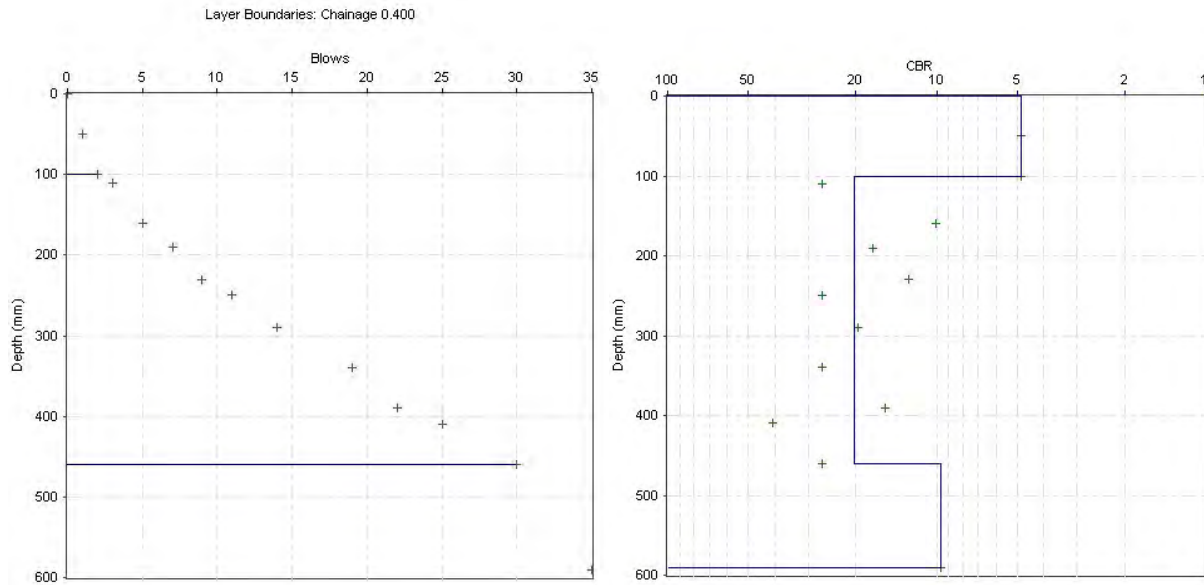
Report produced by

DCP Layer Strength Analysis Report

Project Name: Scours Lane

Chainage (km):
 Direction: WS03 - DCP05
 Location/Offset: Lay-by / other
 Cone Angle: 60 degrees
 Zero Error (mm): 30
 Test Date: 24/09/2024

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Unknown
 Moisture adjustment factor: Not adjusted



Layer Boundaries Chart

CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)	Position	Strength Coefficient	SN	SNC	SNP
1	50.00	5	100	100	Base	0.01	0.05	0.05	0.05
2	12.86	20	360	460	Base	0.05	0.73	0.73	0.73
3	26.00	10	130	590	Base	0.03	0.13	0.13	0.13

Pavement Strength

Layer	Layer Contribution		
	SN	SNC	SNP
Surface	--	--	--
Base	0.92	0.92	0.92
Sub-Base	--	--	--
Subgrade	--	--	--
Pavement Strength	0.92	0.92	0.92

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

Penetration Data Report

Project Name: Scours Lane

Chainage (km):
 Direction: WS03 - DCP06
 Location/Offset: Lay-by / other
 Cone Angle: 60 degrees
 Zero Error (mm): 0
 Test Date: 24/09/2024

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Unknown
 Moisture adjustment factor: Not adjusted

No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)	No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)
1	0	0	0	0.00	26	1	25	500	30.00
2	1	1	10	10.00					
3	1	2	30	20.00					
4	1	3	40	10.00					
5	1	4	50	10.00					
6	1	5	70	20.00					
7	1	6	90	20.00					
8	1	7	120	30.00					
9	1	8	160	40.00					
10	1	9	190	30.00					
11	1	10	210	20.00					
12	1	11	230	20.00					
13	1	12	240	10.00					
14	1	13	250	10.00					
15	1	14	270	20.00					
16	1	15	280	10.00					
17	1	16	310	30.00					
18	1	17	330	20.00					
19	1	18	340	10.00					
20	1	19	360	20.00					
21	1	20	390	30.00					
22	1	21	410	20.00					
23	1	22	430	20.00					
24	1	23	450	20.00					
25	1	24	470	20.00					

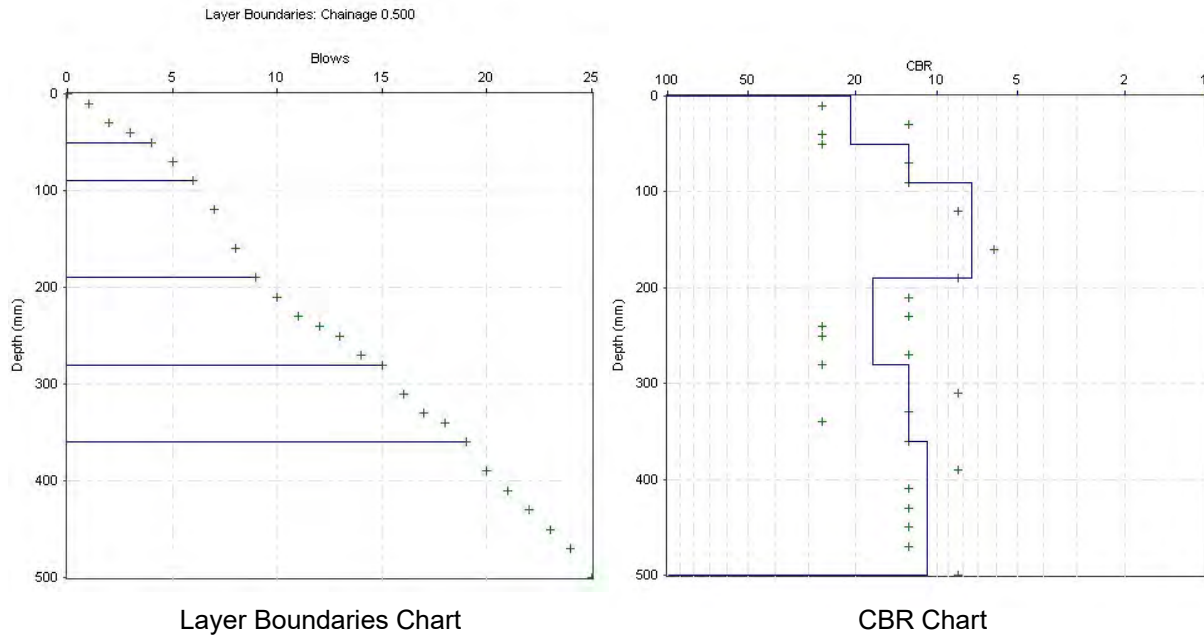
Remarks: Test carried out at 0.50m bgl

DCP Layer Strength Analysis Report

Project Name: Scours Lane

Chainage (km):
 Direction: WS03 - DCP06
 Location/Offset: Lay-by / other
 Cone Angle: 60 degrees
 Zero Error (mm): 0
 Test Date: 24/09/2024

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Unknown
 Moisture adjustment factor: Not adjusted



Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)	Position	Strength Coefficient	SN	SNC	SNP
1	12.50	21	50	50	Base	0.05	0.10	0.10	0.10
2	20.00	13	40	90	Base	0.03	0.05	0.05	0.05
3	33.33	7	100	190	Base	0.02	0.08	0.08	0.08
4	15.00	17	90	280	Base	0.04	0.16	0.16	0.16
5	20.00	13	80	360	Base	0.03	0.11	0.11	0.11
6	23.33	11	140	500	Base	0.03	0.16	0.16	0.16

Pavement Strength

Layer	Layer Contribution		
	SN	SNC	SNP
Surface	--	--	--
Base	0.66	0.66	0.66
Sub-Base	--	--	--
Subgrade	--	--	--
Pavement Strength	0.66	0.66	0.66

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

Penetration Data Report

Project Name: Scours Lane

Chainage (km):		Surface Type:	Unpaved
Direction:	WS04 - DCP07	Thickness (mm):	0
Location/Offset:	Lay-by / other	Base Type:	
Cone Angle:	60 degrees	Thickness (mm):	
Zero Error (mm):	10	Surface Moisture:	Unknown
Test Date:	24/09/2024	Moisture adjustment factor:	Not adjusted

No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)	No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)
1	0	0	10	0.00					
2	1	1	30	20.00					
3	1	2	70	40.00					
4	2	4	100	15.00					
5	2	6	120	10.00					
6	2	8	140	10.00					
7	5	13	190	10.00					
8	3	16	300	36.67					
9	5	21	380	16.00					
10	3	24	440	20.00					
11	3	27	510	23.33					
12	3	30	590	26.67					
13	3	33	640	16.67					
14	3	36	670	10.00					
15	1	37	700	30.00					

