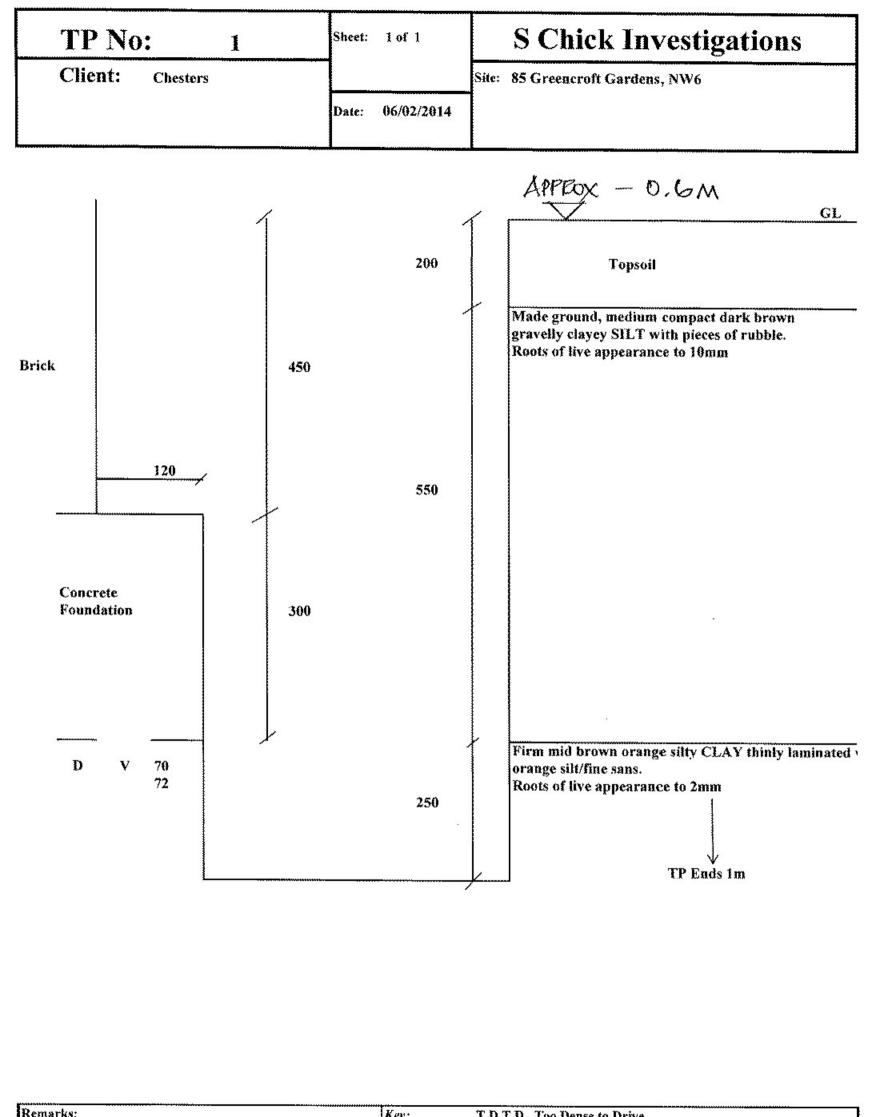
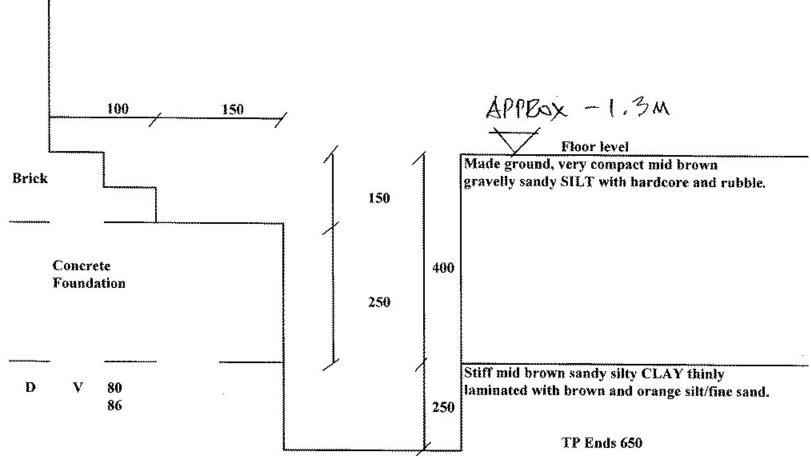
| Bor | ehole No: | В | Sheet: | l of l | | | \mathbf{S} | Chick Investigations | • |
|--------|---------------------------|---|---|--|--------------------|------------------------------|-------------------|--|----------|
| | | | Job No: | | Site: | | | 85 Greencroft Gardens | |
| Boring | g Method: | C.F.A | Date: | 06/02/2014 | | | | NW6 | |
|)iame | ter: 100mm | Coordinates: | Ground mOD: | Level - 0 . 6M | Work | Carried | | Chesters | |
| Depth | | | Thick- | | | rest | T | T T | Depti |
| (m) | 117.00 | scription of Strata | ness (m) | Sample | 50 NRUSS | Resnit | Depth (m) | Field Records/Comments tn | (m) |
| | | oit medium compact mid clayey silt with piece | | | | | | Occasional roots of live appearance to 2mm to 1m | <u> </u> |
| | CLAY with pa sand | on mottled orange silt rtings of orange silt/f n silty CLAY with pa | ine | D | V | 72 72 | 1.90 | | |
| | Or DIOWH SHITE | не ханц | | D | V | 116 118 | 2.00 | *************************************** | |
| 3.20 | Very stiff as at | oove | 1.80 | D | V | 130 134 | 3. 0 0 | | |
| | | | munta andreasanta antes provinces | Đ | v | 140+ 140+ | | | |
| | | BH Ends 5.0m | *************************************** | D | v | 140+ 140+ | | BH dry and open on completion | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | 35.44 | | | | | | | 2000 |
| Rema | | | | Key: D Small distu B Bulk distur | irbed s rbed sa | 5400000 0 0000000 | Dense to | J Jar sample V Pilcon Vanc (kPa) | |
| Y(X) | = X blows for Ym i: SC | | proved; | W Water sam Scale: | ple | NTS | | M Mackintosh Probe Weather: | |



