

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

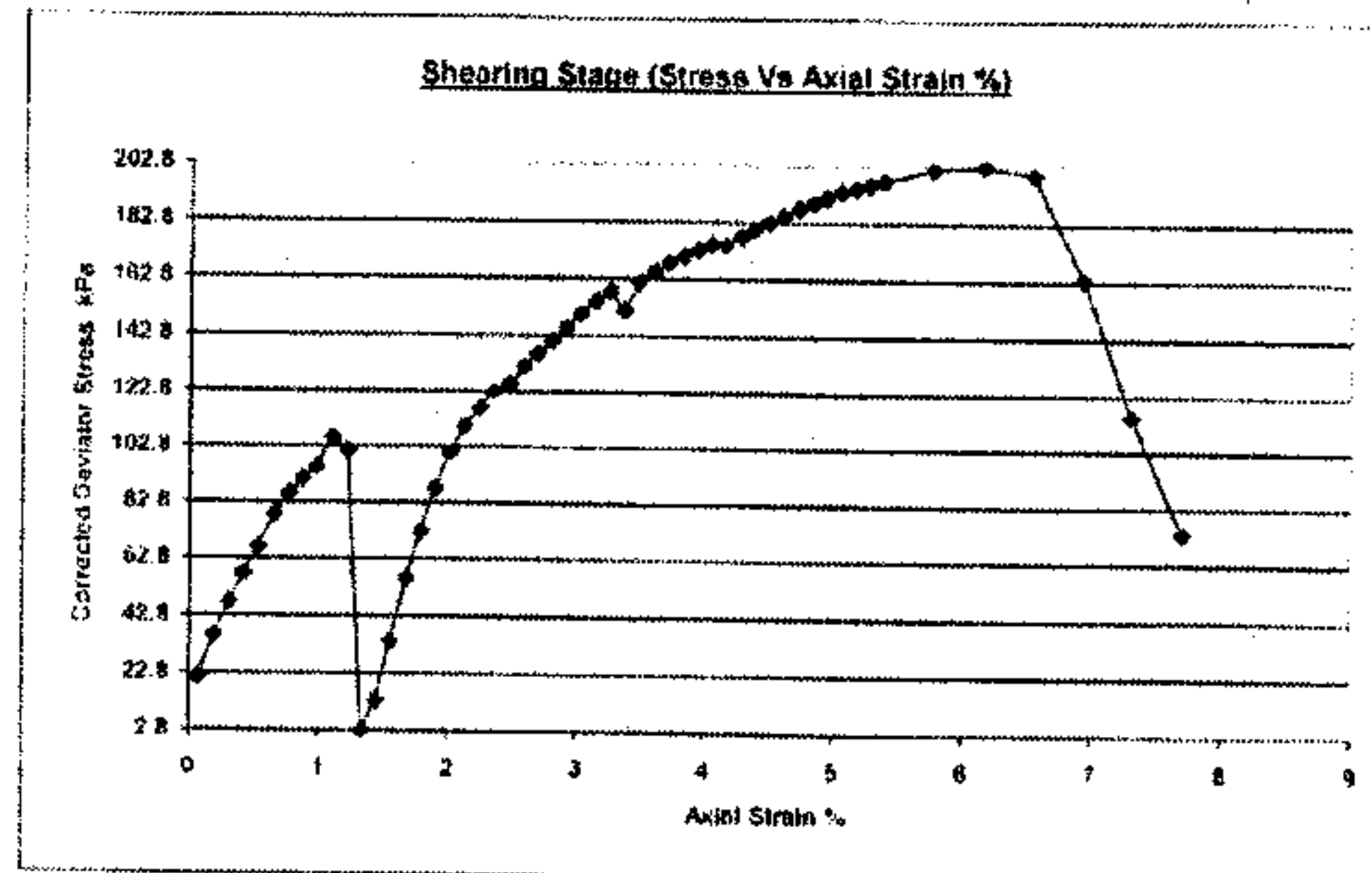
ELE
International

Client	M3 Consulting	Lab Ref	06/0552/S
Project	Osanburgh Street	Job	12040881 001
Borehole	BH101	Sample	BH101 1450-1495m

Test & Sample Details			
Standard	BS 1377 Part 2 - Clause B	Sample Depth	14.50 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark grey firm stiff friable laminated fissured CLAY	Lab Temperature	21.0 deg.C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	12.50 mm	Description	As above
Initial Height	198.42 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	102.42 mm
Initial Bulk Density	2.07 Mg/m ³	Initial Moisture Content*	25.8 % (Trimming 26.7 %)
Initial Dry Density	1.65 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELE
International

Client	M3 Consulting	Lab Ref	06/0552/S
Project	Osanburgh Street	Job	12040881 001
Borehole	BH101	Sample	BH101 1450-1495m

Shear Conditions			
Rate of Axial Strain	0.65%/min	Cell Pressure	459.0 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	263 kPa	Shear Strength	101 kPa
Axial Strain	6.15%		
Deviator Stress Correction	0.5 kPa		
Final Density	2.07 Mg/m ³	Final Moisture Content	25.8 %

Tested By and Date:	SL 12/01/07
Checked By and Date:	
Approved By and Date:	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

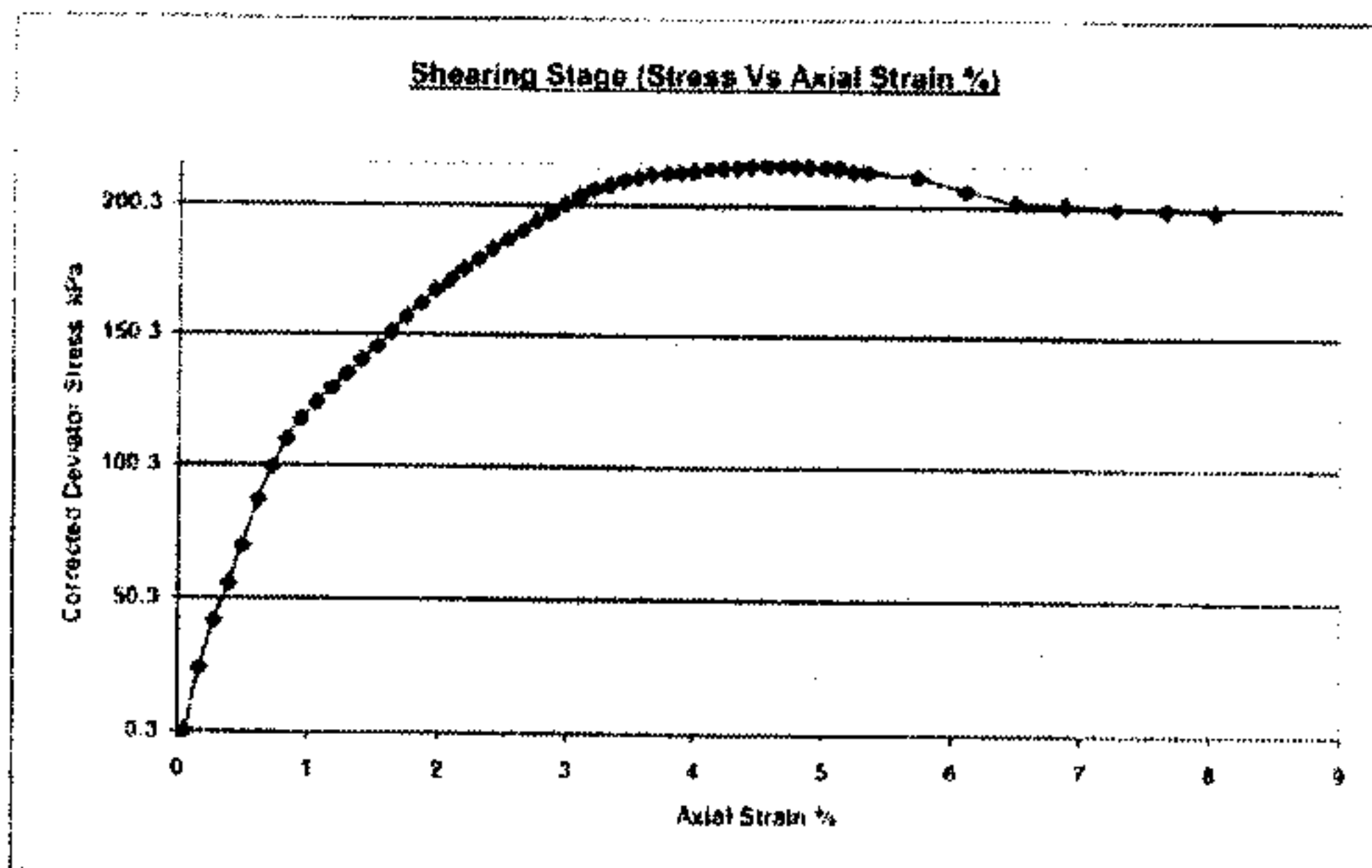
ELE
International

Client	M3 Consulting	Lab Ref	06-0552-S
Project	Osnaburgh Street	Job	12040881-001
Borehole	BH101	Sample	BH101 1650-1695m

Test & Sample Details			
Standard	BS 1377 - Part 7 - Clause 8	Sample Depth	16.50 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Gray/dark gray firm-stiff very inelastic laminated fissured CLAY	Lab Temperature	21.0 deg.C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	15.00 mm	Description	As above
Initial Height	197.06 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.53 mm
Initial Bulk Density	2.04 Mg/m ³	Initial Moisture Content*	23.6 % (Trimming: 23.0 %)
Initial Dry Density	1.65 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELE
International

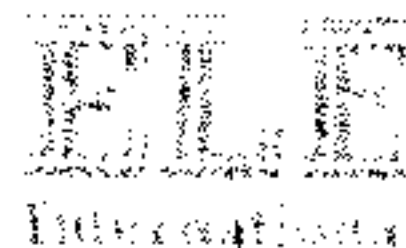
Client	M3 Consulting	Lab Ref	06-0552-S
Project	Osnaburgh Street	Job	12040881-001
Borehole	BH101	Sample	BH101 1650-1695m

Shear Conditions			
Rate of Axial Strain	0.46% min	Cell Pressure	301 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	216 kPa	Shear Strength	108 kPa
Axial Strain	4.66%		
Deviator Stress Correction	0.4 kPa		
Final Density	2.04 Mg/m ³	Final Moisture Content	23.6 %

Tested By and Date:	SL 13/01/07
Checked By and Date:	
Approved By and Date:	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

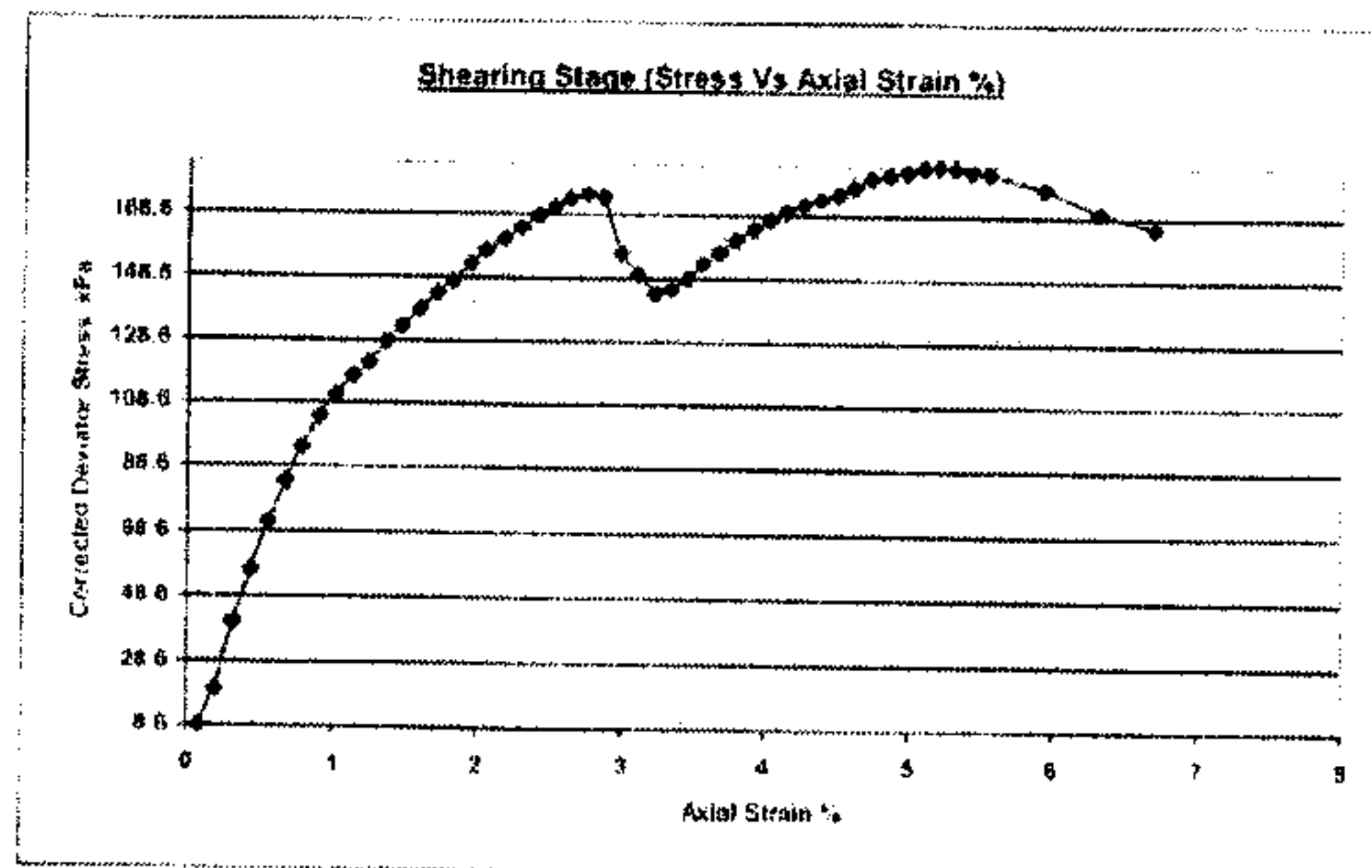


Client	MJ Consulting	Lab Ref	060552/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH101	Sample	BH101 1850-1895m