Remarks: Test carried out at 0.30m bgl

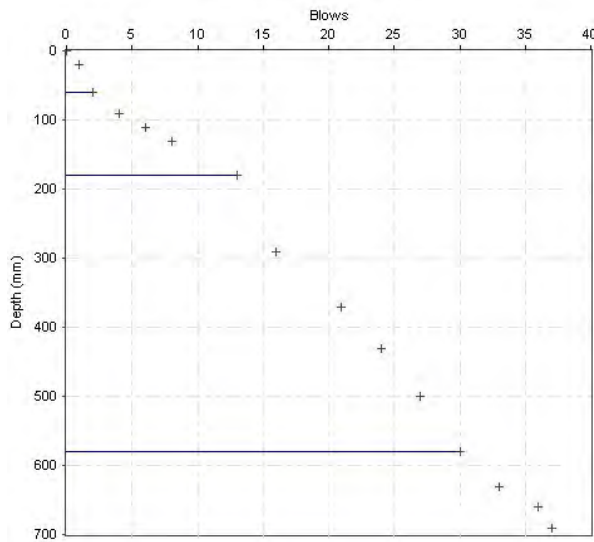
DCP Layer Strength Analysis Report

Project Name: Scours Lane

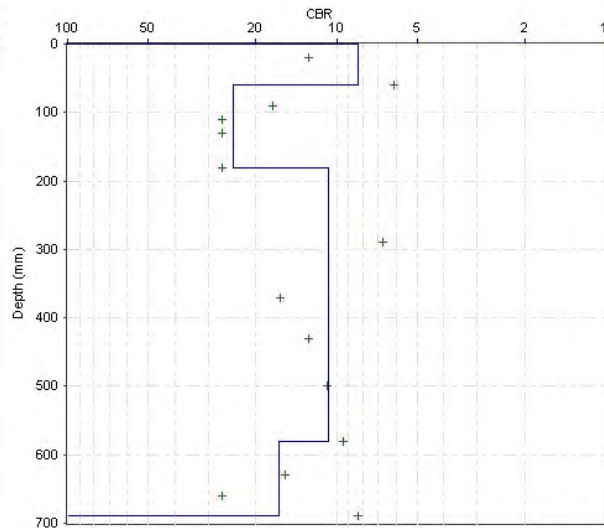
Chainage (km):
 Direction: WS04 - DCP07
 Location/Offset: Lay-by / other
 Cone Angle: 60 degrees
 Zero Error (mm): 10
 Test Date: 24/09/2024

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Unknown
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 0.600



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)	Position	Strength Coefficient	SN	SNC	SNP
1	30.00	8	60	60	Base	0.02	0.05	0.05	0.05
2	10.91	24	120	180	Base	0.06	0.28	0.28	0.28
3	23.53	11	400	580	Base	0.03	0.46	0.46	0.46
4	15.71	16	110	690	Base	0.04	0.19	0.19	0.19

Pavement Strength

Layer	Layer Contribution		
	SN	SNC	SNP
Surface	--	--	--
Base	0.98	0.98	0.98
Sub-Base	--	--	--
Subgrade	--	--	--
Pavement Strength	0.98	0.98	0.98

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

Penetration Data Report

Project Name: Scours Lane

Chainage (km):
Direction: WS04 - DCP08
Location/Offset: Lay-by / other
Cone Angle: 60 degrees
Zero Error (mm): 20
Test Date: 24/09/2024

Surface Type: Unpaved
Thickness (mm): 0
Base Type:
Thickness (mm):
Surface Moisture: Unknown
Moisture adjustment factor: Not adjusted

No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)	No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)
1	0	0	20	0.00					
2	1	1	40	20.00					
3	1	2	60	20.00					
4	1	3	70	10.00					
5	1	4	90	20.00					
6	1	5	100	10.00					
7	1	6	110	10.00					
8	2	8	150	20.00					
9	2	10	190	20.00					
10	2	12	230	20.00					
11	2	14	270	20.00					
12	2	16	300	15.00					
13	2	18	330	15.00					
14	2	20	380	25.00					
15	2	22	440	30.00					
16	2	24	470	15.00					
17	2	26	500	15.00					

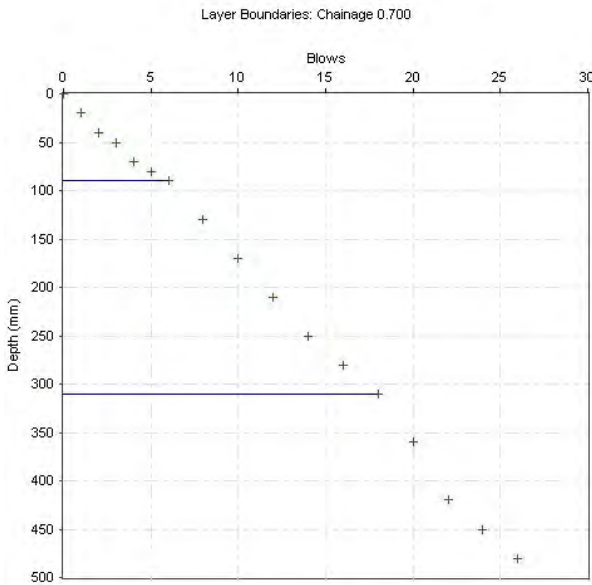
Remarks: Test carried out at 0.50m bgl

DCP Layer Strength Analysis Report

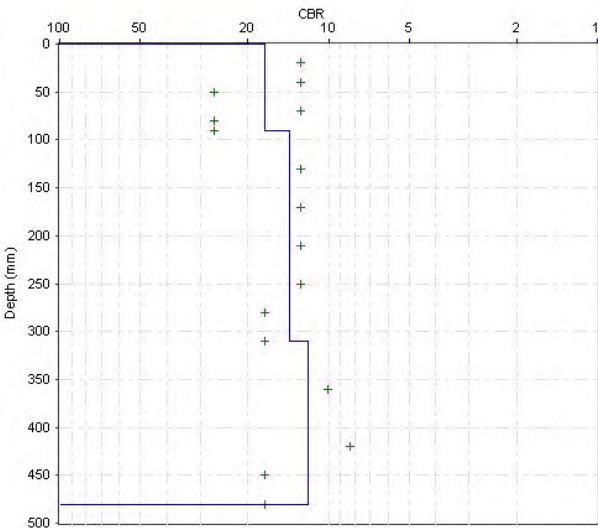
Project Name: Scours Lane

Chainage (km):
Direction: WS04 - DCP08
Location/Offset: Lay-by / other
Cone Angle: 60 degrees
Zero Error (mm): 20
Test Date: 24/09/2024

Surface Type: Unpaved
Thickness (mm): 0
Base Type:
Thickness (mm):
Surface Moisture: Unknown
Moisture adjustment factor: Not adjusted



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)	Position	Strength Coefficient	SN	SNC	SNP
1	15.00	17	90	90	Base	0.04	0.16	0.16	0.16
2	18.33	14	220	310	Base	0.04	0.32	0.32	0.32
3	21.25	12	170	480	Base	0.03	0.21	0.21	0.21

Pavement Strength

Layer	Layer Contribution		
	SN	SNC	SNP
Surface	--	--	--
Base	0.69	0.69	0.69
Sub-Base	--	--	--
Subgrade	--	--	--
Pavement Strength	0.69	0.69	0.69

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

Penetration Data Report

Project Name: Scours Lane

Chainage (km):
 Direction: WS06 - DCP09
 Location/Offset: Lay-by / other
 Cone Angle: 60 degrees
 Zero Error (mm): 0
 Test Date: 24/09/2024

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Unknown
 Moisture adjustment factor: Not adjusted

No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)	No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)
1	0	0	0	0.00	26	1	25	540	20.00
2	1	1	20	20.00	27	1	26	570	30.00
3	1	2	30	10.00	28	1	27	600	30.00
4	1	3	40	10.00					
5	1	4	60	20.00					
6	1	5	90	30.00					
7	1	6	110	20.00					
8	1	7	160	50.00					
9	1	8	180	20.00					
10	1	9	210	30.00					
11	1	10	230	20.00					
12	1	11	250	20.00					
13	1	12	280	30.00					
14	1	13	310	30.00					
15	1	14	330	20.00					
16	1	15	350	20.00					
17	1	16	360	10.00					
18	1	17	380	20.00					
19	1	18	400	20.00					
20	1	19	420	20.00					
21	1	20	430	10.00					
22	1	21	450	20.00					
23	1	22	480	30.00					
24	1	23	510	30.00					
25	1	24	520	10.00					

