SOIL ANALYSIS

for Subsidence Management Services

13 Lawford Road, London, NW5 2LH

Client:	Subsidence Management Services
Client Contact:	Cyril Nazareth
Claim Number:	102023619
Policy Holder:	Mrs Sarah Jane Haydon
Report Date:	26 January 2018
Our Ref:	C12485S38007
Laboratory Ref:	L13311

Compiled By:

Checked By:

Date samples received: 12th January 2018

Moisture Content Test Date: 15th January 2018

Atterberg Limits Test Date: 25th January 2018

Suction Test Commenced: 17th January 2018

Suction Test Completed: 24th January 2018

Days in Contact: 7

SubsNetUK

9265

Note

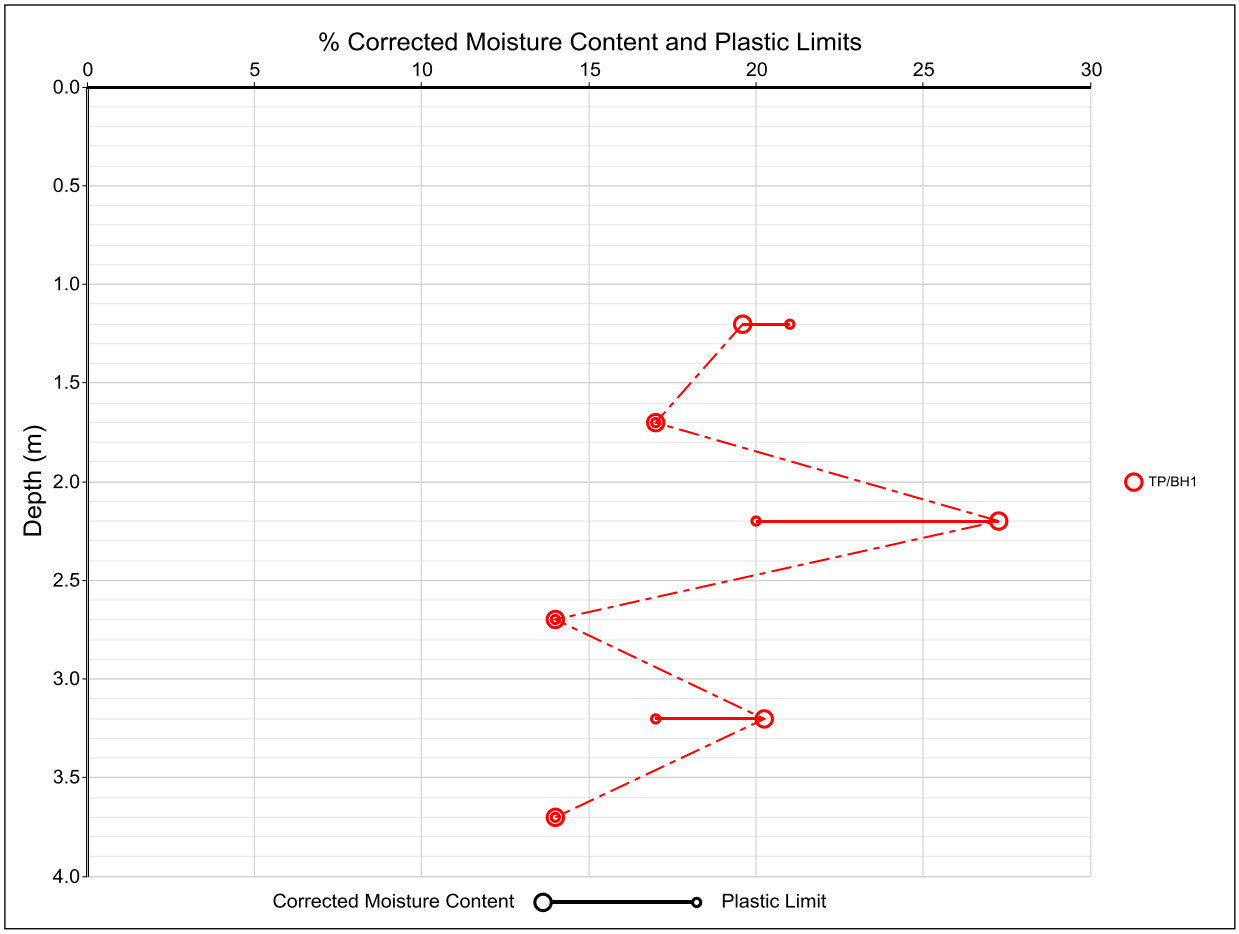
Where appropriate moisture contents have been corrected to demonstrate the equivalent moisture content following the sample being passed through a .425 mm sieve for comparison with the Liquid & Plastic Limit. Where this is not available, uncorrected moisture contents have been used in the graph on the following page.