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	Sample Depth	18.50 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark grey firm stiff friable laminated fissured CLAY	Lab. Temperature	21.0 deg C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	15.00 mm	Description	As above
Initial Height	190.17 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.50 mm
Initial Bulk Density	2.00 Mg/m ³	Initial Moisture Content*	24.0 %
Initial Dry Density	1.62 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)



Client	MJ Consulting	Lab Ref	060552/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH101	Sample	BH101 1850-1895m

Shear Conditions			
Rate of Axial Strain	0.47% min	Cell Pressure	501 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	184 kPa	Shear Strength	92 kPa
Axial Strain	5.30%		
Deviator Stress Correction	0.4 kPa		
Final Density	2.00 Mg/m ³	Final Moisture Content	23.0 %

Tested By and Date	SL:15 01 07
Checked By and Date	
Approved By and Date	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

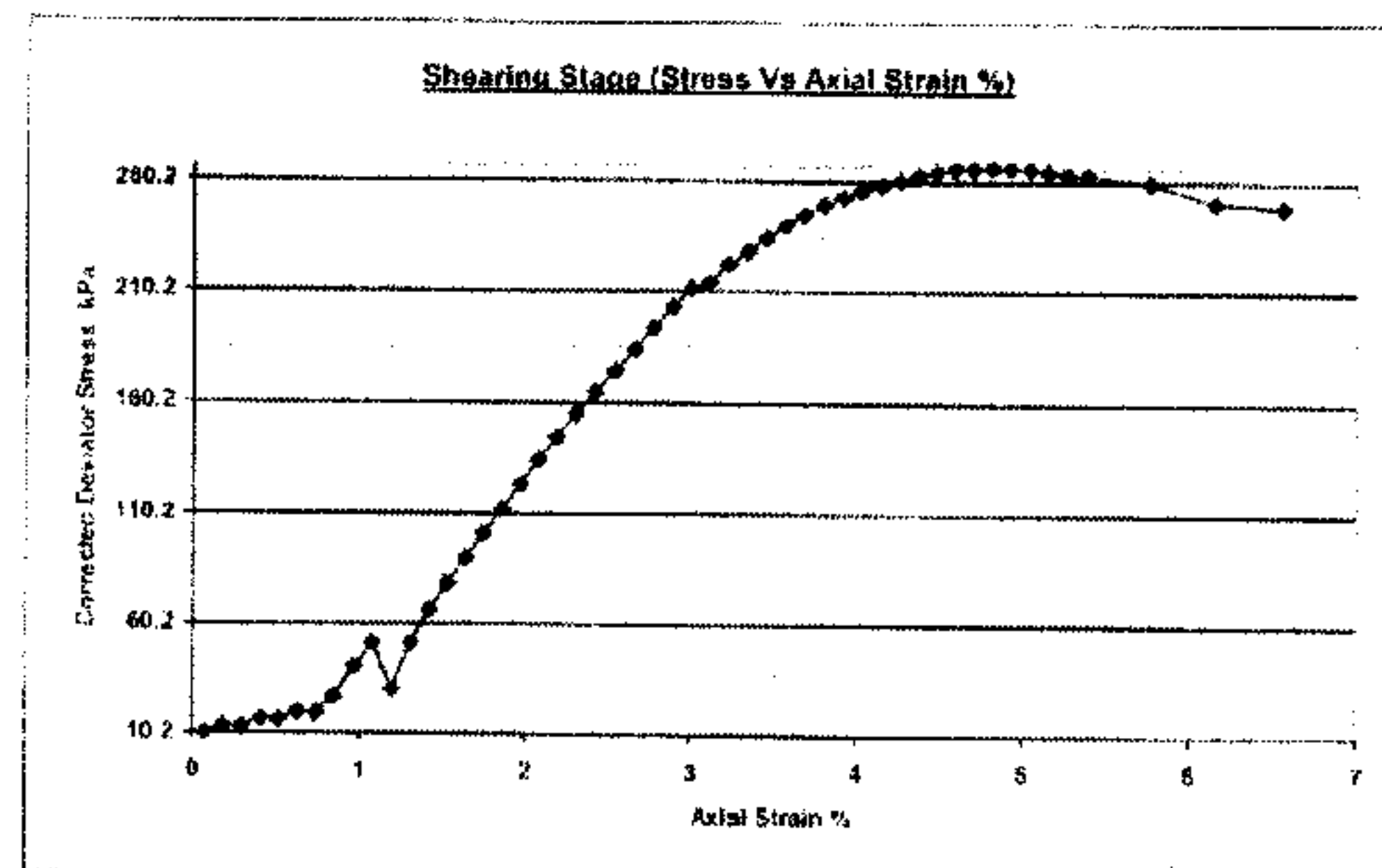
ELIE
International

Client	M3 Consulting	Lab Ref	06-0552-S
Project	Osangburgh Street	Job	12040881-001
Borehole	BH1101	Sample	BH1101 2450-2495m

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	Sample Depth	24.50 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark gray firm-stiff inable fissured laminated CLAY	Lab. Temperature	21.0 deg C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	20.00 mm	Description	As above
Initial Height	185.69 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.38 mm
Initial Bulk Density	2.00 Mg/m ³	Initial Moisture Content*	27.7 % (Trimming: 27.8 %)
Initial Dry Density	1.57 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELIE
International

Client	M3 Consulting	Lab Ref	06-0552-S
Project	Osangburgh Street	Job	12040881-001
Borehole	BH1101	Sample	BH1101 2450-2495m

Shear Conditions			
Rate of Axial Strain	0.05% min	Cell Pressure	701.2 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	267 kPa	Shear Strength	133 kPa
Axial Strain	4.81%		
Deviator Stress Correction	0.4 kPa		
Final Density	2.00 Mg/m ³	Final Moisture Content	27.7 %

Tested By and Date	SE:15-01-07
Checked By and Date	
Approved By and Date	

Mode of Failure

**Undrained Shear Strength in Triaxial
Compression without measurement of Pore
Pressure (Quick Undrained)**

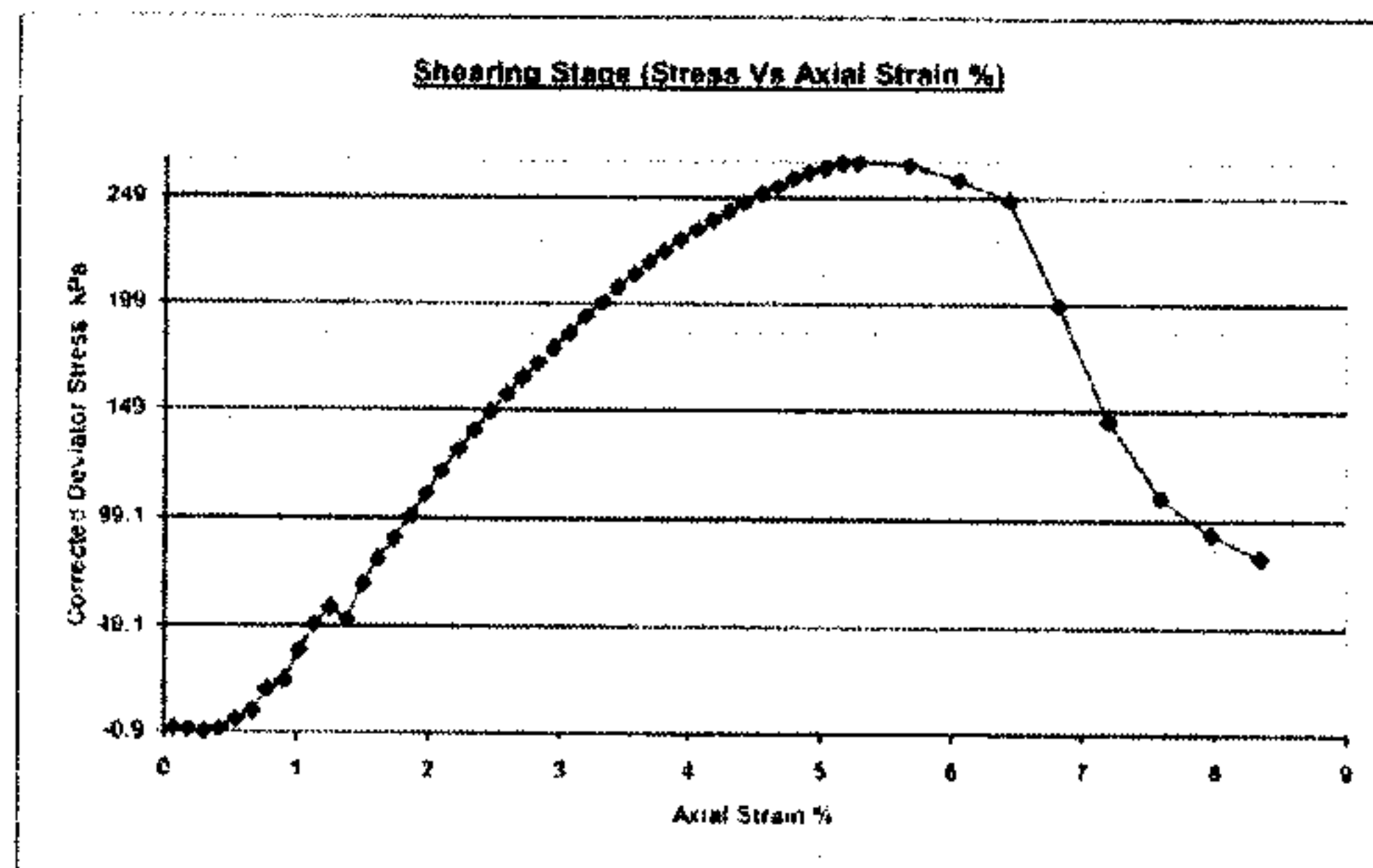
EILE
International

Client	M3 Consulting	Lab Ref	95-0552-S
Project	Osnaburgh Street	Job	12040881
Borehole	BH101	Sample	BH101 2650-2695m

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	Sample Depth	26.50 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark grey firm-stiff friable laminated fissured CLAY	Lab. Temperature	20.8 (deg C)
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	10.50 min	Description	As above
Initial Height	106.96 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.23 mm
Initial Bulk Density	1.99 Mg/m ³	Initial Moisture Content*	22.4 % (Trimming 23.4 %)
Initial Dry Density	1.63 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



**Undrained Shear Strength in Triaxial
Compression without measurement of Pore
Pressure (Quick Undrained)**

EILE
International

Client	M3 Consulting	Lab Ref	95-0552-S
Project	Osnaburgh Street	Job	12040881
Borehole	BH101	Sample	BH101 2650-2695m

Shear Conditions			
Rate of Axial Strain	0.66%/min	Cell Pressure	298.11 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	240 kPa	Shear Strength	133 kPa
Axial Strain	5.28%		
Deviator Stress Correction	0.4 kPa		
Final Density	1.99 Mg/m ³	Final Moisture Content	22.4 %

Tested By and Date:	SI-16-01-07
Checked By and Date:	
Approved By and Date:	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

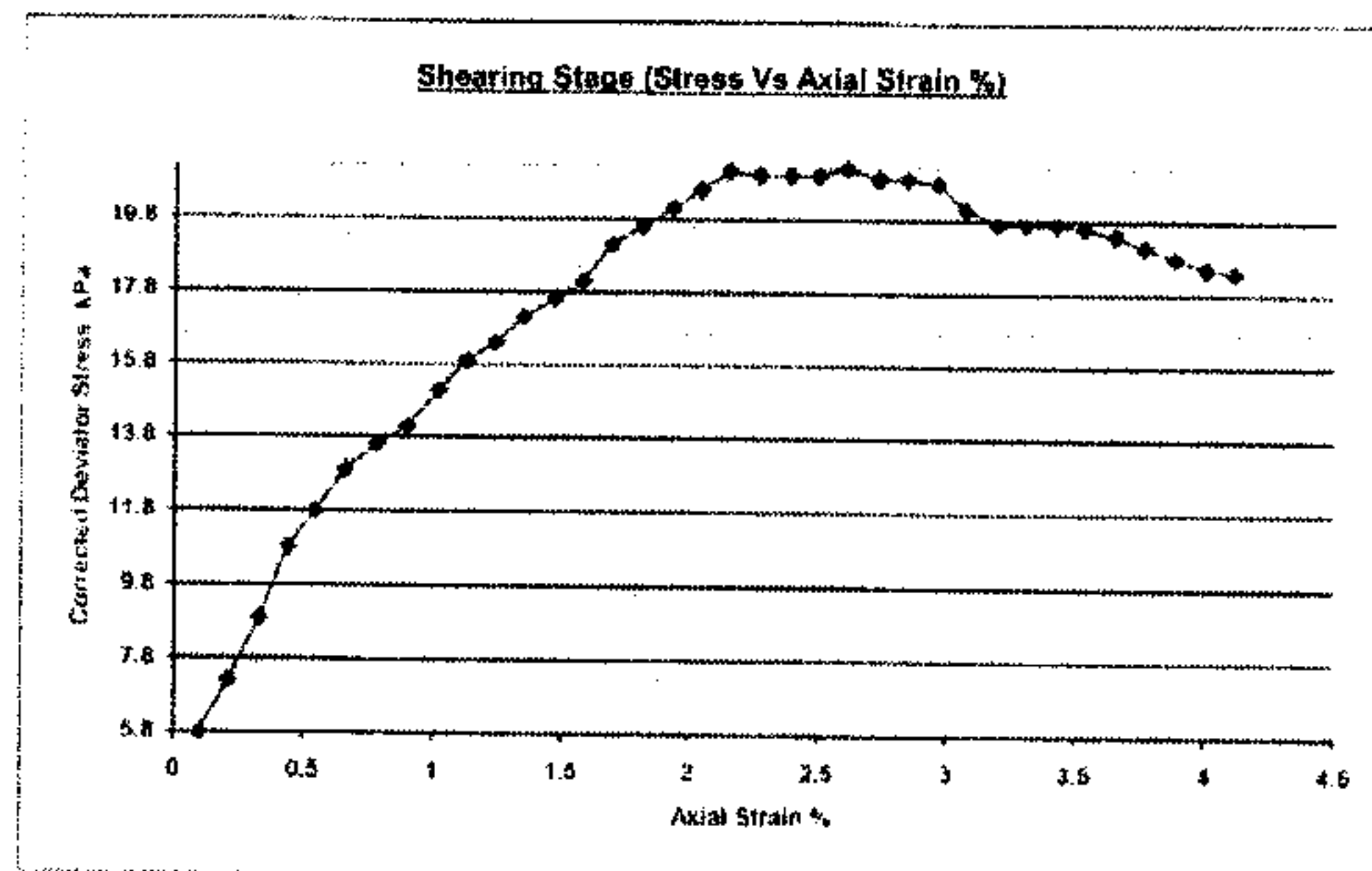
FILE
International

Client	M3 Consulting	Lab Ref	06-0552/S
Project	Osnaburgh	Job	12040881 001
Borehole	BH102	Sample	BH102 050-095m

