APPENDIX C

Laboratory Test Data

STATE OF CALIFORNIA
DEPT OF TRANSPORTATION
SOILS LAB

E.A. 11-068001

Br. #

CLASSIFICATION TEST SUMMARY

LOCATION	% FINER THAN															ATT. LIMITS		Gs	IN-SITU		LAB. COMP	
Sample I.D.	1 1/2	1	3/4	1/2	3/8	4	8	16	30	50	100	200	5μ	2μ	1μ	LL	PI		γ_d	%m	γ_d	%m
B1-4-III																66	26	2.71		31.7		
B1-9-III																47	20	2.71		28.2		
B3-2-III																51	20	2.76		30.0		
B3-4-III																76	29	2.77		27.6		
B3-11-IV																61	25	2.75		27.2		
B5-3-III																57	24	2.74		31.5		
B5-6-III																54	21	2.76		30.2		
B5-9-III																38	19	2.74		26.4		
B10-1										100	91	30	16	-	10					21.4		
B10-3								10	99	97	20	10	8	-	7					26.0		
B11-1										100	97	30	5	-	2					22.8		
B11-2										100	96	23	6	-	3					24.1		
B11-4										100	71	31	8	-	5					22.8		
B15-1									100	99	81	21	12	-	8					23.8		
B15-4										100	67	19	10	-	7					24.7		
B18-1									100	97	52	10	6	-	5					19.4		
B18-2									100	98	73	12	8	-	5					19.7		

* Sample received fractured -- Not suitable for testing
** Sample disintegrated while preparing for testing -- Not suitable for testing
*** Sample received desiccated -- Test results may not represent the true soil conditions

CONSOLIDATION TEST DATA

Project : STATE ROUTE 7 ✓ Location : 11-IMP-7 KP 1.9-10.9 Project No.: 11-068001 ✓
Boring No.: B1 Tested by : GORDON Checked by :
Sample No.: B1-4-III ✓ Test Date : 03/14/00 Depth : 6.3-6.4
Test No. : 00029-G4 Sample Type: 1.944 ✓

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY WITH SAND
Remarks : SAMPLE CAME LOOSE IN TUBE-TEST RESULT QUESTIONABLE

	APPLIED PRESSURE (kPa)	FINAL DISPLACEMENT (mm)	VOID RATIO	STRAIN AT END (%)	FITTING T50 TIME (min) SQ.RT.	FITTING T50 TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) SQ.RT	COEFFICIENT OF CONSOLIDATION (m^2/s) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) AVE
1)	11.97	0.03	0.756	0.16	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	23.94	0.07	0.752	0.39	0.2	0.1	1.54E-006	2.02E-006	1.78E-006
3)	47.88	0.23	0.737	1.23	0.9	0.5	3.17E-007	6.48E-007	4.83E-007 — AVE
4)	95.76	0.47	0.715	2.47	2.1	0.0	1.37E-007	0.00E+000	1.37E-007 — 2.36 X 10
5)	191.52	0.79	0.686	4.14	3.1	0.0	8.90E-008	0.00E+000	8.90E-008 —
6)	383.04	1.22	0.646	6.41	3.8	5.6	7.12E-008	4.81E-008	5.97E-008
7)	766.08	1.78	0.594	9.37	3.9	6.4	6.52E-008	3.97E-008	5.25E-008
8)	1532.17	2.48	0.530	13.00	4.7	7.3	5.01E-008	3.21E-008	4.11E-008
9)	383.04	2.23	0.552	11.71	0.0	2.9	0.00E+000	8.02E-008	8.02E-008
10)	95.76	1.92	0.582	10.06	6.0	0.0	3.96E-008	0.00E+000	3.96E-008
11)	11.97	1.29	0.640	6.76	28.2	39.3	8.87E-009	6.36E-009	7.61E-009

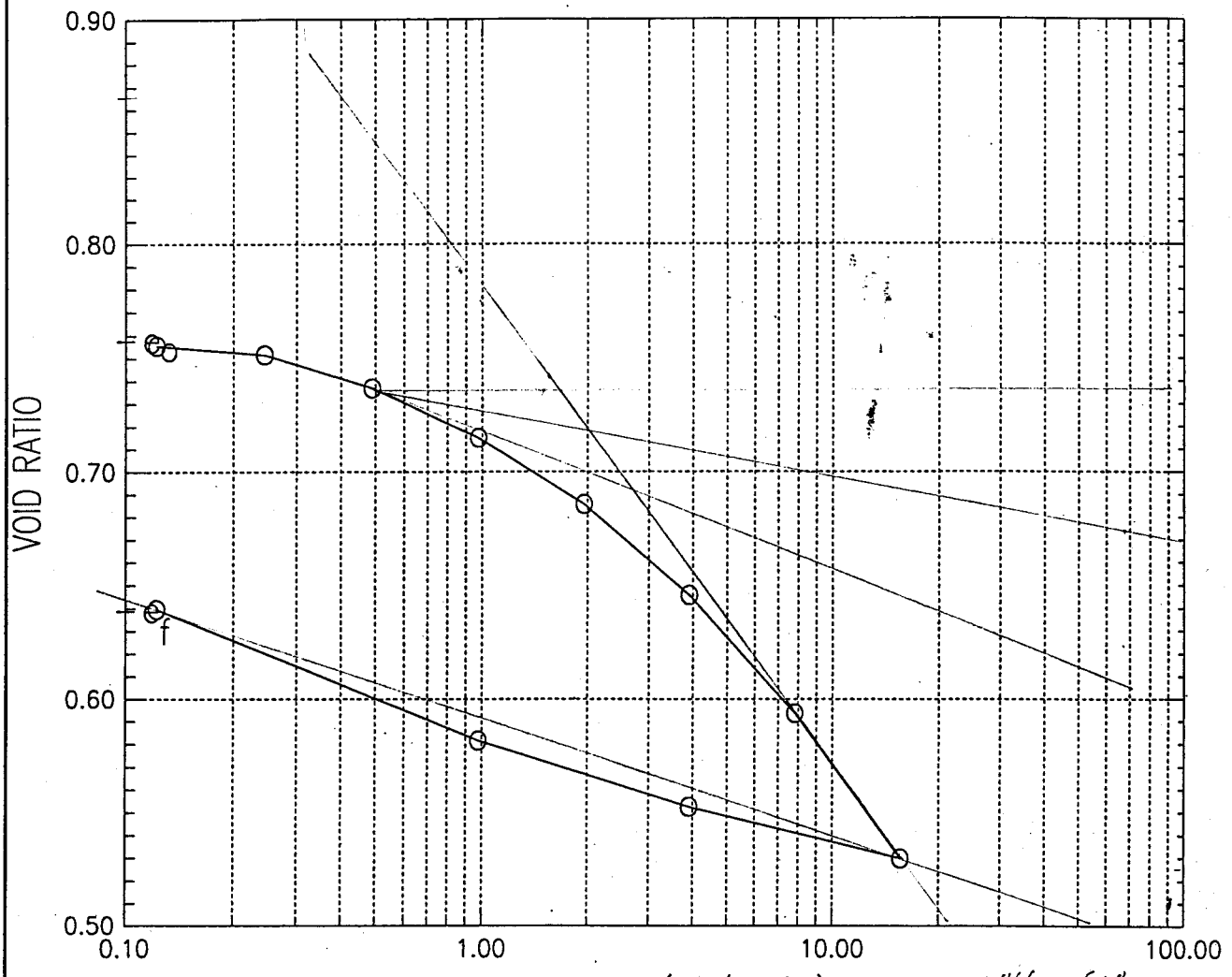
CONSOLIDATION TEST DATA

Project : STATE ROUTE 7
Location : 11-IMP-7 KP 1.9-10.9
Project No.: 11-068001
Boring No.: B1
Tested by : GORDON
Checked by :
Sample No.: B1-4-III
Test Date : 03/14/00
Depth : 6.3-6.4
Test No. : 00029-G4
Sample Type: 1.944

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY WITH SAND
Remarks : SAMPLE CAME LOOSE IN TUBE-TEST RESULT QUESTIONABLE

Specific Gravity : 2.71
Liquid Limit : 0
Initial Height : 19.05 (mm)
Initial Void Ratio : 0.76
Plastic Limit : 0
Sample Diameter : 49.38 (mm)
Final Void Ratio : 0.64
Plasticity Index : 0

	BEFORE CONSOLIDATION		AFTER CONSOLIDATION	
	TRIMMINGS	SPECIMEN + RING	SPECIMEN + RING	TRIMMINGS
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	93.50	93.50	92.50	92.50
WT CONTAINER + DRY SOIL (gm)	79.30	79.30	79.30	79.30
WT CONTAINER (gm)	23.10	23.10	23.10	23.10
WT DRY SOIL (gm)	56.20	56.20	56.20	56.20
WATER CONTENT (%)	25.27	25.27	23.49	23.49
VOID RATIO	------	0.76	0.64	------
GREE OF SATURATION (%)	------	90.25	99.47	------
RY DENSITY (gm/mm^3)	------	0.0015	0.0017	------



$C_r = \frac{0.63 - 0.525}{\log \frac{20}{0.2}} = 0.0525$

$C_c = \frac{0.866 - 0.508}{\log \frac{20}{0.4}} = 0.211$

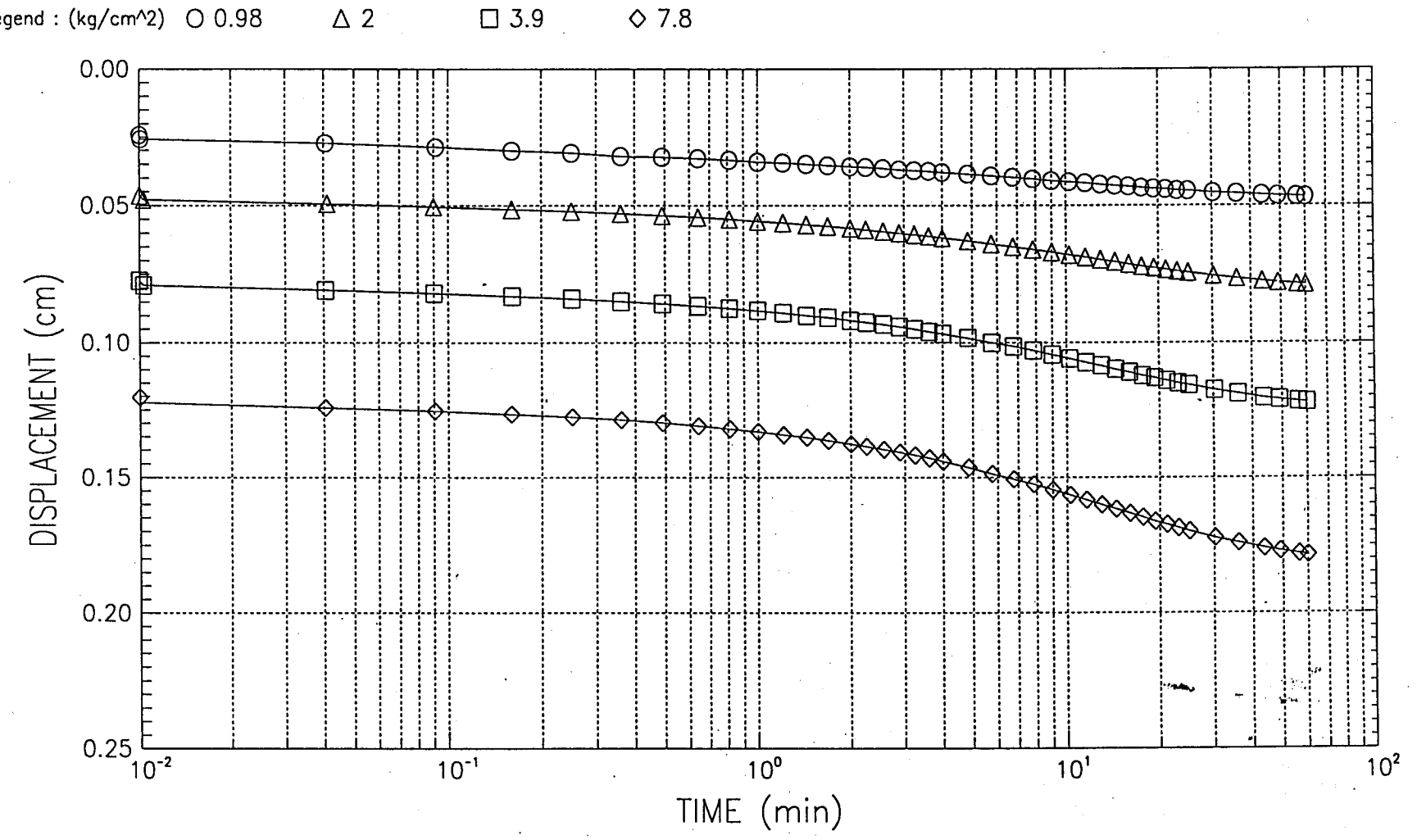
	BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (kg/cm^2) ---1.22	WATER CONTENT (%)	25.3	23.5
PRECONSOL. PRESSURE (kg/cm^2) ---2.0	DRY DENSITY (gm/cm^3)	1.54	1.65
COMPRESSION INDEX ---	SATURATION (%)	90.25	99.47
TYPE SPECIMEN 1.944	VOID RATIO	0.76	0.64
DIA. (cm) 4.938 HT. (cm) 1.905	BACK PRESSURE (kg/cm^2)	---	---

