

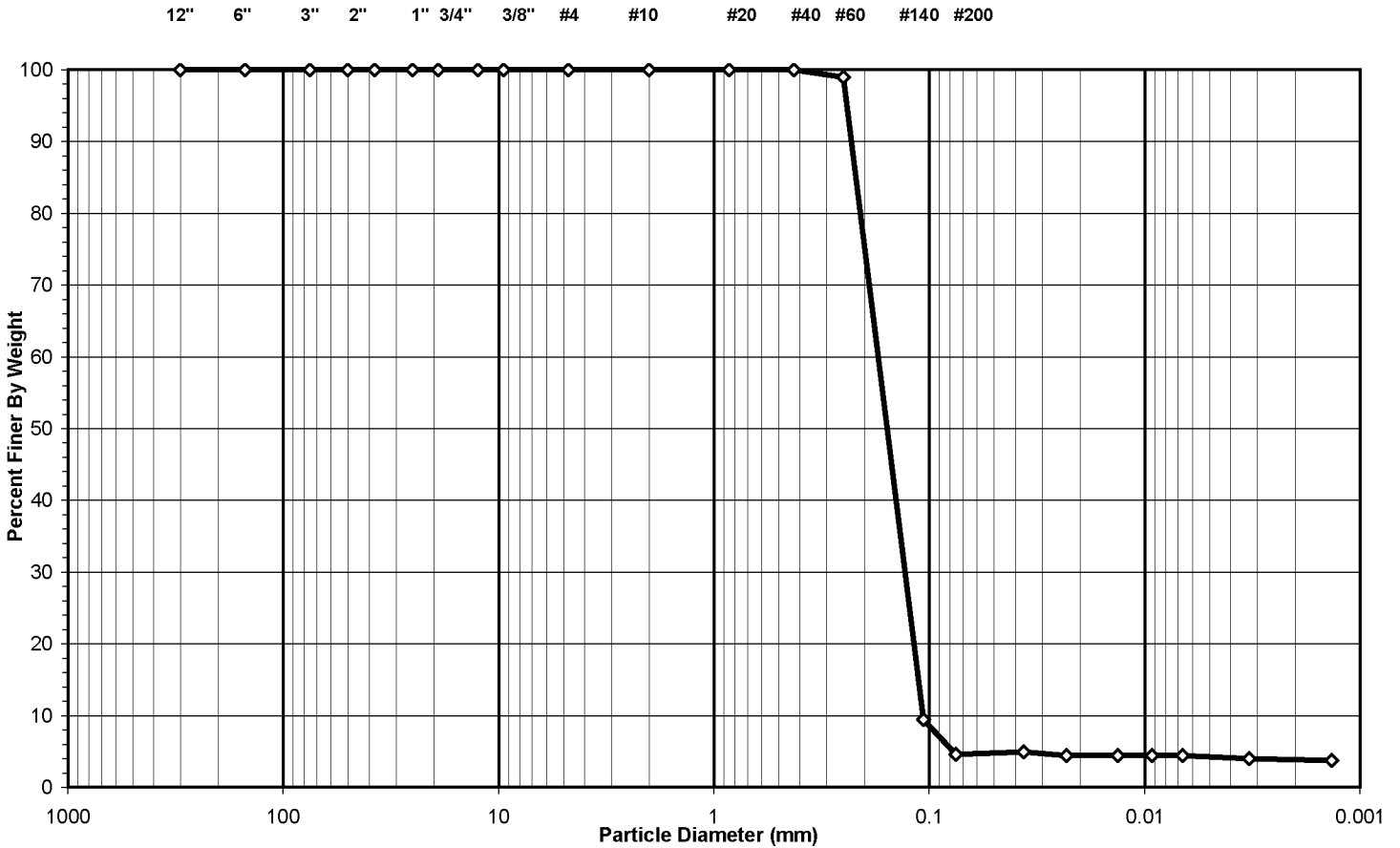


SIEVE AND HYDROMETER ANALYSIS
ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-015

Boring No. R-7-1
 Depth (ft) 338.2-338.7
 Sample No. ST-18
 Soil Color Gray

USCS USDA	SIEVE ANALYSIS					HYDROMETER		
	cobbles	gravel	sand			silt and clay fraction		
	cobbles	gravel	sand			silt	clay	

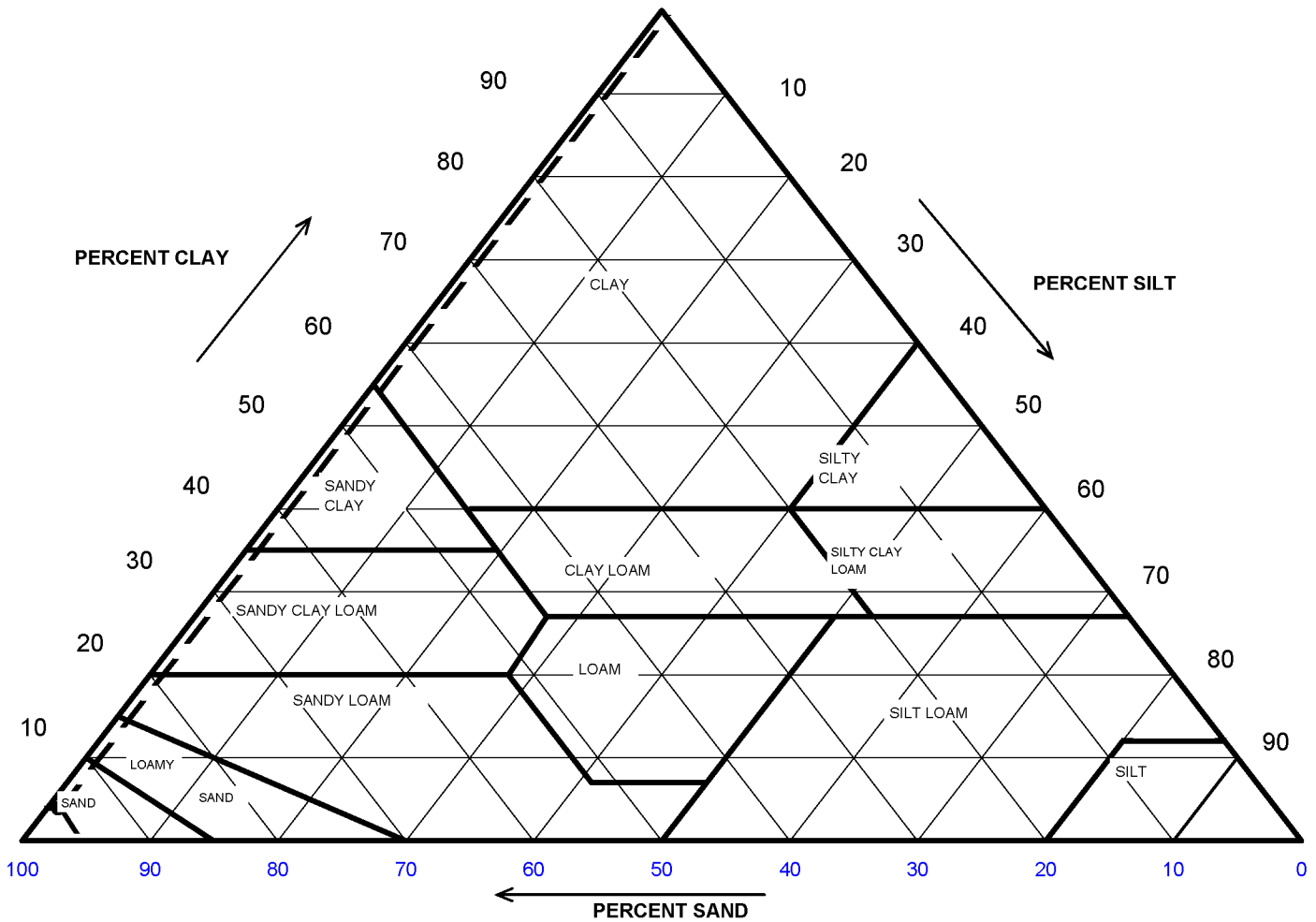


USCS Summary			
Sieve Sizes (mm)		Percentage	
Greater Than #4	Gravel	0.00	
#4 To #200	Sand	95.36	
Finer Than #200	Silt & Clay	4.64	
		D60 = 0.17	
		D30 = 0.13	CC = 0.91
		D10 = 0.11	CU = 1.61
USCS Symbol	SP, TESTED (NON-PLASTIC FINES)		
USCS Classification	POORLY GRADED SAND		

USDA CLASSIFICATION CHART

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-015

Boring No. R-7-1
 Depth (ft) 338.2-338.7
 Sample No. ST-18
 Soil Color Gray



Particle Size (mm)	Percent Finer	USDA SUMMARY	Actual Percentage	Corrected % of Minus 2.0 mm material for USDA Classificat.
		<i>Gravel</i>	0.00	0.00
2	100.00	<i>Sand</i>	95.21	95.21
0.05	4.79	<i>Silt</i>	0.90	0.90
0.002	3.88	<i>Clay</i>	3.88	3.88
USDA Classification:		SAND		

WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-015

Boring No. R-7-1
 Depth (ft) 338.2-338.7
 Sample No. ST-18
 Soil Color Gray

Minus #10 for Hygroscopic Moisture Content		Hydrometer Specimen Data	
Tare No.	25	Air Dried - #10 Hydrometer Material (g)	115.10
Wgt. Tare + Wet Soil (g)	36.49	Corrected Dry Wt. of - #10 Material (g)	114.20
Wgt. Tare + Dry Soil (g)	36.27		
Weight of Tare (g)	8.32	Weight of - #200 Material (g)	5.30
Weight of Water (g)	0.22	Weight of - #10 ; + #200 Material (g)	108.90
Weight of Dry Soil (g)	27.95		
Moisture Content (%)	0.8	J-FACTOR (%FINER THAN #10)	1.0000
Soil Specimen Data			
Tare No.	55		
Wgt. Tare + Air Dry Soil (g)	682.18		
Weight of Tare (g)	203.87		
Air Dried Wgt. Total Sample (g)	478.31	Dry Weight of Material Retained on #10 (g)	0.00
Total Dry Sample Weight (g)	474.57	Corrected Dry Sample Wt - #10 (g)	474.57

Sieve Size	Sieve Opening (mm)	Wgt. of Soil Retained (gm)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.0	0.0	100.0	100.0
6"	150	0.00	0.0	0.0	100.0	100.0
3"	75	0.00	0.0	0.0	100.0	100.0
2"	50	0.00	0.0	0.0	100.0	100.0
1 1/2"	37.5	0.00	0.0	0.0	100.0	100.0
1"	25.0	0.00	0.0	0.0	100.0	100.0
3/4"	19.0	0.00	0.0	0.0	100.0	100.0
1/2"	12.5	0.00	0.0	0.0	100.0	100.0
3/8"	9.50	0.00	0.0	0.0	100.0	100.0
#4	4.75	0.00	0.0	0.0	100.0	100.0
#10	2.00	0.00	0.0	0.0	100.0	100.0
#20	0.85	0.00	0.0	0.0	100.0	100.0
#40	0.425	0.04	0.0	0.0	100.0	100.0
#60	0.250	1.11	1.0	1.0	99.0	99.0
#140	0.106	102.28	89.6	90.6	9.4	9.4
#200	0.075	5.47	4.8	95.4	4.6	4.6
Pan	-	5.30	4.6	100.0	-	-

Notes :

Tested By TO Date 11/12/13 Checked By KC Date 11/18/13

HYDROMETER ANALYSIS
 ASTM D 422-63 (2007)

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	338.2-338.7
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Soil Color	Gray

Elapsed Time (min)	R Measured	Temp. (° C)	Composite Correction	R Corrected	N (%)	K Factor	Diameter (mm)	N' (%)
0	NA	NA	NA	NA	NA	NA	NA	NA
2	10.5	21.7	4.93	5.6	4.9	0.01345	0.0363	4.9
5	10.0	21.7	4.93	5.1	4.5	0.01345	0.0230	4.5
15	10.0	21.7	4.93	5.1	4.5	0.01345	0.0133	4.5
31	10.0	21.7	4.93	5.1	4.5	0.01345	0.0093	4.5
60	10.0	21.7	4.93	5.1	4.5	0.01345	0.0066	4.5
250	9.5	21.7	4.93	4.6	4.0	0.01345	0.0033	4.0
1440	9.0	22.4	4.71	4.3	3.8	0.01334	0.0014	3.8

Soil Specimen Data	Other Corrections		
Wgt. of Dry Material (g)	114.20	Hygroscopic Moisture Factor	0.992
Weight of Deflocculant (g)	5.0	a - Factor	1.004
		Percent Finer than # 10	100.00
		Specific Gravity	2.63 Measured

Notes:

Tested By **TO** Date **11/12/13** Checked By **KC** Date **11/18/13**

SIEVE ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	338.2-338.7
Project No.	2013-465-001	Sample No.	ST-18
Lab ID #	2013-465-001-015		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1395	6/4/14
Platform Scale	NA	NA
3" Sieve	NA	NA
2" Sieve	NA	NA
1 1/2 " Sieve	NA	NA
1" Sieve	NA	NA
3/4" Sieve	NA	NA
1/2" Sieve	NA	NA
3/8" Sieve	NA	NA
#4 Sieve	NA	NA
#10 Sieve	NA	NA
Sieve Shaker	NA	NA
Additional Balance	NA	NA
#10 Sieve	G884	8/20/14
#10 Wash Sieve	G415	11/23/13
Oven	G1118	11/27/13

HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

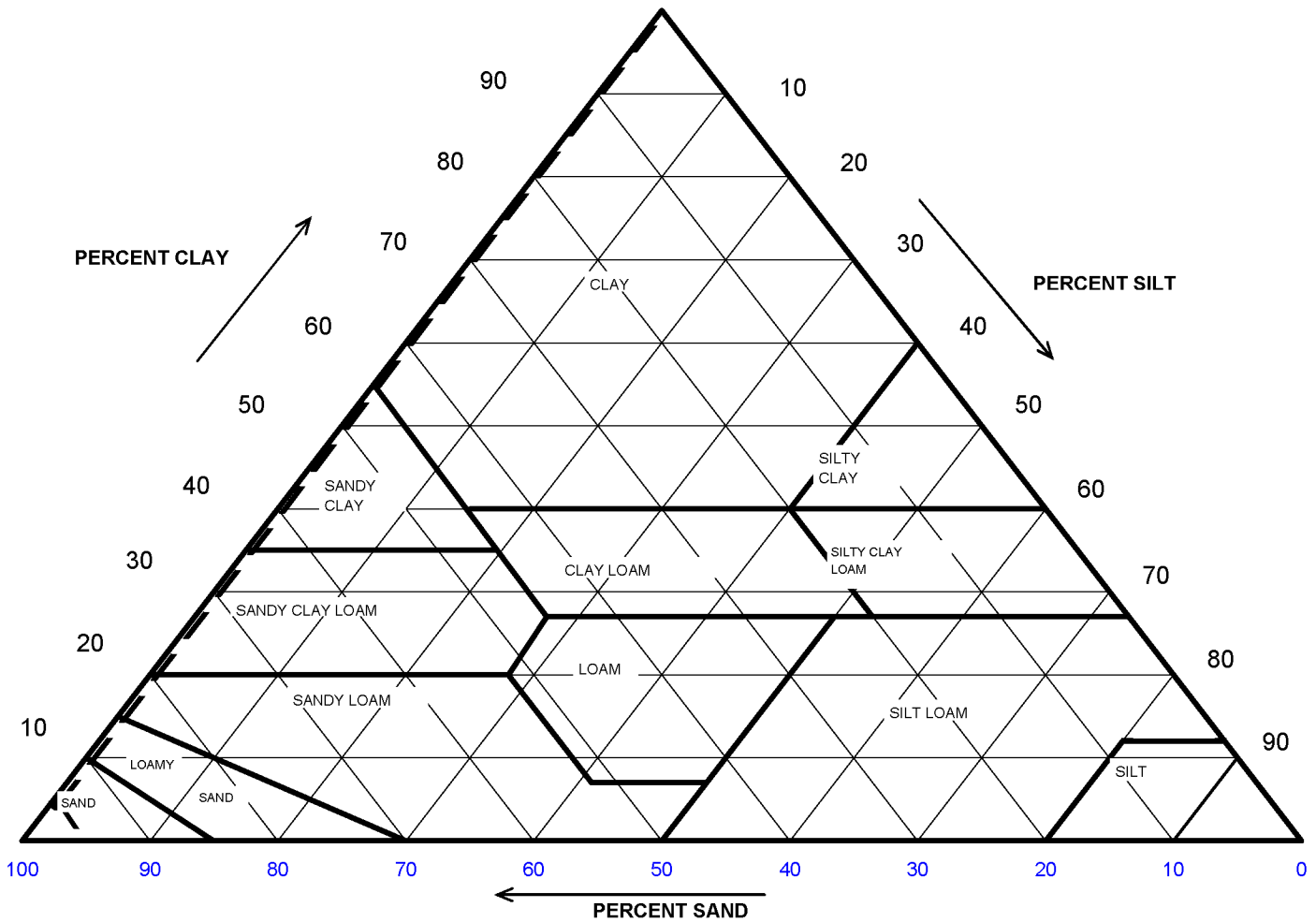
Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	338.2-338.7
Project No.	2013-465-001	Sample No.	ST-18
Lab ID #	2013-465-001-015		

Equipment / Hydrometer	Equipment ID#	Calibration Due Date
Oven	G1118	11/27/13
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G367	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14
Equipment / -#10 Sieves	Equipment ID#	Calibration Due Date
Balance	G1395	6/4/14
#10 Sieve	NA	NA
#20 Sieve	G1497	12/13/13
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	12/11/13
#200 Sieve	G1386	10/24/14
Sieve Shaker	G1067	9/20/14
Additional Balance	NA	NA

USDA CLASSIFICATION CHART

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-016

Boring No. R-7-1
 Depth (ft) 346.3-346.8
 Sample No. ST-19
 Soil Color Gray



Particle Size (mm)	Percent Finer	USDA SUMMARY	Actual Percentage	Corrected % of Minus 2.0 mm material for USDA Classificat.
		<i>Gravel</i>	0.00	0.00
2	100.00	<i>Sand</i>	94.99	94.99
0.05	5.01	<i>Silt</i>	0.51	0.51
0.002	4.50	<i>Clay</i>	4.50	4.50
USDA Classification:		SAND		

WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-016

Boring No. R-7-1
 Depth (ft) 346.3-346.8
 Sample No. ST-19
 Soil Color Gray

Minus #10 for Hygroscopic Moisture Content		Hydrometer Specimen Data	
Tare No.	37	Air Dried - #10 Hydrometer Material (g)	116.88
Wgt. Tare + Wet Soil (g)	42.37	Corrected Dry Wt. of - #10 Material (g)	114.12
Wgt. Tare + Dry Soil (g)	41.57		
Weight of Tare (g)	8.50	Weight of - #200 Material (g)	5.97
Weight of Water (g)	0.80	Weight of - #10 ; + #200 Material (g)	108.15
Weight of Dry Soil (g)	33.07		
Moisture Content (%)	2.4	J-FACTOR (%FINER THAN #10)	1.0000
Soil Specimen Data			
Tare No.	50		
Wgt. Tare + Air Dry Soil (g)	918.09		
Weight of Tare (g)	202.64		
Air Dried Wgt. Total Sample (g)	715.45	Dry Weight of Material Retained on #10 (g)	0.00
Total Dry Sample Weight (g)	698.55	Corrected Dry Sample Wt - #10 (g)	698.55

Sieve Size	Sieve Opening (mm)	Wgt. of Soil Retained (gm)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.0	0.0	100.0	100.0
6"	150	0.00	0.0	0.0	100.0	100.0
3"	75	0.00	0.0	0.0	100.0	100.0
2"	50	0.00	0.0	0.0	100.0	100.0
1 1/2"	37.5	0.00	0.0	0.0	100.0	100.0
1"	25.0	0.00	0.0	0.0	100.0	100.0
3/4"	19.0	0.00	0.0	0.0	100.0	100.0
1/2"	12.5	0.00	0.0	0.0	100.0	100.0
3/8"	9.50	0.00	0.0	0.0	100.0	100.0
#4	4.75	0.00	0.0	0.0	100.0	100.0
#10	2.00	0.00	0.0	0.0	100.0	100.0
#20	0.85	0.00	0.0	0.0	100.0	100.0
#40	0.425	0.11	0.1	0.1	99.9	99.9
#60	0.250	0.65	0.6	0.7	99.3	99.3
#140	0.106	98.99	86.7	87.4	12.6	12.6
#200	0.075	8.40	7.4	94.8	5.2	5.2
Pan	-	5.97	5.2	100.0	-	-

Notes :

Tested By TO Date 11/12/13 Checked By KC Date 11/18/13

HYDROMETER ANALYSIS
 ASTM D 422-63 (2007)

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	346.3-346.8
Project No.	2013-465-001	Sample No.	ST-19
Lab ID	2013-465-001-016	Soil Color	Gray

Elapsed Time (min)	R Measured	Temp. (° C)	Composite Correction	R Corrected	N (%)	K Factor	Diameter (mm)	N' (%)
0	NA	NA	NA	NA	NA	NA	NA	NA
2	10.5	21.7	4.93	5.6	4.8	0.01317	0.0356	4.8
5	10.5	21.7	4.93	5.6	4.8	0.01317	0.0225	4.8
15	10.5	21.7	4.93	5.6	4.8	0.01317	0.0130	4.8
30	10.5	21.7	4.93	5.6	4.8	0.01317	0.0092	4.8
60	10.5	21.7	4.93	5.6	4.8	0.01317	0.0065	4.8
250	10.0	21.7	4.93	5.1	4.4	0.01317	0.0032	4.4
1440	10.0	22.4	4.71	5.3	4.6	0.01307	0.0013	4.6

Soil Specimen Data	Other Corrections		
Wgt. of Dry Material (g)	114.12	Hygroscopic Moisture Factor	0.976
Weight of Deflocculant (g)	5.0	a - Factor	0.99
		Percent Finer than # 10	100.00
		Specific Gravity	2.70 Assumed

Notes:

Tested By **TO** Date **11/12/13** Checked By **KC** Date **11/18/13**

SIEVE ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	346.3-346.8
Project No.	2013-465-001	Sample No.	ST-19
Lab ID #	2013-465-001-016		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1394	5/15/14
Platform Scale	NA	NA
3" Sieve	NA	NA
2" Sieve	NA	NA
1 1/2 " Sieve	NA	NA
1" Sieve	NA	NA
3/4" Sieve	NA	NA
1/2" Sieve	NA	NA
3/8" Sieve	NA	NA
#4 Sieve	NA	NA
#10 Sieve	NA	NA
Sieve Shaker	NA	NA
Additional Balance	NA	NA
#10 Sieve	G884	8/20/14
#10 Wash Sieve	G415	11/23/13
Oven	G1118	11/27/13

HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	346.3-346.8
Project No.	2013-465-001	Sample No.	ST-19
Lab ID #	2013-465-001-016		

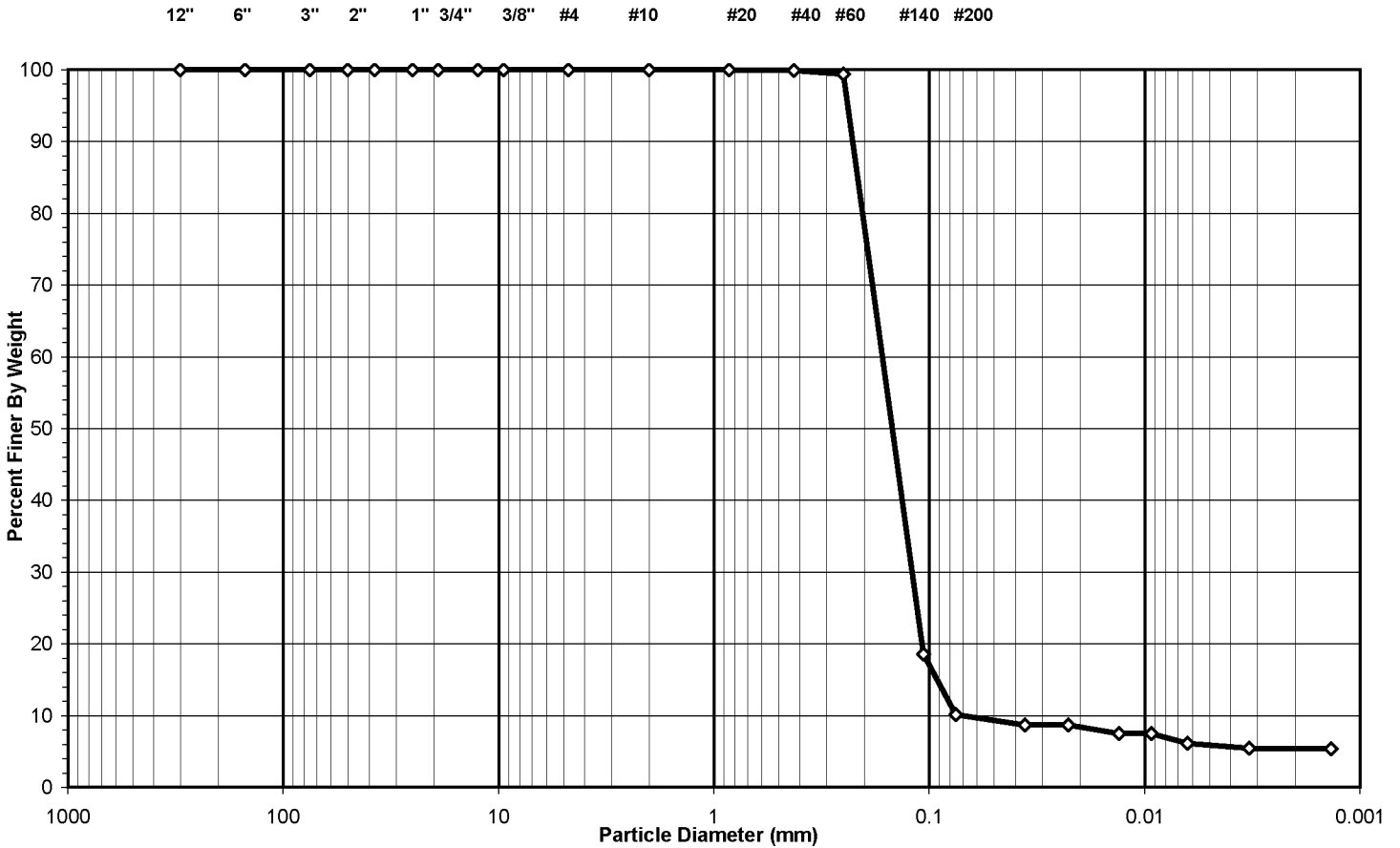
Equipment / Hydrometer	Equipment ID#	Calibration Due Date
Oven	G1118	11/27/13
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G356	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14
Equipment / -#10 Sieves	Equipment ID#	Calibration Due Date
Balance	G1395	6/4/14
#10 Sieve	NA	NA
#20 Sieve	G1497	12/13/13
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	12/11/13
#200 Sieve	G1386	10/24/14
Sieve Shaker	G1067	9/20/14
Additional Balance	NA	NA

SIEVE AND HYDROMETER ANALYSIS
 ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-017

Boring No. R-7-1
 Depth (ft) 354.9-355.8
 Sample No. ST-20
 Soil Color Greenish Gray

USCS USDA	SIEVE ANALYSIS					HYDROMETER		
	cobble	gravel	sand			silt and clay fraction		
	cobble	gravel	sand			silt	clay	

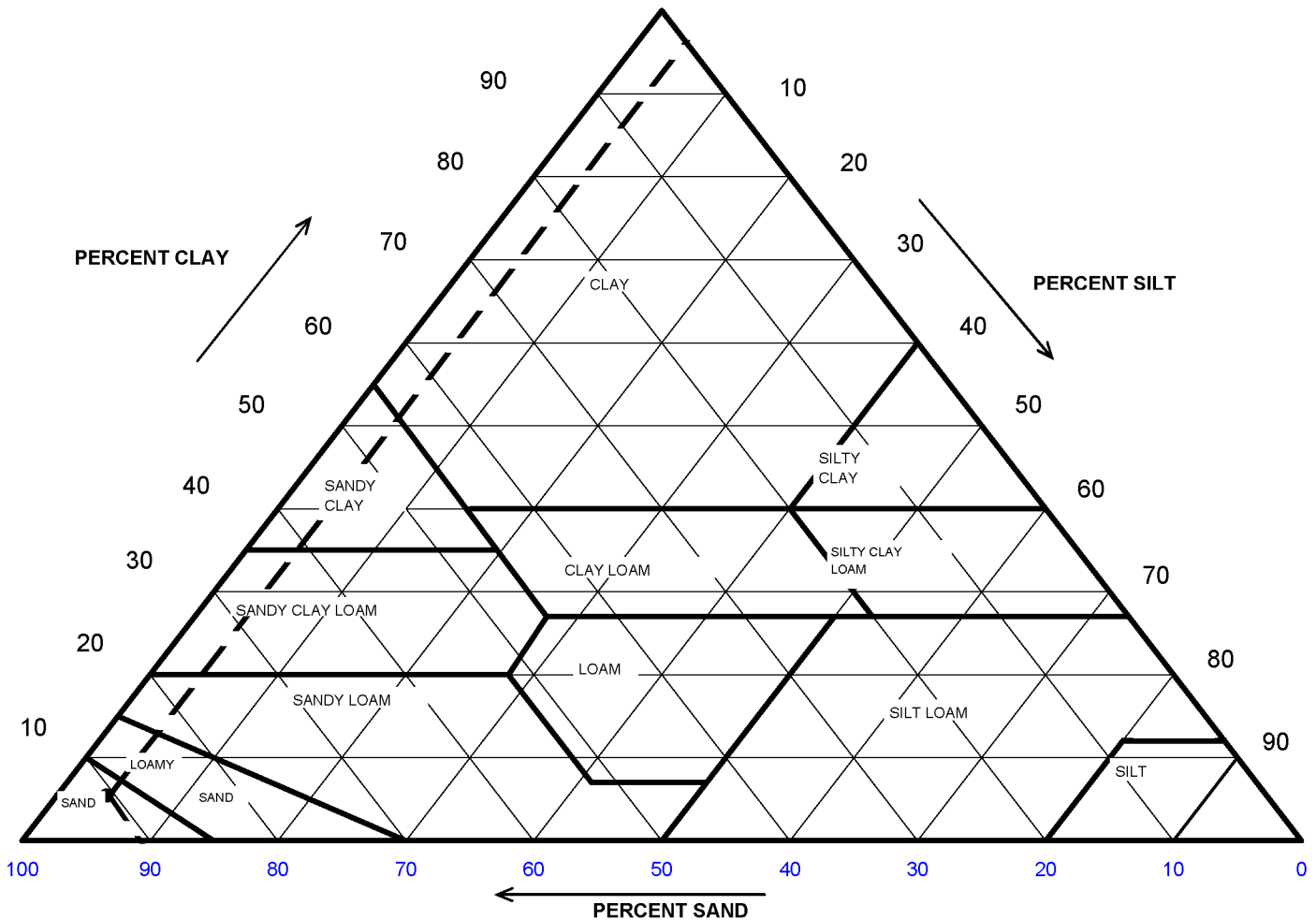


USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	<i>Gravel</i>	0.00
#4 To #200	<i>Sand</i>	89.85
Finer Than #200	<i>Silt & Clay</i>	10.15
		D60 = 0.16
		D30 = 0.12 CC = 1.26
		D10 = 0.07 CU = 2.38
USCS Symbol	<i>SP-SM, TESTED</i>	
	<i>(NON-PLASTIC FINES)</i>	
USCS Classification	<i>POORLY GRADED SAND WITH SILT</i>	

USDA CLASSIFICATION CHART

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-017

Boring No. R-7-1
 Depth (ft) 354.9-355.8
 Sample No. ST-20
 Soil Color Greenish Gray



Particle Size (mm)	Percent Finer	USDA SUMMARY	Actual Percentage	Corrected % of Minus 2.0 mm material for USDA Classificat.
		Gravel	0.00	0.00
2	100.00	Sand	90.63	90.63
0.05	9.37	Silt	3.97	3.97
0.002	5.40	Clay	5.40	5.40
USDA Classification:		SAND		

WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-017

Boring No. R-7-1
 Depth (ft) 354.9-355.8
 Sample No. ST-20
 Soil Color **Greenish Gray**

Minus #10 for Hygroscopic Moisture Content		Hydrometer Specimen Data	
Tare No.	17	Air Dried - #10 Hydrometer Material (g)	80.83
Wgt. Tare + Wet Soil (g)	32.68	Corrected Dry Wt. of - #10 Material (g)	80.36
Wgt. Tare + Dry Soil (g)	32.54		
Weight of Tare (g)	8.59	Weight of - #200 Material (g)	8.16
Weight of Water (g)	0.14	Weight of - #10 ; + #200 Material (g)	72.20
Weight of Dry Soil (g)	23.95		
Moisture Content (%)	0.6	J-FACTOR (%FINER THAN #10)	1.0000
Soil Specimen Data			
Tare No.	972		
Wgt. Tare + Air Dry Soil (g)	339.57		
Weight of Tare (g)	101.62		
Air Dried Wgt. Total Sample (g)	237.95	Dry Weight of Material Retained on #10 (g)	0.00
Total Dry Sample Weight (g)	236.57	Corrected Dry Sample Wt - #10 (g)	236.57

Sieve Size	Sieve Opening (mm)	Wgt. of Soil Retained (gm)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.0	0.0	100.0	100.0
6"	150	0.00	0.0	0.0	100.0	100.0
3"	75	0.00	0.0	0.0	100.0	100.0
2"	50	0.00	0.0	0.0	100.0	100.0
1 1/2"	37.5	0.00	0.0	0.0	100.0	100.0
1"	25.0	0.00	0.0	0.0	100.0	100.0
3/4"	19.0	0.00	0.0	0.0	100.0	100.0
1/2"	12.5	0.00	0.0	0.0	100.0	100.0
3/8"	9.50	0.00	0.0	0.0	100.0	100.0
#4	4.75	0.00	0.0	0.0	100.0	100.0
#10	2.00	0.00	0.0	0.0	100.0	100.0
#20	0.85	0.01	0.0	0.0	100.0	100.0
#40	0.425	0.06	0.1	0.1	99.9	99.9
#60	0.250	0.43	0.5	0.6	99.4	99.4
#140	0.106	64.96	80.8	81.5	18.5	18.5
#200	0.075	6.74	8.4	89.8	10.2	10.2
Pan	-	8.16	10.2	100.0	-	-

Notes :

Tested By TO Date 12/4/13 Checked By KC Date 12/6/13

HYDROMETER ANALYSIS
 ASTM D 422-63 (2007)

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	354.9-355.8
Project No.	2013-465-001	Sample No.	ST-20
Lab ID	2013-465-001-017	Soil Color	Greenish Gray

Elapsed Time (min)	R Measured	Temp. (° C)	Composite Correction	R Corrected	N (%)	K Factor	Diameter (mm)	N' (%)
0	NA	NA	NA	NA	NA	NA	NA	NA
2	11.5	22.9	4.55	6.9	8.7	0.01335	0.0358	8.7
5	11.5	22.9	4.55	6.9	8.7	0.01335	0.0227	8.7
15	10.5	22.9	4.55	5.9	7.5	0.01335	0.0132	7.5
30	10.5	22.9	4.55	5.9	7.5	0.01335	0.0093	7.5
66	9.5	22.8	4.58	4.9	6.2	0.01336	0.0063	6.2
250	9.0	22.6	4.64	4.4	5.5	0.01339	0.0033	5.5
1440	9.0	22.3	4.74	4.3	5.3	0.01344	0.0014	5.3

Soil Specimen Data	Other Corrections		
Wgt. of Dry Material (g)	80.36	Hygroscopic Moisture Factor	0.994
Weight of Deflocculant (g)	5.0	a - Factor	1.008
		Percent Finer than # 10	100.00
		Specific Gravity	2.61 Measured

Notes:

Tested By TO Date 12/4/13 Checked By KC Date 12/6/13

SIEVE ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	354.9-355.8
Project No.	2013-465-001	Sample No.	ST-20
Lab ID #	2013-465-001-017		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1394	5/15/14
Platform Scale	NA	NA
3" Sieve	NA	NA
2" Sieve	NA	NA
1 1/2 " Sieve	NA	NA
1" Sieve	NA	NA
3/4" Sieve	NA	NA
1/2" Sieve	NA	NA
3/8" Sieve	NA	NA
#4 Sieve	NA	NA
#10 Sieve	NA	NA
Sieve Shaker	NA	NA
Additional Balance	NA	NA
#10 Sieve	G884	8/20/14
#10 Wash Sieve	G415	11/4/14
Oven	G1118	11/23/14

HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	354.9-355.8
Project No.	2013-465-001	Sample No.	ST-20
Lab ID #	2013-465-001-017		

Equipment / Hydrometer	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G771	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14
Equipment / -#10 Sieves	Equipment ID#	Calibration Due Date
Balance	G447	3/29/14
#10 Sieve	NA	NA
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance	NA	NA

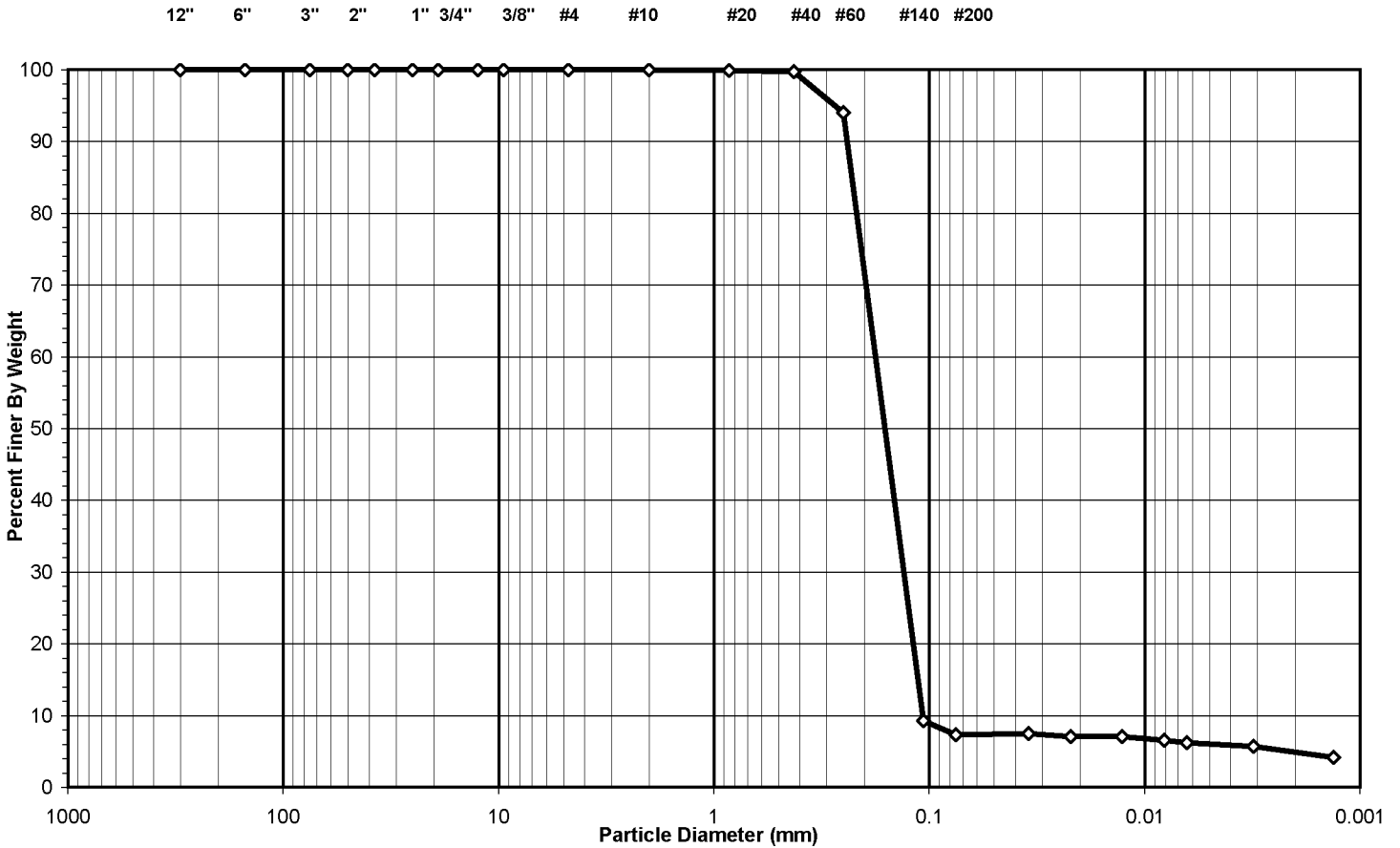


SIEVE AND HYDROMETER ANALYSIS
ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-018

Boring No. R-7-1
 Depth (ft) 373.8-374.3
 Sample No. ST-22
 Soil Color Gray

USCS USDA	SIEVE ANALYSIS				HYDROMETER	
	cobbles	gravel	sand		silt and clay fraction	
	cobbles	gravel	sand		silt	clay

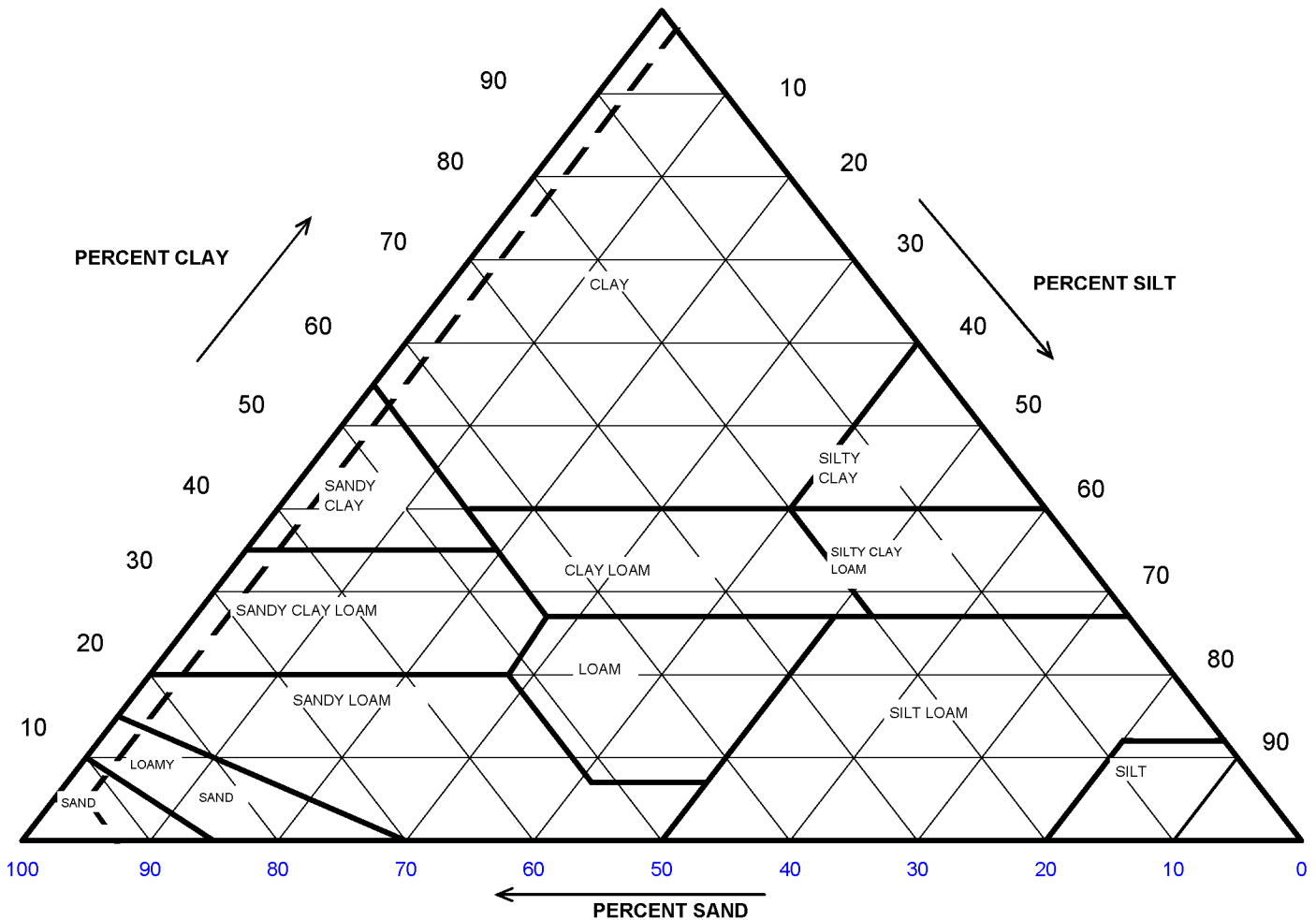


USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.00
#4 To #200	Sand	92.71
Finer Than #200	Silt & Clay	7.29
		D60 = 0.18
		D30 = 0.13
		CC = 0.90
USCS Symbol	SP-SM, TESTED	D10 = 0.11
	(NON-PLASTIC FINES)	CU = 1.66
USCS Classification	POORLY GRADED SAND WITH SILT	

USDA CLASSIFICATION CHART

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-018

Boring No. R-7-1
 Depth (ft) 373.8-374.3
 Sample No. ST-22
 Soil Color Gray



Particle Size (mm)	Percent Finer	USDA SUMMARY	Actual Percentage	Corrected % of Minus 2.0 mm material for USDA Classificat.
		Gravel	0.00	0.00
2	100.00	Sand	92.61	92.61
0.05	7.39	Silt	2.45	2.45
0.002	4.93	Clay	4.93	4.93
USDA Classification:		SAND		

WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-018

Boring No. R-7-1
 Depth (ft) 373.8-374.3
 Sample No. ST-22
 Soil Color Gray

Minus #10 for Hygroscopic Moisture Content		Hydrometer Specimen Data	
Tare No.	46	Air Dried - #10 Hydrometer Material (g)	111.48
Wgt. Tare + Wet Soil (g)	42.18	Corrected Dry Wt. of - #10 Material (g)	111.08
Wgt. Tare + Dry Soil (g)	42.06		
Weight of Tare (g)	8.37	Weight of - #200 Material (g)	8.09
Weight of Water (g)	0.12	Weight of - #10 ; + #200 Material (g)	102.99
Weight of Dry Soil (g)	33.69		
Moisture Content (%)	0.4	J-FACTOR (%FINER THAN #10)	1.0000
Soil Specimen Data			
Tare No.	64		
Wgt. Tare + Air Dry Soil (g)	852.86		
Weight of Tare (g)	201.05		
Air Dried Wgt. Total Sample (g)	651.81	Dry Weight of Material Retained on #10 (g)	0.00
Total Dry Sample Weight (g)	649.50	Corrected Dry Sample Wt - #10 (g)	649.50

Sieve Size	Sieve Opening (mm)	Wgt. of Soil Retained (gm)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.0	0.0	100.0	100.0
6"	150	0.00	0.0	0.0	100.0	100.0
3"	75	0.00	0.0	0.0	100.0	100.0
2"	50	0.00	0.0	0.0	100.0	100.0
1 1/2"	37.5	0.00	0.0	0.0	100.0	100.0
1"	25.0	0.00	0.0	0.0	100.0	100.0
3/4"	19.0	0.00	0.0	0.0	100.0	100.0
1/2"	12.5	0.00	0.0	0.0	100.0	100.0
3/8"	9.50	0.00	0.0	0.0	100.0	100.0
#4	4.75	0.00	0.0	0.0	100.0	100.0
#10	2.00	0.00	0.0	0.0	100.0	100.0
#20	0.85	0.05	0.0	0.0	100.0	100.0
#40	0.425	0.26	0.2	0.3	99.7	99.7
#60	0.250	6.34	5.7	6.0	94.0	94.0
#140	0.106	94.11	84.7	90.7	9.3	9.3
#200	0.075	2.23	2.0	92.7	7.3	7.3
Pan	-	8.09	7.3	100.0	-	-

Notes :

Tested By TO Date 11/11/13 Checked By JAM Date 11/21/13

HYDROMETER ANALYSIS
 ASTM D 422-63 (2007)

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	373.8-374.3
Project No.	2013-465-001	Sample No.	ST-22
Lab ID	2013-465-001-018	Soil Color	Gray

Elapsed Time (min)	R Measured	Temp. (° C)	Composite Correction	R Corrected	N (%)	K Factor	Diameter (mm)	N' (%)
0	NA	NA	NA	NA	NA	NA	NA	NA
2	13.0	22.7	4.61	8.4	7.5	0.01302	0.0346	7.5
5	12.5	22.7	4.61	7.9	7.0	0.01302	0.0220	7.0
15	12.5	22.7	4.61	7.9	7.0	0.01302	0.0127	7.0
37	12.0	22.7	4.61	7.4	6.6	0.01302	0.0081	6.6
60	11.5	22.9	4.55	6.9	6.2	0.01299	0.0064	6.2
250	11.0	22.9	4.55	6.4	5.7	0.01299	0.0031	5.7
1440	9.5	22.1	4.80	4.7	4.2	0.01311	0.0013	4.2

Soil Specimen Data	Other Corrections		
Wgt. of Dry Material (g)	111.08	Hygroscopic Moisture Factor	0.996
Weight of Deflocculant (g)	5.0	a - Factor	0.99
		Percent Finer than # 10	100.00
		Specific Gravity	2.70 Assumed

Notes:

Tested By **TO** Date **11/18/13** Checked By **JAM** Date **11/21/13**

SIEVE ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	373.8-374.3
Project No.	2013-465-001	Sample No.	ST-22
Lab ID #	2013-465-001-018		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1394	5/15/14
Platform Scale	NA	NA
3" Sieve	NA	NA
2" Sieve	NA	NA
1 1/2 " Sieve	NA	NA
1" Sieve	NA	NA
3/4" Sieve	NA	NA
1/2" Sieve	NA	NA
3/8" Sieve	NA	NA
#4 Sieve	NA	NA
#10 Sieve	NA	NA
Sieve Shaker	NA	NA
Additional Balance	G1395	6/4/14
#10 Sieve	G884	8/20/14
#10 Wash Sieve	G415	11/23/13
Oven	G1118	11/27/13

HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	373.8-374.3
Project No.	2013-465-001	Sample No.	ST-22
Lab ID #	2013-465-001-018		

Equipment / Hydrometer	Equipment ID#	Calibration Due Date
Oven	G1118	11/27/13
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G371	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14
Equipment / -#10 Sieves	Equipment ID#	Calibration Due Date
Balance	G1395	6/4/14
#10 Sieve	NA	NA
#20 Sieve	G1383	8/9/14
#40 Sieve	G1280	1/2/14
#60 Sieve	G1273	1/2/14
#140 Sieve	G1408	12/11/13
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance	NA	NA

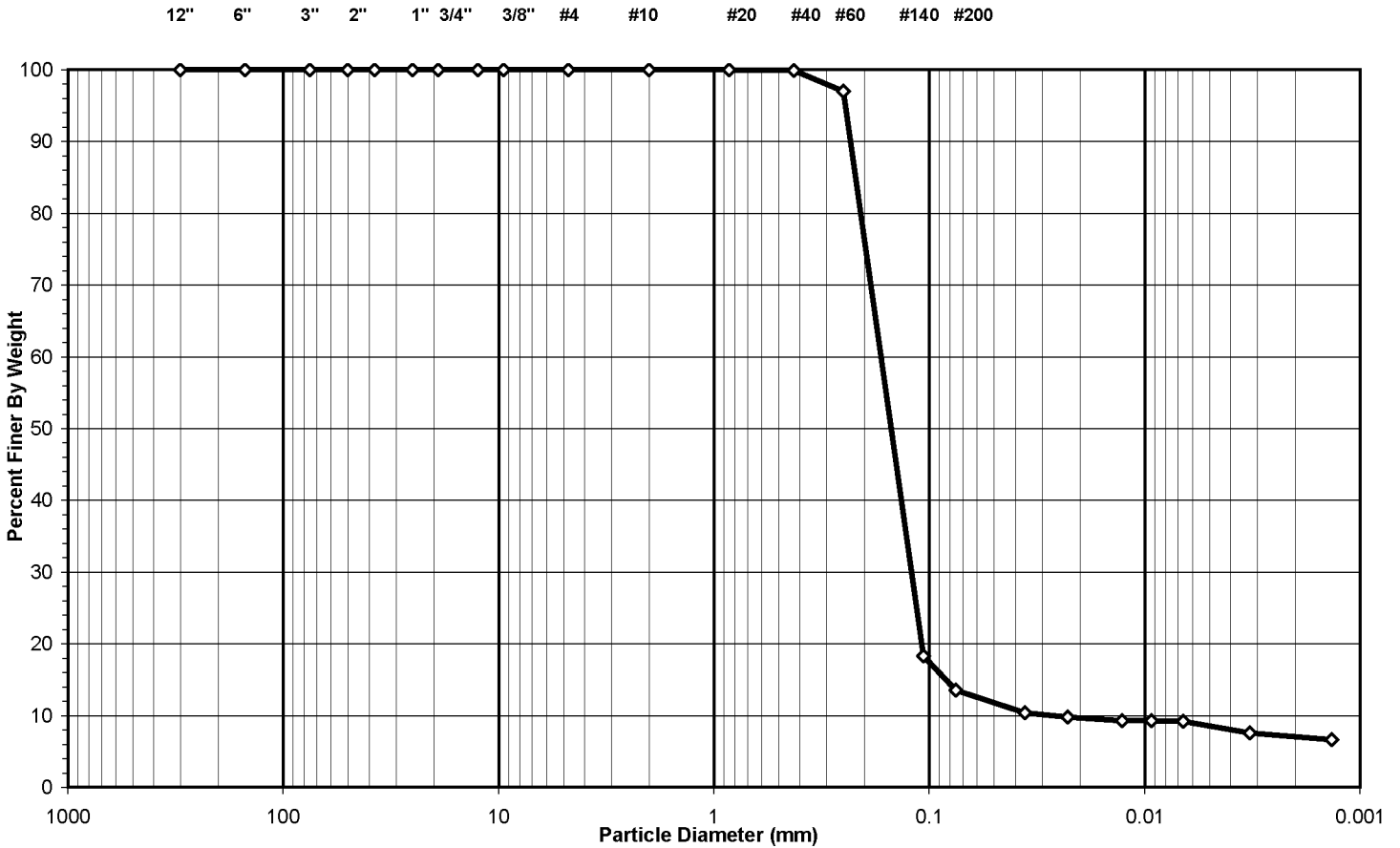


SIEVE AND HYDROMETER ANALYSIS
ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-019

Boring No. R-7-1
 Depth (ft) 391.9-392.4
 Sample No. ST-23
 Soil Color **Greenish Gray**

USCS USDA	SIEVE ANALYSIS				HYDROMETER	
	cobbles	gravel	sand		silt and clay fraction	
	cobbles	gravel	sand		silt	clay

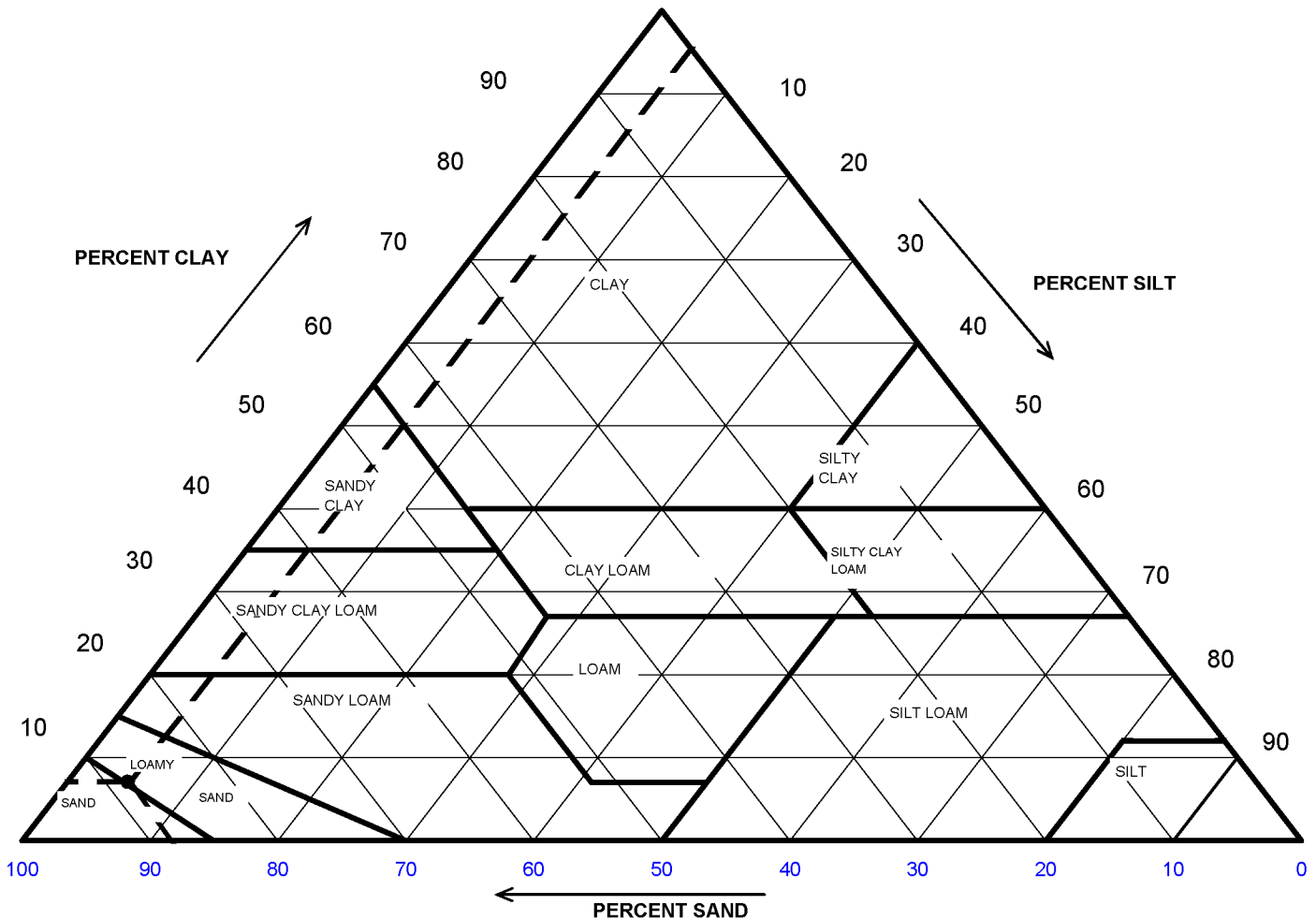


USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.00
#4 To #200	Sand	86.47
Finer Than #200	Silt & Clay	13.53
USCS Symbol	SM, TESTED (NON-PLASTIC FINES)	
USCS Classification	SILTY SAND	

USDA CLASSIFICATION CHART

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-019

Boring No. R-7-1
 Depth (ft) 391.9-392.4
 Sample No. ST-23
 Soil Color Greenish Gray



Particle Size (mm)	Percent Finer	USDA SUMMARY	Actual Percentage	Corrected % of Minus 2.0 mm material for USDA Classificat.
		<i>Gravel</i>	0.00	0.00
2	100.00	<i>Sand</i>	88.20	88.20
0.05	11.80	<i>Silt</i>	4.73	4.73
0.002	7.06	<i>Clay</i>	7.06	7.06
USDA Classification:		LOAMY SAND		

WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-019

Boring No. R-7-1
 Depth (ft) 391.9-392.4
 Sample No. ST-23
 Soil Color **Greenish Gray**

Minus #10 for Hygroscopic Moisture Content		Hydrometer Specimen Data	
Tare No.	43	Air Dried - #10 Hydrometer Material (g)	91.58
Wgt. Tare + Wet Soil (g)	24.96	Corrected Dry Wt. of - #10 Material (g)	88.88
Wgt. Tare + Dry Soil (g)	24.47		
Weight of Tare (g)	8.31	Weight of - #200 Material (g)	12.02
Weight of Water (g)	0.49	Weight of - #10 ; + #200 Material (g)	76.86
Weight of Dry Soil (g)	16.16		
Moisture Content (%)	3.0	J-FACTOR (%FINER THAN #10)	1.0000
Soil Specimen Data			
Tare No.	1424		
Wgt. Tare + Air Dry Soil (g)	333.27		
Weight of Tare (g)	145.88		
Air Dried Wgt. Total Sample (g)	187.39	Dry Weight of Material Retained on #10 (g)	0.00
Total Dry Sample Weight (g)	181.88	Corrected Dry Sample Wt - #10 (g)	181.88

Sieve Size	Sieve Opening (mm)	Wgt. of Soil Retained (gm)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.0	0.0	100.0	100.0
6"	150	0.00	0.0	0.0	100.0	100.0
3"	75	0.00	0.0	0.0	100.0	100.0
2"	50	0.00	0.0	0.0	100.0	100.0
1 1/2"	37.5	0.00	0.0	0.0	100.0	100.0
1"	25.0	0.00	0.0	0.0	100.0	100.0
3/4"	19.0	0.00	0.0	0.0	100.0	100.0
1/2"	12.5	0.00	0.0	0.0	100.0	100.0
3/8"	9.50	0.00	0.0	0.0	100.0	100.0
#4	4.75	0.00	0.0	0.0	100.0	100.0
#10	2.00	0.00	0.0	0.0	100.0	100.0
#20	0.85	0.00	0.0	0.0	100.0	100.0
#40	0.425	0.04	0.0	0.0	100.0	100.0
#60	0.250	2.58	2.9	2.9	97.1	97.1
#140	0.106	69.95	78.7	81.6	18.4	18.4
#200	0.075	4.29	4.8	86.5	13.5	13.5
Pan	-	12.02	13.5	100.0	-	-

Notes :

Tested By TO Date 11/26/13 Checked By KC Date 12/2/13

HYDROMETER ANALYSIS
 ASTM D 422-63 (2007)

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	391.9-392.4
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Soil Color	Greenish Gray

Elapsed Time (min)	R Measured	Temp. (° C)	Composite Correction	R Corrected	N (%)	K Factor	Diameter (mm)	N' (%)
0	NA	NA	NA	NA	NA	NA	NA	NA
2	14.0	21.9	4.87	9.1	10.4	0.01355	0.0358	10.4
5	13.5	21.9	4.87	8.6	9.8	0.01355	0.0227	9.8
16	13.0	21.9	4.87	8.1	9.2	0.01355	0.0127	9.2
30	13.0	21.9	4.87	8.1	9.2	0.01355	0.0093	9.2
60	13.0	21.7	4.93	8.1	9.2	0.01358	0.0066	9.2
250	11.5	22	4.83	6.7	7.6	0.01353	0.0032	7.6
1440	10.5	22.6	4.64	5.9	6.7	0.01343	0.0014	6.7

Soil Specimen Data	Other Corrections
Wgt. of Dry Material (g)	88.88
Weight of Deflocculant (g)	5.0
	Hygroscopic Moisture Factor
	0.971
	a - Factor
	1.01
	Percent Finer than # 10
	100.00
	Specific Gravity
	2.60 Measured

Notes:

Tested By TO Date 11/25/13 Checked By KC Date 12/2/13

SIEVE ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	391.9-392.4
Project No.	2013-465-001	Sample No.	ST-23
Lab ID #	2013-465-001-019		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1395	6/4/14
Platform Scale	NA	NA
3" Sieve	NA	NA
2" Sieve	NA	NA
1 1/2 " Sieve	NA	NA
1" Sieve	NA	NA
3/4" Sieve	NA	NA
1/2" Sieve	NA	NA
3/8" Sieve	NA	NA
#4 Sieve	NA	NA
#10 Sieve	NA	NA
Sieve Shaker	NA	NA
Additional Balance	G1047	3/25/14
#10 Sieve	G884	8/20/14
#10 Wash Sieve	G415	11/4/14
Oven	G1118	11/23/14

HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	391.9-392.4
Project No.	2013-465-001	Sample No.	ST-23
Lab ID #	2013-465-001-019		

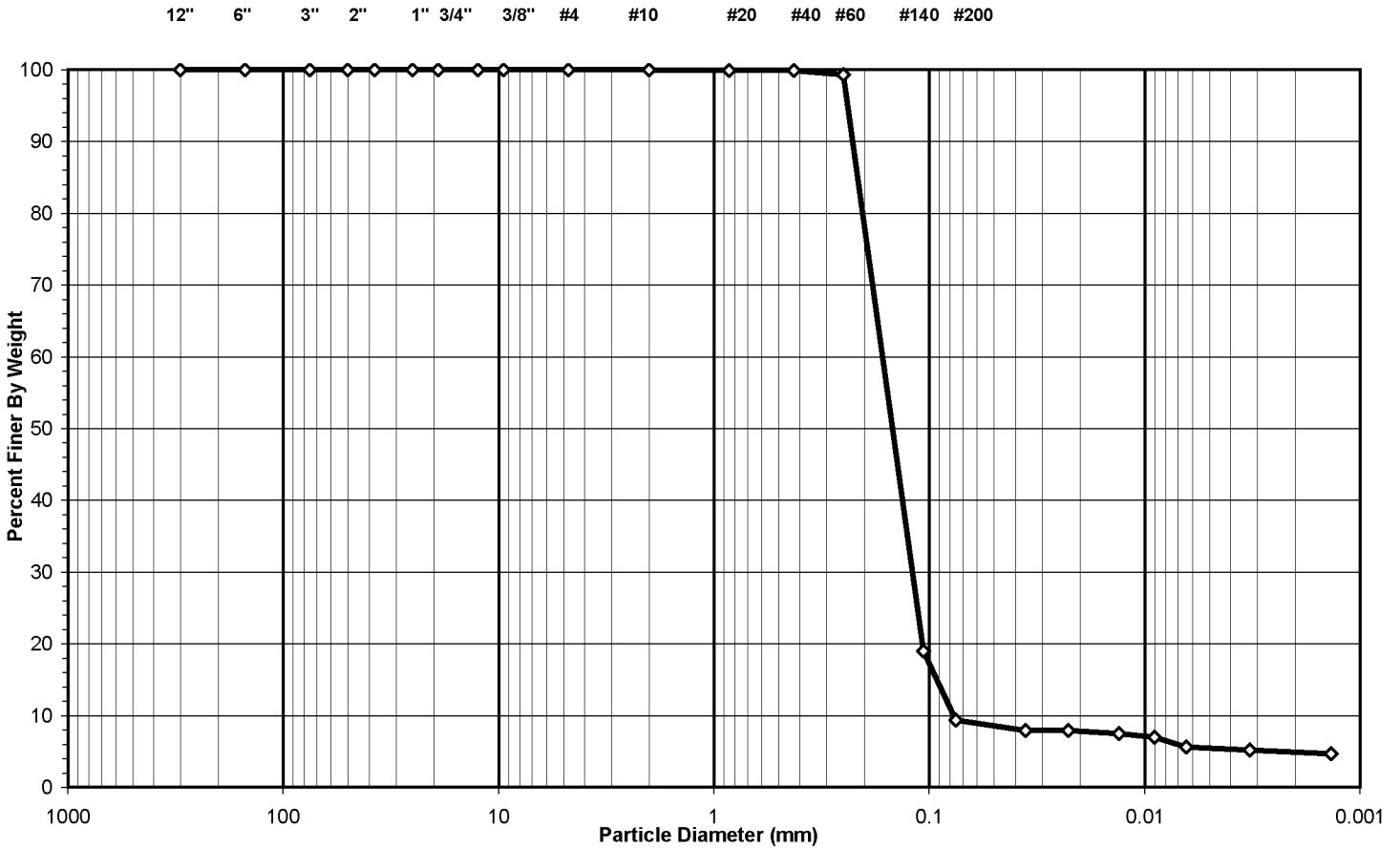
Equipment / Hydrometer	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G364	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14
Equipment / -#10 Sieves	Equipment ID#	Calibration Due Date
Balance	G1394	5/15/14
#10 Sieve	NA	NA
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance	NA	NA

SIEVE AND HYDROMETER ANALYSIS
ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-020

Boring No. R-7-1
 Depth (ft) 436.8-437.3
 Sample No. ST-25
 Soil Color Gray

USCS USDA	SIEVE ANALYSIS				HYDROMETER	
	cobbles	gravel	sand		silt and clay fraction	
	cobbles	gravel	sand		silt	clay

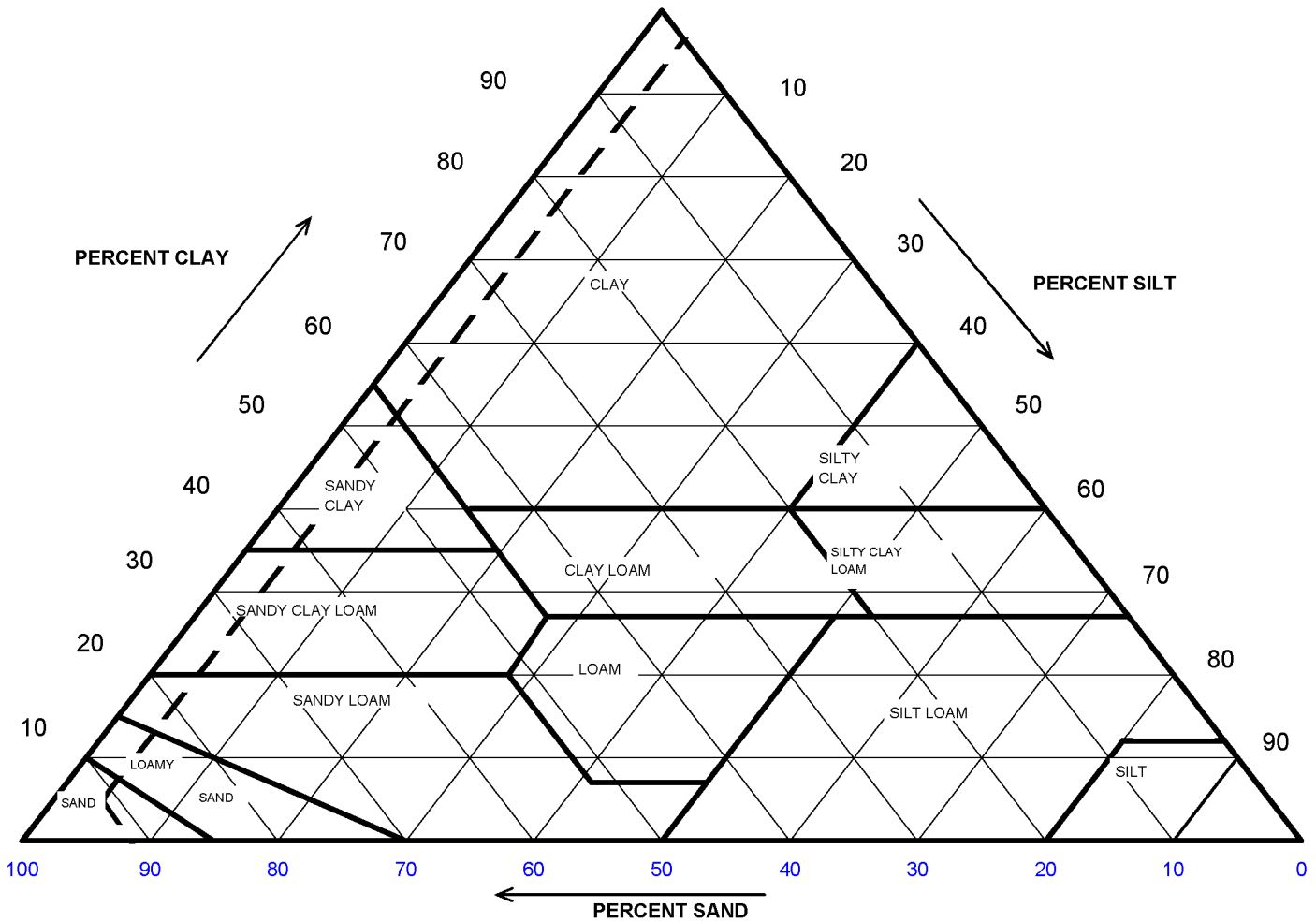


USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.00
#4 To #200	Sand	90.65
Finer Than #200	Silt & Clay	9.35
		D60 = 0.16
		D30 = 0.12
		CC = 1.13
USCS Symbol	SP-SM, TESTED	D10 = 0.08
		CU = 2.14
USCS Classification	POORLY GRADED SAND WITH SILT	

USDA CLASSIFICATION CHART

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-020

Boring No. R-7-1
 Depth (ft) 436.8-437.3
 Sample No. ST-25
 Soil Color Gray



Particle Size (mm)	Percent Finer	USDA SUMMARY	Actual Percentage	Corrected % of Minus 2.0 mm material for USDA Classificat.
		<i>Gravel</i>	0.00	0.00
2	100.00	<i>Sand</i>	91.43	91.43
0.05	8.57	<i>Silt</i>	3.65	3.65
0.002	4.92	<i>Clay</i>	4.92	4.92
USDA Classification:		SAND		

WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates
 Client Reference Turkey Point Units 6 & 7 Site
 Project No. 2013-465-001
 Lab ID 2013-465-001-020

Boring No. R-7-1
 Depth (ft) 436.8-437.3
 Sample No. ST-25
 Soil Color Gray

Minus #10 for Hygroscopic Moisture Content		Hydrometer Specimen Data	
Tare No.	5	Air Dried - #10 Hydrometer Material (g)	111.63
Wgt. Tare + Wet Soil (g)	40.53	Corrected Dry Wt. of - #10 Material (g)	110.66
Wgt. Tare + Dry Soil (g)	40.25		
Weight of Tare (g)	8.41	Weight of - #200 Material (g)	10.35
Weight of Water (g)	0.28	Weight of - #10 ; + #200 Material (g)	100.31
Weight of Dry Soil (g)	31.84		
Moisture Content (%)	0.9	J-FACTOR (%FINER THAN #10)	1.0000
Soil Specimen Data			
Tare No.	33		
Wgt. Tare + Air Dry Soil (g)	716.40		
Weight of Tare (g)	203.14		
Air Dried Wgt. Total Sample (g)	513.26	Dry Weight of Material Retained on #10 (g)	0.00
Total Dry Sample Weight (g)	508.79	Corrected Dry Sample Wt - #10 (g)	508.79

Sieve Size	Sieve Opening (mm)	Wgt. of Soil Retained (gm)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.0	0.0	100.0	100.0
6"	150	0.00	0.0	0.0	100.0	100.0
3"	75	0.00	0.0	0.0	100.0	100.0
2"	50	0.00	0.0	0.0	100.0	100.0
1 1/2"	37.5	0.00	0.0	0.0	100.0	100.0
1"	25.0	0.00	0.0	0.0	100.0	100.0
3/4"	19.0	0.00	0.0	0.0	100.0	100.0
1/2"	12.5	0.00	0.0	0.0	100.0	100.0
3/8"	9.50	0.00	0.0	0.0	100.0	100.0
#4	4.75	0.00	0.0	0.0	100.0	100.0
#10	2.00	0.00	0.0	0.0	100.0	100.0
#20	0.85	0.07	0.1	0.1	99.9	99.9
#40	0.425	0.04	0.0	0.1	99.9	99.9
#60	0.250	0.63	0.6	0.7	99.3	99.3
#140	0.106	88.93	80.4	81.0	19.0	19.0
#200	0.075	10.64	9.6	90.6	9.4	9.4
Pan	-	10.35	9.4	100.0	-	-

Notes :

Tested By TO Date 11/11/13 Checked By KC Date 11/20/13

HYDROMETER ANALYSIS
 ASTM D 422-63 (2007)

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	436.8-437.3
Project No.	2013-465-001	Sample No.	ST-25
Lab ID	2013-465-001-020	Soil Color	Gray

Elapsed Time (min)	R Measured	Temp. (° C)	Composite Correction	R Corrected	N (%)	K Factor	Diameter (mm)	N' (%)
0	NA	NA	NA	NA	NA	NA	NA	NA
2	13.5	22.1	4.80	8.7	7.9	0.01347	0.0357	7.9
5	13.5	22.1	4.80	8.7	7.9	0.01347	0.0226	7.9
15	13.0	22.1	4.80	8.2	7.5	0.01347	0.0131	7.5
32	12.5	22.1	4.80	7.7	7.0	0.01347	0.0090	7.0
64	11.0	22	4.83	6.2	5.6	0.01349	0.0064	5.6
250	10.5	22.1	4.80	5.7	5.2	0.01347	0.0033	5.2
1440	10.0	22	4.83	5.2	4.7	0.01349	0.0014	4.7

Soil Specimen Data	Other Corrections		
Wgt. of Dry Material (g)	110.66	Hygroscopic Moisture Factor	0.991
Weight of Deflocculant (g)	5.0	a - Factor	1.008
		Percent Finer than # 10	100.00
		Specific Gravity	2.61 Measured

Notes:

Tested By **TO** Date **11/14/13** Checked By **KC** Date **11/20/13**

SIEVE ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	436.8-437.3
Project No.	2013-465-001	Sample No.	ST-25
Lab ID #	2013-465-001-020		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1394	5/15/14
Platform Scale	NA	NA
3" Sieve	NA	NA
2" Sieve	NA	NA
1 1/2 " Sieve	NA	NA
1" Sieve	NA	NA
3/4" Sieve	NA	NA
1/2" Sieve	NA	NA
3/8" Sieve	NA	NA
#4 Sieve	NA	NA
#10 Sieve	NA	NA
Sieve Shaker	NA	NA
Additional Balance	G1395	6/4/14
#10 Sieve	G884	8/20/14
#10 Wash Sieve	G415	11/23/13
Oven	G1118	11/27/13

HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	436.8-437.3
Project No.	2013-465-001	Sample No.	ST-25
Lab ID #	2013-465-001-020		

Equipment / Hydrometer	Equipment ID#	Calibration Due Date
Oven	G1118	11/27/13
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G375	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14
Equipment / -#10 Sieves	Equipment ID#	Calibration Due Date
Balance	G1395	6/4/14
#10 Sieve	NA	NA
#20 Sieve	G1497	12/13/13
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	12/11/13
#200 Sieve	G1386	10/24/14
Sieve Shaker	G1067	9/20/14
Additional Balance	NA	NA

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-021

Boring No.: R-6-1b
Depth (ft): 148.2-148.7
Sample No.: ST-3
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By BK *Date* 11/18/13 *Checked By* KC *Date* 11/19/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	148.2-148.7
Project No.	2013-465-001	Sample No.	ST-3
Lab ID #	2013-465-001-021		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G550	7/19/14
Liquid Limit Device	G284	12/10/13
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-022

Boring No.: R-6-1b
Depth (ft): 164.6-165.1
Sample No.: ST-5
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	164.6-165.1
Project No.	2013-465-001	Sample No.	ST-5
Lab ID #	2013-465-001-022		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-023

Boring No.: R-6-1b
Depth (ft): 179.2-179.7
Sample No.: ST-9
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/14/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	179.2-179.7
Project No.	2013-465-001	Sample No.	ST-9
Lab ID #	2013-465-001-023		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-024

Boring No.: R-6-1b
Depth (ft): 186.3-186.8
Sample No.: ST-11
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	186.3-186.8
Project No.	2013-465-001	Sample No.	ST-11
Lab ID #	2013-465-001-024		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-025

Boring No.: R-6-1b
Depth (ft): 194.1-194.6
Sample No.: ST-13
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	194.1-194.6
Project No.	2013-465-001	Sample No.	ST-13
Lab ID #	2013-465-001-025		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-026

Boring No.: R-6-1b
Depth (ft): 201.6-202.1
Sample No.: ST-15
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	201.6-202.1
Project No.	2013-465-001	Sample No.	ST-15
Lab ID #	2013-465-001-026		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-027

Boring No.: R-6-1b
Depth (ft): 208.7-209.2
Sample No.: ST-17
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	208.7-209.2
Project No.	2013-465-001	Sample No.	ST-17
Lab ID #	2013-465-001-027		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-028

Boring No.: R-6-1b
Depth (ft): 225.2-225.7
Sample No.: ST-22
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	225.2-225.7
Project No.	2013-465-001	Sample No.	ST-22
Lab ID #	2013-465-001-028		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-029

Boring No.: R-6-1b
Depth (ft): 234.7-235.2
Sample No.: ST-25
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/14/13 *Checked By* KC *Date* 11/18/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	234.7-235.2
Project No.	2013-465-001	Sample No.	ST-25
Lab ID #	2013-465-001-029		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-030

Boring No.: R-6-1b
Depth (ft): 252.2-252.7
Sample No.: ST-31
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	252.2-252.7
Project No.	2013-465-001	Sample No.	ST-31
Lab ID #	2013-465-001-030		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-003
Lab ID: 2013-465-003-001

Boring No.: R-6-1b
Depth (ft): 259.7-260.1
Sample No.: ST-33
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By JP *Date* 12/3/13 *Checked By* KC *Date* 12/4/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	259.7-260.1
Project No.	2013-465-003	Sample No.	ST-33
Lab ID #	2013-465-003-001		

Equipment	Equipment ID#	Calibration Due Date
Oven	NA	NA
Balance	G550	7/19/14
Liquid Limit Device	G284	12/10/13
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-031

Boring No.: R-6-1b
Depth (ft): 271.8-272.3
Sample No.: ST-37
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/14/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	271.8-272.3
Project No.	2013-465-001	Sample No.	ST-37
Lab ID #	2013-465-001-031		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMITS

ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	280.9-281.4
Project No.:	2013-465-001	Sample No.:	ST-40
Lab ID:	2013-465-001-032	Soil Description:	Greenish Gray Lean Clay (Minus No. 40 sieve material, Airdried)

Note: The USCS symbol used with this test refers only to the minus No. 40 sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description.

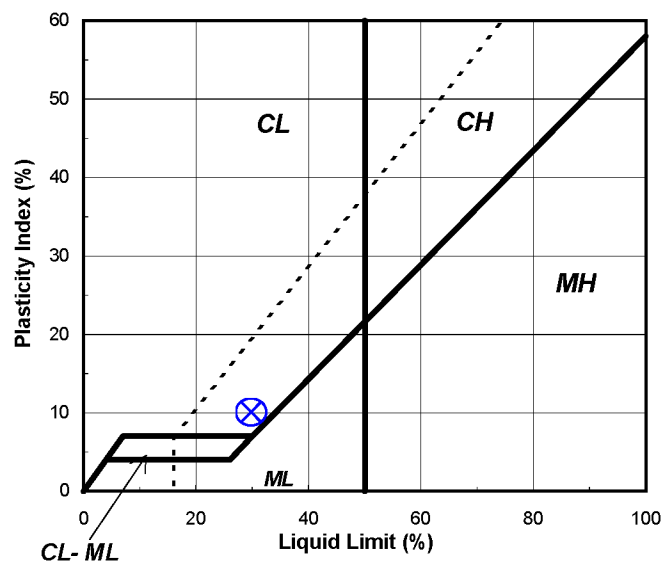
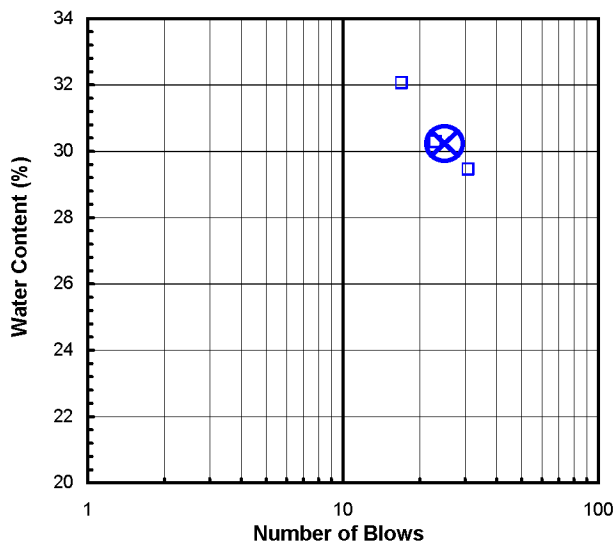
Liquid Limit Test	1	2	3	
Tare Number	292	309	401	M
Wt. of Tare & Wet Sample (g)	45.25	42.79	43.28	U
Wt. of Tare & Dry Sample (g)	39.53	37.33	37.74	L
Wt. of Tare (g)	20.11	19.30	20.46	T
Wt. of Water (g)	5.7	5.5	5.5	I
Wt. of Dry Sample (g)	19.4	18.0	17.3	P
Moisture Content (%)	29.5	30.3	32.1	O
Number of Blows	31	23	17	I
				N
				T

Plastic Limit Test	1	2	Range	Test Results	
Tare Number	408	409		Liquid Limit (%)	30
Wt. of Tare & Wet Sample (g)	31.30	21.29		Plastic Limit (%)	20
Wt. of Tare & Dry Sample (g)	29.59	20.22		Plasticity Index (%)	10
Wt. of Tare (g)	21.20	14.88		USCS Symbol	CL
Wt. of Water (g)	1.7	1.1			
Wt. of Dry Sample (g)	8.4	5.3			
Moisture Content (%)	20.4	20.0	0.3		

Note: The acceptable range of the two Moisture contents is ± 2.6

Flow Curve

Plasticity Chart



Tested By JP Date 11/21/13 Checked By KC Date 11/22/13

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	280.9-281.4
Project No.	2013-465-001	Sample No.	ST-40
Lab ID #	2013-465-001-032		

Equipment	Equipment ID#	Calibration Due Date
Oven	G006	10/10/14
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-033

Boring No.: R-6-1b
Depth (ft): 300.7-301.2
Sample No.: ST-46
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By BK *Date* 12/4/13 *Checked By* KC *Date* 12/4/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	300.7-301.2
Project No.	2013-465-001	Sample No.	ST-46
Lab ID #	2013-465-001-033		

Equipment	Equipment ID#	Calibration Due Date
Oven	NA	NA
Balance	G550	7/19/14
Liquid Limit Device	G284	12/10/13
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-034

Boring No.: R-6-1b
Depth (ft): 319.0-319.5
Sample No.: ST-52
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	319.0-319.5
Project No.	2013-465-001	Sample No.	ST-52
Lab ID #	2013-465-001-034		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-036

Boring No.: R-6-1b
Depth (ft): 343.5-344.0
Sample No.: ST-61
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	343.5-344.0
Project No.	2013-465-001	Sample No.	ST-61
Lab ID #	2013-465-001-036		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-038

Boring No.: R-6-1b
Depth (ft): 360.6-361.1
Sample No.: ST-67
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/14/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	360.6-361.1
Project No.	2013-465-001	Sample No.	ST-67
Lab ID #	2013-465-001-038		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-039

Boring No.: R-6-1b
Depth (ft): 383.4-383.9
Sample No.: ST-75
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	383.4-383.9
Project No.	2013-465-001	Sample No.	ST-75
Lab ID #	2013-465-001-039		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-040

Boring No.: R-6-1b
Depth (ft): 403.0-403.5
Sample No.: ST-82
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By JP *Date* 12/4/13 *Checked By* KC *Date* 12/4/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	403.0-403.5
Project No.	2013-465-001	Sample No.	ST-82
Lab ID #	2013-465-001-040		

Equipment	Equipment ID#	Calibration Due Date
Oven	NA	NA
Balance	G550	7/19/14
Liquid Limit Device	G284	12/10/13
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-041

Boring No.: R-6-1b
Depth (ft): 421.5-422.0
Sample No.: ST-88
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By BK *Date* 11/18/13 *Checked By* KC *Date* 11/19/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	421.5-422.0
Project No.	2013-465-001	Sample No.	ST-88
Lab ID #	2013-465-001-041		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G550	7/19/14
Liquid Limit Device	G284	12/10/13
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-042

Boring No.: R-6-1b
Depth (ft): 447.9-448.4
Sample No.: ST-97
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	447.9-448.4
Project No.	2013-465-001	Sample No.	ST-97
Lab ID #	2013-465-001-042		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-001

Boring No.: R-7-1
Depth (ft): 138.1-138.6
Sample No.: ST-1
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By BK *Date* 12/9/13 *Checked By* KC *Date* 12/9/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	138.1-138.6
Project No.	2013-465-001	Sample No.	ST-1
Lab ID #	2013-465-001-001		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G447	3/29/14
Liquid Limit Device	G284	12/10/13
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-002

Boring No.: R-7-1
Depth (ft): 159.6-160.7
Sample No.: ST-2
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By BK *Date* 11/18/13 *Checked By* KC *Date* 11/19/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	159.6-160.7
Project No.	2013-465-001	Sample No.	ST-2
Lab ID #	2013-465-001-002		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G550	7/19/14
Liquid Limit Device	G284	12/10/13
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-003

Boring No.: R-7-1
Depth (ft): 189.6-190.1
Sample No.: ST-4
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	189.6-190.1
Project No.	2013-465-001	Sample No.	ST-4
Lab ID #	2013-465-001-003		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-004

Boring No.: R-7-1
Depth (ft): 223.1-223.6
Sample No.: ST-6
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	223.1-223.6
Project No.	2013-465-001	Sample No.	ST-6
Lab ID #	2013-465-001-004		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-005

Boring No.: R-7-1
Depth (ft): 233.6-234.1
Sample No.: ST-7
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	233.6-234.1
Project No.	2013-465-001	Sample No.	ST-7
Lab ID #	2013-465-001-005		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-006

Boring No.: R-7-1
Depth (ft): 245.5-246.0
Sample No.: ST-8
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/14/13 *Checked By* KC *Date* 11/15/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	245.5-246.0
Project No.	2013-465-001	Sample No.	ST-8
Lab ID #	2013-465-001-006		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-007

Boring No.: R-7-1
Depth (ft): 256.4-256.9
Sample No.: ST-9
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By BK *Date* 11/18/13 *Checked By* KC *Date* 11/19/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	256.4-256.9
Project No.	2013-465-001	Sample No.	ST-9
Lab ID #	2013-465-001-007		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G550	7/19/14
Liquid Limit Device	G284	12/10/13
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-008

Boring No.: R-7-1
Depth (ft): 267.6-268.1
Sample No.: ST-10
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	267.6-268.1
Project No.	2013-465-001	Sample No.	ST-10
Lab ID #	2013-465-001-008		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMITS

ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	R-7-1
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	278.1-278.6
Project No.:	2013-465-001	Sample No.:	ST-11
Lab ID:	2013-465-001-009	Soil Description:	Greenish Gray Silt (Minus No. 40 sieve material, Airdried)

Note: The USCS symbol used with this test refers only to the minus No. 40 sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description.

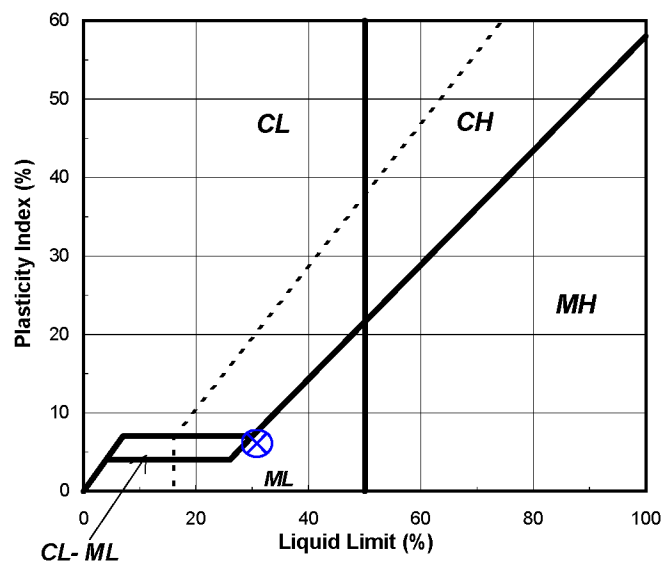
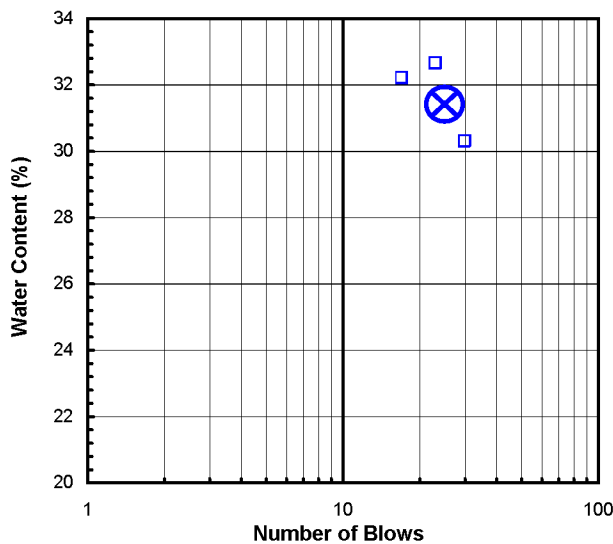
Liquid Limit Test	1	2	3	
Tare Number	459	1285	2254	M
Wt. of Tare & Wet Sample (g)	37.65	33.99	37.51	U
Wt. of Tare & Dry Sample (g)	32.23	28.57	32.70	L
Wt. of Tare (g)	15.40	11.97	16.83	T
Wt. of Water (g)	5.4	5.4	4.8	I
Wt. of Dry Sample (g)	16.8	16.6	15.9	P
Moisture Content (%)	32.2	32.7	30.3	O
Number of Blows	17	23	30	I
				N
				T

Plastic Limit Test	1	2	Range	Test Results	
Tare Number	1240	408		Liquid Limit (%)	31
Wt. of Tare & Wet Sample (g)	16.87	27.23		Plastic Limit (%)	25
Wt. of Tare & Dry Sample (g)	15.58	26.04		Plasticity Index (%)	6
Wt. of Tare (g)	10.45	21.22		USCS Symbol	ML
Wt. of Water (g)	1.3	1.2			
Wt. of Dry Sample (g)	5.1	4.8			
Moisture Content (%)	25.1	24.7	0.5		

Note: The acceptable range of the two Moisture contents is ± 2.6

Flow Curve

Plasticity Chart



Tested By **BK** Date **11/22/13** Checked By **KC** Date **11/25/13**

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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	278.1-278.6
Project No.	2013-465-001	Sample No.	ST-11
Lab ID #	2013-465-001-009		

Equipment	Equipment ID#	Calibration Due Date
Oven	G006	10/10/14
Balance	G1394	5/15/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-010

Boring No.: R-7-1
Depth (ft): 289.1-289.6
Sample No.: ST-12
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/14/13 *Checked By* KC *Date* 11/15/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	289.1-289.6
Project No.	2013-465-001	Sample No.	ST-12
Lab ID #	2013-465-001-010		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-011

Boring No.: R-7-1
Depth (ft): 299.7-300.3
Sample No.: ST-13
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	299.7-300.3
Project No.	2013-465-001	Sample No.	ST-13
Lab ID #	2013-465-001-011		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-012

Boring No.: R-7-1
Depth (ft): 310.5-311.0
Sample No.: ST-14
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	310.5-311.0
Project No.	2013-465-001	Sample No.	ST-14
Lab ID #	2013-465-001-012		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-013

Boring No.: R-7-1
Depth (ft): 321.5-322.0
Sample No.: ST-16
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By JP *Date* 12/3/13 *Checked By* KC *Date* 12/4/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	321.5-322.0
Project No.	2013-465-001	Sample No.	ST-16
Lab ID #	2013-465-001-013		

Equipment	Equipment ID#	Calibration Due Date
Oven	NA	NA
Balance	G550	7/19/14
Liquid Limit Device	G284	12/10/13
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-014

Boring No.: R-7-1
Depth (ft): 329.7-330.2
Sample No.: ST-17
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	329.7-330.2
Project No.	2013-465-001	Sample No.	ST-17
Lab ID #	2013-465-001-014		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-015

Boring No.: R-7-1
Depth (ft): 338.2-338.7
Sample No.: ST-18
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/14/13 *Checked By* KC *Date* 11/15/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	338.2-338.7
Project No.	2013-465-001	Sample No.	ST-18
Lab ID #	2013-465-001-015		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-016

Boring No.: R-7-1
Depth (ft): 346.3-346.8
Sample No.: ST-19
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	346.3-346.8
Project No.	2013-465-001	Sample No.	ST-19
Lab ID #	2013-465-001-016		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-017

Boring No.: R-7-1
Depth (ft): 354.9-355.4
Sample No.: ST-20
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By BK *Date* 12/3/13 *Checked By* KC *Date* 12/4/13
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Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	354.9-355.4
Project No.	2013-465-001	Sample No.	ST-20
Lab ID #	2013-465-001-017		

Equipment	Equipment ID#	Calibration Due Date
Oven	NA	NA
Balance	G550	7/19/14
Liquid Limit Device	G284	12/10/13
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-018

Boring No.: R-7-1
Depth (ft): 373.8-374.3
Sample No.: ST-22
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/15/13 *Checked By* KC *Date* 11/18/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	373.8-374.3
Project No.	2013-465-001	Sample No.	ST-22
Lab ID #	2013-465-001-018		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-019

Boring No.: R-7-1
Depth (ft): 391.9-392.4
Sample No.: ST-23
Visual: Greenish Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By BK *Date* 11/22/13 *Checked By* KC *Date* 11/25/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	391.9-392.4
Project No.	2013-465-001	Sample No.	ST-23
Lab ID #	2013-465-001-019		

Equipment	Equipment ID#	Calibration Due Date
Oven	NA	NA
Balance	G447	3/29/14
Liquid Limit Device	G284	12/10/13
#40 Sieve	G1417	1/2/14

ATTERBERG LIMIT
ASTM D 4318-10

Client: Paul C. Rizzo & Associates
Client Reference: Turkey Point Units 6 & 7 Site
Project No.: 2013-465-001
Lab ID: 2013-465-001-020

Boring No.: R-7-1
Depth (ft): 436.8-437.3
Sample No.: ST-25
Visual: Gray Silt
(Minus No. 40 sieve material, Airdried)

**NON - PLASTIC
MATERIAL**

Tested By TO *Date* 11/14/13 *Checked By* KC *Date* 11/18/13
page 1 of 1 DCN: CT-S4C DATE: 3/20/13 REVISION : 3

Atterberg Limits

ASTM D4318-10

EQUIPMENT LIST

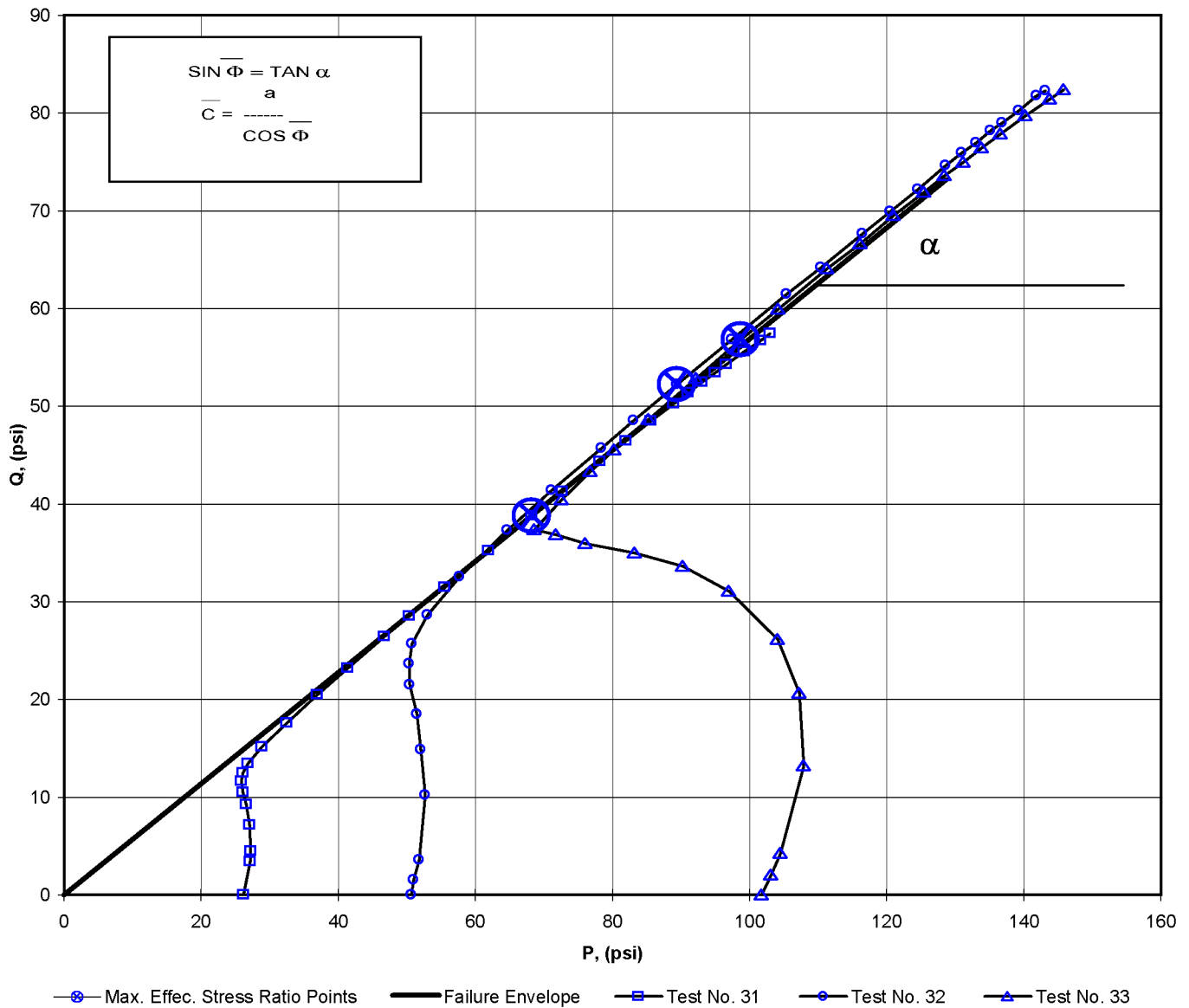
Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	436.8-437.3
Project No.	2013-465-001	Sample No.	ST-25
Lab ID #	2013-465-001-020		

