



Gas and Groundwater Monitoring Results

Project Number:		PI6-483																	
Site:		Alloa Phases 8 & 9																	
Date:		09/11/2017																	
Readings taken by:		CK																	
Background Data		Weather Conditions											Dry						
		Ground Conditions (dry/wet):											Damp						
		Air Temperature (°C)											8						
		Atmospheric Pressure (mB) (start):											1005						
		Atmospheric Pressure (mB) (finish):											1004						
		O₂ (%)											20.5						
		CO₂ (%)																	
CH₄ (%)																			
N₂ (%)																			
Borehole No.	Time (hh:mm)	Gas											Groundwater		Sampling				
		O ₂ (%)		CO ₂ (%)		CH ₄ (%)		H ₂ S (%)		CO (ppm)		LEL	Flow (l/hr)		Wd ³ (mbgl)	DoW ⁴ (m)	Pr ⁵	R ⁶	S ⁷
		P ¹	SS ²	P ¹	SS ²	P ¹	SS ²	P ¹	SS ²	P ¹	SS ²		P ¹	SS ²					
BH01	09:00 – 12:00	-	19.5	-	0.8	-	0.0	-	-	-	-	0.0	0.0	0.0	1.10	4.15	-	-	-
BH02		-	20.2	-	0.7	-	0.0	-	-	-	-	0.0	0.0	0.0	1.20	3.60	-	-	-
BH03		-	19.0	-	2.8	-	0.0	-	-	-	-	0.0	-30.6	-2.2	0.95	3.75	-	-	-
BH04		-	19.6	-	1.6	-	0.0	-	-	-	-	0.0	0.0	0.0	1.05	4.20	-	-	-
BH05		-	20.4	-	0.3	-	0.0	-	-	-	-	0.0	0.0	0.0	0.80	4.20	-	-	-
BH06		-	19.6	-	0.8	-	0.0	-	-	-	-	0.0	0.0	0.0	0.75	4.55	-	-	-
BH07		-	20.1	-	0.7	-	0.0	-	-	-	-	0.0	0.0	0.0	1.05	4.30	-	-	-
BH08		-	19.8	-	1.7	-	0.0	-	-	-	-	0.0	0.0	0.0	0.95	3.90	-	-	-
BH09		-	19.9	-	1.8	-	0.0	-	-	-	-	0.0	0.0	0.0	1.80	4.10	-	-	-
BH10		-	20.0	-	1.9	-	0.0	-	-	-	-	0.0	-9.7	0.0	0.95	4.20	-	-	-
Remarks																			
Borehole Damage Record/ Installation Record													Key: 1 – Peak 2 – Steady state 3 – Groundwater depth 4 – Depth of well			5 – Purged well volumes 6 – Recharge (yes/no) 7 – Sampled (yes/no)			
Borehole Condition Statement		We confirm that the boreholes were left sealed correctly by Mason Evans personnel in accordance with good working practices on the above date.																	
Gas Monitor Model:		Serial No:											Recalibration Due:						
GFM 430		10309											25/01/18						



Gas and Groundwater Monitoring Results

Project Number:		PI6-483																	
Site:		Alloa Phases 8 & 9																	
Date:		21/11/2017																	
Readings taken by:		CK																	
Background Data		Weather Conditions											Wet						
		Ground Conditions (dry/wet):											Wet						
		Air Temperature (°C)											9						
		Atmospheric Pressure (mB) (start):											988						
		Atmospheric Pressure (mB) (finish):											988						
		O₂ (%)											20.5						
		CO₂ (%)																	
		CH₄ (%)																	
N₂ (%)																			
Borehole No.	Time (hh:mm)	Gas											Groundwater		Sampling				
		O ₂ (%)		CO ₂ (%)		CH ₄ (%)		H ₂ S (%)		CO (ppm)		LEL	Flow (l/hr)		Wd ³ (mbgl)	DoW ⁴ (m)	Pr ⁵	R ⁶	S ⁷
		P ¹	SS ²	P ¹	SS ²	P ¹	SS ²	P ¹	SS ²	P ¹	SS ²		P ¹	SS ²					
BH01	13:30 – 15:30	-	20.0	-	0.9	-	0.0	-	-	-	-	0.0	0.0	0.0	1.00	4.15	-	-	-
BH02		-	20.2	-	0.8	-	0.0	-	-	-	-	0.0	28.2	0.0	1.05	3.60	-	-	-
BH03		-	18.5	-	4.2	-	0.0	-	-	-	-	0.0	48.6	0.0	1.00	3.75	-	-	-
BH04		-	19.1	-	3.2	-	0.0	-	-	-	-	0.0	65.4	0.0	0.95	4.20	-	-	-
BH05		-	19.8	-	2.1	-	0.0	-	-	-	-	0.0	0.0	0.0	0.70	4.20	-	-	-
BH06		-	19.9	-	1.1	-	0.0	-	-	-	-	0.0	0.0	0.0	0.60	4.55	-	-	-
BH07		-	19.9	-	1.4	-	0.0	-	-	-	-	0.0	0.0	0.0	0.90	4.30	-	-	-
BH08		-	20.2	-	0.8	-	0.0	-	-	-	-	0.0	0.0	0.0	0.75	3.90	-	-	-
BH09		-	19.7	-	1.6	-	0.0	-	-	-	-	0.0	0.0	0.0	1.85	4.10	-	-	-
BH10		-	19.5	-	2.0	-	0.0	-	-	-	-	0.0	0.0	0.0	1.00	4.20	-	-	-
Remarks																			
Borehole Damage Record/ Installation Record													Key: 1 – Peak 2 – Steady state 3 – Groundwater depth 4 – Depth of well			5 – Purged well volumes 6 – Recharge (yes/no) 7 – Sampled (yes/no)			
Borehole Condition Statement		We confirm that the boreholes were left sealed correctly by Mason Evans personnel in accordance with good working practices on the above date.																	
Gas Monitor Model:		Serial No:											Recalibration Due:						
GFM 430		10309											25/01/18						



Gas and Groundwater Monitoring Results

Project Number:		PI6-483																	
Site:		Alloa Phases 8 & 9																	
Date:		28/11/2017																	
Readings taken by:		CK																	
Background Data		Weather Conditions											Dry						
		Ground Conditions (dry/wet):											Damp						
		Air Temperature (°C)											5						
		Atmospheric Pressure (mB) (start):											999						
		Atmospheric Pressure (mB) (finish):											1001						
		O₂ (%)											20.5						
		CO₂ (%)																	
CH₄ (%)																			
N₂ (%)																			
Borehole No.	Time (hh:mm)	Gas											Groundwater		Sampling				
		O ₂ (%)		CO ₂ (%)		CH ₄ (%)		H ₂ S (%)		CO (ppm)		LEL	Flow (l/hr)		Wd ³ (mbgl)	DoW ⁴ (m)	Pr ⁵	R ⁶	S ⁷
		P ¹	SS ²	P ¹	SS ²	P ¹	SS ²	P ¹	SS ²	P ¹	SS ²		P ¹	SS ²					
BH01	12:30 – 14:30	-	19.8	-	2.2	-	0.0	-	-	-	-	0.0	0.0	0.0	1.04	4.15	-	-	-
BH02		-	19.8	-	1.7	-	0.0	-	-	-	-	0.0	26.5	0.0	1.07	3.60	-	-	-
BH03		-	18.4	-	4.6	-	0.0	-	-	-	-	0.0	48.3	0.0	0.87	3.75	-	-	-
BH04		-	18.2	-	4.9	-	0.0	-	-	-	-	0.0	50.2	0.0	0.90	4.20	-	-	-
BH05		-	20.0	-	1.7	-	0.0	-	-	-	-	0.0	0.0	0.0	0.73	4.20	-	-	-
BH06		-	16.5	-	4.8	-	0.0	-	-	-	-	0.0	0.0	0.0	0.46	4.55	-	-	-
BH07		-	19.6	-	2.3	-	0.0	-	-	-	-	0.0	0.0	0.0	0.82	4.30	-	-	-
BH08		-	19.8	-	2.0	-	0.0	-	-	-	-	0.0	0.0	0.0	0.78	3.90	-	-	-
BH09		-	18.6	-	1.3	-	0.0	-	-	-	-	0.0	0.0	0.0	1.90	4.10	-	-	-
BH10		-	18.8	-	3.6	-	0.0	-	-	-	-	0.0	0.0	0.0	0.66	4.20	-	-	-
Remarks		BH09 in active site.																	
Borehole Damage Record/ Installation Record		All boreholes OK											Key: 1 – Peak 2 – Steady state 3 – Groundwater depth 4 – Depth of well			5 – Purged well volumes 6 – Recharge (yes/no) 7 – Sampled (yes/no)			
Borehole Condition Statement		We confirm that the boreholes were left sealed correctly by Mason Evans personnel in accordance with good working practices on the above date.																	
Gas Monitor Model:		Serial No:											Recalibration Due:						
GFM 430		10309											25/01/18						

Appendix I I

**Geotechnical Analysis Results
(MATTest Ltd, August – September 2017)
(Ref: 17/968-01 & 17-1065-01)**

LABORATORY TEST CERTIFICATE

10 Queenslie Point
Queenslie Industrial Estate
120 Stepps Road
Glasgow
G33 3NQ

Certificate No : 17/968 - 01
To : Hugh O'Leary
Client : Mason Evans Partnership
The Piazza
95 Morrison Street
Glasgow
G5 8BE

Tel: 0141 774 4032
Fax: 0141 774 3552

email: info@mattest.org
Website: www.mattest.org

Dear Sirs,

LABORATORY TESTING OF SOIL

Introduction

We refer to samples taken from Alloa Phases 8&9 and delivered to our laboratory on 25th August 2017.

