

SITE INVESTIGATION FACTUAL REPORT

Report No: 658628
Client: Sedgwick International UK - Maidstone
Site: 20 Grove Farm Park, NORTHWOOD
Client Ref: 8697629
Date of Visit: 05/12/2019



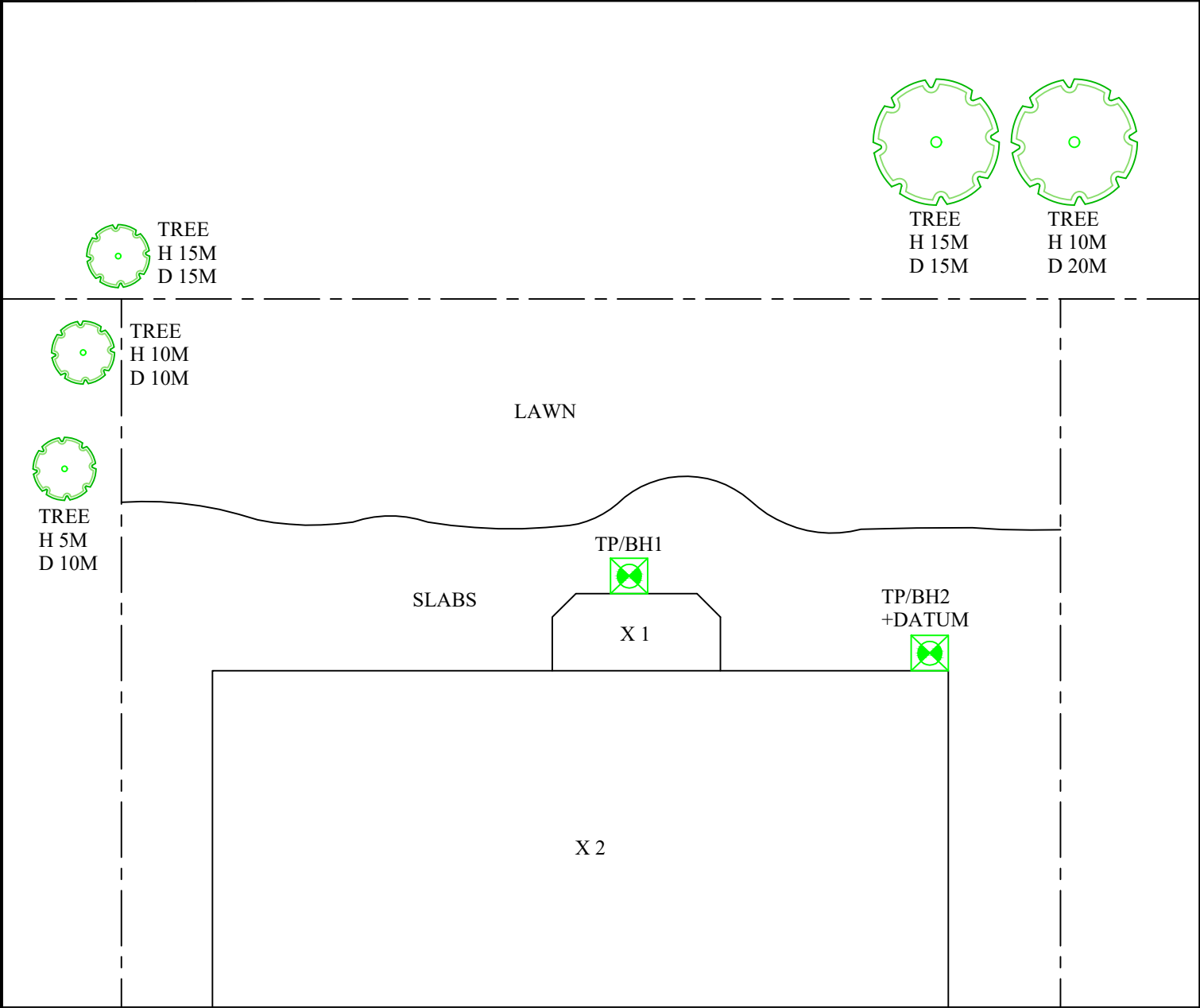
Home Emergency Response - Subsidence Investigation - Drainage Services – Crack & Level Monitoring – Property Video Surveys

