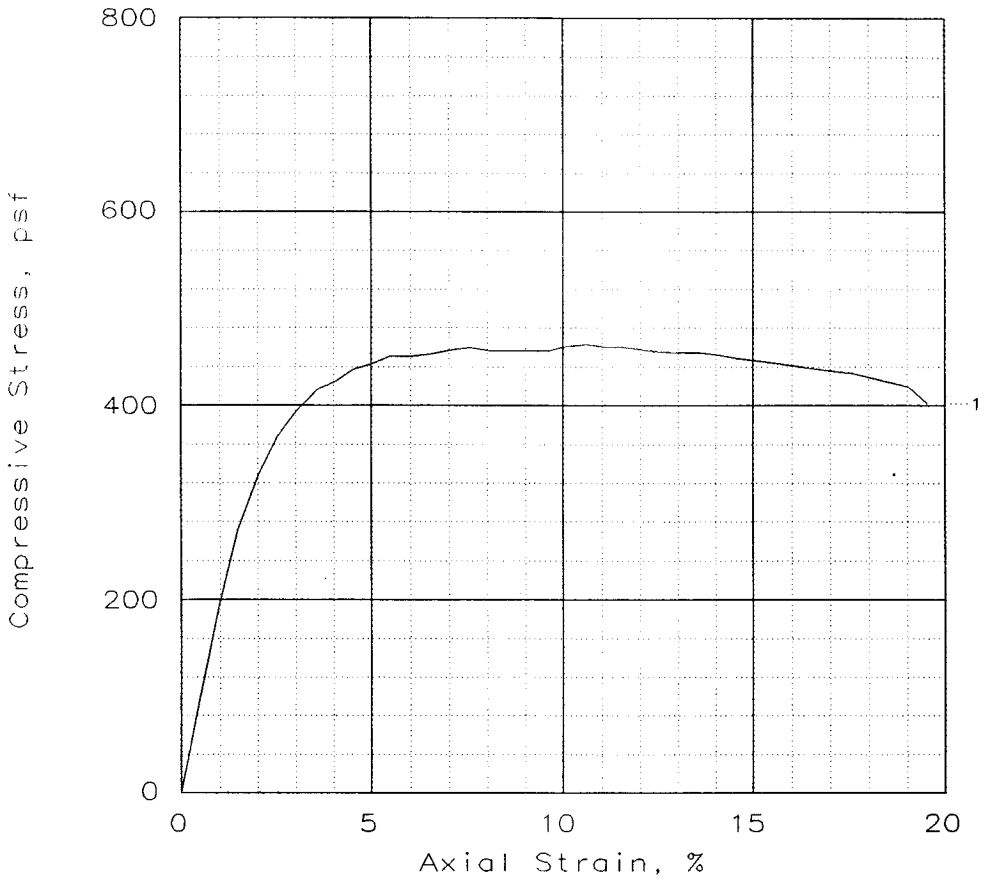
UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	459			
Undrained shear strength, psf	230			
Failure strain, %	7.6			
Strain rate, in/min	0.0575			
Water content, %	57.4			
Wet density, pcf	100.6			
Dry density, pcf	63.9			
Saturation, %	94.2			
Void ratio	1.6585			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: vSo Gr CH4 w/ ars ML, Tr-wd

			GS= 2.72	Type: Undisturbed

Project No.: 19080
Date: 10-4-05
Remarks:
Torvane = 0.230 tsf

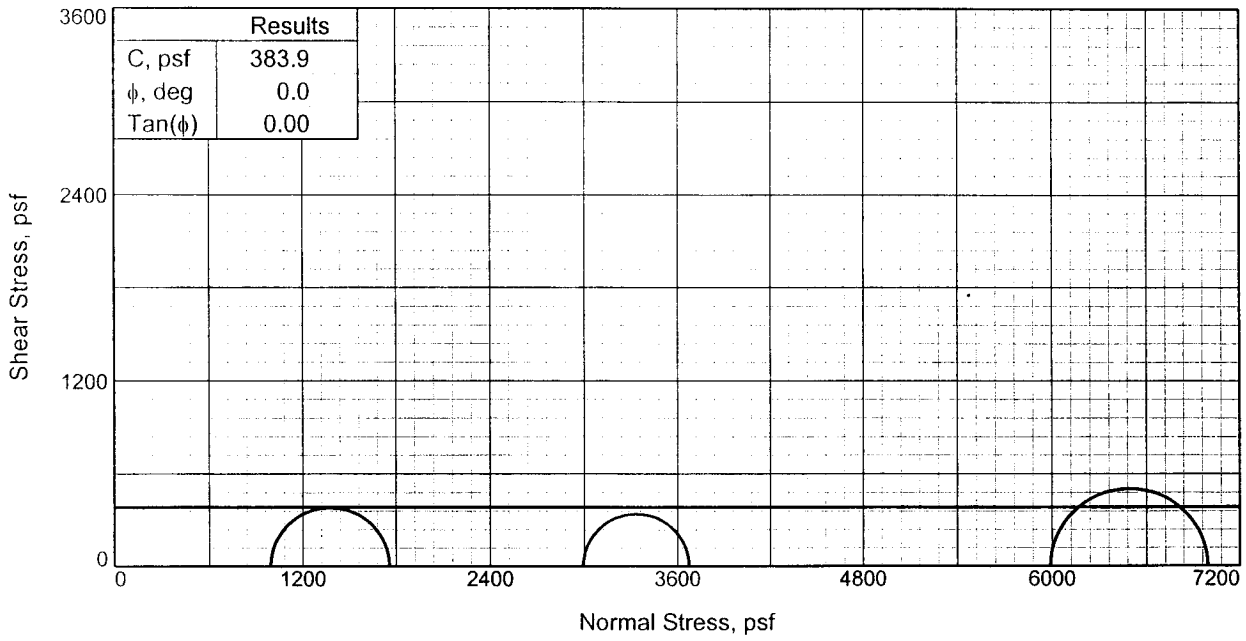
Fig. No.: ———

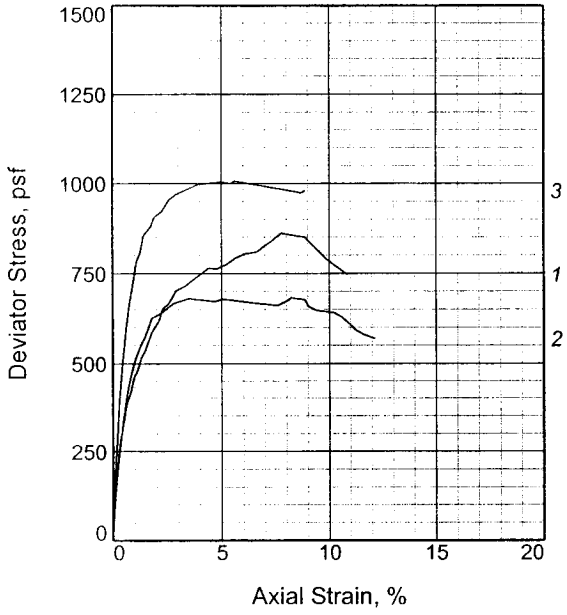
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 1-B, Depth 4.1', Elev. -2.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.





Specimen No.		1	2	3
Initial	Water Content,	56.9	56.7	54.2
	Dry Density, pcf	60.1	61.1	62.2
	Saturation,	85.1	87.0	85.4
	Void Ratio	1.8049	1.7576	1.7117
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.930	2.930	2.930
At Test	Water Content,	66.9	65.1	63.4
	Dry Density, pcf	60.1	61.1	62.2
	Saturation,	·100.0	100.0	100.0
	Void Ratio	1.8066	1.7582	1.7111
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.931	2.930	2.930
Strain rate, in./min.		0.029	0.030	0.029
Back Pressure, psf		0.0	0.0	0.0
Cell Pressure, psf		993.6	2995.2	5990.4
Fail. Stress, psf		763.9	679.5	1004.3
Ult. Stress, psf		746.1	568.5	980.0
σ_1 Failure, psf		1757.5	3674.7	6994.7
σ_3 Failure, psf		993.6	2995.2	5990.4

Type of Test: Unconsolidated Undrained
Sample Type: Undisturbed
Description: So Gr & dGr CH3 w/ O, SIF

LL= 76 **PL=** 25 **PI=** 51
Assumed Specific Gravity= 2.7
Remarks: Torvane = 0.290 tsf

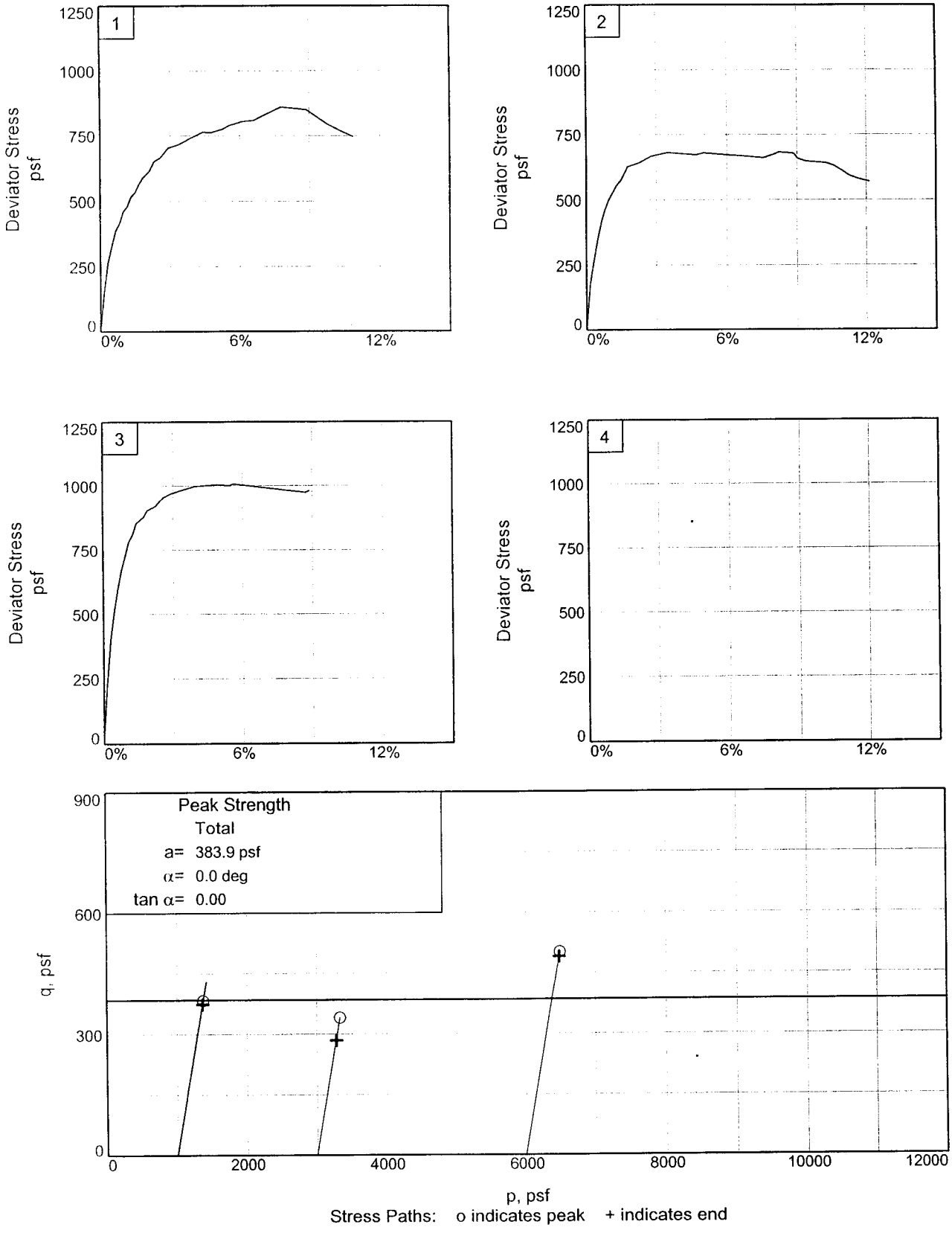
Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 7.8
Sample Number: 2B
Proj. No.: 19080 **Date:** 11/16/05

TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH **Checked By:** JS



Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

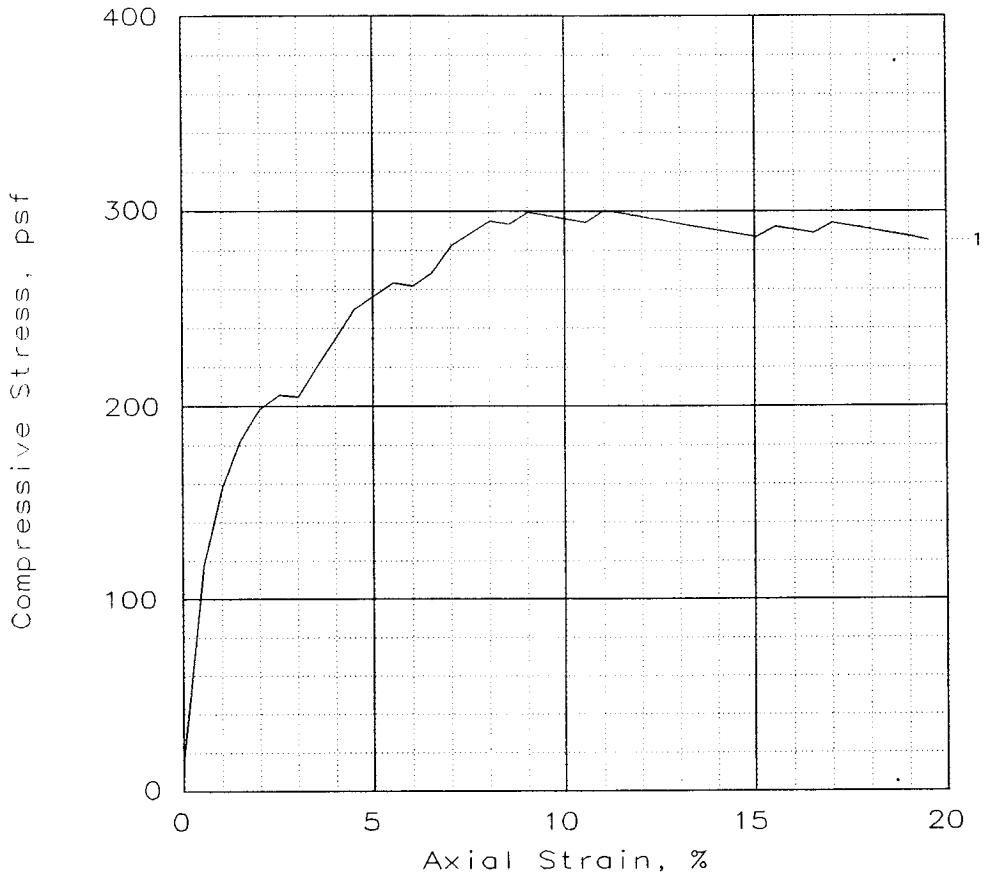
Source of Sample: B-5 **Depth:** 7.8 **Sample Number:** 2B

Project No.: 19080 **Figure** 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH **Checked By:** JS

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	206			
Undrained shear strength, psf	103			
Failure strain, %	2.6			
Strain rate, in/min	0.0573			
Water content, %	61.4			
Wet density, pcf	97.4			
Dry density, pcf	60.4			
Saturation, %	91.8			
Void ratio	1.8337			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: vSo dGr CH4 w/ Ins SM, wd

			GS= 2.74	Type: Undisturbed

Project No.: 19080
Date: 10-4-05
Remarks:
Torvane = 0.210 tsf

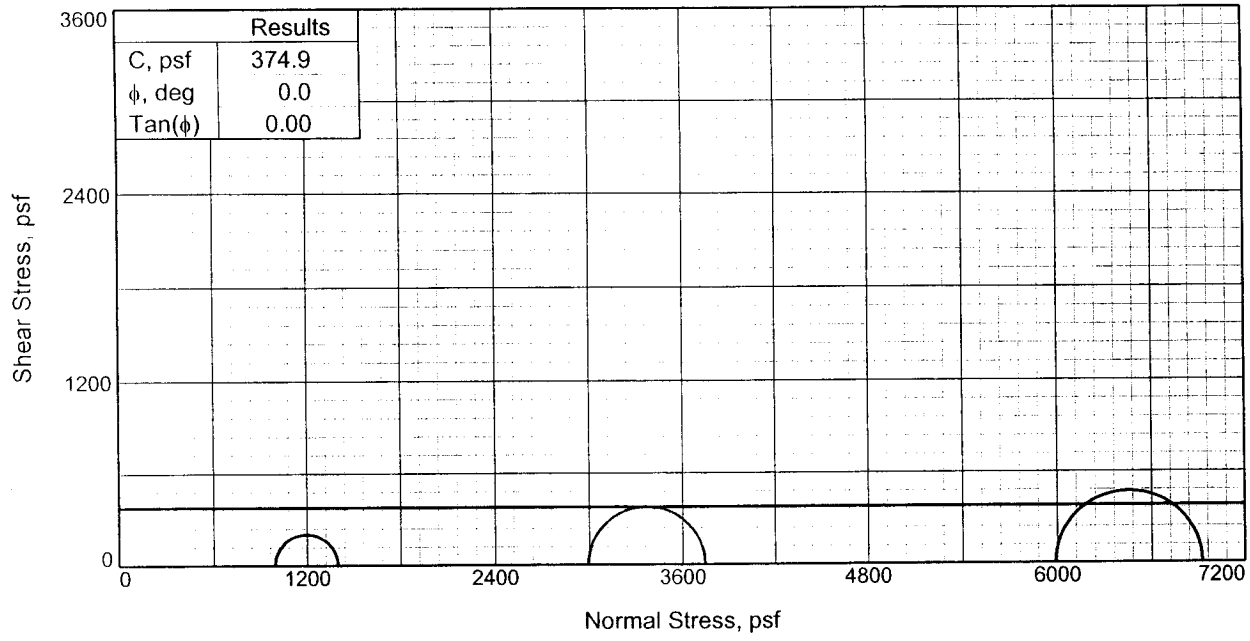
Fig. No.: ———

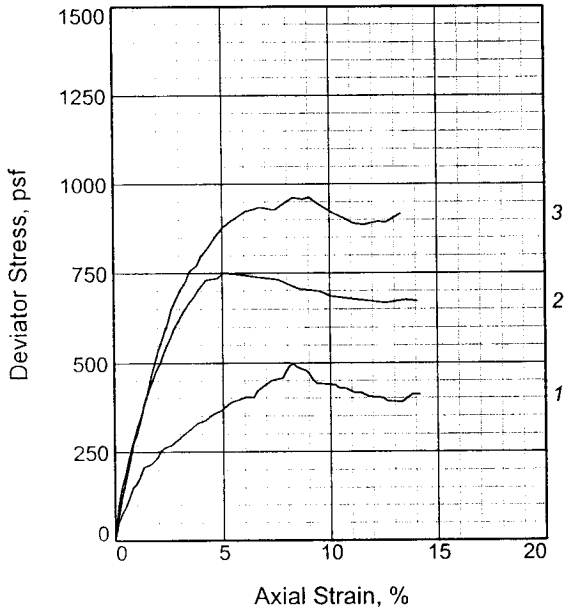
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 3-B, Depth 12.1', Elev. -10.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.





