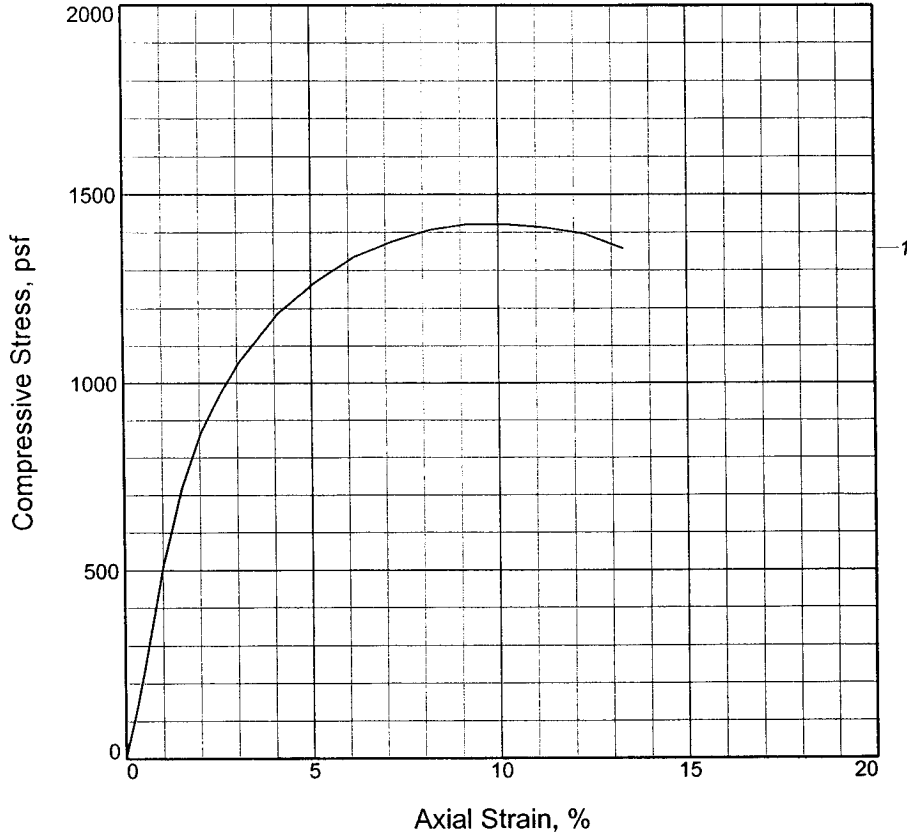


UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	1421.2			
Undrained shear strength, psf	710.6			
Failure strain, %	9.2			
Strain rate, in./min.	0.057			
Water content, %	40.3			
Wet density, pcf	109.1			
Dry density, pcf	77.7			
Saturation, %	92.7			
Void ratio	1.1840			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: M GR CH3 W/ LNS & LYS ML

LL = PL = PI = Assumed GS= 2.72 Type: UNDISTURBED

Project No.: 19082
Date: 10-28-05
Remarks:
 TORVANE = 0.550 TSF

Client: URS Corporation
Project: U.S. Army Corps of Engineers
 Inner Harbor Navigational Canal
Source of Sample: B-8G **Depth:** 2.5
Sample Number: 3

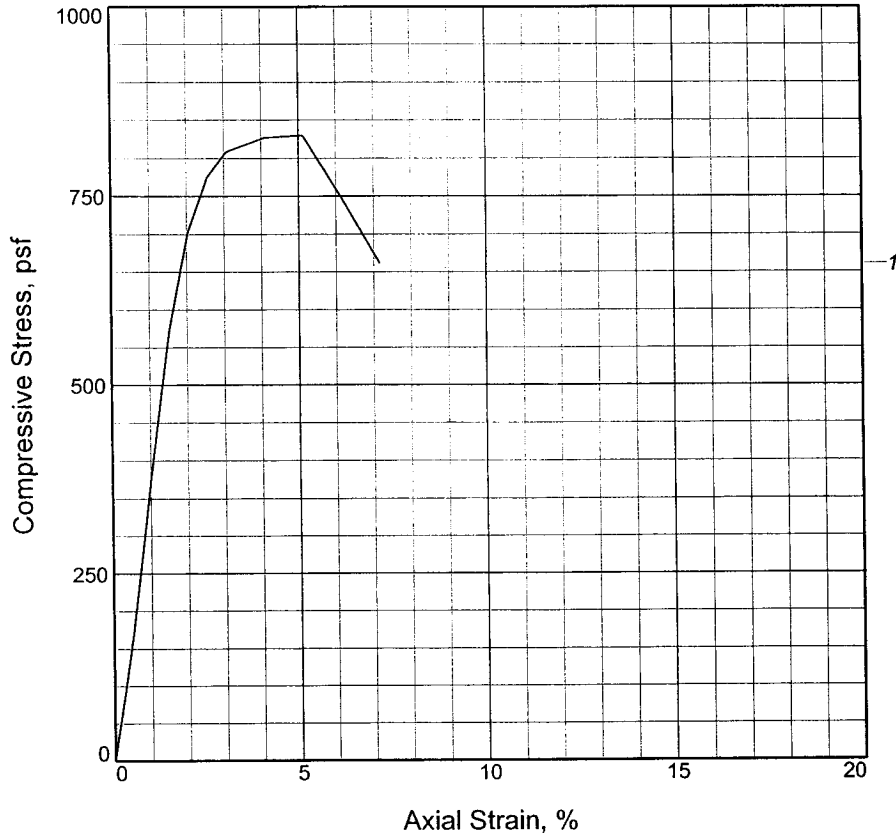
UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	830.1			
Undrained shear strength, psf	415.1			
Failure strain, %	5.1			
Strain rate, in./min.	0.057			
Water content, %	53.7			
Wet density, pcf	103.6			
Dry density, pcf	67.4			
Saturation, %	95.8			
Void ratio	1.5376			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO GR CH4 W/ SL