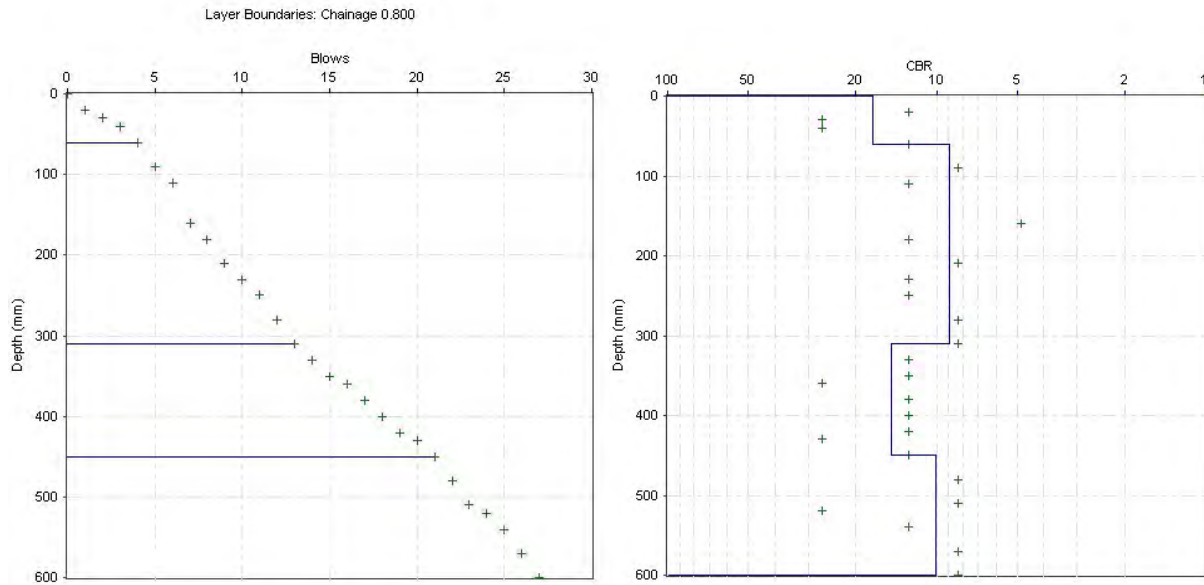
Remarks: Test carried out at 0.30m bgl

DCP Layer Strength Analysis Report

Project Name: Scours Lane

Chainage (km):
 Direction: WS06 - DCP09
 Location/Offset: Lay-by / other
 Cone Angle: 60 degrees
 Zero Error (mm): 0
 Test Date: 24/09/2024

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Unknown
 Moisture adjustment factor: Not adjusted



Layer Boundaries Chart

CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)	Position	Strength Coefficient	SN	SNC	SNP
1	15.00	17	60	60	Base	0.04	0.11	0.11	0.11
2	27.78	9	250	310	Base	0.02	0.24	0.24	0.24
3	17.50	15	140	450	Base	0.04	0.21	0.21	0.21
4	25.00	10	150	600	Base	0.03	0.16	0.16	0.16

Pavement Strength

Layer	Layer Contribution		
	SN	SNC	SNP
Surface	--	--	--
Base	0.72	0.72	0.72
Sub-Base	--	--	--
Subgrade	--	--	--
Pavement Strength	0.72	0.72	0.72

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

Penetration Data Report

Project Name: Scours Lane

Chainage (km):		Surface Type:	Unpaved
Direction:	WS06 - DCP10	Thickness (mm):	0
Location/Offset:	Lay-by / other	Base Type:	
Cone Angle:	60 degrees	Thickness (mm):	
Zero Error (mm):	0	Surface Moisture:	Unknown
Test Date:	24/09/2024	Moisture adjustment factor:	Not adjusted

No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)	No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)
1	0	0	0	0.00					
2	1	1	20	20.00					
3	1	2	30	10.00					
4	1	3	40	10.00					
5	1	4	70	30.00					
6	1	5	90	20.00					
7	1	6	130	40.00					
8	1	7	150	20.00					
9	1	8	180	30.00					
10	1	9	230	50.00					
11	1	10	260	30.00					
12	1	11	290	30.00					
13	2	13	350	30.00					
14	1	14	390	40.00					
15	1	15	420	30.00					
16	1	16	460	40.00					
17	1	17	490	30.00					

Remarks: Test carried out at 0.50m bgl

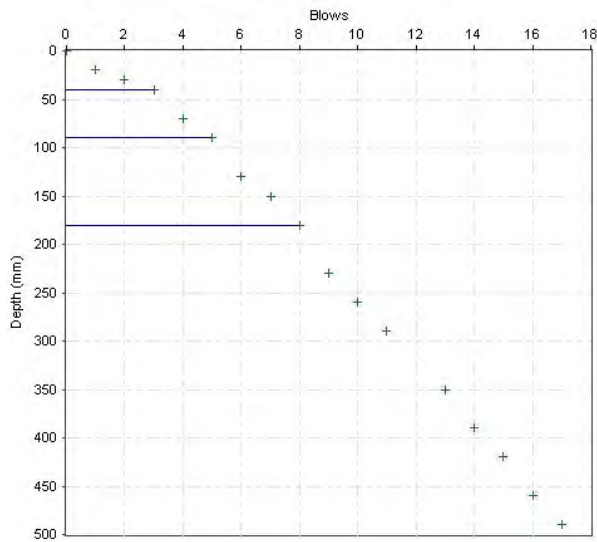
DCP Layer Strength Analysis Report

Project Name: Scours Lane

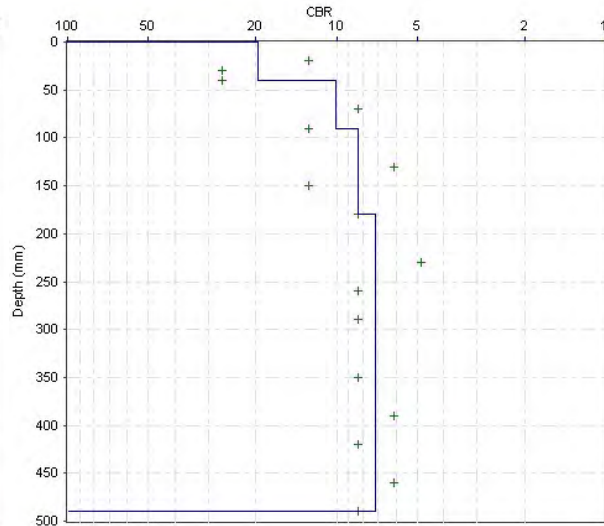
Chainage (km):
 Direction: WS06 - DCP10
 Location/Offset: Lay-by / other
 Cone Angle: 60 degrees
 Zero Error (mm): 0
 Test Date: 24/09/2024

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Unknown
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 0.900



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)	Position	Strength Coefficient	SN	SNC	SNP
1	13.33	20	40	40	Base	0.05	0.08	0.08	0.08
2	25.00	10	50	90	Base	0.03	0.05	0.05	0.05
3	30.00	8	90	180	Base	0.02	0.08	0.08	0.08
4	34.44	7	310	490	Base	0.02	0.24	0.24	0.24

Pavement Strength

Layer	Layer Contribution		
	SN	SNC	SNP
Surface	--	--	--
Base	0.46	0.46	0.46
Sub-Base	--	--	--
Subgrade	--	--	--
Pavement Strength	0.46	0.46	0.46

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by



Appendix D Gas and Groundwater Monitoring Results



A2 Site Investigation

Project Number
Project Name
Borehole Number
Borehole Depth (m)

53924
Scours Lane
BH01
20.00

Install Depth (m) 7.60
Plain (m) 0.00 to 5.20
Slotted (m) 5.20 to 7.60

1st Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	0.30	18.90	0.00	0.00	0.70	Silted bottom
Date	07/10/2024	60	0.00	0.00	0.00	0.20	19.30	0.00	0.00	1.20	
Atmospheric Pressure (mb)	996.00	90	0.00	0.00	0.00	0.20	19.50	0.00	0.00	1.30	
Weather Conditions	Rainy	120	0.00	0.00	0.00	0.20	19.50	0.00	0.00	1.40	
Water Level (mbgl)	3.84	150	0.00	0.00	0.00	0.20	19.50	0.00	0.00	1.30	
Base of Well (mbgl)	7.39	180	0.00	0.00	0.00	0.20	19.50	0.00	0.00	1.30	
2nd Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	0.40	19.70	0.00	0.00	0.00	
Date	14/10/2024	60	0.00	0.00	0.00	0.40	19.90	0.00	0.00	0.10	
Atmospheric Pressure (mb)	1005.00	90	0.00	0.00	0.00	0.40	19.90	0.00	0.00	0.20	
Weather Conditions	Overcast	120	0.00	0.00	0.00	0.40	19.90	0.00	0.00	0.40	
Water Level (mbgl)	3.80	150	0.00	0.00	0.00	0.40	19.90	0.00	0.00	0.50	
Base of Well (mbgl)	7.42	180	0.00	0.00	0.00	0.40	19.90	0.00	0.00	0.50	
3rd Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	0.70	19.00	0.00	0.00	0.40	
Date	21/10/2024	60	0.00	0.00	0.00	0.70	19.10	0.00	0.00	0.50	
Atmospheric Pressure (mb)	1015.00	90	0.00	0.00	0.00	0.70	19.10	0.00	0.00	0.50	
Weather Conditions	Overcast	120	0.00	0.00	0.00	0.70	19.10	0.00	0.00	0.60	
Water Level (mbgl)	3.81	150	0.00	0.00	0.00	0.60	19.00	0.00	0.00	0.60	
Base of Well (mbgl)	7.43	180	0.00	0.00	0.00	0.60	18.90	0.00	0.00	0.60	
4th Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.10	0.00	0.00	0.50	18.90	0.00	0.00	0.00	
Date	28/10/2024	60	0.10	0.00	0.00	0.00	20.30	0.00	0.00	0.10	
Atmospheric Pressure (mb)	1015.00	90	0.10	0.00	0.00	0.00	20.20	0.00	0.00	0.10	
Weather Conditions	Overcast	120	0.10	0.00	0.00	0.00	20.40	0.00	0.00	0.10	
Water Level (mbgl)	3.88	150	0.10	0.00	0.00	0.00	20.40	0.00	0.00	0.10	
Base of Well (mbgl)	7.41	180	0.10	0.00	0.00	0.00	20.40	0.00	0.00	0.10	

