

Trial Pit Log

Trial Pit No.

TP103A

Sheet 1 of 1

Project Name: Phase 1a & 1B

Project No.: 15860

Method:

Location: Bicester Gateway

Plant:

Support:

Client: Hill Street Holdings Ltd

Trial Pit Length: m

Trial Pit Width: m

Dates: 27/10/2016

Level:

Co-ords:

Hole Type

TP

Scale

1:25

Logged By

Water
Strike

Samples & In Situ Testing

Depth

Type

Results

Depth
(m)

Level
(m)

Legend

Stratum Description

Dark brown slightly gravelly sandy SILT. Sand is fine to coarse, gravel is fine to medium, made up of flint. Frequent rootlets

Light yellow orange very sandy slightly clayey fine to medium flint GRAVEL. Sand is fine to coarse.

0.40

1.40

End of Pit at 1.40m

1

2

3

4

5

General Remarks:

Roots observed to 0.50m bgl. Groundwater encountered at 2.9m bgl, standing at 1.10m bgl after 2 hours.

Groundwater Remarks:

Sample Type

D: Disturbed

B: Bulk

J: Jar

W: Water

Trial Pit Log

Trial Pit No.
TP104
Sheet 1 of 1

Project Name: Phase 1a & 1B

Project No.: 15860

Method:

Location: Bicester Gateway

Plant:

Support:

Client: Hill Street Holdings Ltd

Trial Pit Length: m

Trial Pit Width: m

Dates: 27/10/2016

Level:

Co-ords:

Hole Type
TP

Scale

1:25

Logged By
CF

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.30	D		0.40			Dark brown slightly gravelly sandy SILT. Sand is fine to coarse, gravel is fine to medium, made up of flint. Frequent rootlets	
	0.60	D					Light yellow orange very sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to medium made up of flint. Frequent rootlets, becoming less gravelly and less sandy with depth	1
	0.90	D		1.20			Dark blue grey silty CLAY. Frequent shell fragments	
	1.50	D					Dark blue grey SILTSTONE.	2
	2.00	D		2.20			Dark blue grey SILTSTONE.	
	2.50	D		2.50			Dark blue grey SILTSTONE.	3
							End of Pit at 2.50m	4
								5

General Remarks:

Roots observed to 1.20m bgl. Groundwater encountered at 2.30m bgl, standing at 2.20m bgl after 10 minutes.

Groundwater Remarks:

Sample Type

D: Disturbed
B: Bulk
J: Jar
W: Water

Trial Pit Log

 Trial Pit No.
TP105
 Sheet 1 of 1

Project Name: Phase 1a & 1B		Project No.: 15860		Method:		Hole Type	
Location: Bicester Gateway				Plant:		TP	
Client: Hill Street Holdings Ltd		Trial Pit Length: m		Trial Pit Width: m		Scale	
Dates: 27/10/2016		Level:		Co-ords:		1:25	
						Logged By	
						CF	

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.30	D		0.40			Dark brown slightly gravelly sandy SILT. Sand is fine to coarse, gravel is fine to medium, made up of flint. Frequent rootlets	
	0.60	D					Light yellow orange very sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to medium made up of flint. Frequent rootlets... becoming less gravelly and less sandy with depth	
	0.90	D						
	1.50	D						
	2.00	D		2.10			Dark blue grey silty CLAY Frequent shell fragments	
	2.50	D		2.60			Dark blue grey SILTSTONE.	
				2.70			End of Pit at 2.70m	

 General Remarks:
 Roots observed to 2.10m bgl. Groundwater encountered at 2.70m bgl, standing at 2.40m bgl after 10 minutes.

Groundwater Remarks:

Sample Type
 D: Disturbed
 B: Bulk
 J: Jar
 W: Water

Trial Pit Log

Trial Pit No.
TP106
Sheet 1 of 1

Project Name: Phase 1a & 1B		Project No.: 15860		Method:		Hole Type TP
Location: Bicester Gateway				Plant:		
Client: Hill Street Holdings Ltd		Trial Pit Length: m		Trial Pit Width: m		
Dates: 27/10/2016		Level:		Co-ords:		Scale 1:25
						Logged By CF

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	D					Dark brown slightly gravelly sandy SILT. Sand is fine to coarse, gravel is fine to medium, made up of flint. Frequent rootlets	
	0.60	D		0.65				
	0.90	D					Light yellow orange very sandy slightly clayey fine to medium flint GRAVEL. Sand is fine to coarse.	1
	1.50	D		1.60				
	2.00	D					Dark blue grey CLAYEY SILT. Frequent shell fragments	2
	2.50	D		2.70				
							End of Pit at 2.70m	3
								4
								5

General Remarks:
Roots observed to 0.50m bgl. Groundwater encountered at 1.60m bgl.