Unit E2 First Floor Suite, Boundary Court
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Leicestershire, DE74 2NN

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CET is the trading name of CET Structures Ltd
Registered in England No. 02527130

Investigation Layout Plan			Sheet: 1 of 1	Site: 20 Grove Farm Park, Northwood
			Job No: 658628	
			Date: 05/12/2019	Work carried out for: Sedgwick International UK
(SI)	PS (Checked)	CFT (Drawn)	Weather: DRY	



Water Supply : Inhouse - outside Tap Power : Internal - External - None Parking : Onsite - Road - red Route - Metered - Permit - Other Site Access : Good - Bad (explain)					FRONT OF PROPERTY ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.						
Remarks:			Key:		Surface Water Drain			---			
			Combined Gulley		RWWG		Foul Water Drain			---	
			Manhole		MH		Tree / Bush			(approx. ht in m)	
			Rain Water Pipe		RWP		Trial Pit			X	
			Rain Water Gulley		RWG		Borehole			X	
			Soil Vent Pipe		SVP		O/D - Open Discharge			X	
			Waste Gulley		WG						
			Waste Pipe		WP						
Scale: N.T.S.											

Borehole		1			Sheet:	1 of 1	Site:	20 Grove Farm Park				
					Job No:	658628						
					Date:	05/12/2019						
Boring Method:		Hand Auger			Ground Level:			Client:	Sedgwick International UK - Maidstone			
Diameter (mm):		75	Weather:		Dry							
Depth	Soil Description									Samples and Tests		
(m)								Thickness	Legend	Depth	Type	Result
0.00	See Trial Pit							1.00				
1.00	Stiff orange-brown silty CLAY							1.00		1.00	DV	94
												104
2.00	Very stiff orange-brown silty CLAY							3.00		2.00	DV	140+
												140+
										5.00	End of BH	
Remarks:					Key:					To Max		
BH ends at 5m.BH dry and open on completion.No roots observed below 4m.										Depth	Dia	
										(m)	(mm)	
					D - Disturbed Sample					4.00	1	
					B - Bulk Sample							
					W - Water Sample Roots							
					J - Jar Sample Roots							
					V - Pilcon Shear Vane (kPa Roots							
					M - Mackintosh Probe Depth to Water (m)							
					TDTD - Too Dense To Drive							
Logged:	DB	PS	Checked:	Approved:	Version V1.0 28/01/16			N.T.S.				

