

APPENDIX C

Laboratory Geotechnical Data



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: Groundsmiths Ltd
Client Address: 12 Spruce Close, Brampton,
Chesterfield, Derbyshire,
340 3FG

Contact: Andrew Spooner
Site Address: Church Lane, Moston

Client Reference: GUK 0524 02

Job Number: 24-047007-1

Date Sampled: 04/10/2024

Date Received: 09/10/2024

Date Tested: 21/10/2024

Sampled By: Client - AJS

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

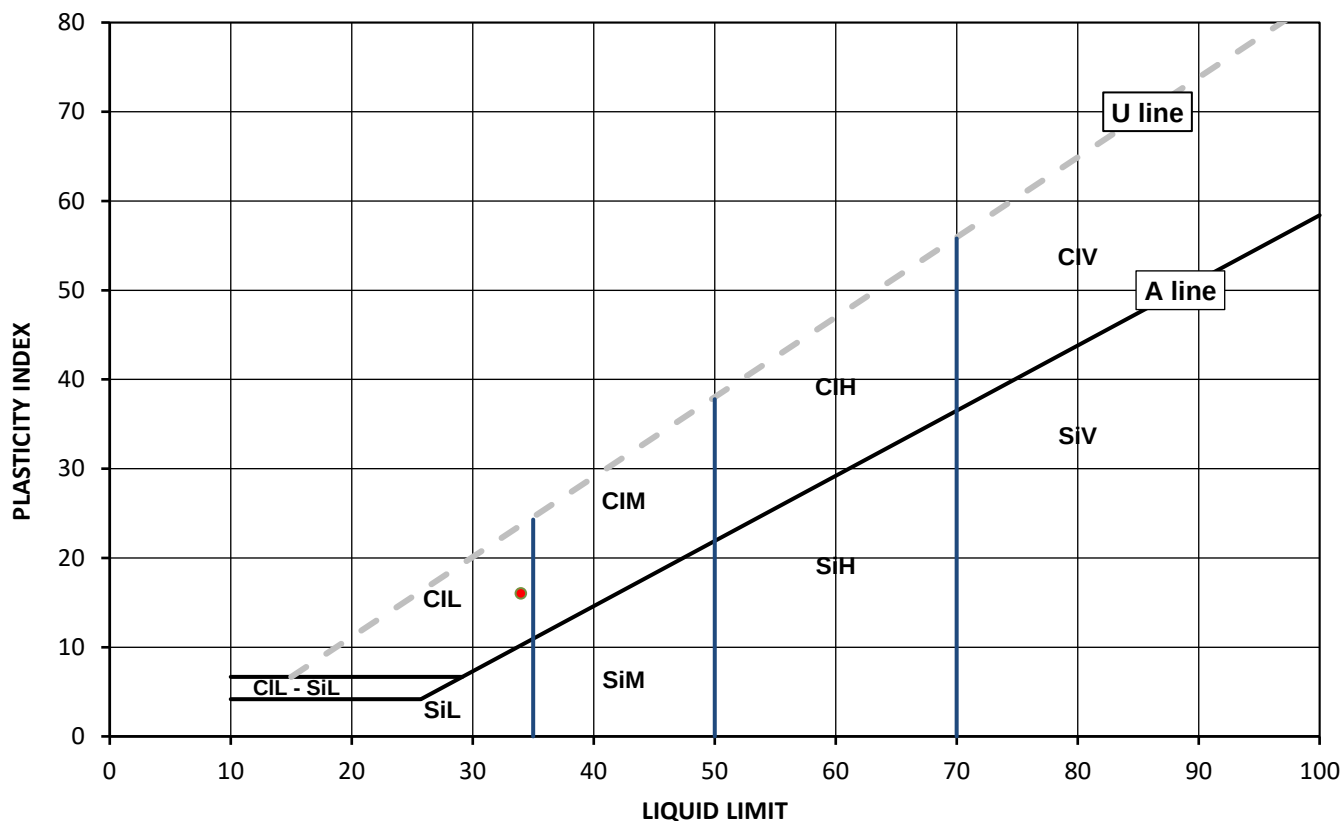
Test Results:

Laboratory Reference: 344824
Hole No.: BH1-DS1
Sample Reference: Not Given
Sample Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
18.6	34	1.030	18	16	0.06	0.94	98



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:

Signed:

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

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Sampled By: Client - AJS

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

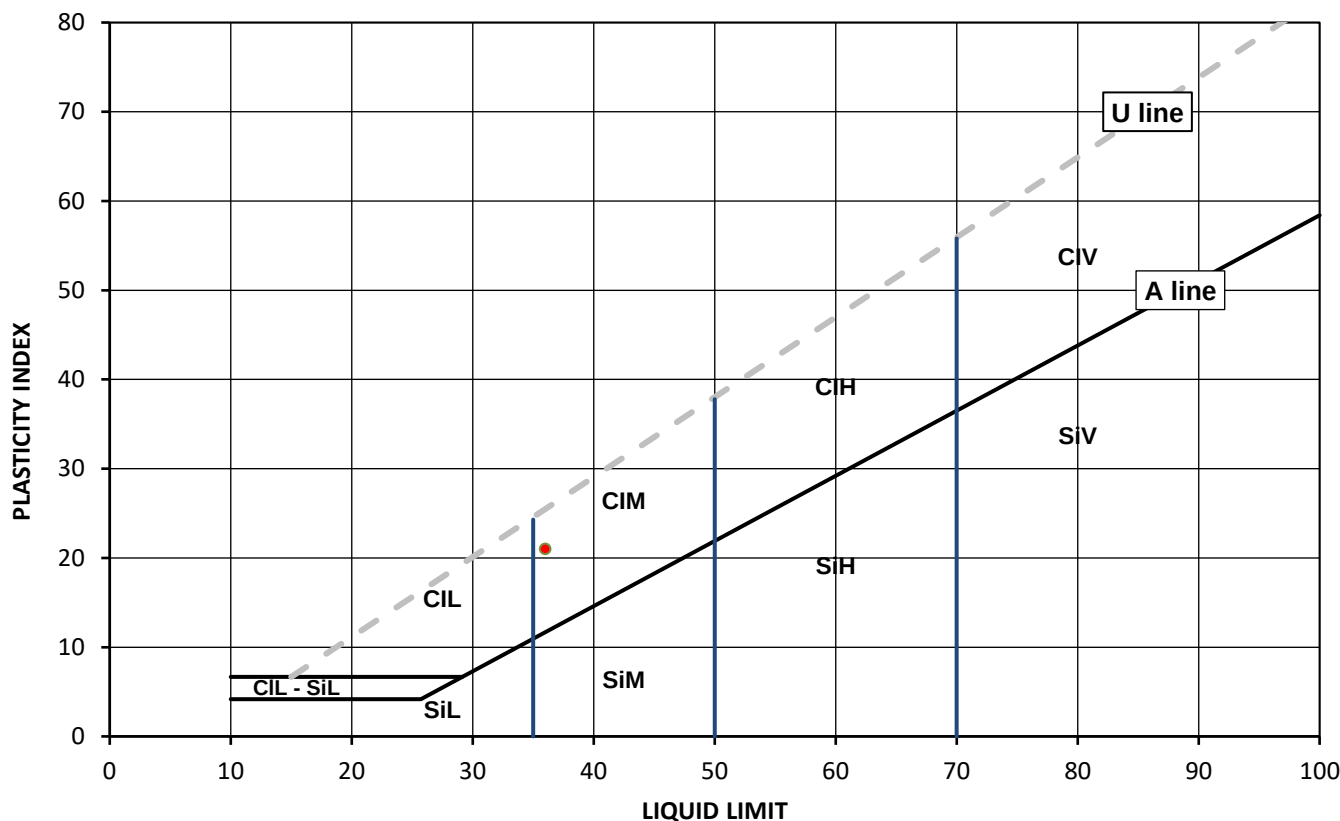
Test Results:

Laboratory Reference: 344825
Hole No.: BH1-DS2
Sample Reference: Not Given
Sample Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 3.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
16.0	36	0.968	15	21	0.05	0.95	90



