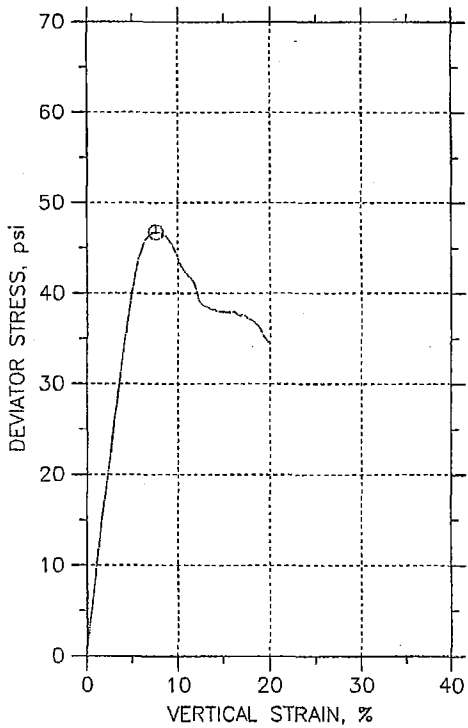
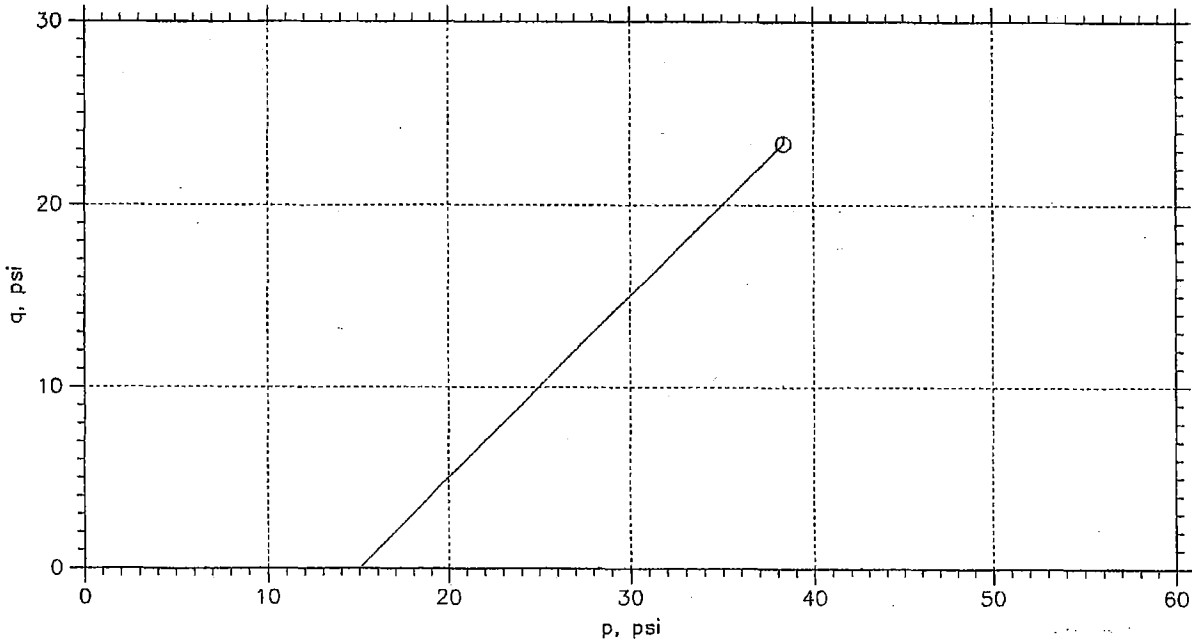


# UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

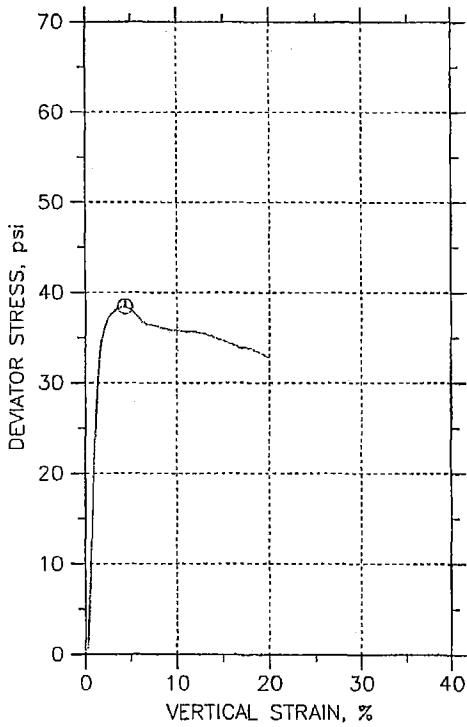
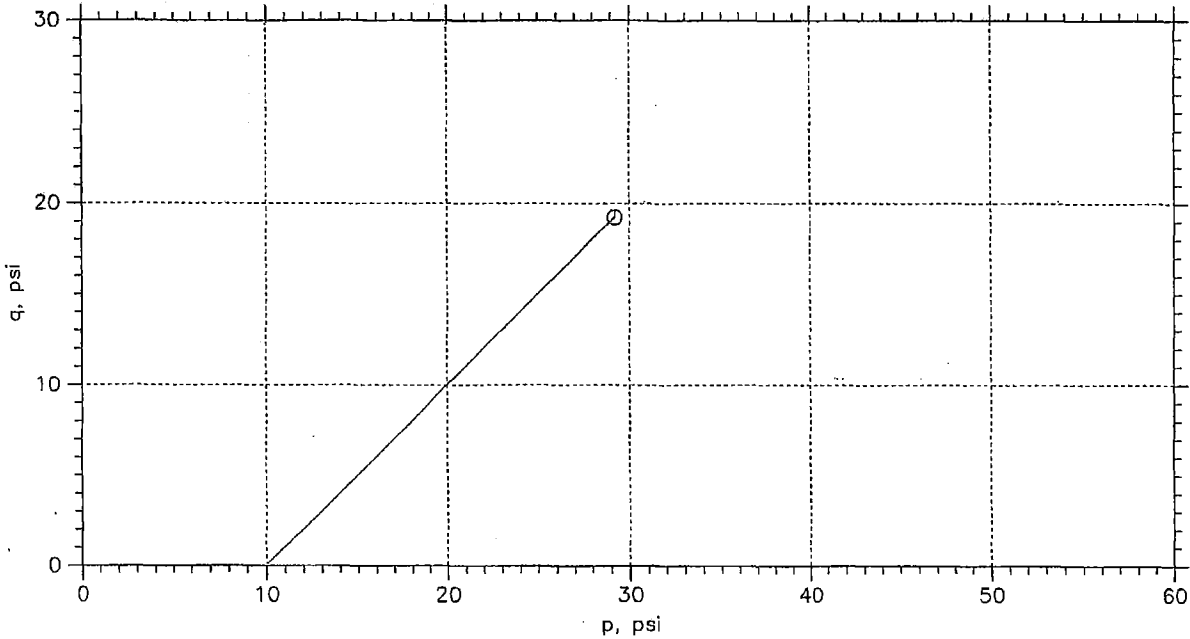


Symbol	⊙			
Sample No.	Ud-2			
Test No.	5359.1			
Depth	18.5ft.			
Tested by	HJ			
Test Date	8/29/06			
Checked by	JL <i>[Signature]</i>			
Check Date	11/21/06			
Diameter, in	2.88			
Height, in	6			
Water Content, %	17.3			
Dry Density, pcf	91.14			
Saturation, %	51.2			
Void Ratio	0.969			
Confining Stress, psi	15			
Undrained Strength, psi	23.36			
Max. Dev. Stress, psi	46.72			
Strain at Failure, %	7.63			
Strain Rate, %/min	1			
Measured Specific Gravity	2.87			
Liquid Limit	NP			
Plastic Limit	NP			
Plasticity Index	NP			

	Project: SCE&G COL				
	Location: B-204				
	Project No.: 62340635345				
	Boring No.: B-204				
	Sample Type: Shelby Tube				
	Description: Sandy SILT (ML)				
Remarks:					

Phase calculations based on start and end of test.

## UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

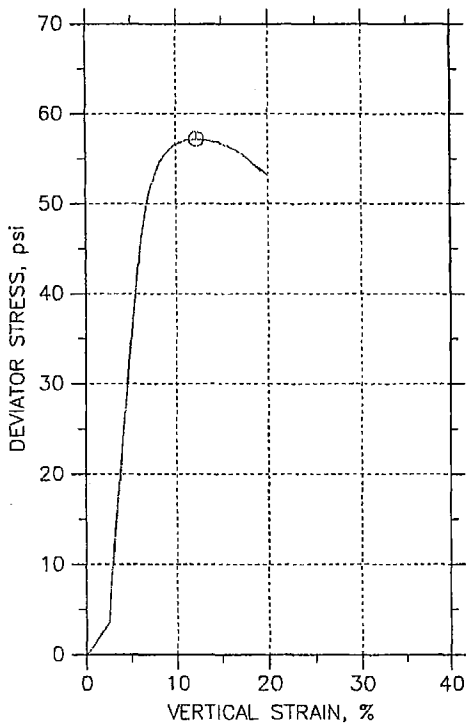
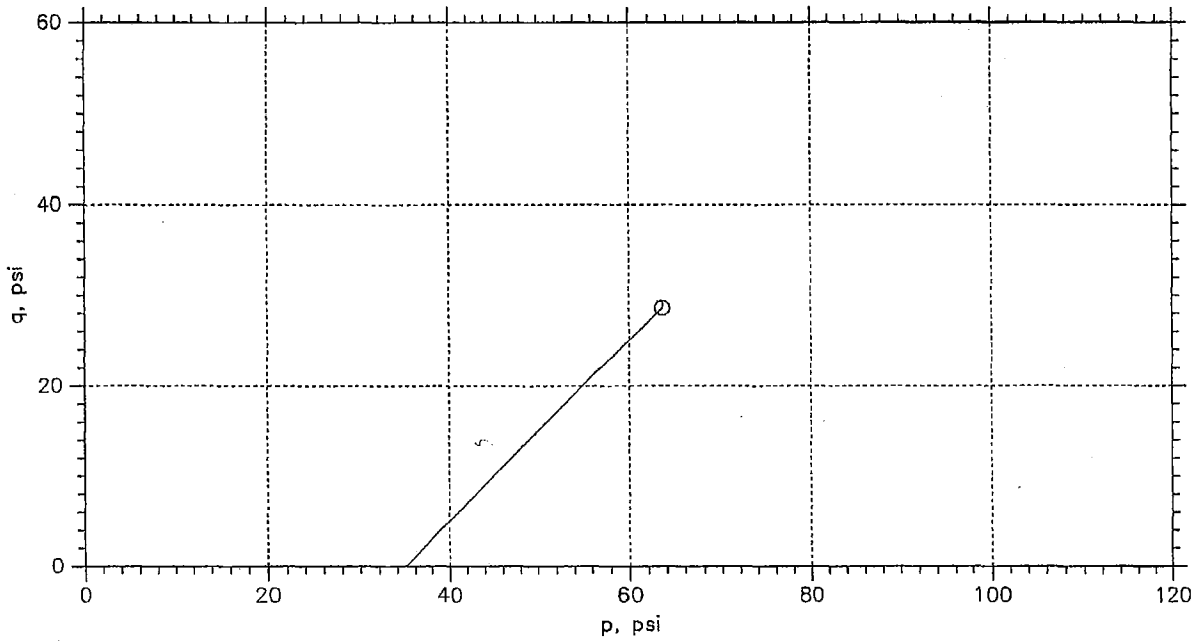


Symbol	⊙			
Sample No.	Ud-1			
Test No.	5365.1			
Depth	8.5Ft.			
Tested by	HJ			
Test Date	8/29/06			
Checked by	JL			
Check Date	11/21/06			
Diameter, in	2.85			
Height, in	6			
Water Content, %	42.9			
Dry Density, pcf	71.22			
Saturation, %	82.4			
Void Ratio	1.46			
Confining Stress, psi	10			
Undrained Strength, psi	19.22			
Max. Dev. Stress, psi	38.44			
Strain at Failure, %	4.33			
Strain Rate, %/min	1			
Measured Specific Gravity	2.81			
Liquid Limit	56			
Plastic Limit	45			
Plasticity Index	11			

	Project: SCE&G COL	X			
	Location: B-209				
	Project No.: 6234063534S				
	Boring No.: B-209				
	Sample Type: Shelby Tube				
	Description: Sandy SILT (ML)				
Remarks:					

Phase calculations based on start and end of test.

## UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

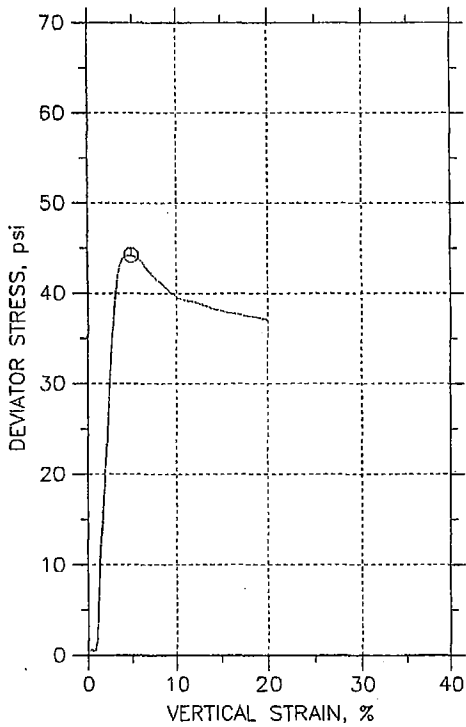
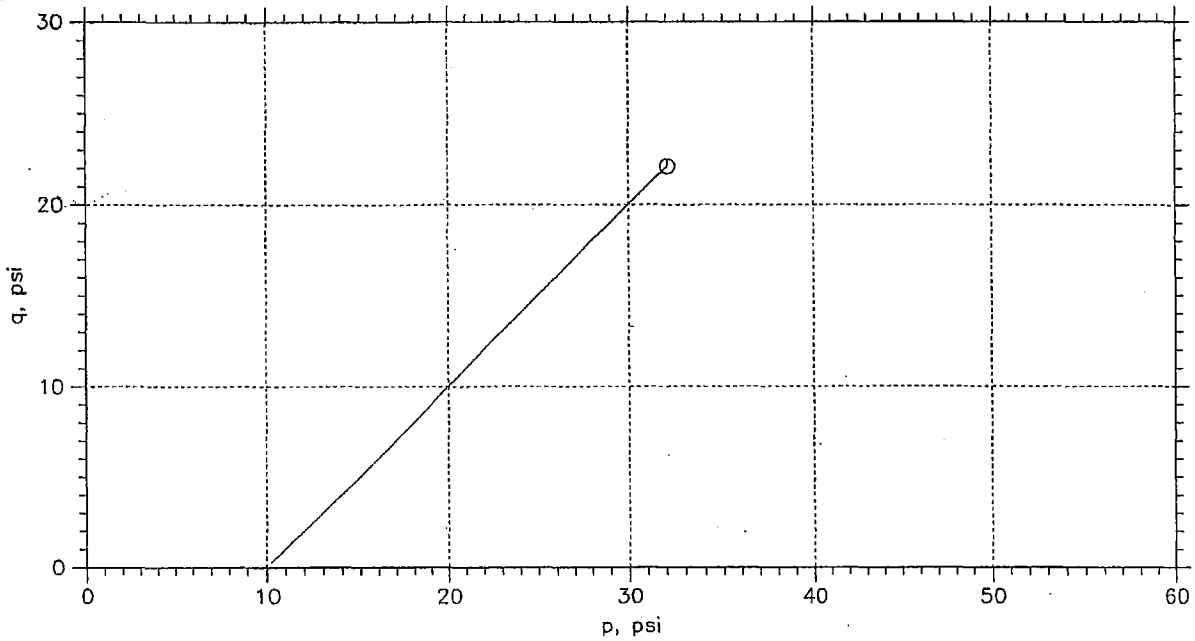


Symbol	⊙			
Sample No.	Ud-4			
Test No.	5368.1			
Depth	38.5ft.			
Tested by	HJ			
Test Date	8/29/06			
Checked by	JL <i>[Signature]</i>			
Check Date	12/22/06			
Diameter, in	2.878			
Height, in	6			
Water Content, %	29.6			
Dry Density, pcf	85.87			
Saturation, %	78.3			
Void Ratio	1.08			
Confining Stress, psi	35			
Undrained Strength, psi	28.6			
Max. Dev. Stress, psi	57.2			
Strain at Failure, %	12.4			
Strain Rate, %/min	1			
Measured Specific Gravity	2.86			
Liquid Limit	NP			
Plastic Limit	NP			
Plasticity Index	NP			

	Project: SCE&G COL				
	Location: B-209				
	Project No.: 6234063534S				
	Boring No.: B-209				
	Sample Type: Shelby Tube				
	Description: Sandy SILT (ML)				
Remarks:					

Phase calculations based on start and end of test.

## UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

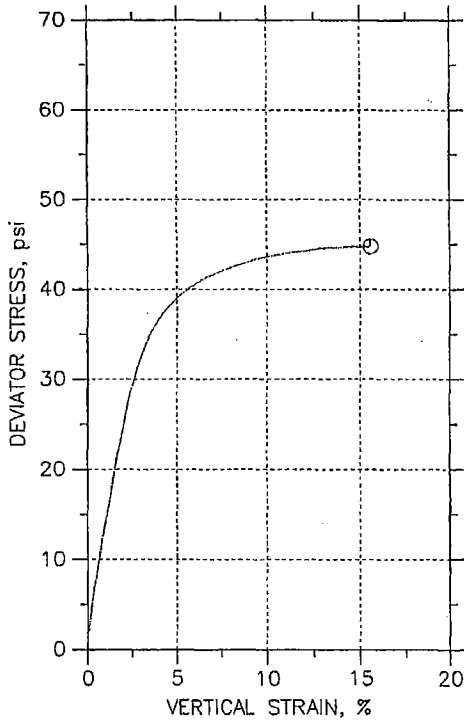
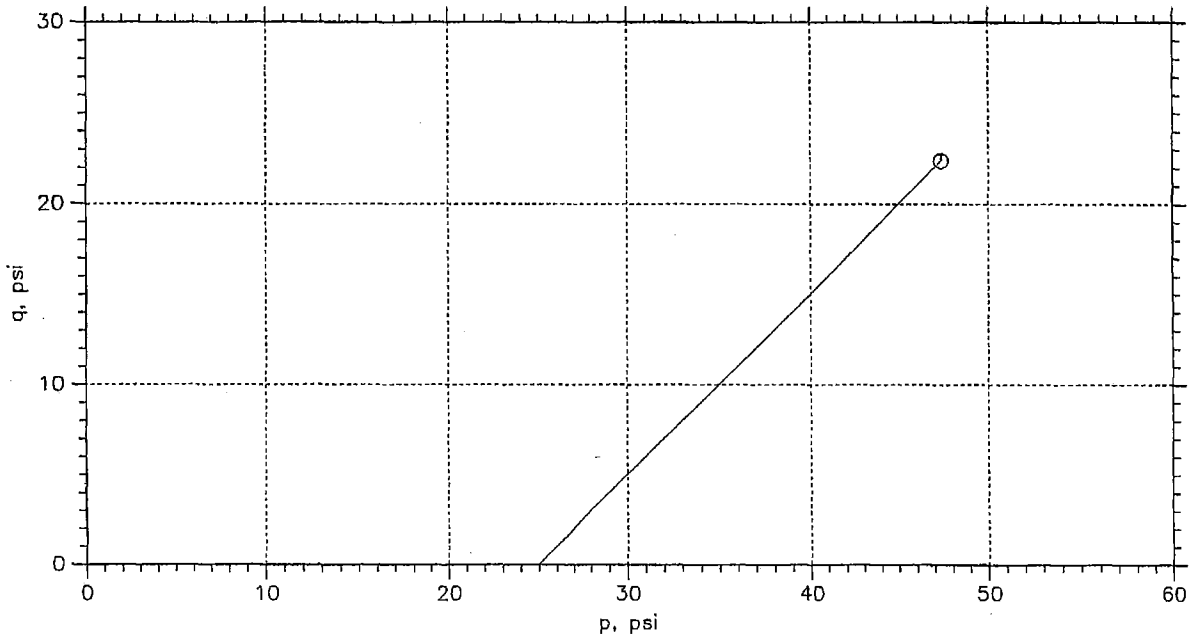


Symbol	⊙			
Sample No.	Ud-1			
Test No.	5369.1			
Depth	8.5 Ft.			
Tested by	HJ			
Test Date	8/29/06			
Checked by	JL <i>[Signature]</i>			
Check Date	11/22/06 <i>[Signature]</i>			
Diameter, in	2.878			
Height, in	6			
Water Content, %	21.9			
Dry Density, pcf	88.55			
Saturation, %	64.1			
Void Ratio	0.939			
Confining Stress, psi	10			
Undrained Strength, psi	22.1			
Max. Dev. Stress, psi	44.2			
Strain at Failure, %	4.88			
Strain Rate, %/min	1			
Measured Specific Gravity	2.75			
Liquid Limit	NP			
Plastic Limit	NP			
Plasticity Index	NP			

Project: SCE&G COL	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Location: B-210	
Project No.: 6234063534S	
Boring No.: B-210	
Sample Type: Shelby Tube	
Description: Sandy SILT (ML)	
Remarks:	

Phase calculations based on start and end of test.

## UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

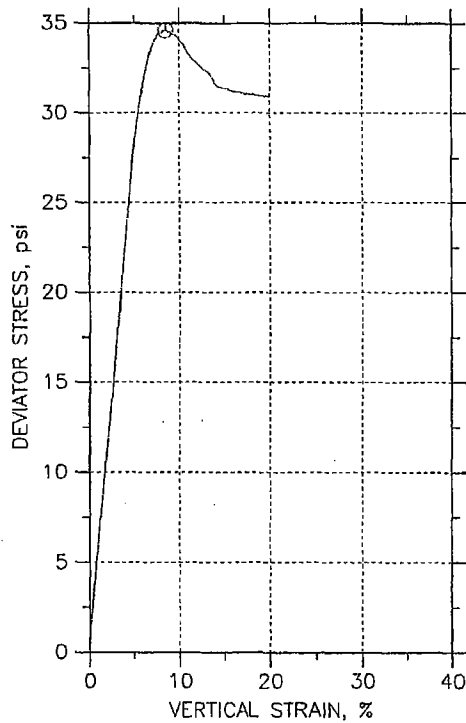
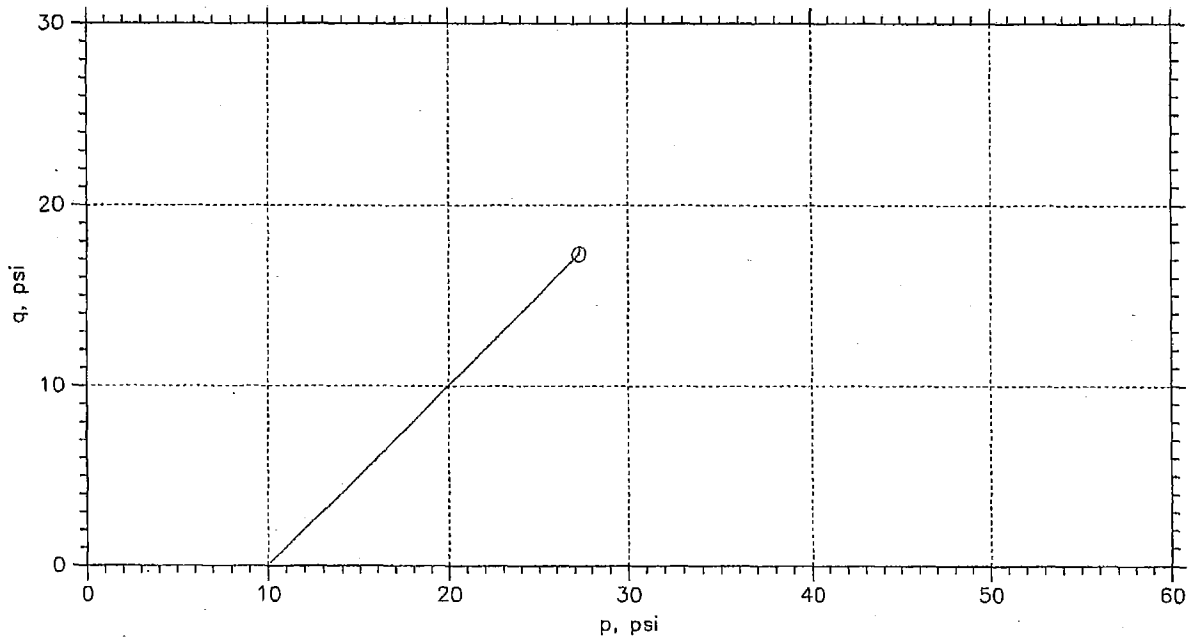


Symbol	⊙			
Sample No.	Ud-3			
Test No.	5371.1			
Depth	28.5 Ft.			
Tested by	HJ			
Test Date	8/31/06			
Checked by	JL			
Check Date	12/22/06			
Diameter, in	2.878			
Height, in	6			
Water Content, %	26.0			
Dry Density, pcf	91.87			
Saturation, %	83.0			
Void Ratio	0.852			
Confining Stress, psi	25			
Undrained Strength, psi	22.39			
Max. Dev. Stress, psi	44.78			
Strain at Failure, %	15.6			
Strain Rate, %/min	1			
Measured Specific Gravity	2.73			
Liquid Limit	NP			
Plastic Limit	NP			
Plasticity Index	NP			

	Project: SCE&G COL	/			
	Location: B-210				
	Project No.: 6234063534S				
	Boring No.: B-210				
	Sample Type: Shelby Tube				
	Description: Sandy SILT (ML)				
Remarks:					

Phase calculations based on start and end of test.

# UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

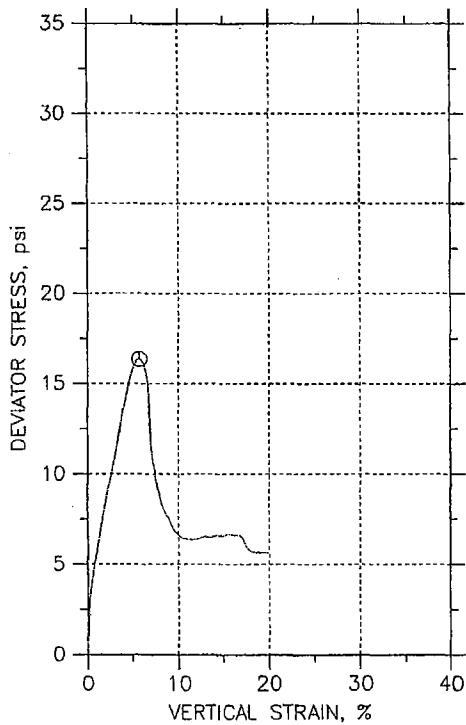
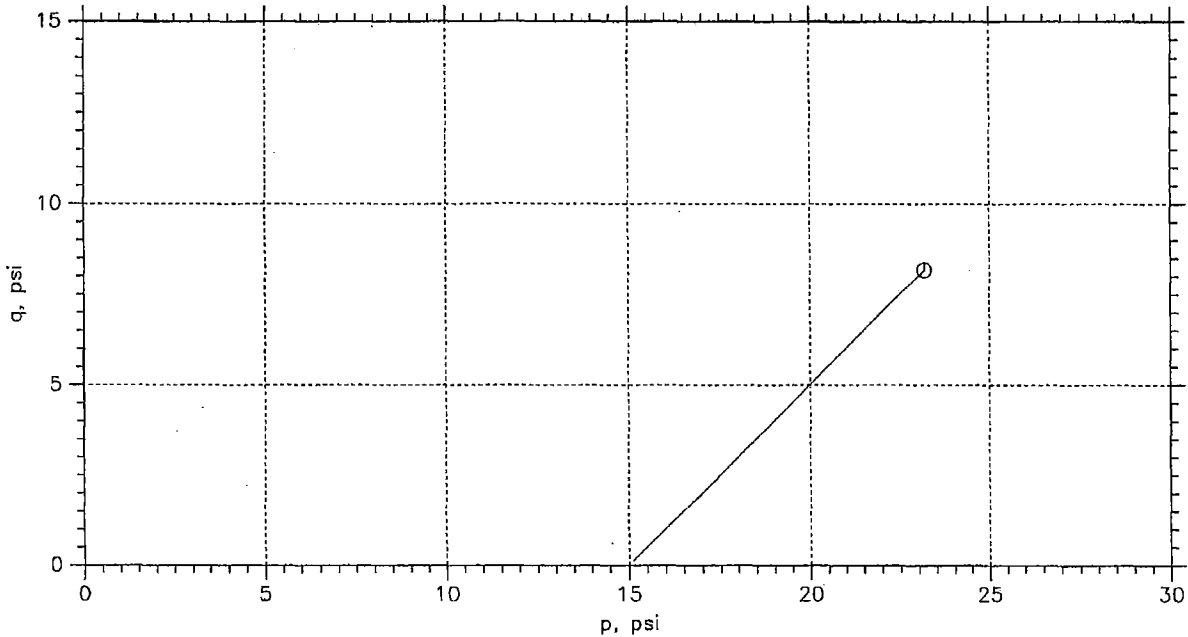


Symbol	⊙			
Sample No.	Ud-1			
Test No.	5373.1			
Depth	8.5 Ft.			
Tested by	HJ			
Test Date	8/31/06			
Checked by	JL <i>[Signature]</i>			
Check Date	12/21/06 <i>[Signature]</i>			
Diameter, in	2.87			
Height, in	6			
Water Content, %	32.5			
Dry Density, pcf	84.01			
Saturation, %	84.7			
Void Ratio	1.07			
Confining Stress, psi	10			
Undrained Strength, psi	17.3			
Max. Dev. Stress, psi	34.59			
Strain at Failure, %	8.52			
Strain Rate, %/min	1			
Measured Specific Gravity	2.78			
Liquid Limit	NP			
Plastic Limit	NP			
Plasticity Index	NP			

	Project: SCE&G COL				
	Location: B-215				
	Project No.: 62340635345				
	Boring No.: B-215				
	Sample Type: Shelby Tube				
	Description: Silty SAND (SM)				
Remarks:					

Phase calculations based on start and end of test.

## UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

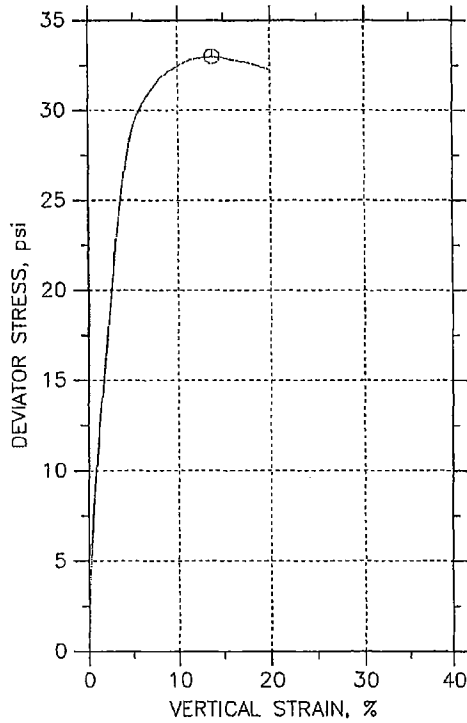
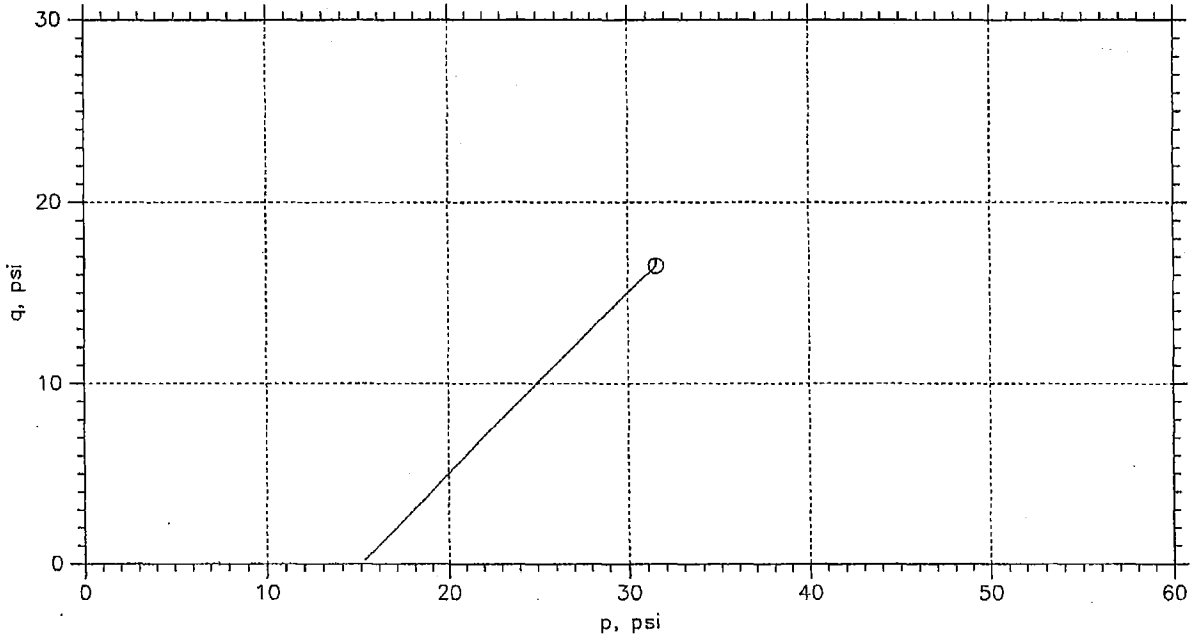


Symbol	⊙			
Sample No.	Ud-2			
Test No.	5374.1			
Depth	18.5 Ft.			
Tested by	HJ			
Test Date	8/31/06			
Checked by	JL <i>[Signature]</i>			
Check Date	12/22/06			
Diameter, in	2.879			
Height, in	6			
Water Content, %	23.8			
Dry Density, pcf	90.34			
Saturation, %	71.3			
Void Ratio	0.935			
Confining Stress, psi	15			
Undrained Strength, psi	8.172			
Max. Dev. Stress, psi	16.34			
Strain at Failure, %	5.72			
Strain Rate, %/min	1			
Estimated Specific Gravity	2.8			
Liquid Limit	---			
Plastic Limit	---			
Plasticity Index	---			

Project: SCE&G COL	
Location: B-215	
Project No.: 6234063534S	
Boring No.: B-215	
Sample Type: Shelby Tube	
Description: Silty SAND (SM)	
Remarks:	

Phase calculations based on start and end of test.

# UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850



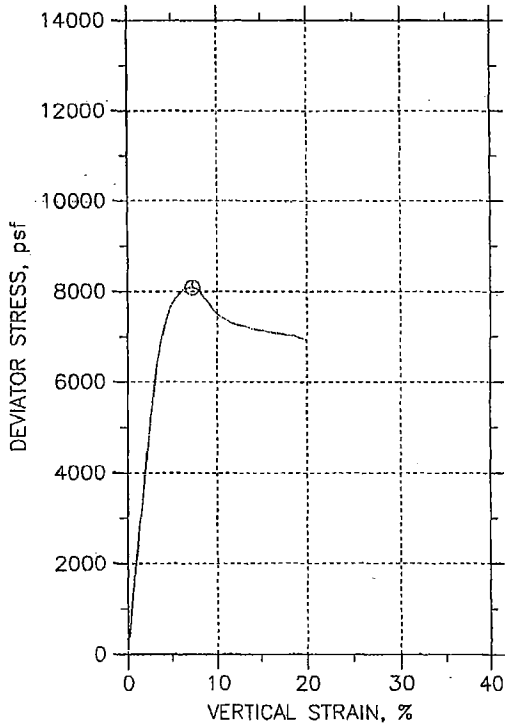
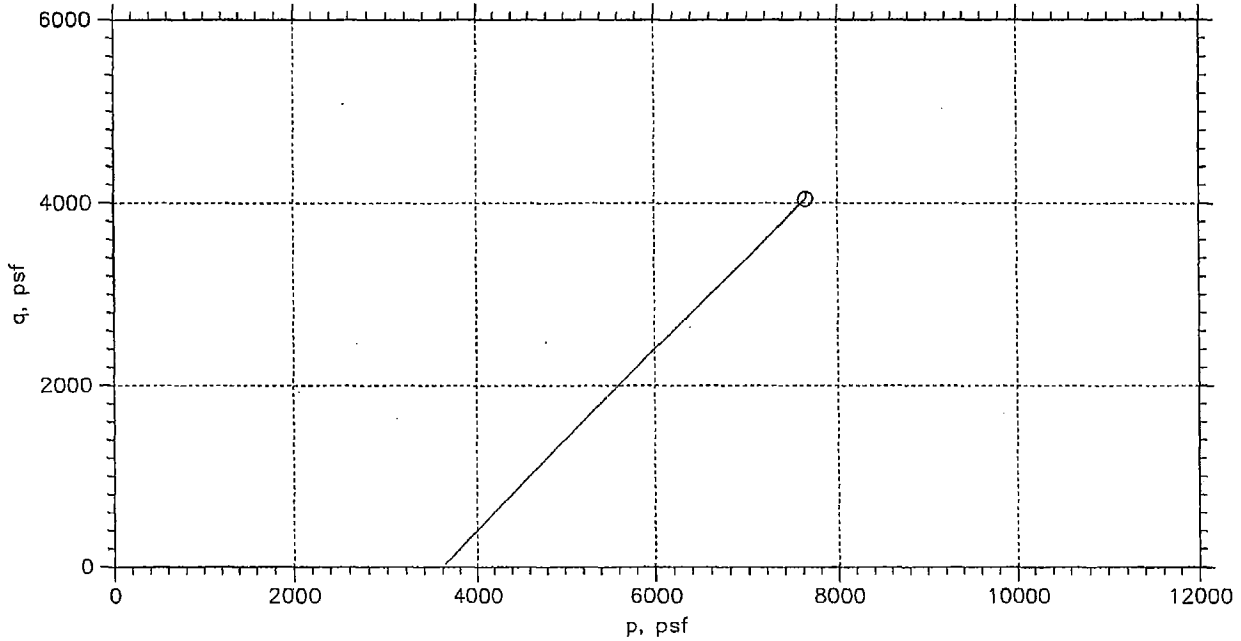
Symbol	⊙			
Sample No.	Ud-2			
Test No.	5385.1			
Depth	18.5 Ft.			
Tested by	HJ			
Test Date	9/26/06			
Checked by	JL			
Check Date	12/22/06			
Diameter, in	2.855			
Height, in	6			
Water Content, %	23.8			
Dry Density, pcf	86.95			
Saturation, %	65.3			
Void Ratio	1.03			
Confining Stress, psi	15			
Undrained Strength, psi	16.49			
Max. Dev. Stress, psi	32.99			
Strain at Failure, %	13.9			
Strain Rate, %/min	1			
Measured Specific Gravity	2.83			
Liquid Limit	NP			
Plastic Limit	NP			
Plasticity Index	NP			

	Project: SCE&G COL				
	Location: B-222				
	Project No.: 6234063534S				
	Boring No.: B-222				
	Sample Type: Shelby Tube				
	Description: Sandy SILT (ML)				
Remarks:					



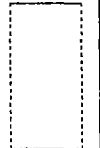
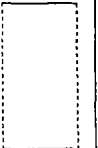
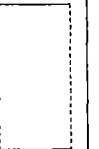
Phase calculations based on start and end of test.



# UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

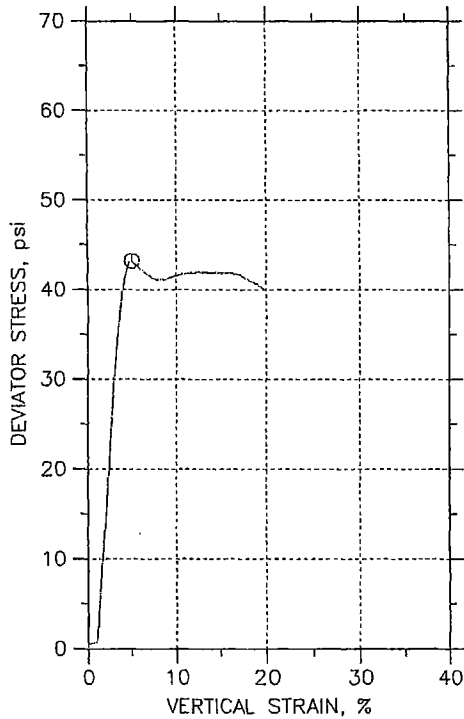
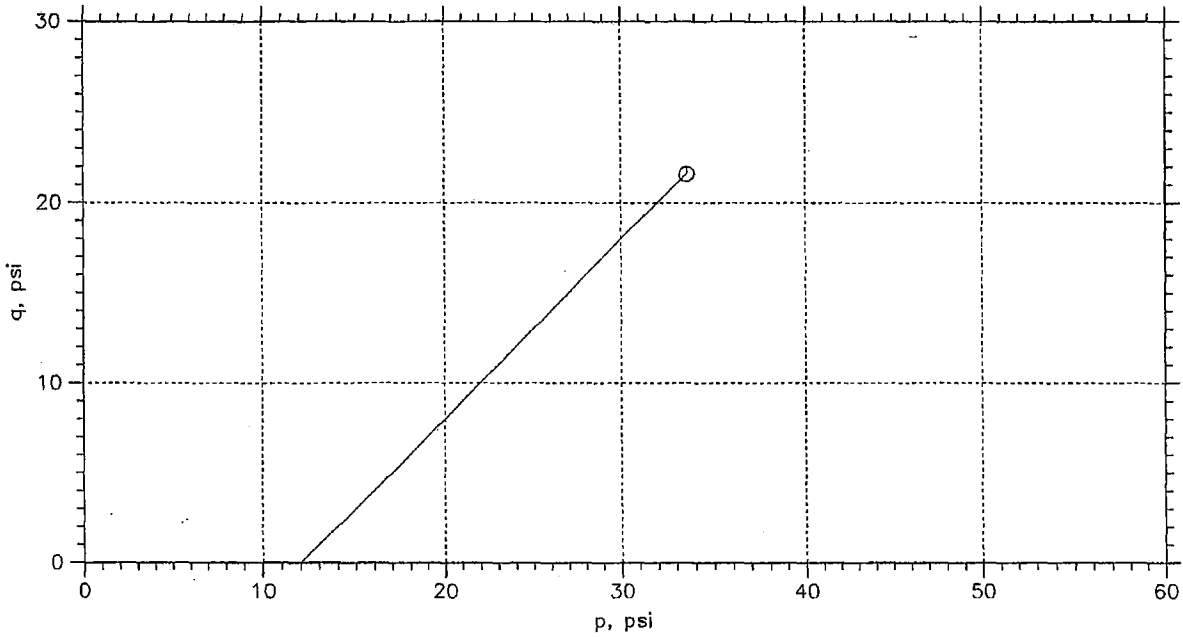


Symbol	⊙			
Sample No.	Ud-3			
Test No.	5394.1			
Depth	28.5 Ft.			
Tested by	HJ			
Test Date	9/20/06			
Checked by	JL/PP			
Check Date	12/29/06			
Diameter, in	2.879			
Height, in	6			
Water Content, %	22.9			
Dry Density, pcf	89.36			
Saturation, %	68.5			
Void Ratio	0.92			
Confining Stress, psf	3600			
Undrained Strength, psf	4043			
Max. Dev. Stress, psf	8086			
Strain at Failure, %	7.28			
Strain Rate, %/min	1			
Measured Specific Gravity	2.75			
Liquid Limit	---			
Plastic Limit	---			
Plasticity Index	---			

	Project: SCE&G COL				
	Location: B-319				
	Project No.: 6234063534S				
	Boring No.: B-319				
	Sample Type: '				
Description: Sandy Silt (ML)					
Remarks: Revised to include measured Gs.					

Phase calculations based on start and end of test.

# UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

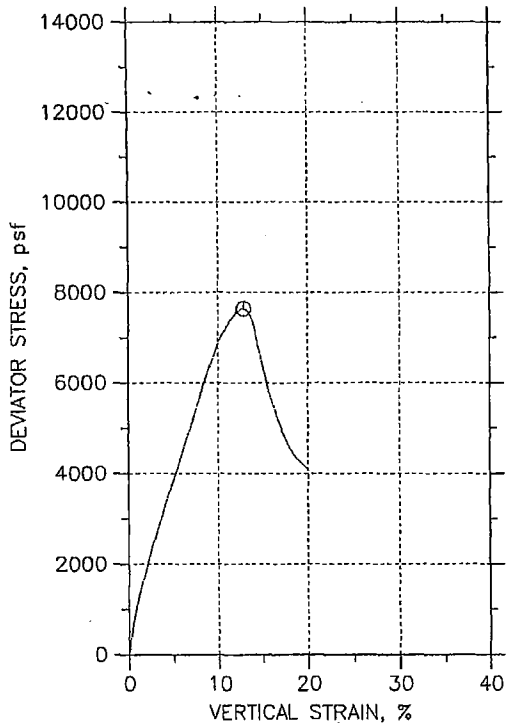
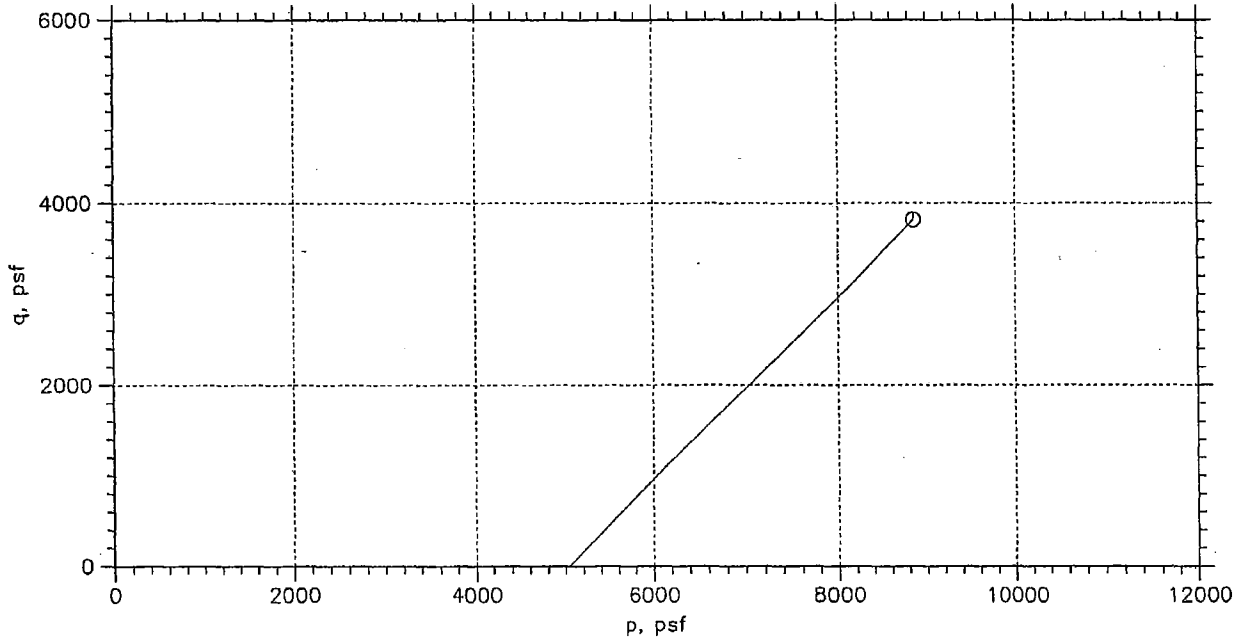


Symbol	⊙			
Sample No.	Ud-3			
Test No.	5406			
Depth	13.5 Ft.			
Tested by	HJ			
Test Date	9/26/06			
Checked by	JL <i>[Signature]</i>			
Check Date	12/22/06 <i>[Signature]</i>			
Diameter, in	2.87			
Height, in	6			
Water Content, %	30.7			
Dry Density, pcf	74.67			
Saturation, %	64.6			
Void Ratio	1.32			
Confining Stress, psi	12			
Undrained Strength, psi	21.59			
Max. Dev. Stress, psi	43.17			
Strain at Failure, %	4.98			
Strain Rate, %/min	1			
Measured Specific Gravity	2.77			
Liquid Limit	NP			
Plastic Limit	NP			
Plasticity Index	NP			

	Project: SCE&G COL				
	Location: B-325				
	Project No.: 6234063534S				
	Boring No.: B-325				
	Sample Type: Shelby Tube				
	Description: Silty SAND (SM)				
Remarks:					

Phase calculations based on start and end of test.

# UNCONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D2850

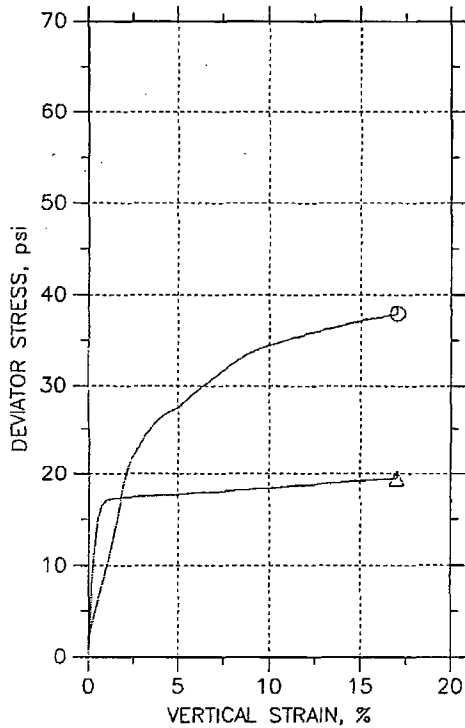
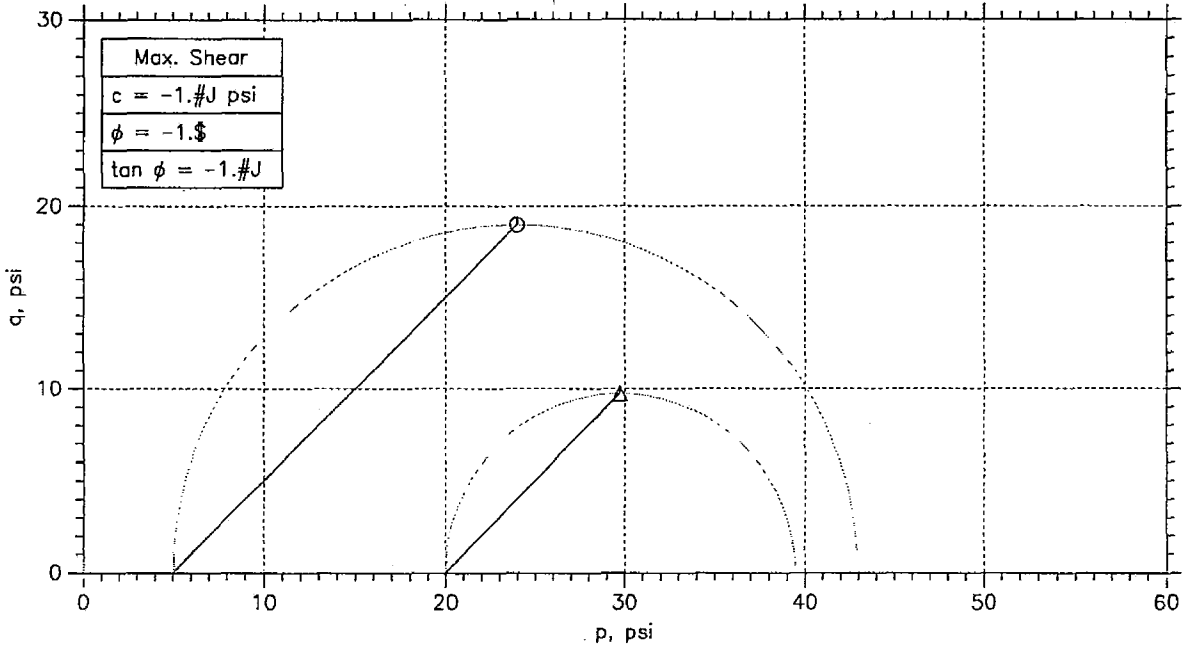


Symbol	⊙			
Sample No.	Ud-8			
Test No.	5411			
Depth	38.5 Ft.			
Tested by	HJ			
Test Date	9/26/06			
Checked by	JL <i>[Signature]</i>			
Check Date	12/29/06			
Diameter, in	2.815			
Height, in	5.6			
Water Content, %	0.0			
Dry Density, pcf	115.5			
Saturation, %	0.0			
Void Ratio	0.452			
Confining Stress, psf	5040			
Undrained Strength, psf	3817			
Max. Dev. Stress, psf	7634			
Strain at Failure, %	12.9			
Strain Rate, %/min	1			
Measured Specific Gravity	2.69			
Liquid Limit	---			
Plastic Limit	---			
Plasticity Index	---			

	Project: SCE&G COL				
	Location: B-325				
	Project No.: 6234063534S				
	Boring No.: B-325				
	Sample Type: Shelby Tube				
	Description: Silty Sand (SM)				
Remarks: Revised to include measured Gs.					

Phase calculations based on start and end of test.

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



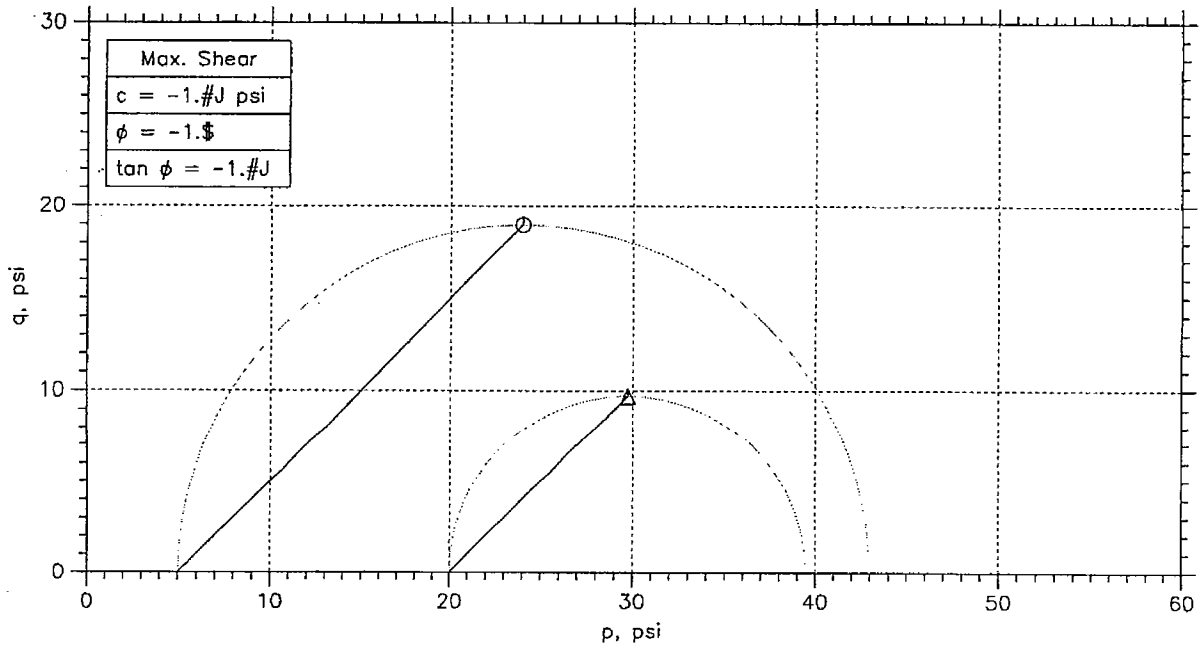
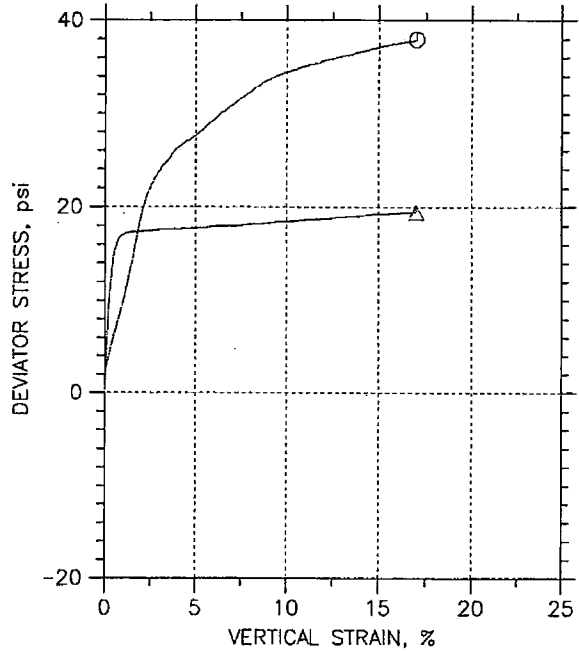
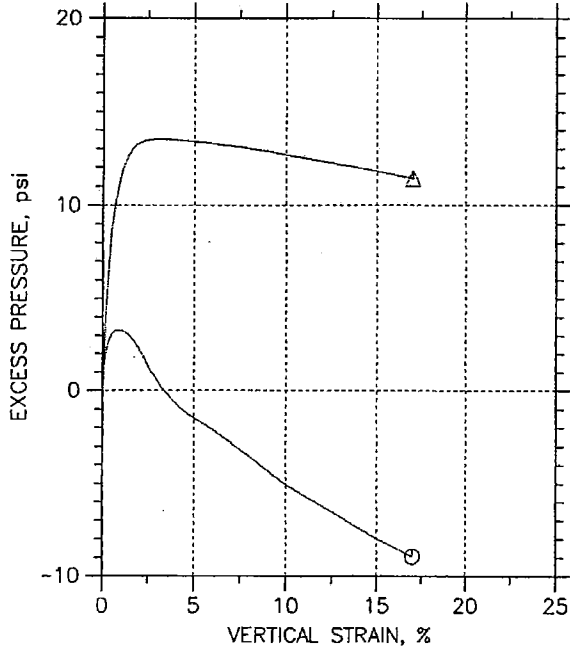
Symbol	⊙	△		
Sample No.	UD-1	UD-1		
Test No.	5362.1	5362.3		
Depth	8.5 ft.	8.5 ft.		
Initial	Diameter, in	2.87	2.855	
	Height, in	6	6	
	Water Content, %	22.3	25.0	
	Dry Density, pcf	97.66	90.15	
	Saturation, %	79.9	75.2	
Before Shear	Void Ratio	0.777	0.925	
	Water Content, %	27.0	32.1	
	Dry Density, pcf	99.07	91.72	
	Saturation*, %	100.0	100.0	
	Void Ratio	0.752	0.892	
	Back Press., psi	105.	105.	
Ver. Eff. Cons. Stress, psi	5.	35.		
Shear Strength, psi	18.97	9.728		
Strain at Failure, %	17	17		
Strain Rate, %/min	0.1	0.1		
B-Value	0.95	0.92		
Estimated Specific Gravity	2.78	2.78		
Liquid Limit	59	59		
Plastic Limit	28	28		

Project: SCE&G	
Location: B-208	
Project No.: 6234063534S	
Boring No.: B-208	
Sample Type: Shelby Tube	
Description: Fat clay with sand	
Remarks:	

Phase calculations based on end of test.

\* Saturation is set to 100% for phase calculations.

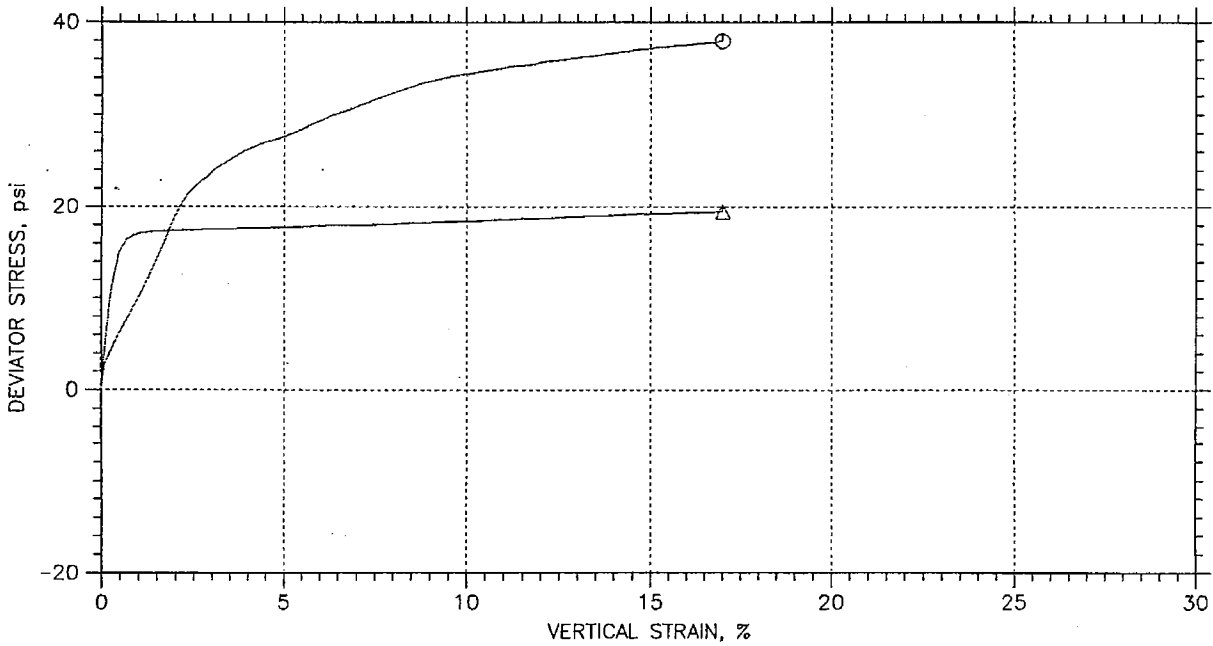
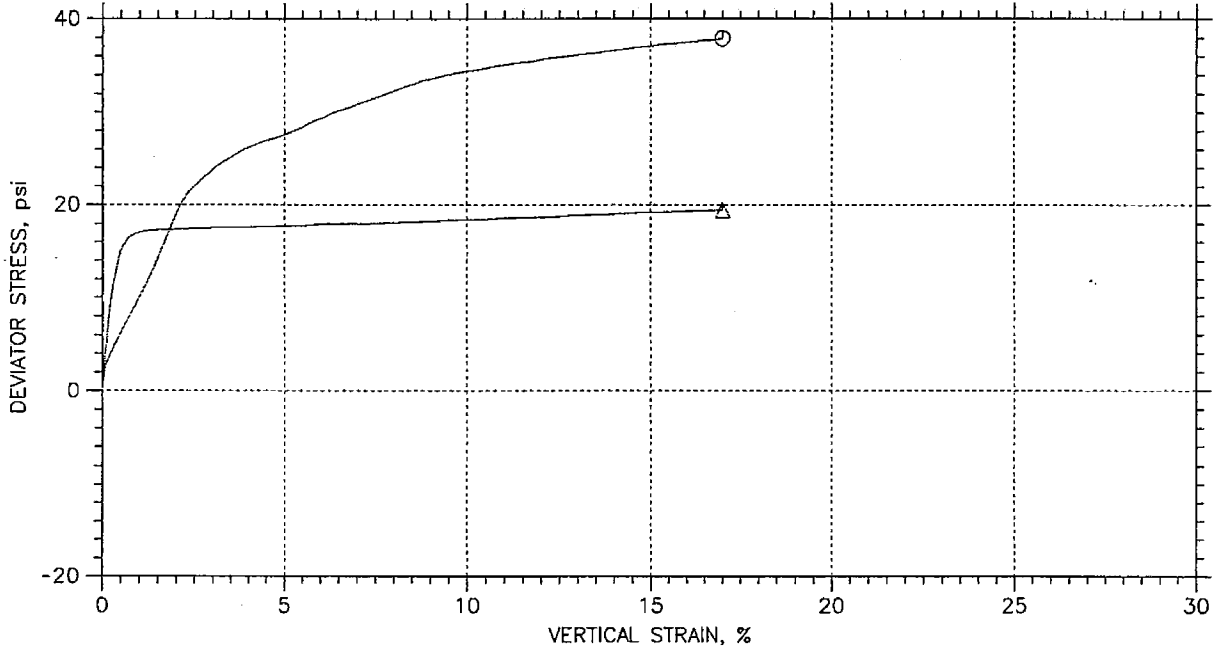
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-1	5362.1	HJ	10/12/06	JL	11/24/06	5362.1_71.dat
△	UD-1	5362.3	HJ	10/12/06	JL	11/24/06	5362.3b usable data 65.dat

Project: SCE&G		Location: B-208		Project No.: 6234063534S	
Boring No.: B-208		Sample Type: Shelby Tube			
Description: Fat clay with sand					
Remarks:					

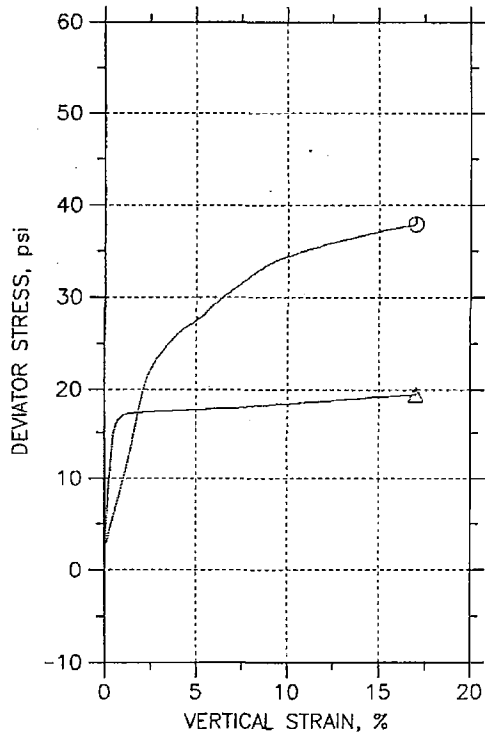
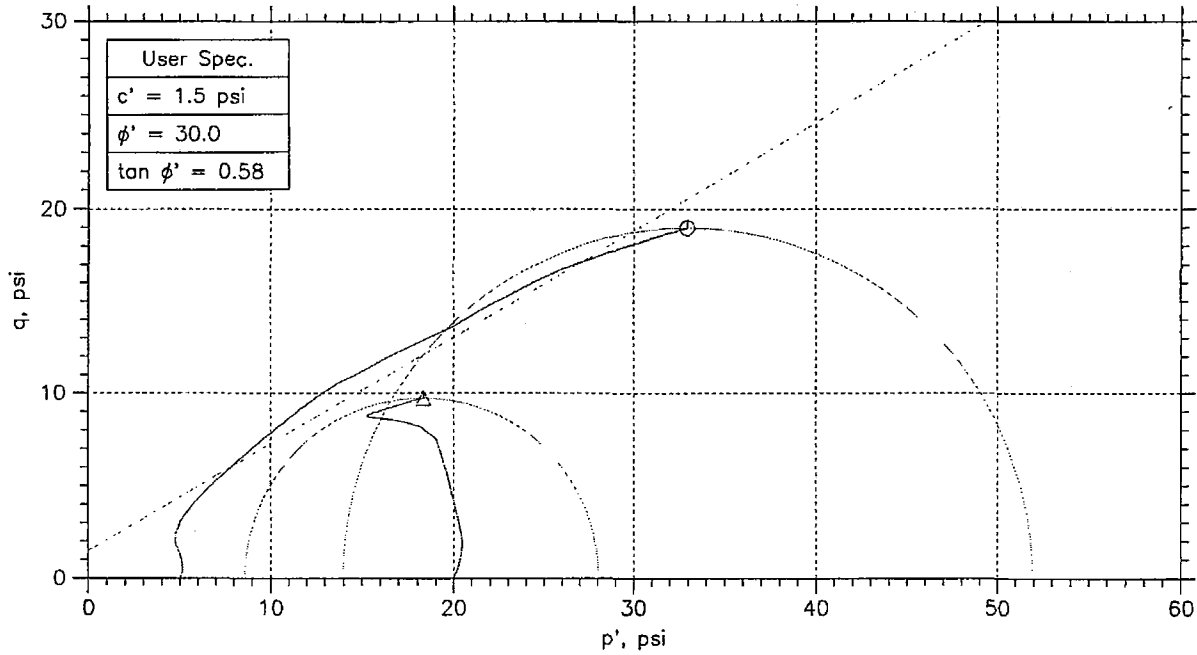
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	UD-1	5362.1	HJ	10/12/06	JL	11/24/06	5362.1_71.dat
Δ	UD-1	5362.3	HJ	10/12/06	JL	11/24/06	5362.3b usable data 65.dat

	Project: SCE&G	Location: B-208	Project No.: 6234063534S
	Boring No.: B-208	Sample Type: Shelby Tube	
	Description: Fat clay with sand		
	Remarks:		

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



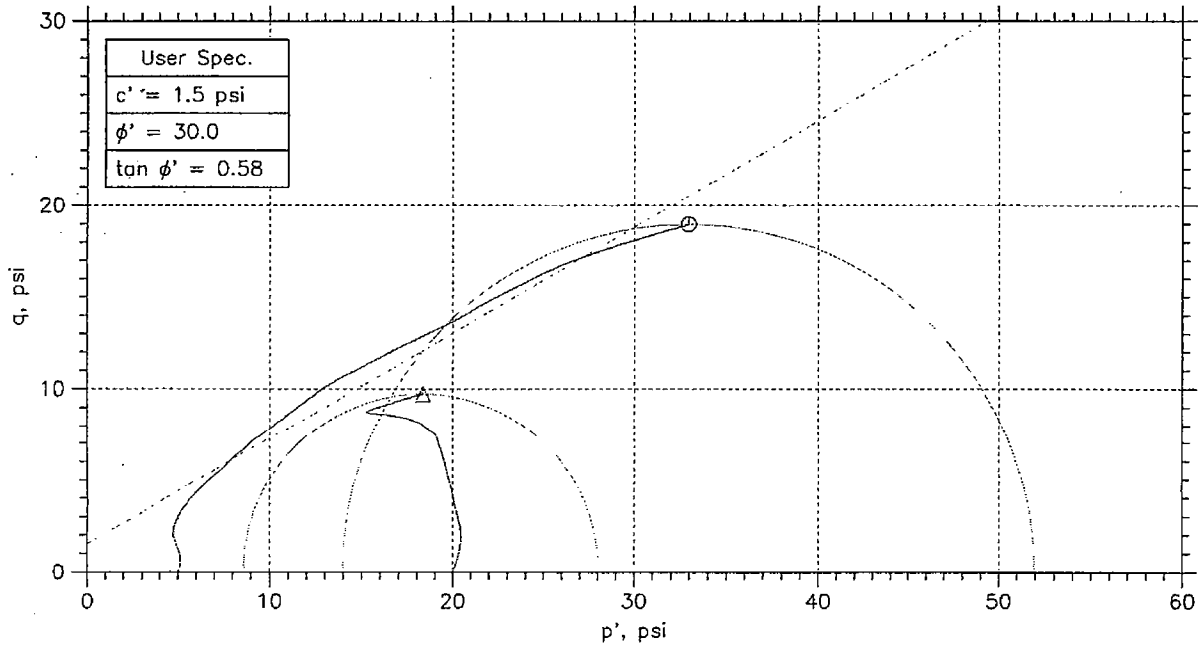
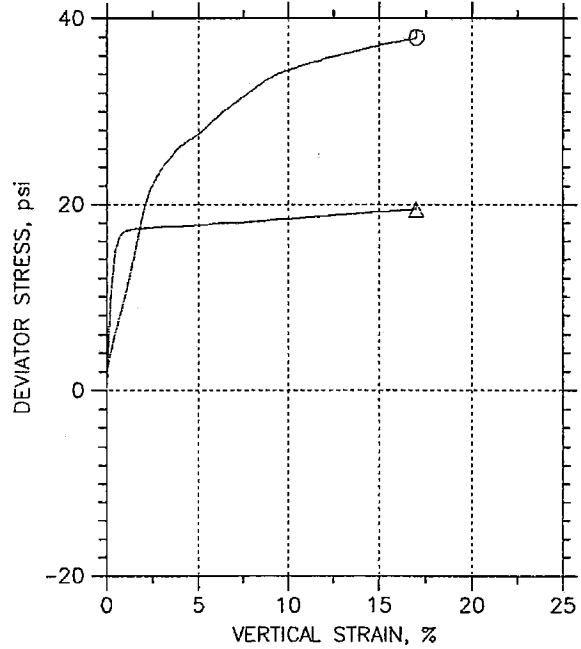
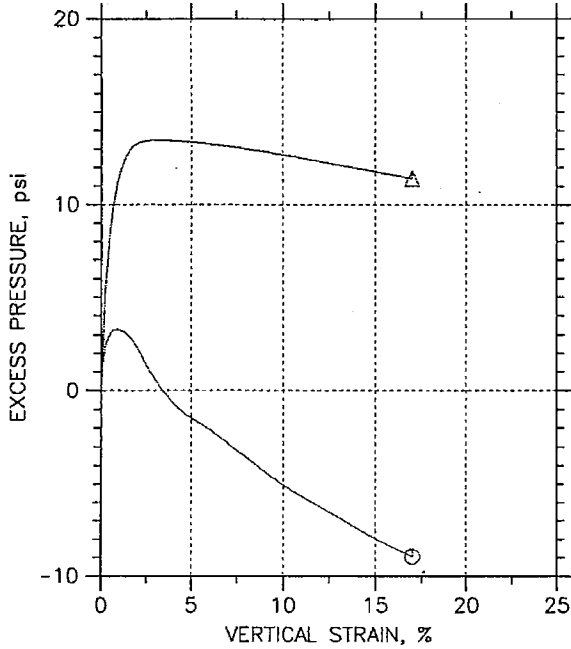
Symbol	⊙	△		
Sample No.	UD-1	UD-1		
Test No.	5362.1	5362.3		
Depth	8.5 ft.	8.5 ft.		
Initial	Diameter, in	2.87	2.855	
	Height, in	6	6	
	Water Content, %	22.3	25.0	
	Dry Density, pcf	97.66	90.15	
	Saturation, %	79.9	75.2	
Before Shear	Void Ratio	0.777	0.925	
	Water Content, %	27.0	32.1	
	Dry Density, pcf	99.07	91.72	
	Saturation*, %	100.0	100.0	
	Void Ratio	0.752	0.892	
	Back Press., psi	105.	105.	
	Ver. Eff. Cons. Stress, psi	5.	35.	
	Shear Strength, psi	18.97	9.728	
	Strain at Failure, %	17	17	
	Strain Rate, %/min	0.1	0.1	
	B-Value	0.95	0.92	
	Estimated Specific Gravity	2.78	2.78	
	Liquid Limit	59	59	
	Plastic Limit	28	28	

Project: SCE&G				
Location: B-208				
Project No.: 6234063534S				
Boring No.: B-208				
Sample Type: Shelby Tube				
Description: Fat clay with sand				
Remarks:				

Phase calculations based on end of test.

\* Saturation is set to 100% for phase calculations.