CLASSIFICATION MOIST STIFF REDDISH BROWN FAT CLAY WITH SAND

LL --- PL --- PI ---	PROJECT STATE ROUTE 7
GS 2.709 D_{10} ---	Data File: C:\SOILTE~1\CONSOL~1\00029-g4.asc
REMARKS	BORING NO. B1 SAMPLE NO. B1-4-III
	DEPTH 6.3-6.4 DATE 03/14/00

CONSOLIDATION TEST REPORT

Fri 03-24-:0, 14:44:53



PROJECT	STATE ROUTE 7		
Data File:	C:\SOILTE~1\CONSOL~1\00029-g4.asc		
BORING	B1	SAMPLE NO.	B1-4-III
DEPTH	6.3-6.4	DATE	03/14/00

CONSOLIDATION TEST TIME CURVES

CONSOLIDATION TEST DATA

Project : STATE ROUTE 7 Location : 11-IMP-7 KP 1.9/10.9 Project No.: 11-068001
Boring No.: B1 Tested by : GORDON Checked by :
Sample No.: B1-9-III Test Date : 03/14/00 Depth : 12.3-12.4
Test No. : 00030-G1 Sample Type: 1.944

Soil Description : MOIST FIRM REDDISH BROWN FAT CLAY
Remarks : WITH TRACES OF ORGANIC MATERIAL-PEAT

	APPLIED PRESSURE (kPa)	FINAL DISPLACEMENT (mm)	VOID RATIO	STRAIN AT END (%)	FITTING T50 TIME (min) SQ.RT.	FITTING T50 TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) SQ.RT	COEFFICIENT OF CONSOLIDATION (m^2/s) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) AVE
1)	11.97	0.06	0.700	0.33	0.2	0.0	1.25E-006	0.00E+000	1.25E-006
2)	23.94	0.16	0.691	0.86	2.8	0.0	1.05E-007	0.00E+000	1.05E-007
3)	47.88	0.37	0.673	1.92	3.3	0.0	8.88E-008	0.00E+000	8.88E-008
4)	95.76	0.67	0.646	3.51	3.3	5.8	8.60E-008	4.89E-008	6.75E-008
5)	191.52	1.05	0.612	5.50	2.6	0.0	1.06E-007	0.00E+000	1.06E-007
6)	383.04	1.47	0.574	7.74	2.2	0.0	1.16E-007	0.00E+000	1.16E-007
7)	766.08	2.00	0.526	10.52	1.9	2.9	1.28E-007	8.44E-008	1.06E-007
8)	1532.17	2.63	0.471	13.78	2.2	3.0	1.05E-007	7.66E-008	9.08E-008
9)	383.04	2.38	0.493	12.50	1.4	0.0	1.61E-007	0.00E+000	1.61E-007
10)	95.76	2.01	0.526	10.55	3.7	0.0	6.31E-008	0.00E+000	6.31E-008
11)	11.97	1.44	0.577	7.56	15.5	22.6	1.59E-008	1.09E-008	1.34E-008

AVE

0.92X

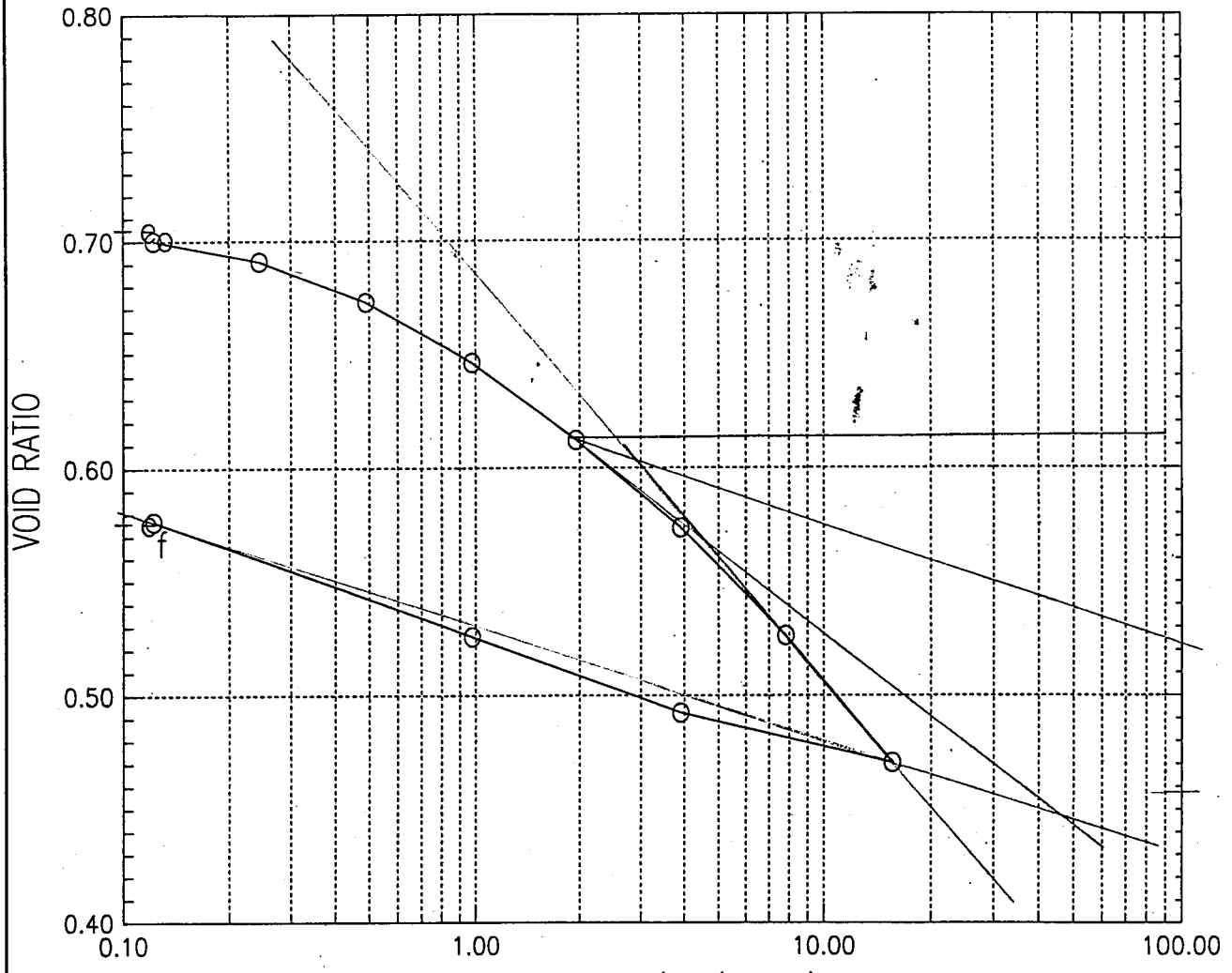
CONSOLIDATION TEST DATA

Project : STATE ROUTE 7 Location : 11-IMP-7 KP 1.9/10.9 Project No.: 11-068001
Boring No.: B1 Tested by : GORDON Checked by :
Sample No.: B1-9-III Test Date : 03/14/00 Depth : 12.3-12.4
Test No. : 00030-G1 Sample Type: 1.944

Soil Description : MOIST FIRM REDDISH BROWN FAT CLAY
Remarks : WITH TRACES OF ORGANIC MATERIAL-PEAT

Specific Gravity : 2.71 Liquid Limit : 0 Initial Height : 19.05 (mm)
Initial Void Ratio : 0.71 Plastic Limit : 0 Sample Diameter : 49.38 (mm)
Final Void Ratio : 0.58 Plasticity Index : 0

	BEFORE CONSOLIDATION		AFTER CONSOLIDATION	
	TRIMMINGS	SPECIMEN + RING	SPECIMEN + RING	TRIMMINGS
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	95.70	95.70	93.60	93.60
WT CONTAINER + DRY SOIL (gm)	81.20	81.20	81.20	81.20
WT CONTAINER (gm)	23.20	23.20	23.20	23.20
WT DRY SOIL (gm)	58.00	58.00	58.00	58.00
WATER CONTENT (%)	25.00	25.00	21.38	21.38
VOID RATIO	------	0.71	0.58	------
GREE OF SATURATION (%)	------	96.07	100.52	------
AY DENSITY (gm/mm^3)	------	0.0016	0.0017	------



$C_r = \frac{0.58 - .458}{\log \frac{30}{0.1}} = 0.0493$

$C_c = \frac{0.78 - 0.42}{\log \frac{30}{0.3}} = 0.18$

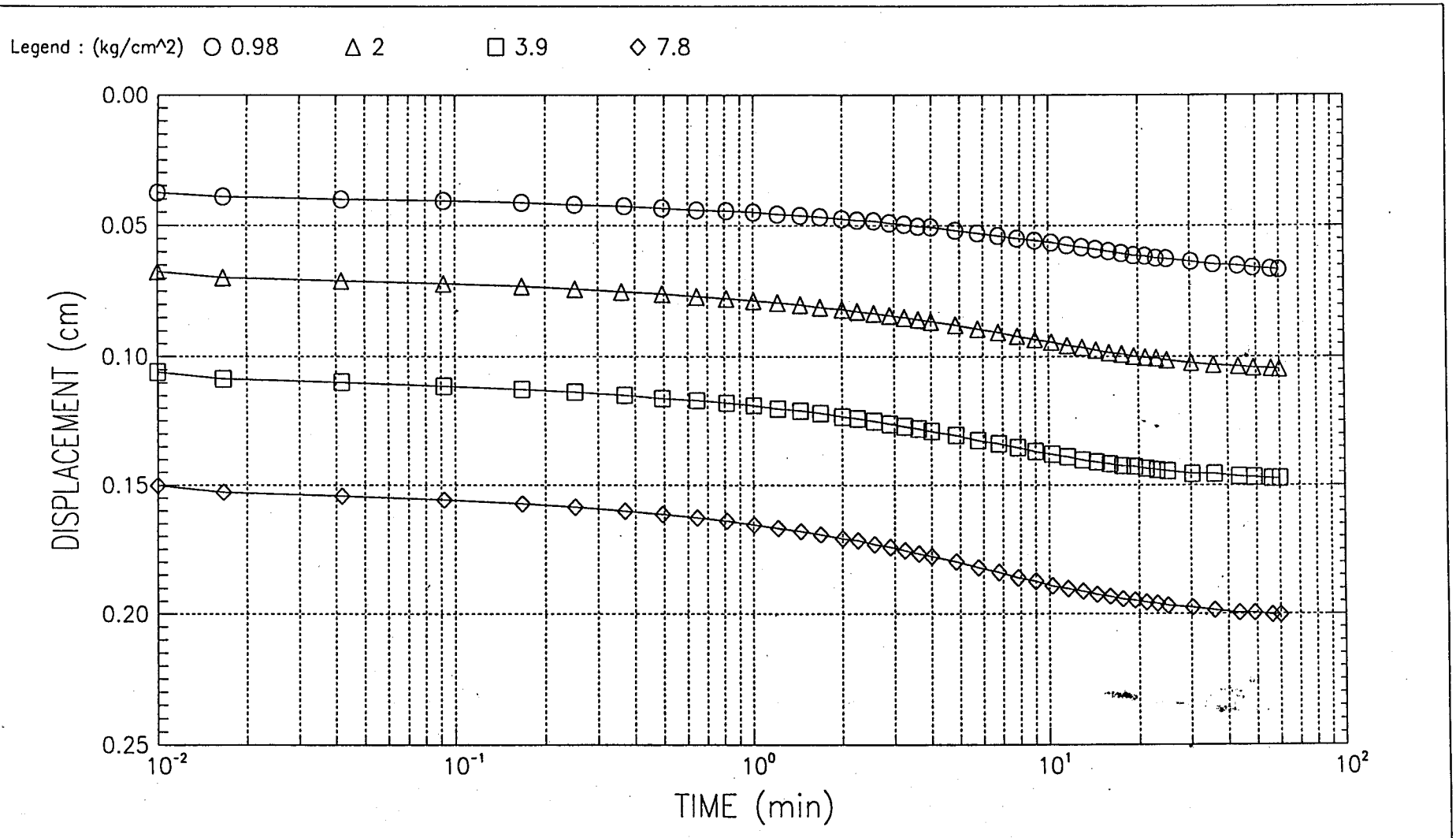
			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (kg/cm^2)	---2.4	WATER CONTENT (%)	25.0	21.4
PRECONSOL. PRESSURE (kg/cm^2)	---2.8	DRY DENSITY (gm/cm^3)	1.59	1.72
COMPRESSION INDEX	---	SATURATION (%)	96.07	100.52
TYPE SPECIMEN 1.944		VOID RATIO	0.71	0.58
DIA. (cm) 4.938	HT. (cm) 1.905	BACK PRESSURE (kg/cm^2)	---	---

CLASSIFICATION MOIST FIRM REDDISH BROWN FAT CLAY

LL ---	PL ---	PI ---	PROJECT STATE ROUTE 7
GS 2.712	D_{10} ---		C:\SOILTE~1\CONSOL~1\00030-g1.asc
REMARKS		BORING NO. B1	SAMPLE NO. B1-9-III
		DEPTH 12.3-12.4	DATE 03/14/00

CONSOLIDATION TEST REPORT

Fri 03-24-00, 14:46:55



PROJECT	STATE ROUTE 7		
Data File:	C:\SOILTE~1\CONSOL~1\00030-g1.asc		
BORING	B1	SAMPLE NO.	B1-9-III
DEPTH	12.3-12.4	DATE	03/14/00

CONSOLIDATION TEST TIME CURVES

CONSOLIDATION TEST DATA

Project : STATE ROUTE 7
Location : 11-IMP-7 KP 1.9-10.9
Project No.: 11-068001
Boring No.: B3
Tested by : GORDON
Checked by :
Sample No.: B3-2-III
Test Date : 03/15/00
Depth : 3.2-3.3
Test No. : 00031-G4
Sample Type: 1.944

