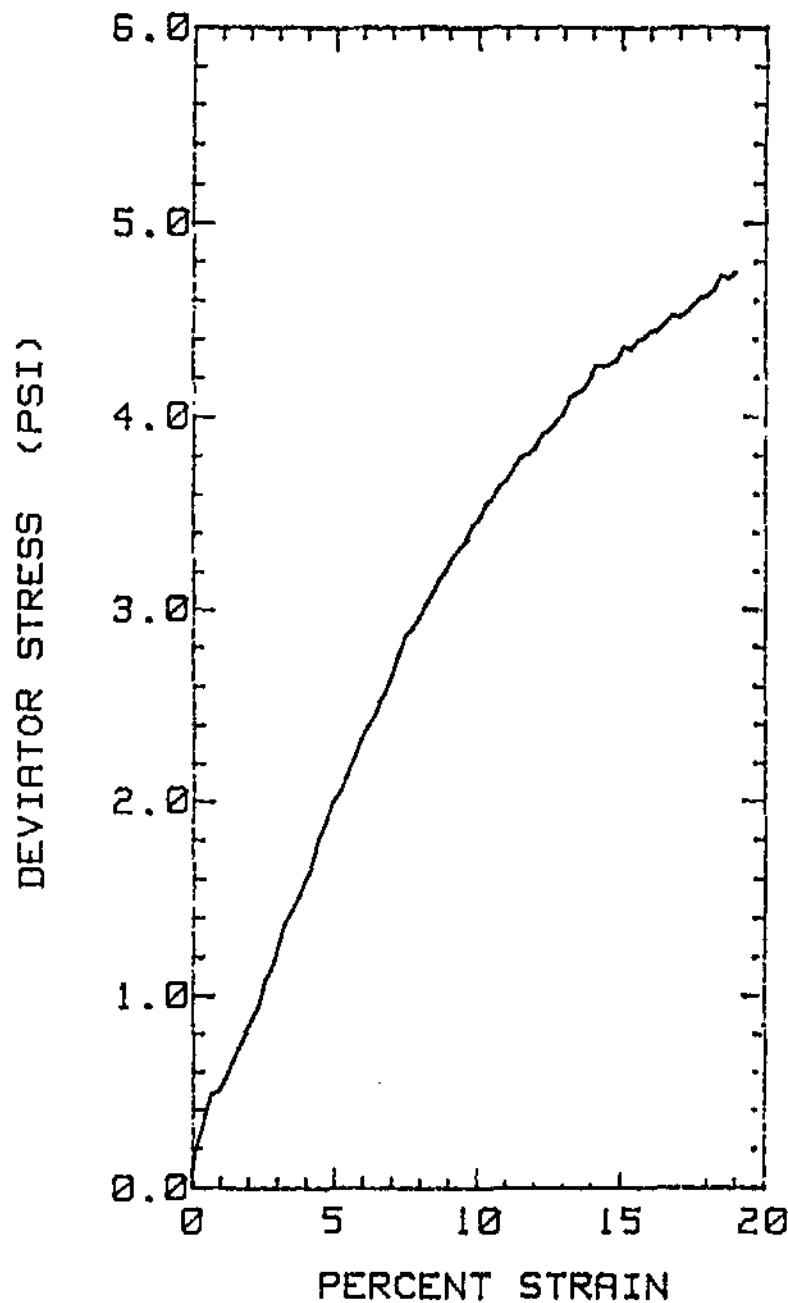




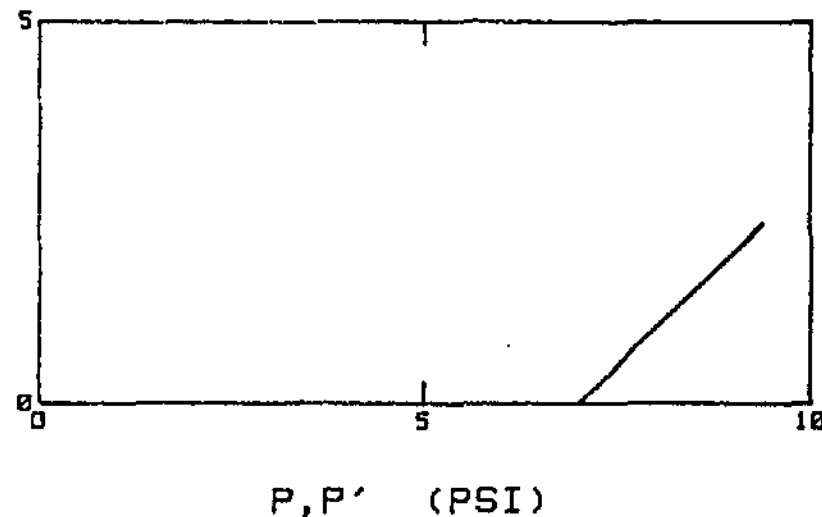
## **APPENDIX C - Shear Strength Data**



PORE PRESSURE (PSI)

0 (PSI)

PROJECT : LIBERTY  
 CLIENT : DUANE MILLER  
 NO # A27711  
 BORING # D-1 DEPTH : 0.5'  
 SAMPLE #  
 INITIAL DRY DENSITY: 81.3 pcf  
 TOTAL CONFINING PRESSURE : 7.0 psi  
 LABORATORY # T98008  
 DATE: 14 Apr 1996 20:08:09



ALASKA TESTLAB

*Unconsolidated Undrained Triaxial Compression*

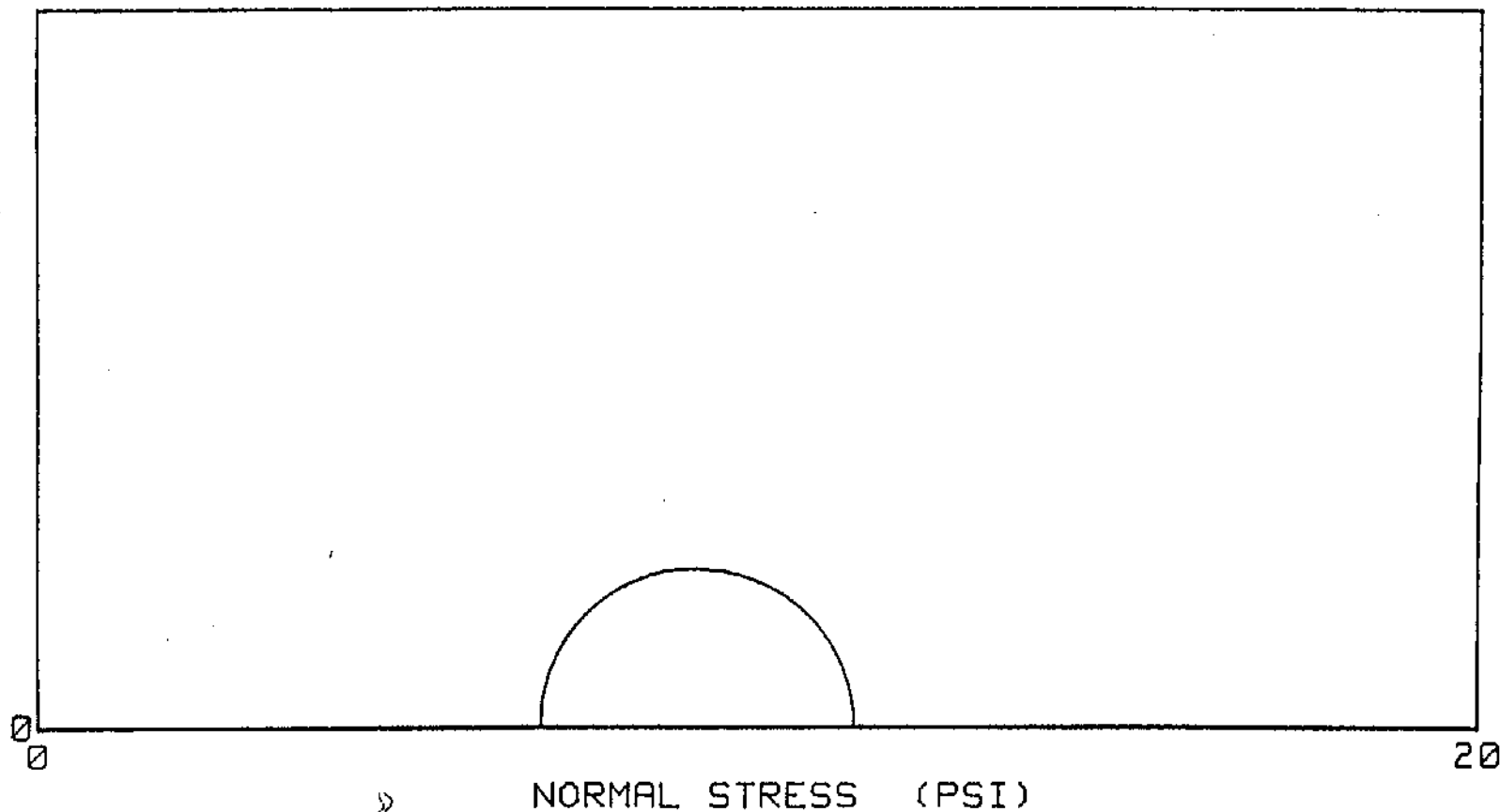
NO # A27711  
 FIGURE

PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-1  
SAMPLE #  
DEPTH: 0.5'

LAB # T98008;  $\bar{\sigma}_3 = 7.0$  psi;  $\gamma_d = 81.3$  pcf

DATE : 14 Apr 1996 20:08:09

SHEAR STRESS (PSI)

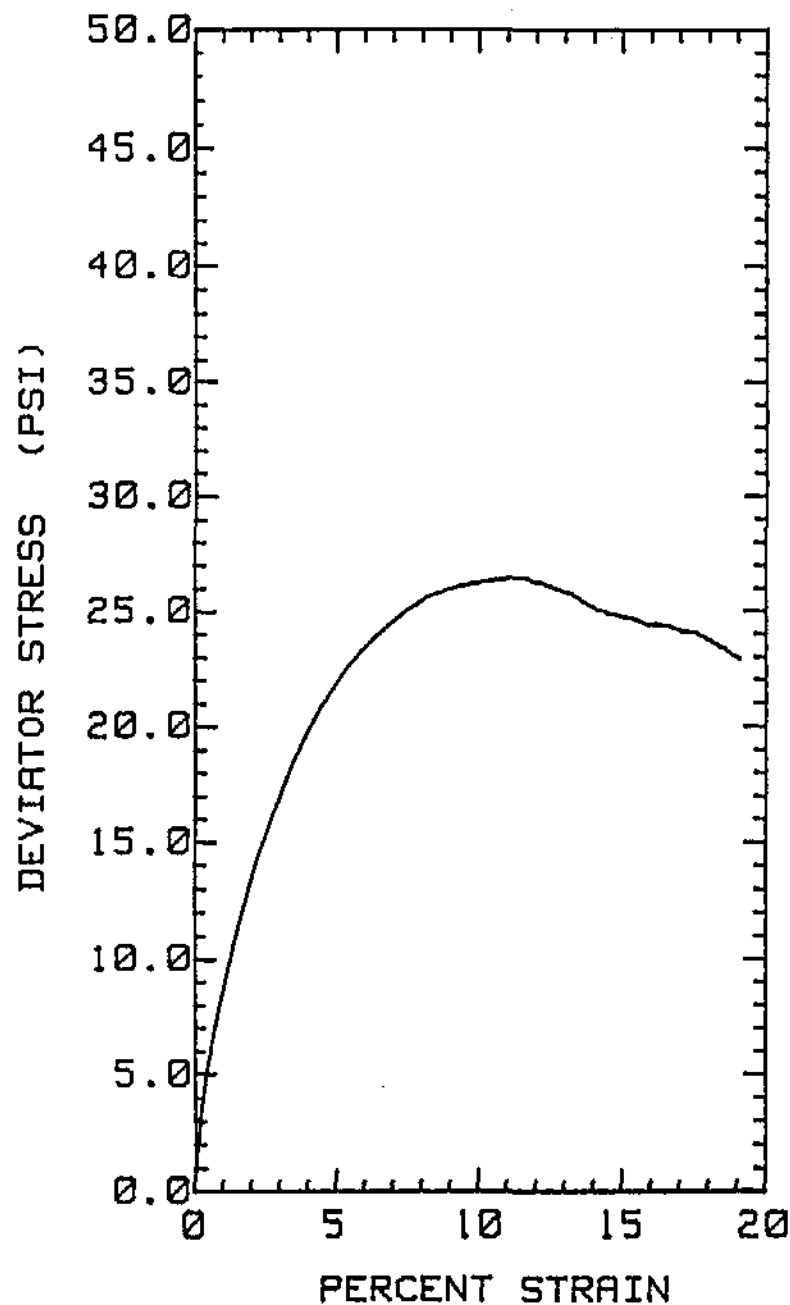


ALASKA TESTLAB

*Mohr Diagram - UU Tests*

WO # A27711

FIGURE



PROJECT : LIBERTY

CLIENT : DUANE MILLER

WO # A27711

BORING # D-1

DEPTH : 0.5

SAMPLE #

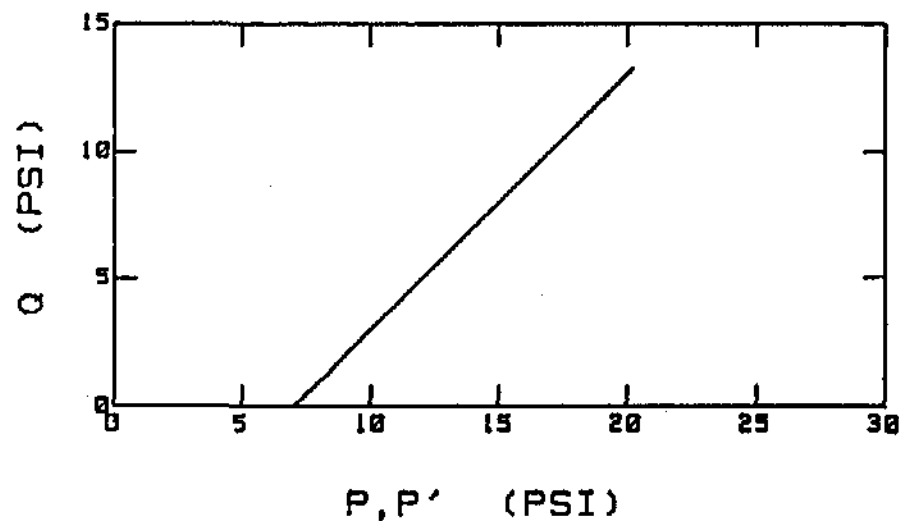
INITIAL DRY DENSITY: 84.1 pcf

EFFECTIVE CONFINING PRESSURE: 7.0 psi

FINAL MOISTURE CONTENT: 33.9 percent

LABORATORY # T98006

DATE: 15 Apr 1996 04:12:29

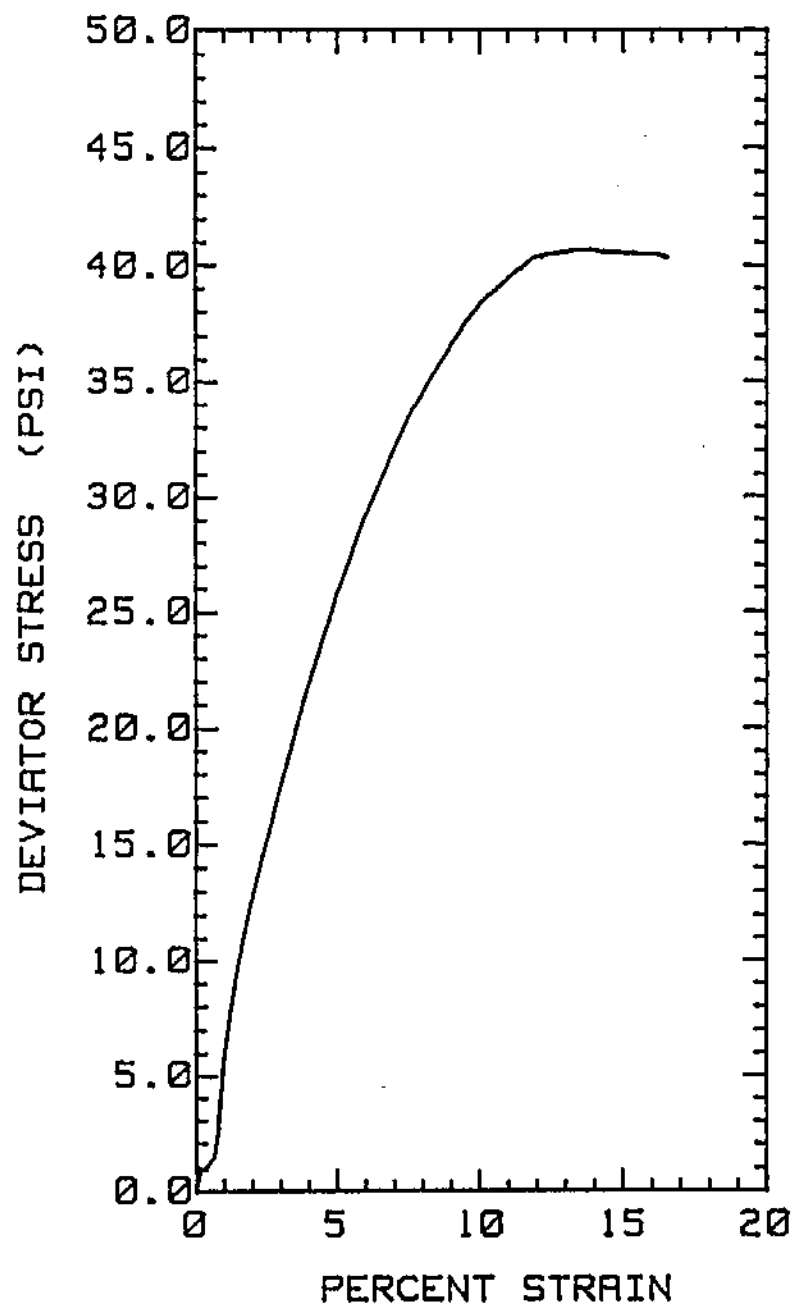


ALASKA TESTLAB

*Consolidated Drained Triaxial Compression*

WO # A27711

FIGURE



PROJECT : LIBERTY

CLIENT : DUANE MILLER

WO # A27711

BORING # D-1

DEPTH : 8.5'

SAMPLE #

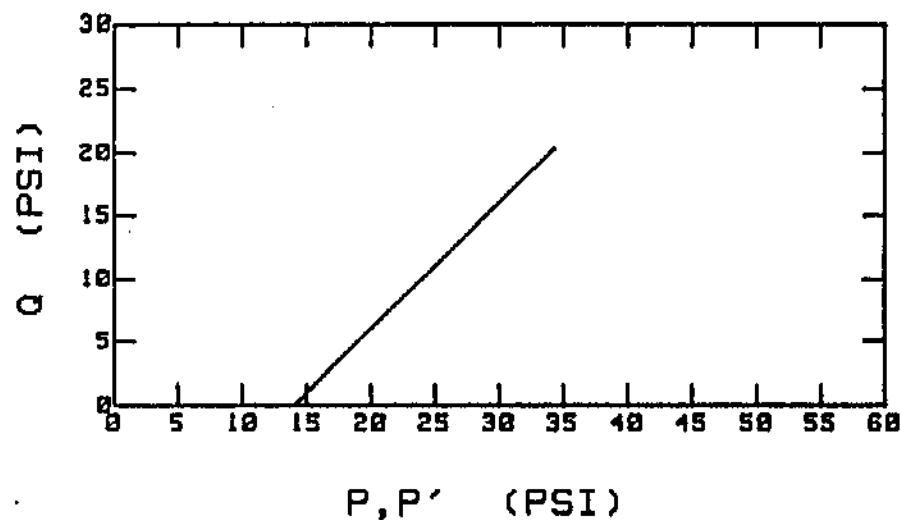
INITIAL DRY DENSITY: 76.9 pcf

EFFECTIVE CONFINING PRESSURE: 14.8 psi

FINAL MOISTURE CONTENT: 35.0 percent

LABORATORY # T98007

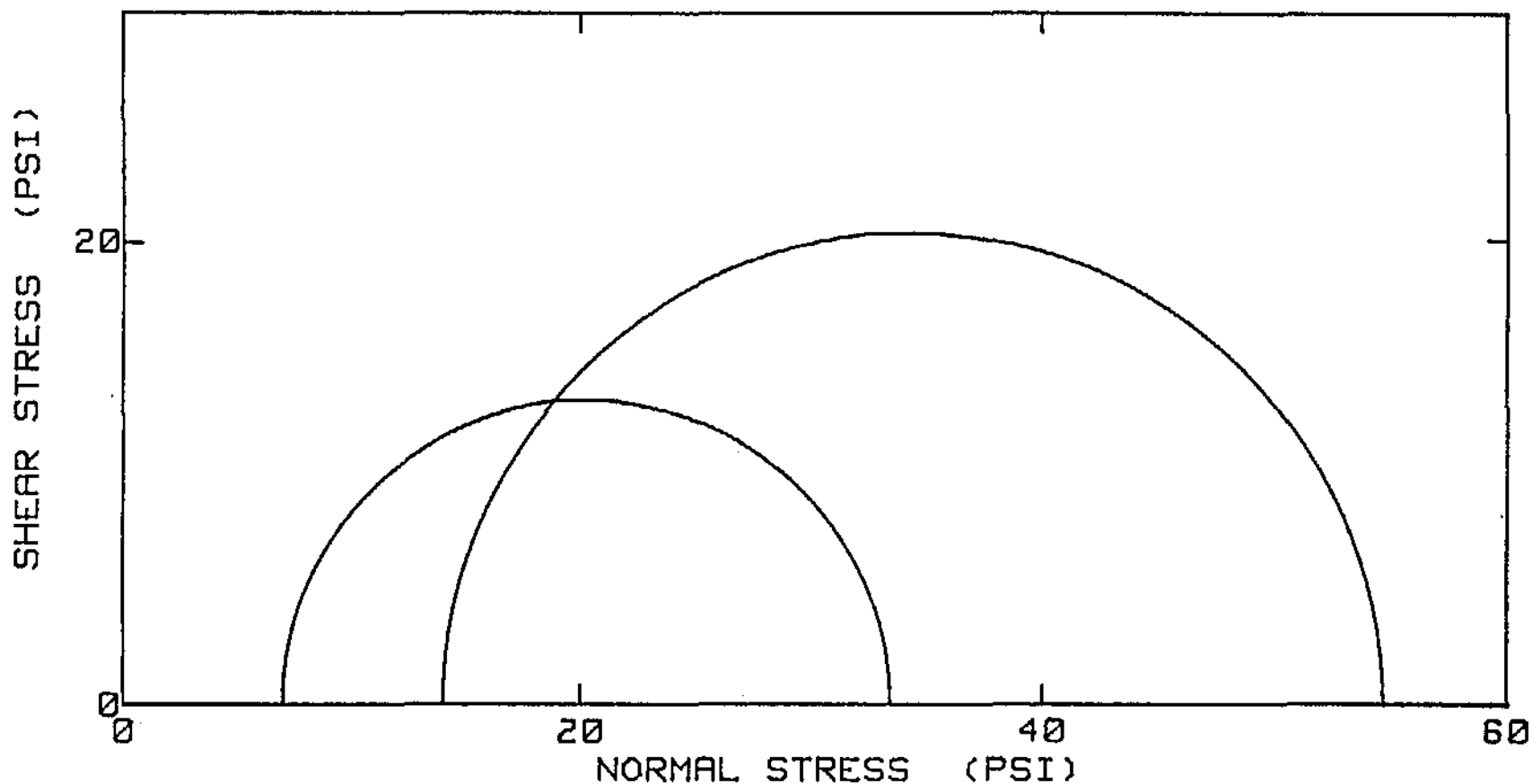
DATE: 16 Apr 1996 07:50:53

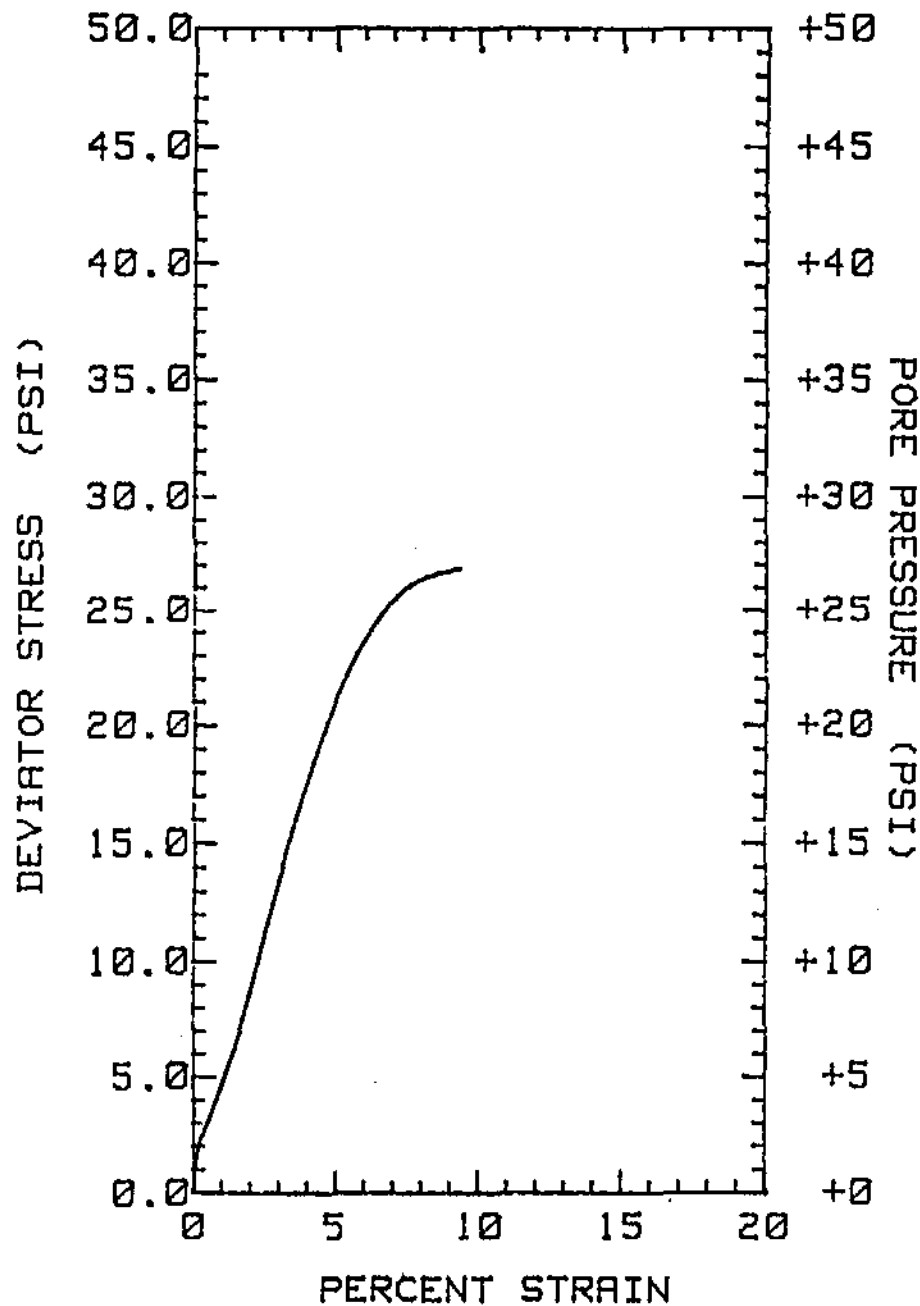


PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # R27711  
BORING # D-1  
SAMPLE #  
DEPTH: 0.5'

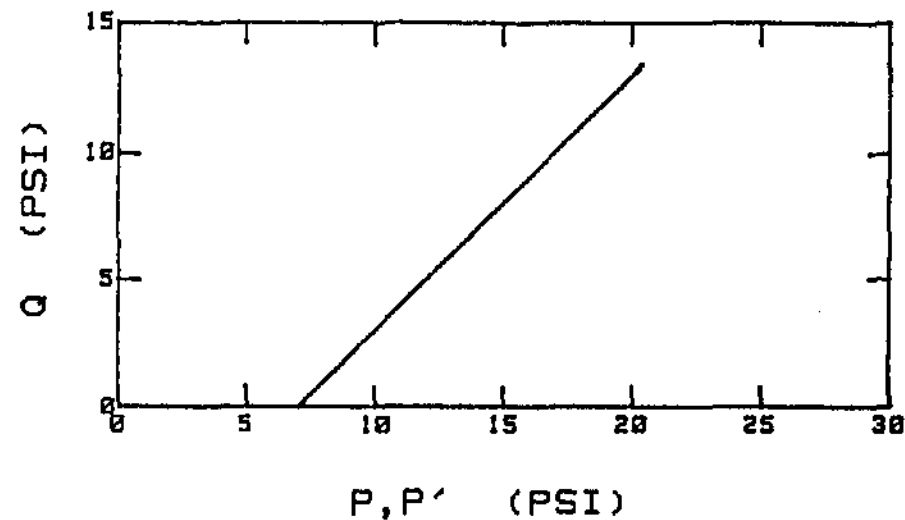
LAB # T98007;  $\bar{\sigma}_v = 14.0$  psi;  $\gamma_s = 76.9$  pcf  
LAB # T98006;  $\bar{\sigma}_v = 7.0$  psi;  $\gamma_s = 84.1$  pcf

DATE : 16 Apr 1996 07:50:53





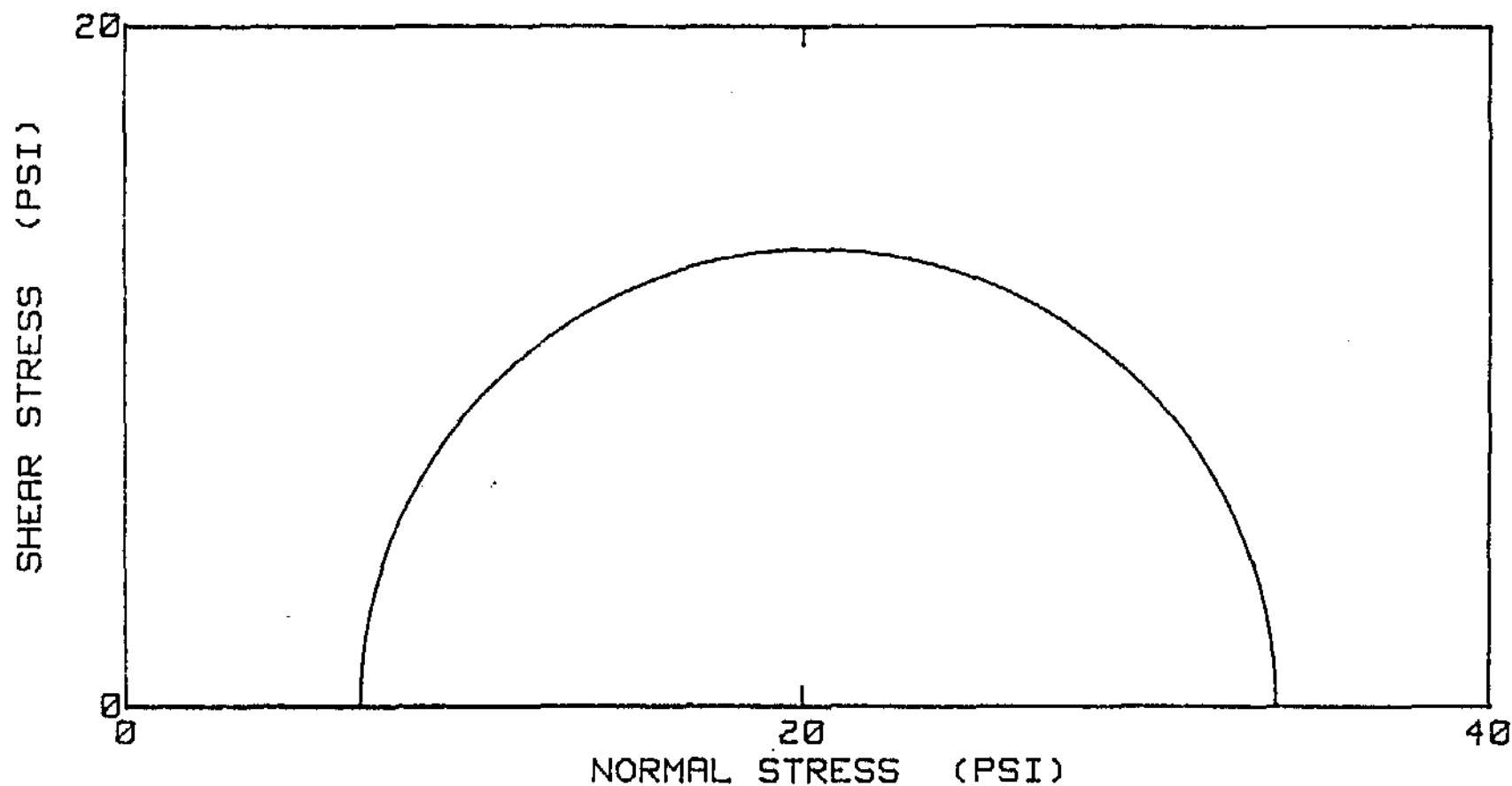
PROJECT : LIBERTY  
 CLIENT : DUANE MILLER  
 NO # A27711  
 BORING # D-1 DEPTH : 5.5 FEET  
 SAMPLE # UU  
 INITIAL DRY DENSITY: 92.6 pcf  
 TOTAL CONFINING PRESSURE : 7.0 psi  
 LABORATORY # T98009  
 DATE: 28 Apr 1996 20:47:54

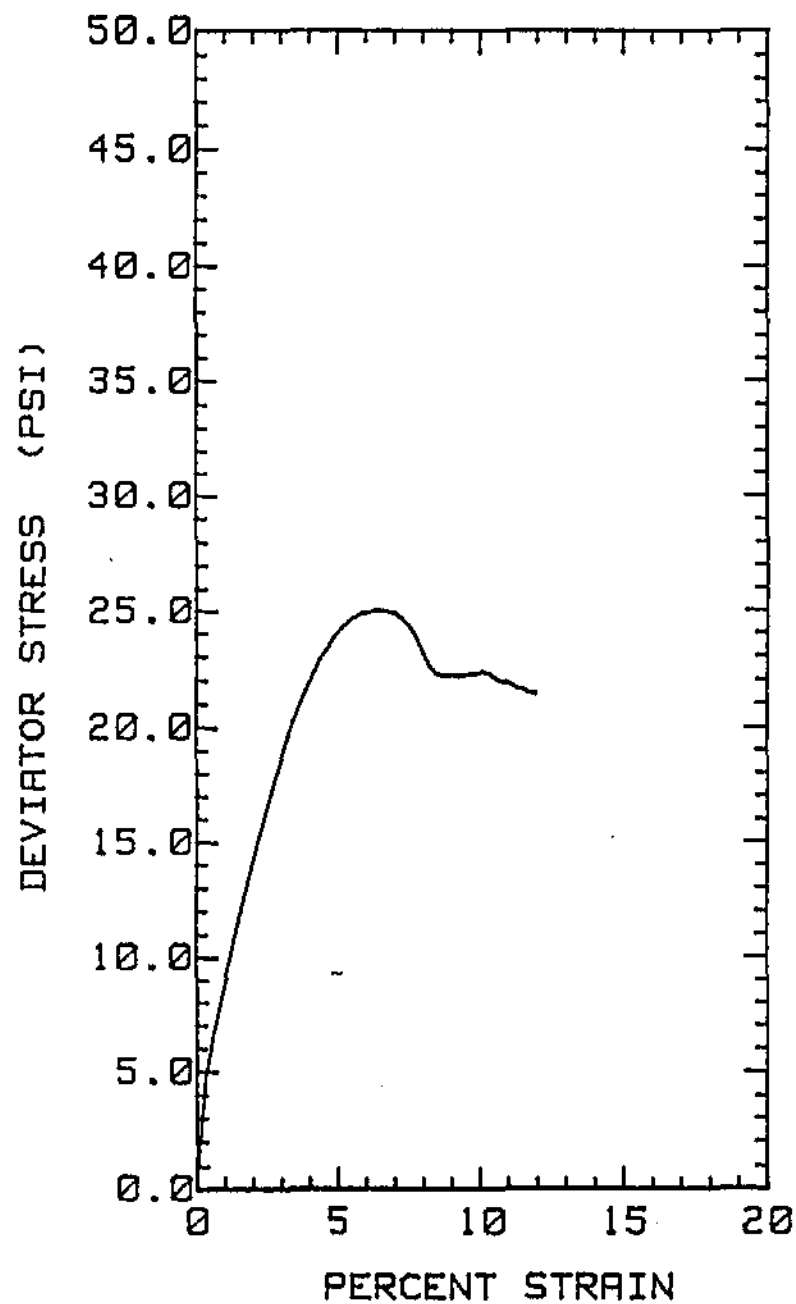


PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-1  
SAMPLE # UU  
DEPTH: 5.5 FEET

LAB # T98009;  $\bar{\sigma}_v = 7.0$  psi;  $\gamma_s = 92.6$  pcf

DATE : 20 Apr 1996 20:47:54





PROJECT : LIBERTY

CLIENT : DUANE MILLER

WD # A27711

BORING # D-1 DEPTH : 5.5 FEET

SAMPLE # CD @ 7 PSI

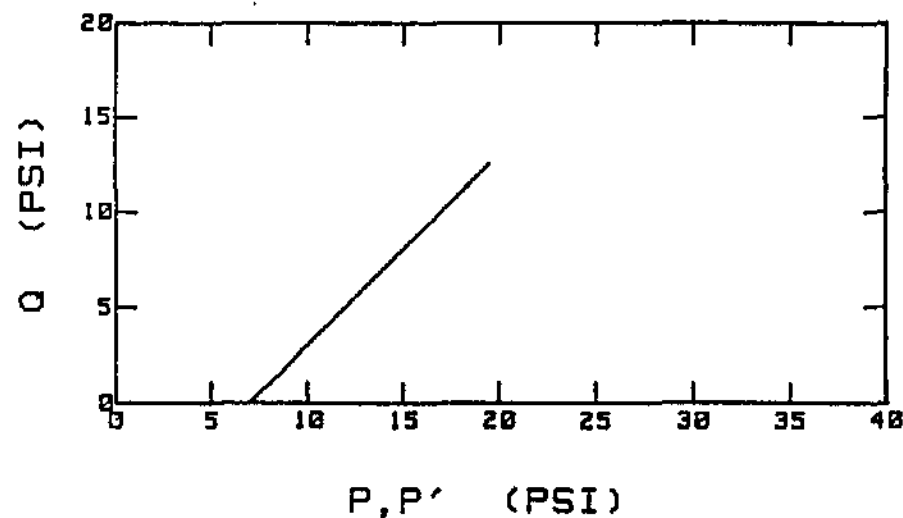
INITIAL DRY DENSITY: 98.0 pcf

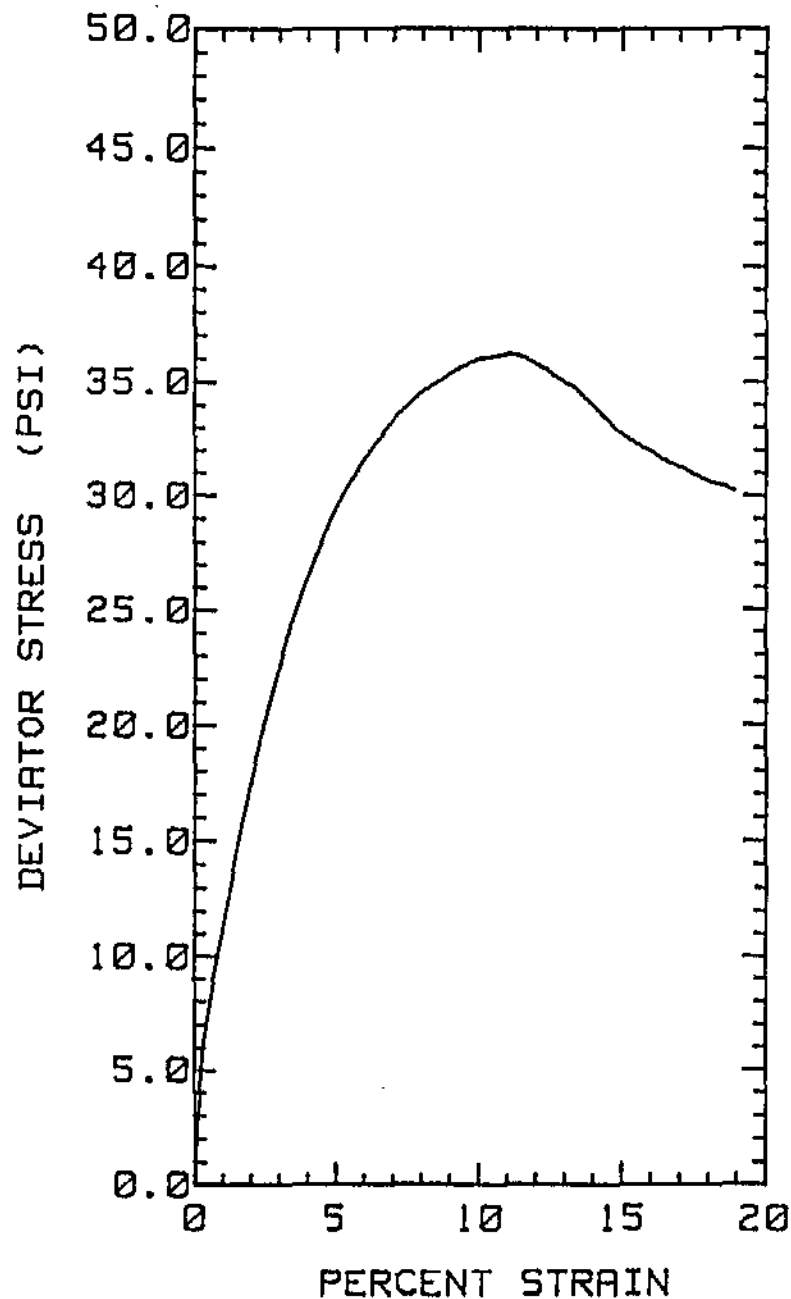
EFFECTIVE CONFINING PRESSURE: 7.0 psi

FINAL MOISTURE CONTENT: 33.6 percent

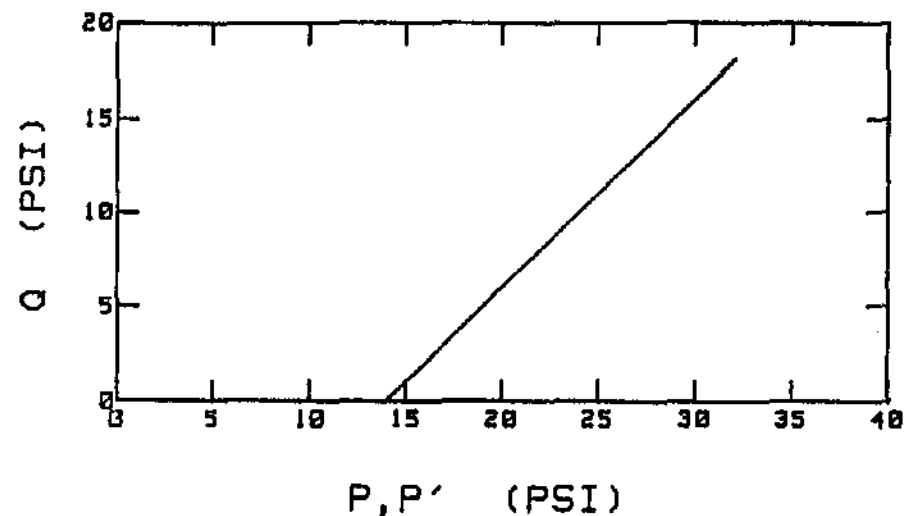
LABORATORY # T98010

DATE: 22 Apr 1996 18:18:47





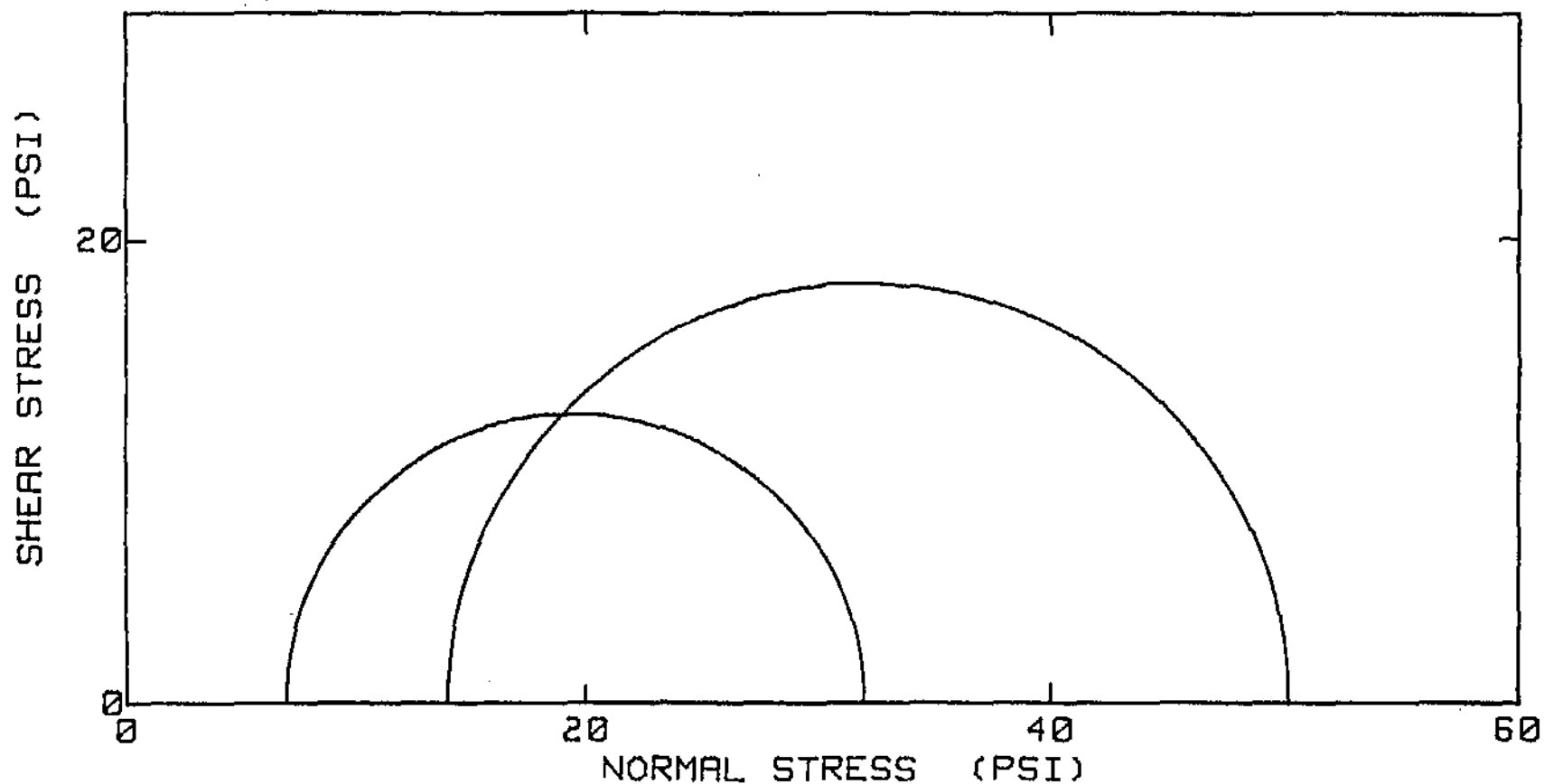
PROJECT : LIBERTY  
 CLIENT : DUANE MILLER  
 WD # A27711  
 BORING # D-1 5.5 DEPTH : 5.5 FEET  
 SAMPLE # CD 2000PSF  
 INITIAL DRY DENSITY: 86.2 pcf  
 EFFECTIVE CONFINING PRESSURE: 14.0 psi  
 FINAL MOISTURE CONTENT: 32.8 percent  
 LABORATORY # T98011  
 DATE: 23 Apr 1996 04:23:56

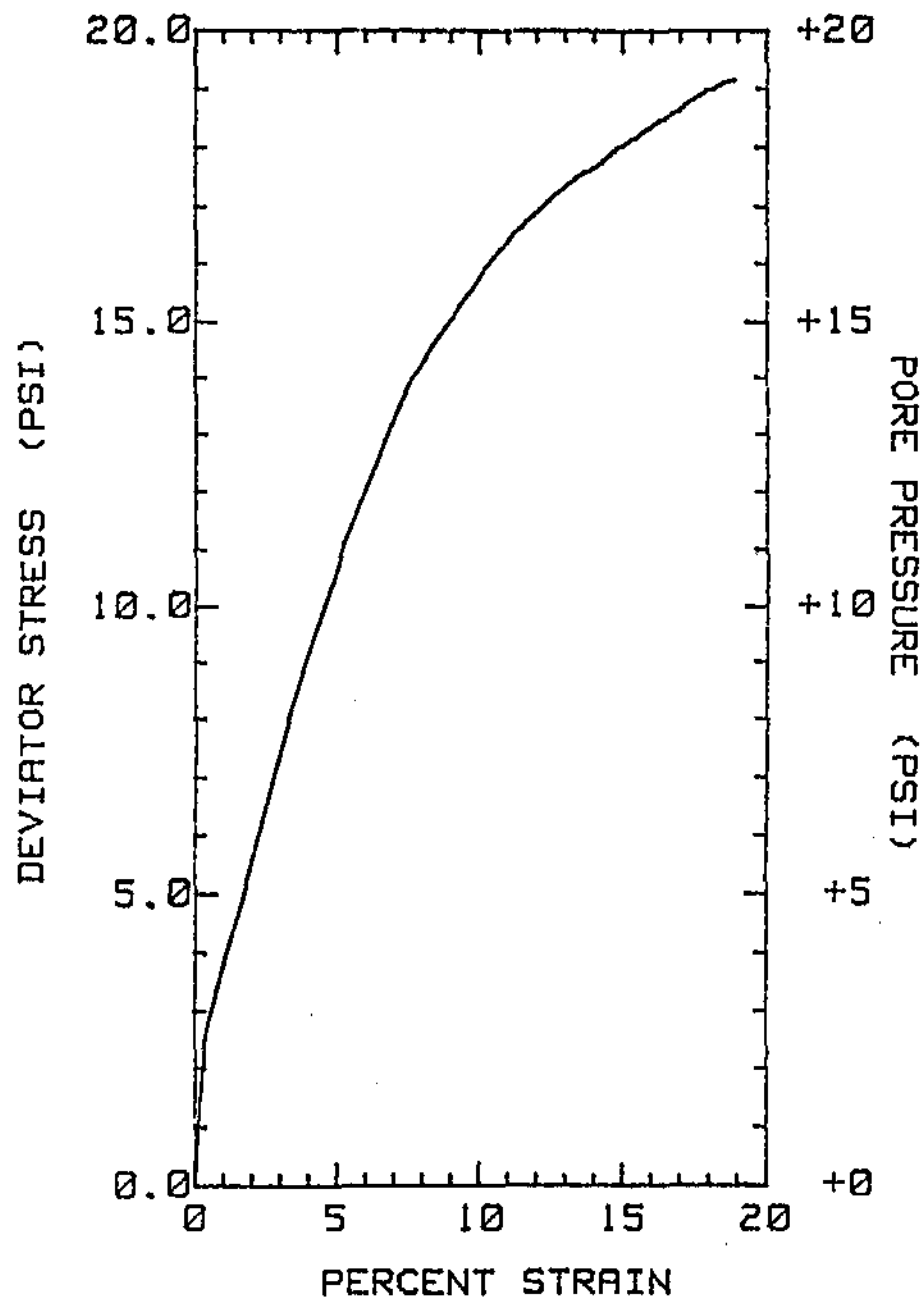


PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-1 5.5  
SAMPLE # CD 2000PSF  
DEPTH: 5.5 FEET

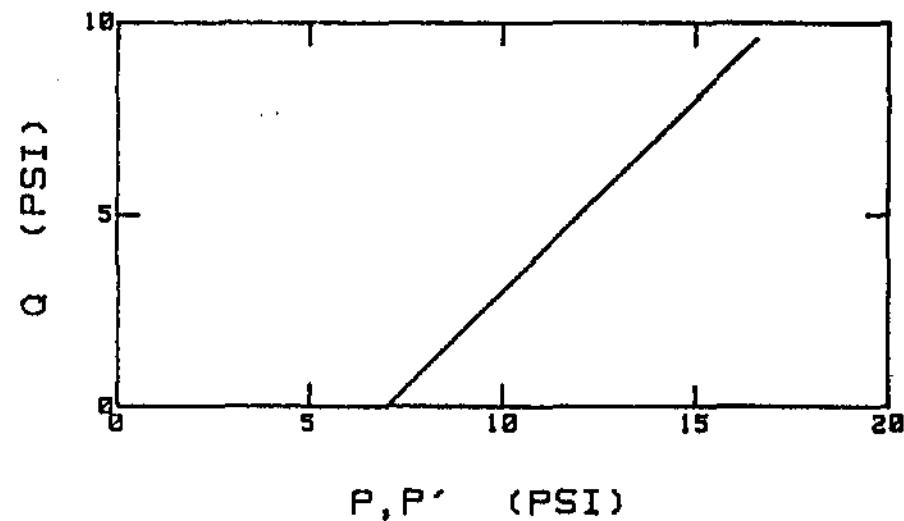
LAB # T98011;  $\bar{\sigma}_3 = 14.0$  psi;  $\gamma_s = 86.2$  pcf  
LAB # T98010;  $\bar{\sigma}_3 = 7.0$  psi;  $\gamma_s = 88.0$  pcf

DATE : 23 Apr 1996 04:23:56





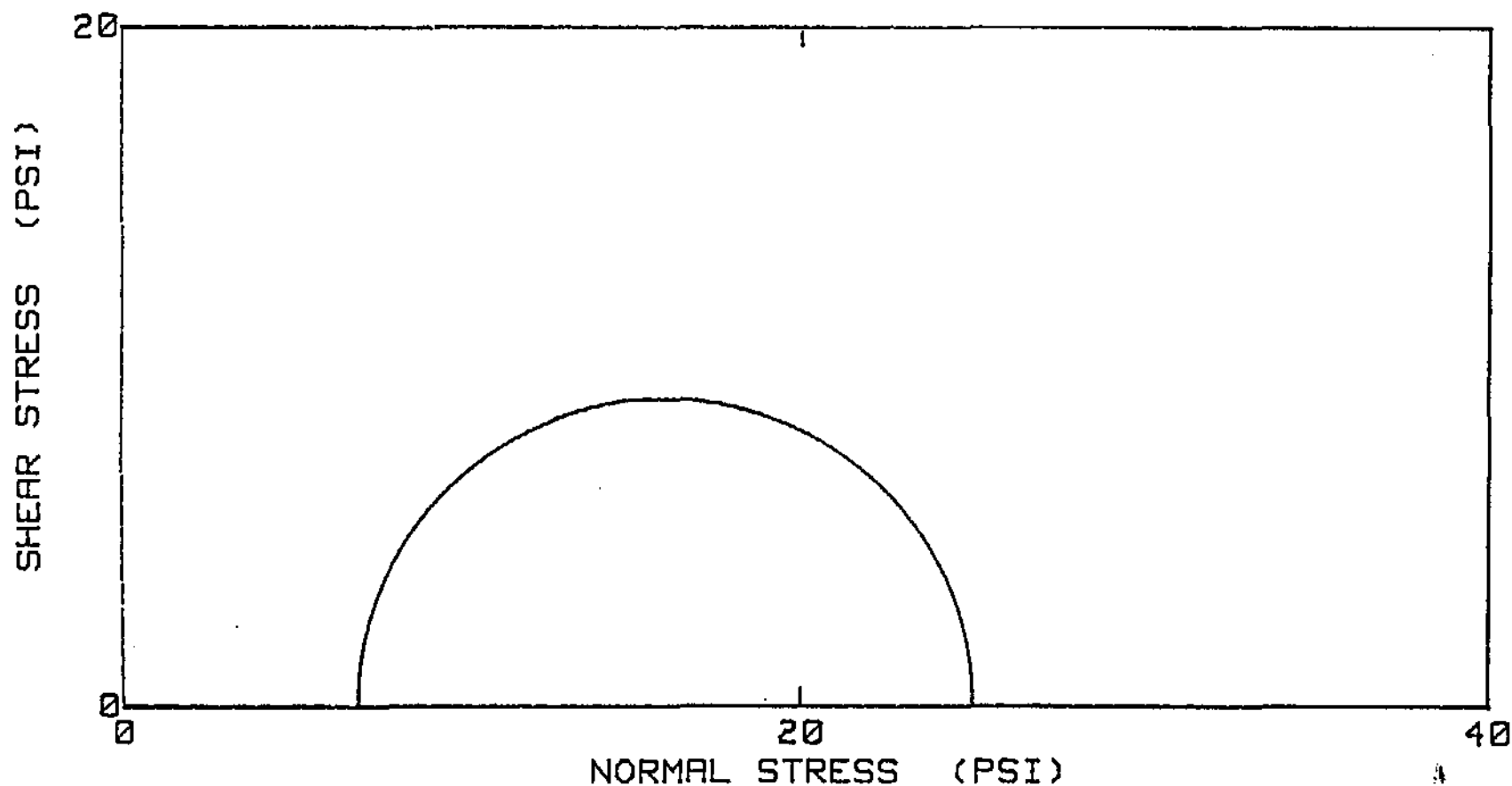
PROJECT : LIBERTY  
 CLIENT : DUNE MILLER  
 WO # A27711  
 BORING # D-1 DEPTH : 10.5 FEET  
 SAMPLE #  
 INITIAL DRY DENSITY: 87.0 pcf  
 TOTAL CONFINING PRESSURE : 7.0 psi  
 LABORATORY # T98015  
 DATE: 11 May 1995 22:35:03



PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-1  
SAMPLE #  
DEPTH: 10.5 FEET

LAB # T98015;  $\bar{Q}_s = 7.0$  psi;  $\gamma_s = 87.0$  pcf

DATE : 11 May 1996 22:35:03

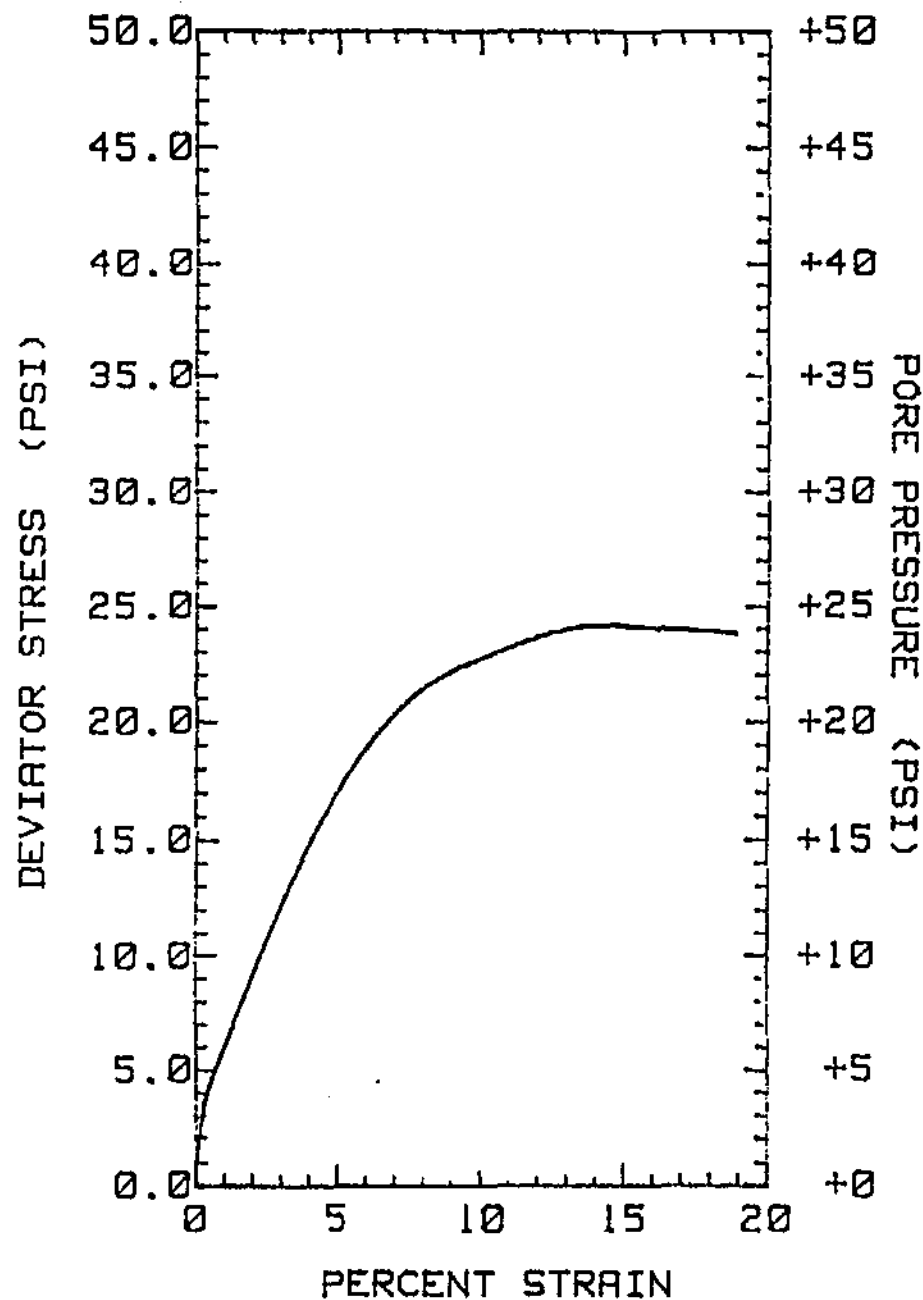


ALASKA TESTLAB

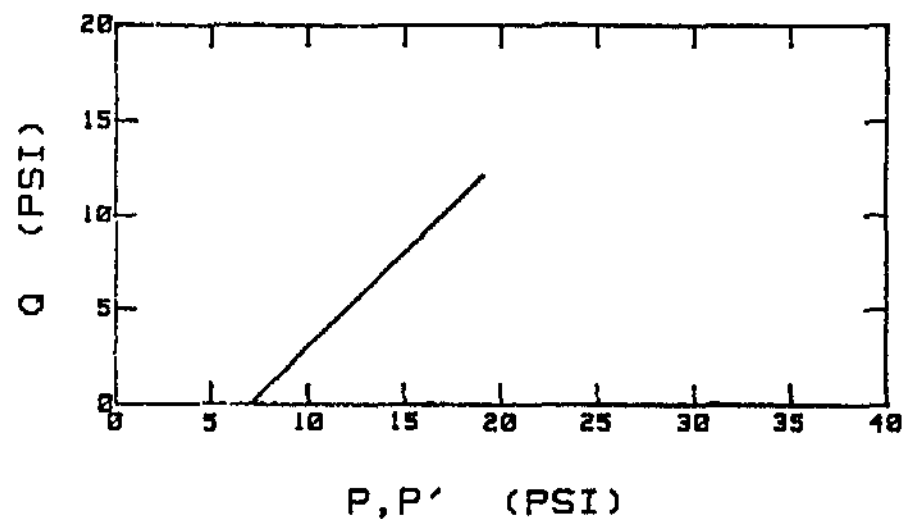
*Mohr Diagram - UU Tests*

WO # A27711

FIGURE



PROJECT : LIBERTY  
 CLIENT : DUANE MILLER  
 NO # A27711  
 BORING # D-1 DEPTH : 15.5 FEET  
 SAMPLE #  
 INITIAL DRY DENSITY: 98.3 pcf  
 TOTAL CONFINING PRESSURE : 7.8 psi  
 LABORATORY # T98016  
 DATE: 12 May 1996 03:41:29



ALASKA TESTLAB

*Unconsolidated Undrained Triaxial Compression*

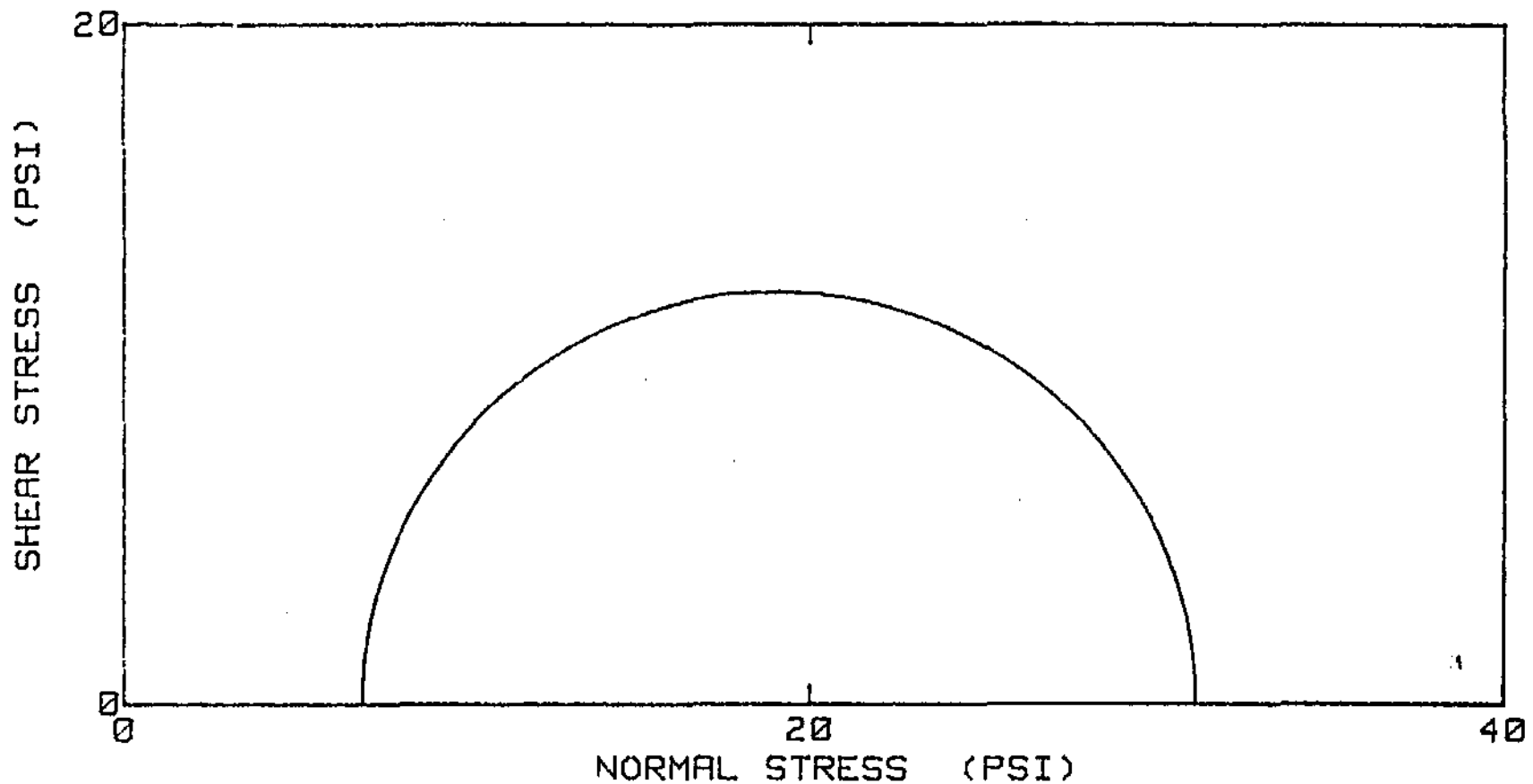
NO # A27711

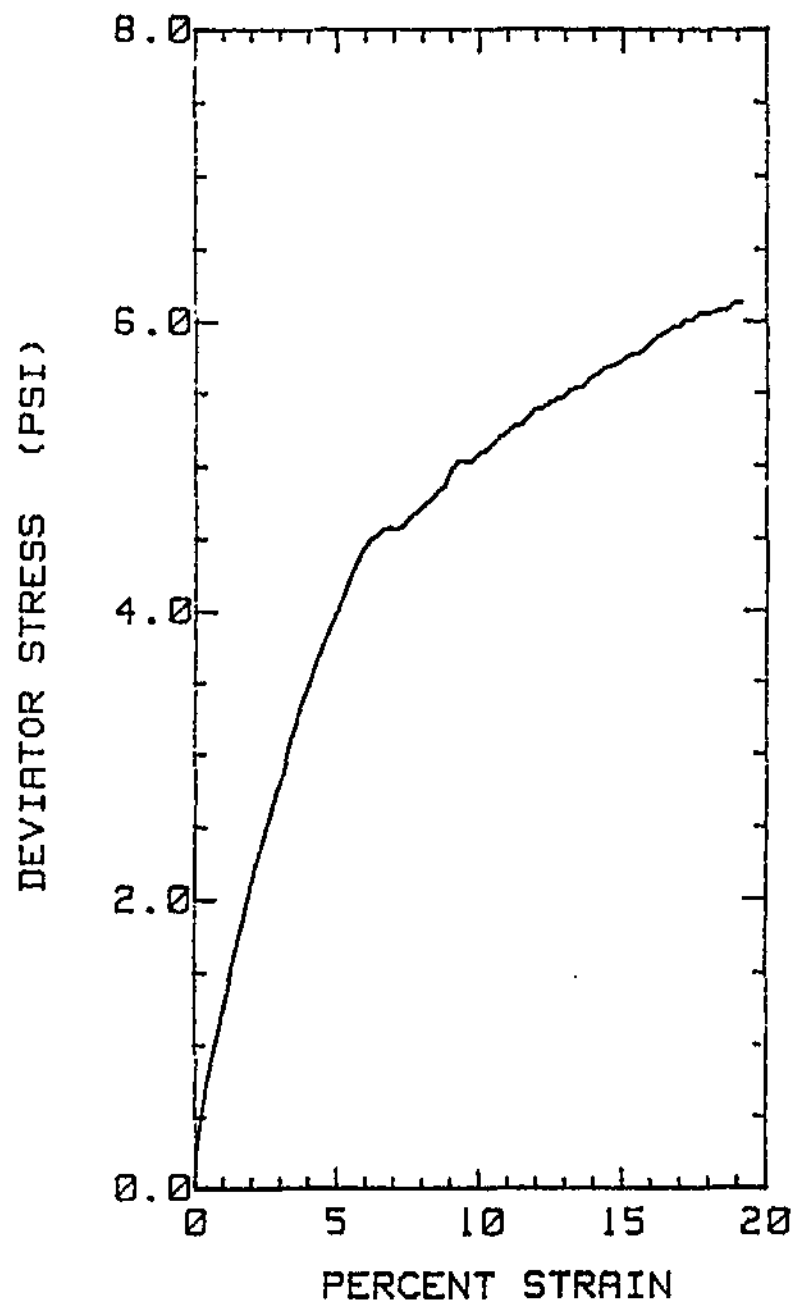
FIGURE

PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-1  
SAMPLE #  
DEPTH: 15.5 FEET

LAB # T98016;  $\sigma_3 = 7.0$  psi;  $\gamma_s = 90.3$  pcf

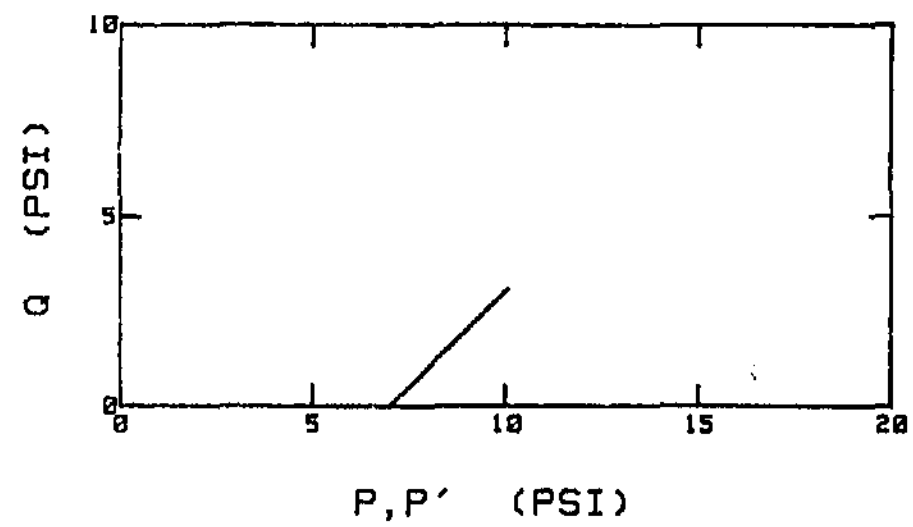
DATE : 12 May 1996 03:41:29





PORE PRESSURE (PSI)

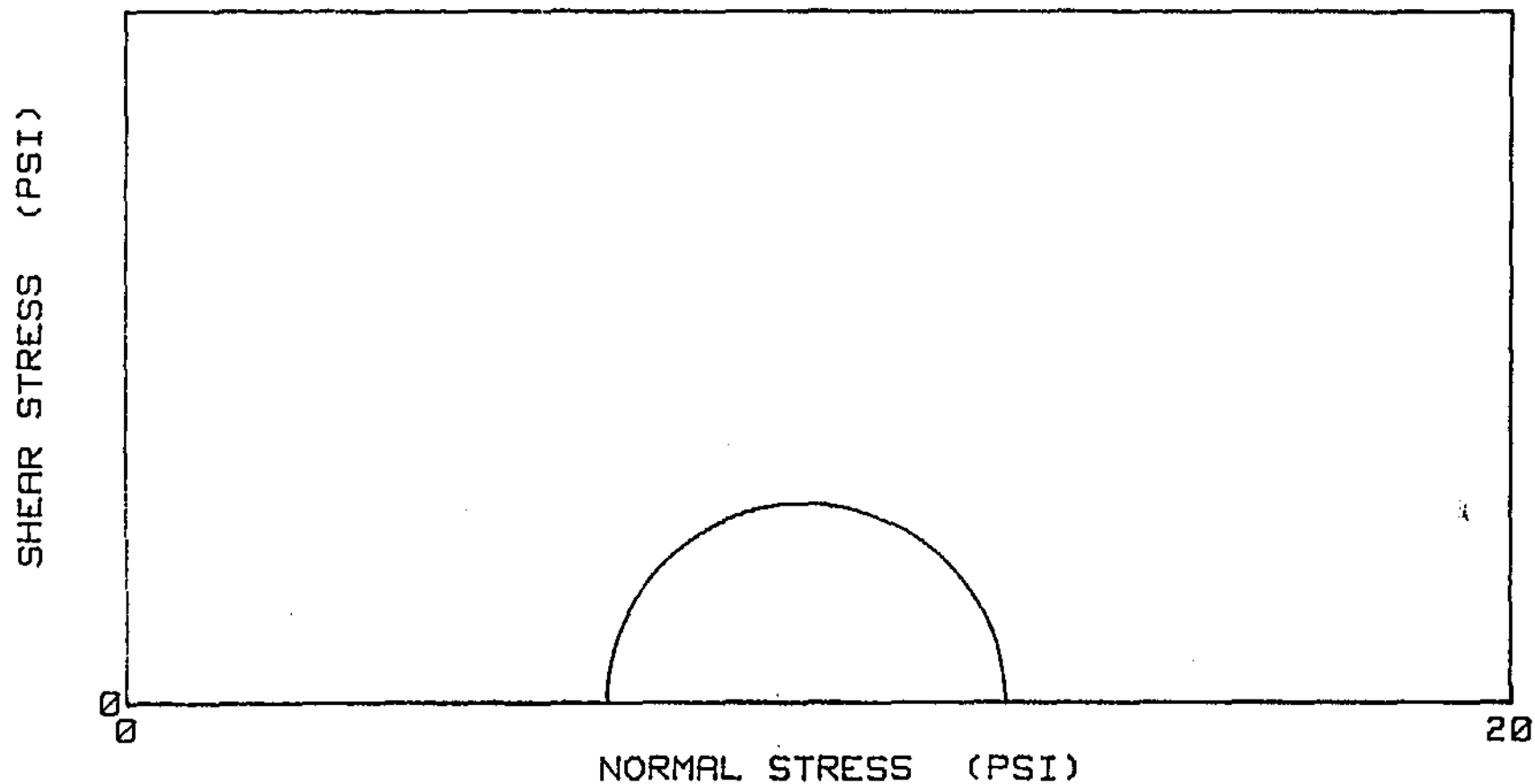
PROJECT : LIBERTY  
 CLIENT : DUANE MILLER  
 NO # A27711  
 BORING # D-2      DEPTH : 1 FOOT  
 SAMPLE # MIDDLE THIRD OF SAMPLE  
 INITIAL DRY DENSITY: 71.0 pcf  
 TOTAL CONFINING PRESSURE : 7.0 psi  
 LABORATORY # T38012  
 DATE: 30 Apr 1996 20:52:18



PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-2  
SAMPLE # MIDDLE THIRD OF SAMPLE  
DEPTH: 1 FOOT

LAB # T98012;  $\bar{\sigma}_v = 7.0$  psi;  $\gamma_s = 71.0$  pcf

DATE : 30 Apr 1996 20:52:18

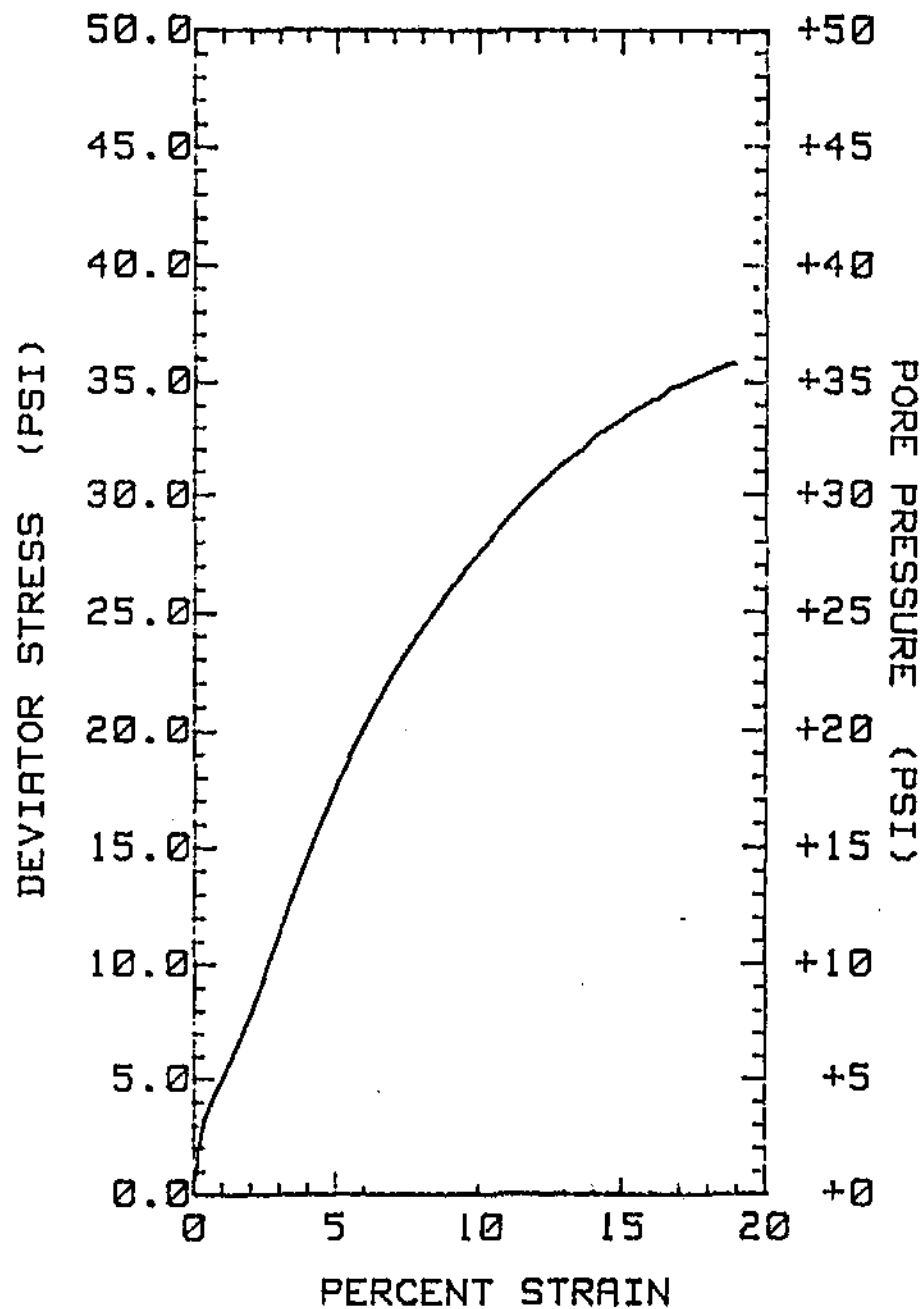


ALASKA TESTLAB

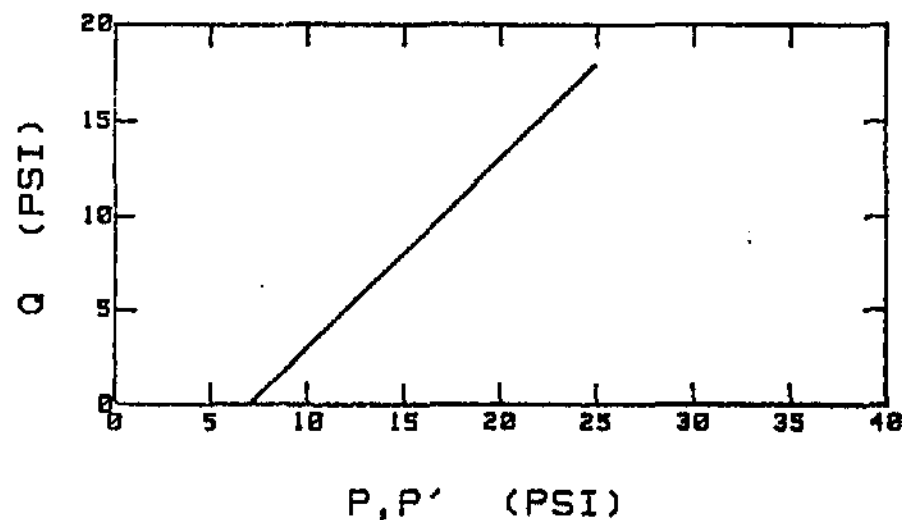
*Mohr Diagram - UU Tests*

WO # A27711

FIGURE



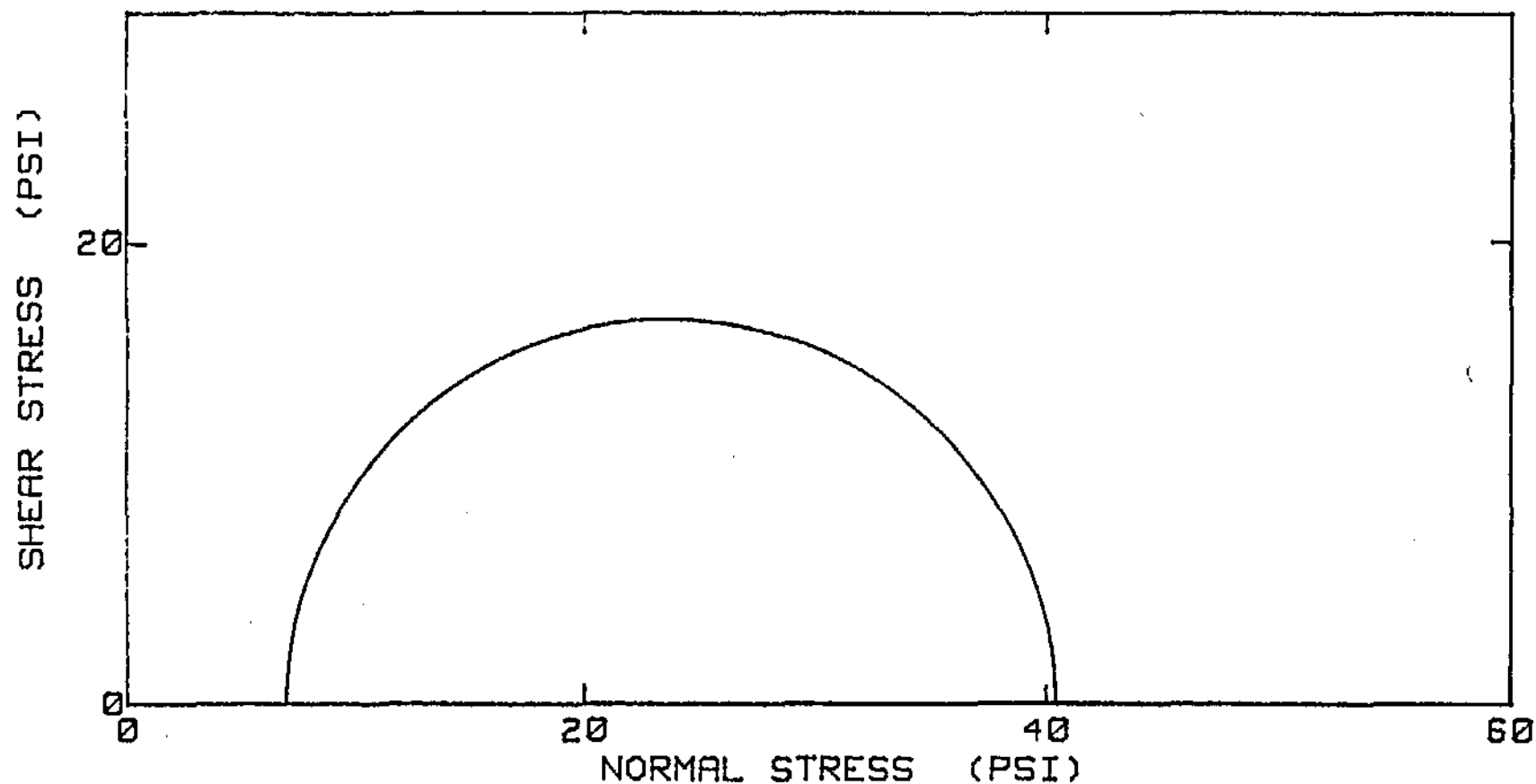
PROJECT : LIBERTY  
 CLIENT : DUANE MILLER  
 NO # A27711  
 BORING # D-2 DEPTH : 6 FEET  
 SAMPLE #  
 INITIAL DRY DENSITY: 94.9 pcf  
 TOTAL CONFINING PRESSURE : 7.0 psi  
 LABORATORY # T98817  
 DATE: 12 May 1996 18:11:32



PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-2  
SAMPLE #  
DEPTH: 6 FEET

LAB # T98017;  $\bar{Q}_s = 7.0$  psi;  $\gamma_s = 94.9$  pcf

DATE : 12 May 1996 18:11:32

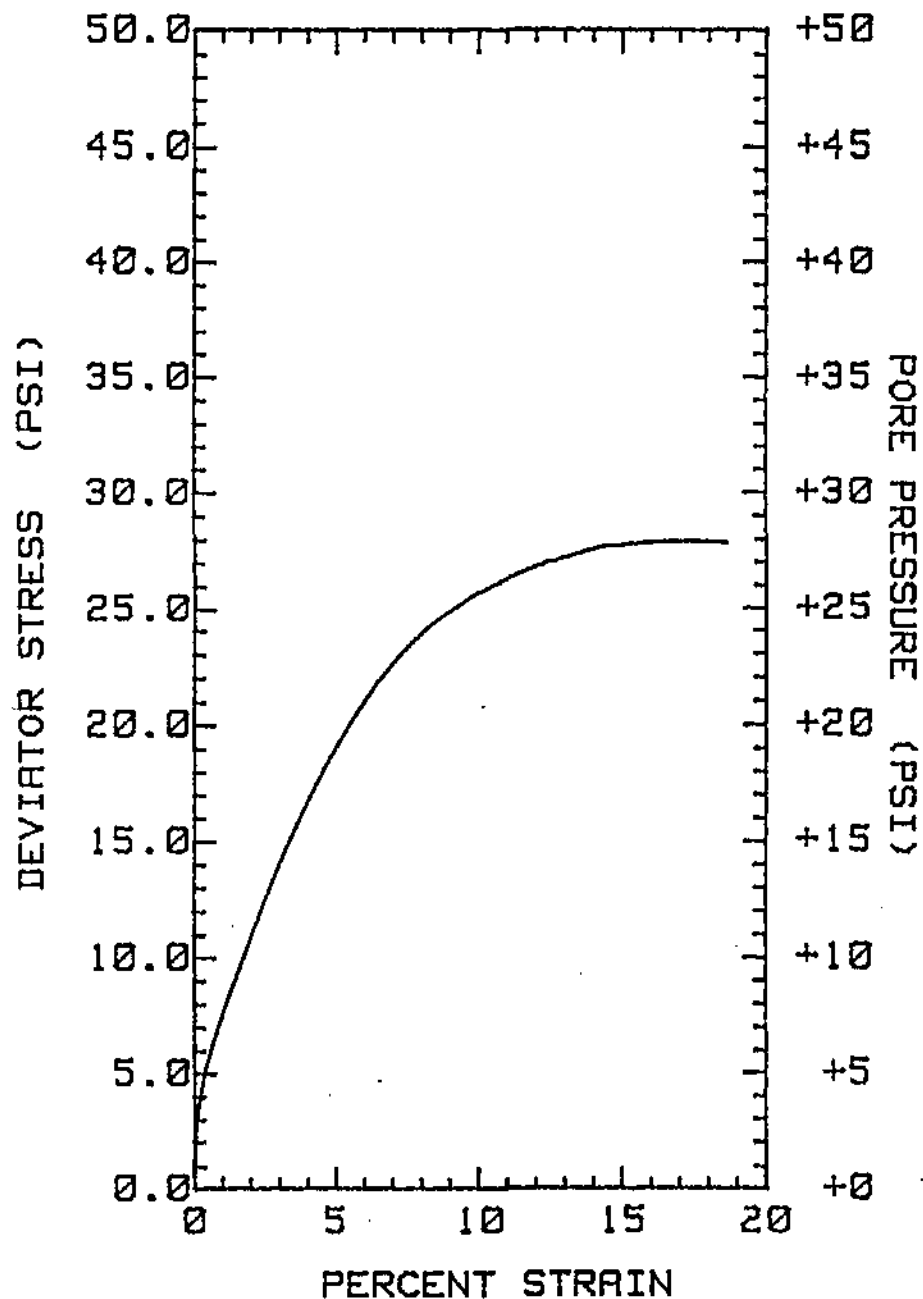


ALASKA TESTLAB

*Mohr Diagram - UU Tests*

NO # A27711

FIGURE



PROJECT : LIBERTY

CLIENT : DUANE MILLER

NO # A27711

BORING # D-3

DEPTH : 6 FEET

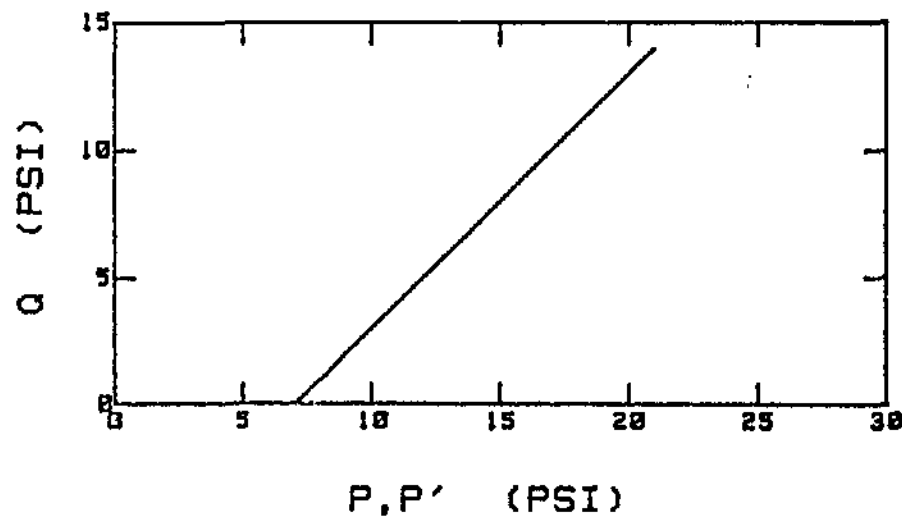
SAMPLE #

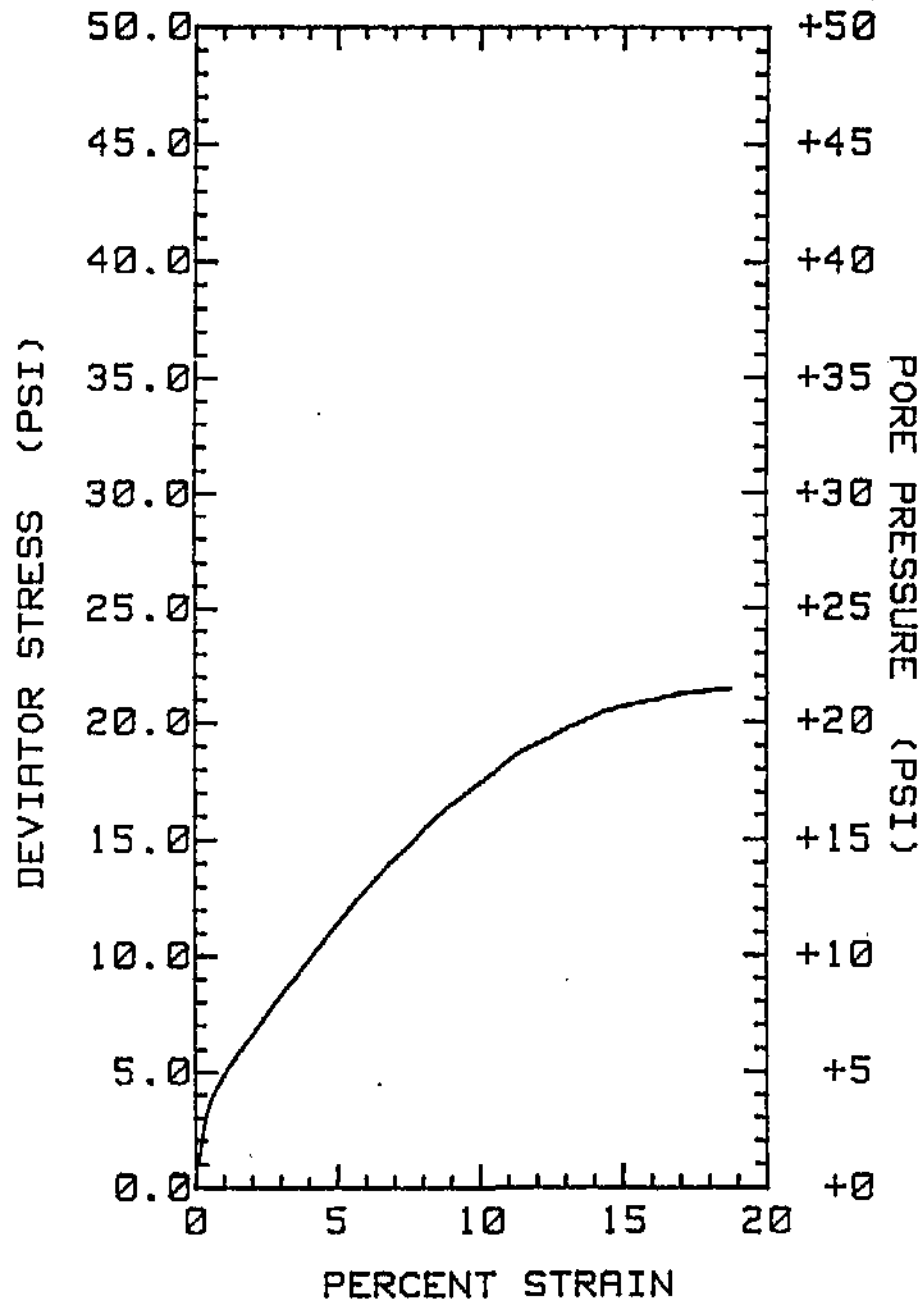
INITIAL DRY DENSITY: 89.3 pcf

TOTAL CONFINING PRESSURE : 7.0 psi

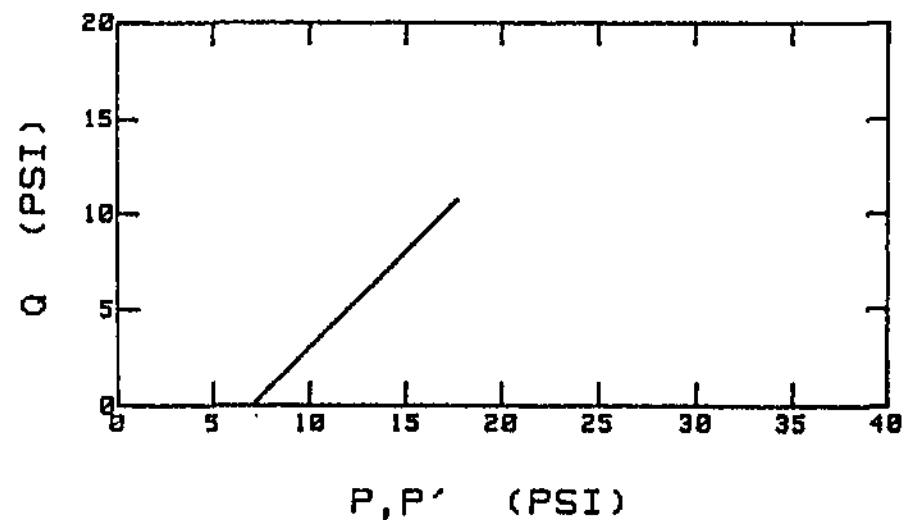
LABORATORY # T98018

DATE: 13 May 1996 20:49:59





PROJECT : LIBERTY  
 CLIENT : DUANE MILLER  
 NO # A27711  
 BORING # D-3 DEPTH : 15 FEET  
 SAMPLE #  
 INITIAL DRY DENSITY: 98.1 pcf  
 TOTAL CONFINING PRESSURE : 7.8 psi  
 LABORATORY # T98019  
 DATE: 13 May 1996 21:44:51



ALASKA TESTLAB

*Unconsolidated Undrained Triaxial Compression*

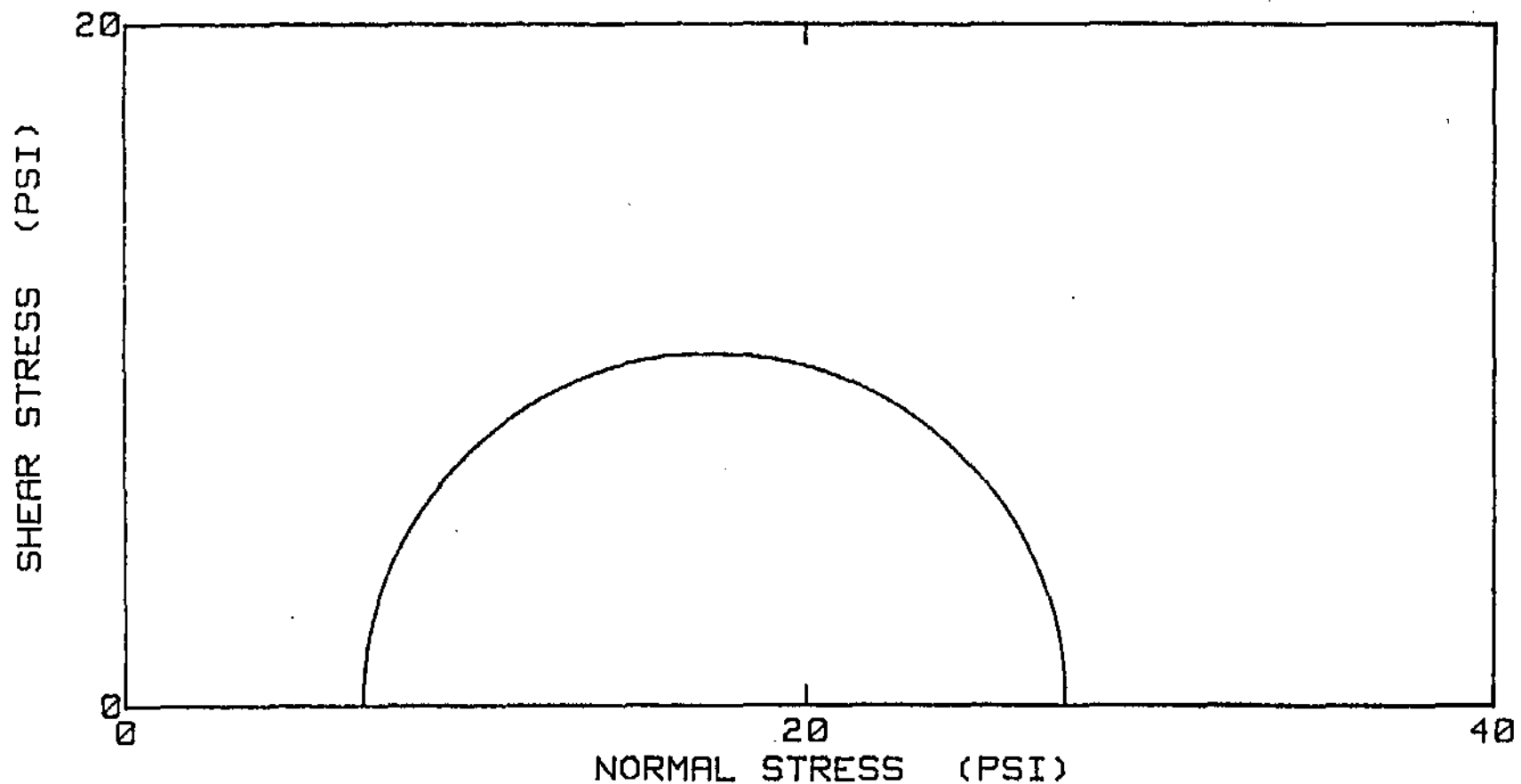
NO # A27711

FIGURE

PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-3  
SAMPLE #  
DEPTH: 16 FEET

LAB # T98019;  $\bar{q}_v = 7.0$  psi;  $\gamma_s = 90.1$  pcf

DATE : 13 May 1996 21:44:51

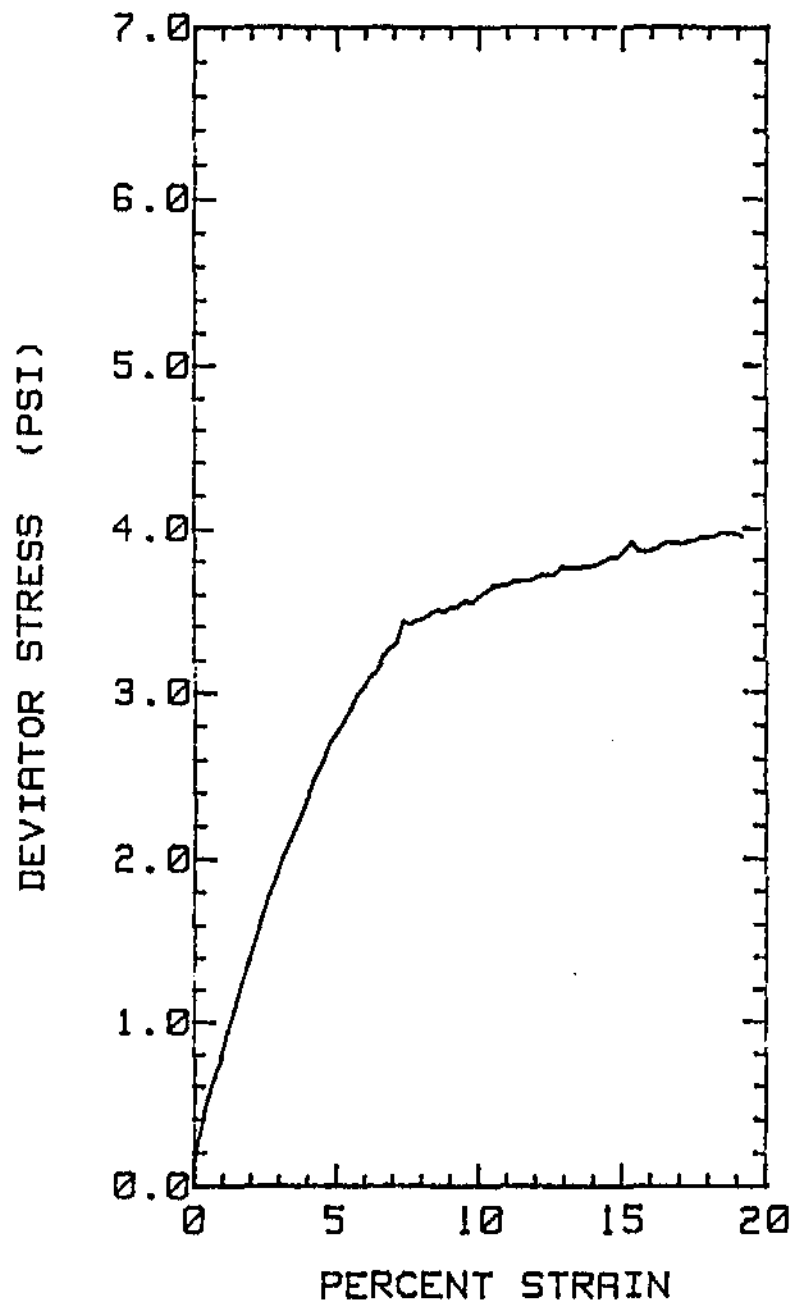


ALASKA TESTLAB

*Mohr Diagram - UU Tests*

WO # A27711

FIGURE



PORE PRESSURE (PSI)

Q (PSI)

PROJECT : LIBERTY

CLIENT : DUANE MILLER

NO # A27711

BORING # D-4

DEPTH : 3.5 FEET

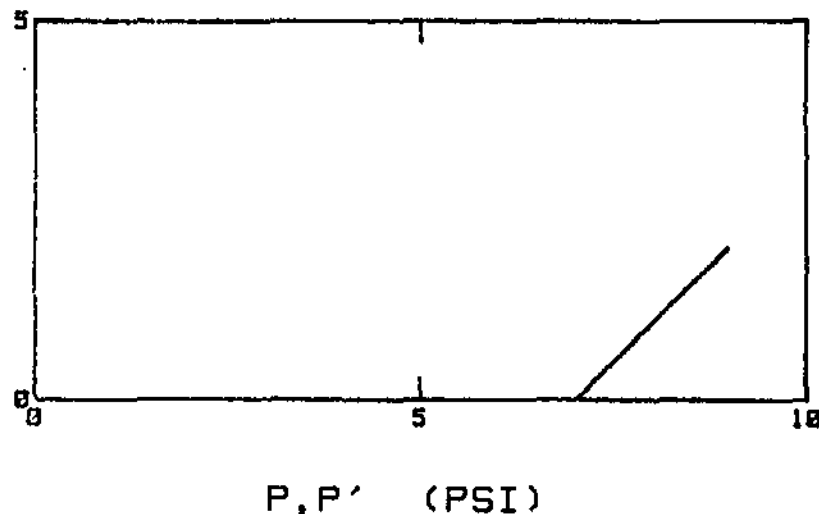
SAMPLE #

INITIAL DRY DENSITY: 68.8 pcf

TOTAL CONFINING PRESSURE : 7.0 psi

LABORATORY # T98013

DATE: 10 May 1996 05:15:00



ALASKA TESTLAB

*Unconsolidated Undrained Triaxial Compression*

NO # A27711

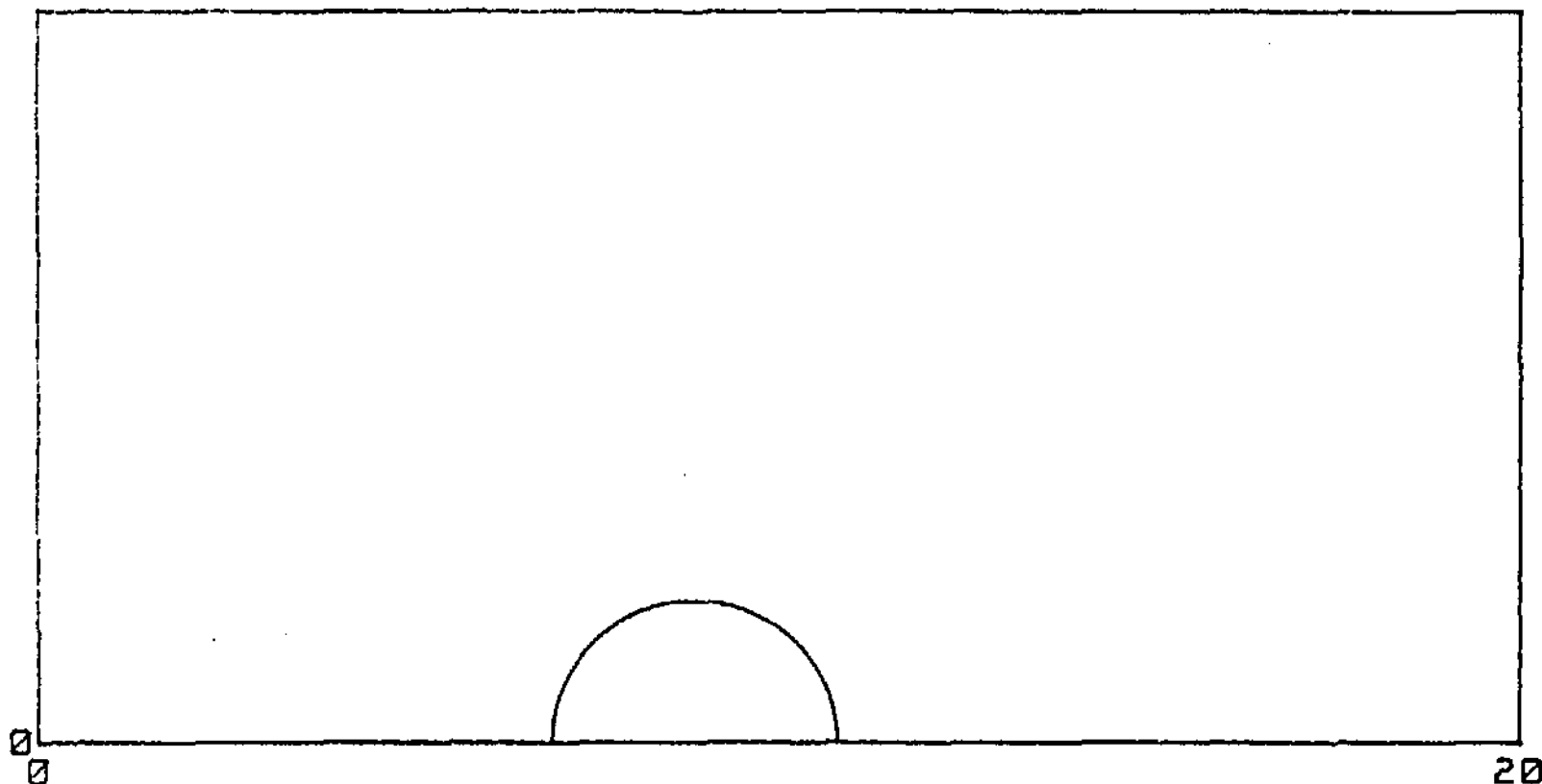
FIGURE

PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-4  
SAMPLE #  
DEPTH: 3.5 FEET

LAB # T98013;  $\sigma_s = 7.0$  psi;  $\gamma_s = 68.0$  pcf

DATE : 10 May 1996 05:15:08

SHEAR STRESS (PSI)



NORMAL STRESS (PSI)



ALASKA TESTLAB

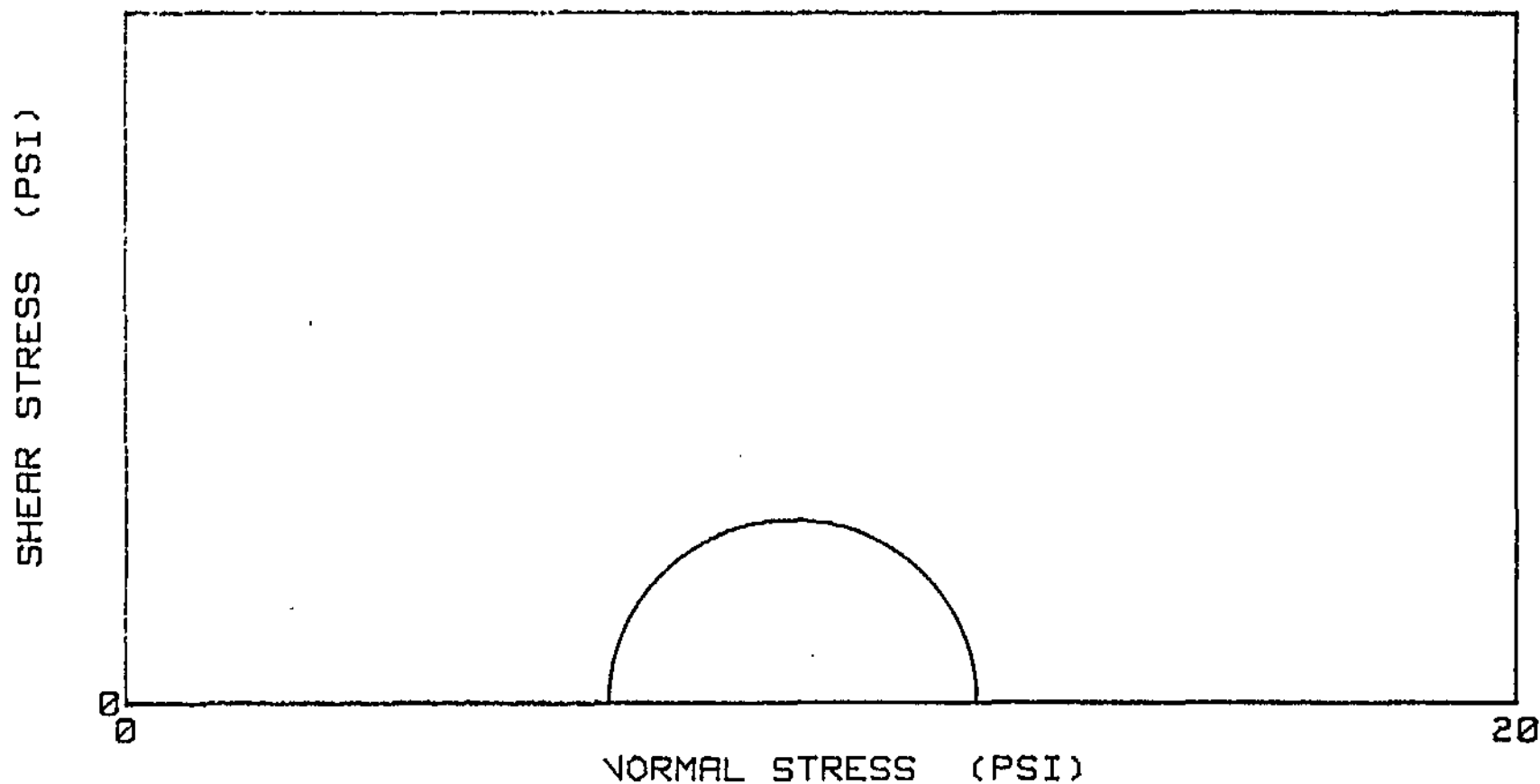
*Mohr Diagram - UU Tests*

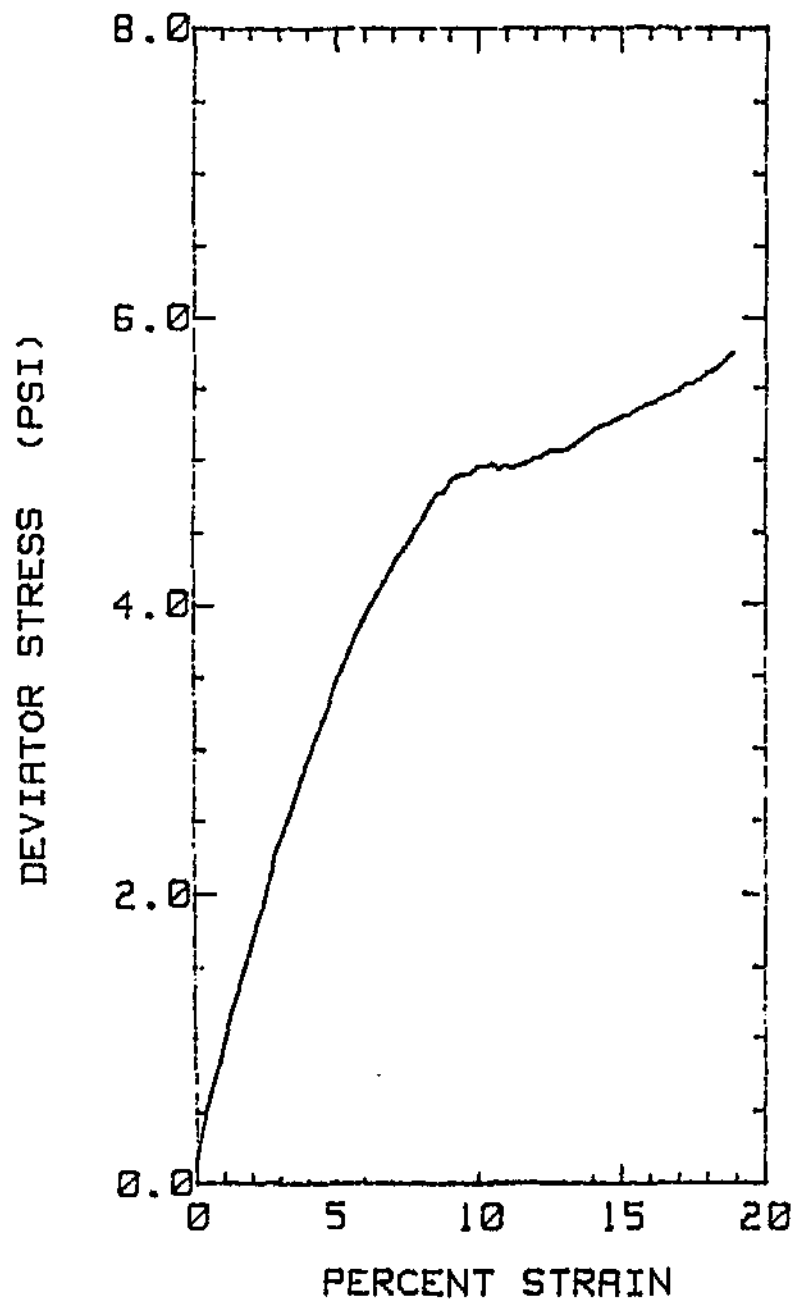
NO # A27711  
FIGURE

PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-5  
SAMPLE #  
DEPTH: 2.5 FEET

LAB # T98014;  $\sigma_3 = 7.0$  psi;  $\gamma_s = 80.4$  pcf

DATE : 10 May 1996 05:52:38

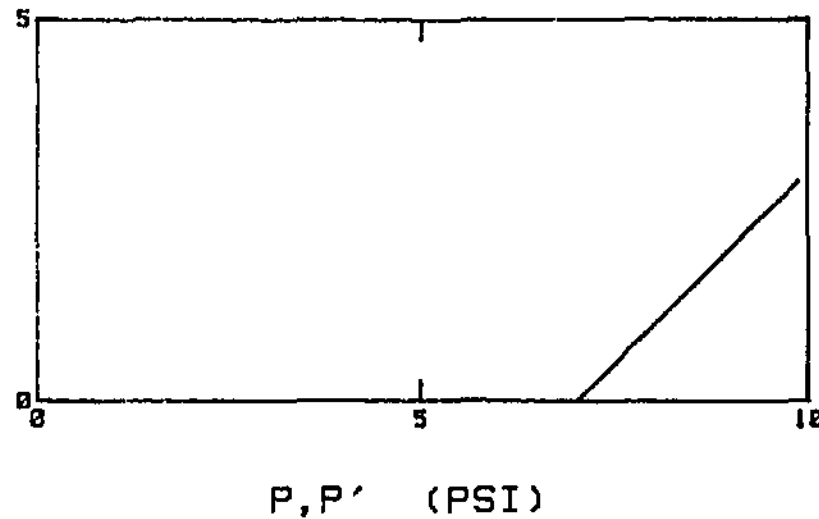




+8  
+6  
+4  
+2  
+0

PORE PRESSURE (PSI)

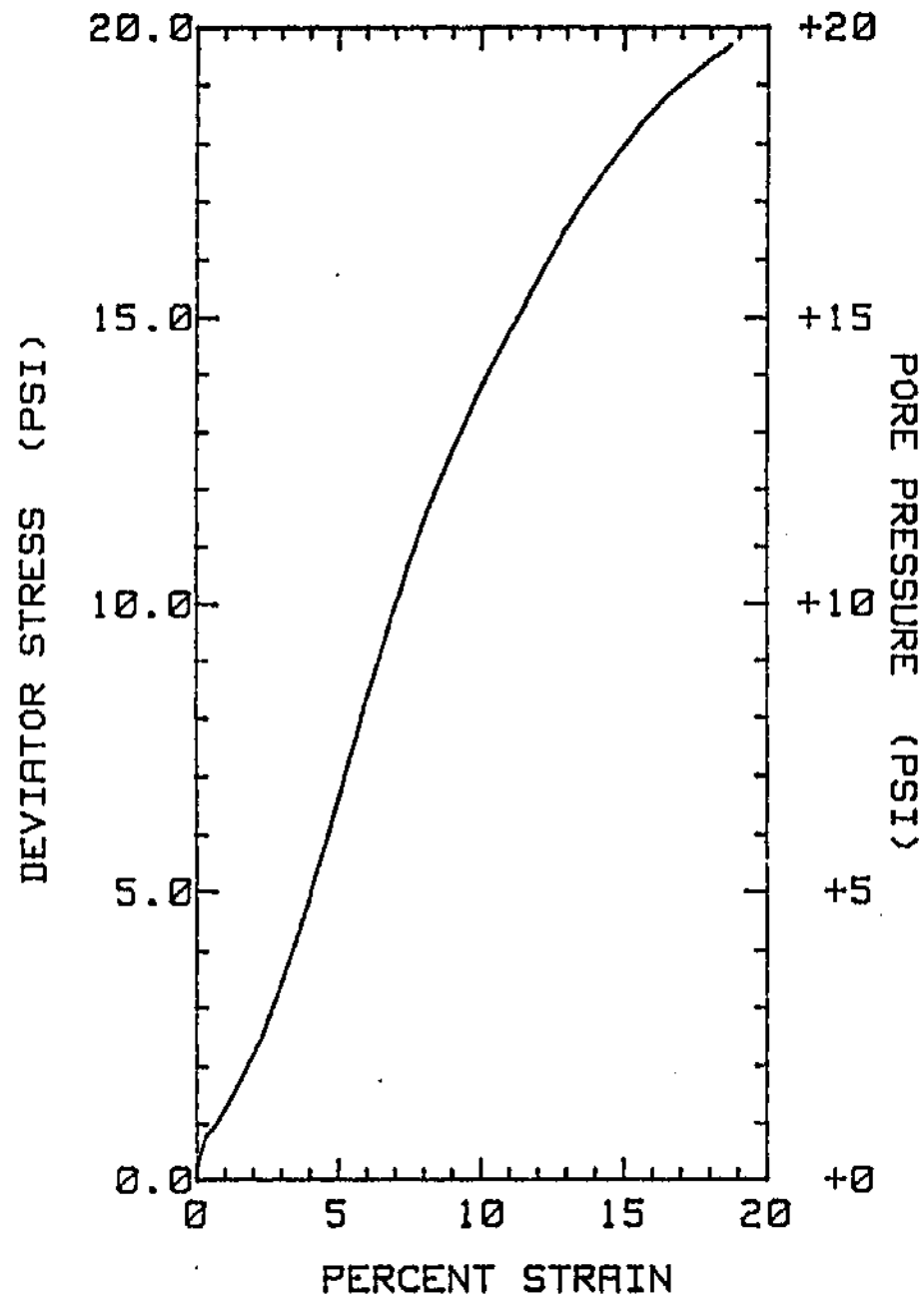
PROJECT : LIBERTY  
 CLIENT : DUANE MILLER  
 NO # A27711  
 BORING # D-5 DEPTH : 2.5 FEET  
 SAMPLE #  
 INITIAL DRY DENSITY: 88.4 pcf  
 TOTAL CONFINING PRESSURE : 7.8 psi  
 LABORATORY # T98014  
 DATE: 10 May 1996 05:52:30



ALASKA TESTLAB

*Unconsolidated Undrained Triaxial Compression*

NO # A27711  
 FIGURE



PROJECT : LIBERTY

CLIENT : DUANE MILLER

NO # A27711

BORING # D-5

DEPTH : 7.5 FEET

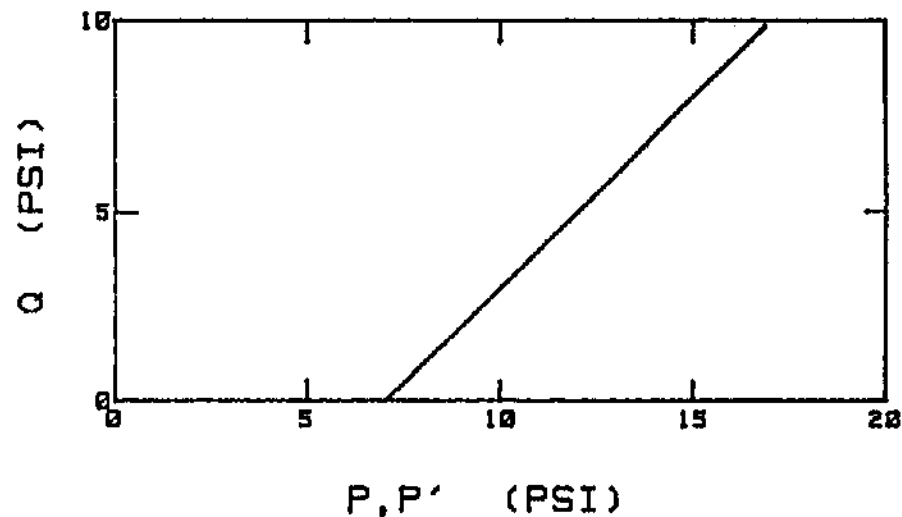
SAMPLE #

INITIAL DRY DENSITY: 93.6 pcf

TOTAL CONFINING PRESSURE : 7.0 psi

LABORATORY # T98020

DATE: 14 May 1996 05:06:41



ALASKA TESTLAB

*Unconsolidated Undrained Triaxial Compression*

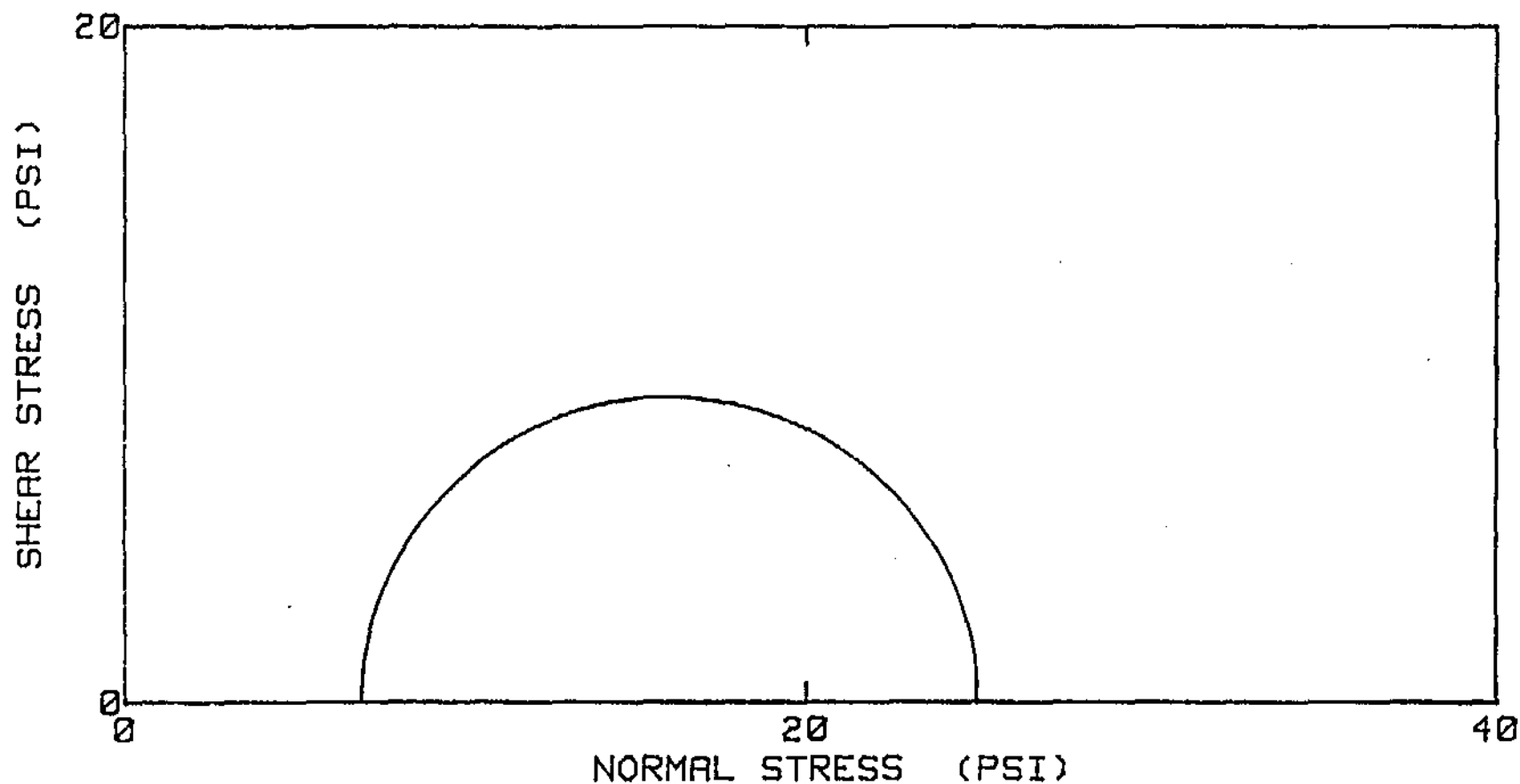
NO # A27711

FIGURE

PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-5  
SAMPLE #  
DEPTH: 7.5 FEET

LAB # T98020;  $\sigma_3 = 7.0$  psi;  $\gamma_s = 93.6$  pcf

DATE : 14 May 1996 05:06:41

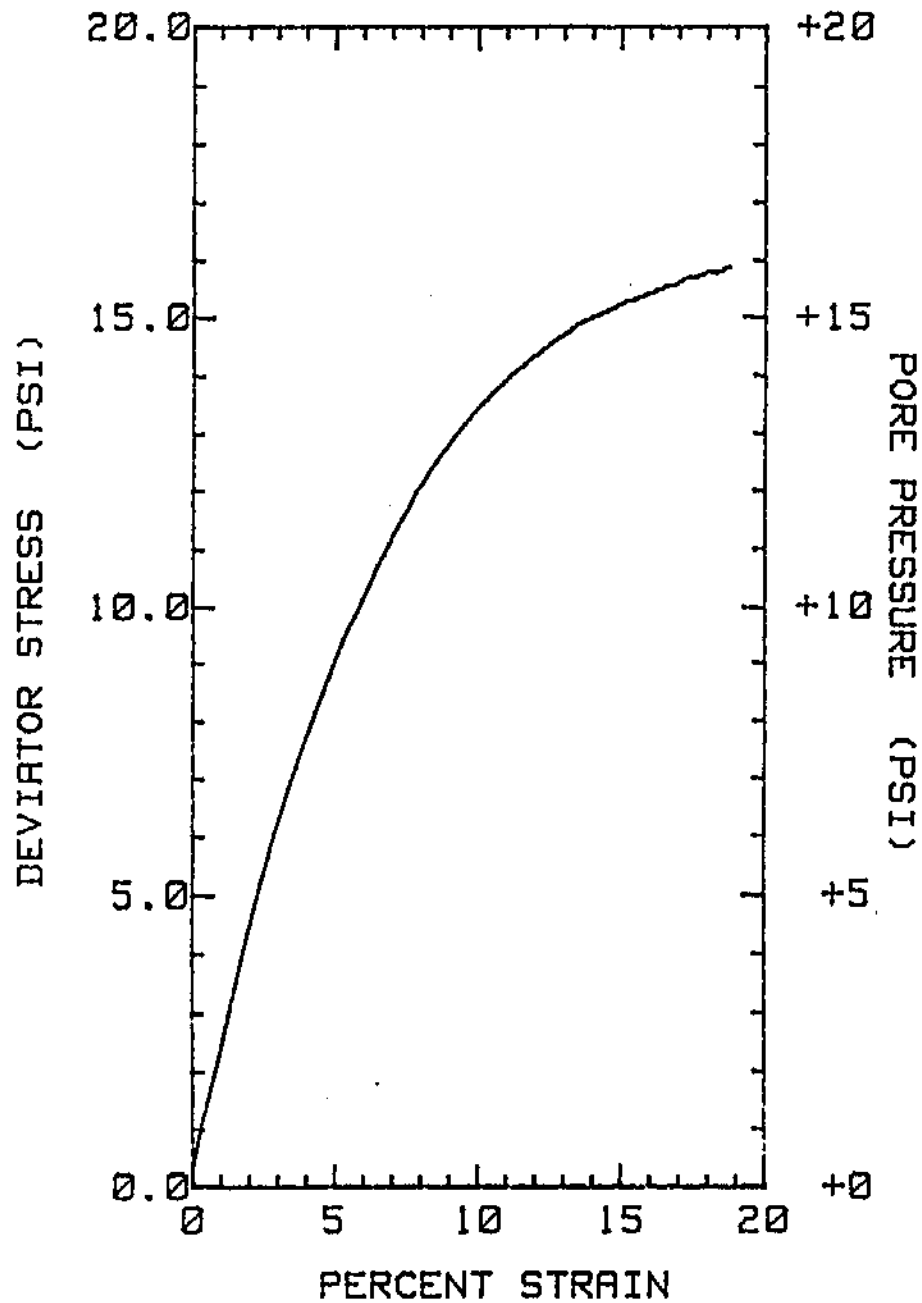


ALASKA TESTLAB

*Mohr Diagram - UU Tests*

WO # A27711

FIGURE



PROJECT : LIBERTY

CLIENT : DUANE MILLER

WO # A27711

BORING # D-6

DEPTH : 2.5 FEET

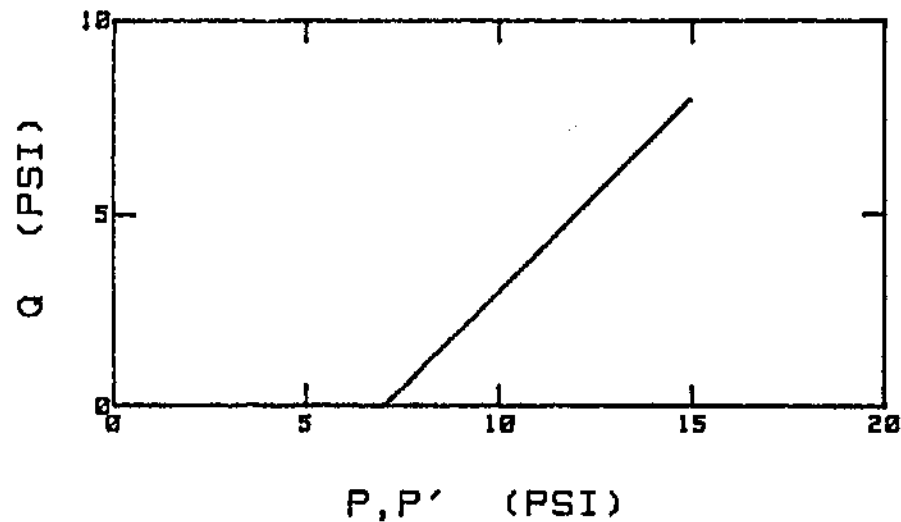
SAMPLE #

INITIAL DRY DENSITY: 85.7 pcf

TOTAL CONFINING PRESSURE : 7.8 psi

LABORATORY # T98821

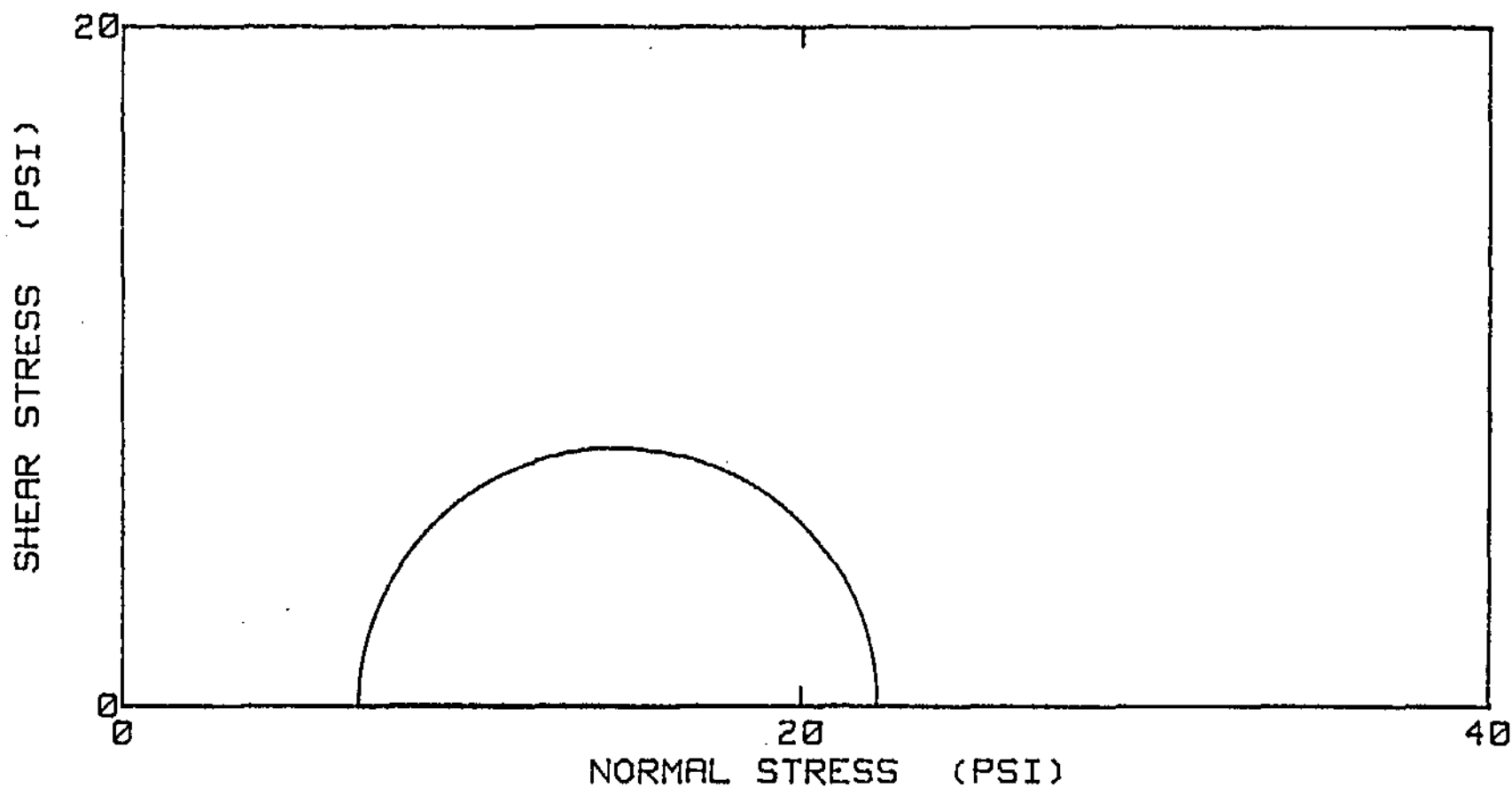
DATE: 14 May 1996 06:02:41



PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-6  
SAMPLE #  
DEPTH: 2.5 FEET

LAB # T98021;  $\sigma_3$  = 7.0 psi;  $\gamma_u$  = 85.7 pcf

DATE : 14 May 1996 06:02:41

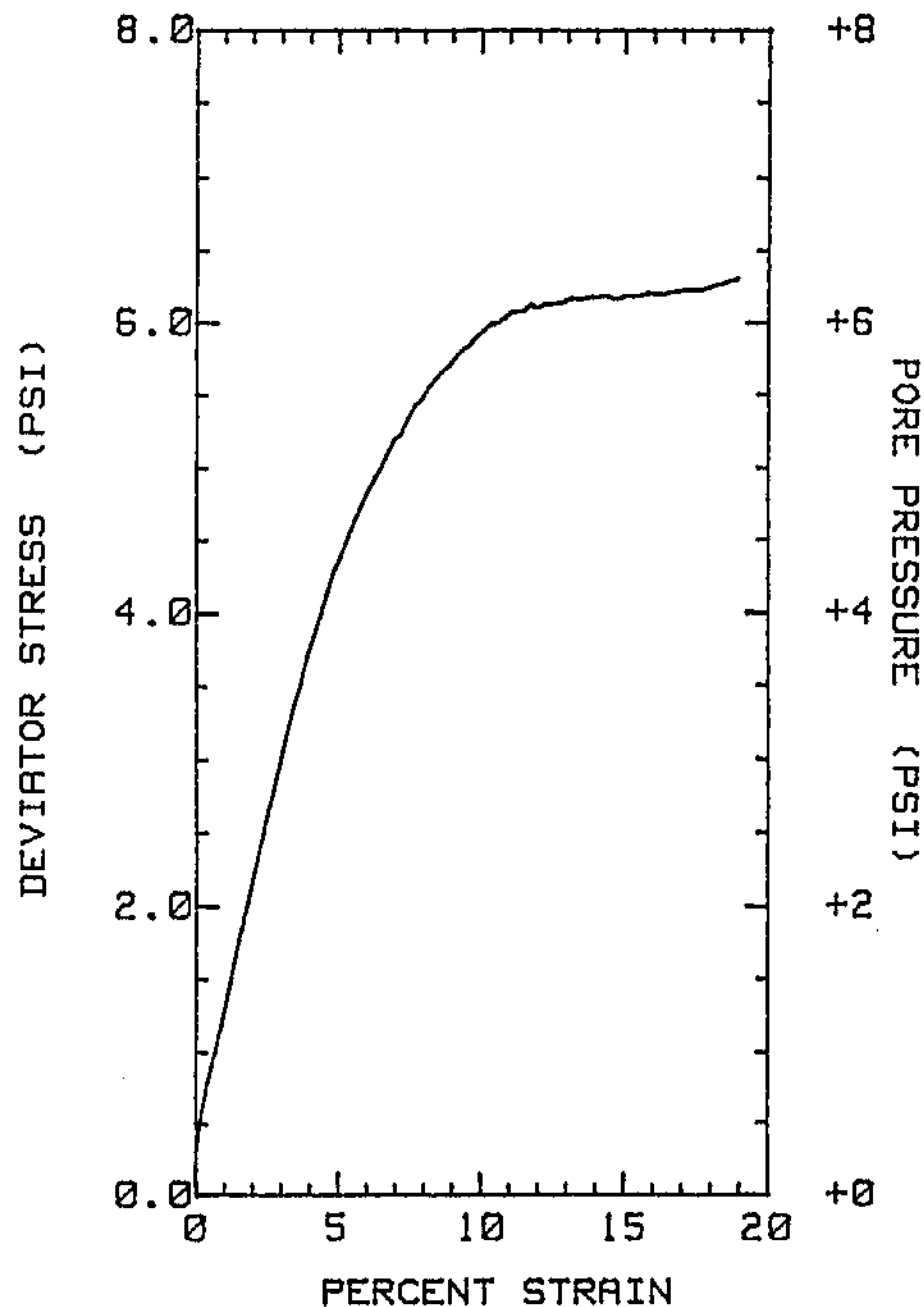


ALASKA TESTLAB

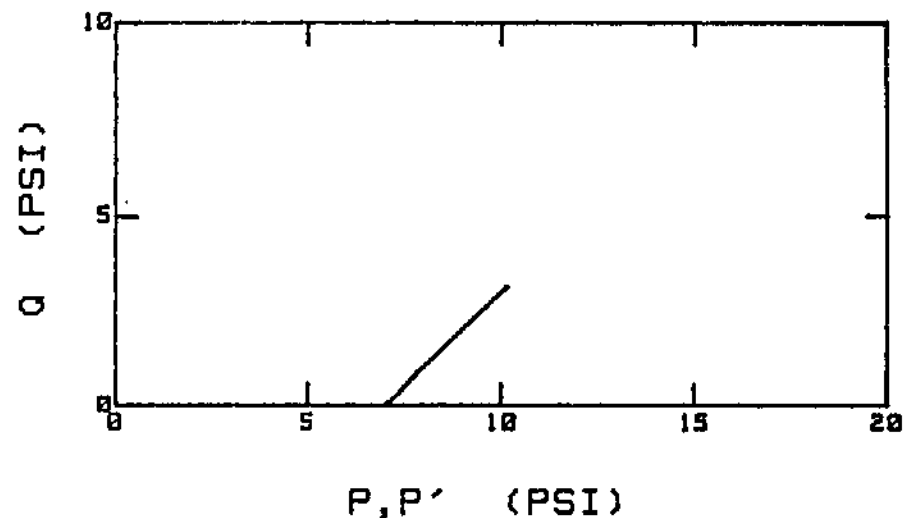
*Mohr Diagram - UU Tests*

WO # A27711

FIGURE



PROJECT : LIBERTY  
 CLIENT : DUANE MILLER  
 WO # A27711  
 BORING # D-7      DEPTH : 7 FEET  
 SAMPLE #  
 INITIAL DRY DENSITY: 73.2 pcf  
 TOTAL CONFINING PRESSURE : 7.0 psi  
 LABORATORY # T98022  
 DATE: 14 May 1996 07:00:20

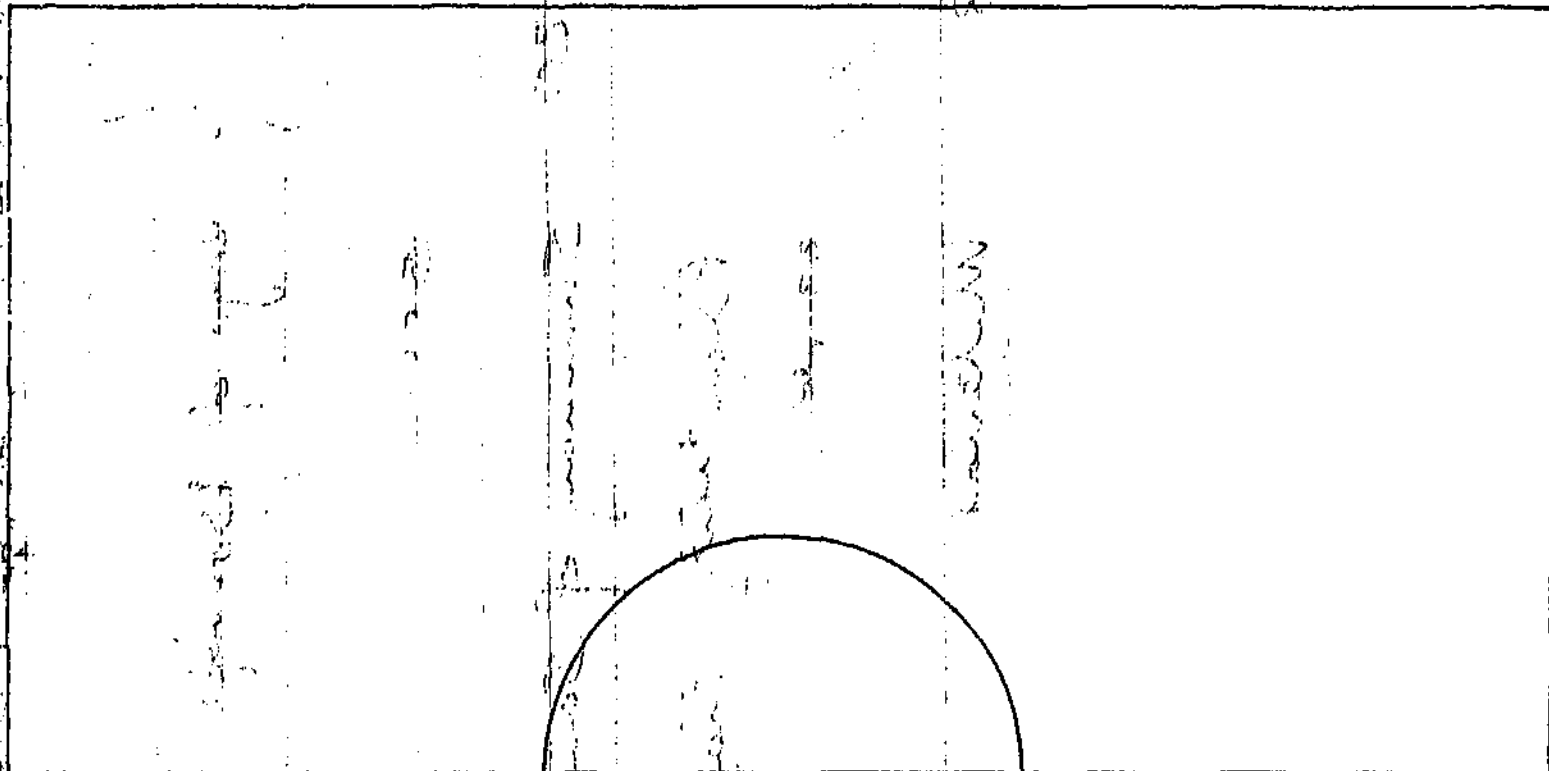


PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-7  
SAMPLE #  
DEPTH: 7 FEET

LAB # T98022;  $\sigma_c = 7.0$  psi;  $\gamma_s = 73.2$  pcf

DATE : 14 May 1996 07:08:20

SHEAR STRESS (PSI)



NORMAL STRESS (PSI)

20



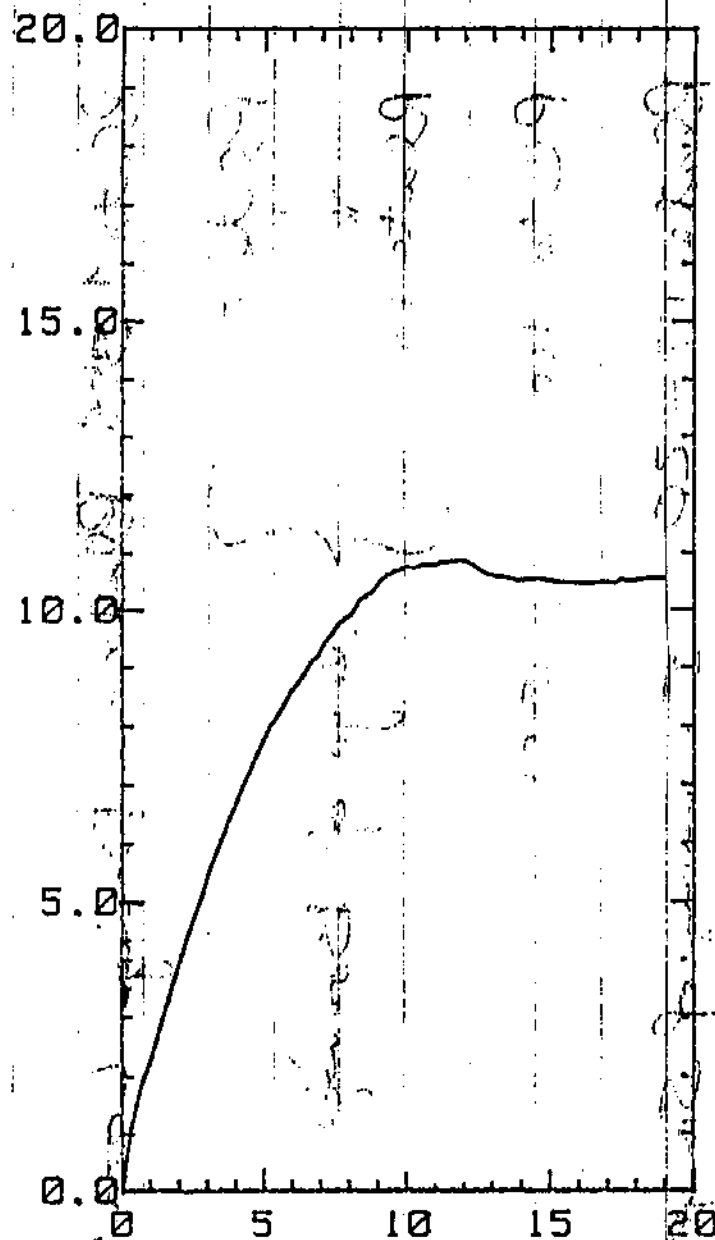
ALASKA TESTLAB

Mohr Diagram - UU Tests

WO # A27711

FIGURE

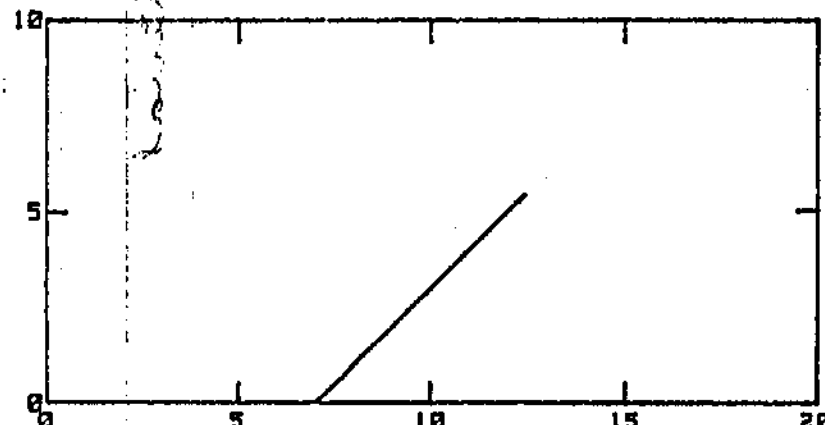
DEVIATOR STRESS (PSI)



PERCENT STRAIN

PORE PRESSURE (PSI)

Q (PSI)



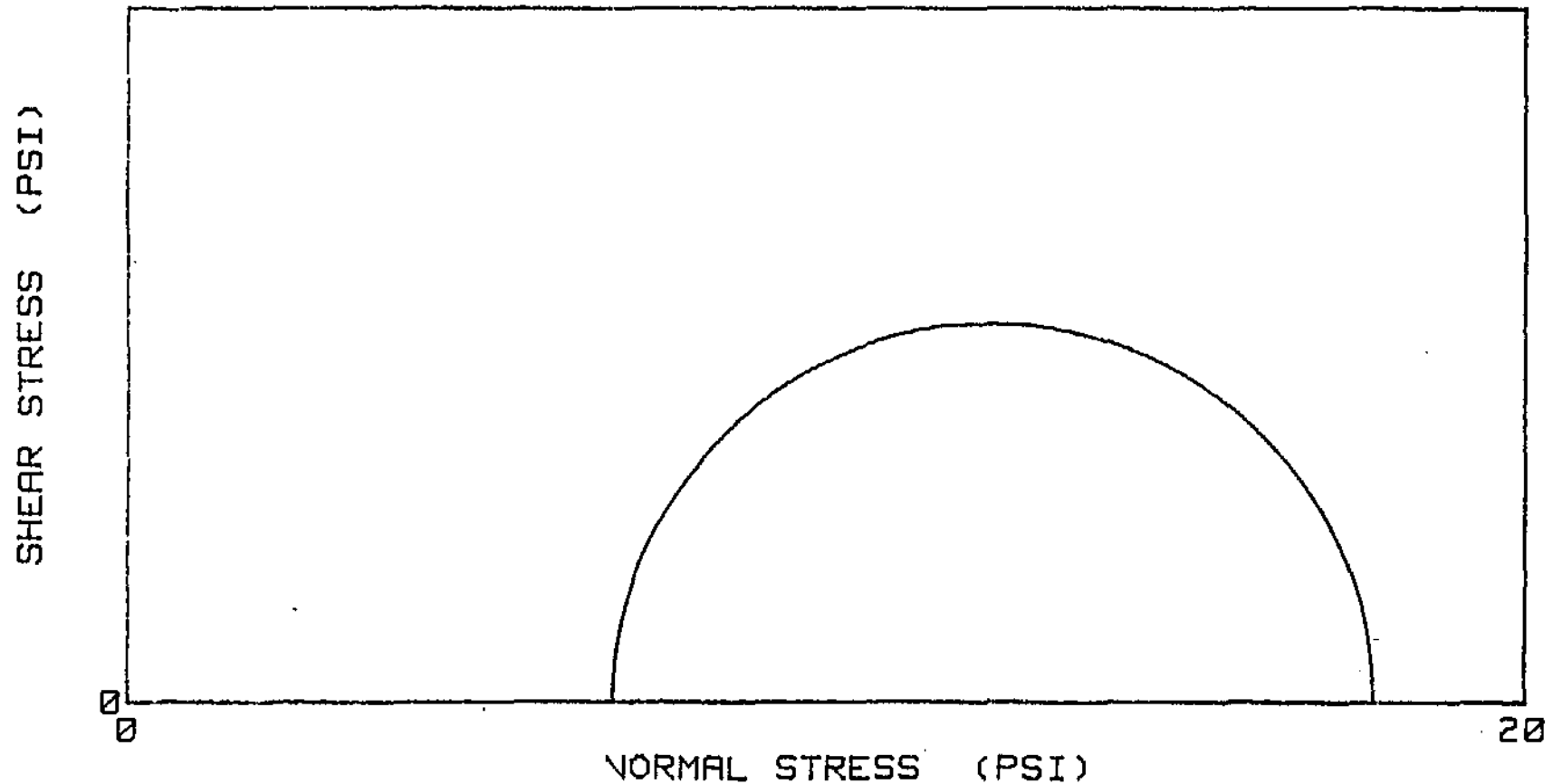
P, P' (PSI)

PROJECT : LIBERTY  
 CLIENT : DUANE MILLER  
 NO # A27711  
 BORING # D-18 DEPTH : 5 FEET  
 SAMPLE #  
 INITIAL DRY DENSITY: 73.5 pcf  
 TOTAL CONFINING PRESSURE : 7.8 psi  
 LABORATORY # T98023  
 DATE: 15 May 1998 02:42:33

PROJECT : LIBERTY  
CLIENT : DUANE MILLER  
W.O. # A27711  
BORING # D-18  
SAMPLE #  
DEPTH: 5 FEET

LAB # T98023;  $\sigma'_v = 7.0$  psi;  $\gamma_s = 73.5$  pcf

DATE : 15 May 1996 02:42:33



ALASKA TESTLAB

*Mohr Diagram - UU Tests*

WD # A27711  
FIGURE



## **APPENDIX D - Consolidation Data**

PROJECT : LIBERTY

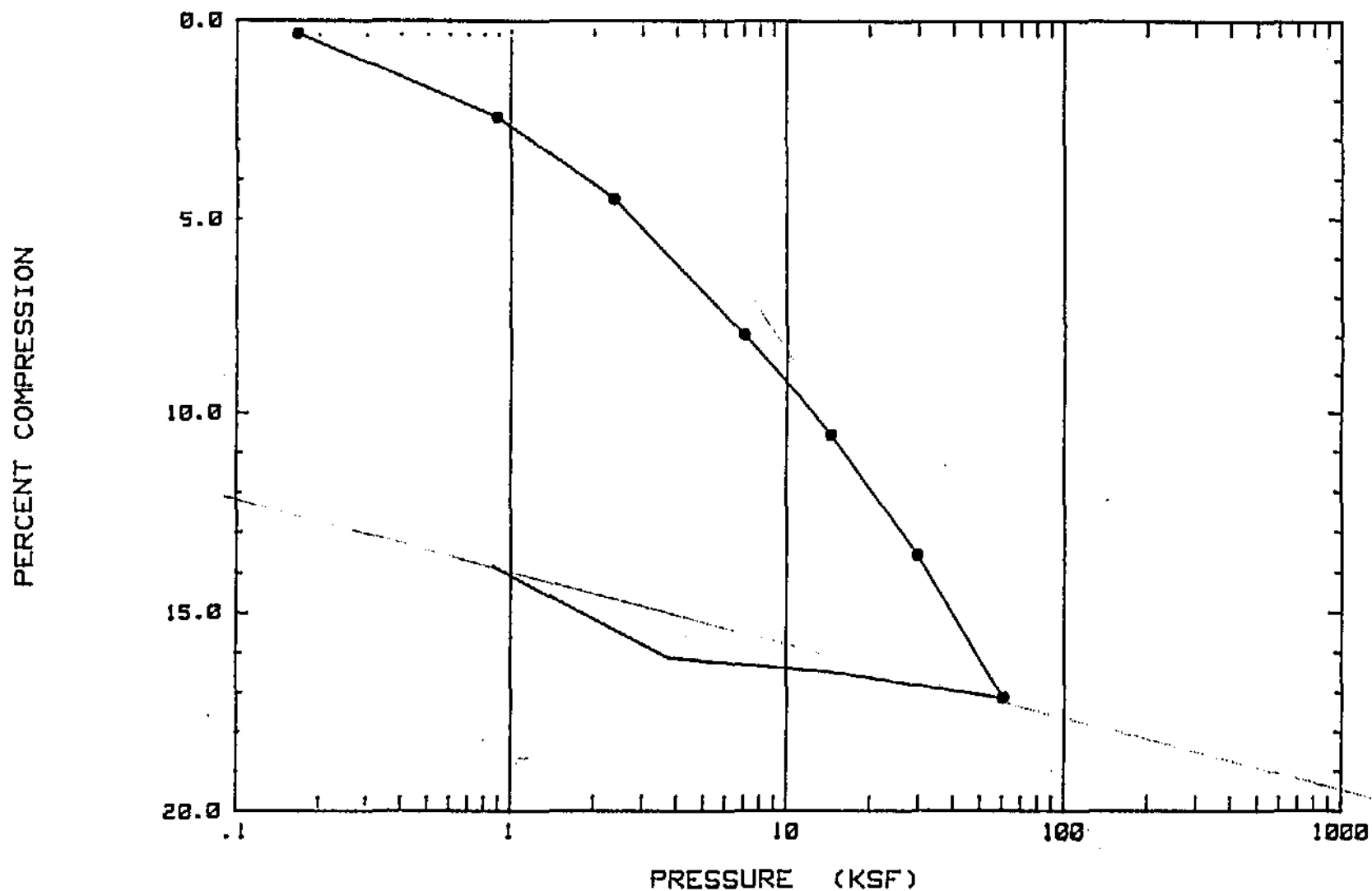
BORING : D-1

SAMPLE :

CLIENT : DUANE MILLER

DEPTH: 0.5 FEET

LABORATORY : C98005



ALASKA TESTLAB

*Compression Curve (%Comp. vs. Log P)*

WD # A27711

FIGURE

PROJECT : LIBERTY

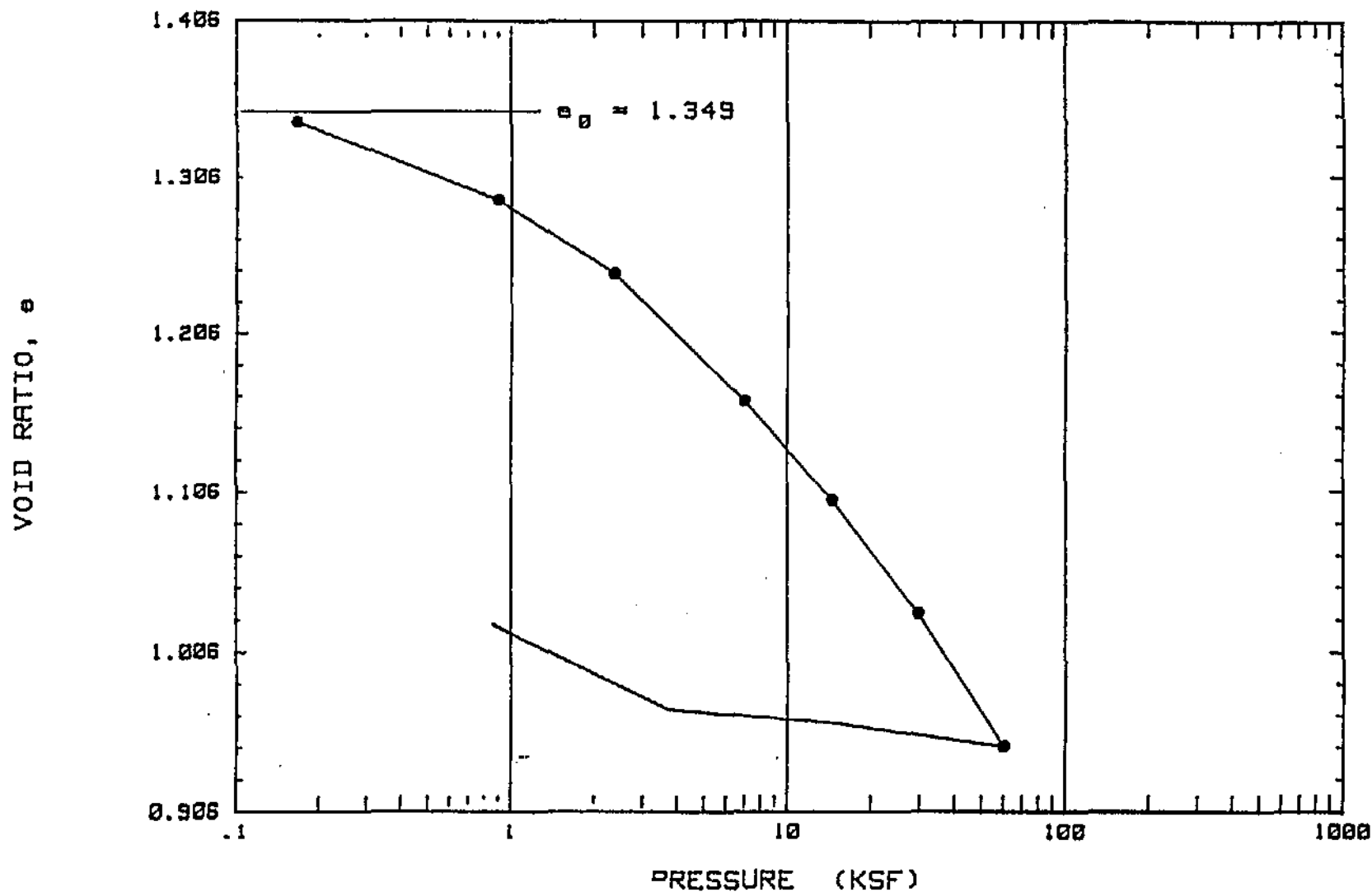
BORING # D-1

SAMPLE #

CLIENT : DUANE MILLER

DEPTH: 0.5 FEET

LABORATORY # C98005

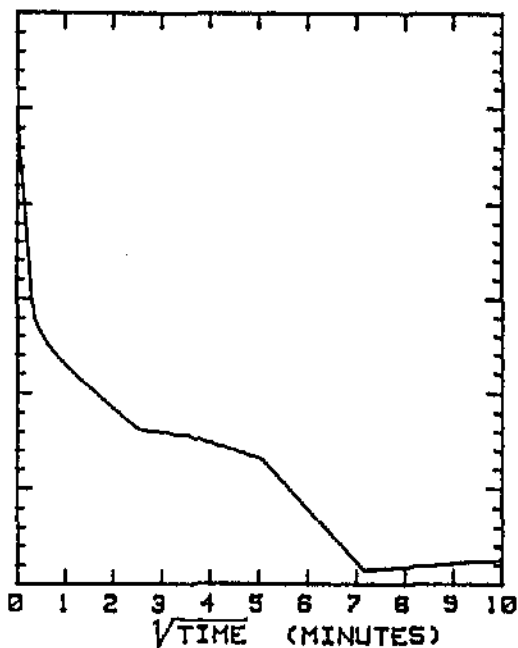
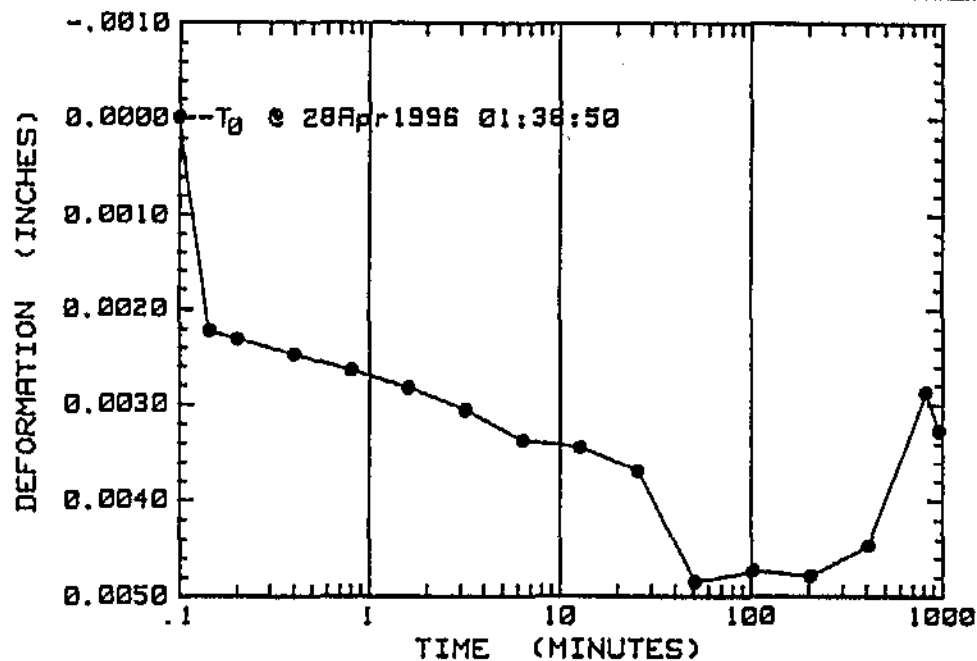


ALASKA TESTLAB

*Compression Curve (e vs. Log P)*

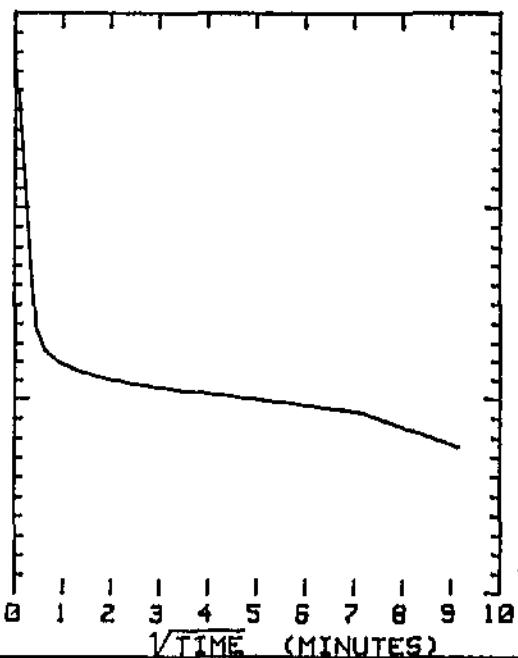
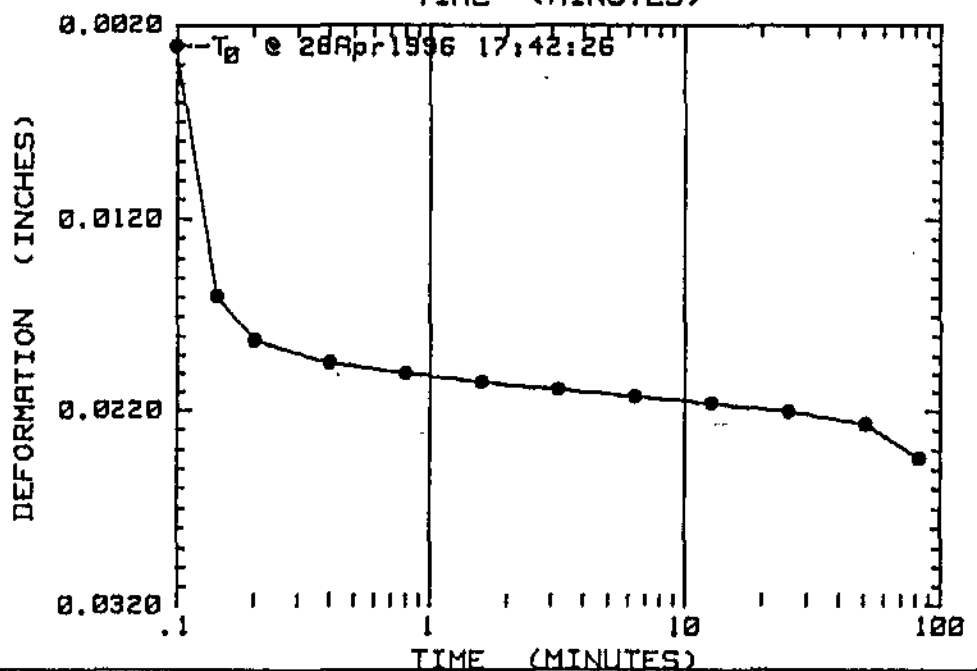
WO # A27711

