



## **SITE INVESTIGATION FACTUAL REPORT**

Report No: 782

Client: GEOBEAR

Site: OAK TREE HOUSE

Client Ref: OPP091762

Date of Visit: 15/12/22

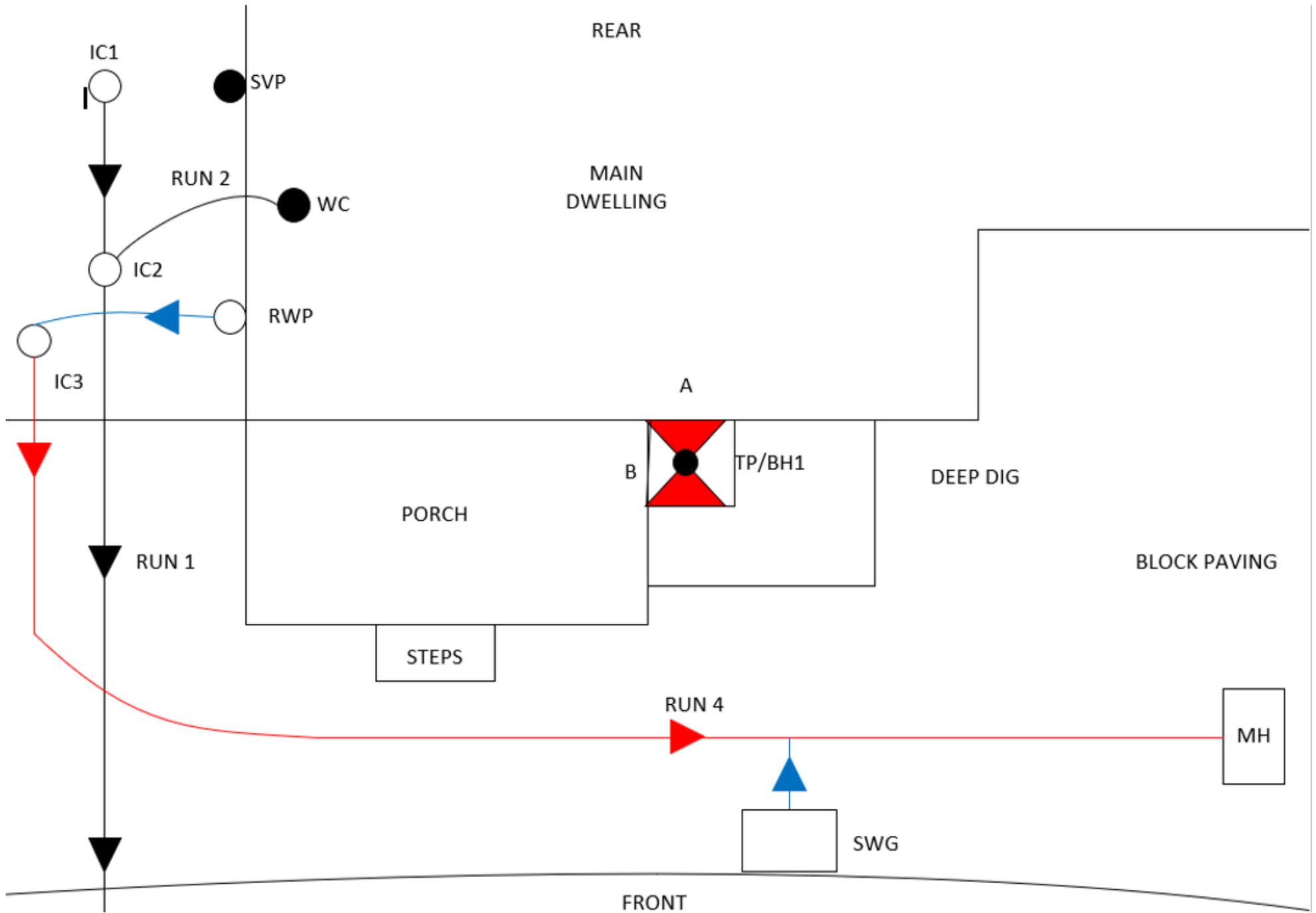
Unit 2 Barleylands Equestrian Centre  
Whites Farm  
Basildon, SS15 4BG

