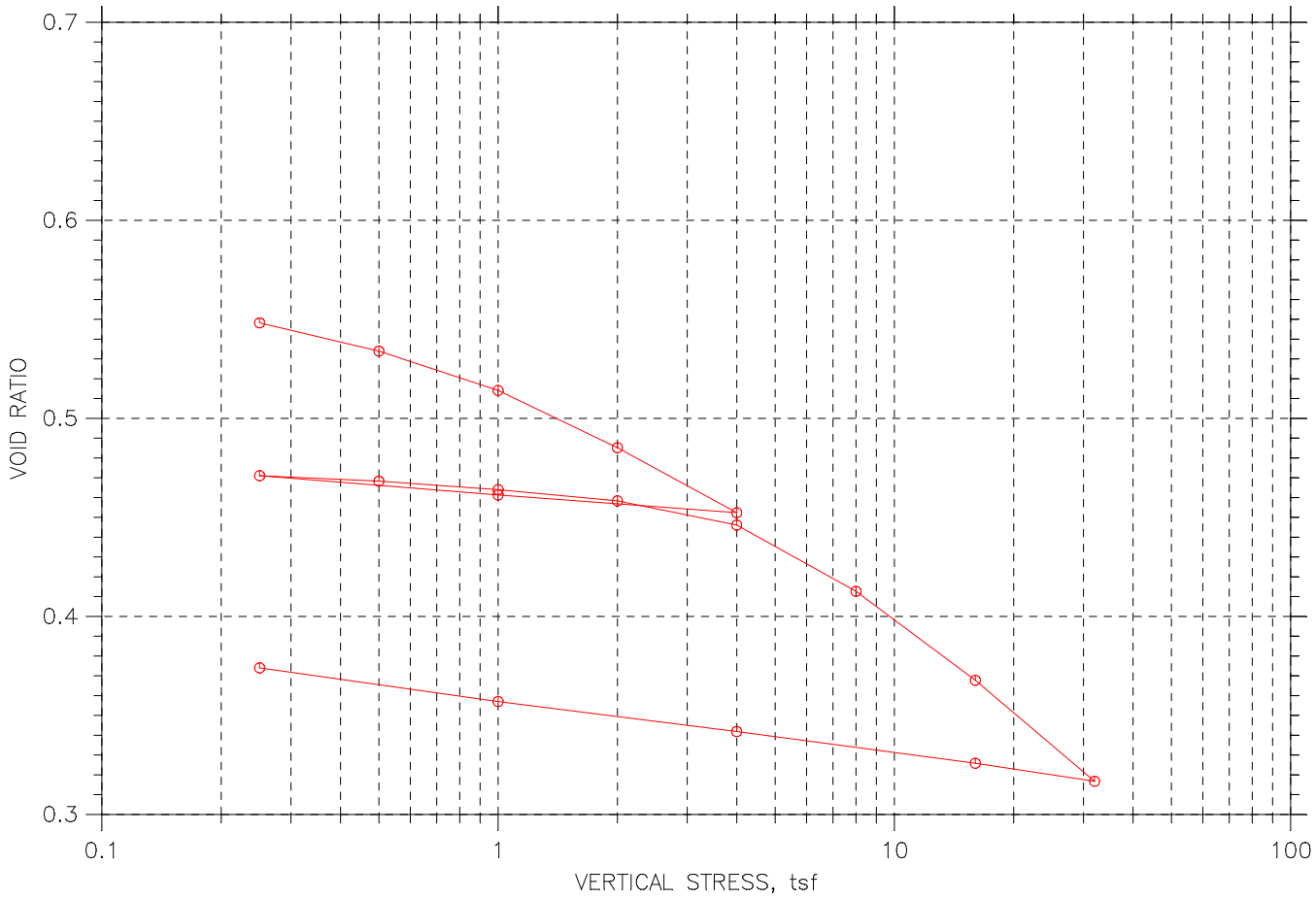
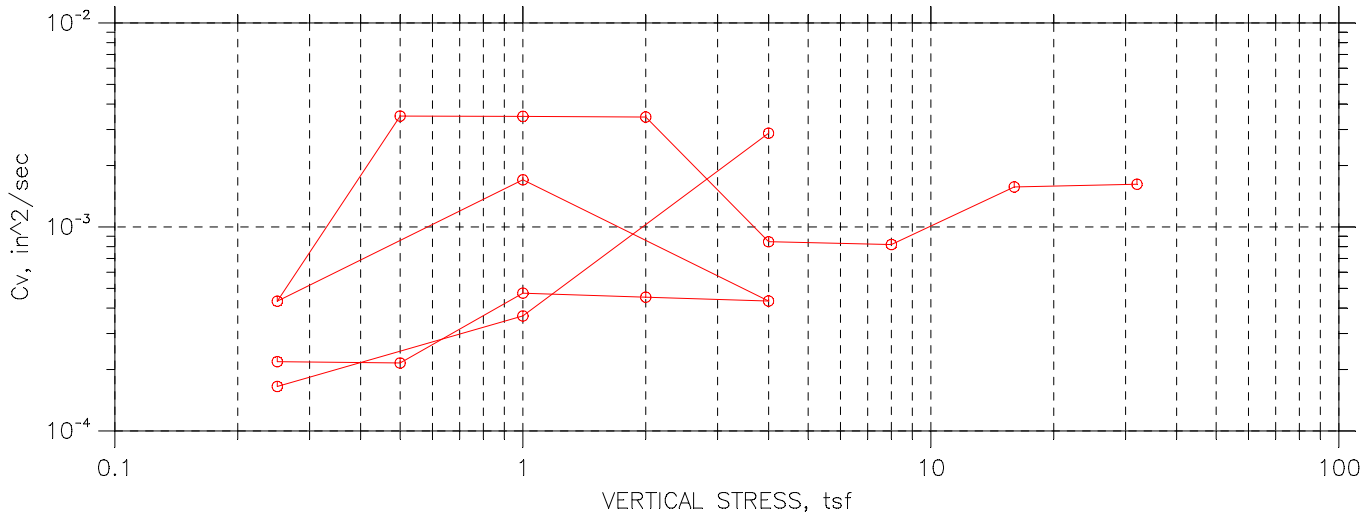
CONSOLIDATION TEST DATA

SUMMARY REPORT





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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CONSOLIDATION TEST DATA

Project: KINGSTON COAL TVA
Boring No.: 09-402B
Sample No.: OST-6
Test No.: 5742402BS6C

Location: TN
Tested By: JDW
Test Date: 2/26/09
Sample Type: 3" OST

Project No.: 60095742
Checked By: WPQ
Depth: 41.0'-43.5'
Elevation: +721.9

Soil Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435

Measured Specific Gravity: 2.70
Initial Void Ratio: 0.56
Final Void Ratio: 0.37

Liquid Limit: 22
Plastic Limit: 18
Plasticity Index: 4

Initial Height: 0.75 in
Specimen Diameter: 2.50 in

	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
Container ID	X-5	RING	RING	X-9
Wt. Container + Wet Soil, gm	198.57	200.58	194.6	162.4
Wt. Container + Dry Soil, gm	172.45	179.38	179.38	147.55
Wt. Container, gm	44.3	74.98	74.98	45.66
Wt. Dry Soil, gm	128.15	104.4	104.4	101.89
Water Content, %	20.38	20.30	14.57	14.57
Void Ratio	---	0.56	0.37	---
Degree of Saturation, %	---	98.05	105.09	---
Dry Unit Weight, pcf	---	108.03	122.54	---

CONSOLIDATION TEST DATA

Project: KINGSTON COAL TVA
Boring No.: 09-402B
Sample No.: OST-6
Test No.: 5742402BS6C

Location: TN
Tested By: JDW
Test Date: 2/26/09
Sample Type: 3" OST

Project No.: 60095742
Checked By: WPQ
Depth: 41.0'-43.5'
Elevation: +721.9

Soil Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435

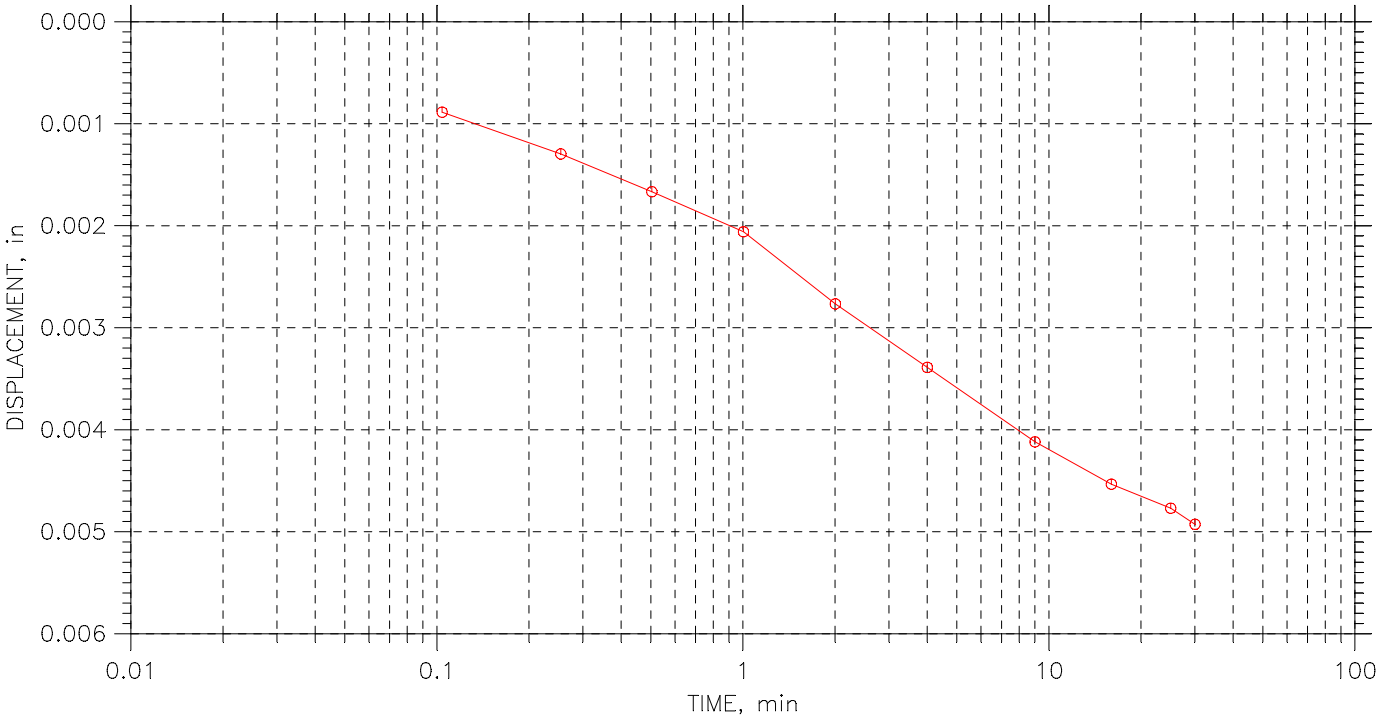
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting Sq.Rt. min	T50 Fitting Log min	Coefficient of Consolidation Sq.Rt. in^2/sec	Coefficient of Consolidation Log in^2/sec	Coefficient of Consolidation Ave. in^2/sec
1	0.25	0.004927	0.548	0.66	2.1	0.9	2.19e-004	5.30e-004	3.09e-004
2	0.5	0.0118	0.534	1.57	2.1	0.0	2.15e-004	0.00e+000	2.15e-004
3	1	0.02136	0.514	2.85	0.9	0.7	4.74e-004	6.72e-004	5.56e-004
4	2	0.03526	0.485	4.70	0.9	1.1	4.52e-004	3.98e-004	4.23e-004
5	4	0.05107	0.452	6.81	0.9	0.7	4.33e-004	5.84e-004	4.97e-004
6	1	0.04674	0.461	6.23	0.2	0.2	1.70e-003	2.07e-003	1.87e-003
7	0.25	0.04208	0.471	5.61	0.9	0.9	4.32e-004	4.71e-004	4.51e-004
8	0.5	0.04339	0.468	5.79	0.1	0.0	3.50e-003	0.00e+000	3.50e-003
9	1	0.04546	0.464	6.06	0.1	0.0	3.48e-003	0.00e+000	3.48e-003
10	2	0.0482	0.458	6.43	0.1	0.0	3.46e-003	0.00e+000	3.46e-003
11	4	0.05408	0.446	7.21	0.5	0.0	8.46e-004	0.00e+000	8.46e-004
12	8	0.07017	0.413	9.36	0.5	0.0	8.19e-004	0.00e+000	8.19e-004
13	16	0.09178	0.368	12.24	0.2	0.4	1.57e-003	1.00e-003	1.22e-003
14	32	0.1163	0.317	15.51	0.2	0.2	1.62e-003	1.50e-003	1.56e-003
15	16	0.1119	0.326	14.92	0.0	0.0	0.00e+000	0.00e+000	0.00e+000
16	4	0.1042	0.342	13.90	0.1	0.0	2.88e-003	0.00e+000	2.88e-003
17	1	0.09694	0.357	12.93	0.9	0.0	3.66e-004	0.00e+000	3.66e-004
18	0.25	0.08876	0.374	11.83	2.1	0.0	1.65e-004	0.00e+000	1.65e-004

