

APPENDIX B.8

CONSOLIDATED-UNDRAINED (CU) TRIAXIAL

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	August 12, 2012
Borehole:	BH-003-12	Station:	CU3
Sample No.:	ST5 (TC01)	Depth (m):	30.78
Specimen Data		Consolidation	
Diameter (mm)	35.80	Specific Gravity, Gs:	2.74
Height (mm)	85.31	Initial vertical effective stress, σ'_1 (kPa)	14.0
Weight of container + sample (g)	180.74	Final vertical effective stress, σ'_1 (kPa)	252.3
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	14.0
Total Unit Weight (kN/m ³)	20.65	Final effective isotropic stress, σ'_3 (kPa)	265.1
Dry Unit Weight (kN/m ³)	17.02	Pore Pressure (kPa)	488.2
Water Content		Ratio of horizontal to vertical stress, K	1.02
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	5.16
Tin No.	25 C30	Initial height of specimen (cm)	8.53
Weight of tin (g)	34.6 199.1	Initial area of specimen (cm ²)	10.06
Tin + Wet weight (g)	65.59 380.4	Initial volume of specimen (cm ³)	85.86
Tin + Dry weight (g)	60.14 346.23	Initial void ratio, e_i	0.58
Water Content (%)	21.3 23.2		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	248.2
Cell Pressure, σ_3 (kPa)	358.5	Initial Isotropic effective stress, σ'_3 (kPa)	261.0
Back Pressure (kPa)	344.7	Initial Pore Pressure (kPa)	488.8
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	0.99		

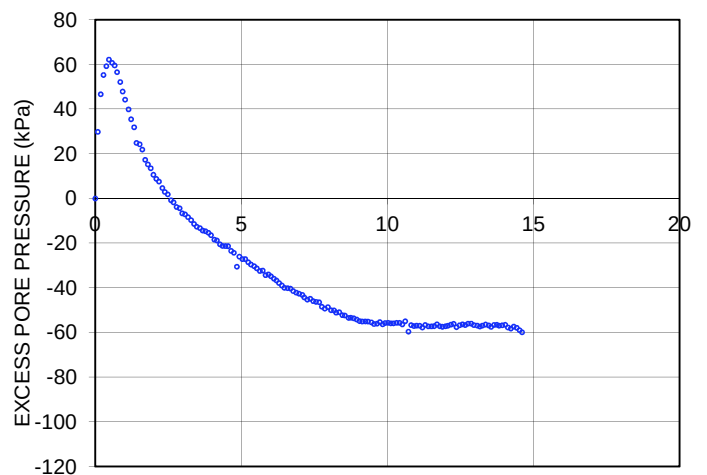
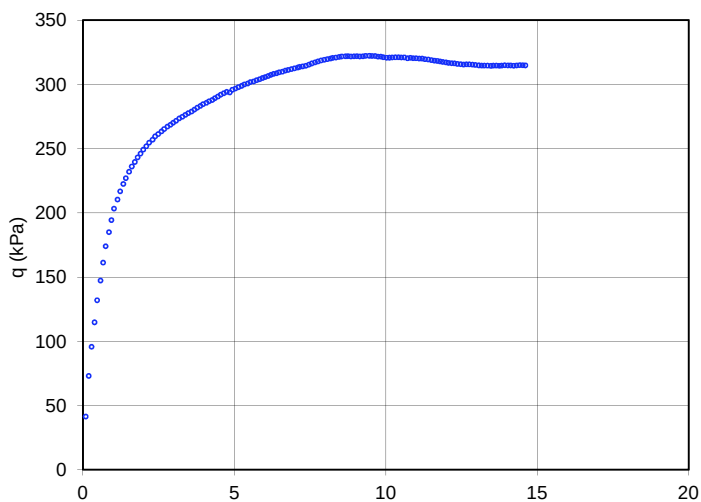
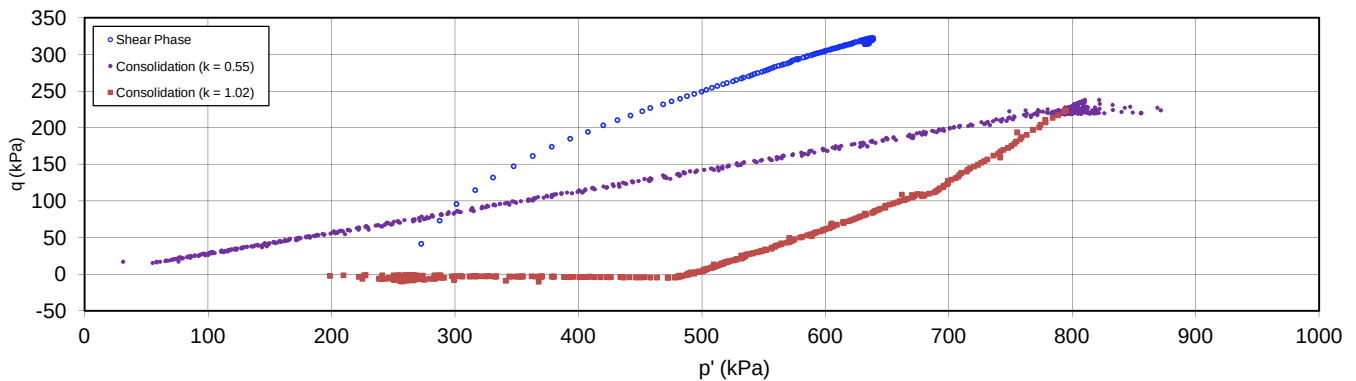


Comments / Observations: _____

Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 22, 2012	Date:	August 24, 2012	Date:	August 27, 2012

Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 12, 2012
Borehole:	BH-003-12			Depth (m):	30.78
Sample No.:	ST5 (TC01)				
Initial Height (mm):	85.3	Weight of Specimen (g):	180.74	Initial Void Ratio, e_i :	0.58
Initial Diameter (mm):	35.8	Total Unit Weight (kN/m ³):	20.65	Natural Water Content (%):	21.3
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m ³):	17.02		
Final Water Content (%):	23.2	Pore pressure coefficient, B :	0.99		



Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 22, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 8, 2012
Borehole:	BH-003-12	Station:	CU1
Sample No.:	ST2 (TC02A)	Depth (m):	28.08
Specimen Data		Consolidation	
Diameter (mm)	72.10	Specific Gravity, Gs:	
Height (mm)	162.23	Initial vertical effective stress, σ'_1 (kPa)	366.6
Weight of container + sample (g)	1387.44	Final vertical effective stress, σ'_1 (kPa)	702.5
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	366.6
Total Unit Weight (kN/m ³)	20.55	Final effective isotropic stress, σ'_3 (kPa)	673.7
Dry Unit Weight (kN/m ³)	17.16	Pore Pressure (kPa)	693.5
Water Content		Ratio of horizontal to vertical stress, K	0.50
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	-2.13
Tin No.	13 C20	Initial height of specimen (cm)	16.22
Weight of tin (g)	24.83 198.11	Initial area of specimen (cm ²)	40.83
Tin + Wet weight (g)	64.47 1562.19	Initial volume of specimen (cm ³)	662.37
Tin + Dry weight (g)	57.93 1337.01	Initial void ratio, e	#DIV/0!
Water Content (%)	19.8 19.8		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	698.6
Cell Pressure, σ_3 (kPa)	703.3	Initial Isotropic effective stress, σ'_3 (kPa)	669.8
Back Pressure (kPa)	689.5	Initial Pore Pressure (kPa)	692.3
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	1.00		



Comments / Observations: _____

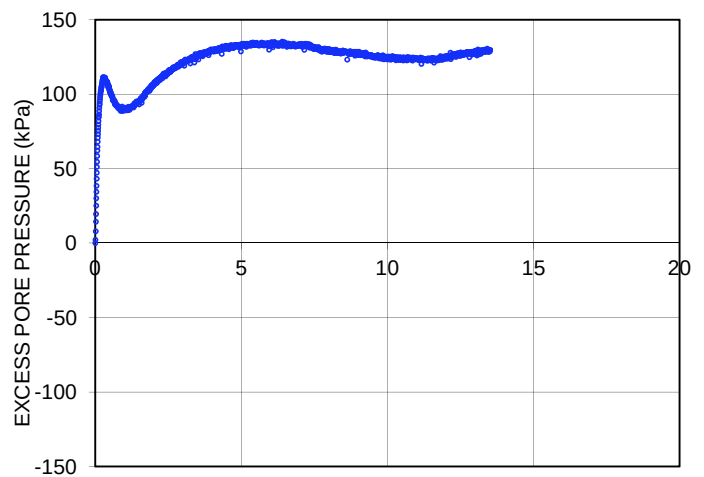
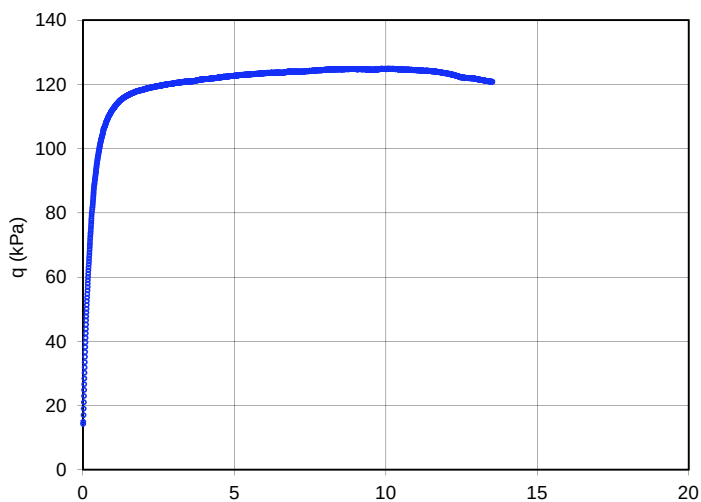
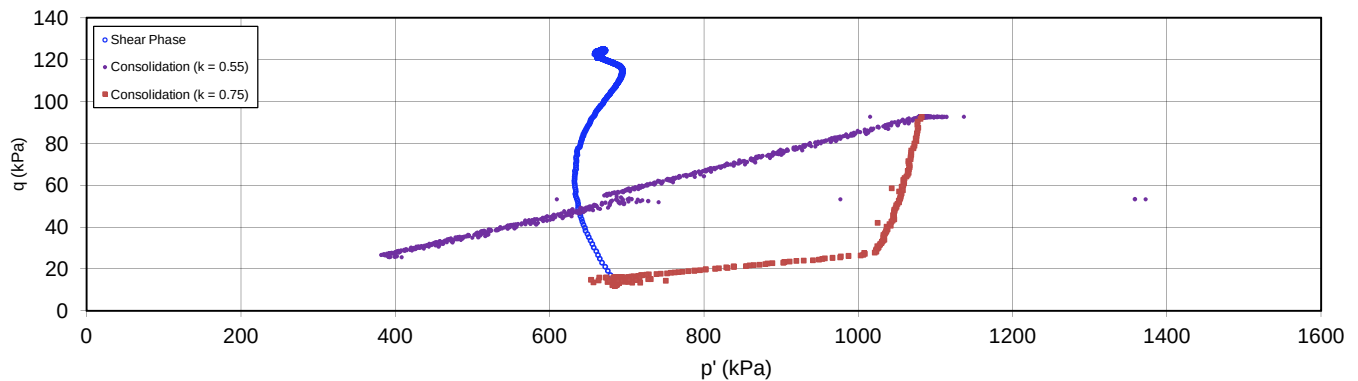
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	July 24, 2012	Date:	August 1, 2012	Date:	August 15, 2012

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Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	June 8, 2012
Borehole:	BH-003-12			Depth (m):	28.08
Sample No.:	ST2 (TC02A)				
Initial Height (mm):	162.2	Weight of Specimen (g):	1387.44	Initial Void Ratio, e _i :	#DIV/0!
Initial Diameter (mm):	72.1	Total Unit Weight (kN/m ³):	20.55	Natural Water Content (%):	19.8
Specific Gravity, G _s :	0.00	Dry Unit Weight (kN/m ³):	17.16		
Final Water Content (%):	19.8	Pore pressure coefficient, B:	1.00		

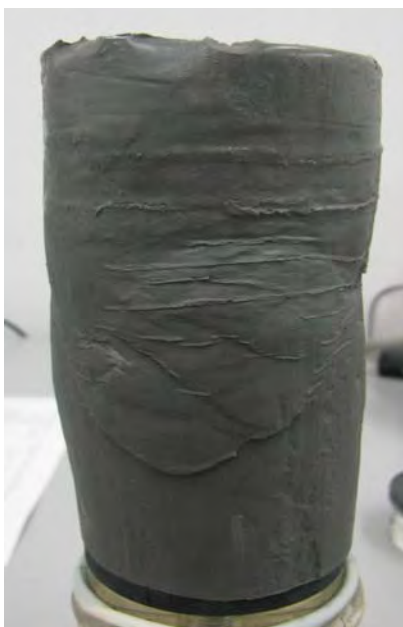


Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	0
Date:	July 24, 2012	Date:	August 1, 2012	Date:	January 0, 1900

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 26, 2012
Borehole:	BH-003-12	Station:	CU1
Sample No.:	ST-3 (TC02b)	Depth (m):	28.76
Specimen Data		Consolidation	
Diameter (mm)	72.87	Specific Gravity, G _s :	2.71
Height (mm)	163.77	Initial vertical effective stress, σ'_1 (kPa)	13.7
Weight of container + sample (g)	1388.14	Final vertical effective stress, σ'_1 (kPa)	911.1
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	13.7
Total Unit Weight (kN/m ³)	19.94	Final effective isotropic stress, σ'_3 (kPa)	679.1
Dry Unit Weight (kN/m ³)	16.19	Pore Pressure (kPa)	689.8
Water Content		Ratio of horizontal to vertical stress, K	0.50
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	11.84
Tin No.	84 B5	Initial height of specimen (cm)	16.38
Weight of tin (g)	34.5 136.59	Initial area of specimen (cm ²)	41.70
Tin + Wet weight (g)	112.96 1538.72	Initial volume of specimen (cm ³)	682.93
Tin + Dry weight (g)	98.21 1253.22	Initial void ratio, e _i	0.64
Water Content (%)	23.2 25.6		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	911.9
Cell Pressure, σ_3 (kPa)	703.3	Initial Isotropic effective stress, σ'_3 (kPa)	681.9
Back Pressure (kPa)	689.5	Initial Pore Pressure (kPa)	689.7
Effective Stress (kPa)	13.8	Strain rate (%/hr)	0.4
Pore pressure coefficient, B	1.00		



Comments / Observations: _____

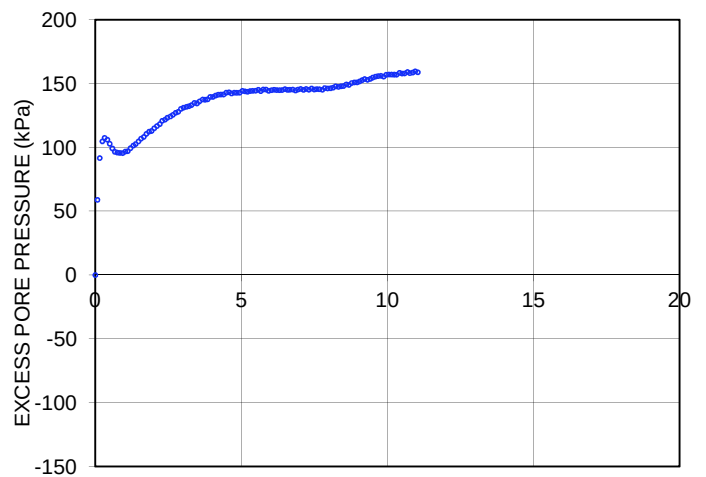
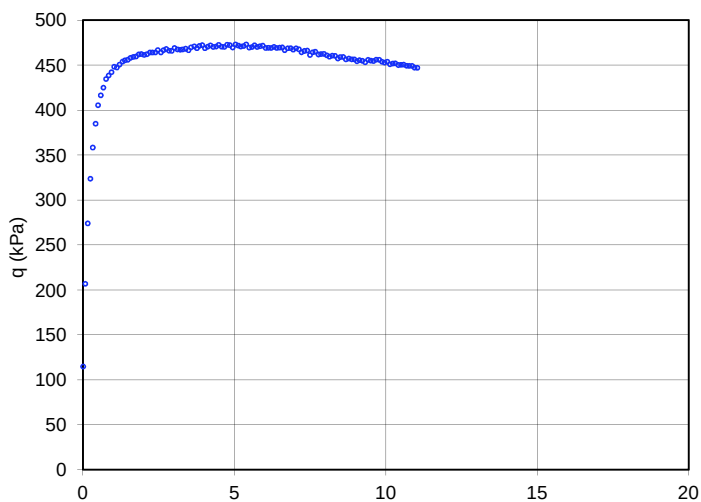
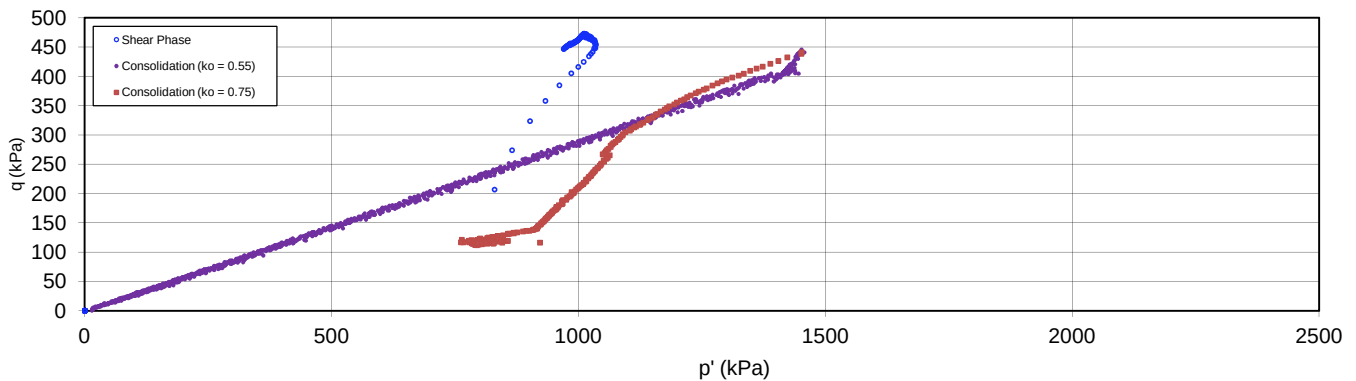
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 1, 2012	Date:	August 24, 2012	Date:	August 27, 2012

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Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 26, 2012
Borehole:	BH-003-12			Depth (m):	28.76
Sample No.:	ST-3 (TC02b)				
Initial Height (mm):	163.8	Weight of Specimen (g):	1388.14	Initial Void Ratio, e_i :	0.64
Initial Diameter (mm):	72.9	Total Unit Weight (kN/m ³):	19.94	Natural Water Content (%):	23.2
Specific Gravity, G_s :	2.71	Dry Unit Weight (kN/m ³):	16.19		
Final Water Content (%):	25.6	Pore pressure coefficient, B :	1.00		

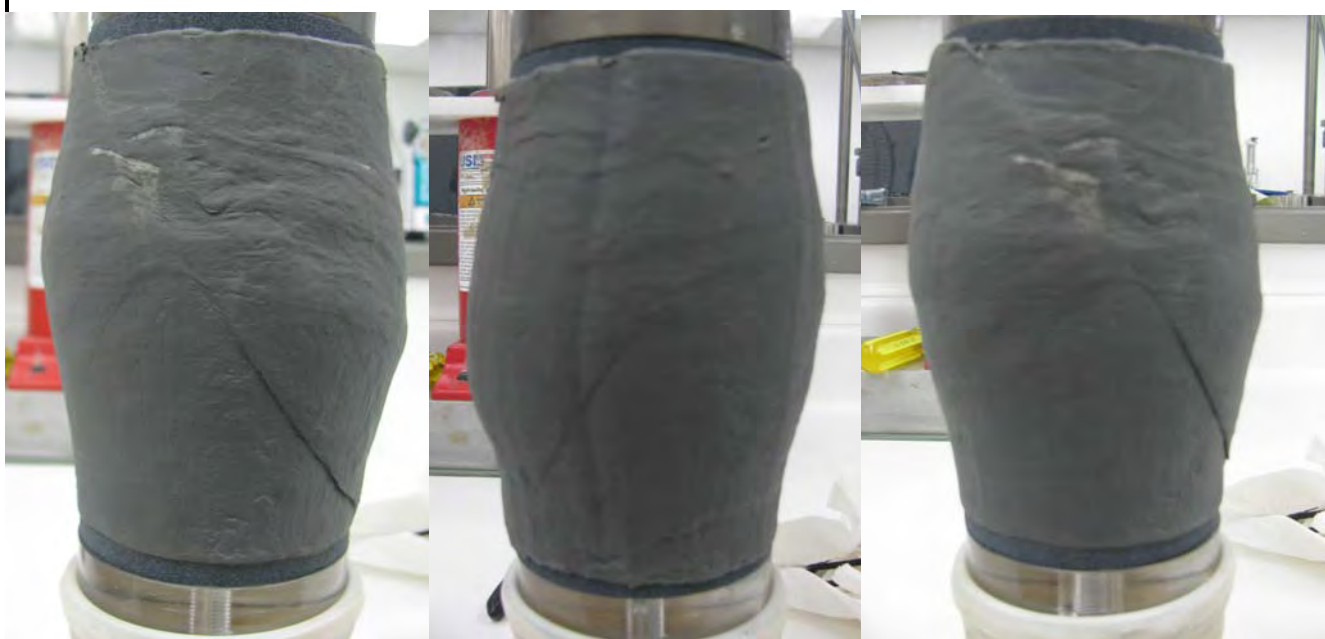


Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 1, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	June 1, 2012
Borehole:	BH-003-12	Station:	CU1
Sample No.:	ST4 (TC02C)	Depth (m):	29.64
Specimen Data		Consolidation	
Diameter (mm)	72.31	Specific Gravity, G _s :	2.75
Height (mm)	162.75	Initial vertical effective stress, σ'_1 (kPa)	14.0
Weight of container + sample (g)	1367.5	Final vertical effective stress, σ'_1 (kPa)	887.4
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	14.0
Total Unit Weight (kN/m ³)	20.07	Final effective isotropic stress, σ'_3 (kPa)	667.7
Dry Unit Weight (kN/m ³)	16.23	Pore Pressure (kPa)	691.1
Water Content		Ratio of horizontal to vertical stress, K	0.50
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	26.75
Tin No.	89A B5	Initial height of specimen (cm)	16.28
Weight of tin (g)	32.51 136.56	Initial area of specimen (cm ²)	41.07
Tin + Wet weight (g)	158.33 1474.19	Initial volume of specimen (cm ³)	668.43
Tin + Dry weight (g)	134.24 1232.86	Initial void ratio, e_i	0.66
Water Content (%)	23.7 22.0		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	884.6
Cell Pressure, σ_3 (kPa)	703.3	Initial Isotropic effective stress, σ'_3 (kPa)	670.7
Back Pressure (kPa)	689.5	Initial Pore Pressure (kPa)	691.0
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	1.00		



Comments / Observations: _____

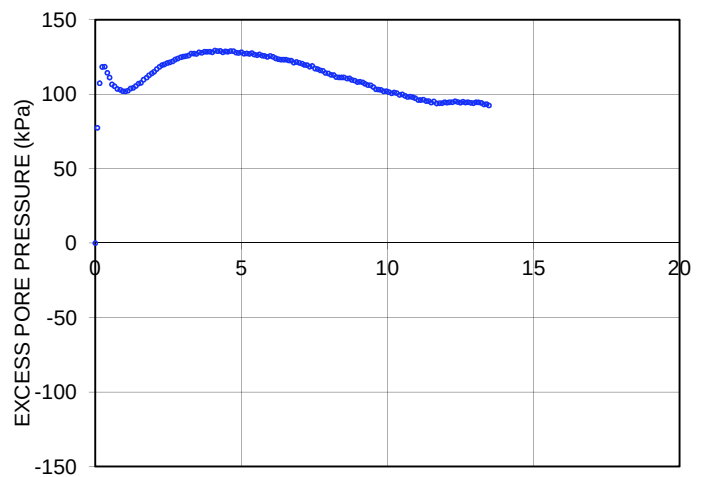
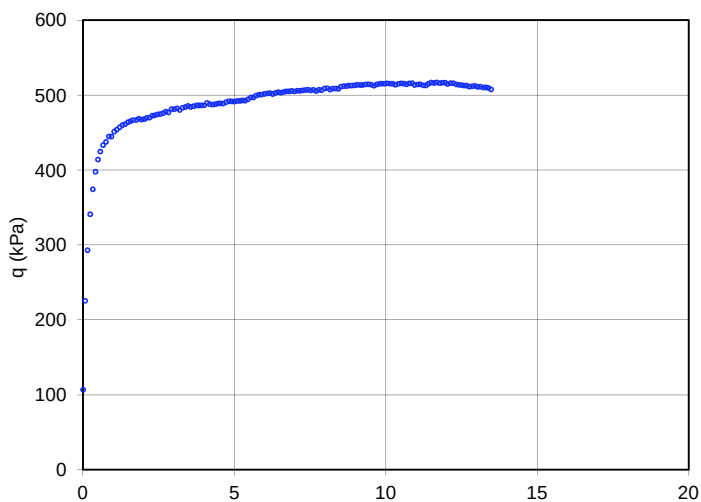
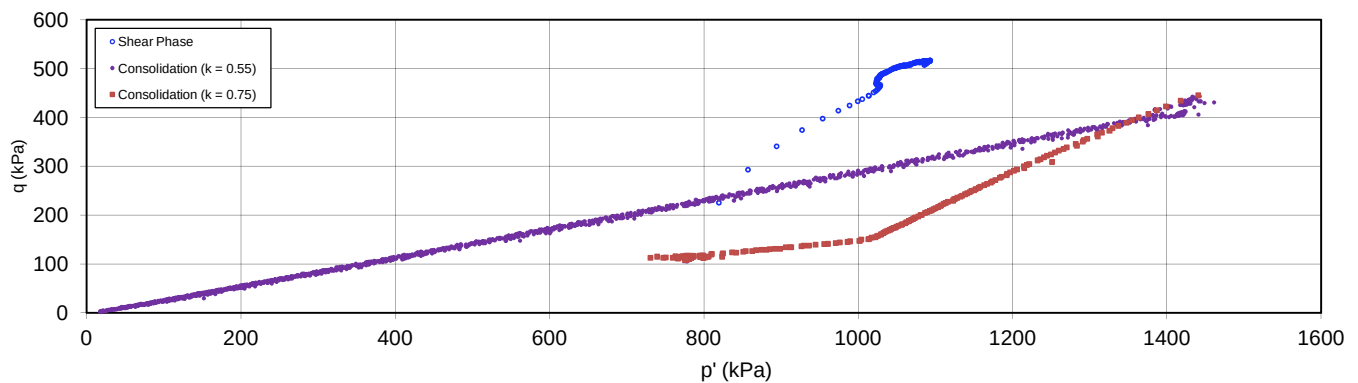
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Date:	July 24, 2012	Date:	August 1, 2012	Date:	August 15, 2012

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Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	June 1, 2012
Borehole:	BH-003-12			Depth (m):	29.64
Sample No.:	ST4 (TC02C)				
Initial Height (mm):	162.8	Weight of Specimen (g):	1367.50	Initial Void Ratio, e_i :	0.66
Initial Diameter (mm):	72.3	Total Unit Weight (kN/m ³):	20.07	Natural Water Content (%):	23.7
Specific Gravity, G_s :	2.75	Dry Unit Weight (kN/m ³):	16.23		
Final Water Content (%):	22.0	Pore pressure coefficient, B :	1.00		



Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	July 24, 2012	Date:	August 1, 2012	Date:	August 15, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 15, 2012
Borehole:	BH-003-12	Station:	CU1
Sample No.:	ST-5 (TC02d)	Depth (m):	30.56
Specimen Data		Consolidation	
Diameter (mm)	72.09	Specific Gravity, Gs:	2.74
Height (mm)	162.29	Initial vertical effective stress, σ'_1 (kPa)	13.1
Weight of container + sample (g)	1273.55	Final vertical effective stress, σ'_1 (kPa)	939.2
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	13.1
Total Unit Weight (kN/m ³)	18.86	Final effective isotropic stress, σ'_3 (kPa)	670.9
Dry Unit Weight (kN/m ³)	14.60	Pore Pressure (kPa)	690.7
Water Content		Ratio of horizontal to vertical stress, K	0.75
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	37.43
Tin No.	57 C31	Initial height of specimen (cm)	16.23
Weight of tin (g)	23.98 196.57	Initial area of specimen (cm ²)	40.81
Tin + Wet weight (g)	148.37 1415.66	Initial volume of specimen (cm ³)	662.37
Tin + Dry weight (g)	120.25 1146.17	Initial void ratio, e_i	0.84
Water Content (%)	29.2 28.4		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	931.4
Cell Pressure, σ_3 (kPa)	703.3	Initial Isotropic effective stress, σ'_3 (kPa)	669.7
Back Pressure (kPa)	689.5	Initial Pore Pressure (kPa)	689.6
Effective Stress (kPa)	13.8	Strain rate (%/hr)	0.4
Pore pressure coefficient, B	0.98		



Comments / Observations: _____

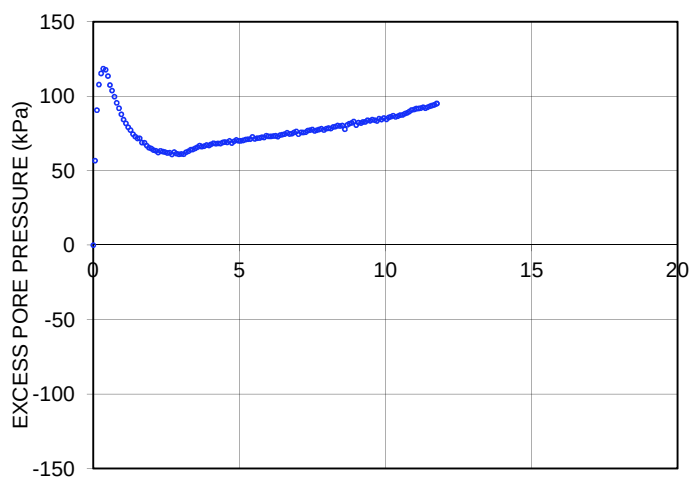
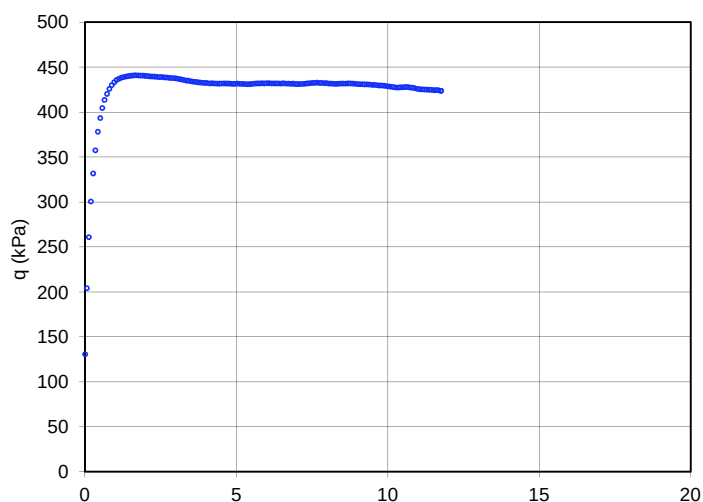
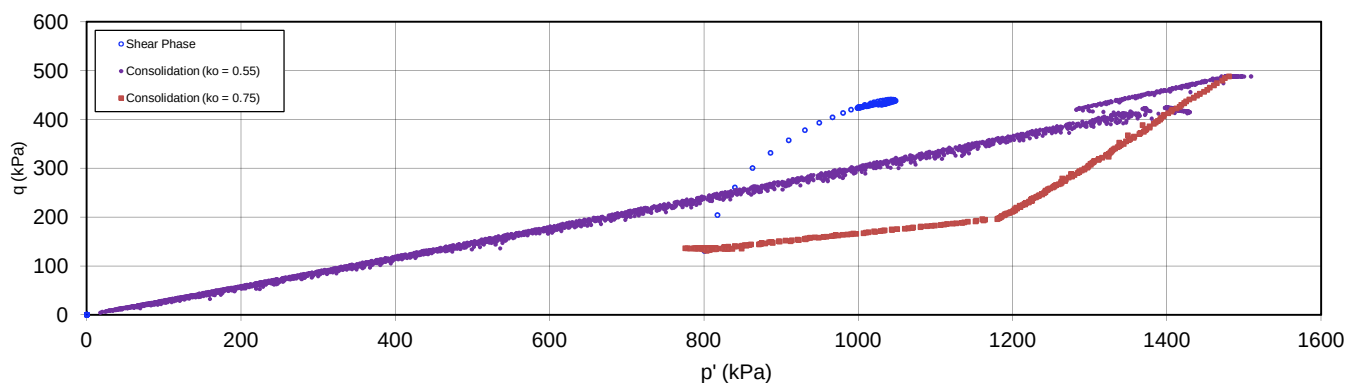
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Date:	August 8, 2012	Date:	August 24, 2012	Date:	August 27, 2012

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Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 15, 2012
Borehole:	BH-003-12			Depth (m):	30.56
Sample No.:	ST-5 (TC02d)				
Initial Height (mm):	162.3	Weight of Specimen (g):	1273.55	Initial Void Ratio, e_i :	0.84
Initial Diameter (mm):	72.1	Total Unit Weight (kN/m ³):	18.86	Natural Water Content (%):	29.2
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m ³):	14.60		
Final Water Content (%):	28.4	Pore pressure coefficient, B :	0.98		