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

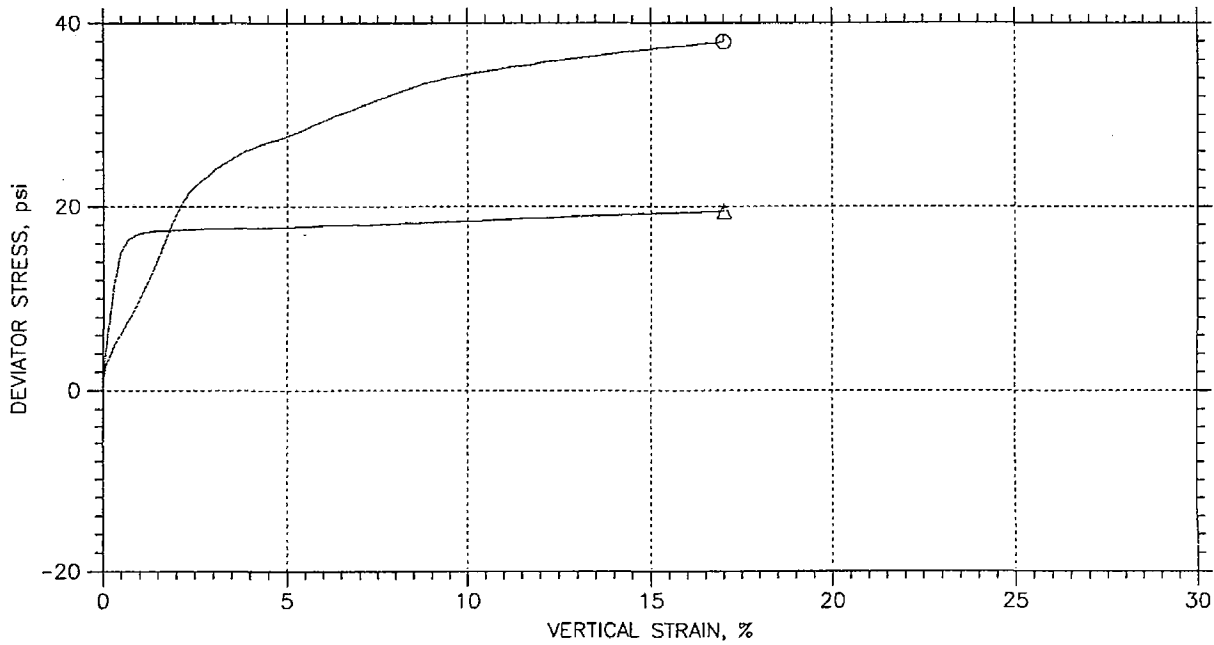
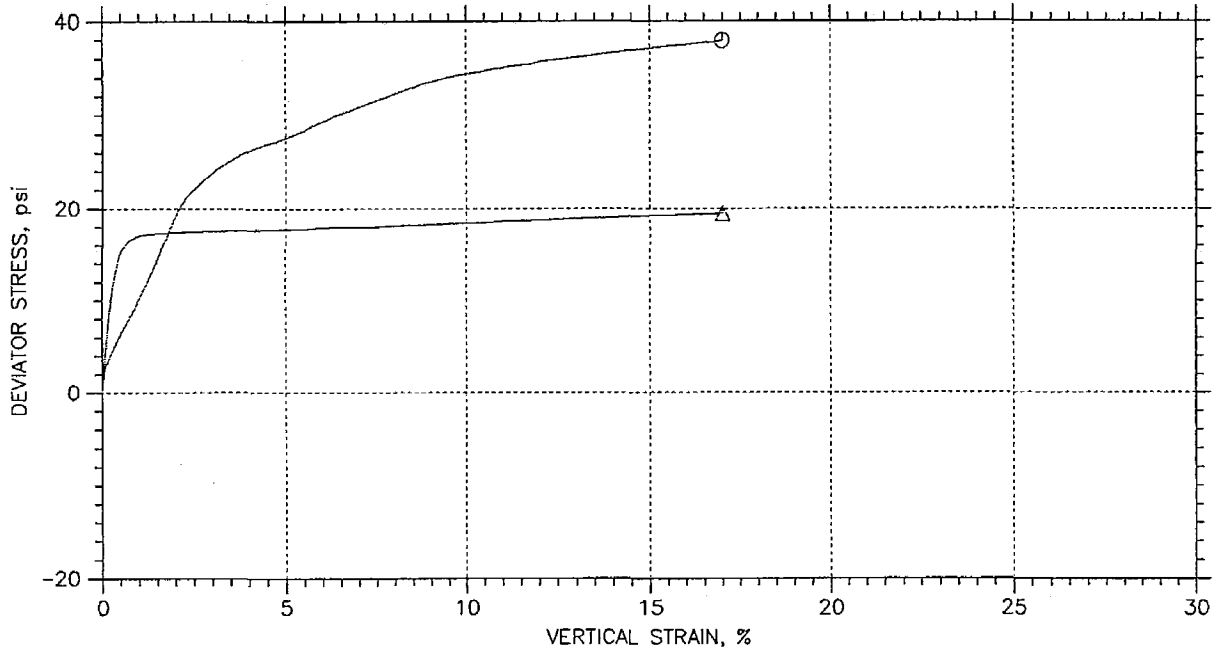


Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-1	5362.1	HJ	10/12/06	JL <i>[Signature]</i>	11/24/06	5362.1_71.dot
△	UD-1	5362.3	HJ	10/12/06	JL <i>[Signature]</i>	11/24/06	5362.3b usable data 65.dot

	Project: SCE&G	Location: B-208	Project No.: 6234063534S
	Boring No.: B-208	Sample Type: Shelby Tube	
	Description: Fat clay with sand		
	Remarks:		



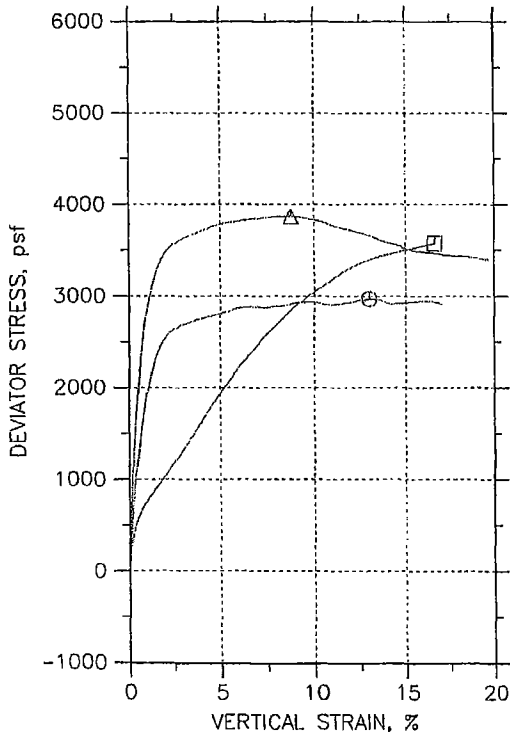
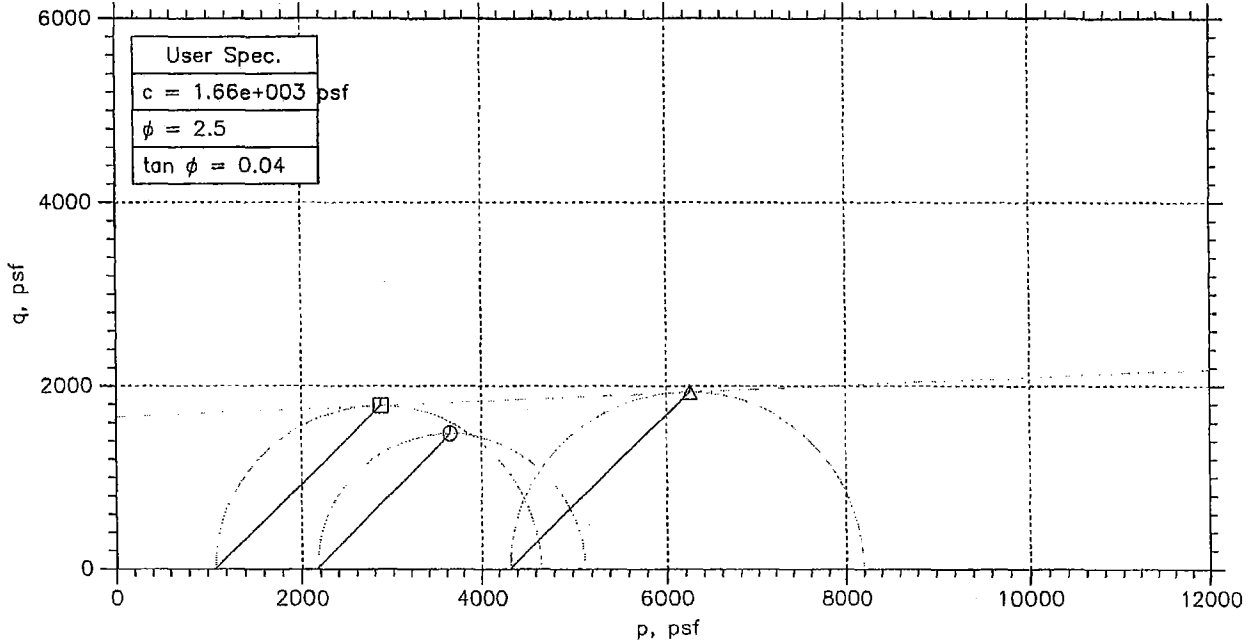
## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File	
⊙	UD-1	5362.1	8.5 ft.	HJ	10/12/06	JL <i>[Signature]</i>	11/24/06	5362.1_71.dat
Δ	UD-1	5362.3	8.5 ft.	HJ	10/12/06	JL <i>[Signature]</i>	11/24/06	5362.3b usable data 65.dat

	Project: SCE&G		Location: B-208		Project No.: 6234063534S	
	Boring No.: B-208		Sample Type: Shelby Tube			
	Description: Fat clay with sand					
	Remarks:					

## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

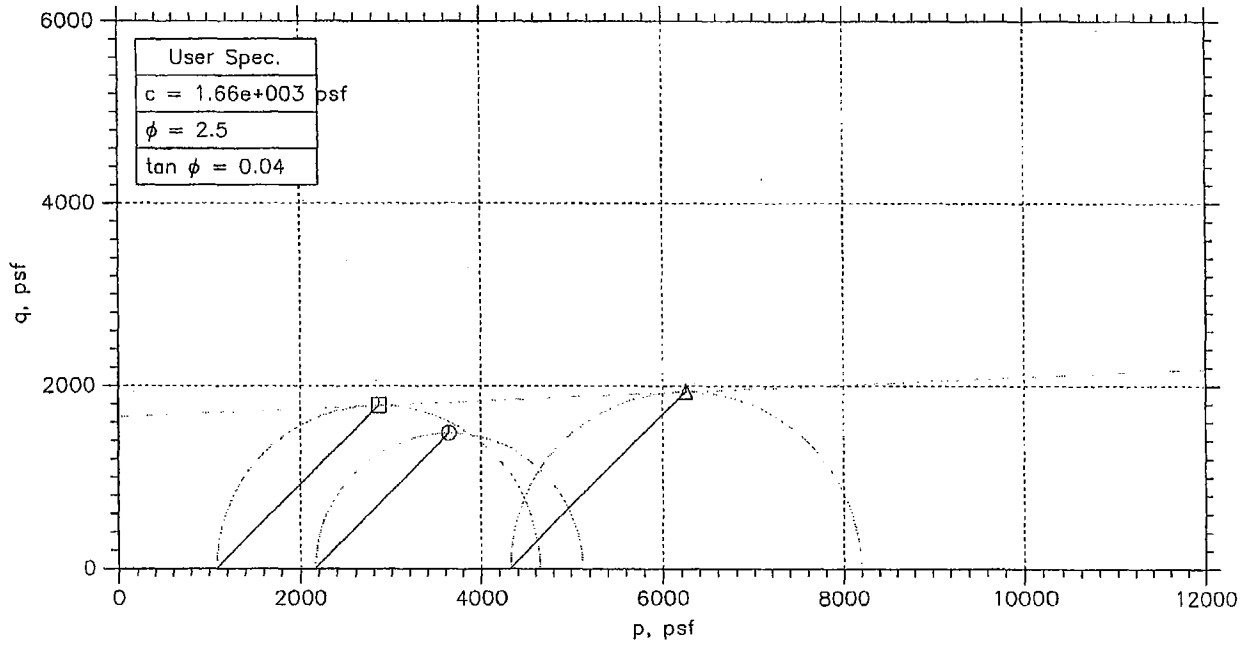
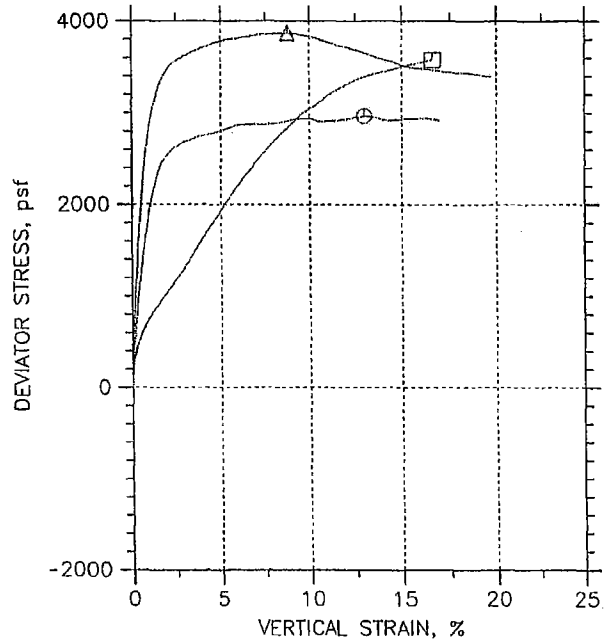
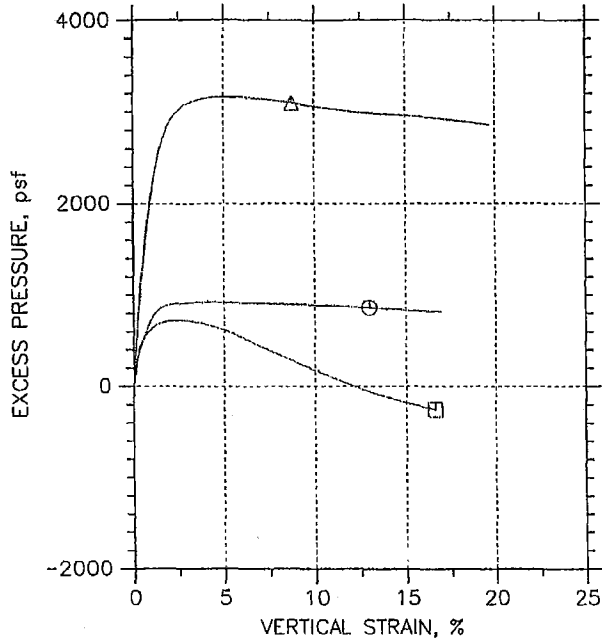


Symbol	○	△	□	
Sample No.	UD-2	UD-2	UD-2	
Test No.	5366.1	5366-2	5366-3	
Depth	18.5 ft.	18.5 ft.	18.5 ft.	
Initial	Diameter, in	2.855	2.86	2.76
	Height, in	6	6	5.6
	Water Content, %	56.9	45.5	43.7
	Dry Density, pcf	59.71	64.9	68.52
	Saturation, %	82.7	75.5	79.2
Before Shear	Void Ratio	1.93	1.67	1.53
	Water Content, %	56.0	60.6	54.6
	Dry Density, pcf	68.04	64.61	68.93
	Saturation*, %	100.0	100.0	100.0
	Void Ratio	1.57	1.69	1.52
	Back Press., psf	15120	15120	15120
	Ver. Eff. Cons. Stress, psf	2161	4320	5040
	Shear Strength, psf	1483	1934	1787
	Strain at Failure, %	13	8.77	16.6
	Strain Rate, %/min	0.1	0.1	0.1
	B-Value	0.83	0.93	0.94
	Estimated Specific Gravity	2.8	2.78	2.78
	Liquid Limit	55	55	55
	Plastic Limit	43	43	43

	Project: SCE&G	
	Location: B-209	
	Project No.: 6234063534S	
	Boring No.: B-209	
	Sample Type: Shelby Tube	
Description: Silty sand		
Remarks:		<i>J. R. 12/29/06</i>

Phase calculations based on start of test

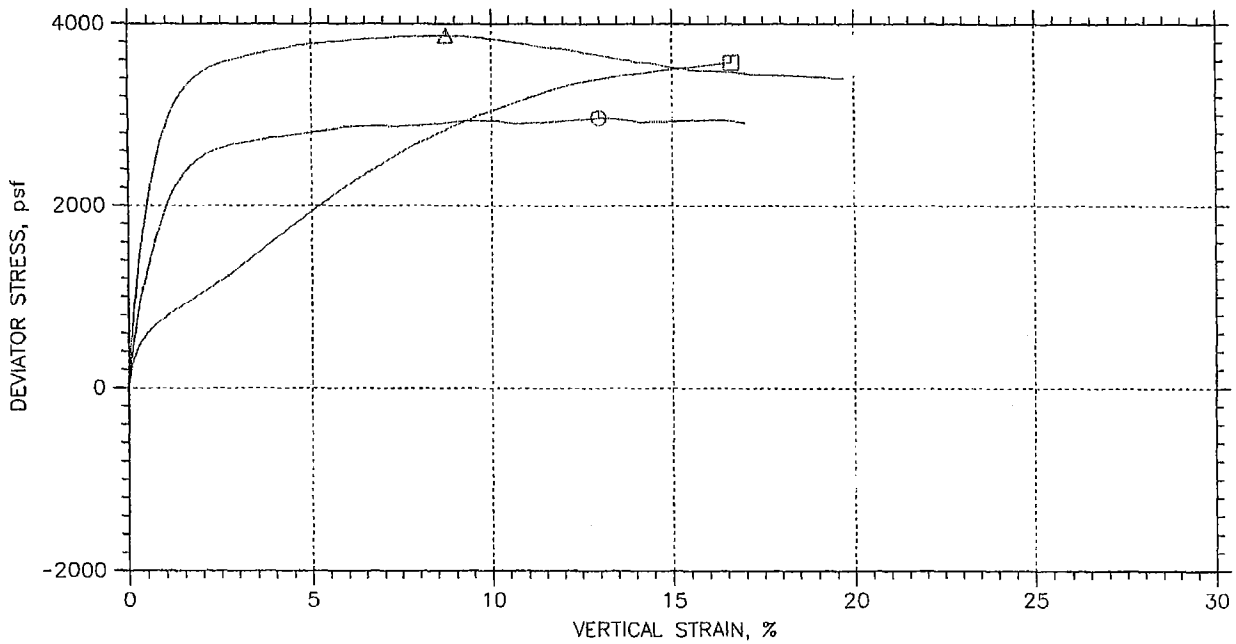
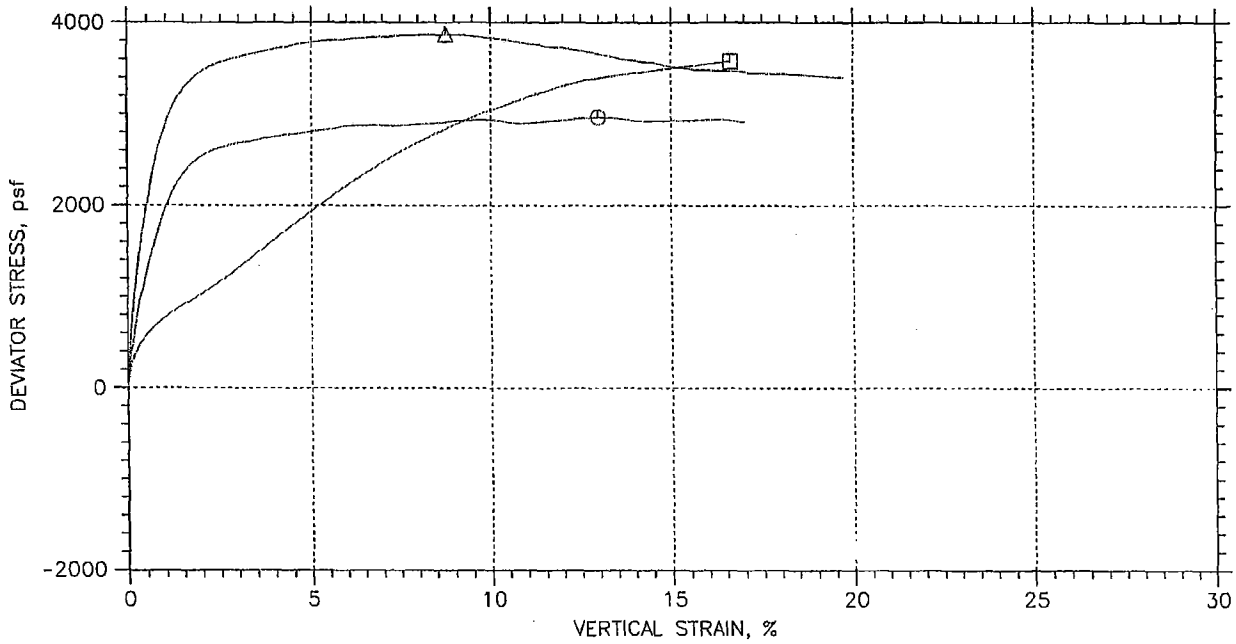
## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	UD-2	5366.1	18.5 ft.	HJ	10/13/06	JL		5366.1a_71.dat
△	UD-2	5366-2	18.5 ft.	HJ	10/13/06	JL	12/21/06	5366.2a.68.dat
□	UD-2	5366-3	18.5 ft.	HJ	10/13/06	JL		5366.3b_65.dat

	Project: SCE&G		Location: B-209		Project No.: 6234063534S	
	Boring No.: B-209		Sample Type: Shelby Tube			
	Description: Silty sand					
	Remarks:					

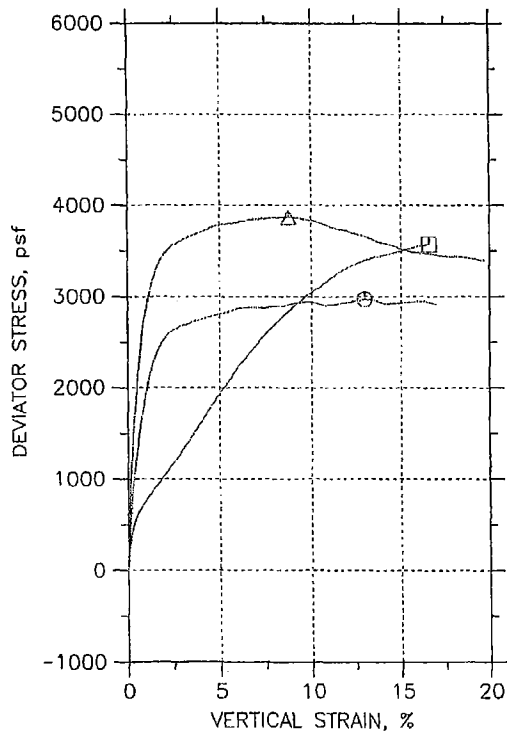
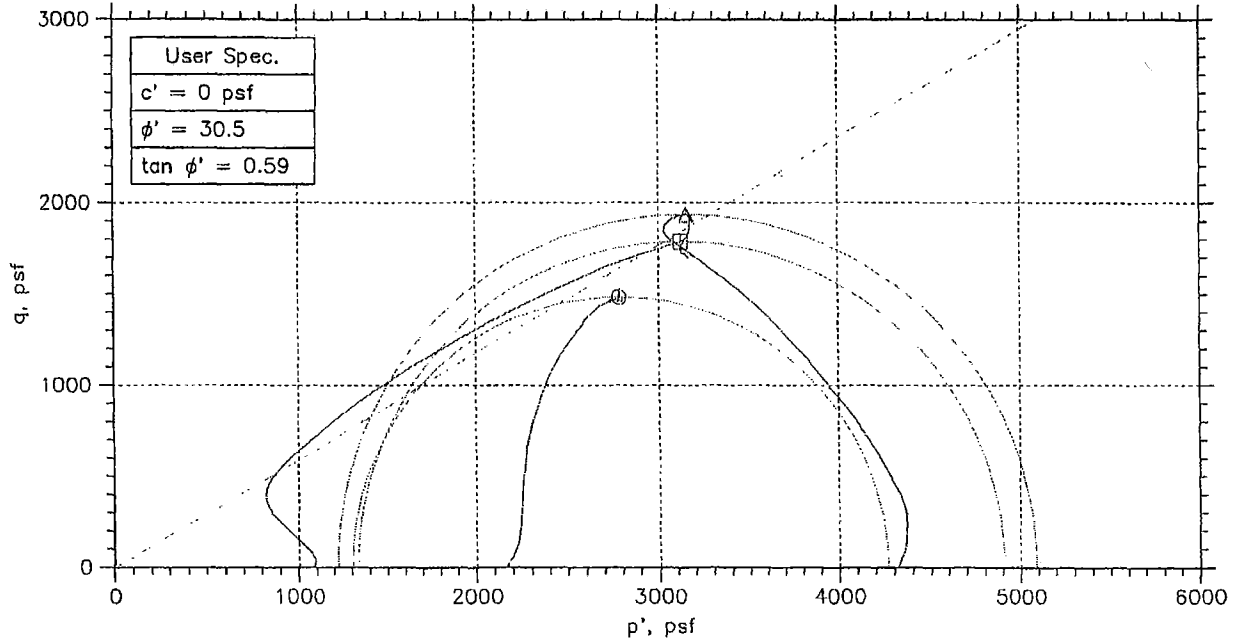
## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	UD-2	5366-1	18.5 ft.	HJ	10/13/06	JL		5366.1a_71.dat
△	UD-2	5366-2	18.5 ft.	HJ	10/13/06	JL	12/29/06	5366.2a.68.dat
□	UD-2	5366-3	18.5 ft.	HJ	10/13/06	JL		5366.3b_65.dat

	Project: SCE&G		Location: B-209		Project No.: 6234063534S	
	Boring No.: B-209		Sample Type: Shelby Tube			
	Description: Silty sand					
	Remarks:					

## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

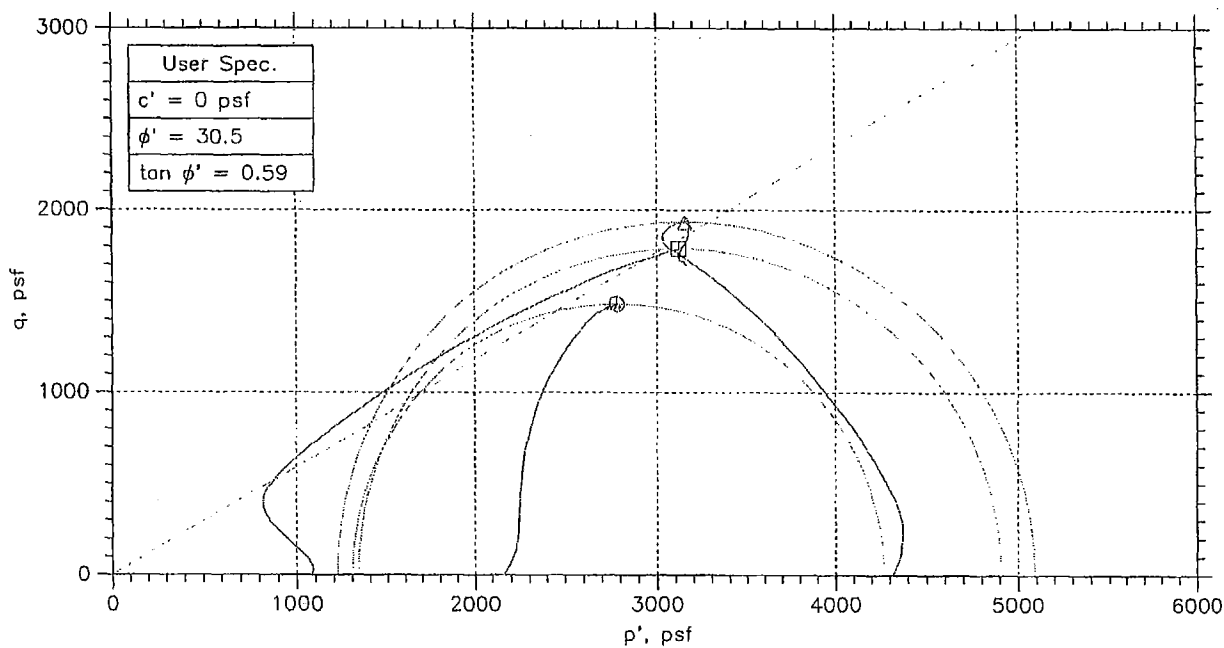
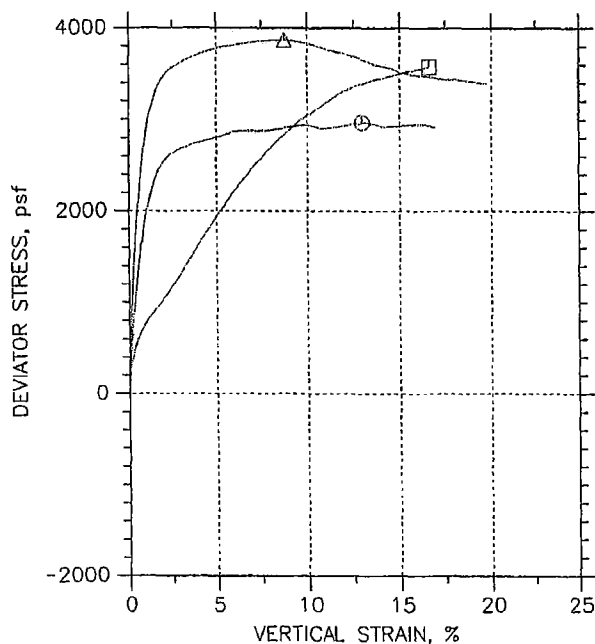
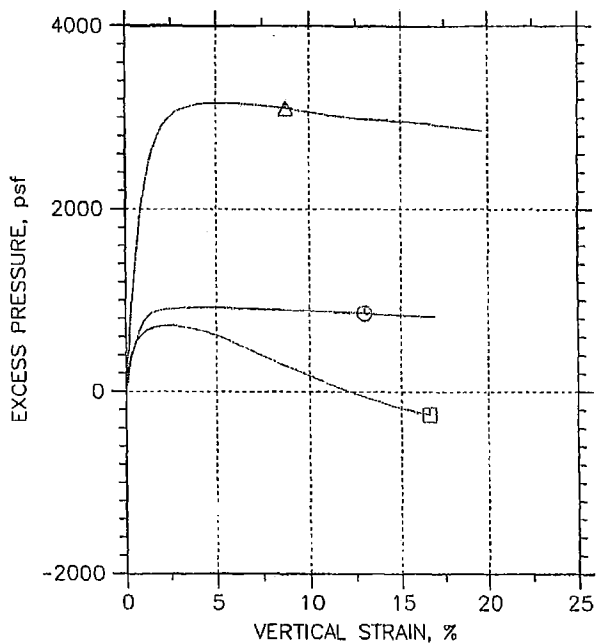


Symbol	○	△	□	
Sample No.	UD-2	UD-2	UD-2	
Test No.	5366.1	5366-2	5366-3	
Depth	18.5 ft.	18.5 ft.	18.5 ft.	
Initial	Diameter, in	2.855	2.86	2.76
	Height, in	6	6	5.6
	Water Content, %	56.9	45.5	43.7
	Dry Density, pcf	59.71	64.9	68.52
Before Shear	Saturation, %	82.7	75.5	79.2
	Void Ratio	1.93	1.67	1.53
	Water Content, %	56.0	60.6	54.6
	Dry Density, pcf	68.04	64.61	68.93
	Saturation*, %	100.0	100.0	100.0
	Void Ratio	1.57	1.69	1.52
	Back Press., psf	15120	15120	15120
	Ver. Eff. Cons. Stress, psf	2161	4320	5040
	Shear Strength, psf	1483	1934	1787
	Strain at Failure, %	13	8.77	16.6
	Strain Rate, %/min	0.1	0.1	0.1
	B-Value	0.83	0.93	0.94
	Estimated Specific Gravity	2.8	2.78	2.78
	Liquid Limit	55	55	55
	Plastic Limit	43	43	43

	Project: SCE&G		
	Location: B-209		
	Project No.: 6234063534S		
	Boring No.: B-209		
	Sample Type: Shelby Tube		
Description: Silty sand			
Remarks:	12/29/06		

\*Shear calculations based on start of test

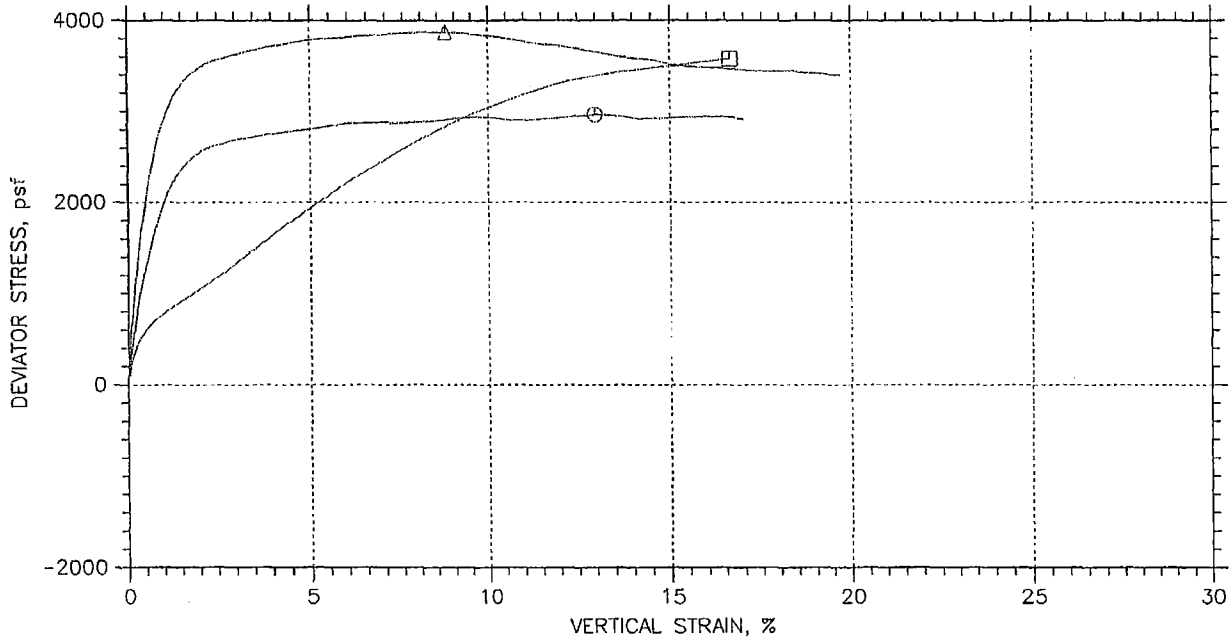
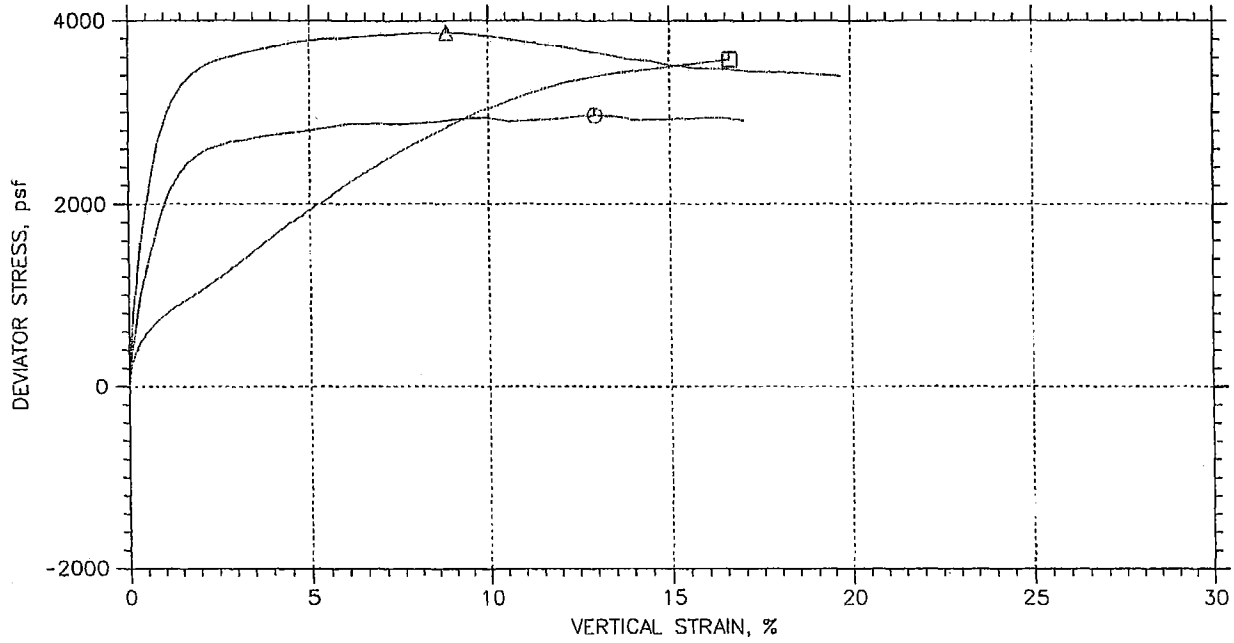
## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-2	5366.1	18.5 ft.	HJ	10/13/06	JL	5366.1a_71.dat
△	UD-2	5366-2	18.5 ft.	HJ	10/13/06	JL	5366.2a.68.dat
□	UD-2	5366-3	18.5 ft.	HJ	10/13/06	JL	5366.3b_65.dat

	Project: SCE&G		Location: B-209		Project No.: 6234063534S	
	Boring No.: B-209		Sample Type: Shelby Tube			
	Description: Silty sand					
	Remarks:					

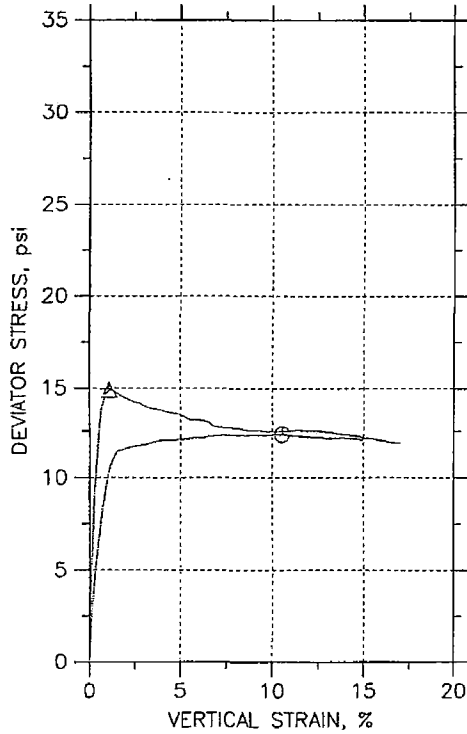
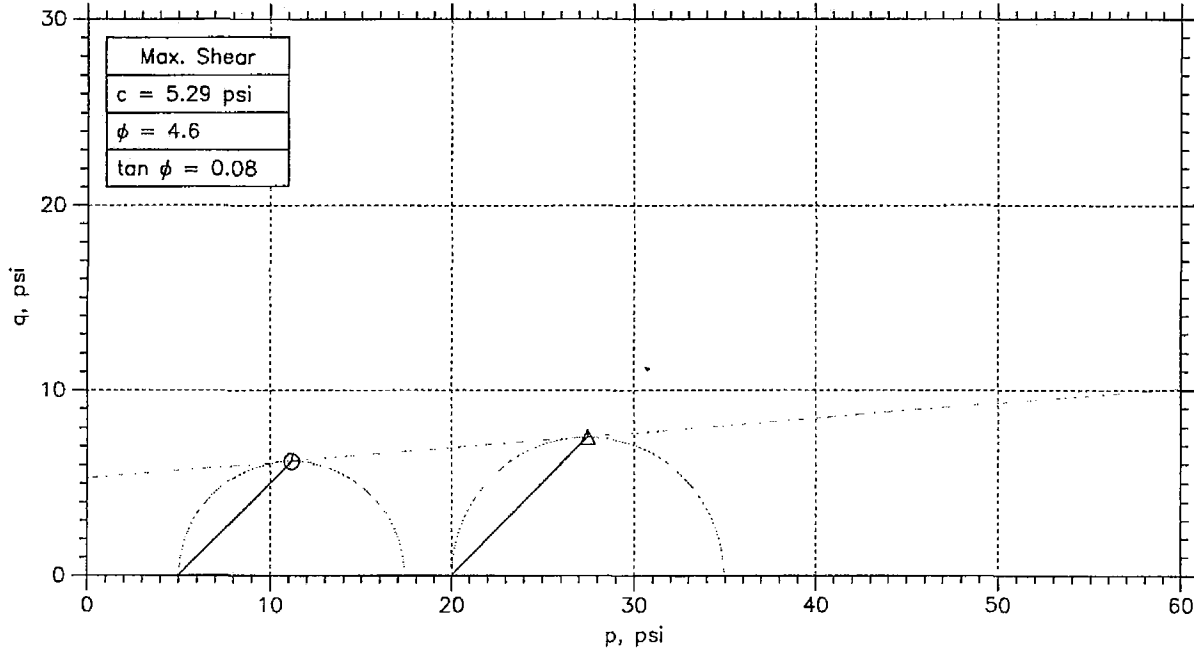
## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	UD-2	5366.1	18.5 ft.	HJ	10/13/06	JL		5366.1a_71.dat
△	UD-2	5366-2	18.5 ft.	HJ	10/13/06	JL	10/29/06	5366.2a.68.dat
⊠	UD-2	5366-3	18.5 ft.	HJ	10/13/06	JL		5366.3b_65.dat

	Project: SCE&G		Location: B-209		Project No.: 6234063534S	
	Boring No.: B-209		Sample Type: Shelby Tube			
	Description: Silty sand					
	Remarks:					

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	⊙	△		
Sample No.	UD-1	UD-1		
Test No.	5377.3	5377.3		
Depth	6.5 ft.	6.5 ft.		
Initial	Diameter, in	2.858	2.854	
	Height, in	6	6	
	Water Content, %	35.8	35.8	
	Dry Density, pcf	64.72	63.38	
	Saturation, %	59.2	57.2	
Before Shear	Void Ratio	1.68	1.74	
	Water Content, %	57.9	61.0	
	Dry Density, pcf	66.48	64.38	
	Saturation*, %	100.0	100.0	
	Void Ratio	1.61	1.7	
	Back Press., psi	106.	110.	
Ver. Eff. Cons. Stress, psi	4.992	20.		
Shear Strength, psi	6.167	7.471		
Strain at Failure, %	10.5	1.1		
Strain Rate, %/min	0.083	0.1		
B-Value	0.95	0.90		
Estimated Specific Gravity	2.78	2.78		
Liquid Limit	NP	NP		
Plastic Limit	NP	NP		

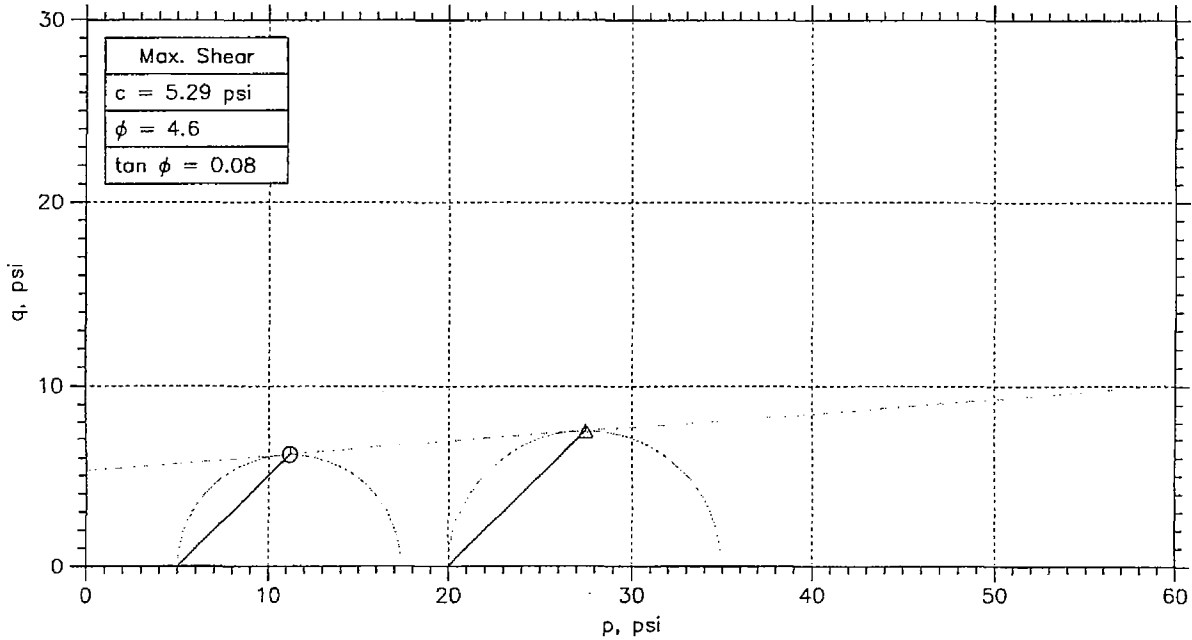
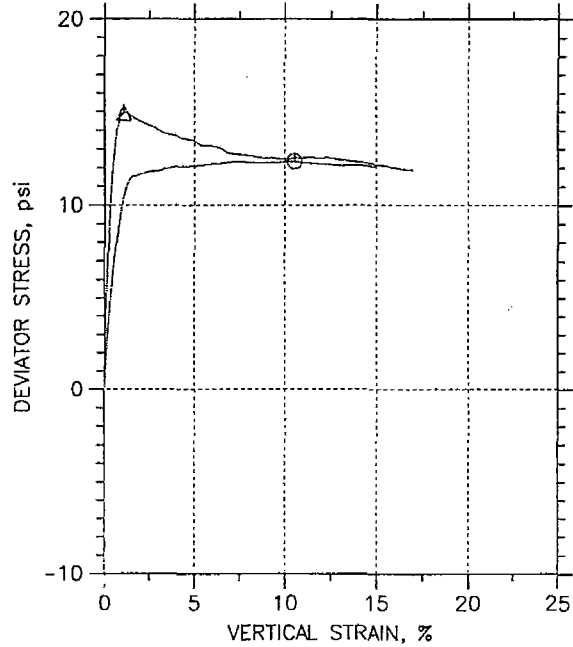
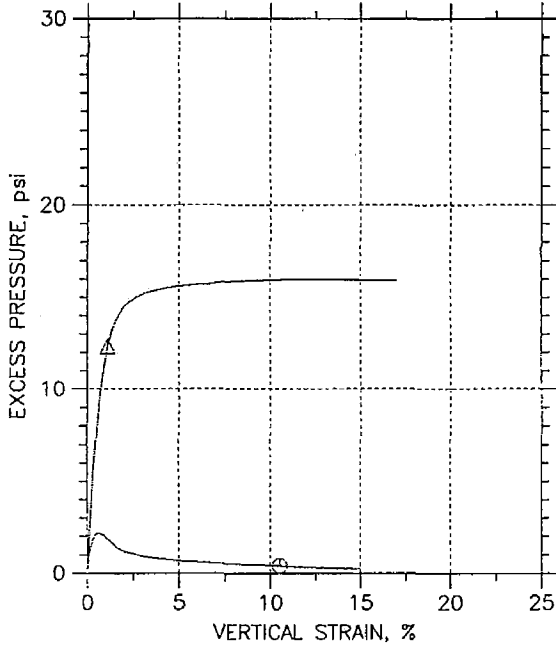
Project: SCE&G COL	
Location: B-216	
Project No.: 6234063534	
Boring No.: B-216	
Sample Type: Shelby Tube	
Description: Silt	
Remarks:	

Phase calculations based on start and end of test.

\* Saturation is set to 100% for phase calculations.



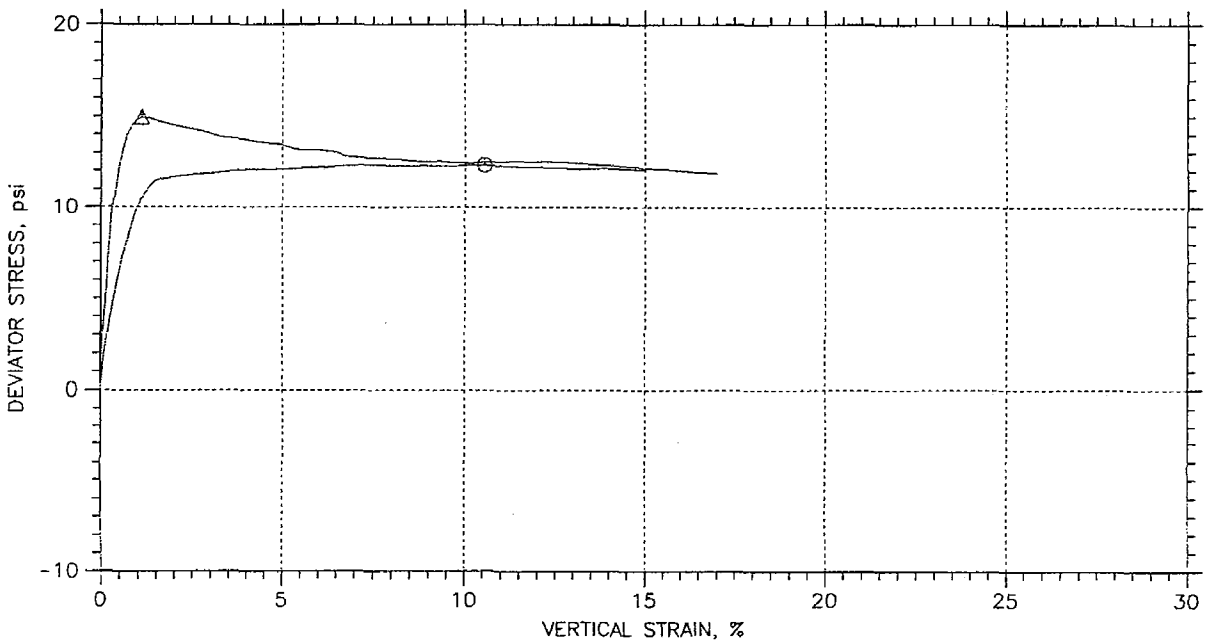
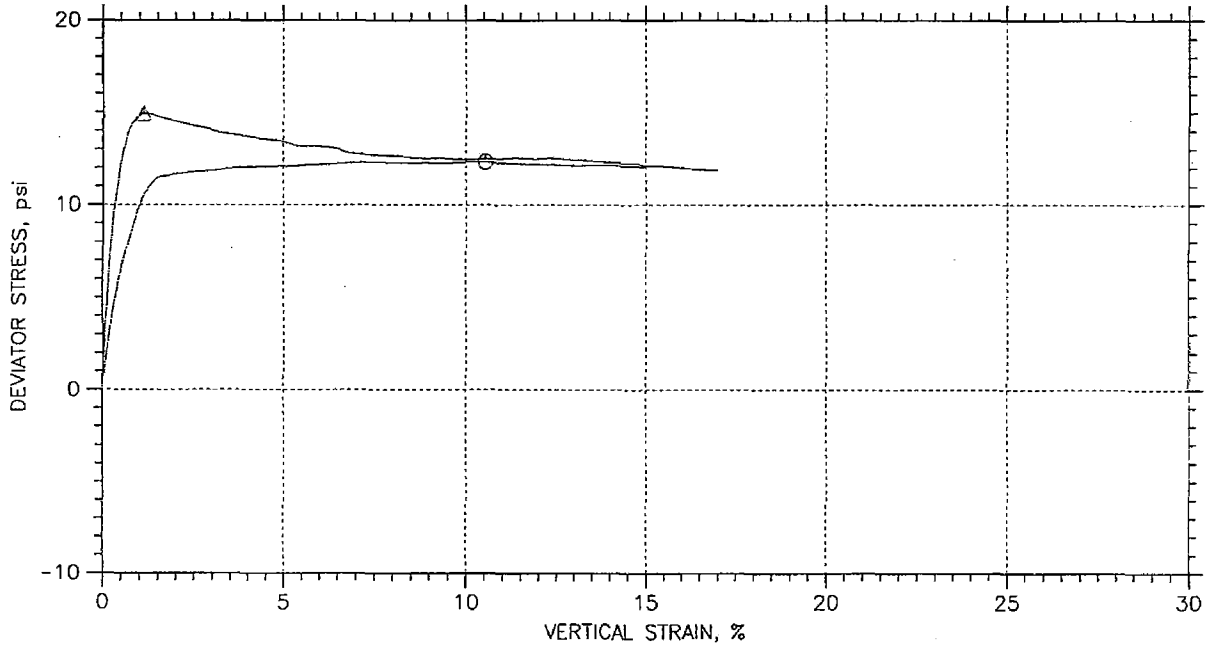
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-1	5377.3	HJ	11/7/06	JL <i>[Signature]</i>	11/24/06	5377.1_65.dot
△	UD-1	5377.3	HJ	11/9/06	JL <i>[Signature]</i>	11/24/06	5377.3_68.dot

Project: SCE&G COL	Location: B-216	Project No.: 6234063534
Boring No.: B-216	Sample Type: Shelby Tube	
Description: Silt		
Remarks:		

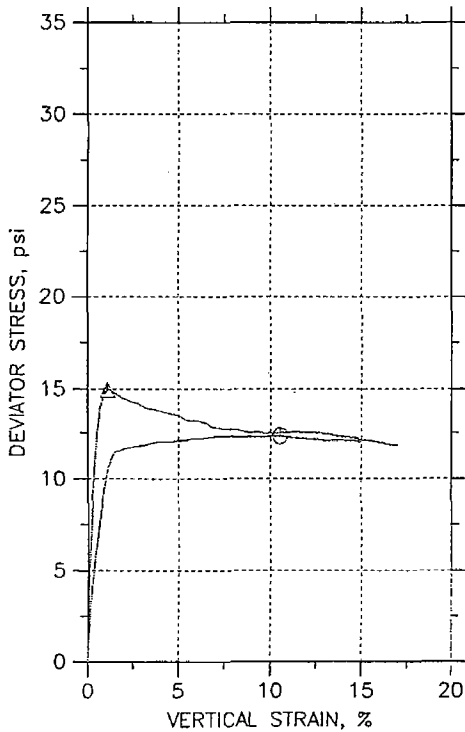
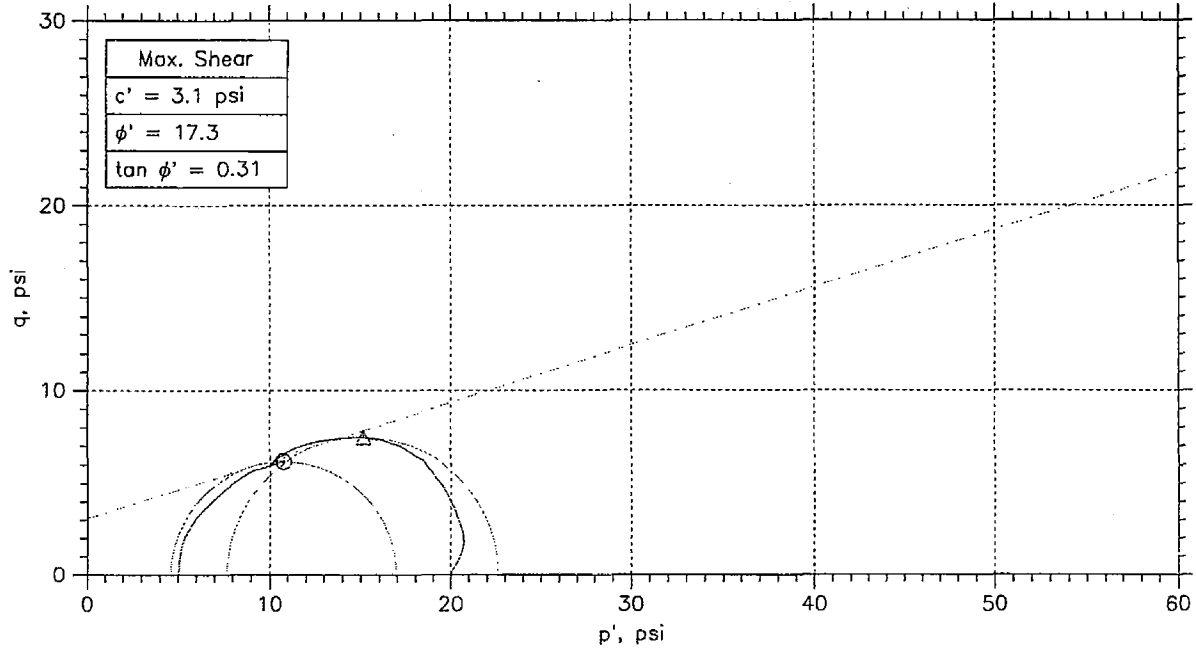
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-1	5377.3	6.5 ft.	HJ	11/7/06	JL	11/24/06	5377.1_65.dat
△	UD-1	5377.3	6.5 ft.	HJ	11/9/06	JL	11/24/06	5377.3_68.dat

	Project: SCE&G COL		Location: B-216		Project No.: 6234063534	
	Boring No.: B-216		Sample Type: Shelby Tube			
	Description: Silt					
	Remarks:					

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



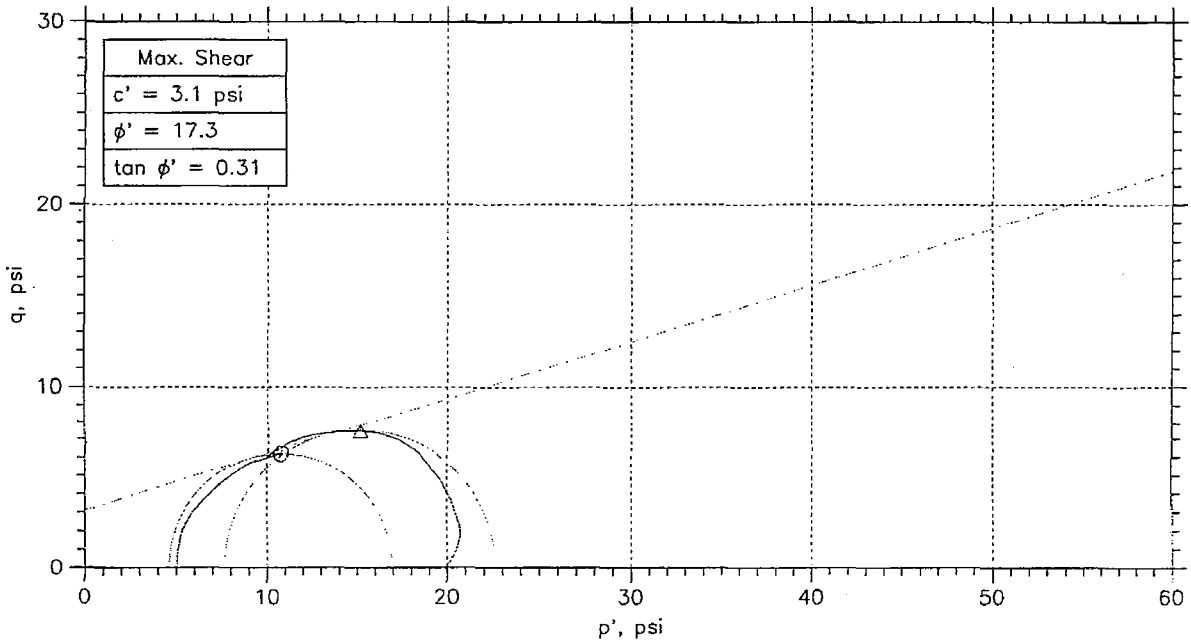
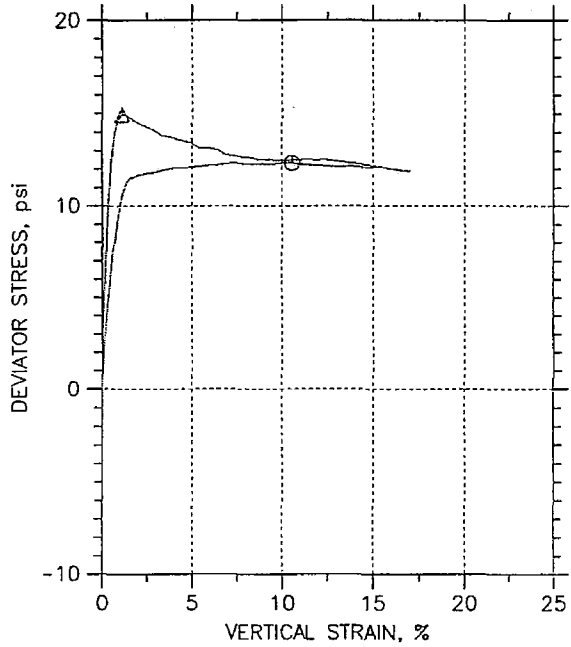
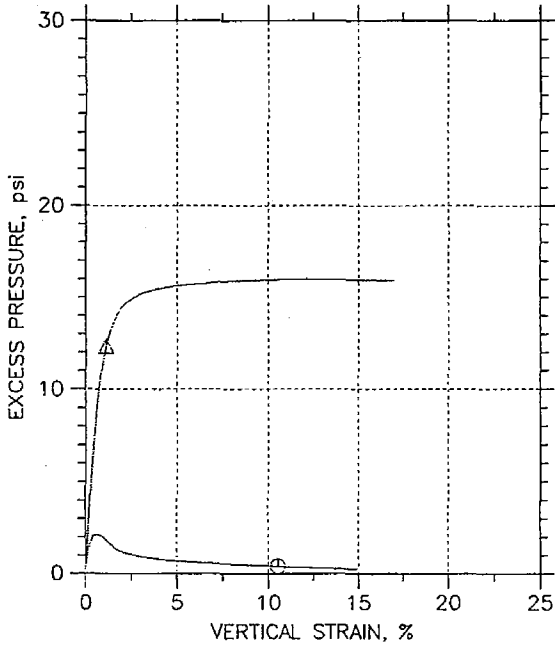
Symbol	⊙	△		
Sample No.	UD-1	UD-1		
Test No.	5377.3	5377.3		
Depth	6.5 ft.	6.5 ft.		
Initial	Diameter, in	2.858	2.854	
	Height, in	6	6	
	Water Content, %	35.8	35.8	
	Dry Density, pcf	64.72	63.38	
	Saturation, %	59.2	57.2	
Before Shear	Void Ratio	1.68	1.74	
	Water Content, %	57.9	61.0	
	Dry Density, pcf	66.48	64.38	
	Saturation*, %	100.0	100.0	
	Void Ratio	1.61	1.7	
	Back Press., psi	106.	110.	
Ver. Eff. Cons. Stress, psi	4.992	20.		
Shear Strength, psi	6.167	7.471		
Strain at Failure, %	10.5	1.1		
Strain Rate, %/min	0.083	0.1		
B-Value	0.95	0.90		
Estimated Specific Gravity	2.78	2.78		
Liquid Limit	NP	NP		
Plastic Limit	NP	NP		

Project: SCE&G COL	
Location: B-216	
Project No.: 6234063534	
Boring No.: B-216	
Sample Type: Shelby Tube	
Description: Silt	
Remarks:	

Phase calculations based on start and end of test.

\* Saturation is set to 100% for phase calculations.

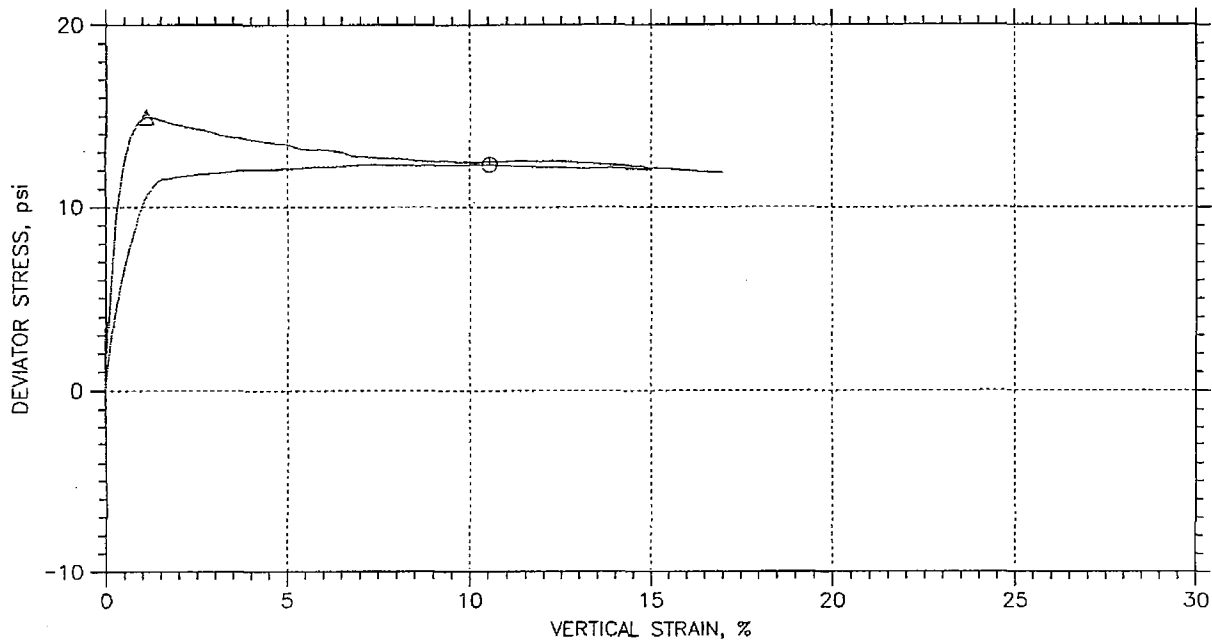
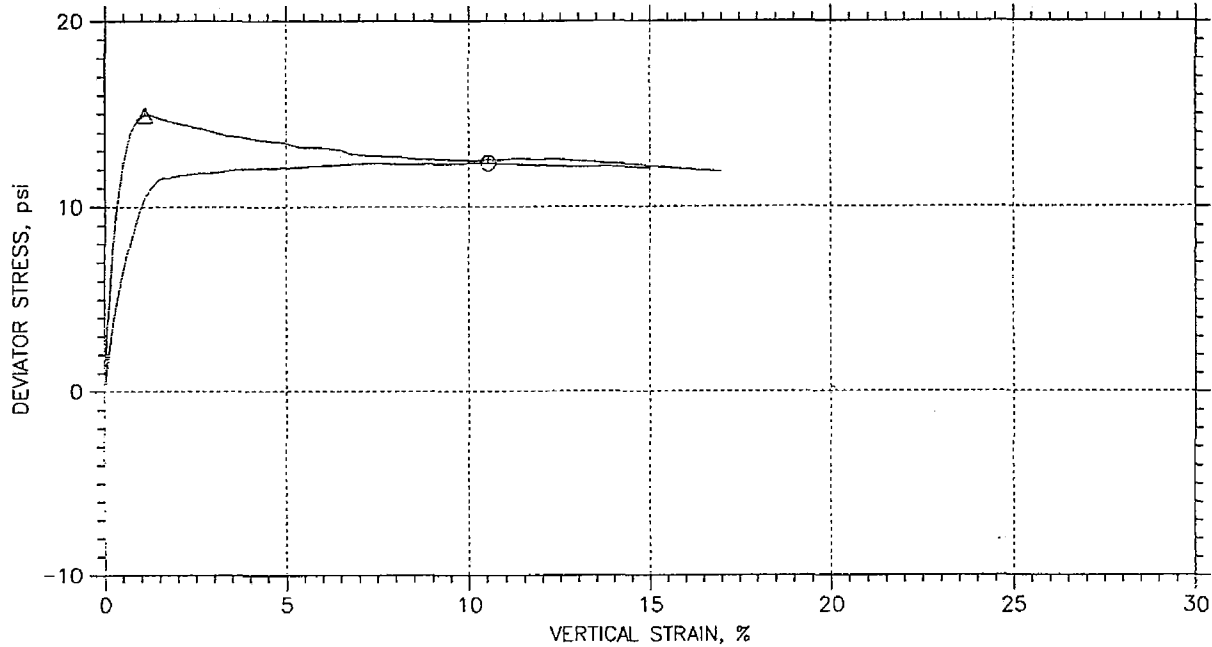
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	UD-1	5377.3	HJ	11/7/06	JL	11/24/06	5377.1_65.dat
△	UD-1	5377.3	HJ	11/9/06	JL	11/24/06	5377.3_68.dat

Project: SCE&G COL	Location: B-216	Project No.: 6234063534
Boring No.: B-216	Sample Type: Shelby Tube	
Description: Silt		
Remarks:		

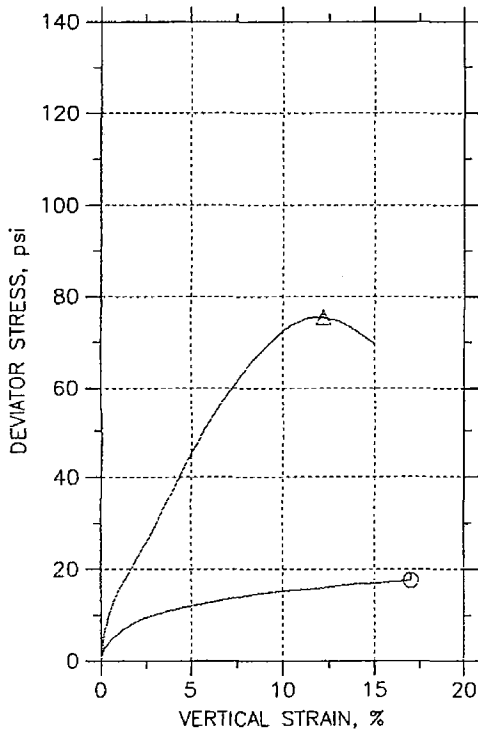
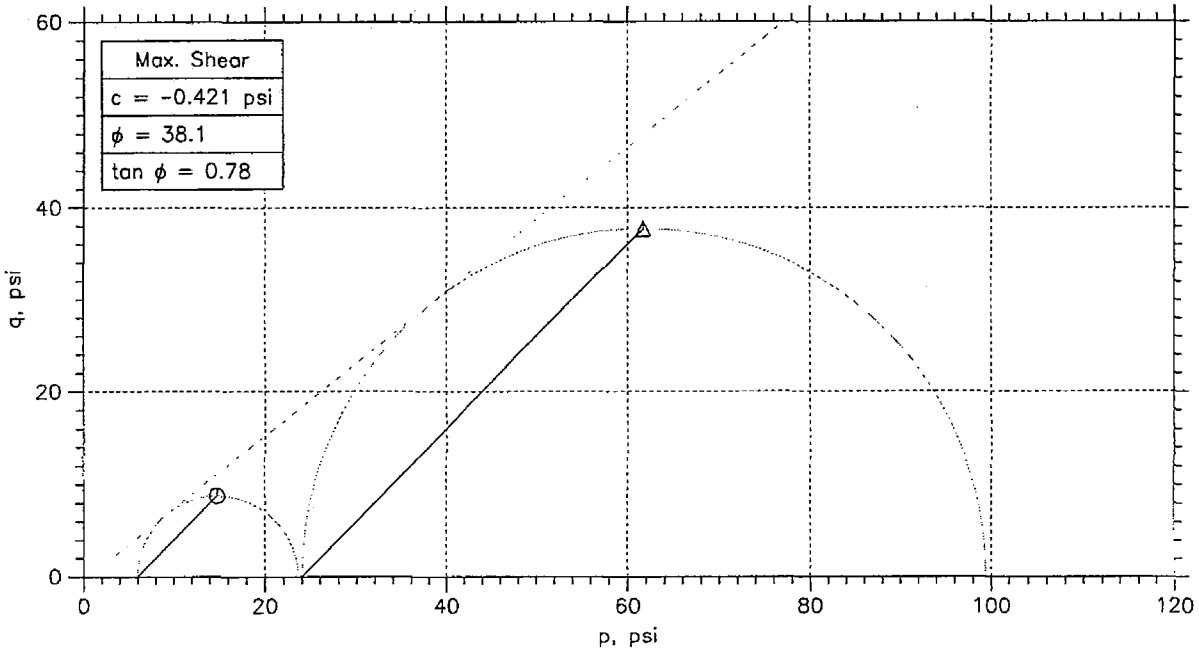
## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	UD-1	5377.3	HJ	11/7/06	JL <i>[Signature]</i>	11/24/06	5377.1_65.dot
Δ	UD-1	5377.3	HJ	11/9/06	JL <i>[Signature]</i>	11/24/06	5377.3_68.dot

Project: SCE&G COL	Location: B-216	Project No.: 6234063534
Boring No.: B-216	Sample Type: Shelby Tube	
Description: Silt		
Remarks:		

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



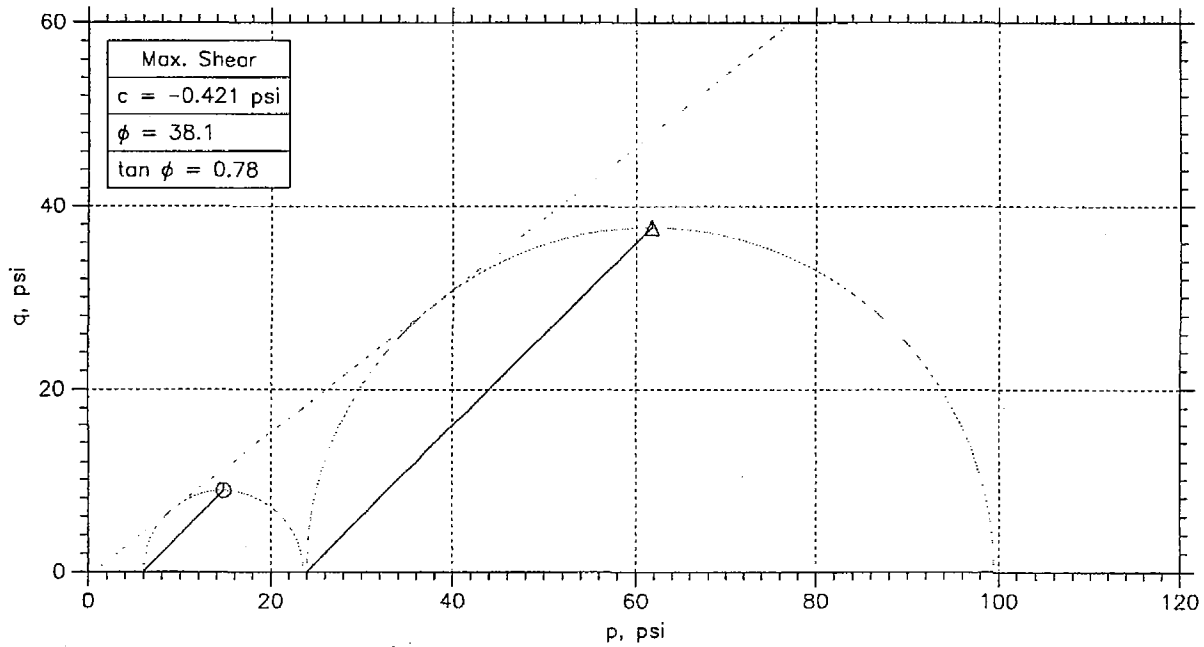
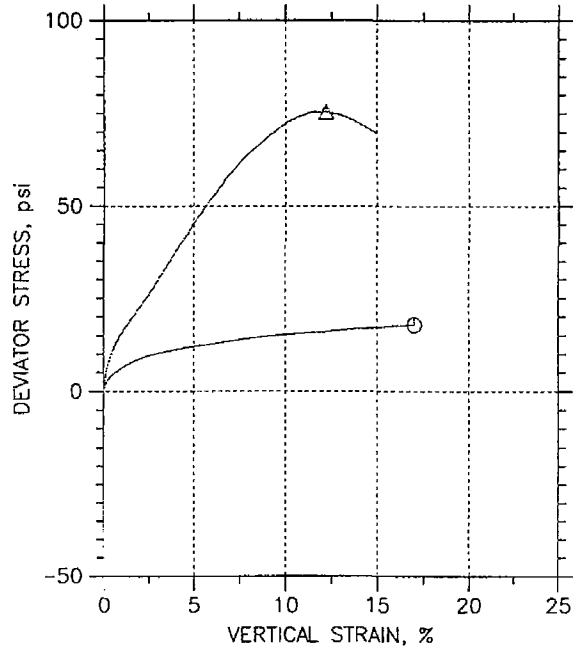
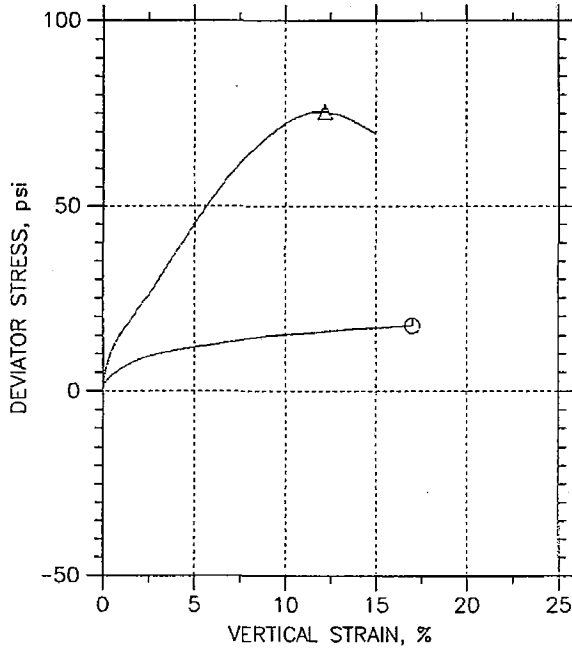
Symbol	⊙	△		
Sample No.	UD-2	UD-2		
Test No.	5378.3	5378.3		
Depth	13.5 ft.	13.5 ft.		
Initial	Diameter, in	2.739	2.783	
	Height, in	5.6	5.6	
	Water Content, %	37.6	27.6	
	Dry Density, pcf	74.62	87.76	
	Saturation, %	78.9	78.6	
Before Shear	Void Ratio	1.33	0.978	
	Water Content, %	50.4	38.3	
	Dry Density, pcf	72.24	84.07	
	Saturation*, %	100.0	100.0	
	Void Ratio	1.4	1.06	
	Back Press., psi	110.	106.	
	Ver. Eff. Cons. Stress, psi	6.006	24.	
	Shear Strength, psi	8.791	37.71	
	Strain at Failure, %	17	12.2	
	Strain Rate, %/min	0.1	0.083	
	B-Value	0.96	0.93	
	Estimated Specific Gravity	2.78	2.78	
	Liquid Limit	NP	NP	
	Plastic Limit	NP	NP	

Project: SCE&G COL	
Location: B-216	
Project No.: 6234063534S	
Boring No.: B-216	
Sample Type: Shelby Tube	
Description: Silt with sand	
Remarks:	

Phase calculations based on start and end of test.

\* Saturation is set to 100% for phase calculations.