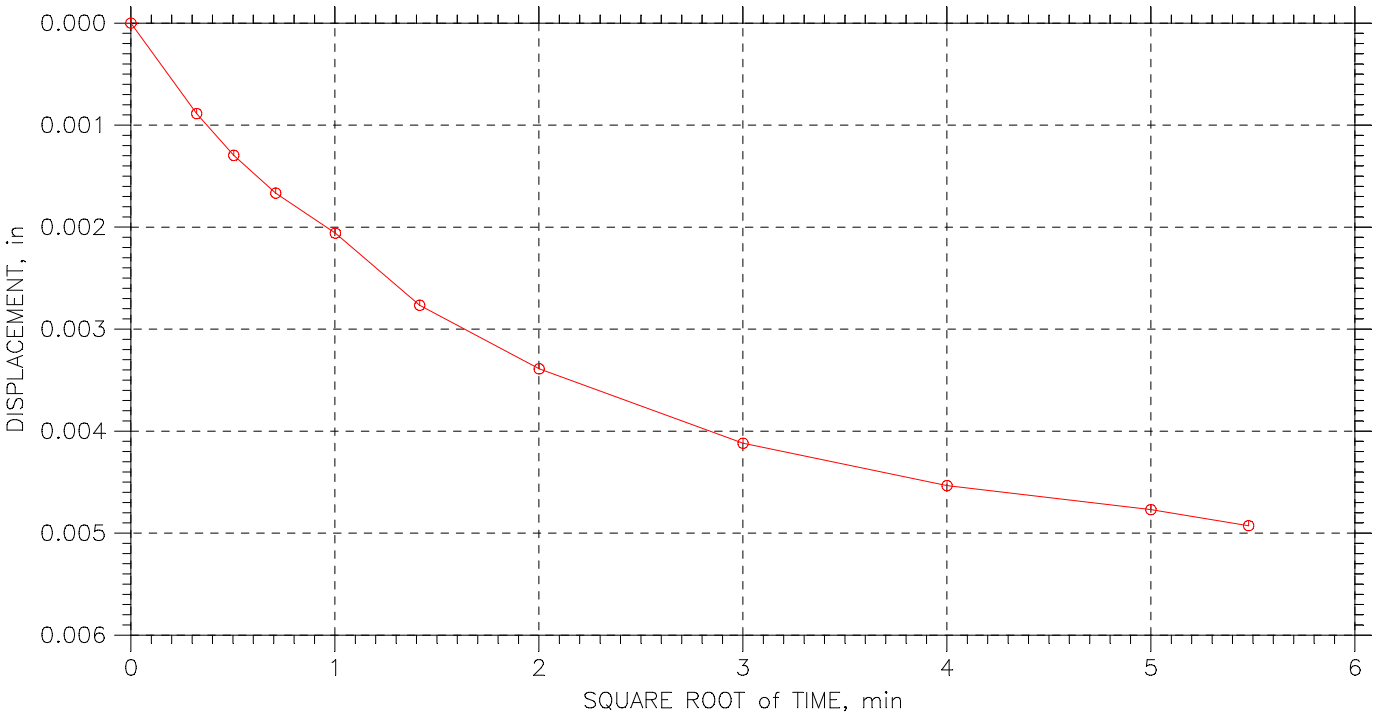
CONSOLIDATION TEST DATA

TIME CURVES

Step: 1 of 18

Stress: 0.25 tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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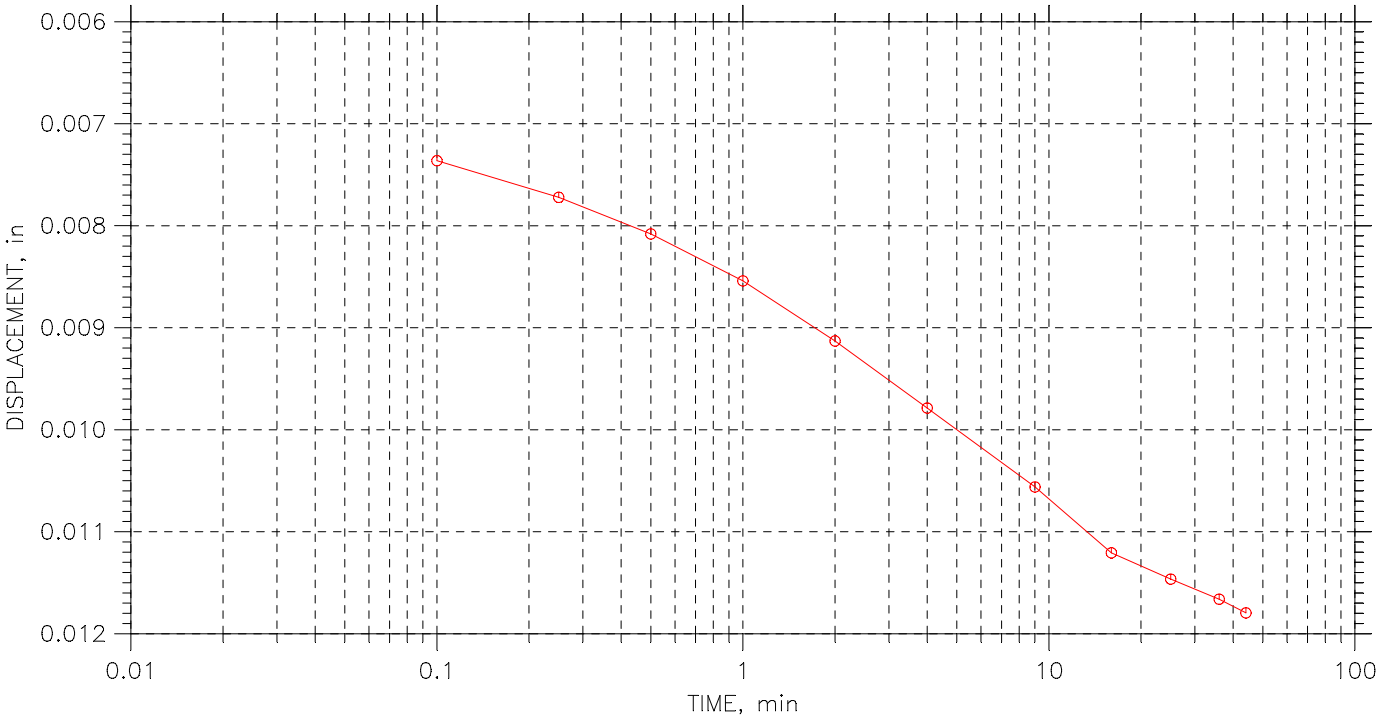
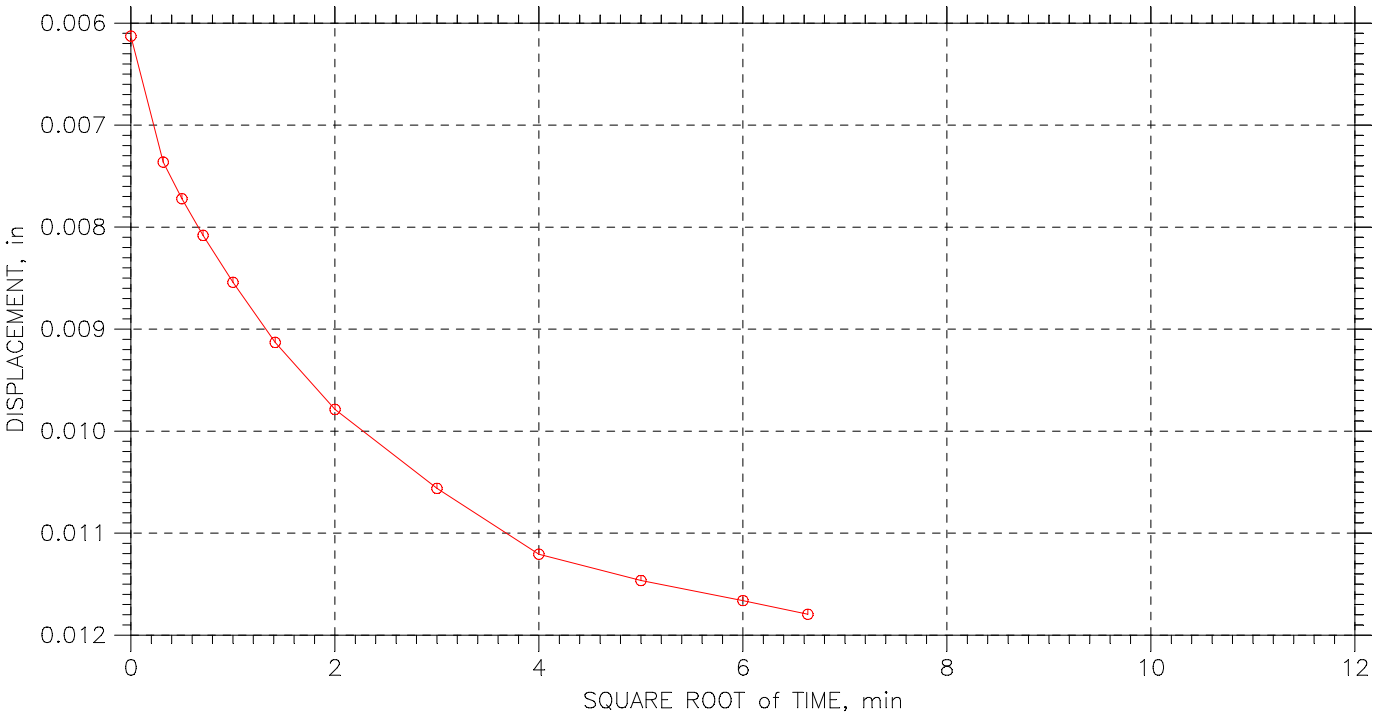
CONSOLIDATION TEST DATA

TIME CURVES

Step: 2 of 18

Stress: 0.5 tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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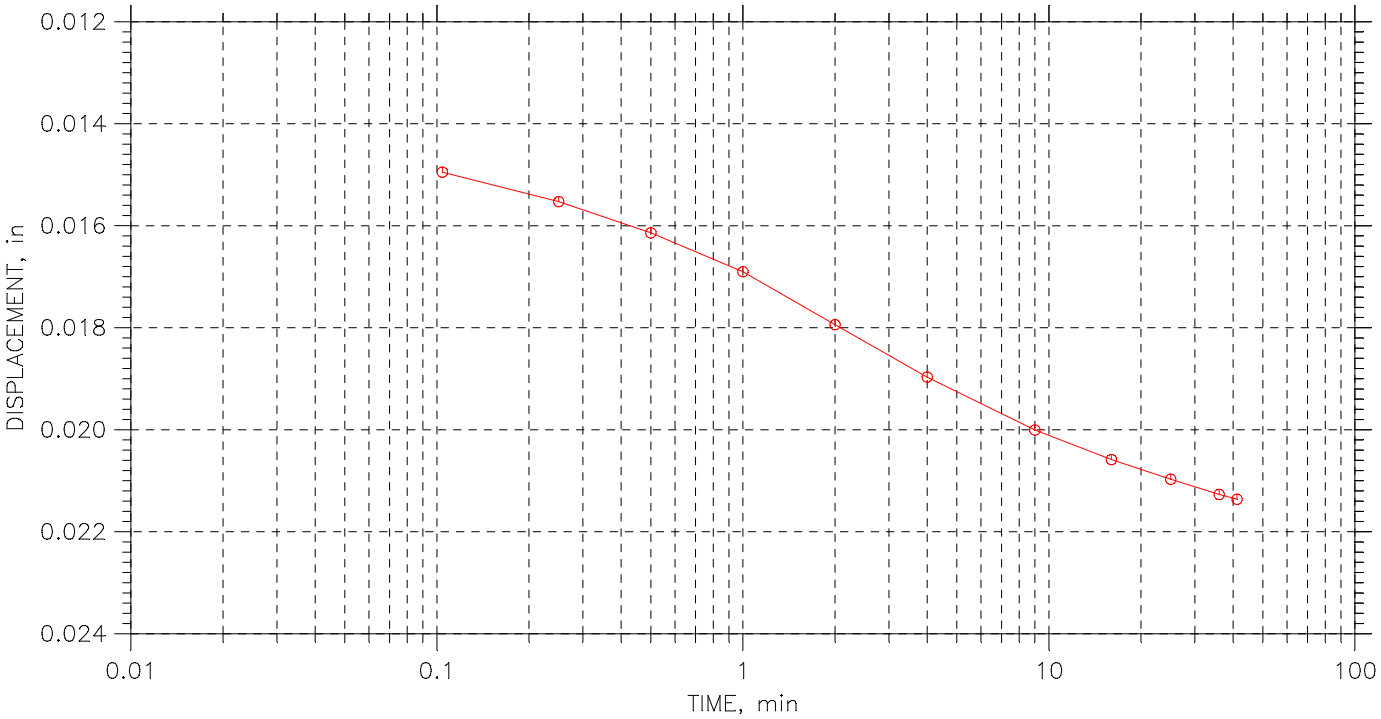
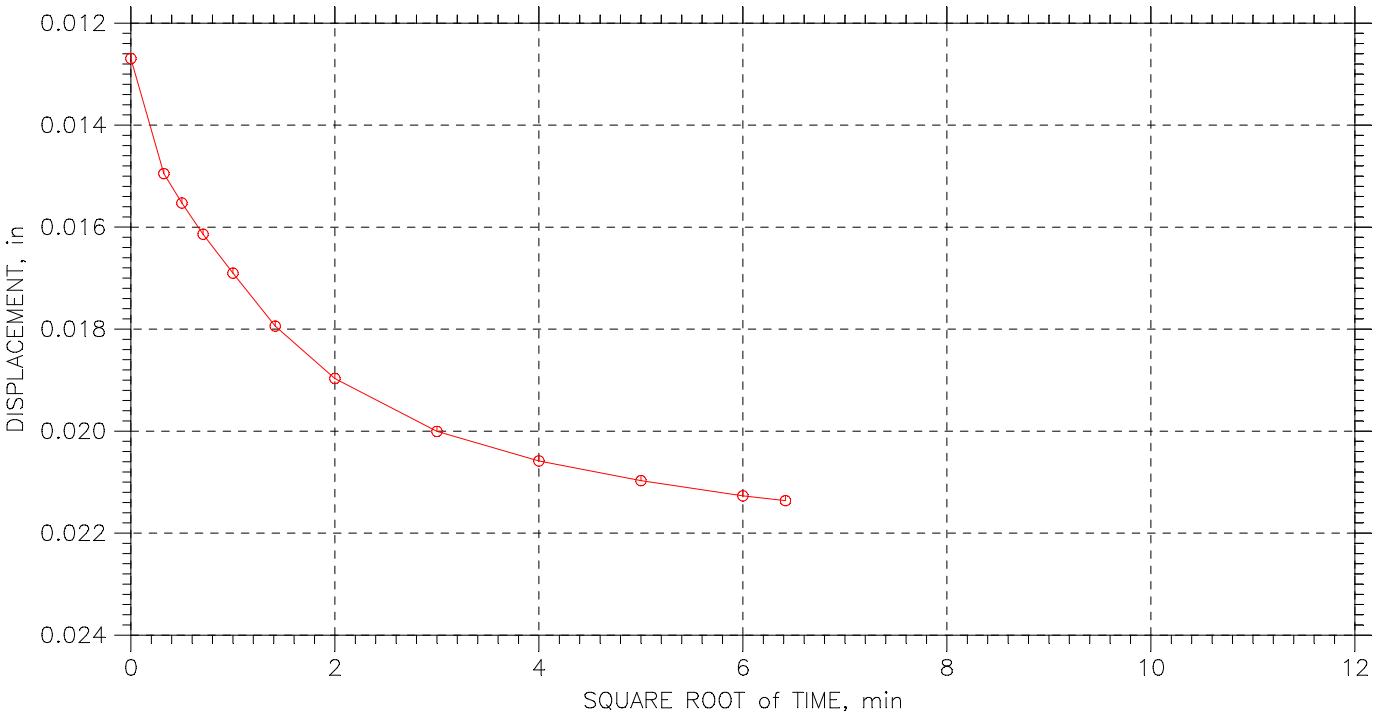
CONSOLIDATION TEST DATA