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL

	APPLIED PRESSURE (kPa)	FINAL DISPLACEMENT (mm)	VOID RATIO	STRAIN AT END (%)	FITTING T50 TIME (min) SQ.RT.	FITTING T50 TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (m^2/s) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) AVE
1)	11.97	0.06	0.830	0.31	1.2	1.4	2.57E-007	2.11E-007	2.34E-007
2)	23.94	0.20	0.816	1.06	4.8	0.0	6.17E-008	0.00E+000	6.17E-008
3)	47.88	0.49	0.788	2.59	3.4	4.8	8.38E-008	5.98E-008	7.18E-008
4)	95.76	0.85	0.754	4.47	2.2	3.1	1.24E-007	8.83E-008	1.06E-007
5)	191.52	1.24	0.717	6.50	1.6	2.2	1.65E-007	1.19E-007	1.42E-007
6)	383.04	1.74	0.668	9.12	1.6	2.3	1.53E-007	1.10E-007	1.32E-007
7)	766.08	2.36	0.608	12.40	1.6	2.0	1.49E-007	1.19E-007	1.34E-007
8)	1532.17	3.03	0.543	15.93	1.8	2.7	1.19E-007	8.21E-008	1.01E-007
9)	383.04	2.91	0.555	15.29	0.8	0.0	2.57E-007	0.00E+000	2.57E-007
10)	95.76	2.65	0.581	13.91	2.5	0.0	8.66E-008	0.00E+000	8.66E-008
11)	11.97	2.26	0.618	11.85	13.1	0.0	1.72E-008	0.00E+000	1.72E-008

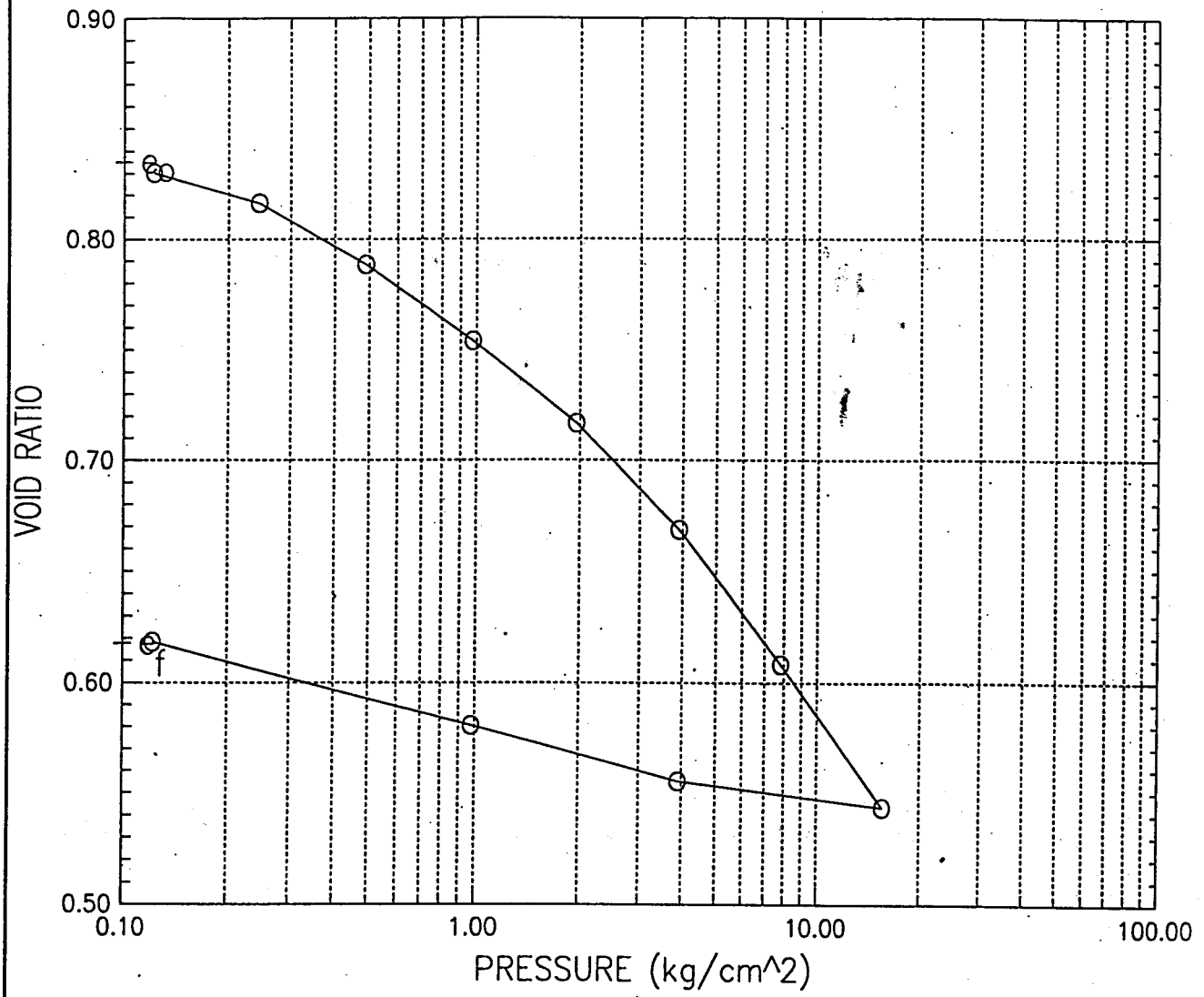
CONSOLIDATION TEST DATA

Project : STATE ROUTE 7	Location : 11-IMP-7 KP 1.9-10.9	Project No.: 11-068001
Boring No.: B3	Tested by : GORDON	Checked by :
Sample No.: B3-2-III	Test Date : 03/15/00	Depth : 3.2-3.3
Test No. : 00031-G4	Sample Type: 1.944	

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL

Specific Gravity : 2.76	Liquid Limit : 0	Initial Height : 19.05 (mm)
Initial Void Ratio : 0.84	Plastic Limit : 0	Sample Diameter : 49.38 (mm)
Final Void Ratio : 0.62	Plasticity Index : 0	

	BEFORE CONSOLIDATION		AFTER CONSOLIDATION	
	TRIMMINGS	SPECIMEN + RING	SPECIMEN + RING	TRIMMINGS
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	96.20	96.20	92.20	92.20
WT CONTAINER + DRY SOIL (gm)	79.00	79.00	79.00	79.00
WT CONTAINER (gm)	24.10	24.10	24.10	24.10
WT DRY SOIL (gm)	54.90	54.90	54.90	54.90
WATER CONTENT (%)	31.33	31.33	24.04	24.04
VOID RATIO	------	0.84	0.62	------
DEGREE OF SATURATION (%)	------	103.56	107.41	------
DRY DENSITY (gm/mm^3)	------	0.0015	0.0017	------



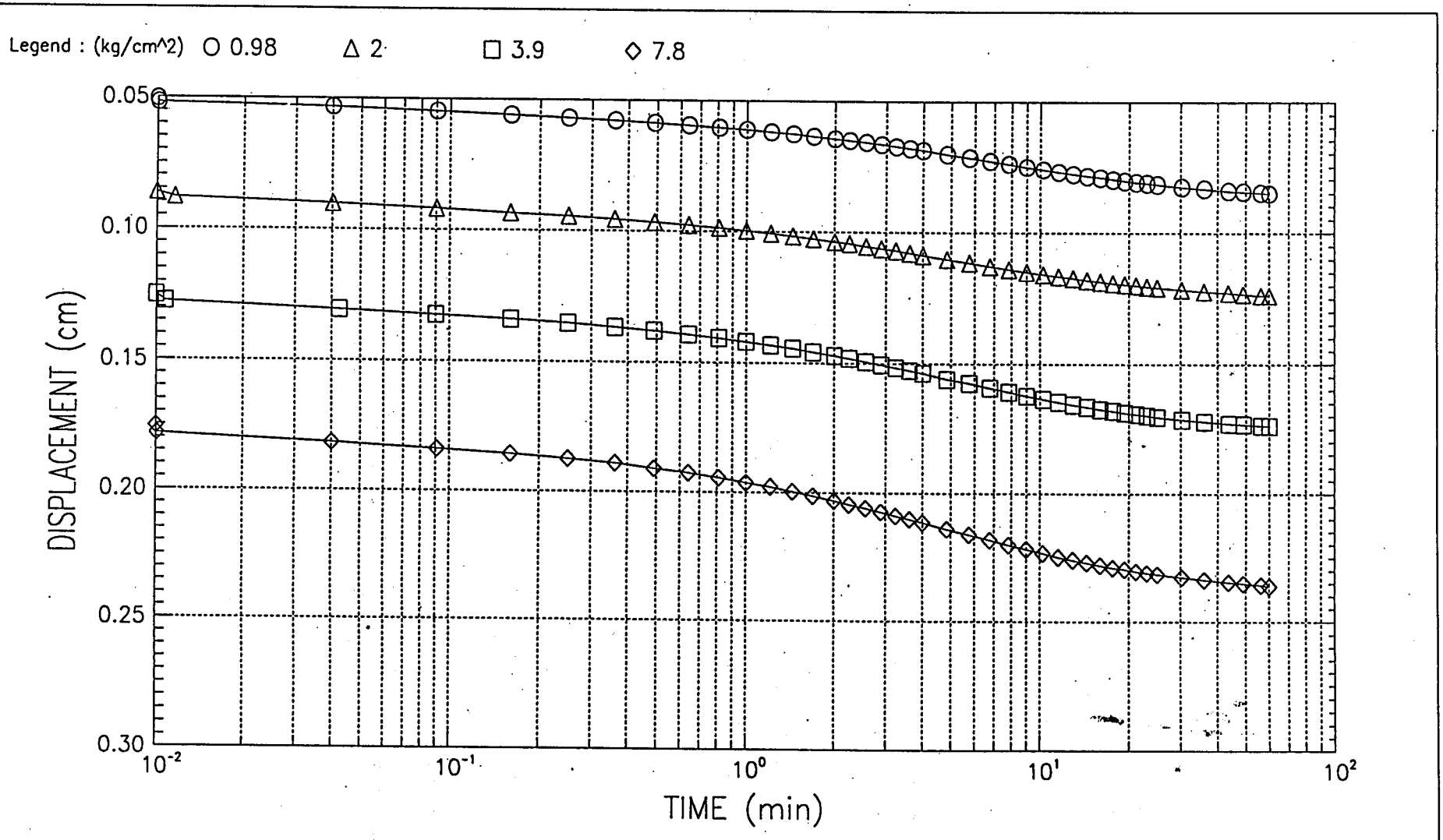
			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (kg/cm^2)	---	WATER CONTENT (%)	31.3	24.0
PRECONSOL. PRESSURE (kg/cm^2)	---0.59	DRY DENSITY (gm/cm^3)	1.50	1.71
COMPRESSION INDEX	---	SATURATION (%)	103.56	107.41
TYPE SPECIMEN 1.944		VOID RATIO	0.84	0.62
DIA. (cm) 4.938	HT. (cm) 1.905	BACK PRESSURE (kg/cm^2)	---	---

CLASSIFICATION MOIST STIFF REDDISH BROWN FAT CLAY (CH)

LL ---	PL ---	PI ---	PROJECT STATE ROUTE 7
GS 2.763	D_{10} ---		C:\SOILTE~1\CONSOL~1\00031-g4.osc
REMARKS		BORING NO. B3	SAMPLE NO. B3-2-III
		DEPTH 3.2-3.3	DATE 03/15/00

CONSOLIDATION TEST REPORT

Fri 03-24-:0, 14:54:51



PROJECT	STATE ROUTE 7		
Data File:	C:\SOILTE~1\CONSOL~1\00031-g4.asc		
BORING	B3	SAMPLE NO.	B3-2-III
DEPTH	3.2-3.3	DATE	03/15/00

CONSOLIDATION TEST
TIME CURVES

CONSOLIDATION TEST DATA

Project : STATE ROUTE 7 Location : 11-IMP-7 KP 1.9-10.9 Project No.: 11-068001
Boring No.: B3 Tested by : GORDON Checked by :
Sample No.: B3-2-III Test Date : 03/15/00 Depth : 3.2-3.3
Test No. : 00031-G4 Sample Type: 1.944

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL

	APPLIED PRESSURE (kPa)	FINAL DISPLACEMENT (mm)	VOID RATIO	STRAIN AT END (%)	FITTING T50 TIME (min) SQ.RT.	FITTING T50 TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) SQ.RT	COEFFICIENT OF CONSOLIDATION (m^2/s) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) AVE
1)	11.97	0.06	0.830	0.31	1.2	1.4	2.57E-007	2.11E-007	2.34E-007
2)	23.94	0.20	0.816	1.06	4.8	0.0	6.17E-008	0.00E+000	6.17E-008
3)	47.88	0.49	0.788	2.59	3.4	4.8	8.38E-008	5.98E-008	7.18E-008
4)	95.76	0.85	0.754	4.47	2.2	3.1	1.24E-007	8.83E-008	1.06E-007
5)	191.52	1.24	0.717	6.50	1.6	2.2	1.65E-007	1.19E-007	1.42E-007
6)	383.04	1.74	0.668	9.12	1.6	2.3	1.53E-007	1.10E-007	1.32E-007
7)	766.08	2.36	0.608	12.40	1.6	2.0	1.49E-007	1.19E-007	1.34E-007
8)	1532.17	3.03	0.543	15.93	1.8	2.7	1.19E-007	8.21E-008	1.01E-007
9)	383.04	2.91	0.555	15.29	0.8	0.0	2.57E-007	0.00E+000	2.57E-007
10)	95.76	2.65	0.581	13.91	2.5	0.0	8.66E-008	0.00E+000	8.66E-008
11)	11.97	2.26	0.618	11.85	13.1	0.0	1.72E-008	0.00E+000	1.72E-008