Test & Sample Details			
Standard	BS 1377 Part 7: Clause 8	Sample Depth	0.50 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Brown/dark brown soft-fine SANDY GRAVELLY clay topsoil	Lab. Temperature	20.9 deg.C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	25.00 mm	Description	As above
Initial Height	195.95 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	102.65 mm
Initial Bulk Density	1.95 Mg/m ³	Initial Moisture Content*	26.7 % (Trimming: 26.9 %)
Initial Dry Density	1.54 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

FILE
International

Client	M3 Consulting	Lab Ref	06-0552/S
Project	Osnaburgh	Job	12040881 001
Borehole	BH102	Sample	BH102 050-095m

Shear Conditions			
Rate of Axial Strain	0.56% min	Cell Pressure	100 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	21 kPa	Shear Strength	11 kPa
Axial Strain	2.51%		
Deviator Stress Correction	0.2 kPa		
Final Density	1.95 Mg/m ³	Final Moisture Content	26.7 %

Tested By and Date:	SL 17-01-07
Checked By and Date:	
Approved By and Date:	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

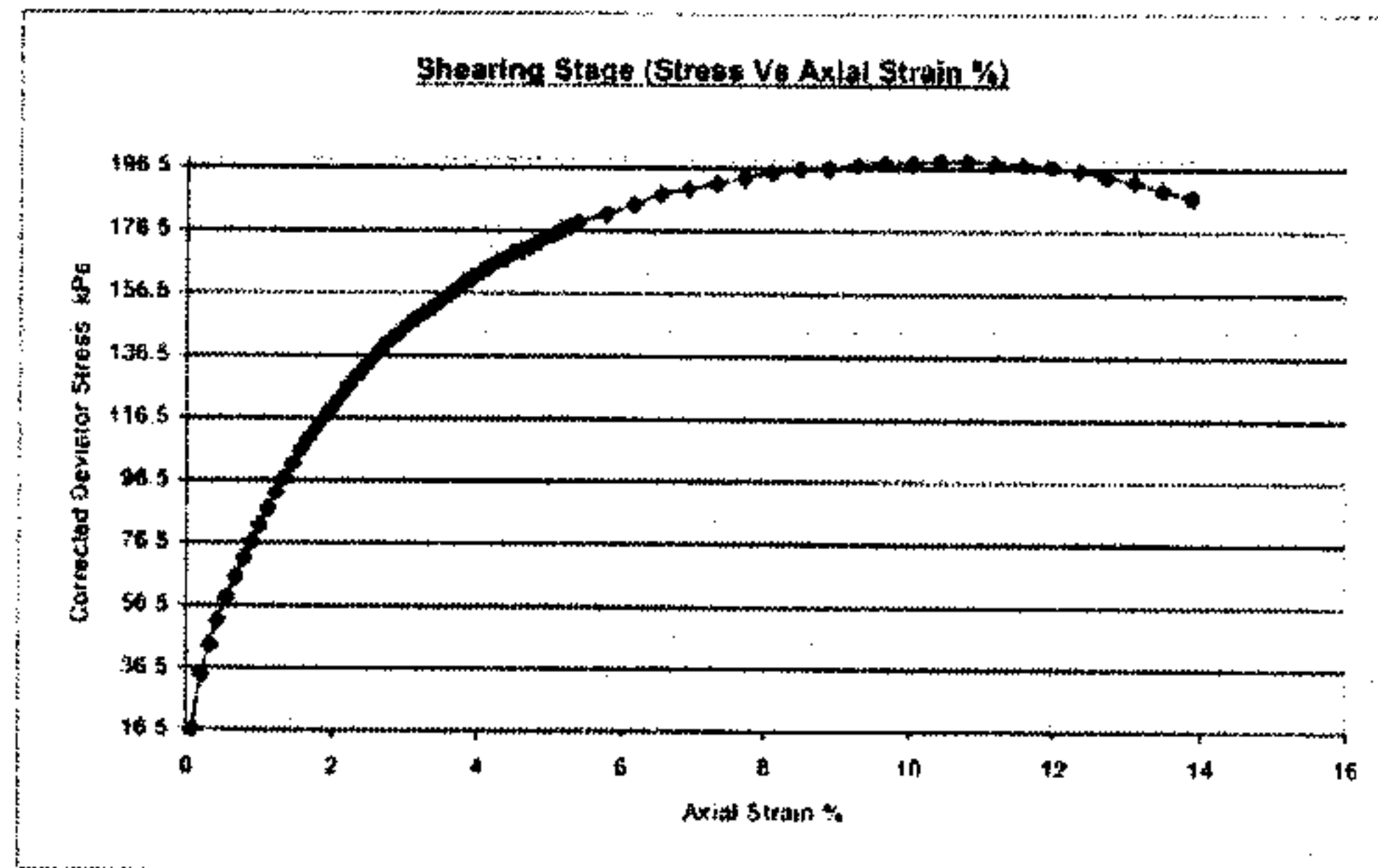
ELIE
International

Client	M3 Consulting	Lab Ref	06-0552/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 710-755m

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	Sample Depth	7.10 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Gray/dark grey firm-stiff friable laminated fissured CLAY	Lab. Temperature	21.0 deg C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	22.50 mm	Description	As above
Initial Height	184.92 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.31 mm
Initial Bulk Density	2.06 Mg/m ³	Initial Moisture Content*	25.0 % (Trimming: 24.6 %)
Initial Dry Density	1.65 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELIE
International

Client	M3 Consulting	Lab Ref	06-0552/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 710-755m

Shear Conditions			
Rate of Axial Strain	0.65%/min	Cell Pressure	214.0 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	199.1 kPa	Shear Strength	100 kPa
Axial Strain	10.80%		
Deviator Stress Correction	0.7 kPa		
Final Density	2.06 Mg/m ³	Final Moisture Content	25.0 %

Tested By and Date:	SC, 12/01/07
Checked By and Date:	
Approved By and Date:	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

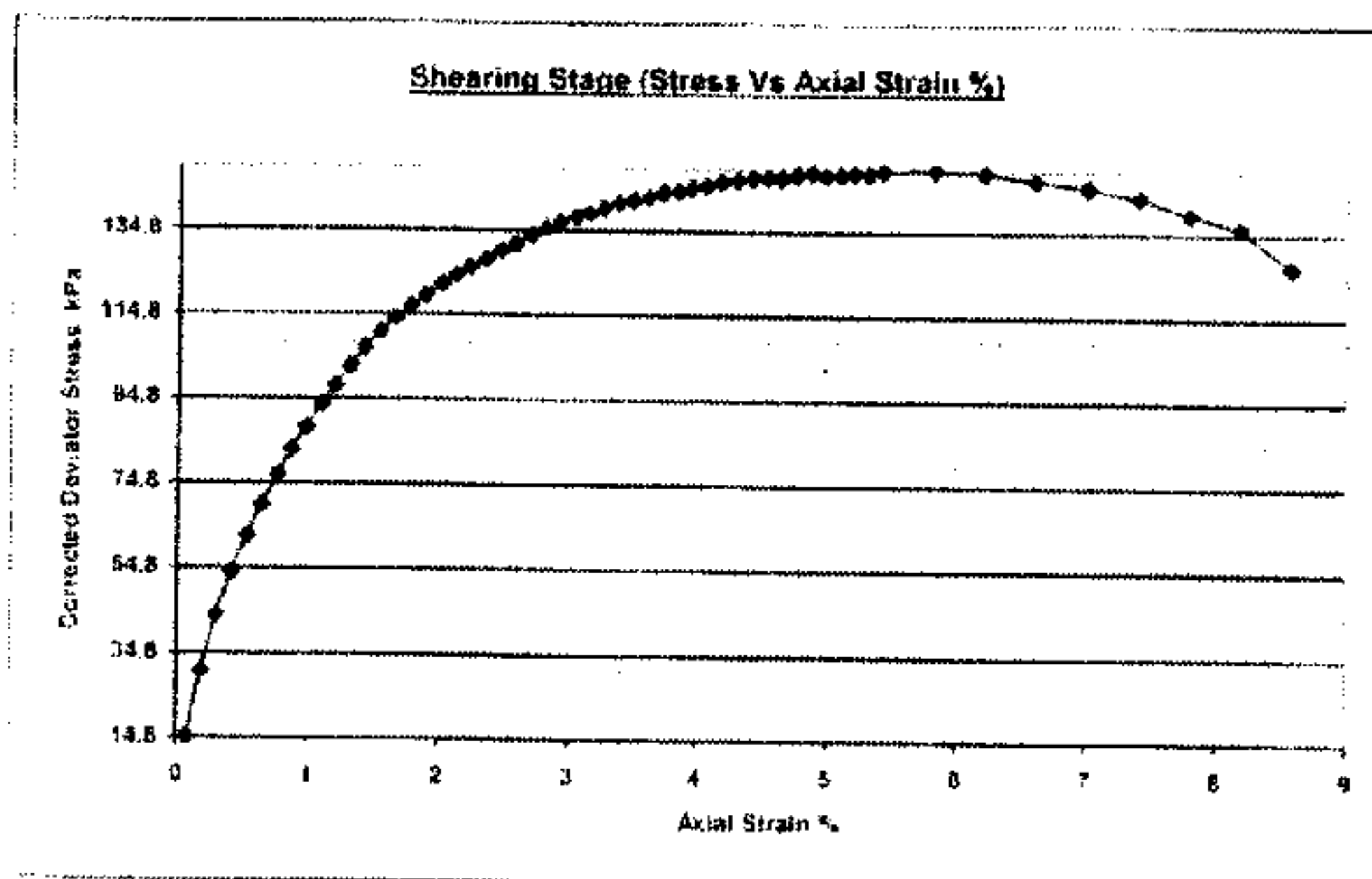
ELE
International

Client	M3 Consulting	Lab Ref	06/0552/S
Project	Osamburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 910-955m

Test & Sample Details			
Standard	BS 1377 - Part 7 - Clause 8	Sample Depth	9.10 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark grey firm stiff friable laminated fissured CLAY	Lab. Temperature	20.9 deg C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	21.00 mm	Description	As above
Initial Height	199.18 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.58 mm
Initial Bulk Density	2.03 Mg/m ³	Initial Moisture Content*	26.7 % (Trimings 27.0 %)
Initial Dry Density	1.60 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELE
International

Client	M3 Consulting	Lab Ref	06/0552/S
Project	Osamburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 910-955m

Shear Conditions			
Rate of Axial Strain	0.6%/min	Cell Pressure	272.6 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	156 kPa	Shear Strength	75 kPa
Axial Strain	5.32%		
Deviator Stress Correction	0.1 kPa		
Final Density	2.03 Mg/m ³	Final Moisture Content	26.7 %

Tested By and Date:	SL 16/01/07
Checked By and Date:	-
Approved By and Date:	-

Mode of Failure

**Undrained Shear Strength in Triaxial
Compression without measurement of Pore
Pressure (Quick Undrained)**

ELE
International

Client	M3 Consulting	Lab Ref	06-0552/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 1110-1155m