TIME CURVES

Step: 3 of 18

Stress: 1. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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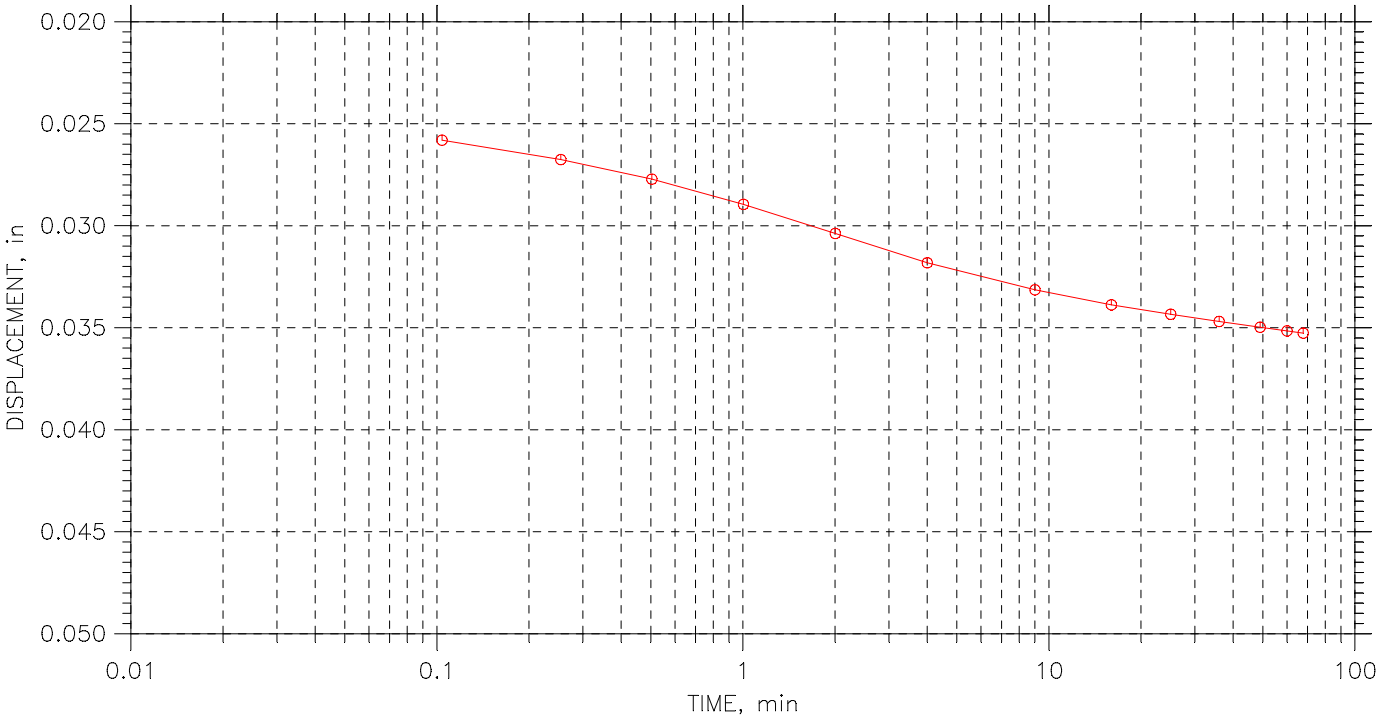
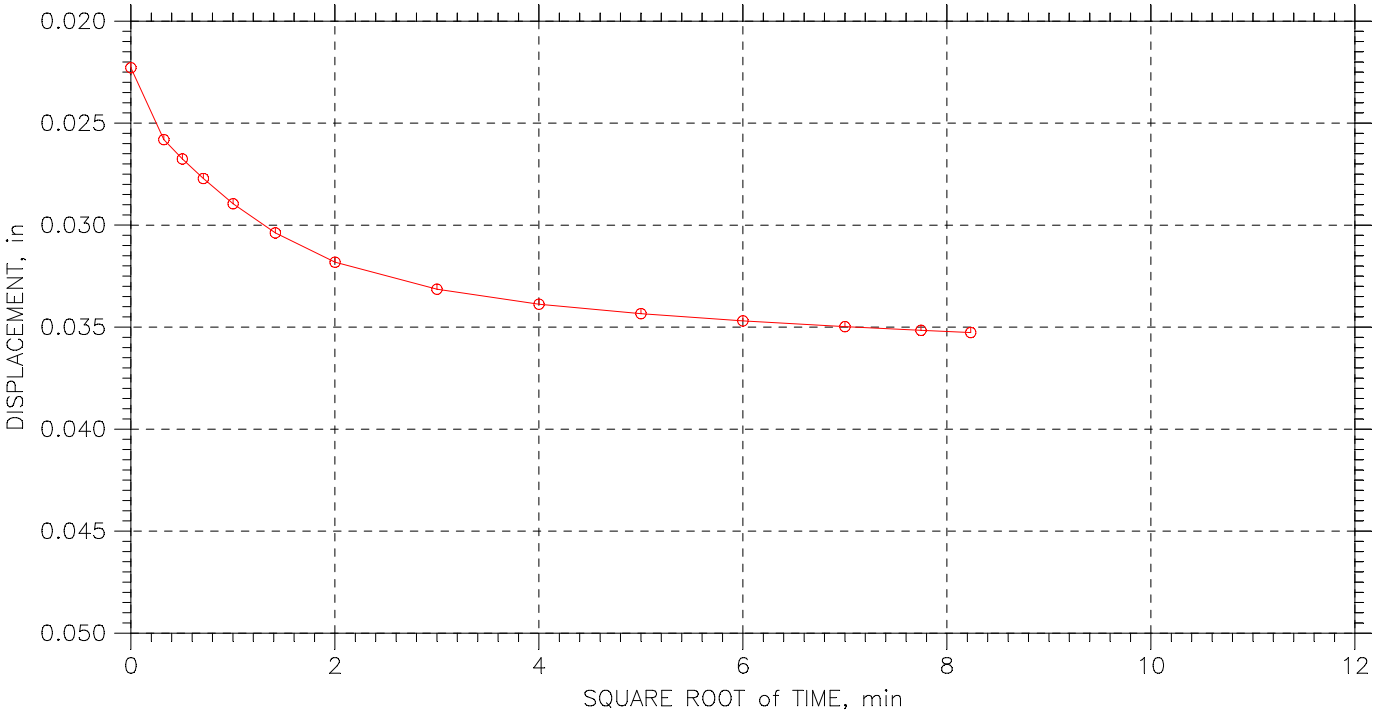
CONSOLIDATION TEST DATA

TIME CURVES

Step: 4 of 18

Stress: 2. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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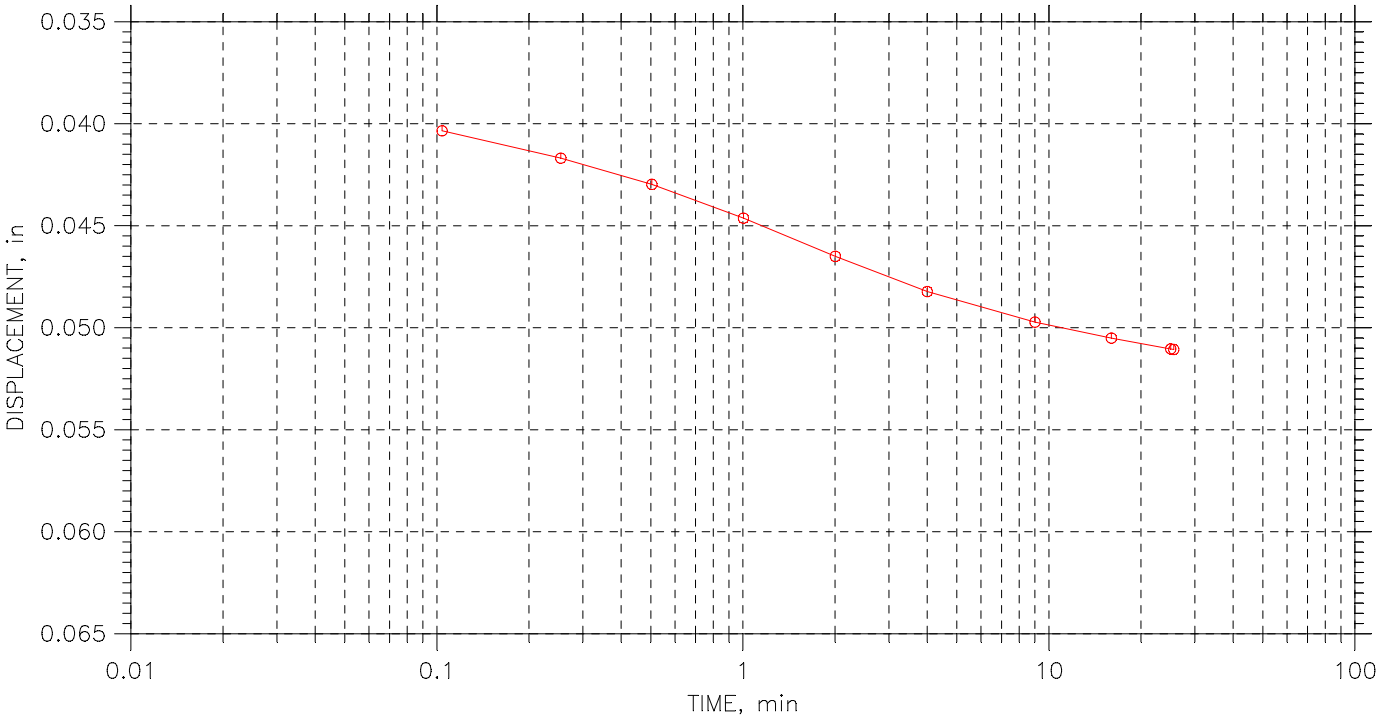
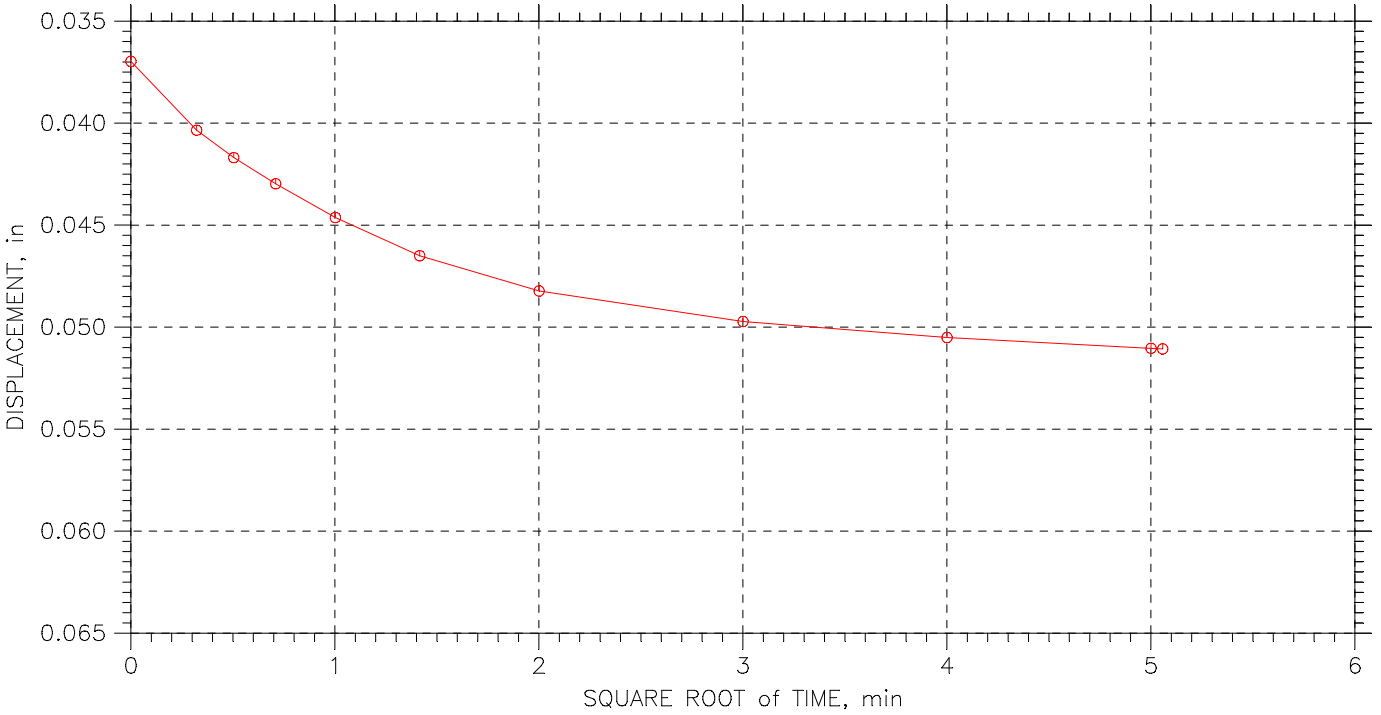
CONSOLIDATION TEST DATA

TIME CURVES

Step: 5 of 18

Stress: 4. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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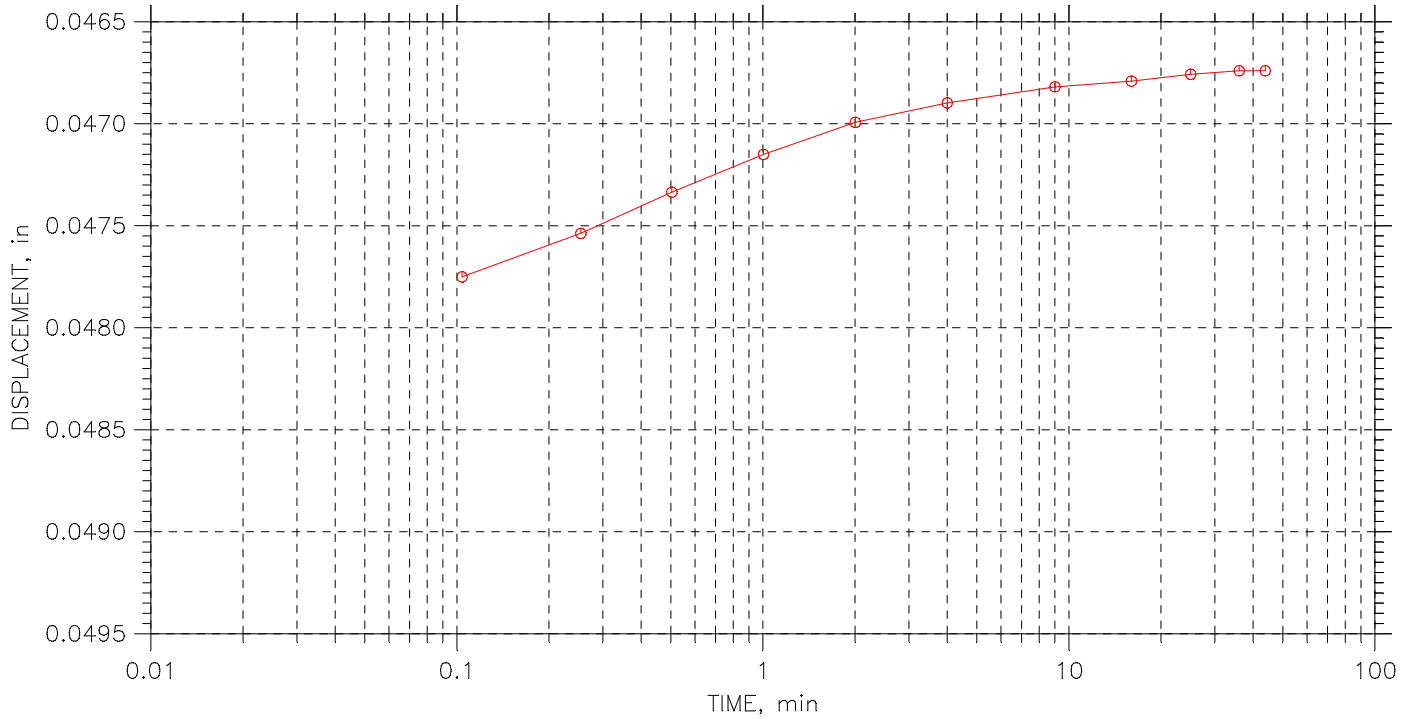
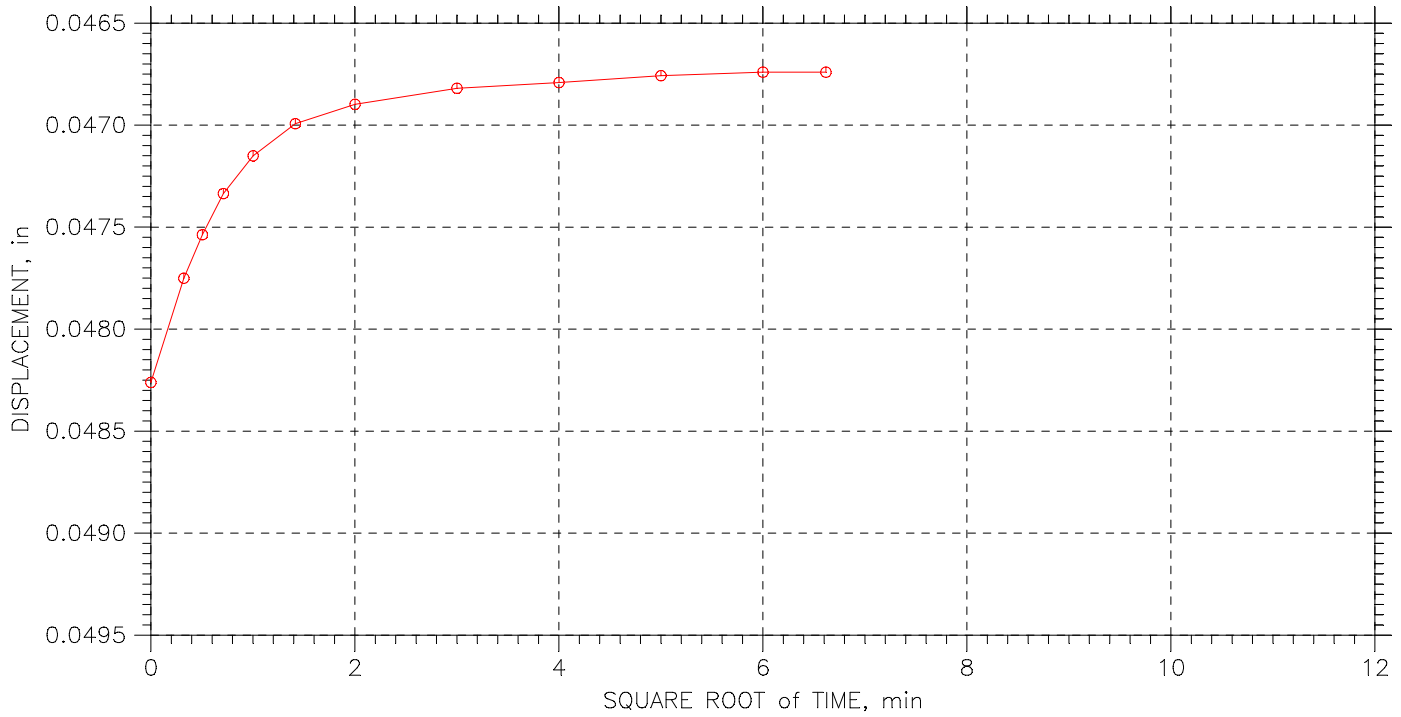
CONSOLIDATION TEST DATA

