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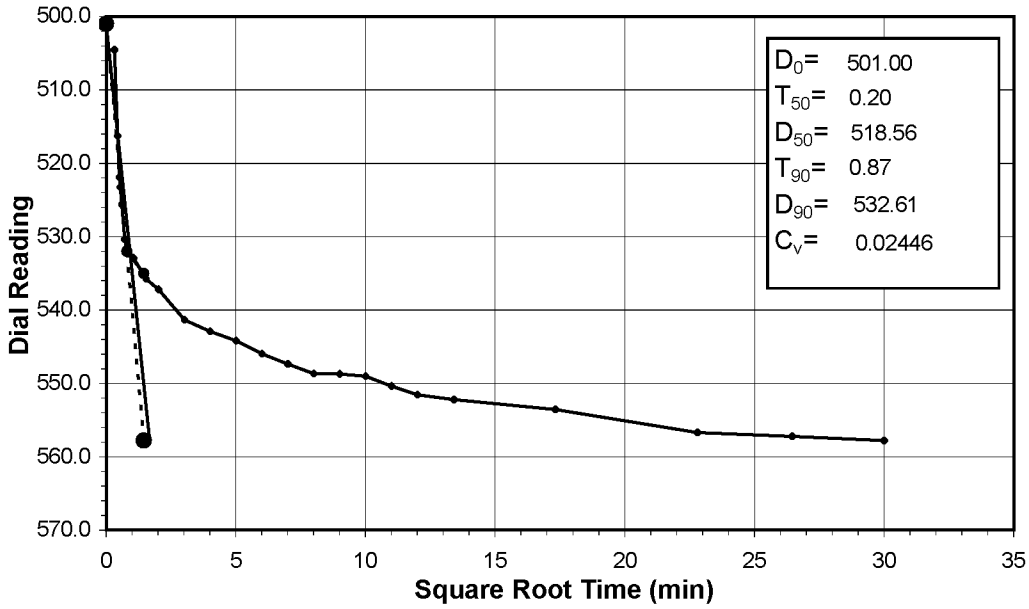
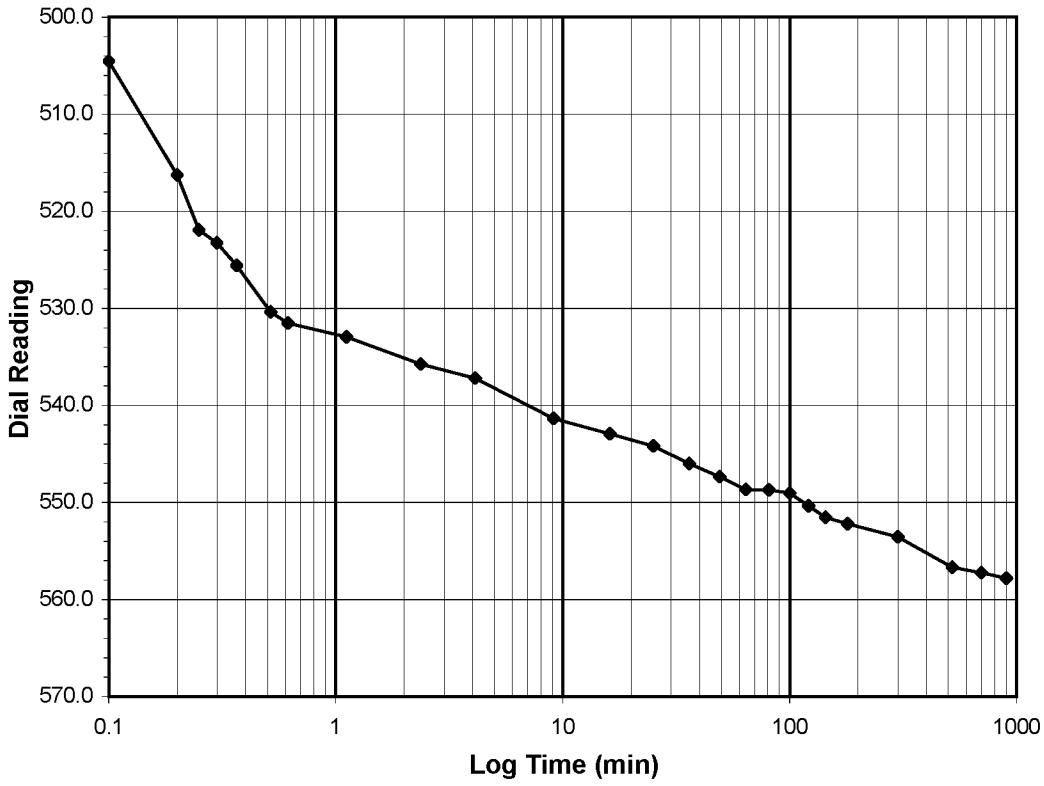
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	289.6-290.0
Project No.	2013-465-001	Sample No.	ST-12
Lab ID	2013-465-001-010	Visual Description	Gray Silty Fine Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**8.0-16.0**
Final Reading (div)	**557.8**
Consolidometer No.	**G1424**
1 Division (in)	0.0001
Start Date	11/4/13
Start Time	1:29:32

Elapsed Time (min)	Dial Reading (div)
Initial	**397.0**
0.10	504.5
0.20	516.3
0.25	521.9
0.30	523.2
0.37	525.6
0.52	530.4
0.62	531.5
1.12	532.9
2.37	535.7
4.12	537.2
9.12	541.4
16.12	542.9
25.12	544.2
36.12	546.0
49.12	547.4
64.12	548.7
81.12	548.7
100.12	549.0
121.12	550.4
144.12	551.5
180.12	552.2
300.12	553.5
520.12	556.7
700.12	557.2
900.12	557.8

Tested By DB *Date* 11/4/13 *Checked By* TM *Date* 12/5/13

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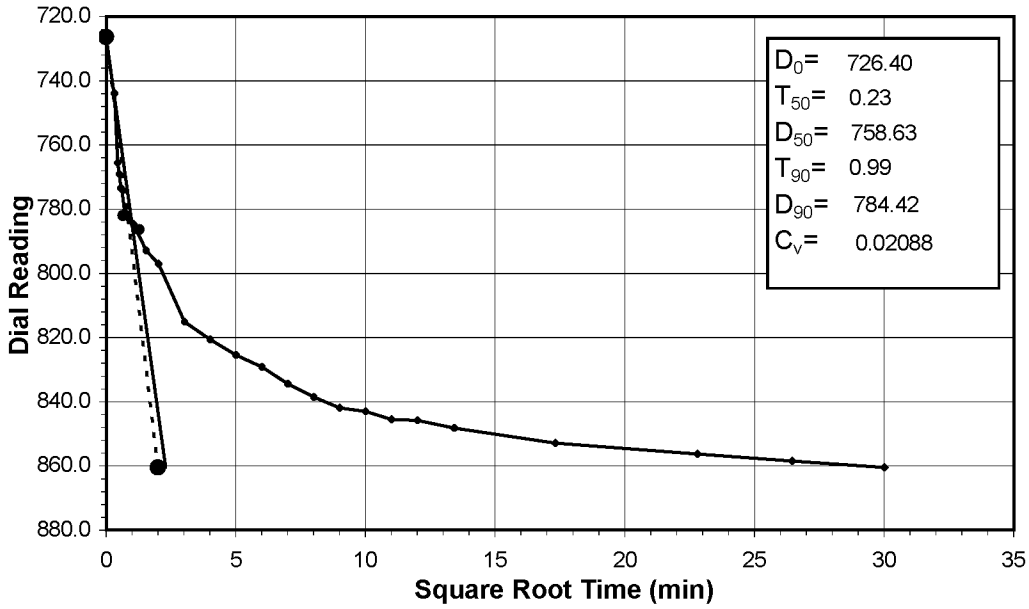
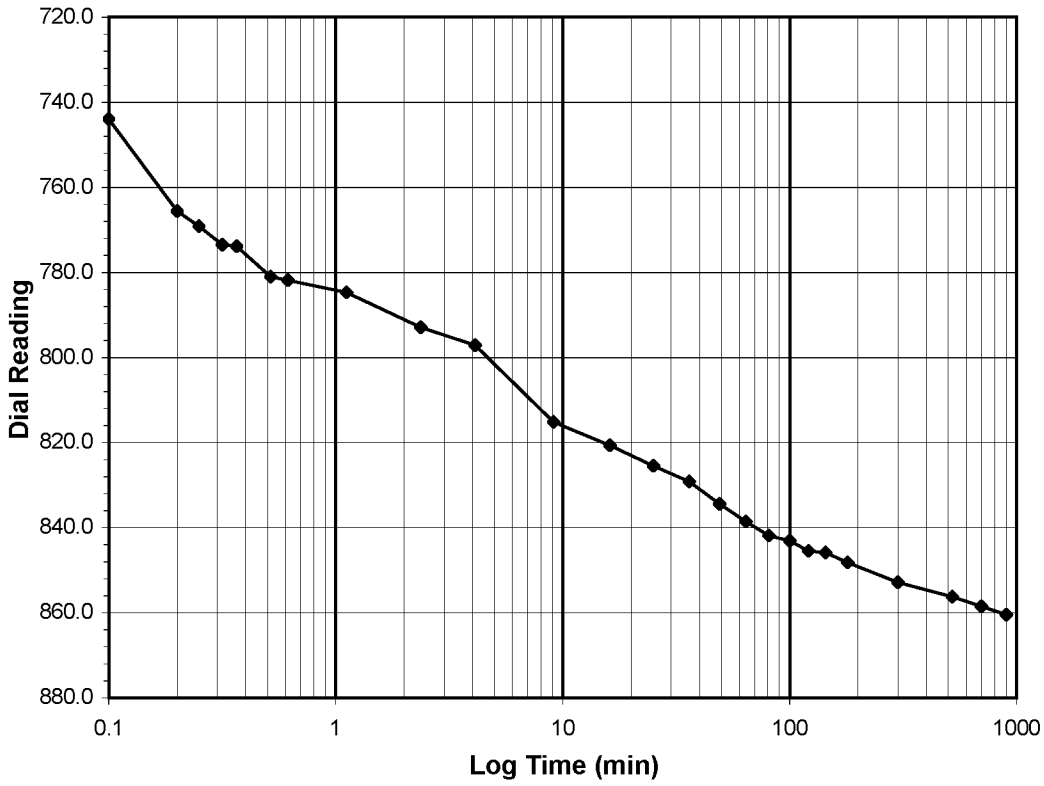
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	289.6-290.0
Project No.	2013-465-001	Sample No.	ST-12
Lab ID	2013-465-001-010	Visual Description	Gray Silty Fine Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**16.0-32.0**
Final Reading	**(div)**	**860.5**
Consolidometer No.		**G1424**
1 Division	(in)	0.0001
Start Date		11/4/13
Start Time		16:29:39

Elapsed Time (min)	Dial Reading (div)
Initial	**557.8**
0.10	743.9
0.20	765.6
0.25	769.1
0.32	773.5
0.37	773.9
0.52	781.0
0.62	781.8
1.12	784.7
2.37	792.9
4.12	797.1
9.12	815.1
16.13	820.6
25.13	825.5
36.13	829.1
49.13	834.4
64.13	838.6
81.13	841.9
100.13	843.0
121.13	845.5
144.13	845.8
180.13	848.2
300.13	852.9
520.13	856.2
700.15	858.5
900.48	860.5

Tested By *DB* *Date* *11/4/13* *Checked By* *TM* *Date* *12/5/13*

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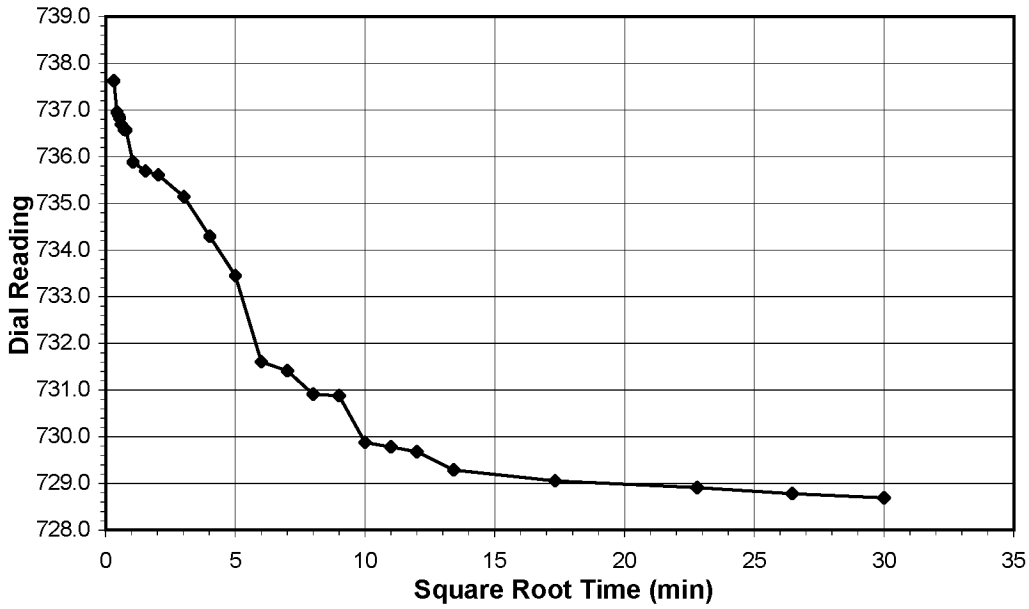
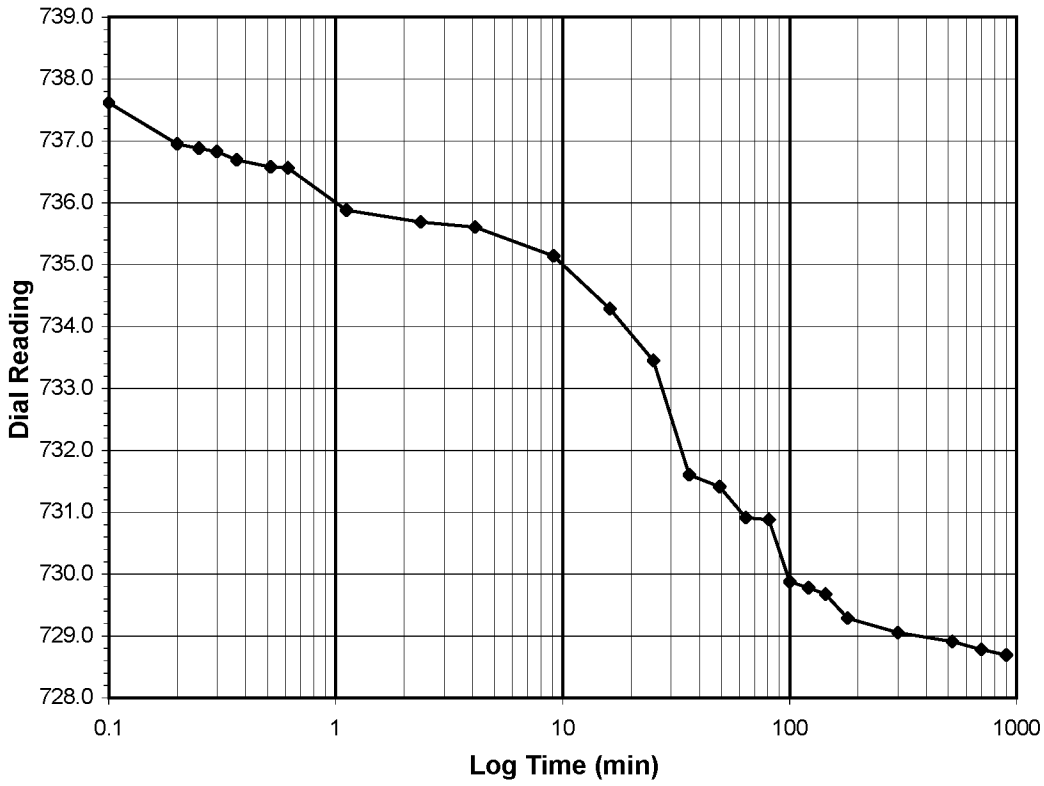
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	289.6-290.0
Project No.	2013-465-001	Sample No.	ST-12
Lab ID	2013-465-001-010	Visual Description	Gray Silty Fine Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**32.0-8.0**
Final Reading (div)	**728.7**
Consolidometer No.	**G1424**
1 Division (in)	0.0001
Start Date	11/5/13
Start Time	7:30:08

Elapsed Time (min)	Dial Reading (div)
Initial	**860.5**
0.10	737.6
0.20	737.0
0.25	736.9
0.30	736.8
0.37	736.7
0.52	736.6
0.62	736.6
1.12	735.9
2.37	735.7
4.12	735.6
9.12	735.1
16.12	734.3
25.12	733.4
36.12	731.6
49.12	731.4
64.12	730.9
81.12	730.9
100.12	729.9
121.13	729.8
144.13	729.7
180.13	729.3
300.13	729.1
520.13	728.9
700.13	728.8
900.32	728.7

Tested By DB *Date* 11/5/13 *Checked By* TM *Date* 12/5/13

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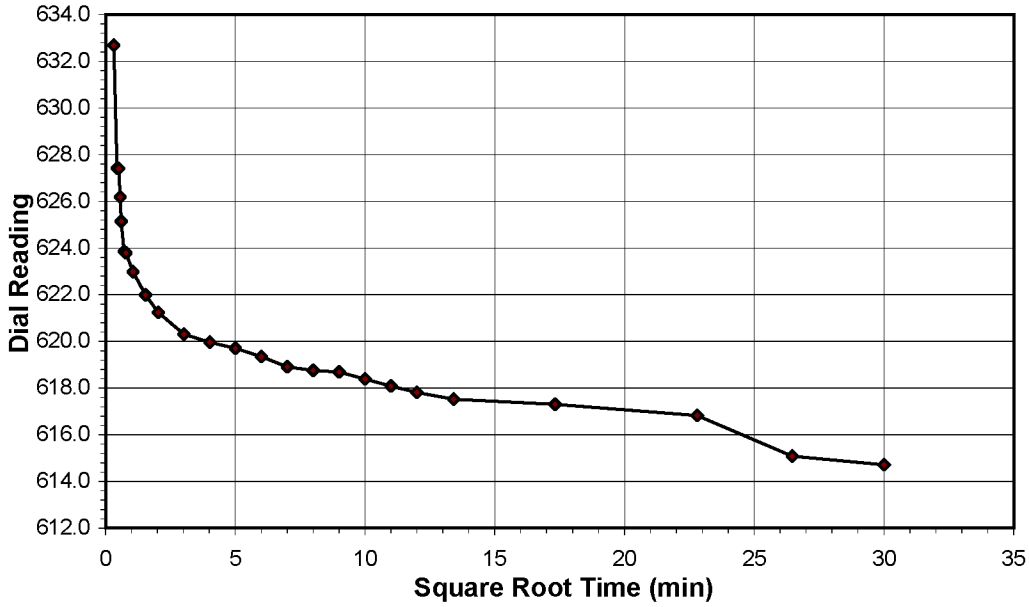
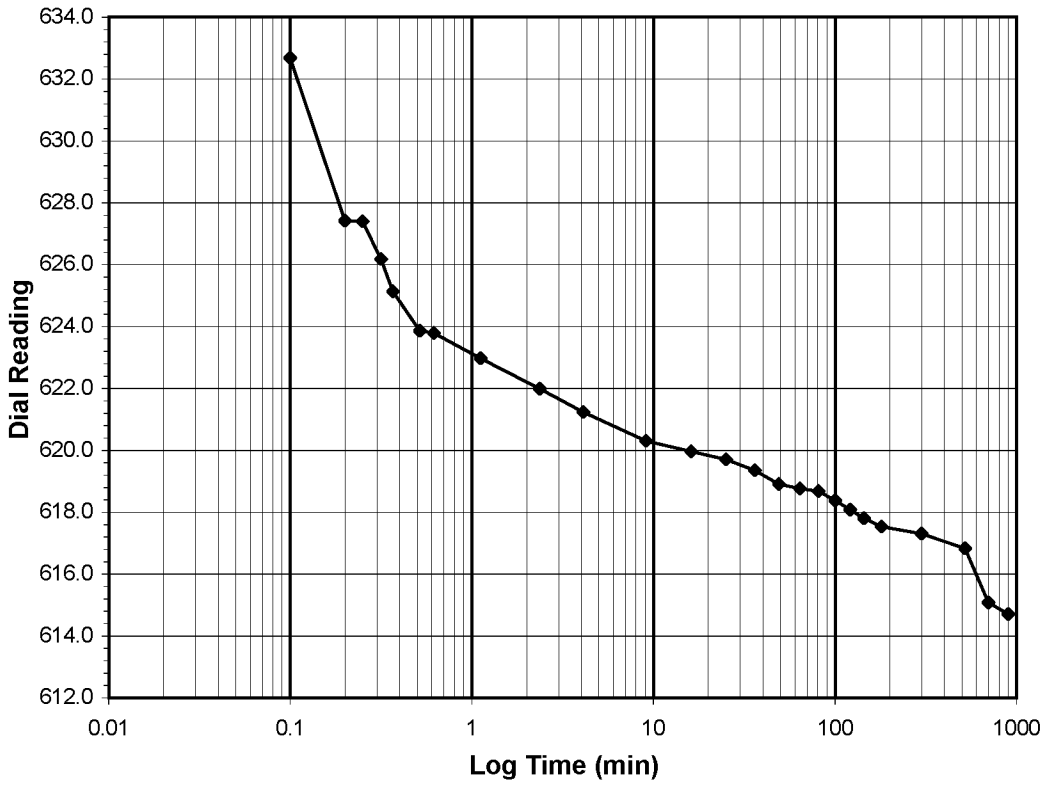
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	289.6-290.0
Project No.	2013-465-001	Sample No.	ST-12
Lab ID	2013-465-001-010	Visual Description	Gray Silty Fine Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**8.0-2.0**
Final Reading	**(div)**	**614.7**
Consolidometer No.		**G1424**
1 Division	(in)	0.0001
Start Date		11/5/13
Start Time		22:30:27

Elapsed Time (min)	Dial Reading (div)
Initial	**728.7**
0.10	632.7
0.20	627.4
0.25	627.4
0.32	626.2
0.37	625.1
0.52	623.9
0.62	623.8
1.12	623.0
2.37	622.0
4.12	621.2
9.12	620.3
16.12	620.0
25.12	619.7
36.12	619.4
49.12	618.9
64.12	618.8
81.13	618.7
100.13	618.4
121.13	618.1
144.13	617.8
180.13	617.5
300.13	617.3
520.13	616.8
700.13	615.1
900.42	614.7

Tested By *DB* *Date* *11/5/13* *Checked By* *TM* *Date* *12/5/13*

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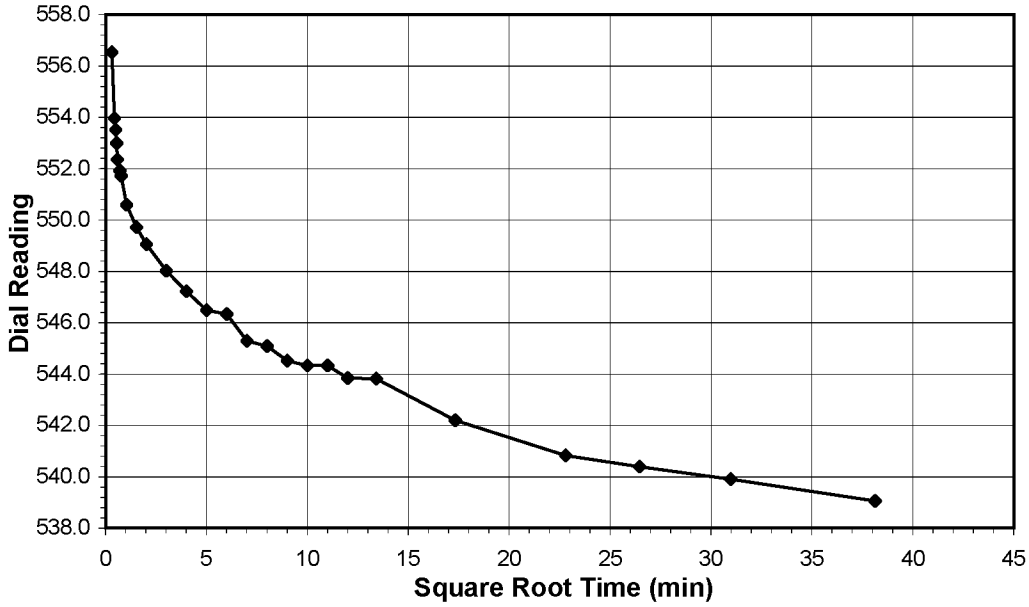
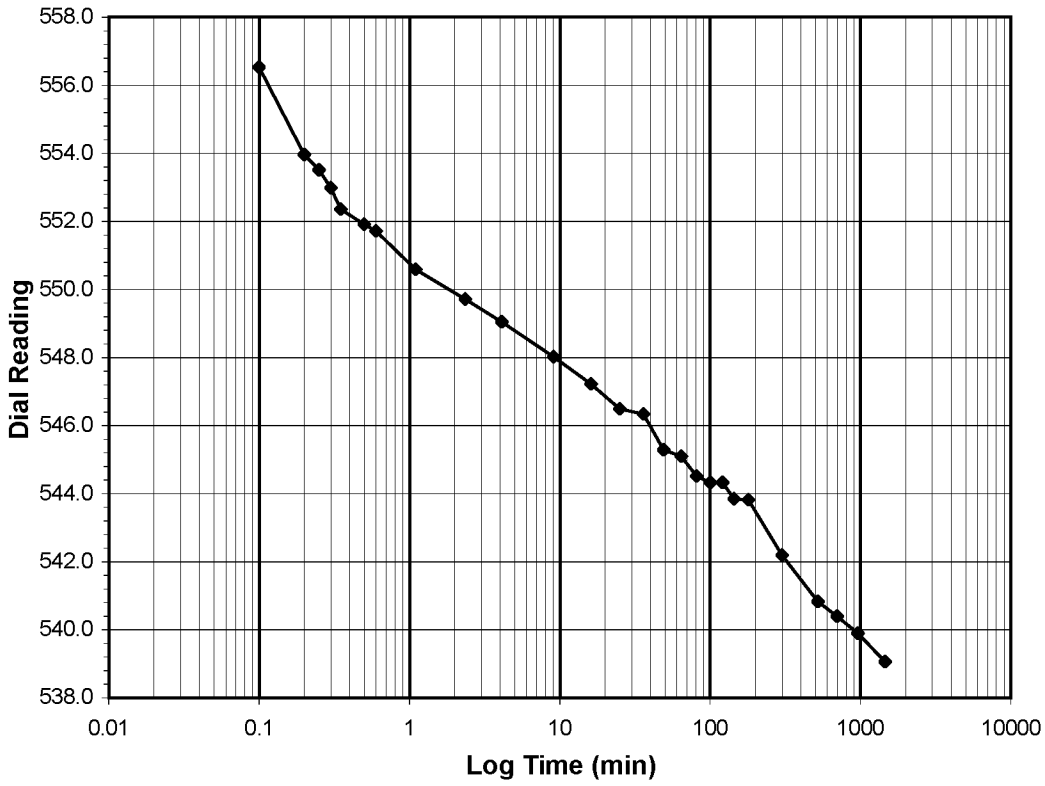
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	289.6-290.0
Project No.	2013-465-001	Sample No.	ST-12
Lab ID	2013-465-001-010	Visual Description	Gray Silty Fine Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**		**2.0-0.5**
Final Reading	**(div)**		**539.1**
Consolidometer No.			**G1424**
1 Division	(in)		0.0001
Start Date			11/6/13
Start Time			13:30:52

Elapsed Time (min)	Dial Reading (div)
Initial	**614.7**
0.10	556.5
0.20	554.0
0.25	553.5
0.30	553.0
0.35	552.4
0.50	551.9
0.60	551.7
1.10	550.6
2.35	549.7
4.10	549.1
9.10	548.0
16.10	547.2
25.10	546.5
36.10	546.3
49.12	545.3
64.12	545.1
81.12	544.5
100.12	544.3
121.12	544.3
144.12	543.8
180.12	543.8
300.12	542.2
520.12	540.8
700.12	540.4
960.12	539.9
1454.10	539.1

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ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	289.6-290.0
Project No.	2013-465-001	Sample No.	ST-12
Lab ID	2013-465-001-010	Visual Description	Gray Silty Fine Sand

Sample Conditions: Undisturbed, Inundated And Double Drained
Consolidometer No. G1424
1 Division = 0.0001 (in)

Sample Properties	**Initial**	**Final**
Water Content		
Tare Number	2668	2726
Wt. Tare & WS (g)	135.34	159.63
Wt. Tare & DS (g)	110.46	128.24
Wt. Water (g)	24.88	31.39
Wt. Tare (g)	6.79	6.77
Wt. DS (g)	103.67	121.47
Water Content (%)	24.00	25.84
Sample Parameters		
Sample Diameter (in)	2.5	2.5
Sample Height (in)	1.0000	0.9529
Sample Volume (cm^3)	80.44	76.65
Wt. Wet Sample + Ring (g)	366.79	369.06
Wt. of Ring (g)	214.25	214.25
Wt. of Wet Sample (g)	152.54	154.81
Wet Density (pcf)	118.33	126.02
Wet Density (g/cm^3)	1.90	2.02
Water Content (%)	24.00	25.84
Wt. of Dry Sample (g)	123.02	123.02
Dry Density (pcf)	95.43	100.14
Dry Density (g/cm^3)	1.53	1.60
Void Ratio	0.7394	0.6575
Saturation (%)	86.34	104.55
Specific Gravity	2.66	*Measured*

Test Data Summary

Applied Pressure (tsf)	Final Dial Reading (div)	Machine Deflection (div)	Corrected Reading (div)	Height of Sample (mm)	Volume (cm^3)	Dry Density (g/cm^3)	Void Ratio
Seating	0	0	0	25.400	80.440	1.52930	**0.73935**
0.25	62.3	17.0	45.3	25.285	80.075	1.53627	**0.73147**
0.5	95.5	22.5	73.1	25.214	79.852	1.54056	**0.72665**
1	146.0	31.8	114.2	25.110	79.521	1.54697	**0.71949**
2	209.8	56.2	153.6	25.010	79.204	1.55316	**0.71264**
4	297.6	87.6	210.0	24.867	78.751	1.56210	**0.70283**
1	235.8	52.8	183.0	24.935	78.968	1.55781	**0.70753**
0.25	189.9	24.8	165.1	24.981	79.112	1.55497	**0.71064**
0.5	203.6	31.4	172.1	24.963	79.055	1.55609	**0.70942**
1	222.1	45.6	176.5	24.952	79.020	1.55677	**0.70866**
2	248.5	60.3	188.3	24.922	78.926	1.55865	**0.70661**
4	299.7	86.5	213.2	24.858	78.725	1.56263	**0.70226**
8	397.0	137.0	260.0	24.740	78.349	1.57012	**0.69414**
16	557.8	196.5	361.3	24.482	77.533	1.58663	**0.67651**
32	860.5	283.7	576.8	23.935	75.800	1.62291	**0.63904**
8	728.7	174.5	554.2	23.992	75.981	1.61904	**0.64295**
2	614.7	104.7	510.1	24.104	76.337	1.61150	**0.65064**
0.5	539.1	68.4	470.7	24.204	76.654	1.60484	**0.65748**

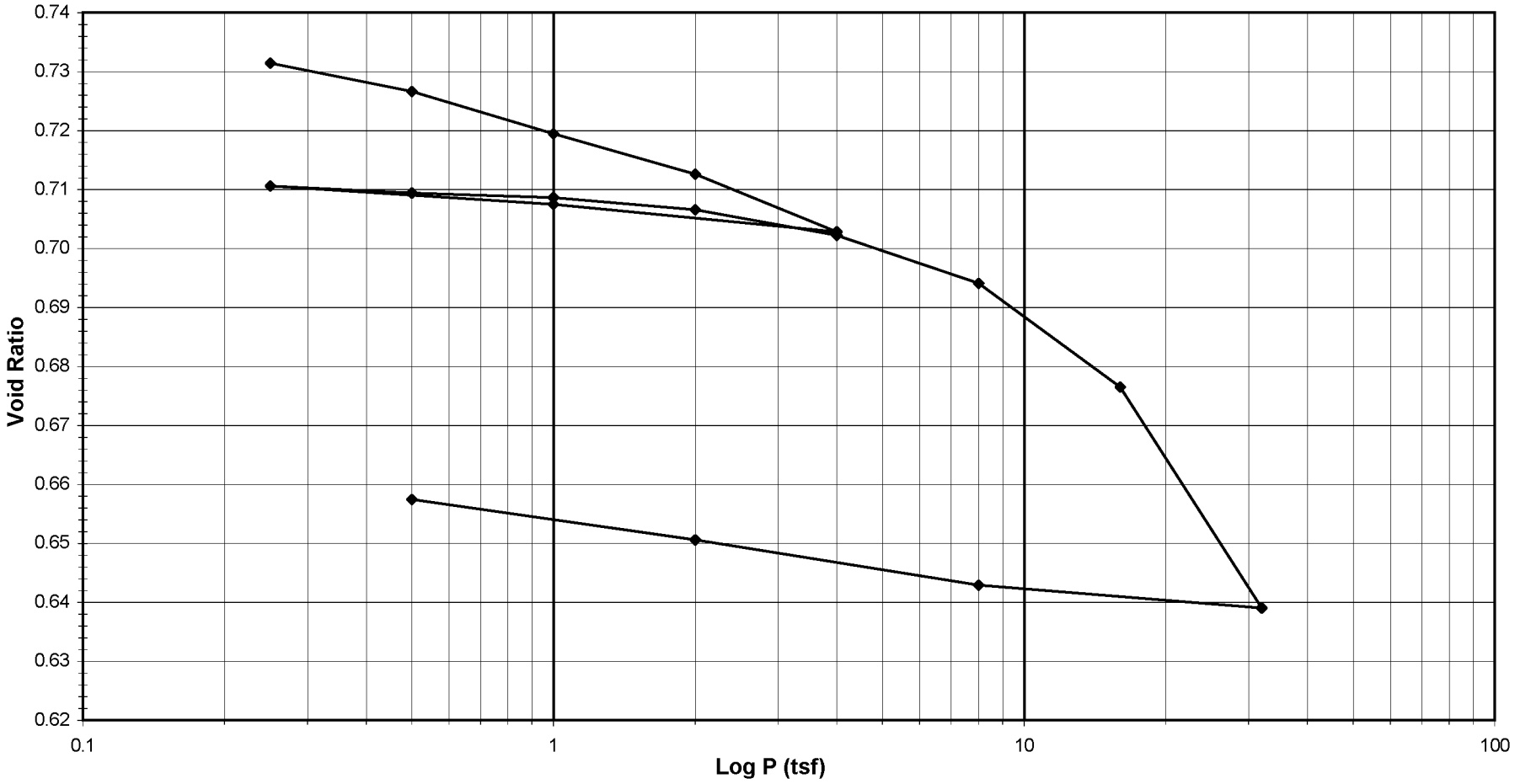
Tested By *DB* *Date* *10/25/13* *Input Checked By* *TM* *Date* *12/5/13*

ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	289.6-290.0
Project No.	2013-465-001	Sample No.	ST-12
Lab ID	2013-465-001-010	Visual Description	Gray Silty Fine Sand

Sample Conditions: Undisturbed, Inundated And Double Drained



Tested By DB *Date* 10/25/13 *Approved By* RJO *Date* 12/5/13

DCN: CT-24 AutoT50-CV Date: 1127/13 Revision: 0

CONSOL-Auto T50-Cv

ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	289.6-290.0
Project No.	2013-465-001	Sample No.	ST-12
Lab ID	2013-465-001-010	Visual Description	Gray Silty Fine Sand

Sample Conditions: Undisturbed, Inundated And Double Drained
Consolidometer No. G1424
1 Division = 0.0001 (in)

Sample Properties	**Initial**	**Final**
Water Content		
Tare Number	2668	2726
Wt. Tare & WS (g)	135.34	159.63
Wt. Tare & DS (g)	110.46	128.24
Wt. Water (g)	24.88	31.39
Wt. Tare (g)	6.79	6.77
Wt. DS (g)	103.67	121.47
Water Content (%)	24.00	25.84
Sample Parameters		
Sample Diameter (in)	2.5	2.5
Sample Height (in)	1.0000	0.9529
Sample Volume (cm^3)	80.44	76.65
Wt. Wet Sample + Ring (g)	366.79	369.06
Wt. of Ring (g)	214.25	214.25
Wt. of Wet Sample (g)	152.54	154.81
Wet Density (pcf)	118.33	126.02
Wet Density (g/cm^3)	1.90	2.02
Water Content (%)	24.00	25.84
Wt. of Dry Sample (g)	123.02	123.02
Dry Density (pcf)	95.43	100.14
Dry Density (g/cm^3)	1.53	1.60
Void Ratio	0.7394	0.6575
Saturation (%)	86.34	104.55
Specific Gravity	2.66	Measured

C_v Test Data Summary

Load Increment (tsf)	Dial Reading @ t_{50} (div)	Machine Deflection (div)	Corrected Dial Reading @ t_{50} (div)	Sample Height @ t_{50} (mm)	Time t_{50} (min)	C_v (cm^2/sec)
Seating	NA	NA	NA	NA	NA	NA
0.25	42.2	17.0	25.2	25.34	**0.29**	**0.01797**
0.5	80.5	22.5	58.1	25.25	**0.82**	**0.00644**
1	123.3	31.8	91.5	25.17	**0.39**	**0.01349**
2	186.8	56.2	130.6	25.07	**0.26**	**0.01999**
4	260.0	87.6	172.4	24.96	**0.14**	**0.03684**
1	NA	NA	NA	NA	NA	NA
0.25	NA	NA	NA	NA	NA	NA
0.5	200.1	31.4	168.7	24.97	**0.30**	**0.01712**
1	216.8	45.6	171.2	24.97	**0.34**	**0.01491**
2	241.9	60.3	181.7	24.94	**0.35**	**0.01474**
4	285.5	86.5	199.0	24.89	**0.74**	**0.00695**
8	367.3	137.0	230.3	24.82	**0.22**	**0.02262**
16	518.6	196.5	322.1	24.58	**0.20**	**0.02446**
32	758.6	283.7	474.9	24.19	**0.23**	**0.02088**
8	NA	NA	NA	NA	NA	NA
2	NA	NA	NA	NA	NA	NA
0.5	NA	NA	NA	NA	NA	NA

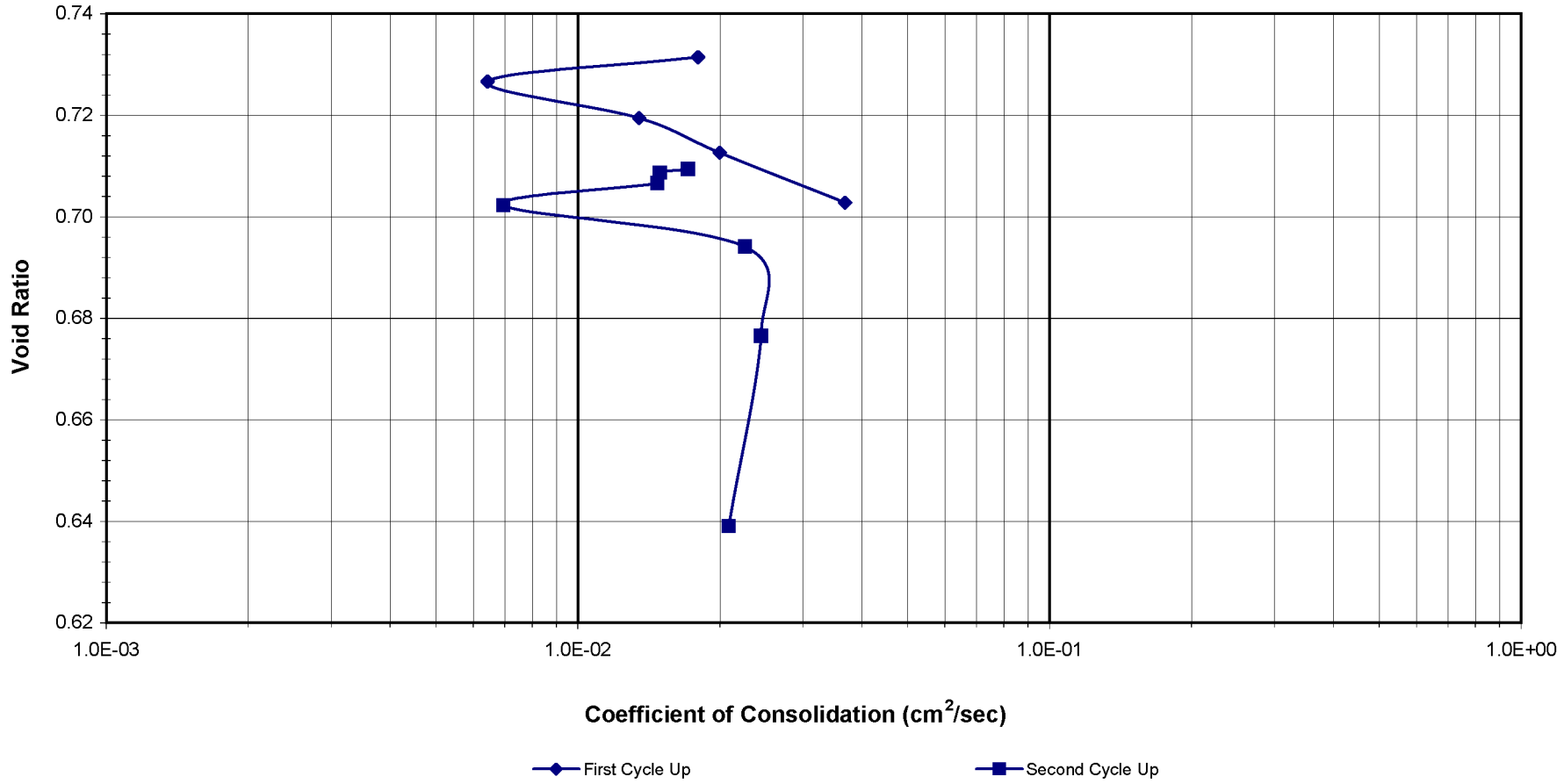
Tested By DB *Date* 10/25/13 *Input Checked By* TM *Date* 12/5/13

ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	289.6-290.0
Project No.	2013-465-001	Sample No.	ST-12
Lab ID	2013-465-001-010	Visual Description	Gray Silty Fine Sand

Sample Conditions: Undisturbed, Inundated And Double Drained



Tested By DB *Date* 10/25/13 *Approved By* RJO *Date* 12/5/13

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One Dimensional Consolidation

ASTM D2435 / D2435M-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	289.6-290.0
Project No.	2013-465-001	Sample No.	ST-12
Lab ID #	2013-465-001-010		

Equipment	Equipment ID#	Calibration Due Date
Calipers	G1122	12/3/13
Balance	G1393	5/13/14
Oven	G624	11/9/13
Consolidometer	G1424	1/9/14
Load Cell	G1425	1/9/14
LVDT	G1426	1/9/14

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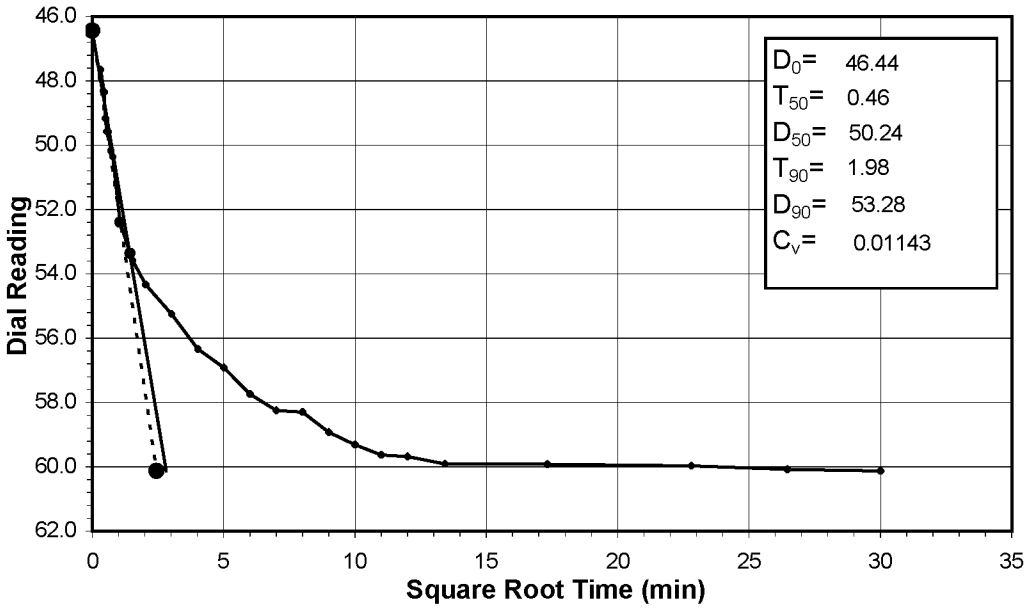
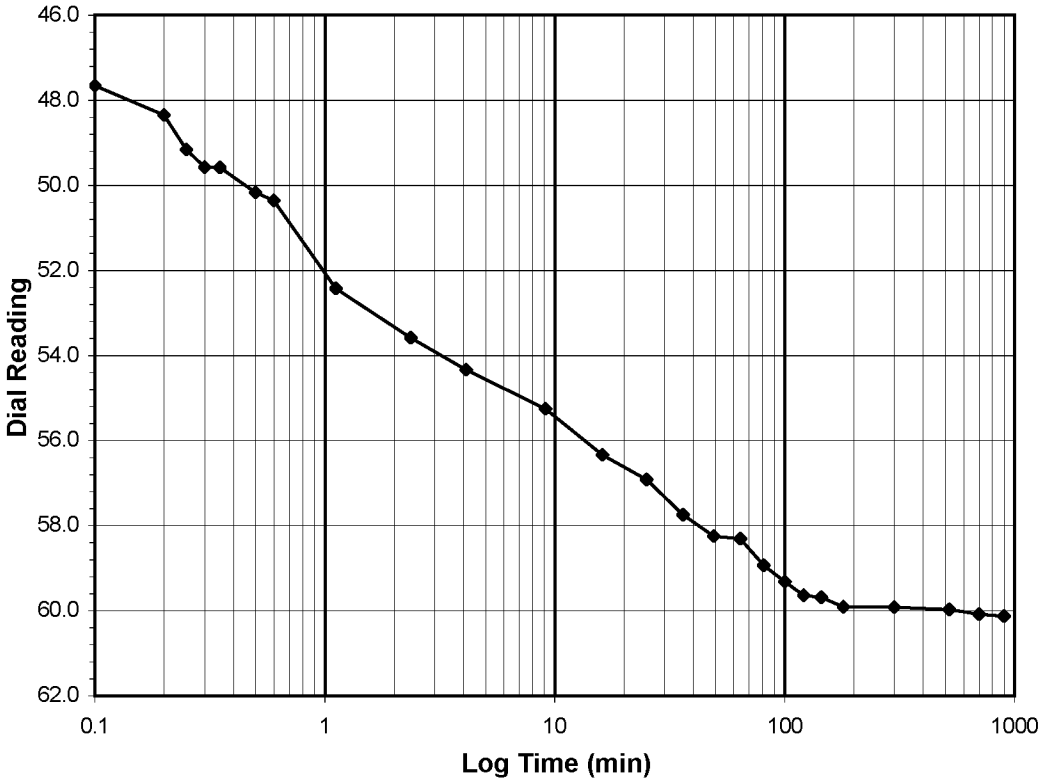
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**0.0-0.25**
Final Reading (div)	**60.1**
Consolidometer No.	**G1418**
1 Division (in)	0.0001
Start Date	11/6/13
Start Time	14:54:55

Elapsed Time (min)	Dial Reading (div)
Initial	**0.0**
0.10	47.7
0.20	48.3
0.25	49.2
0.30	49.6
0.35	49.6
0.50	50.2
0.60	50.4
1.12	52.4
2.37	53.6
4.12	54.3
9.12	55.3
16.12	56.3
25.12	56.9
36.12	57.7
49.12	58.2
64.12	58.3
81.12	58.9
100.12	59.3
121.12	59.6
144.12	59.7
180.13	59.9
300.13	59.9
520.13	60.0
700.13	60.1
900.30	60.1

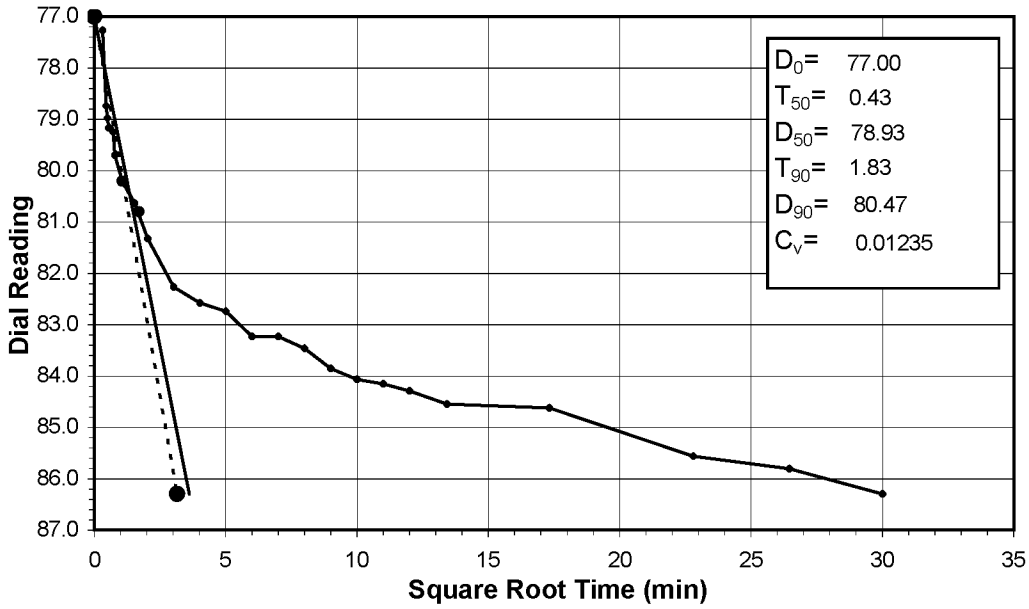
Tested By *CLK* *Date* *11/6/13* *Checked By* *TM* *Date* *12/5/13*

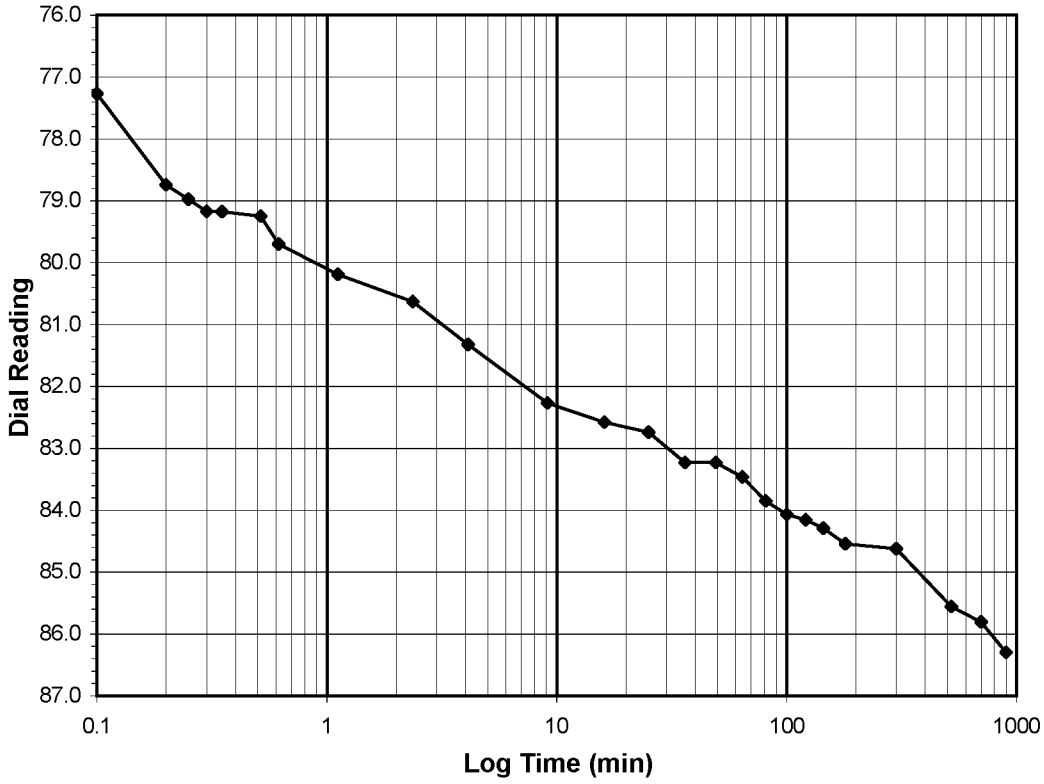
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**0.25-0.5**
Final Reading (div)	**86.3**
Consolidometer No.	**G1418**
1 Division (in)	0.0001
Start Date	11/7/13
Start Time	5:55:13

Elapsed Time (min)	Dial Reading (div)
Initial	**60.1**
0.10	77.3
0.20	78.7
0.25	79.0
0.30	79.2
0.35	79.2
0.52	79.2
0.62	79.7
1.12	80.2
2.37	80.6
4.12	81.3
9.12	82.3
16.12	82.6
25.12	82.7
36.12	83.2
49.12	83.2
64.12	83.5
81.12	83.9
100.12	84.1
121.12	84.2
144.12	84.3
180.12	84.5
300.12	84.6
520.13	85.6
700.13	85.8
900.22	86.3

Tested By CLK *Date* 11/7/13 *Checked By* TM *Date* 12/5/13

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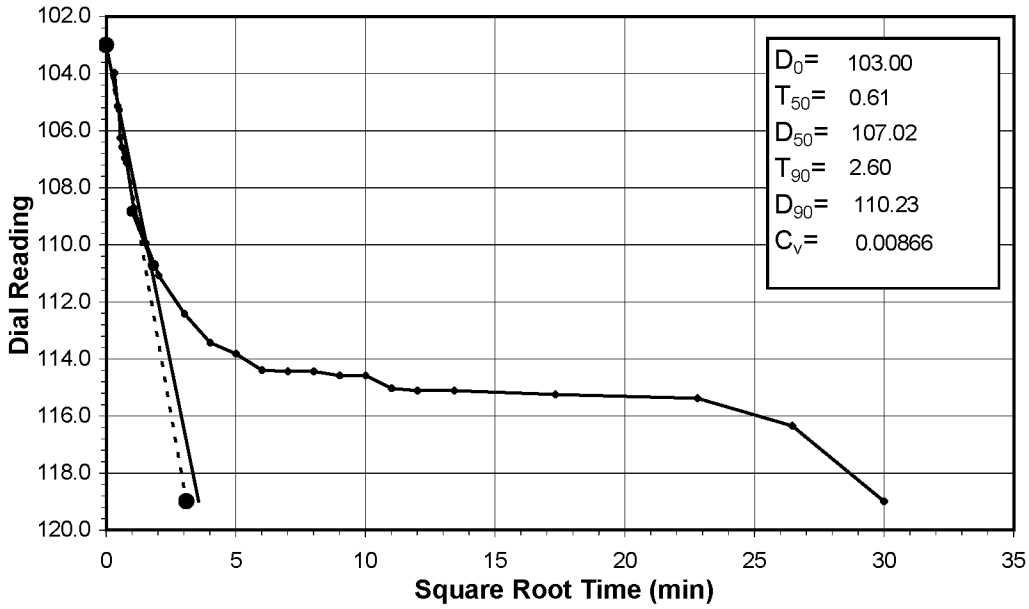
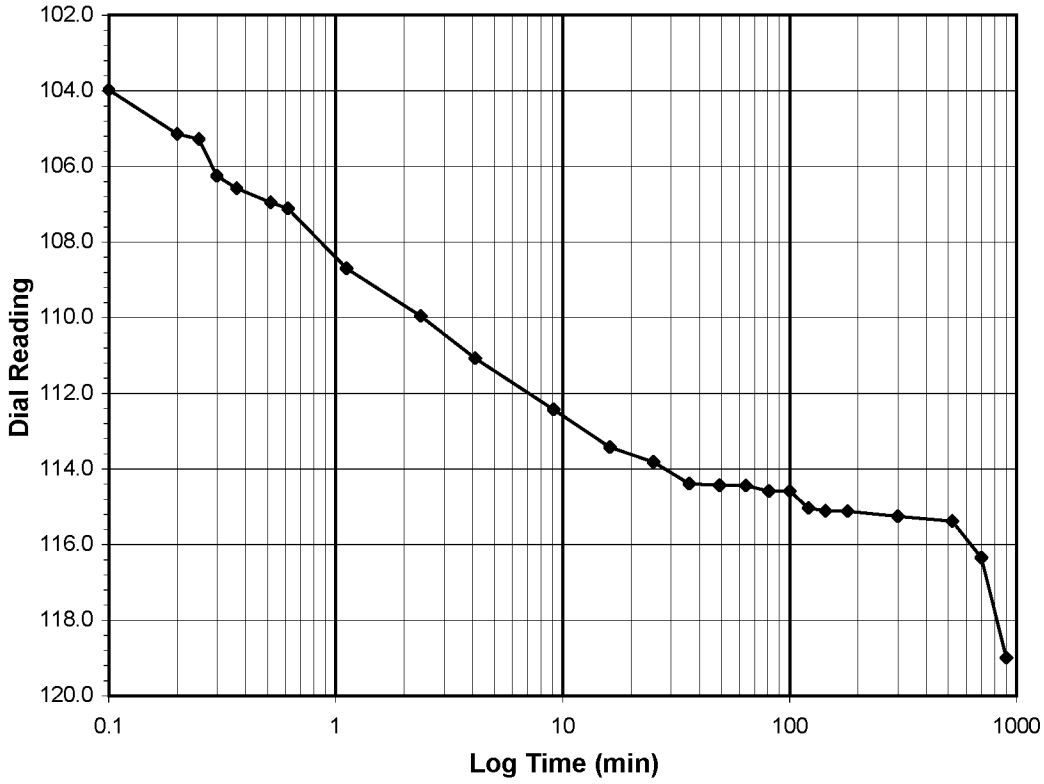
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**0.5-1.0**
Final Reading (div)	**119.0**
Consolidometer No.	**G1418**
1 Division (in)	0.0001
Start Date	11/7/13
Start Time	20:55:26

Elapsed Time (min)	Dial Reading (div)
Initial	**86.3**
0.10	104.0
0.20	105.1
0.25	105.3
0.30	106.2
0.37	106.6
0.52	107.0
0.62	107.1
1.12	108.7
2.37	110.0
4.12	111.1
9.12	112.4
16.12	113.4
25.12	113.8
36.12	114.4
49.12	114.4
64.12	114.4
81.12	114.6
100.13	114.6
121.13	115.0
144.13	115.1
180.13	115.1
300.13	115.2
520.13	115.4
700.13	116.3
900.23	119.0

Tested By CLK *Date* 11/7/13 *Checked By* TM *Date* 12/5/13

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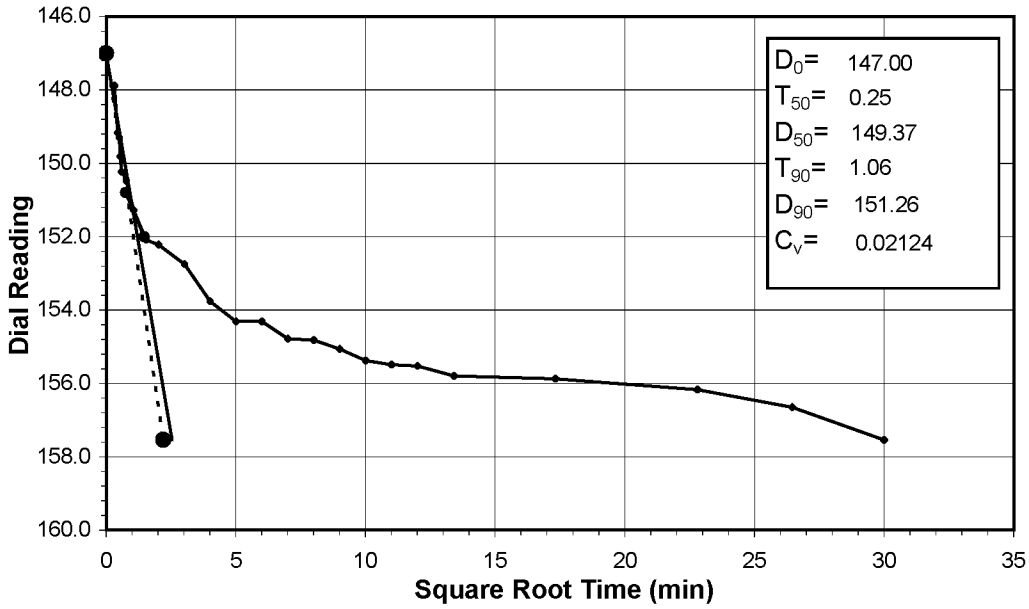
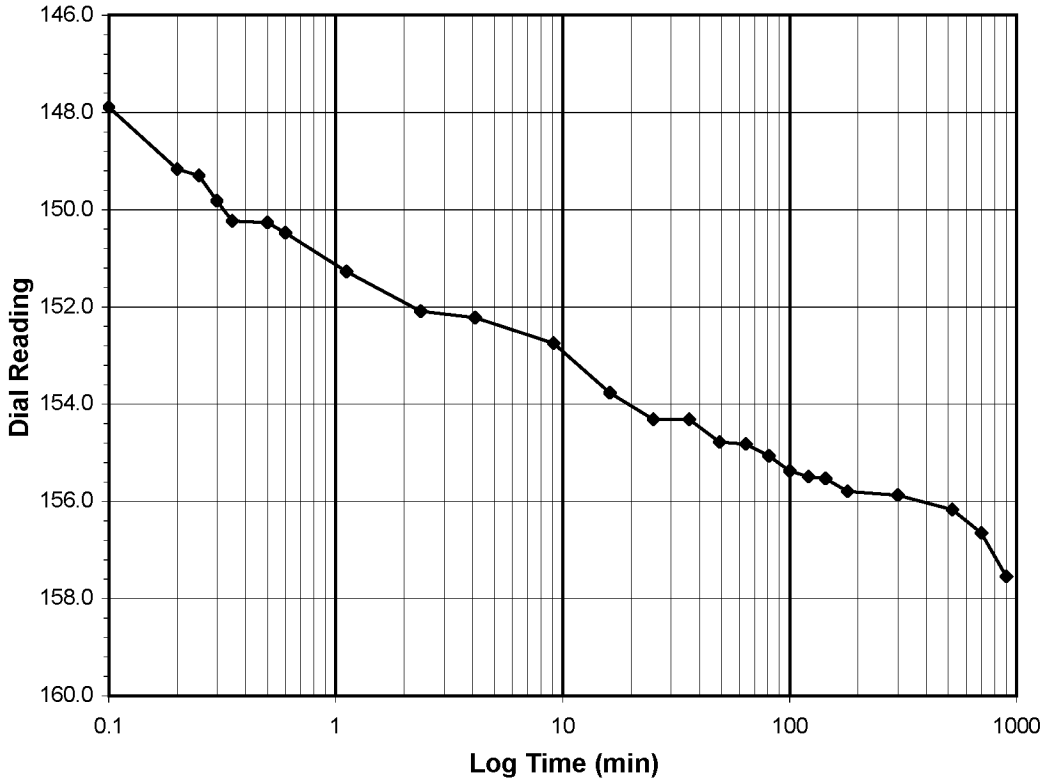
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**1.0-2.0**
Final Reading	**(div)**	**157.5**
Consolidometer No.		**G1418**
1 Division	(in)	0.0001
Start Date		11/8/13
Start Time		11:55:40

Elapsed Time (min)	Dial Reading (div)
Initial	**119.0**
0.10	147.9
0.20	149.2
0.25	149.3
0.30	149.8
0.35	150.2
0.50	150.3
0.60	150.5
1.12	151.3
2.37	152.1
4.12	152.2
9.12	152.7
16.12	153.8
25.12	154.3
36.12	154.3
49.12	154.8
64.12	154.8
81.12	155.1
100.12	155.4
121.12	155.5
144.12	155.5
180.12	155.8
300.12	155.9
520.12	156.2
700.13	156.7
900.03	157.5

Tested By *CLK* *Date* *11/8/13* *Checked By* *TM* *Date* *12/5/13*

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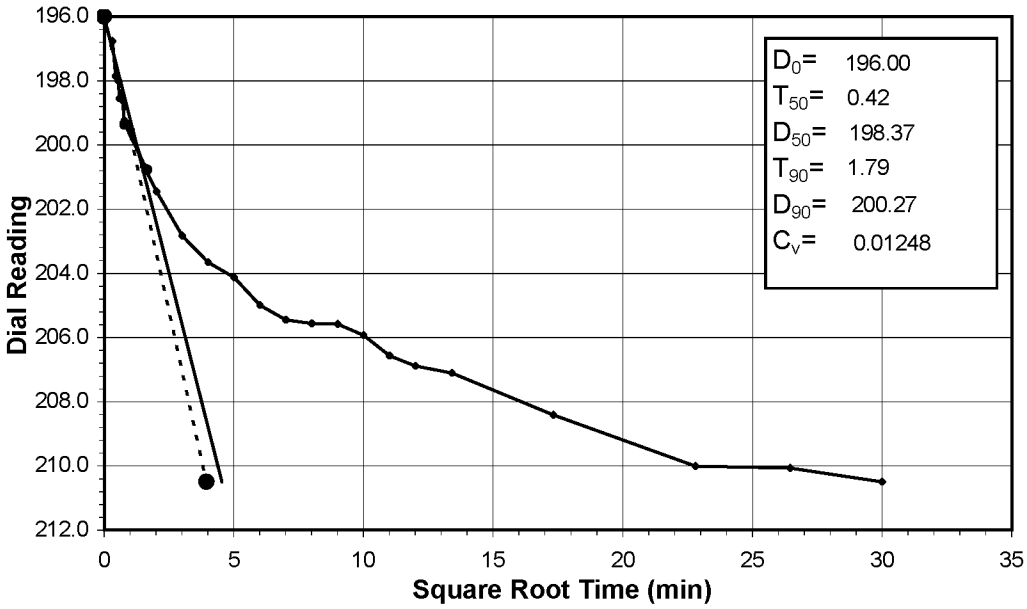
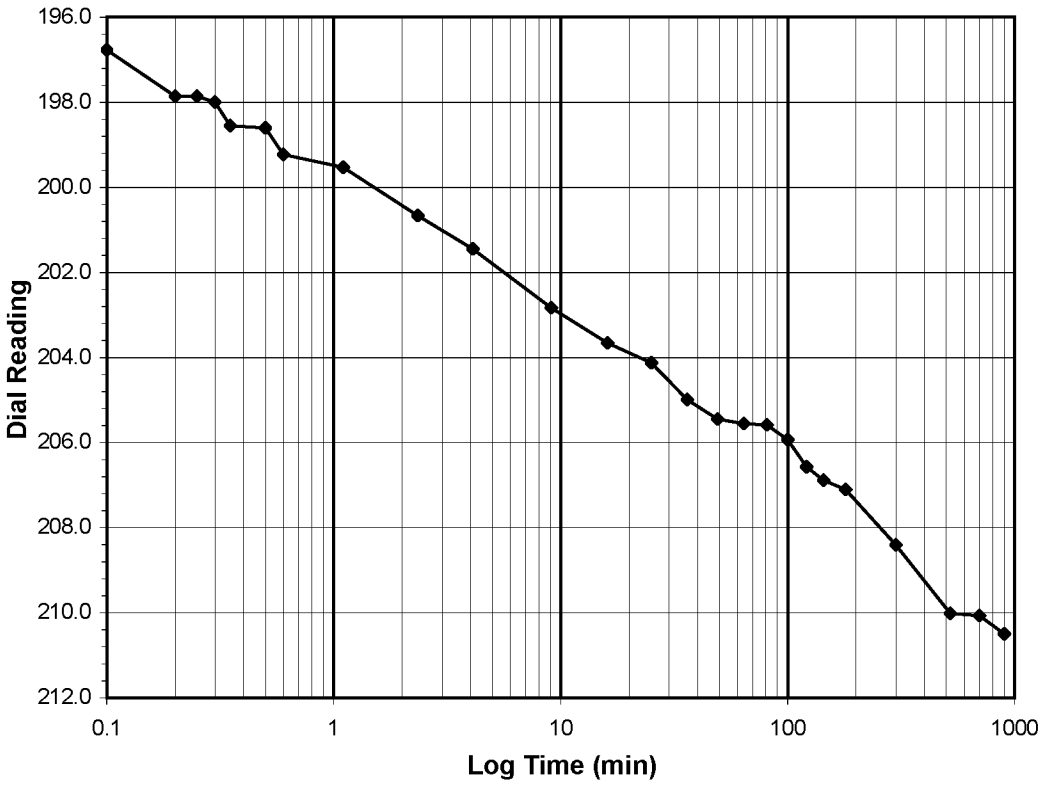
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**2.0-4.0**
Final Reading	**(div)**	**210.5**
Consolidometer No.		**G1418**
1 Division	(in)	0.0001
Start Date		11/9/13
Start Time		2:55:43

Elapsed Time (min)	Dial Reading (div)
Initial	**157.5**
0.10	196.8
0.20	197.9
0.25	197.9
0.30	198.0
0.35	198.6
0.50	198.6
0.60	199.2
1.10	199.5
2.35	200.7
4.10	201.4
9.10	202.8
16.10	203.7
25.10	204.1
36.10	205.0
49.12	205.5
64.12	205.6
81.12	205.6
100.12	205.9
121.12	206.6
144.12	206.9
180.12	207.1
300.12	208.4
520.12	210.0
700.12	210.1
900.17	210.5

Tested By CLK *Date* 11/9/13 *Checked By* TM *Date* 12/5/13

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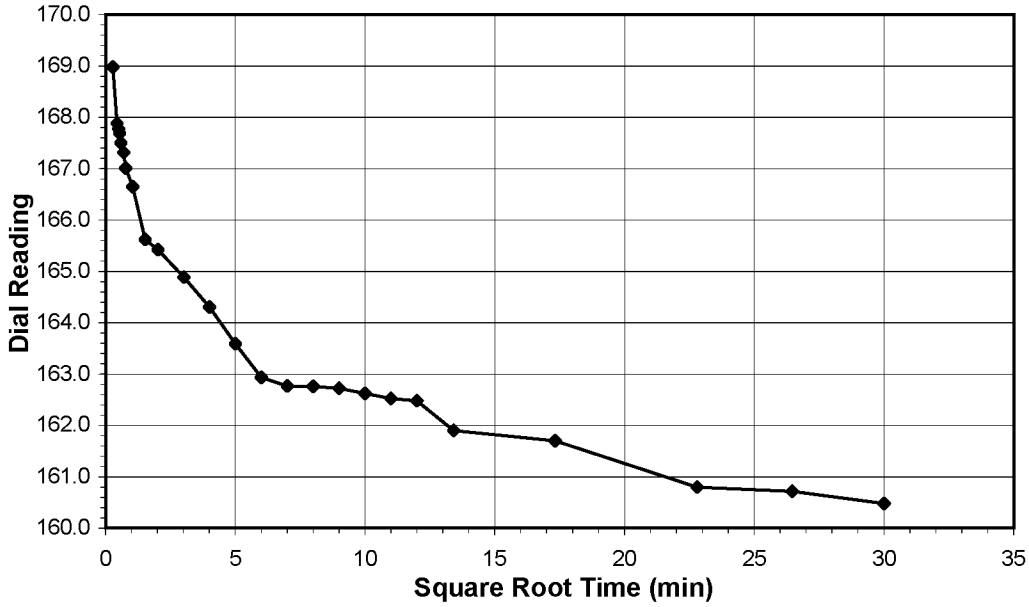
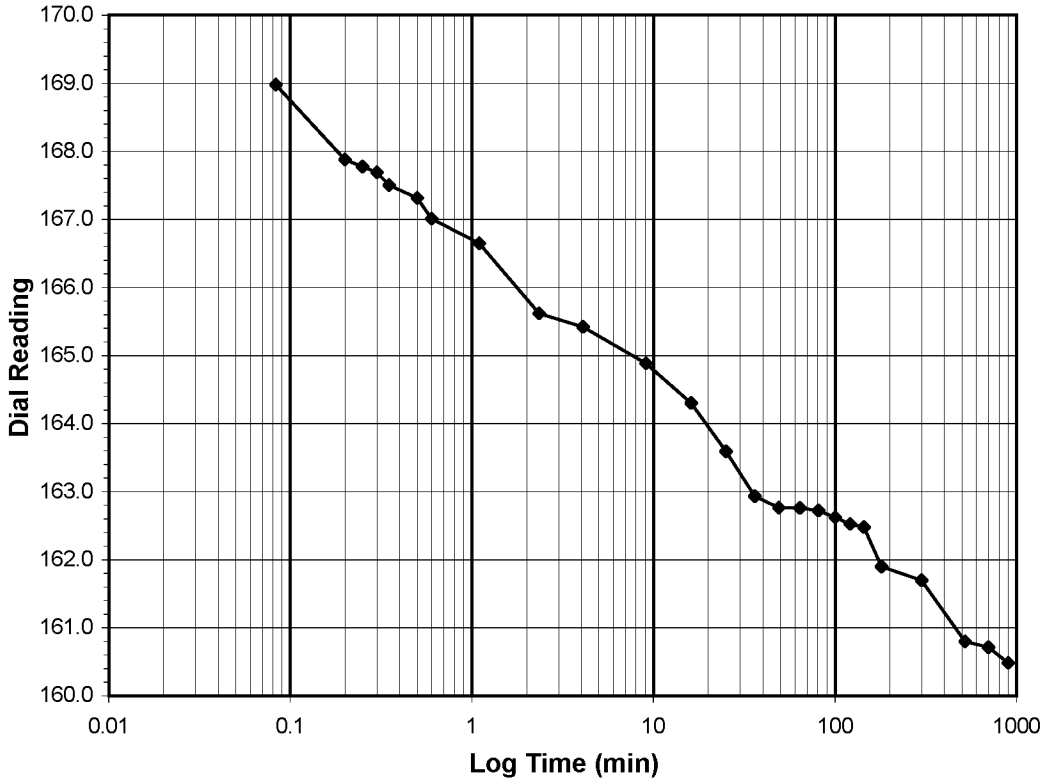
Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**4.0-1.0**
Final Reading	**(div)**	**160.5**
Consolidometer No.		**G1418**
1 Division	(in)	0.0001
Start Date		11/9/13
Start Time		17:55:53

Elapsed Time (min)	Dial Reading (div)
Initial	**210.5**
0.08	169.0
0.20	167.9
0.25	167.8
0.30	167.7
0.35	167.5
0.50	167.3
0.60	167.0
1.10	166.6
2.35	165.6
4.10	165.4
9.10	164.9
16.10	164.3
25.10	163.6
36.10	162.9
49.10	162.8
64.10	162.8
81.10	162.7
100.10	162.6
121.10	162.5
144.10	162.5
180.12	161.9
300.12	161.7
520.12	160.8
700.12	160.7
900.12	160.5

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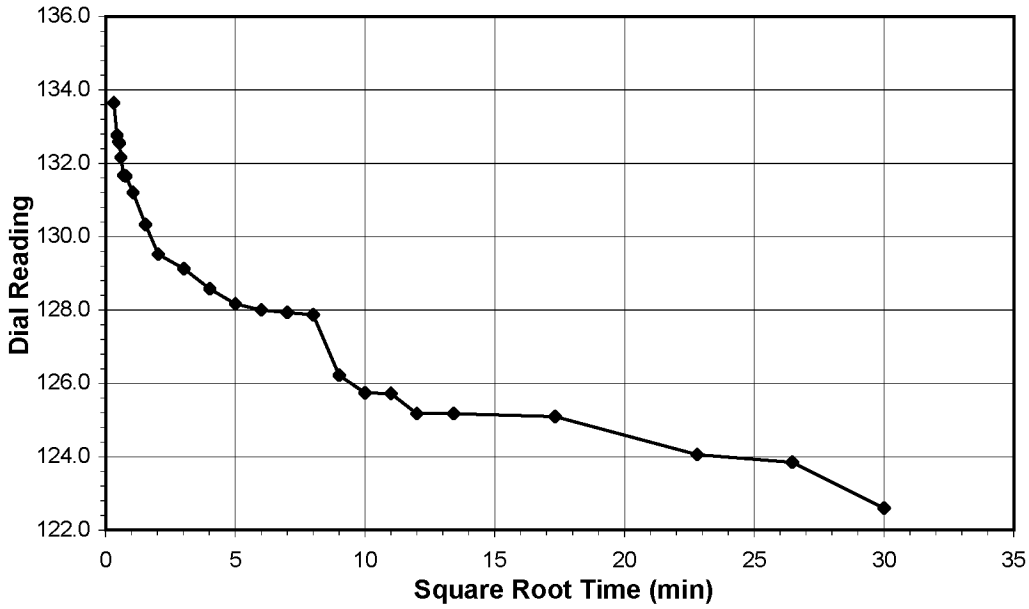
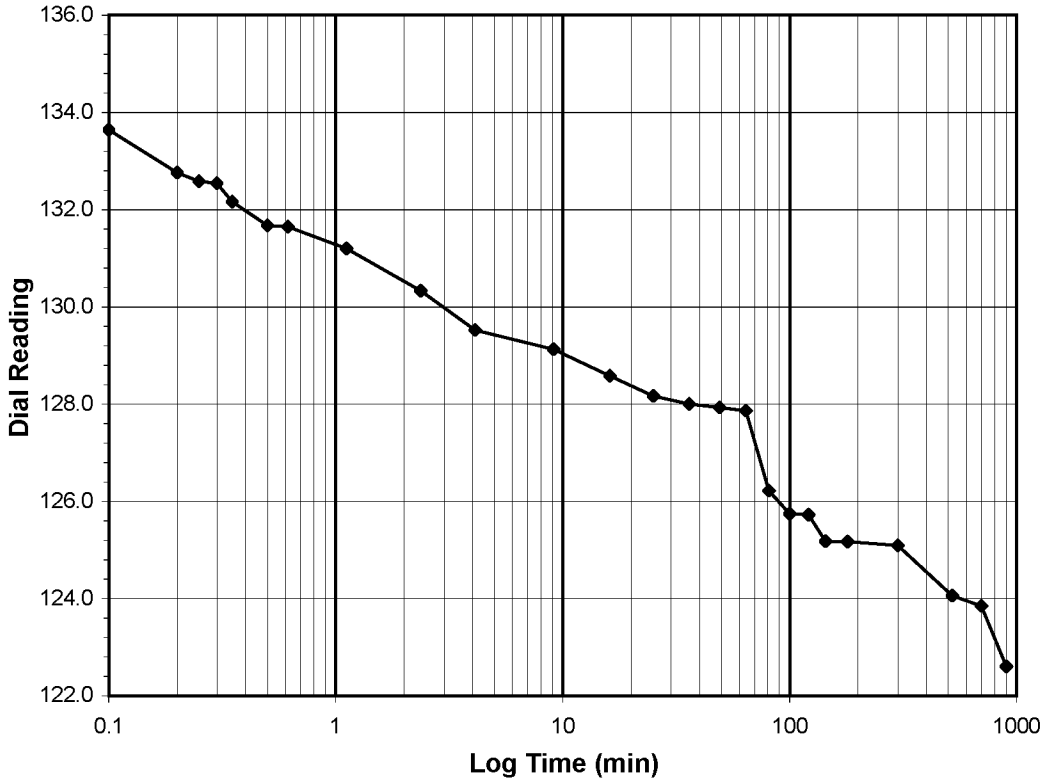
Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**1.0-0.25**
Final Reading	**(div)**	**122.6**
Consolidometer No.		**G1418**
1 Division	(in)	0.0001
Start Date		11/10/13
Start Time		8:56:01

Elapsed Time (min)	Dial Reading (div)
Initial	**160.5**
0.10	133.6
0.20	132.8
0.25	132.6
0.30	132.5
0.35	132.2
0.50	131.7
0.62	131.6
1.12	131.2
2.37	130.3
4.12	129.5
9.12	129.1
16.12	128.6
25.12	128.2
36.12	128.0
49.12	127.9
64.12	127.9
81.12	126.2
100.12	125.7
121.12	125.7
144.12	125.2
180.12	125.2
300.12	125.1
520.12	124.1
700.12	123.8
900.32	122.6

Tested By CLK *Date* 11/10/13 *Checked By* TM *Date* 12/5/13

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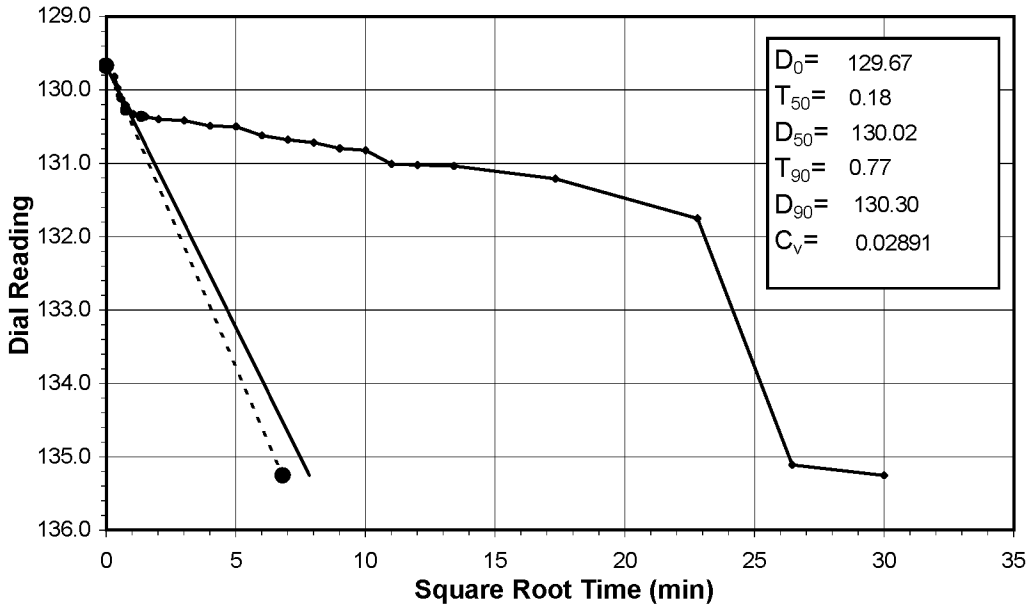
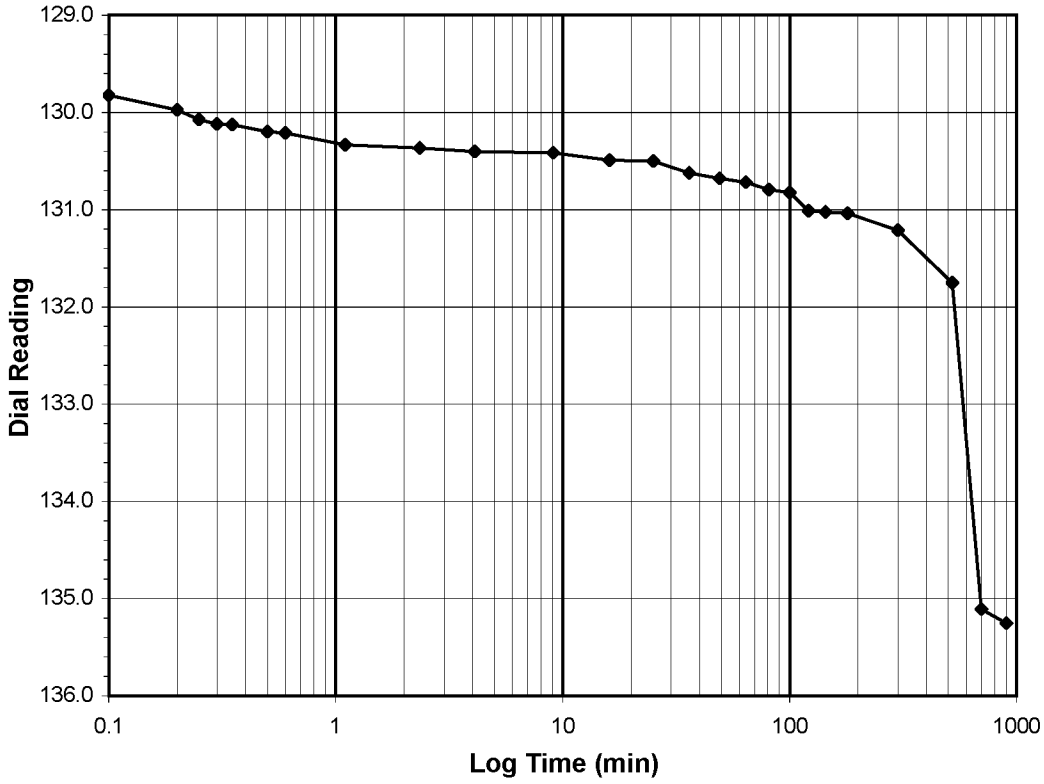
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**0.25-0.5**
Final Reading	**(div)**	**135.3**
Consolidometer No.		**G1418**
1 Division	(in)	0.0001
Start Date		11/10/13
Start Time		23:56:20