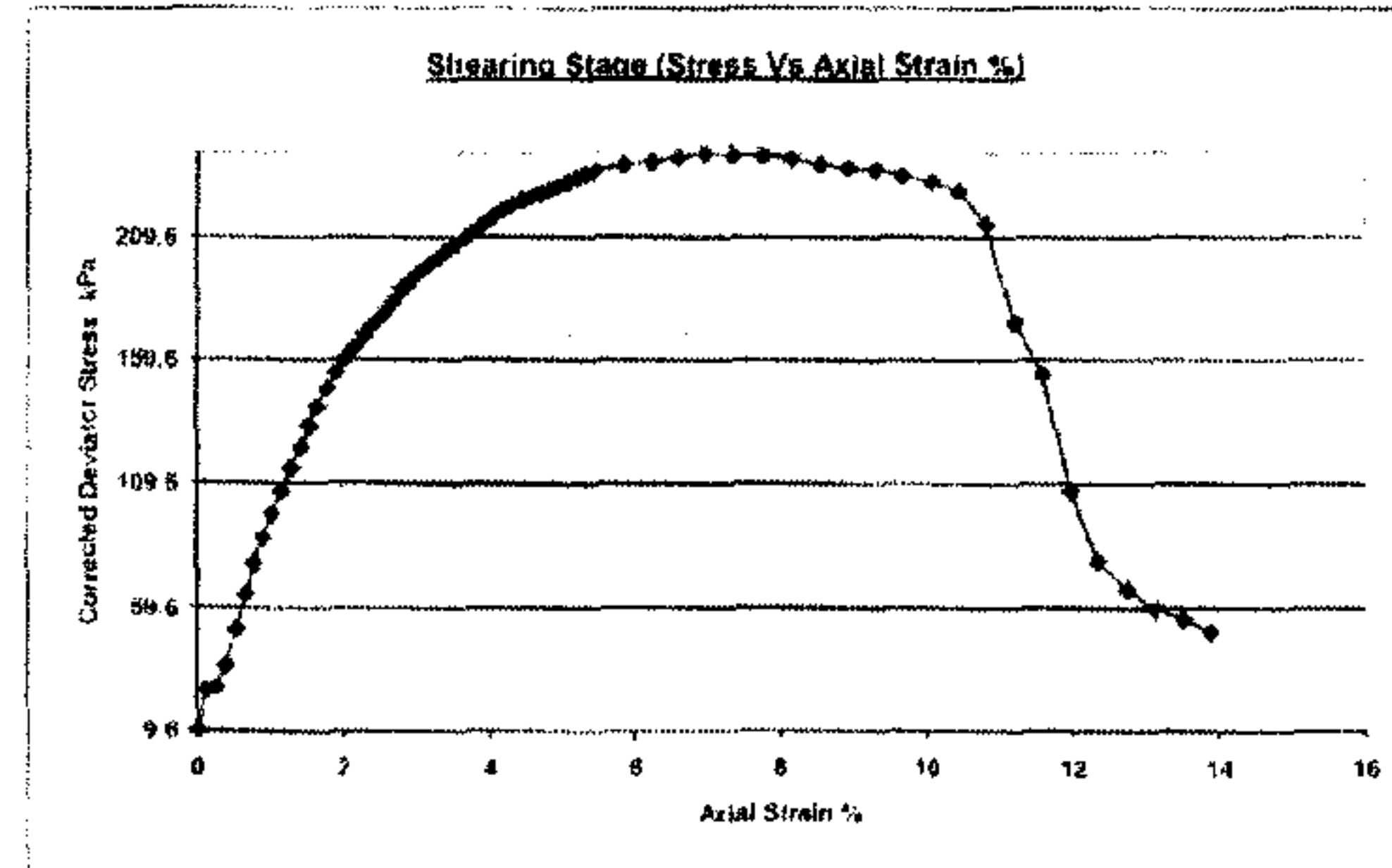
Test & Sample Details

Standard	BS 1377, Part 7, Clause 8	Sample Depth	11.10 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/mark grey firm-stiff friable laminated fissured CLAY	Lab. Temperature	20.8 deg. C
Variations from Procedure	None		

Specimen Details

Specimen Reference	A1	Stage Reference	1
Depth within Sample	22.50 mm	Description	As above
Initial Height	200.39 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.71 mm
Initial Bulk Density	2.01 Mg/m ³	Initial Moisture Content*	22.7 % (Trimming: 22.3 %)
Initial Dry Density	1.64 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



**Undrained Shear Strength in Triaxial
Compression without measurement of Pore
Pressure (Quick Undrained)**

ELE
International

Client	M3 Consulting	Lab Ref	06-0552/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 1110-1155m

Shear Conditions

Rate of Axial Strain	0.05%/min	Cell Pressure	132.7 kPa
----------------------	-----------	---------------	-----------

Conditions at Failure

Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	244 kPa	Shear Strength	122 kPa
Axial Strain	6.98%		
Deviator Stress Correction	0.5 kPa		
Final Density	1.61 Mg/m ³	Final Moisture Content	22.7 %

Tested By and Date	SL-16-01/07
Checked By and Date	-
Approved By and Date	-

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

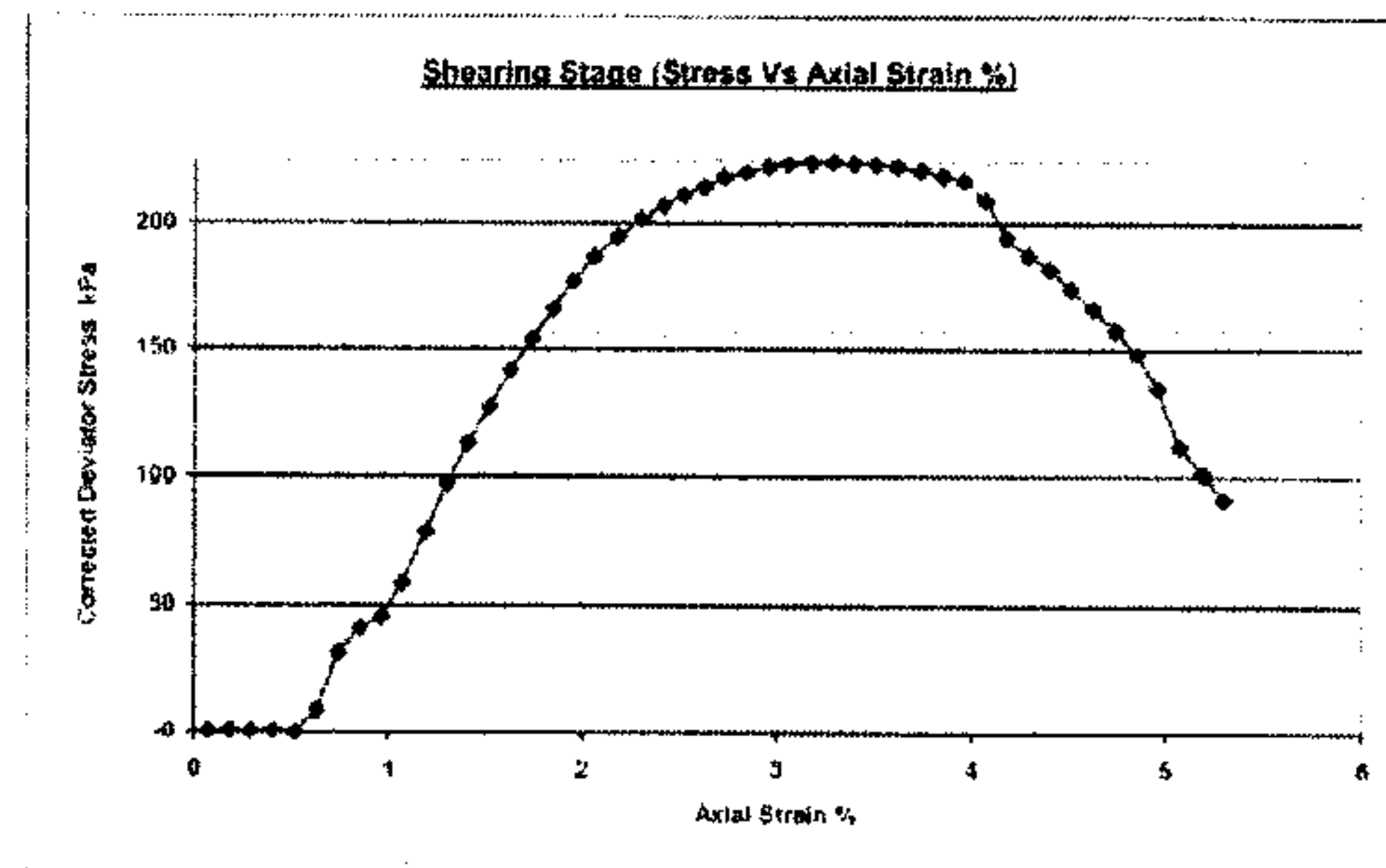
ELE
International

Client	MJ Consulting	Lab Ref	06/0552/S
Project	Osnaburgh Street	Job	12040881-001
Borehole	BH102	Sample	BH102 1600-1645m

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	Sample Depth	16.00 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark grey firm-stiff friable laminated fissured CLAY	Lab. Temperature	21.0 deg C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	18.50 mm	Description	As above
Initial Height	200.20 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.61 mm
Initial Bulk Density	1.99 Mg/m ³	Initial Moisture Content ¹	24.5 %
Initial Dry Density	1.60 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

¹ Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELE
International

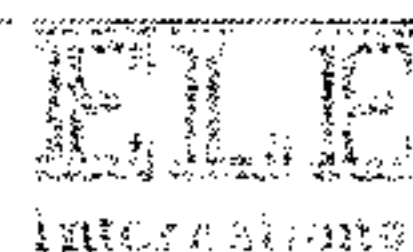
Client	MJ Consulting	Lab Ref	06/0552/S
Project	Osnaburgh Street	Job	12040881-001
Borehole	BH102	Sample	BH102 1600-1645m

Shear Conditions			
Rate of Axial Strain	0.50%/min	Cell Pressure	183.0 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max. allowed Strain		
Maximum Corrected Deviator Stress	225 kPa	Shear Strength	112.5 kPa
Axial Strain	3.20%		
Deviator Stress Correction	0.3 kPa		
Final Density	1.99 Mg/m ³	Final Moisture Content	24.5 %

Tested By and Date:	SL12701.07
Checked By and Date:	-
Approved By and Date:	-

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

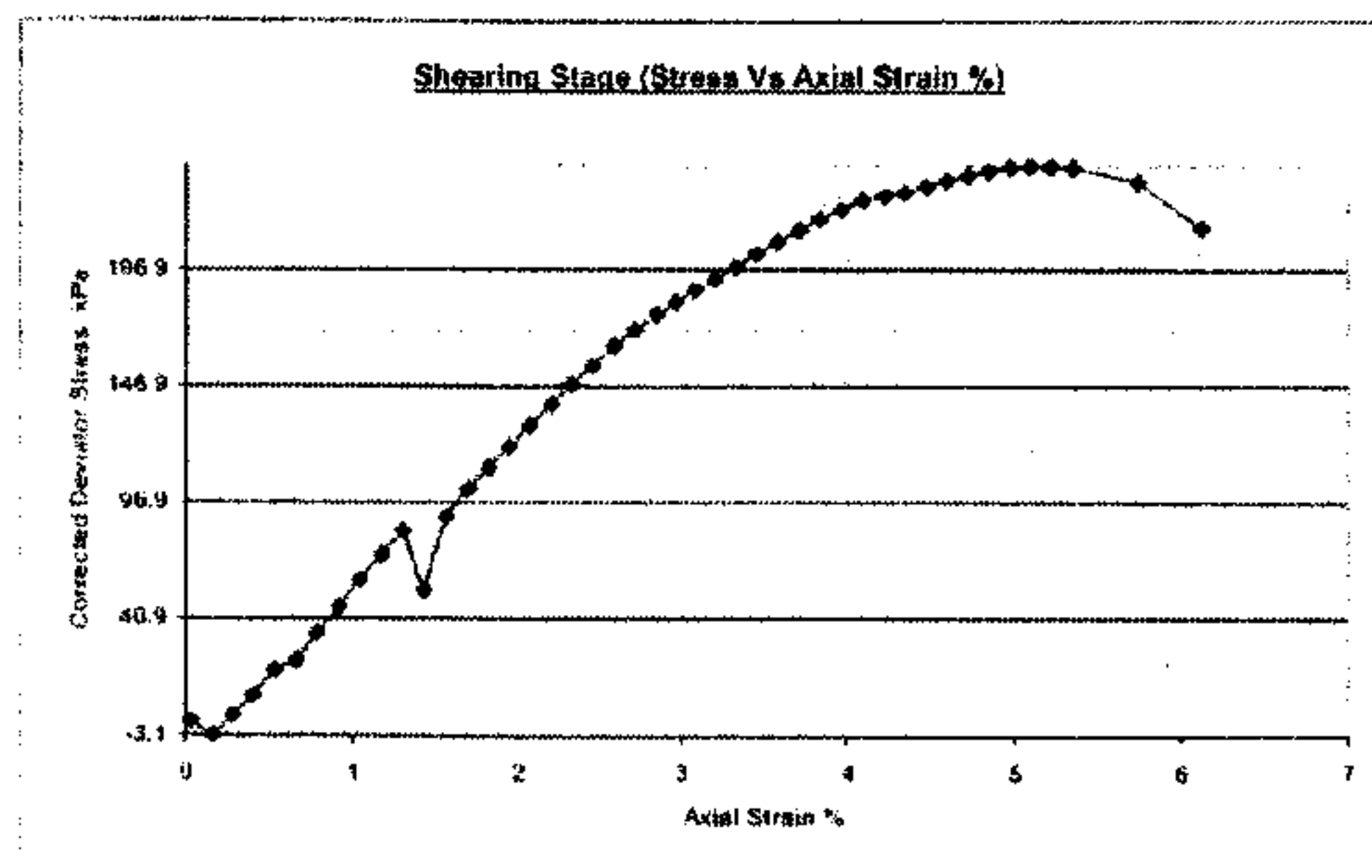


Client	M3 Consulting	Lab Ref	06-0552/S
Project	Osanburgh Street	Job	12040881-001
Borehole	BH102	Sample	BH102 1800-1845m

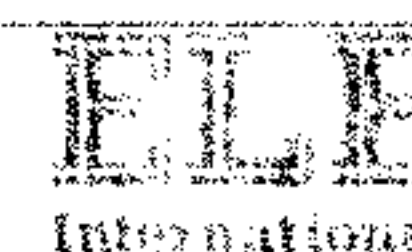
Test & Sample Details			
Standard	BS 1377 - Part 7: Clause 8	Sample Depth	18.00 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark gray firm stiff fissured laminated friable CLAY	Lab. Temperature	21.0 deg.C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	20.00 mm	Description	As above
Initial Height	198.68 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.32 mm
Initial Bulk Density	2.07 Mg/m ³	Initial Moisture Content*	22.2 %
Initial Dry Density	1.69 Mg/m ³	Membrane Thickness	0.30 mm
Comments	0000		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)



Client	M3 Consulting	Lab Ref	06-0552/S
Project	Osanburgh Street	Job	12040881-001
Borehole	BH102	Sample	BH102 1800-1845m

Shear Conditions			
Rate of Axial Strain	0.200 %/min	Cell Pressure	545 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	211 kPa	Shear Strength	121 kPa
Axial Strain	5.22%		
Deviator Stress Correction	0.4 kPa		
Final Density	2.07 Mg/m ³	Final Moisture Content	22.2 %

Tested By and Date:	SE 15/11/02
Checked By and Date:	
Approved By and Date:	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