Deviations to testing schedule:

All testing has been undertaken in line with the soils testing schedule provided

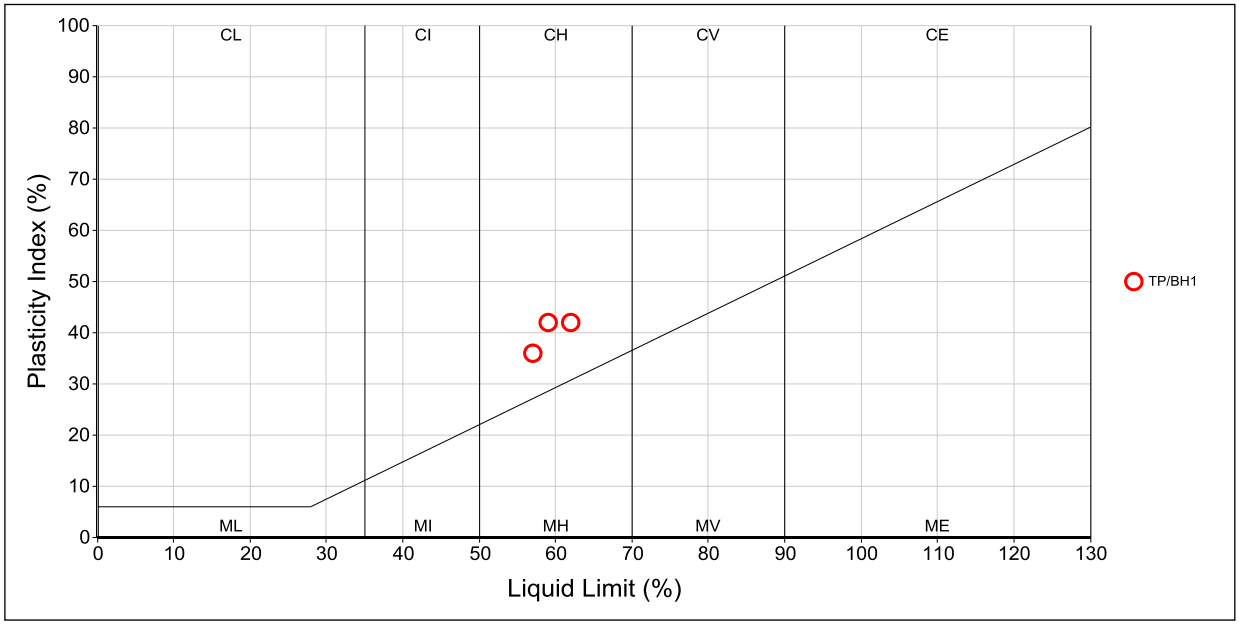
Lab Ref	Depth (m)	MC (%)	Corr MC (%)	LL (%)	PL (%)	PI (%)	% Passing .425mm
Samples from TP/BH1							
001	1.20	10	20	57	21	36	51
002	1.70	17					
003	2.20	18	27	62	20	42	66
004	2.70	14					
005	3.20	16	20	59	17	42	79
006	3.70	14					