Specimen No.		1	2	3
Initial	Water Content,	87.0	81.9	97.3
	Dry Density, pcf	43.8	44.2	41.6
	Saturation,	82.4	78.6	85.8
	Void Ratio	2.8492	2.8117	3.0817
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.930	2.930	2.930
At Test	Water Content,	105.2	104.0	112.9
	Dry Density, pcf	43.9	44.3	41.7
	Saturation,	100.0	100.0	100.0
	Void Ratio	2.8409	2.8067	3.0700
	Diameter, in.	1.387	1.387	1.387
	Height, in.	2.928	2.929	2.927
Strain rate, in./min.		0.030	0.029	0.030
Back Pressure, psf		0.0	0.0	0.0
Cell Pressure, psf		993.6	2995.2	5990.4
Fail. Stress, psf		402.8	750.3	933.5
Ult. Stress, psf		277.9	671.1	917.1
σ_1 Failure, psf		1396.4	3745.5	6923.9
σ_3 Failure, psf		993.6	2995.2	5990.4

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: So dGr CHOA w/ wd

LL= 203 **PL=** 56 **PI=** 147
Assumed Specific Gravity= 2.7
Remarks: Torvane = 0.220 tsf

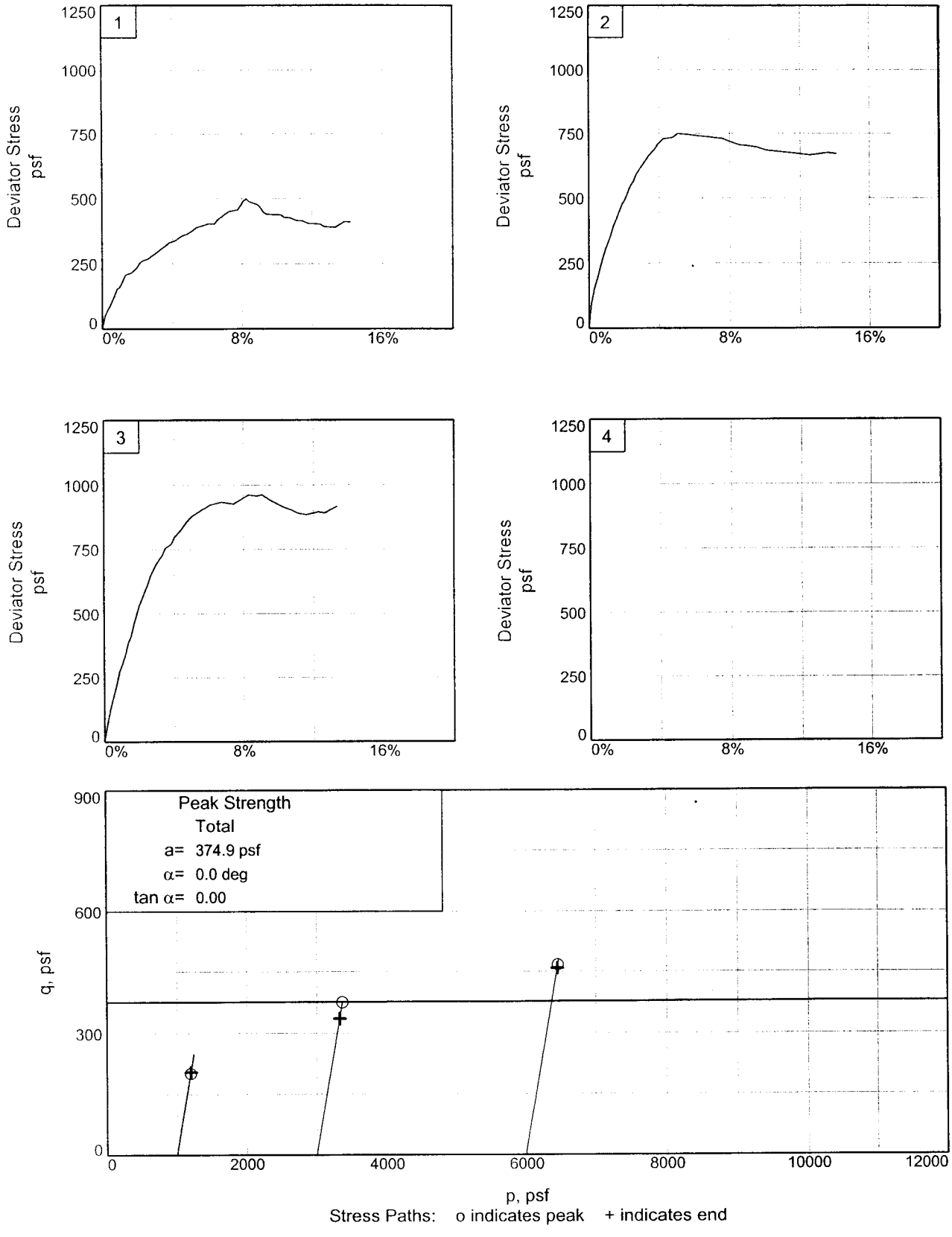
Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 15.0
Sample Number: 4A
Proj. No.: 19080 **Date:** 11-16-05

TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH **Checked By:** JS



Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

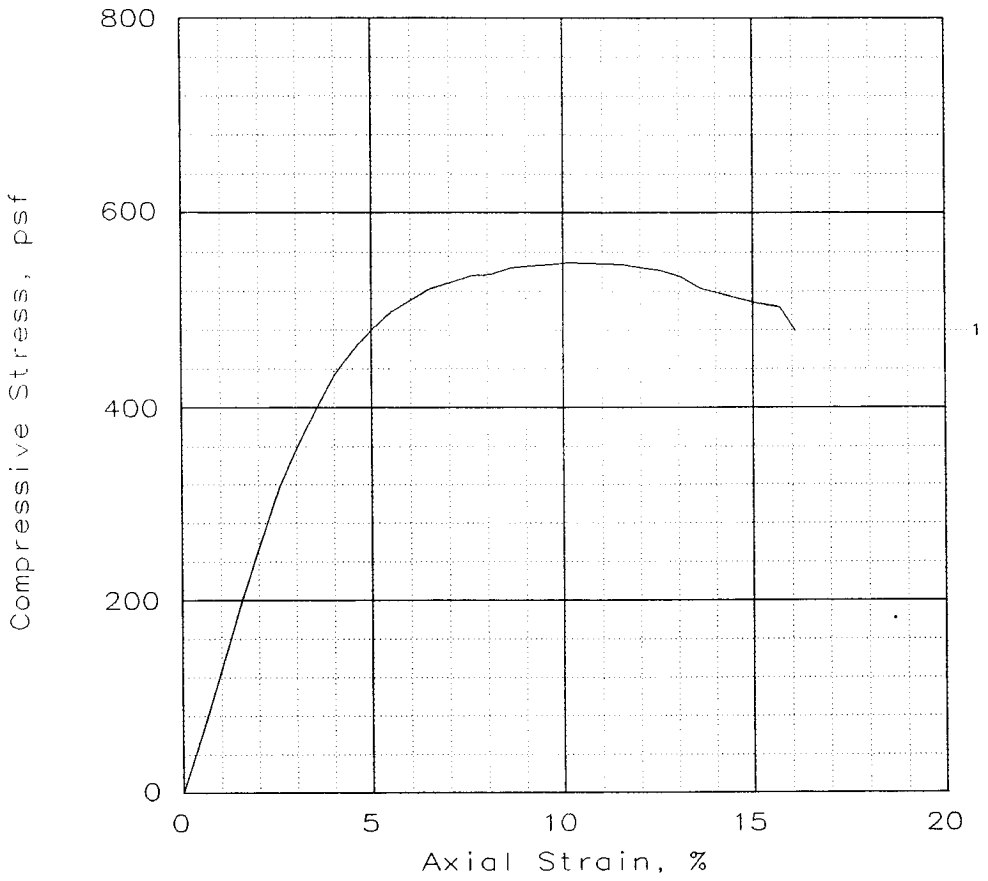
Source of Sample: B-5 **Depth:** 15.0 **Sample Number:** 4A

Project No.: 19080 **Figure** 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH **Checked By:** JS

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	549			
Undrained shear strength, psf	274			
Failure strain, %	10.1			
Strain rate, in/min	0.0575			
Water content, %	41.1			
Wet density, pcf	109.1			
Dry density, pcf	77.3			
Saturation, %	94.0			
Void ratio	1.1815			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: So Gr CL6 w/ lys ML

GS= 2.7 | Type: Undisturbed

Project No.: 19080
Date: 10-4-05
Remarks:
Torvane = 0.150 tsf

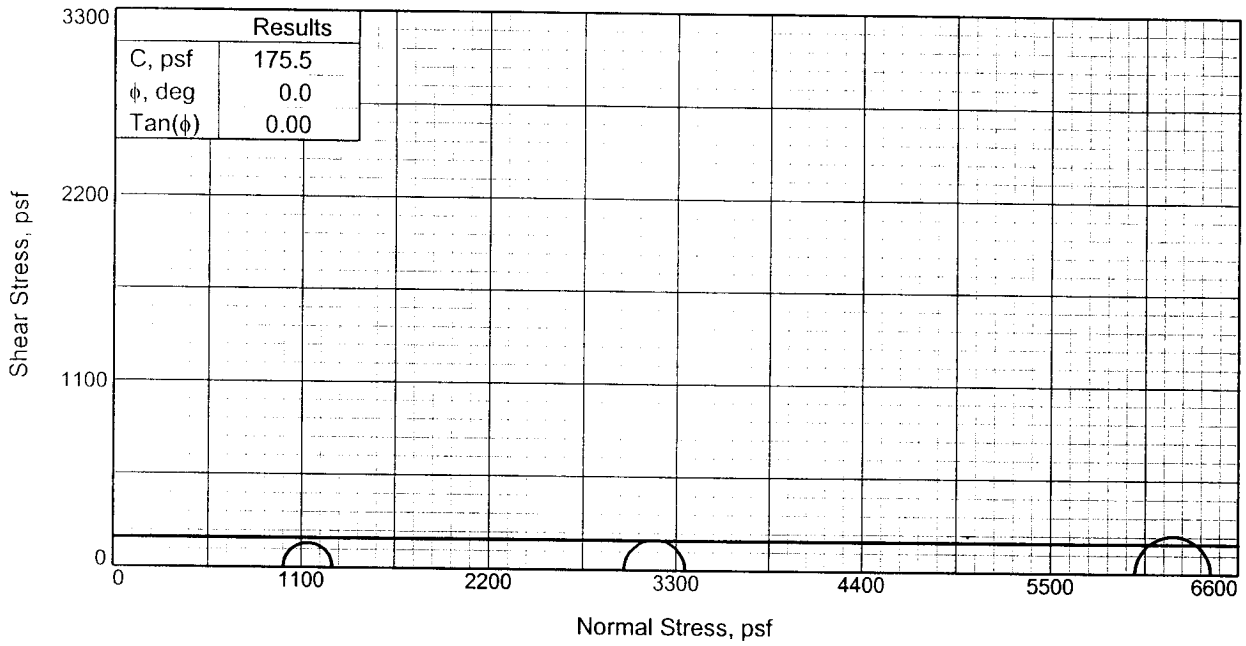
Fig. No.: ———

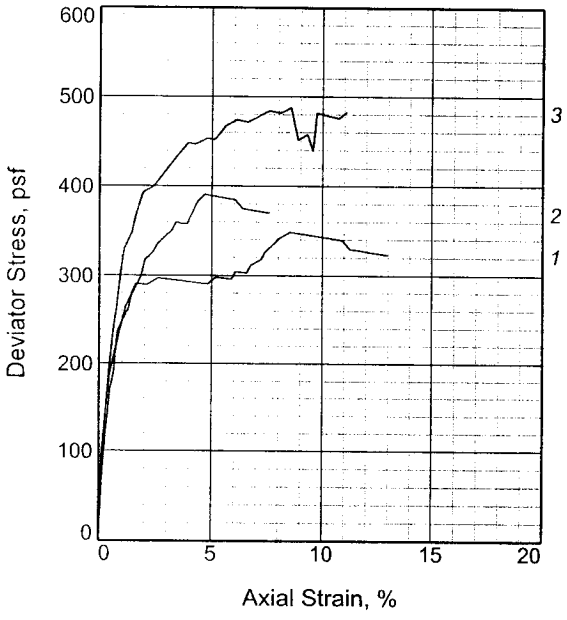
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 5-B, Depth 20.1', Elev. -18.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.





Specimen No.		1	2	3
Initial	Water Content,	49.8	56.1	58.4
	Dry Density, pcf	65.3	62.6	62.1
	Saturation,	84.3	88.6	91.1
	Void Ratio	1.6196	1.7334	1.7548
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.930	2.930	2.930
At Test	Water Content,	59.1	63.1	64.0
	Dry Density, pcf	65.3	62.6	62.1
	Saturation,	100.0	100.0	100.0
	Void Ratio	1.6188	1.7303	1.7540
	Diameter, in.	1.388	1.387	1.388
	Height, in.	2.930	2.929	2.930
Strain rate, in./min.		0.030	0.030	0.029
Back Pressure, psf		0.0	0.0	0.0
Cell Pressure, psf		993.6	2995.2	5990.4
Fail. Stress, psf		290.3	358.8	448.0
Ult. Stress, psf		323.0	369.7	482.4
σ_1 Failure, psf		1283.9	3354.0	6438.4
σ_3 Failure, psf		993.6	2995.2	5990.4

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: vSo Gr CH4 w/ lns ML

LL= 82 **PL=** 23 **PI=** 59
Assumed Specific Gravity= 2.74
Remarks: Torvane = 0.100 tsf

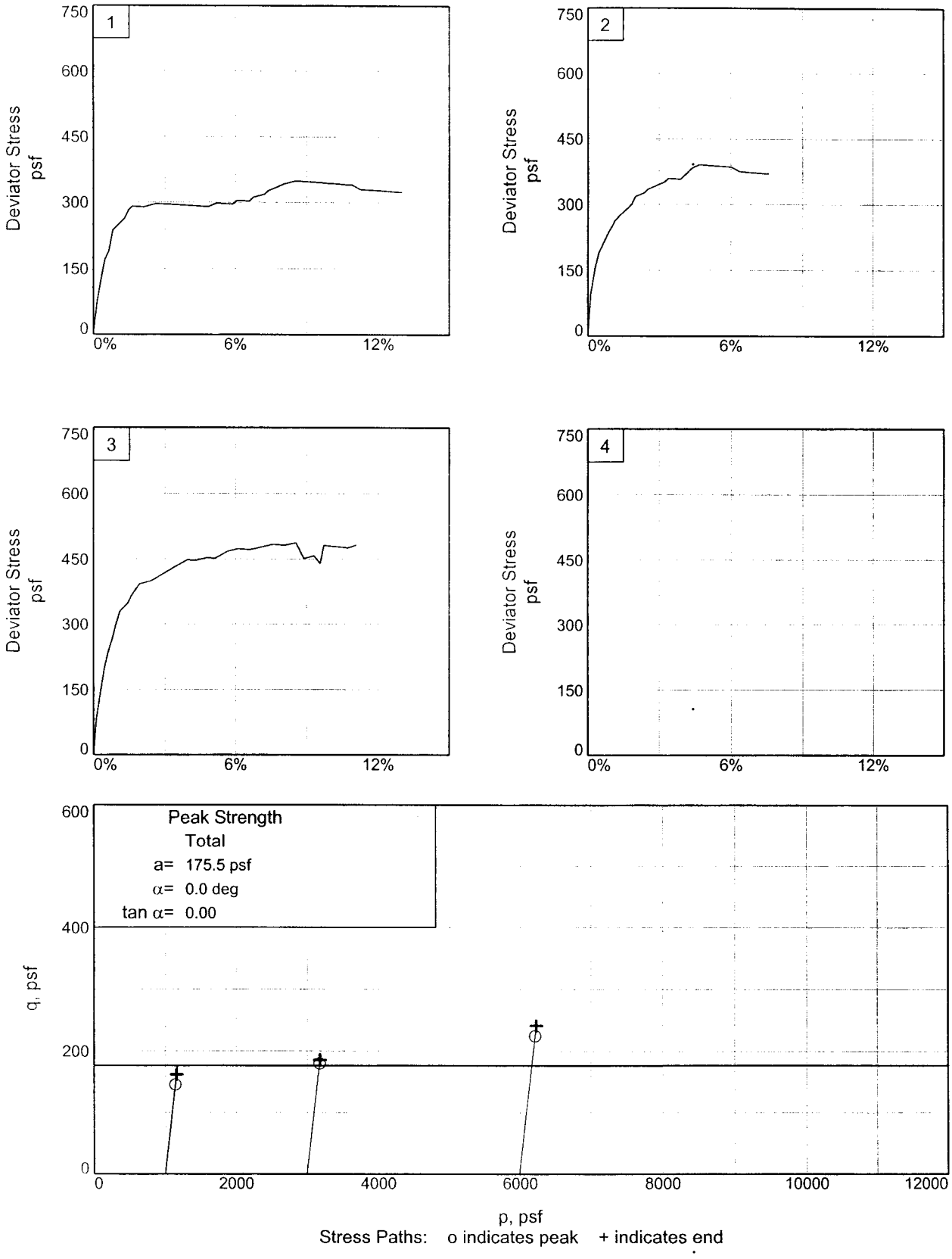
Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 23.8
Sample Number: 6B
Proj. No.: 19080 **Date:** 11-16-05

TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH **Checked By:** JS

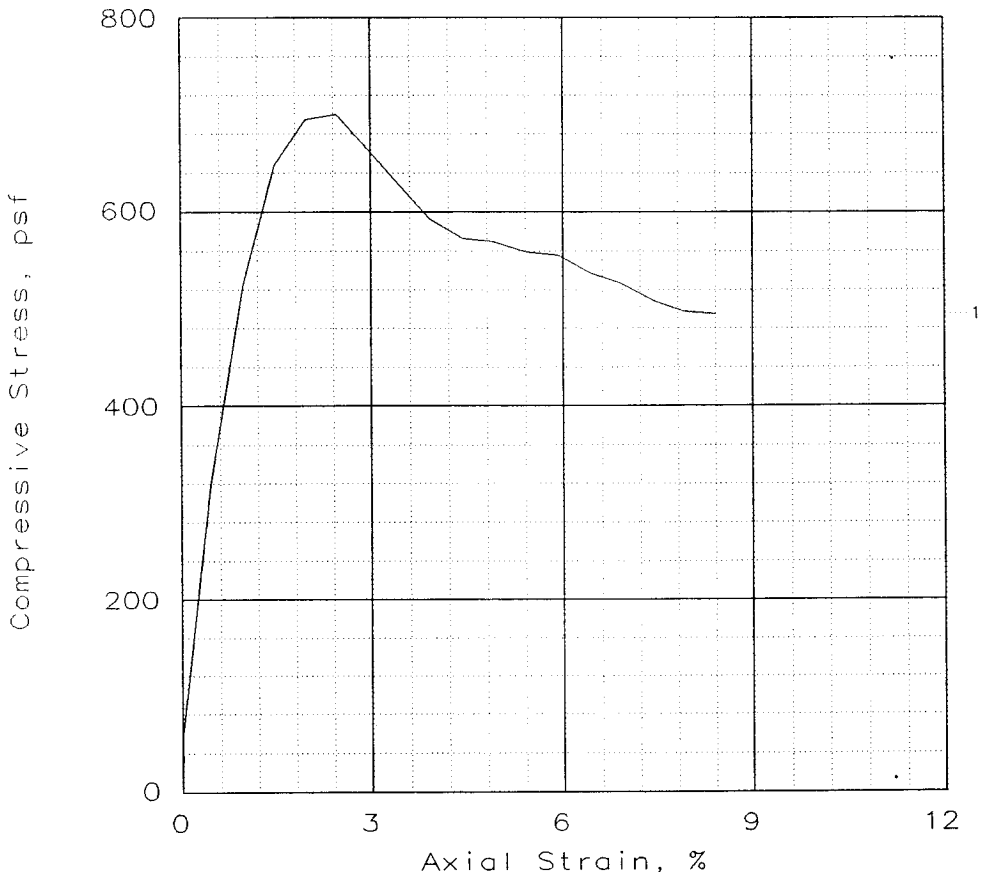


Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 23.8 **Sample Number:** 6B
Project No.: 19080 **Figure** 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH **Checked By:** JS

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	700			
Undrained shear strength, psf	350			
Failure strain, %	2.5			
Strain rate, in/min	0.0564			
Water content, %	61.3			
Wet density, pcf	100.7			
Dry density, pcf	62.4			
Saturation, %	96.6			
Void ratio	1.7404			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: So Gr CH4 w/ Ins SM

			GS= 2.74	Type: Undisturbed

Project No.: 19080
Date: 10-4-05
Remarks:
Torvane = 0.200 tsf

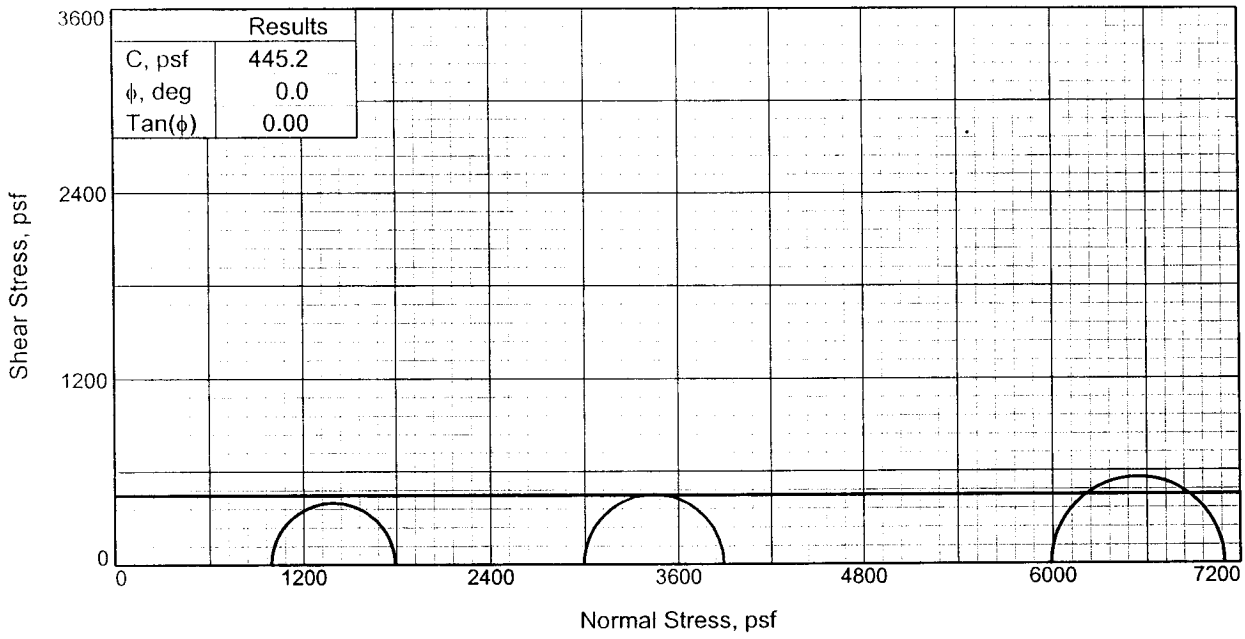
Fig. No.: ———

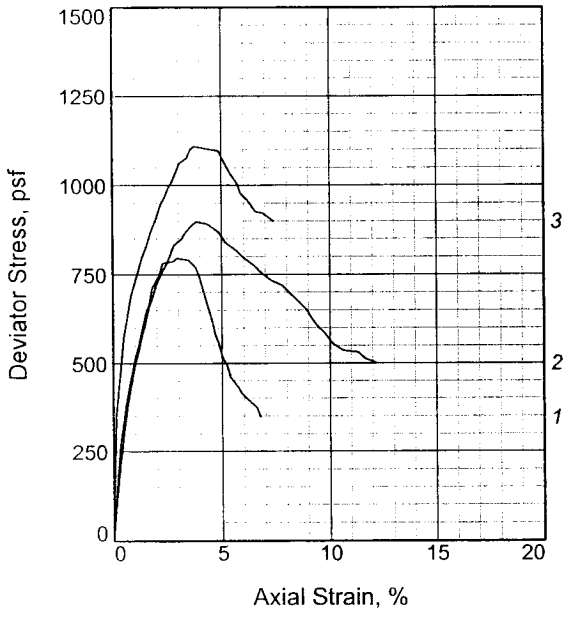
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 7-B, Depth 28.1', Elev. -26.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.





Specimen No.		1	2	3
Initial	Water Content,	65.4	63.1	58.8
	Dry Density, pcf	56.5	58.3	60.6
	Saturation,	88.4	89.4	88.5
	Void Ratio	2.0276	1.9347	1.8205
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.930	2.930	2.930
At Test	Water Content,	73.9	70.6	66.4
	Dry Density, pcf	56.5	58.3	60.7
	Saturation,	100.0	100.0	100.0
	Void Ratio	2.0258	1.9356	1.8194
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.929	2.930	2.930
Strain rate, in./min.		0.030	0.029	0.030
Back Pressure, psf		0.0	0.0	0.0
Cell Pressure, psf		993.6	2995.2	5990.4
Fail. Stress, psf		794.6	896.8	1108.4
Ult. Stress, psf		346.1	501.3	899.0
σ_1 Failure, psf		1788.2	3892.0	7098.8
σ_3 Failure, psf		993.6	2995.2	5990.4

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: So Gr CH4 w/ lns ML, SL

LL= 95 **PL=** 26 **PI=** 69
Assumed Specific Gravity= 2.74
Remarks: Torvane = 0.180 tsf

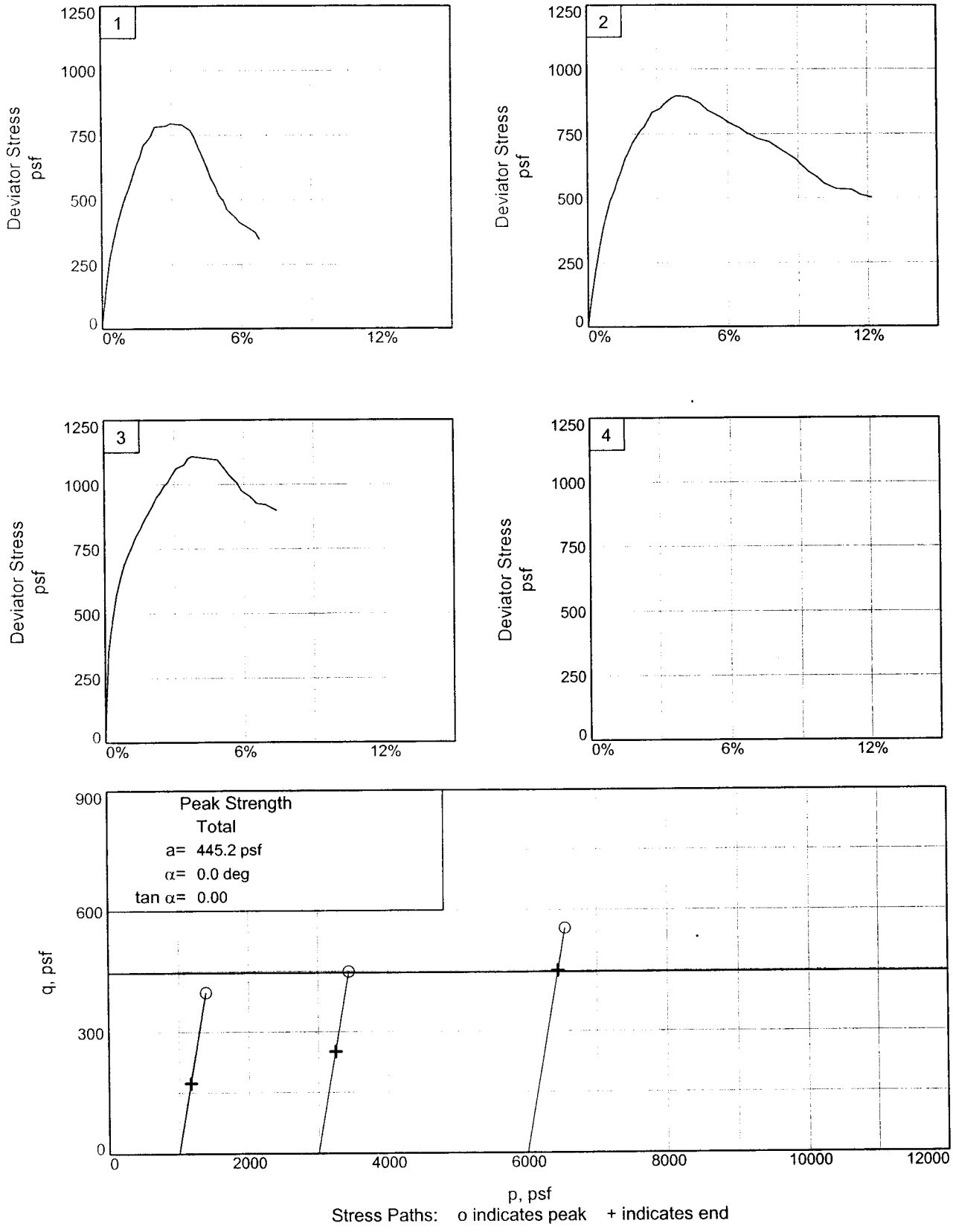
Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL .
Source of Sample: B-5 **Depth:** 31.8
Sample Number: 8B
Proj. No.: 19080 **Date:** 11-16-05

TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH **Checked By:** JS

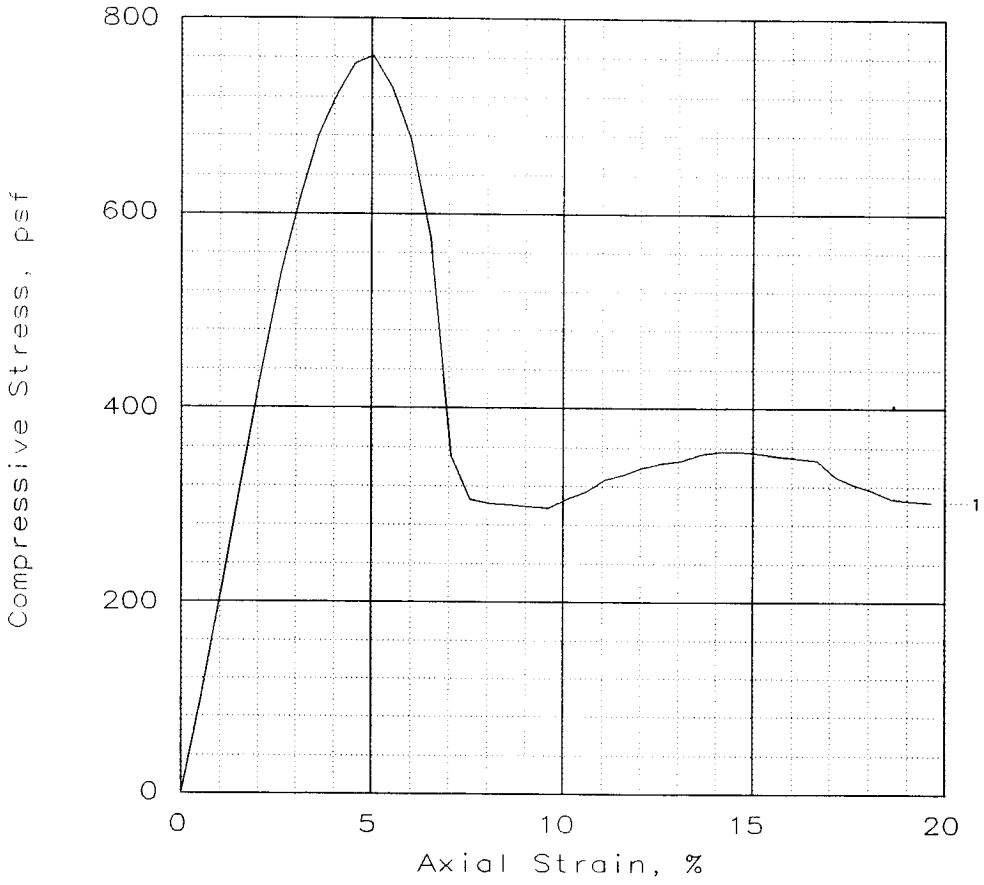


Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 31.8 **Sample Number:** 8B
Project No.: 19080 **Figure** 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH **Checked By:** JS

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	762			
Undrained shear strength, psf	381			
Failure strain, %	5.1			
Strain rate, in/min	0.0389			
Water content, %	29.5			
Wet density, pcf	110.9			
Dry density, pcf	85.7			
Saturation, %	82.3			
Void ratio	0.9677			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: So Gr CH2 w/ SIF

			GS= 2.7	Type: Undisturbed

Project No.: 19080
Date: 10-4-05
Remarks:
Torvane = 0.200 tsf

Fig. No.: ———

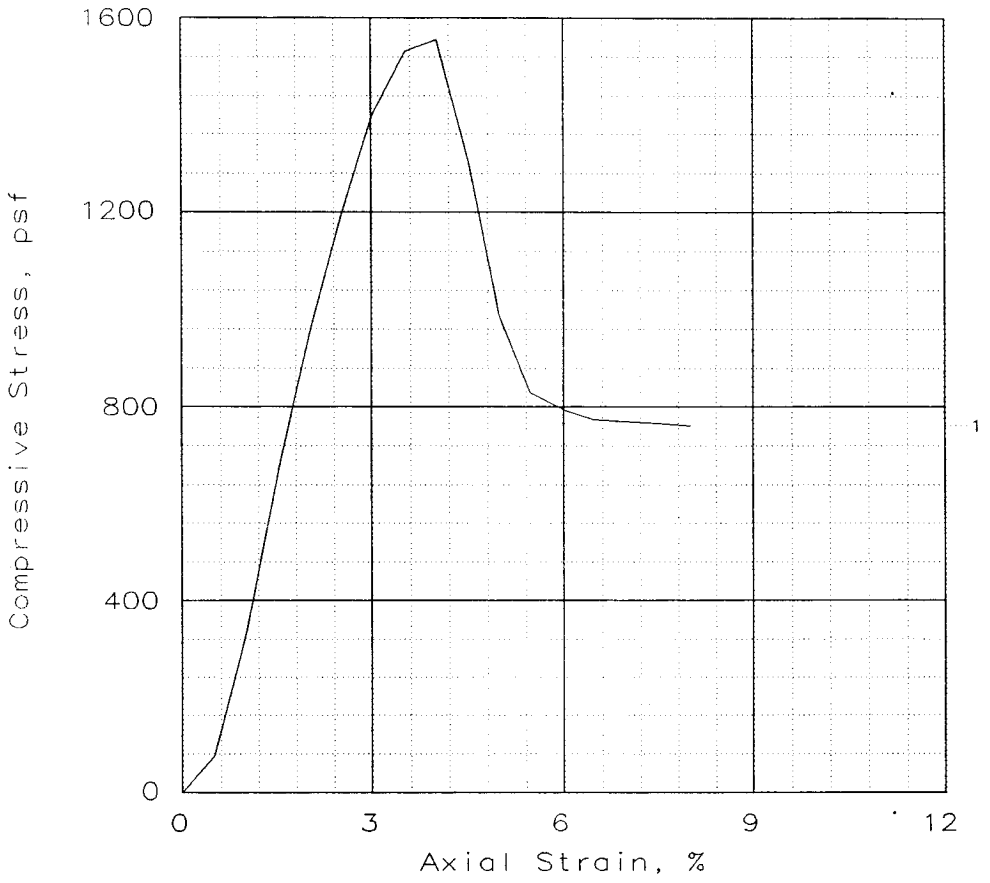
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 9-B, Depth 36.1', Elev. -34.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	1555			
Undrained shear strength, psf	778			
Failure strain, %	4.0			
Strain rate, in/min	0.0556			
Water content, %	67.4			
Wet density, pcf	97.0			
Dry density, pcf	58.0			
Saturation, %	94.6			
Void ratio	1.9515			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: M Gr CH4 w/ Ins SM

