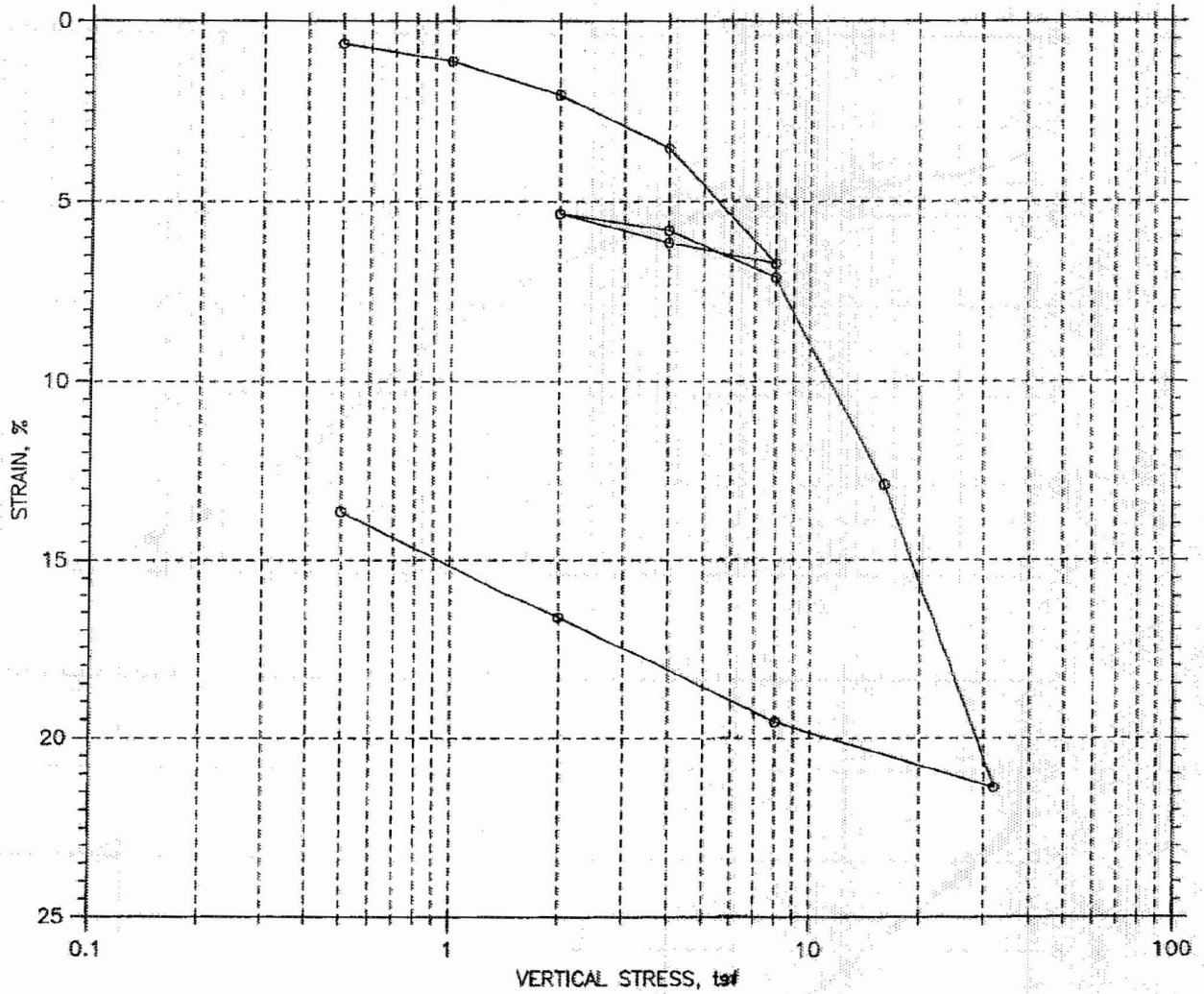


CONSOLIDATION TEST DATA SUMMARY REPORT



		Before Test	After Test
Overburden Pressure: ---		35.88	26.32
Preconsolidation Pressure: 8.3 tsf		86.36	100.
Compression Index: ---		99.13	100.00
Diameter: 2.5 in	Height: 1 in	1.00	0.73
LL: 61	PL: 14		
PI: 47	GS: 2.77		

GeoTesting express <small>a subsidiary of Geocomp Corporation</small>	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-433	Tested By: md	Checked By: jdt
	Sample No.: S-11	Test Date: 09/23/06	Depth: 38.5-40.5
	Test No.: C-27	Sample Type: tube	Elevation: ---
	Description: Moist, very dark gray clay (CH), 91% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System C - Compression Ratio: 0.28, Recompression Ratio: 0.04		

CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP
 Boring No.: B-433
 Sample No.: B-11
 Test No.: C-27

Location: Calvert County, MD
 Tested By: md
 Test Date: 09/23/06
 Sample Type: tube

Project No.: GTX-6880
 Checked By: jdt
 Depth: 38.5-40.5
 Elevation: ---

Soil Description: Moist, very dark gray clay (CH), 91% passing #200 sieve, inundated @ 0.5 tsf
 Remarks: System C - Compression Ratio: 0.28, Recompression Ratio: 0.04

Measured Specific Gravity: 2.77
 Initial Void Ratio: 1.00
 Final Void Ratio: 0.73

Liquid Limit: 61
 Plastic Limit: 14
 Plasticity Index: 47

Initial Height: 1.00 in
 Specimen Diameter: 2.50 in

Container ID	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
	2008	RING		2154
Wt. Container + Wet Soil, gm	182.63	368.09	357.46	147.6
Wt. Container + Dry Soil, gm	139.37	328.17	328.17	118.54
Wt. Container, gm	8.16	216.9	216.9	8.14
Wt. Dry Soil, gm	131.21	111.27	111.27	110.4
Water Content, %	32.97	35.88	26.32	26.32
Void Ratio	---	1.00	0.73	---
Degree of Saturation, %	---	99.13	100.00	---
Dry Unit Weight, pcf	---	86.355	100.01	---

CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP
 Boring No.: B-433
 Sample No.: S-11
 Test No.: C-27

Location: Calvert County, MD
 Tested By: wd
 Test Date: 09/23/06
 Sample Type: tube

Project No.: GTX-6880
 Checked By: jdt
 Depth: 38.5-40.5
 Elevation: ---

Soil Description: Moist, very dark gray clay (CH), 91% passing #200 sieve, inundated @ 0.5 tsf
 Remarks: System C - Compression Ratio: 0.28, Recompression Ratio: 0.54