TEST REPORT: Trial Pit

REPORT NUMBER: C1039777 / 89447.1.1.2

TRIAL PIT REF: TP2

CLIENT: Sedgwick International UK

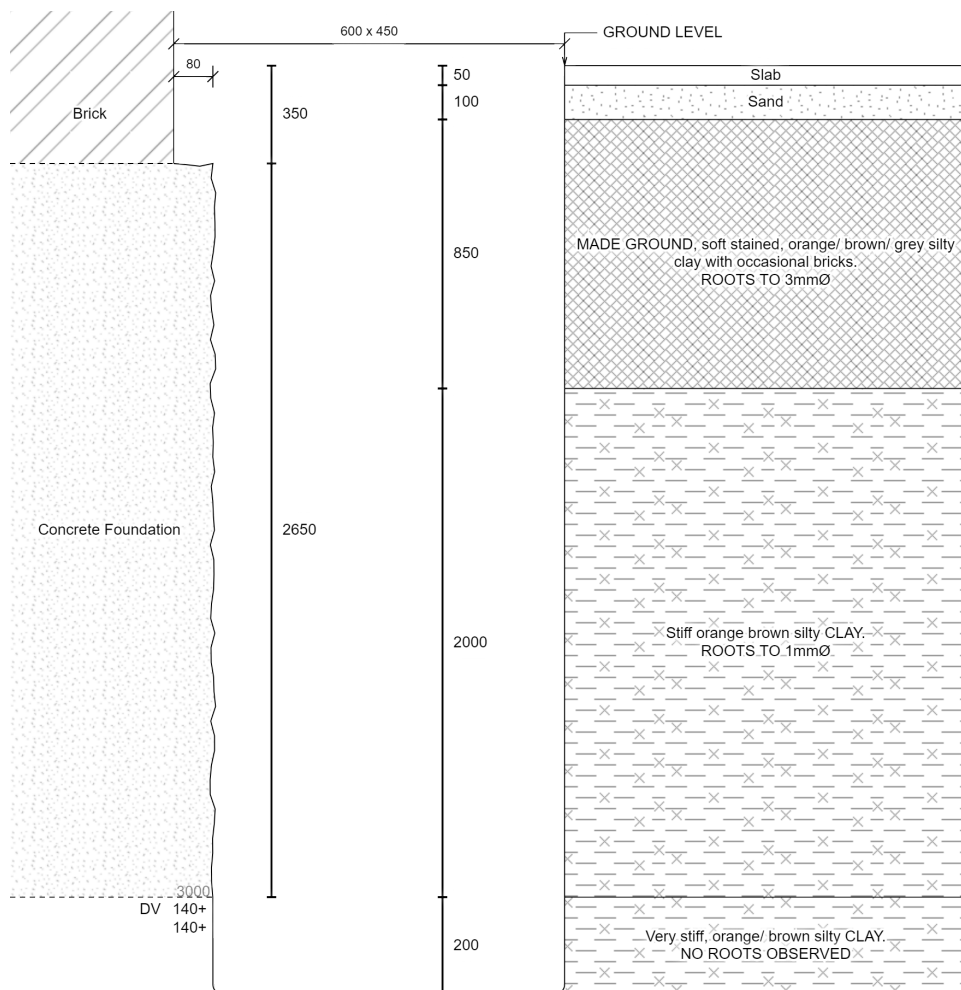
JOB NO: 658628

EXCAVATION METHOD: Hand tools

DATE: 05/12/2019

SITE: 20 Grove Farm Park

WEATHER: Dry



For Strata below 3200mm see Bore Hole log

TP excavated to 1200mm then extended to 3200mm with the aid of a hand auger. curved steel pin driven 100mm under foundation at 3000mm below ground

Key:

D Small disturbed sample J Jar sample
B Bulk disturbed sample V Pilcon vane (kPa)
W Water sample M Mackintosh probe
TDTD Too dense to drive

Remarks:

Test results reported relate only to the items tested.
This report shall not be reproduced except in full without approval of the Laboratory.
Amended report. This test report supersedes test report version 1

For and on behalf of CET

Phil Snowden - Geotechnical Manager

Phil Snowden

Approved Signatory

06-Dec-19

Report Format:

DE74 2UD

01622 858545
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Registered in England No. 02527130

Report version 2

Page 1 of 1

Borehole		2 and Datum		Sheet:		1 of 1		Site: 20 Grove Farm Park					
				Job No:		658628							
				Date:		05/12/2019							
Boring Method:		Hand Auger		Ground Level:				Client: Sedgwick International UK - Maidstone					
Diameter (mm):		75		Weather:		Dry							
Depth		Soil Description						Samples and Tests					
(m)								Thickness	Legend	Depth	Type	Result	
0.00		See Trial Pit						3.20					
3.20		Very stiff orange-brown silty CLAY						1.80					
5.00		End of BH											
Remarks: BH ends at 5m.BH dry and open on completion.No roots observed. Datum installed at 5m.								Key: D - Disturbed Sample B - Bulk Sample W - Water Sample J - Jar Sample V - Pilcon Shear Vane (kPa) M - Mackintosh Probe TDTD - Too Dense To Drive				To Max Depth Dia (m) (mm)	
Logged: DB PS								Checked: Approved: Version V1.0 28/01/16				N.T.S.	