Instrument	Model	S/N	Calibration date
Gas Analyser	GFM436	13456	17/06/2025
PID	GDC10412	595-005157	06/06/2025
Dip Meter	DIP-100	5569	N/A



A2 Site Investigation

Project Number
Project Name
Borehole Number
Borehole Depth (m)

53924
Scours Lane
WS01
3.00

Install Depth (m) 1.70
Plain (m) 0.00 to 0.50
Slotted (m) 0.50 to 1.70

1st Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	5.50	12.00	0.00	0.00	0.50	
Date	07/10/2024	60	0.00	0.00	0.00	5.80	11.80	0.00	0.00	0.50	
Atmospheric Pressure (mb)	996.00	90	0.00	0.00	0.00	5.80	11.80	0.00	0.00	0.50	
Weather Conditions	Sunny	120	0.00	0.00	0.00	5.50	11.70	0.00	0.00	0.50	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	5.90	11.90	0.00	0.00	0.50	
Base of Well (mbgl)	1.63	180	0.00	0.00	0.00	5.70	11.80	0.00	0.00	0.50	
2nd Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	4.60	13.70	0.00	0.00	0.00	
Date	14/10/2024	60	0.00	0.00	0.00	5.40	13.40	0.00	0.00	0.00	
Atmospheric Pressure (mb)	1007.00	90	0.00	0.00	0.00	5.50	13.40	0.00	0.00	0.00	
Weather Conditions	Rainy	120	0.00	0.00	0.00	5.70	13.30	0.00	0.00	0.00	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	4.40	13.30	0.00	0.00	0.00	
Base of Well (mbgl)	1.63	180	0.00	0.00	0.00	4.60	13.50	0.00	0.00	0.00	
3rd Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	7.60	11.60	0.00	0.00	0.60	
Date	21/10/2024	60	0.00	0.00	0.00	6.60	11.90	0.00	0.00	0.60	
Atmospheric Pressure (mb)	1016.00	90	0.00	0.00	0.00	6.20	11.80	0.00	0.00	0.70	
Weather Conditions	Overcast	120	0.00	0.00	0.00	6.10	11.80	0.00	0.00	0.90	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	5.70	11.20	0.00	0.00	0.90	
Base of Well (mbgl)	1.62	180	0.00	0.00	0.00	6.20	11.80	0.00	0.00	0.90	
4th Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	4.60	14.80	0.00	0.00	0.60	
Date	28/10/2024	60	0.00	0.00	0.00	4.80	14.00	0.00	0.00	0.70	
Atmospheric Pressure (mb)	1016.00	90	0.00	0.00	0.00	5.10	14.30	0.00	0.00	0.70	
Weather Conditions	Overcast	120	0.00	0.00	0.00	5.00	14.10	0.00	0.00	0.70	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	5.00	14.10	0.00	0.00	0.70	
Base of Well (mbgl)	1.63	180	0.00	0.00	0.00	5.00	14.10	0.00	0.00	0.70	

Instrument	Model	S/N	Calibration date
Gas Analyser	GFM436	13456	17/06/2025
PID	GDC10412	595-005157	06/06/2025
Dip Meter	DIP-100	5569	N/A



A2 Site Investigation

Project Number
Project Name
Borehole Number
Borehole Depth (m)

53924
Scours Lane
WS02
3.00

Install Depth (m) 2.00
Plain (m) 0.00 to 0.50
Slotted (m) 0.50 to 1.50

1st Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	1.60	16.00	0.00	0.00	0.70	Silted bottom
Date	07/10/2024	60	0.00	0.00	0.00	1.60	15.90	0.00	0.00	0.80	
Atmospheric Pressure (mb)	996.00	90	0.00	0.00	0.00	1.60	15.80	0.00	0.00	0.70	
Weather Conditions	Overcast	120	0.00	0.00	0.00	1.60	15.80	0.00	0.00	0.70	
Water Level (mbgl)	1.27	150	0.00	0.00	0.00	1.60	15.80	0.00	0.00	0.70	
Base of Well (mbgl)	2.01	180	0.00	0.00	0.00	1.60	15.80	0.00	0.00	0.70	
2nd Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	2.00	15.50	0.00	0.00	0.10	Silted bottom
Date	14/10/2024	60	0.00	0.00	0.00	2.00	15.70	0.00	0.00	0.10	
Atmospheric Pressure (mb)	1007.00	90	0.00	0.00	0.00	2.10	15.40	0.00	0.00	0.00	
Weather Conditions	Rainy	120	0.00	0.00	0.00	2.10	15.40	0.00	0.00	0.00	
Water Level (mbgl)	1.28	150	0.00	0.00	0.00	2.00	15.50	0.00	0.00	0.00	
Base of Well (mbgl)	2.01	180	0.00	0.00	0.00	2.00	15.50	0.00	0.00	0.00	
3rd Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	2.50	13.90	0.00	0.00	1.10	Silted bottom
Date	21/10/2024	60	0.00	0.00	0.00	2.50	13.70	0.00	0.00	1.10	
Atmospheric Pressure (mb)	1016.00	90	0.00	0.00	0.00	2.50	13.70	0.00	0.00	1.10	
Weather Conditions	Overcast	120	0.00	0.00	0.00	2.50	13.70	0.00	0.00	1.10	
Water Level (mbgl)	1.22	150	0.00	0.00	0.00	2.40	13.70	0.00	0.00	1.10	
Base of Well (mbgl)	2.01	180	0.00	0.00	0.00	2.40	13.60	0.00	0.00	1.10	
4th Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	3.00	14.20	0.00	0.00	0.00	Silted bottom
Date	28/10/2024	60	0.00	0.00	0.00	3.20	13.90	0.00	0.00	0.00	
Atmospheric Pressure (mb)	1016.00	90	0.00	0.00	0.00	3.10	14.10	0.00	0.00	0.00	
Weather Conditions	Overcast	120	0.00	0.00	0.00	3.10	14.10	0.00	0.00	0.00	
Water Level (mbgl)	1.29	150	0.00	0.00	0.00	3.10	14.10	0.00	0.00	0.00	
Base of Well (mbgl)	2.00	180	0.00	0.00	0.00	3.10	14.00	0.00	0.00	0.00	

Instrument	Model	S/N	Calibration date
Gas Analyser	GFM436	13456	17/06/2025
PID	GDC10412	595-005157	06/06/2025
Dip Meter	DIP-100	5569	N/A



A2 Site Investigation

Project Number
Project Name
Borehole Number
Borehole Depth (m)

53924
Scours Lane
WS03
3.00

Install Depth (m) 2.50
Plain (m) 0.00 to 0.50
Slotted (m) 0.50 to 2.50

1st Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	4.90	14.00	0.00	0.00	1.40	
Date	07/10/2024	60	0.00	0.00	0.00	5.00	14.10	0.00	0.00	1.50	
Atmospheric Pressure (mb)	995.00	90	0.00	0.00	0.00	4.90	14.10	0.00	0.00	1.70	
Weather Conditions	Sunny	120	0.00	0.00	0.00	4.90	14.10	0.00	0.00	1.70	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	4.90	14.10	0.00	0.00	1.70	
Base of Well (mbgl)	1.97	180	0.00	0.00	0.00	4.90	14.10	0.00	0.00	1.70	
2nd Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	6.20	12.10	0.00	10.00	0.20	
Date	14/10/2024	60	0.00	0.00	0.00	6.30	12.00	0.00	0.00	0.20	
Atmospheric Pressure (mb)	1005.00	90	0.00	0.00	0.00	5.30	11.90	0.00	10.00	0.20	
Weather Conditions	Rainy	120	0.00	0.00	0.00	9.80	12.20	0.00	0.00	0.20	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	6.00	12.20	0.00	0.00	0.20	
Base of Well (mbgl)	1.98	180	0.00	0.00	0.00	6.00	12.30	0.00	0.00	0.20	
3rd Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	5.70	12.50	0.00	0.00	0.40	
Date	21/10/2024	60	0.00	0.00	0.00	5.30	12.40	0.00	0.00	0.40	
Atmospheric Pressure (mb)	1015.00	90	0.00	0.00	0.00	5.20	12.50	0.00	0.00	0.40	
Weather Conditions	Overcast	120	0.00	0.00	0.00	5.60	12.50	0.00	0.00	0.30	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	5.70	12.50	0.00	0.00	0.30	
Base of Well (mbgl)	1.98	180	0.00	0.00	0.00	5.70	12.50	0.00	0.00	0.30	
4th Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	4.60	15.00	0.00	0.00	2.40	
Date	28/10/2024	60	0.00	0.00	0.00	4.70	14.80	0.00	0.00	2.70	
Atmospheric Pressure (mb)	1015.00	90	0.00	0.00	0.00	4.70	14.80	0.00	0.00	2.80	
Weather Conditions	Overcast	120	0.00	0.00	0.00	4.70	14.80	0.00	0.00	2.80	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	4.70	14.80	0.00	0.00	2.80	
Base of Well (mbgl)	1.97	180	0.00	0.00	0.00	4.70	14.80	0.00	0.00	2.80	

Instrument	Model	S/N	Calibration date
Gas Analyser	GFM436	13456	17/06/2025
PID	GDC10412	595-005157	06/06/2025
Dip Meter	DIP-100	5569	N/A



