Schnabel Engineering

Consolidation Time Curves

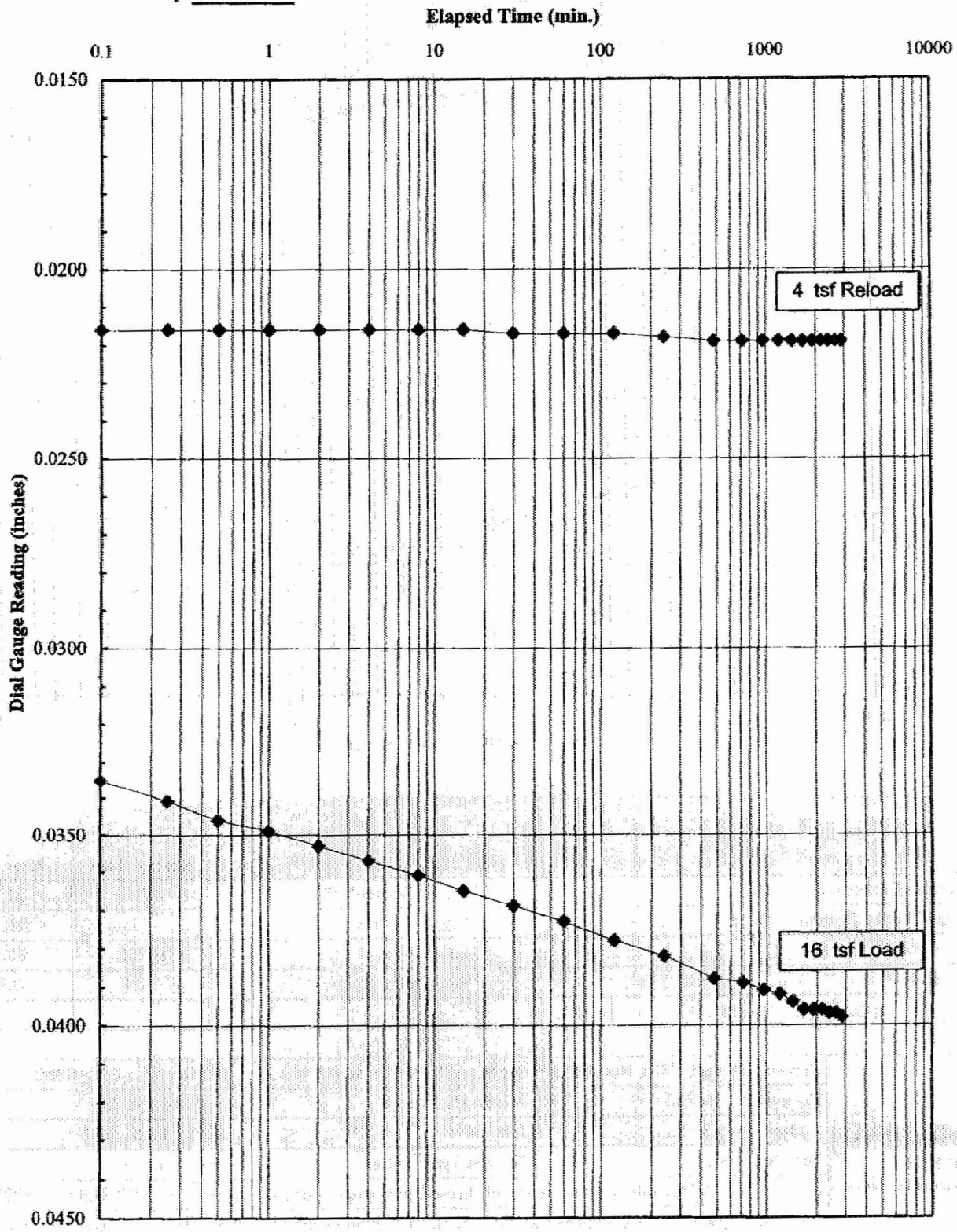
12/4/06

Project: Calvert Cliffs Nuclear Power Plant

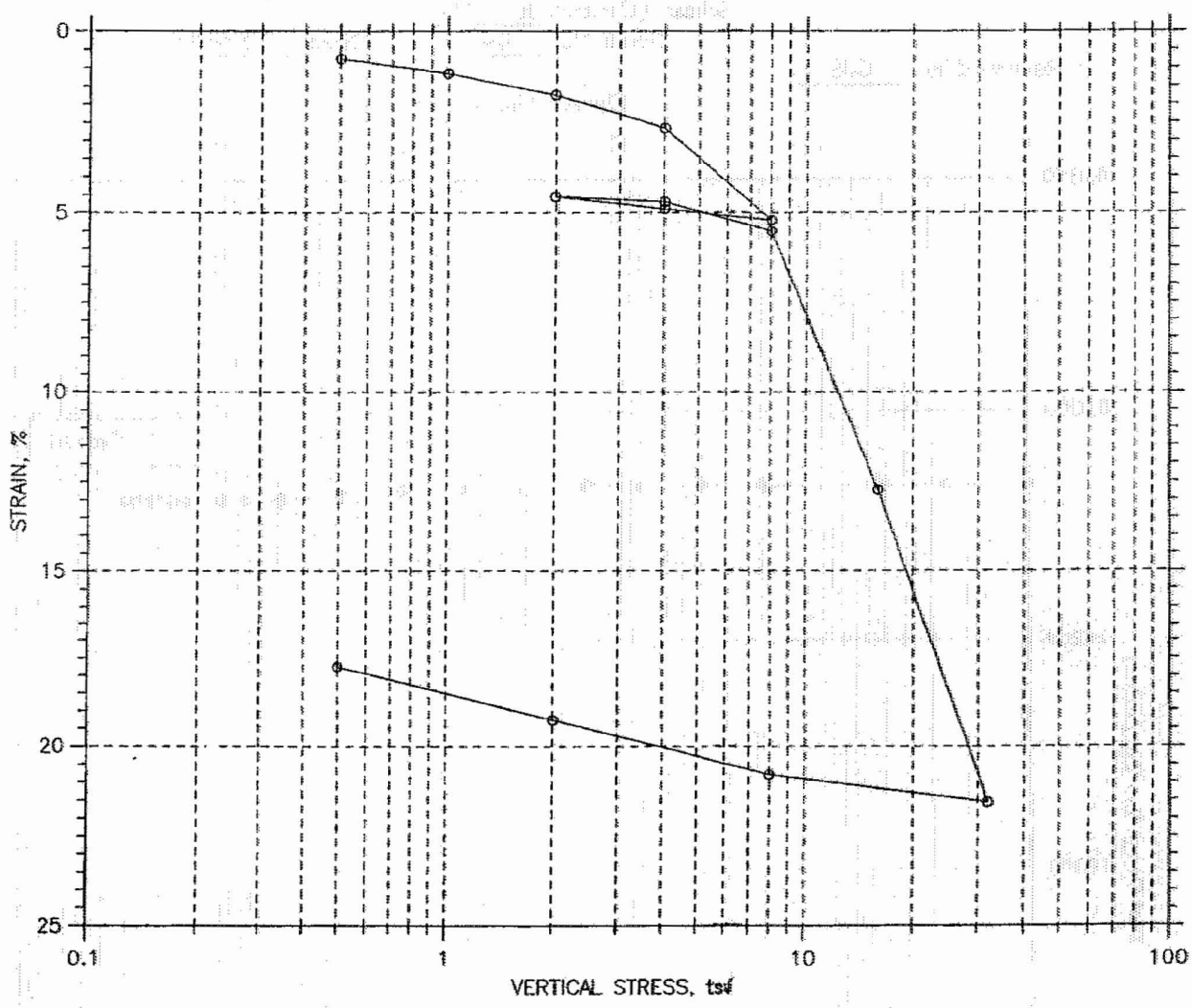
Schnabel Contract: 06120048

Boring No.: B-434 Depth: 63.5-64.3 ft

Reviewed by: CJS



CONSOLIDATION TEST DATA
SUMMARY REPORT



					Before Test	After Test
Overburden Pressure: ---				Water Content, %	47.32	33.30
Preconsolidation Pressure: 9 tsf				Dry Unit Weight, pcf	73.	88.75
Compression Index: ---				Saturation, %	97.62	99.99
Diameter: 2.5 in		Height: 1 in		Void Ratio	1.31	0.90
LL: 69	PL: 25	PI: 44	GS: 2.70			

GeoTesting express a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-703	Tested By: md	Checked By: jdt
	Sample No.: S-7	Test Date: 11/04/06	Depth: 18.5-19.7
	Test No.: C-52	Sample Type: tube	Elevation: ---
	Description: Moist,mottled light yellowish brown,dark gray organic clay with sand(OH),83% <#200 sieve		
	Remarks: System C - Compression Ration: 0.30, Recompression Ratio: 0.03, inundated @ 0.5 tsf		

Tue, 14-NOV-2006 18:10:11

CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
Boring No.: B-703	Tested By: md	Checked By: jdt
Sample No.: S-7	Test Date: 11/04/06	Depth: 18.5-19.7
Test No.: C-52	Sample Type: tube	Elevation: ---

Soil Description: Moist,mottled light yellowish brown,dark gray organic clay with sand(OH),83% <#200 sieve
Remarks: System C - Compression Ration: 0.30, Recompression Ratio: 0.03, inundated @ 0.5 tsf

Measured Specific Gravity: 2.70	Liquid Limit: 69	Initial Height: 1.00 in
Initial Void Ratio: 1.31	Plastic Limit: 25	Specimen Diameter: 2.50 in
Final Void Ratio: 0.90	Plasticity Index: 44	

	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
Container ID	ETA	RING		968
Wt. Container + Wet Soil, gm	106.23	355.46	342.27	135.24
Wt. Container + Dry Soil, gm	76.08	310.94	310.94	103.48
Wt. Container, gm	8.09	216.88	216.88	8.11
Wt. Dry Soil, gm	67.99	94.065	94.065	95.37
Water Content, %	44.34	47.32	33.30	33.30
Void Ratio	---	1.31	0.90	---
Degree of Saturation, %	---	97.62	99.99	---
Dry Unit Weight, pcf	---	73.002	88.749	---

CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP
Boring No.: B-703
Sample No.: S-7
Test No.: C-52

Location: Calvert County, MD
Tested By: md
Test Date: 11/04/06
Sample Type: tube

Project No.: GTX-6880
Checked By: jdt
Depth: 18.5-19.7
Elevation: ---

Soil Description: Moist,mottled light yellowish brown,dark gray organic clay with sand(OH),83% <#200 sieve
Remarks: System C - Compression Ration: 0.30, Recompression Ratio: 0.03, inundated @ 0.5 tsf