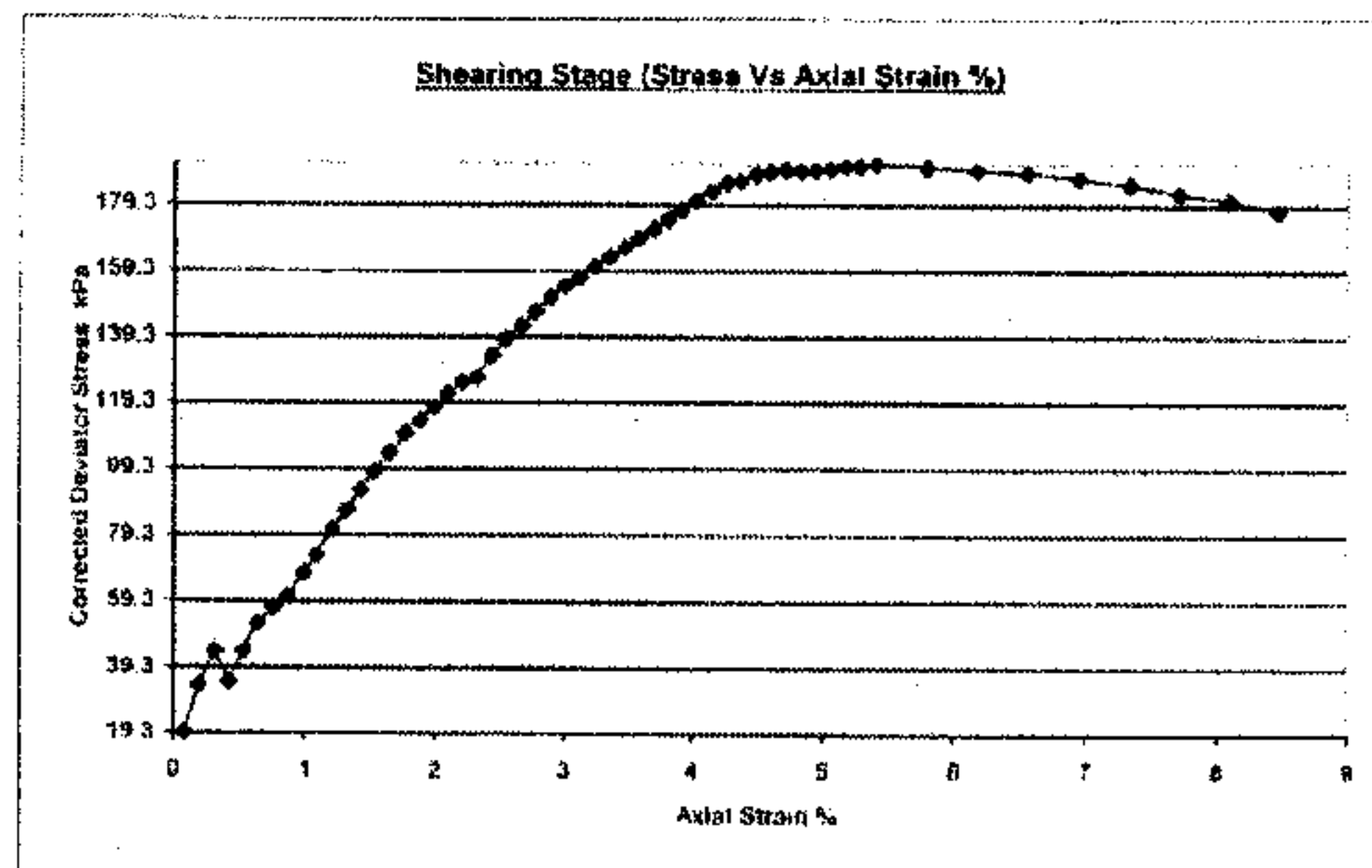
ELE
International

Client	MJ Consulting	Lab Ref	06/0552/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 2000-2045m

Test & Sample Details			
Standard	BS 1377, Part 7, Clause 8	Sample Depth	20.00 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark grey fine-grained friable laminated fissured CLAY	Lab. Temperature	20.8 deg C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	20.00 mm	Description	As above
Initial Height	200.09 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.35 mm
Initial Bulk Density	2.07 Mg/m ³	Initial Moisture Content*	21.7 % (Trimlings: 25.1 %)
Initial Dry Density	1.70 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELE
International

Client	MJ Consulting	Lab Ref	06/0552/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 2000-2045m

Shear Conditions			
Rate of Axial Strain	0.65 %/min	Cell Pressure	603.2 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	192 kPa	Shear Strength	96 kPa
Axial Strain	5.10%		
Deviator Stress Correction	0.4 kPa		
Final Density	2.07 Mg/m ³	Final Moisture Content	21.7 %

Tested By and Date:	SL-16/01/07
Checked By and Date:	
Approved By and Date:	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

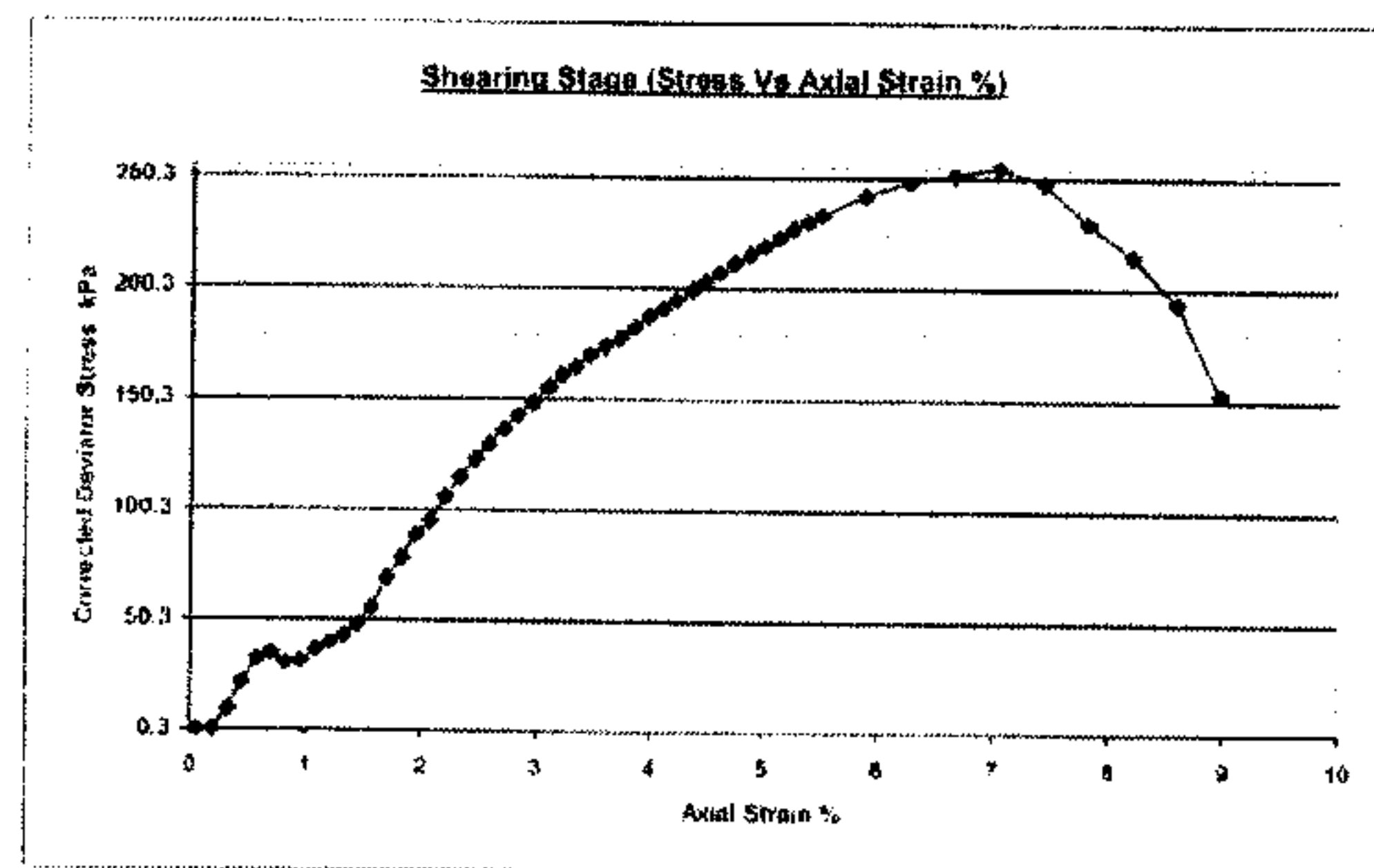
ELITE
INTERNATIONAL

Client	MJ Consulting	Lab Ref	06/0552/S
Project	Osanburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 2200-2245m

Test & Sample Details			
Standard	BS 1377 Part 7 Clause 8	Sample Depth	22.00 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Gray/dark grey firm-stiff friable laminated fissured CLAY	Lab. Temperature	21.0 deg C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	11.50 mm	Description	As above
Initial Height	200.45 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.62 mm
Initial Bulk Density	2.01 Mg/m ³	Initial Moisture Content*	25.1 % (Trimming 24.3 %)
Initial Dry Density	1.61 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELITE
INTERNATIONAL

Client	MJ Consulting	Lab Ref	06/0552/S
Project	Osanburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 2200-2245m

Shear Conditions			
Rate of Axial Strain	0.005 mm/min	Cell Pressure	684.3 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed strain		
Maximum Corrected Deviator Stress	255 kPa	Shear Strength	128 kPa
Axial Strain	7.00%		
Deviator Stress Correction	0.5 kPa		
Final Density	2.01 Mg/m ³	Final Moisture Content	25.1 %

Tested By and Date:	SE 18.01.07
Checked By and Date:	
Approved By and Date:	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

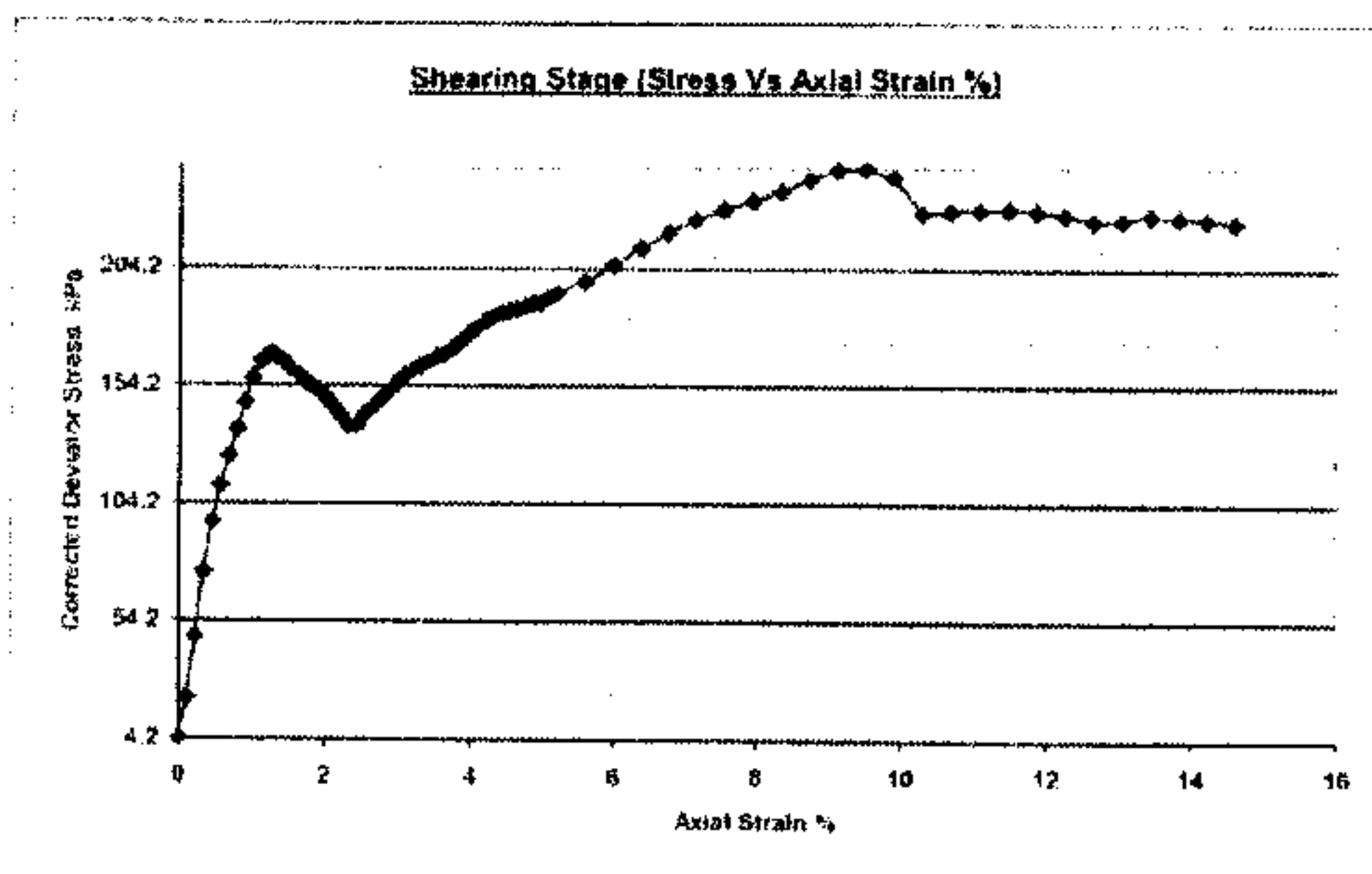
ELE
International

Client	MA Consulting	Lab Ref	06/0552/S
Project	Osmanburgh Street	Job	12040881-001
Borehole	BH102	Sample	BH102 2600-2645m