| Remarks: | | | D Small disturbed sample | 00 Dense to Drive |
|----------------|----------------------|-----------|--------------------------|-------------------------------------|
| | | | B Bulk disturbed sample | J Jar sample V Pilcon Vane (kPa) |
| X(Y) = X blows | for Ymm penetration. | | W Water sample | M Mackintosh Probe |
| Logged: | Checked: | Approved: | Scale: NTS | Weather: |

TP No: 2
Client: Chesters
Date: 06/02/2014
Sheet: 1 of 1
S Chick Investigations
Site: 85 Greencroft Gardens, NW6



| Remarks: | | | Key: T.D.T.D. Too Dense to Drive | | | | | | |
|------------------|---------------------|-----------|----------------------------------|--------|--------------------|--|--|--|--|
| | | | D Small disturbed san | nple J | Jar sample | | | | |
| | | | B Bulk disturbed sam | ple V | Pilcon Vane (kPa) | | | | |
| X(Y) = X blows t | or Ymm penetration. | | W Water sample | M | 1 Mackintosh Probe | | | | |
| Logged: | Checked: | Approved: | Scale: N | TS W | /eather: | | | | |

TP No: **S Chick Investigations** Sheet: I of I 3 Client: Chesters Site: 85 Greencroft Gardens, NW6 06/02/2014 Date: STAROX -1.3M 100 150 Floor level Made ground, very compact mid brown Brick gravelly sandy SILT with hardcore and rubble. 150 Concrete 380 Foundation 230 Stiff mid brown sandy silty CLAY thinly 78 laminated with brown and orange silt/fine sand. 78 250 TP Ends 630

| Remarks: | | | Key: T.D.T.D. Too Dense to Drive | | | | | | |
|----------------|------------------------|---------------------|----------------------------------|---------------------|--|--|--|--|--|
| | | | D Small disturbed sample | J Jar sample | | | | | |
| G G | | | B Bulk disturbed sample | V Pilcon Vane (kPa) | | | | | |
| X(Y) = X blows | s for Ymm penetration. | 194990E 49204820000 | W Water sample | M Mackintosh Probe | | | | | |
| Logged: | Checked: | Approved: | Scale: NTS | Weather: | | | | | |