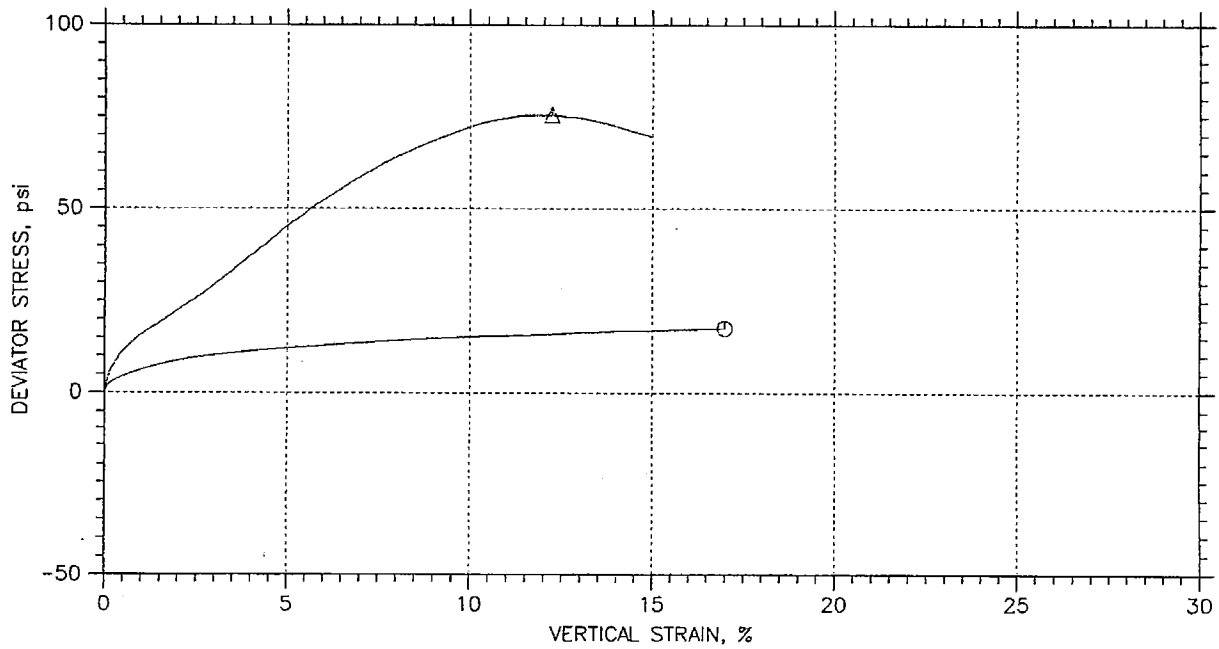
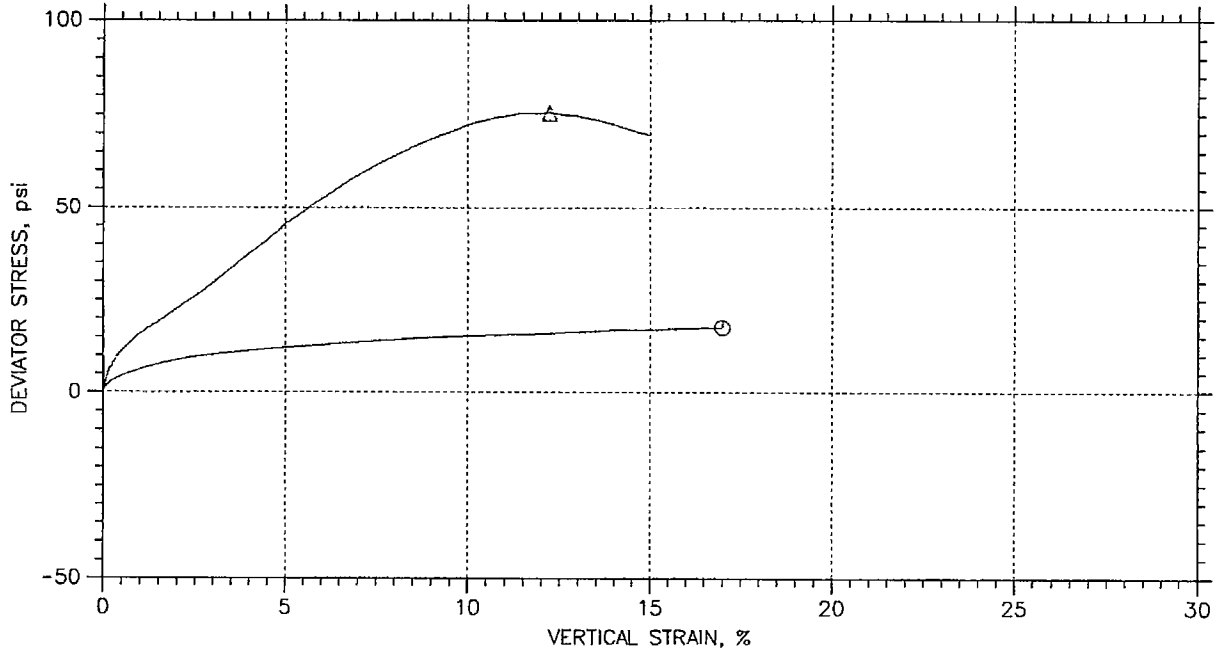
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-2	5378.3	HJ	11/5/06	JL <i>[Signature]</i>	11/24/06	5378.1_71.dat
△	UD-2	5378.3	HJ	11/7/06	JL <i>[Signature]</i>	11/24/06	5378.3_65.dat

Project: SCE&G COL	Location: B-216	Project No.: 6234063534S
Boring No.: B-216	Sample Type: Shelby Tube	
Description: Silt with sand		
Remarks:		

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

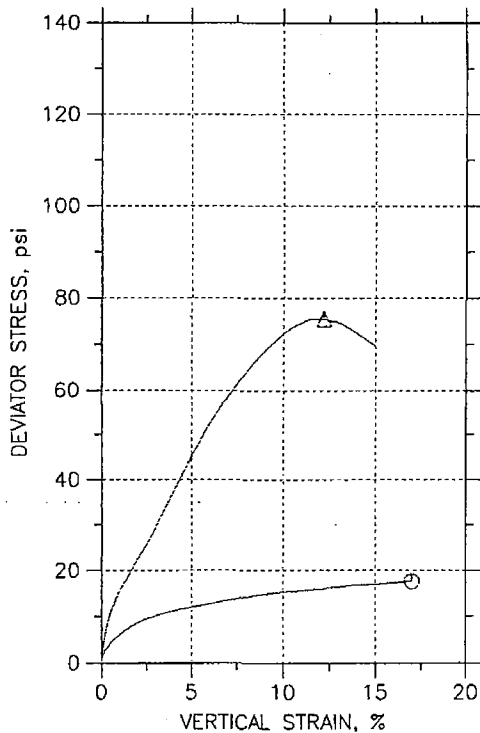
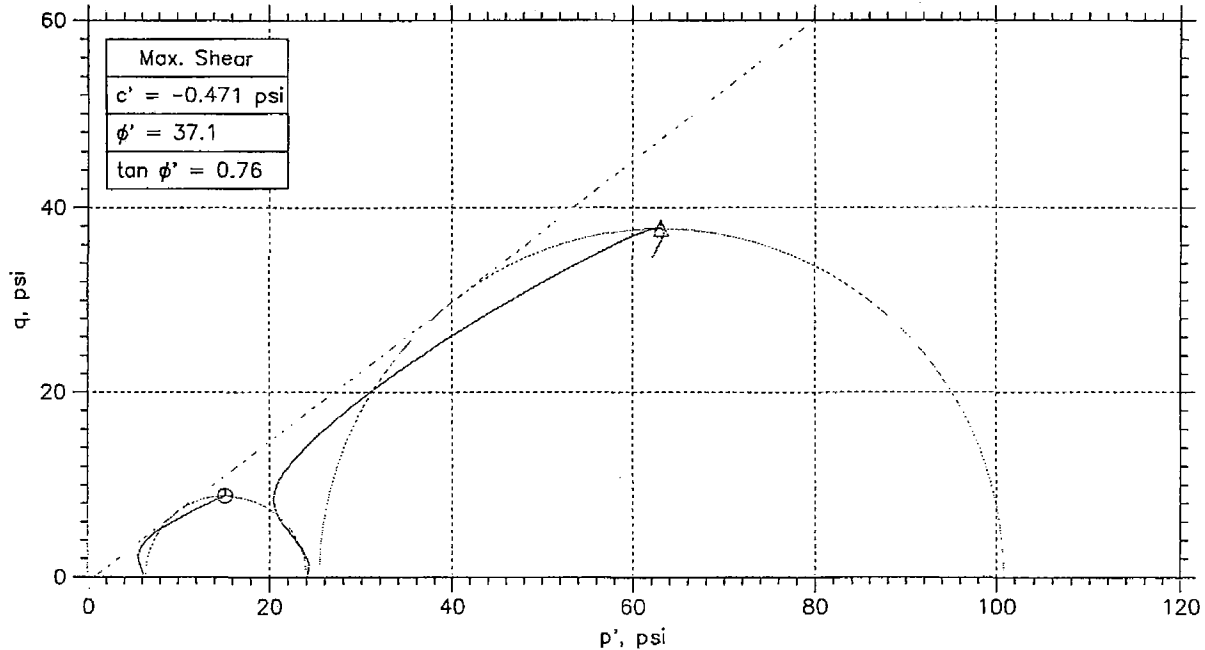


	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-2	5378.3	13.5 ft.	HJ	11/5/06	JL	11/24/06	5378.1_71.dat
△	UD-2	5378.3	13.5 ft.	HJ	11/7/06	JL	11/24/06	5378.3_65.dat

	Project: SCE&G COL		Location: B-216		Project No.: 6234063534S	
	Boring No.: B-216		Sample Type: Shelby Tube			
	Description: Silt with sand					
	Remarks:					



# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



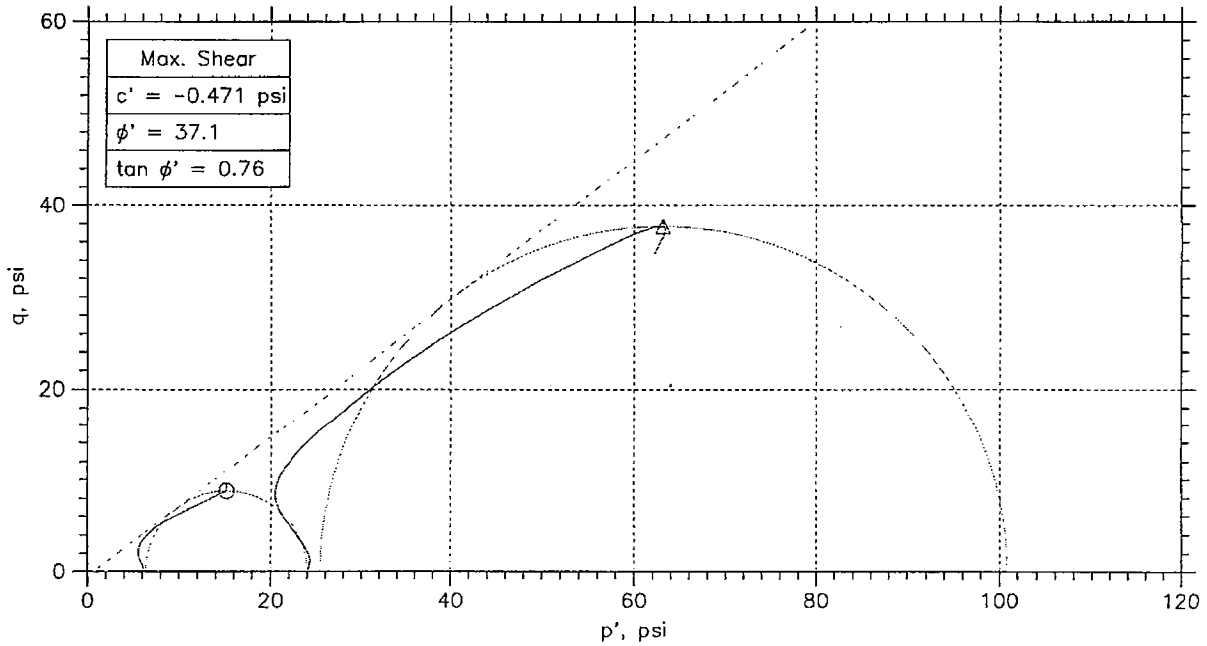
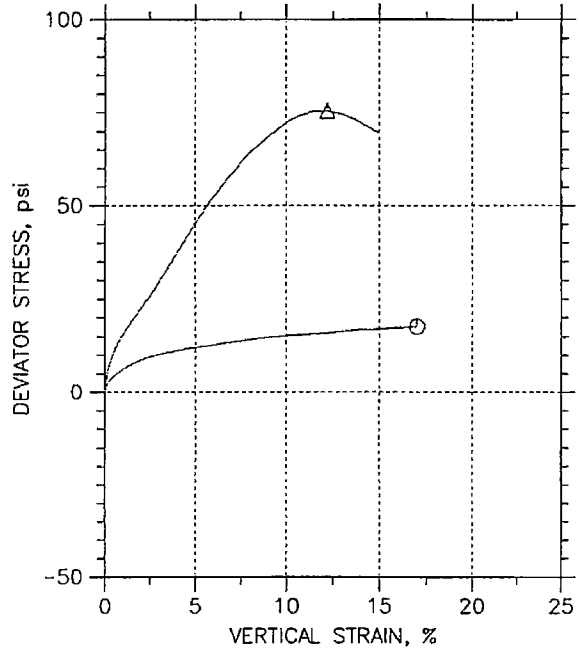
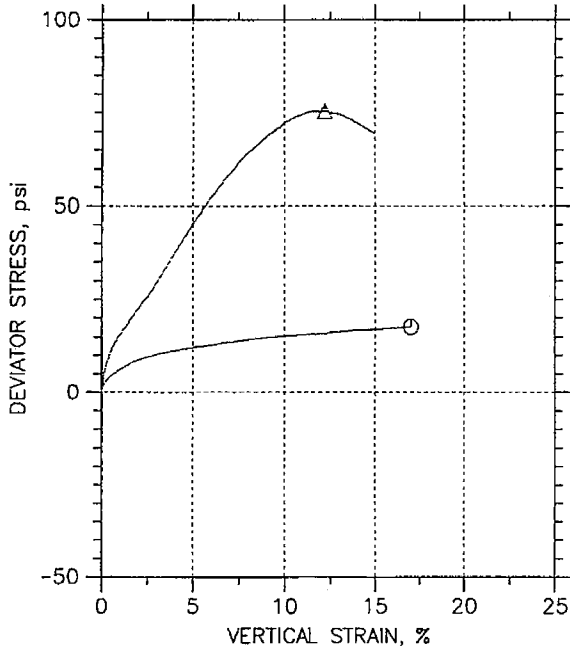
Symbol	⊙	△		
Sample No.	UD-2	UD-2		
Test No.	5378.3	5378.3		
Depth	13.5 ft.	13.5 ft.		
Initial	Diameter, in	2.739	2.783	
	Height, in	5.6	5.6	
	Water Content, %	37.6	27.6	
	Dry Density, pcf	74.62	87.76	
	Saturation, %	78.9	78.6	
Before Shear	Void Ratio	1.33	0.978	
	Water Content, %	50.4	38.3	
	Dry Density, pcf	72.24	84.07	
	Saturation*, %	100.0	100.0	
	Void Ratio	1.4	1.06	
	Back Press., psi	110.	106.	
Ver. Eff. Cons. Stress, psi	6.006	24.		
Shear Strength, psi	8.791	37.71		
Strain at Failure, %	17	12.2		
Strain Rate, %/min	0.1	0.083		
B-Value	0.96	0.93		
Estimated Specific Gravity	2.78	2.78		
Liquid Limit	NP	NP		
Plastic Limit	NP	NP		

Project: SCE&G COL	
Location: B-216	
Project No.: 6234063534S	
Boring No.: B-216	
Sample Type: Shelby Tube	
Description: Silt with sand	
Remarks:	

Phase calculations based on start and end of test.

\* Saturation is set to 100% for phase calculations.

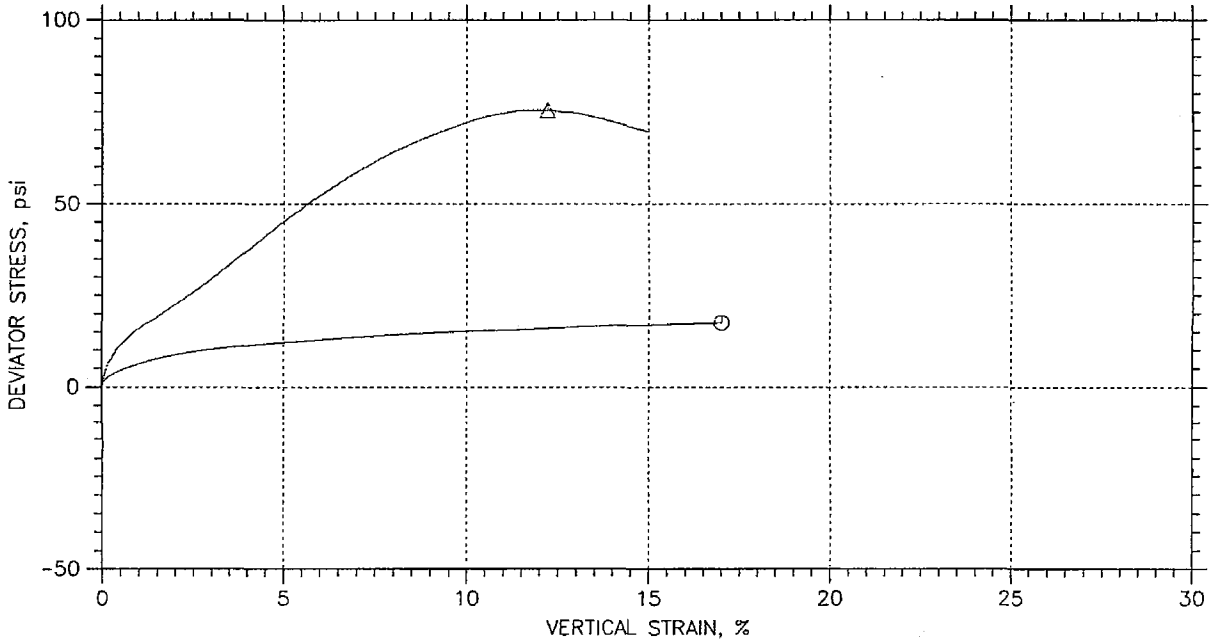
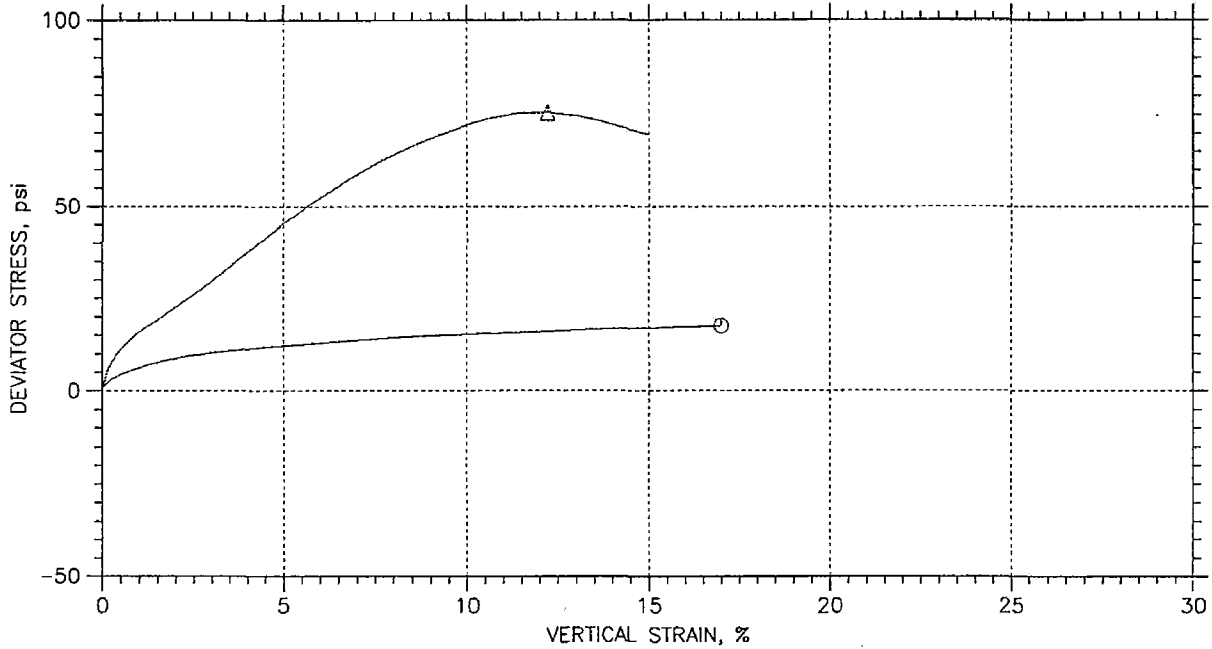
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-2	5378.3	13.5 ft.	HJ	11/5/06	JL	11/24/06	5378.1_71.dat
△	UD-2	5378.3	13.5 ft.	HJ	11/7/06	JL	11/24/06	5378.3_65.dat

Project: SCE&G COL		Location: B-216		Project No.: 6234063534S	
Boring No.: B-216		Sample Type: Shelby Tube			
Description: Silt with sand					
Remarks:					

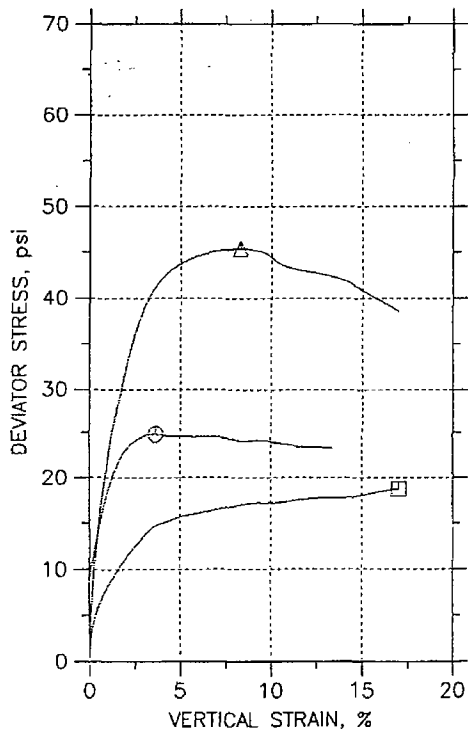
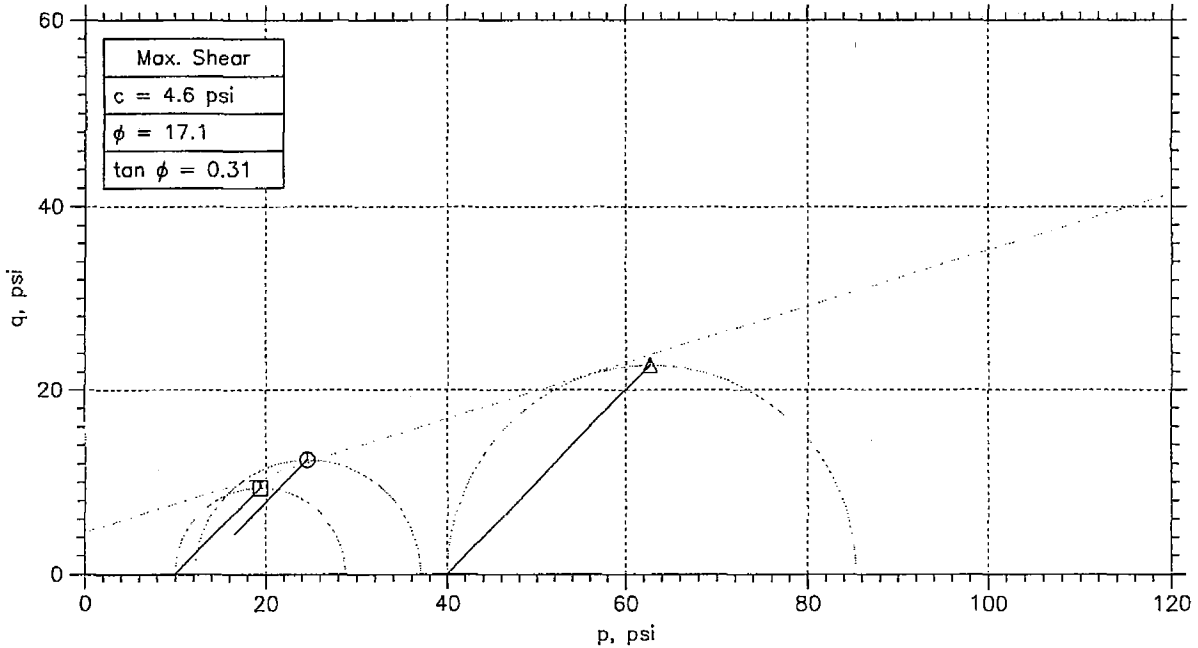
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-2	5378.3	13.5 ft.	HJ	11/5/06	JL	11/24/06	5378.1_71.dat
△	UD-2	5378.3	13.5 ft.	HJ	11/7/06	JL	11/24/06	5378.3_65.dat

	Project: SCE&G COL		Location: B-216		Project No.: 6234063534S	
	Boring No.: B-216		Sample Type: Shelby Tube			
	Description: Silt with sand					
	Remarks:					

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	⊙	△	□	
Sample No.	UD-3	UD-3	UD-3	
Test No.	5379.1	5379.2	5379.3	
Depth	23.5 ft.	23.5 ft.	23.5 ft.	
Initial	Diameter, in	2.865	2.87	2.66
	Height, in	6	6	6
	Water Content, %	35.0	35.4	35.8
	Dry Density, pcf	72.86	80.86	90.94
	Saturation, %	69.1	84.0	103.1
Before Shear	Void Ratio	1.44	1.2	1.03
	Water Content, %	57.2	41.9	62.1
	Dry Density, pcf	67.64	81.05	65.04
	Saturation*, %	100.0	100.0	100.0
	Void Ratio	1.63	1.2	1.83
	Back Press., psi	88.02	110.	83.99
	Ver. Eff. Cons. Stress, psi	19.96	40.	9.991
	Shear Strength, psi	12.41	22.68	9.377
	Strain at Failure, %	3.66	8.31	17
	Strain Rate, %/min	0.083	0.1	0.1
	B-Value	0.96	0.95	0.95
	Estimated Specific Gravity	2.85	2.85	2.95
	Liquid Limit	NP	0	NP
	Plastic Limit	NP	0	NP

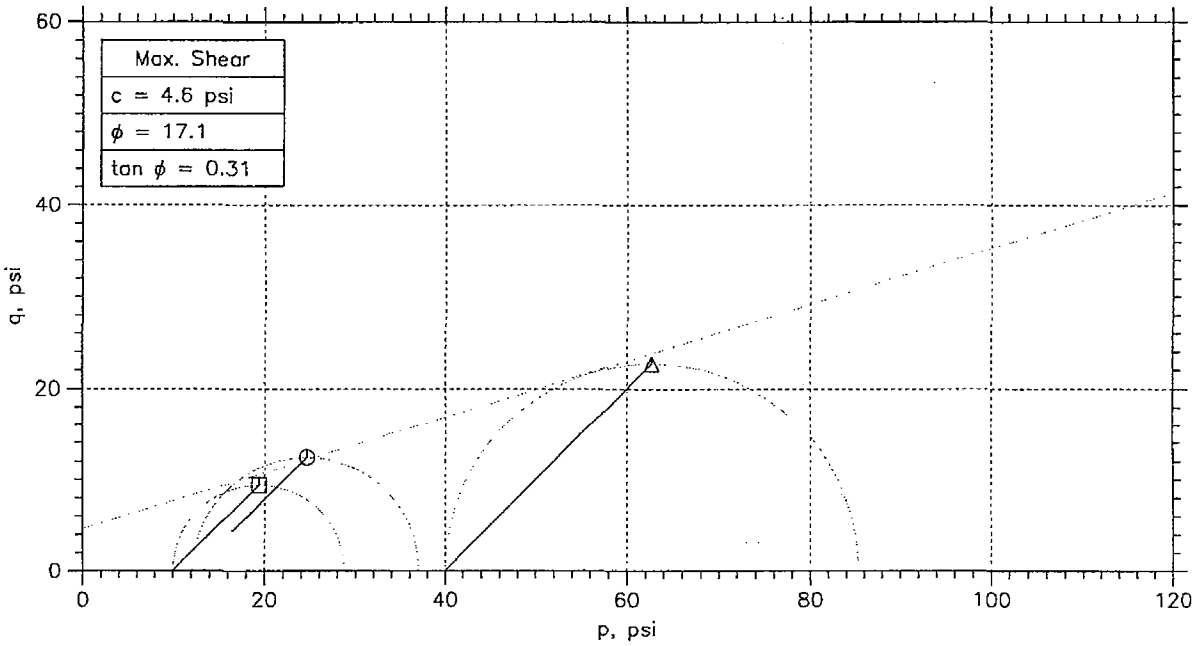
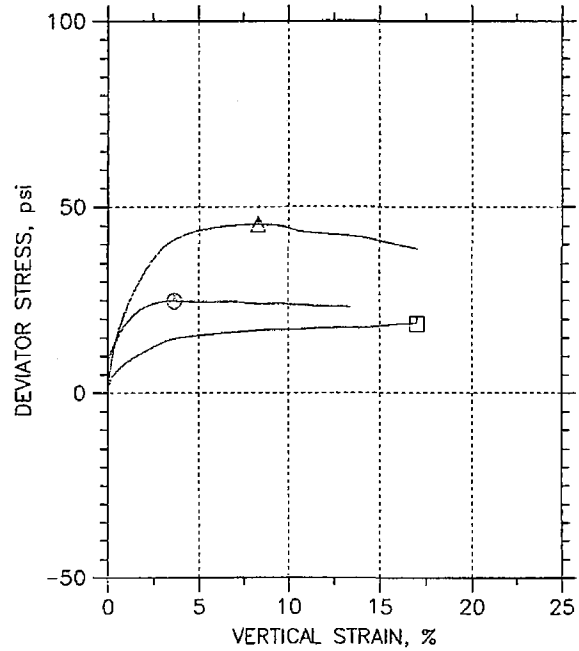
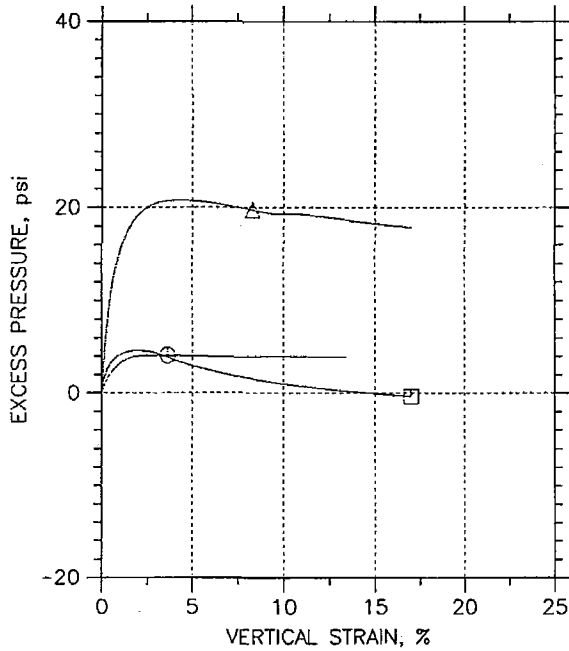
Project: SCE&G COL	
Location: B-216	
Project No.: 6234063534	
Boring No.: B-216	
Sample Type: Shelby Tube	
Description: Silt with sand	
Remarks:	

Phase calculations based on start and end of test.

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\* Saturation is set to 100% for phase calculations.

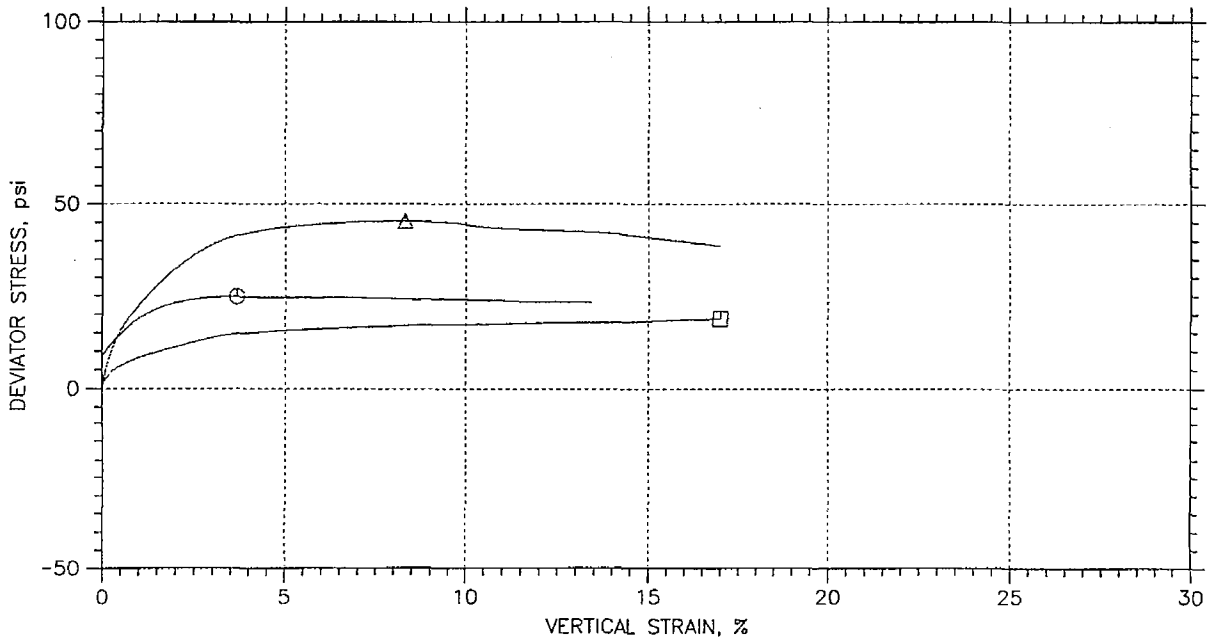
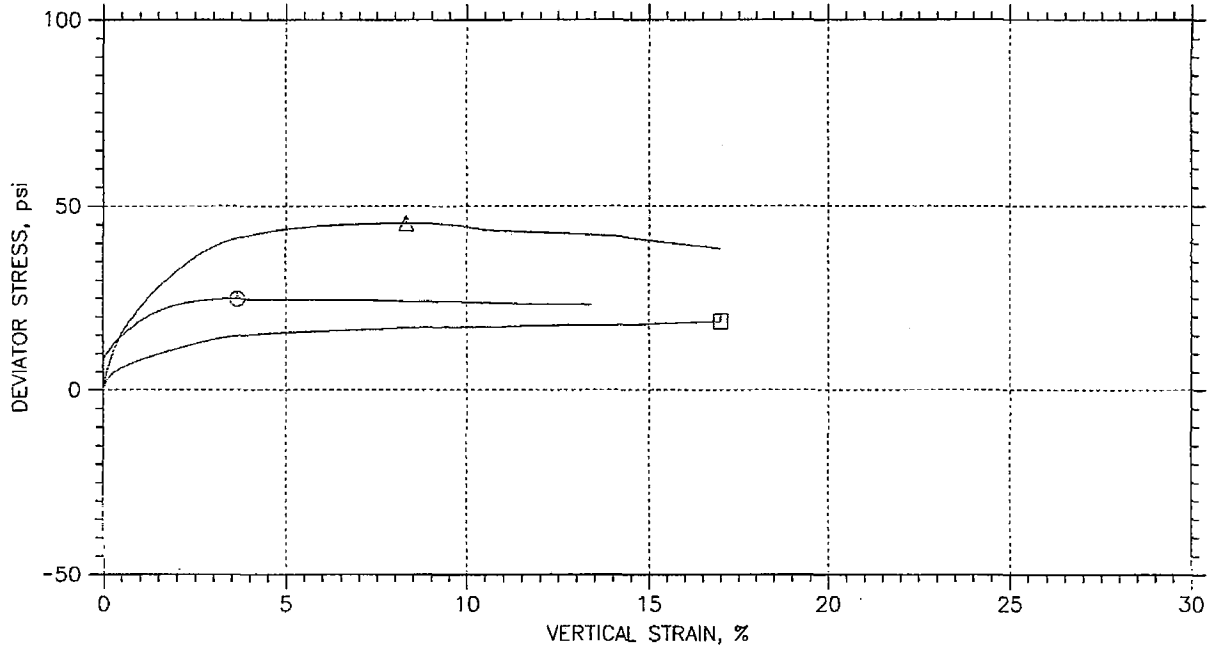
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-3	5379.1	HJ	11/10/06	JL	11/24/06	5379.1a_65.dat
△	UD-3	5379.2	HJ	11/10/06	JL	11/24/06	5379.2_68.dat
□	UD-3	5379.3	HJ	11/10/06	JL	11/24/06	5379.3_71.dat

Project: SCE&G COL		Location: B-216		Project No.: 6234063534	
Boring No.: B-216		Sample Type: Shelby Tube			
Description: Silt with sand					
Remarks:					

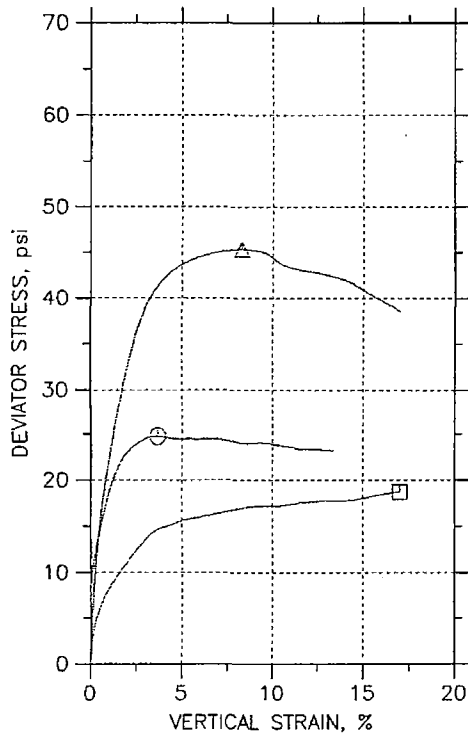
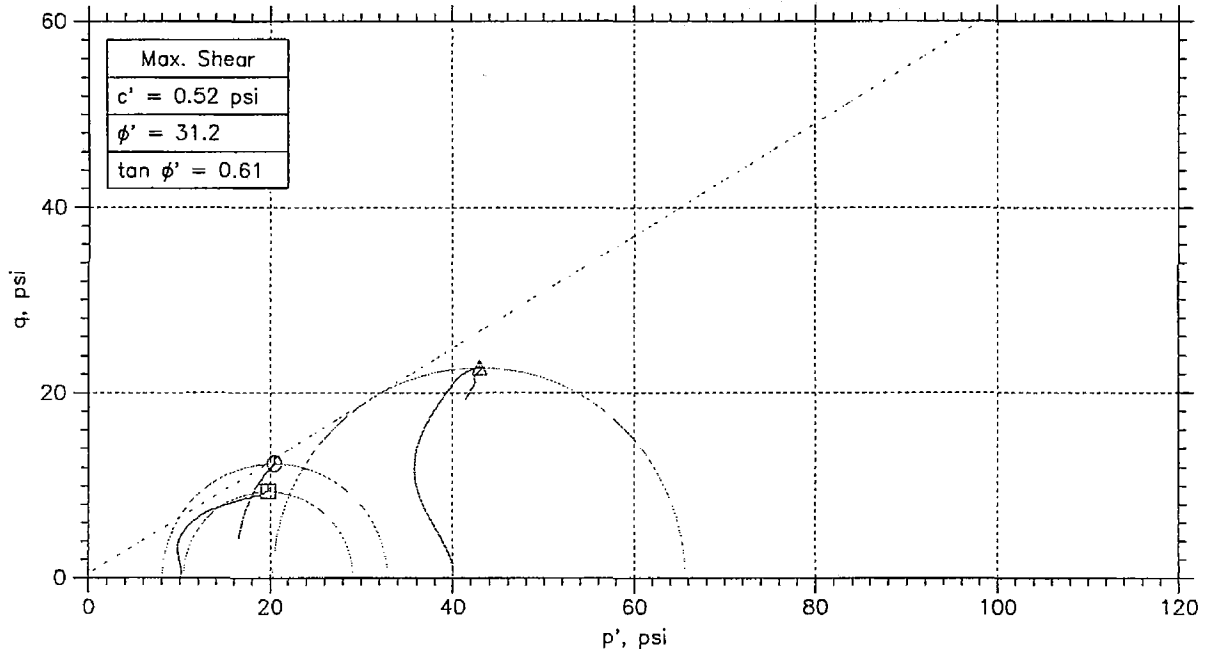
## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-3	5379.1	23.5 ft.	HJ	11/10/06	JL	11/24/06	5379.1a_65.dat
△	UD-3	5379.2	23.5 ft.	HJ	11/10/06	JL	↓	5379.2_68.dat
□	UD-3	5379.3	23.5 ft.	HJ	11/10/06	JL	↓	5379.3_71.dat

Project: SCE&G COL		Location: B-216		Project No.: 6234063534	
Boring No.: B-216		Sample Type: Shelby Tube			
Description: Silt with sand					
Remarks:					

## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



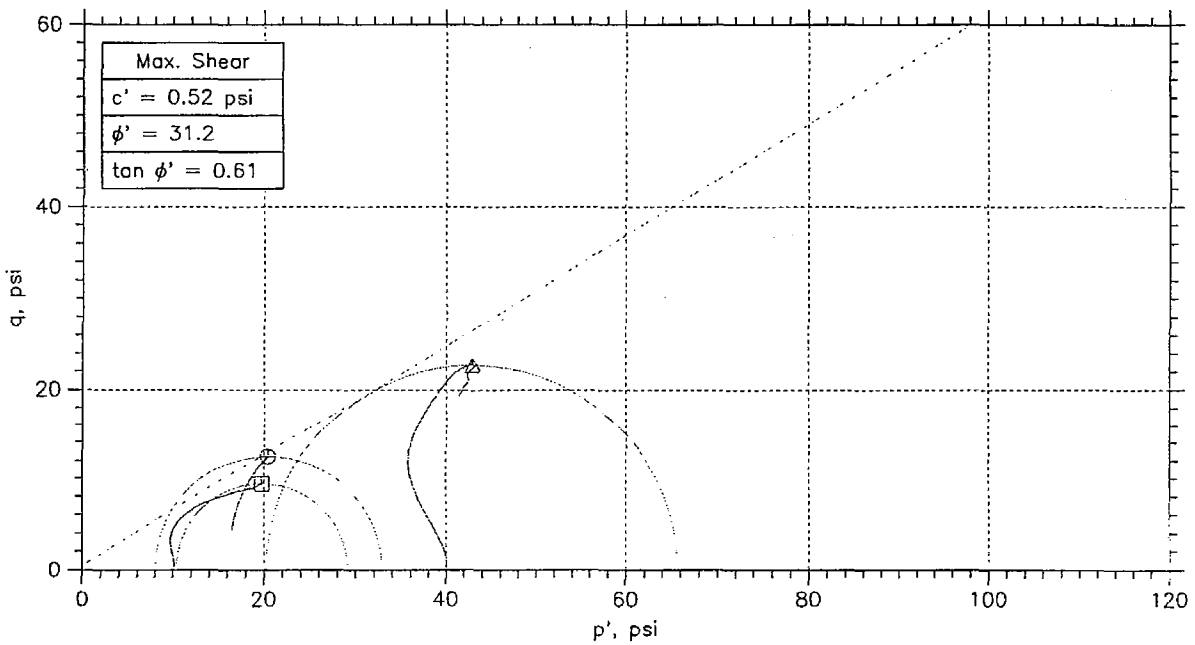
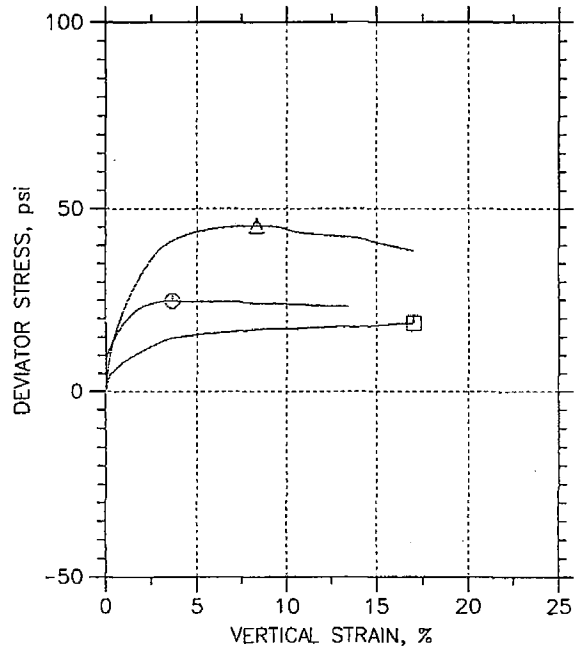
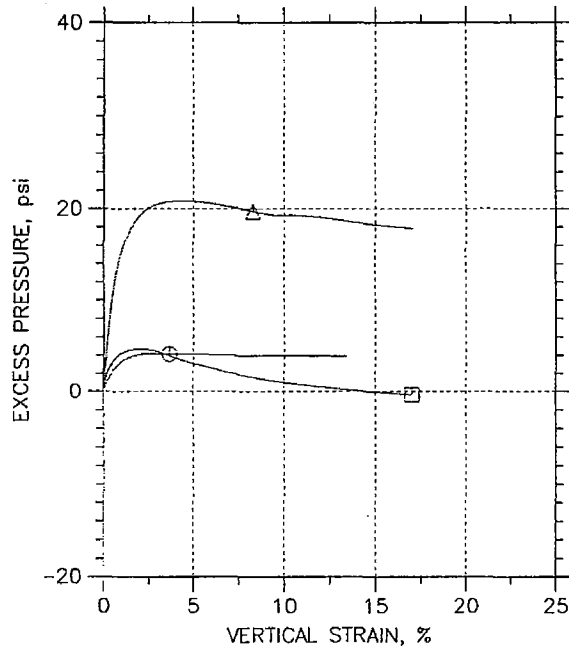
Symbol	○	△	□	
Sample No.	UD-3	UD-3	UD-3	
Test No.	5379.1	5379.2	5379.3	
Depth	23.5 ft.	23.5 ft.	23.5 ft.	
Initial	Diameter, in	2.865	2.87	2.66
	Height, in	6	6	6
	Water Content, %	35.0	35.4	35.8
	Dry Density, pcf	72.86	80.86	90.94
	Saturation, %	69.1	84.0	106.7
Before Shear	Void Ratio	1.44	1.2	0.956
	Water Content, %	57.2	41.9	62.1
	Dry Density, pcf	67.64	81.05	64.24
	Saturation*, %	100.0	100.0	100.0
	Void Ratio	1.63	1.2	1.77
	Back Press., psi	88.02	110.	83.99
	Ver. Eff. Cons. Stress, psi	19.96	40.	9.991
	Shear Strength, psi	12.41	22.68	9.377
	Strain at Failure, %	3.66	8.31	17
	Strain Rate, %/min	0.083	0.1	0.1
	B-Value	0.96	0.95	0.95
	Estimated Specific Gravity	2.85	2.85	2.85
	Liquid Limit	NP	0	NP
	Plastic Limit	NP	0	NP

Project: SCE&G COL	
Location: B-216	
Project No.: 6234063534	
Boring No.: B-216	
Sample Type: Shelby Tube	
Description: Silt with sand	
Remarks:	

Phase calculations based on start and end of test.

\* Saturation is set to 100% for phase calculations.

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

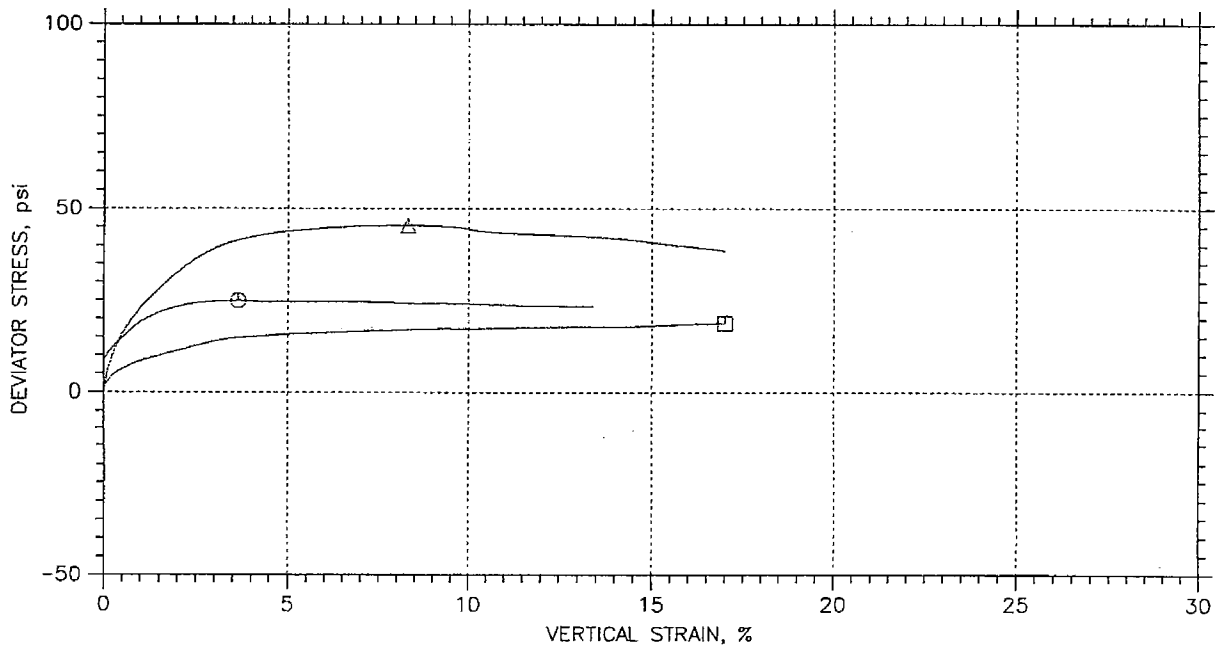
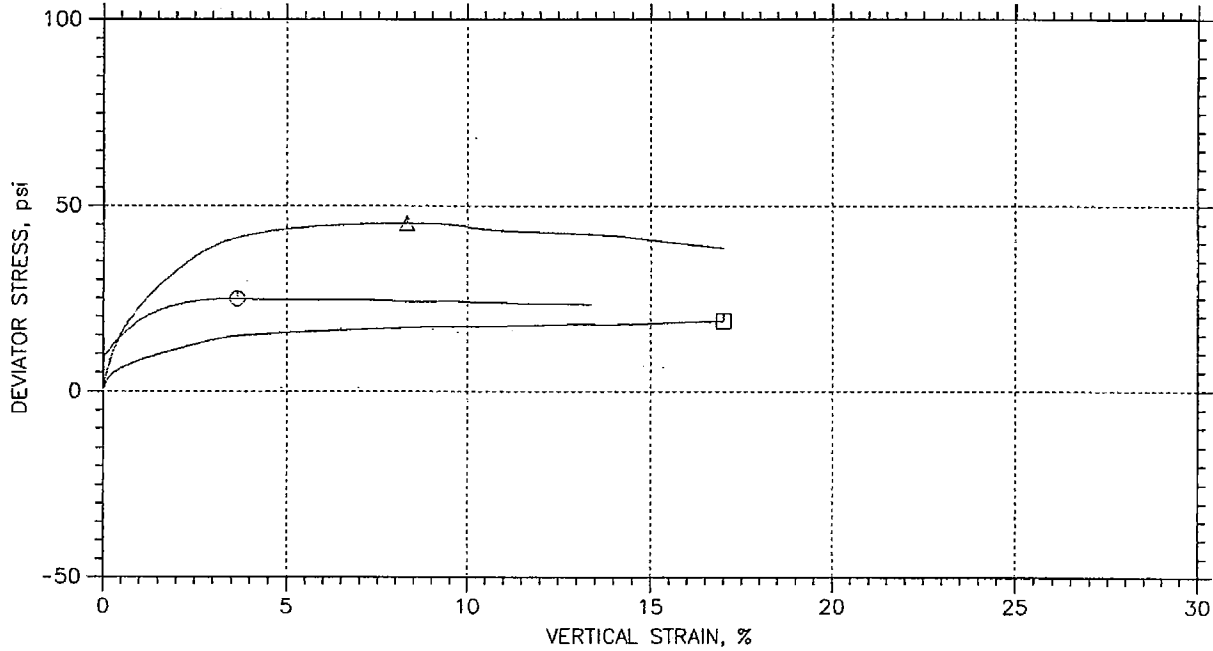


Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-3	5379.1	HJ	11/10/06	JL	11/24/06	5379.1a_65.dat
△	UD-3	5379.2	HJ	11/10/06	JL		5379.2_68.dat
□	UD-3	5379.3	HJ	11/10/06	JL		5379.3_71.dat

Project: SCE&G COL		Location: B-216		Project No.: 6234063534	
Boring No.: B-216		Sample Type: Shelby Tube			
Description: Silt with sand					
Remarks:					



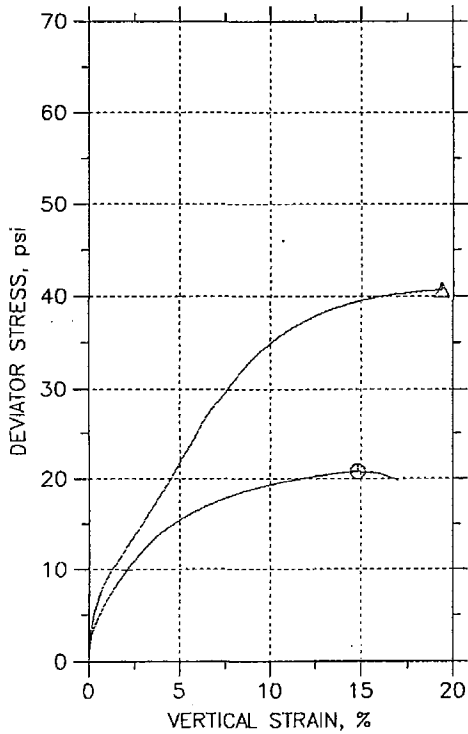
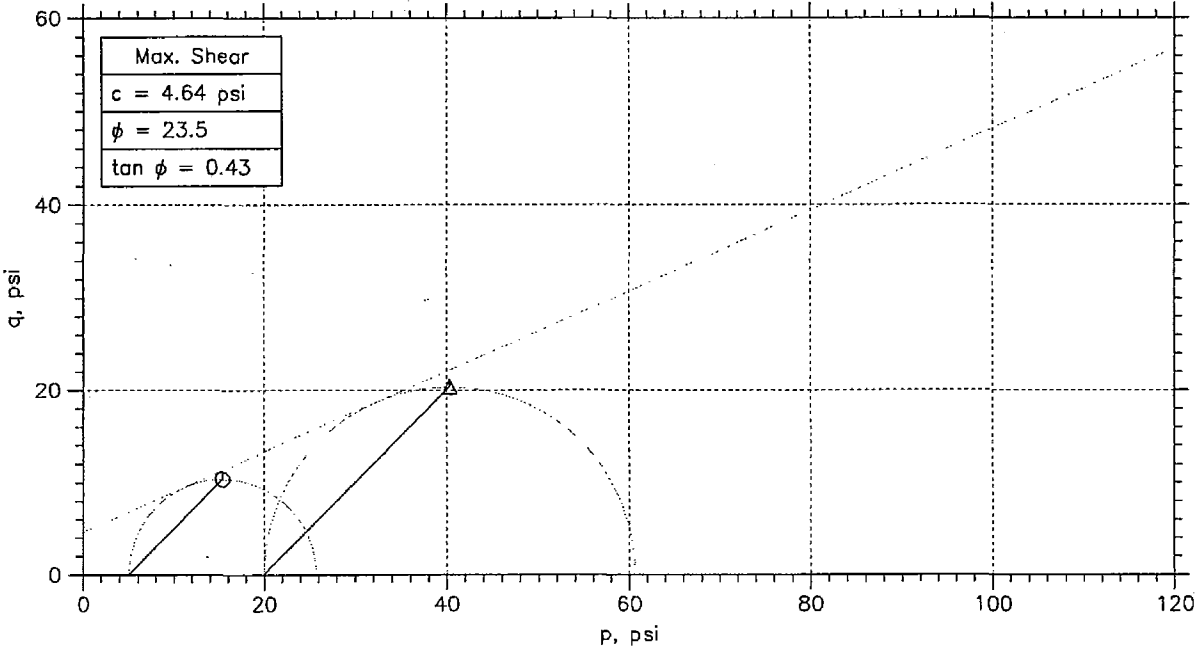
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	UD-3	5379.1	23.5 ft.	HJ	11/10/06	JL	11/24/06	5379.1a_65.dat
△	UD-3	5379.2	23.5 ft.	HJ	11/10/06	JL		5379.2_68.dat
□	UD-3	5379.3	23.5 ft.	HJ	11/10/06	JL		5379.3_71.dat

	Project: SCE&G COL		Location: B-216		Project No.: 6234063534	
	Boring No.: B-216		Sample Type: Shelby Tube			
	Description: Silt with sand					
	Remarks:					

## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



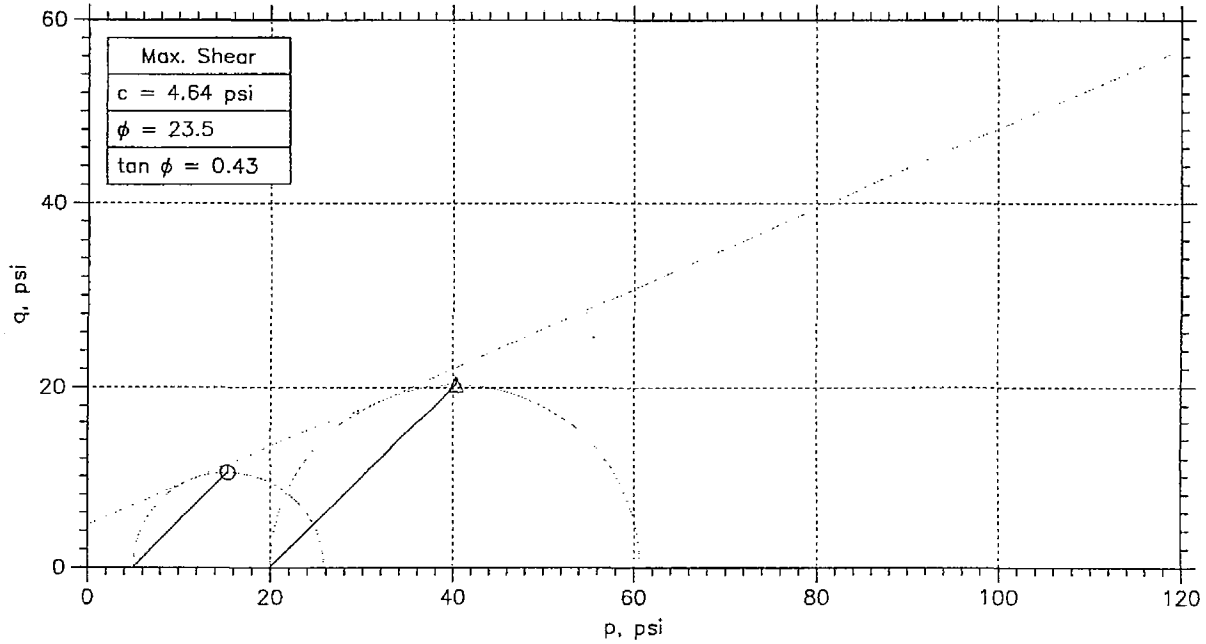
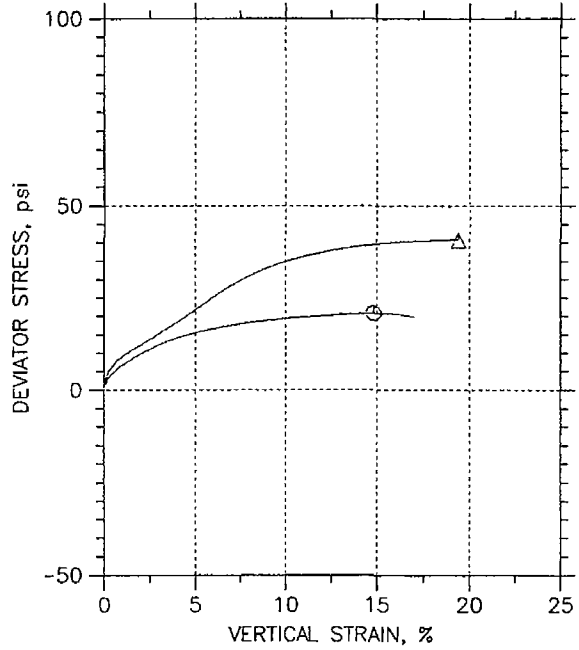
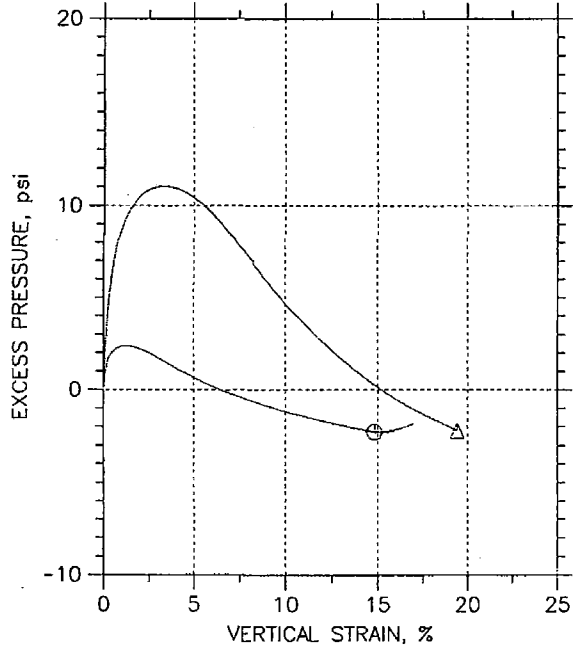
Symbol	⊙	△		
Sample No.	UD-1	UD-1		
Test No.	5380.1	5380.3		
Depth	8.5 ft.	8.5 ft.		
Initial	Diameter, in	2.876	2.879	
	Height, in	6	6	
	Water Content, %	29.0	26.5	
	Dry Density, pcf	86.37	89.48	
	Saturation, %	79.9	78.4	
Before Shear	Void Ratio	1.01	0.94	
	Water Content, %	39.8	28.0	
	Dry Density, pcf	82.4	91.88	
	Saturation*, %	100.0	87.6	
	Void Ratio	1.11	0.889	
Back Press., psi	99.01	105.		
Ver. Eff. Cons. Stress, psi	4.973	30.		
Shear Strength, psi	10.38	20.33		
Strain at Failure, %	14.8	19.4		
Strain Rate, %/min	0.1	0.1		
B-Value	0.95	0.95		
Estimated Specific Gravity	2.78	2.78		
Liquid Limit	NP	NP		
Plastic Limit	NP	NP		

Project: SCE&G	
Location: B-217	
Project No.: 6234063534S	
Boring No.: B-217	
Sample Type: Shelby Tube	
Description: Silty sand	
Remarks:	

Phase calculations based on start and end of test.

\* Saturation is set to 100% for phase calculations.

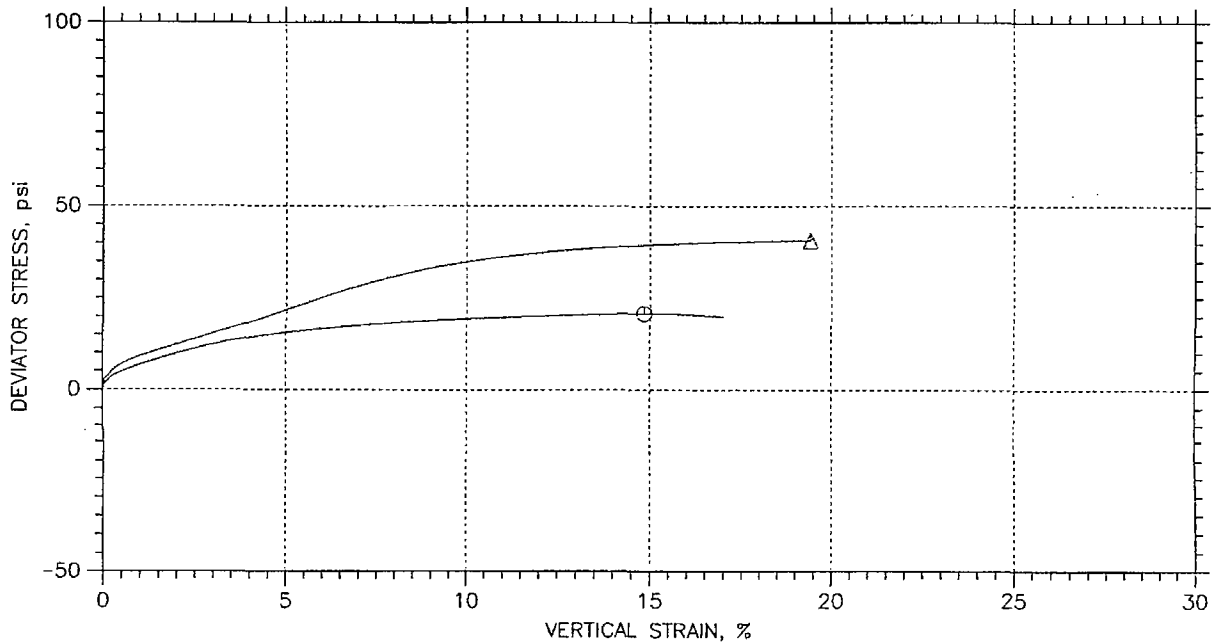
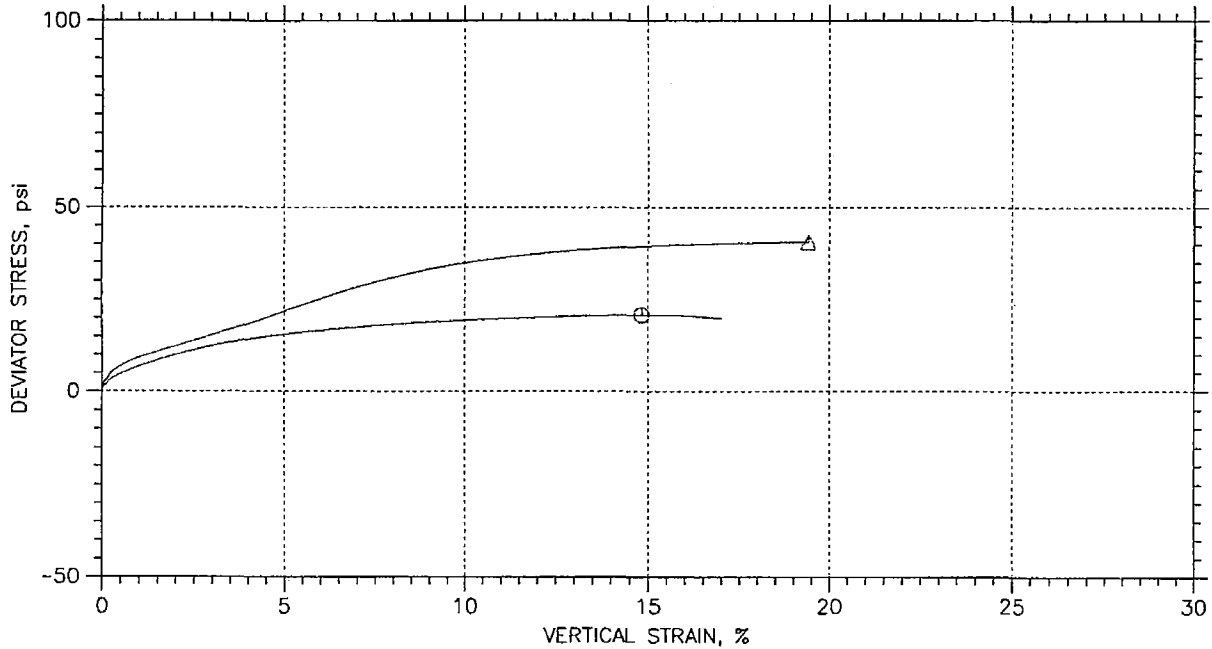
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-1	5380.1	8.5 ft.	HJ	10/14/06	JL <i>[Signature]</i>	11/24/06	5380.1a_65.dot
△	UD-1	5380.3	8.5 ft.	HJ	10/14/06	JL <i>[Signature]</i>	↓	5380.3a_68.dot

	Project: SCE&G	Location: B-217	Project No.: 6234063534S
	Boring No.: B-217	Sample Type: Shelby Tube	
	Description: Silty sand		
	Remarks:		

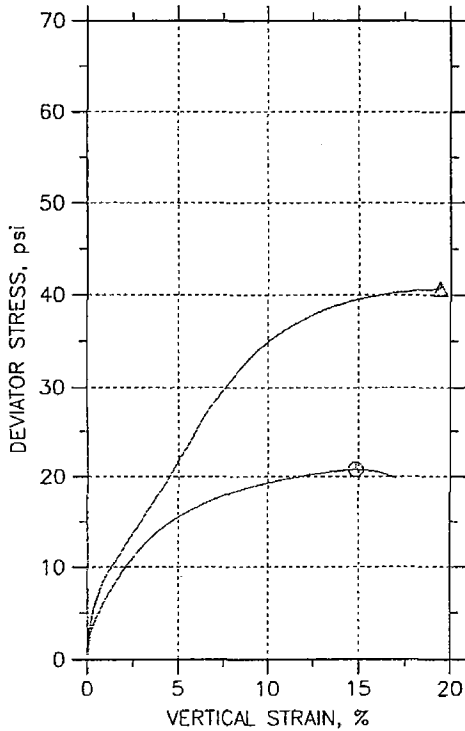
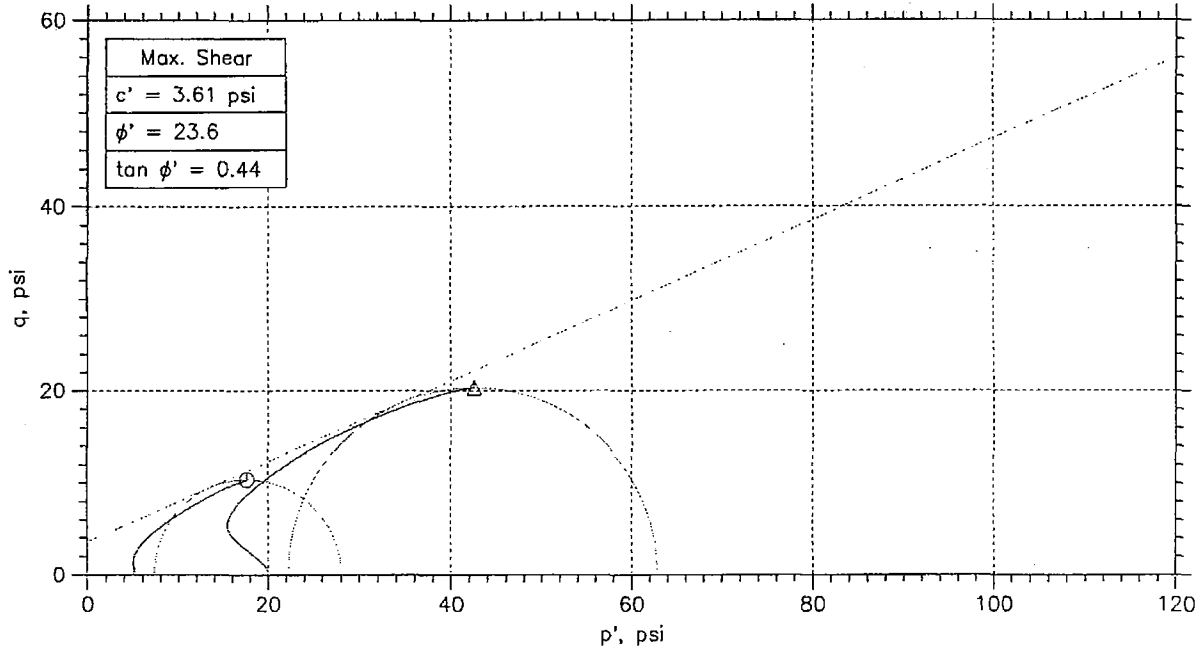
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-1	5380.1	8.5 ft.	HJ	10/14/06	JL <i>[Signature]</i>	11/24/06	5380.1a_65.dat
△	UD-1	5380.3	8.5 ft.	HJ	10/14/06	JL <i>[Signature]</i>	↓	5380.3a_68.dat

	Project: SCE&G	Location: B-217	Project No.: 6234063534S
	Boring No.: B-217	Sample Type: Shelby Tube	
	Description: Silty sand		
	Remarks:		

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



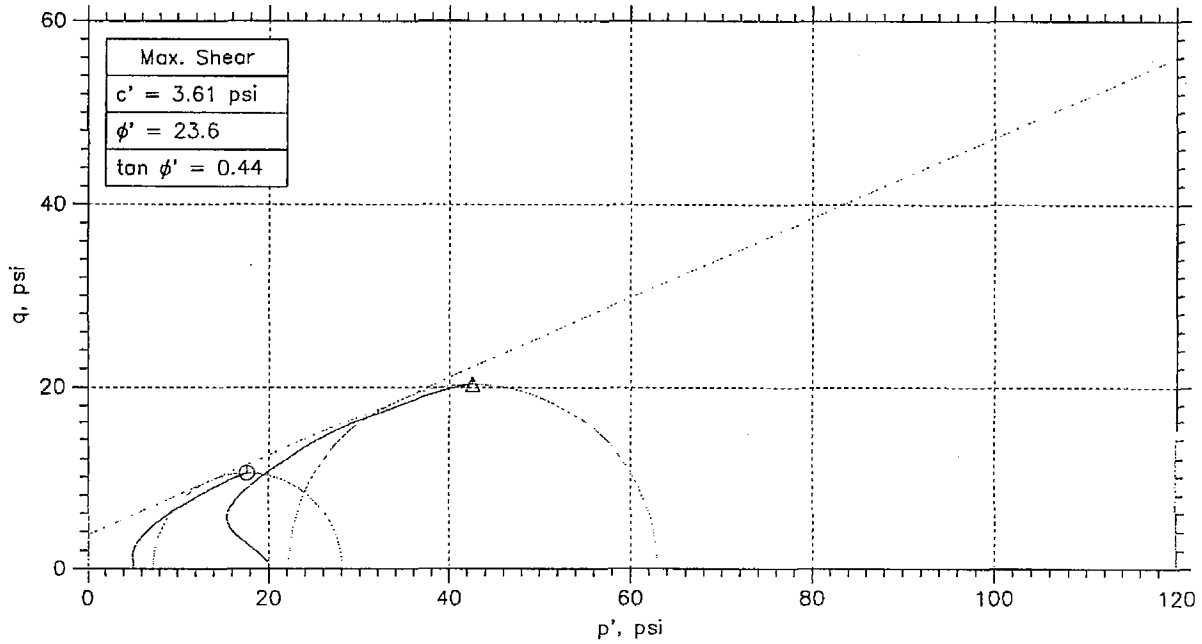
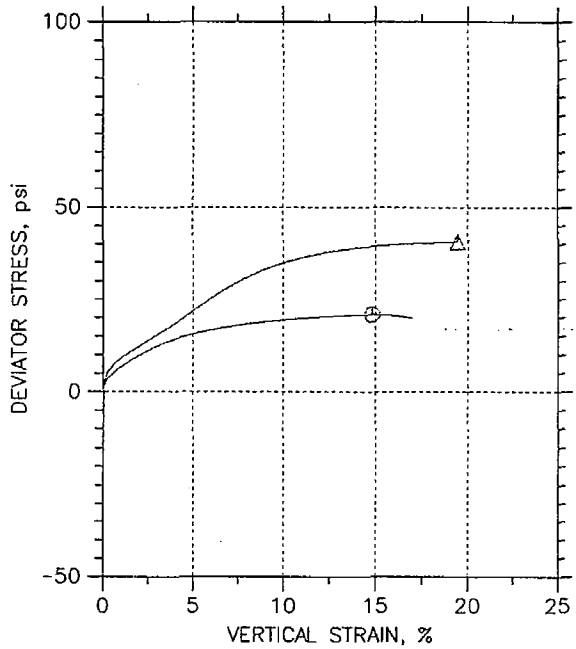
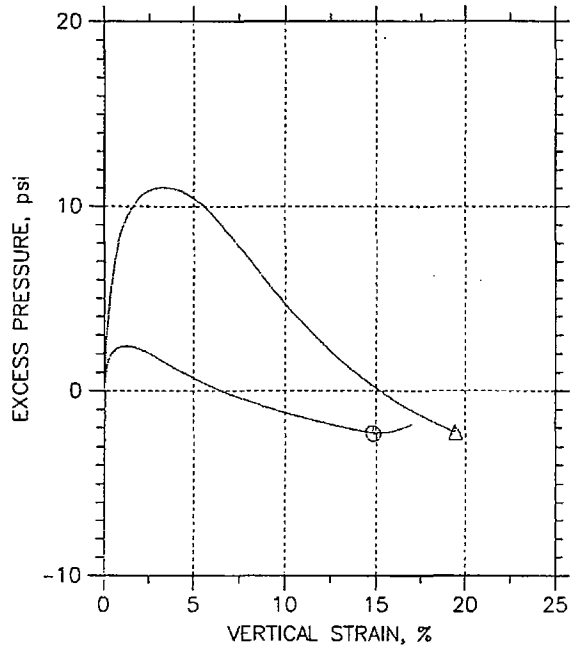
Symbol	⊙	△	
Sample No.	UD-1	UD-1	
Test No.	5380.1	5380.3	
Depth	8.5 ft.	8.5 ft.	
Initial	Diameter, in	2.876	2.879
	Height, in	6	6
	Water Content, %	29.0	26.5
	Dry Density, pcf	86.37	89.48
	Saturation, %	79.9	78.4
Before Shear	Void Ratio	1.01	0.94
	Water Content, %	39.8	28.0
	Dry Density, pcf	82.4	91.88
	Saturation*, %	100.0	87.6
	Void Ratio	1.11	0.889
	Back Press., psi	99.01	105.
	Ver. Eff. Cons. Stress, psi	4.973	30.
	Shear Strength, psi	10.38	20.33
	Strain at Failure, %	14.8	19.4
	Strain Rate, %/min	0.1	0.1
	B-Value	0.95	0.95
	Estimated Specific Gravity	2.78	2.78
	Liquid Limit	NP	NP
	Plastic Limit	NP	NP

Project: SCE&G	
Location: B-217	
Project No.: 6234063534S	
Boring No.: B-217	
Sample Type: Shelby Tube	
Description: Silty sand	
Remarks:	

Phase calculations based on start and end of test.

\* Saturation is set to 100% for phase calculations.

