

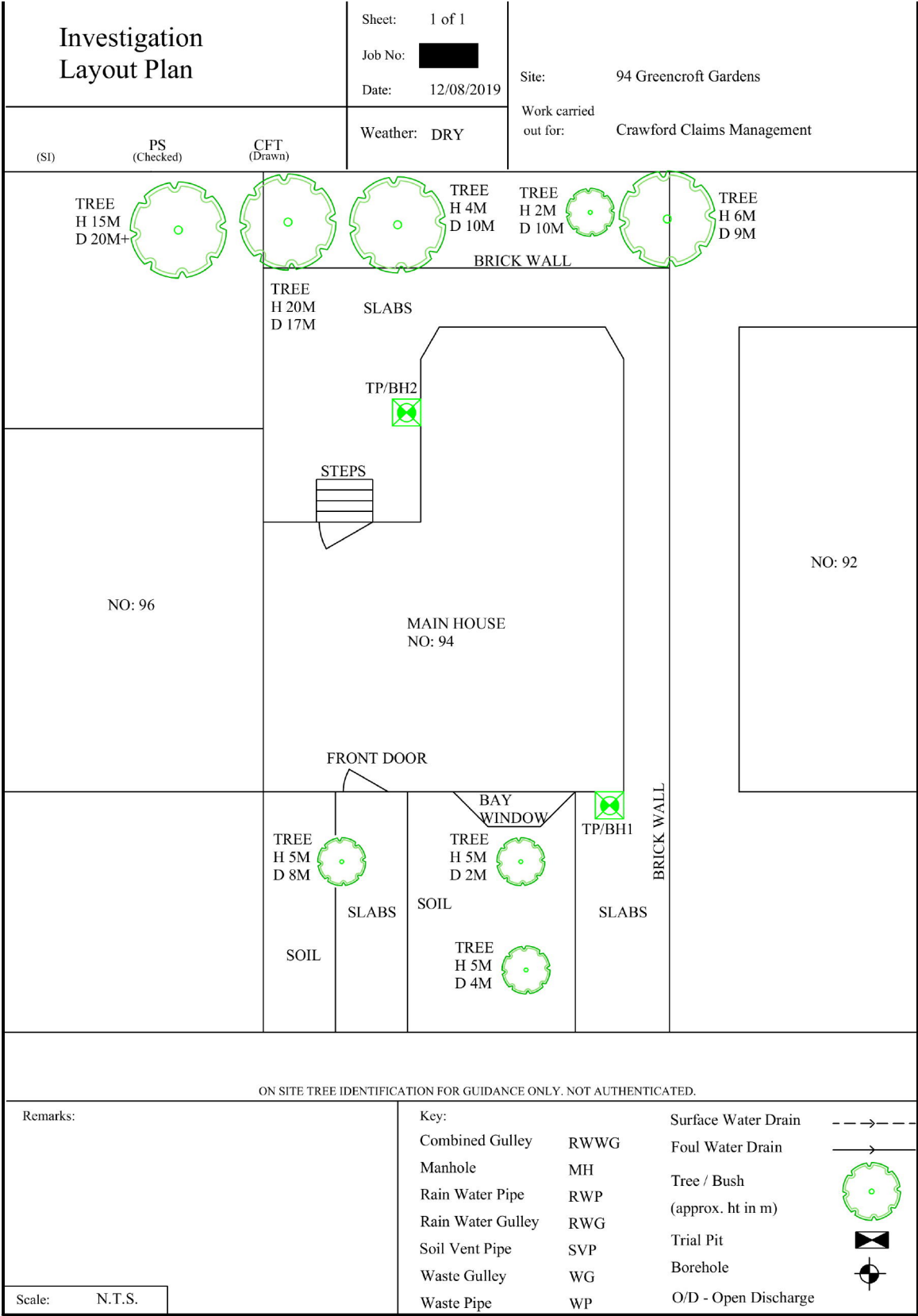
SITE INVESTIGATION FACTUAL REPORT

Report No: [REDACTED]
Client: Crawford Claims Management
Site: 94 Greencroft Gardens
Client Ref: [REDACTED]
Date of Visit: 22/05/2019



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





Trial Pit No: 1		Sheet: 1 of 1	Site: 94 Greencroft Gardens	
		Job No: XXXXXXXXXX		
Hand Tools		Drawn by: DVC	Work carried out for: Crawford Claims MGMT SVS	
Weather: DRY		Ground Level mOD:		

500 x 500

GROUND LEVEL

SLABS

SAND/SCREED

MADE GROUND: Medium compact, dark brown, topsoily, silty clay with brick rubble & whole bricks.