Equipment	Equipment ID#	Calibration Due Date
Oven	G714	10/10/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1417	1/2/14

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	147.7-149.8
Project No.:	2013-465-001	Sample No.:	ST-3
Lab ID:	2013-465-001-021		

Consolidated Undrained Triaxial Test with Pore Pressure

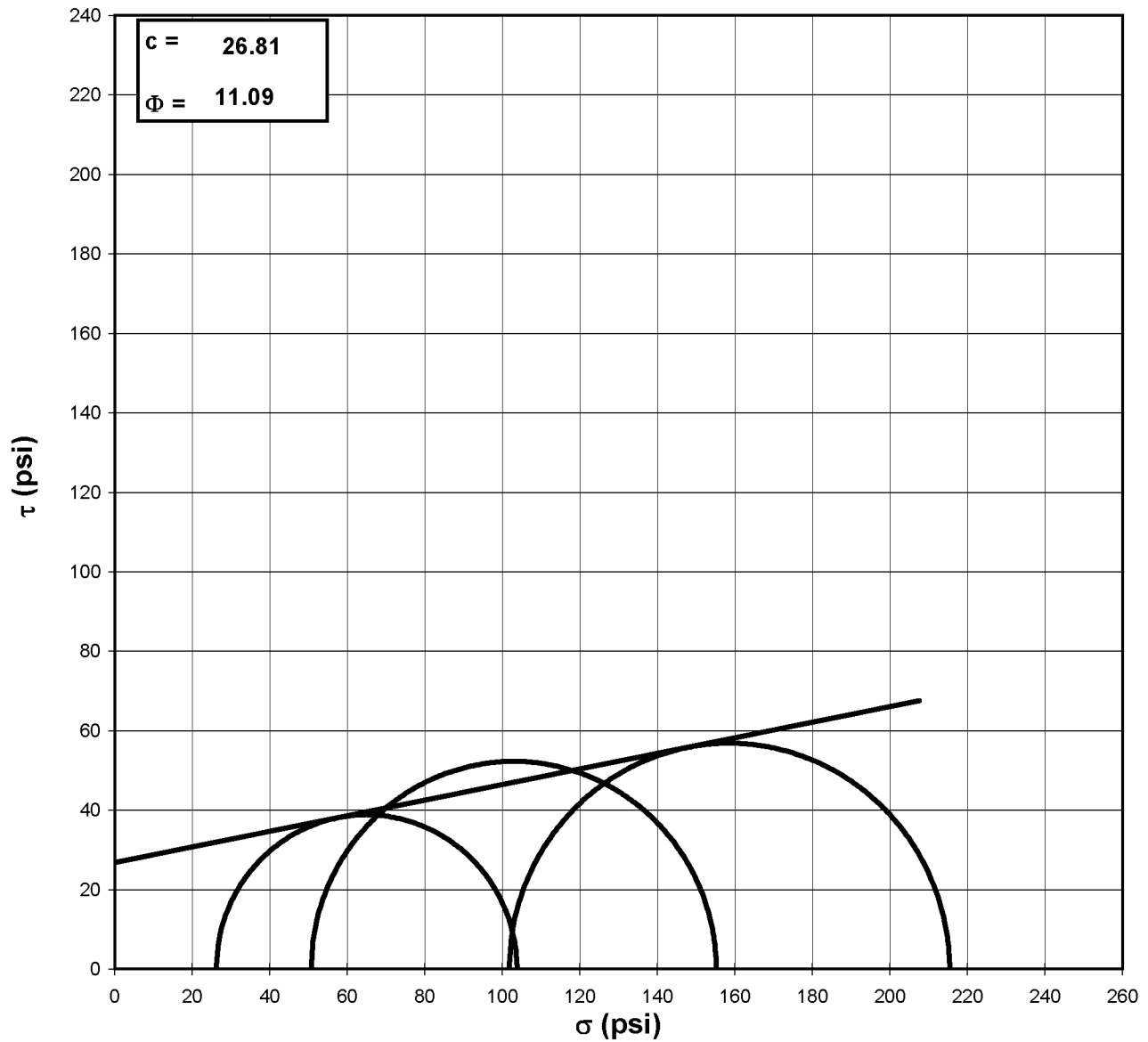


a	=	0.00	\overline{C}	=	0.00
α	=	29.6	$\overline{\Phi}$	=	34.65

Tested By: JCM Date: 11/11/13 Approved By: DB Date: 11/25/13

MOHR TOTAL STRENGTH ENVELOPE
 ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	147.7-149.8
Project No.:	2013-465-001	Sample No.:	ST-3
Lab ID:	2013-465-001-021		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



Failure Based on Maximum Effective Principal Stress Ratio

NOTE: GRAPH NOT TO SCALE

Tested By: JCM Date: 11/11/13 Approved By: DB Date: 11/25/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	148.7-149.2
Project No.:	2013-465-001	Sample No.:	ST-3
Lab ID:	2013-465-001-021		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	31

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.910	Diameter 1:	2.881
Length 2:	5.912	Diameter 2:	2.872
Length 3:	5.906	Diameter 3:	2.868
Avg. Length:	5.909	Avg. Diam.:	2.874

PRESSURES (psi)

Cell Pressure (psi)	47.7
Back Pressure (psi)	21.5
Eff. Conf. Pressure (psi)	26.2
Pore Pressure Response (%)	100

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	38.7
Final Change (ml)	9.3

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	68.25
Q	=	38.81

Initial Dial Reading (mil)	51
Dial Reading After Saturation (mil)	53
Dial Reading After Consolidation (mil)	72

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
13.1	0.000	21.5
56.4	0.001	23.9
70.8	0.003	24.9
104.4	0.007	27.7
131.8	0.012	30.3
148.0	0.018	32.1
162.8	0.027	33.4
173.6	0.036	34.0
186.9	0.048	34.3
209.5	0.068	34.0
242.3	0.098	32.8
281.6	0.133	31.3
318.8	0.169	29.5
363.8	0.210	27.4
393.9	0.239	25.8
436.8	0.279	23.7
491.3	0.336	21.0
546.1	0.395	18.3
584.3	0.439	16.3
633.4	0.498	13.9
668.6	0.542	12.2
703.2	0.586	10.6
734.2	0.631	9.0
754.4	0.661	8.0
774.2	0.690	7.0
793.0	0.719	6.2
809.2	0.748	5.3
835.9	0.792	4.1
860.5	0.837	2.8
875.9	0.867	2.2
888.3	0.896	1.5

Tested By: JCM Date: 11/11/13 Input Checked By: KC Date: 11/25/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	148.7-149.2
Project No.:	2013-465-001	Sample No.:	ST-3
Lab ID:	2013-465-001-021		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	26.2	<i>Stage No.</i>	1
		<i>Test No</i>	31

INITIAL DIMENSIONS

Initial Sample Length (in)	5.91
Initial Sample Diameter (in)	2.87
Initial Sample Area (in ²)	6.49
Initial Sample Volume (in ³)	38.33

VOLUME CHANGE

Volume After Consolidation (in ³)	37.72
Length After Consolidation (in)	5.89
Area After Consolidation (in ²)	6.406

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	6.76	2.45	30.52	23.8	1.285	0.36	27.14	3.38
0.04	9.01	3.42	31.79	22.8	1.396	0.38	27.28	4.50
0.11	14.24	6.25	34.20	20.0	1.714	0.44	27.07	7.12
0.21	18.49	8.82	35.87	17.4	2.064	0.48	26.63	9.25
0.30	21.00	10.58	36.62	15.6	2.344	0.50	26.12	10.50
0.46	23.27	11.94	37.53	14.3	2.631	0.51	25.90	11.63
0.61	24.90	12.52	38.58	13.7	2.821	0.50	26.13	12.45
0.81	26.91	12.78	40.33	13.4	3.006	0.47	26.88	13.46
1.16	30.30	12.47	44.03	13.7	3.206	0.41	28.88	15.15
1.66	35.18	11.32	50.05	14.9	3.365	0.32	32.46	17.59
2.26	40.96	9.76	57.40	16.4	3.492	0.24	36.92	20.48
2.86	46.35	7.96	64.59	18.2	3.541	0.17	41.42	23.17
3.56	52.80	5.87	73.13	20.3	3.597	0.11	46.73	26.40
4.05	57.03	4.33	78.90	21.9	3.608	0.08	50.38	28.51
4.74	63.00	2.17	87.03	24.0	3.622	0.03	55.53	31.50
5.70	70.39	-0.51	97.11	26.7	3.635	-0.01	61.91	35.20
6.72	77.62	-3.24	107.06	29.4	3.636	-0.04	68.25	38.81
7.46	82.52	-5.19	113.91	31.4	3.629	-0.06	72.65	41.26
8.45	88.65	-7.64	122.49	33.8	3.620	-0.09	78.17	44.33
9.21	92.91	-9.31	128.42	35.5	3.616	-0.10	81.97	46.45
9.95	97.01	-10.92	134.13	37.1	3.613	-0.11	85.63	48.51
10.71	100.52	-12.49	139.20	38.7	3.598	-0.12	88.95	50.26
11.23	102.73	-13.46	142.39	39.7	3.590	-0.13	91.03	51.36
11.72	104.88	-14.45	145.53	40.7	3.580	-0.14	93.09	52.44
12.21	106.88	-15.34	148.41	41.5	3.573	-0.14	94.97	53.44
12.71	108.49	-16.17	150.86	42.4	3.561	-0.15	96.61	54.24
13.45	111.16	-17.45	154.81	43.6	3.547	-0.16	99.23	55.58
14.21	113.48	-18.65	158.33	44.9	3.530	-0.16	101.59	56.74
14.72	114.86	-19.33	160.39	45.5	3.523	-0.17	102.96	57.43
15.22	115.83	-20.03	162.06	46.2	3.505	-0.17	104.14	57.91

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	148.7-149.2
Project No.	2013-465-001	Sample No.	ST-3
Lab ID #	2013-465-001-021	Test No.	31

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G330	INITIAL ONLY
Load Cell	G1310	1/8/14
Cell Pressure Transducer	G1373B	11/7/14
Pore Pressure Transducer	G1518	11/7/14
Extensometer	G835	1/8/14
Load Frame	G833	1/8/14
Dial Indicator	G590	3/14/14
Timing Device	G489	5/13/14
Balance	NA	NA
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	149.2-149.7
Project No.:	2013-465-001	Sample No.:	ST-3
Lab ID:	2013-465-001-021		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	32

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.944	Diameter 1:	2.888
Length 2:	5.945	Diameter 2:	2.889
Length 3:	5.951	Diameter 3:	2.870
Avg. Length	5.947	Avg. Diam.:	2.882

PRESSURES (psi)

Cell Pressure (psi)	72.2
Back Pressure (psi)	21.5
Eff. Conf. Pressure (psi)	50.7
Pore Pressure Response (%)	100

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	33.1
Final Change (ml)	14.9

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	89.44
Q	=	52.25

Initial Dial Reading (mil)	40
Dial Reading After Saturation (mil)	47
Dial Reading After Consolidation (mil)	88

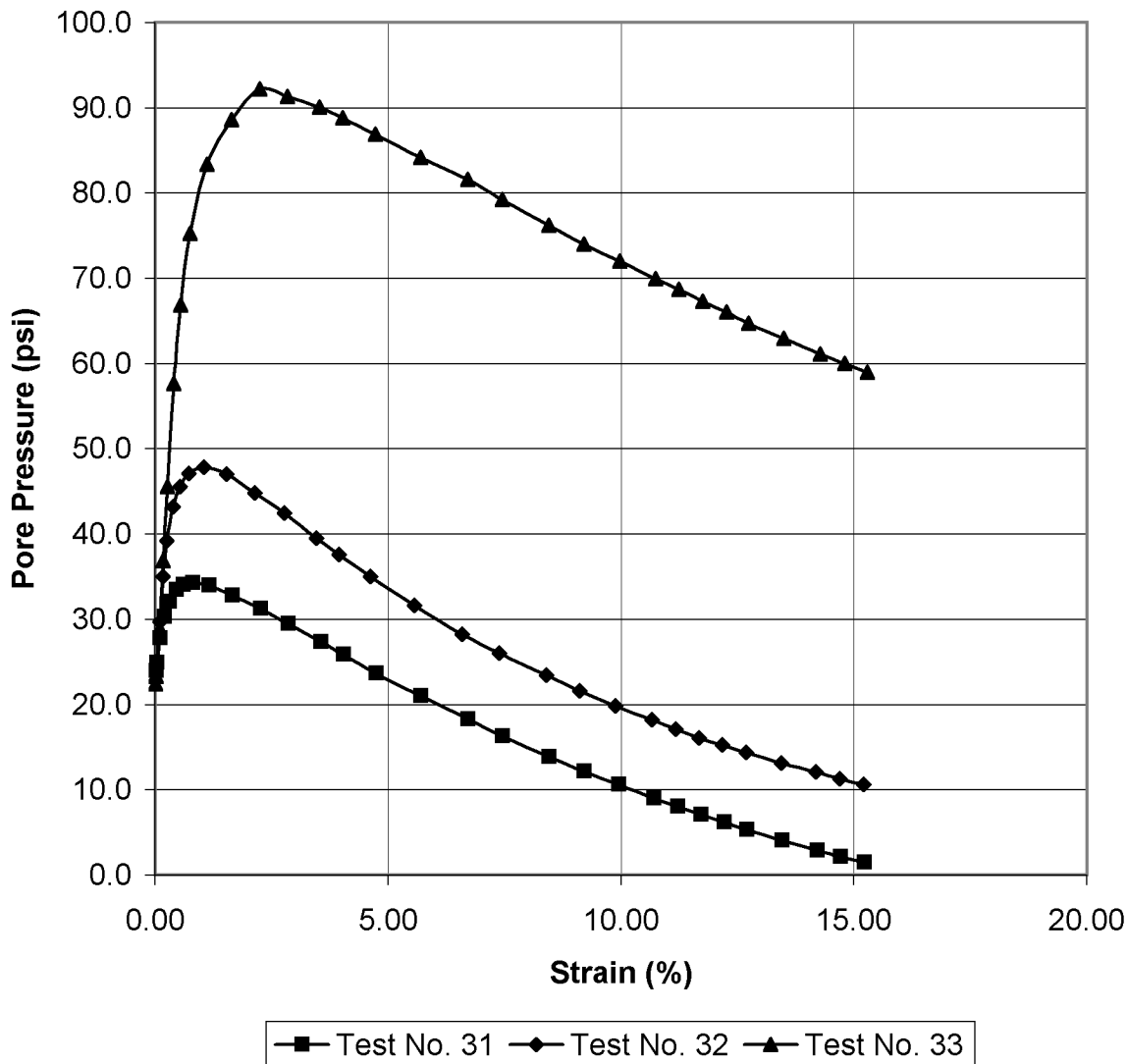
LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
16.2	0.000	21.5
36.0	0.001	22.8
62.3	0.001	24.0
147.3	0.006	29.7
207.0	0.010	35.0
253.3	0.015	39.2
292.1	0.023	43.2
320.5	0.032	45.5
347.6	0.043	47.1
387.0	0.062	47.8
439.3	0.091	47.0
504.2	0.127	44.8
561.3	0.164	42.5
622.7	0.204	39.5
662.9	0.233	37.6
717.5	0.273	35.0
786.5	0.329	31.6
858.9	0.389	28.2
903.5	0.436	26.0
962.1	0.496	23.4
1001.3	0.538	21.6
1041.7	0.583	19.8
1086.0	0.629	18.2
1110.4	0.659	17.1
1131.8	0.689	16.1
1155.8	0.718	15.2
1174.7	0.749	14.4
1203.0	0.793	13.2
1236.0	0.837	12.1
1250.9	0.867	11.3
1272.6	0.898	10.6

Tested By: JCM Date: 11/11/13 Input Checked By: KC Date: 11/25/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	147.7-149.8
Project No.:	2013-465-001	Sample No.:	ST-3
Lab ID:	2013-465-001-021		

Pore Pressure vs % Strain



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



A-846

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	149.2-149.7
Project No.:	2013-465-001	Sample No.:	ST-3
Lab ID:	2013-465-001-021		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	50.7	<i>Stage No.</i>	1
		<i>Test No</i>	32

INITIAL DIMENSIONS

Initial Sample Length (in)	5.95
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.52
Initial Sample Volume (in ³)	38.80

VOLUME CHANGE

Volume After Consolidation (in ³)	37.76
Length After Consolidation (in)	5.90
Area After Consolidation (in ²)	6.401

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.01	3.09	1.25	52.54	49.4	1.063	0.40	50.99	1.55
0.02	7.20	2.49	55.41	48.2	1.149	0.35	51.81	3.60
0.10	20.46	8.23	62.94	42.5	1.482	0.40	52.70	10.23
0.17	29.76	13.49	66.96	37.2	1.800	0.45	52.09	14.88
0.26	36.95	17.68	69.97	33.0	2.119	0.48	51.49	18.47
0.40	42.93	21.70	71.94	29.0	2.480	0.51	50.47	21.47
0.54	47.28	24.01	73.97	26.7	2.772	0.51	50.33	23.64
0.73	51.39	25.60	76.49	25.1	3.048	0.50	50.80	25.70
1.06	57.32	26.31	81.71	24.4	3.350	0.46	53.05	28.66
1.54	65.08	25.50	90.28	25.2	3.583	0.39	57.74	32.54
2.15	74.60	23.34	101.96	27.4	3.727	0.31	64.66	37.30
2.77	82.79	20.96	112.54	29.7	3.784	0.25	71.14	41.40
3.46	91.47	18.03	124.14	32.7	3.800	0.20	78.41	45.73
3.95	97.05	16.10	131.65	34.6	3.805	0.17	83.12	48.53
4.63	104.50	13.50	141.69	37.2	3.809	0.13	89.44	52.25
5.57	113.65	10.09	154.26	40.6	3.799	0.09	97.43	56.82
6.60	122.97	6.72	166.95	44.0	3.796	0.05	105.46	61.49
7.39	128.39	4.49	174.60	46.2	3.778	0.03	110.40	64.19
8.40	135.37	1.92	184.15	48.8	3.775	0.01	116.47	67.68
9.12	139.87	0.07	190.50	50.6	3.763	0.00	120.56	69.93
9.88	144.38	-1.68	196.76	52.4	3.756	-0.01	124.57	72.19
10.67	149.31	-3.30	203.31	54.0	3.765	-0.02	128.66	74.66
11.18	151.84	-4.38	206.92	55.1	3.756	-0.03	131.00	75.92
11.68	153.94	-5.43	210.07	56.1	3.743	-0.04	133.10	76.97
12.17	156.37	-6.28	213.35	57.0	3.744	-0.04	135.17	78.19
12.69	158.02	-7.13	215.85	57.8	3.732	-0.05	136.84	79.01
13.45	160.48	-8.35	219.53	59.0	3.718	-0.05	139.29	80.24
14.18	163.55	-9.44	223.69	60.1	3.719	-0.06	141.92	81.77
14.70	164.55	-10.24	225.49	60.9	3.700	-0.06	143.22	82.28
15.22	166.42	-10.86	227.97	61.6	3.704	-0.07	144.76	83.21

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**
 ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	149.2-149.7
Project No.	2013-465-001	Sample No.	ST-3
Lab ID #	2013-465-001-021	Test No.	32

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G332	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1512	11/7/14
Pore Pressure Transducer	G1514	11/7/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G1294	3/4/14
Timing Device	G489	5/13/14
Balance	NA	NA
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	148.2-148.7
Project No.:	2013-465-001	Sample No.:	ST-3
Lab ID:	2013-465-001-021		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	33

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.803	Diameter 1:	2.877
Length 2:	5.813	Diameter 2:	2.875
Length 3:	5.826	Diameter 3:	2.878
Avg. Length:	5.814	Avg. Diam.:	2.877

PRESSURES (psi)

Cell Pressure (psi)	123.5
Back Pressure (psi)	21.7
Eff. Conf. Pressure (psi)	101.8
Pore Pressure Response (%)	100

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	18.8
Final Change (ml)	29.2

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	98.73
Q	=	56.81

Initial Dial Reading (mil)	65
Dial Reading After Saturation (mil)	70
Dial Reading After Consolidation (mil)	122

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
27.4	0.000	21.7
53.1	0.001	22.4
80.7	0.002	23.3
192.6	0.006	28.8
285.3	0.010	36.9
354.5	0.015	45.5
417.0	0.023	57.6
449.1	0.032	66.8
467.5	0.044	75.2
480.7	0.064	83.3
495.2	0.094	88.6
504.1	0.130	92.2
546.3	0.164	91.3
587.6	0.204	90.0
619.5	0.232	88.8
664.7	0.273	86.9
726.6	0.328	84.1
787.1	0.387	81.6
835.8	0.430	79.2
900.4	0.487	76.2
943.3	0.530	74.0
990.8	0.574	72.0
1032.4	0.618	69.9
1062.3	0.647	68.7
1087.4	0.677	67.3
1114.1	0.706	66.0
1140.7	0.734	64.7
1177.1	0.778	63.0
1212.3	0.822	61.1
1233.8	0.853	60.0
1250.0	0.880	59.0

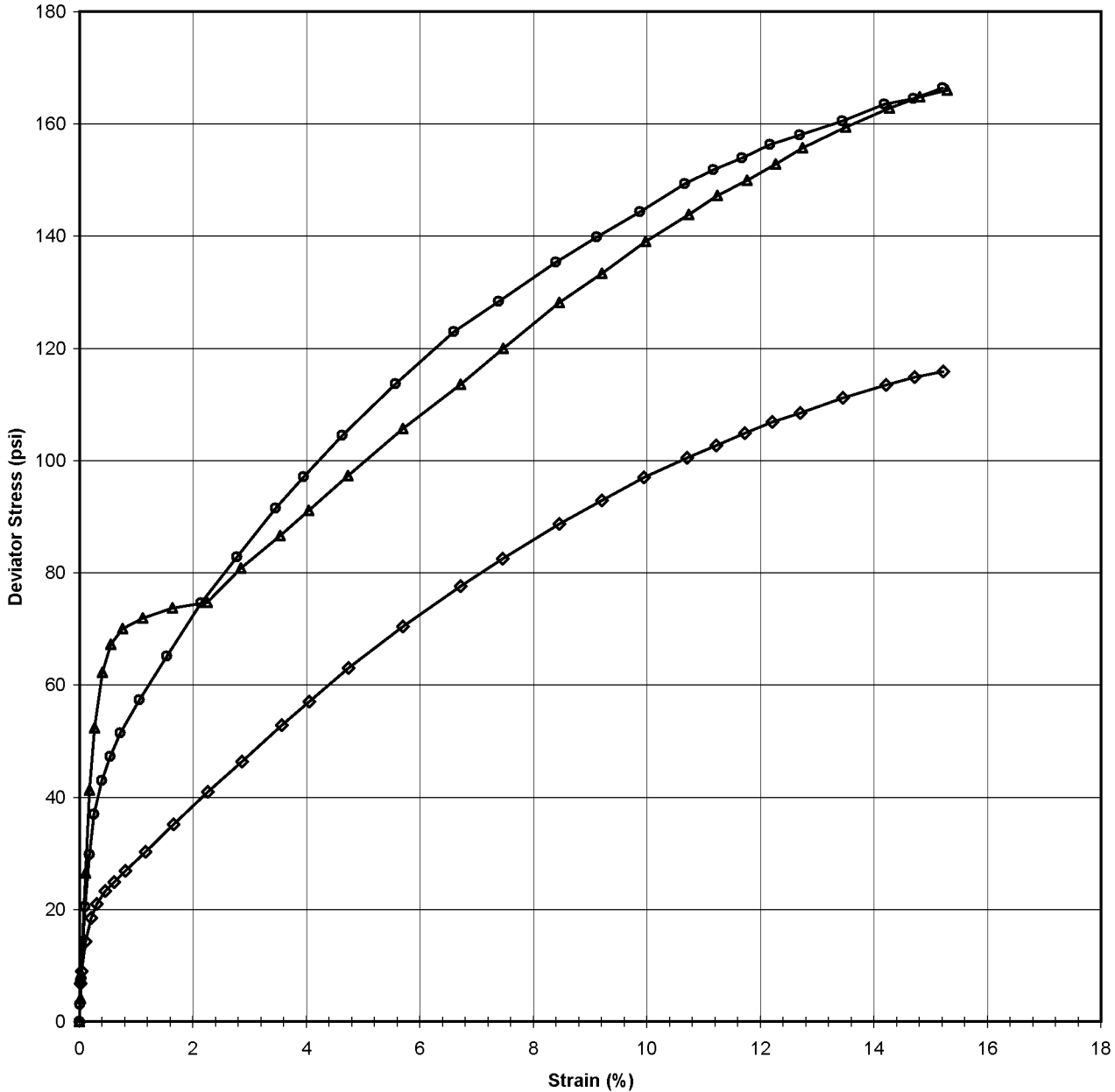
Tested By:	JCM	Date:	11/11/13	Input Checked By:	KC	Date:	11/25/13
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DCN: CI-S28 DATE: 4/12/13 REVISION: 3



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	147.7-149.8
Project No.:	2013-465-001	Sample No.:	ST-3
Lab ID:	2013-465-001-021		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



◆ Test No. 31
 ● Test No. 32
 ▲ Test No. 33

E50 Test No. 31 1903.333
 E50 Test No. 32 6755.71
 E50 Test No. 33 17185.6

Tested By: JCM Date: 11/11/13 Approved By: DB Date: 11/25/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	148.2-148.7
Project No.:	2013-465-001	Sample No.:	ST-3
Lab ID:	2013-465-001-021		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	101.8	<i>Stage No.</i>	1
		<i>Test No</i>	33

INITIAL DIMENSIONS

Initial Sample Length (in)	5.81
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.50
Initial Sample Volume (in ³)	37.79

VOLUME CHANGE

Volume After Consolidation (in ³)	35.91
Length After Consolidation (in)	5.76
Area After Consolidation (in ²)	6.237

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	4.12	0.71	105.21	101.1	1.041	0.17	103.15	2.06
0.03	8.53	1.57	108.77	100.2	1.085	0.18	104.50	4.27
0.10	26.45	7.13	121.13	94.7	1.279	0.27	107.90	13.23
0.18	41.27	15.17	127.90	86.6	1.476	0.37	107.27	20.63
0.27	52.30	23.81	130.29	78.0	1.671	0.46	104.14	26.15
0.41	62.21	35.92	128.09	65.9	1.944	0.58	96.98	31.10
0.56	67.23	45.14	123.90	56.7	2.187	0.67	90.28	33.62
0.76	70.02	53.51	118.32	48.3	2.450	0.76	83.30	35.01
1.11	71.87	61.64	112.03	40.2	2.790	0.86	76.10	35.94
1.64	73.76	66.89	108.68	34.9	3.113	0.91	71.79	36.88
2.26	74.70	70.50	106.00	31.3	3.387	0.94	68.65	37.35
2.84	80.82	69.61	113.01	32.2	3.511	0.86	72.60	40.41
3.54	86.63	68.34	120.09	33.5	3.589	0.79	76.77	43.31
4.04	91.10	67.10	125.80	34.7	3.625	0.74	80.25	45.55
4.73	97.34	65.18	133.96	36.6	3.658	0.67	85.29	48.67
5.70	105.70	62.42	145.07	39.4	3.684	0.59	92.23	52.85
6.72	113.62	59.88	155.54	41.9	3.711	0.53	98.73	56.81
7.46	119.94	57.52	164.22	44.3	3.709	0.48	104.25	59.97
8.46	128.13	54.52	175.40	47.3	3.710	0.43	111.34	64.06
9.21	133.33	52.29	182.84	49.5	3.693	0.39	116.17	66.66
9.97	139.05	50.27	190.58	51.5	3.698	0.36	121.06	69.52
10.74	143.82	48.21	197.41	53.6	3.683	0.34	125.50	71.91
11.25	147.26	46.98	202.08	54.8	3.686	0.32	128.45	73.63
11.76	149.95	45.60	206.15	56.2	3.668	0.30	131.18	74.97
12.27	152.85	44.35	210.31	57.5	3.660	0.29	133.88	76.43
12.75	155.74	43.02	214.52	58.8	3.649	0.28	136.65	77.87
13.51	159.43	41.26	219.97	60.5	3.633	0.26	140.26	79.72
14.28	162.85	39.38	225.27	62.4	3.609	0.24	143.84	81.42
14.81	164.77	38.31	228.27	63.5	3.595	0.23	145.88	82.39
15.29	166.04	37.27	230.57	64.5	3.573	0.22	147.55	83.02

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	148.2-148.7
Project No.	2013-465-001	Sample No.	ST-3
Lab ID #	2013-465-001-021	Test No.	33

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G336	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1512	11/7/14
Pore Pressure Transducer	G1514	11/7/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G1190	2/22/14
Timing Device	G489	5/13/14
Flow Pump	G1510-1	11/7/14

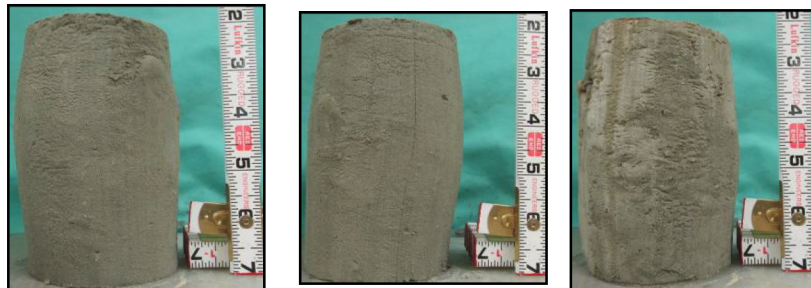
**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client: Paul C. Rizzo & Associates
 Client Reference: Turkey Point Units 6 & 7 Site
 Project No.: 2013-465-001
 Lab ID: 2013-465-001-021 Specific Gravity (measured) 2.63

Visual Description: Greenish Gray Silty Sand (Undisturbed)

SAMPLE CONDITION SUMMARY

Boring No.:	R-6-1b	R-6-1b	R-6-1b
Depth (ft):	148.7-149.2	149.2-149.7	148.2-148.7
Sample No.:	ST-3	ST-3	ST-3
Test No.	T31	T32	T33
Deformation Rate (in/min)	0.002	0.002	0.002
Back Pressure (psi)	21.5	21.5	21.7
Consolidation Time (days)	1	1	1
Moisture Content (%) (INITIAL)	29.8	29.8	29.8
Total Unit Weight (pcf)	116.5	116.3	116.2
Dry Unit Weight (pcf)	89.7	89.6	89.5
Moisture Content (%) (FINAL)	31.7	31.2	30.8
Initial State Void Ratio, e	0.829	0.833	0.833
Void Ratio at Shear, e	0.801	0.783	0.742



Tested By: JCM Date: 11/11/13 Input Checked By: KC Date: 11/25/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

CONSOLIDATED UNDRAINED TRIAXIAL TEST WITH PORE PRESSURE READINGS

ASTM D4767-11

MOISTURE CONTENT

	T31	T32	T33
Tare Number	561	561	561
Weight of Tare & Wet Sample (g)	197.2	197.2	197.2
Weight of Tare & Dry Sample (g)	171.8	171.8	171.8
Weight of Tare (g)	86.47	86.47	86.47
Moisture Content (%) (INITIAL)	29.77	29.77	29.77
Tare Number	37	2485	882
Weight of Tare & Wet Sample (g)	1337.52	1236.87	309.19
Weight of Tare & Dry Sample (g)	1065.24	965.29	262.29
Weight of Tare (g)	206.49	95.75	110.26
Moisture Content (%) (FINAL)	31.71	31.23	30.85

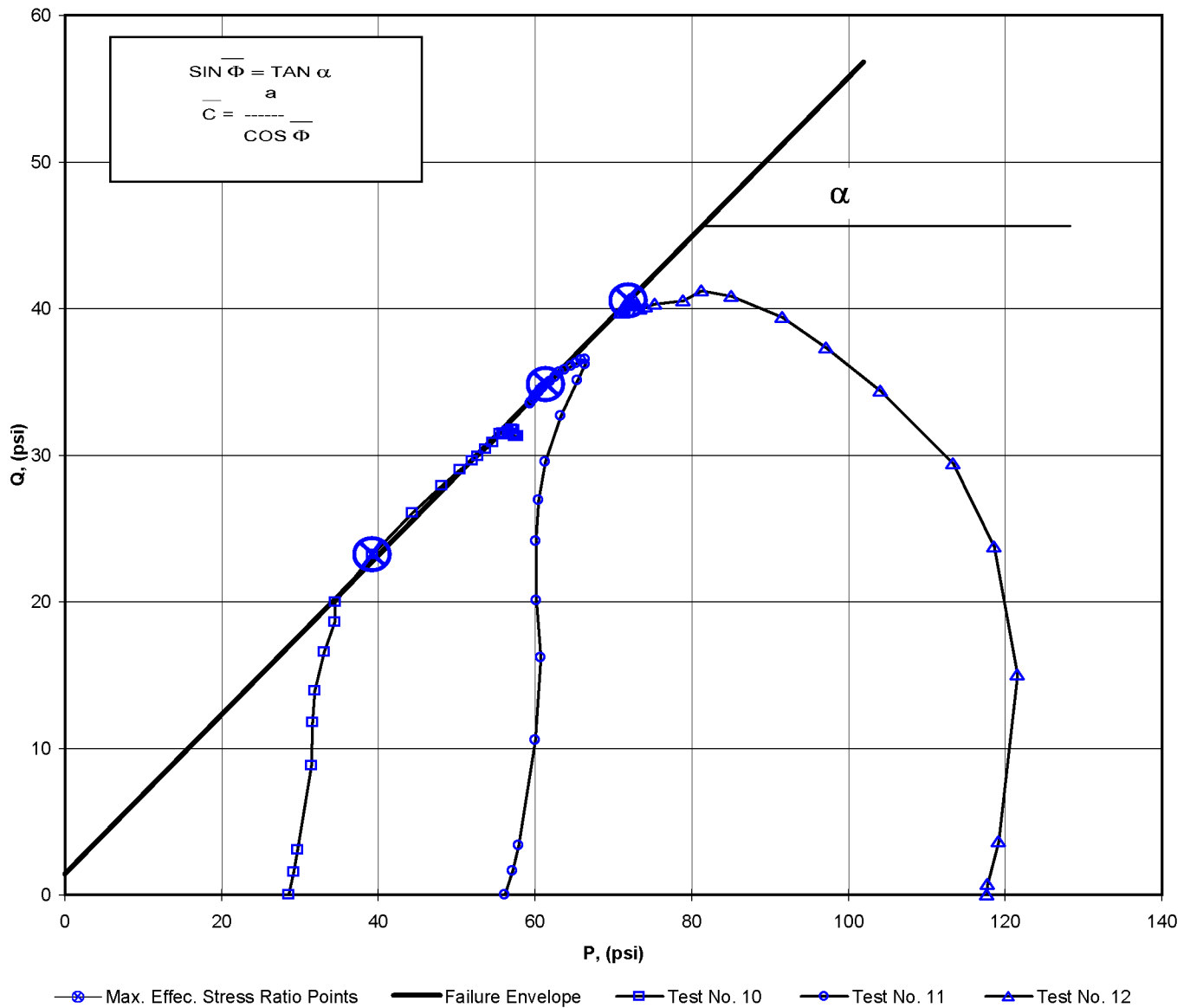
UNIT WEIGHT

Weight of Tube & Wet Sample (g)	1612.13	1626.93	1583.15
Weight of Tube (g)	440.48	442.88	430.65
Weight of Wet Sample (g)	1171.65	1184.05	1152.5
Length 1 (in)	5.91	5.944	5.803
Length 2 (in)	5.912	5.945	5.813
Length 3 (in)	5.906	5.951	5.826
Top Diameter (in)	2.881	2.888	2.877
Middle Diameter (in)	2.872	2.889	2.875
Bottom Diameter (in)	2.868	2.87	2.878
Average Length (in)	5.909333	5.946667	5.814
Average Area (in ²)	6.486	6.525	6.499
Sample Volume (cm ³)	628.06	635.85	619.22
Unit Wet Weight (g/cm ³)	1.87	1.86	1.86
Unit Wet Weight (pcf)	116.46	116.25	116.20
Unit Dry Weight (pcf)	89.75	89.59	89.54
Unit Dry Weight (g/cm ³)	1.44	1.44	1.43
Initial Burette Reading	48	48	48
Final Burette Reading	38.7	33.1	18.8
Initial Dial Reading	51	40	65
Dial Reading After Saturation	53	47	70
Dial Reading After Consolidation	72	88	122
Volume Change during Consolidation	9.3	14.9	29.2
Volume Change during Saturation	0.64	2.25	1.60
Volume at Shear (cm ³)	*These 618.12	618.70	588.42
Volume of Solids (cm ³)	measurements 343.30	346.94	337.69
Volume of Voids (cm ³)	are all 274.82	271.77	250.73
Volume of Water (cm ³)	at 286.27	284.98	273.98
Void Ratio, e	shear 0.801	0.783	0.742

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	162.5-165.2
Project No.:	2013-465-001	Sample No.:	ST-5
Lab ID:	2013-465-001-022		

Consolidated Undrained Triaxial Test with Pore Pressure

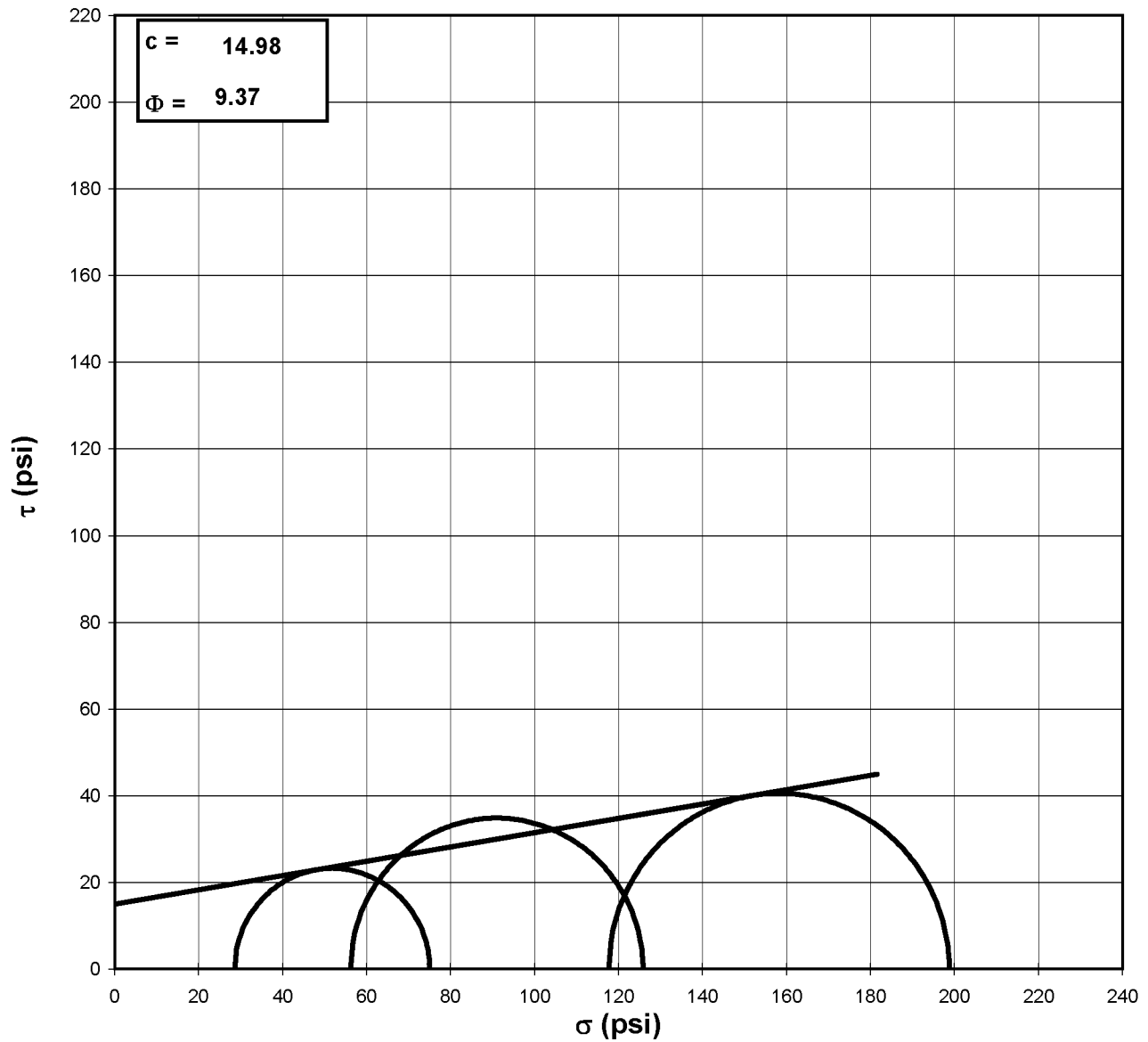


a	=	1.44	\overline{C}	=	1.71
α	=	28.5	$\overline{\Phi}$	=	32.93

Tested By: JCM Date: 10/29/13 Approved By: DB Date: 11/22/13

MOHR TOTAL STRENGTH ENVELOPE
 ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	162.5-165.2
Project No.:	2013-465-001	Sample No.:	ST-5
Lab ID:	2013-465-001-022		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



Failure Based on Maximum Effective Principal Stress Ratio

NOTE: GRAPH NOT TO SCALE

Tested By: JCM Date: 10/29/13 Approved By: DB Date: 11/22/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	164.1-164.6
Project No.:	2013-465-001	Sample No.:	ST-5
Lab ID:	2013-465-001-022		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	10

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.997	Diameter 1:	2.869
Length 2:	5.991	Diameter 2:	2.861
Length 3:	6.000	Diameter 3:	2.860
Avg. Length:	5.996	Avg. Diam.:	2.863

PRESSURES (psi)

Cell Pressure (psi)	80.2
Back Pressure (psi)	51.6
Eff. Conf. Pressure (psi)	28.6
Pore Pressure Response (%)	98

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	38.8
Final Change (ml)	9.2

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	39.29
Q	=	23.22

Initial Dial Reading (mil)	55
Dial Reading After Saturation (mil)	54
Dial Reading After Consolidation (mil)	75

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
17.7	0.000	51.6
37.2	0.001	52.5
56.7	0.002	53.5
130.1	0.007	57.5
167.9	0.012	60.3
195.6	0.017	62.2
229.6	0.026	63.7
256.1	0.034	64.4
274.1	0.046	65.6
316.8	0.066	64.1
355.0	0.094	61.9
380.9	0.130	60.0
397.7	0.166	58.7
408.3	0.208	57.8
414.5	0.239	57.4
424.3	0.283	56.9
434.4	0.338	56.5
447.1	0.398	56.1
451.2	0.444	55.8
455.4	0.505	55.7
458.0	0.552	55.4
464.8	0.597	55.2
470.7	0.641	55.0
473.1	0.670	54.7
471.7	0.701	54.4
471.8	0.732	54.1
474.6	0.764	53.8
479.0	0.810	53.7
482.3	0.855	53.7
485.3	0.885	53.7
484.6	0.915	53.7

Tested By:	JCM	Date:	10/29/13	Input Checked By:	KC	Date:	11/22/13
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**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	164.1-164.6
Project No.:	2013-465-001	Sample No.:	ST-5
Lab ID:	2013-465-001-022		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	28.6	<i>Stage No.</i>	1
		<i>Test No</i>	10

INITIAL DIMENSIONS

Initial Sample Length (in)	6.00
Initial Sample Diameter (in)	2.86
Initial Sample Area (in ²)	6.44
Initial Sample Volume (in ³)	38.61

VOLUME CHANGE

Volume After Consolidation (in ³)	38.07
Length After Consolidation (in)	5.98
Area After Consolidation (in ²)	6.370

Strain (%)	Deviation Stress	Δ U	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.01	3.06	0.92	30.74	27.7	1.111	0.31	29.21	1.53
0.04	6.12	1.95	32.77	26.7	1.229	0.32	29.71	3.06
0.11	17.62	5.90	40.32	22.7	1.776	0.34	31.51	8.81
0.19	23.54	8.71	43.43	19.9	2.184	0.38	31.66	11.77
0.29	27.85	10.59	45.86	18.0	2.546	0.39	31.94	13.92
0.43	33.12	12.08	49.64	16.5	3.005	0.37	33.08	16.56
0.57	37.21	12.76	53.05	15.8	3.349	0.35	34.44	18.60
0.77	39.93	14.02	54.51	14.6	3.739	0.36	34.55	19.97
1.10	46.43	12.52	62.51	16.1	3.888	0.28	39.29	23.22
1.58	52.11	10.28	70.43	18.3	3.844	0.20	44.38	26.06
2.17	55.77	8.37	76.00	20.2	3.757	0.15	48.11	27.89
2.77	58.01	7.14	79.47	21.5	3.702	0.13	50.47	29.00
3.48	59.19	6.21	81.58	22.4	3.643	0.11	51.99	29.60
4.00	59.79	5.78	82.61	22.8	3.620	0.10	52.72	29.90
4.73	60.81	5.33	84.08	23.3	3.613	0.09	53.68	30.40
5.66	61.72	4.87	85.45	23.7	3.600	0.08	54.59	30.86
6.66	62.93	4.54	86.98	24.1	3.615	0.07	55.52	31.46
7.43	62.99	4.21	87.39	24.4	3.583	0.07	55.89	31.50
8.45	62.90	4.07	87.43	24.5	3.564	0.07	55.98	31.45
9.23	62.74	3.78	87.56	24.8	3.528	0.06	56.19	31.37
9.98	63.18	3.60	88.18	25.0	3.527	0.06	56.59	31.59
10.72	63.49	3.35	88.74	25.2	3.515	0.05	56.99	31.75
11.22	63.48	3.06	89.01	25.5	3.486	0.05	57.28	31.74
11.73	62.91	2.82	88.69	25.8	3.440	0.05	57.23	31.45
12.26	62.55	2.48	88.67	26.1	3.394	0.04	57.40	31.27
12.78	62.56	2.20	88.96	26.4	3.369	0.04	57.68	31.28
13.55	62.60	2.08	89.12	26.5	3.360	0.03	57.82	31.30
14.30	62.51	2.14	88.97	26.5	3.362	0.03	57.72	31.25
14.81	62.53	2.07	89.06	26.5	3.357	0.03	57.80	31.26
15.30	62.08	2.13	88.56	26.5	3.345	0.03	57.52	31.04

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	164.1-164.6
Project No.	2013-465-001	Sample No.	ST-5
Lab ID #	2013-465-001-022	Test No.	10

Equipment	Equipment ID#	Calibration Due Date
Oven	G256	10/12/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G314	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1073B	1/8/14
Pore Pressure Transducer	G1073C	1/8/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G528	8/30/14
Timing Device	G589	5/13/14
Balance	G1394	5/15/14
Oven	G1387	8/16/14
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS**

ASTM D4767-11



A-859

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	164.6-165.1
Project No.:	2013-465-001	Sample No.:	ST-5
Lab ID:	2013-465-001-022		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	11

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.948	Diameter 1:	2.881
Length 2:	5.948	Diameter 2:	2.866
Length 3:	5.938	Diameter 3:	2.864
Avg. Length	5.945	Avg. Diam.:	2.870

PRESSURES (psi)

Cell Pressure (psi)	77.7
Back Pressure (psi)	21.5
Eff. Conf. Pressure (psi)	56.2
Pore Pressure Response (%)	100

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	33.7
Final Change (ml)	14.3

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	61.39
Q	=	34.81

Initial Dial Reading (mil)	38
Dial Reading After Saturation (mil)	41
Dial Reading After Consolidation (mil)	72

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
14.3	0.000	21.5
34.8	0.001	22.2
56.9	0.002	23.1
148.5	0.007	28.2
220.1	0.013	33.1
270.2	0.018	37.6
321.8	0.026	41.7
358.2	0.034	44.1
392.0	0.046	45.9
433.7	0.065	47.0
467.2	0.095	47.3
484.0	0.130	47.4
491.5	0.166	47.8
494.9	0.210	48.3
494.3	0.240	48.6
495.4	0.283	49.1
496.7	0.336	49.7
499.6	0.397	50.2
499.4	0.444	50.5
500.4	0.504	50.7
502.6	0.549	51.0
505.8	0.593	51.1
507.1	0.638	51.2
509.3	0.669	51.3
510.3	0.700	51.4
511.5	0.731	51.5
511.1	0.760	51.6
511.5	0.805	51.6
512.4	0.850	51.8
513.9	0.880	51.8
514.1	0.909	51.9