TP No: 4

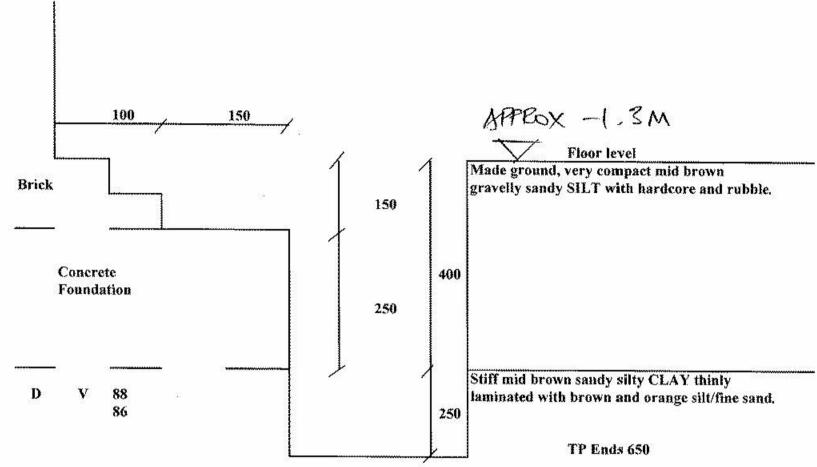
Client: Chesters

Date: 06/02/2014

Sheet: 1 of 1

S Chick Investigations

Site: 85 Greencroft Gardens, NW6

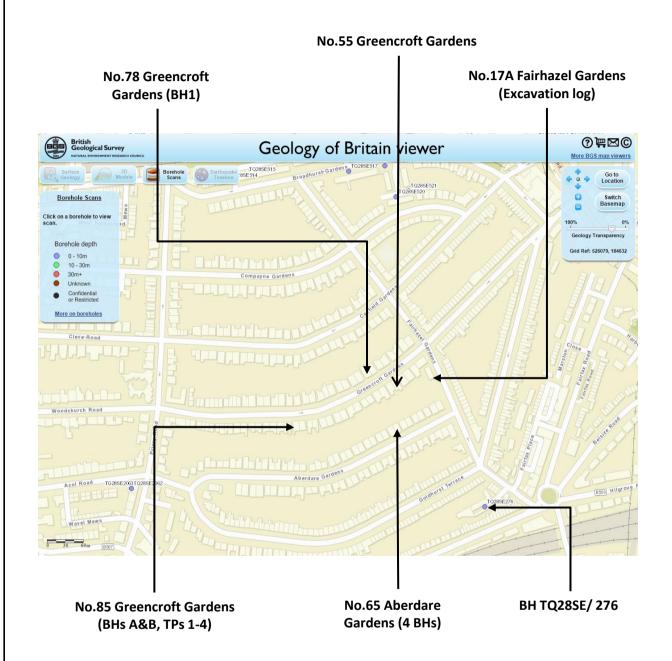


| Remarks: | | | Key: T.D.T.D. Too Dense to Drive | | | | | |
|--|----------------------|-----------|----------------------------------|---------------------|--|--|--|--|
| The state of the s | | | D Small disturbed sampl | le J Jar sample | | | | |
| 8 | | | B Bulk disturbed sample | V Pilcon Vanc (kPa) | | | | |
| X(Y) = X blows f | for Ymm penetration. | | W Water sample | M Mackintosh Probe | | | | |
| Logged: | Checked: | Approved: | Scale: NTS | Weather: | | | | |

Project:

55 Greencroft Gardens, London, NW6 3LL

16454



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Title: Location Plan of Boreholes from Desk Study Sheet B1

Date: June 2015 Checked: AG Approved: KRG Scale: NTS



Factual Report

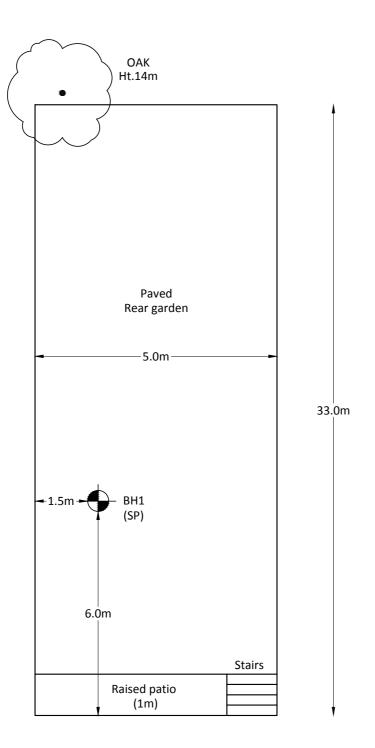


Site 55 Greencroft Gardens, South Hampstead, NW6 3LL

Client Spencer Garcia
Date 14th May 2015
Our Ref FACT/5352



Client:Spencer GarciaScale:N.T.S.Sheet:1 of 1Date:14.05.15Location:55 Greencroft Gardens, South Hampstead, NW6 3LLJob No:5352Weather:ShowersDrawn by:PLChecked by:JH



Notes: On site tree identification for guidance only. Not authenticated.

















| Client: | Spencer Garcia | Scale: | N.T.S. | Sheet No | : 1 of 1 | Weat | her: Showers | Date: 14 | ↓.05.15 |
|----------------|--|----------------|---------------------------------------|----------|-------------|--------------|--------------------------|----------------------|---------------|
| Site: | 55 Greencroft Gardens, South Hampstead, NW6 3LL | Job No | 5352 | Borehole | No: 1 | Borin | Boring method: CFA 100mm | | man |
| Depth Mtrs. | Description of Strata | Thick- ness | Legend | Sample | Tes Type | t | Root Information | Depth to Water | Depth Mtrs |
| G.L. 0.1 | SLAB | 0.1 | | | | | | | |
| 0.3 | CONCRETE | 0.2 | | | | | No roots observed. | | |
| 0.6 | Stiff, slightly pungent, dark brown, silty CLAY. | 0.3 | ×××× ××××× | D | | | | | 0.5 |
| | | | ×× | D | | 100 104 | | | 1.0 |
| | Stiff, brown, silty CLAY. | | × _^ × × × | D | | | | | 1.5 |
| | | | ×_ × | D | | 114 118 | | | 2.0 |
| | | | | D | | | | | 2.5 |
| | Becoming very stiff from 3.0m. | | × - × × × | D | | 130+ 130+ | | | 3.0 |
| | | 7.4 | ×_ ×_ -×_ | D | | | | | 3.5 |
| | | | × × × × × × × × × × × × × × × × × × × | D | | 130+ 130+ | | | 4.0 |
| | | | × × × × × × × × × × × × × × × × × × × | . D | | | | | 4.5 |
| | | | × -× × -× × -× | . D | | 130+ 130+ | | | 5.0 |
| | | | ×× ×× | D | | | | | 5.5 |
| | | | × × × × × × × × × × × × × × × × × × × | D | | 130+ 130+ | | | 6.0 |
| | | | × × × × × × × × × × × × × × × × × × × | D | V | 130+ | | | 7.0 |
| | | | × × × × × × × × × × × × × × × × × × × | | | 130+ | | | 7.0 |
| 8.0 | Borehole ends at 8.0m | | ××_ | D | | 130+ 130+ | | | 8.0 |