Laboratory Summary Results

Our Ref : 658628

Location : 20, Grove Farm Park, Northwood, Middlesex

Client: Sedgwick International UK - Maidstone

Address: 4 North Court, South Park Business Village, Armstrong Road, ME15 6JZ

Date Sampled: 05/12/2019

Date Received : 06/12/2019

Date Tested : 09/12/2019

Date of Report : 12/12/2019

Sample Ref		Type	Moisture Content (%) [1]	Soil Fraction > 0.425mm (%) [2]	Liquid Limit (%) [3]	Plastic Limit (%) [4]	Plasticity Index (%) [5]	Liquidity * Index [5]	Modified * Plasticity Index (%) [6]	Soil * Class [7]	Filter Paper Contact Time (h)	Soil Sample Suction (kPa) [8]	Oedometer Strain [9]	Estimated Heave Potential (Dd) (mm)[10]	In situ * Shear Vane Strength (kPa) [11]	Organic * Content (%) [12]	pH * Value [13]	Sulphate Content * (g/l)		* Class [16]
TP/BH No	Depth (m)																	SO ₃ [14]	SO ₄ [15]	
1	U/S 0.75	D	41	<5	75	29	46	0.27	46	CV					87					
	1.0	D	40	<5											99					
	1.5	D	34	<5	72	25	47	0.19	47	CV					99					
	2.0	D	32	<5											> 140					
	2.5	D	31	<5	72	29	43	0.04	43	CV					> 140					
	3.0	D	30	<5	72	28	44	0.05	44	CV					> 140					
	3.5	D	30	<5											> 140					
	4.0	D	29	<5	73	25	48	0.09	48	CV					> 140					
	4.5	D	29	<5											> 140					
	5.0	D	30	<5											> 140					

Test Methods / Notes

[1] BS 1377 : Part 2 : 1990, Test No 3.2

[2] Estimated if <5%, otherwise measured

[3] BS 1377 : Part 2 : 1990, Test No 4.4

[4] BS 1377 : Part 2 : 1990, Test No 5.3

[5] BS 1377 : Part 2 : 1990, Test No 5.4

[6] BRE Digest 240 : 1993

[7] BS 5930 : 2018 : Figure 8 - Plasticity Chart for the classification of fine soils

[8] In-house method S9a adapted from BRE IP 4/93

[9] In-house Test Procedure S17a: One Dimensional Swell/Strain Test

[10] Estimated Heave Potential (Dd)

[11] Values of shear strength were determined in situ by CET using a Pilcon hand vane or Geonor vane (GV).

[12] BS 1377 : Part 3 : 1990, Test No 4

[13] BS 1377 : Part 2 : 1990, Test No 9

[14] BS 1377 : Part 3 : 1990, Test No 5.6

[15] SO₄ = 1.2 x SO₃

[16] BRE Special Digest One (Concrete in Aggressive Ground) August 2005

Note that if the SO₄ content falls into the DS-4 or DS-5 class, it would be prudent to consider the sample as falling into the DS-4M or DS-5M class respectively unless water soluble magnesium testing is undertaken to prove otherwise.

* These tests are not UKAS accredited

Full reports can be provided upon request.

Key

D Disturbed sample (small)

B Disturbed sample (bulk)

U Undisturbed sample

W Groundwater sample

ENP Essentially Non-Plastic by inspection

U/S Underside of Foundation



Test results reported relate only to the items tested.

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CET Structures Ltd – CET Property Assurance Division - Lawness Barns, Mountnessing Road, Billericay, Essex CM12 0TS

Version: 5BH V1.6 - 26.02.19

8618

Our Ref : 658628

Location : 20, Grove Farm Park, Northwood, Middlesex

Client: Sedgwick International UK - Maidstone

Address: 4 North Court, South Park Business Village, Armstrong Road, ME15 6JZ

Laboratory Testing Results

Date Sampled : 05/12/2019

Date Received : 06/12/2019

Date Tested : 09/12/2019

Date of Report : 12/12/2019

Sample Ref.		Type	Moisture Content (%) [1]	Soil Fraction > 0.425mm (%) [2]	Liquid Limit (%) [3]	Plastic Limit (%) [4]	Plasticity Index (%) [5]	Liquidity * Index [5]	Modified * Plasticity Index (%) [6]	Soil * Class [7]	Filter Paper Contact Time (h)	Soil Sample Suction (kPa) [8]	Oedometer Strain [9]	Estimated Heave Potential (Dd) (mm)[10]	In situ * Shear Vane Strength (kPa) [11]	Organic * Content (%) [12]	pH * Value [13]	Sulphate Content * (g / l)		* Class [16]	
TP/BH No.	Depth (m)																	SO3 [14]			SO4 [15]
2	U/S 3.00	D	30	<5	70	26	44	0.09	44	CV					> 140						
	3.5	D	29	<5											> 140						
	4.0	D	30	<5	73	27	46	0.07	46	CV					> 140						
	4.5	D	27	<5											> 140						
	5.0	D	29	<5											> 140						