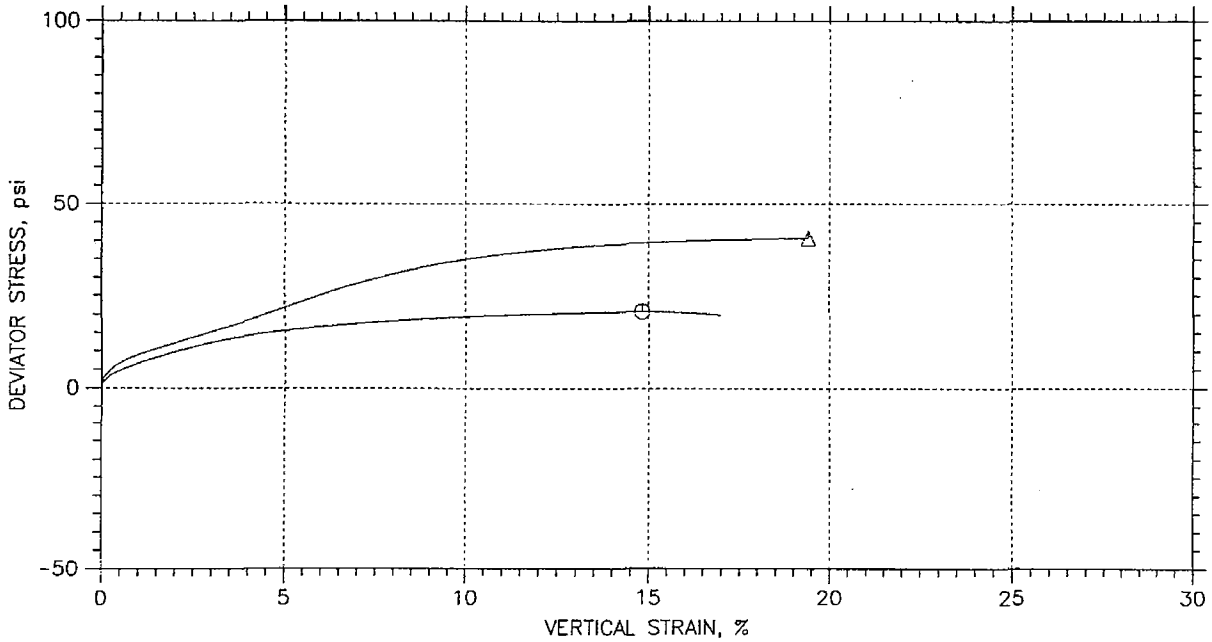
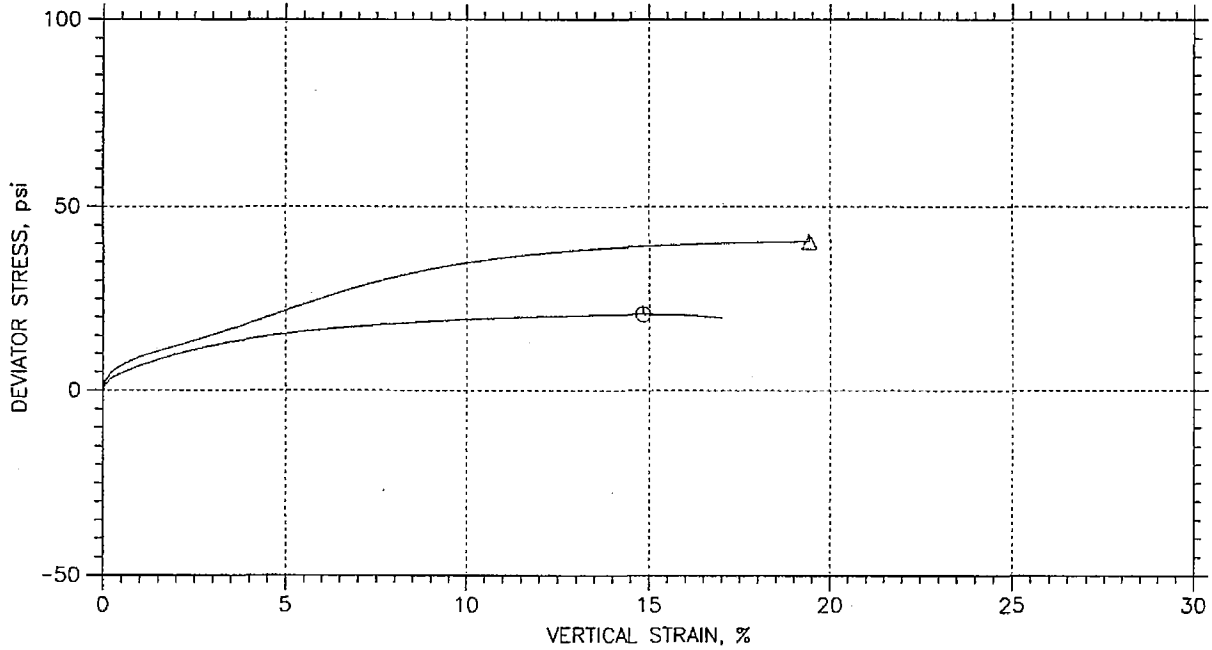
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	UD-1	5380.1	HJ	10/14/06	JL	11/24/06	5380.1a_65.dat
△	UD-1	5380.3	HJ	10/14/06	JL	11/24/06	5380.3a_68.dat

	Project: SCE&G	Location: B-217	Project No.: 6234063534S
	Boring No.: B-217	Sample Type: Shelby Tube	
	Description: Silty sand		
	Remarks:		

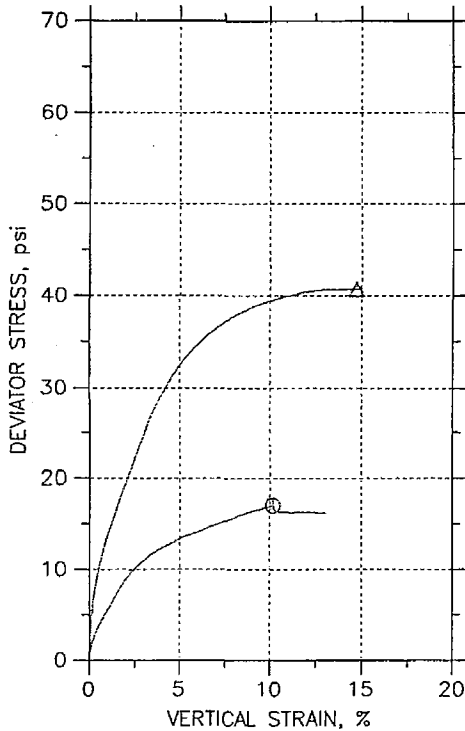
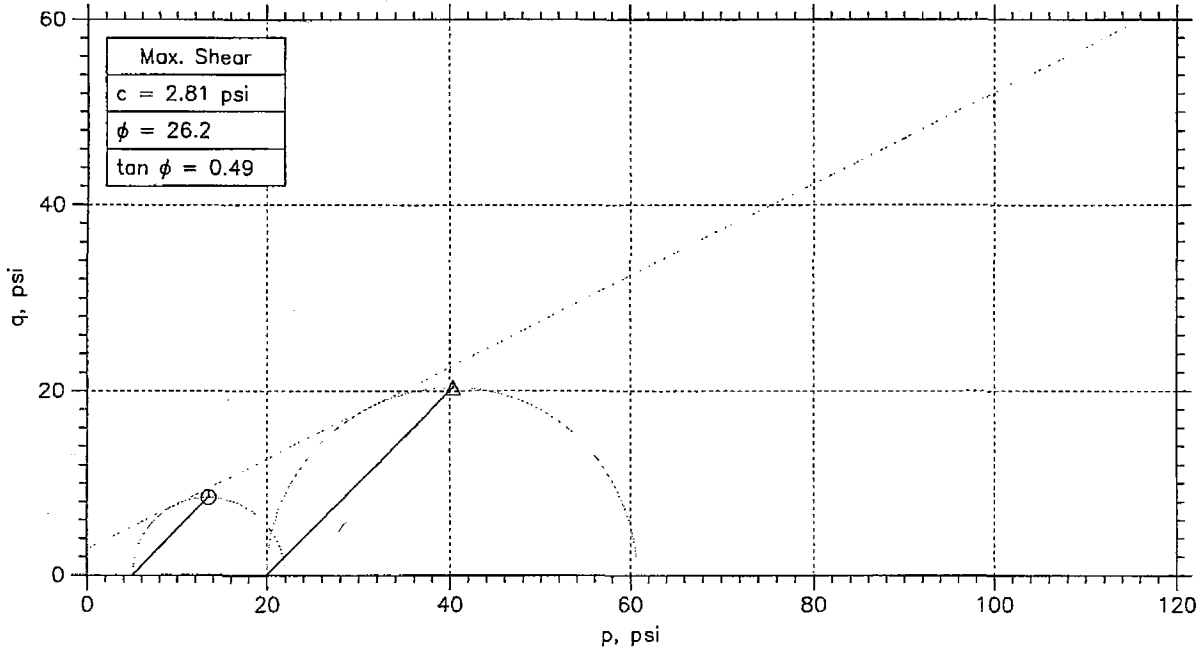
## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-1	5380.1	8.5 ft.	HJ	10/14/06	JL <i>[Signature]</i>	11/24/06	5380.1a_65.dat
△	UD-1	5380.3	8.5 ft.	HJ	10/14/06	JL <i>[Signature]</i>	↓	5380.3a_68.dat

	Project: SCE&G	Location: B-217	Project No.: 6234063534S
	Boring No.: B-217	Sample Type: Shelby Tube	
	Description: Silty sand		
	Remarks:		

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	○	△		
Sample No.	UD-1	UD-1		
Test No.	5388.1	5388.3		
Depth	8.5 ft.	8.5 ft.		
Initial	Diameter, in	2.89	2.875	
	Height, in	6	6	
	Water Content, %	32.3	23.4	
	Dry Density, pcf	83.65	90.72	
	Saturation, %	83.4	71.2	
Before Shear	Void Ratio	1.07	0.913	
	Water Content, %	39.6	32.1	
	Dry Density, pcf	82.02	91.77	
	Saturation*, %	98.7	100.0	
	Void Ratio	1.12	0.891	
Back Press., psi	106.	106.		
Ver. Eff. Cons. Stress, psi	5.	20.		
Shear Strength, psi	8.494	20.37		
Strain at Failure, %	10.2	14.8		
Strain Rate, %/min	0.083	0.1		
B-Value	0.89	0.95		
Estimated Specific Gravity	2.78	2.78		
Liquid Limit	NP	NP		
Plastic Limit	NP	NP		

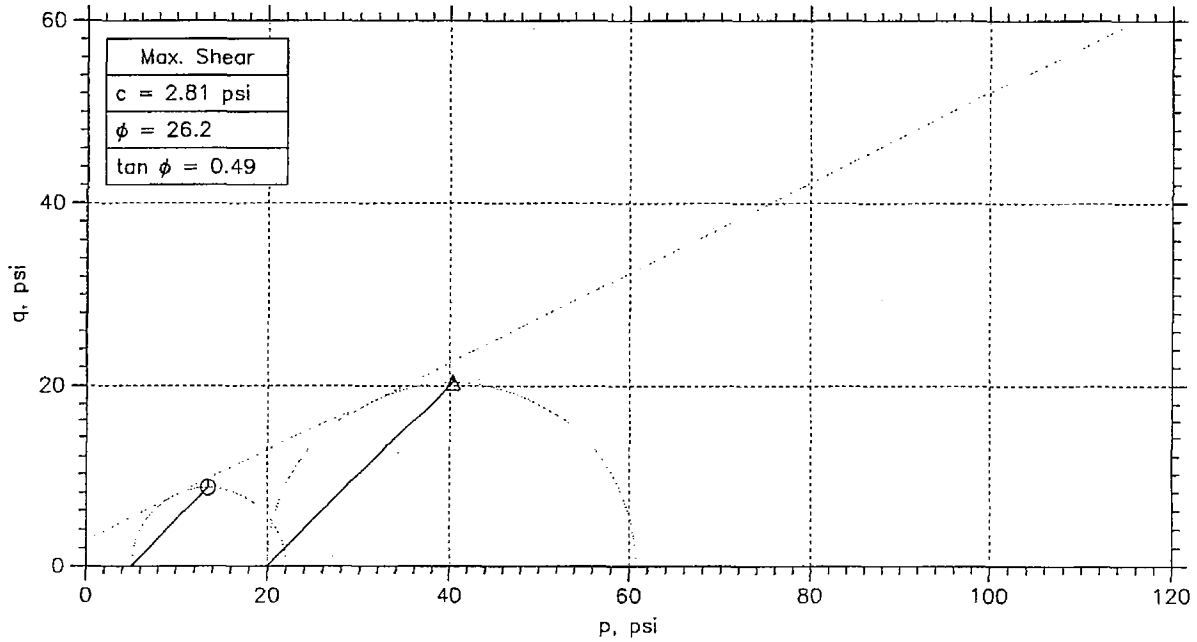
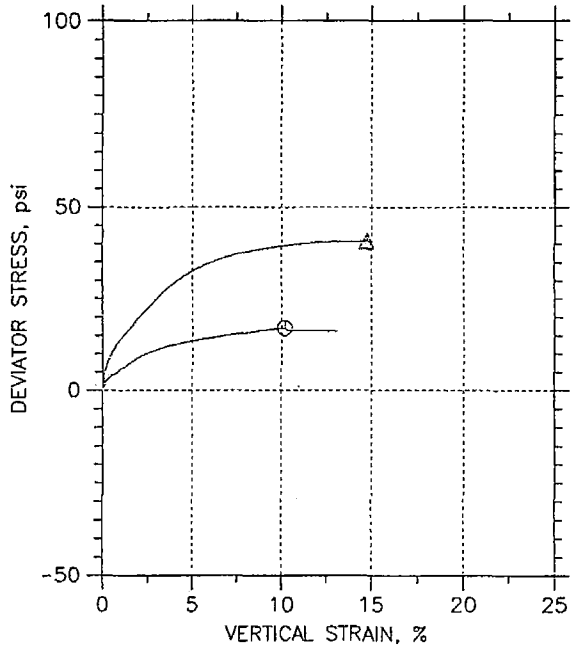
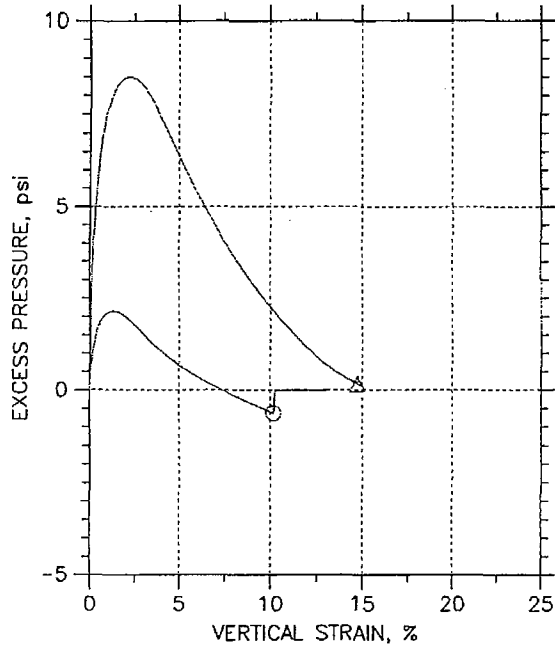
Project: SCE&G COL				
Location: B-309				
Project No.: 6234063534				
Boring No.: B-309				
Sample Type: Shelby Tube				
Description: Silty sand				
Remarks:				

Phase calculations based on start and end of test.

\* Saturation is set to 100% for phase calculations.



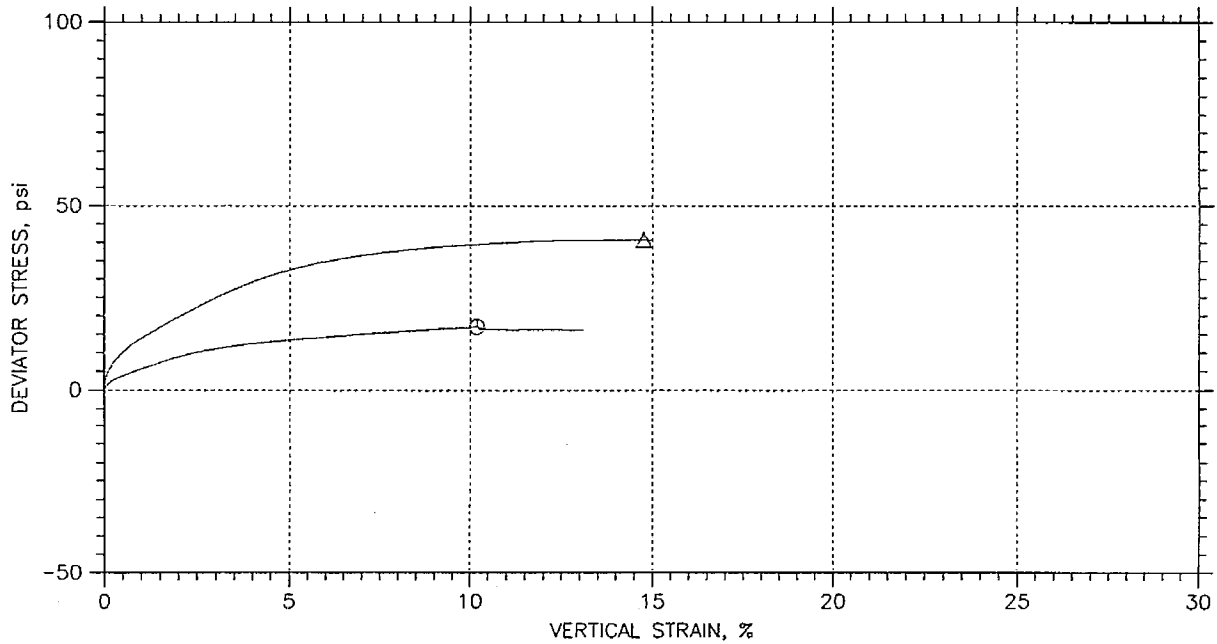
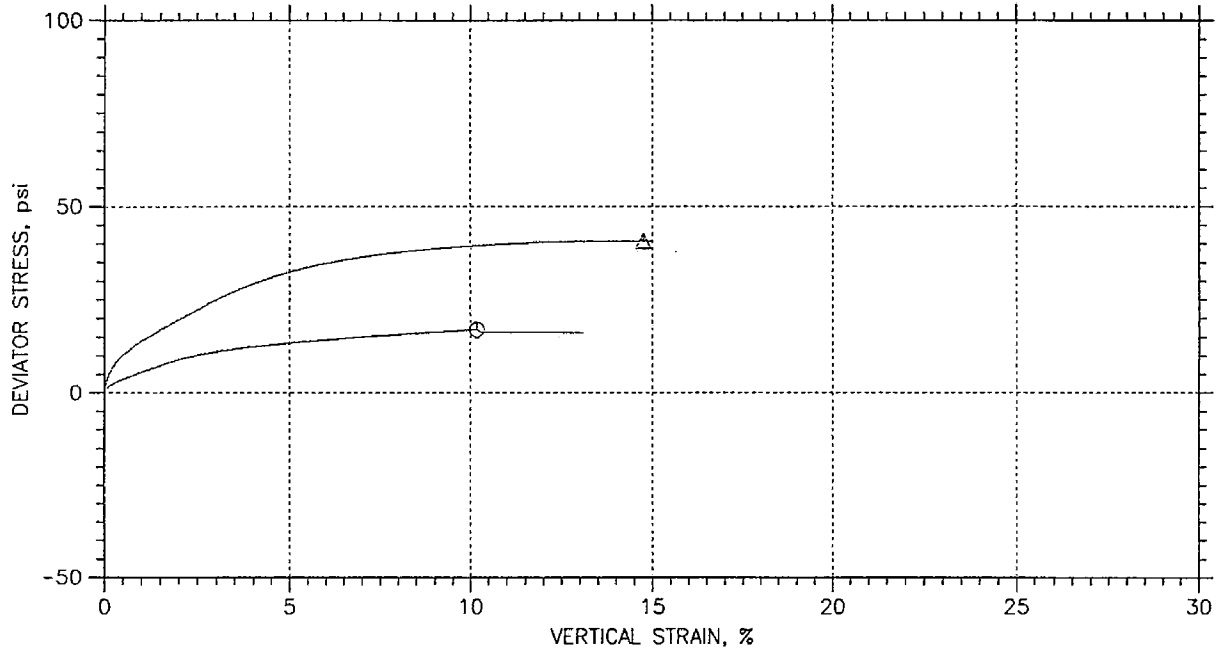
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-1	5388.1	HJ	10/16/06	JL	11/24/06	5388.1_65.dat
△	UD-1	5388.3	HJ	10/16/06	JL	↓	5388.3_68.dat

	Project: SCE&G COL	Location: B-309	Project No.: 6234063534
	Boring No.: B-309	Sample Type: Shelby Tube	
	Description: Silty sand		
	Remarks:		

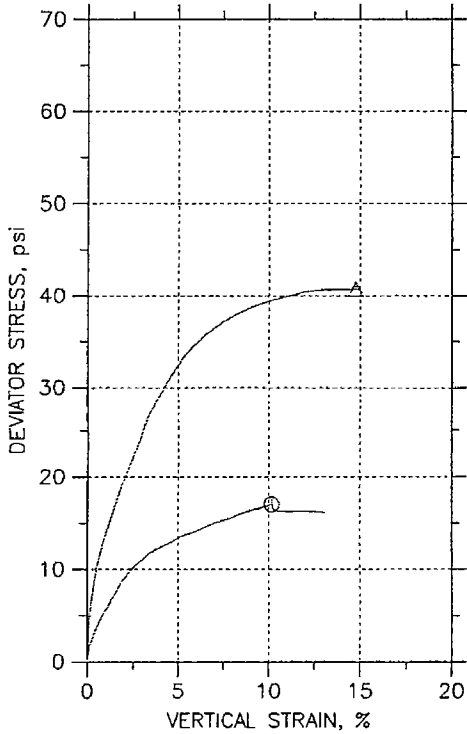
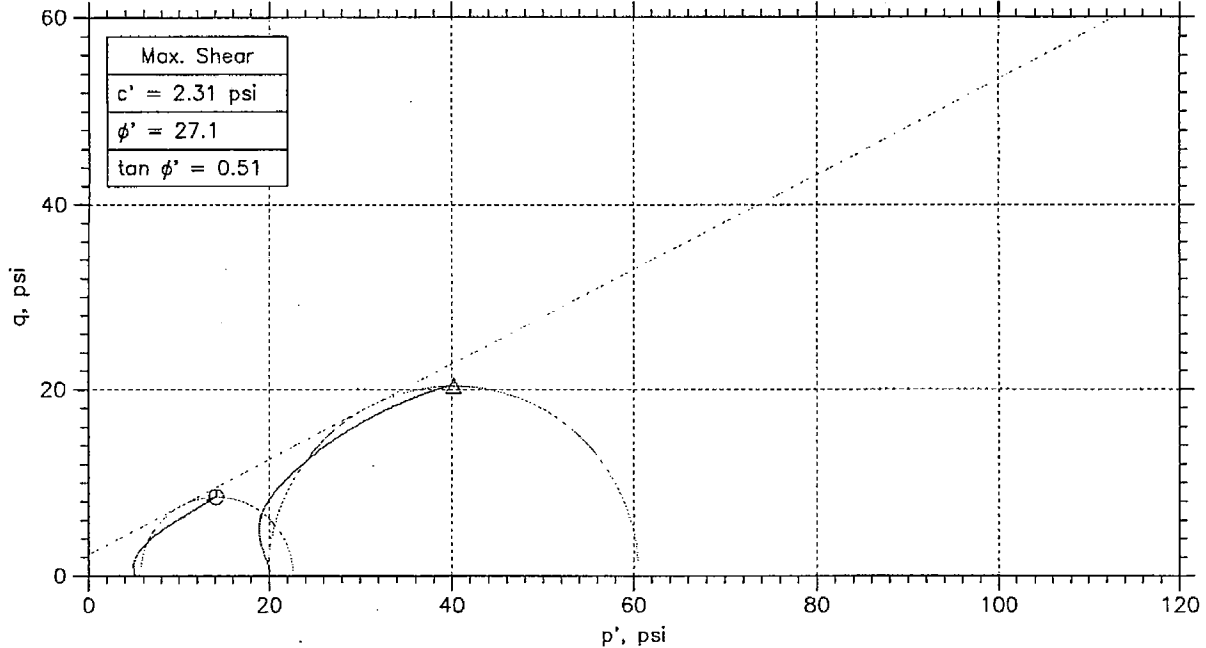
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-1	5388.1	8.5 ft.	HJ	10/16/06	JL	11/24/06	5388.1_65.dat
△	UD-1	5388.3	8.5 ft.	HJ	10/16/06	JL	↓	5388.3_68.dat

	Project: SCE&G COL	Location: B-309	Project No.: 6234063534
	Boring No.: B-309	Sample Type: Shelby Tube	
	Description: Silty sand		
	Remarks:		

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



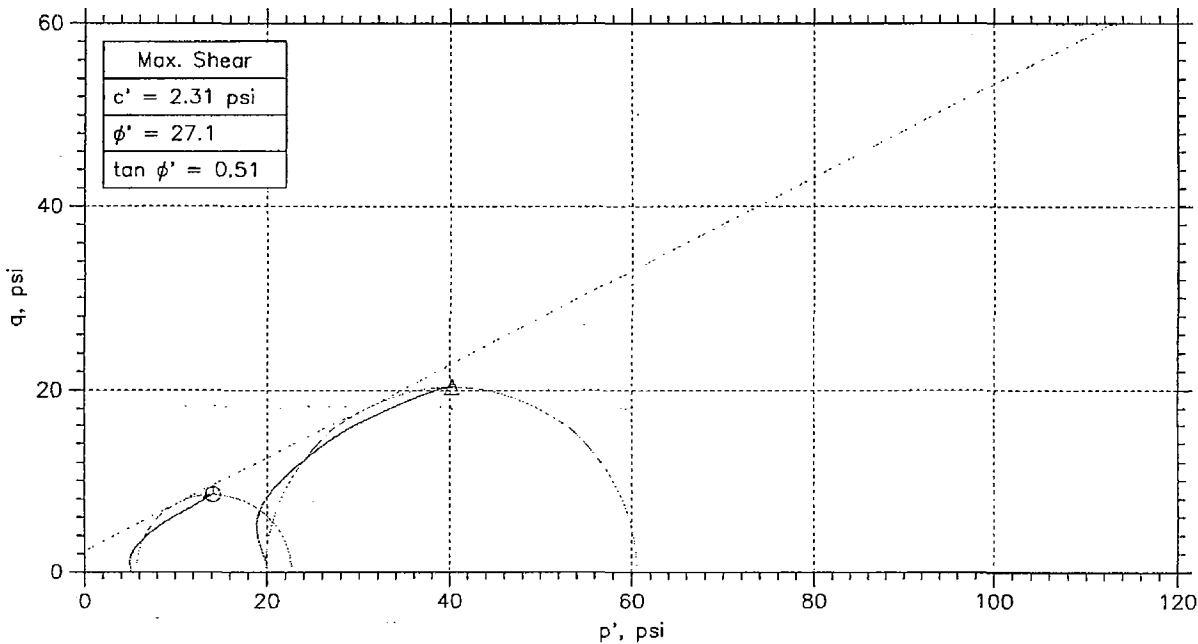
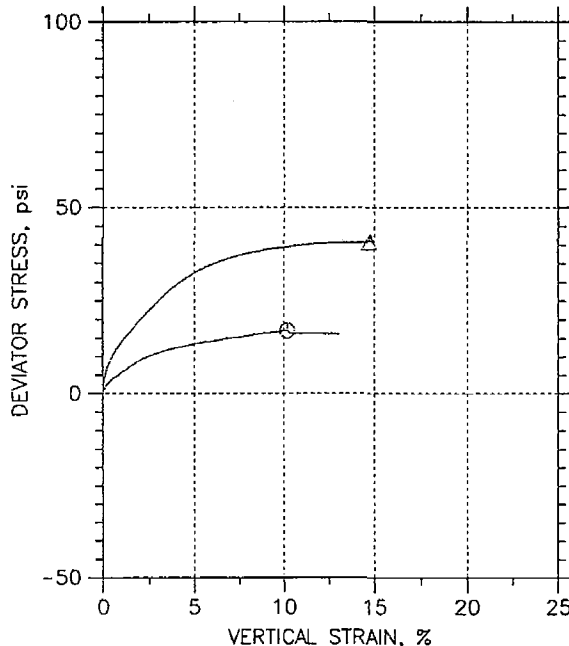
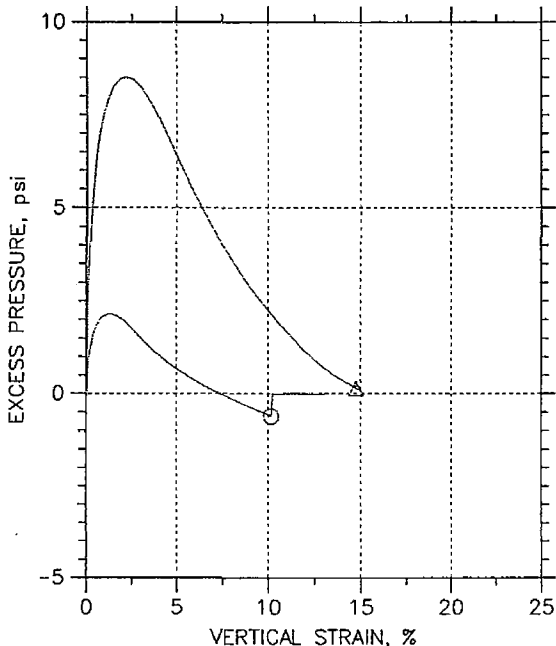
Symbol	⊙	△		
Sample No.	UD-1	UD-1		
Test No.	5388.1	5388.3		
Depth	8.5 ft.	8.5 ft.		
Initial	Diameter, in	2.89	2.875	
	Height, in	6	6	
	Water Content, %	32.3	23.4	
	Dry Density, pcf	83.65	90.72	
	Saturation, %	83.4	71.2	
	Void Ratio	1.07	0.913	
Before Shear	Water Content, %	39.6	32.1	
	Dry Density, pcf	82.02	91.77	
	Saturation*, %	98.7	100.0	
	Void Ratio	1.12	0.891	
Back Press., psi	106.	106.		
Ver. Eff. Cons. Stress, psi	5.	20.		
Shear Strength, psi	8.494	20.37		
Strain at Failure, %	10.2	14.8		
Strain Rate, %/min	0.083	0.1		
B-Value	0.89	0.95		
Estimated Specific Gravity	2.78	2.78		
Liquid Limit	NP	NP		
Plastic Limit	NP	NP		

Project: SCE&G COL	
Location: B-309	
Project No.: 6234063534	
Boring No.: B-309	
Sample Type: Shelby Tube	
Description: Silty sand	
Remarks:	

Phase calculations based on start and end of test.

\* Saturation is set to 100% for phase calculations.

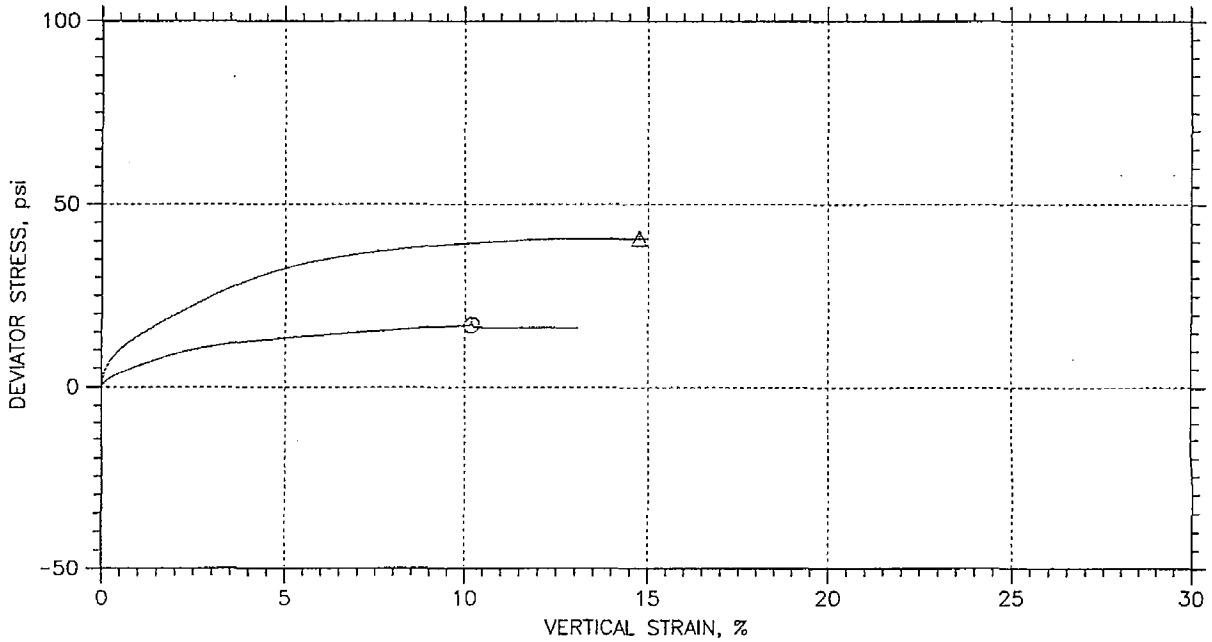
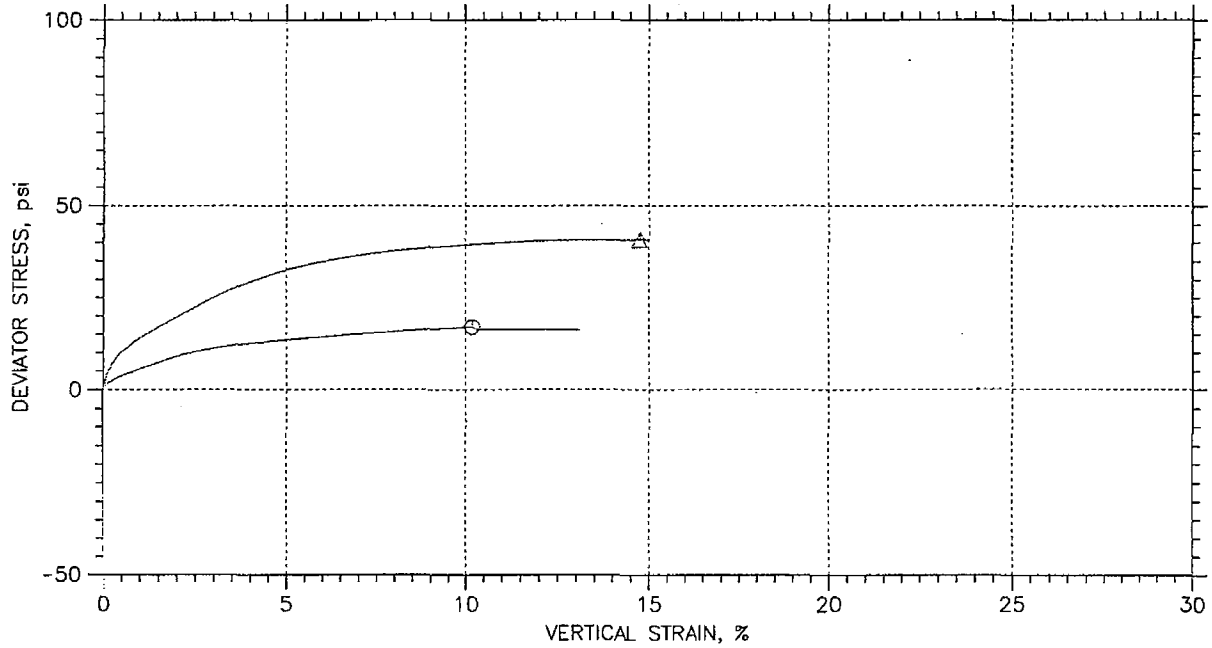
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-1	5388.1	8.5 ft.	HJ	10/16/06	JL <i>[Signature]</i>	11/21/06	5388.1_65.dat
△	UD-1	5388.3	8.5 ft.	HJ	10/16/06	JL <i>[Signature]</i>	↓	5388.3_68.dat

Project: SCE&G COL		Location: B-309		Project No.: 6234063534	
Boring No.: B-309		Sample Type: Shelby Tube			
Description: Silty sand					
Remarks:					

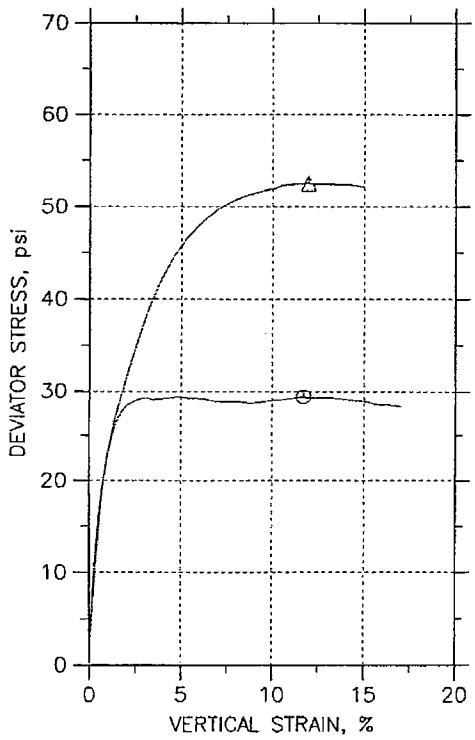
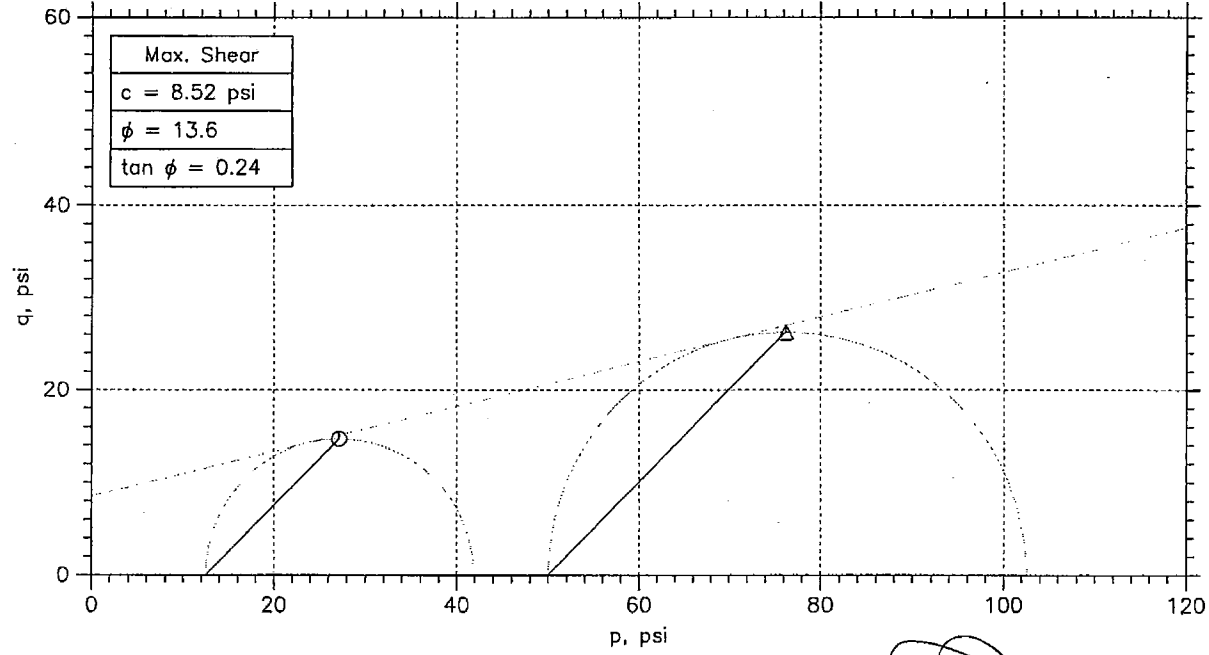
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-1	5388.1	8.5 ft.	HJ	10/16/06	JL <i>[Signature]</i>	11/24/06	5388.1_65.dat
△	UD-1	5388.3	8.5 ft.	HJ	10/16/06	JL <i>[Signature]</i>	↓	5388.3_68.dat

	Project: SCE&G COL	Location: B-309	Project No.: 6234063534
	Boring No.: B-309	Sample Type: Shelby Tube	
	Description: Silty sand		
	Remarks:		

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

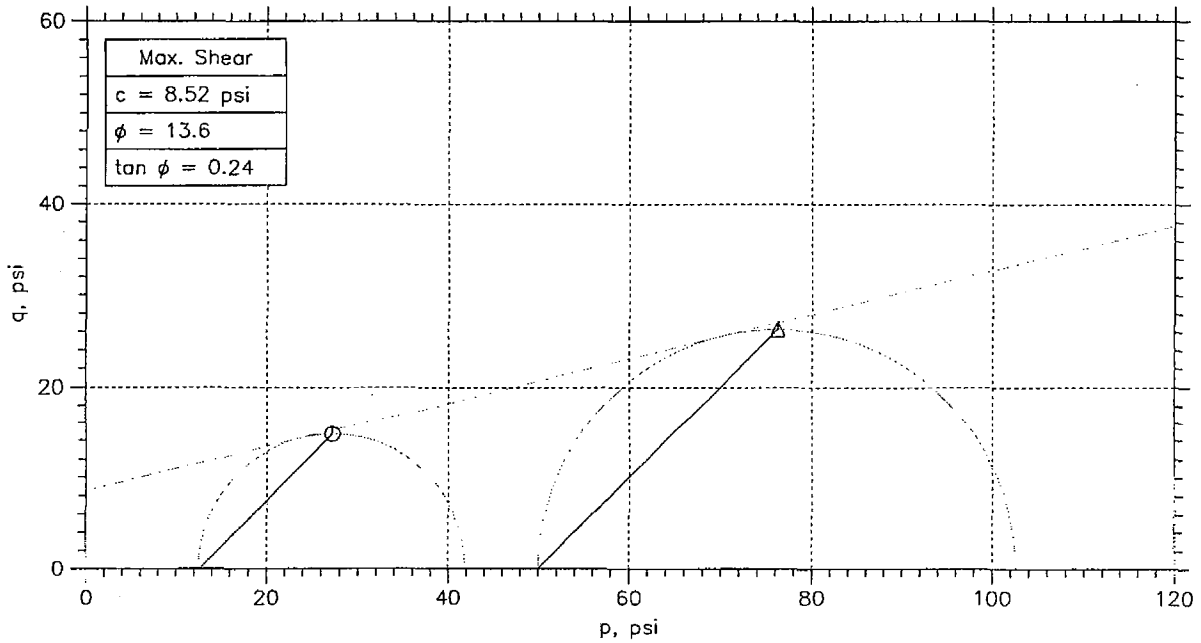
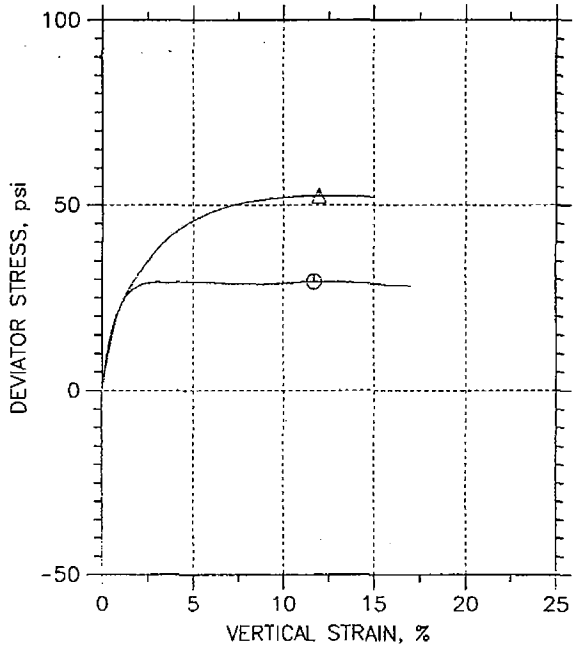
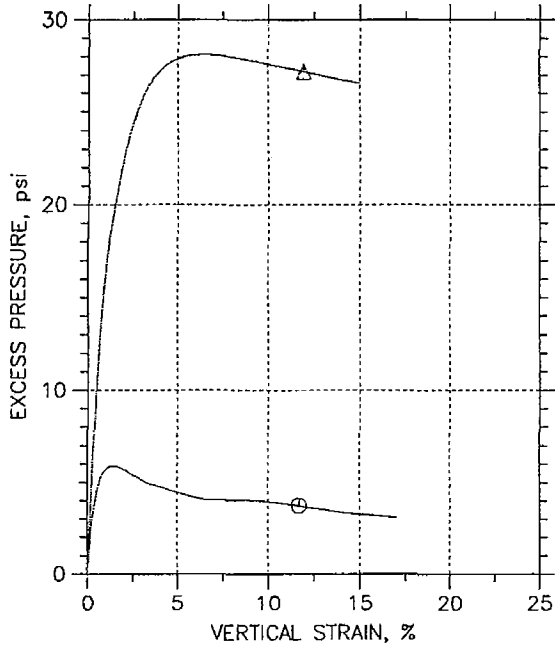


Symbol	○	△	
Sample No.	UD-3	Ud	
Test No.	5390.1	5390.3.1104	
Depth	28.5 ft.	28.5 Ft.	
Initial	Diameter, in	2.873	2.834
	Height, in	6	6
	Water Content, %	28.6	26.8
	Dry Density, pcf	77.83	85.07
	Saturation, %	64.6	71.6
Before Shear	Void Ratio	1.23	1.04
	Water Content, %	28.6	26.8
	Dry Density, pcf	96.73	99.5
	Saturation*, %	100.0	100.0
	Void Ratio	0.794	0.744
	Back Press., psi	105.	63.99
Ver. Eff. Cons. Stress, psi	12.49	50.02	
Shear Strength, psi	14.68	26.25	
Strain at Failure, %	11.7	12	
Strain Rate, %/min	0.1	0.1	
B-Value	0.95	0.95	
Estimated Specific Gravity	2.78	2.78	
Liquid Limit	NP	NP	
Plastic Limit	NP	NP	

Project: SCE&G	
Location: B309	
Project No.: 6234063534S	
Boring No.: B-309	
Sample Type: Shelby Tube	
Description: Silt with sand	
Remarks:	

Phase calculations based on start and end of test.  
 \* Saturation is set to 100% for phase calculations.

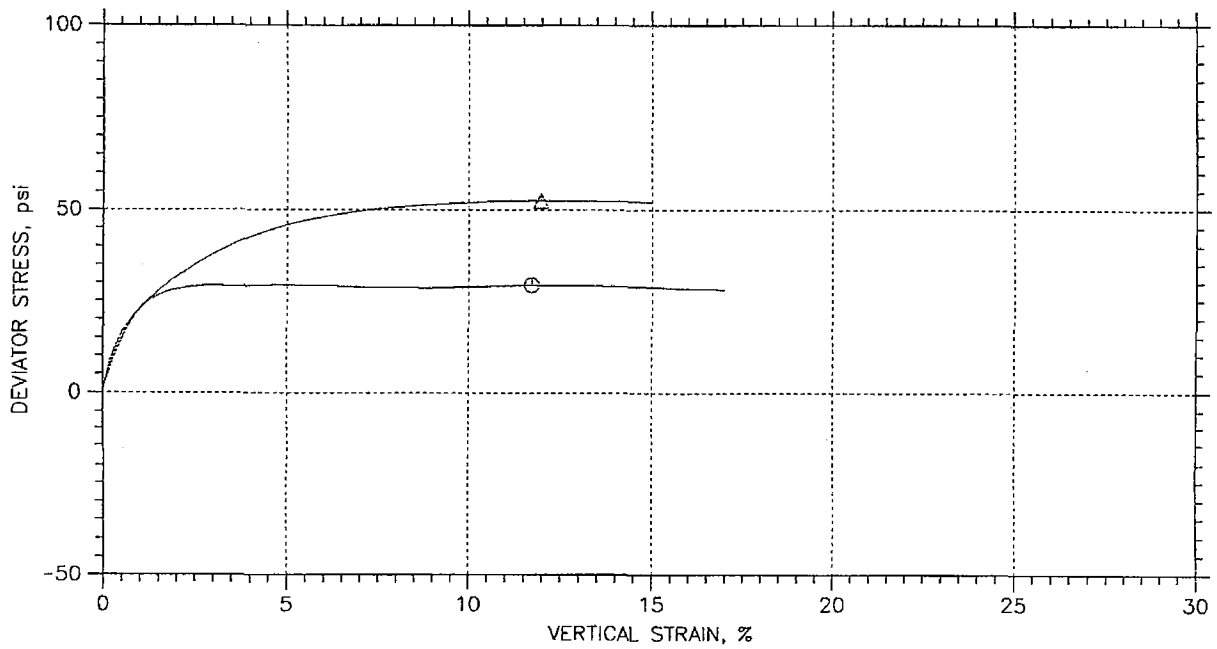
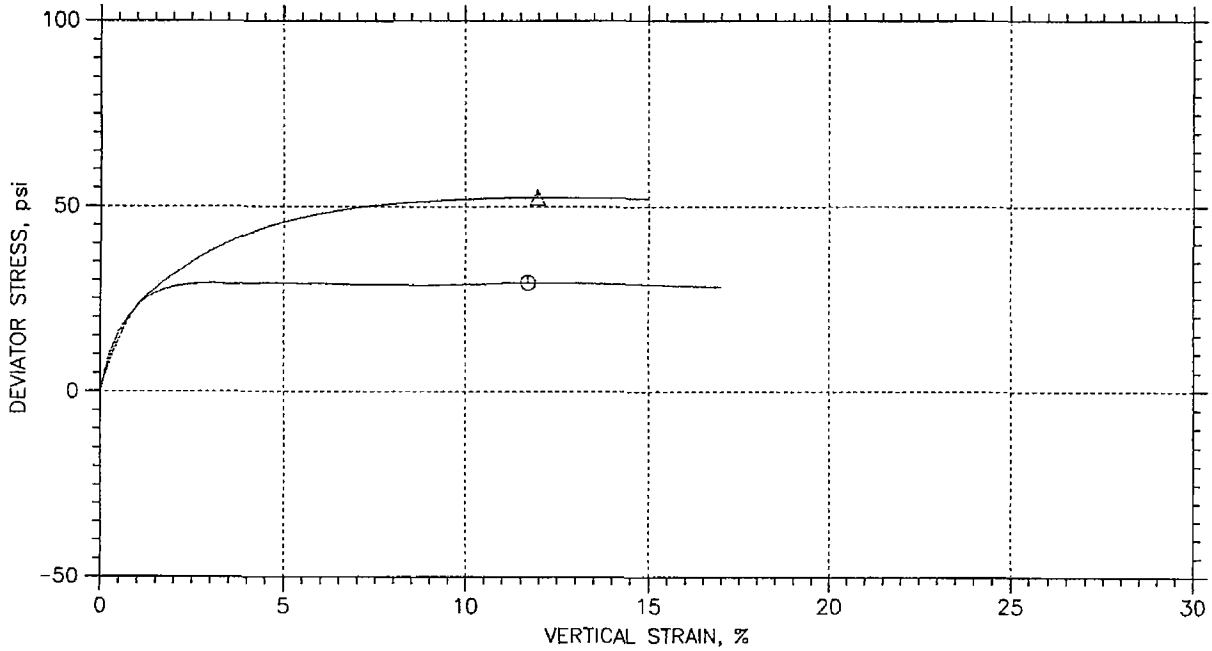
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-3	5390.1	28.5 ft.	HJ	11/4/06	JL	11/24/06	5390.1.68.dat
△	Ud	5390.3.1104	28.5 Ft.	HJ	11/4/06	JL	↓	5390.3._71.dat

	Project: SCE&G	Location: B309	Project No.: 6234063534S
	Boring No.: B-309	Sample Type: Shelby Tube	
	Description: Silt with sand		
	Remarks:		

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

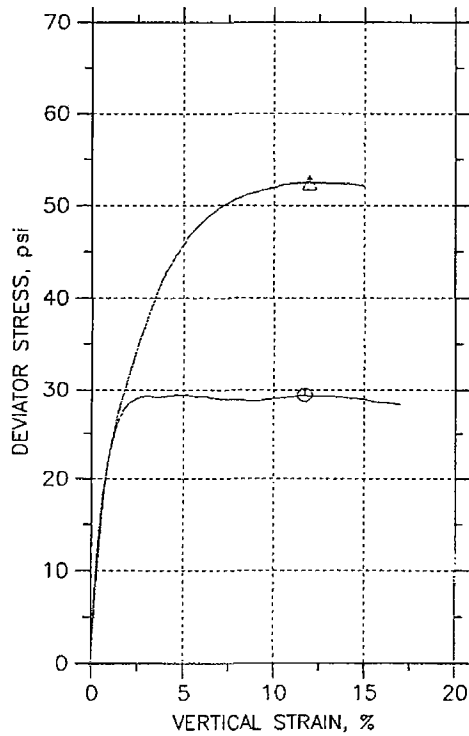
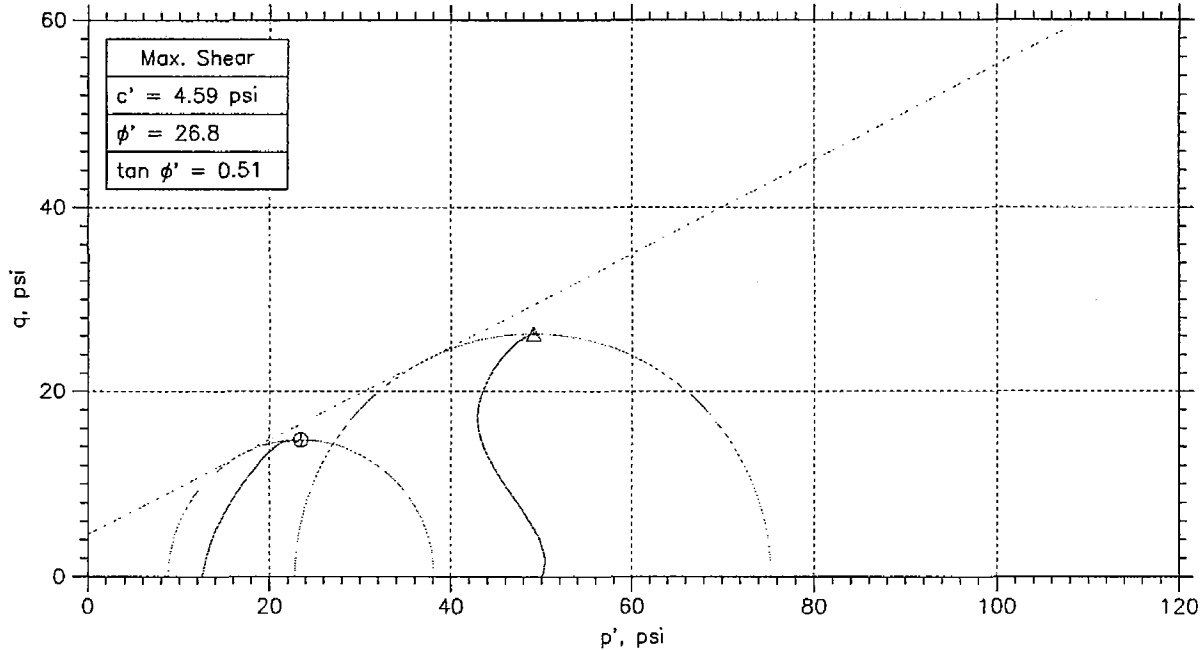


Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	UD-3	5390.1	HJ	11/4/06	JL <i>[Signature]</i>	11/24/06	5390.1.68.dat
△	Ud	5390.3.1104	HJ	11/4/06	JL <i>[Signature]</i>	↓	5390.3_71.dat

Project: SCE&G Boring No.: B-309 Description: Silt with sand Remarks:	Location: B309 Sample Type: Shelby Tube	Project No.: 6234063534S
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## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



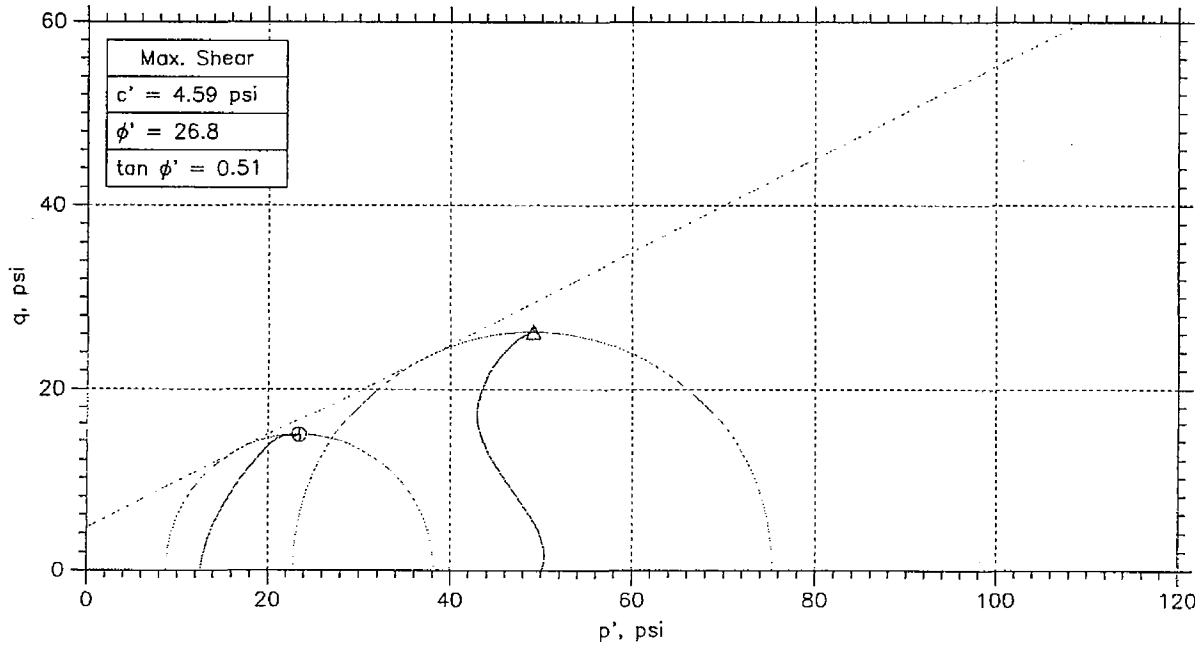
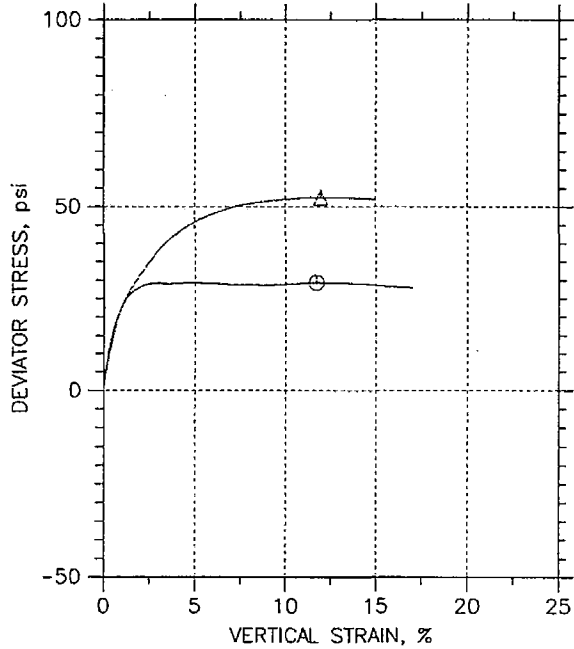
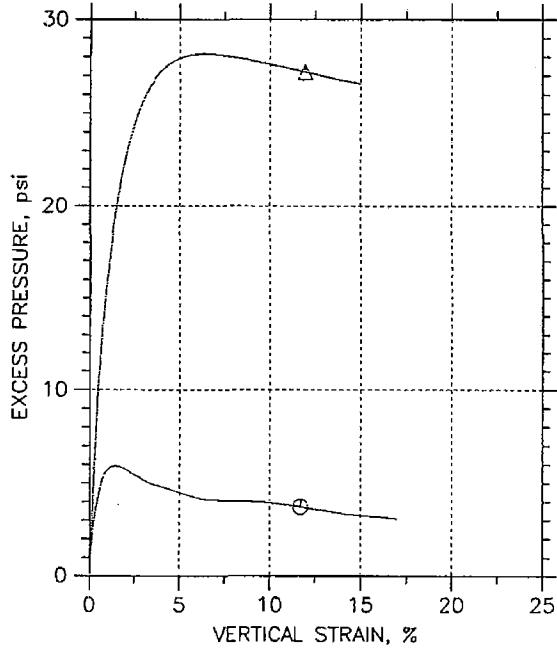
Symbol	⊙	△		
Sample No.	UD-3	Ud		
Test No.	5390.1	5390.3.1104		
Depth	28.5 ft.	28.5 Ft.		
Initial	Diameter, in	2.873	2.834	
	Height, in	6	6	
	Water Content, %	28.6	26.8	
	Dry Density, pcf	77.83	85.07	
	Saturation, %	64.6	71.6	
Before Shear	Void Ratio	1.23	1.04	
	Water Content, %	28.6	26.8	
	Dry Density, pcf	96.73	99.5	
	Saturation*, %	100.0	100.0	
	Void Ratio	0.794	0.744	
	Back Press., psi	105.	63.99	
Ver. Eff. Cons. Stress, psi	12.49	50.02		
Shear Strength, psi	14.68	26.25		
Strain at Failure, %	11.7	12		
Strain Rate, %/min	0.1	0.1		
B-Value	0.95	0.95		
Estimated Specific Gravity	2.78	2.78		
Liquid Limit	NP	NP		
Plastic Limit	NP	NP		

Project: SCE&G	
Location: B309	
Project No.: 6234063534S	
Boring No.: B-309	
Sample Type: Shelby Tube	
Description: Silt with sand	
Remarks:	

Phase calculations based on start and end of test.

\* Saturation is set to 100% for phase calculations.

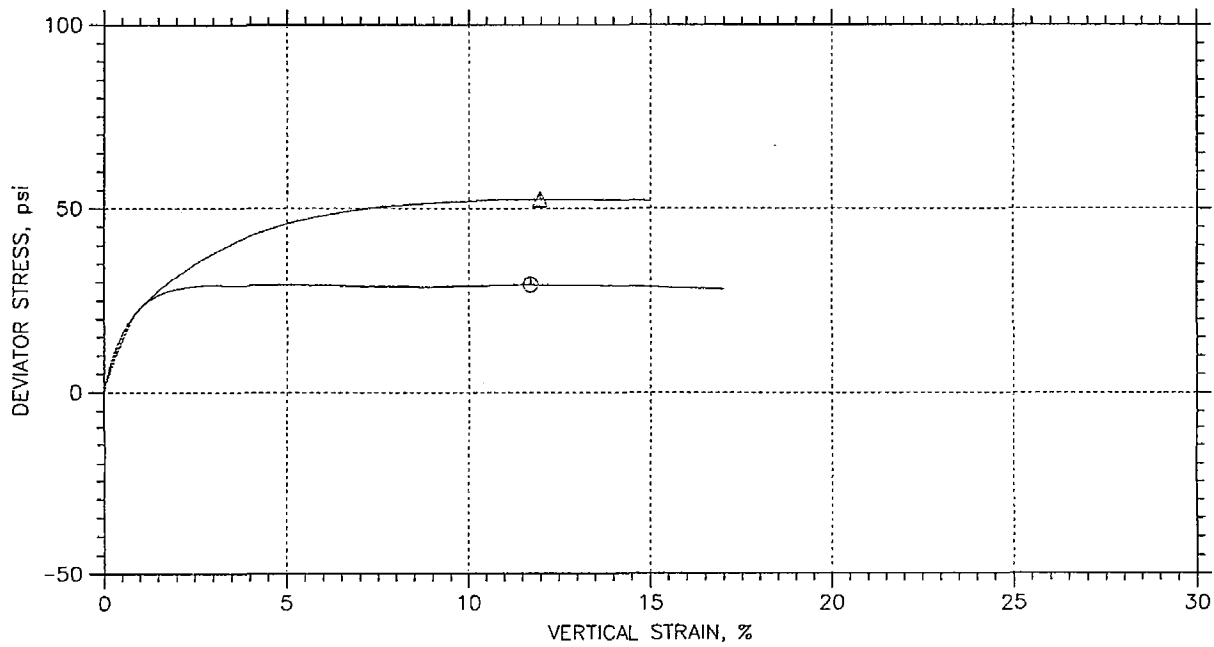
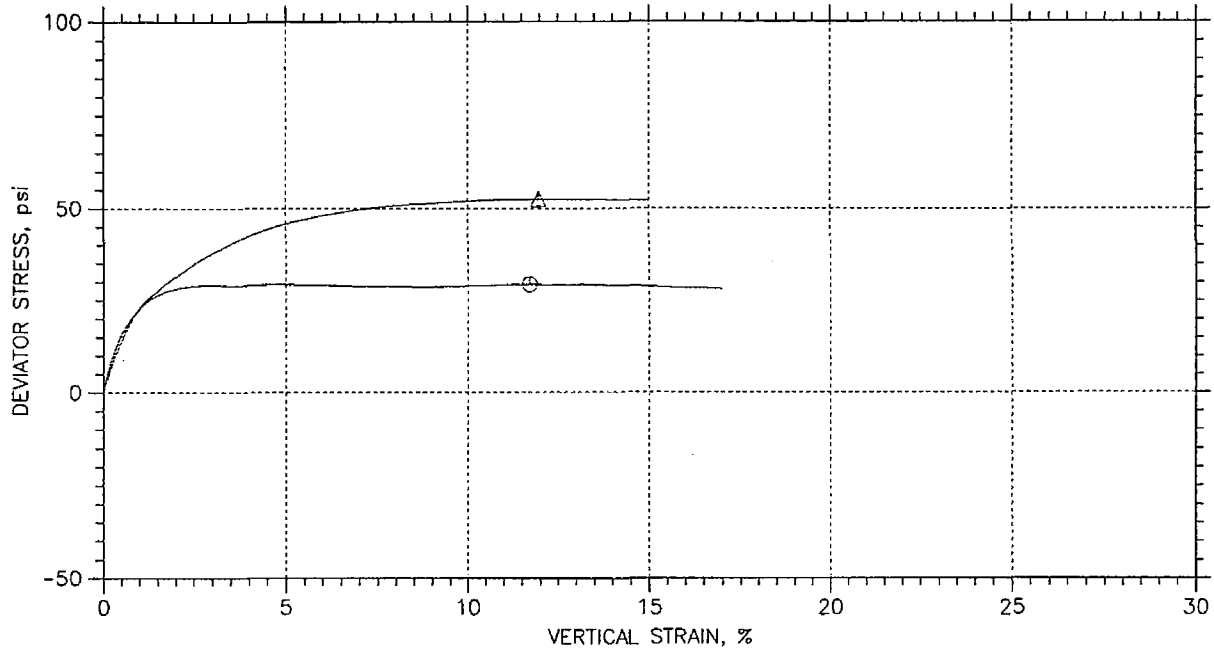
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File	
○	UD-3	5390.1	28.5 ft.	HJ	11/4/06	JL <i>[Signature]</i>	11/24/06	5390.1.68.dat
△	UD	5390.3.1104	28.5 Ft.	HJ	11/4/06	JL <i>[Signature]</i>	↓	5390.3_71.dat

	Project: SCE&G	Location: B309	Project No.: 6234063534S
	Boring No.: B-309	Sample Type: Shelby Tube	
	Description: Silt with sand		
	Remarks:		

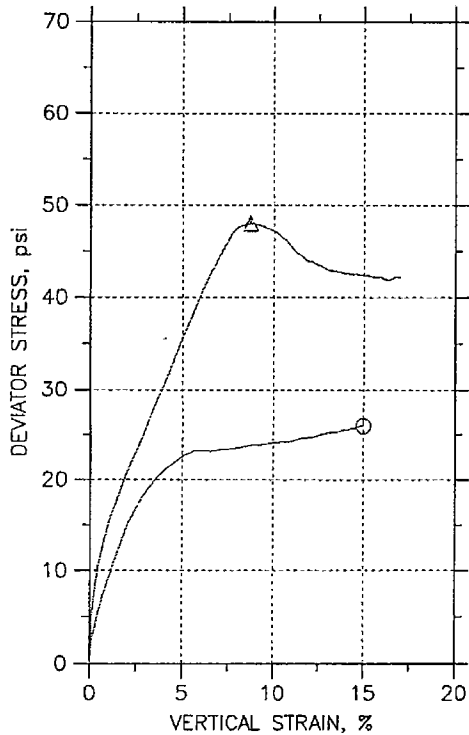
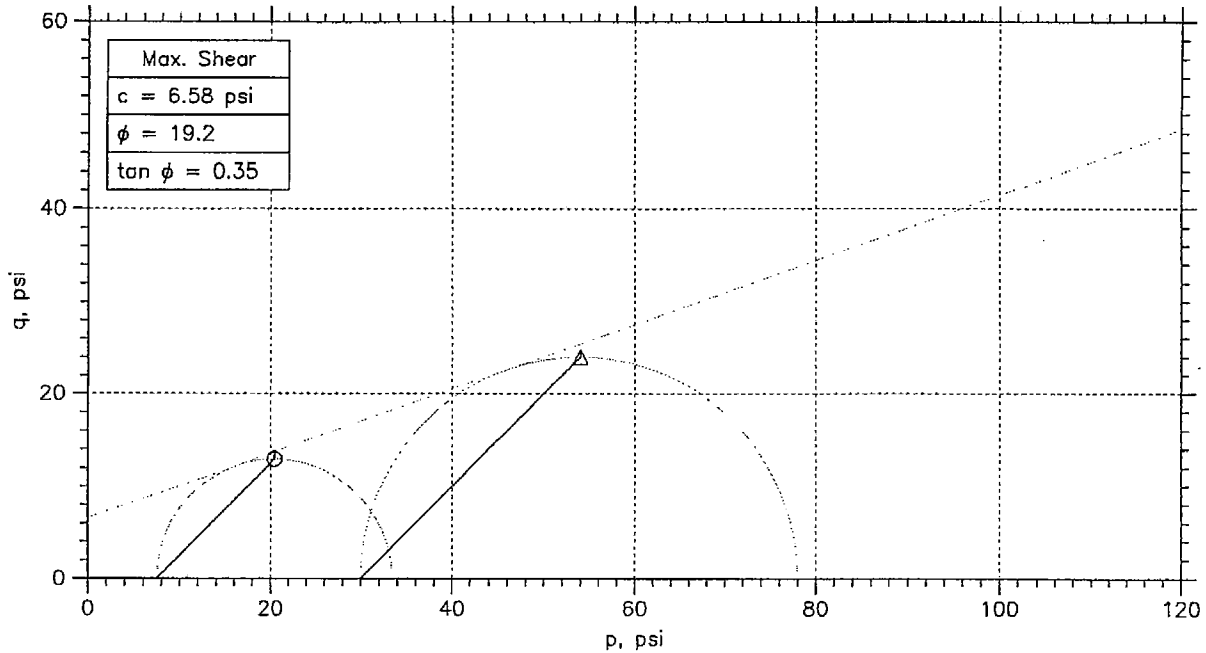
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	UD-3	5390.1	28.5 ft.	HJ	11/4/06	JL <i>[Signature]</i>	11/14/06 5390.1.68.dat
Δ	Ud	5390.3.1104	28.5 Ft.	HJ	11/4/06	JL <i>[Signature]</i>	11/14/06 5390.3._71.dat

	Project: SCE&G		Location: B309		Project No.: 6234063534S	
	Boring No.: B-309		Sample Type: Shelby Tube			
	Description: Silt with sand					
	Remarks:					

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

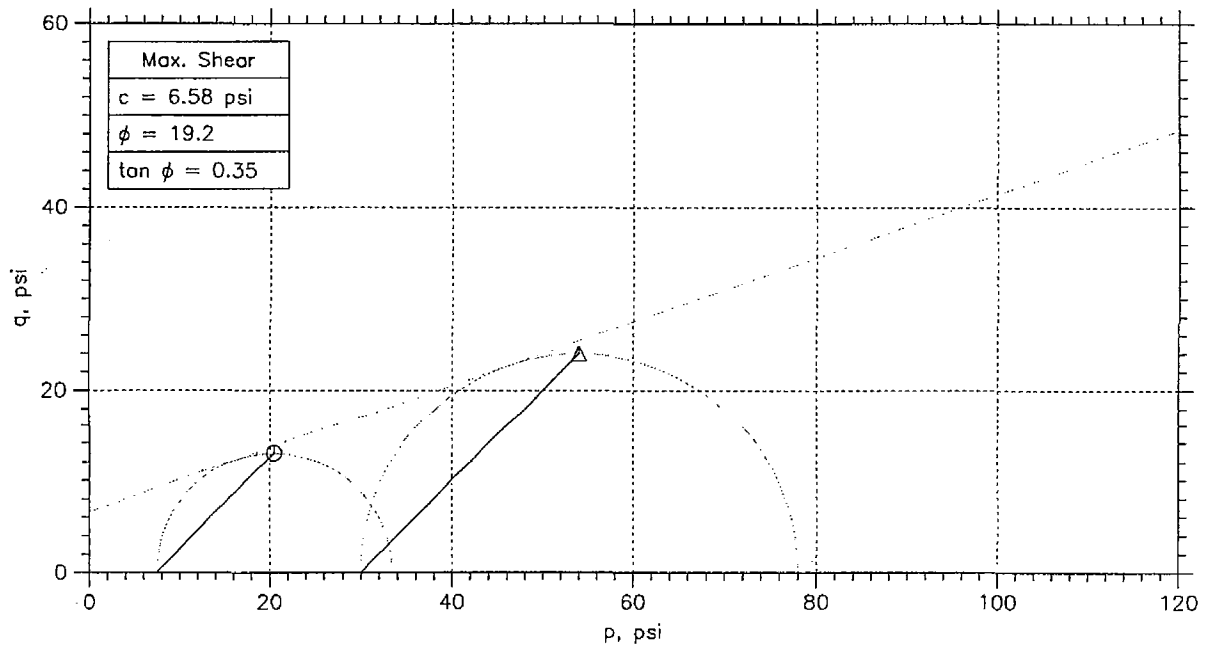
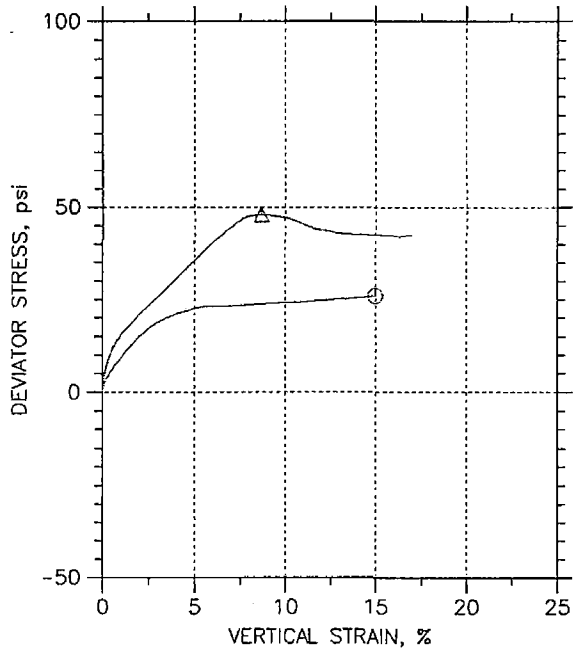
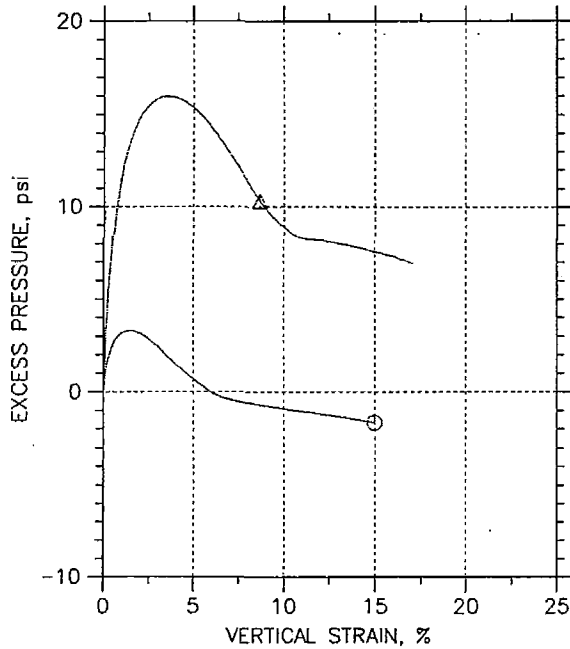


Symbol	⊙	△	
Sample No.	UD-2	UD-2	
Test No.	5397.1_65	397.3_68	
Depth	18.5 ft.	18.5 ft.	
Initial	Diameter, in	2.868	2.862
	Height, in	6	6
	Water Content, %	19.9	19.4
	Dry Density, pcf	88.67	92.9
	Saturation, %	57.7	62.3
Before Shear	Void Ratio	0.957	0.868
	Water Content, %	35.7	28.1
	Dry Density, pcf	87.15	97.38
	Saturation*, %	100.0	100.0
	Void Ratio	0.991	0.782
	Back Press., psi	106.	110.
	Ver. Eff. Cons. Stress, psi	7.488	30.
	Shear Strength, psi	12.95	24.
	Strain at Failure, %	15	8.7
	Strain Rate, %/min	0.083	0.1
	B-Value	0.93	0.95
	Estimated Specific Gravity	2.78	2.78
	Liquid Limit	NP	NP
	Plastic Limit	NP	NP

Project: SCE&G COL	
Location: B-321	
Project No.: 6234063534	
Boring No.: B-321	
Sample Type: Shelby Tube	
Description: Silty sand	
Remarks:	

Phase calculations based on start and end of test.