FIGURE



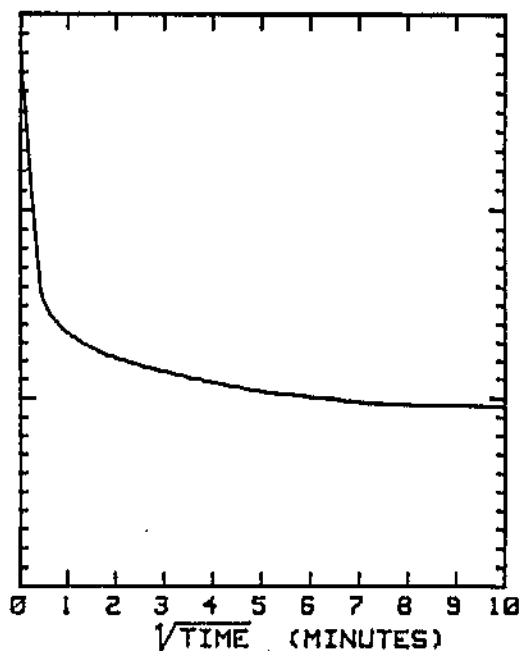
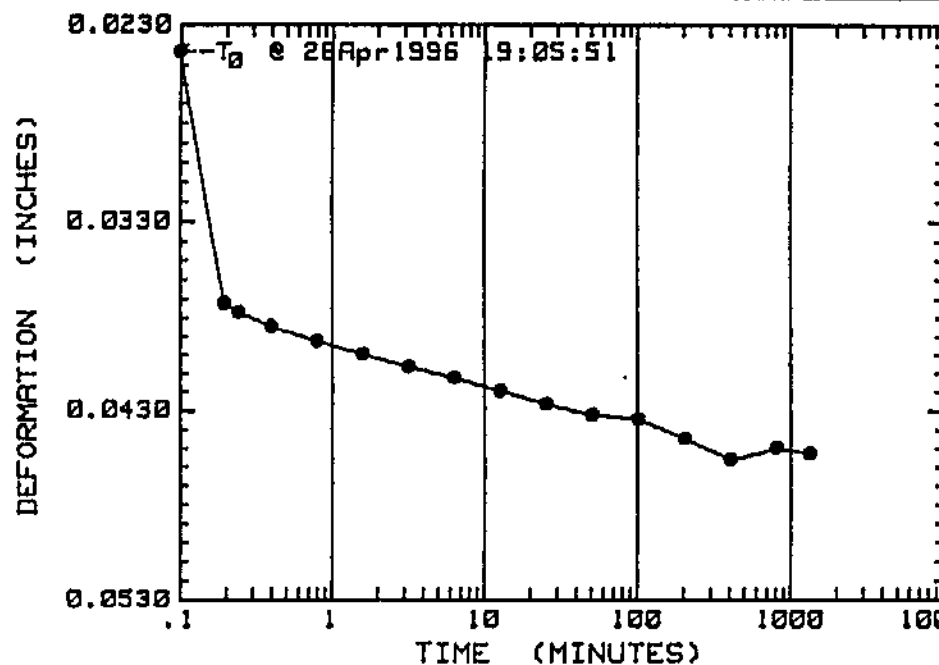
NO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 0  
DEPTH 10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0000"  
FROM EACH READING)

PRESSURE: 167 PSF



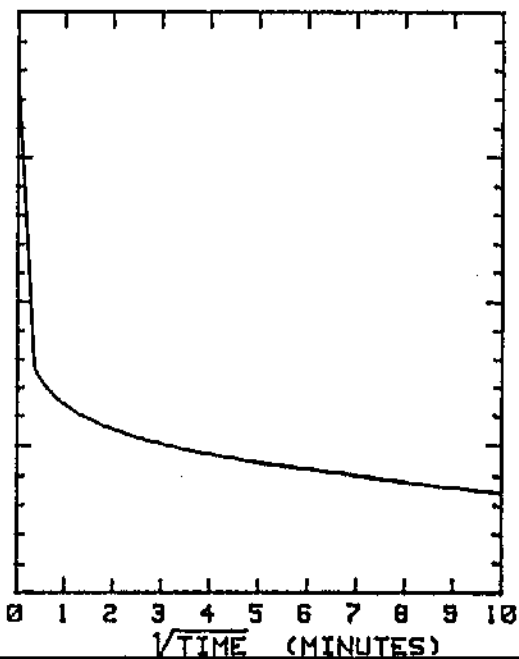
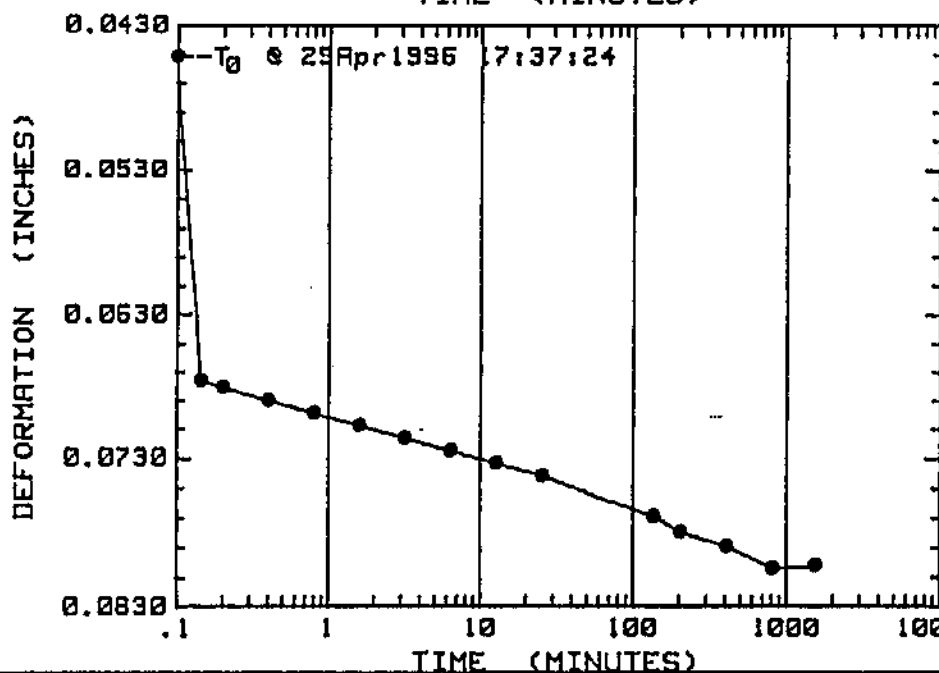
NO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 0  
DEPTH 10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0004"  
FROM EACH READING)

PRESSURE: 893 PSF



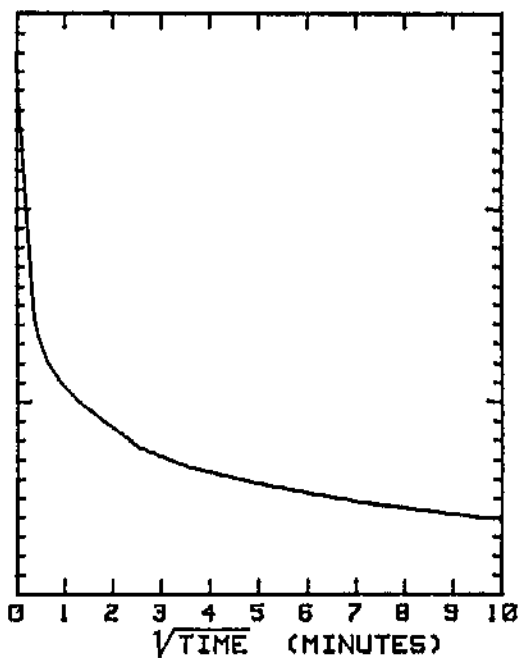
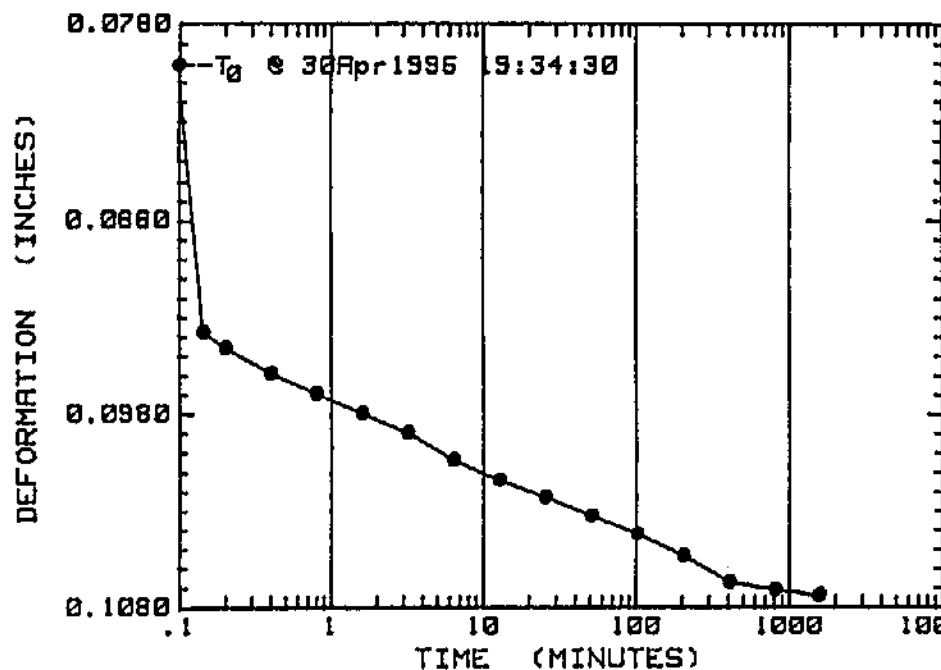
NO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH : 0.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0005"  
FROM EACH READING)

PRESSURE: 2360 PSF

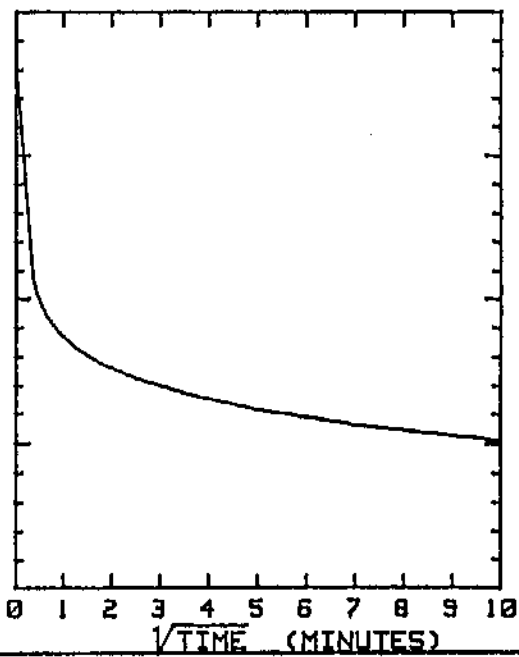
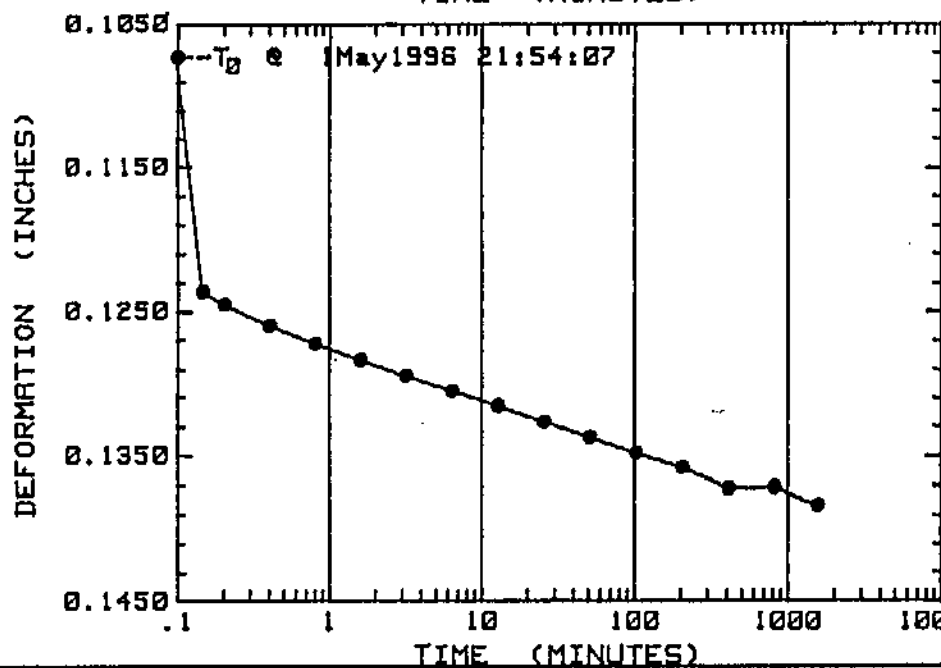


NO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH : 0.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0018"  
FROM EACH READING)

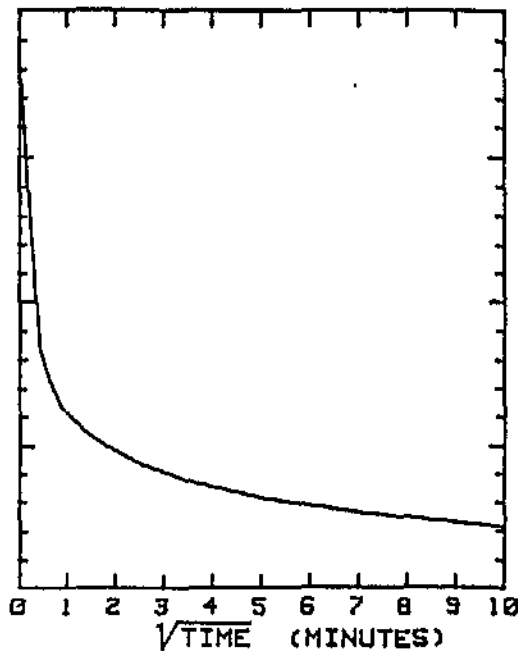
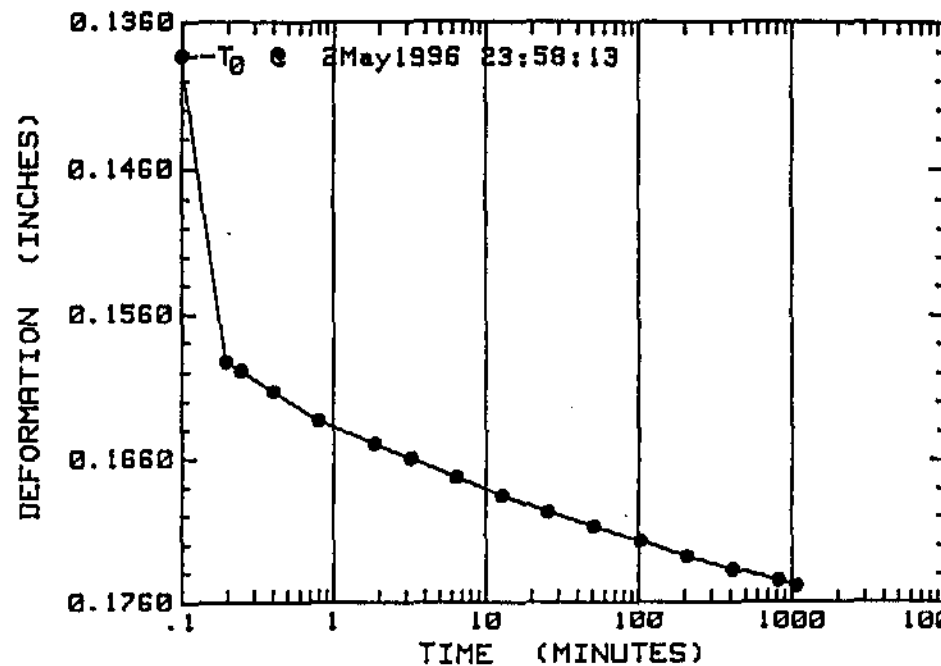
PRESSURE: 7000 PSF



WO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH 10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0027"  
FROM EACH READING)  
PRESSURE: 14500 PSF

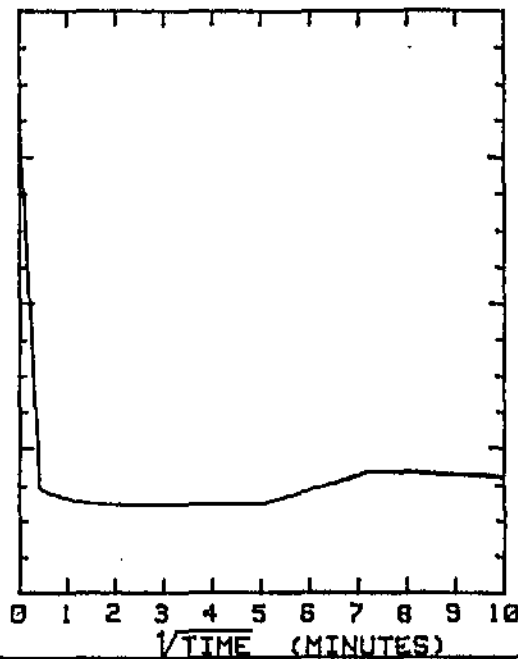
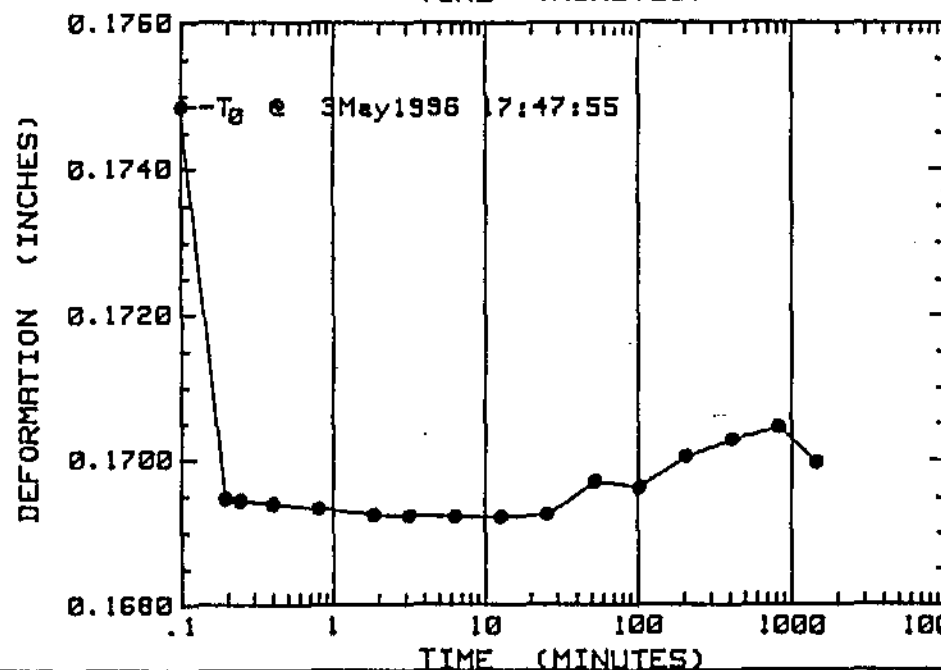


WO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH 10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0037"  
FROM EACH READING)  
PRESSURE: 29700 PSF



WO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH 10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0053"  
FROM EACH READING)

PRESSURE: 60100 PSF



WO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH 10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0032"  
FROM EACH READING)

PRESSURE: 14400 PSF

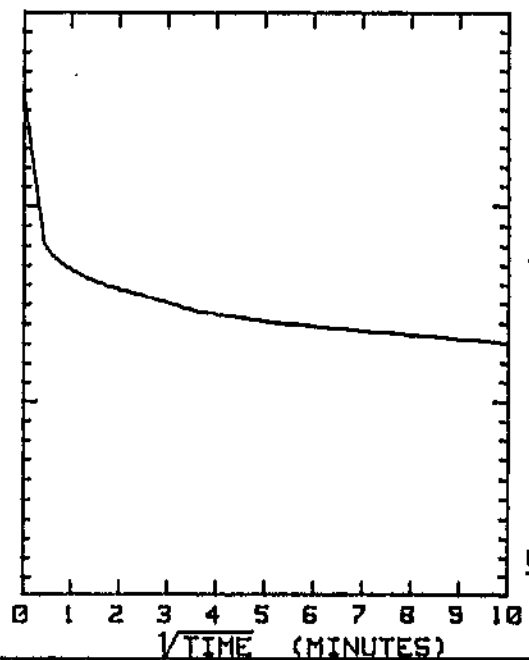
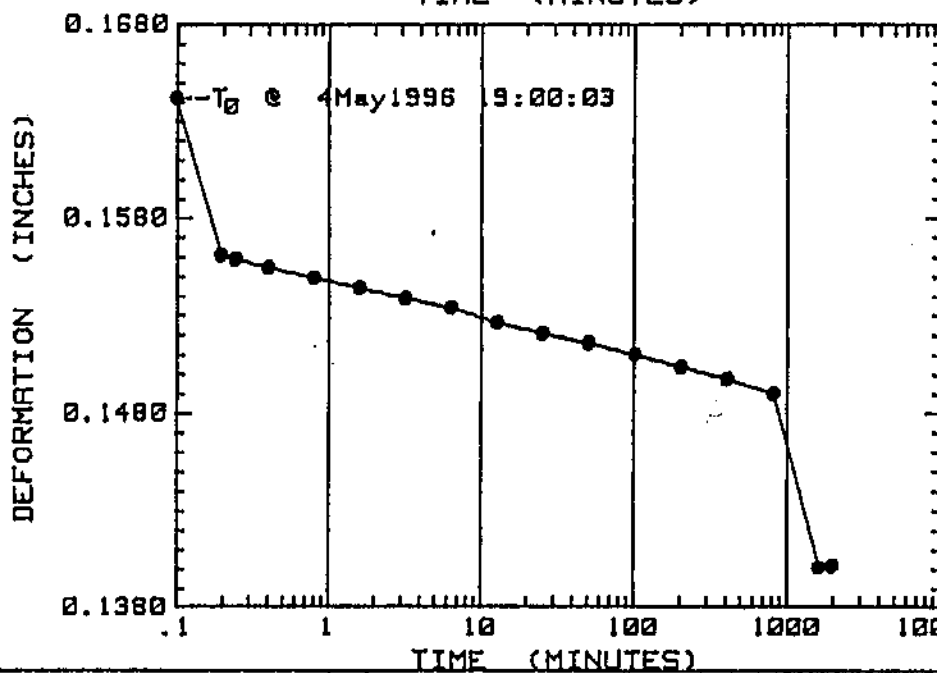
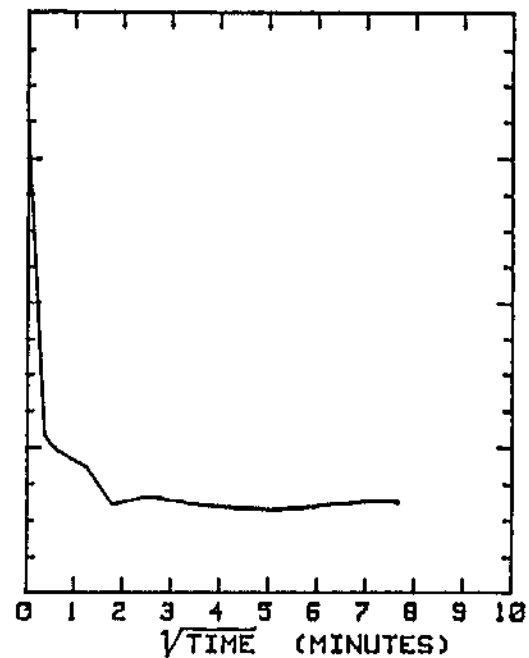
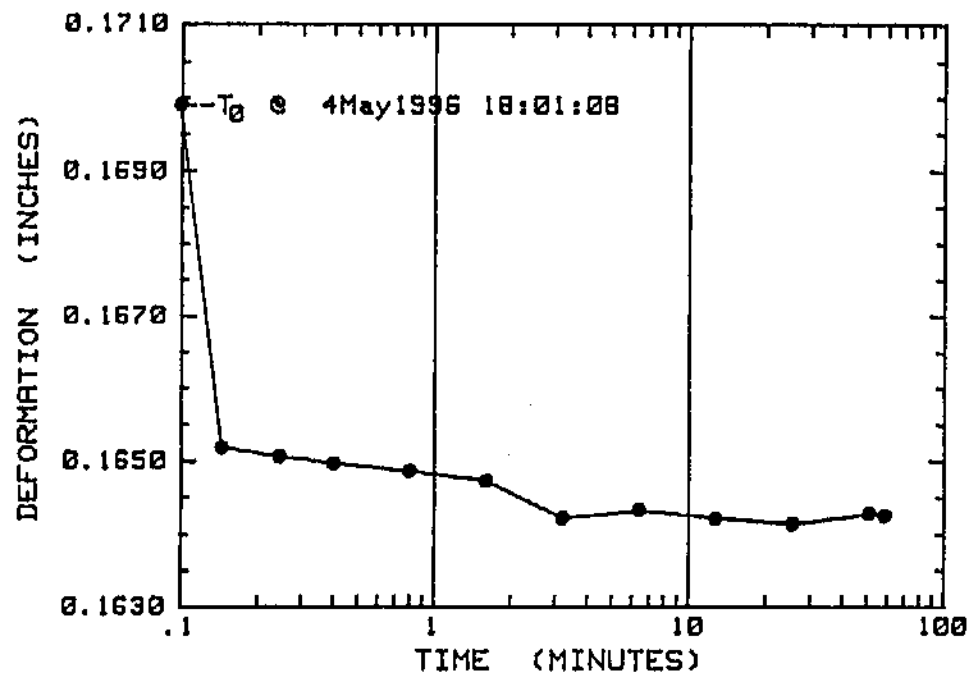


ALASKA TESTLAB

Time Rate of Consolidation

WO # A27711

FIGURE



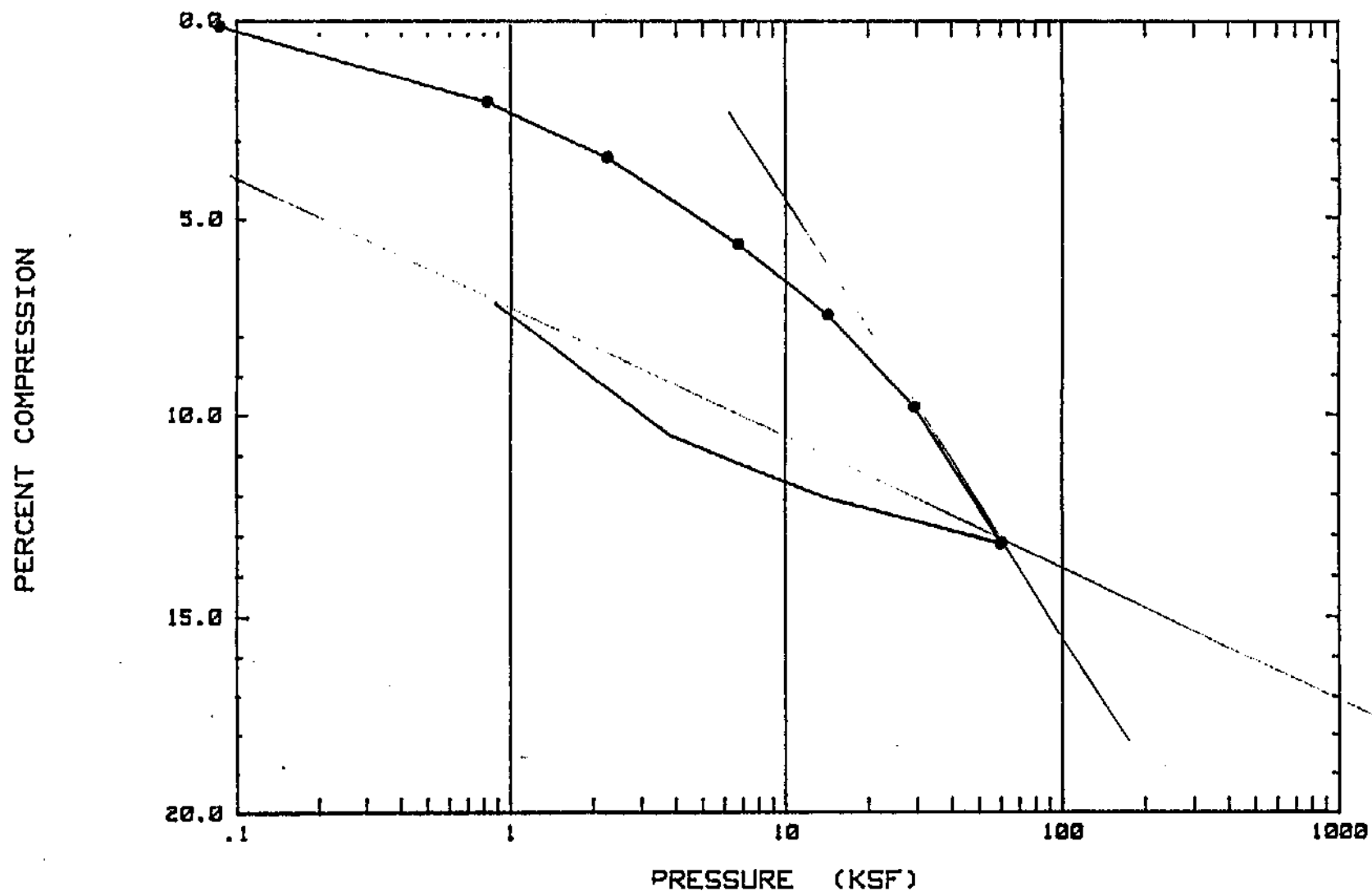
PROJECT : LIBERTY

CLIENT : DAUNE MILLER

BORING # D-1

SAMPLE # TOP THIRD DEPT 5.5 FEET

LABORATORY # C98006



ALASKA TESTLAB

Compression Curve (%Comp. vs. Log P)

WO # A27711

FIGURE

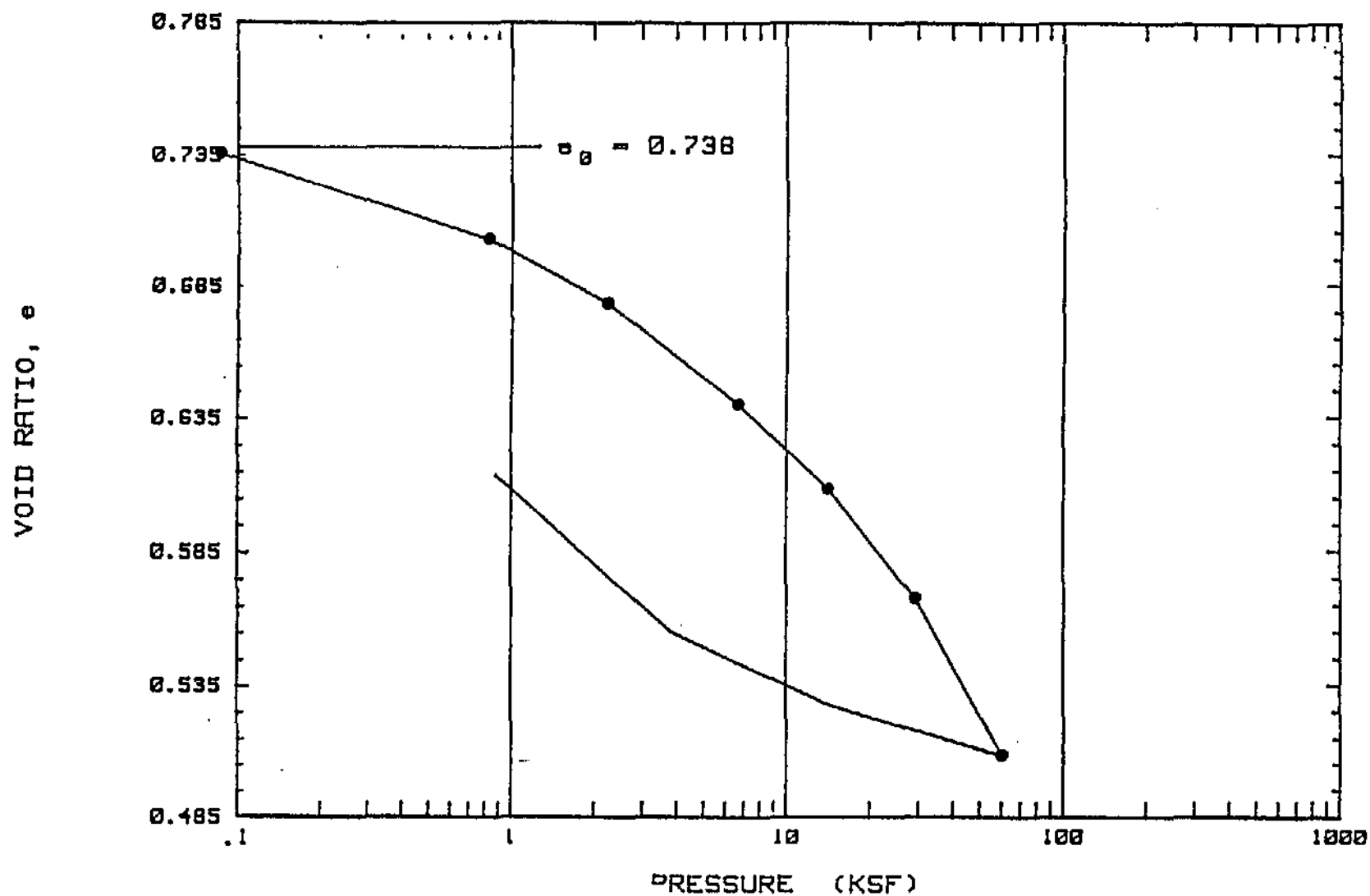
PROJECT : LIBERTY

CLIENT : DAUNE MILLER

BORING # D-1

SAMPLE # TOP THIRD DEPT 5.5 FEET

LABORATORY # C98006

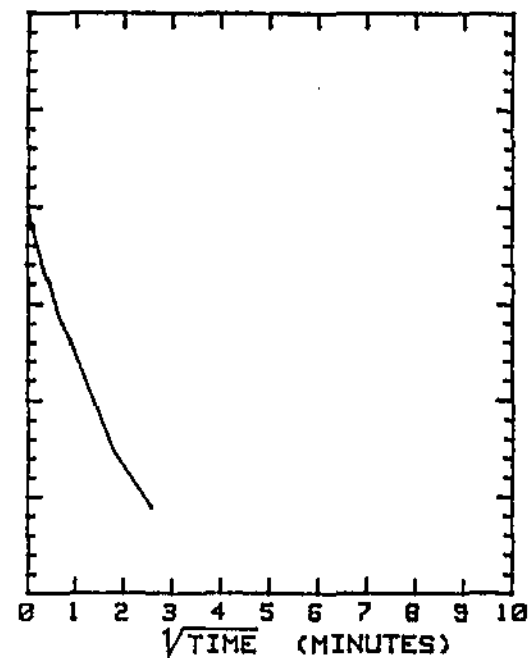
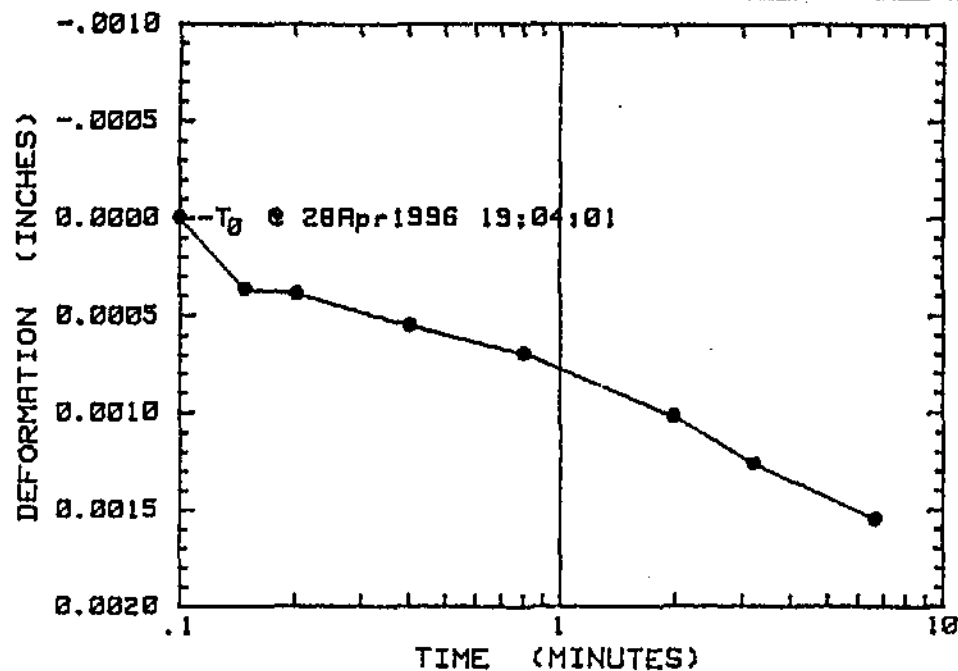


ALASKA TESTLAB

*Compression Curve ( $e$  vs.  $\log P$ )*

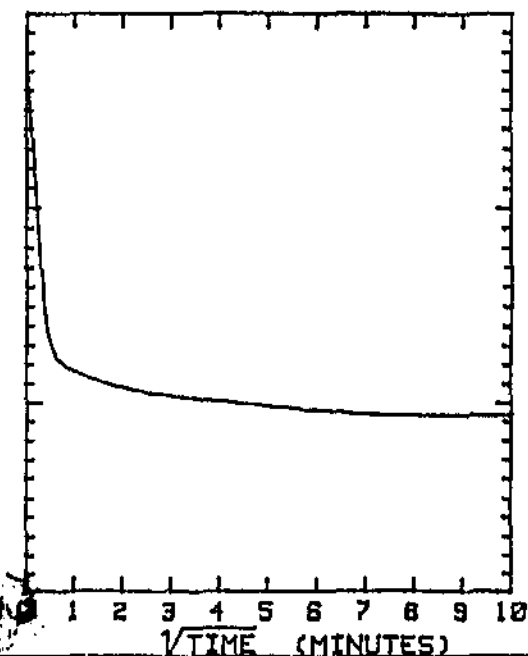
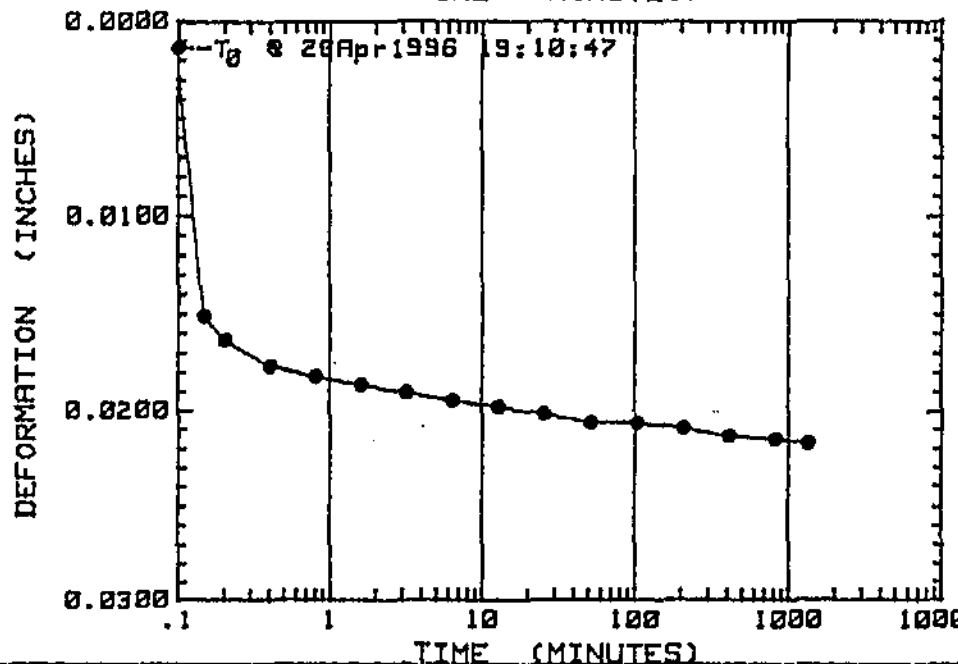
WO # A27711

FIGURE



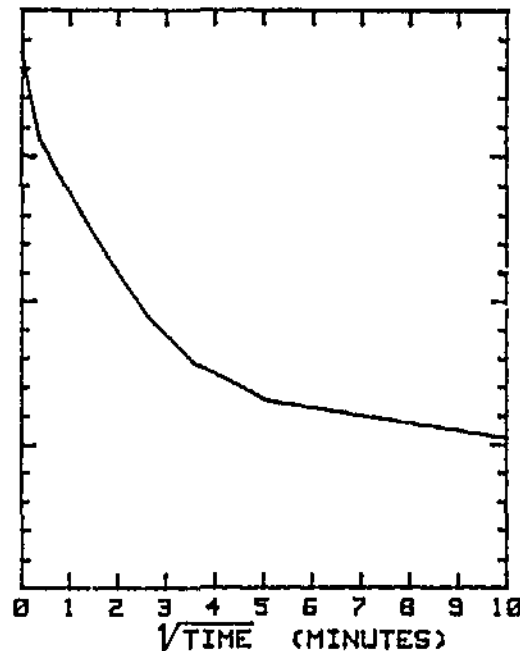
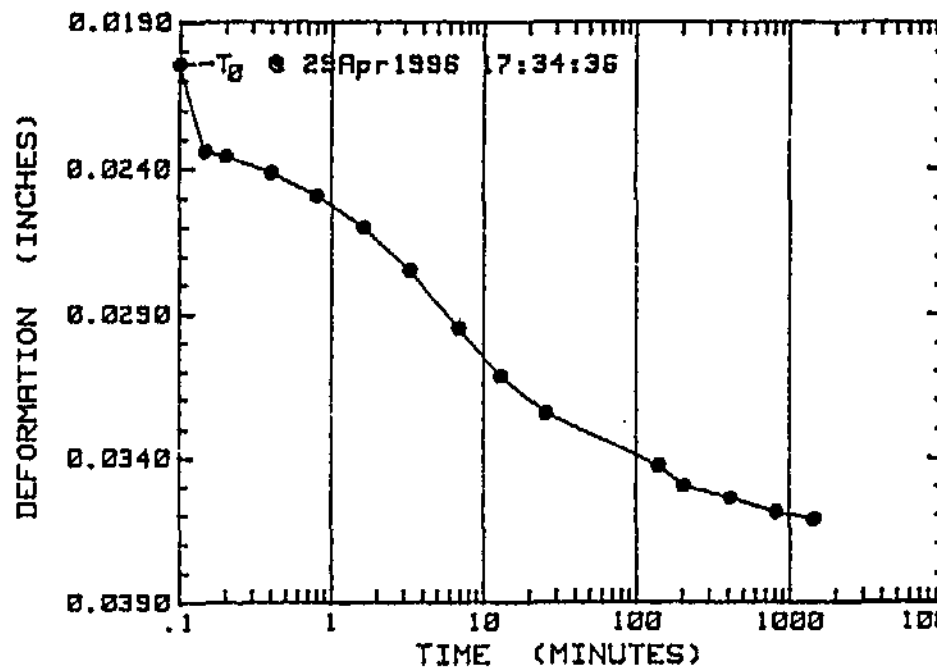
NO #A27711  
 BORING #D-1  
 SAMPLE #TOP THIRD OF TUBE  
 PART # 8  
 DEPTH :5.5 FEET  
 (SUBTRACT A CORRECTION  
 OF 0.0000"  
 FROM EACH READING)

PRESSURE: 86.8 PSF



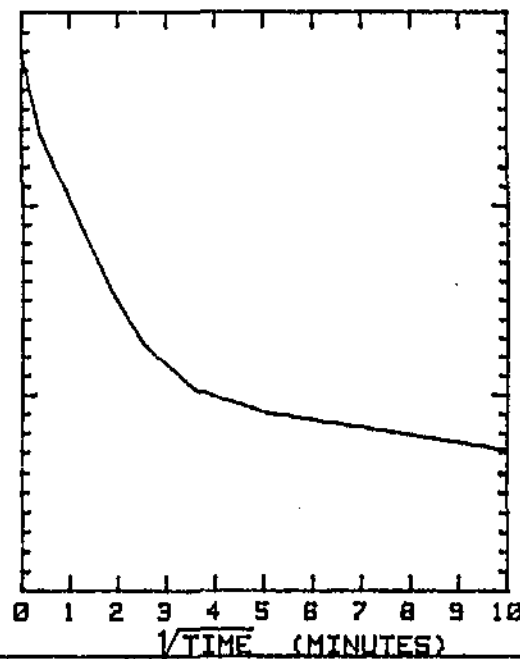
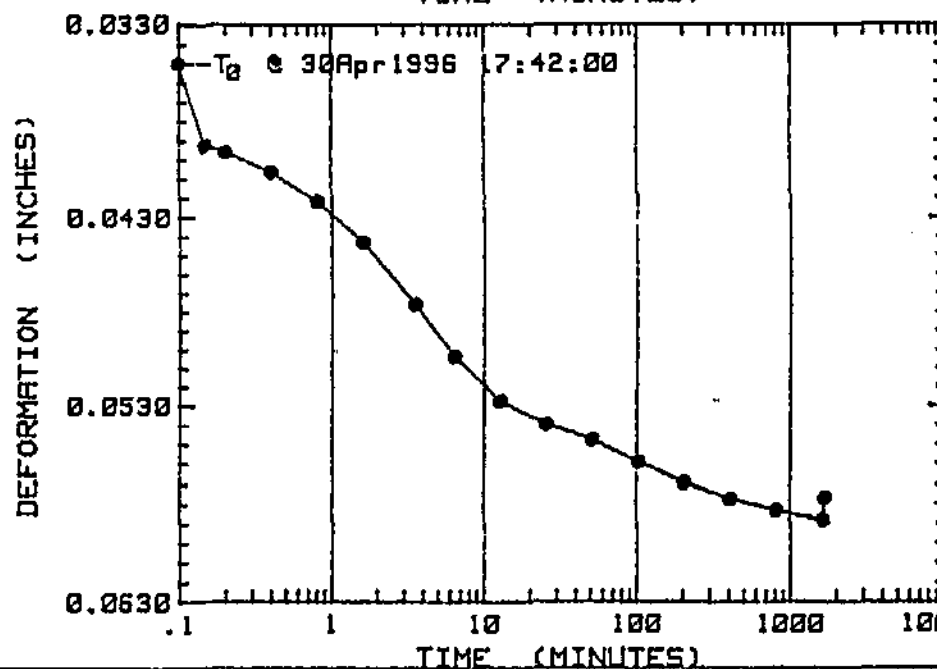
NO #A27711  
 BORING #D-1  
 SAMPLE #TOP THIRD OF TUBE  
 PART # 8  
 DEPTH :5.5 FEET  
 (SUBTRACT A CORRECTION  
 OF 0.0000"  
 FROM EACH READING)

PRESSURE: 82.1 PSF



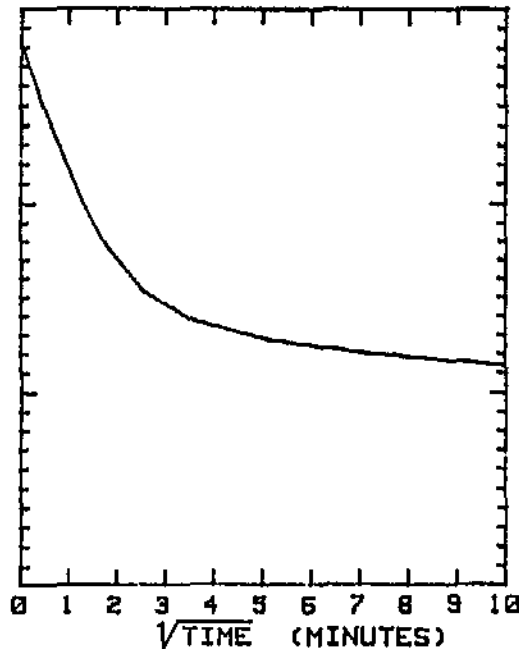
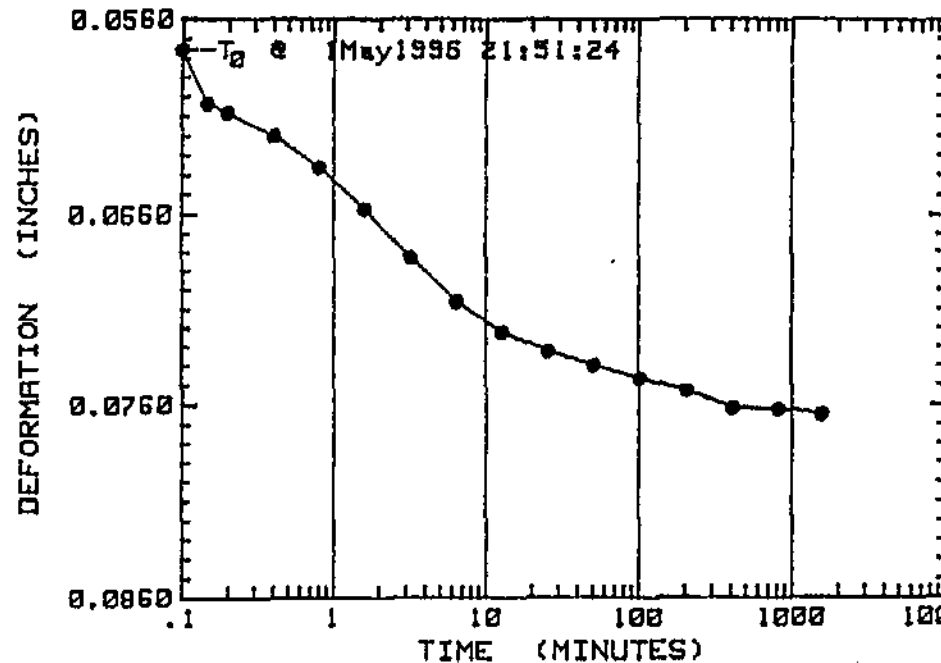
NO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF TUBE  
PART # 0  
DEPTH 15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0005"  
FROM EACH READING)

PRESSURE: 2240 PSF



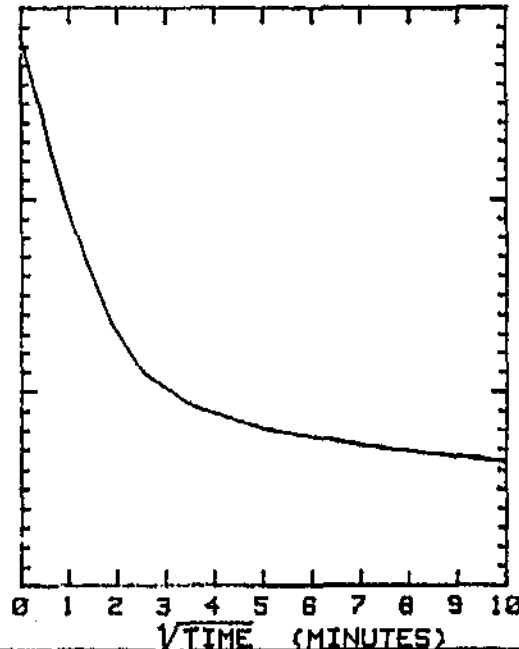
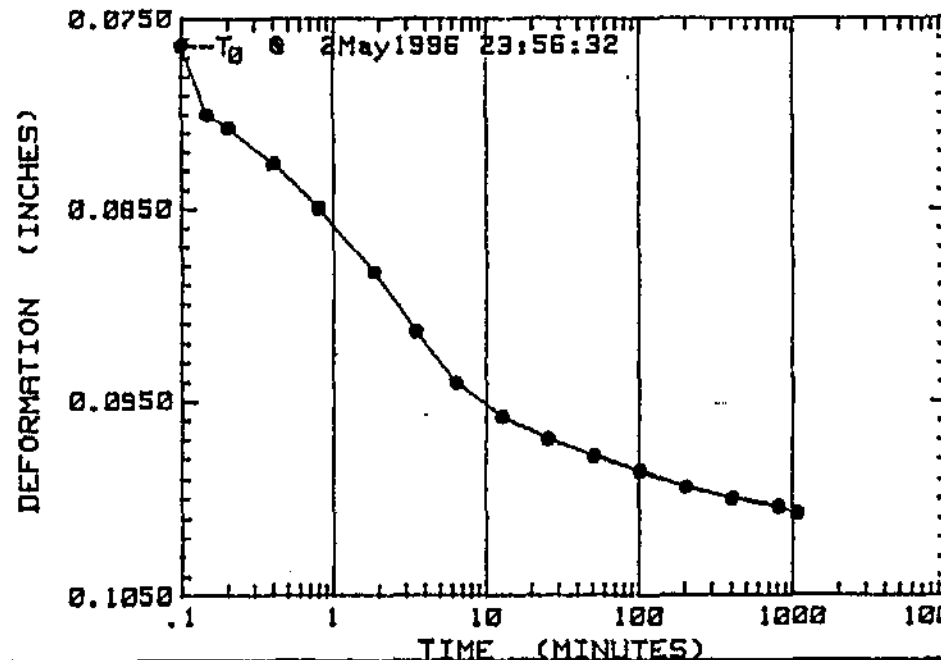
NO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF TUBE  
PART # 0  
DEPTH 15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0015"  
FROM EACH READING)

PRESSURE: 6690 PSF



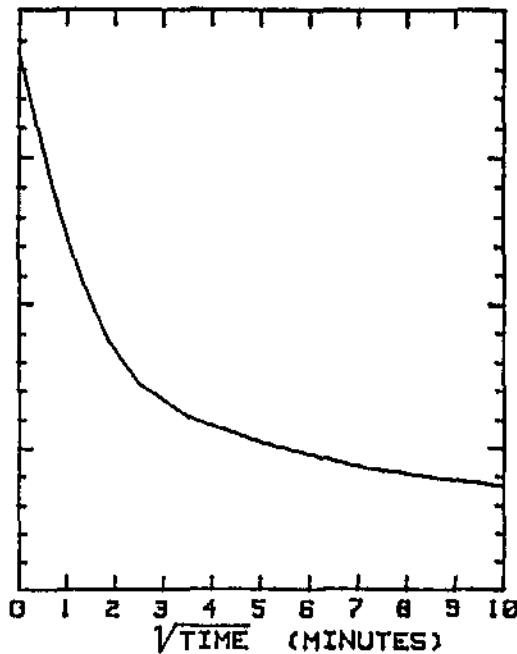
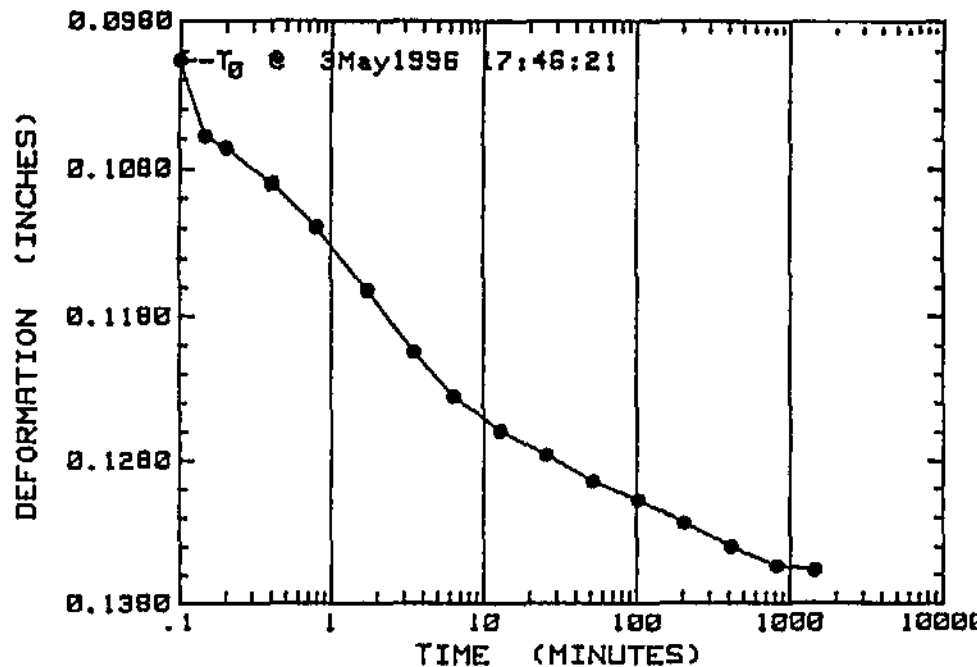
NO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF TUBE  
PART # 8  
DEPTH 15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0023"  
FROM EACH READING)

PRESSURE: 14200 PSF

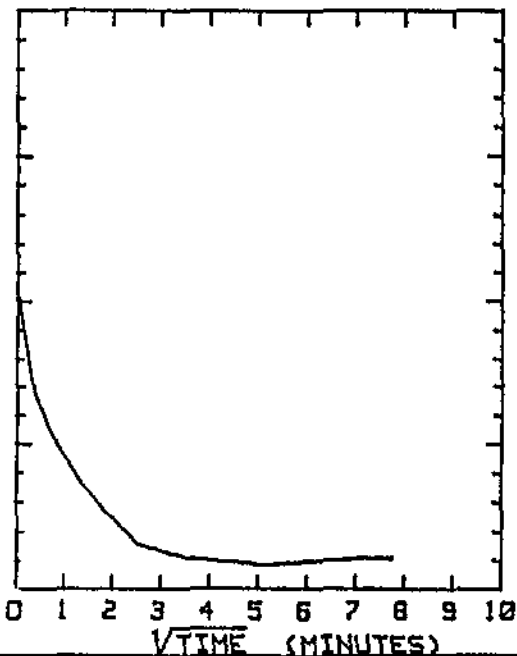
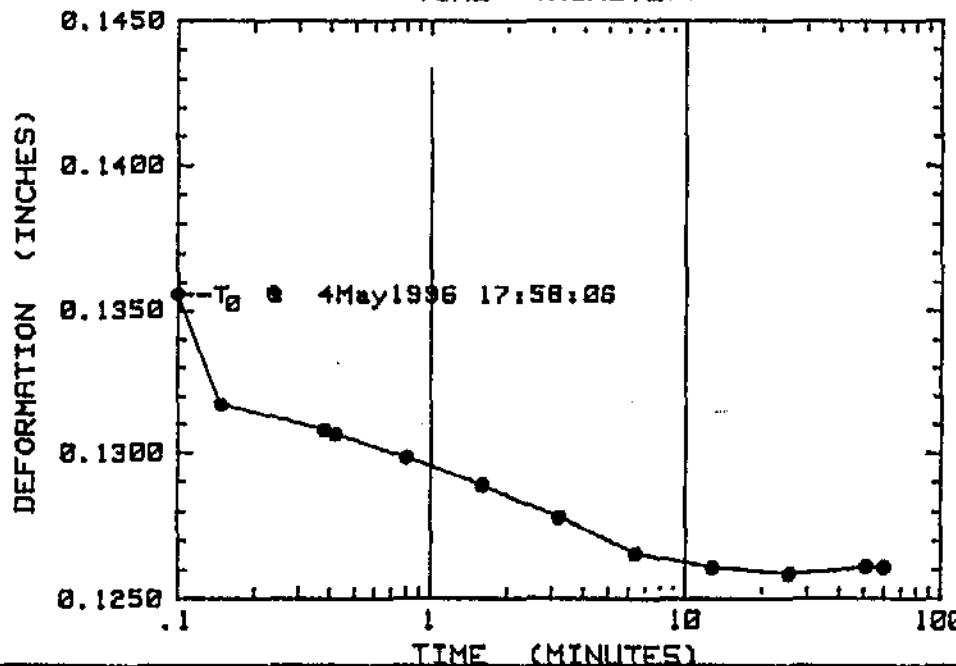


NO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF TUBE  
PART # 8  
DEPTH 15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0031"  
FROM EACH READING)

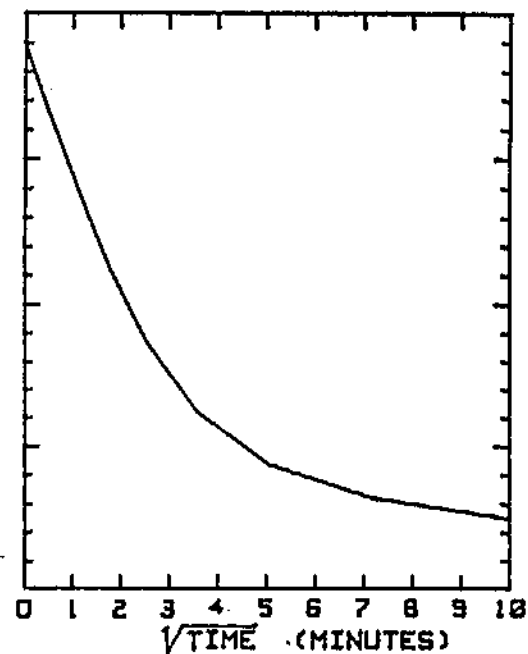
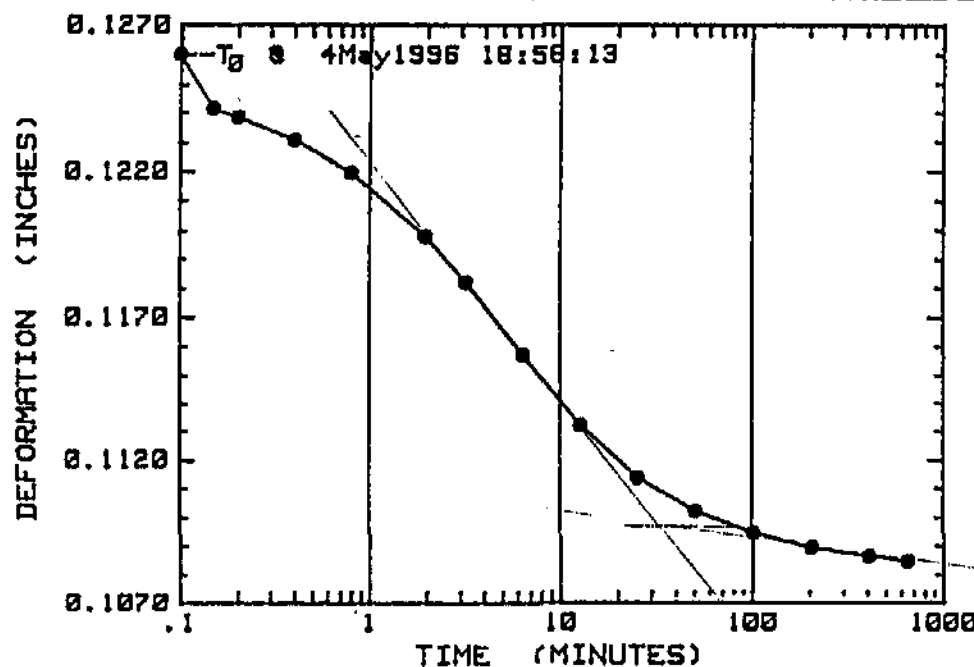
PRESSURE: 29300 PSF



NO A27711  
BORING D-1  
SAMPLE TOP THIRD OF TUBE  
PART B  
DEPTH 15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0049"  
FROM EACH READING)  
PRESSURE: 50100 PSF

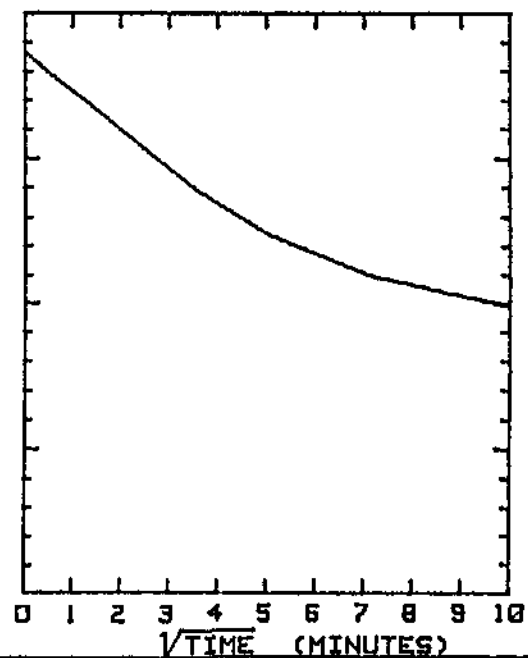
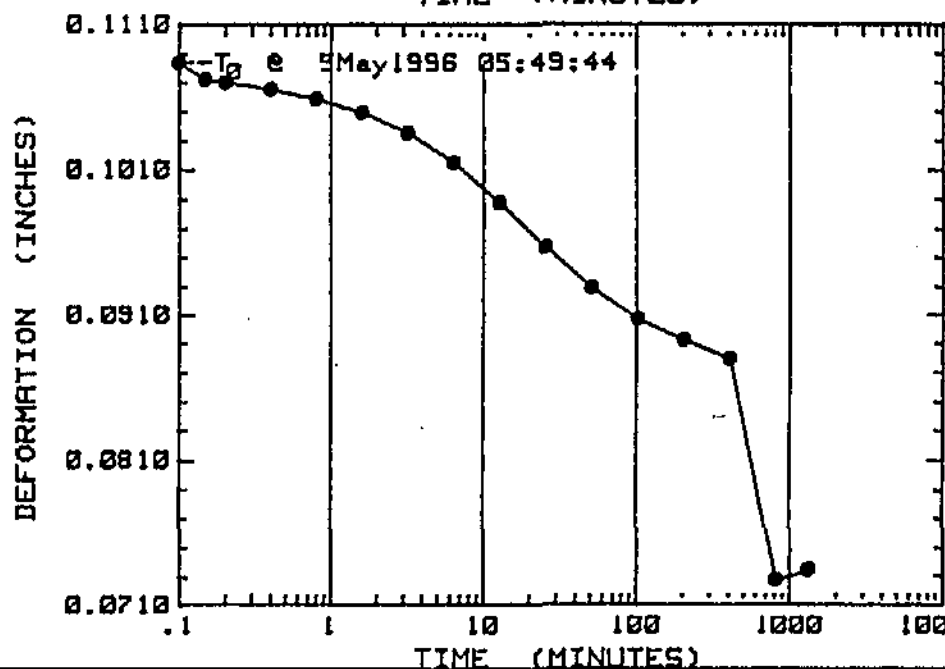


NO A27711  
BORING D-1  
SAMPLE TOP THIRD OF TUBE  
PART B  
DEPTH 15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0030"  
FROM EACH READING)  
PRESSURE: 14100 PSF



NO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF TUBE  
PART # 0  
DEPTH : 5.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0017"  
FROM EACH READING)

PRESSURE: 3798 PSF



NO #A27711  
BORING #D-1  
SAMPLE #TOP THIRD OF TUBE  
PART # 0  
DEPTH : 5.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0010"  
FROM EACH READING)

PRESSURE: 873 PSF

PROJECT : LIBERTY

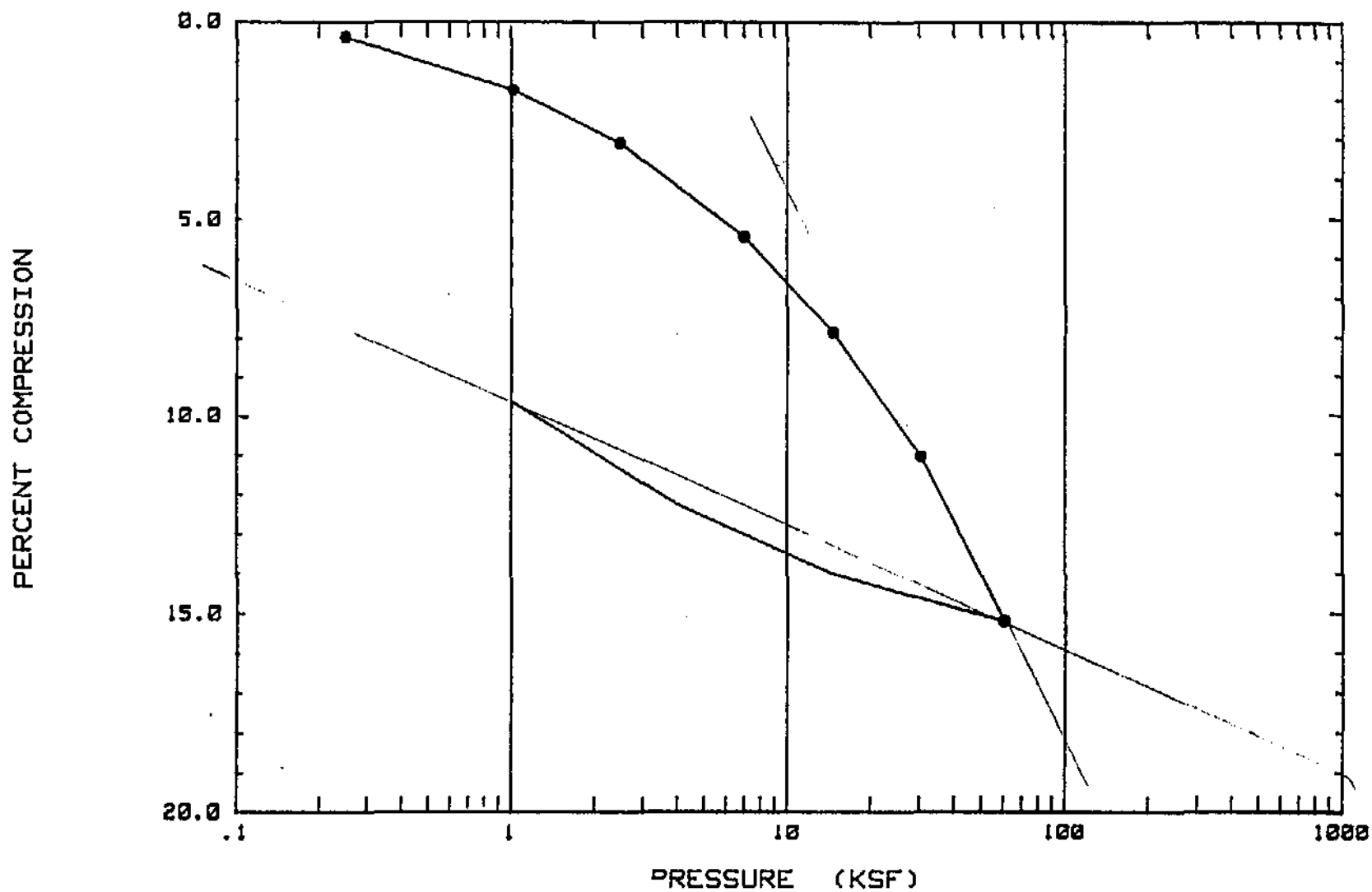
BORING : D-1

SAMPLE :

CLIENT : DUANE MILLER

DEPTH: 10.5 FEET

LABORATORY : C98012



ALASKA TESTLAB

*Compression Curve (%Comp. vs. Log P)*

WO # A27711

FIGURE

PROJECT : LIBERTY

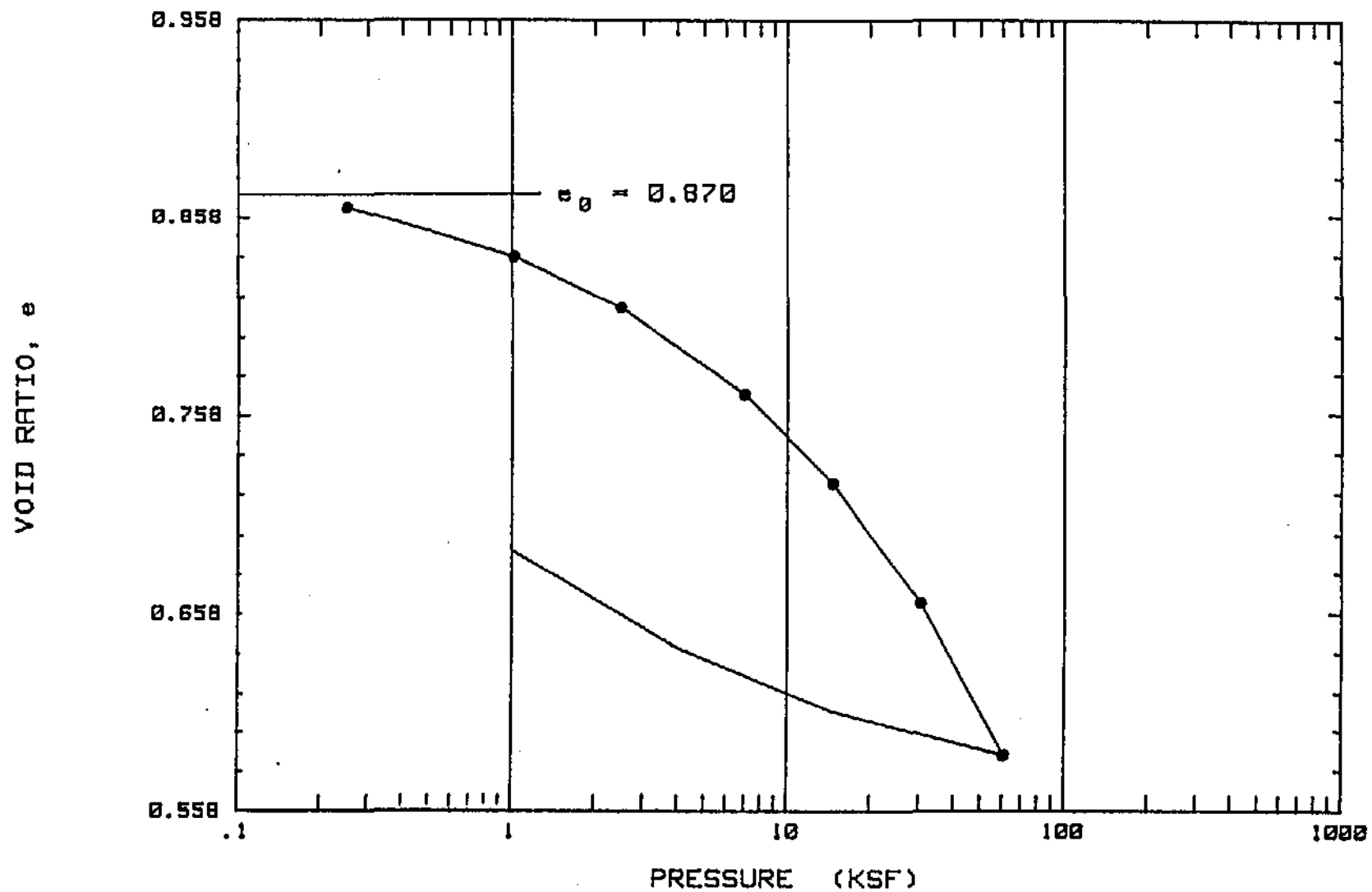
BORING : D-1

SAMPLE :

CLIENT : DUANE MILLER

DEPTH: 10.5 FEET

LABORATORY : C98012

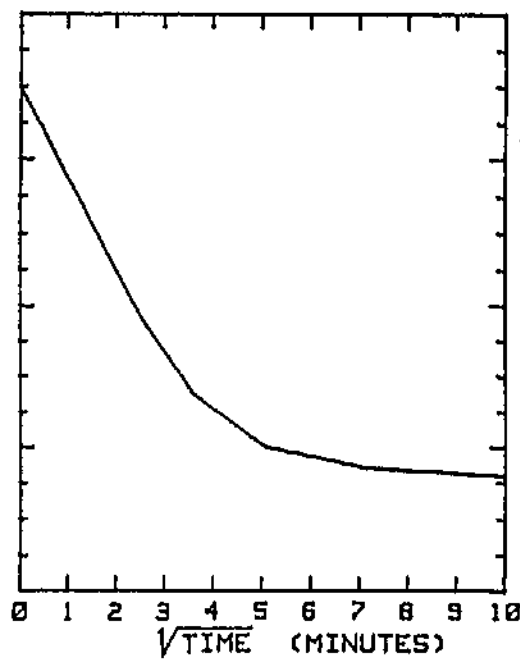
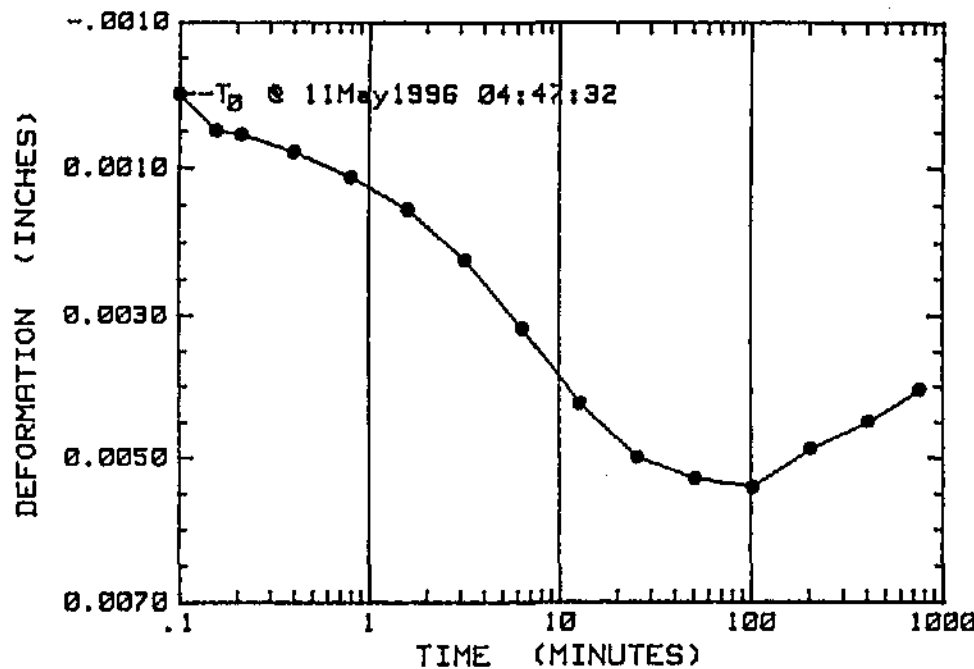


ALASKA TESTLAB

*Compression Curve (e vs. Log P)*

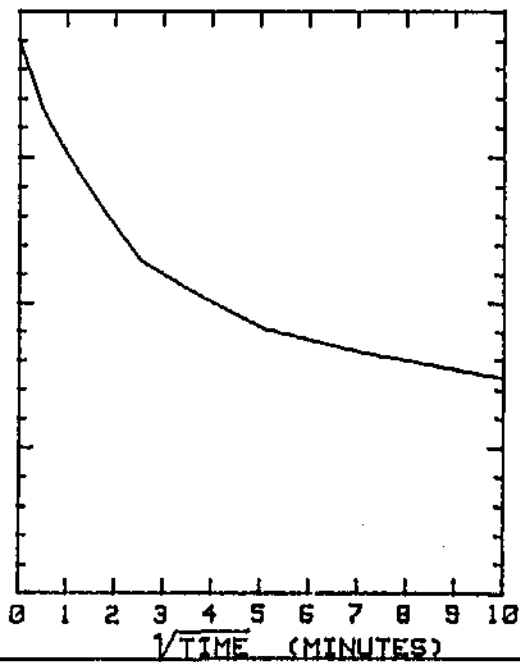
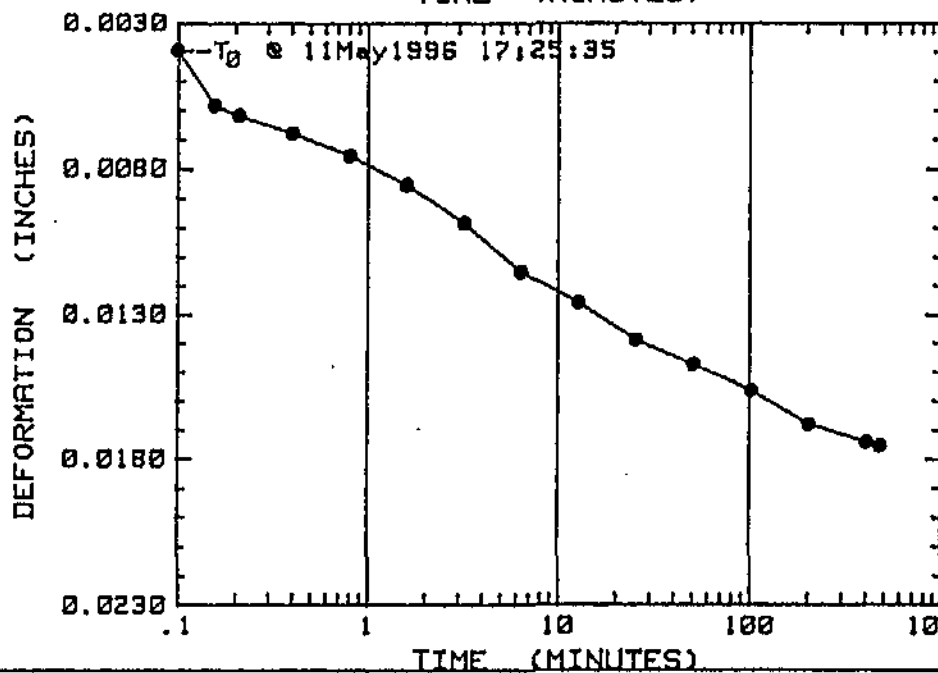
WD # A27711

FIGURE



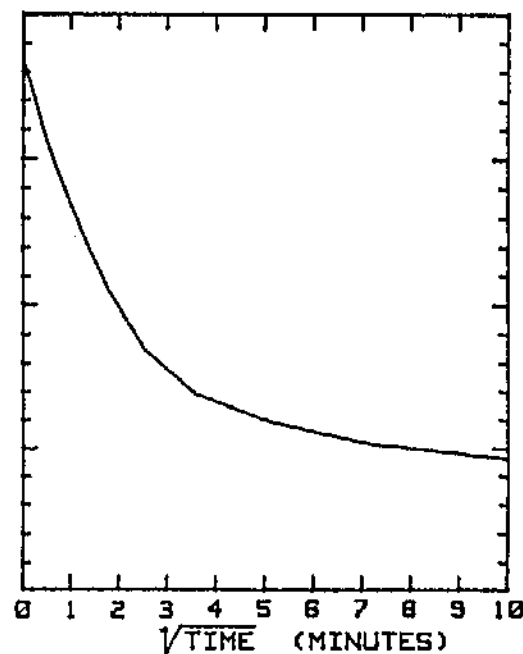
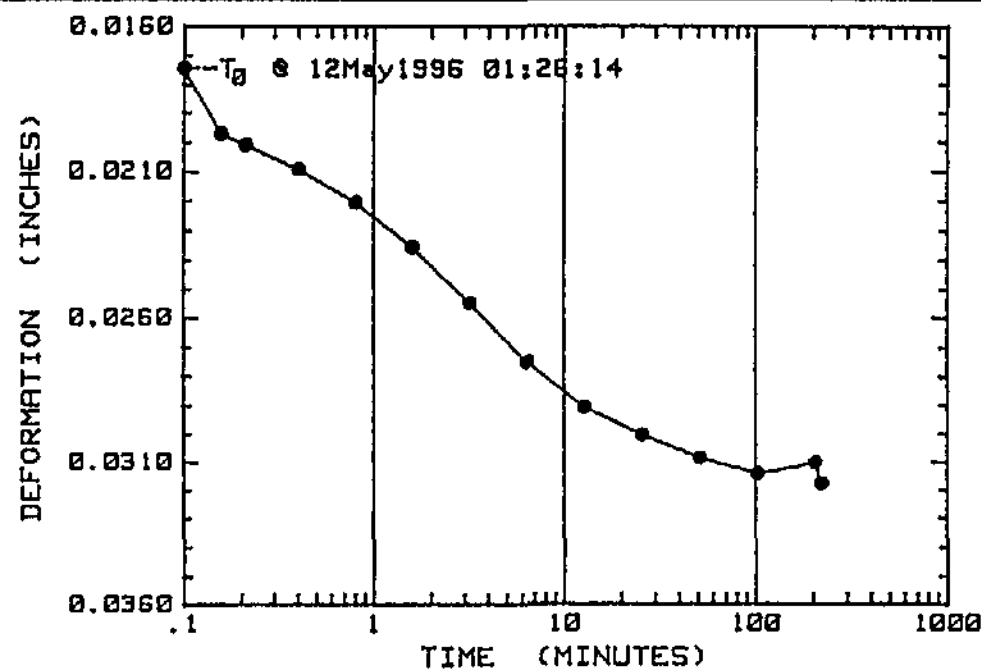
NO #A27711  
 BORING #D-1  
 SAMPLE #  
 PART # 0  
 DEPTH :10.5 FEET  
 (SUBTRACT A CORRECTION  
 OF 0.0000"  
 FROM EACH READING)