TIME CURVES

Step: 6 of 18

Stress: 1. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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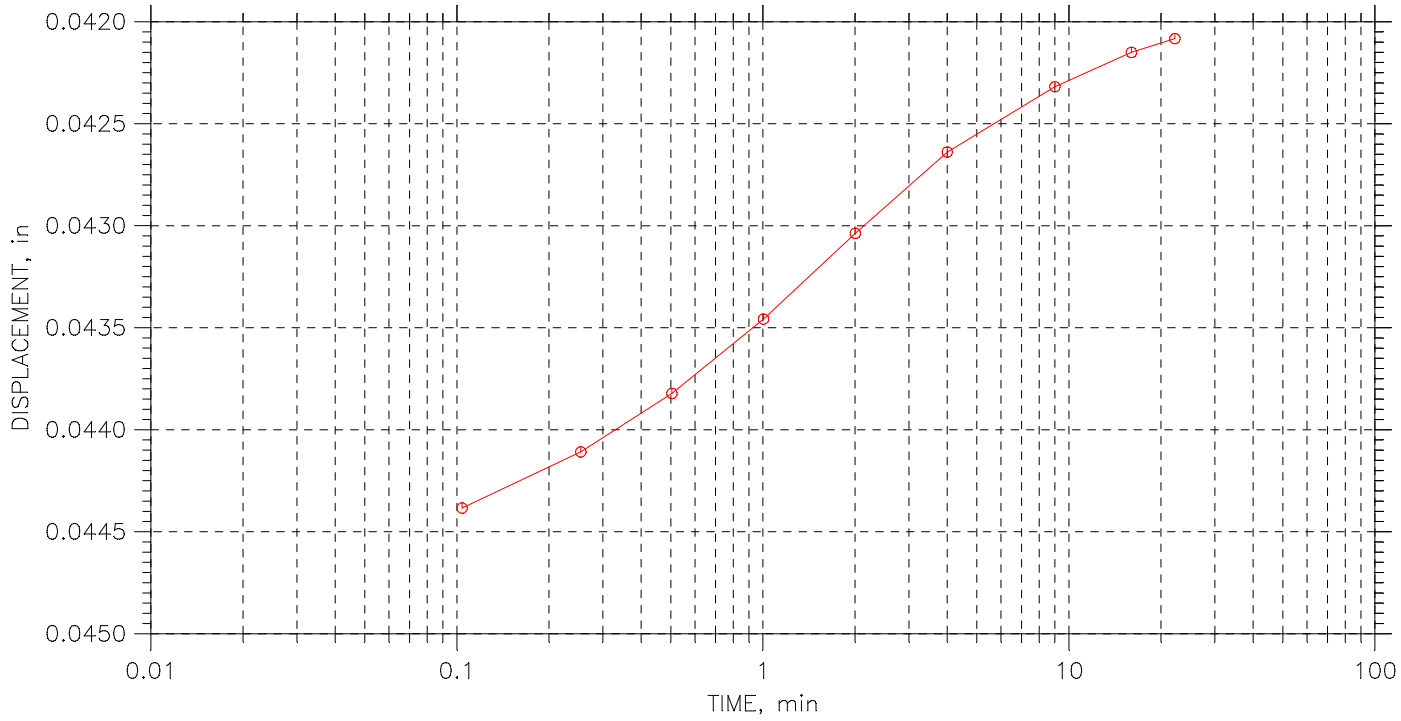
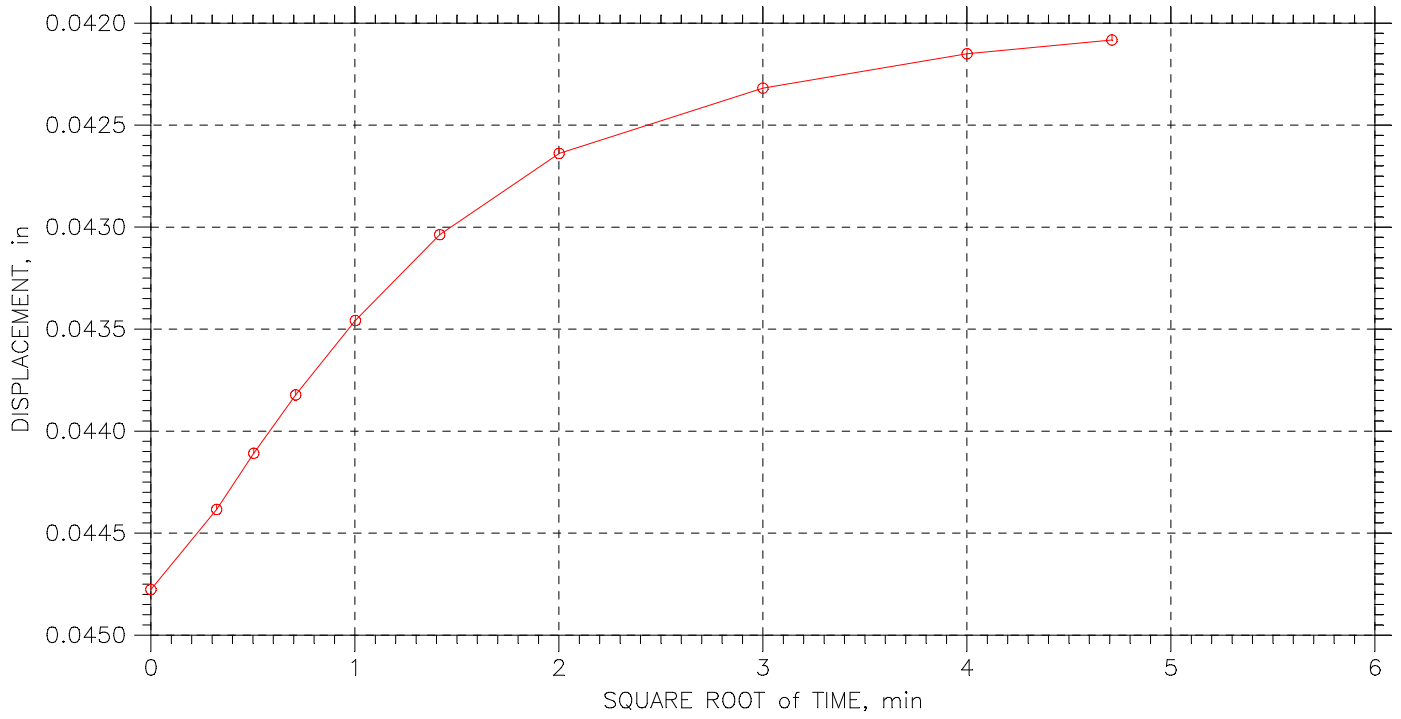
CONSOLIDATION TEST DATA

TIME CURVES

Step: 7 of 18

Stress: 0.25 tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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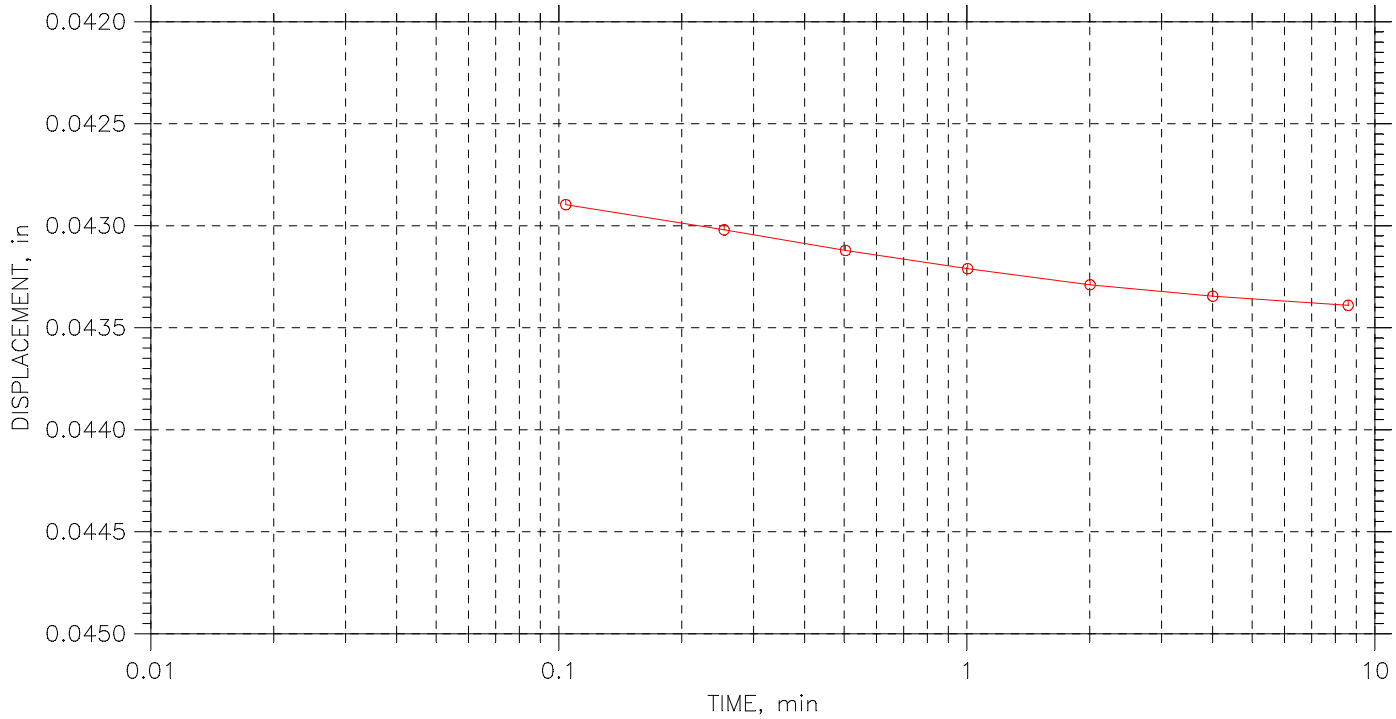
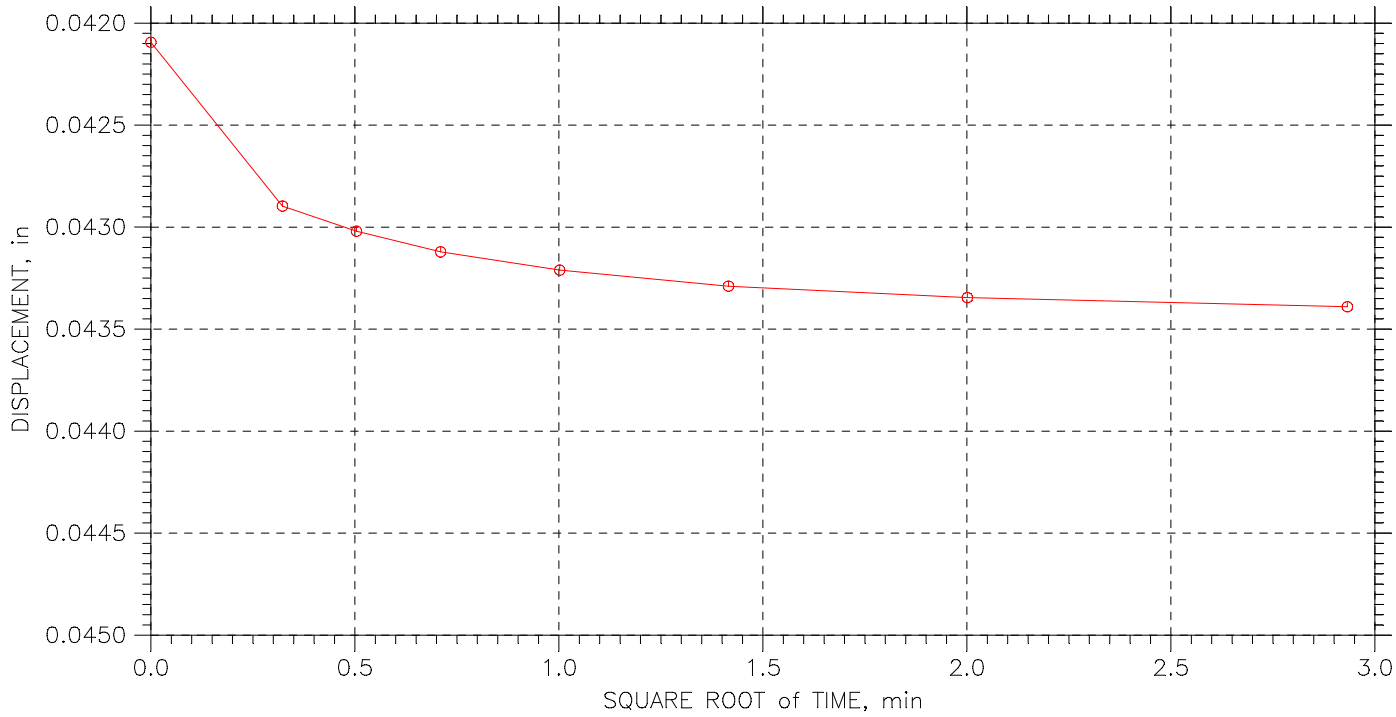
CONSOLIDATION TEST DATA