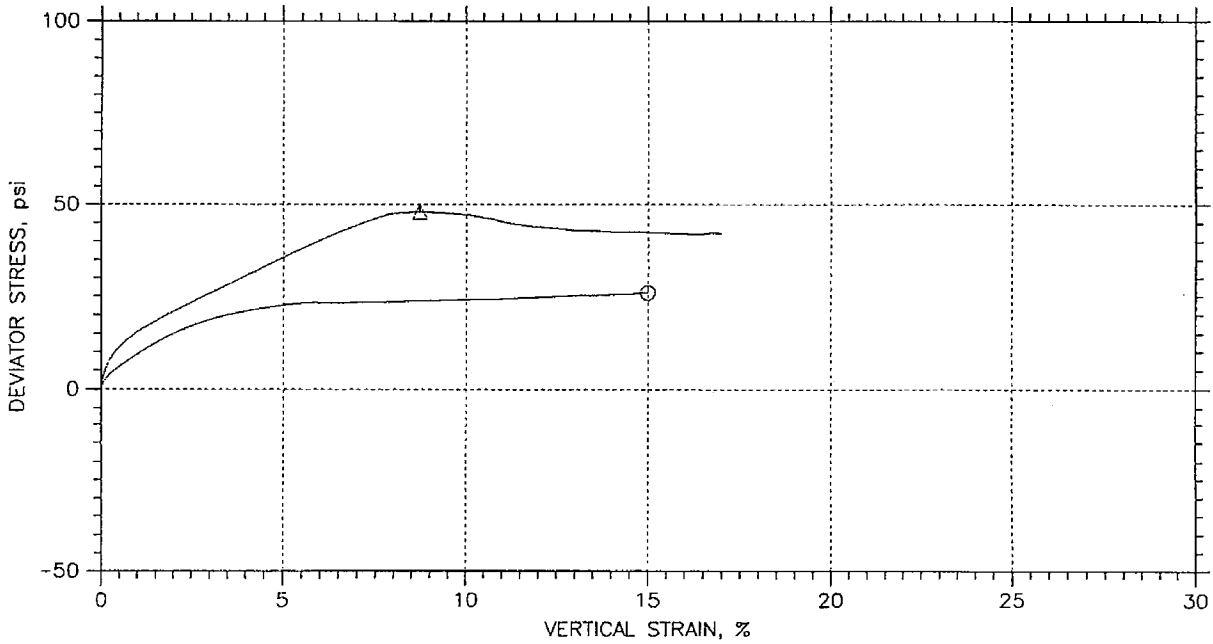
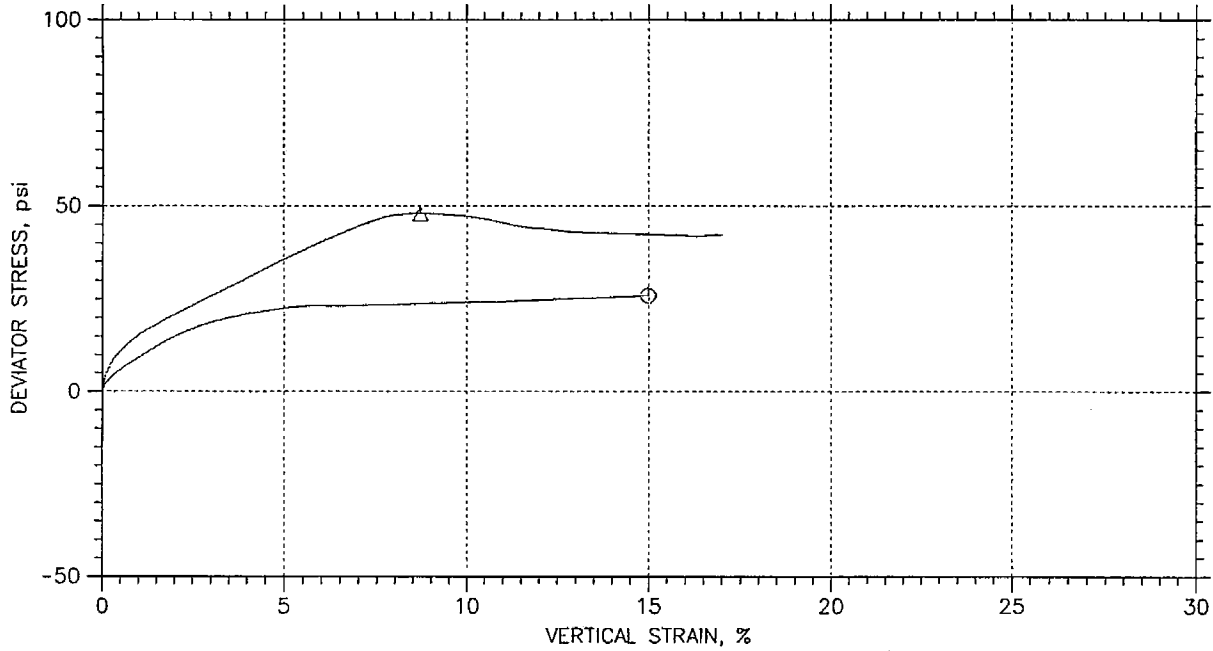
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File	
⊙	UD-2	5397.1_65	18.5 ft.	HJ	11/5/06	JL <i>[Signature]</i>	11/24/06	5397.1_65.dat
△	UD-2	5397.3_68	18.5 ft.	HJ	11/5/06	JL <i>[Signature]</i>	↓	5397.3a_68.dat

Project: SCE&G COL		Location: B-321		Project No.: 6234063534	
Boring No.: B-321		Sample Type: Shelby Tube			
Description: Silty sand					
Remarks:					

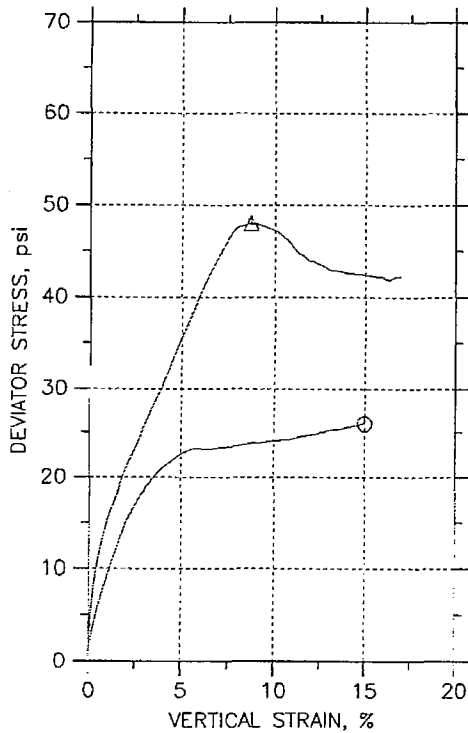
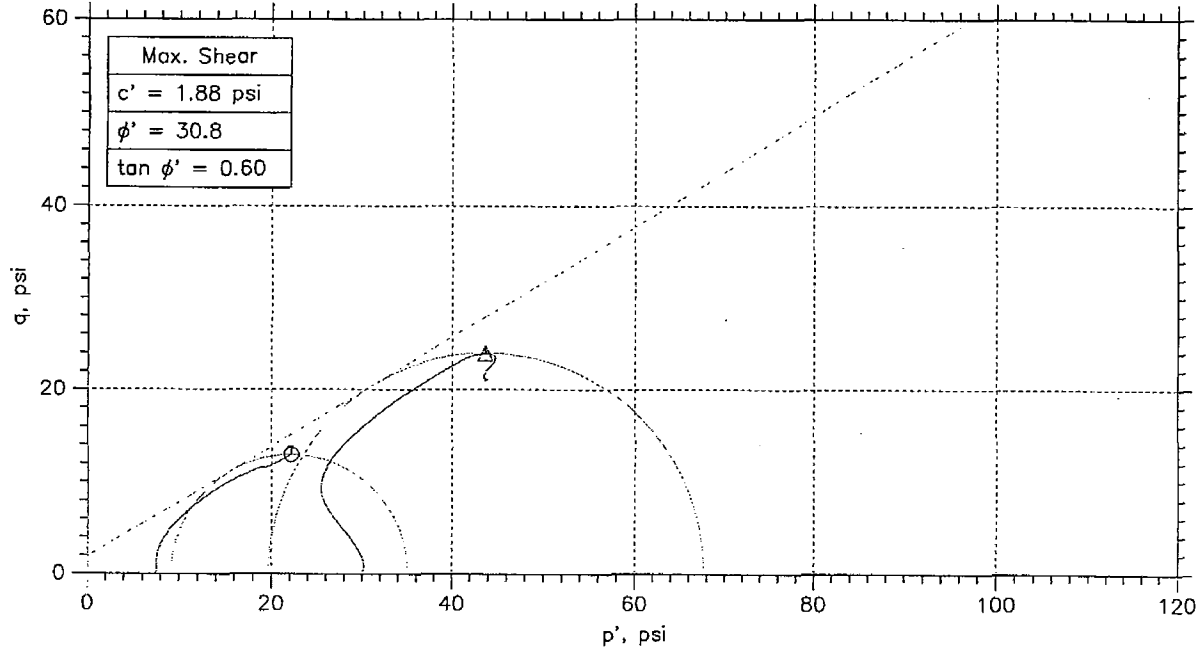
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-2	5397.1_65	18.5 ft.	HJ	11/5/06	JL	11/24/06	5397.1_65.dat
△	UD-2	5397.3_68	18.5 ft.	HJ	11/5/06	JL	↓	5397.3a_68.dat

	Project: SCE&G COL		Location: B-321		Project No.: 6234063534	
	Boring No.: B-321		Sample Type: Shelby Tube			
	Description: Silty sand					
	Remarks:					

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



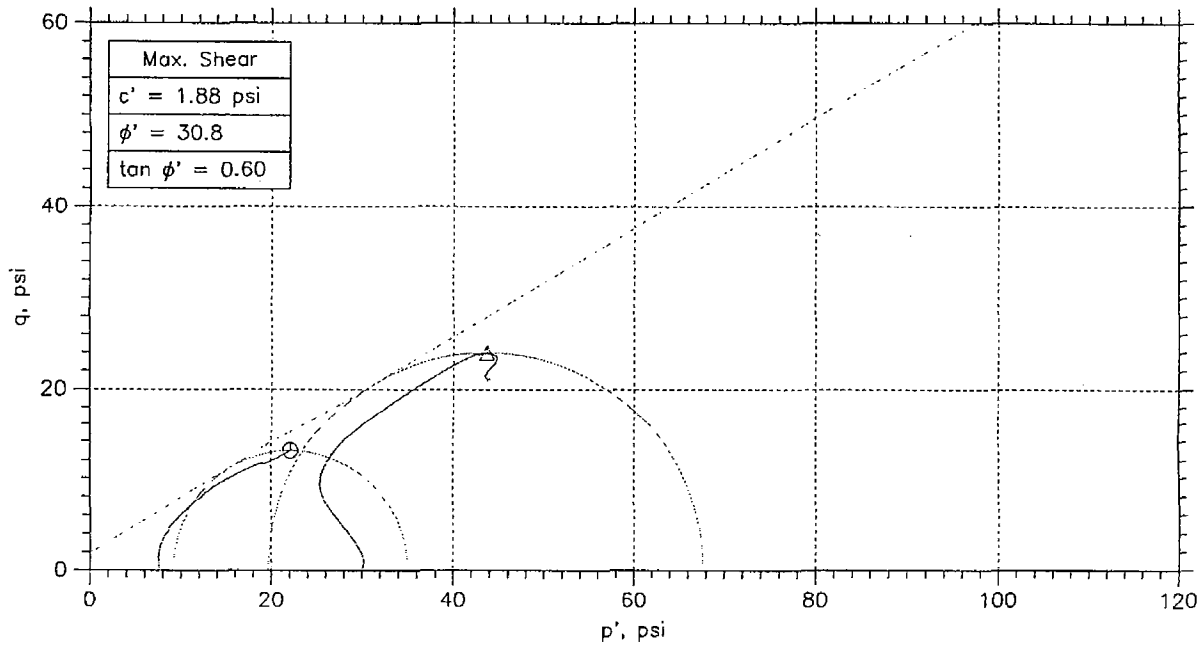
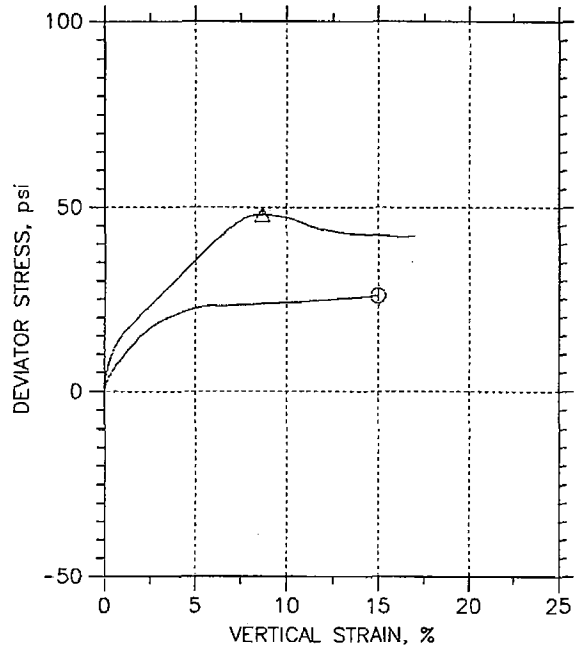
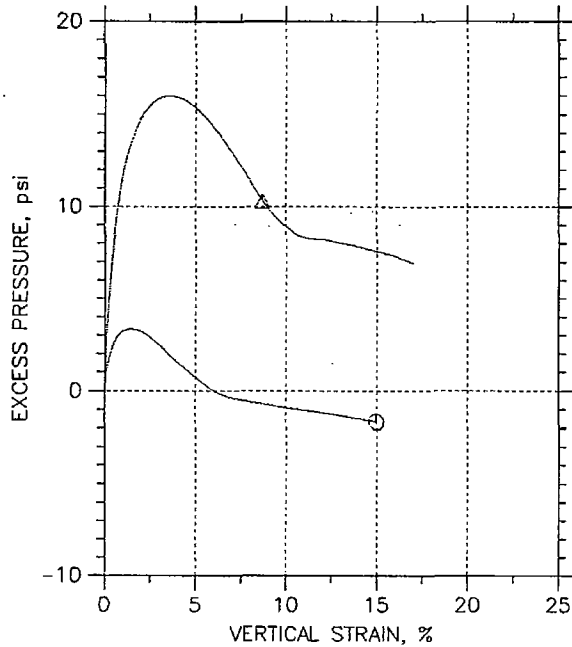
Symbol	O	Δ	
Sample No.	UD-2	UD-2	
Test No.	5397.1_65397.3_68		
Depth	18.5 ft.	18.5 ft.	
Initial	Diameter, in	2.868	2.862
	Height, in	6	6
	Water Content, %	19.9	19.4
	Dry Density, pcf	88.67	92.9
	Saturation, %	57.7	62.3
Before Shear	Void Ratio	0.957	0.868
	Water Content, %	35.7	28.1
	Dry Density, pcf	87.15	97.38
	Saturation*, %	100.0	100.0
	Void Ratio	0.991	0.782
Back Press., psi	106.	110.	
Ver. Eff. Cons. Stress, psi	7.488	30.	
Shear Strength, psi	12.95	24.	
Strain at Failure, %	15	8.7	
Strain Rate, %/min	0.083	0.1	
B-Value	0.93	0.95	
Estimated Specific Gravity	2.78	2.78	
Liquid Limit	NP	NP	
Plastic Limit	NP	NP	

Project: SCE&G COL	
Location: B-321	
Project No.: 6234063534	
Boring No.: B-321	
Sample Type: Shelby Tube	
Description: Silty sand	
Remarks:	

Phase calculations based on start and end of test.

\* Saturation is set to 100% for phase calculations.

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

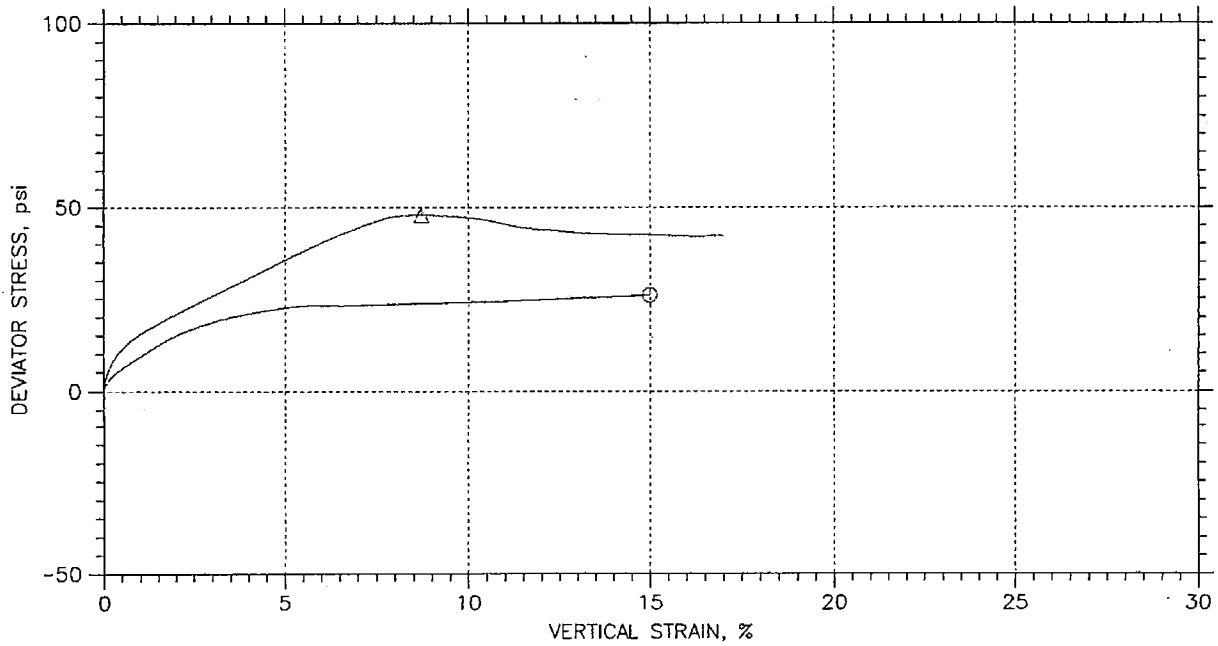
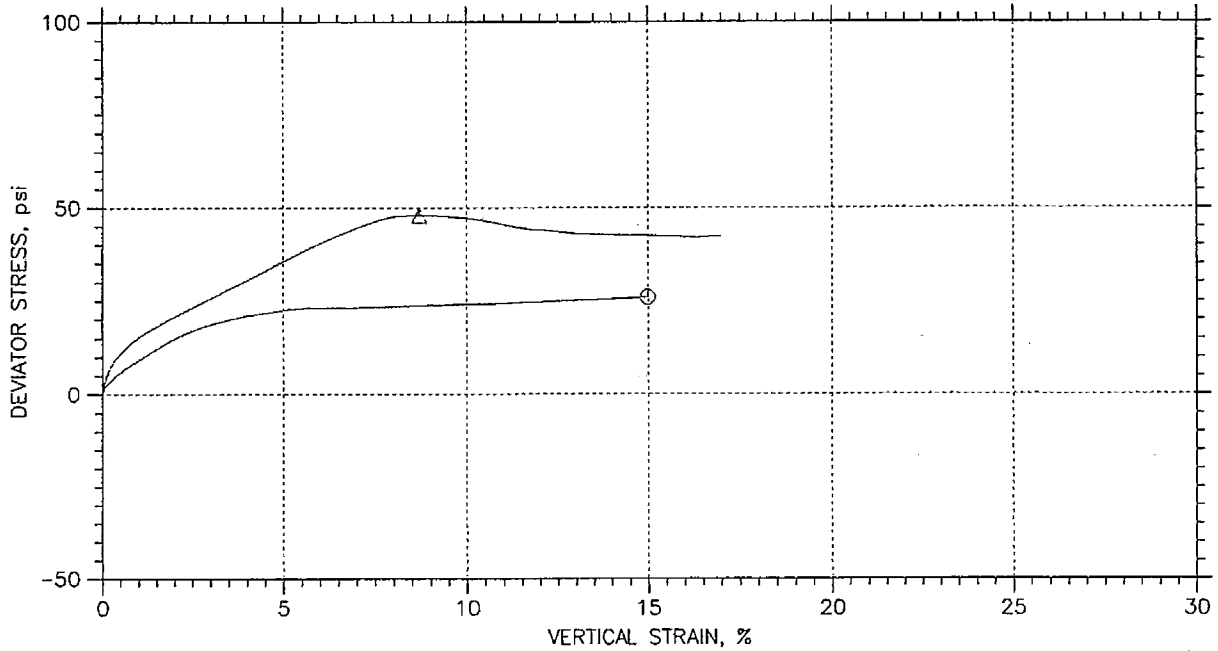


Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File	
○	UD-2	5397.1_65	18.5 ft.	HJ	11/5/06	JL <i>[Signature]</i>	11/24/06	5397.1_65.dat
Δ	UD-2	5397.3_68	18.5 ft.	HJ	11/5/06	JL <i>[Signature]</i>	↓	5397.3a_68.dat

Project: SCE&G COL		Location: B-321		Project No.: 6234063534	
Boring No.: B-321		Sample Type: Shelby Tube			
Description: Silty sand					
Remarks:					



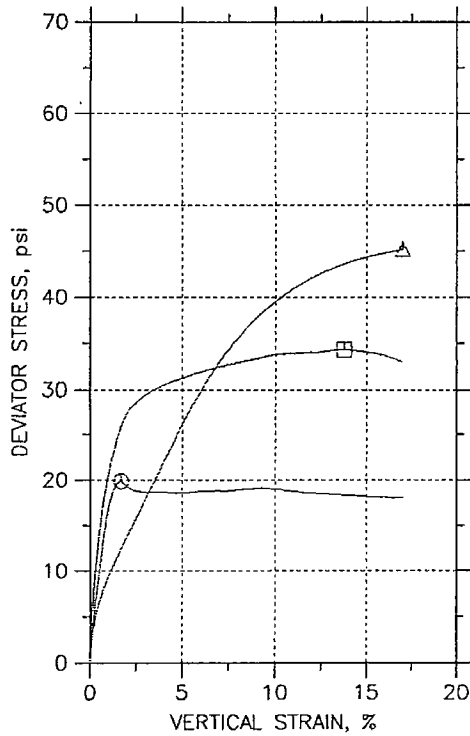
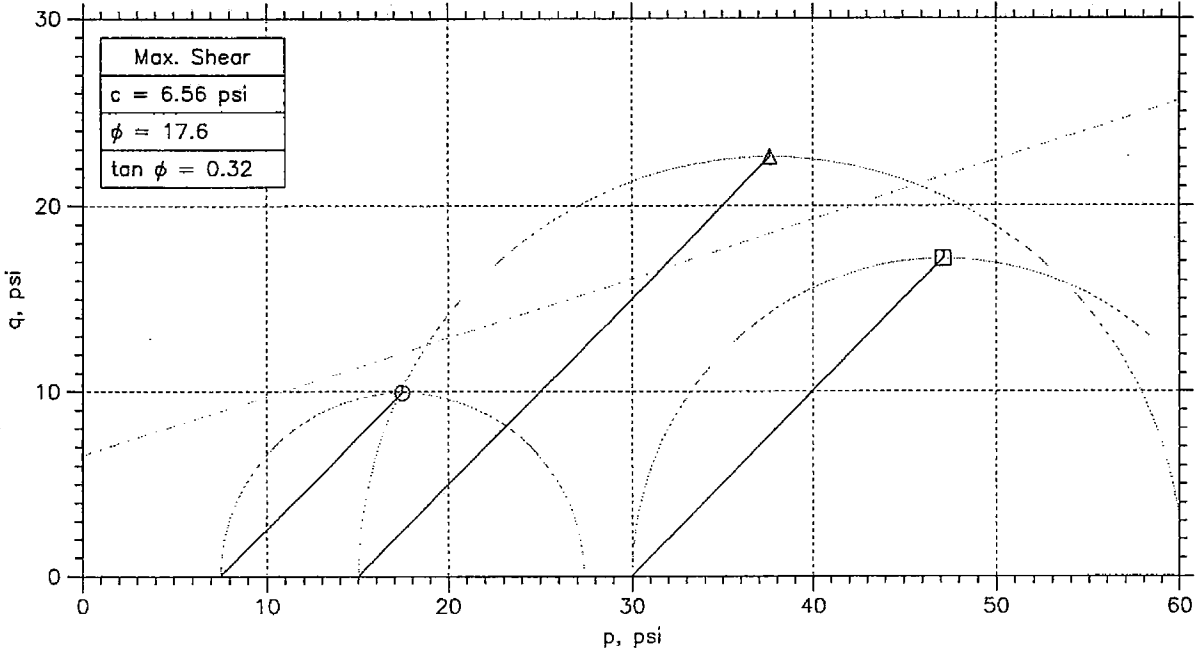
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD-2	5397.1_65	18.5 ft.	HJ	11/5/06	JL <i>[Signature]</i>	11/21/06	5397.1_65.dat
△	UD-2	5397.3_68	18.5 ft.	HJ	11/5/06	JL <i>[Signature]</i>	11/21/06	5397.3a_68.dat

	Project: SCE&G COL	Location: B-321	Project No.: 6234063534
	Boring No.: B-321	Sample Type: Shelby Tube	
	Description: Silty sand		
	Remarks:		

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



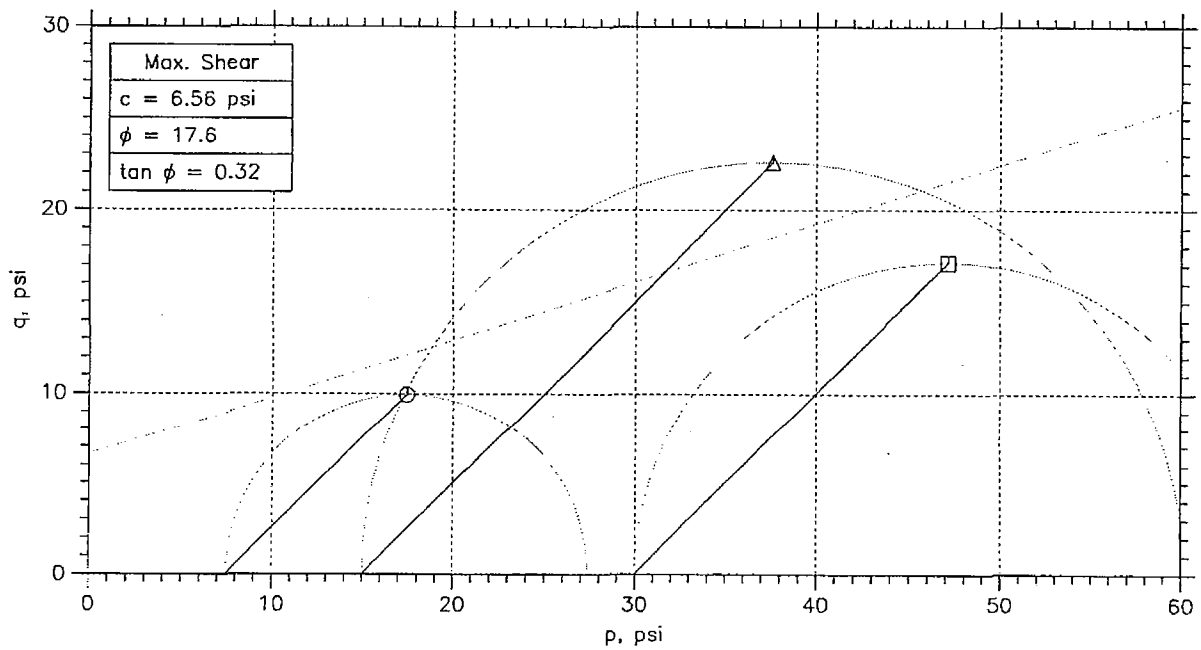
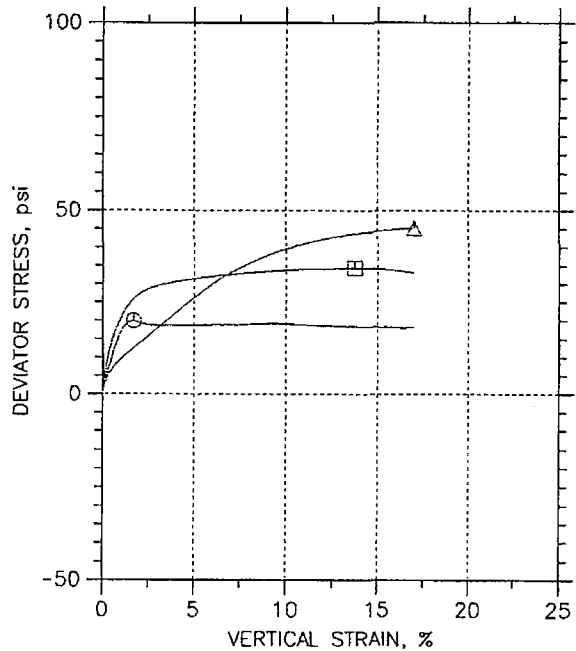
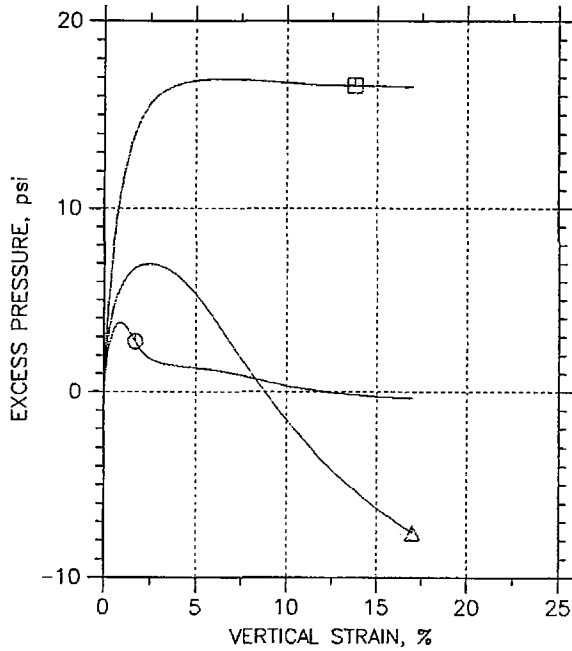
Symbol	⊙	△	□	
Sample No.	UD	UD	Ud-2	
Test No.	5401.1	5401.2	5401.3	
Depth	18.5 ft.	18.5 ft.	18.5 ft.	
Initial	Diameter, in	2.868	2.867	2.855
	Height, in	6	6	6
	Water Content, %	16.9	13.9	14.9
	Dry Density, pcf	85.96	95.15	83.74
Before Shear	Saturation, %	46.1	46.9	38.7
	Void Ratio	1.02	0.824	1.07
	Water Content, %	16.9	26.1	35.6
	Dry Density, pcf	118.	100.6	87.26
	Saturation*, %	100.0	100.0	100.0
	Void Ratio	0.47	0.726	0.989
	Back Press., psi	110.	110.	105.
Ver. Eff. Cons. Stress, psi	7.503	15.01	30.	
Shear Strength, psi	9.933	22.59	17.15	
Strain at Failure, %	1.69	17	13.7	
Strain Rate, %/min	0.1	0.1	0.1	
B-Value	0.89	0.89	0.95	
Estimated Specific Gravity	2.78	2.78	2.78	
Liquid Limit	NP	NP	NP	
Plastic Limit	NP	NP	NP	

	Project: SCE&G COL	
	Location: B-322	
	Project No.: 6234063534S	
	Boring No.: B-322	
	Sample Type: Shelby Tube	
	Description: Silty sand	
Remarks:		

Phase calculations based on start of test.

\* Saturation is set to 100% for phase calculations.

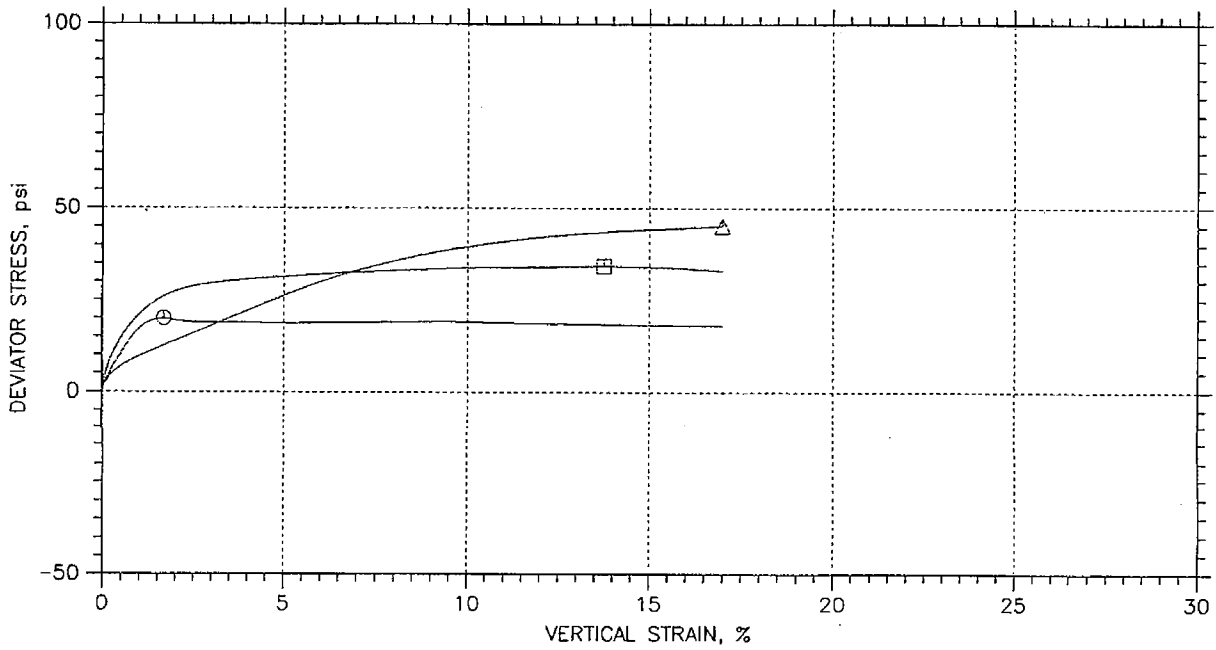
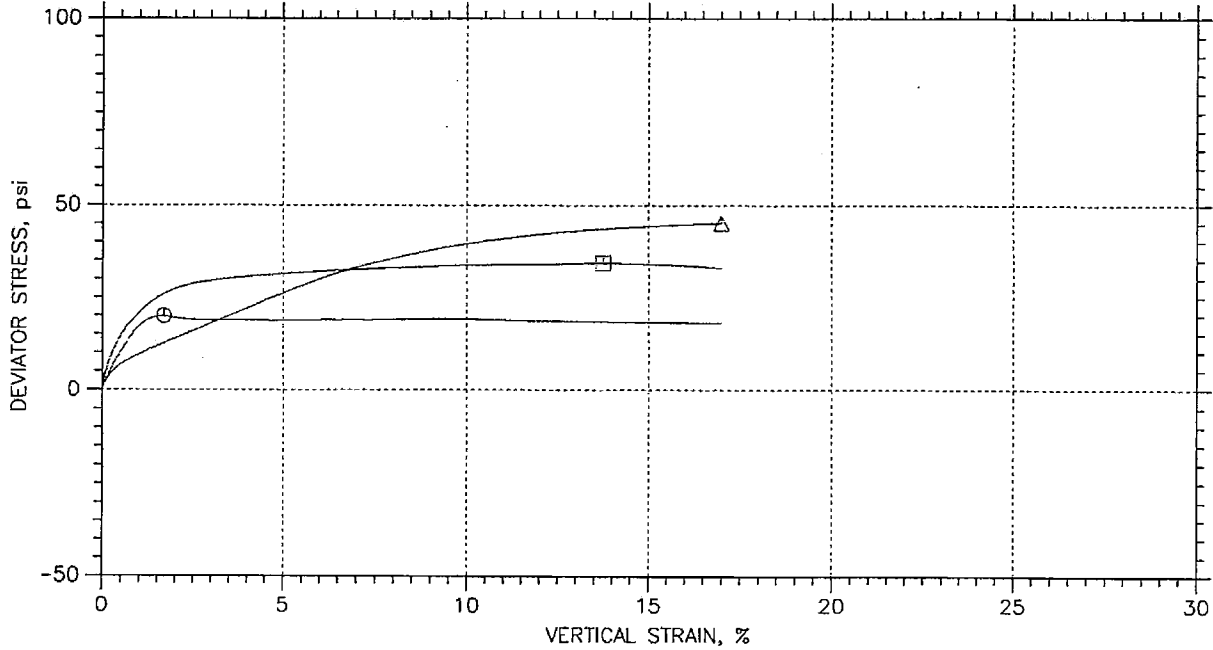
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File	
○	UD	5401.1	18.5 ft.	HJ	11/7/06	JL <i>[Signature]</i>	11/29/06	5401.1_71.dat
△	UD	5401.2	18.5 ft.	HJ	11/5/06	JL <i>[Signature]</i>		5401.2_71.dat
□	Ud-2	5401.3	18.5 ft.	HJ	11/7/06	JL <i>[Signature]</i>		5401.3_68.dat

	Project: SCE&G COL	Location: B-322	Project No.: 6234063534S
	Boring No.: B-322	Sample Type: Shelby Tube	
	Description: Silty sand		
	Remarks:		

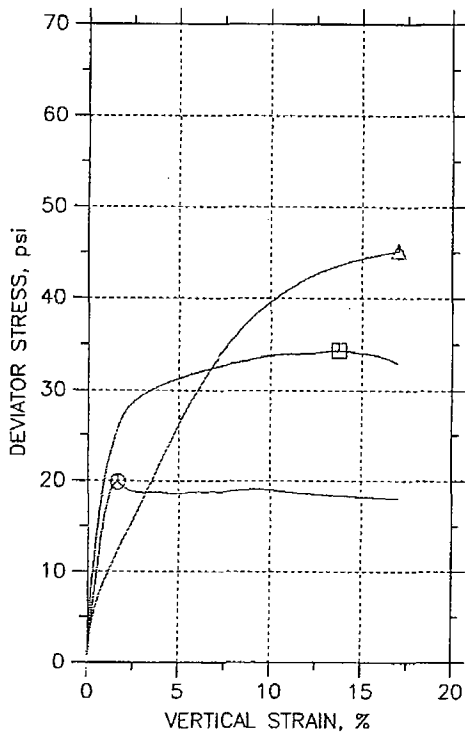
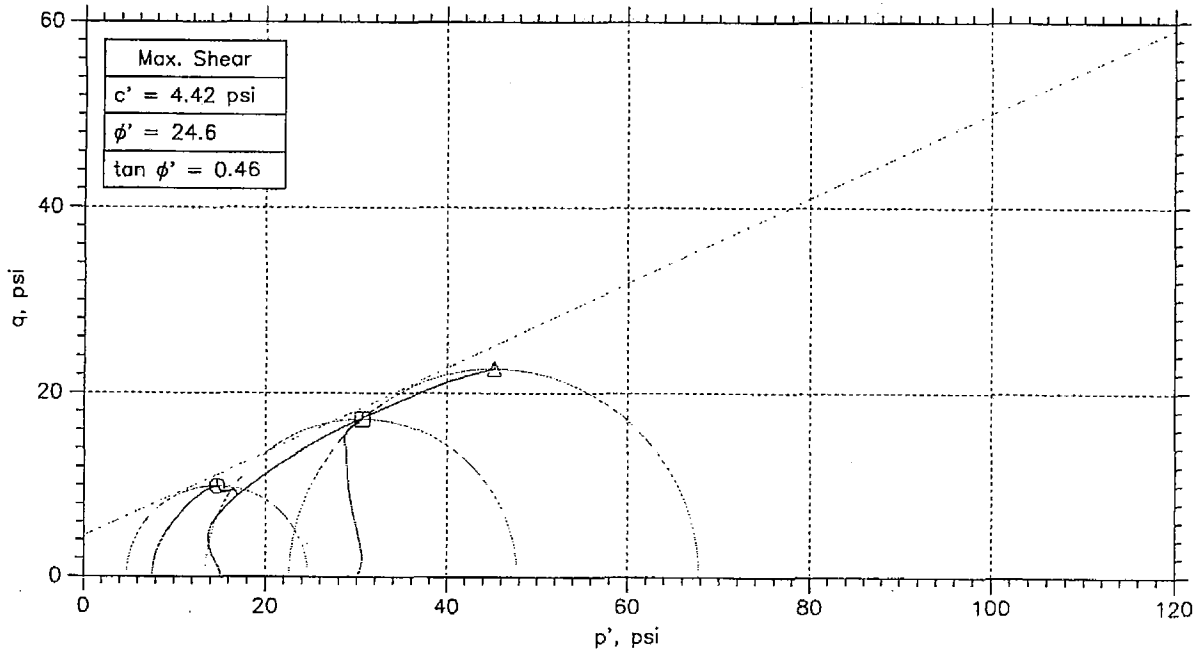
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Symbol	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD	5401.1	18.5 ft.	HJ	11/7/06	JL	11/21/06	5401.1_71.dat
△	UD	5401.2	18.5 ft.	HJ	11/5/06	JL	↓	5401.2_71.dat
□	Ud-2	5401.3	18.5 ft.	HJ	11/7/06	JL	↓	5401.3_68.dat

	Project: SCE&G COL		Location: B-322		Project No.: 6234063534S	
	Boring No.: B-322		Sample Type: Shelby Tube			
	Description: Silty sand					
	Remarks:					

## CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



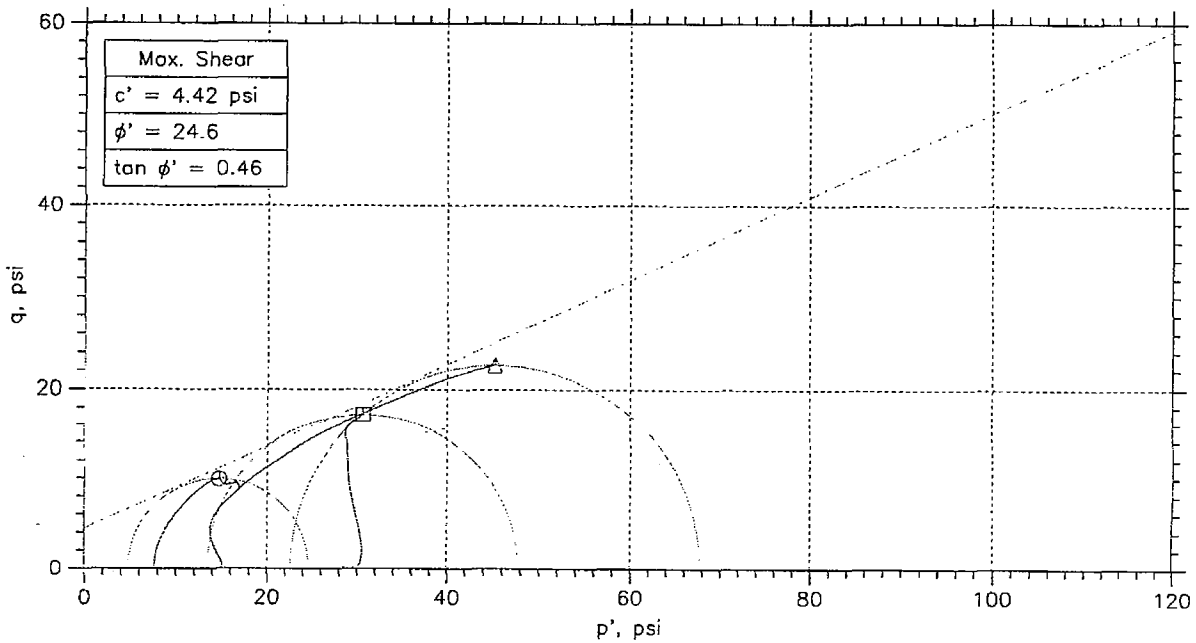
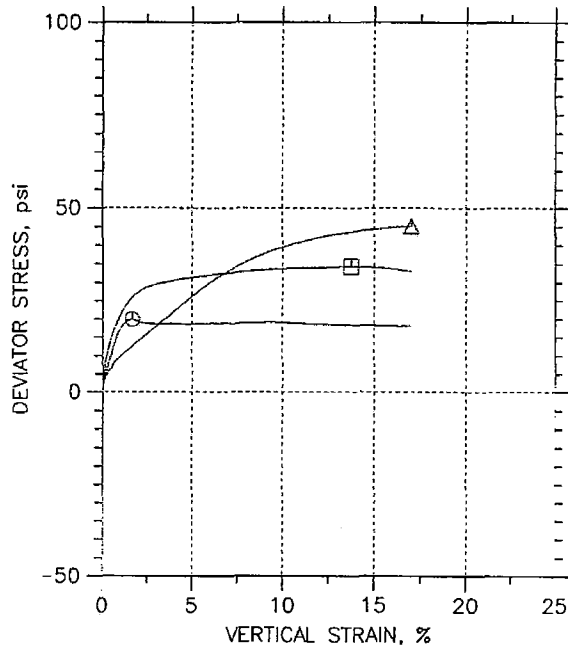
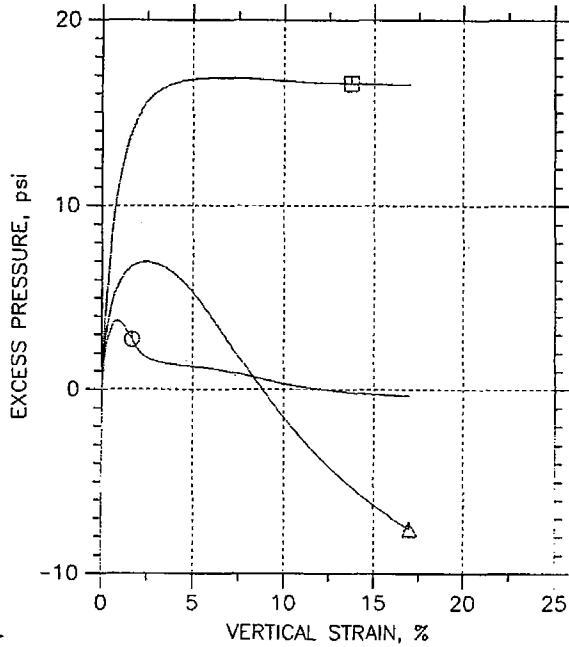
Symbol	⊙	△	□	
Sample No.	UD	UD	Ud-2	
Test No.	5401.1	5401.2	5401.3	
Depth	18.5 ft.	18.5 ft.	18.5 ft.	
Initial	Diameter, in	2.868	2.867	2.855
	Height, in	6	6	6
	Water Content, %	16.9	13.9	14.9
	Dry Density, pcf	85.96	95.15	83.74
	Saturation, %	46.1	46.9	38.7
Before Shear	Void Ratio	1.02	0.824	1.07
	Water Content, %	16.9	26.1	35.6
	Dry Density, pcf	118.	100.6	87.26
	Saturation*, %	100.0	100.0	100.0
	Void Ratio	0.47	0.726	0.989
	Back Press., psi	110.	110.	105.
Ver. Eff. Cons. Stress, psi	7.503	15.01	30.	
Shear Strength, psi	9.933	22.59	17.15	
Strain at Failure, %	1.69	17	13.7	
Strain Rate, %/min	0.1	0.1	0.1	
B-Value	0.89	0.89	0.95	
Estimated Specific Gravity	2.78	2.78	2.78	
Liquid Limit	NP	NP	NP	
Plastic Limit	NP	NP	NP	

	Project: SCE&G COL	
	Location: B-322	
	Project No.: 6234063534S	
	Boring No.: B-322	
	Sample Type: Shelby Tube	
	Description: Silty sand	
Remarks:		

Phase calculations based on start of test.

\* Saturation is set to 100% for phase calculations.

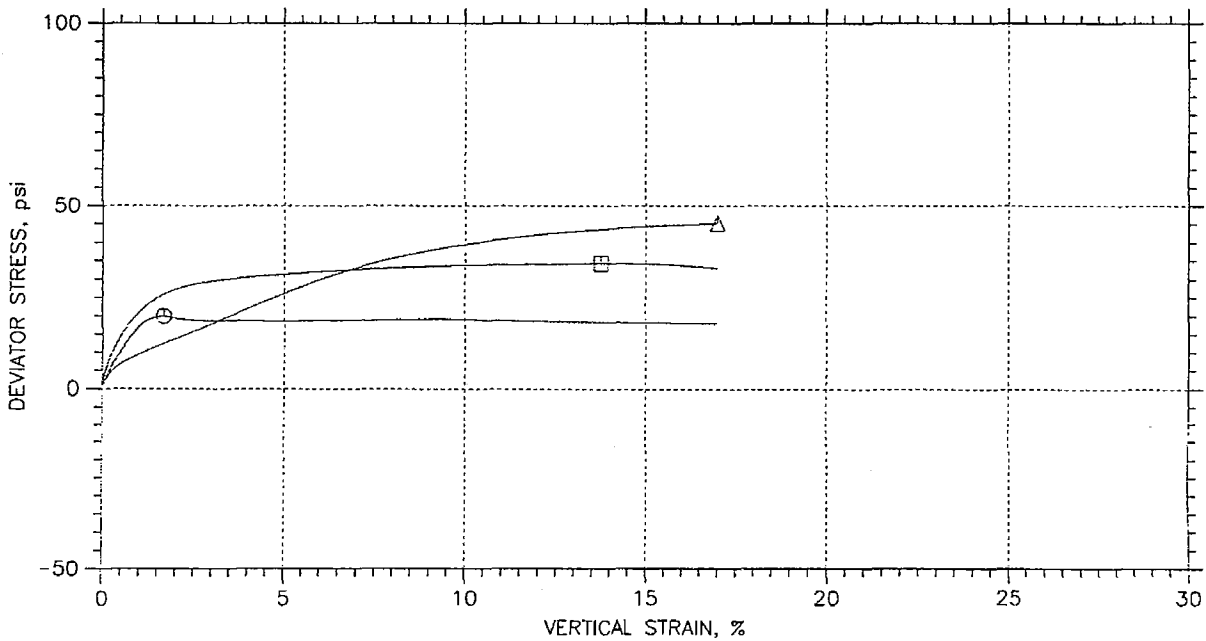
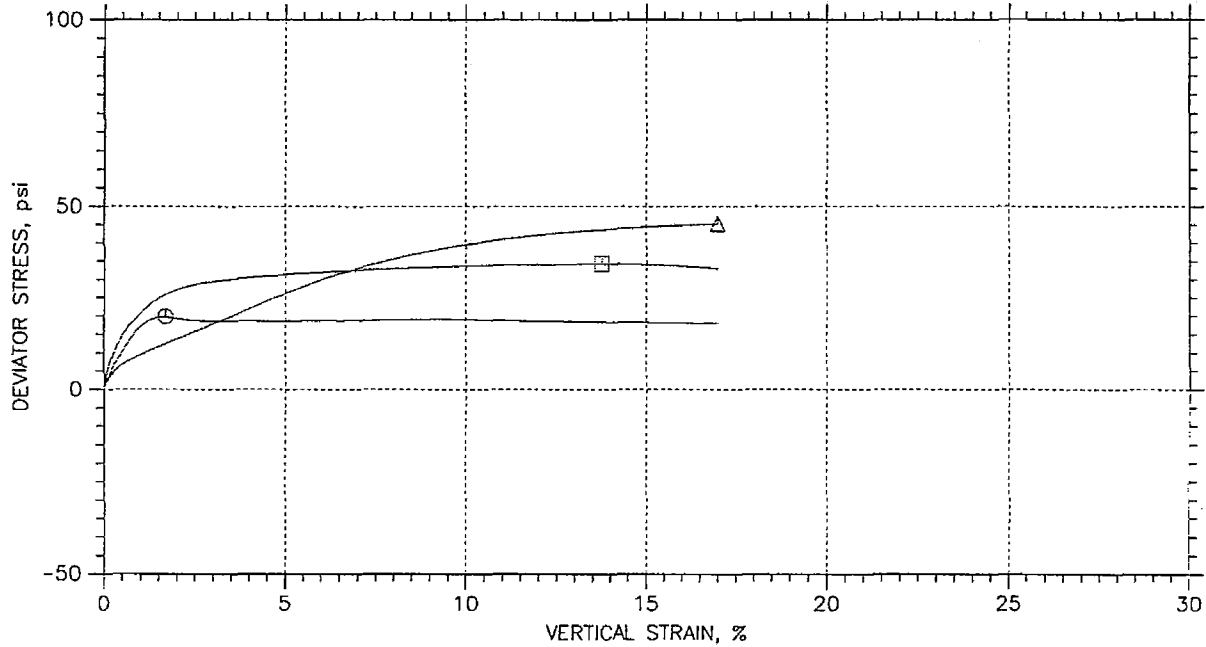
# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	UD	5401.1	HJ	11/7/06	JL	11/24/16	5401.1_71.dat
△	UD	5401.2	HJ	11/5/06	JL	↓	5401.2_71.dat
□	Ud-2	5401.3	HJ	11/7/06	JL	↓	5401.3_68.dat

	Project: SCE&G COL		Location: B-322		Project No.: 6234063534S	
	Boring No.: B-322		Sample Type: Shelby Tube			
	Description: Silty sand					
	Remarks:					

# CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
○	UD	5401.1	18.5 ft.	HJ	11/7/06	JL	11/24/06	5401.1_71.dat
△	UD	5401.2	18.5 ft.	HJ	11/5/06	JL	11/24/06	5401.2_71.dat
□	Ud-2	5401.3	18.5 ft.	HJ	11/7/06	JL	↓	5401.3_68.dat

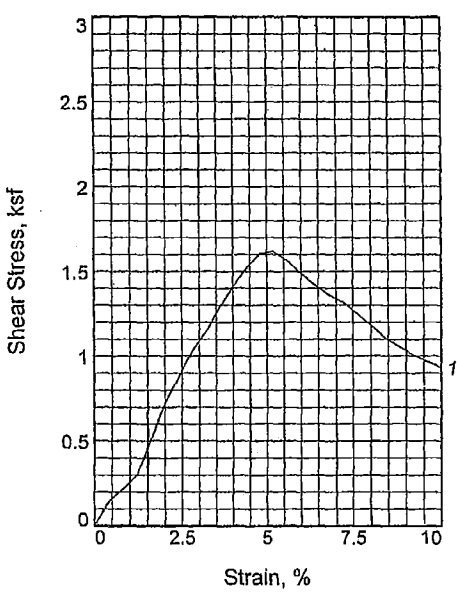
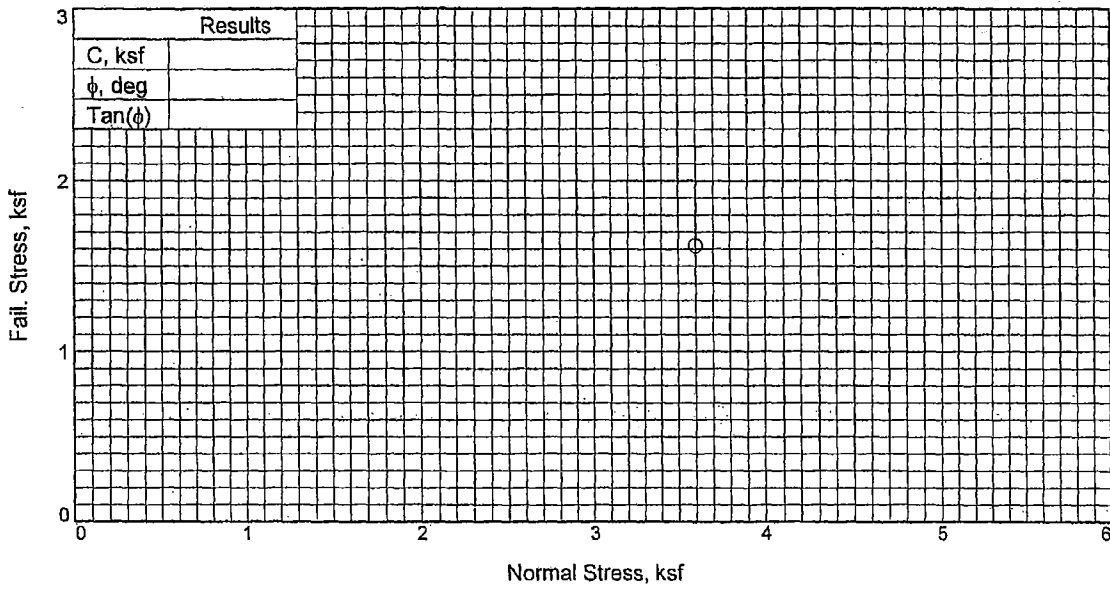
	Project: SCE&G COL		Location: B-322		Project No.: 6234063534S	
	Boring No.: B-322		Sample Type: Shelby Tube			
	Description: Silty sand					
	Remarks:					

0

1

2





Sample No.	1	
Initial	Water Content, %	24.2
	Dry Density, pcf	86.7
	Saturation, %	66.6
	Void Ratio	1.0159
	Diameter, in.	2.50
At Test	Height, in.	1.00
	Water Content, %	23.9
	Dry Density, pcf	94.1
	Saturation, %	78.1
	Void Ratio	0.8566
	Diameter, in.	2.50
	Height, in.	0.92
	Normal Stress, ksf	3.60
	Fail. Stress, ksf	1.62
	Strain, %	5.2
	Ult. Stress, ksf	
	Strain, %	
	Strain rate, in./min.	0.10

**Sample Type:** Shelby Tube  
**Description:** Silty sand  
  
**Assumed Specific Gravity=** 2.8  
**Remarks:**  
  
**Lab Sample ID #** \_\_\_\_\_

**Client:**  
  
**Project:** SCE&G COL  
  
**Location:** B-215  
**Sample Number:** UD-3      **Depth:** 28.5 Ft.  
**Proj. No.:** 6234-06-35348      **Date Sampled:** 11/17/06  
**DIRECT SHEAR TEST REPORT**  
**MACTEC ENGINEERING AND CONSULTING, INC.**

Tested By: HJ

Checked By: JL [Signature] 11/22/06

**DIRECT SHEAR TEST**

12/29/2006

**Date:** 11/17/06  
**Client:**  
**Project:** SCE&G COL  
**Project No.:** 6234-06-3534S  
**Location:** B-215  
**Depth:** 28.5 Ft. **Sample Number:** UD-3  
**Description:** Silty sand  
**Remarks:**  
**Type of Sample:** Shelby Tube  
**Assumed Specific Gravity=**2.8 **LL=** **PL=** **PI=**

**Parameters for Specimen No. 1**

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Molst soil+tare, gms.			142.740
Moisture content: Dry soil+tare, gms.			116.040
Moisture content: Tare, gms.			4.310
Moisture, %	24.2	23.9	23.9
Moist specimen weight, gms.	138.7		
Diameter, in.	2.50	2.50	
Area, in. <sup>2</sup>	4.91	4.91	
Height, in.	1.00	0.92	
Net decrease in height, in.		0.08	
Wet Density, pcf	107.7	116.6	
Dry density, pcf	86.7	94.1	
Void ratio	1.0159	0.8566	
Saturation, %	66.6	78.1	

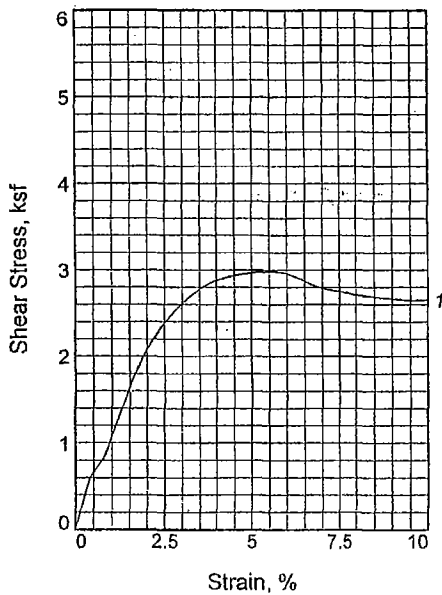
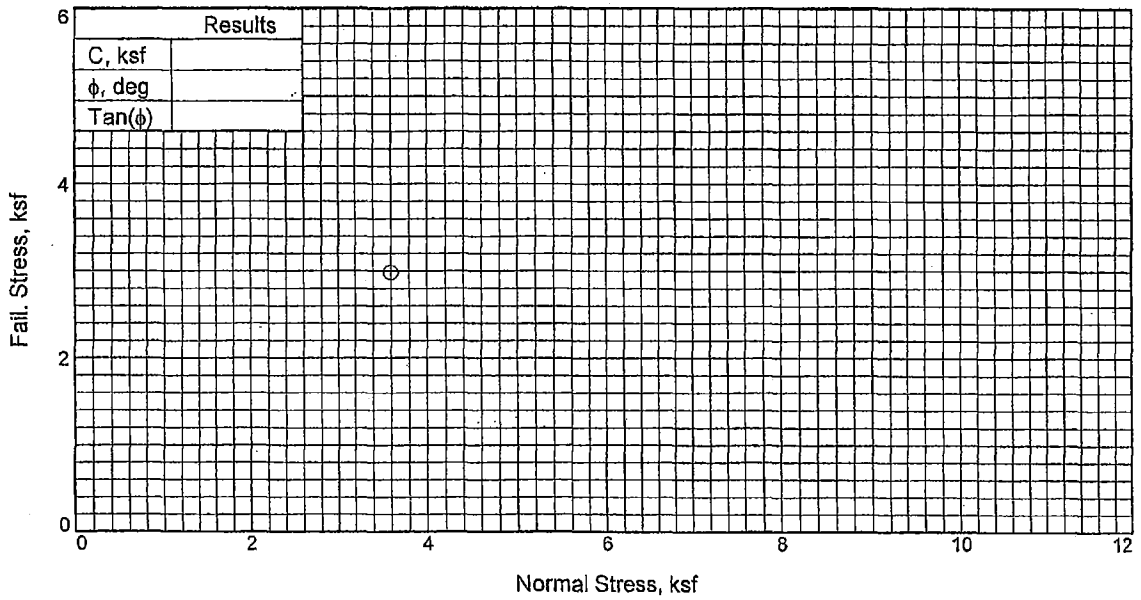
**Test Readings for Specimen No. 1**

**Normal stress =** 3.6 ksf  
**Strain rate, in./min. =** 0.10  
**Fail. Stress =** 1.62 ksf at reading no. 13

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress ksf
0	0.0000	0.20	0.0	0.0	0.00
1	0.0100	5.00	4.8	0.4	0.14
2	0.0200	7.60	7.4	0.8	0.22
3	0.0300	10.30	10.1	1.2	0.30
4	0.0400	17.50	17.3	1.6	0.51
5	0.0500	24.80	24.6	2.0	0.72
6	0.0600	30.00	29.8	2.4	0.87
7	0.0700	35.40	35.2	2.8	1.03
8	0.0800	39.20	39.0	3.2	1.14
9	0.0900	44.00	43.8	3.6	1.28
10	0.1000	48.20	48.0	4.0	1.41
11	0.1100	52.00	51.8	4.4	1.52
12	0.1200	54.80	54.6	4.8	1.60
13	0.1300	55.40	55.2	5.2	1.62
14	0.1400	53.60	53.4	5.6	1.57

Test Readings for Specimen No. 1

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress ksf
15	0.1500	51.00	50.8	6.0	1.49
16	0.1600	48.70	48.5	6.4	1.42
17	0.1700	46.60	46.4	6.8	1.36
18	0.1800	45.10	44.9	7.2	1.32
19	0.1900	43.10	42.9	7.6	1.26
20	0.2000	40.60	40.4	8.0	1.19
21	0.2100	38.10	37.9	8.4	1.11
22	0.2200	36.30	36.1	8.8	1.06
23	0.2300	34.60	34.4	9.2	1.01
24	0.2400	33.20	33.0	9.6	0.97
25	0.2500	32.00	31.8	10.0	0.93



Sample No.		1
Initial	Water Content, %	20.3
	Dry Density, pcf	87.1
	Saturation, %	56.3
	Void Ratio	1.0078
	Diameter, in.	2.50
Height, in.		1.00
At Test	Water Content, %	18.4
	Dry Density, pcf	92.2
	Saturation, %	57.5
	Void Ratio	0.8953
	Diameter, in.	2.50
Height, in.		0.94
Normal Stress, ksf		3.60
Fail. Stress, ksf		2.98
Strain, %		5.6
Ult. Stress, ksf		
Strain, %		
Strain rate, in./min.		0.10

**Sample Type:**

**Description:** Silty sand

**Assumed Specific Gravity=** 2.8

**Remarks:**

**Lab Sample ID #** \_\_\_\_\_

**Client:**

**Project:** SCE&G COL

**Location:** B-222

**Sample Number:** UD-3

**Depth:** 28.5 F.

Proj. No.: 6234-06-35348

**Date Sampled:** 11/17/06

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: HJ

Checked By: JL

*JPL 12/22/06*

**DIRECT SHEAR TEST**

12/29/2006

**Date:** 11/17/06  
**Client:**  
**Project:** SCE&G COL  
**Project No.:** 6234-06-3534S  
**Location:** B-222  
**Depth:** 28.5 F. **Sample Number:** UD-3  
**Description:** Silty sand  
**Remarks:**  
**Type of Sample:**  
**Assumed Specific Gravity=**2.8 **LL=** **PL=** **PI=**

**Parameters for Specimen No. 1**

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.			149.100
Moisture content: Dry soil+tare, gms.			128.460
Moisture content: Tare, gms.			16.280
Moisture, %	20.3	18.4	18.4
Moist specimen weight, gms.	134.9		
Diameter, in.	2.50	2.50	
Area, in. <sup>2</sup>	4.91	4.91	
Height, in.	1.00	0.94	
Net decrease in height, in.		0.06	
Wet Density, pcf	104.7	109.2	
Dry density, pcf	87.1	92.2	
Void ratio	1.0078	0.8953	
Saturation, %	56.3	57.5	

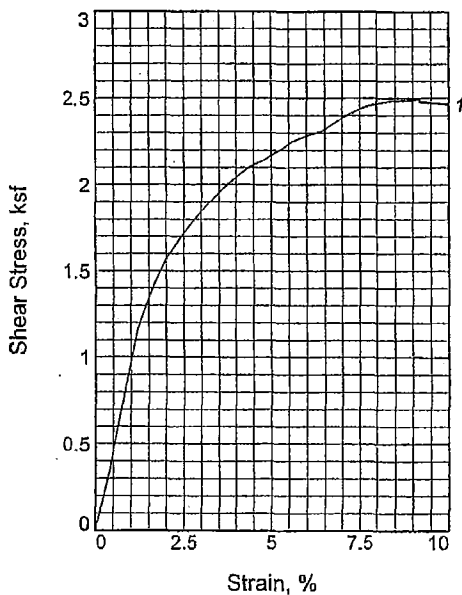
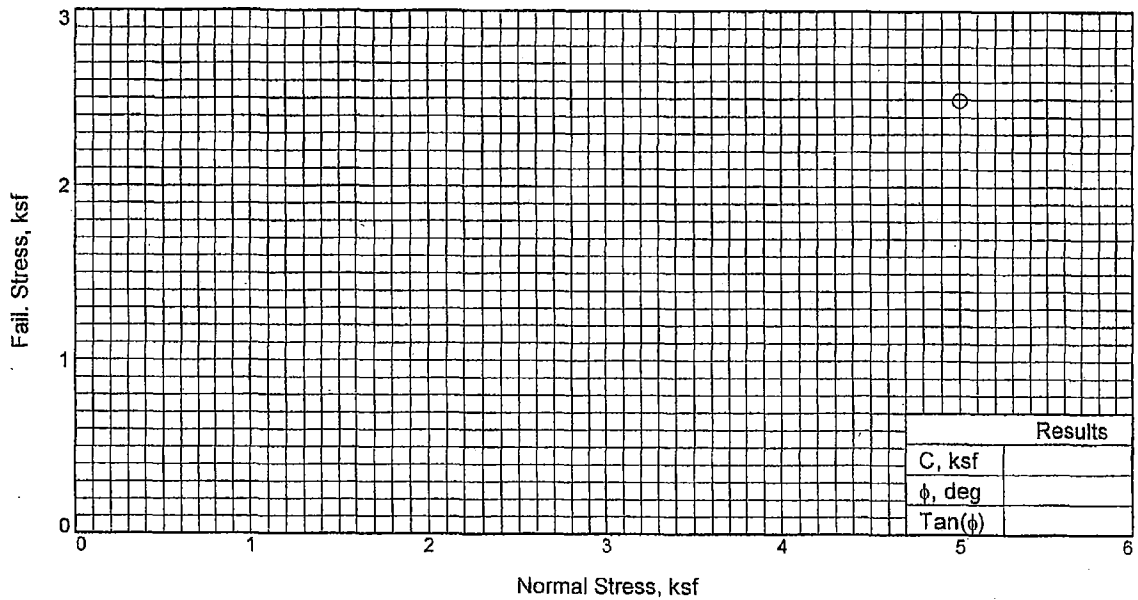
**Test Readings for Specimen No. 1**

**Normal stress =** 3.6 ksf  
**Strain rate, in./min. =** 0.10  
**Fail. Stress =** 2.98 ksf at reading no. 14

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress ksf
0	0.0000	0.60	0.0	0.0	0.00
1	0.0100	20.80	20.2	0.4	0.59
2	0.0200	29.20	28.6	0.8	0.84
3	0.0300	44.70	44.1	1.2	1.29
4	0.0400	60.10	59.5	1.6	1.75
5	0.0500	71.40	70.8	2.0	2.08
6	0.0600	80.20	79.6	2.4	2.34
7	0.0700	86.80	86.2	2.8	2.53
8	0.0800	92.20	91.6	3.2	2.69
9	0.0900	96.20	95.6	3.6	2.80
10	0.1000	98.70	98.1	4.0	2.88
11	0.1100	100.30	99.7	4.4	2.92
12	0.1200	101.20	100.6	4.8	2.95
13	0.1300	101.90	101.3	5.2	2.97
14	0.1400	102.30	101.7	5.6	2.98

Test Readings for Specimen No. 1

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress ksf
15	0.1500	101.40	100.8	6.0	2.96
16	0.1600	99.20	98.6	6.4	2.89
17	0.1700	96.40	95.8	6.8	2.81
18	0.1800	94.90	94.3	7.2	2.77
19	0.1900	94.30	93.7	7.6	2.75
20	0.2000	93.00	92.4	8.0	2.71
21	0.2100	92.40	91.8	8.4	2.69
22	0.2200	91.70	91.1	8.8	2.67
23	0.2300	91.20	90.6	9.2	2.66
24	0.2400	90.80	90.2	9.6	2.65
25	0.2500	91.10	90.5	10.0	2.65



Sample No.		1
Initial	Water Content, %	21.7
	Dry Density, pcf	88.6
	Saturation, %	62.3
	Void Ratio	0.9726
At Test	Diameter, in.	2.50
	Height, in.	1.00
	Water Content, %	21.5
	Dry Density, pcf	91.9
	Saturation, %	66.7
	Void Ratio	0.9016
	Diameter, in.	2.50
	Height, in.	0.96
Normal Stress, ksf		5.00
Fail. Stress, ksf		2.49
Strain, %		9.2
Ult. Stress, ksf		
Strain, %		
Strain rate, in./min.		0.10

Sample Type: Shelby Tube  
 Description: Silty sand  
 Assumed Specific Gravity= 2.8  
 Remarks:

Lab Sample ID # \_\_\_\_\_

Client:  
 Project: SCE&G COL  
 Location: B-309  
 Sample Number: UD-4      Depth: 38.5 Ft.  
 Proj. No.: 6234-06-3534S      Date Sampled: 11/17/06

DIRECT SHEAR TEST REPORT  
 MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: HJ      Checked By: JL *[Signature]*

**DIRECT SHEAR TEST**

12/29/2006

**Date:** 11/17/06  
**Client:**  
**Project:** SCE&G COL  
**Project No.:** 6234-06-3534S  
**Location:** B-309  
**Depth:** 38.5 Ft. **Sample Number:** UD-4  
**Description:** Silty sand  
**Remarks:**  
**Type of Sample:** Shelby Tube  
**Assumed Specific Gravity=**2.8 **LL=** **PL=** **PI=**

**Parameters for Specimen No. 1**

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.			154.850
Moisture content: Dry soil+tare, gms.			130.330
Moisture content: Tare, gms.			16.150
Moisture, %	21.7	21.5	21.5
Moist specimen weight, gms.	138.9		
Diameter, in.	2.50	2.50	
Area, in. <sup>2</sup>	4.91	4.91	
Height, in.	1.00	0.96	
Net decrease in height, in.		0.04	
Wet Density, pcf	107.8	111.7	
Dry density, pcf	88.6	91.9	
Void ratio	0.9726	0.9016	
Saturation, %	62.3	66.7	

**Test Readings for Specimen No. 1**

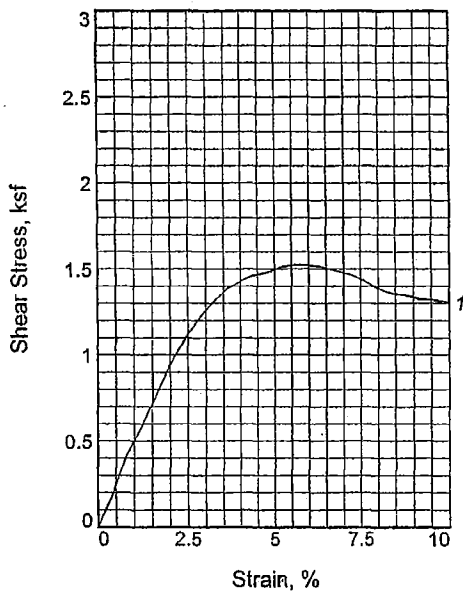
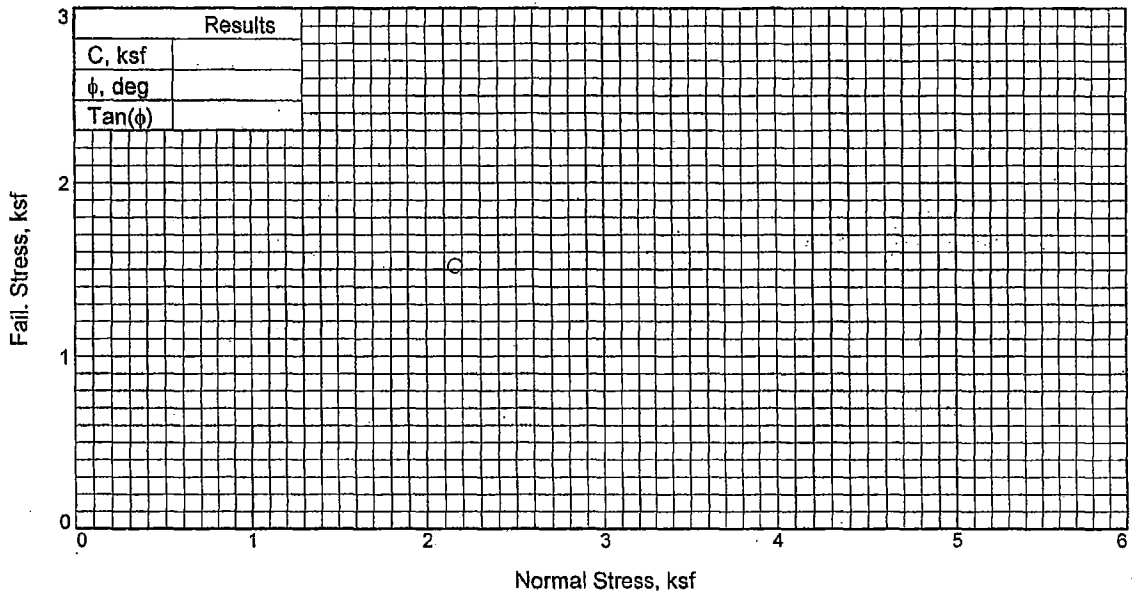
**Normal stress =** 5.0 ksf  
**Strain rate, in./min. =** 0.10  
**Fail. Stress =** 2.49 ksf at reading no. 23

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress ksf
0	0.0000	0.10	0.0	0.0	0.00
1	0.0100	11.70	11.6	0.4	0.34
2	0.0200	26.70	26.6	0.8	0.78
3	0.0300	39.60	39.5	1.2	1.16
4	0.0400	47.80	47.7	1.6	1.40
5	0.0500	53.50	53.4	2.0	1.57
6	0.0600	57.80	57.7	2.4	1.69
7	0.0700	61.40	61.3	2.8	1.80
8	0.0800	64.50	64.4	3.2	1.89
9	0.0900	67.40	67.3	3.6	1.97
10	0.1000	69.70	69.6	4.0	2.04
11	0.1100	71.80	71.7	4.4	2.10
12	0.1200	73.10	73.0	4.8	2.14
13	0.1300	74.90	74.8	5.2	2.19
14	0.1400	76.70	76.6	5.6	2.25



Test Readings for Specimen No. 1

No.	Horizontal Def. Dial In.	Load Dial	Load lbs.	Strain %	Shear Stress ksf
15	0.1500	77.90	77.8	6.0	2.28
16	0.1600	78.70	78.6	6.4	2.31
17	0.1700	80.50	80.4	6.8	2.36
18	0.1800	82.20	82.1	7.2	2.41
19	0.1900	83.50	83.4	7.6	2.45
20	0.2000	84.20	84.1	8.0	2.47
21	0.2100	84.80	84.7	8.4	2.48
22	0.2200	84.90	84.8	8.8	2.49
23	0.2300	85.10	85.0	9.2	2.49
24	0.2300	84.70	84.6	9.2	2.48
25	0.2500	84.20	84.1	10.0	2.47



Sample No.	1	
Initial	Water Content, %	19.5
	Dry Density, pcf	91.6
	Saturation, %	60.0
	Void Ratio	0.9087
	Diameter, in.	2.50
At Test	Height, in.	1.00
	Water Content, %	19.5
	Dry Density, pcf	94.9
	Saturation, %	64.8
	Void Ratio	0.8419
Normal Stress, ksf	Diameter, in.	2.50
	Height, in.	0.96
	Normal Stress, ksf	2.16
	Fail. Stress, ksf	1.52
Strain, %	Strain, %	5.6
	Ult. Stress, ksf	
Strain, %	Strain, %	
	Strain rate, in./min.	0.10

**Sample Type:** Shelby Tube

**Description:** Silty sand

**LL=** NV

**PI=** NP

**Assumed Specific Gravity=** 2.8

**Remarks:**

**Lab Sample ID #** \_\_\_\_\_

**Client:**

**Project:** SCE&G COL

**Location:** B-319

**Sample Number:** UD-2

**Depth:** 18.5 Ft.

Proj. No.: 6234-06-3534S

**Date Sampled:** 10/18/0

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

**Tested By:** HJ

**Checked By:** JL

*JL 12/22/06*

**DIRECT SHEAR TEST**

12/29/2006

Date: 10/18/0  
 Client:  
 Project: SCE&G COL  
 Project No.: 6234-06-3534S  
 Location: B-319  
 Depth: 18.5 Ft. Sample Number: UD-2  
 Description: Silty sand  
 Remarks:  
 Type of Sample: Shelby Tube  
 Assumed Specific Gravity=2.8 LL=NV PL= PI=NP

**Parameters for Specimen No. 1**

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.			157.590
Moisture content: Dry soil+tare, gms.			134.600
Moisture content: Tare, gms.			16.600
Moisture, %	19.5	19.5	19.5
Moist specimen weight, gms.	141.0		
Diameter, in.	2.50	2.50	
Area, in. <sup>2</sup>	4.91	4.91	
Height, in.	1.00	0.96	
Net decrease in height, in.		0.04	
Wet Density, pcf	109.4	113.4	
Dry density, pcf	91.6	94.9	
Void ratio	0.9087	0.8419	
Saturation, %	60.0	64.8	

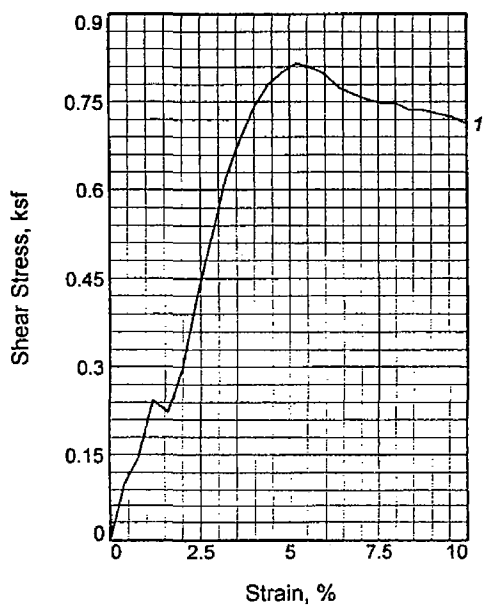
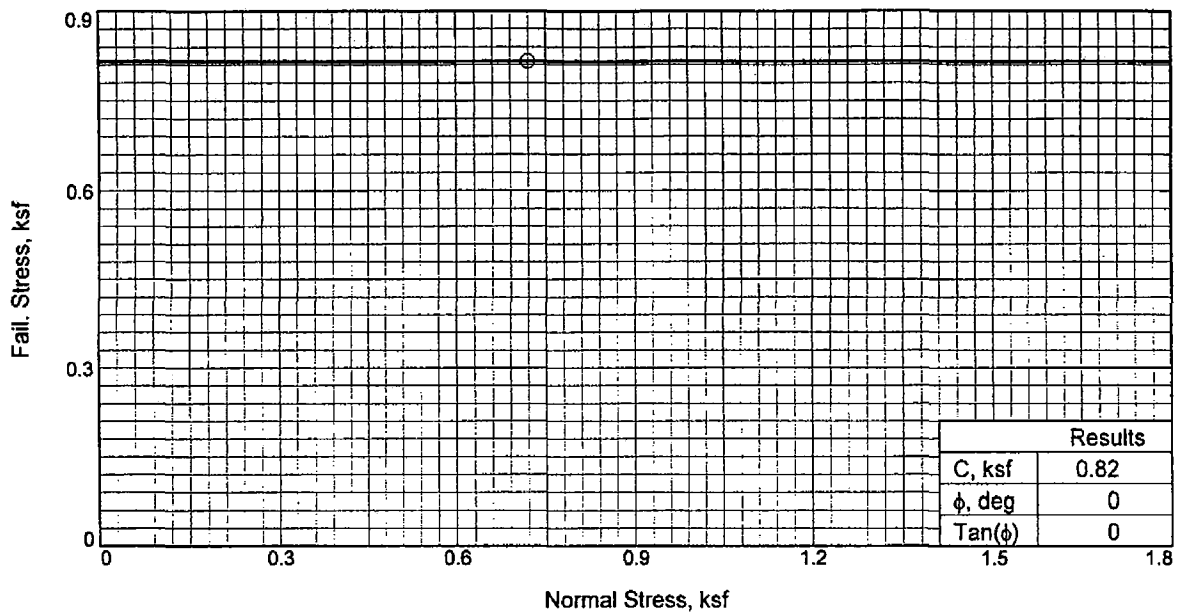
**Test Readings for Specimen No. 1**

Normal stress = 2.16 ksf  
 Strain rate, in./min. = 0.10  
 Fail. Stress = 1.52 ksf at reading no. 14

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress ksf
0	0.0000	0.00	0.0	0.0	0.00
1	0.0100	6.20	6.2	0.4	0.18
2	0.0200	14.40	14.4	0.8	0.42
3	0.0300	19.70	19.7	1.2	0.58
4	0.0400	26.00	26.0	1.6	0.76
5	0.0500	32.10	32.1	2.0	0.94
6	0.0600	37.10	37.1	2.4	1.09
7	0.0700	41.20	41.2	2.8	1.21
8	0.0800	44.50	44.5	3.2	1.31
9	0.0900	47.10	47.1	3.6	1.38
10	0.1000	48.70	48.7	4.0	1.43
11	0.1100	49.90	49.9	4.4	1.46
12	0.1200	50.40	50.4	4.8	1.48
13	0.1300	51.50	51.5	5.2	1.51
14	0.1400	51.90	51.9	5.6	1.52

Test Readings for Specimen No. 1

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress ksf
15	0.1500	51.90	51.9	6.0	1.52
16	0.1600	51.50	51.5	6.4	1.51
17	0.1700	50.70	50.7	6.8	1.49
18	0.1800	50.00	50.0	7.2	1.47
19	0.1900	48.80	48.8	7.6	1.43
20	0.2000	47.30	47.3	8.0	1.39
21	0.2100	46.30	46.3	8.4	1.36
22	0.2200	45.90	45.9	8.8	1.35
23	0.2300	45.20	45.2	9.2	1.33
24	0.2400	45.00	45.0	9.6	1.32
25	0.2500	44.50	44.5	10.0	1.31



Sample No.		1
Initial	Water Content, %	38.0
	Dry Density, pcf	78.2
	Saturation, %	86.1
	Void Ratio	1.2349
	Diameter, in.	2.50
At Test	Height, in.	1.00
	Water Content, %	34.5
	Dry Density, pcf	78.7
	Saturation, %	79.0
	Void Ratio	1.2204
	Diameter, in.	2.50
	Height, in.	0.99
	Normal Stress, ksf	0.72
	Fail. Stress, ksf	0.82
	Strain, %	5.2
Ult. Stress, ksf	Strain, %	
	Strain rate, in./min.	0.10

**Sample Type:**  
**Description:** Sandy silt

LL=            PL=            PI=

Assumed Specific Gravity= 2.8

Remarks:

Figure \_\_\_\_\_

**Client:**

**Project:** SCE&G COL

**Location:** B-325

**Sample Number:** UD-1            **Depth:** 3.5 Ft.

Proj. No.: 6234-06-3534S            **Date:** 11/17/06

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: HJ

Checked By: JL *JL 11/24/06*

**DIRECT SHEAR TEST**

11/25/2006

Date: 11/17/06  
 Client:  
 Project: SCE&G COL  
 Project No.: 6234-06-3534S  
 Location: B-325  
 Depth: 3.5 Ft. Sample Number: UD-1  
 Description: Sandy silt  
 Remarks:  
 Type of Sample:  
 Assumed Specific Gravity=2.8 LL= PL= PI=

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.			139.770
Moisture content: Dry soil+tare, gms.			105.050
Moisture content: Tare, gms.			4.270
Moisture, %	38.0	34.5	34.5
Moist specimen weight, gms.	139.1		
Diameter, in.	2.50	2.50	
Area, in. <sup>2</sup>	4.91	4.91	
Height, in.	1.00	0.99	
Net decrease in height, in.		0.01	
Wet Density, pcf	107.9	105.8	
Dry density, pcf	78.2	78.7	
Void ratio	1.2349	1.2204	
Saturation, %	86.1	79.0	

Normal stress = 0.72 ksf  
 Strain rate, in./min. = 0.10  
 Fail. Stress = 0.82 ksf at reading no. 13

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress ksf
0	0.0000	0.10	0.0	0.0	0.00
1	0.0100	3.50	3.4	0.4	0.10
2	0.0200	5.10	5.0	0.8	0.15
3	0.0300	8.40	8.3	1.2	0.24
4	0.0400	7.70	7.6	1.6	0.22
5	0.0500	10.30	10.2	2.0	0.30
6	0.0600	14.40	14.3	2.4	0.42
7	0.0700	17.80	17.7	2.8	0.52
8	0.0800	21.20	21.1	3.2	0.62
9	0.0900	23.50	23.4	3.6	0.69
10	0.1000	25.40	25.3	4.0	0.74
11	0.1100	26.70	26.6	4.4	0.78
12	0.1200	27.40	27.3	4.8	0.80
13	0.1300	27.90	27.8	5.2	0.82
14	0.1400	27.70	27.6	5.6	0.81

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress ksf
15	0.1500	27.30	27.2	6.0	0.80
16	0.1600	26.50	26.4	6.4	0.77
17	0.1700	26.10	26.0	6.8	0.76
18	0.1800	25.80	25.7	7.2	0.75
19	0.1900	25.60	25.5	7.6	0.75
20	0.2000	25.60	25.5	8.0	0.75
21	0.2100	25.20	25.1	8.4	0.74
22	0.2200	25.20	25.1	8.8	0.74
23	0.2300	25.00	24.9	9.2	0.73
24	0.2400	24.80	24.7	9.6	0.72
25	0.2500	24.40	24.3	10.0	0.71

\_\_\_\_\_

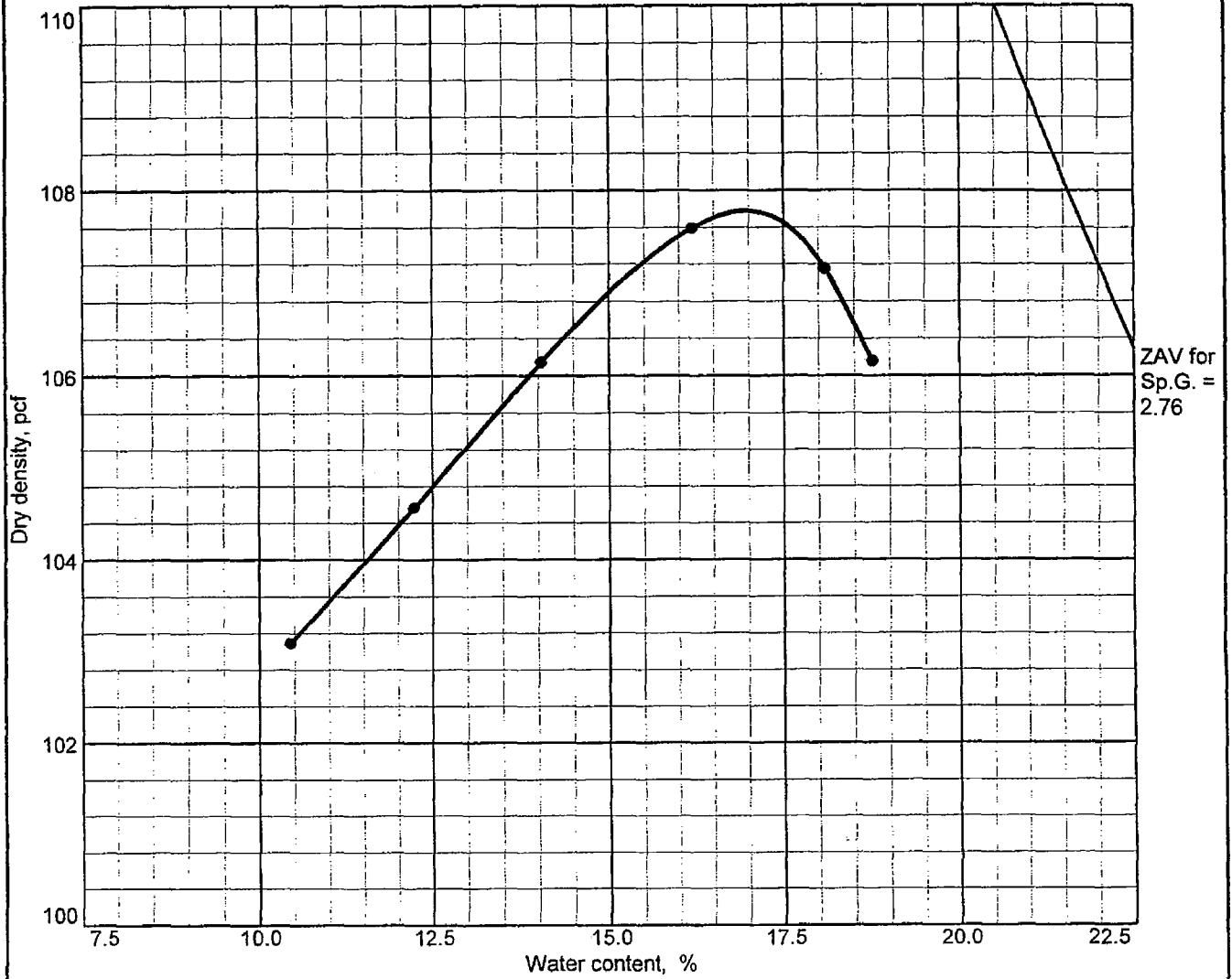
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# COMPACTION TEST REPORT



Test specification: ASTM D 1557-02 Method A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
1' - 6'	SM		23.4%	2.76	NV	NP	0.0	42.9

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 107.8 pcf Optimum moisture = 17.0 %	SAND, Silty (SM), Red, Micaceous

Project No. 6234063534 Client: Bechtel Power Corporation Project: SCE&G COL ● Location: TP-201	Remarks: <div style="text-align: right;">                     JRS                      11-28-06                 </div>
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<b>MACTEC, INC.</b> Charlotte, North Carolina	Figure
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**MOISTURE DENSITY TEST DATA**

**Client:** Bechtel Power Corporation  
**Project:** SCE&G COL  
**Project Number:** 6234063534

**Specimen Data**

**Source:**

**Sample No.:** Bucket 2

**Elev. or Depth:** 1' - 6'

**Sample Length(in./cm.):**

**Location:** TP-201

**Description:** SAND, Silty (SM), Red, Micaceous

**USCS Classification:** SM

**AASHTO Classification:**

**Natural Moisture:** 23.4%

**Liquid Limit:** NV

**Plasticity Index:** NP

**Testing Remarks:**

**Percent retained on No.4 sieve:** 0.0

**Percent passing No. 200 sieve:** 42.9

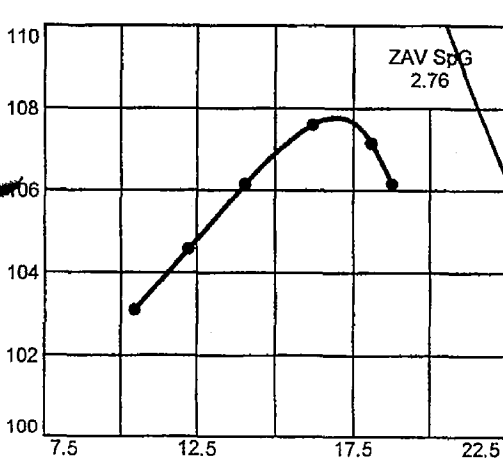
**Specific gravity:** 2.76

**Test Data And Results**

**Type of test:** ASTM D 1557-02 Method A Modified

**Mold Dia.:** 4.00 in.    **Hammer Wt.:** 10 lb.    **Drop:** 18 in.

**Layers:** five    **Blows per Layer:** 25



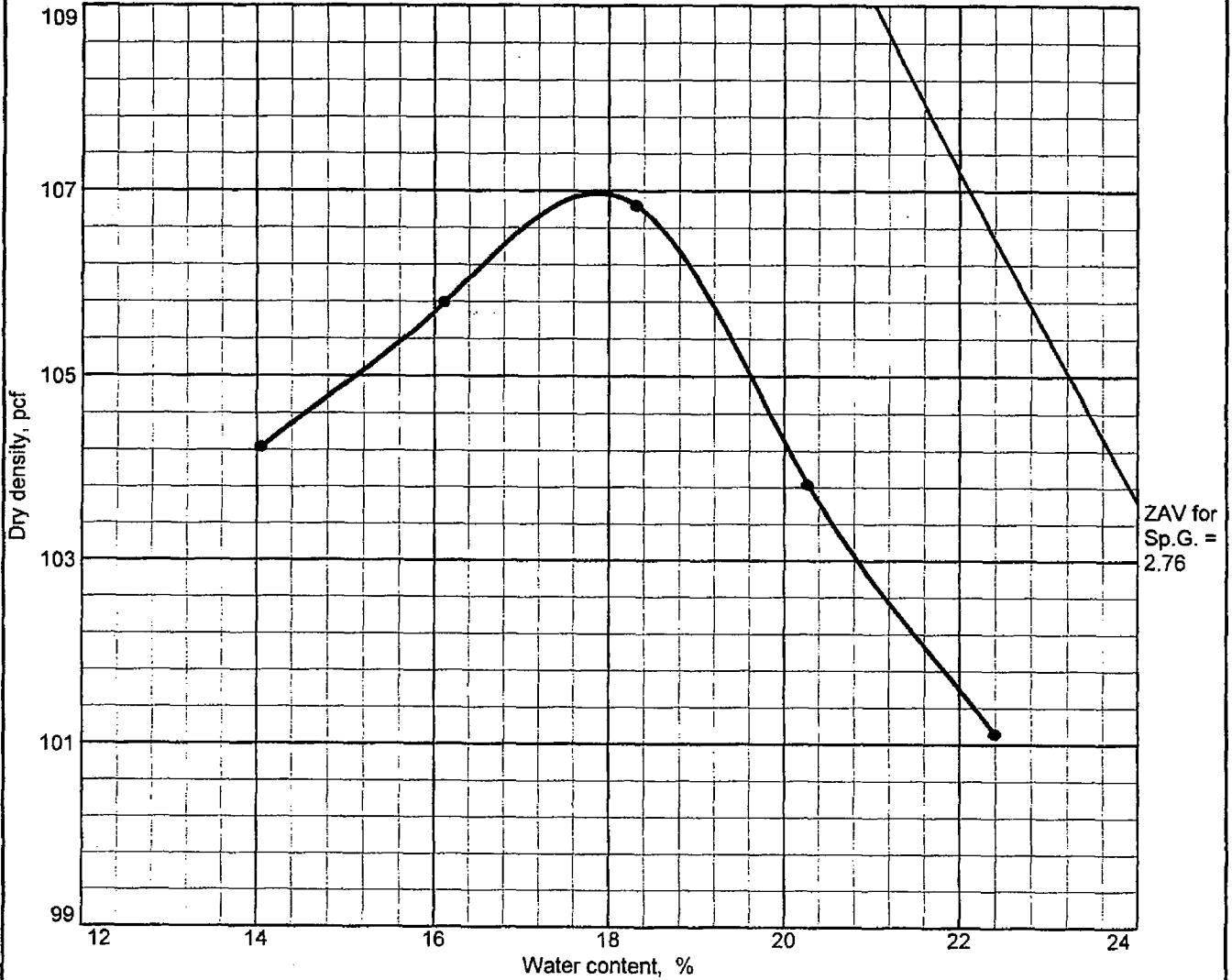
	1	2	3	4	5	6
<b>WM + WS</b>	5883.0	5936.0	5992.0	6052.0	6075.0	6068.0
<b>WM</b>	4158.0	4158.0	4158.0	4158.0	4158.0	4158.0
<b>WW+T</b>	500.00	500.00	500.00	500.00	500.00	500.00
<b>WD+T</b>	452.70	445.50	438.40	430.30	423.40	421.00
<b>TARE</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>MOIST</b>	10.4	12.2	14.1	16.2	18.1	18.8

<b>MOISTURE</b>	10.4	12.2	14.1	16.2	18.1	18.8
<b>DRY DEN</b>	103.1	104.6	106.1	107.6	107.1	106.2

**Max dry den=** 107.8 pcf    **Opt moisture=** 17.0 %

**Oversize Correction Not Applied**

# COMPACTION TEST REPORT



Test specification: ASTM D 1557-02 Method A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
3' - 5'	ML		27.8%	2.76	NV	NP	0.0	53.6

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 107.0 pcf Optimum moisture = 17.9 %	SILT, Sandy (ML), Red, Micaceous
Project No. 6234063534 Client: Bechtel Power Corporation Project: SCE&G COL • Location: TP-227	Remarks: <div style="text-align: right; margin-top: 10px;"> <i>JRS</i>                          11-28-06                     </div>
<b>MACTEC, INC.</b> Charlotte, North Carolina	

Figure

**MOISTURE DENSITY TEST DATA**

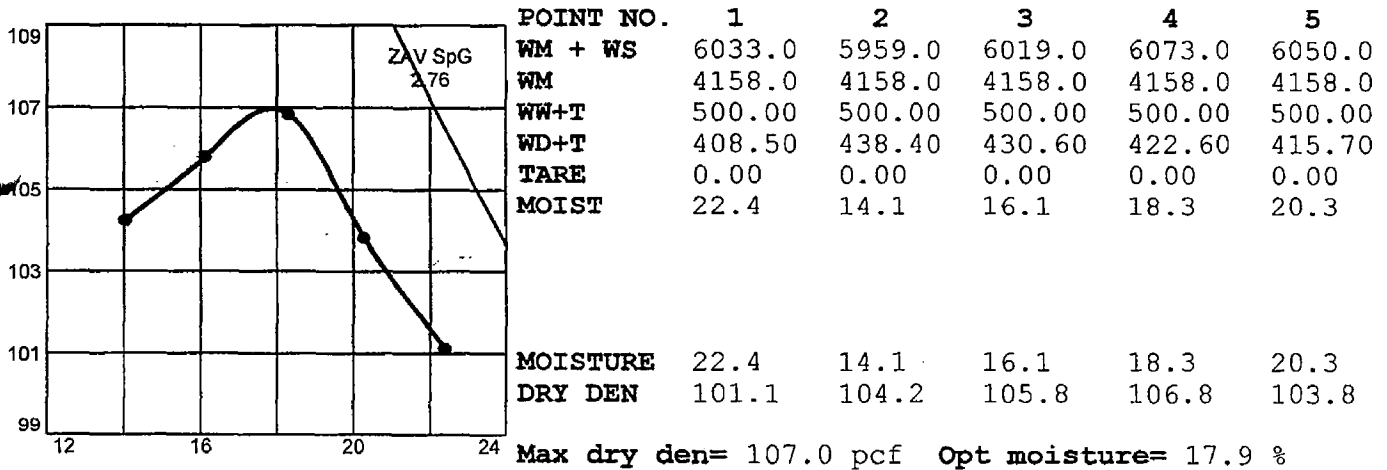
**Client:** Bechtel Power Corporation  
**Project:** SCE&G COL  
**Project Number:** 6234063534

**Specimen Data**

**Source:**  
**Sample No.:** Bucket 2  
**Elev. or Depth:** 3' - 5' **Sample Length(in./cm.):**  
**Location:** TP-227  
**Description:** SILT, Sandy (ML), Red, Micaceous  
**USCS Classification:** ML **AASHTO Classification:**  
**Natural Moisture:** 27.8% **Liquid Limit:** NV **Plasticity Index:** NP  
**Testing Remarks:**  
**Percent retained on No.4 sieve:** 0.0  
**Percent passing No. 200 sieve:** 53.6 **Specific gravity:** 2.76

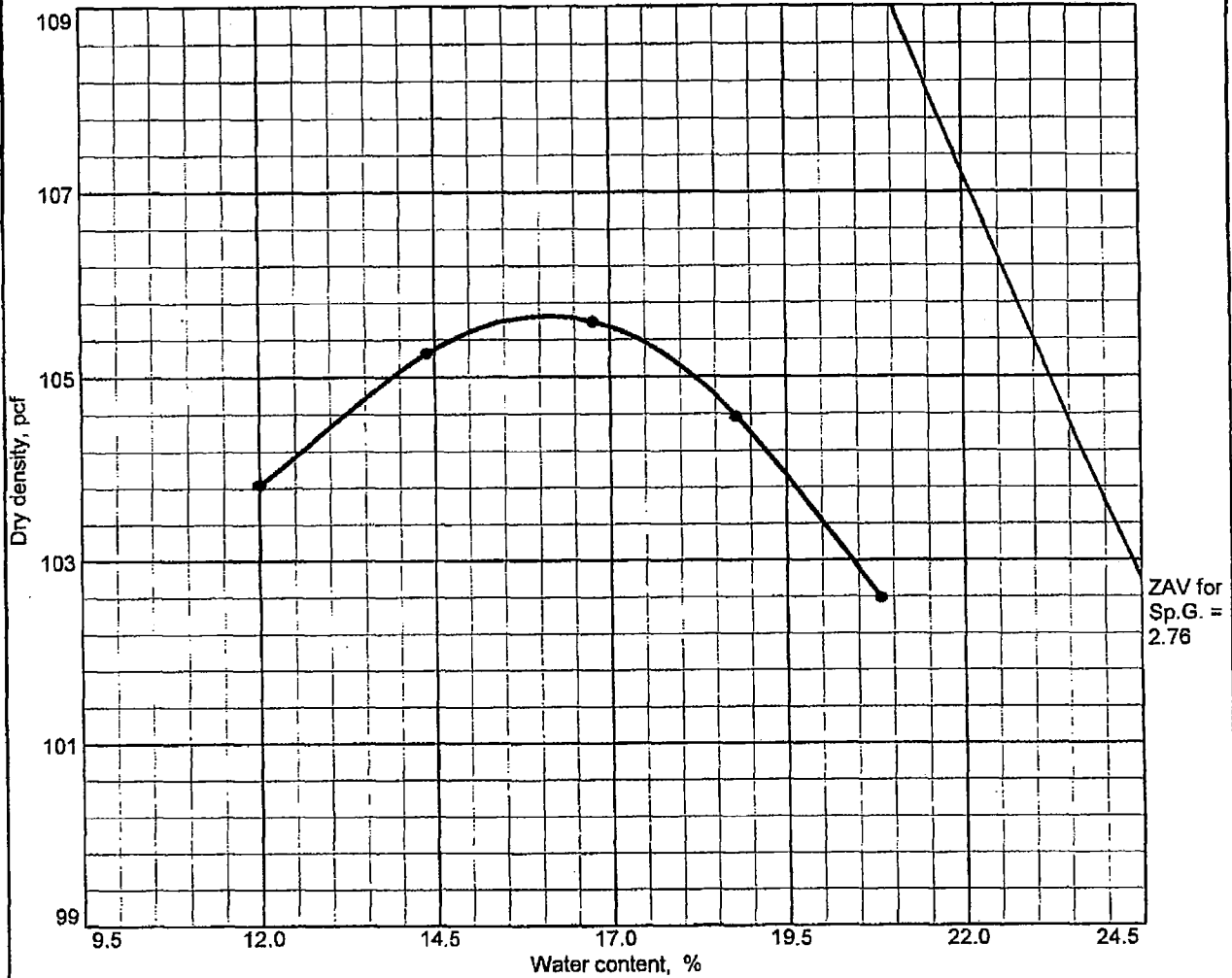
**Test Data And Results**

**Type of test:** ASTM D 1557-02 Method A Modified  
**Mold Dia.:** 4.00 in. **Hammer Wt.:** 10 lb. **Drop:** 18 in.  
**Layers:** five **Blows per Layer:** 25



Oversize Correction Not Applied

# COMPACTION TEST REPORT



Test specification: ASTM D 1557-02 Method A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
0' - 3'	SM		21.1%	2.76	NV	NP	0.0	32.2

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 105.7 pcf Optimum moisture = 16.1 %	SAND, Silty (SM), Yellowish Brown, Micaceous
Project No. 6234063534 Client: Bechtel Power Corporation Project: SCE&G COL • Location: TP-301	Remarks: <div style="text-align: right; margin-top: 10px;"> <i>JRS.</i>  <i>11-28-06</i> </div>
<b>MACTEC, INC.</b> Charlotte, North Carolina	Figure

**MOISTURE DENSITY TEST DATA**

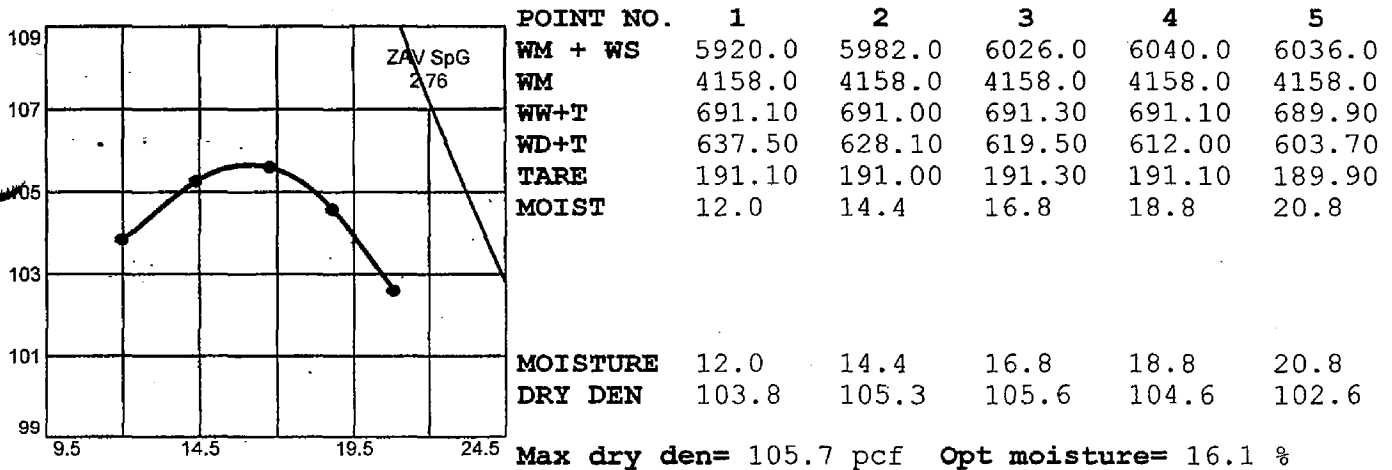
**Client:** Bechtel Power Corporation  
**Project:** SCE&G COL  
**Project Number:** 6234063534

**Specimen Data**

**Source:**  
**Sample No.:** Bucket 1  
**Elev. or Depth:** 0' - 3' **Sample Length(in./cm.):**  
**Location:** TP-301  
**Description:** SAND, Silty (SM), Yellowish Brown, Micaceous  
**USCS Classification:** SM **AASHTO Classification:**  
**Natural Moisture:** 21.1% **Liquid Limit:** NV **Plasticity Index:** NP  
**Testing Remarks:**  
**Percent retained on No.4 sieve:** 0.0  
**Percent passing No. 200 sieve:** 32.2 **Specific gravity:** 2.76

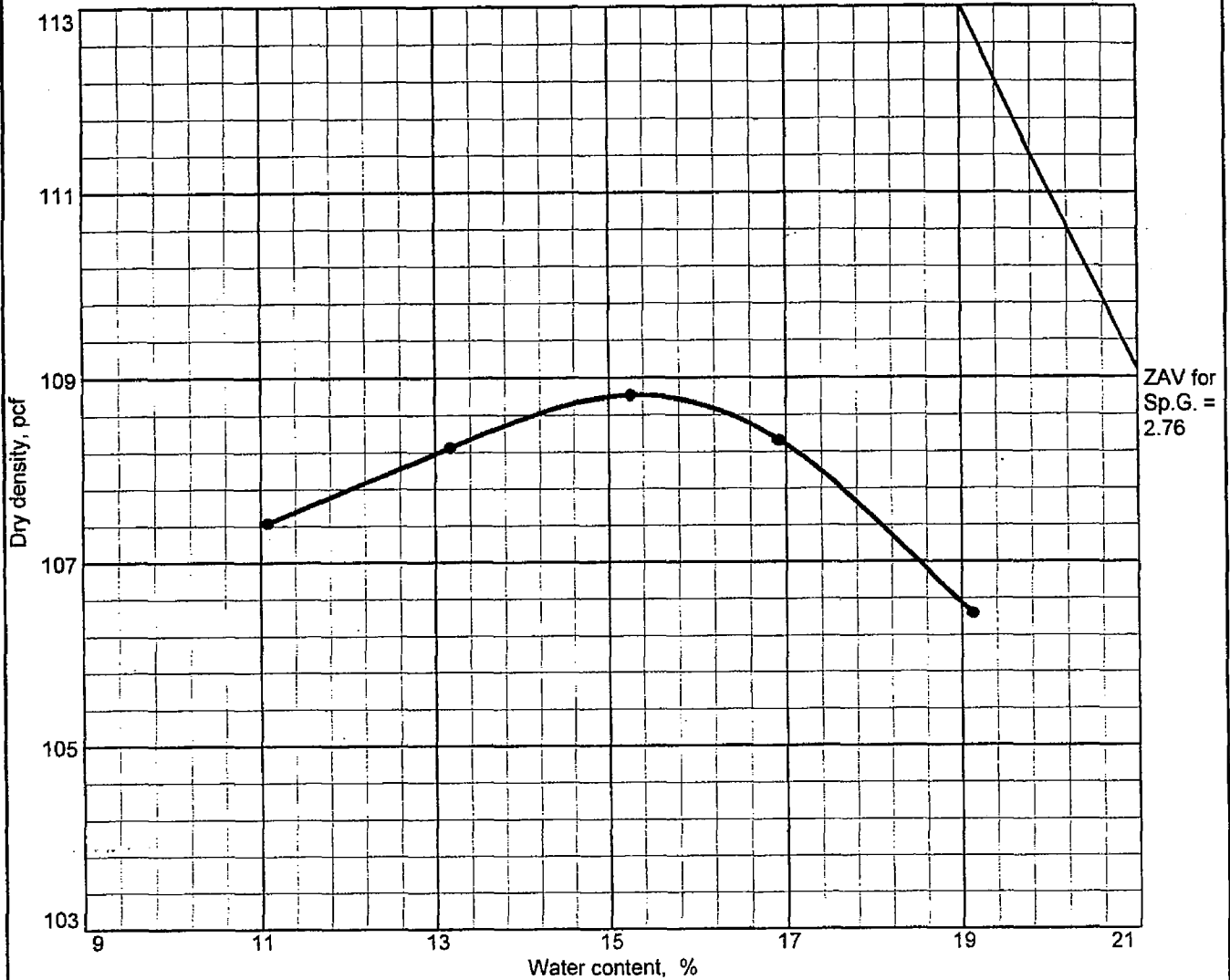
**Test Data And Results**

**Type of test:** ASTM D 1557-02 Method A Modified  
**Mold Dia.:** 4.00 in. **Hammer Wt.:** 10 lb. **Drop:** 18 in.  
**Layers:** five **Blows per Layer:** 25



**Oversize Correction Not Applied**

# COMPACTION TEST REPORT



Test specification: ASTM D 1557-02 Method A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
0' - 4'	SM		27.3%	2.76	NV	NP	0.0	35.6

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 108.8 pcf Optimum moisture = 15.3 %	SAND, Silty (SM), Dark Yellowish Brown, Micaceous
Project No. 6234063534 Client: Bechtel Power Corporation Project: SCE&G COL ● Location: TP-405	Remarks: <i>JRS</i> 11-28-06
<b>MACTEC, INC.</b> Charlotte, North Carolina	Figure

**MOISTURE DENSITY TEST DATA**

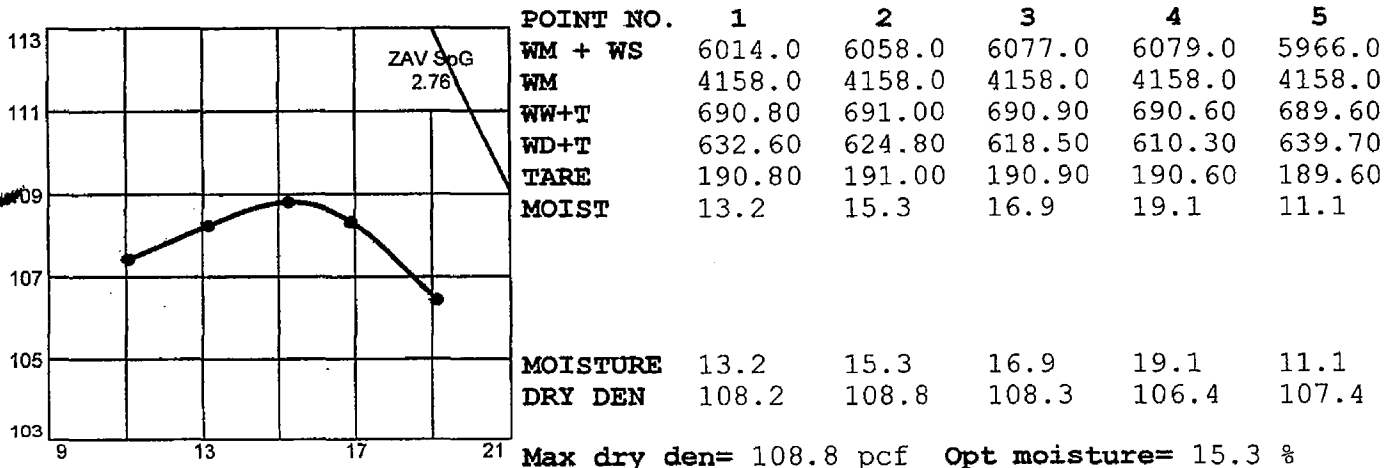
**Client:** Bechtel Power Corporation  
**Project:** SCE&G COL  
**Project Number:** 6234063534

**Specimen Data**

**Source:**  
**Sample No.:**  
**Elev. or Depth:** 0' - 4' **Sample Length(in./cm.):**  
**Location:** TP-405  
**Description:** SAND, Silty (SM), Dark Yellowish Brown, Micaceous  
**USCS Classification:** SM **AASHTO Classification:**  
**Natural Moisture:** 27.3% **Liquid Limit:** NV **Plasticity Index:** NP  
**Testing Remarks:**  
**Percent retained on No.4 sieve:** 0.0  
**Percent passing No. 200 sieve:** 35.6 **Specific gravity:** 2.76

**Test Data And Results**

**Type of test:** ASTM D 1557-02 Method A Modified  
**Mold Dia.:** 4.00 in. **Hammer Wt.:** 10 lb. **Drop:** 18 in.  
**Layers:** five **Blows per Layer:** 25

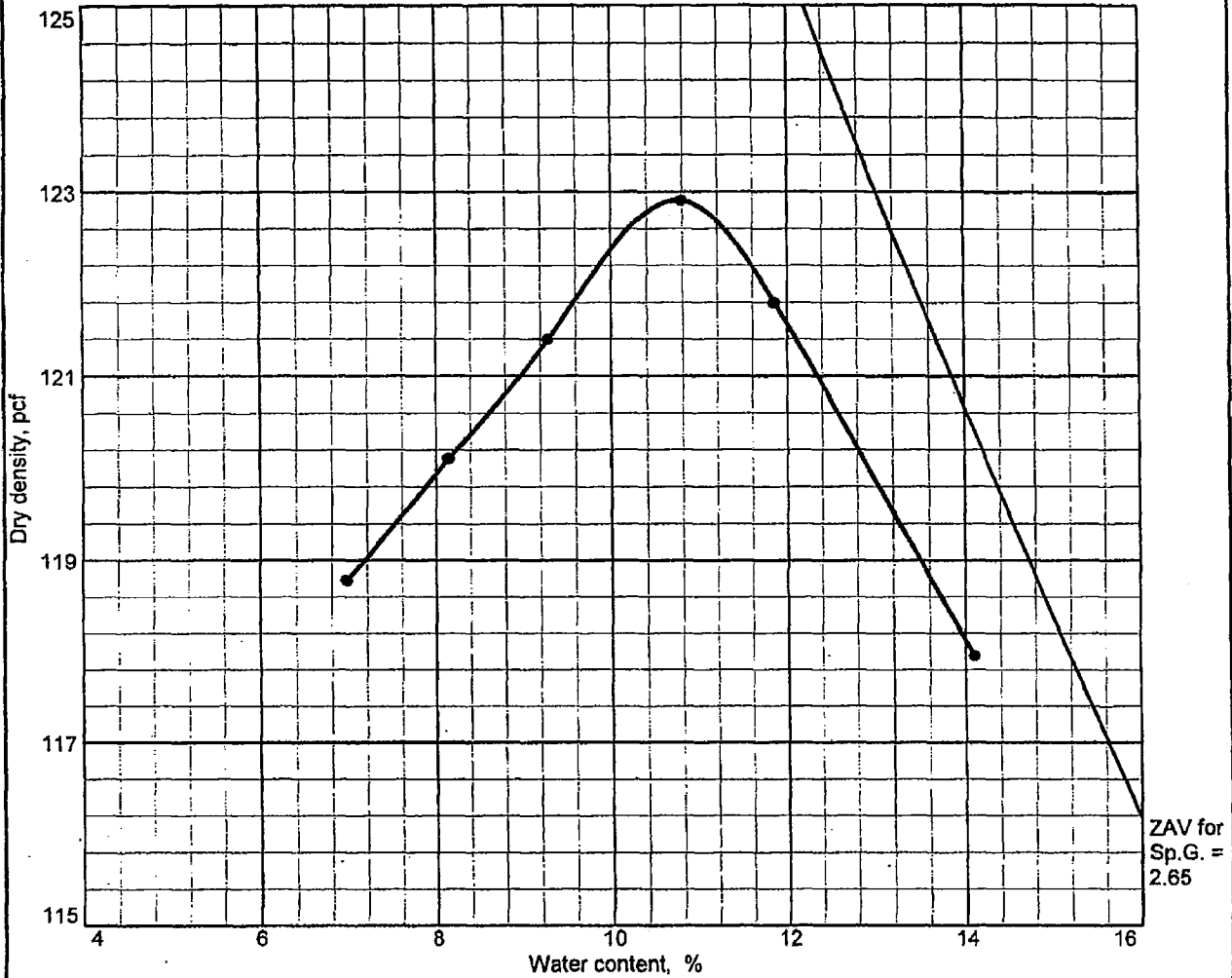


**Max dry den=** 108.8 pcf **Opt moisture=** 15.3 %

**Oversize Correction Not Applied**



# COMPACTION TEST REPORT



Test specification: ASTM D 1557-02 Method A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
n/a			5.0%	2.65			2.0	3.4

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 122.9 pcf Optimum moisture = 10.7 %	SAND (SW), Dark Gray, Washed Granitic Screenings from Stockpile
Project No. 6234063534 Client: Bechtel Power Corporation Project: SCE&G COL • Location: TP-MM1	Remarks: Sampled from stockpile at Martin Marietta North Columbia Quarry 8/7/06.
<b>MACTEC, INC.</b> Charlotte, North Carolina	JRS 11-28-06 Figure

MOISTURE DENSITY TEST DATA

Client: Bechtel Power Corporation
Project: SCE&G COL
Project Number: 6234063534

Specimen Data

Source:
Sample No.: Bucket 1
Elev. or Depth: n/a
Location: TP-MM1
Description: SAND (SW), Dark Gray, Washed Granitic Screenings from Stockpile
USCS Classification:
Natural Moisture: 5.0% Liquid Limit: Plasticity Index:
Testing Remarks: Sampled from stockpile at Martin Marietta North Columbia Quarry 8/7/06.
Percent retained on No.4 sieve: 2.0
Percent passing No. 200 sieve: 3.4 Specific gravity: 2.65

Test Data And Results

Type of test: ASTM D 1557-02 Method A Modified
Mold Dia.: 4.00 in. Hammer Wt.: 10 lb. Drop: 18 in.
Layers: five Blows per Layer: 25

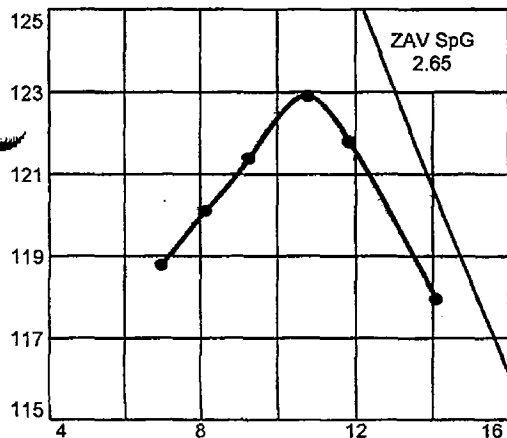
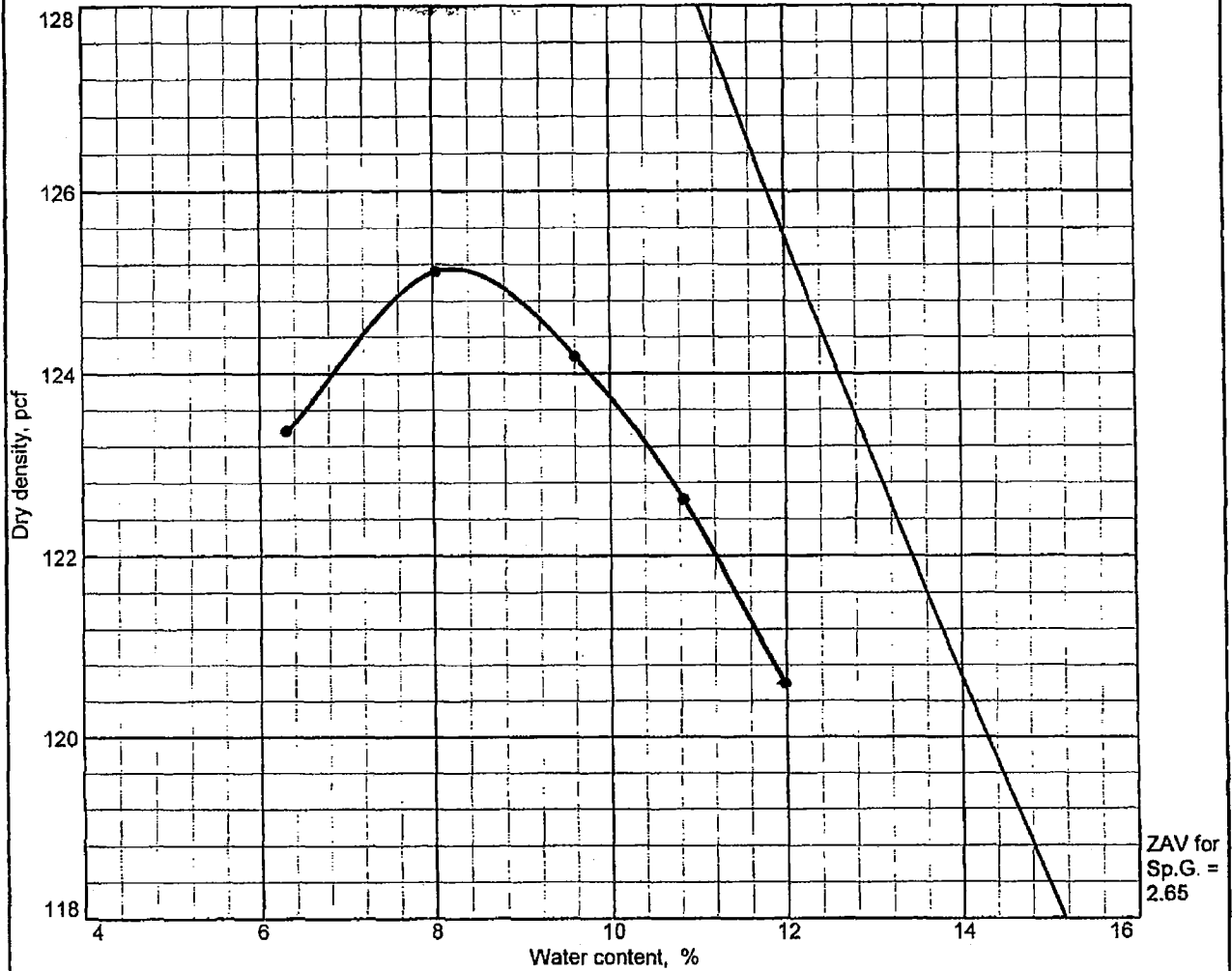


Table with 6 columns (POINT NO. 1-6) and rows for WM + WS, WM, WW+T, WD+T, TARE, MOIST, and DRY DEN.

Max dry den= 122.9 pcf Opt moisture= 10.7 %

Oversize Correction Not Applied

# COMPACTION TEST REPORT



Test specification: ASTM D 1557-02 Method A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
n/a			1.7%	2.65			4.1	9.5

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 125.2 pcf Optimum moisture = 8.2 %	SAND (SW-SM) with Silt, Dark Gray, Unwashed Granitic Screenings from Stockpile
Project No. 6234063534 Client: Bechtel Power Corporation Project: SCE&G COL ● Location: TP-MM2	Remarks: Sampled from stockpile at Martin Marietta North Columbia Quarry 8/7/06. <div style="text-align: right; font-family: cursive;">                         JRS                          11-28-06                     </div>
<b>MACTEC, INC.</b> Charlotte, North Carolina	Figure

**MOISTURE DENSITY TEST DATA**

**Client:** Bechtel Power Corporation  
**Project:** SCE&G COL  
**Project Number:** 6234063534

**Specimen Data**

**Source:**

**Sample No.:** Bucket 1

**Elev. or Depth:** n/a

**Sample Length(in./cm.):**

**Location:** TP-MM2

**Description:** SAND (SW-SM) with Silt, Dark Gray, Unwashed Granitic Screenings from Stockpile

**USCS Classification:**

**AASHTO Classification:**

**Natural Moisture:** 1.7%

**Liquid Limit:**

**Plasticity Index:**

**Testing Remarks:** Sampled from stockpile at Martin Marietta North Columbia Quarry 8/7/06.

**Percent retained on No.4 sieve:** 4.1

**Percent passing No. 200 sieve:** 9.5

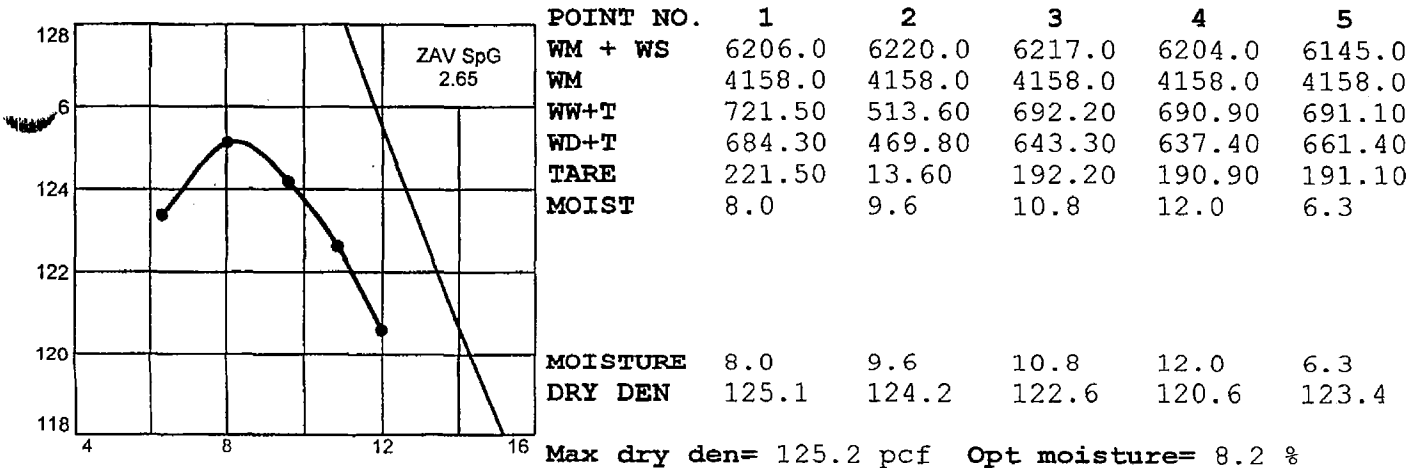
**Specific gravity:** 2.65

**Test Data And Results**

**Type of test:** ASTM D 1557-02 Method A Modified

**Mold Dia.:** 4.00 in. **Hammer Wt.:** 10 lb. **Drop:** 18 in.

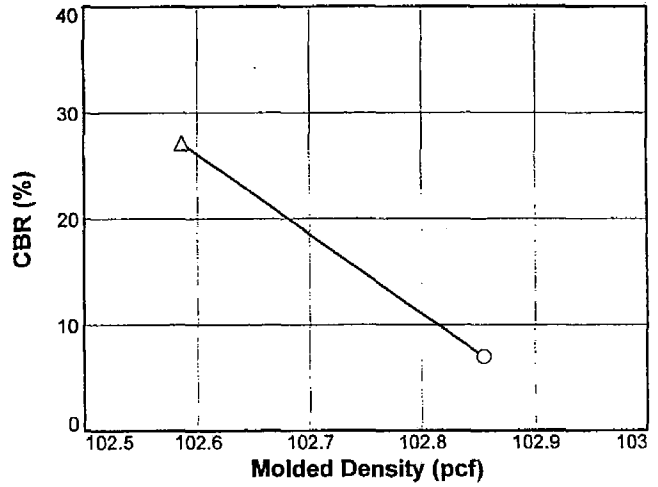
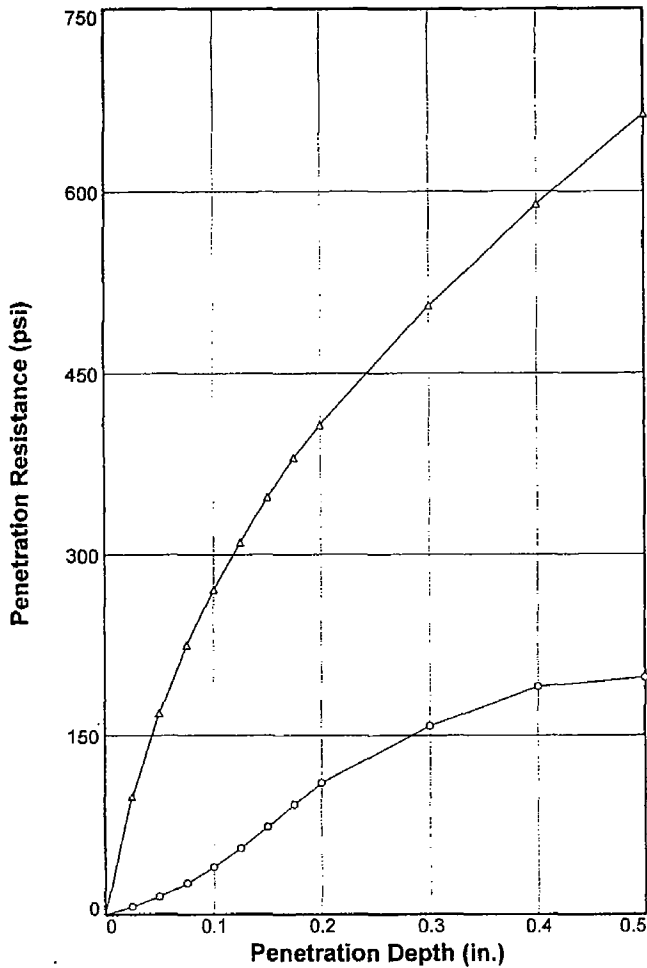
**Layers:** five **Blows per Layer:** 25



Oversize Correction Not Applied

# BEARING RATIO TEST REPORT

## ASTM D 1883-05



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	102.9	95.5	17.1	99.1	91.9	26.8	7.0	8.8	0.045	10	3.8
2 △	102.6	95.2	17.4	102.6	95.2	17.6	27.1	27.2	0.000	10	
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
	SAND, Silty (SM), Red, Micaceous	SM	107.8	17.0	NV

**Project No:** 6234063534  
**Project:** SCE&G COL  
**Location:** TP-201  
**Sample Number:** Bucket 2      **Depth:** 1' - 6'  
**Date:** 10-12-06

**Test Description/Remarks:**  
 95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.  
 Specimen 1 - Soaked  
 Specimen 2 - Unsoaked  
*JRS*  
 11-28-06

BEARING RATIO TEST REPORT  
**MACTEC, INC.**

Figure \_\_\_\_\_

**BEARING RATIO TESTING RESULTS**  
**(ASTM D 1883-05)**

Date: 10-12-06  
 Project No.: 6234063534  
 Project: SCE&G COL  
 Location: TP-201  
 Depth: 1' - 6'      Sample Number: Bucket 2  
 Material Description: SAND, Silty (SM), Red, Micaceous  
 USCS Classification: SM  
 Liquid Limit: NV      Plasticity Index: NP

Test Description: 95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.  
 Maximum Dry Density: 107.8      Optimum Moisture Content: 17.0  
 Testing Remarks:

Specimen 1 - Soaked  
 Specimen 2 - Unsoaked

**Sample 1 (Surcharge: 10 lbs.)**

**Water Content**

Wt. Wet Soil+Tare, gms. 313.5      Wt. Soil+Tare, gms. 269.8      Wt. Tare, gms. 13.5      Moisture, % 17.1

**Unit Weight**

Wt. Mold+Soil, gms. 8307.8      Wt. Mold, gms. 4230.6      Ht. Soil, in. 4.563      Density, pcf 102.9

**Swell Data**

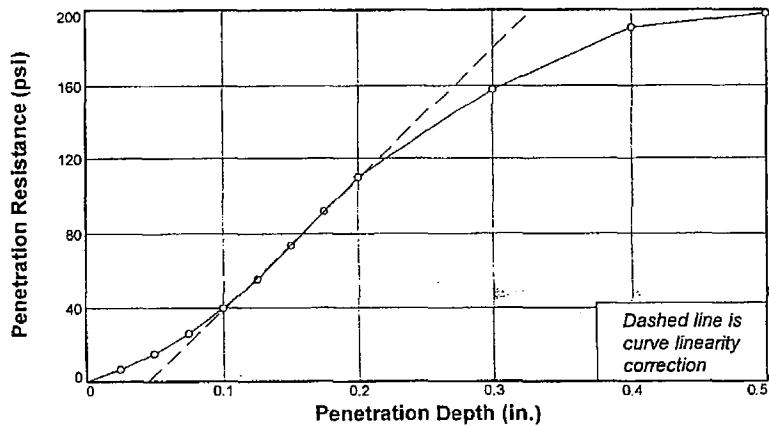
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	500	0.0
92.5	674	3.8

**Final Water Content**

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	715.8	598.0	190.8	28.9
Middle	746.9	633.0	191.6	25.3
Bottom	746.9	633.0	191.6	25.8

**Penetration Test Data**

Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	10	0.0	
0.025	30	6.7	
0.05	55	15.0	
0.075	88	26.0	
0.1	129	39.7	7.0
0.125	176	55.3	
0.15	230	73.3	
0.175	285	91.7	
0.2	340	110.0	8.8
0.3	483	157.7	9.1
0.4	581	190.3	8.4
0.5	604	198.0	7.6



**Sample 2 (Surcharge: 10 lbs.)**

**Water Content**

Wt. Wet Soil+Tare, gms. 313.7    Wt. Soil+Tare, gms. 269.2    Wt. Tare, gms. 13.7    **Moisture, % 17.4**

**Unit Weight**

Wt. Mold+Soil, gms. 8307.2    Wt. Mold, gms. 4230.6    Ht. Soil, in. 4.56    **Density, pcf 102.6**

**Swell Data**

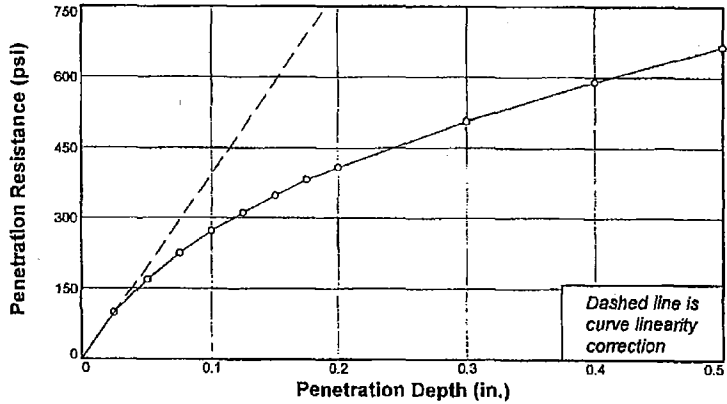
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	0	0.0

**Final Water Content**

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	537.8	460.1	13.5	17.4
Middle	487.9	417.4	17.5	17.6
Bottom	487.9	417.4	17.5	17.6

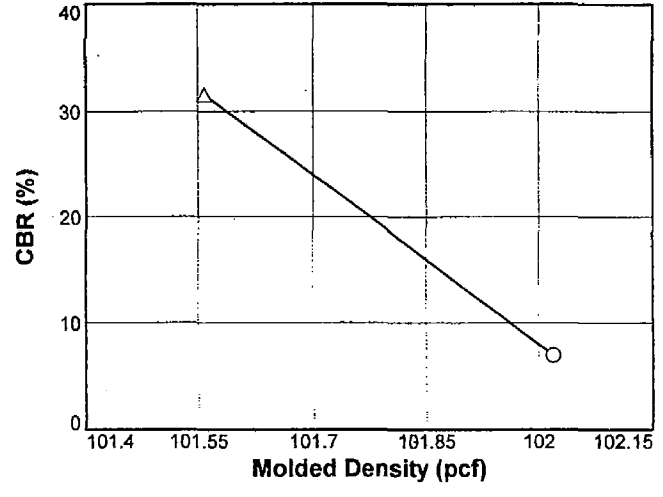
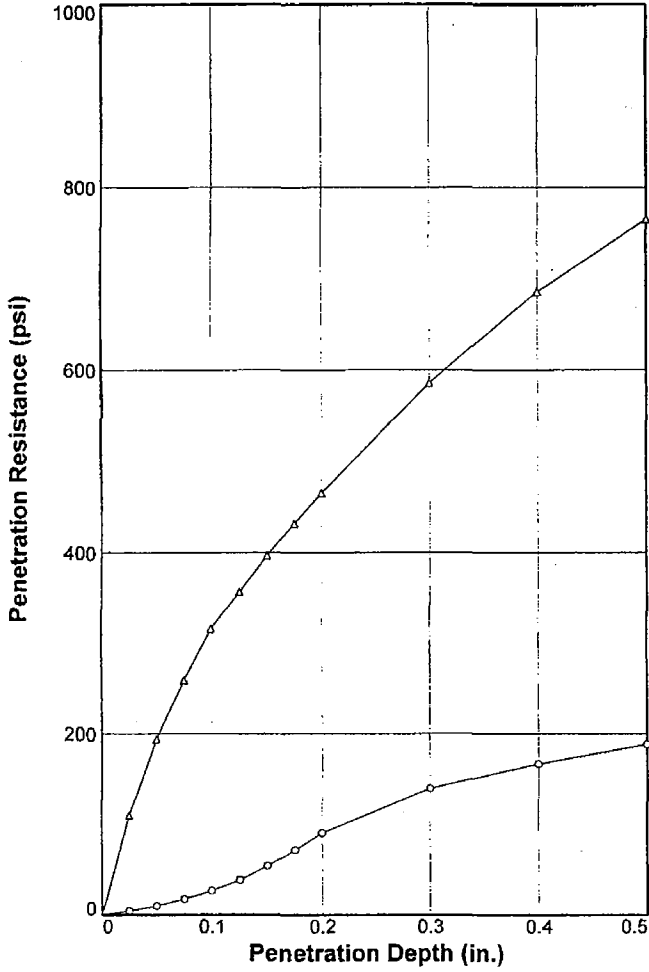
**Penetration Test Data**

Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	10	0.0	
0.025	305	98.3	
0.05	516	168.7	
0.075	685	225.0	
0.1	823	271.0	27.1
0.125	940	310.0	
0.15	1053	347.7	
0.175	1152	380.7	
0.2	1232	407.3	27.2
0.3	1529	506.3	26.6
0.4	1778	589.3	25.6
0.5	1999	663.0	25.5



# BEARING RATIO TEST REPORT

## ASTM D 1883-05



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	102.0	95.3	17.4	97.3	90.9	30.7	6.9	8.4	0.072	10	4.9
2 △	101.6	95	17.9	101.6	94.9	18.5	31.6	31.1	0.000	10	
3 □											

Material Description		USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
SILT, Sandy (ML), Red, Micaceous						

**Project No:** 6234063534  
**Project:** SCE&G COL  
**Location:** TP-227  
**Sample Number:** Bucket 2                      **Depth:** 3' - 5'  
**Date:** 10-12-06

**Test Description/Remarks:**  
 95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.  
 Specimen 1 - Soaked  
 Specimen 2 - Unsoaked

*JRS*  
11-28-06

BEARING RATIO TEST REPORT  
**MACTEC, INC.**

Figure \_\_\_\_\_



**BEARING RATIO TESTING RESULTS**  
(ASTM D 1883-05)

Date: 10-12-06  
 Project No.: 6234063534  
 Project: SCE&G COL  
 Location: TP-227  
 Depth: 3' - 5'      Sample Number: Bucket 2  
 Material Description: SILT, Sandy (ML), Red, Micaceous  
 USCS Classification: ML  
 Liquid Limit: NV      Plasticity Index: NP

Test Description: 95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.

Maximum Dry Density: 107.0      Optimum Moisture Content: 17.9

Testing Remarks:  
 Specimen 1 - Soaked  
 Specimen 2 - Unsoaked

**Sample 1 (Surcharge: 10 lbs.)**

**Water Content**

Wt. Wet Soil+Tare, gms. 313.6    Wt. Soil+Tare, gms. 269.1    Wt. Tare, gms. 13.6    Moisture, % 17.4

**Unit Weight**

Wt. Mold+Soil, gms. 8307.1    Wt. Mold, gms. 4215.7    Ht. Soil, in. 4.602    Density, pcf 102.0

**Swell Data**

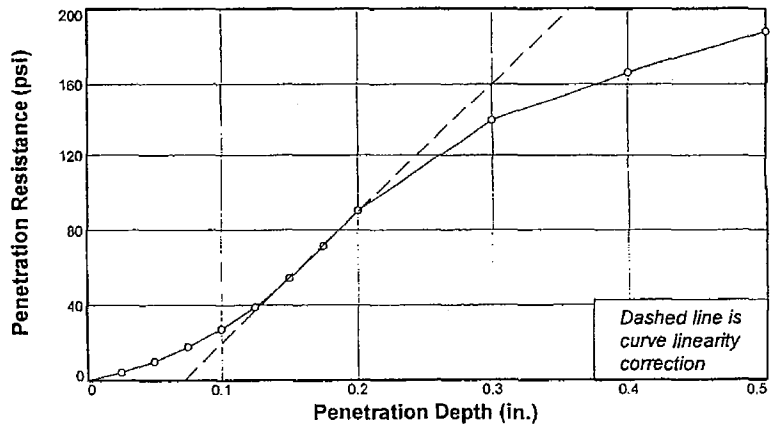
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	500	0.0
92.5	724	4.9

**Final Water Content**

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	769.8	617.7	190.8	35.6
Middle	758.6	639.0	216.4	28.3
Bottom	758.6	639.0	216.4	28.3

**Penetration Test Data**

Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	10	0.0	
0.025	23	4.3	
0.05	40	10.0	
0.075	63	17.7	
0.1	91	27.0	6.9
0.125	126	38.7	
0.15	172	54.0	
0.175	224	71.3	
0.2	280	90.0	8.4
0.3	427	139.0	8.3
0.4	508	166.0	7.9
0.5	573	187.7	7.2



**Sample 2 (Surcharge: 10 lbs.)**

**Water Content**

Wt. Wet Soil+Tare, gms. 313.8    Wt. Soil+Tare, gms. 268.3    Wt. Tare, gms. 13.8    **Moisture, % 17.9**

**Unit Weight**

Wt. Mold+Soil, gms. 8307.3    Wt. Mold, gms. 4215.7    Ht. Soil, in. 4.605    **Density, pcf 101.6**

**Swell Data**

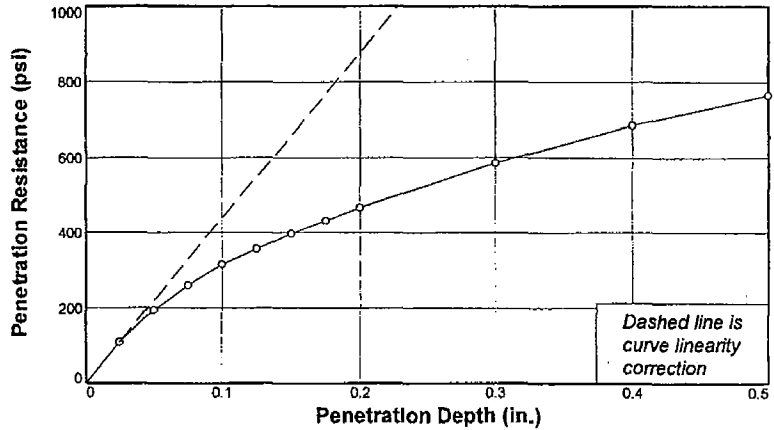
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	0	0.0

**Final Water Content**

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	507.4	430.3	13.6	18.5
Middle	573.0	486.3	18.3	18.5
Bottom	573.0	486.3	18.3	18.5

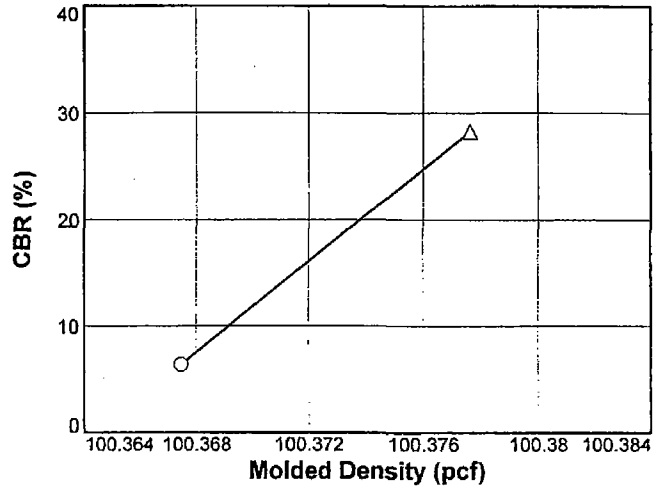
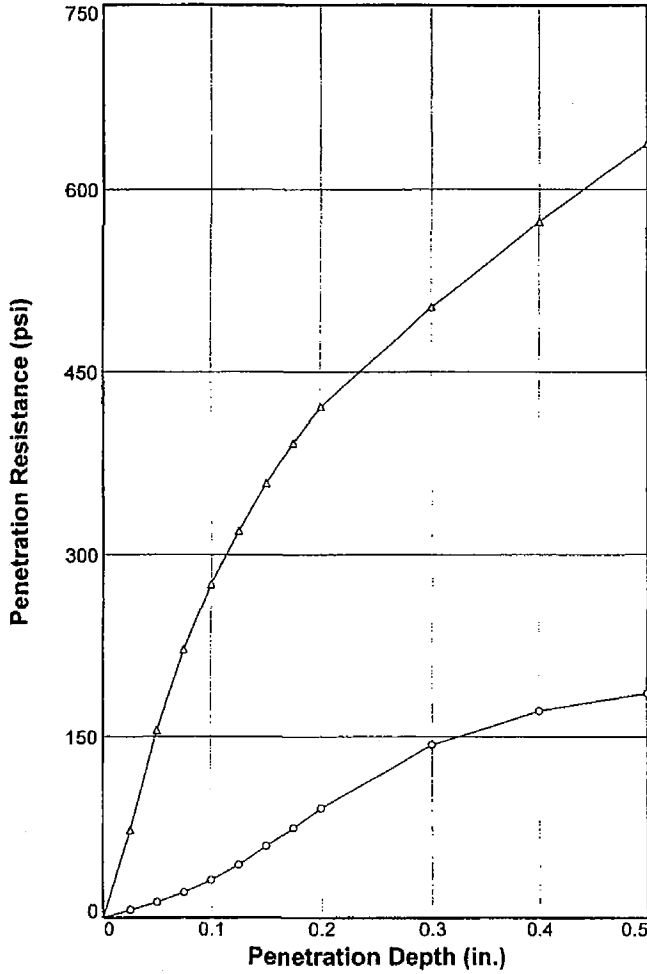
**Penetration Test Data**

Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	10	0.0	
0.025	339	109.7	
0.05	591	193.7	
0.075	786	258.7	
0.1	957	315.7	31.6
0.125	1078	356.0	
0.15	1200	396.7	
0.175	1306	432.0	
0.2	1408	466.0	31.1
0.3	1766	585.3	30.8
0.4	2066	685.3	29.8
0.5	2305	765.0	29.4



# BEARING RATIO TEST REPORT

## ASTM D 1883-05



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	100.4	95	16.1	96.1	90.9	27.4	6.3	8.0	0.057	10	4.5
2 △	100.4	95	16.1	100.4	95	15.8	28.2	28.3	0.004	10	
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
	SAND, Silty (SM), Yellowish Brown, Micaceous	SM	105.7	16.1	NV

**Project No:** 6234063534

**Project:** SCE&G COL

**Location:** TP-301

**Sample Number:** Bucket 1

**Depth:** 0' - 3'

**Date:** 10-12-06

**Test Description/Remarks:**

95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.

Specimen 1 - Soaked

Specimen 2 - Unsoaked

*JRS.*  
11-28-06

BEARING RATIO TEST REPORT

**MACTEC, INC.**

Figure \_\_\_\_\_

## BEARING RATIO TESTING RESULTS (ASTM D 1883-05)

**Date:** 10-12-06  
**Project No.:** 6234063534  
**Project:** SCE&G COL  
**Location:** TP-301  
**Depth:** 0' - 3' **Sample Number:** Bucket 1  
**Material Description:** SAND, Silty (SM), Yellowish Brown, Micaceous  
**USCS Classification:** SM  
**Liquid Limit:** NV **Plasticity Index:** NP

**Test Description:** 95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.  
**Maximum Dry Density:** 105.7 **Optimum Moisture Content:** 16.1  
**Testing Remarks:**

Specimen 1 - Soaked  
 Specimen 2 - Unsoaked

### Sample 1 (Surcharge: 10 lbs.)

#### Water Content

Wt. Wet Soil+Tare, gms. 491    Wt. Soil+Tare, gms. 449.3    Wt. Tare, gms. 191.0    Moisture, % 16.1

#### Unit Weight

Wt. Mold+Soil, gms. 8175.8    Wt. Mold, gms. 4230.6    Ht. Soil, in. 4.560    Density, pcf 100.4

#### Swell Data

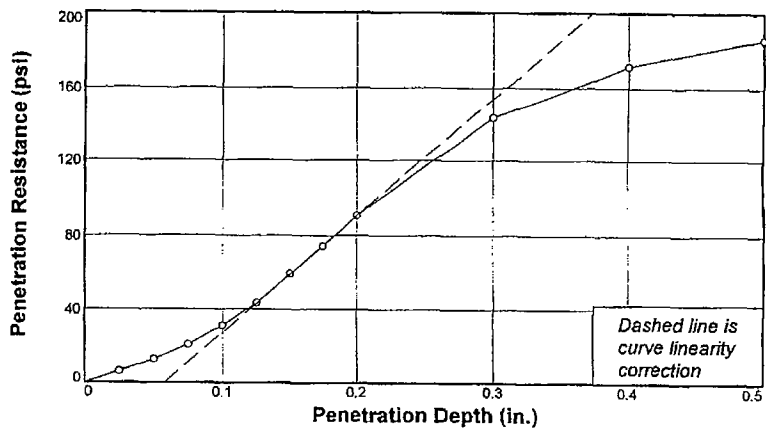
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	500	0.0
96	703	4.5

#### Final Water Content

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	371.8	284.3	13.6	32.3
Middle	370.5	299.3	13.6	24.9
Bottom	370.5	299.3	13.6	24.9

#### Penetration Test Data

Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	10	0.0	
0.025	29	6.3	
0.05	48	12.7	
0.075	72	20.7	
0.1	103	31.0	6.3
0.125	140	43.3	
0.15	187	59.0	
0.175	232	74.0	
0.2	281	90.3	8.0
0.3	439	143.0	8.4
0.4	524	171.3	7.8
0.5	567	185.7	7.1



**Sample 2 (Surcharge: 10 lbs.)**

**Water Content**

Wt. Wet Soil+Tare, gms. 491.0    Wt. Soil+Tare, gms. 449.3    Wt. Tare, gms. 191.0    Moisture, % 16.1

**Unit Weight**

Wt. Mold+Soil, gms. 8176.2    Wt. Mold, gms. 4230.6    Ht. Soil, in. 4.560    Density, pcf 100.4

**Swell Data**

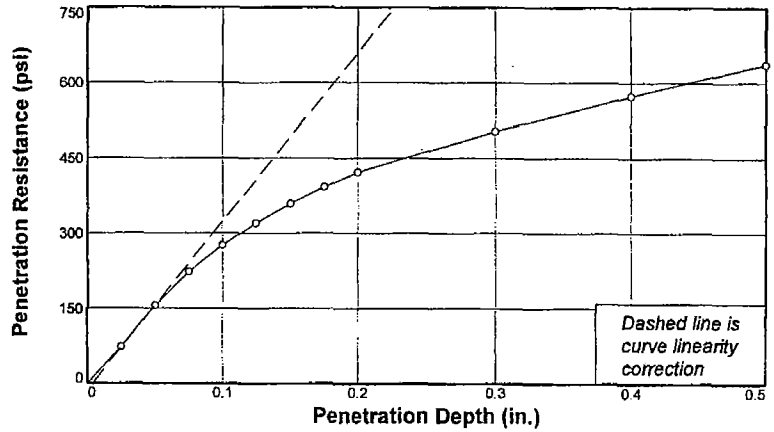
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	0	0.0

**Final Water Content**

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	804.8	721.0	194.4	15.9
Middle	837.4	749.5	190.7	15.7
Bottom	837.4	749.5	190.7	15.7

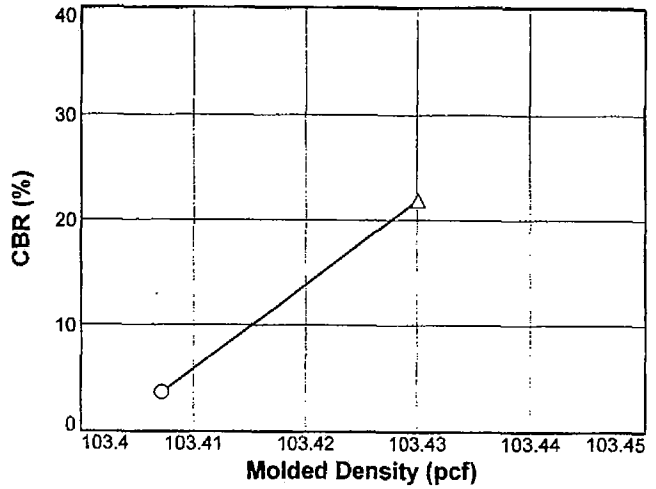
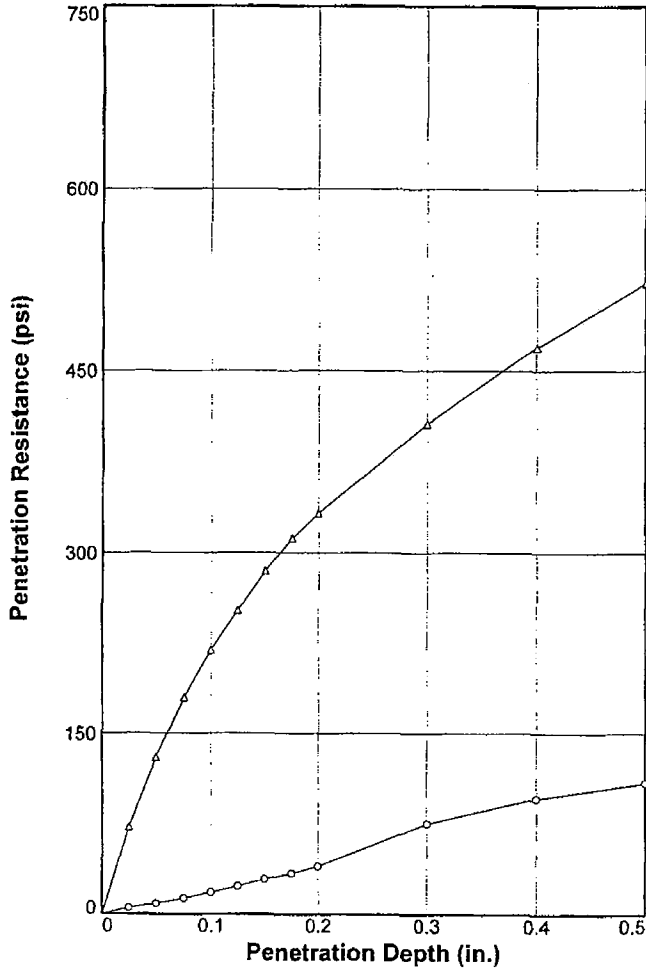
**Penetration Test Data**

Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	10	0.0	
0.025	227	72.3	
0.05	476	155.3	
0.075	677	222.3	
0.1	837	275.7	28.2
0.125	968	319.3	
0.15	1086	358.7	
0.175	1186	392.0	
0.2	1273	421.0	28.3
0.3	1520	503.3	26.6
0.4	1730	573.3	25.0
0.5	1921	637.0	24.5



# BEARING RATIO TEST REPORT

## ASTM D 1883-05



	Molded			Soaked			CBR (%)		Linearity Correction (In.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	103.4	95	15.3	97.4	89.6	28.4	3.6	4.7	0.087	10	6.1
2 △	103.4	95	15.3	103.4	95.1	15.5	21.9	22.2	0.000	10	
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
	SAND, Silty (SM), Dark Yellowish Brown, Micaceous	SM	108.8	15.3	NV

**Project No:** 6234063534  
**Project:** SCE&G COL  
**Location:** TP-405  
**Depth:** 0' - 4'  
**Date:** 10-12-06

**Test Description/Remarks:**  
 95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.  
  
 Specimen 1 - Soaked  
 Specimen 2 - Unsoaked

*JTB*  
11-28-06

BEARING RATIO TEST REPORT  
**MACTEC, INC.**

Figure \_\_\_\_\_

## BEARING RATIO TESTING RESULTS (ASTM D 1883-05)

**Date:** 10-12-06  
**Project No.:** 6234063534  
**Project:** SCE&G COL  
**Location:** TP-405  
**Depth:** 0' - 4'  
**Material Description:** SAND, Silty (SM), Dark Yellowish Brown, Micaceous  
**USCS Classification:** SM  
**Liquid Limit:** NV **Plasticity Index:** NP

**Test Description:** 95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.

**Maximum Dry Density:** 108.8 **Optimum Moisture Content:** 15.3

**Testing Remarks:**  
 Specimen 1 - Soaked  
 Specimen 2 - Unsoaked

### Sample 1 (Surcharge: 10 lbs.)

**Water Content**

Wt. Wet Soil+Tare, gms. 491.8    Wt. Soil+Tare, gms. 452.0    Wt. Tare, gms. 191.8    **Moisture, % 15.3**

**Unit Weight**

Wt. Mold+Soil, gms. 8286.1    Wt. Mold, gms. 4215.7    Ht. Soil, in. 4.600    **Density, pcf 103.4**

**Swell Data**

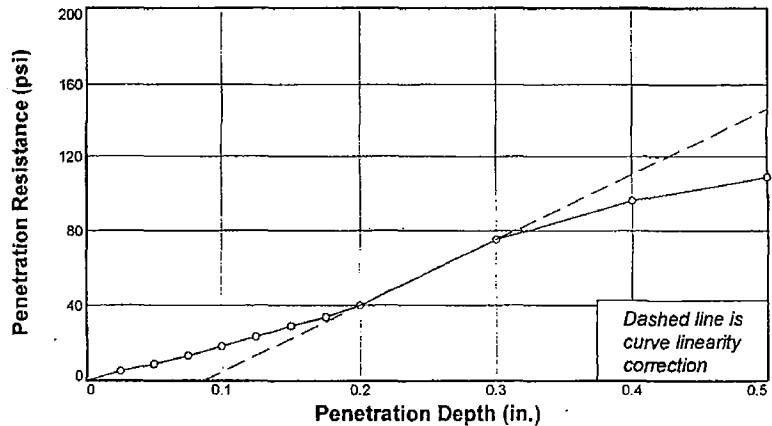
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	500	0.0
96	782	6.1

**Final Water Content**

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	384.5	291.0	13.8	33.7
Middle	572.6	458.4	13.7	25.7
Bottom	572.6	458.4	13.7	25.7

**Penetration Test Data**

Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	10	0.0	
0.025	26	5.3	
0.05	37	9.0	
0.075	50	13.3	
0.1	65	18.3	3.6
0.125	80	23.3	
0.15	97	29.0	
0.175	111	33.7	
0.2	129	39.7	4.7
0.3	235	75.0	4.9
0.4	298	96.0	4.7
0.5	337	109.0	4.2



**Sample 2 (Surcharge: 10 lbs.)**

**Water Content**

Wt. Wet Soil+Tare, gms. 491.8    Wt. Soil+Tare, gms. 452.0    Wt. Tare, gms. 191.8    **Moisture, % 15.3**

**Unit Weight**

Wt. Mold+Soil, gms. 8287.0    Wt. Mold, gms. 4215.7    Ht. Soil, in. 4.600    **Density, pcf 103.4**

**Swell Data**

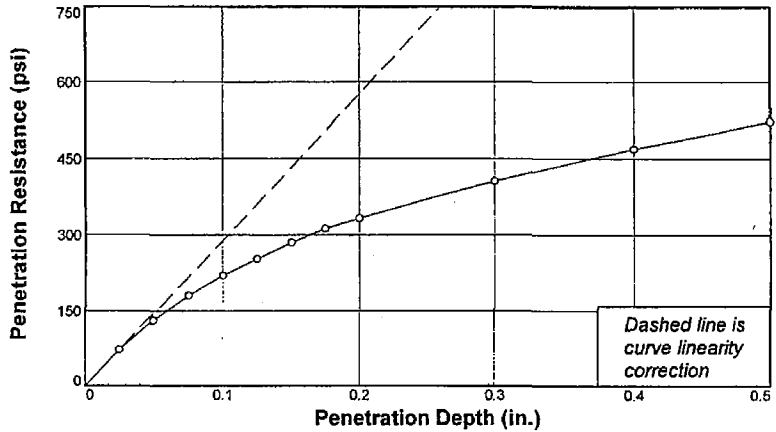
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	0	0.0

**Final Water Content**

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	802.9	720.7	189.5	15.5
Middle	800.1	718.1	188.9	15.5
Bottom	800.1	718.1	188.9	15.5

**Penetration Test Data**

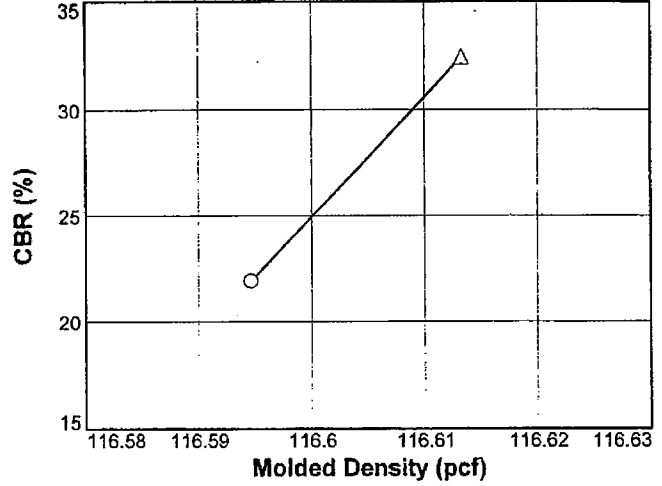
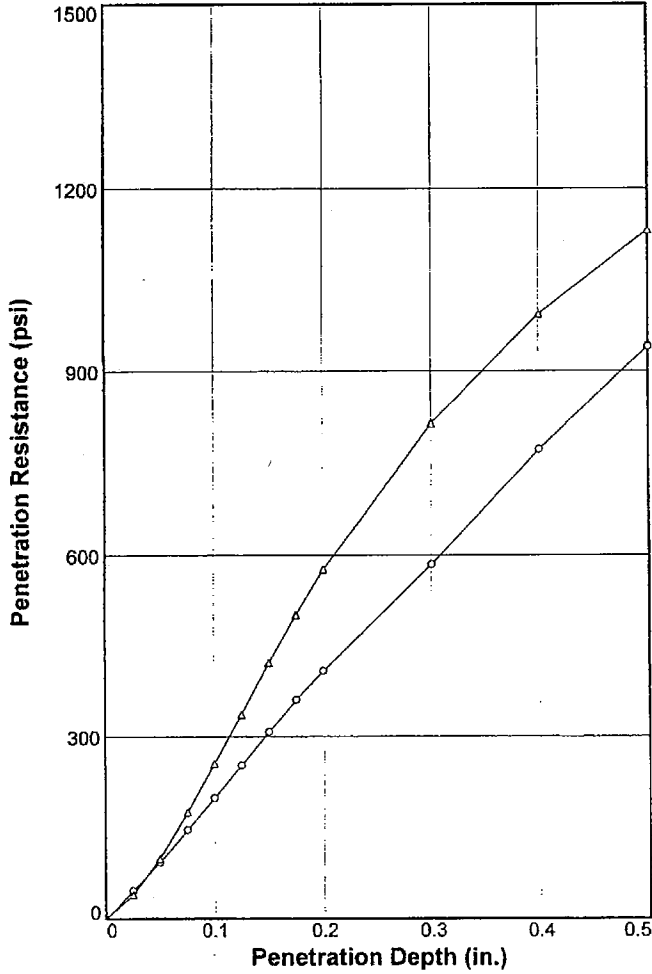
Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	10	0.0	
0.025	226	72.0	
0.05	400	130.0	
0.075	549	179.7	
0.1	667	219.0	21.9
0.125	766	252.0	
0.15	864	284.7	
0.175	946	312.0	
0.2	1008	332.7	22.2
0.3	1229	406.3	21.4
0.4	1417	469.0	20.4
0.5	1578	522.7	20.1





# BEARING RATIO TEST REPORT

## ASTM D 1883-05



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	116.6	94.9	10.8	116.6	94.9	12.4	21.9	28.4	0.010	10	0
2 △	116.6	94.9	10.8	116.6	94.9	10.6	32.4	41.8	0.021	10	
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
SAND (SW), Dark Gray, Washed Granitic Screenings from Stockpile		122.9	10.7		

**Project No:** 6234063534

**Project:** SCE&G COL

**Location:** TP-MM1

**Sample Number:** Bucket 1

**Depth:** n/a

**Date:** 10-12-06

**Test Description/Remarks:**

95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.