A2 Site Investigation

Project Number
Project Name
Borehole Number
Borehole Depth (m)

53924
Scours Lane
WS04
3.00

Install Depth (m) 3.00
Plain (m) 0.00 to 1.00
Slotted (m) 1.00 to 3.00

1st Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	4.70	10.20	0.00	0.00	1.20	
Date	07/10/2024	60	0.00	0.00	0.00	4.70	9.90	0.00	0.00	1.30	
Atmospheric Pressure (mb)	996.00	90	0.00	0.00	0.00	4.70	9.90	0.00	0.00	1.40	
Weather Conditions	Rainy	120	0.00	0.00	0.00	4.70	9.90	0.00	0.00	1.70	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	4.70	9.90	0.00	0.00	1.80	
Base of Well (mbgl)	3.05	180	0.00	0.00	0.00	4.70	9.90	0.00	0.00	1.90	
2nd Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	4.90	9.70	0.00	0.00	0.40	
Date	14/10/2024	60	0.00	0.00	0.00	4.90	9.50	0.00	0.00	0.50	
Atmospheric Pressure (mb)	1005.00	90	0.00	0.00	0.00	4.90	9.50	0.00	0.00	0.50	
Weather Conditions	Overcast	120	0.00	0.00	0.00	4.90	9.50	0.00	0.00	0.50	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	4.90	9.50	0.00	0.00	0.50	
Base of Well (mbgl)	3.05	180	0.00	0.00	0.00	4.90	9.50	0.00	0.00	0.50	
3rd Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	4.60	10.40	0.00	0.00	0.50	
Date	21/10/2024	60	0.00	0.00	0.00	4.60	10.20	0.00	0.00	0.50	
Atmospheric Pressure (mb)	1016.00	90	0.00	0.00	0.00	4.50	10.10	0.00	0.00	0.50	
Weather Conditions	Overcast	120	0.00	0.00	0.00	4.60	10.10	0.00	0.00	0.50	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	4.60	10.10	0.00	0.00	0.50	
Base of Well (mbgl)	3.05	180	0.00	0.00	0.00	4.60	10.10	0.00	0.00	0.50	
4th Visit		Time (s)	Flow (l/h)	Methane Content		Carbon Dioxide (% v/v)	Oxygen (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Comments
				(% v/v)	(% LEL)						
Engineer	AR	30	0.00	0.00	0.00	4.70	11.60	0.00	0.00	2.40	
Date	28/10/2024	60	0.00	0.00	0.00	4.70	11.40	0.00	0.00	2.90	
Atmospheric Pressure (mb)	1015.00	90	0.00	0.00	0.00	4.70	11.40	0.00	0.00	3.00	
Weather Conditions	Overcast	120	0.00	0.00	0.00	4.70	11.40	0.00	0.00	3.00	
Water Level (mbgl)	Dry	150	0.00	0.00	0.00	4.80	11.30	0.00	0.00	3.00	
Base of Well (mbgl)	3.05	180	0.00	0.00	0.00	4.70	11.40	0.00	0.00	3.00	

Instrument	Model	S/N	Calibration date
Gas Analyser	GFM436	13456	17/06/2025
PID	GDC10412	595-005157	06/06/2025
Dip Meter	DIP-100	5569	N/A

Project Name:	Scours Lane
Project Number:	53924
Date of Sampling:	07/10/2024
Engineer Name:	AR
Weather:	Rainy
Atmospheric Pressure:	996

A2 Site Investigation

Instrument	Model	S/N	Calibration date
Easy Load II Peristaltic Pump	GT-EL2cb	6365	NA
YSI Professional Plus Quattro	Plus Quattro	22H102053	05/10/2024

BH01							Comments
Water Level (m)	Well Depth (m)	Water Collum (m)	Free Phase	Sampling Depth (m)	Start sampling	13:50	
3.84	7.39	3.55	No	7.2	End sampling	14:04	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	
01:00	13.7	747.6	3.51	511	223.4	7.65	
02:00	13.5	747.6	2.1	582	229.6	7.52	
03:00	14.1	747.4	1.05	582	238.3	7.38	
04:00	13.8	747.4	1.08	514	238.1	7.41	
05:00	13.6	747.4	2.19	592	243	7.35	
06:00	13.7	747.4	2.39	599	247.4	7.32	
07:00	13.7	747.5	2.37	583	249.9	7.31	
08:00	13.7	747.4	2.38	585	246.1	7.31	
09:00							

Project Name:	Scours Lane
Project Number:	53924
Date of Sampling:	07/10/2024
Engineer Name:	AR
Weather:	Rainy
Atmospheric Pressure:	996

A2 Site Investigation

Instrument	Model	S/N	Calibration date
Easy Load II Peristaltic Pump	GT-EL2cb	6365	NA
YSI Professional Plus Quattro	Plus Quattro	22H102053	05/10/2024

BH01							Comments
Water Level (m)	Well Depth (m)	Water Collum (m)	Free Phase	Sampling Depth (m)	Start sampling	13:50	
3.84	7.39	3.55	No	7.2	End sampling	14:04	
Purging time	Temp (°C)	Pressure (mmHg)	Dissolved Oxygen (mg/L)	Conductivity (µs/cm)	ORP (mV)	pH (pH Units)	
01:00	13.7	747.6	3.51	511	223.4	7.65	
02:00	13.5	747.6	2.1	582	229.6	7.52	
03:00	14.1	747.4	1.05	582	238.3	7.38	
04:00	13.8	747.4	1.08	514	238.1	7.41	
05:00	13.6	747.4	2.19	592	243	7.35	
06:00	13.7	747.4	2.39	599	247.4	7.32	
07:00	13.7	747.5	2.37	583	249.9	7.31	
08:00	13.7	747.4	2.38	585	246.1	7.31	
09:00							



Appendix E Geotechnical Laboratory Testing Results



TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: A2 Site Investigation Limited
Client Address: Broom House 39-43 London Road, Hadleigh,
Benfleet, SS7 2QL

Contact: Will Thistleton
Site Address: Scours Lane

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 53924
Job Number: 24-045284-1
Date Sampled: 24/09/2024
Date Received: 26/09/2024
Date Tested: 10/10/2024
Sampled By: Not Given

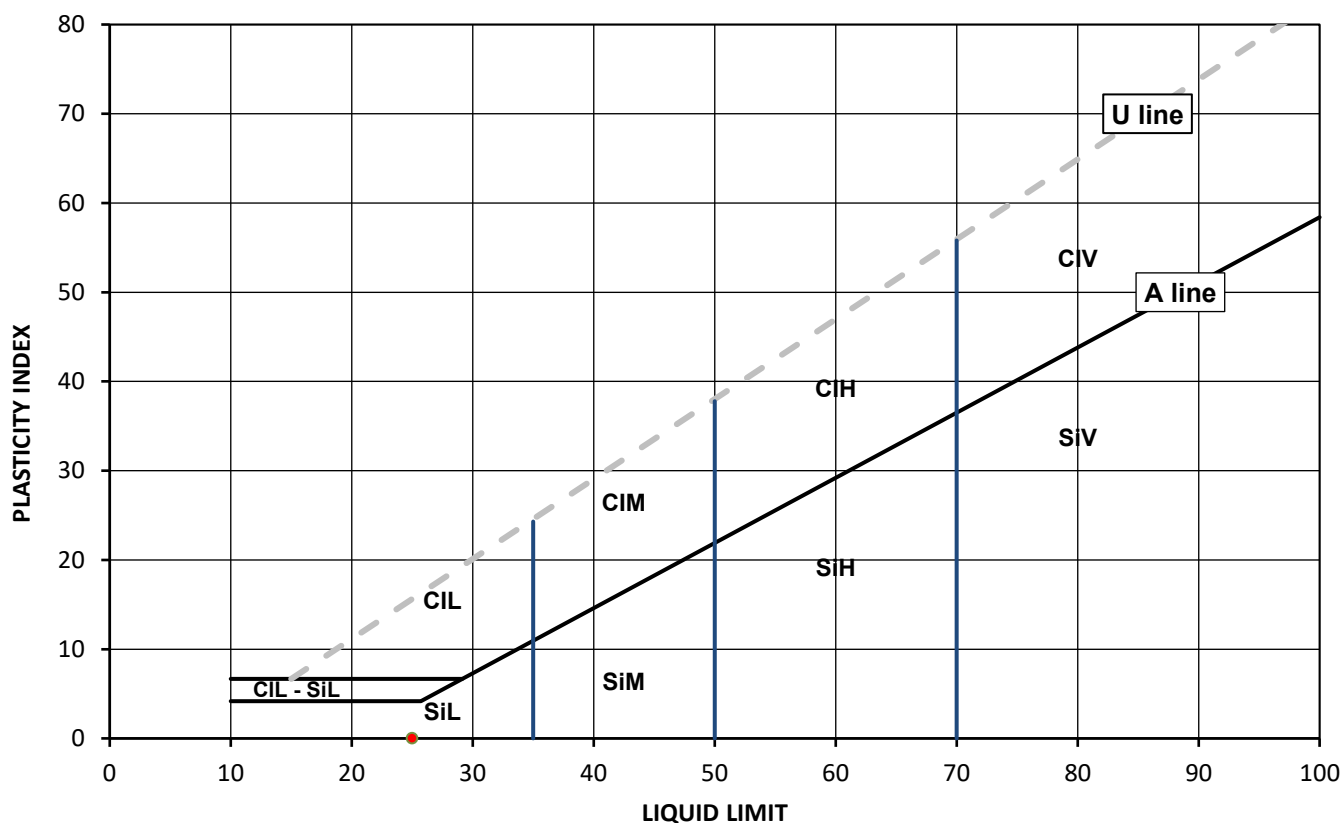
Test Results:

Laboratory Reference: 335256
Hole No.: BH01
Sample Reference: Not Given
Sample Description: Yellowish brown gravelly slightly clayey SAND

Depth Top [m]: 6.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425 mm;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
9.0	25	1.030	NP	NP	N/A	N/A	41



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L	Low
	M	Medium
	H	High
	V	Very high
	O	Organic
		append to classification for organic material (eg ClHO)

Note: Water Content by BS EN 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks: Not enough the material to carry out 4 Point Atterberg test/A 1-point test was performed. N/P-non plastic

Signed:

Monika Siewior

Monika Siewior
Reporting Specialist
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,
cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022,
cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: A2 Site Investigation Limited
Client Address: Broom House 39-43 London Road, Hadleigh,
Benfleet, SS7 2QL

Contact: Will Thistleton
Site Address: Scours Lane

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 53924
Job Number: 24-045284-1
Date Sampled: 24/09/2024
Date Received: 26/09/2024
Date Tested: 08/10/2024
Sampled By: Not Given

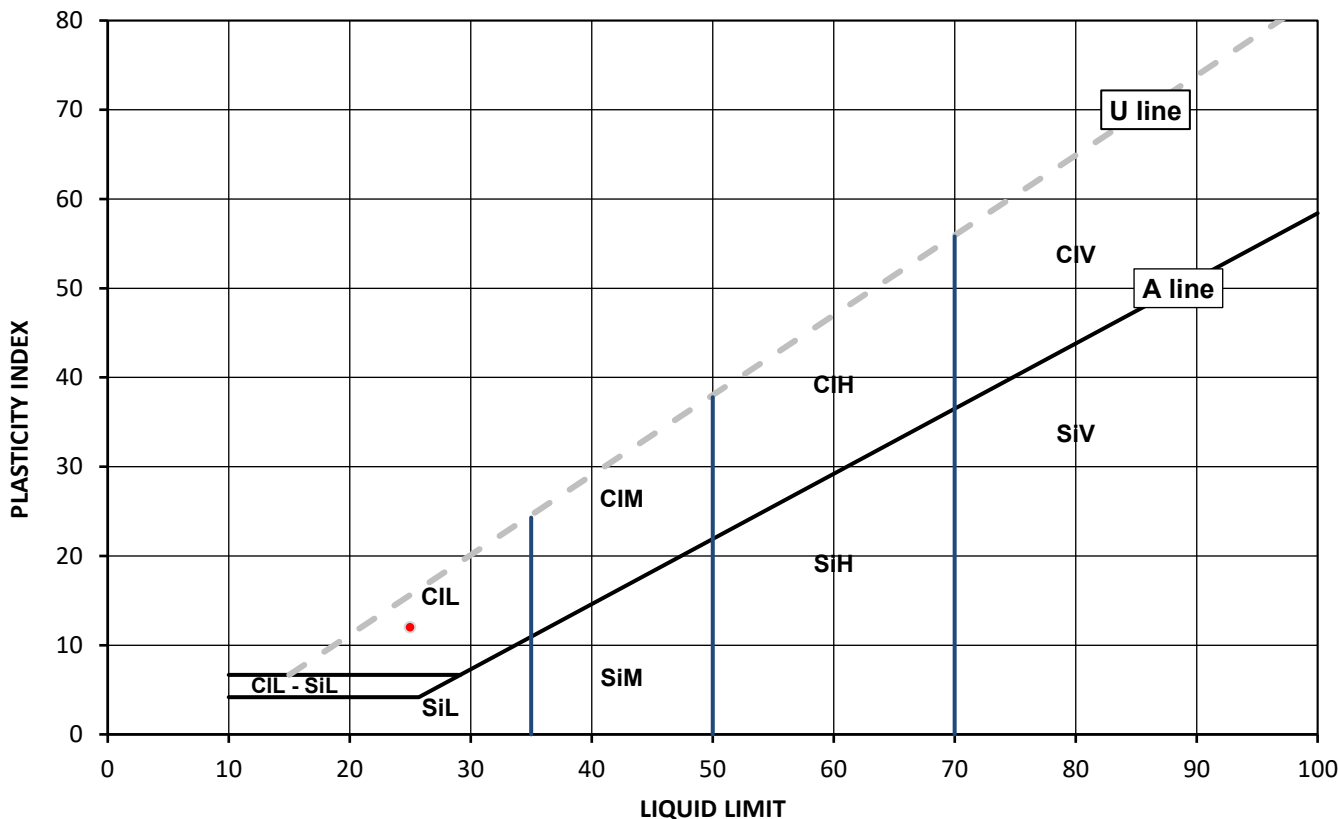
Test Results:

Laboratory Reference: 335263
Hole No.: WS01
Sample Reference: Not Given
Sample Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425mm removed by hand; The water content in the sample was increased
Cone Type: 80g/30deg

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
18.0	25	13	12	0.42	0.58	86



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L	Low
	M	Medium
	H	High
	V	Very high
	O	Organic
		append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Signed:

Monika Siewior

Monika Siewior
Reporting Specialist
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,
cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022,
cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: A2 Site Investigation Limited
Client Address: Broom House 39-43 London Road, Hadleigh,
Benfleet, SS7 2QL

Contact: Will Thistleton
Site Address: Scours Lane

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 53924
Job Number: 24-045284-1
Date Sampled: 24/09/2024
Date Received: 26/09/2024
Date Tested: 08/10/2024
Sampled By: Not Given

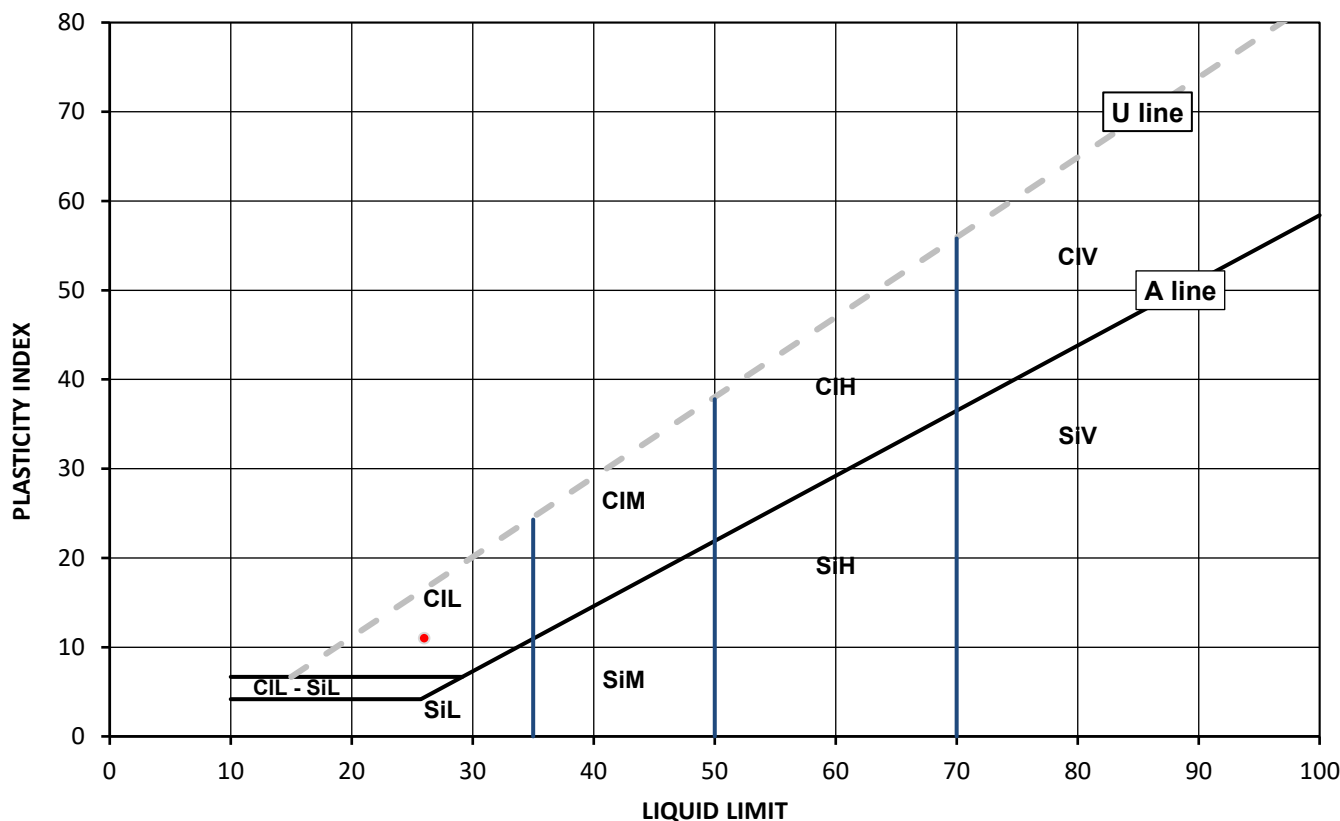
Test Results:

Laboratory Reference: 335265
Hole No.: WS03
Sample Reference: Not Given
Sample Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 2.20
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425mm; The water content in the sample was increased
Cone Type: 80g/30deg

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
16.6	26	15	11	0.18	0.82	88



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L	Low
	M	Medium
	H	High
	V	Very high
	O	Organic
		append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

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SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: A2 Site Investigation Limited
Client Address: Broom House 39-43 London Road,
Hadleigh,
Benfleet, SS7 2QL

BS EN ISO 17892-12:2018+A2:2022, cl 5.3.14, 5.5, Fall Cone Method, 1 Pt
Test, BS 1377-2:2022, cl 5.3, 6. BS EN ISO 17892-12:2018+A2:2022 cl 5.3
and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6.
Correlation Factor by Clayton C.R.I and Jukes A.W (1978). W by BS EN ISO
17892-1:2014+A1:2022.