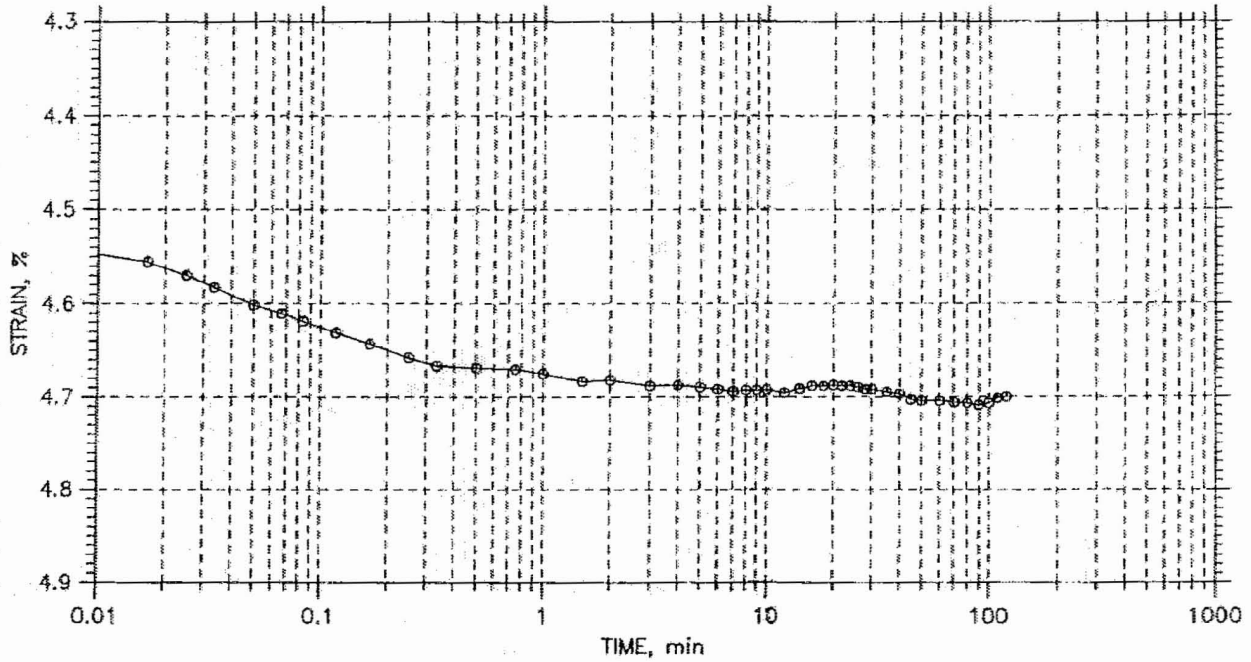
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting Sq.Rt. min	T50 Fitting Log min	Coefficient of Consolidation Sq.Rt. in^2/sec	Coefficient of Consolidation Log in^2/sec	Coefficient of Consolidation Ave. in^2/sec
1	0.5	0.007584	1.291	0.76	0.4	0.0	2.00e-003	0.00e+000	2.00e-003
2	1	0.01159	1.282	1.16	0.0	0.0	2.51e-002	4.27e-002	3.16e-002
3	2	0.01744	1.269	1.74	0.0	0.0	4.90e-002	5.64e-002	5.24e-002
4	4	0.02654	1.248	2.65	0.0	0.0	1.58e-002	4.90e-002	2.39e-002
5	8	0.05211	1.189	5.21	0.4	0.1	1.90e-003	9.22e-003	3.14e-003
6	4	0.04893	1.196	4.89	0.0	0.0	1.37e-001	0.00e+000	1.37e-001
7	2	0.04553	1.204	4.55	0.1	0.0	7.11e-003	1.90e-002	1.03e-002
8	4	0.047	1.200	4.70	0.0	0.0	1.22e-001	0.00e+000	1.22e-001
9	8	0.05511	1.182	5.51	0.2	0.0	4.93e-003	8.30e-002	9.31e-003
10	16	0.1273	1.015	12.73	0.7	0.7	1.02e-003	1.01e-003	1.02e-003
11	32	0.2156	0.811	21.56	0.9	1.5	6.04e-004	3.79e-004	4.66e-004
12	8	0.2079	0.829	20.79	0.0	0.0	4.79e-002	0.00e+000	4.79e-002
13	2	0.1926	0.864	19.26	1.2	0.0	4.44e-004	0.00e+000	4.44e-004
14	0.5	0.1774	0.899	17.74	5.8	7.8	9.49e-005	7.03e-005	8.08e-005

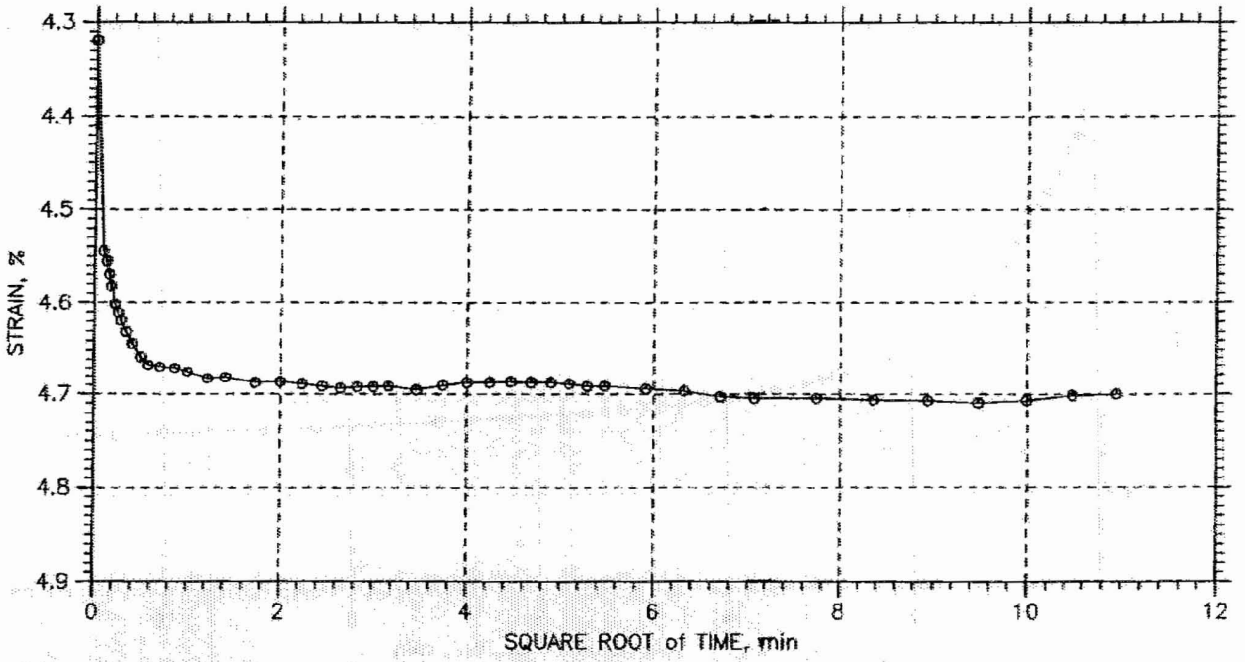
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 8 of 14

Stress: 4. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-703	Tested By: md	Checked By: jdt
	Sample No.: S-7	Test Date: 11/04/06	Depth: 18.5-19.7
	Test No.: C-52	Sample Type: tube	Elevation: ---
	Description: Moist,mottled light yellowish brown,dark gray organic clay with sand(OH),83% <#200 sieve		
	Remarks: System C - Compression Ration: 0.30, Recompression Ratio: 0.03, inundated @ 0.5 tsf		

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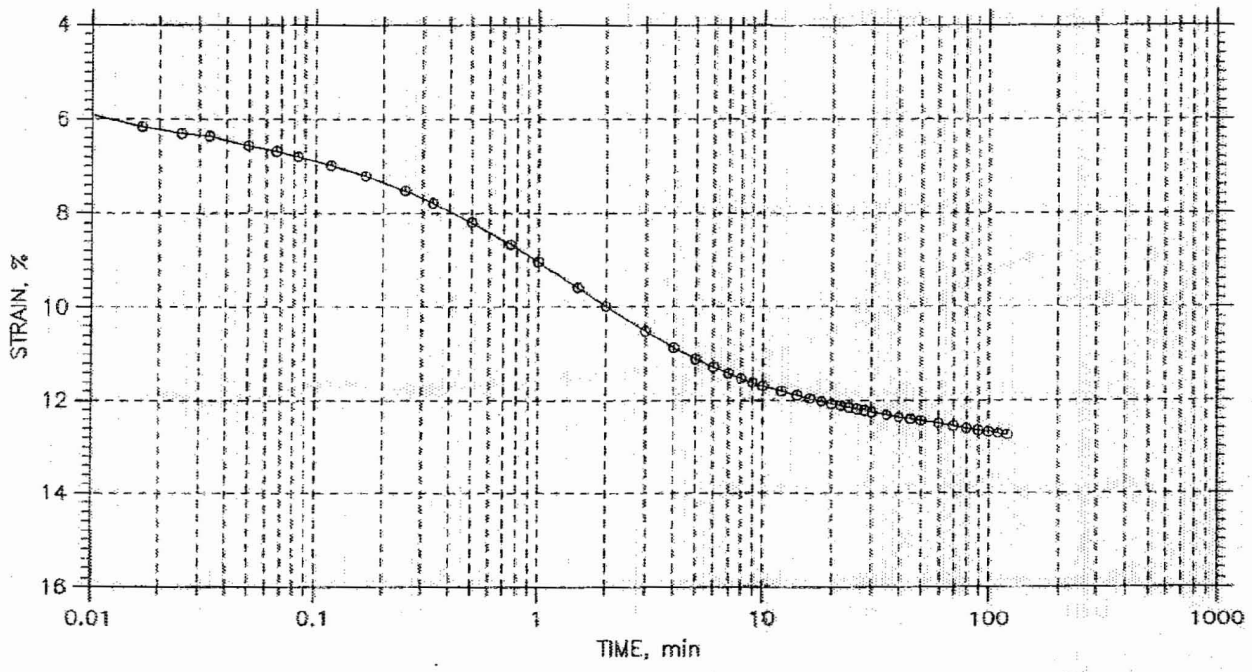
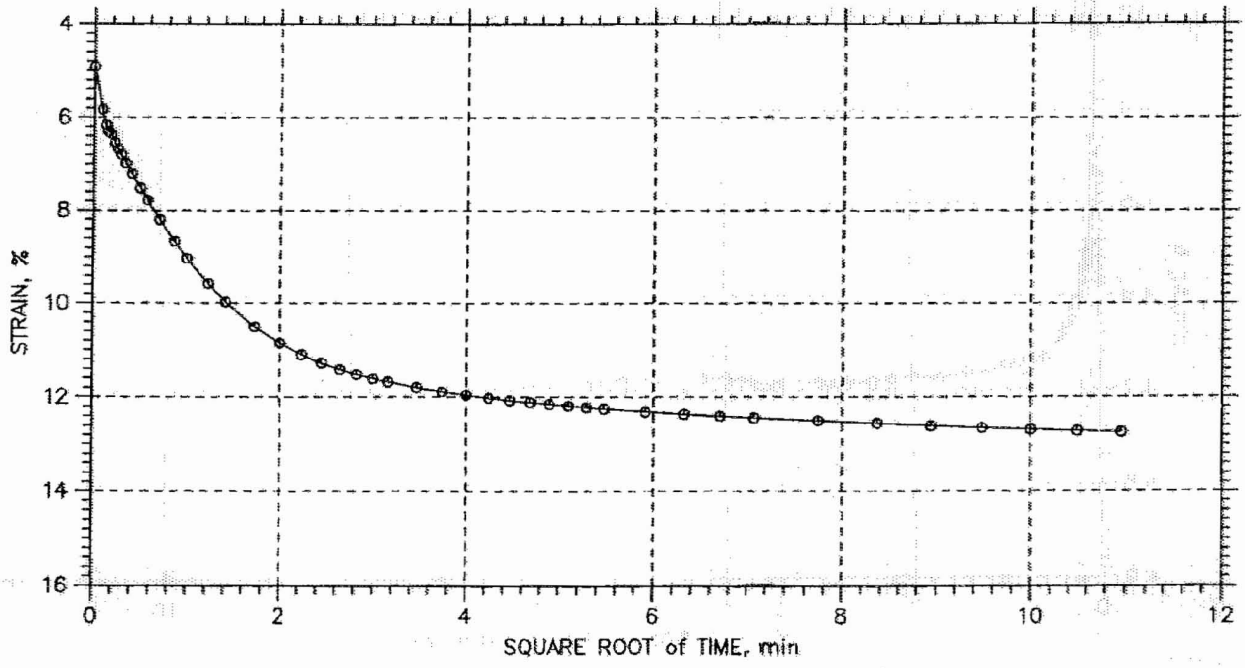
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 10 of 14