Tested By: JCM Date: 10/29/13 Input Checked By: KC Date: 11/22/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

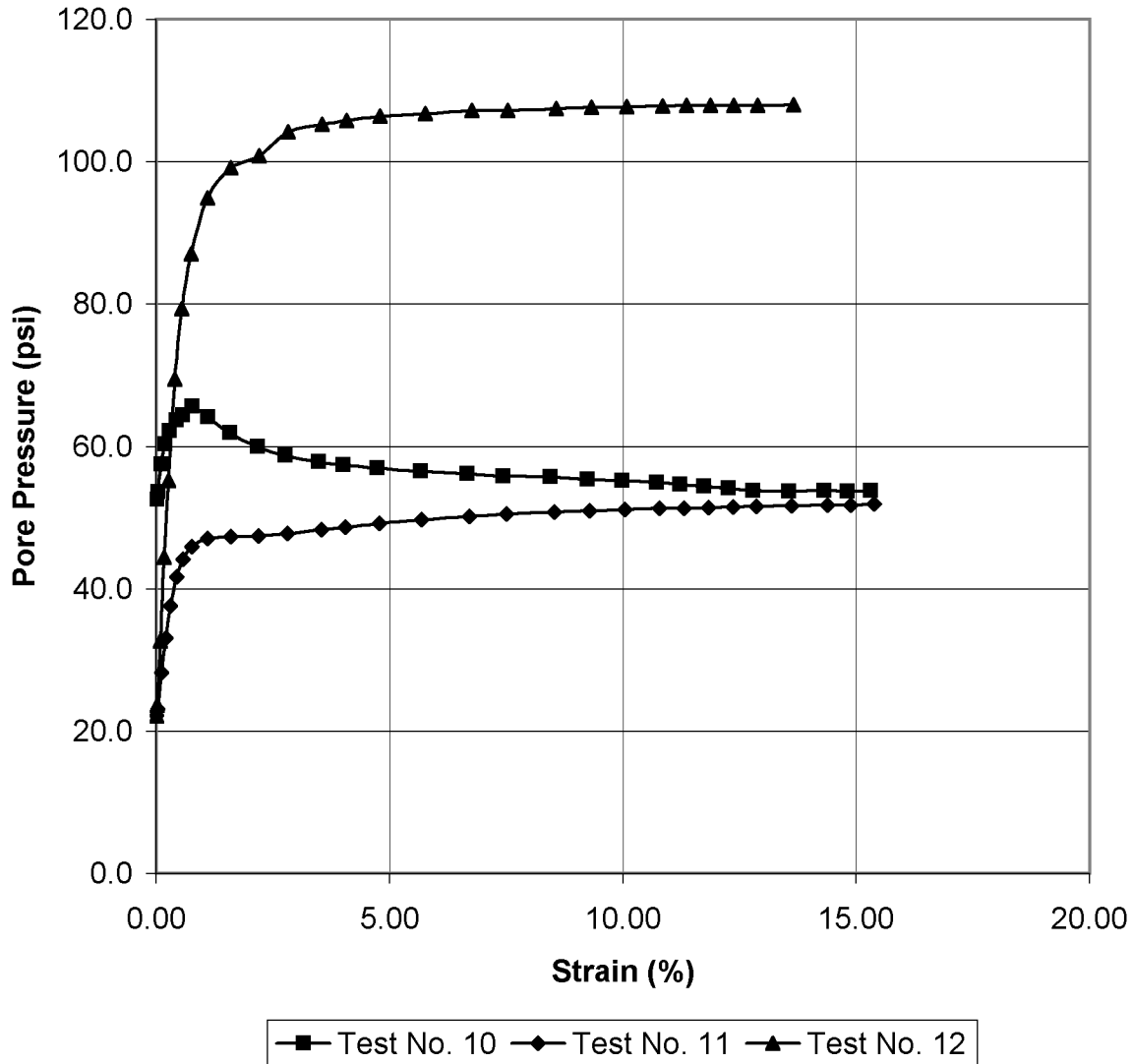
CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11



A-860

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	162.5-165.2
Project No.:	2013-465-001	Sample No.:	ST-5
Lab ID:	2013-465-001-022		

Pore Pressure vs % Strain



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



A-861

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	164.6-165.1
Project No.:	2013-465-001	Sample No.:	ST-5
Lab ID:	2013-465-001-022		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Effective Confining Pressure (psi)	56.2	Stage No.	1
		Test No	11

INITIAL DIMENSIONS

Initial Sample Length (in)	5.94
Initial Sample Diameter (in)	2.87
Initial Sample Area (in ²)	6.47
Initial Sample Volume (in ³)	38.47

VOLUME CHANGE

Volume After Consolidation (in ³)	37.54
Length After Consolidation (in)	5.91
Area After Consolidation (in ²)	6.350

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	3.23	0.66	58.77	55.5	1.058	0.20	57.15	1.61
0.04	6.71	1.62	61.29	54.6	1.123	0.24	57.94	3.36
0.12	21.11	6.73	70.58	49.5	1.427	0.32	60.03	10.55
0.22	32.33	11.57	76.96	44.6	1.724	0.36	60.79	16.17
0.31	40.17	16.08	80.29	40.1	2.001	0.40	60.20	20.09
0.44	48.20	20.18	84.22	36.0	2.338	0.42	60.12	24.10
0.58	53.84	22.63	87.41	33.6	2.604	0.42	60.49	26.92
0.77	59.02	24.35	90.87	31.8	2.853	0.41	61.36	29.51
1.10	65.32	25.51	96.01	30.7	3.129	0.39	63.35	32.66
1.60	70.17	25.82	100.55	30.4	3.310	0.37	65.47	35.08
2.20	72.33	25.93	102.60	30.3	3.389	0.36	66.44	36.16
2.82	73.03	26.27	102.96	29.9	3.440	0.36	66.44	36.52
3.55	73.00	26.78	102.42	29.4	3.481	0.37	65.92	36.50
4.07	72.51	27.14	101.57	29.1	3.495	0.37	65.32	36.25
4.78	72.14	27.63	100.71	28.6	3.525	0.38	64.64	36.07
5.69	71.64	28.20	99.64	28.0	3.559	0.39	63.82	35.82
6.72	71.28	28.66	98.82	27.5	3.588	0.40	63.18	35.64
7.52	70.65	28.95	97.90	27.2	3.593	0.41	62.57	35.32
8.53	70.01	29.25	96.96	27.0	3.597	0.42	61.96	35.00
9.30	69.75	29.46	96.49	26.7	3.608	0.42	61.62	34.87
10.04	69.62	29.62	96.20	26.6	3.619	0.43	61.39	34.81
10.79	69.22	29.75	95.68	26.5	3.617	0.43	61.07	34.61
11.31	69.13	29.80	95.54	26.4	3.618	0.43	60.97	34.57
11.84	68.85	29.92	95.14	26.3	3.620	0.43	60.71	34.43
12.36	68.62	29.97	94.85	26.2	3.616	0.44	60.54	34.31
12.86	68.17	30.08	94.28	26.1	3.610	0.44	60.20	34.08
13.62	67.63	30.14	93.69	26.1	3.595	0.45	59.87	33.81
14.39	67.15	30.27	93.08	25.9	3.590	0.45	59.50	33.58
14.89	66.96	30.27	92.89	25.9	3.583	0.45	59.41	33.48
15.39	66.59	30.42	92.37	25.8	3.583	0.46	59.08	33.30

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS**

ASTM D4767-11



EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	164.6-165.1
Project No.	2013-465-001	Sample No.	ST-5
Lab ID #	2013-465-001-022	Test No.	11

Equipment	Equipment ID#	Calibration Due Date
Oven	G256	10/12/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G319	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1073B	1/8/14
Pore Pressure Transducer	G1073C	1/8/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G1455	8/30/14
Timing Device	G489	5/13/14
Balance	G1394	5/15/14
Oven	G1387	8/16/14
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS**

ASTM D4767-11



A-863

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	163.6-164.1
Project No.:	2013-465-001	Sample No.:	ST-5
Lab ID:	2013-465-001-022		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	12

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.880	Diameter 1:	2.872
Length 2:	5.877	Diameter 2:	2.878
Length 3:	5.885	Diameter 3:	2.878
Avg. Length:	5.881	Avg. Diam.:	2.876

PRESSURES (psi)

Cell Pressure (psi)	139.2
Back Pressure (psi)	21.5
Eff. Conf. Pressure (psi)	117.7
Pore Pressure Response (%)	100

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	25.8
Final Change (ml)	22.2

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	71.92
Q	=	40.53

Initial Dial Reading (mil)	61
Dial Reading After Saturation (mil)	61
Dial Reading After Consolidation (mil)	135

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
34.6	0.000	21.5
43.9	0.001	22.1
80.7	0.002	23.6
225.3	0.006	32.6
336.7	0.010	44.4
408.8	0.015	55.2
472.6	0.024	69.4
510.6	0.032	79.3
538.5	0.043	87.0
558.6	0.064	94.9
566.1	0.093	99.2
560.6	0.129	100.8
561.1	0.165	104.1
562.6	0.207	105.2
563.3	0.237	105.7
571.5	0.279	106.4
576.0	0.335	106.8
584.7	0.393	107.1
589.7	0.438	107.2
600.4	0.498	107.4
603.2	0.542	107.6
607.9	0.586	107.7
611.7	0.630	107.8
606.3	0.660	107.9
606.4	0.690	107.9
614.0	0.719	107.9
616.4	0.749	107.9
620.9	0.794	107.9

Tested By: JCM Date: 11/17/13 Input Checked By: KC Date: 11/22/13

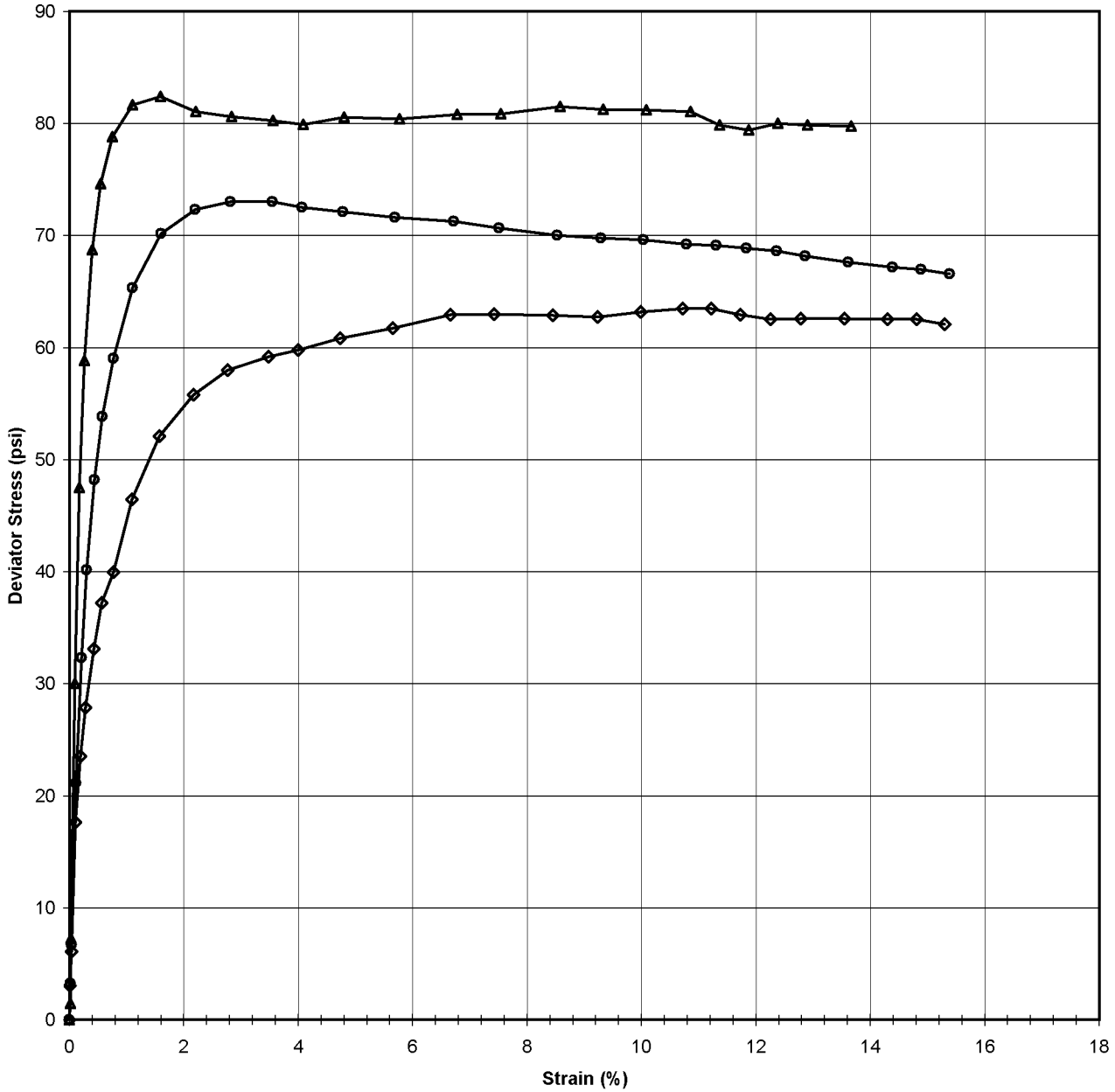
DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

A-864



Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	162.5-165.2
Project No.:	2013-465-001	Sample No.:	ST-5
Lab ID:	2013-465-001-022		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



◆ Test No. 10
● Test No. 11
▲ Test No. 12

E50 Test No. 10 12316.85

E50 Test No. 11 14258.81

E50 Test No. 112 28104.3

Tested By: JCM Date: 11/17/13 Approved By: DB Date: 11/22/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	163.6-164.1
Project No.:	2013-465-001	Sample No.:	ST-5
Lab ID:	2013-465-001-022		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Effective Confining Pressure (psi)	117.7	Stage No.	1
		Test No	12

INITIAL DIMENSIONS

Initial Sample Length (in)	5.88
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.50
Initial Sample Volume (in ³)	38.20

VOLUME CHANGE

Volume After Consolidation (in ³)	36.85
Length After Consolidation (in)	5.81
Area After Consolidation (in ²)	6.346

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	1.47	0.62	118.55	117.1	1.013	0.42	117.82	0.74
0.03	7.27	2.15	122.82	115.6	1.063	0.30	119.18	3.63
0.10	30.03	11.09	136.64	106.6	1.282	0.37	121.63	15.01
0.18	47.52	22.86	142.36	94.8	1.501	0.48	118.60	23.76
0.26	58.81	33.68	142.83	84.0	1.700	0.57	113.43	29.41
0.41	68.75	47.92	138.53	69.8	1.985	0.70	104.15	34.37
0.55	74.60	57.79	134.51	59.9	2.245	0.77	97.21	37.30
0.75	78.82	65.53	130.99	52.2	2.511	0.83	91.58	39.41
1.10	81.66	73.40	125.97	44.3	2.843	0.90	85.14	40.83
1.60	82.41	77.66	122.45	40.0	3.058	0.94	81.25	41.20
2.21	81.06	79.31	119.45	38.4	3.111	0.98	78.92	40.53
2.83	80.62	82.64	115.67	35.1	3.300	1.03	75.36	40.31
3.56	80.25	83.70	114.25	34.0	3.360	1.04	74.12	40.12
4.09	79.92	84.24	113.38	33.5	3.389	1.05	73.42	39.96
4.81	80.54	84.86	113.38	32.8	3.452	1.05	73.11	40.27
5.77	80.39	85.28	112.81	32.4	3.480	1.06	72.62	40.20
6.78	80.82	85.65	112.87	32.1	3.522	1.06	72.46	40.41
7.54	80.88	85.67	112.91	32.0	3.525	1.06	72.47	40.44
8.58	81.52	85.92	113.30	31.8	3.565	1.05	72.54	40.76
9.33	81.25	86.12	112.83	31.6	3.572	1.06	72.21	40.62
10.09	81.23	86.22	112.71	31.5	3.580	1.06	72.09	40.61
10.86	81.07	86.32	112.45	31.4	3.583	1.06	71.92	40.53
11.37	79.85	86.41	111.14	31.3	3.552	1.08	71.22	39.93
11.87	79.41	86.35	110.75	31.3	3.533	1.09	71.05	39.70
12.38	79.99	86.38	111.31	31.3	3.554	1.08	71.31	40.00
12.90	79.86	86.40	111.16	31.3	3.552	1.08	71.23	39.93
13.67	79.76	86.43	111.03	31.3	3.551	1.08	71.15	39.88

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS**
ASTM D4767-11



EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	163.6-164.1
Project No.	2013-465-001	Sample No.	ST-5
Lab ID #	2013-465-001-022	Test No.	12

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G311	INITIAL ONLY
Load Cell	G1310	1.8-14
Cell Pressure Transducer	G1073B	11/7/14
Pore Pressure Transducer	G1518	11/7/14
Extensometer	G835	1/8/14
Load Frame	G833	1/8/14
Dial Indicator	G528	8/30/14
Timing Device	G489	5/13/14
Flow Pump	G1509-1	11/7/14

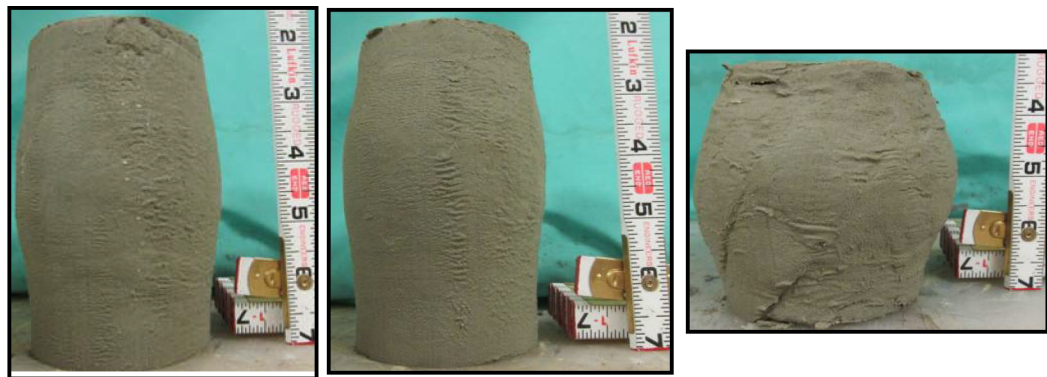
**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**
 ASTM D4767-11

Client: Paul C. Rizzo & Associates
 Client Reference: Turkey Point Units 6 & 7 Site
 Project No.: 2013-465-001
 Lab ID: 2013-465-001-022 Specific Gravity (measured) 2.66

Visual Description: Greenish Gray Silty Sand (Undisturbed)

SAMPLE CONDITION SUMMARY

Boring No.:	R-6-1b	R-6-1b	R-6-1b
Depth (ft):	164.1-164.6	164.6-165.1	163.6-164.1
Sample No.:	ST-5	ST-5	ST-5
Test No.	T10	T11	T12
Deformation Rate (in/min)	0.002	0.002	0.002
Back Pressure (psi)	51.6	21.5	21.5
Consolidation Time (days)	1	1	1
Moisture Content (%) (INITIAL)	29.8	29.8	29.8
Total Unit Weight (pcf)	118.5	117.3	117.9
Dry Unit Weight (pcf)	91.3	90.4	90.8
Moisture Content (%) (FINAL)	31.1	31.2	30.1
Initial State Void Ratio, e	0.818	0.836	0.828
Void Ratio at Shear, e	0.793	0.792	0.763



Tested By: JCM Date: 10/29/13 Input Checked By: KC Date: 11/22/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

CONSOLIDATED UNDRAINED TRIAXIAL TEST WITH PORE PRESSURE READINGS

ASTM D4767-11

MOISTURE CONTENT

	T10	T11	T12
Tare Number	897	897	897
Weight of Tare & Wet Sample (g)	238.02	238.02	238.02
Weight of Tare & Dry Sample (g)	208.58	208.58	208.58
Weight of Tare (g)	109.72	109.72	109.72
Moisture Content (%) (INITIAL)	29.78	29.78	29.78
Tare Number	2331	887	1427
Weight of Tare & Wet Sample (g)	1246.41	306.2	1257.51
Weight of Tare & Dry Sample (g)	973.05	259.51	1000.02
Weight of Tare (g)	94.82	109.76	145.62
Moisture Content (%) (FINAL)	31.13	31.18	30.14

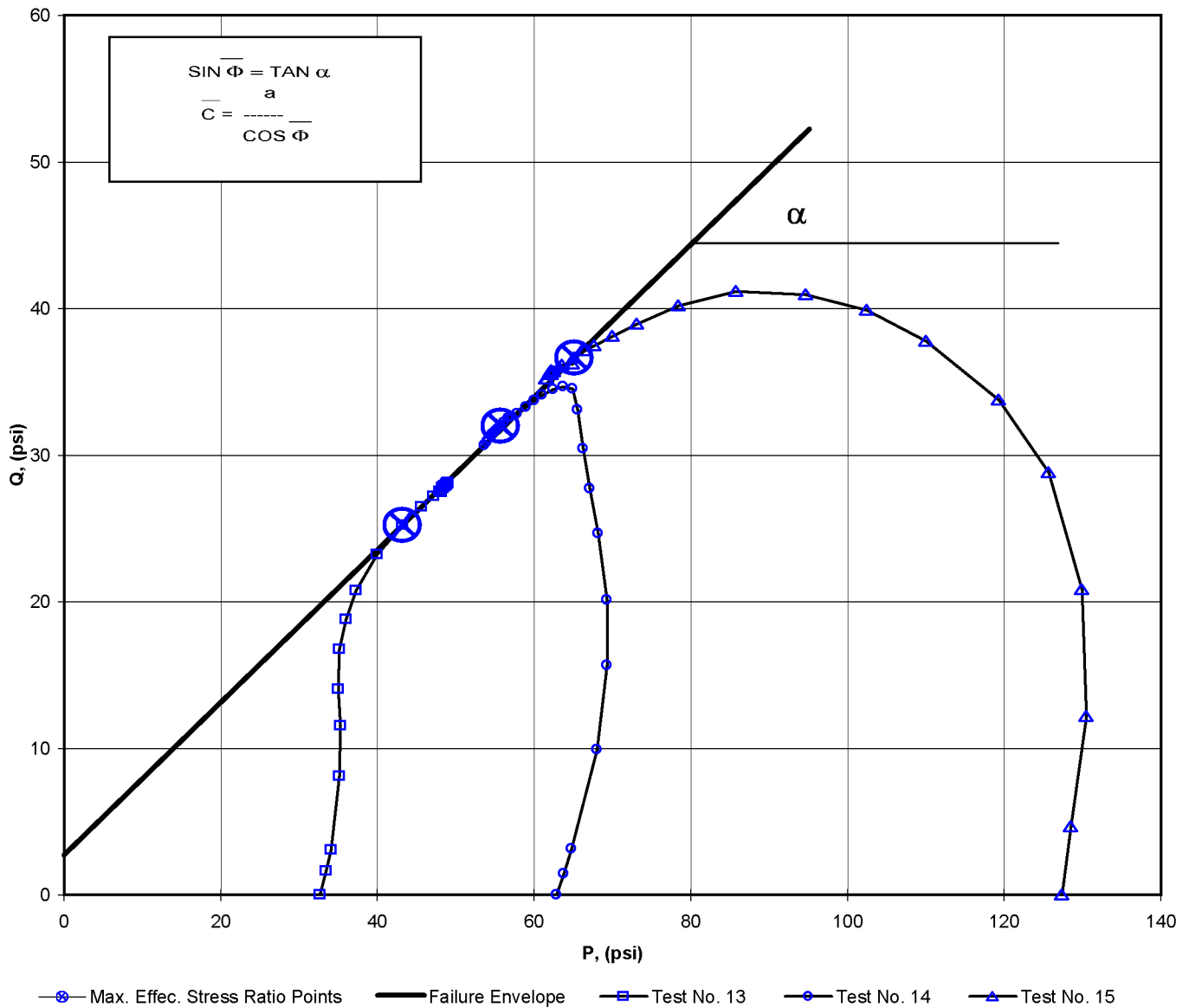
UNIT WEIGHT

Weight of Tube & Wet Sample (g)	1652.6	1633.46	1623.36
Weight of Tube (g)	451.45	448.59	441.13
Weight of Wet Sample (g)	1201.15	1184.87	1182.23
Length 1 (in)	5.997	5.948	5.88
Length 2 (in)	5.991	5.948	5.877
Length 3 (in)	6	5.938	5.885
Top Diameter (in)	2.869	2.881	2.872
Middle Diameter (in)	2.861	2.866	2.878
Bottom Diameter (in)	2.86	2.864	2.878
Average Length (in)	5.996	5.944667	5.880667
Average Area (in)	6.439	6.471	6.496
Sample Volume (cm ³)	632.70	630.35	626.03
Unit Wet Weight (g/cm ³)	1.90	1.88	1.89
Unit Wet Weight (pcf)	118.52	117.35	117.90
Unit Dry Weight (pcf)	91.32	90.42	90.84
Unit Dry Weight (g/cm ³)	1.46	1.45	1.46
Initial Burette Reading	48	48	48
Final Burette Reading	38.8	33.7	25.8
Initial Dial Reading	55	38	61
Dial Reading After Saturation	54	41	61
Dial Reading After Consolidation	75	72	135
Volume Change during Consolidation	9.2	14.3	22.2
Volume Change during Saturation	-0.32	0.95	0.00
Volume at Shear (cm ³)	*These 623.81	615.10	603.83
Volume of Solids (cm ³)	measurements 347.94	343.23	342.46
Volume of Voids (cm ³)	are all 275.87	271.87	261.37
Volume of Water (cm ³)	at 288.08	284.66	274.53
Void Ratio, e	shear 0.793	0.792	0.763

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	184.7-187.4
Project No.:	2013-465-001	Sample No.:	ST-11
Lab ID:	2013-465-001-024		

Consolidated Undrained Triaxial Test with Pore Pressure

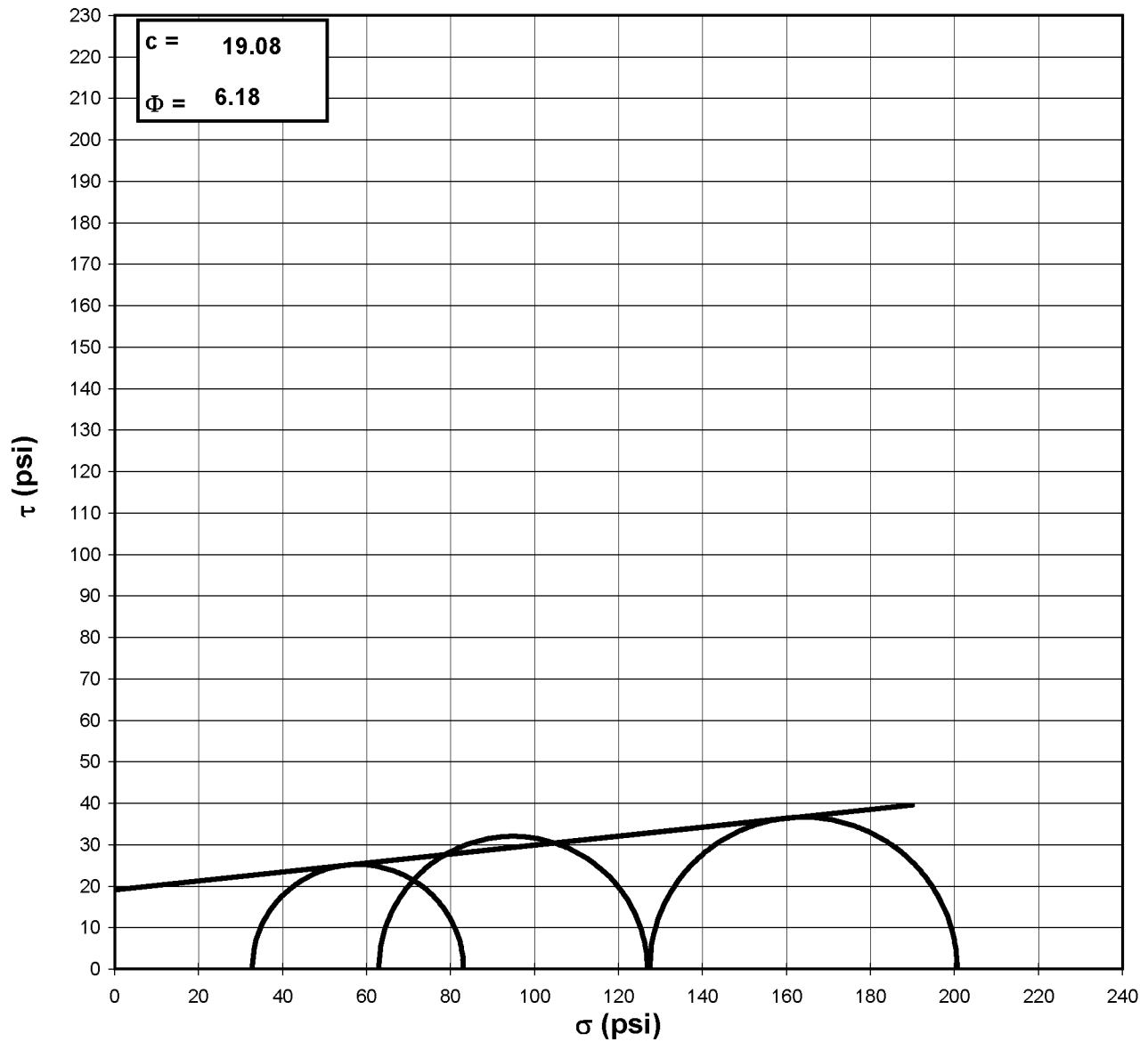


a	=	2.71	\overline{C}	=	3.17
α	=	27.5	$\overline{\Phi}$	=	31.37

Tested By: JCM Date: 11/1/13 Approved By: DB Date: 11/20/13

MOHR TOTAL STRENGTH ENVELOPE
 ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	184.7-187.4
Project No.:	2013-465-001	Sample No.:	ST-11
Lab ID:	2013-465-001-024		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



Failure Based on Maximum Effective Principal Stress Ratio

NOTE: GRAPH NOT TO SCALE

Tested By: JCM Date: 11/1/13 Approved By: DB Date: 11/20/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	186.3-186.8
Project No.:	2013-465-001	Sample No.:	ST-11
Lab ID:	2013-465-001-024		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	13

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.956	Diameter 1:	2.879
Length 2:	5.961	Diameter 2:	2.866
Length 3:	5.953	Diameter 3:	2.863
Avg. Length:	5.957	Avg. Diam.:	2.869

PRESSURES (psi)

Cell Pressure (psi)	54.3
Back Pressure (psi)	21.6
Eff. Conf. Pressure (psi)	32.7
Pore Pressure Response (%)	100

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	37.5
Final Change (ml)	10.5

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	43.21
Q	=	25.20

Initial Dial Reading (mil)	65
Dial Reading After Saturation (mil)	68
Dial Reading After Consolidation (mil)	81

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
8.9	0.000	21.6
29.6	0.001	22.5
48.1	0.002	23.2
112.1	0.008	27.2
156.2	0.013	30.5
188.3	0.019	33.3
223.3	0.028	35.9
249.4	0.036	37.1
275.5	0.048	37.8
307.7	0.068	37.5
335.1	0.098	36.3
353.7	0.133	35.2
365.1	0.169	34.3
372.2	0.211	33.9
377.8	0.241	33.8
382.0	0.284	33.6
387.4	0.340	33.5
391.8	0.399	33.3
395.4	0.445	33.4
400.6	0.505	33.4
402.4	0.550	33.4
405.2	0.594	33.4
408.5	0.638	33.5
409.4	0.669	33.4
411.6	0.699	33.5
413.1	0.729	33.6
415.1	0.759	33.6
416.8	0.804	33.6
417.9	0.849	33.7
419.1	0.878	33.6
420.1	0.908	33.5

Tested By: JCM Date: 11/1/13 Input Checked By: KC Date: 11/20/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



A-872

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	186.3-186.8
Project No.:	2013-465-001	Sample No.:	ST-11
Lab ID:	2013-465-001-024		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	32.7	<i>Stage No.</i>	1
		<i>Test No</i>	13

INITIAL DIMENSIONS

Initial Sample Length (in)	5.96
Initial Sample Diameter (in)	2.87
Initial Sample Area (in ²)	6.47
Initial Sample Volume (in ³)	38.52

VOLUME CHANGE

Volume After Consolidation (in ³)	37.82
Length After Consolidation (in)	5.94
Area After Consolidation (in ²)	6.366

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	3.25	0.88	35.08	31.8	1.102	0.27	33.45	1.63
0.04	6.15	1.65	37.20	31.1	1.198	0.27	34.13	3.07
0.13	16.19	5.63	43.26	27.1	1.598	0.35	35.17	8.10
0.22	23.09	8.92	46.87	23.8	1.971	0.39	35.33	11.55
0.32	28.09	11.73	49.06	21.0	2.340	0.42	35.01	14.05
0.46	33.52	14.27	51.95	18.4	2.818	0.43	35.19	16.76
0.61	37.55	15.47	54.78	17.2	3.180	0.41	36.00	18.77
0.80	41.54	16.19	58.05	16.5	3.515	0.39	37.28	20.77
1.15	46.39	15.90	63.20	16.8	3.761	0.34	40.00	23.20
1.65	50.40	14.69	68.40	18.0	3.799	0.29	43.21	25.20
2.24	52.95	13.55	72.10	19.1	3.765	0.26	45.62	26.47
2.84	54.37	12.67	74.40	20.0	3.715	0.23	47.21	27.18
3.56	55.04	12.27	75.48	20.4	3.694	0.22	47.96	27.52
4.06	55.60	12.20	76.10	20.5	3.711	0.22	48.30	27.80
4.78	55.81	12.03	76.48	20.7	3.700	0.22	48.57	27.90
5.72	56.05	11.92	76.83	20.8	3.698	0.21	48.80	28.03
6.72	56.10	11.75	77.06	21.0	3.677	0.21	49.01	28.05
7.48	56.16	11.84	77.03	20.9	3.692	0.21	48.95	28.08
8.51	56.29	11.82	77.17	20.9	3.696	0.21	49.02	28.15
9.27	56.09	11.78	77.01	20.9	3.681	0.21	48.96	28.04
10.00	56.03	11.76	76.97	20.9	3.676	0.21	48.95	28.01
10.74	56.03	11.85	76.88	20.8	3.688	0.21	48.86	28.02
11.26	55.83	11.80	76.73	20.9	3.671	0.21	48.81	27.91
11.77	55.82	11.92	76.60	20.8	3.685	0.21	48.69	27.91
12.28	55.69	12.05	76.35	20.7	3.697	0.22	48.50	27.85
12.78	55.65	11.95	76.40	20.7	3.682	0.21	48.58	27.83
13.53	55.40	12.02	76.08	20.7	3.679	0.22	48.38	27.70
14.29	55.07	12.07	75.70	20.6	3.669	0.22	48.17	27.54
14.78	54.91	12.01	75.60	20.7	3.654	0.22	48.15	27.45
15.28	54.73	11.89	75.54	20.8	3.629	0.22	48.18	27.36

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	186.3-186.8
Project No.	2013-465-001	Sample No.	ST-11
Lab ID #	2013-465-001-024	Test No.	13

Equipment	Equipment ID#	Calibration Due Date
Oven	G256	10/12/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G317	INITIAL ONLY
Load Cell	G1310	1/8/14
Cell Pressure Transducer	G836B	1/8/14
Pore Pressure Transducer	G836A	1/8/14
Extensometer	G835	1/8/14
Load Frame	G833	1/8/14
Dial Indicator	G1295	3/4/14
Timing Device	G489	5/13/14
Balance	G1394	5/15/14
Oven	G1387	8/16/14
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	186.8-186.3
Project No.:	2013-465-001	Sample No.:	ST-11
Lab ID:	2013-465-001-024		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	14

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.954	Diameter 1:	2.863
Length 2:	5.957	Diameter 2:	2.870
Length 3:	5.958	Diameter 3:	2.869
Avg. Length	5.956	Avg. Diam.:	2.867

PRESSURES (psi)

Cell Pressure (psi)	84.9
Back Pressure (psi)	22.0
Eff. Conf. Pressure (psi)	62.9
Pore Pressure Response (%)	99

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	31.7
Final Change (ml)	16.3

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	55.77
Q	=	31.98

Initial Dial Reading (mil)	75
Dial Reading After Saturation (mil)	79
Dial Reading After Consolidation (mil)	119

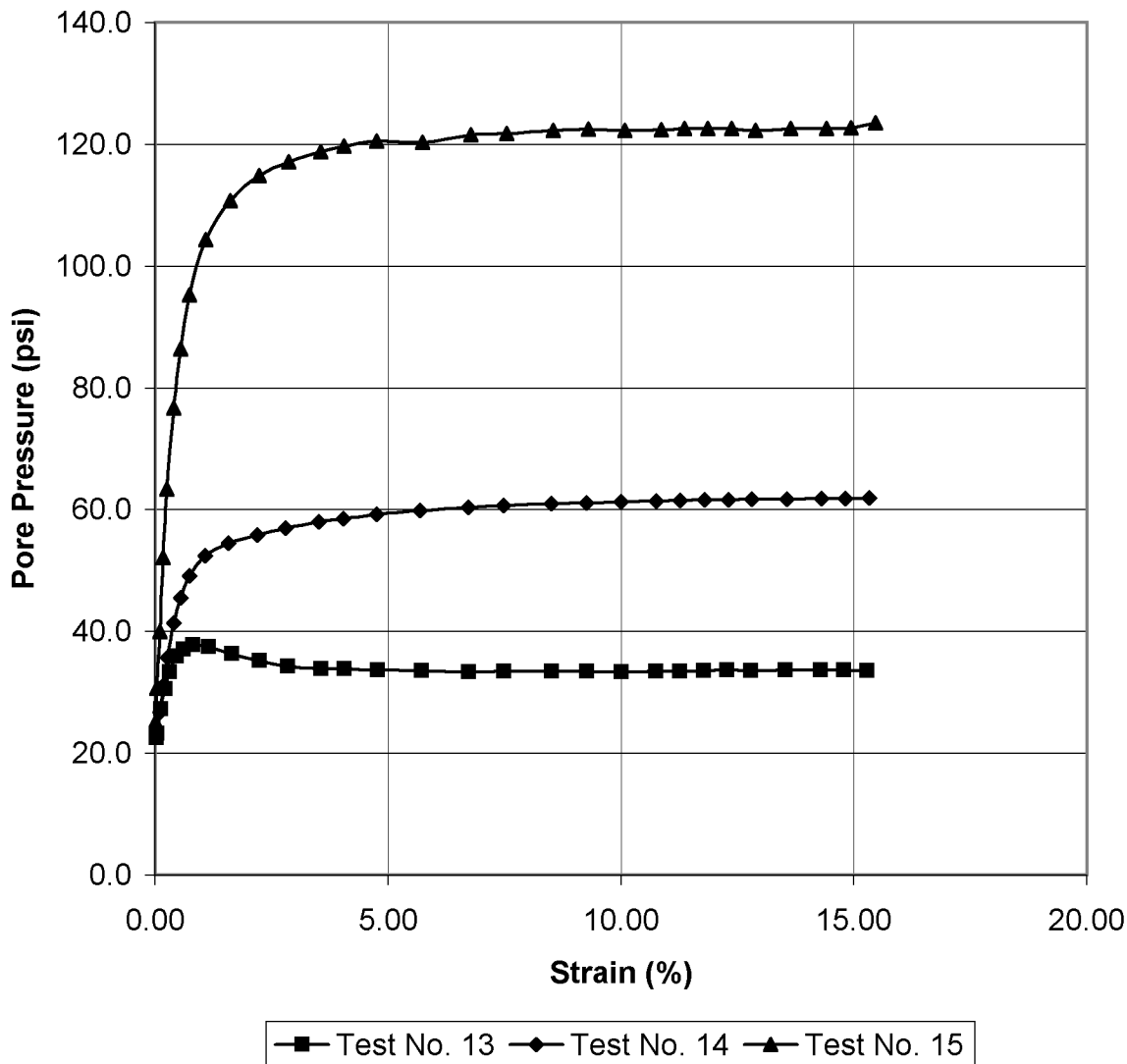
LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
15.1	0.000	22.0
33.3	0.001	22.6
54.8	0.002	23.2
140.4	0.006	26.7
213.3	0.011	31.2
270.0	0.016	35.7
328.3	0.024	41.3
367.5	0.032	45.5
402.7	0.044	49.1
437.9	0.064	52.4
458.8	0.093	54.5
463.6	0.130	55.8
463.6	0.166	56.9
462.3	0.208	58.0
459.7	0.239	58.5
457.0	0.281	59.2
455.1	0.337	59.8
457.6	0.398	60.3
459.4	0.443	60.6
460.3	0.503	60.9
461.0	0.548	61.1
461.5	0.592	61.3
463.9	0.636	61.4
464.7	0.667	61.5
466.0	0.698	61.6
468.1	0.728	61.6
469.6	0.758	61.6
469.1	0.802	61.7
470.4	0.846	61.8
470.1	0.876	61.8
471.4	0.906	61.9

Tested By:	JCM	Date:	11/1/13	Input Checked By:	KC	Date:	11/20/13
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**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	186.3-186.8
Project No.:	2013-465-001	Sample No.:	ST-11
Lab ID:	2013-465-001-024		

Pore Pressure vs % Strain



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	186.8-186.3
Project No.:	2013-465-001	Sample No.:	ST-11
Lab ID:	2013-465-001-024		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	62.9	<i>Stage No.</i>	1
		<i>Test No</i>	14

INITIAL DIMENSIONS

Initial Sample Length (in)	5.96
Initial Sample Diameter (in)	2.87
Initial Sample Area (in ²)	6.46
Initial Sample Volume (in ³)	38.46

VOLUME CHANGE

Volume After Consolidation (in ³)	37.39
Length After Consolidation (in)	5.91
Area After Consolidation (in ²)	6.324

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	2.88	0.55	65.23	62.3	1.046	0.19	63.79	1.44
0.03	6.28	1.22	67.97	61.7	1.102	0.20	64.82	3.14
0.10	19.80	4.73	77.97	58.2	1.340	0.24	68.07	9.90
0.19	31.28	9.18	85.00	53.7	1.582	0.30	69.36	15.64
0.27	40.19	13.66	89.43	49.2	1.816	0.34	69.34	20.10
0.41	49.32	19.33	92.89	43.6	2.132	0.40	68.23	24.66
0.55	55.41	23.46	94.85	39.4	2.405	0.43	67.14	27.71
0.74	60.85	27.07	96.68	35.8	2.698	0.45	66.25	30.42
1.08	66.13	30.41	98.62	32.5	3.035	0.46	65.56	33.07
1.58	69.05	32.47	99.48	30.4	3.269	0.48	64.95	34.53
2.20	69.36	33.84	98.43	29.1	3.387	0.49	63.74	34.68
2.81	68.93	34.91	96.91	28.0	3.463	0.51	62.45	34.46
3.52	68.23	35.95	95.18	26.9	3.532	0.53	61.06	34.11
4.05	67.47	36.54	93.82	26.4	3.560	0.55	60.09	33.73
4.75	66.55	37.19	92.26	25.7	3.589	0.56	58.98	33.28
5.70	65.62	37.84	90.67	25.1	3.619	0.58	57.87	32.81
6.72	65.26	38.35	89.81	24.6	3.658	0.59	57.18	32.63
7.49	65.00	38.63	89.27	24.3	3.679	0.60	56.77	32.50
8.51	64.40	38.95	88.36	24.0	3.689	0.61	56.15	32.20
9.27	63.97	39.12	87.75	23.8	3.690	0.62	55.77	31.98
10.01	63.52	39.27	87.15	23.6	3.688	0.62	55.39	31.76
10.76	63.32	39.41	86.82	23.5	3.695	0.63	55.16	31.66
11.28	63.08	39.50	86.48	23.4	3.695	0.63	54.94	31.54
11.80	62.88	39.55	86.23	23.3	3.693	0.64	54.79	31.44
12.32	62.81	39.60	86.11	23.3	3.696	0.64	54.71	31.41
12.82	62.65	39.65	85.91	23.3	3.694	0.64	54.58	31.33
13.56	62.05	39.73	85.23	23.2	3.678	0.65	54.20	31.03
14.31	61.68	39.78	84.80	23.1	3.669	0.65	53.96	30.84
14.82	61.29	39.84	84.34	23.1	3.658	0.66	53.70	30.64
15.33	61.10	39.89	84.11	23.0	3.655	0.66	53.56	30.55

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**
 ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	186.8-186.3
Project No.	2013-465-001	Sample No.	ST-11
Lab ID #	2013-465-001-024	Test No.	14

Equipment	Equipment ID#	Calibration Due Date
Oven	G256	10/12/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G318	INITIAL ONLY
Load Cell	G1310	1/8/14
Cell Pressure Transducer	G836B	1/8/14
Pore Pressure Transducer	G836A	1/8/14
Extensometer	G835	1/8/14
Load Frame	G833	1/8/14
Dial Indicator	G590	3/14/14
Timing Device	G489	5/13/14
Oven	G1387	8/16/14
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	185.8-186.3
Project No.:	2013-465-001	Sample No.:	ST-11
Lab ID:	2013-465-001-024		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	15

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.928	Diameter 1:	2.863
Length 2:	5.936	Diameter 2:	2.869
Length 3:	5.939	Diameter 3:	2.874
Avg. Length:	5.934	Avg. Diam.:	2.869

PRESSURES (psi)

Cell Pressure (psi)	149.0
Back Pressure (psi)	21.6
Eff. Conf. Pressure (psi)	127.4
Pore Pressure	
Response (%)	100

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	19.7
Final Change (ml)	28.3

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	65.14
Q	=	36.62

Initial Dial Reading (mil)	60
Dial Reading After Saturation (mil)	62
Dial Reading After Consolidation (mil)	134

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
27.1	0.000	21.6
85.3	0.001	25.1
179.1	0.002	30.6
287.5	0.006	39.9
387.5	0.010	52.1
449.7	0.015	63.4
500.7	0.024	76.7
527.8	0.032	86.4
542.5	0.044	95.3
547.0	0.064	104.4
537.1	0.095	110.7
524.6	0.131	114.8
517.1	0.168	117.1
512.2	0.209	118.7
510.6	0.238	119.6
507.2	0.279	120.5
506.7	0.337	120.3
511.4	0.397	121.6
513.2	0.442	121.8
514.7	0.501	122.2
517.9	0.545	122.4
522.5	0.591	122.3
527.0	0.637	122.4
530.1	0.667	122.6
533.8	0.696	122.5
535.2	0.725	122.5
535.8	0.755	122.2
536.1	0.800	122.5
540.4	0.845	122.6
544.0	0.876	122.6
548.4	0.906	123.5

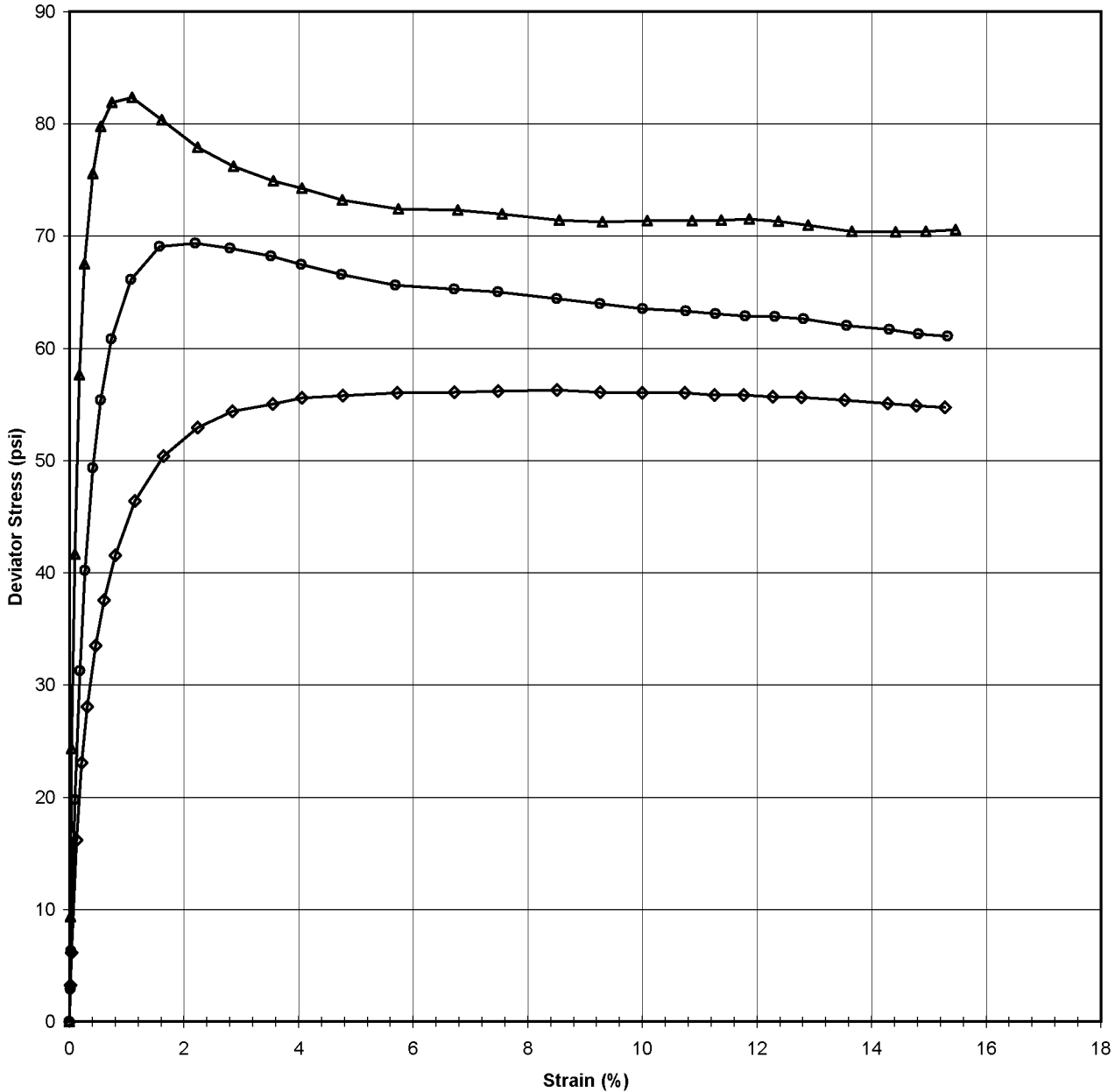
Tested By: JCM Date: 11/13/13 Input Checked By: KC Date: 11/20/13