Corrected Moisture Content and Plastic Limits Graph



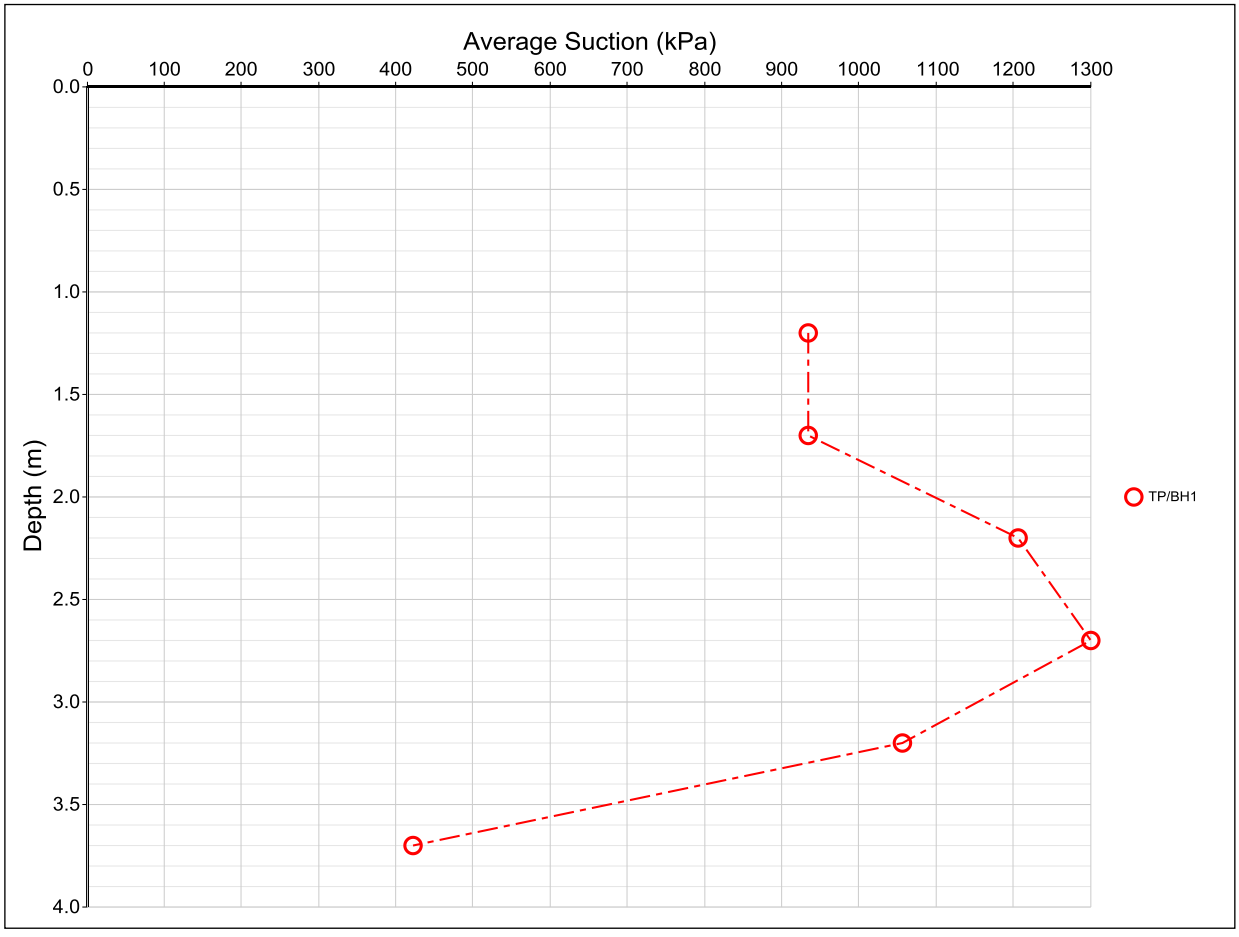
Lab Ref	Depth (m)	Description	BS:5930	NHBC Chapter 4.2
Samples from TP/BH1				
001	1.20	Firm to stiff dark brown slightly sandy very gravelly CLAY. Gravel is fine and coarse.	CH	Medium
002	1.70	Firm to stiff orange-brown/dark brown/grey mottled slightly sandy slightly gravelly CLAY with rare flint. Gravel is fine and medium.		
003	2.20	Firm to stiff orange-brown/dark brown mottled slightly sandy slightly gravelly CLAY with rare flint. Gravel is fine and medium.	CH	High
004	2.70	Firm dark brown/grey veined slightly sandy slightly gravelly CLAY . Gravel is fine and medium.		
005	3.20	Firm dark brown/grey veined slightly sandy slightly gravelly CLAY . Gravel is fine and medium.	CH	High
006	3.70	Soft dark brown/grey veined slightly sandy gravelly CLAY . Gravel is fine, medium and coarse.		