Comments: Pump drained at approx 1300 kPa

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 8, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 24, 2012
Borehole:	BH-003-12	Station:	CU1
Sample No.:	ST-9 (TC03)	Depth (m):	37.95
Specimen Data		Consolidation	
Diameter (mm)	35.17	Specific Gravity, Gs:	2.71
Height (mm)	86.60	Initial vertical effective stress, σ'_1 (kPa)	2.5
Weight of container + sample (g)	172.8	Final vertical effective stress, σ'_1 (kPa)	1020.8
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	2.5
Total Unit Weight (kN/m ³)	20.15	Final effective isotropic stress, σ'_3 (kPa)	557.5
Dry Unit Weight (kN/m ³)	16.53	Pore Pressure (kPa)	343.5
Water Content		Ratio of horizontal to vertical stress, K	0.50
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	3.85
Tin No.	13 C09	Initial height of specimen (cm)	8.66
Weight of tin (g)	24.81 215.7	Initial area of specimen (cm ²)	9.71
Tin + Wet weight (g)	86.05 386.45	Initial volume of specimen (cm ³)	84.11
Tin + Dry weight (g)	75.03 354.16	Initial void ratio, e_i	0.61
Water Content (%)	21.9 23.3		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	1052.9
Cell Pressure, σ_3 (kPa)	358.5	Initial Isotropic effective stress, σ'_3 (kPa)	568.8
Back Pressure (kPa)	344.7	Initial Pore Pressure (kPa)	343.5
Effective Stress (kPa)	13.8	Strain rate (%/hr)	0.4
Pore pressure coefficient, B	0.96		



Comments / Observations: _____

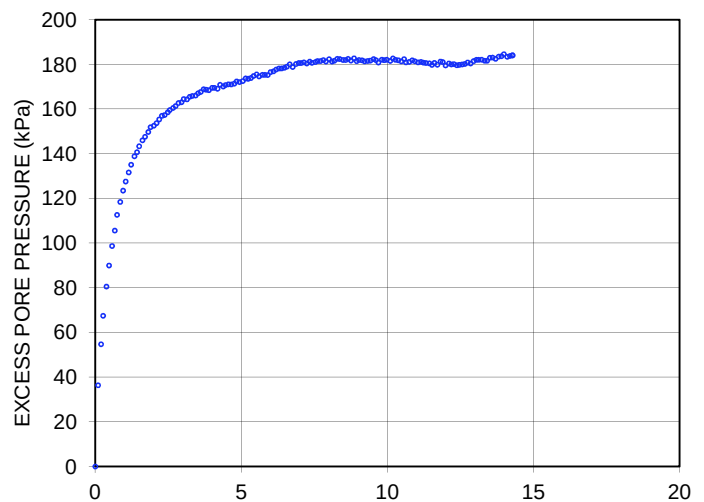
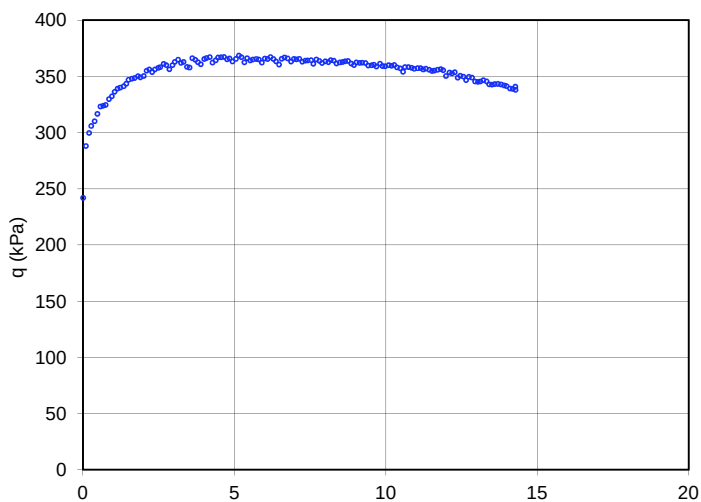
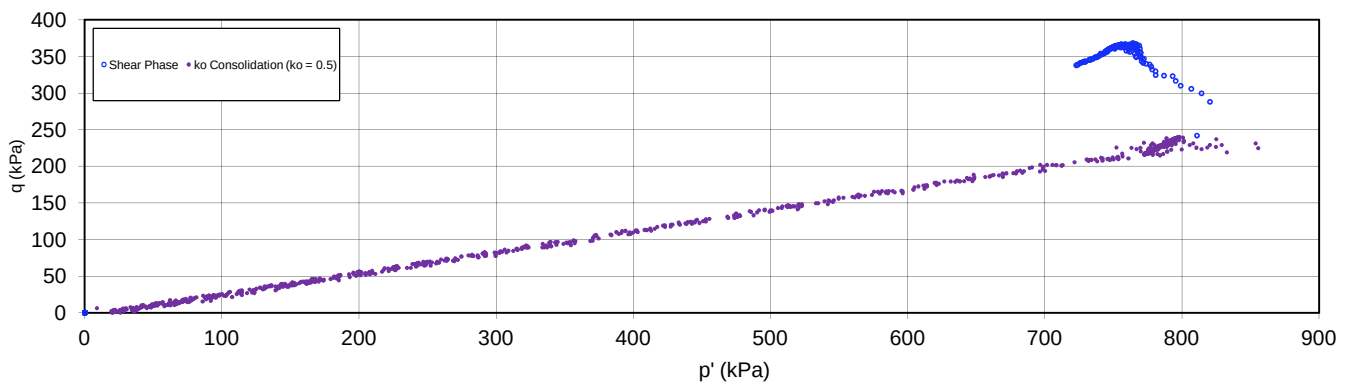
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 8, 2012	Date:	August 24, 2012	Date:	August 27, 2012

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Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 24, 2012
Borehole:	BH-003-12			Depth (m):	37.95
Sample No.:	ST-9 (TC03)				
Initial Height (mm):	86.6	Weight of Specimen (g):	172.80	Initial Void Ratio, e_i :	0.61
Initial Diameter (mm):	35.2	Total Unit Weight (kN/m³):	20.15	Natural Water Content (%):	21.9
Specific Gravity, G_s :	2.71	Dry Unit Weight (kN/m³):	16.53		
Final Water Content (%):	23.3	Pore pressure coefficient, B :	0.96		



Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 8, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 23, 2012
Borehole:	BH-003-12	Station:	CU3
Sample No.:	ST10 (TC04)	Depth (m):	38.40
Specimen Data		Consolidation	
Diameter (mm)	35.56	Specific Gravity, Gs:	2.61
Height (mm)	84.90	Initial vertical effective stress, σ'_1 (kPa)	22.5
Weight of container + sample (g)	176.94	Final vertical effective stress, σ'_1 (kPa)	495.9
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	22.5
Total Unit Weight (kN/m ³)	20.59	Final effective isotropic stress, σ'_3 (kPa)	378.1
Dry Unit Weight (kN/m ³)	16.75	Pore Pressure (kPa)	337.8
Water Content		Ratio of horizontal to vertical stress, K	0.50
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	0.99
Tin No.	60 C20	Initial height of specimen (cm)	8.49
Weight of tin (g)	32.56 198.12	Initial area of specimen (cm ²)	9.93
Tin + Wet weight (g)	69.68 374.19	Initial volume of specimen (cm ³)	84.32
Tin + Dry weight (g)	62.76 342.09	Initial void ratio, e_i	0.53
Water Content (%)	22.9 22.3		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	492.2
Cell Pressure, σ_3 (kPa)	358.5	Initial Isotropic effective stress, σ'_3 (kPa)	378.5
Back Pressure (kPa)	344.7	Initial Pore Pressure (kPa)	336.6
Effective Stress (kPa)	13.8	Strain rate (%/hr)	0.4
Pore pressure coefficient, B	1.00		



Comments / Observations: _____

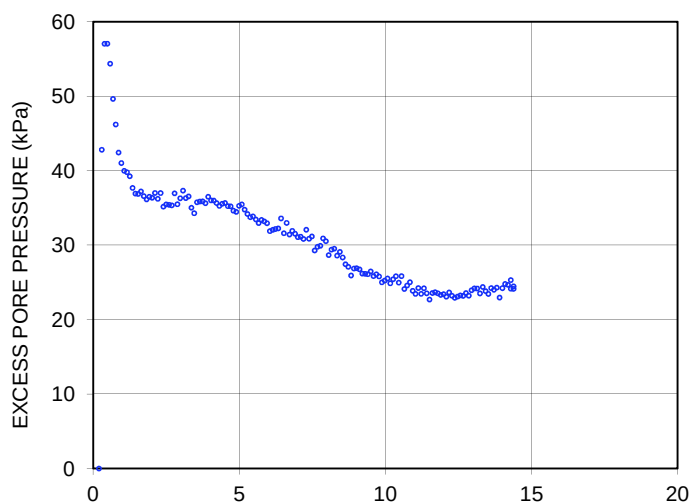
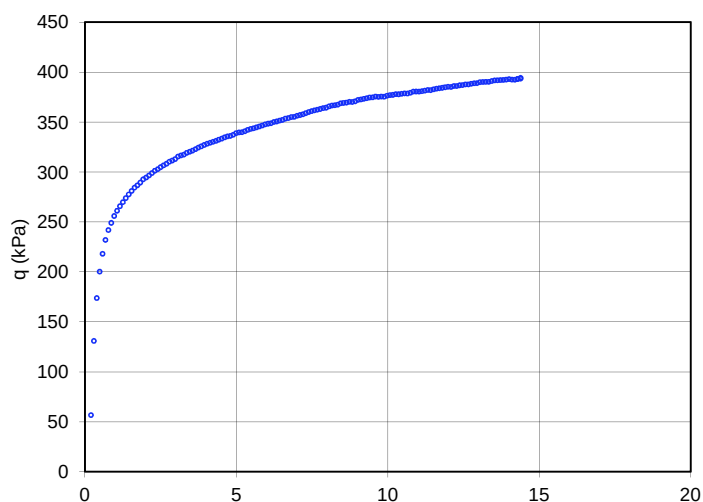
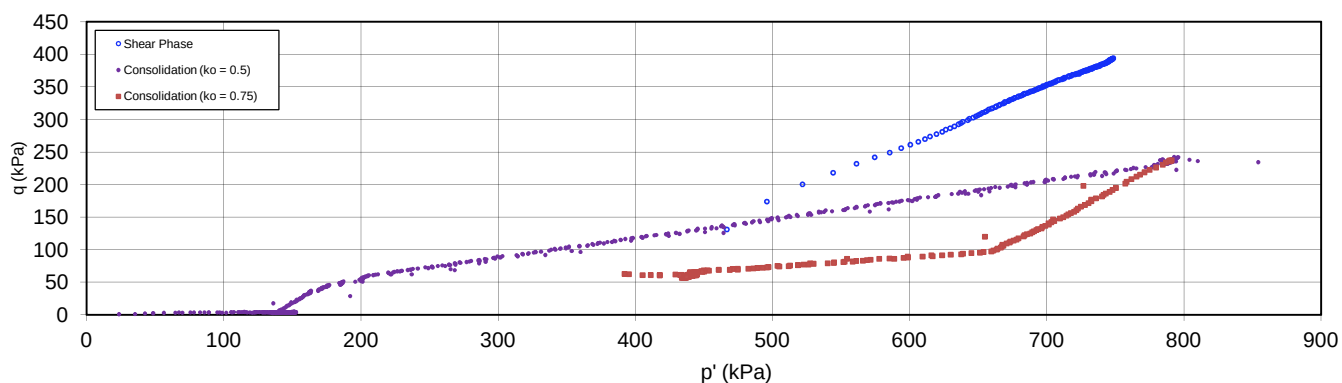
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 9, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage	Project No.:	12-MTS-009		
Location:	Anchorage, US	Date:	July 23, 2012		
Borehole:	BH-003-12	Depth (m):	38.40		
Sample No.:	ST10 (TC04)				
Initial Height (mm):	84.9	Weight of Specimen (g):	176.94	Initial Void Ratio, e_i :	0.53
Initial Diameter (mm):	35.6	Total Unit Weight (kN/m ³):	20.59	Natural Water Content (%):	22.9
Specific Gravity, G_s :	2.61	Dry Unit Weight (kN/m ³):	16.75		
Final Water Content (%):	22.3	Pore pressure coefficient, B :	1.00		



Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 9, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	August 2, 2012
Borehole:	BH-003-12	Station:	CU3
Sample No.:	ST12 (TC05)	Depth (m):	40.08
Specimen Data		Consolidation	
Diameter (mm)	36.27	Specific Gravity, Gs:	2.79
Height (mm)	79.10	Initial vertical effective stress, σ'_1 (kPa)	14.8
Weight of container + sample (g)	172.18	Final vertical effective stress, σ'_1 (kPa)	240.5
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	14.8
Total Unit Weight (kN/m ³)	20.67	Final effective isotropic stress, σ'_3 (kPa)	255.0
Dry Unit Weight (kN/m ³)	17.18	Pore Pressure (kPa)	413.2
Water Content		Ratio of horizontal to vertical stress, K	1.13
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	48.49
Tin No.	44 C32	Initial height of specimen (cm)	7.91
Weight of tin (g)	33.25 143.34	Initial area of specimen (cm ²)	10.33
Tin + Wet weight (g)	40.17 314.99	Initial volume of specimen (cm ³)	81.71
Tin + Dry weight (g)	39 284.29	Initial void ratio, e_i	0.59
Water Content (%)	20.3 21.8		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	235.7
Cell Pressure, σ_3 (kPa)	427.5	Initial Isotropic effective stress, σ'_3 (kPa)	254.5
Back Pressure (kPa)	413.7	Initial Pore Pressure (kPa)	412.0
Effective Stress (kPa)	13.8	Strain rate (%/hr)	0.4
Pore pressure coefficient, B	0.95		

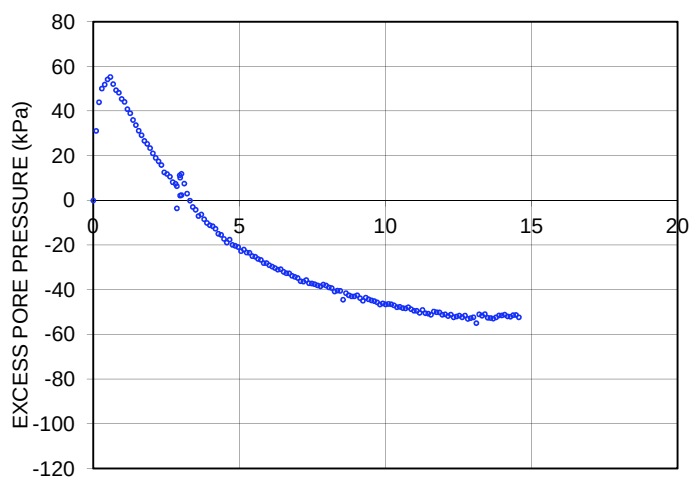
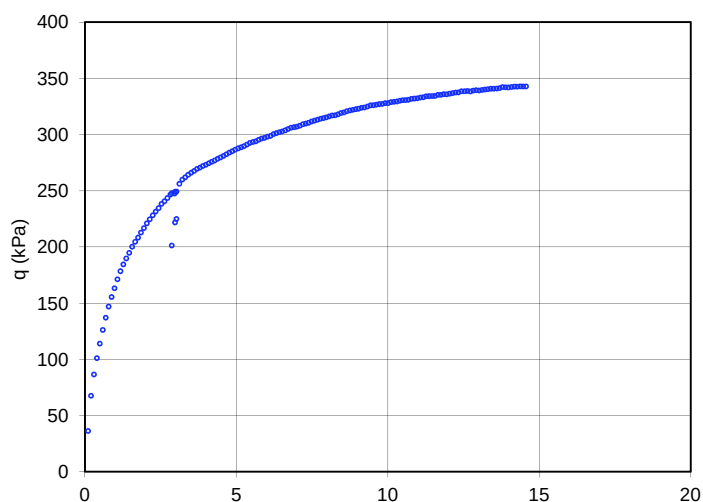
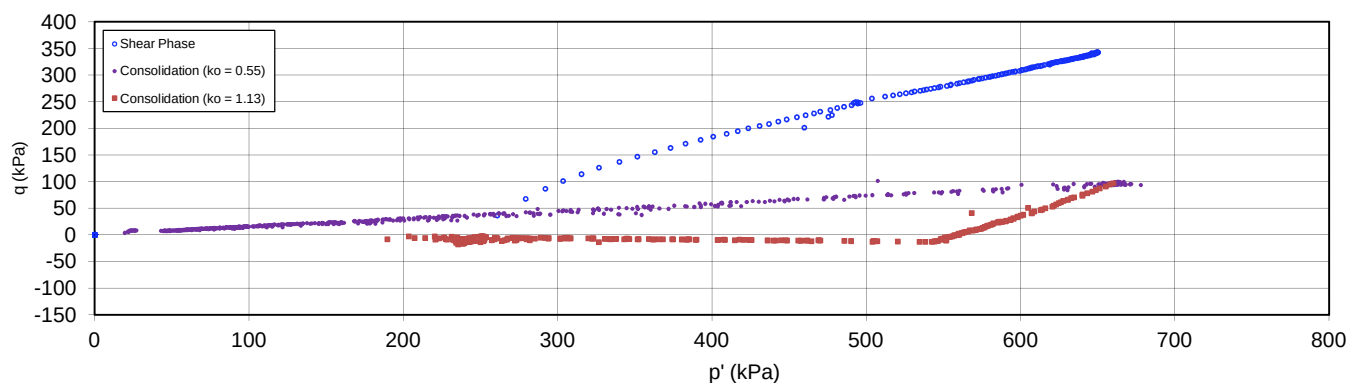


Comments / Observations: _____

Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 10, 2012	Date:	August 24, 2012	Date:	August 27, 2012

Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 2, 2012
Borehole:	BH-003-12			Depth (m):	40.08
Sample No.:	ST12 (TC05)				
Initial Height (mm):	79.1	Weight of Specimen (g):	172.18	Initial Void Ratio, e_i :	0.59
Initial Diameter (mm):	36.3	Total Unit Weight (kN/m³):	20.67	Natural Water Content (%):	20.3
Specific Gravity, G_s :	2.79	Dry Unit Weight (kN/m³):	17.18		
Final Water Content (%):	21.8	Pore pressure coefficient, B :	0.95		



Comments: EP JPS
41145.00 27-Aug-12

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 10, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	August 2, 2012
Borehole:	BH-003-12	Station:	CU#2
Sample No.:	ST-15 (TC06)	Depth (m):	42.52
Specimen Data		Consolidation	
Diameter (mm)	35.60	Specific Gravity, Gs:	2.73
Height (mm)	78.57	Initial vertical effective stress, σ'_1 (kPa)	3.6
Weight of container + sample (g)	163.39	Final vertical effective stress, σ'_1 (kPa)	-14.1
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	3.6
Total Unit Weight (kN/m ³)	20.50	Final effective isotropic stress, σ'_3 (kPa)	-10.3
Dry Unit Weight (kN/m ³)	16.62	Pore Pressure (kPa)	485.6
Water Content		Ratio of horizontal to vertical stress, K	1.40
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	-2.80
Tin No.	25	Initial height of specimen (cm)	7.86
Weight of tin (g)	34.66	Initial area of specimen (cm ²)	9.95
Tin + Wet weight (g)	87.06	Initial volume of specimen (cm ³)	78.20
Tin + Dry weight (g)	77.15	Initial void ratio, e_i	0.61
Water Content (%)	23.3		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	-30.7
Cell Pressure, σ_3 (kPa)	482.6	Initial Isotropic effective stress, σ'_3 (kPa)	-26.1
Back Pressure (kPa)	468.8	Initial Pore Pressure (kPa)	483.5
Effective Stress (kPa)	13.8	Strain rate (%/hr)	0.4
Pore pressure coefficient, B	0.97		



Comments / Observations: _____

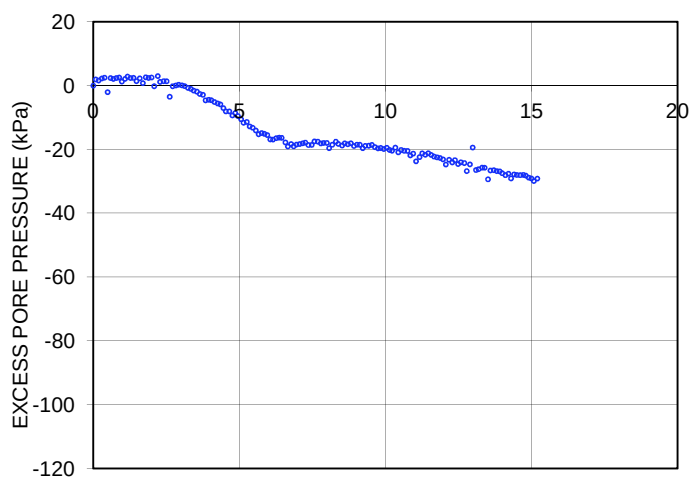
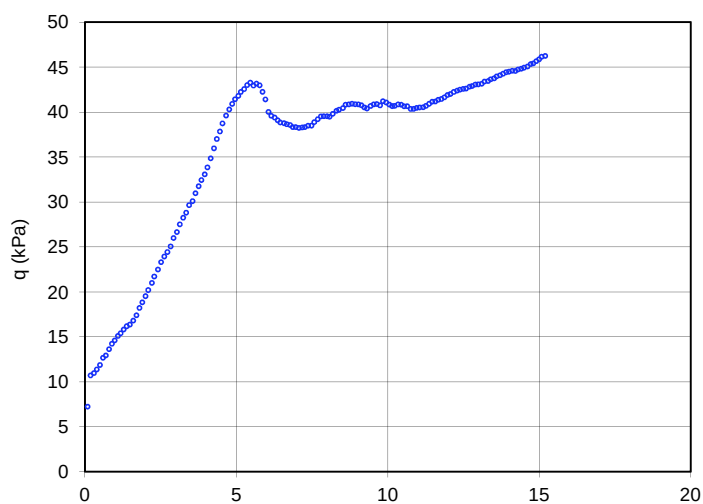
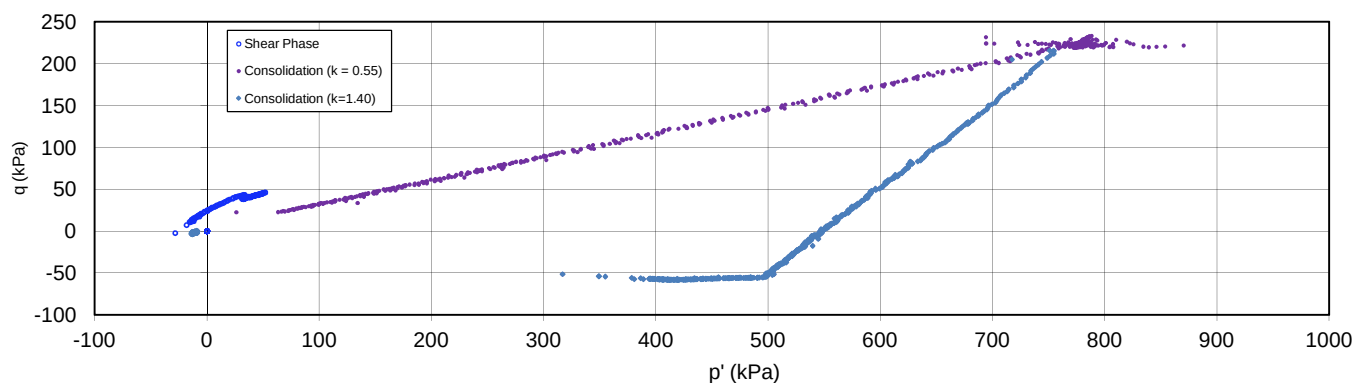
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 10, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage	Project No.:	12-MTS-009		
Location:	Anchorage, US	Date:	August 2, 2012		
Borehole:	BH-003-12	Depth (m):	42.52		
Sample No.:	ST-15 (TC06)				
Initial Height (mm):	78.6	Weight of Specimen (g):	163.39	Initial Void Ratio, e_i :	0.61
Initial Diameter (mm):	35.6	Total Unit Weight (kN/m ³):	20.50	Natural Water Content (%):	23.3
Specific Gravity, G_s :	2.73	Dry Unit Weight (kN/m ³):	16.62		
Final Water Content (%):		Pore pressure coefficient, B :	0.97		



Comments: _____

 Equipment lost control when it needed to apply a negative sigma 1.

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 10, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	August 22, 2012
Borehole:	BH-003-12	Station:	CU2
Sample No.:	ST-6 (TC07)	Depth (m):	31.39
Specimen Data		Consolidation	
Diameter (mm)	35.46	Specific Gravity, Gs:	2.77
Height (mm)	80.88	Initial vertical effective stress, σ'_1 (kPa)	3.2
Weight of container + sample (g)	151.39	Final vertical effective stress, σ'_1 (kPa)	76.1
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	3.2
Total Unit Weight (kN/m ³)	18.59	Final effective isotropic stress, σ'_3 (kPa)	65.3
Dry Unit Weight (kN/m ³)	13.86	Pore Pressure (kPa)	348.4
Water Content		Ratio of horizontal to vertical stress, K	1.10
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	2.75
Tin No.	82 D3	Initial height of specimen (cm)	8.09
Weight of tin (g)	25.1 109.64	Initial area of specimen (cm ²)	9.88
Tin + Wet weight (g)	38.7 258.22	Initial volume of specimen (cm ³)	79.87
Tin + Dry weight (g)	35.24 222.73	Initial void ratio, e_i	0.96
Water Content (%)	34.1 31.4		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	72.3
Cell Pressure, σ_3 (kPa)	358.5	Initial Isotropic effective stress, σ'_3 (kPa)	61.1
Back Pressure (kPa)	344.7	Initial Pore Pressure (kPa)	349.2
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	0.96		



Comments / Observations: _____

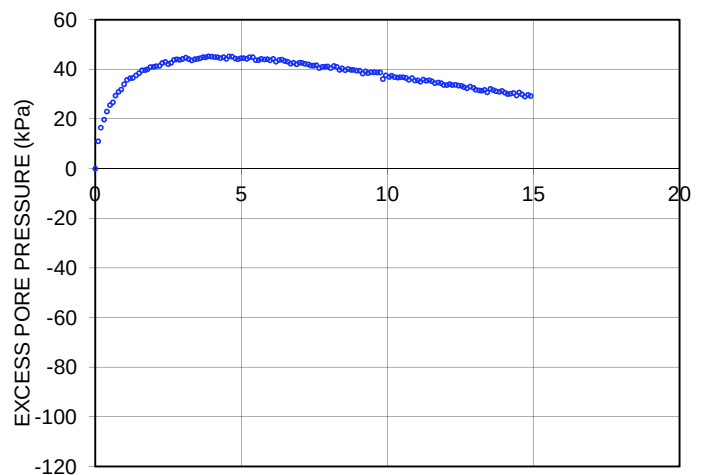
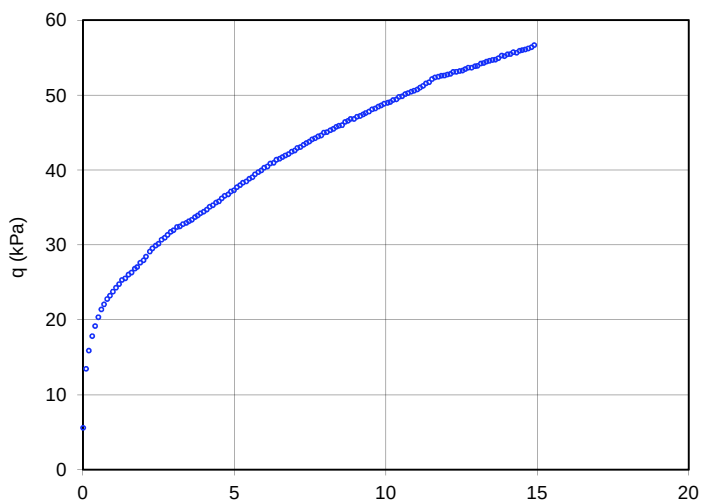
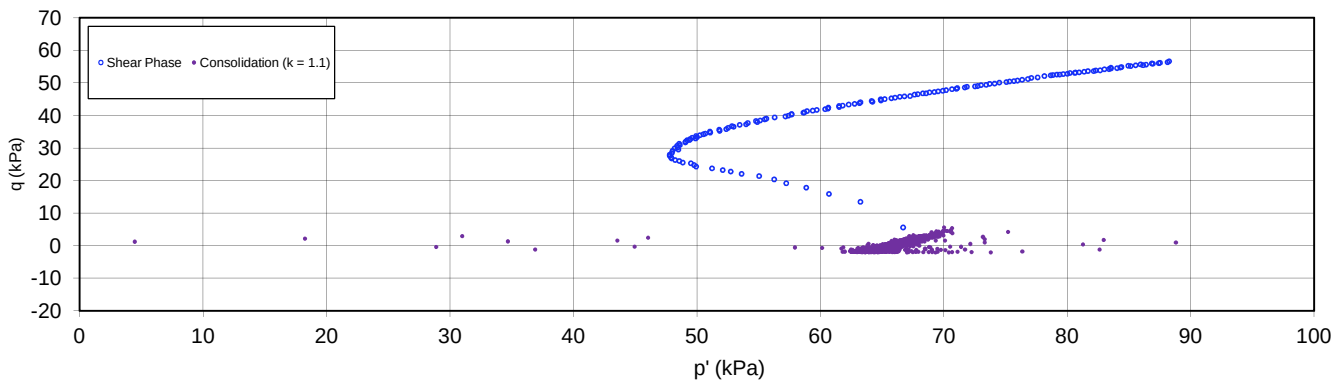
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 26, 2012	Date:	August 27, 2012	Date:	August 27, 2012

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Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 22, 2012
Borehole:	BH-003-12			Depth (m):	31.39
Sample No.:	ST-6 (TC07)				
Initial Height (mm):	80.9	Weight of Specimen (g):	151.39	Initial Void Ratio, e _i :	0.96
Initial Diameter (mm):	35.5	Total Unit Weight (kN/m ³):	18.59	Natural Water Content (%):	34.1
Specific Gravity, G _s :	2.77	Dry Unit Weight (kN/m ³):	13.86		
Final Water Content (%):	31.4	Pore pressure coefficient, B:	0.96		



AXIAL STRAIN (%)

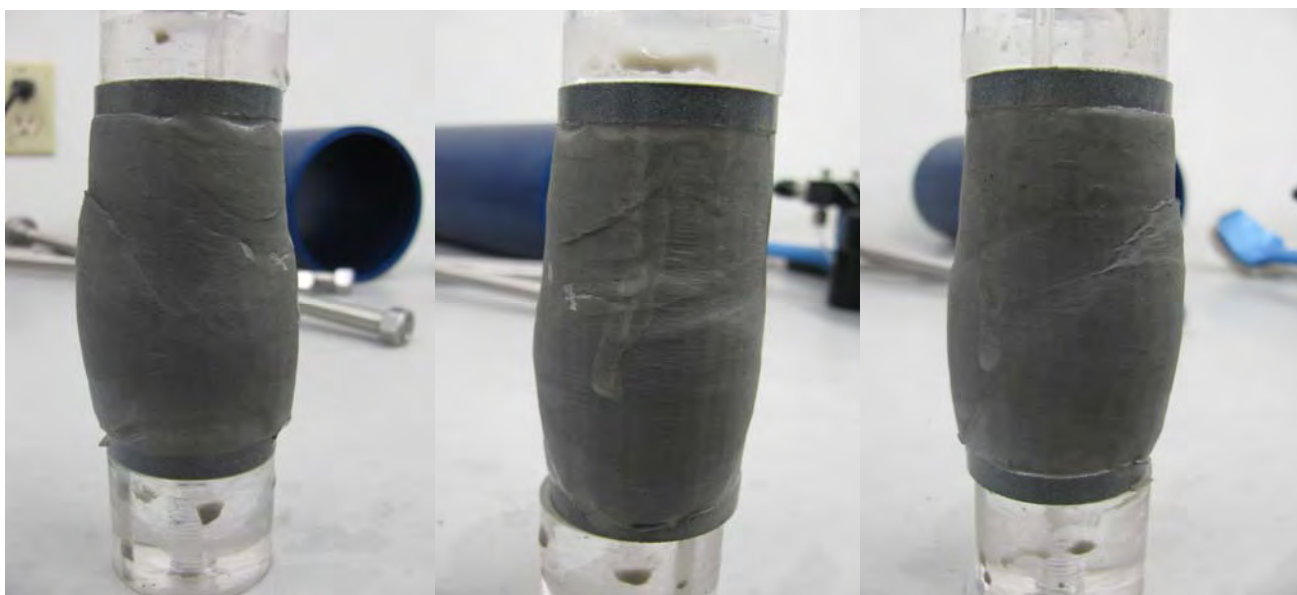
AXIAL STRAIN (%)

Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 26, 2012	Date:	August 27, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	August 13, 2012
Borehole:	BH-003-12	Station:	CU1
Sample No.:	ST5 (TC08)	Depth (m):	30.78
Specimen Data		Consolidation	
Diameter (mm)	35.21	Specific Gravity, Gs:	2.74
Height (mm)	79.58	Initial vertical effective stress, σ'_1 (kPa)	13.8
Weight of container + sample (g)	157.76	Final vertical effective stress, σ'_1 (kPa)	299.2
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	13.8
Total Unit Weight (kN/m ³)	19.98	Final effective isotropic stress, σ'_3 (kPa)	319.8
Dry Unit Weight (kN/m ³)	16.28	Pore Pressure (kPa)	479.1
Water Content		Ratio of horizontal to vertical stress, K	1.07
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	2.38
Tin No.	39 12	Initial height of specimen (cm)	7.96
Weight of tin (g)	23.51 210.88	Initial area of specimen (cm ²)	9.74
Tin + Wet weight (g)	77.08 370.55	Initial volume of specimen (cm ³)	77.48
Tin + Dry weight (g)	67.17 338.13	Initial void ratio, e_i	0.65
Water Content (%)	22.7 25.5		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	298.9
Cell Pressure, σ_3 (kPa)	496.4	Initial Isotropic effective stress, σ'_3 (kPa)	323.2
Back Pressure (kPa)	482.6	Initial Pore Pressure (kPa)	482.1
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	0.98		