Remarks: Borehole dry and open on completion.

Standpipe installed to 8.0m GL - 2.0m Plain

2.0m - 8.0m Slotted (perforated)

D Small Disturbed Sample J Jar Sample

B Bulk Disturbed Sample V Pilcon Vane (kPa)

U Undisturbed Sample (U100) M Mackintosh Probe W Water Sample N Standard Penetration Test Blow Count





Laboratory Report



Site 55 Greencroft Gardens, South Hampstead,

London NW6 3LL

Client Spencer Garcia

Date 29-May-15

Our Ref CSI5352

CGL Ref CGL5352

Unit 15 East Hanningfield Industrial Estate, Old Church Road, East Hanningfield, Essex CM3 8AB Essex: 01245 400930 | London: 0203 6409136 | info@siteinvestigations.co.uk | www.siteinvestigations.com





Content Summary

This report contains all test results as indicated on the test instruction/summary.

CGL Reference: CGL5352

Client Reference: CSI5352

For the attention of: Spencer Garcia

This report comprises of the following: 1 Cover Page

1 Inside Cover/Contents Page

1 Page of Results

1 Moisture/Shear Strength Chart

1 Plasticity Chart

4 Pages of BRE SD1 Results

1 Limitations of Report

Notes :

General

Please refer to report summary notes for details pertaining to methods undertaken and their subsequent accreditations

Samples were supplied by Chelmer Site Investigations

All tests performed in-house unless otherwise stated

Deviant Samples

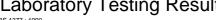
Samples were received in suitable containers

Yes

A date and time of sampling was provided Yes

Arrived damaged and/or denatured No

Laboratory Testing Results



Job Number: CGL5352 Date Received: 27/05/2015 Client: Spencer Garcia Date Testing Started: 27/05/2015 Client Reference : CSI5352 Date Testing Completed: 29/05/2015

Laboratory Used: Chelmer Geotechnical, CM3 8AB Site Name: 55 Greencroft Gardens, South Hampstead, London

| | Sample Ref | f | | | *Soil Faction | | | | | *Modified Plasticity | | Filter Paper | | Insitu Shear Vane | | | *Sulph | nate Conte | nt (g/l) |
|----------|--------------|-------|-------------|--------------------------------|------------------------|----------------------------|-----------------------------|--------------------------------|-------------------------------|----------------------|--------------------|---------------------------|-------------------------------|-------------------------|-------------------------------|-------------------|----------------------|-------------------------|---------------|
| BH/TP/WS | Depth (m) | UID | Sample Type | *Moisture Content (%) [1] | > 0.425mm (%) [2] | *Liquid Limit (%) [3] | *Plastic Limit (%) [4] | *Plasticity Index (%) [5] | *Liquidity Index (%) [5] | Index (%) [6] | *Soil Class [7] | Contact Time (h) [8] | *Soil Sample Suction (kPa) | Strength (kPa) [9] | Organic Content (%) [10] | *pH Value [11] | SO ₃ [12] | SO ₄ [13] | Class [14] |
| BH1 | 0.5 | 63032 | D | 18 | 54 | 62 | 24 | 37 | -0.17 | 17 | СН | | | | | | | | |
| BH1 | 2.0 | 63033 | D | 33 | <5 | 81 | 31 | 50 | 0.06 | 50 | CV | | | 116 | | | | | |
| BH1 | 3.5 | 63034 | D | 36 | <5 | 81 | 28 | 53 | 0.15 | 53 | CV | | | | | 7.8 | 2.06 | 2.48 | DS-3 |
| BH1 | 8.0 | 63035 | D | 31 | <5 | 80 | 28 | 52 | 0.06 | 52 | CV | | | 130+ | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

Notes :- *UKAS Accredited Tests

[1] BS 1377 : Part 2 : 1990, Test No 3.2 [7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils

[2] Estimated if <5%, otherwise measured [8] In-house method S9a adapted from BRE IP 4/93

[3] BS 1377 : Part 2 : 1990, Test No 4.4 [9] Values of shear strength were determined in situ by Chelmer Site Investigations using a Pilcon hand vane or Geonor vane (GV).