Test & Sample Details			
Standard	BS 1377 - Part 7 - Clause 8	Sample Depth	26.00 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.05 Mg/m ³
Sample Description	Greydark grey firm-stiff friable laminated fissured CLAY	Lab. Temperature	21.0 deg C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	7.00 mm	Description	As above
Initial Height	199.48 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	102.90 mm
Initial Bulk Density	1.98 Mg/m ³	Initial Moisture Content*	30.8 %
Initial Dry Density	1.52 Mg/m ³	(Trimmed), 30.9 %	
Comments	none	Membrane Thickness	0.30 mm

* Calculated from initial and dry weights of whole specimen

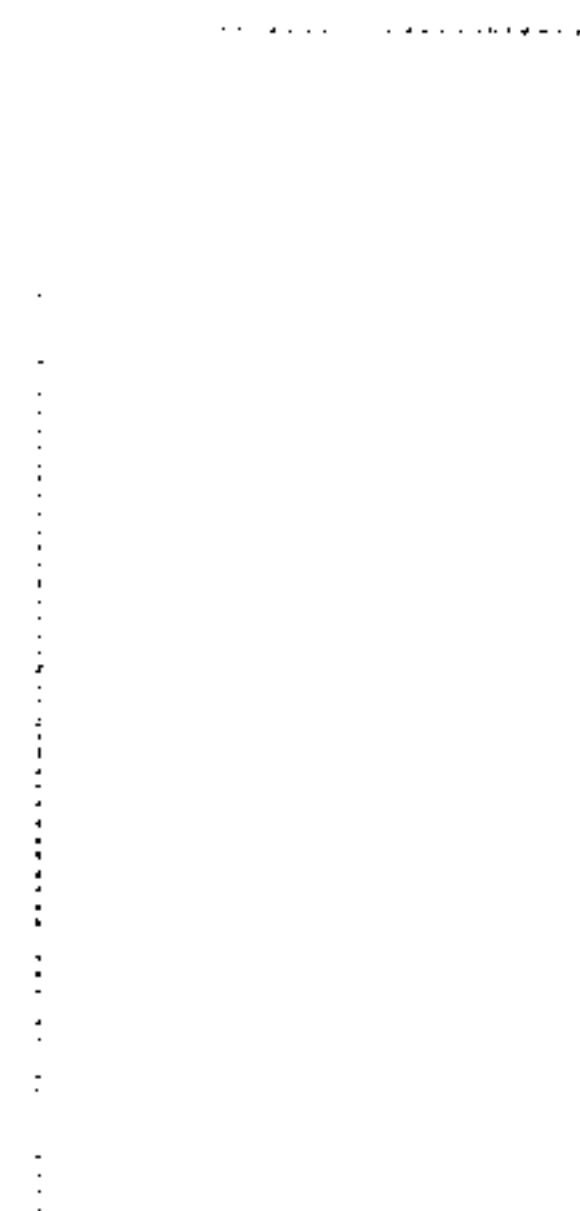


Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELE
International

Client	MA Consulting	Lab Ref	06/0552/S
Project	Osmanburgh Street	Job	12040881-001
Borehole	BH102	Sample	BH102 2600-2645m

Shear Conditions			
Rate of Axial Strain	0.45 %/min	Cell Pressure	783 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	247 kPa	Shear Strength	124 kPa
Axial Strain	9.505%		
Deviator Stress Correction	0.7 kPa		
Final Density	1.98 Mg/m ³	Final Moisture Content	30.8 %



Mode of Failure

Tested By and Date	SL 15-01-07
Checked By and Date	
Approved By and Date	

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

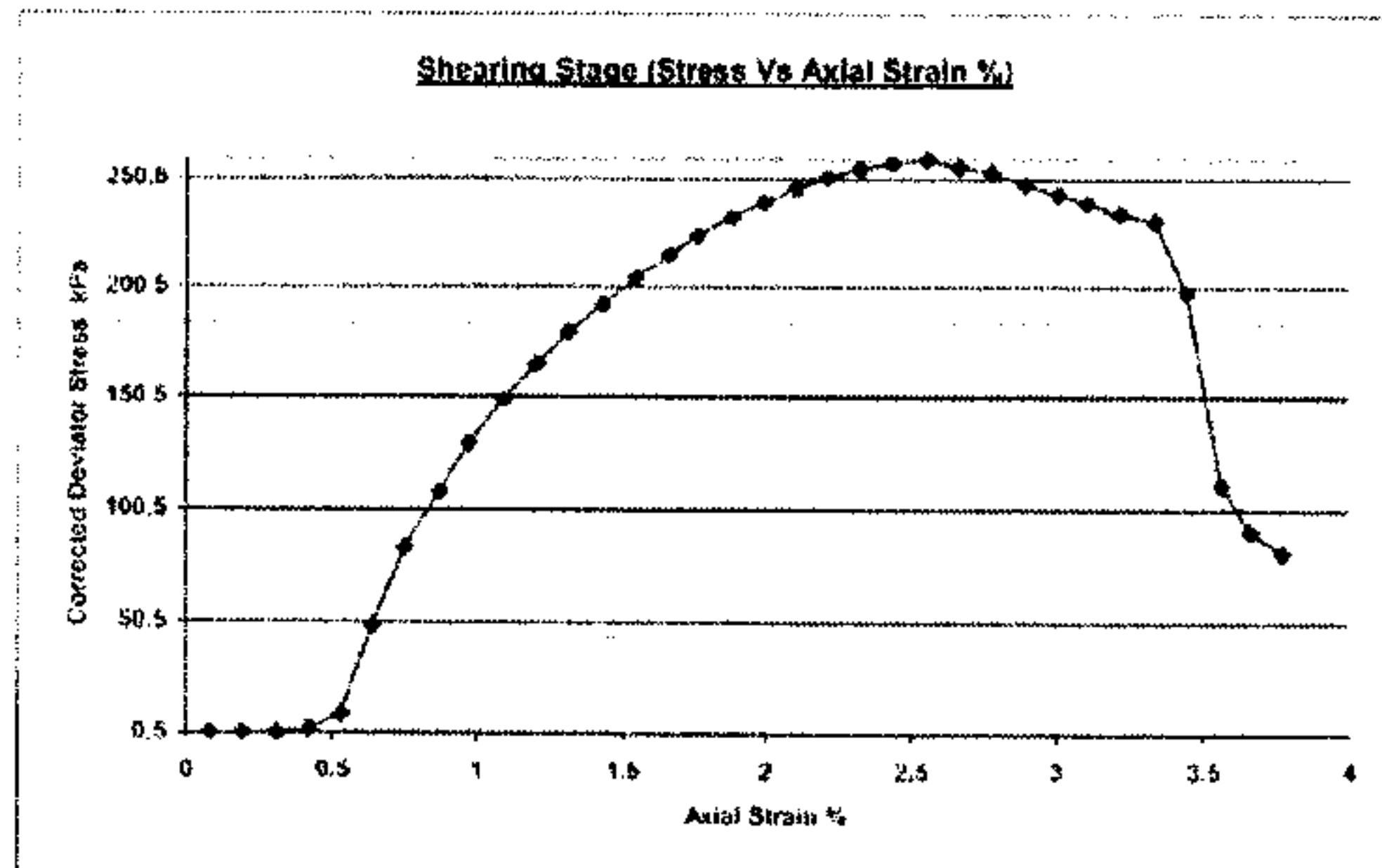
ELE
International

Client	M3 Consulting	Lab Ref	06/0552/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 2400-2445m

Test & Sample Details			
Standard	BS 1377 Part 7 - Clause B	Sample Depth	24.00 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark grey firm stiff finable laminated fissured CLAY	Lab. Temperature	20.8 deg C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	15.00 mm	Description	As above
Initial Height	200.25 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.63 mm
Initial Bulk Density	2.04 Mg/m ³	Initial Moisture Content*	23.4 % (Trimming: 24.5 %)
Initial Dry Density	1.66 Mg/m ³	Membrane Thickness	0.30 mm
Comments	None		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELE
International

Client	M3 Consulting	Lab Ref	06/0552/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH102	Sample	BH102 2400-2445m

Shear Conditions			
Rate of Axial Strain	0.65 %/min	Cell Pressure	727.3 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	250 kPa	Shear Strength	170 kPa
Axial Strain	2.55 %		
Deviator Stress Correction	0.2 kPa		
Final Density	2.04 Mg/m ³	Final Moisture Content	23.4 %

Tested By and Date:	SL:16/01/07
Checked By and Date:	
Approved By and Date:	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

IELLE
International

Client	M3 Consulting	Lab Ref	06/0555/S
Project	Osnaburgh Street	Joh	12040881 001
Borehole	BH103	Sample	BH103 590-635m

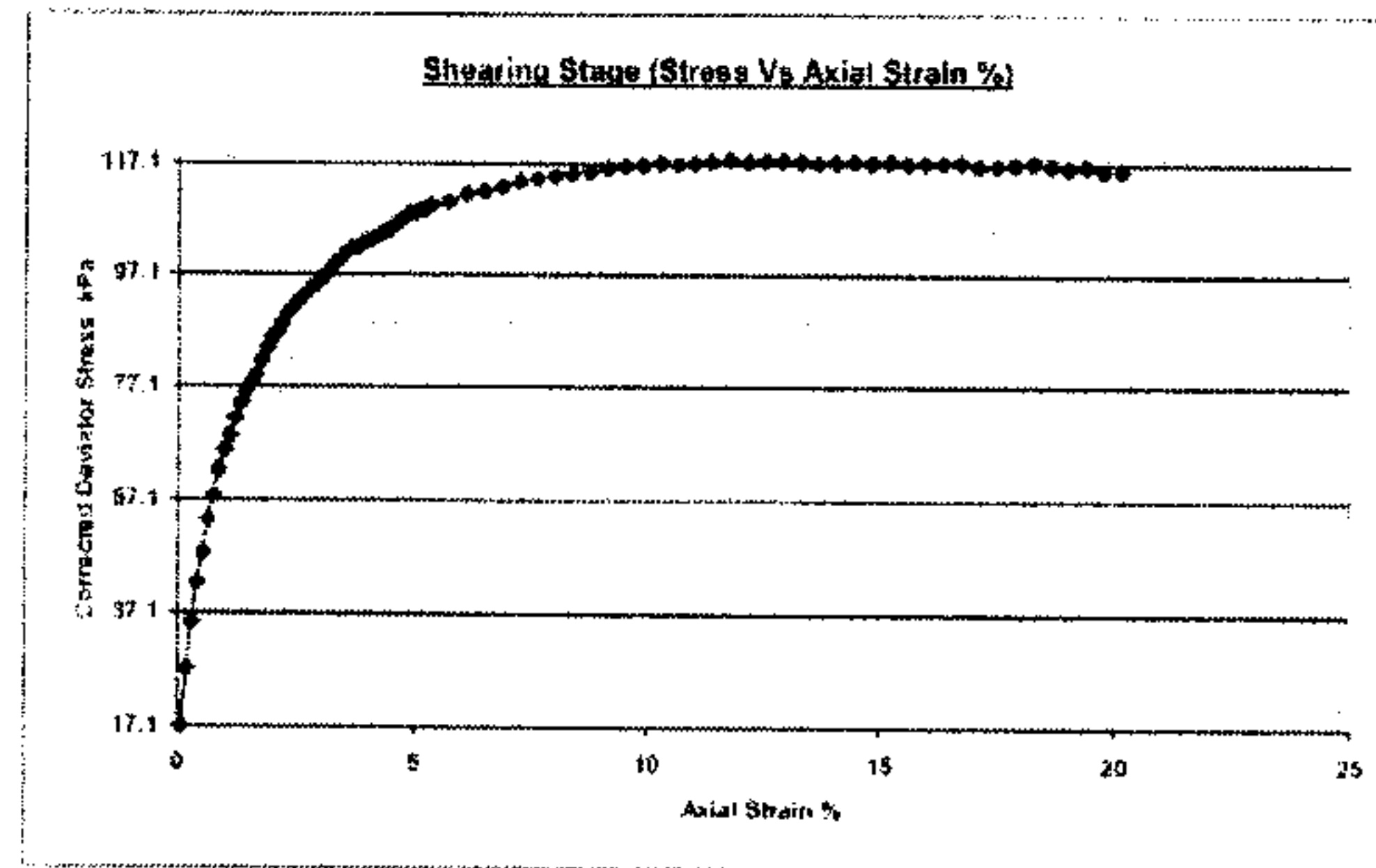
Test & Sample Details

Standard	BS 1377 Part 2 Clause 8	Sample Depth	5.90 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Gray/dark grey firm-stiff triaxial laminated fissured CLAY	Lab Temperature	20.8 deg.C
Variations from Procedure	None		

Specimen Details

Specimen Reference	A1	Stage Reference	1
Depth within Sample	23.50 mm	Description	As above
Initial Height	198.33 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	104.48 mm
Initial Bulk Density	1.99 Mg/m ³	Initial Moisture Content*	26.6 %
Initial Dry Density	1.57 Mg/m ³	Membrane Thickness	(Trimings 26.4 %) 0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

IELLE
International

Client	M3 Consulting	Lab Ref	06/0555/S
Project	Osnaburgh Street	Joh	12040881 001
Borehole	BH103	Sample	BH103 590-635m

Shear Conditions

Rate of Axial Strain	0.40% min	Cell Pressure	177.6 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	113 kPa	Shear Strength	59 kPa
Axial Strain	11.70%		
Deviator Stress Correction	6.3 kPa		
Final Density	1.99 Mg/m ³	Final Moisture Content	26.6 %

Tested By and Date	SL 17 01/07
Checked By and Date	
Approved By and Date	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELE
International

Client	M3 Consulting	Lab Ref	06/0555/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH103	Sample	BH103 810-855m