Comments / Observations: _____

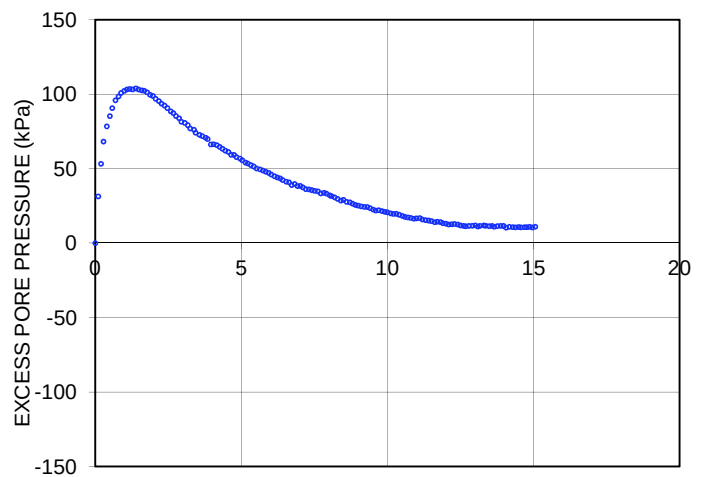
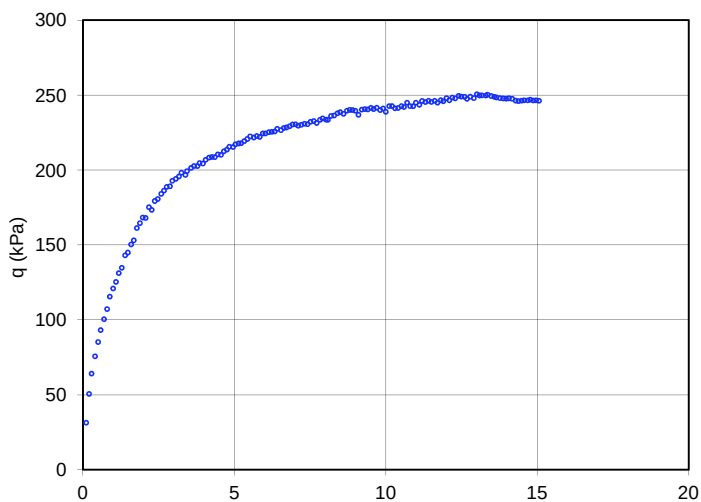
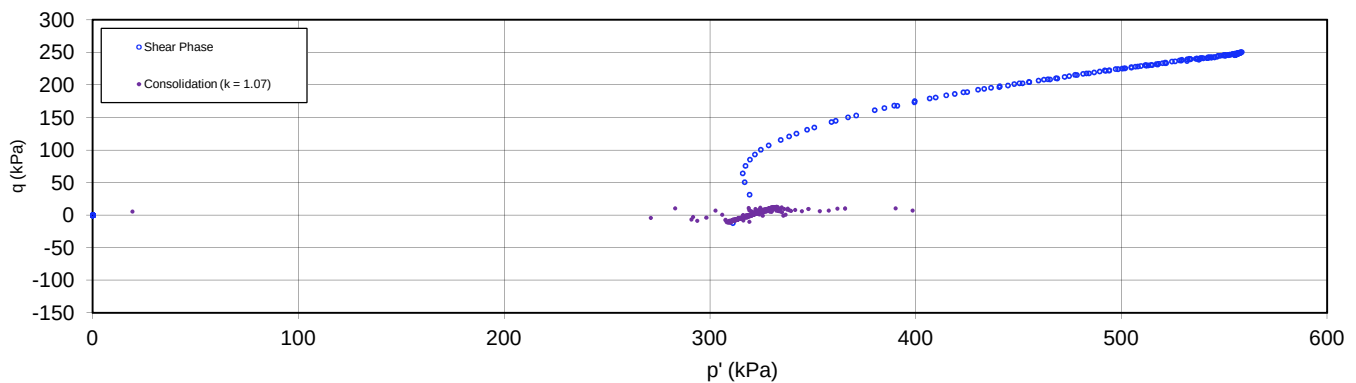
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 22, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 13, 2012
Borehole:	BH-003-12			Depth (m):	30.78
Sample No.:	ST5 (TC08)				
Initial Height (mm):	79.6	Weight of Specimen (g):	157.76	Initial Void Ratio, e_i :	0.65
Initial Diameter (mm):	35.2	Total Unit Weight (kN/m³):	19.98	Natural Water Content (%):	22.7
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m³):	16.28		
Final Water Content (%):	25.5	Pore pressure coefficient, B :	0.98		



Comments: EP JPS
August 24, 2012 #####

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 22, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 26, 2012
Borehole:	BH-003-12	Station:	CU1
Sample No.:	ST-6 (TC09)	Depth (m):	31.09
Specimen Data		Consolidation	
Diameter (mm)	35.63	Specific Gravity, Gs:	2.77
Height (mm)	86.87	Initial vertical effective stress, σ'_1 (kPa)	17.4
Weight of container + sample (g)	167.7	Final vertical effective stress, σ'_1 (kPa)	206.5
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	17.4
Total Unit Weight (kN/m ³)	18.99	Final effective isotropic stress, σ'_3 (kPa)	157.6
Dry Unit Weight (kN/m ³)	14.63	Pore Pressure (kPa)	347.5
Water Content		Ratio of horizontal to vertical stress, K	0.78
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	2.29
Tin No.	80 B5	Initial height of specimen (cm)	8.69
Weight of tin (g)	23.62 137.13	Initial area of specimen (cm ²)	9.97
Tin + Wet weight (g)	45.41 306.4	Initial volume of specimen (cm ³)	86.63
Tin + Dry weight (g)	40.41 264.61	Initial void ratio, e_i	0.86
Water Content (%)	29.8 32.8		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	207.9
Cell Pressure, σ_3 (kPa)	358.5	Initial Isotropic effective stress, σ'_3 (kPa)	154.5
Back Pressure (kPa)	344.7	Initial Pore Pressure (kPa)	348.6
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	1.00		



Comments / Observations: _____

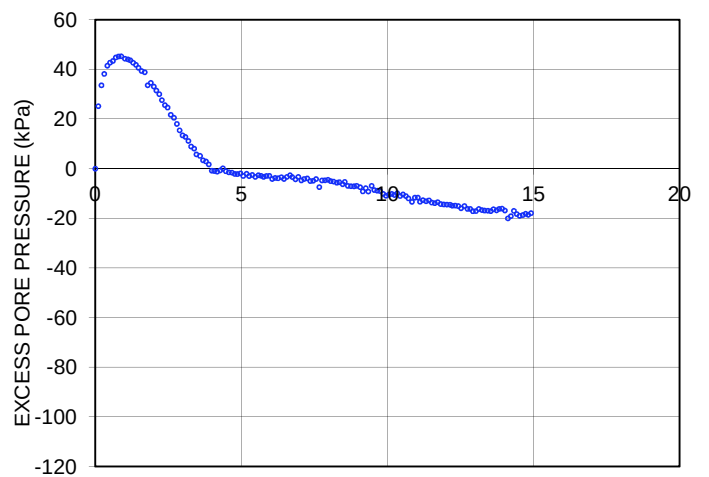
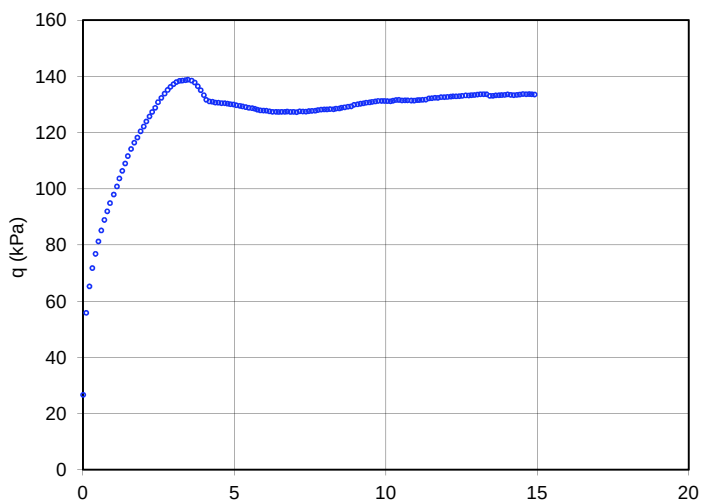
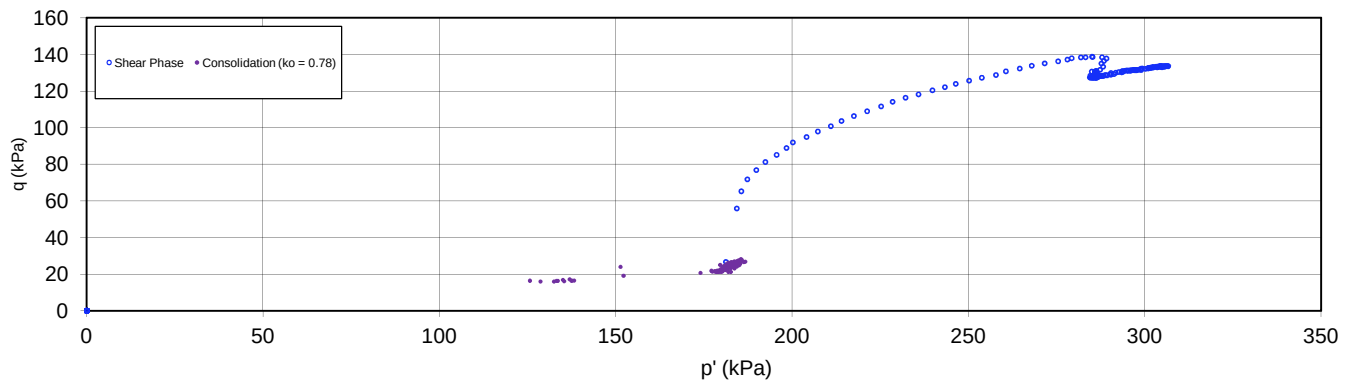
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 7, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 26, 2012
Borehole:	BH-003-12			Depth (m):	31.09
Sample No.:	ST-6 (TC09)				
Initial Height (mm):	86.9	Weight of Specimen (g):	167.70	Initial Void Ratio, e_i :	0.86
Initial Diameter (mm):	35.6	Total Unit Weight (kN/m ³):	18.99	Natural Water Content (%):	29.8
Specific Gravity, G_s :	2.77	Dry Unit Weight (kN/m ³):	14.63		
Final Water Content (%):	32.8	Pore pressure coefficient, B :	1.00		

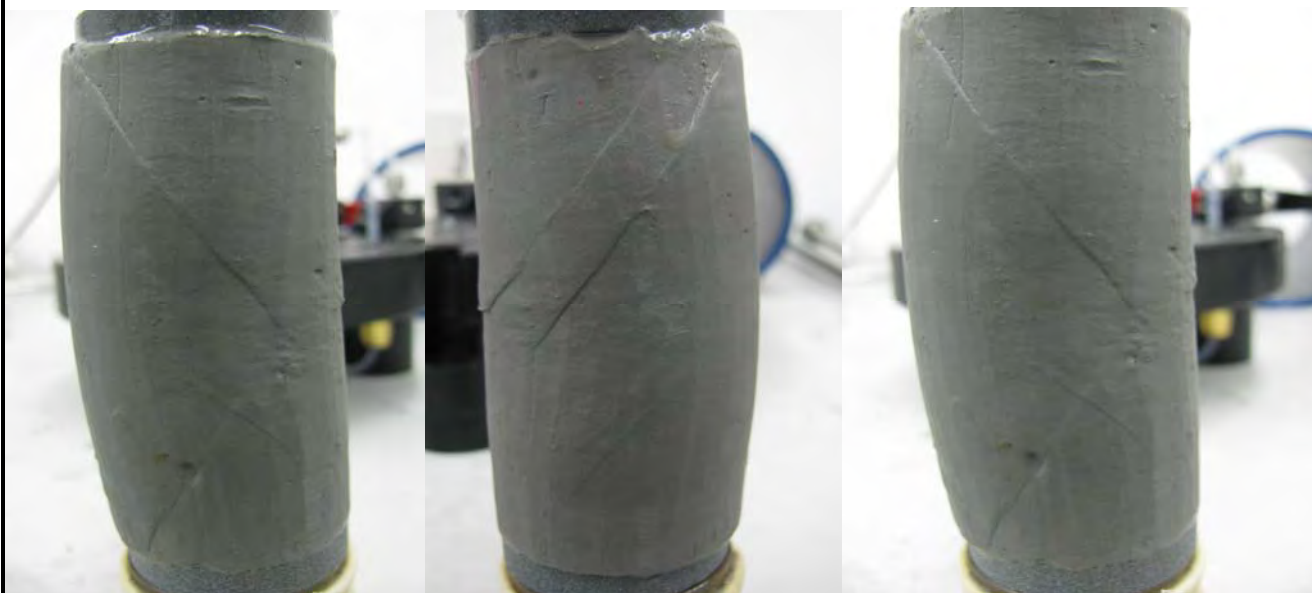


Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 7, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	July 31, 2012
Borehole:	BH-003-12	Station:	CU1
Sample No.:	ST-6 (TC10)	Depth (m):	31.09
Specimen Data		Consolidation	
Diameter (mm)	35.30	Specific Gravity, Gs:	2.77
Height (mm)	87.67	Initial vertical effective stress, σ'_1 (kPa)	12.3
Weight of container + sample (g)	171.21	Final vertical effective stress, σ'_1 (kPa)	626.1
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	12.3
Total Unit Weight (kN/m ³)	19.58	Final effective isotropic stress, σ'_3 (kPa)	341.4
Dry Unit Weight (kN/m ³)	15.04	Pore Pressure (kPa)	483.0
Water Content		Ratio of horizontal to vertical stress, K	0.55
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	3.22
Tin No.	17 C31	Initial height of specimen (cm)	8.77
Weight of tin (g)	24.91 196.52	Initial area of specimen (cm ²)	9.79
Tin + Wet weight (g)	57.62 367.21	Initial volume of specimen (cm ³)	85.80
Tin + Dry weight (g)	50.04 326.64	Initial void ratio, e_i	0.81
Water Content (%)	30.2 31.2		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	666.0
Cell Pressure, σ_3 (kPa)	510.2	Initial Isotropic effective stress, σ'_3 (kPa)	358.3
Back Pressure (kPa)	496.4	Initial Pore Pressure (kPa)	485.0
Effective Stress (kPa)	13.8	Strain rate (%/hr)	0.4
Pore pressure coefficient, B	0.99		



Comments / Observations: _____

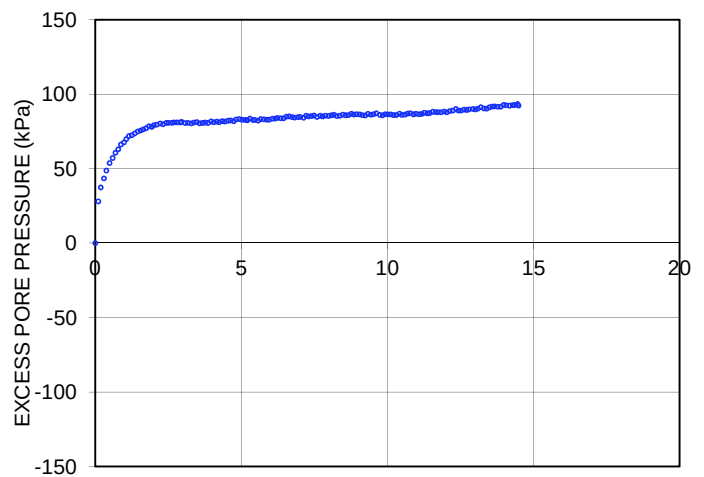
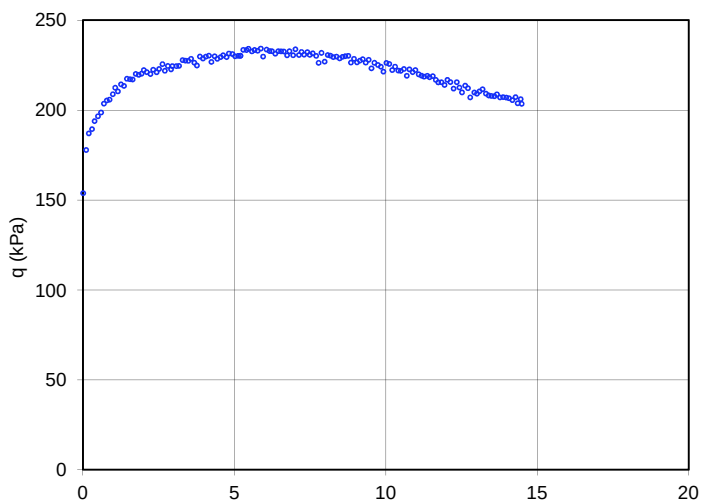
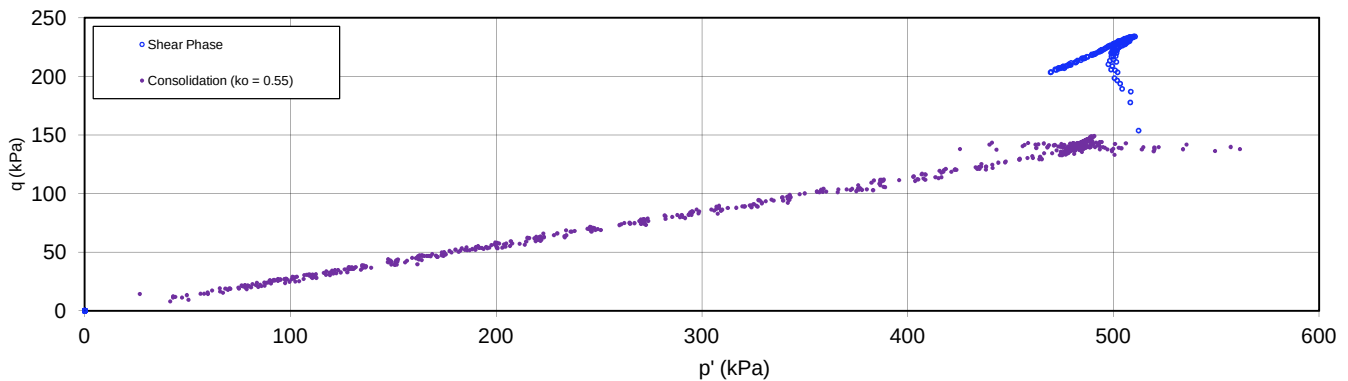
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 10, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 31, 2012
Borehole:	BH-003-12			Depth (m):	31.09
Sample No.:	ST-6 (TC10)				
Initial Height (mm):	87.7	Weight of Specimen (g):	171.21	Initial Void Ratio, e_i :	0.81
Initial Diameter (mm):	35.3	Total Unit Weight (kN/m³):	19.58	Natural Water Content (%):	30.2
Specific Gravity, G_s :	2.77	Dry Unit Weight (kN/m³):	15.04		
Final Water Content (%):	31.2	Pore pressure coefficient, B :	0.99		



AXIAL STRAIN (%)

AXIAL STRAIN (%)

Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 10, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	August 12, 2012
Borehole:	BH-001-12	Station:	CU2
Sample No.:	ST-13 (TC11)	Depth (m):	28.96
Specimen Data		Consolidation	
Diameter (mm)	36.37	Specific Gravity, G _s :	2.74
Height (mm)	77.00	Initial vertical effective stress, σ'_1 (kPa)	14.7
Weight of container + sample (g)	160.82	Final vertical effective stress, σ'_1 (kPa)	623.6
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	14.7
Total Unit Weight (kN/m ³)	19.73	Final effective isotropic stress, σ'_3 (kPa)	340.4
Dry Unit Weight (kN/m ³)	16.33	Pore Pressure (kPa)	477.5
Water Content		Ratio of horizontal to vertical stress, K	0.55
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	4.76
Tin No.	89A C101	Initial height of specimen (cm)	7.70
Weight of tin (g)	32 210.13	Initial area of specimen (cm ²)	10.39
Tin + Wet weight (g)	75.87 372.13	Initial volume of specimen (cm ³)	79.98
Tin + Dry weight (g)	68.32 336.63	Initial void ratio, e _i	0.65
Water Content (%)	20.8 28.1		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	654.0
Cell Pressure, σ_3 (kPa)	496.4	Initial Isotropic effective stress, σ'_3 (kPa)	337.5
Back Pressure (kPa)	482.6	Initial Pore Pressure (kPa)	483.4
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	1.00		



Comments / Observations: _____

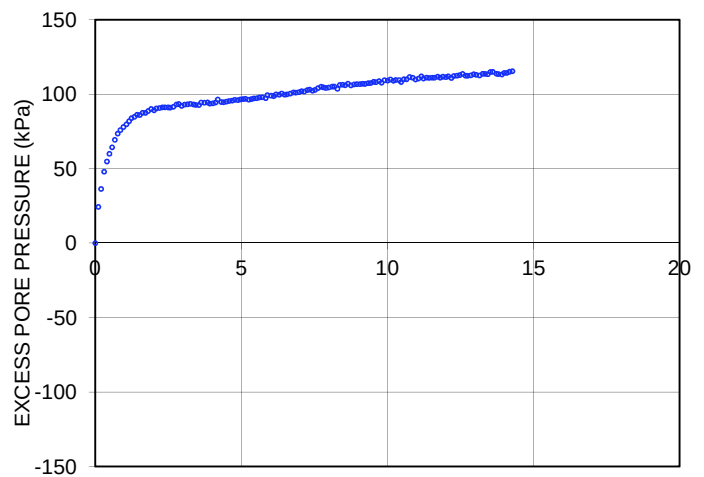
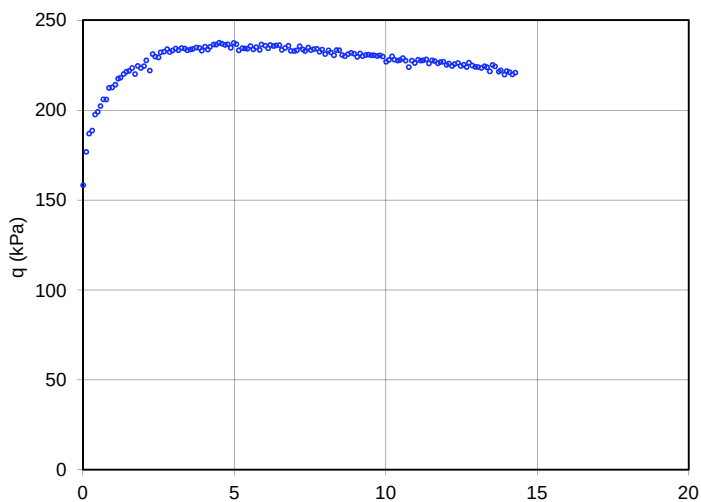
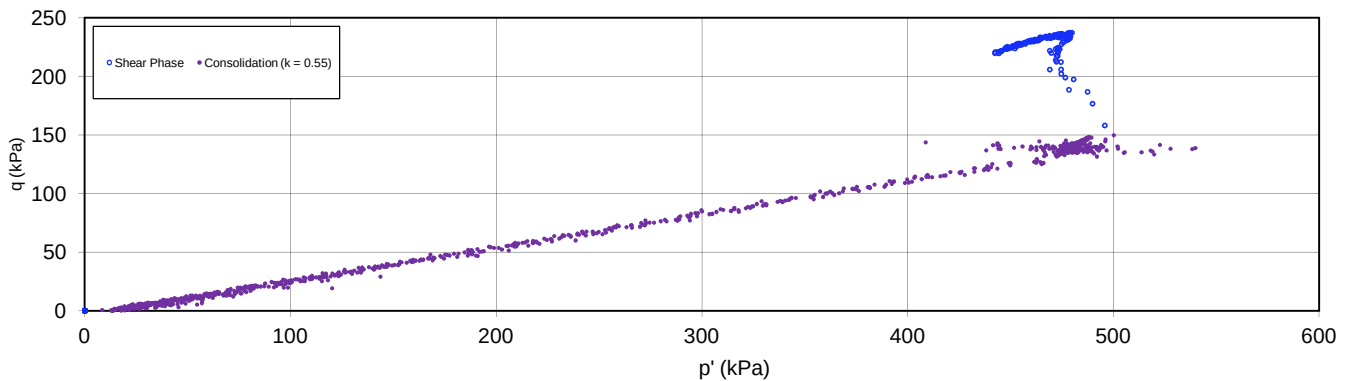
Performed By:	PS	Checked By:	ED	Approved By:	JPS
Date:	August 22, 2012	Date:	August 27, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

(A Division of MEG Consulting Limited)

Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 12, 2012
Borehole:	BH-001-12			Depth (m):	28.96
Sample No.:	ST-13 (TC11)				
Initial Height (mm):	77.0	Weight of Specimen (g):	160.82	Initial Void Ratio, e_i :	0.65
Initial Diameter (mm):	36.4	Total Unit Weight (kN/m ³):	19.73	Natural Water Content (%):	20.8
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m ³):	16.33		
Final Water Content (%):	28.1	Pore pressure coefficient, B :	1.00		



AXIAL STRAIN (%)

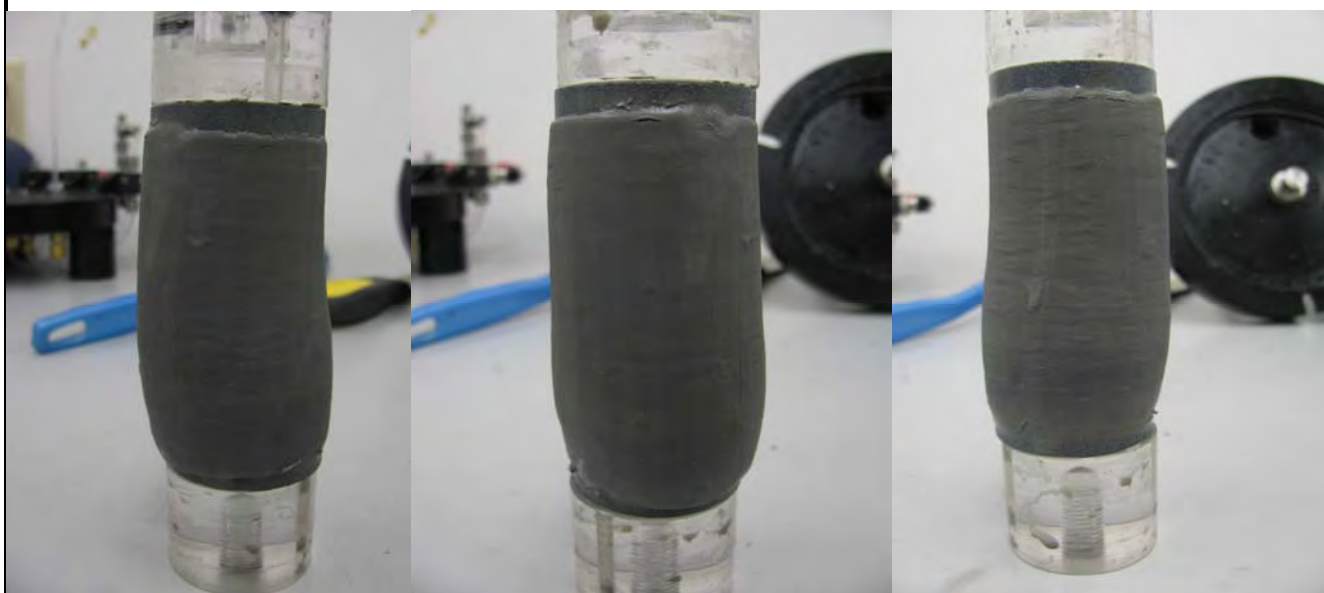
AXIAL STRAIN (%)

Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 22, 2012	Date:	August 27, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	August 9, 2012
Borehole:	BH-001-12	Station:	CU1
Sample No.:	ST-14 (TC12)	Depth (m):	29.72
Specimen Data		Consolidation	
Diameter (mm)	36.66	Specific Gravity, Gs:	2.67
Height (mm)	84.98	Initial vertical effective stress, σ'_1 (kPa)	14.3
Weight of container + sample (g)	181.37	Final vertical effective stress, σ'_1 (kPa)	192.1
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	14.3
Total Unit Weight (kN/m ³)	19.83	Final effective isotropic stress, σ'_3 (kPa)	182.0
Dry Unit Weight (kN/m ³)	15.85	Pore Pressure (kPa)	342.6
Water Content		Ratio of horizontal to vertical stress, K	0.90
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	8.39
Tin No.	70 C09	Initial height of specimen (cm)	8.50
Weight of tin (g)	32.86 215.68	Initial area of specimen (cm ²)	10.56
Tin + Wet weight (g)	86.59 397.1	Initial volume of specimen (cm ³)	89.70
Tin + Dry weight (g)	75.79 360.07	Initial void ratio, e_i	0.65
Water Content (%)	25.2 25.6		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	190.9
Cell Pressure, σ_3 (kPa)	358.5	Initial Isotropic effective stress, σ'_3 (kPa)	181.5
Back Pressure (kPa)	344.7	Initial Pore Pressure (kPa)	341.7
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	0.97		



Comments / Observations: _____

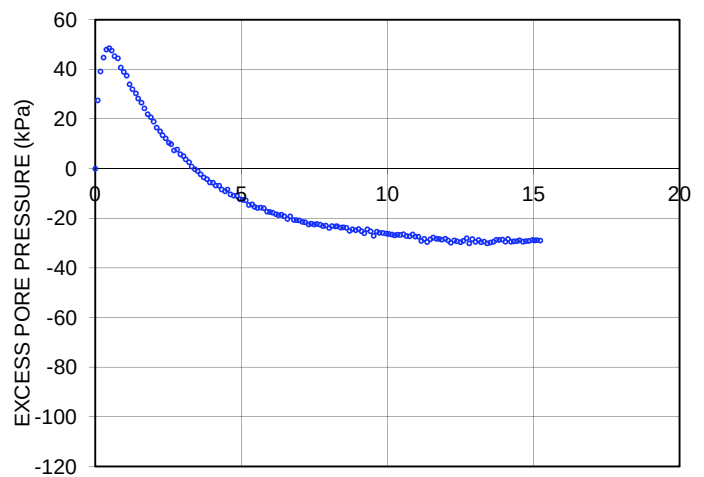
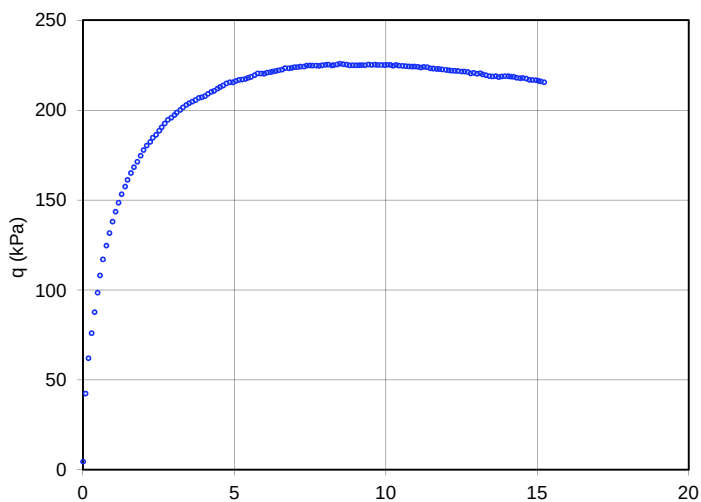
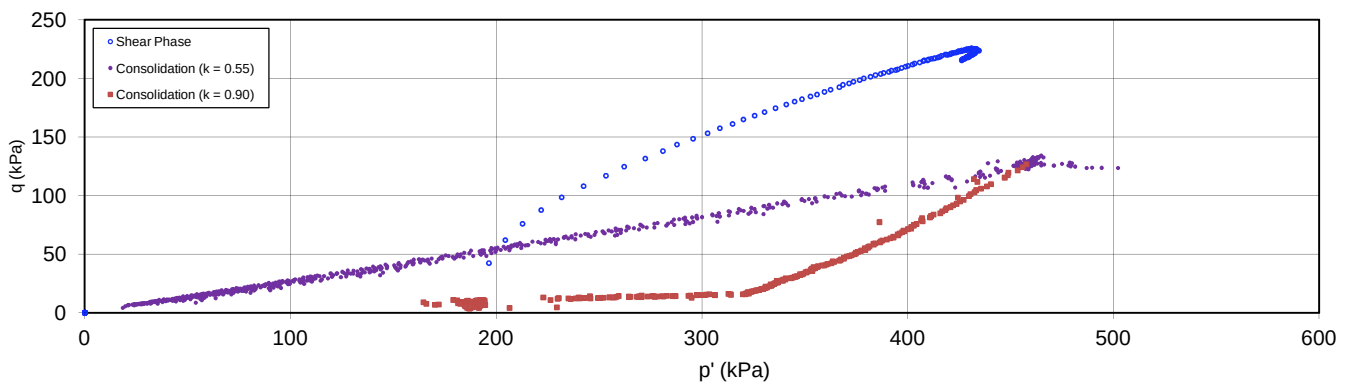
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 22, 2012	Date:	August 24, 2012	Date:	August 27, 2012

MEG TECHNICAL SERVICES

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Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 9, 2012
Borehole:	BH-001-12			Depth (m):	29.72
Sample No.:	ST-14 (TC12)				
Initial Height (mm):	85.0	Weight of Specimen (g):	181.37	Initial Void Ratio, e_i :	0.65
Initial Diameter (mm):	36.7	Total Unit Weight (kN/m³):	19.83	Natural Water Content (%):	25.2
Specific Gravity, G_s :	2.67	Dry Unit Weight (kN/m³):	15.85		
Final Water Content (%):	25.6	Pore pressure coefficient, B :	0.97		