Plasticity Chart for Casagrande Classification

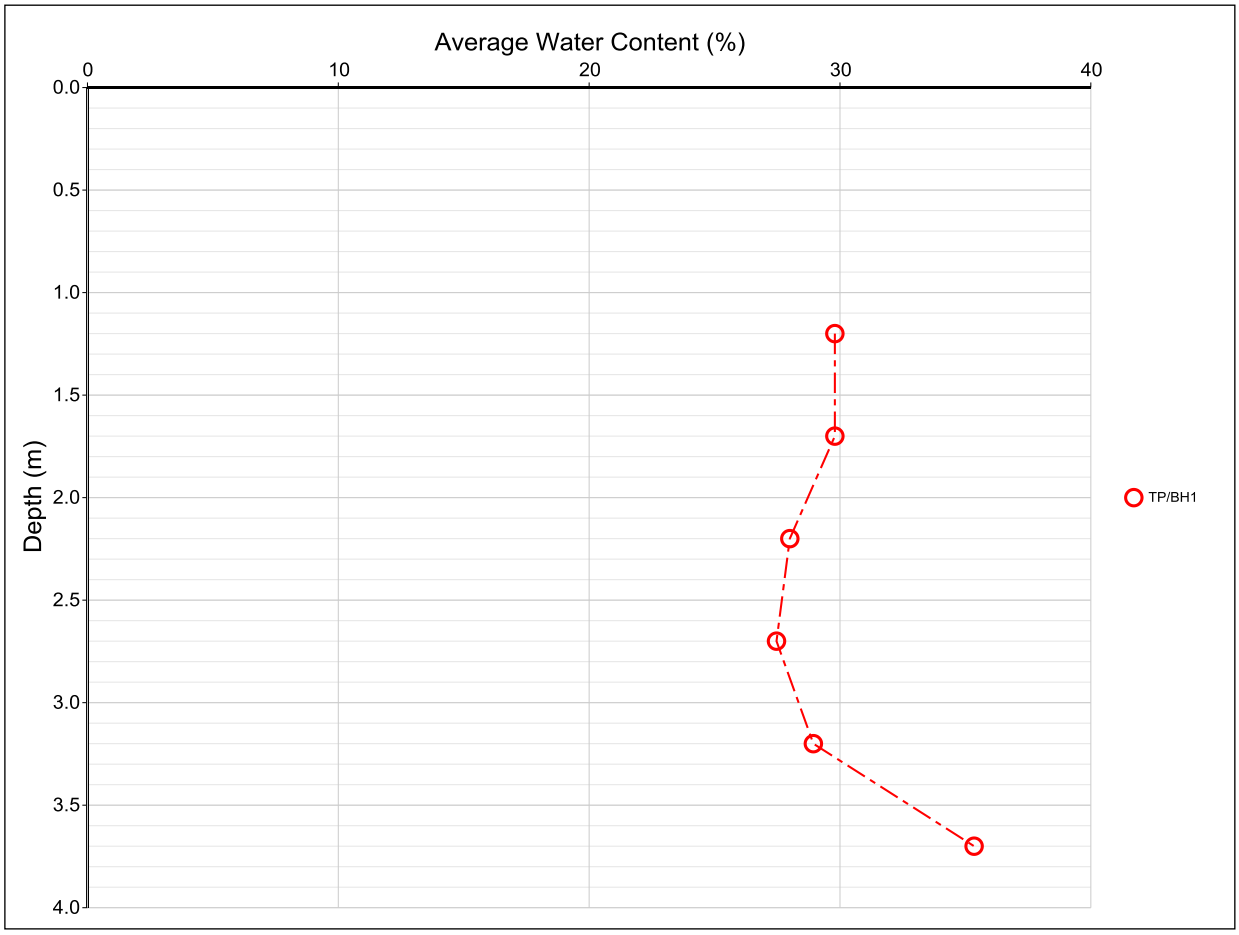


Lab Ref	Depth (m)	Filter Paper	Bag Weight (g)	Bag + Wet Filter (g)	Bag + Dry Filter (g)	Oven Dry Filter (g)	Water Content (%)	Suction (kPa)	Average (kPa)
Samples from TP/BH1									
001	1.20	Top	0.925	1.153	1.100	0.175	29.903	955.093	969.810
		Middle	0.913	1.018	0.994	0.081	29.607	996.442	
		Bottom	0.909	1.020	0.994	0.085	29.882	957.894	
002	1.70	Top	0.908	1.131	1.080	0.172	29.832	964.870	969.000
		Middle	0.927	1.034	1.010	0.082	29.854	961.741	
		Bottom	0.917	1.028	1.003	0.086	29.720	980.389	
003	2.20	Top	0.928	1.148	1.100	0.173	27.594	1329.354	1251.625
		Middle	0.930	1.044	1.019	0.089	28.202	1218.485	
		Bottom	0.951	1.066	1.040	0.090	28.268	1207.037	
004	2.70	Top	0.952	1.180	1.130	0.179	27.843	1282.794	1348.560
		Middle	0.937	1.053	1.028	0.091	27.674	1314.314	
		Bottom	0.948	1.064	1.039	0.092	26.995	1448.571	
005	3.20	Top	0.956	1.179	1.129	0.173	28.754	1125.964	1095.439
		Middle	0.956	1.069	1.044	0.087	29.291	1042.614	
		Bottom	0.949	1.099	1.065	0.116	28.805	1117.739	
006	3.70	Top	0.960	1.174	1.119	0.159	34.531	492.265	438.740
		Middle	0.969	1.089	1.058	0.089	35.090	454.382	
		Bottom	0.962	1.087	1.053	0.092	36.532	369.572	

Average Suction



Average Water Content



Notes relating to soils testing

Unless otherwise stated, all soils testing was undertaken at Environmental Services' soils laboratory at unit 10H Maybrook Business Park, B76 1AL.

Soil samples have been prepared in accordance with BS1377:Part 1: 2016 Section 7

Descriptions of soil samples within the laboratory have been undertaken generally in accordance with BS5930:2015

Following the issue of this soil analysis report, samples will be retained for at least 28 days should additional testing, or referencing, be required. It should be noted that any tests undertaken on soils retained subsequent to the issue of this report may not give an accurate indication of the in-situ conditions of the sample.

Water Content Tests are undertaken in accordance with ISO 17892:Part 1:2014