01268287892

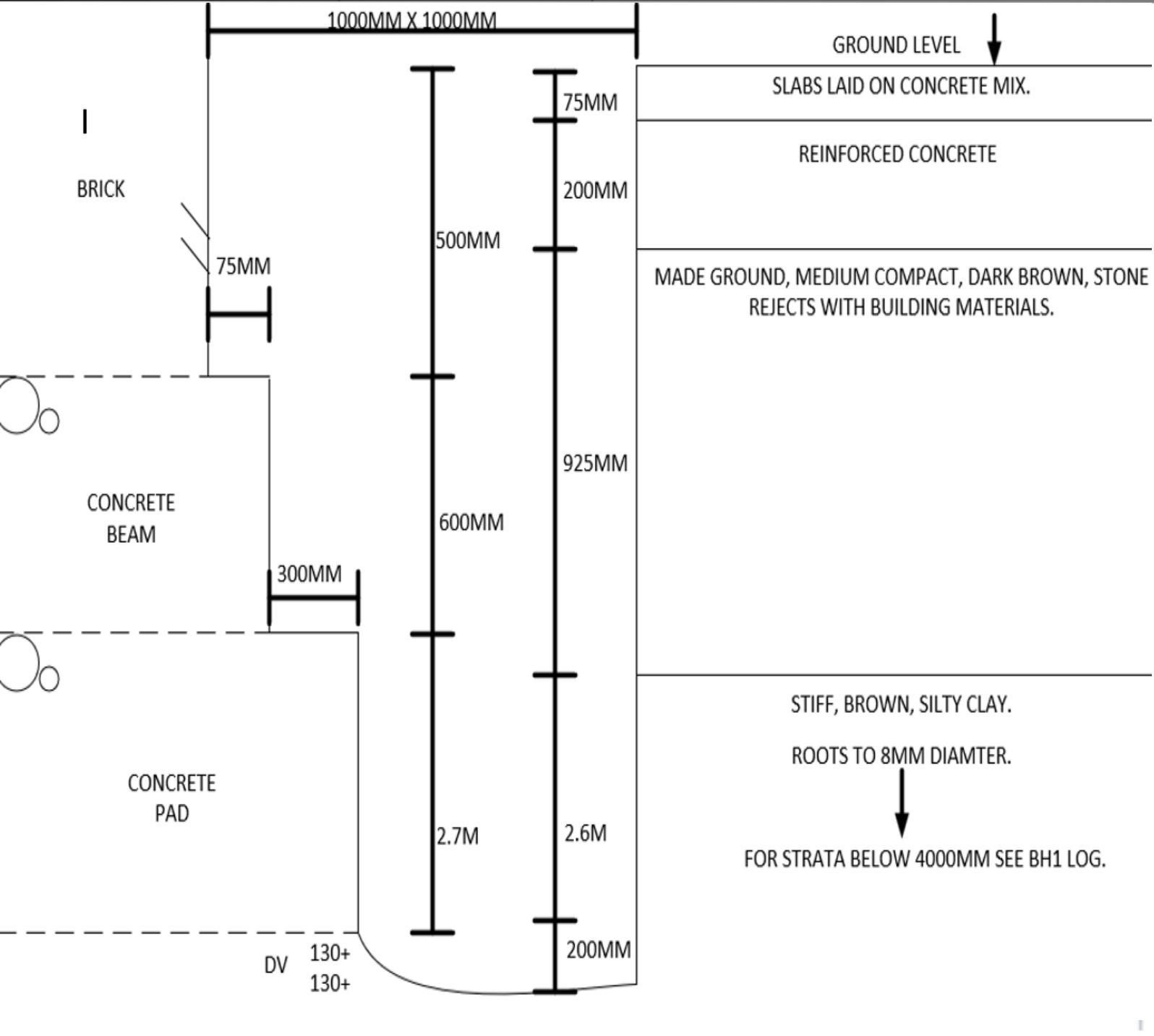
01268285999

si@gtsse.co.uk

*PLEASE NOTE THAT OUR SOIL TESTING IS UNDERTAKE VIA A SEPARATE COMPANY AND NOT  
INTERNALLY*



Trial Pit No: 1	Date: 15/12/22	Site: OAK TREE HOUSE
Excavation Method: Hand Tools	Ground level MOD	Client: GEOBEAR
Co-ordinates:		Weather During: DRY



