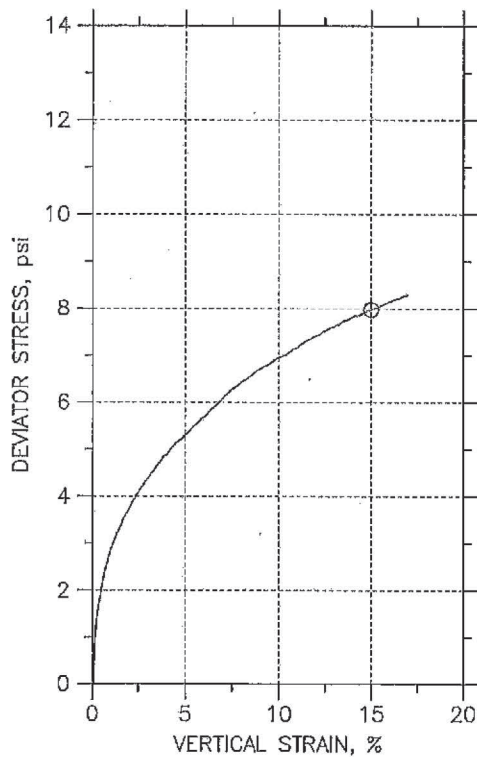
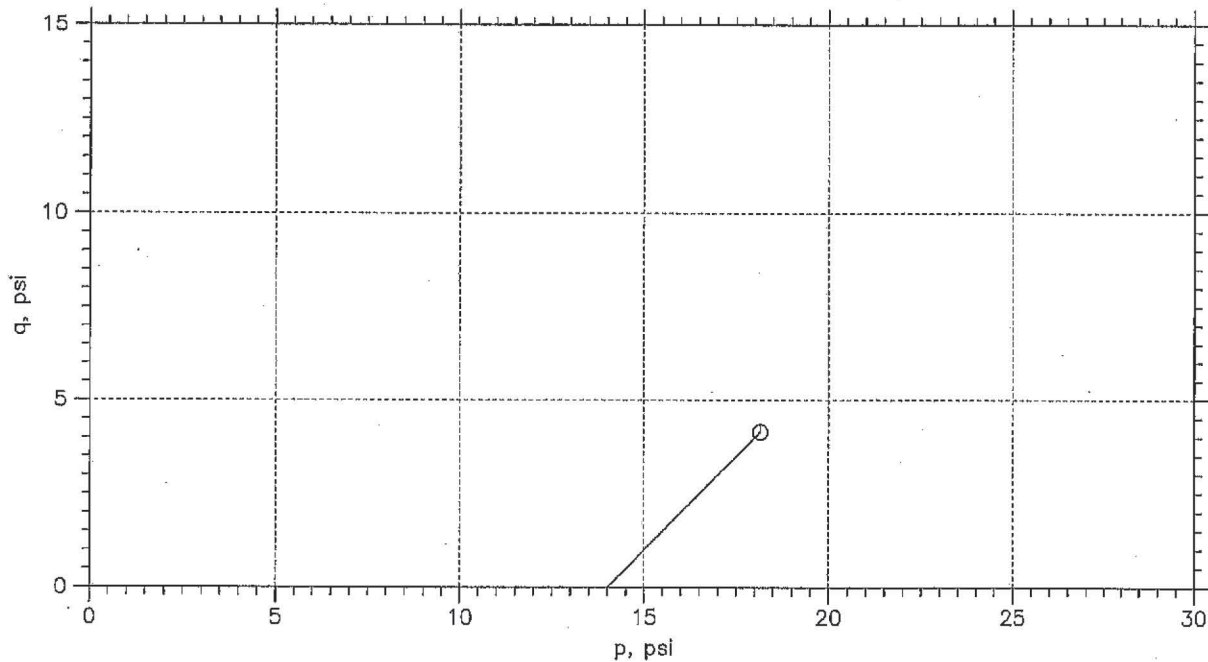




APPENDIX F.2 – Soil Strength Test Results - No Change for Rev. 4

UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

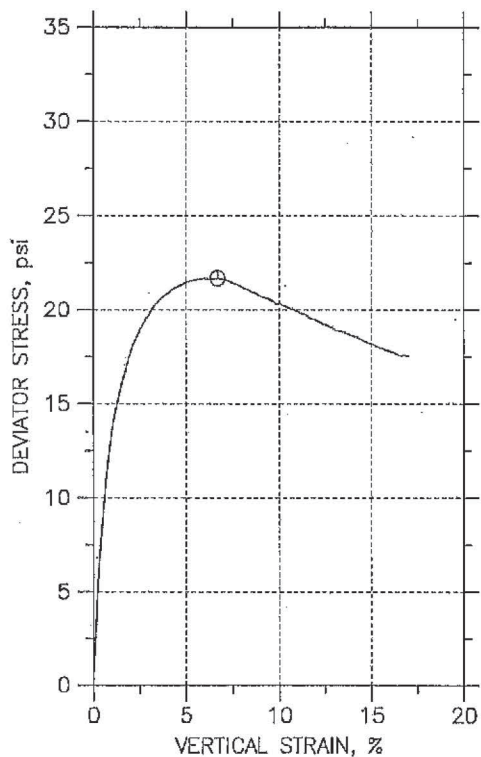
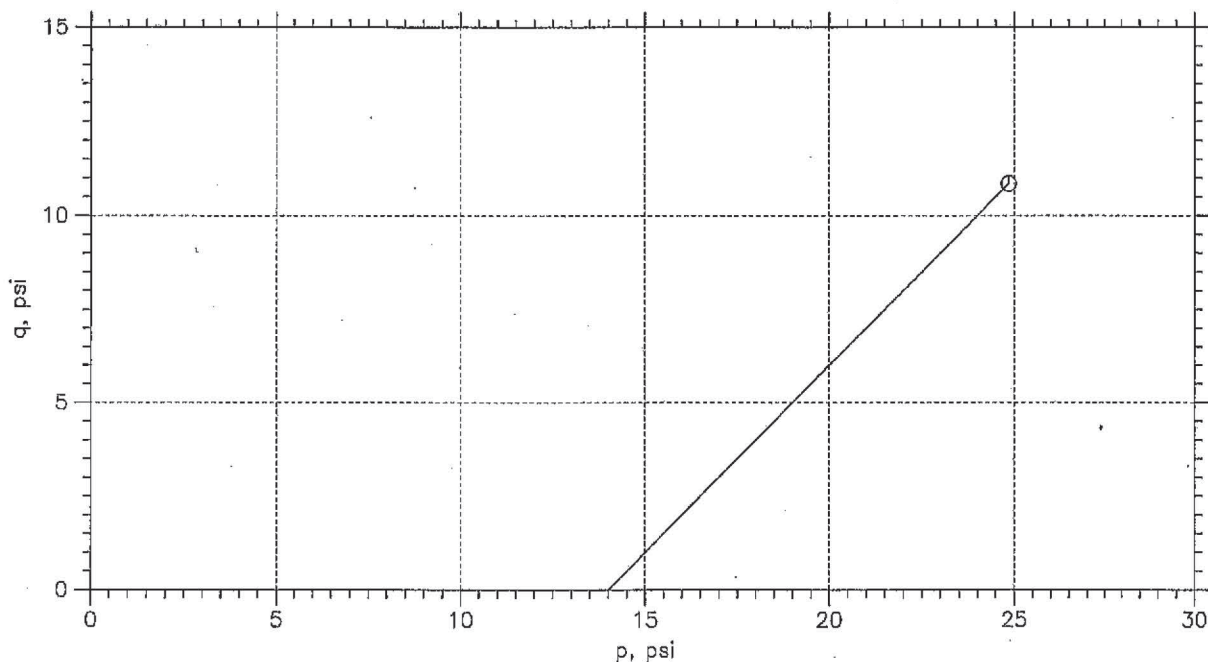