TIME CURVES

Step: 8 of 18

Stress: 0.5 tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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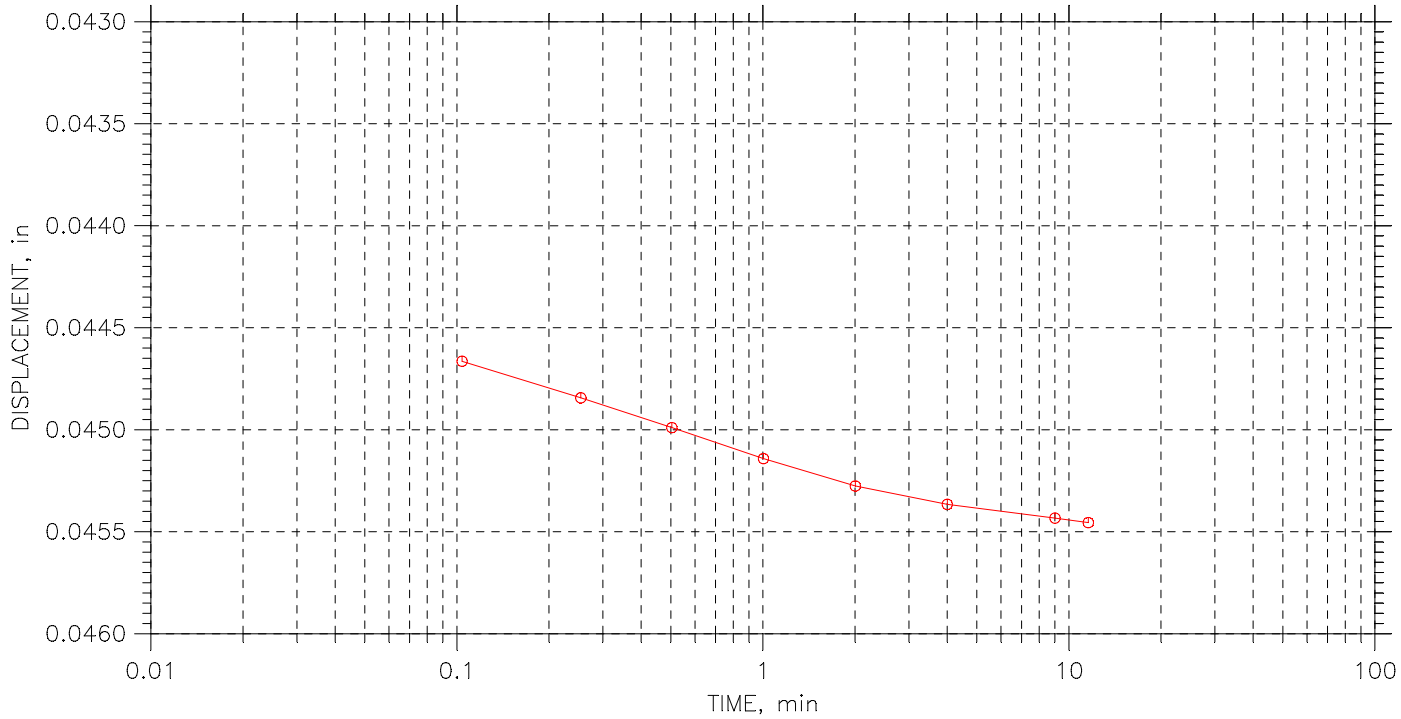
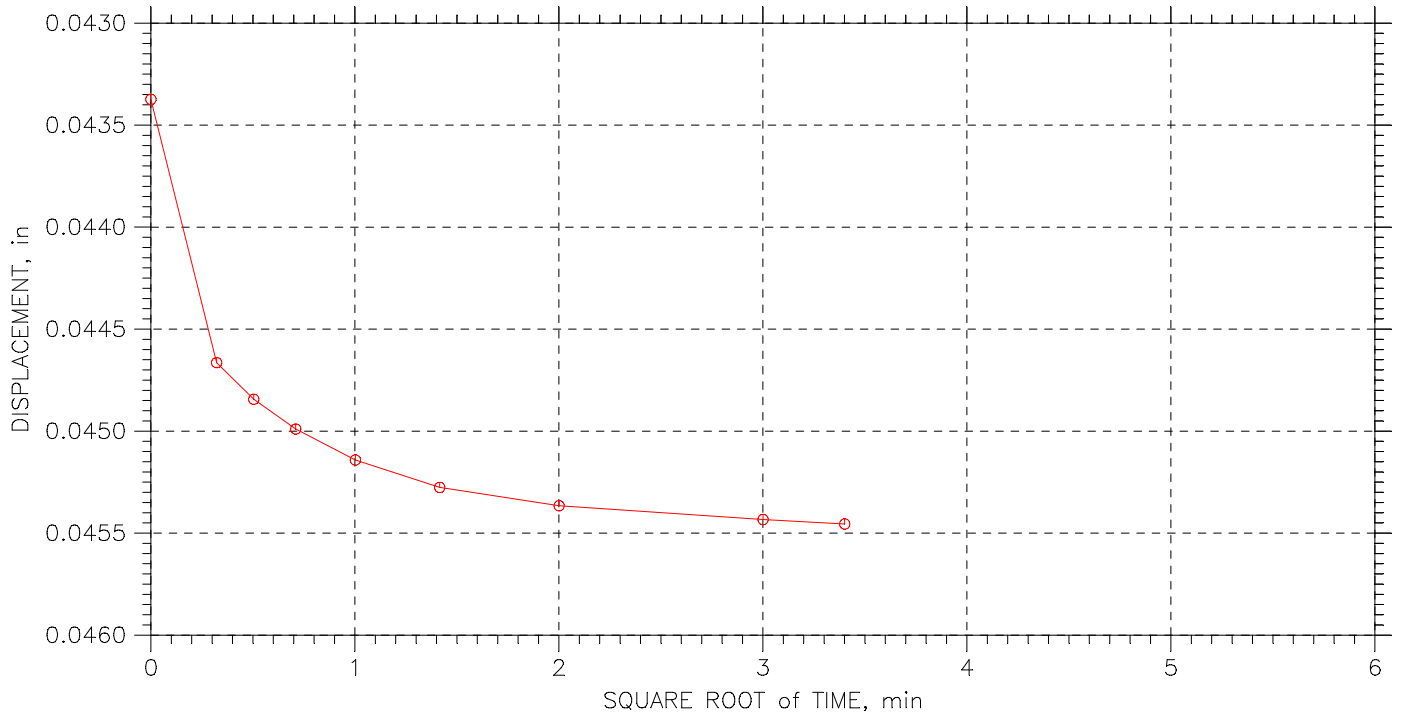
CONSOLIDATION TEST DATA

TIME CURVES

Step: 9 of 18

Stress: 1. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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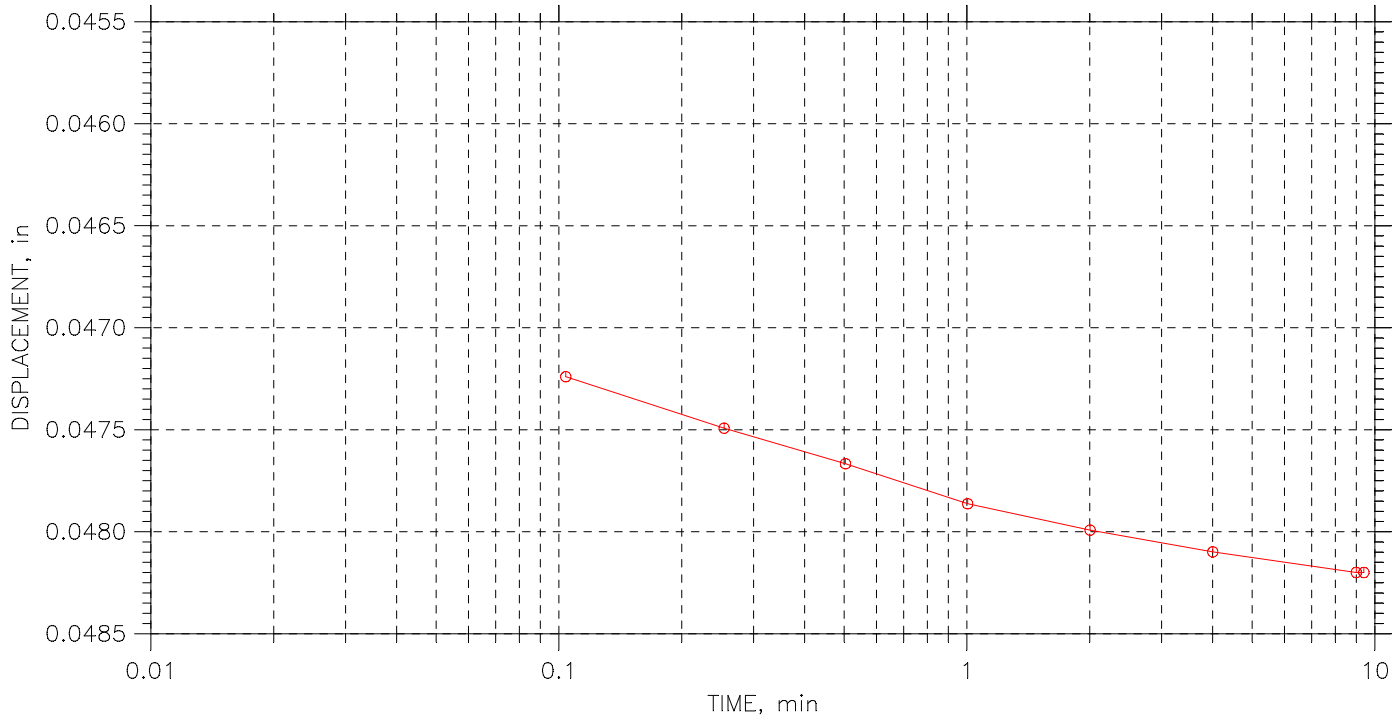
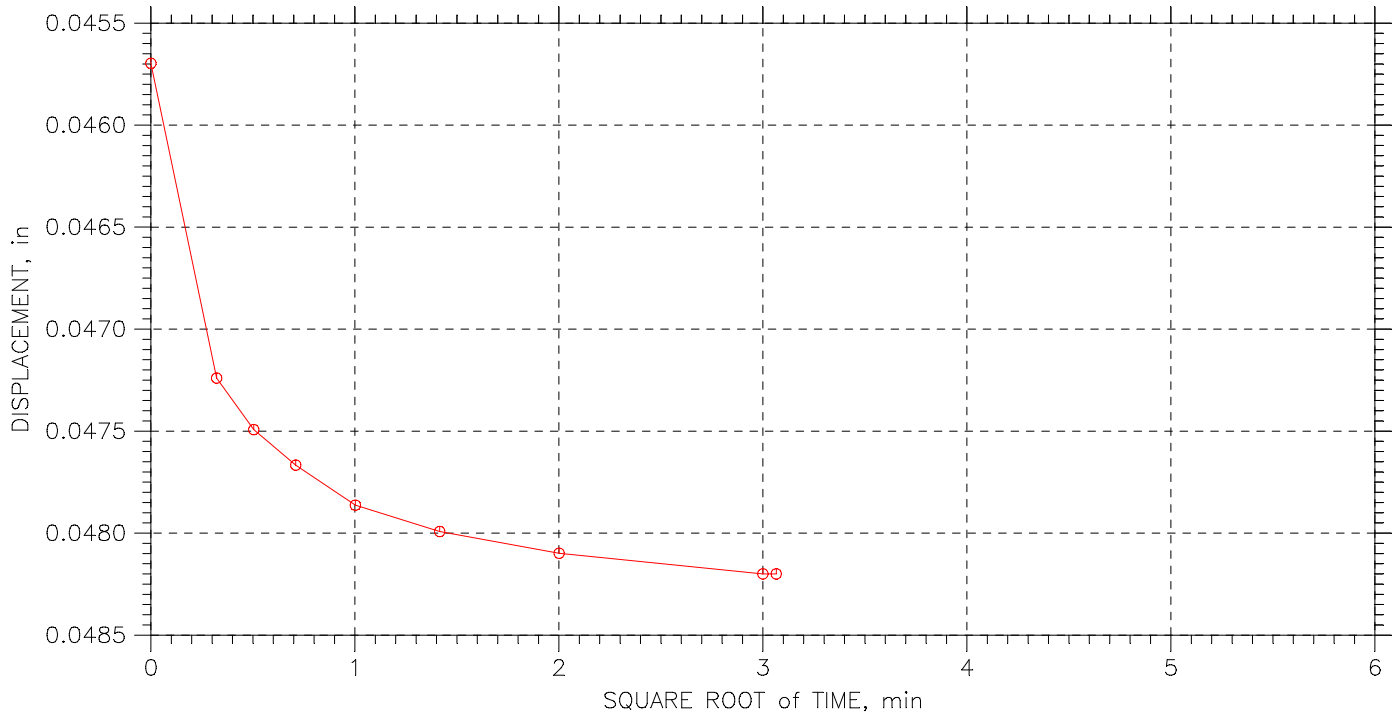
CONSOLIDATION TEST DATA

TIME CURVES

Step: 10 of 18

Stress: 2. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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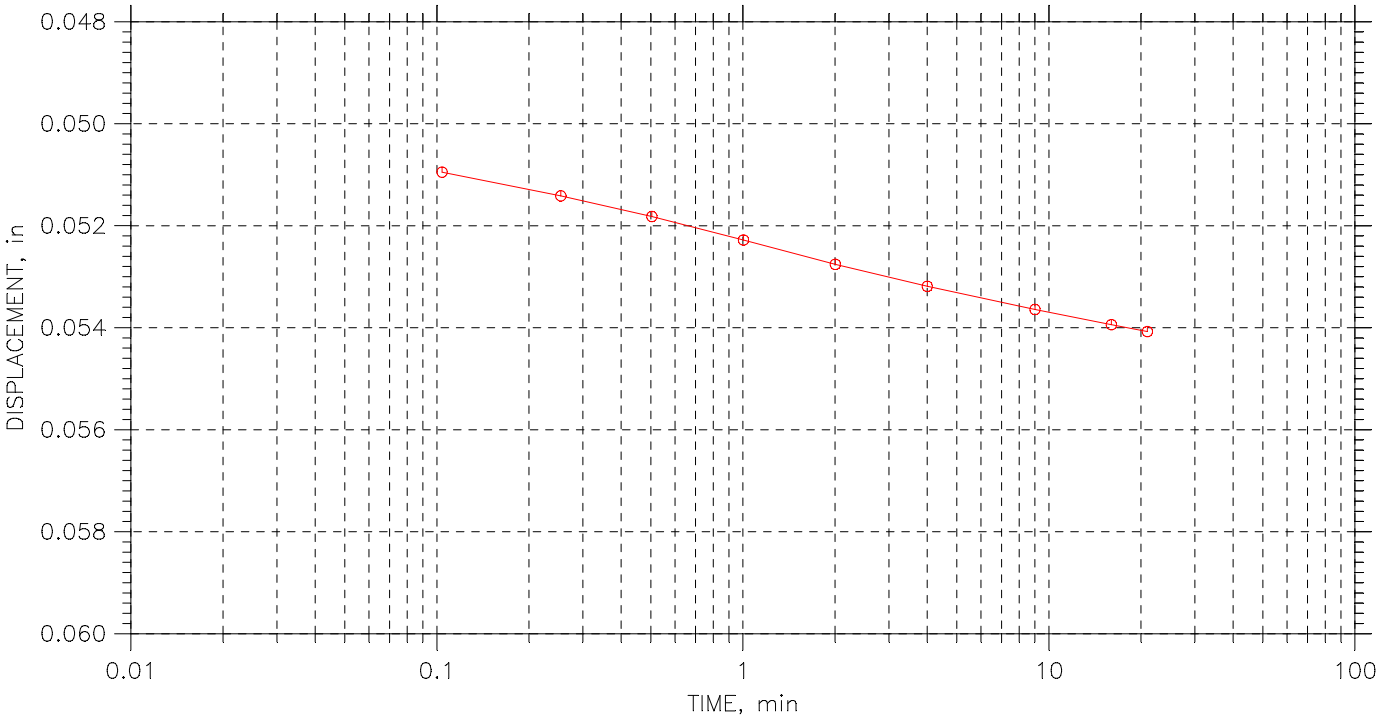
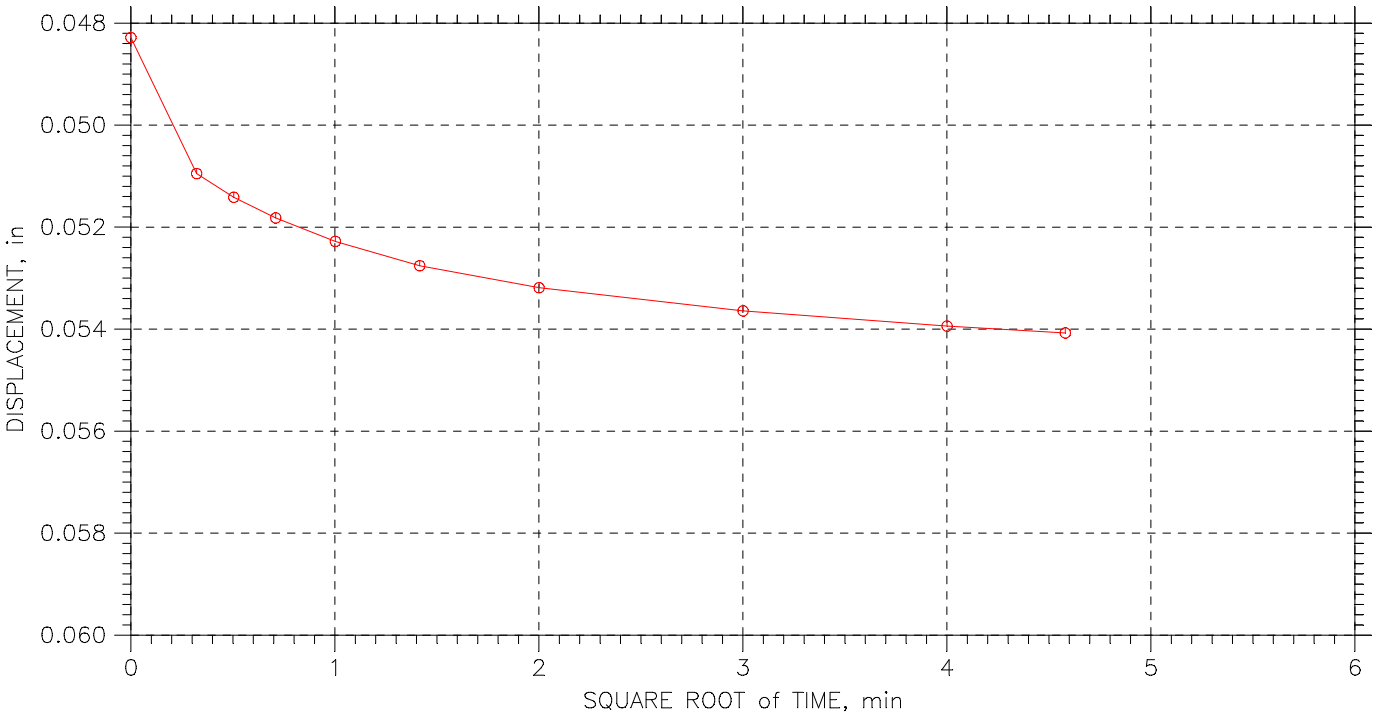
CONSOLIDATION TEST DATA