Groundwater Remarks:

Sample Type
D: Disturbed
B: Bulk
J: Jar
W: Water

Trial Pit Log

Trial Pit No.
TP106A
Sheet 1 of 1

Project Name: Phase 1a & 1B		Project No.: 15860		Method:		Hole Type	
Location: Bicester Gateway				Plant:		TP	
Client: Hill Street Holdings Ltd		Trial Pit Length: m		Trial Pit Width: m		Scale	
Dates: 27/10/2016		Level:		Co-ords:		1:25	
						Logged By	

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.65			Dark brown slightly gravelly sandy SILT. Sand is fine to coarse, gravel is fine to medium, made up of flint. Frequent rootlets	1
				1.60			Light yellow orange very sandy slightly clayey fine to medium flint GRAVEL. Sand is fine to coarse.	2
							End of Pit at 1.60m	3
								4
								5

General Remarks: Roots observed to 0.50m bgl. Groundwater encountered at 1.60m bgl.		Sample Type D: Disturbed B: Bulk J: Jar W: Water
Groundwater Remarks:		

Trial Pit Log

Trial Pit No.

TP107

Sheet 1 of 1

Project Name: Phase 1a & 1B

Project No.: 15860

Method:

Hole Type

Location: Bicester Gateway

Plant:

TP

Support:

Scale

Client: Hill Street Holdings Ltd

Trial Pit Length: m

Trial Pit Width: m

1:25

Dates: 27/10/2016

Level:

Co-ords:

Logged By
CF

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.30	D		0.40			Dark brown slightly gravelly sandy SILT. Sand is fine to coarse, gravel is fine to medium, made up of flint. Frequent rootlets	
	0.60	D					Light yellow orange very sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to medium made up of flint. Frequent rootlets becoming less gravelly and less sandy with depth	
	0.90	D		1.00			Dark blue grey silty CLAY. Frequent shell fragments	1
	1.50	D						
	2.00	D						2
	2.50	D		2.40 2.50			Dark blue grey silty CLAY.	
							End of Pit at 2.50m	
								3
								4
								5

General Remarks:

Roots observed to 1.00m bgl. Groundwater encountered at 2.50m bgl, standing at 2.40m bgl after 10 minutes.

Sample Type

D: Disturbed
B: Bulk
J: Jar
W: Water

Groundwater Remarks:

Appendix B – Geotechnical Analysis



Laboratory Report



GEO Site & Testing Services Ltd

Contract Number: 32973

Client's Reference: **15860**

Report Date: **08-11-2016**

Client **Soils Limited**
Newton House
Cross Road
Tadworth
Surrey
KT20 5SR

Contract Title: **1a and 1b Gateway Bicester**
For the attention of: **James Hucklesby**

Date Received: **02-11-2016**
Date Commenced: **02-11-2016**
Date Completed: **08-11-2016**

Test Description	Qty
4 Point Liquid & Plastic Limit (LL/PL) 1377 : 1990 Part 2 : 4.3 & 5.3 - * UKAS	4
Moisture Content 1377 : 1990 Part 2 : 3.2 - * UKAS	4
Disposal of Samples on Project	1

Notes: **Observations and Interpretations are outside the UKAS Accreditation**
* - denotes test included in laboratory scope of accreditation
- denotes test carried out by approved contractor
@ - denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved Signatories:

Alex Wynn (Associate Director) - Benjamin Sharp (Contracts Manager) - Emma Sharp (Office Manager)
Paul Evans (Quality/Technical Manager) - Vaughan Edwards (Managing Director)

32973

[illegible]

Note: Results on this table are in summary format and may not meet the requirements of the relevant standards, additional information is held by the laboratory



For and behalf of GEO Site & Testing Services Ltd

Authorised By:
Emma Sharp (Office Manager)