AVE.
0.95×10^{-7}

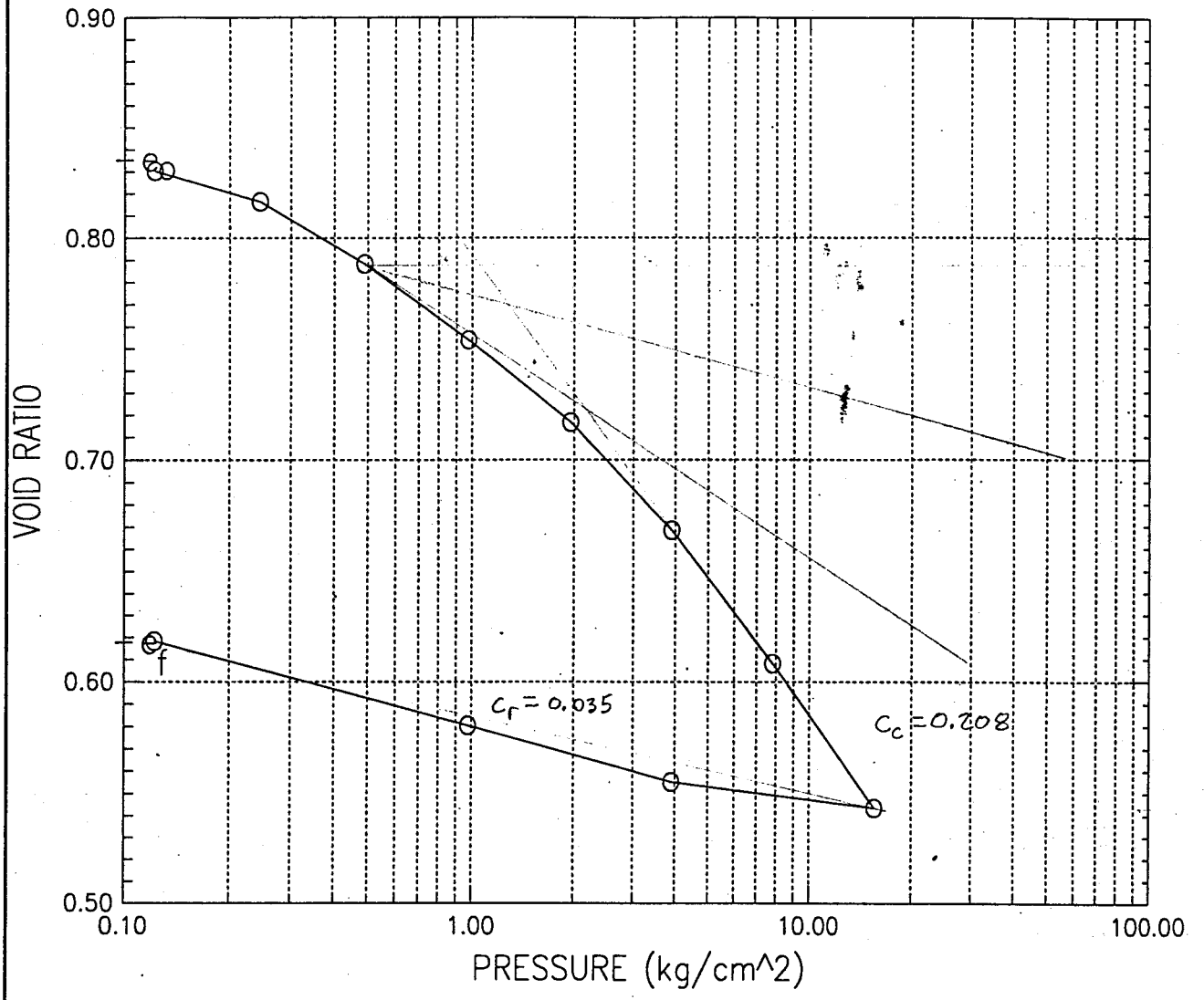
CONSOLIDATION TEST DATA

Project : STATE ROUTE 7	Location : 11-IMP-7 KP 1.9-10.9	Project No.: 11-068001
Boring No.: B3	Tested by : GORDON	Checked by :
Sample No.: B3-2-III	Test Date : 03/15/00	Depth : 3.2-3.3
Test No. : 00031-G4	Sample Type: 1.944	

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL

Specific Gravity : 2.76	Liquid Limit : 0	Initial Height : 19.05 (mm)
Initial Void Ratio : 0.84	Plastic Limit : 0	Sample Diameter : 49.38 (mm)
Final Void Ratio : 0.62	Plasticity Index : 0	

	BEFORE CONSOLIDATION		AFTER CONSOLIDATION	
	TRIMMINGS	SPECIMEN + RING	SPECIMEN + RING	TRIMMINGS
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	96.20	96.20	92.20	92.20
WT CONTAINER + DRY SOIL (gm)	79.00	79.00	79.00	79.00
WT CONTAINER (gm)	24.10	24.10	24.10	24.10
WT DRY SOIL (gm)	54.90	54.90	54.90	54.90
WATER CONTENT (%)	31.33	31.33	24.04	24.04
VOID RATIO	------	0.84	0.62	------
DEGREE OF SATURATION (%)	------	103.56	107.41	------
DRY DENSITY (gm/mm^3)	------	0.0015	0.0017	------



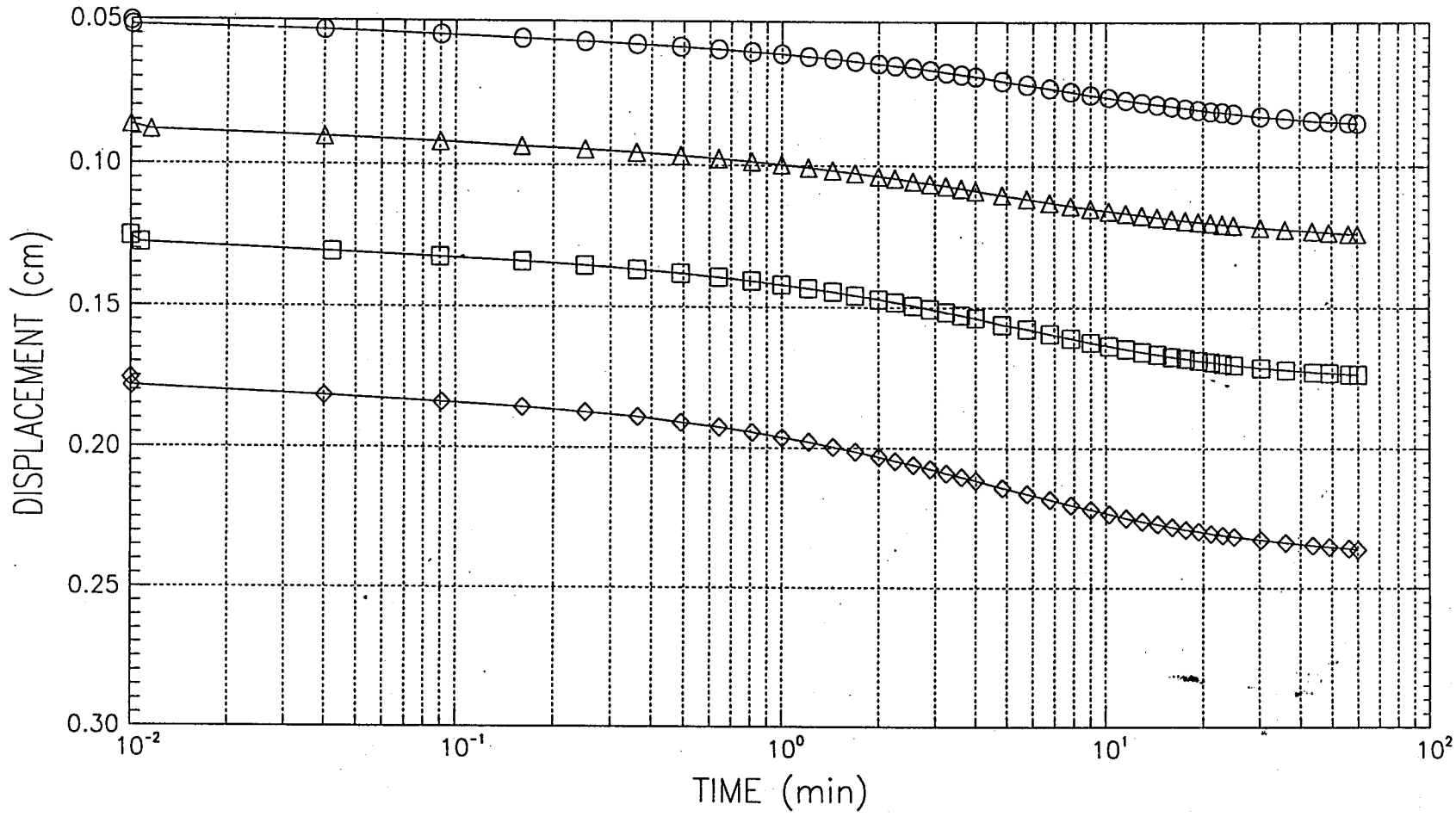
			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (kg/cm^2)	---0.63	WATER CONTENT (%)	31.3	24.0
PRECONSOL. PRESSURE (kg/cm^2)	---1.15	DRY DENSITY (gm/cm^3)	1.50	1.71
COMPRESSION INDEX	---	SATURATION (%)	103.56	107.41
TYPE SPECIMEN 1.944		VOID RATIO	0.84	0.62
DIA. (cm) 4.938	HT. (cm) 1.905	BACK PRESSURE (kg/cm^2)	---	---

CLASSIFICATION MOIST STIFF REDDISH BROWN FAT CLAY (CH)

LL ---	PL ---	PI ---	PROJECT STATE ROUTE 7
GS 2.763	D_{10} ---	C:\SOILTE~1\CONSOL~1\00031-g4.asc	
REMARKS		BORING NO. B3	SAMPLE NO. B3-2-III
		DEPTH 3.2-3.3	DATE 03/15/00

CONSOLIDATION TEST REPORT

Fri 03-24-:0, 14:54:51



PROJECT	STATE ROUTE 7		
Data File:	C:\SOILTE~1\CONSOL~1\00031-g4.asc		
BORING	B3	SAMPLE NO.	B3-2-III
DEPTH	3.2-3.3	DATE	03/15/00

CONSOLIDATION TEST TIME CURVES

CONSOLIDATION TEST DATA

Project : STATE ROUTE 7 Location : 11-IMP-7 KP 1.9/10.9 Project No.: 11-068001
Boring No.: B3 Tested by : GORDON Checked by :
Sample No.: B3-4-III Test Date : 03/15/00 Depth : 6.3-6.4
Test No. : 00032-G1 Sample Type: 1.944

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL-PEAT

	APPLIED PRESSURE (kPa)	FINAL DISPLACEMENT (mm)	VOID RATIO	STRAIN AT END (%)	FITTING T50 TIME (min) SQ.RT.	FITTING T50 TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) SQ.RT	COEFFICIENT OF CONSOLIDATION (m^2/s) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) AVE
1)	11.97	0.02	1.052	0.11	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	23.94	0.05	1.049	0.27	0.1	0.0	2.18E-006	0.00E+000	2.18E-006
3)	47.88	0.18	1.035	0.95	6.9	0.0	4.27E-008	0.00E+000	4.27E-008
4)	95.76	0.42	1.009	2.20	6.4	0.0	4.54E-008	0.00E+000	4.54E-008
5)	191.52	0.84	0.964	4.42	8.6	0.0	3.24E-008	0.00E+000	3.24E-008
6)	383.04	1.45	0.898	7.61	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
7)	766.08	2.18	0.820	11.42	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
8)	1532.17	3.07	0.724	16.10	21.1	0.0	1.05E-008	0.00E+000	1.05E-008
9)	383.04	2.66	0.768	13.97	6.1	0.0	3.54E-008	0.00E+000	3.54E-008
10)	95.76	2.09	0.829	10.99	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
11)	11.97	1.05	0.942	5.49	103.6	91.8	2.42E-009	2.73E-009	2.58E-009