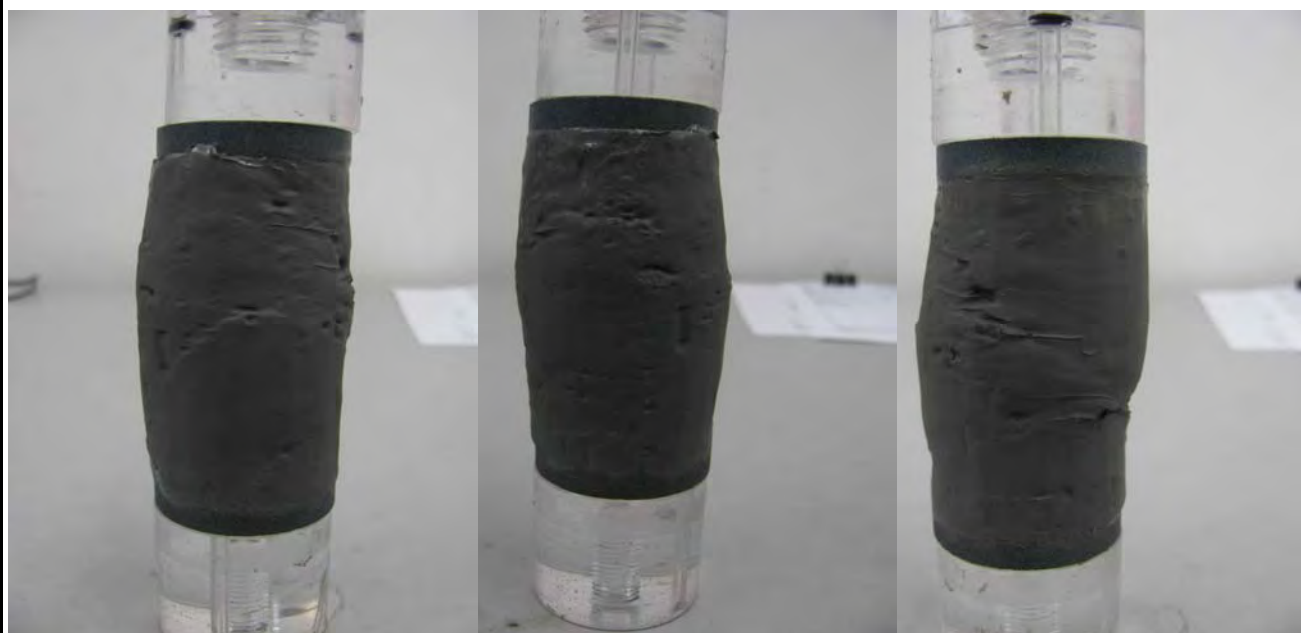


Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 22, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	August 27, 2012
Borehole:	BH-001-12	Station:	CU2
Sample No.:	ST-15 (TC13)	Depth (m):	30.94
Specimen Data		Consolidation	
Diameter (mm)	35.63	Specific Gravity, Gs:	2.75
Height (mm)	81.26	Initial vertical effective stress, σ'_1 (kPa)	15.2
Weight of container + sample (g)	161.51	Final vertical effective stress, σ'_1 (kPa)	105.8
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	15.2
Total Unit Weight (kN/m ³)	19.55	Final effective isotropic stress, σ'_3 (kPa)	117.3
Dry Unit Weight (kN/m ³)	15.53	Pore Pressure (kPa)	346.6
Water Content		Ratio of horizontal to vertical stress, K	1.10
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	11.76
Tin No.	81 12	Initial height of specimen (cm)	8.13
Weight of tin (g)	23.64 210.86	Initial area of specimen (cm ²)	9.97
Tin + Wet weight (g)	41.49 364.97	Initial volume of specimen (cm ³)	81.03
Tin + Dry weight (g)	37.82 338.2	Initial void ratio, e_i	0.74
Water Content (%)	25.9 21.0		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	100.2
Cell Pressure, σ_3 (kPa)	358.5	Initial Isotropic effective stress, σ'_3 (kPa)	118.4
Back Pressure (kPa)	344.7	Initial Pore Pressure (kPa)	342.9
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	0.98		

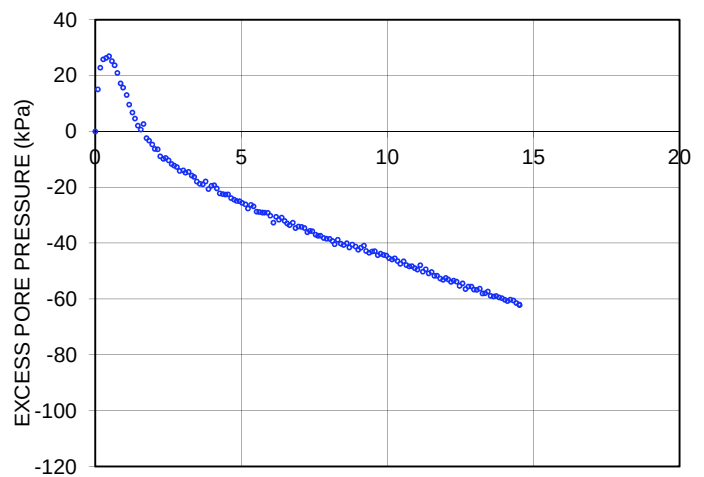
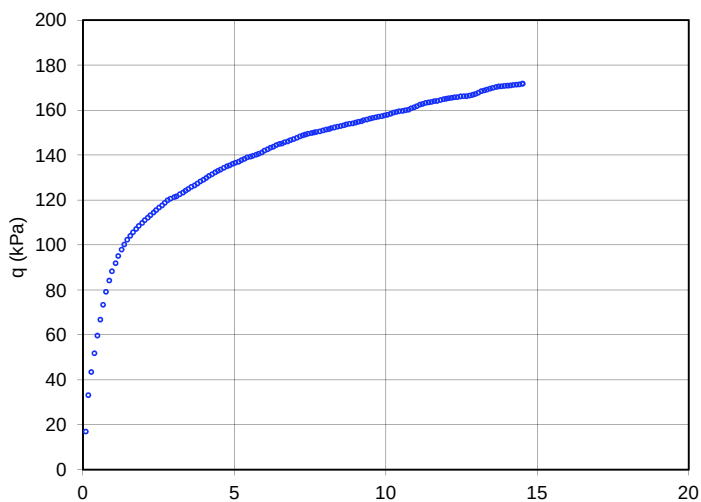
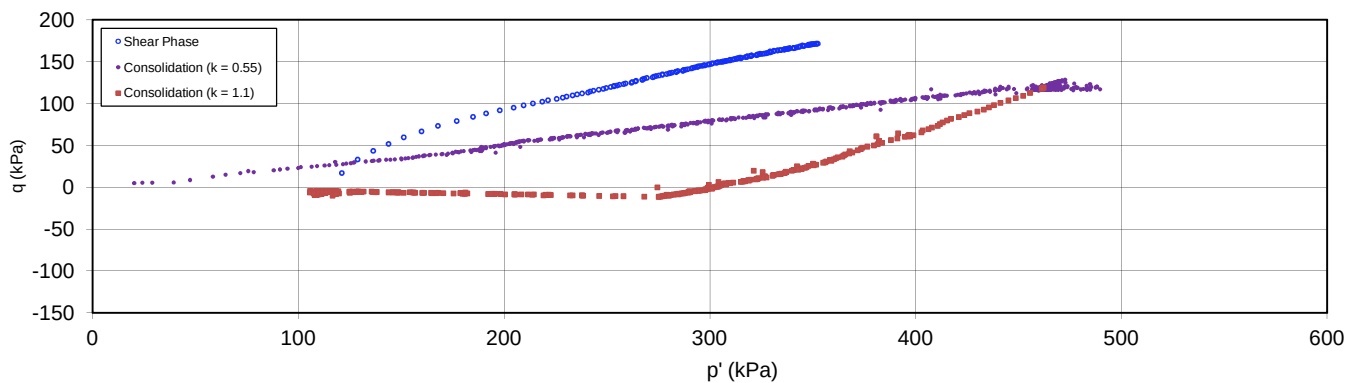


Comments / Observations: _____

Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 15, 2012	Date:	August 24, 2012	Date:	August 27, 2012

Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 27, 2012
Borehole:	BH-001-12			Depth (m):	30.94
Sample No.:	ST-15 (TC13)				
Initial Height (mm):	81.3	Weight of Specimen (g):	161.51	Initial Void Ratio, e_i :	0.74
Initial Diameter (mm):	35.6	Total Unit Weight (kN/m³):	19.55	Natural Water Content (%):	25.9
Specific Gravity, G_s :	2.75	Dry Unit Weight (kN/m³):	15.53		
Final Water Content (%):	21.0	Pore pressure coefficient, B :	0.98		



Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 15, 2012	Date:	August 24, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	August 24, 2012
Borehole:	BH-004-12	Station:	CU1
Sample No.:	ST-13 (TC14)	Depth (m):	30.72
Specimen Data		Consolidation	
Diameter (mm)	35.68	Specific Gravity, Gs:	2.86
Height (mm)	73.50	Initial vertical effective stress, σ'_1 (kPa)	13.2
Weight of container + sample (g)	139.45	Final vertical effective stress, σ'_1 (kPa)	621.1
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	13.2
Total Unit Weight (kN/m ³)	18.61	Final effective isotropic stress, σ'_3 (kPa)	334.4
Dry Unit Weight (kN/m ³)	13.87	Pore Pressure (kPa)	340.4
Water Content		Ratio of horizontal to vertical stress, K	0.50
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	6.62
Tin No.	17 D11	Initial height of specimen (cm)	7.35
Weight of tin (g)	24.9 210.41	Initial area of specimen (cm ²)	10.00
Tin + Wet weight (g)	95.1 342.41	Initial volume of specimen (cm ³)	73.50
Tin + Dry weight (g)	77.22 317.1	Initial void ratio, e_i	1.02
Water Content (%)	34.2 23.7		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	624.2
Cell Pressure, σ_3 (kPa)	358.5	Initial Isotropic effective stress, σ'_3 (kPa)	337.8
Back Pressure (kPa)	344.7	Initial Pore Pressure (kPa)	341.1
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	1.00		



Comments / Observations: _____

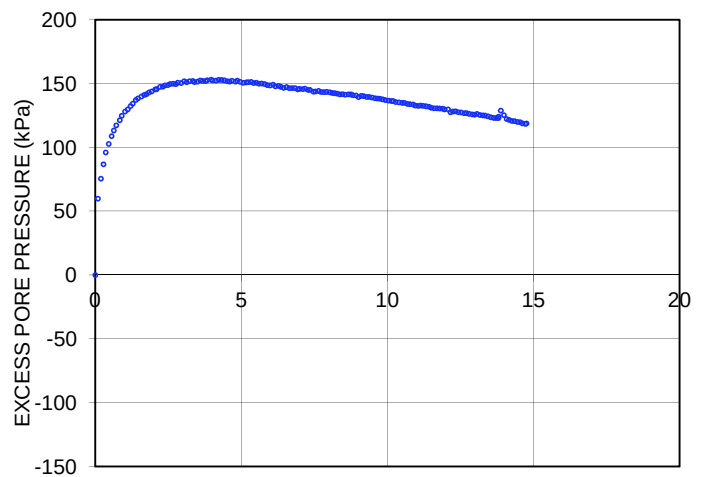
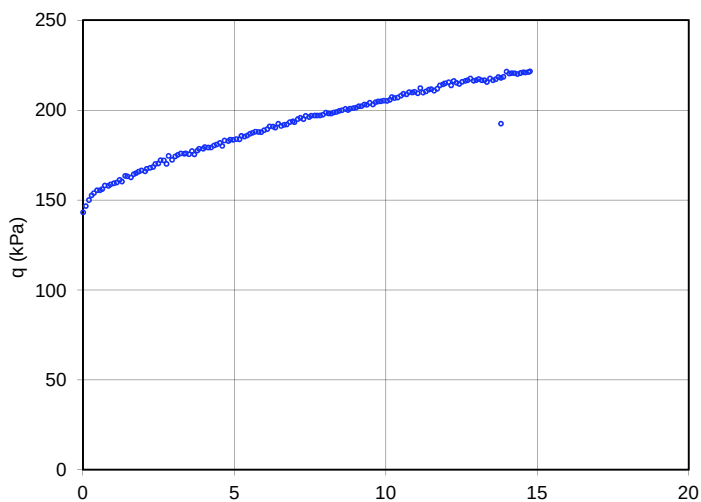
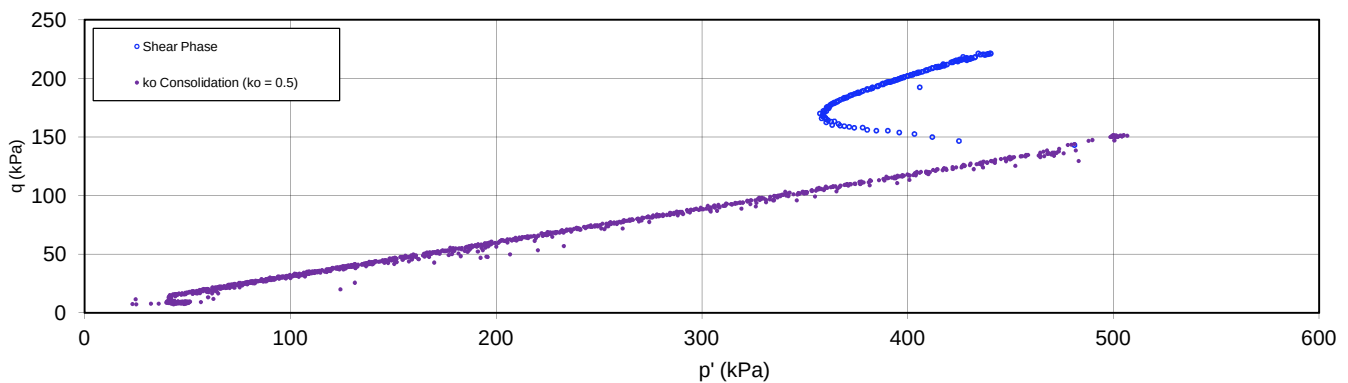
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Date:	August 25, 2012	Date:	August 27, 2012	Date:	August 27, 2012

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(A Division of MEG Consulting Limited)

Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 24, 2012
Borehole:	BH-004-12			Depth (m):	30.72
Sample No.:	ST-13 (TC14)				
Initial Height (mm):	73.5	Weight of Specimen (g):	139.45	Initial Void Ratio, e_i :	1.02
Initial Diameter (mm):	35.7	Total Unit Weight (kN/m³):	18.61	Natural Water Content (%):	34.2
Specific Gravity, G_s :	2.86	Dry Unit Weight (kN/m³):	13.87		
Final Water Content (%):	23.7	Pore pressure coefficient, B :	1.00		



Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 25, 2012	Date:	August 27, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	August 19, 2012
Borehole:	BH-004-12	Station:	CU3
Sample No.:	ST-11 (TC15)	Depth (m):	29.19
Specimen Data		Consolidation	
Diameter (mm)	35.78	Specific Gravity, Gs:	2.83
Height (mm)	79.92	Initial vertical effective stress, σ'_1 (kPa)	22.0
Weight of container + sample (g)	151.91	Final vertical effective stress, σ'_1 (kPa)	226.4
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	22.0
Total Unit Weight (kN/m ³)	18.55	Final effective isotropic stress, σ'_3 (kPa)	210.2
Dry Unit Weight (kN/m ³)	13.95	Pore Pressure (kPa)	342.6
Water Content		Ratio of horizontal to vertical stress, K	0.50
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	10.97
Tin No.	111 C30	Initial height of specimen (cm)	7.99
Weight of tin (g)	33.11 199.13	Initial area of specimen (cm ²)	10.05
Tin + Wet weight (g)	47.35 342.21	Initial volume of specimen (cm ³)	80.34
Tin + Dry weight (g)	43.82 310.3	Initial void ratio, e_i	0.99
Water Content (%)	33.0 28.7		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	220.4
Cell Pressure, σ_3 (kPa)	358.5	Initial Isotropic effective stress, σ'_3 (kPa)	205.4
Back Pressure (kPa)	344.7	Initial Pore Pressure (kPa)	341.8
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	0.95		



Comments / Observations: _____

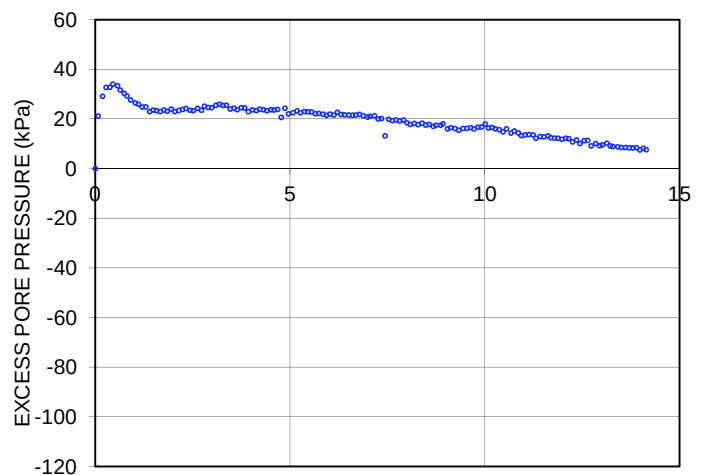
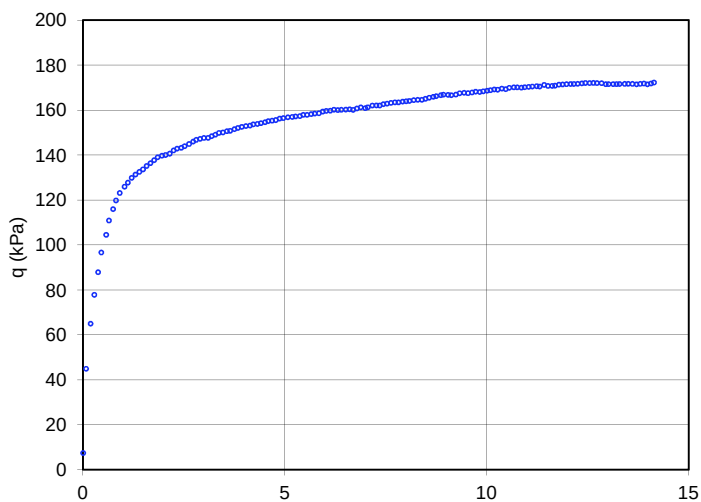
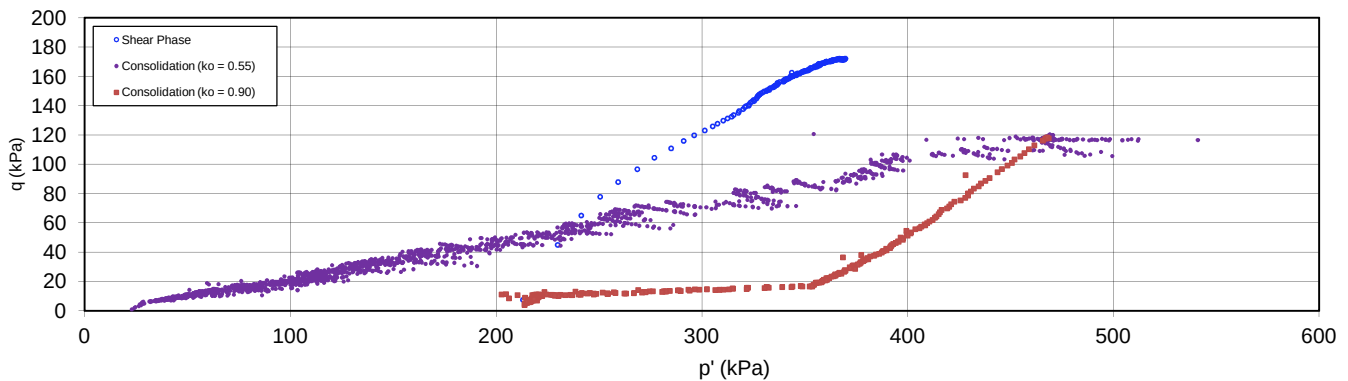
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 24, 2012	Date:	August 27, 2012	Date:	August 27, 2012

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Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 19, 2012
Borehole:	BH-004-12			Depth (m):	29.19
Sample No.:	ST-11 (TC15)				
Initial Height (mm):	79.9	Weight of Specimen (g):	151.91	Initial Void Ratio, e_i :	0.99
Initial Diameter (mm):	35.8	Total Unit Weight (kN/m³):	18.55	Natural Water Content (%):	33.0
Specific Gravity, G_s :	2.83	Dry Unit Weight (kN/m³):	13.95		
Final Water Content (%):	28.7	Pore pressure coefficient, B :	0.95		

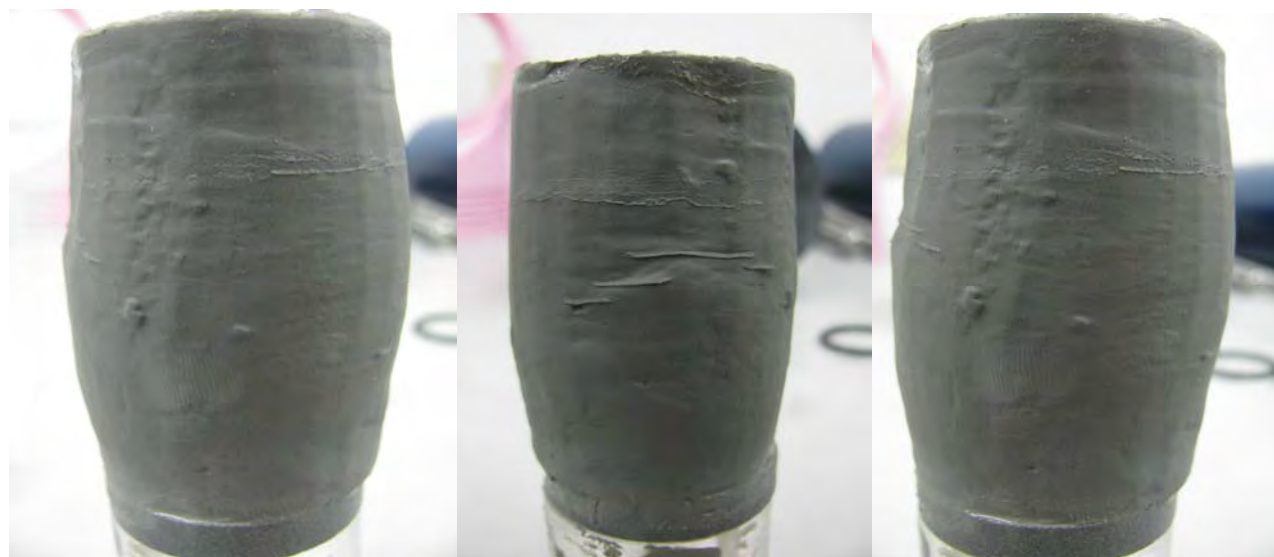


Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 24, 2012	Date:	August 27, 2012	Date:	August 27, 2012

**Consolidated-Undrained Triaxial Compression Test
(ASTM D 4767)**

Project:	Port of Anchorage	Project No.:	12-MTS-009
Location:	Anchorage, US	Date:	August 19, 2012
Borehole:	BH-004-12	Station:	CU1
Sample No.:	ST-11 (TC16)	Depth (m):	29.19
Specimen Data		Consolidation	
Diameter (mm)	35.49	Specific Gravity, Gs:	2.83
Height (mm)	78.29	Initial vertical effective stress, σ'_1 (kPa)	12.9
Weight of container + sample (g)	150.55	Final vertical effective stress, σ'_1 (kPa)	119.0
Weight of container (g)	0	Initial effective isotropic stress, σ'_3 (kPa)	12.9
Total Unit Weight (kN/m ³)	19.07	Final effective isotropic stress, σ'_3 (kPa)	859.2
Dry Unit Weight (kN/m ³)	14.76	Pore Pressure (kPa)	367.3
Water Content		Ratio of horizontal to vertical stress, K	0.50
	Before Saturation After Shear	Volume change during consolidation, ΔV_c (cm ³)	-0.68
Tin No.	6 C09	Initial height of specimen (cm)	7.83
Weight of tin (g)	34.92 215.67	Initial area of specimen (cm ²)	9.89
Tin + Wet weight (g)	132.14 358.72	Initial volume of specimen (cm ³)	77.44
Tin + Dry weight (g)	110.14 329.07	Initial void ratio, e_i	0.88
Water Content (%)	29.2 26.1		
Saturation		Shear	
Vertical Seating Pressure (kPa)	13.8	Initial vertical effective stress, σ'_1 (kPa)	113.5
Cell Pressure, σ_3 (kPa)	358.5	Initial Isotropic effective stress, σ'_3 (kPa)	128.7
Back Pressure (kPa)	344.7	Initial Pore Pressure (kPa)	367.0
Effective Stress (kPa)	13.8	Strain rate (%/hr)	1.0
Pore pressure coefficient, B	0.98		



Comments / Observations: _____

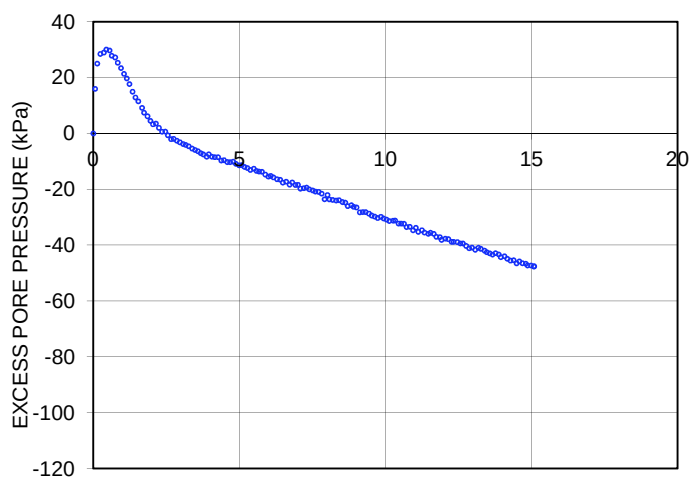
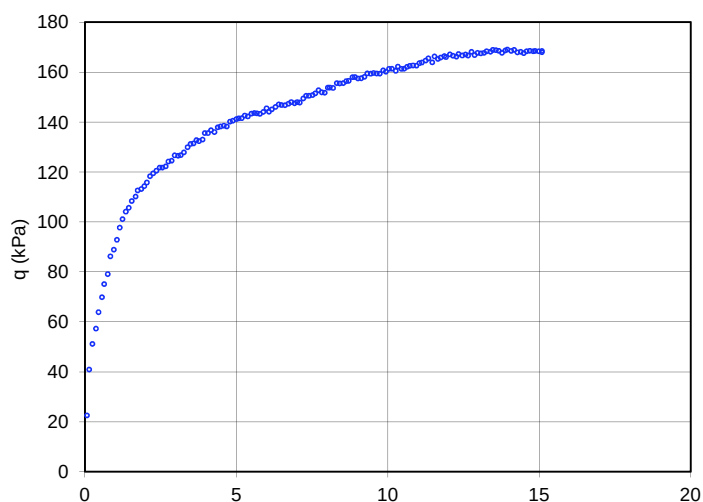
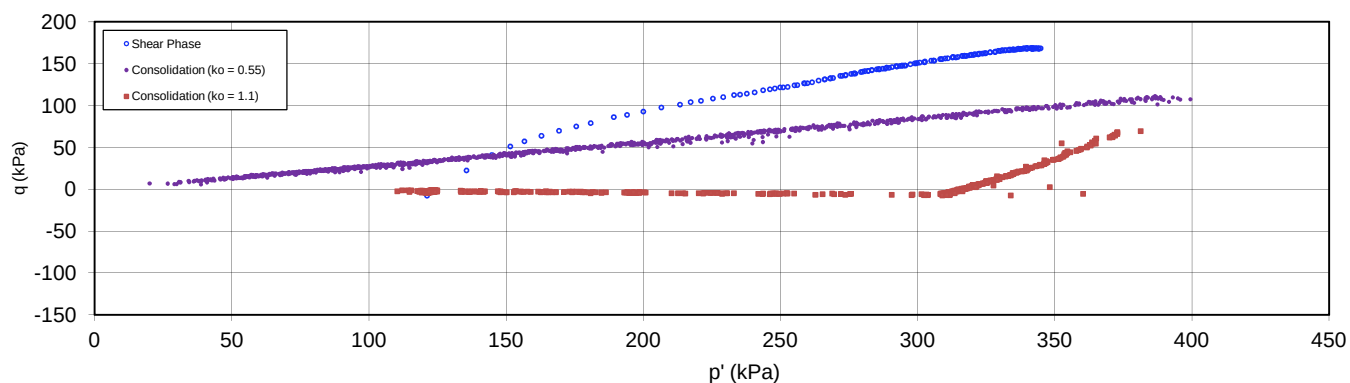
Performed By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 24, 2012	Date:	August 27, 2012	Date:	August 27, 2012

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Consolidated-Undrained Triaxial Compression Test (ASTM D 4767)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 19, 2012
Borehole:	BH-004-12			Depth (m):	29.19
Sample No.:	ST-11 (TC16)				
Initial Height (mm):	78.3	Weight of Specimen (g):	150.55	Initial Void Ratio, e_i :	0.88
Initial Diameter (mm):	35.5	Total Unit Weight (kN/m³):	19.07	Natural Water Content (%):	29.2
Specific Gravity, G_s :	2.83	Dry Unit Weight (kN/m³):	14.76		
Final Water Content (%):	26.1	Pore pressure coefficient, B :	0.98		



Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 24, 2012	Date:	August 27, 2012	Date:	August 27, 2012

APPENDIX B.9

STATIC DIRECT SIMPLE SHEAR (DSS)

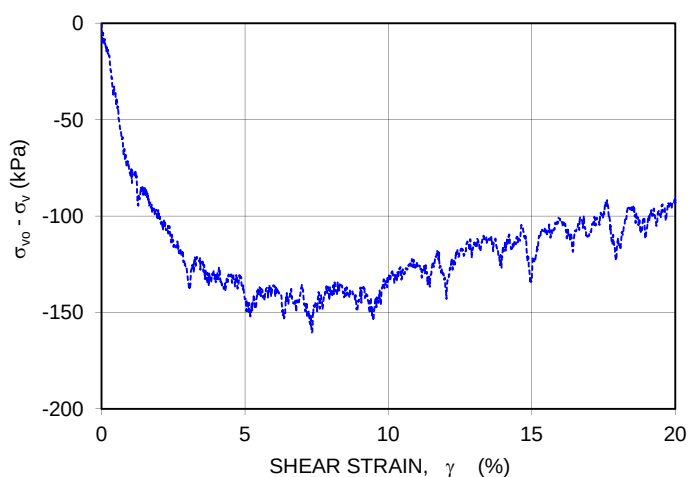
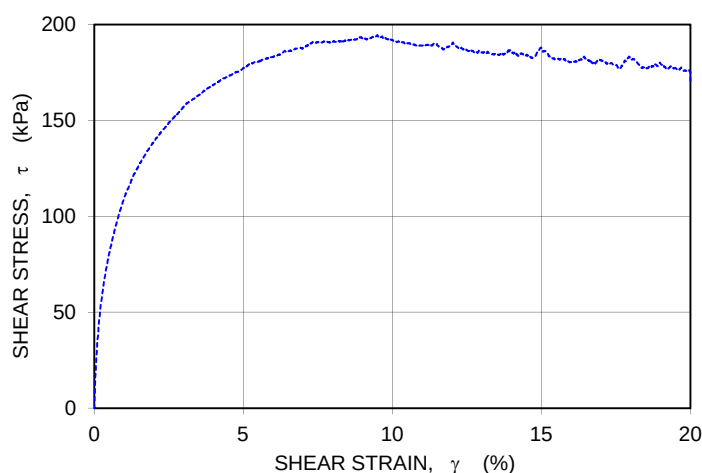
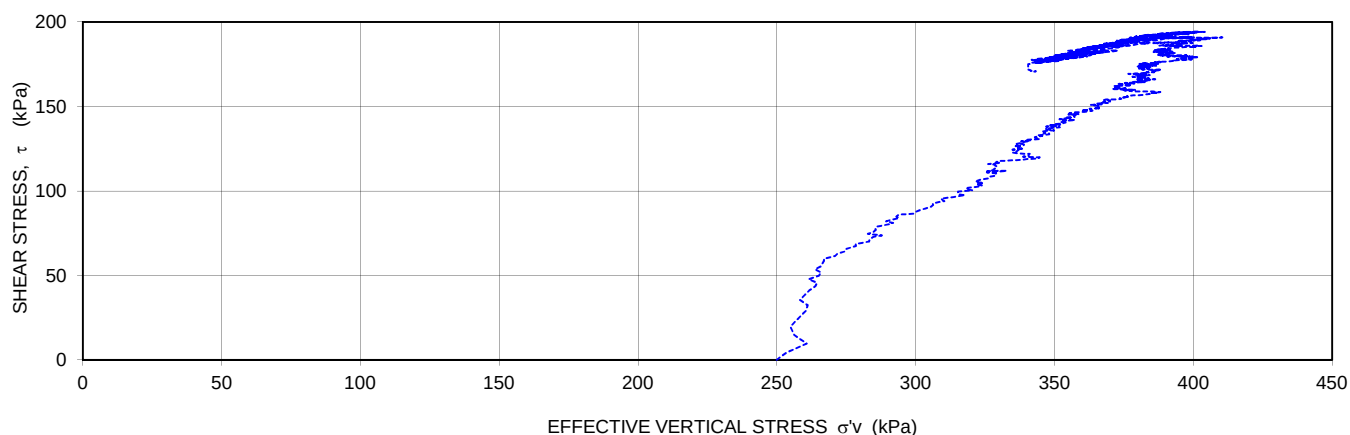
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 15, 2012
Borehole:	BH-003-12			Depth (m):	28.80
Sample No.:	ST-3 (DSS-01)			Station:	Static DSS
Initial Height (mm):	23.6	Weight of Specimen (g):	195.38	Initial Void Ratio, e_0 :	0.66
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	19.62	Final Void Ratio, e_f :	0.56
Specific Gravity, G_s :	2.71	Dry Unit Weight (kN/m ³):	15.99	Natural Water Content (%):	22.7
Final Water Content (%):	23.0	Initial Degree of Saturation, S_r (%):	92.8	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	Overconsolidation Ratio, (OCR)
ST-3 (DSS-01)	28.80	19.6	250	4

Comments: Sample OCR = 2 (sample loaded to 1000 kPa and unloaded to 250 kPa)

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 25, 2012	Date:	July 26, 2012	Date:	August 27, 2012