Elapsed Time (min)	Dial Reading (div)
Initial	**122.6**
0.10	129.8
0.20	130.0
0.25	130.1
0.30	130.1
0.35	130.1
0.50	130.2
0.60	130.2
1.10	130.3
2.35	130.4
4.10	130.4
9.10	130.4
16.10	130.5
25.10	130.5
36.10	130.6
49.10	130.7
64.12	130.7
81.12	130.8
100.12	130.8
121.12	131.0
144.12	131.0
180.12	131.0
300.12	131.2
520.12	131.8
700.12	135.1
900.00	135.3

Tested By *CLK* *Date* *11/10/13* *Checked By* *TM* *Date* *12/5/13*

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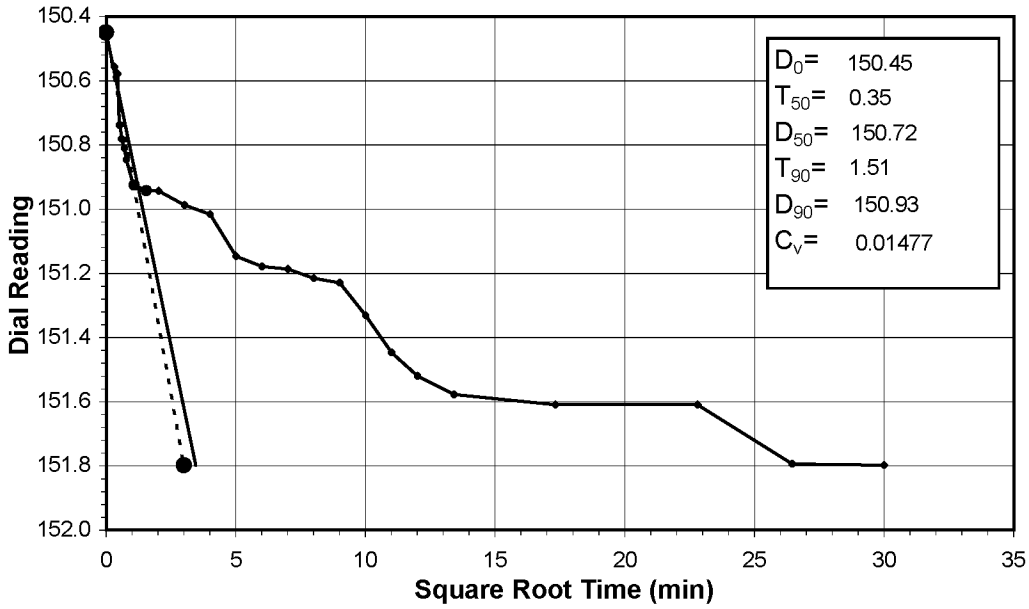
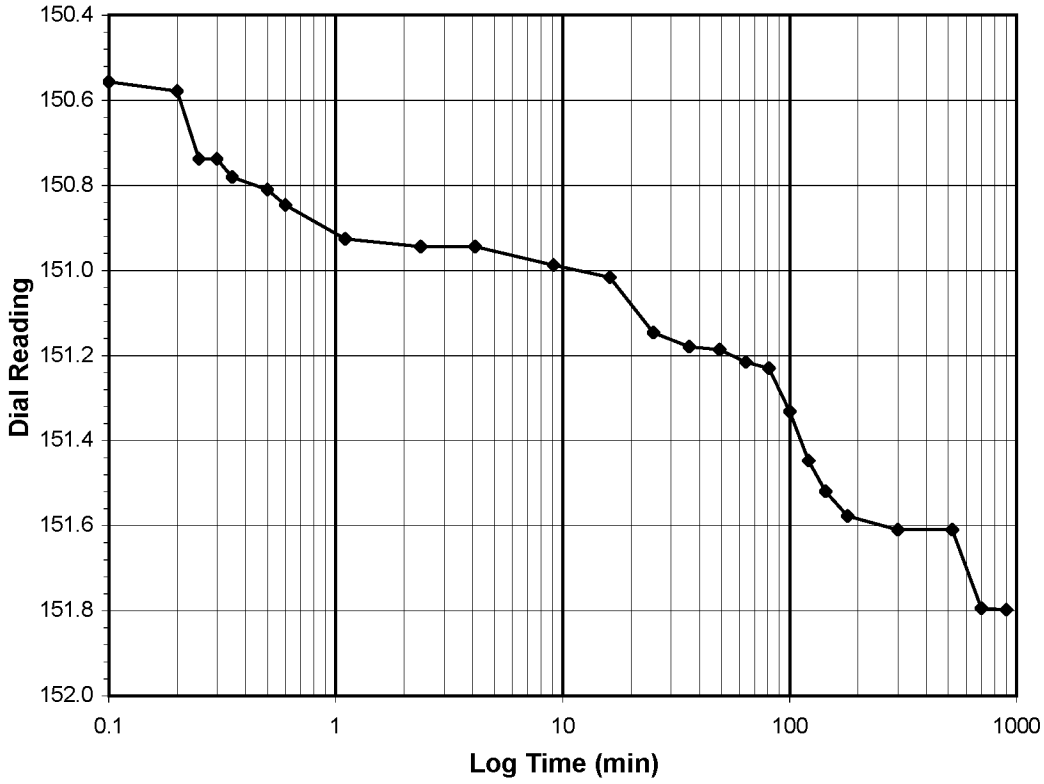
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**0.5-1.0**
Final Reading (div)	**151.8**
Consolidometer No.	**G1418**
1 Division (in)	0.0001
Start Date	11/11/13
Start Time	14:56:20

Elapsed Time (min)	Dial Reading (div)
Initial	**135.3**
0.10	150.6
0.20	150.6
0.25	150.7
0.30	150.7
0.35	150.8
0.50	150.8
0.60	150.8
1.10	150.9
2.37	150.9
4.12	150.9
9.12	151.0
16.12	151.0
25.12	151.1
36.12	151.2
49.12	151.2
64.12	151.2
81.12	151.2
100.12	151.3
121.12	151.4
144.12	151.5
180.12	151.6
300.12	151.6
520.12	151.6
700.12	151.8
900.22	151.8

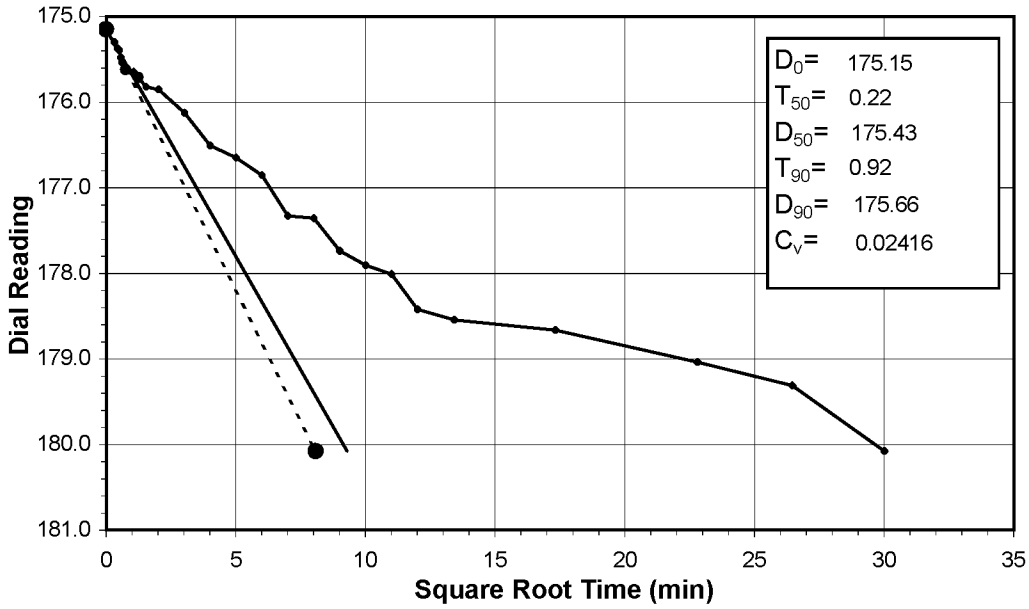
Tested By *CLK* *Date* *11/11/13* *Checked By* *TM* *Date* *12/5/13*

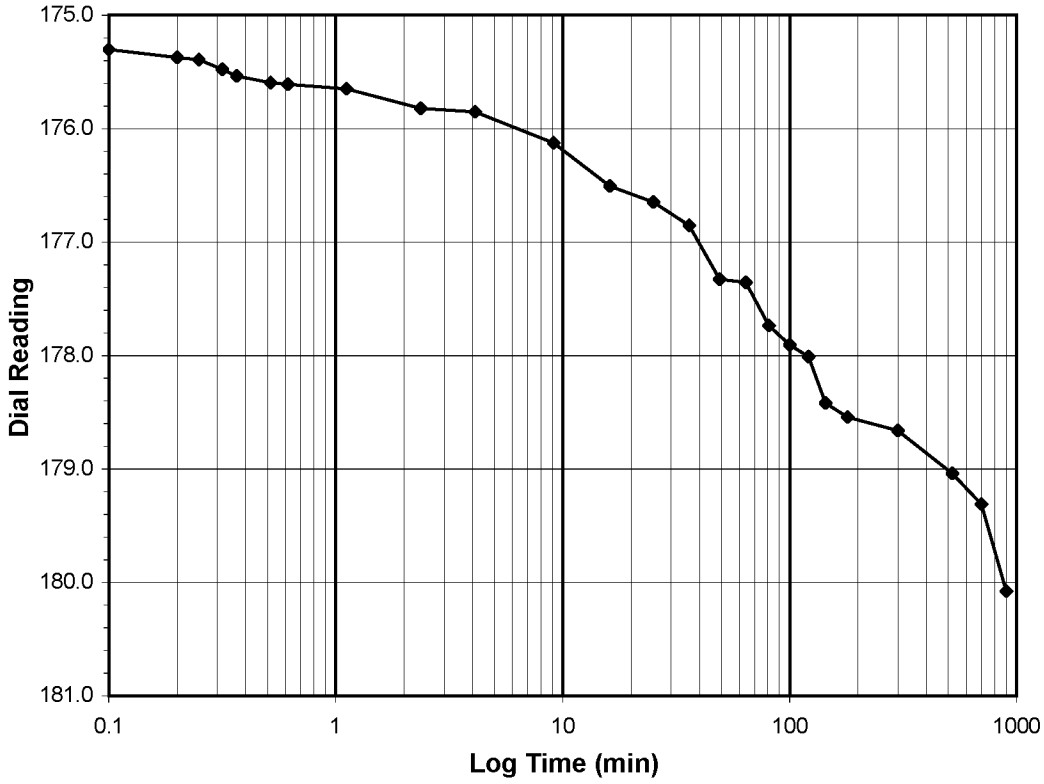
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**1.0-2.0**
Final Reading (div)	**180.1**
Consolidometer No.	**G1418**
1 Division (in)	0.0001
Start Date	11/12/13
Start Time	5:56:33

Elapsed Time (min)	Dial Reading (div)
Initial	**151.8**
0.10	175.3
0.20	175.4
0.25	175.4
0.32	175.5
0.37	175.5
0.52	175.6
0.62	175.6
1.12	175.6
2.37	175.8
4.12	175.9
9.12	176.1
16.12	176.5
25.12	176.6
36.13	176.9
49.13	177.3
64.13	177.4
81.13	177.7
100.13	177.9
121.13	178.0
144.13	178.4
180.13	178.5
300.13	178.7
520.13	179.0
700.13	179.3
900.50	180.1

Tested By *CLK* *Date* *11/12/13* *Checked By* *TM* *Date* *12/5/13*

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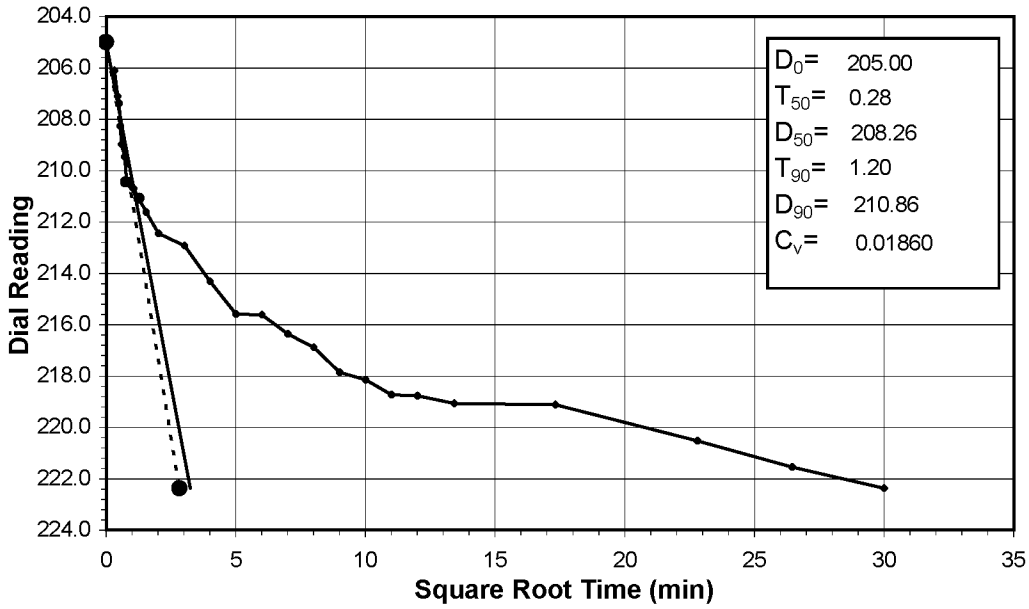
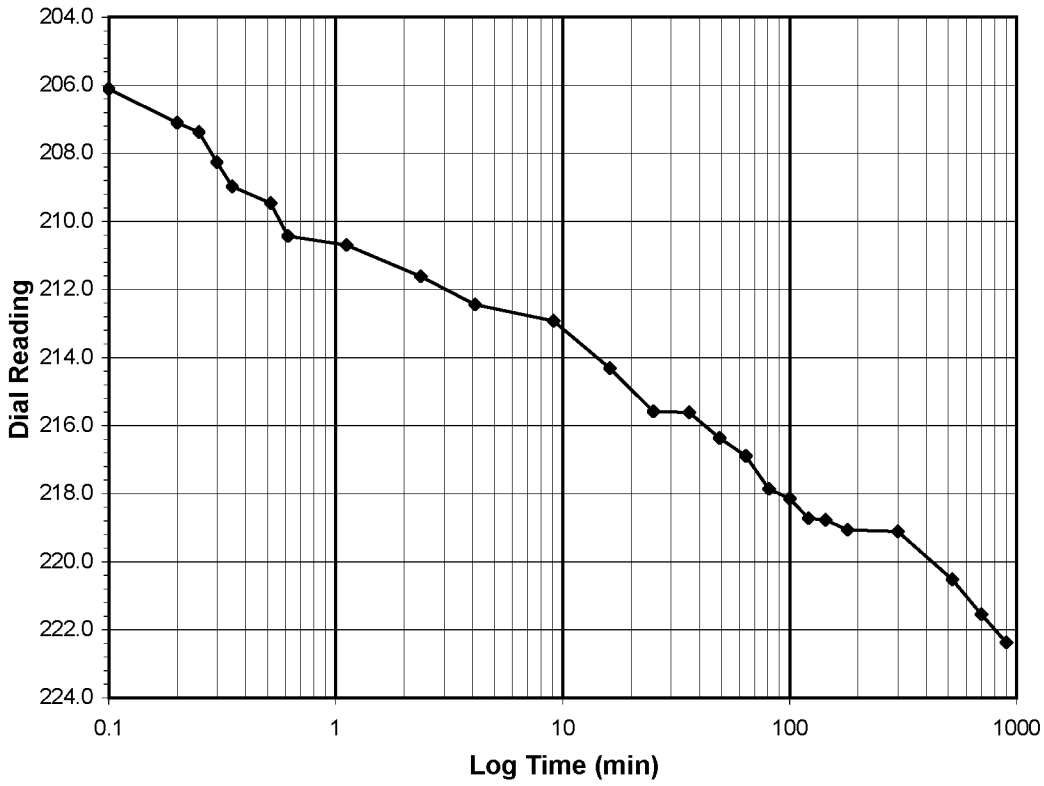
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**2.0-4.0**
Final Reading (div)	**222.4**
Consolidometer No.	**G1418**
1 Division (in)	0.0001
Start Date	11/12/13
Start Time	20:57:03

Elapsed Time (min)	Dial Reading (div)
Initial	**180.1**
0.10	206.1
0.20	207.1
0.25	207.4
0.30	208.3
0.35	209.0
0.52	209.5
0.62	210.4
1.12	210.7
2.37	211.6
4.12	212.4
9.12	212.9
16.12	214.3
25.12	215.6
36.12	215.6
49.12	216.4
64.12	216.9
81.12	217.9
100.12	218.1
121.12	218.7
144.12	218.8
180.13	219.1
300.13	219.1
520.13	220.5
700.13	221.5
900.30	222.4

Tested By *CLK* *Date* *11/12/13* *Checked By* *TM* *Date* *12/5/13*

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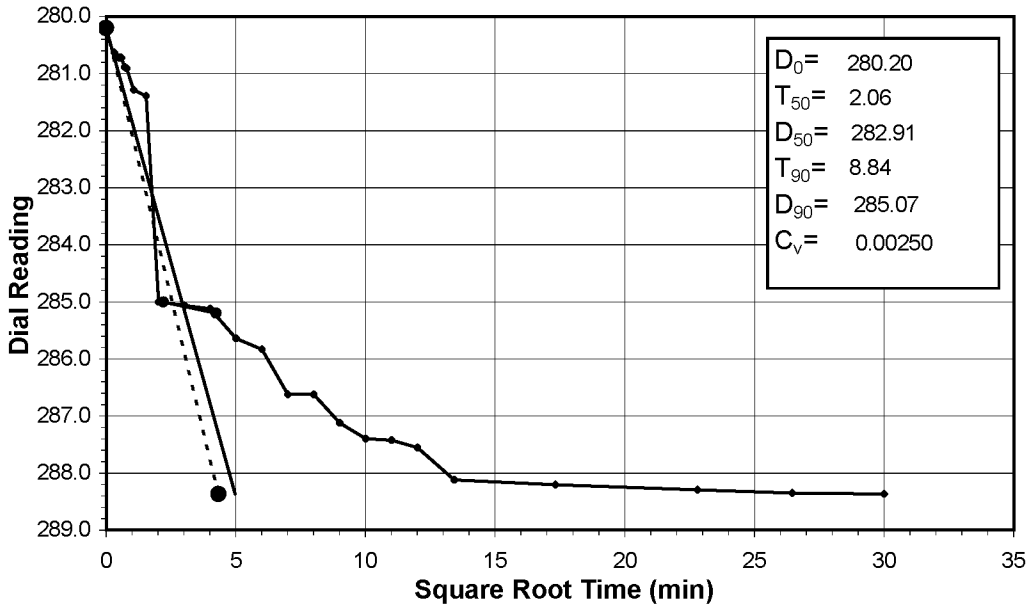
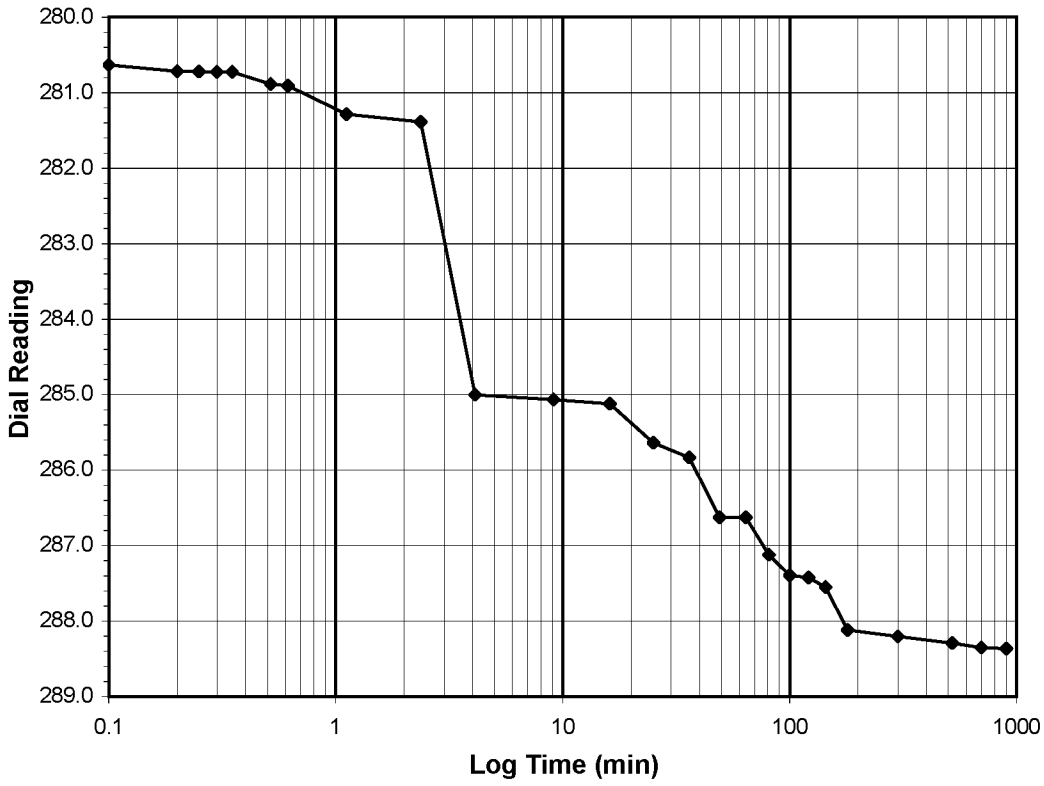
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**4.0-8.0**
Final Reading (div)	**288.4**
Consolidometer No.	**G1418**
1 Division (in)	0.0001
Start Date	11/13/13
Start Time	11:57:21

Elapsed Time (min)	Dial Reading (div)
Initial	**222.4**
0.10	280.6
0.20	280.7
0.25	280.7
0.30	280.7
0.35	280.7
0.52	280.9
0.62	280.9
1.12	281.3
2.37	281.4
4.12	285.0
9.12	285.1
16.12	285.1
25.12	285.6
36.12	285.8
49.12	286.6
64.12	286.6
81.12	287.1
100.12	287.4
121.12	287.4
144.13	287.6
180.13	288.1
300.13	288.2
520.13	288.3
700.13	288.4
900.10	288.4

Tested By CLK *Date* 11/13/13 *Checked By* TM *Date* 12/5/13

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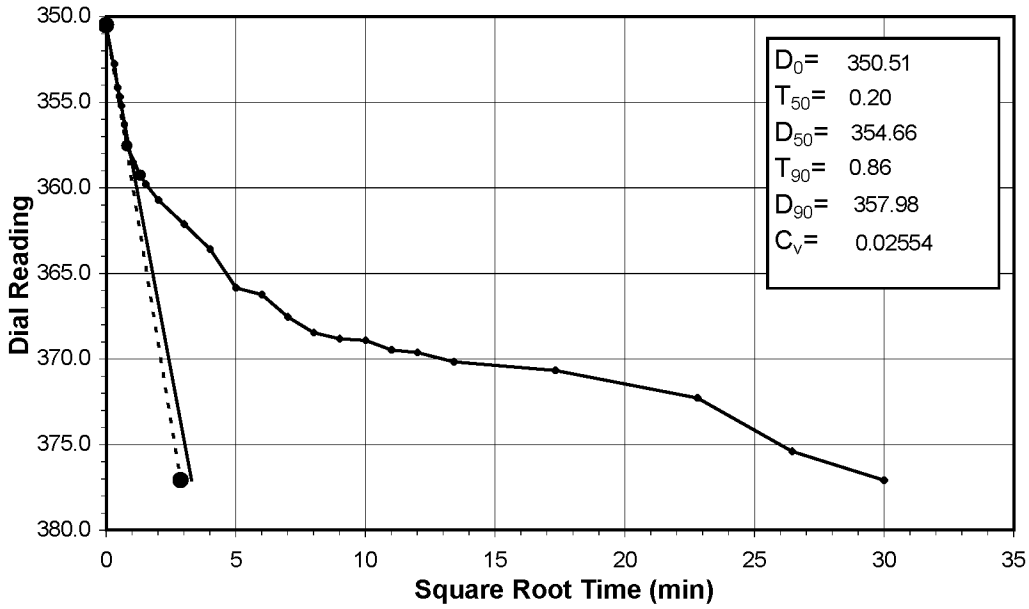
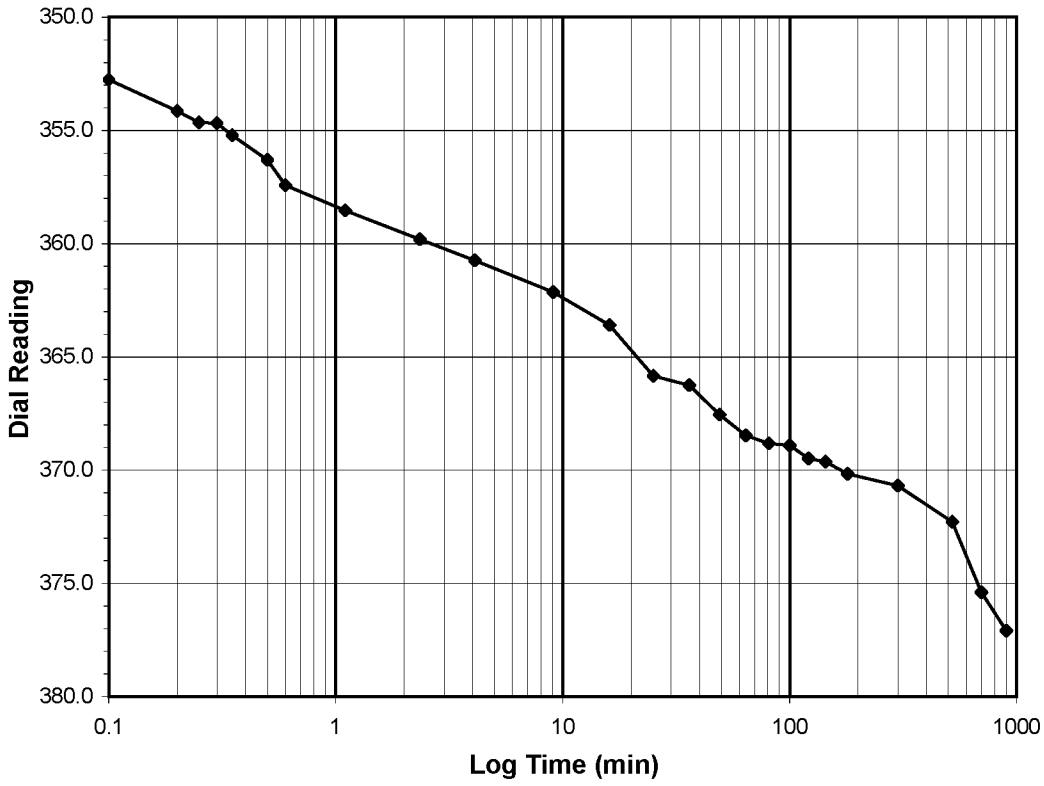
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**8.0-16.0**
Final Reading	**(div)**	**377.1**
Consolidometer No.		**G1418**
1 Division	(in)	0.0001
Start Date		11/14/13
Start Time		2:57:27

Elapsed Time (min)	Dial Reading (div)
Initial	**288.4**
0.10	352.8
0.20	354.1
0.25	354.6
0.30	354.7
0.35	355.2
0.50	356.3
0.60	357.4
1.10	358.5
2.35	359.8
4.10	360.7
9.10	362.1
16.10	363.6
25.10	365.8
36.10	366.3
49.10	367.5
64.10	368.5
81.10	368.8
100.12	368.9
121.12	369.5
144.12	369.6
180.12	370.2
300.12	370.7
520.12	372.3
700.12	375.4
900.15	377.1

Tested By *CLK* *Date* *11/14/13* *Checked By* *TM* *Date* *12/5/13*

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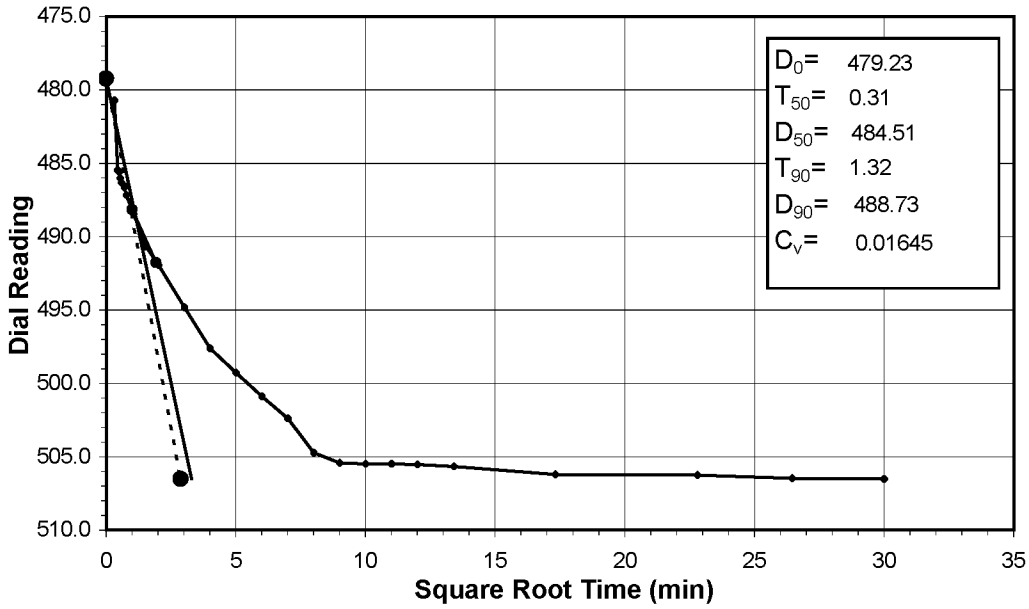
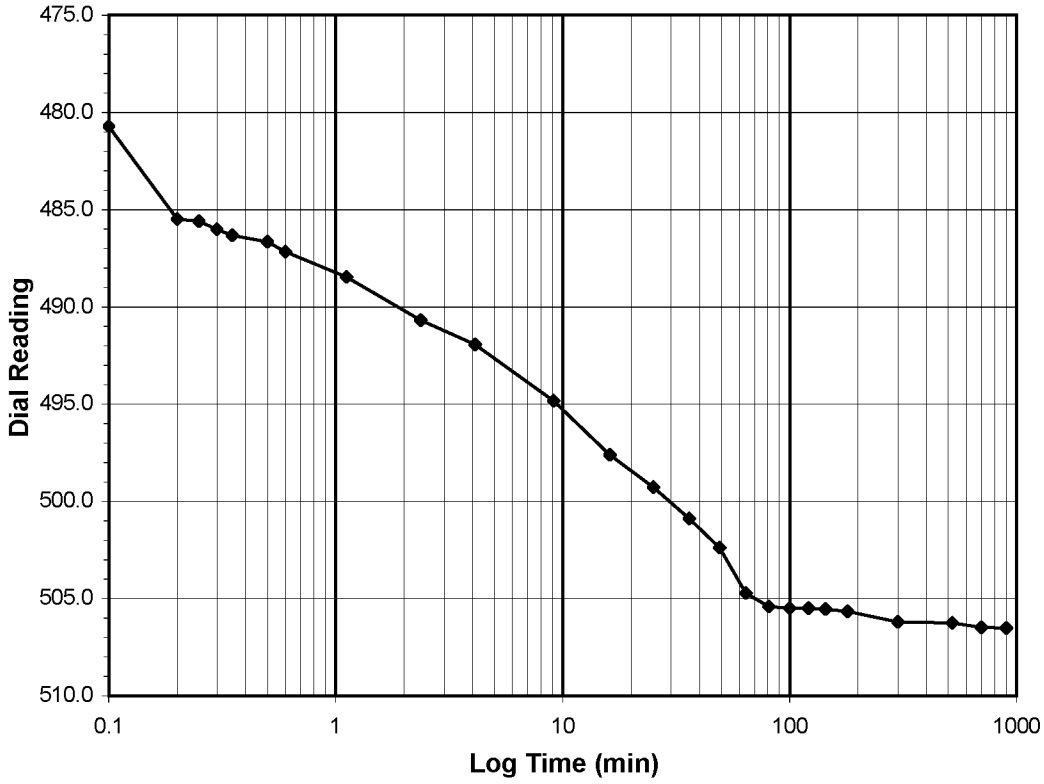
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**16.0-32.0**
Final Reading	**(div)**	**506.5**
Consolidometer No.		**G1418**
1 Division	(in)	0.0001
Start Date		11/14/13
Start Time		17:57:36

Elapsed Time (min)	Dial Reading (div)
Initial	**377.1**
0.10	480.7
0.20	485.5
0.25	485.6
0.30	486.0
0.35	486.3
0.50	486.7
0.60	487.2
1.12	488.5
2.37	490.7
4.12	491.9
9.12	494.8
16.12	497.6
25.12	499.3
36.12	500.9
49.12	502.4
64.12	504.7
81.12	505.4
100.12	505.5
121.12	505.5
144.12	505.5
180.12	505.7
300.12	506.2
520.12	506.3
700.12	506.5
900.03	506.5

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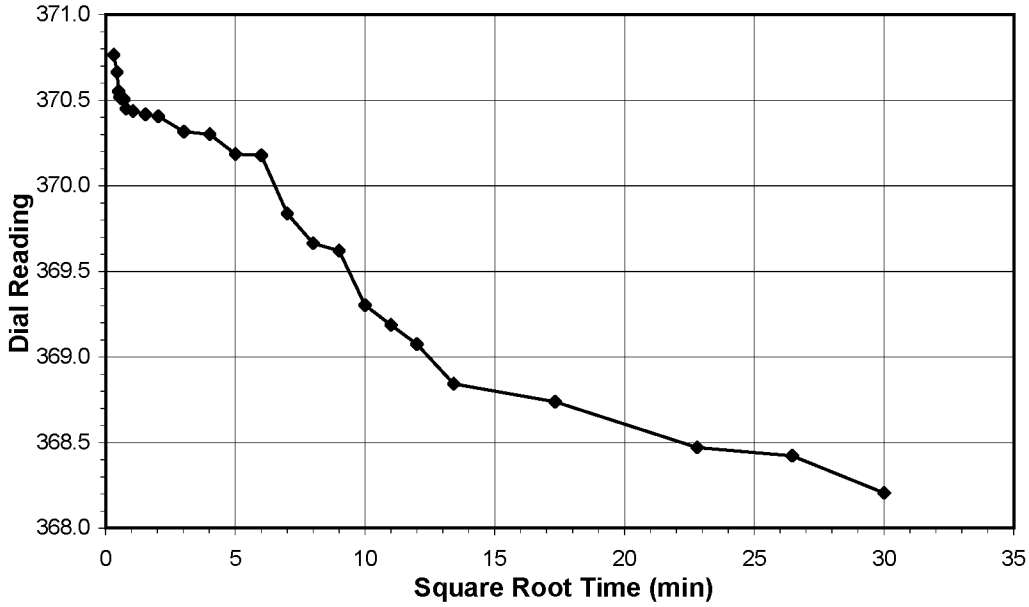
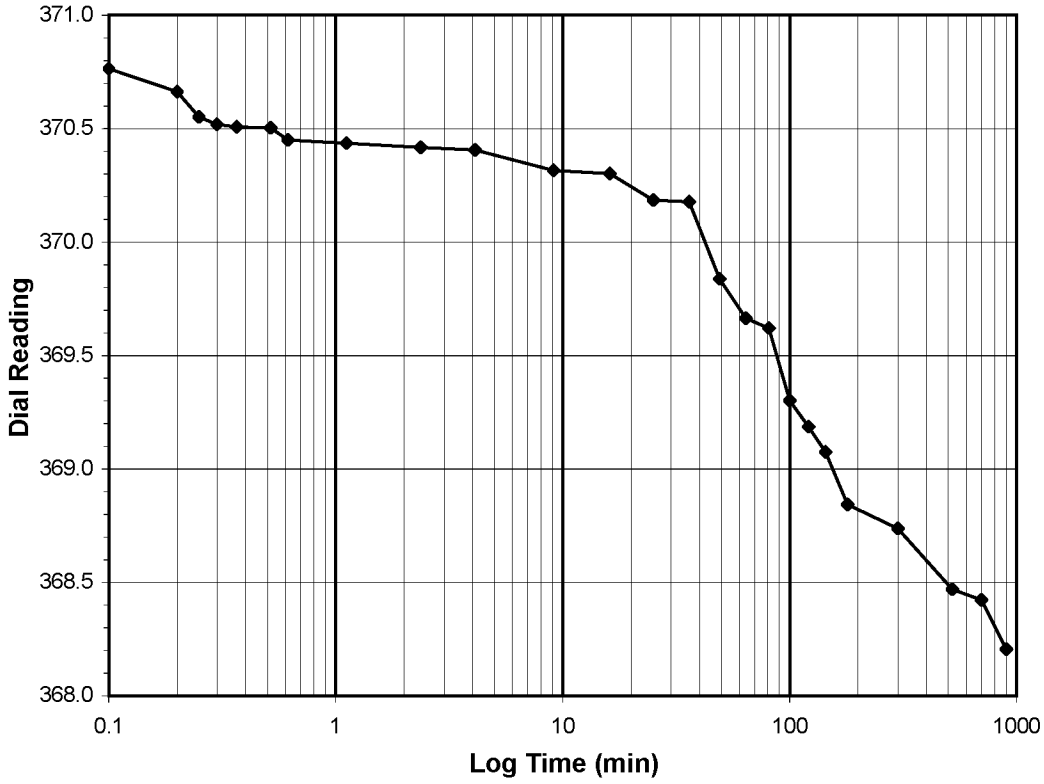
Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**32.0-8.0**
Final Reading	**(div)**	**368.2**
Consolidometer No.		**G1418**
1 Division	(in)	0.0001
Start Date		11/15/13
Start Time		8:57:38

Elapsed Time (min)	Dial Reading (div)
Initial	**506.5**
0.10	370.8
0.20	370.7
0.25	370.6
0.30	370.5
0.37	370.5
0.52	370.5
0.62	370.4
1.12	370.4
2.37	370.4
4.12	370.4
9.12	370.3
16.12	370.3
25.12	370.2
36.12	370.2
49.12	369.8
64.12	369.7
81.12	369.6
100.12	369.3
121.13	369.2
144.13	369.1
180.13	368.8
300.13	368.7
520.13	368.5
700.13	368.4
900.20	368.2