Stress: 16. tsf

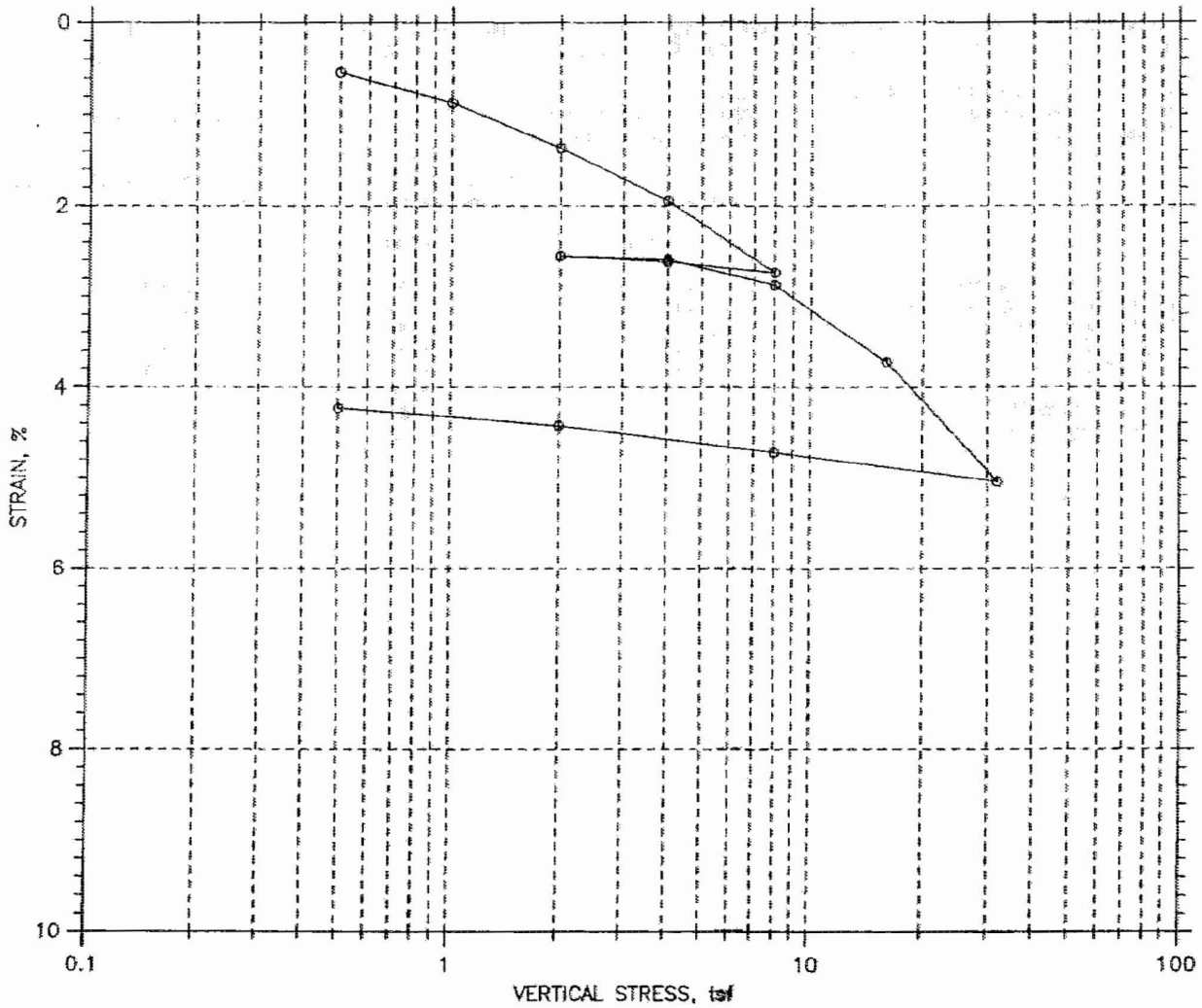




GeoTesting express a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-703	Tested By: md	Checked By: jdt
	Sample No.: S-7	Test Date: 11/04/06	Depth: 18.5-19.7
	Test No.: C-52	Sample Type: tube	Elevation: ---
	Description: Moist,mottled light yellowish brown,dark gray organic clay with sand(OH),83% <#200 sieve		
	Remarks: System C - Compression Ration: 0.30, Recompression Ratio: 0.03, inundated @ 0.5 tsf		

Tue, 14-NOV-2006 18:10:50

CONSOLIDATION TEST DATA
SUMMARY REPORT



				Before Test	After Test
Overburden Pressure: ---				Water Content, %	27.53	25.48
Preconsolidation Pressure: 6 tsf				Dry Unit Weight, pcf	96.88	101.2
Compression Index: ---				Saturation, %	97.61	100.00
Diameter: 2.5 in		Height: 1 in		Void Ratio	0.78	0.70
LL: NP	PL: NP	PI: NP	GS: 2.76			

GeoTesting express, a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-722	Tested By: md	Checked By: jdt
	Sample No.: UD-1	Test Date: 09/18/06	Depth: 33.5-35.5
	Test No.: C-21	Sample Type: tube	Elevation: ---
	Description: Moist, brownish yellow silty sand (SM), 20% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System C - Compression Ratio: 0.04, Recompression Ratio: <0.01		

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CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
Boring No.: B-722	Tested By: md	Checked By: jdt
Sample No.: UD-1	Test Date: 09/18/06	Depth: 33.5-35.5
Test No.: C-21	Sample Type: tube	Elevation: ---

Soil Description: Moist, brownish yellow silty sand (SM), 20% passing #200 sieve, inundated @ 0.5 tsf
Remarks: System C - Compression Ratio: 0.04, Recompression Ratio: <0.01

Measured Specific Gravity: 2.76	Liquid Limit: NP	Initial Height: 1.00 in
Initial Void Ratio: 0.78	Plastic Limit: NP	Specimen Diameter: 2.50 in
Final Void Ratio: 0.70	Plasticity Index: NP	

	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
Container ID	1476	RING		1877
Wt. Container + Wet Soil, gm	187.34	375.64	373.08	164.16
Wt. Container + Dry Soil, gm	148.62	341.27	341.27	132.6
Wt. Container, gm	8.42	216.44	216.44	8.74
Wt. Dry Soil, gm	140.2	124.83	124.83	123.86
Water Content, %	27.62	27.53	25.48	25.48
Void Ratio	---	0.78	0.70	---
Degree of Saturation, %	---	97.61	100.00	---
Dry Unit Weight, pcf	---	96.58	101.16	---

CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP
Boring No.: B-722
Sample No.: UD-1
Test No.: C-21

Location: Calvert County, MD
Tested By: md
Test Date: 09/18/06
Sample Type: tube

Project No.: GTX-6880
Checked By: jdt
Depth: 33.5-35.5
Elevation: ---

Soil Description: Moist, brownish yellow silty sand (SM), 20% passing #200 sieve, inundated @ 0.5 tsf
Remarks: System C - Compression Ratio: 0.04, Recompression Ratio: <0.01

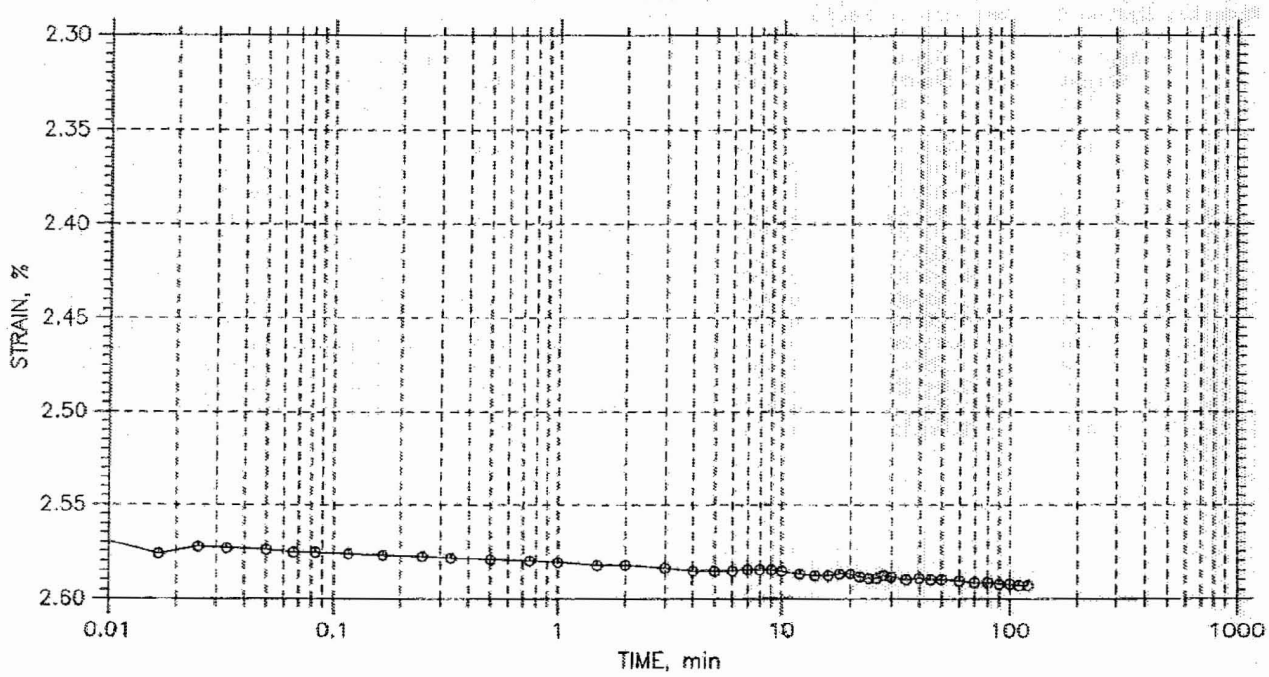
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting Sq.Rt. min	T50 Fitting Log min	Coefficient of Consolidation Sq.Rt. in^2/sec	Coefficient of Consolidation Log in^2/sec	Coefficient of Consolidation Ave. in^2/sec
1	0.5	0.005383	0.769	0.54	0.0	0.0	4.11e-002	0.00e+000	4.11e-002
2	1	0.008744	0.763	0.87	0.0	0.0	6.08e-002	4.92e-002	5.44e-002
3	2	0.01367	0.754	1.37	0.0	0.0	6.57e-002	0.00e+000	6.57e-002
4	4	0.01943	0.744	1.94	0.0	0.0	7.34e-002	0.00e+000	7.34e-002
5	8	0.02734	0.730	2.73	0.0	0.0	8.57e-002	0.00e+000	8.57e-002
6	4	0.02617	0.732	2.62	0.0	0.0	1.92e-001	0.00e+000	1.92e-001
7	2	0.02553	0.733	2.55	0.0	0.0	1.54e-001	0.00e+000	1.54e-001
8	4	0.02593	0.732	2.59	0.0	0.0	1.74e-001	0.00e+000	1.74e-001
9	8	0.02872	0.727	2.87	0.0	0.0	1.72e-001	0.00e+000	1.72e-001
10	16	0.03726	0.712	3.73	0.0	0.0	1.45e-001	0.00e+000	1.45e-001
11	32	0.05043	0.689	5.04	0.0	0.0	7.42e-002	0.00e+000	7.42e-002
12	8	0.04722	0.695	4.72	0.0	0.0	7.69e-002	0.00e+000	7.69e-002
13	2	0.04426	0.700	4.43	0.0	0.0	1.39e-001	0.00e+000	1.39e-001
14	0.5	0.04232	0.703	4.23	0.0	0.0	6.78e-002	0.00e+000	6.78e-002