Material & Source

Sample Reference : See Report Plates
Sampled By : Client
Sampling Certificate : Not Supplied
Location : See Report Plates
Description : See Page 2
Date Sampled : Not Supplied
Date Tested : 25th August 2017 Onwards
Source : P16/483 - Alloa Phases 8&9

Test Results;

As Detailed On Page 2 to Page 11 inclusive

Comments;

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
All remaining samples for this project will be disposed of 28 days after issue of this test certificate

Remarks;

Approved for Issue

T McLelland (Director)

Date 08/09/2017



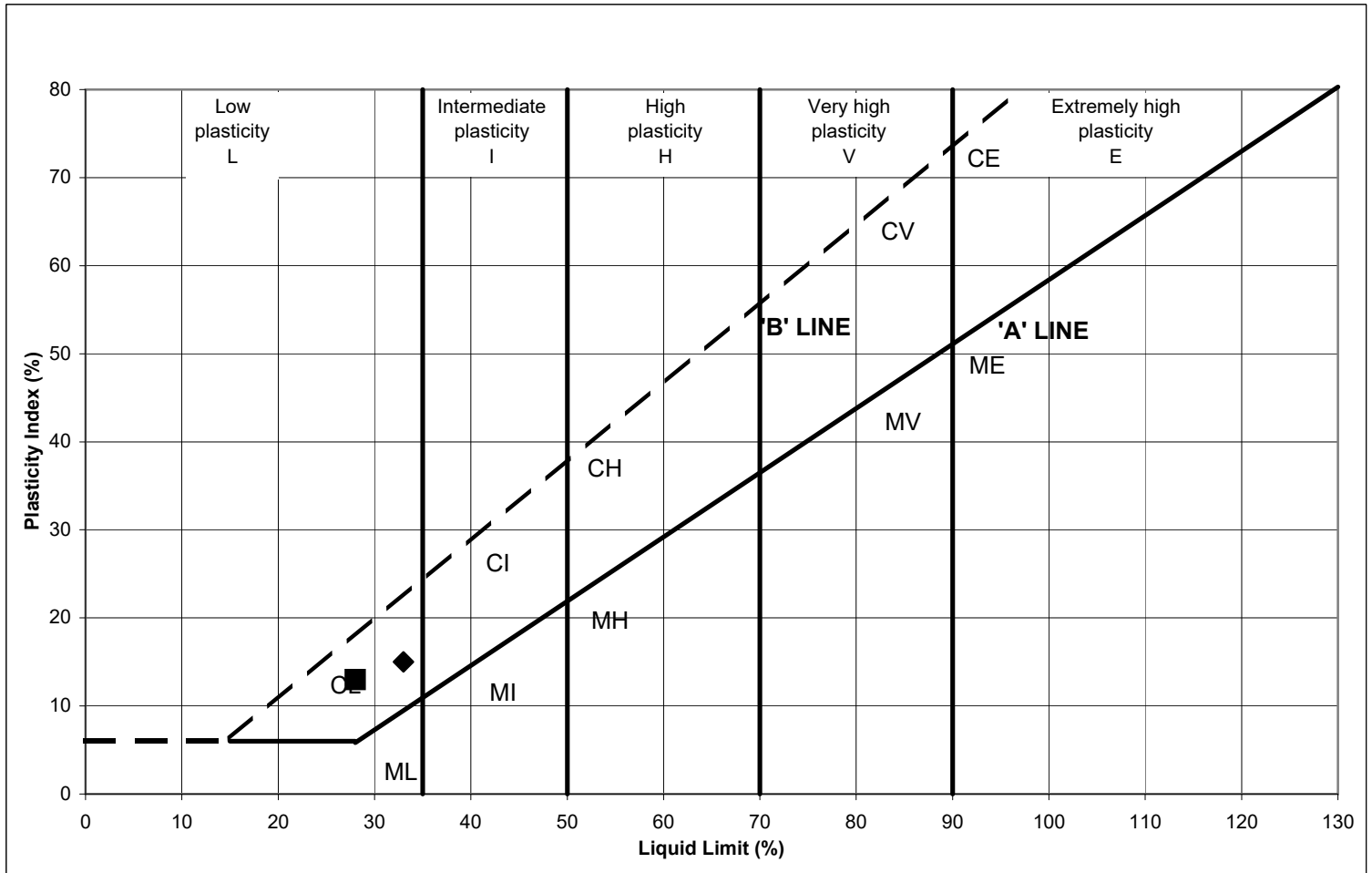
BOREHOLE	SAMPLE	DEPTH (m)	SAMPLE DESCRIPTION
BH01	U	6.50-6.70	Brown / grey gravelly sandy CLAY. Gravel is fine to coarse.
BH02	U	5.50-5.85	Brown / grey slightly gravelly slightly sandy CLAY. Gravel is fine to coarse.
BH03	U(B)	5.45-6.00	Grey slightly silty slightly gravelly sandy CLAY. Gravel is fine to medium.
BH04	U	5.45-5.95	Brown slightly gravelly sandy CLAY. Gravel is fine to coarse.
BH07	U	5.60-5.80	Brown / grey slightly gravelly sandy CLAY. Gravel is fine to medium.

SUMMARY OF SAMPLE DESCRIPTIONS

BOREHOLE	SAMPLE	DEPTH (m)	MOISTURE CONTENT (%)
BH01	U	6.50	9.0
BH03	U(B)	5.45-6.00	13

Tested in accordance with BS 1377: Part 2: 1990: Clause 3

SUMMARY OF MOISTURE CONTENT TEST RESULTS



Symbol	Borehole	Sample	Depth	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	% Passing 0.425mm Sieve	Remarks
■	BH01	U	6.60	9.0	28	15	13	70	Clay with low plasticity
◆	BH03	U(B)	5.45-6.00	13	33	18	15	69	Clay with low plasticity
▲									
●									
□									
◇									
△									
○									
×									
*									

All samples were tested in accordance with BS 1377 : Part 2 : 1990 Clause 4.3, 5.3 and 5.4.
All samples were washed on a 0.425mm test sieve prior to test.

SUMMARY OF ATTERBERG LIMITS TEST RESULTS

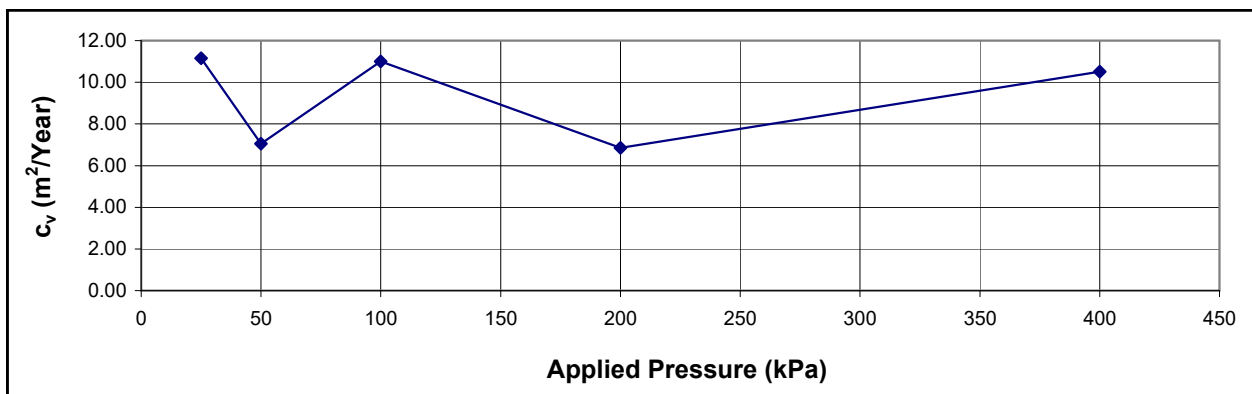
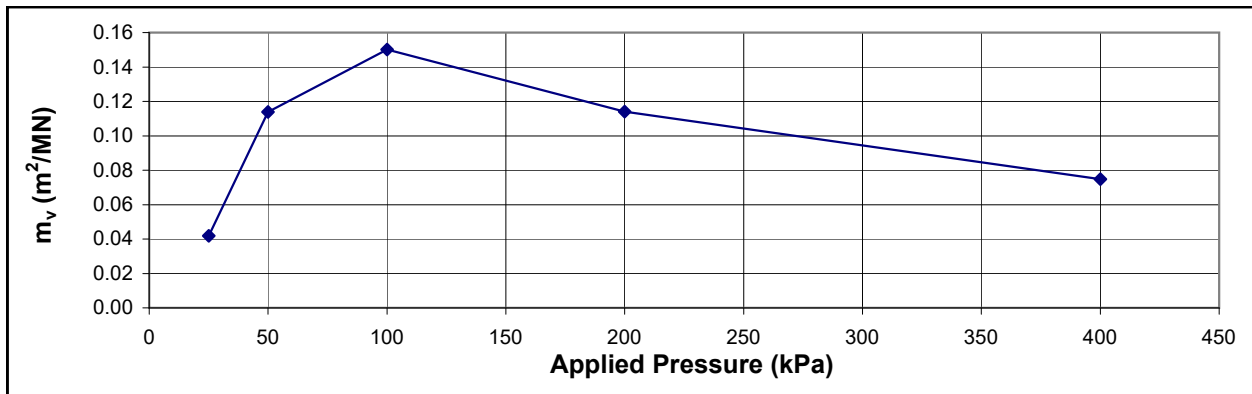
BOREHOLE	SAMPLE	DEPTH (m)	MOISTURE CONTENT (%)	BULK DENSITY (Mg/m ³)	DRY DENSITY (Mg/m ³)
BH02	U	5.60	10	2.22	2.01

SAMPLE DIAMETER (mm)	SAMPLE HEIGHT (mm)	PARTICLE DENSITY (Mg/m ³)	INITIAL VOIDS RATIO	DEGREE OF SATURATION (%)	SWELLING PRESSURE (kPa)
49.76	20.06	2.65	0.317	86	

The value detailed for Particle Density is an assumed value

PRESSURE (kPa)	SAMPLE HEIGHT (mm)	VOIDS RATIO	m_v (m ² /MN)	c_v (m ² /Year)	c_{sec}
0	20.06	0.317			
25	20.04	0.316	0.04	11.16	
50	19.98	0.312	0.11	7.06	
100	19.83	0.302	0.15	11.00	
200	19.61	0.287	0.11	6.85	
400	19.31	0.268	0.07	10.51	

m_v indicates values of coefficient of volume compressibility, c_v indicates values of coefficient of consolidation