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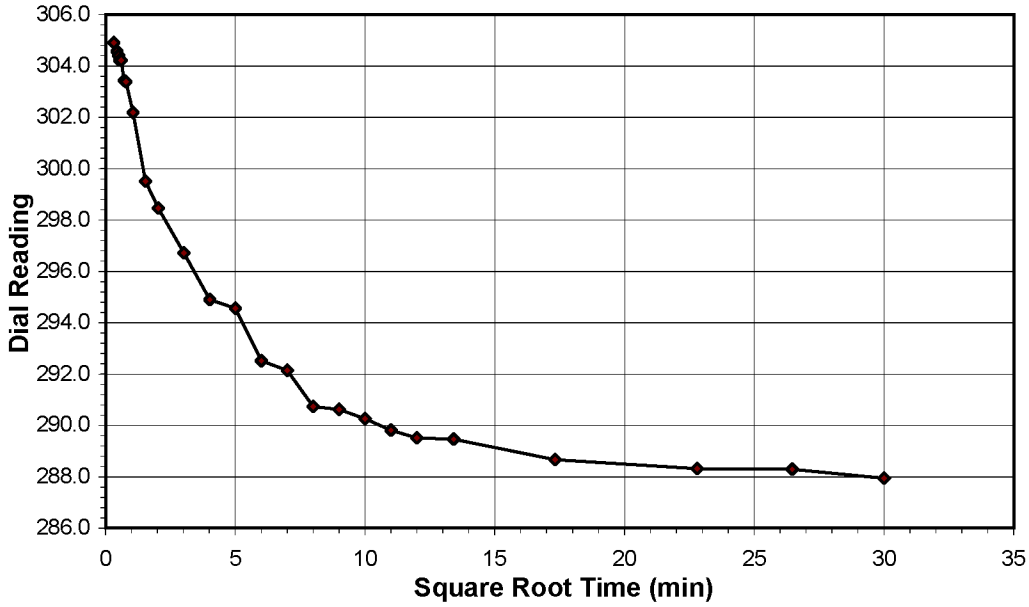
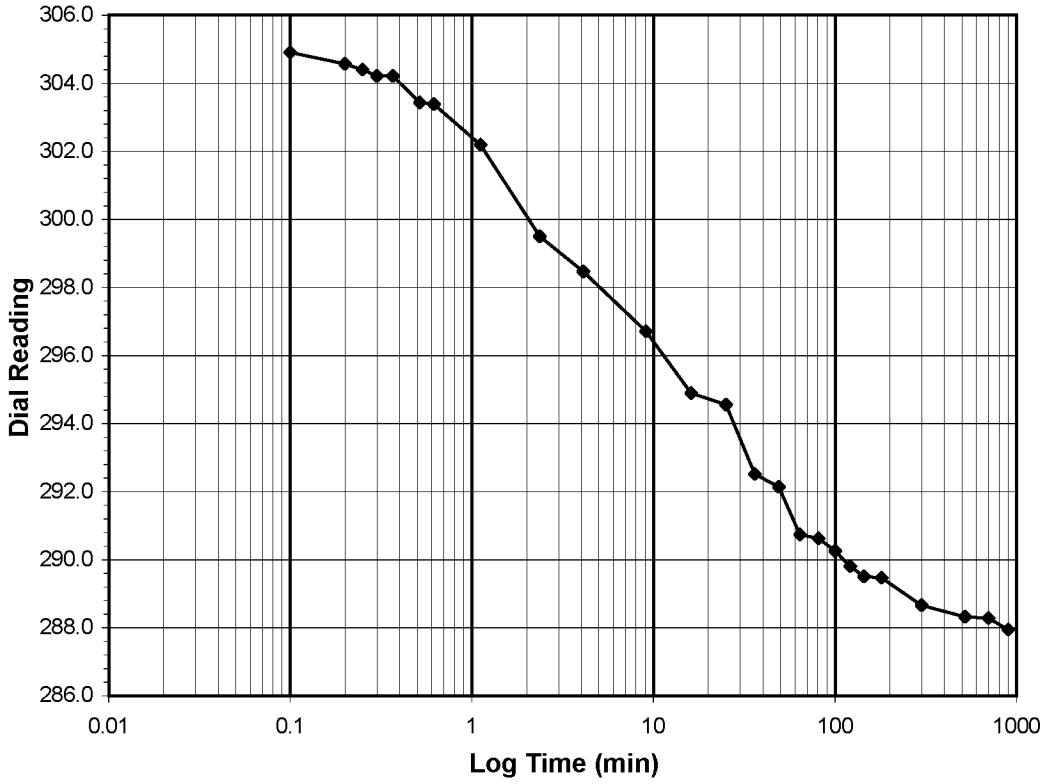
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**8.0-2.0**
Final Reading	**(div)**	**287.9**
Consolidometer No.		**G1418**
1 Division	(in)	0.0001
Start Date		11/15/13
Start Time		23:57:50

Elapsed Time (min)	Dial Reading (div)
Initial	**368.2**
0.10	304.9
0.20	304.6
0.25	304.4
0.30	304.2
0.37	304.2
0.52	303.4
0.62	303.4
1.12	302.2
2.37	299.5
4.12	298.5
9.12	296.7
16.12	294.9
25.12	294.6
36.12	292.5
49.12	292.1
64.12	290.7
81.12	290.6
100.12	290.3
121.12	289.8
144.13	289.5
180.13	289.5
300.13	288.7
520.13	288.3
700.13	288.3
900.12	287.9

Tested By *CLK* *Date* *11/15/13* *Checked By* *TM* *Date* *12/5/13*

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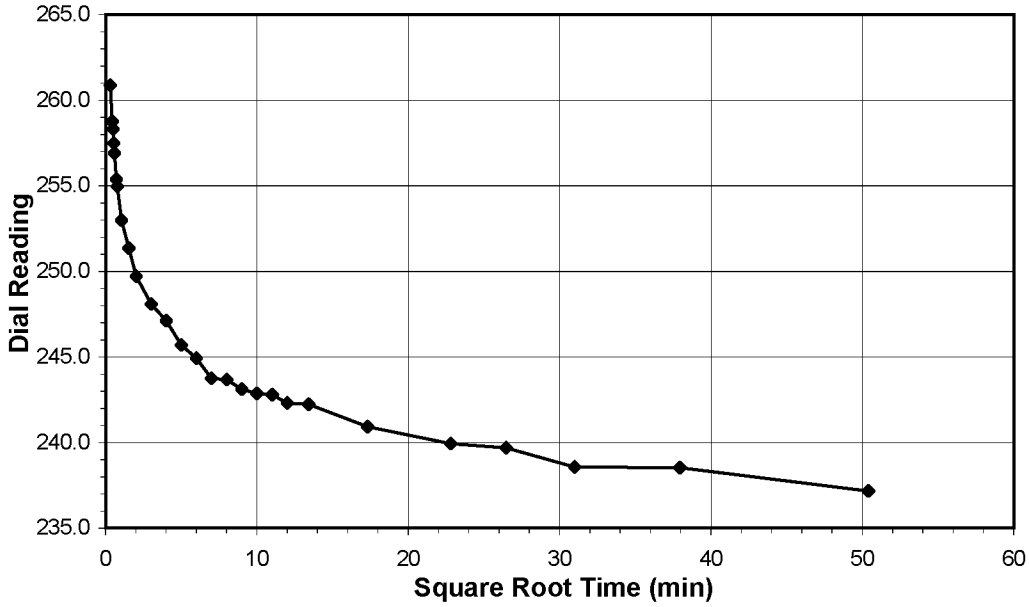
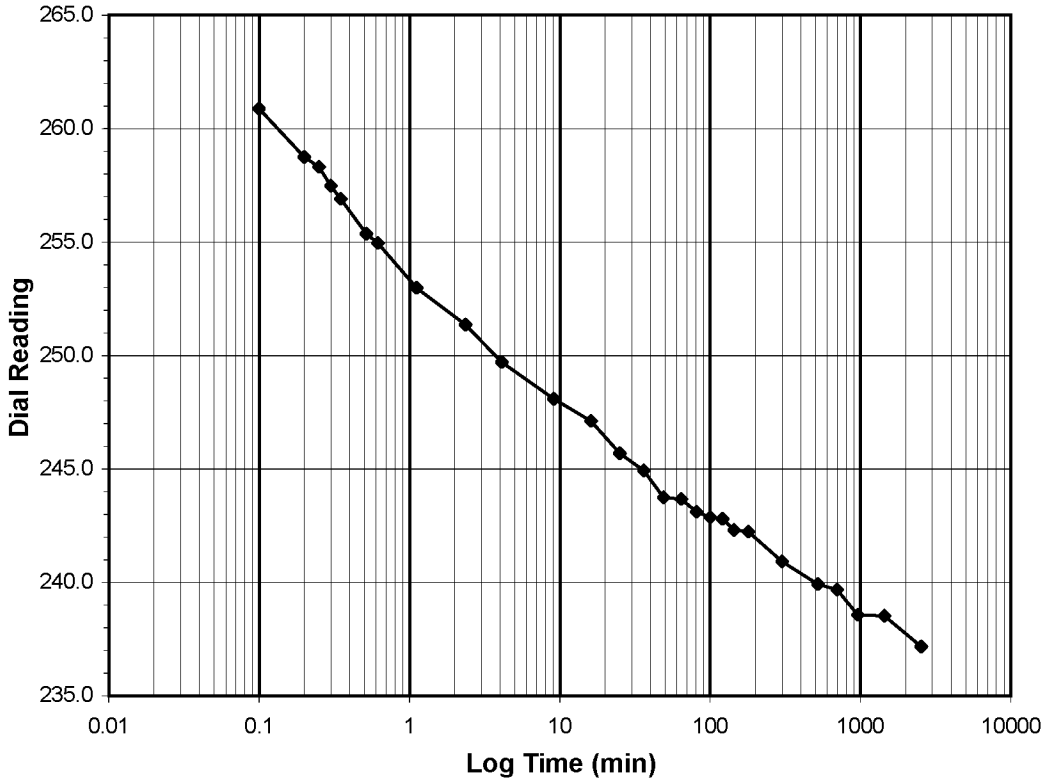
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**2.0-0.5**
Final Reading	**(div)**	**237.2**
Consolidometer No.		**G1418**
1 Division	(in)	0.0001
Start Date		11/16/13
Start Time		14:57:57

Elapsed Time (min)	Dial Reading (div)
Initial	**287.9**
0.10	260.9
0.20	258.7
0.25	258.3
0.30	257.5
0.35	256.9
0.52	255.4
0.62	255.0
1.12	253.0
2.37	251.4
4.12	249.7
9.12	248.1
16.12	247.1
25.12	245.7
36.12	244.9
49.12	243.8
64.13	243.7
81.13	243.1
100.13	242.9
121.13	242.8
144.13	242.3
180.13	242.2
300.13	240.9
520.13	239.9
700.13	239.7
960.13	238.6
1440.13	238.5
2540.95	237.2

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ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained
Consolidometer No. G1418
1 Division = 0.0001 (in)

Sample Properties	**Initial**	**Final**
Water Content		
Tare Number	2726	2683
Wt. Tare & WS (g)	157.09	161.63
Wt. Tare & DS (g)	128.02	130.19
Wt. Water (g)	29.07	31.44
Wt. Tare (g)	6.72	6.53
Wt. DS (g)	121.30	123.66
Water Content (%)	23.97	25.42
Sample Parameters		
Sample Diameter (in)	2.5	2.5
Sample Height (in)	1.0000	0.9816
Sample Volume (cm^3)	80.44	78.96
Wt. Wet Sample + Ring (g)	369.89	371.72
Wt. of Ring (g)	214.52	214.52
Wt. of Wet Sample (g)	155.37	157.20
Wet Density (pcf)	120.53	124.23
Wet Density (g/cm^3)	1.93	1.99
Water Content (%)	23.97	25.42
Wt. of Dry Sample (g)	125.33	125.33
Dry Density (pcf)	97.23	99.05
Dry Density (g/cm^3)	1.56	1.59
Void Ratio	0.6880	0.6569
Saturation (%)	91.62	101.79
Specific Gravity	2.63	*Measured*

Test Data Summary

Applied Pressure (tsf)	Final Dial Reading (div)	Machine Deflection (div)	Corrected Reading (div)	Height of Sample (mm)	Volume (cm^3)	Dry Density (g/cm^3)	Void Ratio
Seating	0	0	0	25.400	80.440	1.55810	**0.68795**
0.25	60.1	17.6	42.5	25.292	80.098	1.56475	**0.68078**
0.5	86.3	27.0	59.3	25.249	79.963	1.56739	**0.67795**
1	119.0	40.4	78.6	25.200	79.807	1.57045	**0.67468**
2	157.5	66.6	91.0	25.169	79.708	1.57240	**0.67260**
4	210.5	97.5	113.0	25.113	79.531	1.57591	**0.66887**
1	160.5	58.5	102.0	25.141	79.619	1.57416	**0.67073**
0.25	122.6	28.5	94.1	25.161	79.683	1.57290	**0.67207**
0.5	135.3	33.9	101.3	25.143	79.625	1.57405	**0.67085**
1	151.8	48.4	103.4	25.137	79.608	1.57437	**0.67051**
2	180.1	68.5	111.6	25.117	79.542	1.57568	**0.66912**
4	222.4	97.9	124.5	25.084	79.438	1.57774	**0.66694**
8	288.4	129.5	158.8	24.997	79.162	1.58325	**0.66114**
16	377.1	176.6	200.5	24.891	78.827	1.58998	**0.65411**
32	506.5	251.4	255.1	24.752	78.388	1.59889	**0.64489**
8	368.2	142.9	225.3	24.828	78.628	1.59401	**0.64992**
2	287.9	89.7	198.3	24.896	78.845	1.58962	**0.65449**
0.5	237.2	53.4	183.8	24.933	78.961	1.58728	**0.65692**

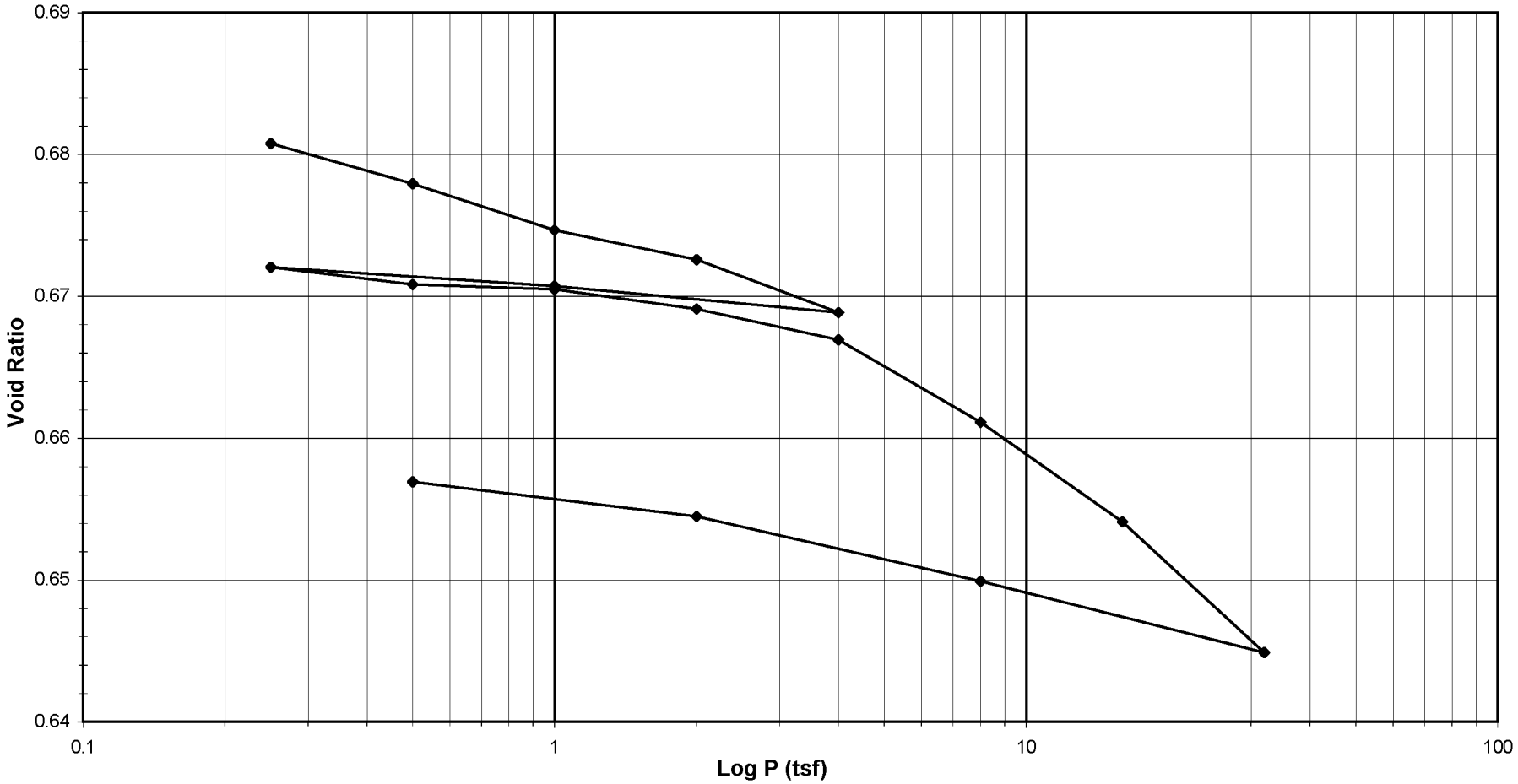
Tested By *CLK* *Date* *11/6/13* *Input Checked By* *TM* *Date* *12/5/13*

ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained



Tested By CLK *Date* 11/6/13 *Approved By* RJO *Date* 12/5/13

DCN: CT-24 AutoT50-CV Date: 1127/13 Revision: 0

ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained
Consolidometer No. G1418
1 Division = 0.0001 (in)

Sample Properties	**Initial**	**Final**
Water Content		
Tare Number	2726	2683
Wt. Tare & WS (g)	157.09	161.63
Wt. Tare & DS (g)	128.02	130.19
Wt. Water (g)	29.07	31.44
Wt. Tare (g)	6.72	6.53
Wt. DS (g)	121.3	123.66
Water Content (%)	23.97	25.42
Sample Parameters		
Sample Diameter (in)	2.5	2.5
Sample Height (in)	1.0000	0.9816
Sample Volume (cm^3)	80.44	78.96
Wt. Wet Sample + Ring (g)	369.89	371.72
Wt. of Ring (g)	214.52	214.52
Wt. of Wet Sample (g)	155.37	157.20
Wet Density (pcf)	120.53	124.23
Wet Density (g/cm^3)	1.93	1.99
Water Content (%)	23.97	25.42
Wt. of Dry Sample (g)	125.33	125.33
Dry Density (pcf)	97.23	99.05
Dry Density (g/cm^3)	1.56	1.59
Void Ratio	0.6880	0.6569
Saturation (%)	91.62	101.79
Specific Gravity	2.63	Measured

C_v Test Data Summary

Load Increment	Dial Reading @ t_{50}	Machine Deflection	Corrected Dial Reading @ t_{50}	Sample Height @ t_{50}	Time t_{50}	C_v
(tsf)	(div)	(div)	(div)	(mm)	(min)	(cm^2/sec)
Seating	NA	NA	NA	NA	NA	NA
0.25	50.2	17.6	32.6	25.32	**0.46**	**0.01143**
0.5	78.9	27.0	51.9	25.27	**0.43**	**0.01235**
1	107.0	40.4	66.6	25.23	**0.61**	**0.00866**
2	149.4	66.6	82.8	25.19	**0.25**	**0.02124**
4	198.4	97.5	100.9	25.14	**0.42**	**0.01248**
1	NA	NA	NA	NA	NA	NA
0.25	NA	NA	NA	NA	NA	NA
0.5	130.0	33.9	96.1	25.16	**0.18**	**0.02891**
1	150.7	48.4	102.3	25.14	**0.35**	**0.01477**
2	175.4	68.5	106.9	25.13	**0.22**	**0.02416**
4	208.3	97.9	110.4	25.12	**0.28**	**0.01860**
8	282.9	129.5	153.4	25.01	**2.06**	**0.00250**
16	354.7	176.6	178.0	24.95	**0.20**	**0.02554**
32	484.5	251.4	233.1	24.81	**0.31**	**0.01645**
8	NA	NA	NA	NA	NA	NA
2	NA	NA	NA	NA	NA	NA
0.5	NA	NA	NA	NA	NA	NA

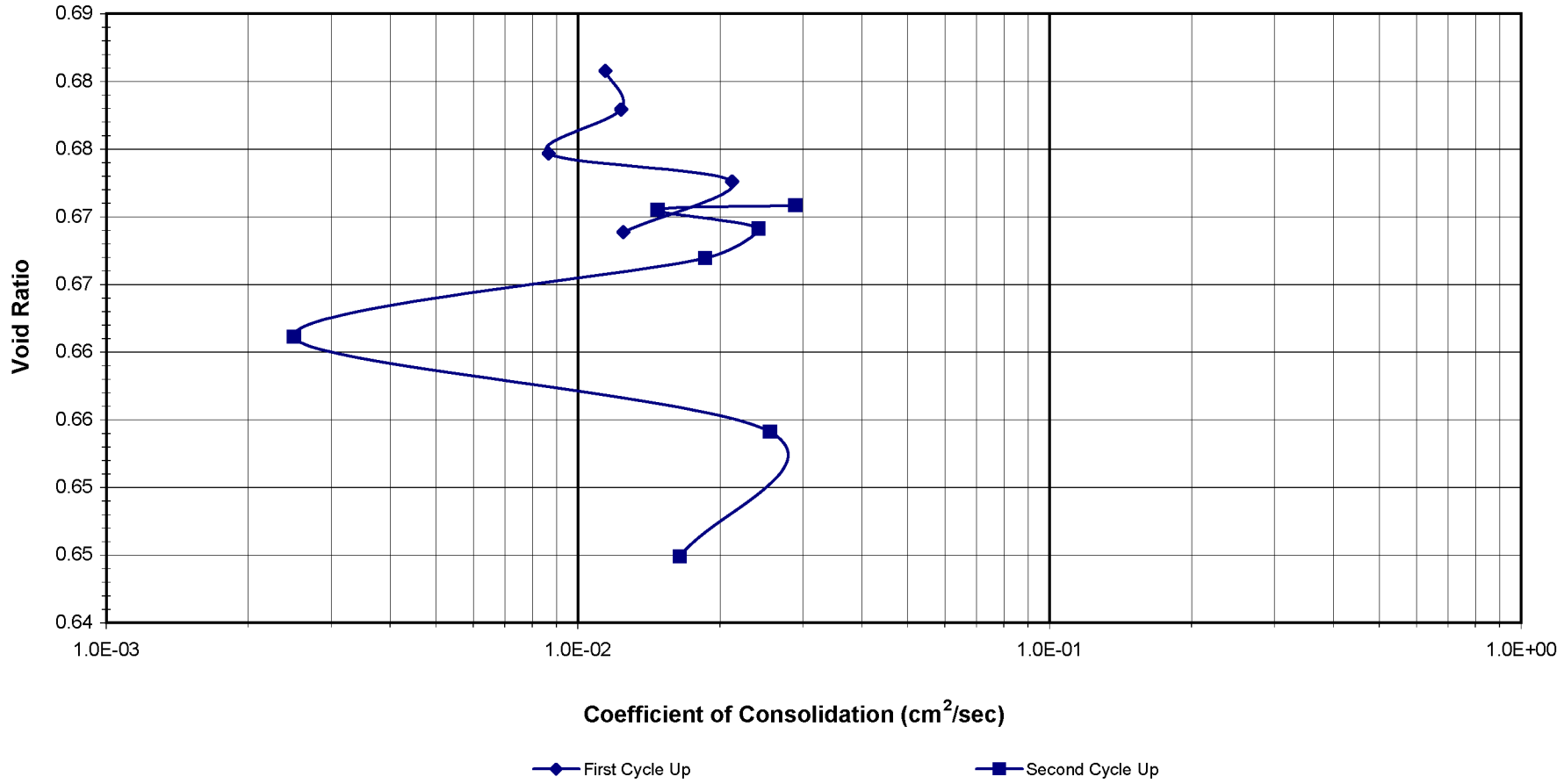
Tested By CLK *Date* 11/6/13 *Input Checked By* TM *Date* 12/5/13

ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID	2013-465-001-015	Visual Description	Gray Sand

Sample Conditions: Undisturbed, Inundated And Double Drained



Tested By CLK *Date* 11/6/13 *Approved By* RJO *Date* 12/5/13

DCN: CT-24 AutoT50-CV Date: 1127/13 Revision: 0

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EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	338.7-338.9
Project No.	2013-465-001	Sample No.	ST-18
Lab ID #	2013-465-001-015		

Equipment	Equipment ID#	Calibration Due Date
Calipers	G1122	12/3/13
Balance	G1394	5/15/14
Oven	G1387	8/16/14
Consolidometer	G1418	1/9/14
Load Cell	G1419	1/9/14
LVDT	G1420	1/9/14

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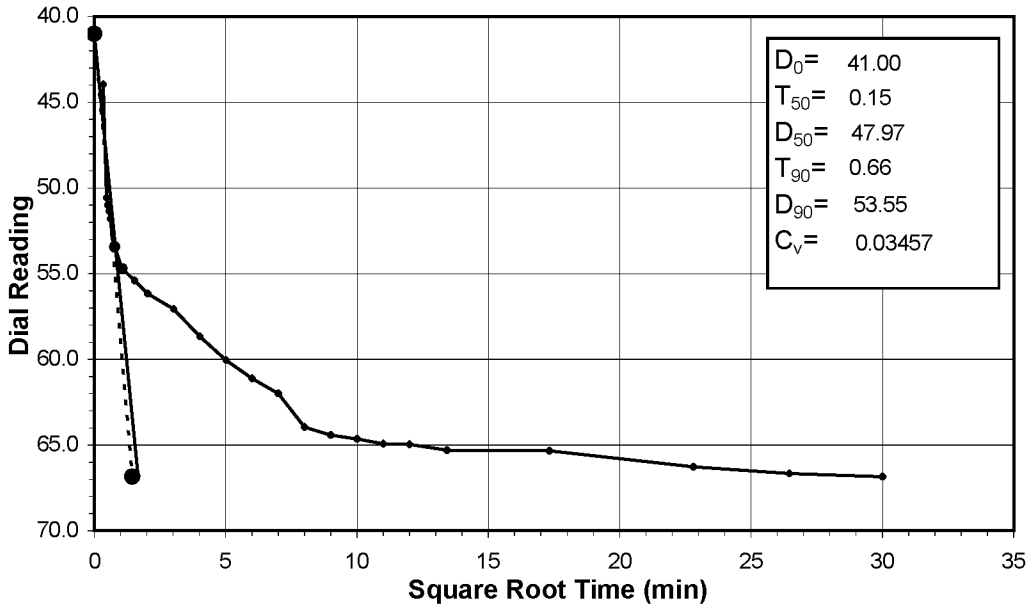
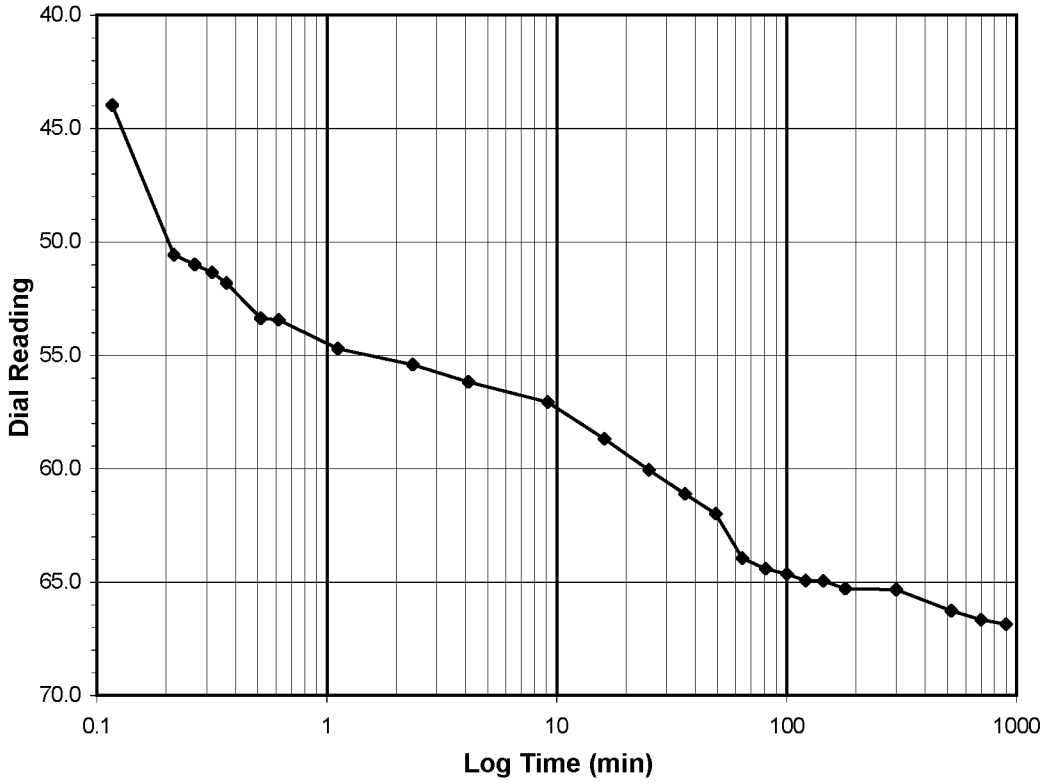
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**0.0-0.25**
Final Reading	**(div)**	**66.9**
Consolidometer No.		**G1424**
1 Division	(in)	0.0001
Start Date		11/18/13
Start Time		13:47:26

Elapsed Time (min)	Dial Reading (div)
Initial	**0.0**
0.12	44.0
0.22	50.6
0.27	51.0
0.32	51.3
0.37	51.8
0.52	53.4
0.62	53.4
1.12	54.7
2.37	55.4
4.13	56.2
9.13	57.1
16.13	58.7
25.13	60.1
36.13	61.1
49.13	62.0
64.13	63.9
81.13	64.4
100.13	64.6
121.13	64.9
144.13	65.0
180.13	65.3
300.13	65.3
520.13	66.3
700.13	66.6
900.38	66.9

Tested By DB *Date* 11/18/13 *Checked By* TM *Date* 12/6/13

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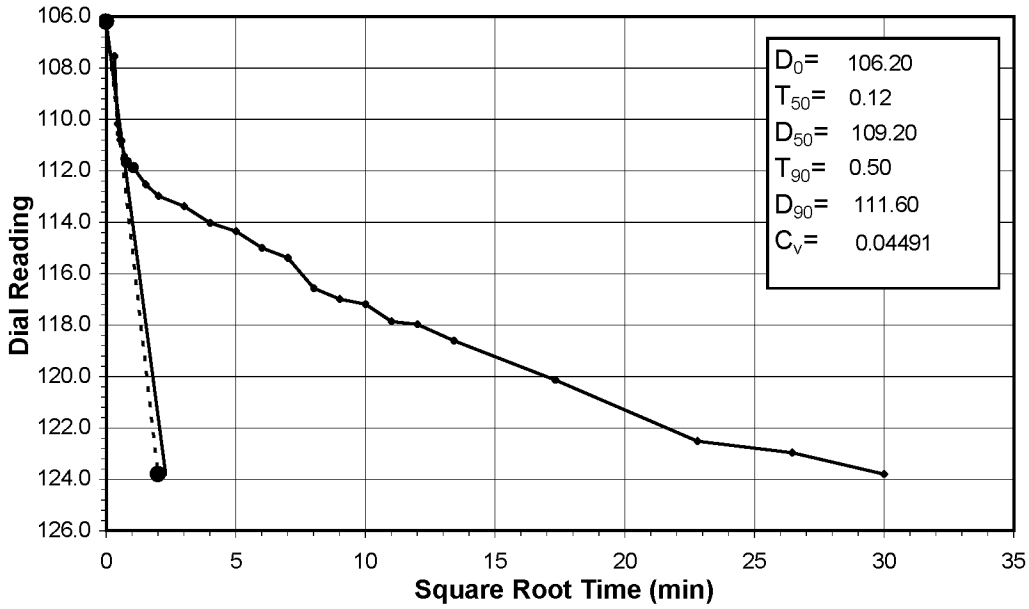

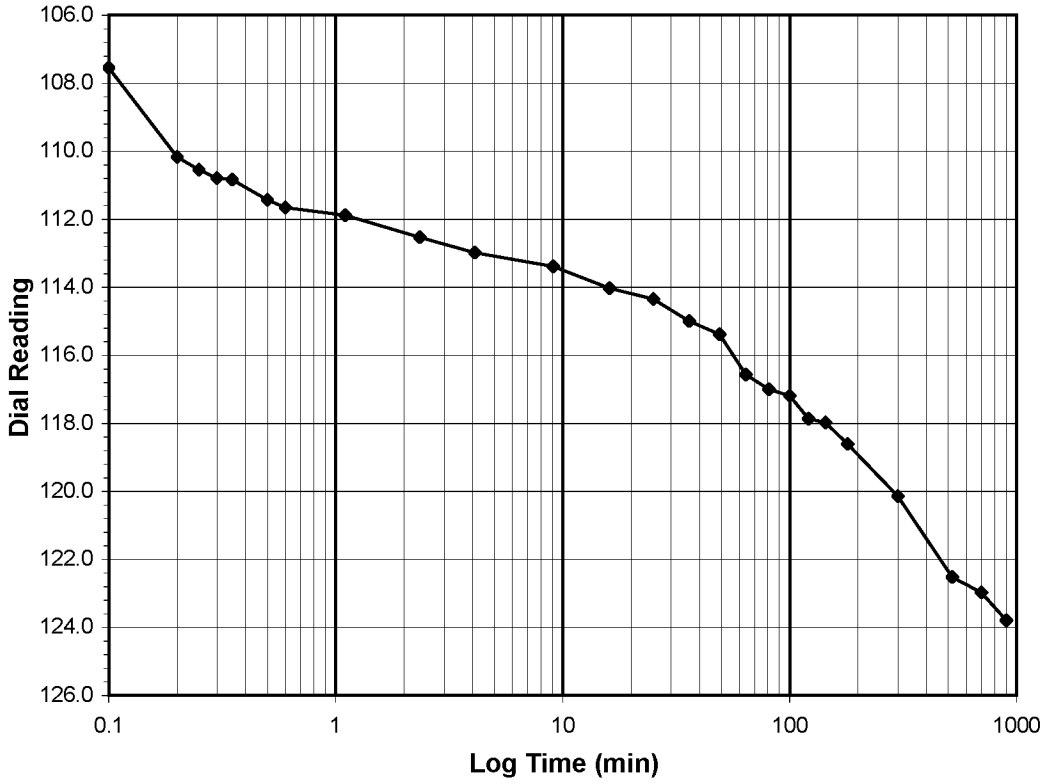

Test Load (tsf)	**0.25-0.5**
Final Reading (div)	**123.8**
Consolidometer No.	**G1424**
1 Division (in)	0.0001
Start Date	11/19/13
Start Time	4:47:49

Elapsed Time (min)	Dial Reading (div)
Initial	**66.9**
0.10	107.5
0.20	110.2
0.25	110.5
0.30	110.8
0.35	110.8
0.50	111.4
0.60	111.7
1.10	111.9
2.35	112.5
4.10	113.0
9.10	113.4
16.10	114.0
25.10	114.3
36.10	115.0
49.10	115.4
64.12	116.6
81.12	117.0
100.12	117.2
121.12	117.9
144.12	118.0
180.12	118.6
300.12	120.1
520.12	122.5
700.12	123.0
900.35	123.8

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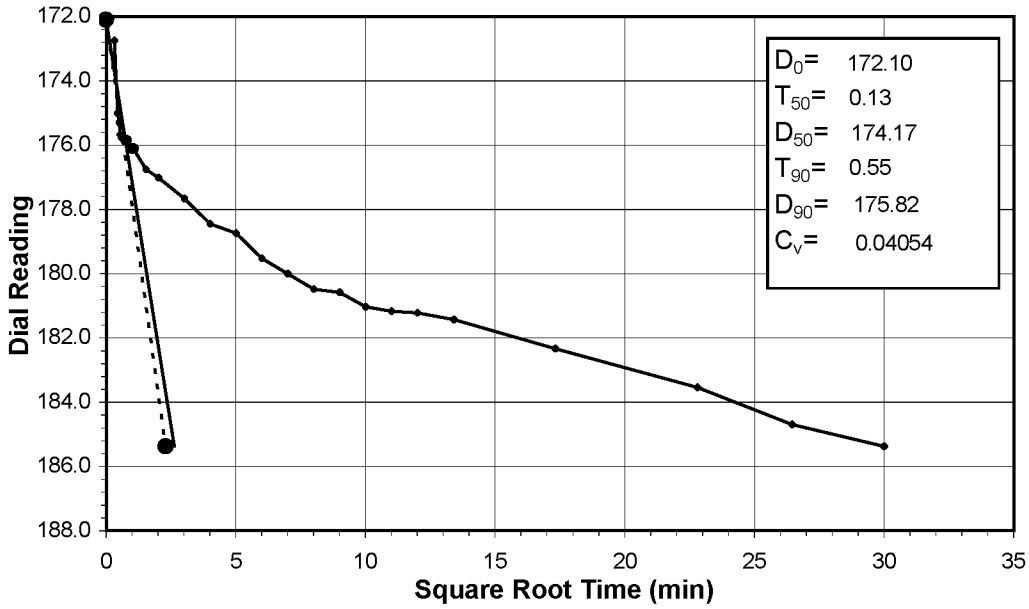

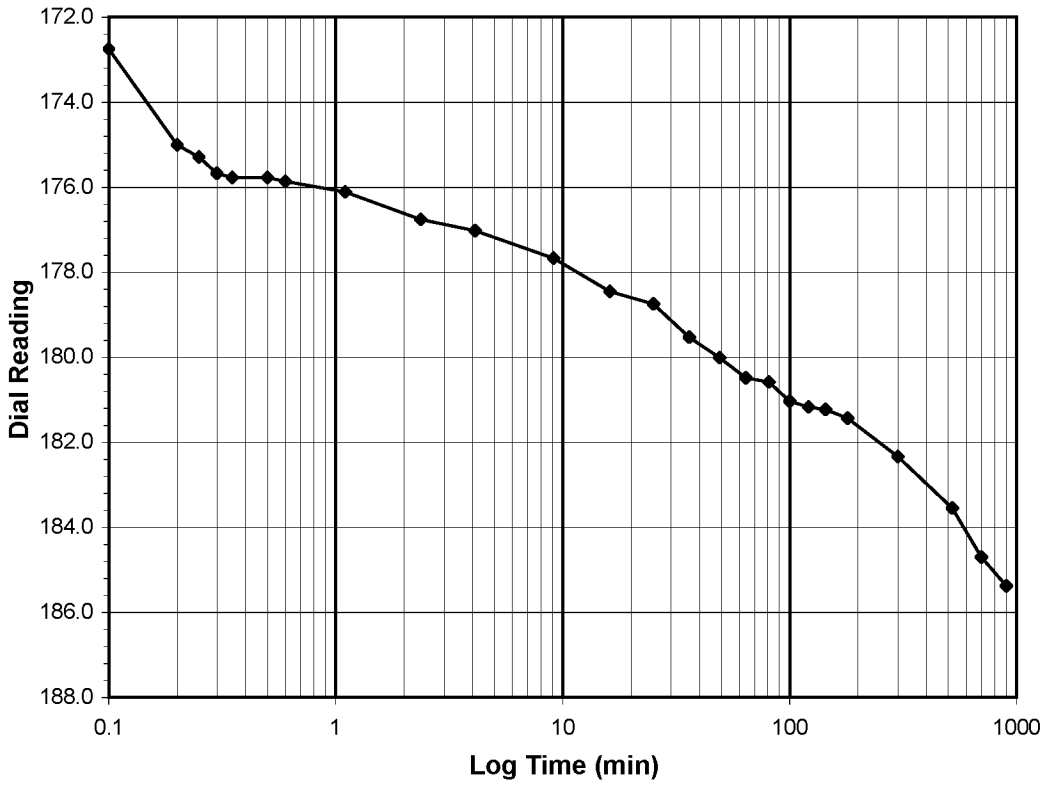

Test Load (tsf)	**0.5-1.0**
Final Reading (div)	**185.4**
Consolidometer No.	**G1424**
1 Division (in)	0.0001
Start Date	11/19/13
Start Time	19:48:10

Elapsed Time (min)	Dial Reading (div)
Initial	**123.8**
0.10	172.7
0.20	175.0
0.25	175.3
0.30	175.7
0.35	175.8
0.50	175.8
0.60	175.9
1.10	176.1
2.37	176.8
4.12	177.0
9.12	177.7
16.12	178.5
25.12	178.7
36.12	179.5
49.12	180.0
64.12	180.5
81.12	180.6
100.12	181.0
121.12	181.2
144.12	181.2
180.12	181.4
300.12	182.3
520.13	183.5
700.13	184.7
900.18	185.4