[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

[10] BS 1377 : Part 3 : 1990, Test No 4 [11] BS 1377 : Part 2 : 1990, Test No 9 [12] BS 1377 : Part 3 : 1990, Test No 5.6

[13] $SO_4 = 1.2 \times SO_3$

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

Note that if the ${\rm SO_4}$ 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

| <u>Key</u> |
|-------------------------------|
| D - Disturbed sample |
| B - Bulk sample |
| U - U100 (undisturbed sample) |
| W - Water sample |
| ENP - Essentially Non-Plastic |

U/S - Underside Foundation

UKAS TESTING

Comments :-

Date Checked :- 29-May-15 Checked By :- MC Technician :- HS

Q170 Chelmer Site Investigations 2014

Laboratory Testing Results

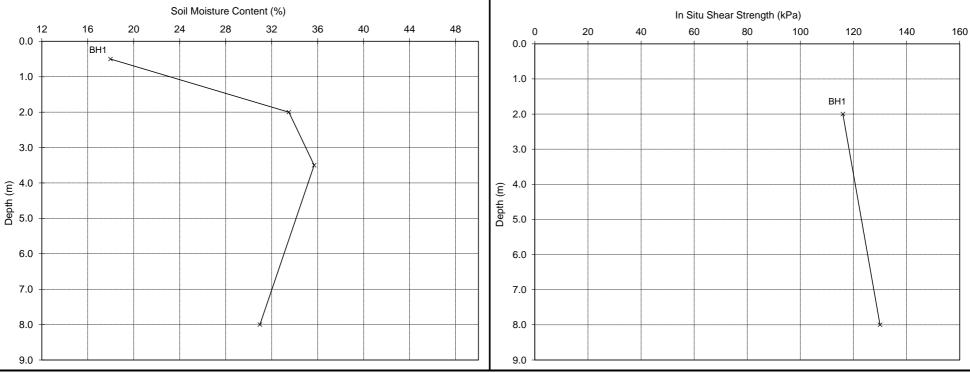
Moisture Content/Shear Strength Profile



Job Number: CGL5352 Date Received: 27/05/2015 Client: Spencer Garcia Date Testing Started: 27/05/2015

Client Reference: CSI5352 Date Testing Completed: 29/05/2015

Site Name: 55 Greencroft Gardens, South Hampstead, London NW Laboratory: Chelmer Geotechnical Laboratories, CM3 8AB



2. If plotted, 0.4 LL and PL+2 (after Driscoll, 1983) should only be applied to London Clay

(and similarly over consolidated clays) at shallow depths.

Unless otherwise stated, values of Shear Strength were determined in situ by Chelmer Site Investigations using a Pilcon Hand Vane the calibration of which is limited to a maximum reading of 140 kPa. (Not UKAS accredited)



Comments :-

Checked By :- MC

Date Checked :- 29-May-15

^{1.} If the Soil Fraction > 0.425mm exceeds 5% the Equivalent Moisture Content of the remainder (calculated in accordance with BS 1377: Part 2: 1990, cl.3.2.4 note 1) is also plotted and the alternative profile additionally shown as an appropriately coloured broken line.

Laboratory Testing Results

Plasticity Chart for the classification of fine soils and the finer part of coarse soils In Compliance with BS5930: 1999



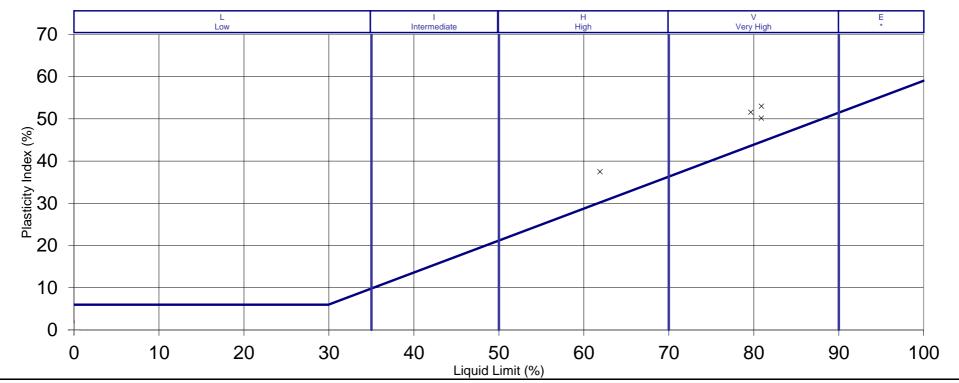
 Job Number : CGL5352
 Date Received : 27/05/2015

 Client : Spencer Garcia
 Date Testing Started : 27/05/2015

 Client Reference : CSI5352
 Date Testing Completed : 29/05/2015

Site Name: 55 Greencroft Gardens, South Hampstead, London NW6

Laboratory: Chelmer Geotechnical Laboratories, CM3 8AB



Notes :- Key :- BH1

SILT (M-SOIL), M, plots below A-Line CLAY, C, plots above A-Line)M and C may be combined as FINE SOIL, F.

