

SOIL ANALYSIS

for Subsidence Management Services

24 Ramblers Way, Waterloovile, PO7 8RE

Client: Subsidence Management Services
Client Contact: Philippa Mann
Claim Number: 13WCI002010
Policy Holder: Mrs C Gradison
Report Date: 18 November 2015
Our Ref: C8096S11143

Compiled By:



Checked By:



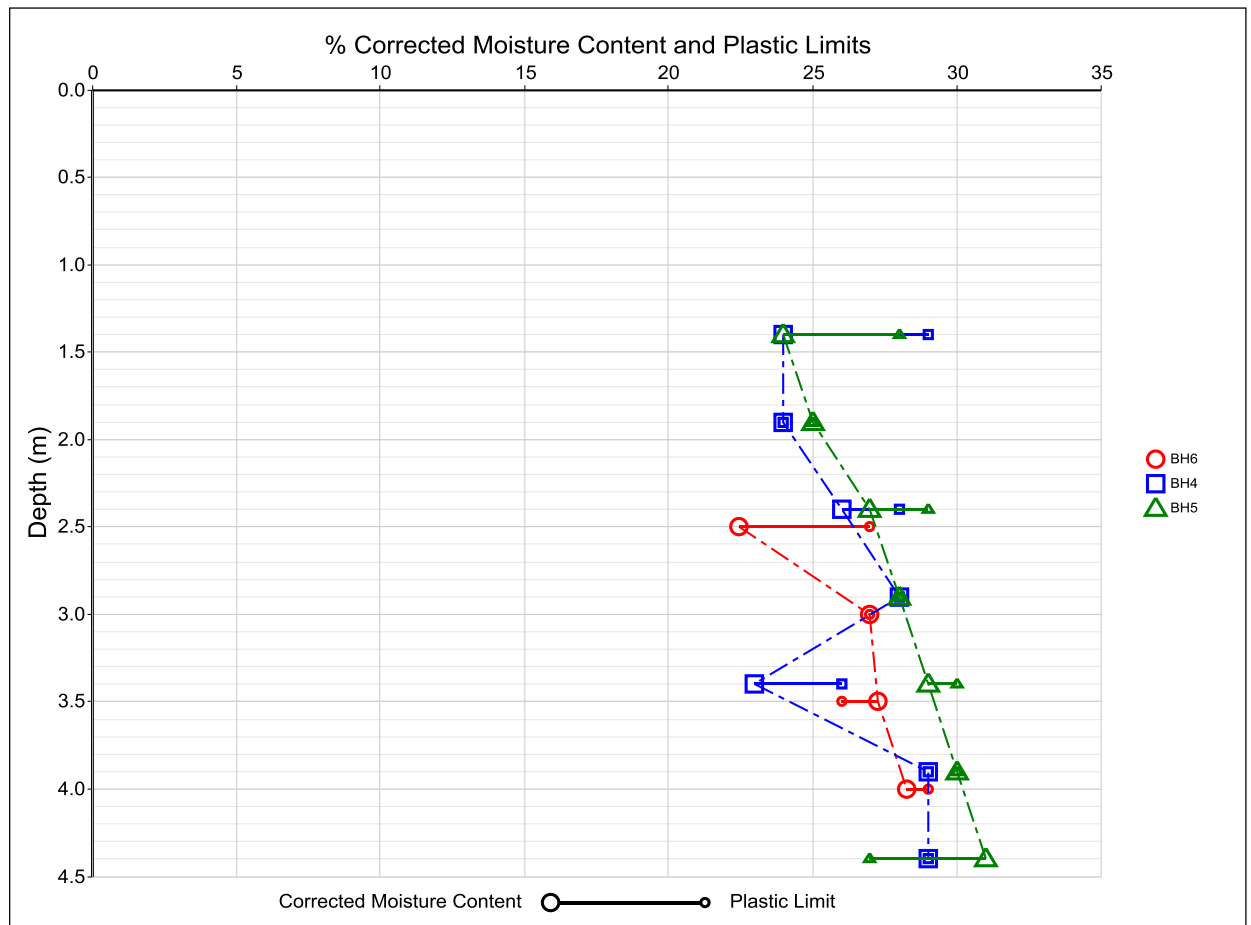
Test Commenced: 11TH November 2015
Test Completed: 18th November 2015
Days in Contact: 7

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.