LL = 99	PL = 29	PI = 70	GS= 2.74	Type: Undisturbed

Project No.: 19080
Date: 10-4-05
Remarks:
Torvane = 0.330 tsf

Fig. No.: ——

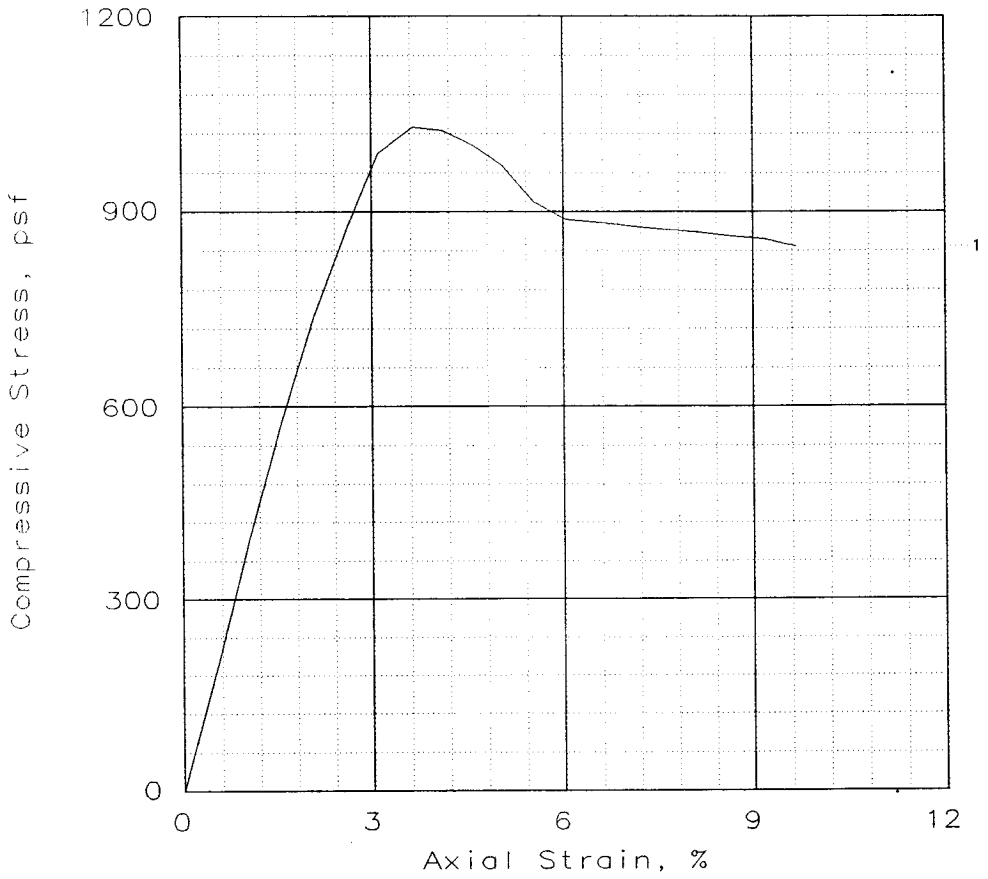
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 13-B, Depth 48.1', Elev. -46.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	1030			
Undrained shear strength, psf	515			
Failure strain, %	3.7			
Strain rate, in/min	0.0574			
Water content, %	58.2			
Wet density, pcf	99.3			
Dry density, pcf	62.8			
Saturation, %	92.5			
Void ratio	1.7245			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: M Gr CH4 w/ ars SM, SIF, SL

GS= 2.74 | Type: Undisturbed

Project No.: 19080
Date: 10-4-05
Remarks:
Torvane = 0.300 tsf

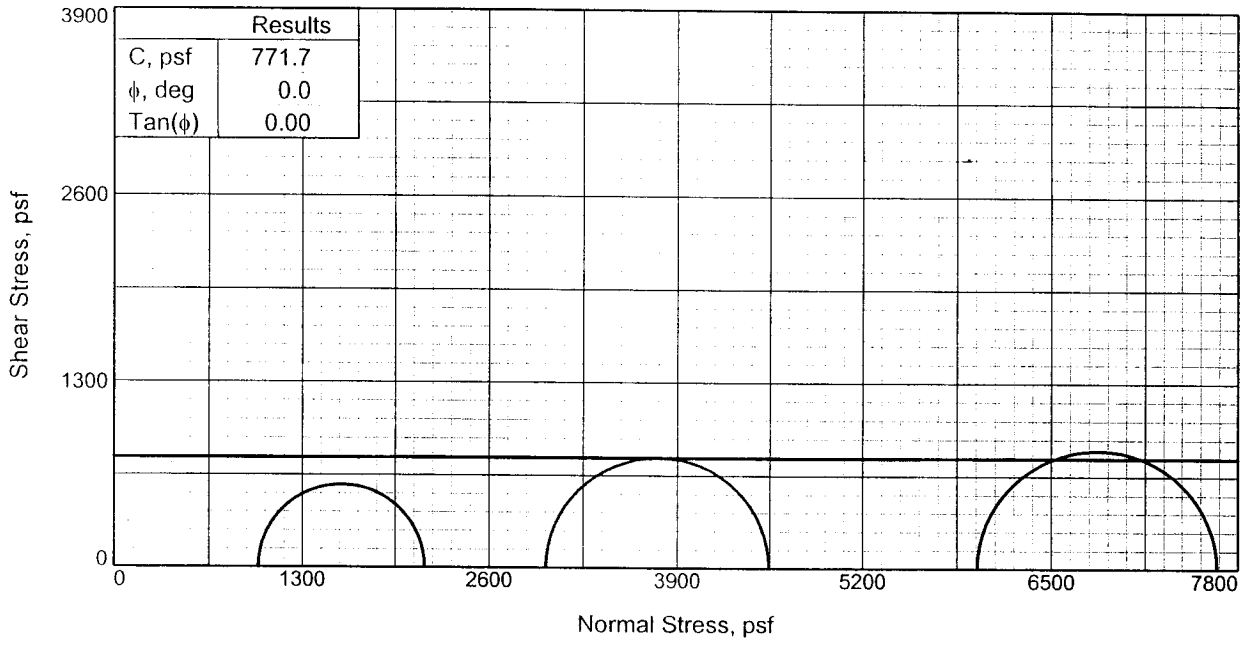
Fig. No.: ———

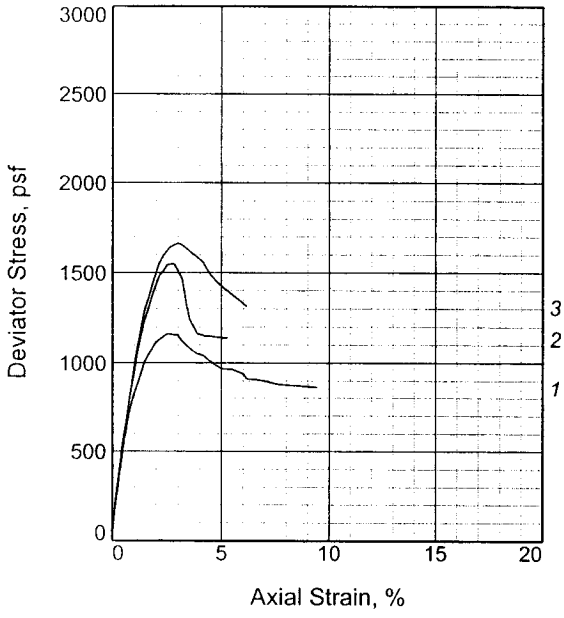
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 14-B, Depth 52.1', Elev. -50.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.





Specimen No.		1	2	3
Initial	Water Content,	45.2	56.7	51.6
	Dry Density, pcf	71.1	64.8	67.7
	Saturation,	88.6	95.2	93.2
	Void Ratio	1.3885	1.6186	1.5077
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.930	2.930	2.930
At Test	Water Content,	51.0	59.4	55.4
	Dry Density, pcf	71.1	64.9	67.8
	Saturation,	100.0	100.0	100.0
	Void Ratio	1.3868	1.6153	1.5056
	Diameter, in.	1.388	1.387	1.388
	Height, in.	2.929	2.929	2.929
Strain rate, in./min.		0.029	0.030	0.029
Back Pressure, psf		0.0	0.0	0.0
Cell Pressure, psf		993.6	2995.2	5990.4
Fail. Stress, psf		1160.6	1548.1	1663.1
Ult. Stress, psf		862.1	1136.8	1313.4
σ_1 Failure, psf		2154.2	4543.3	7653.5
σ_3 Failure, psf		993.6	2995.2	5990.4

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: M Gr CH4 w/ ars & lns SM, SIF, SL

LL= 71 **PL=** 21 **PI=** 50
Assumed Specific Gravity= 2.72
Remarks: Torvane = 0.350 tsf

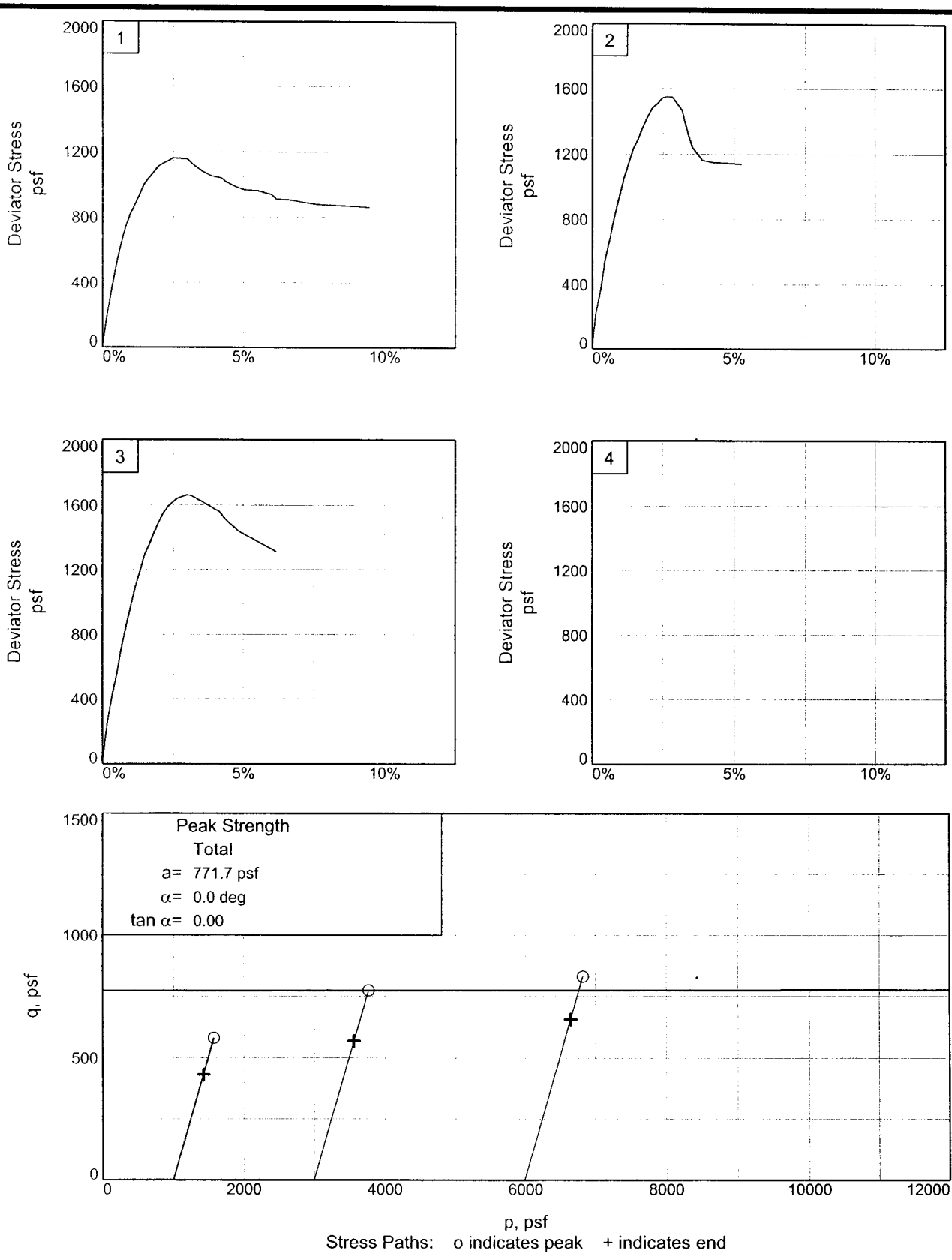
Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 52.7
Sample Number: 14C
Proj. No.: 19080 **Date:** 11-16-05

TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

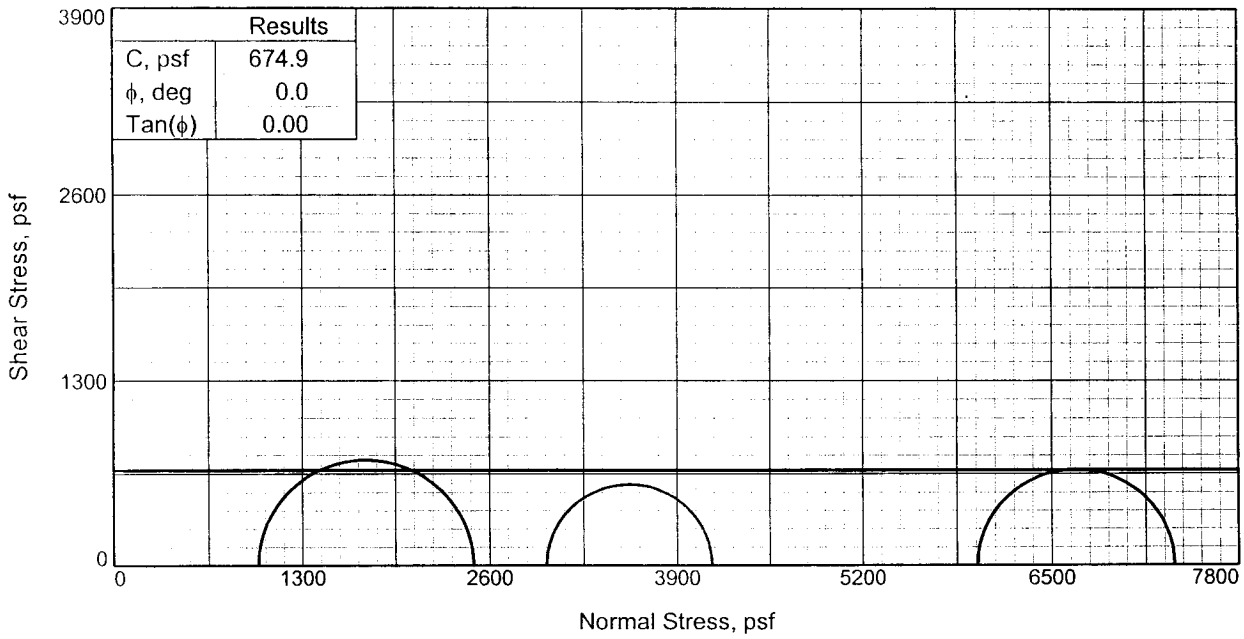
Tested By: ZH **Checked By:** JS

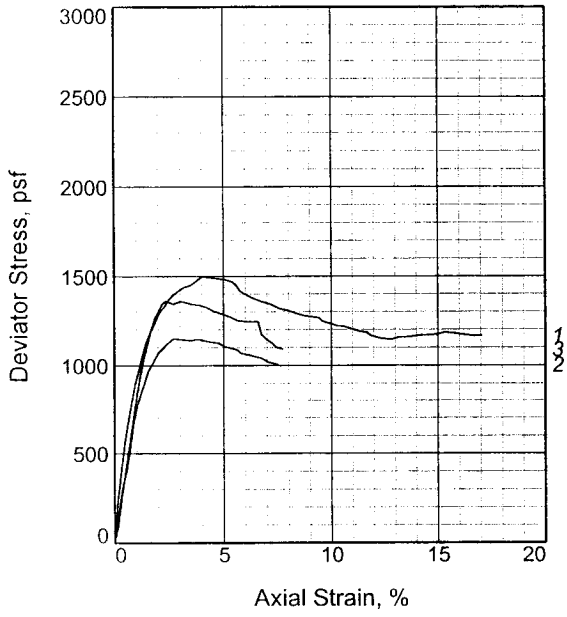


Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 52.7 **Sample Number:** 14C
Project No.: 19080 **Figure** 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH **Checked By:** JS





Specimen No.		1	2	3
Initial	Water Content,	60.6	51.6	50.4
	Dry Density, pcf	63.1	66.2	67.2
	Saturation,	97.4	89.8	89.8
	Void Ratio	1.6911	1.5637	1.5279
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.930	2.930	2.930
At Test	Water Content,	62.3	57.4	56.1
	Dry Density, pcf	63.0	66.3	67.2
	Saturation,	100.0	100.0	100.0
	Void Ratio	1.6944	1.5619	1.5259
	Diameter, in.	1.389	1.388	1.388
	Height, in.	2.931	2.929	2.929
Strain rate, in./min.		0.030	0.029	0.030
Back Pressure, psf		0.0	0.0	0.0
Cell Pressure, psf		993.6	2995.2	5990.4
Fail. Stress, psf		1496.6	1148.7	1357.4
Ult. Stress, psf		1167.4	1003.7	1089.2
σ_1 Failure, psf		2490.2	4143.9	7347.8
σ_3 Failure, psf		993.6	2995.2	5990.4

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: M Gr CH4 w/ ars SM, SIF, SL

LL= 82 **PL=** 23 **PI=** 59
Assumed Specific Gravity= 2.72
Remarks: Torvane = 0.300 tsf

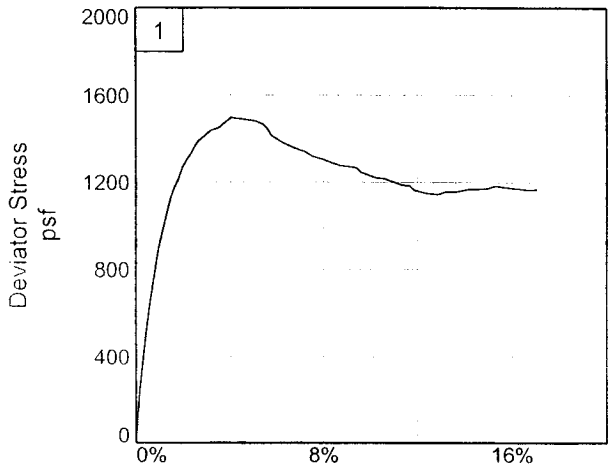
Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 57.6
Sample Number: 15D
Proj. No.: 19080 **Date:** 11-16-05

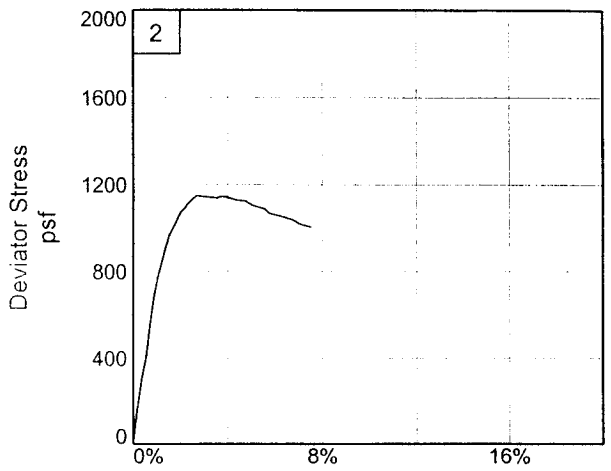
TRIAXIAL SHEAR TEST REPORT

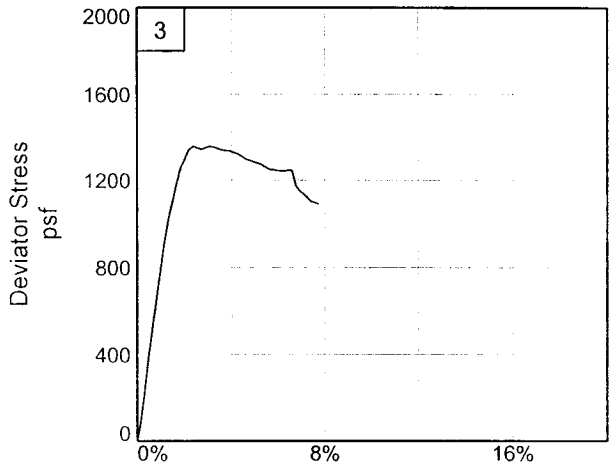
EUSTIS ENGINEERING COMPANY, INC.