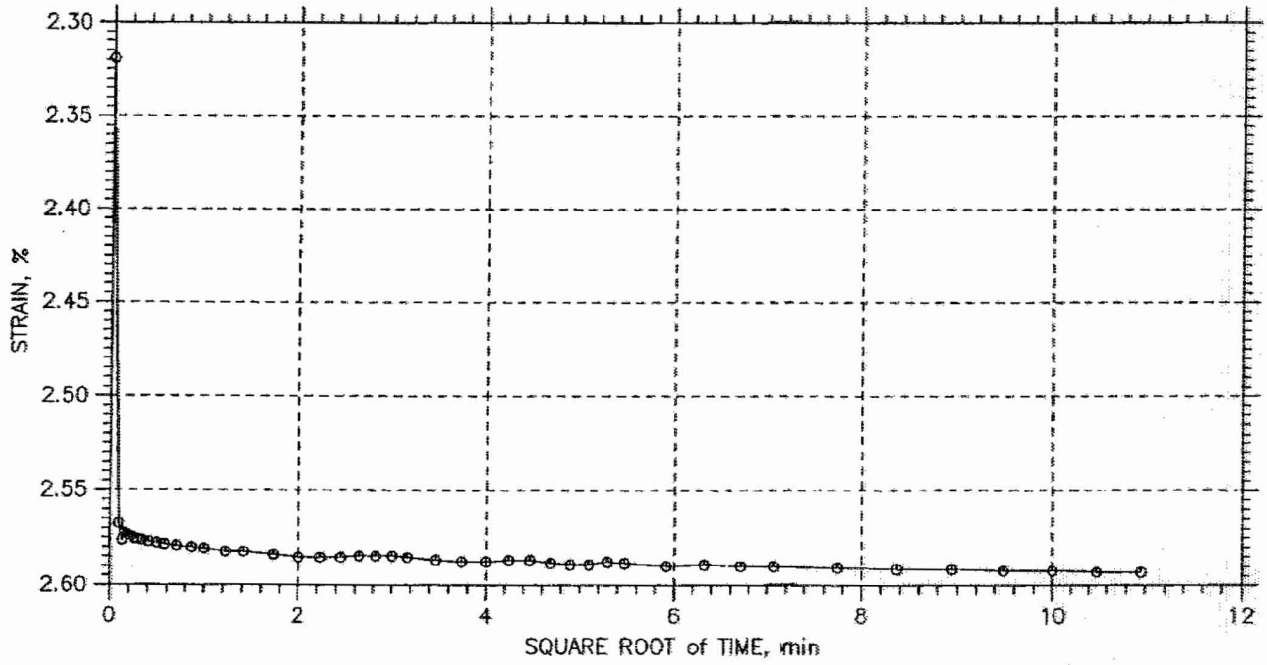
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 8 of 14

Stress: 4. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-722	Tested By: md	Checked By: jdt
	Sample No.: UD-1	Test Date: 09/18/06	Depth: 33.5-35.5
	Test No.: C-21	Sample Type: tube	Elevation: ---
	Description: Moist, brownish yellow silty sand (SM), 20% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System C - Compression Ratio: 0.04, Recompression Ratio: <0.01		

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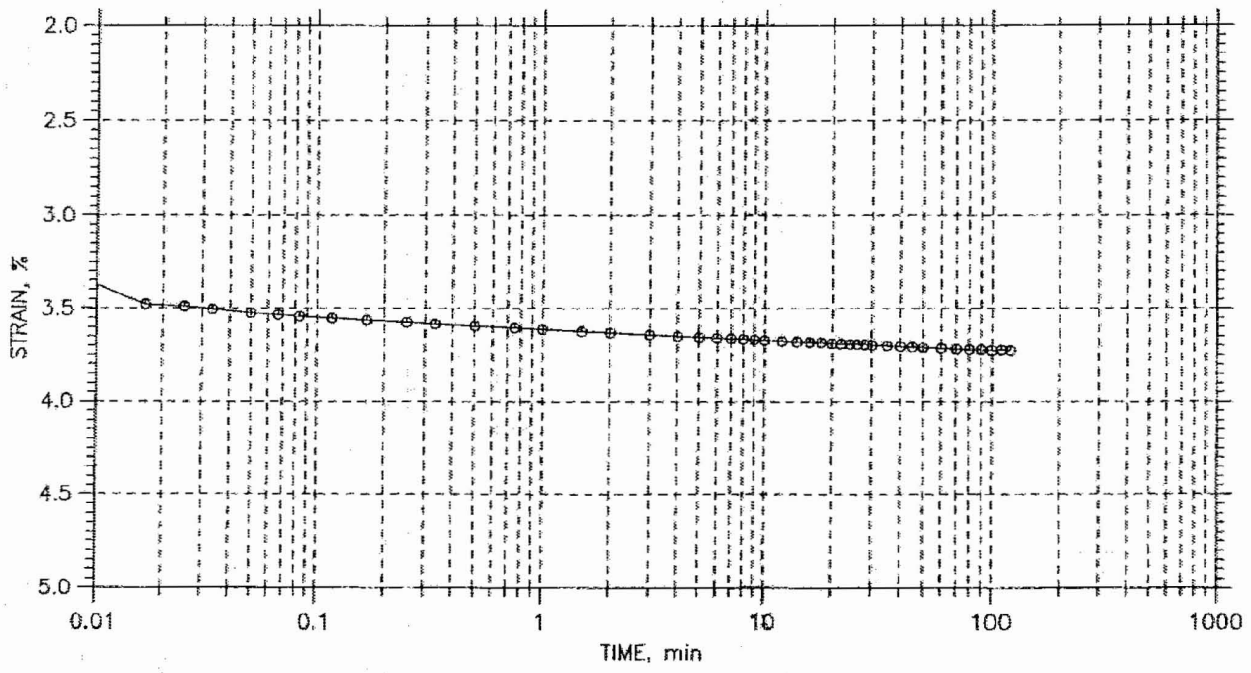
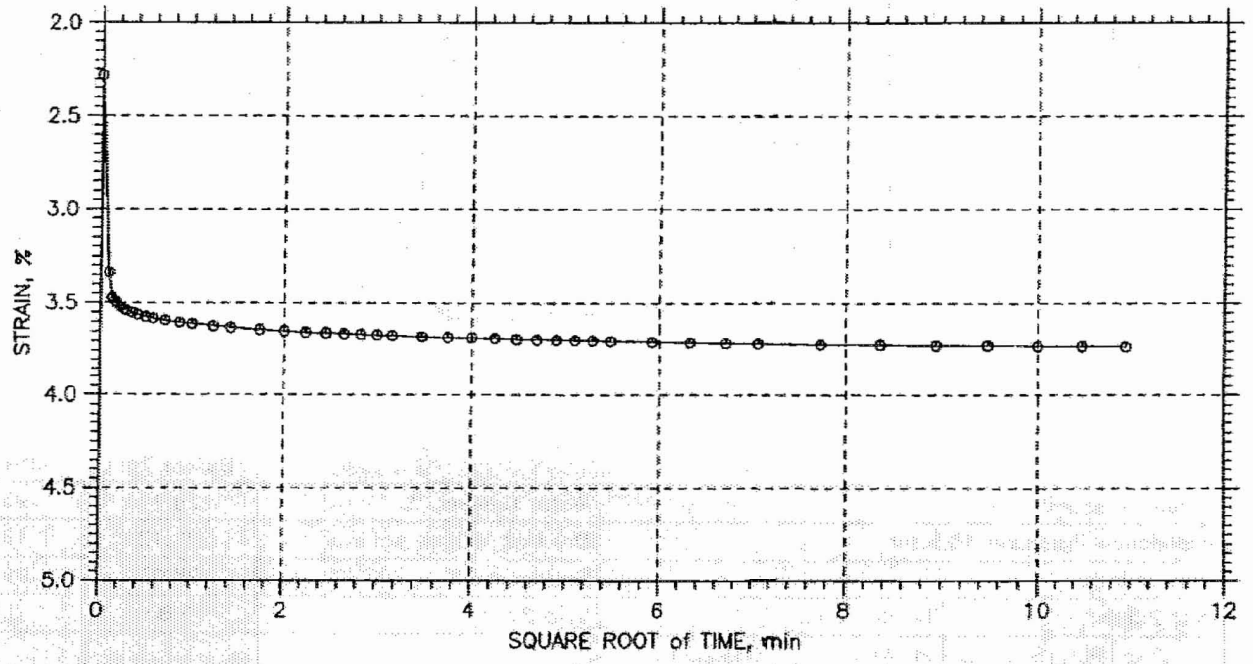
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 10 of 14