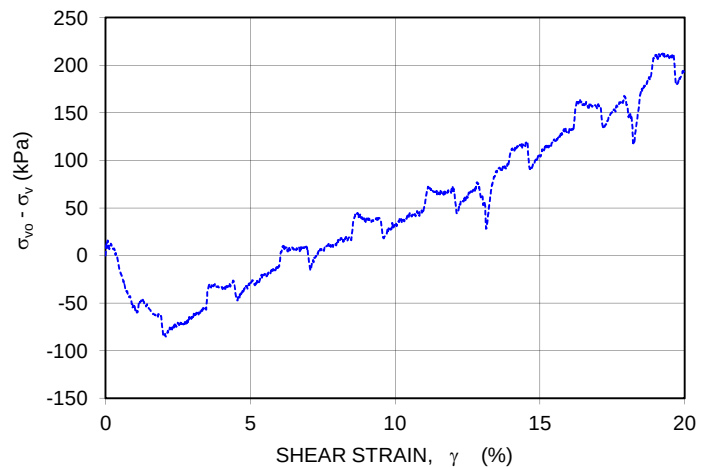
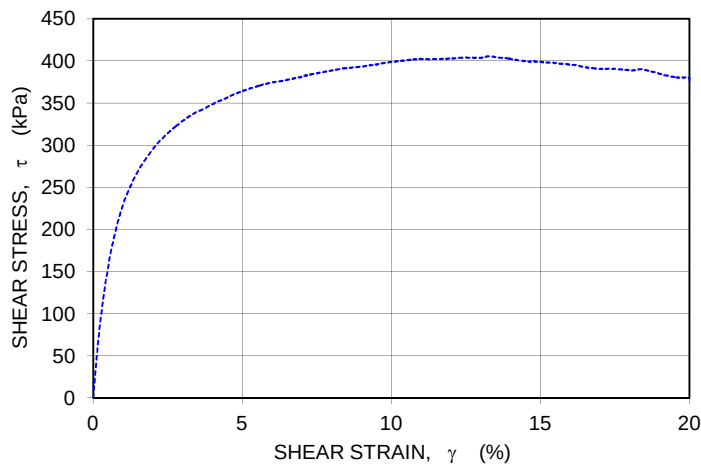
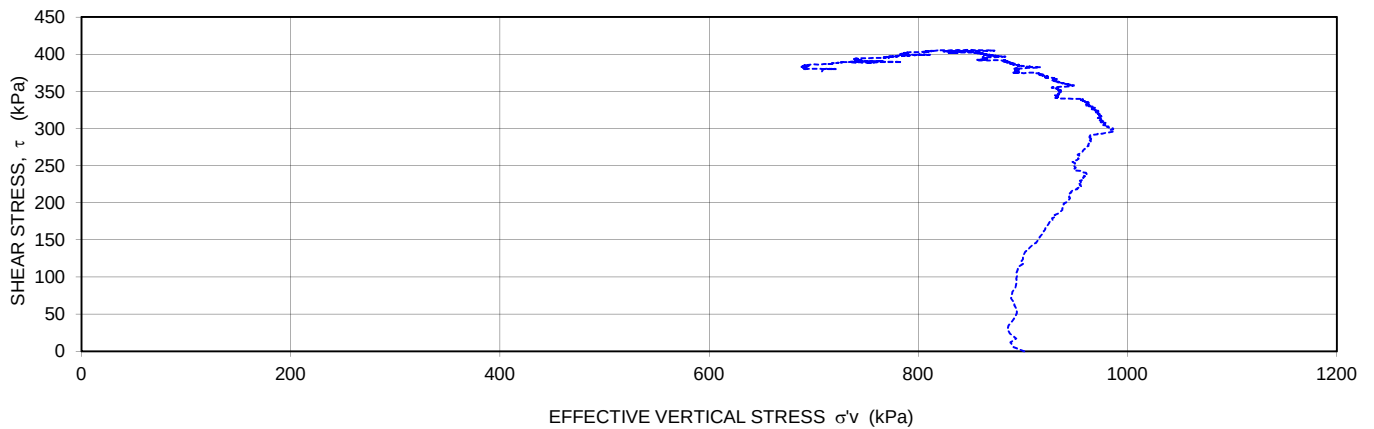
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	US			Date:	June 20, 2012
Borehole:	BH 003-12			Depth (m):	28.29
Sample No.:	ST 2 (DSS2a)			Station:	DSS #2
Initial Height (mm):	23.6	Weight of Specimen (g):	205.04	Initial Void Ratio, e_i :	0.59
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	20.59	Final Void Ratio, e_f :	0.45
Specific Gravity, G_s :	2.72	Dry Unit Weight (kN/m ³):	16.83	Natural Water Content (%):	22.3
Final Water Content (%):	19.5	Initial Degree of Saturation, S_r (%):	100.0	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	Overconsolidation Ratio, (OCR)
ST 2 (DSS2a)	28.29	20.6	900	2

Comments: Sample OCR = 2 (sample loaded to 1800 kPa and unloaded to 900 kPa)

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	June 26, 2012	Date:	July 3, 2012	Date:	August 27, 2012

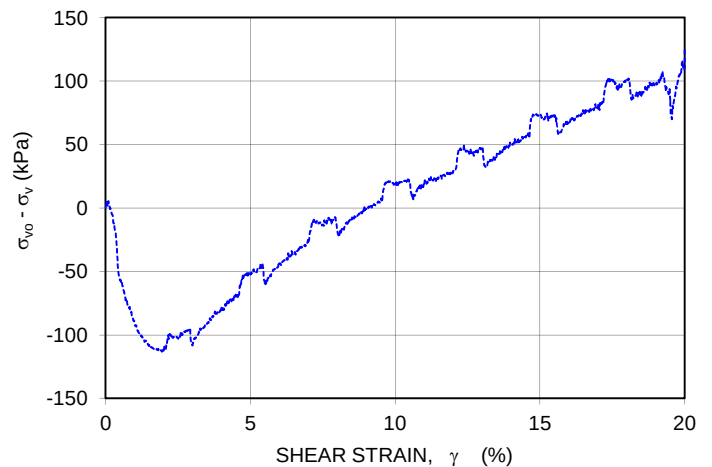
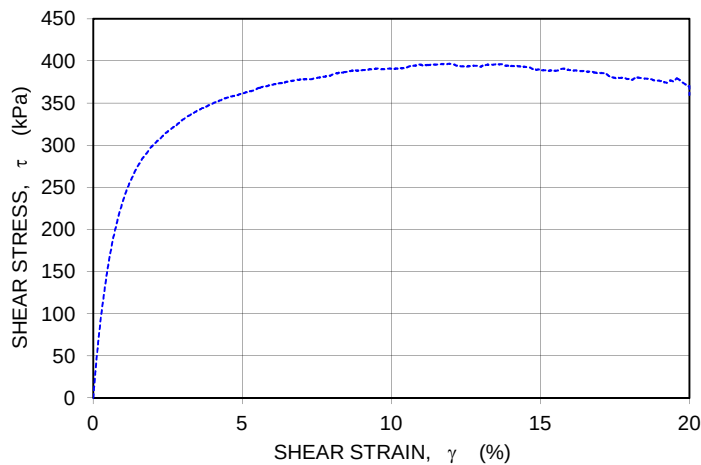
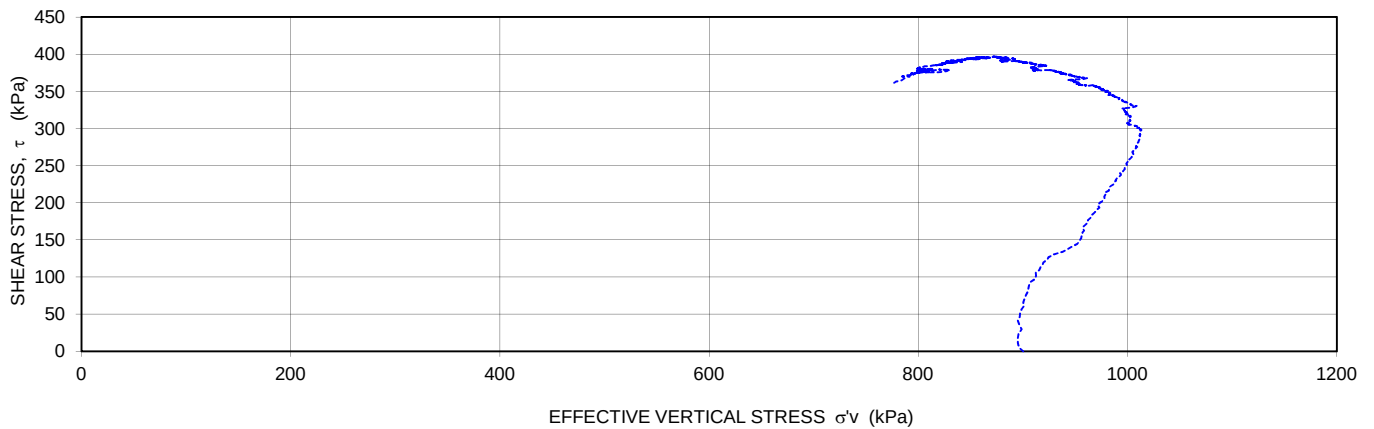
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	US			Date:	July 1, 2012
Borehole:	BH-003-12			Depth (m):	29.20
Sample No.:	ST-3 (DSS2b)			Station:	DSS #2
Initial Height (mm):	23.6	Weight of Specimen (g):	199.19	Initial Void Ratio, e_i :	0.60
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	20.00	Final Void Ratio, e_f :	0.48
Specific Gravity, G_s :	2.71	Dry Unit Weight (kN/m ³):	16.60	Natural Water Content (%):	20.5
Final Water Content (%):	21.2	Initial Degree of Saturation, S_r (%):	92.4	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	Overconsolidation Ratio, (OCR)
ST-3 (DSS2b)	29.20	20.0	900	2

Comments: Sample OCR = 2 (sample loaded to 1800 kPa and unloaded to 900 kPa)

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 10, 2012	Date:	July 12, 2012	Date:	August 27, 2012

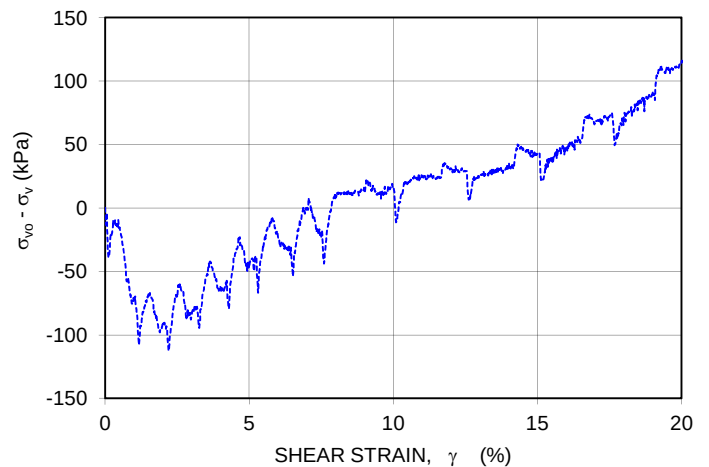
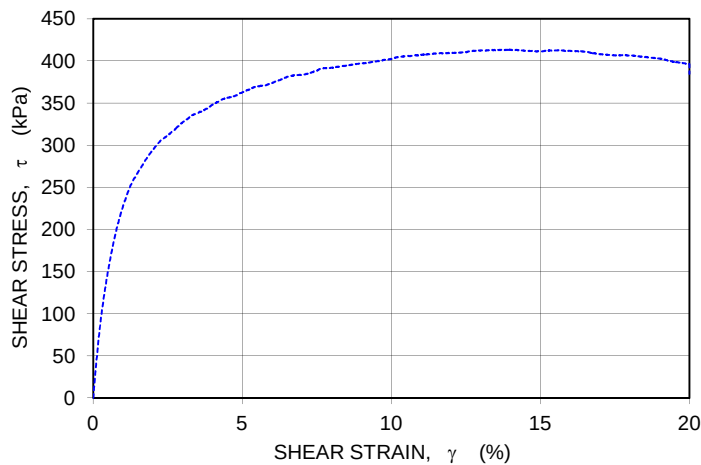
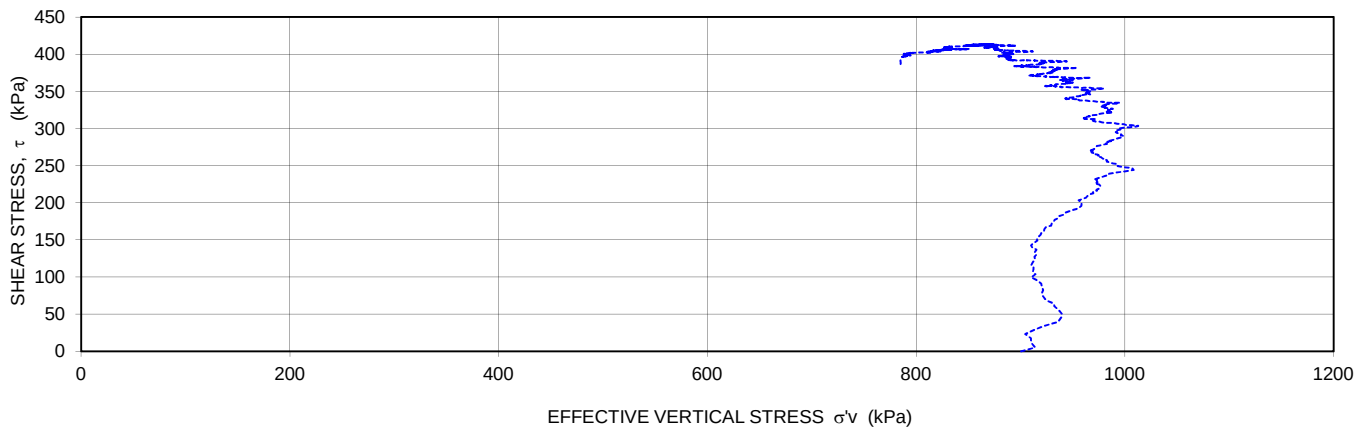
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	US			Date:	June 27, 2012
Borehole:	BH-003-12			Depth (m):	29.56
Sample No.:	ST4 (DSS2c)			Station:	DSS #2
Initial Height (mm):	23.6	Weight of Specimen (g):	203.50	Initial Void Ratio, e_0 :	0.62
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	20.43	Final Void Ratio, e_f :	0.47
Specific Gravity, G_s :	2.75	Dry Unit Weight (kN/m ³):	16.65	Natural Water Content (%):	22.7
Final Water Content (%):	20.3	Initial Degree of Saturation, S_r (%):	100.0	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	Overconsolidation Ratio, (OCR)
ST4 (DSS2c)	29.56	20.4	900	2

Comments: Sample OCR = 2 (sample loaded to 1800 kPa and unloaded to 900 kPa)

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 18, 2012	Date:	July 19, 2012	Date:	August 27, 2012

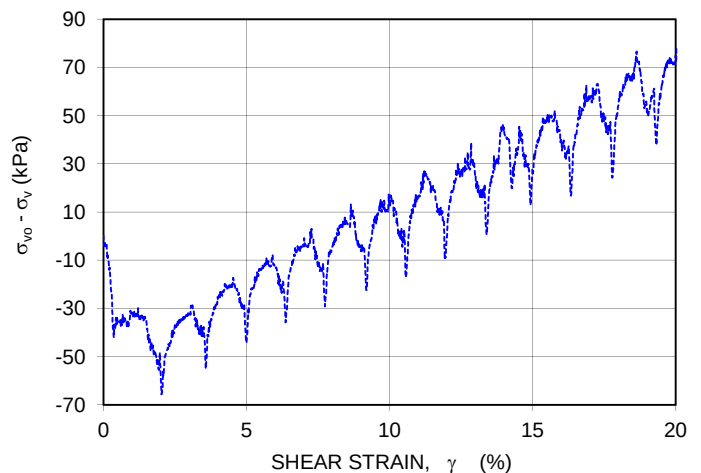
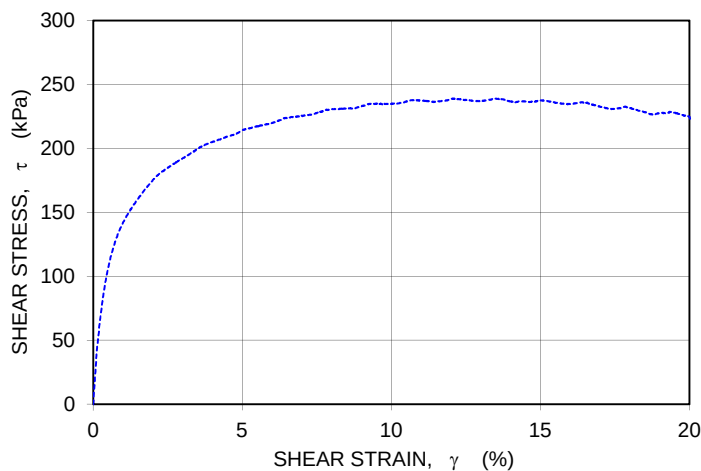
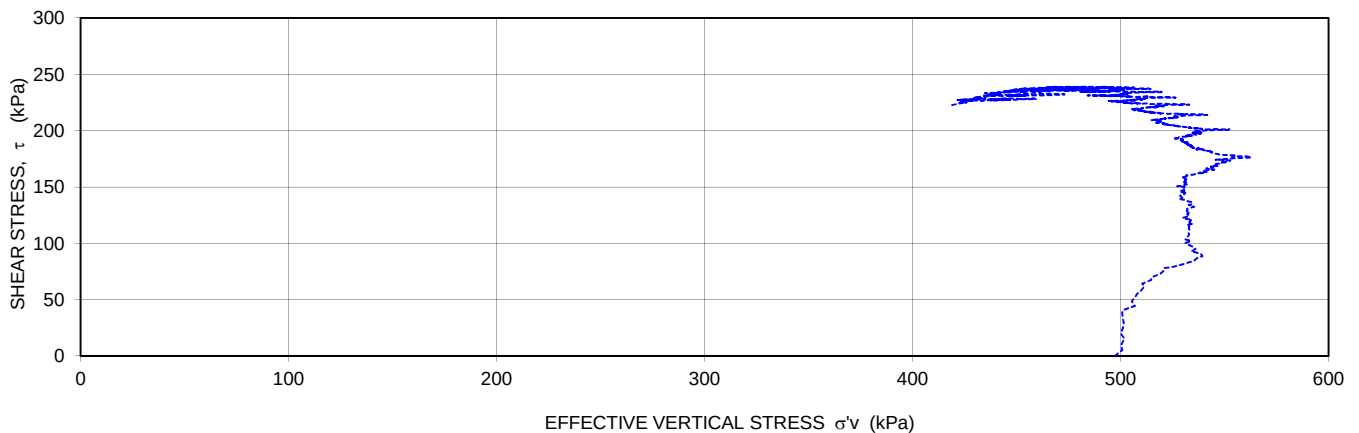
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	US			Date:	July 5, 2012
Borehole:	BH-003-12			Depth (m):	30.33
Sample No.:	ST-5 (DSS2d)			Station:	DSS #2
Initial Height (mm):	23.6	Weight of Specimen (g):	202.90	Initial Void Ratio, e_v :	0.66
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	20.37	Final Void Ratio, e_f :	0.54
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m ³):	16.18	Natural Water Content (%):	25.9
Final Water Content (%):	24.0	Initial Degree of Saturation, S_r (%):	>100	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	Overconsolidation Ratio, (OCR)
ST-5 (DSS2d)	30.33	20.4	500	2

Comments: Sample OCR = 2 (sample loaded to 1000 kPa and unloaded to 500 kPa)

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 10, 2012	Date:	July 12, 2012	Date:	August 27, 2012

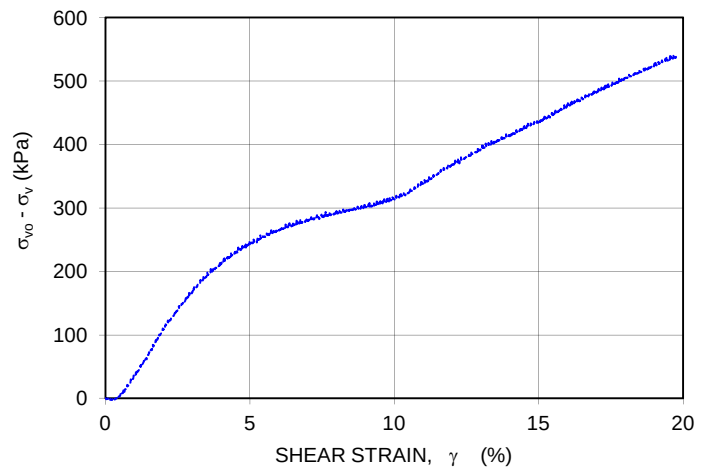
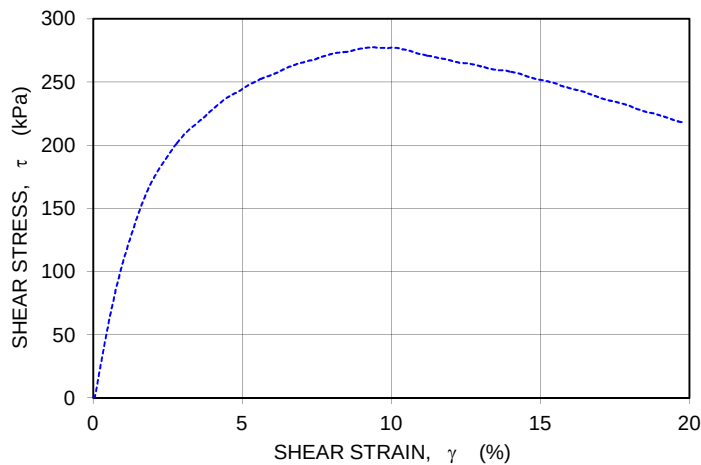
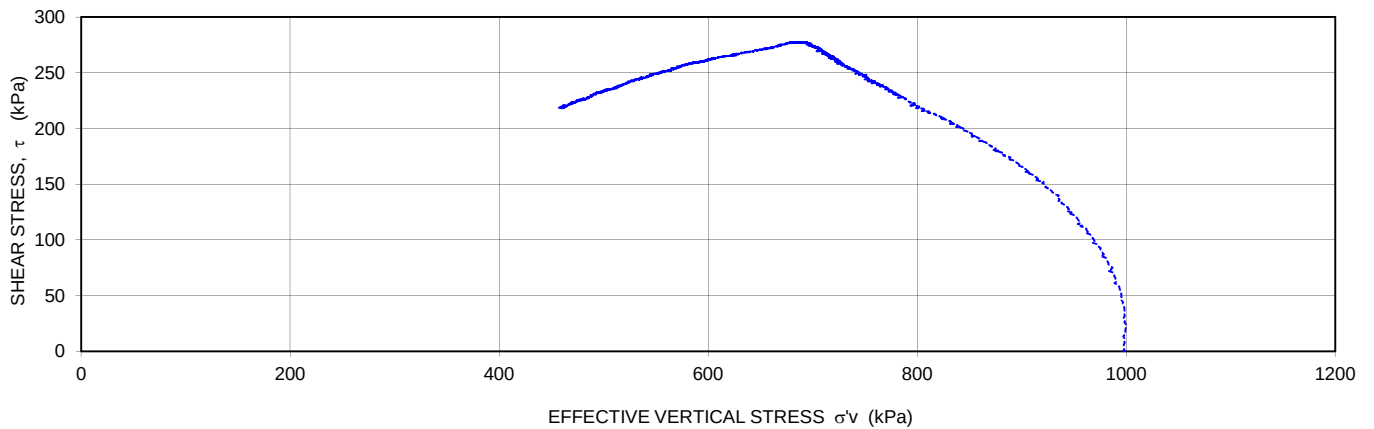
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 10, 2012
Borehole:	BH-003-12			Depth (m):	37.95
Sample No.:	ST-9 (DSS-03)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	161.20	Initial Void Ratio, e_i :	0.57
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m ³):	20.34	Final Void Ratio, e_f :	0.44
Specific Gravity, G_s :	2.71	Dry Unit Weight (kN/m ³):	16.93	Natural Water Content (%):	20.1
Final Water Content (%):	21.0	Initial Degree of Saturation, S_r (%):	95.6	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	Overconsolidation Ratio, (OCR)
ST-9 (DSS-03)	37.95	20.3	1000	1

Comments: Sample OCR = 1 (consolidated to 1000 kPa)

Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	July 25, 2012	Date:	July 26, 2012	Date:	August 27, 2012

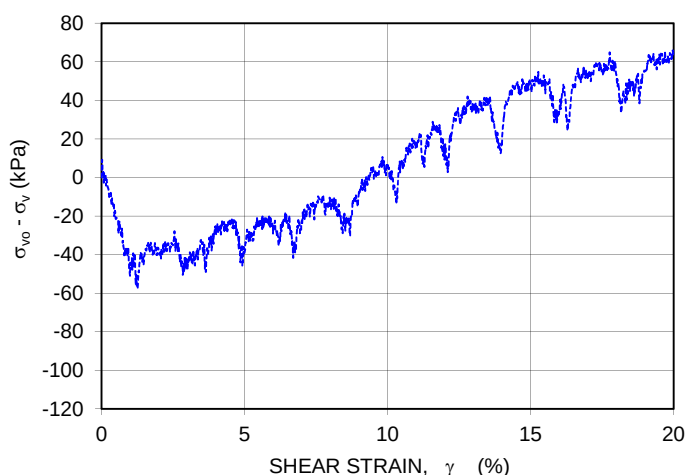
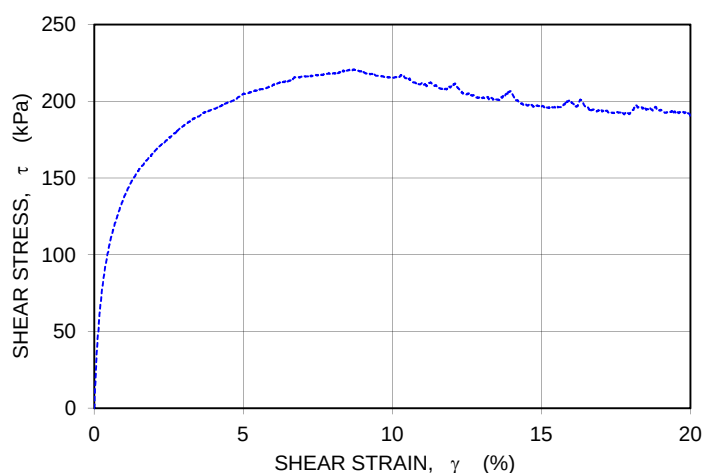
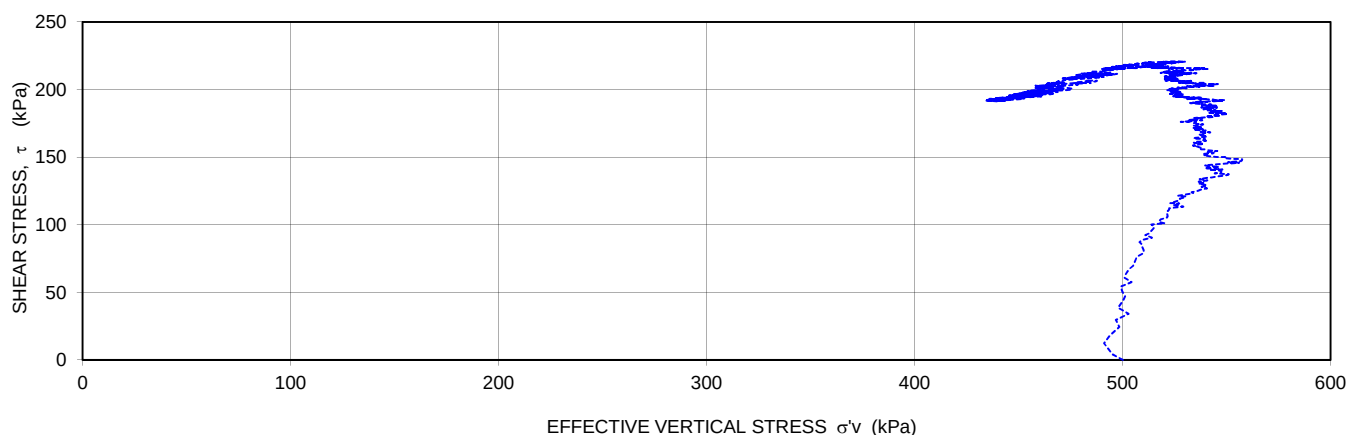
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	US			Date:	July 10, 2012
Borehole:	BH-003-12			Depth (m):	39.01
Sample No.:	ST10 (DSS04)			Station:	DSS #2
Initial Height (mm):	23.6	Weight of Specimen (g):	200.65	Initial Void Ratio, e_0 :	0.57
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m³):	20.15	Final Void Ratio, e_f :	0.48
Specific Gravity, G_s :	2.61	Dry Unit Weight (kN/m³):	16.30	Natural Water Content (%):	23.6
Final Water Content (%):	22.2	Initial Degree of Saturation, S_r (%):	>100	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	Overconsolidation Ratio, (OCR)
ST10 (DSS04)	39.01	20.1	500	2

Comments: Sample OCR = 2 (sample loaded to 1000 kPa and unloaded to 500 kPa)

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 18, 2012	Date:	July 19, 2012	Date:	August 27, 2012

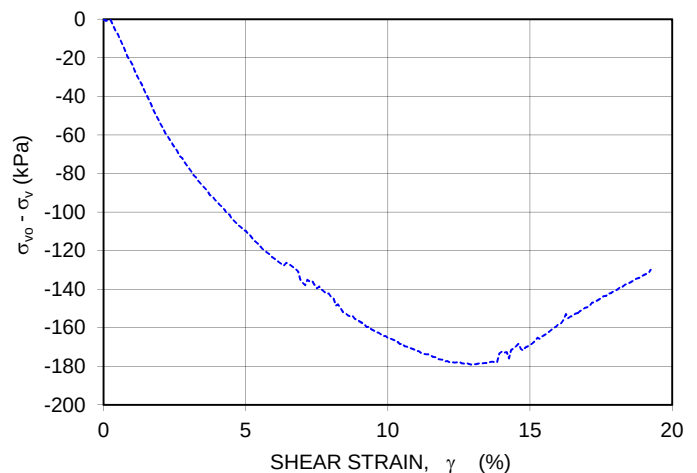
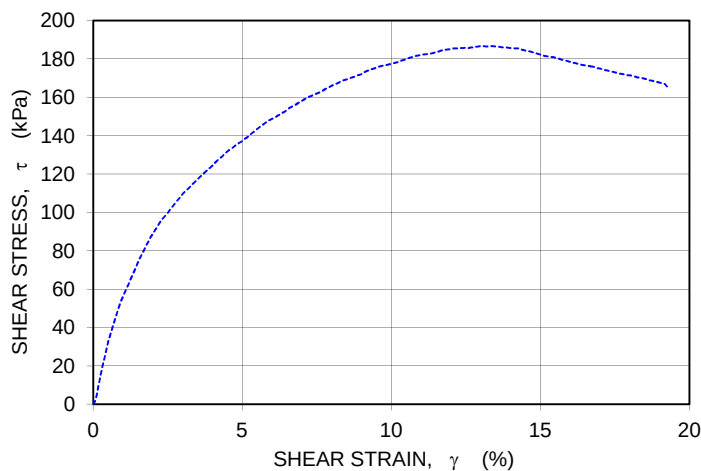
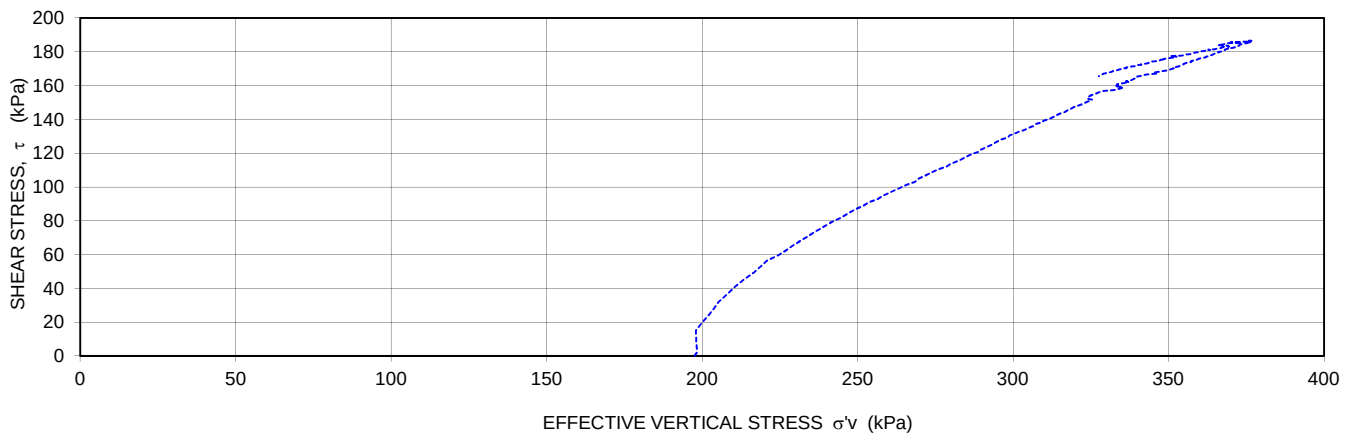
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 12, 2012
Borehole:	BH-003-12			Depth (m):	40.08
Sample No.:	ST-12 (DSS-05)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	160.32	Initial Void Ratio, e_0 :	0.65
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m ³):	20.22	Final Void Ratio, e_f :	0.47
Specific Gravity, G_s :	2.79	Dry Unit Weight (kN/m ³):	16.56	Natural Water Content (%):	22.1
Final Water Content (%):	22.4	Initial Degree of Saturation, S_r (%):	94.3	Final Degree of Saturation, S_r (%):	<100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	Overconsolidation Ratio, (OCR)
ST-12 (DSS-05)	40.08	20.2	200	5

Comments: Sample OCR = 5 (consolidated to 200 kPa)

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 25, 2012	Date:	July 26, 2012	Date:	July 27, 2012