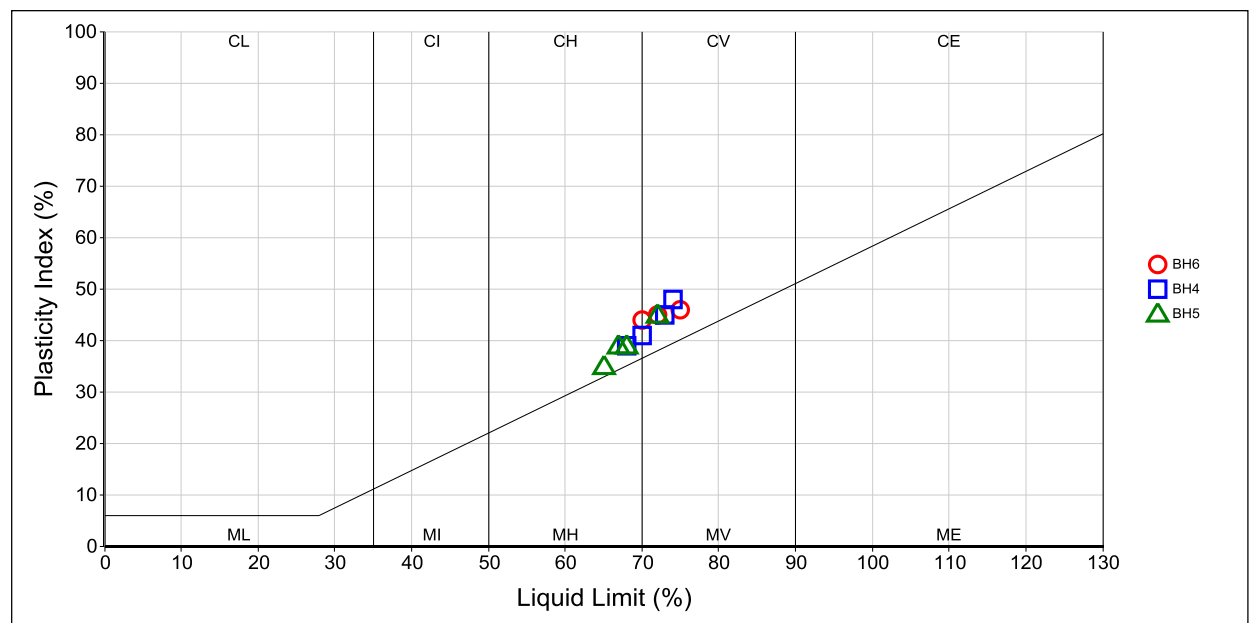
Lab Ref	Depth (m)	MC (%)	Corr MC (%)	LL (%)	PL (%)	PI (%)	% Passing .425mm
Samples from BH6							
001	2.50	22	22	72	27	45	98
002	3.00	27					
003	3.50	27	27	70	26	44	99
004	4.00	28	28	75	29	46	99
Samples from BH4							
005	1.40	24	24	68	29	39	100
006	1.90	24					
007	2.40	26	26	73	28	45	100
008	2.90	28					
009	3.40	23	23	74	26	48	100
010	3.90	29					
011	4.40	29	29	70	29	41	100
Samples from BH5							
012	1.40	24	24	67	28	39	100
013	1.90	25					
014	2.40	27	27	68	29	39	100
015	2.90	28					
016	3.40	29	29	65	30	35	100
017	3.90	30					
018	4.40	31	31	72	27	45	100

Corrected Moisture Content and Plastic Limits Graph



Lab Ref	Depth (m)	Description	BS:5930	NHBC Chapter 4.2
Samples from BH6				
001	2.50	Brown slightly sandy CLAY with rare fine gravel	CV	High
002	3.00	Brown CLAY with rare light grey veinings and fine gravel		
003	3.50	Brown CLAY with rare light grey veinings and fine gravel	CH	High
004	4.00	Brown CLAY with rare light grey veinings and fine gravel	CV	High
Samples from BH4				
005	1.40	Brown slightly sandy CLAY with rare light grey veinings	CH	Medium
006	1.90	Brown slightly sandy CLAY with rare light grey veinings		
007	2.40	Brown CLAY with rare sand and light grey veinings	CV	High
008	2.90	Brown slightly sandy CLAY with rare light grey veinings		
009	3.40	Brown CLAY	CV	High
010	3.90	Brown CLAY with rare sand and light grey veinings		
011	4.40	Brown CLAY with rare sand and light grey veinings	CH	High
Samples from BH5				
012	1.40	Brown slightly sandy CLAY with rare light grey veinings	CH	Medium
013	1.90	Brown slightly sandy CLAY with rare light grey veinings		
014	2.40	Brown CLAY with rare light grey veinings	CH	Medium
015	2.90	Brown slightly sandy CLAY		
016	3.40	Brown slightly sandy CLAY	CH	Medium
017	3.90	Brown slightly sandy CLAY		
018	4.40	Brown CLAY	CV	High