PRESSURE: 252 PSF



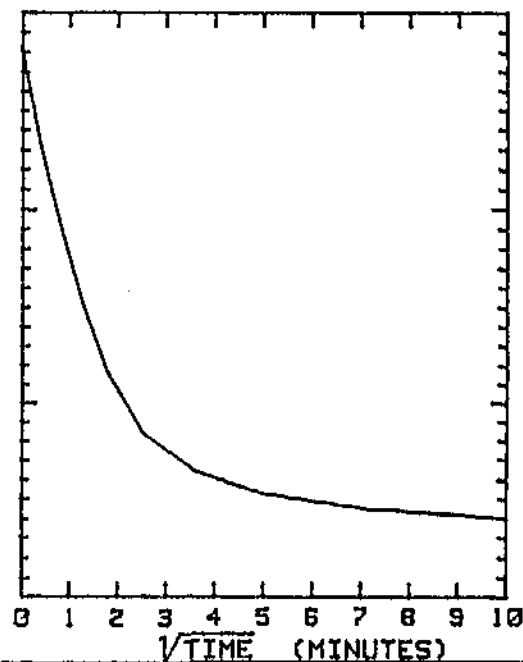
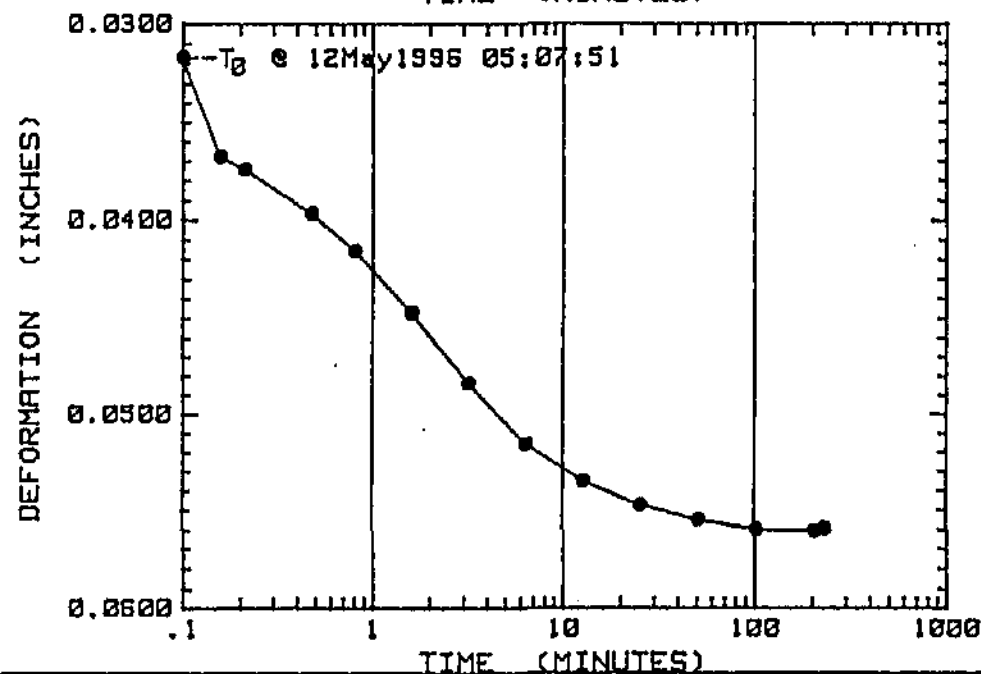
NO #A27711  
 BORING #D-1  
 SAMPLE #  
 PART # 0  
 DEPTH :10.5 FEET  
 (SUBTRACT A CORRECTION  
 OF 0.0005"  
 FROM EACH READING)

PRESSURE: 1020 PSF



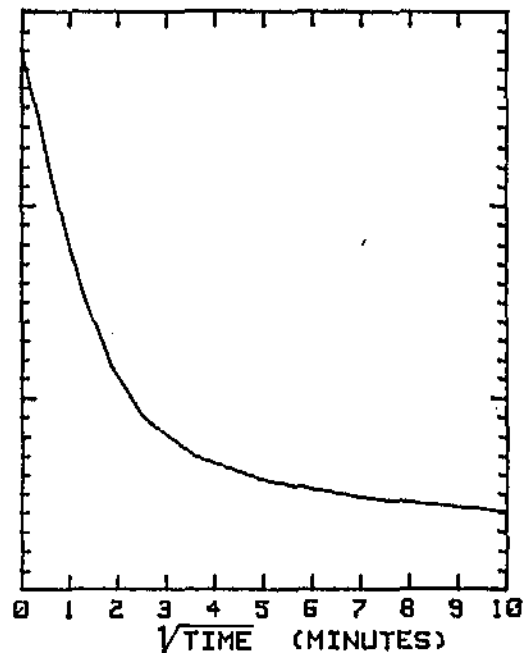
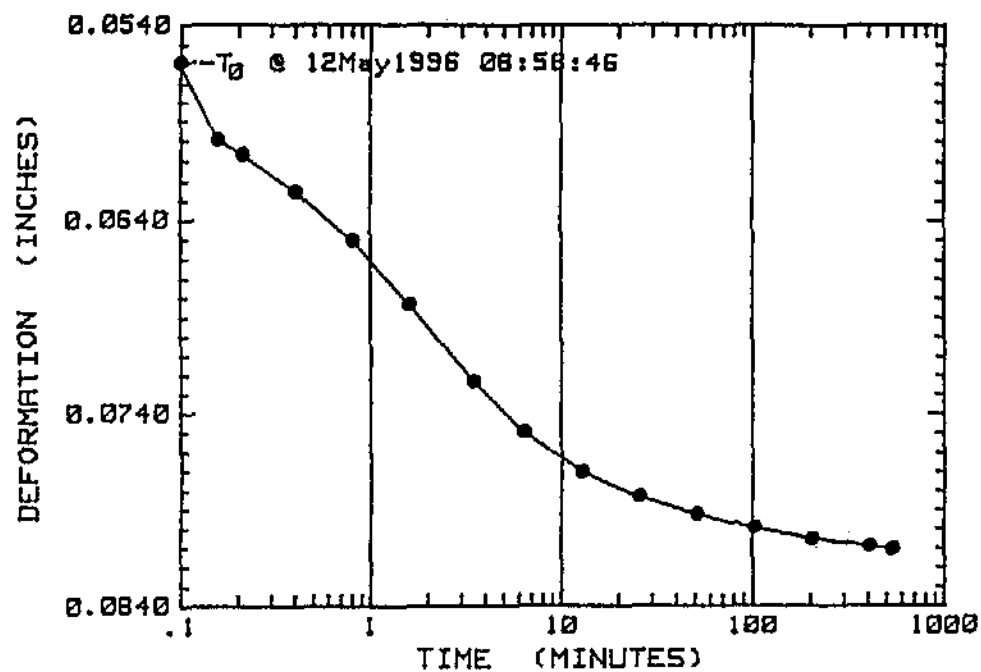
NO #A27711  
BORING #D-1  
SAMPLE #  
PART # 0  
DEPTH : 10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0009"  
FROM EACH READING)

PRESSURE: 2100 PSF



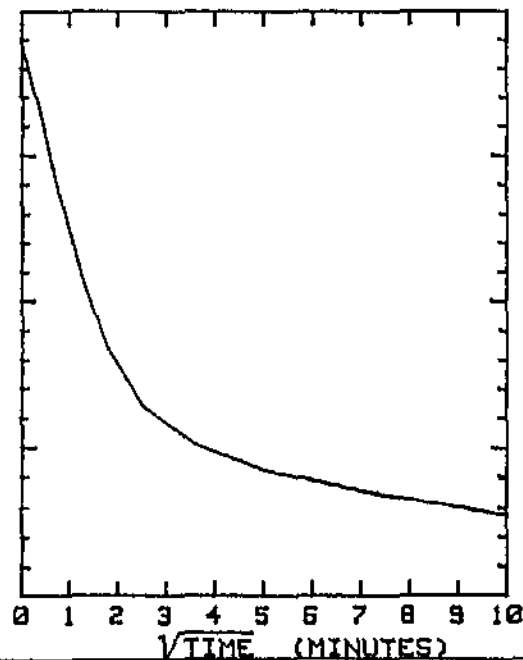
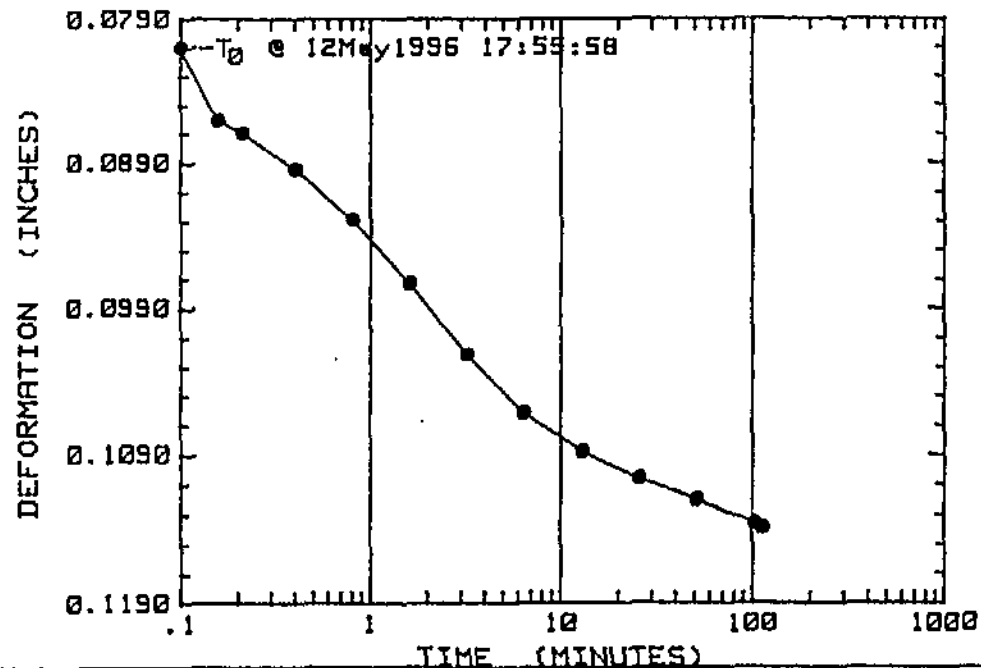
NO #A27711  
BORING #D-1  
SAMPLE #  
PART # 0  
DEPTH : 10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0018"  
FROM EACH READING)

PRESSURE: 7010 PSF



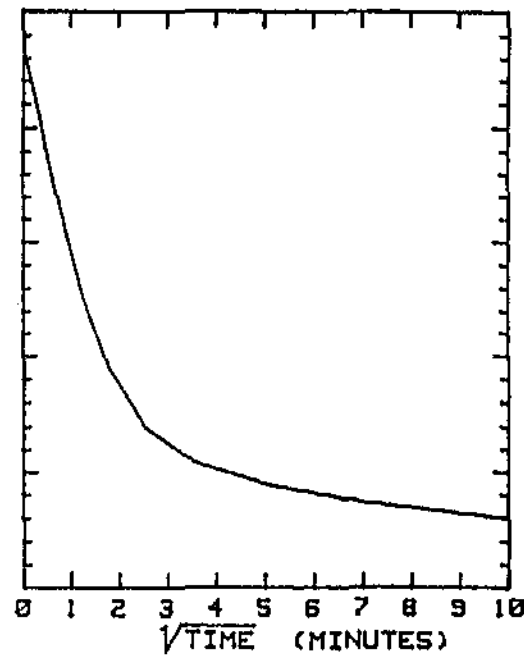
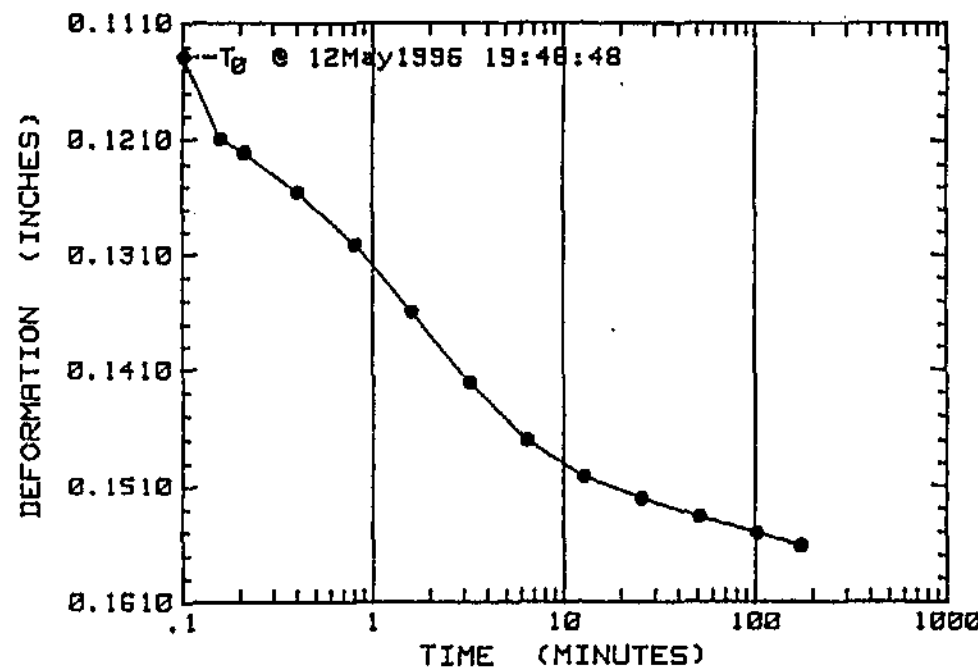
WO #A27711  
BORING #D-1  
SAMPLE #  
PART # 8  
DEPTH : 10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0022"  
FROM EACH READING)

PRESSURE: 14700 PSF

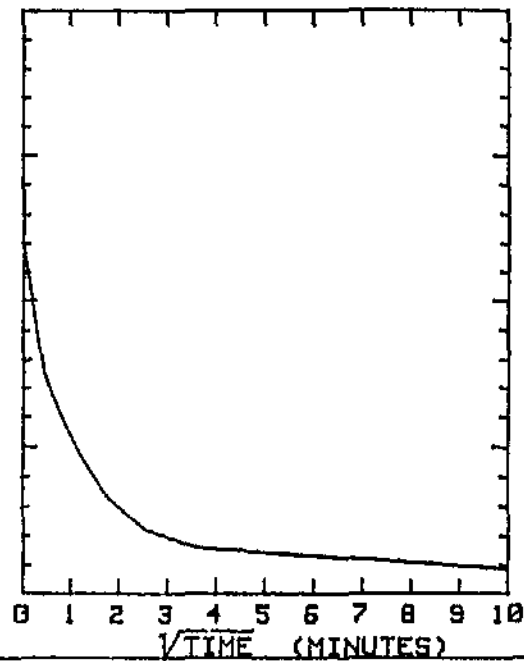
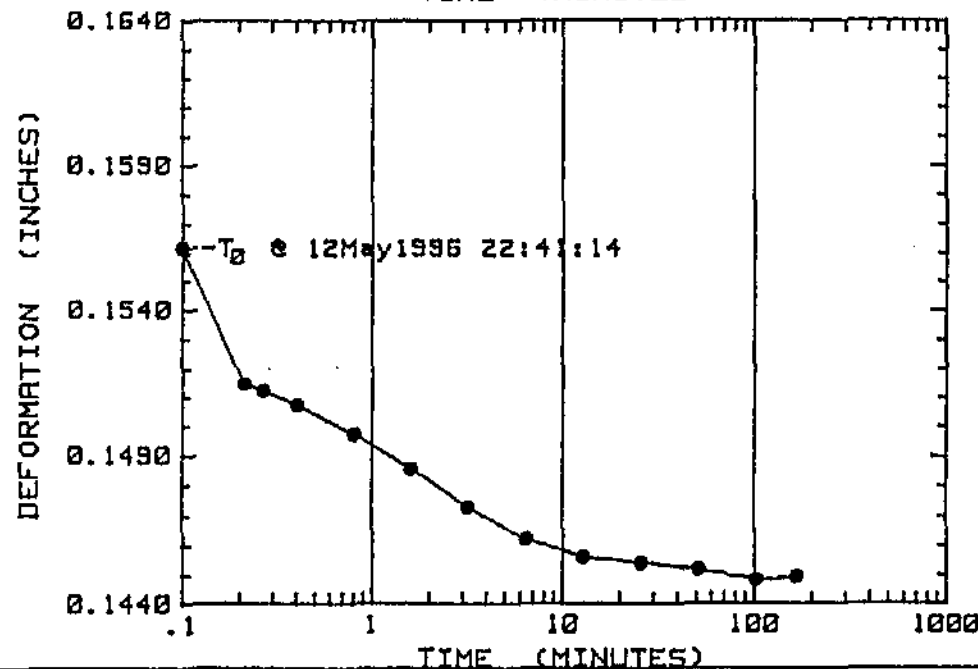


WO #A27711  
BORING #D-1  
SAMPLE #  
PART # 8  
DEPTH : 10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0029"  
FROM EACH READING)

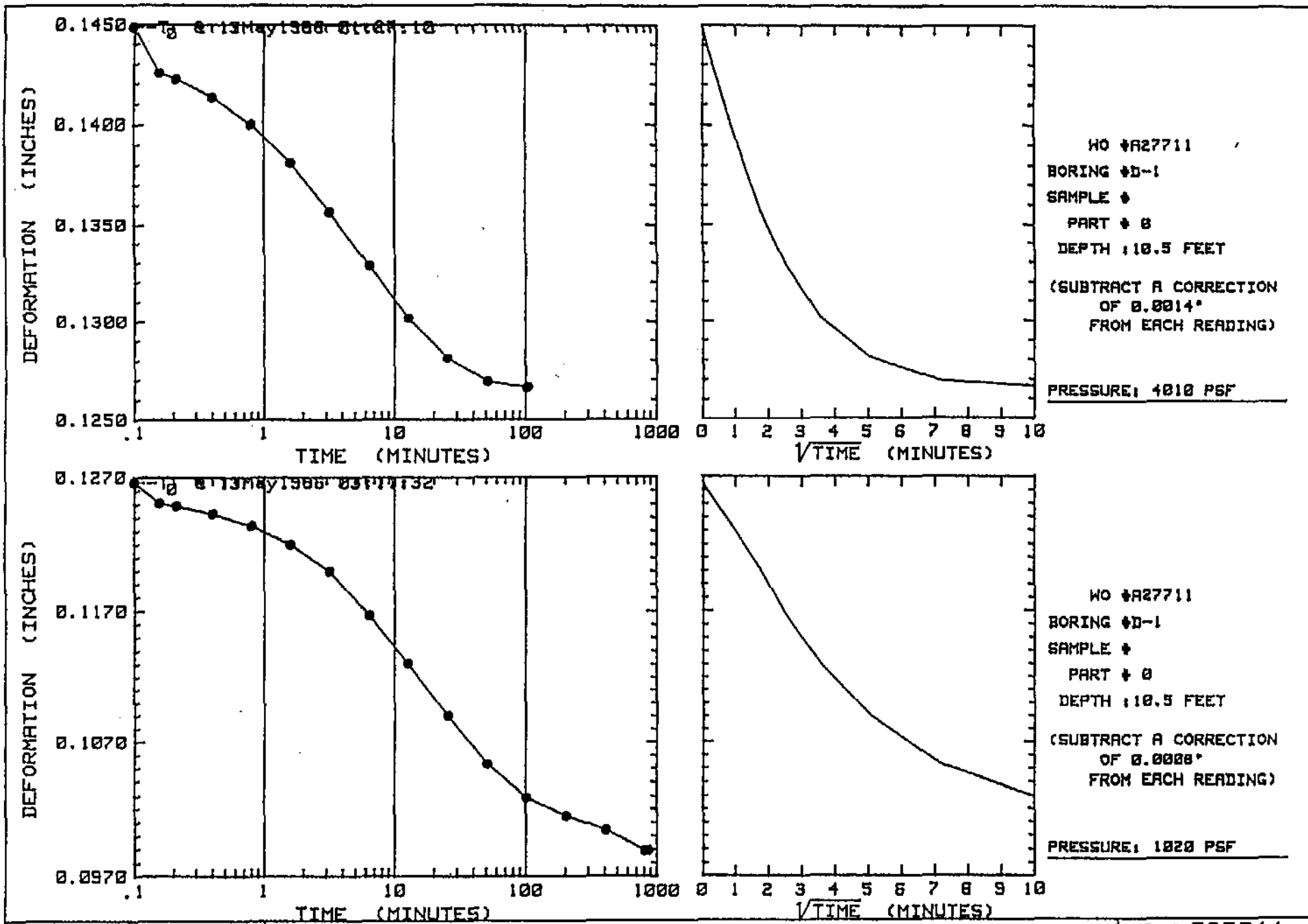
PRESSURE: 30500 PSF



NO #A27711  
BORING #D-1  
SAMPLE #  
PART # 0  
DEPTH :10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0038"  
FROM EACH READING)  
PRESSURE: 60500 PSF



NO #A27711  
BORING #D-1  
SAMPLE #  
PART # 0  
DEPTH :10.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0029"  
FROM EACH READING)  
PRESSURE: 14600 PSF



PROJECT : LIBERTY

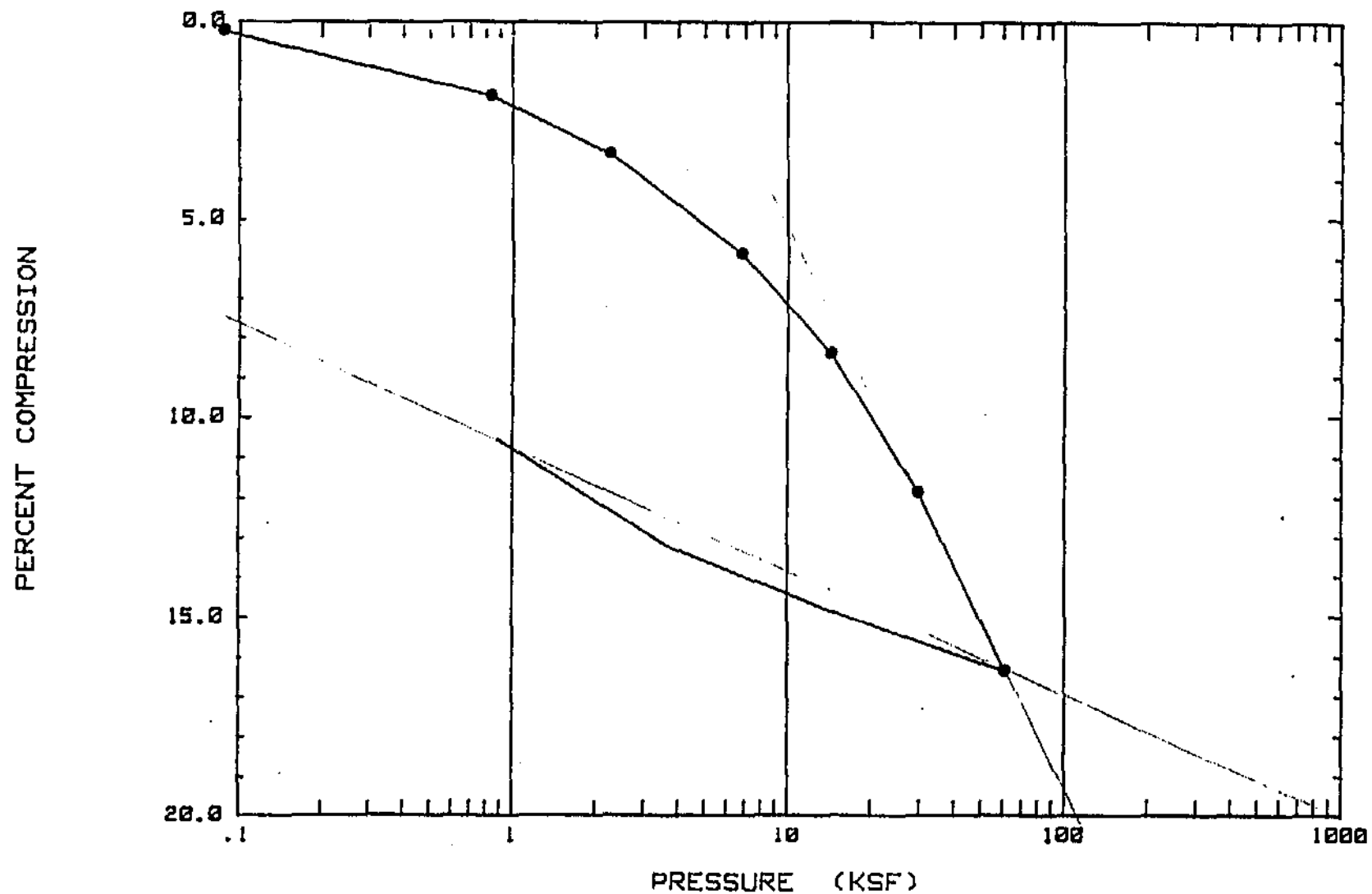
CLIENT : DUANE MILLER

BORING : D-1

SAMPLE :

DEPTH: 15.5 FEET

LABORATORY : C98014



ALASKA TESTLAB

*Compression Curve (%Comp. vs. Log P)*

WO # A27711

FIGURE

PROJECT : LIBERTY

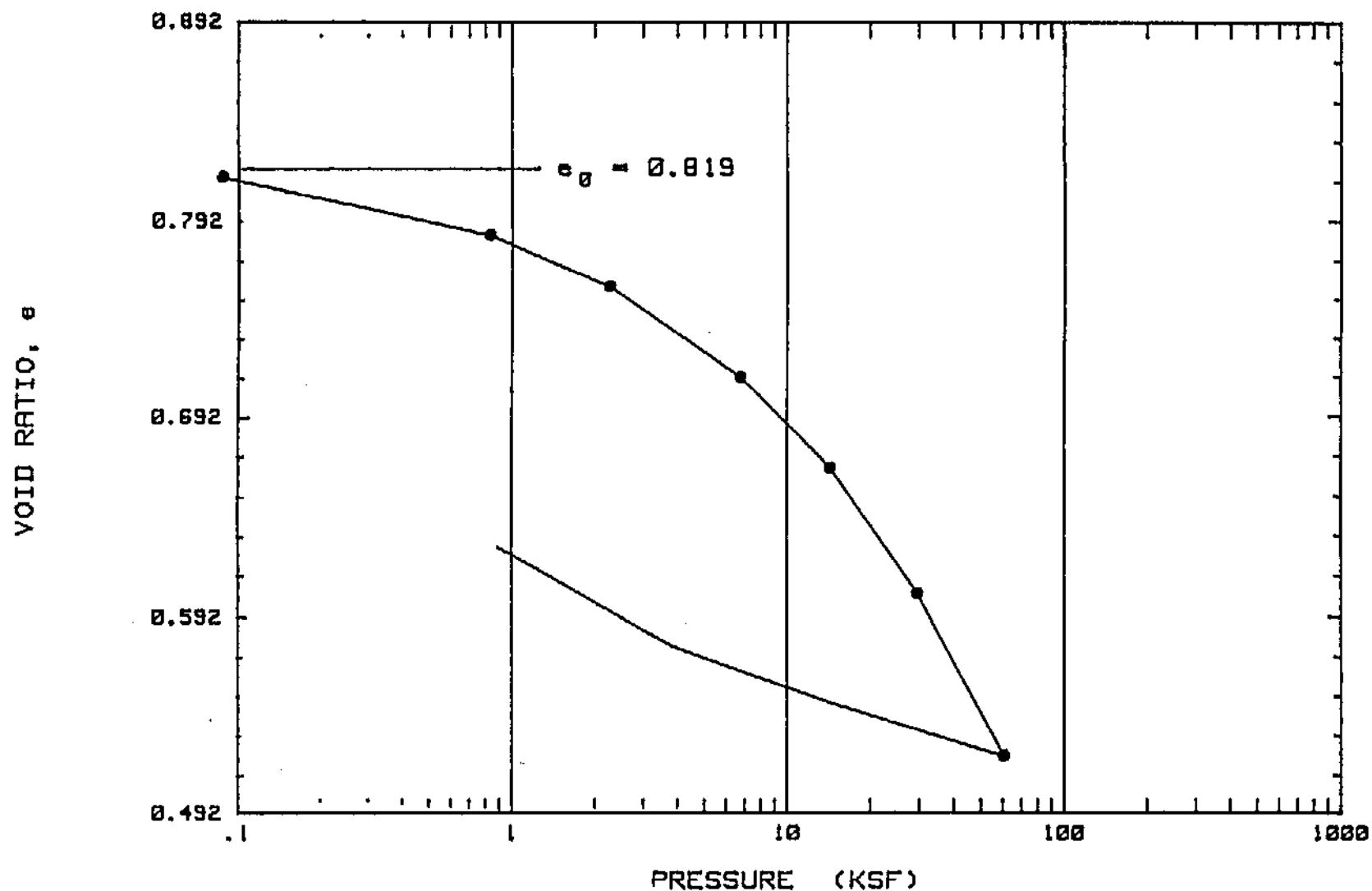
CLIENT : DUANE MILLER

BORING : D-1

SAMPLE :

DEPTH: 15.5 FEET

LABORATORY : C98014

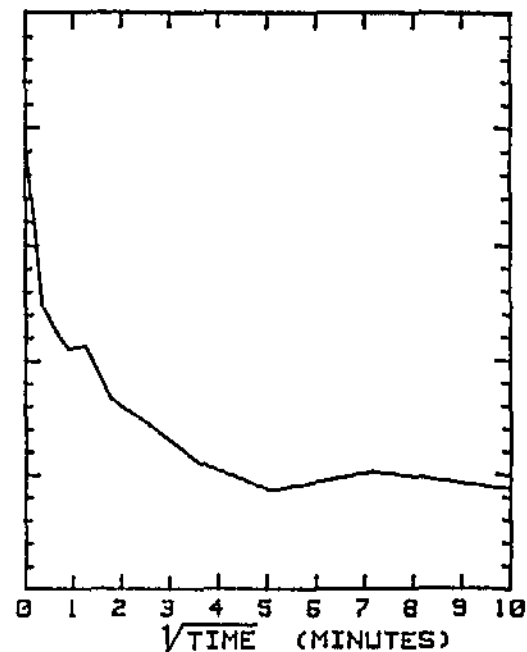
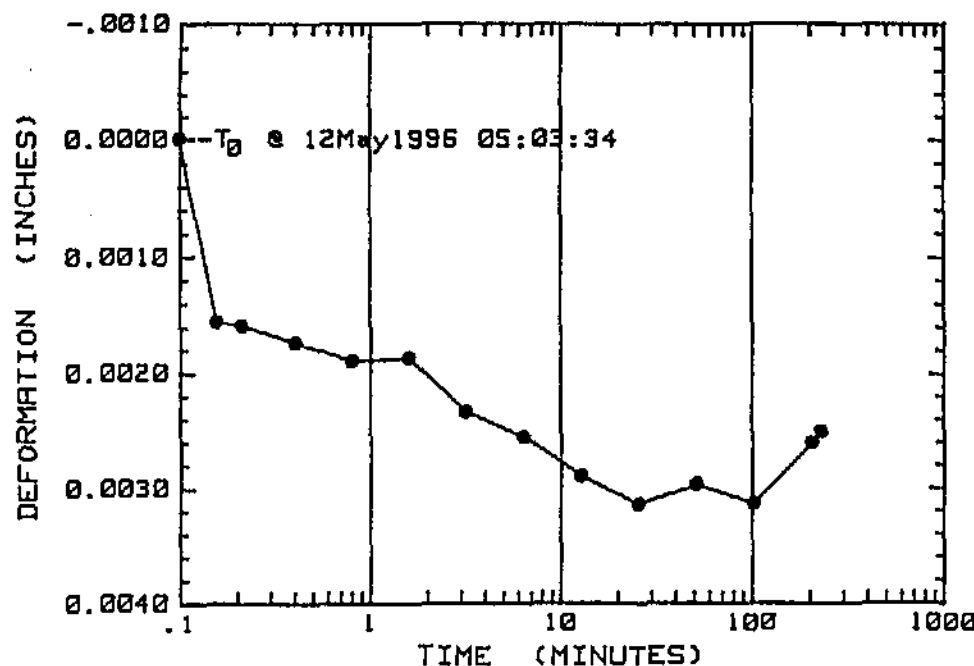


ALASKA TESTLAB

*Compression Curve ( $e$  vs.  $\log P$ )*

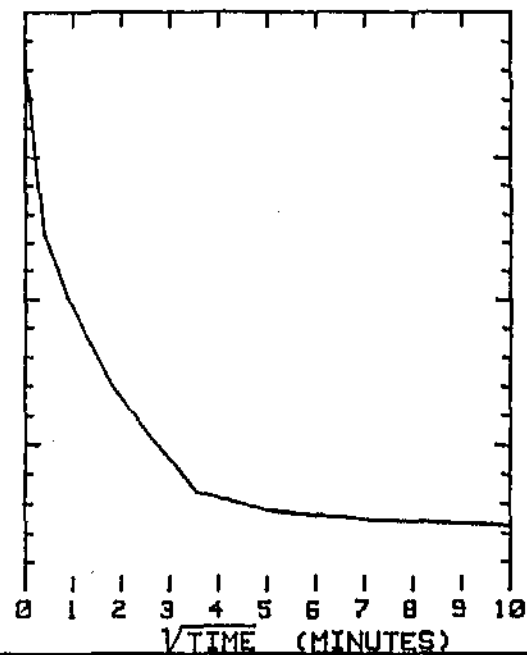
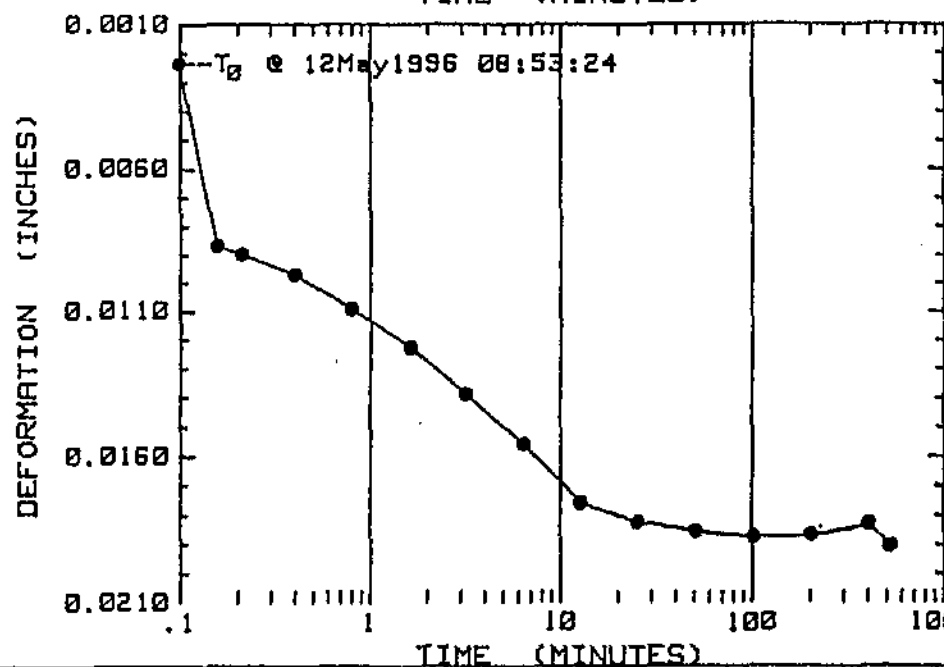
WO # A27711

FIGURE



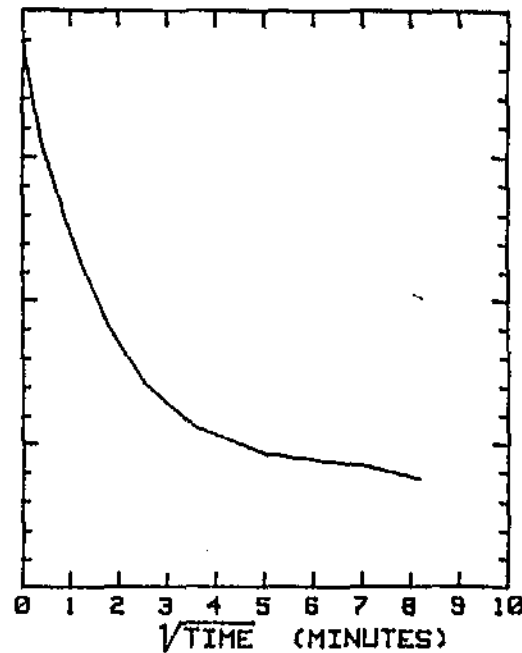
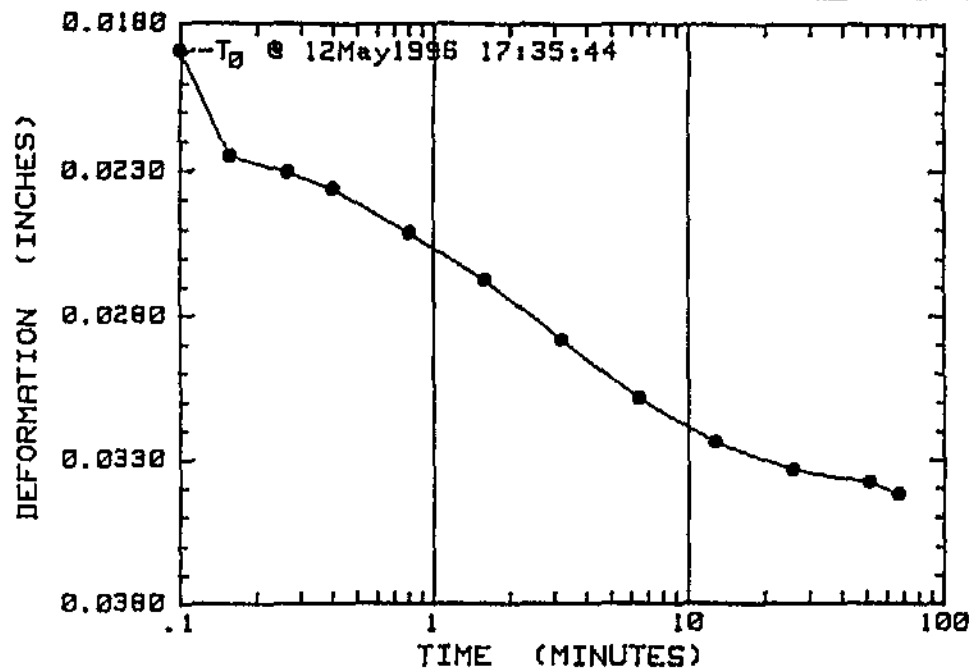
WO #A27711  
 BORING #D-1  
 SAMPLE #  
 PART # 2  
 DEPTH : 15.5 FEET  
 (SUBTRACT A CORRECTION  
 OF 0.0000"  
 FROM EACH READING)

PRESSURE: 88 PSF



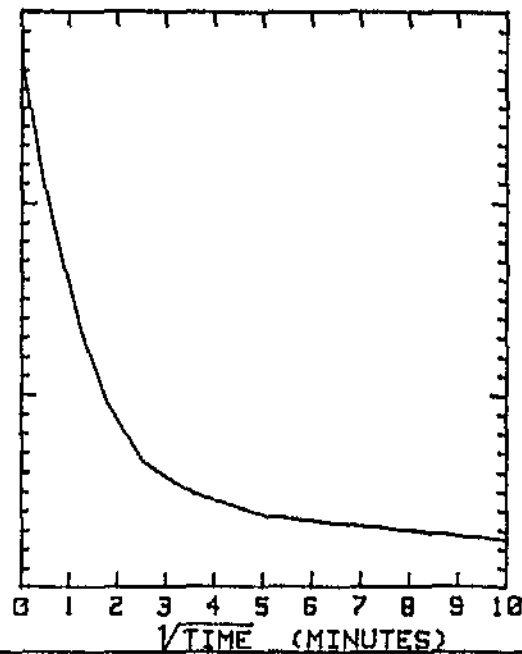
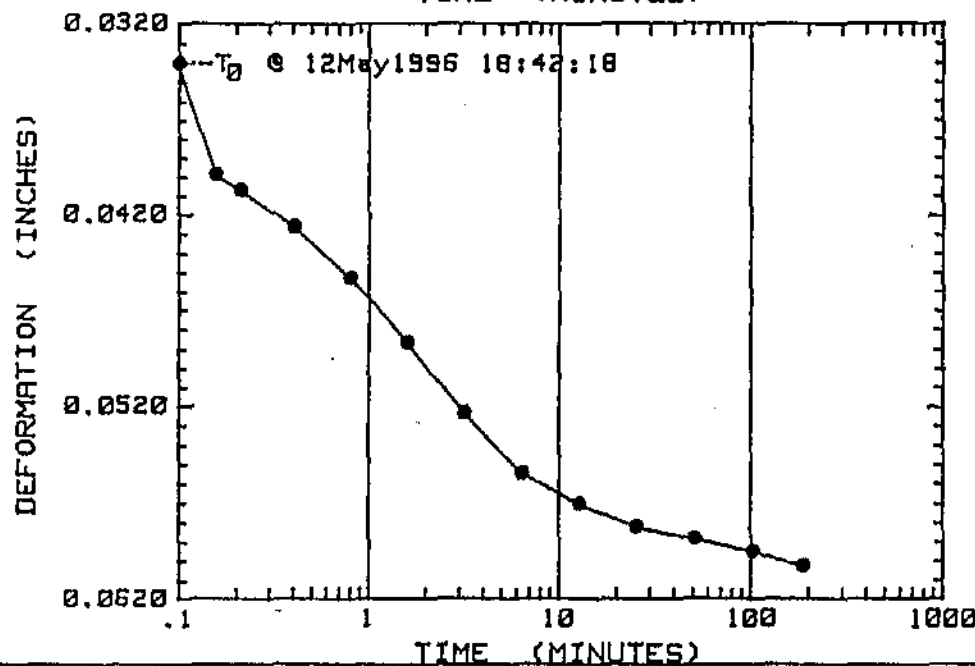
WO #A27711  
 BORING #D-1  
 SAMPLE #  
 PART # 2  
 DEPTH : 15.5 FEET  
 (SUBTRACT A CORRECTION  
 OF 0.0006"  
 FROM EACH READING)

PRESSURE: 833 PSF



WO #A27711  
BORING #D-1  
SAMPLE #  
PART # 8  
DEPTH :15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0009"  
FROM EACH READING)

PRESSURE: 2270 PSF



WO #A27711  
BORING #D-1  
SAMPLE #  
PART # 8  
DEPTH :15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0015"  
FROM EACH READING)

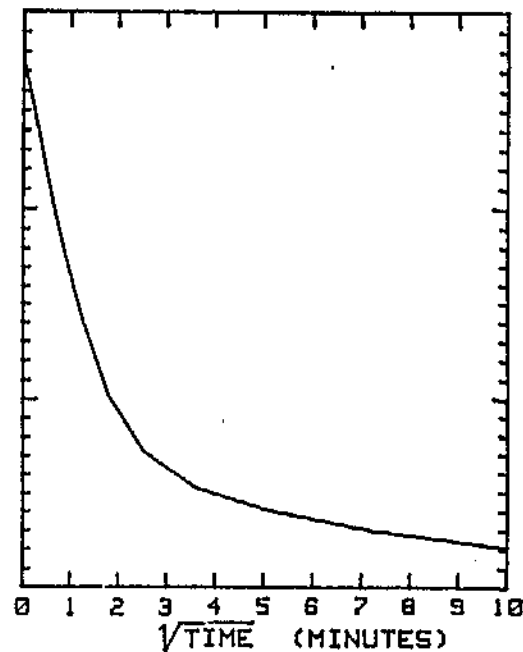
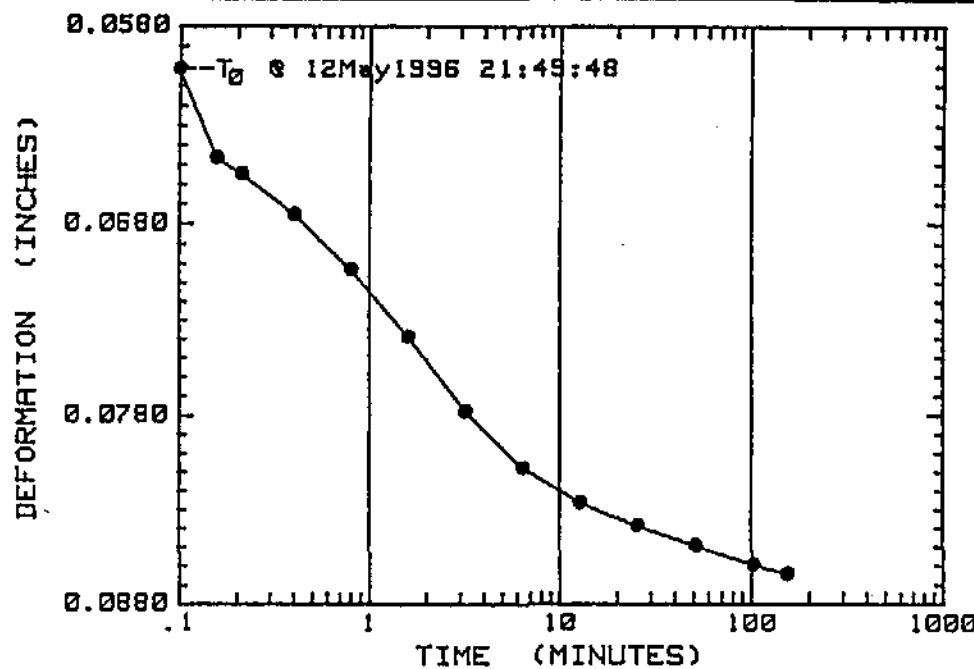
PRESSURE: 6750 PSF



ALASKA TESTLAB

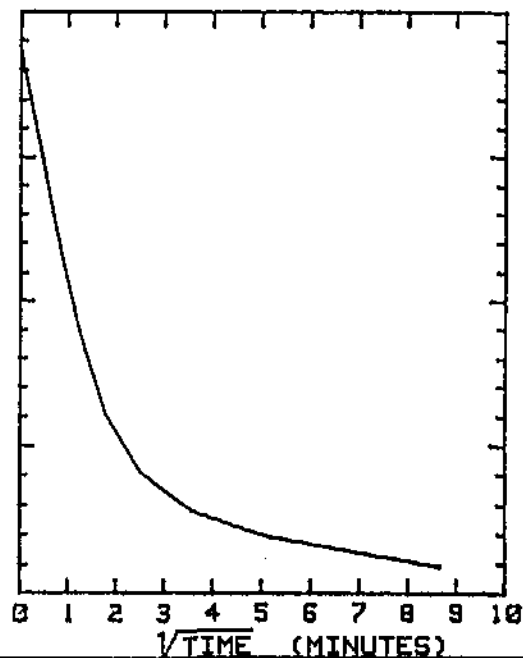
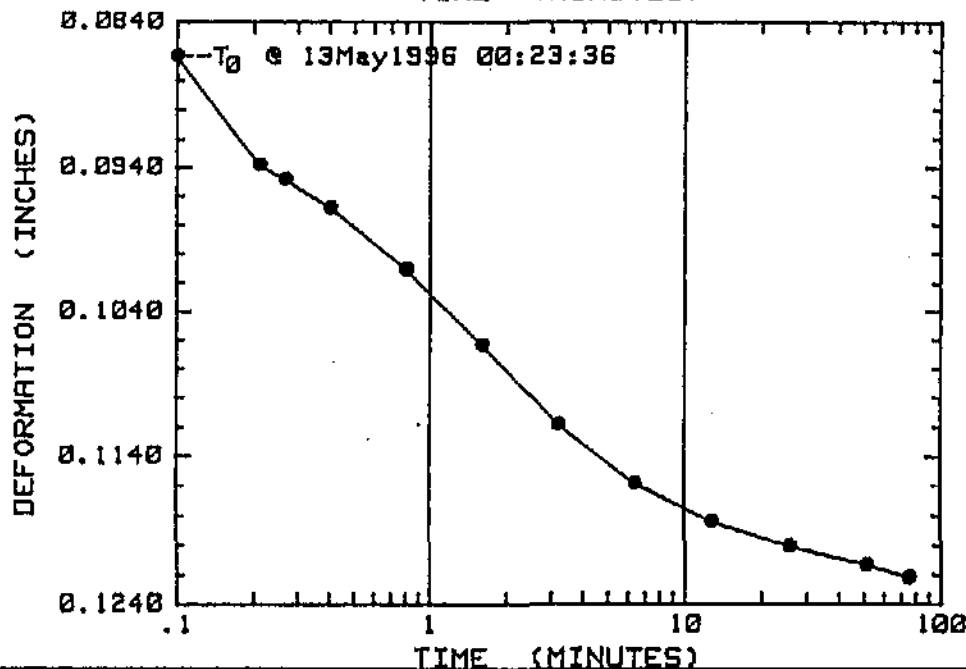
Time Rate of Consolidation

WO # A27711  
FIGURE



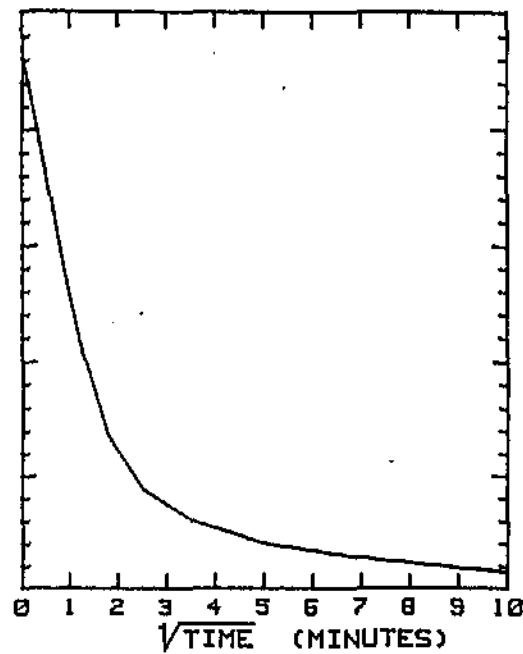
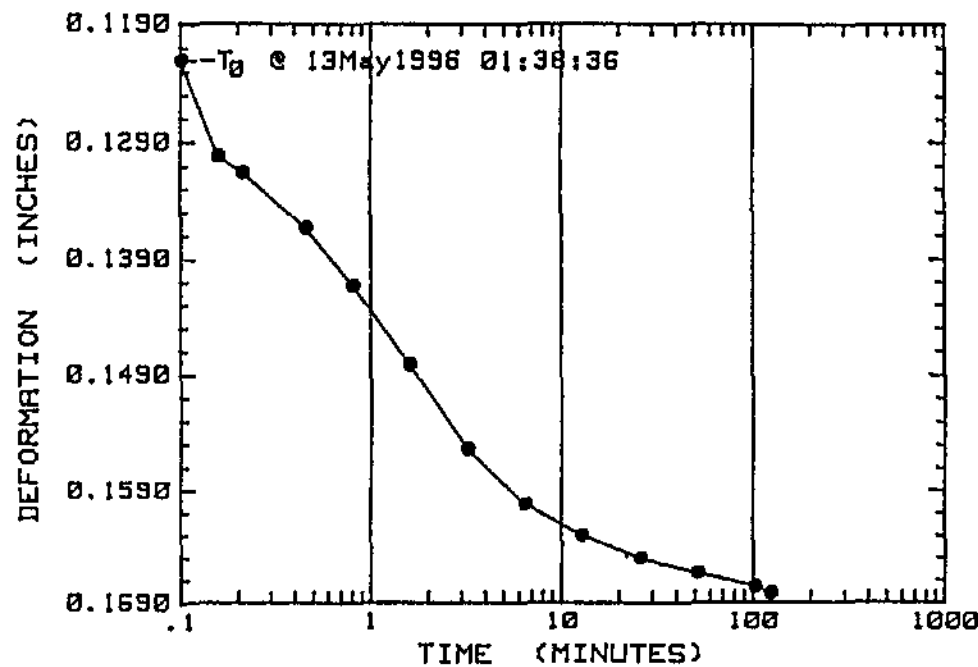
WO #A27711  
BORING #D-1  
SAMPLE #  
PART # 0  
DEPTH : 15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0023"  
FROM EACH READING)

PRESSURE: 14400 PSF



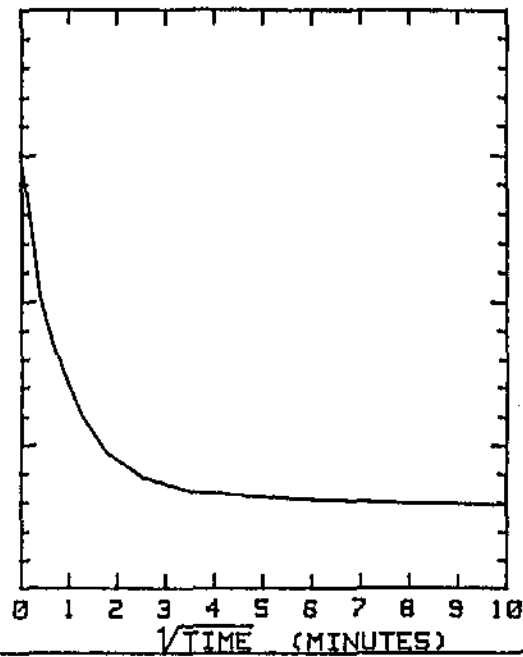
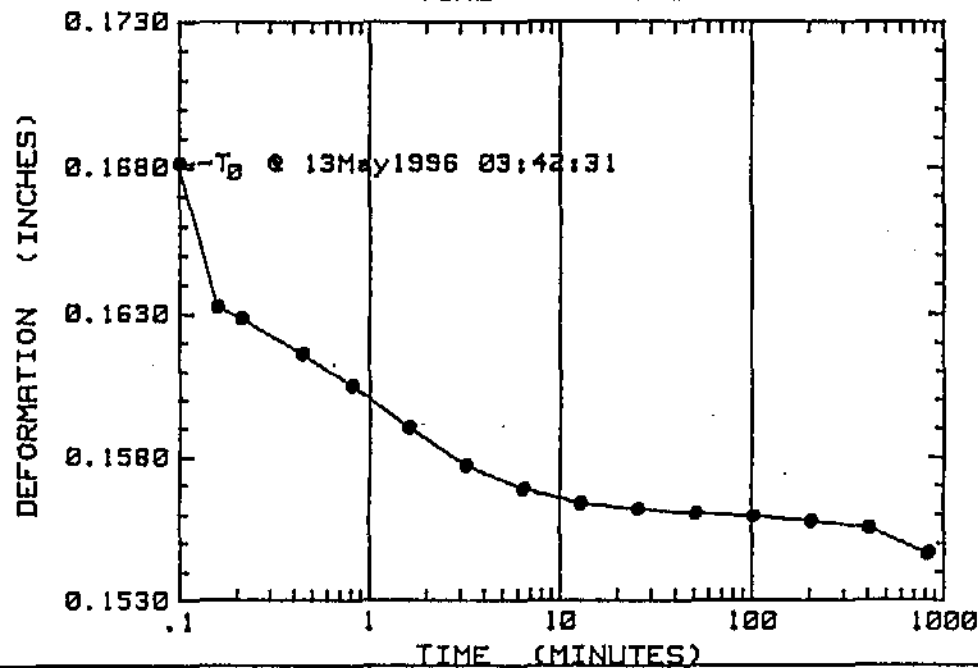
WO #A27711  
BORING #D-1  
SAMPLE #  
PART # 0  
DEPTH : 15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0031"  
FROM EACH READING)

PRESSURE: 25700 PSF



WO #A27711  
BORING #D-1  
SAMPLE #  
PART # 8  
DEPTH : 15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0049"  
FROM EACH READING)

PRESSURE: 60900 PSF



WO #A27711  
BORING #D-1  
SAMPLE #  
PART # 8  
DEPTH : 15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0030"  
FROM EACH READING)

PRESSURE: 14900 PSF

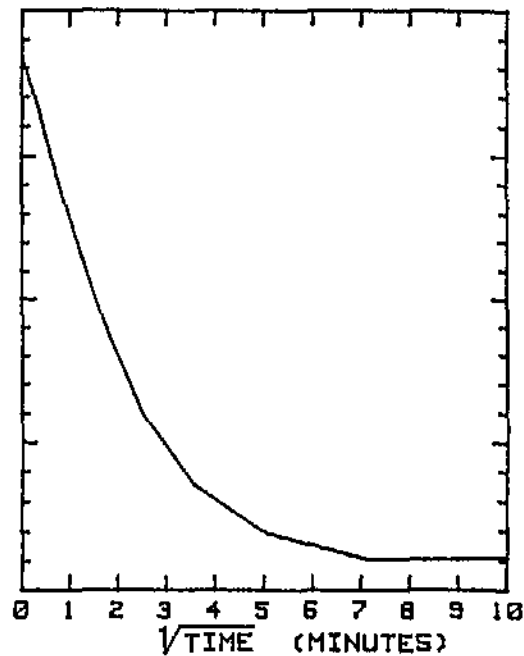
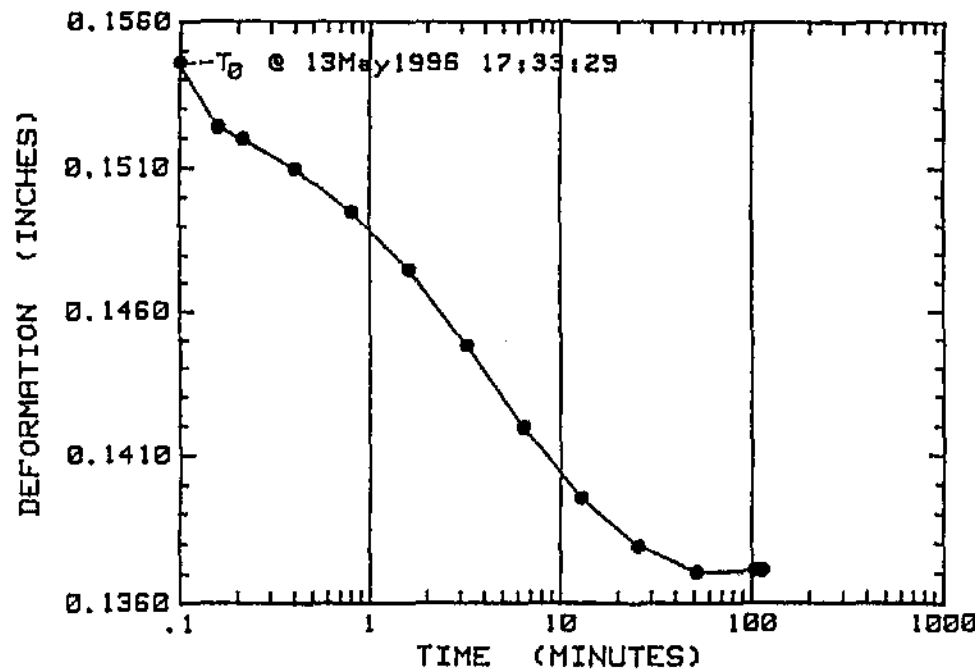


ALASKA TESTLAB

Time Rate of Consolidation

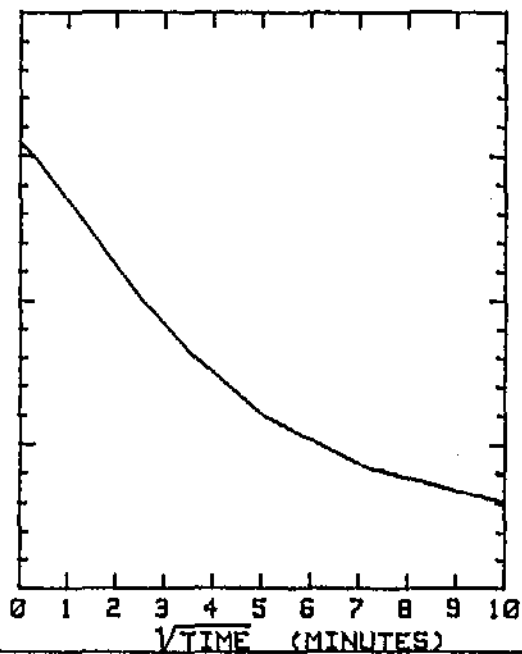
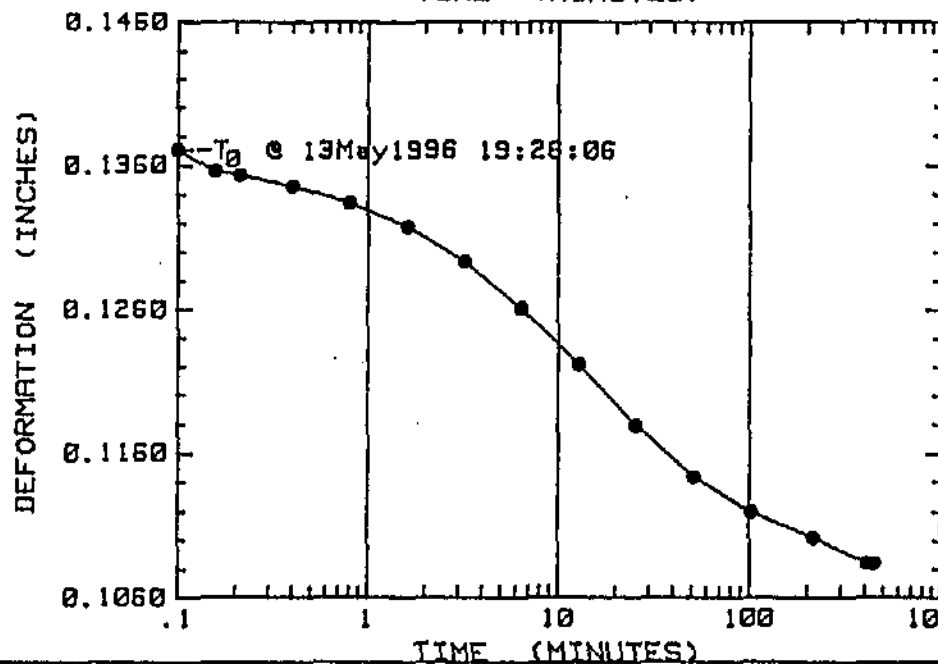
WO # A27711

FIGURE



NO #A27711  
BORING #D-1  
SAMPLE #  
PART # 8  
DEPTH :15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0017"  
FROM EACH READING)

PRESSURE: 3840 PSF



NO #A27711  
BORING #D-1  
SAMPLE #  
PART # 8  
DEPTH :15.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0018"  
FROM EACH READING)

PRESSURE: 886 PSF

PROJECT : LIBERTY

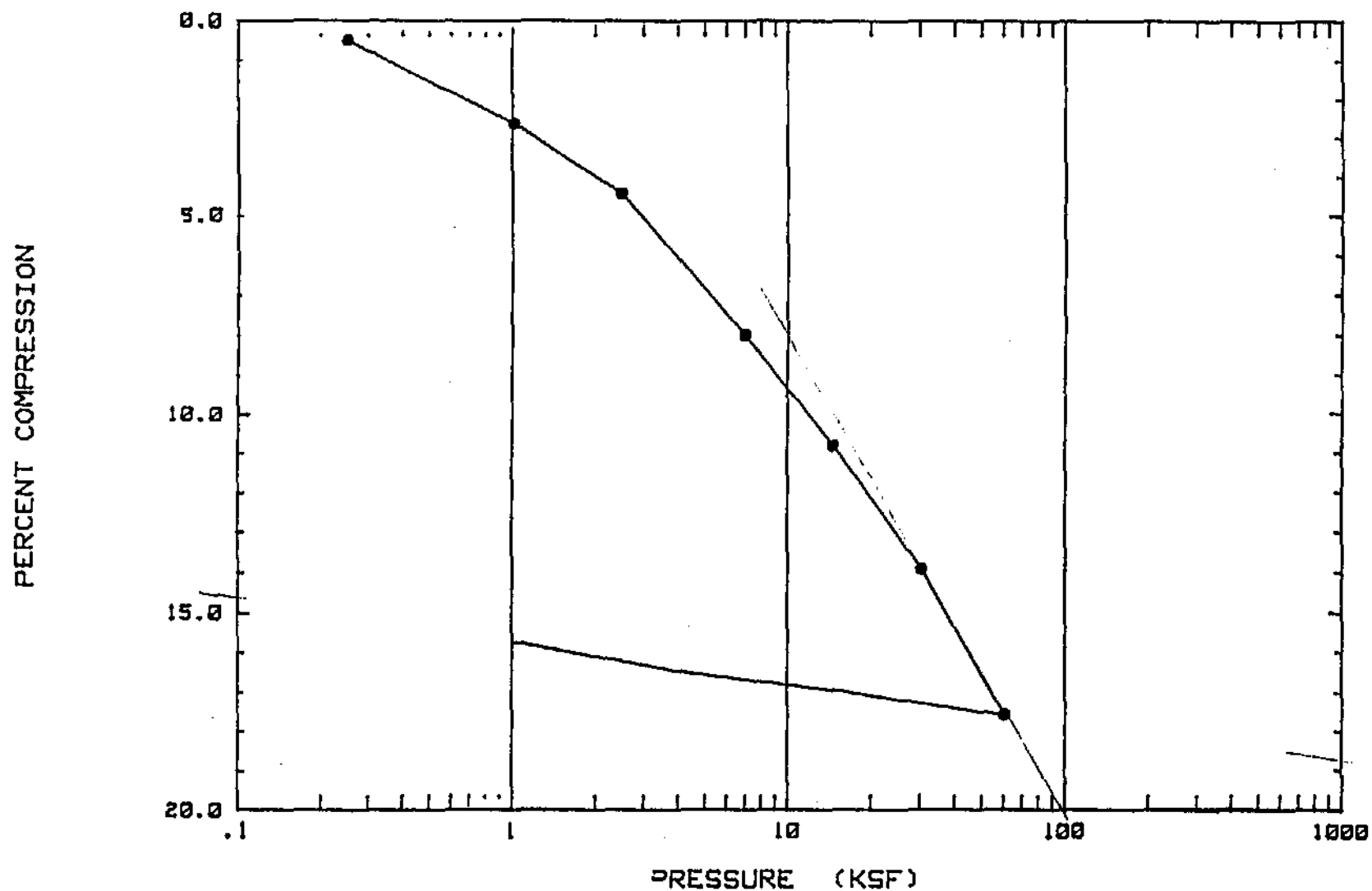
CLIENT : DUANE MILLER

BORING : D-2

SAMPLE :

DEPTH: 1 FOOT

LABORATORY : C98007



ALASKA TESTLAB

Compression Curve (%Comp. vs. Log P)

WO # A27711

FIGURE

PROJECT : LIBERTY

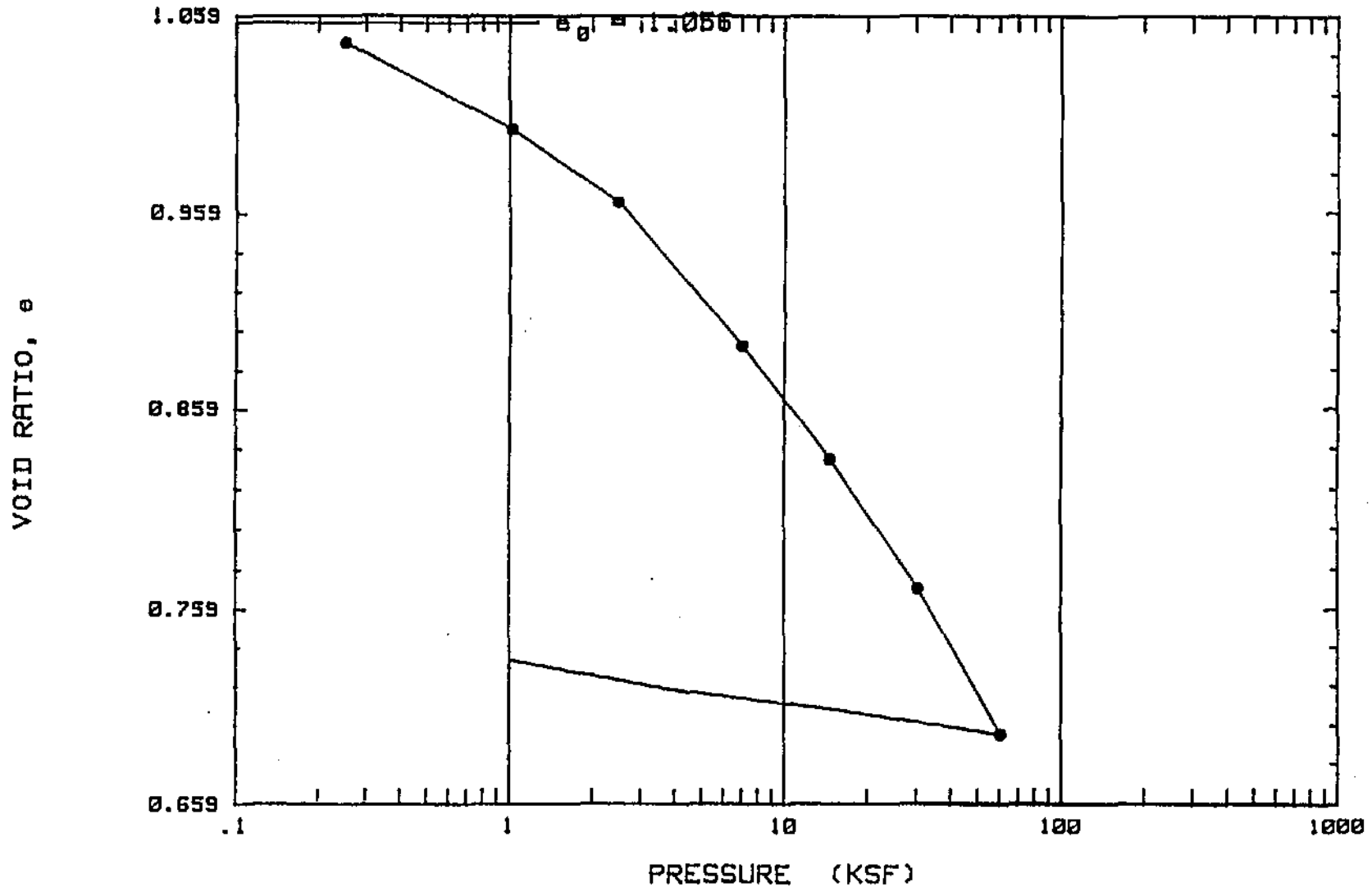
BORING : D-2

SAMPLE :

CLIENT : DUANE MILLER

DEPTH: 1 FOOT

LABORATORY : C98007

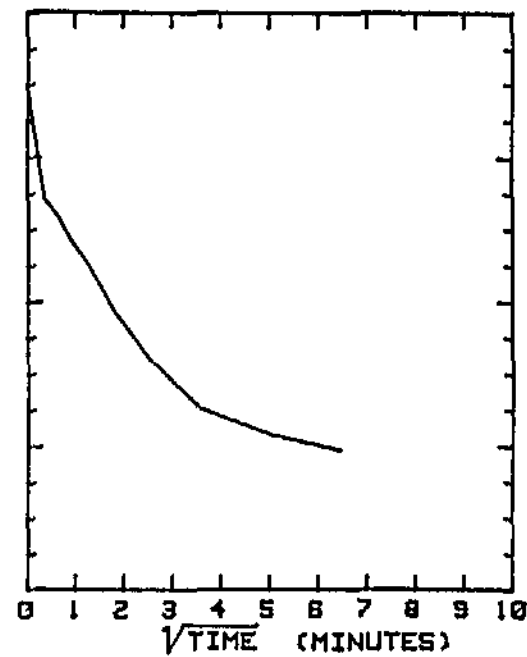
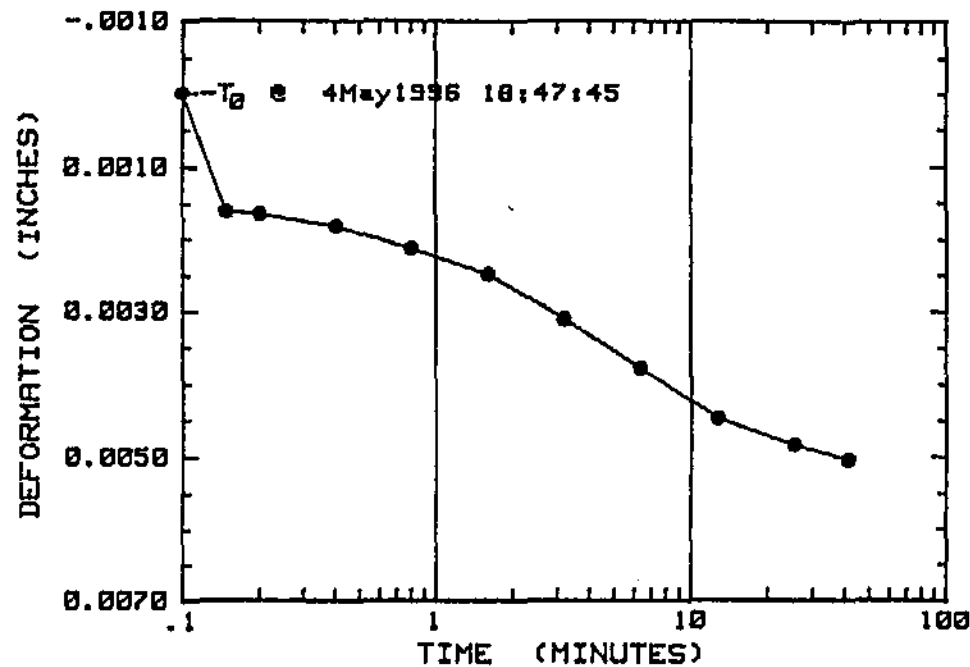


ALASKA TESTLAB

*Compression Curve (e vs. Log P)*

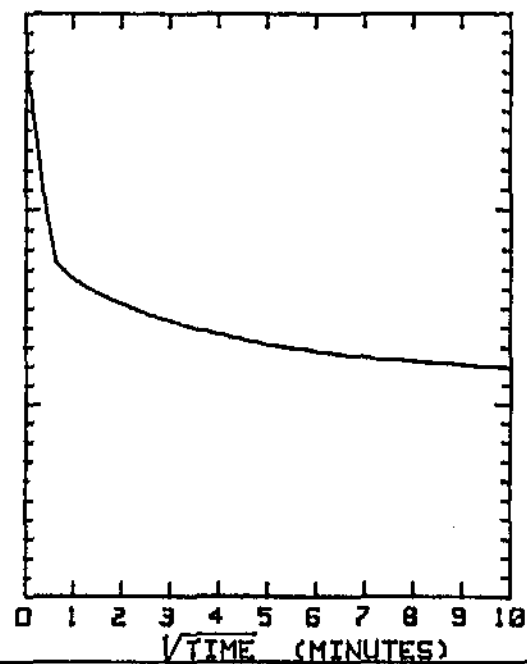
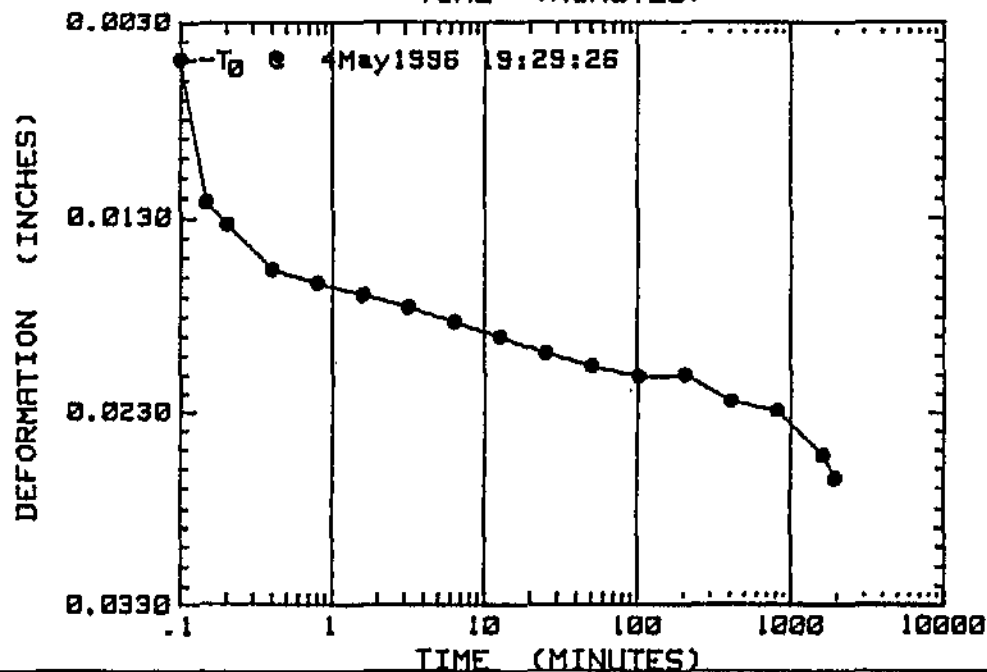
WD # A27711

FIGURE



NO #A27711  
 BORING #D-2  
 SAMPLE #  
 PART # 8  
 DEPTH : 1 FOOT  
 (SUBTRACT A CORRECTION  
 OF 0.0000"  
 FROM EACH READING)

PRESSURE: 253 PSF



NO #A27711  
 BORING #D-2  
 SAMPLE #  
 PART # 8  
 DEPTH : 1 FOOT  
 (SUBTRACT A CORRECTION  
 OF 0.0005"  
 FROM EACH READING)

PRESSURE: 1828 PSF

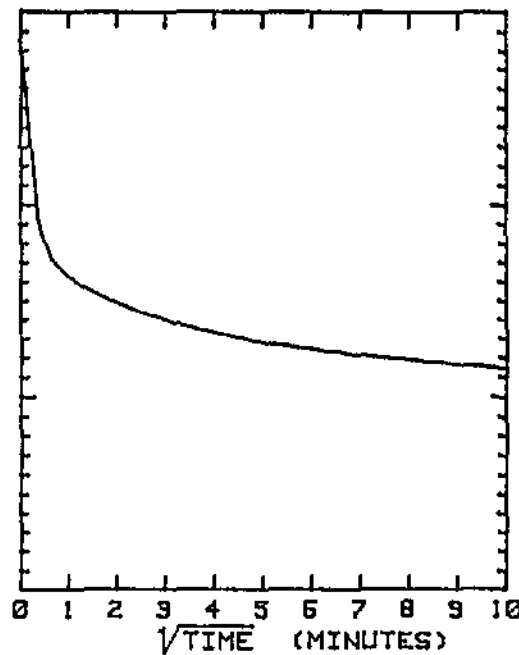
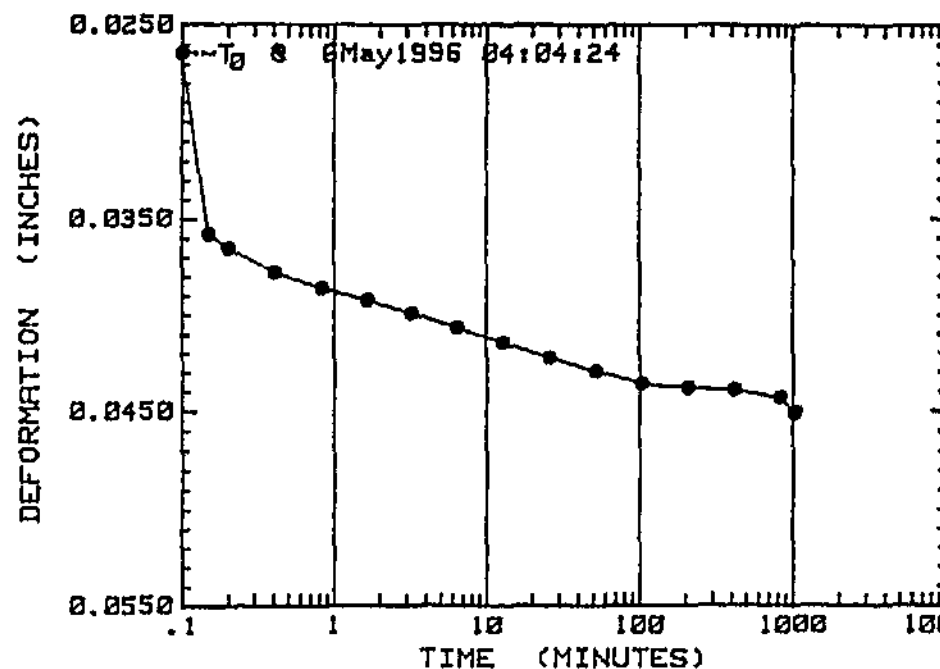


ALASKA TESTLAB

Time Rate of Consolidation

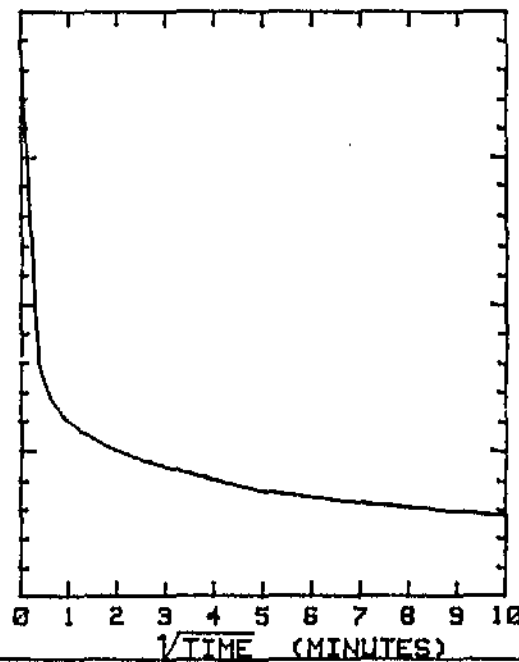
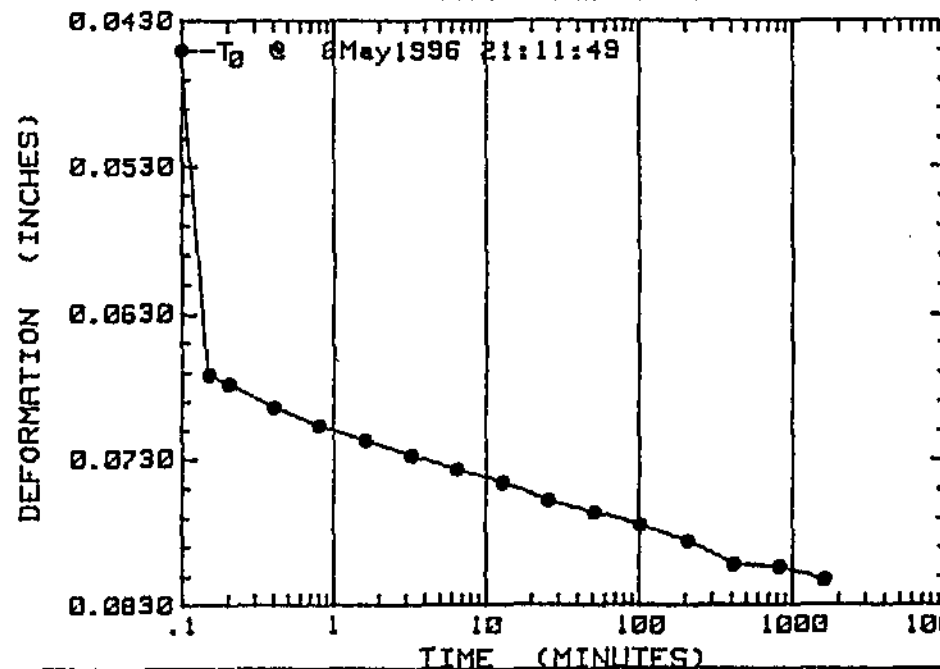
NO # A27711

FIGURE



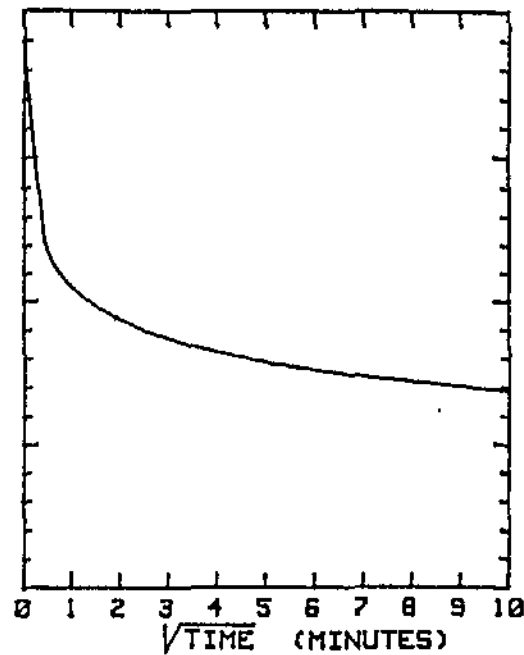
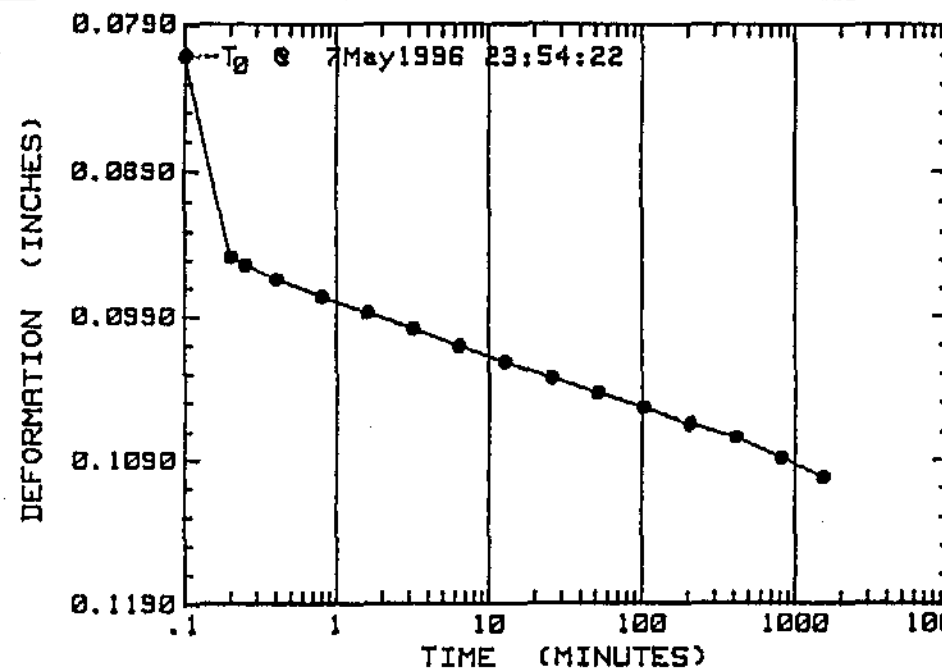
NO #A27711  
BORING #D-2  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 0  
DEPTH : 1 FOOT  
(SUBTRACT A CORRECTION  
OF 0.0003"  
FROM EACH READING)