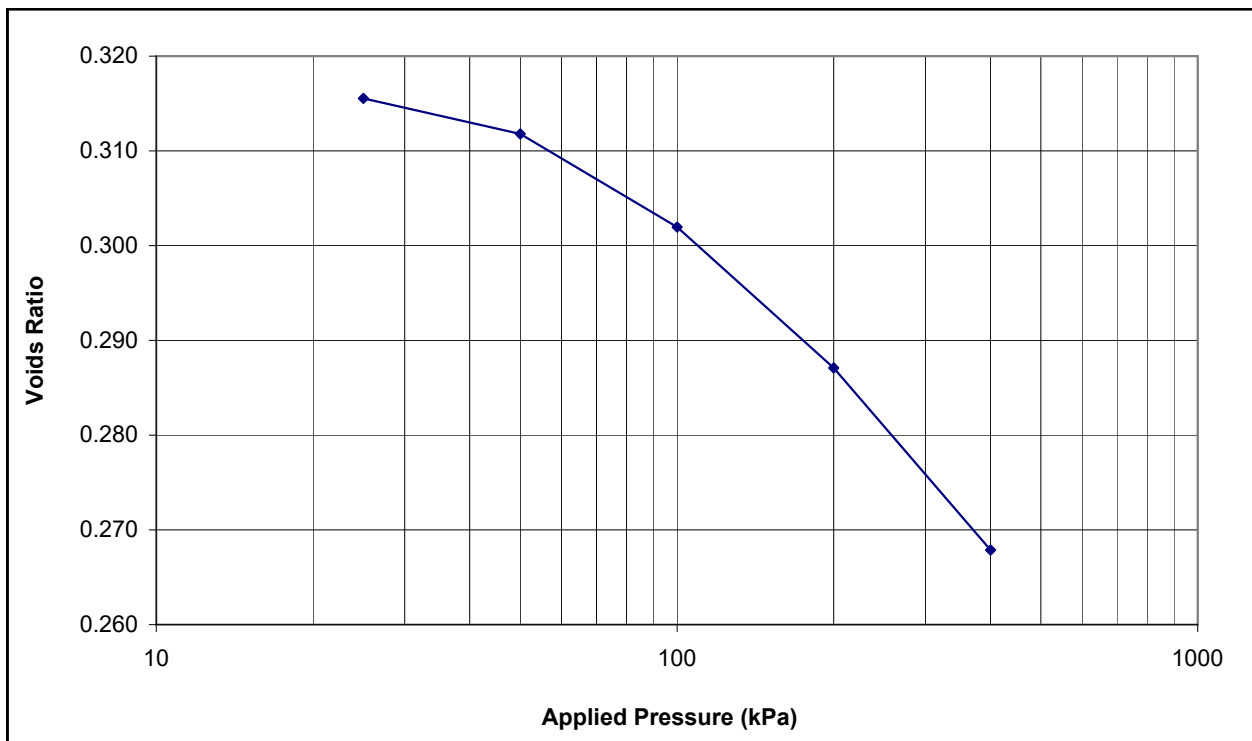
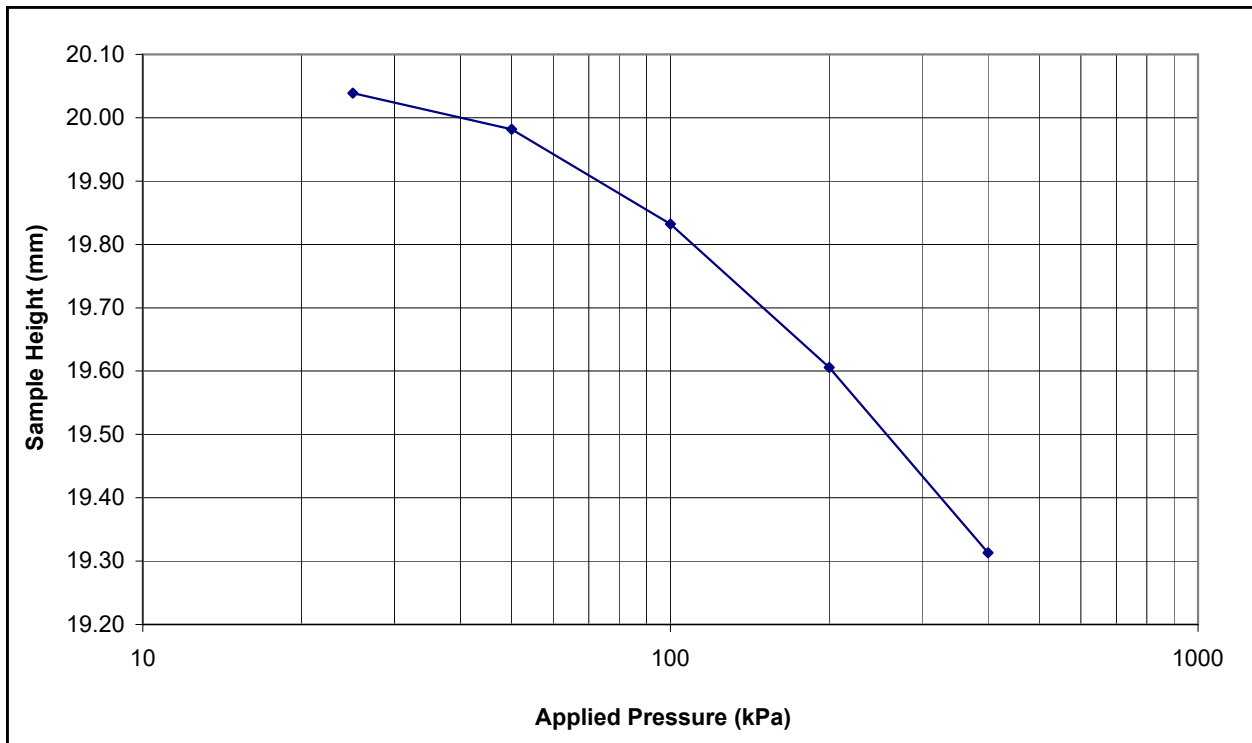


Tested in a temperature controlled room at 20 +/- 2°C

Tested in accordance with BS 1377: Part 5: 1990: Clause 3

ONE DIMENSIONAL CONSOLIDATION TEST RESULTS

BOREHOLE	SAMPLE	DEPTH (m)	MOISTURE CONTENT (%)	BULK DENSITY (Mg/m ³)	DRY DENSITY (Mg/m ³)
BH02	U	5.60	10	2.22	2.01



Sample was extruded directly from an undisturbed sample and vertical axis was maintained during testing

Tested in a temperature controlled room at 20 +/- 2°C
 Tested in accordance with BS 1377: Part 5: 1990: Clause 3
ONE DIMENSIONAL CONSOLIDATION TEST RESULTS

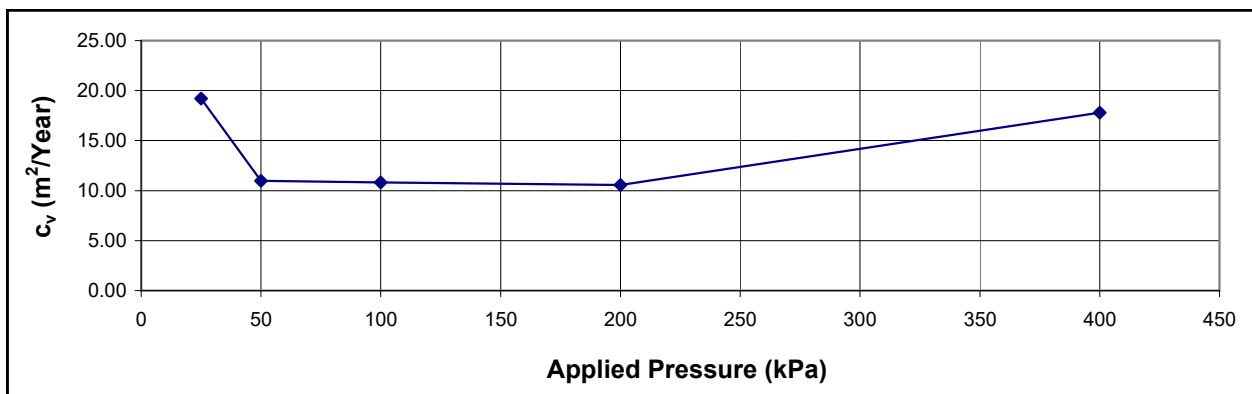
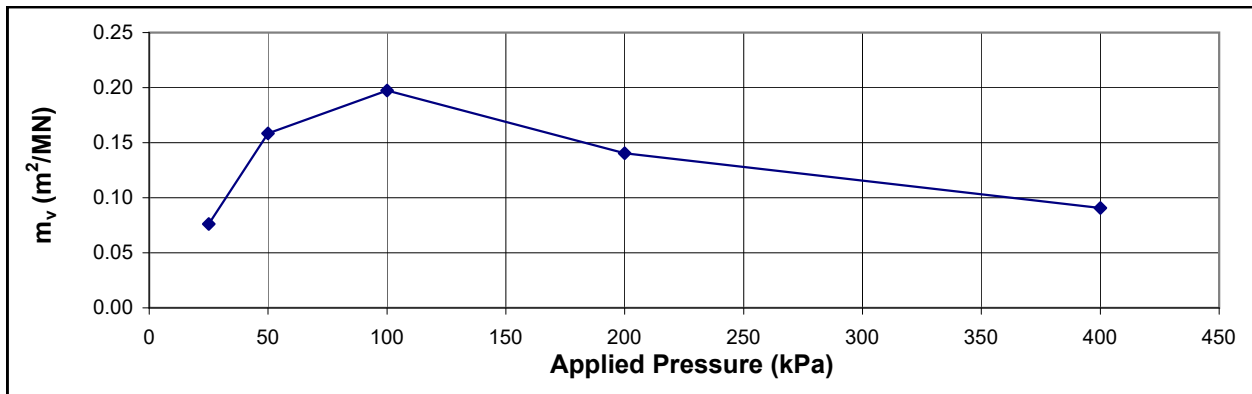
BOREHOLE	SAMPLE	DEPTH (m)	MOISTURE CONTENT (%)	BULK DENSITY (Mg/m ³)	DRY DENSITY (Mg/m ³)
BH04	U	5.65	10	2.18	1.97

SAMPLE DIAMETER (mm)	SAMPLE HEIGHT (mm)	PARTICLE DENSITY (Mg/m ³)	INITIAL VOIDS RATIO	DEGREE OF SATURATION (%)	SWELLING PRESSURE (kPa)
49.96	19.97	2.65	0.342	80	

The value detailed for Particle Density is an assumed value

PRESSURE (kPa)	SAMPLE HEIGHT (mm)	VOIDS RATIO	m _v (m ² /MN)	C _v (m ² /Year)	C _{sec}
0	19.97	0.342			
25	19.93	0.340	0.08	19.21	
50	19.85	0.335	0.16	10.98	
100	19.66	0.321	0.20	10.83	
200	19.38	0.303	0.14	10.57	
400	19.03	0.279	0.09	17.80	

m_v indicates values of coefficient of volume compressibility, c_v indicates values of coefficient of consolidation