LL = **PL =** **PI =** **Assumed GS= 2.74** **Type: UNDISTURBED**

Project No.: 19082
Date: 10-28-05
Remarks:
 TORVANE = 0.400 TSF

Client: URS Corporation
Project: U.S. Army Corps of Engineers
 Inner Harbor Navigational Canal
Source of Sample: B-8G **Depth:** 5.0
Sample Number: 4

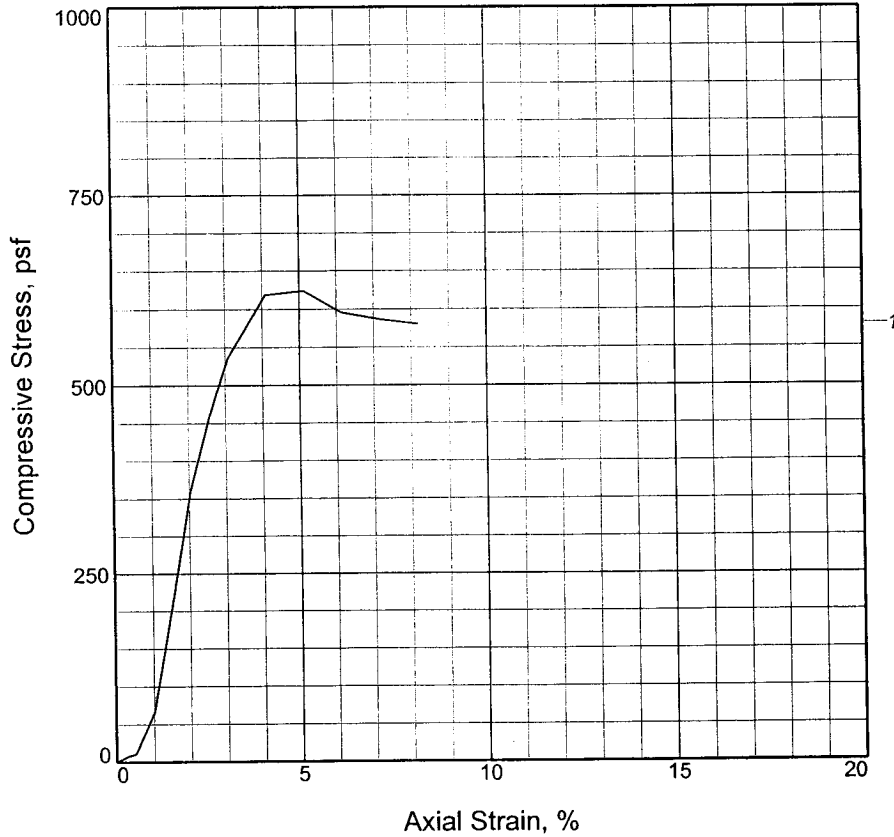
UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH **Checked By:** RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	623.8			
Undrained shear strength, psf	311.9			
Failure strain, %	5.1			
Strain rate, in./min.	0.059			
Water content, %	111.3			
Wet density, pcf	84.6			
Dry density, pcf	40.1			
Saturation, %	95.4			
Void ratio	2.9742			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO DGR & GR CHOA W/ WD

LL = PL = PI = Assumed GS= 2.55 Type: UNDISTURBED

Project No.: 19082

Date: 10-28-05

Remarks:

TORVANE = 0.330 TSF

Client: URS Corporation

Project: U.S. Army Corps of Engineers
Inner Harbor Navigational Canal

Source of Sample: B-8G **Depth:** 10.0

Sample Number: 6

UNCONFINED COMPRESSION TEST

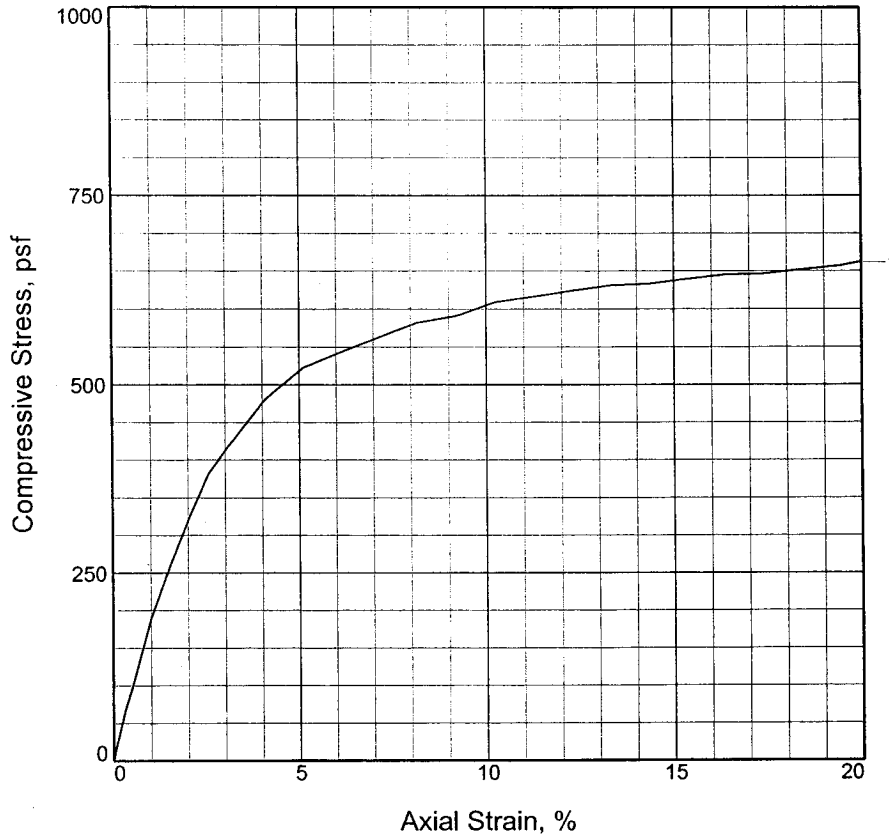
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH

Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	661.5			
Undrained shear strength, psf	330.8			
Failure strain, %	20.0			
Strain rate, in./min.	0.089			
Water content, %	186.5			
Wet density, pcf	73.5			
Dry density, pcf	25.6			
Saturation, %	91.3			
Void ratio	5.2071			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO DGR & GR CHOB W/ WD