PRESSURE: 2490 PSF

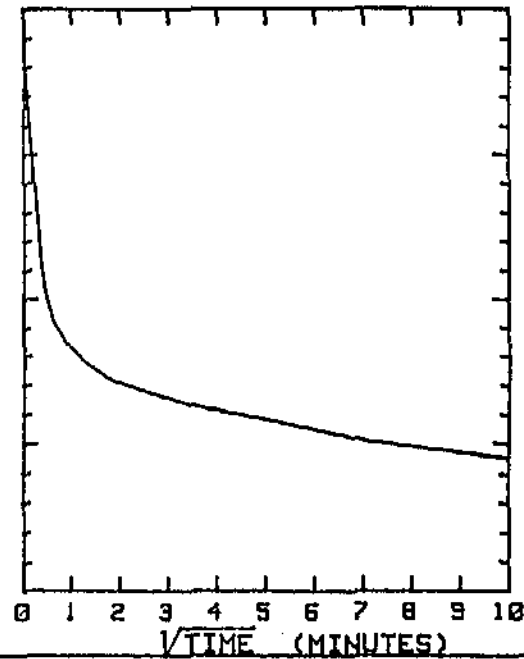
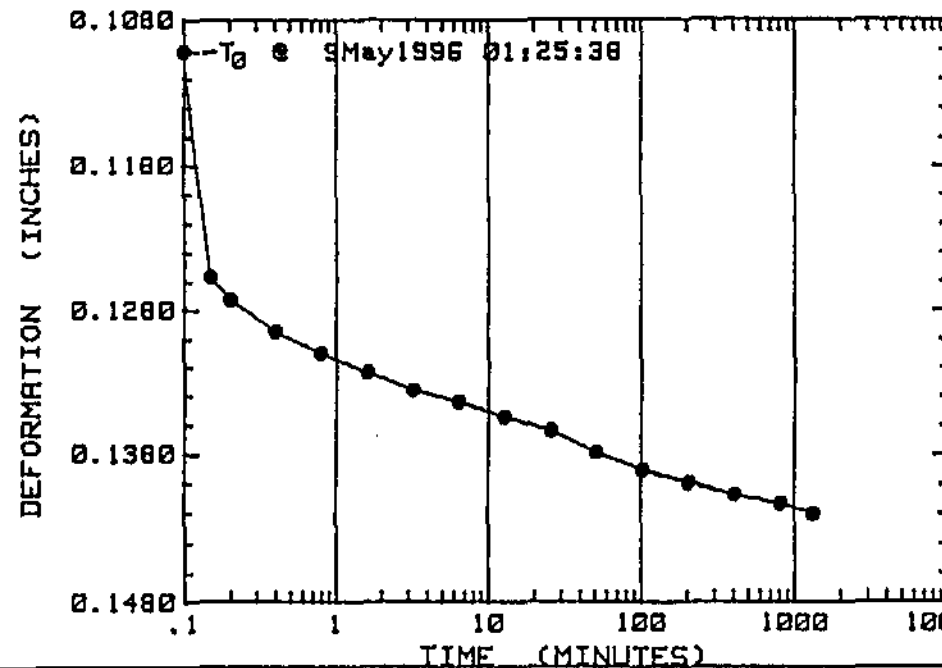


NO #A27711  
BORING #D-2  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 0  
DEPTH : 1 FOOT  
(SUBTRACT A CORRECTION  
OF 0.0016"  
FROM EACH READING)

PRESSURE: 7020 PSF



NO #A27711  
BORING #D-2  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 0  
DEPTH : 1 FOOT  
(SUBTRACT A CORRECTION  
OF 0.0022"  
FROM EACH READING)  
PRESSURE: 14700 PSF



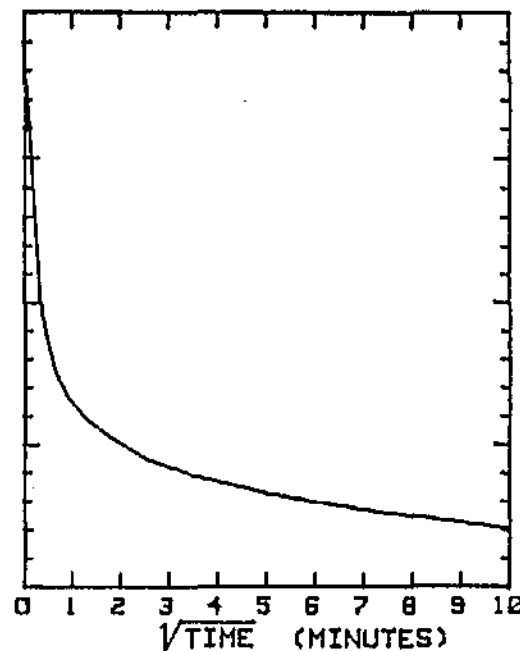
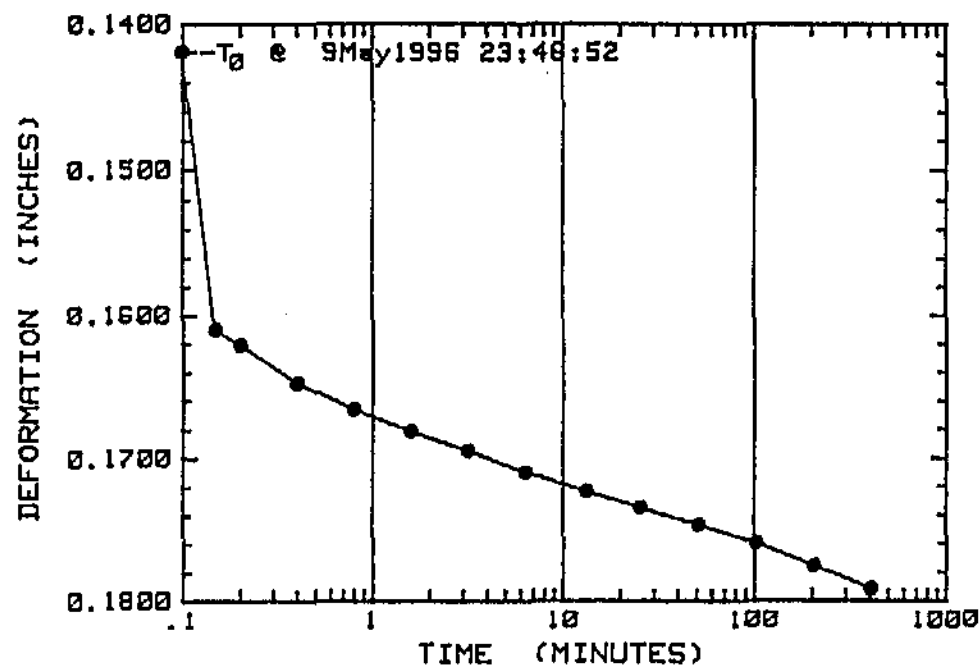
NO #A27711  
BORING #D-2  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 0  
DEPTH : 1 FOOT  
(SUBTRACT A CORRECTION  
OF 0.0023"  
FROM EACH READING)  
PRESSURE: 30600 PSF



ALASKA TESTLAB

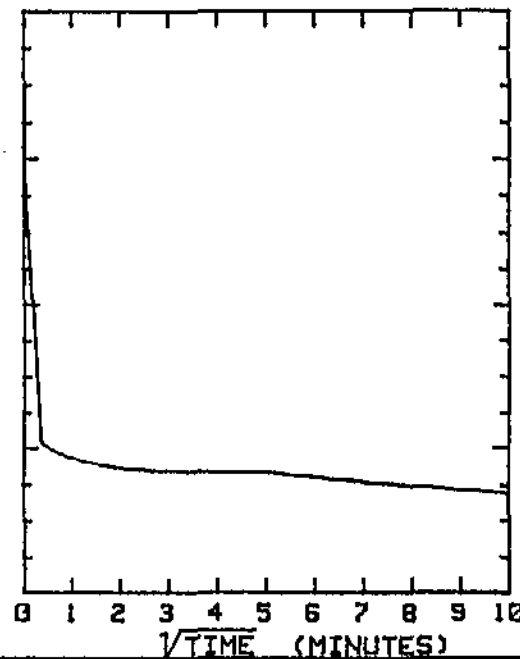
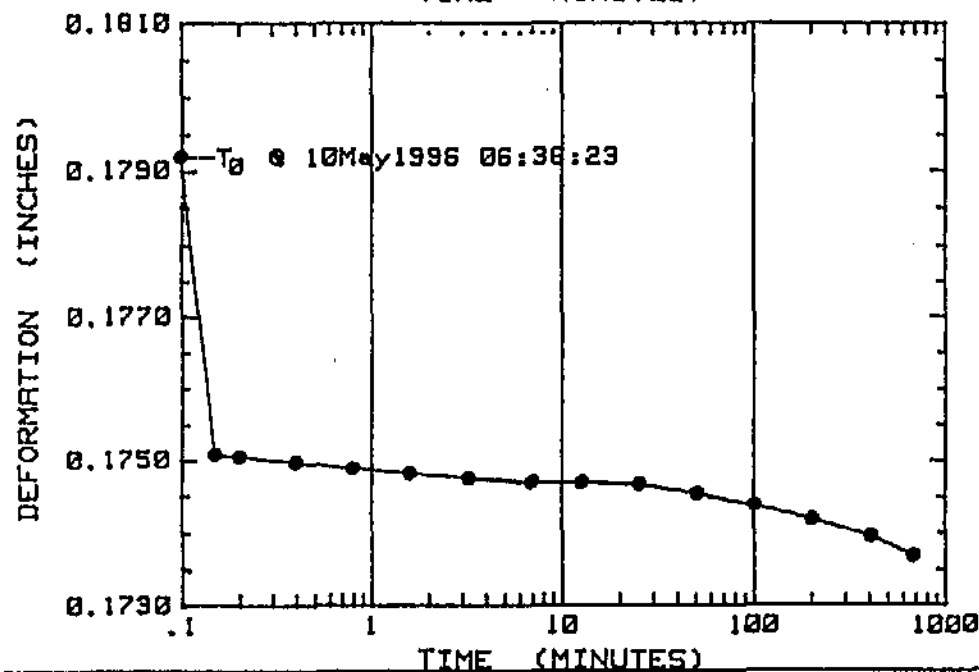
*Time Rate of Consolidation*

NO #A27711  
FIGURE



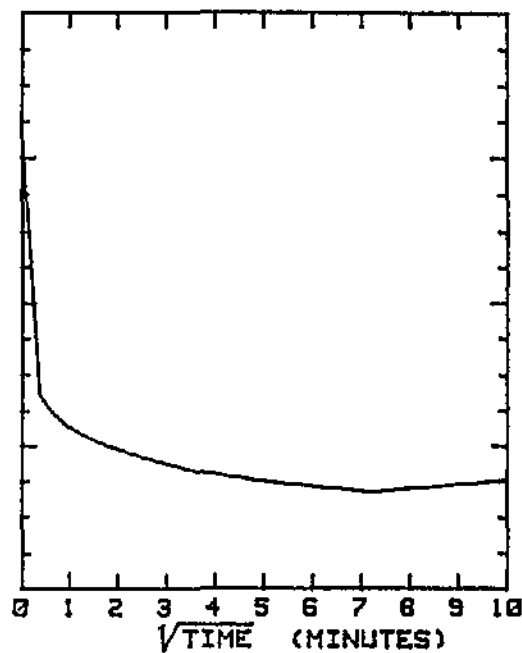
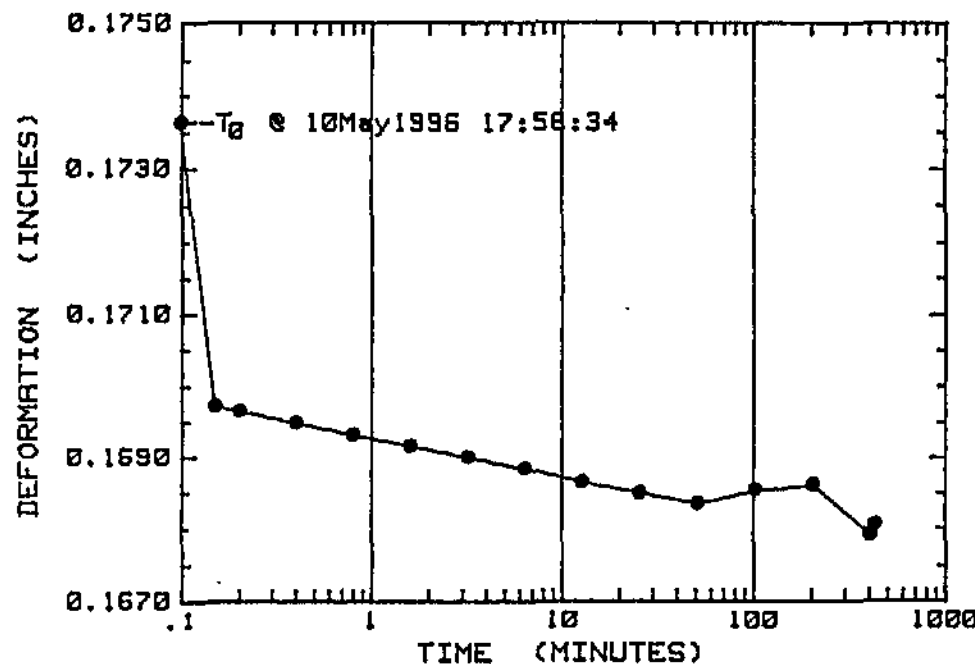
NO #A27711  
BORING #D-2  
SAMPLE #TOP THIRD OF SAMPL  
PART # 0  
DEPTH 11 FOOT  
(SUBTRACT A CORRECTION  
OF 0.0030"  
FROM EACH READING)

PRESSURE: 60700 PSF

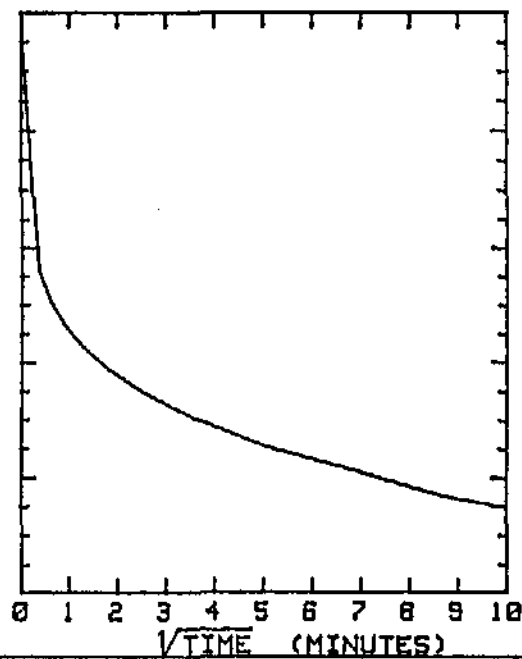
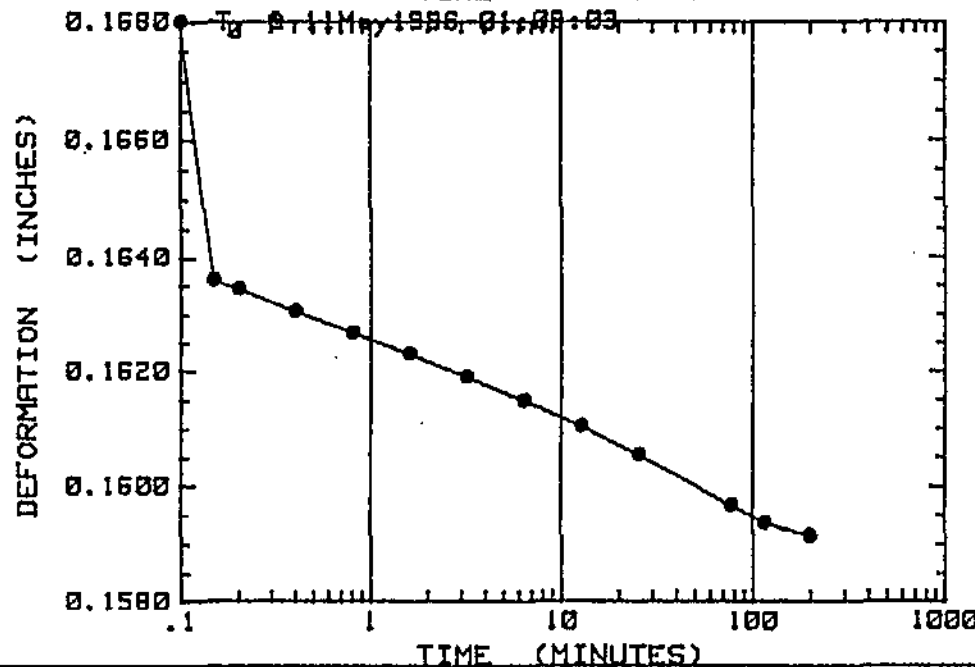


NO #A27711  
BORING #D-2  
SAMPLE #TOP THIRD OF SAMPL  
PART # 0  
DEPTH 11 FOOT  
(SUBTRACT A CORRECTION  
OF 0.0029"  
FROM EACH READING)

PRESSURE: 14700 PSF



NO #A27711  
BORING #D-2  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 0  
DEPTH : 1 FOOT  
(SUBTRACT A CORRECTION  
OF 0.0014"  
FROM EACH READING)  
PRESSURE: 1020 PSF



NO #A27711  
BORING #D-2  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 0  
DEPTH : 1 FOOT  
(SUBTRACT A CORRECTION  
OF 0.0008"  
FROM EACH READING)  
PRESSURE: 1020 PSF

PROJECT : LIBERTY

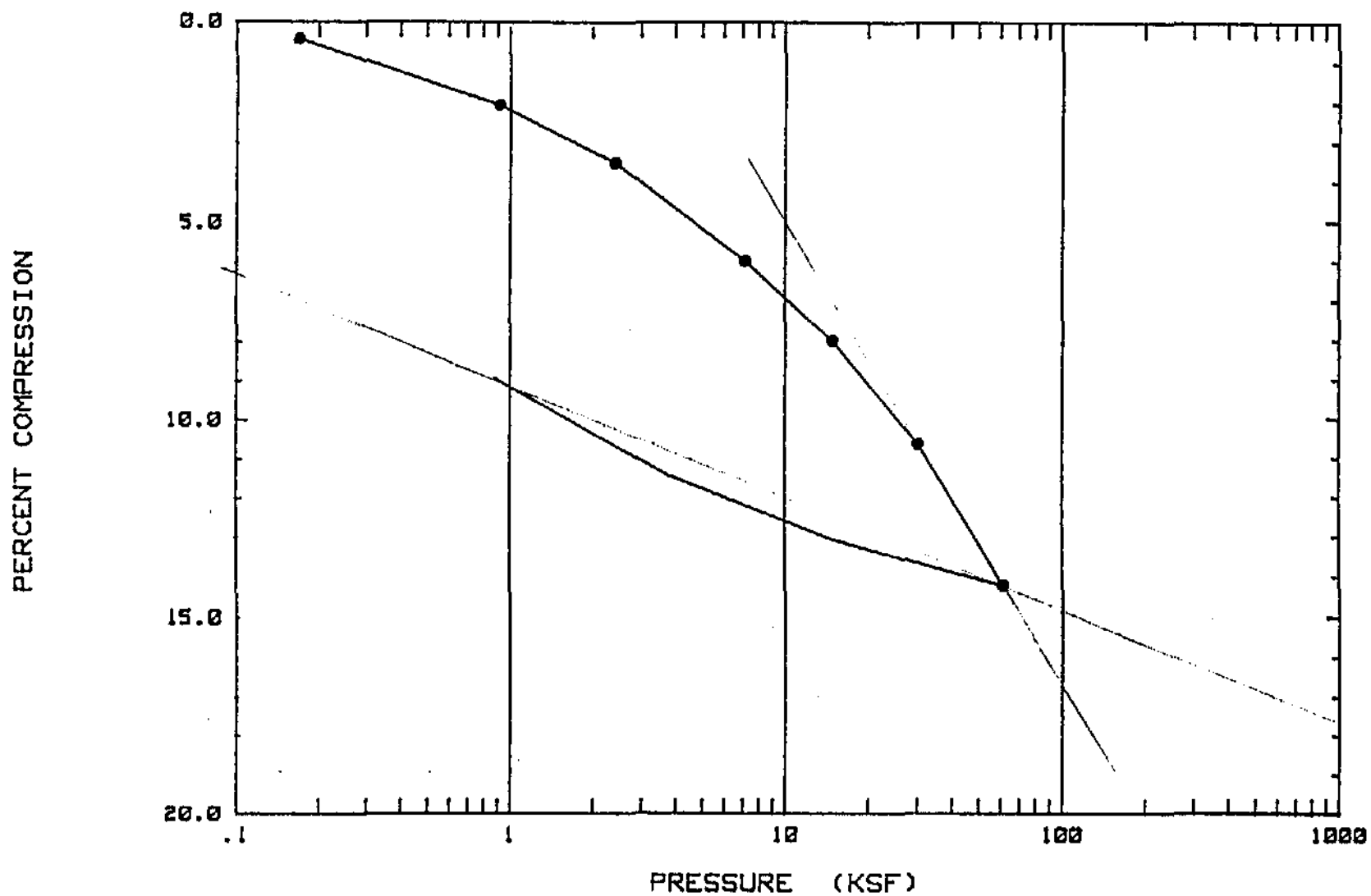
CLIENT : DUANE MILLER

BORING : D-2

SAMPLE :

DEPTH: 6 FEET

LABORATORY : C98015



ALASKA TESTLAB

Compression Curve (%Comp. vs. Log P)

WO # A27711

FIGURE

PROJECT : LIBERTY

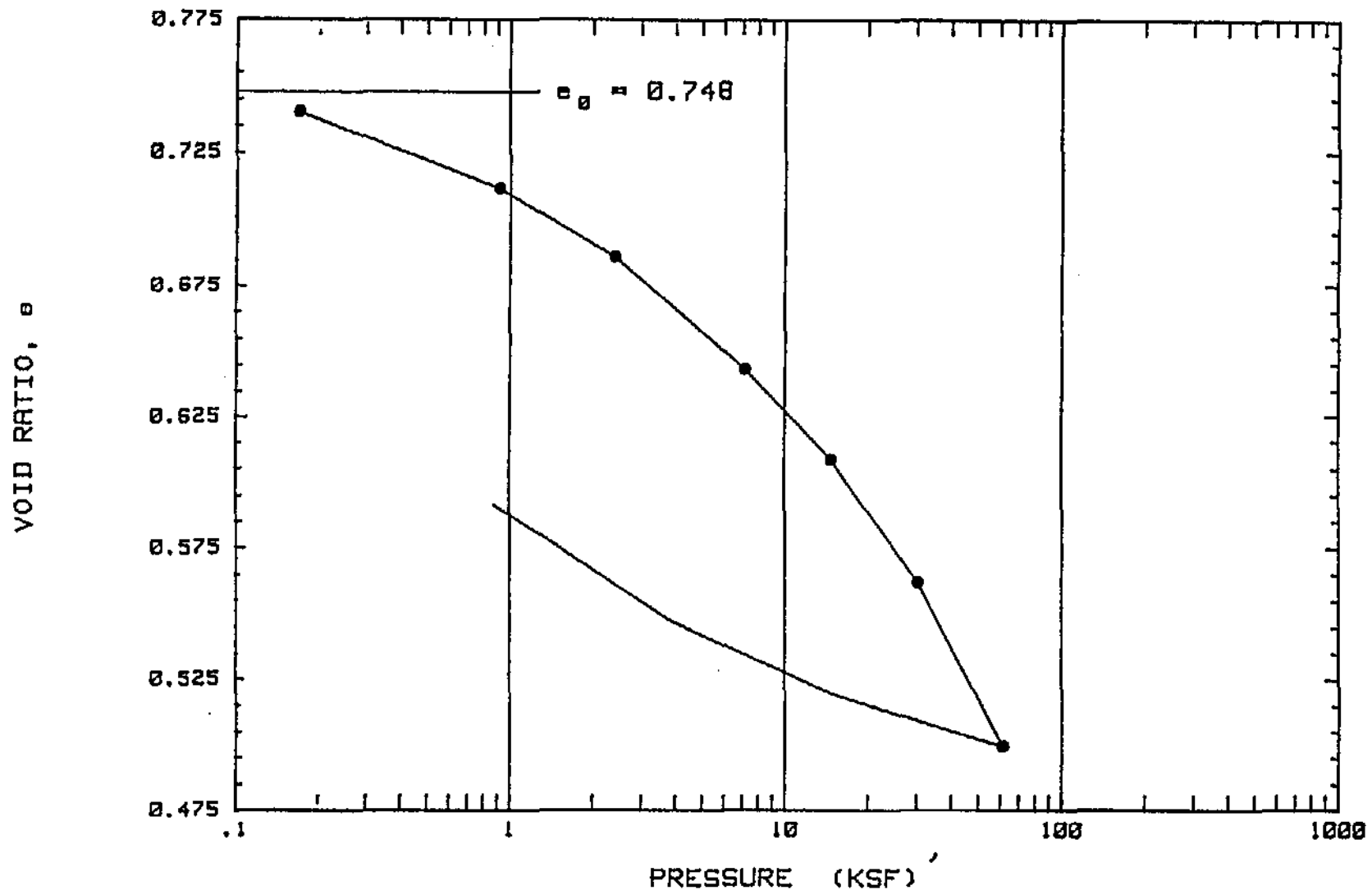
BORING : D-2

SAMPLE :

CLIENT : DUANE MILLER

DEPTH: 6 FEET

LABORATORY : C98015

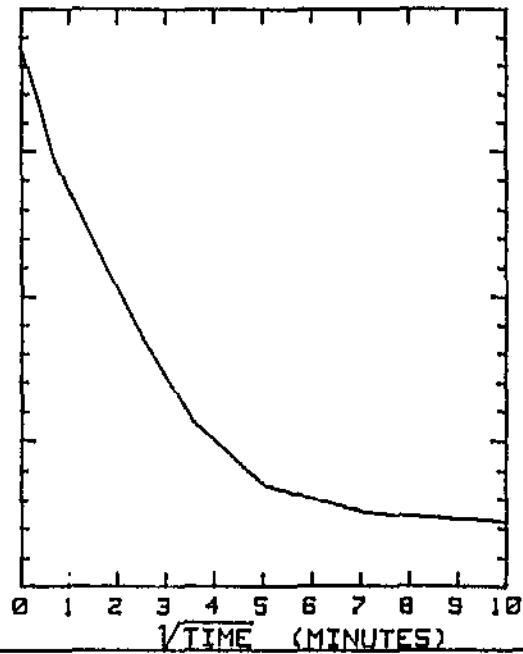
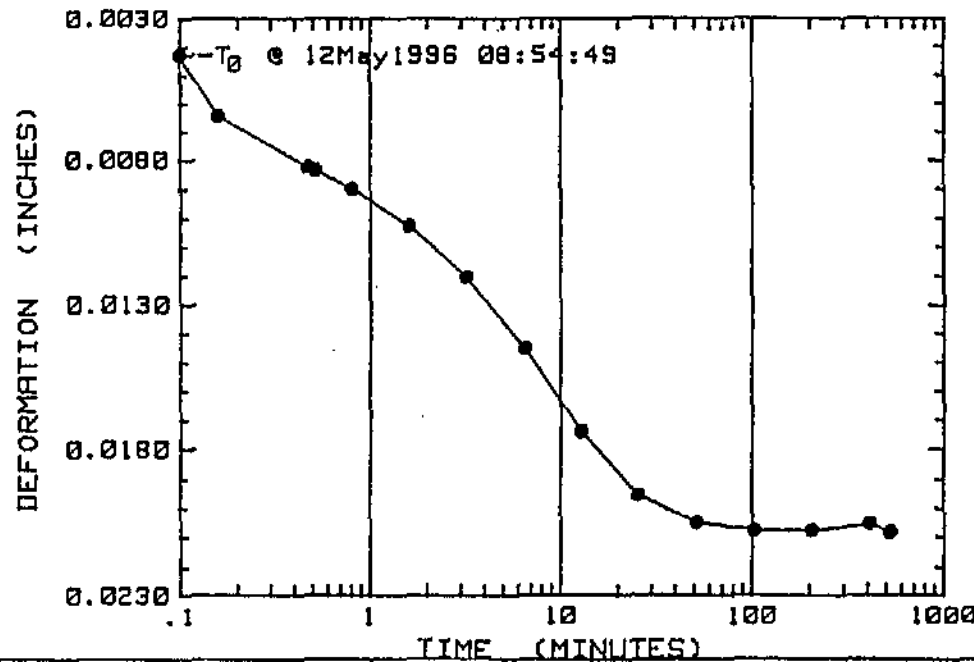
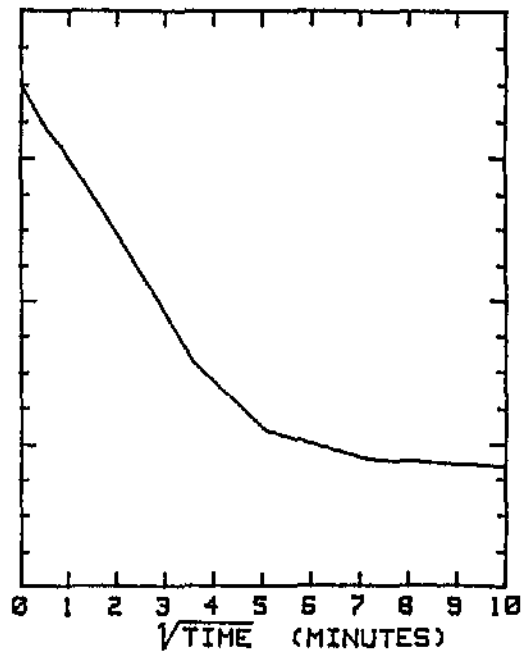
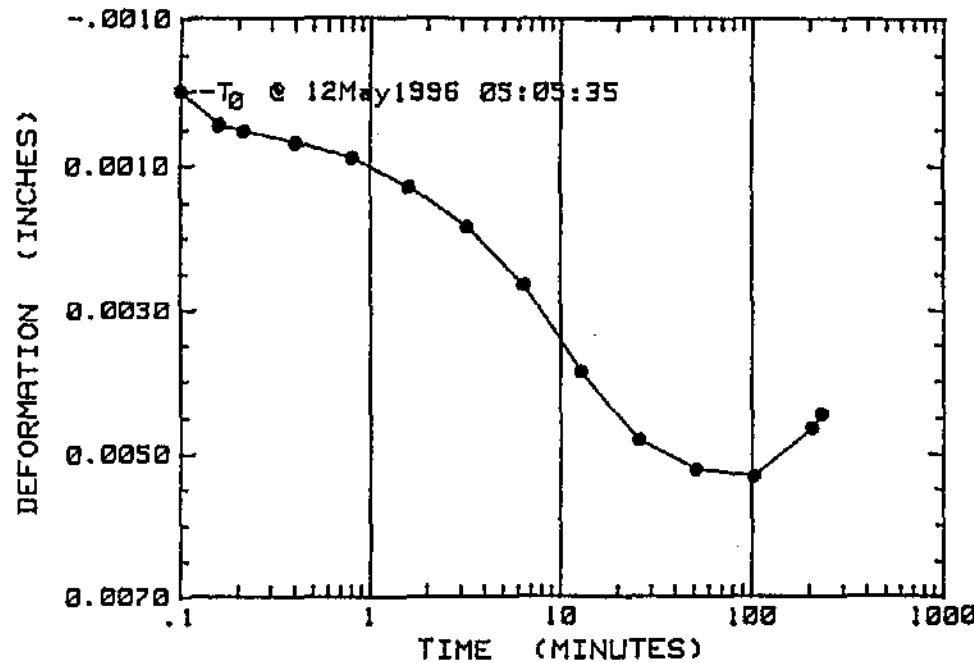


ALASKA TESTLAB

*Compression Curve (e vs. Log P)*

WO # R27711

FIGURE

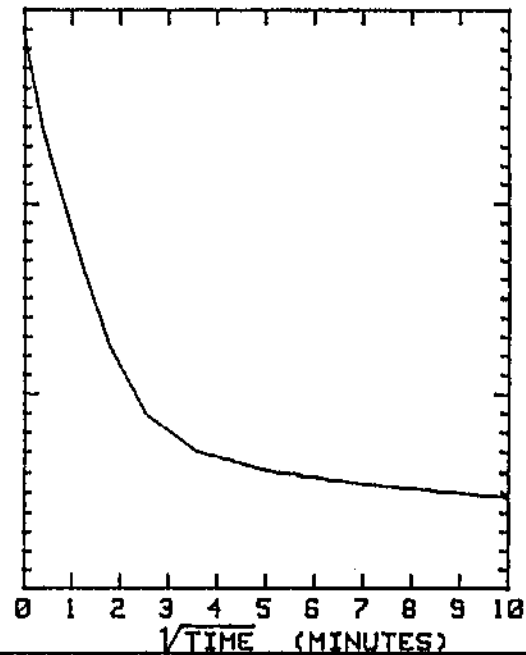
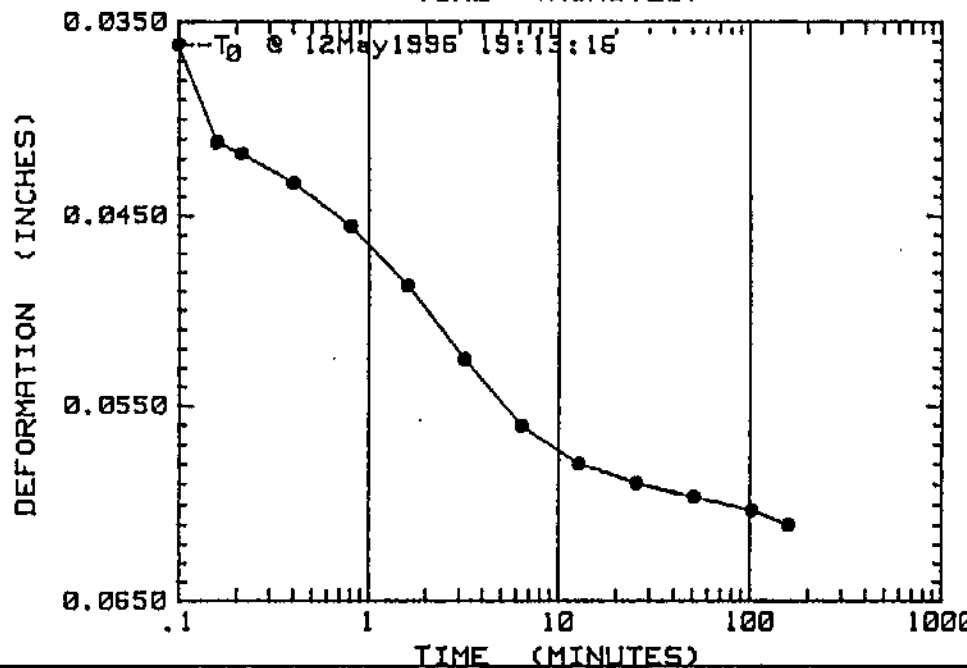
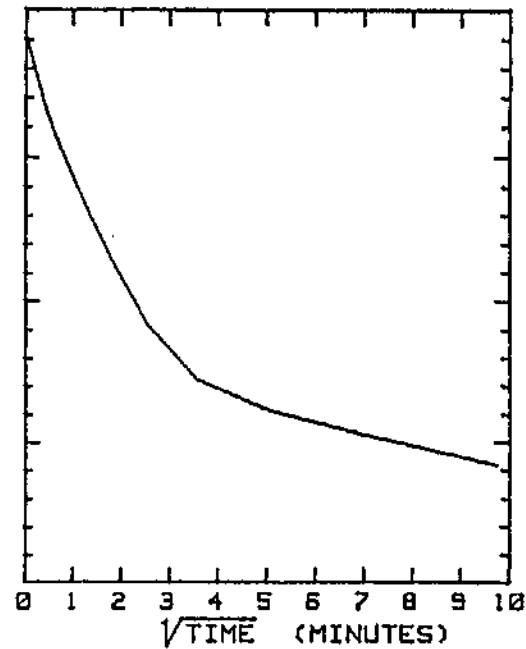
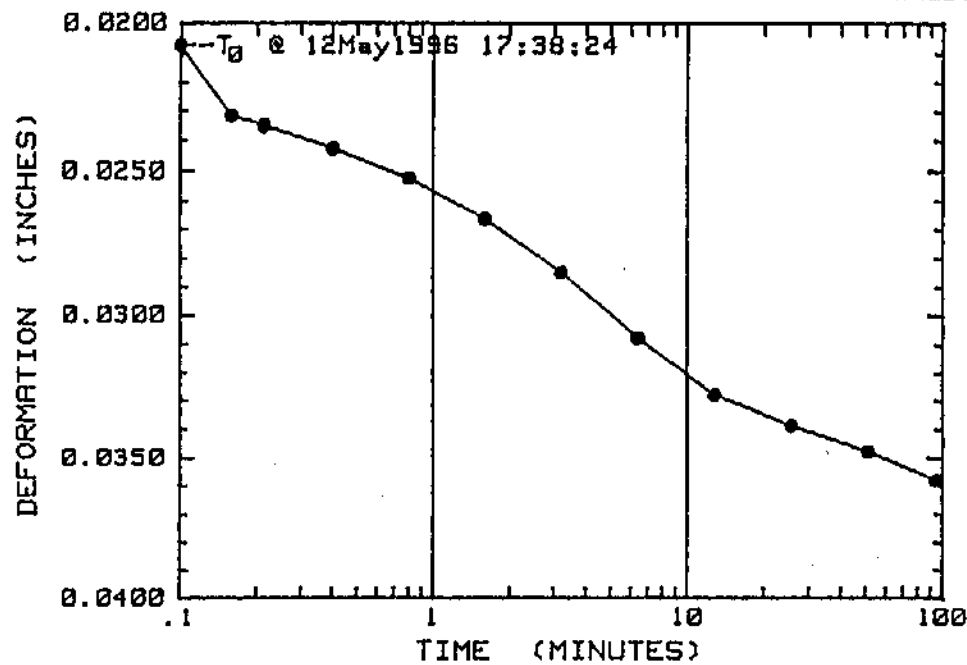


ALASKA TESTLAB

Time Rate of Consolidation

NO #A27711

FIGURE

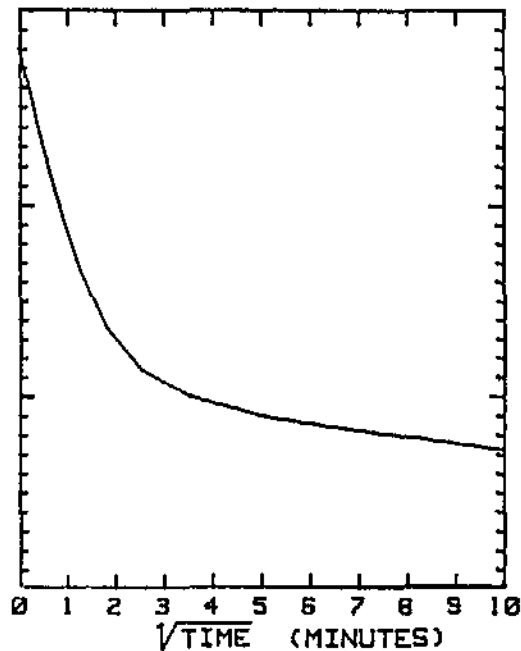
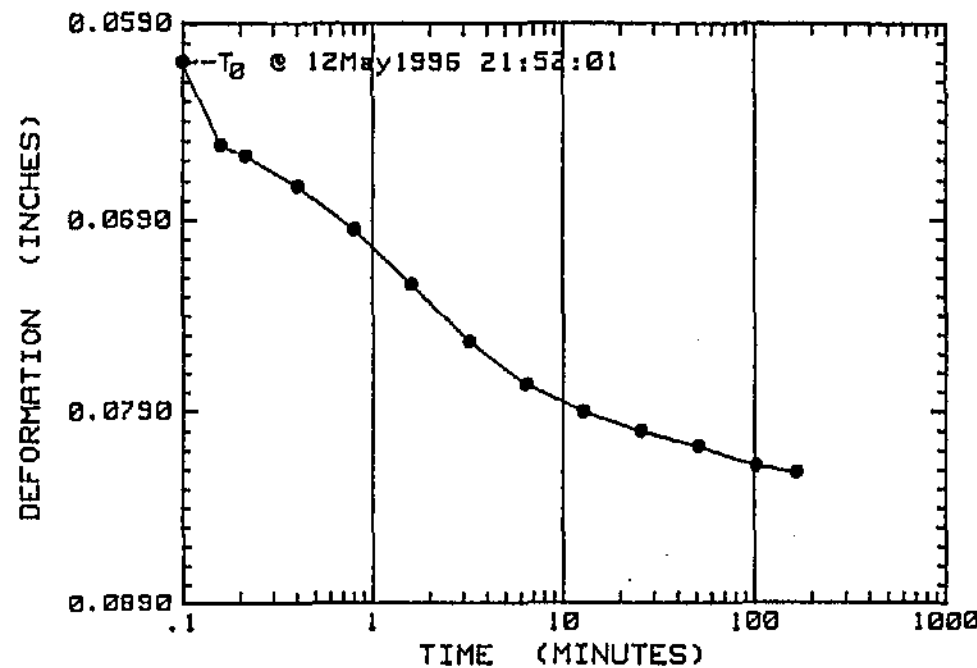


ALASKA TESTLAB

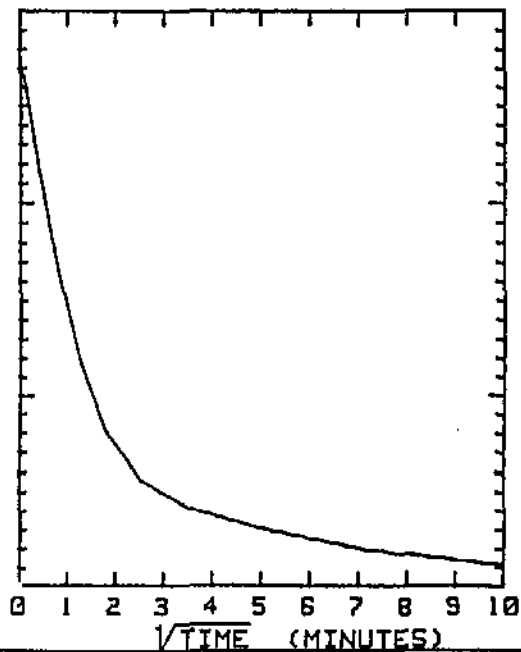
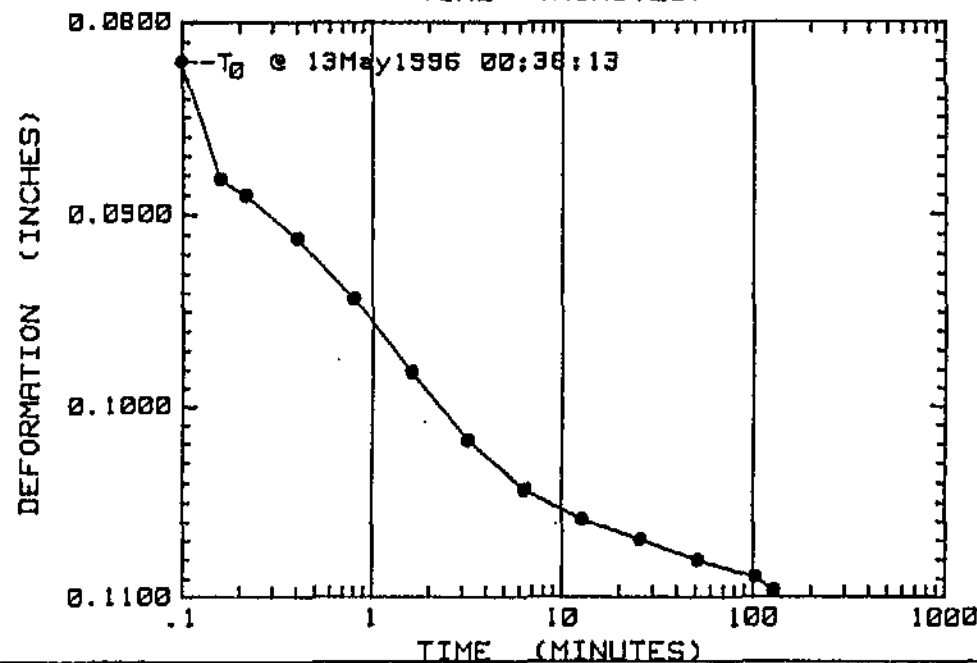
*Time Rate of Consolidation*

NO # A27711

FIGURE



NO #A27711  
BORING #D-2  
SAMPLE #  
PART # 0  
DEPTH : 6 FEET  
(SUBTRACT A CORRECTION  
OF 0.0027"  
FROM EACH READING)  
PRESSURE: 14800 PSF



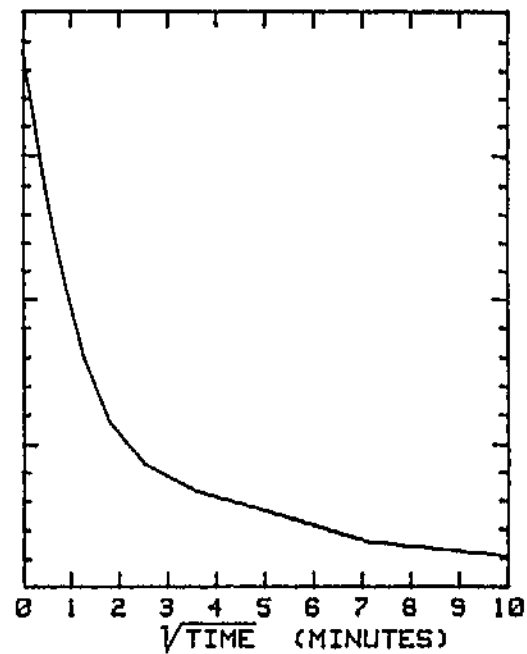
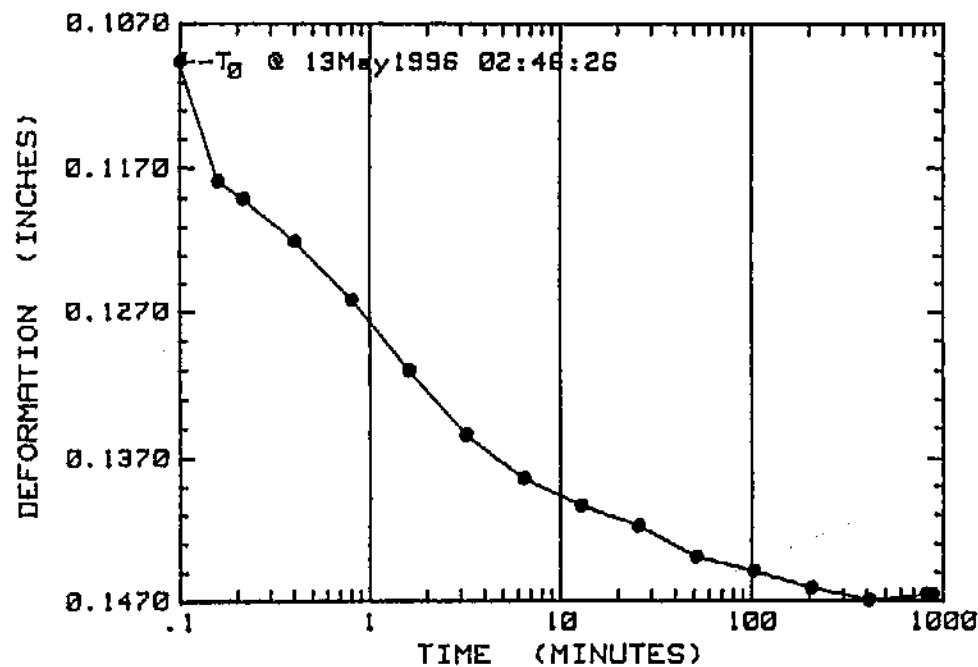
NO #A27711  
BORING #D-2  
SAMPLE #  
PART # 0  
DEPTH : 6 FEET  
(SUBTRACT A CORRECTION  
OF 0.0037"  
FROM EACH READING)  
PRESSURE: 30300 PSF



ALASKA TESTLAB

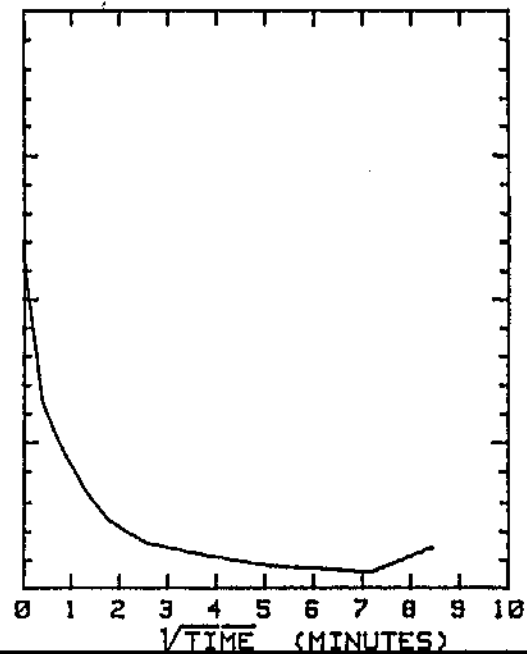
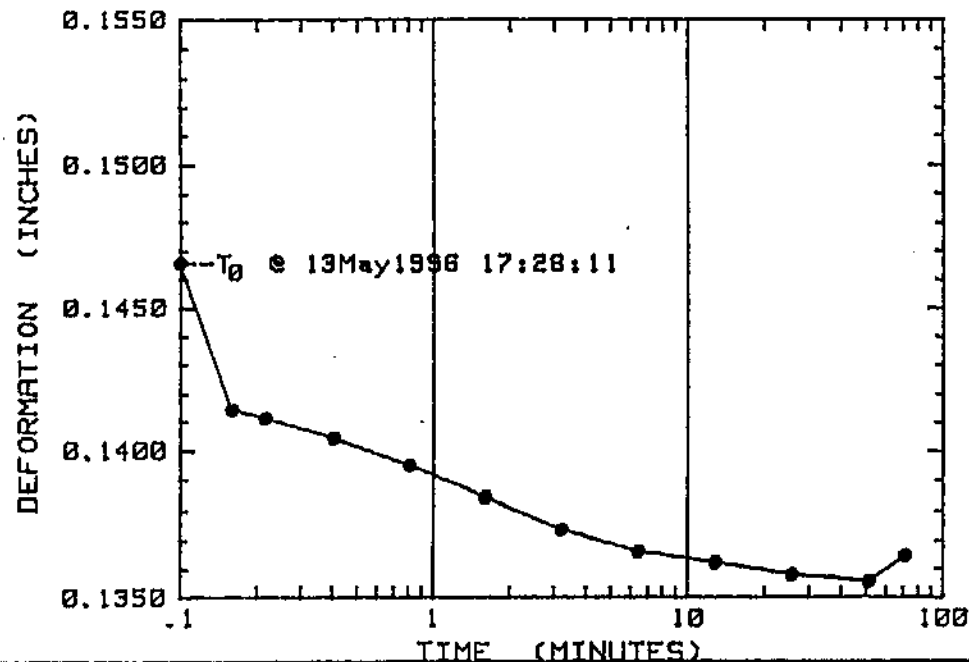
*Time Rate of Consolidation*

NO # A27711  
FIGURE



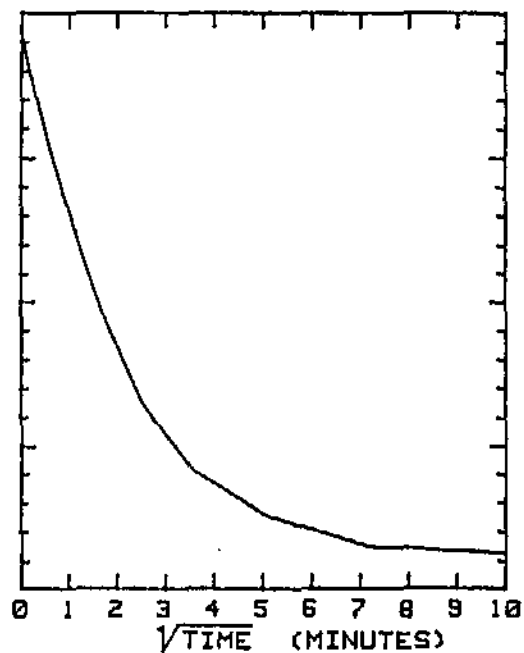
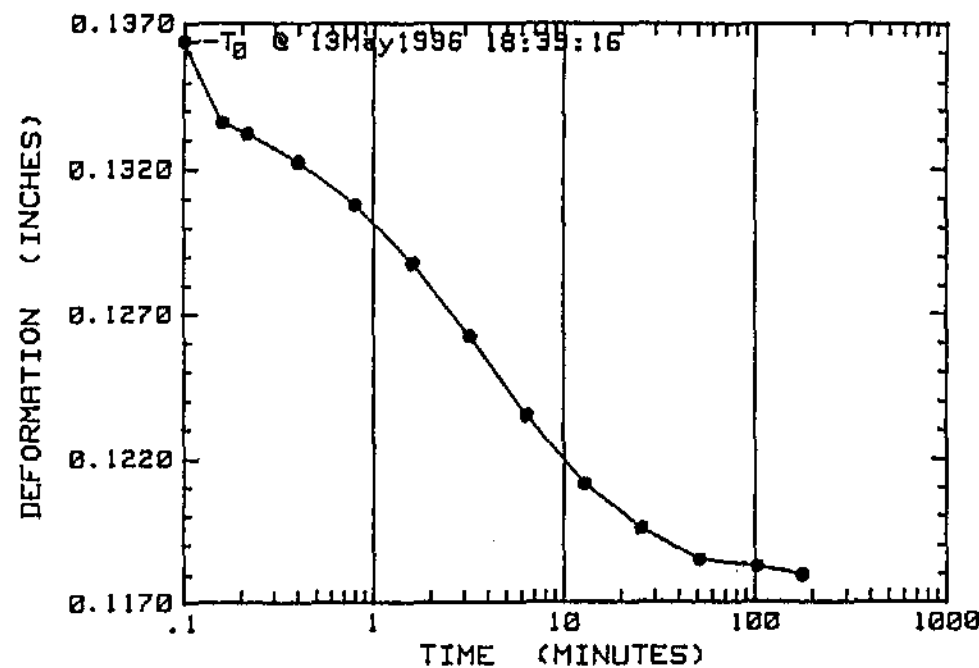
WO #A27711  
BORING #D-2  
SAMPLE #  
PART # 8  
DEPTH 16 FEET  
(SUBTRACT A CORRECTION  
OF 0.0053"  
FROM EACH READING)

PRESSURE: 61300 PSF



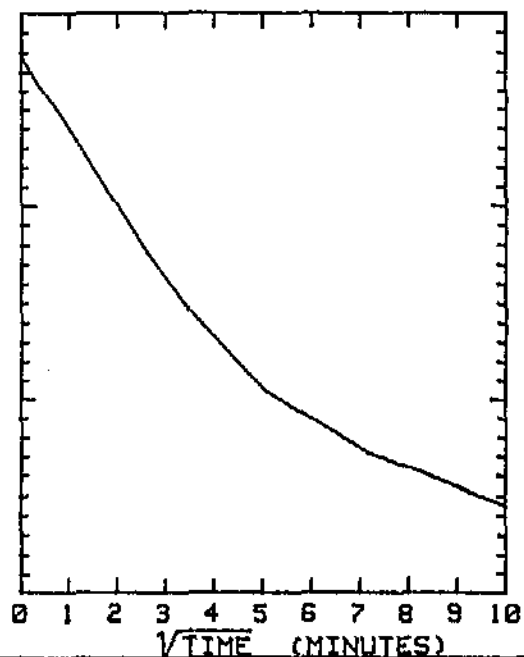
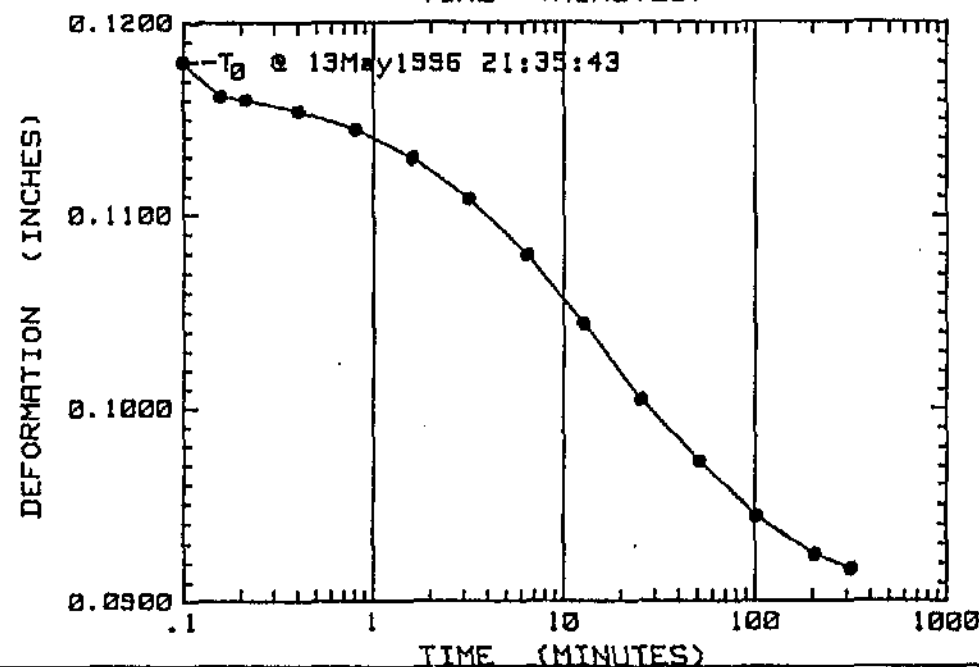
WO #A27711  
BORING #D-2  
SAMPLE #  
PART # 8  
DEPTH 16 FEET  
(SUBTRACT A CORRECTION  
OF 0.0032"  
FROM EACH READING)

PRESSURE: 14700 PSF



NO #A27711  
BORING #D-2  
SAMPLE #  
PART # 0  
DEPTH : 6 FEET  
(SUBTRACT A CORRECTION  
OF 0.0018"  
FROM EACH READING)

PRESSURE: 3760 PSF



NO #A27711  
BORING #D-2  
SAMPLE #  
PART # 0  
DEPTH : 6 FEET  
(SUBTRACT A CORRECTION  
OF 0.0009"  
FROM EACH READING)

PRESSURE: 876 PSF

PROJECT : LIBERTY

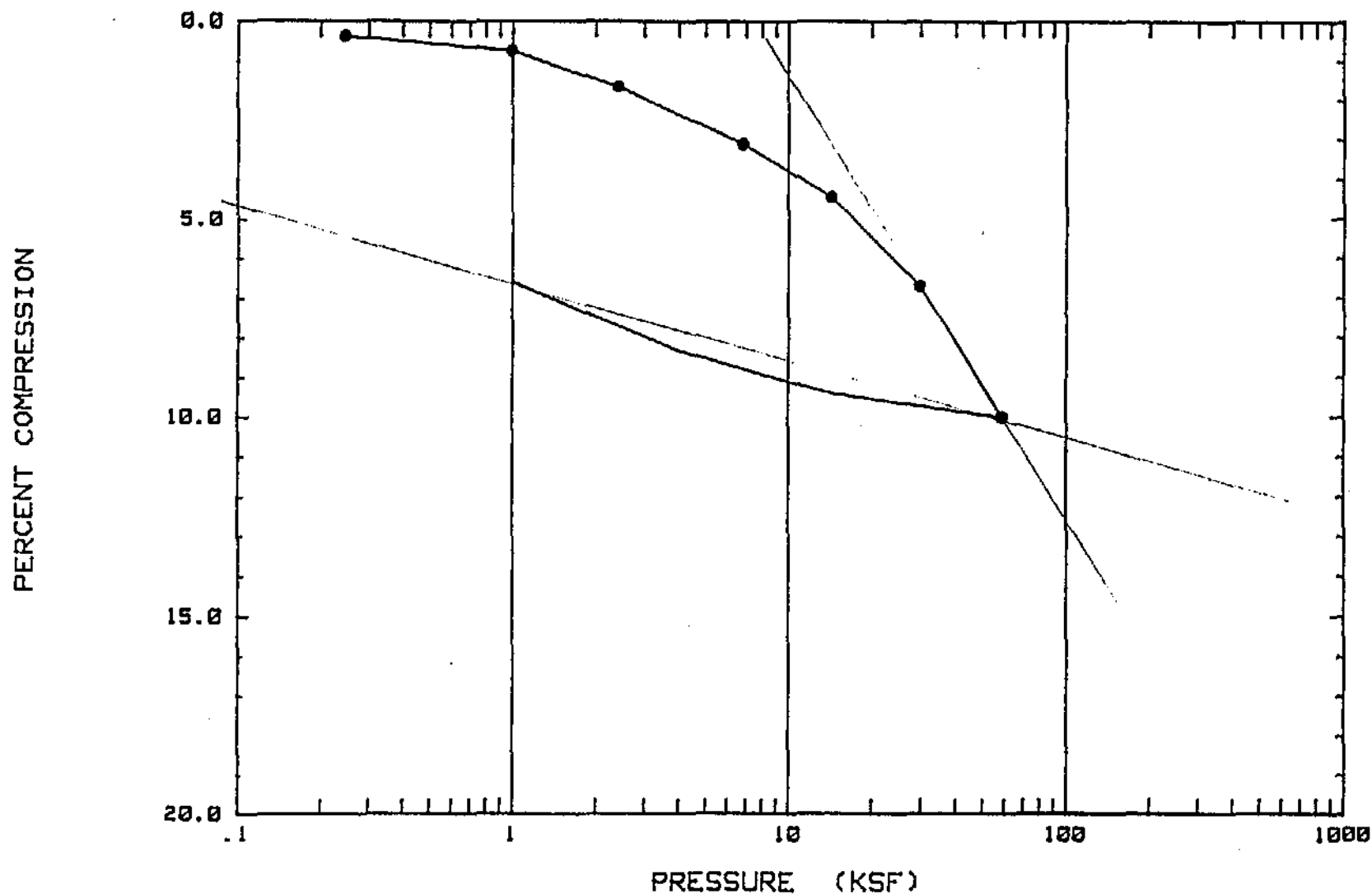
CLIENT : DUANE MILLER

BORING # D-3

SAMPLE #

DEPTH: 11 FEET

LABORATORY # T98018



ALASKA TESTLAB

*Compression Curve (%Comp. vs. Log P)*

WD # A27711

FIGURE

PROJECT : LIBERTY

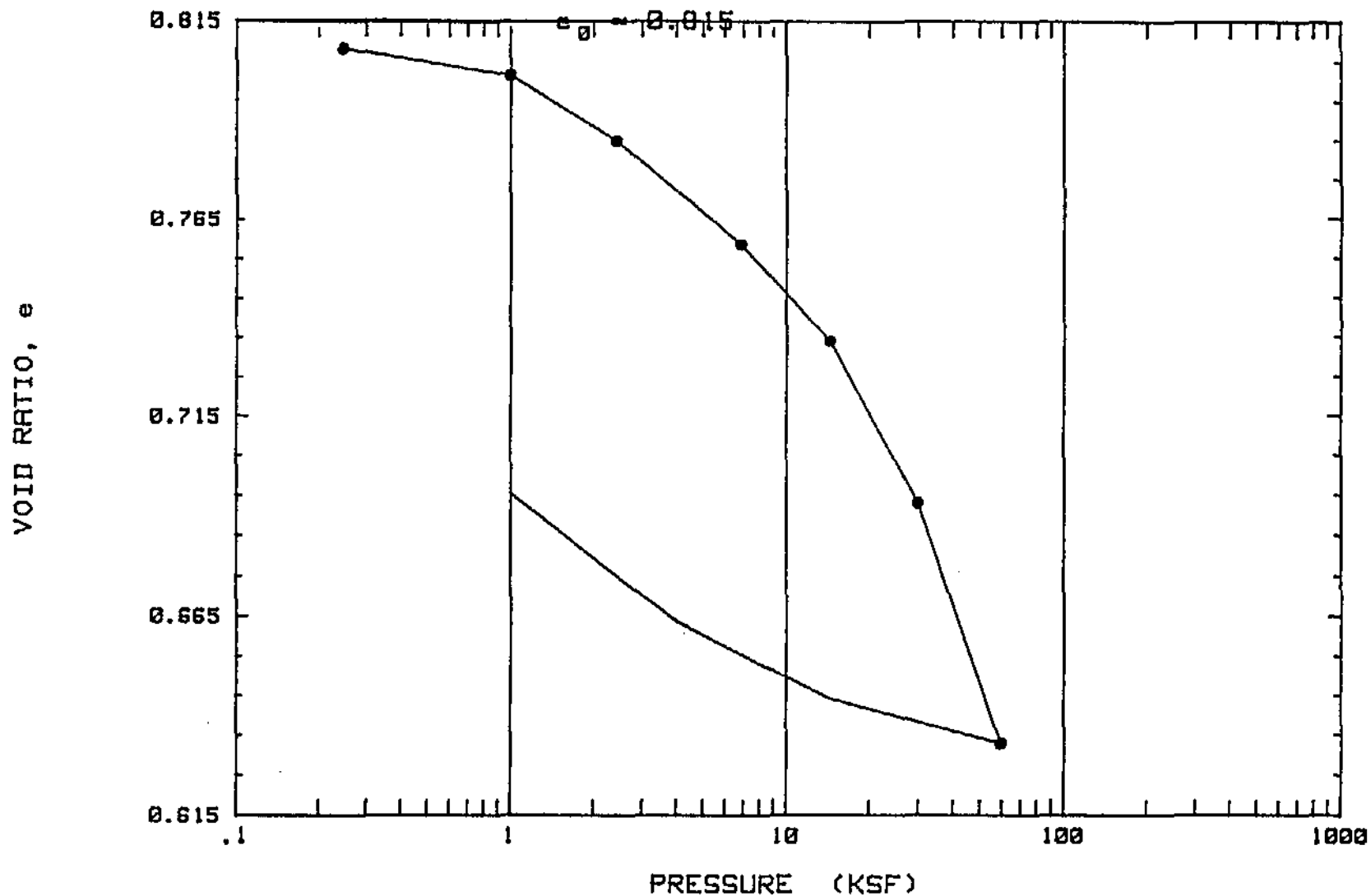
CLIENT : DUANE MILLER

BORING : D-3

SAMPLE :

DEPTH: 11 FEET

LABORATORY : T98018

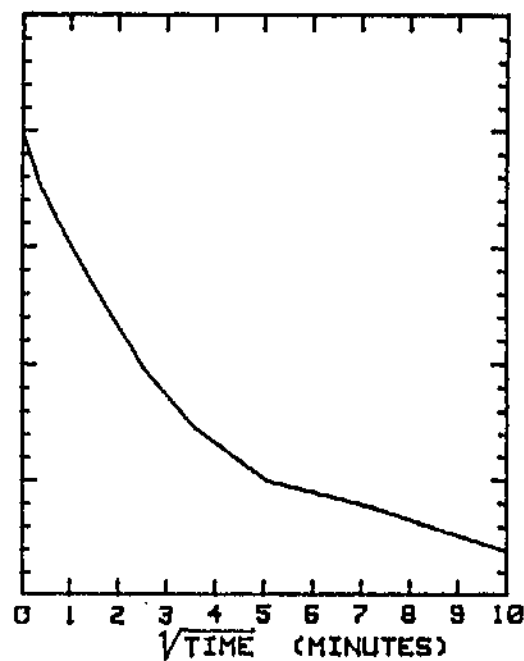
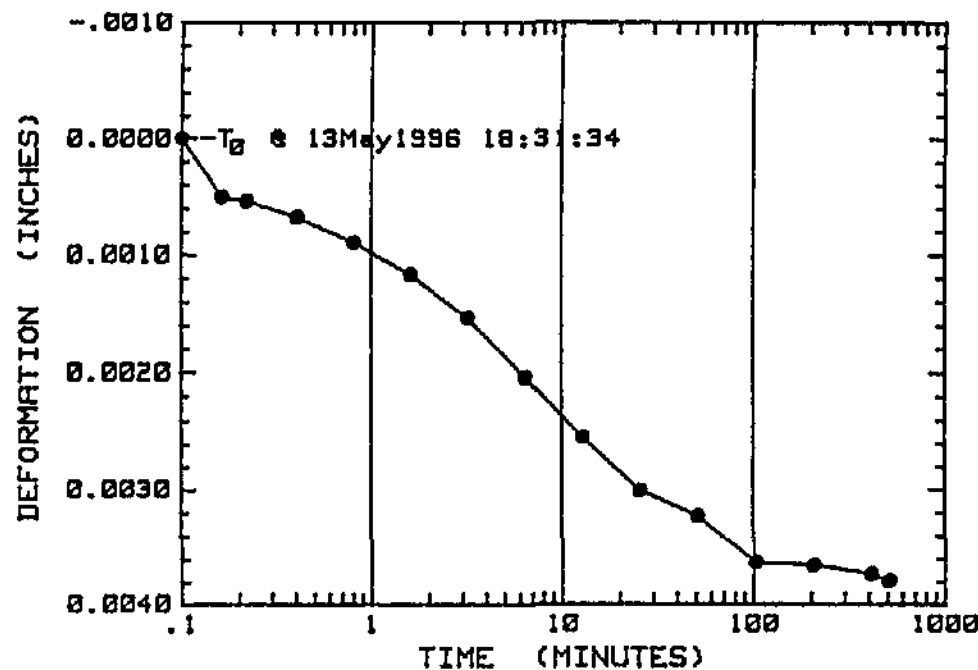


ALASKA TESTLAB

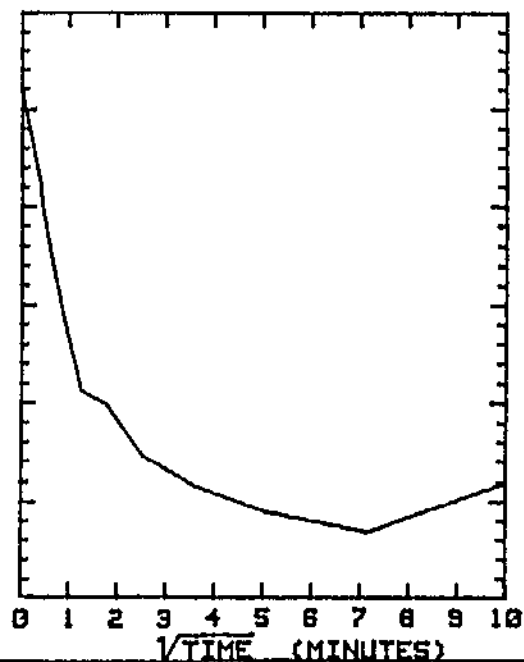
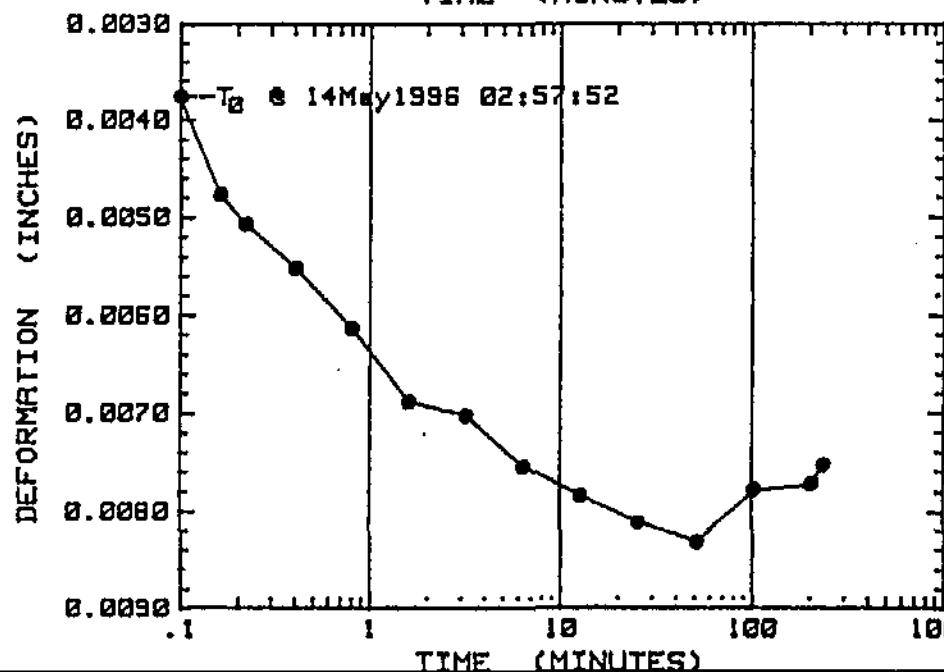
Compression Curve ( $e$  vs.  $\log P$ )

WO # R27711

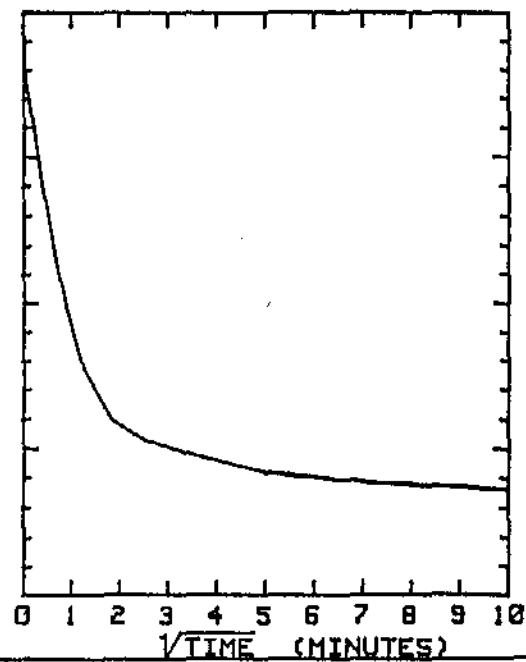
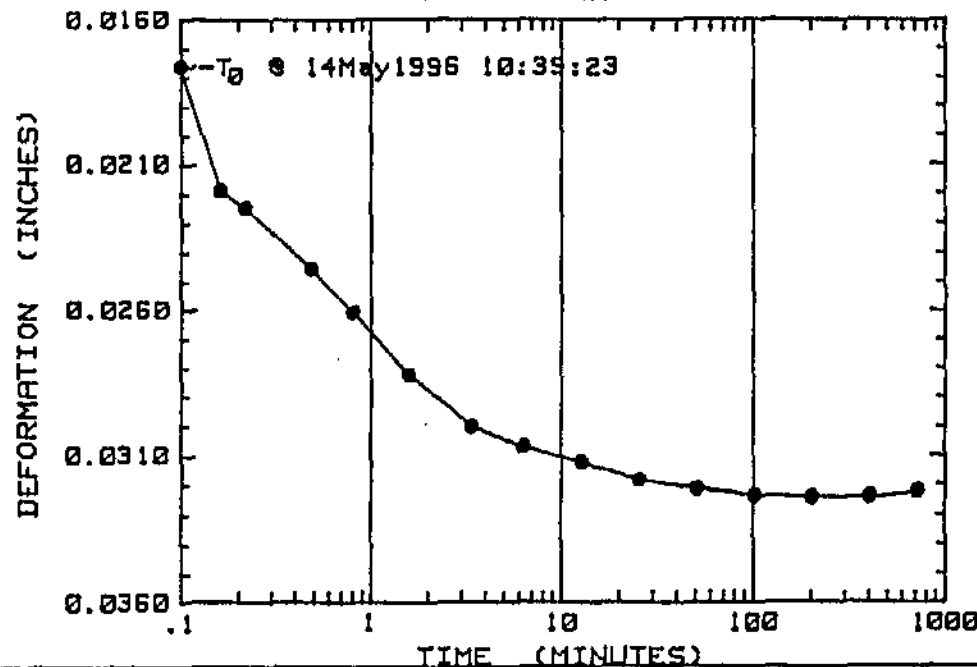
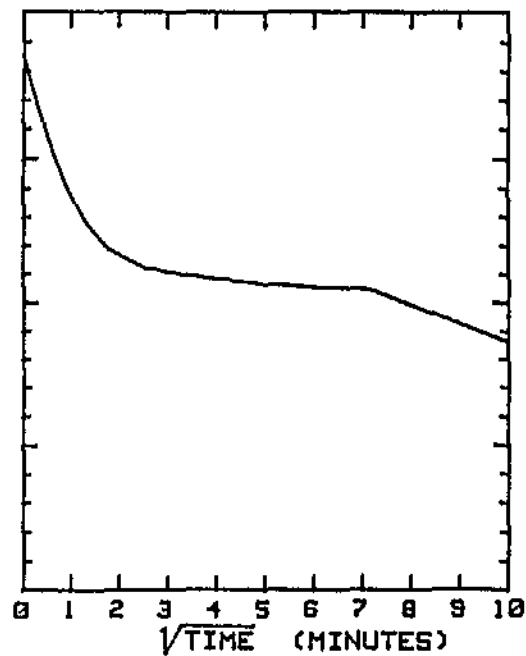
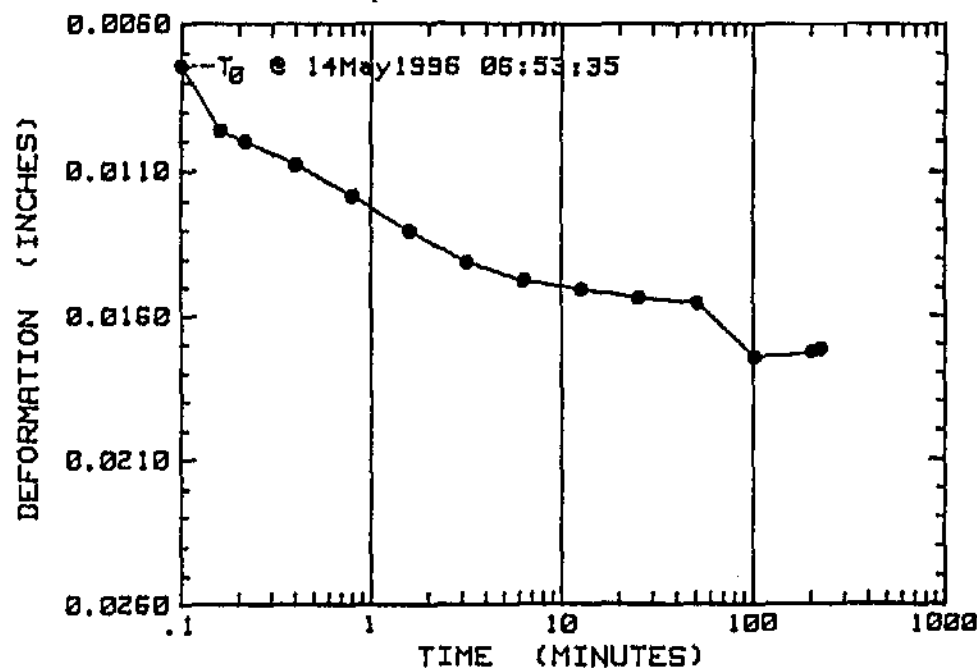
FIGURE



NO #A27711  
 BORING #D-3  
 SAMPLE #  
 PART # 0  
 DEPTH : 11 FEET  
 (SUBTRACT A CORRECTION  
 OF 0.0000"  
 FROM EACH READING)  
 PRESSURE: 247 PSF



NO #A27711  
 BORING #D-3  
 SAMPLE #  
 PART # 0  
 DEPTH : 11 FEET  
 (SUBTRACT A CORRECTION  
 OF 0.0000"  
 FROM EACH READING)  
 PRESSURE: 997 PSF

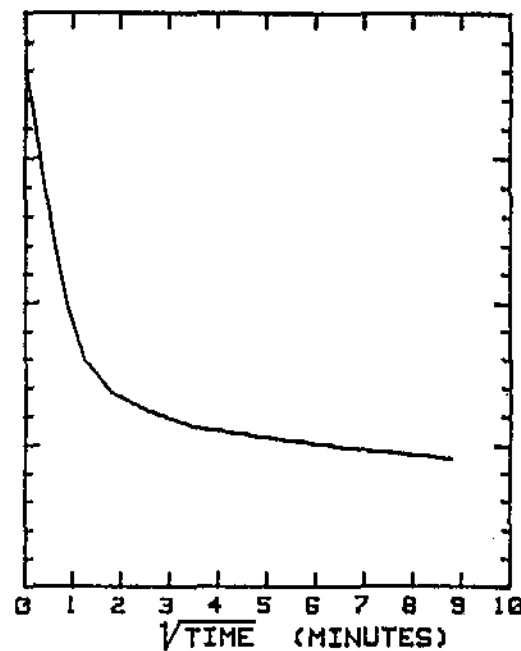
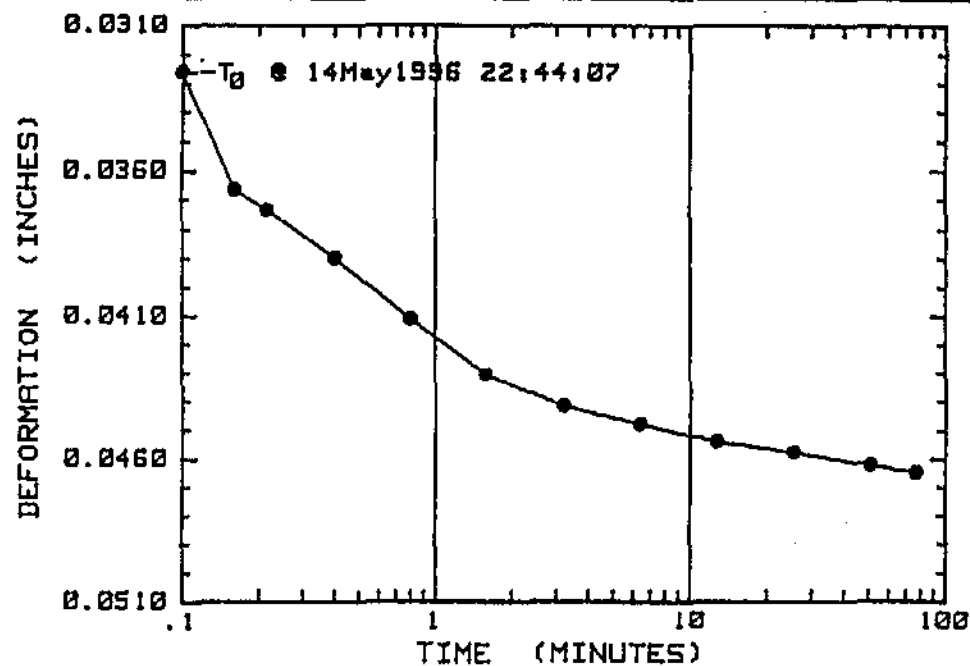


ALASKA TESTLAB

Time Rate of Consolidation

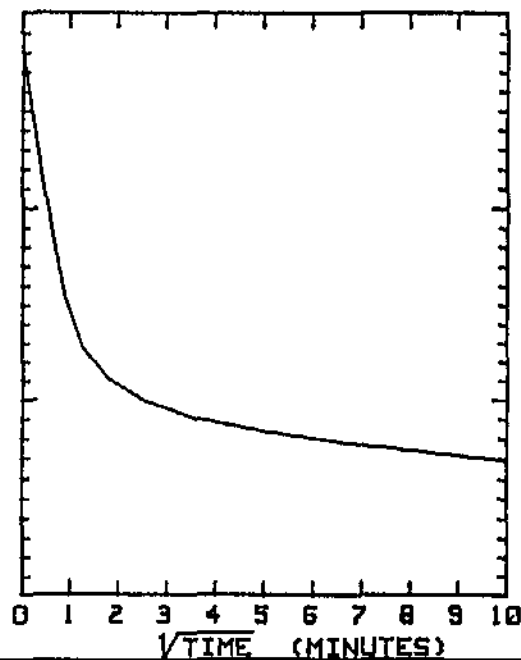
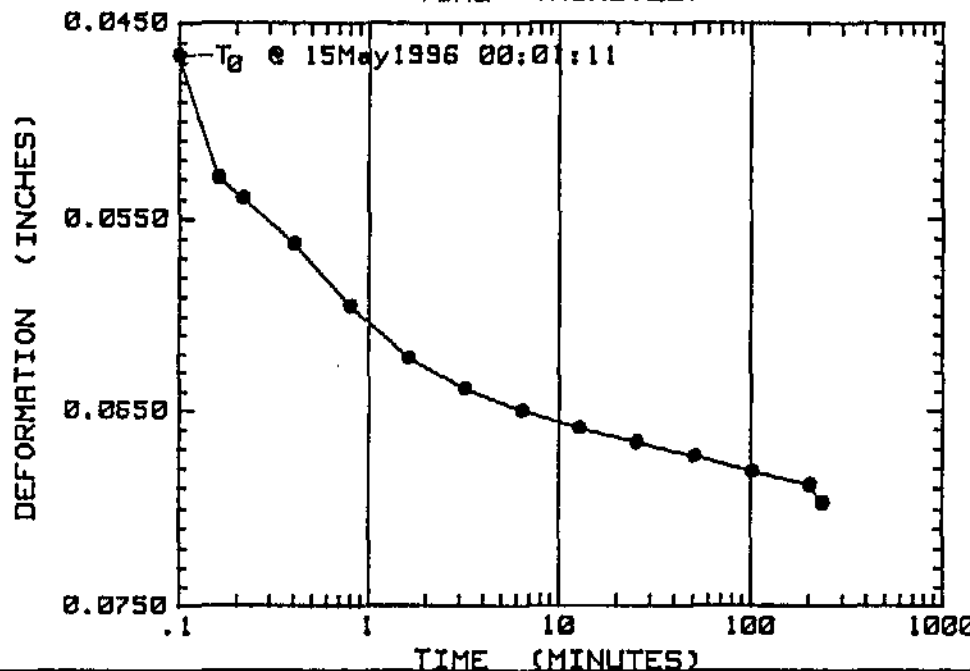
NO # A27711