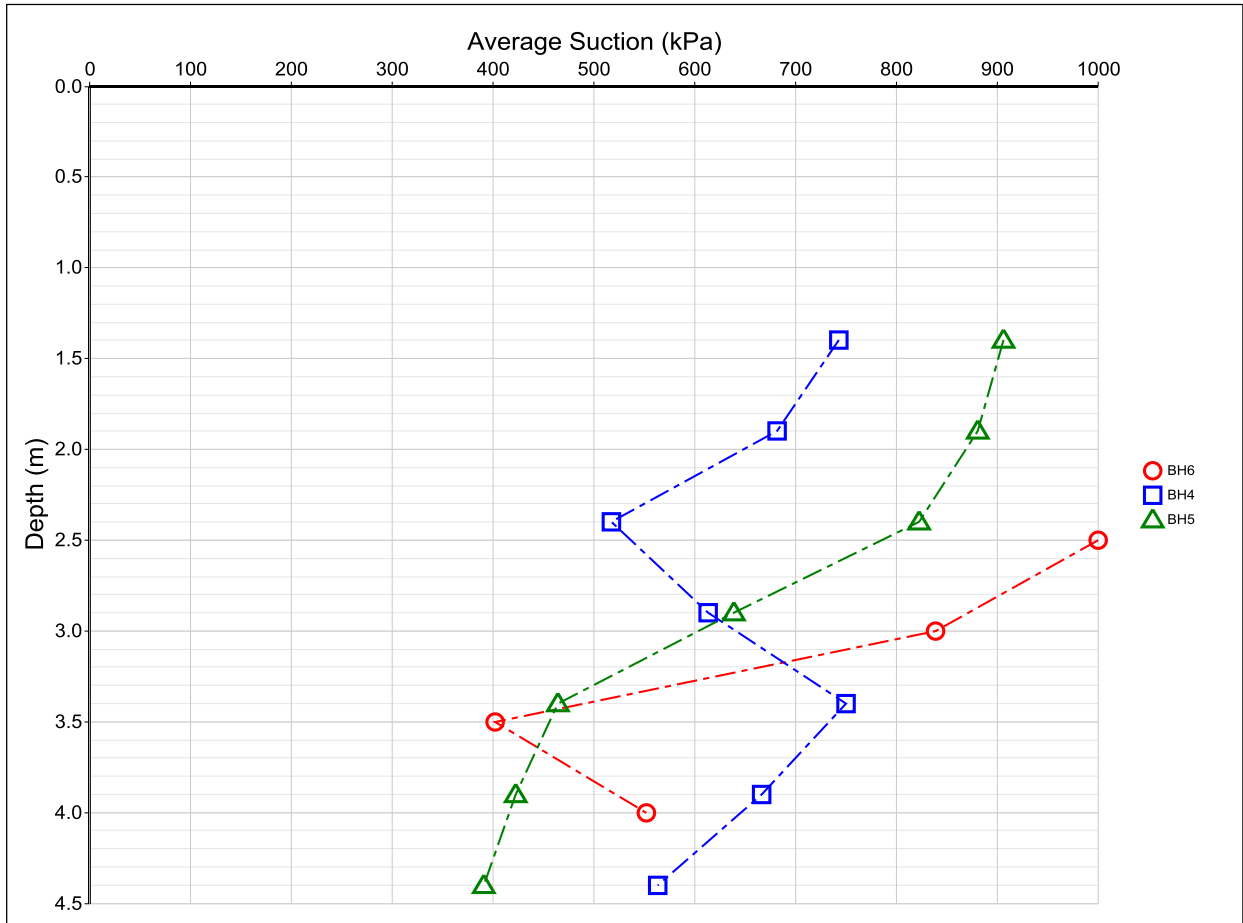
Plasticity Chart for Casagrande Classification