Symbol	⊙			
Sample No.	ST-4			
Test No.	12540			
Depth	15.5-17.5			
Tested by	JW <i>JW</i>			
Test Date	2/7/14			
Checked by	<i>JES</i>			
Check Date	2/26/14			
Diameter, in	2.823			
Height, in	5.237			
Water Content, %	26.8			
Dry Density, pcf	100.7			
Saturation, %	104.7			
Void Ratio	0.704			
Confining Stress, psi	14			
Undrained Strength, psi	3.988			
Max. Dev. Stress, psi	7.976			
Strain at Failure, %	15			
Strain Rate, %/min	1			
Estimated Specific Gravity	2.75			
Liquid Limit	---			
Plastic Limit	---			
Plasticity Index	---			





	Project: Clinch River SMR	
	Location: MP-111UD	
	Project No.: 6468131072	
	Boring No.: MP-111UD	
	Sample Type: Intact	
	Description: Gray Fat Clay with Gravel	
	Remarks: ASTM D2850-03a (2007)	

Phase calculations based on start of test.

UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

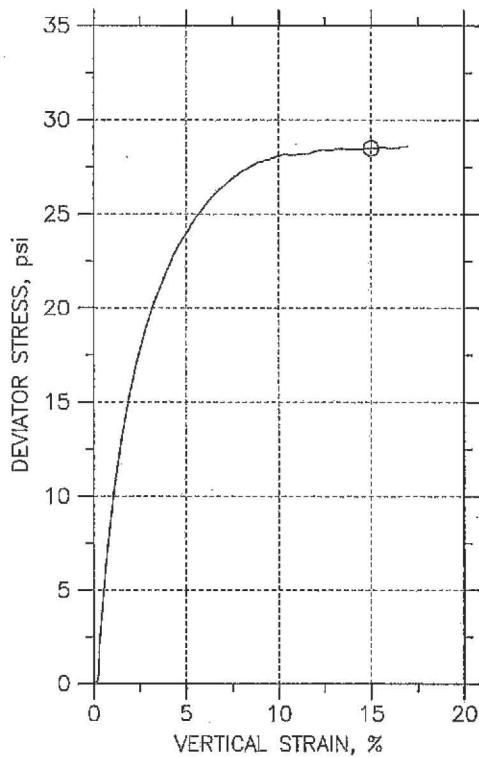
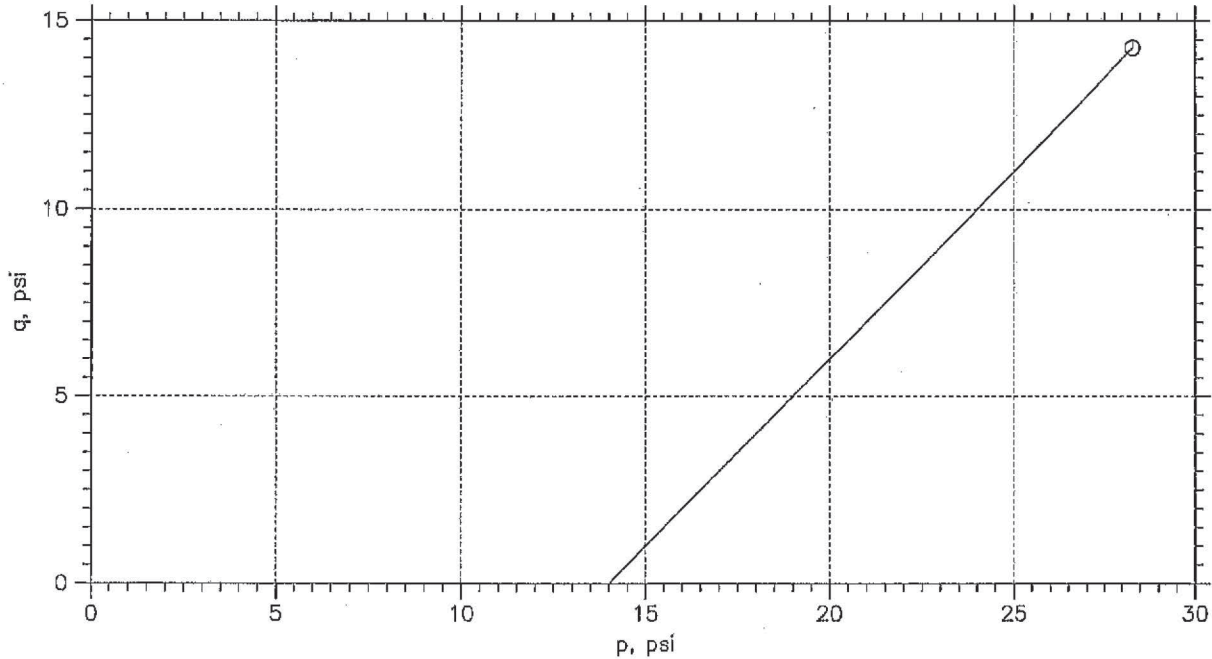


Symbol	⊙			
Sample No.	ST-4			
Test No.	12544 (b)			
Depth	12.2-14.2'			
Tested by	JW <i>JW</i>			
Test Date	1/30/14			
Checked by	<i>888</i>			
Check Date	3/5/14			
Diameter, in	2.87			
Height, in	5.596			
Water Content, %	36.1			
Dry Density, pcf	85.47			
Saturation, %	98.5			
Void Ratio	1.01			
Confining Stress, psi	14			
Undrained Strength, psi	10.85			
Max. Dev. Stress, psi	21.7			
Strain at Failure, %	6.69			
Strain Rate, %/min	1			
Estimated Specific Gravity	2.75			
Liquid Limit	70			
Plastic Limit	28			
Plasticity Index	42			

amec	Project: Clinch River SMR				
	Location: MP-122UDA				
	Project No.: 6468131072				
	Boring No.: MP-122UDA				
	Sample Type: Intact				
	Description: Brown Fat Clay				
Remarks: ASTM D2850-03a (2007)					

Phase calculations based on start of test.

UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

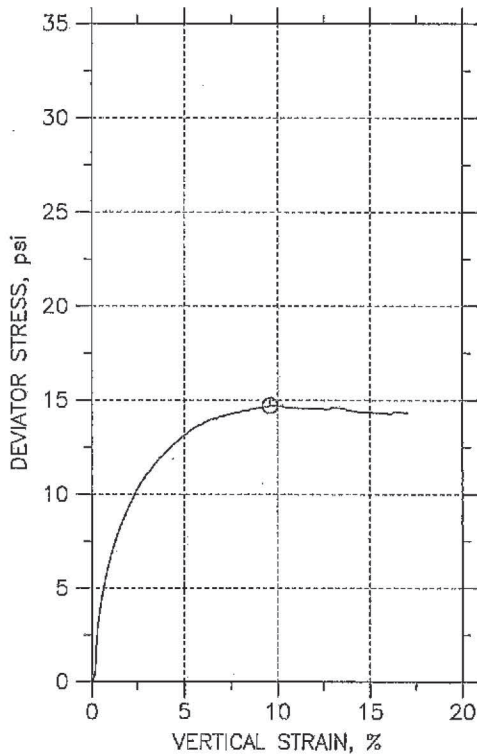
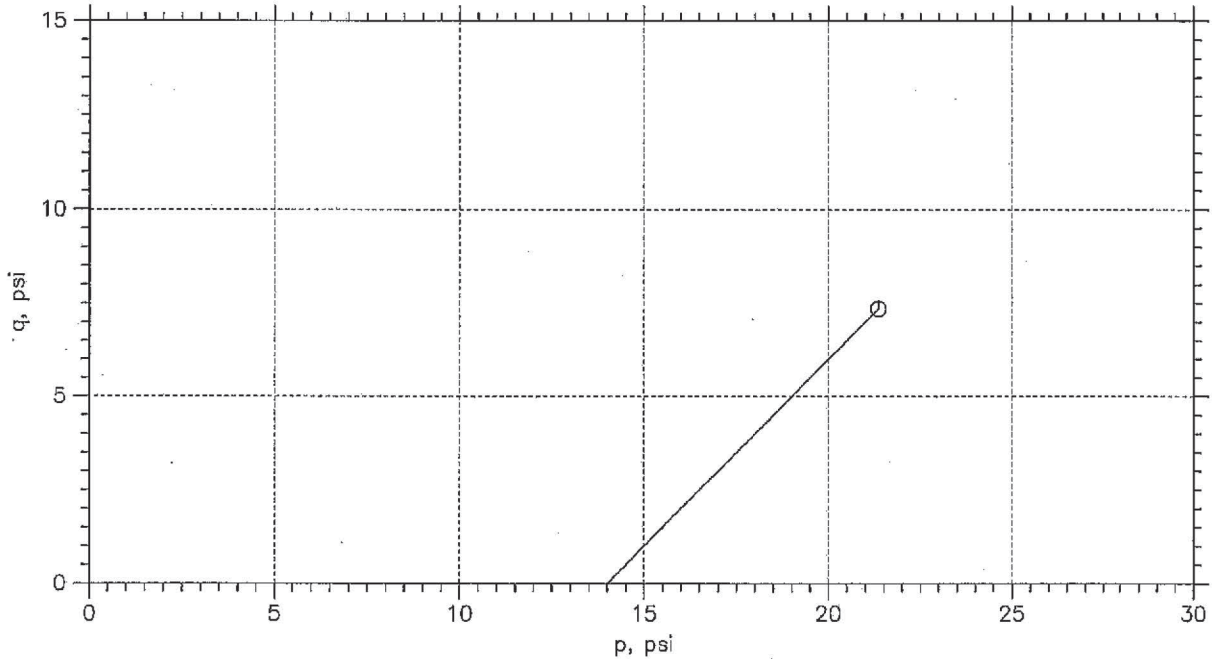


Symbol	⊙			
Sample No.	ST-1			
Test No.	12545			
Depth	3.3-5.3 ft			
Tested by	JW JW			
Test Date	2/7/14			
Checked by	JEF			
Check Date	2/24/14			
Diameter, in	2.844			
Height, in	5.579			
Water Content, %	29.9			
Dry Density, pcf	91.9			
Saturation, %	94.6			
Void Ratio	0.868			
Confining Stress, psi	14			
Undrained Strength, psi	14.25			
Max. Dev. Stress, psi	28.5			
Strain at Failure, %	15			
Strain Rate, %/min	1			
Estimated Specific Gravity	2.75			
Liquid Limit	64			
Plastic Limit	28			
Plasticity Index	36			

	Project: Clinch River SMR					
	Location: MP-122-UDB					
	Project No.: 6468131072					
	Boring No.: MP-122UDB					
	Sample Type: Intact					
	Description: Brown Fat Clay					
	Remarks: ASTM D2850-03a (2007)					

Phase calculations based on start of test.

UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

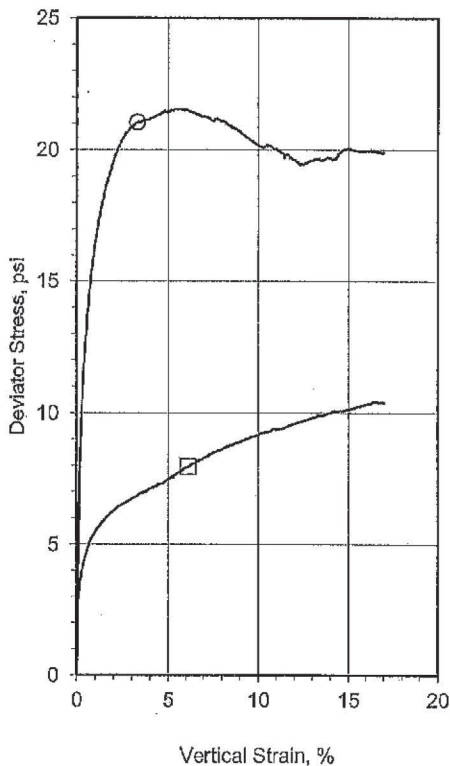
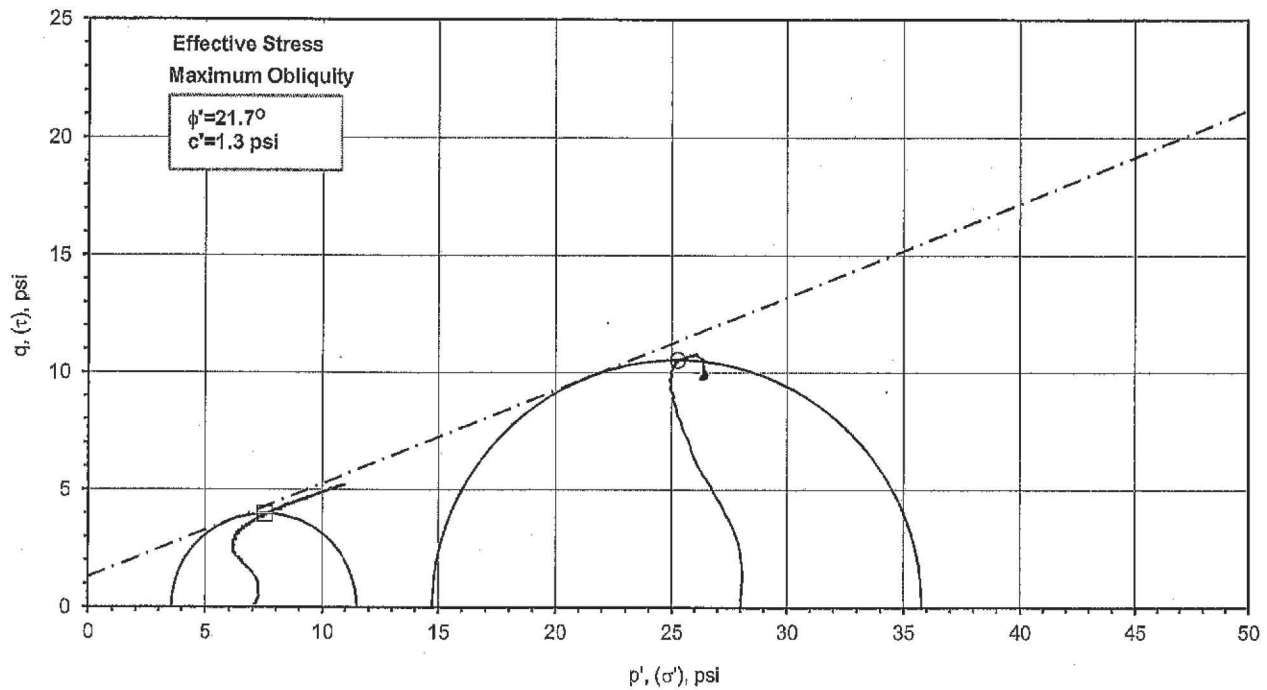