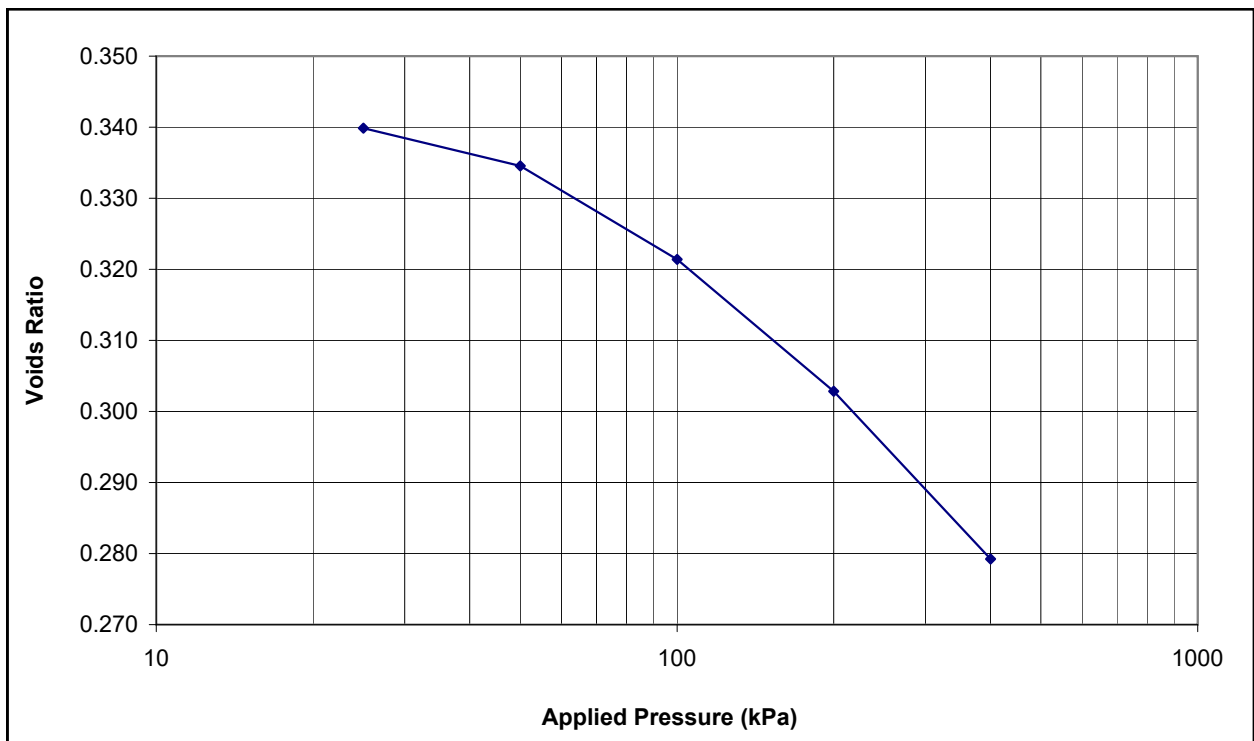
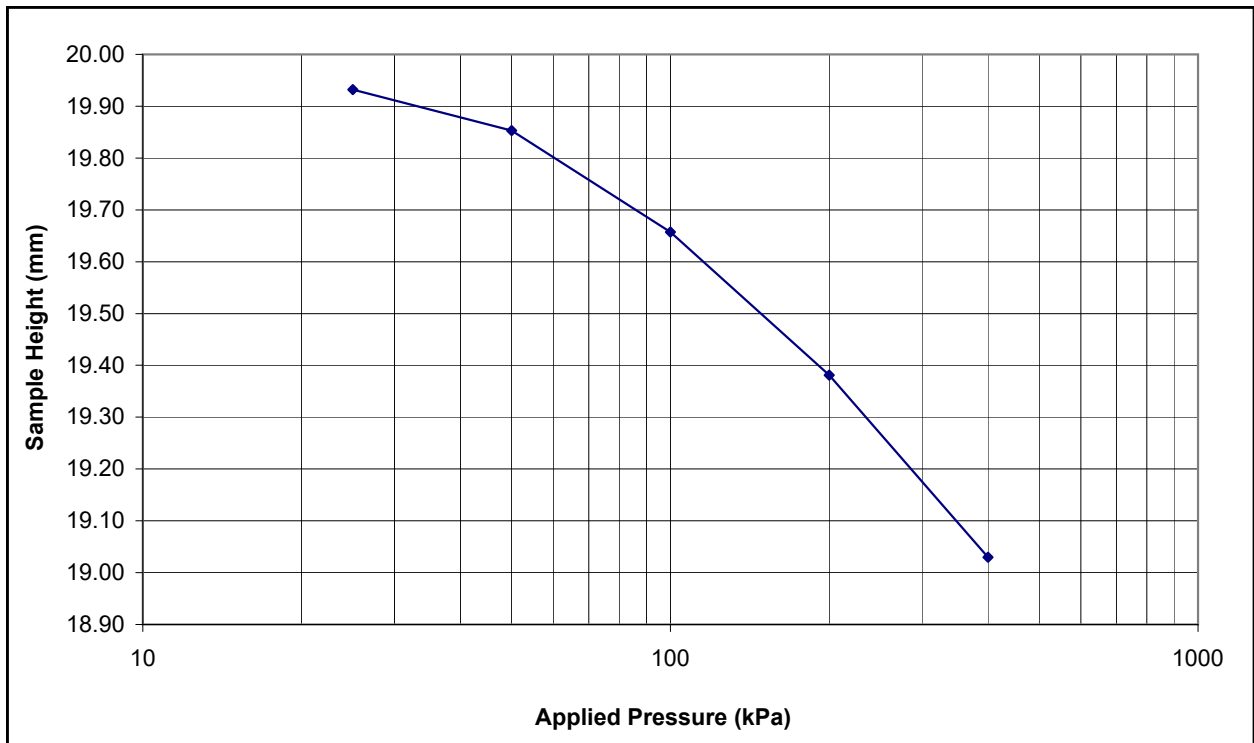


Tested in a temperature controlled room at 20 +/- 2°C

Tested in accordance with BS 1377: Part 5: 1990: Clause 3

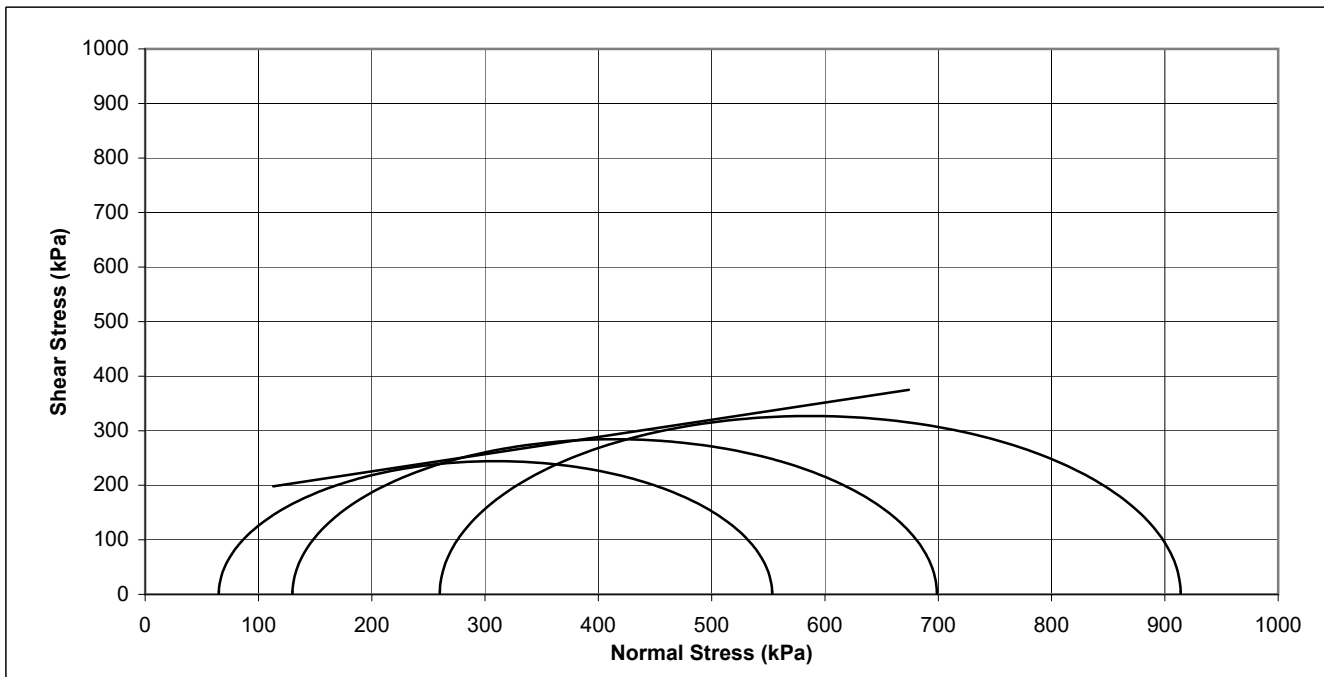
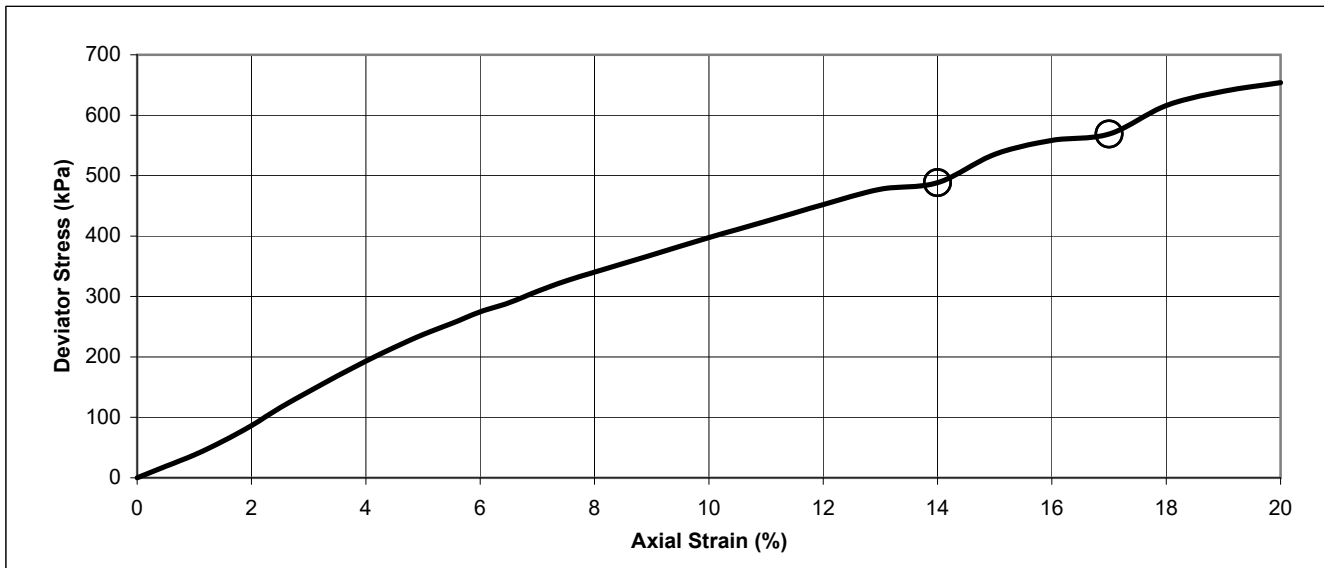
ONE DIMENSIONAL CONSOLIDATION TEST RESULTS

BOREHOLE	SAMPLE	DEPTH (m)	MOISTURE CONTENT (%)	BULK DENSITY (Mg/m ³)	DRY DENSITY (Mg/m ³)
BH04	U	5.65	10	2.18	1.97



Sample was extruded directly from an undisturbed sample and vertical axis was maintained during testing

Tested in a temperature controlled room at 20 +/- 2°C
 Tested in accordance with BS 1377: Part 5: 1990: Clause 3
ONE DIMENSIONAL CONSOLIDATION TEST RESULTS