Tested By *DB* *Date* *11/19/13* *Checked By* *TM* *Date* *12/6/13*

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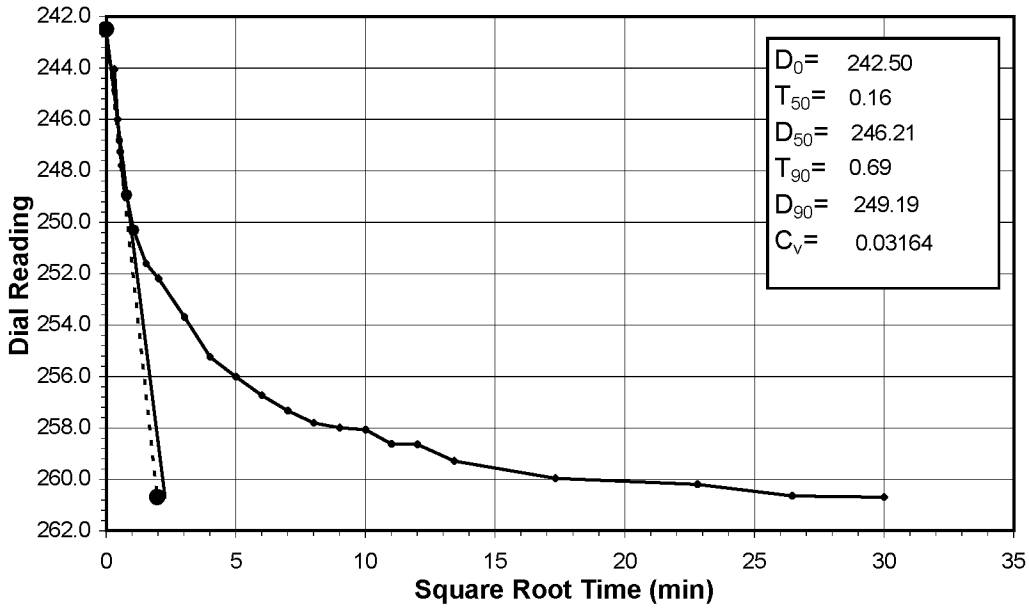
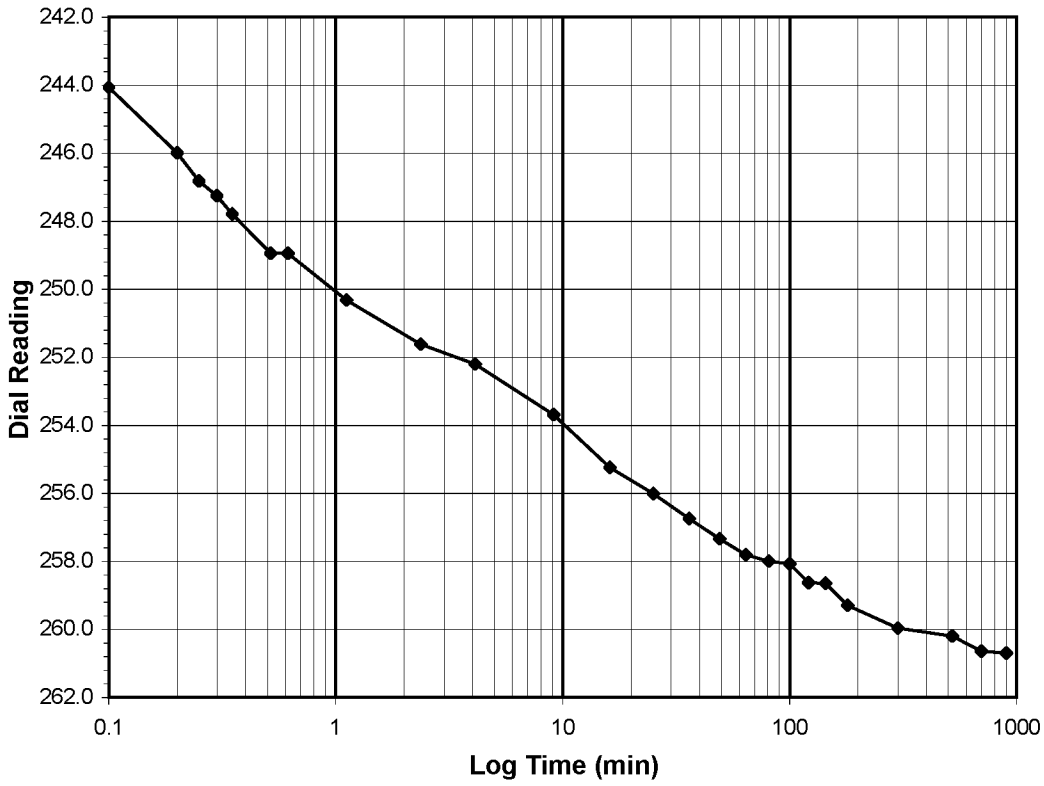
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**1.0-2.0**
Final Reading (div)	**260.7**
Consolidometer No.	**G1424**
1 Division (in)	0.0001
Start Date	11/20/13
Start Time	10:48:21

Elapsed Time (min)	Dial Reading (div)
Initial	**185.4**
0.10	244.1
0.20	246.0
0.25	246.8
0.30	247.2
0.35	247.8
0.52	248.9
0.62	248.9
1.12	250.3
2.37	251.6
4.12	252.2
9.12	253.7
16.12	255.2
25.12	256.0
36.12	256.7
49.12	257.3
64.12	257.8
81.13	258.0
100.13	258.1
121.13	258.6
144.13	258.6
180.13	259.3
300.13	260.0
520.13	260.2
700.13	260.6
900.30	260.7

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Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

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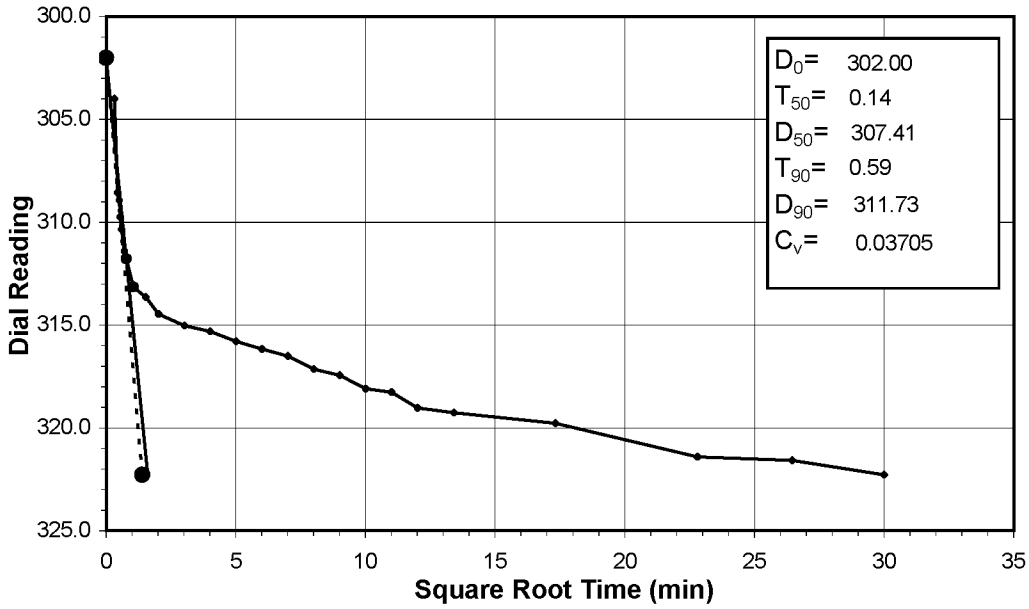

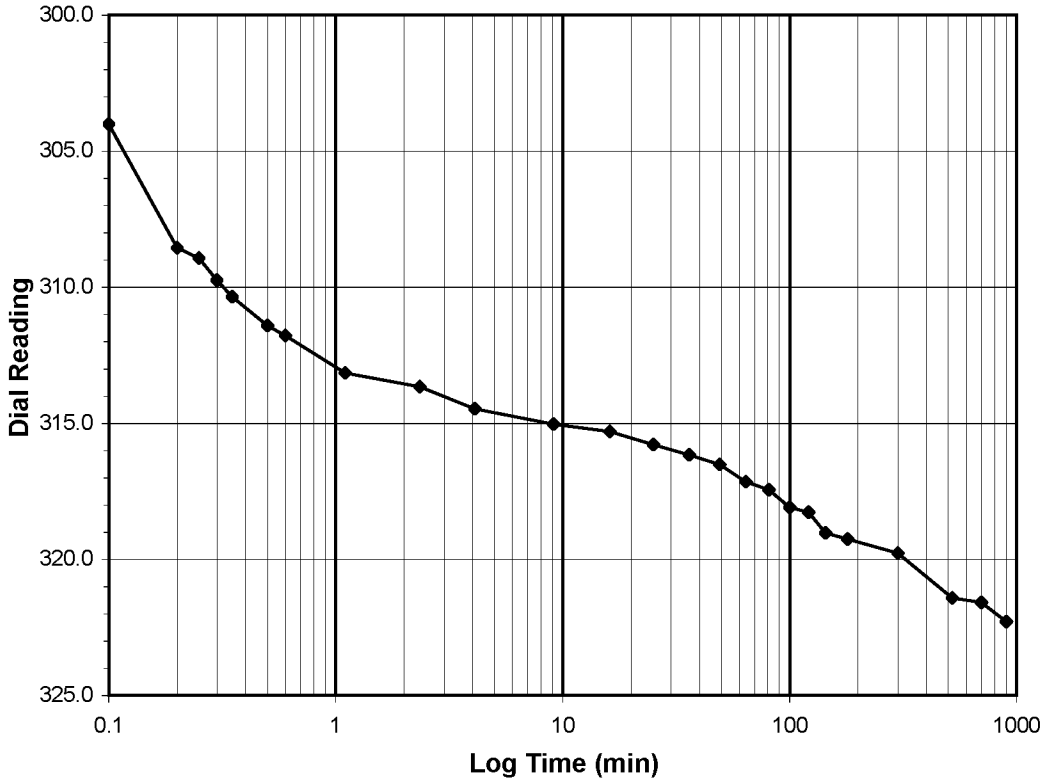

Test Load (tsf)	**2.0-4.0**
Final Reading (div)	**322.3**
Consolidometer No.	**G1424**
1 Division (in)	0.0001
Start Date	11/21/13
Start Time	1:48:39

Elapsed Time (min)	Dial Reading (div)
Initial	**260.7**
0.10	304.0
0.20	308.6
0.25	308.9
0.30	309.7
0.35	310.3
0.50	311.4
0.60	311.8
1.10	313.1
2.35	313.6
4.10	314.5
9.12	315.0
16.12	315.3
25.12	315.8
36.12	316.2
49.12	316.5
64.12	317.1
81.12	317.4
100.12	318.1
121.12	318.3
144.12	319.0
180.12	319.3
300.12	319.8
520.12	321.4
700.12	321.6
900.03	322.3

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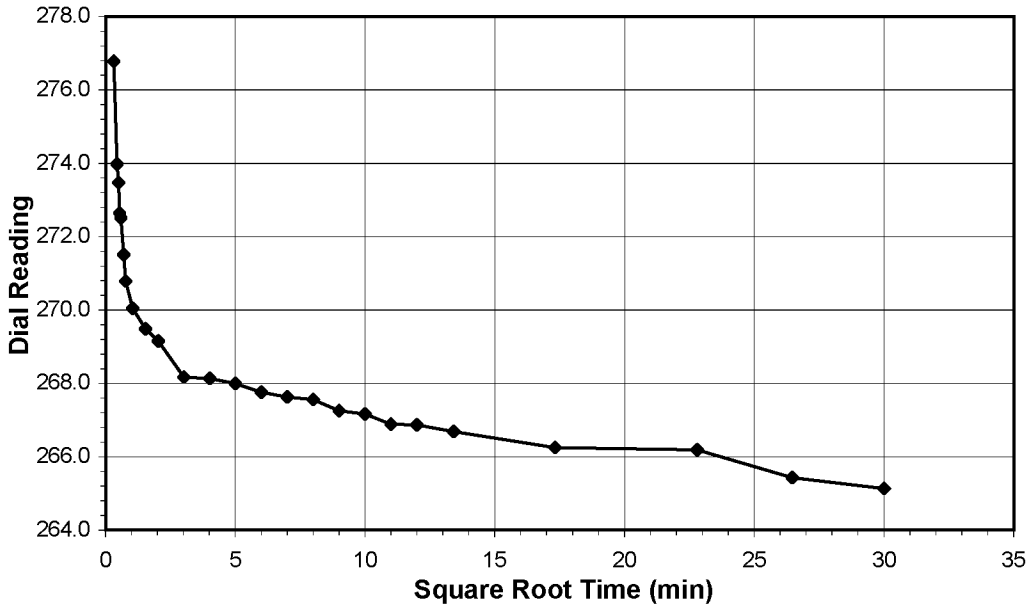
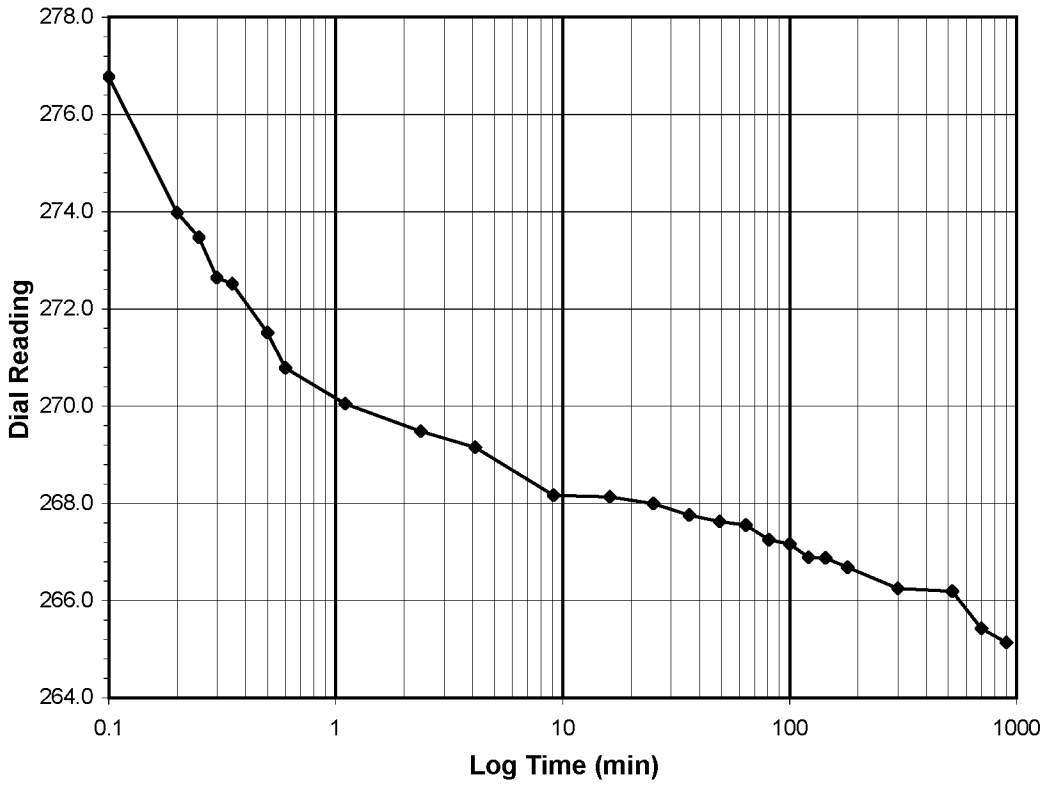
Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**4.0-1.0**
Final Reading	**(div)**	**265.1**
Consolidometer No.		**G1424**
1 Division	(in)	0.0001
Start Date		11/21/13
Start Time		16:48:41

Elapsed Time (min)	Dial Reading (div)
Initial	**322.3**
0.10	276.8
0.20	274.0
0.25	273.5
0.30	272.6
0.35	272.5
0.50	271.5
0.60	270.8
1.10	270.0
2.37	269.5
4.12	269.2
9.12	268.2
16.12	268.1
25.12	268.0
36.12	267.8
49.12	267.6
64.12	267.6
81.12	267.3
100.12	267.2
121.12	266.9
144.12	266.9
180.12	266.7
300.12	266.3
520.12	266.2
700.12	265.4
900.23	265.1

Tested By *DB* *Date* *11/21/13* *Checked By* *TM* *Date* *12/6/13*

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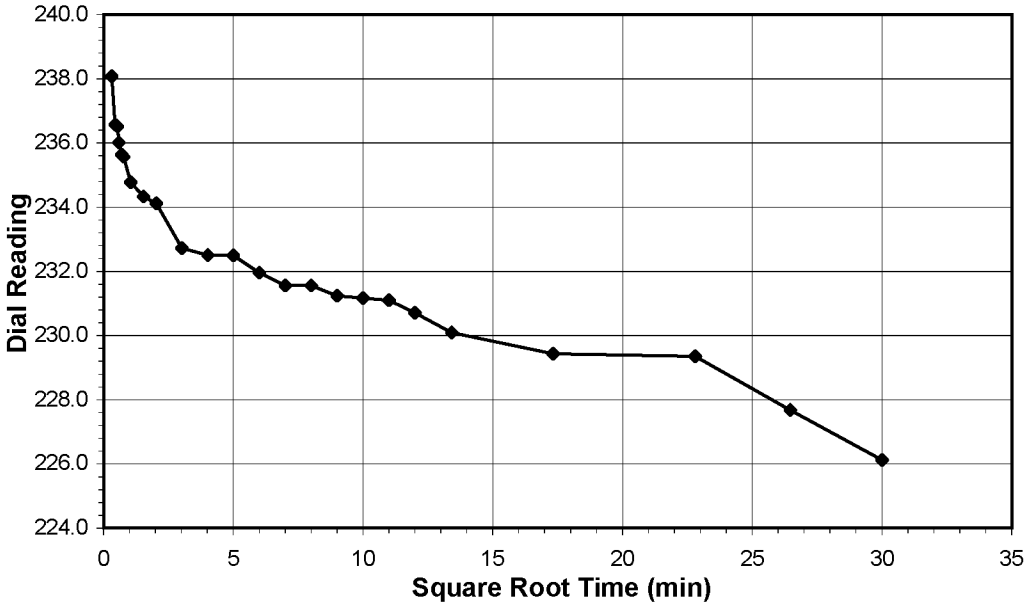

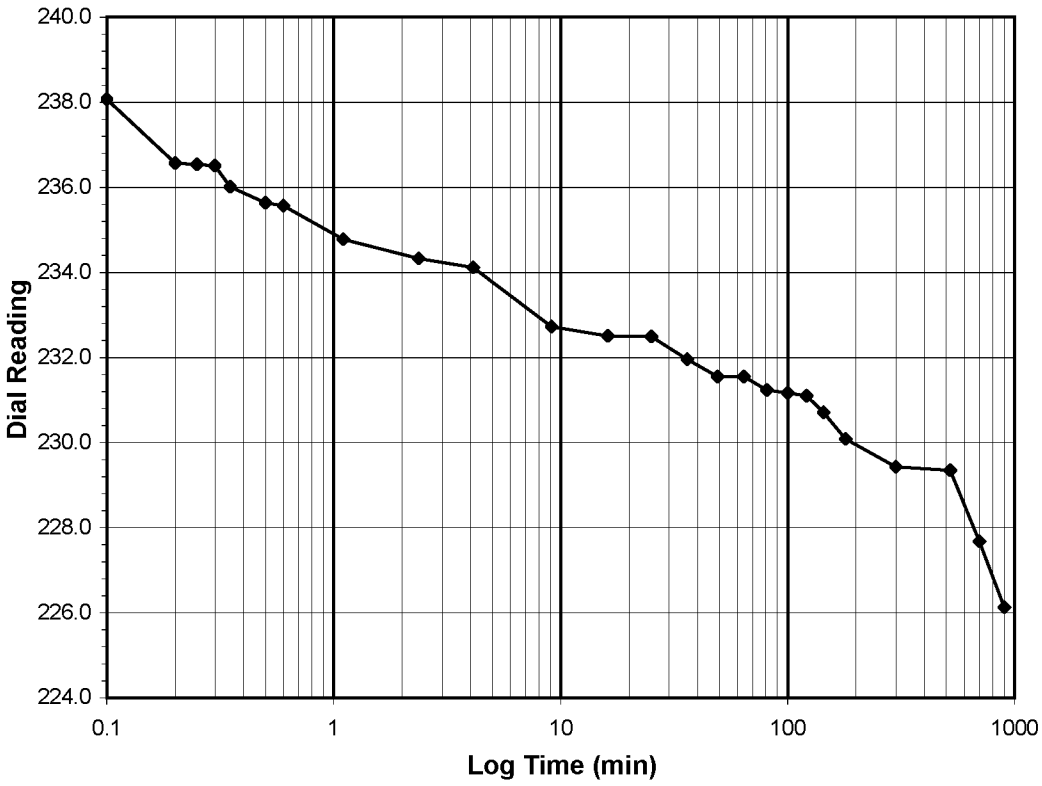

Test Load	**(tsf)**	**1.0-0.25**
Final Reading	**(div)**	**226.1**
Consolidometer No.		**G1424**
1 Division	(in)	0.0001
Start Date		11/22/13
Start Time		7:48:55

Elapsed Time (min)	Dial Reading (div)
Initial	**265.1**
0.10	238.1
0.20	236.6
0.25	236.5
0.30	236.5
0.35	236.0
0.50	235.6
0.60	235.6
1.10	234.8
2.37	234.3
4.12	234.1
9.12	232.7
16.12	232.5
25.12	232.5
36.12	232.0
49.12	231.6
64.12	231.6
81.12	231.2
100.12	231.2
121.12	231.1
144.12	230.7
180.12	230.1
300.12	229.4
520.12	229.3
700.12	227.7
900.23	226.1

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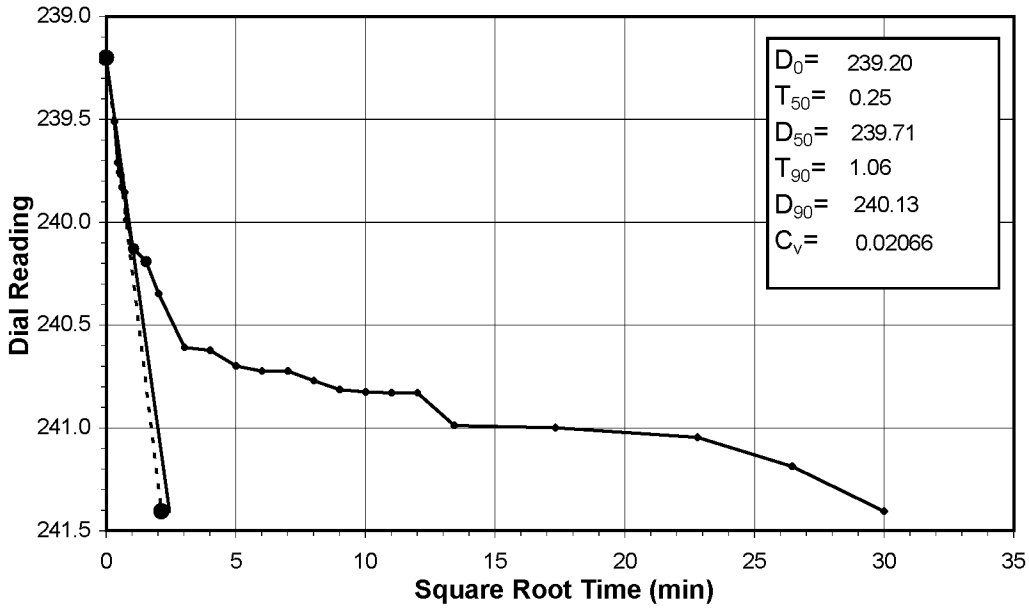
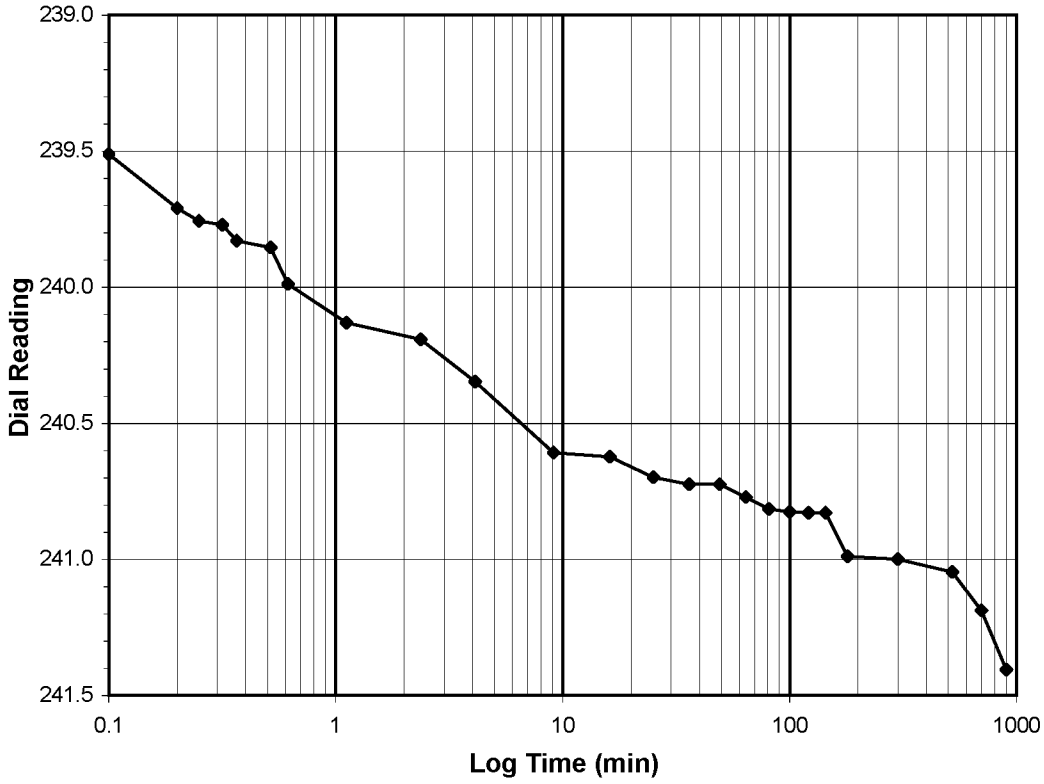
Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**0.25-0.5**
Final Reading (div)	**241.4**
Consolidometer No.	**G1424**
1 Division (in)	0.0001
Start Date	11/22/13
Start Time	22:49:09

Elapsed Time (min)	Dial Reading (div)
Initial	**226.1**
0.10	239.5
0.20	239.7
0.25	239.8
0.32	239.8
0.37	239.8
0.52	239.9
0.62	240.0
1.12	240.1
2.37	240.2
4.12	240.3
9.12	240.6
16.12	240.6
25.12	240.7
36.12	240.7
49.12	240.7
64.12	240.8
81.12	240.8
100.13	240.8
121.13	240.8
144.13	240.8
180.13	241.0
300.13	241.0
520.13	241.0
700.13	241.2
900.23	241.4

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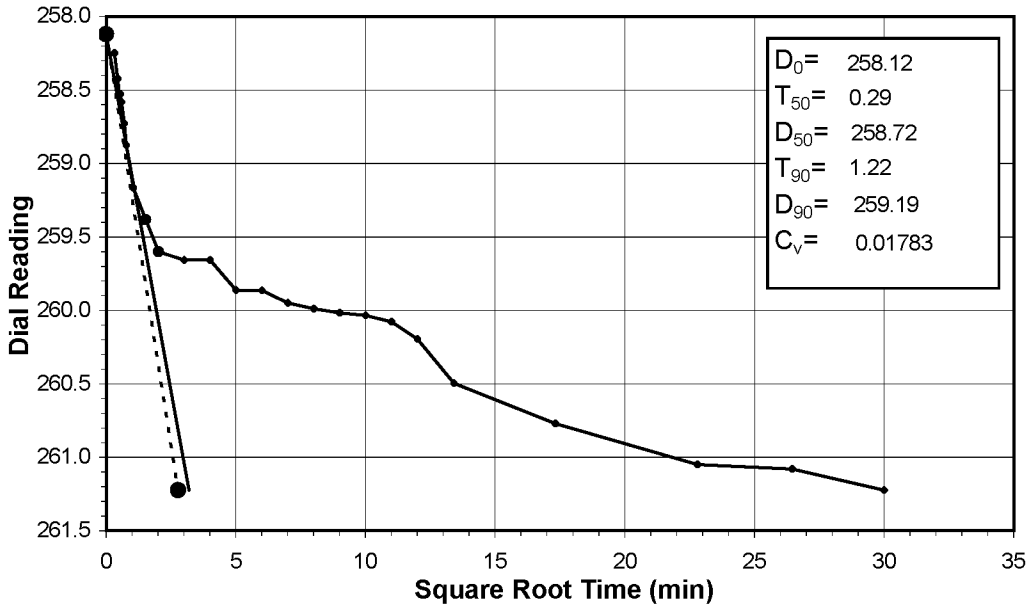

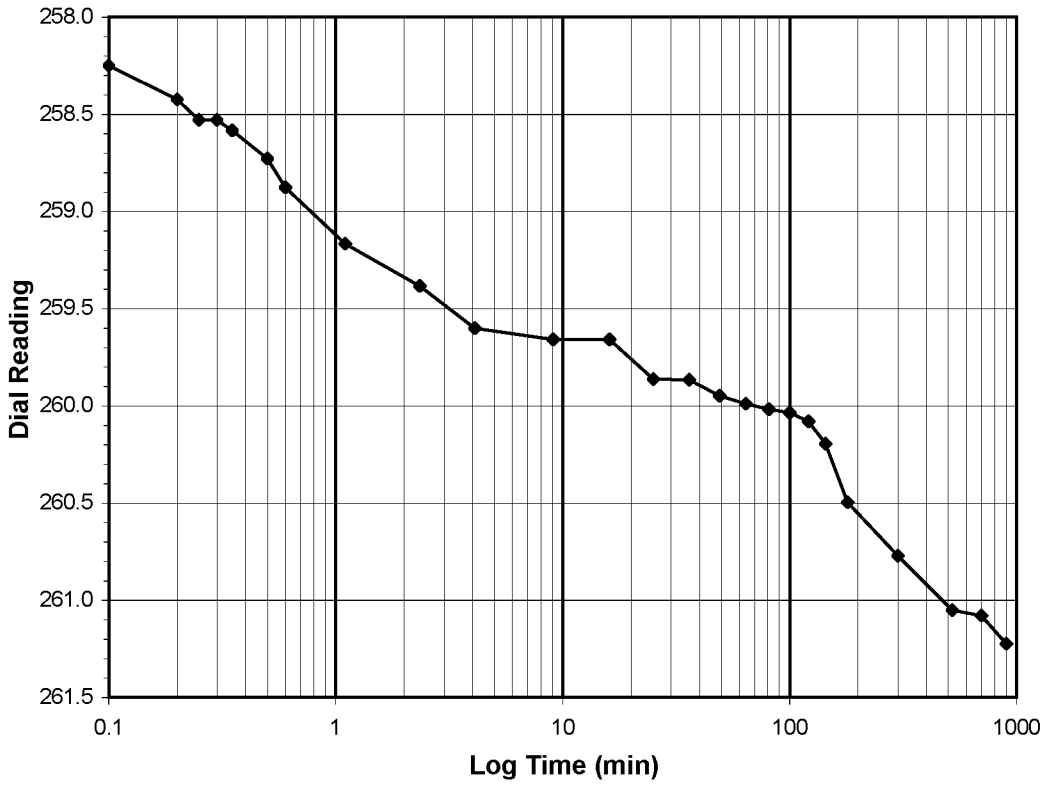

Test Load (tsf)	**0.5-1.0**
Final Reading (div)	**261.2**
Consolidometer No.	**G1424**
1 Division (in)	0.0001
Start Date	11/23/13
Start Time	13:49:24

Elapsed Time (min)	Dial Reading (div)
Initial	**241.4**
0.10	258.2
0.20	258.4
0.25	258.5
0.30	258.5
0.35	258.6
0.50	258.7
0.60	258.9
1.10	259.2
2.35	259.4
4.10	259.6
9.10	259.7
16.10	259.7
25.10	259.9
36.10	259.9
49.10	259.9
64.10	260.0
81.10	260.0
100.10	260.0
121.12	260.1
144.12	260.2
180.12	260.5
300.12	260.8
520.12	261.0
700.12	261.1
900.22	261.2

Tested By DB *Date* 11/23/13 *Checked By* TM *Date* 12/6/13

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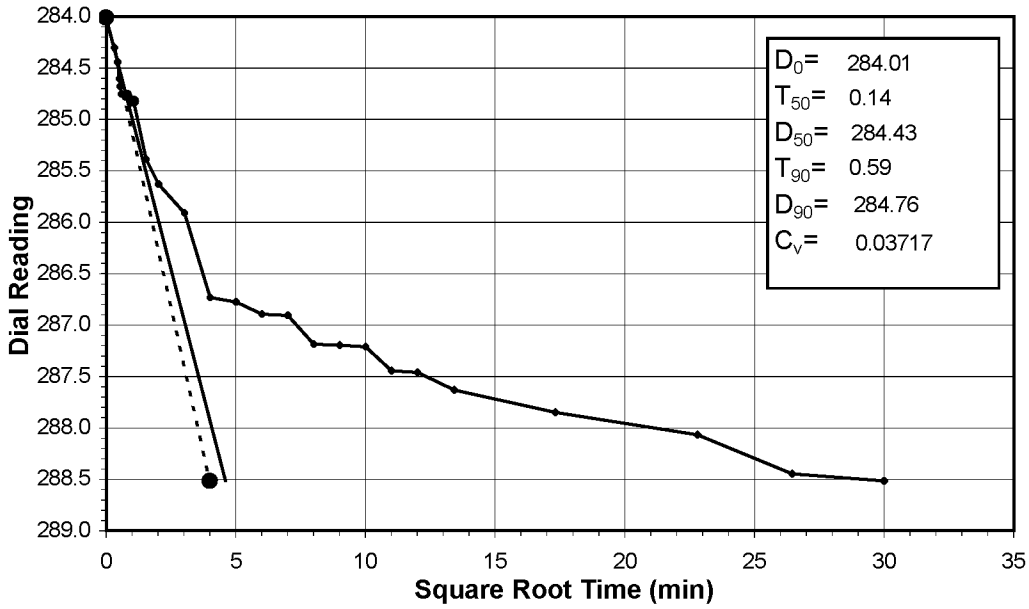
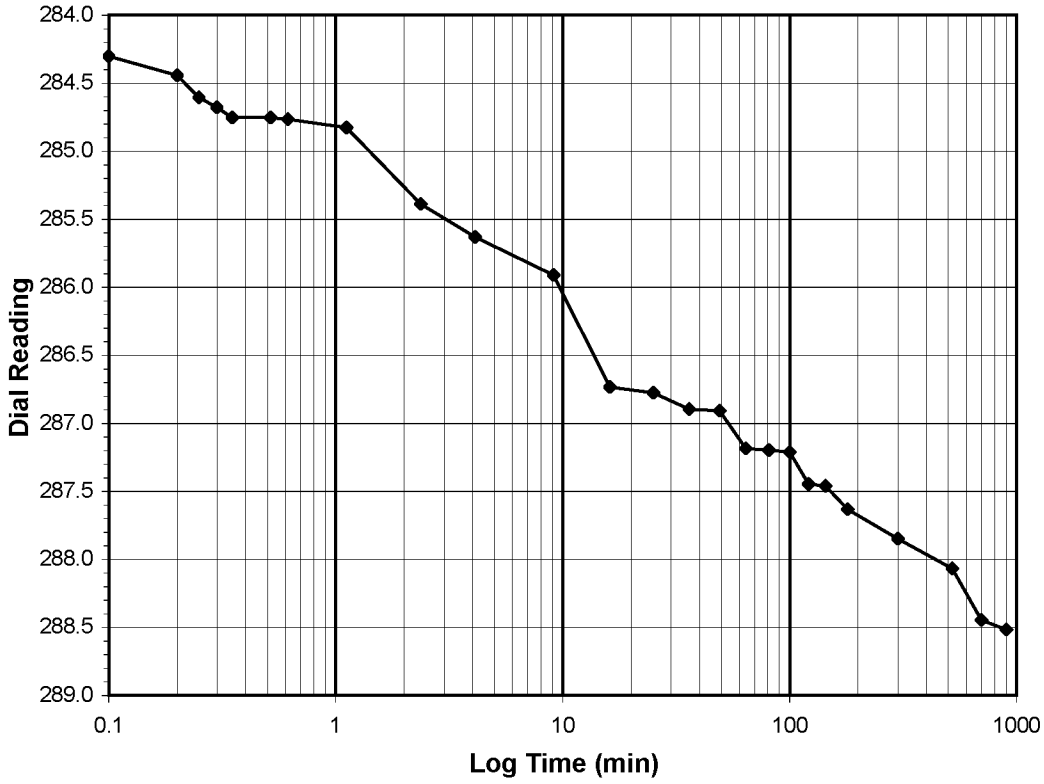
Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**1.0-2.0**
Final Reading (div)	**288.5**
Consolidometer No.	**G1424**
1 Division (in)	0.0001
Start Date	11/24/13
Start Time	4:49:37

Elapsed Time (min)	Dial Reading (div)
Initial	**261.2**
0.10	284.3
0.20	284.4
0.25	284.6
0.30	284.7
0.35	284.8
0.52	284.8
0.62	284.8
1.12	284.8
2.37	285.4
4.12	285.6
9.12	285.9
16.12	286.7
25.12	286.8
36.12	286.9
49.12	286.9
64.12	287.2
81.12	287.2
100.12	287.2
121.12	287.4
144.12	287.5
180.13	287.6
300.13	287.8
520.13	288.1
700.13	288.4
900.32	288.5

Tested By DB *Date* 11/24/13 *Checked By* TM *Date* 12/6/13

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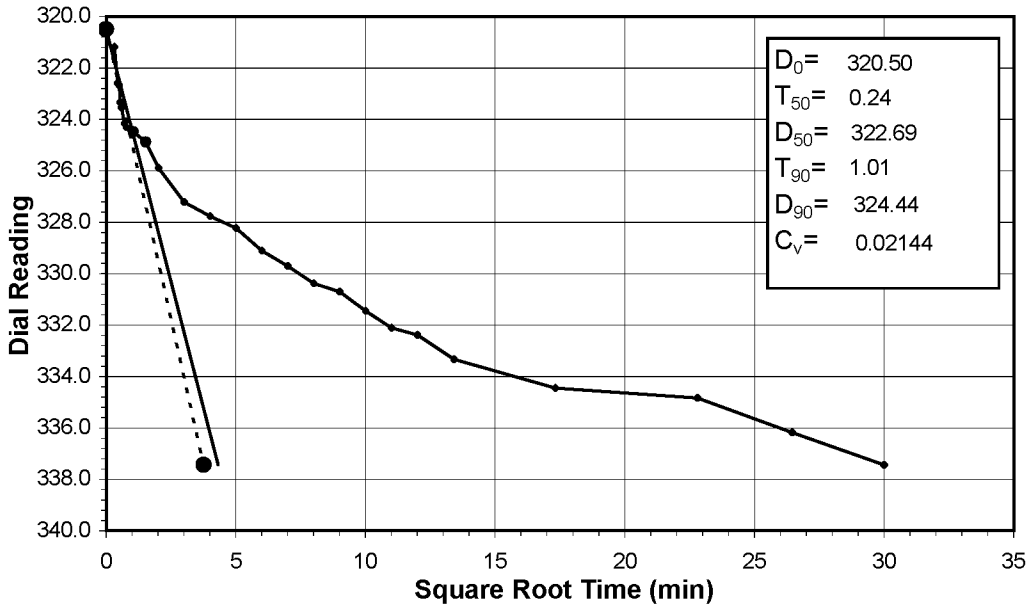
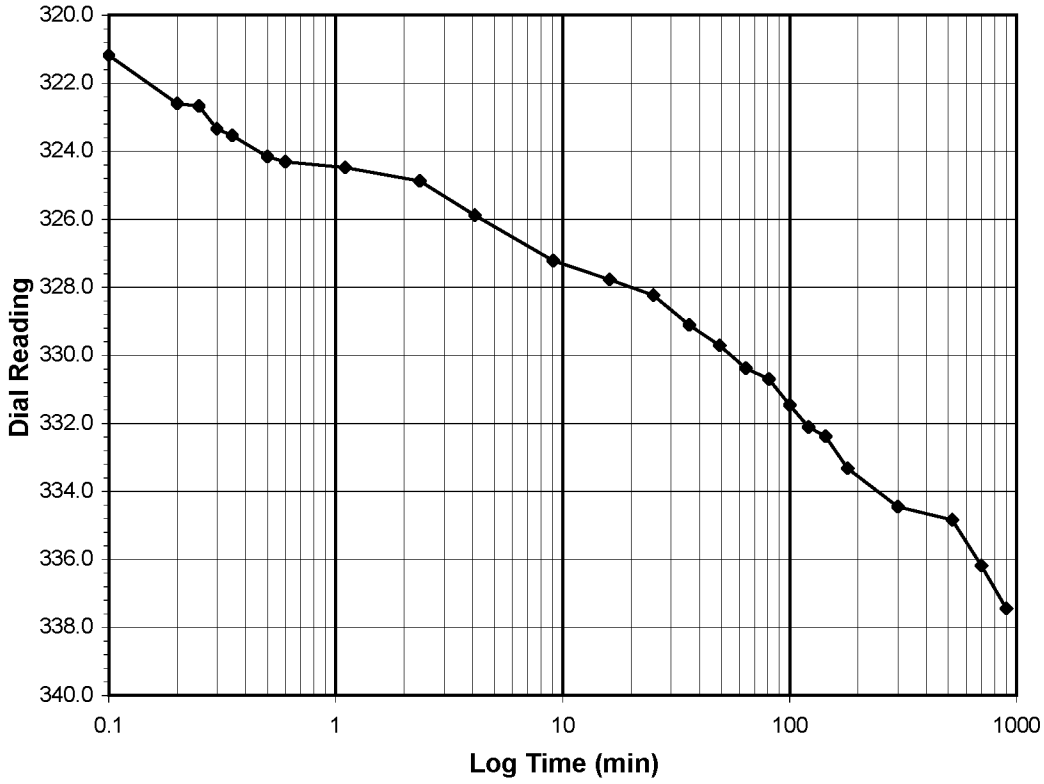
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**2.0-4.0**
Final Reading (div)	**337.4**
Consolidometer No.	**G1424**
1 Division (in)	0.0001
Start Date	11/24/13
Start Time	19:49:56

Elapsed Time (min)	Dial Reading (div)
Initial	**288.5**
0.10	321.2
0.20	322.6
0.25	322.7
0.30	323.3
0.35	323.5
0.50	324.2
0.60	324.3
1.10	324.5
2.35	324.9
4.10	325.9
9.10	327.2
16.10	327.8
25.12	328.2
36.12	329.1
49.12	329.7
64.12	330.4
81.12	330.7
100.12	331.5
121.12	332.1
144.12	332.4
180.12	333.3
300.12	334.5
520.12	334.8
700.12	336.2
900.28	337.4