DCN: CI-S28 DATE: 4/12/13 REVISION: 3



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	184.7-187.4
Project No.:	2013-465-001	Sample No.:	ST-11
Lab ID:	2013-465-001-024		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



◆ Test No. 13
 ● Test No. 14
 ▲ Test No. 15

E50 Test No. 13 9767.065
 E50 Test No. 14 16451.06
 E50 Test No. 15 43949.1

Tested By: JCM Date: 11/13/13 Approved By: DB Date: 11/20/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



A-880

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	185.8-186.3
Project No.:	2013-465-001	Sample No.:	ST-11
Lab ID:	2013-465-001-024		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	127.4	<i>Stage No.</i>	1
		<i>Test No</i>	15

INITIAL DIMENSIONS

Initial Sample Length (in)	5.93
Initial Sample Diameter (in)	2.87
Initial Sample Area (in ²)	6.46
Initial Sample Volume (in ³)	38.36

VOLUME CHANGE

Volume After Consolidation (in ³)	36.59
Length After Consolidation (in)	5.86
Area After Consolidation (in ²)	6.244

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	9.33	3.50	133.23	123.9	1.075	0.38	128.56	4.66
0.04	24.33	9.03	142.71	118.4	1.206	0.37	130.54	12.17
0.10	41.67	18.30	150.77	109.1	1.382	0.44	129.93	20.84
0.18	57.62	30.47	154.55	96.9	1.594	0.53	125.74	28.81
0.26	67.51	41.79	153.12	85.6	1.789	0.62	119.36	33.75
0.41	75.55	55.07	147.87	72.3	2.045	0.73	110.10	37.77
0.55	79.76	64.78	142.38	62.6	2.274	0.81	102.50	39.88
0.75	81.93	73.66	135.67	53.7	2.525	0.90	94.70	40.96
1.10	82.35	82.75	127.00	44.6	2.844	1.00	85.82	41.17
1.62	80.37	89.11	118.66	38.3	3.099	1.11	78.47	40.19
2.24	77.90	93.20	112.10	34.2	3.278	1.20	73.15	38.95
2.87	76.23	95.47	108.16	31.9	3.388	1.25	70.04	38.12
3.56	74.93	97.14	105.19	30.3	3.476	1.30	67.72	37.47
4.06	74.29	98.05	103.64	29.4	3.531	1.32	66.49	37.14
4.76	73.23	98.88	101.75	28.5	3.568	1.35	65.14	36.62
5.74	72.41	98.68	101.13	28.7	3.521	1.36	64.93	36.20
6.78	72.31	99.95	99.76	27.4	3.635	1.38	63.60	36.16
7.55	71.97	100.17	99.20	27.2	3.643	1.39	63.21	35.99
8.55	71.42	100.60	98.21	26.8	3.665	1.41	62.51	35.71
9.30	71.30	100.84	97.86	26.6	3.684	1.41	62.21	35.65
10.08	71.35	100.65	98.09	26.7	3.668	1.41	62.42	35.67
10.86	71.37	100.76	98.01	26.6	3.679	1.41	62.32	35.68
11.37	71.40	100.96	97.84	26.4	3.700	1.41	62.14	35.70
11.87	71.53	100.92	98.01	26.5	3.701	1.41	62.25	35.76
12.38	71.31	100.93	97.78	26.5	3.694	1.42	62.13	35.65
12.89	70.98	100.61	97.77	26.8	3.649	1.42	62.28	35.49
13.65	70.40	100.92	96.87	26.5	3.659	1.43	61.68	35.20
14.42	70.36	100.97	96.79	26.4	3.662	1.43	61.61	35.18
14.94	70.41	101.04	96.78	26.4	3.671	1.43	61.57	35.21
15.46	70.59	101.92	96.07	25.5	3.770	1.44	60.78	35.30

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	185.8-186.3
Project No.	2013-465-001	Sample No.	ST-11
Lab ID #	2013-465-001-024	Test No.	15

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G304	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1512	11/7/14
Pore Pressure Transducer	G1514	11/7/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G721	2/22/14
Timing Device	G489	5/13/14
Flow Pump	G1510-1	11/7/14

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client: Paul C. Rizzo & Associates
 Client Reference: Turkey Point Units 6 & 7 Site
 Project No.: 2013-465-001
 Lab ID: 2013-465-001-024 Specific Gravity (measured) 2.62

Visual Description: Greenish Gray Silty Sand (Undisturbed)

SAMPLE CONDITION SUMMARY

Boring No.:	R-6-1b	R-6-1b	R-6-1b
Depth (ft):	186.3-186.8	186.8-186.3	185.8-186.3
Sample No.:	ST-11	ST-11	ST-11
Test No.	T13	T14	T15
Deformation Rate (in/min)	0.002	0.002	0.002
Back Pressure (psi)	21.6	22.0	21.6
Consolidation Time (days)	1	1	1
Moisture Content (%) (INITIAL)	32.7	32.7	34.3
Total Unit Weight (pcf)	116.6	116.0	115.8
Dry Unit Weight (pcf)	87.8	87.4	86.2
Moisture Content (%) (FINAL)	30.6	31.4	31.3
Initial State Void Ratio, e	0.862	0.871	0.897
Void Ratio at Shear, e	0.828	0.819	0.810



Tested By: JCM Date: 11/1/13 Input Checked By: KC Date: 11/20/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS**

ASTM D4767-11

MOISTURE CONTENT

	T13	T14	T15
Tare Number	1125	1125	1125
Weight of Tare & Wet Sample (g)	262.02	262.02	161.41
Weight of Tare & Dry Sample (g)	218.1	218.1	141.61
Weight of Tare (g)	83.85	83.85	83.82
Moisture Content (%) (INITIAL)	32.72	32.72	34.26
Tare Number	550	17	29
Weight of Tare & Wet Sample (g)	327.02	1330.41	1310.58
Weight of Tare & Dry Sample (g)	269.45	1061.32	1046.86
Weight of Tare (g)	81.58	204.5	204.62
Moisture Content (%) (FINAL)	30.64	31.41	31.31

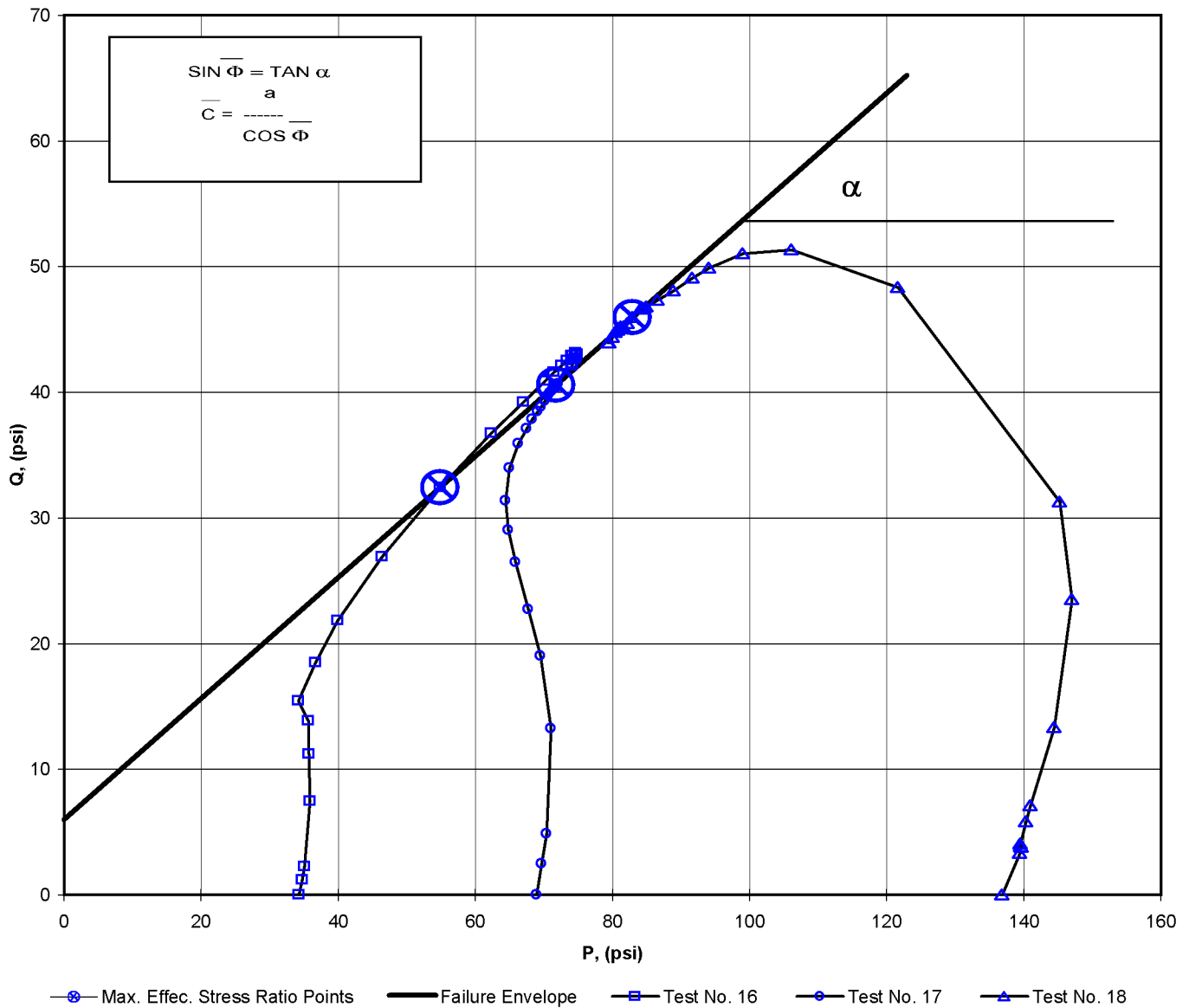
UNIT WEIGHT

Weight of Tube & Wet Sample (g)	1624.82	1617.76	1608.19
Weight of Tube (g)	446.24	446.52	442.73
Weight of Wet Sample (g)	1178.58	1171.24	1165.46
Length 1 (in)	5.956	5.954	5.928
Length 2 (in)	5.961	5.957	5.936
Length 3 (in)	5.953	5.958	5.939
Top Diameter (in)	2.879	2.863	2.863
Middle Diameter (in)	2.866	2.87	2.869
Bottom Diameter (in)	2.863	2.869	2.874
Average Length (in)	5.956667	5.956333	5.934333
Average Area (in ²)	6.466	6.457	6.463
Sample Volume (cm ³)	631.18	630.27	628.53
Unit Wet Weight (g/cm ³)	1.87	1.86	1.85
Unit Wet Weight (pcf)	116.57	116.01	115.76
Unit Dry Weight (pcf)	87.84	87.42	86.22
Unit Dry Weight (g/cm ³)	1.41	1.40	1.38
Initial Burette Reading	48	48	48
Final Burette Reading	37.5	31.7	19.7
Initial Dial Reading	65	75	60
Dial Reading After Saturation	68	79	62
Dial Reading After Consolidation	81	119	134
Volume Change during Consolidation	10.5	16.3	28.3
Volume Change during Saturation	0.95	1.27	0.64
Volume at Shear (cm ³)	*These 619.73	612.70	599.59
Volume of Solids (cm ³)	measurements 338.95	336.84	331.32
Volume of Voids (cm ³)	are all 280.78	275.86	268.27
Volume of Water (cm ³)	at 272.13	277.16	271.80
Void Ratio, e	shear 0.828	0.819	0.810

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	199.5-202.2
Project No.:	2013-465-001	Sample No.:	ST-15
Lab ID:	2013-465-001-026		

Consolidated Undrained Triaxial Test with Pore Pressure

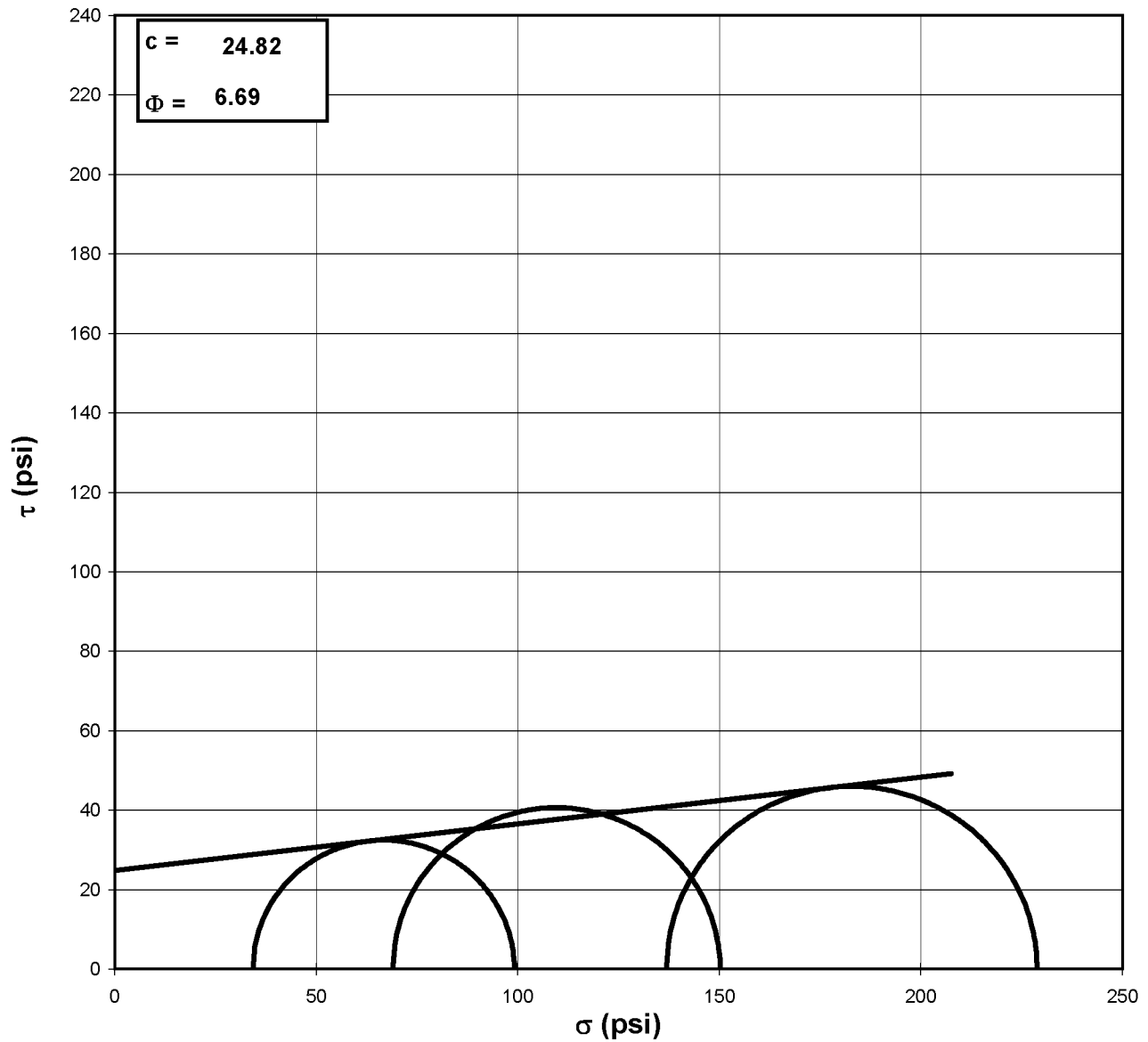


a	=	6.01	\overline{C}	=	6.86
α	=	25.7	$\overline{\Phi}$	=	28.79

Tested By: JCM Date: 11/1/13 Approved By: DB Date: 11/22/13

MOHR TOTAL STRENGTH ENVELOPE
 ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	199.5-202.2
Project No.:	2013-465-001	Sample No.:	ST-15
Lab ID:	2013-465-001-026		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



Failure Based on Maximum Effective Principal Stress Ratio

NOTE: GRAPH NOT TO SCALE

Tested By: JCM Date: 11/1/13 Approved By: DB Date: 11/22/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	201.6-202.1
Project No.:	2013-465-001	Sample No.:	ST-15
Lab ID:	2013-465-001-026		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	16

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.955	Diameter 1:	2.882
Length 2:	5.958	Diameter 2:	2.874
Length 3:	5.964	Diameter 3:	2.878
Avg. Length:	5.959	Avg. Diam.:	2.878

PRESSURES (psi)

Cell Pressure (psi)	56.0
Back Pressure (psi)	21.7
Eff. Conf. Pressure (psi)	34.3
Pore Pressure Response (%)	99

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	32.8
Final Change (ml)	15.2

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	54.86
Q	=	32.43

Initial Dial Reading (mil)	55
Dial Reading After Saturation (mil)	55
Dial Reading After Consolidation (mil)	86

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
9.4	0.000	21.7
24.7	0.001	22.4
38.2	0.002	23.2
104.8	0.007	27.6
152.9	0.012	31.5
186.6	0.017	34.2
207.1	0.026	37.2
247.0	0.034	37.8
290.2	0.046	37.8
356.6	0.065	36.5
430.3	0.097	33.6
489.5	0.134	30.4
524.9	0.169	28.2
550.5	0.210	26.7
562.8	0.239	26.1
573.8	0.280	25.5
585.1	0.337	25.1
596.5	0.399	24.8
601.5	0.443	24.7
610.6	0.500	24.5
613.4	0.543	24.4
619.5	0.589	24.3
623.0	0.637	24.2
626.5	0.667	24.2
631.0	0.695	24.1
633.6	0.724	24.1
633.9	0.754	24.0
637.8	0.799	24.0
638.4	0.844	24.0
639.4	0.875	24.0
640.0	0.906	24.0

Tested By:	JCM	Date:	11/1/13	Input Checked By:	KC	Date:	11/22/13
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**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	201.6-202.1
Project No.:	2013-465-001	Sample No.:	ST-15
Lab ID:	2013-465-001-026		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	34.3	<i>Stage No.</i>	1
		<i>Test No</i>	16

INITIAL DIMENSIONS

Initial Sample Length (in)	5.96
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.51
Initial Sample Volume (in ³)	38.77

VOLUME CHANGE

Volume After Consolidation (in ³)	37.84
Length After Consolidation (in)	5.93
Area After Consolidation (in ²)	6.383

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	2.40	0.73	35.96	33.6	1.071	0.31	34.76	1.20
0.04	4.51	1.51	37.31	32.8	1.138	0.34	35.05	2.26
0.11	14.93	5.86	43.37	28.4	1.525	0.40	35.90	7.47
0.20	22.43	9.80	46.93	24.5	1.916	0.44	35.71	11.22
0.29	27.68	12.48	49.50	21.8	2.269	0.46	35.66	13.84
0.44	30.83	15.53	49.60	18.8	2.643	0.51	34.19	15.42
0.58	37.01	16.13	55.17	18.2	3.037	0.44	36.67	18.50
0.77	43.65	16.14	61.80	18.2	3.404	0.37	39.98	21.82
1.10	53.80	14.80	73.30	19.5	3.759	0.28	46.40	26.90
1.63	64.86	11.87	87.29	22.4	3.892	0.18	54.86	32.43
2.25	73.52	8.69	99.13	25.6	3.871	0.12	62.37	36.76
2.86	78.46	6.52	106.24	27.8	3.824	0.08	67.01	39.23
3.54	81.77	5.05	111.03	29.3	3.795	0.06	70.14	40.89
4.03	83.21	4.41	113.10	29.9	3.784	0.05	71.49	41.60
4.72	84.24	3.80	114.74	30.5	3.762	0.05	72.62	42.12
5.68	85.07	3.40	115.97	30.9	3.753	0.04	73.43	42.53
6.72	85.79	3.10	116.99	31.2	3.750	0.04	74.10	42.90
7.47	85.82	2.98	117.15	31.3	3.740	0.04	74.23	42.91
8.44	86.25	2.78	117.76	31.5	3.737	0.03	74.64	43.12
9.15	85.97	2.66	117.61	31.6	3.717	0.03	74.62	42.98
9.93	86.09	2.58	117.81	31.7	3.715	0.03	74.76	43.05
10.74	85.81	2.49	117.62	31.8	3.697	0.03	74.72	42.90
11.24	85.82	2.47	117.65	31.8	3.696	0.03	74.74	42.91
11.72	85.97	2.39	117.88	31.9	3.694	0.03	74.90	42.99
12.22	85.85	2.41	117.74	31.9	3.692	0.03	74.82	42.92
12.72	85.39	2.33	117.36	32.0	3.671	0.03	74.67	42.70
13.47	85.19	2.31	117.18	32.0	3.663	0.03	74.58	42.60
14.23	84.52	2.31	116.50	32.0	3.642	0.03	74.25	42.26
14.76	84.13	2.34	116.09	32.0	3.632	0.03	74.03	42.06
15.29	83.69	2.31	115.69	32.0	3.616	0.03	73.84	41.85

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	201.6-202.1
Project No.	2013-465-001	Sample No.	ST-15
Lab ID #	2013-465-001-026	Test No.	16

Equipment	Equipment ID#	Calibration Due Date
Oven	G256	10/12/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G320	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1073B	1/8/14
Pore Pressure Transducer	G1073C	1/8/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G1455	8/30/14
Timing Device	G489	5/13/14
Balance	G1394	5/15/14
Oven	G1387	8/16/14
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	201.1-201.6
Project No.:	2013-465-001	Sample No.:	ST-15
Lab ID:	2013-465-001-026		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	17

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.998	Diameter 1:	2.868
Length 2:	6.009	Diameter 2:	2.873
Length 3:	6.008	Diameter 3:	2.863
Avg. Length	6.005	Avg. Diam.:	2.868

PRESSURES (psi)

Cell Pressure (psi)	90.6
Back Pressure (psi)	21.6
Eff. Conf. Pressure (psi)	69.0
Pore Pressure Response (%)	100

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	29.7
Final Change (ml)	18.3

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	71.81
Q	=	40.60

Initial Dial Reading (mil)	46
Dial Reading After Saturation (mil)	43
Dial Reading After Consolidation (mil)	88

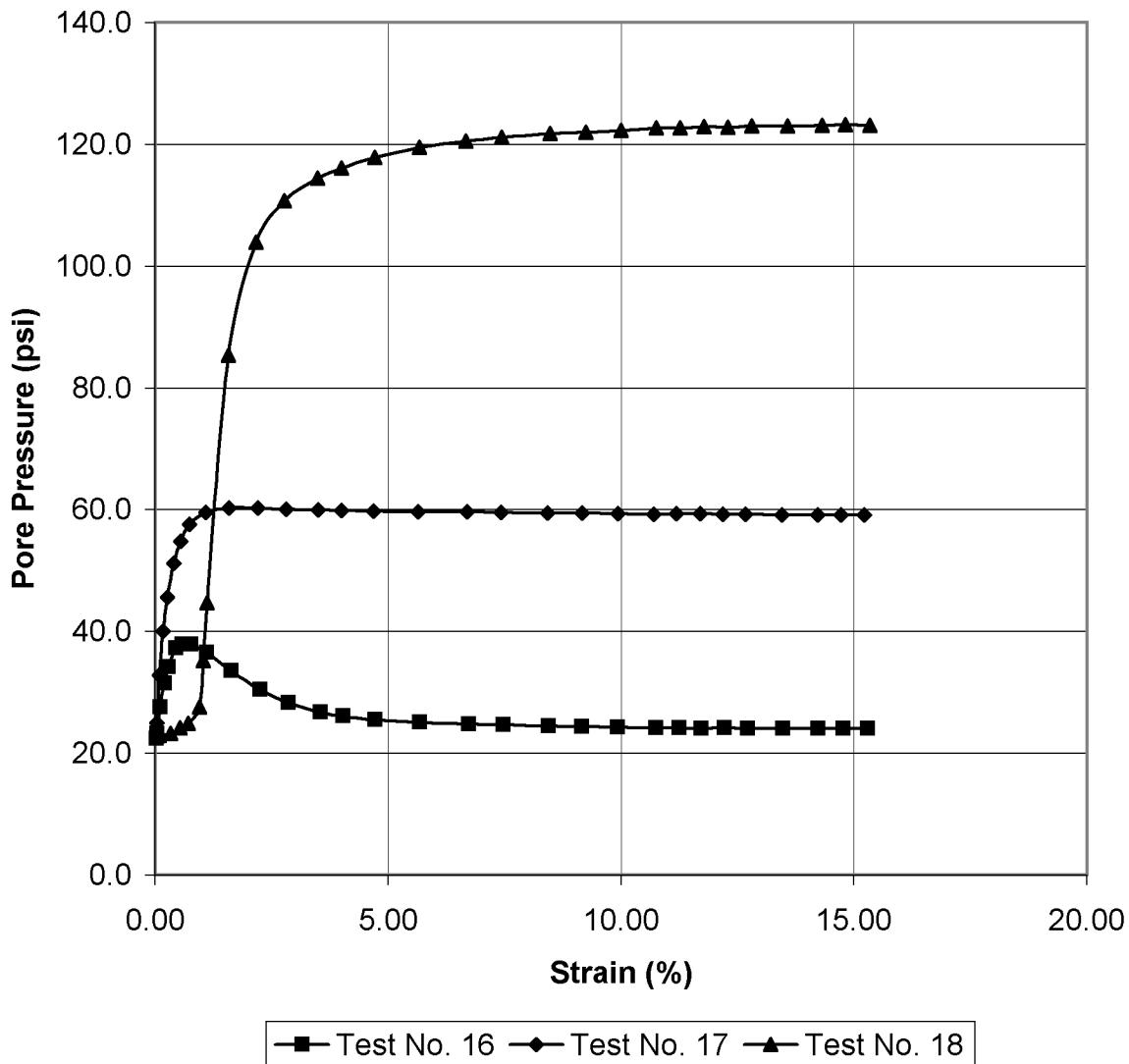
LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
18.9	0.000	21.6
50.4	0.001	23.4
80.1	0.002	25.0
186.8	0.006	32.8
259.9	0.011	40.1
307.1	0.016	45.6
355.0	0.024	51.2
388.5	0.033	54.8
418.7	0.044	57.5
453.6	0.065	59.5
480.9	0.095	60.2
498.9	0.132	60.2
511.5	0.168	60.1
523.4	0.209	59.9
530.7	0.239	59.8
540.8	0.280	59.7
551.7	0.337	59.7
560.6	0.399	59.6
567.0	0.443	59.5
576.9	0.502	59.5
584.6	0.547	59.4
589.9	0.593	59.3
593.6	0.638	59.3
596.1	0.668	59.3
600.1	0.698	59.3
604.6	0.727	59.2
608.5	0.756	59.2
613.4	0.803	59.1
616.2	0.848	59.1
617.4	0.878	59.1
618.8	0.908	59.1

Tested By:	JCM	Date:	11/1/13	Input Checked By:	KC	Date:	11/22/13
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**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	199.5-202.2
Project No.:	2013-465-001	Sample No.:	ST-15
Lab ID:	2013-465-001-026		

Pore Pressure vs % Strain



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



A-891

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	201.1-201.6
Project No.:	2013-465-001	Sample No.:	ST-15
Lab ID:	2013-465-001-026		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	69.0	<i>Stage No.</i>	1
		<i>Test No</i>	17

INITIAL DIMENSIONS

Initial Sample Length (in)	6.01
Initial Sample Diameter (in)	2.87
Initial Sample Area (in ²)	6.46
Initial Sample Volume (in ³)	38.79

VOLUME CHANGE

Volume After Consolidation (in ³)	37.74
Length After Consolidation (in)	5.96
Area After Consolidation (in ²)	6.328

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.01	4.98	1.77	72.21	67.2	1.074	0.36	69.72	2.49
0.03	9.67	3.41	75.26	65.6	1.147	0.35	70.42	4.83
0.10	26.50	11.18	84.32	57.8	1.458	0.42	71.07	13.25
0.18	38.02	18.45	88.56	50.5	1.752	0.49	69.56	19.01
0.26	45.42	23.97	90.44	45.0	2.009	0.53	67.74	22.71
0.40	52.91	29.60	92.31	39.4	2.343	0.56	65.85	26.45
0.55	58.09	33.20	93.89	35.8	2.622	0.57	64.85	29.04
0.75	62.70	35.92	95.78	33.1	2.896	0.57	64.43	31.35
1.10	67.94	37.94	99.00	31.1	3.187	0.56	65.03	33.97
1.59	71.84	38.61	102.23	30.4	3.364	0.54	66.31	35.92
2.21	74.18	38.61	104.57	30.4	3.441	0.52	67.48	37.09
2.81	75.66	38.48	106.17	30.5	3.479	0.51	68.34	37.83
3.50	76.93	38.34	107.58	30.7	3.509	0.50	69.12	38.46
4.00	77.64	38.22	108.41	30.8	3.523	0.49	69.59	38.82
4.69	78.60	38.11	109.49	30.9	3.544	0.48	70.19	39.30
5.66	79.44	38.06	110.38	30.9	3.568	0.48	70.66	39.72
6.70	79.87	38.00	110.87	31.0	3.576	0.48	70.94	39.93
7.43	80.18	37.90	111.28	31.1	3.578	0.47	71.19	40.09
8.42	80.75	37.87	111.88	31.1	3.593	0.47	71.51	40.37
9.17	81.20	37.79	112.41	31.2	3.601	0.47	71.81	40.60
9.94	81.27	37.74	112.53	31.3	3.600	0.46	71.90	40.63
10.70	81.09	37.67	112.42	31.3	3.588	0.46	71.87	40.54
11.20	80.99	37.68	112.31	31.3	3.586	0.47	71.81	40.50
11.70	81.09	37.68	112.42	31.3	3.589	0.46	71.87	40.55
12.19	81.28	37.60	112.68	31.4	3.589	0.46	72.04	40.64
12.68	81.35	37.58	112.77	31.4	3.589	0.46	72.10	40.68
13.46	81.30	37.53	112.77	31.5	3.584	0.46	72.12	40.65
14.22	80.96	37.52	112.44	31.5	3.572	0.46	71.96	40.48
14.73	80.64	37.48	112.16	31.5	3.558	0.46	71.84	40.32
15.23	80.36	37.52	111.84	31.5	3.553	0.47	71.66	40.18

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**
 ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	201.1-201.6
Project No.	2013-465-001	Sample No.	ST-15
Lab ID #	2013-465-001-026	Test No.	17

Equipment	Equipment ID#	Calibration Due Date
Oven	G256	10/12/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G319	INITIAL ONLY
Load Cell	G1437	1/7/14
Cell Pressure Transducer	G1438	1/7/14
Pore Pressure Transducer	G1439	1/7/14
Extensometer	G1440	1/7/14
Load Frame	G1434	1/7/14
Dial Indicator	G456	2/13/14
Timing Device	G489	5/13/14
Balance	G1394	5/15/14
Oven	G1387	8/16/14
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	200.6-201.1
Project No.:	2013-465-001	Sample No.:	ST-15
Lab ID:	2013-465-001-026		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	18

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.958	Diameter 1:	2.870
Length 2:	5.947	Diameter 2:	2.878
Length 3:	5.940	Diameter 3:	2.877
Avg. Length:	5.948	Avg. Diam.:	2.875

PRESSURES (psi)

Cell Pressure (psi)	158.7
Back Pressure (psi)	21.8
Eff. Conf. Pressure (psi)	136.9
Pore Pressure Response (%)	97

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	21.4
Final Change (ml)	26.6

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	82.97
Q	=	45.97

Initial Dial Reading (mil)	145
Dial Reading After Saturation (mil)	155
Dial Reading After Consolidation (mil)	204

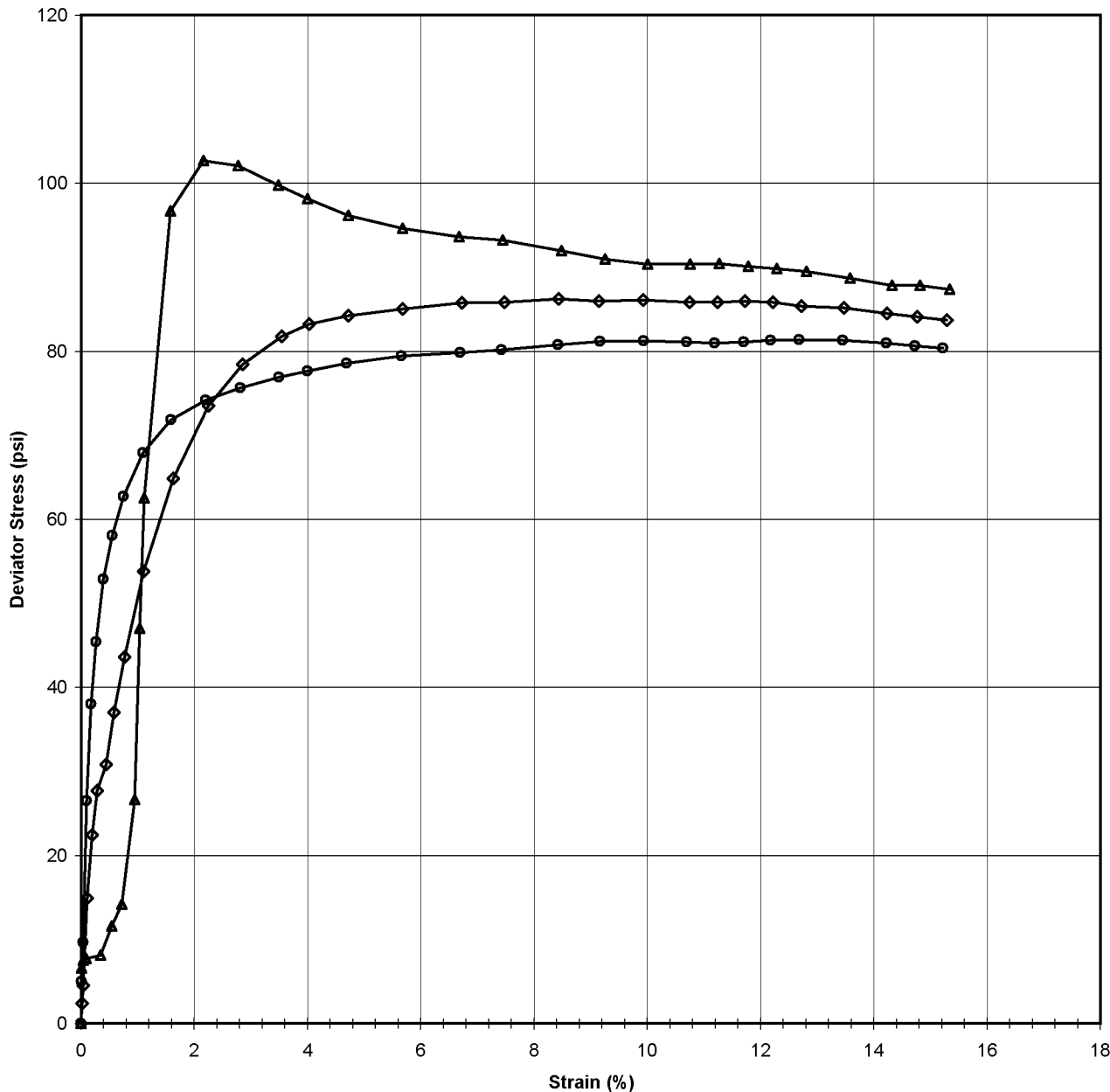
LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
28.7	0.000	21.8
69.8	0.001	22.6
75.9	0.002	22.8
76.8	0.005	22.9
79.8	0.020	23.3
101.7	0.032	24.1
118.0	0.042	24.8
196.8	0.056	27.5
325.6	0.061	35.2
423.8	0.066	44.7
642.7	0.093	85.4
684.4	0.128	103.9
684.9	0.163	110.7
674.6	0.205	114.4
667.7	0.236	116.1
659.1	0.278	117.8
655.7	0.335	119.4
655.6	0.393	120.5
657.9	0.439	121.1
656.4	0.500	121.7
655.0	0.545	122.0
656.2	0.590	122.2
661.5	0.634	122.6
665.6	0.664	122.7
667.0	0.694	122.8
668.9	0.724	122.8
670.1	0.755	123.0
670.1	0.800	123.0
669.2	0.844	123.1
673.0	0.873	123.2
673.4	0.904	123.1

Tested By: JCM Date: 11/14/13 Input Checked By: KC Date: 11/22/13



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	199.5-202.2
Project No.:	2013-465-001	Sample No.:	ST-15
Lab ID:	2013-465-001-026		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



◆ Test No. 16
 ● Test No. 17
 ▲ Test No. 18

E50 Test No. 16 6814.556

E50 Test No. 17 19484.57

E50 Test No. 18 4458.468

Tested By: JCM Date: 11/14/13 Approved By: DB Date: 11/22/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



A-895

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	200.6-201.1
Project No.:	2013-465-001	Sample No.:	ST-15
Lab ID:	2013-465-001-026		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	136.9	<i>Stage No.</i>	1
		<i>Test No</i>	18

INITIAL DIMENSIONS

Initial Sample Length (in)	5.95
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.49
Initial Sample Volume (in ³)	38.62

VOLUME CHANGE

Volume After Consolidation (in ³)	36.80
Length After Consolidation (in)	5.89
Area After Consolidation (in ²)	6.248

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.01	6.57	0.76	142.71	136.1	1.048	0.12	139.43	3.29
0.04	7.55	0.98	143.47	135.9	1.056	0.13	139.70	3.78
0.09	7.69	1.11	143.48	135.8	1.057	0.15	139.64	3.85
0.34	8.14	1.45	143.59	135.4	1.060	0.18	139.52	4.07
0.54	11.62	2.33	146.19	134.6	1.086	0.21	140.38	5.81
0.72	14.19	3.01	148.08	133.9	1.106	0.22	140.98	7.10
0.95	26.65	5.74	157.81	131.2	1.203	0.22	144.48	13.32
1.04	47.03	13.37	170.56	123.5	1.381	0.29	147.05	23.51
1.12	62.53	22.89	176.54	114.0	1.548	0.38	145.27	31.27
1.58	96.72	63.56	170.05	73.3	2.319	0.68	121.69	48.36
2.17	102.66	82.10	157.47	54.8	2.873	0.82	106.14	51.33
2.77	102.11	88.92	150.09	48.0	3.128	0.90	99.04	51.05
3.49	99.77	92.64	144.03	44.3	3.254	0.96	94.15	49.89
4.00	98.17	94.31	140.76	42.6	3.305	0.99	91.68	49.09
4.72	96.13	96.01	137.02	40.9	3.351	1.03	88.96	48.06
5.68	94.65	97.65	133.91	39.3	3.411	1.06	86.58	47.33
6.68	93.63	98.72	131.81	38.2	3.452	1.09	84.99	46.82
7.45	93.21	99.31	130.80	37.6	3.479	1.10	84.20	46.60
8.48	91.93	99.90	128.94	37.0	3.485	1.12	82.97	45.97
9.26	90.96	100.17	127.69	36.7	3.477	1.14	82.21	45.48
10.01	90.38	100.42	126.86	36.5	3.478	1.15	81.67	45.19
10.76	90.38	100.85	126.43	36.1	3.507	1.15	81.24	45.19
11.27	90.44	100.86	126.48	36.0	3.510	1.15	81.26	45.22
11.78	90.11	101.04	125.97	35.9	3.513	1.16	80.91	45.06
12.29	89.86	100.96	125.80	35.9	3.500	1.16	80.87	44.93
12.82	89.50	101.17	125.23	35.7	3.505	1.17	80.48	44.75
13.58	88.71	101.19	124.42	35.7	3.484	1.18	80.06	44.35
14.33	87.83	101.27	123.46	35.6	3.465	1.19	79.55	43.91
14.82	87.84	101.43	123.31	35.5	3.477	1.19	79.39	43.92
15.34	87.34	101.29	122.95	35.6	3.453	1.20	79.28	43.67

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	200.6-201.1
Project No.	2013-465-001	Sample No.	ST-15
Lab ID #	2013-465-001-026	Test No.	18

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G330	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1512	11/7/14
Pore Pressure Transducer	G1514	11/7/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G1457	8/30/14
Timing Device	G489	5/13/14
Flow Pump	G1511-1	11/7/14

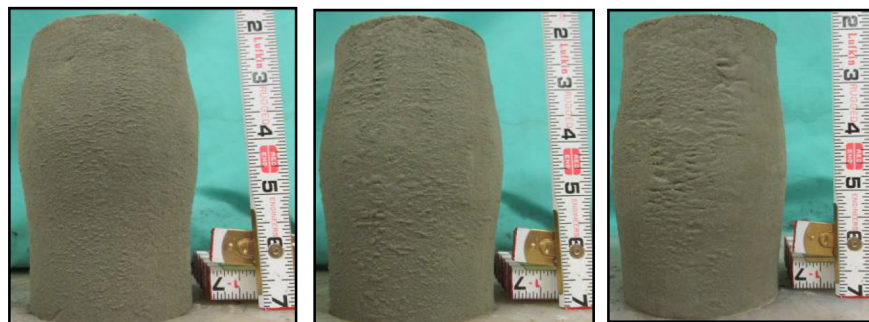
**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client: Paul C. Rizzo & Associates
 Client Reference: Turkey Point Units 6 & 7 Site
 Project No.: 2013-465-001
 Lab ID: 2013-465-001-026 Specific Gravity (assumed) 2.66

Visual Description: Greenish Gray Silty Sand (Undisturbed)

SAMPLE CONDITION SUMMARY

Boring No.:	R-6-1b	R-6-1b	R-6-1b
Depth (ft):	201.6-202.1	201.1-201.6	200.6-201.1
Sample No.:	ST-15	ST-15	ST-15
Test No.	T16	T17	T18
Deformation Rate (in/min)	0.002	0.002	0.002
Back Pressure (psi)	21.7	21.6	21.8
Consolidation Time (days)	1	1	1
Moisture Content (%) (INITIAL)	19.8	19.8	19.8
Total Unit Weight (pcf)	119.9	119.2	117.8
Dry Unit Weight (pcf)	100.1	99.5	98.3
Moisture Content (%) (FINAL)	27.2	28.8	28.6
Initial State Void Ratio, e	0.659	0.668	0.689
Void Ratio at Shear, e	0.619	0.623	0.610



Tested By: JCM Date: 11/1/13 Input Checked By: KC Date: 11/22/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

CONSOLIDATED UNDRAINED TRIAXIAL TEST WITH PORE PRESSURE READINGS

ASTM D4767-11

MOISTURE CONTENT

	T16	T17	T18
Tare Number	1692	1692	1692
Weight of Tare & Wet Sample (g)	215.32	215.32	215.32
Weight of Tare & Dry Sample (g)	193.4	193.4	193.4
Weight of Tare (g)	82.55	82.55	82.55
Moisture Content (%) (INITIAL)	19.77	19.77	19.77
Tare Number	1692	693	1463
Weight of Tare & Wet Sample (g)	301.84	1253.39	1227.04
Weight of Tare & Dry Sample (g)	254.98	993.31	978.43
Weight of Tare (g)	82.54	89.86	109.14
Moisture Content (%) (FINAL)	27.17	28.79	28.60

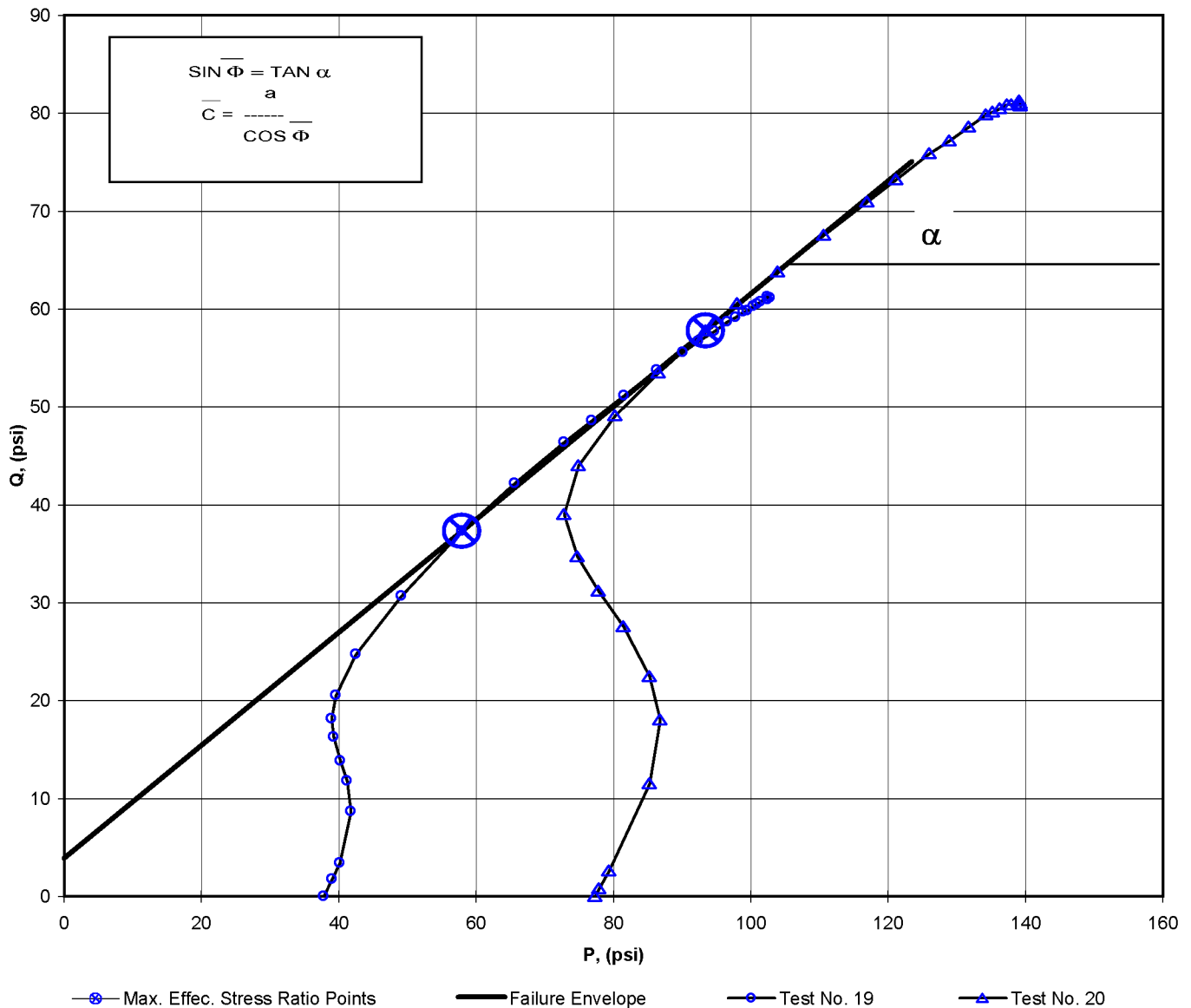
UNIT WEIGHT

Weight of Tube & Wet Sample (g)	1666.61	1663.99	1639.47
Weight of Tube (g)	446.64	450.04	445.95
Weight of Wet Sample (g)	1219.97	1213.95	1193.52
Length 1 (in)	5.955	5.998	5.958
Length 2 (in)	5.958	6.009	5.947
Length 3 (in)	5.964	6.008	5.94
Top Diameter (in)	2.882	2.868	2.87
Middle Diameter (in)	2.874	2.873	2.878
Bottom Diameter (in)	2.878	2.863	2.877
Average Length (in)	5.959	6.005	5.948333
Average Area (in ²)	6.505	6.460	6.492
Sample Volume (cm ³)	635.25	635.71	632.79
Unit Wet Weight (g/cm ³)	1.92	1.91	1.89
Unit Wet Weight (pcf)	119.89	119.22	117.75
Unit Dry Weight (pcf)	100.10	99.53	98.31
Unit Dry Weight (g/cm ³)	1.60	1.59	1.57
Initial Burette Reading	48	48	48
Final Burette Reading	32.8	29.7	21.4
Initial Dial Reading	55	46	145
Dial Reading After Saturation	55	43	155
Dial Reading After Consolidation	86	88	204
Volume Change during Consolidation	15.2	18.3	26.6
Volume Change during Saturation	0.00	-0.95	3.19
Volume at Shear (cm ³)	*These 620.05	618.37	603.00
Volume of Solids (cm ³)	measurements 382.92	381.03	374.61
Volume of Voids (cm ³)	are all 237.14	237.34	228.39
Volume of Water (cm ³)	at 276.79	291.77	284.98
Void Ratio, e	shear 0.619	0.623	0.610

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	224.2-226.3
Project No.:	2013-465-001	Sample No.:	ST-22
Lab ID:	2013-465-001-028		