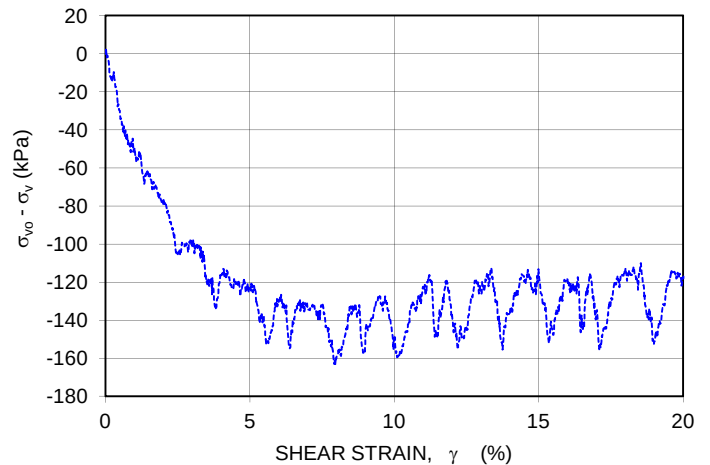
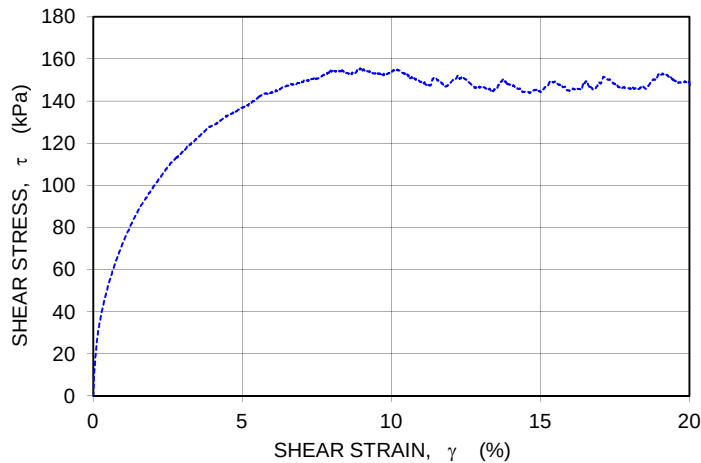
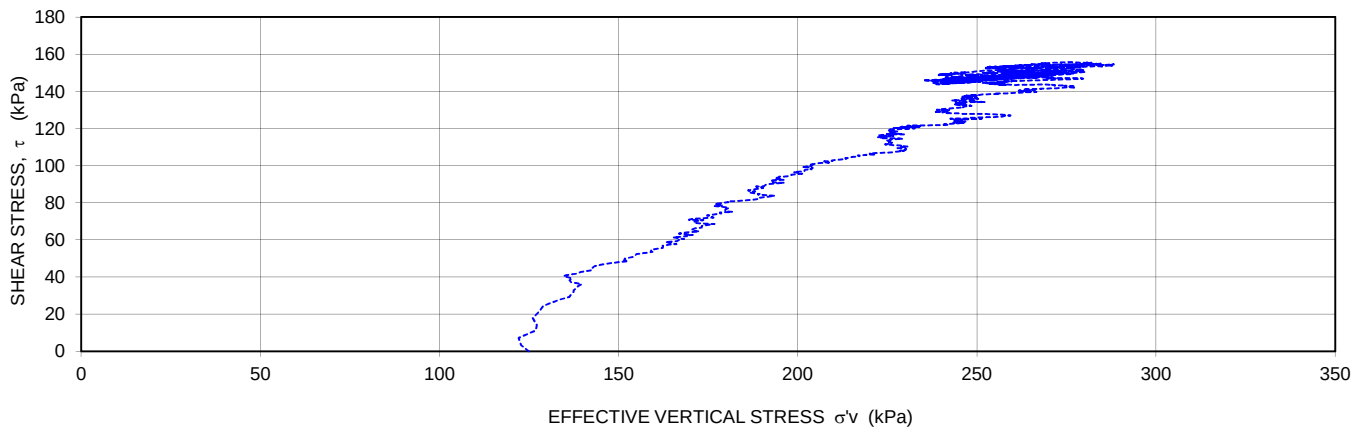
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	US			Date:	July 13, 2012
Borehole:	BH-003-12			Depth (m):	42.67
Sample No.:	ST15 (DSS06)			Station:	DSS #2
Initial Height (mm):	23.6	Weight of Specimen (g):	204.59	Initial Void Ratio, e_i :	0.60
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	20.54	Final Void Ratio, e_f :	0.49
Specific Gravity, G_s :	2.73	Dry Unit Weight (kN/m ³):	16.75	Natural Water Content (%):	22.7
Final Water Content (%):	23.0	Initial Degree of Saturation, S_r (%):	100.0	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	Overconsolidation Ratio, (OCR)
ST15 (DSS06)	42.67	20.5	125	8

Comments: Sample OCR = 8 (consolidated to 1000 kPa and unloaded to 125 kPa)

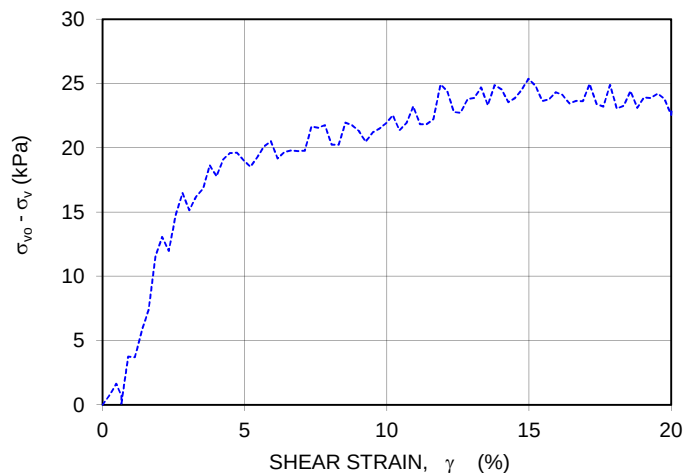
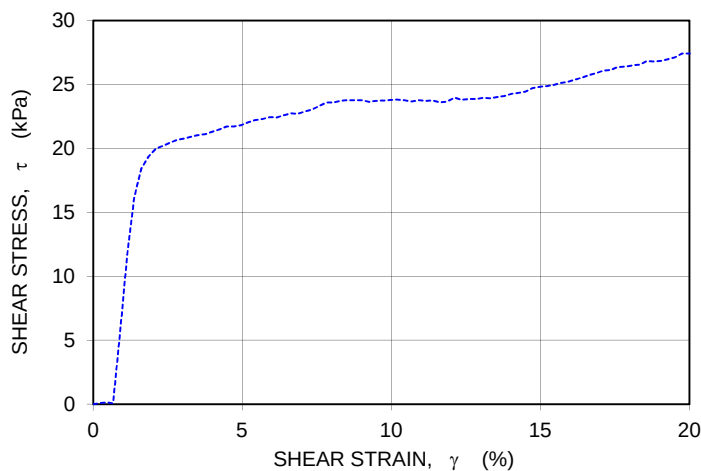
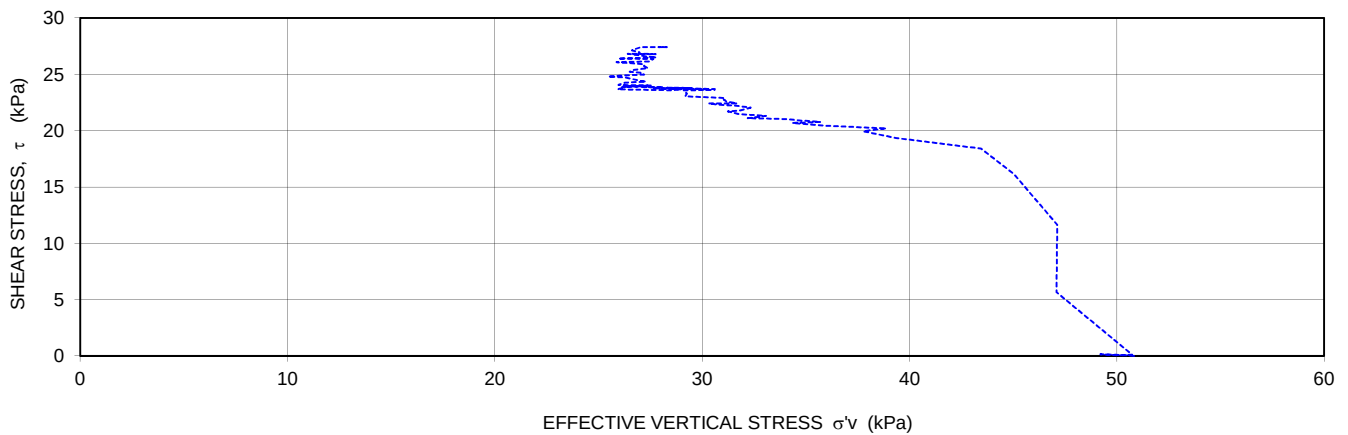
Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 18, 2012	Date:	July 19, 2012	Date:	August 27, 2012

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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 10, 2012
Borehole:	BH-003-12			Depth (m):	27.88
Sample No.:	ST-2 (DSS07)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	168.40	Initial Void Ratio, e_0 :	0.49
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m ³):	21.23	Final Void Ratio, e_f :	0.42
Specific Gravity, G_s :	2.72	Dry Unit Weight (kN/m ³):	17.86	Natural Water Content (%):	18.9
Final Water Content (%):	22.7	Initial Degree of Saturation, S_r (%):	>100	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-2 (DSS07)	27.88	21.2	50

Comments: _____

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 25, 2012	Date:	July 26, 2012	Date:	August 27, 2012

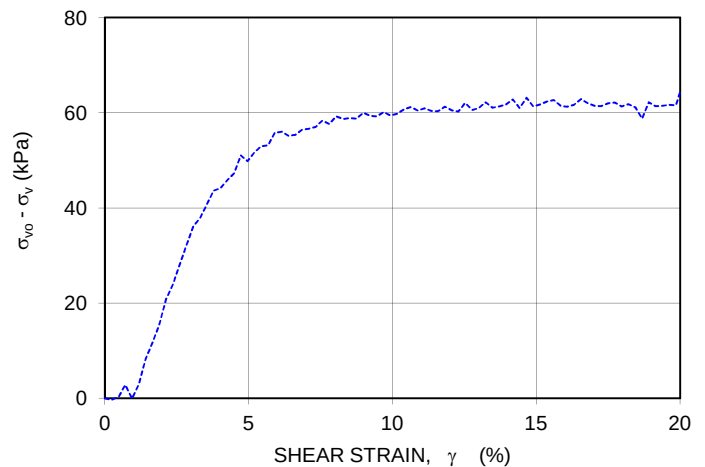
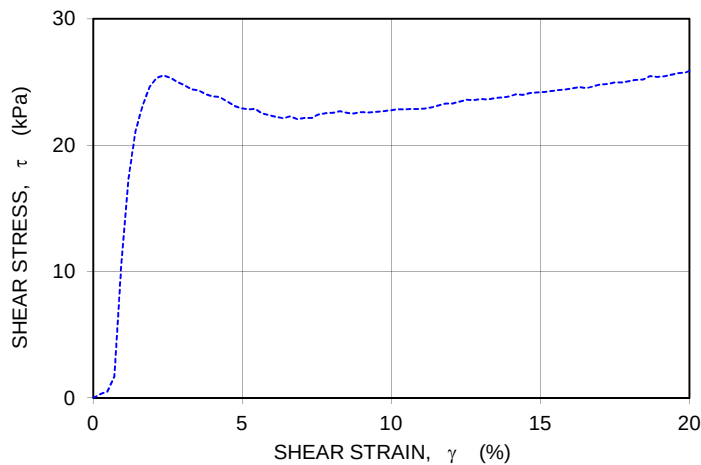
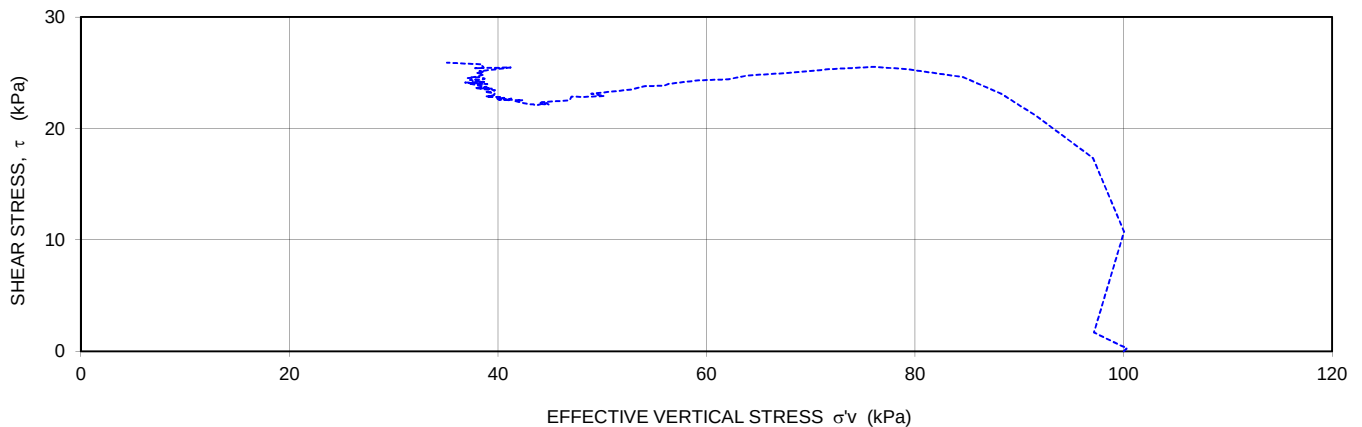
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 18, 2012
Borehole:	BH-003-12			Depth (m):	28.04
Sample No.:	ST-2 (DSS08)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	160.83	Initial Void Ratio, e_v :	0.58
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m ³):	20.28	Final Void Ratio, e_f :	0.52
Specific Gravity, G_s :	2.72	Dry Unit Weight (kN/m ³):	16.87	Natural Water Content (%):	20.2
Final Water Content (%):	22.0	Initial Degree of Saturation, S_r (%):	94.4	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-2 (DSS08)	28.04	20.3	100

Comments: _____

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 25, 2012	Date:	July 26, 2012	Date:	July 27, 2012

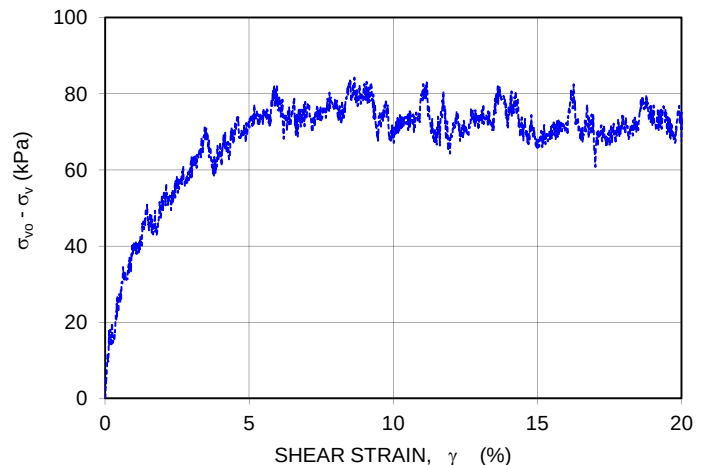
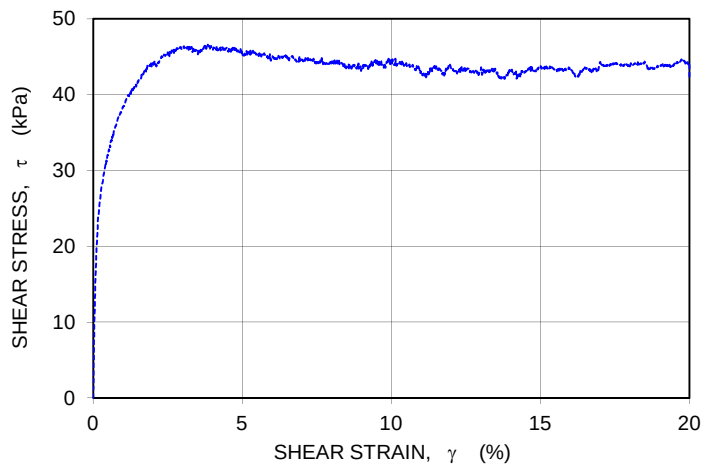
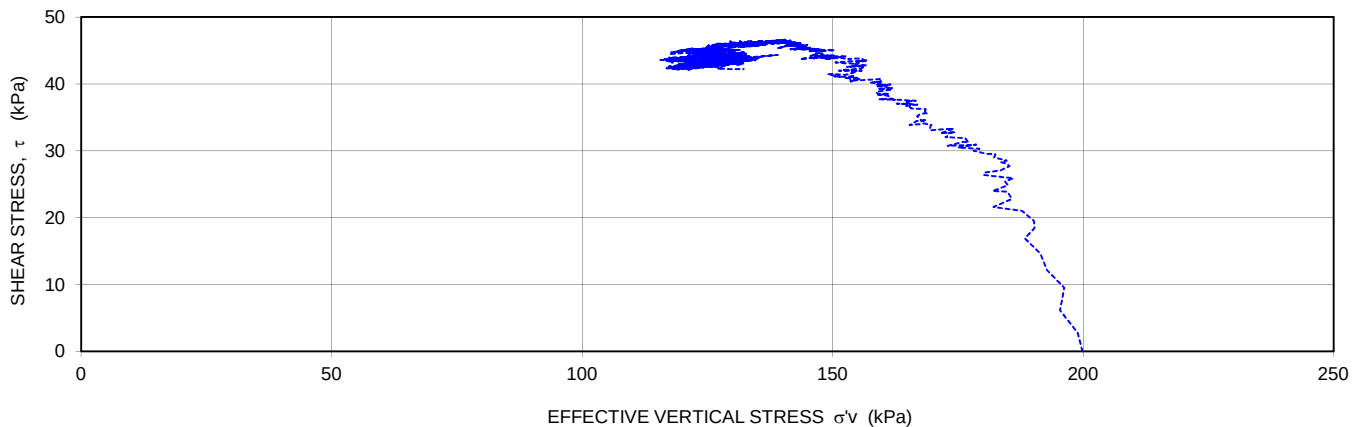
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 18, 2012
Borehole:	BH-003-12			Depth (m):	28.04
Sample No.:	ST-2 (DSS09)			Station:	Static DSS
Initial Height (mm):	21.4	Weight of Specimen (g):	171.96	Initial Void Ratio, e_0 :	0.69
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m³):	19.04	Final Void Ratio, e_f :	0.50
Specific Gravity, G_s :	2.72	Dry Unit Weight (kN/m³):	15.80	Natural Water Content (%):	20.5
Final Water Content (%):	21.4	Initial Degree of Saturation, S_r (%):	81.0	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-2 (DSS09)	28.04	19.0	200

Comments: _____

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 25, 2012	Date:	July 25, 2012	Date:	August 27, 2012

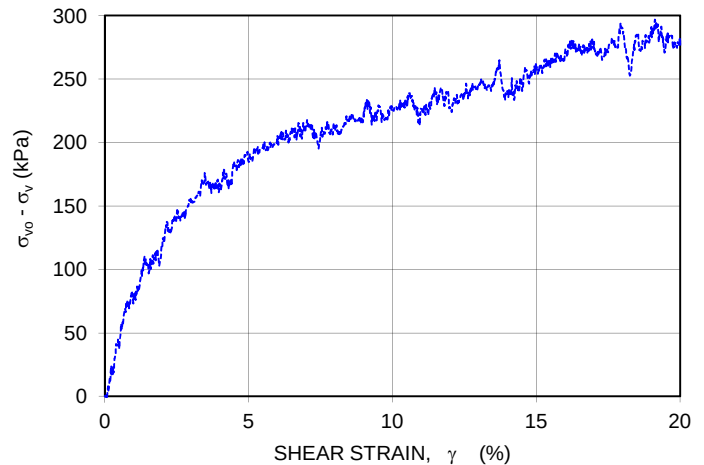
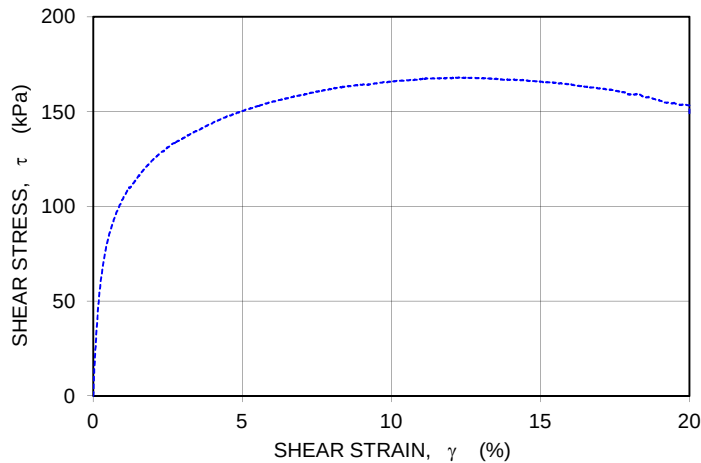
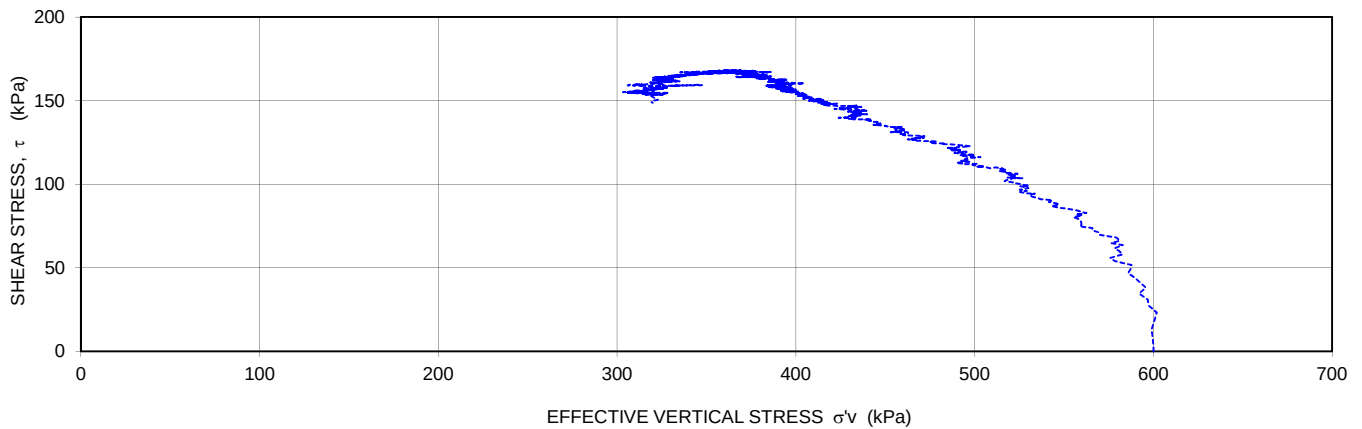
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage		Project No.:	12-MTS-009	
Location:	Anchorage, US		Date:	July 20, 2012	
Borehole:	BH-003-12		Depth (m):	31.09	
Sample No.:	ST-6 (DSS10)		Station:	Static DSS	
Initial Height (mm):	23.6	Weight of Specimen (g):	190.88	Initial Void Ratio, e_0 :	0.85
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m³):	19.17	Final Void Ratio, e_f :	0.74
Specific Gravity, G_s :	2.77	Dry Unit Weight (kN/m³):	14.67	Natural Water Content (%):	30.6
Final Water Content (%):	29.6	Initial Degree of Saturation, S_r (%):	99.6	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-6 (DSS10)	31.09	19.2	600

Comments: _____

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	July 25, 2012	Date:	July 26, 2012	Date:	August 27, 2012

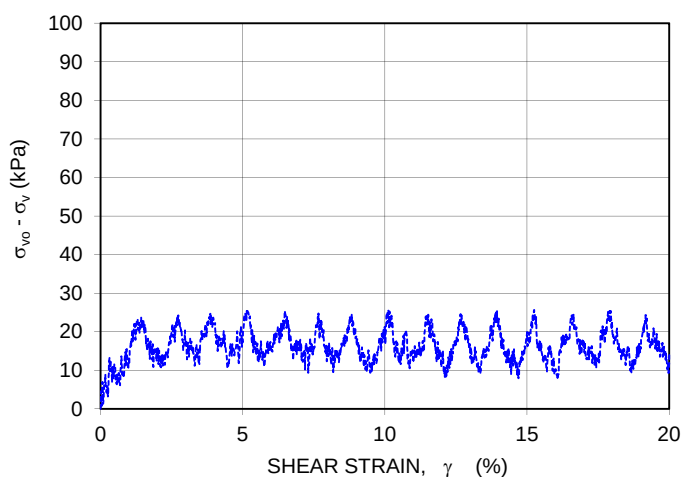
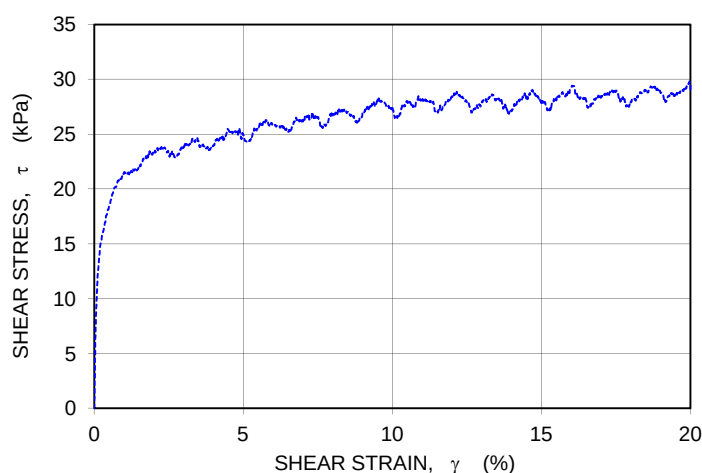
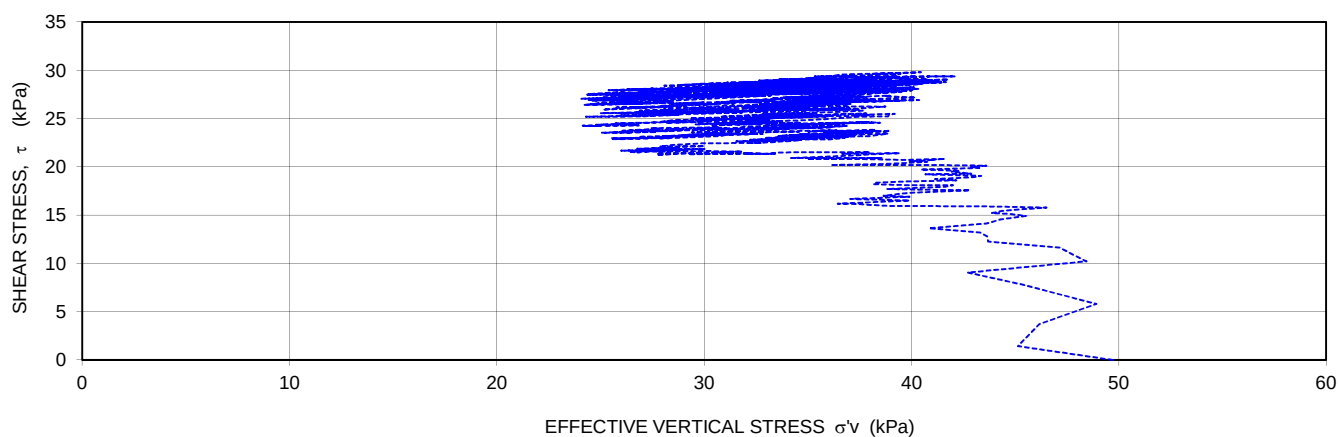
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 27, 2012
Borehole:	BH-001-12			Depth (m):	28.80
Sample No.:	ST-13 (DSS11)			Station:	DSS#2
Initial Height (mm):	23.6	Weight of Specimen (g):	193.11	Initial Void Ratio, e_0 :	0.76
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	19.39	Final Void Ratio, e_f :	0.73
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m ³):	15.27	Natural Water Content (%):	27.0
Final Water Content (%):	28.5	Initial Degree of Saturation, S_r (%):	97.2	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-13 (DSS11)	28.80	19.4	50

Comments: _____

Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	August 1, 2012	Date:	August 24, 2012	Date:	August 27, 2012

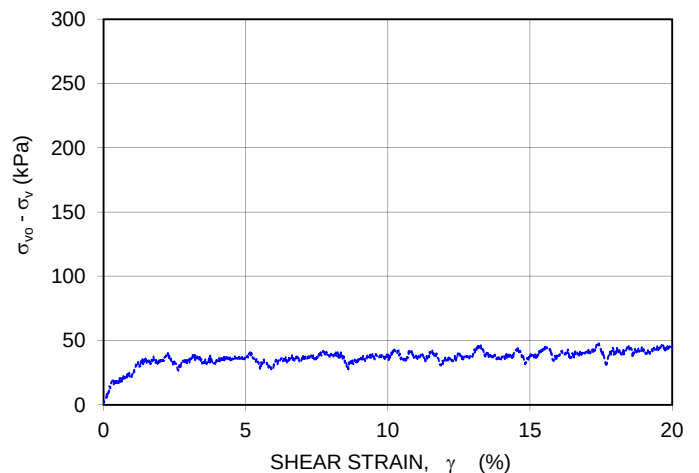
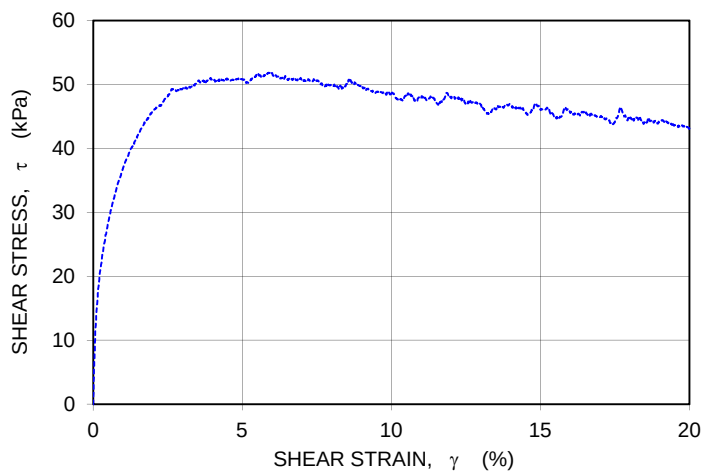
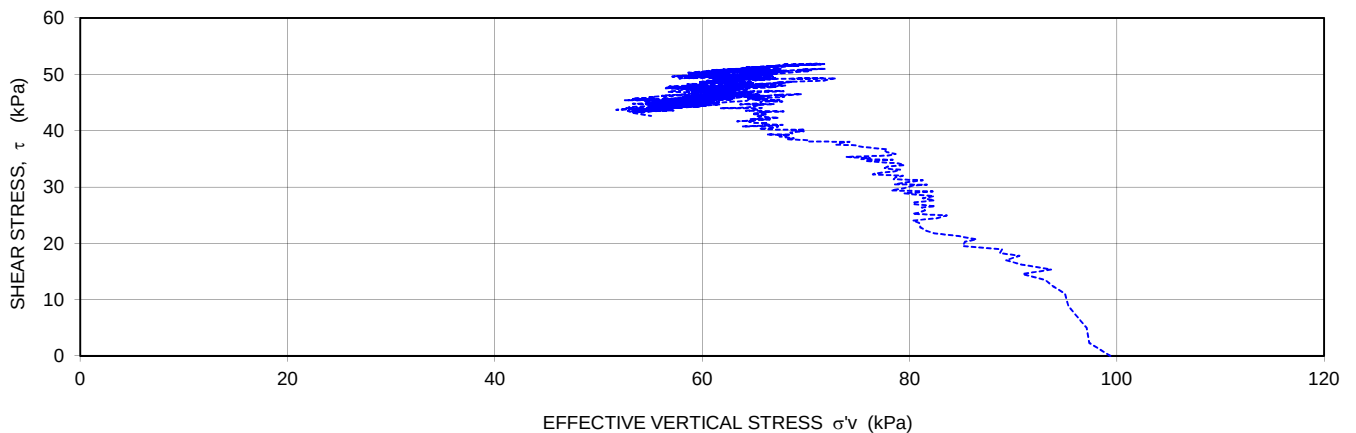
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 30, 2012
Borehole:	BH-001-12			Depth (m):	29.11
Sample No.:	ST-13 (DSS12)			Station:	DSS#2
Initial Height (mm):	23.6	Weight of Specimen (g):	198.28	Initial Void Ratio, e_0 :	0.70
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m³):	19.91	Final Void Ratio, e_f :	0.69
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m³):	15.78	Natural Water Content (%):	26.2
Final Water Content (%):	28.1	Initial Degree of Saturation, S_r (%):	>100	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-13 (DSS12)	29.11	19.9	100

Comments: _____

Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	August 01, 2012	Date:	August 24, 2012	Date:	August 27, 2012