Tested By DB *Date* 11/24/13 *Checked By* TM *Date* 12/6/13

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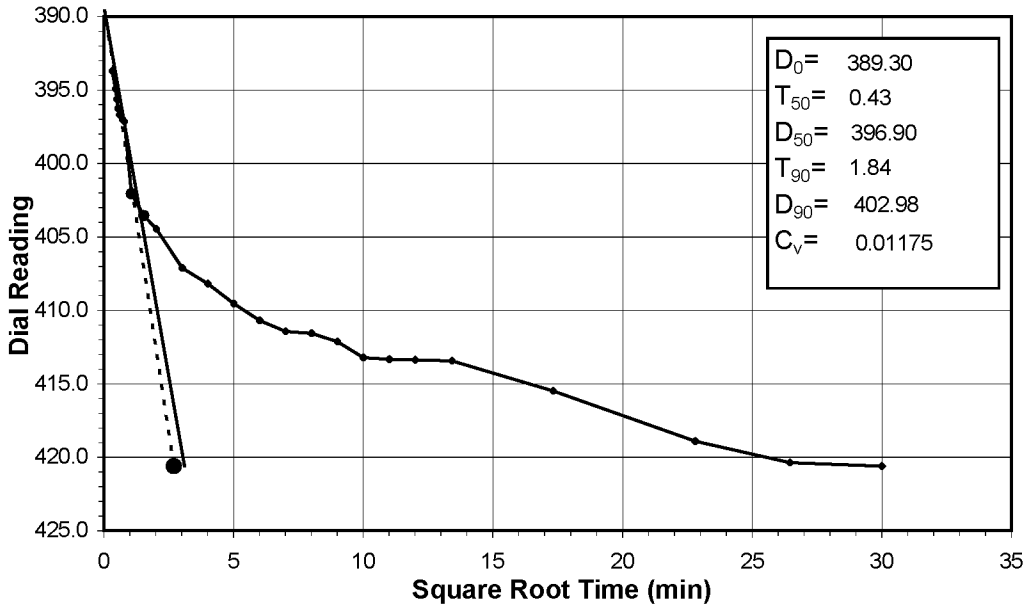
A-1455

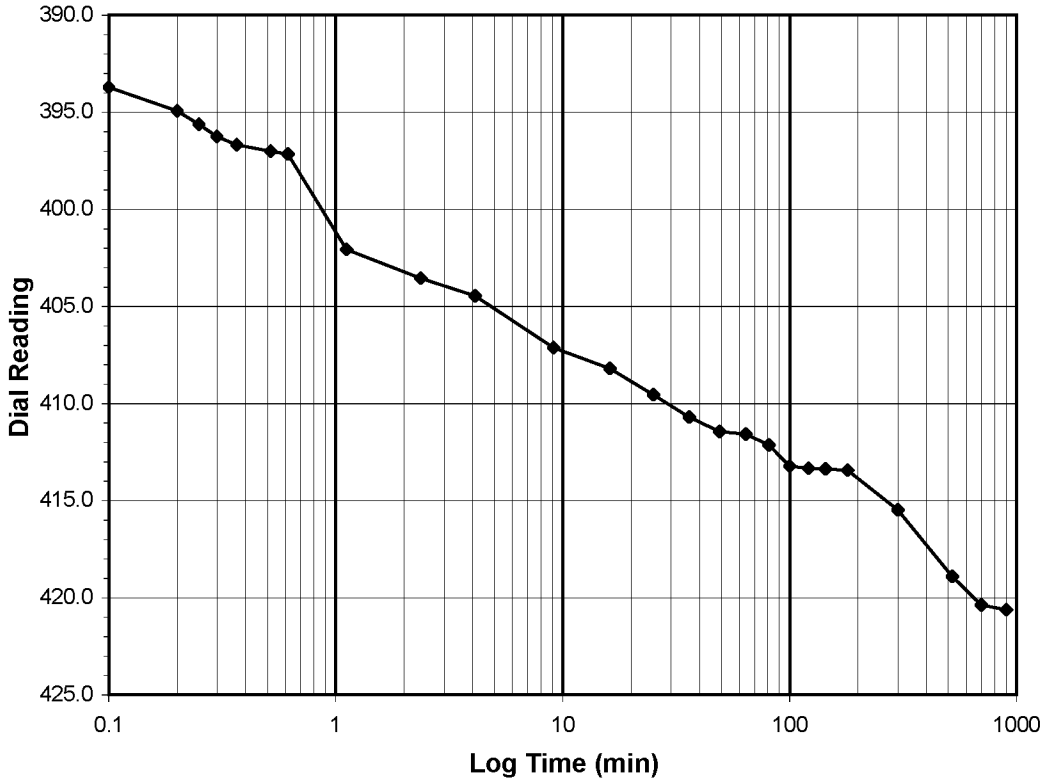
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**4.0-8.0**
Final Reading	**(div)**	**420.6**
Consolidometer No.		**G1424**
1 Division	(in)	0.0001
Start Date		11/25/13
Start Time		10:50:13

Elapsed Time (min)	Dial Reading (div)
Initial	**337.4**
0.10	393.7
0.20	394.9
0.25	395.6
0.30	396.2
0.37	396.7
0.52	397.0
0.62	397.1
1.12	402.1
2.37	403.5
4.12	404.5
9.12	407.1
16.12	408.2
25.12	409.5
36.12	410.7
49.12	411.4
64.12	411.6
81.12	412.1
100.12	413.2
121.12	413.3
144.12	413.4
180.13	413.4
300.13	415.5
520.13	418.9
700.13	420.4
900.30	420.6

Tested By DB *Date* 11/25/13 *Checked By* TM *Date* 12/6/13

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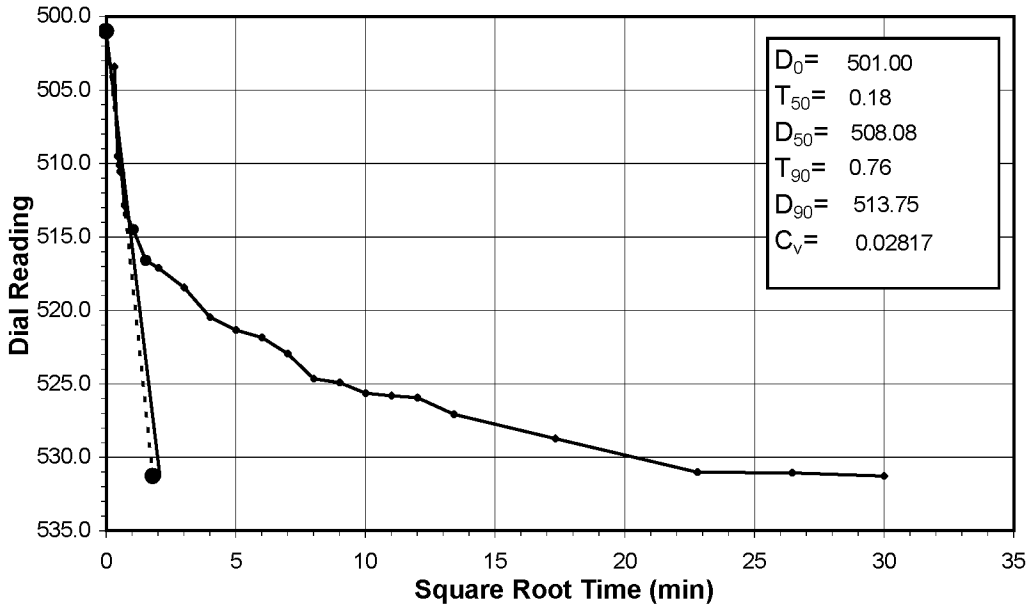
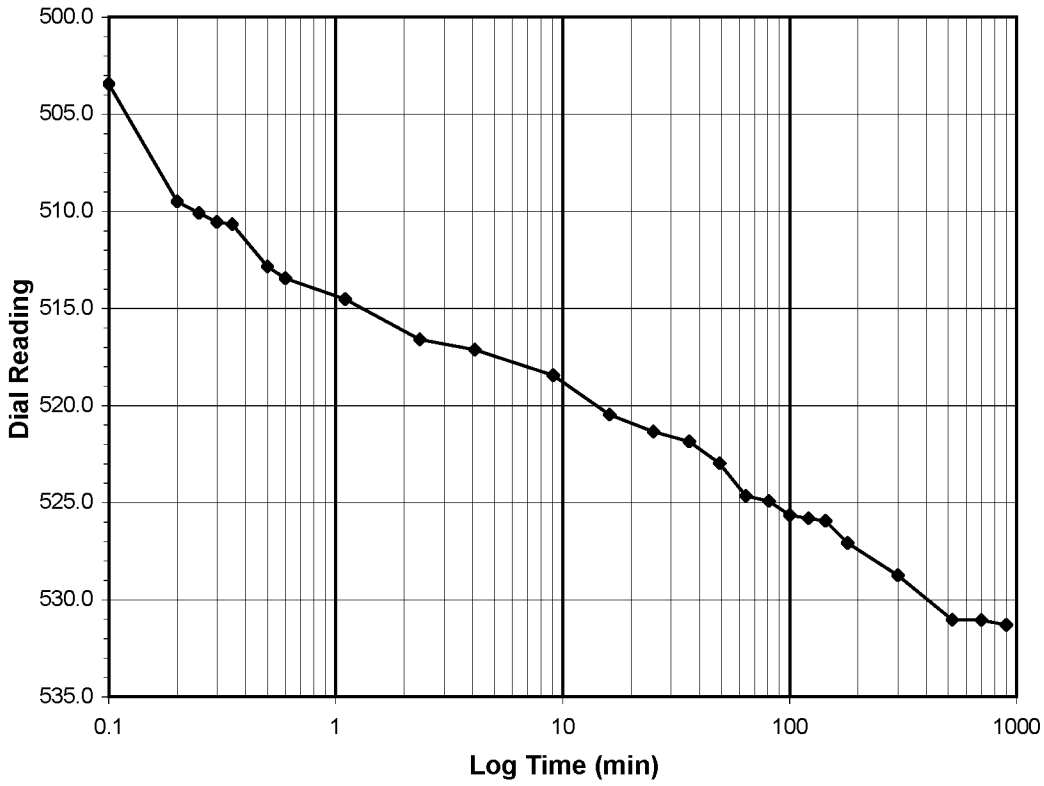
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**8.0-16.0**
Final Reading	**(div)**	**531.3**
Consolidometer No.		**G1424**
1 Division	(in)	0.0001
Start Date		11/26/13
Start Time		1:50:31

Elapsed Time (min)	Dial Reading (div)
Initial	**420.6**
0.10	503.4
0.20	509.5
0.25	510.1
0.30	510.5
0.35	510.7
0.50	512.8
0.60	513.4
1.10	514.5
2.35	516.6
4.10	517.1
9.10	518.4
16.10	520.5
25.10	521.3
36.10	521.8
49.10	523.0
64.12	524.7
81.12	524.9
100.12	525.6
121.12	525.8
144.12	525.9
180.12	527.1
300.12	528.7
520.12	531.0
700.12	531.1
900.33	531.3

Tested By DB *Date* 11/26/13 *Checked By* TM *Date* 12/6/13

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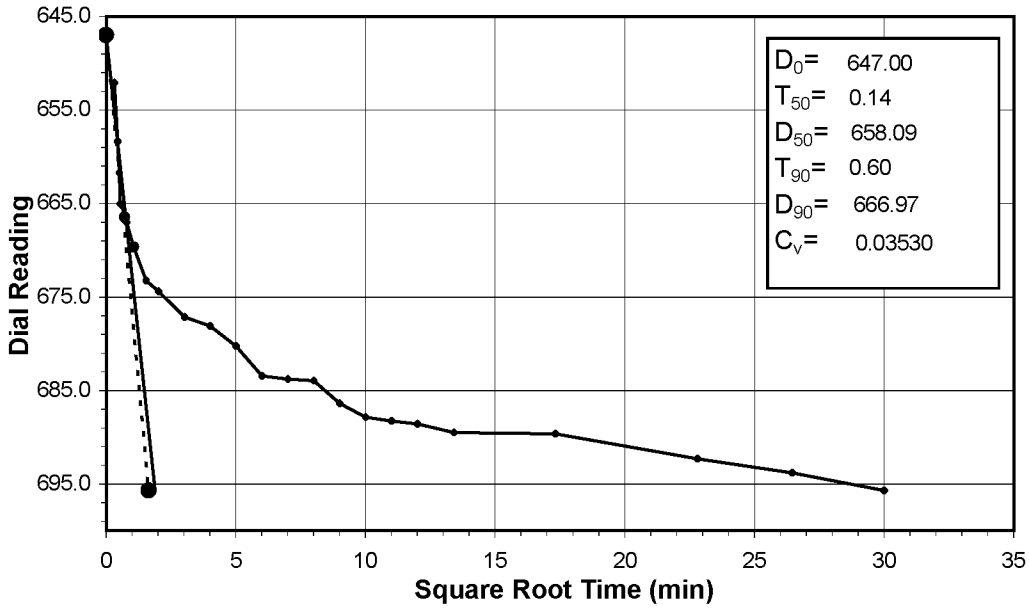
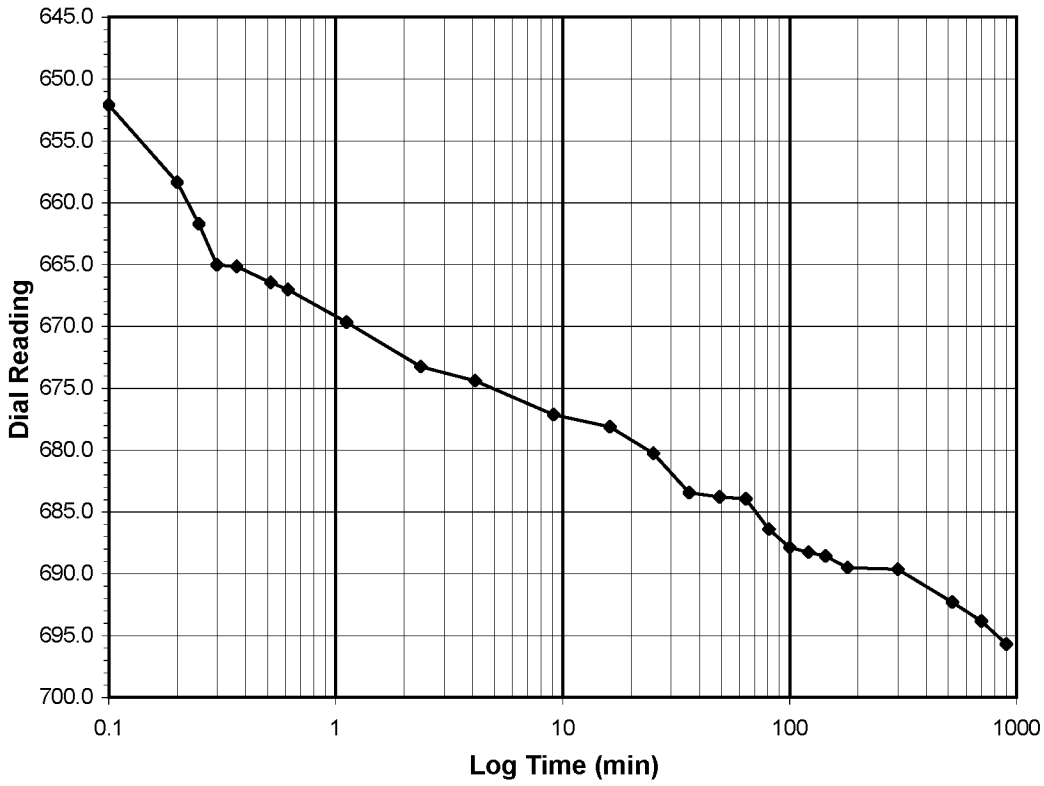
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**16.0-32.0**
Final Reading	**(div)**	**695.7**
Consolidometer No.		**G1424**
1 Division	(in)	0.0001
Start Date		11/26/13
Start Time		16:50:51

Elapsed Time (min)	Dial Reading (div)
Initial	**531.3**
0.10	652.1
0.20	658.3
0.25	661.7
0.30	665.0
0.37	665.1
0.52	666.5
0.62	667.0
1.12	669.6
2.37	673.2
4.12	674.4
9.12	677.1
16.12	678.1
25.12	680.3
36.12	683.4
49.12	683.8
64.12	683.9
81.12	686.4
100.12	687.9
121.12	688.3
144.12	688.6
180.12	689.5
300.12	689.6
520.12	692.3
700.12	693.8
900.28	695.7

Tested By DB *Date* 11/26/13 *Checked By* TM *Date* 12/6/13

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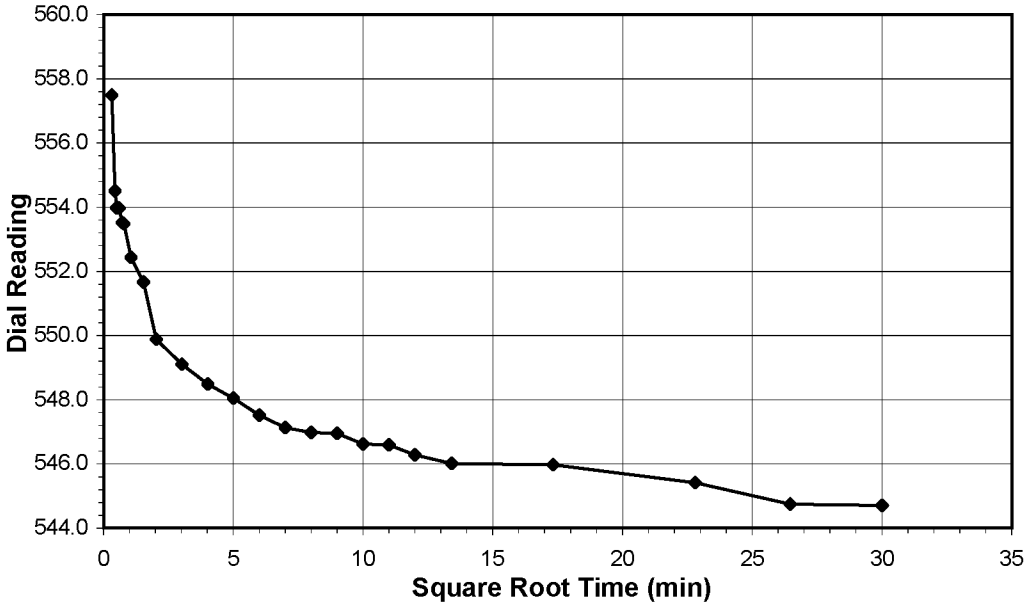
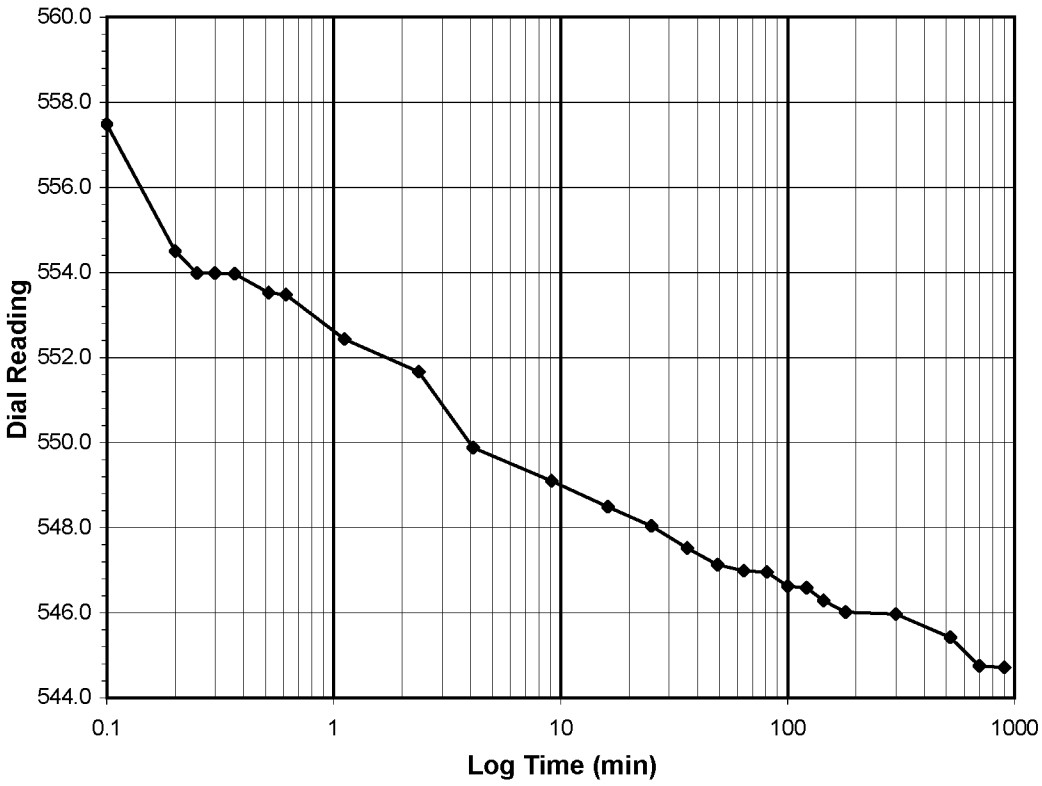
ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**32.0-8.0**
Final Reading	**(div)**	**544.7**
Consolidometer No.		**G1424**
1 Division	(in)	0.0001
Start Date		11/27/13
Start Time		7:51:08

Elapsed Time (min)	Dial Reading (div)
Initial	**695.7**
0.10	557.5
0.20	554.5
0.25	554.0
0.30	554.0
0.37	554.0
0.52	553.5
0.62	553.5
1.12	552.4
2.37	551.7
4.12	549.9
9.12	549.1
16.12	548.5
25.12	548.0
36.12	547.5
49.12	547.1
64.12	547.0
81.12	547.0
100.13	546.6
121.13	546.6
144.13	546.3
180.13	546.0
300.13	546.0
520.13	545.4
700.13	544.8
900.15	544.7

Tested By DB *Date* 11/27/13 *Checked By* TM *Date* 12/6/13

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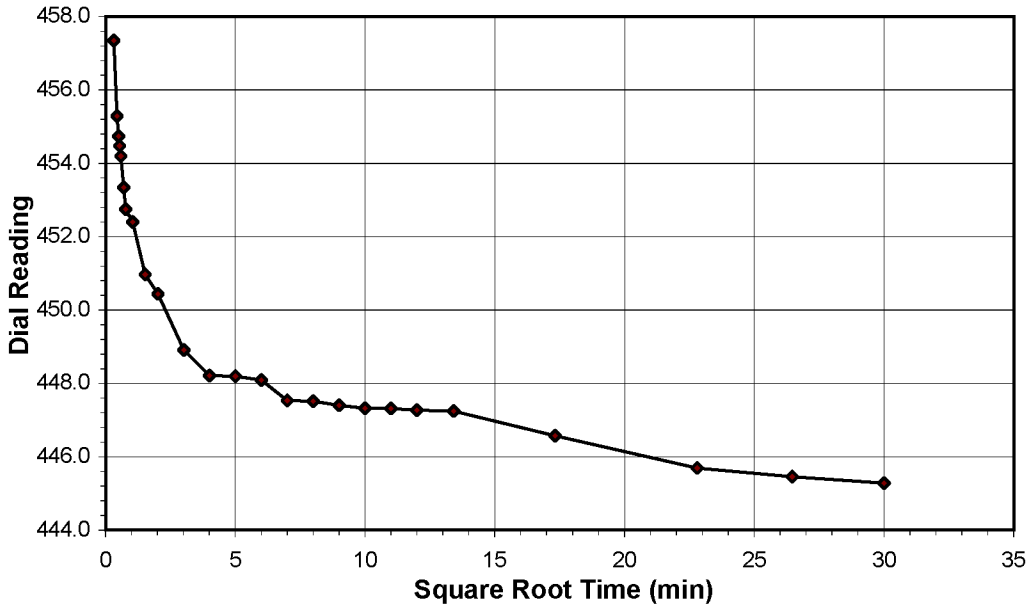
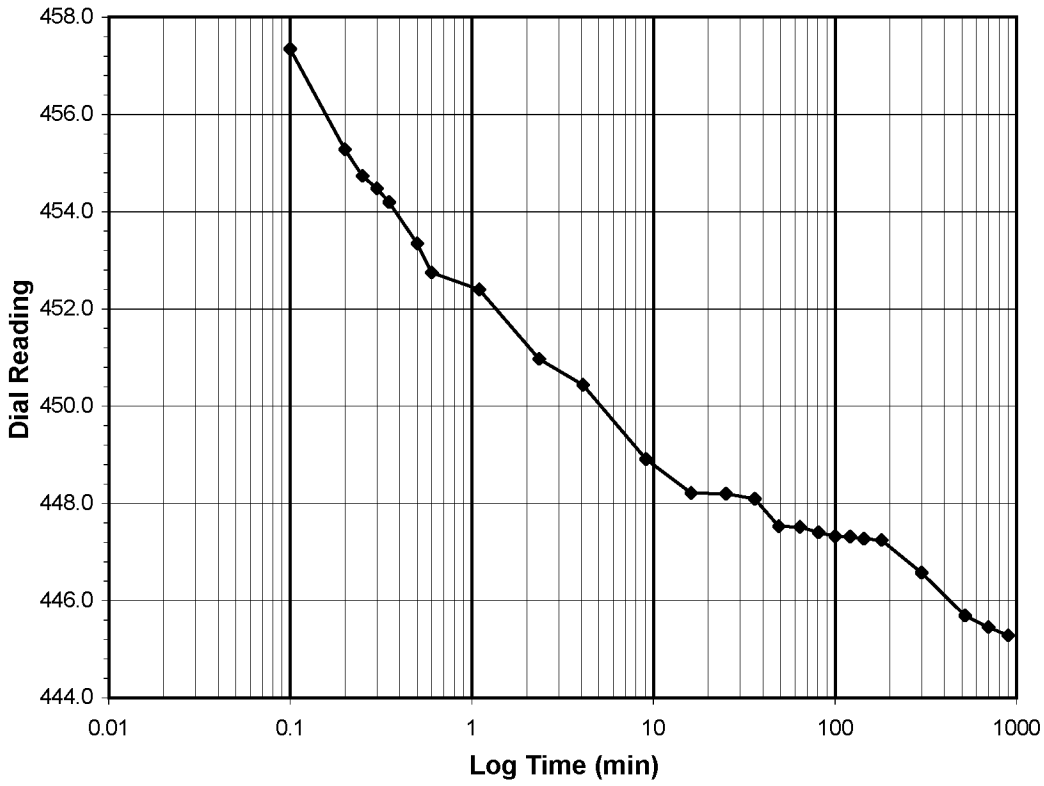
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load	**(tsf)**	**8.0-2.0**
Final Reading	**(div)**	**445.3**
Consolidometer No.		**G1424**
1 Division	(in)	0.0001
Start Date		11/27/13
Start Time		22:51:17

Elapsed Time (min)	Dial Reading (div)
Initial	**544.7**
0.10	457.3
0.20	455.3
0.25	454.7
0.30	454.5
0.35	454.2
0.50	453.3
0.60	452.8
1.10	452.4
2.35	451.0
4.10	450.4
9.10	448.9
16.10	448.2
25.10	448.2
36.10	448.1
49.10	447.5
64.10	447.5
81.10	447.4
100.12	447.3
121.12	447.3
144.12	447.3
180.12	447.2
300.12	446.6
520.12	445.7
700.12	445.5
900.07	445.3

Tested By *DB* *Date* *11/27/13* *Checked By* *TM* *Date* *12/6/13*

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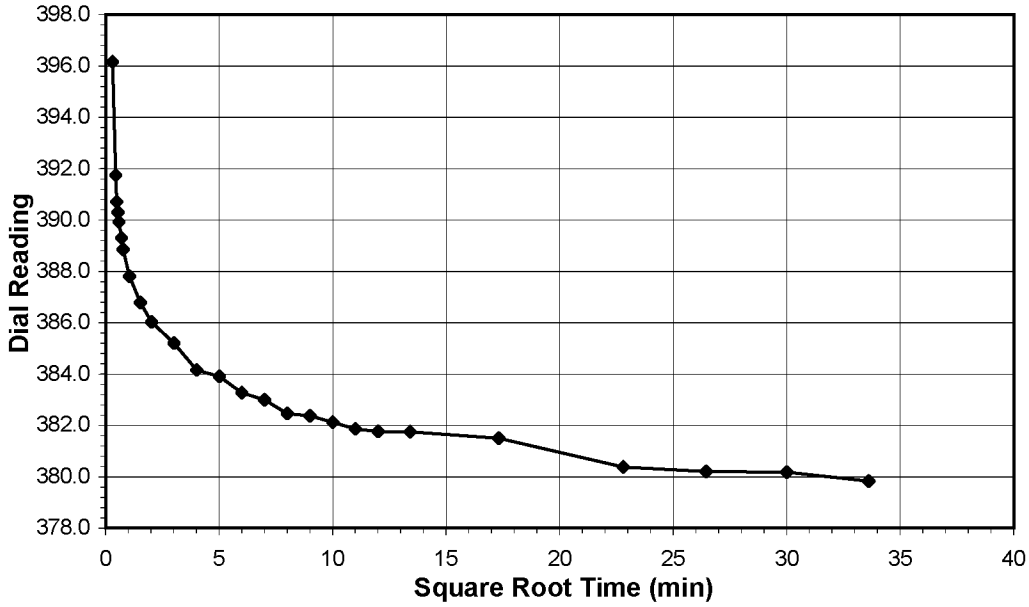
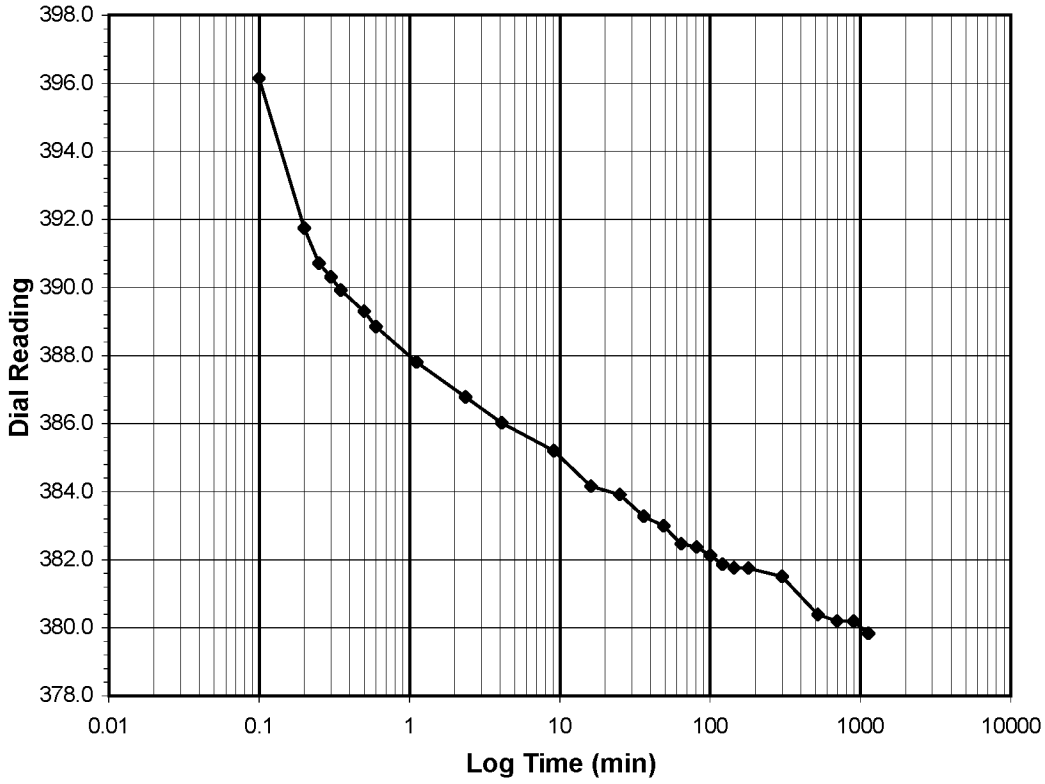
ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Project	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained





Test Load (tsf)	**2.0-0.5**
Final Reading (div)	**379.8**
Consolidometer No.	**G1424**
1 Division (in)	0.0001
Start Date	11/28/13
Start Time	13:51:21

Elapsed Time (min)	Dial Reading (div)
Initial	**445.3**
0.10	396.1
0.20	391.8
0.25	390.7
0.30	390.3
0.35	389.9
0.50	389.3
0.60	388.9
1.12	387.8
2.37	386.8
4.12	386.0
9.12	385.2
16.12	384.2
25.12	383.9
36.12	383.3
49.12	383.0
64.12	382.5
81.12	382.4
100.12	382.1
121.12	381.9
144.12	381.8
180.12	381.8
300.12	381.5
520.12	380.4
700.12	380.2
900.27	380.2
1130.40	379.8

Tested By DB *Date* 11/28/13 *Checked By* TM *Date* 12/6/13

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ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained
Consolidometer No. G1424
1 Division = 0.0001 (in)

Sample Properties	**Initial**	**Final**
Water Content		
Tare Number	2661	2752
Wt. Tare & WS (g)	121.54	161.86
Wt. Tare & DS (g)	90.81	130.75
Wt. Water (g)	30.73	31.11
Wt. Tare (g)	6.65	6.88
Wt. DS (g)	84.16	123.87
Water Content (%)	36.51	25.12
Sample Parameters		
Sample Diameter (in)	2.5	2.5
Sample Height (in)	1.0000	0.9689
Sample Volume (cm^3)	80.44	77.93
Wt. Wet Sample + Ring (g)	370.36	357.33
Wt. of Ring (g)	214.26	214.26
Wt. of Wet Sample (g)	156.10	143.07
Wet Density (pcf)	121.09	114.55
Wet Density (g/cm^3)	1.94	1.84
Water Content (%)	36.51	25.12
Wt. of Dry Sample (g)	114.35	114.35
Dry Density (pcf)	88.70	91.56
Dry Density (g/cm^3)	1.42	1.47
Void Ratio	0.8290	0.7720
Saturation (%)	114.52	84.58
Specific Gravity	2.60	*Measured*

Test Data Summary

Applied Pressure (tsf)	Final Dial Reading (div)	Machine Deflection (div)	Corrected Reading (div)	Height of Sample (mm)	Volume (cm^3)	Dry Density (g/cm^3)	Void Ratio
Seating	0	0	0	25.400	80.440	1.42153	**0.82902**
0.25	66.9	17.0	49.9	25.273	80.039	1.42866	**0.81989**
0.5	123.8	22.5	101.3	25.143	79.625	1.43608	**0.81048**
1	185.4	31.8	153.6	25.010	79.204	1.44370	**0.80093**
2	260.7	56.2	204.5	24.881	78.795	1.45120	**0.79162**
4	322.3	87.6	234.7	24.804	78.552	1.45569	**0.78610**
1	265.1	52.8	212.3	24.861	78.732	1.45237	**0.79018**
0.25	226.1	24.8	201.4	24.889	78.820	1.45074	**0.79219**
0.5	241.4	31.4	210.0	24.867	78.751	1.45202	**0.79061**
1	261.2	45.6	215.6	24.852	78.706	1.45285	**0.78958**
2	288.5	60.3	228.3	24.820	78.604	1.45473	**0.78727**
4	337.4	86.5	250.9	24.763	78.421	1.45812	**0.78312**
8	420.6	137.0	283.6	24.680	78.159	1.46301	**0.77715**
16	531.3	196.5	334.8	24.550	77.747	1.47077	**0.76778**
32	695.7	283.7	412.0	24.354	77.126	1.48261	**0.75367**
8	544.7	174.5	370.3	24.460	77.461	1.47619	**0.76130**
2	445.3	104.7	340.6	24.535	77.700	1.47166	**0.76672**
0.5	379.8	68.4	311.5	24.609	77.934	1.46723	**0.77205**

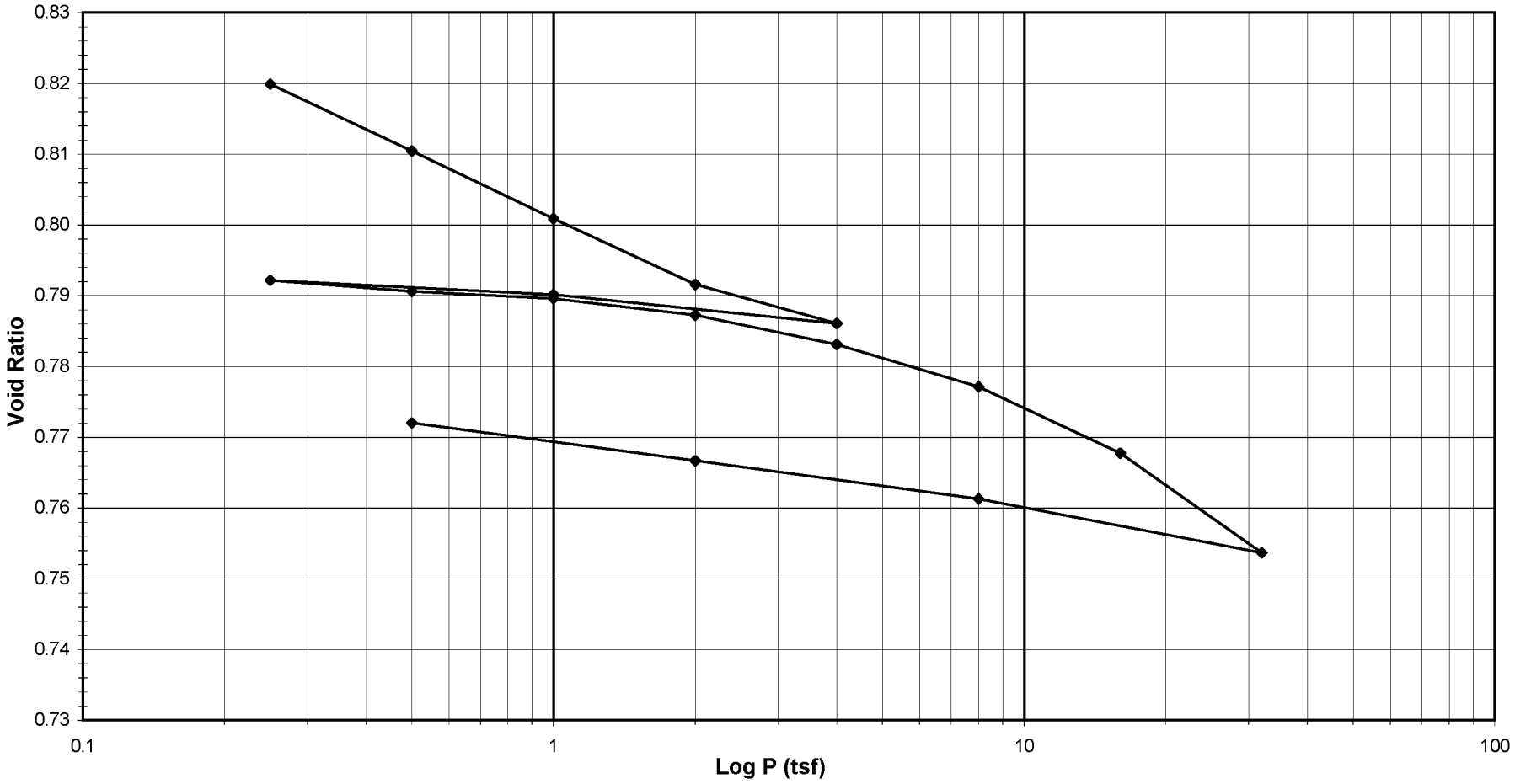
Tested By *DB* *Date* *11/18/13* *Input Checked By* *TM* *Date* *12/6/13*

ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained



Tested By DB *Date* 11/18/13 *Approved By* RJO *Date* 12/6/13

DCN: CT-24 AutoT50-CV Date: 1127/13 Revision: 0

ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained
Consolidometer No. G1424
1 Division = 0.0001 (in)

Sample Properties	**Initial**	**Final**
Water Content		
Tare Number	2661	2752
Wt. Tare & WS (g)	121.54	161.86
Wt. Tare & DS (g)	90.81	130.75
Wt. Water (g)	30.73	31.11
Wt. Tare (g)	6.65	6.88
Wt. DS (g)	84.16	123.87
Water Content (%)	36.51	25.12
Sample Parameters		
Sample Diameter (in)	2.5	2.5
Sample Height (in)	1.0000	0.9689
Sample Volume (cm^3)	80.44	77.93
Wt. Wet Sample + Ring (g)	370.36	357.33
Wt. of Ring (g)	214.26	214.26
Wt. of Wet Sample (g)	156.10	143.07
Wet Density (pcf)	121.09	114.55
Wet Density (g/cm^3)	1.94	1.84
Water Content (%)	36.51	25.12
Wt. of Dry Sample (g)	114.35	114.35
Dry Density (pcf)	88.70	91.56
Dry Density (g/cm^3)	1.42	1.47
Void Ratio	0.8290	0.7720
Saturation (%)	114.52	84.58
Specific Gravity	2.60	Measured

C_v Test Data Summary

Load Increment (tsf)	Dial Reading @ t_{50} (div)	Machine Deflection (div)	Corrected Dial Reading @ t_{50} (div)	Sample Height @ t_{50} (mm)	Time t_{50} (min)	C_v (cm^2/sec)
Seating	NA	NA	NA	NA	NA	NA
0.25	48.0	17.0	31.0	25.32	**0.15**	**0.03457**
0.5	109.2	22.5	86.7	25.18	**0.12**	**0.04491**
1	174.2	31.8	142.4	25.04	**0.13**	**0.04054**
2	246.2	56.2	190.0	24.92	**0.16**	**0.03164**
4	307.4	87.6	219.8	24.84	**0.14**	**0.03705**
1	NA	NA	NA	NA	NA	NA
0.25	NA	NA	NA	NA	NA	NA
0.5	239.7	31.4	208.3	24.87	**0.25**	**0.02066**
1	258.7	45.6	213.1	24.86	**0.29**	**0.01783**
2	284.4	60.3	224.2	24.83	**0.14**	**0.03717**
4	322.7	86.5	236.2	24.80	**0.24**	**0.02144**
8	396.9	137.0	259.9	24.74	**0.43**	**0.01175**
16	508.1	196.5	311.6	24.61	**0.18**	**0.02817**
32	658.1	283.7	374.4	24.45	**0.14**	**0.03530**
8	NA	NA	NA	NA	NA	NA
2	NA	NA	NA	NA	NA	NA
0.5	NA	NA	NA	NA	NA	NA