Stress: 16. tsf



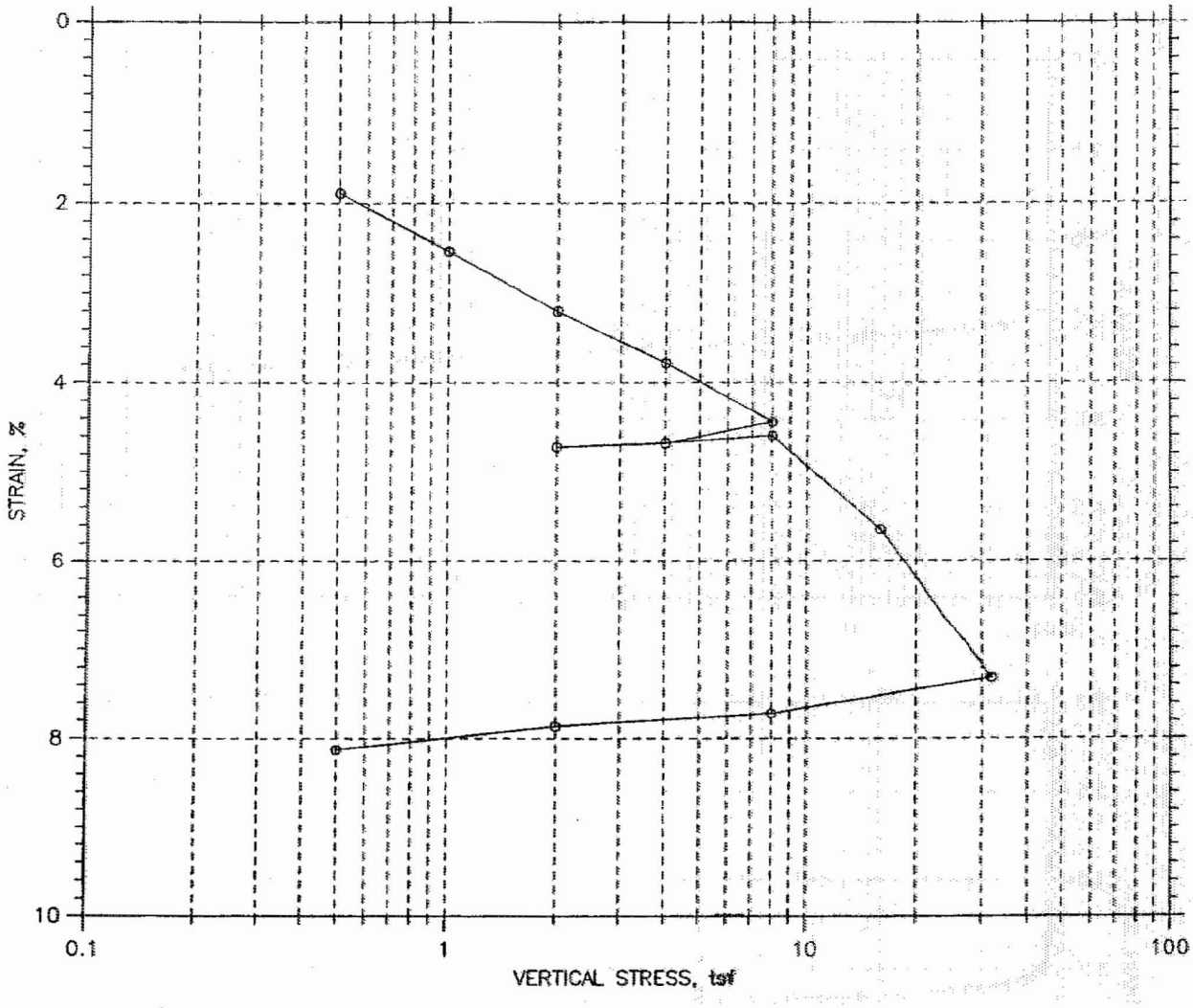


GeoTesting express a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-722	Tested By: md	Checked By: jdt
	Sample No.: UD-1	Test Date: 09/18/06	Depth: 33.5-35.5
	Test No.: C-21	Sample Type: tube	Elevation: ---
	Description: Moist, brownish yellow silty sand (SM), 20% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System C - Compression Ratio: 0.04, Recompression Ratio: <0.01		

Tue, 14-NOV-2006 18:08:24

CONSOLIDATION TEST DATA

SUMMARY REPORT



				Before Test	After Test
Overburden Pressure: ---				Water Content, %	29.14	25.16
Preconsolidation Pressure: 10.5 tsf				Dry Unit Weight, pcf	92.42	100.6
Compression Index: ---				Saturation, %	95.07	99.99
Diameter: 2.5 in		Height: 1 in		Void Ratio	0.83	0.68
LL: 56	PL: 15	PI: 41	GS: 2.71			

GeoTesting express a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-723	Tested By: md	Checked By: jdt
	Sample No.: UD-2	Test Date: 09/20/06	Depth: 28.5-30.5
	Test No.: C-26	Sample Type: tube	Elevation: ---
	Description: Moist, dark olive gray clay (CH), 90% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System R - Compression Ratio: 0.5, Recompression Ratio: < 0.01		

Tue, 14-NOV-2006 18:19:56

CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
Boring No.: B-723	Tested By: md	Checked By: jdt
Sample No.: UD-2	Test Date: 09/20/06	Depth: 28.5-30.5
Test No.: C-26	Sample Type: tube	Elevation: ---

Soil Description: Moist, dark olive gray clay (CH), 90% passing #200 sieve, inundated @ 0.5 tsf
Remarks: System R - Compression Ratio: 0.5, Recompression Ratio: < 0.01

Measured Specific Gravity: 2.71	Liquid Limit: 56	Initial Height: 1.00 in
Initial Void Ratio: 0.83	Plastic Limit: 15	Specimen Diameter: 2.50 in
Final Void Ratio: 0.68	Plasticity Index: 41	

	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
Container ID	CBR-B-1	RING		33
Wt. Container + Wet Soil, gm	143.26	263.04	258.3	158.83
Wt. Container + Dry Soil, gm	114.75	228.34	228.34	128.6
Wt. Container, gm	8.31	109.26	109.26	8.43
Wt. Dry Soil, gm	106.44	119.08	119.08	120.17
Water Content, %	26.79	29.14	25.16	25.16
Void Ratio	---	0.83	0.68	---
Degree of Saturation, %	---	95.07	99.99	---
Dry Unit Weight, pcf	---	92.919	100.59	---

CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP
Boring No.: B-723
Sample No.: UD-2
Test No.: C-26

Location: Calvert County, MD
Tested By: md
Test Date: 09/20/06
Sample Type: tube

Project No.: GTX-6880
Checked By: jdt
Depth: 28.5-30.5
Elevation: ---

Soil Description: Moist, dark olive gray clay (CH), 90% passing #200 sieve, inundated @ 0.5 tsf
Remarks: System R - Compression Ratio: 0.5, Recompression Ratio: < 0.01

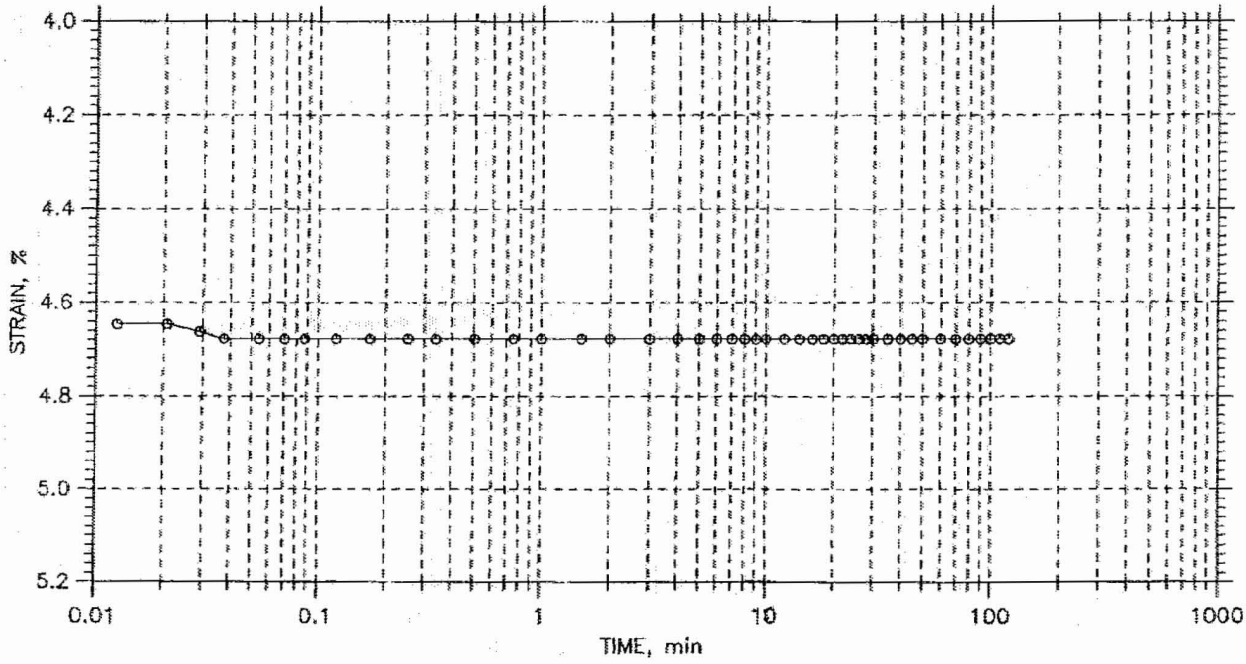
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting Sq.Rt. min	T50 Fitting Log min	Coefficient of Consolidation Sq.Rt. in^2/sec	Coefficient of Consolidation Log in^2/sec	Coefficient of Consolidation Ave. in^2/sec
1	0.5	0.01889	0.796	1.89	0.1	0.0	9.37e-003	0.00e+000	9.37e-003
2	1	0.02535	0.784	2.54	0.1	0.1	1.27e-002	1.38e-002	1.32e-002
3	2	0.03201	0.772	3.20	0.0	0.0	1.70e-002	2.15e-002	1.90e-002
4	4	0.03779	0.761	3.78	0.0	0.0	1.75e-002	2.00e-002	1.86e-002
5	8	0.04437	0.749	4.44	0.0	0.0	1.77e-002	2.00e-002	1.88e-002
6	4	0.04685	0.745	4.69	0.0	0.0	6.11e-002	0.00e+000	6.11e-002
7	2	0.04724	0.744	4.72	0.0	0.0	4.62e-002	0.00e+000	4.62e-002
8	4	0.04677	0.745	4.68	0.0	0.0	3.55e-002	0.00e+000	3.55e-002
9	8	0.04594	0.746	4.59	0.0	0.0	2.66e-002	0.00e+000	2.66e-002
10	16	0.05646	0.727	5.65	0.0	0.0	3.66e-002	2.87e-002	3.21e-002
11	32	0.07319	0.697	7.32	0.0	0.0	3.71e-002	0.00e+000	3.71e-002
12	8	0.07717	0.689	7.72	0.0	0.0	3.34e-002	0.00e+000	3.34e-002
13	2	0.07866	0.687	7.87	0.0	0.0	5.17e-002	0.00e+000	5.17e-002
14	0.5	0.08126	0.682	8.13	0.0	0.0	2.18e-002	0.00e+000	2.18e-002

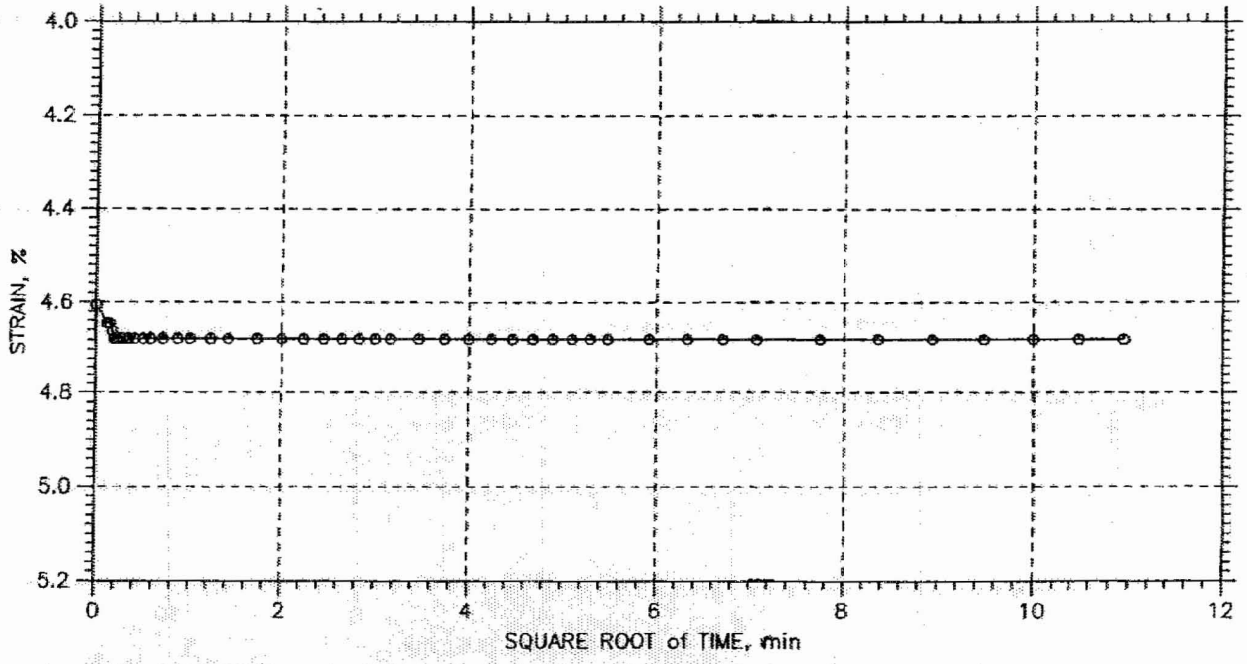
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 8 of 14