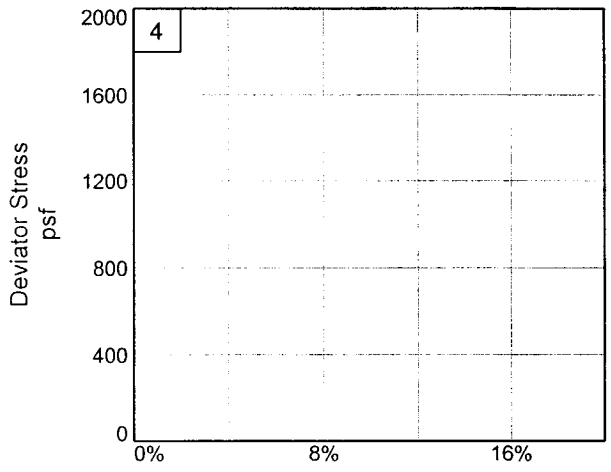
Figure 1

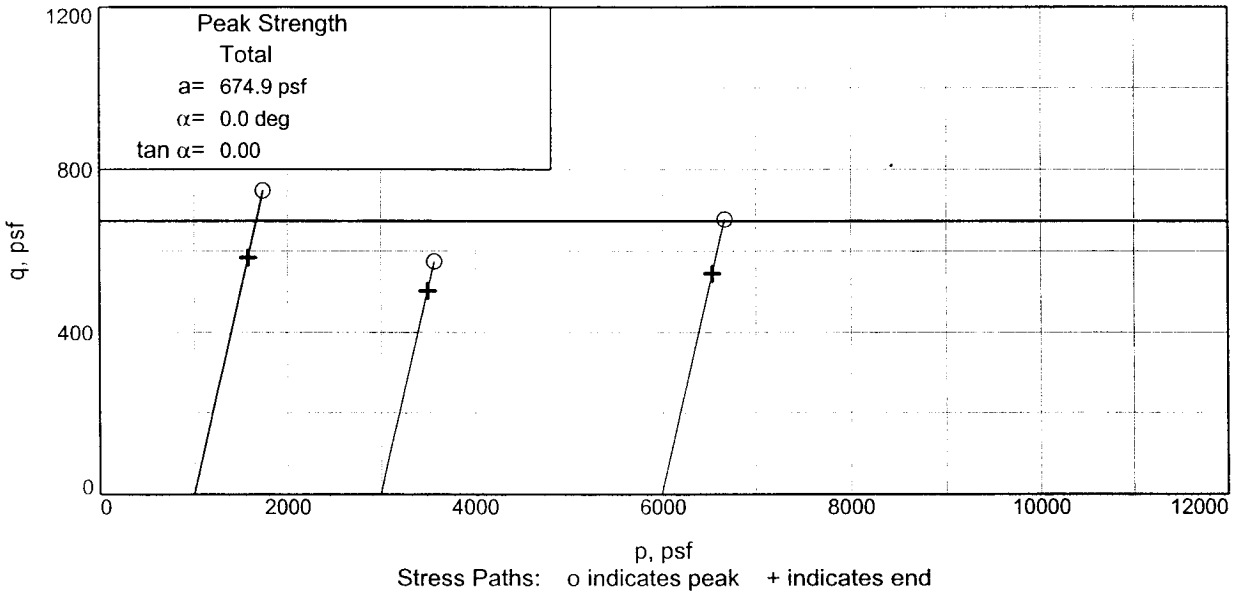
Tested By: ZH **Checked By:** JS







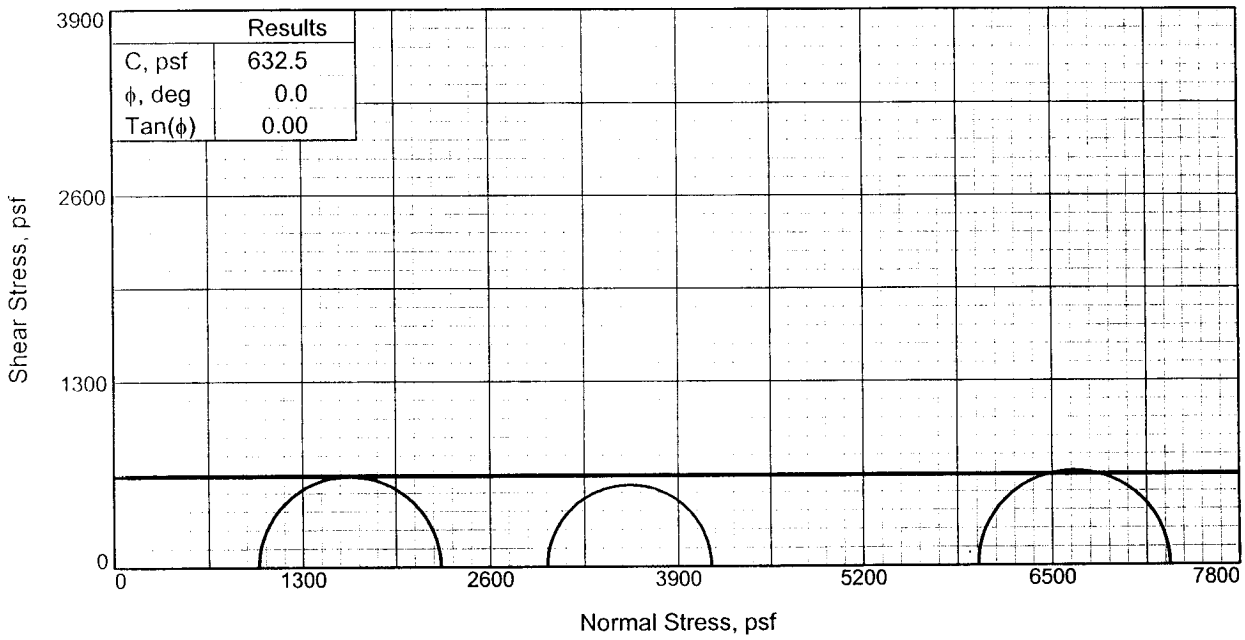


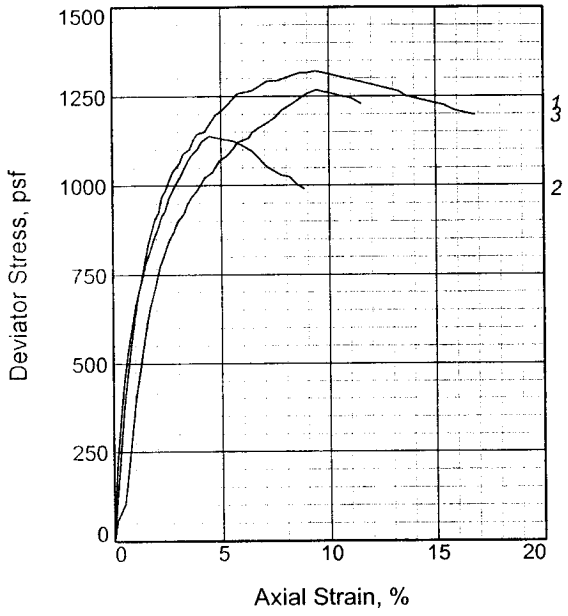


Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 57.6 **Sample Number:** 15D
Project No.: 19080 **Figure** 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH **Checked By:** JS





Specimen No.		1	2	3
Initial	Water Content,	44.1	46.7	45.1
	Dry Density, pcf	73.8	72.7	74.1
	Saturation,	92.0	95.0	94.8
	Void Ratio	1.3023	1.3371	1.2931
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.930	2.930	2.930
At Test	Water Content,	47.9	49.1	47.4
	Dry Density, pcf	73.8	72.7	74.1
	Saturation,	100.0	100.0	100.0
	Void Ratio	1.3023	1.3342	1.2903
	Diameter, in.	1.388	1.387	1.387
	Height, in.	2.930	2.929	2.929
Strain rate, in./min.		0.029	0.030	0.029
Back Pressure, psf		0.0	0.0	0.0
Cell Pressure, psf		993.6	2995.2	5990.4
Fail. Stress, psf		1266.8	1137.5	1320.2
Ult. Stress, psf		1228.9	989.6	1195.7
σ_1 Failure, psf		2260.4	4132.7	7310.6
σ_3 Failure, psf		993.6	2995.2	5990.4

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: M Gr CH3 w/ Tr-wd, ars ML

LL= 60 **PL=** 18 **PI=** 42
Assumed Specific Gravity= 2.72
Remarks: Torvane = 0.320 tsf

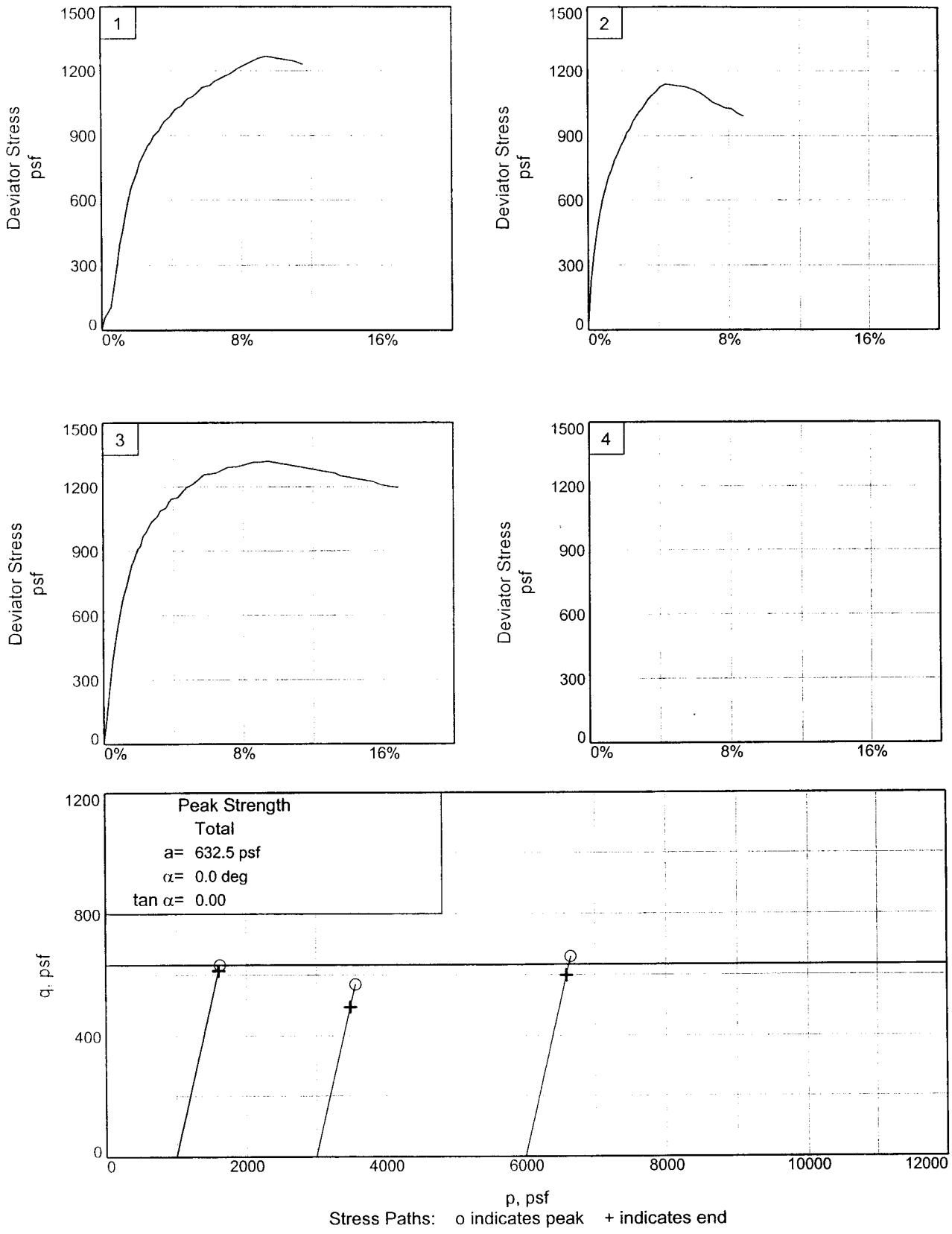
Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 63.8
Sample Number: 17B
Proj. No.: 19080 **Date:** 11-17-05

TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: LWR **Checked By:** JS



Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

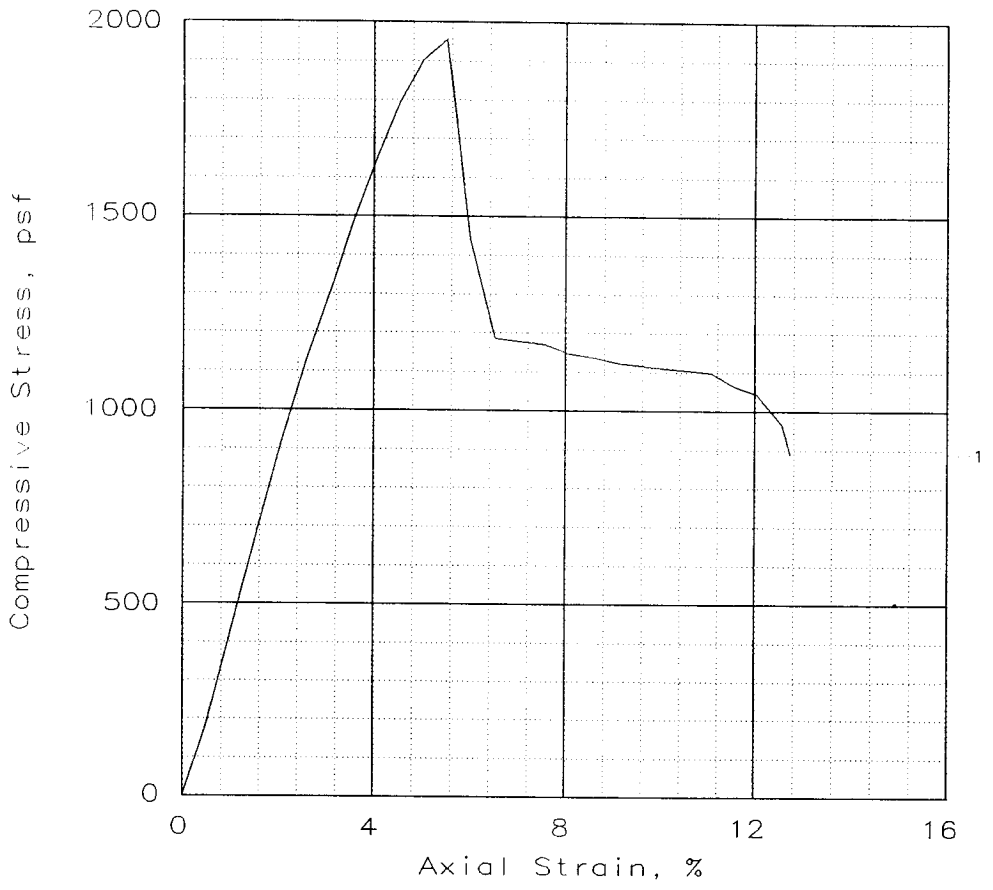
Source of Sample: B-5 **Depth:** 63.8 **Sample Number:** 17B

Project No.: 19080 **Figure** 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: LWR **Checked By:** JS

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	1956			
Undrained shear strength, psf	978			
Failure strain, %	5.5			
Strain rate, in/min	0.0569			
Water content, %	59.3			
Wet density, pcf	100.7			
Dry density, pcf	63.2			
Saturation, %	95.3			
Void ratio	1.7069			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: M Gr CH4 w/ SIF, SL