Date: 8.11.16

and



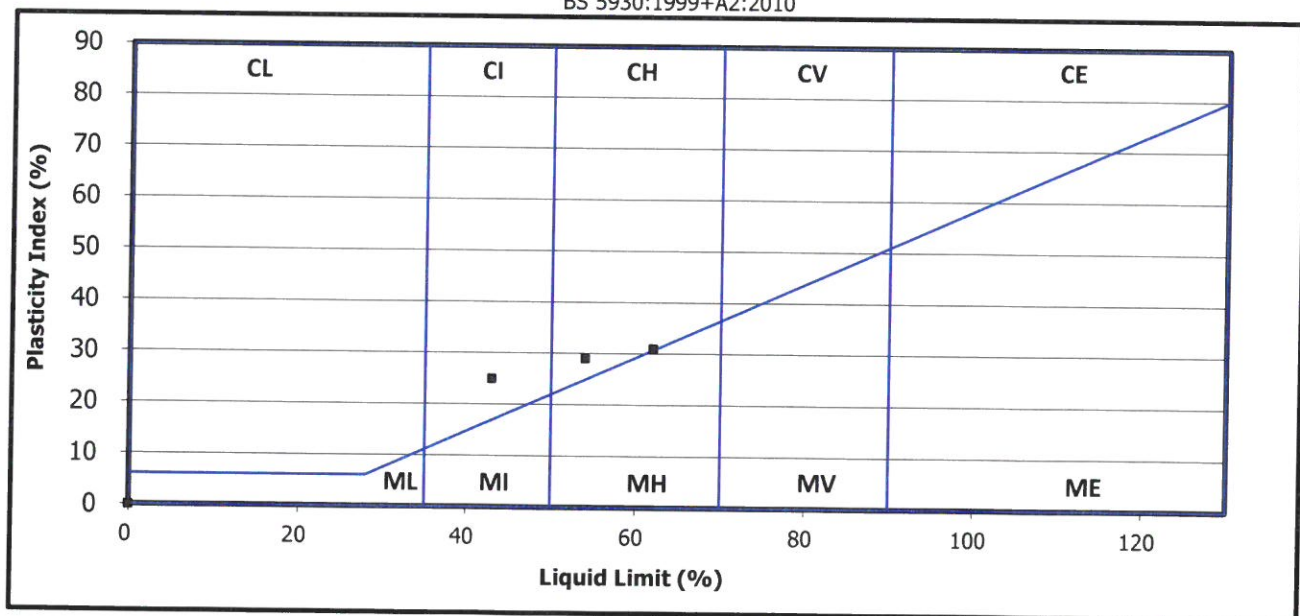
**Test Report: Method of the Determination of the plastic limit and plasticity index
BS 1377 : Part 2 : 1990 Method 5**

Client ref: 15860
Location: 1a & 1b Gateway Bicester
Contract Number: 32973

Hole/ Sample Number	Sample Type	Depth m	Moisture Content % Cl. 3.2	Liquid Limit % Cl. 4.3/4.4	Plastic Limit % Cl. 5.	Plasticity Index % Cl. 6.	% Passing .425mm	Remarks
TP101	S/B	2.00	38	62	31	31	100	CH High Plasticity
TP103	S/B	1.50	8.2		NP		50	
TP105	S/B	2.50	25	43	18	25	95	CI Intermediate Plasticity
TP107	S/B	2.50	28	54	25	29	92	CH High Plasticity

Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.
BS 5930:1999+A2:2010



Appendix C - Soakaway Results

Soakaway Calculations

Soakaway Test No.	TP103
Contract:	Phase 1a & 1b Bicester Gateway
Contract No.	15860

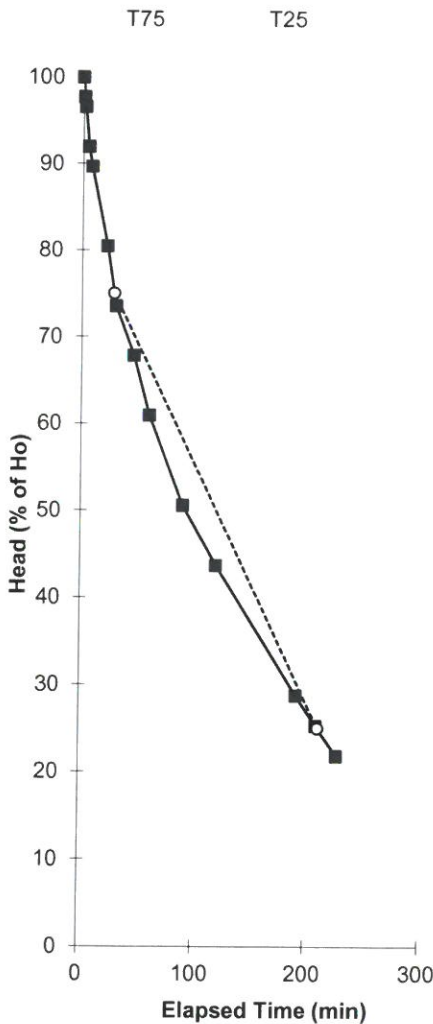
Field Test

Trial Pit Log (include details of groundwater):
See trial Pit record

Depth of Pit	1.20 m
Width of Pit	0.60 m
Length of Pit	2.10 m
Depth of Pit Soaked	0.87 m
ap50	3.609 m ²
Yp75-25	0.5481 m ³
t75-25	183.2 min
water used	1.0962 m ³
f	1.382E-05 m/sec.