The Liquid Limit test is undertaken in accordance with BS1377:Part 2:1990 Section 4.4

The Plastic Limit test and the determination of the Plasticity Index is undertaken in accordance with BS1377:Part 2:1990 Section 5

The Filter Paper Suction Test is undertaken in accordance with the BRE paper IP4/93 (corrected) 'A Method of Determining the State of Desiccation in Clay Soils' and unless otherwise stated within this report the moisture content of the filter paper was determined after 7 days contact with the sample and the test was prepared from a remoulded disturbed sample.

The Filter Paper Suction Tests are conducted in a controlled environment within a temperature range of 18°C and 22°C

References and Interpretation

The following provides a brief interpretation of the test results by comparison of the results to published classifications. The Atterberg Limit test may be used to classify the plasticity of soils; the plasticity classes defined in BS5930:1999 "Code of Practice for Site Investigations" are as follows.

CL (ML)	CLAY and CLAY/SILT of Low plasticity
CI (MI)	CLAY and CLAY/SILT of Intermediate plasticity
CH (MH)	CLAY and CLAY/SILT of High plasticity
CV (MV)	CLAY and CLAY/SILT of Very High plasticity
CE (ME)	CLAY and CLAY/SILT of Extremely High plasticity
O	The letter O is added to prefixes to symbolise a significant proportion of organic matter.
NP	Non-plastic

The Plasticity Index (PI) Result obtained from the Atterberg Limit tests may also be used to classify the potential for volume change of fine soils, in accordance with the National House Building Council's standards - Chapter 4.2 (2003) "Building Near Trees", as summarised below.

Modified PI < 10	Non Classified.
Modified PI = 10 to <20	Low volume change potential.
Modified PI = 20 to <40	Medium volume change potential.
Modified PI = 40 or greater	High volume change potential.

The 2003 edition of Chapter 4.2 also permits use of the Plasticity Index without modification. The classifications for this are grouped by soil type (soils with similar visual soils description and using unmodified Plasticity Indices.