Symbol	⊙			
Sample No.	ST-3			
Test No.	12546			
Depth	9.2-11.2'			
Tested by	JW <i>JW</i>			
Test Date	2/18/14			
Checked by	<i>gkr</i>			
Check Date	2/26/14			
Diameter, in	2.856			
Height, in	5.624			
Water Content, %	34.0			
Dry Density, pcf	86.99			
Saturation, %	96.1			
Void Ratio	0.974			
Confining Stress, psi	14			
Undrained Strength, psi	7.354			
Max. Dev. Stress, psi	14.71			
Strain at Failure, %	9.59			
Strain Rate, %/min	1			
Estimated Specific Gravity	2.75			
Liquid Limit	69			
Plastic Limit	28			
Plasticity Index	41			

amec	Project: Clinch River SMR	
	Location: MP-122UDB	
	Project No.: 6468131072	
	Boring No.: MP-122UDB	
	Sample Type: Intact	
	Description: Brown Fat Clay With Gravel	
Remarks: ASTM D2850-03a (2007)		

Phase calculations based on start of test.

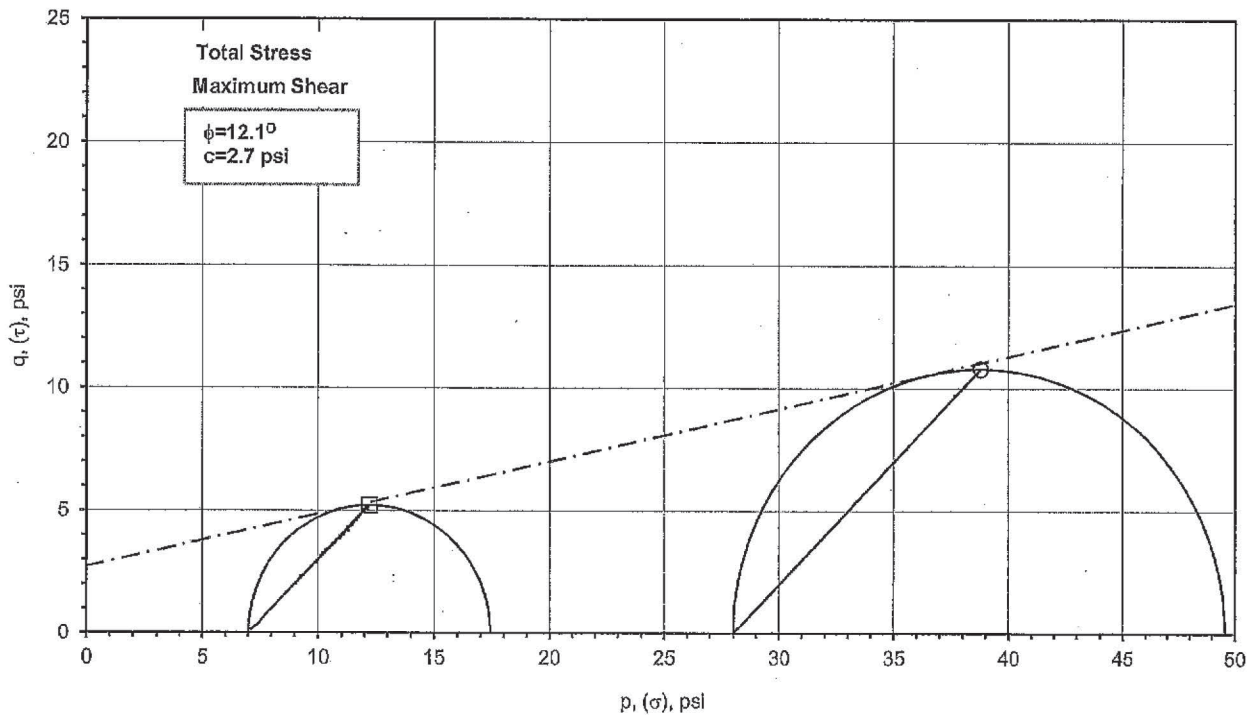
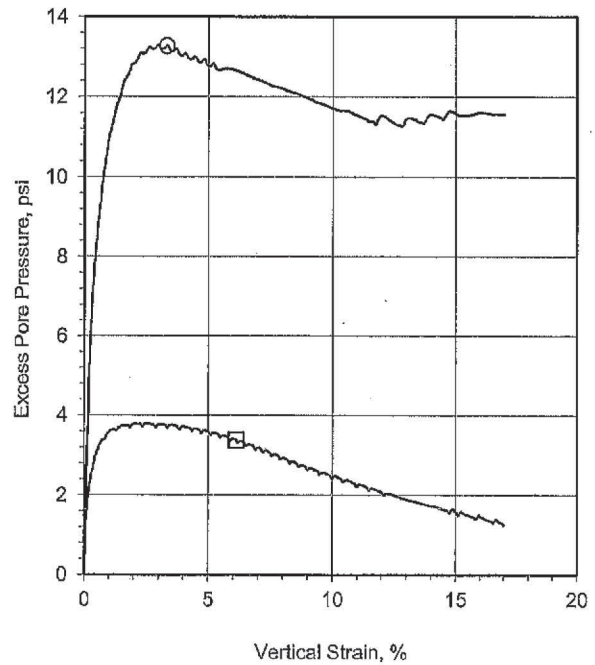
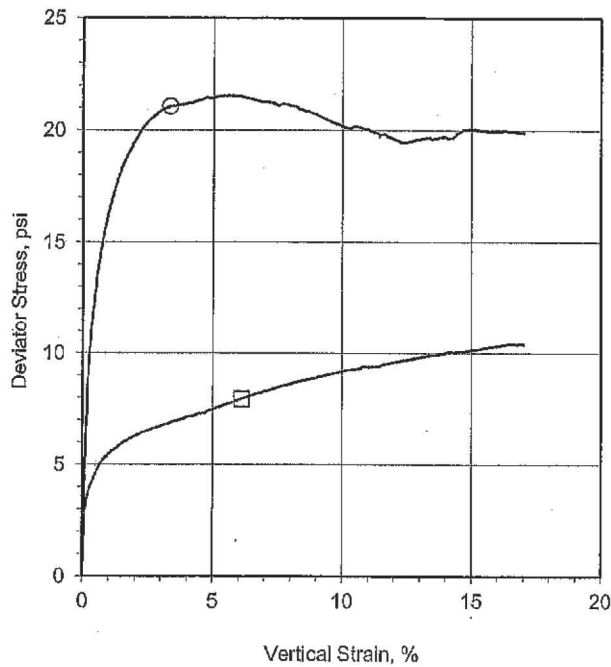
Consolidated Undrained Triaxial Shear Test Report