LL = **PL =** **PI =** **Assumed GS= 2.55** **Type: UNDISTURBED**

Project No.: 19082
Date: 10-28-05
Remarks:
 TORVANE = 0.180 TSF

Client: URS Corporation
Project: U.S. Army Corps of Engineers
 Inner Harbor Navigational Canal
Source of Sample: B-8G **Depth:** 15.0
Sample Number: 8

UNCONFINED COMPRESSION TEST

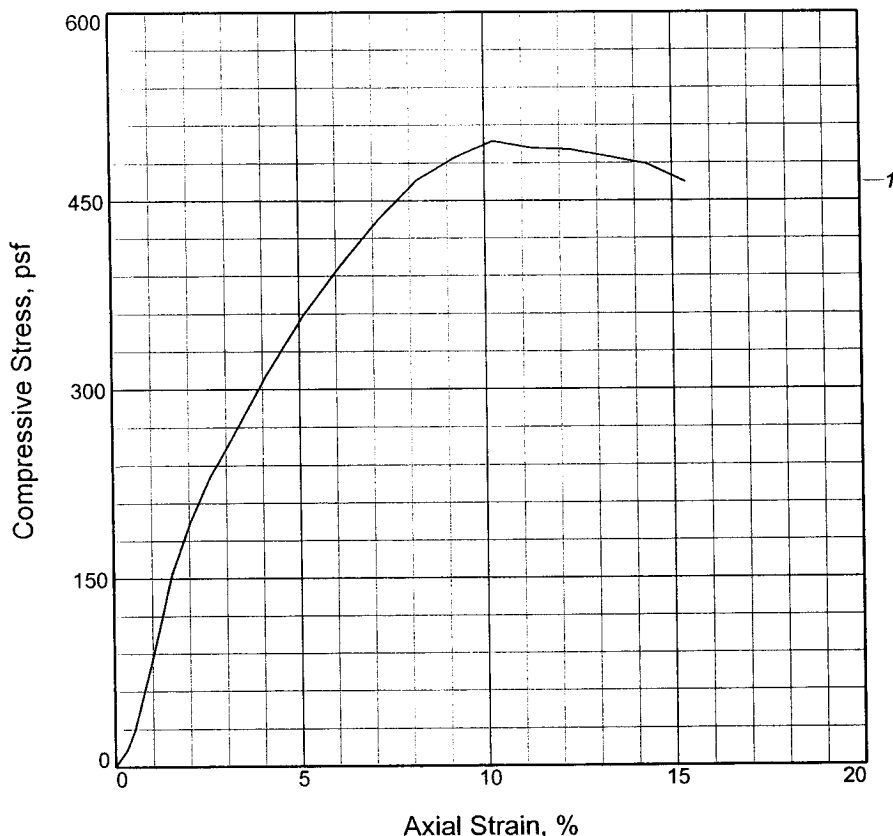
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH

Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1		
Unconfined strength, psf	497.2		
Undrained shear strength, psf	248.6		
Failure strain, %	10.2		
Strain rate, in./min.	0.058		
Water content, %	70.2		
Wet density, pcf	97.8		
Dry density, pcf	57.5		
Saturation, %	97.7		
Void ratio	1.9549		
Specimen diameter, in.	1.388		
Specimen height, in.	2.930		
Height/diameter ratio	2.11		

Description: VSO GR CH3 W/ LNS & LYS SM

LL = PL = PI = Assumed GS= 2.72 Type: UNDISTURBED

Project No.: 19082

Date: 10-28-05

Remarks:

TORVANE = 0.170 TSF

Client: URS Corporation

Project: U.S. Army Corps of Engineers
Inner Harbor Navigational Canal

Source of Sample: B-8G **Depth:** 20.0

Sample Number: 10

UNCONFINED COMPRESSION TEST

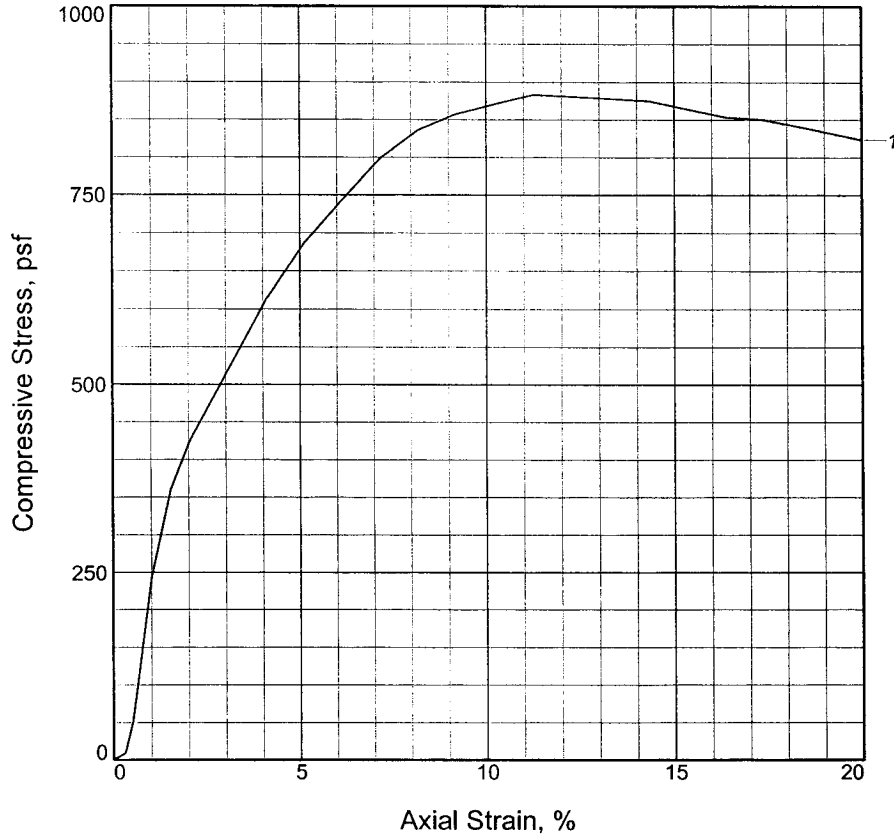
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH _____