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

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Sampled By: Client - AJS

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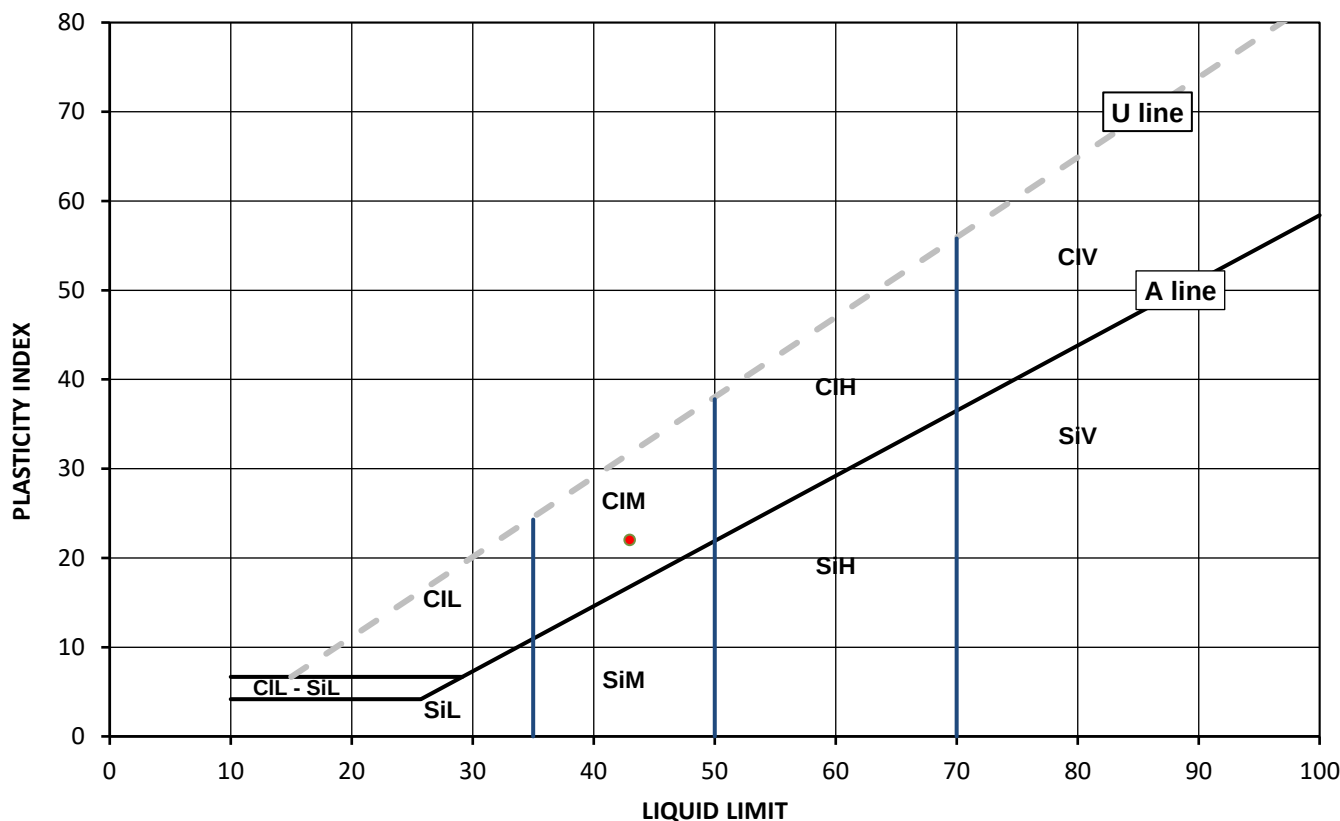
Test Results:

Laboratory Reference: 344826
Hole No.: BH2-DS1
Sample Reference: Not Given
Sample Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
22.3	43	1.039	21	22	0.05	0.95	95



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)

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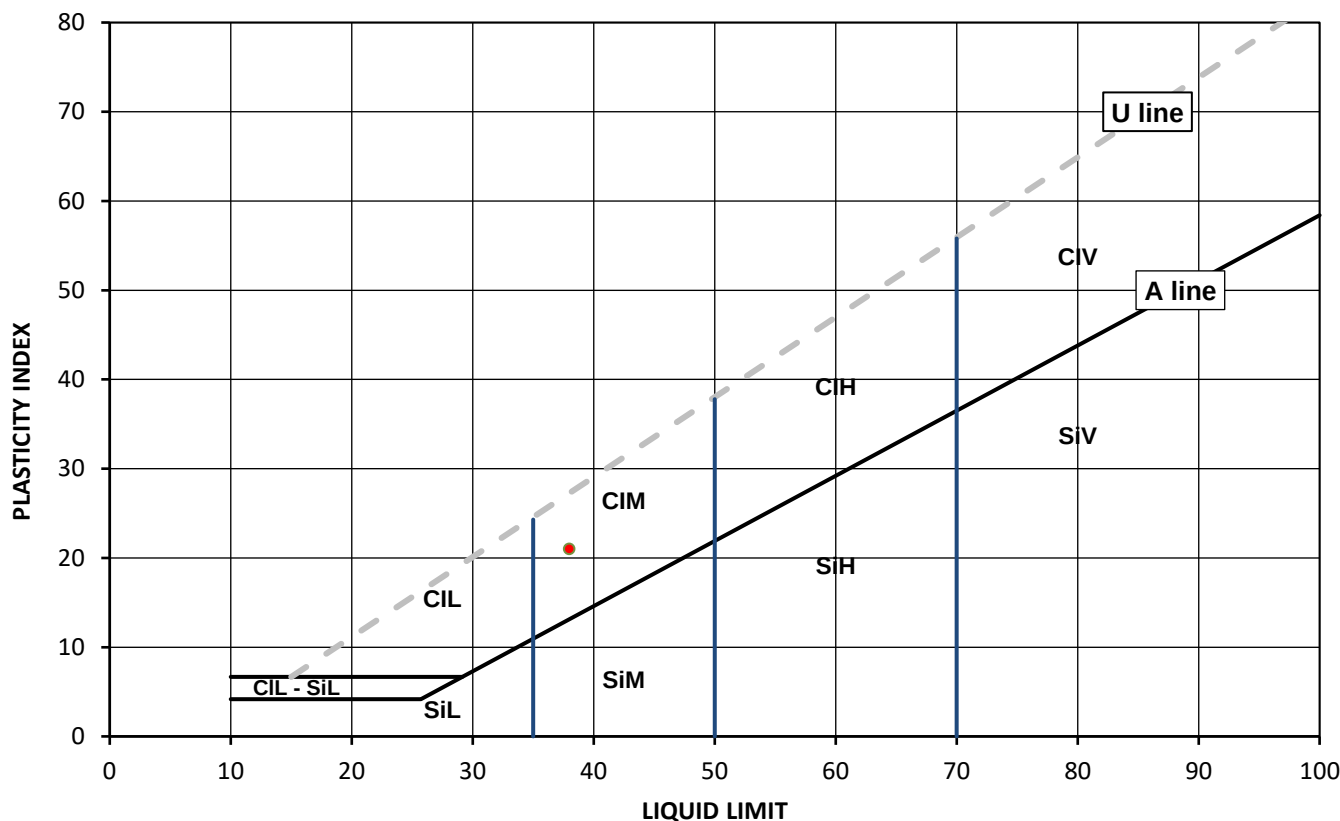
Test Results:

Laboratory Reference: 344827
Hole No.: BH2-DS22
Sample Reference: Not Given
Sample Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 3.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
16.1	38	1.020	17	21	-0.05	1.05	78



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
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	V	Very high
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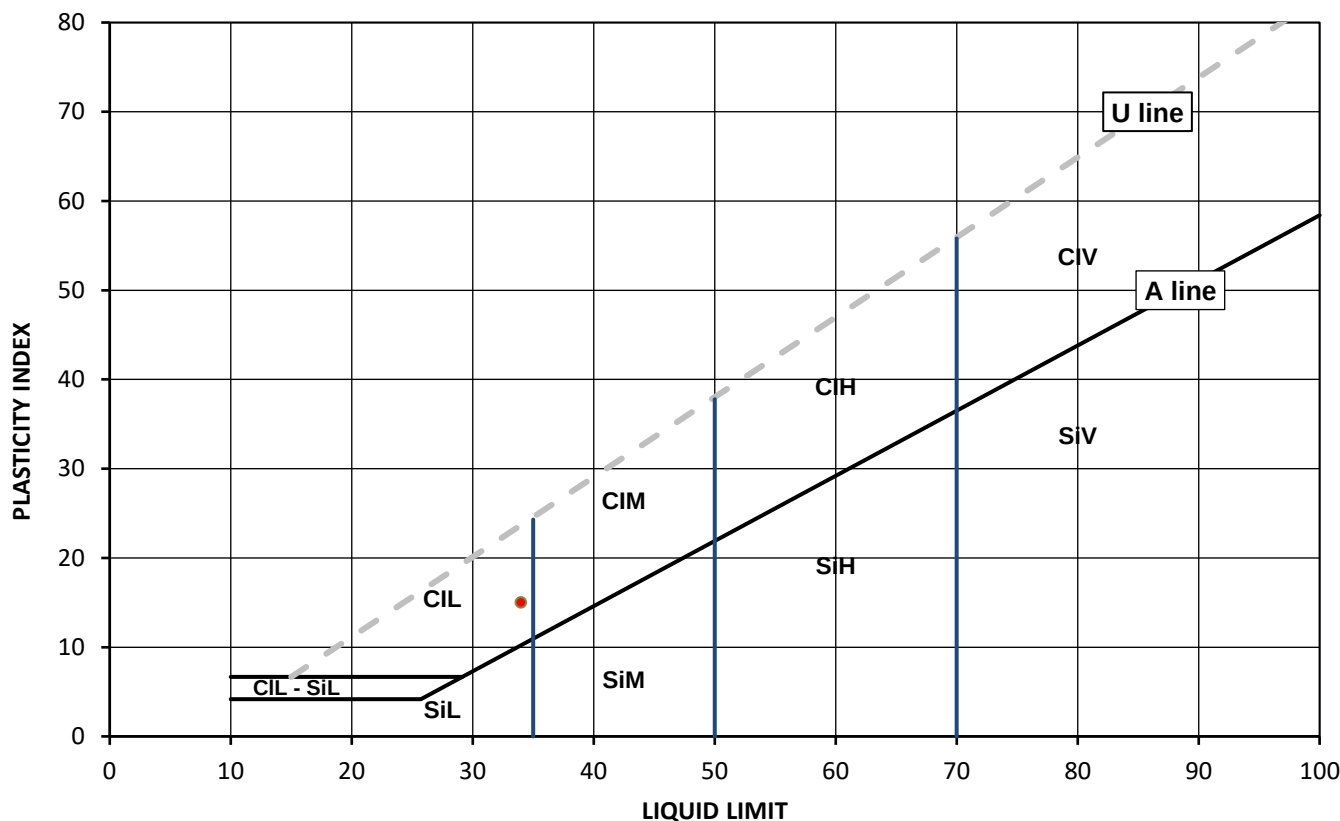
Test Results:

Laboratory Reference: 344828
Hole No.: BH3-DS1
Sample Reference: Not Given
Sample Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
19.1	34	1.015	19	15	0.00	1.00	82