Symbols	□	○	△	◇
Boring No.	MP-111UD	MP-111UD		
Sample No.	ST-3	ST-3		
Test No.	12539.1	12539.2		
Depth	9.9-11.9 ft	9.9-11.9 ft		
Initial	Diameter, in	2.853	2.866	
	Height, in	5.626	5.622	
	Water Content, %	30.0	28.9	
	Dry Density, pcf	93.3	94.8	
	Degree of Saturation, %	98.2	98.1	
	Void Ratio	0.84	0.81	
Final	Water Content, %	30.3	27.9	
	Dry Density, pcf	95.3	98.2	
	Degree of Saturation, %	104.1	102.6	
	Void Ratio	0.80	0.75	
	Back Pressure, psi	100.0	100.0	
	B Value	1.00	0.96	
Effective Confining Pressure, psi		7.1	28.0	
Shear Strength, psi		4.0	10.5	
Strain at Failure, %		6.1	3.3	
Strain Rate, %/min		0.01	0.01	
Estimated Gs		2.75	2.75	
Liquid Limit		57	57	
Plastic Limit		25	25	

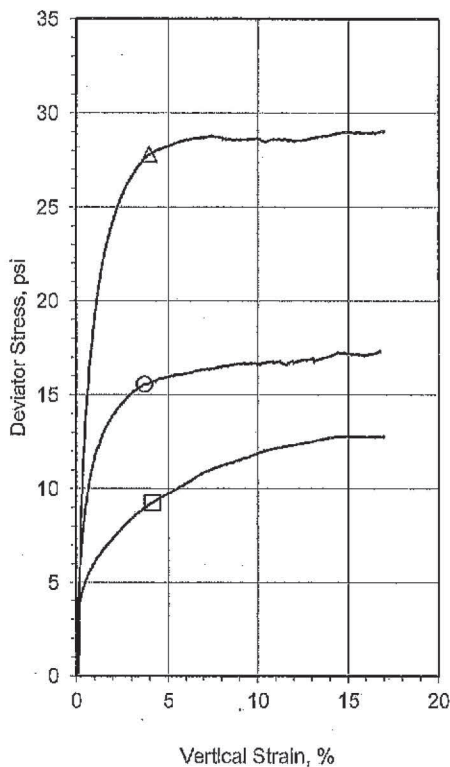
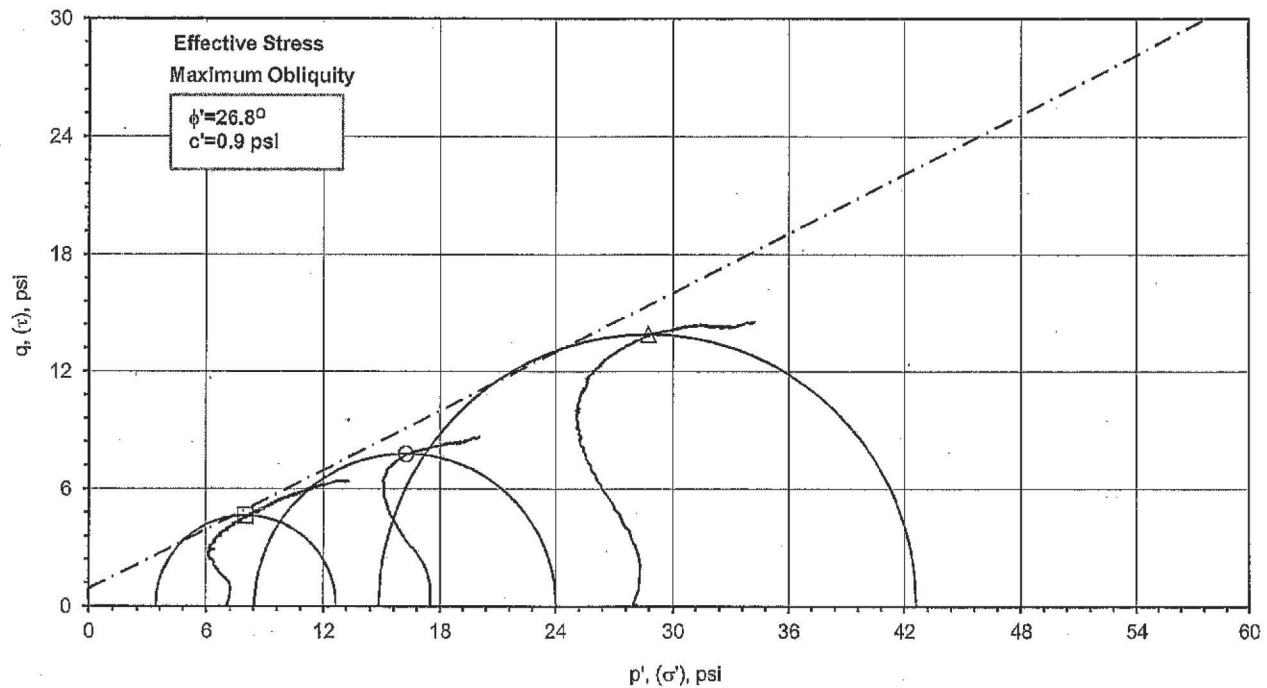
	Project:	Clinch River SMR				
	Project No.:	6468-13-1072				
	Location:	MP-111UD, ST-3, 9.9-11.9 ft				
	Sample Type:	Intact				
	Description:	Brown Gravelly Fat Clay	Test Procedure: ASTM D4767-11			
Remarks:						