Contact: Will Thistleton
Site Address: Scours Lane

Client Reference: 53924
Job Number: 24-045284-1
Date Sampled: 24/09/2024
Date Received: 26/09/2024
Date Tested: 08/10/2024
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	W	Liquid & Plastic Limit								Density		
		Reference	Depth Top	Depth Base	Type				% Passing 425um	WL*	Correlation Factor	Wp	Ip	Cone type	Sample Preparation	bulk	dry	PD	
			m	m															Mg/m3
335256	BH01	Not Given	6.00	Not Given	D	Yellowish brown gravelly slightly clayey SAND	Atterberg 1 Point	9.0	41	25	1.030	NP	NP	80g/30 deg	WR				
335263	WS01	Not Given	2.00	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 4 Point	18.0	86	25	-	13	12	80g/30 deg	R / I				
335265	WS03	Not Given	2.20	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 4 Point	16.6	88	26	-	15	11	80g/30 deg	WR / I				

Note: # Non accredited; NP - Non plastic; N - Tested in natural condition, R - Tested after >0,425mm removed by hand, WR - Tested after washing to remove >425mm; I - The water content in the sample was increased ,
D - The water content in the sample was decreased; * - One point liquid limit corrected as per the report Correlation Factor by Clayton C.R.I and Jukes A.W (1978)

Comments:

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SUMMARY REPORT
DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS EN ISO 17892-1:2014+A1:2022, BS 1377-2: 2022, clause 4.1

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041
Client: A2 Site Investigation Limited
Client Address: Broom House 39-43 London Road, Hadleigh,
Benfleet, SS7 2QL
Contact: Will Thistleton
Site Address: Scours Lane
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 53924
Job Number: 24-045284-1
Date Sampled: 24/09/2024
Date Received: 26/09/2024
Date Tested: 08/10 - 10/10/2024
Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC											
		Reference	Depth Top m	Depth Base m	Type														
335256	BH01	Not Given	6.00	Not Given	D	Yellowish brown gravelly slightly clayey SAND		9.0											
335263	WS01	Not Given	2.00	Not Given	D	Brown slightly gravelly very sandy CLAY		18.0											
335265	WS03	Not Given	2.20	Not Given	D	Brown slightly gravelly very sandy CLAY		16.6											

Comments:

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TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS EN ISO 17892-4:2016,
BS 1377-2:2022 cl. 10

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client: A2 Site Investigation Limited
Client Address: Broom House 39-43 London Road, Hadleigh,
Benfleet, SS7 2QL

Contact: Will Thistleton
Site Address: Scours Lane

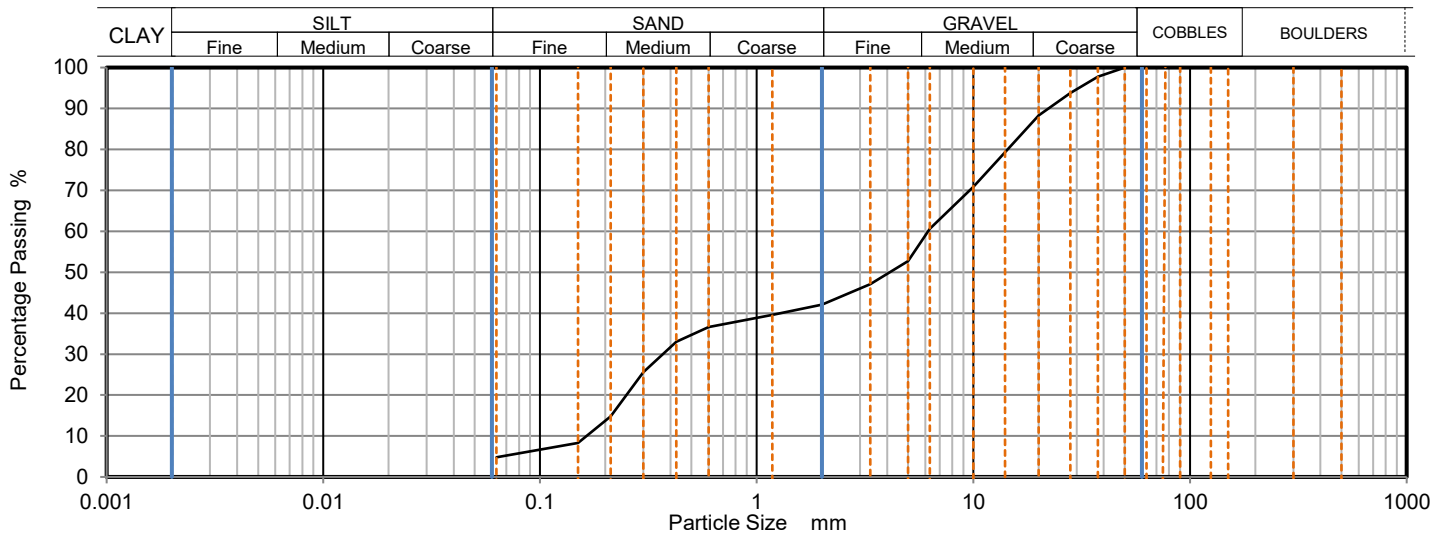
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 53924
Job Number: 24-045284-1
Date Sampled: 24/09/2024
Date Received: 26/09/2024
Date Tested: 09/10/2024
Sampled By: Not Given

Test Results:

Laboratory Reference: 335255
Hole No.: BH01
Sample Reference: Not Given
Sample Description: Yellowish brown very sandy clayey GRAVEL
Sample Preparation: Sample was whole tested, oven dried at 107.7 °C and broken down by hand.

Depth Top [m]: 5.00
Depth Base [m]: 5.40
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	98		
28	94		
20	88		
14	79		
10	71		
6.3	61		
5	53		
3.35	47		
2	42		
1.18	40		
0.6	37		
0.425	33		
0.3	26		
0.212	15		
0.15	8		
0.063	5		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	58.00
Sand	37.00
Fines <0.063 mm	5.00

Grading Analysis		
D100	mm	50
D60	mm	6.19
D30	mm	0.369
D10	mm	0.164
Uniformity Coefficient		38
Curvature Coefficient		0.13

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving on as received or wet sample

Remarks:

Signed:

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Monika Siewior
Reporting Specialist
for and on behalf of i2 Analytical Ltd

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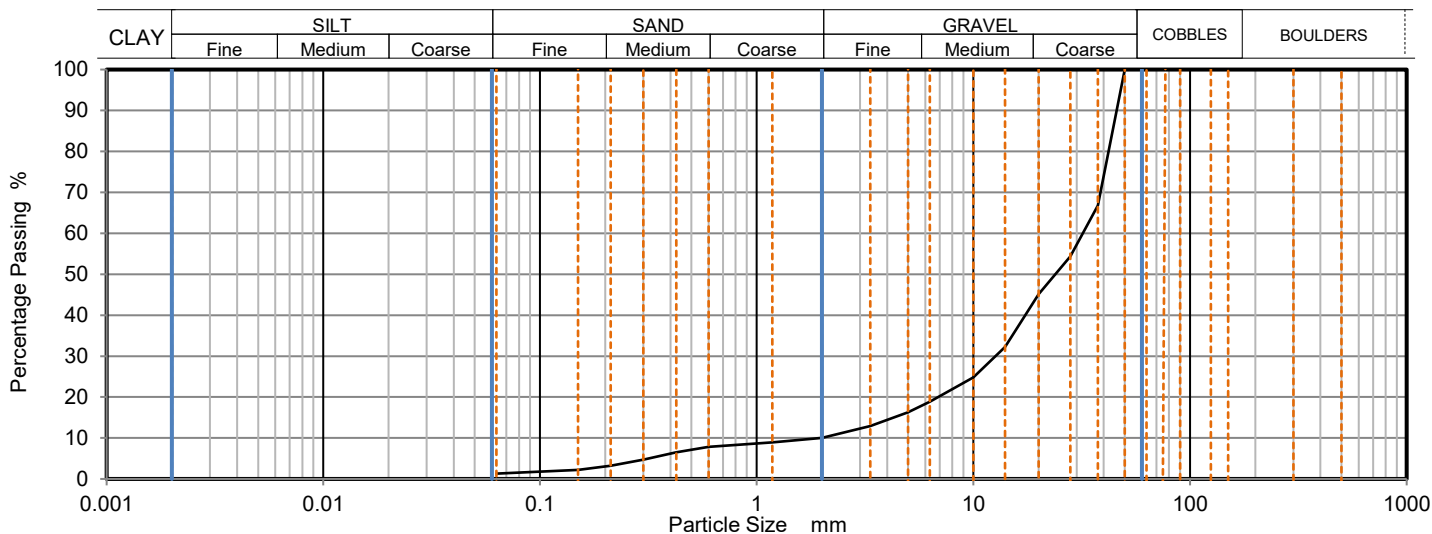
4041