TIME CURVES

Step: 11 of 18

Stress: 4. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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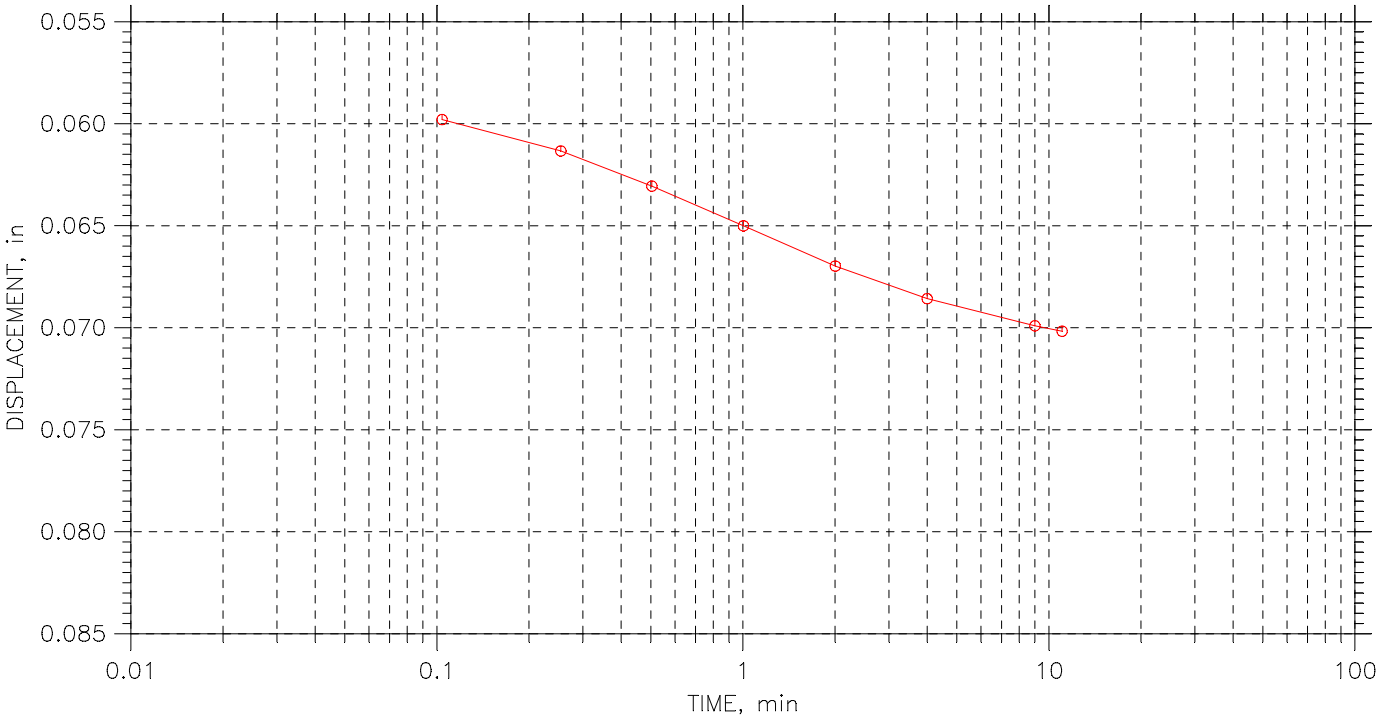
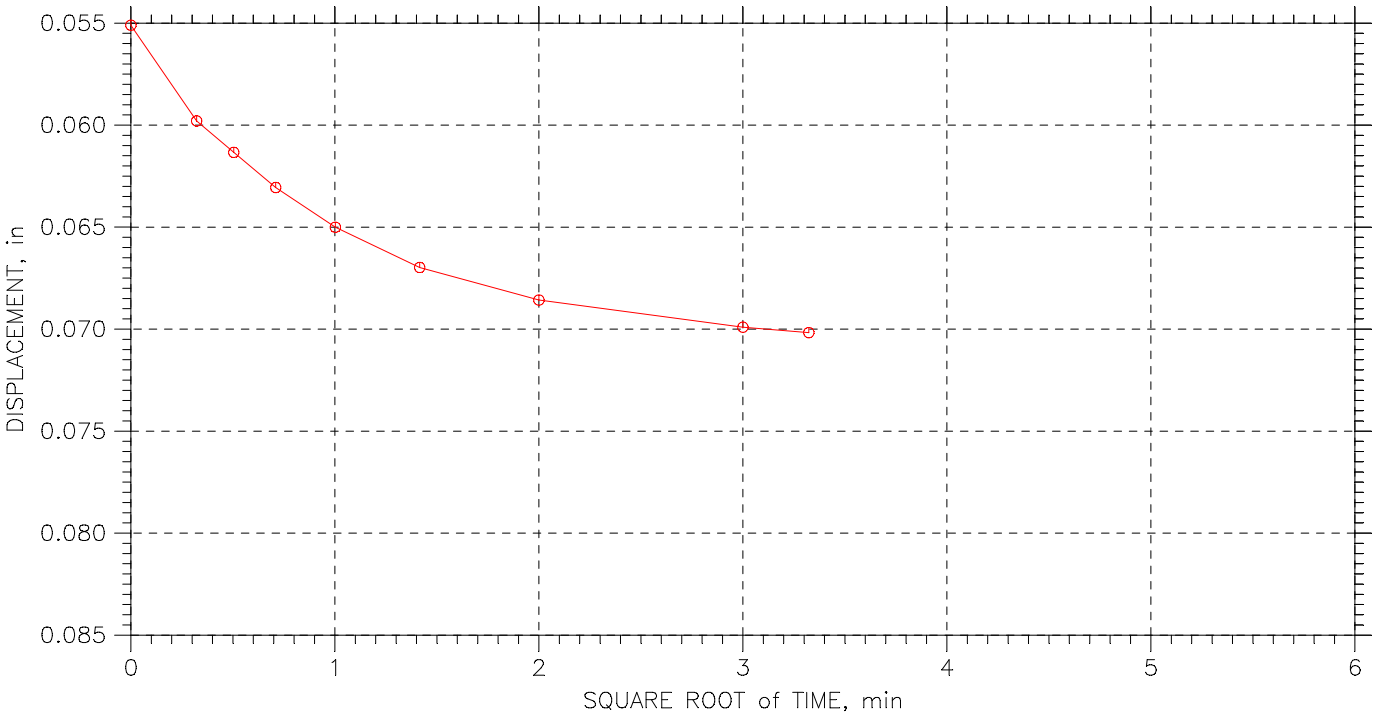
CONSOLIDATION TEST DATA

TIME CURVES

Step: 12 of 18

Stress: 8. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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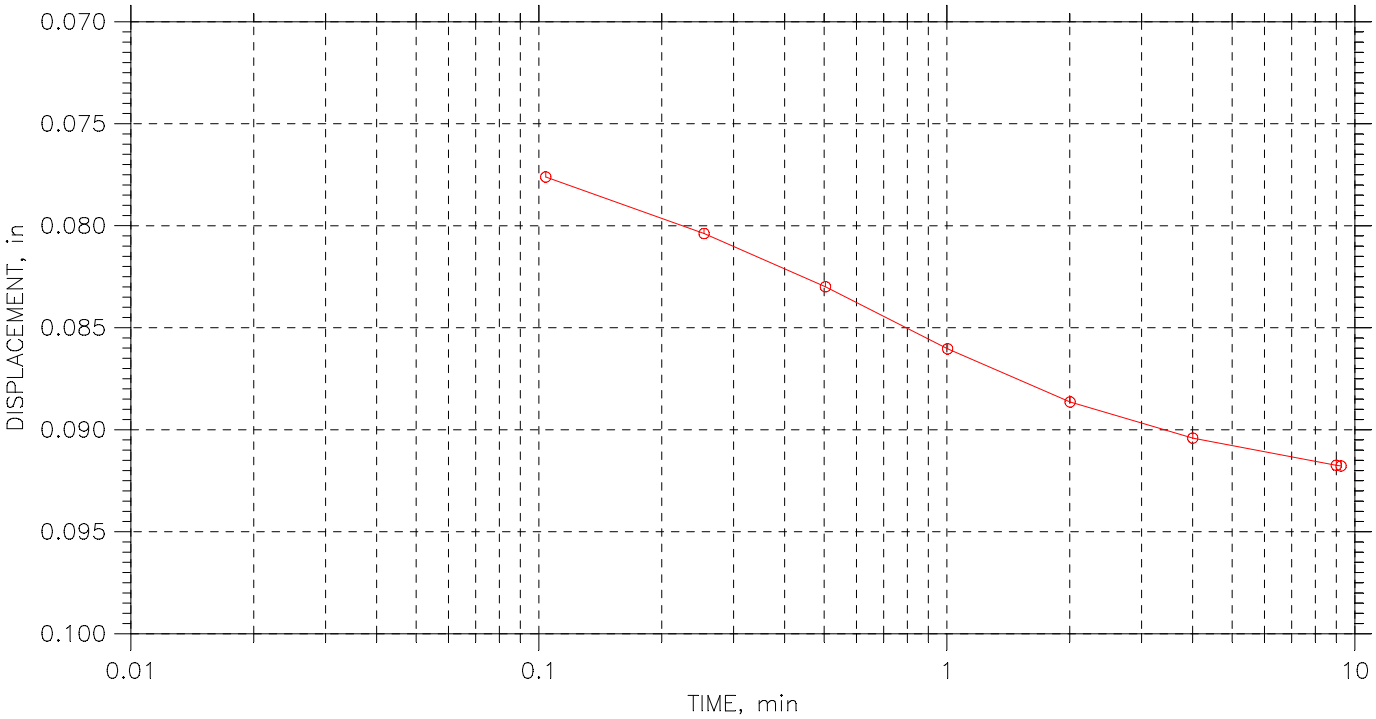
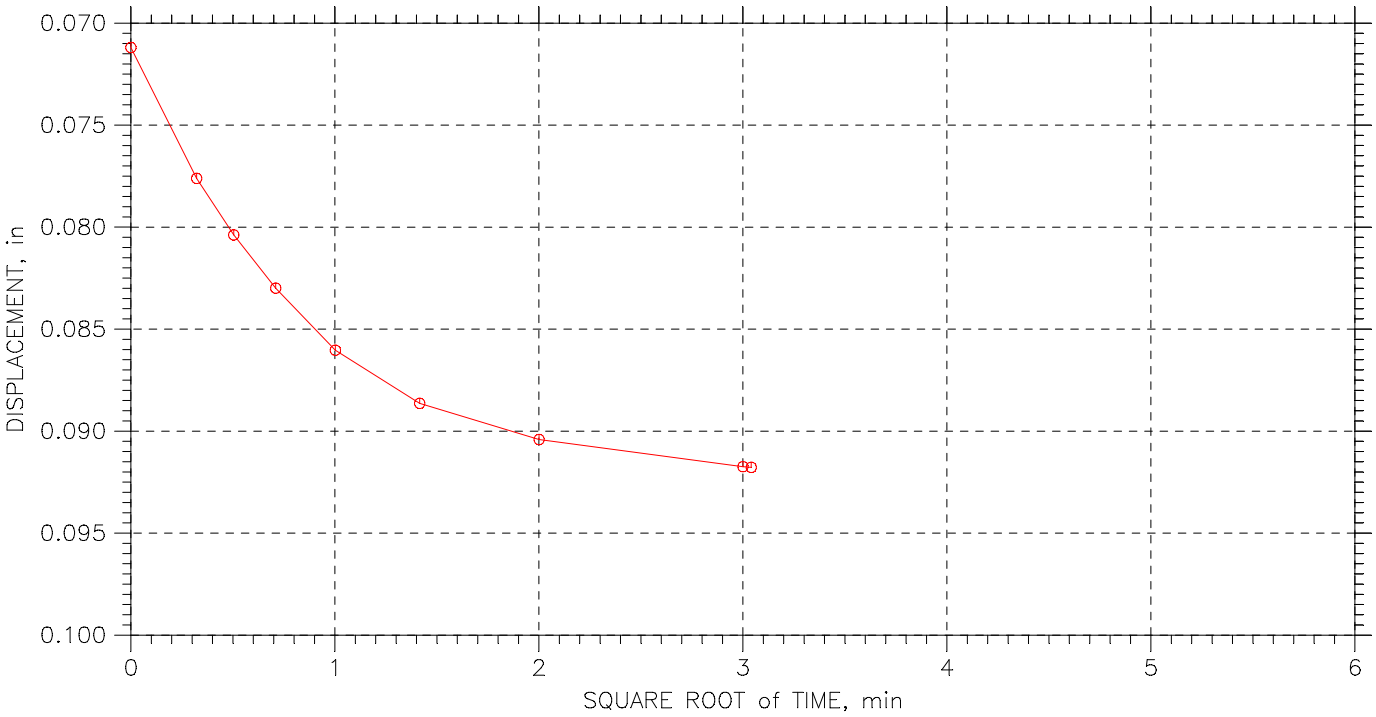
CONSOLIDATION TEST DATA