REMARKS: FOUNDATIONS A+B ARE THE SAME	<p>KEY:</p> <p>D: SMALL DISTURBED SAMPLE      J: JAR SAMPLE</p> <p>B: BULK DISTURBED SAMPLE      V: PILCON VANE (kPa)</p> <p>U: UNDISTURBED SAMPLE (U100)      M: MACKINTOSH PROBE</p> <p>W: WATER SAMPLE      N: STANDARD PENETRATION TEST BLOW COUNT</p>
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LOGGED BY:	CHECKED BY:	APPROVED BY:	NOT TO SCALE
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# Laboratory Summary Results

Our Ref : GT028

Date Sampled: 15/12/2022

Location : Oak Tree House, Wood Lane, Ruislip, HA4 6EY

Date Received : 30/12/2022

Client: GTSSE

Date Tested : 30/12/2022

Address: Unit 2, Barleylands Equestrian Centre, Whites Farm, Barleylands Road, Basildon, Essex, SS15 4BG

Date of Report : 03/01/2023

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 (d)	Soil Sample Suction (kPa) [8]	Roots Present or Below [9]	In situ Shear Vane Strength (kPa) [10]	Organic Content (%) [11]	pH Value [12]	Sulphate Content (g/l)		Class [15]
TP/BH No	Depth (m)																SO <sub>3</sub> [13]	SO <sub>4</sub> [14]	
BH1	4.0	D	34	<5	70	25	45	0.19	45	CV			Below Roots	>130					
	4.5	D	35	<5	73	25	48	0.21	48	CV			Below Roots	>130					
	5.0	D	35	<5	71	23	48	0.25	48	CV			Below Roots	>130					

### 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

Test results reported relate only to the items tested.

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[8] S94 adapted from BRE IP 4/93

[9] Roots present at depth, below roots found. Taken from logs provided

[10] Values of shear strength were determined in situ by client using

a Pilon hand vane or Geosor vane (GV).

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

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

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

[14] SO<sub>4</sub> = 1.2 x SO<sub>3</sub>

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

Note that if the SO<sub>4</sub> 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.

Full reports can be provided upon request.

### Key

D Disturbed sample ( small )

B Disturbed sample ( bulk )