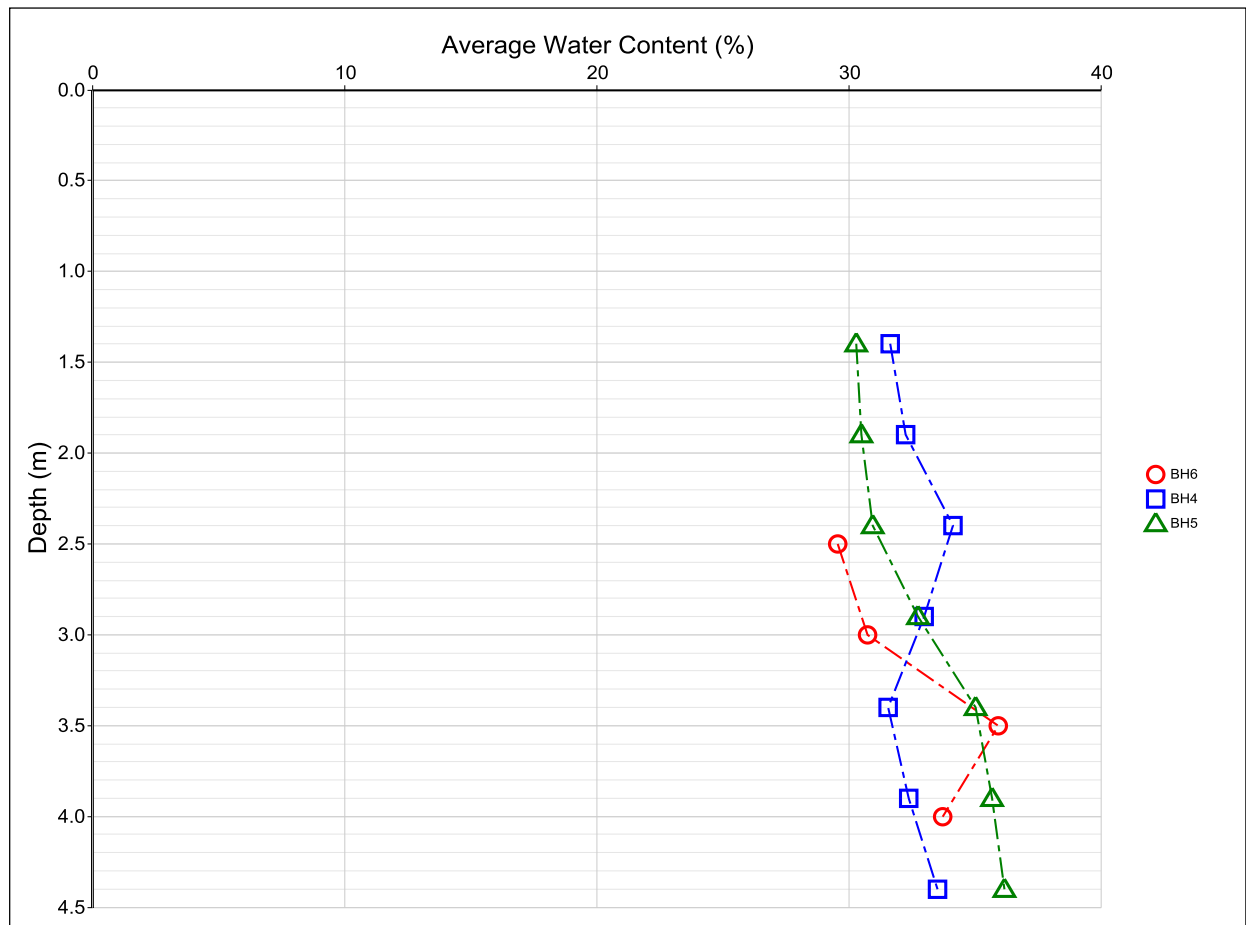
Lab Ref	Depth (m)	Filter Paper	Bag Weight (g)	Bag + Wet Filter (g)	Bag + Dry Filter (g)	Oven Dry Filter (g)	Water Content (%)	Suction (kPa)	Average (kPa)
Samples from BH6									
001	2.50	Top	1.202	1.406	1.358	0.157	30.083	930.779	1007.081
		Middle	1.248	1.365	1.338	0.091	29.724	979.901	
		Bottom	1.199	1.404	1.358	0.159	28.850	1110.564	
002	3.00	Top	1.246	1.377	1.345	0.099	31.420	768.564	845.719
		Middle	1.224	1.353	1.323	0.099	30.444	883.917	
		Bottom	1.200	1.405	1.357	0.158	30.438	884.678	
003	3.50	Top	1.273	1.489	1.433	0.160	34.788	474.444	405.556
		Middle	1.240	1.364	1.330	0.090	37.222	334.794	
		Bottom	1.220	1.454	1.392	0.172	35.851	407.429	
004	4.00	Top	1.258	1.382	1.351	0.093	32.546	654.125	556.737
		Middle	1.219	1.452	1.393	0.174	34.120	522.103	
		Bottom	1.248	1.367	1.336	0.088	34.506	493.983	
Samples from BH4									
005	1.40	Top	1.214	1.318	1.294	0.080	30.402	889.191	748.517
		Middle	1.246	1.373	1.342	0.096	32.258	681.630	
		Bottom	1.251	1.365	1.337	0.086	32.329	674.731	
006	1.90	Top	1.202	1.406	1.357	0.155	31.633	745.432	687.126
		Middle	1.215	1.317	1.292	0.077	31.730	735.231	
		Bottom	1.214	1.316	1.291	0.077	33.377	580.716	
007	2.40	Top	1.275	1.489	1.435	0.160	33.728	552.214	521.188
		Middle	1.249	1.376	1.344	0.095	33.683	555.790	
		Bottom	1.218	1.454	1.393	0.175	35.072	455.559	
008	2.90	Top	1.245	1.374	1.343	0.097	32.682	641.436	617.914
		Middle	1.214	1.316	1.291	0.077	32.083	698.957	
		Bottom	1.216	1.320	1.293	0.077	34.238	513.350	
009	3.40	Top	1.248	1.366	1.338	0.090	32.143	692.970	756.145
		Middle	1.224	1.318	1.296	0.071	31.882	719.347	