FIGURE



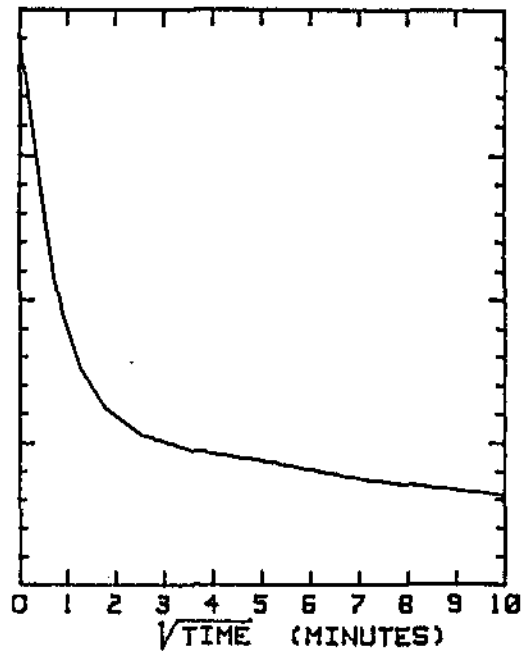
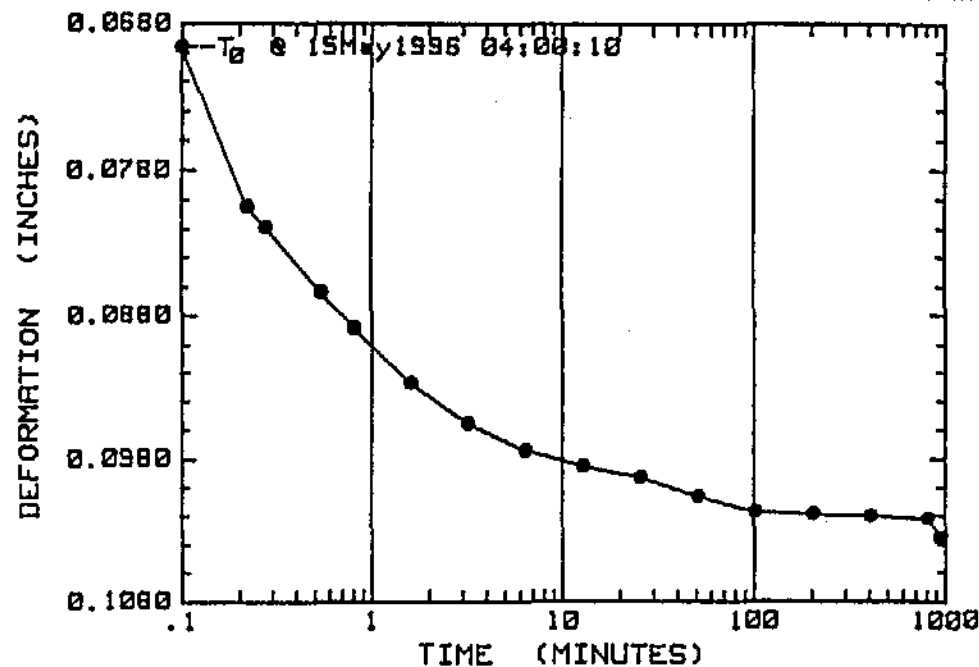
NO #A27711  
BORING #D-3  
SAMPLE #  
PART # 8  
DEPTH 111 FEET  
(SUBTRACT A CORRECTION  
OF 0.0022"  
FROM EACH READING)

PRESSURE: 14400 PSF

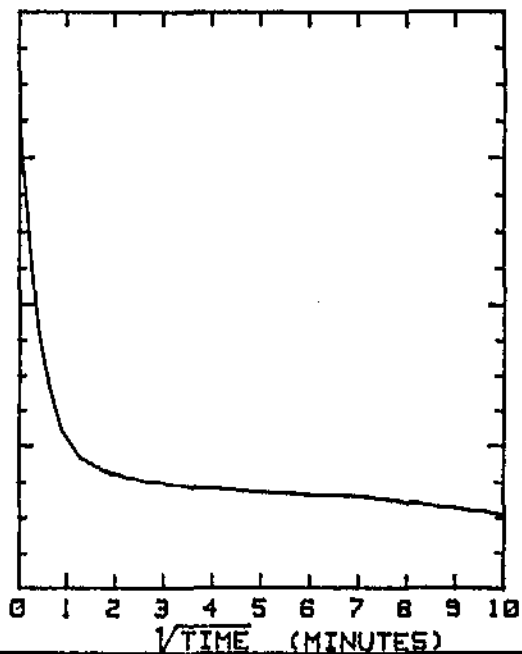
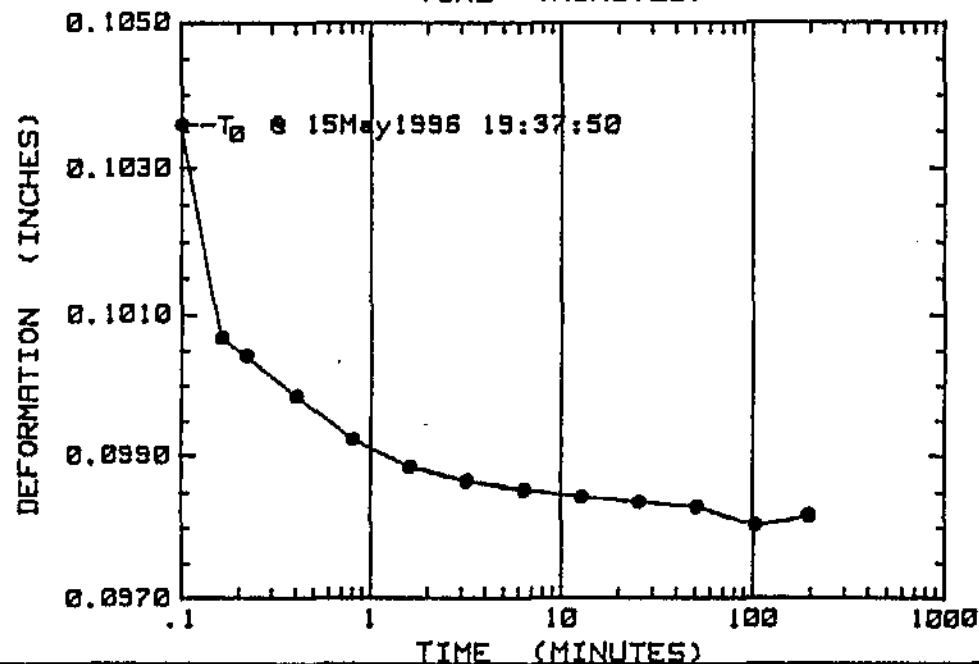


NO #A27711  
BORING #D-3  
SAMPLE #  
PART # 8  
DEPTH 111 FEET  
(SUBTRACT A CORRECTION  
OF 0.0023"  
FROM EACH READING)

PRESSURE: 23500 PSF



NO #A27711  
BORING #D-3  
SAMPLE #  
PART # 2  
DEPTH 111 FEET  
(SUBTRACT A CORRECTION  
OF 0.0038"  
FROM EACH READING)  
PRESSURE: 59300 PSF



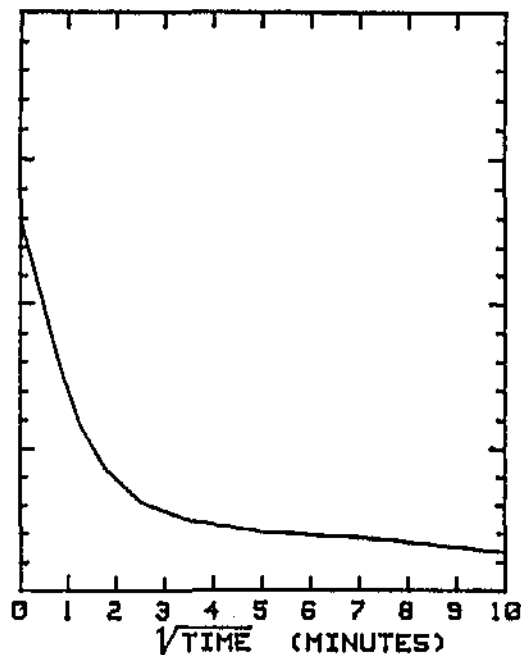
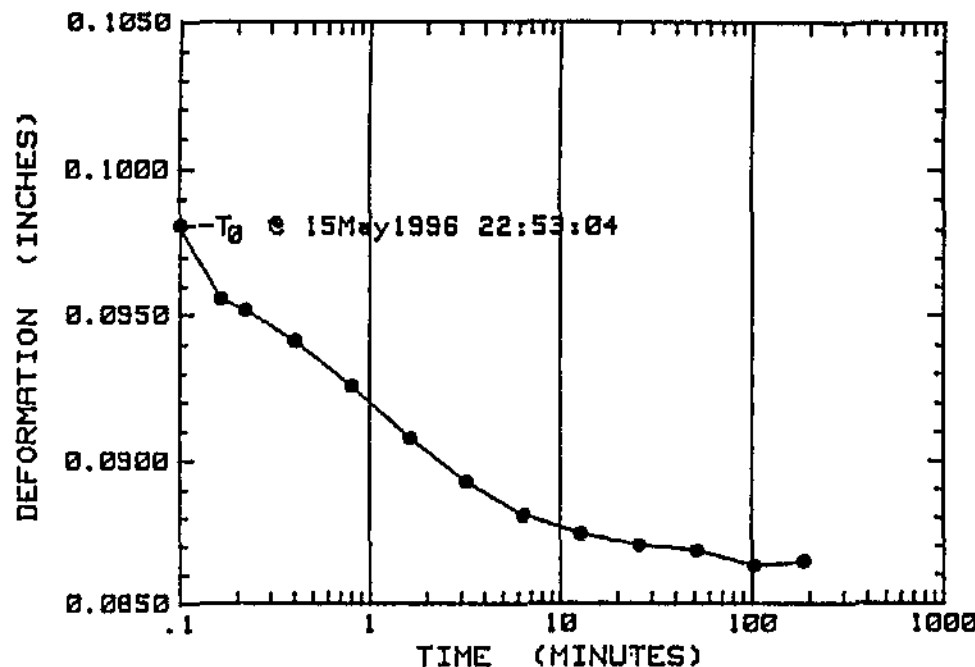
NO #A27711  
BORING #D-3  
SAMPLE #  
PART # 2  
DEPTH 111 FEET  
(SUBTRACT A CORRECTION  
OF 0.0025"  
FROM EACH READING)  
PRESSURE: 14900 PSF



ALASKA TESTLAB

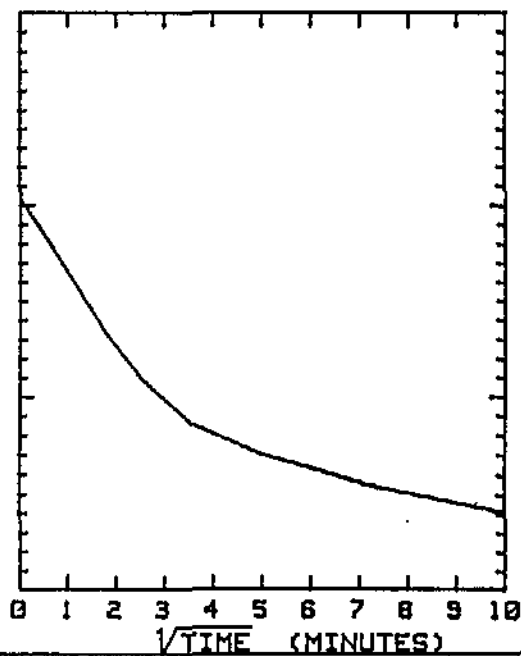
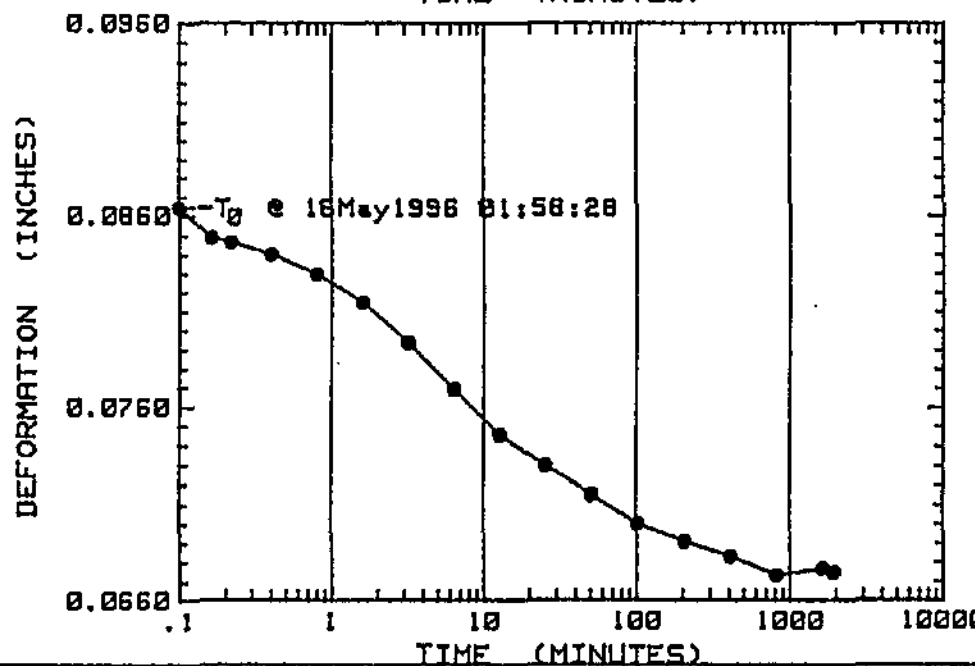
*Time Rate of Consolidation*

NO #A27711  
FIGURE



NO #A27711  
BORING #D-3  
SAMPLE #  
PART # 0  
DEPTH 111 FEET  
(SUBTRACT A CORRECTION  
OF 0.0014"  
FROM EACH READING)

PRESSURE: 3930 PSF



NO #A27711  
BORING #D-3  
SAMPLE #  
PART # 0  
DEPTH 111 FEET  
(SUBTRACT A CORRECTION  
OF 0.0009"  
FROM EACH READING)

PRESSURE: 994 PSF



ALASKA TESTLAB

*Time Rate of Consolidation*

NO #A27711

FIGURE

PROJECT : LIBERTY

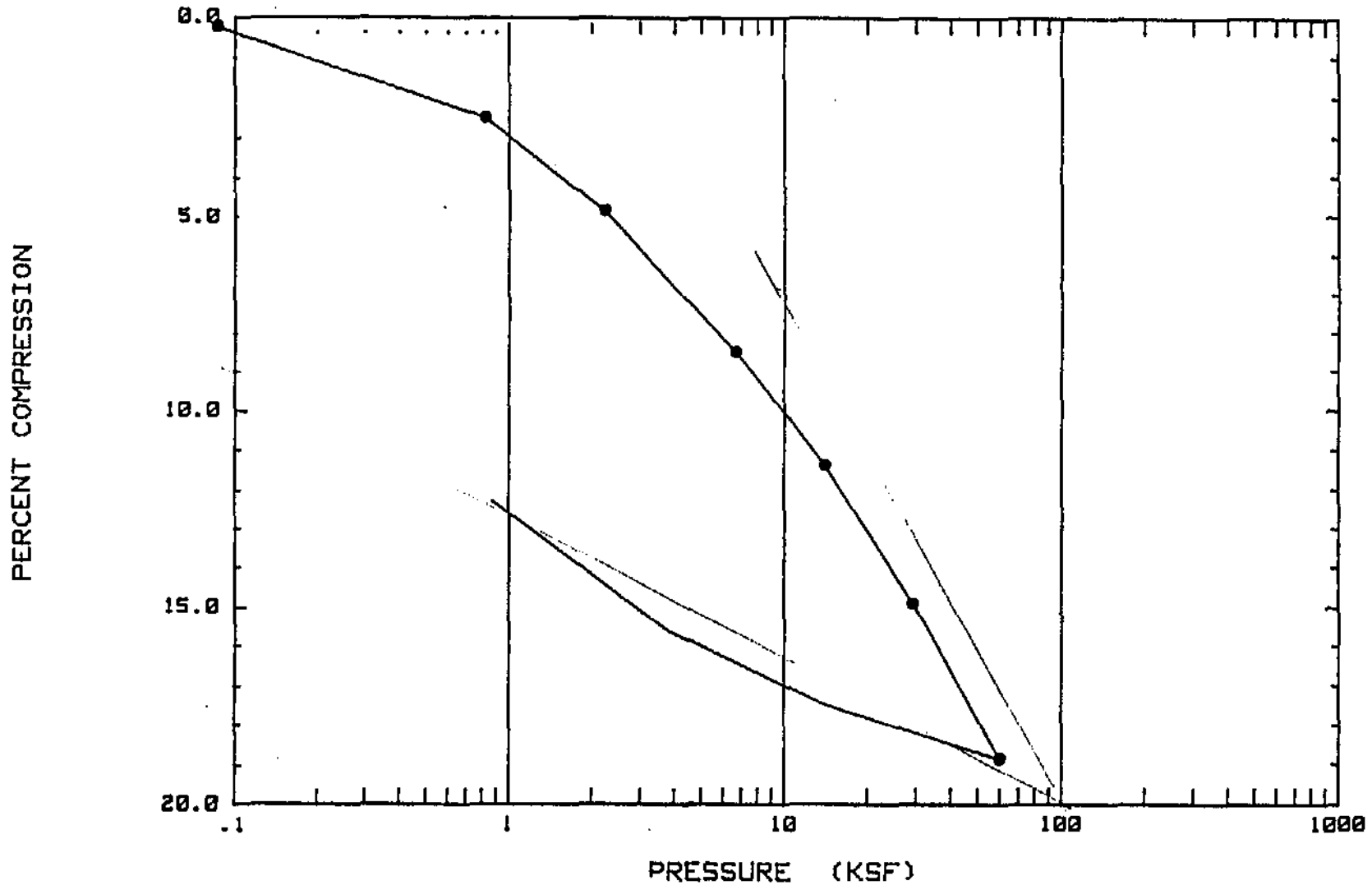
BORING : D-3

SAMPLE :

CLIENT : DUANE MILLER

DEPTH: 16 FEET

LABORATORY : C98016



ALASKA TESTLAB

Compression Curve (%Comp. vs. Log P)

WO # R27711

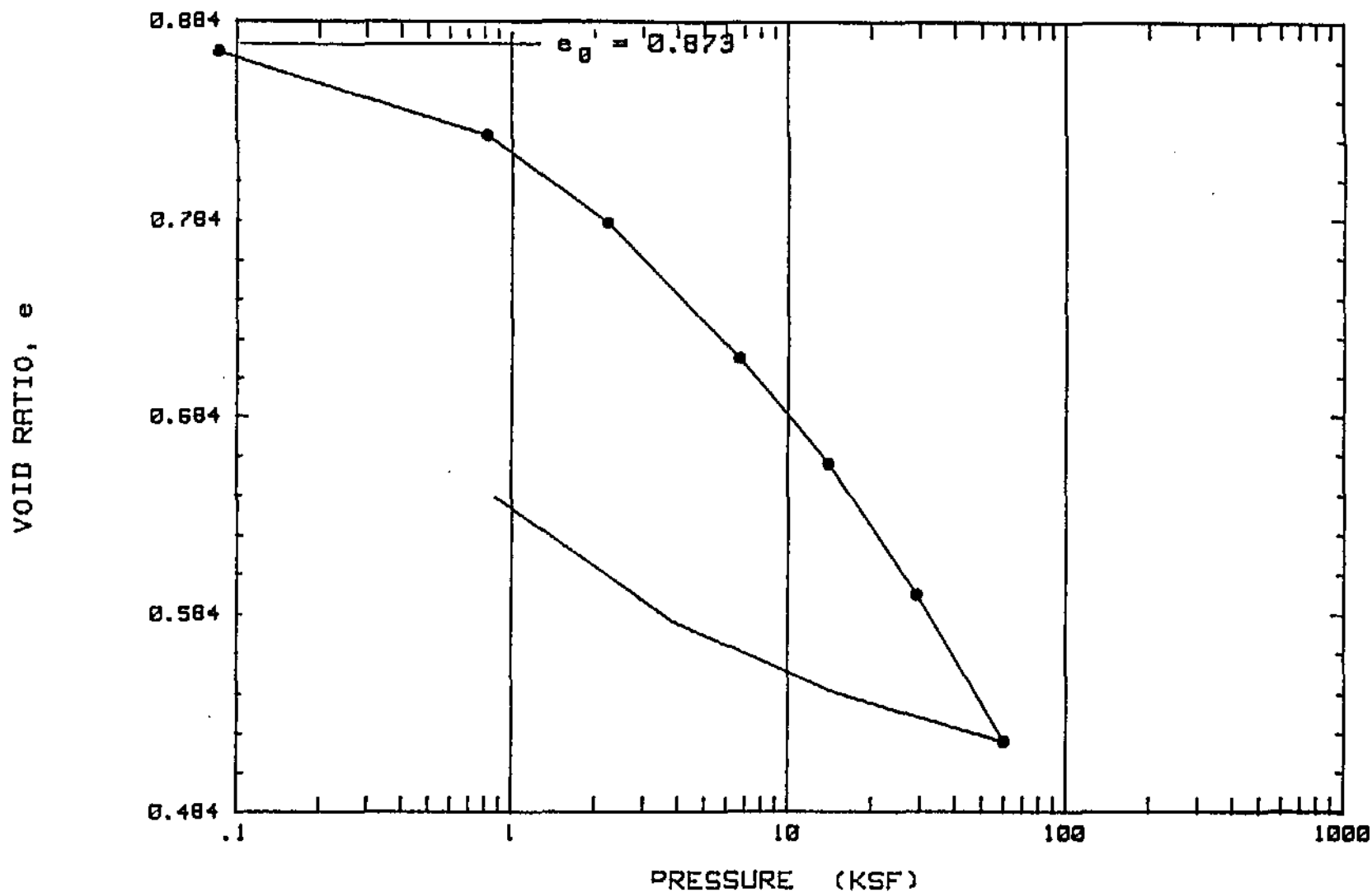
FIGURE

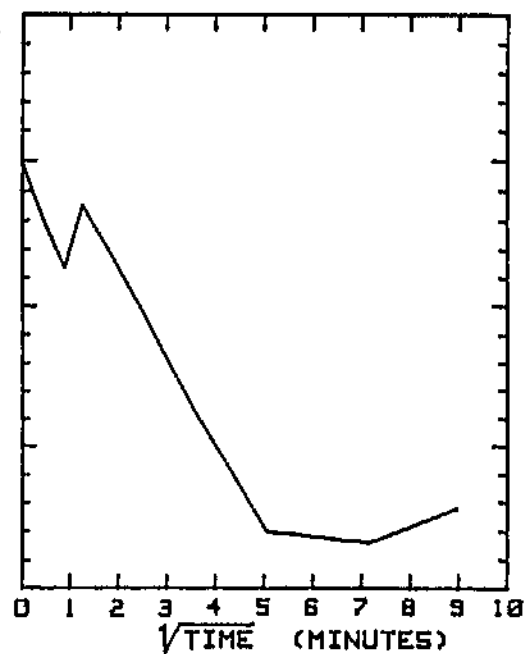
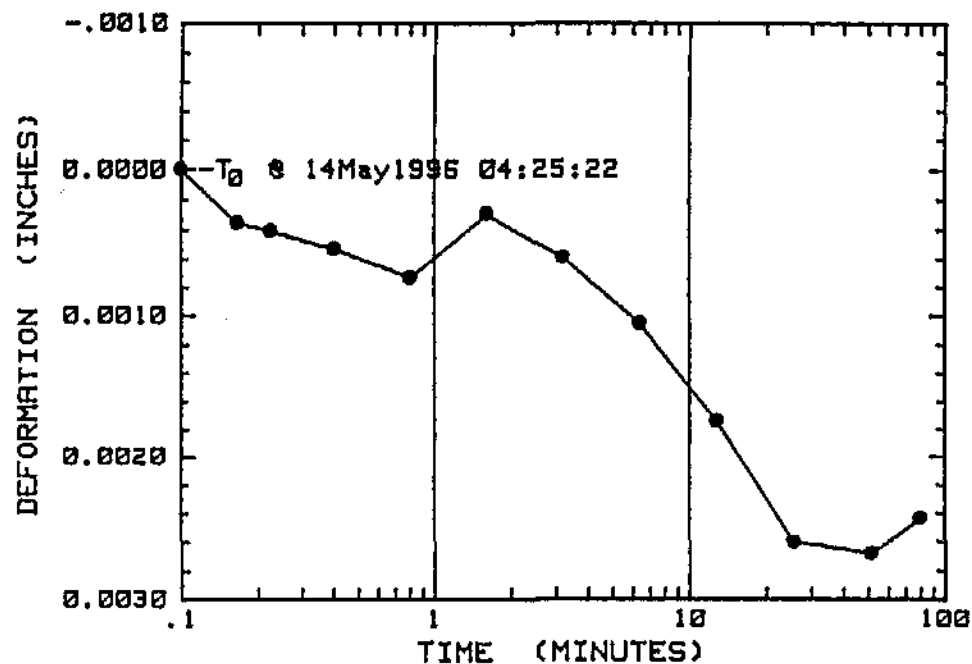
PROJECT : LIBERTY  
BORING : D-3  
SAMPLE :

CLIENT : DUANE MILLER

DEPTH: 16 FEET

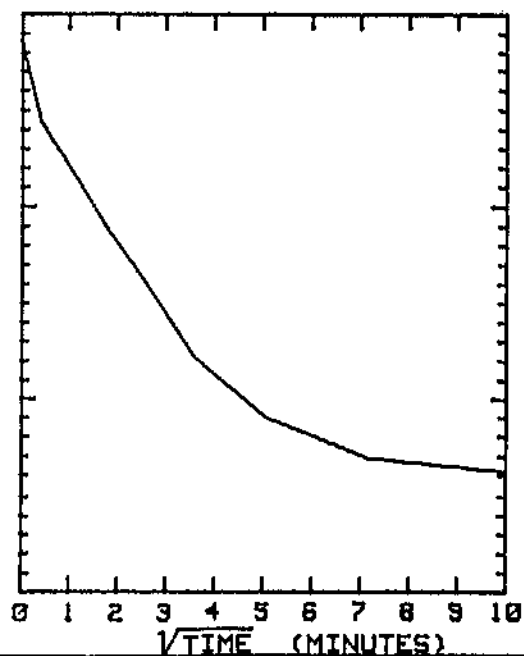
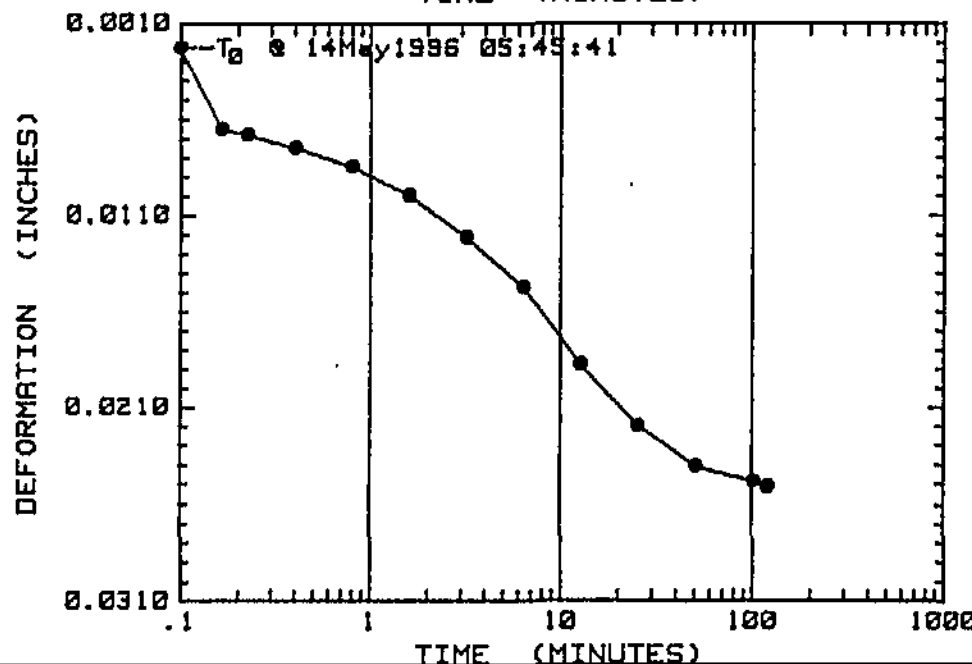
LABORATORY : C98016





WO #A27711  
 BORING #D-3  
 SAMPLE #  
 PART # 8  
 DEPTH : 16 FEET  
 (SUBTRACT A CORRECTION  
 OF 0.0000"  
 FROM EACH READING)

PRESSURE: 86.6 PSF



WO #A27711  
 BORING #D-3  
 SAMPLE #  
 PART # 8  
 DEPTH : 16 FEET  
 (SUBTRACT A CORRECTION  
 OF 0.0000"  
 FROM EACH READING)

PRESSURE: 820 PSF

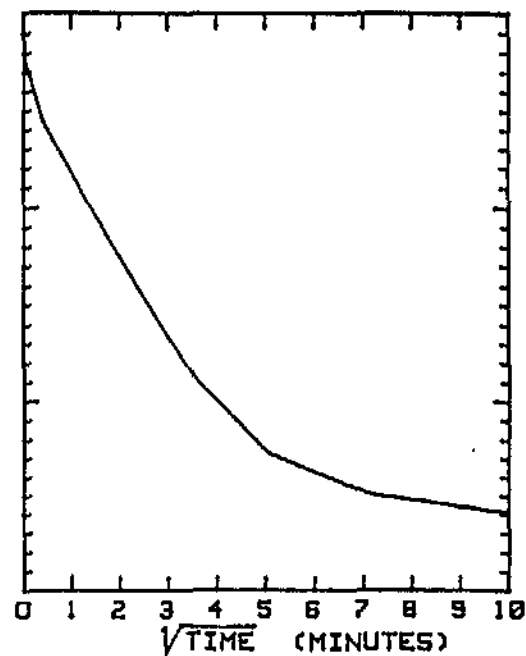
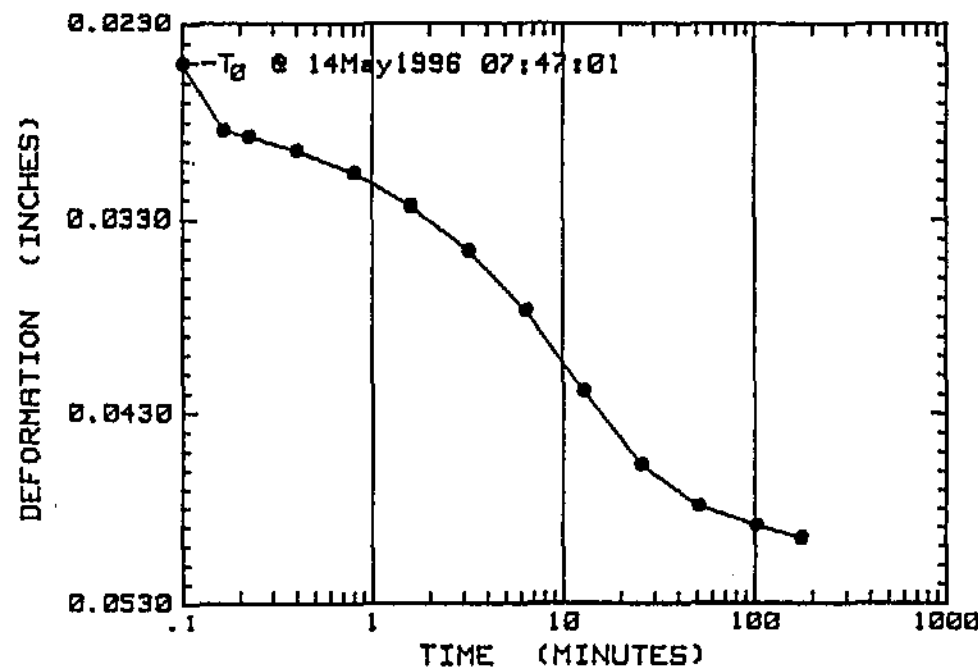


ALASKA TESTLAB

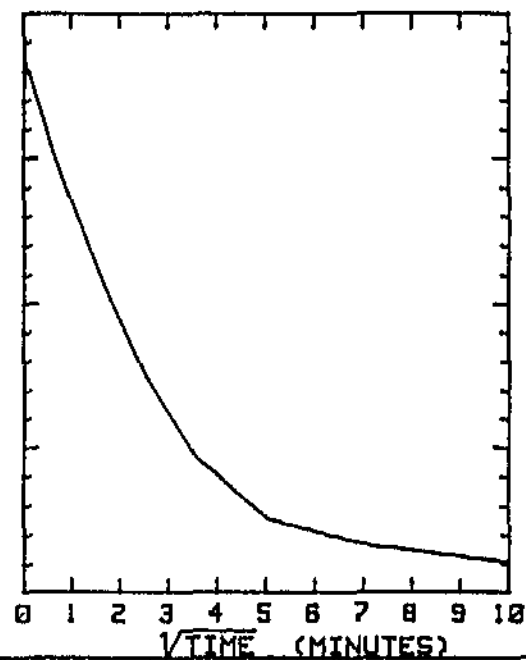
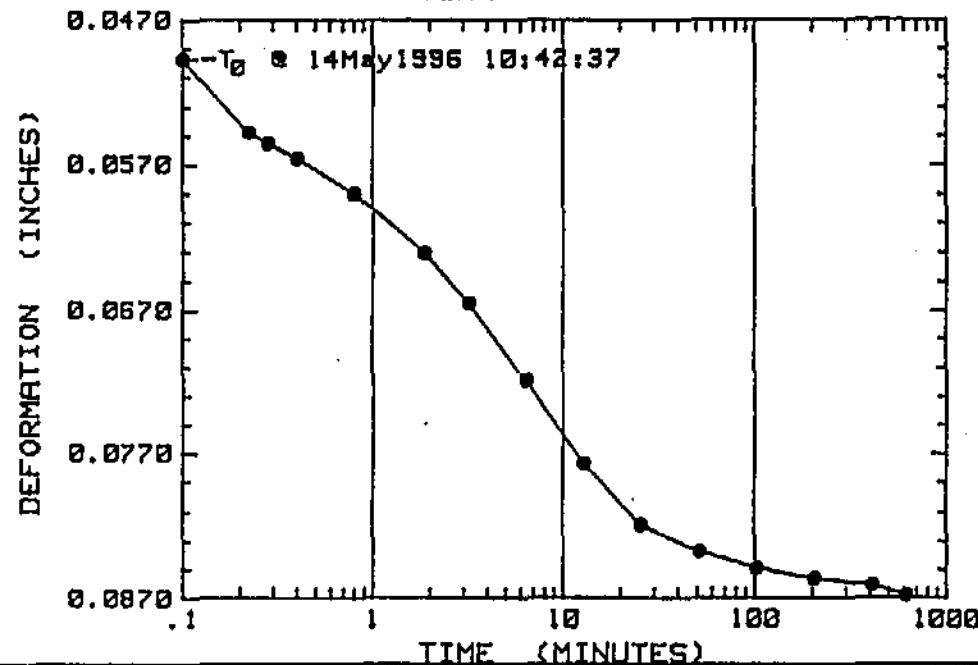
*Time Rate of Consolidation*

WO # A27711

FIGURE



WO #A27711  
BORING #D-3  
SAMPLE #  
PART # 0  
DEPTH : 16 FEET  
(SUBTRACT A CORRECTION  
OF 0.0025"  
FROM EACH READING)  
PRESSURE: 2230 PSF



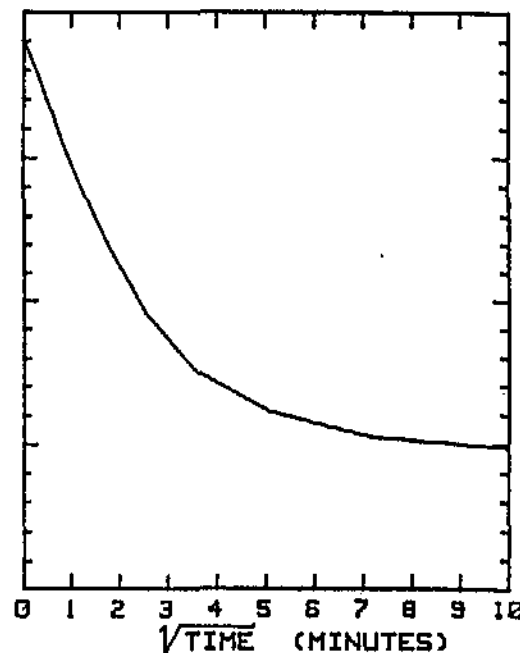
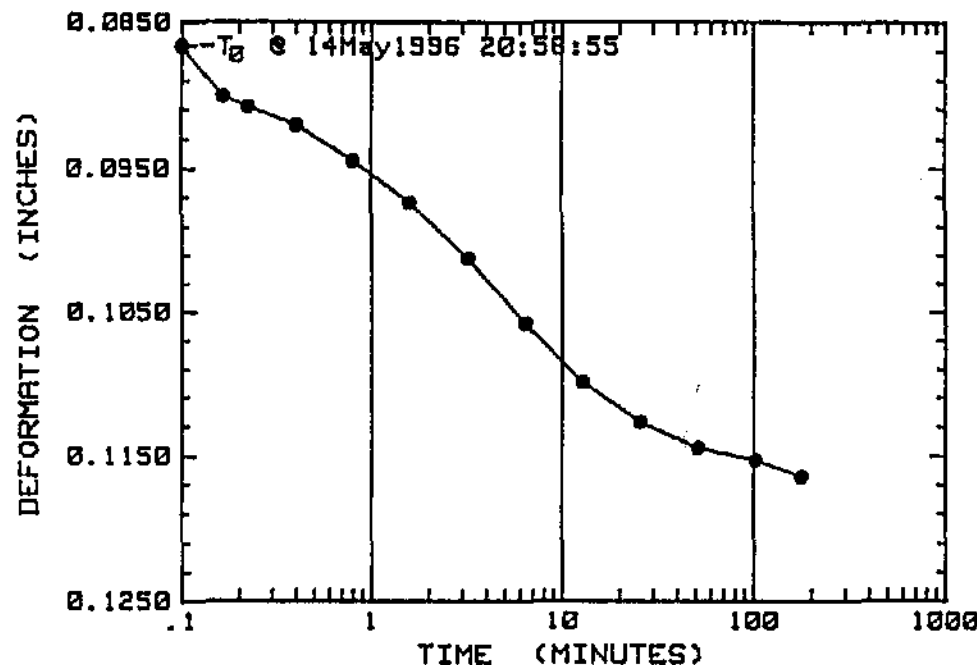
WO #A27711  
BORING #D-3  
SAMPLE #  
PART # 0  
DEPTH : 16 FEET  
(SUBTRACT A CORRECTION  
OF 0.0015"  
FROM EACH READING)  
PRESSURE: 6600 PSF



ALASKA TESTLAB

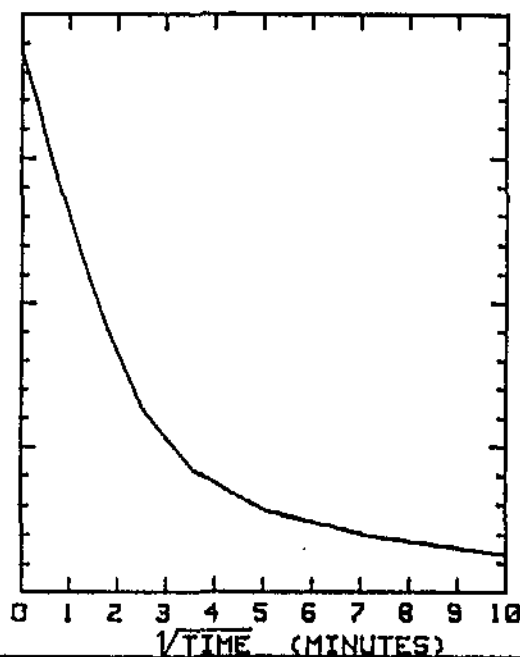
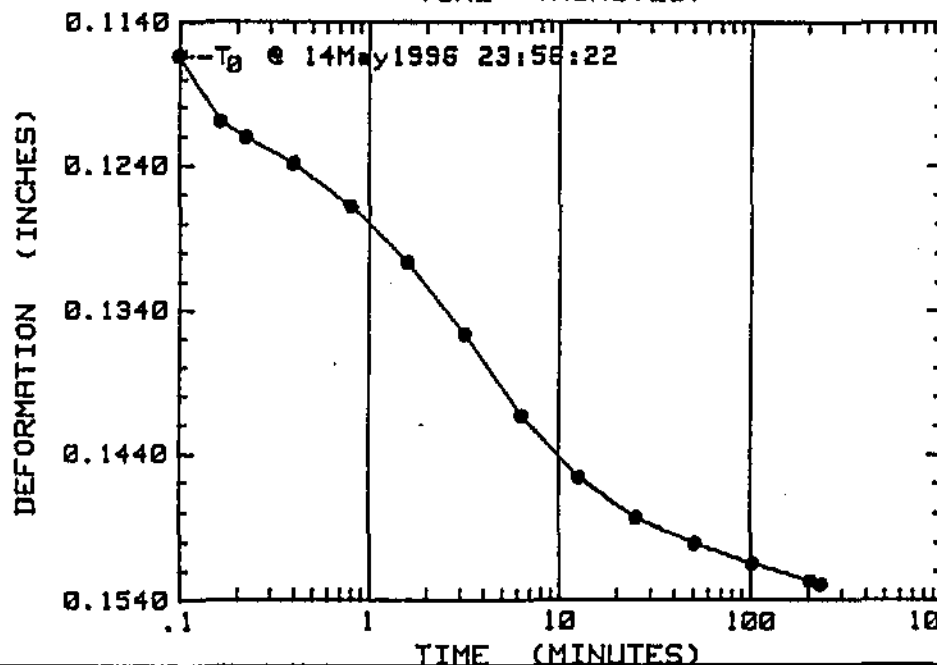
Time Rate of Consolidation

WO # A27711  
FIGURE



NO #A27711  
BORING #D-3  
SAMPLE #  
PART # 8  
DEPTH : 16 FEET  
(SUBTRACT A CORRECTION  
OF 0.0023"  
FROM EACH READING)

PRESSURE: 14100 PSF



NO #A27711  
BORING #D-3  
SAMPLE #  
PART # 8  
DEPTH : 16 FEET  
(SUBTRACT A CORRECTION  
OF 0.0031"  
FROM EACH READING)

PRESSURE: 29300 PSF

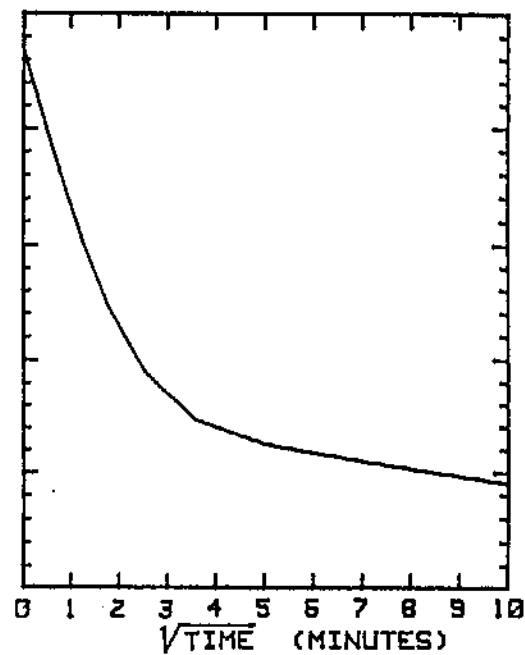
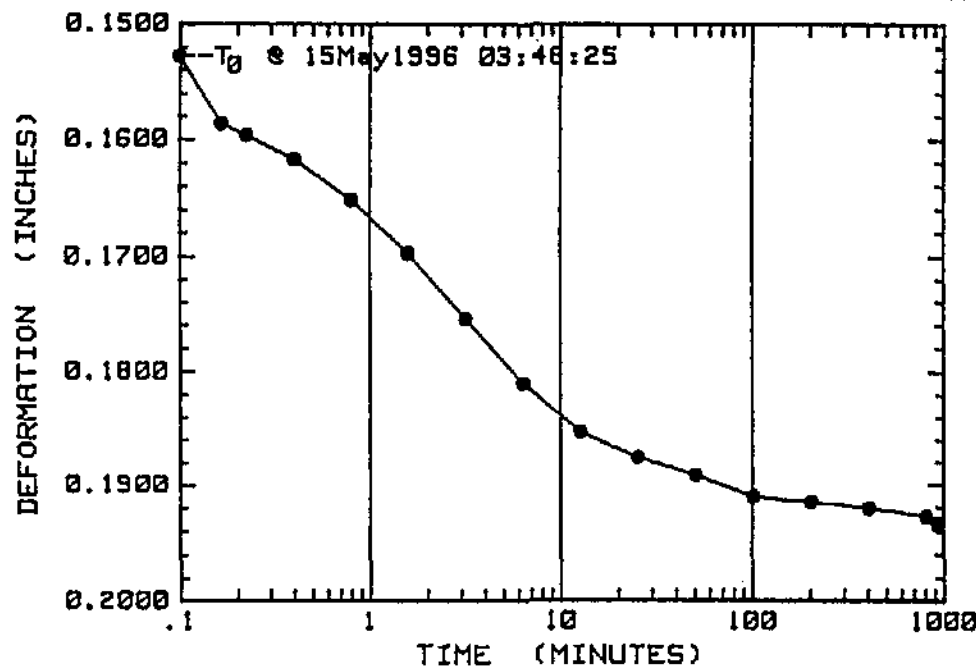


ALASKA TESTLAB

Time Rate of Consolidation

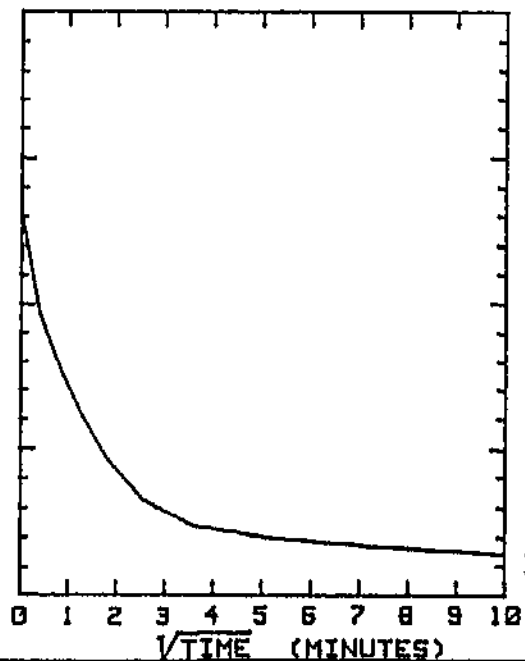
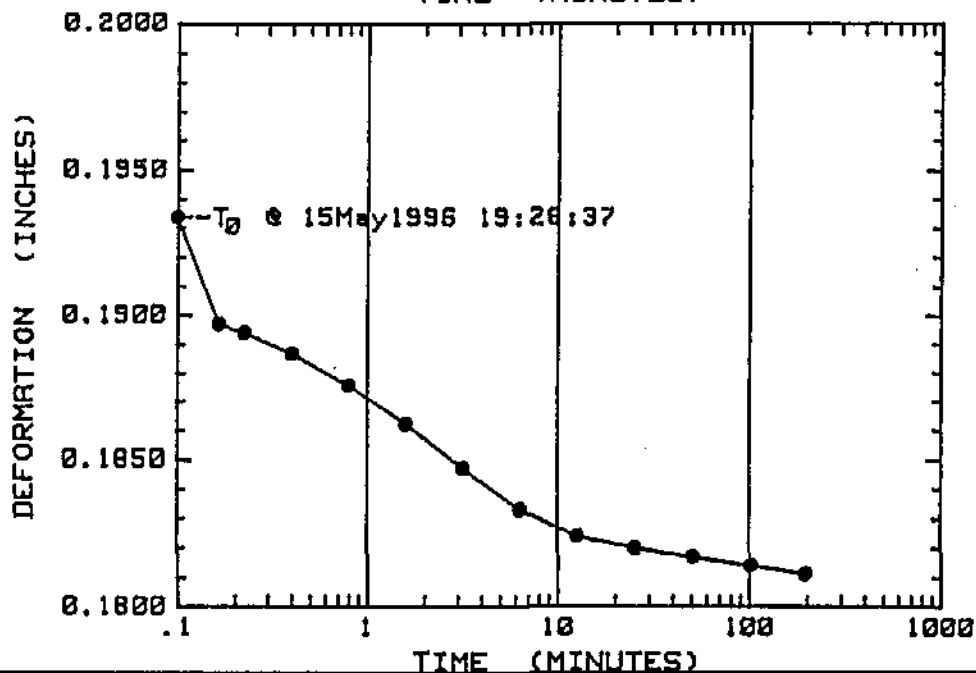
NO # A27711

FIGURE



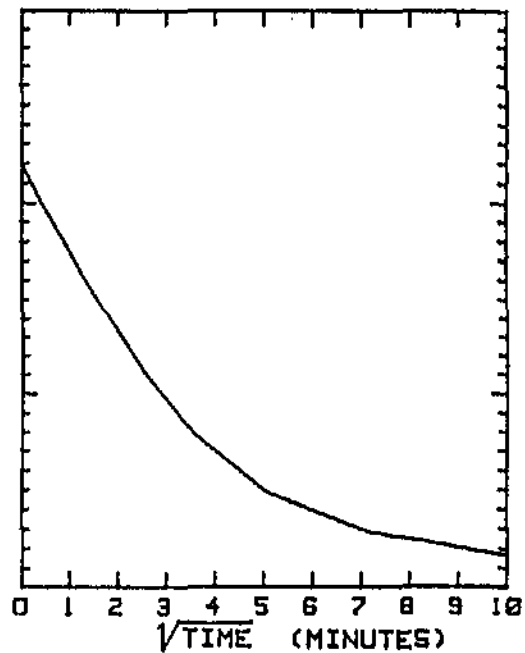
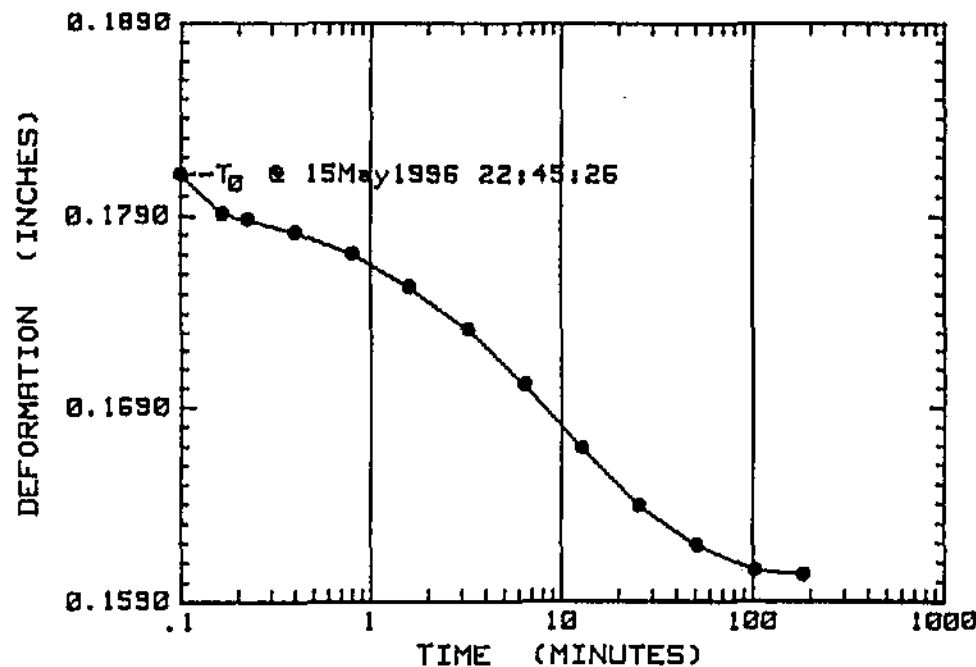
WO #A27711  
BORING #D-3  
SAMPLE #  
PART # 0  
DEPTH : 16 FEET  
(SUBTRACT A CORRECTION  
OF 0.0049"  
FROM EACH READING)

PRESSURE: 60000 PSF



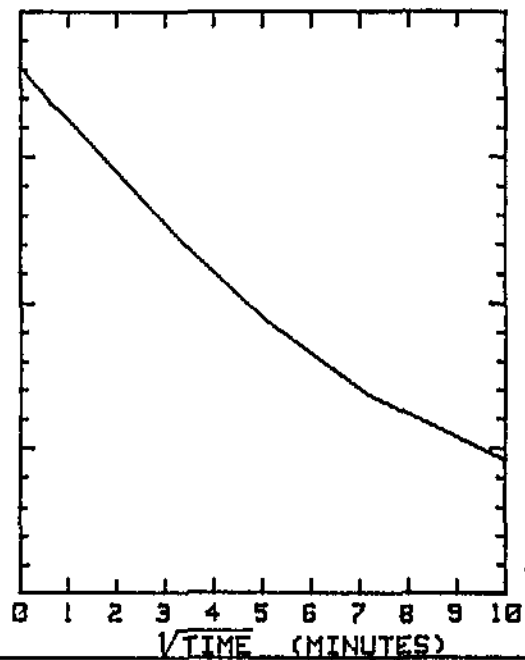
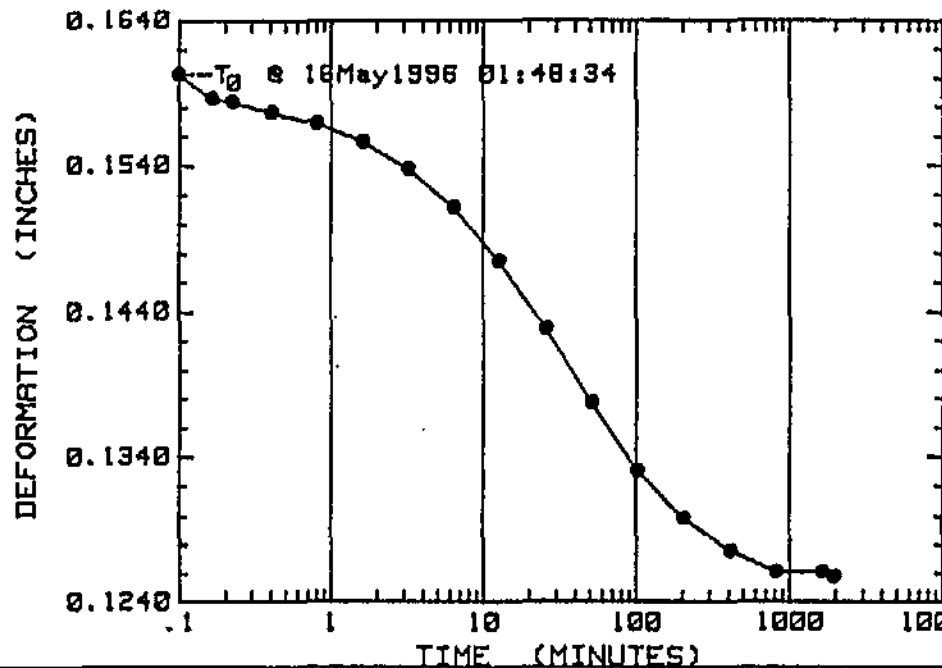
WO #A27711  
BORING #D-3  
SAMPLE #  
PART # 0  
DEPTH : 16 FEET  
(SUBTRACT A CORRECTION  
OF 0.0038"  
FROM EACH READING)

PRESSURE: 14100 PSF



NO #A27711  
BORING #D-3  
SAMPLE #  
PART # 2  
DEPTH : 16 FEET  
(SUBTRACT A CORRECTION  
OF 0.0017"  
FROM EACH READING)

PRESSURE: 3700 PSF



NO #A27711  
BORING #D-3  
SAMPLE #  
PART # 2  
DEPTH : 16 FEET  
(SUBTRACT A CORRECTION  
OF 0.0010"  
FROM EACH READING)

PRESSURE: 872 PSF



ALASKA TESTLAB

*Time Rate of Consolidation*

NO #A27711

FIGURE

PROJECT : LIBERY

BORING : D-4

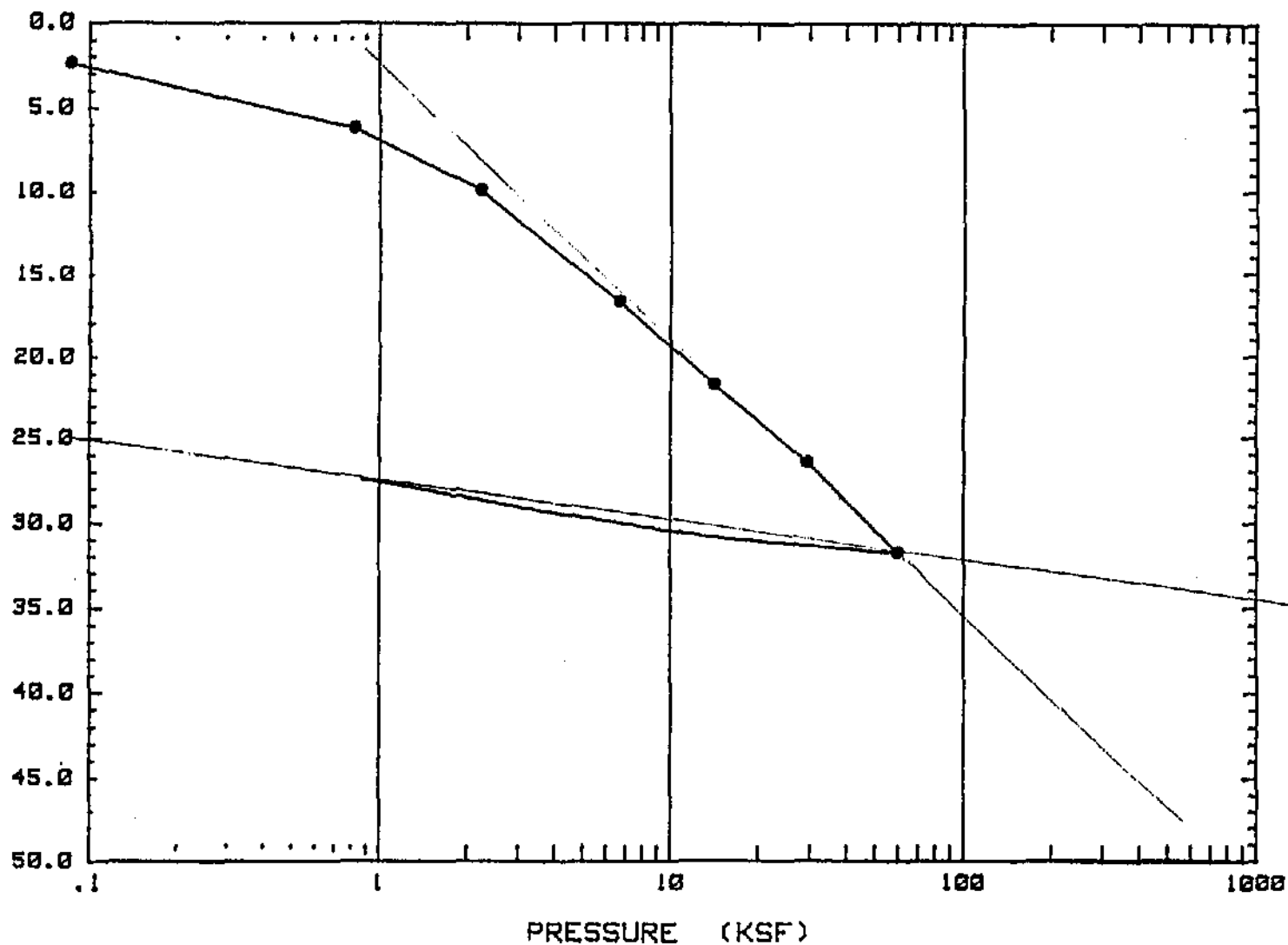
SAMPLE :

CLIENT : DUANE MILLER

DEPTH: 3.5

LABORATORY : C98009

PERCENT COMPRESSION



ALASKA TESTLAB

Compression Curve (%Comp. vs. Log P)

WD # R27711

FIGURE

PROJECT : LIBERY

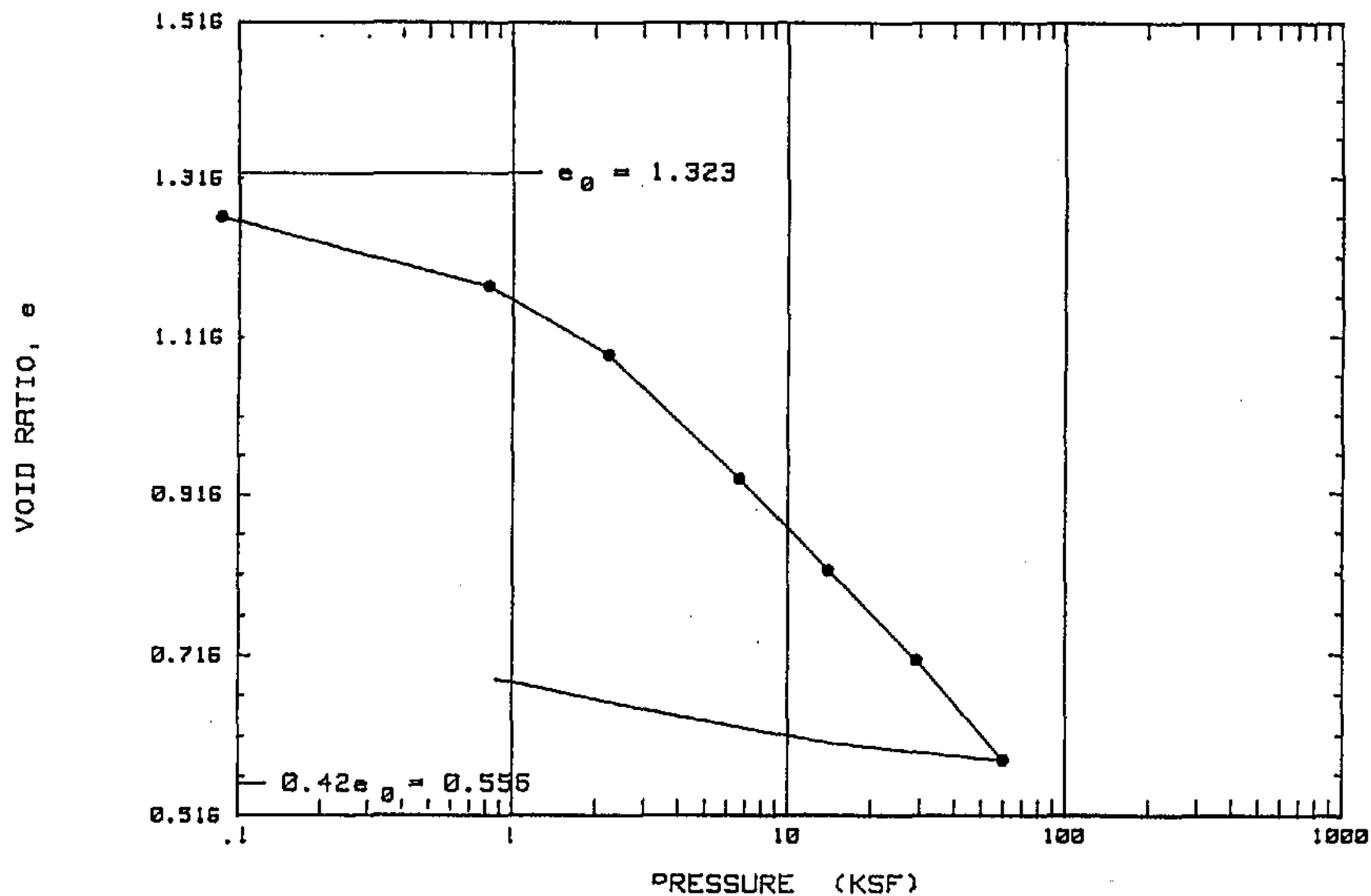
BORING : D-4

SAMPLE :

CLIENT : DUANE MILLER

DEPTH: 3.5

LABORATORY : C98009

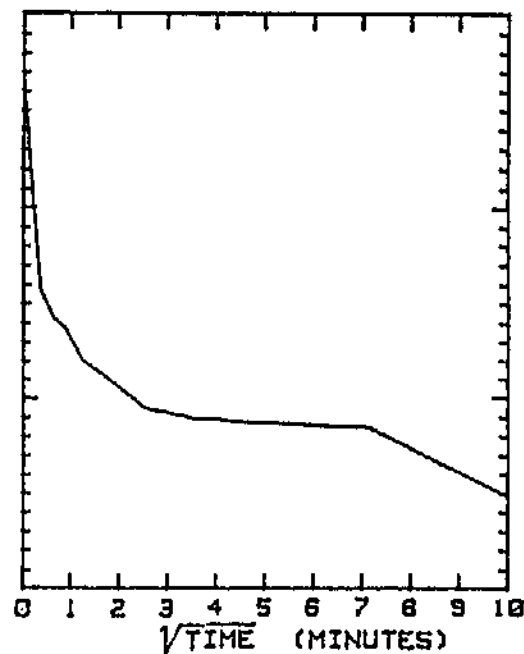
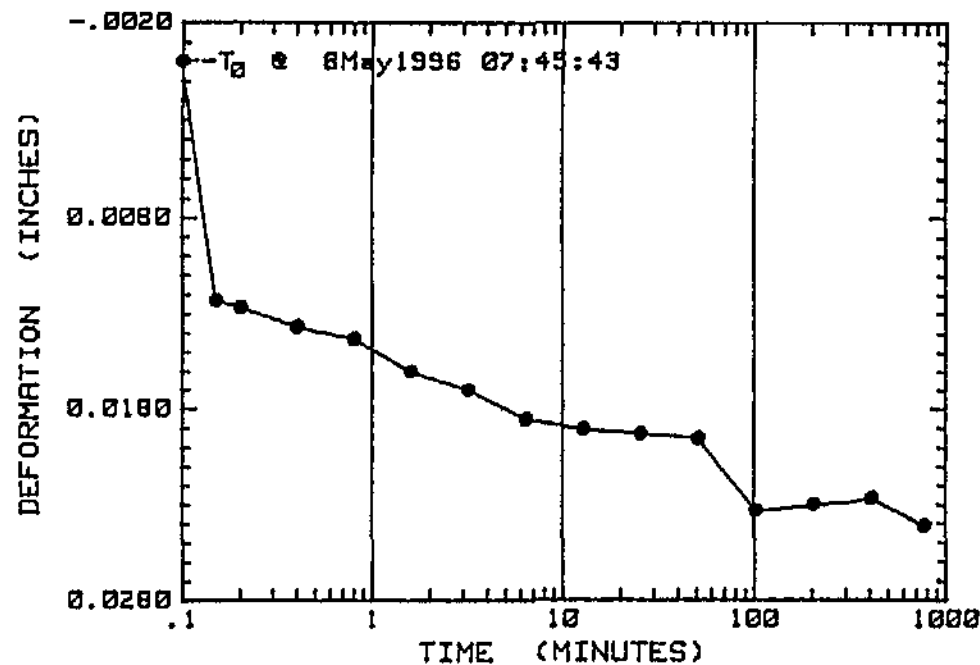


ALASKA TESTLAB

Compression Curve ( $e$  vs.  $\log P$ )

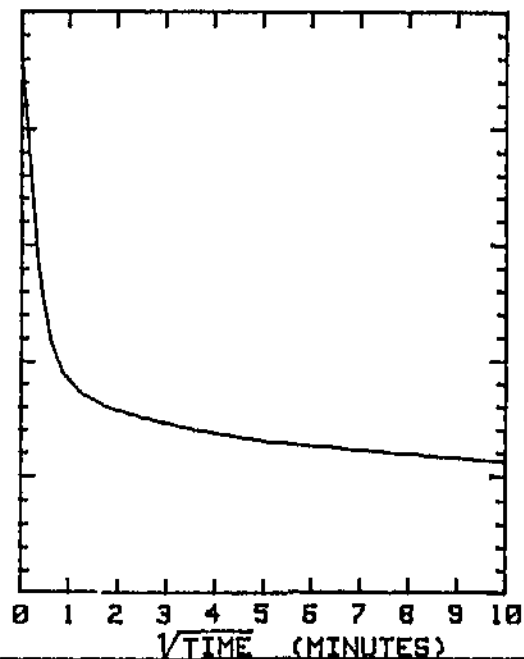
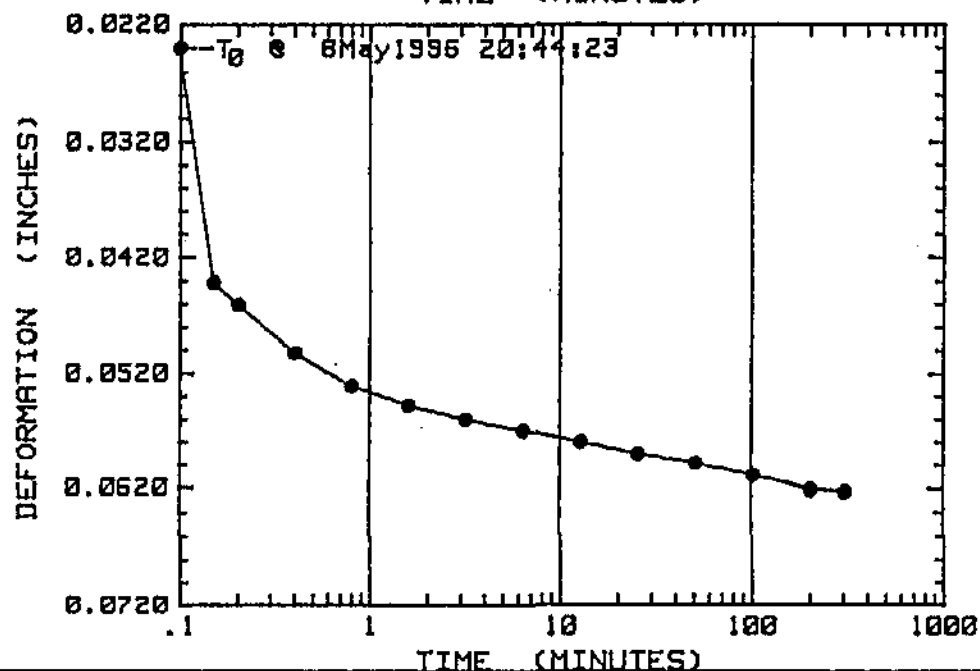
WO # A27711

FIGURE



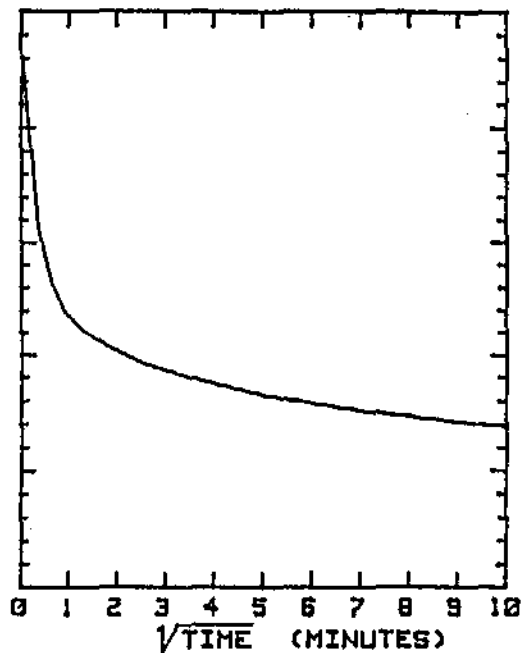
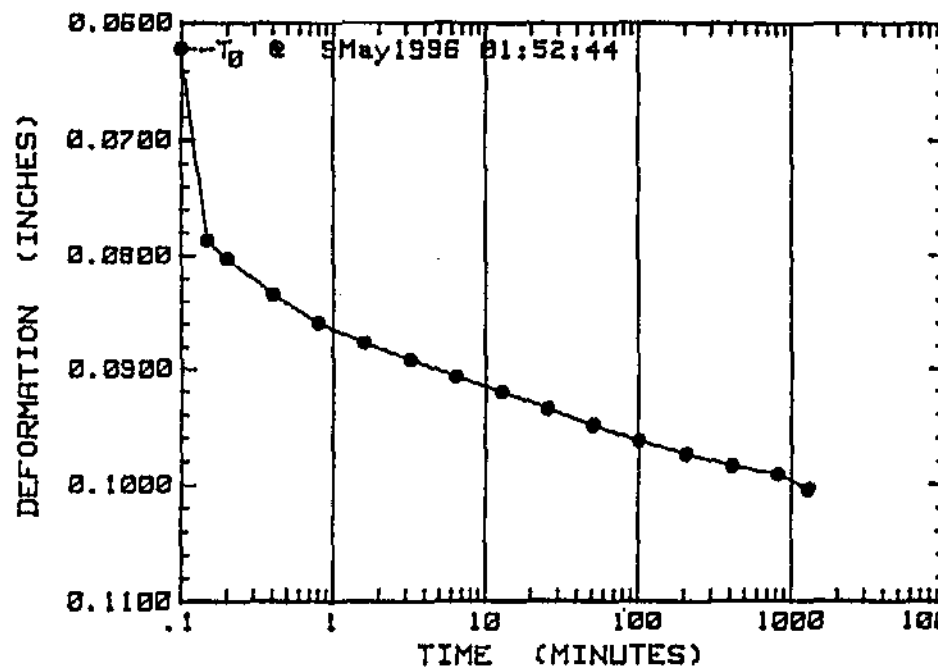
WO #A27711  
 BORING #D-4  
 SAMPLE #TOP THIRD OF SAMPLE  
 PART # 0  
 DEPTH 13.5  
 (SUBTRACT A CORRECTION  
 OF 0.0000"  
 FROM EACH READING)

PRESSURE: 66.5 PSF



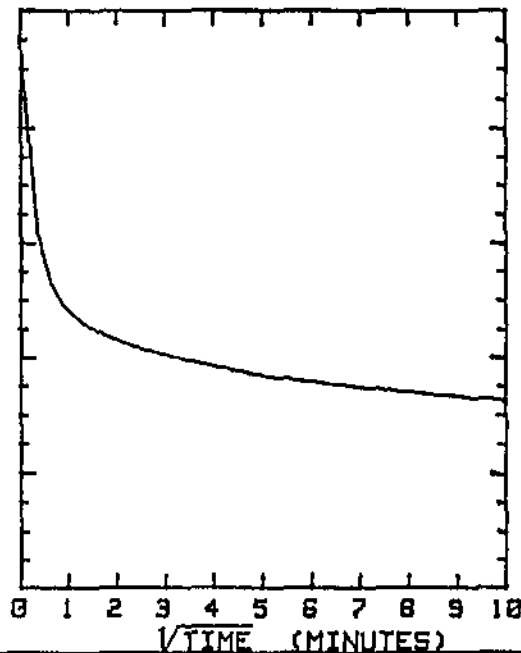
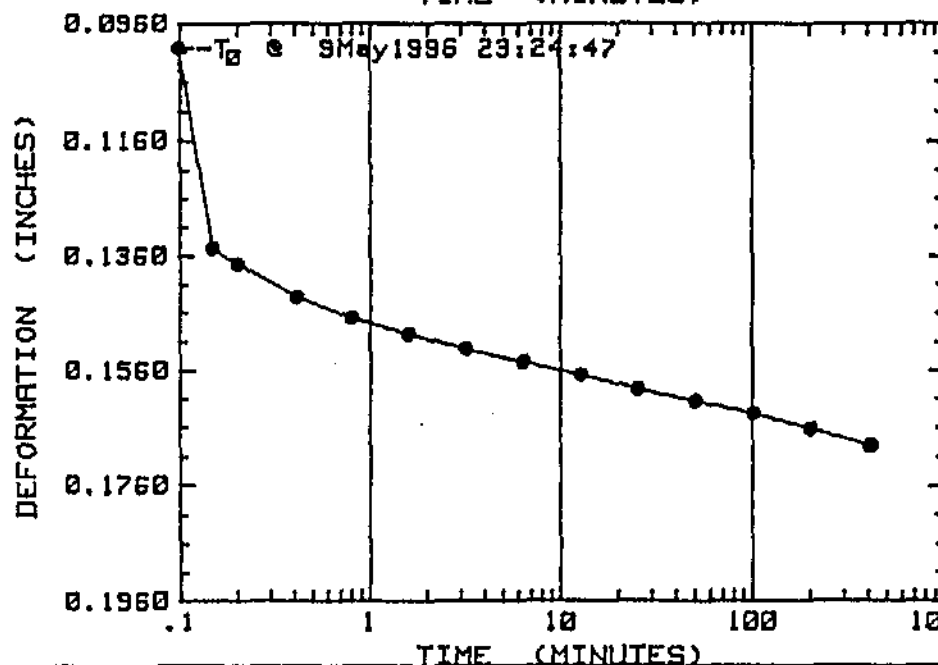
WO #A27711  
 BORING #D-4  
 SAMPLE #TOP THIRD OF SAMPLE  
 PART # 0  
 DEPTH 13.5  
 (SUBTRACT A CORRECTION  
 OF 0.0005"  
 FROM EACH READING)

PRESSURE: 819 PSF



NO #A27711  
BORING #D-4  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH : 3.5  
(SUBTRACT A CORRECTION  
OF 0.0089"  
FROM EACH READING)

PRESSURE: 2290 PSF



NO #A27711  
BORING #D-4  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH : 3.5  
(SUBTRACT A CORRECTION  
OF 0.0015"  
FROM EACH READING)

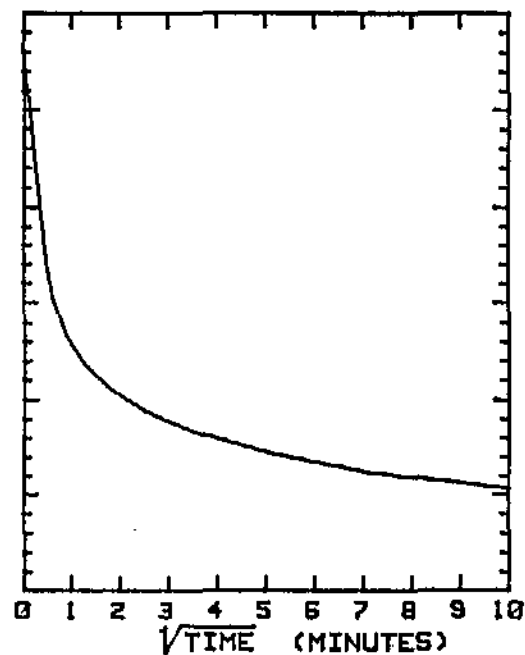
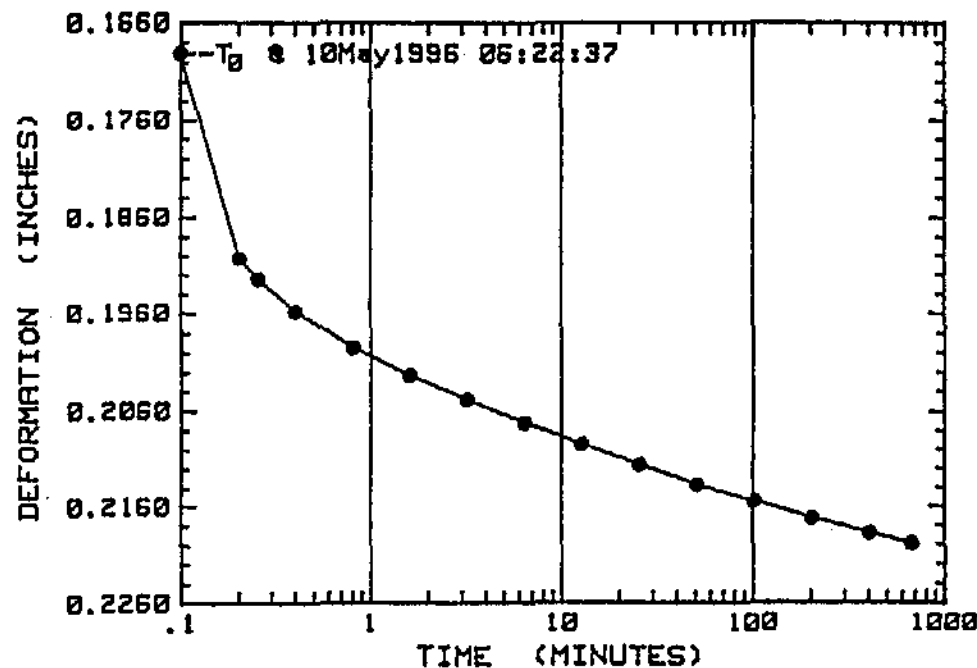
PRESSURE: 6670 PSF



ALASKA TESTLAB

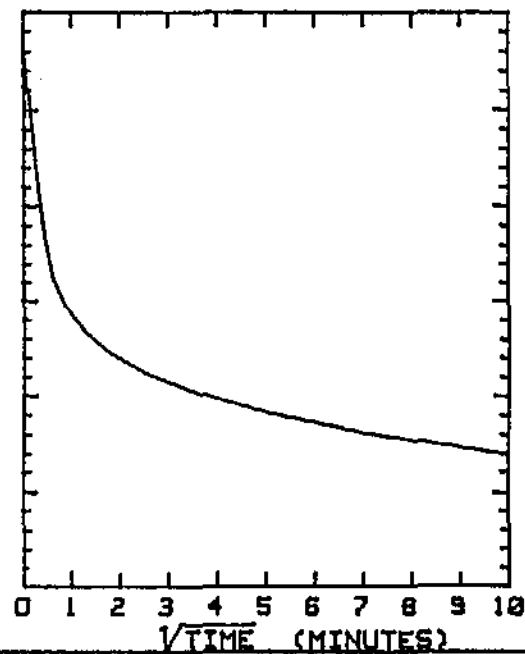
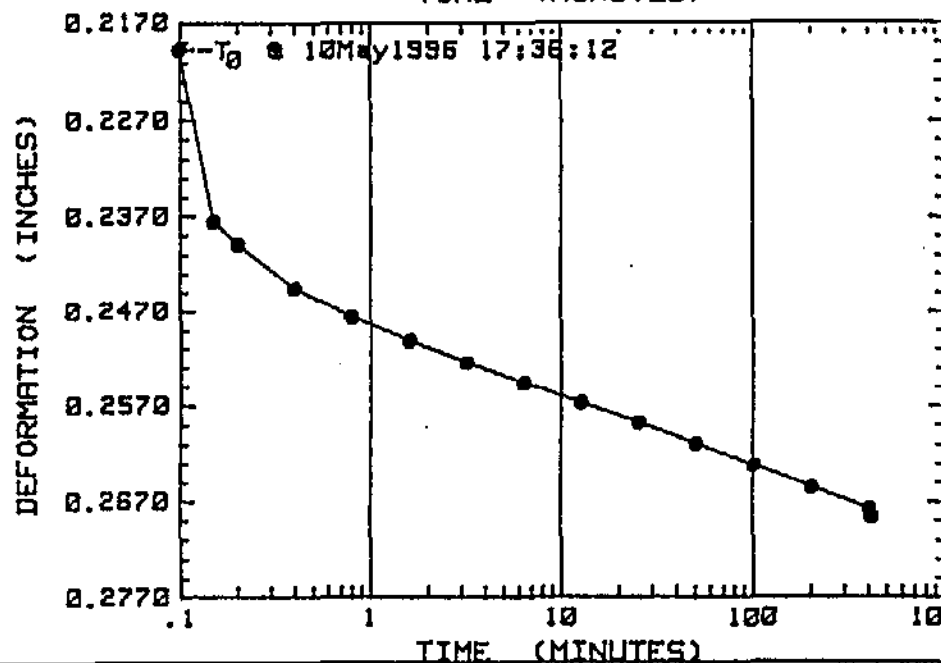
*Time Rate of Consolidation*

NO # A27711  
FIGURE



NO #A27711  
BORING #D-4  
SAMPLE #  
PART # 0  
DEPTH 13.5  
(SUBTRACT A CORRECTION  
OF 0.0023"  
FROM EACH READING)

PRESSURE: 14100 PSF



NO #A27711  
BORING #D-4  
SAMPLE #  
PART # 0  
DEPTH 13.5  
(SUBTRACT A CORRECTION  
OF 0.0031"  
FROM EACH READING)