GS= 2.74 | Type: Undisturbed

Project No.: 19080
Date: 10-4-05
Remarks:
Torvane = 0.350 tsf

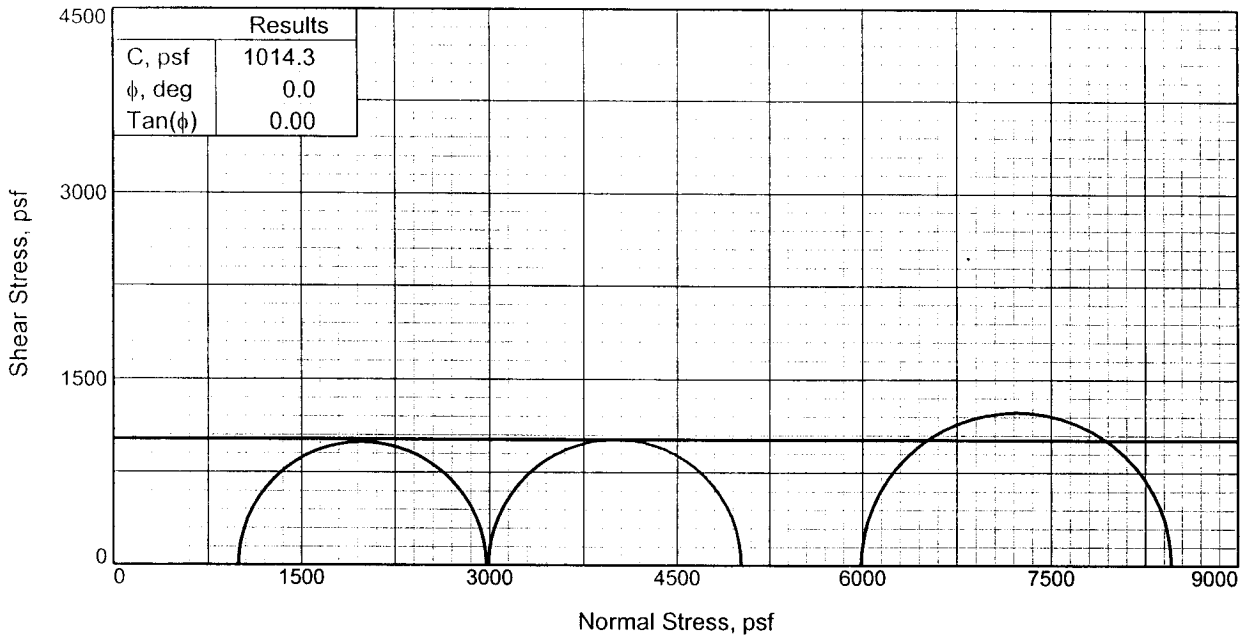
Fig. No.: ———

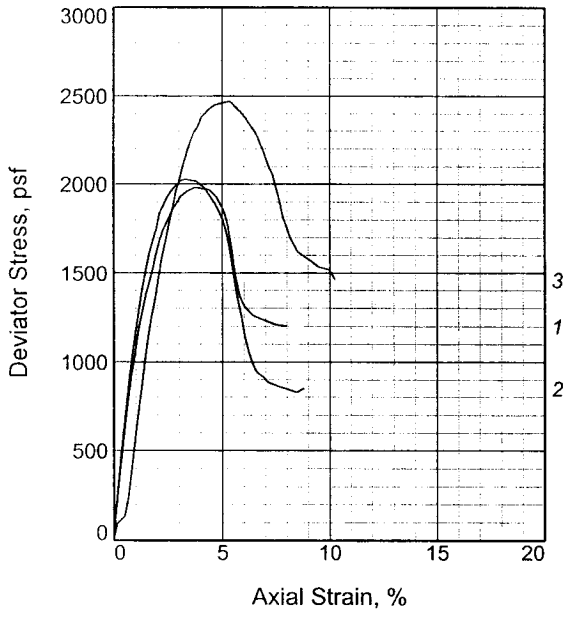
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 18-B, Depth 68.1', Elev. -66.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.





Specimen No.		1	2	3
Initial	Water Content,	45.7	42.1	46.7
	Dry Density, pcf	69.4	73.4	69.5
	Saturation,	85.4	86.7	87.6
	Void Ratio	1.4652	1.3303	1.4614
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.930	2.930	2.930
At Test	Water Content,	53.3	48.5	53.3
	Dry Density, pcf	69.5	73.5	69.6
	Saturation,	100.0	100.0	100.0
	Void Ratio	1.4604	1.3284	1.4594
	Diameter, in.	1.387	1.388	1.388
	Height, in.	2.928	2.929	2.929
Strain rate, in./min.		0.029	0.030	0.029
Back Pressure, psf		0.0	0.0	0.0
Cell Pressure, psf		993.6	2995.2	5990.4
Fail. Stress, psf		1981.3	2025.6	2469.6
Ult. Stress, psf		1201.5	851.1	1461.1
σ_1 Failure, psf		2974.9	5020.8	8460.0
σ_3 Failure, psf		993.6	2995.2	5990.4

Type of Test: Unconsolidated Undrained
Sample Type: Undisturbed
Description: St Gr CH4 w/ wd, SL

LL= 95 **PL=** 23 **PI=** 72
Assumed Specific Gravity= 2.74
Remarks: Torvane = 0.350 tsf

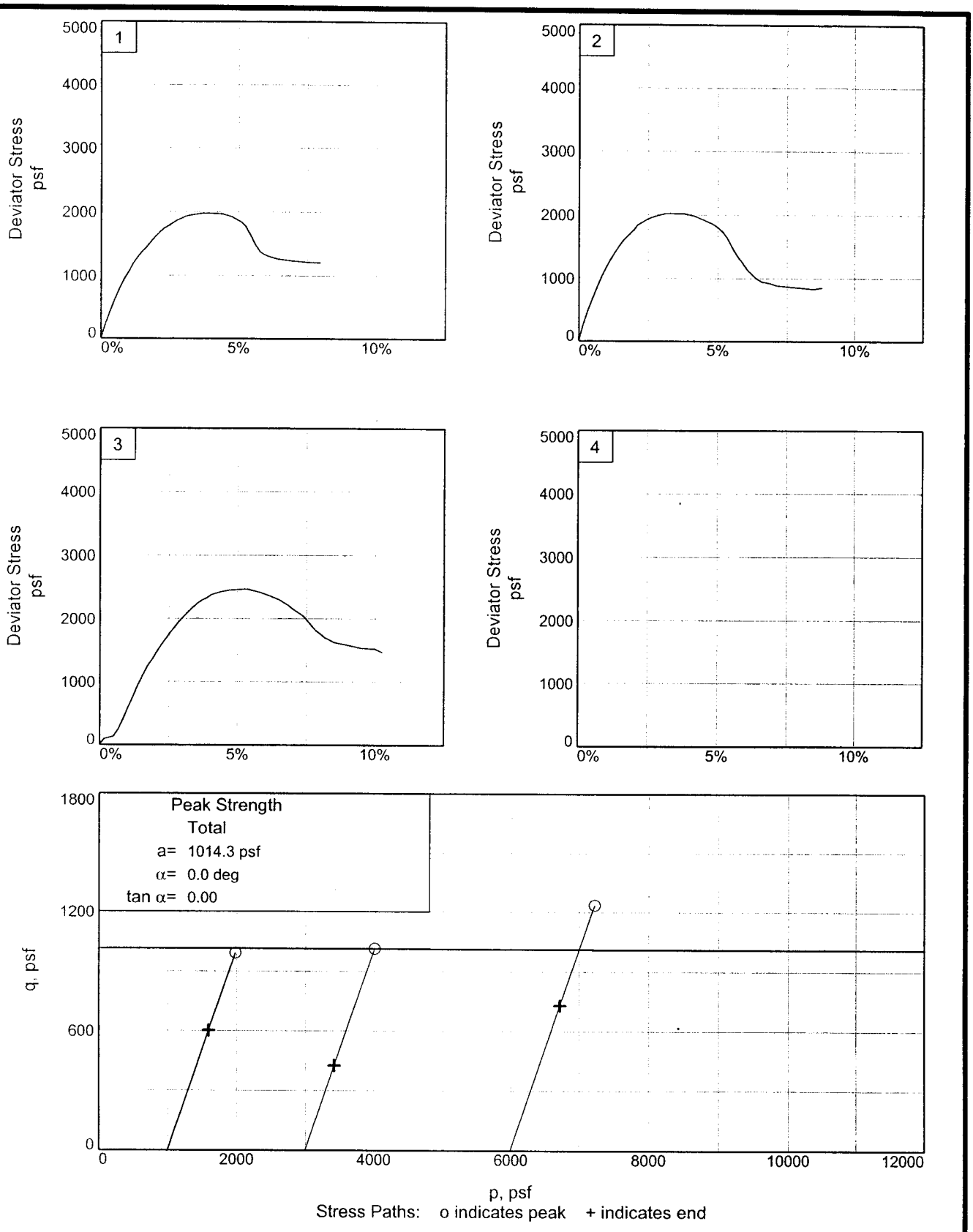
Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 71.8
Sample Number: 19B
Proj. No.: 19080 **Date:** 11-16-05

TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH **Checked By:** JS

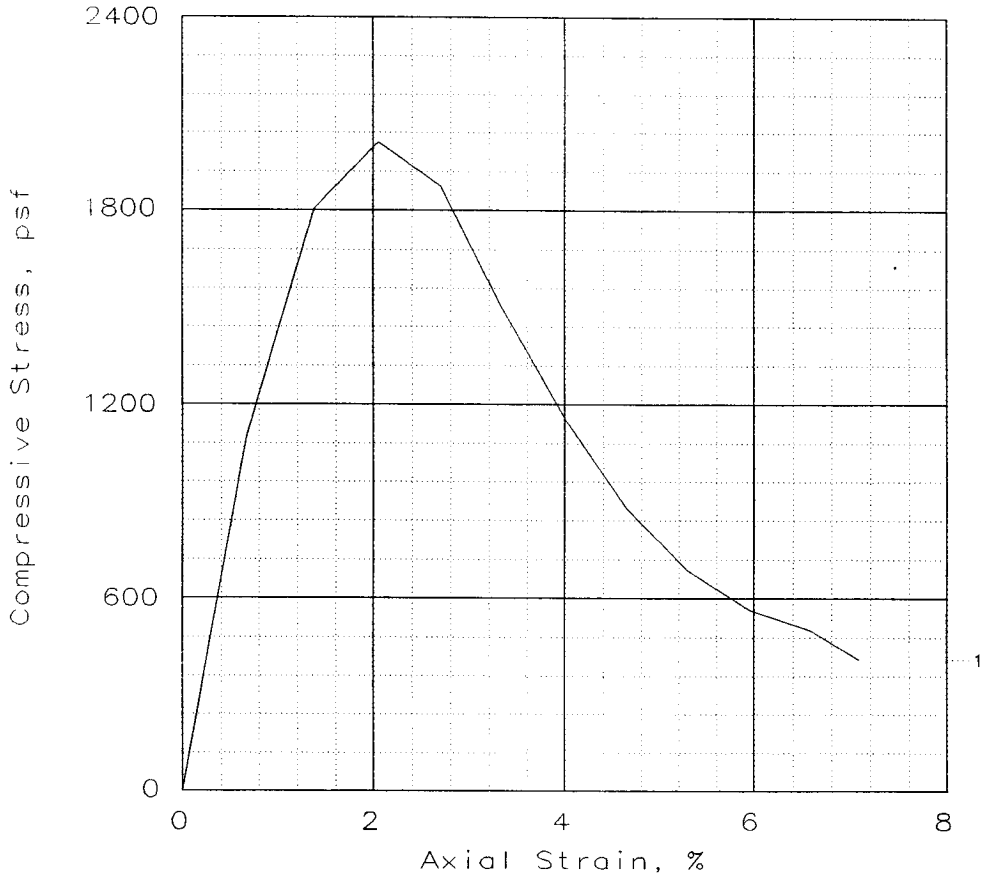


Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 71.8 **Sample Number:** 19B
Project No.: 19080 **Figure** 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH **Checked By:** JS

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	2010			
Undrained shear strength, psf	1005			
Failure strain, %	2.1			
Strain rate, in/min	0.0542			
Water content, %	29.8			
Wet density, pcf	117.3			
Dry density, pcf	90.4			
Saturation, %	92.2			
Void ratio	0.8792			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: St 1Gr CH3 w/ ars SM, SL

			GS= 2.72	Type: Undisturbed

Project No.: 19080
Date: 10-4-05
Remarks:
Torvane = 0.925 tsf

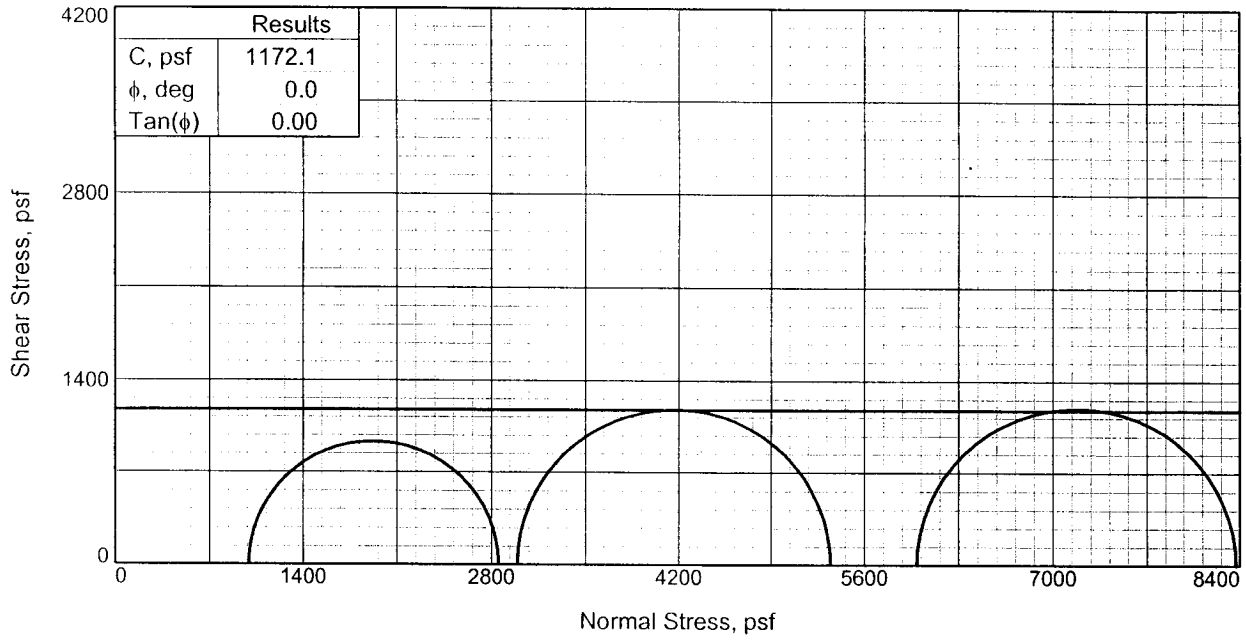
Fig. No.: ——

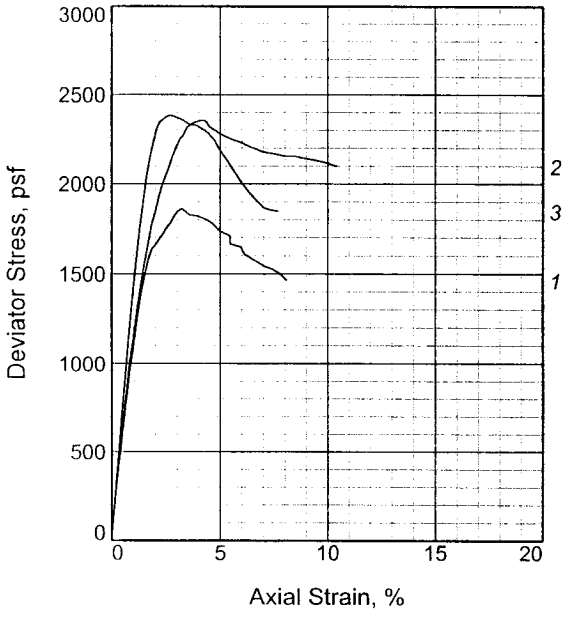
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 20-B, Depth 76.1', Elev. -74.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.





Specimen No.		1	2	3
Initial	Water Content,	37.6	38.2	38.4
	Dry Density, pcf	83.5	83.2	82.9
	Saturation,	98.4	99.1	98.8
	Void Ratio	1.0476	1.0569	1.0637
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.930	2.930	2.930
At Test	Water Content,	38.2	38.5	38.8
	Dry Density, pcf	83.6	83.2	83.0
	Saturation,	100.0	100.0	100.0
	Void Ratio	1.0458	1.0550	1.0618
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.929	2.929	2.929
Strain rate, in./min.		0.030	0.029	0.030
Back Pressure, psf		0.0	0.0	0.0
Cell Pressure, psf		993.6	2995.2	5990.4
Fail. Stress, psf		1861.6	2354.7	2381.1
Ult. Stress, psf		1461.3	2098.1	1845.7
σ_1 Failure, psf		2855.2	5349.9	8371.5
σ_3 Failure, psf		993.6	2995.2	5990.4

Type of Test: Unconsolidated Undrained
Sample Type: Undisturbed
Description: St Gr & T CH3 w/ lns & lys SM, SL

LL= 83 **PL=** 22 **PI=** 61
Assumed Specific Gravity= 2.74
Remarks: Torvane = 0.500 tsf

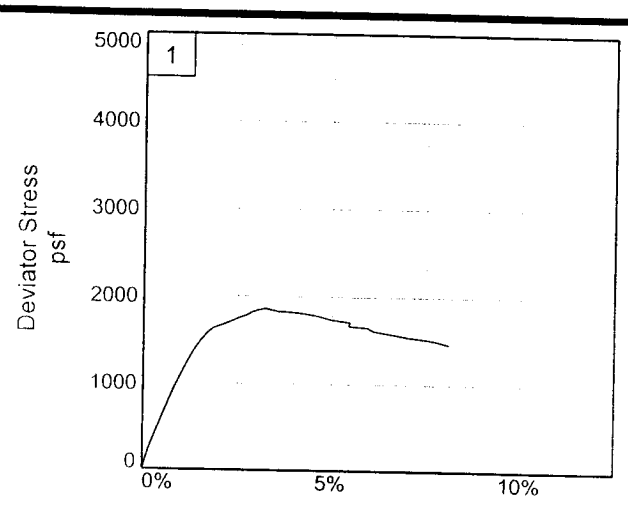
Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 79.8
Sample Number: 21B
Proj. No.: 19080 **Date:** 11-17-05

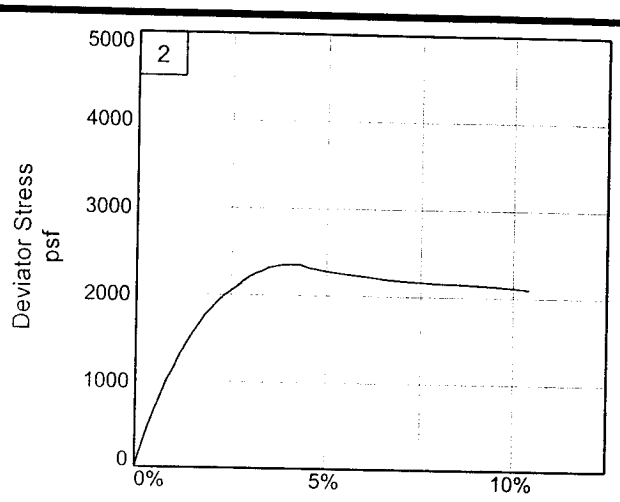
TRIAXIAL SHEAR TEST REPORT

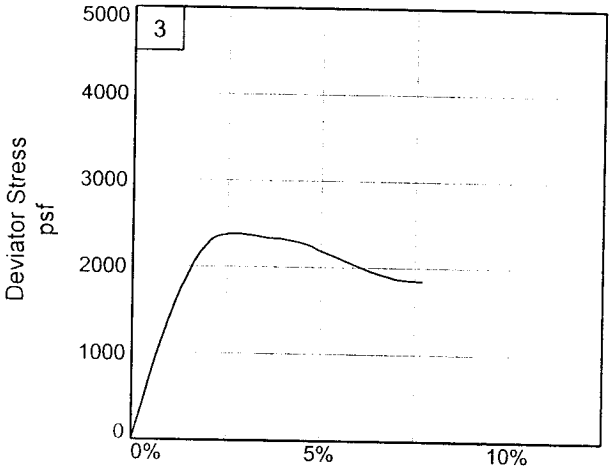
EUSTIS ENGINEERING COMPANY, INC.