Consolidated Undrained Triaxial Shear Test Report



Symbol	Boring No.	Sample No.	Test No.	Depth	Tested By	Test Date	Reviewed By	Review Date
□	MP-111UD	ST-3	12539.1	9.9-11.9 ft	JW	1/28/2014	JW	2/10/14
○	MP-111UD	ST-3	12539.2	9.9-11.9 ft	JW	1/30/2014	JW	2/10/14
△								
◇								
Project: Clinch River SMR					Location: MP-111UD, ST-3, 9.9-11.9 ft			
Project No.: 6468-13-1072					Sample Type: Intact			
Description: Brown Gravelly Fat Clay								
Remarks:								

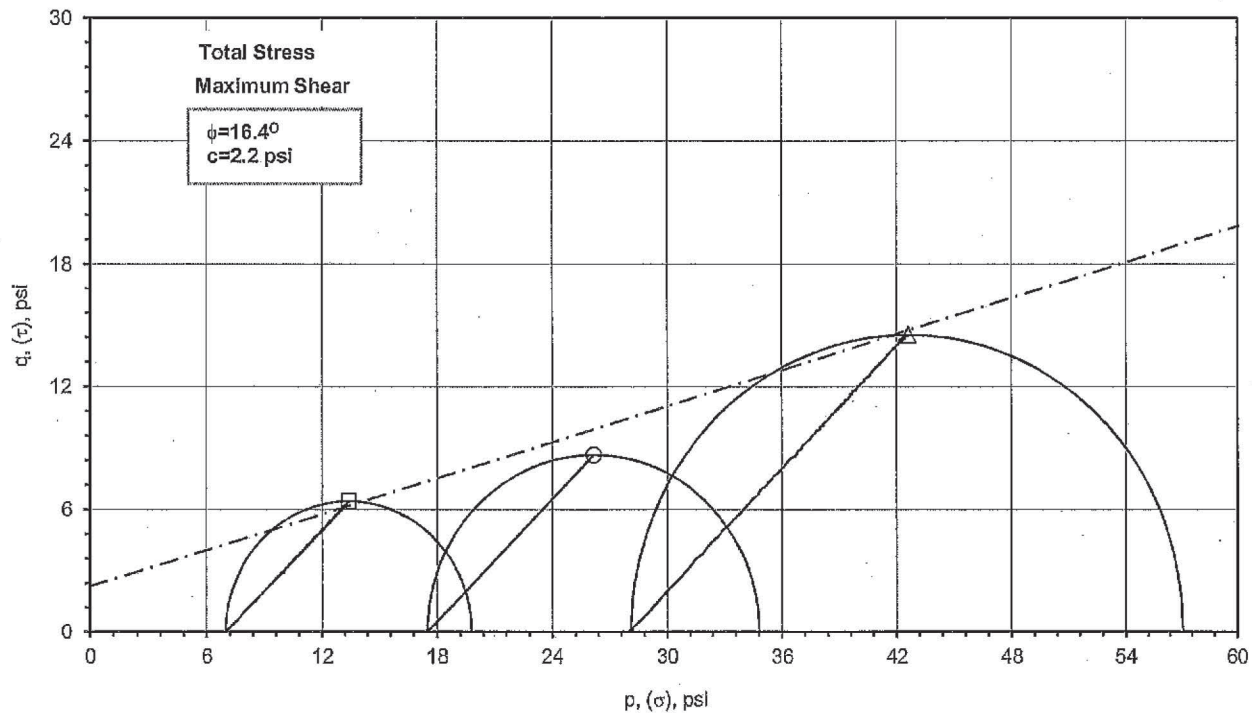
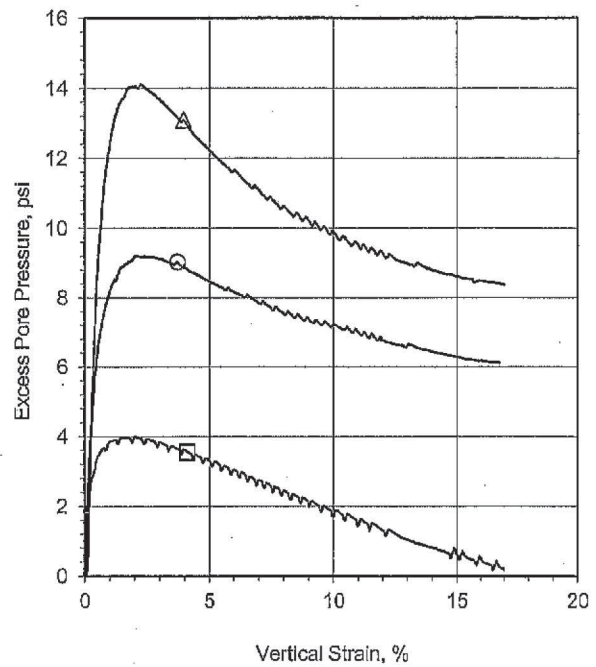
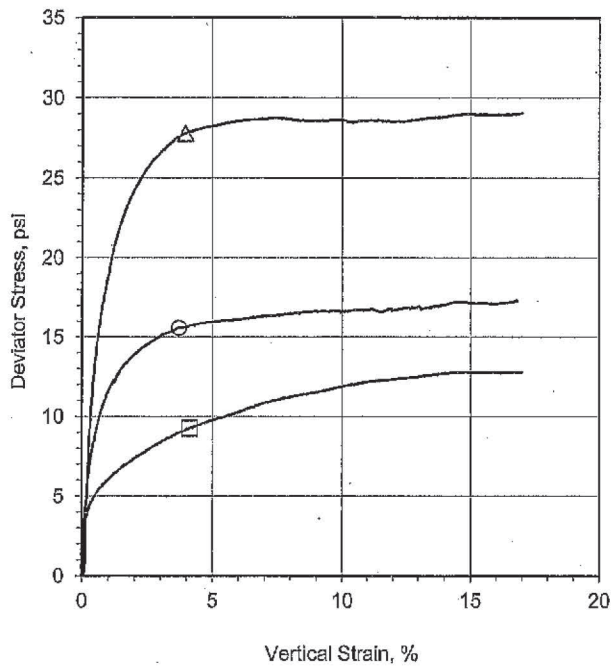
Consolidated Undrained Triaxial Shear Test Report



Symbols	□	○	△	◇
Boring No.	MP-122UDA	MP-122UDA	MP-122UDA	
Sample No.	ST-3	ST-4	ST-3	
Test No.	12543.1	12544.1	12543.2	
Depth	9.7-11.7 ft	12.2-14.2 ft	9.7-11.7 ft	
Initial	Diameter, in	2.865	2.862	2.873
	Height, in	5.616	5.609	5.608
	Water Content, %	29.7	28.6	28.3
	Dry Density, pcf	91.0	93.0	94.4
	Degree of Saturation, %	92.4	92.9	95.4
	Void Ratio	0.89	0.85	0.82
Final	Water Content, %	32.2	29.2	28.4
	Dry Density, pcf	91.9	95.8	96.6
	Degree of Saturation, %	101.9	101.4	100.7
	Void Ratio	0.87	0.79	0.78
	Back Pressure, psi	100.0	100.0	100.0
	B Value	0.92	1.00	1.00
Effective Confining Pressure, psi		7.0	17.5	28.0
Shear Strength, psi		4.6	7.8	13.9
Strain at Failure, %		4.1	3.7	4.0
Strain Rate, %/min		0.01	0.01	0.01
Estimated Gs		2.75	2.75	2.75
Liquid Limit		69	70	69
Plastic Limit		29	28	29