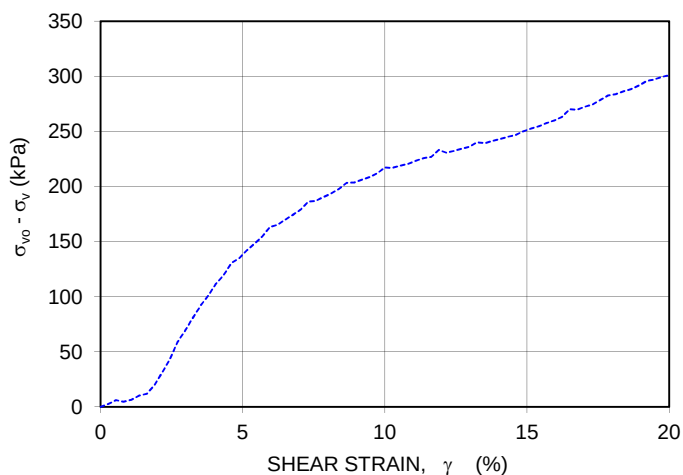
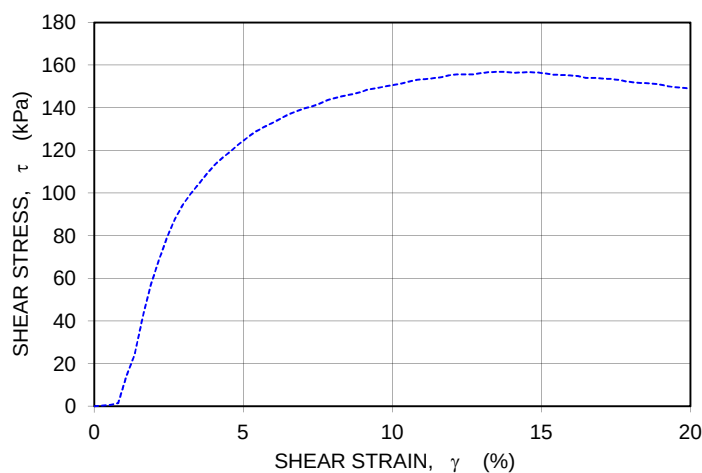
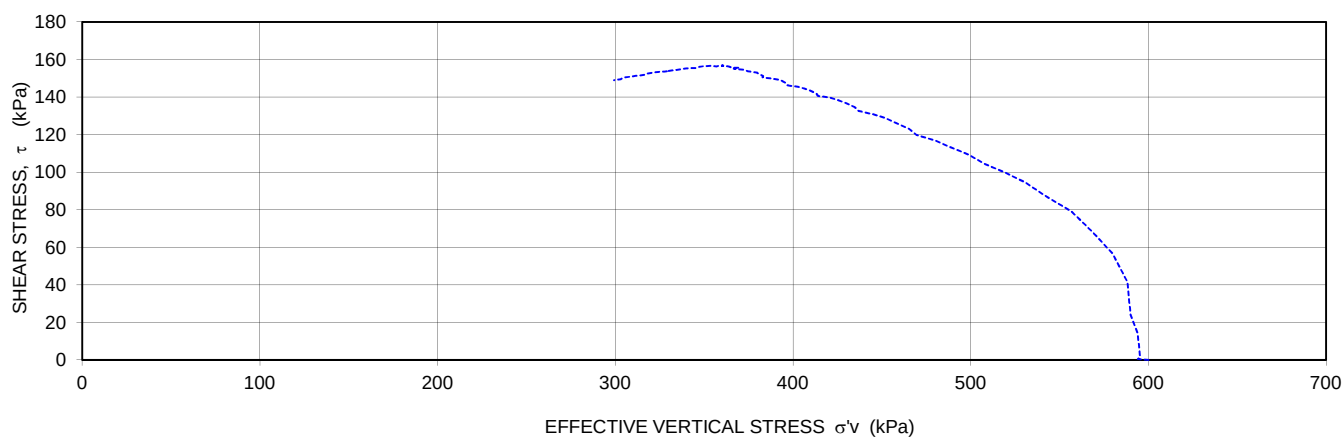
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 30, 2012
Borehole:	BH-001-12			Depth (m):	29.72
Sample No.:	ST-14 (DSS13)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	150.53	Initial Void Ratio, e_0 :	0.77
Diameter of Ring (mm):	66.4	Total Unit Weight (kN/m ³):	19.04	Final Void Ratio, e_f :	0.49
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m ³):	15.17	Natural Water Content (%):	25.5
Final Water Content (%):	25.7	Initial Degree of Saturation, S_r (%):	90.5	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-14 (DSS13)	29.72	19.0	600

Comments: _____

Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	August 1, 2012	Date:	August 24, 2012	Date:	August 27, 2012

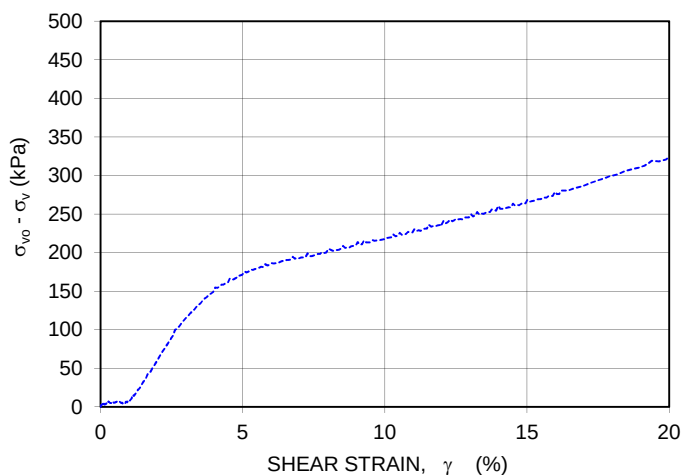
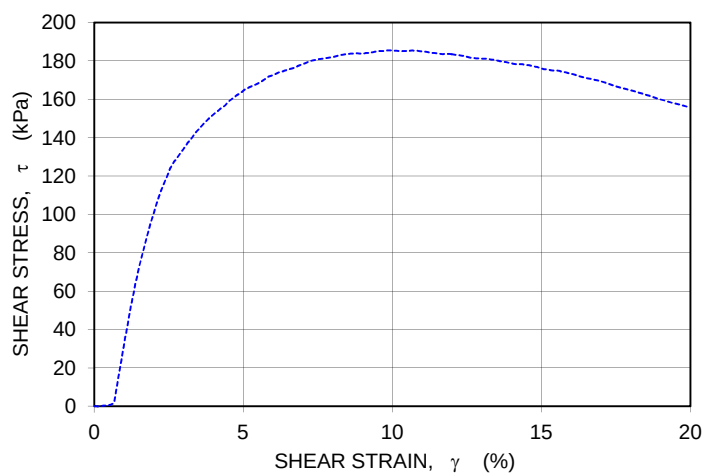
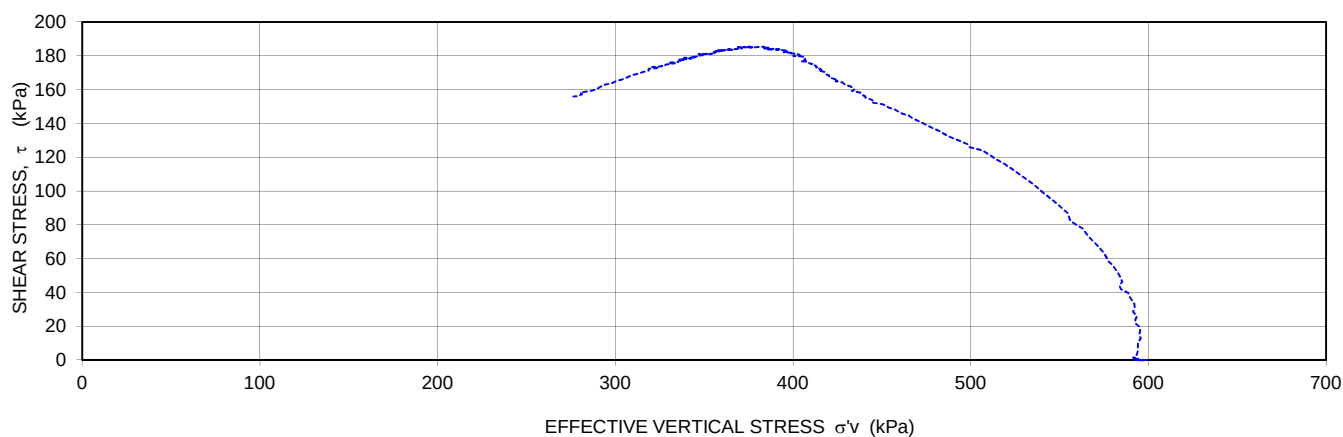
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 31, 2012
Borehole:	BH-001-12			Depth (m):	30.78
Sample No.:	ST-15 (DSS14)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	158.93	Initial Void Ratio, e_0 :	0.64
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m ³):	20.04	Final Void Ratio, e_f :	0.52
Specific Gravity, G_s :	2.75	Dry Unit Weight (kN/m ³):	16.46	Natural Water Content (%):	21.7
Final Water Content (%):	21.4	Initial Degree of Saturation, S_r (%):	93.5	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-15 (DSS14)	30.78	20.0	600

Comments: _____

Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	August 2, 2012	Date:	August 24, 2012	Date:	August 27, 2012

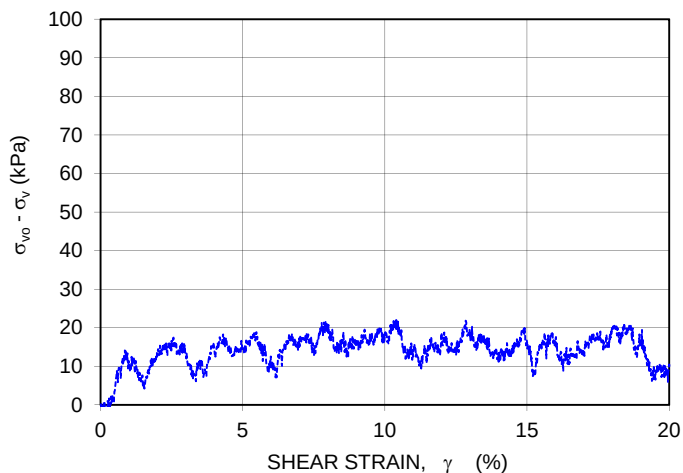
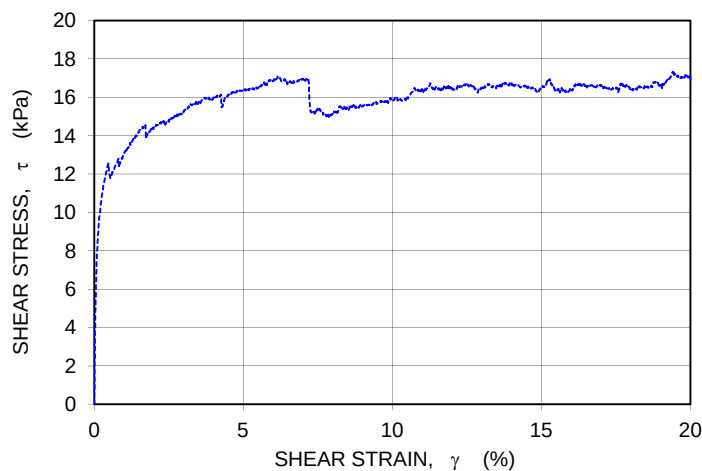
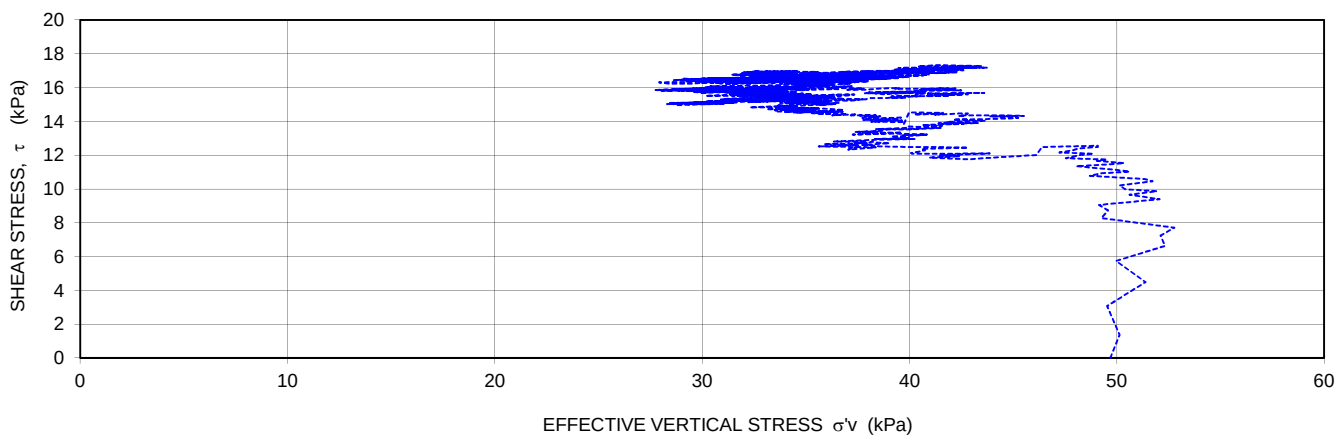
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 24, 2012
Borehole:	BH-004-12			Depth (m):	27.43
Sample No.:	ST-9 (DSS15)			Station:	DSS #2
Initial Height (mm):	23.6	Weight of Specimen (g):	184.77	Initial Void Ratio, e_0 :	0.90
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	18.55	Final Void Ratio, e_1 :	0.82
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m ³):	14.16	Natural Water Content (%):	31.0
Final Water Content (%):	33.0	Initial Degree of Saturation, S_r (%):	94.6	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-9 (DSS15)	27.43	18.6	50

Comments: _____

Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	July 27, 2012	Date:	August 24, 2012	Date:	August 27, 2012

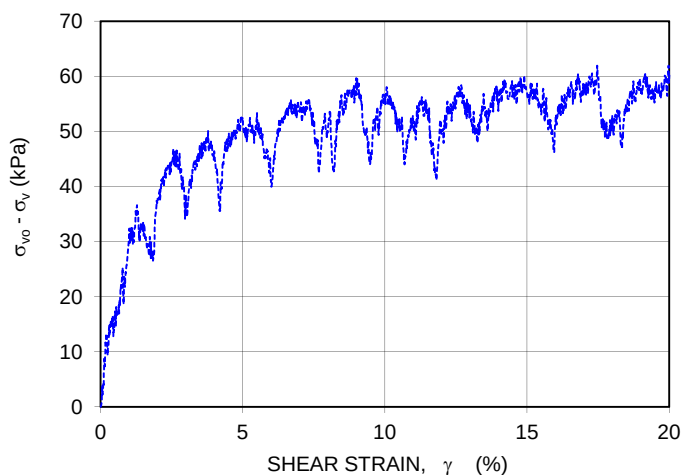
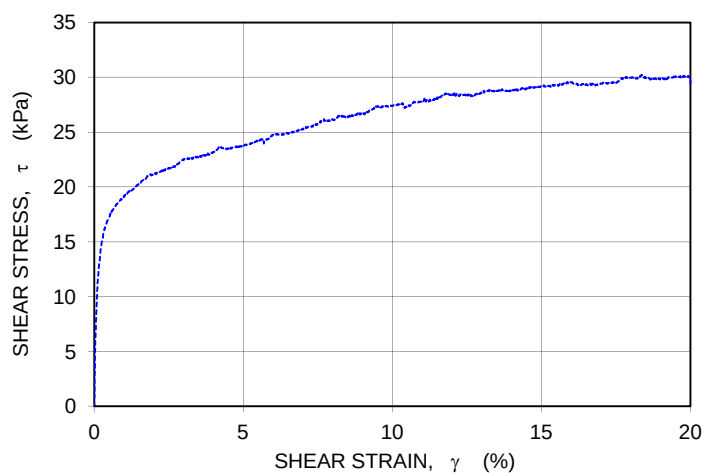
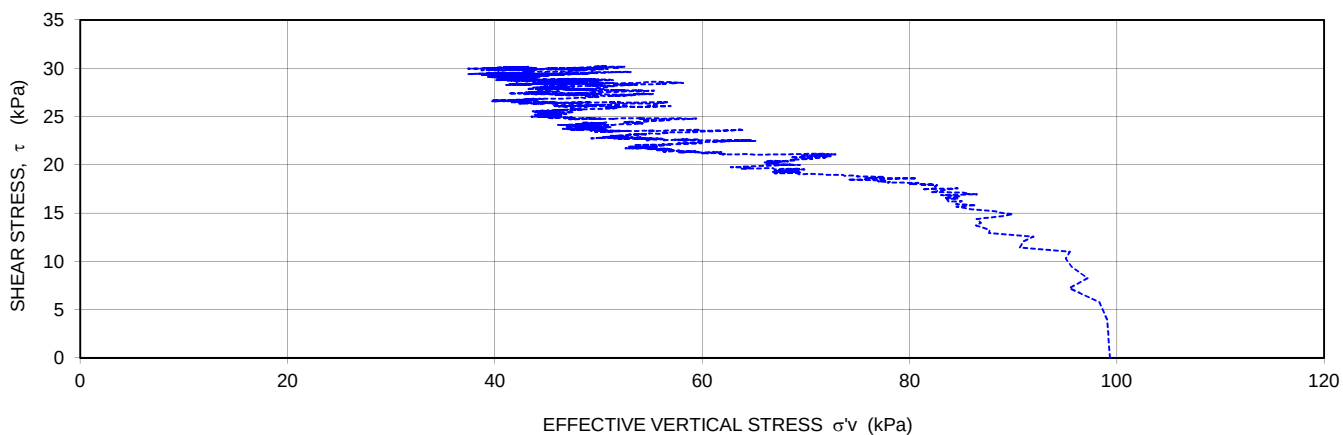
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, USA			Date:	July 26, 2012
Borehole:	BH-004-12			Depth (m):	27.43
Sample No.:	ST-9 (DSS16)			Station:	DSS#2
Initial Height (mm):	23.6	Weight of Specimen (g):	194.34	Initial Void Ratio, e_0 :	0.76
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	19.51	Final Void Ratio, e_f :	0.66
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m ³):	15.25	Natural Water Content (%):	27.9
Final Water Content (%):	25.1	Initial Degree of Saturation, S_r (%):	100.0	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-9 (DSS16)	27.43	19.5	100

Comments: _____

Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	July 30, 2012	Date:	August 24, 2012	Date:	August 27, 2012

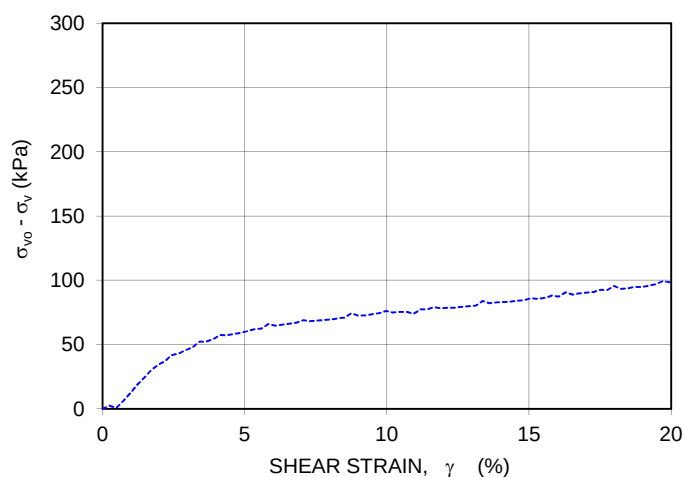
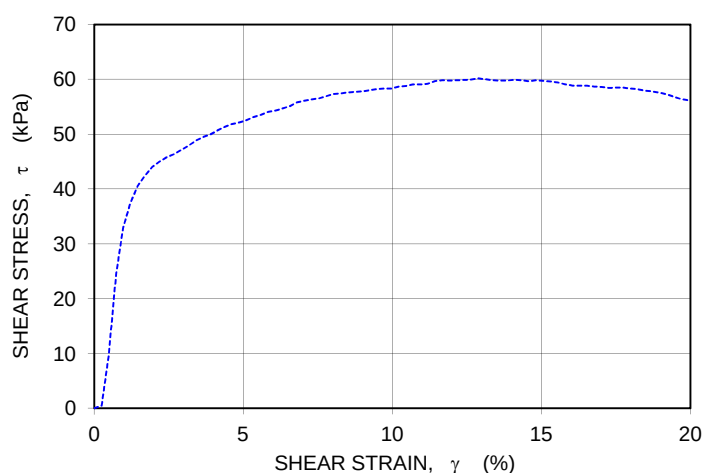
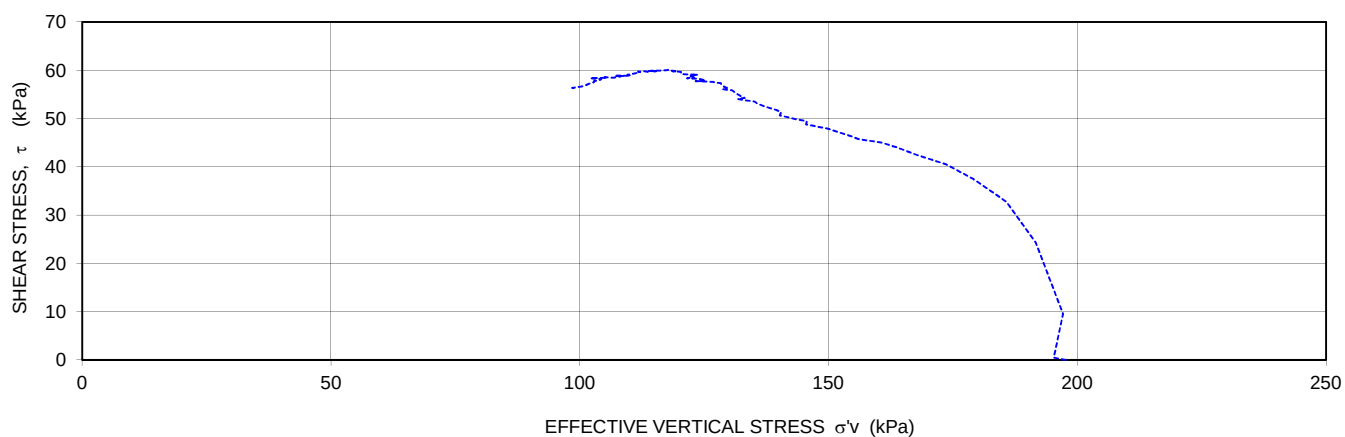
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 24, 2012
Borehole:	BH-004-12			Depth (m):	28.80
Sample No.:	ST-11 (DSS17)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	155.78	Initial Void Ratio, e_0 :	0.78
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m ³):	19.66	Final Void Ratio, e_f :	0.66
Specific Gravity, G_s :	2.83	Dry Unit Weight (kN/m ³):	15.61	Natural Water Content (%):	25.9
Final Water Content (%):	24.7	Initial Degree of Saturation, S_r (%):	94.2	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-11 (DSS17)	28.80	19.7	200

Comments: _____

Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	July 27, 2012	Date:	August 24, 2012	Date:	August 27, 2012

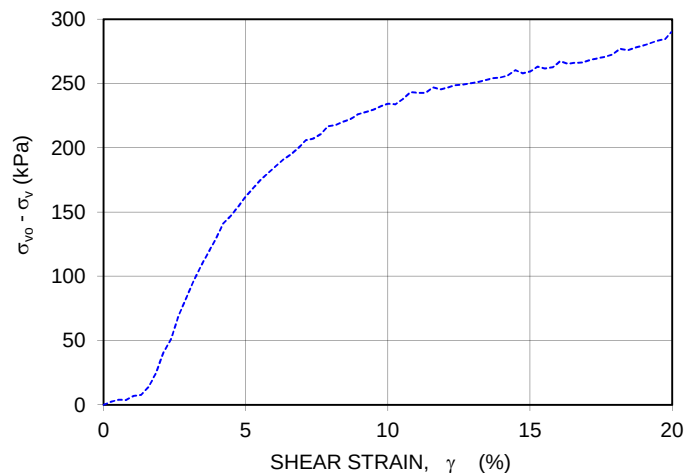
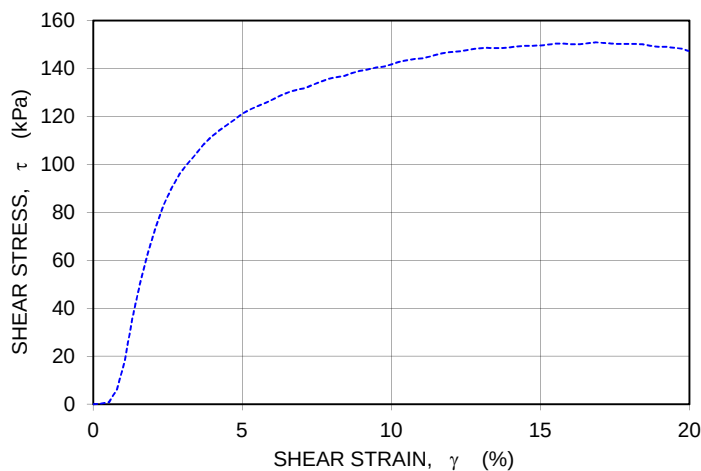
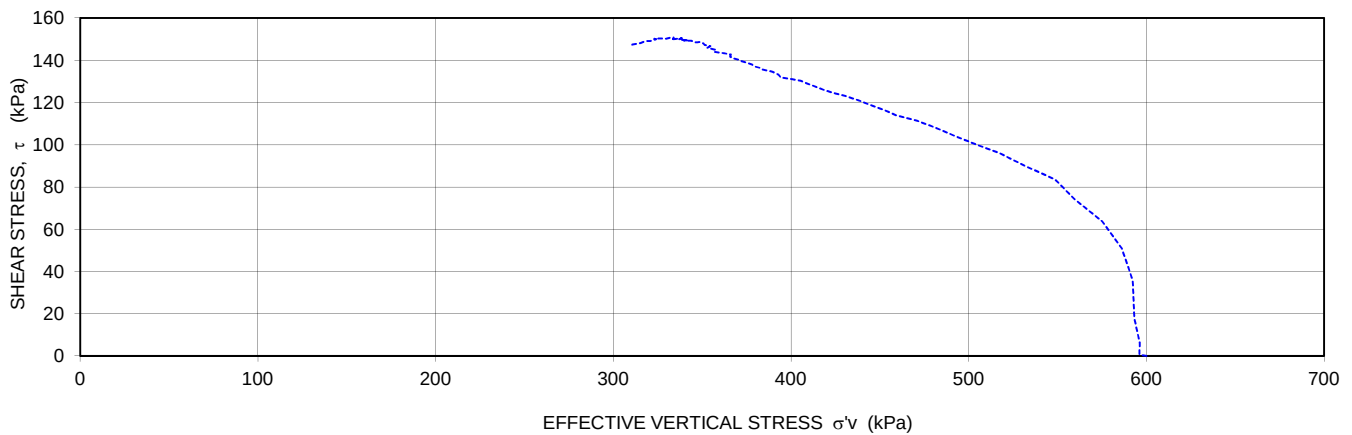
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, USA			Date:	July 26, 2012
Borehole:	BH-004-12			Depth (m):	28.80
Sample No.:	ST-11 (DSS18)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	148.63	Initial Void Ratio, e_0 :	0.89
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m³):	18.78	Final Void Ratio, e_f :	0.63
Specific Gravity, G_s :	2.83	Dry Unit Weight (kN/m³):	14.70	Natural Water Content (%):	27.8
Final Water Content (%):	25.5	Initial Degree of Saturation, S_r (%):	88.4	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-11 (DSS18)	28.80	18.8	600

Comments: _____

Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	July 30, 2012	Date:	August 24, 2012	Date:	August 27, 2012

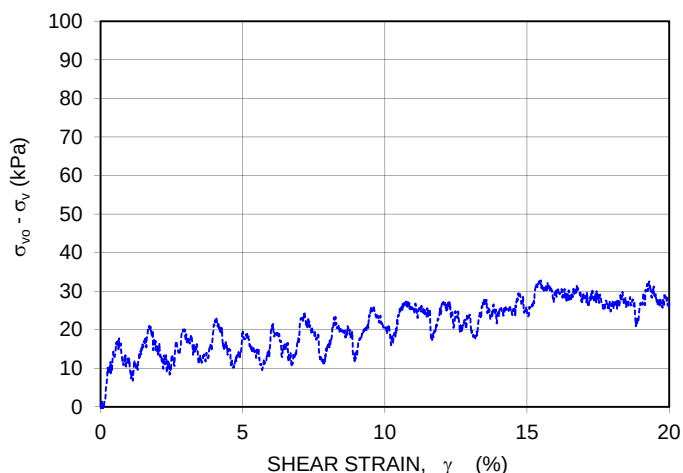
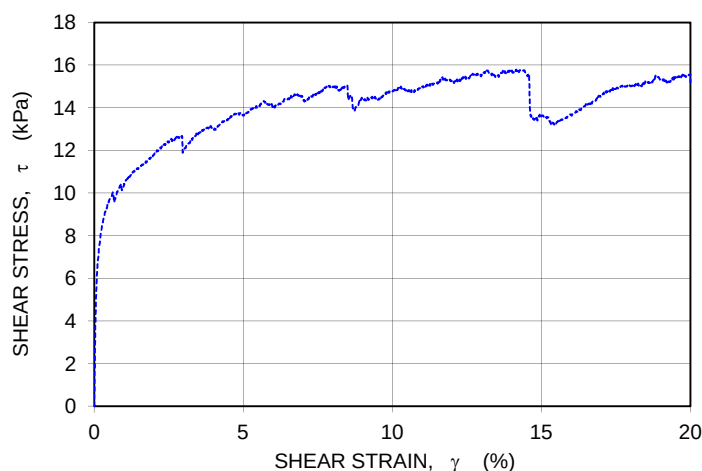
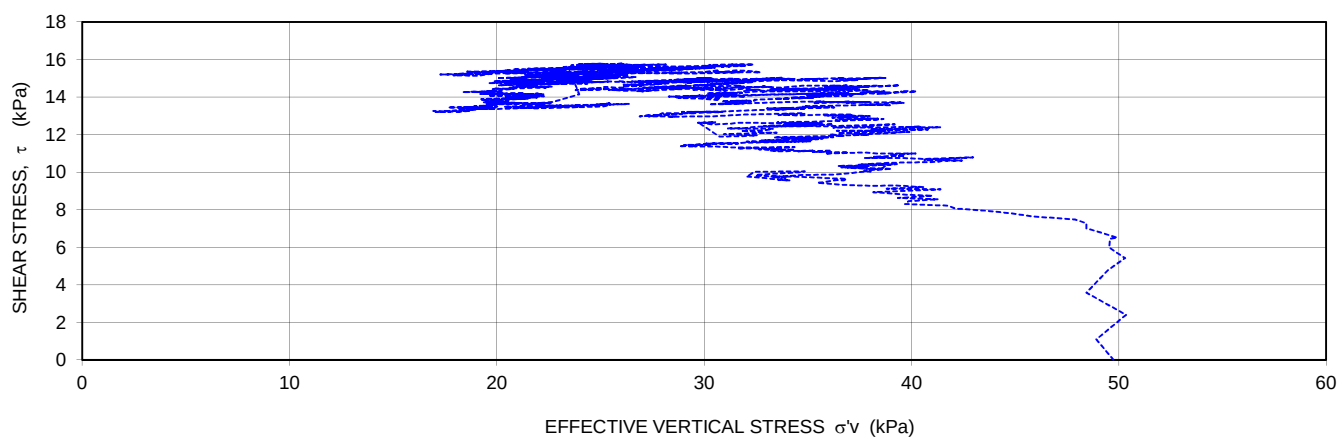
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	July 31, 2012
Borehole:	BH-005-12			Depth (m):	22.56
Sample No.:	ST-11 (DSS19)			Station:	DSS#2
Initial Height (mm):	23.6	Weight of Specimen (g):	195.43	Initial Void Ratio, e_0 :	0.74
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	19.62	Final Void Ratio, e_f :	0.67
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m ³):	15.43	Natural Water Content (%):	27.2
Final Water Content (%):	26.1	Initial Degree of Saturation, S_r (%):	100.0	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ_v (kPa)
ST-11 (DSS19)	22.56	19.6	50

Comments: _____

Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	August 2, 2012	Date:	August 24, 2012	Date:	August 27, 2012

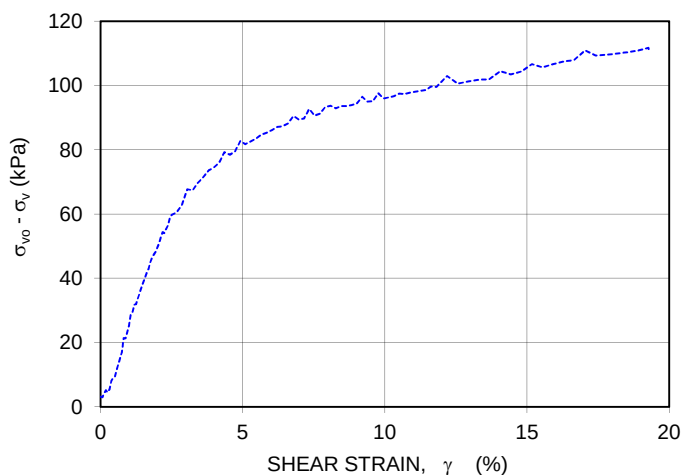
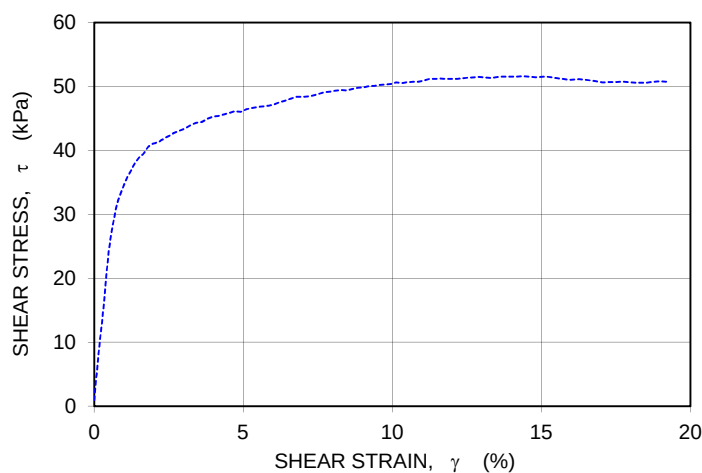
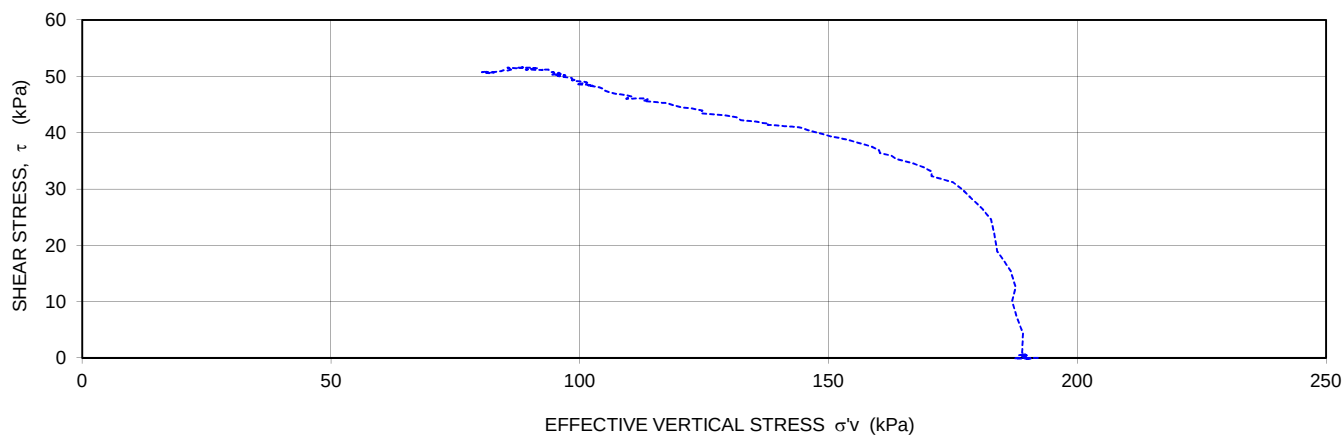
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 7, 2012
Borehole:	BH-005-12			Depth (m):	22.71
Sample No.:	ST-11 (DSS20)			Station:	DSS#2
Initial Height (mm):	22.4	Weight of Specimen (g):	154.23	Initial Void Ratio, e_o :	0.72
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m ³):	19.46	Final Void Ratio, e_f :	0.57
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m ³):	15.64	Natural Water Content (%):	24.4
Final Water Content (%):	23.7	Initial Degree of Saturation, S_r (%):	93.1	Final Degree of Saturation, S_r (%):	113.7