TEST CERTIFICATE**DETERMINATION OF PARTICLE
SIZE DISTRIBUTION**Tested in Accordance with: BS EN ISO 17892-4:2016,
BS 1377-2:2022 cl. 10i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

Client: A2 Site Investigation Limited
Client Address: Broom House 39-43 London Road, Hadleigh,
Benfleet, SS7 2QLContact: Will Thistleton
Site Address: Scours LaneClient Reference: 53924
Job Number: 24-045284-1
Date Sampled: 24/09/2024
Date Received: 26/09/2024
Date Tested: 10/10/2024
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:Laboratory Reference: 335261
Hole No.: BH01
Sample Reference: Not Given
Sample Description: Yellowish brown sandy GRAVEL
Sample Preparation: Sample was whole tested, oven dried at 106.0 °C and broken down by hand.Depth Top [m]: 7.50
Depth Base [m]: Not Given
Sample Type: D

Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	67		
28	54		
20	45		
14	32		
10	25		
6.3	19		
5	16		
3.35	13		
2	10		
1.18	9		
0.6	8		
0.425	7		
0.3	5		
0.212	3		
0.15	2		
0.063	1		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	90.00
Sand	9.00
Fines <0.063 mm	1.00

Grading Analysis	
D100	mm 50
D60	mm 32
D30	mm 12.7
D10	mm 1.96
Uniformity Coefficient	16
Curvature Coefficient	2.6

Uniformity and Curvature Coefficient calculated in accordance
with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving on as received or wet sample

Remarks: The material submitted - fails to meet the minimum mass requirements as stated in BS EN ISO 17892-4:2016 Table 1.

Signed:

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TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS EN ISO 17892-4:2016,
BS 1377-2:2022 cl. 10

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: A2 Site Investigation Limited
Client Address: Broom House 39-43 London Road, Hadleigh,
Benfleet, SS7 2QL

Contact: Will Thistleton
Site Address: Scours Lane

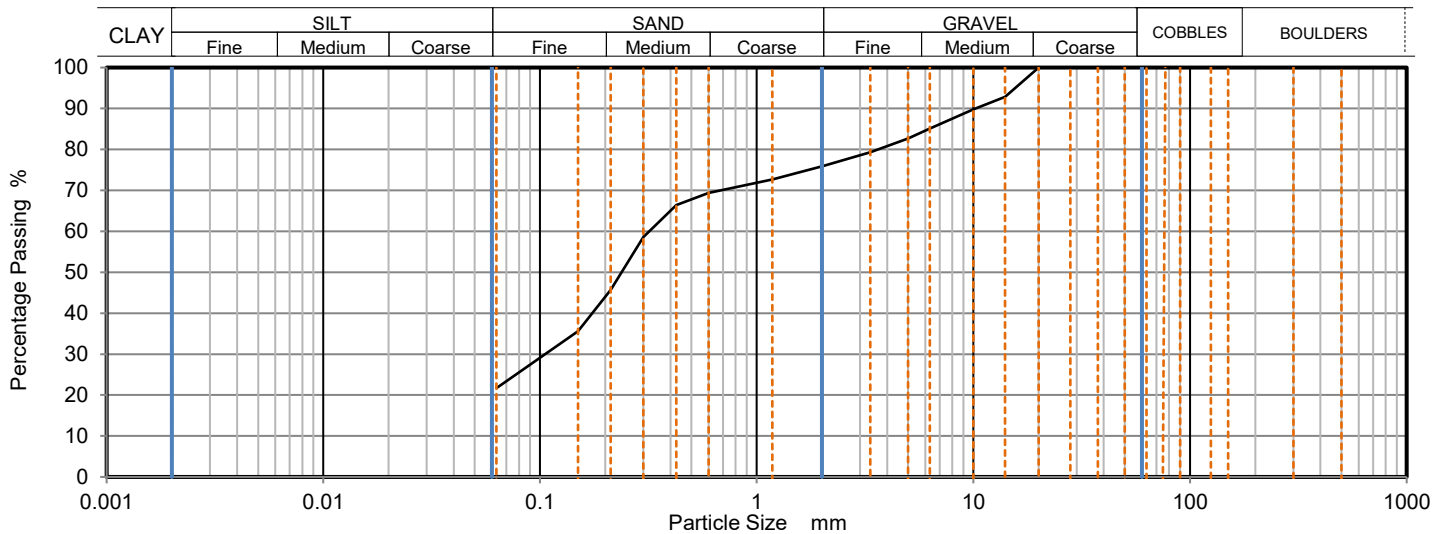
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 53924
Job Number: 24-045284-1
Date Sampled: 24/09/2024
Date Received: 26/09/2024
Date Tested: 08/10/2024
Sampled By: Not Given

Test Results:

Laboratory Reference: 335264
Hole No.: WS02
Sample Reference: Not Given
Sample Description: Brown very gravelly very clayey SAND
Sample Preparation: Sample was quartered, oven dried at 108.3 °C and broken down by hand.

Depth Top [m]: 2.50
Depth Base [m]: 3.00
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	93		
10	90		
6.3	85		
5	83		
3.35	79		
2	76		
1.18	73		
0.6	69		
0.425	66		
0.3	59		
0.212	46		
0.15	36		
0.063	22		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	24.00
Sand	54.00
Fines <0.063 mm	22.00

Grading Analysis	
D100	mm 20
D60	mm 0.319
D30	mm 0.106
D10	mm
Uniformity Coefficient	5.1
Curvature Coefficient	

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving on as received or wet sample

Remarks:

Signed:

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Reporting Specialist
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SUMMARY REPORT

METHOD FOR SATURATION WATER CONTENT OF CHALK

Tested in Accordance with: BS EN ISO 17892-2:2014, clause 5.2 and BS 1377: Part 2:2022, clause 4.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: A2 Site Investigation Limited
Client Address: Broom House 39-43 London Road, Hadleigh,
Benfleet, SS7 2QL

Contact: Will Thistleton
Site Address: Scours Lane

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 53924
Job Number: 24-045284-1
Date Sampled: 24/09/2024
Date Received: 26/09/2024
Date Tested: 10/10/2024
Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	SWC	Bulk density	Dry density	WC	Preparation
		Reference	Depth Top	Depth Base	Type							
			m	m								
335257	BH01	Not Given	9.00	Not Given	D	White CHALK		20.7	2.06	1.73	19.1	
335262	BH01	Not Given	17.00	17.45	D	White CHALK with fragments of flintstone		26.5	1.98	1.57	25.7	

Note: SWC - Saturation Water Content; WC - Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2: 2022 clause 4.1

Comments:

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Signed:

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SUMMARY REPORT
DETERMINATION OF POINT LOAD STRENGTH

Tested in Accordance with: ISRM: 2007, pages 125-132

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041
Client: A2 Site Investigation Limited
Client Address: Broom House 39-43 London Road, Hadleigh,
Benfleet, SS7 2QL
Contact: Will Thistleton
Site Address: Scours Lane
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 53924
Job Number: 24-045284-1
Date Sampled: 24/09/2024
Date Received: 26/09/2024
Date Tested: 15/10/2024
Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks (including water content if measured)	Specimen Reference	Test Type see ISRM		Failure Valid (Y/N)	Dimensions				Force P kN	Equivalent diameter, De mm	Point Load Strength Index	
		Reference	Depth Top m	Depth Base m	Type				Type (D, A, I, B)	Direction (L, P or U)		Lne mm	W mm	Dps mm	Dps' mm			Is MPa	Is(50) MPa
335258	BH01	Not Given	10.50	Not Given	D	White CHALK	WC = 21.3%	1	I	U	YES	50.3	81.5	54.0	43.0	1.4	66.8	0.31	0.36
335259	BH01	Not Given	15.00	Not Given	D	White CHALK	WC = 20.5%	1	I	U	YES	44.8	74.3	55.0	50.0	1.2	68.8	0.25	0.29
335260	BH01	Not Given	18.00	Not Given	D	White CHALK	WC = 25.5%	1	I	U	YES	51.1	71.5	45.0	32.0	1.0	54.0	0.33	0.34

Note: # non accredited; Test Type: D - Diametral, A - Axial, I - Irregular Lump, B - Block; Direction: L - parallel to planes of weakness, P - perpendicular to planes of weakness, U - unknown or random;
Dimensions: Dps - Distance between platens (platen separation), Dps' - at failure (see ISRM note 6), Lne - Length from platens to nearest free end W - Width of shortest dimension perpendicular to load, P;
Detailed legend for test and dimensions, based on ISRM, is shown above; Size factor, F = (De/50)0.45 for all tests

Equipment No.: i2 4341 Calibration Date: 15/03/2024 - 15/03/2025

Comments:

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Appendix F Geoenvironmental Laboratory Testing Results