Field Data

Depth to Water (m)	Elapsed Time (min)	Head of Water (% of Ho)	Head of Water (m)
0.33	0	100	0.87
0.35	1.0	98	0.85
0.36	2.0	97	0.84
0.40	5.0	92	0.80
0.42	8.0	90	0.78
0.50	22.0	80	0.70
0.56	30.0	74	0.64
0.61	46.0	68	0.59
0.67	60.0	61	0.53
0.76	90.0	51	0.44
0.82	120.0	44	0.38
0.95	192.0	29	0.25
0.98	210.0	25	0.22
1.01	228.0	22	0.19



T75	28.333	75
T25	211.500	25
T75-25	183.167	Derived from Best Fit

Comments

SOILS LIMITED

Newton House, Cross Road, Tadworth
Surrey, KT20 5SR

Telephone: 01737 814 221

Facsimile: 01737 812 557

Soakaway Calculations

Soakaway Test No.	TP106
Contract:	Phase 1a & 1b Bicester Gateway
Contract No.	15860

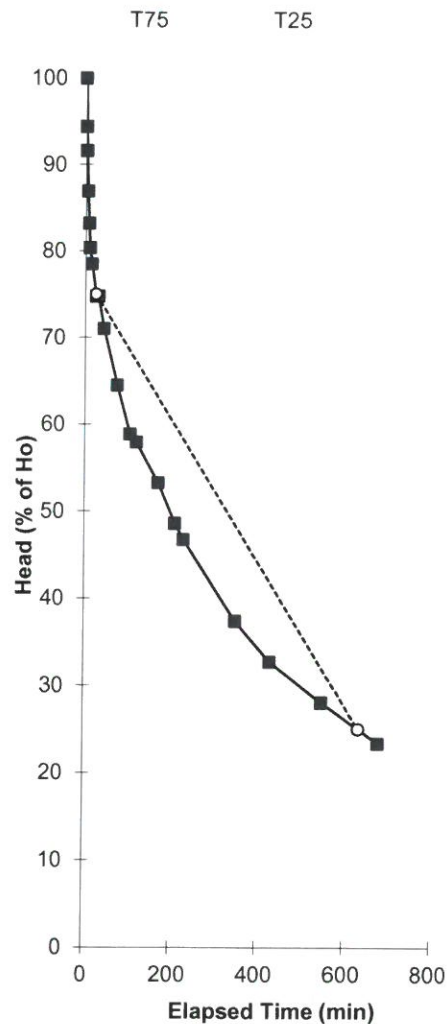
Field Test

Trial Pit Log (include details of groundwater):
See trial Pit record

Depth of Pit	1.50 m
Width of Pit	0.60 m
Length of Pit	2.30 m
Depth of Pit Soaked	1.07 m
ap50	4.483 m ²
Vp75-25	0.7383 m ³
t75-25	610.1 min
water used	1.4766 m ³
f	4.499E-06 m/sec.

Field Data

Depth to Water (m)	Elapsed Time (min)	Head of Water (% of Ho)	Head of Water (m)
0.43	0	100	1.07
0.49	1.0	94	1.01
0.52	2.0	92	0.98
0.57	5.0	87	0.93
0.61	8.0	83	0.89
0.64	10.0	80	0.86
0.66	15.0	79	0.84
0.70	25.0	75	0.80
0.7	30.0	75	0.80
0.74	43.0	71	0.76
0.81	75.0	64	0.69
0.87	105.0	59	0.63
0.88	120.0	58	0.62
0.93	171.0	53	0.57
0.98	210.0	49	0.52
1.00	230.0	47	0.50
1.10	350.0	37	0.40
1.15	430.0	33	0.35
1.20	550.0	28	0.30
1.25	680.0	23	0.25



T75	24.375	75
T25	634.500	25
T75-25	610.125	Derived from Best Fit

Comments

Extrapolated from 230 mins in order to calculate an indicative infiltration rate

SOILS LIMITED

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