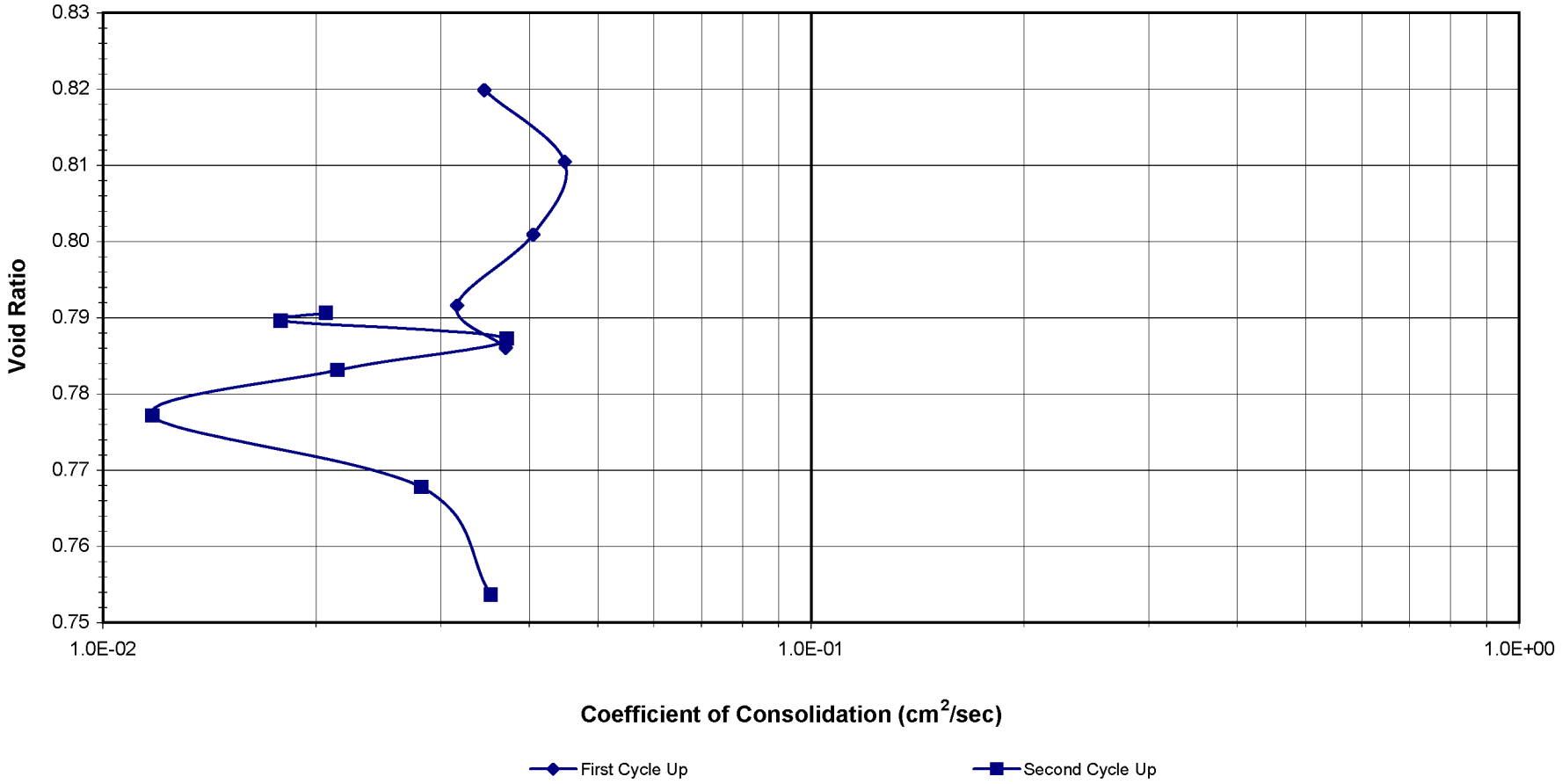
Tested By DB *Date* 11/18/13 *Input Checked By* TM *Date* 12/6/13

ONE DIMENSIONAL CONSOLIDATION

ASTM D2435 / D2435M-11

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID	2013-465-001-019	Visual Description	Gray Silty Sand

Sample Conditions: Undisturbed, Inundated And Double Drained



Tested By DB *Date* 11/18/13 *Approved By* RJO *Date* 12/6/13

DCN: CT-24 AutoT50-CV Date: 1127/13 Revision: 0

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One Dimensional Consolidation

ASTM D2435 / D2435M-11

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	390.7-390.9
Project No.	2013-465-001	Sample No.	ST-23
Lab ID #	2013-465-001-019		

Equipment	Equipment ID#	Calibration Due Date
Calipers	G1122	12/3/13
Balance	G1394	5/15/14
Oven	G1387	8/16/14
Consolidometer	G1424	1/9/14
Load Cell	G1425	1/9/14
LVDT	G1426	1/9/14

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pH OF SOILS
ASTM D 4972-01

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

Lab ID :	01
Boring No.:	R-6-1b
Depth (ft):	81.0-81.7
Sample No.:	SC-4A
Drying Tare No.	XZ
Testing Tare No.	J
Temperature (^{o}C)	20.5
pH of Sample ***Test 1***	**8.84**

Meter Calibration

Buffer pH	Meter Reading	Meter Model
4.00	4.08	ORION 720A (G940)
7.00	7.04	
10.0	10.03	

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pH of SOILS

ASTM D 4972-01

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	81.0-81.7
Project No.	2013-465-004	Sample No.	SC-4A
Lab ID #	2013-465-004-001		

Equipment	Equipment ID#	Calibration Due Date
Balance	G1485	11/11/14
#10 Sieve	G884	8/20/14
pH Meter	G940	7/9/14
pH Electrode	G1339	7/9/14
Thermometer	G1082	11/23/14

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pH OF SOILS
ASTM D 4972-01

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

Lab ID :	02
Boring No.:	R-6-1a
Depth (ft):	33.0-33.7
Sample No.:	SC-1
Drying Tare No.	Q
Testing Tare No.	O
Temperature (^{o}C)	20.5
pH of Sample ***Test 1***	**8.73**

Meter Calibration

Buffer pH	Meter Reading	Meter Model
4.00	4.08	ORION 720A (G940)
7.00	7.04	
10.0	10.03	

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pH of SOILS

ASTM D 4972-01

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1a
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	33.0-33.7
Project No.	2013-465-004	Sample No.	SC-1
Lab ID #	2013-465-004-002		

Equipment	Equipment ID#	Calibration Due Date
Balance	G1485	11/11/14
#10 Sieve	G884	8/20/14
pH Meter	G940	7/9/14
pH Electrode	G1339	7/9/14
Thermometer	G1082	11/23/14

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pH OF SOILS
ASTM D 4972-01

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

Lab ID :	03
Boring No.:	R-6-1a
Depth (ft):	114.7-115.0
Sample No.:	SC-5
Drying Tare No.	N
Testing Tare No.	H
Temperature (^{o}C)	20.5
pH of Sample ***Test 1***	**8.75**

Meter Calibration

Buffer pH	Meter Reading	Meter Model
4.00	4.08	ORION 720A (G940)
7.00	7.04	
10.0	10.03	

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pH of SOILS

ASTM D 4972-01

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1a
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	114.7-115.0
Project No.	2013-465-004	Sample No.	SC-5
Lab ID #	2013-465-004-003		

Equipment	Equipment ID#	Calibration Due Date
Balance	G1485	11/11/14
#10 Sieve	G884	8/20/14
pH Meter	G940	7/9/14
pH Electrode	G1339	7/9/14
Thermometer	G1082	11/23/14

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pH OF SOILS
ASTM D 4972-01

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

Lab ID :		04
Boring No.:		R-6-1a-A
Depth (ft):		72.6-73.5
Sample No.:		SC-1
Drying Tare No.		XA
Testing Tare No.		Q
Temperature (^{o}C)		20.5
pH of Sample	***Test 1***	**8.24**

Meter Calibration

Buffer pH	Meter Reading	Meter Model
4.00	4.08	ORION 720A (G940)
7.00	7.04	
10.0	10.03	

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pH of SOILS

ASTM D 4972-01

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1a-A
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	72.6-73.5
Project No.	2013-465-004	Sample No.	SC-1
Lab ID #	2013-465-004-004		

Equipment	Equipment ID#	Calibration Due Date
Balance	G1485	11/11/14
#10 Sieve	G884	8/20/14
pH Meter	G940	7/9/14
pH Electrode	G1339	7/9/14
Thermometer	G1082	11/23/14

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pH OF SOILS
ASTM D 4972-01

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

Lab ID :	05
Boring No.:	R-7-1
Depth (ft):	37.5-37.9
Sample No.:	SC-2
Drying Tare No.	F
Testing Tare No.	G
Temperature (^{o}C)	20.5
pH of Sample ***Test 1***	**8.85**

Meter Calibration

Buffer pH	Meter Reading	Meter Model
4.00	4.08	ORION 720A (G940)
7.00	7.04	
10.0	10.03	

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pH of SOILS

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EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	37.5-37.9
Project No.	2013-465-004	Sample No.	SC-2
Lab ID #	2013-465-004-005		

Equipment	Equipment ID#	Calibration Due Date
Balance	G1485	11/11/14
#10 Sieve	G884	8/20/14
pH Meter	G940	7/9/14
pH Electrode	G1339	7/9/14
Thermometer	G1082	11/23/14

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pH OF SOILS
ASTM D 4972-01

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

Lab ID :		06
Boring No.:		R-7-1
Depth (ft):		46.9-47.7
Sample No.:		SC-4
Drying Tare No.		M5
Testing Tare No.		R
Temperature (^{o}C)		20.5
pH of Sample	***Test 1***	**8.72**

Meter Calibration

Buffer pH	Meter Reading	Meter Model
4.00	4.08	ORION 720A (G940)
7.00	7.04	
10.0	10.03	

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EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	46.9-47.7
Project No.	2013-465-004	Sample No.	SC-4
Lab ID #	2013-465-004-006		

Equipment	Equipment ID#	Calibration Due Date
Balance	G1485	11/11/14
#10 Sieve	G884	8/20/14
pH Meter	G940	7/9/14
pH Electrode	G1339	7/9/14
Thermometer	G1082	11/23/14

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pH OF SOILS
ASTM D 4972-01

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

Lab ID :		07
Boring No.:		R-7-1
Depth (ft):		74.3-75.0
Sample No.:		SC-6
Drying Tare No.		B
Testing Tare No.		K
Temperature (^{o}C)		20.5
pH of Sample	***Test 1***	**8.98**

Meter Calibration

Buffer pH	Meter Reading	Meter Model
4.00	4.08	ORION 720A (G940)
7.00	7.04	
10.0	10.03	

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pH of SOILS

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EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	74.3-75.0
Project No.	2013-465-004	Sample No.	SC-6
Lab ID #	2013-465-004-007		

Equipment	Equipment ID#	Calibration Due Date
Balance	G1485	11/11/14
#10 Sieve	G884	8/20/14
pH Meter	G940	7/9/14
pH Electrode	G1339	7/9/14
Thermometer	G1082	11/23/14

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pH OF SOILS
ASTM D 4972-01

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

Lab ID :	08
Boring No.:	R-7-4
Depth (ft):	48.2-49.0
Sample No.:	SC-2
Drying Tare No.	00
Testing Tare No.	N
Temperature (^{o}C)	20.5
pH of Sample ***Test 1***	**8.86**

Meter Calibration

Buffer pH	Meter Reading	Meter Model
4.00	4.08	ORION 720A (G940)
7.00	7.04	
10.0	10.03	

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pH of SOILS

ASTM D 4972-01

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-4
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	48.2-49.0
Project No.	2013-465-004	Sample No.	SC-2
Lab ID #	2013-465-004-008		

Equipment	Equipment ID#	Calibration Due Date
Balance	G1485	11/11/14
#10 Sieve	G884	8/20/14
pH Meter	G940	7/9/14
pH Electrode	G1339	7/9/14
Thermometer	G1082	11/23/14

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Water-Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

Client:	Paul C. Rizzo & Associates	**Boring No.:**	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	**Depth (ft):**	81.0-81.7
Project No.:	2013-465-004	**Sample No.:**	SC-4A
Lab ID:	2013-465-004-001	**Soil Description:**	White Grainstone

Sulfate Standard - Calibration Curve Spectrophotometer Readings

Sulfate Ion Concentrations (mg/L)

0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0

Spectrophotometer Readings (FAU)

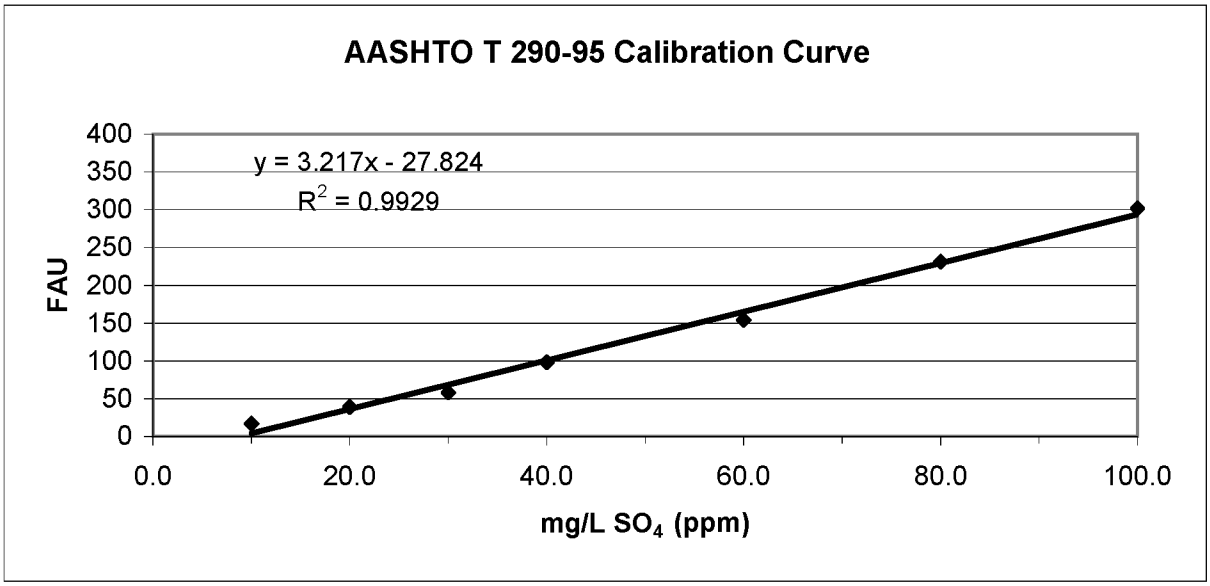
Underrange	7	17	39	58	98	154	231	302

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 ml NaCl solution and 0.3 g $BaCl_2 \cdot 2H_2O$)

Sample Weight:	100.0	grams	**NaCl Solution Mix Date:**	8/23/13
Water added to Sample:	300.0	ml	**Sample Moisture Content**	
Size of Sample Aliquot:	50.0	ml	Tare Number:	41
Sample Reading:	141	**FAU**	Weight of Tare & Wet Sample (g):	506.31
			Weight of Tare & Dry Sample (g):	505.87
			Weight of Tare (g):	206.11
Note: 25 ml of sample diluted to 50 ml = Dilution Factor of 2.			Weight of Water (g):	0.44
			Weight of Dry Sample (g):	299.76
			Water Content (%):	0.15

Sample Sulfate Ion Concentration:	104.96	**mg/L SO_4 (ppm)**
Sample Sulfate Ion Content:	314.9	**mg/kg SO_4 (not corrected for moisture)**
Sample Sulfate Ion Content:	315.3	**mg/kg SO_4 (corrected for moisture)**



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Water Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	81.0-81.7
Project No.	2013-465-004	Sample No.	SC-4A
Lab ID #	2013-465-004-001		

Equipment	Equipment ID#	Calibration Due Date
50 ml Graduated Cylinder	G1330	INITIAL ONLY
500 ml Erlenmeyer Flask	G1319	INITIAL ONLY
1000 ml Volumetric Flask	G1318	INITIAL ONLY
1000 ml Volumetric Flask	G1322	INITIAL ONLY
50 ml Volumetric Flask	G1325	INITIAL ONLY
#30 Sieve	G830	10/2/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14
Oven	G1387	8/16/14
Stopwatch	G1277	5/13/14

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Water-Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

Client:	Paul C. Rizzo & Associates	**Boring No.:**	R-6-1a
Client Reference:	Turkey Point Units 6 & 7 Site	**Depth (ft):**	33.0-33.7
Project No.:	2013-465-004	**Sample No.:**	SC-1
Lab ID:	2013-465-004-002	**Soil Description:**	White Wackestone

Sulfate Standard - Calibration Curve Spectrophotometer Readings

Sulfate Ion Concentrations (mg/L)

0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0

Spectrophotometer Readings (FAU)

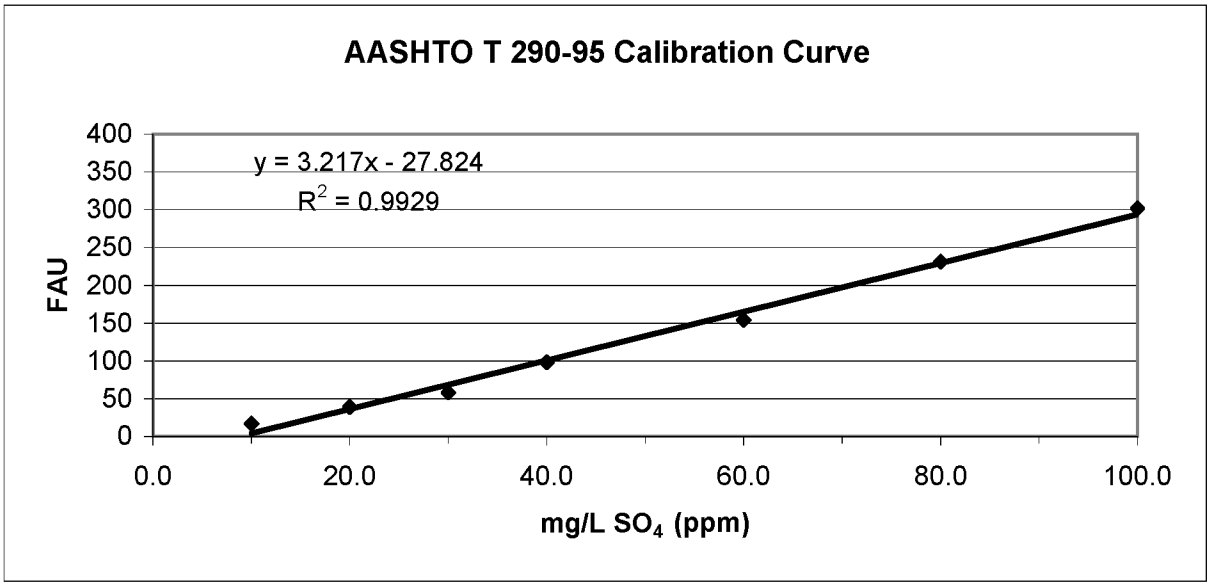
Underrange	7	17	39	58	98	154	231	302

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 ml NaCl solution and 0.3 g $BaCl_2 \cdot 2H_2O$)

Sample Weight:	100.0	grams	**NaCl Solution Mix Date:**	8/23/13
Water added to Sample:	300.0	ml	**Sample Moisture Content**	
Size of Sample Aliquot:	50.0	ml	Tare Number:	59
Sample Reading:	249	**FAU**	Weight of Tare & Wet Sample (g):	537.96
			Weight of Tare & Dry Sample (g):	537.12
			Weight of Tare (g):	200.91
			Weight of Water (g):	0.84
			Weight of Dry Sample (g):	336.21
			Water Content (%):	0.25

Sample Sulfate Ion Concentration:	86.05	**mg/L SO_4 (ppm)**
Sample Sulfate Ion Content:	258.2	**mg/kg SO_4 (not corrected for moisture)**
Sample Sulfate Ion Content:	258.8	**mg/kg SO_4 (corrected for moisture)**



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Water Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1a
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	33.0-33.7
Project No.	2013-465-004	Sample No.	SC-1
Lab ID #	2013-465-004-002		

Equipment	Equipment ID#	Calibration Due Date
50 ml Graduated Cylinder	G1330	INITIAL ONLY
500 ml Erlenmeyer Flask	G1319	INITIAL ONLY
1000 ml Volumetric Flask	G1318	INITIAL ONLY
1000 ml Volumetric Flask	G1322	INITIAL ONLY
50 ml Volumetric Flask	G1325	INITIAL ONLY
#30 Sieve	G830	10/2/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14
Oven	G1387	8/16/14
Stopwatch	G1277	5/13/14

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Water-Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

Client:	Paul C. Rizzo & Associates	**Boring No.:**	R-6-1a
Client Reference:	Turkey Point Units 6 & 7 Site	**Depth (ft):**	114.7-115.0
Project No.:	2013-465-004	**Sample No.:**	SC-5
Lab ID:	2013-465-004-003	**Soil Description:**	White Grainstone

Sulfate Standard - Calibration Curve Spectrophotometer Readings

Sulfate Ion Concentrations (mg/L)

0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0

Spectrophotometer Readings (FAU)

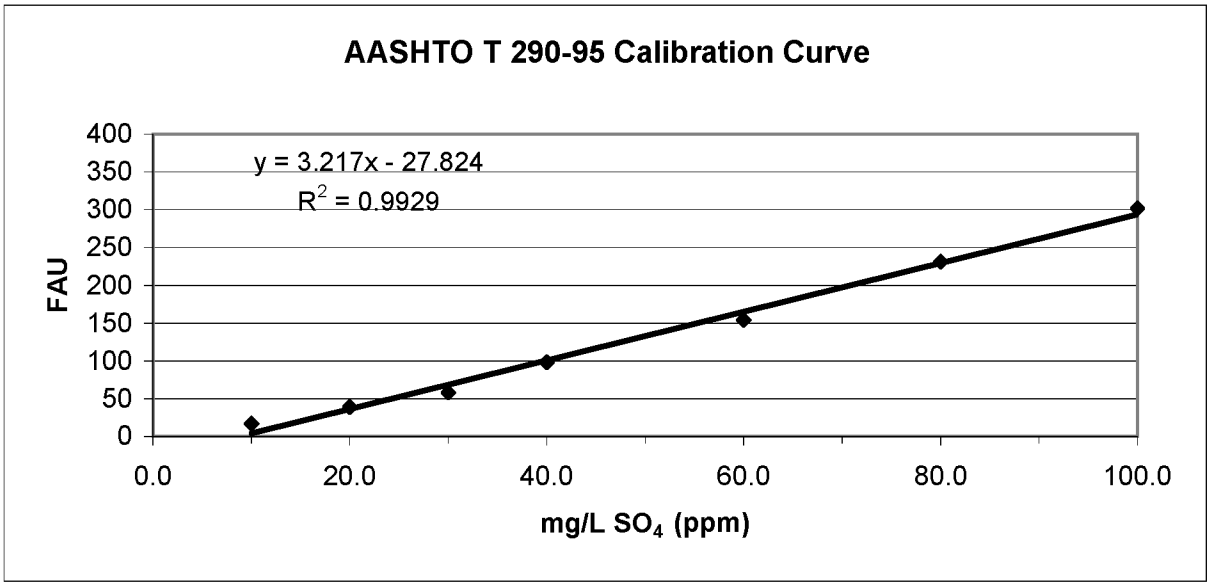
Underrange	7	17	39	58	98	154	231	302

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 ml NaCl solution and 0.3 g $BaCl_2 \cdot 2H_2O$)

Sample Weight:	100.0	grams	**NaCl Solution Mix Date:**	8/23/13
Water added to Sample:	300.0	ml	**Sample Moisture Content**	
Size of Sample Aliquot:	50.0	ml	Tare Number:	21
Sample Reading:	217	**FAU**	Weight of Tare & Wet Sample (g):	540.58
			Weight of Tare & Dry Sample (g):	539.99
			Weight of Tare (g):	202.50
Note: 25 ml of sample diluted to 50 ml = Dilution Factor of 2.			Weight of Water (g):	0.59
			Weight of Dry Sample (g):	337.49
			Water Content (%):	0.17

Sample Sulfate Ion Concentration:	152.21	**mg/L SO_4 (ppm)**
Sample Sulfate Ion Content:	456.6	**mg/kg SO_4 (not corrected for moisture)**
Sample Sulfate Ion Content:	457.4	**mg/kg SO_4 (corrected for moisture)**



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Water Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1a
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	114.7-115.0
Project No.	2013-465-004	Sample No.	SC-5
Lab ID #	2013-465-004-003		

Equipment	Equipment ID#	Calibration Due Date
50 ml Graduated Cylinder	G1330	INITIAL ONLY
500 ml Erlenmeyer Flask	G1319	INITIAL ONLY
1000 ml Volumetric Flask	G1318	INITIAL ONLY
1000 ml Volumetric Flask	G1322	INITIAL ONLY
50 ml Volumetric Flask	G1325	INITIAL ONLY
#30 Sieve	G830	10/2/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14
Oven	G1387	8/16/14
Stopwatch	G1277	5/13/14

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Water-Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

Client:	Paul C. Rizzo & Associates	**Boring No.:**	R-6-1a-A
Client Reference:	Turkey Point Units 6 & 7 Site	**Depth (ft):**	72.6-73.5
Project No.:	2013-465-004	**Sample No.:**	SC-1
Lab ID:	2013-465-004-004	**Soil Description:**	White Grainstone

Sulfate Standard - Calibration Curve Spectrophotometer Readings

Sulfate Ion Concentrations (mg/L)

0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0

Spectrophotometer Readings (FAU)

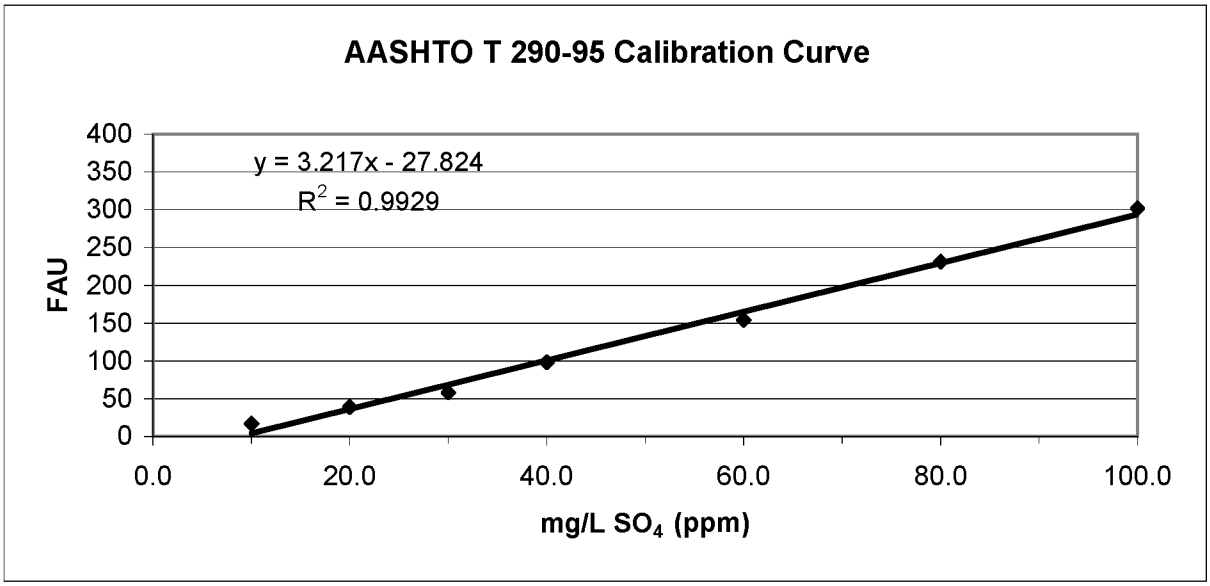
Underrange	7	17	39	58	98	154	231	302

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 ml NaCl solution and 0.3 g $BaCl_2 \cdot 2H_2O$)

Sample Weight:	100.0	grams	**NaCl Solution Mix Date:**	8/23/13
Water added to Sample:	300.0	ml	**Sample Moisture Content**	
Size of Sample Aliquot:	50.0	ml	Tare Number:	14
Sample Reading:	78	**FAU**	Weight of Tare & Wet Sample (g):	593.23
			Weight of Tare & Dry Sample (g):	592.67
			Weight of Tare (g):	204.02
Note: 25 ml of sample diluted to 50 ml = Dilution Factor of 2.			Weight of Water (g):	0.56
			Weight of Dry Sample (g):	388.65
			Water Content (%):	0.14

Sample Sulfate Ion Concentration:	65.79	**mg/L SO_4 (ppm)**
Sample Sulfate Ion Content:	197.4	**mg/kg SO_4 (not corrected for moisture)**
Sample Sulfate Ion Content:	197.7	**mg/kg SO_4 (corrected for moisture)**



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Water Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1a-A
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	72.6-73.5
Project No.	2013-465-004	Sample No.	SC-1
Lab ID #	2013-465-004-004		

Equipment	Equipment ID#	Calibration Due Date
50 ml Graduated Cylinder	G1330	INITIAL ONLY
500 ml Erlenmeyer Flask	G1319	INITIAL ONLY
1000 ml Volumetric Flask	G1318	INITIAL ONLY
1000 ml Volumetric Flask	G1322	INITIAL ONLY
50 ml Volumetric Flask	G1325	INITIAL ONLY
#30 Sieve	G830	10/2/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14
Oven	G1387	8/16/14
Stopwatch	G1277	5/13/14

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Water-Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

Client:	Paul C. Rizzo & Associates	**Boring No.:**	R-7-1
Client Reference:	Turkey Point Units 6 & 7 Site	**Depth (ft):**	37.5-37.9
Project No.:	2013-465-004	**Sample No.:**	SC-2
Lab ID:	2013-465-004-005	**Soil Description:**	White Boundstone

Sulfate Standard - Calibration Curve Spectrophotometer Readings

Sulfate Ion Concentrations (mg/L)

0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0

Spectrophotometer Readings (FAU)

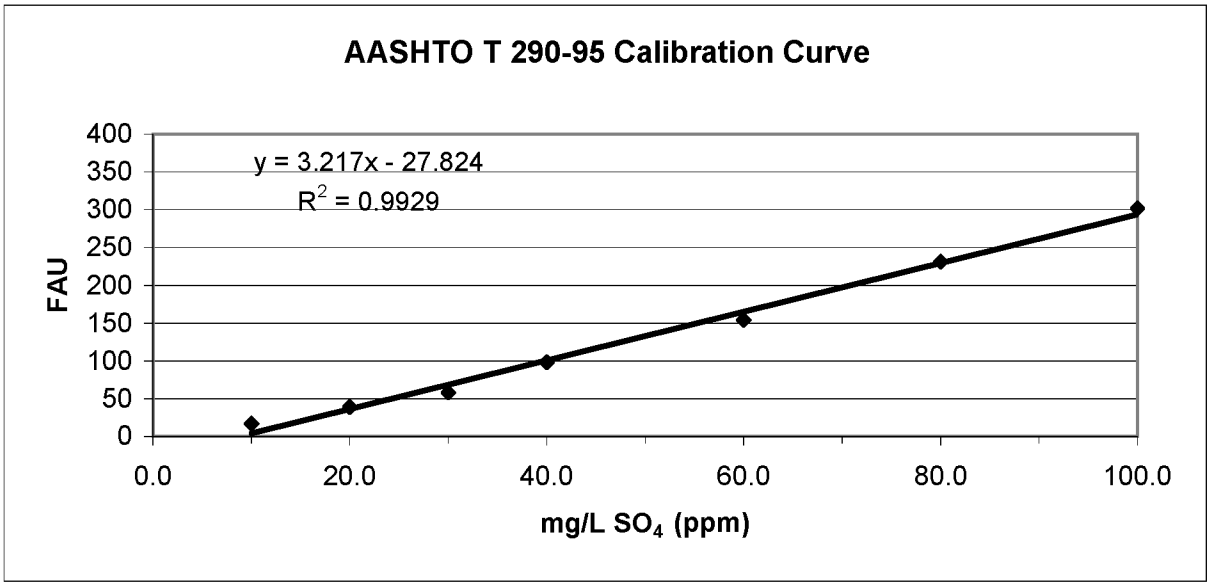
Underrange	7	17	39	58	98	154	231	302

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 ml NaCl solution and 0.3 g $BaCl_2 \cdot 2H_2O$)

Sample Weight:	100.0	grams	**NaCl Solution Mix Date:**	8/23/13
Water added to Sample:	300.0	ml	**Sample Moisture Content**	
Size of Sample Aliquot:	50.0	ml	Tare Number:	9
Sample Reading:	247	**FAU**	Weight of Tare & Wet Sample (g):	374.69
			Weight of Tare & Dry Sample (g):	374.41
			Weight of Tare (g):	202.26
			Weight of Water (g):	0.28
			Weight of Dry Sample (g):	172.15
			Water Content (%):	0.16

Sample Sulfate Ion Concentration:	85.43	**mg/L SO_4 (ppm)**
Sample Sulfate Ion Content:	256.3	**mg/kg SO_4 (not corrected for moisture)**
Sample Sulfate Ion Content:	256.7	**mg/kg SO_4 (corrected for moisture)**



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Water Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	37.5-37.9
Project No.	2013-465-004	Sample No.	SC-2
Lab ID #	2013-465-004-005		

Equipment	Equipment ID#	Calibration Due Date
50 ml Graduated Cylinder	G1330	INITIAL ONLY
500 ml Erlenmeyer Flask	G1319	INITIAL ONLY
1000 ml Volumetric Flask	G1318	INITIAL ONLY
1000 ml Volumetric Flask	G1322	INITIAL ONLY
50 ml Volumetric Flask	G1325	INITIAL ONLY
#30 Sieve	G830	10/2/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14
Oven	G1387	8/16/14
Stopwatch	G1277	5/13/14

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Water-Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

Client:	Paul C. Rizzo & Associates	**Boring No.:**	R-7-1
Client Reference:	Turkey Point Units 6 & 7 Site	**Depth (ft):**	46.9-47.7
Project No.:	2013-465-004	**Sample No.:**	SC-4
Lab ID:	2013-465-004-006	**Soil Description:**	White Packstone

Sulfate Standard - Calibration Curve Spectrophotometer Readings

Sulfate Ion Concentrations (mg/L)

0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0

Spectrophotometer Readings (FAU)

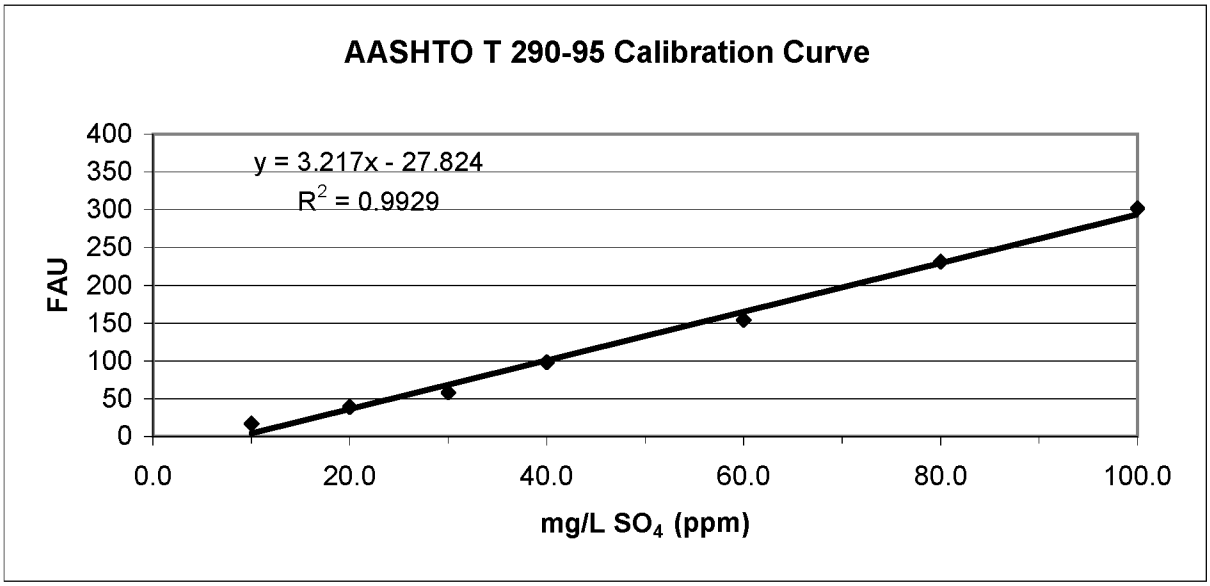
Underrange	7	17	39	58	98	154	231	302

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 ml NaCl solution and 0.3 g $BaCl_2 \cdot 2H_2O$)

Sample Weight:	100.0	grams	**NaCl Solution Mix Date:**	8/23/13
Water added to Sample:	300.0	ml	**Sample Moisture Content**	
Size of Sample Aliquot:	50.0	ml	Tare Number:	27
Sample Reading:	167	**FAU**	Weight of Tare & Wet Sample (g):	436.42
			Weight of Tare & Dry Sample (g):	435.93
			Weight of Tare (g):	204.87
Note: 25 ml of sample diluted to 50 ml = Dilution Factor of 2.			Weight of Water (g):	0.49
			Weight of Dry Sample (g):	231.06
			Water Content (%):	0.21

Sample Sulfate Ion Concentration:	121.12	**mg/L SO_4 (ppm)**
Sample Sulfate Ion Content:	363.4	**mg/kg SO_4 (not corrected for moisture)**
Sample Sulfate Ion Content:	364.1	**mg/kg SO_4 (corrected for moisture)**



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Water Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	46.9-47.7
Project No.	2013-465-004	Sample No.	SC-4
Lab ID #	2013-465-004-006		

Equipment	Equipment ID#	Calibration Due Date
50 ml Graduated Cylinder	G1330	INITIAL ONLY
500 ml Erlenmeyer Flask	G1319	INITIAL ONLY
1000 ml Volumetric Flask	G1318	INITIAL ONLY
1000 ml Volumetric Flask	G1322	INITIAL ONLY
50 ml Volumetric Flask	G1325	INITIAL ONLY
#30 Sieve	G830	10/2/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14
Oven	G1387	8/16/14
Stopwatch	G1277	5/13/14

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Water-Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

Client:	Paul C. Rizzo & Associates	**Boring No.:**	R-7-1
Client Reference:	Turkey Point Units 6 & 7 Site	**Depth (ft):**	74.3-75.0
Project No.:	2013-465-004	**Sample No.:**	SC-6
Lab ID:	2013-465-004-007	**Soil Description:**	White Packstone

Sulfate Standard - Calibration Curve Spectrophotometer Readings

Sulfate Ion Concentrations (mg/L)

0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0

Spectrophotometer Readings (FAU)

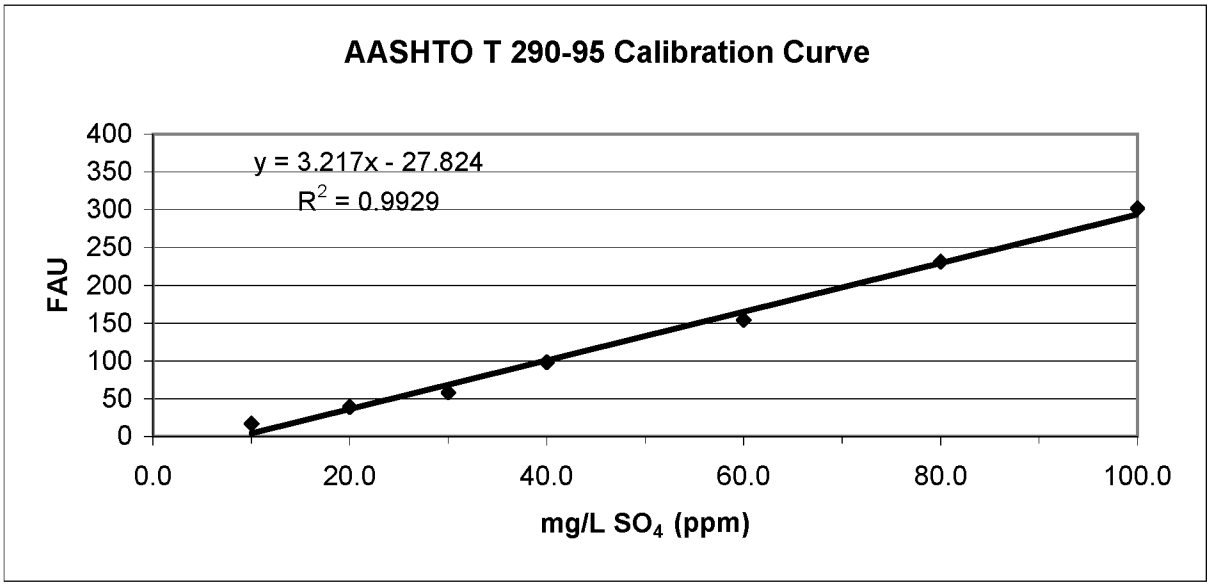
Underrange	7	17	39	58	98	154	231	302

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 ml NaCl solution and 0.3 g $BaCl_2 \cdot 2H_2O$)

Sample Weight:	100.0	grams	**NaCl Solution Mix Date:**	8/23/13
Water added to Sample:	300.0	ml	**Sample Moisture Content**	
Size of Sample Aliquot:	50.0	ml	Tare Number:	53
Sample Reading:	186	**FAU**	Weight of Tare & Wet Sample (g):	479.98
			Weight of Tare & Dry Sample (g):	479.57
			Weight of Tare (g):	203.54
Note: 25 ml of sample diluted to 50 ml = Dilution Factor of 2.			Weight of Water (g):	0.41
			Weight of Dry Sample (g):	276.03
			Water Content (%):	0.15