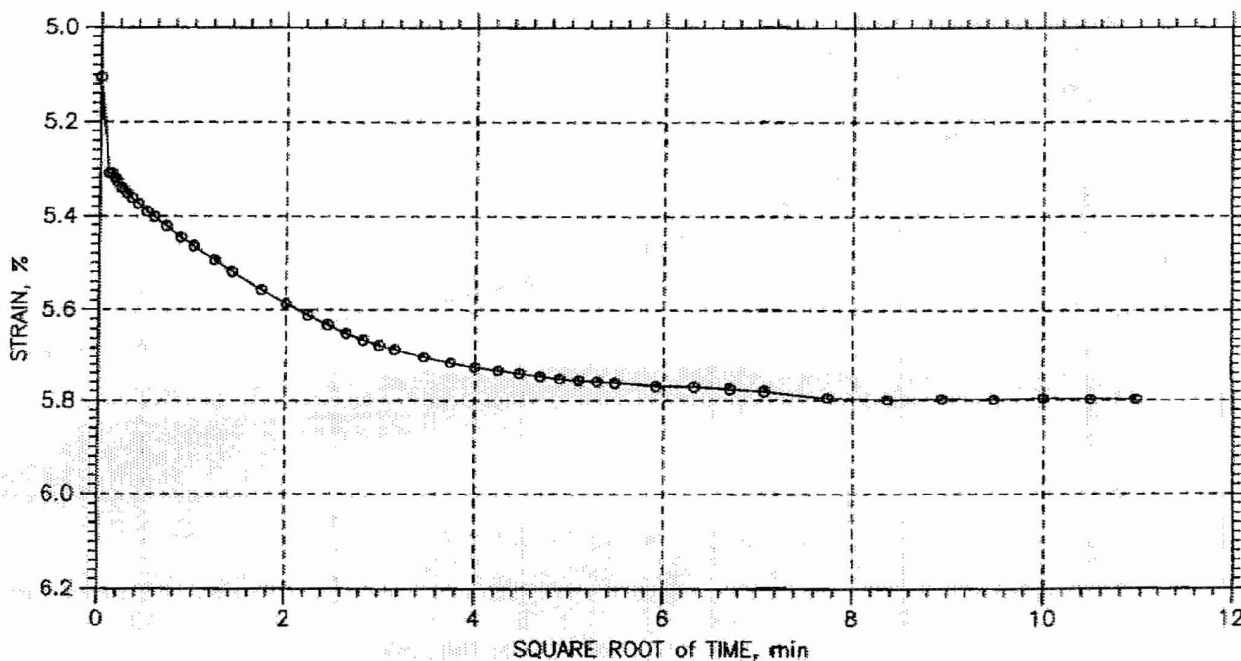
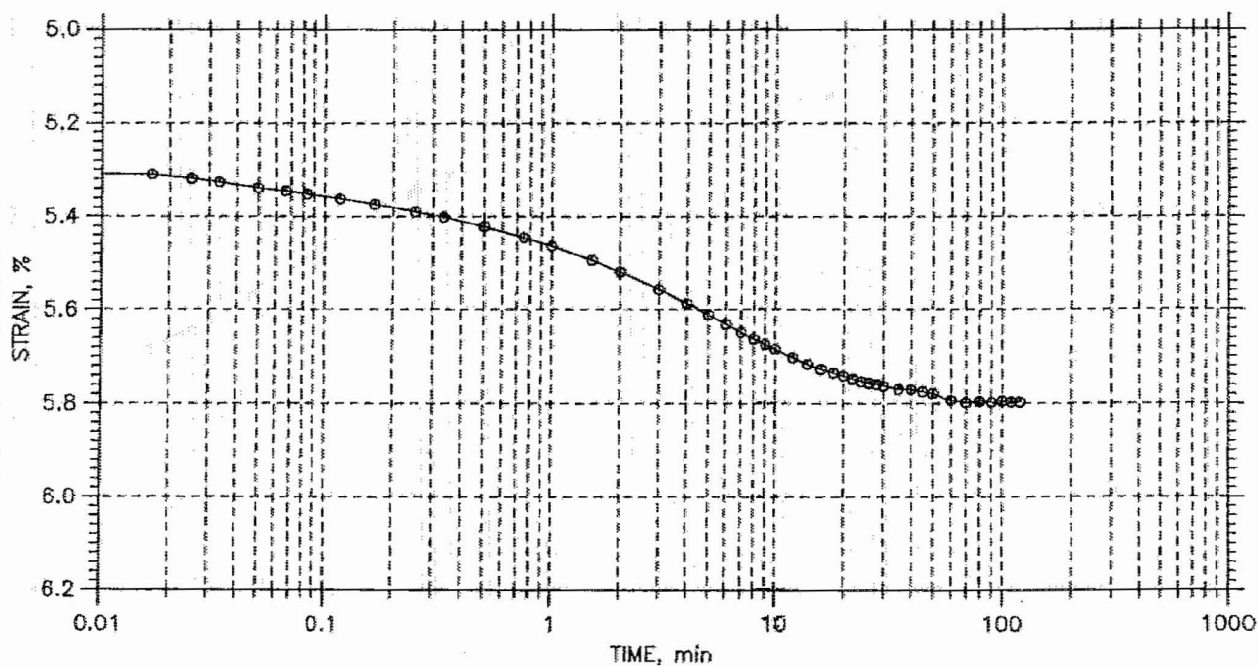
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting		Coefficient of Consolidation		
					Sq. Rt. min	Log min	Sq. Rt. in ² /sec	Log in ² /sec	Ave. in ² /sec
1	0.5	0.006276	0.990	0.63	0.0	0.0	4.12e-002	0.00e+000	4.12e-002
2	1	0.01117	0.980	1.12	0.6	0.0	1.30e-003	0.00e+000	1.30e-003
3	2	0.02049	0.961	2.05	0.9	0.0	9.03e-004	0.00e+000	9.03e-004
4	4	0.0352	0.932	3.52	1.1	0.0	6.93e-004	0.00e+000	6.93e-004
5	8	0.06713	0.868	6.71	2.9	3.9	2.54e-004	1.89e-004	2.16e-004
6	4	0.06138	0.880	6.14	0.9	0.0	7.92e-004	0.00e+000	7.92e-004
7	2	0.05338	0.896	5.34	4.5	4.1	1.64e-004	1.78e-004	1.71e-004
8	4	0.05797	0.886	5.80	1.2	0.0	6.24e-004	0.00e+000	6.24e-004
9	8	0.07104	0.860	7.10	1.9	1.9	3.80e-004	3.75e-004	3.77e-004
10	16	0.1289	0.744	12.89	8.3	10.5	8.03e-005	6.35e-005	7.09e-005
11	32	0.2137	0.575	21.37	16.4	17.0	3.44e-005	3.33e-005	3.39e-005
12	8	0.1956	0.611	19.56	0.9	0.0	6.01e-004	0.00e+000	6.01e-004
13	2	0.1664	0.669	16.64	16.6	0.0	3.31e-005	0.00e+000	3.31e-005
14	0.5	0.1365	0.729	13.65	57.8	0.0	1.02e-005	0.00e+000	1.02e-005

CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 8 of 14

Stress: 4. tsf



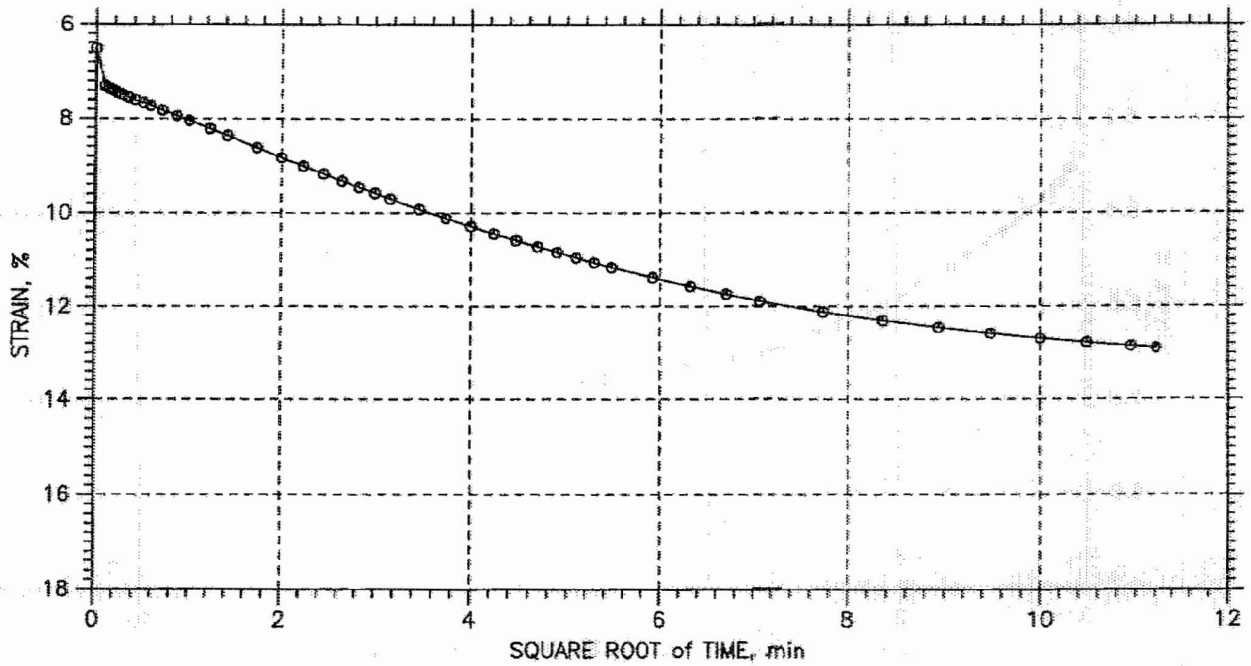
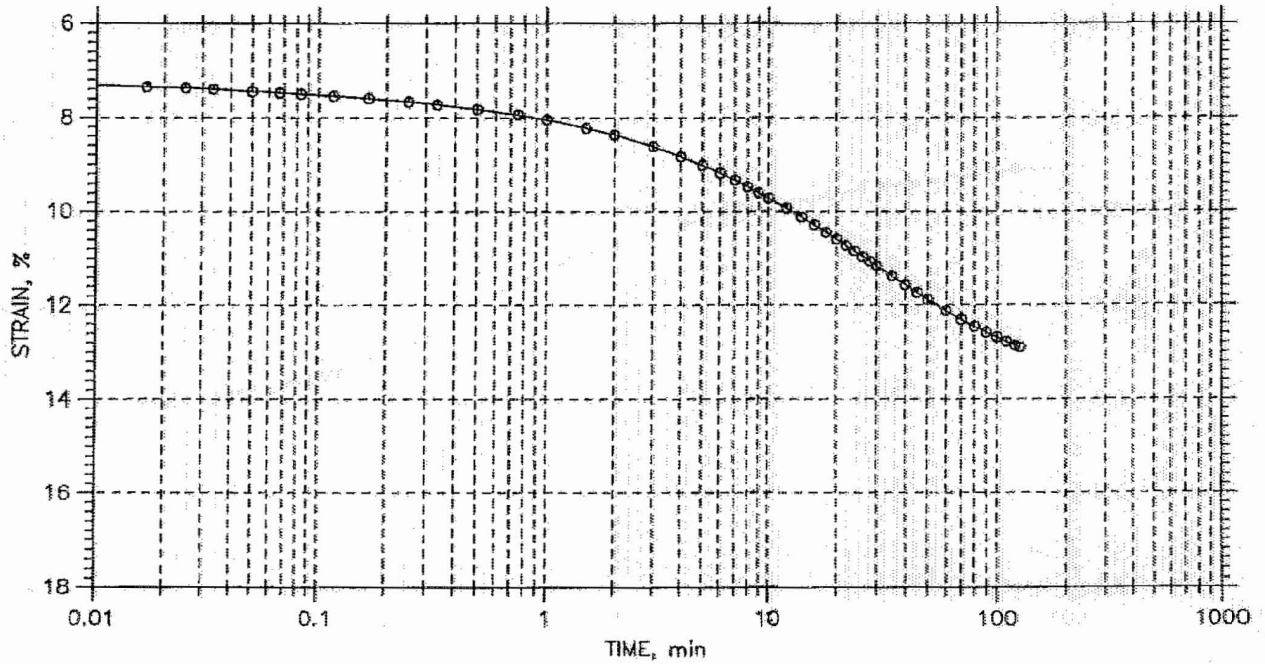
GeoTesting express <small>a subsidiary of Geocomp Corporation</small>	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-433	Tested By: md	Checked By: jdt
	Sample No.: S-11	Test Date: 09/23/06	Depth: 38.5-40.5
	Test No.: C-27	Sample Type: tube	Elevation: ---
	Description: Moist, very dark gray clay (CH), 91% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System C - Compression Ratio: 0.28, Recompression Ratio: 0.04		

CONSOLIDATION TEST DATA

TIME CURVES

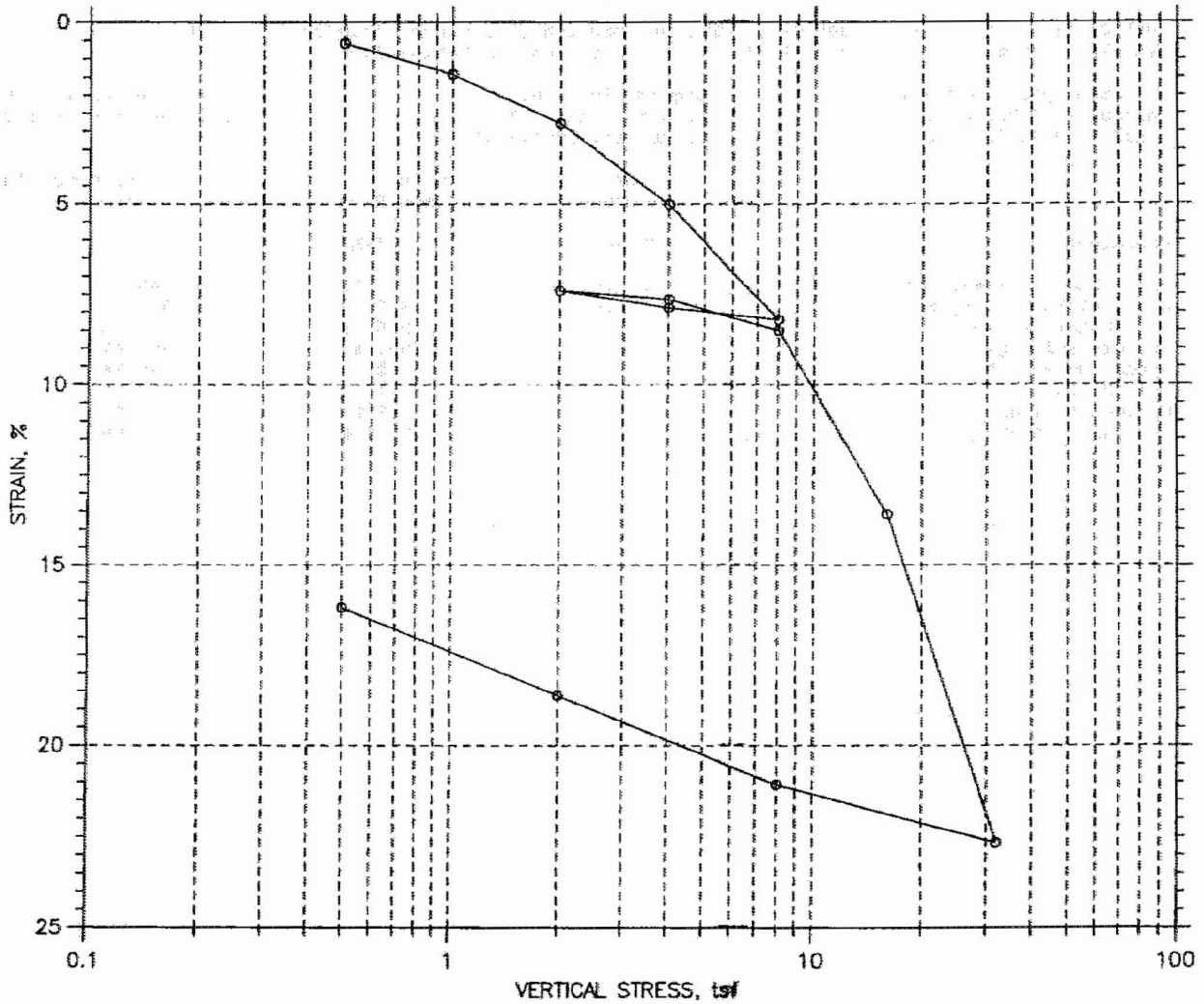
Constant Load Step: 10 of 14

Stress: 16. tsf



GeoTesting express <small>a subsidiary of Geocomp Corporation</small>	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-433	Tested By: md	Checked By: jdt
	Sample No.: S-11	Test Date: 09/23/08	Depth: 38.5-40.5
	Test No.: C-27	Sample Type: tube	Elevation: ---
	Description: Moist, very dark gray clay (CH), 91% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System C - Compression Ratio: 0.28, Recompression Ratio: 0.04		