Failure Conditions				
Cell pressure	kPa	65	130	260
Membrane correction	kPa	1.0	1.1	1.2
Strain at failure	%	14.0	17.0	20.0
Failure Type		Intermediate	Intermediate	Intermediate
Corrected deviator stress	kPa	488	569	654
Undrained shear stress	kPa	244	284	327

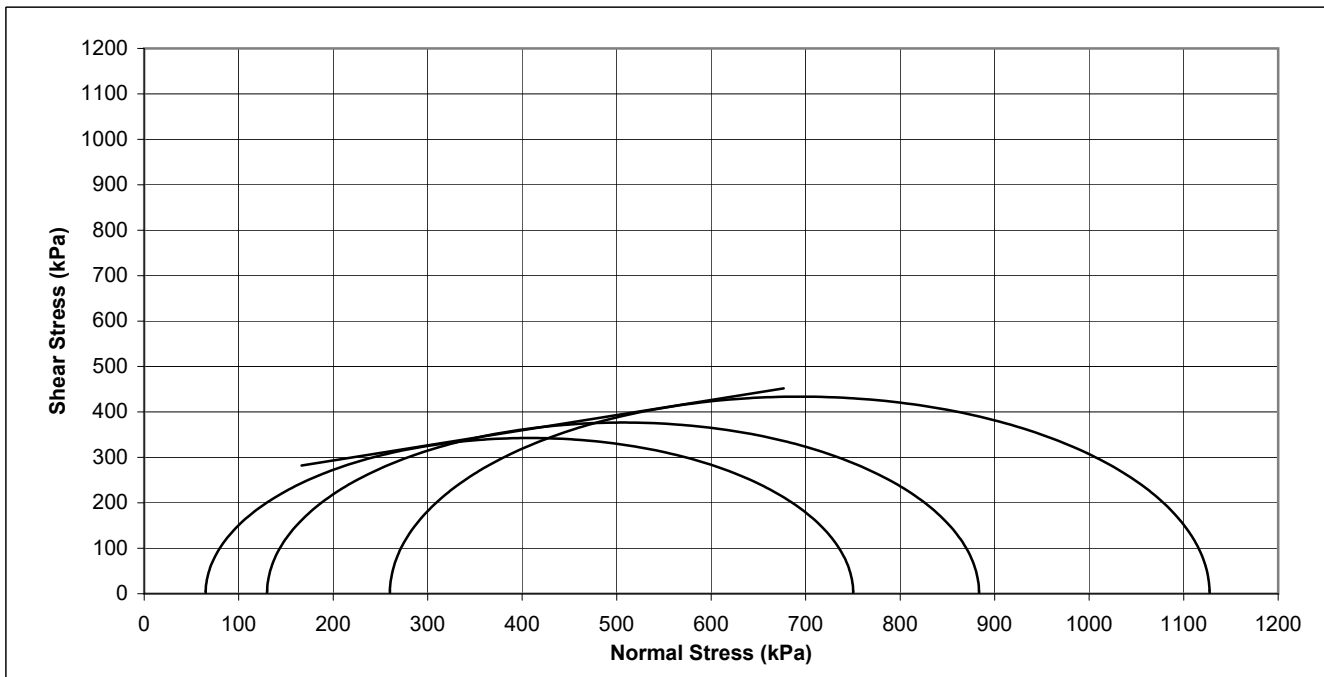
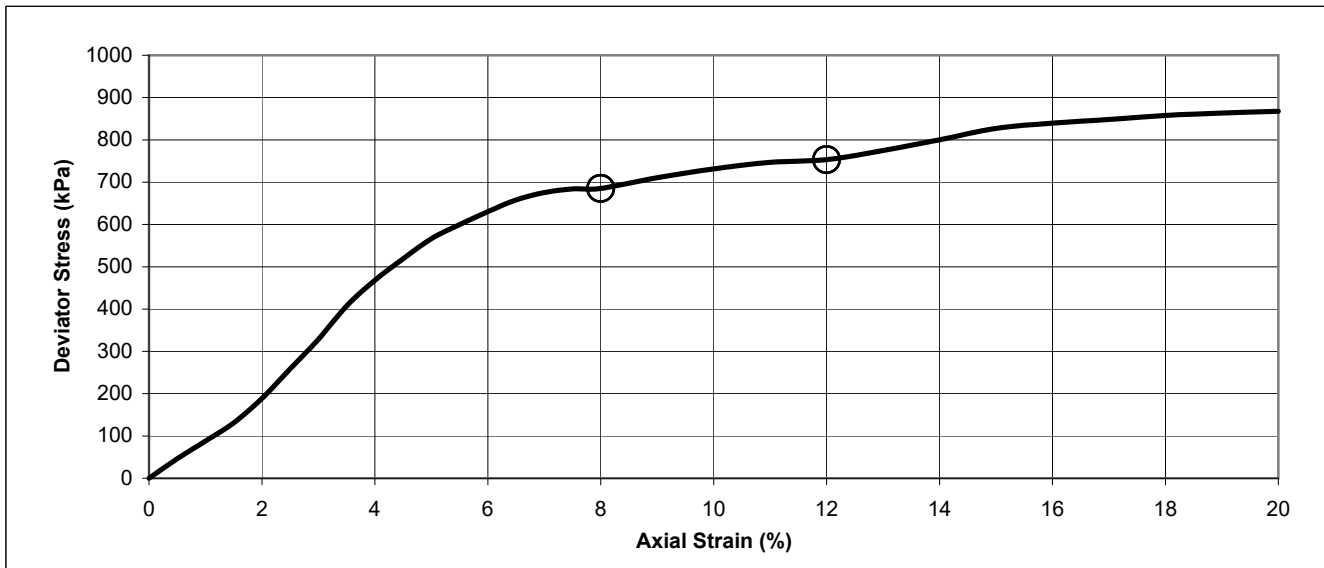
Cohesion	kPa	162.3	Friction Angle	°	17.5
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Initial Conditions					Borehole	BH02	
Sample length	mm	121.66	Rate of strain	%/min			2.0
Sample diameter	mm	61.40	Bulk Density	Mg/m ³			2.25
Membrane type	Latex		Dry Density	Mg/m ³			2.04
Membrane thickness	mm	0.20	Moisture Content	%	10	Depth (m)	5.65

Undisturbed sample, taken directly from the sample tube and retaining axial orientation

DETERMINATION OF MULTI STAGE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

Tested in accordance with BS 1377 : Part 7 : 9.0 : 1990



Failure Conditions			
Cell pressure	kPa	65	130
Membrane correction	kPa	0.6	0.8
Strain at failure	%	8.0	12.0
Failure Type		Intermediate	Intermediate
Corrected deviator stress	kPa	685	753
Undrained shear stress	kPa	343	377

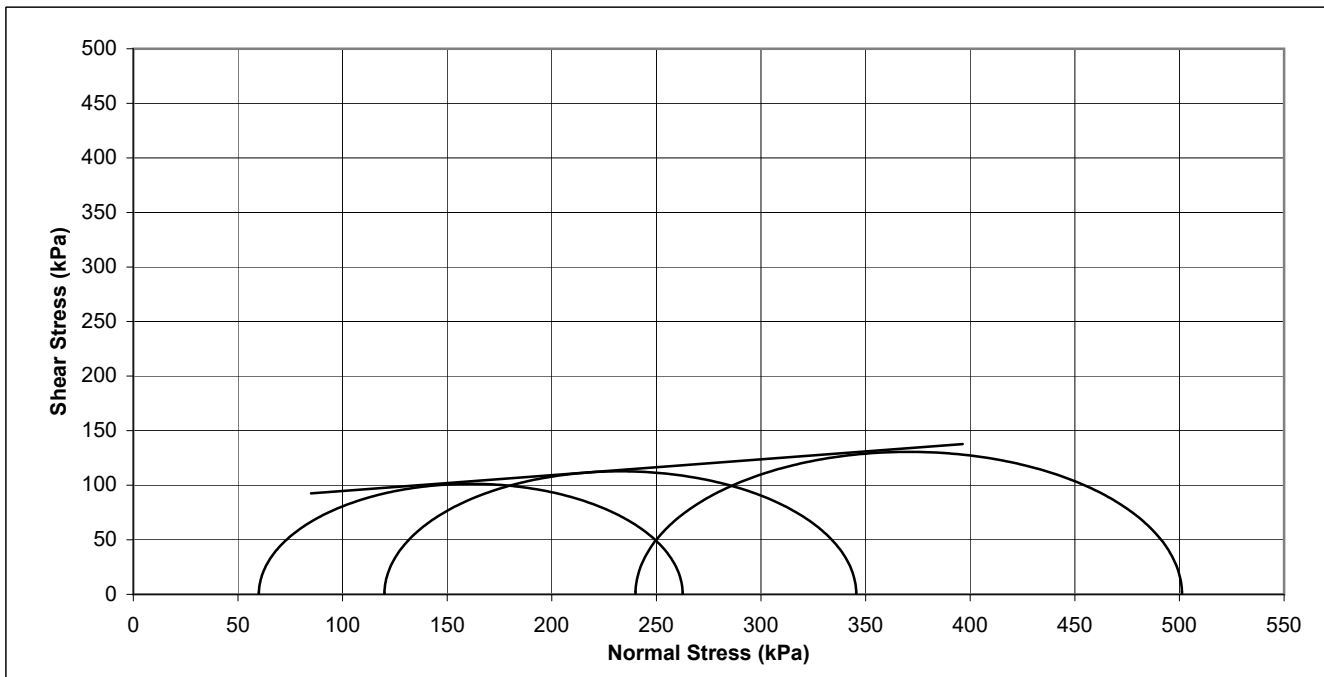
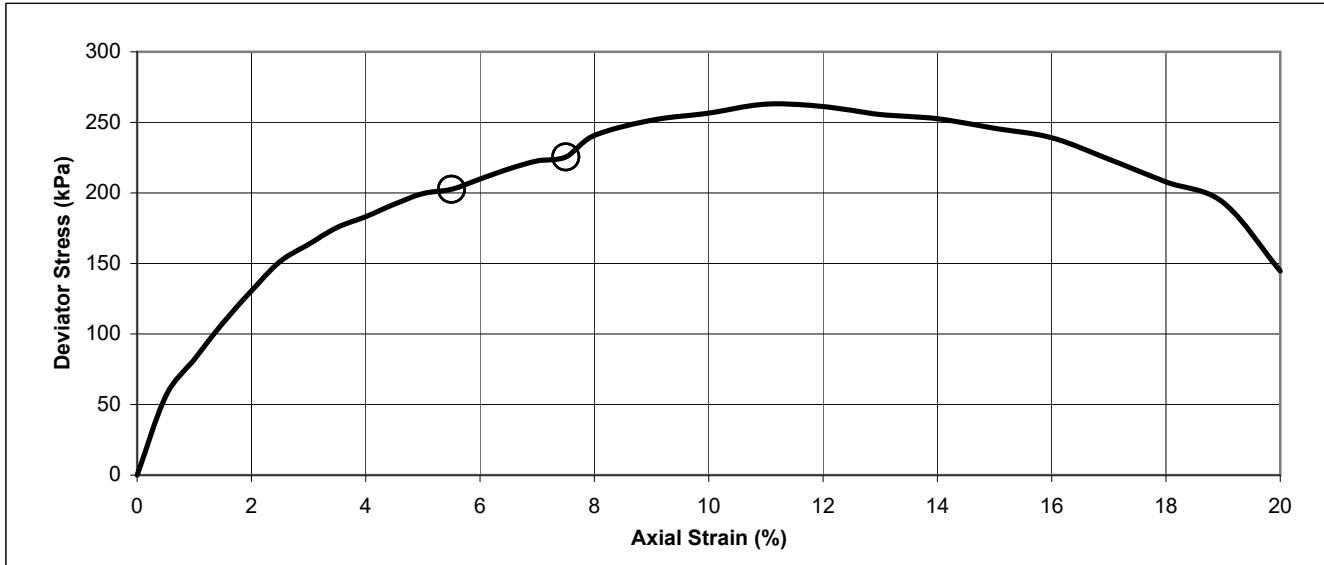
Cohesion	kPa	226.5	Friction Angle	°	18.4
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Initial Conditions					Borehole	BH04	
Sample length	mm	121.68	Rate of strain	%/min			2.0
Sample diameter	mm	64.58	Bulk Density	Mg/m ³			2.27
Membrane type	Latex		Dry Density	Mg/m ³			2.05
Membrane thickness	mm	0.20	Moisture Content	%	11	Depth (m)	5.75