		Bottom	1.226	1.353	1.323	0.098	30.667	856.117	
010	3.90	Top	1.224	1.352	1.320	0.097	32.748	635.446	671.256
		Middle	1.212	1.319	1.293	0.081	33.127	601.906	
		Bottom	1.199	1.407	1.357	0.158	31.349	776.417	
011	4.40	Top	1.215	1.318	1.292	0.077	33.896	539.091	567.338
		Middle	1.246	1.375	1.343	0.096	33.402	578.582	
		Bottom	1.251	1.366	1.337	0.086	33.333	584.341	
Samples from BH5									
012	1.40	Top	1.212	1.319	1.295	0.083	28.935	1097.151	913.255
		Middle	1.200	1.406	1.358	0.158	30.492	877.751	
		Bottom	1.214	1.319	1.294	0.080	31.454	764.864	
013	1.90	Top	1.224	1.352	1.322	0.098	30.777	842.684	887.786
		Middle	1.199	1.406	1.360	0.161	28.972	1091.299	
		Bottom	1.247	1.374	1.344	0.097	31.785	729.376	
014	2.40	Top	1.214	1.317	1.293	0.079	30.750	845.999	829.295
		Middle	1.202	1.404	1.357	0.155	29.923	952.364	
		Bottom	1.210	1.332	1.303	0.092	32.178	689.522	
015	2.90	Top	1.225	1.352	1.321	0.095	32.844	626.794	643.561
		Middle	1.247	1.374	1.343	0.097	31.198	793.346	
		Bottom	1.248	1.367	1.336	0.088	34.276	510.542	
016	3.40	Top	1.231	1.455	1.399	0.168	33.690	555.204	468.293
		Middle	1.224	1.354	1.321	0.097	34.265	511.348	
		Bottom	1.195	1.454	1.384	0.189	37.149	338.328	

017	3.90	Top	1.248	1.376	1.343	0.096	34.414	500.536	425.710
		Middle	1.221	1.454	1.390	0.169	37.759	310.005	
		Bottom	1.248	1.368	1.337	0.089	34.905	466.588	
018	4.40	Top	1.265	1.385	1.352	0.087	37.773	309.414	394.496
		Middle	1.258	1.382	1.349	0.091	35.558	424.906	
		Bottom	1.271	1.489	1.432	0.162	35.170	449.168	

Average Suction



Average Water Content



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).