U KAS
TESTING

Comments :-

Checked By :- MC Date Checked :- 29-May-15





QTS Environmental Ltd

Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN

t: 01622 850410

russell.jarvis@qtsenvironmental.com

Mark Collyer
Chelmer Site Investigation Laboratories Ltd
Unit 15
East Hanningfield Industrial Estate
Old Church Road
East Hanningfield
Essex
CM3 8AB

QTS Environmental Report No: 15-31864

Site Reference: 55 Greencroft Gardens, South Hampstead, NW6 3LL

Project / Job Ref: CGL5352

Order No: PO/4465/5352/MC

Sample Receipt Date: 29/05/2015

Sample Scheduled Date: 29/05/2015

Report Issue Number: 1

Reporting Date: 04/06/2015

Authorised by:

Russell Jarvis Director

On behalf of QTS Environmental Ltd

Authorised by:

Kevin Old Director

On behalf of QTS Environmental Ltd



QTS Environmental Ltd Unit 1, Rose Lane Industrial Estate Rose Lane Lenham Heath Maidstone Kent ME17 2JN Tel: 01622 850410



| Soil Analysis Certificate | | | | | |
|--|-----------------|---------------|---------------|--|--|
| QTS Environmental Report No: 15-31864 | Date Sampled | 14/05/15 | 14/05/15 | | |
| Chelmer Site Investigation Laboratories Ltd | Time Sampled | None Supplied | None Supplied | | |
| Site Reference: 55 Greencroft Gardens, South | TP / BH No | 63032 | 63035 | | |
| Hampstead, NW6 3LL | | | | | |
| Project / Job Ref: CGL5352 | Additional Refs | BH1 | BH1 | | |
| Order No: PO/4465/5352/MC | Depth (m) | 0.50 | 8.00 | | |
| Reporting Date: 04/06/2015 | QTSE Sample No | 150500 | 150501 | | |

| Determinand | Unit | RL | Accreditation | | | | |
|--|----------|--------|---------------|------|------|--|--|
| рН | pH Units | N/a | MCERTS | 7.8 | 7.6 | | |
| Total Sulphate as SO ₄ | mg/kg | < 200 | NONE | 1181 | 9025 | | |
| W/S Sulphate as SO4 (2:1) | g/l | < 0.01 | MCERTS | 0.51 | 1.29 | | |
| Total Sulphur | mg/kg | < 200 | NONE | 413 | 3055 | | |
| Ammonium as NH ₄ | mg/kg | < 0.5 | NONE | 16.9 | 8.5 | | |
| W/S Chloride (2:1) | mg/kg | < 1 | MCERTS | 17 | 60 | | |
| Water Soluble Nitrate (2:1) as NO ₃ | mg/kg | < 3 | MCERTS | 55 | 6 | | |
| W/S Magnesium | mg/l | < 0.1 | NONE | 13 | 150 | | |

Analytical results are expressed on a dry weight basis where samples are dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

Subcontracted analysis (S)



QTS Environmental Ltd Unit 1, Rose Lane Industrial Estate Rose Lane Lenham Heath Maidstone Kent ME17 2JN Tel: 01622 850410



Soil Analysis Certificate - Sample Descriptions

QTS Environmental Report No: 15-31864

Chelmer Site Investigation Laboratories Ltd

Site Reference: 55 Greencroft Gardens, South Hampstead, NW6 3LL

Project / Job Ref: CGL5352

Order No: PO/4465/5352/MC

Reporting Date: 04/06/2015

| QTSE Sample No | TP / BH No | Additional Refs | Depth (m) | Moisture Content (%) | Sample Matrix Description |
|----------------|------------|-----------------|-----------|-------------------------|---------------------------|
| \$ 150500 | 63032 | BH1 | 0.50 | 22.6 | Brown gravelly clay |
| \$ 150501 | 63035 | BH1 | 8.00 | 20.3 | Brown clay |

Moisture content is part of procedure E003 & is not an accredited test Insufficient Sample I/S
Unsuitable Sample U/S

\$ samples exceeded recommended holding times



QTS Environmental Ltd Unit 1, Rose Lane Industrial Estate Rose Lane Lenham Heath Maidstone Kent ME17 2JN Tel: 01622 850410