0.40×10^{-8}

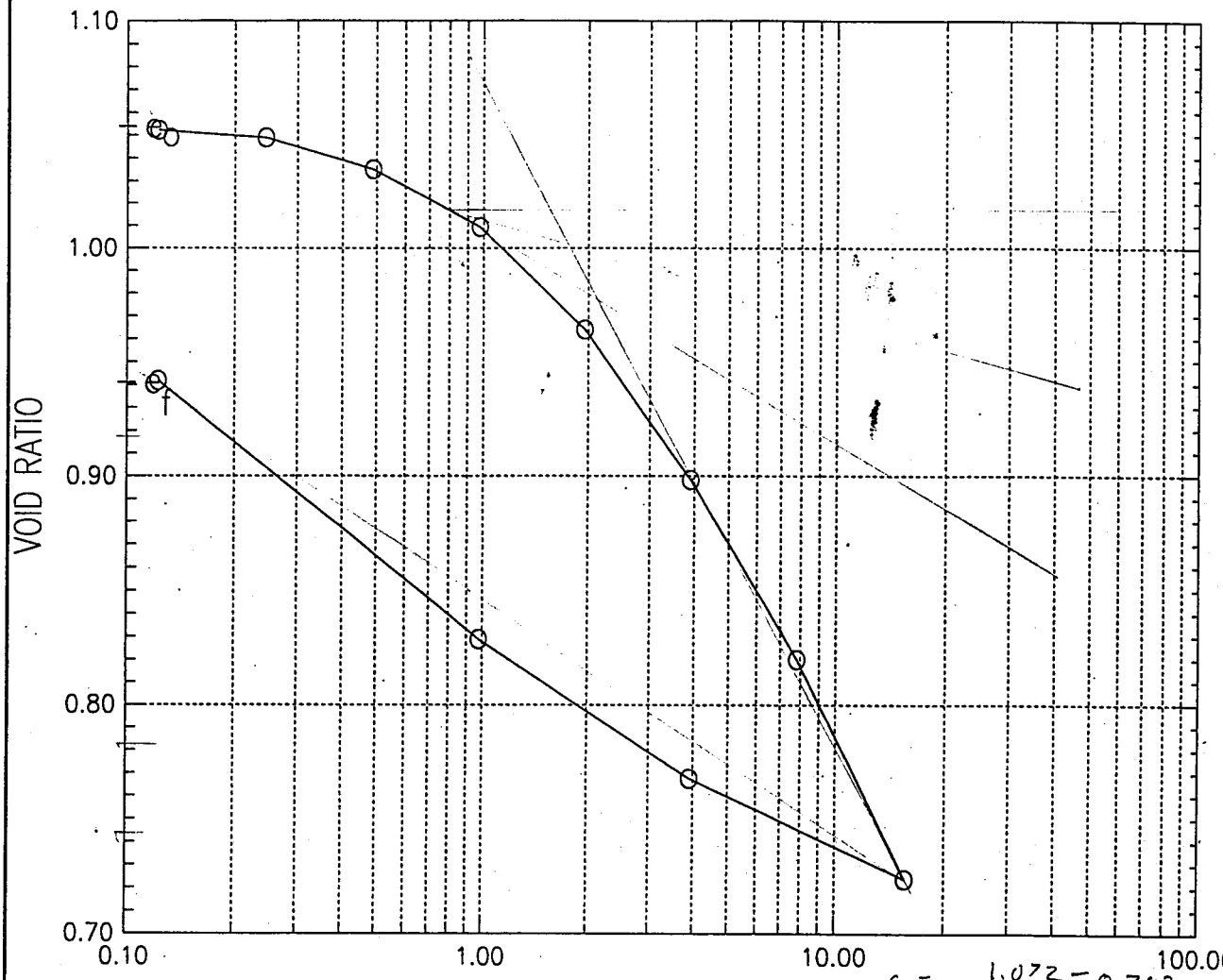
CONSOLIDATION TEST DATA

Project : STATE ROUTE 7
Location : 11-IMP-7 KP 1.9/10.9
Project No.: 11-068001
Boring No.: B3
Tested by : GORDON
Checked by :
Sample No.: B3-4-III
Test Date : 03/15/00
Depth : 6.3-6.4
Test No. : 00032-G1
Sample Type: 1.944

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL-PEAT

Specific Gravity : 2.77
Liquid Limit : 0
Initial Height : 19.05 (mm)
Initial Void Ratio : 1.05
Plastic Limit : 0
Sample Diameter : 49.38 (mm)
Final Void Ratio : 0.94
Plasticity Index : 0

	BEFORE CONSOLIDATION		AFTER CONSOLIDATION	
	TRIMMINGS	SPECIMEN + RING	SPECIMEN + RING	TRIMMINGS
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	92.40	92.40	91.00	91.00
WT CONTAINER + DRY SOIL (gm)	72.70	72.70	72.70	72.70
WT CONTAINER (gm)	24.30	24.30	24.30	24.30
WT DRY SOIL (gm)	48.40	48.40	48.40	48.40
WATER CONTENT (%)	40.70	40.70	37.81	37.81
VOID RATIO	------	1.09	0.97	------
'GREE OF SATURATION (%)	------	103.62	107.58	------
RY DENSITY (gm/mm^3)	------	0.0013	0.0014	------



$C_r = \frac{.918 - .743}{\log \frac{10}{0.2}} = 0.103$

$C_e = \frac{1.072 - 0.782}{\log \frac{10}{1}} = 0.290$

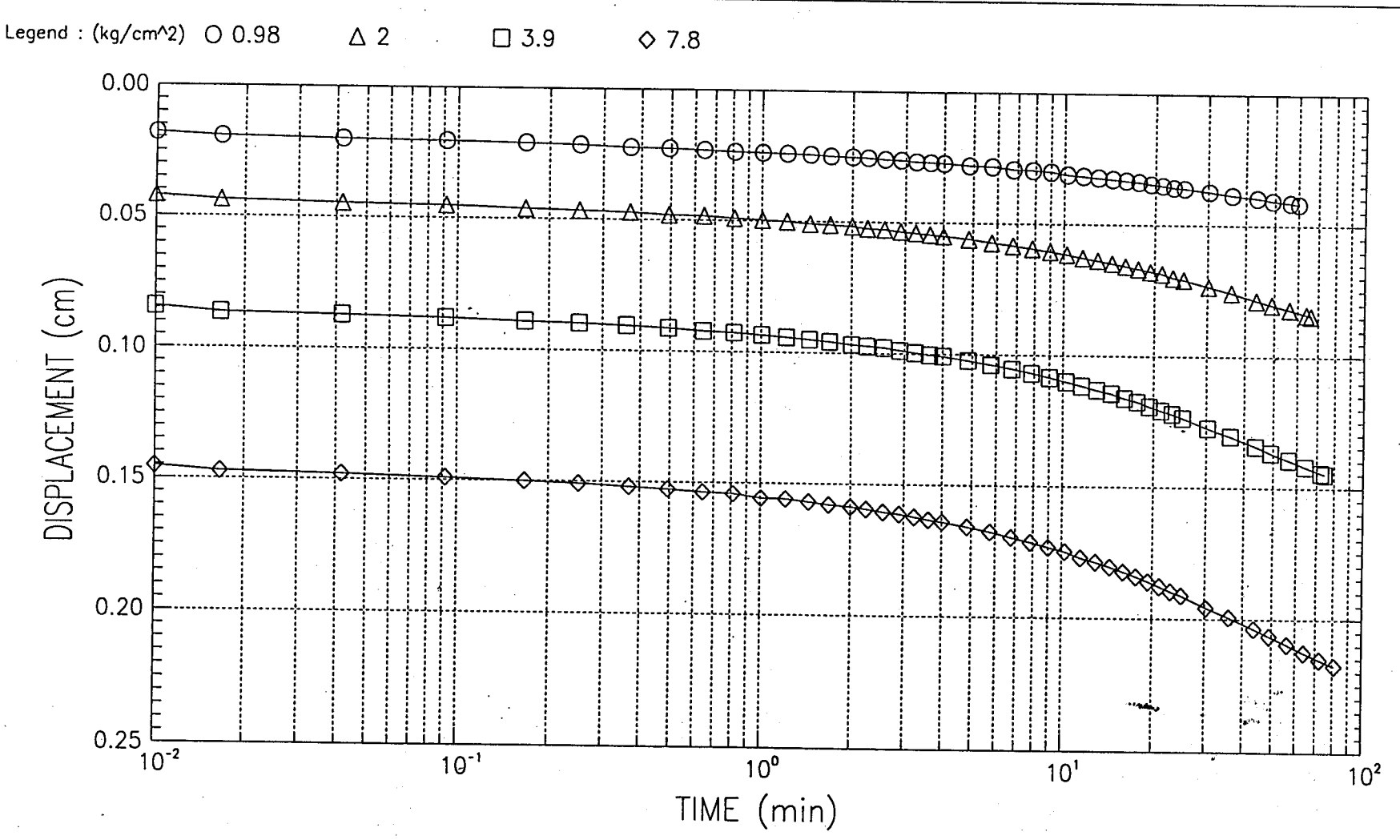
			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (kg/cm^2)	---1.22	WATER CONTENT (%)	40.7	37.8
PRECONSOL. PRESSURE (kg/cm^2)	---1.60	DRY DENSITY (gm/cm^3)	1.33	1.40
COMPRESSION INDEX	---	SATURATION (%)	103.62	107.58
TYPE SPECIMEN 1.944		VOID RATIO	1.09	0.97
DIA. (cm) 4.938	HT. (cm) 1.905	BACK PRESSURE (kg/cm^2)	---	---

CLASSIFICATION MOIST STIFF REDDISH BROWN FAT CLAY (CH)

LL ---	PL ---	PI ---	PROJECT STATE ROUTE 7
GS 2.771	D_{10} ---	C:\SOILTE~1\CONSOL~1\00032-g1.asc	
REMARKS		BORING NO. B3	SAMPLE NO. B3-4-III
		DEPTH 6.3-6.4	DATE 03/15/00

CONSOLIDATION TEST REPORT

Fri 03-24-00, 14:59:33



PROJECT	STATE ROUTE 7		
Data File:	C:\SOILTE~1\CONSOL~1\00032-g1.asc		
BORING	B3	SAMPLE NO.	B3-4-III
DEPTH	6.3-6.4	DATE	03/15/00

CONSOLIDATION TEST
TIME CURVES

CONSOLIDATION TEST DATA

Project : STATE ROUTE 7 Location : 11-IMP-7 KP 1.9/10.9 Project No.: 11-068001
Boring No.: B3 Tested by : GORDON Checked by :
Sample No.: B3-11-IV Test Date : 03/17/00 Depth : 14.0-14.1
Test No. : 00033-G1 Sample Type: 1.944

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL-PEAT

	APPLIED PRESSURE (kPa)	FINAL DISPLACEMENT (mm)	VOID RATIO	STRAIN AT END (%)	FITTING T50 TIME (min) SQ.RT.	FITTING T50 TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) SQ.RT	COEFFICIENT OF CONSOLIDATION (m^2/s) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) AVE
1)	11.97	0.04	0.677	0.19	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	23.94	0.09	0.672	0.45	2.2	0.0	1.37E-007	0.00E+000	1.37E-007
3)	47.88	0.24	0.658	1.27	2.1	0.0	1.39E-007	0.00E+000	1.39E-007
4)	95.76	0.48	0.638	2.50	2.8	0.0	1.02E-007	0.00E+000	1.02E-007
5)	191.52	0.78	0.611	4.07	2.4	0.0	1.14E-007	0.00E+000	1.14E-007
6)	383.04	1.14	0.579	5.98	1.9	3.3	1.42E-007	8.15E-008	1.12E-007
7)	766.08	1.62	0.537	8.48	2.2	3.5	1.19E-007	7.23E-008	9.57E-008
8)	1532.17	2.24	0.483	11.74	2.5	3.0	9.73E-008	8.09E-008	8.91E-008
9)	383.04	2.01	0.503	10.53	0.0	1.3	0.00E+000	1.80E-007	1.80E-007
10)	95.76	1.67	0.533	8.75	4.2	0.0	5.78E-008	0.00E+000	5.78E-008
11)	11.97	1.30	0.565	6.84	5.8	0.0	4.39E-008	0.00E+000	4.39E-008

AVE
1.23 x 10

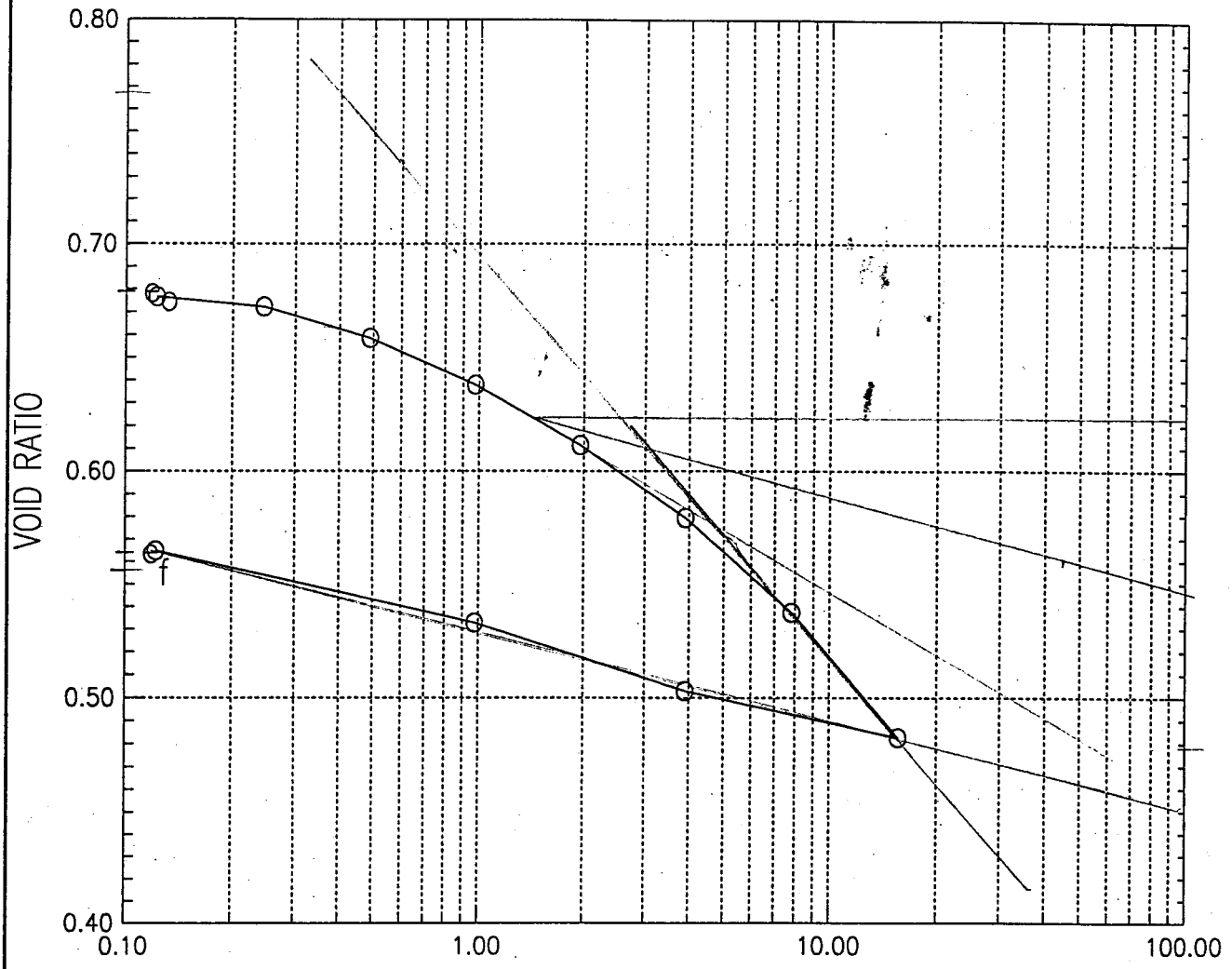
CONSOLIDATION TEST DATA

Project : STATE ROUTE 7	Location : 11-IMP-7 KP 1.9/10.9	Project No.: 11-068001
Boring No.: B3	Tested by : GORDON	Checked by :
Sample No.: B3-11-IV	Test Date : 03/17/00	Depth : 14.0-14.1
Test No. : 00033-G1	Sample Type: 1.944	