Stress: 4. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-723	Tested By: md	Checked By: jdt
	Sample No.: UD-2	Test Date: 09/20/06	Depth: 28.5-30.5
	Test No.: C-26	Sample Type: tube	Elevation: ---
	Description: Moist, dark olive gray clay (CH), 90% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System R - Compression Ratio: 0.5, Recompression Ratio: < 0.01		

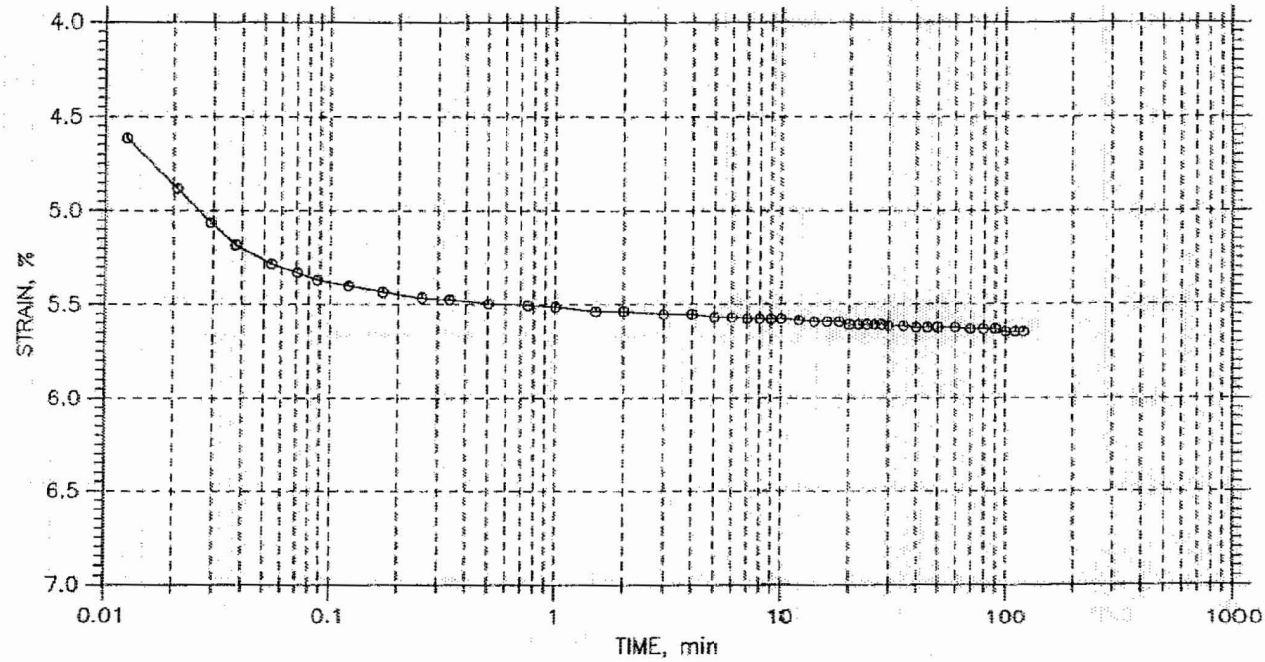
Tue, 14-NOV-2006 18:19:14

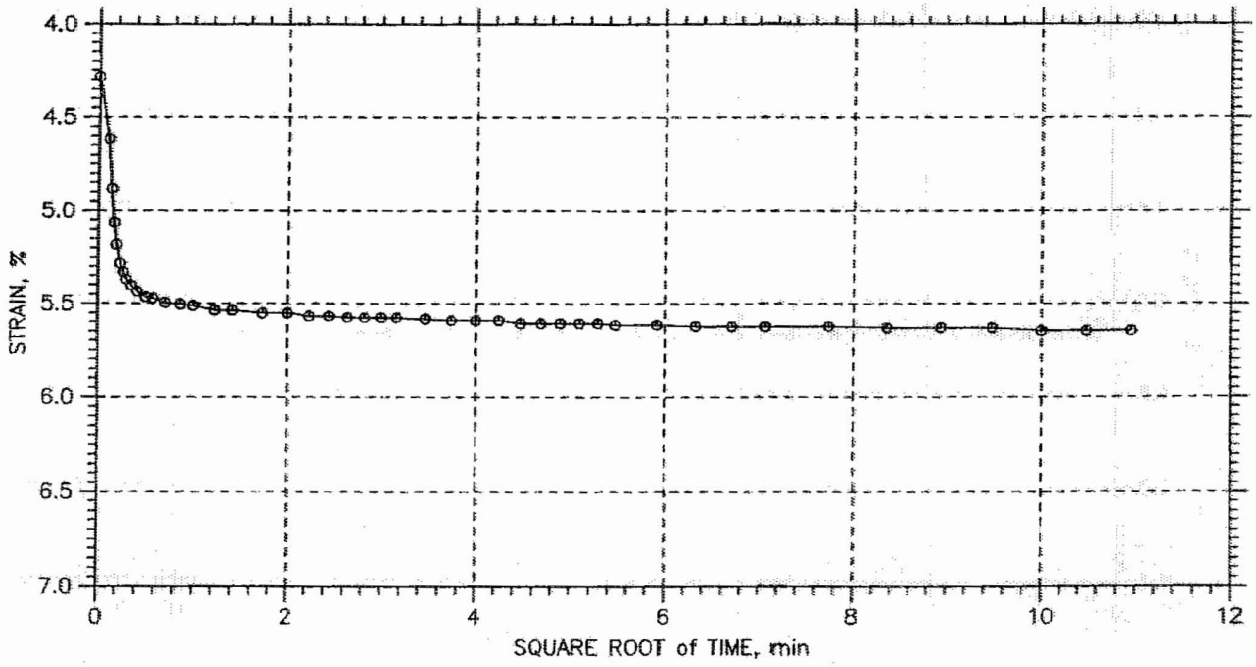
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 10 of 14

Stress: 16. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-723	Tested By: md	Checked By: jdt
	Sample No.: UD-2	Test Date: 09/20/06	Depth: 28.5-30.5
	Test No.: C-26	Sample Type: tube	Elevation: ---
	Description: Moist, dark olive gray clay (CH), 90% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System R - Compression Ratio: 0.5, Recompression Ratio: < 0.01		

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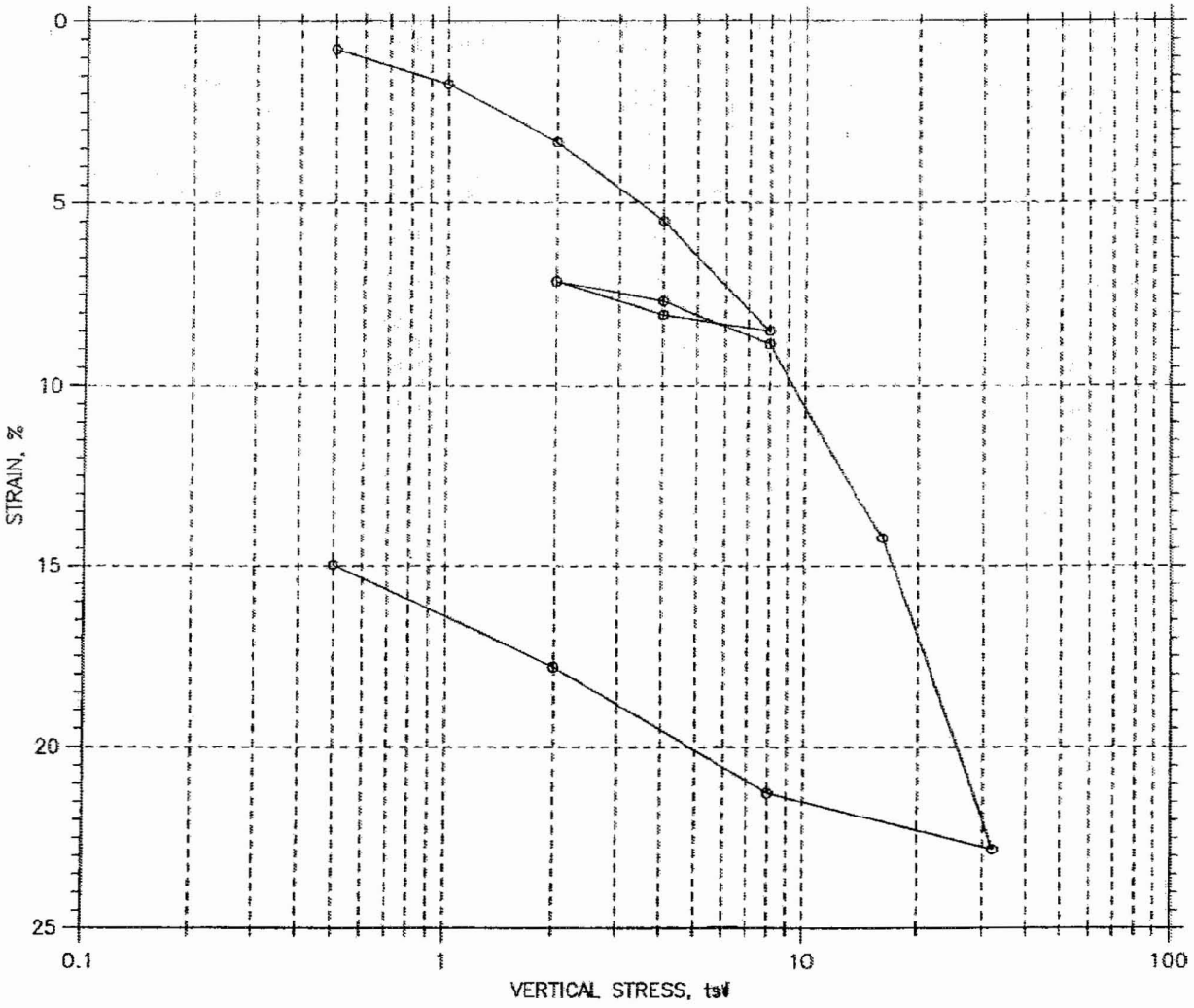
CONSOLIDATION TEST DATA

SUMMARY REPORT



				Before Test	After Test
Overburden Pressure: ---				Water Content, %	46.50	30.93
Preconsolidation Pressure: 10.3 tsf				Dry Unit Weight, pcf	78.1	91.84
Compression Index: ---				Saturation, %	108.39	99.99
Diameter: 2.5 in		Height: 1 in		Void Ratio	1.16	0.84
LL: 69	PL: 22	PI: 47	GS: 2.70			

GeoTesting express, a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-726	Tested By: md	Checked By: jdt
	Sample No.: UD-2	Test Date: 09/18/2006	Depth: 23.5-25.5
	Test No.: C-23	Sample Type: tube	Elevation: ---
	Description: Moist, black clay (CH), 96% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System S - Compression Ratio: 0.29, Recompression Ratio: 0.04		

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CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP
Boring No.: B-726
Sample No.: UD-2
Test No.: C-23

Location: Calvert County, MD
Tested By: md
Test Date: 09/18/2006
Sample Type: tube

Project No.: GTX-6880
Checked By: jdt
Depth: 23.5-25.5
Elevation: ---

Soil Description: Moist, black clay (CH), 96% passing #200 sieve, inundated @ 0.5 tsf
Remarks: System S - Compression Ratio: 0.29, Recompression Ratio: 0.04