Undisturbed sample, taken directly from the sample tube and retaining axial orientation

DETERMINATION OF MULTI STAGE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

Tested in accordance with BS 1377 : Part 7 : 9.0 : 1990



Failure Conditions			
Cell pressure	kPa	60	120
Membrane correction	kPa	0.4	0.6
Strain at failure	%	5.5	7.5
Failure Type		Intermediate	Intermediate
Corrected deviator stress	kPa	203	226
Undrained shear stress	kPa	101	113

Cohesion	kPa	80.2	Friction Angle	°	8.3
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Initial Conditions					Borehole	BH07	
Sample length	mm	125.51	Rate of strain	%/min			2.0
Sample diameter	mm	61.16	Bulk Density	Mg/m ³			2.16
Membrane type	Latex		Dry Density	Mg/m ³			1.84
Membrane thickness	mm	0.20	Moisture Content	%	17	Depth (m)	5.60

Undisturbed sample, taken directly from the sample tube and retaining axial orientation

DETERMINATION OF MULTI STAGE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

Tested in accordance with BS 1377 : Part 7 : 9.0 : 1990

LABORATORY TEST CERTIFICATE

10 Queenslie Point
Queenslie Industrial Estate
120 Stepps Road
Glasgow
G33 3NQ

Certificate No : 17/1065 - 01
To : Hugh O'Leary
Client : Mason Evans Partnership
The Piazza
95 Morrison Street
Glasgow
G5 8BE

Tel: 0141 774 4032
Fax: 0141 774 3552

email: info@mattest.org
Website: www.mattest.org

Dear Sirs,

LABORATORY TESTING OF SOIL

Introduction

We refer to samples taken from Alloa Phases 8 & 9 and delivered to our laboratory on 12th September 2017.

Material & Source

Sample Reference : See Report Plates
Sampled By : Client
Sampling Certificate : Not Supplied
Location : See Report Plates
Description : See Page 2
Date Sampled : Not Supplied
Date Tested : 12th September 2017 Onwards
Source : P16/483 - Alloa Phases 8 & 9

Test Results;

As Detailed On Page 2 to Page 8 inclusive

Comments;

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
All remaining samples for this project will be disposed of 28 days after issue of this test certificate

Remarks;

Approved for Issue

T McLelland (Director)

Date 20/09/2017



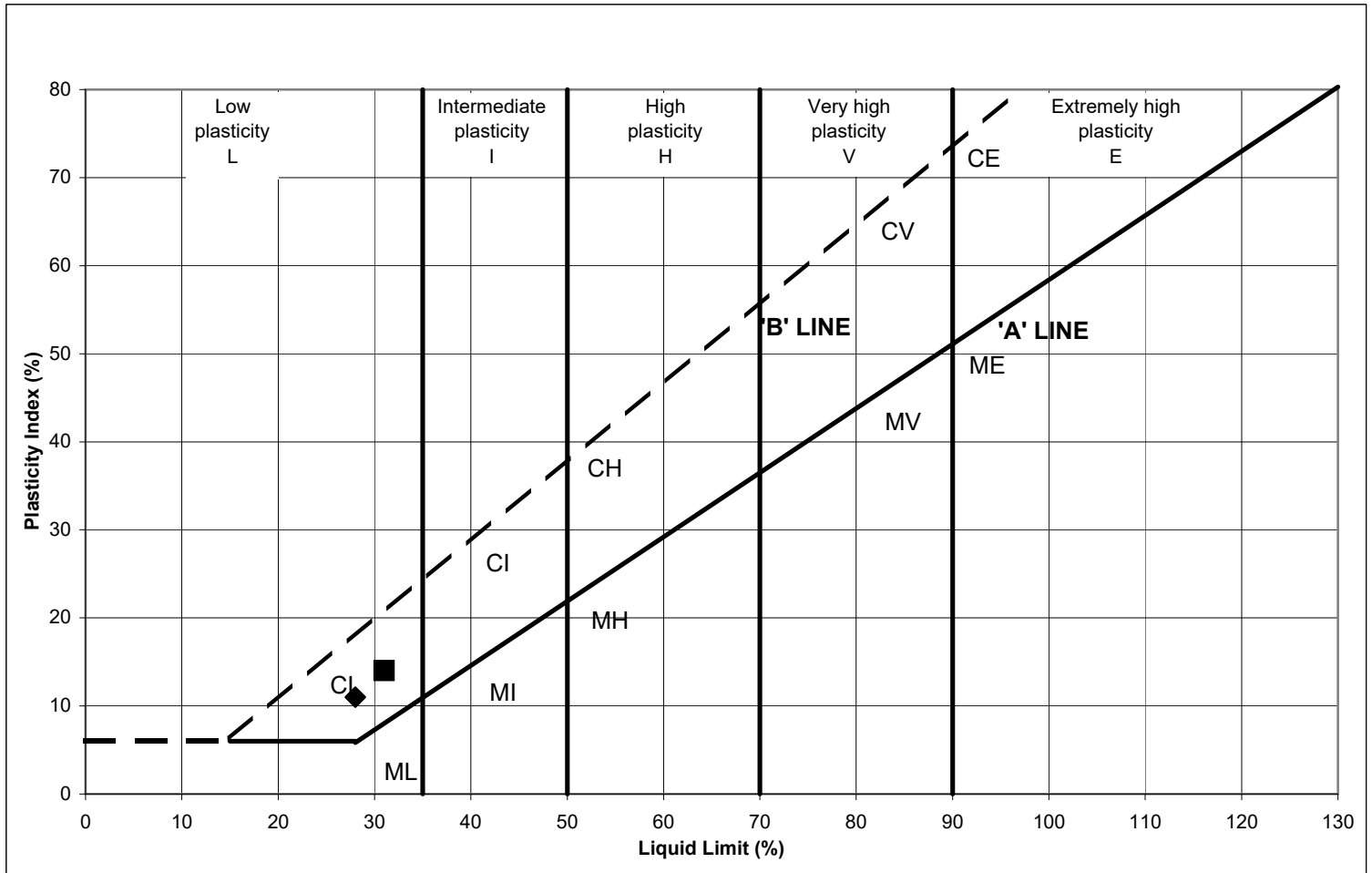
BOREHOLE	SAMPLE	DEPTH (m)	SAMPLE DESCRIPTION
BH11	U	8.70-9.20	Grey slightly sandy gravelly very silty CLAY. Gravel is fine to coarse.
BH11	U	12.20-12.70	Grey slightly silty slightly sandy CLAY. Gravel is fine to coarse.

SUMMARY OF SAMPLE DESCRIPTIONS

BOREHOLE	SAMPLE	DEPTH (m)	MOISTURE CONTENT (%)
BH11	U	8.70-9.20	18
BH11	U	12.20-12.70	14

Tested in accordance with BS 1377: Part 2: 1990: Clause 3

SUMMARY OF MOISTURE CONTENT TEST RESULTS



Symbol	Borehole	Sample	Depth	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	% Passing 0.425mm Sieve	Remarks
■	BH11	U	8.70-9.20	18	31	17	14	70	Clay with low plasticity
◆	BH11	U	12.20-12.70	14	28	17	11	72	Clay with low plasticity
▲									
●									
□									
◇									
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All samples were tested in accordance with BS 1377 : Part 2 : 1990 Clause 4.3, 5.3 and 5.4.
All samples were washed on a 0.425mm test sieve prior to test.

SUMMARY OF ATTERBERG LIMITS TEST RESULTS

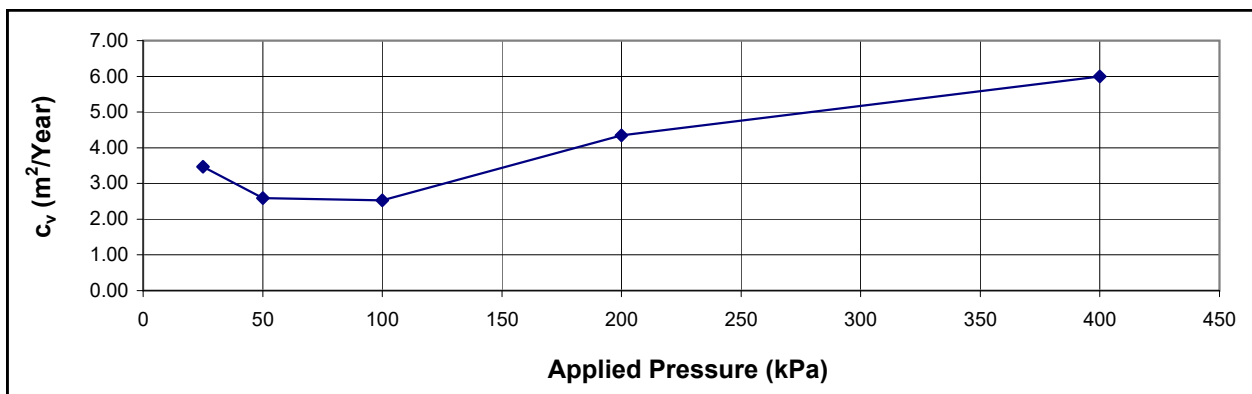
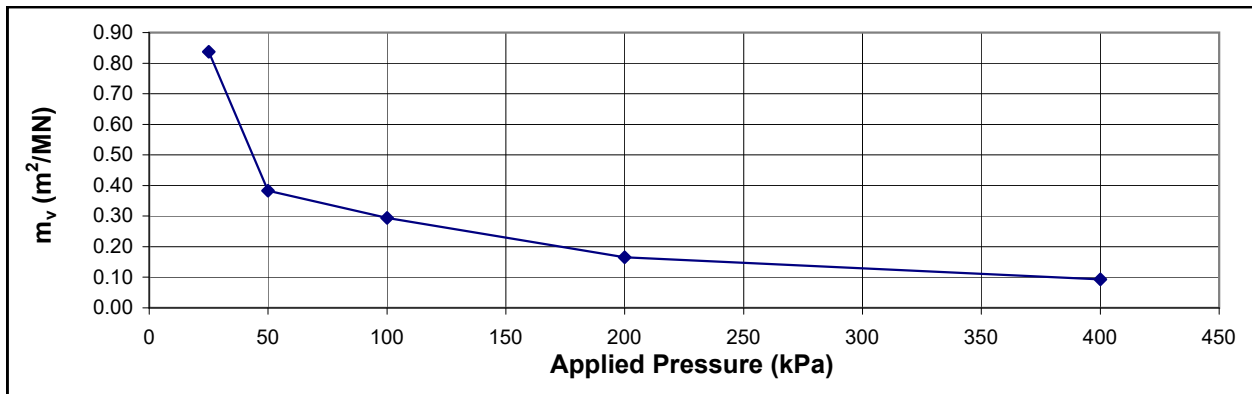
BOREHOLE	SAMPLE	DEPTH (m)	MOISTURE CONTENT (%)	BULK DENSITY (Mg/m ³)	DRY DENSITY (Mg/m ³)
BH11	U	8.70	15	2.21	1.92