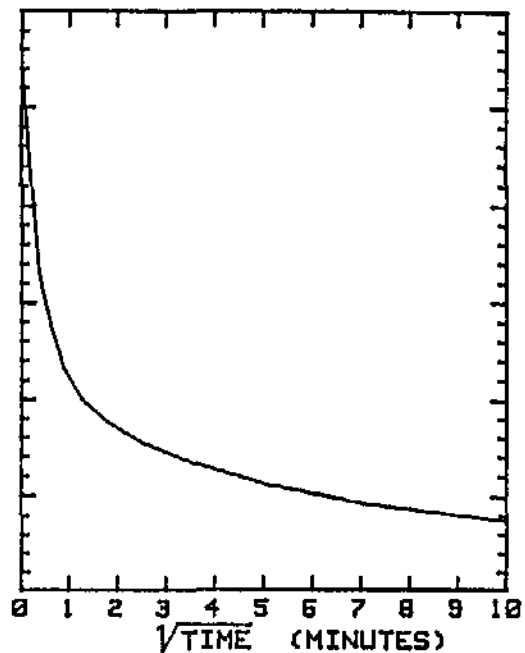
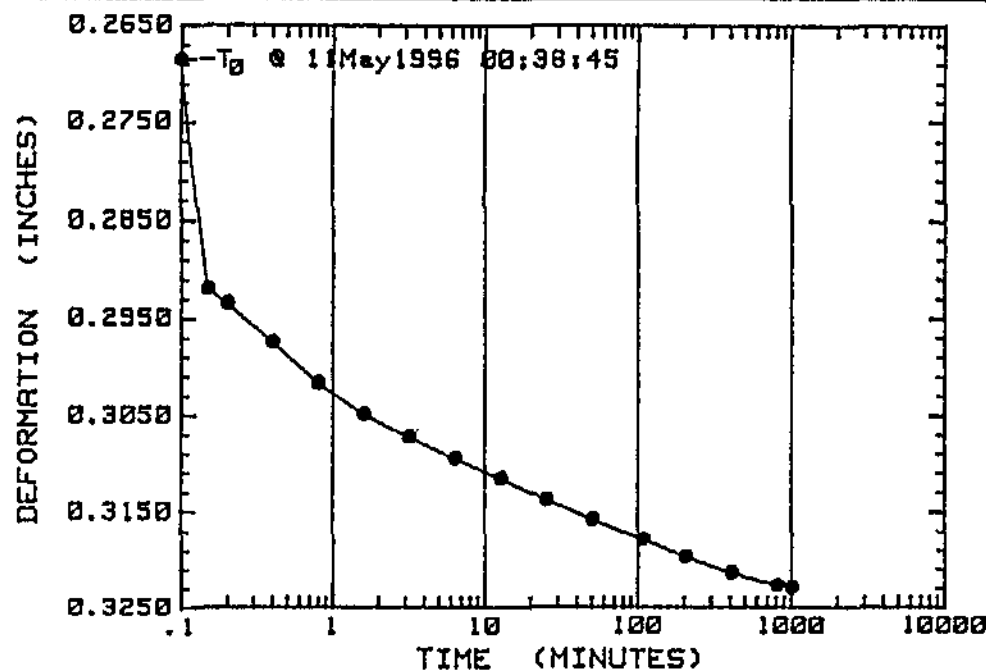
PRESSURE: 23300 PSF



ALASKA TESTLAB

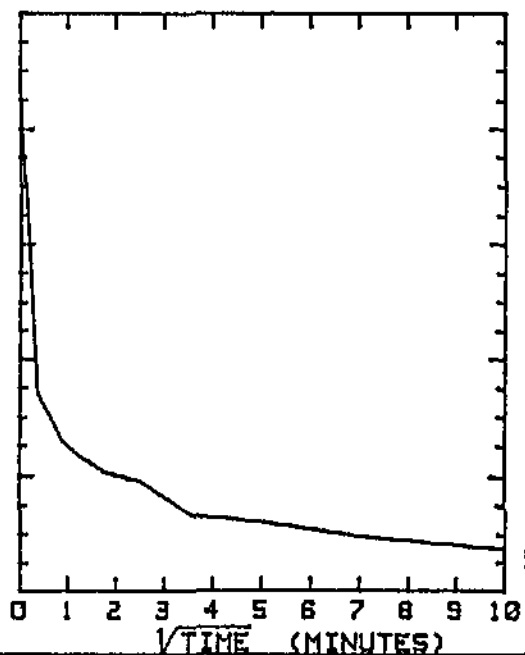
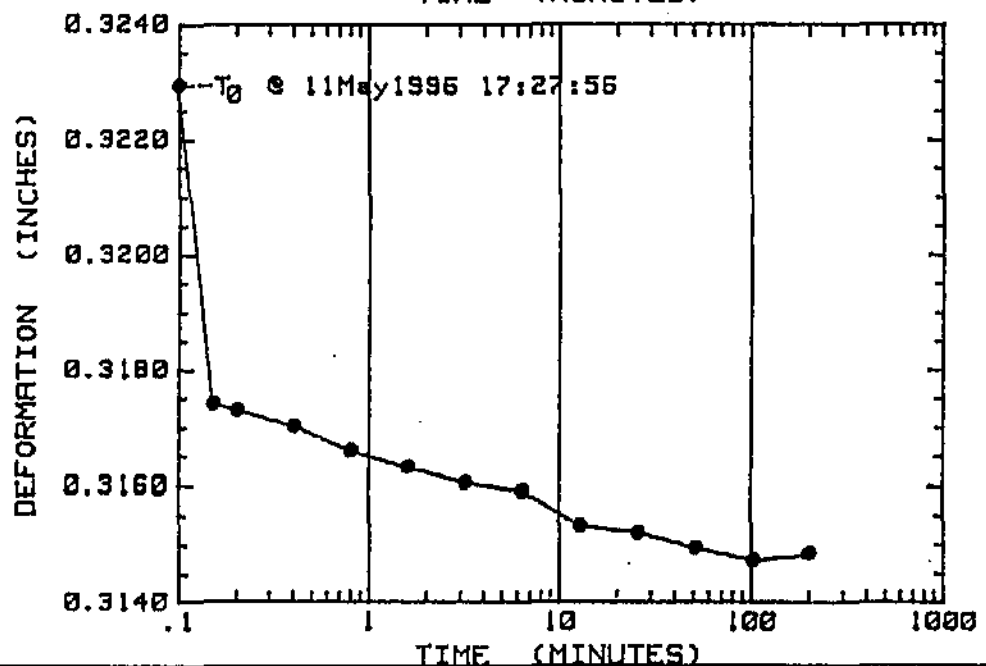
*Time Rate of Consolidation*

NO # A27711  
FIGURE



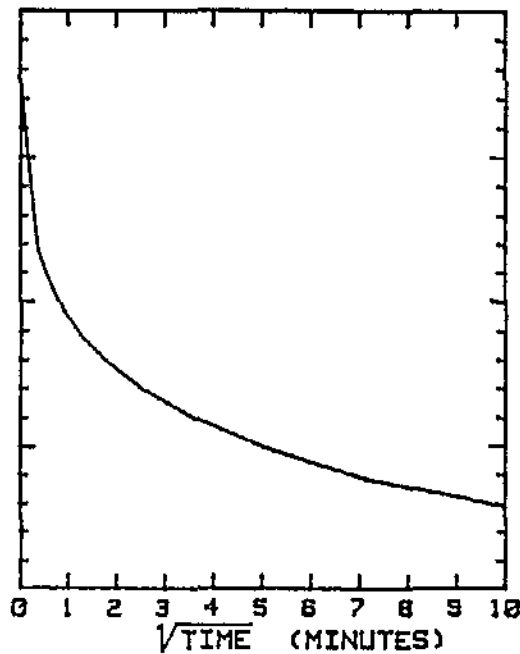
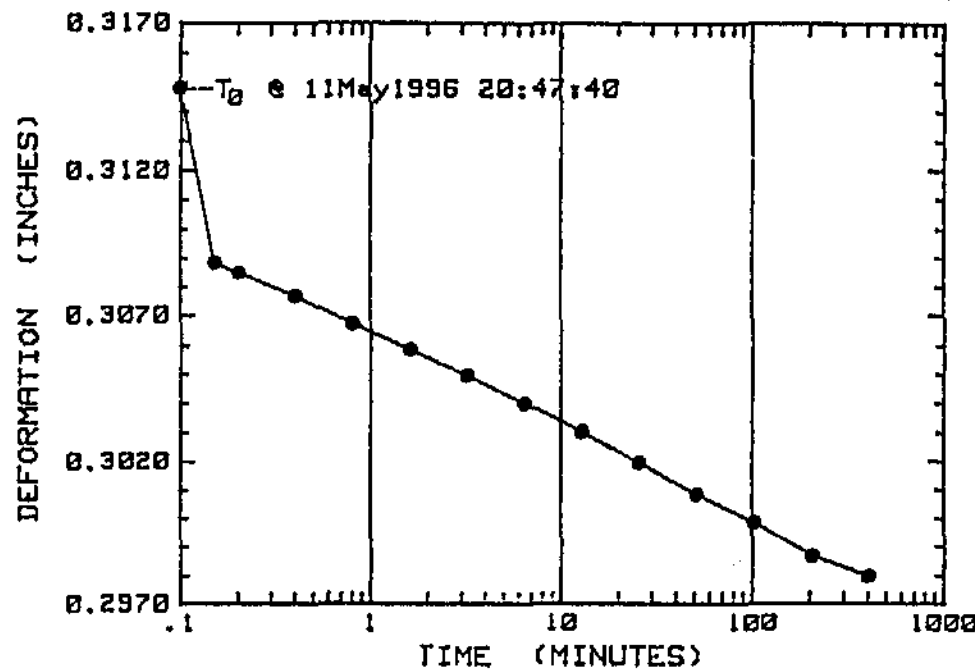
NO #A27711  
BORING #D-4  
SAMPLE #TOP THIRD OF SAMPLE  
PART # B  
DEPTH : 3.5  
  
(SUBTRACT A CORRECTION  
OF 0.0045"  
FROM EACH READING)

PRESSURE: 59900 PSF



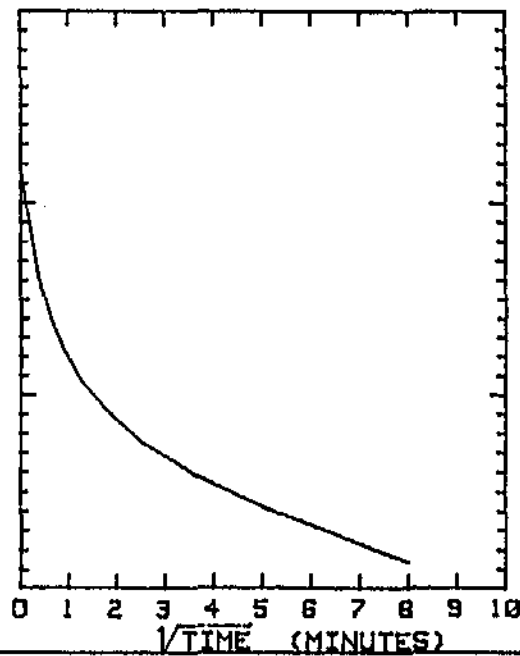
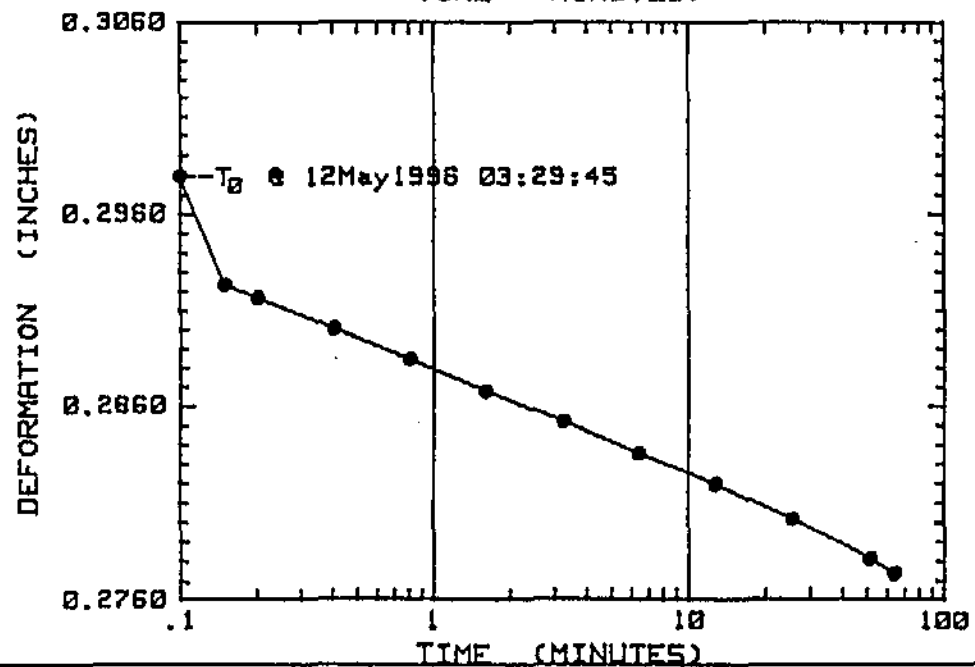
NO #A27711  
BORING #D-4  
SAMPLE #TOP THIRD OF SAMPLE  
PART # B  
DEPTH : 3.5  
  
(SUBTRACT A CORRECTION  
OF 0.0030"  
FROM EACH READING)

PRESSURE: 14100 PSF



NO #A27711  
 BORING #D-4  
 SAMPLE #TOP THIRD OF SAMPLE  
 PART # B  
 DEPTH 13.5  
 (SUBTRACT A CORRECTION  
 OF 0.0017"  
 FROM EACH READING)

PRESSURE: 3780 PSF



NO #A27711  
 BORING #D-4  
 SAMPLE #TOP THIRD OF SAMPLE  
 PART # B  
 DEPTH 13.5  
 (SUBTRACT A CORRECTION  
 OF 0.0018"  
 FROM EACH READING)

PRESSURE: 871 PSF



ALASKA TESTLAB

Time Rate of Consolidation

NO # A27711

FIGURE

PROJECT : LIBERTY

BORING # D-5

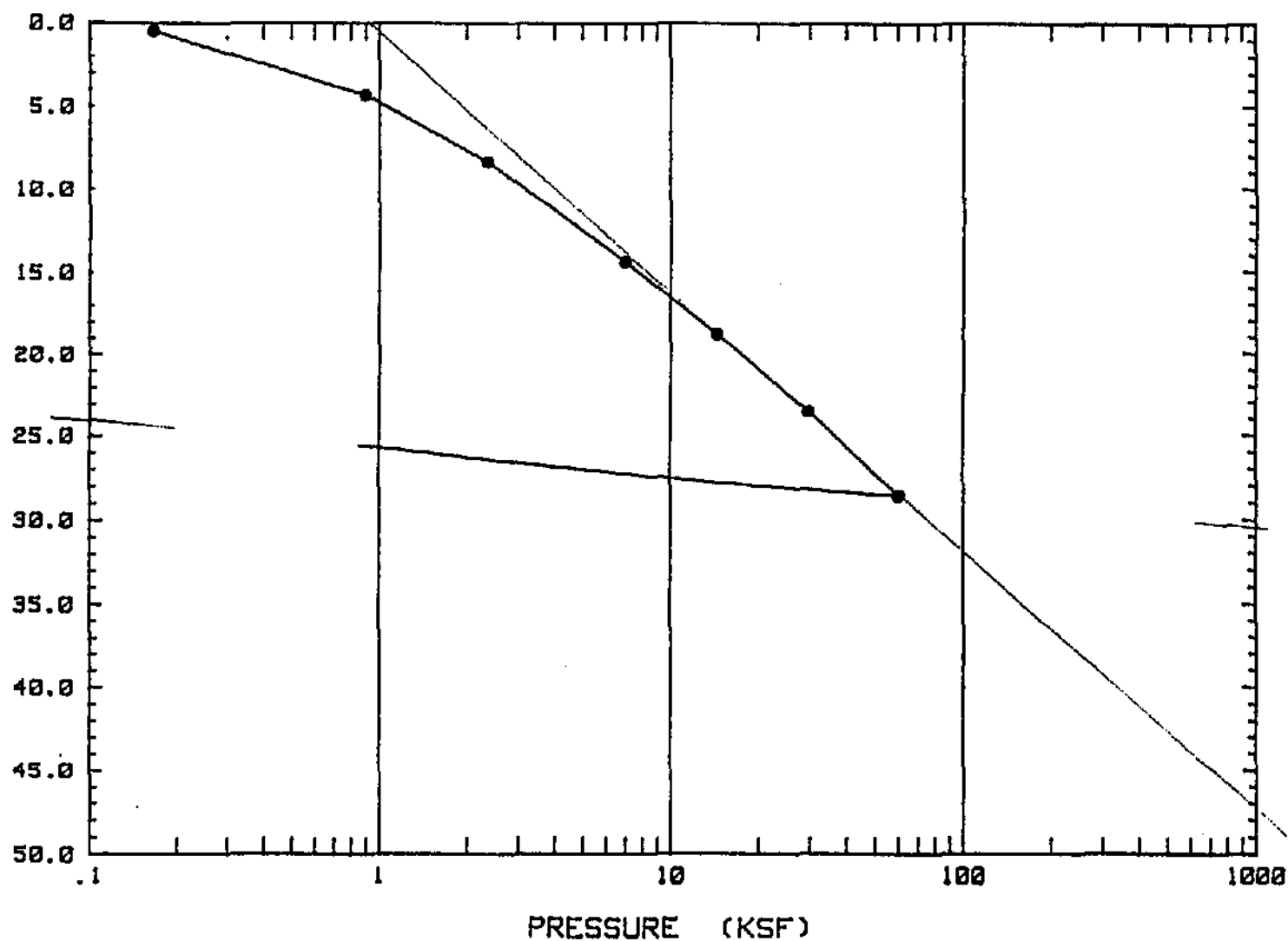
SAMPLE #

CLIENT : DUANE MILLER

LABORATORY # C98010

DEPTH: 2.5

PERCENT COMPRESSION



ALASKA TESTLAB

Compression Curve (%Comp. vs. Log P)

NO # A27711

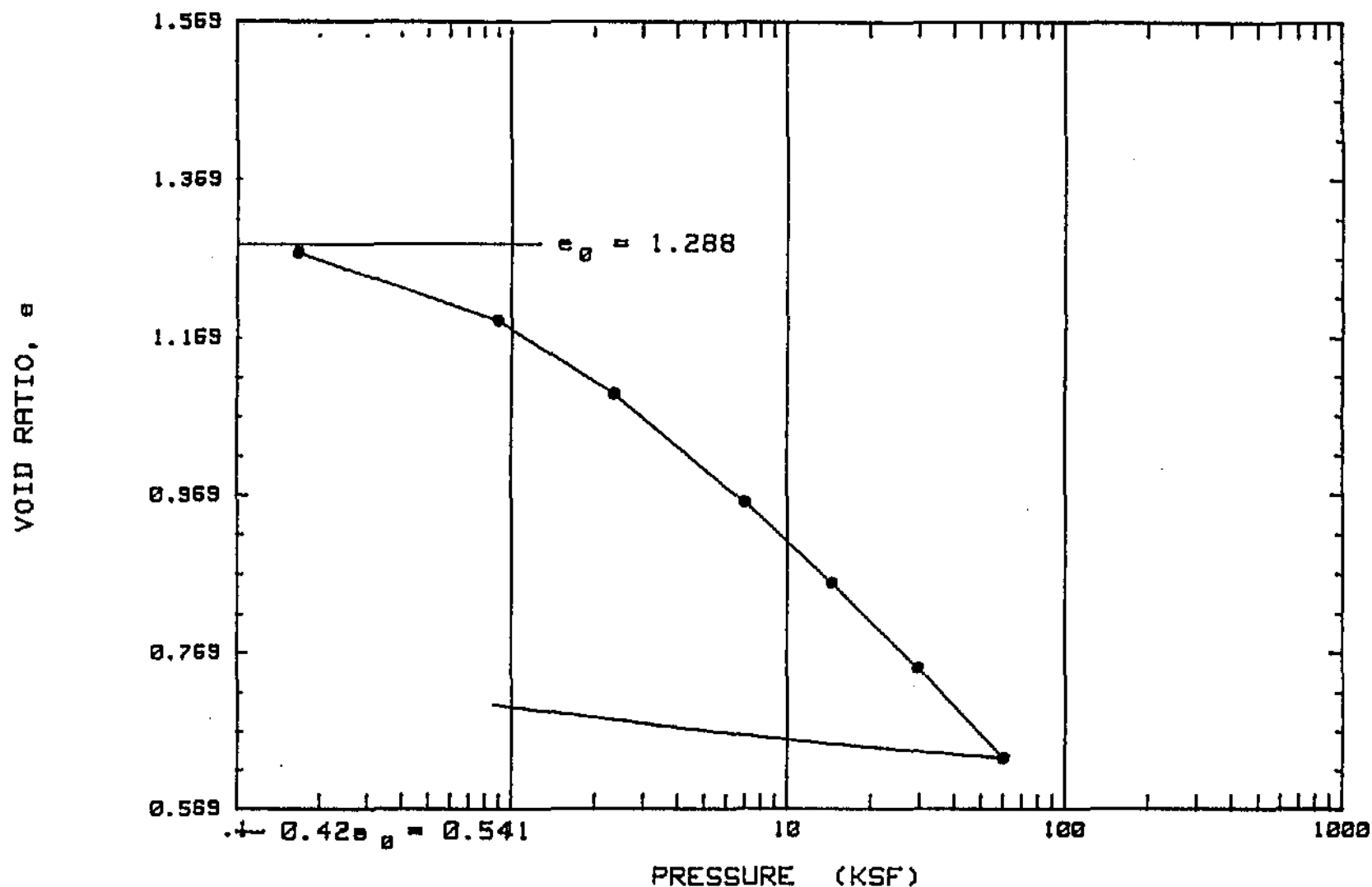
FIGURE

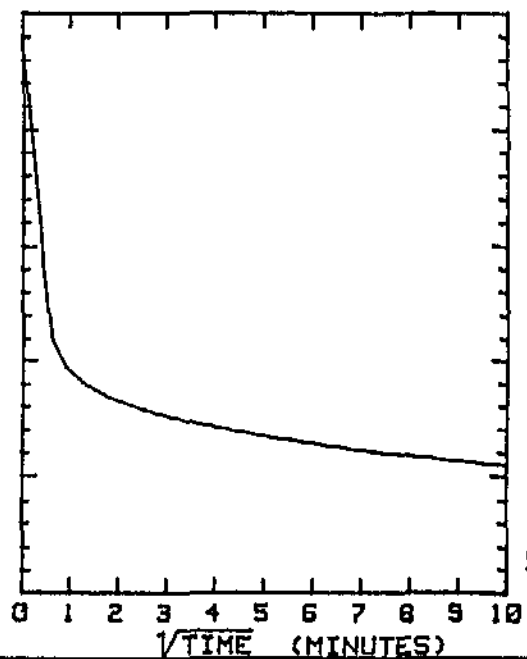
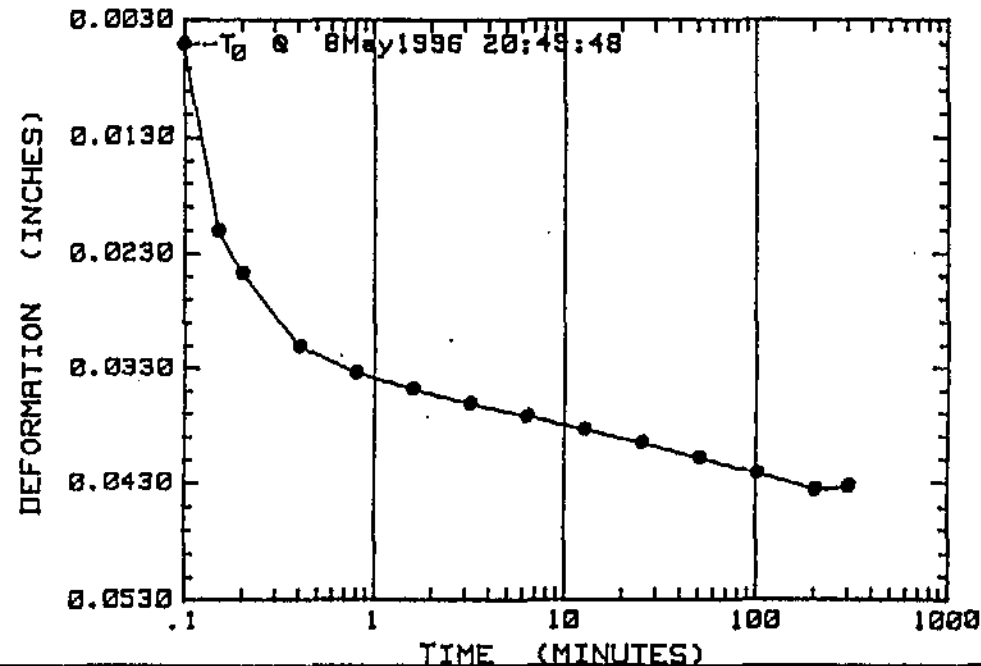
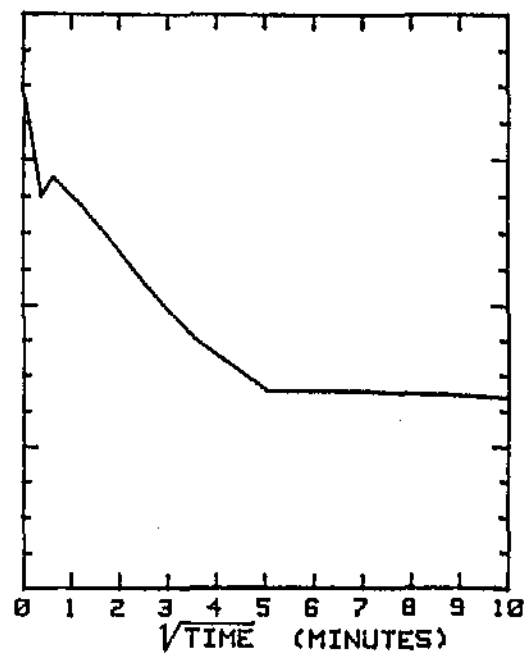
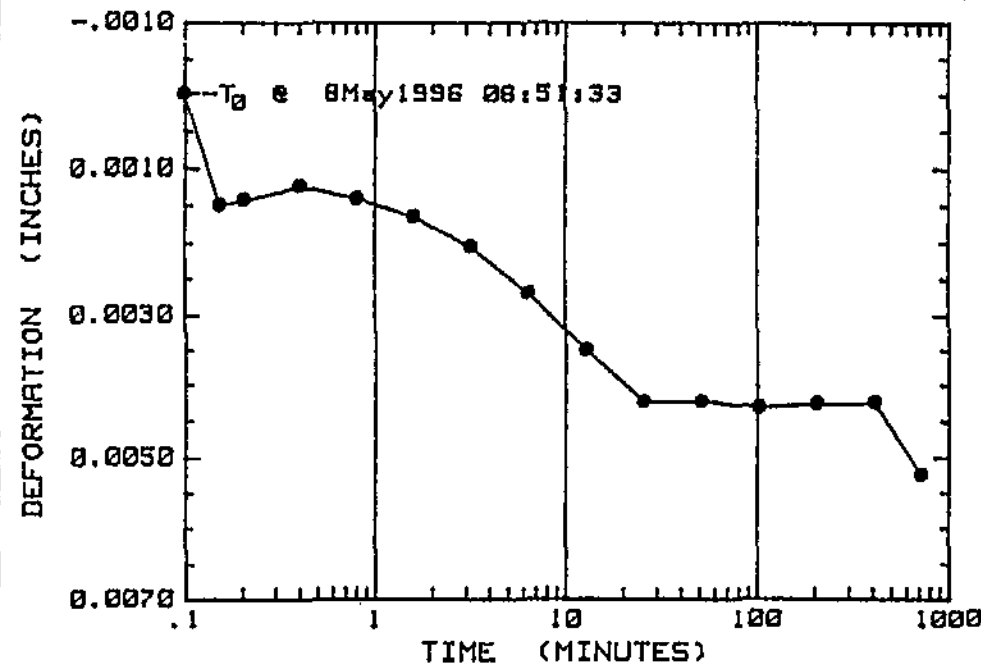
PROJECT : LIBERTY  
BORING : D-5  
SAMPLE :

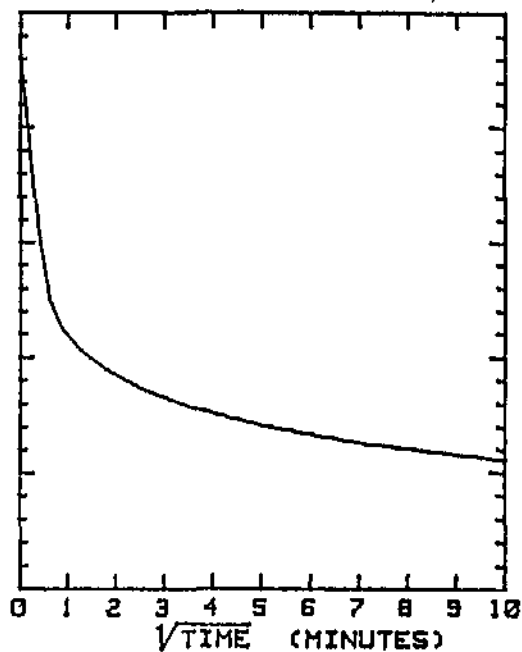
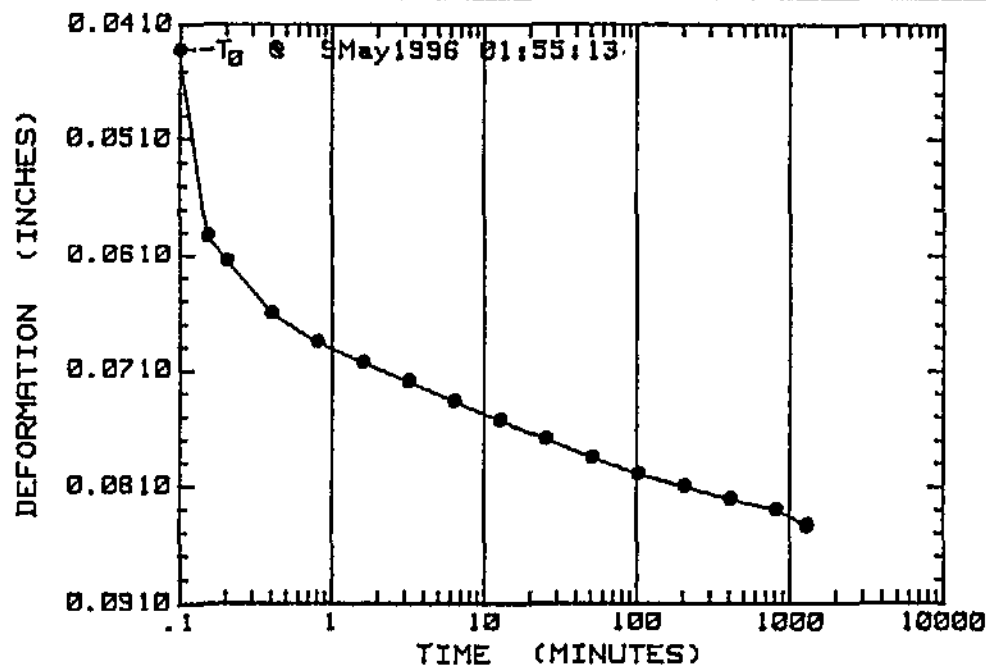
CLIENT : DUANE MILLER

DEPTH: 2.5

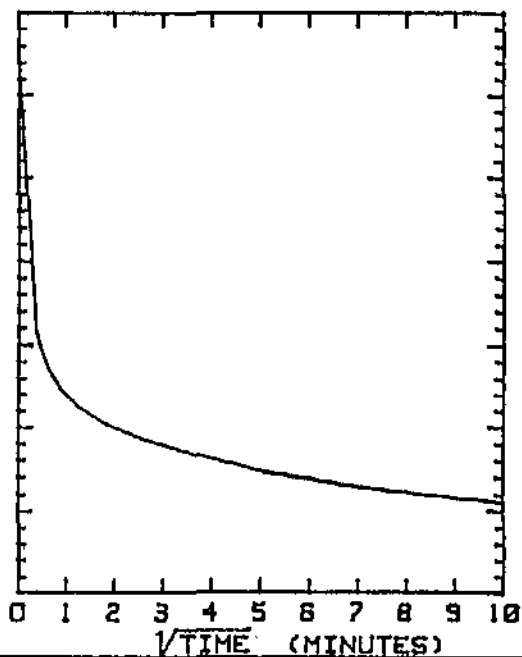
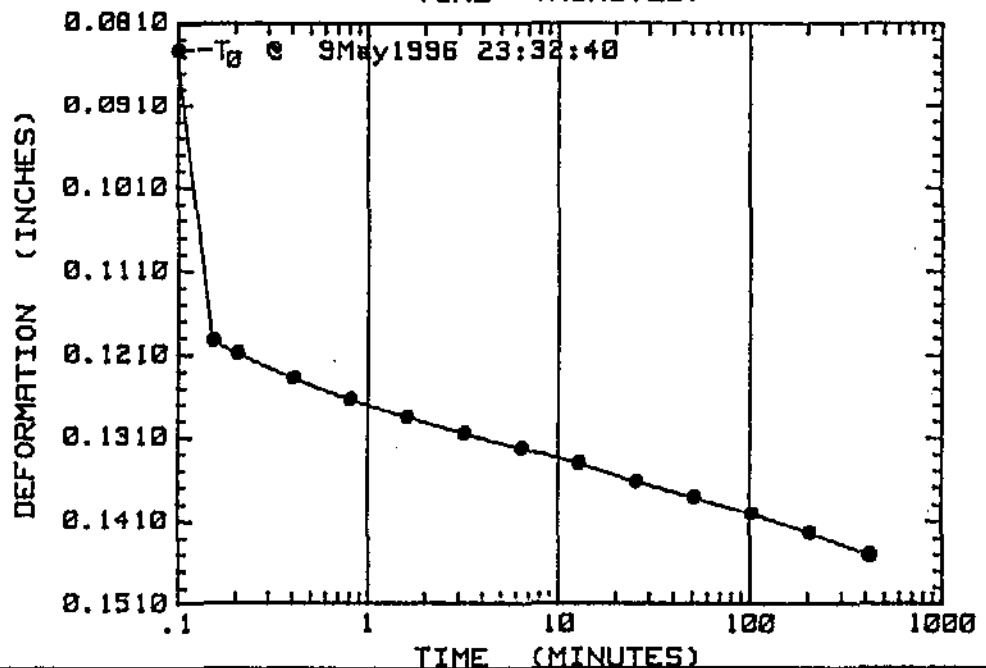
LABORATORY : C98010



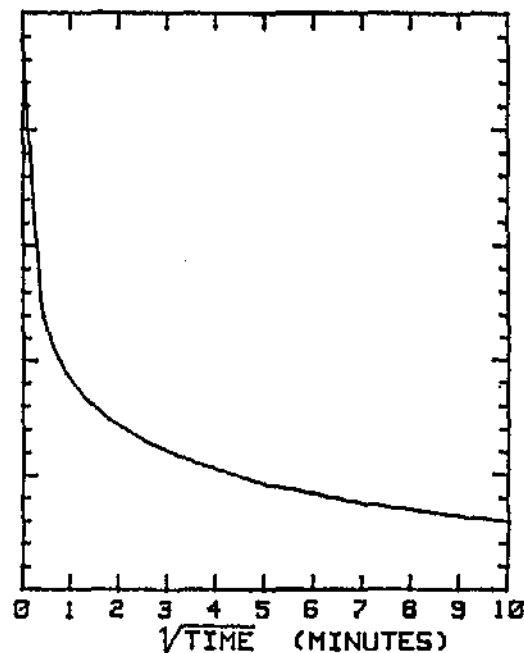
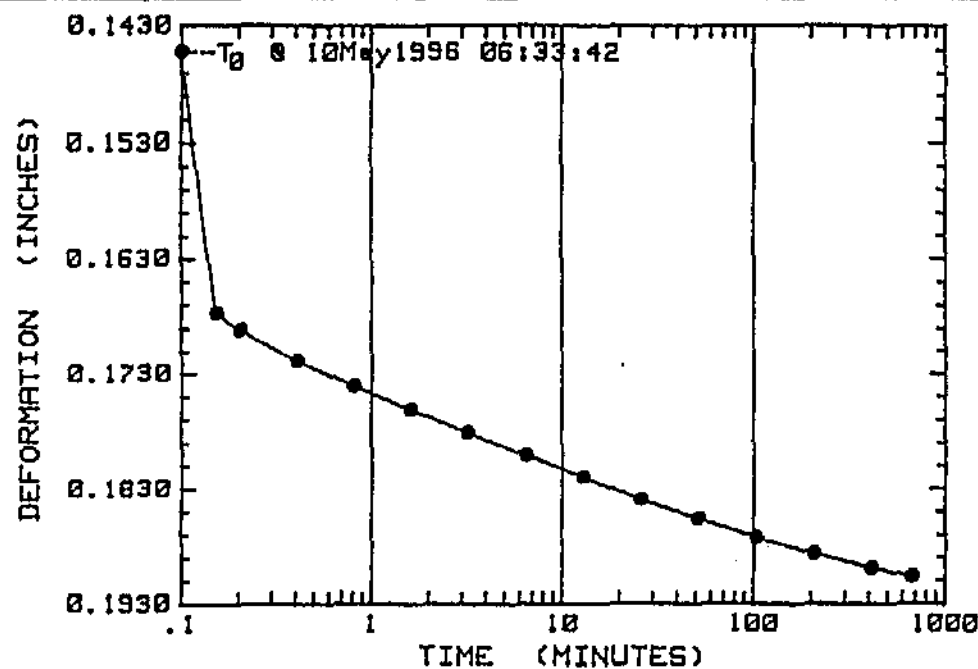




NO #A27711  
BORING #D-5  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH :2.5  
(SUBTRACT A CORRECTION  
OF 0.0009"  
FROM EACH READING)  
PRESSURE: 2350 PSF

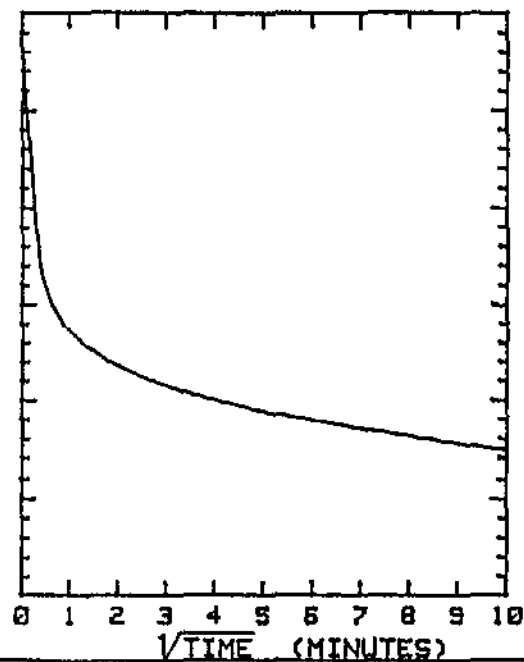
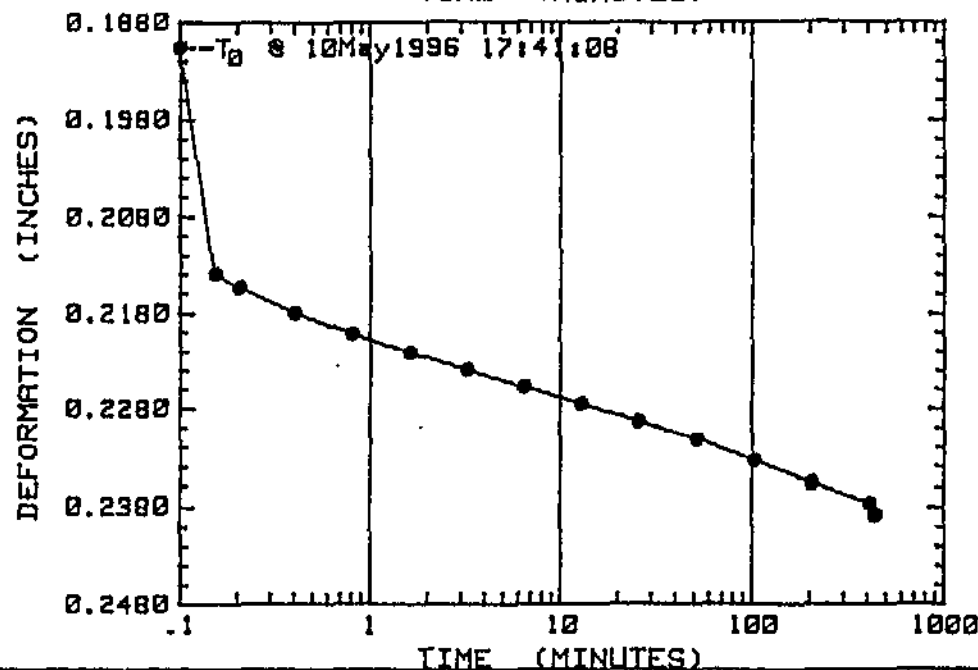


NO #A27711  
BORING #D-5  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH :2.5  
(SUBTRACT A CORRECTION  
OF 0.0018"  
FROM EACH READING)  
PRESSURE: 6350 PSF



NO #A27711  
BORING #D-5  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 0  
DEPTH :2.5  
(SUBTRACT A CORRECTION  
OF 0.0027"  
FROM EACH READING)

PRESSURE: 14500 PSF



NO #A27711  
BORING #D-5  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 0  
DEPTH :2.5  
(SUBTRACT A CORRECTION  
OF 0.0037"  
FROM EACH READING)

PRESSURE: 29700 PSF

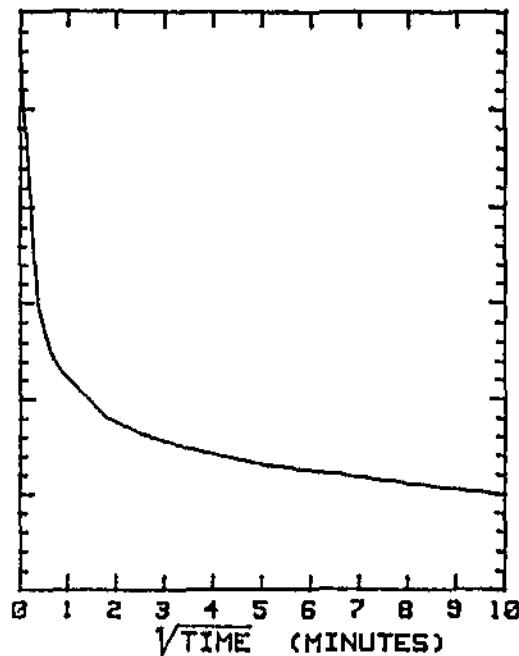
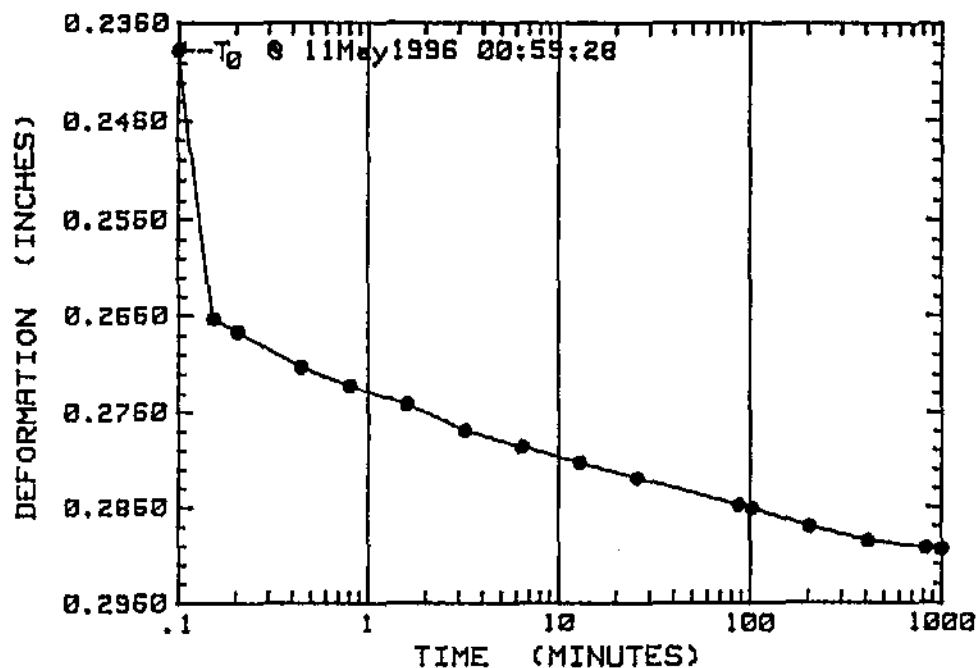


ALASKA TESTLAB

Time Rate of Consolidation

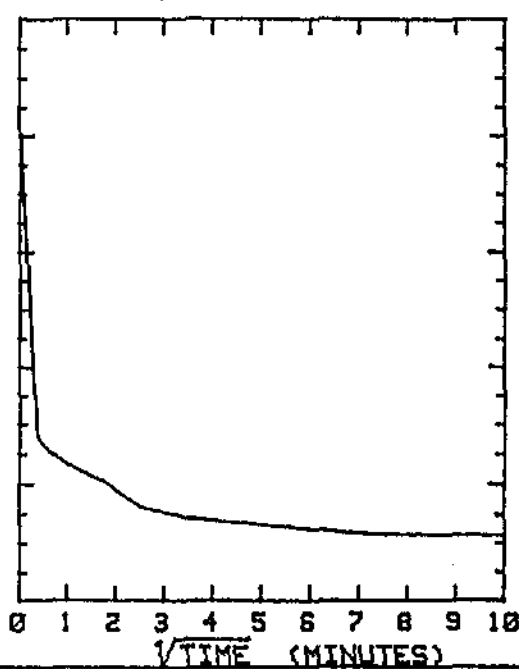
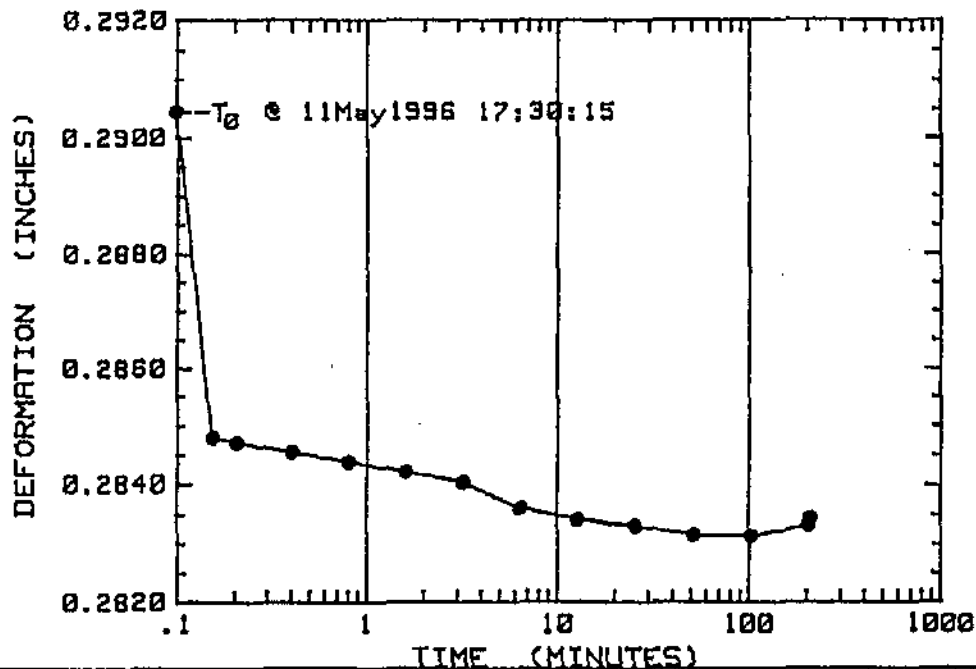
NO #A27711

FIGURE



NO #A27711  
BORING #D-5  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH 12.5  
(SUBTRACT A CORRECTION  
OF 0.0053"  
FROM EACH READING)

PRESSURE: 60000 PSF



NO #A27711  
BORING #D-5  
SAMPLE #TOP THIRD OF SAMPLE  
PART # 8  
DEPTH 12.5  
(SUBTRACT A CORRECTION  
OF 0.0032"  
FROM EACH READING)

PRESSURE: 14400 PSF

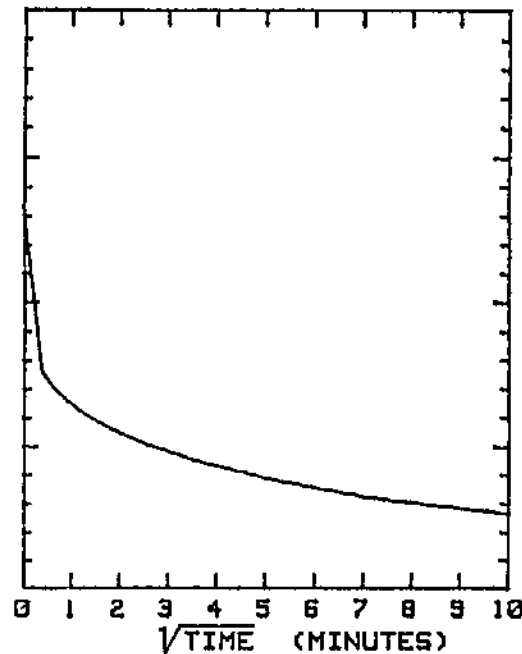
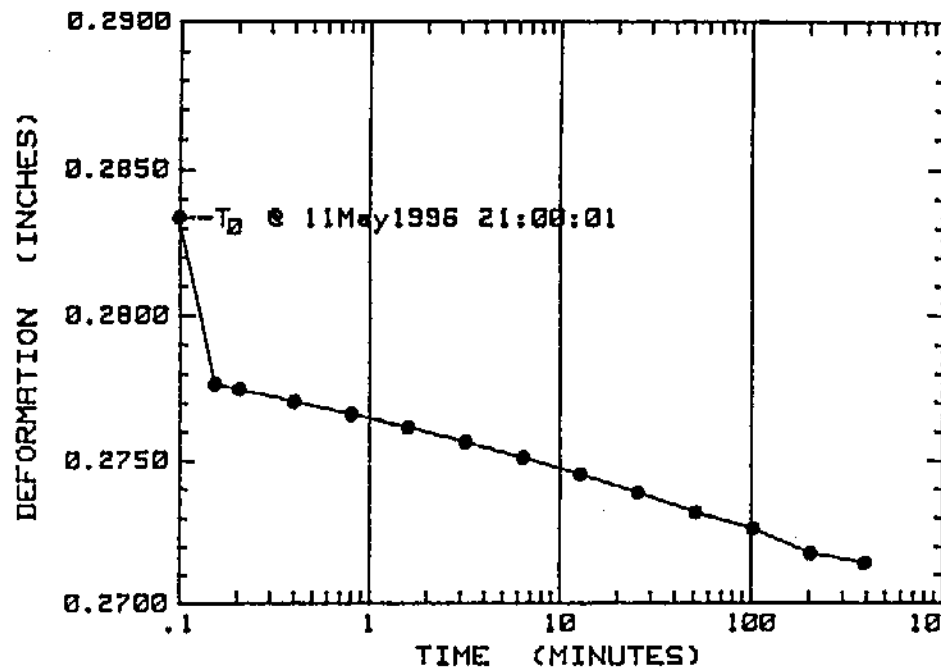


ALASKA TESTLAB

*Time Rate of Consolidation*

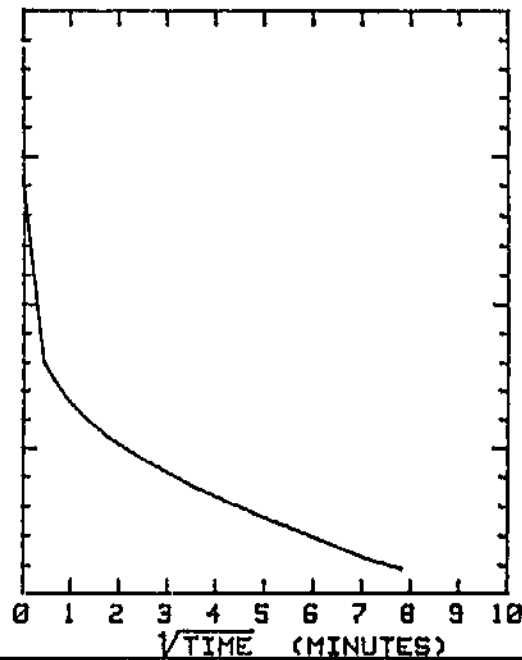
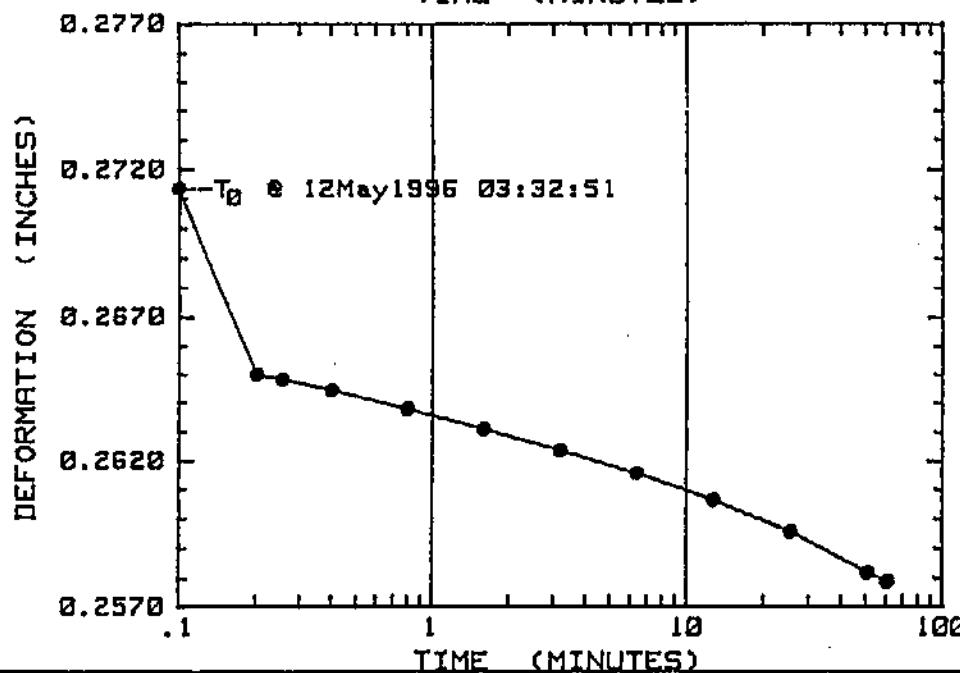
NO #A27711

FIGURE



NO #A27711  
BORING #D-5  
SAMPLE #TOP THIRD OF SAMPL  
PART # 0  
DEPTH :2.5  
(SUBTRACT A CORRECTION  
OF 0.0018"  
FROM EACH READING)

PRESSURE: 3600 PSF



NO #A27711  
BORING #D-5  
SAMPLE #TOP THIRD OF SAMPL  
PART # 0  
DEPTH :2.5  
(SUBTRACT A CORRECTION  
OF 0.0009"  
FROM EACH READING)

PRESSURE: 857 PSF

PROJECT : LIBERTY

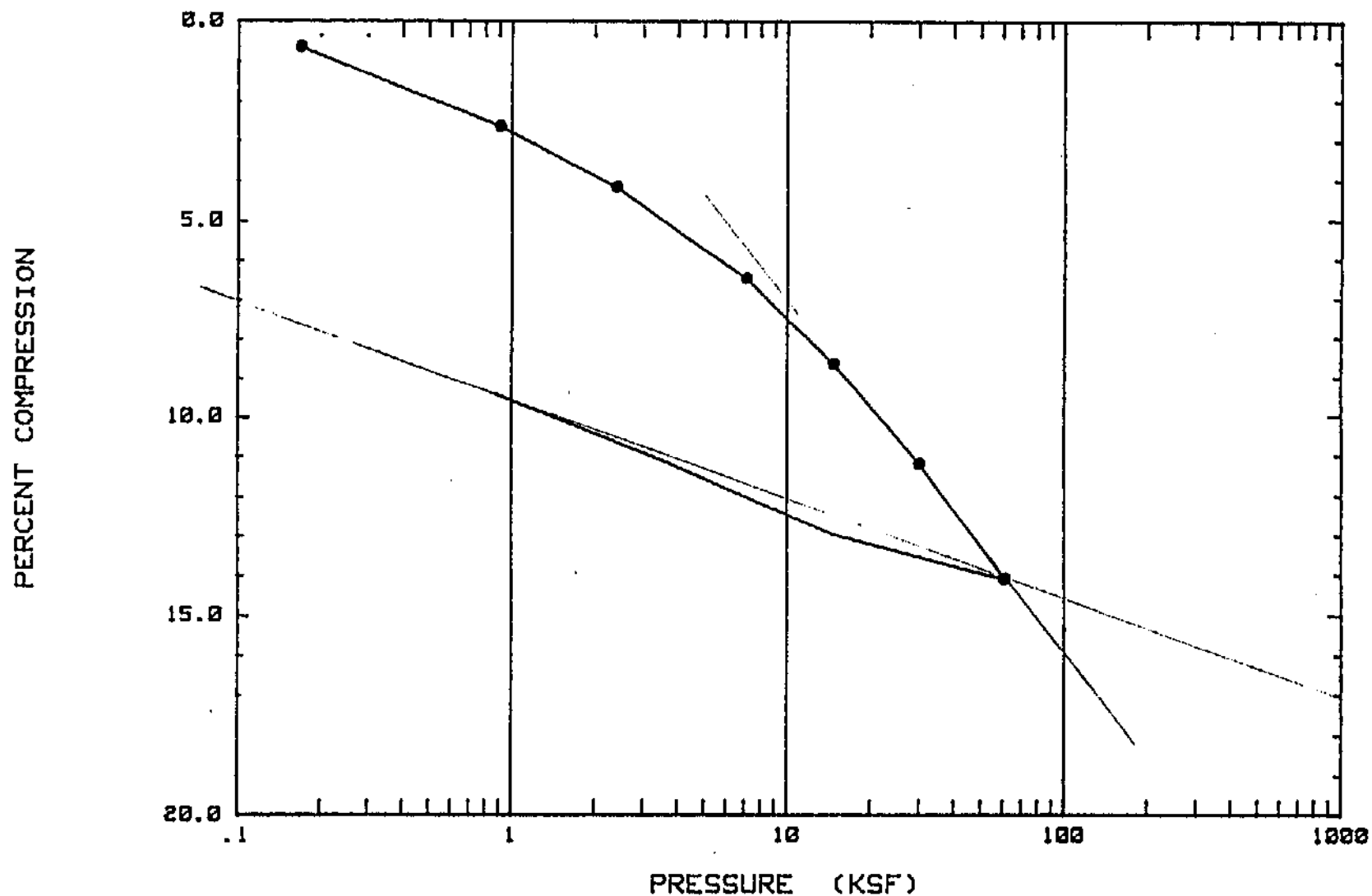
BORING : D-5

SAMPLE :

CLIENT : DUANE MILLER

DEPTH: 7.5 FEET

LABORATORY : C98019



ALASKA TESTLAB

Compression Curve (%Comp. vs. Log P)

WO # R27711

FIGURE

PROJECT : LIBERTY

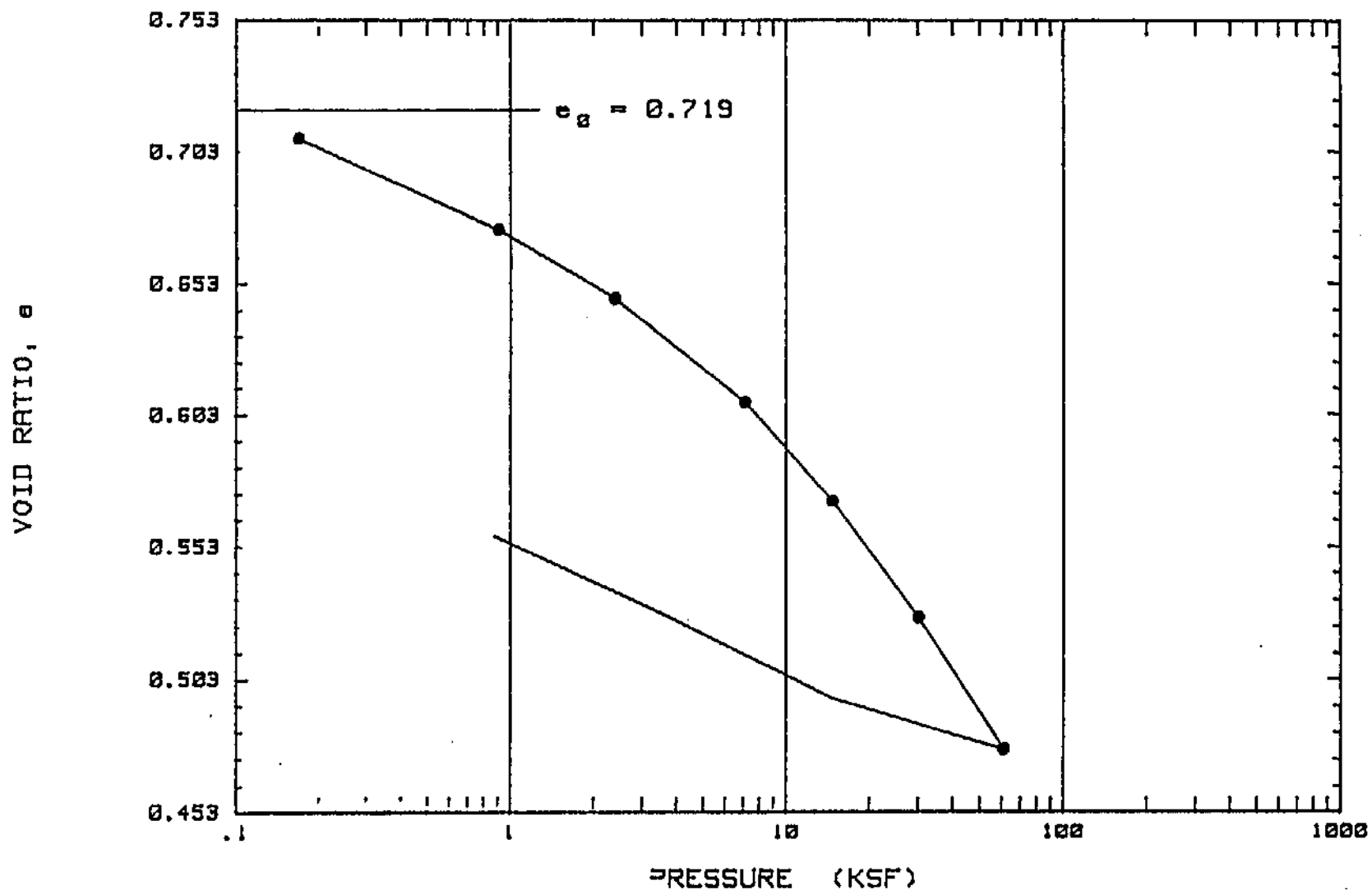
BORING : D-5

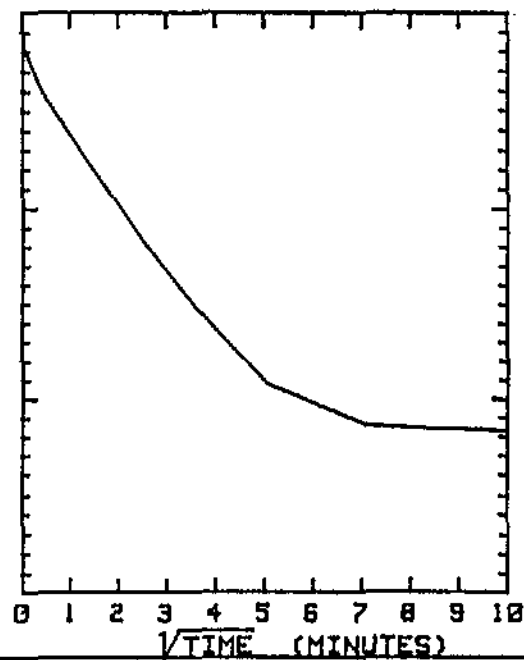
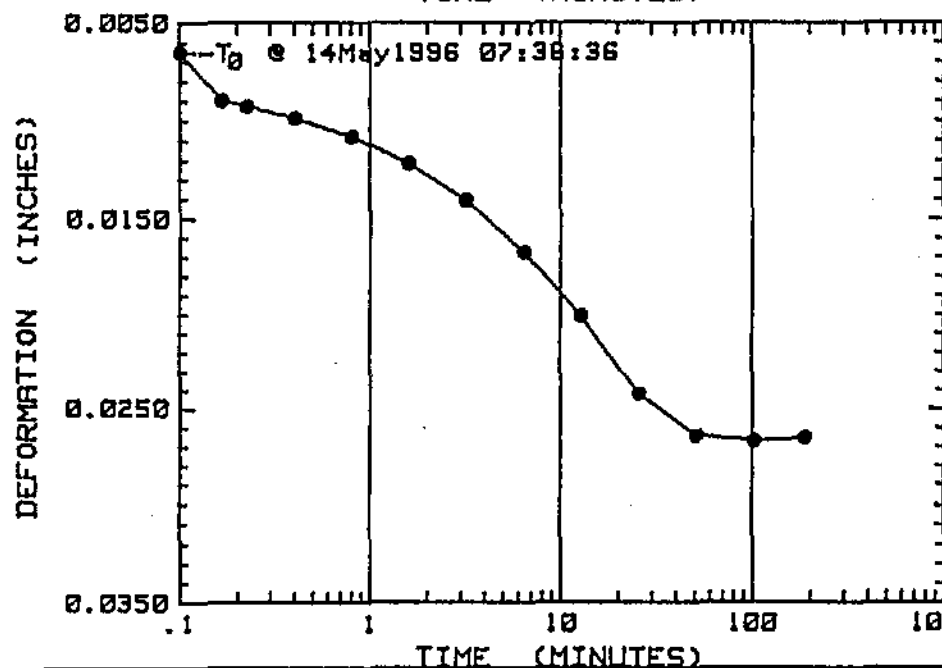
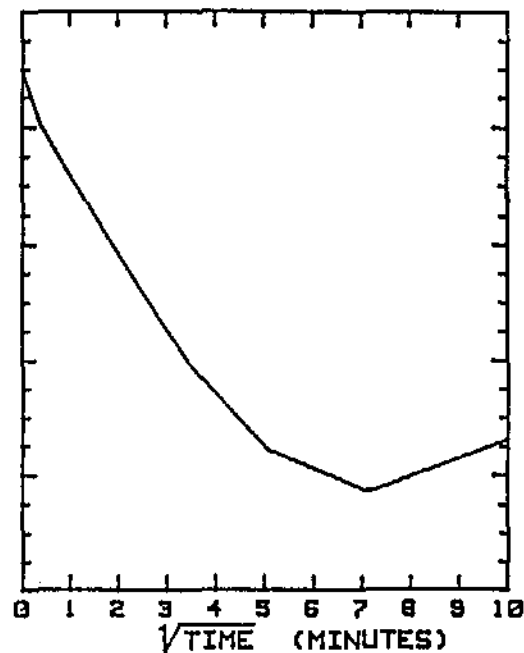
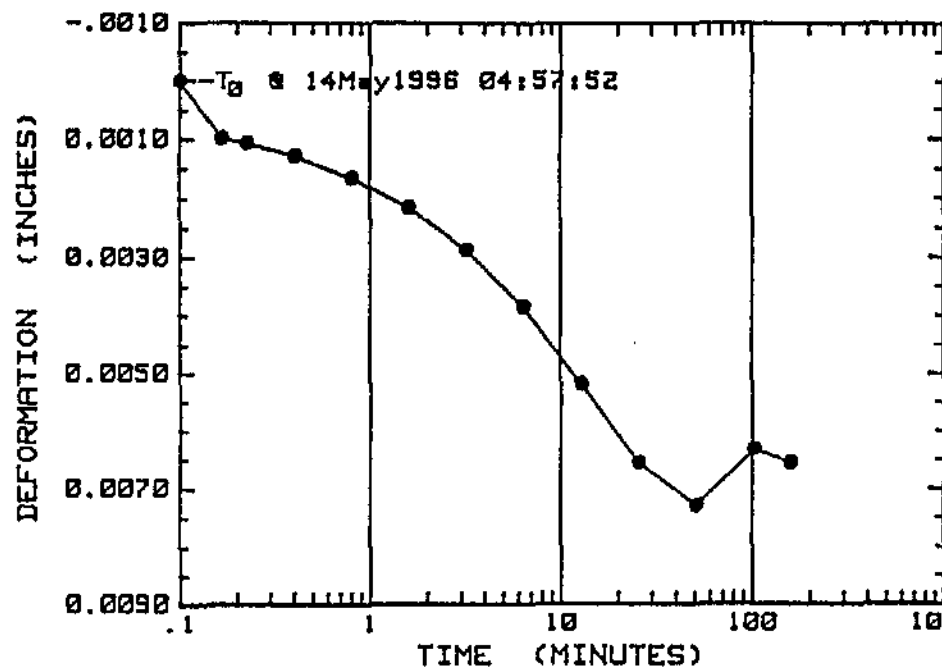
SAMPLE :

CLIENT : DUANE MILLER

DEPTH: 7.5 FEET

LABORATORY : C98019



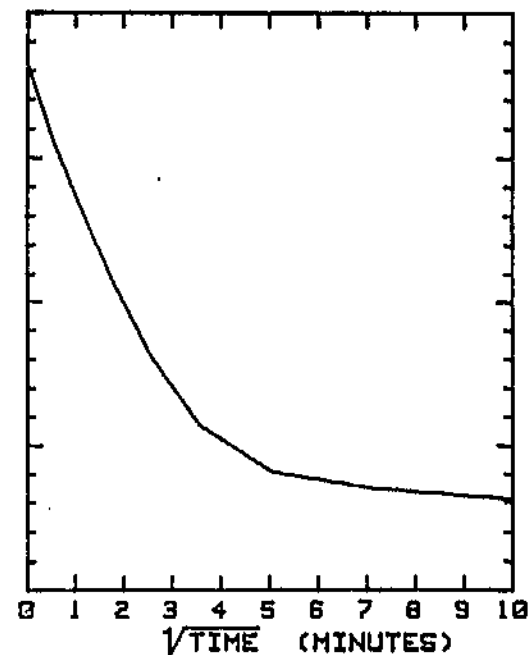
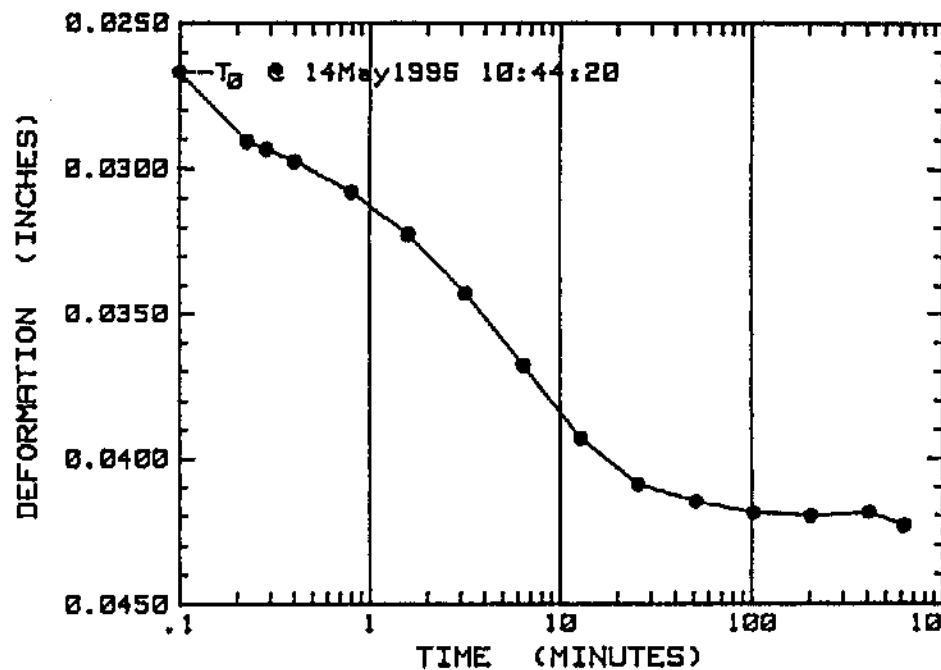


ALASKA TESTLAB

Time Rate of Consolidation

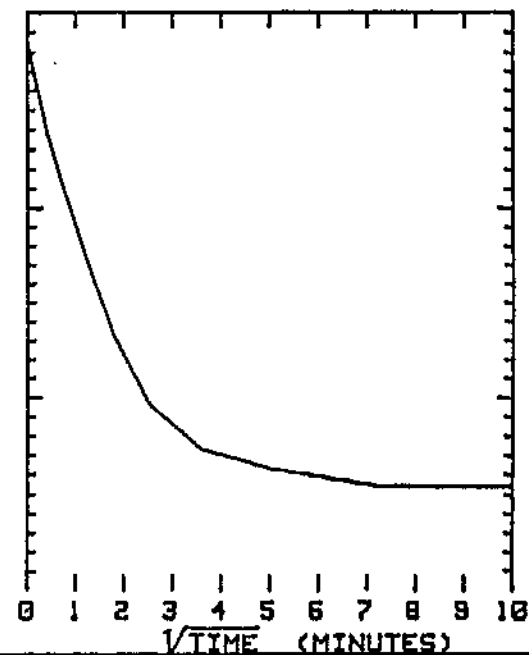
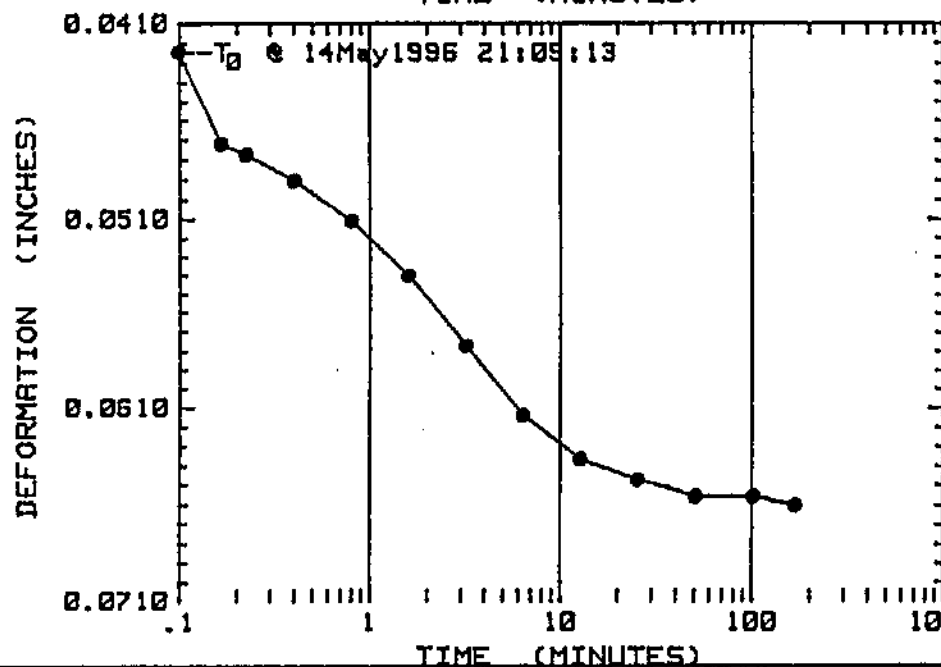
NO # A27711

FIGURE



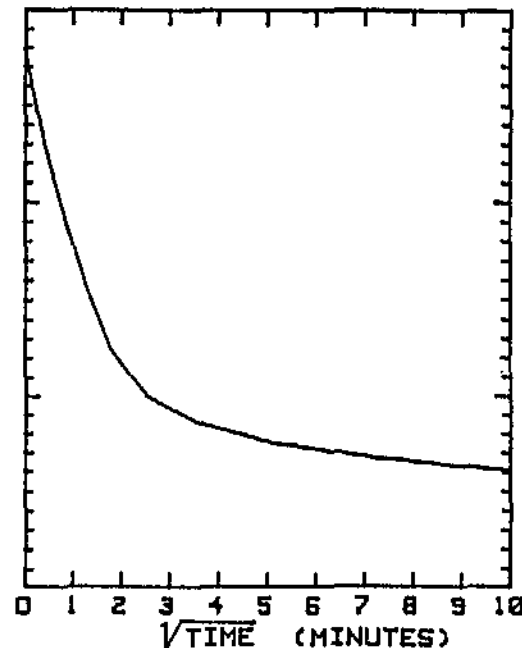
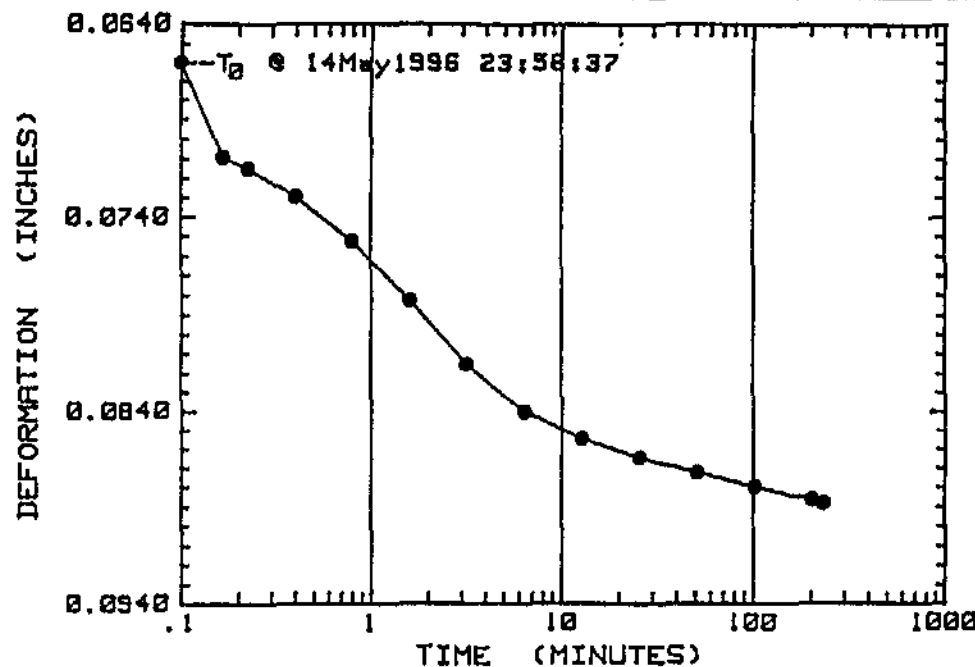
NO #A27711  
BORING #D-5  
SAMPLE #  
PART # 8  
DEPTH 17.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0003"  
FROM EACH READING)

PRESSURE: 2400 PSF



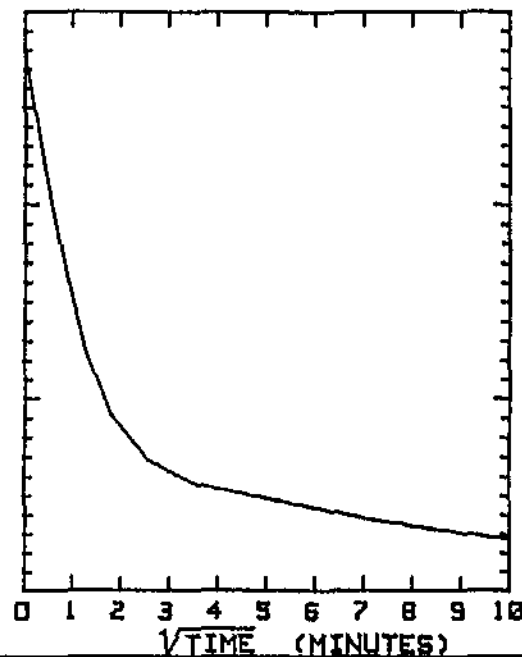
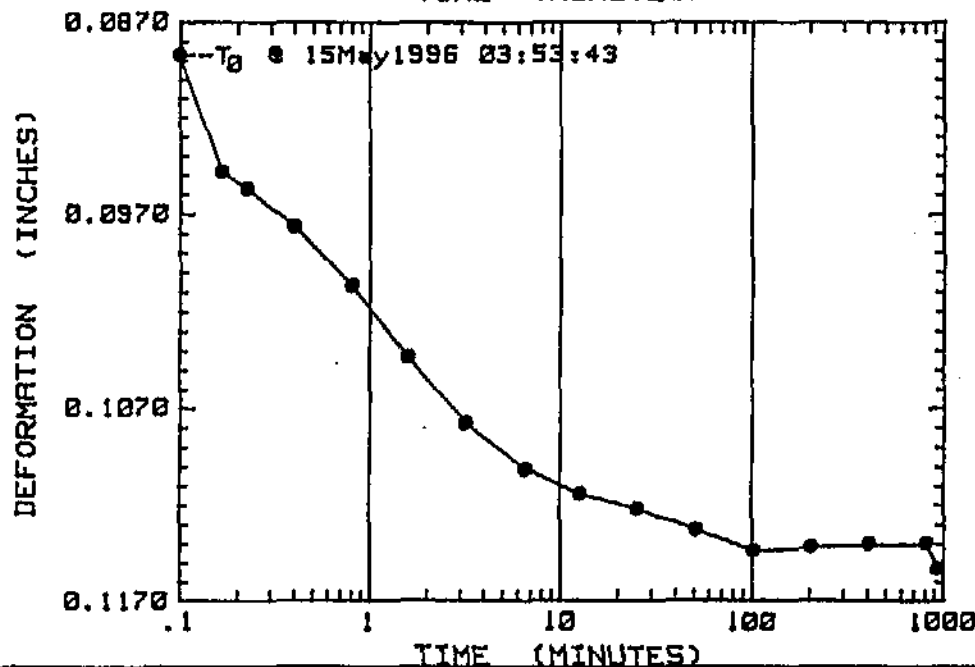
NO #A27711  
BORING #D-5  
SAMPLE #  
PART # 8  
DEPTH 17.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0018"  
FROM EACH READING)

PRESSURE: 7120 PSF



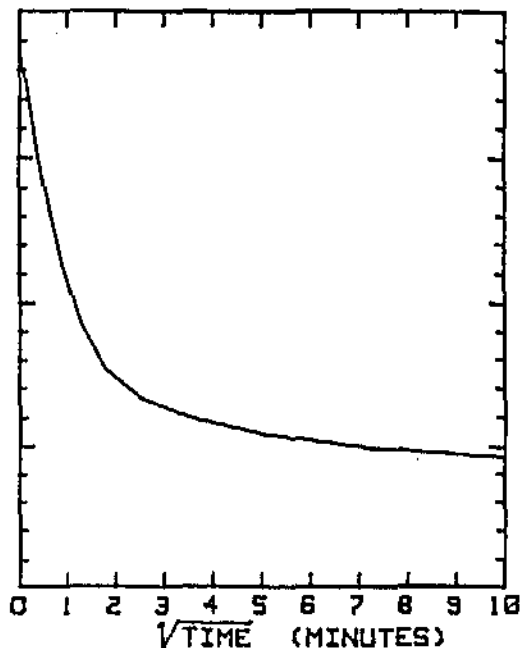
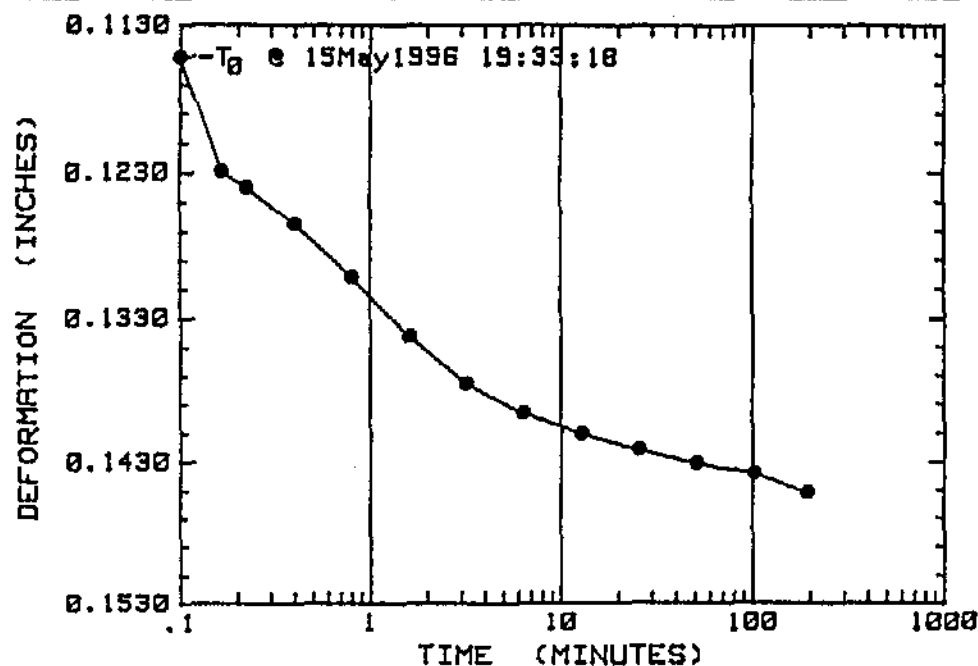
NO #A27711  
BORING #D-5  
SAMPLE #  
PART # 8  
DEPTH 17.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0027"  
FROM EACH READING)