CONSOLIDATION TEST DATA SUMMARY REPORT



				Before Test	After Test	
Overburden Pressure: ---				Water Content, %	42.17	30.34
Preconsolidation Pressure: 10 tsf				Dry Unit Weight, pcf	77.02	91.89
Compression Index: ---				Saturation, %	97.04	99.99
Diameter: 2.5 in		Height: 1 in		Void Ratio	1.16	0.81
LL: 64	PL: 23	PI: 41	GS: 2.66			

GeoTesting express <small>a subsidiary of Geocomp Corporation</small>	Project: Calvert Cliffs Nuclear PP		Location: Calvert County, MD		Project No.: GTX-6880	
	Boring No.: B-433		Tested By: md		Checked By: jdt	
	Sample No.: S-13		Test Date: 09/23/96		Depth: 48.5-50.5	
	Test No.: C-28		Sample Type: tube		Elevation: ---	
	Description: Moist, black clay (CH), 95% passing #200 sieve, inundated @ 0.5 tsf					
	Remarks: System G - Compression Ratio: 0.31, Recompression Ratio: 0.03					

CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP
 Boring No.: B-433
 Sample No.: S-13
 Test No.: C-28

Location: Calvert County, MD
 Tested By: md
 Test Date: 09/23/06
 Sample Type: tube

Project No.: GTX-6880
 Checked By: jdt
 Depth: 48.5-50.5
 Elevation: ---

Soil Description: Moist, black clay (CH), 95% passing #200 sieve, inundated @ 0.5 tsf
 Remarks: System G - Compression Ratio: 0.31, Recompression Ratio: 0.03

Measured Specific Gravity: 2.66
 Initial Void Ratio: 1.16
 Final Void Ratio: 0.81

Liquid Limit: 64
 Plastic Limit: 23
 Plasticity Index: 41

Initial Height: 1.00 in
 Specimen Diameter: 2.50 in

Container ID	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
	Danvers	RING		2145
Wt. Container + Wet Soil, gm	235.63	357.56	345.82	140.87
Wt. Container + Dry Soil, gm	175.05	315.71	315.71	109.98
Wt. Container, gm	8.29	216.06	216.46	8.17
Wt. Dry Soil, gm	166.76	99.247	99.247	101.81
Water Content, %	36.33	42.17	30.34	30.34
Void Ratio	---	1.16	0.81	---
Degree of Saturation, %	---	97.04	99.99	---
Dry Unit Weight, pcf	---	77.024	91.89	---

CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP
 Boring No.: B-433
 Sample No.: S-13
 Test No.: C-28

Location: Calvert County, MD
 Tested By: md
 Test Date: 09/23/06
 Sample Type: tube

Project No.: GTX-6880
 Checked By: jdt
 Depth: 48.5-50.5
 Elevation: ---

Soil Description: Moist, black clay (CH), 95% passing #200 sieve, inundated @ 0.5 tsf
 Remarks: System G - Compression Ratio: 0.31, Recompression Ratio: 0.03

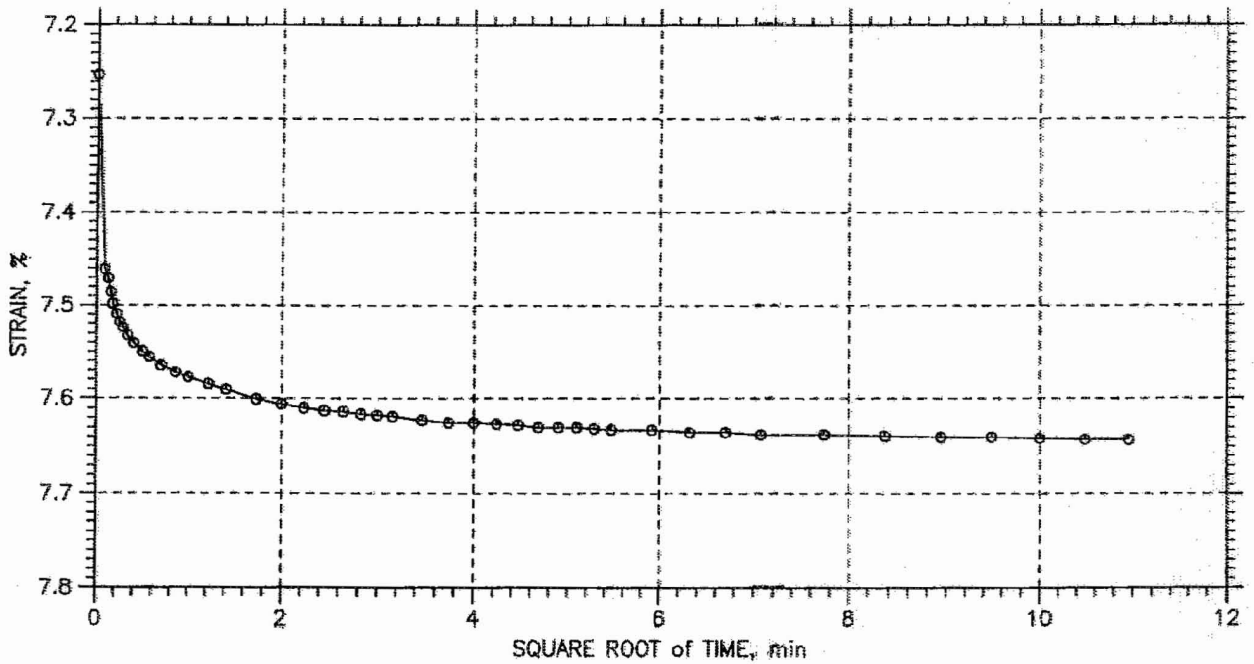
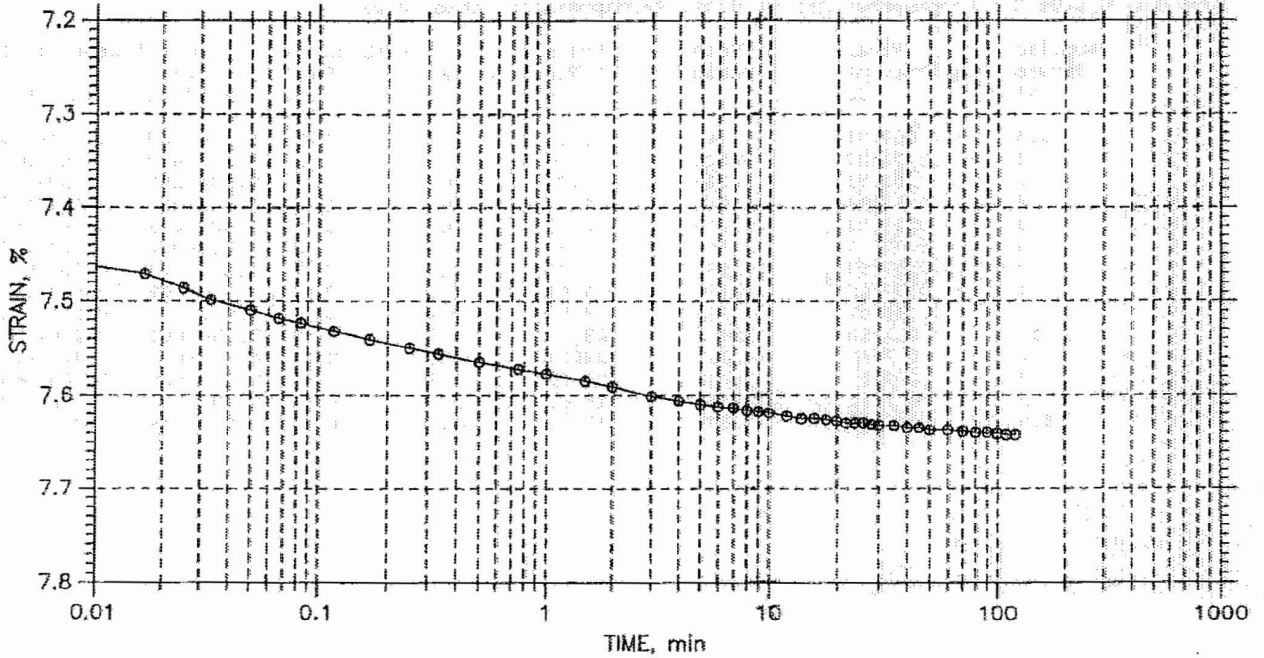
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting		Coefficient of Consolidation		
					Sq. Rt. min	Log min	Sq. Rt. in ² /sec	Log in ² /sec	Ave. in ² /sec
1	0.5	0.005771	1.143	0.58	0.0	0.0	4.25e-002	0.00e+000	4.25e-002
2	1	0.01427	1.125	1.43	0.1	0.0	1.52e-002	2.56e-002	1.91e-002
3	2	0.02778	1.096	2.78	0.0	0.0	2.70e-002	3.53e-002	3.06e-002
4	4	0.05014	1.048	5.01	0.1	0.0	7.60e-003	3.65e-002	1.26e-002
5	8	0.08201	0.979	8.20	0.4	0.0	1.68e-003	0.00e+000	1.68e-003
6	4	0.07871	0.986	7.87	0.1	0.0	1.21e-002	5.98e-001	2.37e-002
7	2	0.07393	0.997	7.39	0.3	0.0	2.26e-003	0.00e+000	2.26e-003
8	4	0.07642	0.991	7.64	0.0	0.0	2.74e-002	0.00e+000	2.74e-002
9	8	0.08501	0.973	8.50	0.4	0.0	1.81e-003	0.00e+000	1.81e-003
10	16	0.1358	0.863	13.58	2.8	0.0	2.33e-004	0.00e+000	2.33e-004
11	32	0.2267	0.667	22.67	11.7	12.8	4.73e-005	4.31e-005	4.51e-005
12	8	0.2107	0.702	21.07	0.9	0.0	5.71e-004	0.00e+000	5.71e-004
13	2	0.1861	0.755	18.61	13.9	0.0	3.79e-005	0.00e+000	3.79e-005
14	0.5	0.1618	0.807	16.18	51.3	0.0	1.09e-005	0.00e+000	1.09e-005

CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 8 of 14

Stress: 4. tsf



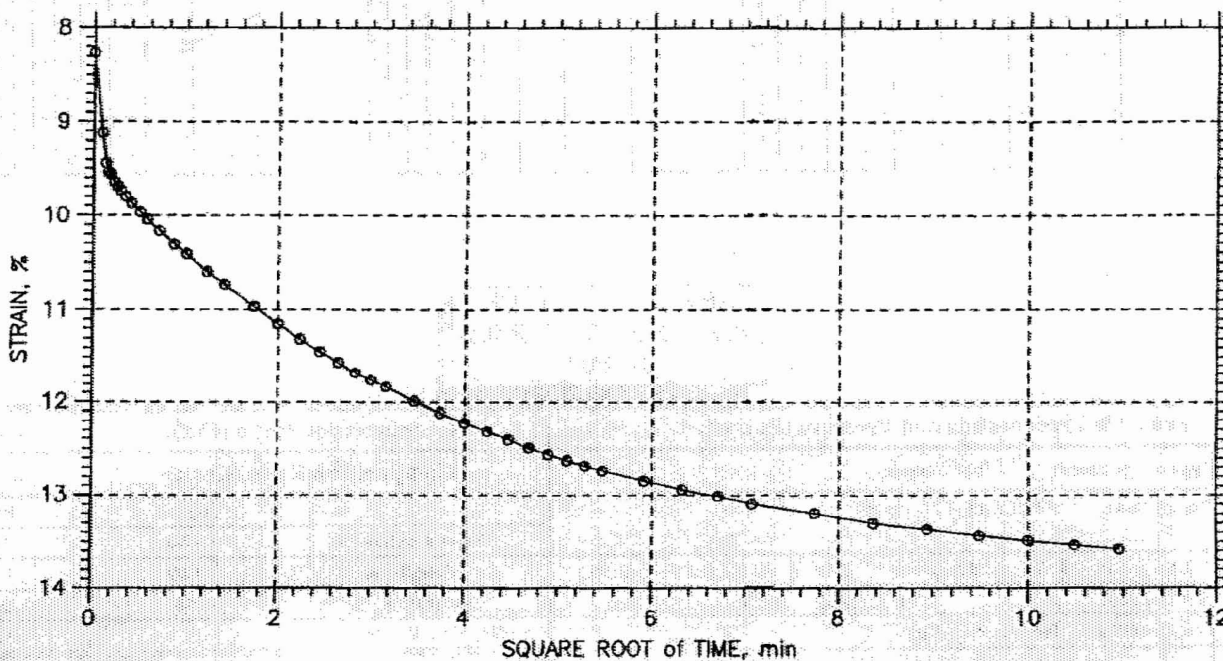
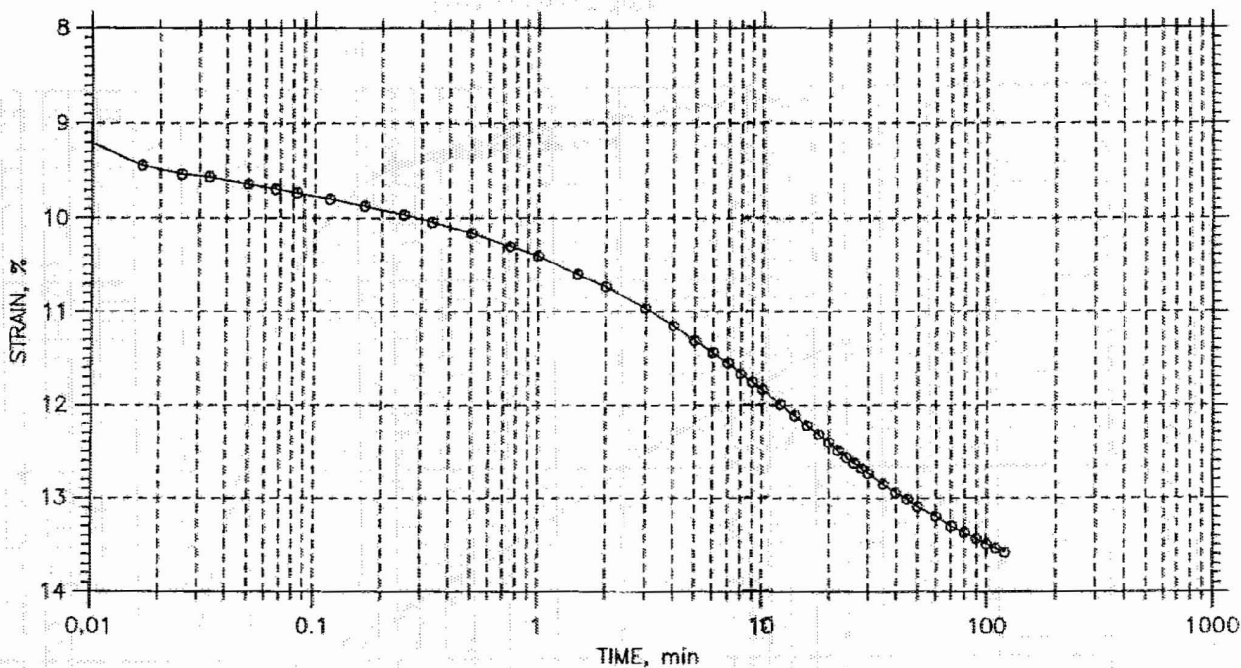
GeoTesting express <small>a subsidiary of Geocomp Corporation</small>	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-433	Tested By: md	Checked By: jdt
	Sample No.: S-13	Test Date: 09/23/06	Depth: 48.5-50.5
	Test No.: C-28	Sample Type: tube	Elevation: ---
	Description: Moist, black clay (CH), 95% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System G - Compression Ratio: 0.31, Recompression Ratio: 0.03		