Roots to 10mm diameter

Stiff, mid brown/orange, silty CLAY with gravel.

Roots to 3mm diameter

1000

1200

300

1300: D V 76 78

BRICK

CONCRETE FOUNDATION

100

200

FOR STRATA BELOW 1600mm SEE BH LOG 1

RENDER

Remarks: All measurements in millimetres.		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	

Logged: DP	Checked: PS	Approved:	Scale: N.T.S.
------------	-------------	-----------	---------------

Borehole		1			Sheet: 1 of 1 Job No: XXXXXXXXXX Date: 12/08/2019	Site: 94 Greencroft Gardens Client: Crawford Claims Management	
Boring Method: Hand Auger		Diameter (mm): 75		Weather: dry		Ground Level:	
Depth	Soil Description					Thickness Legend	Samples and Tests Depth Type Result
(m)							
0.00	See Trial Pit					1.60	
1.60	Stiff orange-brown silty CLAY with gravel					0.40	
2.00	Stiff orange-brown silty CLAY					0.40	
2.40	End of BH						
Remarks: BH ends at 2.4m. Water strike at 2m, unable to extract samples through water , water suction too great . BH open with standing water at 2.2m on completion.						Key: D - Disturbed Sample B - Bulk Sample W - Water Sample Roots J - Jar Sample Roots V - Pilon Shear Vane (kPa) Roots M - Mackintosh Probe Depth to Water (m) TDTD - Too Dense To Drive	
Logged: DP PS Checked: Approved:						Version V1.0 28/01/16 N.T.S.	

<h2 style="margin: 0;">Trial Pit No: 2</h2>		Sheet: 1 of 1 Job No: XXXXXXXXXX Date: 12/08/19		Site: 94 Greencroft Gardens Work carried out for: Crawford Claims MGMT SVS	
Hand Tools		Drawn by: DVC			
Weather: DRY		Ground Level mOD:			

GROUND LEVEL

SLAB

CONCRETE/SCREEED

MADE GROUND: Medium compact, dark brown, topsoily, silty clay with brick rubble & whole bricks.

Roots to 5mm diameter

Very stiff, mid brown/orange, silty CLAY with claystone nodules & crystals.

Roots to 3mm diameter

1300: D V 140+ 140+

FOR STRATA BELOW 1500mm SEE BH LOG 2

Remarks: All measurements in millimetres. Curved steel pin driven 300mm under foundation at 1300mm below Ground Level		Key: <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">D Small disturbed sample</td> <td style="width: 33%;">J Jar sample</td> </tr> <tr> <td>B Bulk disturbed sample</td> <td>V Pilcon Vane (kPa)</td> </tr> <tr> <td>W Water sample</td> <td>M Mackintosh probe</td> </tr> <tr> <td colspan="2">TDTD Too dense to drive</td> </tr> </table>		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	
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											
Logged: DP	Checked: PS	Approved:	Scale: N.T.S.								

[illegible]

Laboratory Summary Results

Our Ref :

Location : 94 Greencroft Gardens

Client: Crawford Claims Management

Address:

Date Sampled: 22/05/2019

Date Received : 15/08/2019

Date Tested : 16/08/2019

Date of Report : 23/08/2019

Sample Ref.		Type	Moisture Content (%) [11]	Soil Fraction > 0.425mm (%) [12]	Liquid Limit (%) [13]	Plastic Limit (%) [14]	Plasticity Index (%) [15]	Liquidty * Index [15]	Modified * Plasticity Index (%) [16]	Soil * Class [17]	Filter Paper Contact Time (h) [17]	Soil Sample Suction (kPa) [18]	Oedometer Strain [19]	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/HH No	Depth (m)																	60s [14]	30s [15]	
1	U/S 1.30 2.0	D D	38 40	7 <5	77	28	49	0.20	45	CV	168 168	43.8 28.1			77 122					

Test Methods / Notes	
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

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 : 2

[8] In-house method S9a adapted from NRE, IP 4-93

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

(10) Estimated Heavy Potential (D0)

[11] Values of shear strength were determined *in situ* by CPT using

a Filcon hand vine or Greener vine (GV).