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL-PEAT

Specific Gravity : 2.75	Liquid Limit : 0	Initial Height : 19.05 (mm)
Initial Void Ratio : 0.68	Plastic Limit : 0	Sample Diameter : 49.38 (mm)
Final Void Ratio : 0.56	Plasticity Index : 0	

	BEFORE CONSOLIDATION		AFTER CONSOLIDATION	
	TRIMMINGS	SPECIMEN + RING	SPECIMEN + RING	TRIMMINGS
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	99.60	99.60	98.10	98.10
WT CONTAINER + DRY SOIL (gm)	83.90	83.90	83.90	83.90
WT CONTAINER (gm)	24.20	24.20	24.20	24.20
WT DRY SOIL (gm)	59.70	59.70	59.70	59.70
WATER CONTENT (%)	26.30	26.30	23.79	23.79
VOID RATIO	------	0.68	0.56	------
GREE OF SATURATION (%)	------	106.35	115.73	------
DRY DENSITY (gm/mm^3)	------	0.0016	0.0018	------



$C_r = \frac{1.556 - 1.478}{\log \frac{26}{0.2}} = 0.0390$

$C_c = \frac{0.778 - 0.430}{\log \frac{30}{0.4}} = 0.186$

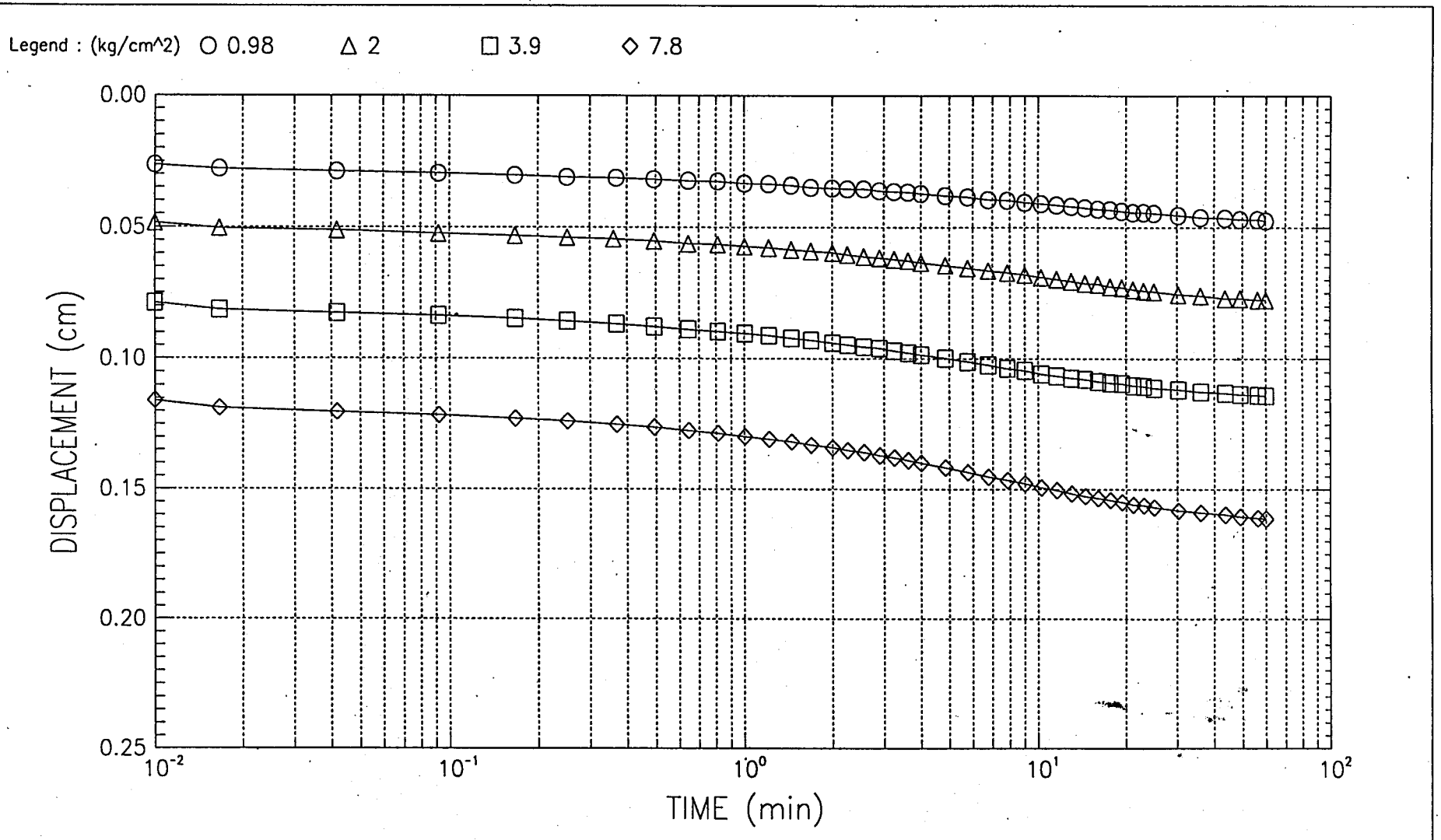
			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (kg/cm^2)	---2.76	WATER CONTENT (%)	26.3	23.8
PRECONSOL. PRESSURE (kg/cm^2)	---3.0	DRY DENSITY (gm/cm^3)	1.64	1.76
COMPRESSION INDEX	---	SATURATION (%)	106.35	115.73
TYPE SPECIMEN 1.944		VOID RATIO	0.68	0.56
DIA. (cm) 4.938	HT. (cm) 1.905	BACK PRESSURE (kg/cm^2)	---	---

CLASSIFICATION MOIST STIFF REDDISH BROWN FAT CLAY (CH)

LL ---	PL ---	PI ---	PROJECT STATE ROUTE 7
GS 2.749	D_{10} ---		C:\SOILTE~1\CONSOL~1\00033-g1.asc
REMARKS		BORING NO. B3	SAMPLE NO. B3-11-IV
		DEPTH 14.0-14.1	DATE 03/17/00

CONSOLIDATION TEST REPORT

Fri 03-24-00, 15:02:07



PROJECT	STATE ROUTE 7		
Data File:	C:\SOILTE~1\CONSOL~1\00033-g1.asc		
BORING	B3	SAMPLE NO.	B3-11-IV
DEPTH	14.0-14.1	DATE	03/17/00

CONSOLIDATION TEST
TIME CURVES

CONSOLIDATION TEST DATA

Project : STATE ROUTE 7
Location : 11-IMP-7 KP 1.9-10.9
Project No.: 11-068001
Boring No.: B5
Tested by : GORDON
Checked by : KPH/S
Sample No.: B5-6-III
Test Date : 3/24/00
Depth : 7.8-7.9
Test No. : 00037-G4
Sample Type: 1.944

Soil Description : MOIST FIRM REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL

	APPLIED PRESSURE (kPa)	FINAL DISPLACEMENT (mm)	VOID RATIO	STRAIN AT END (%)	FITTING T50 TIME (min) SQ.RT.	LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) SQ.RT.	LOG	AVE
1)	11.97	0.08	0.847	0.41	0.3	0.4	8.85E-007	7.75E-007	8.30E-007
2)	23.94	0.21	0.833	1.12	1.8	2.3	1.63E-007	1.29E-007	1.46E-007
3)	47.88	0.45	0.810	2.36	1.8	0.0	1.57E-007	0.00E+000	1.57E-007
4)	95.76	0.80	0.776	4.20	1.6	2.1	1.74E-007	1.36E-007	1.55E-007
5)	191.52	1.20	0.737	6.30	1.6	1.7	1.69E-007	1.62E-007	1.65E-007
6)	383.04	1.73	0.686	9.08	1.6	1.6	1.61E-007	1.61E-007	1.61E-007
7)	766.08	2.37	0.623	12.45	1.4	1.7	1.69E-007	1.43E-007	1.56E-007
8)	1532.17	3.04	0.558	15.95	1.6	1.9	1.36E-007	1.16E-007	1.26E-007
9)	383.04	2.84	0.578	14.89	0.7	0.0	3.04E-007	0.00E+000	3.04E-007
10)	95.76	2.51	0.609	13.20	3.1	0.0	7.02E-008	0.00E+000	7.02E-008
11)	11.97	2.03	0.656	10.68	5.5	0.0	4.17E-008	0.00E+000	4.17E-008

1.56×10^{-7}

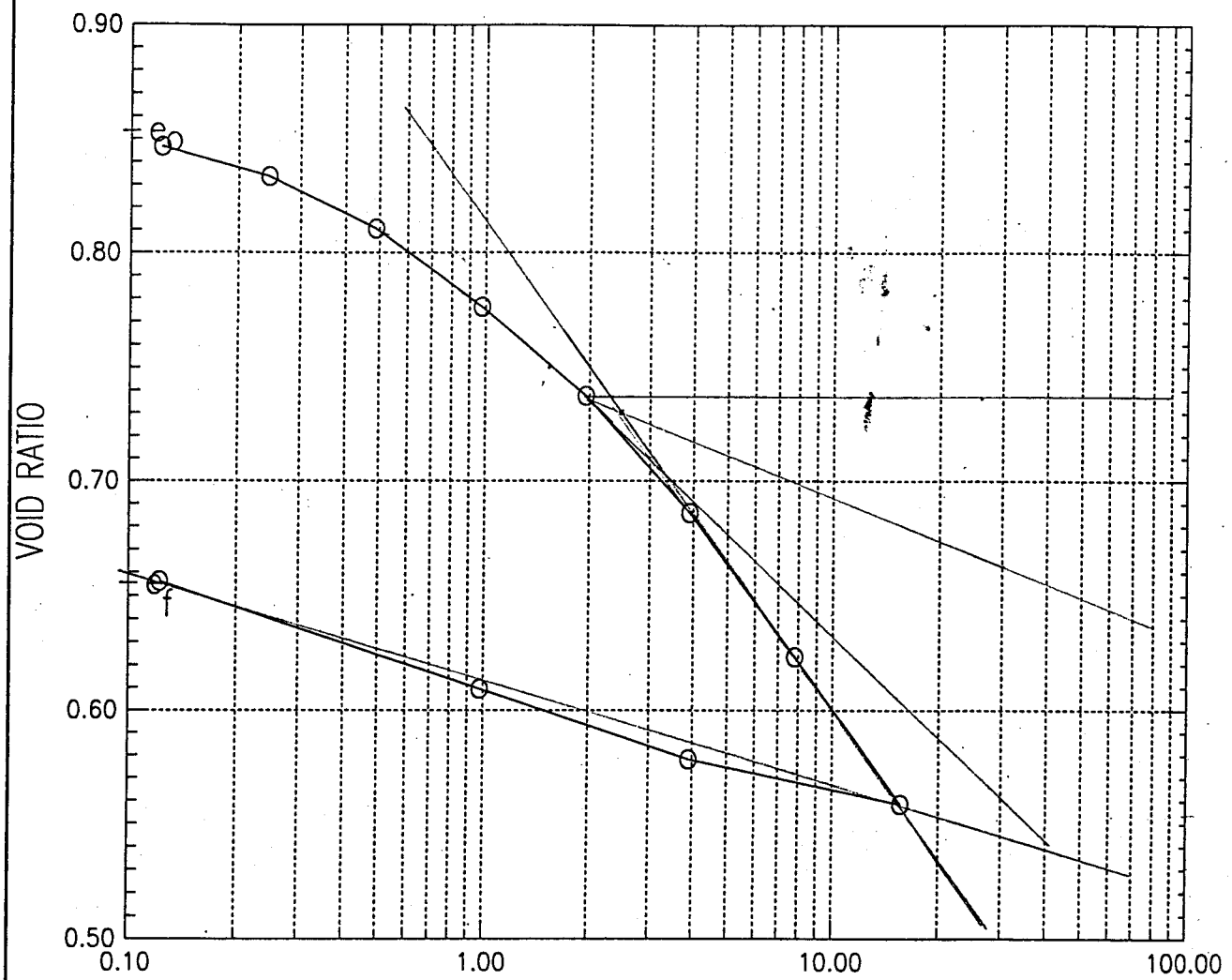
CONSOLIDATION TEST DATA

Project : STATE ROUTE 7
Location : 11-IMP-7 KP 1.9-10.9
Project No.: 11-068001
Boring No.: B5
Tested by : GORDON
Checked by :
Sample No.: B5-6-III
Test Date : 3/24/00
Depth : 7.8-7.9
Test No. : 00037-G4
Sample Type: 1.944