Consolidated Undrained Triaxial Test with Pore Pressure

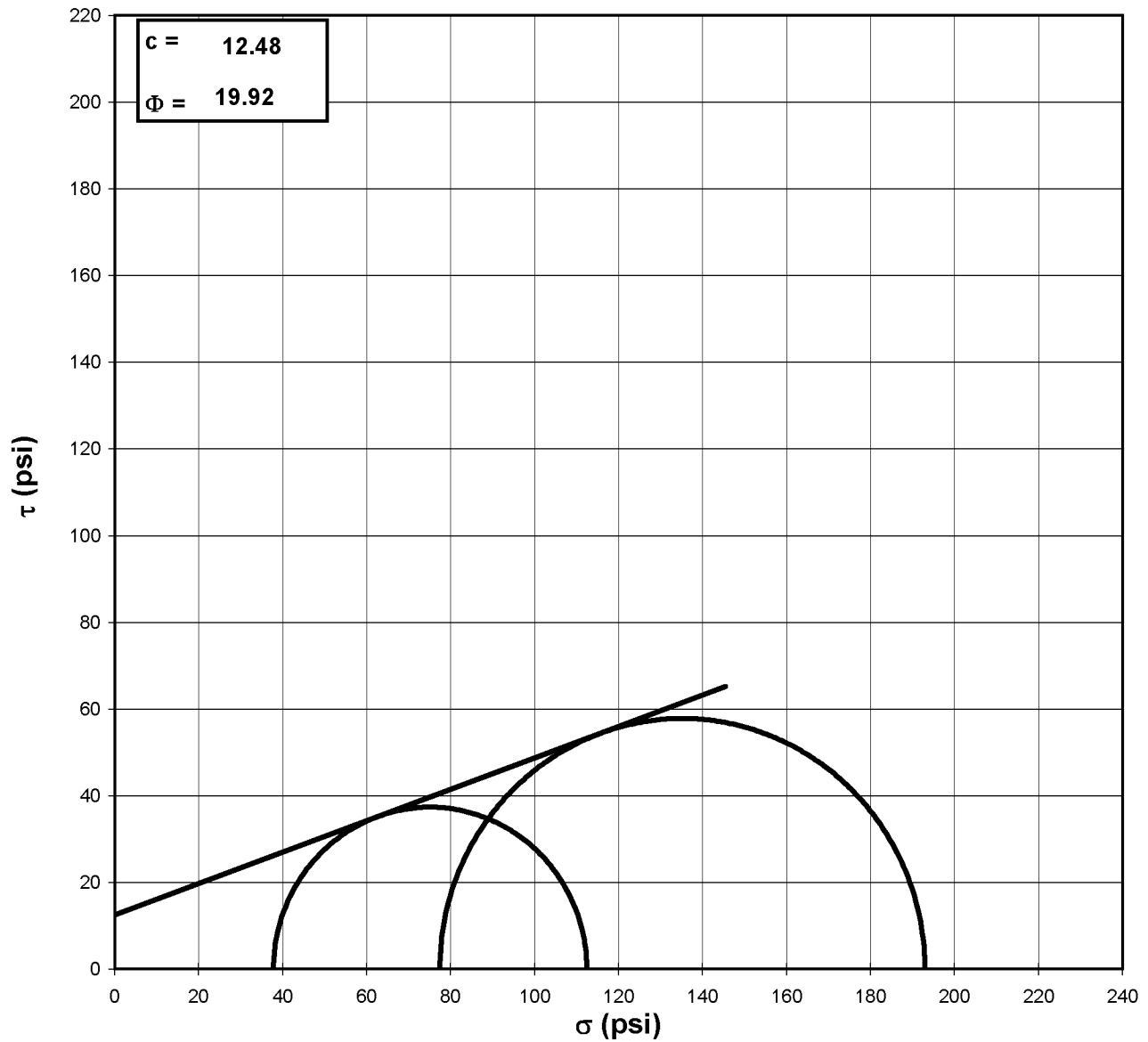


a	=	3.94	C̄	=	4.82
α	=	30.0	Φ̄	=	35.19

Tested By: JCM Date: 11/8/13 Approved By: DB Date: 11/20/13

MOHR TOTAL STRENGTH ENVELOPE
 ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	224.2-226.3
Project No.:	2013-465-001	Sample No.:	ST-22
Lab ID:	2013-465-001-028		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



Failure Based on Maximum Effective Principal Stress Ratio

NOTE: GRAPH NOT TO SCALE

Tested By: JCM Date: 11/8/13 Approved By: DB Date: 11/20/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	225.7-226.2
Project No.:	2013-465-001	Sample No.:	ST-22
Lab ID:	2013-465-001-028		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	19

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.635	Diameter 1:	2.866
Length 2:	5.630	Diameter 2:	2.875
Length 3:	5.622	Diameter 3:	2.876
Avg. Length	5.629	Avg. Diam.:	2.872

PRESSURES (psi)

Cell Pressure (psi)	59.4
Back Pressure (psi)	21.6
Eff. Conf. Pressure (psi)	37.8
Pore Pressure Response (%)	99

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	24.3
Final Change (ml)	23.7

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	57.94
Q	=	37.33

Initial Dial Reading (mil)	71
Dial Reading After Saturation (mil)	84
Dial Reading After Consolidation (mil)	150

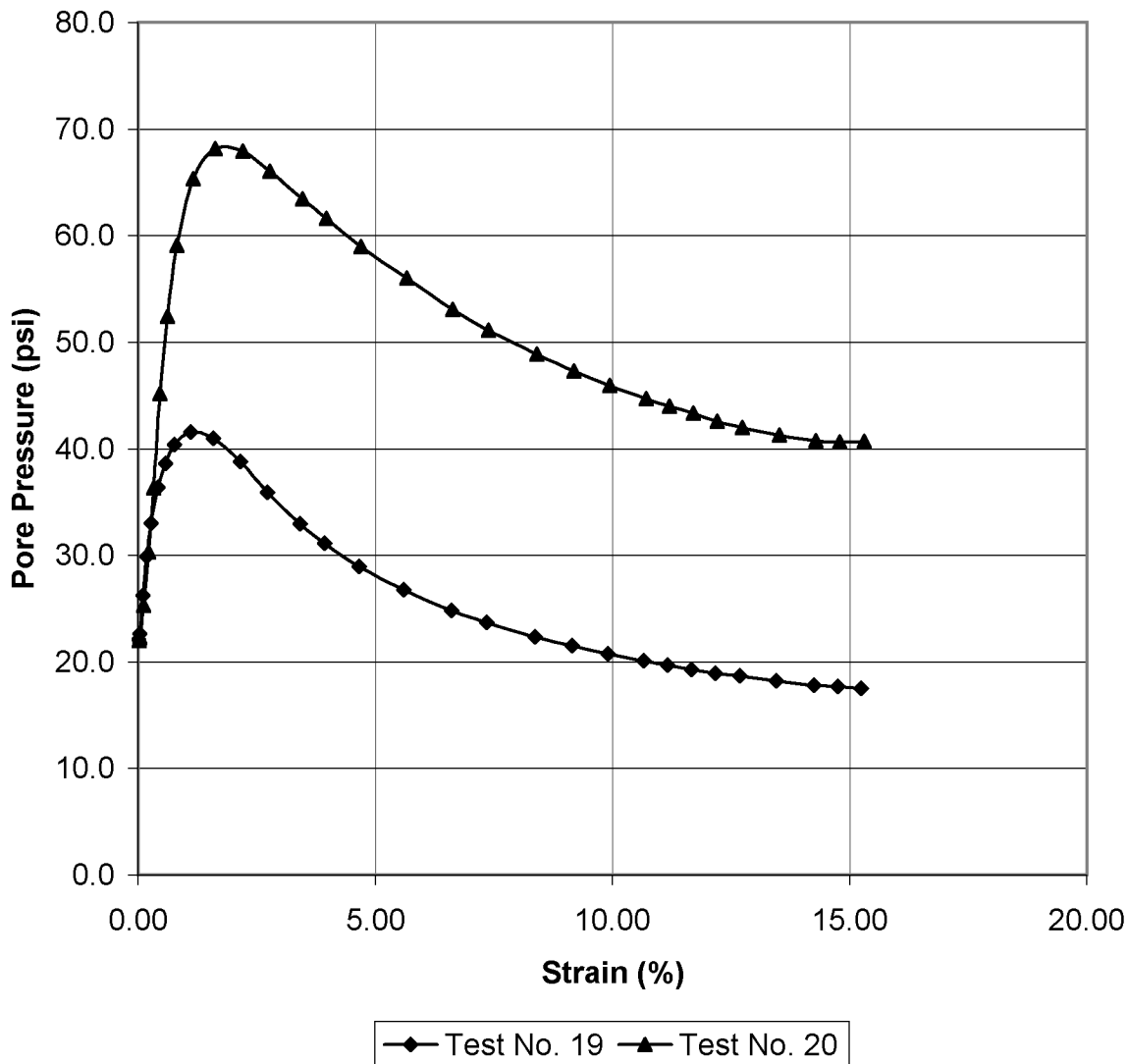
LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
14.3	0.000	21.6
36.4	0.001	22.1
57.2	0.002	22.7
123.1	0.006	26.3
162.1	0.010	29.9
188.2	0.016	33.0
219.2	0.023	36.4
243.2	0.032	38.6
273.8	0.043	40.4
327.5	0.062	41.6
405.3	0.089	41.0
492.4	0.120	38.8
557.6	0.151	35.9
615.9	0.190	33.0
648.2	0.218	31.1
687.0	0.258	29.0
727.8	0.311	26.8
760.0	0.367	24.8
781.6	0.408	23.7
803.5	0.464	22.3
824.0	0.508	21.5
837.4	0.550	20.8
852.1	0.592	20.1
858.0	0.620	19.7
869.5	0.648	19.3
877.7	0.676	18.9
886.4	0.704	18.7
901.0	0.747	18.2
904.9	0.791	17.8
912.8	0.819	17.7
913.5	0.846	17.5

Tested By:	JCM	Date:	11/8/13	Input Checked By:	KC	Date:	11/20/13
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**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	224.2-226.3
Project No.:	2013-465-001	Sample No.:	ST-22
Lab ID:	2013-465-001-028		

Pore Pressure vs % Strain



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	225.7-226.2
Project No.:	2013-465-001	Sample No.:	ST-22
Lab ID:	2013-465-001-028		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	37.8	<i>Stage No.</i>	1
		<i>Test No</i>	19

INITIAL DIMENSIONS

Initial Sample Length (in)	5.63
Initial Sample Diameter (in)	2.87
Initial Sample Area (in ²)	6.48
Initial Sample Volume (in ³)	36.47

VOLUME CHANGE

Volume After Consolidation (in ³)	34.78
Length After Consolidation (in)	5.55
Area After Consolidation (in ²)	6.266

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.01	3.52	0.49	40.83	37.3	1.094	0.14	39.07	1.76
0.04	6.84	1.06	43.58	36.7	1.186	0.16	40.16	3.42
0.10	17.35	4.65	50.50	33.1	1.523	0.27	41.82	8.67
0.19	23.55	8.31	53.04	29.5	1.799	0.36	41.26	11.78
0.28	27.68	11.41	54.07	26.4	2.049	0.42	40.23	13.84
0.42	32.56	14.80	55.56	23.0	2.416	0.46	39.28	16.28
0.58	36.32	17.02	57.10	20.8	2.748	0.47	38.94	18.16
0.77	41.09	18.77	60.12	19.0	3.160	0.46	39.58	20.55
1.11	49.44	19.97	67.27	17.8	3.772	0.41	42.55	24.72
1.60	61.41	19.37	79.84	18.4	4.332	0.32	49.14	30.71
2.16	74.66	17.19	95.27	20.6	4.622	0.23	57.94	37.33
2.73	84.34	14.31	107.83	23.5	4.591	0.17	65.66	42.17
3.42	92.73	11.36	119.17	26.4	4.507	0.12	72.81	46.36
3.93	97.19	9.54	125.45	28.3	4.439	0.10	76.85	48.59
4.66	102.36	7.37	132.79	30.4	4.364	0.07	81.61	51.18
5.61	107.48	5.17	140.11	32.6	4.294	0.05	86.37	53.74
6.61	111.14	3.22	145.72	34.6	4.214	0.03	90.15	55.57
7.35	113.45	2.12	149.13	35.7	4.180	0.02	92.40	56.72
8.37	115.41	0.73	152.48	37.1	4.114	0.01	94.77	57.71
9.15	117.39	-0.11	155.30	37.9	4.097	0.00	96.60	58.70
9.91	118.34	-0.84	156.98	38.6	4.063	-0.01	97.81	59.17
10.66	119.45	-1.47	158.72	39.3	4.042	-0.01	98.99	59.73
11.16	119.62	-1.94	159.36	39.7	4.010	-0.02	99.55	59.81
11.67	120.55	-2.33	160.68	40.1	4.004	-0.02	100.40	60.28
12.18	121.01	-2.66	161.47	40.5	3.991	-0.02	100.96	60.51
12.68	121.52	-2.92	162.24	40.7	3.984	-0.02	101.48	60.76
13.45	122.48	-3.40	163.68	41.2	3.973	-0.03	102.44	61.24
14.25	121.89	-3.80	163.49	41.6	3.930	-0.03	102.54	60.94
14.76	122.23	-3.94	163.97	41.7	3.928	-0.03	102.85	61.11
15.25	121.62	-4.11	163.52	41.9	3.902	-0.03	102.71	60.81

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**
 ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	225.7-226.2
Project No.	2013-465-001	Sample No.	ST-22
Lab ID #	2013-465-001-028	Test No.	19

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/19
Burette, Outflow	G332	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1512	11/7/14
Pore Pressure Transducer	G1514	11/7/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G528	8/30/14
Timing Device	G489	5/13/14
Balance	NA	NA
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	225.2-225.7
Project No.:	2013-465-001	Sample No.:	ST-22
Lab ID:	2013-465-001-028		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	20

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.785	Diameter 1:	2.866
Length 2:	5.781	Diameter 2:	2.860
Length 3:	5.778	Diameter 3:	2.883
Avg. Length:	5.781	Avg. Diam.:	2.870

PRESSURES (psi)

Cell Pressure (psi)	99.1
Back Pressure (psi)	21.7
Eff. Conf. Pressure (psi)	77.4
Pore Pressure Response (%)	99

VOLUME CHANGE

Initial Burette Reading (ml)	72.0
Final Burette Reading (ml)	45.5
Final Change (ml)	26.5

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	93.45
Q	=	57.79

Initial Dial Reading (mil)	59
Dial Reading After Saturation (mil)	67
Dial Reading After Consolidation (mil)	150

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
21.4	0.000	21.7
31.3	0.002	22.0
53.8	0.002	22.3
165.4	0.007	25.3
247.5	0.013	30.3
303.4	0.019	36.3
367.9	0.027	45.1
414.0	0.035	52.4
459.6	0.046	59.0
515.7	0.066	65.3
581.4	0.093	68.1
650.4	0.126	67.9
709.9	0.159	66.0
770.9	0.197	63.4
810.7	0.226	61.6
859.8	0.267	59.0
918.1	0.323	56.0
972.6	0.378	53.0
1011.3	0.421	51.1
1058.4	0.479	48.9
1085.4	0.523	47.3
1114.1	0.566	45.9
1141.2	0.610	44.7
1151.3	0.638	44.0
1162.7	0.666	43.3
1174.5	0.695	42.6
1181.7	0.725	42.0
1198.3	0.770	41.3
1204.3	0.813	40.8
1208.4	0.842	40.6
1210.9	0.871	40.7

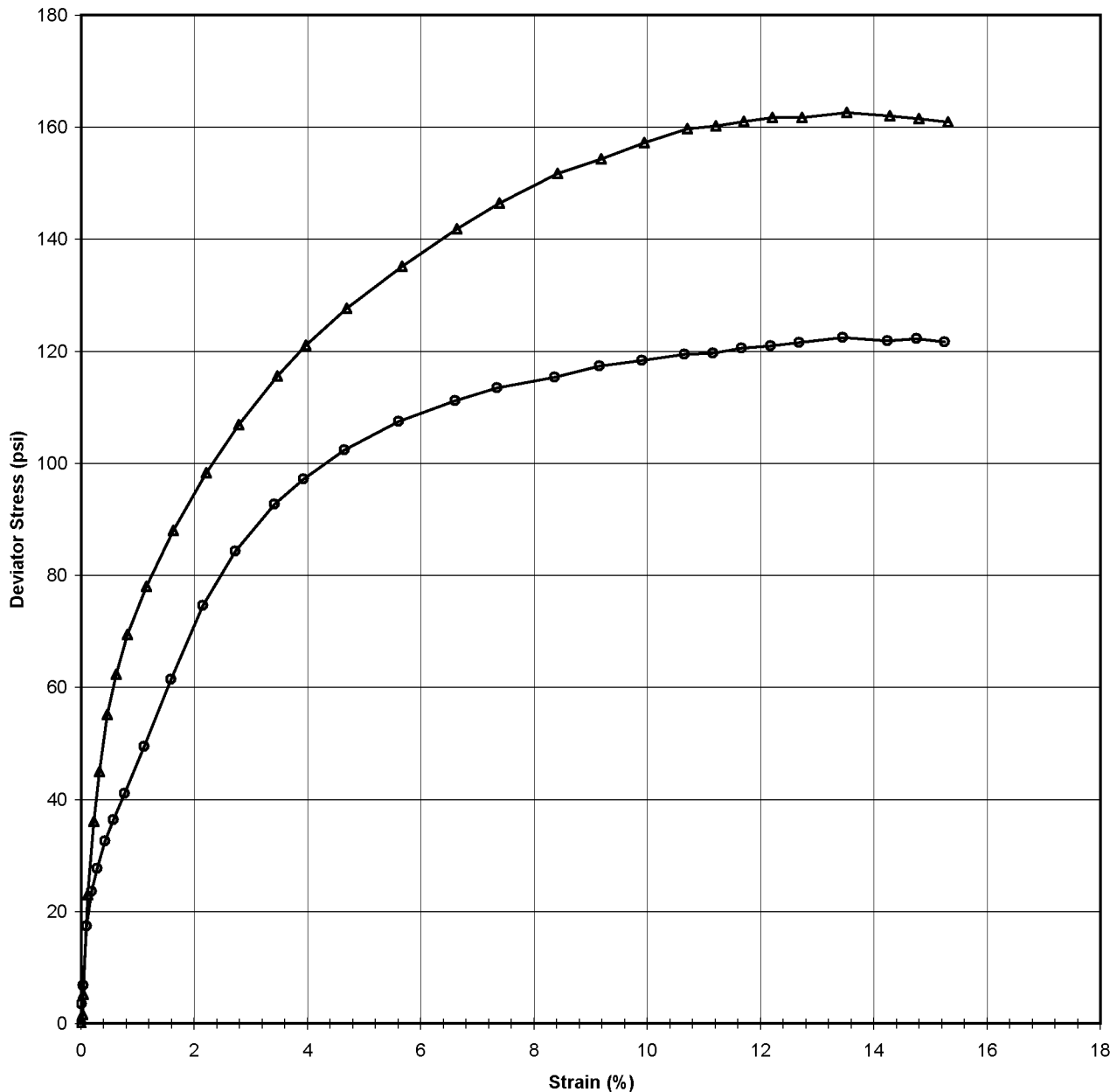
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DCN: CI-S28 DATE: 4/12/13 REVISION: 3



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	224.2-226.3
Project No.:	2013-465-001	Sample No.:	ST-22
Lab ID:	2013-465-001-028		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



—○— Test No. 19

—▲— Test No. 20

E50 Test No. 19 6038.415

E50 Test No. 20 11009.57

Tested By: JCM

Date: 11/8/13

Approved By: DB

Date: 11/20/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



A-907

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	225.2-225.7
Project No.:	2013-465-001	Sample No.:	ST-22
Lab ID:	2013-465-001-028		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	77.4	<i>Stage No.</i>	1
		<i>Test No</i>	20

INITIAL DIMENSIONS

Initial Sample Length (in)	5.78
Initial Sample Diameter (in)	2.87
Initial Sample Area (in ²)	6.47
Initial Sample Volume (in ³)	37.39

VOLUME CHANGE

Volume After Consolidation (in ³)	35.62
Length After Consolidation (in)	5.69
Area After Consolidation (in ²)	6.260

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.03	1.58	0.28	78.70	77.1	1.020	0.18	77.91	0.79
0.04	5.17	0.59	81.98	76.8	1.067	0.12	79.40	2.59
0.12	22.97	3.58	96.80	73.8	1.311	0.16	85.31	11.49
0.23	36.04	8.63	104.81	68.8	1.524	0.24	86.79	18.02
0.33	44.90	14.59	107.72	62.8	1.715	0.33	85.26	22.45
0.47	55.09	23.45	109.04	54.0	2.021	0.43	81.50	27.55
0.62	62.34	30.71	109.03	46.7	2.335	0.50	77.86	31.17
0.82	69.43	37.35	109.48	40.1	2.734	0.54	74.77	34.72
1.16	78.05	43.61	111.84	33.8	3.310	0.56	72.82	39.02
1.63	88.00	46.44	118.95	31.0	3.842	0.53	74.96	44.00
2.21	98.26	46.22	129.45	31.2	4.151	0.48	80.32	49.13
2.79	106.93	44.31	140.02	33.1	4.232	0.42	86.55	53.46
3.47	115.58	41.75	151.24	35.7	4.242	0.36	93.45	57.79
3.97	121.09	39.88	158.61	37.5	4.227	0.33	98.06	60.54
4.70	127.64	37.26	167.78	40.1	4.180	0.29	103.96	63.82
5.67	135.13	34.28	178.26	43.1	4.134	0.26	110.69	67.57
6.64	141.87	31.34	187.93	46.1	4.080	0.22	116.99	70.93
7.39	146.45	29.41	194.44	48.0	4.051	0.20	121.22	73.22
8.41	151.72	27.19	201.93	50.2	4.022	0.18	126.07	75.86
9.19	154.36	25.59	206.18	51.8	3.979	0.17	128.99	77.18
9.95	157.19	24.21	210.38	53.2	3.955	0.16	131.79	78.59
10.71	159.73	22.99	214.13	54.4	3.936	0.15	134.27	79.86
11.21	160.27	22.26	215.41	55.1	3.907	0.14	135.28	80.13
11.70	160.98	21.61	216.77	55.8	3.886	0.14	136.28	80.49
12.21	161.71	20.85	218.26	56.5	3.860	0.13	137.40	80.86
12.74	161.75	20.27	218.88	57.1	3.832	0.13	138.00	80.88
13.52	162.58	19.55	220.43	57.8	3.810	0.12	139.14	81.29
14.29	161.98	19.05	220.32	58.3	3.776	0.12	139.34	80.99
14.80	161.57	18.91	220.06	58.5	3.762	0.12	139.27	80.78
15.31	160.94	19.00	219.34	58.4	3.756	0.12	138.87	80.47

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	225.2-225.7
Project No.	2013-465-001	Sample No.	ST-22
Lab ID #	2013-465-001-028	Test No.	20

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G330	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1512	11/7/14
Pore Pressure Transducer	G1514	11/7/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G1190	2/22/14
Timing Device	G489	5/13/14
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client: Paul C. Rizzo & Associates
 Client Reference: Turkey Point Units 6 & 7 Site
 Project No.: 2013-465-001
 Lab ID: 2013-465-001-028 Specific Gravity (measured) 2.64

Visual Description: Greenish Gray Silty Sand (Undisturbed)

SAMPLE CONDITION SUMMARY

Boring No.:	R-6-1b	R-6-1b
Depth (ft):	225.7-226.2	225.2-225.7
Sample No.:	ST-22	ST-22
Test No.	T19	T20
Deformation Rate (in/min)	0.002	0.002
Back Pressure (psi)	21.6	21.7
Consolidation Time (days)	1	1
Moisture Content (%) (INITIAL)	22.4	22.4
Total Unit Weight (pcf)	125.0	126.8
Dry Unit Weight (pcf)	102.1	103.6
Moisture Content (%) (FINAL)	22.1	19.9
Initial State Void Ratio, e	0.614	0.591
Void Ratio at Shear, e	0.539	0.516



Tested By: JCM Date: 11/8/13 Input Checked By: KC Date: 11/20/13
DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS**

ASTM D4767-11

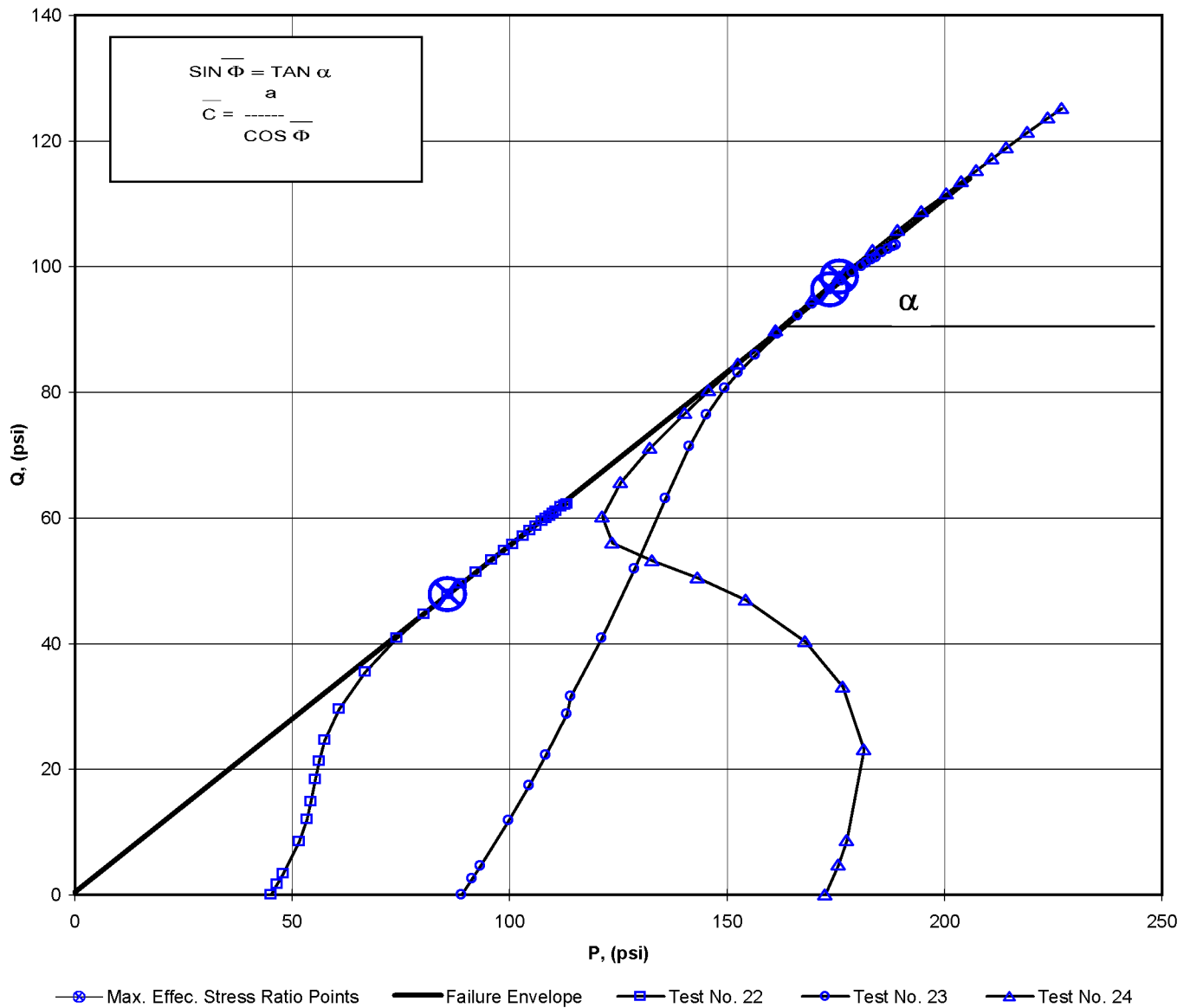
MOISTURE CONTENT

	T19	T20
Tare Number	576	576
Weight of Tare & Wet Sample (g)	203.8	203.8
Weight of Tare & Dry Sample (g)	181.94	181.94
Weight of Tare (g)	84.4	84.4
Moisture Content (%) (INITIAL)	22.41	22.41
Tare Number	60	596
Weight of Tare & Wet Sample (g)	1383.81	263.8
Weight of Tare & Dry Sample (g)	1170.68	234.19
Weight of Tare (g)	205.61	85.12
Moisture Content (%) (FINAL)	22.08	19.86
Weight of Tube & Wet Sample (g)	1614.12	1673.79
Weight of Tube (g)	417.72	429.46
Weight of Wet Sample (g)	1196.4	1244.33
Length 1 (in)	5.635	5.785
Length 2 (in)	5.63	5.781
Length 3 (in)	5.622	5.778
Top Diameter (in)	2.866	2.866
Middle Diameter (in)	2.875	2.86
Bottom Diameter (in)	2.876	2.883
Average Length (in)	5.629	5.781333
Average Area (in)	6.480	6.468
Sample Volume (cm ³)	597.71	612.75
Unit Wet Weight (g/cm ³)	2.00	2.03
Unit Wet Weight (pcf)	124.96	126.78
Unit Dry Weight (pcf)	102.08	103.57
Unit Dry Weight (g/cm ³)	1.64	1.66
Initial Burette Reading	48	72
Final Burette Reading	24.3	45.5
Initial Dial Reading	71	59
Dial Reading After Saturation	84	67
Dial Reading After Consolidation	150	150
Volume Change during Consolidation	23.7	26.5
Volume Change during Saturation	4.14	2.54
Volume at Shear (cm ³)	*These	569.87
Volume of Solids (cm ³)	measurements	370.21
Volume of Voids (cm ³)	are all	199.66
Volume of Water (cm ³)	at	215.84
Void Ratio, e	shear	0.539
		583.70
		385.04
		198.66
		201.91
		0.516

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	250.9-253.3
Project No.:	2013-465-001	Sample No.:	ST-31
Lab ID:	2013-465-001-030		

Consolidated Undrained Triaxial Test with Pore Pressure

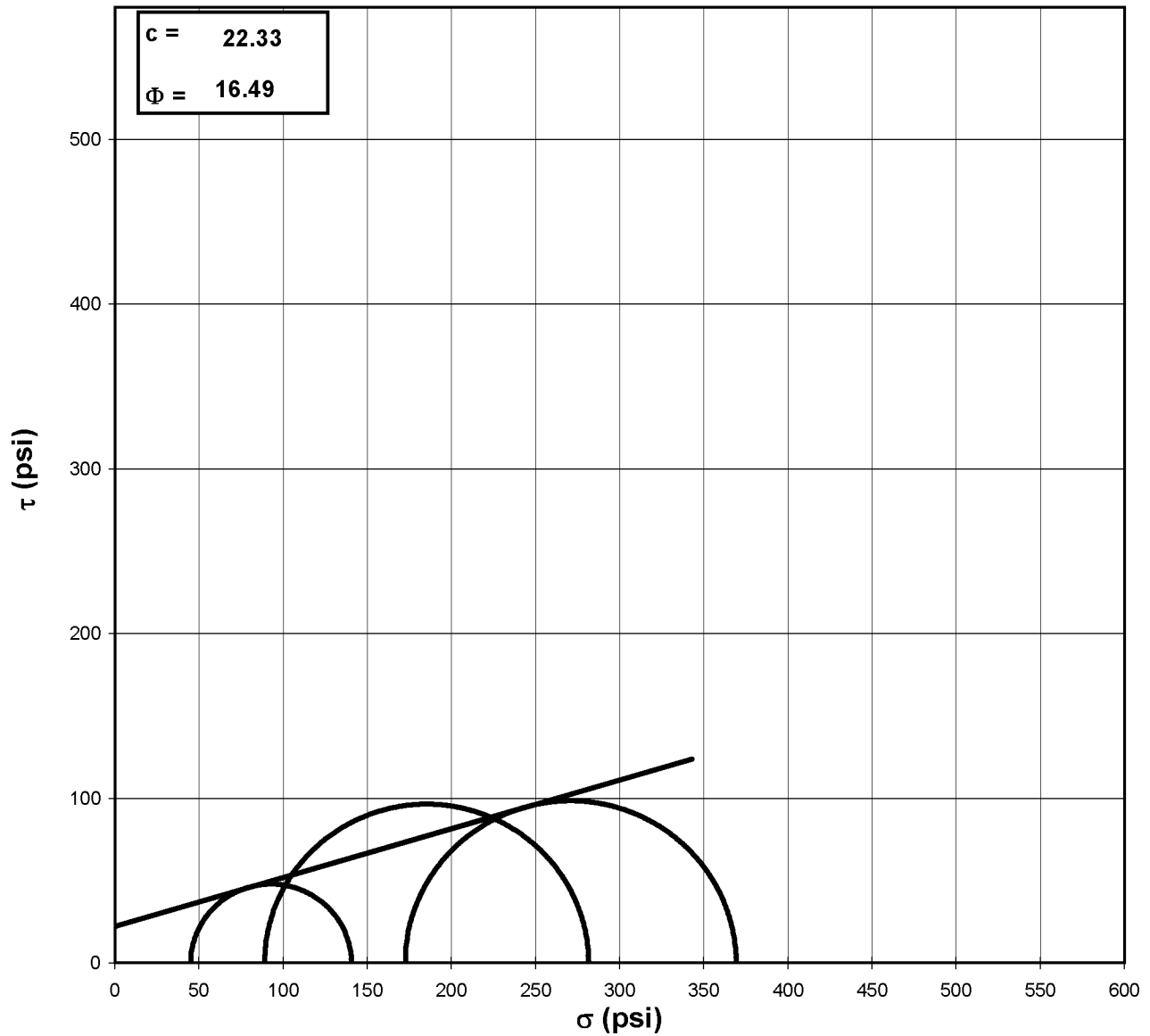


a	=	0.46	C̄	=	0.55
α	=	28.9	Φ̄	=	33.49

Tested By: JCM Date: 11/8/13 Approved By: DB Date: 12/3/13

MOHR TOTAL STRENGTH ENVELOPE
 ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	250.9-253.3
Project No.:	2013-465-001	Sample No.:	ST-31
Lab ID:	2013-465-001-030		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



Failure Based on Maximum Effective Principal Stress Ratio

NOTE: GRAPH NOT TO SCALE

Tested By: JCM Date: 11/8/13 Approved By: DB Date: 12/3/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	252.7-253.2
Project No.:	2013-465-001	Sample No.:	ST-31
Lab ID:	2013-465-001-030		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	22

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.792	Diameter 1:	2.878
Length 2:	5.802	Diameter 2:	2.873
Length 3:	5.805	Diameter 3:	2.882
Avg. Length:	5.800	Avg. Diam.:	2.878

PRESSURES (psi)

Cell Pressure (psi)	66.7
Back Pressure (psi)	21.6
Eff. Conf. Pressure (psi)	45.1
Pore Pressure Response (%)	97

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	34.1
Final Change (ml)	13.9

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	85.76
Q	=	47.78

Initial Dial Reading (mil)	84
Dial Reading After Saturation (mil)	93
Dial Reading After Consolidation (mil)	133

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
14.3	0.000	21.6
36.2	0.001	21.8
56.7	0.002	22.1
122.0	0.007	23.5
167.7	0.012	25.3
204.1	0.018	27.2
249.6	0.027	29.7
287.8	0.035	31.8
331.1	0.047	33.8
396.2	0.067	35.5
474.3	0.095	35.3
547.0	0.129	33.4
600.7	0.163	31.0
646.4	0.203	28.7
672.5	0.232	27.4
702.2	0.273	25.8
735.0	0.329	24.1
763.1	0.385	22.7
783.1	0.428	21.7
810.6	0.487	20.7
828.9	0.531	19.9
846.1	0.575	19.2
864.2	0.618	18.6
875.1	0.646	18.2
886.1	0.675	17.8
897.4	0.704	17.4
906.9	0.734	17.1
925.2	0.778	16.5
938.4	0.822	16.1
946.5	0.851	15.7
954.4	0.879	15.5

Tested By: JCM Date: 11/8/13 Input Checked By: KC Date: 12/3/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



A-914

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	252.7-253.2
Project No.:	2013-465-001	Sample No.:	ST-31
Lab ID:	2013-465-001-030		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	45.1	<i>Stage No.</i>	1
		<i>Test No</i>	22

INITIAL DIMENSIONS

Initial Sample Length (in)	5.80
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.50
Initial Sample Volume (in ³)	37.72

VOLUME CHANGE

Volume After Consolidation (in ³)	36.70
Length After Consolidation (in)	5.75
Area After Consolidation (in ²)	6.381

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	3.43	0.22	48.31	44.9	1.076	0.07	46.59	1.72
0.03	6.65	0.49	51.26	44.6	1.149	0.08	47.94	3.32
0.11	16.85	1.92	60.03	43.2	1.390	0.12	51.61	8.43
0.21	23.98	3.73	65.35	41.4	1.580	0.16	53.36	11.99
0.31	29.66	5.56	69.20	39.5	1.750	0.19	54.37	14.83
0.46	36.70	8.09	73.71	37.0	1.992	0.23	55.36	18.35
0.61	42.60	10.19	77.50	34.9	2.220	0.25	56.20	21.30
0.81	49.24	12.20	82.14	32.9	2.497	0.26	57.52	24.62
1.16	59.15	13.93	90.32	31.2	2.897	0.24	60.75	29.57
1.65	70.90	13.70	102.29	31.4	3.258	0.20	66.85	35.45
2.24	81.61	11.77	114.93	33.3	3.449	0.15	74.13	40.80
2.83	89.30	9.43	124.97	35.7	3.503	0.11	80.32	44.65
3.53	95.56	7.12	133.54	38.0	3.516	0.08	85.76	47.78
4.04	98.98	5.75	138.33	39.3	3.516	0.06	88.84	49.49
4.75	102.67	4.18	143.59	40.9	3.509	0.04	92.25	51.33
5.71	106.49	2.52	149.07	42.6	3.501	0.02	95.83	53.24
6.69	109.50	1.06	153.54	44.0	3.486	0.01	98.79	54.75
7.45	111.51	0.14	156.47	45.0	3.481	0.00	100.71	55.76
8.47	114.22	-0.94	160.26	46.0	3.481	-0.01	103.15	57.11
9.23	115.87	-1.68	162.65	46.8	3.477	-0.01	104.71	57.94
10.00	117.31	-2.36	164.77	47.5	3.472	-0.02	106.12	58.66
10.74	118.88	-2.99	166.97	48.1	3.472	-0.03	107.53	59.44
11.24	119.74	-3.41	168.25	48.5	3.468	-0.03	108.38	59.87
11.74	120.58	-3.81	169.49	48.9	3.466	-0.03	109.20	60.29
12.24	121.45	-4.17	170.72	49.3	3.465	-0.04	110.00	60.73
12.76	122.04	-4.53	171.67	49.6	3.459	-0.04	110.65	61.02
13.53	123.42	-5.05	173.58	50.2	3.461	-0.04	111.87	61.71
14.29	124.12	-5.54	174.75	50.6	3.451	-0.05	112.70	62.06
14.79	124.47	-5.86	175.43	51.0	3.443	-0.05	113.19	62.24
15.29	124.81	-6.14	176.04	51.2	3.436	-0.05	113.64	62.40

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	252.7-253.2
Project No.	2013-465-001	Sample No.	ST-31
Lab ID #	2013-465-001-030	Test No.	22

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G336	INITIAL ONLY
Load Cell	G1310	1/8/14
Cell Pressure Transducer	G1073B	11/7/14
Pore Pressure Transducer	G1518	11/7/14
Extensometer	G835	1/8/14
Load Frame	G833	1/8/14
Dial Indicator	G590	3/14/14
Timing Device	G489	5/13/14
Balance	NA	NA
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	252.2-252.7
Project No.:	2013-465-001	Sample No.:	ST-31
Lab ID:	2013-465-001-030		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	23

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.833	Diameter 1:	2.880
Length 2:	5.828	Diameter 2:	2.883
Length 3:	5.835	Diameter 3:	2.888
Avg. Length	5.832	Avg. Diam.:	2.884

PRESSURES (psi)

Cell Pressure (psi)	110.4
Back Pressure (psi)	21.4
Eff. Conf. Pressure (psi)	89.0
Pore Pressure Response (%)	99

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	28.7
Final Change (ml)	19.3

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	173.70
Q	=	96.30

Initial Dial Reading (mil)	75
Dial Reading After Saturation (mil)	104
Dial Reading After Consolidation (mil)	152

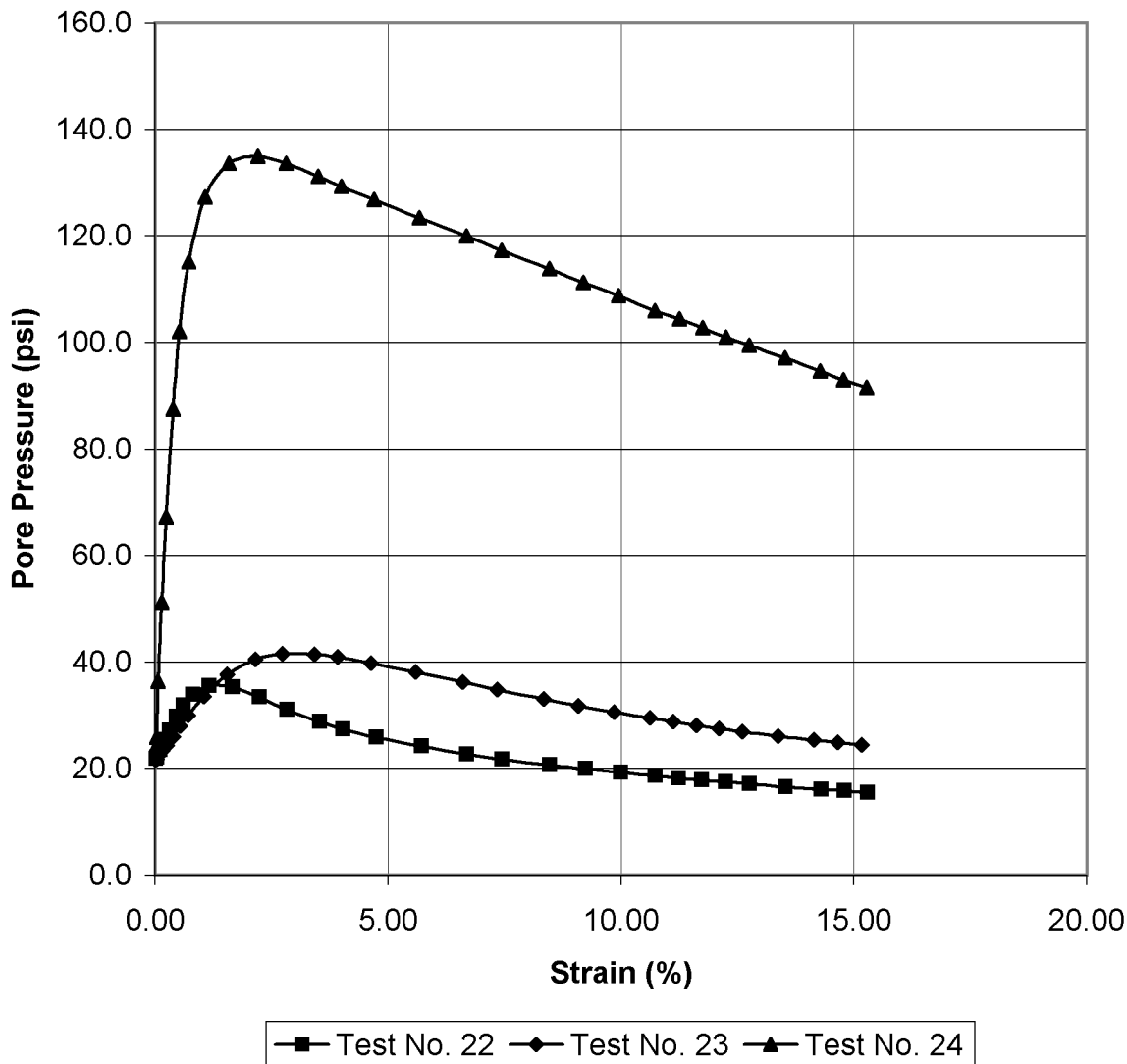
LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
27.8	0.000	21.4
60.1	0.001	21.6
85.6	0.002	21.7
177.5	0.005	22.4
247.8	0.010	23.3
309.4	0.015	24.3
392.2	0.023	25.9
428.8	0.031	27.9
547.7	0.042	30.0
689.7	0.060	33.5
836.8	0.089	37.6
949.6	0.124	40.5
1020.1	0.158	41.5
1082.3	0.197	41.4
1120.3	0.226	40.9
1166.2	0.267	39.8
1222.4	0.322	38.1
1274.0	0.380	36.1
1310.0	0.423	34.8
1354.8	0.480	33.0
1385.7	0.523	31.7
1415.8	0.567	30.6
1442.1	0.612	29.5
1457.5	0.641	28.8
1472.6	0.669	28.1
1485.8	0.697	27.5
1504.9	0.726	26.9
1526.9	0.770	26.1
1545.6	0.814	25.3
1557.5	0.844	24.8
1556.7	0.873	24.4

Tested By:	JCM	Date:	11/8/13	Input Checked By:	KC	Date:	12/3/13
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**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	250.9-253.3
Project No.:	2013-465-001	Sample No.:	ST-31
Lab ID:	2013-465-001-030		

Pore Pressure vs % Strain



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



A-918

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	252.2-252.7
Project No.:	2013-465-001	Sample No.:	ST-31
Lab ID:	2013-465-001-030		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	89.0	<i>Stage No.</i>	1
		<i>Test No</i>	23

INITIAL DIMENSIONS

Initial Sample Length (in)	5.83
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.53
Initial Sample Volume (in ³)	38.09

VOLUME CHANGE

Volume After Consolidation (in ³)	36.34
Length After Consolidation (in)	5.76
Area After Consolidation (in ²)	6.315

Strain (%)	Deviation Stress	Δ U	σ ₁	σ ₃	Effective Principle Stress Ratio	A	P	Q
0.02	5.11	0.16	93.95	88.8	1.057	0.03	91.39	2.55
0.03	9.15	0.29	97.86	88.7	1.103	0.03	93.29	4.57
0.08	23.68	0.99	111.69	88.0	1.269	0.04	99.85	11.84
0.17	34.78	1.89	121.90	87.1	1.399	0.05	104.50	17.39
0.26	44.48	2.92	130.57	86.1	1.517	0.07	108.33	22.24
0.39	57.48	4.53	141.95	84.5	1.681	0.08	113.21	28.74
0.54	63.16	6.52	145.63	82.5	1.766	0.10	114.05	31.58
0.72	81.73	8.57	162.16	80.4	2.016	0.11	121.30	40.87
1.05	103.71	12.13	180.58	76.9	2.349	0.12	128.73	51.85
1.55	126.11	16.20	198.92	72.8	2.732	0.13	135.86	63.06
2.15	142.82	19.08	212.74	69.9	3.043	0.13	141.33	71.41
2.74	152.83	20.14	221.69	68.9	3.219	0.13	145.28	76.42
3.43	161.25	20.04	230.21	69.0	3.338	0.13	149.59	80.62
3.92	166.20	19.49	235.71	69.5	3.391	0.12	152.61	83.10
4.63	171.92	18.38	242.53	70.6	3.435	0.11	156.57	85.96
5.60	178.58	16.67	250.91	72.3	3.469	0.09	161.62	89.29
6.60	184.30	14.74	258.56	74.3	3.482	0.08	166.41	92.15
7.35	188.13	13.37	263.76	75.6	3.487	0.07	169.70	94.07
8.34	192.60	11.60	270.01	77.4	3.488	0.06	173.70	96.30
9.09	195.48	10.34	274.14	78.7	3.485	0.05	176.40	97.74
9.86	198.13	9.16	277.97	79.8	3.482	0.05	178.91	99.07
10.63	200.16	8.07	281.09	80.9	3.473	0.04	181.01	100.08
11.13	201.19	7.37	282.82	81.6	3.465	0.04	182.22	100.59
11.62	202.19	6.72	284.47	82.3	3.457	0.03	183.38	101.09
12.12	202.91	6.10	285.80	82.9	3.448	0.03	184.35	101.45
12.61	204.41	5.52	287.89	83.5	3.448	0.03	185.69	102.20
13.38	205.62	4.68	289.94	84.3	3.439	0.02	187.13	102.81
14.14	206.35	3.90	291.45	85.1	3.425	0.02	188.27	103.17
14.66	206.72	3.43	292.29	85.6	3.416	0.02	188.93	103.36
15.18	205.36	3.00	291.36	86.0	3.388	0.01	188.68	102.68

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**
 ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	252.2-252.7
Project No.	2013-465-001	Sample No.	ST-31
Lab ID #	2013-465-001-030	Test No.	23

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G333	INITIAL ONLY
Load Cell	G1310	1/8/14
Cell Pressure Transducer	G1073B	11/7/14
Pore Pressure Transducer	G1518	11/7/14
Extensometer	G835	1/8/14
Load Frame	G833	1/8/14
Dial Indicator	G1294	3/4/14
Timing Device	G489	5/13/14
Balance	NA	NA
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	251.7-252.2
Project No.:	2013-465-001	Sample No.:	ST-31
Lab ID:	2013-465-001-030		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	24

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.237	Diameter 1:	2.872
Length 2:	5.224	Diameter 2:	2.877
Length 3:	5.235	Diameter 3:	2.878
Avg. Length:	5.232	Avg. Diam.:	2.876

PRESSURES (psi)

Cell Pressure (psi)	194.8
Back Pressure (psi)	22.2
Eff. Conf. Pressure (psi)	172.6
Pore Pressure Response (%)	98

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	26.4
Final Change (ml)	21.6

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	175.91
Q	=	98.33

Initial Dial Reading (mil)	82
Dial Reading After Saturation (mil)	97
Dial Reading After Consolidation (mil)	183