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

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

[14] RS 1377 : Part 3

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

[16] BRE: Special Report 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.

to prove otherwise.

* These tests are not UKAS accredited

Full reports can be provided upon request.

[illegible]

Key	
D	Disturbed sample / small

D	Disturbed sample (small)
B	Disturbed sample (bulk)

B	Disturbed sample (t)
U	Undisturbed sample

C	Canine blood sample
W	Groundwater sample

W	Groundwater Sample
ENP	Essentially Non-Plastic by inspection

UPS Underside of Foundation



Test results reported relate only to the items tested.

This report shall not be reproduced except in full without approval of the laboratory.

Version: SBII V1.6 - 26.02.19

8618

Location : 94 Greencroft Gardens
Client: Crawford Claims Management
Address: [REDACTED]

Laboratory Testing Results

Date Received : 15/08/2019
Date Tested : 16/08/2019
Date of Report : 23/08/2019

Sample Ref.		Type	Moisture Content (%) [11]	Soil Fraction > 0.425mm (%) [12]	Liquid Limit (%) [13]	Plastic Limit (%) [14]	Plasticity Index (%) [15]	Liquidity * Index [16]	Modified * Plasticity Index (%) [17]	Soil * Class [17]	Filter Paper Contact Time (h)	Soil Sample Suction (kPa) [8]	Oedometer Strain [19]	Estimated Heave Potential (Dd) (mm) [10]	In situ * Shear Vane Strength (kPa) [11]	Organic * Content (%) [12]	pH * Value [13]	Sulphate Content * (g/l)		Class [10]
TP/BH No.	Depth (m)																	s03 [14]	s04 [15]	
2	U/S 1.30	D	25	<5	72	23	49	0.05	49	CV					> 140					
	1.5	D	26	<5											> 140					
	2.0	D	28	<5	72	25	47	0.07	47	CV					> 140					
	2.5	D	31	<5											> 140					
	3.0	D	31	<5	72	27	45	0.10	45	CV					> 140					

Test Methods / Notes

Test Statistics / 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] BRT Digest 240 : 1993

[7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils

[10] In-house modified SFE adapted from DRL II 4-93

[11] In-house Test Procedure S11: One Dimensional Swell/Strain Test

[12] Estimated Heave Potential (Ed)

[13] Values of shear strength were determined in situ by CPT using a Pilcon hand vane or Greater vane (GV).

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

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

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

[17] $SO_2 = 1.2 \times SO_4$

Full reports can be provided upon request

* 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
US	Under side of Foundation



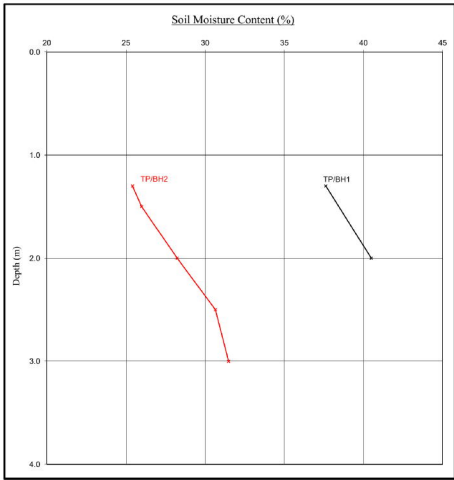
Test results reported relate only to the items tested.
This report shall not be reproduced except in full without approval of the laboratory.

Version: 5BH V1.5 - 26.06.18

8618

Moisture Content Profiles

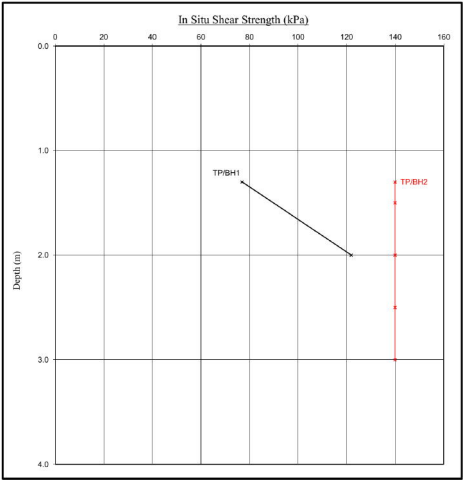
Our Ref: [redacted]
Location: 94 Greenscroft Gardens
Work carried out for: Crawford Claims Management