TIME CURVES

Step: 13 of 18

Stress: 16. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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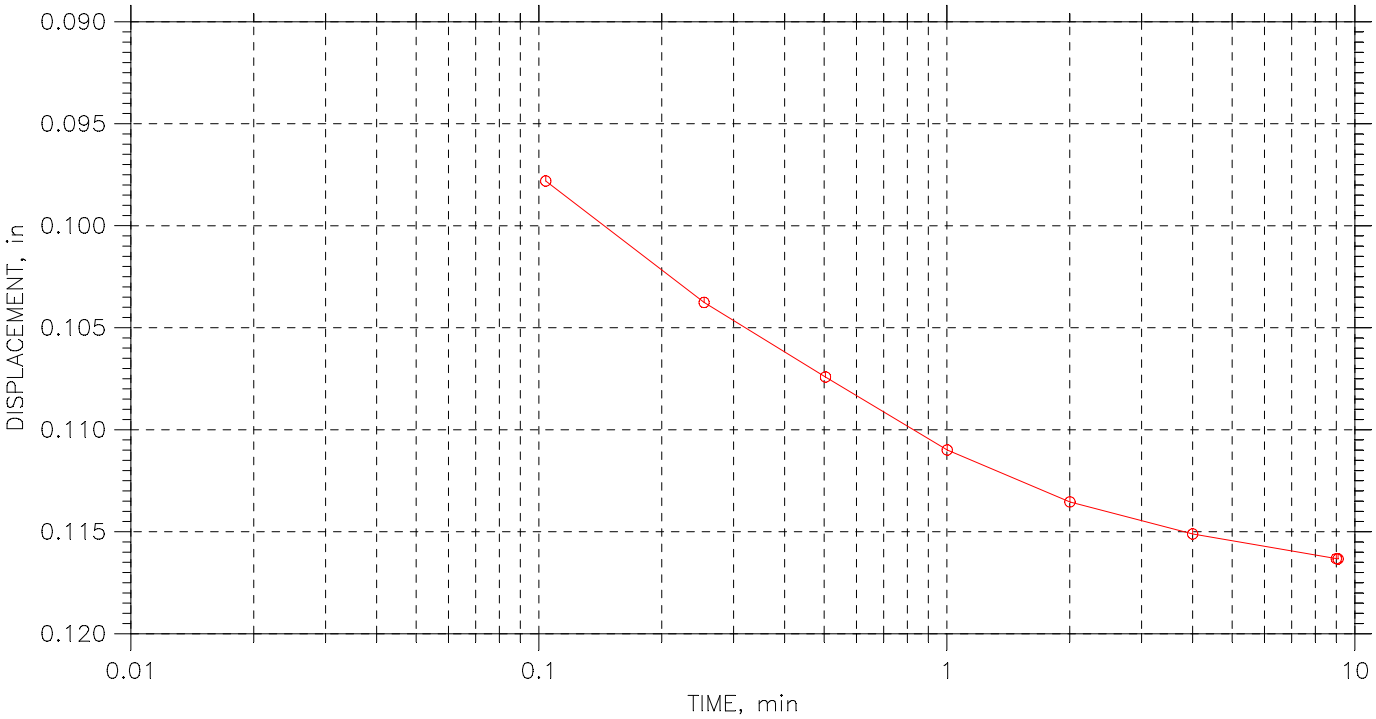
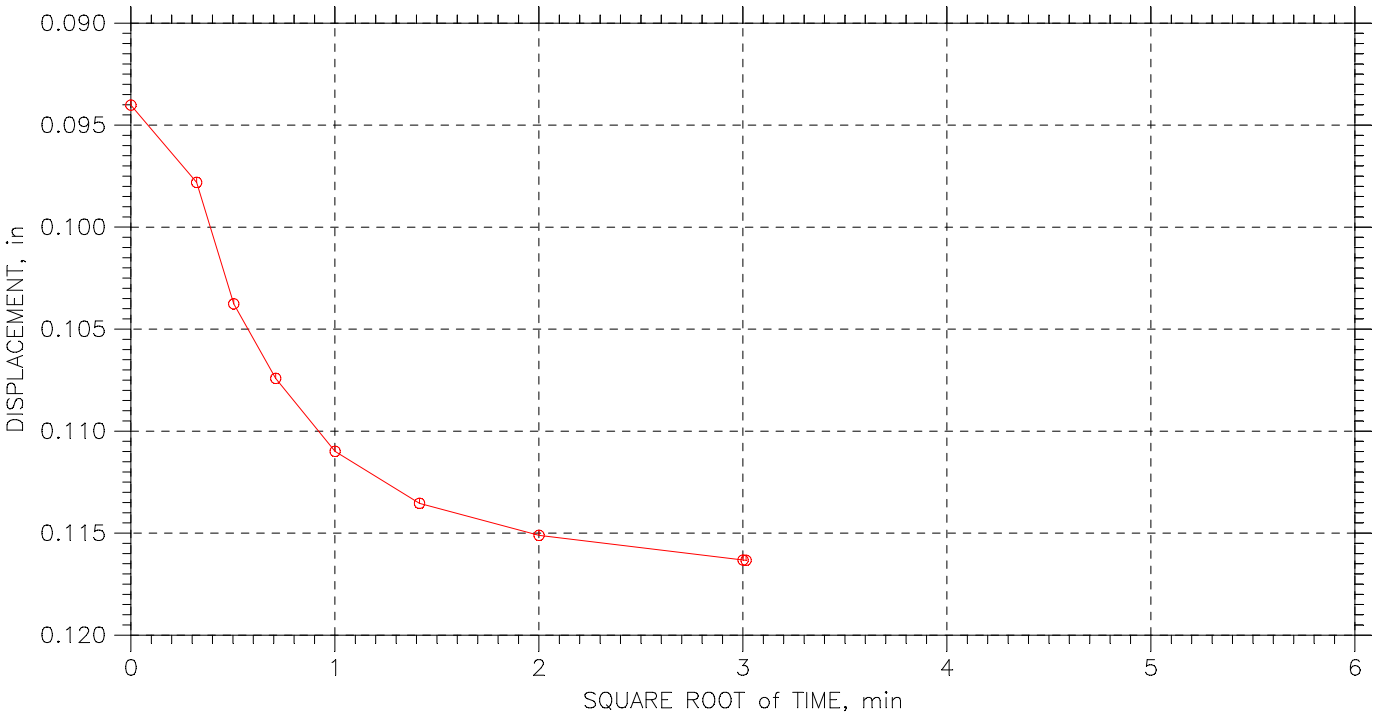
CONSOLIDATION TEST DATA

TIME CURVES

Step: 14 of 18

Stress: 32. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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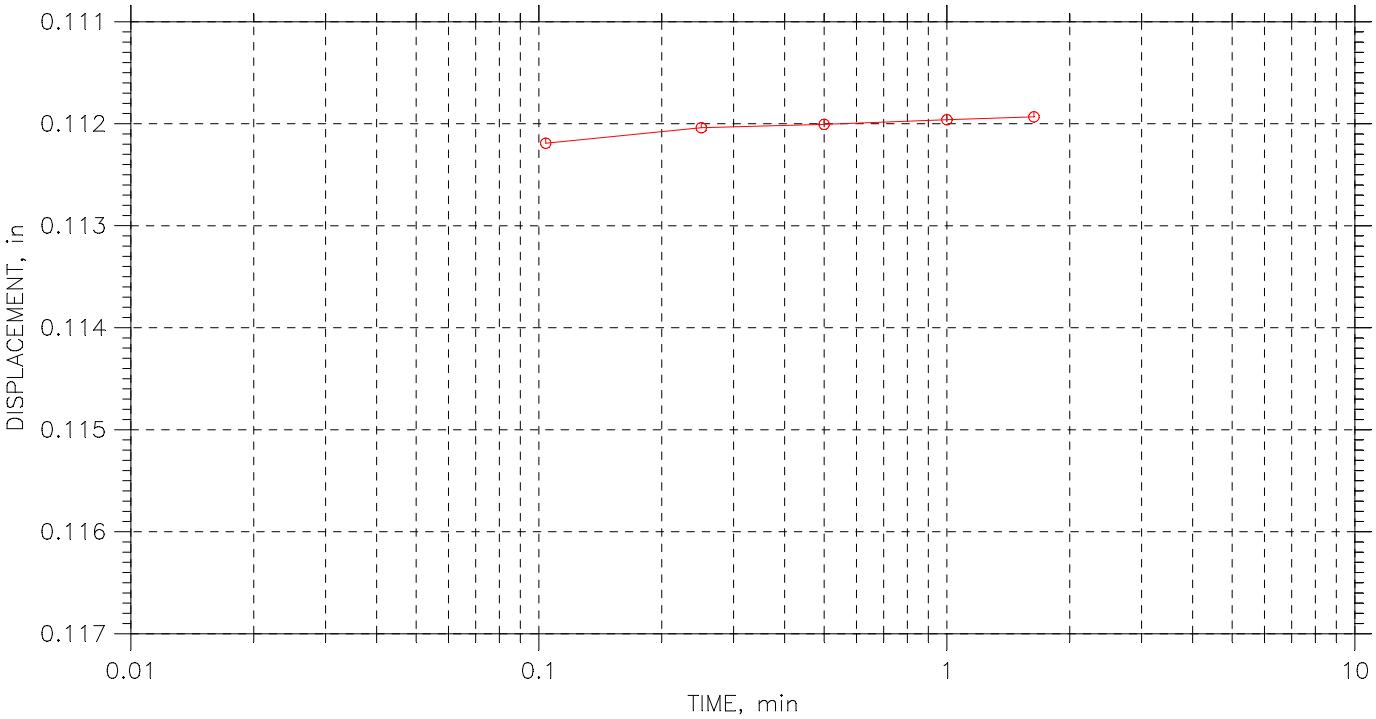
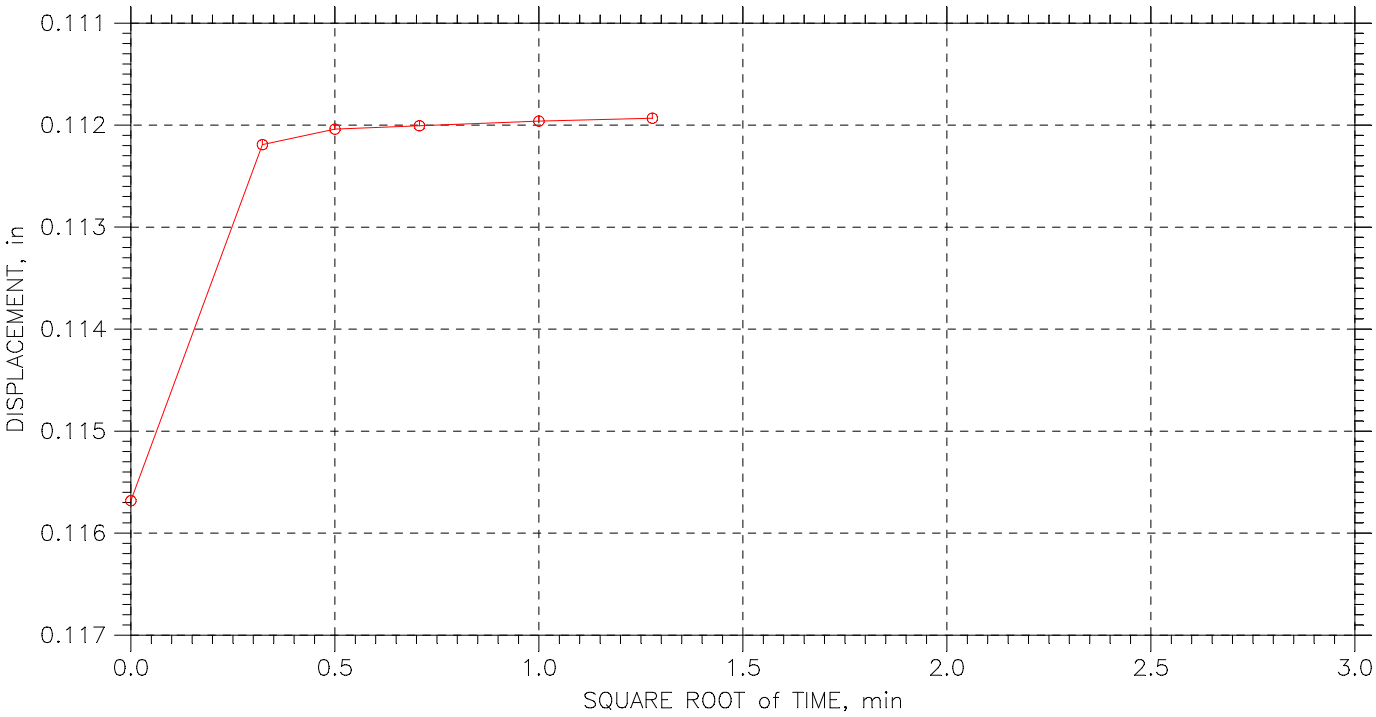
CONSOLIDATION TEST DATA

TIME CURVES

Step: 15 of 18

Stress: 16. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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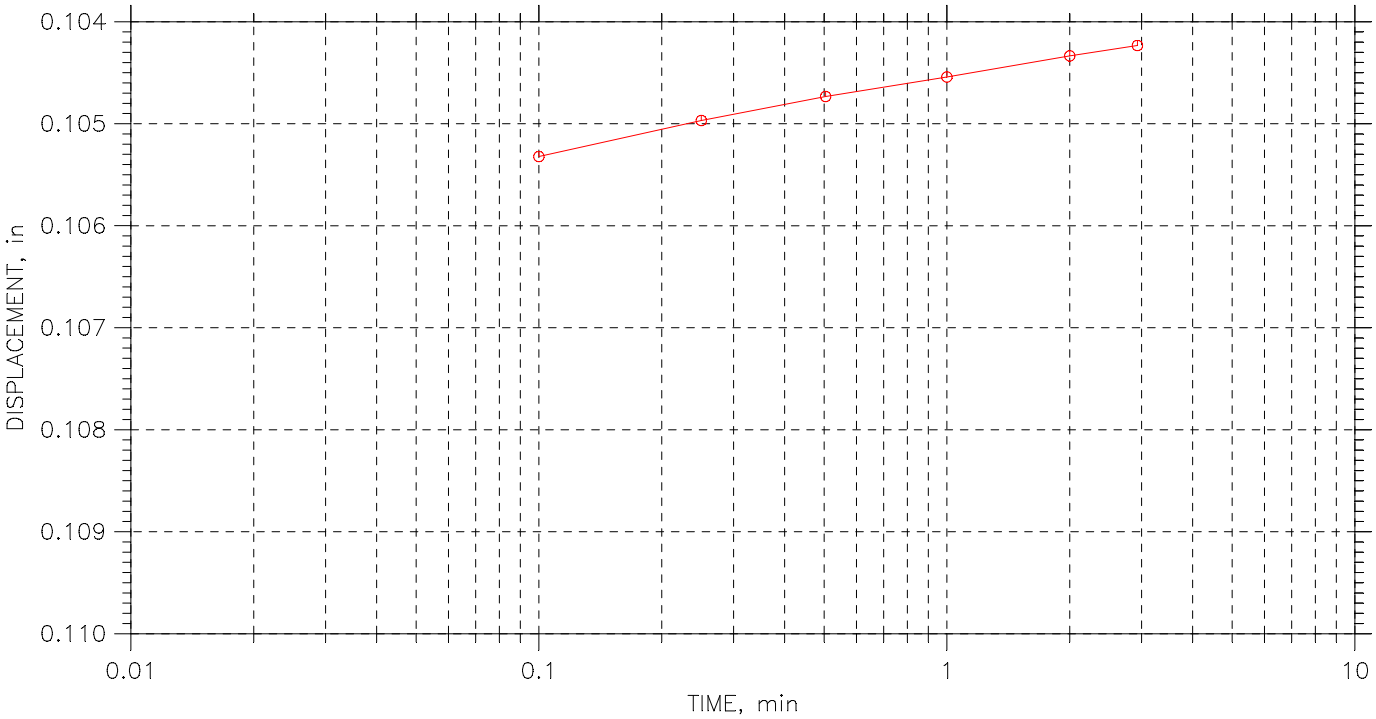
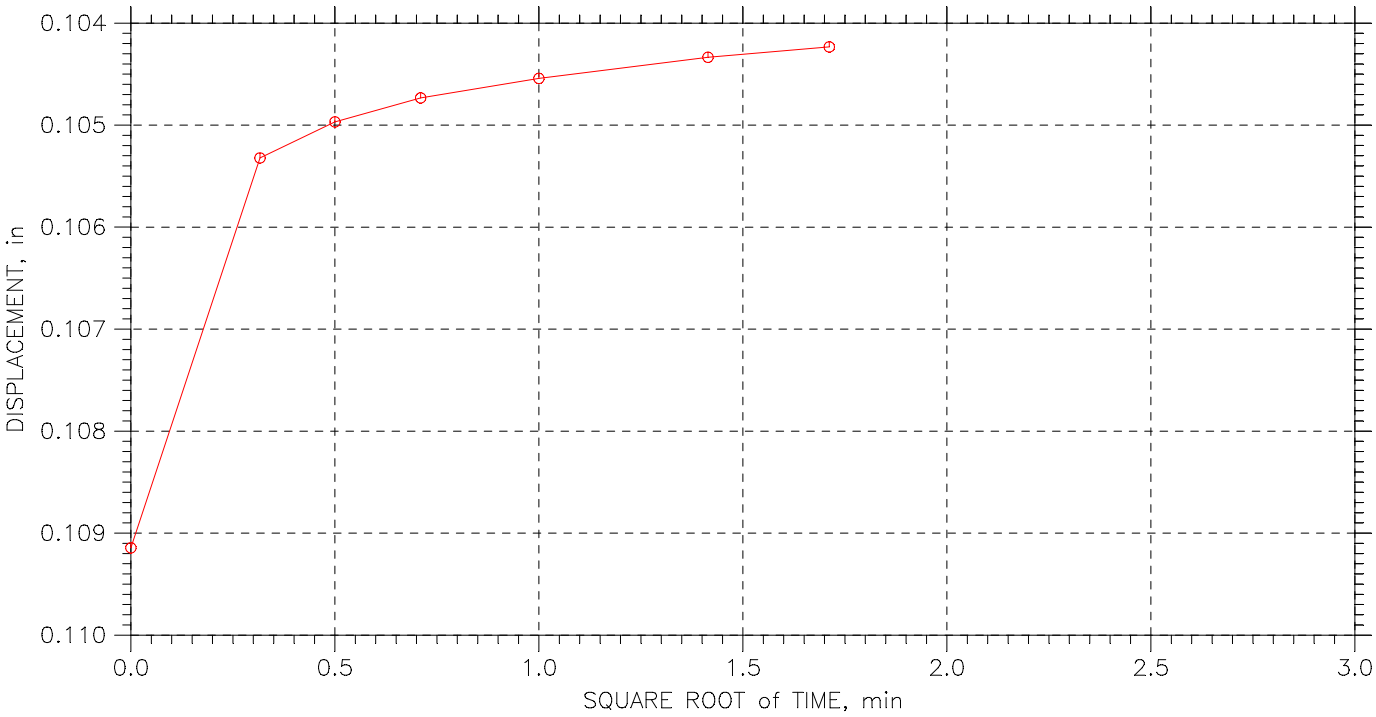
CONSOLIDATION TEST DATA