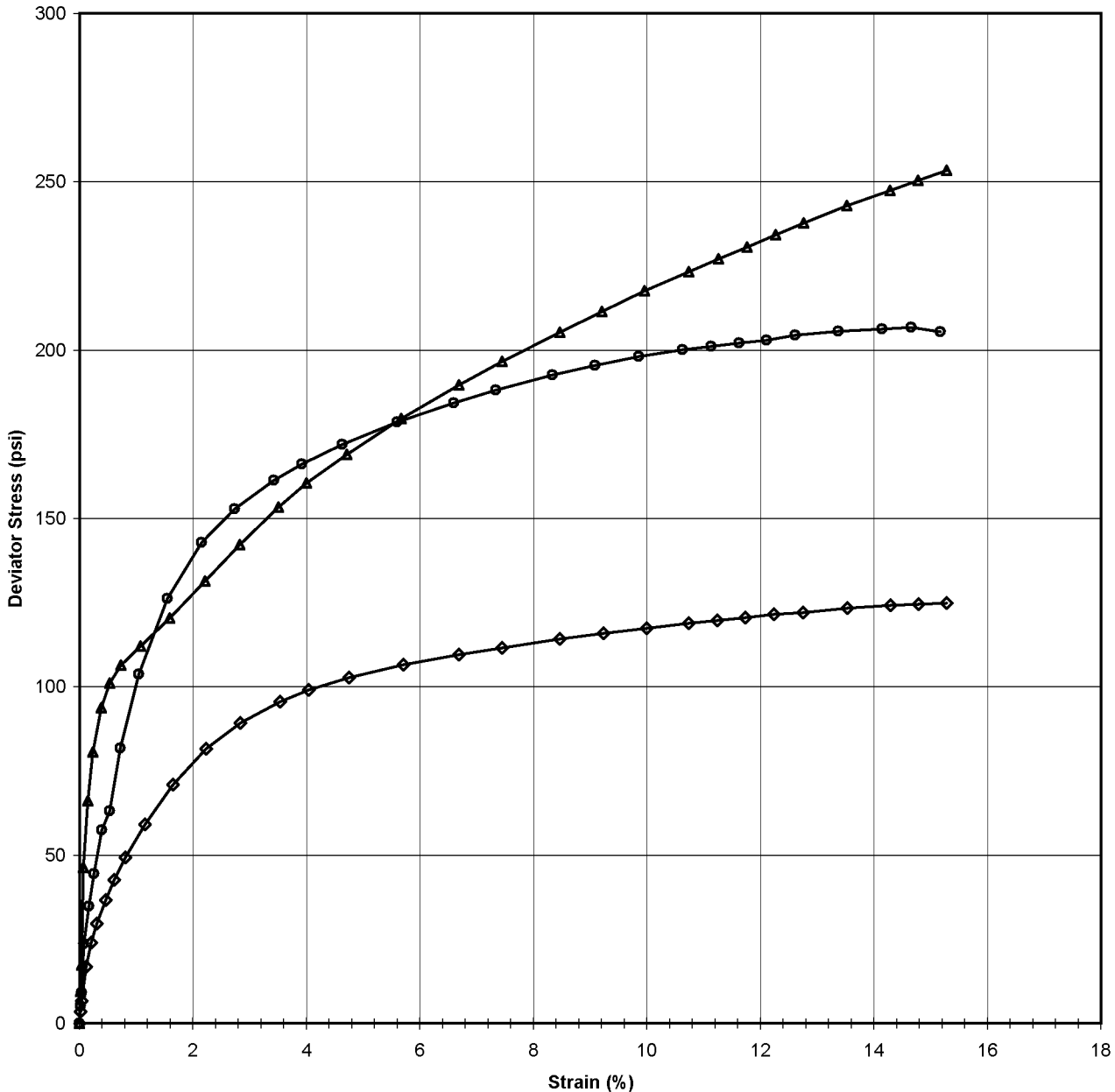
LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
33.7	0.000	22.2
93.8	0.001	23.8
142.6	0.002	25.8
325.6	0.004	36.3
451.5	0.008	51.1
543.2	0.012	67.1
627.8	0.020	87.3
674.3	0.027	102.0
709.4	0.037	115.1
748.6	0.055	127.2
805.0	0.082	133.6
880.8	0.114	134.9
956.9	0.145	133.6
1036.6	0.180	131.2
1088.3	0.205	129.2
1152.4	0.242	126.7
1234.8	0.291	123.4
1315.8	0.343	119.9
1374.3	0.382	117.2
1448.3	0.434	113.8
1503.0	0.472	111.2
1557.8	0.511	108.8
1611.0	0.551	105.9
1648.1	0.578	104.3
1682.6	0.604	102.7
1718.6	0.629	100.9
1753.2	0.655	99.4
1805.2	0.694	97.0
1854.4	0.733	94.6
1887.4	0.758	92.9
1921.0	0.784	91.5

Tested By: JCM Date: 11/19/13 Input Checked By: KC Date: 12/3/13



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	250.9-253.3
Project No.:	2013-465-001	Sample No.:	ST-31
Lab ID:	2013-465-001-030		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



◆ Test No. 22
● Test No. 23
▲ Test No. 24

E50 Test No. 22 6234.257

E50 Test No. 23 10253.12

E50 Test No. 24 20621.37

Tested By: JCM Date: 11/8/13 Approved By: DB Date: 12/3/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



A-922

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	251.7-252.2
Project No.:	2013-465-001	Sample No.:	ST-31
Lab ID:	2013-465-001-030		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	172.6	<i>Stage No.</i>	1
		<i>Test No</i>	24

INITIAL DIMENSIONS

Initial Sample Length (in)	5.23
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.49
Initial Sample Volume (in ³)	33.98

VOLUME CHANGE

Volume After Consolidation (in ³)	32.37
Length After Consolidation (in)	5.13
Area After Consolidation (in ²)	6.309

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	9.52	1.64	180.49	171.0	1.056	0.18	175.72	4.76
0.04	17.26	3.58	186.28	169.0	1.102	0.21	177.65	8.63
0.07	46.24	14.13	204.71	158.5	1.292	0.31	181.59	23.12
0.15	66.13	28.95	209.78	143.7	1.460	0.45	176.72	33.06
0.24	80.57	44.90	208.28	127.7	1.631	0.57	167.99	40.29
0.39	93.80	65.14	201.26	107.5	1.873	0.71	154.36	46.90
0.53	101.01	79.79	193.82	92.8	2.088	0.81	143.31	50.50
0.73	106.32	92.93	185.99	79.7	2.335	0.89	132.83	53.16
1.08	112.09	105.01	179.68	67.6	2.658	0.96	123.64	56.04
1.59	120.31	111.36	181.55	61.2	2.965	0.94	121.40	60.16
2.21	131.30	112.70	191.20	59.9	3.192	0.88	125.55	65.65
2.82	142.21	111.35	203.46	61.2	3.322	0.80	132.35	71.11
3.51	153.39	108.97	217.02	63.6	3.411	0.72	140.32	76.69
4.00	160.47	107.02	226.05	65.6	3.447	0.68	145.81	80.23
4.71	168.98	104.50	237.08	68.1	3.481	0.63	152.59	84.49
5.68	179.58	101.17	251.01	71.4	3.514	0.57	161.22	89.79
6.68	189.64	97.67	264.58	74.9	3.531	0.53	169.76	94.82
7.45	196.67	95.02	274.24	77.6	3.535	0.49	175.91	98.33
8.47	205.25	91.63	286.22	81.0	3.535	0.46	183.59	102.62
9.20	211.46	88.95	295.10	83.6	3.528	0.43	189.37	105.73
9.96	217.54	86.56	303.58	86.0	3.528	0.41	194.81	108.77
10.74	223.17	83.71	312.06	88.9	3.511	0.38	200.48	111.59
11.26	227.08	82.13	317.55	90.5	3.510	0.37	204.01	113.54
11.76	230.63	80.49	322.74	92.1	3.504	0.36	207.42	115.31
12.27	234.32	78.72	328.20	93.9	3.496	0.34	211.04	117.16
12.76	237.77	77.18	333.19	95.4	3.492	0.33	214.30	118.89
13.52	242.83	74.83	340.61	97.8	3.484	0.31	219.19	121.42
14.28	247.38	72.39	347.59	100.2	3.469	0.30	223.90	123.69
14.78	250.39	70.74	352.25	101.9	3.458	0.29	227.06	125.20
15.29	253.42	69.27	356.76	103.3	3.452	0.28	230.05	126.71

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	251.7-252.2
Project No.	2013-465-001	Sample No.	ST-31
Lab ID #	2013-465-001-030	Test No.	24

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G333	INITIAL ONLY
Load Cell	G1310	1/8/14
Cell Pressure Transducer	1073B	11/7/14
Pore Pressure Transducer	G1518	11/7/14
Extensometer	G835	1/8/14
Load Frame	G833	1/8/14
Dial Indicator	G1190	2/22/14
Timing Device	G489	5/13/14
Flow Pump	G1509-1	11/7/14

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client: Paul C. Rizzo & Associates
 Client Reference: Turkey Point Units 6 & 7 Site
 Project No.: 2013-465-001
 Lab ID: 2013-465-001-030 Specific Gravity (measured) 2.65

Visual Description: Greenish Gray Silty Sand (Undisturbed)

SAMPLE CONDITION SUMMARY

Boring No.:	R-6-1b	R-6-1b	R-6-1b
Depth (ft):	252.7-253.2	252.2-252.7	251.7-252.2
Sample No.:	ST-31	ST-31	ST-31
Test No.	T22	T23	T24
Deformation Rate (in/min)	0.002	0.002	0.002
Back Pressure (psi)	21.6	21.4	22.2
Consolidation Time (days)	1	1	1
Moisture Content (%) (INITIAL)	20.3	20.3	20.3
Total Unit Weight (pcf)	125.9	123.7	125.6
Dry Unit Weight (pcf)	104.7	102.9	104.4
Moisture Content (%) (FINAL)	21.1	20.7	20.2
Initial State Void Ratio, e	0.581	0.608	0.584
Void Ratio at Shear, e	0.538	0.534	0.509



Tested By: JCM Date: 11/8/13 Input Checked By: KC Date: 12/3/13
DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS**

ASTM D4767-11

MOISTURE CONTENT

	T22	T23	T24
Tare Number	895	895	895
Weight of Tare & Wet Sample (g)	157.73	157.73	157.73
Weight of Tare & Dry Sample (g)	149.6	149.6	149.6
Weight of Tare (g)	109.49	109.49	109.49
Moisture Content (%) (INITIAL)	20.27	20.27	20.27
Tare Number	518	598	29
Weight of Tare & Wet Sample (g)	1319.97	284.68	1312.17
Weight of Tare & Dry Sample (g)	1106.59	250.37	1126.06
Weight of Tare (g)	97.24	84.63	204.69
Moisture Content (%) (FINAL)	21.14	20.70	20.20

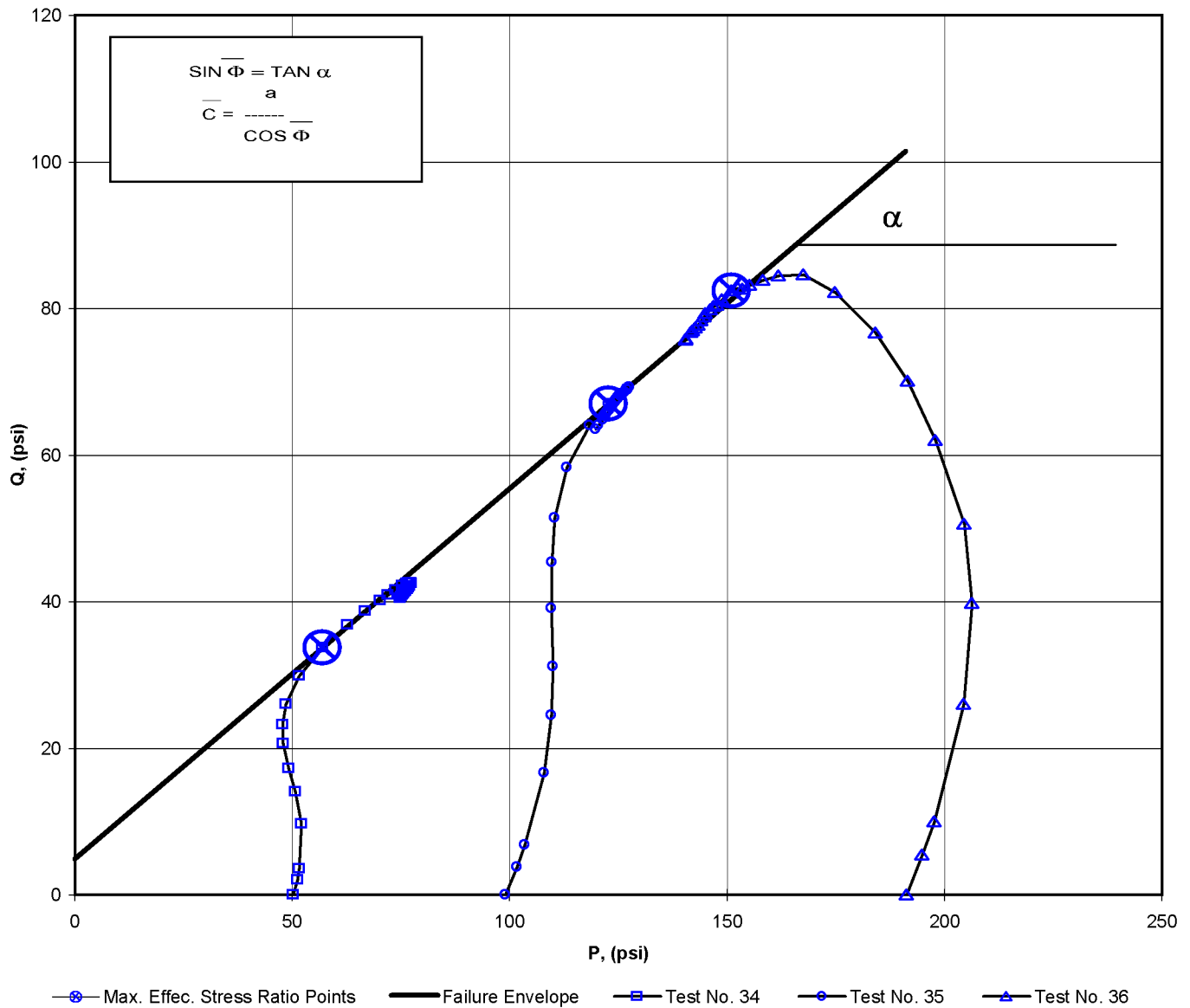
UNIT WEIGHT

Weight of Tube & Wet Sample (g)	1646.85	1639.42	1120.1
Weight of Tube (g)	400.6	402.41	0
Weight of Wet Sample (g)	1246.25	1237.01	1120.1
Length 1 (in)	5.792	5.833	5.237
Length 2 (in)	5.802	5.828	5.224
Length 3 (in)	5.805	5.835	5.235
Top Diameter (in)	2.878	2.88	2.872
Middle Diameter (in)	2.873	2.883	2.877
Bottom Diameter (in)	2.882	2.888	2.878
Average Length (in)	5.799667	5.832	5.232
Average Area (in)	6.504	6.531	6.495
Sample Volume (cm ³)	618.12	624.16	556.85
Unit Wet Weight (g/cm ³)	2.02	1.98	2.01
Unit Wet Weight (pcf)	125.87	123.73	125.58
Unit Dry Weight (pcf)	104.66	102.88	104.41
Unit Dry Weight (g/cm ³)	1.68	1.65	1.67
Initial Burette Reading	48	48	48
Final Burette Reading	34.1	28.7	26.4
Initial Dial Reading	84	75	82
Dial Reading After Saturation	93	104	97
Dial Reading After Consolidation	133	152	183
Volume Change during Consolidation	13.9	19.3	21.6
Volume Change during Saturation	2.88	9.31	4.79
Volume at Shear (cm ³)	*These 601.35	595.55	530.46
Volume of Solids (cm ³)	measurements 391.03	388.13	351.44
Volume of Voids (cm ³)	are all 210.32	207.43	179.01
Volume of Water (cm ³)	at 219.06	212.92	188.12
Void Ratio, e	shear 0.538	0.534	0.509

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	279.8-282.5
Project No.:	2013-465-001	Sample No.:	ST-40
Lab ID:	2013-465-001-032		

Consolidated Undrained Triaxial Test with Pore Pressure

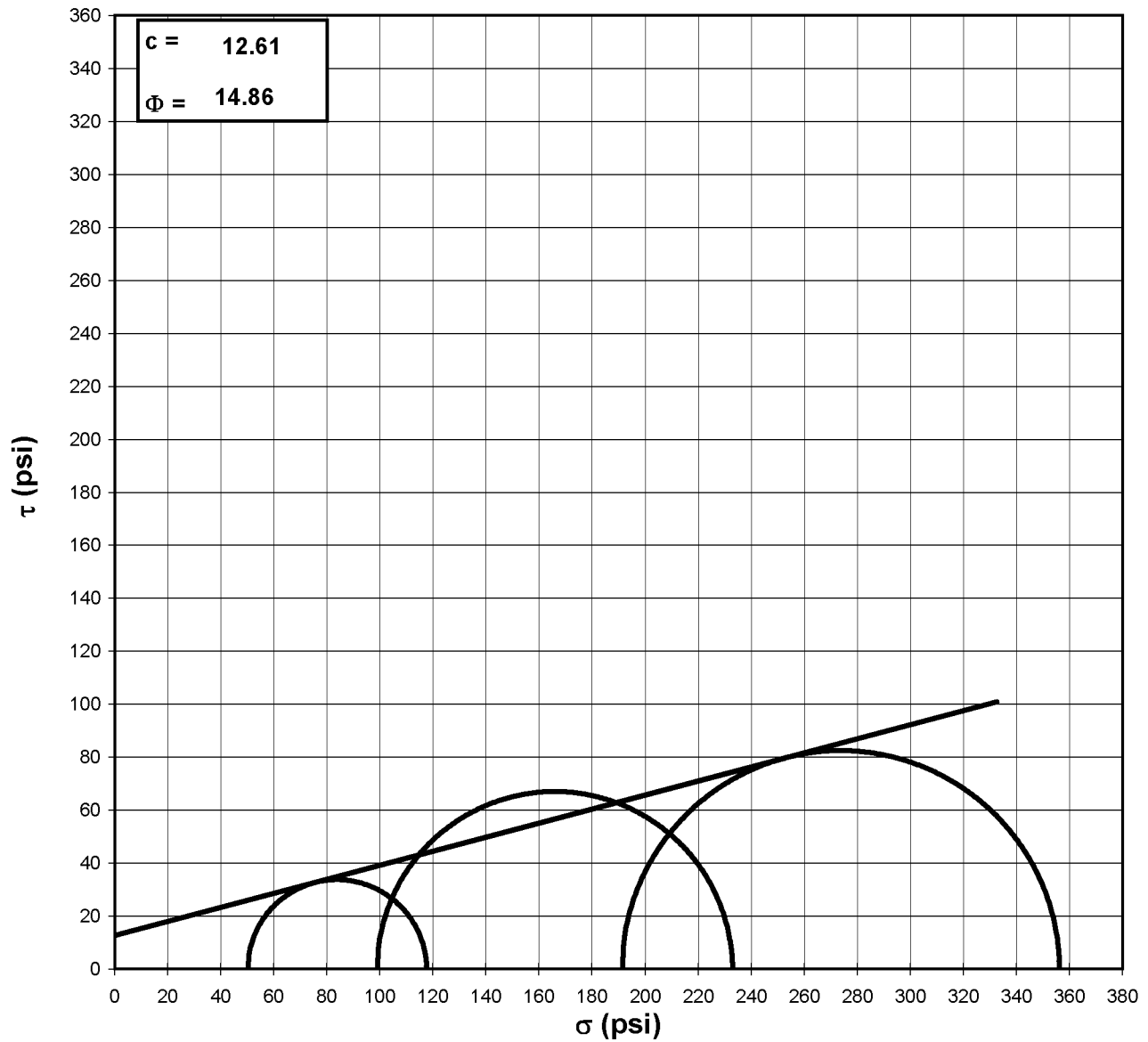


a	=	4.92	\overline{C}	=	5.70
α	=	26.8	$\overline{\Phi}$	=	30.36

Tested By: JCM Date: 11/13/13 Approved By: DB Date: 11/25/13

MOHR TOTAL STRENGTH ENVELOPE
 ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	279.8-282.5
Project No.:	2013-465-001	Sample No.:	ST-40
Lab ID:	2013-465-001-032		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



Failure Based on Maximum Effective Principal Stress Ratio

NOTE: GRAPH NOT TO SCALE

Tested By: JCM Date: 11/13/13 Approved By: DB Date: 11/25/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	280.9-281.4
Project No.:	2013-465-001	Sample No.:	ST-40
Lab ID:	2013-465-001-032		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	34

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.941	Diameter 1:	2.874
Length 2:	5.973	Diameter 2:	2.888
Length 3:	5.952	Diameter 3:	2.883
Avg. Length:	5.955	Avg. Diam.:	2.882

PRESSURES (psi)

Cell Pressure (psi)	71.4
Back Pressure (psi)	21.2
Eff. Conf. Pressure (psi)	50.2
Pore Pressure Response (%)	100

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	30.6
Final Change (ml)	17.4

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	56.97
Q	=	33.71

Initial Dial Reading (mil)	58
Dial Reading After Saturation (mil)	60
Dial Reading After Consolidation (mil)	96

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
13.3	0.000	21.2
39.5	0.001	22.2
59.1	0.002	23.3
137.2	0.007	29.0
193.5	0.013	34.8
233.9	0.018	39.4
277.7	0.027	44.0
311.2	0.037	46.8
347.9	0.049	48.8
398.6	0.070	49.7
450.6	0.100	48.1
493.7	0.135	45.5
522.2	0.170	43.3
544.9	0.212	41.3
557.6	0.243	40.3
571.0	0.285	39.2
584.1	0.342	38.2
594.7	0.401	37.5
600.6	0.445	37.2
606.9	0.506	36.8
610.7	0.551	36.5
610.7	0.595	36.5
611.9	0.640	36.5
612.3	0.670	36.6
612.4	0.700	36.7
613.9	0.729	36.8
614.6	0.759	36.8
616.9	0.805	36.9
618.9	0.850	36.9
619.3	0.879	37.0
618.2	0.908	37.1

Tested By: JCM Date: 11/13/13 Input Checked By: KC Date: 11/25/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	280.9-281.4
Project No.:	2013-465-001	Sample No.:	ST-40
Lab ID:	2013-465-001-032		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	50.2	<i>Stage No.</i>	1
		<i>Test No</i>	34

INITIAL DIMENSIONS

Initial Sample Length (in)	5.96
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.52
Initial Sample Volume (in ³)	38.84

VOLUME CHANGE

Volume After Consolidation (in ³)	37.74
Length After Consolidation (in)	5.92
Area After Consolidation (in ²)	6.378

Strain (%)	Deviation Stress	Δ U	σ ₁	σ ₃	Effective Principle Stress Ratio	A	P	Q
0.02	4.11	1.04	53.27	49.2	1.084	0.25	51.21	2.05
0.03	7.18	2.10	55.28	48.1	1.149	0.29	51.69	3.59
0.11	19.41	7.82	61.80	42.4	1.458	0.40	52.09	9.71
0.21	28.19	13.61	64.78	36.6	1.770	0.48	50.68	14.10
0.31	34.48	18.17	66.51	32.0	2.077	0.53	49.27	17.24
0.46	41.26	22.83	68.63	27.4	2.508	0.55	48.00	20.63
0.62	46.41	25.65	70.97	24.6	2.890	0.55	47.76	23.21
0.83	52.03	27.63	74.60	22.6	3.305	0.53	48.59	26.01
1.18	59.71	28.47	81.44	21.7	3.747	0.48	51.58	29.85
1.69	67.42	26.94	90.68	23.3	3.899	0.40	56.97	33.71
2.28	73.61	24.35	99.47	25.9	3.847	0.33	62.66	36.81
2.87	77.49	22.13	105.57	28.1	3.760	0.29	66.82	38.75
3.59	80.36	20.09	110.47	30.1	3.668	0.25	70.29	40.18
4.10	81.84	19.12	112.92	31.1	3.633	0.23	72.00	40.92
4.81	83.24	18.04	115.41	32.2	3.588	0.22	73.79	41.62
5.77	84.34	17.02	117.51	33.2	3.542	0.20	75.34	42.17
6.77	84.99	16.33	118.86	33.9	3.509	0.19	76.37	42.50
7.52	85.16	15.98	119.38	34.2	3.488	0.19	76.80	42.58
8.54	85.12	15.56	119.76	34.6	3.458	0.18	77.20	42.56
9.31	84.94	15.34	119.80	34.9	3.437	0.18	77.33	42.47
10.06	84.25	15.26	119.19	34.9	3.411	0.18	77.06	42.12
10.81	83.71	15.32	118.59	34.9	3.400	0.18	76.73	41.85
11.32	83.29	15.41	118.08	34.8	3.394	0.18	76.44	41.64
11.82	82.83	15.46	117.57	34.7	3.384	0.19	76.15	41.41
12.32	82.56	15.60	117.16	34.6	3.386	0.19	75.88	41.28
12.83	82.18	15.63	116.75	34.6	3.377	0.19	75.66	41.09
13.61	81.77	15.69	116.28	34.5	3.369	0.19	75.39	40.88
14.36	81.31	15.72	115.80	34.5	3.358	0.19	75.14	40.66
14.85	80.90	15.79	115.32	34.4	3.351	0.20	74.86	40.45
15.35	80.29	15.87	114.61	34.3	3.339	0.20	74.47	40.14

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	280.9-281.4
Project No.	2013-465-001	Sample No.	ST-40
Lab ID #	2013-465-001-032	Test No.	34

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/12/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G336	INITIAL ONLY
Load Cell	G1310	1/8/14
Cell Pressure Transducer	G1073B	11/7/14
Pore Pressure Transducer	G1518	11/7/14
Extensometer	G835	1/8/14
Load Frame	G833	1/8/14
Dial Indicator	G546	11/7/14
Timing Device	G489	5/13/14
Balance	NA	NA
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	281.4-281.9
Project No.:	2013-465-001	Sample No.:	ST-40
Lab ID:	2013-465-001-032		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	35

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.885	Diameter 1:	2.882
Length 2:	5.894	Diameter 2:	2.879
Length 3:	5.894	Diameter 3:	2.890
Avg. Length	5.891	Avg. Diam.:	2.884

PRESSURES (psi)

Cell Pressure (psi)	130.6
Back Pressure (psi)	31.6
Eff. Conf. Pressure (psi)	99.0
Pore Pressure Response (%)	100

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	26.5
Final Change (ml)	21.5

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	122.80
Q	=	66.98

Initial Dial Reading (mil)	47
Dial Reading After Saturation (mil)	58
Dial Reading After Consolidation (mil)	100

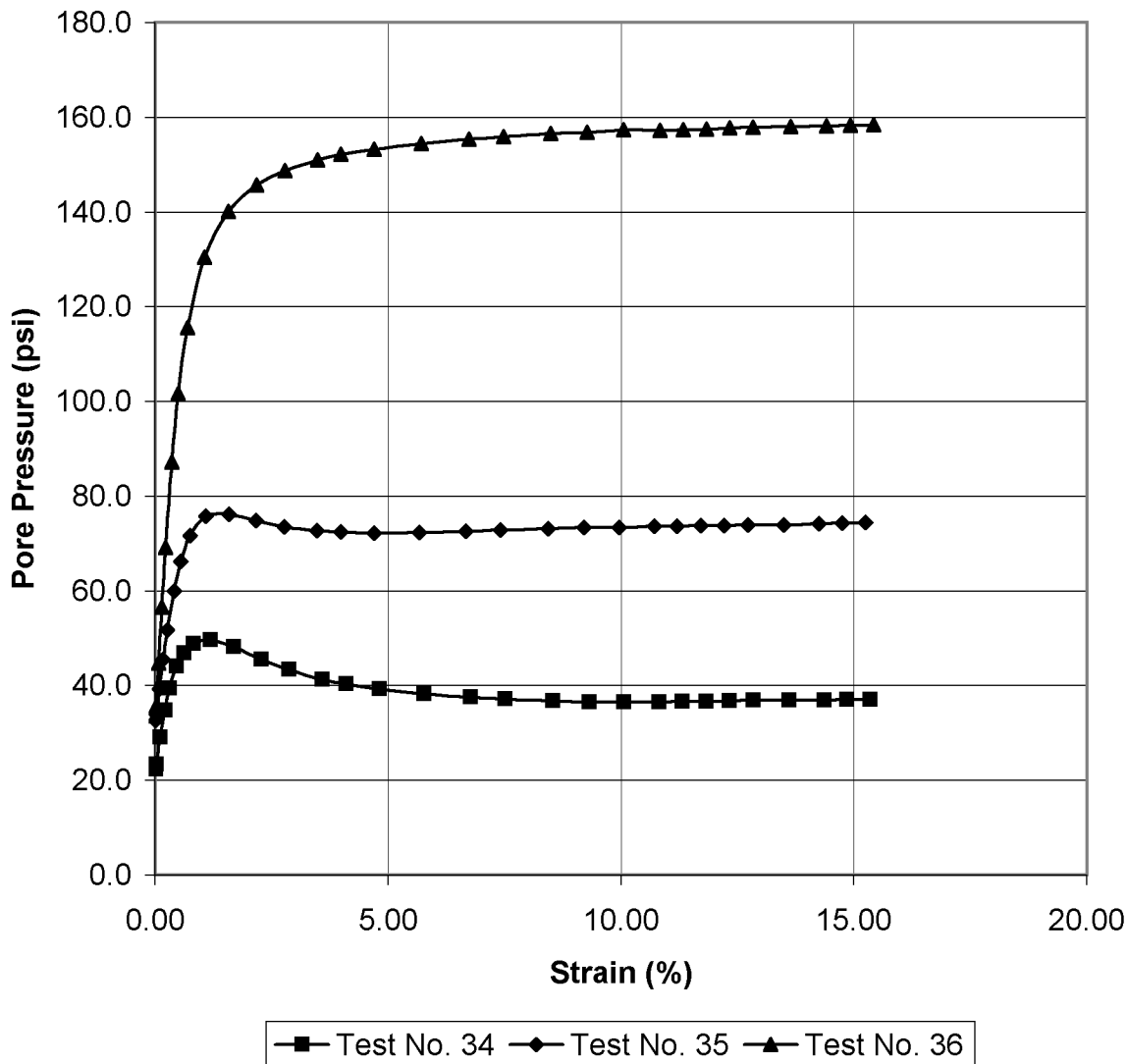
LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
24.6	0.000	31.6
72.0	0.001	32.7
110.6	0.002	33.8
235.6	0.005	39.2
335.0	0.011	45.5
419.7	0.016	51.8
521.3	0.024	60.0
601.6	0.032	66.2
680.1	0.044	71.6
771.0	0.064	75.7
847.9	0.093	76.1
891.2	0.127	74.8
914.3	0.162	73.5
929.5	0.203	72.6
937.8	0.233	72.4
944.8	0.275	72.2
949.3	0.331	72.3
954.6	0.389	72.6
958.1	0.433	72.9
965.4	0.493	73.1
968.4	0.538	73.3
970.1	0.582	73.4
970.2	0.626	73.6
971.9	0.655	73.7
972.2	0.684	73.7
974.0	0.713	73.8
973.9	0.743	73.8
972.8	0.788	73.9
970.1	0.832	74.1
967.8	0.862	74.3
965.9	0.891	74.4

Tested By:	JCM	Date:	11/13/13	Input Checked By:	KC	Date:	11/25/13
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**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	279.8-282.5
Project No.:	2013-465-001	Sample No.:	ST-40
Lab ID:	2013-465-001-032		

Pore Pressure vs % Strain



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	281.4-281.9
Project No.:	2013-465-001	Sample No.:	ST-40
Lab ID:	2013-465-001-032		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	99.0	<i>Stage No.</i>	1
		<i>Test No</i>	35

INITIAL DIMENSIONS

Initial Sample Length (in)	5.89
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.53
Initial Sample Volume (in ³)	38.47

VOLUME CHANGE

Volume After Consolidation (in ³)	36.95
Length After Consolidation (in)	5.84
Area After Consolidation (in ²)	6.329

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	7.49	1.06	105.43	97.9	1.076	0.14	101.68	3.74
0.03	13.59	2.25	110.34	96.8	1.140	0.17	103.55	6.79
0.09	33.31	7.62	124.68	91.4	1.364	0.23	108.03	16.65
0.18	48.95	13.90	134.05	85.1	1.575	0.28	109.58	24.48
0.27	62.26	20.17	141.09	78.8	1.790	0.32	109.96	31.13
0.41	78.15	28.38	148.77	70.6	2.107	0.36	109.70	39.08
0.56	90.66	34.60	155.07	64.4	2.408	0.38	109.74	45.33
0.75	102.80	40.00	161.80	59.0	2.743	0.39	110.40	51.40
1.09	116.65	44.08	171.57	54.9	3.124	0.38	113.24	58.33
1.59	128.03	44.52	182.51	54.5	3.350	0.35	118.50	64.01
2.18	133.95	43.18	189.77	55.8	3.400	0.32	122.80	66.98
2.77	136.69	41.92	193.77	57.1	3.395	0.31	125.43	68.34
3.48	138.00	41.04	195.96	58.0	3.381	0.30	126.96	69.00
3.99	138.54	40.78	196.76	58.2	3.380	0.29	127.49	69.27
4.71	138.56	40.62	196.93	58.4	3.373	0.29	127.65	69.28
5.67	137.83	40.74	196.09	58.3	3.366	0.30	127.17	68.91
6.67	137.15	41.00	195.15	58.0	3.365	0.30	126.57	68.58
7.42	136.56	41.25	194.31	57.7	3.365	0.30	126.03	68.28
8.44	136.10	41.52	193.58	57.5	3.368	0.31	125.53	68.05
9.21	135.39	41.69	192.70	57.3	3.362	0.31	125.01	67.70
9.97	134.51	41.81	191.70	57.2	3.352	0.31	124.44	67.25
10.72	133.40	41.97	190.42	57.0	3.339	0.31	123.73	66.70
11.21	132.90	42.07	189.83	56.9	3.334	0.32	123.38	66.45
11.71	132.19	42.11	189.08	56.9	3.324	0.32	122.99	66.10
12.22	131.69	42.18	188.51	56.8	3.318	0.32	122.66	65.84
12.73	130.90	42.25	187.66	56.8	3.307	0.32	122.21	65.45
13.50	129.59	42.34	186.25	56.7	3.287	0.33	121.46	64.80
14.26	128.09	42.53	184.56	56.5	3.268	0.33	120.51	64.05
14.76	127.04	42.66	183.38	56.3	3.255	0.34	119.86	63.52
15.26	126.04	42.80	182.25	56.2	3.243	0.34	119.23	63.02

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**
 ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	281.4-281.9
Project No.	2013-465-001	Sample No.	ST-40
Lab ID #	2013-465-001-032	Test No.	35

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G322	INITIAL ONLY
Load Cell	G1310	1/8/14
Cell Pressure Transducer	G1073B	11/7/14
Pore Pressure Transducer	G1518	11/7/14
Extensometer	G835	1/8/14
Load Frame	G833	1/8/14
Dial Indicator	G1190	2/22/14
Timing Device	G489	5/13/14
Balance	NA	NA
Flow Pump	G1510-1	11/7/14

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	281.9-282.4
Project No.:	2013-465-001	Sample No.:	ST-40
Lab ID:	2013-465-001-032		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	36

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.922	Diameter 1:	2.885
Length 2:	5.937	Diameter 2:	2.884
Length 3:	5.928	Diameter 3:	2.880
Avg. Length:	5.929	Avg. Diam.:	2.883

PRESSURES (psi)

Cell Pressure (psi)	223.1
Back Pressure (psi)	31.7
Eff. Conf. Pressure (psi)	191.4
Pore Pressure Response (%)	99

VOLUME CHANGE

Initial Burette Reading (ml)	72.0
Final Burette Reading (ml)	45.5
Final Change (ml)	26.5

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	151.08
Q	=	82.43

Initial Dial Reading (mil)	27
Dial Reading After Saturation (mil)	23
Dial Reading After Consolidation (mil)	134

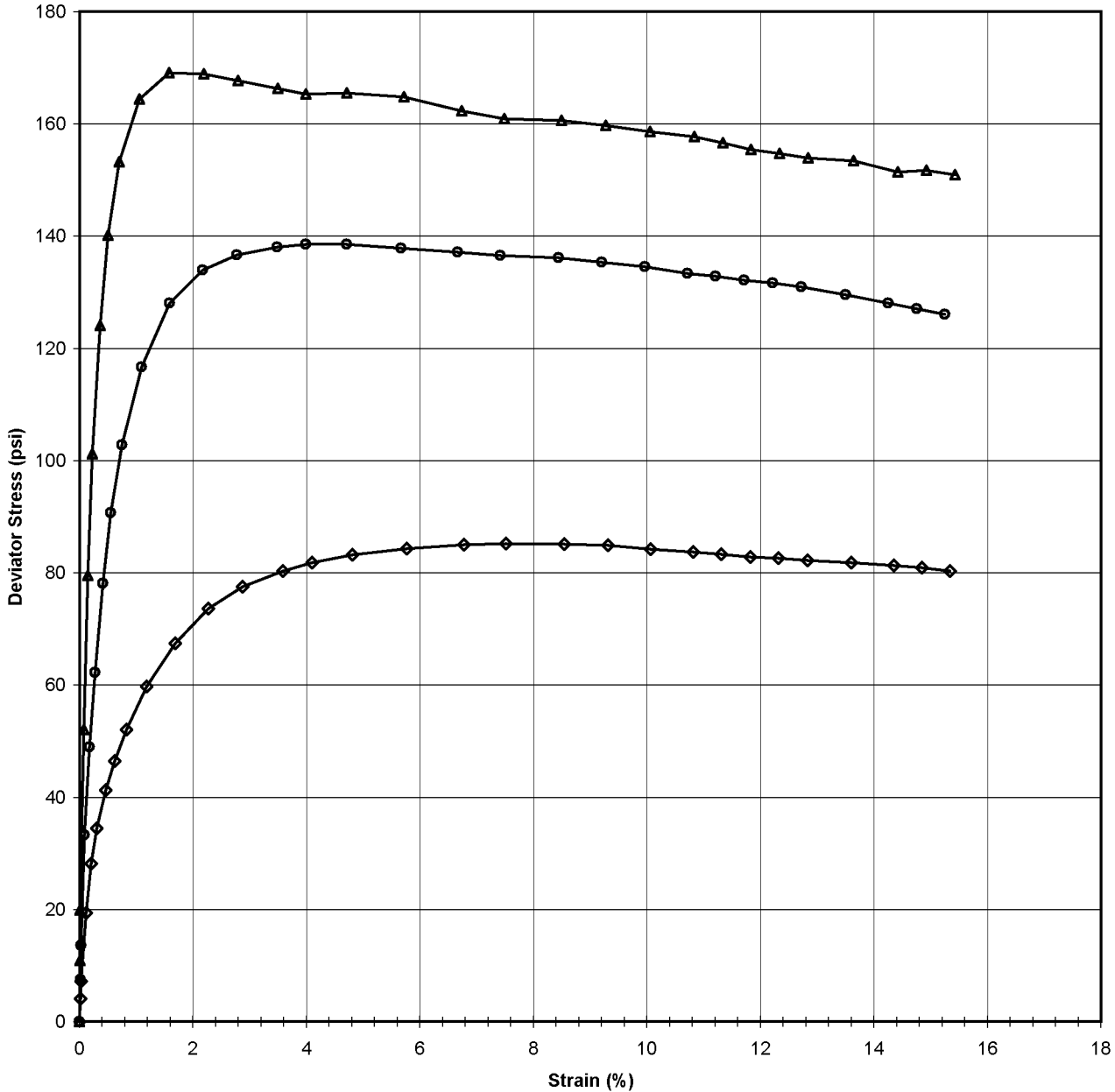
LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
46.8	0.000	31.7
116.3	0.001	33.6
174.0	0.001	35.3
379.2	0.005	44.6
555.1	0.009	56.5
694.3	0.013	69.1
841.6	0.021	87.1
946.2	0.029	101.6
1032.2	0.041	115.6
1107.8	0.062	130.4
1144.0	0.092	140.1
1149.5	0.128	145.6
1148.3	0.163	148.7
1146.7	0.203	151.0
1145.9	0.232	152.1
1155.8	0.274	153.2
1163.1	0.333	154.4
1158.1	0.392	155.4
1157.5	0.436	155.9
1167.7	0.495	156.5
1170.6	0.540	156.8
1172.7	0.586	157.3
1176.3	0.631	157.2
1174.8	0.661	157.4
1172.0	0.689	157.4
1173.4	0.718	157.7
1174.6	0.748	157.9
1180.9	0.794	158.0
1176.3	0.840	158.2
1185.3	0.869	158.3
1186.3	0.898	158.4

Tested By:	JCM	Date:	11/13/13	Input Checked By:	KC	Date:	11/25/13
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DCN: CI-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	279.8-282.5
Project No.:	2013-465-001	Sample No.:	ST-40
Lab ID:	2013-465-001-032		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



◆ Test No. 34
 ● Test No. 35
 ▲ Test No. 36

E50 Test No. 34 11361.15

E50 Test No. 35 21299.26

E50 Test No. 36 50562.67

Tested By: JCM Date: 11/13/13 Approved By: DB Date: 11/25/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	281.9-282.4
Project No.:	2013-465-001	Sample No.:	ST-40
Lab ID:	2013-465-001-032		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	191.4	<i>Stage No.</i>	1
		<i>Test No</i>	36

INITIAL DIMENSIONS

Initial Sample Length (in)	5.93
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.53
Initial Sample Volume (in ³)	38.70

VOLUME CHANGE

Volume After Consolidation (in ³)	37.17
Length After Consolidation (in)	5.82
Area After Consolidation (in ²)	6.384

Strain (%)	Deviation Stress	Δ U	σ ₁	σ ₃	Effective Principle Stress Ratio	A	P	Q
0.01	10.89	1.90	200.39	189.5	1.057	0.18	194.94	5.45
0.01	19.92	3.64	207.68	187.8	1.106	0.18	197.72	9.96
0.08	52.02	12.94	230.48	178.5	1.292	0.25	204.47	26.01
0.15	79.51	24.78	246.12	166.6	1.477	0.31	206.37	39.75
0.23	101.19	37.41	255.18	154.0	1.657	0.37	204.58	50.60
0.36	124.05	55.43	260.02	136.0	1.912	0.45	197.99	62.03
0.50	140.18	69.91	261.67	121.5	2.154	0.50	191.58	70.09
0.71	153.28	83.87	260.81	107.5	2.425	0.55	184.17	76.64
1.06	164.45	98.72	257.13	92.7	2.774	0.61	174.90	82.22
1.58	169.16	108.38	252.17	83.0	3.038	0.65	167.59	84.58
2.19	168.95	113.94	246.41	77.5	3.181	0.68	161.94	84.47
2.79	167.73	116.99	242.14	74.4	3.254	0.70	158.28	83.87
3.49	166.28	119.29	238.40	72.1	3.306	0.72	155.26	83.14
3.99	165.30	120.44	236.26	71.0	3.329	0.74	153.61	82.65
4.71	165.55	121.52	235.43	69.9	3.369	0.74	152.66	82.77
5.72	164.86	122.75	233.51	68.7	3.401	0.75	151.08	82.43
6.74	162.35	123.66	230.09	67.7	3.397	0.77	148.92	81.18
7.49	160.97	124.18	228.19	67.2	3.394	0.78	147.71	80.48
8.50	160.67	124.77	227.30	66.6	3.411	0.78	146.96	80.33
9.28	159.72	125.08	226.04	66.3	3.408	0.79	146.18	79.86
10.06	158.63	125.64	224.38	65.8	3.412	0.80	145.07	79.31
10.84	157.76	125.52	223.64	65.9	3.395	0.80	144.76	78.88
11.35	156.66	125.66	222.40	65.7	3.383	0.81	144.07	78.33
11.84	155.39	125.69	221.10	65.7	3.365	0.82	143.41	77.70
12.34	154.70	126.00	220.11	65.4	3.365	0.82	142.76	77.35
12.84	153.98	126.18	219.20	65.2	3.361	0.83	142.21	76.99
13.64	153.42	126.28	218.54	65.1	3.356	0.83	141.83	76.71
14.42	151.42	126.45	216.37	64.9	3.331	0.84	140.66	75.71
14.93	151.73	126.58	216.54	64.8	3.341	0.84	140.68	75.86
15.43	150.96	126.74	215.62	64.7	3.335	0.85	140.14	75.48

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	281.9-282.4
Project No.	2013-465-001	Sample No.	ST-40
Lab ID #	2013-465-001-032	Test No.	36

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/6/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G323	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1512	11/7/14
Pore Pressure Transducer	G1514	11/7/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G722	2/22/14
Timing Device	G489	5/13/14
Flow Pump	G1509-1	11/7/14

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client: Paul C. Rizzo & Associates
 Client Reference: Turkey Point Units 6 & 7 Site
 Project No.: 2013-465-001
 Lab ID: 2013-465-001-032 Specific Gravity (measured) 2.65

Visual Description: Greenish Gray Silty Sand (Undisturbed)

SAMPLE CONDITION SUMMARY

Boring No.:	R-6-1b	R-6-1b	R-6-1b
Depth (ft):	280.9-281.4	281.4-281.9	281.9-282.4
Sample No.:	ST-40	ST-40	ST-40
Test No.	T34	T35	T36
Deformation Rate (in/min)	0.002	0.002	0.002
Back Pressure (psi)	21.2	31.6	31.7
Consolidation Time (days)	1	1	1
Moisture Content (%) (INITIAL)	30.0	30.0	30.0
Total Unit Weight (pcf)	118.7	118.9	118.8
Dry Unit Weight (pcf)	91.3	91.5	91.4
Moisture Content (%) (FINAL)	29.2	28.2	27.5
Initial State Void Ratio, e	0.811	0.808	0.810
Void Ratio at Shear, e	0.760	0.736	0.738



Tested By: JCM Date: 11/13/13 Input Checked By: KC Date: 11/25/13
DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS**

ASTM D4767-11

MOISTURE CONTENT

	T34	T35	T36
Tare Number	1692	1692	1692
Weight of Tare & Wet Sample (g)	214.91	214.91	214.91
Weight of Tare & Dry Sample (g)	184.4	184.4	184.4
Weight of Tare (g)	82.55	82.55	82.55
Moisture Content (%) (INITIAL)	29.96	29.96	29.96
Tare Number	917	970	528
Weight of Tare & Wet Sample (g)	291.77	1281.73	1269.49
Weight of Tare & Dry Sample (g)	250.64	1022.33	1016.11
Weight of Tare (g)	109.9	101.35	94.66
Moisture Content (%) (FINAL)	29.22	28.17	27.50

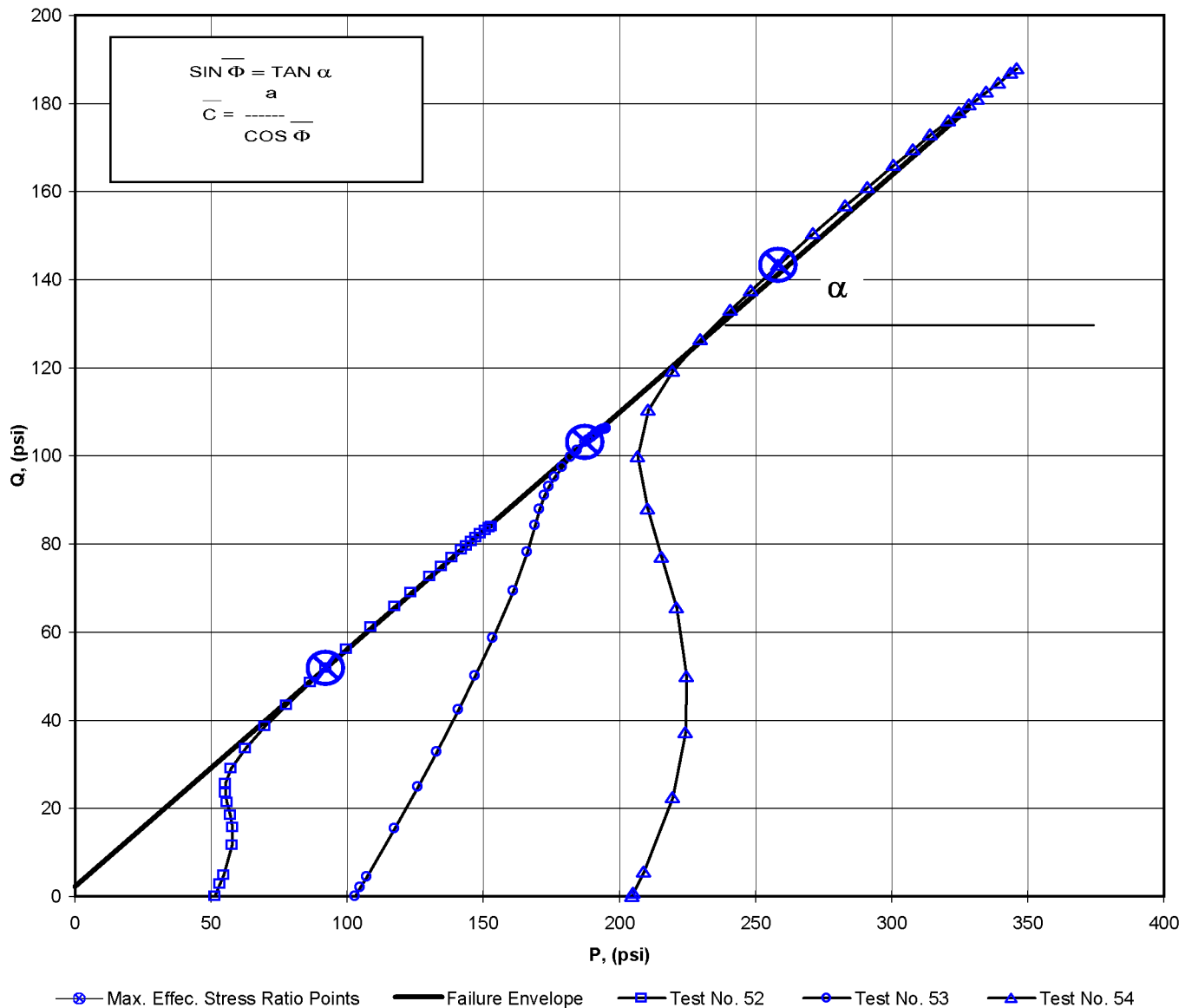
UNIT WEIGHT

Weight of Tube & Wet Sample (g)	1631.89	1616.5	1626.55
Weight of Tube (g)	421.62	415.46	419.79
Weight of Wet Sample (g)	1210.27	1201.04	1206.76
Length 1 (in)	5.941	5.885	5.922
Length 2 (in)	5.973	5.894	5.937
Length 3 (in)	5.952	5.894	5.928
Top Diameter (in)	2.874	2.882	2.885
Middle Diameter (in)	2.888	2.879	2.884
Bottom Diameter (in)	2.883	2.89	2.88
Average Length (in)	5.955333	5.891	5.929
Average Area (in)	6.522	6.531	6.528
Sample Volume (cm ³)	636.48	630.48	634.25
Unit Wet Weight (g/cm ³)	1.90	1.90	1.90
Unit Wet Weight (pcf)	118.71	118.93	118.78
Unit Dry Weight (pcf)	91.35	91.51	91.40
Unit Dry Weight (g/cm ³)	1.46	1.47	1.46
Initial Burette Reading	48	48	72
Final Burette Reading	30.6	26.5	45.5
Initial Dial Reading	58	47	27
Dial Reading After Saturation	60	58	23
Dial Reading After Consolidation	96	100	134
Volume Change during Consolidation	17.4	21.5	26.5
Volume Change during Saturation	0.64	3.53	-1.28
Volume at Shear (cm ³)	*These 618.44	605.45	609.04
Volume of Solids (cm ³)	measurements 351.43	348.75	350.41
Volume of Voids (cm ³)	are all 267.01	256.70	258.62
Volume of Water (cm ³)	at 272.16	260.30	255.34
Void Ratio, e	shear 0.760	0.736	0.738