Notes:
1. If plotted, $0.4LL$ 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

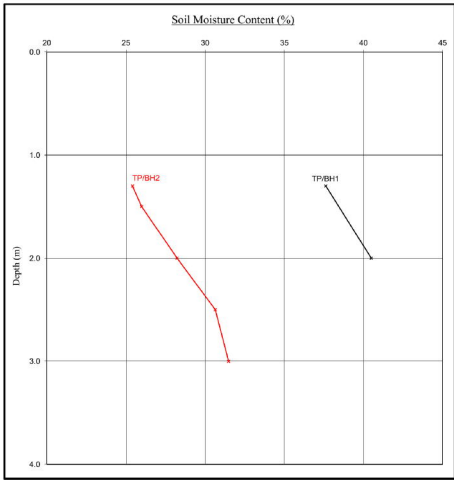
Date Sampled: 22/05/2019
Date Received: 15/08/2019
Date Tested: 16/08/2019
Date of Report: 23/08/2019



Note:
1. Unless otherwise stated, values of Shear Strength were determined in situ by CET using a Picon 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.

Moisture Content Profiles

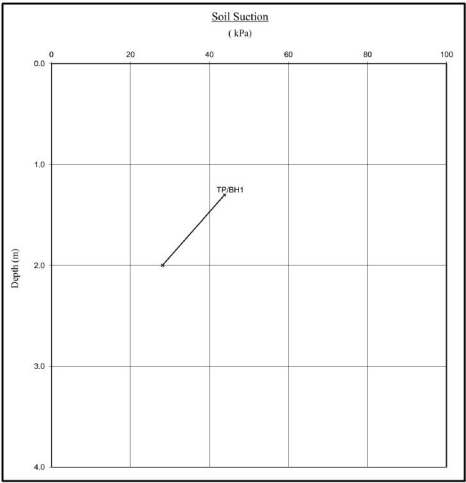
Our Ref: [redacted]
Location: 94 Greenscroft Gardens
Work carried out for: Crawford Claims Management



Notes
1. If plotted, σ_v 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.

Soil Suction Profiles

Date Sampled: 22/05/2019
Date Received: 15/08/2019
Date Tested: 16/08/2019
Date of Report: 23/08/2019



Note
When shown, the theoretical equilibrium suction profiles are based on conventional assumptions associated with London Clay (and similarly overconsolidated clays) at shallow depths. Note that the sample disturbance component is dependent on the method of sampling and any subsequent recompaction. The above plots show this to be 100kPa which is the value suggested by the BRE on the basis of their limited number of tests on recompacted samples. This may or may not be appropriate in this instance and judgement should be exercised.

EPSL*European Plant Science Laboratory*

Sheet: 1 of 1

Job No: [REDACTED]

Date: 20/08/2019

Site: 94 Greencroft Gardens,

Work carried out for: Crawford Claims MGMT SUS

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 -

<u>Trial pit/ Borehole number</u>	<u>Root diameter (mm)</u>	<u>Tree, shrub or climber from which root originates</u>	<u>Result of starch test</u>
TP1 (USF)	2 mm	Ligustrum spp. 2 roots	Positive
BH1 (2.4m)	1 mm	broadleaved species, too juvenile for positive identification 2 roots	Negative
TP2 (USF)	2 mm	Populus spp. † 3 roots	Positive
BH2 (2m)	1.5 mm	Populus spp. † 3 roots	Positive

Ligustrum spp. are privets.

Populus spp. are poplars and aspens.

† EPSL research has developed a unique ability to differentiate Willows from Poplars. We believe no other laboratory in the UK can currently provide this service. We now offer this benefit at no extra cost.

MDM

Head of Laboratory Services : M D Mitchell B.Sc. (Hons), M.Phil.

Plant Anatomist : Dr G S Turner B.Sc. (Hons), M.Sc., Ph.D

Plant Anatomist : Dr R J Shaw B.Sc. (Hons), Ph.D

Consultant: Dr M P Denne B.Sc. (Hons), M.Sc., Ph.D