Checked By: RNE _____

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	883.3			
Undrained shear strength, psf	441.7			
Failure strain, %	11.3			
Strain rate, in./min.	0.572			
Water content, %	61.7			
Wet density, pcf	99.6			
Dry density, pcf	61.6			
Saturation, %	95.1			
Void ratio	1.7780			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO GR CH4 W/ LNS SM

LL = PL = PI = Assumed GS= 2.74 Type: UNDISTURBED

Project No.: 19082

Date: 10-28-05

Remarks:
TORVANE = 0.240 TSF

Client: URS Corporation

Project: U.S. Army Corps of Engineers
Inner Harbor Navigational Canal

Source of Sample: B-8G **Depth:** 25.0

Sample Number: 12

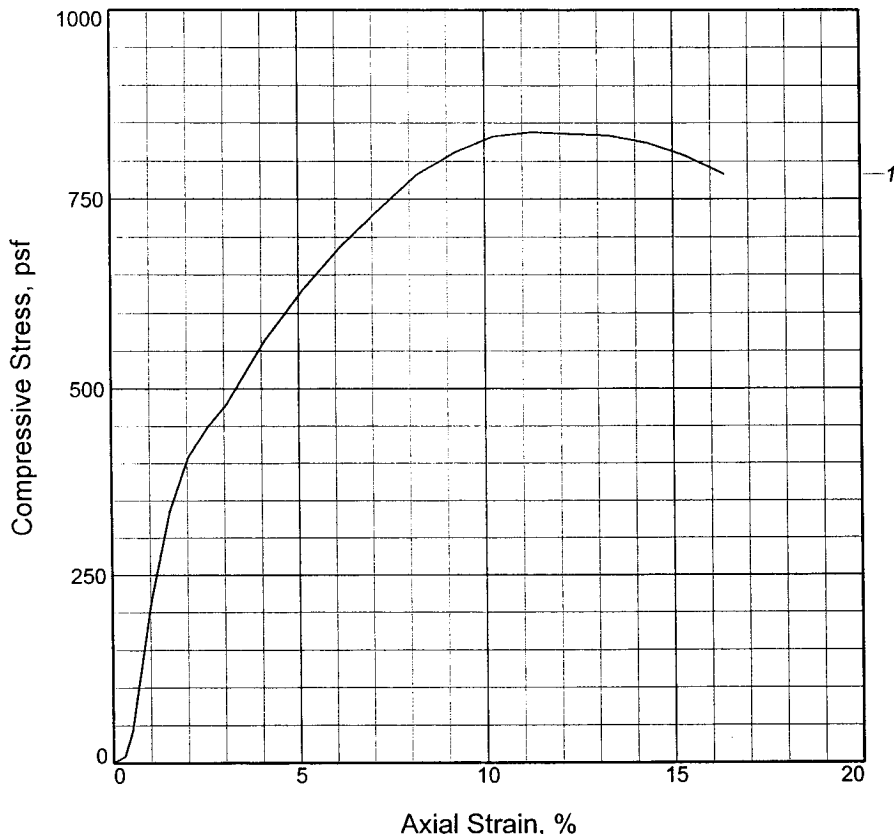
UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	838.0			
Undrained shear strength, psf	419.0			
Failure strain, %	11.3			
Strain rate, in./min.	0.057			
Water content, %	68.6			
Wet density, pcf	96.8			
Dry density, pcf	57.4			
Saturation, %	94.9			
Void ratio	1.9795			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO GR CH4 W/ SL

LL =	PL =	PI =	Assumed GS= 2.74	Type: UNDISTURBED
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Project No.: 19082

Date: 10-28-05

Remarks:
TORVANE = 0.250 TSF

Client: URS Corporation

Project: U.S. Army Corps of Engineers
Inner Harbor Navigational Canal

Source of Sample: B-8G **Depth:** 30.0

Sample Number: 14

UNCONFINED COMPRESSION TEST

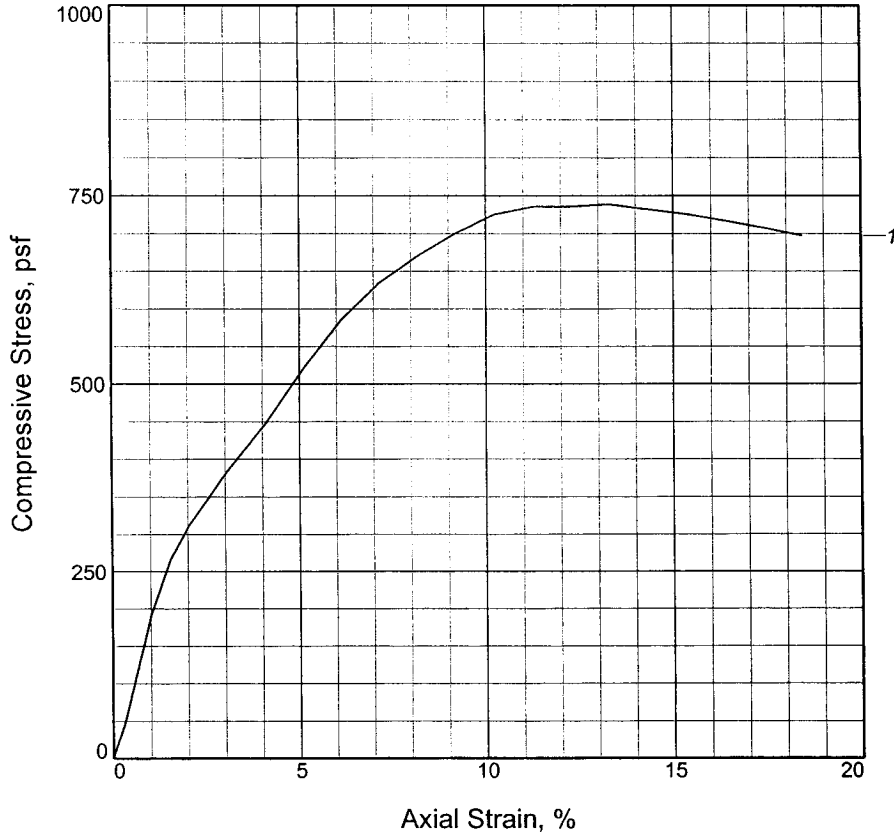
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH

Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	738.3			
Undrained shear strength, psf	369.1			
Failure strain, %	13.3			
Strain rate, in./min.	0.058			
Water content, %	66.7			
Wet density, pcf	98.1			
Dry density, pcf	58.8			
Saturation, %	95.9			
Void ratio	1.9067			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO GR CH4 W/ SL

LL =	PL =	PI =	Assumed GS= 2.74	Type: UNDISTURBED
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Project No.: 19082

Date: 10-28-05

Remarks:

TORVANE = 0.250 TSF

Client: URS Corporation

Project: U.S. Army Corps of Engineers

Inner Harbor Navigational Canal

Source of Sample: B-8G **Depth:** 35.0

Sample Number: 16

UNCONFINED COMPRESSION TEST

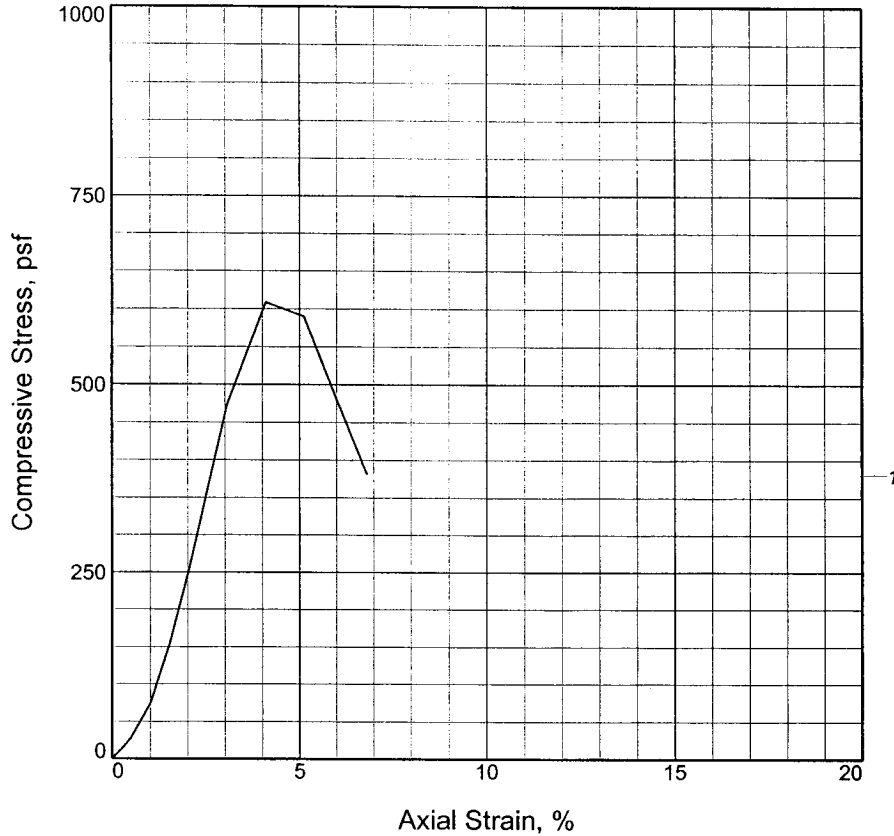
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH

Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	608.2			
Undrained shear strength, psf	304.1			
Failure strain, %	4.1			
Strain rate, in./min.	0.058			
Water content, %	24.3			
Wet density, pcf	120.2			
Dry density, pcf	96.7			
Saturation, %	88.7			
Void ratio	0.7374			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO GR CL3 W/ SIF

LL =	PL =	PI =	Assumed GS= 2.69	Type: UNDISTURBED
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Project No.: 19082

Date: 10-28-05

Remarks:

TORVANE = 0.160 TSF

Client: URS Corporation

Project: U.S. Army Corps of Engineers
Inner Harbor Navigational Canal

Source of Sample: B-8G **Depth:** 45.0

Sample Number: 20

UNCONFINED COMPRESSION TEST

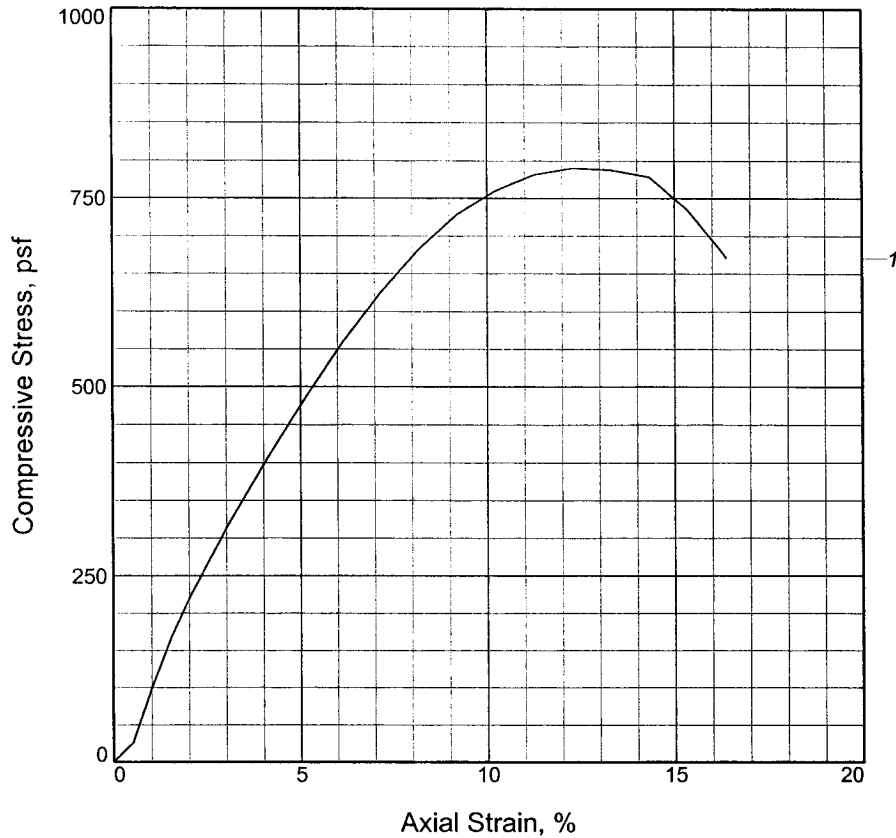
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH

Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	790.1			
Undrained shear strength, psf	395.1			
Failure strain, %	12.3			
Strain rate, in./min.	0.058			
Water content, %	32.2			
Wet density, pcf	114.3			
Dry density, pcf	86.4			
Saturation, %	91.5			
Void ratio	0.9499			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO GR CH2 W/ SIF

LL =	PL =	PI =	Assumed GS= 2.70	Type: UNDISTURBED
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Project No.: 19082

Date: 10-28-05

Remarks:

TORVANE = 0.250 TSF

Client: URS Corporation

Project: U.S. Army Corps of Engineers

Inner Harbor Navigational Canal

Source of Sample: B-8G **Depth:** 58.5

Sample Number: 26

UNCONFINED COMPRESSION TEST

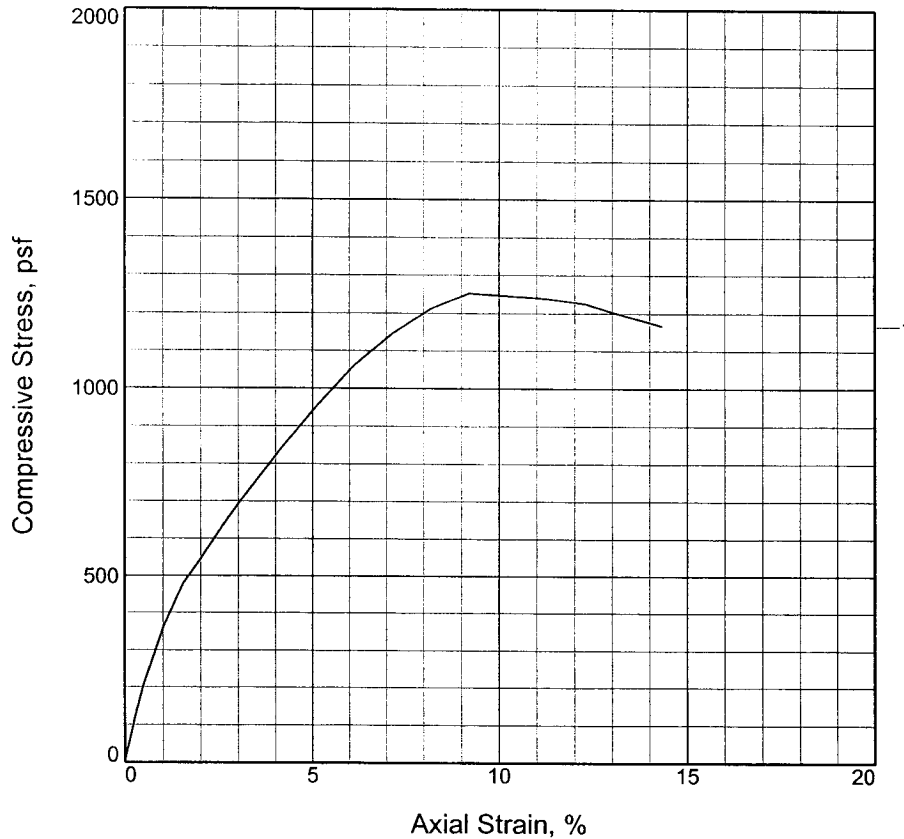
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH

Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1		
Unconfined strength, psf	1251.3		
Undrained shear strength, psf	625.6		
Failure strain, %	9.2		
Strain rate, in./min.	0.058		
Water content, %	33.4		
Wet density, pcf	114.3		
Dry density, pcf	85.7		
Saturation, %	93.2		
Void ratio	0.9675		
Specimen diameter, in.	1.388		
Specimen height, in.	2.930		
Height/diameter ratio	2.11		

Description: M GR CH2 W/ SIF

LL = PL = PI = Assumed GS= 2.70 Type: UNDISTURBED

Project No.: 19082

Date: 10-28-05

Remarks:

TORVANE = 0.200 TSF

Client: URS Corporation

Project: U.S. Army Corps of Engineers
Inner Harbor Navigational Canal

Source of Sample: B-8G **Depth:** 60.0

Sample Number: 27

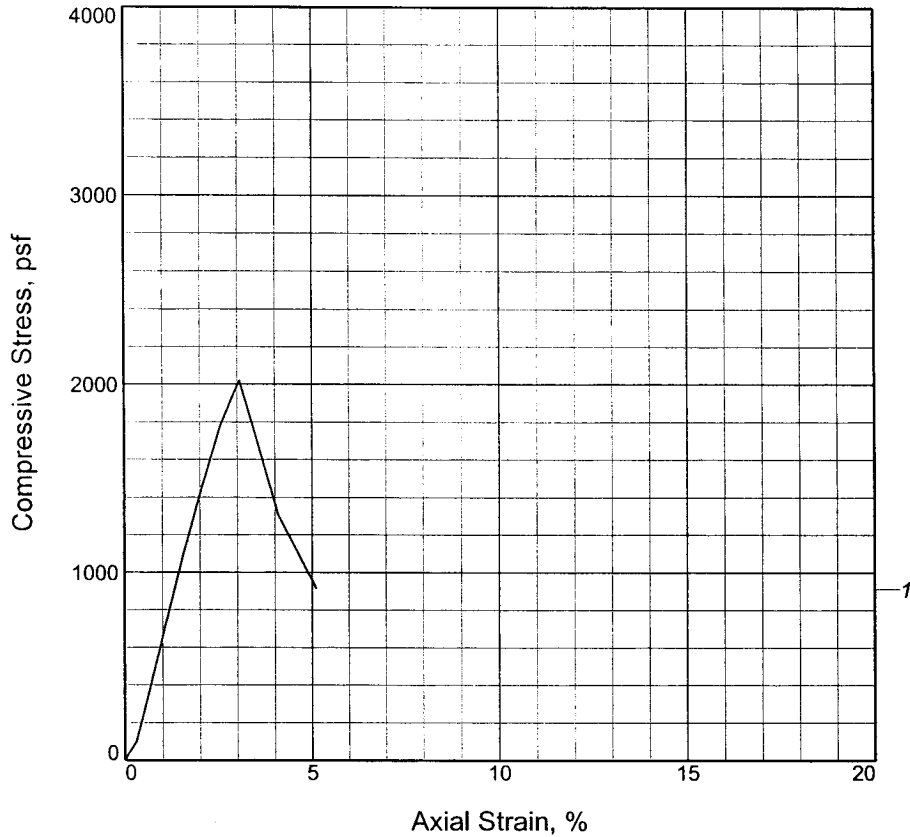
UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	2020.4			
Undrained shear strength, psf	1010.2			
Failure strain, %	3.1			
Strain rate, in./min.	0.058			
Water content, %	28.2			
Wet density, pcf	118.7			
Dry density, pcf	92.6			
Saturation, %	91.9			
Void ratio	0.8346			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: ST LGR CH3 W/ LNS & LYS ML, SL

LL = PL = PI = Assumed GS= 2.72 Type: UNDISTURBED

Project No.: 19082
Date: 10-28-05
Remarks:
 TORVANE = 0.370 TSF

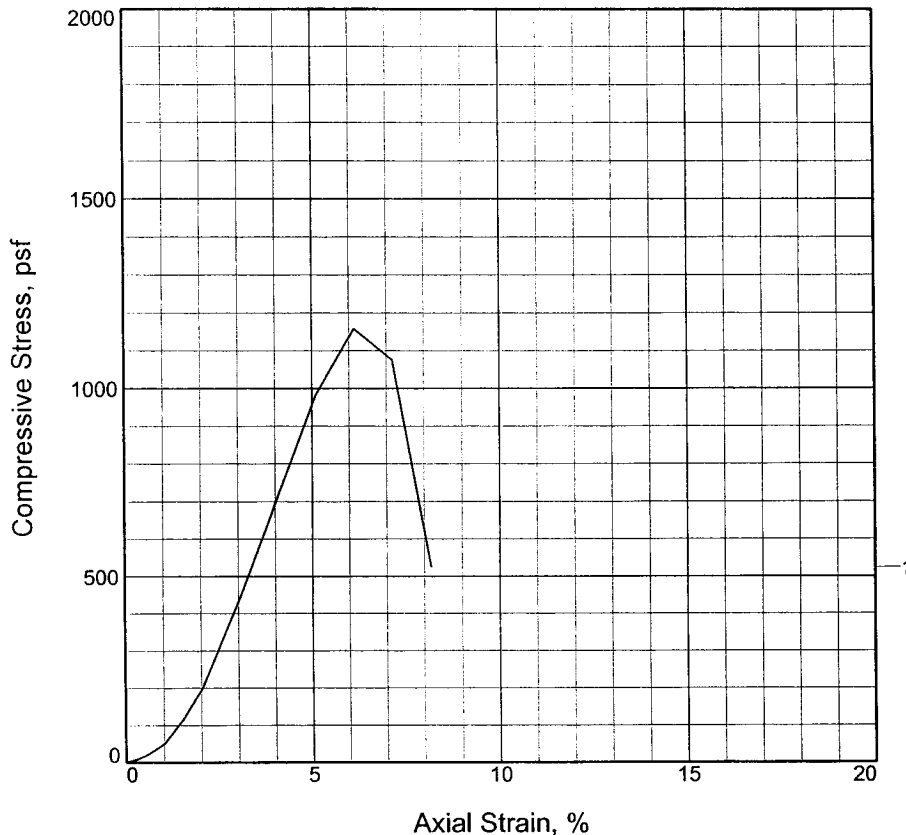
Client: URS Corporation
Project: U.S. Army Corps of Engineers
 Inner Harbor Navigational Canal
Source of Sample: B-8G **Depth:** 65.0
Sample Number: 29

UNCONFINED COMPRESSION TEST
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	1157.9			
Undrained shear strength, psf	578.9			
Failure strain, %	6.1			
Strain rate, in./min.	0.058			
Water content, %	27.0			
Wet density, pcf	120.7			
Dry density, pcf	95.0			
Saturation, %	94.7			
Void ratio	0.7681			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: M LGR CL4

LL =	PL =	PI =	Assumed GS= 2.69	Type: UNDISTURBED
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Project No.: 19082