Soil Description : MOIST FIRM REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL

Specific Gravity : 2.76
Liquid Limit : 0
Initial Height : 19.05 (mm)
Initial Void Ratio : 0.85
Plastic Limit : 0
Sample Diameter : 49.38 (mm)
Final Void Ratio : 0.66
Plasticity Index : 0

	BEFORE CONSOLIDATION		AFTER CONSOLIDATION	
	TRIMMINGS	SPECIMEN + RING	SPECIMEN + RING	TRIMMINGS
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	95.40	95.40	92.30	92.30
WT CONTAINER + DRY SOIL (gm)	78.60	78.60	78.60	78.60
WT CONTAINER (gm)	24.40	24.40	24.40	24.40
WT DRY SOIL (gm)	54.20	54.20	54.20	54.20
WATER CONTENT (%)	31.00	31.00	25.28	25.28
VOID RATIO	------	0.85	0.66	------
DEGREE OF SATURATION (%)	------	99.97	106.10	------
DRY DENSITY (gm/mm^3)	------	0.0015	0.0017	------



$C_r = \frac{0.645 - 0.554}{\log \frac{20}{0.2}} = 0.0455$

$C_e = \frac{0.861 - 0.533}{\log \frac{20}{0.6}} = 0.215$

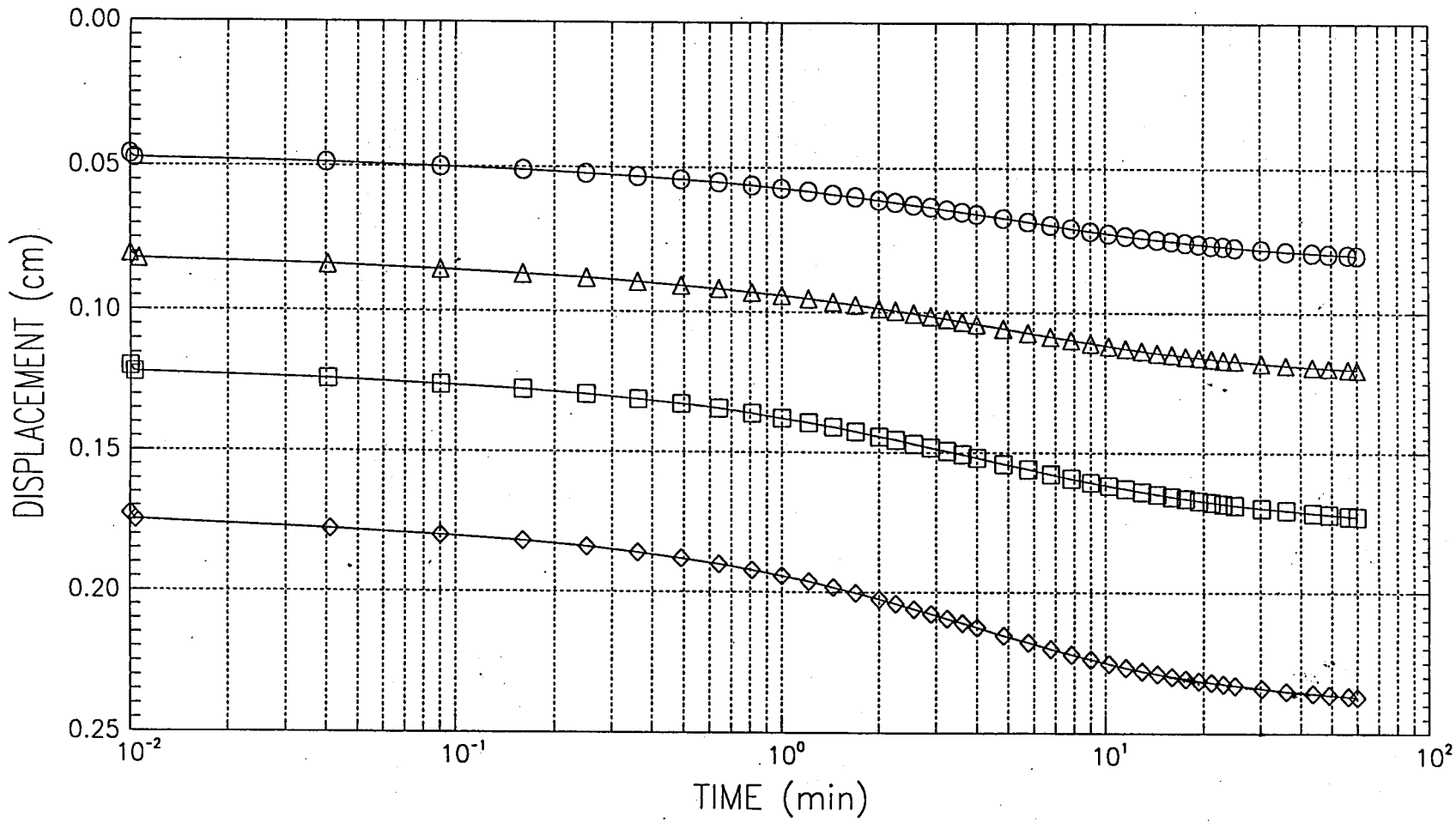
			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (kg/cm^2)	---1.52	WATER CONTENT (%)	31.0	25.3
PRECONSOL. PRESSURE (kg/cm^2)	---2.2	DRY DENSITY (gm/cm^3)	1.49	1.66
COMPRESSION INDEX	---	SATURATION (%)	99.97	106.10
TYPE SPECIMEN 1.944		VOID RATIO	0.85	0.66
DIA. (cm) 4.938	HT. (cm) 1.905	BACK PRESSURE (kg/cm^2)	---	---

CLASSIFICATION MOIST FIRM REDDISH BROWN FAT CLAY (CH)

LL ---	PL ---	PI ---	PROJECT STATE ROUTE 7
GS 2.755	D_{10} ---		Data File: C:\SOILTE~1\CONSOL~1\00037-g4.asc
REMARKS		BORING NO. B5	SAMPLE NO. B5-6-III
		DEPTH 7.8-7.9	DATE 3/24/00

CONSOLIDATION TEST REPORT

Wed 04-05-00, 08:26:47



PROJECT	STATE ROUTE 7		
Data File:	C:\SOILTE~1\CONSOL~1\00037-g4.asc		
BORING	B5	SAMPLE NO.	B5-6-III
DEPTH	7.8-7.9	DATE	3/24/00

CONSOLIDATION TEST
TIME CURVES

CONSOLIDATION TEST DATA

Project : STATE ROUTE 7 Location : 11-IMP-7 KP 1.9/10.9 Project No.: 11-068001
Boring No.: B5 Tested by : GORDON Checked by : WP 4/5
Sample No.: B5-3-III Test Date : 03/20/00 Depth : 4.8-4.9
Test No. : 00034-G1 Sample Type: 1.944

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL-PEAT

	APPLIED PRESSURE (kPa)	FINAL DISPLACEMENT (mm)	VOID RATIO	STRAIN AT END (%)	FITTING T50 TIME (min) SQ.RT.	LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) SQ.RT.	LOG	AVE
1)	11.97	0.05	0.886	0.26	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	23.94	0.13	0.878	0.66	1.9	0.0	1.59E-007	0.00E+000	1.59E-007
3)	47.88	0.32	0.860	1.66	1.8	0.0	1.62E-007	0.00E+000	1.62E-007
4)	95.76	0.62	0.830	3.24	2.5	0.0	1.14E-007	0.00E+000	1.14E-007
5)	191.52	1.04	0.788	5.46	2.8	4.5	9.61E-008	6.11E-008	7.86E-008
6)	383.04	1.64	0.728	8.60	3.6	5.3	7.12E-008	4.89E-008	6.00E-008
7)	766.08	2.35	0.658	12.34	3.7	5.6	6.48E-008	4.29E-008	5.38E-008
8)	1532.17	3.14	0.579	16.50	4.5	5.9	4.80E-008	3.72E-008	4.26E-008
9)	383.04	2.89	0.604	15.16	1.9	0.0	1.12E-007	0.00E+000	1.12E-007
10)	95.76	2.50	0.643	13.13	7.4	0.0	2.99E-008	0.00E+000	2.99E-008
11)	11.97	2.04	0.688	10.73	17.0	0.0	1.36E-008	0.00E+000	1.36E-008

AVE. 1.28×10^{-7}

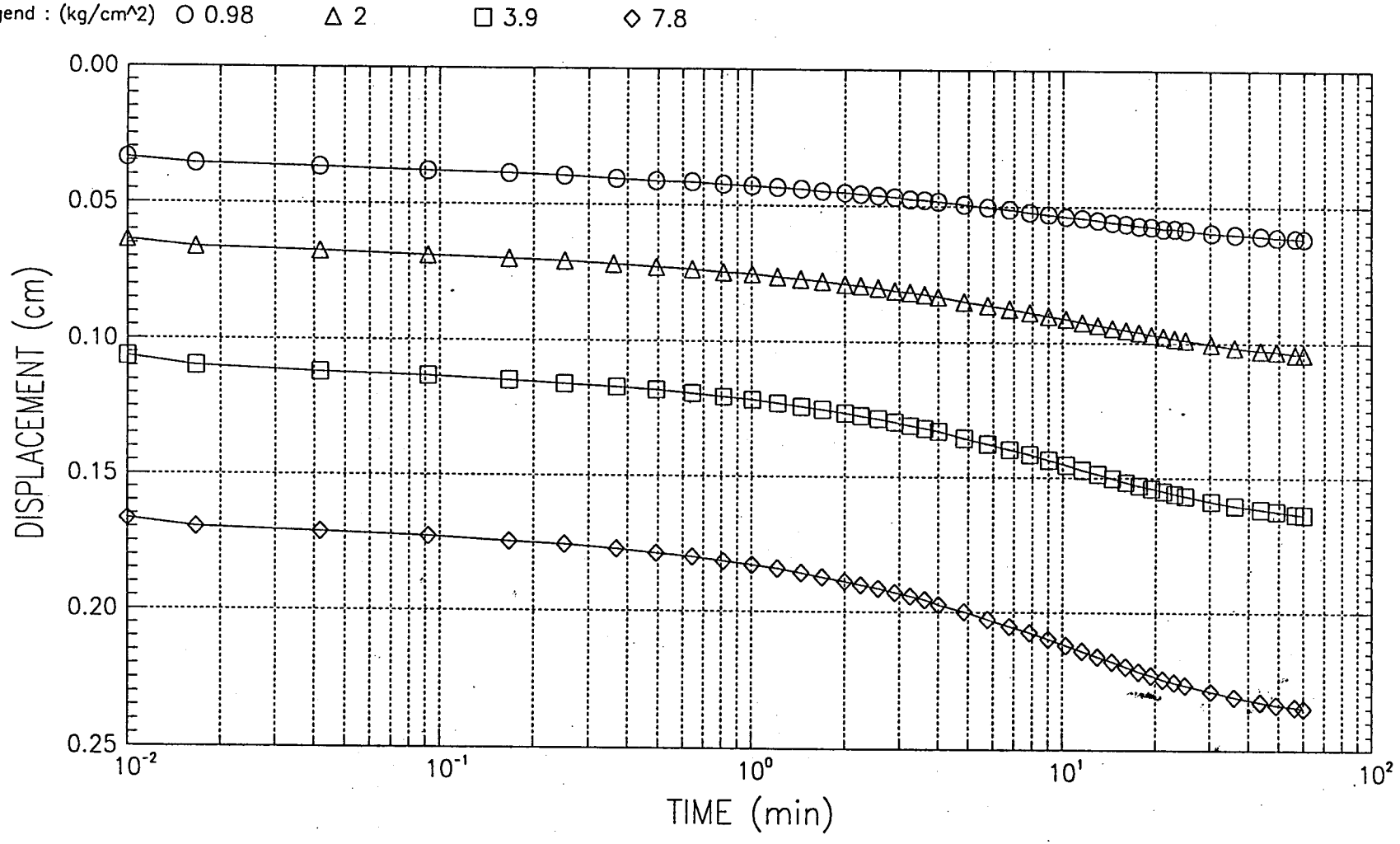
CONSOLIDATION TEST DATA

Project : STATE ROUTE 7	Location : 11-IMP-7 KP 1.9/10.9	Project No.: 11-068001
Boring No.: B5	Tested by : GORDON	Checked by :
Sample No.: B5-3-III	Test Date : 03/20/00	Depth : 4.8-4.9
Test No. : 00034-G1	Sample Type: 1.944	

Soil Description : MOIST STIFF REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL-PEAT

Specific Gravity : 2.74	Liquid Limit : 0	Initial Height : 19.05 (mm)
Initial Void Ratio : 0.89	Plastic Limit : 0	Sample Diameter : 49.38 (mm)
Final Void Ratio : 0.69	Plasticity Index : 0	