Measured Specific Gravity: 2.70
Initial Void Ratio: 1.16
Final Void Ratio: 0.84

Liquid Limit: 69
Plastic Limit: 22
Plasticity Index: 47

Initial Height: 1.00 in
Specimen Diameter: 2.50 in

	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
Container ID	Dane	RING		1756
Wt. Container + Wet Soil, gm	145.09	364.01	348.35	146.25
Wt. Container + Dry Soil, gm	108.36	317.22	317.22	113.68
Wt. Container, gm	8.27	216.59	216.59	8.39
Wt. Dry Soil, gm	100.09	100.63	100.63	105.29
Water Content, %	36.70	46.50	30.93	30.93
Void Ratio	---	1.16	0.84	---
Degree of Saturation, %	---	106.39	99.99	---
Dry Unit Weight, pcf	---	78.098	91.842	---

CONSOLIDATION TEST DATA

Project: Calvert Cliffs Nuclear PP
Boring No.: B-726
Sample No.: UD-2
Test No.: C-23

Location: Calvert County, MD
Tested By: md
Test Date: 09/18/2006
Sample Type: tube

Project No.: GTX-6880
Checked By: jdt
Depth: 23.5-25.5
Elevation: ---

Soil Description: Moist, black clay (CH), 96% passing #200 sieve, inundated @ 0.5 tsf
Remarks: System S - Compression Ratio: 0.29, Recompression Ratio: 0.04

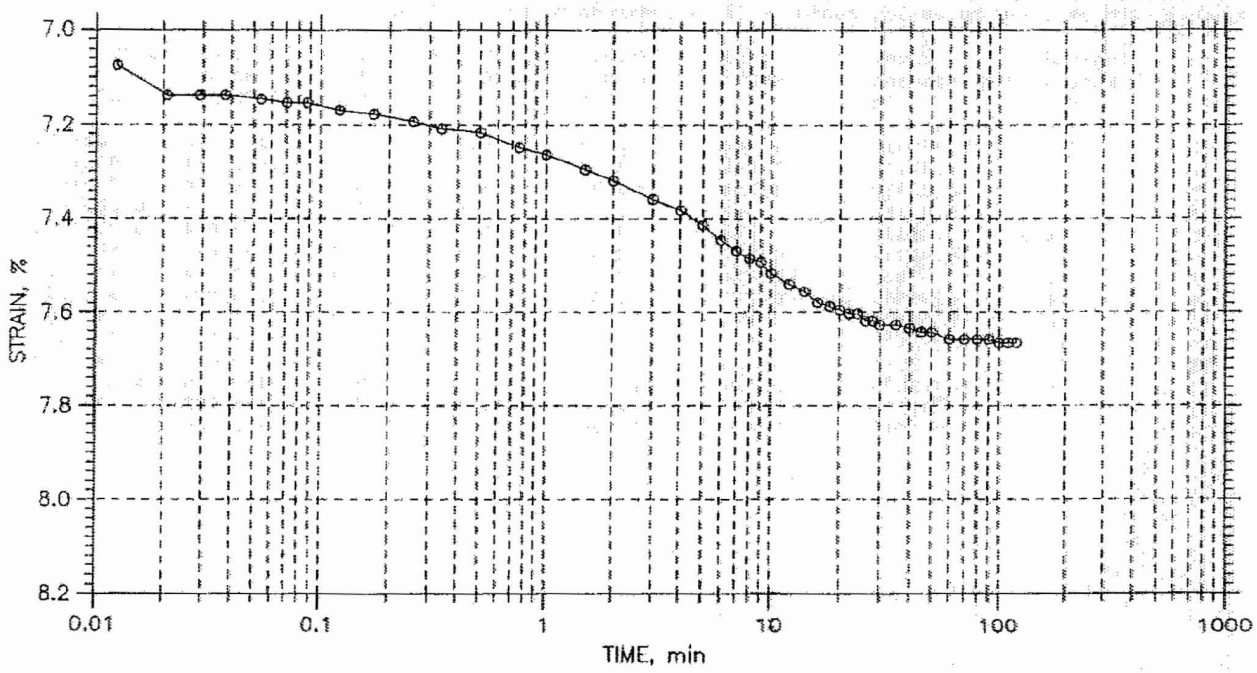
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting Sq.Rt. min	T50 Fitting Log min	Coefficient of Consolidation Sq.Rt. in^2/sec	Coefficient of Consolidation Log in^2/sec	Coefficient of Consolidation Ave. in^2/sec
1	0.5	0.007633	1.142	0.76	0.1	0.0	1.18e-002	0.00e+000	1.18e-002
2	1	0.01728	1.121	1.73	7.5	0.0	1.07e-004	0.00e+000	1.07e-004
3	2	0.03319	1.087	3.32	3.4	0.0	2.32e-004	0.00e+000	2.32e-004
4	4	0.05488	1.040	5.49	3.8	0.0	1.96e-004	0.00e+000	1.96e-004
5	8	0.08484	0.975	8.48	5.0	0.0	1.43e-004	0.00e+000	1.43e-004
6	4	0.08043	0.985	8.04	2.1	2.7	3.24e-004	2.61e-004	2.89e-004
7	2	0.07126	1.004	7.13	4.7	4.8	1.48e-004	1.47e-004	1.47e-004
8	4	0.07665	0.993	7.67	2.5	2.7	2.81e-004	2.57e-004	2.69e-004
9	8	0.08846	0.967	8.85	3.4	3.9	2.03e-004	1.78e-004	1.90e-004
10	16	0.1422	0.851	14.22	11.4	17.0	5.64e-005	3.79e-005	4.53e-005
11	32	0.2281	0.666	22.81	25.6	0.0	2.14e-005	0.00e+000	2.14e-005
12	8	0.2125	0.700	21.25	6.7	9.7	7.46e-005	5.15e-005	6.09e-005
13	2	0.178	0.774	17.80	37.4	0.0	1.42e-005	0.00e+000	1.42e-005
14	0.5	0.1496	0.835	14.96	67.7	0.0	8.49e-006	0.00e+000	8.49e-006

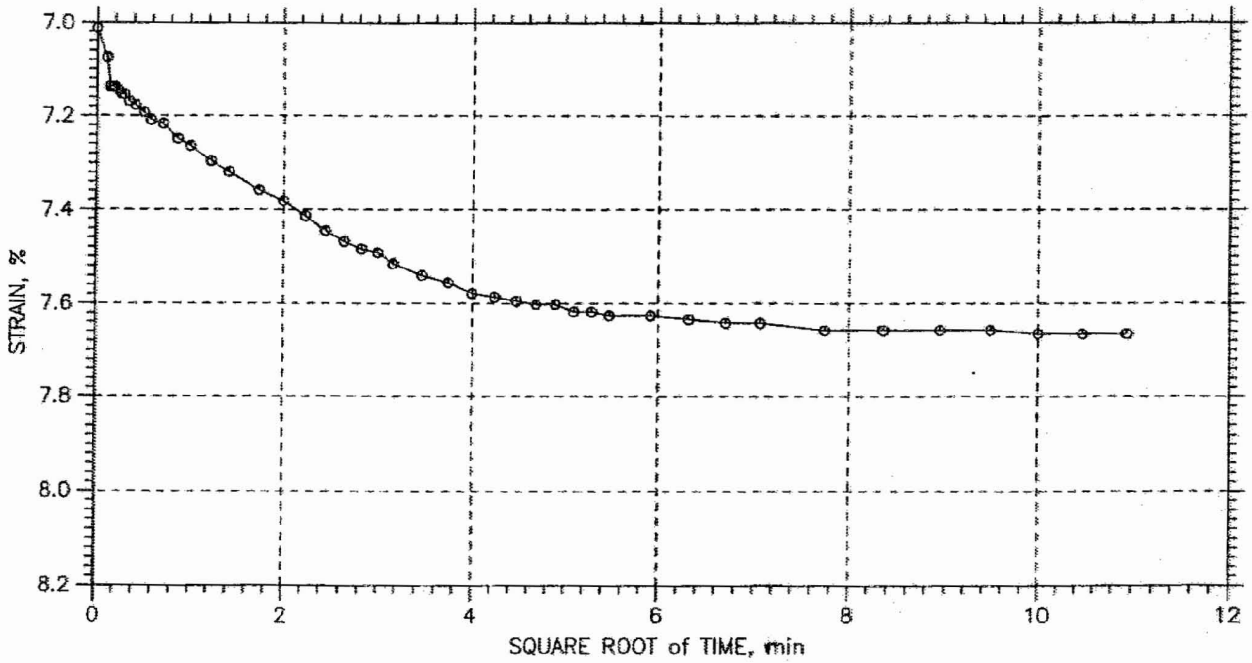
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 8 of 14

Stress: 4. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-726	Tested By: md	Checked By: jdt
	Sample No.: UD-2	Test Date: 09/18/2006	Depth: 23.5-25.5
	Test No.: C-23	Sample Type: tube	Elevation: ---
	Description: Moist, black clay (CH), 96% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System S - Compression Ratio: 0.29, Recompression Ratio: 0.04		

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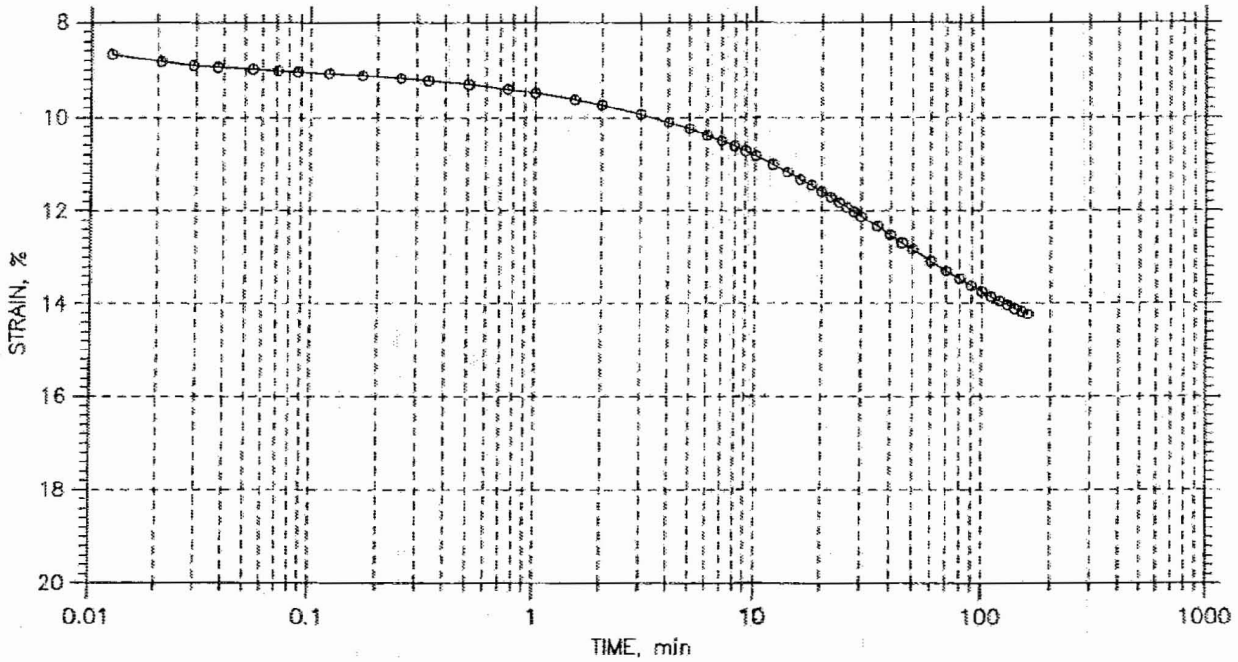
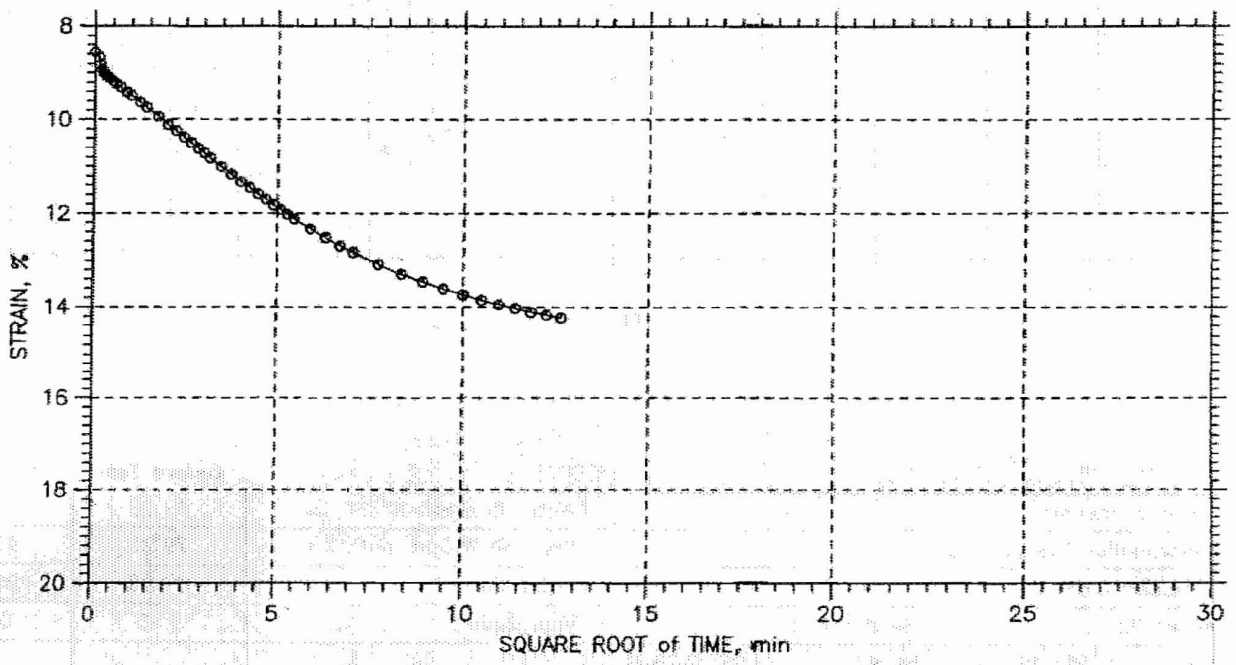
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 10 of 14