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

		Plasticity	Liquid Limit
Cl	Clay	L Low	below 35
Si	Silt	M Medium	35 to 50
		H High	50 to 70
		V Very high	exceeding 70
		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

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Job Number: 24-047007-1
Date Sampled: 04/10/2024
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Date Tested: 21/10/2024
Sampled By: Client - AJS

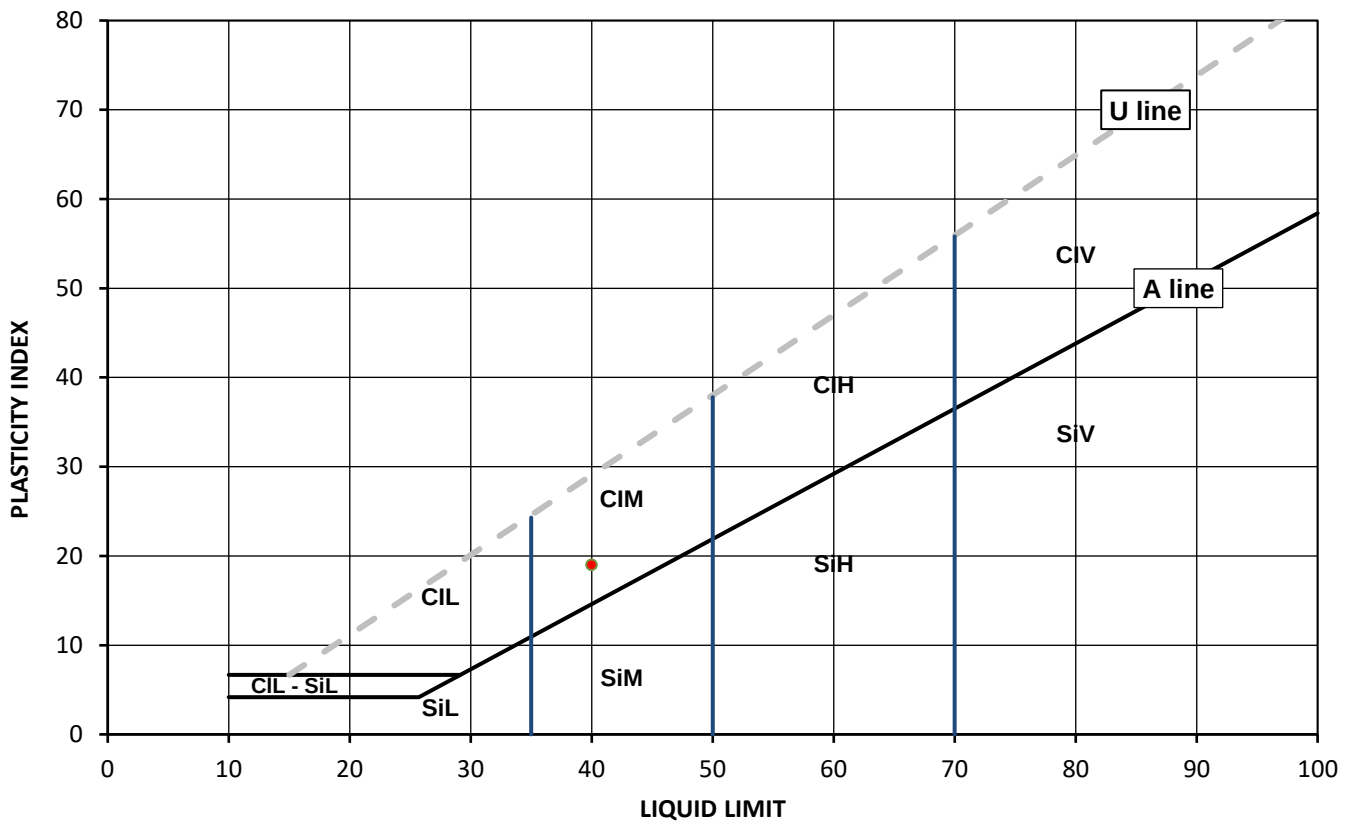
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 344829
Hole No.: BH4-DS1
Sample Reference: Not Given
Sample Description: Brown slightly gravelly sandy CLAY
Sample Preparation: Tested after >0.425 mm removed by hand;
Cone Type: 80g/30deg

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

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
20.4	40	1.039	21	19	-0.05	1.05	88



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

		Plasticity	Liquid Limit
Cl	Clay	L Low	below 35
Si	Silt	M Medium	35 to 50
		H High	50 to 70
		V Very high	exceeding 70
		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

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Date Tested: 21/10/2024

Sampled By: Client - AJS

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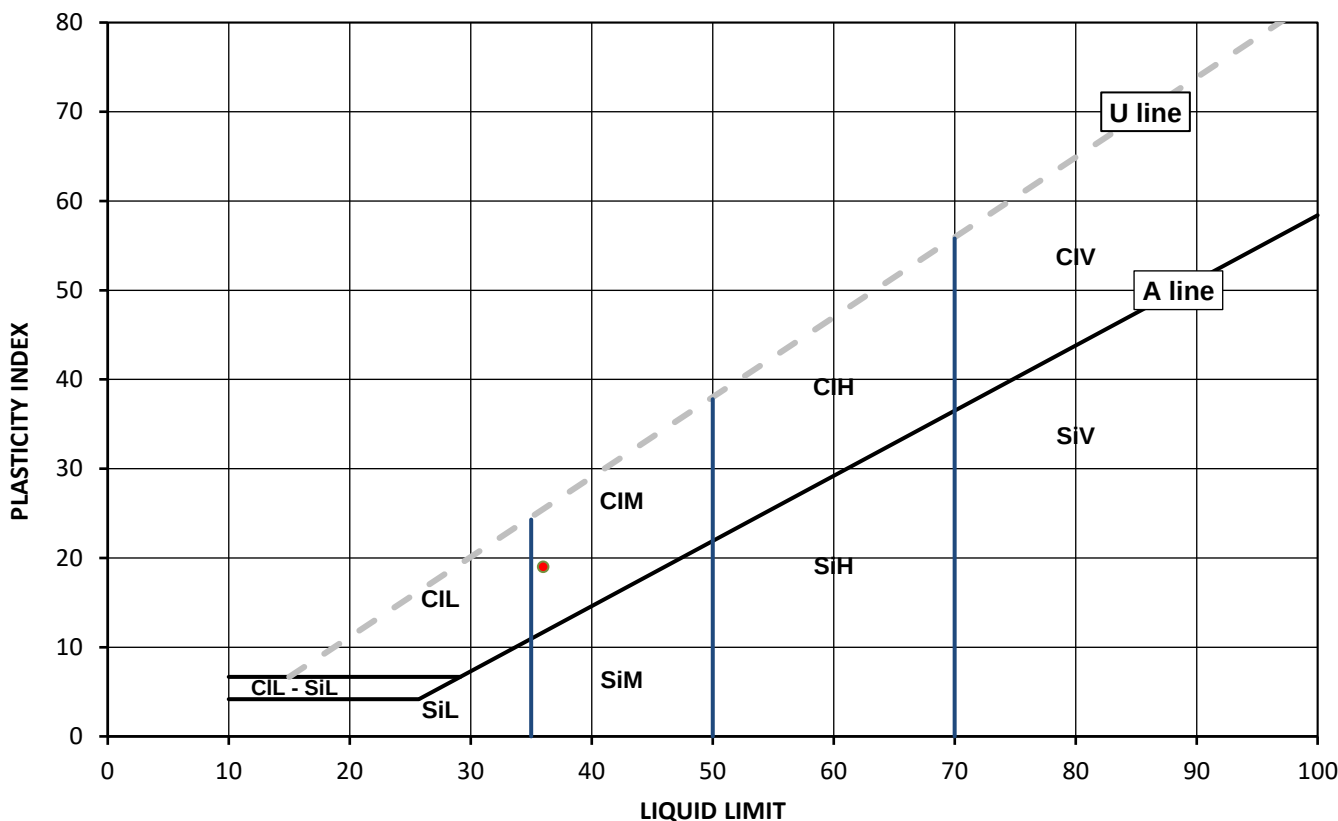
Test Results:

Laboratory Reference: 344830
Hole No.: BH4-DS2
Sample Reference: Not Given
Sample Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 3.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
15.6	36	1.042	17	19	-0.05	1.05	91



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	50 to 70
	M Medium	exceeding 70
	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