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	299.6-302.3
Project No.:	2013-465-001	Sample No.:	ST-46
Lab ID:	2013-465-001-033		

Consolidated Undrained Triaxial Test with Pore Pressure

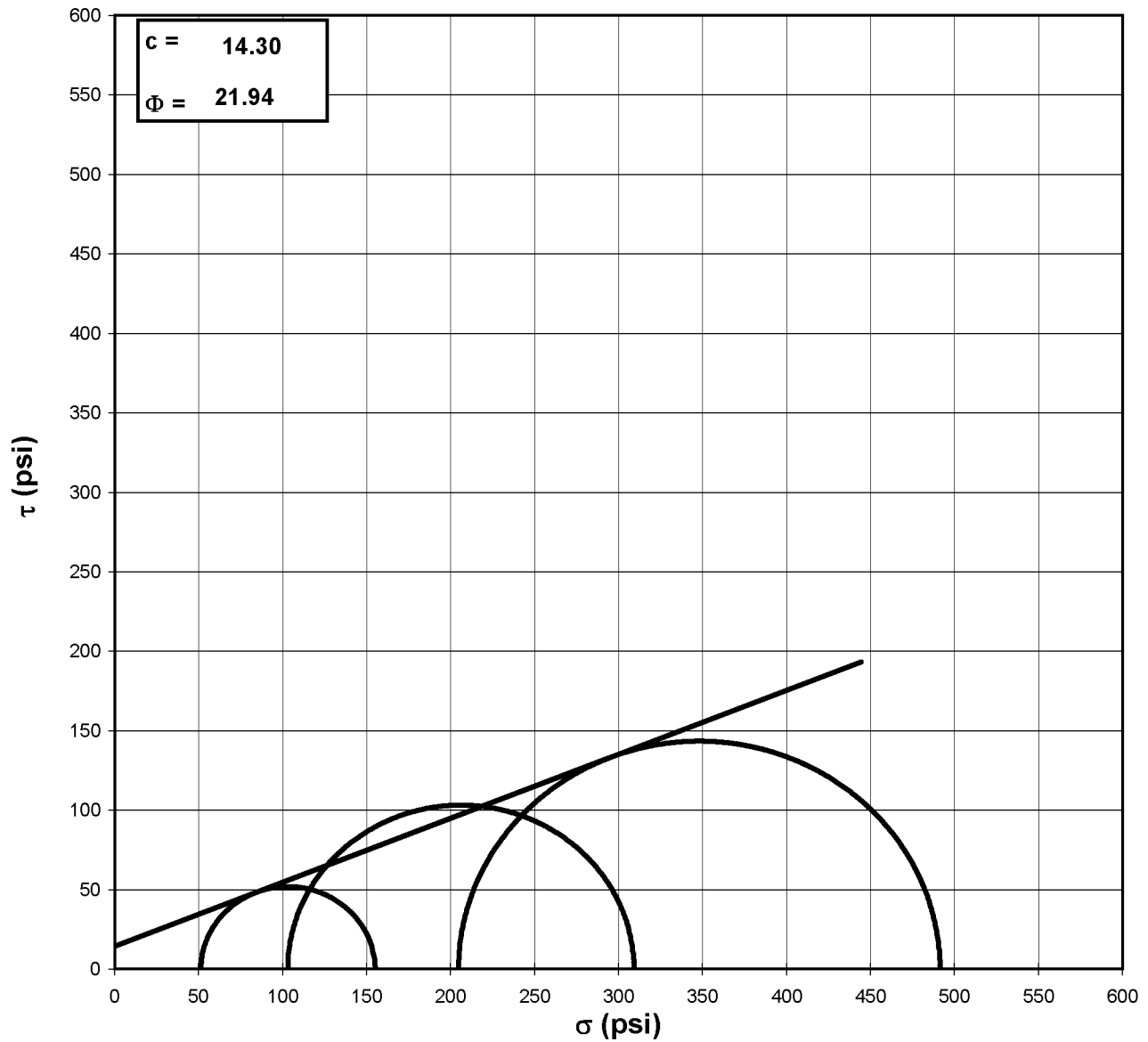


a	=	2.25	C	=	2.67
α	=	28.3	Φ	=	32.55

Tested By: JCM Date: 11/24/13 Approved By: DB Date: 12/5/13

MOHR TOTAL STRENGTH ENVELOPE
 ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	299.6-302.3
Project No.:	2013-465-001	Sample No.:	ST-46
Lab ID:	2013-465-001-033		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



Failure Based on Maximum Effective Principal Stress Ratio

NOTE: GRAPH NOT TO SCALE

Tested By: JCM Date: 11/24/13 Approved By: DB Date: 12/5/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	300.7-301.2
Project No.:	2013-465-001	Sample No.:	ST-46
Lab ID:	2013-465-001-033		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	52

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.890	Diameter 1:	2.885
Length 2:	5.891	Diameter 2:	2.884
Length 3:	5.888	Diameter 3:	2.880
Avg. Length:	5.890	Avg. Diam.:	2.883

PRESSURES (psi)

Cell Pressure (psi)	73.0
Back Pressure (psi)	21.6
Eff. Conf. Pressure (psi)	51.4
Pore Pressure Response (%)	99

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	31.0
Final Change (ml)	17.0

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	92.15
Q	=	51.82

Initial Dial Reading (mil)	29
Dial Reading After Saturation (mil)	48
Dial Reading After Consolidation (mil)	86

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
14.7	0.000	21.6
50.2	0.001	22.5
76.3	0.002	23.2
161.9	0.007	26.8
214.3	0.012	30.8
249.8	0.018	34.3
286.8	0.026	38.4
313.4	0.035	41.1
342.3	0.046	43.2
387.5	0.067	44.6
447.6	0.096	44.0
514.9	0.130	41.7
581.4	0.165	38.7
653.6	0.207	35.1
700.7	0.237	32.7
762.9	0.278	29.3
837.4	0.333	25.3
910.2	0.392	21.3
961.0	0.437	18.5
1023.0	0.497	15.3
1062.8	0.543	13.2
1100.4	0.587	11.3
1133.9	0.631	9.7
1153.8	0.660	8.7
1175.2	0.690	7.9
1194.1	0.719	7.1
1213.4	0.749	6.4
1235.4	0.793	5.4
1254.8	0.838	4.5
1266.2	0.867	4.0
1276.3	0.896	3.5

Tested By:	JCM	Date:	11/24/13	Input Checked By:	KC	Date:	12/5/13
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**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	300.7-301.2
Project No.:	2013-465-001	Sample No.:	ST-46
Lab ID:	2013-465-001-033		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	51.4	<i>Stage No.</i>	1
		<i>Test No</i>	52

INITIAL DIMENSIONS

Initial Sample Length (in)	5.89
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.53
Initial Sample Volume (in ³)	38.45

VOLUME CHANGE

Volume After Consolidation (in ³)	37.04
Length After Consolidation (in)	5.83
Area After Consolidation (in ²)	6.350

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.01	5.60	0.88	56.12	50.5	1.111	0.16	53.32	2.80
0.03	9.69	1.59	59.51	49.8	1.195	0.17	54.66	4.85
0.11	23.15	5.24	69.31	46.2	1.502	0.23	57.73	11.58
0.20	31.36	9.21	73.55	42.2	1.743	0.30	57.87	15.68
0.30	36.91	12.75	75.56	38.7	1.955	0.35	57.11	18.45
0.45	42.66	16.78	77.28	34.6	2.232	0.40	55.95	21.33
0.60	46.76	19.49	78.67	31.9	2.465	0.42	55.29	23.38
0.80	51.17	21.64	80.94	29.8	2.719	0.43	55.35	25.59
1.14	58.04	23.02	86.43	28.4	3.045	0.40	57.40	29.02
1.64	67.05	22.36	96.09	29.0	3.309	0.34	62.56	33.52
2.23	77.01	20.13	108.28	31.3	3.462	0.26	69.78	38.50
2.84	86.71	17.11	120.99	34.3	3.529	0.20	77.64	43.35
3.54	97.04	13.50	134.95	37.9	3.560	0.14	86.42	48.52
4.06	103.65	11.07	143.97	40.3	3.570	0.11	92.15	51.82
4.77	112.21	7.69	155.91	43.7	3.567	0.07	99.81	56.10
5.72	122.15	3.66	169.89	47.7	3.559	0.03	108.81	61.08
6.72	131.55	-0.32	183.26	51.7	3.544	0.00	117.49	65.77
7.50	137.84	-3.07	192.31	54.5	3.531	-0.02	123.39	68.92
8.53	145.25	-6.28	202.93	57.7	3.518	-0.04	130.31	72.63
9.31	149.68	-8.43	209.51	59.8	3.502	-0.06	134.67	74.84
10.06	153.78	-10.30	215.48	61.7	3.492	-0.07	138.59	76.89
10.81	157.19	-11.92	220.52	63.3	3.482	-0.08	141.92	78.60
11.32	159.08	-12.88	223.36	64.3	3.475	-0.08	143.82	79.54
11.83	161.14	-13.74	226.28	65.1	3.474	-0.09	145.71	80.57
12.33	162.83	-14.49	228.72	65.9	3.471	-0.09	147.30	81.42
12.84	164.53	-15.23	231.16	66.6	3.469	-0.09	148.89	82.27
13.60	166.08	-16.24	233.72	67.6	3.455	-0.10	150.68	83.04
14.36	167.24	-17.12	235.76	68.5	3.441	-0.10	152.14	83.62
14.86	167.80	-17.63	236.82	69.0	3.431	-0.11	152.93	83.90
15.36	168.16	-18.10	237.66	69.5	3.420	-0.11	153.58	84.08

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	300.7-301.2
Project No.	2013-465-001	Sample No.	ST-46
Lab ID #	2013-465-001-033	Test No.	52

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G313	INITIAL ONLY
Load Cell	G1310	1/8/14
Cell Pressure Transducer	G1073B	11/7/14
Pore Pressure Transducer	G1518	11/7/14
Extensometer	G835	1/8/14
Load Frame	G833	1/8/14
Dial Indicator	G590	3/14/14
Timing Device	G489	5/13/14
Balance	NA	NA
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	301.2-301.7
Project No.:	2013-465-001	Sample No.:	ST-46
Lab ID:	2013-465-001-033		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	53

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.958	Diameter 1:	2.883
Length 2:	5.964	Diameter 2:	2.877
Length 3:	5.954	Diameter 3:	2.877
Avg. Length	5.959	Avg. Diam.:	2.879

PRESSURES (psi)

Cell Pressure (psi)	125.8
Back Pressure (psi)	22.7
Eff. Conf. Pressure (psi)	103.1
Pore Pressure	
Response (%)	99

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	18.2
Final Change (ml)	29.8

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	187.36
Q	=	103.04

Initial Dial Reading (mil)	37
Dial Reading After Saturation (mil)	46
Dial Reading After Consolidation (mil)	88

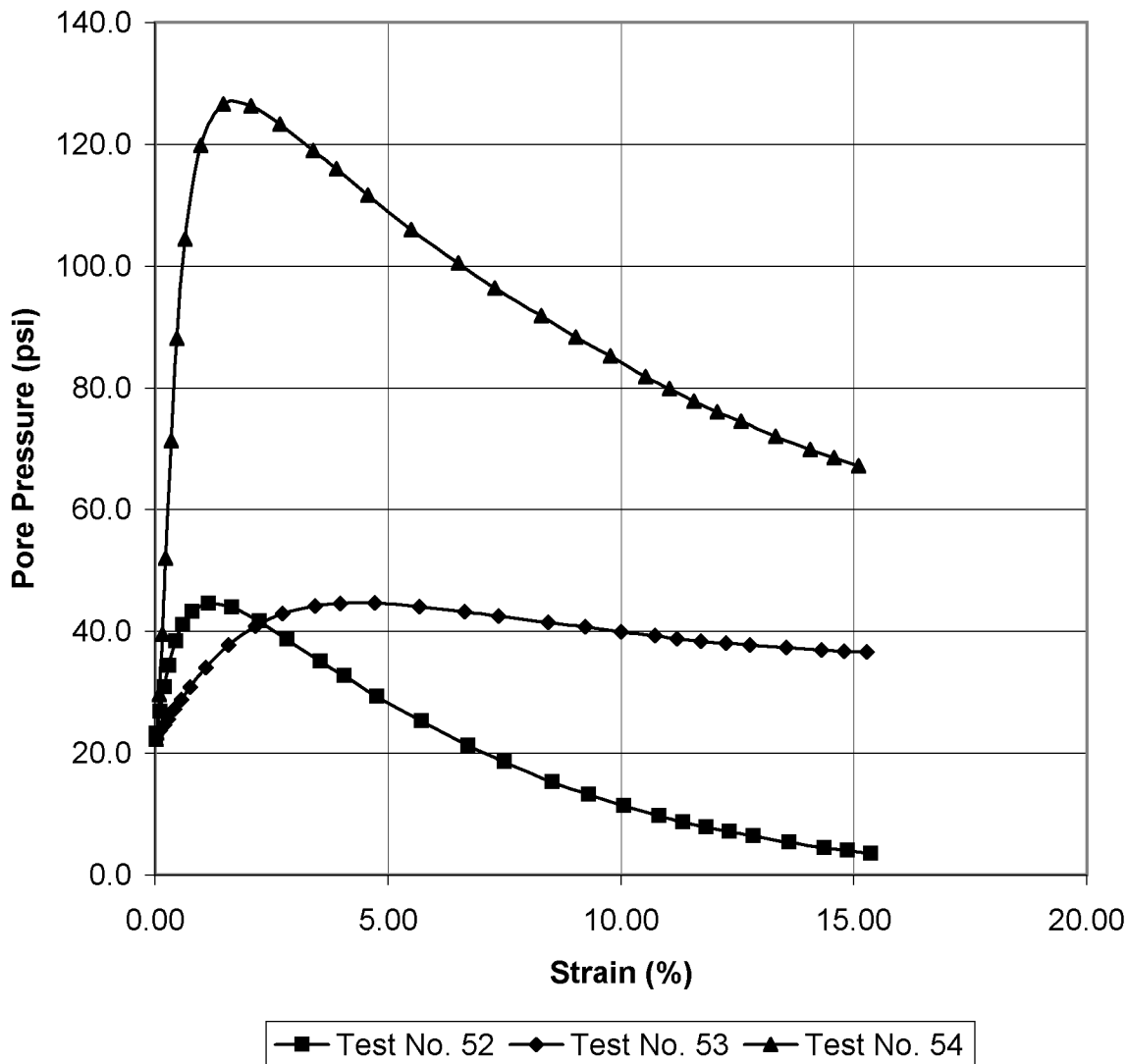
LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
29.4	0.000	22.7
54.7	0.001	22.9
84.7	0.002	23.0
221.3	0.007	23.7
339.1	0.012	24.6
438.6	0.017	25.6
558.5	0.025	27.2
656.5	0.033	28.8
764.8	0.045	30.8
902.2	0.064	34.0
1018.6	0.093	37.8
1101.9	0.128	40.9
1154.1	0.162	42.9
1203.1	0.203	44.2
1235.7	0.235	44.5
1272.6	0.279	44.6
1315.9	0.335	44.1
1359.5	0.393	43.2
1390.8	0.436	42.5
1431.4	0.499	41.5
1451.6	0.546	40.7
1472.7	0.591	39.9
1492.2	0.634	39.3
1507.3	0.662	38.8
1519.1	0.693	38.4
1532.2	0.724	38.1
1543.5	0.755	37.8
1557.0	0.801	37.3
1574.6	0.845	37.0
1580.9	0.874	36.8
1590.1	0.902	36.6

Tested By: JCM Date: 11/24/13 Input Checked By: KC Date: 12/5/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	299.6-302.3
Project No.:	2013-465-001	Sample No.:	ST-46
Lab ID:	2013-465-001-033		

Pore Pressure vs % Strain



**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	301.2-301.7
Project No.:	2013-465-001	Sample No.:	ST-46
Lab ID:	2013-465-001-033		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	103.1	<i>Stage No.</i>	1
		<i>Test No</i>	53

INITIAL DIMENSIONS

Initial Sample Length (in)	5.96
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.51
Initial Sample Volume (in ³)	38.79

VOLUME CHANGE

Volume After Consolidation (in ³)	36.80
Length After Consolidation (in)	5.91
Area After Consolidation (in ²)	6.229

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.01	4.06	0.20	106.96	102.9	1.039	0.05	104.93	2.03
0.03	8.88	0.33	111.65	102.8	1.086	0.04	107.21	4.44
0.11	30.77	1.02	132.85	102.1	1.301	0.03	117.46	15.39
0.20	49.62	1.93	150.79	101.2	1.490	0.04	125.98	24.81
0.28	65.52	2.92	165.70	100.2	1.654	0.05	132.94	32.76
0.42	84.59	4.51	183.18	98.6	1.858	0.05	140.88	42.30
0.57	100.12	6.11	197.10	97.0	2.032	0.06	147.05	50.06
0.76	117.18	8.12	212.16	95.0	2.234	0.07	153.57	58.59
1.09	138.61	11.35	230.36	91.8	2.511	0.08	161.06	69.30
1.57	156.32	15.05	244.36	88.0	2.775	0.10	166.21	78.16
2.16	168.48	18.20	253.38	84.9	2.984	0.11	169.14	84.24
2.74	175.63	20.18	258.55	82.9	3.118	0.12	170.73	87.82
3.44	181.95	21.47	263.59	81.6	3.229	0.12	172.61	90.98
3.97	185.98	21.83	267.25	81.3	3.288	0.12	174.26	92.99
4.72	190.18	21.94	271.35	81.2	3.343	0.12	176.25	95.09
5.68	194.82	21.40	276.51	81.7	3.385	0.11	179.11	97.41
6.65	199.36	20.53	281.93	82.6	3.414	0.10	182.25	99.68
7.38	202.44	19.80	285.74	83.3	3.430	0.10	184.52	101.22
8.44	206.09	18.79	290.40	84.3	3.444	0.09	187.36	103.04
9.24	207.24	18.02	292.33	85.1	3.436	0.09	188.70	103.62
10.00	208.55	17.23	294.42	85.9	3.428	0.08	190.15	104.27
10.73	209.66	16.57	296.19	86.5	3.423	0.08	191.36	104.83
11.21	210.68	16.14	297.64	87.0	3.423	0.08	192.30	105.34
11.72	211.14	15.73	298.51	87.4	3.417	0.08	192.94	105.57
12.26	211.71	15.41	299.40	87.7	3.414	0.07	193.55	105.86
12.78	212.03	15.09	300.04	88.0	3.409	0.07	194.02	106.01
13.56	212.01	14.62	300.49	88.5	3.396	0.07	194.49	106.00
14.31	212.59	14.25	301.44	88.8	3.393	0.07	195.14	106.29
14.79	212.25	14.08	301.28	89.0	3.384	0.07	195.15	106.13
15.28	212.30	13.91	301.49	89.2	3.380	0.07	195.34	106.15

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**
 ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	301.2-301.7
Project No.	2013-465-001	Sample No.	ST-46
Lab ID #	2013-465-001-033	Test No.	53

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G312	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1512	11/7/14
Pore Pressure Transducer	G1514	11/7/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G1190	2/22/14
Timing Device	G489	5/13/14
Balance	NA	NA
Flow Pump	G1509-1	11/7/14

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS**
ASTM D4767-11



A-950

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	301.7-302.2
Project No.:	2013-465-001	Sample No.:	ST-46
Lab ID:	2013-465-001-033		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	54

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.898	Diameter 1:	2.829
Length 2:	5.887	Diameter 2:	2.887
Length 3:	5.886	Diameter 3:	2.877
Avg. Length:	5.890	Avg. Diam.:	2.864

PRESSURES (psi)

Cell Pressure (psi)	226.8
Back Pressure (psi)	22.0
Eff. Conf. Pressure (psi)	204.8
Pore Pressure Response (%)	98

VOLUME CHANGE

Initial Burette Reading (ml)	72.0
Final Burette Reading (ml)	39.6
Final Change (ml)	32.4

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	258.48
Q	=	143.31

Initial Dial Reading (mil)	35
Dial Reading After Saturation (mil)	42
Dial Reading After Consolidation (mil)	113

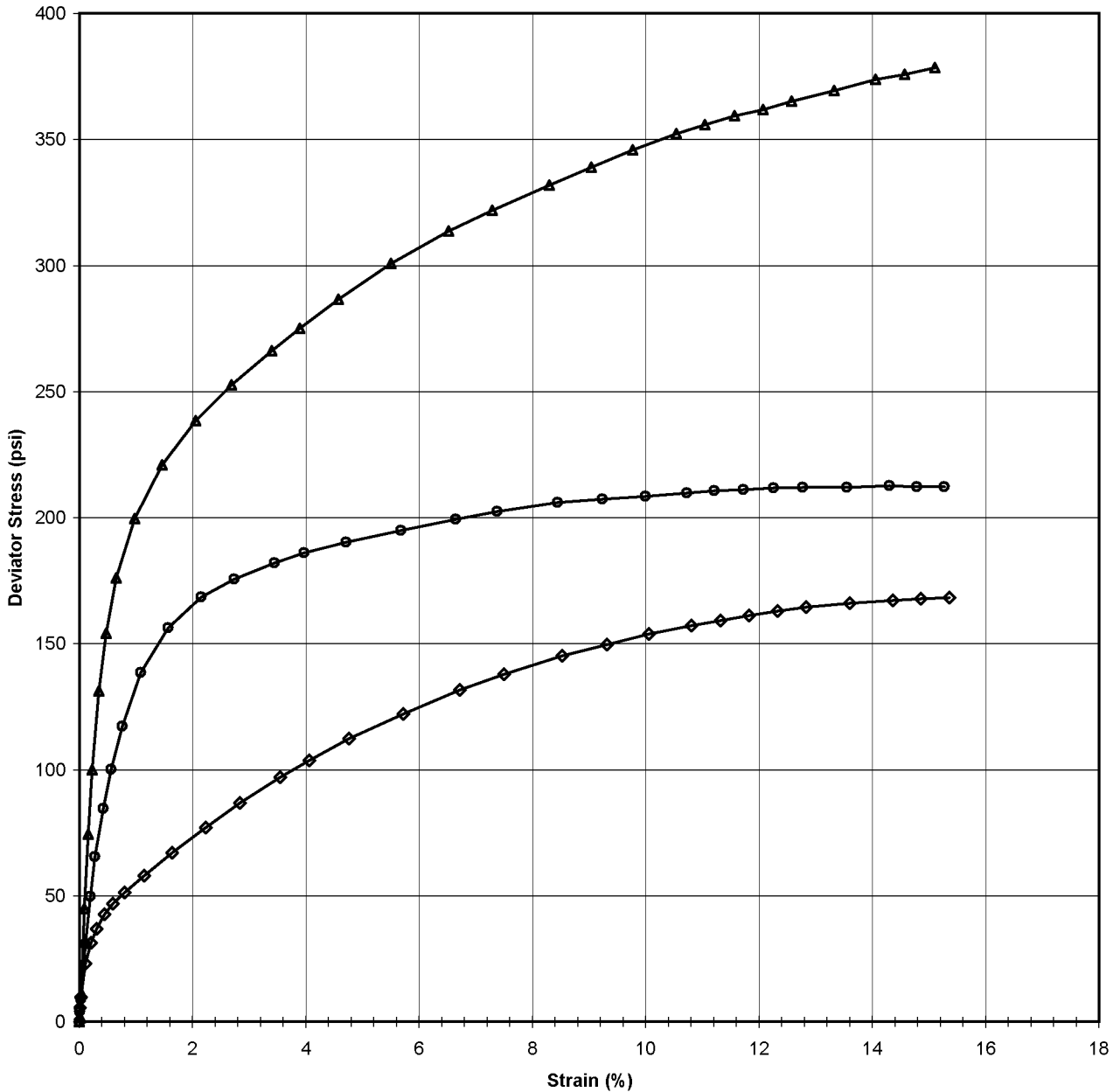
LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
46.1	0.000	22.0
55.3	0.001	22.3
114.6	0.002	23.3
323.3	0.005	29.6
505.0	0.009	39.5
663.3	0.013	52.0
857.4	0.020	71.3
1000.1	0.028	88.1
1138.7	0.038	104.4
1289.4	0.057	119.8
1428.0	0.085	126.5
1547.4	0.120	126.3
1647.4	0.156	123.3
1744.7	0.197	119.0
1811.0	0.226	116.0
1898.3	0.266	111.6
2009.3	0.320	105.9
2115.2	0.379	100.5
2186.5	0.424	96.4
2277.9	0.482	91.8
2344.1	0.525	88.3
2409.1	0.568	85.2
2473.7	0.612	81.9
2513.1	0.642	79.9
2552.9	0.673	77.8
2584.1	0.702	76.1
2622.1	0.731	74.4
2673.7	0.774	72.0
2728.4	0.817	69.8
2759.4	0.847	68.5
2795.2	0.878	67.1

Tested By: JCM Date: 11/24/13 Input Checked By: KC Date: 12/5/13

DCN: CI-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	299.6-302.3
Project No.:	2013-465-001	Sample No.:	ST-46
Lab ID:	2013-465-001-033		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



◆ Test No. 52
 ● Test No. 53
 ▲ Test No. 54

E50 Test No. 52 6254.351
 E50 Test No. 53 17211.9
 E50 Test No. 54 34591.06

Tested By: JCM Date: 11/24/13 Approved By: DB Date: 12/5/13

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**



A-952

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	301.7-302.2
Project No.:	2013-465-001	Sample No.:	ST-46
Lab ID:	2013-465-001-033		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	204.8	<i>Stage No.</i>	1
		<i>Test No</i>	54

INITIAL DIMENSIONS

Initial Sample Length (in)	5.89
Initial Sample Diameter (in)	2.86
Initial Sample Area (in ²)	6.44
Initial Sample Volume (in ³)	37.96

VOLUME CHANGE

Volume After Consolidation (in ³)	35.84
Length After Consolidation (in)	5.81
Area After Consolidation (in ²)	6.167

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	1.49	0.31	205.98	204.5	1.007	0.21	205.24	0.75
0.04	11.10	1.35	214.55	203.5	1.055	0.12	209.00	5.55
0.09	44.92	7.61	242.11	197.2	1.228	0.17	219.65	22.46
0.16	74.30	17.51	261.59	187.3	1.397	0.24	224.44	37.15
0.23	99.85	30.04	274.61	174.8	1.571	0.31	224.69	49.93
0.34	131.11	49.28	286.62	155.5	1.843	0.38	221.07	65.55
0.48	153.96	66.14	292.62	138.7	2.110	0.44	215.64	76.98
0.65	176.02	82.36	298.46	122.4	2.438	0.48	210.45	88.01
0.98	199.64	97.76	306.67	107.0	2.865	0.50	206.86	99.82
1.46	220.81	104.55	321.06	100.3	3.203	0.48	210.66	110.41
2.06	238.43	104.25	338.98	100.5	3.371	0.45	219.76	119.22
2.69	252.69	101.29	356.20	103.5	3.441	0.41	229.85	126.35
3.39	266.09	96.96	373.93	107.8	3.467	0.37	240.89	133.05
3.89	275.06	93.98	385.88	110.8	3.482	0.35	248.35	137.53
4.58	286.61	89.63	401.78	115.2	3.489	0.32	258.48	143.31
5.50	300.84	83.90	421.73	120.9	3.488	0.28	271.31	150.42
6.52	313.66	78.46	440.00	126.3	3.483	0.26	283.17	156.83
7.29	321.78	74.41	452.17	130.4	3.468	0.24	291.28	160.89
8.30	331.88	69.83	466.85	135.0	3.459	0.21	300.91	165.94
9.04	338.97	66.35	477.42	138.5	3.448	0.20	307.94	169.49
9.77	345.74	63.24	487.30	141.6	3.442	0.19	314.43	172.87
10.54	352.18	59.86	497.12	144.9	3.430	0.17	321.03	176.09
11.04	355.88	57.90	502.78	146.9	3.423	0.17	324.84	177.94
11.57	359.46	55.83	508.42	149.0	3.413	0.16	328.69	179.73
12.07	361.89	54.08	512.61	150.7	3.401	0.15	331.67	180.94
12.58	365.17	52.45	517.52	152.4	3.397	0.15	334.94	182.59
13.32	369.32	50.02	524.10	154.8	3.386	0.14	339.44	184.66
14.06	373.81	47.80	530.81	157.0	3.381	0.13	343.90	186.90
14.57	375.87	46.49	534.17	158.3	3.374	0.13	346.24	187.93
15.10	378.48	45.14	538.14	159.7	3.371	0.12	348.90	189.24

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	301.7-302.2
Project No.	2013-465-001	Sample No.	ST-46
Lab ID #	2013-465-001-033	Test No.	54

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G314	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1512	11/7/14
Pore Pressure Transducer	G1514	11/7/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G1455	8/30/14
Timing Device	G489	5/13/14
Flow Pump	G1511-1	11/7/14

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client: Paul C. Rizzo & Associates
 Client Reference: Turkey Point Units 6 & 7 Site
 Project No.: 2013-465-001
 Lab ID: 2013-465-001-033 Specific Gravity (measured) 2.61

Visual Description: Greenish Gray Silty Sand (Undisturbed)

SAMPLE CONDITION SUMMARY

Boring No.:	R-6-1b	R-6-1b	R-6-1b
Depth (ft):	300.7-301.2	301.2-301.7	301.7-302.2
Sample No.:	ST-46	ST-46	ST-46
Test No.	T52	T53	T54
Deformation Rate (in/min)	0.002	0.002	0.002
Back Pressure (psi)	21.6	22.7	22.0
Consolidation Time (days)	1	1	1
Moisture Content (%) (INITIAL)	15.9	15.9	15.9
Total Unit Weight (pcf)	127.4	126.1	129.6
Dry Unit Weight (pcf)	109.9	108.8	111.8
Moisture Content (%) (FINAL)	19.5	19.1	18.6
Initial State Void Ratio, e	0.483	0.498	0.457
Void Ratio at Shear, e	0.429	0.421	0.376



Tested By: JCM Date: 11/24/13 Input Checked By: KC Date: 12/5/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

CONSOLIDATED UNDRAINED TRIAXIAL TEST WITH PORE PRESSURE READINGS

ASTM D4767-11

MOISTURE CONTENT

	T52	T53	T54
Tare Number	578	578	578
Weight of Tare & Wet Sample (g)	213.54	213.54	213.54
Weight of Tare & Dry Sample (g)	195.77	195.77	195.77
Weight of Tare (g)	84.28	84.28	84.28
Moisture Content (%) (INITIAL)	15.94	15.94	15.94
Tare Number	586	975	2343
Weight of Tare & Wet Sample (g)	292.21	1285.58	1293.86
Weight of Tare & Dry Sample (g)	257.9	1094.77	1105.35
Weight of Tare (g)	82.2	97.47	94.06
Moisture Content (%) (FINAL)	19.53	19.13	18.64

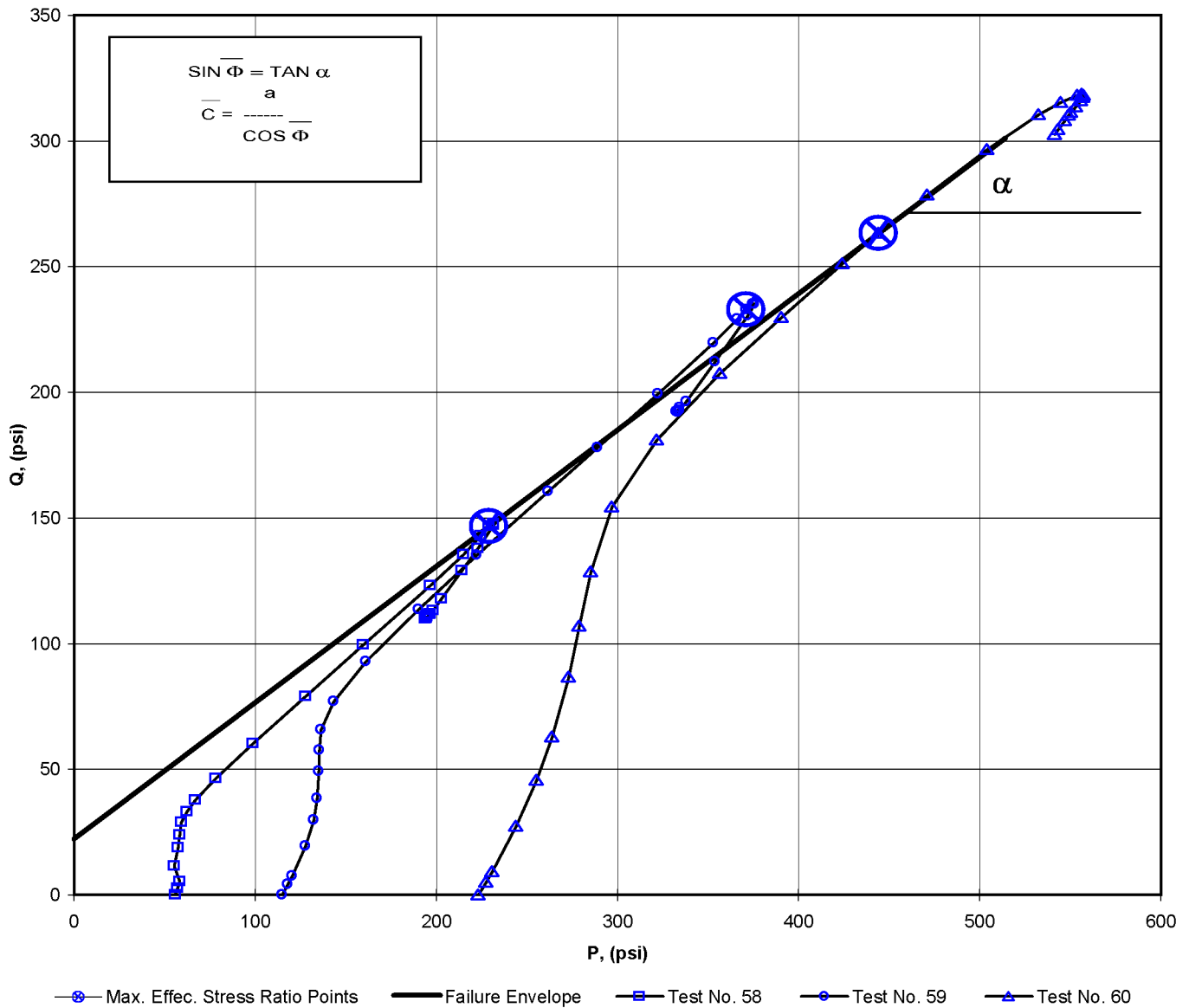
UNIT WEIGHT

Weight of Tube & Wet Sample (g)	1700.89	1708.79	1713.58
Weight of Tube (g)	415.27	424.65	421.95
Weight of Wet Sample (g)	1285.62	1284.14	1291.63
Length 1 (in)	5.89	5.958	5.898
Length 2 (in)	5.891	5.964	5.887
Length 3 (in)	5.888	5.954	5.886
Top Diameter (in)	2.885	2.883	2.829
Middle Diameter (in)	2.884	2.877	2.887
Bottom Diameter (in)	2.88	2.877	2.877
Average Length (in)	5.889667	5.958667	5.890333
Average Area (in ²)	6.528	6.510	6.444
Sample Volume (cm ³)	630.04	635.66	621.98
Unit Wet Weight (g/cm ³)	2.04	2.02	2.08
Unit Wet Weight (pcf)	127.39	126.12	129.64
Unit Dry Weight (pcf)	109.88	108.78	111.82
Unit Dry Weight (g/cm ³)	1.76	1.74	1.79
Initial Burette Reading	48	48	72
Final Burette Reading	31	18.2	39.6
Initial Dial Reading	29	37	35
Dial Reading After Saturation	48	46	42
Dial Reading After Consolidation	86	88	113
Volume Change during Consolidation	17	29.8	32.4
Volume Change during Saturation	6.10	2.88	2.22
Volume at Shear (cm ³)	*These 606.95	602.98	587.36
Volume of Solids (cm ³)	measurements 424.86	424.37	426.84
Volume of Voids (cm ³)	are all 182.09	178.61	160.52
Volume of Water (cm ³)	at 216.54	211.91	207.67
Void Ratio, e	shear 0.429	0.421	0.376

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS
 ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	325.9-328.0
Project No.:	2013-465-001	Sample No.:	ST-55
Lab ID:	2013-465-001-035		

Consolidated Undrained Triaxial Test with Pore Pressure

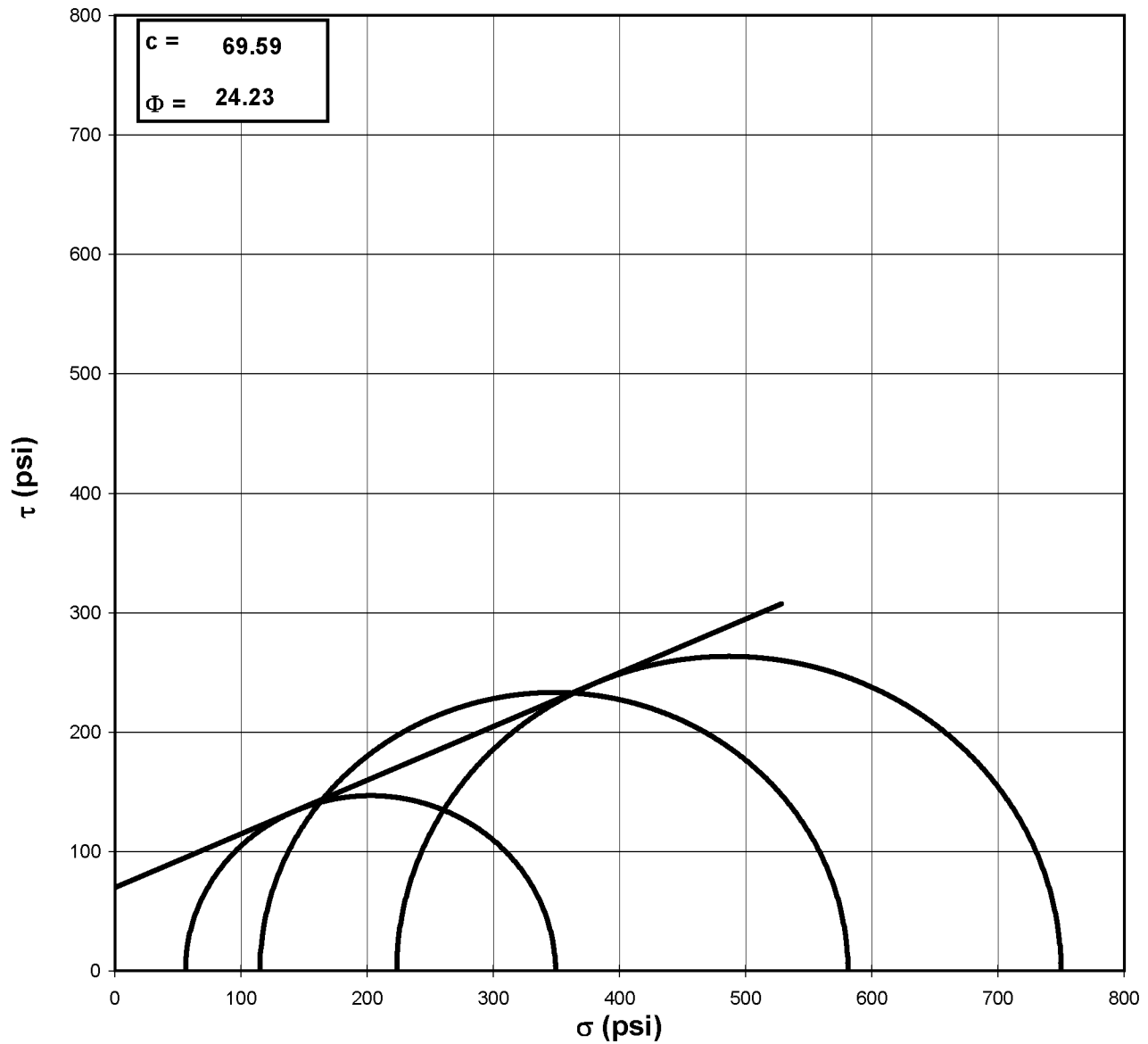


a	=	22.30	C̄	=	26.54
α	=	28.5	Φ̄	=	32.84

Tested By: JCM Date: 11/29/13 Approved By: DB Date: 12/4/13

MOHR TOTAL STRENGTH ENVELOPE
 ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	325.9-328.0
Project No.:	2013-465-001	Sample No.:	ST-55
Lab ID:	2013-465-001-035		
Visual Description:	Greenish Gray Silty Sand (Undisturbed)		



Failure Based on Maximum Effective Principal Stress Ratio

NOTE: GRAPH NOT TO SCALE

Tested By: JCM Date: 11/29/13 Approved By: DB Date: 12/4/13

DCN: CT-S28 DATE: 4/12/13 REVISION: 3

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	327.4-327.9
Project No.:	2013-465-001	Sample No.:	ST-55
Lab ID:	2013-465-001-035		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	58

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	5.829	Diameter 1:	2.886
Length 2:	5.833	Diameter 2:	2.885
Length 3:	5.834	Diameter 3:	2.882
Avg. Length:	5.832	Avg. Diam.:	2.884

PRESSURES (psi)

Cell Pressure (psi)	77.6
Back Pressure (psi)	21.6
Eff. Conf. Pressure (psi)	56.0
Pore Pressure Response (%)	97

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	37.4
Final Change (ml)	10.6

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	229.25
Q	=	146.63

Initial Dial Reading (mil)	66
Dial Reading After Saturation (mil)	66
Dial Reading After Consolidation (mil)	83

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
13.7	0.000	21.6
47.7	0.001	22.9
81.6	0.002	24.3
161.0	0.006	33.6
254.9	0.011	38.8
320.3	0.016	43.0
386.3	0.025	46.9
441.3	0.033	48.2
502.7	0.044	48.1
616.7	0.064	45.5
801.0	0.092	38.8
1054.3	0.125	28.7
1331.1	0.157	17.3
1653.6	0.194	3.9
1826.7	0.221	-2.3
1940.1	0.261	-4.3
2012.0	0.318	-5.0
2049.6	0.375	-6.2
2056.5	0.418	-6.9
1948.6	0.478	-7.5
1839.0	0.523	-7.7
1694.3	0.569	-7.7
1644.3	0.615	-7.5
1632.2	0.644	-7.4
1639.1	0.672	-7.2
1647.1	0.701	-7.1
1635.3	0.731	-7.0
1650.8	0.775	-6.9
1673.8	0.820	-6.7
1669.6	0.850	-6.5
1681.4	0.879	-6.5

Tested By:	JCM	Date:	11/29/13	Input Checked By:	KC	Date:	12/4/13
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**CONSOLIDATED UNDRAINED TRIAXIAL TEST
WITH PORE PRESSURE READINGS
ASTM D4767-11**

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	327.4-327.9
Project No.:	2013-465-001	Sample No.:	ST-55
Lab ID:	2013-465-001-035		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

<i>Effective Confining Pressure (psi)</i>	56.0	<i>Stage No.</i>	1
		<i>Test No</i>	58

INITIAL DIMENSIONS

Initial Sample Length (in)	5.83
Initial Sample Diameter (in)	2.88
Initial Sample Area (in ²)	6.53
Initial Sample Volume (in ³)	38.11

VOLUME CHANGE

Volume After Consolidation (in ³)	37.46
Length After Consolidation (in)	5.82
Area After Consolidation (in ²)	6.442

Strain (%)	Deviation Stress	ΔU	$\bar{\sigma}_1$	$\bar{\sigma}_3$	Effective Principle Stress Ratio	\bar{A}	\bar{P}	Q
0.02	5.28	1.35	59.93	54.7	1.097	0.26	57.29	2.64
0.03	10.53	2.69	63.84	53.3	1.198	0.26	58.57	5.27
0.11	22.84	11.97	66.87	44.0	1.519	0.54	55.45	11.42
0.19	37.36	17.19	76.18	38.8	1.963	0.47	57.49	18.68
0.28	47.45	21.44	82.01	34.6	2.373	0.47	58.29	23.73
0.43	57.60	25.35	88.25	30.7	2.879	0.45	59.45	28.80
0.56	66.00	26.57	95.43	29.4	3.243	0.42	62.43	33.00
0.76	75.33	26.52	104.81	29.5	3.555	0.36	67.15	37.67
1.11	92.57	23.86	124.71	32.1	3.880	0.27	78.42	46.29
1.59	120.28	17.25	159.03	38.8	4.104	0.15	98.89	60.14
2.14	158.07	7.14	206.93	48.9	4.235	0.05	127.90	79.04
2.70	198.99	-4.29	259.28	60.3	4.300	-0.02	159.79	99.49
3.33	246.09	-17.69	319.78	73.7	4.340	-0.07	196.73	123.05
3.81	270.73	-23.86	350.59	79.9	4.390	-0.09	215.23	135.37
4.49	285.62	-25.86	367.48	81.9	4.489	-0.09	224.67	142.81
5.46	293.26	-26.62	375.88	82.6	4.549	-0.09	229.25	146.63
6.45	295.65	-27.79	379.44	83.8	4.529	-0.10	231.61	147.83
7.19	294.31	-28.50	378.81	84.5	4.483	-0.10	231.66	147.16
8.22	275.68	-29.14	360.82	85.1	4.238	-0.11	222.98	137.84
8.99	257.87	-29.31	343.18	85.3	4.023	-0.12	214.25	128.93
9.79	235.35	-29.29	320.63	85.3	3.759	-0.13	202.96	117.67
10.57	226.36	-29.09	311.46	85.1	3.660	-0.13	198.28	113.18
11.07	223.43	-28.97	308.40	85.0	3.630	-0.13	196.68	111.72
11.55	223.16	-28.83	307.99	84.8	3.631	-0.13	196.41	111.58
12.05	222.99	-28.73	307.72	84.7	3.632	-0.13	196.22	111.50
12.56	220.11	-28.62	304.72	84.6	3.601	-0.13	194.67	110.05
13.34	220.25	-28.45	304.70	84.5	3.608	-0.13	194.57	110.12
14.10	221.36	-28.28	305.64	84.3	3.626	-0.13	194.96	110.68
14.62	219.47	-28.13	303.61	84.1	3.609	-0.13	193.87	109.74
15.12	219.75	-28.05	303.80	84.1	3.614	-0.13	193.93	109.87

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	327.4-327.9
Project No.	2013-465-001	Sample No.	ST-55
Lab ID #	2013-465-001-035	Test No.	58

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Calipers	G1123	12/13/13
PI Tape	G1121	1/14/14
Pressure Transducer	G134	1/9/14
Burette, Outflow	G332	INITIAL ONLY
Load Cell	G1311	1/8/14
Cell Pressure Transducer	G1512	11/7/14
Pore Pressure Transducer	G1514	11/7/14
Extensometer	G1073A	1/8/14
Load Frame	G1073	1/8/14
Dial Indicator	G590	3/14/14
Timing Device	G489	5/13/14
Balance	NA	NA
Flow Pump	NA	NA

**CONSOLIDATED UNDRAINED TRIAXIAL TEST
 WITH PORE PRESSURE READINGS**

ASTM D4767-11

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	326.6-326.9
Project No.:	2013-465-001	Sample No.:	ST-55
Lab ID:	2013-465-001-035		

Visual Description: Greenish Gray Silty Sand (Undisturbed)

Stage No.	1
Test No.	59

INITIAL SAMPLE DIMENSIONS (in)

Length 1:	4.853	Diameter 1:	2.880
Length 2:	4.757	Diameter 2:	2.882
Length 3:	4.853	Diameter 3:	2.886
Avg. Length	4.821	Avg. Diam.:	2.883

PRESSURES (psi)

Cell Pressure (psi)	136.7
Back Pressure (psi)	21.6
Eff. Conf. Pressure (psi)	115.1
Pore Pressure	
Response (%)	100

VOLUME CHANGE

Initial Burette Reading (ml)	48.0
Final Burette Reading (ml)	36.1
Final Change (ml)	11.9

MAXIMUM OBLIQUITY POINTS

\bar{P}	=	371.23
Q	=	233.00

Initial Dial Reading (mil)	51
Dial Reading After Saturation (mil)	59
Dial Reading After Consolidation (mil)	90

LOAD (LB)	DEFORMATION (IN)	PORE PRESSURE (PSI)
33.4	0.000	21.6
86.1	0.001	22.8
128.0	0.002	23.6
281.2	0.004	28.1
413.4	0.007	34.0
526.0	0.011	40.7
664.3	0.017	50.7
772.1	0.023	58.7
878.5	0.032	65.7
1028.8	0.048	70.2
1238.9	0.071	68.2
1517.5	0.098	60.2
1807.8	0.125	49.3
2155.5	0.156	35.3
2398.3	0.178	25.5
2699.1	0.209	13.4
2998.5	0.253	3.2
3161.6	0.301	-0.3
3240.0	0.338	-1.5
3304.7	0.385	-3.1
3329.0	0.420	-4.0
3293.3	0.456	-4.7
3058.8	0.494	-5.2
2850.2	0.520	-5.1
2816.7	0.545	-4.8
2822.4	0.569	-4.6
2836.8	0.593	-4.4
2886.9	0.629	-4.1
2890.9	0.665	-3.8
2906.4	0.688	-3.6
2822.3	0.712	-3.4

Tested By:	JCM	Date:	11/29/13	Input Checked By:	KC	Date:	12/4/13
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