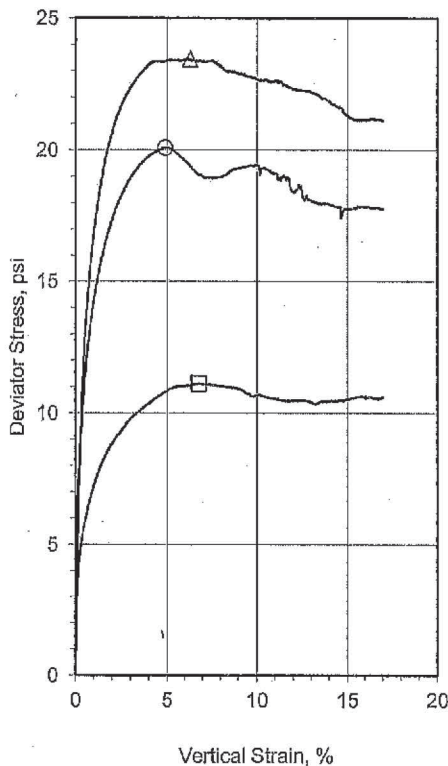
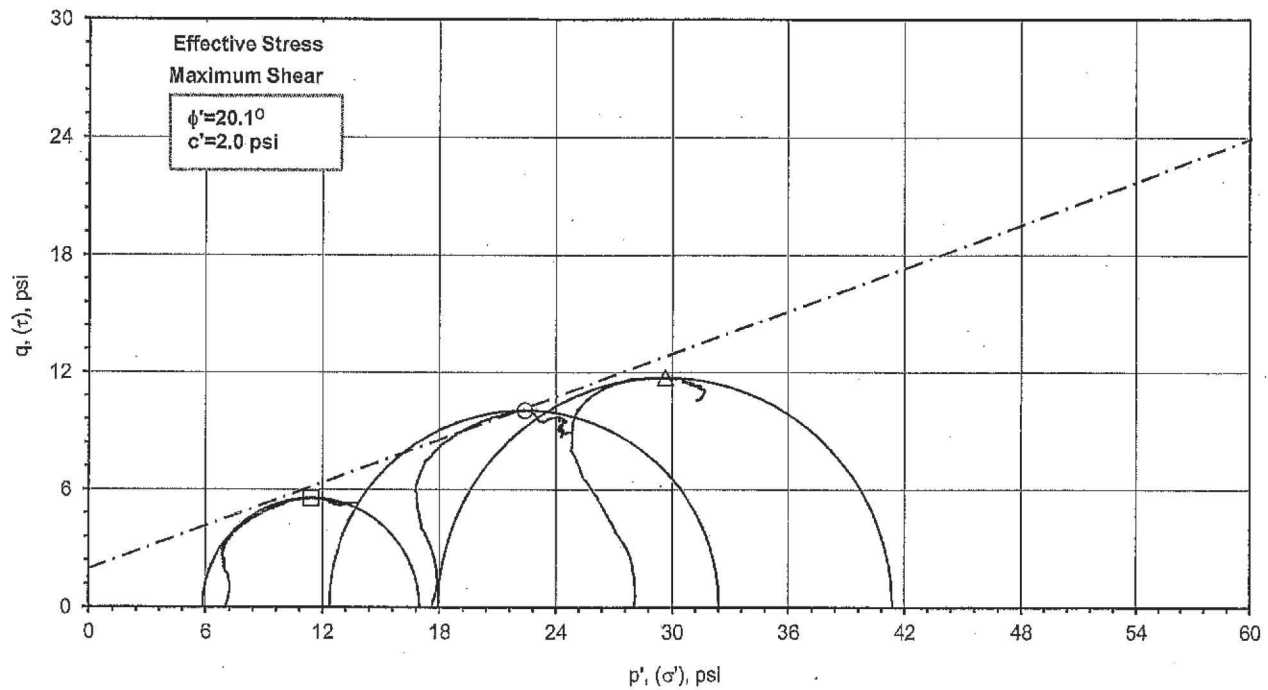
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	Project No.:	6468-13-1072	
	Location:	MP-122UDA, ST-3&ST-4, 9.7-11.7 ft & 12.2-14.2 ft	
	Sample Type:	Intact	
	Description:	Brown Fat Clay with Gravel	
Remarks:		Test Procedure: ASTM D4767-11	

Consolidated Undrained Triaxial Shear Test Report



Symbol	Boring No.	Sample No.	Test No.	Depth	Tested By	Test Date	Reviewed By	Review Date
□	MP-122UDA	ST-3	12543.1	9.7-11.7 ft	JW <i>JW</i>	1/28/2014	<i>JW</i>	3/5/14
○	MP-122UDA	ST-4	12544.1	12.2-14.2 ft	JW <i>JW</i>	1/30/2014	<i>JW</i>	3/5/14
△	MP-122UDA	ST-3	12543.2	9.7-11.7 ft	JW <i>JW</i>	1/30/2014	<i>JW</i>	3/5/14
◇								
Project: Clinch River SMR					Location: MP-122UDA, ST-3&ST-4, 9.7-11.7 ft & 12.2-14.2 ft			
Project No.: 6468-13-1072					Sample Type: Intact			
Description: Brown Fat Clay with Gravel								
Remarks:								