Stress: 16. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Calvert Cliffs Nuclear PP	Location: Calvert County, MD	Project No.: GTX-6880
	Boring No.: B-726	Tested By: md	Checked By: jdt
	Sample No.: UD-2	Test Date: 09/18/2006	Depth: 23.5-25.5
	Test No.: C-23	Sample Type: tube	Elevation: ---
	Description: Moist, black clay (CH), 96% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System S - Compression Ratio: 0.29, Recompression Ratio: 0.04		

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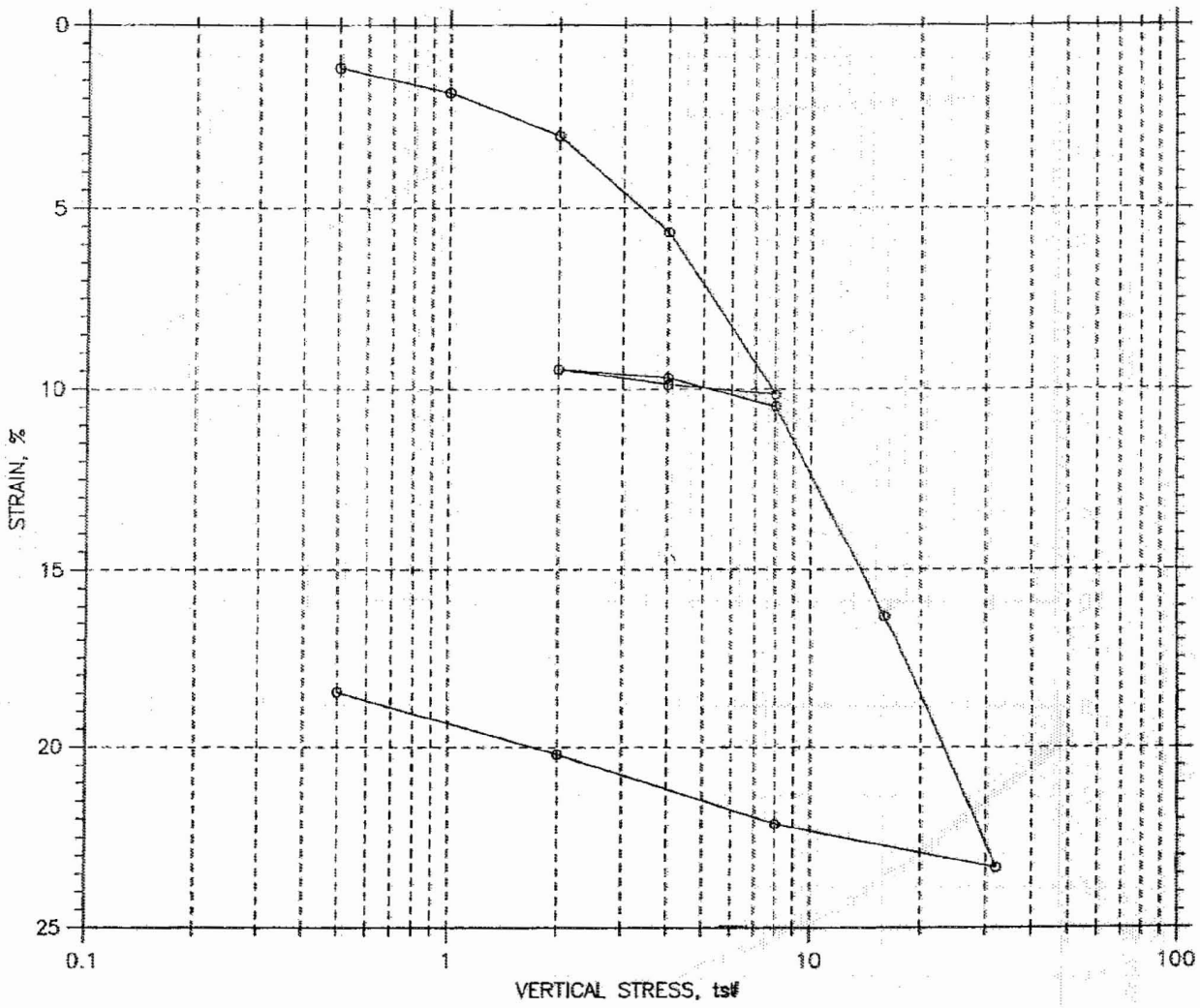
CONSOLIDATION TEST DATA

SUMMARY REPORT



				Before Test	After Test
Overburden Pressure: ---				Water Content, %	37.06	27.63
Preconsolidation Pressure: 6.4 tsf				Dry Unit Weight, pcf	79.22	97.15
Compression Index: ---				Saturation, %	87.88	99.99
Diameter: 2.5 in		Height: 1 in		Void Ratio	1.15	0.75
LL: 64	PL: 19	PI: 45	GS: 2.73			

GeoTesting express a subsidiary of Geocomp Corporation	Project: Calvert Cliffs	Location: MD	Project No.: GTX-6880
	Boring No.: B-723	Tested By: md	Checked By: njh
	Sample No.: UD-2	Test Date: 09/16/06	Depth: 38.5-40.5
	Test No.: C-17	Sample Type: tube	Elevation: ---
	Description: Moist, dark olive gray clay (CH), 95% passing #200 sieve, inundated @ 0.5 tsf		
	Remarks: System G - Compression Ratio: 0.24, Recompression Ratio: 0.03		

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CONSOLIDATION TEST DATA

Project: Calvert Cliffs	Location: MD	Project No.: GTX-6880
Boring No.: B-723	Tested By: md	Checked By: njh
Sample No.: UD-2	Test Date: 09/16/06	Depth: 38.5-40.5
Test No.: C-17	Sample Type: tube	Elevation: ---

Soil Description: Moist, dark olive gray clay (CH), 95% passing #200 sieve, inundated @ 0.5 tsf
Remarks: System G - Compression Ratio: 0.24, Recompression Ratio: 0.03

Measured Specific Gravity: 2.73	Liquid Limit: 64	Initial Height: 1.00 in
Initial Void Ratio: 1.15	Plastic Limit: 19	Specimen Diameter: 2.50 in
Final Void Ratio: 0.75	Plasticity Index: 45	

	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
Container ID	1886	RING		1785
Wt. Container + Wet Soil, gm	190.6	356.39	346.76	142.31
Wt. Container + Dry Soil, gm	144.98	318.56	318.56	113.3
Wt. Container, gm	8.23	216.48	216.48	8.29
Wt. Dry Soil, gm	136.75	102.08	102.08	105.01
Water Content, %	33.36	37.06	27.63	27.63
Void Ratio	---	1.15	0.75	---
Degree of Saturation, %	---	87.88	99.99	---
Dry Unit Weight, pcf	---	79.222	97.152	---

CONSOLIDATION TEST DATA

Project: Calvert Cliffs
Boring No.: B-723
Sample No.: UD-2
Test No.: C-17

Location: MD
Tested By: md
Test Date: 09/16/06
Sample Type: tube

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

Soil Description: Moist, dark olive gray clay (CH), 95% passing #200 sieve, inundated @ 0.5 tsf
Remarks: System G - Compression Ratio: 0.24, Recompression Ratio: 0.03

	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting Sq.Rt. min	T50 Fitting Log min	Coefficient of Consolidation Sq.Rt. in^2/sec	Coefficient of Consolidation Log in^2/sec	Coefficient of Consolidation Ave. in^2/sec
1	0.5	0.01164	1.126	1.16	0.0	0.0	2.72e-002	0.00e+000	2.72e-002
2	1	0.01839	1.112	1.84	0.1	0.0	1.50e-002	3.02e-002	2.00e-002
3	2	0.03009	1.087	3.01	0.0	0.0	3.57e-002	3.62e-002	3.59e-002
4	4	0.05662	1.029	5.66	0.1	0.0	1.37e-002	3.27e-002	1.93e-002
5	8	0.1015	0.933	10.15	0.1	0.0	7.21e-003	3.61e-002	1.20e-002
6	4	0.09875	0.939	9.87	0.0	0.0	1.84e-002	0.00e+000	1.84e-002
7	2	0.09453	0.948	9.45	0.1	0.0	6.42e-003	0.00e+000	6.42e-003
8	4	0.09689	0.943	9.69	0.0	0.0	2.83e-002	0.00e+000	2.83e-002
9	8	0.1048	0.926	10.48	0.3	0.0	2.20e-003	0.00e+000	2.20e-003
10	16	0.1627	0.801	16.27	1.2	1.3	5.27e-004	4.75e-004	5.00e-004
11	32	0.2333	0.649	23.33	2.8	3.1	1.91e-004	1.70e-004	1.80e-004
12	8	0.2213	0.675	22.13	0.2	0.0	2.99e-003	0.00e+000	2.99e-003
13	2	0.202	0.717	20.20	2.7	0.0	1.89e-004	0.00e+000	1.89e-004
14	0.5	0.1846	0.754	18.46	7.0	0.0	7.60e-005	0.00e+000	7.60e-005