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Date Sampled: 03/10/2024

Date Received: 09/10/2024

Date Tested: 21/10/2024

Sampled By: Client - AJS

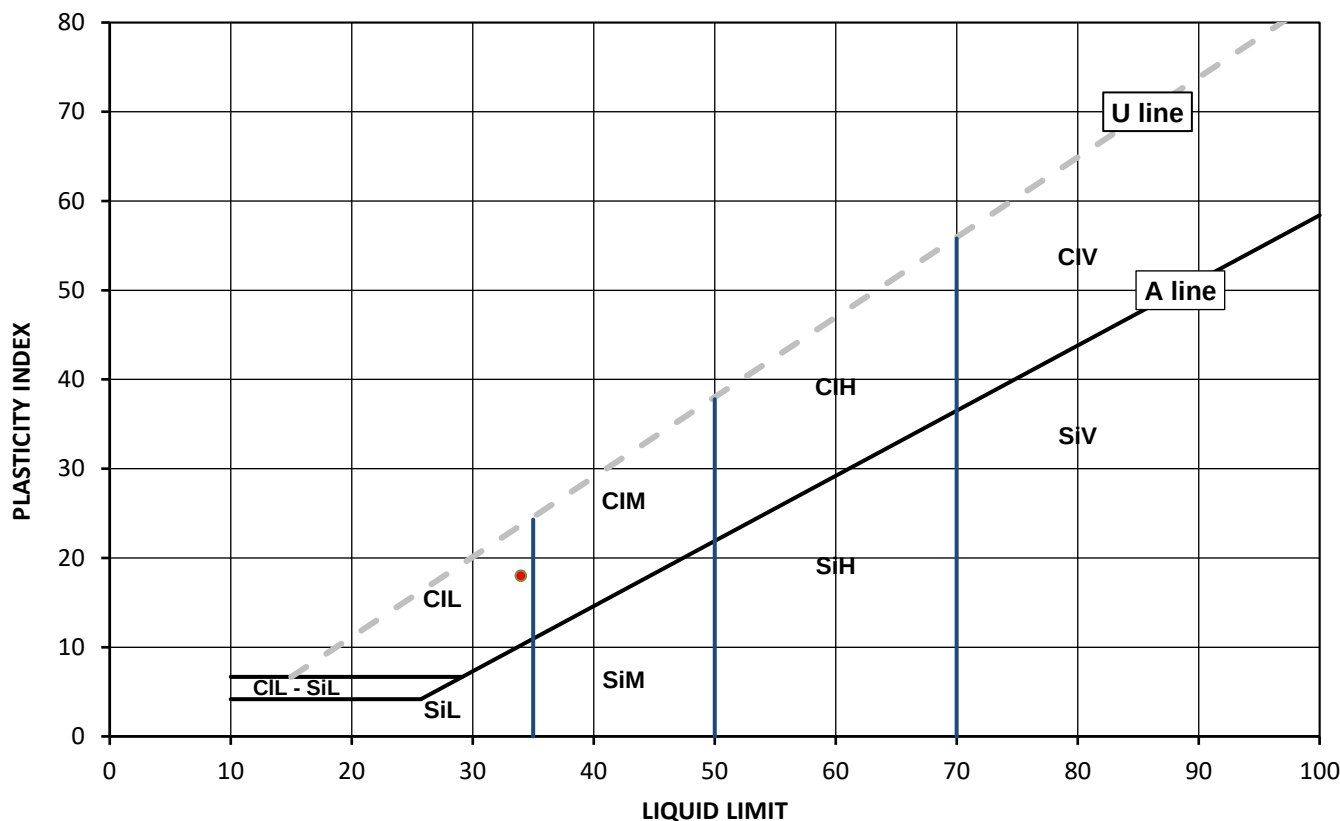
Test Results:

Laboratory Reference: 344831
Hole No.: CP2-DS1
Sample Reference: Not Given
Sample Description: Brown very sandy CLAY

Depth Top [m]: 7.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition;
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
21.9	34	1.030	16	18	0.33	0.67	100



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
		50 to 70
		exceeding 70
		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

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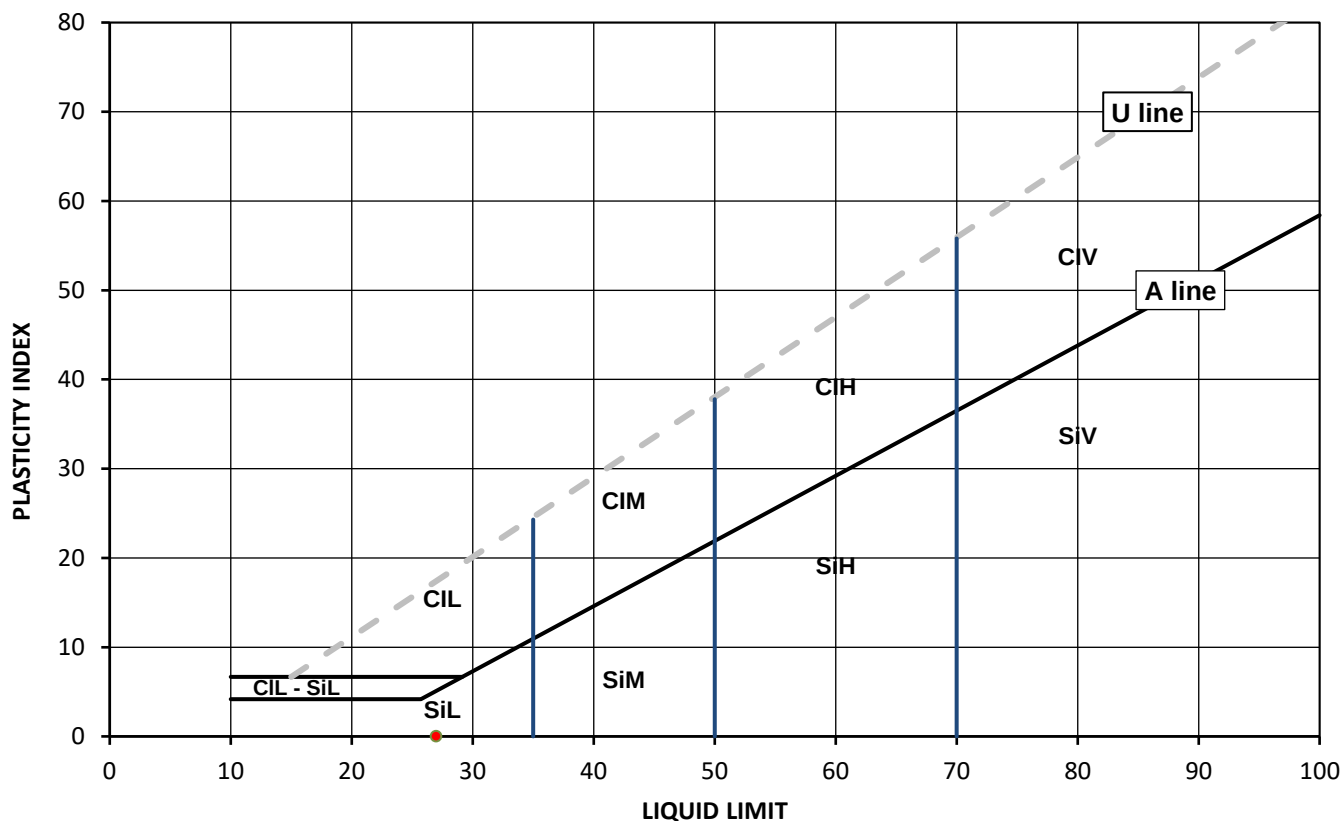
Test Results:

Laboratory Reference: 344832
Hole No.: CP2-DS4
Sample Reference: Not Given
Sample Description: Brown slightly clayey SAND

Depth Top [m]: 15.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition;
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
24.0	27	1.015	NP	NP	N/A	N/A	100



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: NP - non plastic.

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Date Tested: 21/10/2024

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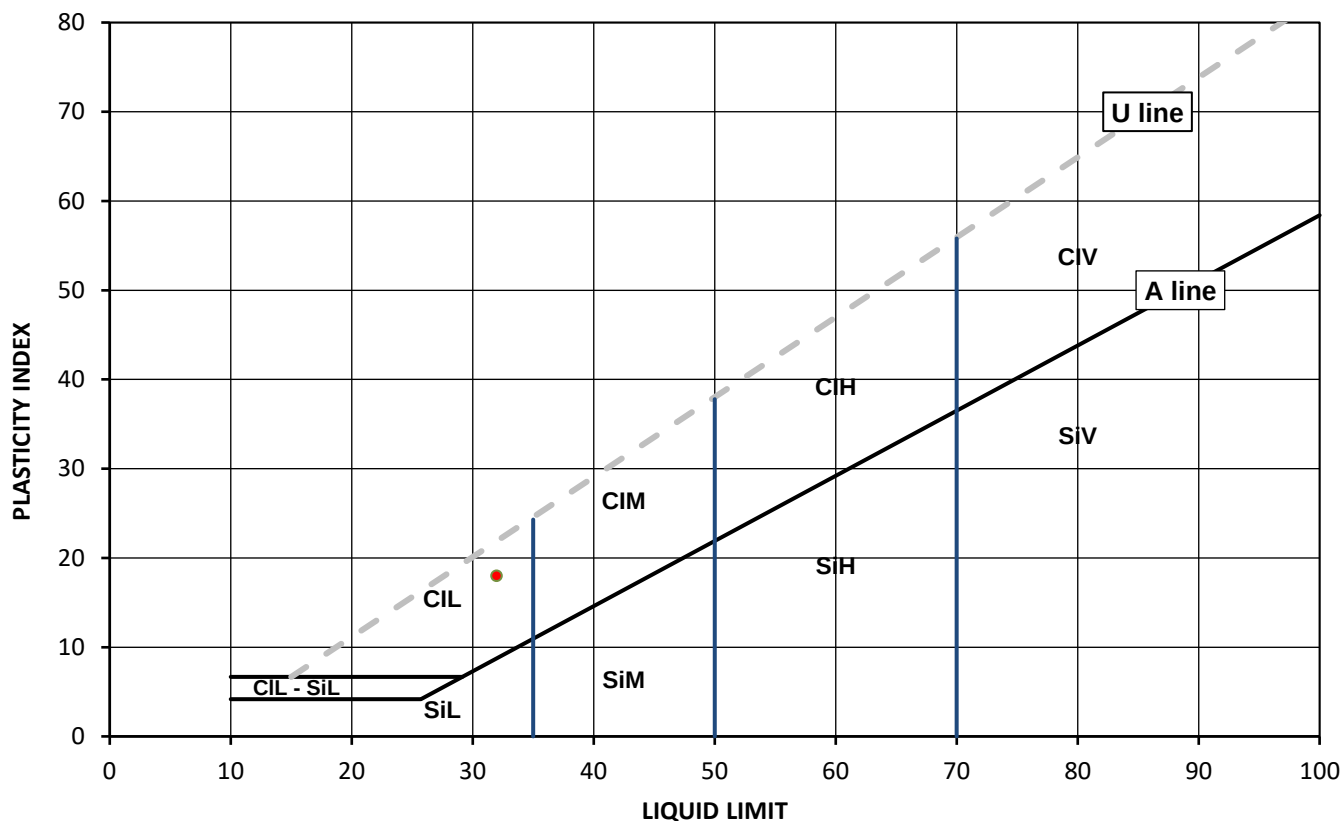
Test Results:

Laboratory Reference: 344833
Hole No.: CP4-DS1
Sample Reference: Not Given
Sample Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 9.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
21.0	32	0.983	14	18	0.39	0.61	88



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

		Plasticity	Liquid Limit
Cl	Clay	L Low	below 35
Si	Silt	M Medium	35 to 50
		H High	50 to 70
		V Very high	exceeding 70
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Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Groundsmiths Ltd
Client Address: 12 Spruce Close, Brampton,
Chesterfield, Derbyshire,
340 3FG

Contact: Andrew Spooner
Site Address: Church Lane, Moston

Client Reference: GUK 0524 02

Job Number: 24-047007-1

Date Sampled: 02/10/2024

Date Received: 09/10/2024

Date Tested: 21/10/2024

Sampled By: Client - AJS

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

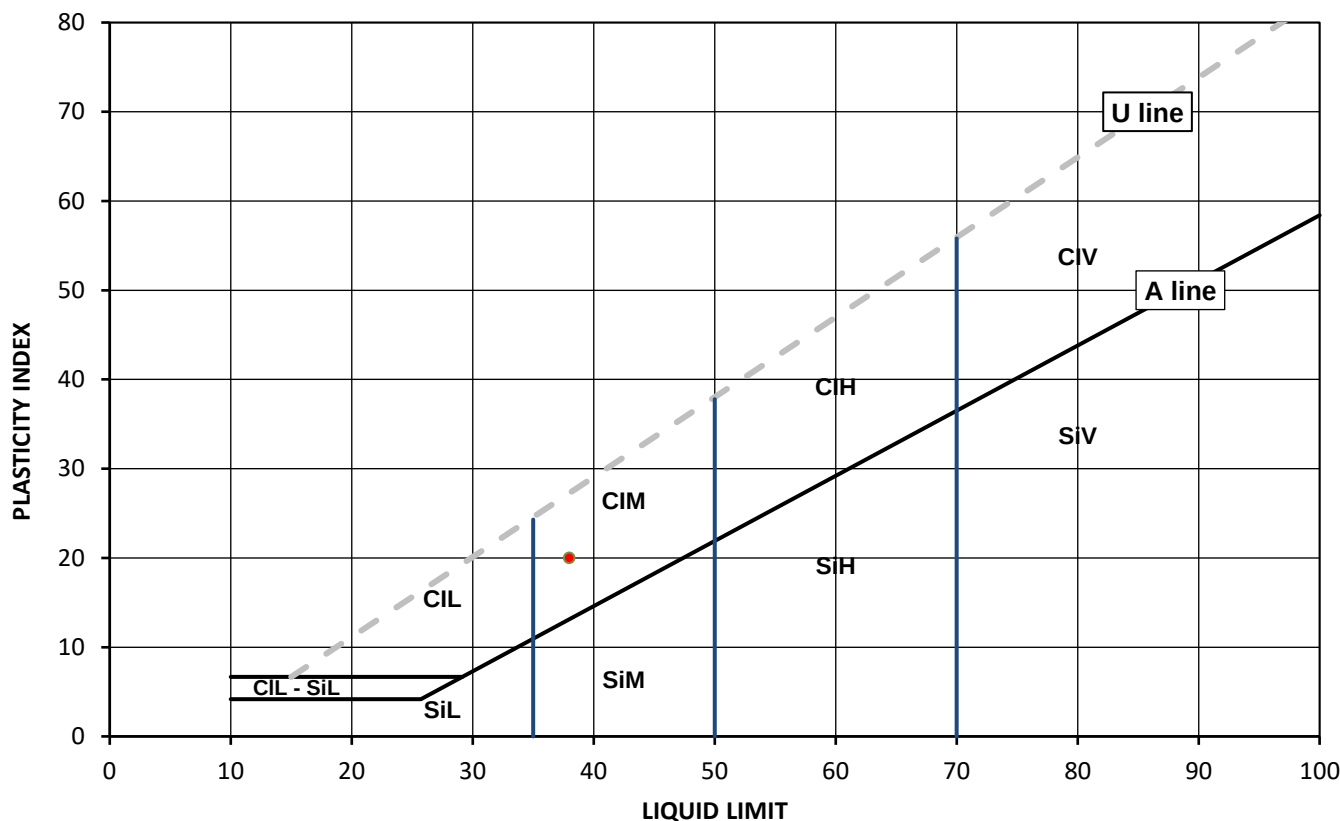
Test Results:

Laboratory Reference: 344834
Hole No.: CP4-DS3
Sample Reference: Not Given
Sample Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 12.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
20.3	38	1.000	18	20	0.10	0.90	94



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:

Signed:

Katarzyna Koziel
Geotechnical Reporting Team Leader
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 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

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Client Reference: GUK 0524 02

Job Number: 24-047007-1

Date Sampled: 02/10/2024

Date Received: 09/10/2024

Date Tested: 21/10/2024

Sampled By: Client - AJS

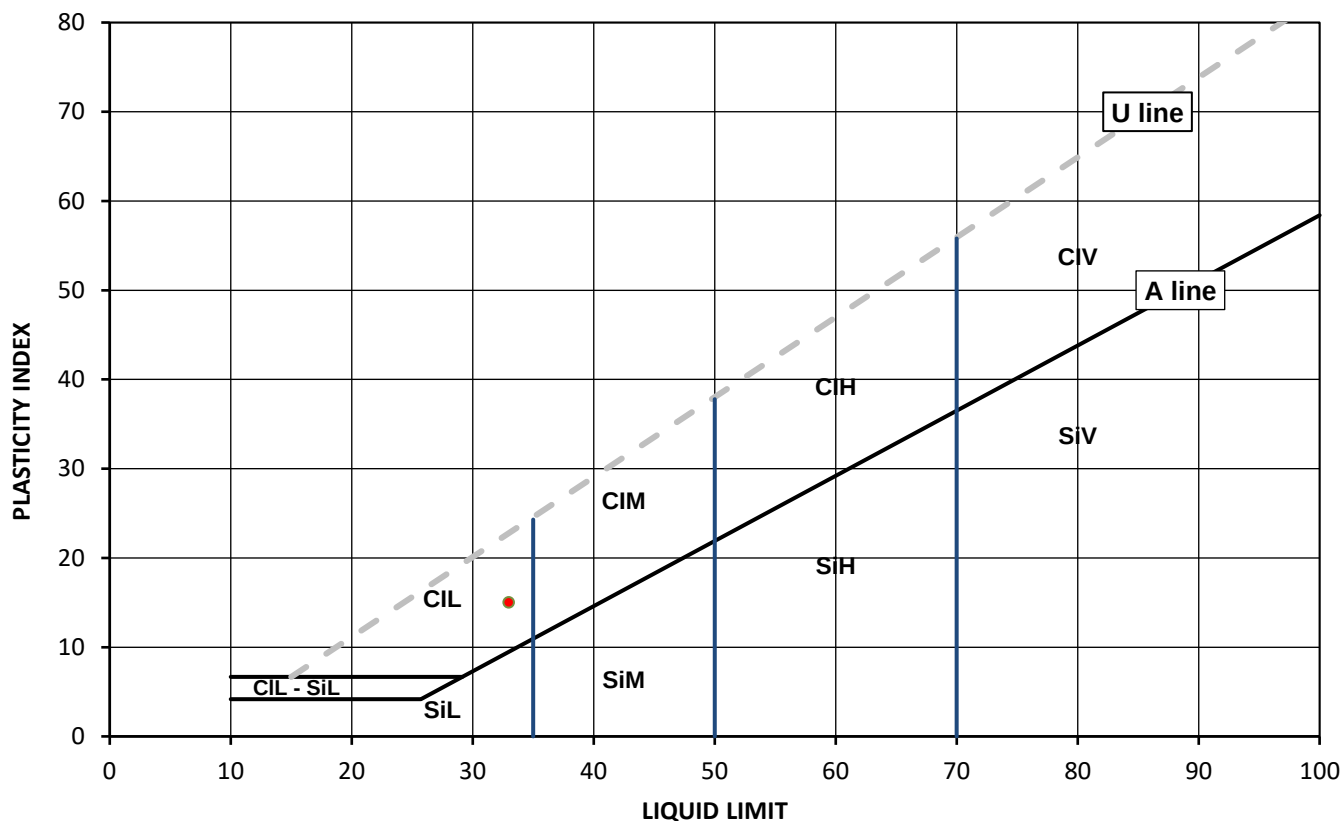
Test Results:

Laboratory Reference: 344835
Hole No.: CP4-DS7
Sample Reference: Not Given
Sample Description: Brown very sandy CLAY

Depth Top [m]: 18.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition;
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
17.0	33	1.000	18	15	-0.07	1.07	100



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

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

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cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

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Client Reference: GUK 0524 02
Job Number: 24-047007-1
Date Sampled: 02/10/2024
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Date Tested: 21/10/2024
Sampled By: Client - AJS