SAMPLE DIAMETER (mm)	SAMPLE HEIGHT (mm)	PARTICLE DENSITY (Mg/m ³)	INITIAL VOIDS RATIO	DEGREE OF SATURATION (%)	SWELLING PRESSURE (kPa)
74.92	19.82	2.65	0.383	100	

The value detailed for Particle Density is an assumed value

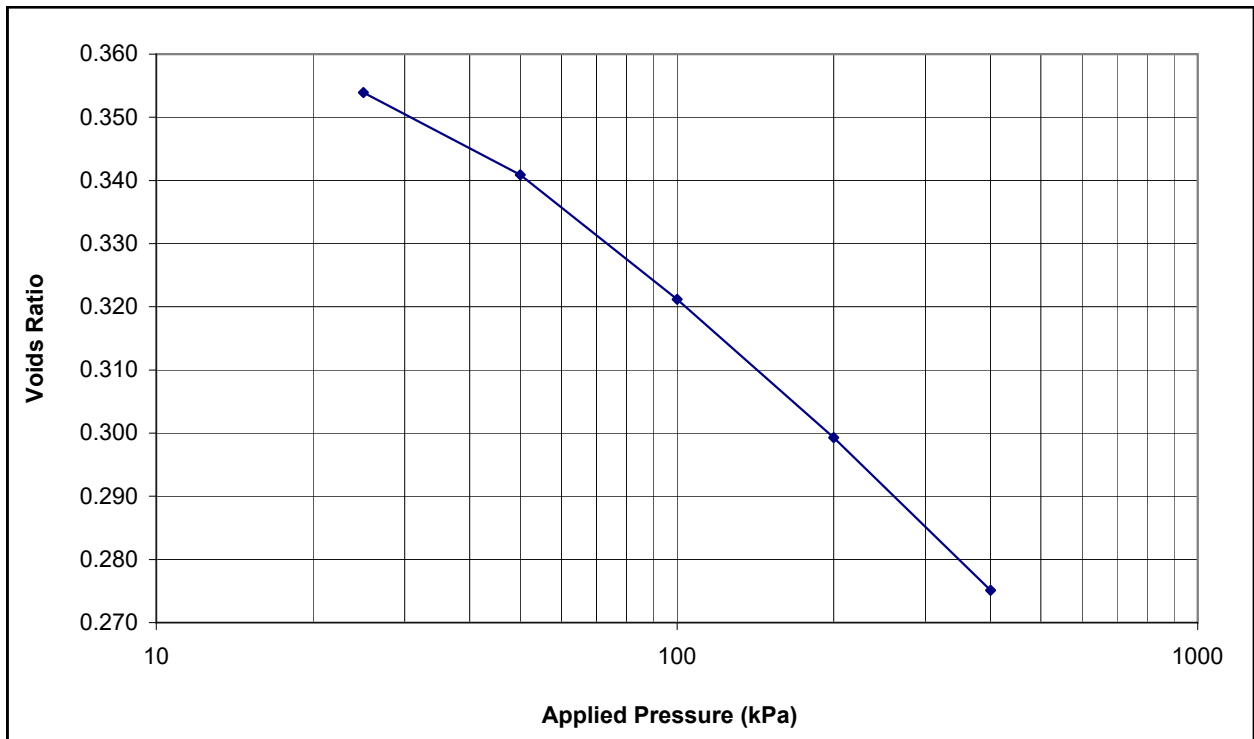
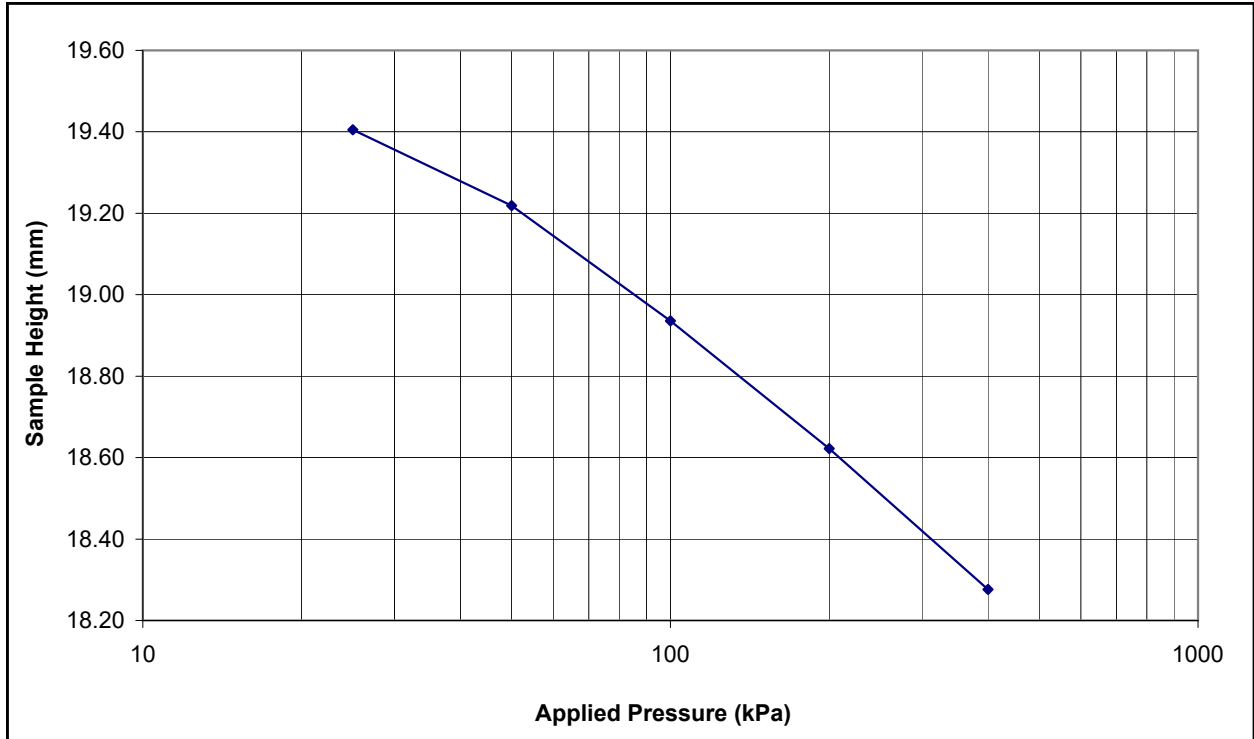
PRESSURE (kPa)	SAMPLE HEIGHT (mm)	VOIDS RATIO	m _v (m ² /MN)	c _v (m ² /Year)	c _{sec}
0	19.82	0.383			
25	19.41	0.354	0.84	3.47	
50	19.22	0.341	0.38	2.59	
100	18.94	0.321	0.29	2.52	
200	18.62	0.299	0.17	4.35	
400	18.28	0.275	0.09	6.00	

m_v indicates values of coefficient of volume compressibility, c_v indicates values of coefficient of consolidation