Specimen 1 - Soaked

Specimen 2 - Unsoaked

*JRS.*  
11-28-06

BEARING RATIO TEST REPORT

**MACTEC, INC.**

Figure \_\_\_\_\_

**BEARING RATIO TESTING RESULTS**  
(ASTM D 1883-05)

Date: 10-12-06  
 Project No.: 6234063534  
 Project: SCE&G COL  
 Location: TP-MM1  
 Depth: n/a      Sample Number: Bucket 1  
 Material Description: SAND (SW), Dark Gray, Washed Granitic Screenings from Stockpile  
 USCS Classification:  
 Liquid Limit:      Plasticity Index:

Test Description: 95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.  
 Maximum Dry Density: 122.9      Optimum Moisture Content: 10.7  
 Testing Remarks:  
 Specimen 1 - Soaked  
 Specimen 2 - Unsoaked

**Sample 1 (Surcharge: 10 lbs.)**

**Water Content**

Wt. Wet Soil+Tare, gms. 490.7    Wt. Soil+Tare, gms. 461.5    Wt. Tare, gms. 190.7    Moisture, % 10.8

**Unit Weight**

Wt. Mold+Soil, gms. 8521.7    Wt. Mold, gms. 4150.2    Ht. Soil, in. 4.560    Density, pcf 116.6

**Swell Data**

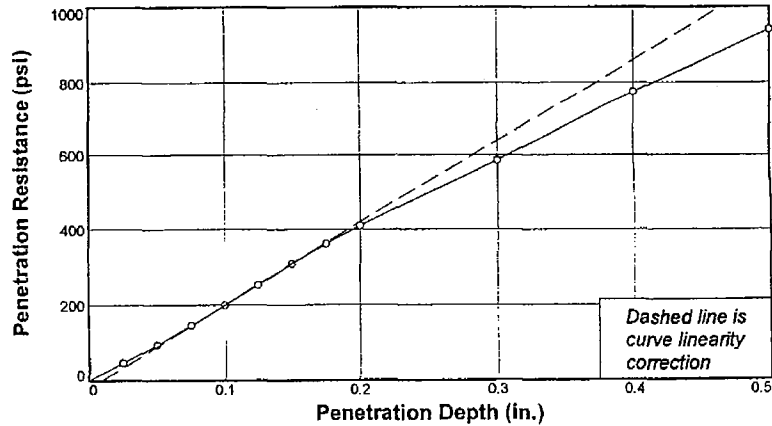
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	500	0.0
96	500	0.0

**Final Water Content**

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	657.2	587.5	13.8	12.1
Middle	572.7	510.8	13.7	12.5
Bottom	572.7	510.8	13.7	12.5

**Penetration Test Data**

Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	10	0.0	
0.025	149	46.3	
0.05	289	93.0	
0.075	448	146.0	
0.1	605	198.3	21.9
0.125	766	252.0	
0.15	931	307.0	
0.175	1091	360.3	
0.2	1235	408.3	28.4
0.3	1764	584.7	31.7
0.4	2329	773.0	34.3
0.5	2829	939.7	36.1



**Sample 2 (Surcharge: 10 lbs.)**

**Water Content**

Wt. Wet Soil+Tare, gms. 490.7    Wt. Soil+Tare, gms. 461.5    Wt. Tare, gms. 190.7    **Moisture, % 10.8**

**Unit Weight**

Wt. Mold+Soil, gms. 8522.4    Wt. Mold, gms. 4150.2    Ht. Soil, in. 4.560    **Density, pcf. 116.6**

**Swell Data**

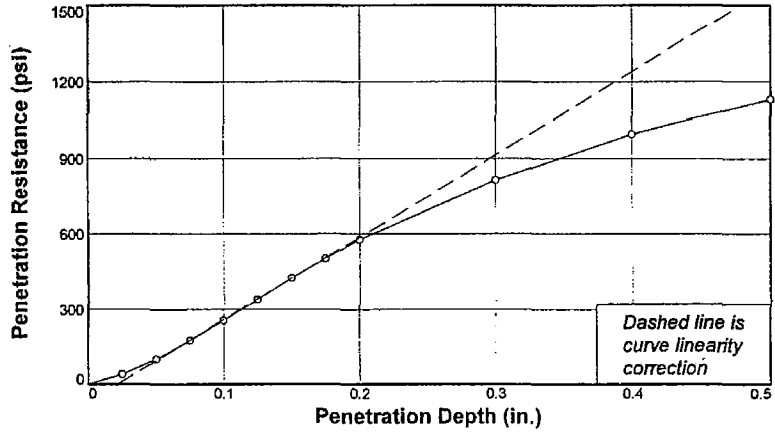
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	0	0.0

**Final Water Content**

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	736.4	683.6	190.0	10.7
Middle	764.2	709.7	194.3	10.6
Bottom	764.2	709.7	194.3	10.6

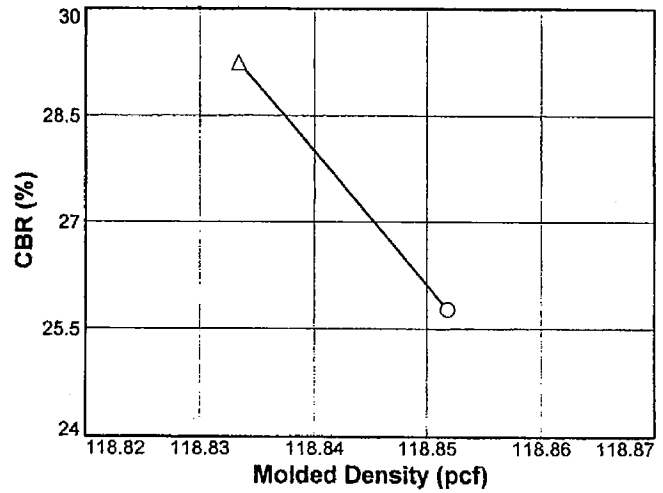
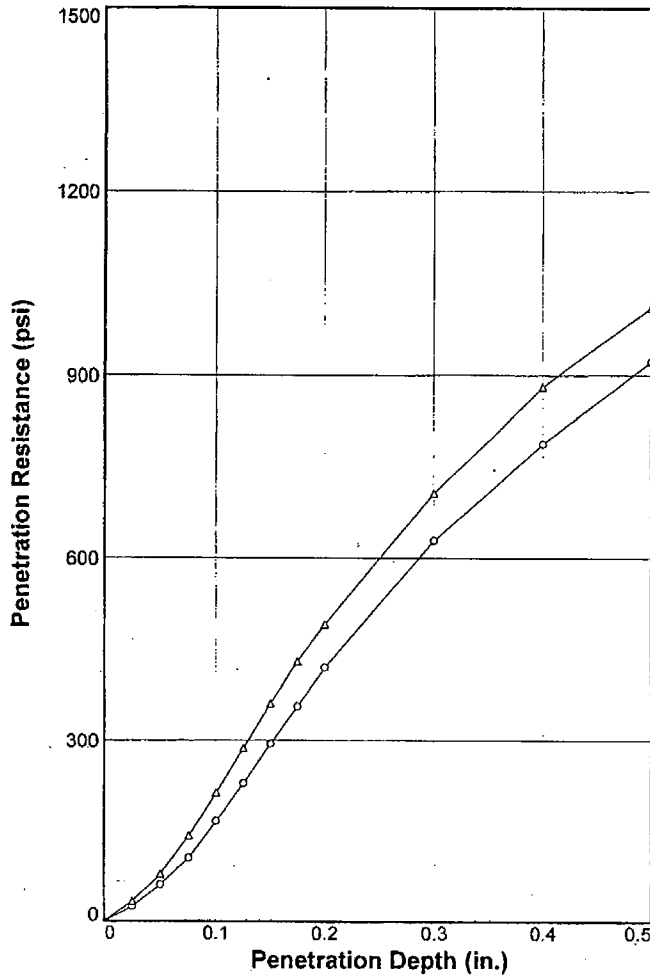
**Penetration Test Data**

Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	10	0.0	
0.025	130	40.0	
0.05	308	99.3	
0.075	536	175.3	
0.1	773	254.3	32.4
0.125	1019	336.3	
0.15	1276	422.0	
0.175	1513	501.0	
0.2	1740	576.7	41.8
0.3	2455	815.0	44.9
0.4	2991	993.7	44.5
0.5	3402	1130.7	43.5



# BEARING RATIO TEST REPORT

## ASTM D 1883-05



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	118.9	95	8.1	118.9	94.9	12.0	25.8	33.0	0.036	10	0
2 △	118.8	94.9	8.2	118.8	94.9	8.4	29.2	36.6	0.027	10	
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
SAND (SW-SM) with Silt, Dark Gray, Unwashed Granitic Screenings from Stockpile		125.2	8.2		

**Project No:** 6234063534  
**Project:** SCE&G COL  
**Location:** TP-MM2  
**Sample Number:** Bucket 1                      **Depth:** n/a  
**Date:** 10-12-06

BEARING RATIO TEST REPORT  
**MACTEC, INC.**

**Test Description/Remarks:**  
 95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.  
  
 Specimen 1 - Soaked  
 Specimen 2 - Unsoaked

*JRS*  
 11-28-06

**Figure** \_\_\_\_\_

## BEARING RATIO TESTING RESULTS (ASTM D 1883-05)

**Date:** 10-12-06  
**Project No.:** 6234063534  
**Project:** SCE&G COL  
**Location:** TP-MM2  
**Depth:** n/a                      **Sample Number:** Bucket 1  
**Material Description:** SAND (SW-SM) with Silt, Dark Gray, Unwashed Granitic Screenings from Stockpile  
**USCS Classification:**  
**Liquid Limit:**                      **Plasticity Index:**

**Test Description:** 95% of Modified Proctor Max. Dry Density at Optimum Moisture Content.  
**Maximum Dry Density:** 125.2                      **Optimum Moisture Content:** 8.2  
**Testing Remarks:**

Specimen 1 - Soaked  
 Specimen 2 - Unsoaked

### Sample 1 (Surcharge: 10 lbs.)

**Water Content**

Wt. Wet Soil+Tare, gms. 314.4    Wt. Soil+Tare, gms. 291.9    Wt. Tare, gms. 14.4    **Moisture, % 8.1**

**Unit Weight**

Wt. Mold+Soil, gms. 8501.6    Wt. Mold, gms. 4150.2    Ht. Soil, in. 4.563    **Density, pcf 118.9**

**Swell Data**

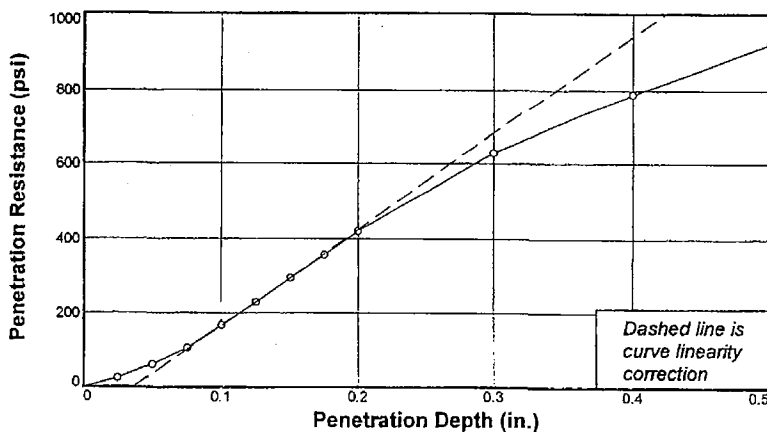
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	500	0.0
91.5	500	0.0

**Final Water Content**

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	623.6	559.4	13.8	11.8
Middle	592.2	529.8	14.4	12.1
Bottom	592.2	529.8	14.4	12.1

**Penetration Test Data**

Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	0	0.0	
0.025	73	24.3	
0.05	184	61.3	
0.075	315	105.0	
0.1	501	167.0	25.8
0.125	686	228.7	
0.15	882	294.0	
0.175	1066	355.3	
0.2	1258	419.3	33.0
0.3	1885	628.3	36.1
0.4	2366	788.7	36.4
0.5	2765	921.7	35.4



**Sample 2 (Surcharge: 10 lbs.)**

**Water Content**

Wt. Wet Soil+Tare, gms. 313.6    Wt. Soil+Tare, gms. 290.9    Wt. Tare, gms. 13.6    Moisture, % 8.2

**Unit Weight**

Wt. Mold+Soil, gms. 8501.2    Wt. Mold, gms. 4150.2    Ht. Soil, in. 4.560    Density, pcf 118.8

**Swell Data**

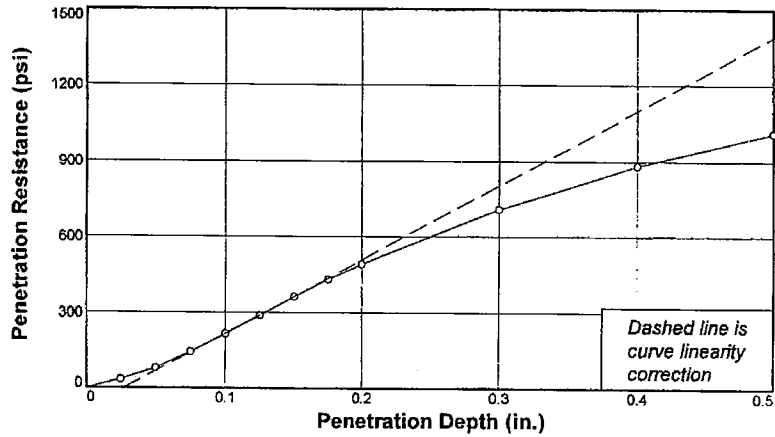
Elapsed Time, hrs.	Dial Reading in. x 1,000	Swell %
0	0	0.0

**Final Water Content**

	Wt. Wet Soil+Tare, gms.	Dry Soil+Tare	Tare	Moisture, %
Top	590.7	546.7	13.3	8.2
Middle	597.0	551.4	13.5	8.5
Bottom	597.0	551.4	13.5	8.5

**Penetration Test Data**

Pen. in.	Dial Reading in. x 1,000	Stress psi	CBR %
0.0	10	0.0	
0.025	111	33.7	
0.05	246	78.7	
0.075	438	142.7	
0.1	650	213.3	29.2
0.125	869	286.3	
0.15	1092	360.7	
0.175	1299	429.7	
0.2	1481	490.3	36.6
0.3	2130	706.7	39.7
0.4	2653	881.0	39.8
0.5	3040	1010.0	38.8





Unconfined Compressive Strength of Intact Rock Core Specimens  
ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-201  
Sample Depth (ft): 53.0  
Tested By: JBM  
Test Date: 10/31/2006  
Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.393
Specimen Length, inch	5.225
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	171
Test Duration (Time to Failure in Minutes)	6.0
Unconfined Compressive Strength, psi (from test)	22,918
Unconfined Compressive Strength, psi (with L/D correction)	23,134
Type of Break	Cone

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
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\_\_\_\_\_  
\_\_\_\_\_

BRR  
11/27/06

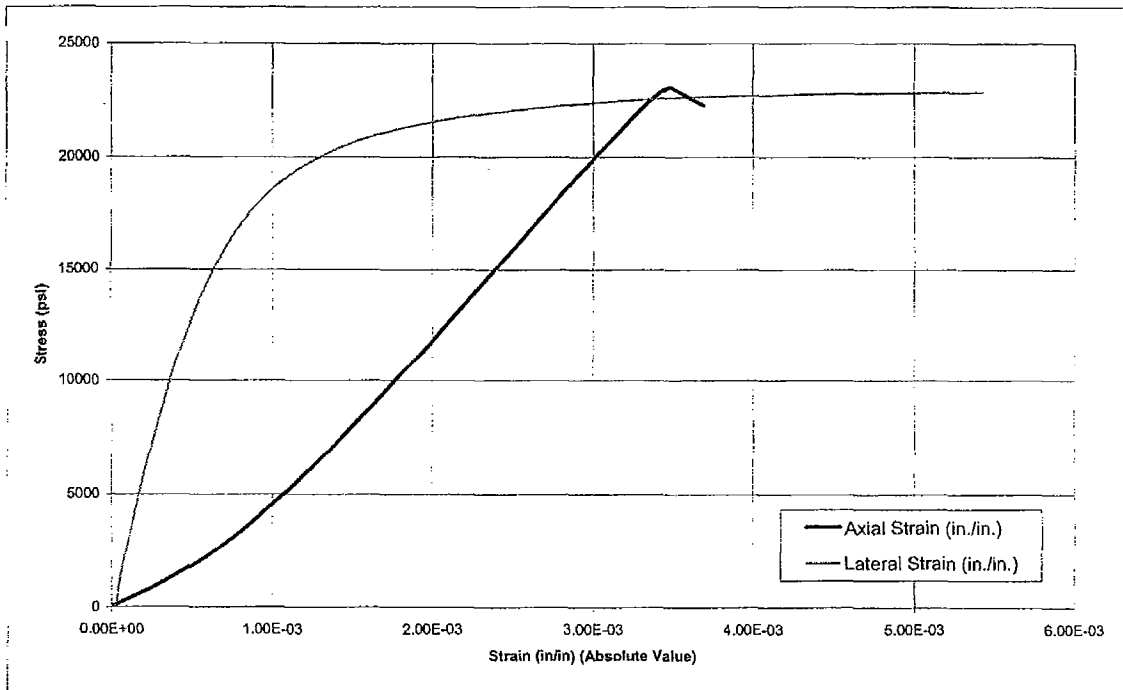


**Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-201  
 Sample Depth (ft): 58.08  
 Tested By: JBM  
 Test Date: 11/10/2006

Reviewed By: BRR  
 Review Date: 11/21/2006

<b>Rock Type</b>	<b>Granodiorite</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.394</b>
<b>Specimen Length, inch</b>	<b>5.281</b>
<b>Length/Diameter Ratio</b>	<b>2.2</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>171</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>7.7</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>23,056</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>23,298</b>
<b>Type of Break</b>	<b>Cone</b>
<b>Young's Modulus, psi</b>	<b>7,830,000</b>
<b>Poisson's Ratio</b>	<b>0.35</b>



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Maximum mineral grain size of specimen was greater than Diameter/10

BRR  
 11/27/06





**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-201  
Sample Depth (ft): 65.65  
Tested By: JBM  
Test Date: 11/2/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.382
Specimen Length, inch	5.278
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	170
Test Duration (Time to Failure in Minutes)	4.2
Unconfined Compressive Strength, psi (from test)	9,361
Unconfined Compressive Strength, psi (with L/D correction)	9,464
Type of Break	Columnar

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BRR  
11/29/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-201  
Sample Depth (ft): 70.7  
Tested By: JBM  
Test Date: 11/3/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.382
Specimen Length, inch	5.284
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	169
Test Duration (Time to Failure in Minutes)	7.5
Unconfined Compressive Strength, psi (from test)	18,760
Unconfined Compressive Strength, psi (with L/D correction)	18,967
Type of Break	Columnar

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BRR  
11/27/06



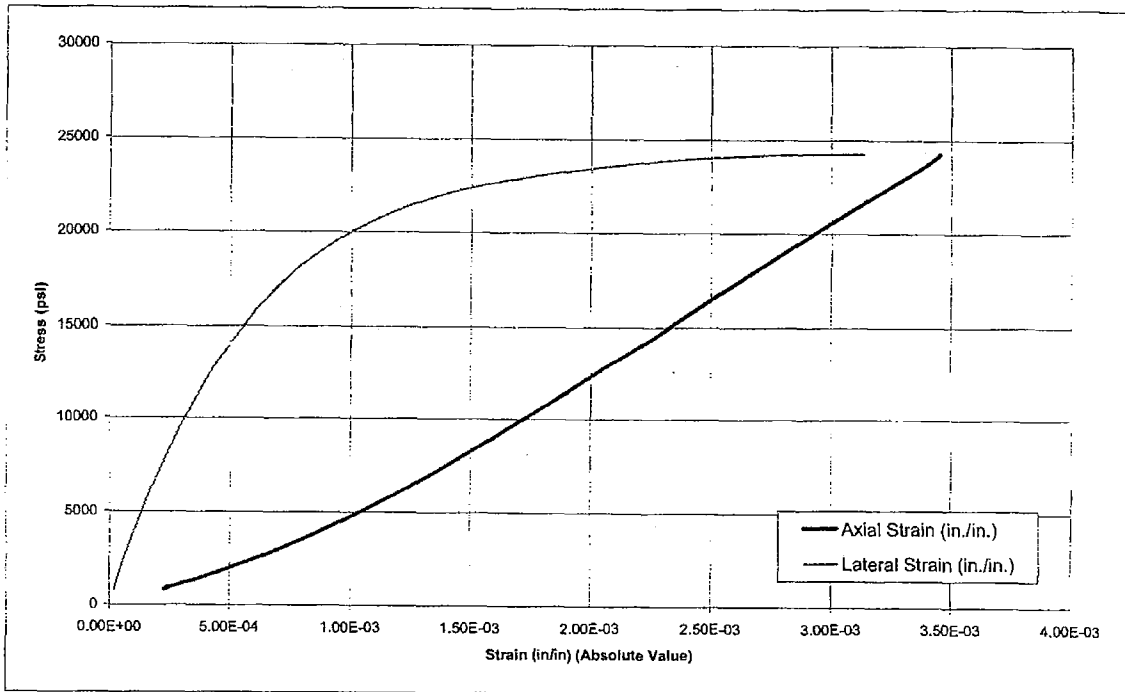
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-201  
Sample Depth (ft): 81.7  
Tested By: JBM  
Test Date: 11/14/2006

Reviewed By: BRR  
Review Date: 11/21/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.399
Specimen Length, inch	5.293
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	170
Test Duration (Time to Failure in Minutes)	9.8
Unconfined Compressive Strength, psi (from test)	24,258
Unconfined Compressive Strength, psi (with L/D correction)	24,512
Type of Break	Cone
Young's Modulus, psi	8,080,000
Poisson's Ratio	0.35



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Maximum mineral grain size of specimen was greater than Diameter/10

BRL  
11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-201  
Sample Depth (ft): 92.1  
Tested By: JBM  
Test Date: 11/3/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.390
Specimen Length, inch	5.310
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	168
Test Duration (Time to Failure in Minutes)	6.9
Unconfined Compressive Strength, psi (from test)	23,593
Unconfined Compressive Strength, psi (with L/D correction)	23,858
Type of Break	Cone & Shear

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.  
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\_\_\_\_\_  
\_\_\_\_\_

BRR  
11/28/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

**Project Name:** SCE&G COL  
**Project Number:** 6234063534S  
**Boring Number:** B-201  
**Sample Depth (ft):** 101.3  
**Tested By:** JBM  
**Test Date:** 10/31/2006

**Reviewed By:** BRR  
**Review Date:** 11/15/2006

<b>Rock Type</b>	<b>Quartz Diorite</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.394</b>
<b>Specimen Length, inch</b>	<b>5.248</b>
<b>Length/Diameter Ratio</b>	<b>2.2</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>181</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>6.4</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>28,396</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>28,675</b>
<b>Type of Break</b>	<b>Cone &amp; Shear</b>

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BRR  
11/27/06



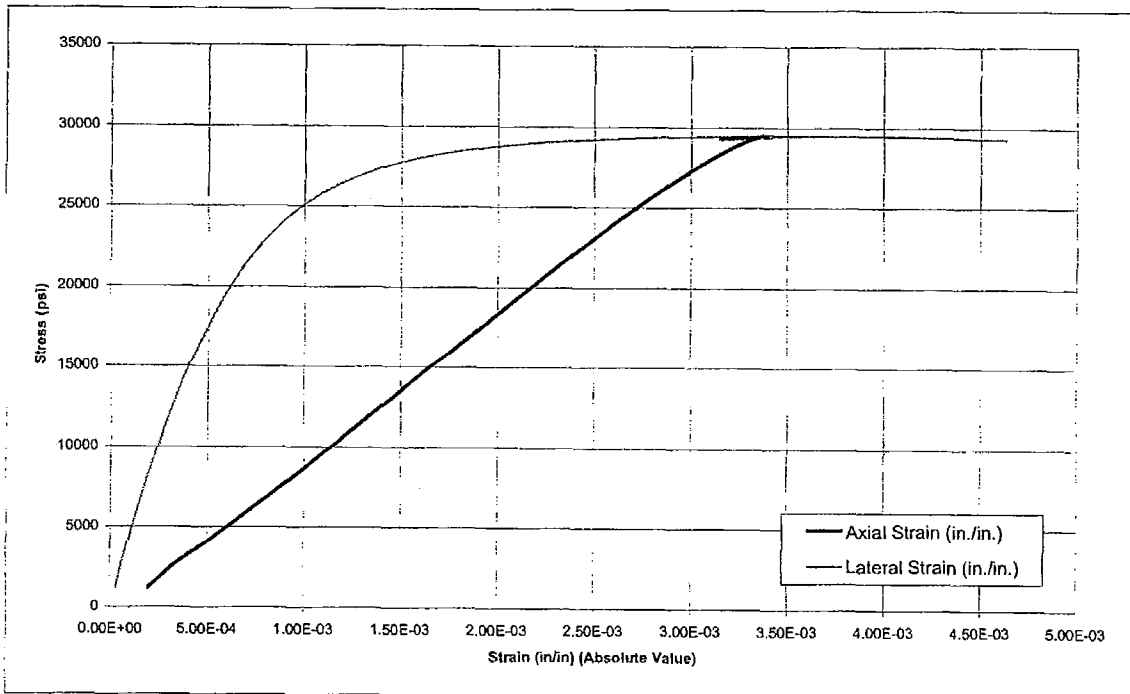
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-201  
 Sample Depth (ft): 109.73  
 Tested By: JBM  
 Test Date: 11/14/2006

Reviewed By: BRR  
 Review Date: 11/21/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.396
Specimen Length, inch	5.283
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	180
Test Duration (Time to Failure in Minutes)	9.8
Unconfined Compressive Strength, psi (from test)	29,501
Unconfined Compressive Strength, psi (with L/D correction)	29,809
Type of Break	Cone & Shear
Young's Modulus, psi	9,730,000
Poisson's Ratio	0.32



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRL  
 11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-201  
Sample Depth (ft): 131.2  
Tested By: JBM  
Test Date: 11/14/2006

Reviewed By: BRR  
Review Date: 11/27/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.390
Specimen Length, inch	5.275
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	184
Test Duration (Time to Failure in Minutes)	8.5
Unconfined Compressive Strength, psi (from test)	23,027
Unconfined Compressive Strength, psi (with L/D correction)	23,269
Type of Break	Shear

Comments:

Specimen did not meet ASTM D4543-04 criteria for side straightness.

BAL  
11/28/06



Unconfined Compressive Strength of Intact Rock Core Specimens  
ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-201  
Sample Depth (ft): 151.53  
Tested By: JBM  
Test Date: 10/31/2006  
Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.386
Specimen Length, inch	5.202
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	184
Test Duration (Time to Failure in Minutes)	5.3
Unconfined Compressive Strength, psi (from test)	23,278
Unconfined Compressive Strength, psi (with L/D correction)	23,494
Type of Break	Shear

Comments:  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.  
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\_\_\_\_\_

BAN  
11/28/06





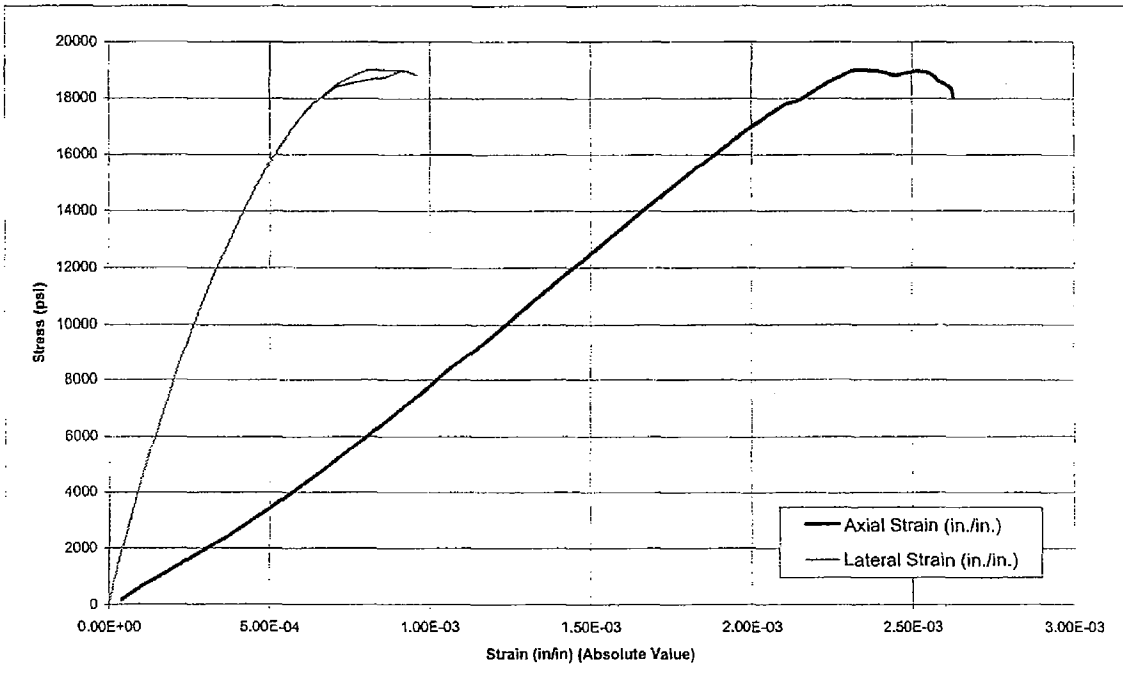
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-201  
Sample Depth (ft): 191.48  
Tested By: JBM  
Test Date: 11/3/2006

Reviewed By: BRR  
Review Date: 11/21/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.389
Specimen Length, inch	5.319
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	185
Test Duration (Time to Failure in Minutes)	6.5
Unconfined Compressive Strength, psi (from test)	19,005
Unconfined Compressive Strength, psi (with L/D correction)	19,222
Type of Break	Columnar
Young's Modulus, psi	9,390,000
Poisson's Ratio	0.30



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 45% to 55% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
11/21/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-201  
Sample Depth (ft): 238.1  
Tested By: JBM  
Test Date: 10/31/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.399
Specimen Length, inch	5.253
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	183
Test Duration (Time to Failure in Minutes)	6.5
Unconfined Compressive Strength, psi (from test)	25,081
Unconfined Compressive Strength, psi (with L/D correction)	25,325
Type of Break	Cone

Comments: \_\_\_\_\_  
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BRR  
11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-201  
Sample Depth (ft): 271.23  
Tested By: JBM  
Test Date: 11/3/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.395
Specimen Length, inch	5.305
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	188
Test Duration (Time to Failure in Minutes)	6.4
Unconfined Compressive Strength, psi (from test)	21,922
Unconfined Compressive Strength, psi (with L/D correction)	22,161
Type of Break	Columnar

Comments:

Unit weight and unconfined compressive strength from adjacent specimens.

Unit weight specimen did not meet ASTM D4543-04 criteria for flatness, parallelism, and perpendicularity.

BRR  
11/28/06

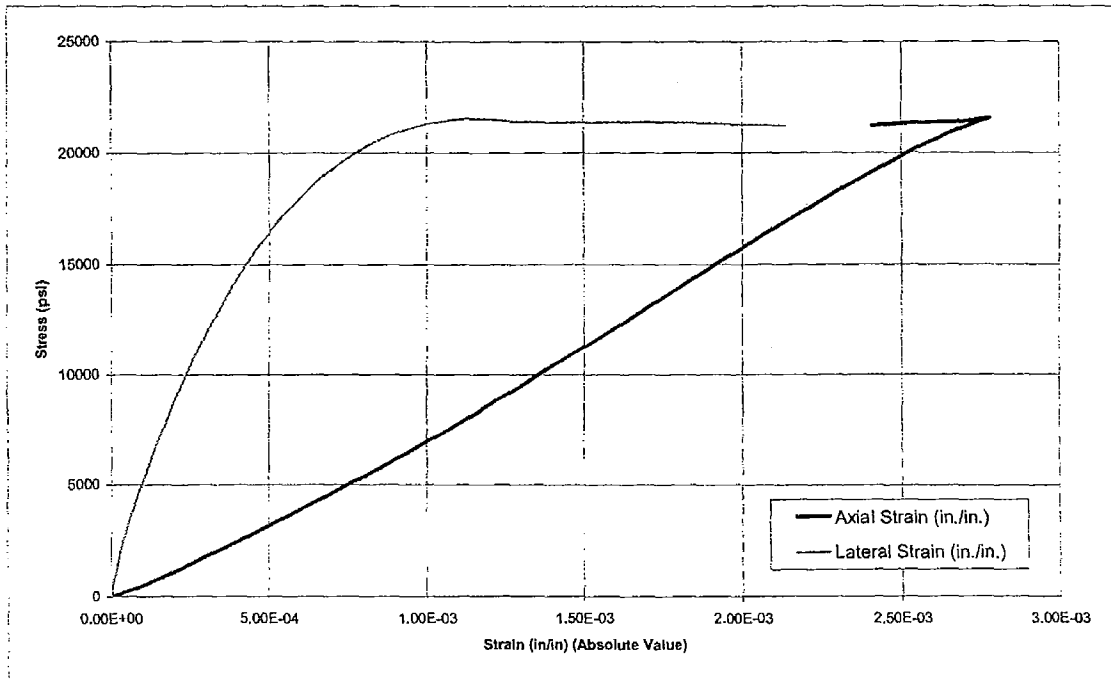


**Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-201  
 Sample Depth (ft): 311.9  
 Tested By: JBM  
 Test Date: 11/9/2006

Reviewed By: BRR  
 Review Date: 11/20/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.392
Specimen Length, inch	5.305
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	185
Test Duration (Time to Failure in Minutes)	6.1
Unconfined Compressive Strength, psi (from test)	21,552
Unconfined Compressive Strength, psi (with L/D correction)	21,790
Type of Break	Shear
Young's Modulus, psi	8,880,000
Poisson's Ratio	0.30



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 45% to 55% of unconfined compressive strength.  
 Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
 11/27/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-201  
Sample Depth (ft): 349.06  
Tested By: JBM  
Test Date: 10/17/2006

Reviewed By: BRR  
Review Date: 11/20/2006

<b>Rock Type</b>	<b>Biotite Gneiss</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.396</b>
<b>Specimen Length, inch</b>	<b>5.312</b>
<b>Length/Diameter Ratio</b>	<b>2.2</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>165</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>7.7</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>28,594</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>28,908</b>
<b>Type of Break</b>	<b>Shear</b>

Comments: \_\_\_\_\_  
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*JBM*  
*11/27/06*

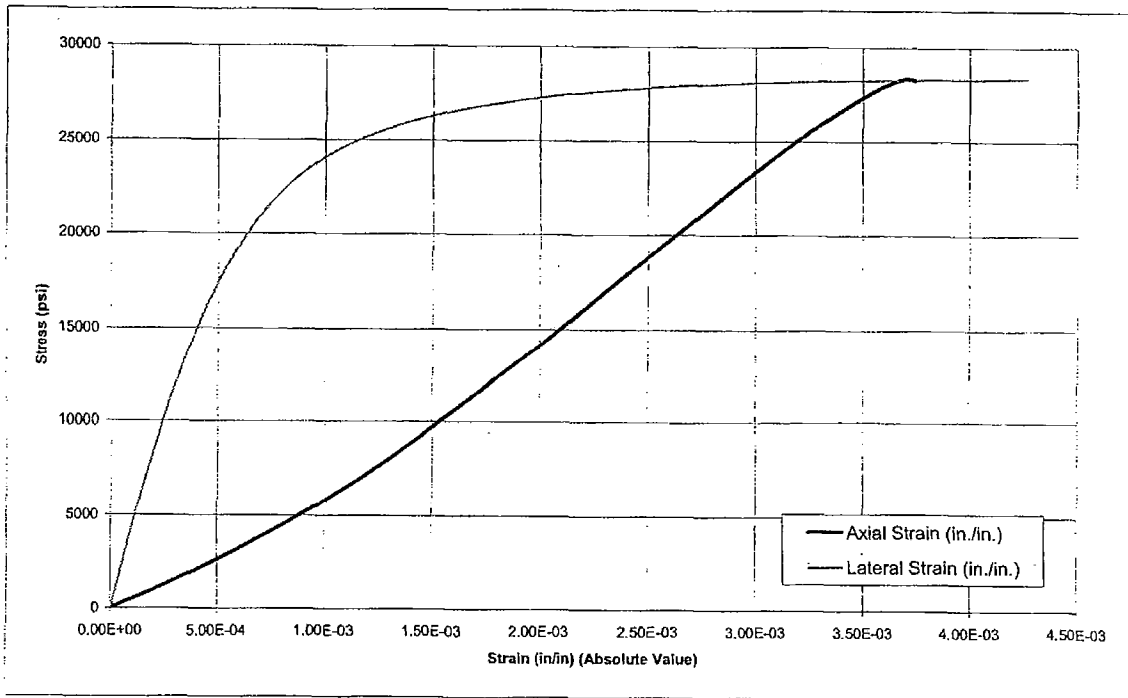


**Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-203  
 Sample Depth (ft): 56.2  
 Tested By: JBM  
 Test Date: 11/9/2006

Reviewed By: BRR  
 Review Date: 11/20/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.492
Specimen Length, inch	4.991
Length/Diameter Ratio	2.0
Unit Weight (lbs/ft <sup>3</sup> )	185
Test Duration (Time to Failure in Minutes)	8.4
Unconfined Compressive Strength, psi (from test)	28,367
Unconfined Compressive Strength, psi (with L/D correction)	28,372
Type of Break	Cone & Shear
Young's Modulus, psi	9,190,000
Poisson's Ratio	0.32



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 45% to 55% of unconfined compressive strength.  
 Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

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 11/27/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-203  
Sample Depth (ft): 61.45  
Tested By: JBM  
Test Date: 10/17/2006

Reviewed By: BRR  
Review Date: 11/20/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.493
Specimen Length, inch	5.275
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	172
Test Duration (Time to Failure in Minutes)	6.6
Unconfined Compressive Strength, psi (from test)	25,112
Unconfined Compressive Strength, psi (with L/D correction)	25,266
Type of Break	Cone

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
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Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-203  
Sample Depth (ft): 63.1  
Tested By: JBM  
Test Date: 10/17/2006

Reviewed By: BRR  
Review Date: 11/20/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.491
Specimen Length, inch	5.440
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	169
Test Duration (Time to Failure in Minutes)	7.9
Unconfined Compressive Strength, psi (from test)	34,660
Unconfined Compressive Strength, psi (with L/D correction)	34,987
Type of Break	Cone & Shear

Comments: \_\_\_\_\_  
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BRR  
11/27/06



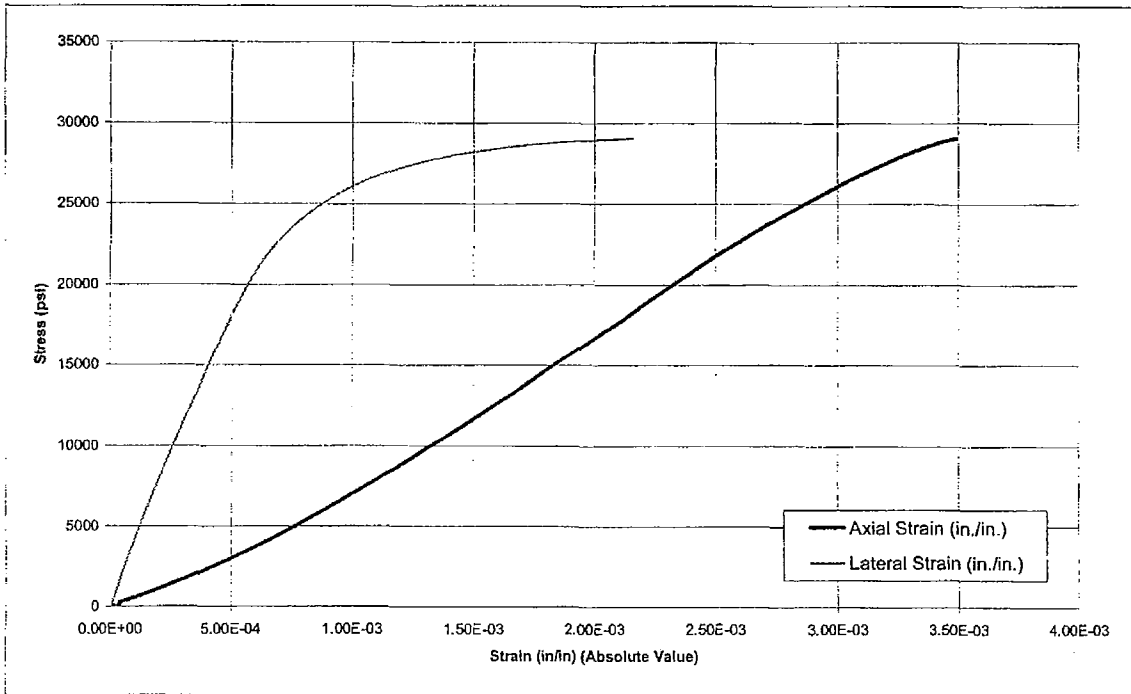


**Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression**  
**ASTM D 7012-04**

Project Name: **SCE&G COL**  
 Project Number: **6234063534S**  
 Boring Number: **B-203**  
 Sample Depth (ft): **71.87**  
 Tested By: **JBM**  
 Test Date: **11/8/2006**

Reviewed By: **BRR**  
 Review Date: **11/20/2006**

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.490
Specimen Length, inch	5.270
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	182
Test Duration (Time to Failure in Minutes)	7.2
Unconfined Compressive Strength, psi (from test)	29,052
Unconfined Compressive Strength, psi (with L/D correction)	29,231
Type of Break	Cone & Shear
Young's Modulus, psi	10,110,000
Poisson's Ratio	0.30



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 45% to 55% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

*BRR*  
*11/27/06*



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-203  
Sample Depth (ft): 83.13  
Tested By: JBM  
Test Date: 10/17/2006

Reviewed By: BRR  
Review Date: 11/21/2006

Rock Type	Quartz Diorite to Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	2.493
Specimen Length, inch	5.228
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	184
Test Duration (Time to Failure in Minutes)	6.7
Unconfined Compressive Strength, psi (from test)	30,453
Unconfined Compressive Strength, psi (with L/D correction)	30,611
Type of Break	Cone

Comments: \_\_\_\_\_  
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11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-203  
Sample Depth (ft): 99.09  
Tested By: JBM  
Test Date: 11/9/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.493
Specimen Length, inch	5.300
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	184
Test Duration (Time to Failure in Minutes)	7.7
Unconfined Compressive Strength, psi (from test)	22,418
Unconfined Compressive Strength, psi (with L/D correction)	22,566
Type of Break	Cone & Shear

Comments: \_\_\_\_\_  
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BRR  
11/27/06

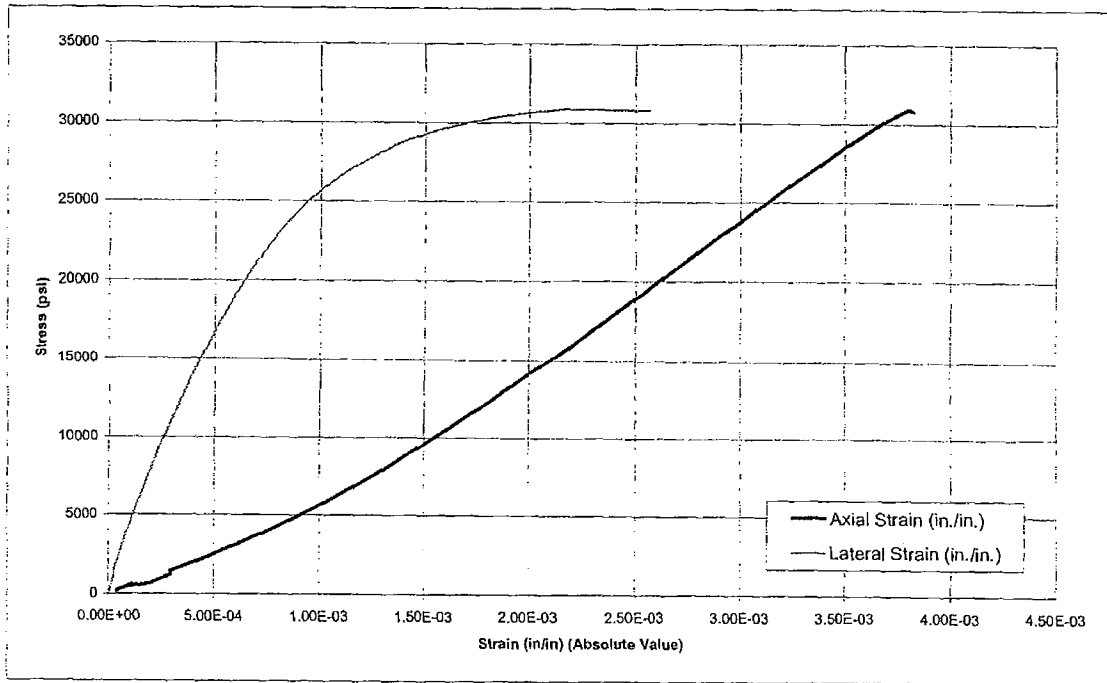


Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression  
ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-203  
Sample Depth (ft): 114.55  
Tested By: JBM  
Test Date: 11/7/2006

Reviewed By: *BAN*  
Review Date: 11/21/06

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.491
Specimen Length, inch	5.228
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	184
Test Duration (Time to Failure in Minutes)	7.2
Unconfined Compressive Strength, psi (from test)	30,880
Unconfined Compressive Strength, psi (with L/D correction)	31,042
Type of Break	Cone & Shear
Young's Modulus, psi	9,390,000
Poisson's Ratio	0.33



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

*BAN*  
11/27/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-203  
Sample Depth (ft): 133.35  
Tested By: JBM  
Test Date: 10/31/2006

Reviewed By: BRR  
Review Date: 11/16/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.493
Specimen Length, inch	5.228
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	184
Test Duration (Time to Failure in Minutes)	4.2
Unconfined Compressive Strength, psi (from test)	24,139
Unconfined Compressive Strength, psi (with L/D correction)	24,264
Type of Break	Columnar

Comments: \_\_\_\_\_  
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11/27/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-203  
Sample Depth (ft): 148.12  
Tested By: JBM  
Test Date: 10/31/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.494
Specimen Length, inch	5.445
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	183
Test Duration (Time to Failure in Minutes)	5.1
Unconfined Compressive Strength, psi (from test)	22,777
Unconfined Compressive Strength, psi (with L/D correction)	22,991
Type of Break	Cone & Shear

Comments: \_\_\_\_\_  
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BRR  
11/27/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

**Project Name:** SCE&G COL  
**Project Number:** 6234063534S  
**Boring Number:** B-205  
**Sample Depth (ft):** 68.5  
**Tested By:** JBM  
**Test Date:** 10/31/2006

**Reviewed By:** BRR  
**Review Date:** 11/15/2006

<b>Rock Type</b>	<b>Quartz Diorite</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.390</b>
<b>Specimen Length, inch</b>	<b>5.212</b>
<b>Length/Diameter Ratio</b>	<b>2.2</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>182</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>5.0</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>25,217</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>25,451</b>
<b>Type of Break</b>	<b>Columnar</b>

**Comments:** Maximum mineral grain size of specimen was greater than Diameter/10  
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BRR  
11/27/06



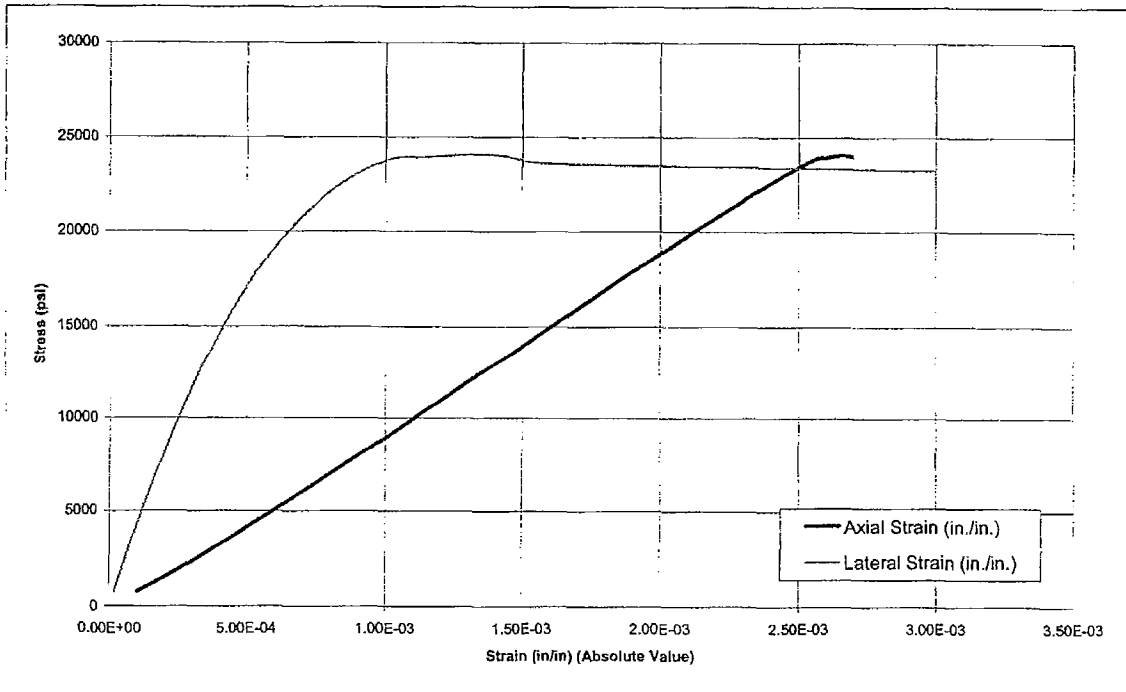
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-205  
 Sample Depth (ft): 72.54  
 Tested By: JBM  
 Test Date: 11/10/2006

Reviewed By: BRR  
 Review Date: 11/21/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.388
Specimen Length, inch	5.341
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	181
Test Duration (Time to Failure in Minutes)	7.9
Unconfined Compressive Strength, psi (from test)	24,074
Unconfined Compressive Strength, psi (with L/D correction)	24,360
Type of Break	Shear
Young's Modulus, psi	9,990,000
Poisson's Ratio	0.30



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

B+1  
 11/27/06





Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-205  
Sample Depth (ft): 91.4  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.382
Specimen Length, inch	5.298
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	182
Test Duration (Time to Failure in Minutes)	5.2
Unconfined Compressive Strength, psi (from test)	21,417
Unconfined Compressive Strength, psi (with L/D correction)	21,659
Type of Break	Cone & Shear

Comments:

Specimen did not meet the ASTM D4543-04 criteria for side straightness.

BRL  
11/28/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-205  
Sample Depth (ft): 124.32  
Tested By: JBM  
Test Date: 10/31/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.394
Specimen Length, inch	5.266
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	184
Test Duration (Time to Failure in Minutes)	6.0
Unconfined Compressive Strength, psi (from test)	29,753
Unconfined Compressive Strength, psi (with L/D correction)	30,056
Type of Break	Cone & Shear

Comments: \_\_\_\_\_  
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BRR  
11/23/06



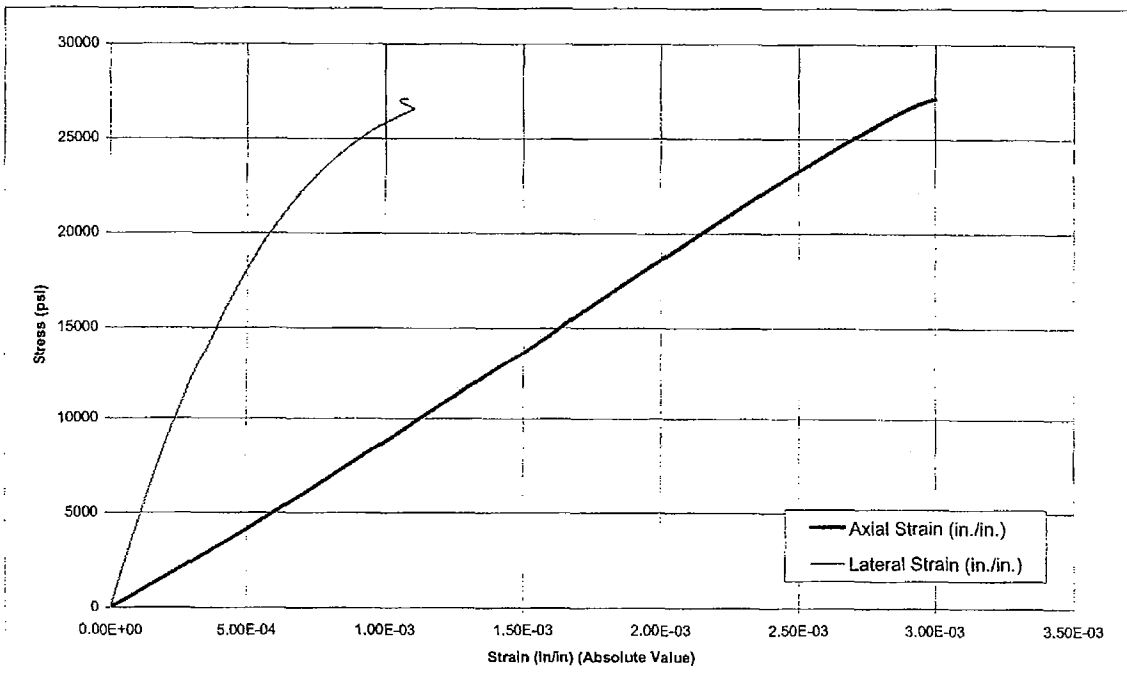
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-205  
 Sample Depth (ft): 155.5  
 Tested By: JBM  
 Test Date: 11/10/2006

Reviewed By: BRR  
 Review Date: 11/21/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.393
Specimen Length, inch	5.262
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	183
Test Duration (Time to Failure in Minutes)	9.5
Unconfined Compressive Strength, psi (from test)	27,113
Unconfined Compressive Strength, psi (with L/D correction)	27,388
Type of Break	Cone & Shear
Young's Modulus, psi	9,730,000
Poisson's Ratio	0.29



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.

Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
 11/23/06



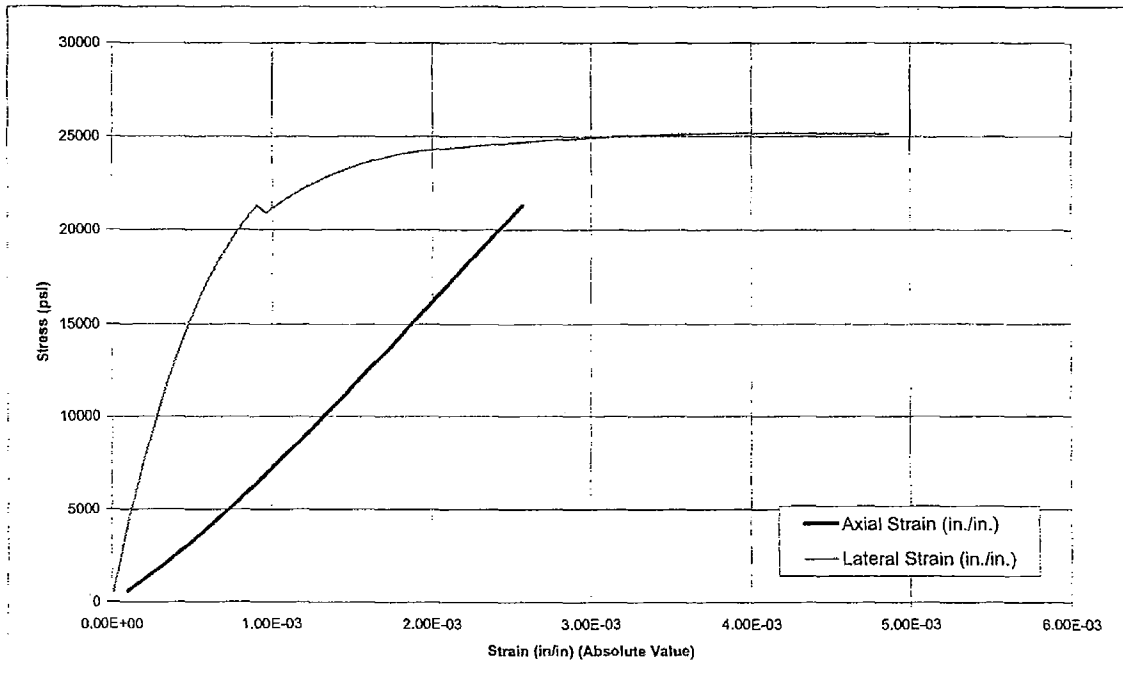
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-206  
Sample Depth (ft): 78.7  
Tested By: JBM  
Test Date: 11/10/2006

Reviewed By: BRR  
Review Date: 11/21/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.488
Specimen Length, inch	5.249
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	181
Test Duration (Time to Failure in Minutes)	8.1
Unconfined Compressive Strength, psi (from test)	25,164
Unconfined Compressive Strength, psi (with L/D correction)	25,310
Type of Break	Cone & Shear
Young's Modulus, psi	9,030,000
Poisson's Ratio	0.34



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Specimen did not meet ASTM D4543-04 criteria for side straightness.

BRR  
11/28/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-206  
Sample Depth (ft): 79.55  
Tested By: JBM  
Test Date: 10/31/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.490
Specimen Length, inch	5.265
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	179
Test Duration (Time to Failure in Minutes)	3.2
Unconfined Compressive Strength, psi (from test)	13,352
Unconfined Compressive Strength, psi (with L/D correction)	13,433
Type of Break	Shear

Comments: \_\_\_\_\_  
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BRR  
11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-206  
Sample Depth (ft): 88.7  
Tested By: JBM  
Test Date: 10/31/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.493
Specimen Length, inch	5.278
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	170
Test Duration (Time to Failure in Minutes)	5.7
Unconfined Compressive Strength, psi (from test)	24,578
Unconfined Compressive Strength, psi (with L/D correction)	24,729
Type of Break	Cone & Shear

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
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BRR  
11/27/06



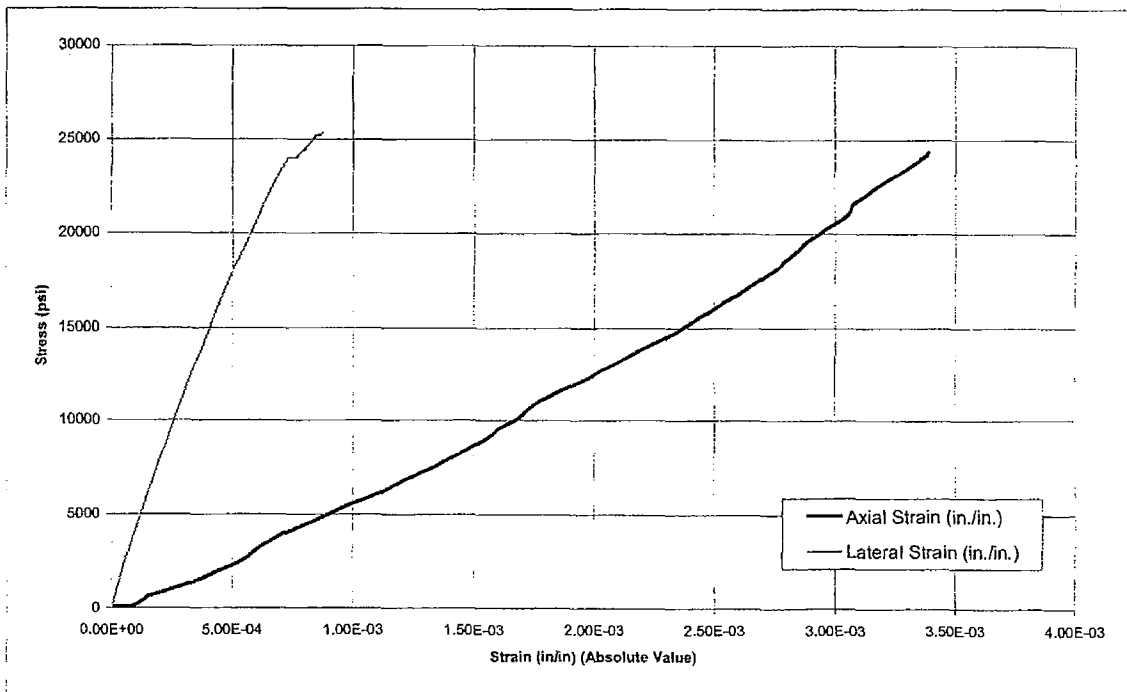
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-206  
 Sample Depth (ft): 104.69  
 Tested By: JBM  
 Test Date: 11/10/2006

Reviewed By: BRR  
 Review Date: 11/21/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.497
Specimen Length, inch	5.259
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	180
Test Duration (Time to Failure in Minutes)	11.2
Unconfined Compressive Strength, psi (from test)	25,308
Unconfined Compressive Strength, psi (with L/D correction)	25,450
Type of Break	Shear
Young's Modulus, psi	6,830,000
Poisson's Ratio	0.21



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 45% to 60% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
 11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-206  
Sample Depth (ft): 125.02  
Tested By: JBM  
Test Date: 11/2/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.491
Specimen Length, inch	5.293
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	184
Test Duration (Time to Failure in Minutes)	1.0
Unconfined Compressive Strength, psi (from test)	15,860
Unconfined Compressive Strength, psi (with L/D correction)	15,964
Type of Break	Cone & Shear

Comments:

Rate of loading too rapid, falls outside the 2 to 15 minute range specified by ASTM D 7012-04.

BRR  
11/27/06





**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: **SCE&G COL**  
Project Number: **6234063534S**  
Boring Number: **B-206**  
Sample Depth (ft): **146.5**  
Tested By: **JBM**  
Test Date: **10/20/2006**

Reviewed By: **BRR**  
Review Date: **11/16/2006**

<b>Rock Type</b>	<b>Quartz Diorite</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.486</b>
<b>Specimen Length, inch</b>	<b>5.332</b>
<b>Length/Diameter Ratio</b>	<b>2.1</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>186</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>5.2</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>22,782</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>22,954</b>
<b>Type of Break</b>	<b>Cone &amp; Shear</b>

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.  
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BRR  
11/28/06



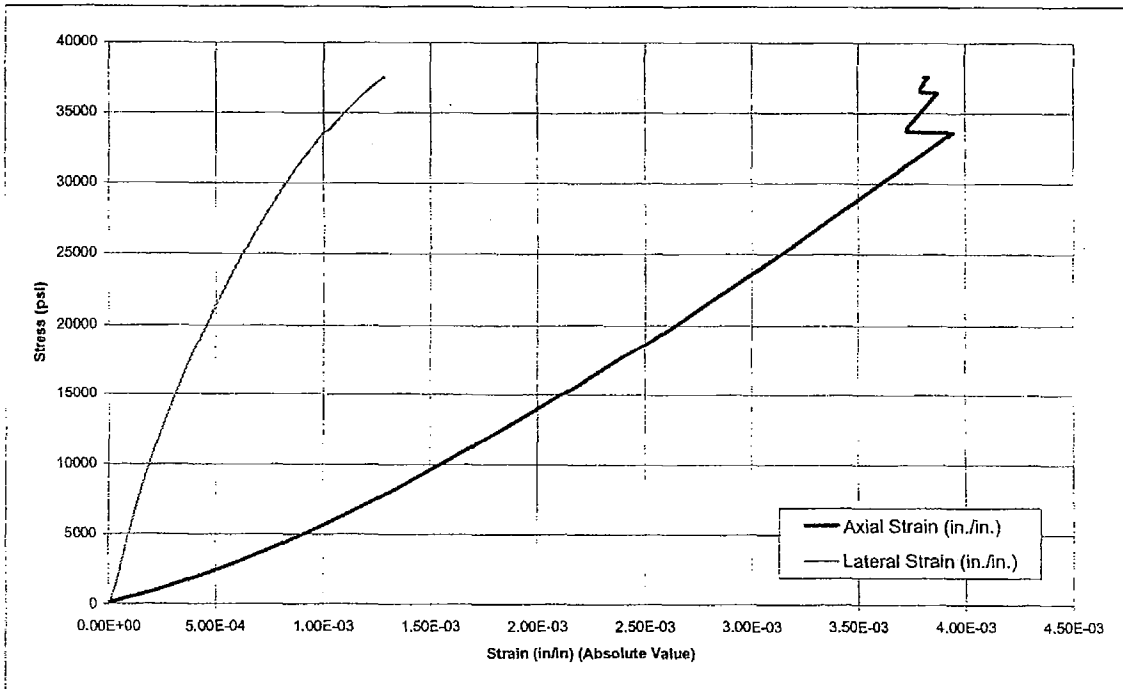
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-206  
Sample Depth (ft): 177.58  
Tested By: JBM  
Test Date: 11/3/2006

Reviewed By: BRR  
Review Date: 11/20/2006

Rock Type	Quartzite
Moisture Condition	As Received
Specimen Diameter, inch	2.491
Specimen Length, inch	5.312
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	166
Test Duration (Time to Failure in Minutes)	12.0
Unconfined Compressive Strength, psi (from test)	37,596
Unconfined Compressive Strength, psi (with L/D correction)	37,857
Type of Break	Columnar
Young's Modulus, psi	9,340,000
Poisson's Ratio	0.27



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-206  
Sample Depth (ft): 212.5  
Tested By: JBM  
Test Date: 10/17/2006

Reviewed By: BRR  
Review Date: 10/21/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.492
Specimen Length, inch	5.308
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	171
Test Duration (Time to Failure in Minutes)	7.5
Unconfined Compressive Strength, psi (from test)	27,257
Unconfined Compressive Strength, psi (with L/D correction)	27,443
Type of Break	Cone & Shear

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
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BRL  
11/27/06



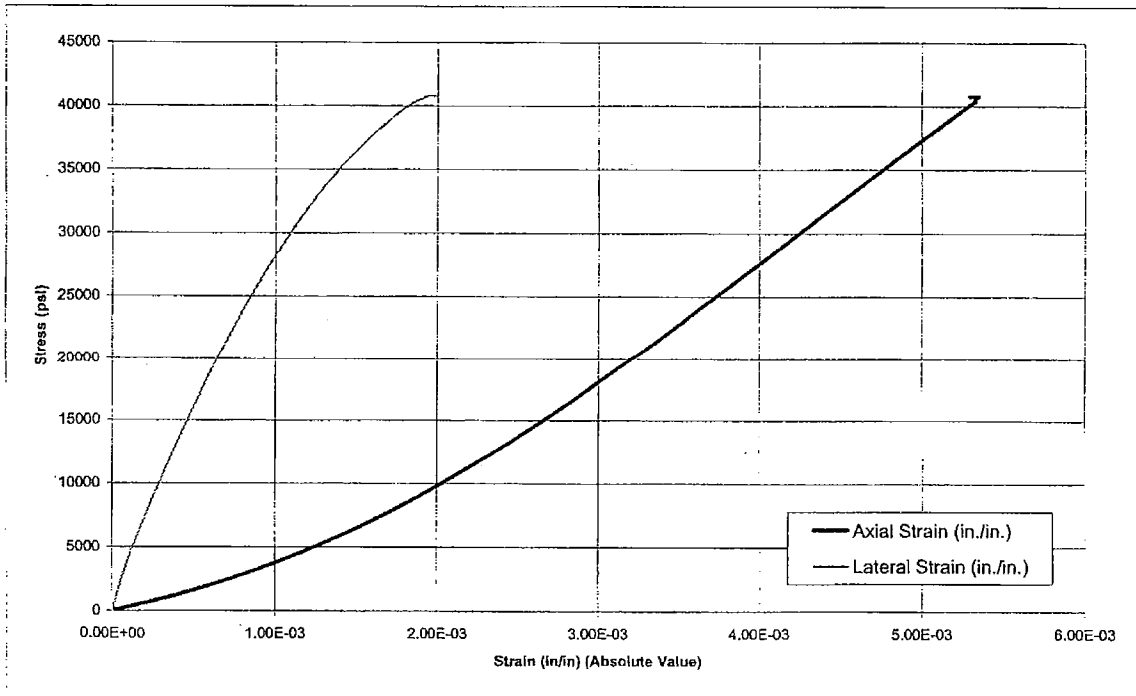
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-207  
 Sample Depth (ft): 52.0  
 Tested By: JBM  
 Test Date: 11/7/2006

Reviewed By: BRR  
 Review Date: 11/21/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.496
Specimen Length, inch	5.284
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	170
Test Duration (Time to Failure in Minutes)	9.8
Unconfined Compressive Strength, psi (from test)	40,784
Unconfined Compressive Strength, psi (with L/D correction)	41,037
Type of Break	Columnar
Young's Modulus, psi	9,360,000
Poisson's Ratio	0.37



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 45% to 55% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet ASTM D4543-04 criteria for side straightness.

BRR  
 11/28/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-207  
Sample Depth (ft): 58.9  
Tested By: JBM  
Test Date: 10/31/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.497
Specimen Length, inch	5.260
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	169
Test Duration (Time to Failure in Minutes)	7.0
Unconfined Compressive Strength, psi (from test)	34,459
Unconfined Compressive Strength, psi (with L/D correction)	34,654
Type of Break	Cone & Shear

Comments: \_\_\_\_\_  
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BRR  
11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens  
ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-207  
Sample Depth (ft): 80.63  
Tested By: TDH  
Test Date: 11/20/2006

Reviewed By: BRR  
Review Date: 11/28/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.369
Specimen Length, inch	5.267
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	186
Test Duration (Time to Failure in Minutes)	NA
Unconfined Compressive Strength, psi (from test)	NA
Unconfined Compressive Strength, psi (with L/D correction)	NA
Type of Break	NA

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet ASTM D4543-04 criteria for flatness, parallelism, and perpendicularity.  
Specimen did not meet ASTM D4543-04 criteria for side straightness.  
Specimen broke along mineral filled fracture during end preparation - suitable for unit weight only.

BRR  
11/28/06



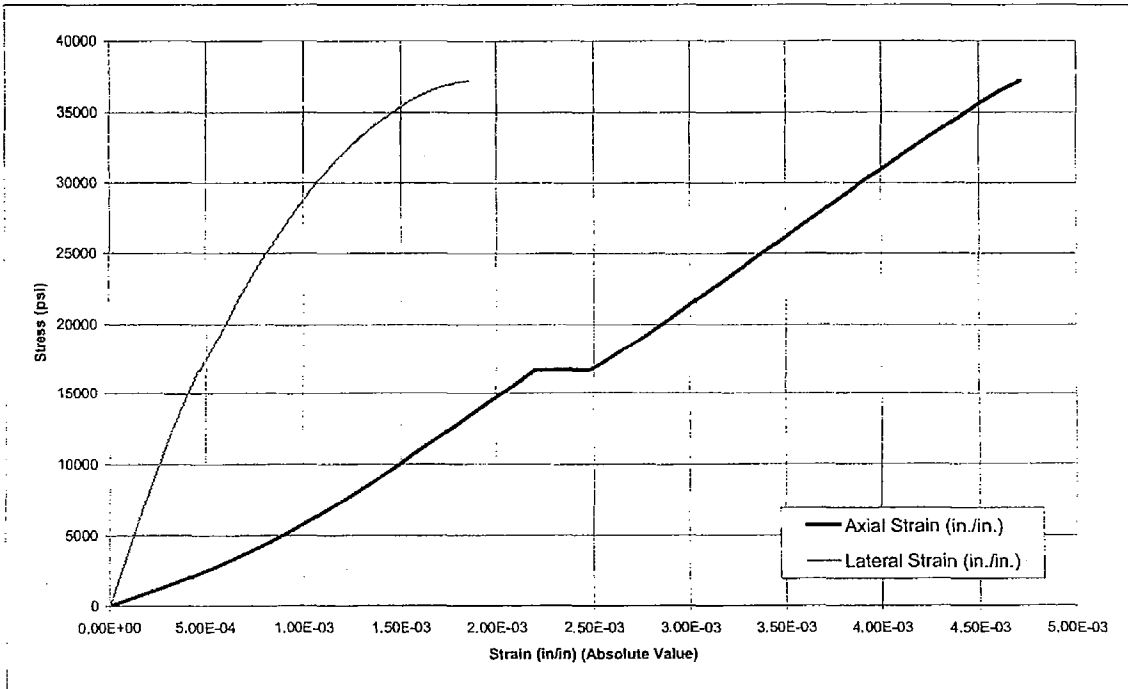
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-207  
Sample Depth (ft): 121.3  
Tested By: JBM  
Test Date: 11/9/2006

Reviewed By: BRR  
Review Date: 11/20/2006

Rock Type	Biotite Gneiss
Moisture Condition	As Received
Specimen Diameter, inch	2.492
Specimen Length, inch	5.268
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	167
Test Duration (Time to Failure in Minutes)	9.2
Unconfined Compressive Strength, psi (from test)	37,211
Unconfined Compressive Strength, psi (with L/D correction)	37,435
Type of Break	Cone & Shear
Young's Modulus, psi	9,500,000
Poisson's Ratio	0.31



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 45% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-207  
Sample Depth (ft): 159.15  
Tested By: JBM  
Test Date: 10/17/2006

Reviewed By: BRR  
Review Date: 11/20/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.498
Specimen Length, inch	5.272
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	172
Test Duration (Time to Failure in Minutes)	5.7
Unconfined Compressive Strength, psi (from test)	25,829
Unconfined Compressive Strength, psi (with L/D correction)	25,980
Type of Break	Cone & Shear

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
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11/27/06





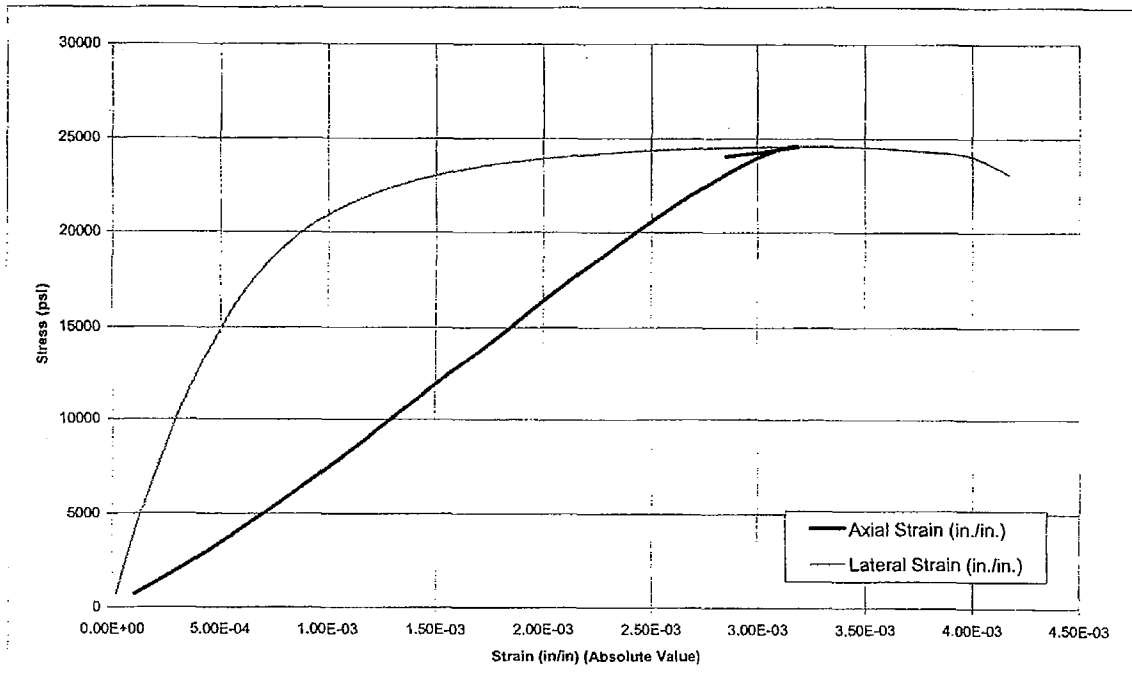
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-215  
Sample Depth (ft): 54.25  
Tested By: JBM  
Test Date: 11/14/2006

Reviewed By: BRR  
Review Date: 11/21/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	1.875
Specimen Length, inch	4.377
Length/Diameter Ratio	2.3
Unit Weight (lbs/ft <sup>3</sup> )	183
Test Duration (Time to Failure in Minutes)	7.5
Unconfined Compressive Strength, psi (from test)	24,578
Unconfined Compressive Strength, psi (with L/D correction)	24,976
Type of Break	Cone & Shear
Young's Modulus, psi	8,940,000
Poisson's Ratio	0.34



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.

Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-215  
Sample Depth (ft): 58.43  
Tested By: JBM  
Test Date: 11/3/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	1.877
Specimen Length, inch	4.373
Length/Diameter Ratio	2.3
Unit Weight (lbs/ft <sup>3</sup> )	182
Test Duration (Time to Failure in Minutes)	5.8
Unconfined Compressive Strength, psi (from test)	18,644
Unconfined Compressive Strength, psi (with L/D correction)	18,942
Type of Break	Cone & Shear

Comments: \_\_\_\_\_  
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BRR  
11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-215  
Sample Depth (ft): 66.45  
Tested By: JBM  
Test Date: 11/3/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	1.874
Specimen Length, inch	4.374
Length/Diameter Ratio	2.3
Unit Weight (lbs/ft <sup>3</sup> )	184
Test Duration (Time to Failure in Minutes)	5.0
Unconfined Compressive Strength, psi (from test)	22,795
Unconfined Compressive Strength, psi (with L/D correction)	23,164
Type of Break	Cone & Shear

Comments: \_\_\_\_\_  
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JBM  
11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-216  
Sample Depth (ft): 56.2  
Tested By: JBM  
Test Date: 10/31/2006

Reviewed By: BRR  
Review Date: 11/16/2006

Rock Type	Biotite Amphibole Gneiss
Moisture Condition	As Received
Specimen Diameter, inch	1.872
Specimen Length, inch	4.161
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	184
Test Duration (Time to Failure in Minutes)	6.3
Unconfined Compressive Strength, psi (from test)	15,322
Unconfined Compressive Strength, psi (with L/D correction)	15,495
Type of Break	Columnar

Comments: \_\_\_\_\_  
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Ban  
11/27/06

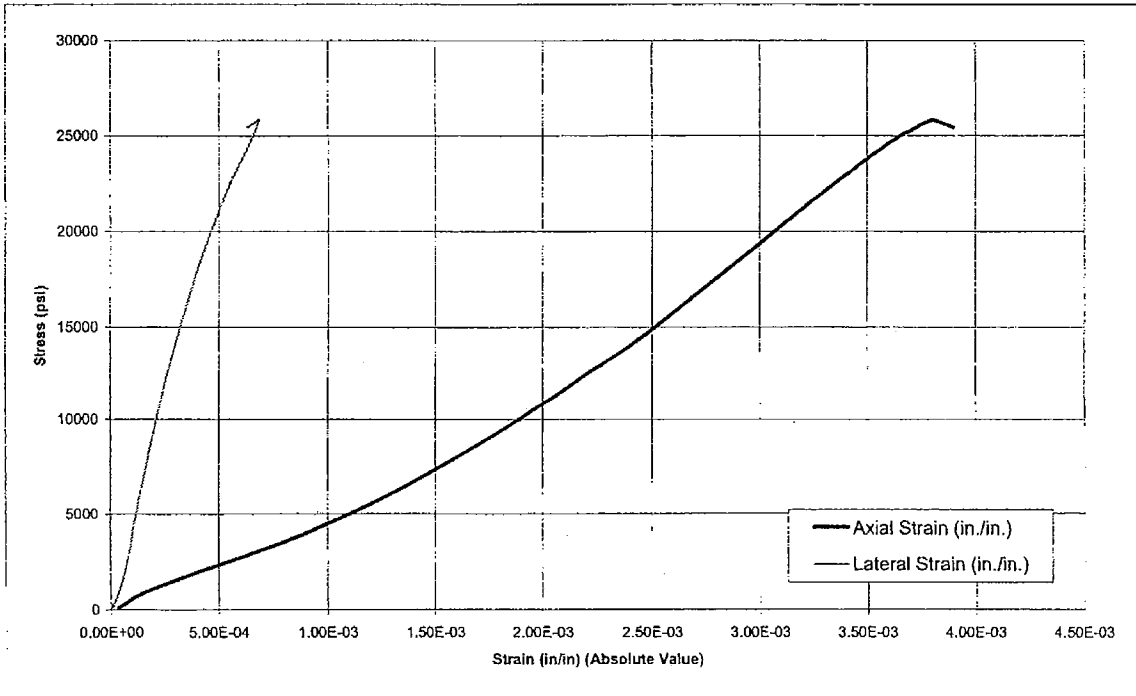


**Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-216  
 Sample Depth (ft): 60.14  
 Tested By: JBM  
 Test Date: 11/8/2006

Reviewed By: BRR  
 Review Date: 11/20/2006

Rock Type	Biotite Amphibole Gneiss
Moisture Condition	As Received
Specimen Diameter, inch	1.874
Specimen Length, inch	4.159
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	192
Test Duration (Time to Failure in Minutes)	7.4
Unconfined Compressive Strength, psi (from test)	25,838
Unconfined Compressive Strength, psi (with L/D correction)	26,126
Type of Break	Shear
Young's Modulus, psi	8,520,000
Poisson's Ratio	0.20



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 50% to 60% of unconfined compressive strength.  
 Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
 Specimen did not meet ASTM D4543-04 criteria for side straightness.

*JBM*  
 11/28/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-217  
Sample Depth (ft): 76.05  
Tested By: JBM  
Test Date: 10/31/2006

Reviewed By: BRR  
Review Date: 11/16/2006

Rock Type	Biotite Amphibole Gneiss
Moisture Condition	As Received
Specimen Diameter, inch	1.859
Specimen Length, inch	4.199
Length/Diameter Ratio	2.3
Unit Weight (lbs/ft <sup>3</sup> )	189
Test Duration (Time to Failure in Minutes)	5.8
Unconfined Compressive Strength, psi (from test)	21,587
Unconfined Compressive Strength, psi (with L/D correction)	21,865
Type of Break	Cone

Comments: \_\_\_\_\_  
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BRR  
11/27/06



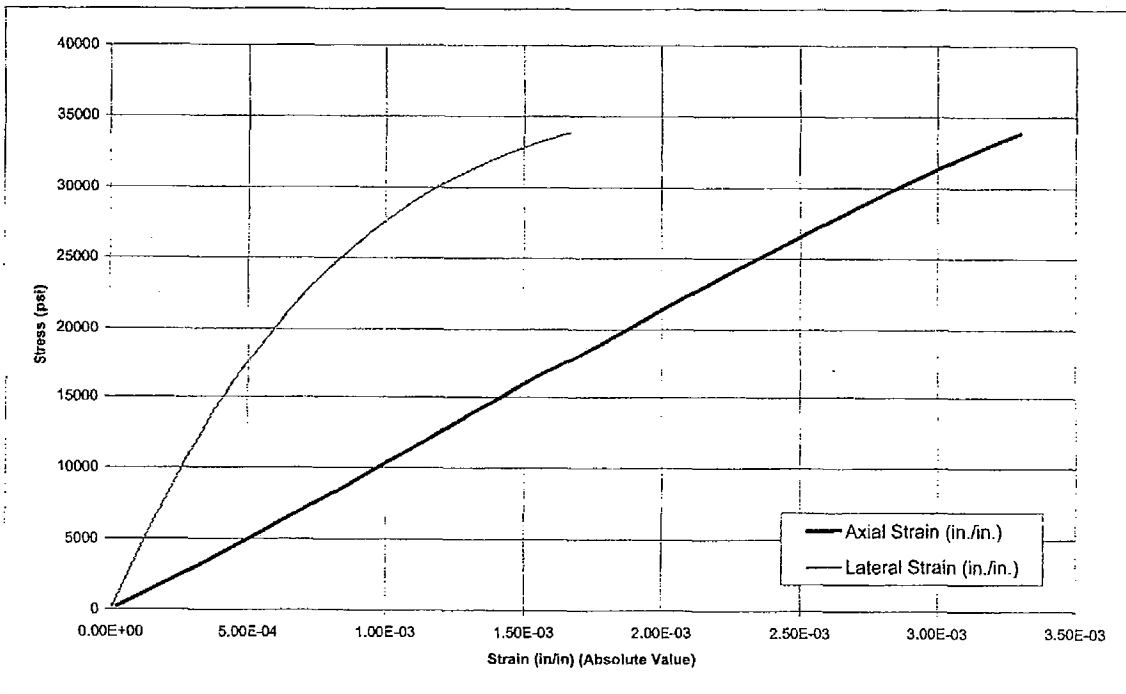
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-217  
 Sample Depth (ft): 97.73  
 Tested By: JBM  
 Test Date: 11/7/2006

Reviewed By: BRR  
 Review Date: 11/21/2006

Rock Type	Biotite Amphibole Gneiss
Moisture Condition	As Received
Specimen Diameter, inch	1.870
Specimen Length, inch	4.198
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	179
Test Duration (Time to Failure in Minutes)	5.3
Unconfined Compressive Strength, psi (from test)	33,847
Unconfined Compressive Strength, psi (with L/D correction)	34,262
Type of Break	Cone & Shear
Young's Modulus, psi	10,970,000
Poisson's Ratio	0.34



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 30% to 40% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
 11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-217  
Sample Depth (ft): 104.85  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	1.868
Specimen Length, inch	4.320
Length/Diameter Ratio	2.3
Unit Weight (lbs/ft <sup>3</sup> )	180
Test Duration (Time to Failure in Minutes)	6.1
Unconfined Compressive Strength, psi (from test)	32,087
Unconfined Compressive Strength, psi (with L/D correction)	32,577
Type of Break	Cone

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.  
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BRR  
11/15/06





**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-217  
Sample Depth (ft): 136.0  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	1.864
Specimen Length, inch	4.296
Length/Diameter Ratio	2.3
Unit Weight (lbs/ft <sup>3</sup> )	182
Test Duration (Time to Failure in Minutes)	4.5
Unconfined Compressive Strength, psi (from test)	20,760
Unconfined Compressive Strength, psi (with L/D correction)	21,069
Type of Break	Cone & Shear

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
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BRR  
11/27/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

**Project Name:** SCE&G COL  
**Project Number:** 6234063534S  
**Boring Number:** B-220  
**Sample Depth (ft):** 87.24  
**Tested By:** JBM  
**Test Date:** 10/31/2006

**Reviewed By:** BRR  
**Review Date:** 11/16/2006

<b>Rock Type</b>	<b>Hornblende Gneiss</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>1.866</b>
<b>Specimen Length, inch</b>	<b>4.199</b>
<b>Length/Diameter Ratio</b>	<b>2.3</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>193</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>6.7</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>20,133</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>20,385</b>
<b>Type of Break</b>	<b>Columnar</b>

Comments: \_\_\_\_\_  
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BAM  
11/27/06

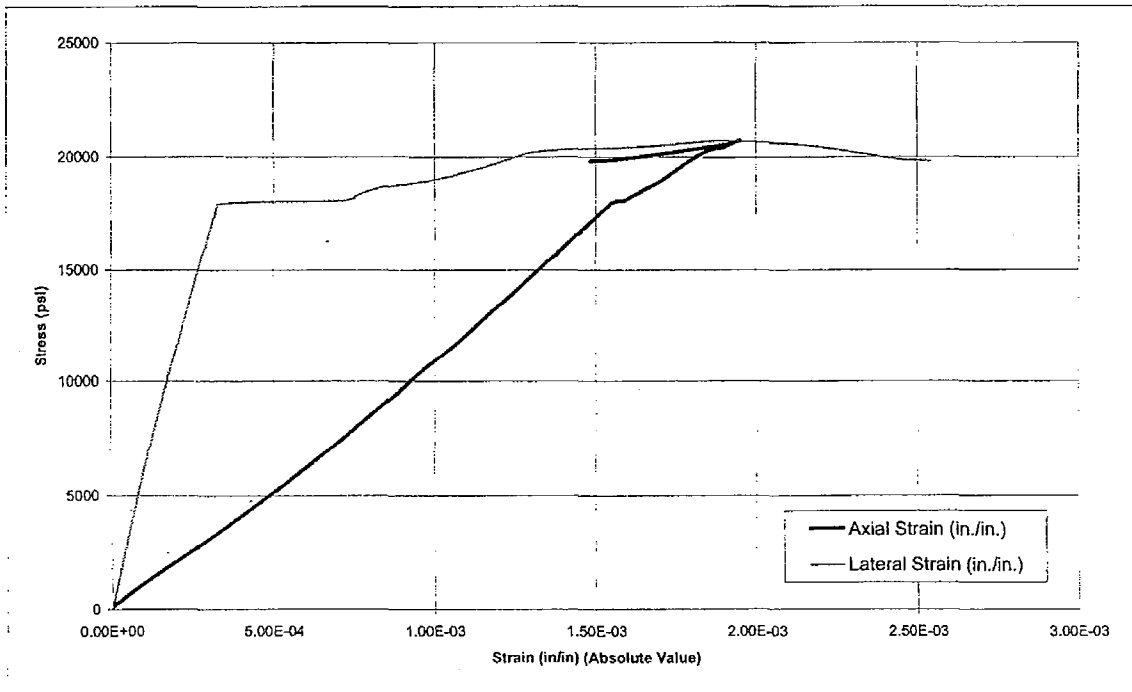


Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression  
ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-220  
Sample Depth (ft): 95.85  
Tested By: JBM  
Test Date: 11/8/2006

Reviewed By: BRR  
Review Date: 11/20/2006

Rock Type	Hornblende Gneiss
Moisture Condition	As Received
Specimen Diameter, inch	1.868
Specimen Length, inch	4.259
Length/Diameter Ratio	2.3
Unit Weight (lbs/ft <sup>3</sup> )	191
Test Duration (Time to Failure in Minutes)	6.8
Unconfined Compressive Strength, psi (from test)	20,711
Unconfined Compressive Strength, psi (with L/D correction)	20,997
Type of Break	Shear
Young's Modulus, psi	12,310,000
Poisson's Ratio	0.23



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 45% to 55% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Specimen did not meet ASTM D4543-04 criteria for side straightness.

BRR  
11/28/06



Unconfined Compressive Strength of Intact Rock Core Specimens  
ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-301A  
Sample Depth (ft): 61.0  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/16/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.392
Specimen Length, inch	5.266
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	188
Test Duration (Time to Failure in Minutes)	5.8
Unconfined Compressive Strength, psi (from test)	31,666
Unconfined Compressive Strength, psi (with L/D correction)	31,991
Type of Break	Cone & Shear

Comments: \_\_\_\_\_  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.  
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BRR  
11/28/06



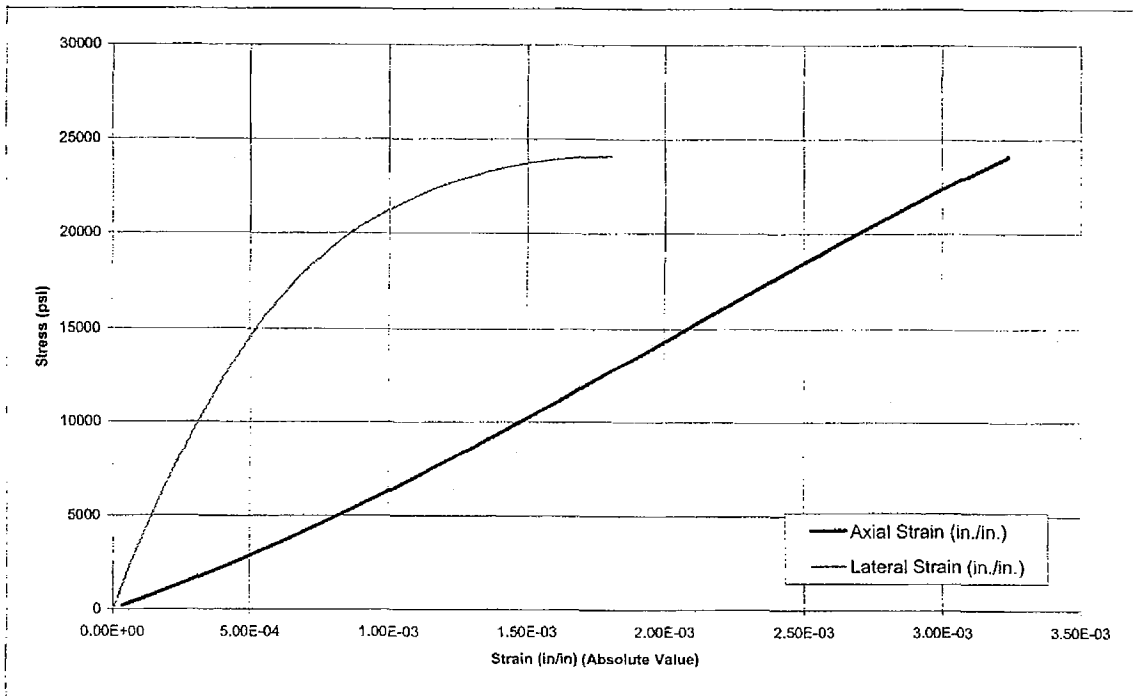
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-301A  
 Sample Depth (ft): 66.77  
 Tested By: JBM  
 Test Date: 11/8/2006

Reviewed By: 0 *BMA*  
 Review Date: 1/01/2007 11/21/06

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.391
Specimen Length, inch	5.267
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	171
Test Duration (Time to Failure in Minutes)	6.3
Unconfined Compressive Strength, psi (from test)	24,115
Unconfined Compressive Strength, psi (with L/D correction)	24,364
Type of Break	Cone & Shear
Young's Modulus, psi	8,110,000
Poisson's Ratio	0.31



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Maximum mineral grain size of specimen was greater than Diameter/10

*BMA*  
 1/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-301A  
Sample Depth (ft): 76.72  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/16/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.391
Specimen Length, inch	5.290
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	192
Test Duration (Time to Failure in Minutes)	2.8
Unconfined Compressive Strength, psi (from test)	15,769
Unconfined Compressive Strength, psi (with L/D correction)	15,939
Type of Break	Columnar

Comments:

Specimen did not meet ASTM D4543-04 criteria for side straightness.

BRR  
11/28/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**

**ASTM D 7012-04**

**Project Name:** SCE&G COL  
**Project Number:** 6234063534S  
**Boring Number:** B-301A  
**Sample Depth (ft):** 85.64  
**Tested By:** JBM  
**Test Date:** 10/31/2006

**Reviewed By:** BRR  
**Review Date:** 11/15/2006

<b>Rock Type</b>	<b>Quartz Diorite</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.393</b>
<b>Specimen Length, inch</b>	<b>5.228</b>
<b>Length/Diameter Ratio</b>	<b>2.2</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>191</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>4.1</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>25,084</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>25,322</b>
<b>Type of Break</b>	<b>Cone</b>

**Comments:** \_\_\_\_\_  
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BRR  
11/23/06



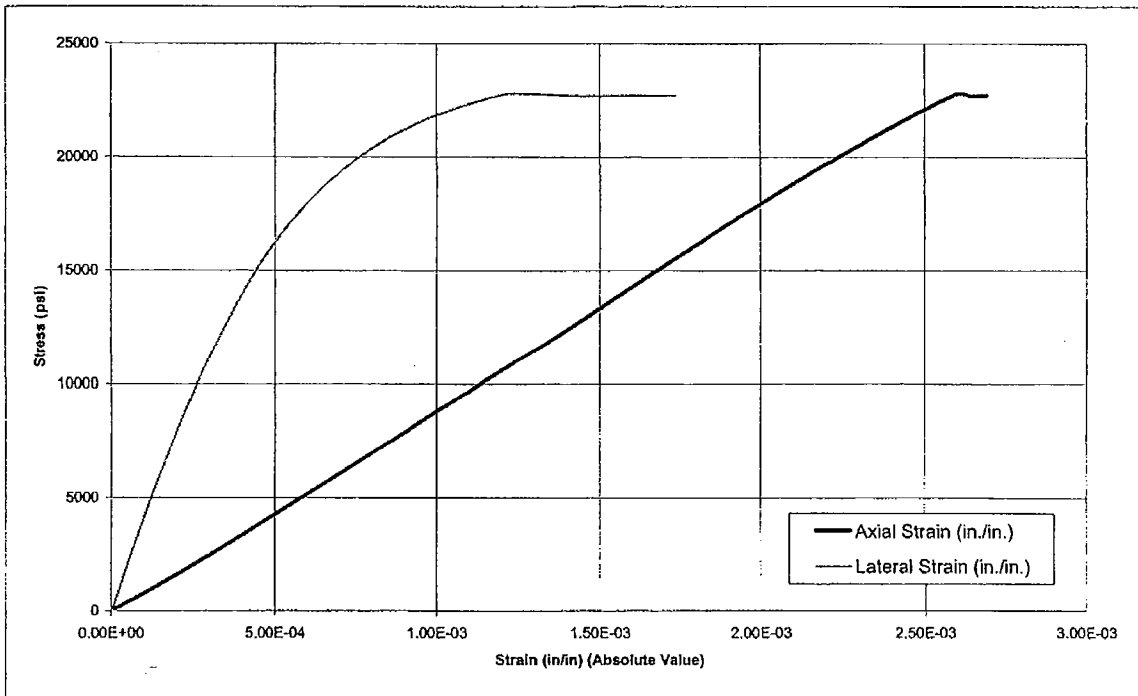
Elastic Modull of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-301A  
Sample Depth (ft): 94.1  
Tested By: JBM  
Test Date: 11/9/2006

Reviewed By: BRR  
Review Date: 11/20/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.392
Specimen Length, inch	5.274
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	190
Test Duration (Time to Failure in Minutes)	7.2
Unconfined Compressive Strength, psi (from test)	22,789
Unconfined Compressive Strength, psi (with L/D correction)	23,026
Type of Break	Cone & Shear
Young's Modulus, psi	9,130,000
Poisson's Ratio	0.29



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
11/27/06





**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: **SCE&G COL**  
Project Number: **6234063534S**  
Boring Number: **B-301A**  
Sample Depth (ft): **106.08**  
Tested By: **JBM**  
Test Date: **10/20/2006**

Reviewed By: **BRR**  
Review Date: **11/15/2006**

<b>Rock Type</b>	<b>Quartz Diorite</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.396</b>
<b>Specimen Length, inch</b>	<b>5.301</b>
<b>Length/Diameter Ratio</b>	<b>2.2</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>182</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>4.9</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>24,938</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>25,206</b>
<b>Type of Break</b>	<b>Cone &amp; Shear</b>

Comments: \_\_\_\_\_  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.  
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*BRR*  
*11/28/06*



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

**Project Name:** SCE&G COL  
**Project Number:** 6234063534S  
**Boring Number:** B-301A  
**Sample Depth (ft):** 113.74  
**Tested By:** JBM  
**Test Date:** 10/17/2006

**Reviewed By:** BRR  
**Review Date:** 11/20/2006

<b>Rock Type</b>	<b>Quartz Diorite</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.397</b>
<b>Specimen Length, inch</b>	<b>5.300</b>
<b>Length/Diameter Ratio</b>	<b>2.2</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>184</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>5.6</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>27,770</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>28,068</b>
<b>Type of Break</b>	<b>Cone</b>

Comments: \_\_\_\_\_  
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BRR  
11/27/06



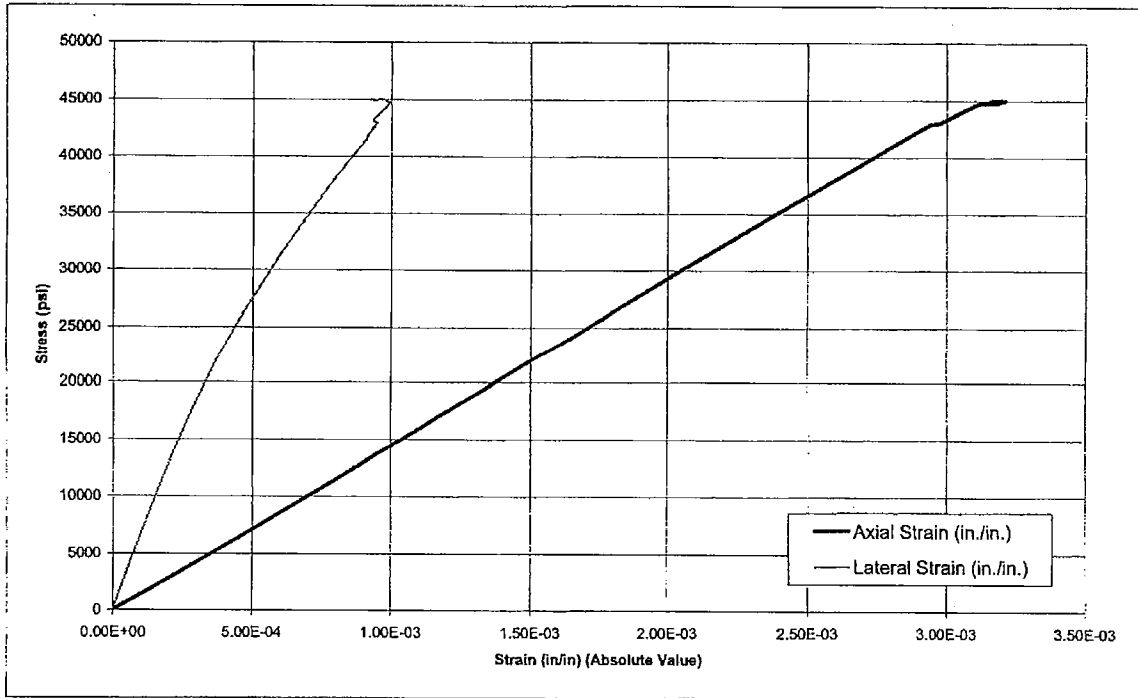
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-301A  
 Sample Depth (ft): 125.9  
 Tested By: JBM  
 Test Date: 11/3/2006

Reviewed By: BRR  
 Review Date: 11/20/2006

Rock Type	Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	2.395
Specimen Length, inch	5.215
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	191
Test Duration (Time to Failure in Minutes)	11.4
Unconfined Compressive Strength, psi (from test)	45,009
Unconfined Compressive Strength, psi (with L/D correction)	45,419
Type of Break	Crush
Young's Modulus, psi	14,960,000
Poisson's Ratio	0.30



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from  
approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BAA  
 11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-301A  
Sample Depth (ft): 156.23  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	2.398
Specimen Length, inch	5.258
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	171
Test Duration (Time to Failure in Minutes)	6.4
Unconfined Compressive Strength, psi (from test)	22,941
Unconfined Compressive Strength, psi (with L/D correction)	23,168
Type of Break	Cone

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.

BRR  
11/28/06



Unconfined Compressive Strength of intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-301A  
Sample Depth (ft): 195.18  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.404
Specimen Length, inch	5.232
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	170
Test Duration (Time to Failure in Minutes)	6.2
Unconfined Compressive Strength, psi (from test)	25,408
Unconfined Compressive Strength, psi (with L/D correction)	25,639
Type of Break	Cone & Shear

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet ASTM D4543-04 criteria for side straightness.

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BRR  
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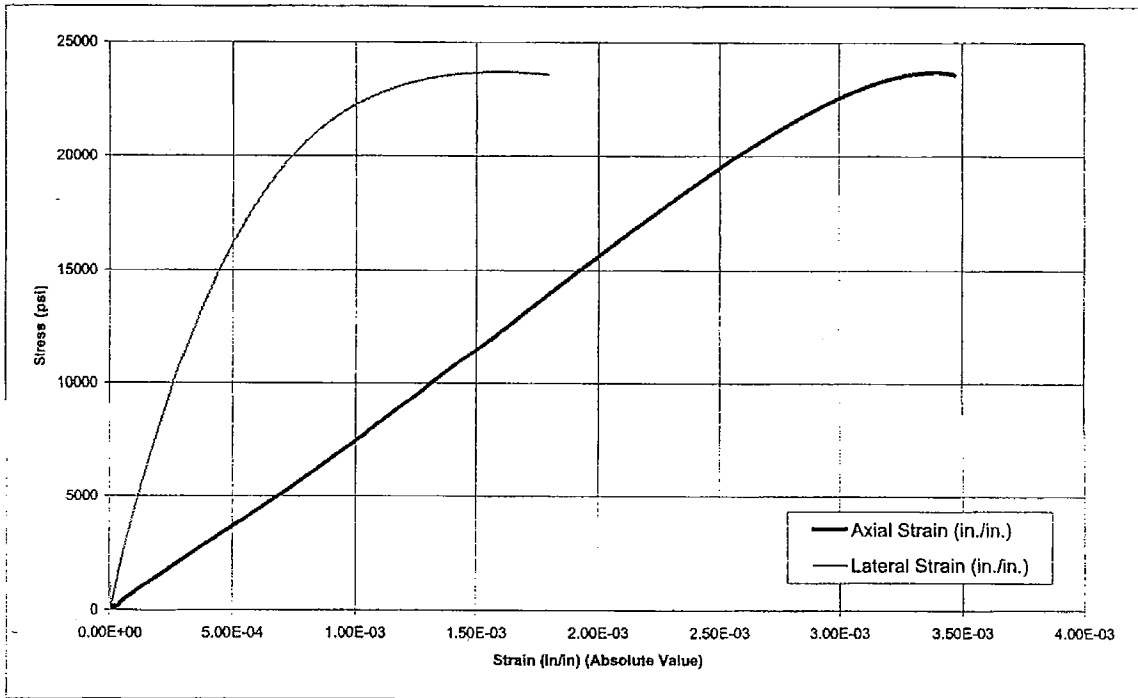


**Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression**  
**ASTM D 7012-04**

Project Name: **SCE&G COL**  
 Project Number: **6234063534S**  
 Boring Number: **B-301A**  
 Sample Depth (ft): **234.13**  
 Tested By: **JBM**  
 Test Date: **11/7/2006**

Reviewed By: **BRR**  
 Review Date: **11/21/2006**

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.395
Specimen Length, inch	5.256
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	179
Test Duration (Time to Failure in Minutes)	6.5
Unconfined Compressive Strength, psi (from test)	23,704
Unconfined Compressive Strength, psi (with L/D correction)	23,940
Type of Break	Cone & Shear
Young's Modulus, psi	8,200,000
Poisson's Ratio	0.28



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 55% of unconfined compressive strength.  
Strain values shown are in terms of absolute value; Axial Strain is negative, Lateral Strain is positive.  
Specimen did not meet ASTM D4543-04 criteria for side straightness.

*BRR*  
 11/28/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

**Project Name:** SCE&G COL  
**Project Number:** 6234063534S  
**Boring Number:** B-301A  
**Sample Depth (ft):** 274.85  
**Tested By:** JBM  
**Test Date:** 10/31/2006

**Reviewed By:** BRR  
**Review Date:** 11/15/2006

<b>Rock Type</b>	<b>Quartz Diorite</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.403</b>
<b>Specimen Length, inch</b>	<b>5.253</b>
<b>Length/Diameter Ratio</b>	<b>2.2</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>183</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>7.0</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>29,359</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>29,639</b>
<b>Type of Break</b>	<b>Cone &amp; Shear</b>

Comments: \_\_\_\_\_  
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11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-301A  
Sample Depth (ft): 311.5  
Tested By: JBM  
Test Date: 10/17/2006

Reviewed By: BRR  
Review Date: 11/20/2006

Rock Type	Migmatite/Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.397
Specimen Length, inch	5.253
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	167
Test Duration (Time to Failure in Minutes)	5.4
Unconfined Compressive Strength, psi (from test)	27,306
Unconfined Compressive Strength, psi (with L/D correction)	27,573
Type of Break	Cone

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
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BRR  
11/27/06



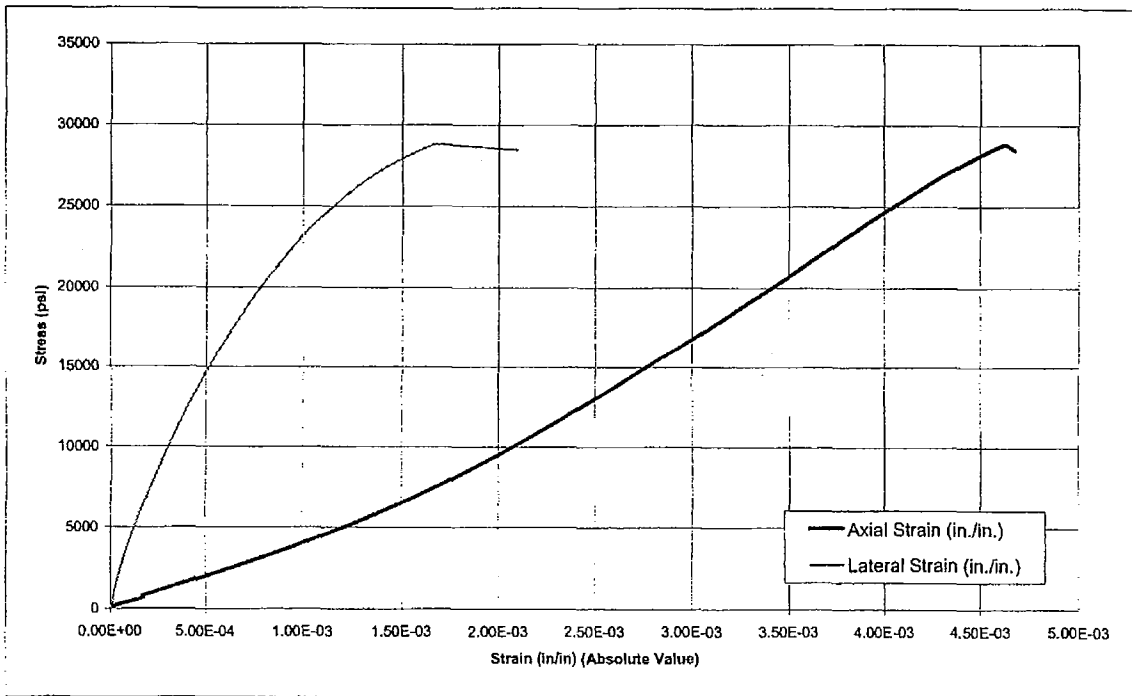


**Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-301A  
 Sample Depth (ft): 349.1  
 Tested By: JBM  
 Test Date: 11/9/2006

Reviewed By: BRR  
 Review Date: 11/20/2006

Rock Type	Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	2.399
Specimen Length, inch	5.268
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	168
Test Duration (Time to Failure in Minutes)	8.1
Unconfined Compressive Strength, psi (from test)	28,813
Unconfined Compressive Strength, psi (with L/D correction)	29,102
Type of Break	Shear
Young's Modulus, psi	7,570,000
Poisson's Ratio	0.35



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 45% to 55% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
 11/23/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-305  
Sample Depth (ft): 61.0  
Tested By: JBM  
Test Date: 10/20/2006  
Reviewed By: BRR  
Review Date: 11/16/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.494
Specimen Length, inch	5.277
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	171
Test Duration (Time to Failure in Minutes)	5.6
Unconfined Compressive Strength, psi (from test)	22,282
Unconfined Compressive Strength, psi (with L/D correction)	22,419
Type of Break	Cone & Shear

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet ASTM D4543-04 criteria for side straightness.  
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BRR  
11/20/06



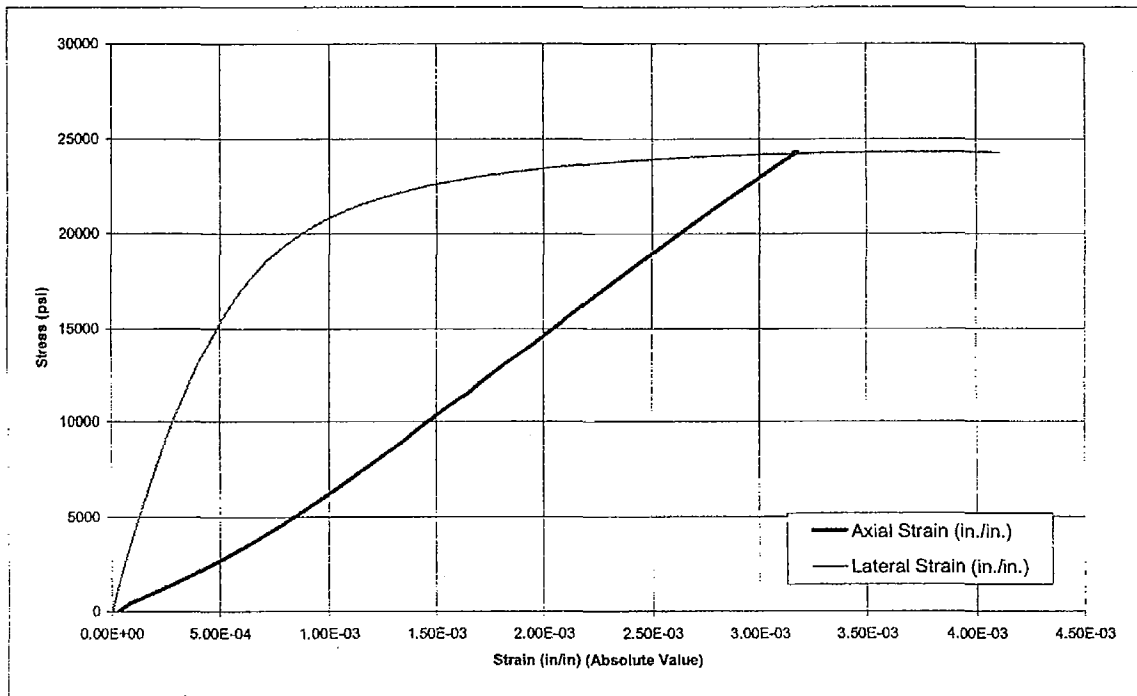
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-305  
 Sample Depth (ft): 62.9  
 Tested By: JBM  
 Test Date: 11/8/2006

Reviewed By: BRR  
 Review Date: 11/20/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.496
Specimen Length, inch	5.250
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	170
Test Duration (Time to Failure in Minutes)	6.6
Unconfined Compressive Strength, psi (from test)	24,315
Unconfined Compressive Strength, psi (with L/D correction)	24,449
Type of Break	Cone & Shear
Young's Modulus, psi	8,380,000
Poisson's Ratio	0.30



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet ASTM D4543-04 criteria for side straightness.

BRR  
 11/28/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-305  
Sample Depth (ft): 73.5  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	2.497
Specimen Length, inch	5.259
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	189
Test Duration (Time to Failure in Minutes)	7.2
Unconfined Compressive Strength, psi (from test)	41,021
Unconfined Compressive Strength, psi (with L/D correction)	41,252
Type of Break	Crush

Comments: \_\_\_\_\_  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.  
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*BRL*  
*11/28/06*



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

**Project Name:** SCE&G COL  
**Project Number:** 6234063534S  
**Boring Number:** B-305  
**Sample Depth (ft):** 95.23  
**Tested By:** JBM  
**Test Date:** 10/20/2006

**Reviewed By:** BRR  
**Review Date:** 11/15/2006

<b>Rock Type</b>	<b>Hornblende Gneiss</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.496</b>
<b>Specimen Length, inch</b>	<b>5.334</b>
<b>Length/Diameter Ratio</b>	<b>2.1</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>185</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>5.9</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>25,713</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>25,898</b>
<b>Type of Break</b>	<b>Cone &amp; Shear</b>

**Comments:** \_\_\_\_\_  
Specimen did not meet ASTM D4543-04 criteria for side straightness.  
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BRR  
11/28/06

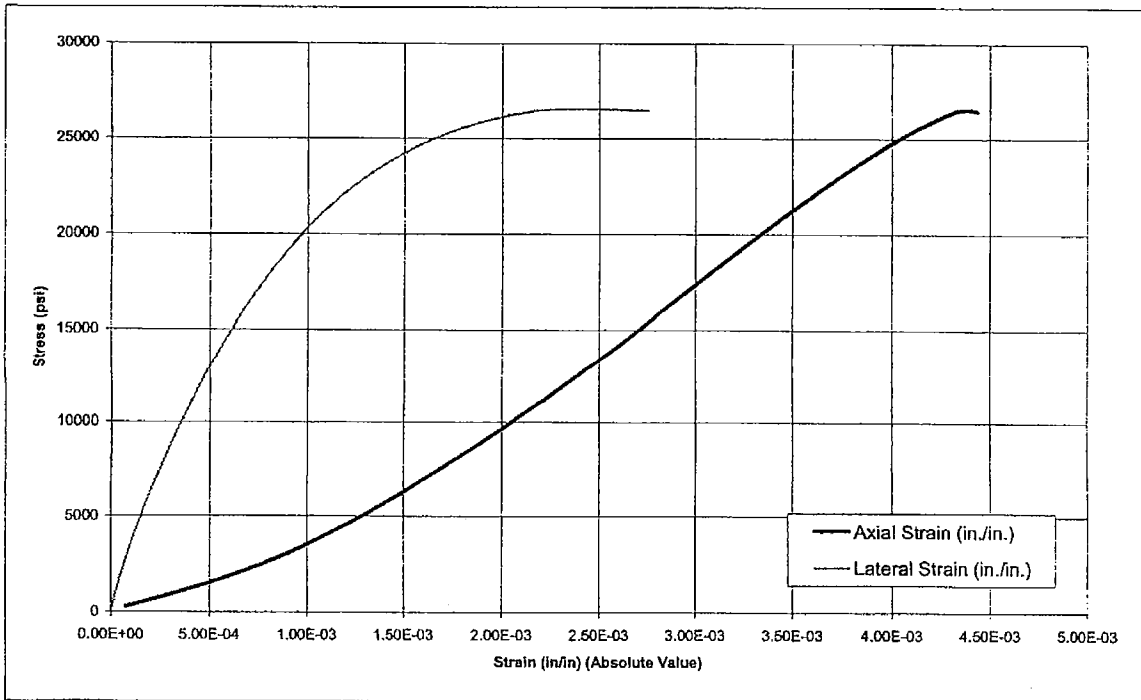


**Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression**  
**ASTM D 7012-04**

Project Name: **SCE&G COL**  
 Project Number: **6234063534S**  
 Boring Number: **B-305**  
 Sample Depth (ft): **123.55**  
 Tested By: **JBM**  
 Test Date: **11/7/2006**

Reviewed By: **BRR**  
 Review Date: **11/21/2006**

<b>Rock Type</b>	<b>Amphibolite Schist</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.500</b>
<b>Specimen Length, inch</b>	<b>5.270</b>
<b>Length/Diameter Ratio</b>	<b>2.1</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>183</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>7.6</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>26,553</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>26,705</b>
<b>Type of Break</b>	<b>Columnar</b>
<b>Young's Modulus, psi</b>	<b>7,390,000</b>
<b>Poisson's Ratio</b>	<b>0.35</b>



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 35% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Specimen did not meet ASTM D4543-04 criteria for side straightness.

*BRR*  
*11/28/06*



Unconfined Compressive Strength of Intact Rock Core Specimens  
ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-305  
Sample Depth (ft): 165.15  
Tested By: JHA  
Test Date: 11/28/2006

Reviewed By: BRR  
Review Date: 11/28/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.494
Specimen Length, inch	5.334
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	174
Test Duration (Time to Failure in Minutes)	10.7
Unconfined Compressive Strength, psi (from test)	27,997
Unconfined Compressive Strength, psi (with L/D correction)	28,200
Type of Break	Cone & Shear

Comments:

Specimen did not meet ASTM D4543-04 criteria for side straightness.

BRR  
11/28/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-306  
Sample Depth (ft): 48.25  
Tested By: JBM  
Test Date: 10/17/2006

Reviewed By: BRR  
Review Date: 11/20/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.500
Specimen Length, inch	5.255
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	172
Test Duration (Time to Failure in Minutes)	8.0
Unconfined Compressive Strength, psi (from test)	22,091
Unconfined Compressive Strength, psi (with L/D correction)	22,210
Type of Break	Cone

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
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JAA  
11/27/06





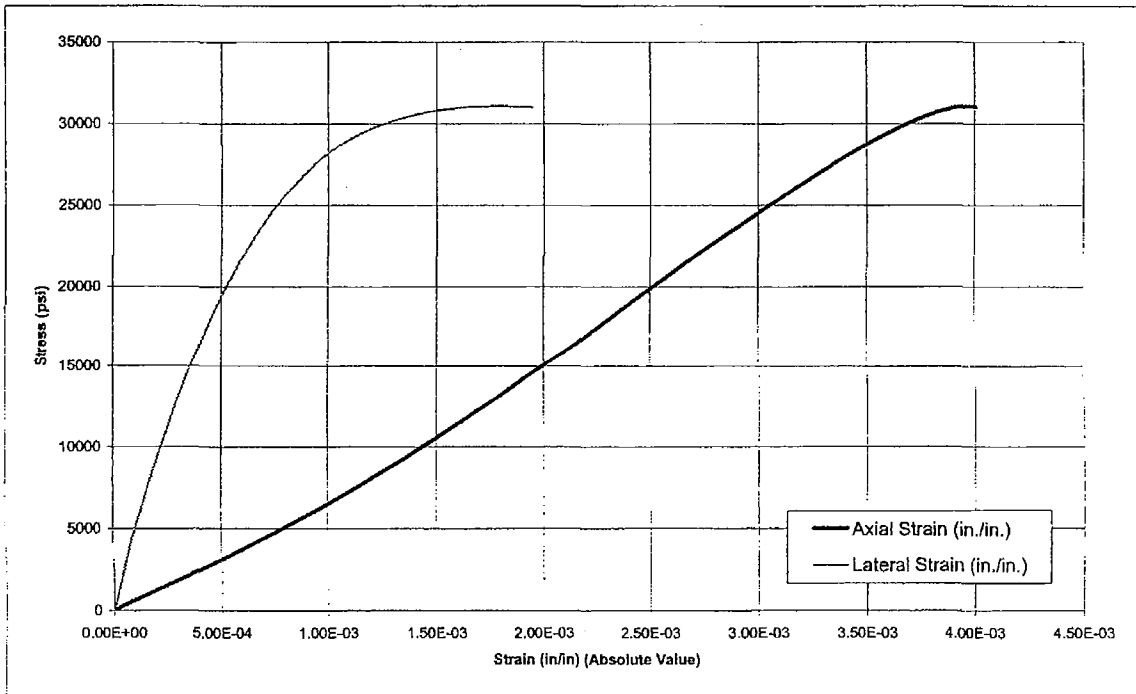
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-306  
 Sample Depth (ft): 52.55  
 Tested By: JBM  
 Test Date: 11/7/2006

Reviewed By: BRR  
 Review Date: 11/21/2006

Rock Type	Quartz Diorite
Moisture Condition	As Received
Specimen Diameter, inch	2.500
Specimen Length, inch	5.270
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	188
Test Duration (Time to Failure in Minutes)	7.8
Unconfined Compressive Strength, psi (from test)	31,079
Unconfined Compressive Strength, psi (with L/D correction)	31,257
Type of Break	Cone
Young's Modulus, psi	9,370,000
Poisson's Ratio	0.28



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 55% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Maximum mineral grain size of specimen was greater than Diameter/10

BRR  
 11/23/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-306  
Sample Depth (ft): 62.2  
Tested By: JBM  
Test Date: 10/20/2006  
Reviewed By: BRR  
Review Date: 11/15/2006

<b>Rock Type</b>	<b>Hornblende Gneiss</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.499</b>
<b>Specimen Length, inch</b>	<b>5.270</b>
<b>Length/Diameter Ratio</b>	<b>2.1</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>191</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>7.4</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>37,616</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>37,833</b>
<b>Type of Break</b>	<b>Crush</b>

Comments: \_\_\_\_\_  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.  
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BRR  
11/28/06



Unconfined Compressive Strength of Intact Rock Core Specimens  
ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-306  
Sample Depth (ft): 76.43  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.496
Specimen Length, inch	5.259
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	179
Test Duration (Time to Failure in Minutes)	4.7
Unconfined Compressive Strength, psi (from test)	23,200
Unconfined Compressive Strength, psi (with L/D correction)	23,332
Type of Break	Cone & Shear

Comments: \_\_\_\_\_  
Specimen did not meet ASTM D4543-04 criteria for side straightness.  
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11/27/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

**Project Name:** SCE&G COL  
**Project Number:** 6234063534S  
**Boring Number:** B-306  
**Sample Depth (ft):** 96.4  
**Tested By:** JBM  
**Test Date:** 10/31/2006

**Reviewed By:** BRR  
**Review Date:** 11/15/2006

<b>Rock Type</b>	<b>Quartz Diorite</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>2.499</b>
<b>Specimen Length, inch</b>	<b>5.288</b>
<b>Length/Diameter Ratio</b>	<b>2.1</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>188</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>5.9</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>26,164</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>26,324</b>
<b>Type of Break</b>	<b>Cone &amp; Shear</b>

Comments: \_\_\_\_\_  
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BRR  
11/29/06

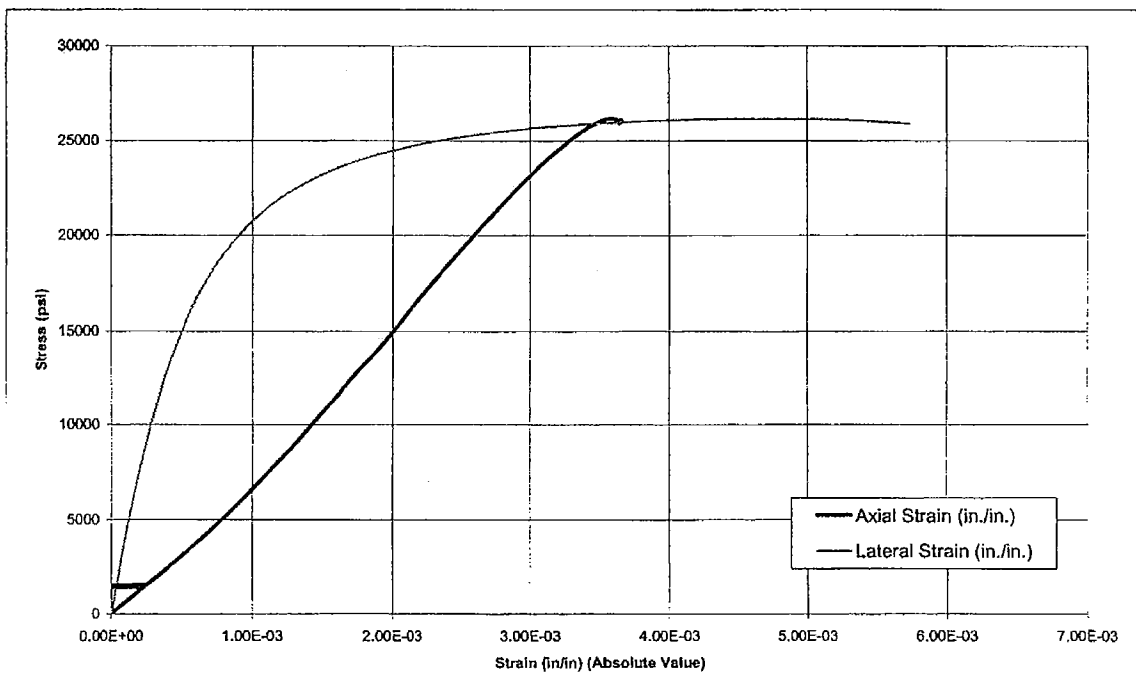


**Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-306  
 Sample Depth (ft): 123.47  
 Tested By: JBM  
 Test Date: 11/3/2006

Reviewed By: BRR  
 Review Date: 11/21/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.500
Specimen Length, inch	5.291
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	185
Test Duration (Time to Failure in Minutes)	9.0
Unconfined Compressive Strength, psi (from test)	26,139
Unconfined Compressive Strength, psi (with L/D correction)	26,300
Type of Break	Cone & Shear
Young's Modulus, psi	8,560,000
Poisson's Ratio	0.35



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Maximum mineral grain size of specimen was greater than Diameter/10

BRR  
 11/27/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-306  
Sample Depth (ft): 152.19  
Tested By: JBM  
Test Date: 10/17/2006

Reviewed By: BRR  
Review Date: 11/20/2006

Rock Type	Hornblende Gneiss
Moisture Condition	As Received
Specimen Diameter, inch	2.500
Specimen Length, inch	5.294
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	186
Test Duration (Time to Failure in Minutes)	7.5
Unconfined Compressive Strength, psi (from test)	35,689
Unconfined Compressive Strength, psi (with L/D correction)	35,911
Type of Break	Cone

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
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*Ban*  
*11/27/06*



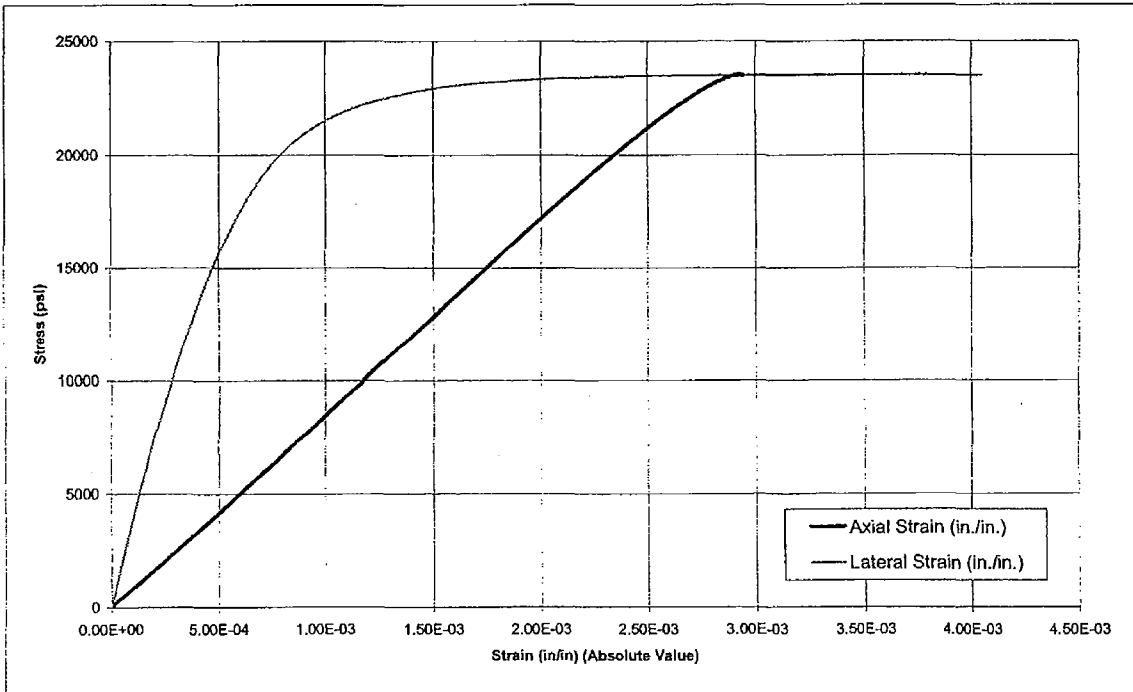
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-306  
 Sample Depth (ft): 187.6  
 Tested By: JBM  
 Test Date: 11/8/2006

Reviewed By: BRR  
 Review Date: 11/21/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.493
Specimen Length, inch	5.298
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	178
Test Duration (Time to Failure in Minutes)	6.5
Unconfined Compressive Strength, psi (from test)	23,523
Unconfined Compressive Strength, psi (with L/D correction)	23,678
Type of Break	Cone & Shear
Young's Modulus, psi	8,930,000
Poisson's Ratio	0.30



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
 Strain values shown are in terms of absolute value; Axial Strain is negative, Lateral Strain is positive.  
 Maximum mineral grain size of specimen was greater than Diameter/10

B.R.  
 11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-307  
Sample Depth (ft): 41.08  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/16/2006

Rock Type	Biotite Gneiss
Moisture Condition	As Received
Specimen Diameter, inch	2.496
Specimen Length, inch	5.271
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	167
Test Duration (Time to Failure in Minutes)	5.5
Unconfined Compressive Strength, psi (from test)	26,350
Unconfined Compressive Strength, psi (with L/D correction)	26,505
Type of Break	Crush

Comments:

Specimen did not meet ASTM D4543-04 criteria for side straightness.

BRR  
11/20/06





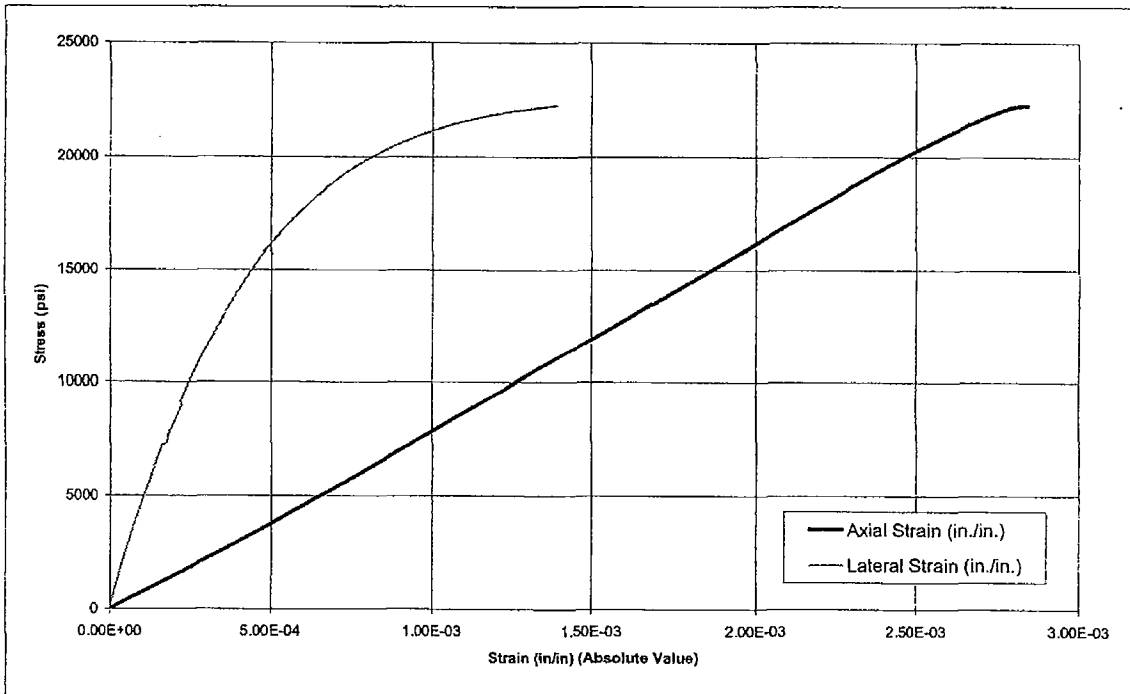
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-307  
 Sample Depth (ft): 49.1  
 Tested By: JBM  
 Test Date: 11/9/2006

Reviewed By: BRR  
 Review Date: 11/20/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	2.493
Specimen Length, inch	5.231
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	170
Test Duration (Time to Failure in Minutes)	6.7
Unconfined Compressive Strength, psi (from test)	22,267
Unconfined Compressive Strength, psi (with L/D correction)	22,384
Type of Break	Shear
Young's Modulus, psi	8,390,000
Poisson's Ratio	0.29



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 45% to 55% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet ASTM D4543-04 criteria for side straightness.

BRR  
 11/28/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-307  
Sample Depth (ft): 69.32  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	2.490
Specimen Length, inch	5.271
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	186
Test Duration (Time to Failure in Minutes)	6.2
Unconfined Compressive Strength, psi (from test)	29,760
Unconfined Compressive Strength, psi (with L/D correction)	29,944
Type of Break	Cone & Shear

Comments: \_\_\_\_\_  
Specimen did not meet ASTM D4543-04 criteria for side straightness.  
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11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-307  
Sample Depth (ft): 99.05  
Tested By: JBM  
Test Date: 11/9/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	2.495
Specimen Length, inch	5.135
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	181
Test Duration (Time to Failure in Minutes)	7.3
Unconfined Compressive Strength, psi (from test)	22,227
Unconfined Compressive Strength, psi (with L/D correction)	22,297
Type of Break	Cone & Shear

Comments:

Specimen could not be prepared to meet ASTM D4543-04 criteria - represents a "best effort"  
Specimen did not meet ASTM D4543-04 criteria for flatness, parallelism, and perpendicularity.  
Specimen did not meet ASTM D4543-04 criteria for side straightness.

BRR  
11/20/06

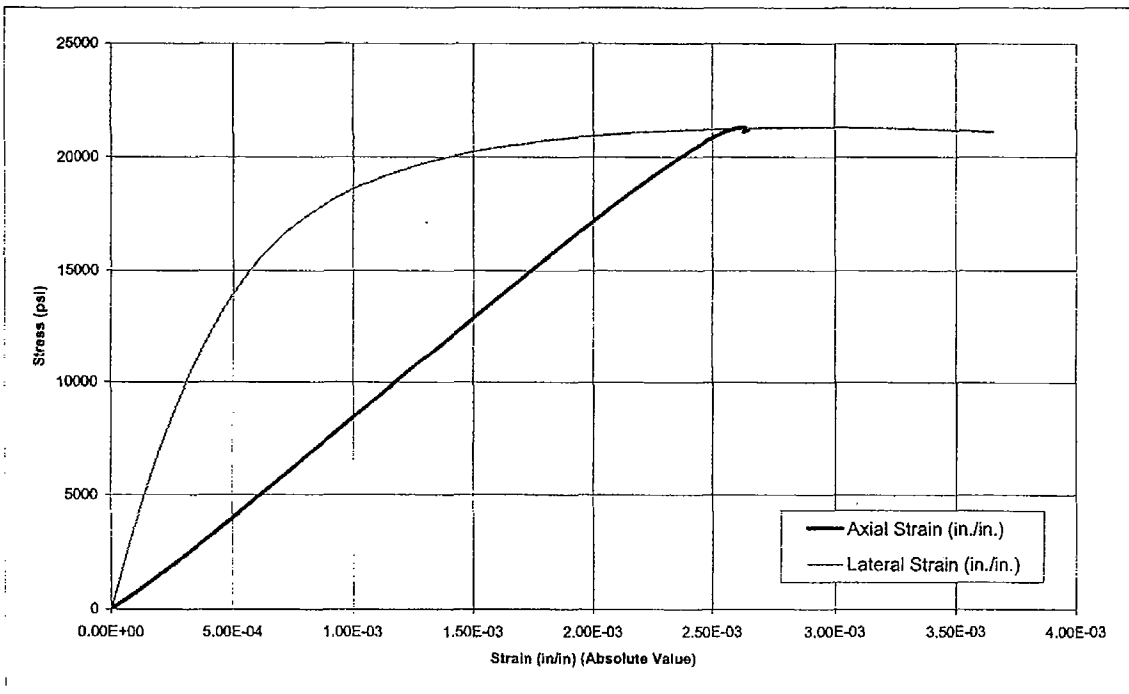


**Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-307  
 Sample Depth (ft): 134.45  
 Tested By: JBM  
 Test Date: 11/8/2006

Reviewed By: BRR  
 Review Date: 11/20/2006

Rock Type	Granodiorite Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	2.497
Specimen Length, inch	5.237
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	172
Test Duration (Time to Failure in Minutes)	6.5
Unconfined Compressive Strength, psi (from test)	21,305
Unconfined Compressive Strength, psi (with L/D correction)	21,415
Type of Break	Cone & Shear
Young's Modulus, psi	9,020,000
Poisson's Ratio	0.35



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.  
Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet ASTM D4543-04 criteria for side straightness.

BRR  
 11/20/06



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-307  
Sample Depth (ft): 171.71  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	2.495
Specimen Length, inch	5.265
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	185
Test Duration (Time to Failure in Minutes)	3.5
Unconfined Compressive Strength, psi (from test)	15,149
Unconfined Compressive Strength, psi (with L/D correction)	15,237
Type of Break	Cone & Shear / Split

Comments: \_\_\_\_\_  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.  
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11/28/06



**Unconfined Compressive Strength of Intact Rock Core Specimens  
ASTM D 7012-04**

**Project Name:** SCE&G COL  
**Project Number:** 6234063534S  
**Boring Number:** B-317  
**Sample Depth (ft):** 50.75  
**Tested By:** JBM  
**Test Date:** 10/31/2006

**Reviewed By:** BRR  
**Review Date:** 11/16/2006

<b>Rock Type</b>	<b>Migmatite</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>1.872</b>
<b>Specimen Length, inch</b>	<b>4.189</b>
<b>Length/Diameter Ratio</b>	<b>2.2</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>186</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>10.2</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>55,506</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>56,169</b>
<b>Type of Break</b>	<b>Cone/Crush</b>

Comments: \_\_\_\_\_  
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*BRR*  
*11/27/06*



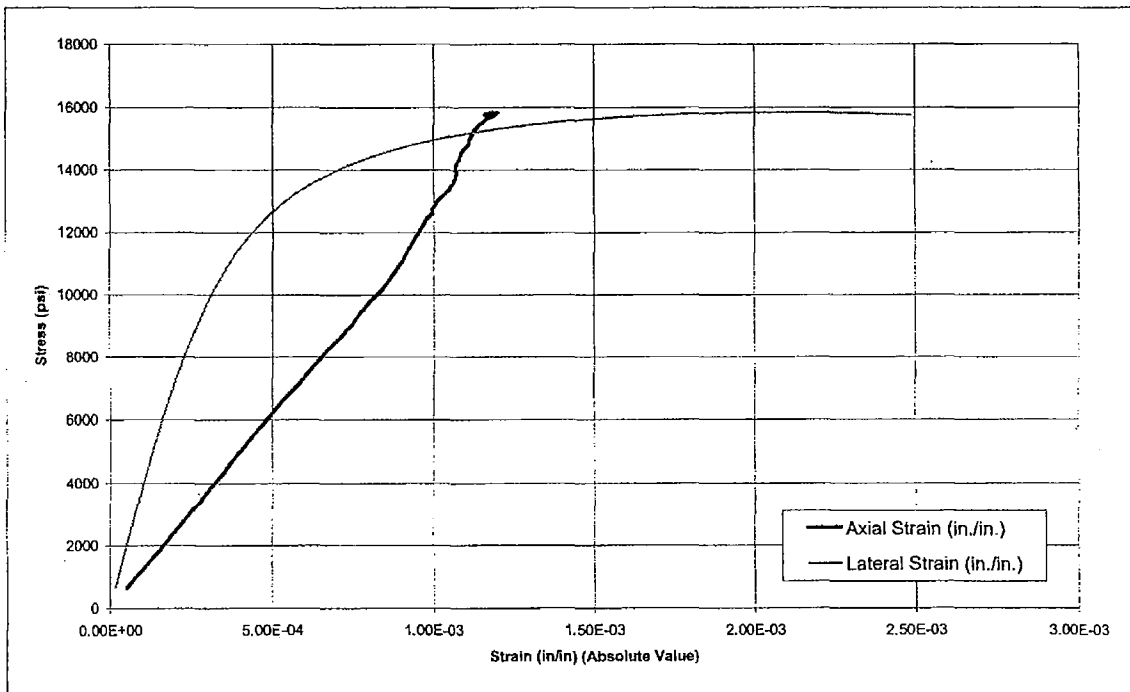
Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-317  
Sample Depth (ft): 71.48  
Tested By: JBM  
Test Date: 11/8/2006

Reviewed By: BRR  
Review Date: 11/21/2006

Rock Type	Amphibole Schist
Moisture Condition	As Received
Specimen Diameter, inch	1.873
Specimen Length, inch	4.163
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	189
Test Duration (Time to Failure in Minutes)	5.8
Unconfined Compressive Strength, psi (from test)	15,834
Unconfined Compressive Strength, psi (with L/D correction)	16,012
Type of Break	Cone
Young's Modulus, psi	11,730,000
Poisson's Ratio	0.40



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
11/27/06



Unconfined Compressive Strength of Intact Rock Core Specimens  
ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-317  
Sample Depth (ft): 90.44  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Migmatite Gneiss
Moisture Condition	As Received
Specimen Diameter, inch	1.876
Specimen Length, inch	4.162
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	167
Test Duration (Time to Failure in Minutes)	4.7
Unconfined Compressive Strength, psi (from test)	33,255
Unconfined Compressive Strength, psi (with L/D correction)	33,622
Type of Break	Crush

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
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11/27/06





**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

**Project Name:** SCE&G COL  
**Project Number:** 6234063534S  
**Boring Number:** B-317  
**Sample Depth (ft):** 132.79  
**Tested By:** JBM  
**Test Date:** 10/31/2006

**Reviewed By:** BRR  
**Review Date:** 11/15/2006

<b>Rock Type</b>	<b>Migmatite</b>
<b>Moisture Condition</b>	<b>As Received</b>
<b>Specimen Diameter, inch</b>	<b>1.873</b>
<b>Specimen Length, inch</b>	<b>4.230</b>
<b>Length/Diameter Ratio</b>	<b>2.3</b>
<b>Unit Weight (lbs/ft<sup>3</sup>)</b>	<b>186</b>
<b>Test Duration (Time to Failure in Minutes)</b>	<b>6.7</b>
<b>Unconfined Compressive Strength, psi (from test)</b>	<b>26,959</b>
<b>Unconfined Compressive Strength, psi (with L/D correction)</b>	<b>27,306</b>
<b>Type of Break</b>	<b>Cone &amp; Shear</b>

Comments: \_\_\_\_\_  
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11/27/06

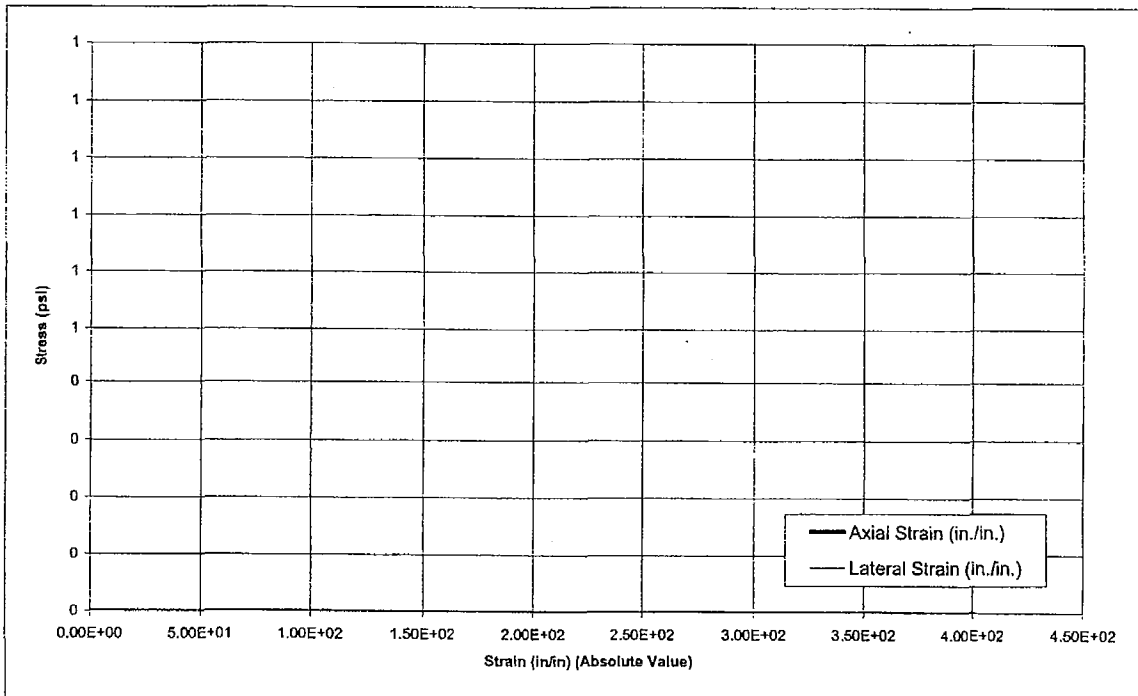


**Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
 Project Number: 6234063534S  
 Boring Number: B-320  
 Sample Depth (ft): 52.08  
 Tested By: TDH  
 Test Date: 11/9/2006

Reviewed By: BRR  
 Review Date: 11/28/2006

Rock Type	Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	1.871
Specimen Length, inch	3.715
Length/Diameter Ratio	1.99
Unit Weight (lbs/ft <sup>3</sup> )	181
Test Duration (Time to Failure in Minutes)	NA
Unconfined Compressive Strength, psi (from test)	NA
Unconfined Compressive Strength, psi (with L/D correction)	NA
Type of Break	NA
Young's Modulus, psi	NA
Poisson's Ratio	NA



Comments: Core did not meet minimum Length to Diameter ratio for uniaxial compression.  
Specimen did not meet ASTM D4543-04 criteria for flatness, parallelism, and perpendicularity.

*BRR*  
*11/28/06*



Unconfined Compressive Strength of Intact Rock Core Specimens

ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-320  
Sample Depth (ft): 61.88  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	1.869
Specimen Length, inch	4.230
Length/Diameter Ratio	2.3
Unit Weight (lbs/ft <sup>3</sup> )	181
Test Duration (Time to Failure in Minutes)	5.7
Unconfined Compressive Strength, psi (from test)	28,872
Unconfined Compressive Strength, psi (with L/D correction)	29,249
Type of Break	Cone & Shear

Comments:

Specimen did not meet the ASTM D4543-04 criteria for side straightness.

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11/27/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-320  
Sample Depth (ft): 77.68  
Tested By: JBM  
Test Date: 10/31/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	1.870
Specimen Length, inch	3.979
Length/Diameter Ratio	2.1
Unit Weight (lbs/ft <sup>3</sup> )	187
Test Duration (Time to Failure in Minutes)	9.0
Unconfined Compressive Strength, psi (from test)	27,465
Unconfined Compressive Strength, psi (with L/D correction)	27,649
Type of Break	Cone & Shear

Comments: \_\_\_\_\_  
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BRR  
11/27/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-320  
Sample Depth (ft): 100.43  
Tested By: JBM  
Test Date: 10/20/2006

Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	1.871
Specimen Length, inch	4.085
Length/Diameter Ratio	2.2
Unit Weight (lbs/ft <sup>3</sup> )	170
Test Duration (Time to Failure in Minutes)	4.5
Unconfined Compressive Strength, psi (from test)	28,966
Unconfined Compressive Strength, psi (with L/D correction)	29,239
Type of Break	Columnar

Comments: \_\_\_\_\_  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.  
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BRR  
11/28/06



**Unconfined Compressive Strength of Intact Rock Core Specimens**  
**ASTM D 7012-04**

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-325  
Sample Depth (ft): 60.31  
Tested By: JBM  
Test Date: 10/20/2006  
Reviewed By: BRR  
Review Date: 11/15/2006

Rock Type	Granodiorite
Moisture Condition	As Received
Specimen Diameter, inch	1.874
Specimen Length, inch	4.302
Length/Diameter Ratio	2.3
Unit Weight (lbs/ft <sup>3</sup> )	172
Test Duration (Time to Failure in Minutes)	4.8
Unconfined Compressive Strength, psi (from test)	21,804
Unconfined Compressive Strength, psi (with L/D correction)	22,120
Type of Break	Cone & Shear

Comments: Maximum mineral grain size of specimen was greater than Diameter/10  
Specimen did not meet the ASTM D4543-04 criteria for side straightness.  
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*11/23/06*

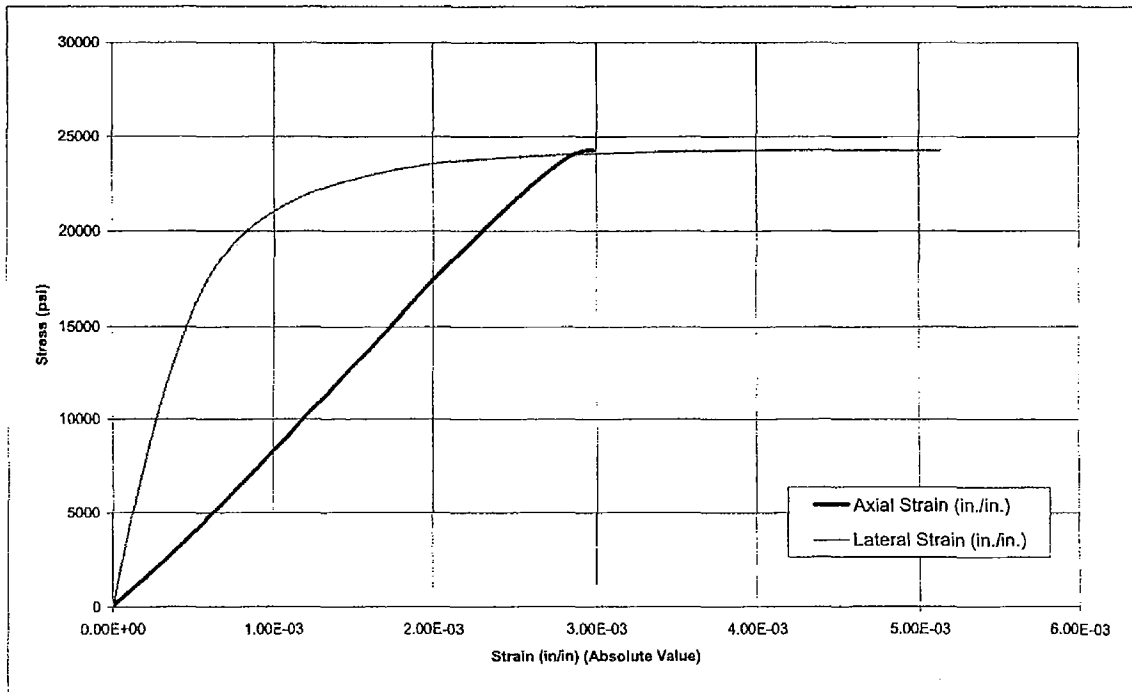


Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression  
ASTM D 7012-04

Project Name: SCE&G COL  
Project Number: 6234063534S  
Boring Number: B-325  
Sample Depth (ft): 67.58  
Tested By: JBM  
Test Date: 11/7/2006

Reviewed By: BRR  
Review Date: 11/21/2006

Rock Type	Migmatite
Moisture Condition	As Received
Specimen Diameter, inch	1.876
Specimen Length, inch	4.265
Length/Diameter Ratio	2.3
Unit Weight (lbs/ft <sup>3</sup> )	176
Test Duration (Time to Failure in Minutes)	5.0
Unconfined Compressive Strength, psi (from test)	24,286
Unconfined Compressive Strength, psi (with L/D correction)	24,615
Type of Break	Cone & Shear
Young's Modulus, psi	9,110,000
Poisson's Ratio	0.30



Comments: Young's Modulus and Poisson's Ratio determined using linear fit of curve from approximately 40% to 50% of unconfined compressive strength.  
Strain values shown are in terms of absolute value: Axial Strain is negative, Lateral Strain is positive.

BRR  
11/27/06