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

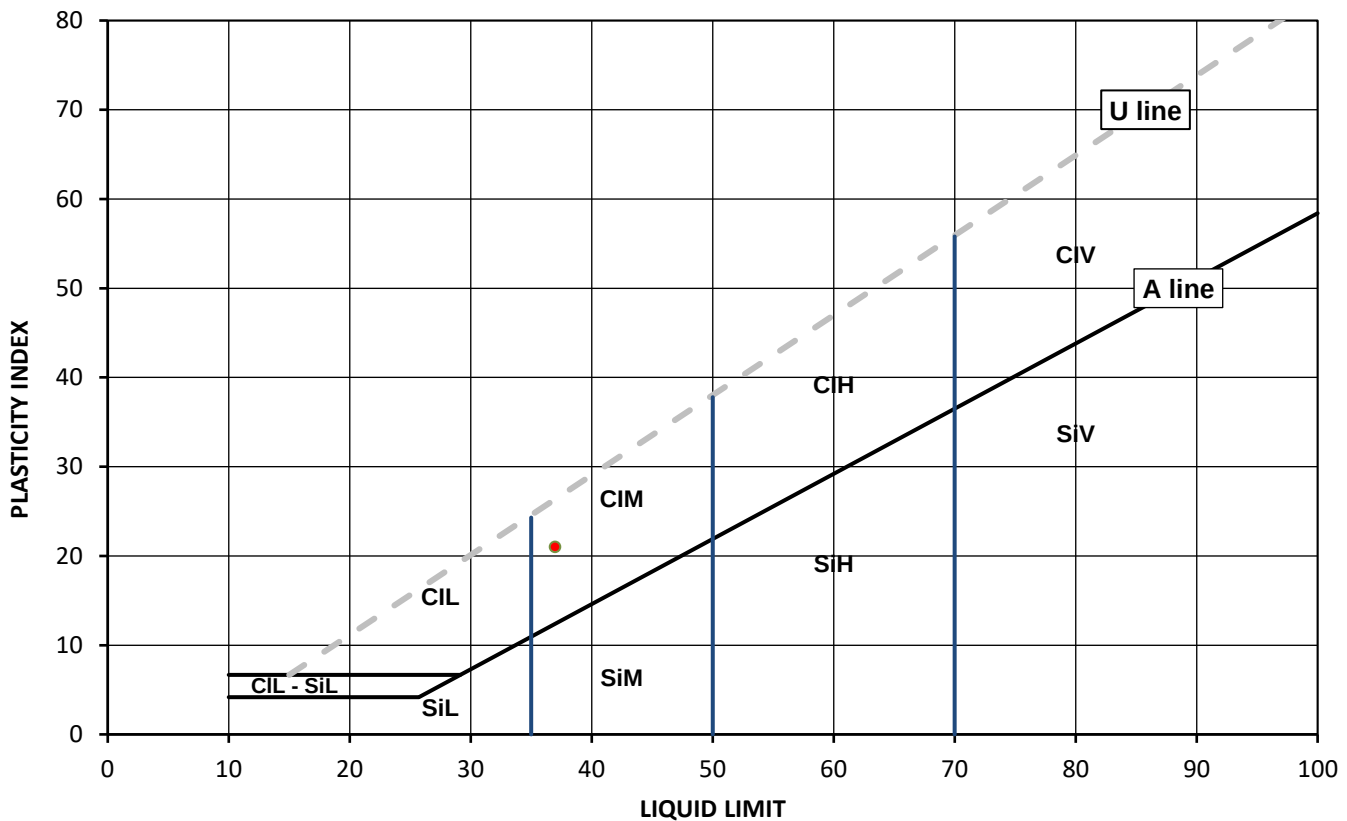
Test Results:

Laboratory Reference: 344836
Hole No.: CP4-DS9
Sample Reference: Not Given
Sample Description: Brown sandy CLAY

Depth Top [m]: 20.30
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition;
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
19.1	37	1.025	16	21	0.14	0.86	100



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

		Plasticity	Liquid Limit
Cl	Clay	L Low	below 35
Si	Silt	M Medium	35 to 50
		H High	50 to 70
		V Very high	exceeding 70
		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:

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SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

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



Environmental Science

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. Correlation Factor by Clayton C.R.I and Jukes A.W (1978). W by BS EN ISO 17892-1:2014+A1:2022.

Client Reference: GUK 0524 02

Job Number: 24-047007-1

Date Sampled: 02/10 - 04/10/2024

Date Received: 09/10/2024

Date Tested: 21/10/2024

Sampled By: Client - AJS

4041

Client: Groundsmiths Ltd
Client Address: 12 Spruce Close, Brampton,
Chesterfield, Derbyshire,
340 3FG

Contact: Andrew Spooner
Site Address: Church Lane, Moston

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														
344824	BH1-DS1	Not Given	1.00	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	18.6	98	34	1.030	18	16	80g/30 deg	R			
344825	BH1-DS2	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	16.0	90	36	0.968	15	21	80g/30 deg	R			
344826	BH2-DS1	Not Given	1.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	22.3	95	43	1.039	21	22	80g/30 deg	R			
344827	BH2-DS22	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	16.1	78	38	1.020	17	21	80g/30 deg	R			
344828	BH3-DS1	Not Given	1.50	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	19.1	82	34	1.015	19	15	80g/30 deg	R			
344829	BH4-DS1	Not Given	2.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	20.4	88	40	1.039	21	19	80g/30 deg	R			
344830	BH4-DS2	Not Given	3.50	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	15.6	91	36	1.042	17	19	80g/30 deg	R			
344831	CP2-DS1	Not Given	7.50	Not Given	D	Brown very sandy CLAY	Atterberg 1 Point	21.9	100	34	1.030	16	18	80g/30 deg	N			
344832	CP2-DS4	Not Given	15.00	Not Given	D	Brown slightly clayey SAND	Atterberg 1 Point	24.0	100	27	1.015	NP	NP	80g/30 deg	N			
344833	CP4-DS1	Not Given	9.50	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	21.0	88	32	0.983	14	18	80g/30 deg	R			

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; * - 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

SUMMARY OF CLASSIFICATION TEST RESULTS

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



Environmental Science

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. Correlation Factor by Clayton C.R.I and Jukes A.W (1978). W by BS EN ISO 17892-1:2014+A1:2022.

Client Reference: GUK 0524 02

Job Number: 24-047007-1

Date Sampled: 02/10/2024

Date Received: 09/10/2024

Date Tested: 21/10/2024

Sampled By: Client - AJS

4041

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340 3FG

Contact: Andrew Spooner
Site Address: Church Lane, Moston

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

Test results

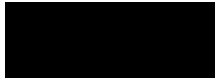
Laboratory Reference	Hole No.	Sample				Description	Remarks	W	Liquid & Plastic Limit							Density		
		Reference	Depth Top	Depth Base	Type				% Passing 425um	WL *	Correlation Factor	Wp	Ip	Cone type	Sample Preparation	bulk	dry	PD
			m	m					%	%		%	%			Mg/m3	Mg/m3	Mg/m3
344834	CP4-DS3	Not Given	12.50	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	20.3	94	38	1.000	18	20	80g/30 deg	R			
344835	CP4-DS7	Not Given	18.00	Not Given	D	Brown very sandy CLAY	Atterberg 1 Point	17.0	100	33	1.000	18	15	80g/30 deg	N			
344836	CP4-DS9	Not Given	20.30	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	19.1	100	37	1.025	16	21	80g/30 deg	N			

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; * - One point liquid limit corrected as per the report Correlation Factor by Clayton C.R.I and Jukes A.W (1978)

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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: Groundsmiths Ltd
Client Address: 12 Spruce Close, Brampton,
Chesterfield, Derbyshire,
340 3FG
Contact: Andrew Spooner
Site Address: Church Lane, Moston

Client Reference: GUK 0524 02
Job Number: 24-047007-1
Date Sampled: 02/10 - 04/10/2024
Date Received: 09/10/2024
Date Tested: 21/10/2024
Sampled By: Client - AJS

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

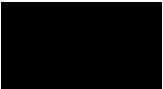
Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC											
		Reference	Depth Top m	Depth Base m	Type														
344824	BH1-DS1	Not Given	1.00	Not Given	D	Brown slightly gravelly very sandy CLAY		18.6											
344825	BH1-DS2	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY		16.0											
344826	BH2-DS1	Not Given	1.00	Not Given	D	Brown slightly gravelly sandy CLAY		22.3											
344827	BH2-DS22	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY		16.1											
344828	BH3-DS1	Not Given	1.50	Not Given	D	Brown slightly gravelly very sandy CLAY		19.1											
344829	BH4-DS1	Not Given	2.00	Not Given	D	Brown slightly gravelly sandy CLAY		20.4											
344830	BH4-DS2	Not Given	3.50	Not Given	D	Brown slightly gravelly sandy CLAY		15.6											
344831	CP2-DS1	Not Given	7.50	Not Given	D	Brown very sandy CLAY		21.9											
344832	CP2-DS4	Not Given	15.00	Not Given	D	Brown slightly clayey SAND		24.0											
344833	CP4-DS1	Not Given	9.50	Not Given	D	Brown slightly gravelly very sandy CLAY		21.0											

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

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Environmental Science

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Job Number: 24-047007-1
Date Sampled: 02/10/2024
Date Received: 09/10/2024
Date Tested: 21/10/2024
Sampled By: Client - AJS

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

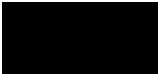
Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC											
		Reference	Depth Top m	Depth Base m	Type														
344834	CP4-DS3	Not Given	12.50	Not Given	D	Brown slightly gravelly sandy CLAY		20.3											
344835	CP4-DS7	Not Given	18.00	Not Given	D	Brown very sandy CLAY		17.0											
344836	CP4-DS9	Not Given	20.30	Not Given	D	Brown sandy CLAY		19.1											

Comments:

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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 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

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Environmental Science

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Contact: Andrew Spooner
Site Address: Church Lane, Moston