	BEFORE CONSOLIDATION		AFTER CONSOLIDATION	
	TRIMMINGS	SPECIMEN + RING	SPECIMEN + RING	TRIMMINGS
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	93.60	93.60	90.80	90.80
WT CONTAINER + DRY SOIL (gm)	76.80	76.80	76.80	76.80
WT CONTAINER (gm)	24.00	24.00	24.00	24.00
WT DRY SOIL (gm)	52.80	52.80	52.80	52.80
WATER CONTENT (%)	31.82	31.82	26.52	26.52
VOID RATIO	------	0.89	0.69	------
DEGREE OF SATURATION (%)	------	97.74	105.47	------
DRY DENSITY (gm/mm^3)	------	0.0014	0.0016	------



PROJECT	STATE ROUTE 7		
Data File:	C:\SOILTE~1\CONSOL~1\00034-g1.asc		
BORING	B5	SAMPLE NO.	B5-3-III
DEPTH	4.8-4.9	DATE	03/20/00

CONSOLIDATION TEST
TIME CURVES

CONSOLIDATION TEST DATA

Project : STATE ROUTE 7
Boring No.: B5
Sample No.: B5-9-III
Test No. : 00038-G4

Location : 11-IMP-7 KP 1.9-10.9
Tested by : GORDON
Test Date : 3/28/00
Sample Type: 1.944

Project No.: 11-068001
Checked by : WPH/S
Depth : 10.9-11.0

Soil Description : MOIST FIRM REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL

	APPLIED PRESSURE (kPa)	FINAL DISPLACEMENT (mm)	VOID RATIO	STRAIN AT END (%)	FITTING T50 TIME (min) SQ.RT.	FITTING T50 TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (m^2/s) LOG	COEFFICIENT OF CONSOLIDATION (m^2/s) AVE
1)	11.97	0.13	0.718	0.67	1.6	0.0	1.85E-007	0.00E+000	1.85E-007
2)	23.94	0.27	0.705	1.43	2.2	3.7	1.34E-007	7.96E-008	1.07E-007 –
3)	47.88	0.52	0.683	2.72	2.2	3.6	1.31E-007	7.84E-008	1.05E-007 – 1.30×10^{-7}
4)	95.76	0.85	0.653	4.47	1.9	2.6	1.46E-007	1.08E-007	1.27E-007 –
5)	191.52	1.22	0.620	6.38	1.4	1.5	1.93E-007	1.72E-007	1.83E-007 –
6)	383.04	1.69	0.577	8.85	1.4	1.5	1.85E-007	1.71E-007	1.78E-007
7)	766.08	2.19	0.531	11.50	1.1	1.4	2.09E-007	1.69E-007	1.89E-007
8)	1532.17	2.77	0.479	14.53	1.2	1.5	1.91E-007	1.53E-007	1.72E-007
9)	383.04	2.66	0.489	13.94	0.4	0.5	4.90E-007	4.86E-007	4.88E-007
10)	95.76	2.46	0.506	12.92	1.6	2.0	1.41E-007	1.12E-007	1.27E-007
11)	11.97	2.09	0.540	10.99	5.2	0.0	4.43E-008	0.00E+000	4.43E-008

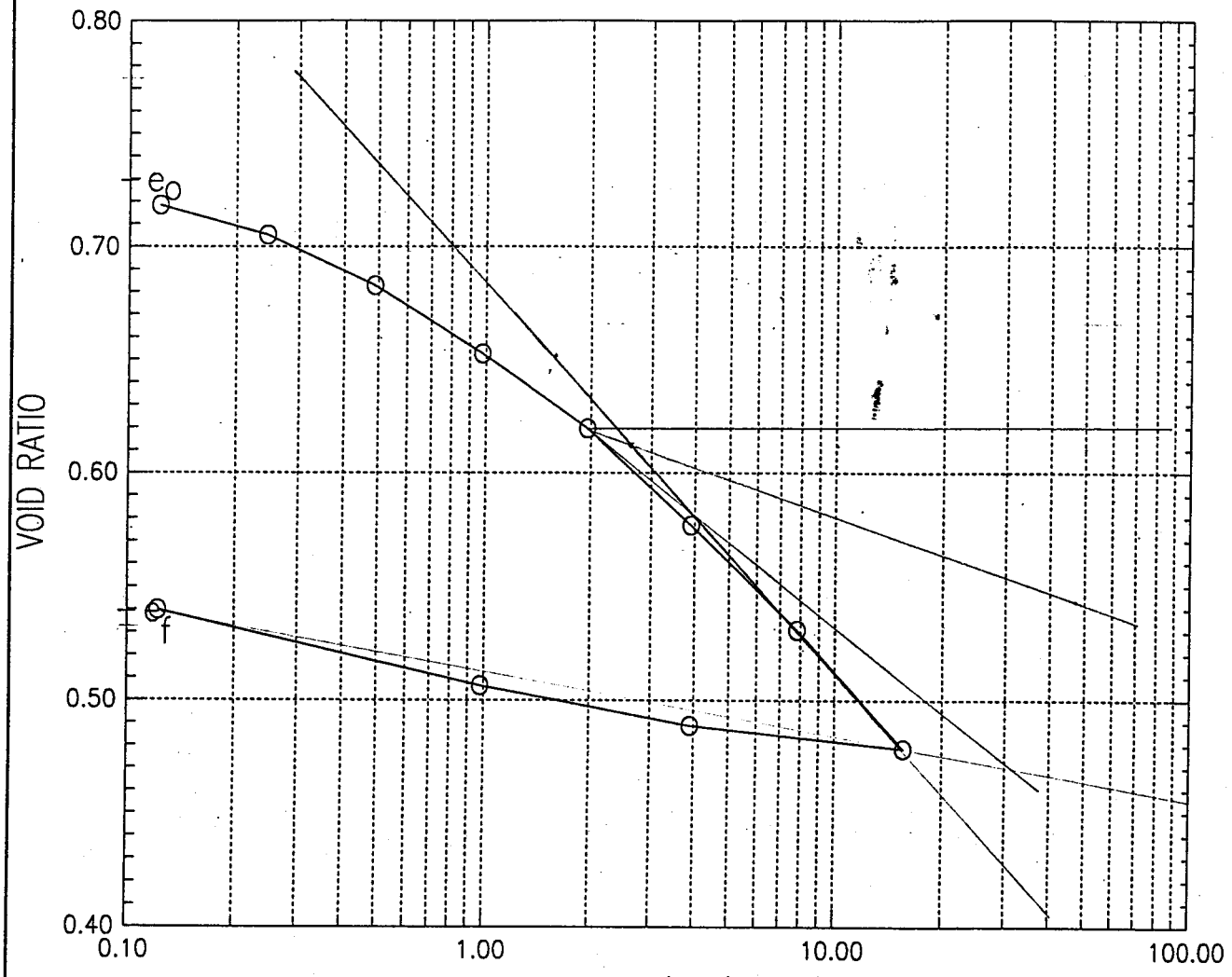
CONSOLIDATION TEST DATA

Project : STATE ROUTE 7	Location : 11-IMP-7 KP 1.9-10.9	Project No.: 11-068001
Boring No.: B5	Tested by : GORDON	Checked by :
Sample No.: B5-9-III	Test Date : 3/28/00	Depth : 10.9-11.0
Test No. : 00038-G4	Sample Type: 1.944	

Soil Description : MOIST FIRM REDDISH BROWN FAT CLAY (CH)
Remarks : WITH TRACES OF ORGANIC MATERIAL

Specific Gravity : 2.74	Liquid Limit : 0	Initial Height : 19.05 (mm)
Initial Void Ratio : 0.73	Plastic Limit : 0	Sample Diameter : 49.38 (mm)
Final Void Ratio : 0.54	Plasticity Index : 0	

	BEFORE CONSOLIDATION		AFTER CONSOLIDATION	
	TRIMMINGS	SPECIMEN + RING	SPECIMEN + RING	TRIMMINGS
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	96.70	96.70	93.20	93.20
WT CONTAINER + DRY SOIL (gm)	81.10	81.10	81.10	81.10
WT CONTAINER (gm)	23.30	23.30	23.30	23.30
WT DRY SOIL (gm)	57.80	57.80	57.80	57.80
WATER CONTENT (%)	26.99	26.99	20.93	20.93
VOID RATIO	------	0.73	0.54	------
DEGREE OF SATURATION (%)	------	101.35	106.29	------
DRY DENSITY (gm/mm^3)	------	0.0016	0.0018	------



$C_r = \frac{0.532 - 0.455}{\log \frac{100}{0.2}} = 0.0285$

$C_e = \frac{0.774 - 0.458}{\log \frac{20}{0.3}} = 0.173$

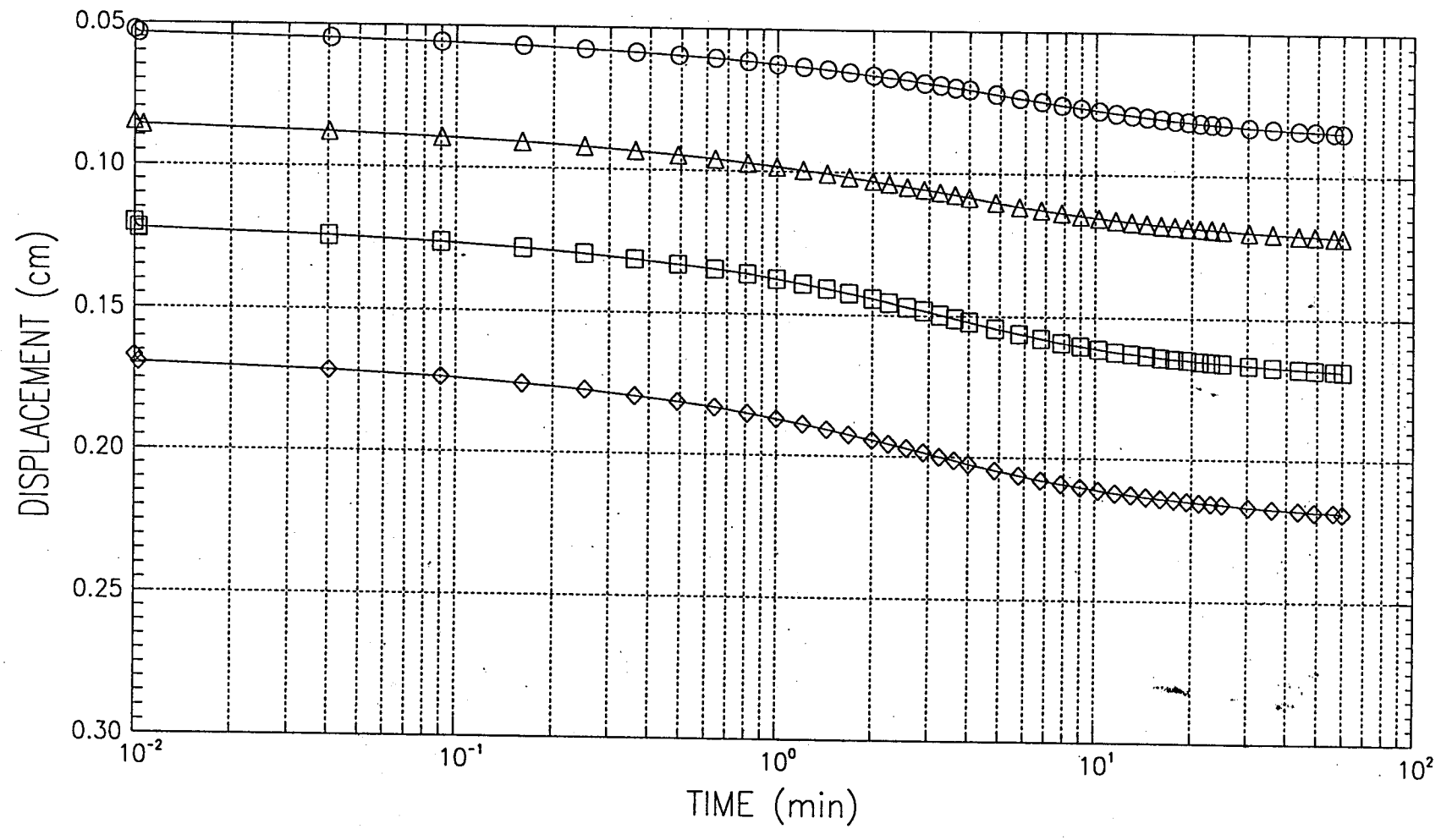
			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (kg/cm^2)	---2.1	WATER CONTENT (%)	27.0	20.9
PRECONSOL. PRESSURE (kg/cm^2)	---2.4	DRY DENSITY (gm/cm^3)	1.58	1.78
COMPRESSION INDEX	---	SATURATION (%)	101.35	106.29
TYPE SPECIMEN 1.944		VOID RATIO	0.73	0.54
DIA. (cm) 4.938	HT. (cm) 1.905	BACK PRESSURE (kg/cm^2)	---	---

CLASSIFICATION MOIST FIRM REDDISH BROWN FAT CLAY (CH)

LL ---	PL ---	PI ---	PROJECT STATE ROUTE 7
GS 2.741	D_{10} ---		C:\SOILTE~1\CONSOL~1\00038-g4.asc
REMARKS		BORING NO. B5	SAMPLE NO. B5-9-III
		DEPTH 10.9-11.0	DATE 3/28/00

CONSOLIDATION TEST REPORT

Wed 04-05-:0, 08:04:18



PROJECT	STATE ROUTE 7		
Data File:	C:\SOILTE~1\CONSOL~1\00038-g4.asc		
BORING	B5	SAMPLE NO.	B5-9-III
DEPTH	10.9-11.0	DATE	3/28/00

CONSOLIDATION TEST
TIME CURVES