Test Methods / Notes

- [1] BS 1377 : Part 2 : 1990, Test No 3.2
- [2] Estimated if <5%, otherwise measured
- [3] BS 1377 : Part 2 : 1990, Test No 4.4
- [4] BS 1377 : Part 2 : 1990, Test No 5.3
- [5] BS 1377 : Part 2 : 1990, Test No 5.4
- [6] BRE Digest 240 : 1993
- [7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils

Test results reported relate only to the items tested.

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[8] In-house method S9a adapted from BRE 19 493

- [9] In-house Test Procedure S17a: One Dimensional Swell/Strain Test
- [10] Estimated Heave Potential (Dd)
- [11] Values of shear strength were determined in situ by CET using a Pilcon hand vane or Geonor vane (GV).
- [12] BS 1377 : Part 3 : 1990, Test No 4
- [13] BS 1377 : Part 2 : 1990, Test No 9
- [14] BS 1377 : Part 3 : 1990, Test No 5.6
- [15] SO₄ = 1.2 x SO₃

[16] BRE Special Digest One (Concrete in Aggressive Ground) August 2005

Note that if the SO₄ content falls into the DS-4 or DS-5 class, it would be prudent to consider the sample as falling into the DS-4M or DS-5M class respectively unless water soluble magnesium testing is undertaken to prove otherwise.

* These tests are not UKAS accredited

Full reports can be provided upon request

Key

- D Disturbed sample (small)
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- U Undisturbed sample
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- ENP Essentially Non-Plastic by inspection
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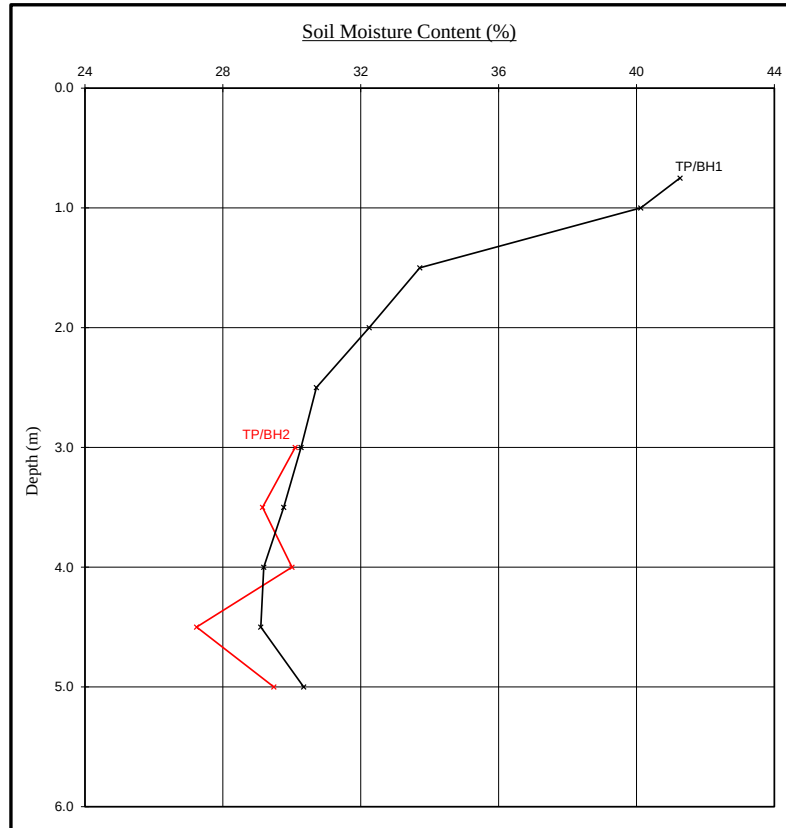