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

Client Reference: GUK-0524-02

Job Number: 24-047783-1

Date Sampled: 10/10/2024

Date Received: 11/10/2024

Date Tested: 21/10/2024

Sampled By: Client - AJS

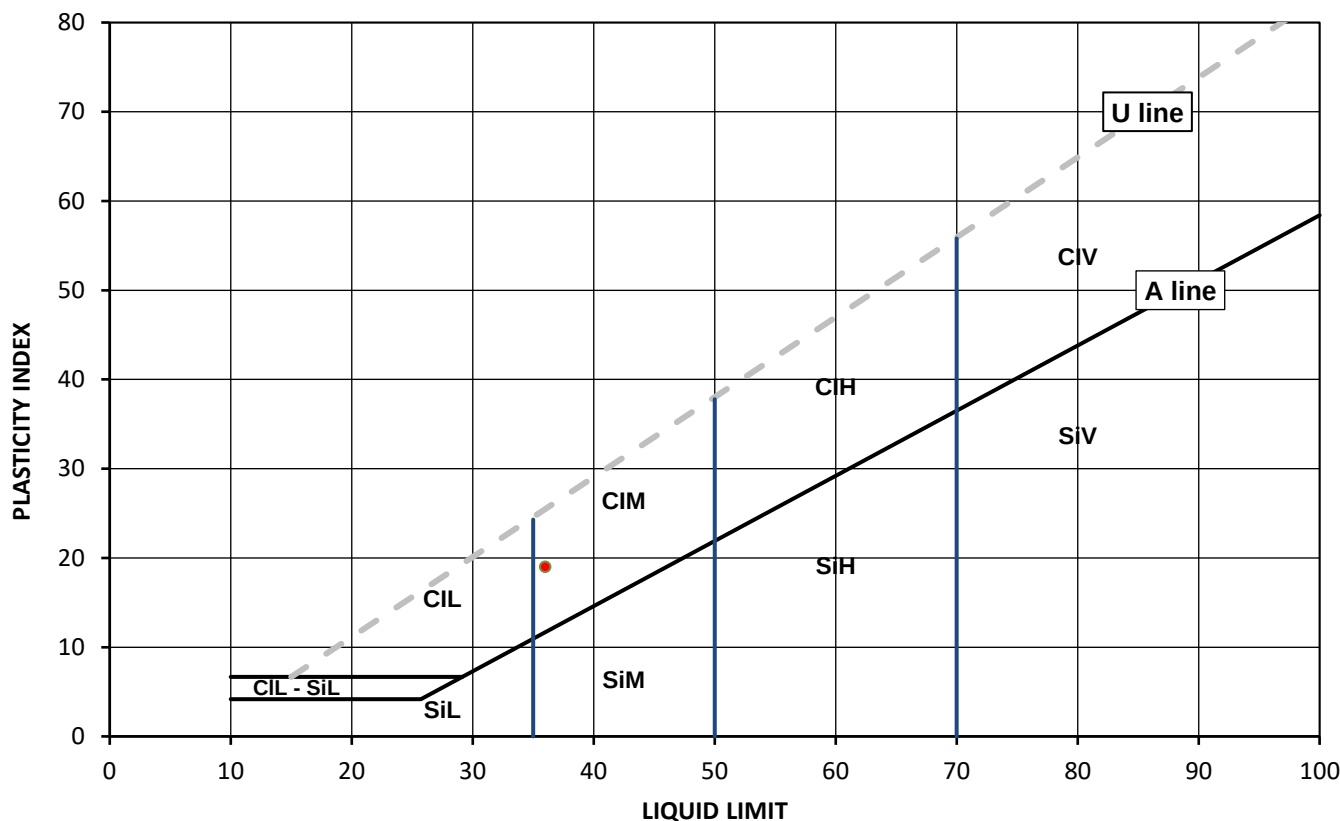
Test Results:

Laboratory Reference: 348757
Hole No.: CP1-DS1
Sample Reference: Not Given
Sample Description: Brownish grey slightly gravelly sandy CLAY

Depth Top [m]: 9.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
16.6	36	0.968	17	19	0.00	1.00	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 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

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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 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

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Site Address: Church Lane, Moston

Client Reference: GUK-0524-02
Job Number: 24-047783-1
Date Sampled: 09/10/2024
Date Received: 11/10/2024
Date Tested: 21/10/2024
Sampled By: Client - AJS

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

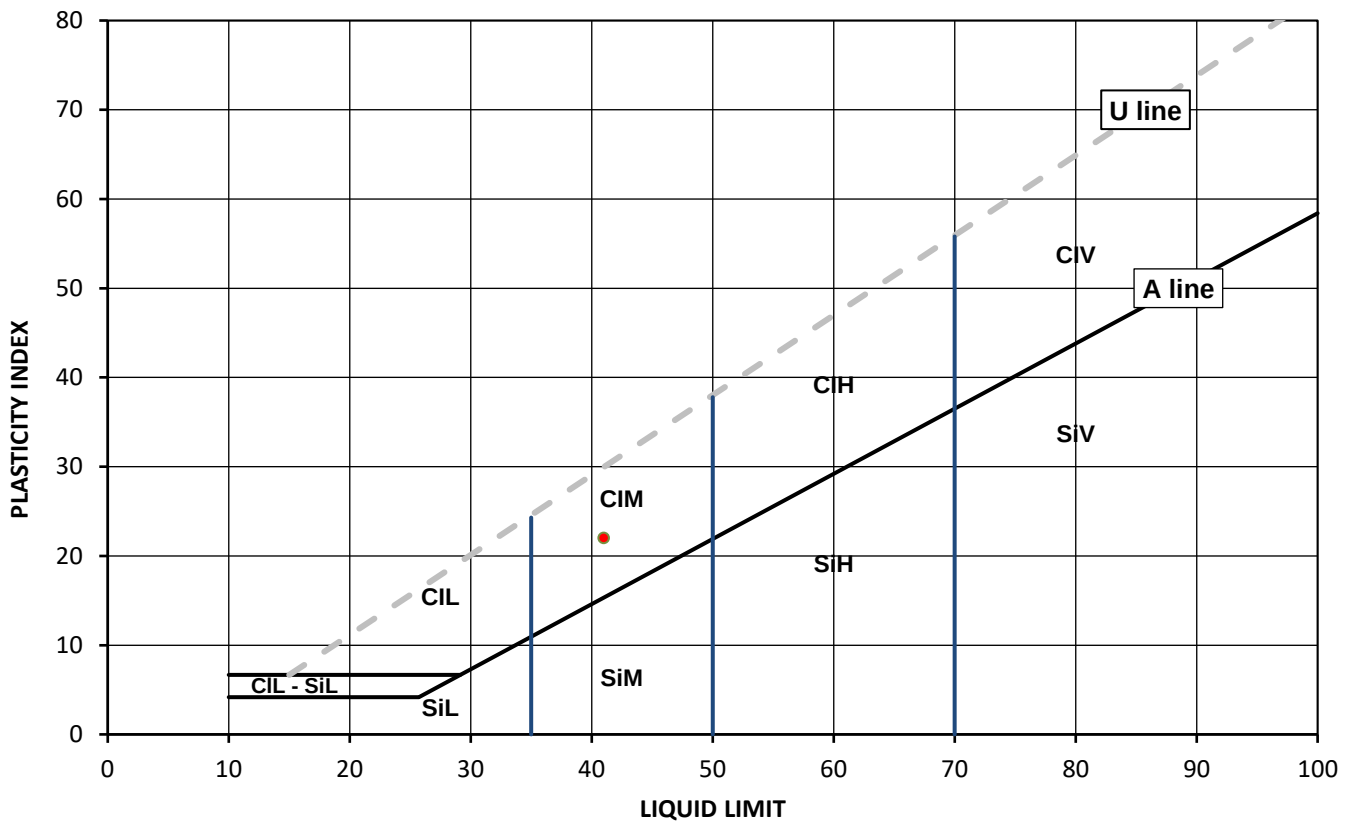
Test Results:

Laboratory Reference: 348758
Hole No.: CP3-DS1
Sample Reference: Not Given
Sample Description: Brownish grey slightly gravelly sandy CLAY

Depth Top [m]: 10.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
17.9	41	0.968	19	22	-0.05	1.05	88



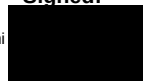
Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L	Low
	M	Medium
	H	High
	V	Very high
	O	Organic
		50 to 70
		exceeding 70
		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:

Signed:



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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

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cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