Soil Analysis Certificate - Methodology & Miscellaneous Information

QTS Environmental Report No: 15-31864

Chelmer Site Investigation Laboratories Ltd

Site Reference: 55 Greencroft Gardens, South Hampstead, NW6 3LL

Project / Job Ref: CGL5352 Order No: PO/4465/5352/MC Reporting Date: 04/06/2015

| Matrix | Analysed On | Determinand | Brief Method Description | Method No |
|--------|----------------|--|--|--------------|
| Soil | D | Boron - Water Soluble | Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES | E012 |
| Soil | AR | | Determination of BTEX by headspace GC-MS | E001 |
| Soil | D | | Determination of cations in soil by aqua-regia digestion followed by ICP-OES | E002 |
| Soil | D | | Determination of chloride by extraction with water & analysed by ion chromatography | E009 |
| | | | Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of | |
| Soil | AR | Chromium - Hexavalent | 1,5 diphenylcarbazide followed by colorimetry | E016 |
| Soil | AR | Cyanide - Complex | Determination of complex cyanide by distillation followed by colorimetry | E015 |
| Soil | AR | | Determination of free cyanide by distillation followed by colorimetry | E015 |
| Soil | AR | | Determination of total cyanide by distillation followed by colorimetry | E015 |
| Soil | D | | Gravimetrically determined through extraction with cyclohexane | E011 |
| Soil | AR | | Determination of hexane/acetone extractable hydrocarbons by GC-FID | E004 |
| Soil | AR | Electrical Conductivity | Determination of electrical conductivity by addition of saturated calcium sulphate followed by | E022 |
| Call | A.D. | | electrometric measurement | F022 |
| Soil | AR | | Determination of electrical conductivity by addition of water followed by electrometric measurement | E023 |
| Soil | D | | Determination of elemental sulphur by solvent extraction followed by GC-MS | E020 |
| Soil | AR | | Determination of acetone/hexane extractable hydrocarbons by GC-FID | E004 |
| Soil | AR | | Determination of acetone/hexane extractable hydrocarbons by GC-FID | E004 |
| Soil | AR | C12-C16, C16-C21, C21-C40) | | E004 |
| Soil | D | Fluoride - Water Soluble | Determination of Fluoride by extraction with water & analysed by ion chromatography | E009 |
| Soil | D | FOC (Fraction Organic Carbon) | Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate | E010 |
| Soil | D | Loss on Ignition @ 450oC | Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace | E019 |
| Soil | D | Magnesium - Water Soluble | Determination of water soluble magnesium by extraction with water followed by ICP-OES | E025 |
| Soil | D | | Determination of water soluble magnesiam by extraction with water followed by fcr -olds Determination of metals by aqua-regia digestion followed by ICP-OES | E002 |
| Soil | AR | | Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge | |
| Soil | AR | | Moisture content; determined gravimetrically | E003 |
| Soil | D | | Determination of nitrate by extraction with water & analysed by ion chromatography | E009 |
| Soil | D | Organic Matter | Determination of organic matter by oxidising with potassium dichromate followed by titration with iron | E010 |
| Soil | AR | PAH - Speciated (EPA 16) | Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards | E005 |
| Soil | AR | PCB - 7 Congeners | Determination of PCB by extraction with acetone and hexane followed by GC-MS | E008 |
| Soil | D | Petroleum Ether Extract (PEE) | Gravimetrically determined through extraction with petroleum ether | E011 |
| Soil | AR | Н | Determination of pH by addition of water followed by electrometric measurement | E007 |
| Soil | AR | Phenols - Total (monohydric) | Determination of phenols by distillation followed by colorimetry | E021 |
| Soil | D | Phosphate - Water Soluble (2:1) | Determination of phosphate by extraction with water & analysed by ion chromatography | E009 |
| Soil | D | Sulphate (as SO4) - Total | Determination of total sulphate by extraction with 10% HCI followed by ICP-OES | E013 |
| Soil | D | Sulphate (as SO4) - Water Soluble (2:1) | Determination of sulphate by extraction with water & analysed by ion chromatography | E009 |
| Soil | D | Sulphate (as SO4) - Water Soluble (2:1) | Determination of water soluble sulphate by extraction with water followed by ICP-OES | E014 |
| Soil | AR | Sulphide | Determination of sulphide by distillation followed by colorimetry | E018 |
| Soil | D | Sulphur - Total | Determination of total sulphur by extraction with aqua-regia followed by ICP-OES | E024 |
| Soil | AR | SVOC | Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS | E006 |
| Soil | AR | Thiocyanate (as SCN) | Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry | E017 |
| Soil | D | Toluene Extractable Matter (TFM) | Gravimetrically determined through extraction with toluene | E011 |
| | | · | Determination of organic matter by oxidising with notassium dichromate followed by titration with iron | |
| Soil | D | Total Organic Carbon (TOC) | (II) sulphate | E010 |
| Soil | AR | | Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS | E004 |
| Soil | AR | C5-C7, C7-C8, C8-C10, C10-C12, C12- C16, C16-C21, C21-C35, C35-C44) | Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS | E004 |
| Soil | AR | | Determination of volatile organic compounds by headspace GC-MS | E001 |
| Soil | AR | VPH (C6-C8 & C8-C10) | Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID | E001 |

D Dried **AR As Received**





This report is personal to the client, confidential and non assignable. It is issued with no admission of liability to any third party.

This report shall not be reproduced, except in full, without the written approval of Chelmer Site Investigations Laboratories Ltd.

Where our involvement consists exclusively of testing samples, the results and comments (if provided) relate only to the samples tested.