TIME CURVES

Step: 16 of 18

Stress: 4. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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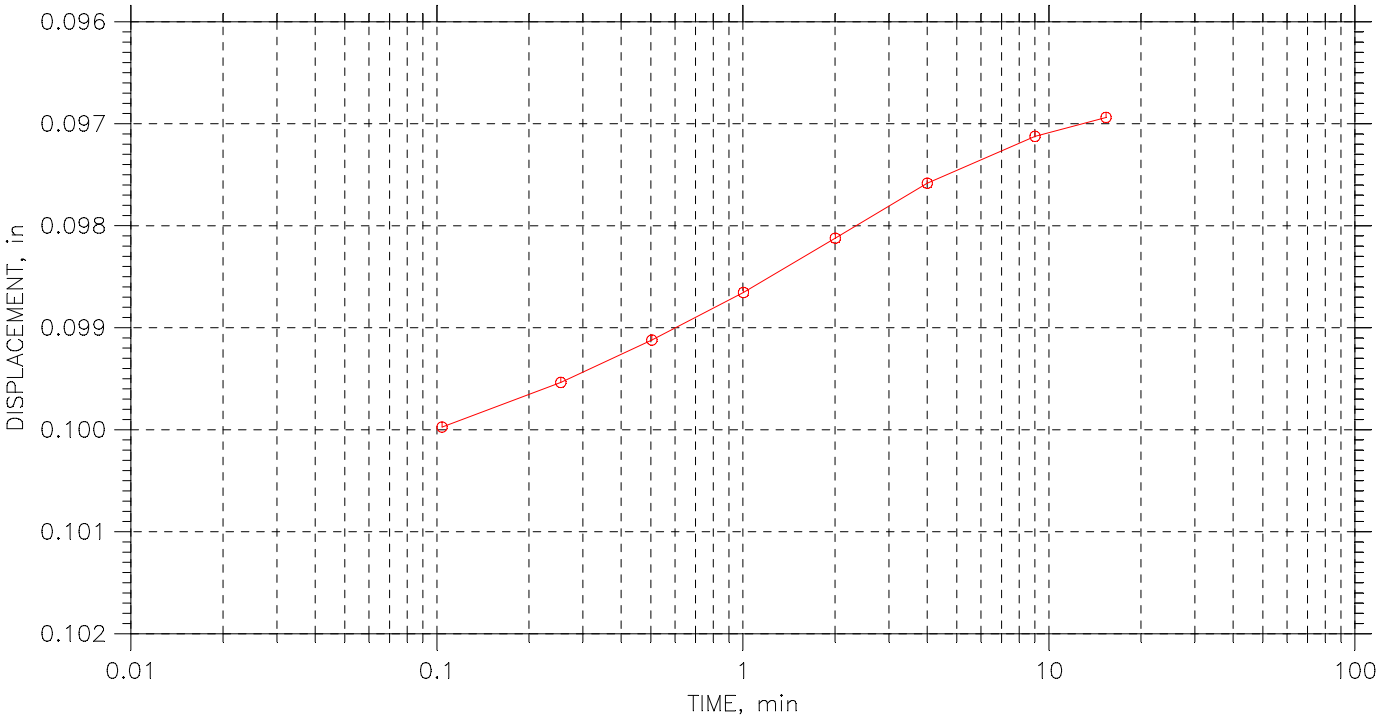
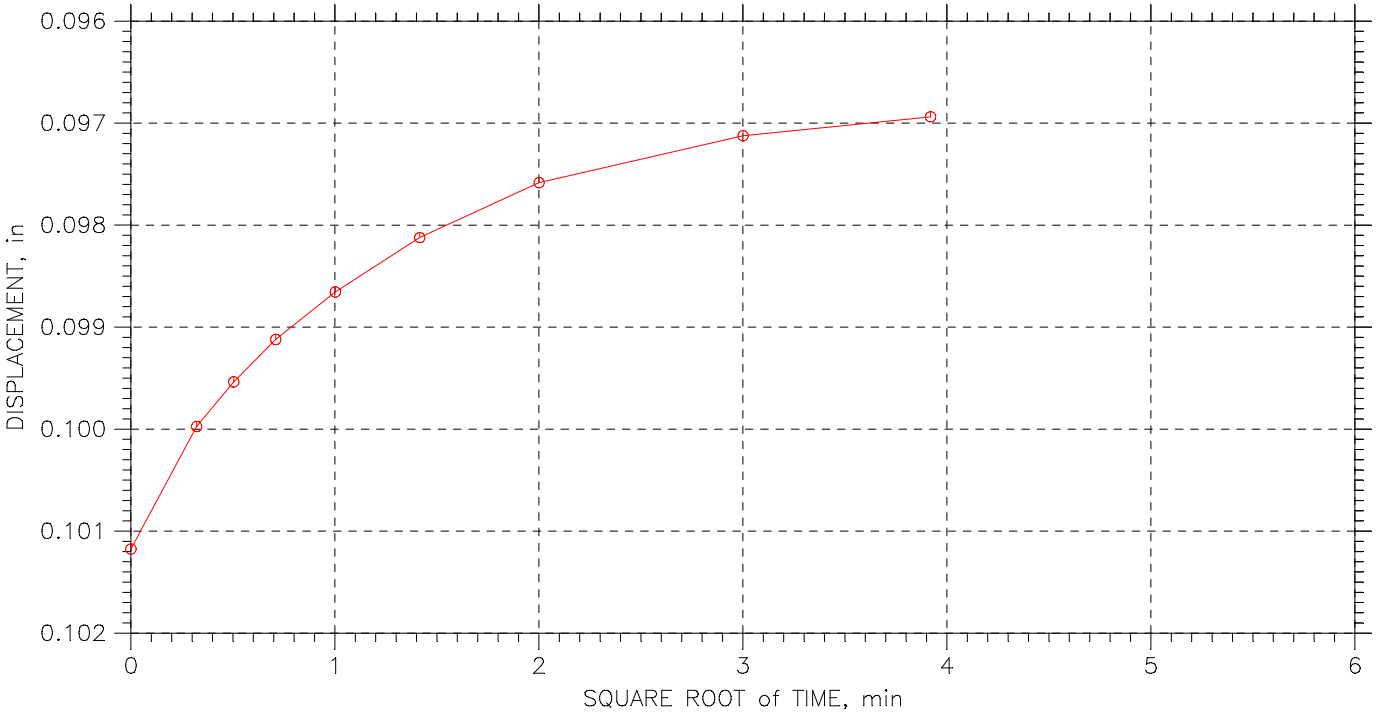
CONSOLIDATION TEST DATA

TIME CURVES

Step: 17 of 18

Stress: 1. tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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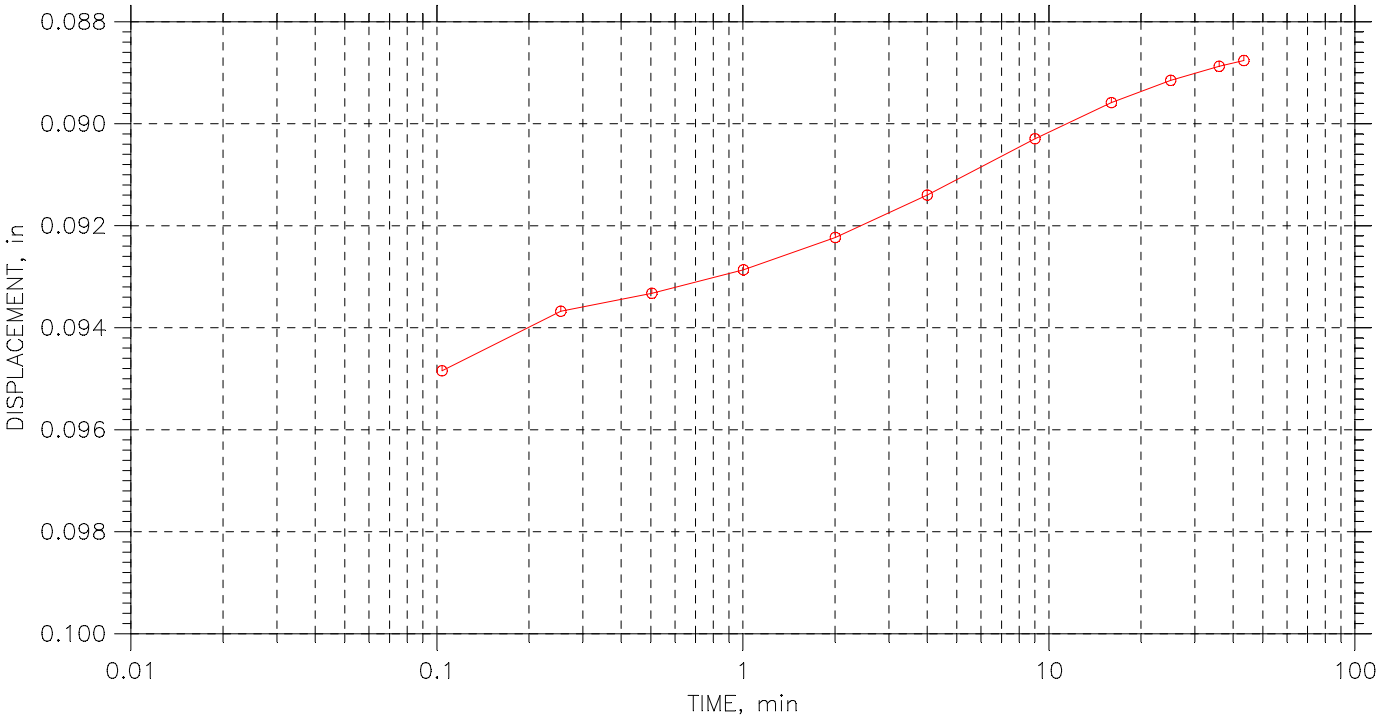
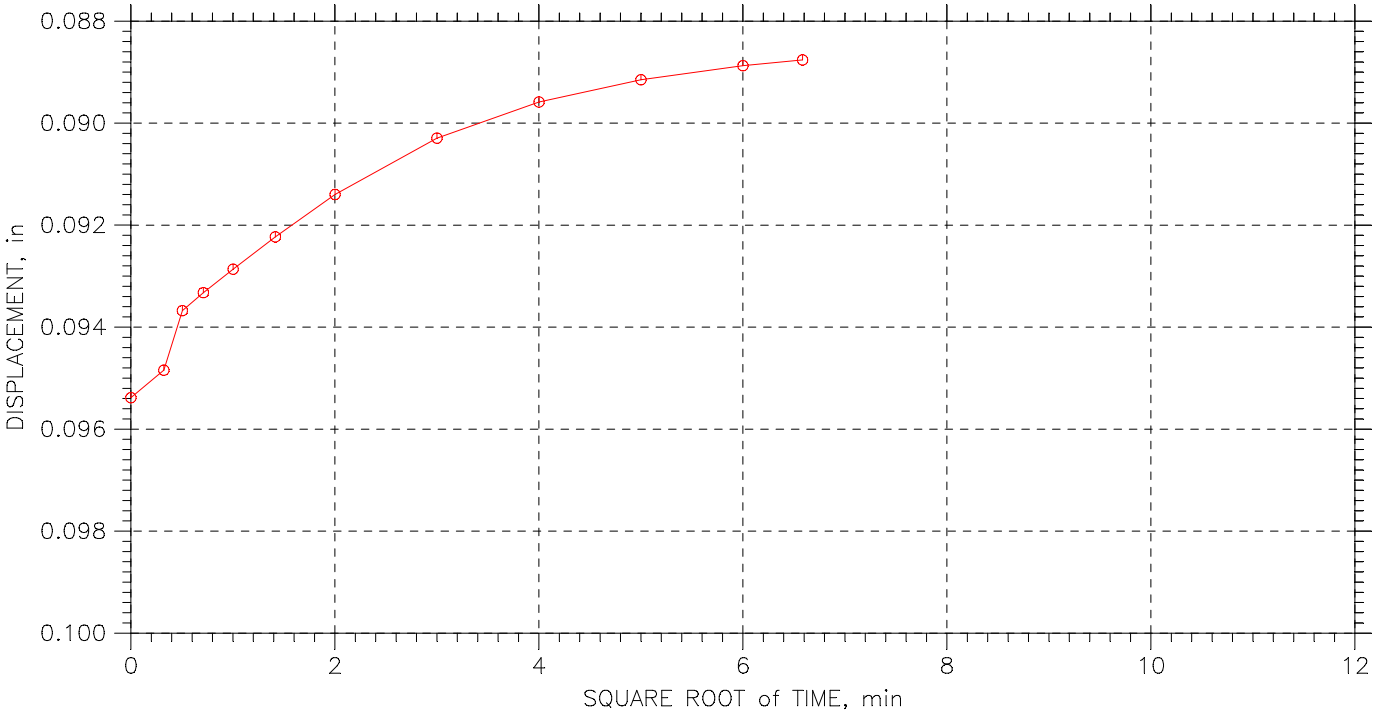
CONSOLIDATION TEST DATA

TIME CURVES

Step: 18 of 18

Stress: 0.25 tsf





Project: KINGSTON COAL TVA	Location: TN	Project No.: 60095742
Boring No.: 09-402B	Tested By: JDW	Checked By: WPQ
Sample No.: OST-6	Test Date: 2/26/09	Depth: 41.0'-43.5'
Test No.: 5742402BS6C	Sample Type: 3" OST	Elevation: +721.9
Description: CLAYEY SILT, SOME FINE SAND - GRAY (CL-ML)		
Remarks: Pc = 2.60 tsf Cc = 0.160 Ccr = 0.016 TEST PERFORMED AS PER ASTM D 2435		

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