U Undisturbed sample

W Groundwater sample

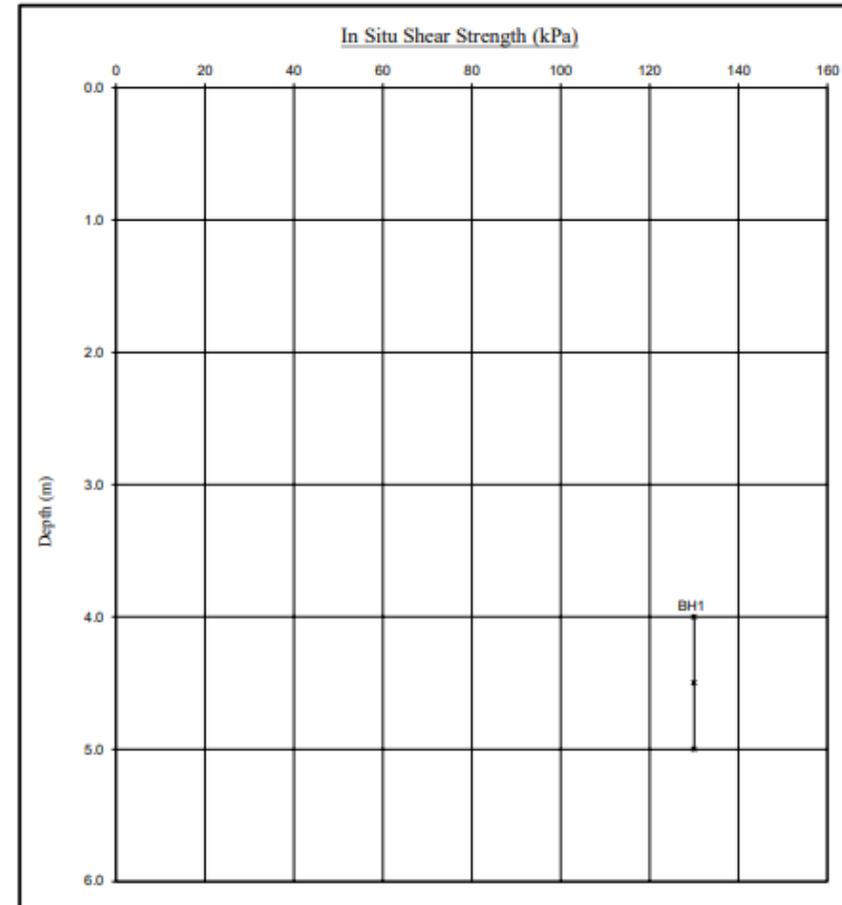
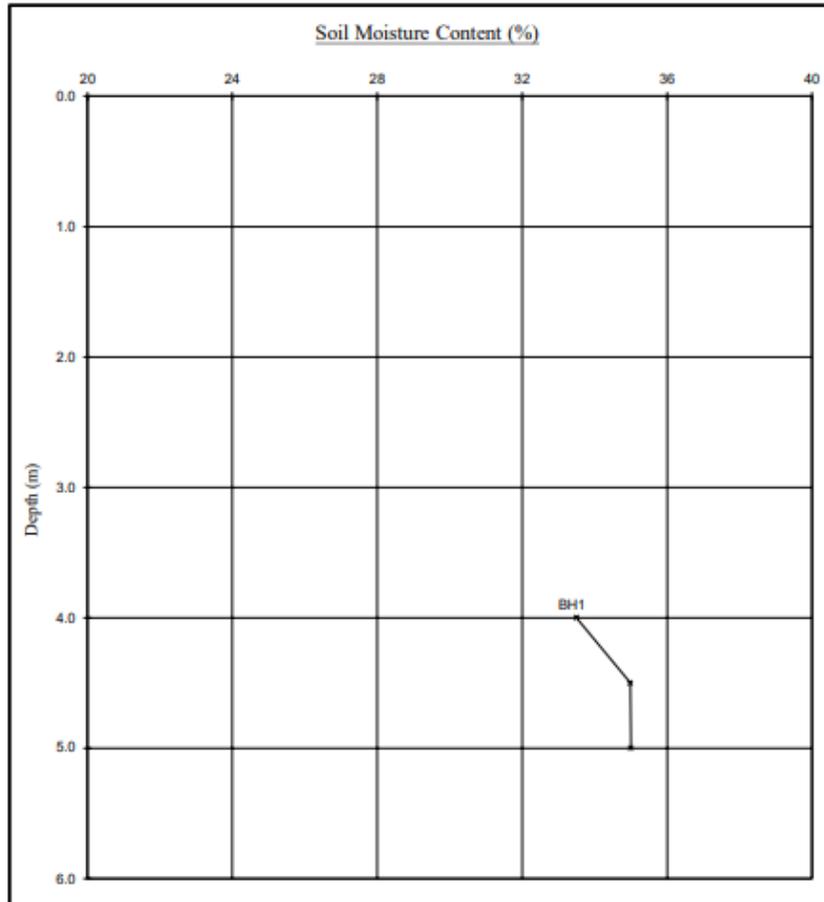
ENP Essentially Non-Plastic by inspection

U/S Underside of Foundation

## Moisture Content Profiles

Our Ref: GT028  
Location: Oak Tree House, Wood Lane, Ruislip, HA4 6EY  
Work carried out for: GTSSE

Date Sampled: 15/12/2022  
Date Received: 30/12/2022  
Date Tested: 30/12/2022  
Date of Report: 03/01/2023