Version: 5BH V1.5 - 26.06.18

8618

Moisture Content Profiles

Our Ref : 658628
 Location : 20, Grove Farm Park, Northwood, Middlesex
 Work carried out for: Sedgwick International UK - Maidstone

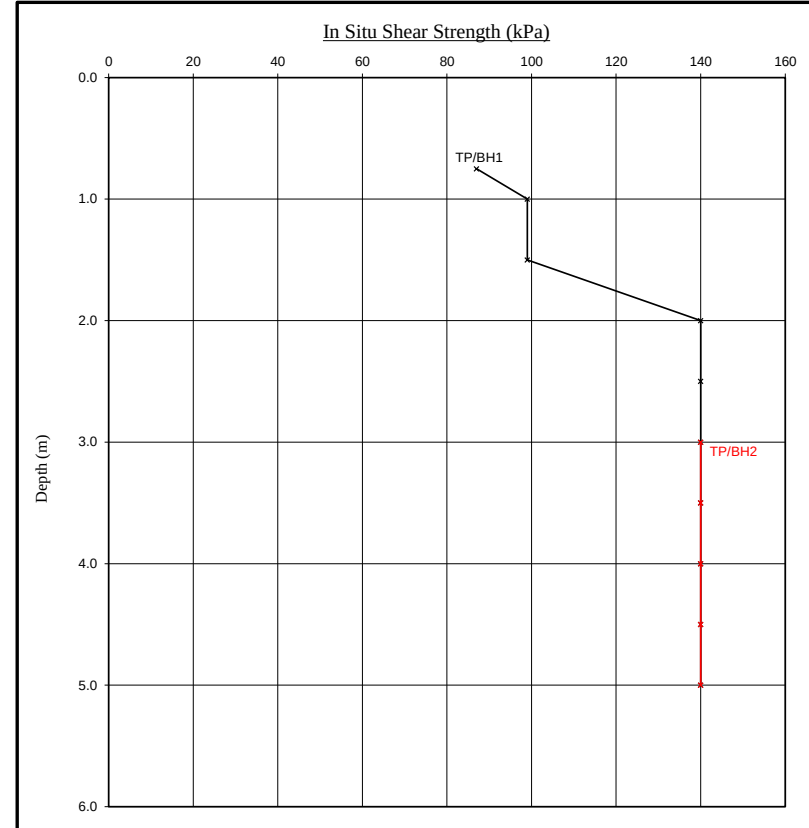


Notes

1. If plotted, 0.4 LL and PL+2 (after Driscoll, 1983) should only be applied to London Clay (and similarly overconsolidated clay) at shallow depths.
2. Unless specifically noted the profiles have not been related to a site datum.

Shear Strength Profiles

Date Sampled : 05/12/2019
 Date Received : 06/12/2019
 Date Tested : 09/12/2019
 Date of Report : 12/12/2019



Note

1. Unless otherwise stated, values of Shear Strength were determined in situ by CET using a Pilcon Hand Vane the calibration of which is limited to a maximum reading of 140 kPa.
2. Unless specifically noted the profiles have not been related to a site datum.

EPSL European Plant Science Laboratory	Sheet: 1 of 1	Site: 20 Grove Farm Park,
	Job No: 658628	Work carried
	Date: 10/12/2019	out for: Sedgwick International UK
	Order No: 1334717	
EPSSL Ref: R34626		

Certificate of Analysis			
The following work was commissioned by CET on behalf of their client. Root samples were obtained in sealed packets from the above site with no reference given as to the types of tree or shrub from which they may have originated. The results were as follows -			
Trial pit/ Borehole number	Root diameter (mm)	Tree, shrub or climber from which root originates	Result of starch test
TP1 (USF)	1.5 mm	either Quercus spp. or Castanea spp. * 2 roots	Negative
TP1 (USF)	18 mm	not a tree or shrub root **	Negative
BH1 (to 4m)	1 mm	either Quercus spp. or Castanea spp. ***	Negative
* All in a state of decay. ** Large fragments of decayed softwood - probably timber. *** In a state of decay. Plus 2 smaller roots probably the same. Quercus spp. are oaks. Castanea spp. include sweet chestnut.			
			
RJS			