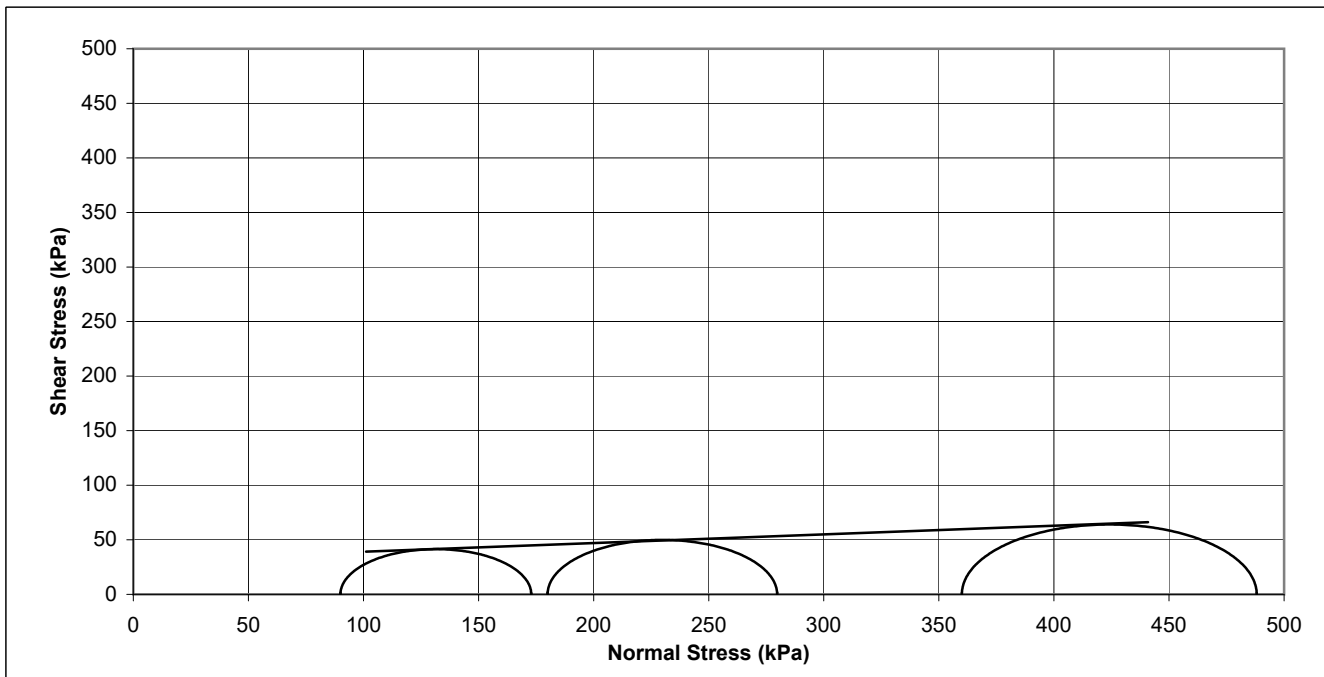
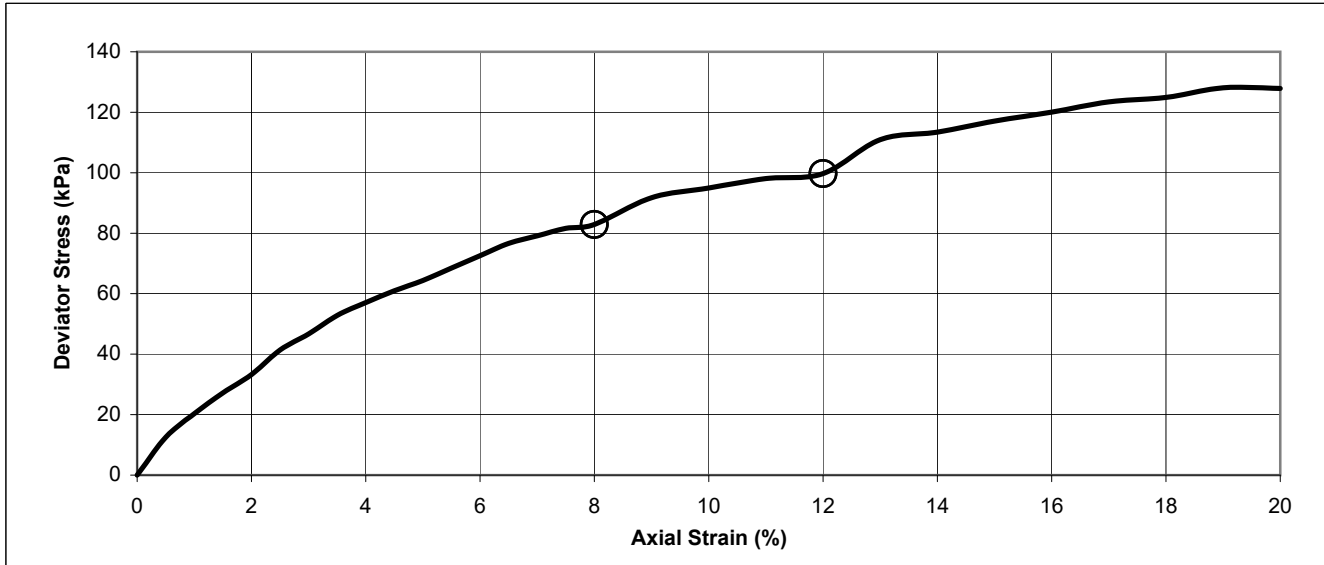
Tested in a temperature controlled room at 20 +/- 2°C
Tested in accordance with BS 1377: Part 5: 1990: Clause 3
ONE DIMENSIONAL CONSOLIDATION TEST RESULTS

BOREHOLE	SAMPLE	DEPTH (m)	MOISTURE CONTENT (%)	BULK DENSITY (Mg/m ³)	DRY DENSITY (Mg/m ³)
BH11	U	8.70	15	2.21	1.92



Sample was extruded directly from an undisturbed sample and vertical axis was maintained during testing

Tested in a temperature controlled room at 20 +/- 2°C
 Tested in accordance with BS 1377: Part 5: 1990: Clause 3
ONE DIMENSIONAL CONSOLIDATION TEST RESULTS



Failure Conditions			
Cell pressure	kPa	90	180
Membrane correction	kPa	0.4	0.5
Strain at failure	%	8.0	12.0
Failure Type		Intermediate	Intermediate
Corrected deviator stress	kPa	83	100
Undrained shear stress	kPa	41	50

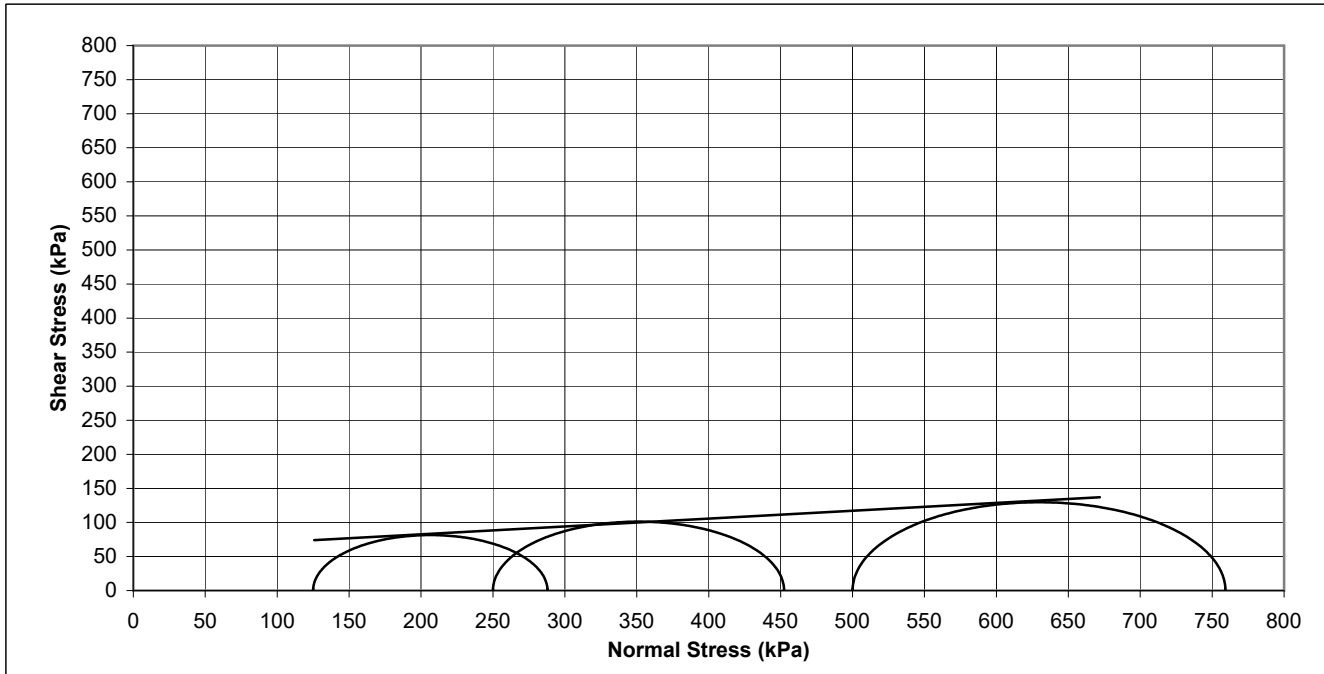
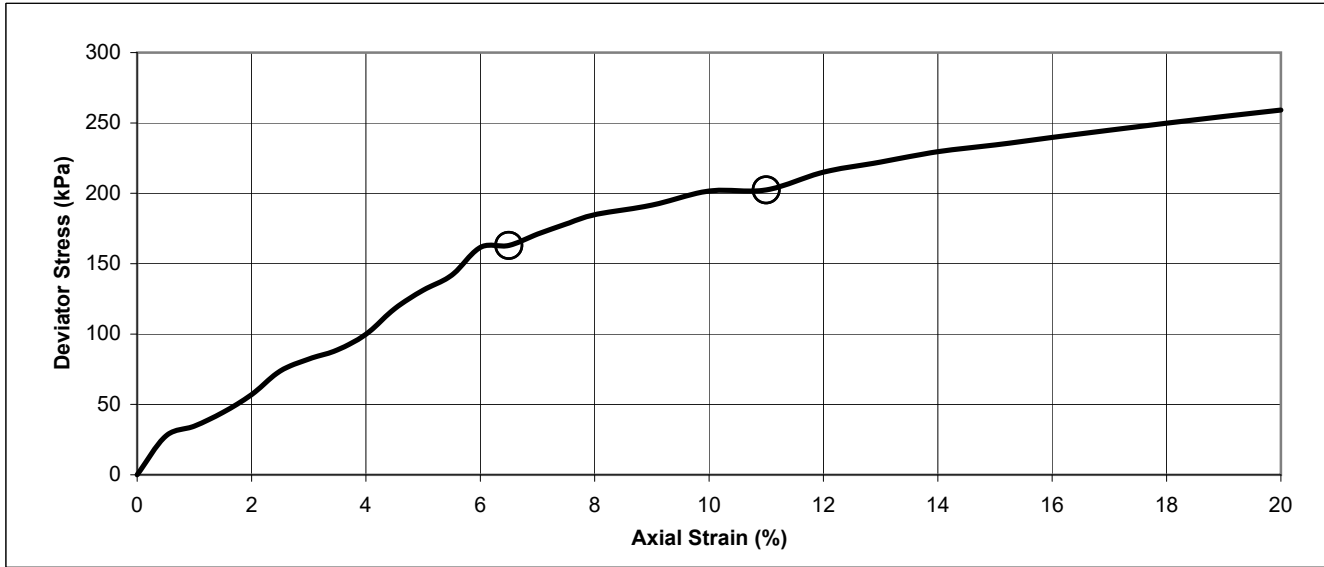
Cohesion	kPa	31.0	Friction Angle	°	4.6
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Initial Conditions					Borehole	BH11	
Sample length	mm	207.88	Rate of strain	%/min			2.0
Sample diameter	mm	103.35	Bulk Density	Mg/m ³			2.17
Membrane type	Latex		Dry Density	Mg/m ³			1.82
Membrane thickness	mm	0.20	Moisture Content	%	19	Depth (m)	8.70

Undisturbed sample, taken directly from the sample tube and retaining axial orientation

DETERMINATION OF MULTI STAGE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

Tested in accordance with BS 1377 : Part 7 : 9.0 : 1990



Failure Conditions			
Cell pressure	kPa	125	250
Membrane correction	kPa	0.3	0.5
Strain at failure	%	6.5	11.0
Failure Type		Intermediate	Intermediate
Corrected deviator stress	kPa	163	202
Undrained shear stress	kPa	81	101

Cohesion	kPa	59.5	Friction Angle	°	6.6
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Initial Conditions						
Sample length	mm	210.11	Rate of strain	%/min	2.0	
Sample diameter	mm	102.65	Bulk Density	Mg/m ³	2.30	
Membrane type		Latex	Dry Density	Mg/m ³	2.07	
Membrane thickness	mm	0.20	Moisture Content	%	11	
					Borehole	BH11
					Sample	U
					Depth (m)	12.20

Undisturbed sample, taken directly from the sample tube and retaining axial orientation

DETERMINATION OF MULTI STAGE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

Tested in accordance with BS 1377 : Part 7 : 9.0 : 1990