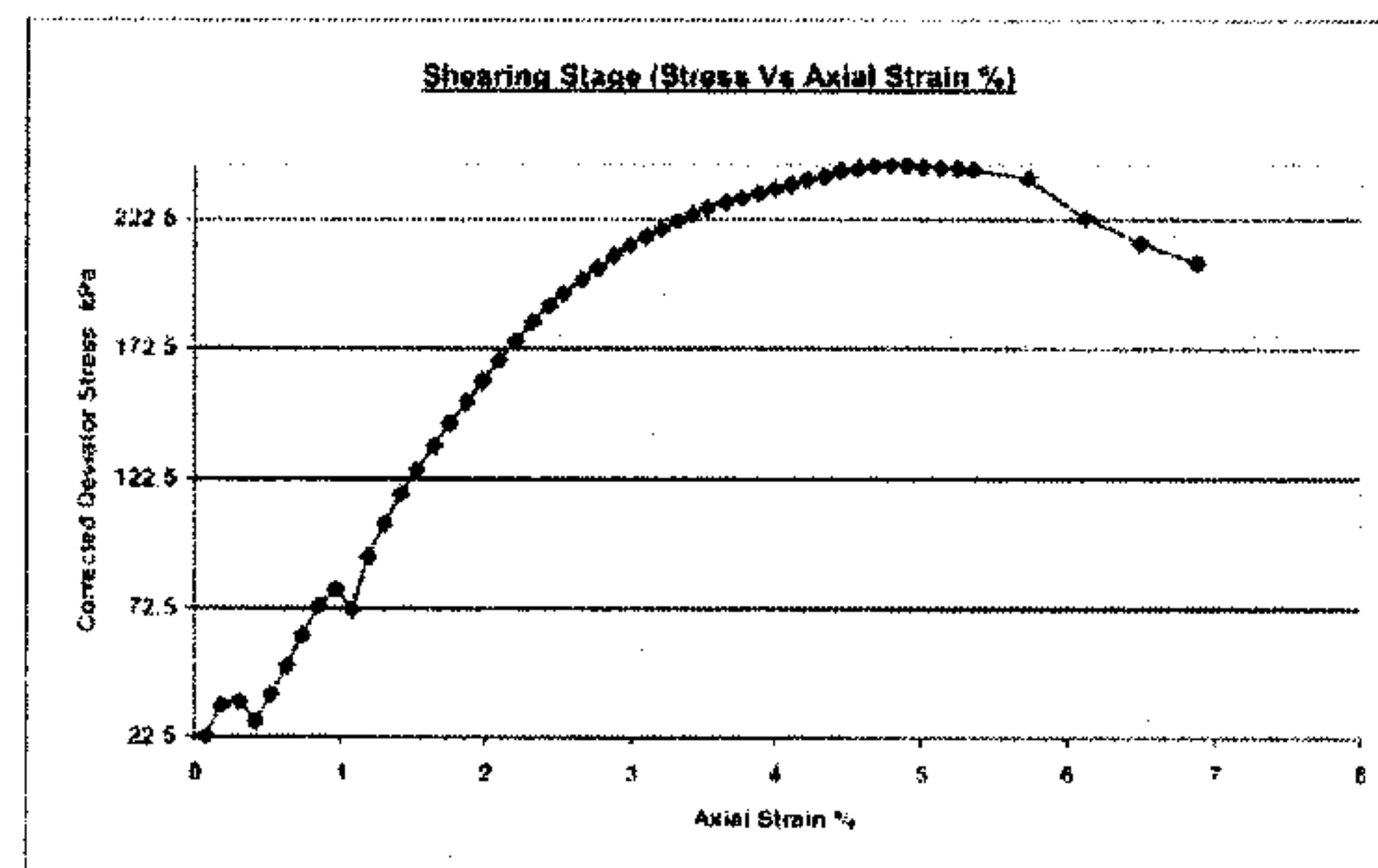
Test & Sample Details

Standard	BS 1377 : Part 7 : Clause 8	Sample Depth	8.10 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark grey firm-stiff fissile laminated fissured CLAY	Lab Temperature	20.7 deg C
Variations from Procedure	None		

Specimen Details

Specimen Reference	A1	Stage Reference	1
Depth within Sample	24.00 mm	Description	As above
Initial Height	198.17 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	102.64 mm
Initial Bulk Density	2.08 Mg/m ³	Initial Moisture Content*	25.1 % (Trimming: 25.7 %)
Initial Dry Density	1.66 Mg/m ³	Membrane Thickness	0.30 mm
Comments	None		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

ELE
International

Client	M3 Consulting	Lab Ref	06/0555/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH103	Sample	BH103 810-855m

Shear Conditions

Rate of Axial Strain	0.02% / min	Cell Pressure	242.6 kPa
----------------------	-------------	---------------	-----------

Conditions at Failure

Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	214 kPa	Shear Strength	17.8 kPa
Axial Strain	4.79%		
Deviator Stress Correction	6.3 kPa		
Final Density	2.08 Mg/m ³	Final Moisture Content	25.1 %

Tested By and Date:	SL 19-01-01
Checked By and Date:	-
Approved By and Date:	-

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

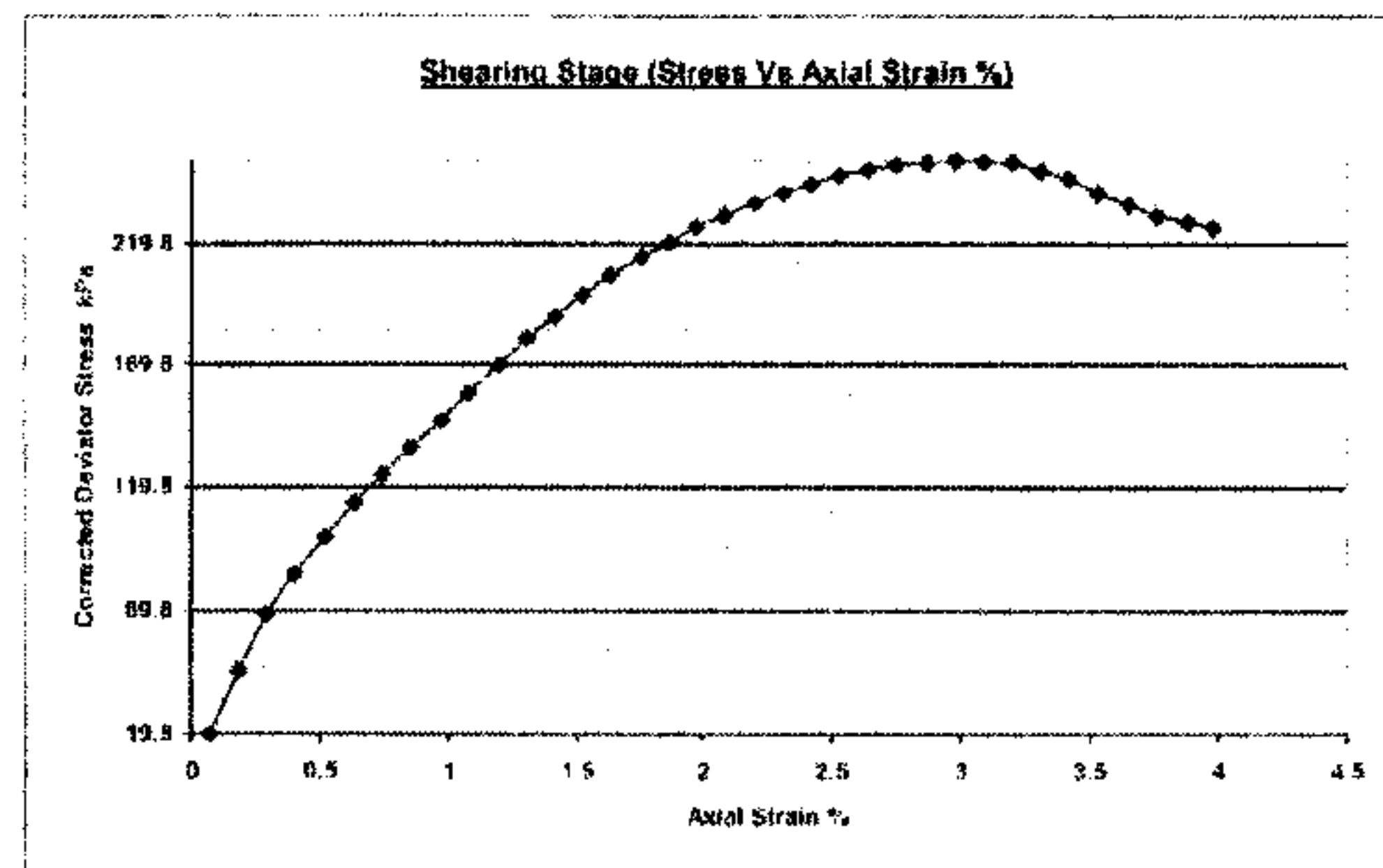
IELLE
International

Client	M3 Consulting	Lab Ref	06/0555/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH103	Sample	BH103 1030-1075m

Test & Sample Details			
Standard	BS 1377 Part 7, Clause 8	Sample Depth	10.30 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark grey firm-stiff friable laminated fissured CLAY	Lab. Temperature	20.8 deg C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	25.00 mm	Description	As above
Initial Height	195.17 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.27 mm
Initial Bulk Density	2.03 Mg/m ³	Initial Moisture Content*	26.4 % (Innings 27.5 %)
Initial Dry Density	1.61 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

IELLE
International

Client	M3 Consulting	Lab Ref	06/0555/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH103	Sample	BH103 1030-1075m

Shear Conditions			
Rate of Axial Strain	0.50%/min	Cell Pressure	300.5 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	214 kPa	Shear Strength	127 kPa
Axial Strain	2.98%		
Deviator Stress Correction	6.2 kPa		
Final Density	2.03 Mg/m ³	Final Moisture Content	26.4 %



Mode of Failure

Tested By and Date	SL 14/01/07
Checked By and Date	
Approved By and Date	

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

IELLE
International

Client	M3 Consulting	Lab Ref	06/0555-S
Project	Osnaibagh Street	Job	12040881 001
Borehole	BH103	Sample	BH103 16.30-16.75m

Test & Sample Details

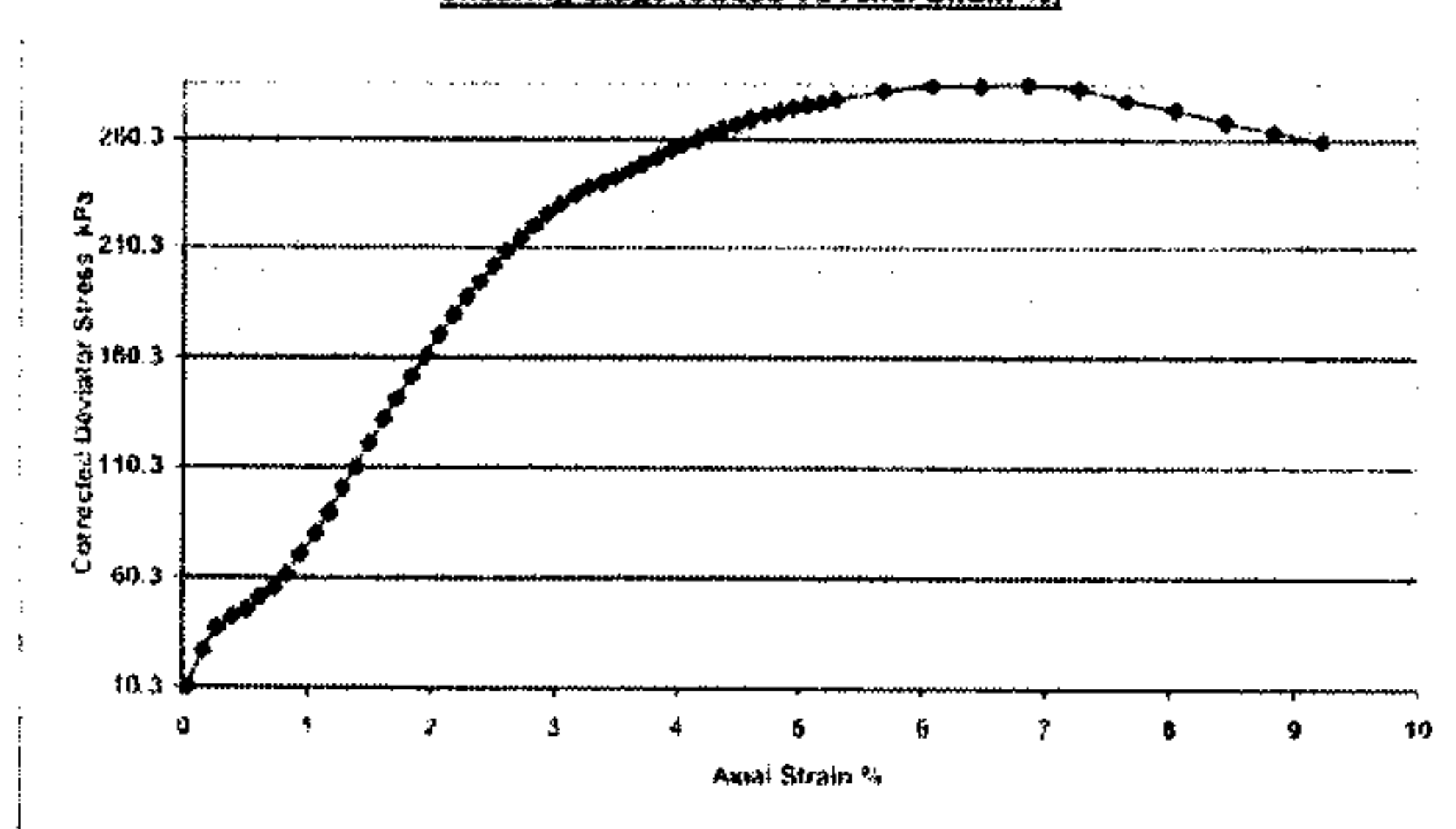
Standard	BS 1377 Part 7: Clause 8	Sample Depth	16.30 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Grey/dark grey, firm-soft friable laminated fissured CLAY	Lab. Temperature	20.5 deg C
Variations from Procedure	None		