CONSOLIDATION TEST DATA

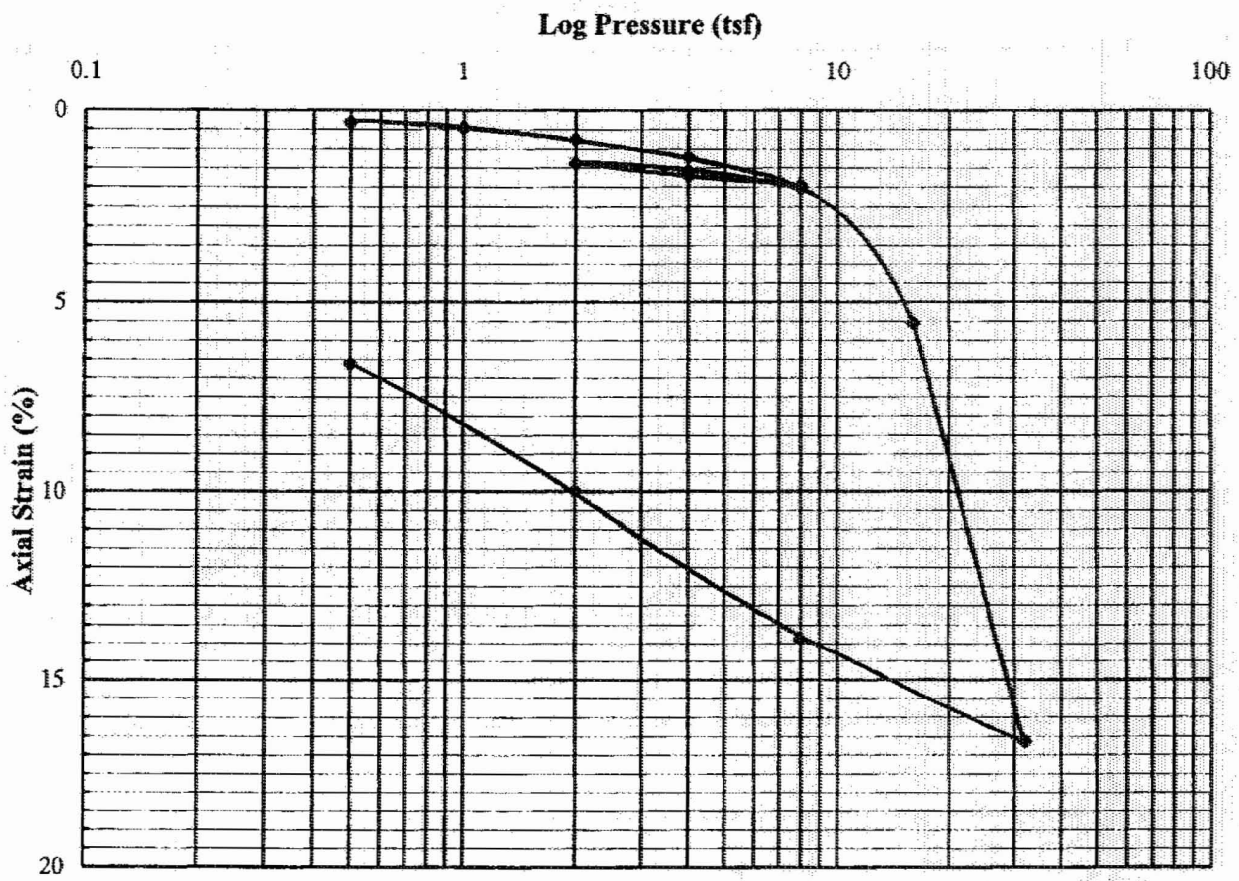
TIME CURVES

Constant Load Step: 10 of 14


Stress: 16. tsf



GeoTesting express <small>a subsidiary of Geocomp Corporation</small>	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-433	Tested By: md	Checked By: jdt
	Sample No.: S-13	Test Date: 09/23/06	Depth: 48.5-50.5
	Test No.: C-28	Sample Type: tube	Elevation: ---
	Description: Moist, black clay (CH), 95% passing #200 sieve, inundated @ 0.5 tsf		
Remarks: System G - Compression Ratio: 0.31, Recompression Ratio: 0.03			



REVISED FORM FOR
NCR NO. 25237-NCR-028
2/12/07

Probable Preconsolidation Pressure (Pp), tsf: 14.0		Recompression Ratio (Ccr): 0.010	
Type of Specimen: Tube Sample		Compression Ratio (Ccc): 0.368	
Description: FAT CLAY (CH) - gray		Initial	Final
LL: 56	PI: 32	Water Content, %	37.6
Gs: 2.84	P_v' (tsf): 2.50	Void Ratio	1.09
% < No. 200: 94.9	Test Method: ASTM D2435 Method A	Saturation, %	98
Test Condition: Inundated @ 1 tsf		Dry Unit Weight, pcf	84.7
Remarks: Coefficient of Consolidation, C _v , equals 202 and 27 ft ² /yr at average pressures of 3 and 12 tsf (square root of time method).		Project: Calvert Cliffs Nuclear Power Plant	
Average Water Content of Trimmings, %: 35.5		Location: Calvert County, MD	
		Boring: B-434	Schnabel No.: 06120048
		Depth: 53.5-55.5 ft	Elevation: 51.7 to 49.7
		Date: 11/21/2006	Reviewed by: CJS
		Consolidation Test Report	

Consolidation Test Data Sheet

Consolidometer ID: 1

11/21/06

Test Method: *ASTM D2435 Method A*

REVISED FORM FOR
NCR NO. 25237-NCR-028
2/12/2007

Schnabel Contract: 06120048

Project: *Calvert Cliffs Nuclear Power Plant*

Test Condition: *Inundated @ 1 tsf*

Initial Height of Specimen (H_0), in.: 0.7505

Boring No.: B-434

Height of Solids (H_s), in.: 0.3590

Depth: 53.5-55.5 ft

Seating Press. (tsf): 0.05

Initial Dial Gauge Reading (D_0), in.: -0.0005

Reviewed by: CJS

Pressure, P (tsf)	Time Readings Required	Date Load Applied	Time Load Applied	Load Applied By	A	B	C	D	Vertical Strain ⁵ , ϵ_v (%)	Void Ratio ⁶ , e_v
					Final ¹ Dial Reading, D_f $\times 10^{-4}$ in.	Apparatus Correction ² , D_{ci} $\times 10^{-4}$ in.	Cumulative Change in Height ³ , ΔH_i in.	Height of Voids ⁴ , H_{vi} in.		
0.5		11/2/2006	9:00	DWC	27	8	0.0024	0.3892	0.32	1.084
1		11/3/2006	9:00	DWC	43	13	0.0035	0.3881	0.47	1.081
2		11/4/2006	9:00	CJS	69	17	0.0057	0.3859	0.76	1.075
4		11/6/2006	9:00	DWC	111	25	0.0091	0.3825	1.21	1.065
8		11/7/2006	9:00	DWC	180	39	0.0146	0.3770	1.95	1.050
4		11/8/2006	9:00	DWC	148	25	0.0128	0.3788	1.71	1.055
2		11/9/2006	9:00	DWC	116	17	0.0104	0.3812	1.39	1.062
4		11/10/2006	9:00	DWC	139	25	0.0119	0.3797	1.59	1.058
8		11/11/2006	9:00	DWC	186	39	0.0152	0.3764	2.03	1.048
16		11/13/2006	9:00	DWC	460	48	0.0417	0.3499	5.56	0.975
32		11/14/2006	9:00	DWC	1300	56	0.1249	0.2667	16.64	0.743
8		11/15/2006	9:00	CJS	1075	39	0.1041	0.2875	13.87	0.801
2		11/16/2006	9:00	DWC	761	17	0.0749	0.3167	9.98	0.882
0.5		11/17/2006	9:00	DWC	500	8	0.0497	0.3419	6.62	0.952