Sample Sulfate Ion Concentration:	132.94	**mg/L SO_4 (ppm)**
Sample Sulfate Ion Content:	398.8	**mg/kg SO_4 (not corrected for moisture)**
Sample Sulfate Ion Content:	399.4	**mg/kg SO_4 (corrected for moisture)**



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Water Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	74.3-75.0
Project No.	2013-465-004	Sample No.	SC-6
Lab ID #	2013-465-004-007		

Equipment	Equipment ID#	Calibration Due Date
50 ml Graduated Cylinder	G1330	INITIAL ONLY
500 ml Erlenmeyer Flask	G1319	INITIAL ONLY
1000 ml Volumetric Flask	G1318	INITIAL ONLY
1000 ml Volumetric Flask	G1322	INITIAL ONLY
50 ml Volumetric Flask	G1325	INITIAL ONLY
#30 Sieve	G830	10/2/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14
Oven	G1387	8/16/14
Stopwatch	G1277	5/13/14

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Water-Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

Client:	Paul C. Rizzo & Associates	**Boring No.:**	R-7-4
Client Reference:	Turkey Point Units 6 & 7 Site	**Depth (ft):**	48.2-49.0
Project No.:	2013-465-004	**Sample No.:**	SC-2
Lab ID:	2013-465-004-008	**Soil Description:**	White Wackestone

Sulfate Standard - Calibration Curve Spectrophotometer Readings

Sulfate Ion Concentrations (mg/L)

0.0	4.0	10.0	20.0	30.0	40.0	60.0	80.0	100.0

Spectrophotometer Readings (FAU)

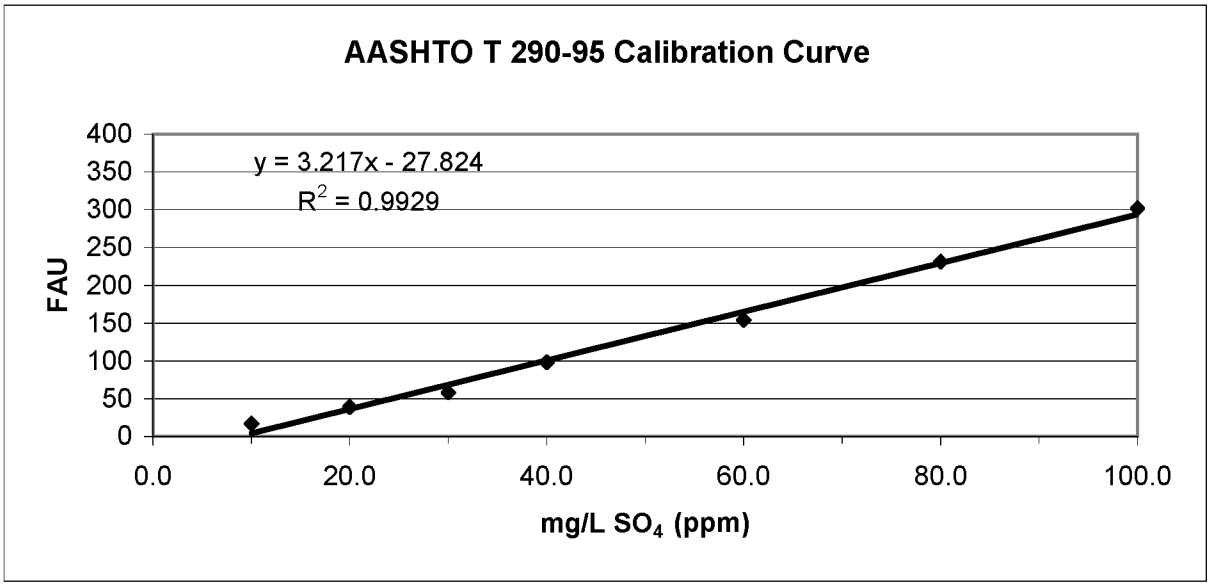
Underrange	7	17	39	58	98	154	231	302

Measurement of Barium Chloride Turbidity

(Sample contains 5.0 ml NaCl solution and 0.3 g $BaCl_2 \cdot 2H_2O$)

Sample Weight:	100.0	grams	**NaCl Solution Mix Date:**	8/23/13
Water added to Sample:	300.0	ml	**Sample Moisture Content**	
Size of Sample Aliquot:	50.0	ml	Tare Number:	39
Sample Reading:	107	**FAU**	Weight of Tare & Wet Sample (g):	412.09
			Weight of Tare & Dry Sample (g):	411.69
			Weight of Tare (g):	207.11
Note: 25 ml of sample diluted to 50 ml = Dilution Factor of 2.			Weight of Water (g):	0.40
			Weight of Dry Sample (g):	204.58
			Water Content (%):	0.20

Sample Sulfate Ion Concentration:	83.82	**mg/L SO_4 (ppm)**
Sample Sulfate Ion Content:	251.5	**mg/kg SO_4 (not corrected for moisture)**
Sample Sulfate Ion Content:	252.0	**mg/kg SO_4 (corrected for moisture)**



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Water Soluble Sulfate Ion Content in Soil

AASHTO T 290-95 (2012)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-4
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	48.2-49.0
Project No.	2013-465-004	Sample No.	SC-2
Lab ID #	2013-465-004-008		

Equipment	Equipment ID#	Calibration Due Date
50 ml Graduated Cylinder	G1330	INITIAL ONLY
500 ml Erlenmeyer Flask	G1319	INITIAL ONLY
1000 ml Volumetric Flask	G1318	INITIAL ONLY
1000 ml Volumetric Flask	G1322	INITIAL ONLY
50 ml Volumetric Flask	G1325	INITIAL ONLY
#30 Sieve	G830	10/2/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14
Oven	G1387	8/16/14
Stopwatch	G1277	5/13/14

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CHLORIDE ION CONTENT IN SOILS

AASHTO T 291 - 94 (2008)

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1b
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	81.0-81.7
Project No.:	2013-465-004	Sample No.:	SC-4A
Lab ID:	2013-465-004-001	Description:	White Grainstone
			(- # 10 Sieve material)

CHLORIDE STANDARD: CALIBRATION CURVE

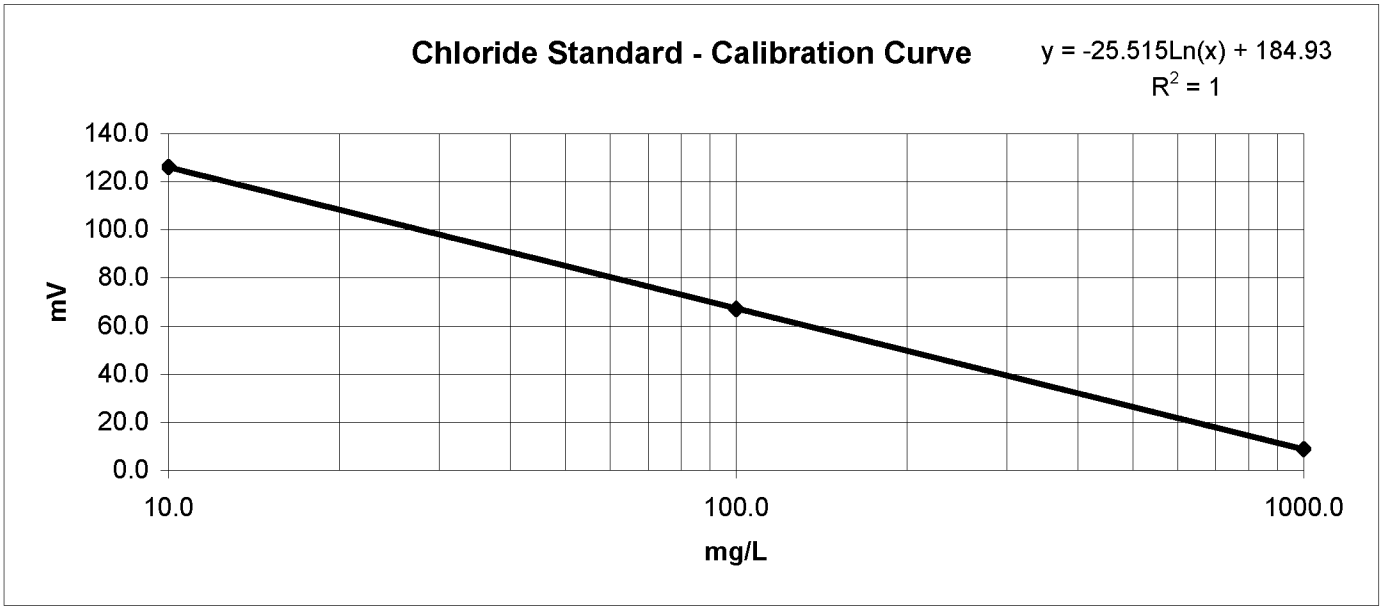
STANDARD		MILLIVOLTS (mV)
10.0	mg/L	126.3
100.0	mg/L	67.2
1000.0	mg/L	8.8

MEASUREMENT OF CHLORIDES

			CONCENTRATION (mg/L)	CONCENTRATION (mg/kg)
Sample Weight:	100.0	grams	1832.54	1832.54
Water added to Sample:	100.0	ml		
Size of Sample Aliquot:	40.0	ml		
Sample Reading:	28.6	mV		

Note: 10 ml of sample diluted to 40 ml = Dilution Factor of 4.

Notes: Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO_3 solution (one to one volume).
Samples were dried for a minimum of 12 hours at 110 $^{+}/_{-}$ 5°C.



Notes:

Tested By	JAM	Date	12/18/13	Checked By	KC	Date	12/19/13

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Water Soluble Chloride Ion Content in Soil

AASHTO T 291-94 (2008)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1b
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	81.0-81.7
Project No.	2013-465-004	Sample No.	SC-4A
Lab ID #	2013-465-004-001		

Equipment	Equipment ID#	Calibration Due Date
Meter	G940	7/9/14
Electrode	G1333	As Used
100 ml Volumetric Flask	G1328	Initial Only
100 ml Volumetric Flask	G1327	Initial Only
1000 ml Volumetric Flask	G1338	Initial Only
1000 ml Volumetric Flask	G1337	Initial Only
50 ml Graduated Cylinder	G1330	Initial Only
Stopwatch	G1277	5/13/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14

CHLORIDE ION CONTENT IN SOILS

AASHTO T 291 - 94 (2008)

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1a
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	33.0-33.7
Project No.:	2013-465-004	Sample No.:	SC-1
Lab ID:	2013-465-004-002	Description:	White Wackestone
			(- # 10 Sieve material)

CHLORIDE STANDARD: CALIBRATION CURVE

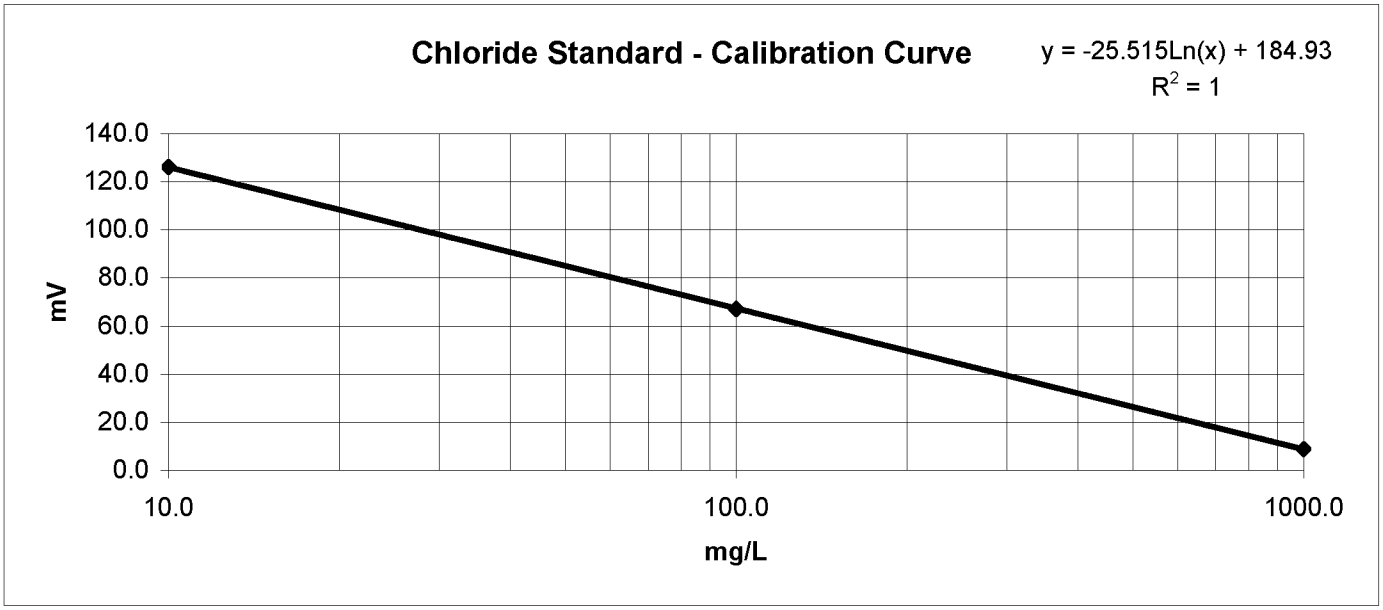
STANDARD		MILLIVOLTS (mV)
10.0	mg/L	126.3
100.0	mg/L	67.2
1000.0	mg/L	8.8

MEASUREMENT OF CHLORIDES

			CONCENTRATION (mg/L)	CONCENTRATION (mg/kg)
Sample Weight:	100.0	grams		
Water added to Sample:	100.0	ml		
Size of Sample Aliquot:	40.0	ml	3110.57	3110.57
Sample Reading:	15.1	mV		

Note: 10 ml of sample diluted to 40 ml = Dilution Factor of 4.

Notes: Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO_3 solution (one to one volume).
Samples were dried for a minimum of 12 hours at 110 $^{+}/_{-}$ 5°C.



Notes:

Tested By	JAM	Date	12/18/13	Checked By	KC	Date	12/19/13

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Water Soluble Chloride Ion Content in Soil

AASHTO T 291-94 (2008)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1a
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	33.0-33.7
Project No.	2013-465-004	Sample No.	SC-1
Lab ID #	2013-465-004-002		

Equipment	Equipment ID#	Calibration Due Date
Meter	G940	7/9/14
Electrode	G1333	As Used
100 ml Volumetric Flask	G1328	Initial Only
100 ml Volumetric Flask	G1327	Initial Only
1000 ml Volumetric Flask	G1338	Initial Only
1000 ml Volumetric Flask	G1337	Initial Only
50 ml Graduated Cylinder	G1330	Initial Only
Stopwatch	G1277	5/13/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14

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CHLORIDE ION CONTENT IN SOILS

AASHTO T 291 - 94 (2008)

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1a
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	114.7-115.0
Project No.:	2013-465-004	Sample No.:	SC-5
Lab ID:	2013-465-004-003	Description:	White Grainstone
			(- # 10 Sieve material)

CHLORIDE STANDARD: CALIBRATION CURVE

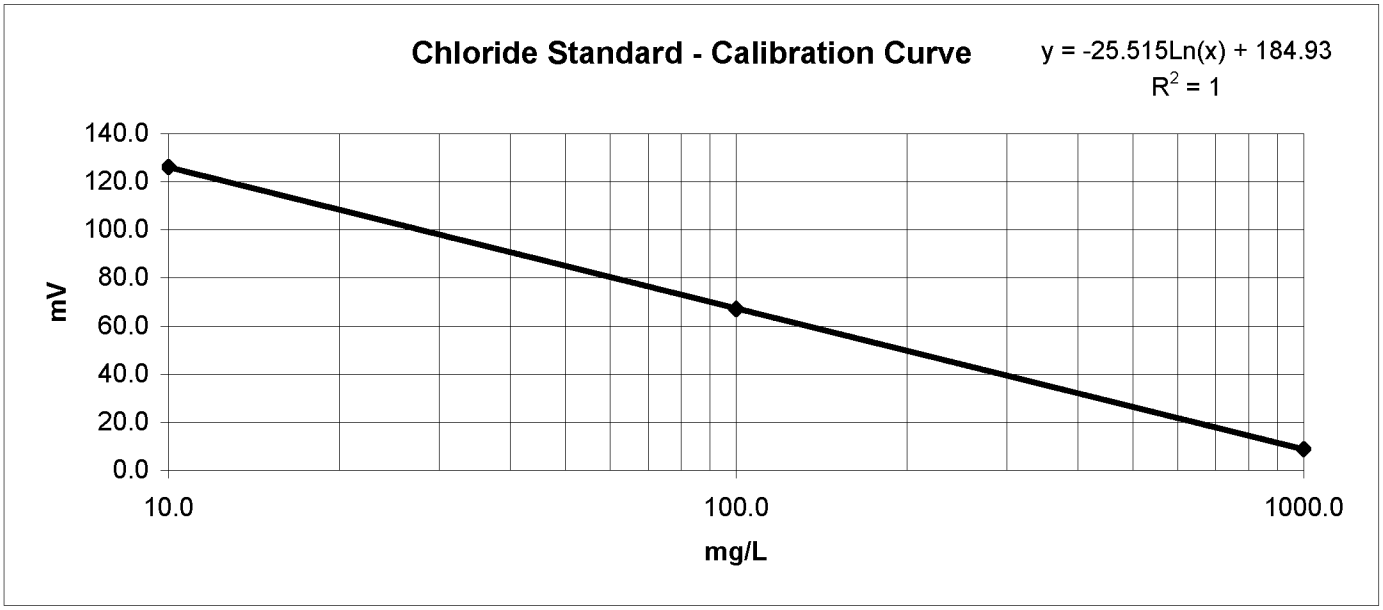
STANDARD		MILLIVOLTS (mV)
10.0	mg/L	126.3
100.0	mg/L	67.2
1000.0	mg/L	8.8

MEASUREMENT OF CHLORIDES

			CONCENTRATION (mg/L)	CONCENTRATION (mg/kg)
Sample Weight:	100.0	grams	3404.00	3404.00
Water added to Sample:	100.0	ml		
Size of Sample Aliquot:	40.0	ml		
Sample Reading:	12.8	mV		

Note: 10 ml of sample diluted to 40 ml = Dilution Factor of 4.

Notes: Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO_3 solution (one to one volume).
Samples were dried for a minimum of 12 hours at 110 $^{+}/_{-}$ 5°C.



Notes:

Tested By	JAM	Date	12/18/13	Checked By	KC	Date	12/19/13

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Water Soluble Chloride Ion Content in Soil

AASHTO T 291-94 (2008)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1a
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	114.7-115.0
Project No.	2013-465-004	Sample No.	SC-5
Lab ID #	2013-465-004-003		

Equipment	Equipment ID#	Calibration Due Date
Meter	G940	7/9/14
Electrode	G1333	As Used
100 ml Volumetric Flask	G1328	Initial Only
100 ml Volumetric Flask	G1327	Initial Only
1000 ml Volumetric Flask	G1338	Initial Only
1000 ml Volumetric Flask	G1337	Initial Only
50 ml Graduated Cylinder	G1330	Initial Only
Stopwatch	G1277	5/13/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14

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CHLORIDE ION CONTENT IN SOILS

AASHTO T 291 - 94 (2008)

Client:	Paul C. Rizzo & Associates	Boring No.:	R-6-1a-A
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	72.6-73.5
Project No.:	2013-465-004	Sample No.:	SC-1
Lab ID:	2013-465-004-004	Description:	White Grainstone
			(- # 10 Sieve material)

CHLORIDE STANDARD: CALIBRATION CURVE

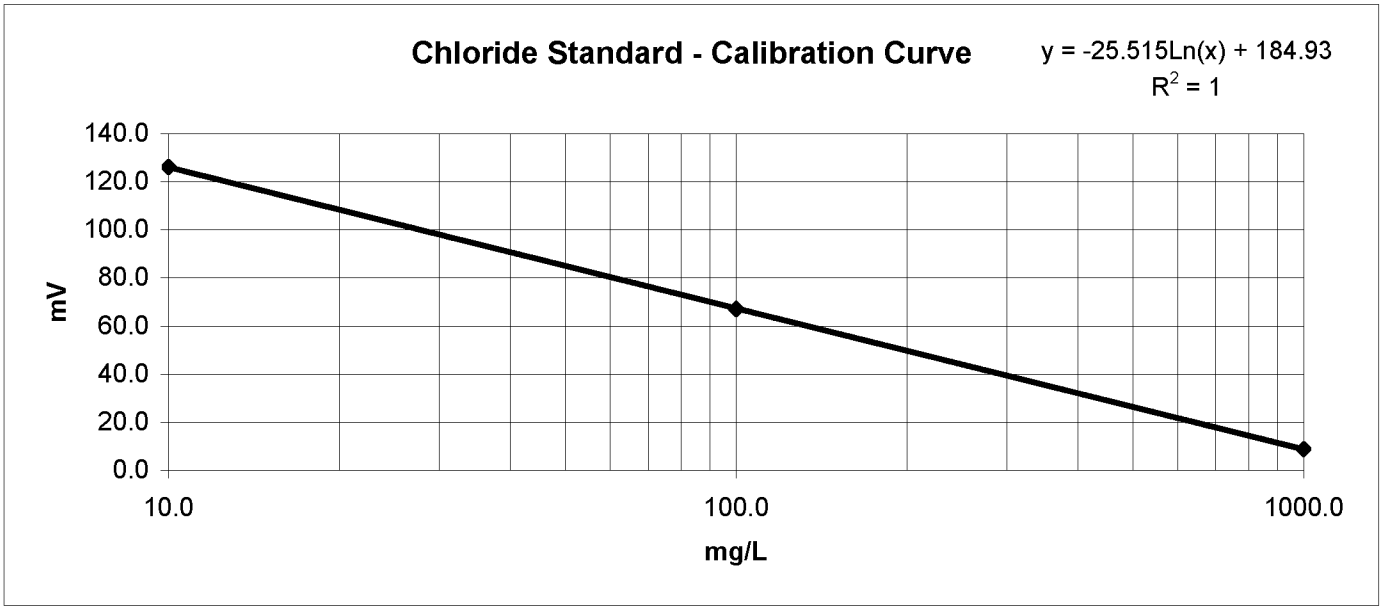
STANDARD		MILLIVOLTS (mV)
10.0	mg/L	126.3
100.0	mg/L	67.2
1000.0	mg/L	8.8

MEASUREMENT OF CHLORIDES

			CONCENTRATION (mg/L)	CONCENTRATION (mg/kg)
Sample Weight:	100.0	grams	1974.21	1974.21
Water added to Sample:	100.0	ml		
Size of Sample Aliquot:	40.0	ml		
Sample Reading:	26.7	mV		

Note: 10 ml of sample diluted to 40 ml = Dilution Factor of 4.

Notes: Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO_3 solution (one to one volume).
Samples were dried for a minimum of 12 hours at 110 $^{+}/_{-}$ 5°C.



Notes:

Tested By	JAM	Date	12/18/13	Checked By	KC	Date	12/19/13

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Water Soluble Chloride Ion Content in Soil

AASHTO T 291-94 (2008)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-6-1a-A
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	72.6-73.5
Project No.	2013-465-004	Sample No.	SC-1
Lab ID #	2013-465-004-004		

Equipment	Equipment ID#	Calibration Due Date
Meter	G940	7/9/14
Electrode	G1333	As Used
100 ml Volumetric Flask	G1328	Initial Only
100 ml Volumetric Flask	G1327	Initial Only
1000 ml Volumetric Flask	G1338	Initial Only
1000 ml Volumetric Flask	G1337	Initial Only
50 ml Graduated Cylinder	G1330	Initial Only
Stopwatch	G1277	5/13/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14

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CHLORIDE ION CONTENT IN SOILS

AASHTO T 291 - 94 (2008)

Client:	Paul C. Rizzo & Associates	Boring No.:	R-7-1
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	37.5-37.9
Project No.:	2013-465-004	Sample No.:	SC-2
Lab ID:	2013-465-004-005	Description:	White Boundstone
			(- # 10 Sieve material)

CHLORIDE STANDARD: CALIBRATION CURVE

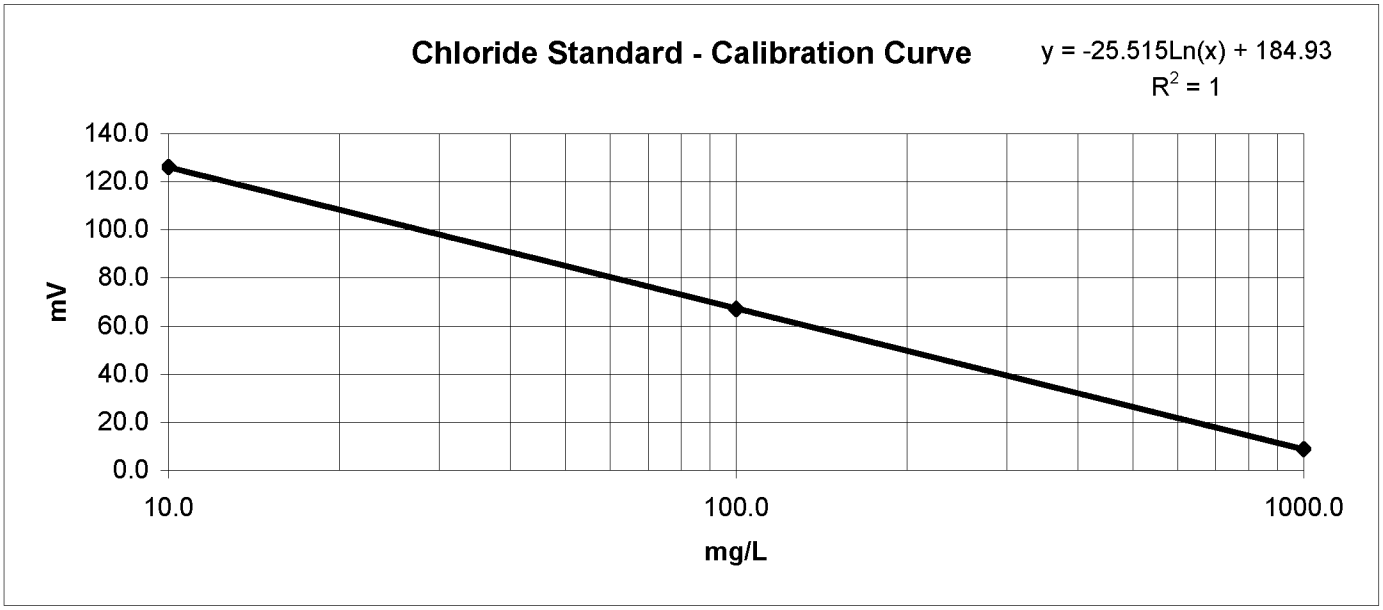
STANDARD		MILLIVOLTS (mV)
10.0	mg/L	126.3
100.0	mg/L	67.2
1000.0	mg/L	8.8

MEASUREMENT OF CHLORIDES

			CONCENTRATION (mg/L)	CONCENTRATION (mg/kg)
Sample Weight:	100.0	grams	1959.91	1959.91
Water added to Sample:	100.0	ml		
Size of Sample Aliquot:	50.0	ml		
Sample Reading:	9.2	mV		

Note: 25 ml of sample diluted to 50 ml = Dilution Factor of 2.

Notes: Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO_3 solution (one to one volume).
Samples were dried for a minimum of 12 hours at 110 $^{+}/_{-}$ 5°C.



Notes:

Tested By	JAM	Date	12/18/13	Checked By	KC	Date	12/19/13

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Water Soluble Chloride Ion Content in Soil

AASHTO T 291-94 (2008)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	37.5-37.9
Project No.	2013-465-004	Sample No.	SC-2
Lab ID #	2013-465-004-005		

Equipment	Equipment ID#	Calibration Due Date
Meter	G940	7/9/14
Electrode	G1333	As Used
100 ml Volumetric Flask	G1328	Initial Only
100 ml Volumetric Flask	G1327	Initial Only
1000 ml Volumetric Flask	G1338	Initial Only
1000 ml Volumetric Flask	G1337	Initial Only
50 ml Graduated Cylinder	G1330	Initial Only
Stopwatch	G1277	5/13/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14

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CHLORIDE ION CONTENT IN SOILS

AASHTO T 291 - 94 (2008)

Client:	Paul C. Rizzo & Associates	Boring No.:	R-7-1
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	46.9-47.7
Project No.:	2013-465-004	Sample No.:	SC-4
Lab ID:	2013-465-004-006	Description:	White Packstone
			(- # 10 Sieve material)

CHLORIDE STANDARD: CALIBRATION CURVE

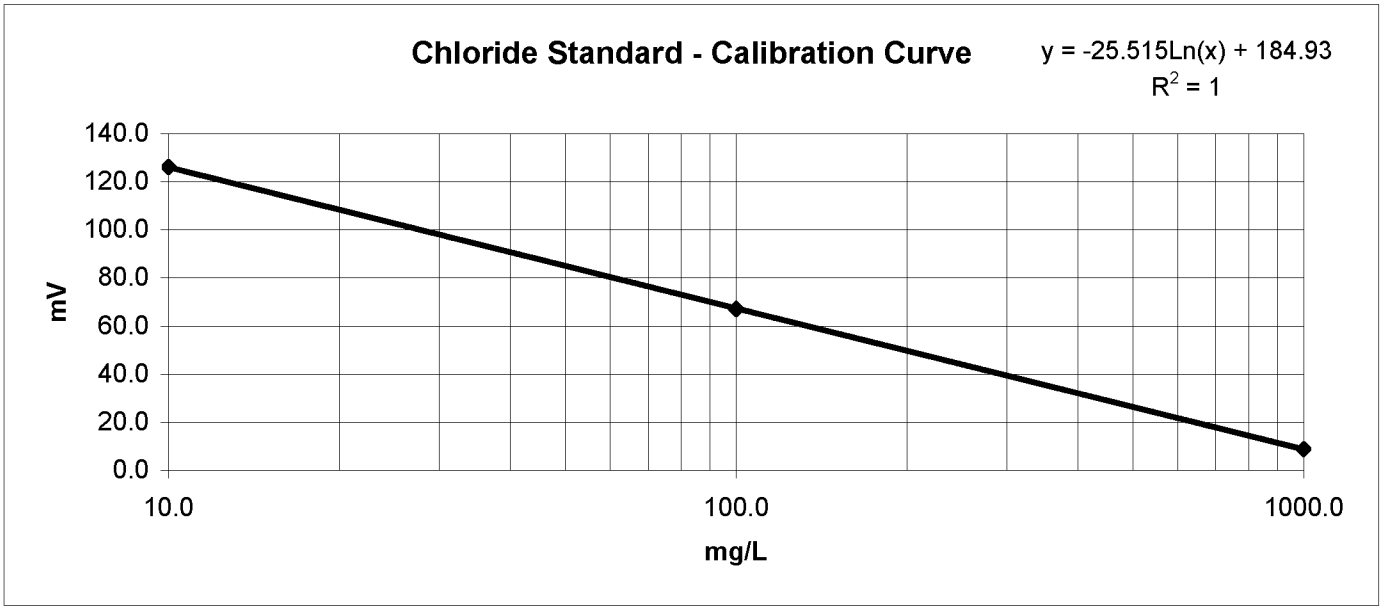
STANDARD		MILLIVOLTS (mV)
10.0	mg/L	126.3
100.0	mg/L	67.2
1000.0	mg/L	8.8

MEASUREMENT OF CHLORIDES

			CONCENTRATION (mg/L)	CONCENTRATION (mg/kg)
Sample Weight:	100.0	grams		
Water added to Sample:	100.0	ml		
Size of Sample Aliquot:	40.0	ml	2991.02	2991.02
Sample Reading:	16.1	mV		

Note: 10 ml of sample diluted to 40 ml = Dilution Factor of 4.

Notes: Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO_3 solution (one to one volume).
Samples were dried for a minimum of 12 hours at 110 $^{+}/_{-}$ 5°C.



Notes:

Tested By	JAM	Date	12/18/13	Checked By	KC	Date	12/19/13

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Water Soluble Chloride Ion Content in Soil

AASHTO T 291-94 (2008)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	46.9-47.7
Project No.	2013-465-004	Sample No.	SC-4
Lab ID #	2013-465-004-006		

Equipment	Equipment ID#	Calibration Due Date
Meter	G940	7/9/14
Electrode	G1333	As Used
100 ml Volumetric Flask	G1328	Initial Only
100 ml Volumetric Flask	G1327	Initial Only
1000 ml Volumetric Flask	G1338	Initial Only
1000 ml Volumetric Flask	G1337	Initial Only
50 ml Graduated Cylinder	G1330	Initial Only
Stopwatch	G1277	5/13/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14

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CHLORIDE ION CONTENT IN SOILS

AASHTO T 291 - 94 (2008)

Client:	Paul C. Rizzo & Associates	Boring No.:	R-7-1
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	74.3-75.0
Project No.:	2013-465-004	Sample No.:	SC-6
Lab ID:	2013-465-004-007	Description:	White Packstone
			(- # 10 Sieve material)

CHLORIDE STANDARD: CALIBRATION CURVE

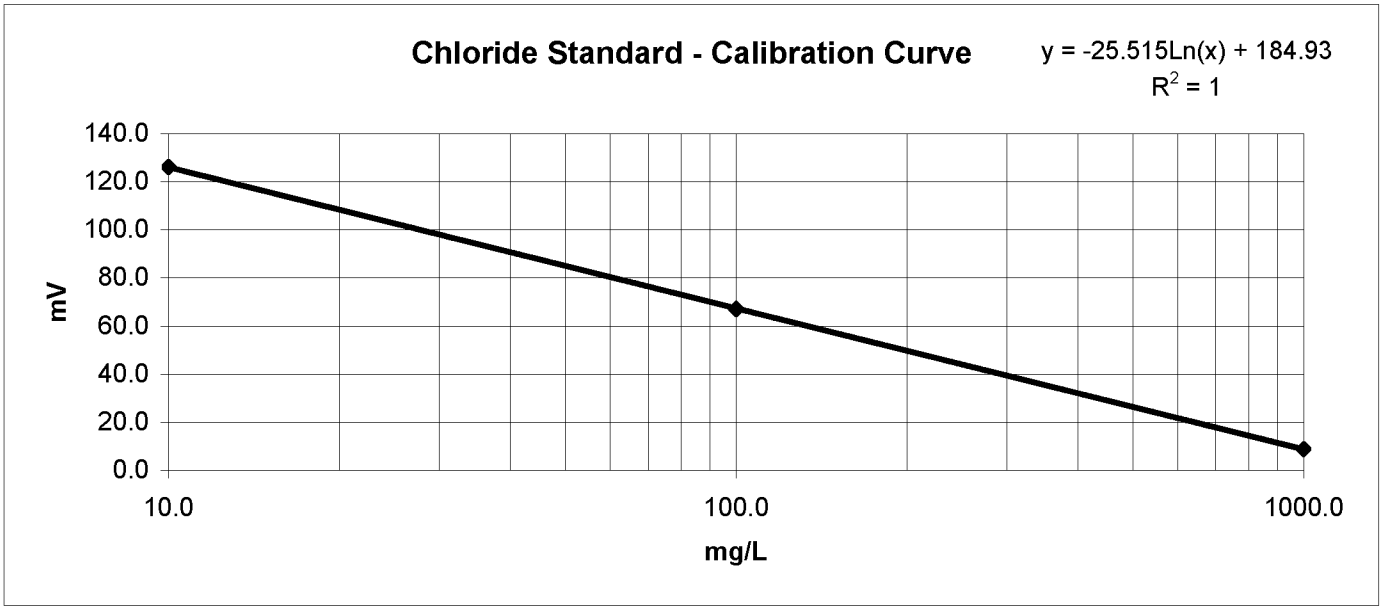
STANDARD		MILLIVOLTS (mV)
10.0	mg/L	126.3
100.0	mg/L	67.2
1000.0	mg/L	8.8

MEASUREMENT OF CHLORIDES

			CONCENTRATION (mg/L)	CONCENTRATION (mg/kg)
Sample Weight:	100.0	grams		
Water added to Sample:	100.0	ml		
Size of Sample Aliquot:	50.0	ml	1862.55	1862.55
Sample Reading:	10.5	mV		

Note: 25 ml of sample diluted to 50 ml = Dilution Factor of 2.

Notes: Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO_3 solution (one to one volume).
Samples were dried for a minimum of 12 hours at 110 $^{+}/_{-}$ 5°C.



Notes:

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Water Soluble Chloride Ion Content in Soil

AASHTO T 291-94 (2008)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-1
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	74.3-75.0
Project No.	2013-465-004	Sample No.	SC-6
Lab ID #	2013-465-004-007		

Equipment	Equipment ID#	Calibration Due Date
Meter	G940	7/9/14
Electrode	G1333	As Used
100 ml Volumetric Flask	G1328	Initial Only
100 ml Volumetric Flask	G1327	Initial Only
1000 ml Volumetric Flask	G1338	Initial Only
1000 ml Volumetric Flask	G1337	Initial Only
50 ml Graduated Cylinder	G1330	Initial Only
Stopwatch	G1277	5/13/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14

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CHLORIDE ION CONTENT IN SOILS

AASHTO T 291 - 94 (2008)

Client:	Paul C. Rizzo & Associates	Boring No.:	R-7-4
Client Reference:	Turkey Point Units 6 & 7 Site	Depth (ft):	48.2-49.0
Project No.:	2013-465-004	Sample No.:	SC-2
Lab ID:	2013-465-004-008	Description:	White Wackestone
			(- # 10 Sieve material)

CHLORIDE STANDARD: CALIBRATION CURVE

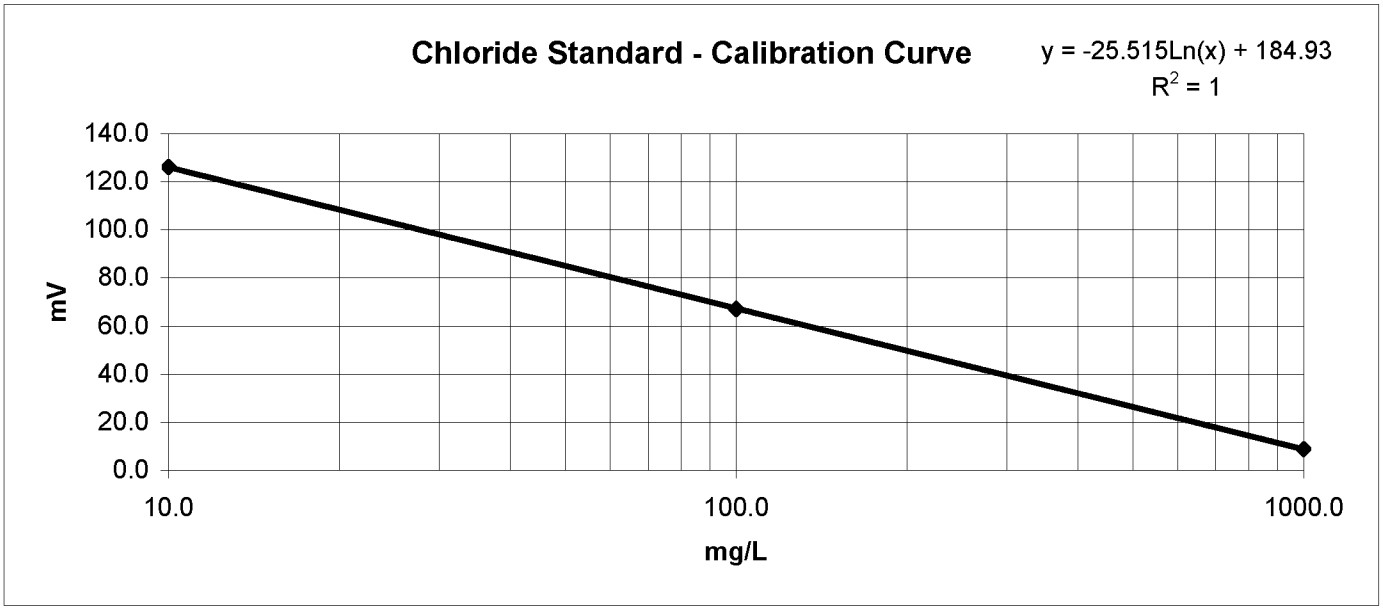
STANDARD		MILLIVOLTS (mV)
10.0	mg/L	126.3
100.0	mg/L	67.2
1000.0	mg/L	8.8

MEASUREMENT OF CHLORIDES

			CONCENTRATION (mg/L)	CONCENTRATION (mg/kg)
Sample Weight:	100.0	grams		
Water added to Sample:	100.0	ml		
Size of Sample Aliquot:	40.0	ml	2765.52	2765.52
Sample Reading:	18.1	mV		

Note: 10 ml of sample diluted to 40 ml = Dilution Factor of 4.

Notes: Samples and standards were buffered by the addition of an equal volume of the 0.2 M KNO_3 solution (one to one volume).
Samples were dried for a minimum of 12 hours at 110 $^{+}/_{-}$ 5°C.



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Water Soluble Chloride Ion Content in Soil

AASHTO T 291-94 (2008)

EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	R-7-4
Client Reference	Turkey Point Units 6 & 7 Site	Depth (ft)	48.2-49.0
Project No.	2013-465-004	Sample No.	SC-2
Lab ID #	2013-465-004-008		

Equipment	Equipment ID#	Calibration Due Date
Meter	G940	7/9/14
Electrode	G1333	As Used
100 ml Volumetric Flask	G1328	Initial Only
100 ml Volumetric Flask	G1327	Initial Only
1000 ml Volumetric Flask	G1338	Initial Only
1000 ml Volumetric Flask	G1337	Initial Only
50 ml Graduated Cylinder	G1330	Initial Only
Stopwatch	G1277	5/13/14
#10 Sieve	G884	8/20/14
Balance	G1485	11/11/14