Any samples that are deemed to be subject to deviation will be recorded as such within the test summary.



REPORT NOTES

Equipment Used

Hand tools, Mechanical Concrete Breaker and Spade, Hand Augers, 100mm/150mm diameter Mechanical Flight Auger Rig, GEO205 Flight Auger Rig, Window Sampling Rig, and Large or Limited Access Shell & Auger Rig upon request and/or access permitting.

On Site Tests

By Pilcon Shear-Vane Tester (kN/m²) in clay soils, and/or Mackintosh Probe in granular soils or made ground and/or upon request Continuous Dynamic Probe Testing and Standard Penetration Testing.

Note:

Details reported in trial-pits and boreholes relate to positions investigated only as instructed by the client or engineer on the date shown.

We are therefore unable to accept any responsibility for changes in soil conditions not investigated i.e. variations due to climate, season, vegetation and varying ground water levels.

Full terms and conditions are available upon request.



Gabriel GeoConsulting Ltd

HIGHFIELD HOUSE, ROLVENDEN ROAD, CRANBROOK/BENENDEN, TN17 4EH

Groundsure Reference:

GS-2131610

Your Reference: 16454

Report Date

2 Jun 2015

Report Delivery Email - pdf

Method:

Groundsure Geoinsight

Address: 55, GREENCROFT GARDENS, LONDON, NW6 3LL

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the Groundsure Geoinsight as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director **Groundsure Limited**

Enc.

Groundsure Geoinsight



Groundsure Geoinsight

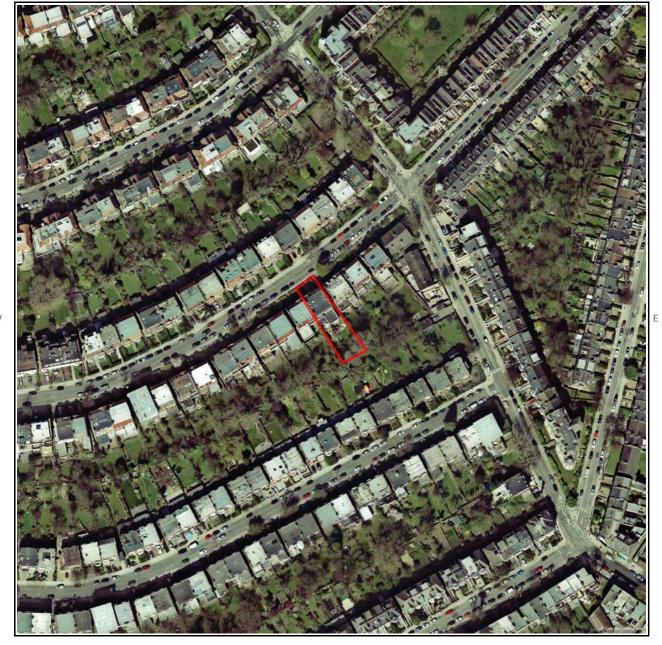
Address: 55, GREENCROFT GARDENS, LONDON, NW6 3LL

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Client: Gabriel GeoConsulting Ltd

NW NE



SW S SE

Aerial Photograph Capture date: 20-Apr-2013 Grid Reference: 526078,184292

Site Size: 0.07ha



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Overview of Findings

The Groundsure Geoinsight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

| Section 1:Geology | | | | | | | |
|---|---|--|------------|--|-----------------|----|--|
| 1.1 Artificial Ground | 1.1.1 Is there any Artificial Ground/ Made beneath the study site? | Ground pres | ent | No | | | |
| | 1.1.2 Are there any records relating to per ground within the study site* boundary? | rmeability of | artificial | No | | | |
| 1.2 Superficial Geology and Landslips | 1.2.1 Is there any Superficial Ground/Drift beneath the study site? | t Geology pre | esent | No | | | |
| Lanustips | 1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?1.2.3 Are there any records of landslip within 500m of the study site boundary? | | | No No | | | |
| | | | | | | | |
| | 1.2.4 Are there any records relating to per within the study site boundary? | any records relating to permeability of landslips No | | | | | |
| 1.3 Bedrock, Solid Geology & Faults | 1.3.1 For records of Bedrock and Solid Ge study site* see the detailed findings section | | th the | | | | |
| | 1.3.2 Are there any records relating to permeability of bedrock within the study site boundary? | | | Yes | | | |
| | 1.3.3 Are there any records of faults within 500m of the study site boundary? | | | No | | | |
| 1.4 Radon data | 1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? | | | The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level | | | |
| 1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? | | | | No radon protective measures are necessary | | | |
| Section 2: Ground \ | On-site | 0-50m | 51-250 | 251-500 | 501-1000 | | |
| 2.1 Historical Surface C Mapping | 0 | 0 | 0 | Not Searched | Not Searched | | |
| 2.2 Historical Underground Workings from Small Scale Mapping | | 0 | 0 | 0 | 28 | 34 | |
| 2.3 Current Ground Wo | 0 | 0 | 0 | 0 | 0 | | |

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