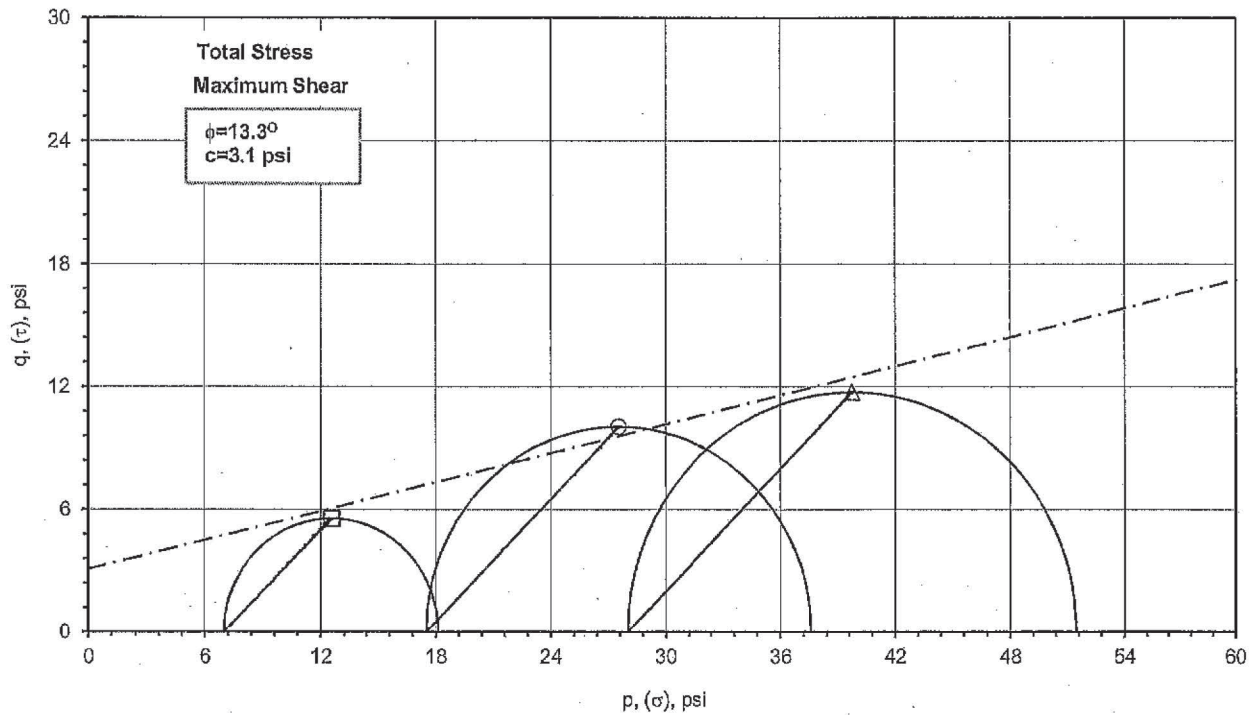
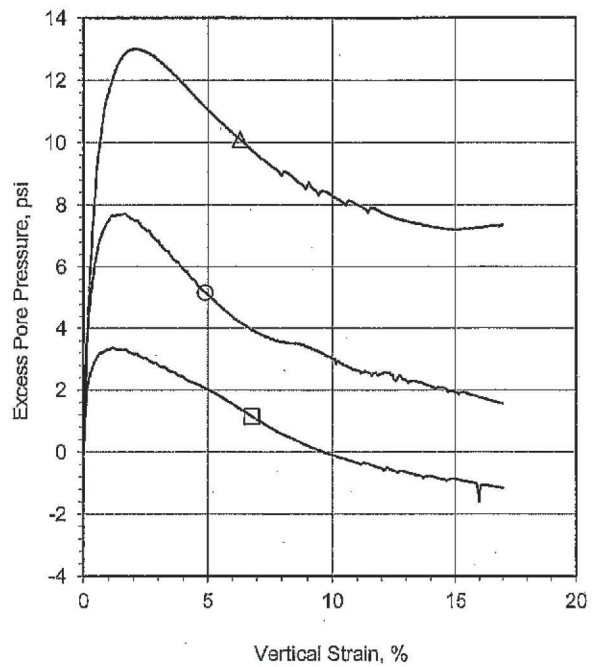
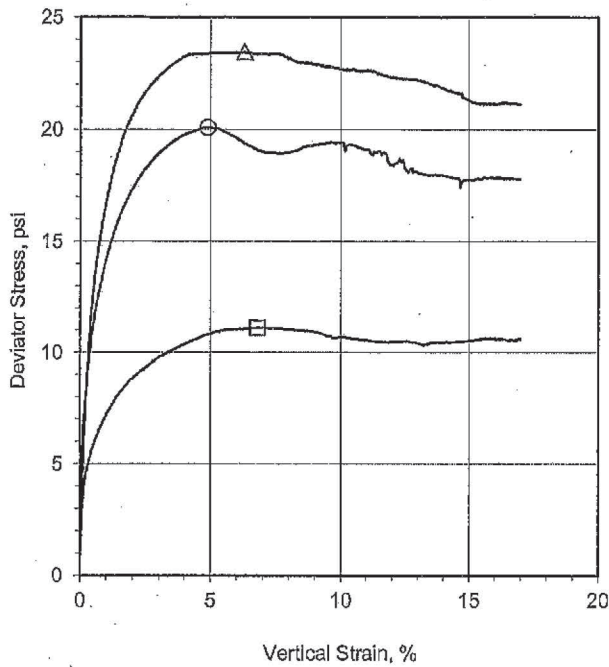
Consolidated Undrained Triaxial Shear Test Report



Symbols	□	○	△	◇
Boring No.	MP-122UDB	MP-122UDB	MP-122UDB	
Sample No.	ST-5	ST-3	ST-5	
Test No.	12547.2	12546.1	12547.3	
Depth	14.6-16.6 ft	9.2-11.2 ft	14.6-16.6 ft	
Initial				
Diameter, in	2.870	2.864	2.859	
Height, in	5.619	5.618	5.614	
Water Content, %	35.0	33.2	27.5	
Dry Density, pcf	86.1	88.7	97.1	
Degree of Saturation, %	97.1	97.6	98.8	
Void Ratio	0.99	0.93	0.77	
Final				
Water Content, %	36.3	33.8	27.3	
Dry Density, pcf	86.4	90.0	100.0	
Degree of Saturation, %	101.2	102.5	105.1	
Void Ratio	0.99	0.91	0.72	
Back Pressure, psi	100.0	100.0	110.0	
B Value	1.00	1.00	1.00	
Effective Confining Pressure, psi	6.9	17.6	28.0	
Shear Strength, psi	5.6	10.0	11.7	
Strain at Failure, %	6.8	4.9	6.3	
Strain Rate, %/min	0.01	0.01	0.01	
Estimated Gs	2.75	2.75	2.75	
Liquid Limit	59	69	59	
Plastic Limit	27	28	27	

	Project:	Clinch River SMR	
	Project No.:	6468-13-1072	
	Location:	MP-122UDB, ST-3&ST-5, 9.2-11.2 ft & 14.6-16.6 ft	
	Sample Type:	Intact	
	Description:	Brown Fat Clay with Gravel	
Remarks:			
			Test Procedure: ASTM D4767-11

Consolidated Undrained Triaxial Shear Test Report



Symbol	Boring No.	Sample No.	Test No.	Depth	Tested By	Test Date	Reviewed By	Review Date
□	MP-122UDB	ST-5	12547.2	14.6-16.6 ft	JW <i>JW</i>	2/18/2014	<i>JEH</i>	3/5/14
○	MP-122UDB	ST-3	12546.1	9.2-11.2 ft	JW <i>JW</i>	2/18/2014	<i>JEH</i>	3/5/14
△	MP-122UDB	ST-5	12547.3	14.6-16.6 ft	JW <i>JW</i>	2/18/2014	<i>JEH</i>	3/5/14
◇								
Project: Clinch River SMR					Location: MP-122UDB, ST-3&ST-5, 9.2-11.2 ft & 14.6-16.6 ft			
Project No.: 6468-13-1072					Sample Type: Intact			
Description: Brown Fat Clay with Gravel								
Remarks:								