Specimen Details

Specimen Reference	A1	Stage Reference	1
Depth within Sample	10.00 mm	Description	As above
Initial Height	198.37 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.20 mm
Initial Bulk Density	2.04 Mg/m ³	Initial Moisture Content*	23.6 % (Trimming: 25.2 %)
Initial Dry Density	1.65 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen

Shearing Stage (Stress Vs Axial Strain %)



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

IELLE
International

Client	M3 Consulting	Lab Ref	06/0555-S
Project	Osnaibagh Street	Job	12040881 001
Borehole	BH103	Sample	BH103 16.30-16.75m

Shear Conditions

Rate of Axial Strain	0.15%/min	Cell Pressure	151.0 kPa
----------------------	-----------	---------------	-----------

Conditions at Failure

Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	240.3 kPa	Shear Strength	143.8 kPa
Axial Strain	6.80%		
Deviator Stress Correction	0.5 kPa		
Final Density	2.04 Mg/m ³	Final Moisture Content	23.6 %

Tested By and Date	SL 17.01.07
Checked By and Date	
Approved By and Date	

Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

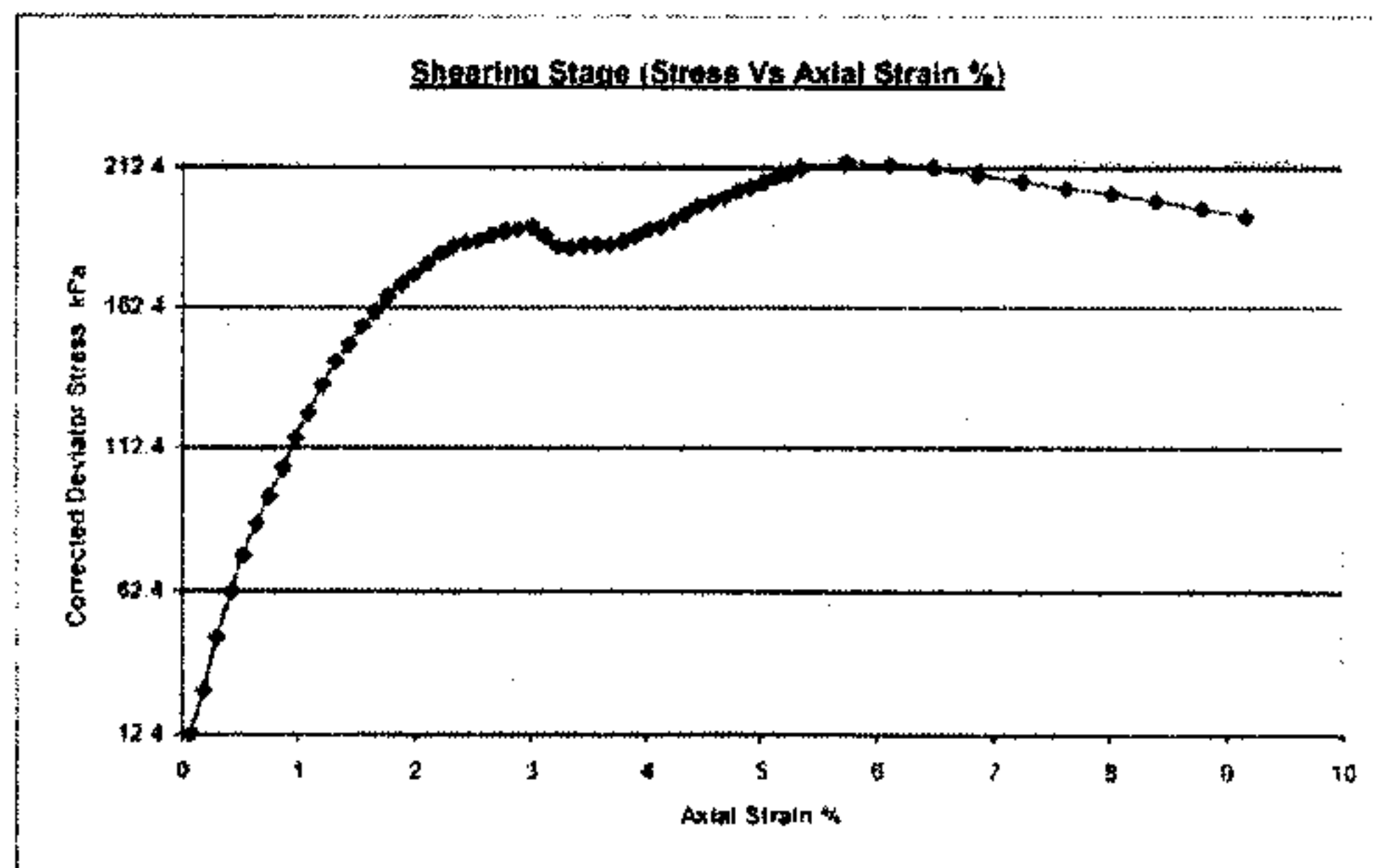
FILE
International

Client	M3 Consulting	Lab Ref	06/0555/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH103	Sample	BH103 1850-1895m

Test & Sample Details			
Standard	BS 1377 Part 7, Clause 9	Sample Depth	18.50 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.85 Mg/m ³
Sample Description	Grey dark grey firm stiff friable laminated fissured CLAY	Lab. Temperature	20.8 deg C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	22.50 mm	Description	As above
Initial Height	200.31 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	103.73 mm
Initial Bulk Density	2.03 Mg/m ³	Initial Moisture Content*	25.0 % (Trimming: 24.9 %)
Initial Dry Density	1.62 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



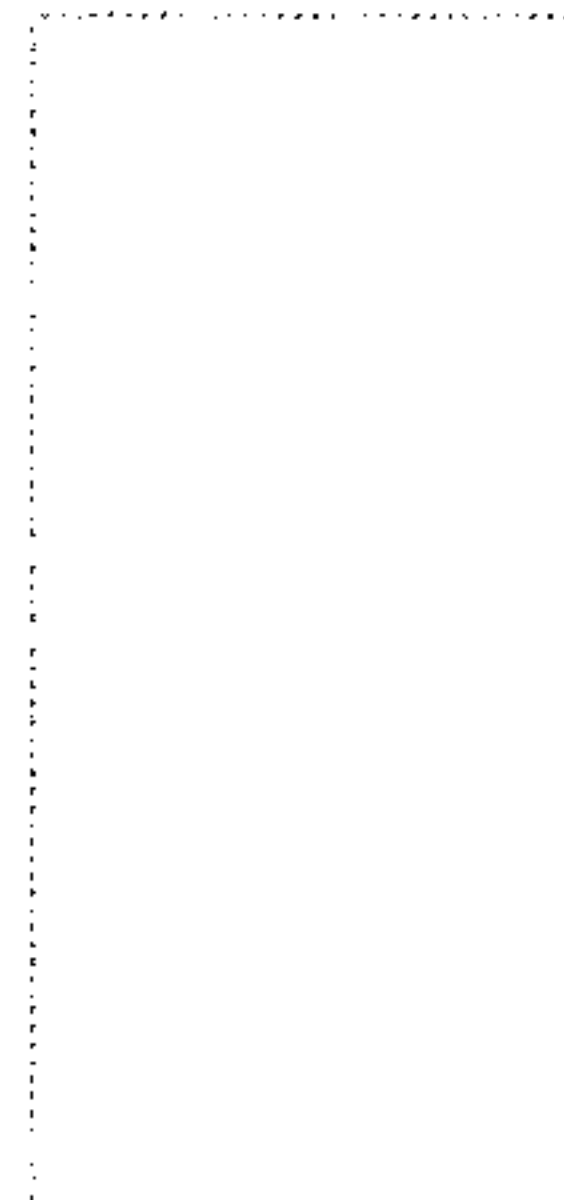
Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

FILE
International

Client	M3 Consulting	Lab Ref	06/0555/S
Project	Osnaburgh Street	Job	12040881 001
Borehole	BH103	Sample	BH103 1850-1895m

Shear Conditions			
Rate of Axial Strain	0.62%/min	Cell Pressure	565.9 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	214 kPa	Shear Strength	10 kPa
Axial Strain	5.72%		
Deviator Stress Correction	0.4 kPa		
Final Density	2.03 Mg/m ³	Final Moisture Content	25.0 %

Tested By and Date	SL 17/01/07
Checked By and Date	
Approved By and Date	



Mode of Failure

Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

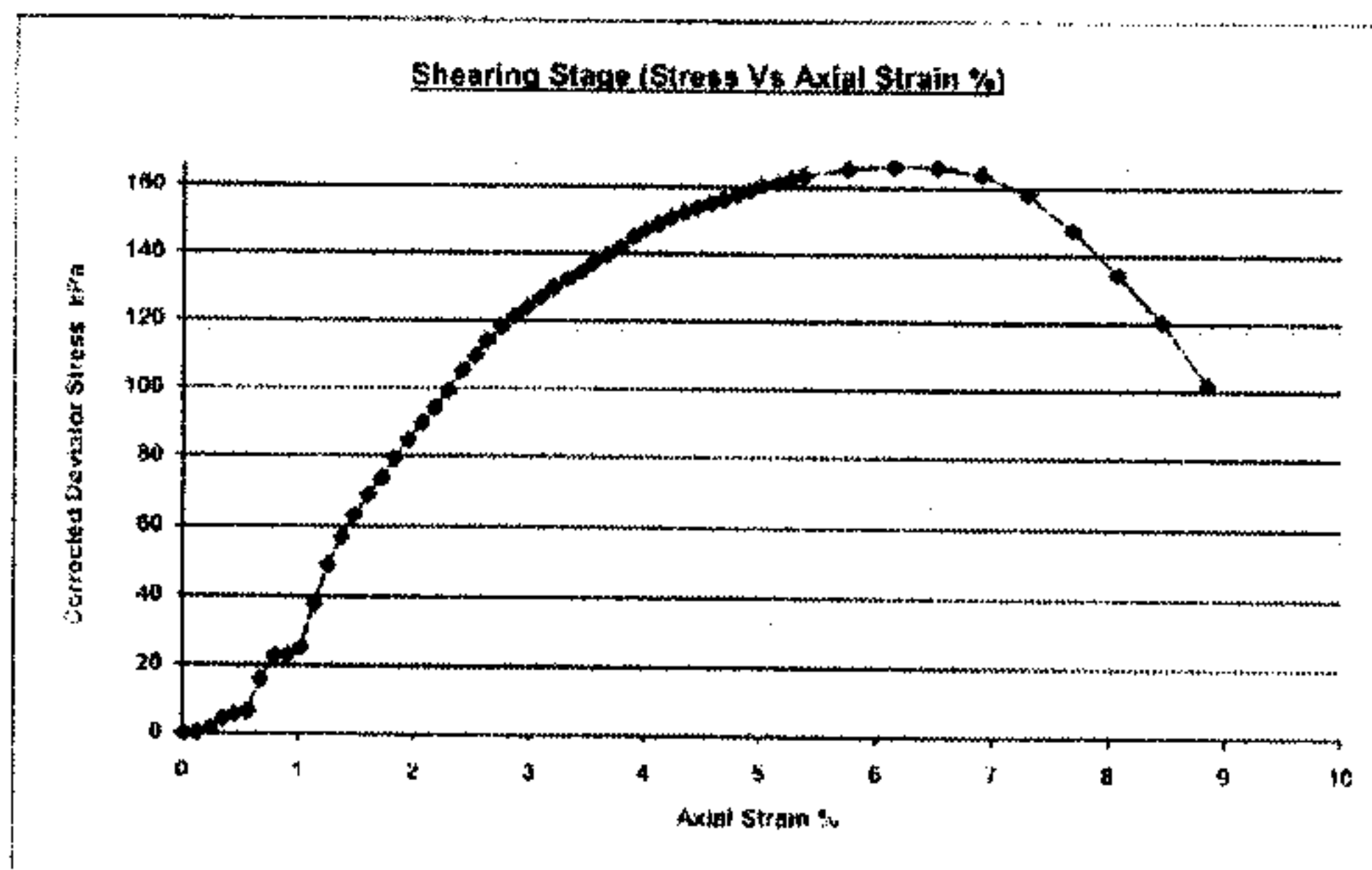
FILE
International

Client	M3 Consulting	Lab Ref	06/0554-S
Project	Osnaburgh Street	Job	12040881-001
Borehole	BH105	Sample	BH105 610-655m

Test & Sample Details			
Standard	BS 1377: Part 7 - Clause 8	Sample Depth	6.10 m
Sample Type	Undisturbed sample - open drive	Particle Density	2.65 Mg/m ³
Sample Description	Brown/dark brown firm friable laminated fissured CLAY	Lab. Temperature	20.7 deg.C
Variations from Procedure	None		

Specimen Details			
Specimen Reference	A1	Stage Reference	1
Depth within Sample	22.50 mm	Description	As above
Initial Height	199.57 mm	Orientation within Sample	vertical
Preparation	Undisturbed	Initial Diameter	102.65 mm
Initial Bulk Density	1.94 Mg/m ³	Initial Moisture Content*	29.4 % (Trimming: 28.6 %)
Initial Dry Density	1.50 Mg/m ³	Membrane Thickness	0.30 mm
Comments	none		

* Calculated from initial and dry weights of whole specimen



Undrained Shear Strength in Triaxial Compression without measurement of Pore Pressure (Quick Undrained)

FILE
International

Client	M3 Consulting	Lab Ref	06/0554-S
Project	Osnaburgh Street	Job	12040881-001
Borehole	BH105	Sample	BH105 610-655m

Shear Conditions			
Rate of Axial Strain	0.72% min	Cell Pressure	175.71 kPa
Conditions at Failure			
Failure Criterion	Max Deviator Stress or Max allowed Strain		
Maximum Corrected Deviator Stress	166 kPa	Shear Strength	83 kPa
Axial Strain	6.14%		
Deviator Stress Correction	0.5 kPa		
Final Density	1.94 Mg/m ³	Final Moisture Content	29.4 %

Tested By and Date	SL 20/01/07
Checked By and Date	
Approved By and Date	

Mode of Failure