### 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.

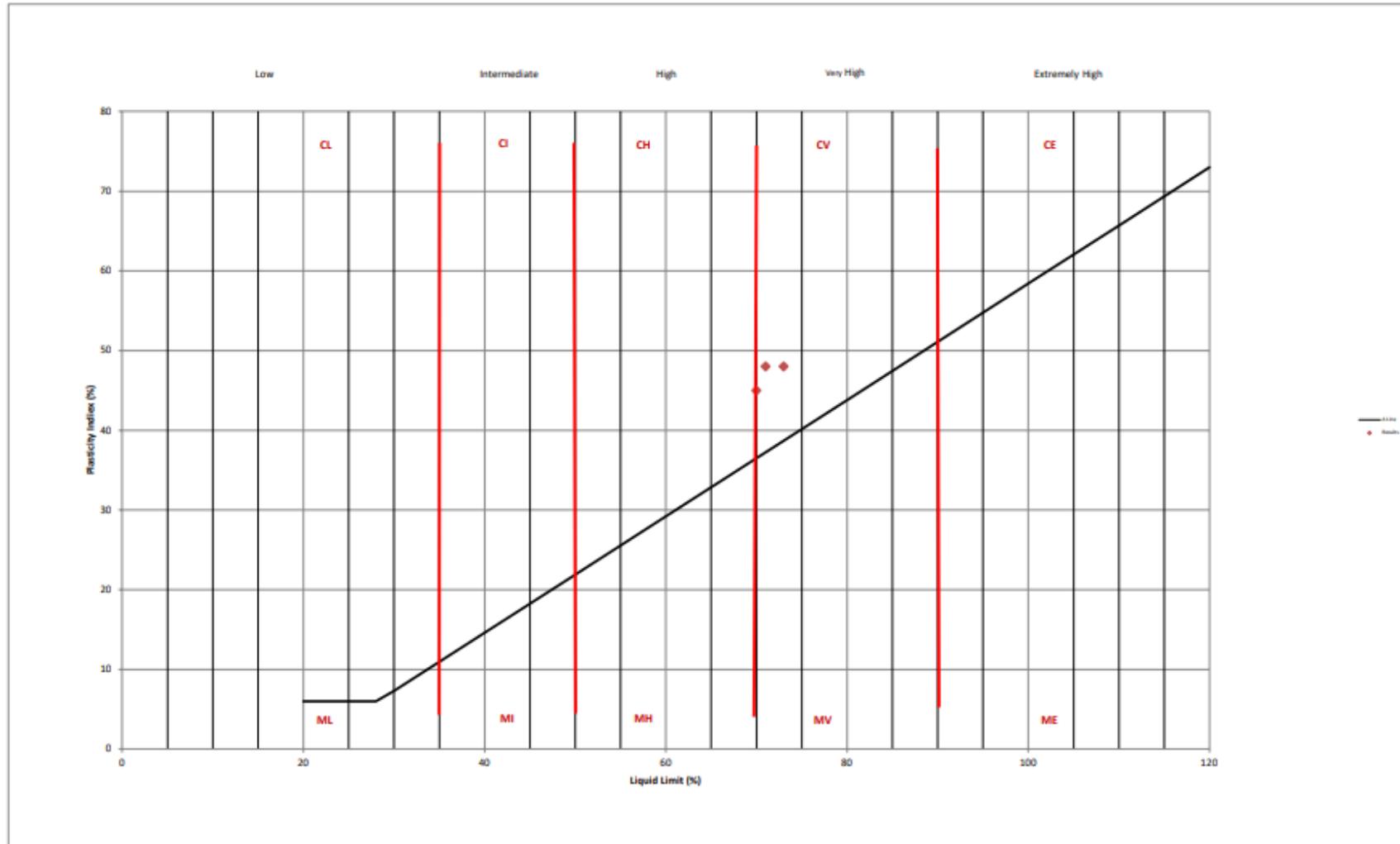
### Note

1. Unless otherwise stated, values of Shear Strength were determined in situ by the client using a Pilon Hand Vane the calibration of which is limited to a maximum reading of 130 kPa.

# Plasticity Chart

Our Ref: GT028  
Location: Oak Tree House, Wood Lane, Rainip, HA4 6EY  
Work carried out for: GTSSE  
Unit 2, Barleylands Equestrian Centre, Whites Farm, Barleylands Road, Basildon, Essex, SS15 4BG

Date Sampled: 15/12/2022  
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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.