- Notes:
- 1 "Final" based on test method; 24 hrs for Method A, end of primary for Method B.
 - 2 Correction value, for the current pressure, from the consolidometer's calibration curve.
 - 3 $\Delta H = D_f - D_0 - D_{ci} = \text{Col. A} - D_0 - \text{Col. B}$
 - 4 $H_{vi} = (H_0 - H_s) - \Delta H$
 - 5 $\epsilon_v = (\Delta H / H_0) \times 100 = (\text{Col. C} / H_0) \times 100$
 - 6 $e_v = H_{vi} / H_s = \text{Col. D} / H_s$



Load Time Readings

11/21/06

Project: Calvert Cliffs Nuclear Power Plant
 Schnabel Contract: 06120048
 Boring No.: B-434 Depth: 53.5-55.5 ft

Consol. ID: 1

Reviewed by: CJS

Elapsed Time (min.)	Dial Guage Readings (inches)					
	4 tsf Reload	16 tsf Load	X tsf Load	X tsf Load	X tsf Load	X tsf Load
	11/10/2006	11/13/2006	Date	Date	Date	Date
0.1	0.0123	0.0216				
0.25	0.0124	0.0223				
0.5	0.0126	0.0231				
1	0.0129	0.0243				
2	0.0131	0.0259				
4	0.0132	0.0280				
8	0.0133	0.0307				
15	0.0134	0.0332				
30	0.0135	0.0361				
60	0.0136	0.0381				
120	0.0137	0.0402				
240	0.0138	0.0419				
480	0.0138	0.0436				
720	0.0138	0.0447				
960	0.0138	0.0452				
1200	0.0138	0.0459				
1440	0.0139	0.0460				
1680						
1920						
2160						
2400						
2640						
2880						



Consolidation Time Curves

11/21/06

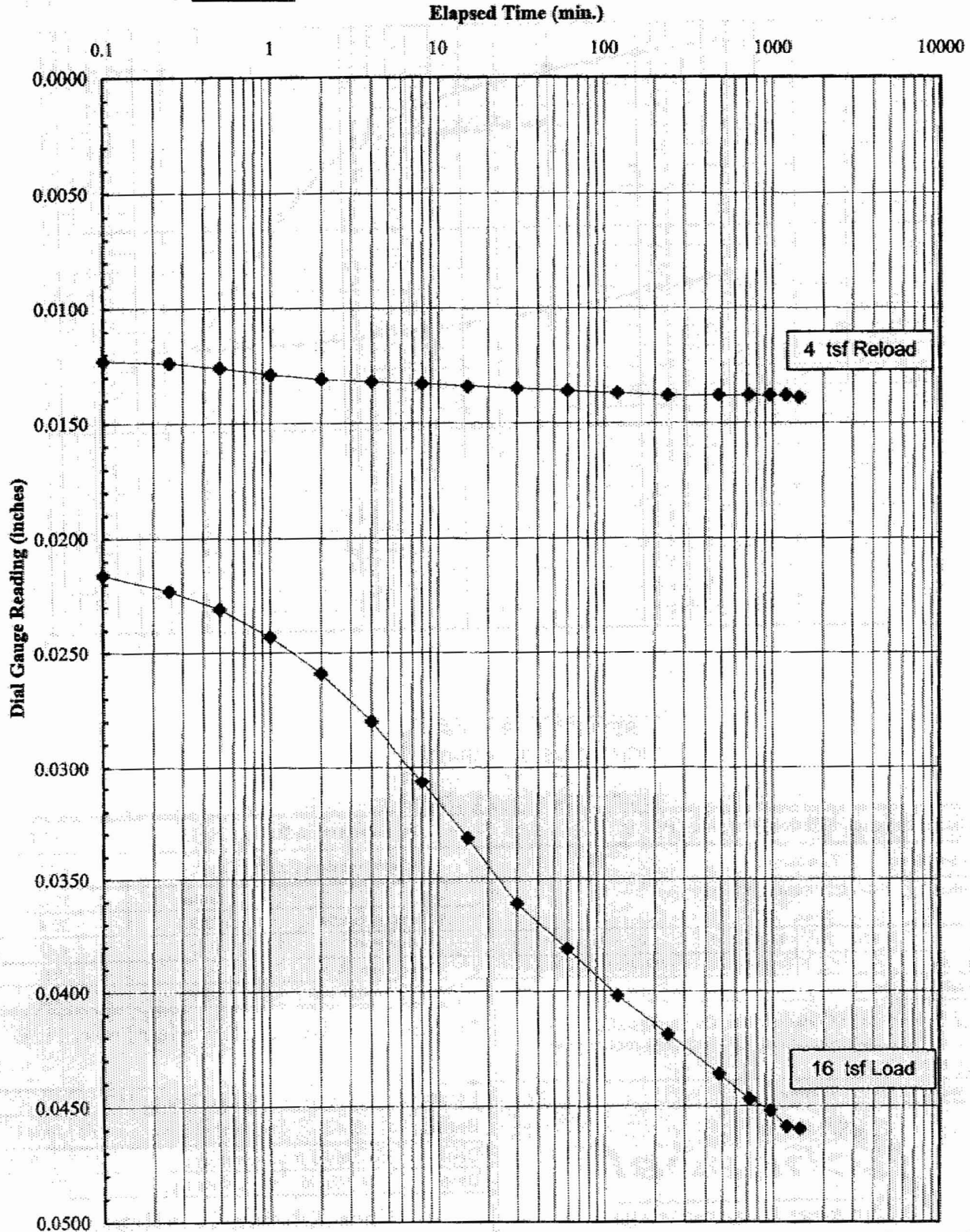
Project: Calvert Cliffs Nuclear Power Plant