PRESSURE: 14800 PSF

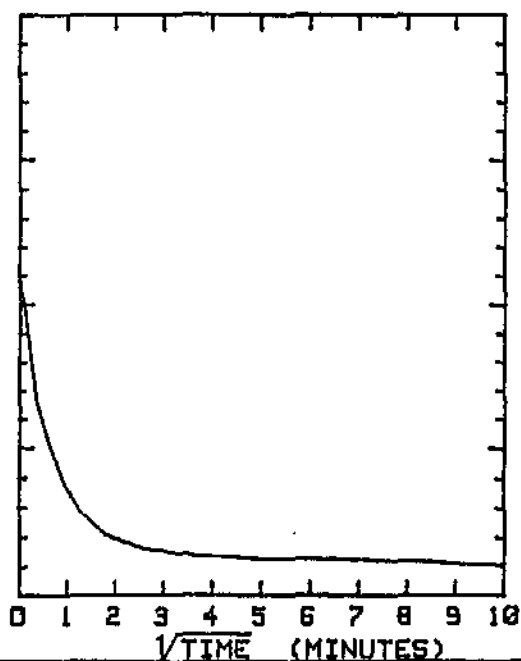
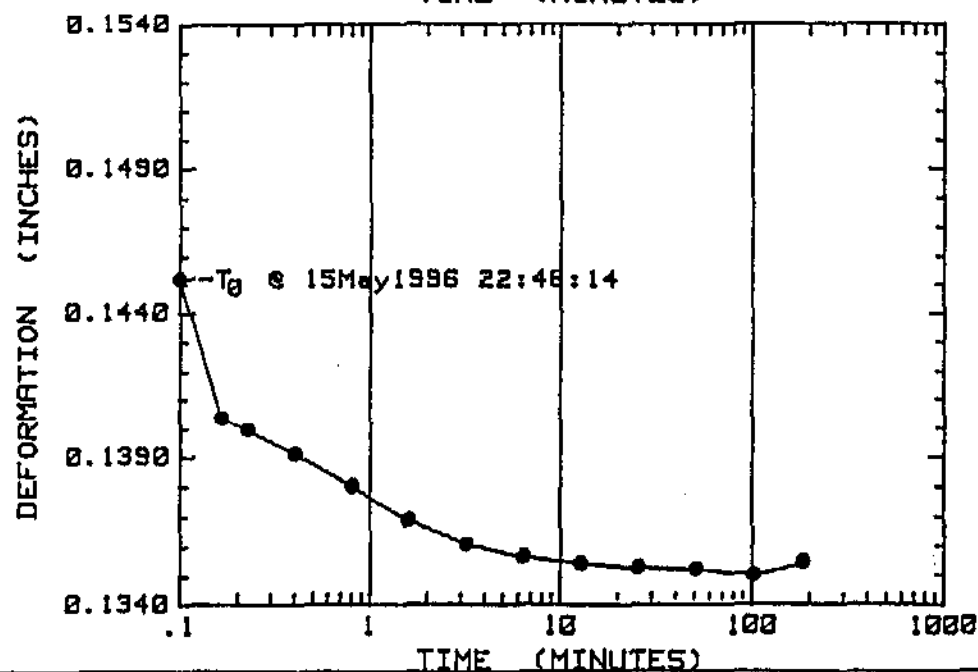


NO #A27711  
BORING #D-5  
SAMPLE #  
PART # 8  
DEPTH 17.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0037"  
FROM EACH READING)

PRESSURE: 30200 PSF



NO #A27711  
BORING #D-5  
SAMPLE #  
PART # 0  
DEPTH :7.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0033"  
FROM EACH READING)  
PRESSURE: 61100 PSF



NO #A27711  
BORING #D-5  
SAMPLE #  
PART # 0  
DEPTH :7.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0032"  
FROM EACH READING)  
PRESSURE: 14700 PSF

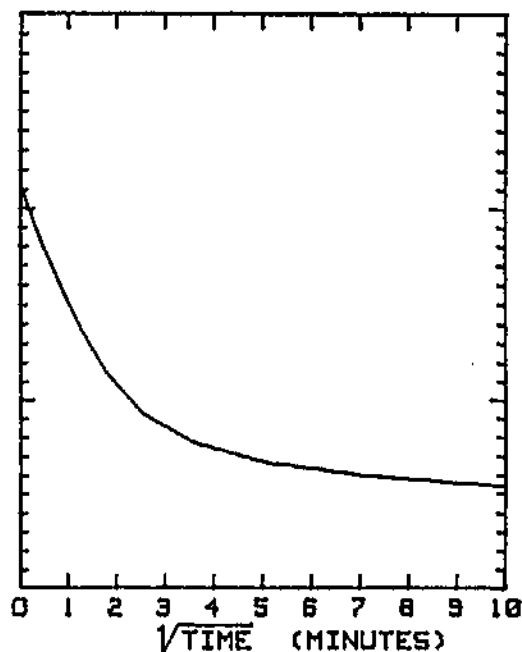
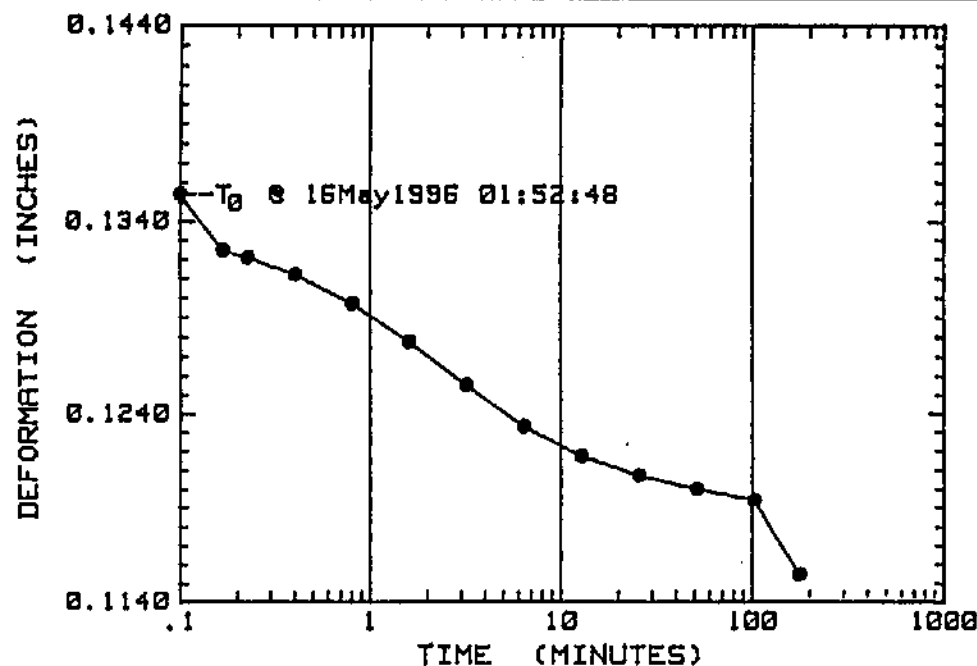


ALASKA TESTLAB

*Time Rate of Consolidation*

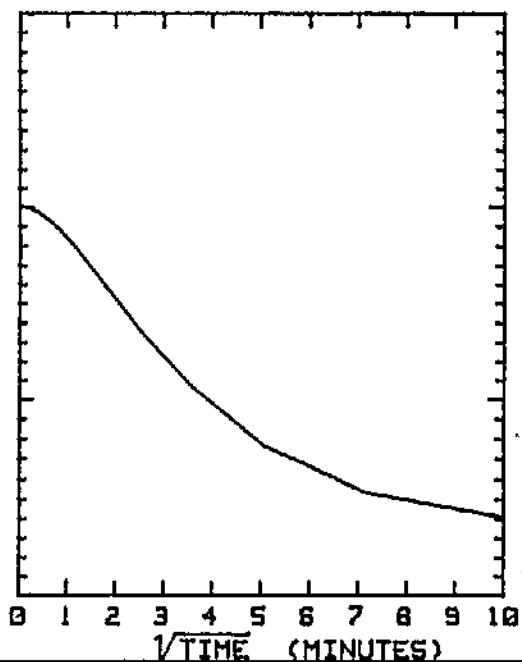
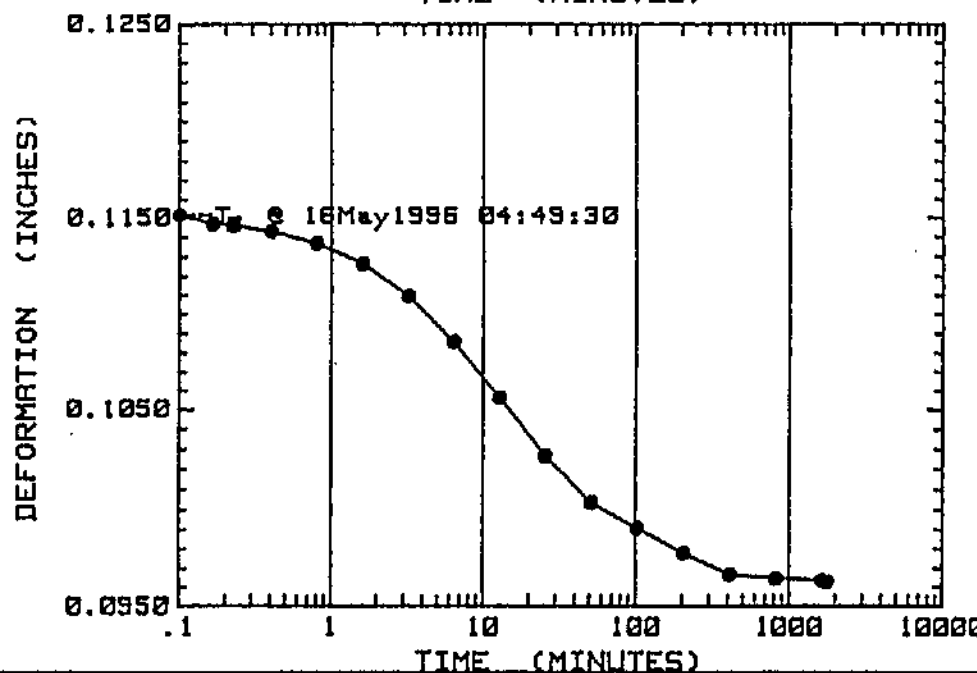
NO # A27711

FIGURE



NO #A27711  
BORING #D-5  
SAMPLE #  
PART # 0  
DEPTH : 7.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0018"  
FROM EACH READING)

PRESSURE: 3750 PSF



NO #A27711  
BORING #D-5  
SAMPLE #  
PART # 0  
DEPTH : 7.5 FEET  
(SUBTRACT A CORRECTION  
OF 0.0023"  
FROM EACH READING)

PRESSURE: 873 PSF



ALASKA TESTLAB

*Time Rate of Consolidation*

NO # A27711

FIGURE



## **APPENDIX E - Non Standard Testing**

|                                   |         |                                     |          |       |       |           |         |
|-----------------------------------|---------|-------------------------------------|----------|-------|-------|-----------|---------|
| Boring                            | D-15    | Dark Gray ORGANIC SILT (OL)         |          |       |       |           |         |
| Sample Depth                      | 5       | insitu Dry Dens =                   |          |       |       |           |         |
| initial 2Hi                       | 1.965   | insitu Moisture = 43.8%             |          |       |       |           |         |
| diameter                          | 2.893   | organics = 3.8%                     |          |       |       |           |         |
| final dry weight                  | 216.7 g |                                     |          |       |       |           |         |
| final moisture                    | 44.8%   |                                     |          |       |       |           |         |
| assumed SpG                       | 2.60    | to achieve final Saturation = 100%± |          |       |       |           |         |
| Bouyant Weight = Total Wt - 64pcf |         |                                     |          |       |       |           |         |
| Po                                | ΔH/2h   | 2H Dry Dens                         |          | Sat   | MC    | Tot Wt    | Bouy Wt |
| 0 psf                             | 0.0%    | 1.965                               | 63.9 pcf | 100%  | 59.0% | 101.6 pcf | 38 pcf  |
| 68 psf                            | 9.0%    | 1.788                               | 70.2 pcf | 100%  | 50.2% | 105.5 pcf | 42 pcf  |
| 169 psf                           | 11.8%   | 1.733                               | 72.5 pcf | 100%  | 47.5% | 106.9 pcf | 43 pcf  |
| 372 psf                           | 16.4%   | 1.643                               | 76.5 pcf | 100%  | 43.0% | 109.4 pcf | 45 pcf  |
| 68 psf                            | 14.3%   | 1.684                               | 74.6 pcf | 99.4% | 44.8% | 108.0 pcf | 44 pcf  |

|                                   |         |                                     |          |       |        |           |        |
|-----------------------------------|---------|-------------------------------------|----------|-------|--------|-----------|--------|
| Boring                            | D-10    | Dark Gray ORGANIC SILT (OL)         |          |       |        |           |        |
| Sample Depth                      | < 10'   |                                     |          |       |        |           |        |
| initial 2Hi                       | 2.021   |                                     |          |       |        |           |        |
| diameter                          | 2.891   |                                     |          |       |        |           |        |
| final dry weight                  | 239.4 g |                                     |          |       |        |           |        |
| final moisture                    | 44.7%   |                                     |          |       |        |           |        |
| assumed SpG                       | 2.35    | to achieve final Saturation = 100%± |          |       |        |           |        |
| Bouyant Weight = Total Wt - 64pcf |         |                                     |          |       |        |           |        |
| Po                                | ΔH/2h   | 2H Dry Dens                         | Sat      | MC    | Tot Wt | Bouy Wt   |        |
| 0 psf                             | 0.0%    | 2.021                               | 68.8 pcf | 100%  | 48.1%  | 101.8 pcf | 38 pcf |
| 73 psf                            | 1.2%    | 1.997                               | 69.6 pcf | 100%  | 47.0%  | 102.3 pcf | 38 pcf |
| 180 psf                           | 2.0%    | 1.982                               | 70.1 pcf | 100%  | 46.3%  | 102.6 pcf | 39 pcf |
| 398 psf                           | 4.0%    | 1.940                               | 71.6 pcf | 100%  | 44.4%  | 103.4 pcf | 39 pcf |
| 73 psf                            | 3.4%    | 1.952                               | 71.2 pcf | 99.4% | 44.7%  | 103.0 pcf | 39 pcf |

|                                   |         |                                     |          |       |        |           |        |
|-----------------------------------|---------|-------------------------------------|----------|-------|--------|-----------|--------|
| Boring                            | D-9     | Dark Gray PEAT (Pt) w/ SILT layers  |          |       |        |           |        |
| Sample Depth                      | 6       | insitu Dry Dens = 65 pcf            |          |       |        |           |        |
| initial 2Hi                       | 2.058   | insitu Moisture = 56.6%             |          |       |        |           |        |
| diameter                          | 2.894   | organics = 13%                      |          |       |        |           |        |
| final dry weight                  | 192.6 g |                                     |          |       |        |           |        |
| final moisture                    | 57.3%   |                                     |          |       |        |           |        |
| assumed SpG                       | 2.50    | to achieve final Saturation = 100%± |          |       |        |           |        |
| Bouyant Weight = Total Wt - 64pcf |         |                                     |          |       |        |           |        |
| Po                                | ΔH/2h   | 2H Dry Dens                         | Sat      | MC    | Tot Wt | Bouy Wt   |        |
| 0 psf                             | 0.0%    | 2.058                               | 54.2 pcf | 100%  | 74.9%  | 94.8 pcf  | 31 pcf |
| 68 psf                            | 8.3%    | 1.887                               | 59.1 pcf | 100%  | 65.4%  | 97.8 pcf  | 34 pcf |
| 169 psf                           | 11.2%   | 1.828                               | 61.0 pcf | 100%  | 62.1%  | 98.9 pcf  | 35 pcf |
| 372 psf                           | 20.8%   | 1.630                               | 68.4 pcf | 100%  | 51.0%  | 103.4 pcf | 39 pcf |
| 68 psf                            | 15.2%   | 1.745                               | 63.9 pcf | 99.7% | 57.3%  | 100.5 pcf | 37 pcf |

|                                   |         |                                     |          |       |       |           |         |
|-----------------------------------|---------|-------------------------------------|----------|-------|-------|-----------|---------|
| Boring                            | D-13    | Dark Gray SILT (ML)                 |          |       |       |           |         |
| Sample Depth                      | 2.5     | insitu Dry Dens =                   |          |       |       |           |         |
| initial 2Hi                       | 1.965   | insitu Moisture = 41.6%             |          |       |       |           |         |
| diameter                          | 2.893   | organics = 4.2%                     |          |       |       |           |         |
| final dry weight                  | 242.7 g | P200 = 84%                          |          |       |       |           |         |
| final moisture                    | 40.5%   |                                     |          |       |       |           |         |
| assumed SpG                       | 2.55    | to achieve final Saturation = 100%± |          |       |       |           |         |
| Bouyant Weight = Total Wt - 64pcf |         |                                     |          |       |       |           |         |
| Po                                | ΔH/2h   | 2H Dry Dens                         |          | Sat   | MC    | Tot Wt    | Bouy Wt |
| 0 psf                             | 0.0%    | 1.965                               | 71.6 pcf | 100%  | 47.8% | 105.8 pcf | 42 pcf  |
| 73 psf                            | 5.0%    | 1.867                               | 75.4 pcf | 100%  | 43.5% | 108.1 pcf | 44 pcf  |
| 180 psf                           | 6.0%    | 1.847                               | 76.2 pcf | 100%  | 42.6% | 108.6 pcf | 45 pcf  |
| 398 psf                           | 9.7%    | 1.774                               | 79.3 pcf | 100%  | 39.4% | 110.5 pcf | 46 pcf  |
| 73 psf                            | 8.2%    | 1.804                               | 78.0 pcf | 99.6% | 40.5% | 109.6 pcf | 46 pcf  |

|                                   |         |                                     |          |       |        |          |        |
|-----------------------------------|---------|-------------------------------------|----------|-------|--------|----------|--------|
| Boring                            | B-8     | Dark Gray SILT (ML) soft            |          |       |        |          |        |
| Sample Depth                      | 2.5     | insitu Dry Dens = 49 pcf            |          |       |        |          |        |
| initial 2Hi                       | 2.058   | insitu Moisture = 83.8%             |          |       |        |          |        |
| diameter                          | 2.884   | LL =                                |          |       |        |          |        |
| final dry weight                  | 155.9 g | PI = NP                             |          |       |        |          |        |
| final moisture                    | 84.0%   | P200 = 96%                          |          |       |        |          |        |
| assumed SpG                       | 2.25    | to achieve final Saturation = 100%± |          |       |        |          |        |
| Bouyant Weight = Total Wt - 64pcf |         |                                     |          |       |        |          |        |
| Po                                | ΔH/2h   | 2H Dry Dens                         | Sat      | MC    | Tot Wt | Bouy Wt  |        |
| 0 psf                             | 0.0%    | 2.058                               | 44.2 pcf | 100%  | 96.6%  | 86.8 pcf | 23 pcf |
| 73 psf                            | 3.1%    | 1.994                               | 45.6 pcf | 100%  | 92.2%  | 87.6 pcf | 24 pcf |
| 180 psf                           | 6.8%    | 1.918                               | 47.4 pcf | 100%  | 87.0%  | 88.6 pcf | 25 pcf |
| 398 psf                           | 11.9%   | 1.813                               | 50.2 pcf | 100%  | 79.8%  | 90.2 pcf | 26 pcf |
| 73 psf                            | 8.8%    | 1.877                               | 48.4 pcf | 99.8% | 84.0%  | 89.1 pcf | 25 pcf |

|                                   |              |                                     |          |       |        |           |        |
|-----------------------------------|--------------|-------------------------------------|----------|-------|--------|-----------|--------|
| Boring                            | I-3          | Dark Gray SILT (MH)                 |          |       |        |           |        |
| Sample Depth                      | 7.5 "slurry" | insitu Dry Dens = 91 pcf            |          |       |        |           |        |
| initial 2Hi                       | 2.053        | insitu Moisture = 32.4%             |          |       |        |           |        |
| diameter                          | 2.864        | LL = 54                             |          |       |        |           |        |
| final dry weight                  | 216.2 g      | PI = 29                             |          |       |        |           |        |
| final moisture                    | 50.0%        |                                     |          |       |        |           |        |
| assumed SpG                       | 2.65         | to achieve final Saturation = 100%± |          |       |        |           |        |
| Bouyant Weight = Total Wt - 64pcf |              |                                     |          |       |        |           |        |
| Po                                | ΔH/2h        | 2H Dry Dens                         | Sat      | MC    | Tot Wt | Bouy Wt   |        |
| 0 psf                             | 0.0%         | 2.053                               | 62.3 pcf | 100%  | 62.3%  | 101.1 pcf | 37 pcf |
| 72 psf                            | 6.5%         | 1.920                               | 66.6 pcf | 100%  | 55.8%  | 103.8 pcf | 40 pcf |
| 160 psf                           | 10.3%        | 1.842                               | 69.4 pcf | 100%  | 52.0%  | 105.5 pcf | 42 pcf |
| 390 psf                           | 13.0%        | 1.786                               | 71.6 pcf | 100%  | 49.3%  | 106.9 pcf | 43 pcf |
| 69 psf                            | 12.2%        | 1.803                               | 70.9 pcf | 99.8% | 50.0%  | 106.4 pcf | 42 pcf |

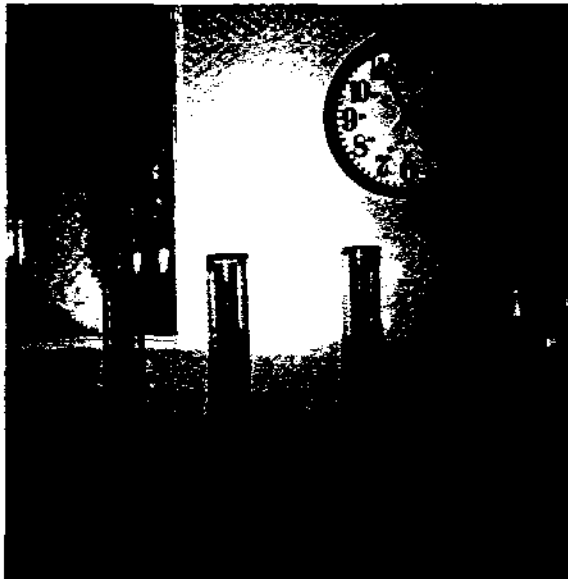
|                                   |              |                                     |          |       |        |           |        |
|-----------------------------------|--------------|-------------------------------------|----------|-------|--------|-----------|--------|
| Boring                            | 1-3          | Dark Gray SILT (MH)                 |          |       |        |           |        |
| Sample Depth                      | 7.5 "chunks" | insitu Dry Dens = 91 pcf            |          |       |        |           |        |
| initial 2Hi                       | 2.049        | insitu Moisture = 32.4%             |          |       |        |           |        |
| diameter                          | 2.892        | LL = 54                             |          |       |        |           |        |
| final dry weight                  | 223.5 g      | PI = 29                             |          |       |        |           |        |
| final moisture                    | 42.8%        |                                     |          |       |        |           |        |
| assumed SpG                       | 2.50         | to achieve final Saturation = 100%± |          |       |        |           |        |
| Bouyant Weight = Total Wt - 64pcf |              |                                     |          |       |        |           |        |
| Po                                | ΔH/2h        | 2H Dry Dens                         | Sat      | MC    | Tot Wt | Bouy Wt   |        |
| 0 psf                             | 0.0%         | 2.049                               | 63.3 pcf | 100%  | 58.5%  | 100.3 pcf | 36 pcf |
| 68 psf                            | 7.0%         | 1.906                               | 68.0 pcf | 100%  | 51.6%  | 103.1 pcf | 39 pcf |
| 169 psf                           | 12.2%        | 1.799                               | 72.1 pcf | 100%  | 46.5%  | 105.5 pcf | 42 pcf |
| 372 psf                           | 16.0%        | 1.721                               | 75.3 pcf | 100%  | 42.7%  | 107.5 pcf | 43 pcf |
| 68 psf                            | 15.7%        | 1.727                               | 75.1 pcf | 99.5% | 42.8%  | 107.2 pcf | 43 pcf |

|                                   |                   |                                     |          |       |        |            |        |
|-----------------------------------|-------------------|-------------------------------------|----------|-------|--------|------------|--------|
| Boring                            | D-7               | Dark Gray Sandy SILT (ML)           |          |       |        |            |        |
| Sample Depth                      | combined 0 to 10' | insitu Dry Dens = 73 to 96 pcf      |          |       |        |            |        |
| initial 2Hi                       | 1.981             | insitu Moisture = 30 to 47%         |          |       |        |            |        |
| diameter                          | 2.894             | LL = 34                             |          |       |        | OLI = 3.6% |        |
| final dry weight                  | 286.4 g           | PI = NP                             |          |       |        | P200 = 65% |        |
| final moisture                    | 32.1%             |                                     |          |       |        |            |        |
| assumed SpG                       | 2.68              | to achieve final Saturation = 100%± |          |       |        |            |        |
| Bouyant Weight = Total Wt - 64pcf |                   |                                     |          |       |        |            |        |
| Po                                | ΔH/2h             | 2H Dry Dens                         | Sat      | MC    | Tot Wt | Bouy Wt    |        |
| 0 psf                             | 0.0%              | 1.981                               | 83.7 pcf | 100%  | 37.1%  | 114.8 pcf  | 51 pcf |
| 68 psf                            | 2.5%              | 1.931                               | 85.9 pcf | 100%  | 35.2%  | 116.1 pcf  | 52 pcf |
| 169 psf                           | 4.9%              | 1.884                               | 88.1 pcf | 100%  | 33.4%  | 117.5 pcf  | 53 pcf |
| 372 psf                           | 7.1%              | 1.840                               | 90.1 pcf | 100%  | 31.8%  | 118.8 pcf  | 55 pcf |
| 68 psf                            | 6.6%              | 1.850                               | 89.7 pcf | 99.8% | 32.1%  | 118.4 pcf  | 54 pcf |

|                  |                   |                                     |          |            |        |           |        |
|------------------|-------------------|-------------------------------------|----------|------------|--------|-----------|--------|
| Boring           | D-9               | Dark Gray Organic SILT (OH)         |          |            |        |           |        |
| Sample Depth     | combined 0 to 10' | insitu Dry Dens = 65 to 69 pcf      |          |            |        |           |        |
| initial 2Hi      | 1.973             | insitu Moisture = 40 to 78%         |          |            |        |           |        |
| diameter         | 2.89              | LL = 62                             |          | OLI = 7.3% |        |           |        |
| final dry weight | 219.5 g           | PI = 25                             |          | P200 = 93% |        |           |        |
| final moisture   | 47.0%             |                                     |          |            |        |           |        |
| assumed SpG      | 2.75              | to achieve final Saturation = 100%± |          |            |        |           |        |
|                  |                   | Bouyant Weight = Total Wt - 64pcf   |          |            |        |           |        |
| Po               | ΔH/2h             | 2H Dry Dens                         | Sat      | MC         | Tot Wt | Bouy Wt   |        |
| 0 psf            | 0.0%              | 1.973                               | 64.6 pcf | 100%       | 60.1%  | 103.4 pcf | 39 pcf |
| 68 psf           | 6.8%              | 1.839                               | 69.3 pcf | 100%       | 53.5%  | 106.4 pcf | 42 pcf |
| 169 psf          | 11.4%             | 1.748                               | 72.9 pcf | 100%       | 49.1%  | 108.7 pcf | 45 pcf |
| 372 psf          | 15.5%             | 1.667                               | 76.5 pcf | 100%       | 45.1%  | 111.0 pcf | 47 pcf |
| 68 psf           | 14.0%             | 1.697                               | 75.1 pcf | 100.9%     | 47.0%  | 110.4 pcf | 46 pcf |

| Boring D-10 and D-14            |         | Dark Gray Organic Sandy SILT (OL)   |          |            |        |          |        |
|---------------------------------|---------|-------------------------------------|----------|------------|--------|----------|--------|
| Sample Depth combined 6' to 10' |         | insitu Dry Dens =                   |          |            |        |          |        |
| initial 2Hi                     | 2.051   | insitu Moisture = 22 to 70%         |          |            |        |          |        |
| diameter                        | 2.887   | LL = 71                             |          | OL = 10.3% |        |          |        |
| final dry weight                | 185.3 g | PI = NP                             |          | P200 = 75% |        |          |        |
| final moisture                  | 71.2%   |                                     |          |            |        |          |        |
| assumed SpG                     | 2.65    | to achieve final Saturation = 100%± |          |            |        |          |        |
|                                 |         | Bouyant Weight = Total Wt - 64pcf   |          |            |        |          |        |
| Po                              | ΔH/2h   | 2H Dry Dens                         | Sat      | MC         | Tot Wt | Bouy Wt  |        |
| 0 psf                           | 0.0%    | 2.051                               | 52.6 pcf | 100%       | 80.8%  | 95.0 pcf | 31 pcf |
| 68 psf                          | 3.8%    | 1.973                               | 54.7 pcf | 100%       | 76.3%  | 96.3 pcf | 32 pcf |
| 169 psf                         | 7.0%    | 1.907                               | 56.5 pcf | 100%       | 72.5%  | 97.5 pcf | 34 pcf |
| 374 psf                         | 10.3%   | 1.840                               | 58.6 pcf | 100%       | 68.5%  | 98.8 pcf | 35 pcf |
| 68 psf                          | 8.3%    | 1.881                               | 57.3 pcf | 100.4%     | 71.2%  | 98.2 pcf | 34 pcf |

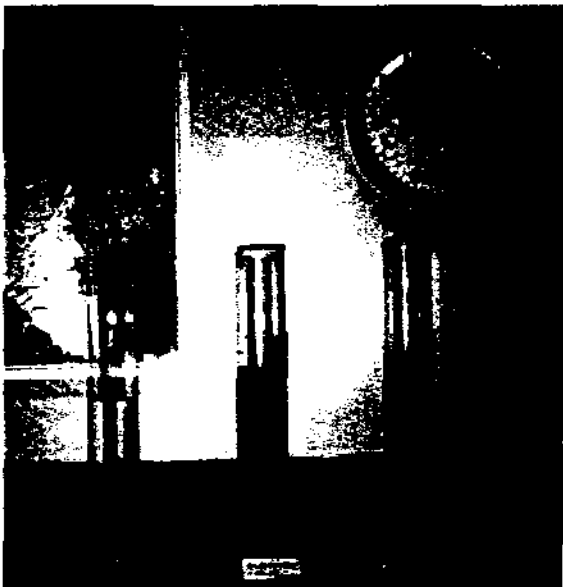
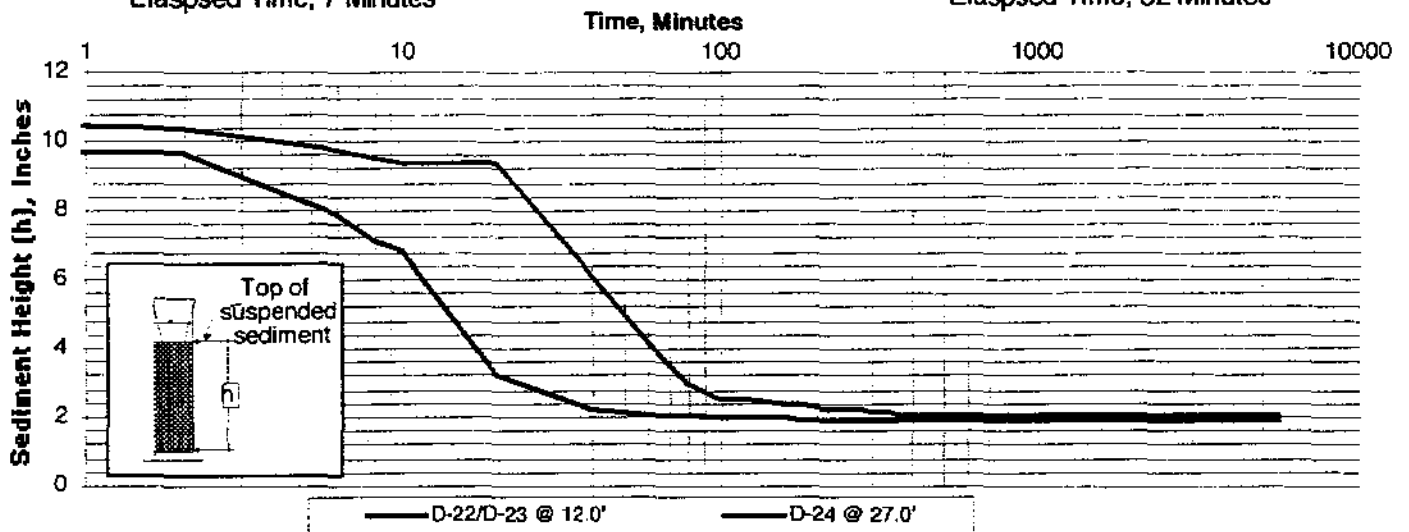
|                  |                    |                                           |          |            |        |           |        |
|------------------|--------------------|-------------------------------------------|----------|------------|--------|-----------|--------|
| Boring           | D-18               | Dark Gray Sandy SILT (ML) w/ Organic Silt |          |            |        |           |        |
| Sample Depth     | combined 0 to 5.5' | insitu Dry Dens =                         |          |            |        |           |        |
| initial 2Hi      | 2.004              | insitu Moisture = 44% to 71%              |          |            |        |           |        |
| diameter         | 2.889              | LL =                                      |          | OLI = 5.4% |        |           |        |
| final dry weight | 226.0 g            | PI = NP                                   |          | P200 = 82% |        |           |        |
| final moisture   | 48.7%              |                                           |          |            |        |           |        |
| assumed SpG      | 2.55               | to achieve final Saturation = 100%±       |          |            |        |           |        |
|                  |                    | Bouyant Weight = Total Wt - 64pcf         |          |            |        |           |        |
| Po               | ΔH/2h              | 2H Dry Dens                               | Sat      | MC         | Tot Wt | Bouy Wt   |        |
| 0 psf            | 0.0%               | 2.004                                     | 65.5 pcf | 100%       | 55.8%  | 102.1 pcf | 38 pcf |
| 68 psf           | 3.0%               | 1.944                                     | 67.6 pcf | 100%       | 53.0%  | 103.4 pcf | 39 pcf |
| 169 psf          | 6.2%               | 1.880                                     | 69.9 pcf | 100%       | 50.0%  | 104.8 pcf | 41 pcf |
| 373 psf          | 8.9%               | 1.826                                     | 71.9 pcf | 100%       | 47.4%  | 106.0 pcf | 42 pcf |
| 68 psf           | 7.4%               | 1.856                                     | 70.8 pcf | 99.8%      | 48.7%  | 105.2 pcf | 41 pcf |



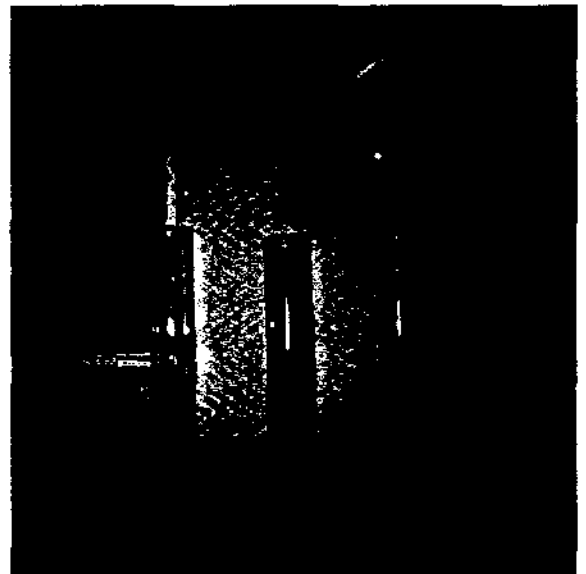
Elapsed Time, 7 Minutes



Elapsed Time, 32 Minutes



Elapsed Time, 90 Minutes



Elapsed Time, 1384 Minutes



**Duane Miller & Associates**  
 Arctic & Geotechnical Engineering  
 Job No.: 4119.23  
 Date: July 1998

**SEDIMENTATION TEST DATA**  
 Liberty Development  
 Beaufort Sea, Alaska

Plate  
**E-5**



A Division of ODWL, Incorporated  
4040 B Street Anchorage, Alaska 99513  
(907) 562-2000 FAX (907) 563-3953

Client: Duane Miller & Associates

Project: Liberty 1998

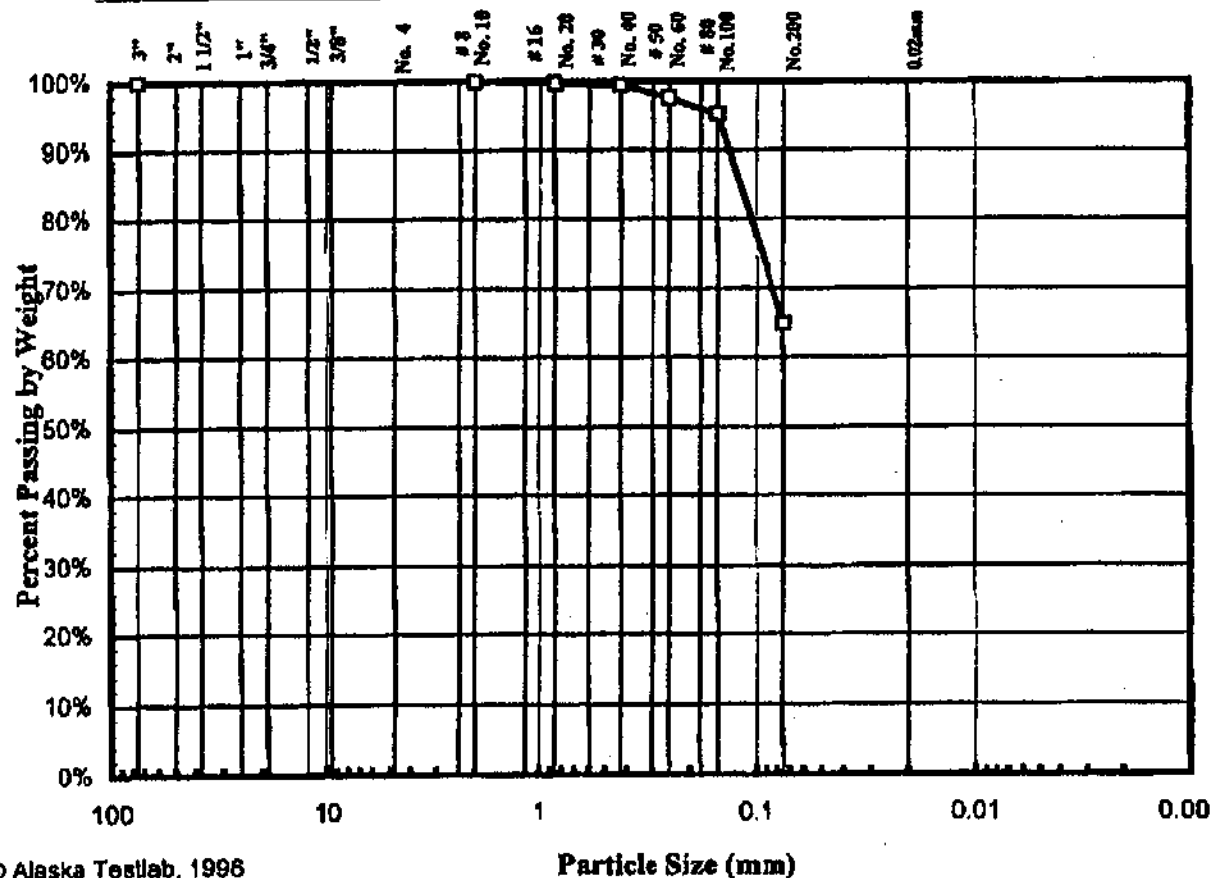
Location: D-7, Submitted by Client

PI = Non Plastic

Organic Content = 3.6%

Engineering Classification: Sandy SILT, ML

Frost Classification: F4



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# PARTICLE-SIZE

DIST. ASTM D422/C36

W.O. A27711

Lab No. 1729

Received: June 5, 1998

Reported: 6/29/98

| SIZE                                  | PASSING SPECIFICATION |
|---------------------------------------|-----------------------|
| +3 in Net Included in Test = ~0%      |                       |
| 3"                                    |                       |
| 2"                                    |                       |
| 1 1/2"                                |                       |
| 1"                                    |                       |
| 3/4"                                  |                       |
| 1/2"                                  |                       |
| 3/8"                                  |                       |
| No. 4                                 |                       |
| Total Wt. of Coarse Fraction = 119.4g |                       |
| No. 8                                 |                       |
| No. 10                                | 100%                  |
| No. 16                                |                       |
| No. 20                                | 100%                  |
| No. 30                                |                       |
| No. 40                                | 99%                   |
| No. 50                                |                       |
| No. 60                                | 98%                   |
| No. 80                                |                       |
| No. 100                               | 95%                   |
| No. 200                               | 65%                   |
| Total Wt. of Fine Fraction = 119.4g   |                       |
| 0.02 mm                               |                       |



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Client: Duane Miller & Associates

Project: Liberty 1998

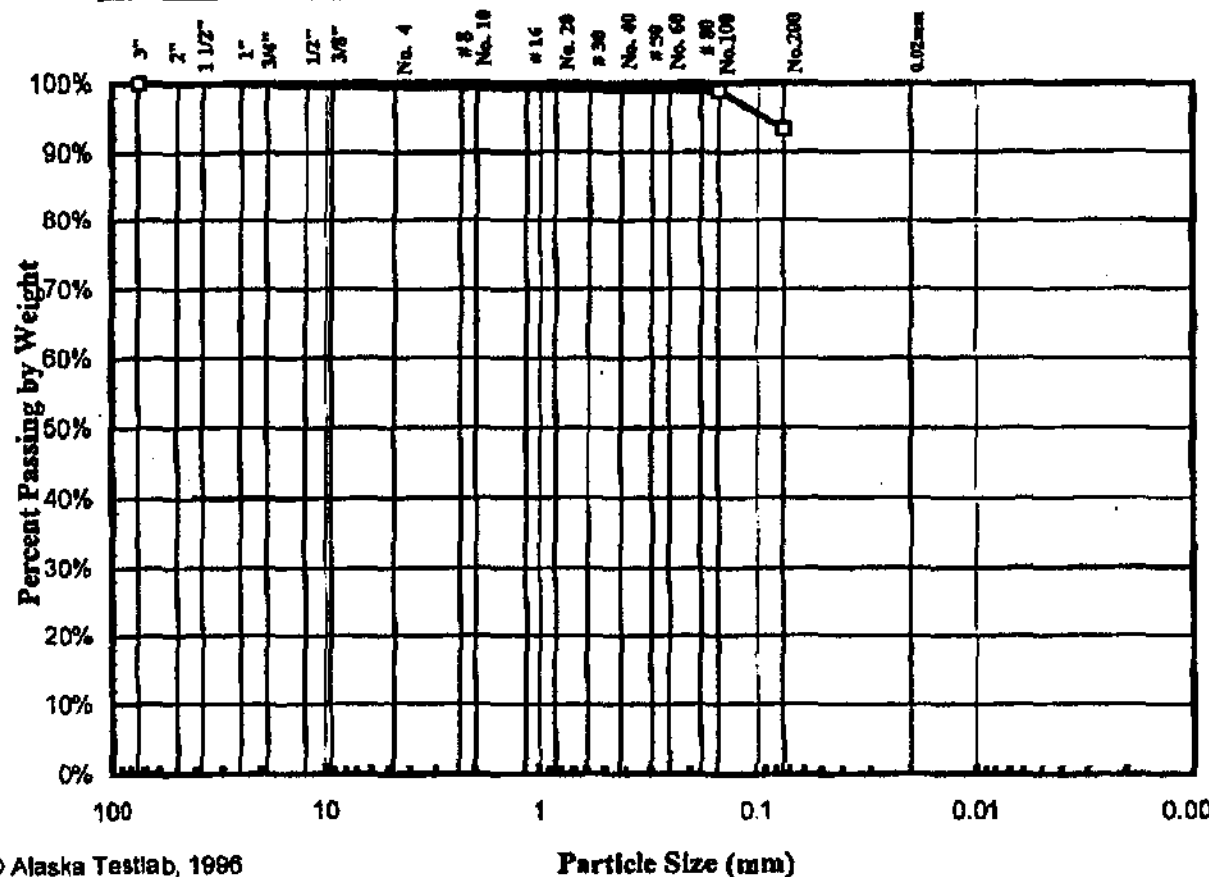
Location: D-9, 6'-9', Submitted by Client

LL = 62, PI = 25

Organic Content = 7.3%

Engineering Classification: SILT, ML

Frost Classification: F4



**PARTICLE-SIZE**  
**DIST. ASTM D422/C36**

W.O. A27711

Lab No. 1730

Received: June 5, 1998

Reported: 6/29/98

| SIZE                                  | PASSING | SPECIFICATION |
|---------------------------------------|---------|---------------|
| *3 in Not Included in Test = -0%      |         |               |
| 3"                                    |         |               |
| 2"                                    |         |               |
| 1 1/2"                                |         |               |
| 1"                                    |         |               |
| 3/4"                                  |         |               |
| 1/2"                                  |         |               |
| 3/8"                                  |         |               |
| No. 4                                 |         |               |
| Total Wt. of Coarse Fraction = 108.2g |         |               |
| No. 8                                 |         |               |
| No. 10                                |         |               |
| No. 16                                |         |               |
| No. 20                                |         |               |
| No. 30                                |         |               |
| No. 40                                |         |               |
| No. 50                                |         |               |
| No. 60                                |         |               |
| No. 80                                |         |               |
| No. 100                               | 99%     |               |
| No. 200                               | 93%     |               |
| Total Wt. of Fine Fraction = 108.2g   |         |               |
| 0.02 mm                               |         |               |

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Client: Duane Miller & Associates

Project: Liberty 1998

Location: D-10 & D-14, ~~1-4~~ 7'-10', By Client

PI = Non Plastic

Organic Content = 10.3%

Engineering Classification: SILT with Sand, ML

Frost Classification: F4

# PARTICLE SIZE

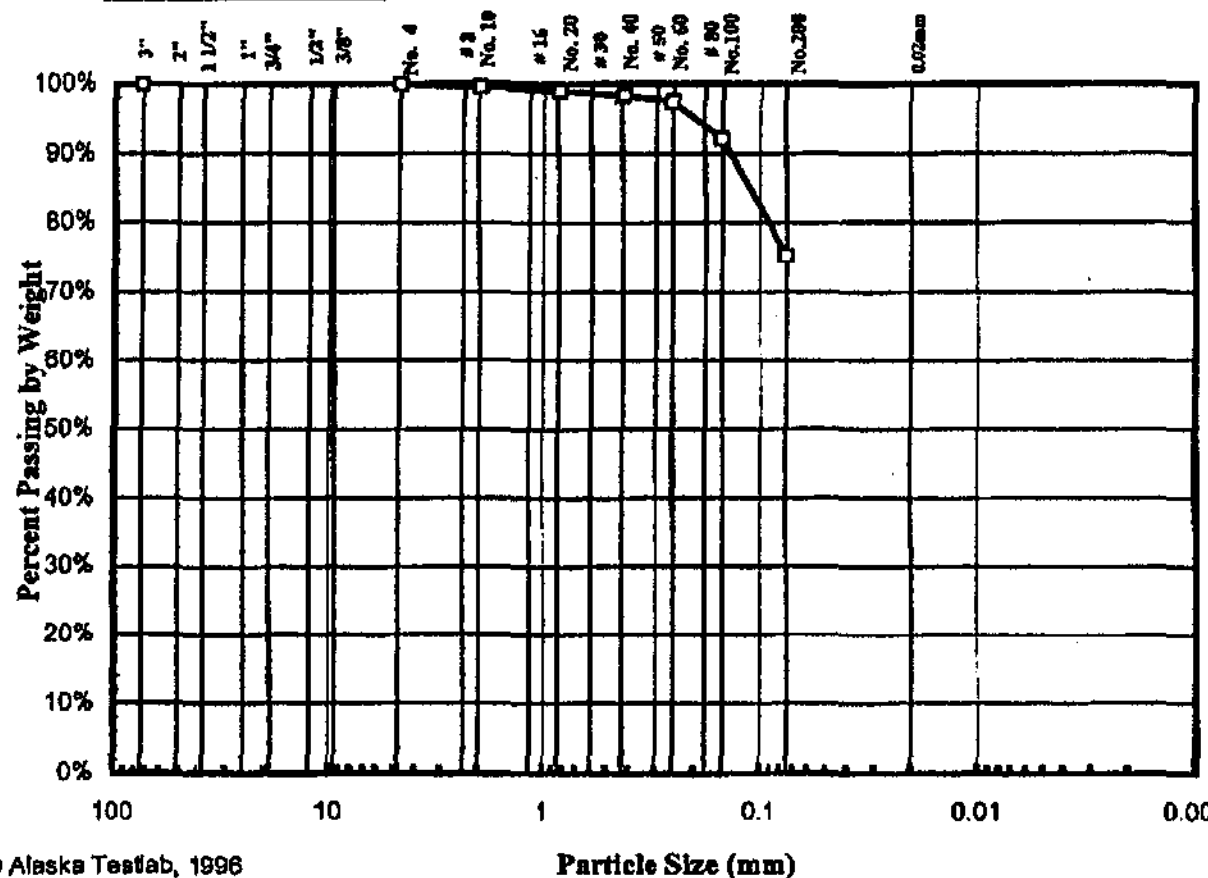
DIST. ASTM D422/C36

W.O. A27711

Lab No. 1731

Received: June 5, 1998

Reported: 6/29/98



| SIZE                                  | PASSING SPECIFICATION |
|---------------------------------------|-----------------------|
| +3 In Not Included in Test = -0%      |                       |
| 3"                                    |                       |
| 2"                                    |                       |
| 1 1/2"                                |                       |
| 1"                                    |                       |
| 3/4"                                  |                       |
| 1/2"                                  |                       |
| 3/8"                                  |                       |
| No. 4                                 | 100%                  |
| Total Wt. of Coarse Fraction = 112.8g |                       |
| No. 8                                 |                       |
| No. 10                                | 100%                  |
| No. 16                                |                       |
| No. 20                                | 99%                   |
| No. 30                                |                       |
| No. 40                                | 98%                   |
| No. 50                                |                       |
| No. 60                                | 97%                   |
| No. 80                                |                       |
| No. 100                               | 92%                   |
| No. 200                               | 75%                   |
| Total Wt. of Fine Fraction = 112.8g   |                       |
| 0.02 mm                               |                       |

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Client: Duane Miller & Associates

Project: Liberty 1998

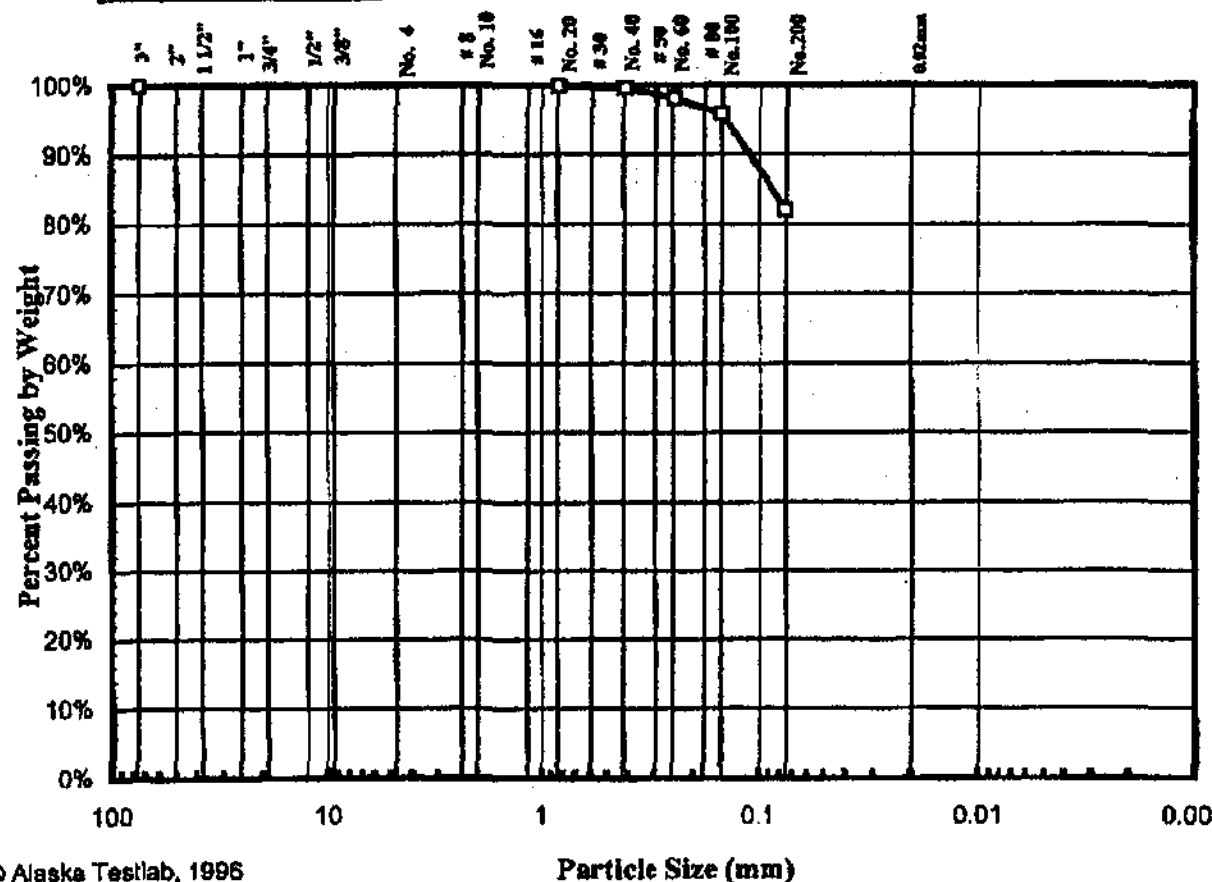
Location: D-18, 0'-5', Submitted by Client

PI = Non Plastic

Organic Content = 5.4%

Engineering Classification: SILT with Sand, ML

Frost Classification: F4



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# **PARTICLE-SIZE** **DIST. ASTM D422/C36**

W.O. A27711

Lab No. 1732

Received: June 5, 1998

Reported: 6/29/98

| SIZE                                  | PASSING SPECIFICATION |
|---------------------------------------|-----------------------|
| 3" in Not Included in Test = -0%      |                       |
| 3"                                    |                       |
| 2"                                    |                       |
| 1 1/2"                                |                       |
| 1"                                    |                       |
| 3/4"                                  |                       |
| 1/2"                                  |                       |
| 3/8"                                  |                       |
| No. 4                                 |                       |
| Total Wt. of Coarse Fraction = 134.7g |                       |
| No. 8                                 |                       |
| No. 10                                |                       |
| No. 16                                |                       |
| No. 20                                | 100%                  |
| No. 30                                |                       |
| No. 40                                | 100%                  |
| No. 50                                |                       |
| No. 60                                | 98%                   |
| No. 80                                |                       |
| No. 100                               | 96%                   |
| No. 200                               | 82%                   |
| Total Wt. of Fine Fraction = 134.7g   |                       |
| 0.02 mm                               |                       |



## **APPENDIX F - Ground Temperature Data**

Project => Liberty '98

Job No. => 4119.23

Reduction for YSI 44034 thermistors

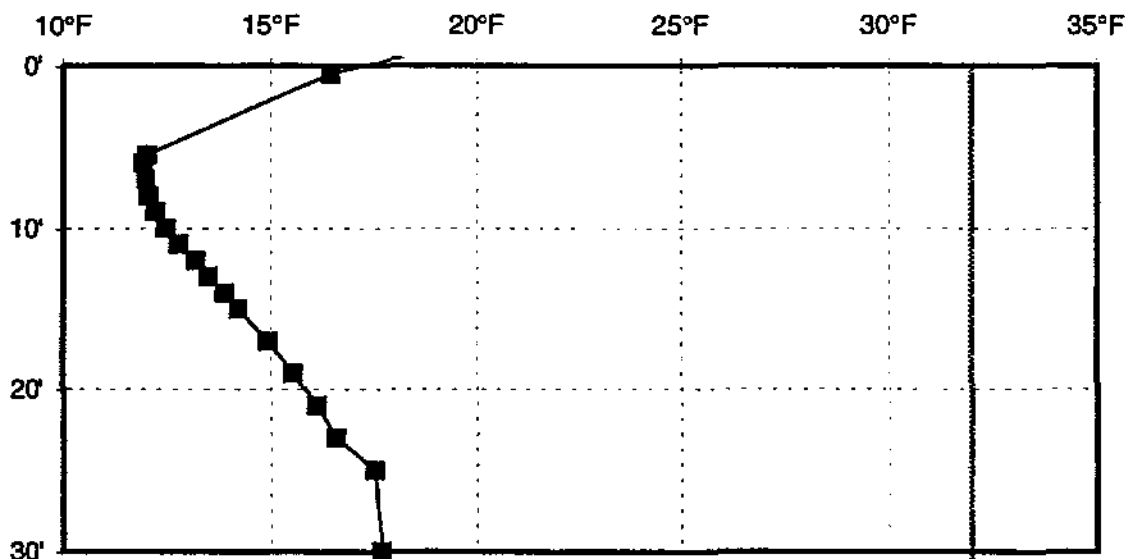
A = 0.0013

B = 0.0002

C = 9E-08

| Boring => B-1            |              |                | Date of reading = 4/24/98 |        |        | By = M. Hendee |                |            |       |        |
|--------------------------|--------------|----------------|---------------------------|--------|--------|----------------|----------------|------------|-------|--------|
| Stickup (depth of #1) => |              |                | 18.5                      |        |        | -6             |                |            |       |        |
| Therm #                  | Space (feet) | 8936 Ice point | Shallow Depth             |        |        | Space (feet)   | 8933 Ice point | Deep Depth |       |        |
|                          |              |                | K ohms                    | Feet   | Temp   |                |                | K ohms     | Feet  | Temp   |
| 1                        | 0            | 0.19°F         | 21.500                    | -18.5' | 22.3°F | 0              | -0.01°F        | 29.440     | 6.0'  | 11.9°F |
| 2                        | 1            | 0.10°F         | 21.500                    | -17.5' | 22.3°F | 1              | 0.13°F         | 29.250     | 7.0'  | 12.0°F |
| 3                        | 2            | 0.06°F         | 21.500                    | -16.5' | 22.4°F | 2              | 0.00°F         | 29.320     | 8.0'  | 12.1°F |
| 4                        | 3            | 0.05°F         | 21.500                    | -15.5' | 22.4°F | 3              | 0.14°F         | 29.030     | 9.0'  | 12.2°F |
| 5                        | 4            | 0.03°F         | 21.500                    | -14.5' | 22.4°F | 4              | 0.12°F         | 28.830     | 10.0' | 12.5°F |
| 6                        | 5            | 0.09°F         | 21.500                    | -13.5' | 22.4°F | 5              | 0.08°F         | 28.610     | 11.0' | 12.8°F |
| 7                        | 6            | 0.14°F         | 21.500                    | -12.5' | 22.3°F | 6              | 0.11°F         | 28.230     | 12.0' | 13.2°F |
| 8                        | 7            | 0.04°F         | 21.500                    | -11.5' | 22.4°F | 7              | 0.09°F         | 27.990     | 13.0' | 13.5°F |
| 9                        | 8            | 0.07°F         | 21.500                    | -10.5' | 22.4°F | 8              | 0.11°F         | 27.650     | 14.0' | 13.9°F |
| 10                       | 9            | 0.06°F         | 21.500                    | -9.5'  | 22.4°F | 9              | 0.07°F         | 27.410     | 15.0' | 14.2°F |
| 11                       | 11           | 0.03°F         | 21.500                    | -7.5'  | 22.4°F | 11             | 0.13°F         | 26.780     | 17.0' | 14.9°F |
| 12                       | 13           | 0.01°F         | 21.500                    | -5.5'  | 22.4°F | 13             | 0.00°F         | 26.410     | 19.0' | 15.5°F |
| 13                       | 15           | 0.02°F         | 21.500                    | -3.5'  | 22.4°F | 15             | 0.08°F         | 25.930     | 21.0' | 16.1°F |
| 14                       | 17           | 0.06°F         | 23.260                    | -1.5'  | 19.7°F | 17             | 0.14°F         | 25.520     | 23.0' | 16.5°F |
| 15                       | 19           | 0.05°F         | 25.680                    | 0.5'   | 16.4°F | 19             | 0.02°F         | 24.910     | 25.0' | 17.4°F |
| 16                       | 24           | 0.06°F         | 29.290                    | 5.5'   | 12.0°F | 24             | 0.06°F         | 24.750     | 30.0' | 17.6°F |

Measured Temperatures

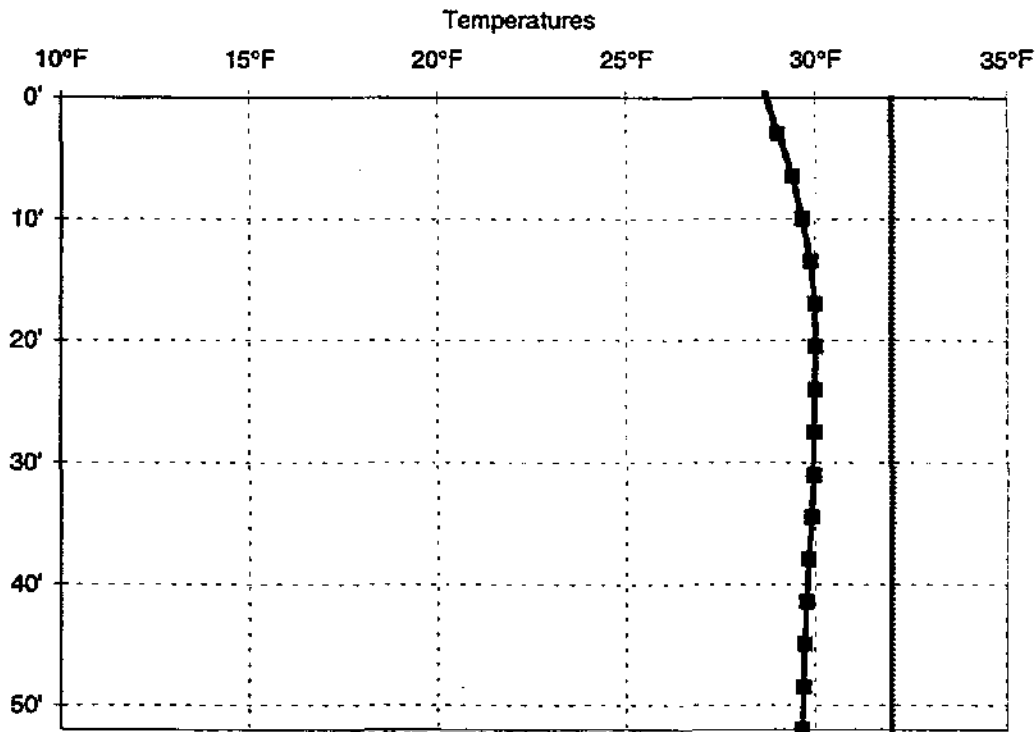


Project => **Liberty 98**  
 Job No. => **4119.23**

Reduction for YSI 44034 thermistors

A = 0.0012844  
 B = 0.0002363  
 C = 9.278E-08

| Boring => D-1 |              |                | Date of reading = 4/24/98 |                 |        |
|---------------|--------------|----------------|---------------------------|-----------------|--------|
| Stickup =>    |              | 0.5            | (depth of #1)             |                 |        |
| Therm #       | Space (feet) | 5004 Ice point | Reading K ohms            | Real Depth Feet | Temp   |
| 1             | 0.0'         | -0.10°F        | 18.010                    | -0.5'           | 28.6°F |
| 2             | 3.5'         | -0.10°F        | 17.830                    | 3.0'            | 29.0°F |
| 3             | 7.0'         | -0.03°F        | 17.600                    | 6.5'            | 29.4°F |
| 4             | 10.5'        | -0.07°F        | 17.485                    | 10.0'           | 29.6°F |
| 5             | 14.0'        | -0.13°F        | 17.401                    | 13.5'           | 29.9°F |
| 6             | 17.5'        | -0.09°F        | 17.326                    | 17.0'           | 30.0°F |
| 7             | 21.0'        | -0.07°F        | 17.304                    | 20.5'           | 30.0°F |
| 8             | 24.5'        | -0.09°F        | 17.326                    | 24.0'           | 30.0°F |
| 9             | 28.0'        | -0.07°F        | 17.327                    | 27.5'           | 30.0°F |
| 10            | 31.5'        | -0.11°F        | 17.360                    | 31.0'           | 29.9°F |
| 11            | 35.0'        | -0.24°F        | 17.454                    | 34.5'           | 29.9°F |
| 12            | 38.5'        | -0.09°F        | 17.409                    | 38.0'           | 29.8°F |
| 13            | 42.0'        | -0.09°F        | 17.436                    | 41.5'           | 29.8°F |
| 14            | 45.5'        | -0.11°F        | 17.464                    | 45.0'           | 29.7°F |
| 15            | 49.0'        | -0.15°F        | 17.507                    | 48.5'           | 29.7°F |
| 16            | 52.5'        | -0.15°F        | 17.528                    | 52.0'           | 29.6°F |

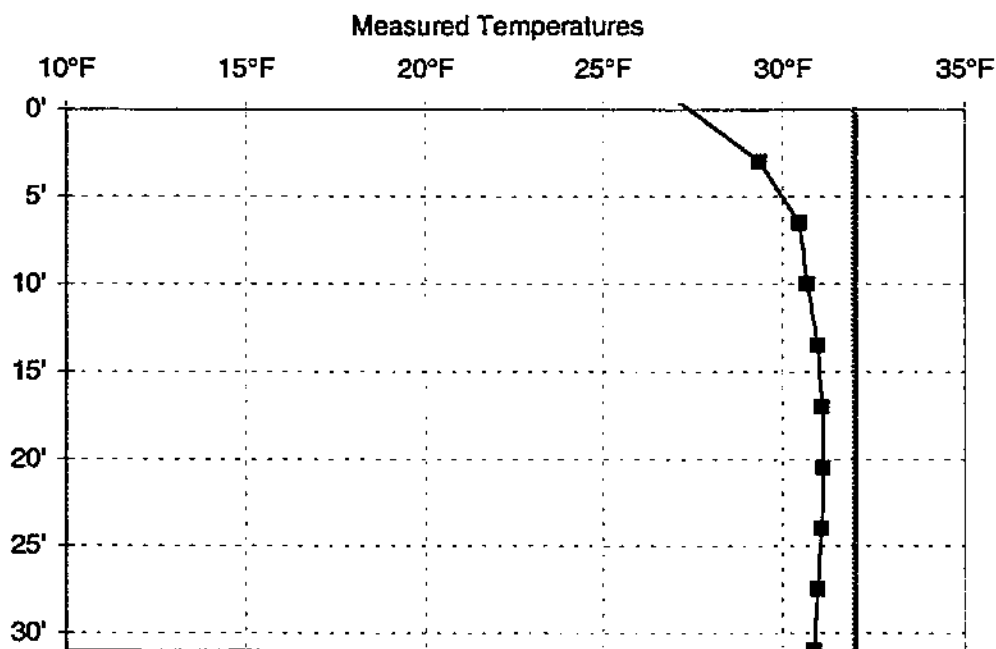


Project => Liberty 98  
Job No. => 4119.23

Reduction for YSI 44034 thermistors

A = 0.0012844  
B = 0.0002363  
C = 9.278E-08

| Boring => D-16 |              |                | Date of reading = 4/24/98 |                 |        |
|----------------|--------------|----------------|---------------------------|-----------------|--------|
| Stickup =>     |              | 21.5           | (depth of #1)             |                 |        |
| Therm #        | Space (feet) | 5003 Ice point | Reading K ohms            | Real Depth Feet | Temp   |
| 1              | 0.0'         | -0.11°F        | 18.030                    | -21.5'          | 28.6°F |
| 2              | 3.5'         | -0.13°F        | 19.420                    | -18.0'          | 26.1°F |
| 3              | 7.0'         | -0.07°F        | 19.430                    | -14.5'          | 26.0°F |
| 4              | 10.5'        | -0.10°F        | 19.360                    | -11.0'          | 26.1°F |
| 5              | 14.0'        | 0.00°F         | 20.070                    | -7.5'           | 24.8°F |
| 6              | 17.5'        | -0.09°F        | 18.560                    | -4.0'           | 27.6°F |
| 7              | 21.0'        | -0.11°F        | 18.860                    | -0.5'           | 27.1°F |
| 8              | 24.5'        | -0.07°F        | 17.630                    | 3.0'            | 29.4°F |
| 9              | 28.0'        | -0.16°F        | 17.130                    | 6.5'            | 30.5°F |
| 10             | 31.5'        | -0.09°F        | 16.987                    | 10.0'           | 30.7°F |
| 11             | 35.0'        | -0.14°F        | 16.871                    | 13.5'           | 31.0°F |
| 12             | 38.5'        | -0.08°F        | 16.789                    | 17.0'           | 31.1°F |
| 13             | 42.0'        | -0.04°F        | 16.761                    | 20.5'           | 31.1°F |
| 14             | 45.5'        | -0.10°F        | 16.805                    | 24.0'           | 31.1°F |
| 15             | 49.0'        | -0.03°F        | 16.825                    | 27.5'           | 31.0°F |
| 16             | 52.5'        | -0.15°F        | 16.932                    | 31.0'           | 30.9°F |

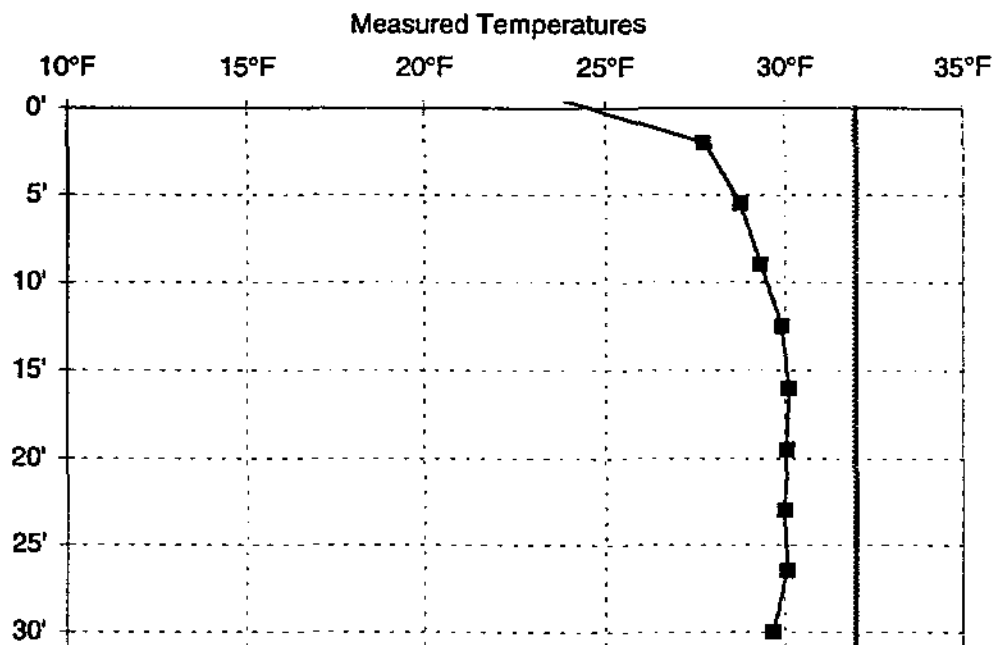


Project => Liberty 98  
Job No. => 4119.23

Reduction for YSI 44034 thermistors

A = 0.0012844  
B = 0.0002363  
C = 9.278E-08

| Boring => D-18 |              |                | Date of reading = 4/24/98 |                 |        |
|----------------|--------------|----------------|---------------------------|-----------------|--------|
| Stickup =>     |              | 22.5           | (depth of #1)             |                 |        |
| Therm #        | Space (feet) | 5003 Ice point | Reading K ohms            | Real Depth Feet | Temp   |
| 1              | 0.0'         | -0.11°F        | 22.120                    | -22.5'          | 21.6°F |
| 2              | 3.5'         | -0.13°F        | 22.580                    | -19.0'          | 20.9°F |
| 3              | 7.0'         | -0.07°F        | 21.540                    | -15.5'          | 22.5°F |
| 4              | 10.5'        | -0.10°F        | 22.130                    | -12.0'          | 21.6°F |
| 5              | 14.0'        | 0.00°F         | 22.880                    | -8.5'           | 20.3°F |
| 6              | 17.5'        | -0.09°F        | 22.750                    | -5.0'           | 20.6°F |
| 7              | 21.0'        | -0.11°F        | 21.730                    | -1.5'           | 22.2°F |
| 8              | 24.5'        | -0.07°F        | 18.490                    | 2.0'            | 27.7°F |
| 9              | 28.0'        | -0.16°F        | 18.000                    | 5.5'            | 28.7°F |
| 10             | 31.5'        | -0.09°F        | 17.661                    | 9.0'            | 29.3°F |
| 11             | 35.0'        | -0.14°F        | 17.392                    | 12.5'           | 29.9°F |
| 12             | 38.5'        | -0.08°F        | 17.268                    | 16.0'           | 30.1°F |
| 13             | 42.0'        | -0.04°F        | 17.276                    | 19.5'           | 30.0°F |
| 14             | 45.5'        | -0.10°F        | 17.340                    | 23.0'           | 30.0°F |
| 15             | 49.0'        | -0.03°F        | 17.268                    | 26.5'           | 30.0°F |
| 16             | 52.5'        | -0.15°F        | 17.513                    | 30.0'           | 29.7°F |



Project => **Liberty '98**

Job No. => **4119.23**

A = 0.0013

Reduction for YSI 44034 thermistors B = 0.0002

C = 9E-08

Boring => **D-19**

Date of reading = **4/24/98**

By = **M. Hendee**

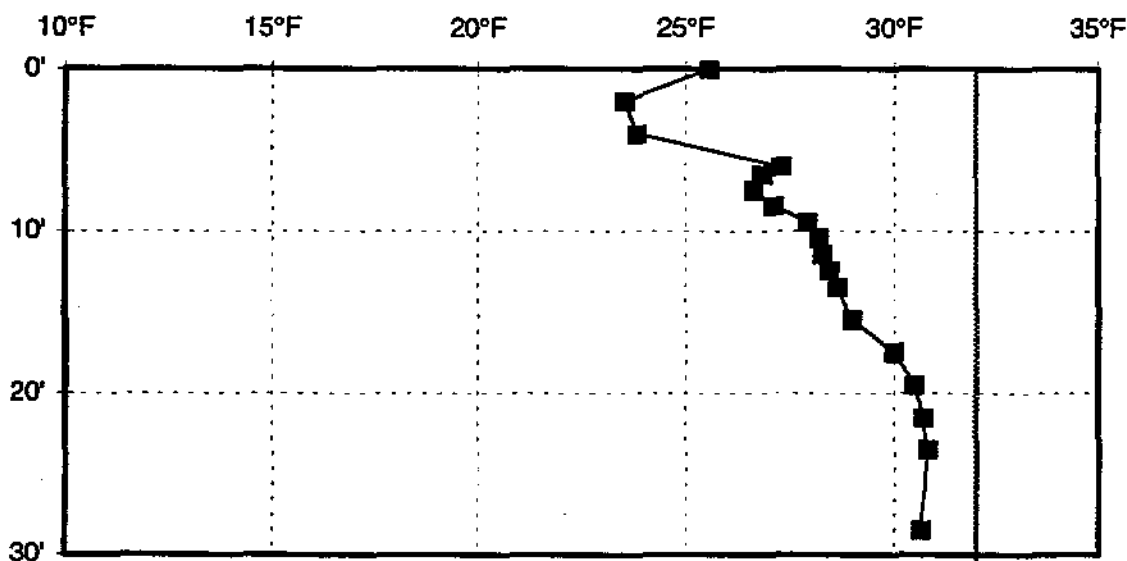
Stickup (depth of #1) =>

**15**

**-4.5**

| Therm<br># | Space<br>(feet) | 9013      | Shallow Depth |        |        | Space<br>(feet) | 8935      | Deep Depth |       |        |
|------------|-----------------|-----------|---------------|--------|--------|-----------------|-----------|------------|-------|--------|
|            |                 | Ice point | K ohms        | Feet   | Temp   |                 | Ice point | K ohms     | Feet  | Temp   |
| 1          | 0               | 0.09°F    | 19.614        | -15.0' | 25.5°F | 0               | 0.05°F    | 20.410     | 4.5'  | 24.2°F |
| 2          | 1               | 0.04°F    | 19.614        | -14.0' | 25.6°F | 1               | -0.03°F   | 18.580     | 5.5'  | 27.5°F |
| 3          | 2               | -0.02°F   | 19.614        | -13.0' | 25.6°F | 2               | 0.04°F    | 18.890     | 6.5'  | 26.8°F |
| 4          | 3               | 0.10°F    | 19.614        | -12.0' | 25.5°F | 3               | -0.02°F   | 19.040     | 7.5'  | 26.6°F |
| 5          | 4               | 0.09°F    | 19.614        | -11.0' | 25.5°F | 4               | -0.01°F   | 18.780     | 8.5'  | 27.1°F |
| 6          | 5               | 0.08°F    | 19.614        | -10.0' | 25.5°F | 5               | 0.09°F    | 18.290     | 9.5'  | 27.9°F |
| 7          | 6               | -0.02°F   | 19.614        | -9.0'  | 25.6°F | 6               | 0.00°F    | 18.190     | 10.5' | 28.2°F |
| 8          | 7               | -0.01°F   | 19.614        | -8.0'  | 25.6°F | 7               | 0.00°F    | 18.150     | 11.5' | 28.3°F |
| 9          | 8               | -0.07°F   | 19.614        | -7.0'  | 25.7°F | 8               | 0.06°F    | 18.030     | 12.5' | 28.4°F |
| 10         | 9               | 0.06°F    | 19.614        | -6.0'  | 25.5°F | 9               | -0.02°F   | 17.970     | 13.5' | 28.6°F |
| 11         | 11              | 0.09°F    | 19.614        | -4.0'  | 25.5°F | 11              | 0.04°F    | 17.760     | 15.5' | 29.0°F |
| 12         | 13              | 0.06°F    | 19.614        | -2.0'  | 25.5°F | 13              | 0.01°F    | 17.270     | 17.5' | 30.0°F |
| 13         | 15              | 0.02°F    | 19.614        | 0.0'   | 25.6°F | 15              | 0.09°F    | 16.990     | 19.5' | 30.5°F |
| 14         | 17              | 0.10°F    | 20.770        | 2.0'   | 23.5°F | 17              | 0.04°F    | 16.910     | 21.5' | 30.7°F |
| 15         | 19              | 0.01°F    | 20.630        | 4.0'   | 23.8°F | 19              | 0.06°F    | 16.850     | 23.5' | 30.8°F |
| 16         | 21              | -0.07°F   | 18.710        | 6.0'   | 27.3°F | 24              | 0.03°F    | 16.940     | 28.5' | 30.7°F |

Measured Temperatures



Project => Liberty '98

Job No. => 4119.23

Reduction for YSI 44034 thermistors

A = 0.0013

B = 0.0002

C = 9E-08

Boring => D-21

Date of reading = 4/24/98

By = M. Hendee

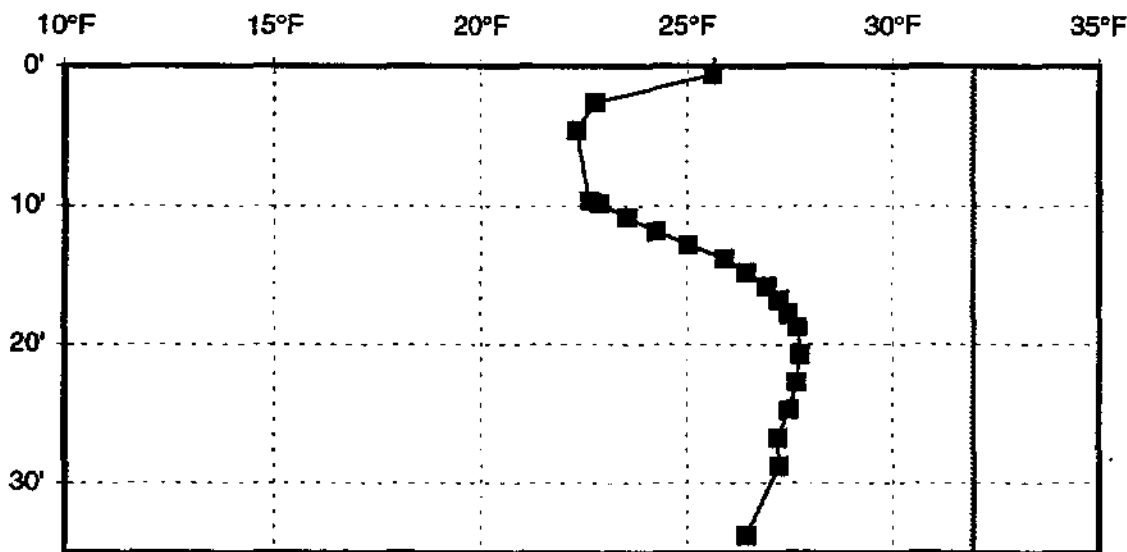
Stickup (depth of #1) =>

14.4

-9.8

| Therm # | Space (feet) | 8933 Ice point | Shallow Depth |        |        | Space (feet) | 8936 Ice point | Deep Depth |       |        |
|---------|--------------|----------------|---------------|--------|--------|--------------|----------------|------------|-------|--------|
|         |              |                | K ohms        | Feet   | Temp   |              |                | K ohms     | Feet  | Temp   |
| 1       | 0            | -0.01°F        | 19.550        | -14.4' | 25.7°F | 0            | 0.19°F         | 21.110     | 9.8'  | 22.9°F |
| 2       | 1            | 0.13°F         | 19.550        | -13.4' | 25.6°F | 1            | 0.10°F         | 20.750     | 10.8' | 23.6°F |
| 3       | 2            | 0.00°F         | 19.550        | -12.4' | 25.7°F | 2            | 0.06°F         | 20.360     | 11.8' | 24.3°F |
| 4       | 3            | 0.14°F         | 19.550        | -11.4' | 25.6°F | 3            | 0.05°F         | 19.910     | 12.8' | 25.0°F |
| 5       | 4            | 0.12°F         | 19.550        | -10.4' | 25.6°F | 4            | 0.03°F         | 19.410     | 13.8' | 25.9°F |
| 6       | 5            | 0.08°F         | 19.550        | -9.4'  | 25.6°F | 5            | 0.09°F         | 19.070     | 14.8' | 26.5°F |
| 7       | 6            | 0.11°F         | 19.550        | -8.4'  | 25.6°F | 6            | 0.14°F         | 18.770     | 15.8' | 27.0°F |
| 8       | 7            | 0.09°F         | 19.550        | -7.4'  | 25.6°F | 7            | 0.04°F         | 18.670     | 16.8' | 27.3°F |
| 9       | 8            | 0.11°F         | 19.550        | -6.4'  | 25.6°F | 8            | 0.07°F         | 18.520     | 17.8' | 27.5°F |
| 10      | 9            | 0.07°F         | 19.550        | -5.4'  | 25.6°F | 9            | 0.06°F         | 18.420     | 18.8' | 27.7°F |
| 11      | 11           | 0.13°F         | 19.550        | -3.4'  | 25.6°F | 11           | 0.03°F         | 18.410     | 20.8' | 27.8°F |
| 12      | 13           | 0.00°F         | 19.550        | -1.4'  | 25.7°F | 13           | 0.01°F         | 18.460     | 22.8' | 27.7°F |
| 13      | 15           | 0.08°F         | 19.550        | 0.6'   | 25.6°F | 15           | 0.02°F         | 18.550     | 24.8' | 27.5°F |
| 14      | 17           | 0.14°F         | 21.190        | 2.6'   | 22.8°F | 17           | 0.06°F         | 18.660     | 26.8' | 27.3°F |
| 15      | 19           | 0.02°F         | 21.550        | 4.6'   | 22.3°F | 19           | 0.05°F         | 18.670     | 28.8' | 27.2°F |
| 16      | 24           | 0.06°F         | 21.330        | 9.6'   | 22.7°F | 24           | 0.06°F         | 19.084     | 33.8' | 26.5°F |

Measured Temperatures



Project => Liberty 98  
Job No. => 4119.23

Reduction for YSI 44034 thermistors

A = 0.0012844  
B = 0.0002363  
C = 9.278E-08

| Boring => D-27 |              |                | Date of reading = 4/24/98 |                 |        |
|----------------|--------------|----------------|---------------------------|-----------------|--------|
| Stickup =>     |              | 22             | (depth of #1)             |                 |        |
| Therm #        | Space (feet) | 5004 Ice point | Reading K ohms            | Real Depth Feet | Temp   |
| 1              | 0.0'         | -0.10°F        | 21.550                    | -22.0'          | 22.5°F |
| 2              | 3.5'         | -0.10°F        | 20.670                    | -18.5'          | 23.9°F |
| 3              | 7.0'         | -0.03°F        | 19.570                    | -15.0'          | 25.7°F |
| 4              | 10.5'        | -0.07°F        | 20.650                    | -11.5'          | 23.9°F |
| 5              | 14.0'        | -0.13°F        | 19.970                    | -8.0'           | 25.1°F |
| 6              | 17.5'        | -0.09°F        | 21.260                    | -4.5'           | 22.9°F |
| 7              | 21.0'        | -0.07°F        | 21.550                    | -1.0'           | 22.4°F |
| 8              | 24.5'        | -0.09°F        | 21.900                    | 2.5'            | 21.9°F |
| 9              | 28.0'        | -0.07°F        | 21.910                    | 6.0'            | 21.9°F |
| 10             | 31.5'        | -0.11°F        | 20.780                    | 9.5'            | 23.7°F |
| 11             | 35.0'        | -0.24°F        | 20.130                    | 13.0'           | 24.9°F |
| 12             | 38.5'        | -0.09°F        | 19.680                    | 16.5'           | 25.6°F |
| 13             | 42.0'        | -0.09°F        | 19.560                    | 20.0'           | 25.8°F |
| 14             | 45.5'        | -0.11°F        | 19.480                    | 23.5'           | 25.9°F |
| 15             | 49.0'        | -0.15°F        | 19.410                    | 27.0'           | 26.1°F |
| 16             | 52.5'        | -0.15°F        | 19.370                    | 30.5'           | 26.2°F |