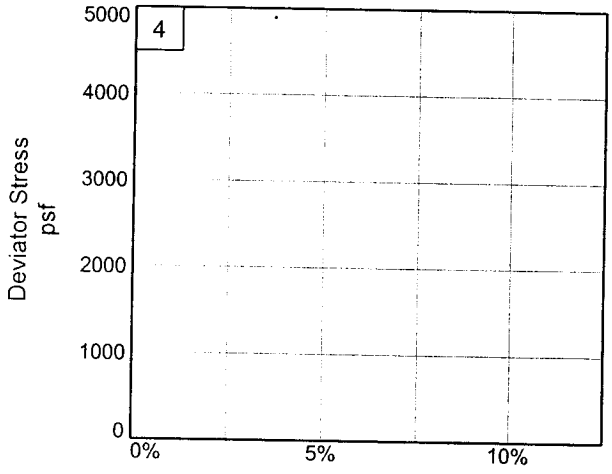
Figure 1

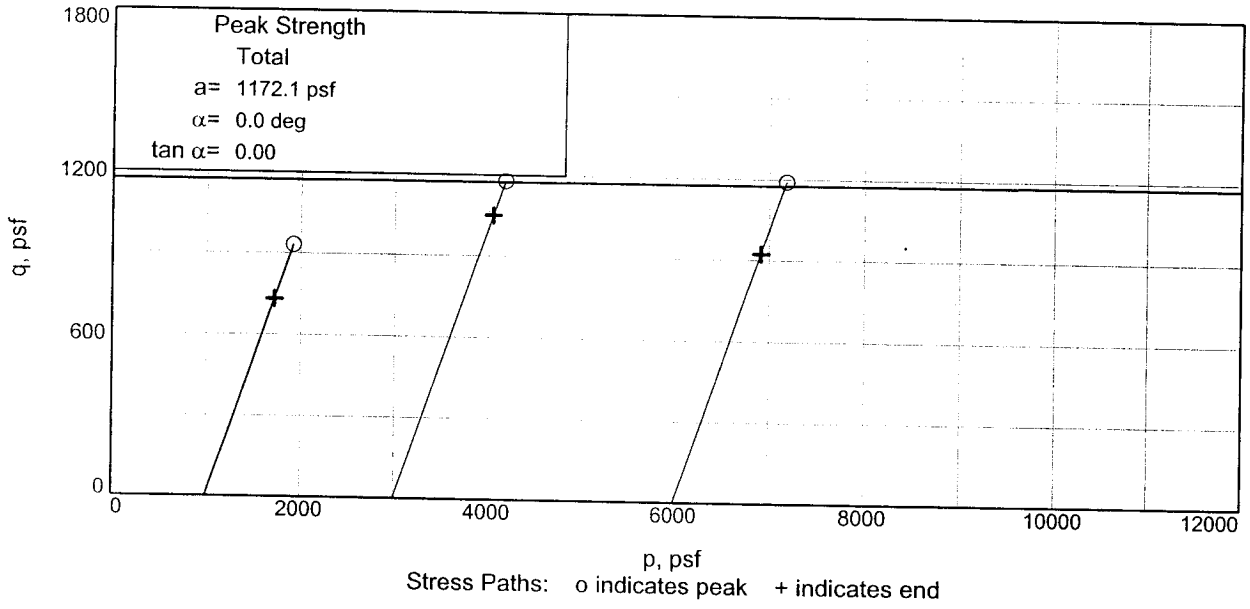
Tested By: LWR **Checked By:** JS











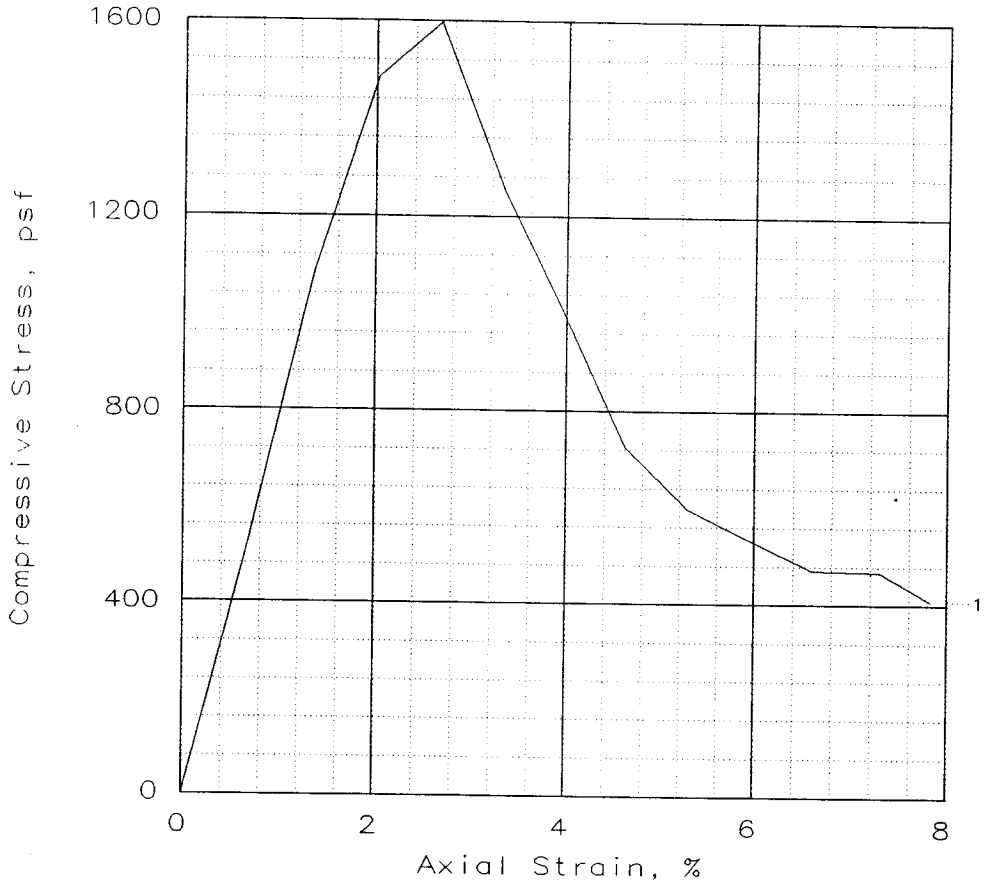
Stress Paths: o indicates peak + indicates end

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 79.8 **Sample Number:** 21B
Project No.: 19080 **Figure** 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: LWR **Checked By:** JS

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	1598			
Undrained shear strength, psf	799			
Failure strain, %	2.7			
Strain rate, in/min	0.0541			
Water content, %	29.9			
Wet density, pcf	117.2			
Dry density, pcf	90.2			
Saturation, %	91.5			
Void ratio	0.8955			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: M T & lGr CH3 w/ Ins SM, SL

GS= 2.74 | Type: Undisturbed

Project No.: 19080
Date: 10-4-05

Remarks:
Torvane = 0.950 tsf

Fig. No.: ———

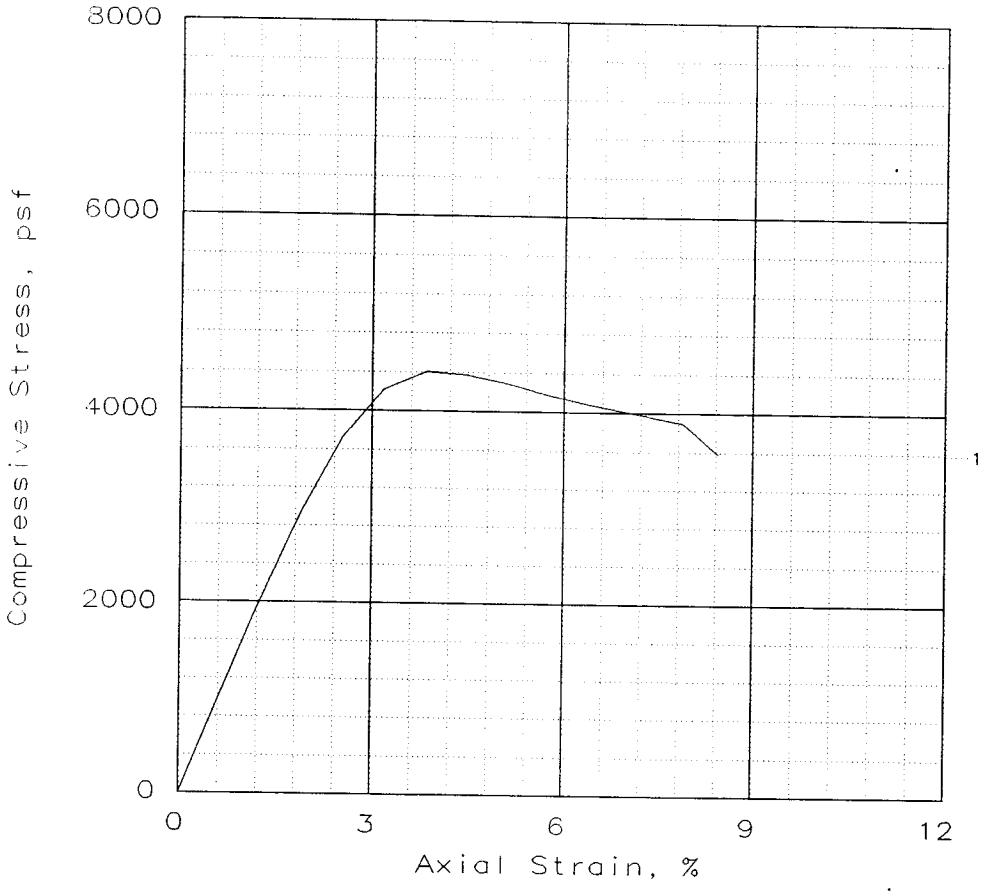
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 22-B, Depth 84.1', Elev. -82.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	4403			
Undrained shear strength, psf	2201			
Failure strain, %	3.8			
Strain rate, in/min	0.0555			
Water content, %	32.8			
Wet density, pcf	116.8			
Dry density, pcf	88.0			
Saturation, %	95.1			
Void ratio	0.9444			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: vSt T & lGr CH4 w/ lns SM, SL

GS= 2.74 | Type: Undisturbed

Project No.: 19080
Date: 10-4-05

Remarks:
Torvane = 1.250 tsf

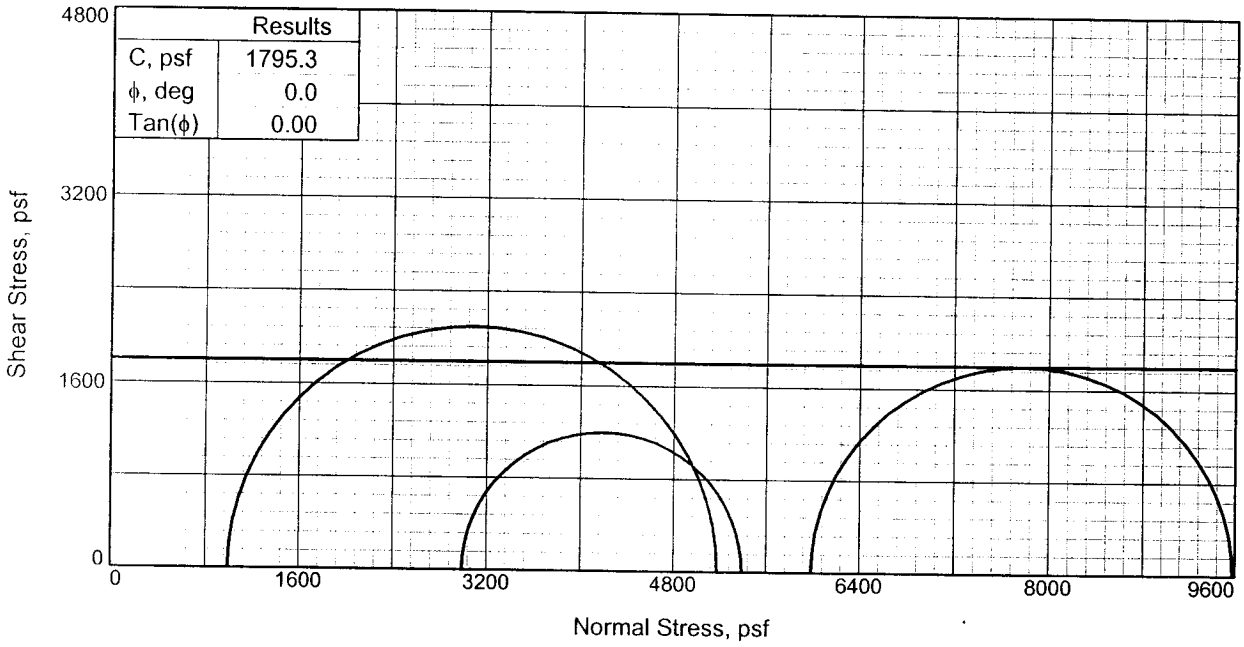
Fig. No.: ———

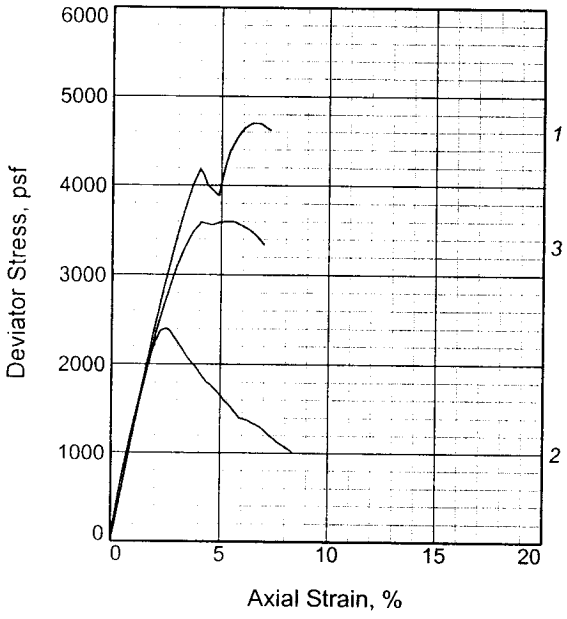
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 23-B, Depth 88.1', Elev. -86.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.