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Environmental Science

4041

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340 3FG

Contact: Andrew Spooner
Site Address: Church Lane, Moston

Client Reference: GUK-0524-02

Job Number: 24-047783-1

Date Sampled: 07/10/2024

Date Received: 11/10/2024

Date Tested: 21/10/2024

Sampled By: Client - AJS

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

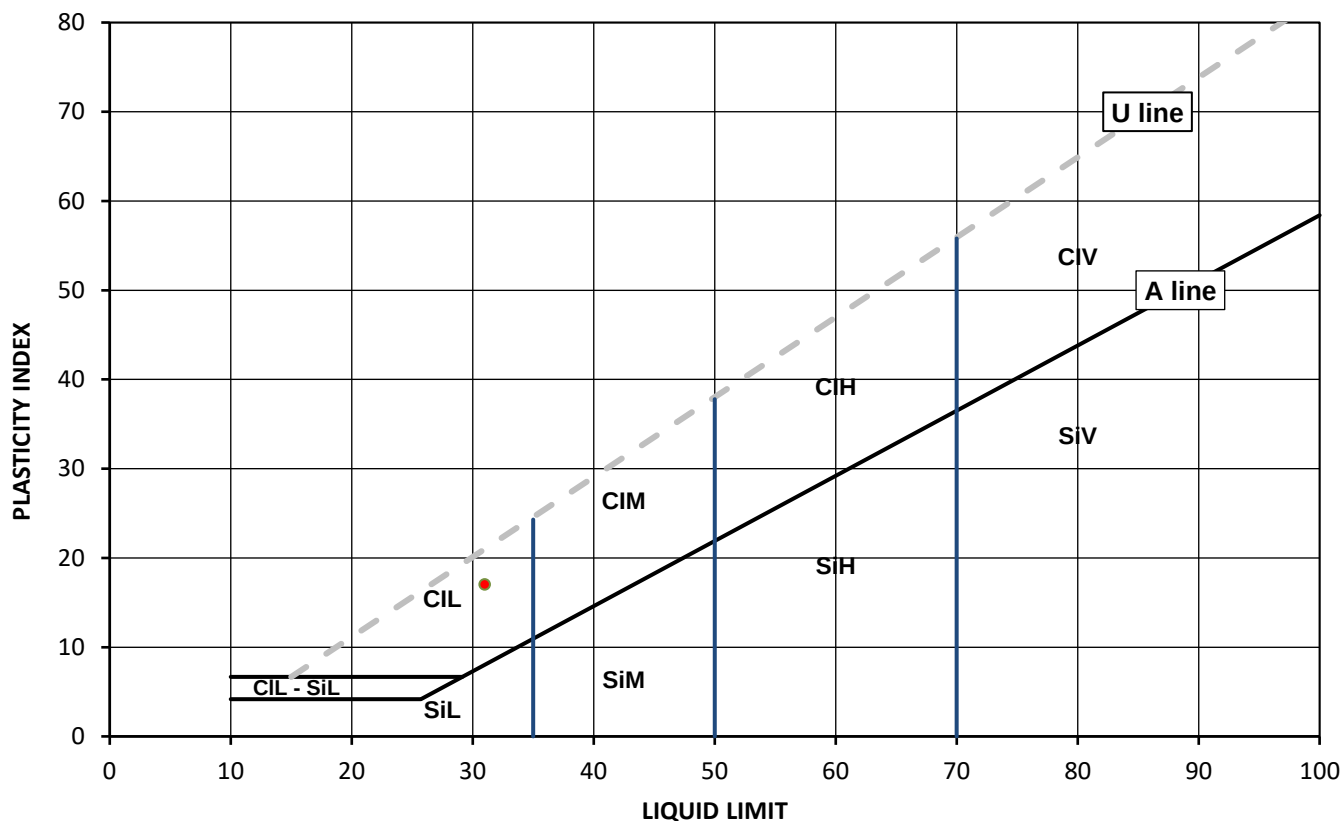
Test Results:

Laboratory Reference: 348759
Hole No.: CP5-DS1
Sample Reference: Not Given
Sample Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 9.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
12.5	31	1.000	14	17	-0.06	1.06	90



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:

Signed:

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

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Date Reported: 01/11/2024

GF 360.13



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: Groundsmiths Ltd
Client Address: 12 Spruce Close, Brampton,
Chesterfield, Derbyshire,
340 3FG

Contact: Andrew Spooner
Site Address: Church Lane, Moston

Client Reference: GUK-0524-02

Job Number: 24-047783-1

Date Sampled: 08/10/2024

Date Received: 11/10/2024

Date Tested: 21/10/2024

Sampled By: Client - AJS

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

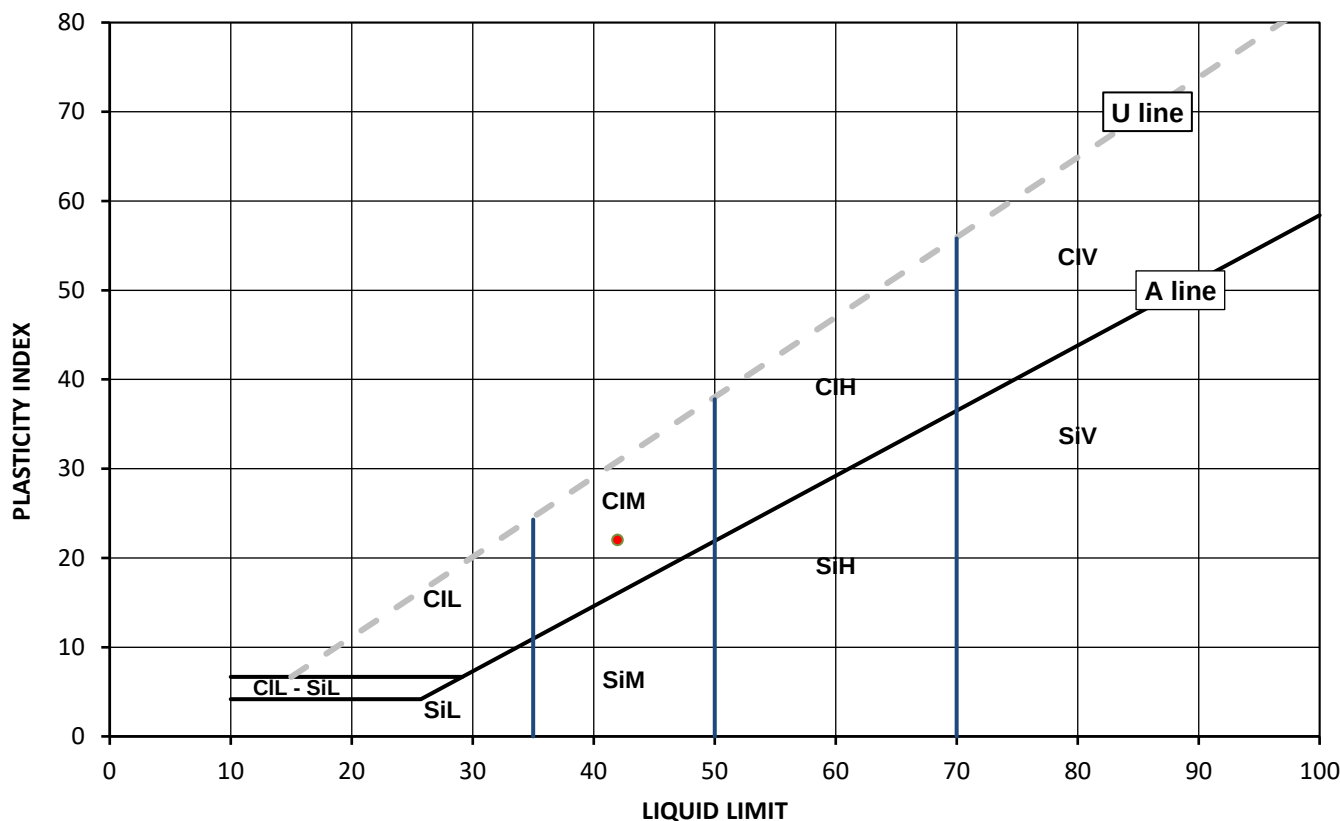
Test Results:

Laboratory Reference: 348760
Hole No.: CP6-DS1
Sample Reference: Not Given
Sample Description: Brownish grey slightly gravelly sandy CLAY

Depth Top [m]: 10.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
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
26.8	42	1.039	20	22	0.32	0.68	91



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:

Signed:

Katarzyna Koziel
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SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

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



Environmental Science

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. Correlation Factor by Clayton C.R.I and Jukes A.W (1978). W by BS EN ISO 17892-1:2014+A1:2022.

Client Reference: GUK-0524-02
Job Number: 24-047783-1
Date Sampled: 07/10 - 10/10/2024
Date Received: 11/10/2024
Date Tested: 21/10/2024
Sampled By: Client - AJS

4041

Client: Groundsmiths Ltd
Client Address: 12 Spruce Close, Brampton,
Chesterfield, Derbyshire,
340 3FG
Contact: Andrew Spooner
Site Address: Church Lane, Moston

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
348757	CP1-DS1	Not Given	9.00	Not Given	D	Brownish grey slightly gravelly sandy CLAY	Atterberg 1 Point	16.6	88	36	0.968	17	19	80g/30 deg	R				
348758	CP3-DS1	Not Given	10.00	Not Given	D	Brownish grey slightly gravelly sandy CLAY	Atterberg 1 Point	17.9	88	41	0.968	19	22	80g/30 deg	R				
348759	CP5-DS1	Not Given	9.50	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	12.5	90	31	1.000	14	17	80g/30 deg	R				
348760	CP6-DS1	Not Given	10.50	Not Given	D	Brownish grey slightly gravelly sandy CLAY	Atterberg 1 Point	26.8	91	42	1.039	20	22	80g/30 deg	R				

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; * - 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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Signed:



Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd



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



4041
Client: Groundsmiths Ltd
Client Address: 12 Spruce Close, Brampton,
Chesterfield, Derbyshire,
340 3FG
Contact: Andrew Spooner
Site Address: Church Lane, Moston

Client Reference: GUK-0524-02
Job Number: 24-047783-1
Date Sampled: 07/10 - 10/10/2024
Date Received: 11/10/2024
Date Tested: 21/10/2024
Sampled By: Client - AJS

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

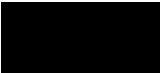
Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC											
		Reference	Depth Top m	Depth Base m	Type														
348757	CP1-DS1	Not Given	9.00	Not Given	D	Brownish grey slightly gravelly sandy CLAY		16.6											
348758	CP3-DS1	Not Given	10.00	Not Given	D	Brownish grey slightly gravelly sandy CLAY		17.9											
348759	CP5-DS1	Not Given	9.50	Not Given	D	Brown slightly gravelly very sandy CLAY		12.5											
348760	CP6-DS1	Not Given	10.50	Not Given	D	Brownish grey slightly gravelly sandy CLAY		26.8											

Comments:

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Signed:



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