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-11 (DSS20)	22.71	19.5	100

Comments: _____

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	August 24, 2012	Date:	August 25, 2012	Date:	August 25, 2012

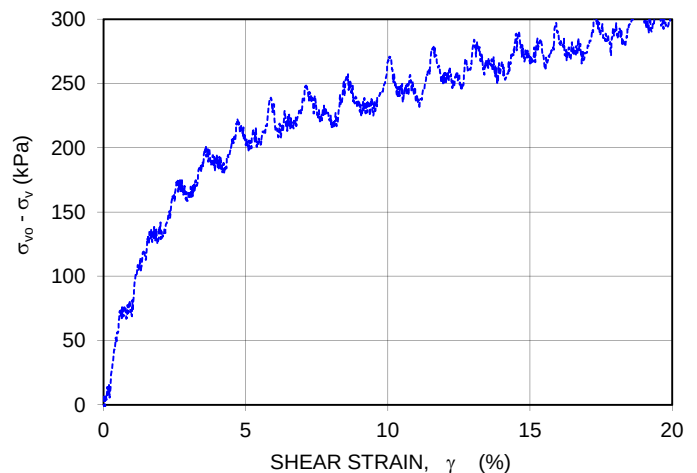
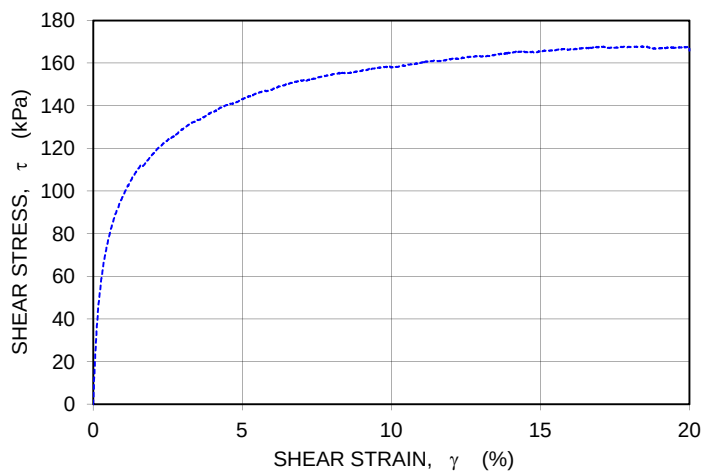
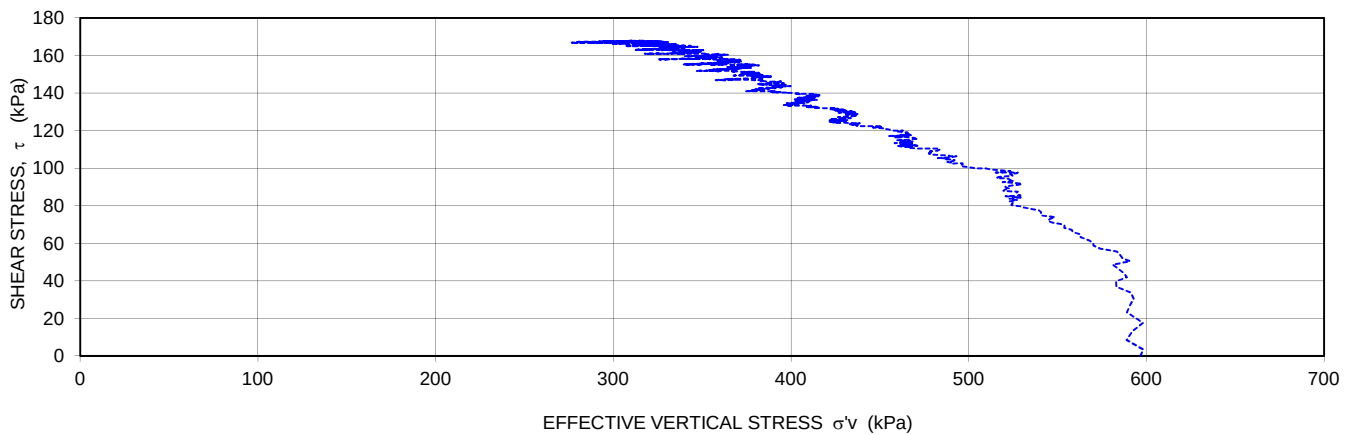
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 1, 2012
Borehole:	BH-005-12			Depth (m):	22.56
Sample No.:	ST-11 (DSS21)			Station:	DSS#2
Initial Height (mm):	23.6	Weight of Specimen (g):	197.74	Initial Void Ratio, e_0 :	0.67
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	19.86	Final Void Ratio, e_f :	0.56
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m ³):	16.07	Natural Water Content (%):	23.5
Final Water Content (%):	23.3	Initial Degree of Saturation, S_r (%):	95.9	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume			
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)
ST-11 (DSS21)	22.56	19.9	600

Comments: _____

Prepared By:	PS	Checked By:	GF	Approved By:	JPS
Date:	August 7, 2012	Date:	August 24, 2012	Date:	August 27, 2012

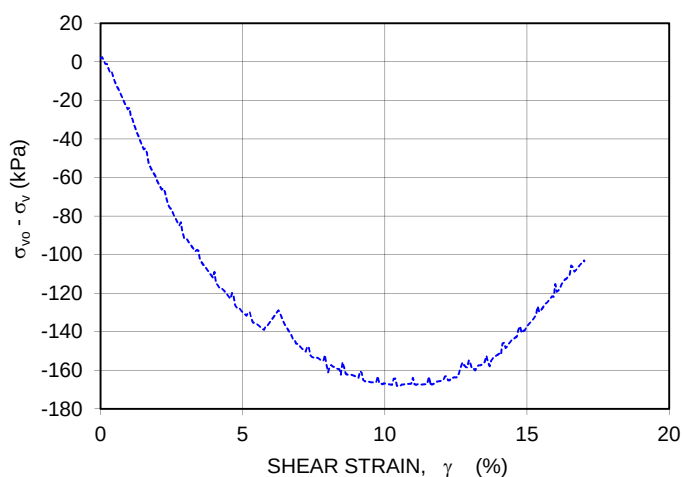
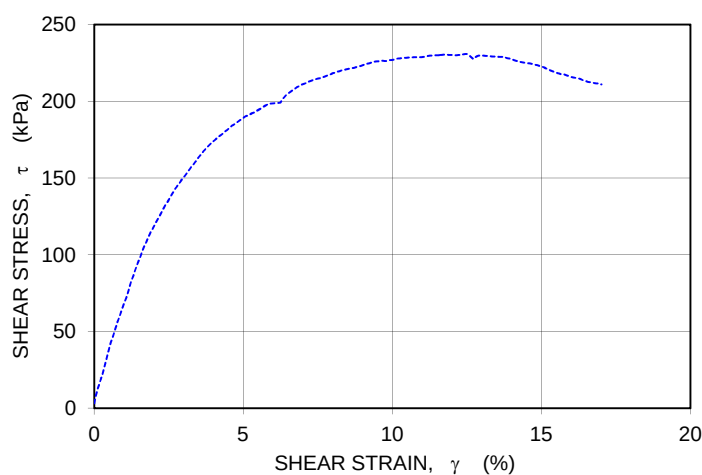
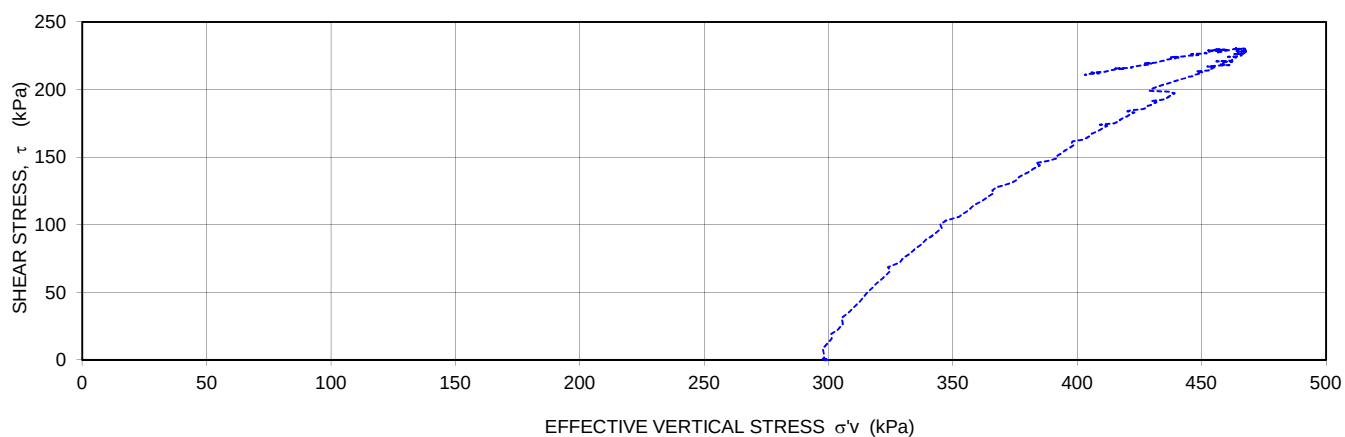
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 15, 2012
Borehole:	BH-001-12			Depth (m):	29.72
Sample No.:	ST-14 (DSS22)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	154.72	Initial Void Ratio, e_0 :	0.65
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m ³):	19.52	Final Void Ratio, e_f :	0.47
Specific Gravity, G_s :	2.67	Dry Unit Weight (kN/m ³):	15.92	Natural Water Content (%):	22.6
Final Water Content (%):	23.6	Initial Degree of Saturation, S_r (%):	93.6	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	OCR
ST-14 (DSS22)	29.72	19.5	300	3

Comments: _____

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	August 24, 2012	Date:	August 24, 2012	Date:	August 24, 2012

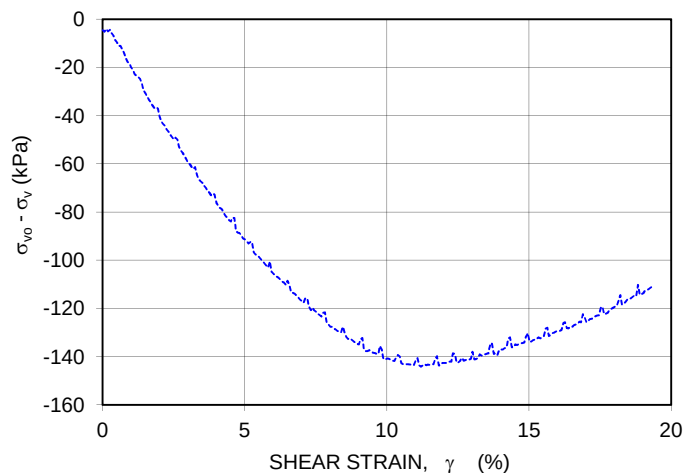
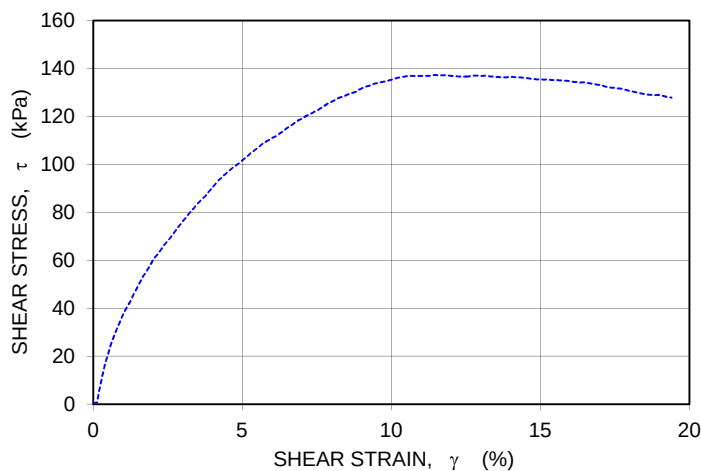
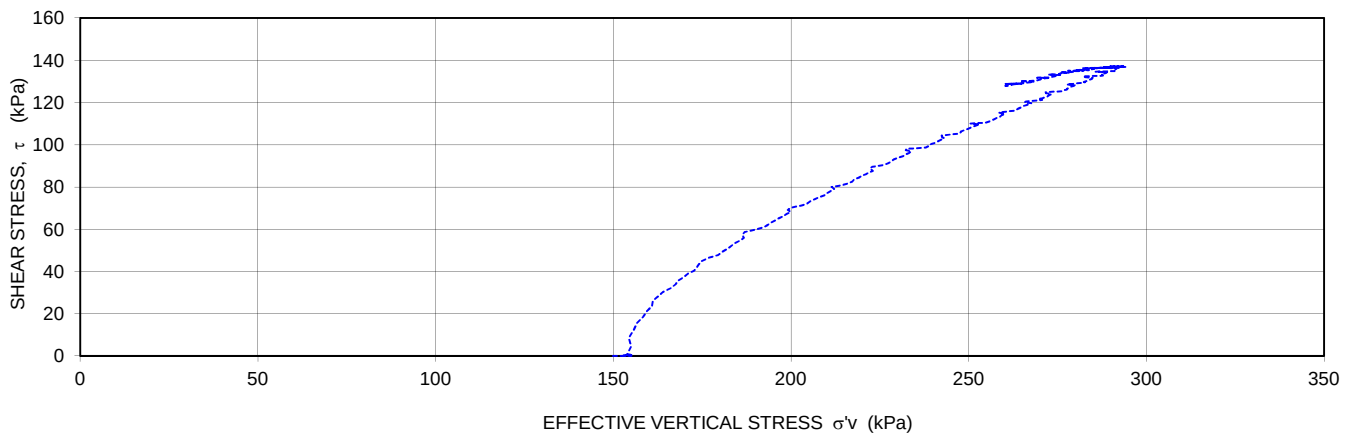
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 23, 2012
Borehole:	BH-001-12			Depth (m):	29.70
Sample No.:	ST-14 (DSS23)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	149.69	Initial Void Ratio, e_0 :	0.75
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m³):	18.89	Final Void Ratio, e_f :	0.59
Specific Gravity, G_s :	2.67	Dry Unit Weight (kN/m³):	15.01	Natural Water Content (%):	25.8
Final Water Content (%):	27.8	Initial Degree of Saturation, S_r (%):	92.6	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	OCR
ST-14 (DSS23)	29.70	18.9	150	6

Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 25, 2012	Date:	August 26, 2012	Date:	August 26, 2012

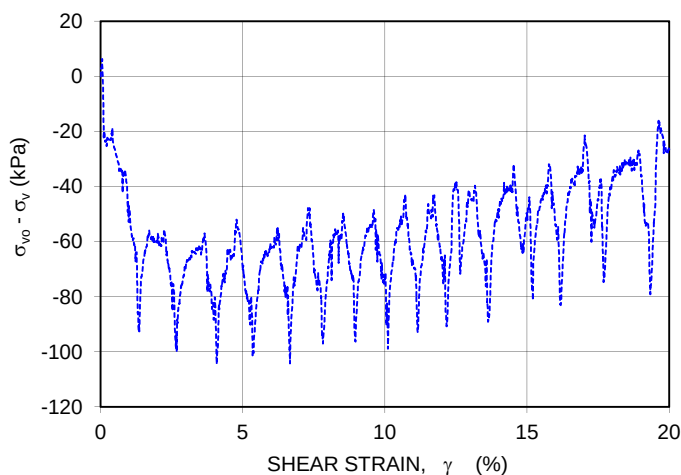
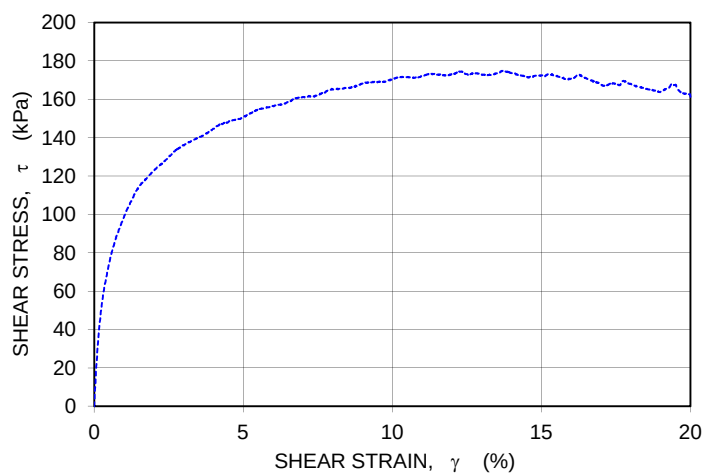
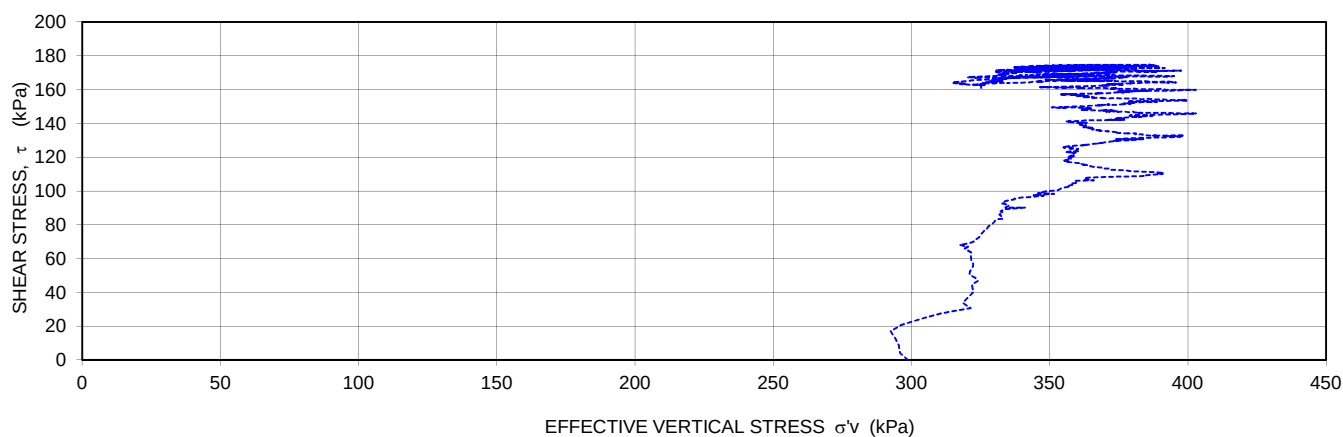
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 24, 2012
Borehole:	BH-004-12			Depth (m):	24.62
Sample No.:	ST-7 (DSS24)			Station:	Static DSS
Initial Height (mm):	23.6	Weight of Specimen (g):	197.89	Initial Void Ratio, e_0 :	0.75
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m ³):	19.87	Final Void Ratio, e_f :	0.54
Specific Gravity, G_s :	2.83	Dry Unit Weight (kN/m ³):	15.84	Natural Water Content (%):	25.5
Final Water Content (%):	19.9	Initial Degree of Saturation, S_r (%):	95.7	Final Degree of Saturation, S_r (%):	<100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	OCR
ST-7 (DSS24)	24.62	19.9	300	3

Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 25, 2012	Date:	August 26, 2012	Date:	August 26, 2012

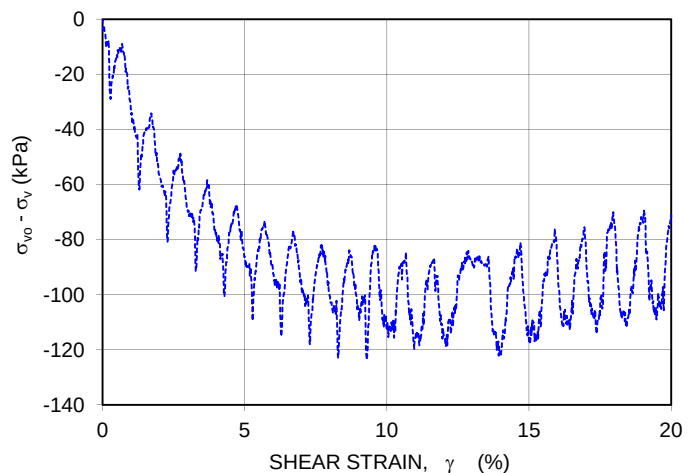
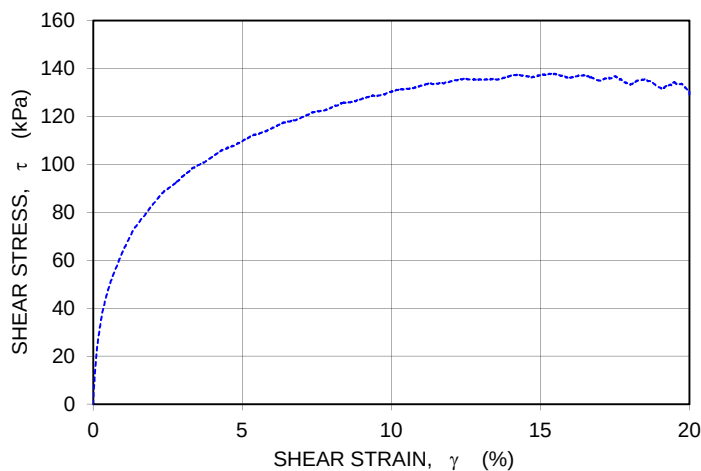
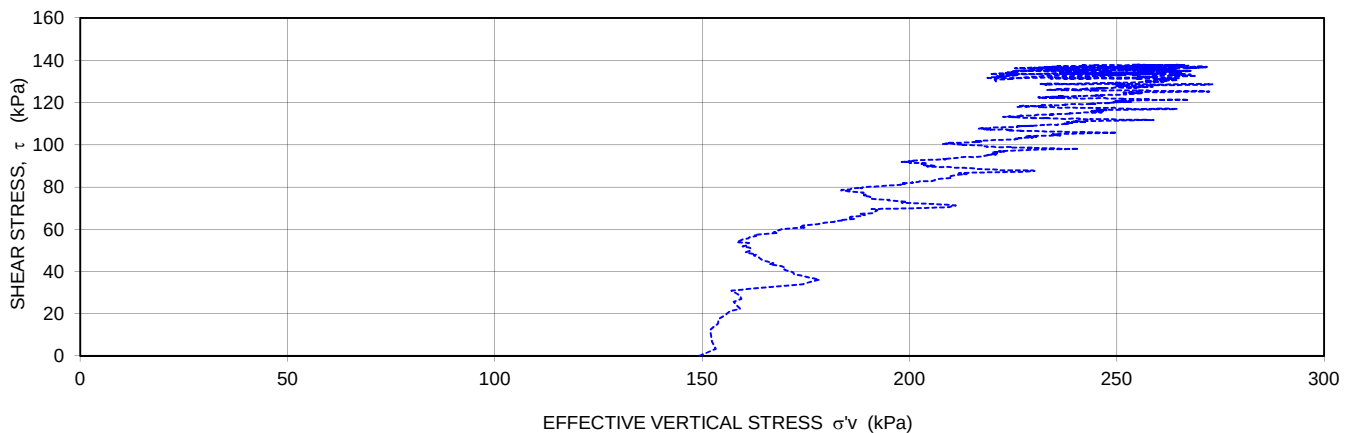
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 23, 2012
Borehole:	BH-004-12			Depth (m):	27.58
Sample No.:	ST-9 (DSS25)			Station:	Static DSS
Initial Height (mm):	23.6	Weight of Specimen (g):	188.04	Initial Void Ratio, e_0 :	0.81
Diameter of Ring (mm):	72.6	Total Unit Weight (kN/m³):	18.88	Final Void Ratio, e_f :	0.58
Specific Gravity, G_s :	2.74	Dry Unit Weight (kN/m³):	14.85	Natural Water Content (%):	27.2
Final Water Content (%):	22.8	Initial Degree of Saturation, S_r (%):	91.8	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	OCR
ST-9 (DSS25)	27.58	18.9	150	6

Comments: _____

Prepared By:	PS	Checked By:	EP	Approved By:	JPS
Date:	August 25, 2012	Date:	August 26, 2012	Date:	August 27, 2012

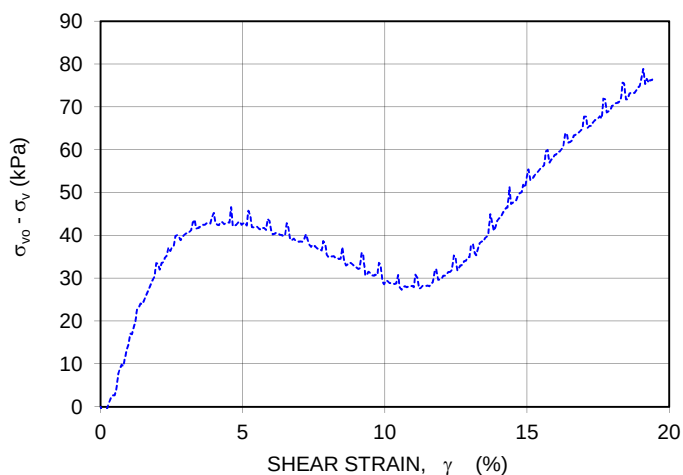
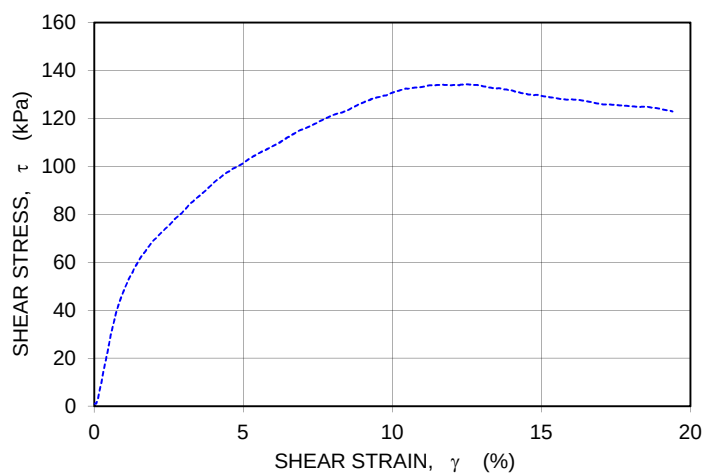
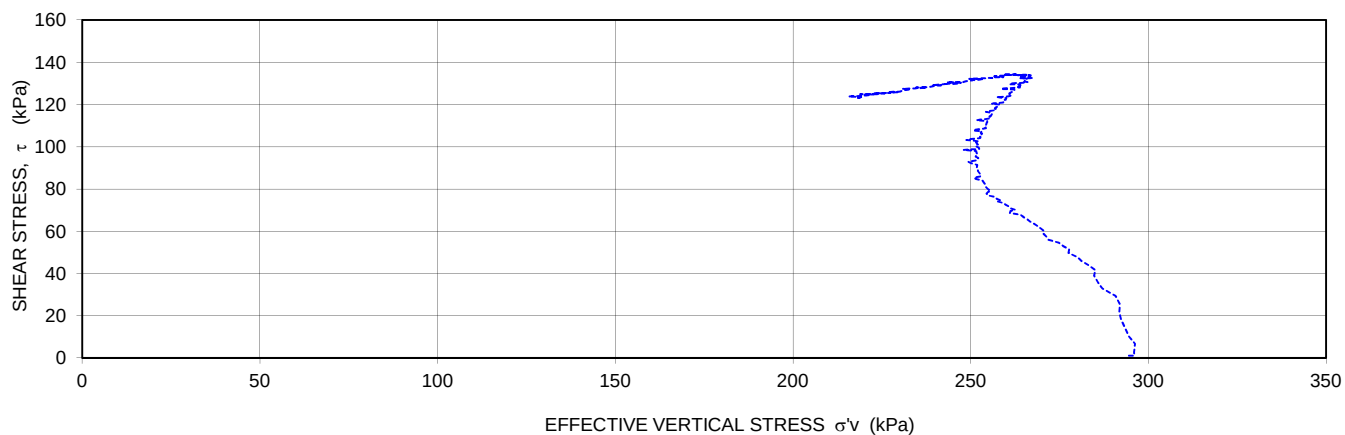
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 24, 2012
Borehole:	BH-005-12			Depth (m):	14.83
Sample No.:	ST-3 (DSS26)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	153.75	Initial Void Ratio, e_0 :	0.79
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m ³):	19.40	Final Void Ratio, e_f :	0.66
Specific Gravity, G_s :	2.83	Dry Unit Weight (kN/m ³):	15.52	Natural Water Content (%):	25.0
Final Water Content (%):	26.1	Initial Degree of Saturation, S_r (%):	89.7	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	OCR
ST-3 (DSS26)	14.83	19.4	300	3

Comments: _____

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	August 27, 2012	Date:	August 27, 2012	Date:	August 28, 2012

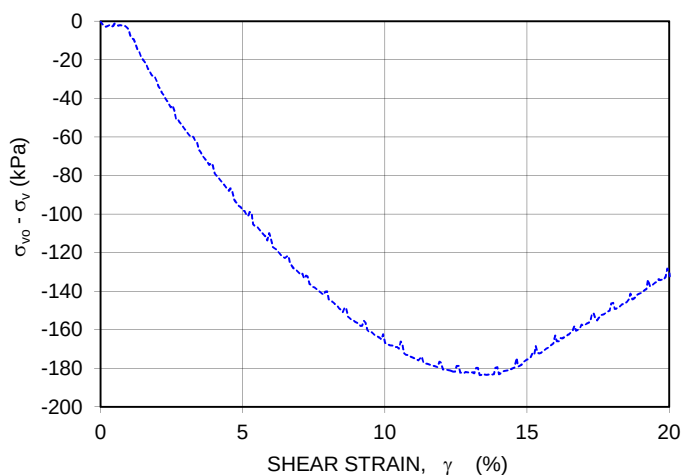
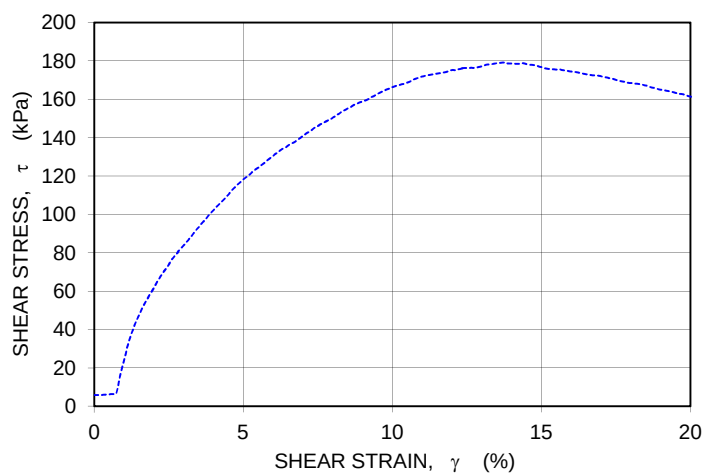
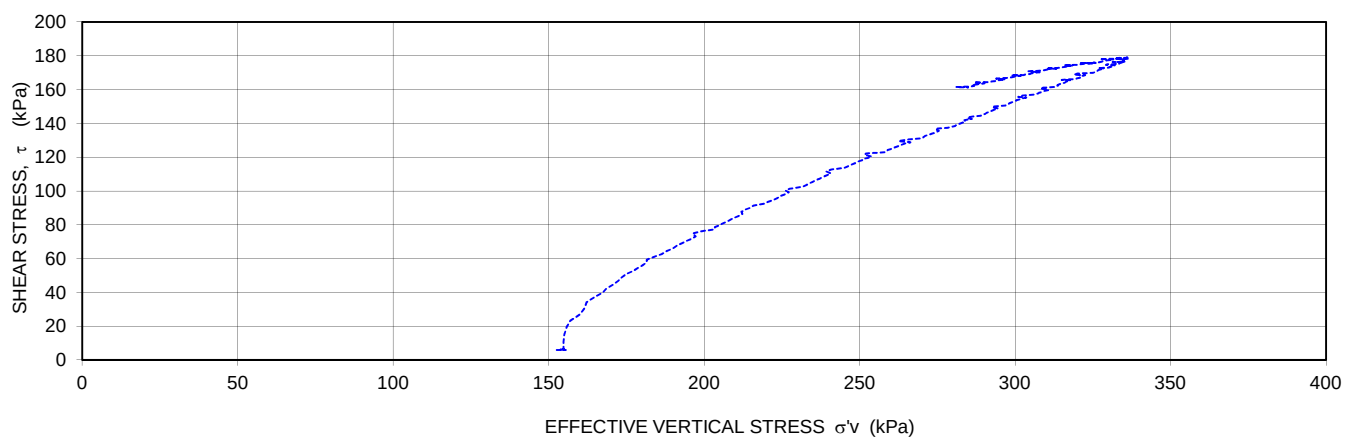
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DIRECT SIMPLE SHEAR TEST (ASTM D 6528)

Project:	Port of Anchorage			Project No.:	12-MTS-009
Location:	Anchorage, US			Date:	August 26, 2012
Borehole:	BH-005-12			Depth (m):	14.83
Sample No.:	ST-3 (DSS27)			Station:	Static DSS
Initial Height (mm):	22.4	Weight of Specimen (g):	151.13	Initial Void Ratio, e_0 :	0.83
Diameter of Ring (mm):	66.5	Total Unit Weight (kN/m ³):	19.07	Final Void Ratio, e_f :	0.69
Specific Gravity, G_s :	2.83	Dry Unit Weight (kN/m ³):	15.15	Natural Water Content (%):	25.9
Final Water Content (%):	25.9	Initial Degree of Saturation, S_r (%):	88.0	Final Degree of Saturation, S_r (%):	>100



Type of Test: Constant Volume				
Sample No.	Depth (m)	Total Unit Weight (kN/m^3)	Effective Vertical Stress, σ'_v (kPa)	OCR
ST-3 (DSS27)	14.83	19.1	150	6

Comments: _____

Prepared By:	MJ	Checked By:	PS	Approved By:	JPS
Date:	August 27, 2012	Date:	August 27, 2012	Date:	August 28, 2012