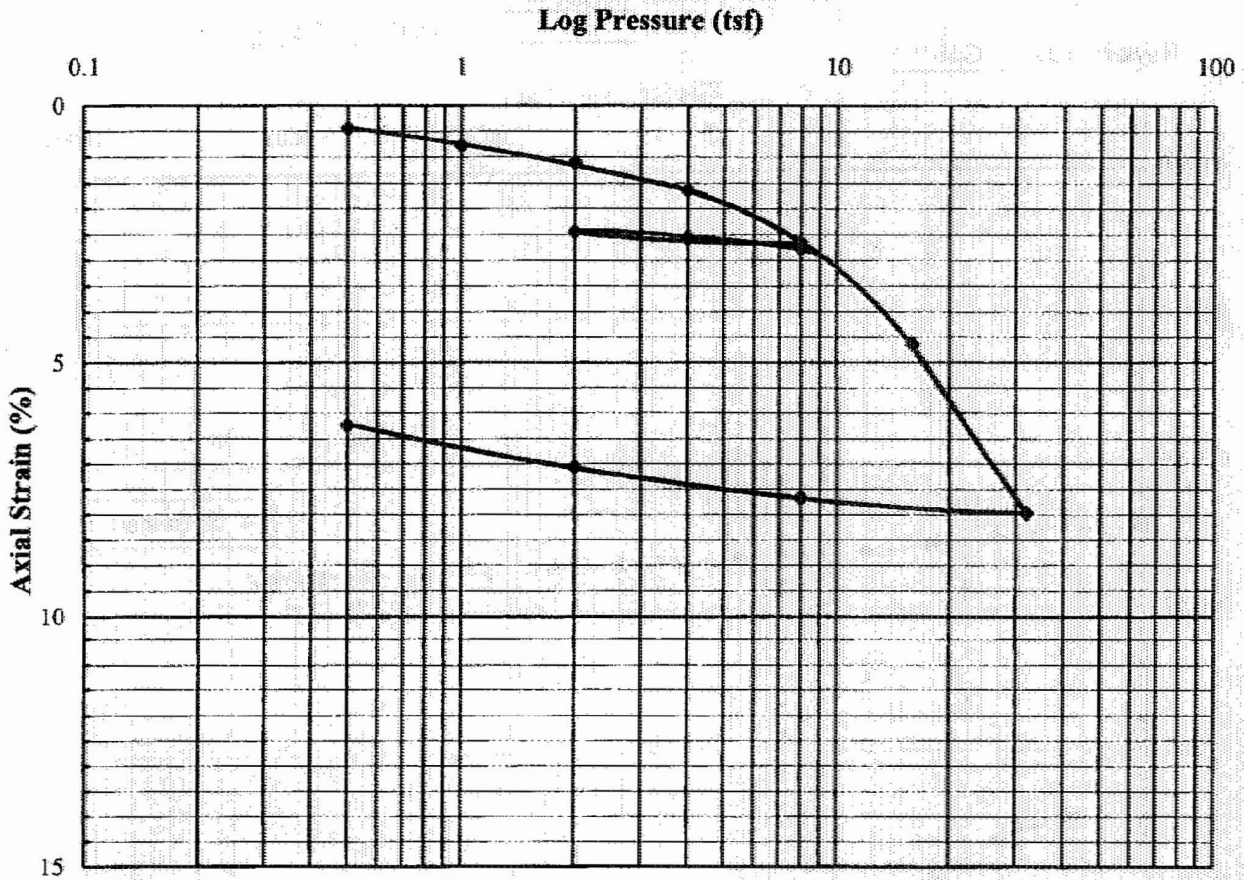
Schnabel Contract: 06120048

Boring No.: B-434


Depth: 53.5-55.5 ft

Reviewed by: CJS





REVISED FORM FOR
NCR NO. 25237-NCR-028
2/12/07

Probable Preconsolidation Pressure (Pp), tsf: 11.8		Recompression Ratio (C_{er}): 0.004	
Type of Specimen: Tube Sample		Compression Ratio (C_{cc}): 0.111	
Description: Fine SILTY SAND (SM) - dark gray		Initial	Final
		Water Content, %	22.9
		Void Ratio	0.72
		Saturation, %	87
		Dry Unit Weight, pcf	98.9
LL: --	PI: NP	Gs: 2.72	F_s' (tsf): 2.75
% < No. 200: 36.9	Test Method: ASTM D2435 Method A		
Test Condition: Inundated @ 0.5 tsf			
Remarks: Coefficient of Consolidation, C _v , equals 2023 ft ² /yr at an average pressure of 12 tsf (square root of time method).		Project: Calvert Cliffs Nuclear Power Plant	
Average Water Content of Trimmings, %: 22.9		Location: Calvert County, MD	
		Boring: B-434	Schnabel No.: 06120048
		Depth: 63.5-64.3 ft	Elevation: 41.7 to 40.9
		Date: 12/4/2006	Reviewed by: CJS
		Consolidation Test Report	

Consolidation Test Data Sheet

Consolidometer ID: 2

12/4/06

REVISED FORM FOR
NCR NO. 25237-NCR-028
2/12/2007

Schnabel Contract: 06120048

Project: Calvert Cliffs Nuclear Power Plant

Test Method: ASTM D2435 Method A

Test Condition: Inundated @ 0.5 tsf

Initial Height of Specimen (H_0), in.: 0.7514

Boring No.: B-434

Height of Solids (H_s), in.: 0.4381

Depth: 63.5-64.3 ft

Seating Press. (tsf): 0.05

Initial Dial Gauge Reading (D_0), in.: 0.0000

Reviewed by: CJS

Pressure, P (tsf)	Time Readings Required	Date Load Applied	Time Load Applied	Load Applied By	A	B	C	D	Vertical Strain ⁵ , ϵ_v (%)	Void Ratio ⁶ , e_v
					Final ¹ Dial Reading, D_f $\times 10^{-4}$ in.	Apparatus Correction ² , D_{ci} $\times 10^{-4}$ in.	Cumulative Change in Height ³ , ΔH_i in.	Height of Voids ⁴ , H_{vi} in.		
0.5		11/9/2006	9:05	DWC	45	11	0.0034	0.3099	0.45	0.707
1		11/10/2006	9:05	DWC	73	15	0.0058	0.3075	0.77	0.702
2		11/11/2006	9:05	DWC	104	21	0.0083	0.3050	1.10	0.696
4		11/13/2006	9:05	DWC	151	28	0.0123	0.3010	1.64	0.687
8		11/14/2006	9:05	DWC	236	36	0.0200	0.2933	2.66	0.670
4		11/15/2006	9:05	CJS	222	28	0.0194	0.2939	2.58	0.671
2		11/16/2006	9:05	DWC	205	21	0.0184	0.2949	2.45	0.673
4		11/17/2006	9:05	DWC	219	28	0.0191	0.2942	2.54	0.672
8		11/21/2006	9:05	DWC	245	36	0.0209	0.2924	2.78	0.667
16		11/22/2006	9:05	DWC	394	45	0.0349	0.2784	4.64	0.636
32		11/27/2006	9:05	DWC	656	57	0.0599	0.2534	7.97	0.578
8		11/28/2006	11:25	DWC	612	36	0.0576	0.2557	7.67	0.584
2		11/29/2006	11:25	DWC	552	21	0.0531	0.2602	7.07	0.594
0.5		11/30/2006	11:25	DWC	480	11	0.0469	0.2664	6.24	0.608

- Notes:
- 1 "Final" based on test method; 24 hrs for Method A, end of primary for Method B.
 - 2 Correction value, for the current pressure, from the consolidometer's calibration curve.
 - 3 $\Delta H = D_f - D_0 - D_{ci} = \text{Col. A} - D_0 - \text{Col. B}$
 - 4 $H_{vi} = (H_0 - H_s) - \Delta H$
 - 5 $\epsilon_v = (\Delta H / H_0) \times 100 = (\text{Col. C} / H_0) \times 100$
 - 6 $e_v = H_{vi} / H_s = \text{Col. D} / H_s$

Consol 8/2006 Rev. 1



Load Time Readings

12/4/06

Project: Calvert Cliffs Nuclear Power Plant

Schnabel Contract: 06120048

Boring No.: B-434

Depth: 63.5-64.3 ft

Consol. ID: 2

Reviewed by: CJS

Elapsed Time (min.)	Dial Guage Readings (inches)					
	4 tsf Reload	16 tsf Load	X tsf Load	X tsf Load	X tsf Load	X tsf Load
	11/17/2006	11/22/2006	Date	Date	Date	Date
0.1	0.0216	0.0335				
0.25	0.0216	0.0341				
0.5	0.0216	0.0346				
1	0.0216	0.0349				
2	0.0216	0.0353				
4	0.0216	0.0357				
8	0.0216	0.0361				
15	0.0216	0.0365				
30	0.0217	0.0369				
60	0.0217	0.0373				
120	0.0217	0.0378				
240	0.0218	0.0382				
480	0.0219	0.0388				
720	0.0219	0.0389				
960	0.0219	0.0391				
1200	0.0219	0.0392				
1440	0.0219	0.0394				
1680	0.0219	0.0396				
1920	0.0219	0.0396				
2160	0.0219	0.0396				
2400	0.0219	0.0397				
2640	0.0219	0.0397				
2880	0.0219	0.0398				