Specimen No.		1	2	3
Initial	Water Content,	33.4	33.5	32.4
	Dry Density, pcf	87.7	87.2	87.2
	Saturation,	96.1	95.3	92.5
	Void Ratio	0.9514	0.9627	0.9615
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.930	2.930	2.930
At Test	Water Content,	34.7	35.1	35.1
	Dry Density, pcf	87.7	87.2	87.2
	Saturation,	100.0	100.0	100.0
	Void Ratio	0.9514	0.9610	0.9615
	Diameter, in.	1.388	1.388	1.388
	Height, in.	2.930	2.929	2.930
Strain rate, in./min.		0.029	0.030	0.029
Back Pressure, psf		0.0	0.0	0.0
Cell Pressure, psf		993.6	2995.2	5990.4
Fail. Stress, psf		4183.6	2394.9	3587.7
Ult. Stress, psf		4616.2	1012.3	3337.1
σ_1 Failure, psf		5177.2	5390.1	9578.1
σ_3 Failure, psf		993.6	2995.2	5990.4

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: St T & Gr CH4 w/ lns ML, SL, cc

LL= 69 **PL=** 21 **PI=** 48
Assumed Specific Gravity= 2.74
Remarks: Torvane = 1.075 tsf

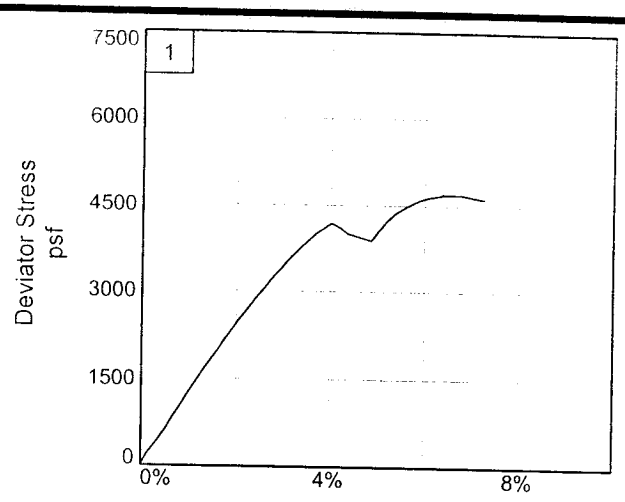
Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 88.1
Sample Number: 23B
Proj. No.: 19080 **Date:** 11-17-05

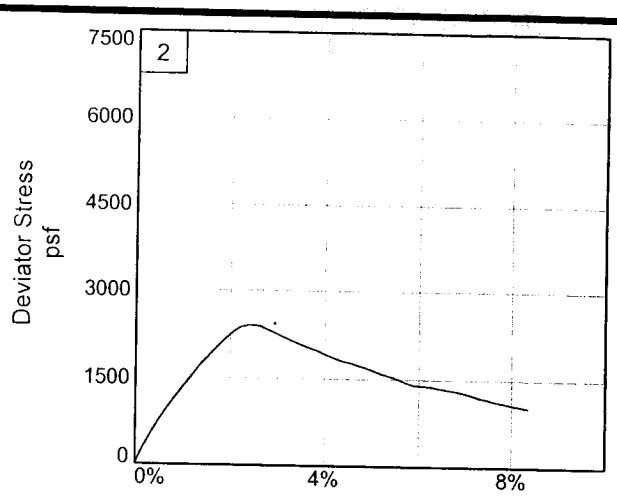
TRIAXIAL SHEAR TEST REPORT

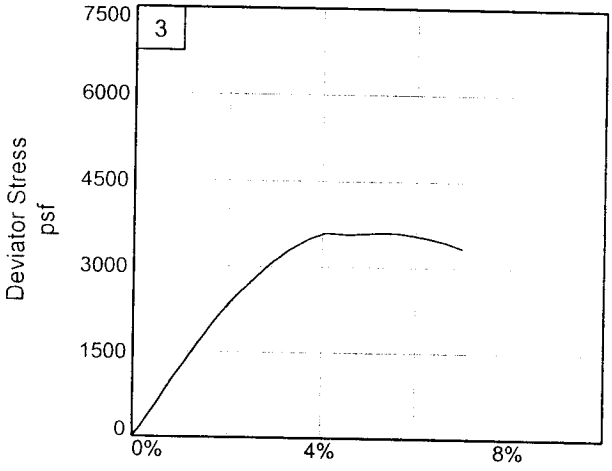
EUSTIS ENGINEERING COMPANY, INC.

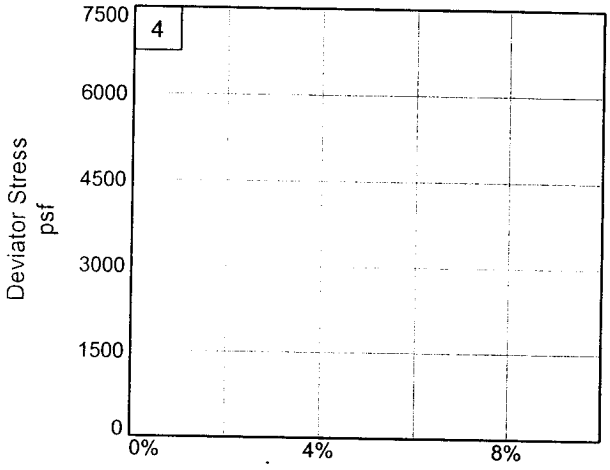
Figure 1

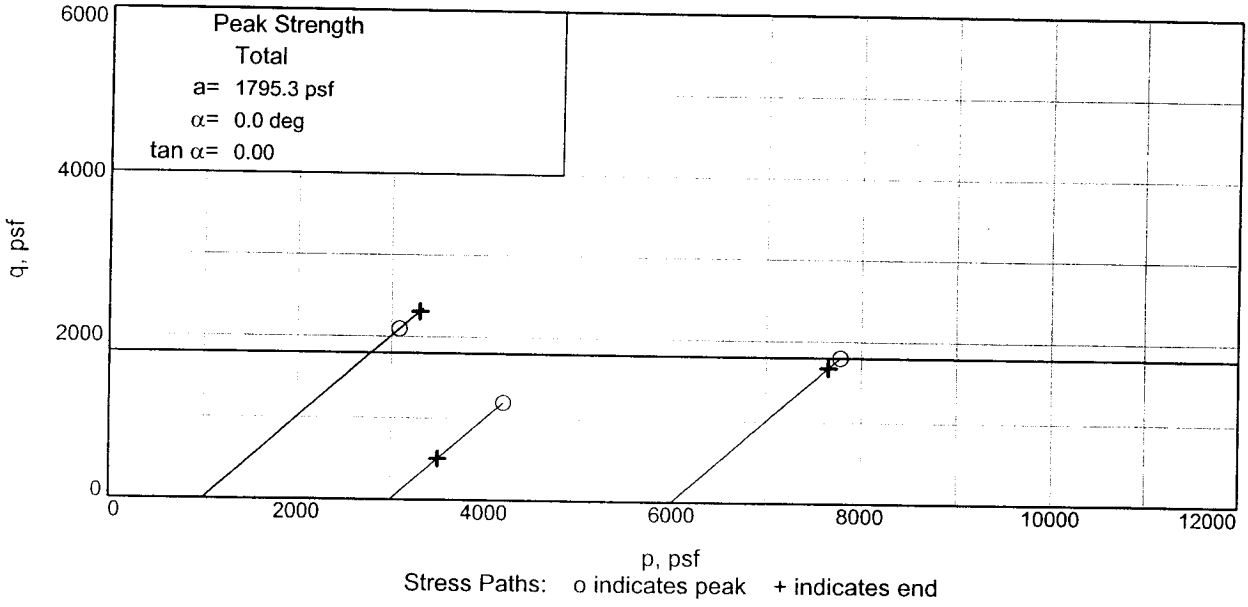
Tested By: LWR **Checked By:** JS











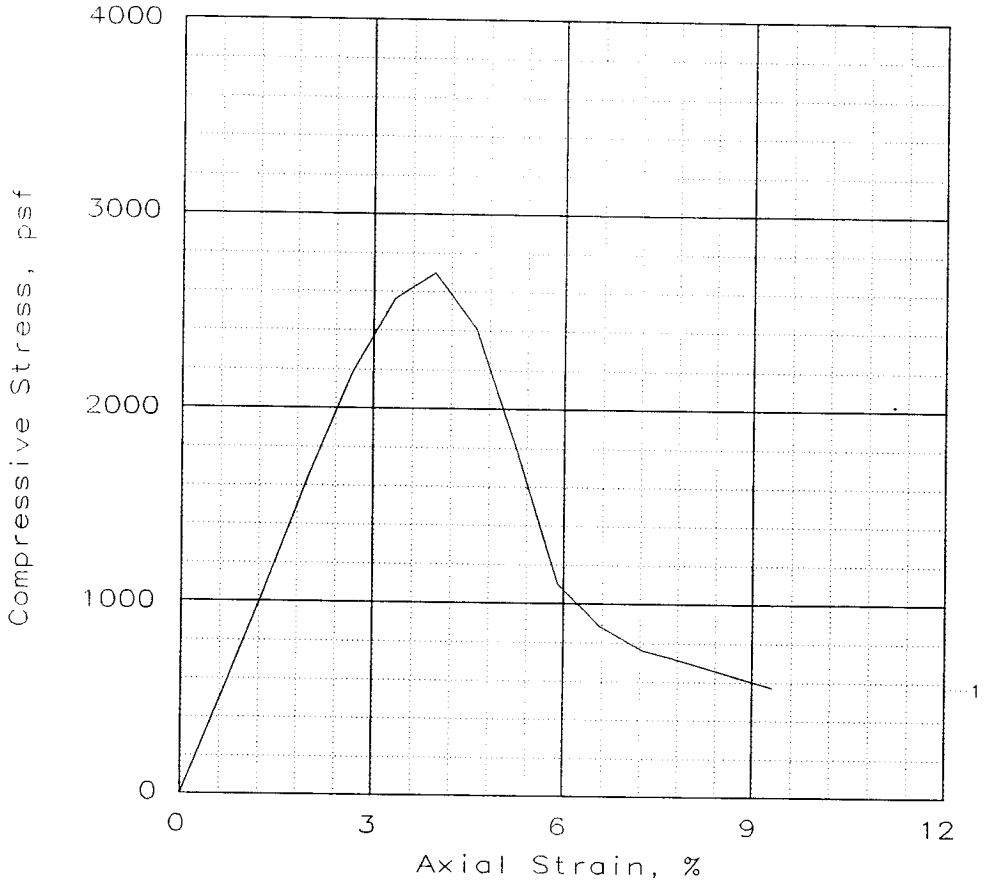
Stress Paths: o indicates peak + indicates end

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-5 **Depth:** 88.1 **Sample Number:** 23B
Project No.: 19080 **Figure** 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: LWR **Checked By:** JS

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	2699			
Undrained shear strength, psf	1349			
Failure strain, %	4.0			
Strain rate, in/min	0.0543			
Water content, %	28.2			
Wet density, pcf	118.5			
Dry density, pcf	92.4			
Saturation, %	90.8			
Void ratio	0.8506			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: St Gr & T CH4 w/ Ins & lys SM

			GS= 2.74	Type: Undisturbed

Project No.: 19080
Date: 10-4-05
Remarks:

Fig. No.: ———

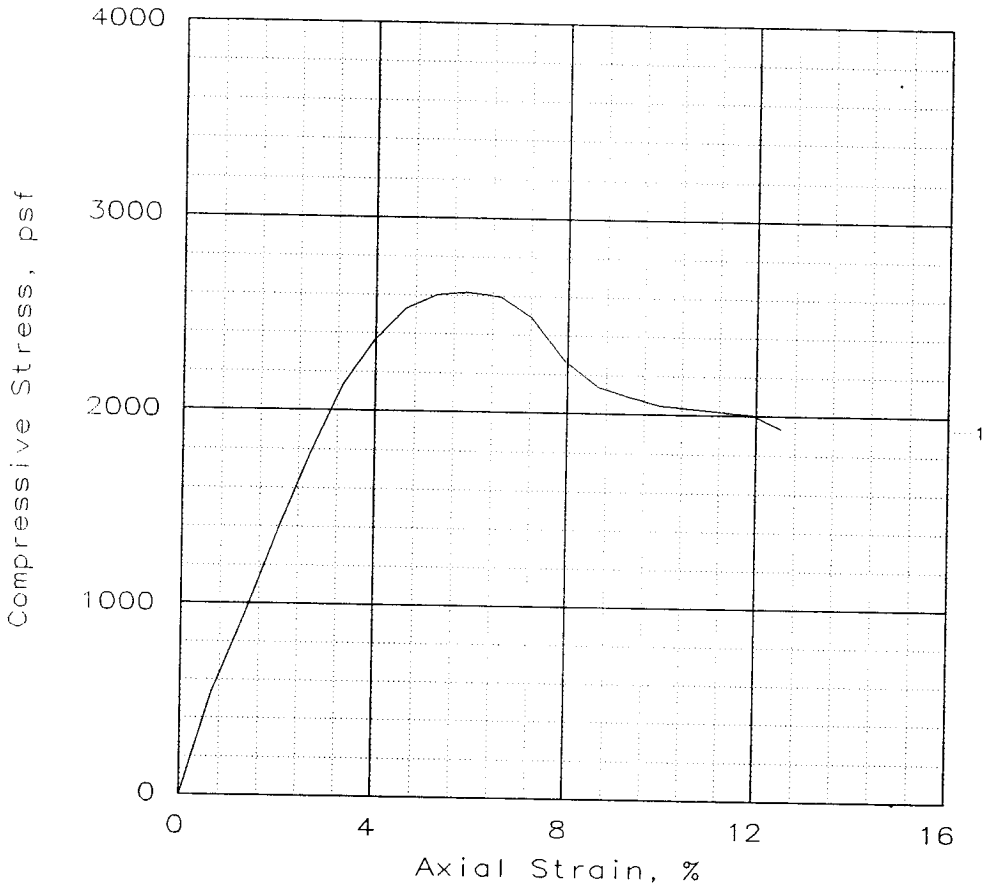
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 24-B, Depth 92.1', Elev. -90.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.

UNCONFINED COMPRESSION TEST



SPECIMEN NO.:	1			
Unconfined strength, psf	2615			
Undrained shear strength, psf	1307			
Failure strain, %	5.9			
Strain rate, in/min	0.0560			
Water content, %	41.0			
Wet density, pcf	111.3			
Dry density, pcf	78.9			
Saturation, %	96.2			
Void ratio	1.1678			
Specimen diameter, in	1.39			
Specimen height, in	2.93			
Height/diameter ratio	2.11			

Description: St Gr CH4 w/ Ins SM, SL

GS= 2.74 | Type: Undisturbed

Project No.: 19080
Date: 10-4-05

Remarks:
Torvane = 0.500 tsf

Fig. No.: ———

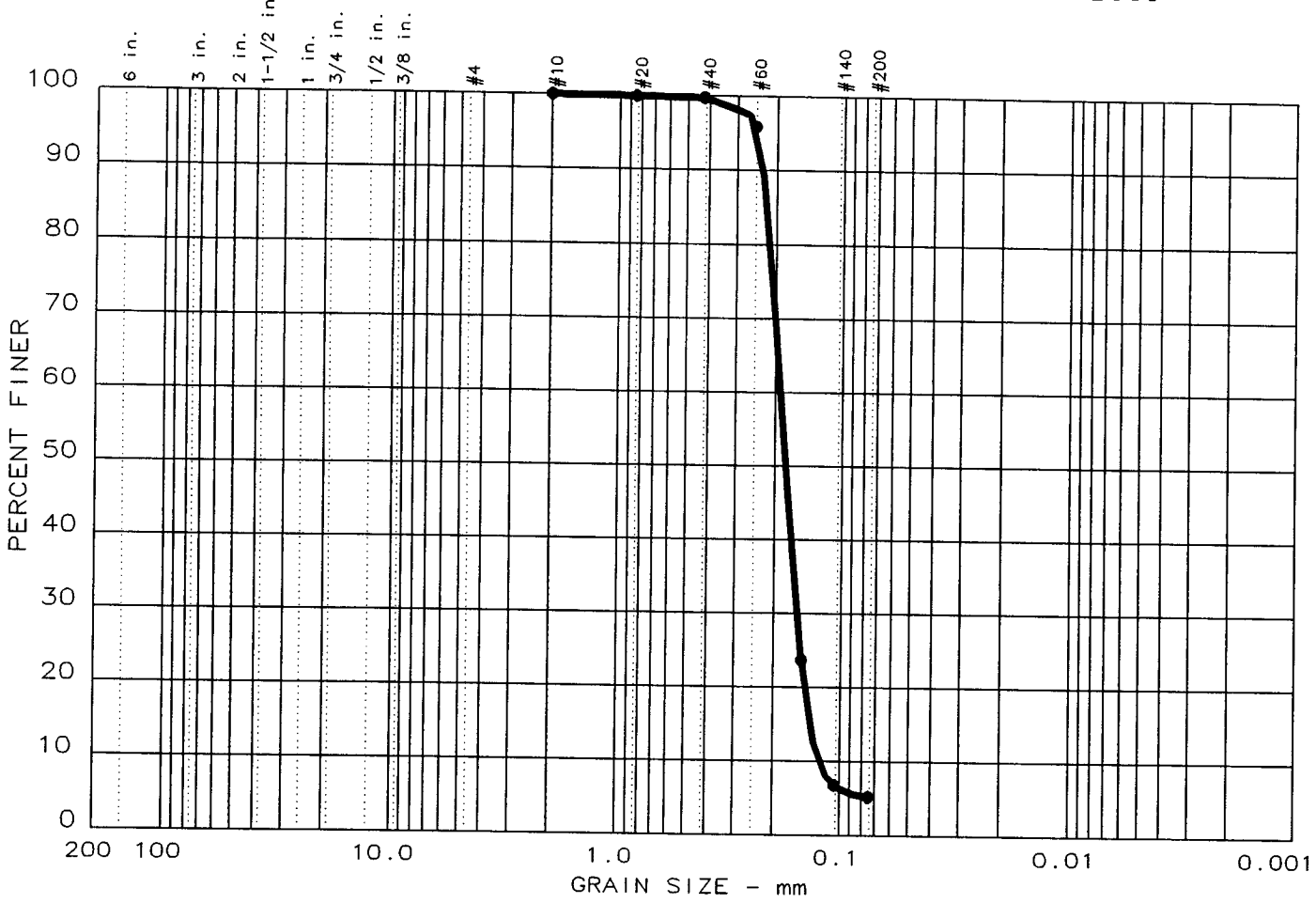
Client: U.S. Army Corps of Engineers

Project: Repairs to Levees and Floodwalls
at the 17th Street Canal
Location: Boring 5,
Sample 25-B, Depth 96.1', Elev. -94.7

UNCONFINED COMPRESSION TEST

Eustis Engineering Company, Inc.

PARTICLE SIZE DISTRIBUTION TEST REPORT



	% +3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PI
●	0.0	0.0	94.8	5.2		SP		

SIEVE inches size	PERCENT FINER ●		
	GRAIN SIZE		
D_{60}	0.19		
D_{30}	0.16		
D_{10}	0.12		
	COEFFICIENTS		
C_c	1.06		
C_u	1.5		

SIEVE number size	PERCENT FINER ●		
10	100.0		
20	99.8		
40	99.7		
60	95.8		
100	23.7		
140	6.8		
200	5.2		

Sample information:
● Boring 5, Sample 10
Gr SP

Remarks:
Sample depth 39.0'

Eustis Engineering Company, Inc.

Project No.: 19080
Project: USACE - 17TH Street Canal

Date: 11-21-05 Data Sheet No. ____

PARTICLE SIZE DISTRIBUTION TEST REPORT

	% +3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PI
●	0.0	1.4	86.1	12.5		SM1		

SIEVE inches size	PERCENT FINER ●		
0.75	100.0		
0.5	99.6		
0.375	99.4		
	GRAIN SIZE		
D_{60}	0.15		
D_{30}	0.12		
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ●		
4	98.6		
10	96.5		
20	93.3		
40	90.3		
60	86.1		
100	60.5		
140	21.4		
200	12.5		

Sample information:
● Boring 5, Sample 26C
Gr SM1 W/ SIF

Remarks:
Sample depth 100.7'

Eustis Engineering Company, Inc.

Project No.: 19080
Project: USACE - 17TH Street Canal

Date: 11-21-05 Data Sheet No. ——