Date: 10-28-05

Remarks:
TORVANE = 0.250 TSF

Client: URS Corporation

Project: U.S. Army Corps of Engineers
Inner Harbor Navigational Canal

Source of Sample: B-8G **Depth:** 70.0

Sample Number: 31

UNCONFINED COMPRESSION TEST

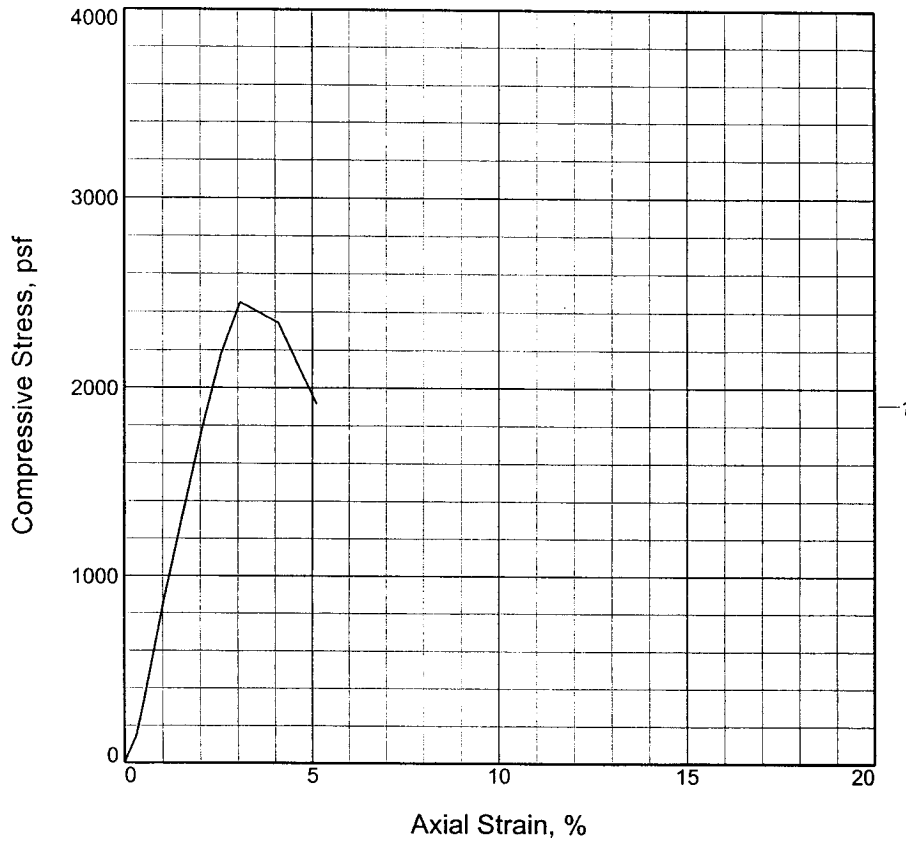
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH

Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1		
Unconfined strength, psf	2449.3		
Undrained shear strength, psf	1224.6		
Failure strain, %	3.1		
Strain rate, in./min.	0.058		
Water content, %	32.2		
Wet density, pcf	117.8		
Dry density, pcf	89.1		
Saturation, %	96.8		
Void ratio	0.9063		
Specimen diameter, in.	1.388		
Specimen height, in.	2.930		
Height/diameter ratio	2.11		

Description: ST LGR & T CH4 W/ ARS ML, CC, SL

LL = PL = PI = Assumed GS= 2.72 Type: UNDISTURBED

Project No.: 19082
Date: 10-28-05
Remarks:
 TORVANE = 0.530 TSF

Client: URS Corporation
Project: U.S. Army Corps of Engineers
 Inner Harbor Navigational Canal
Source of Sample: B-8G **Depth:** 75.0
Sample Number: 33

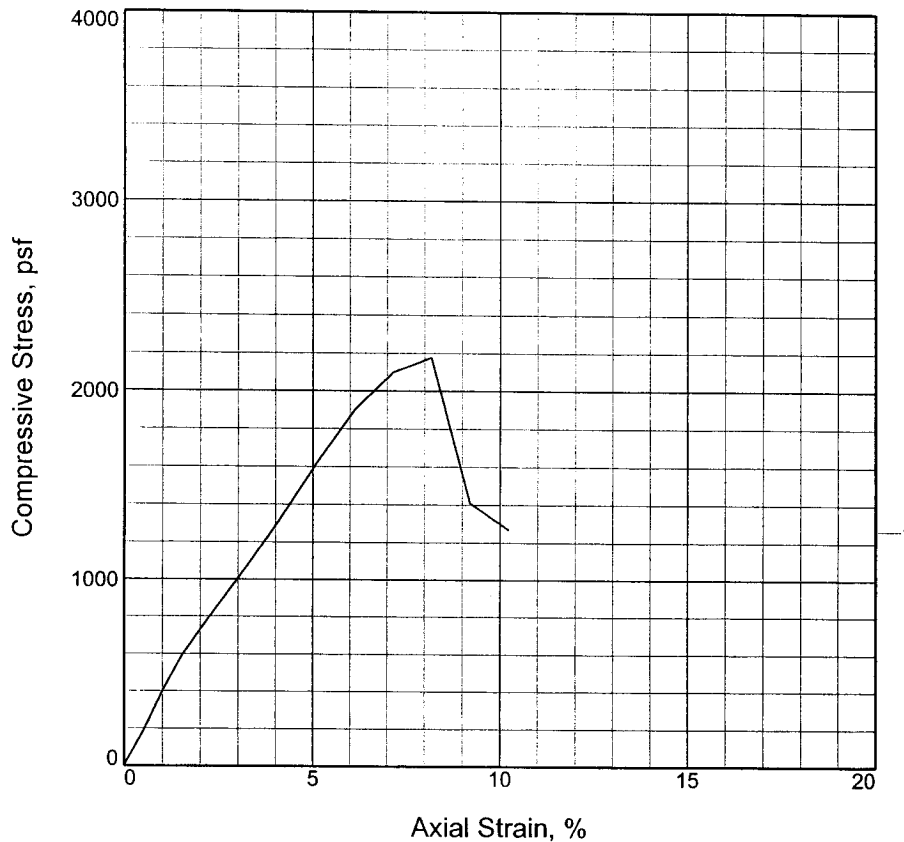
UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	2176.9			
Undrained shear strength, psf	1088.5			
Failure strain, %	8.2			
Strain rate, in./min.	0.587			
Water content, %	53.6			
Wet density, pcf	103.8			
Dry density, pcf	67.5			
Saturation, %	95.9			
Void ratio	1.5331			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: ST GR CH4 W/ SIF, SL

LL = PL = PI = Assumed GS= 2.74 Type: UNDISTURBED

Project No.: 19082

Date: 10-28-05

Remarks:

TORVANE = 0.420 TSF

Client: URS Corporation

Project: U.S. Army Corps of Engineers
Inner Harbor Navigational Canal

Source of Sample: B-8G **Depth:** 85.0

Sample Number: 37

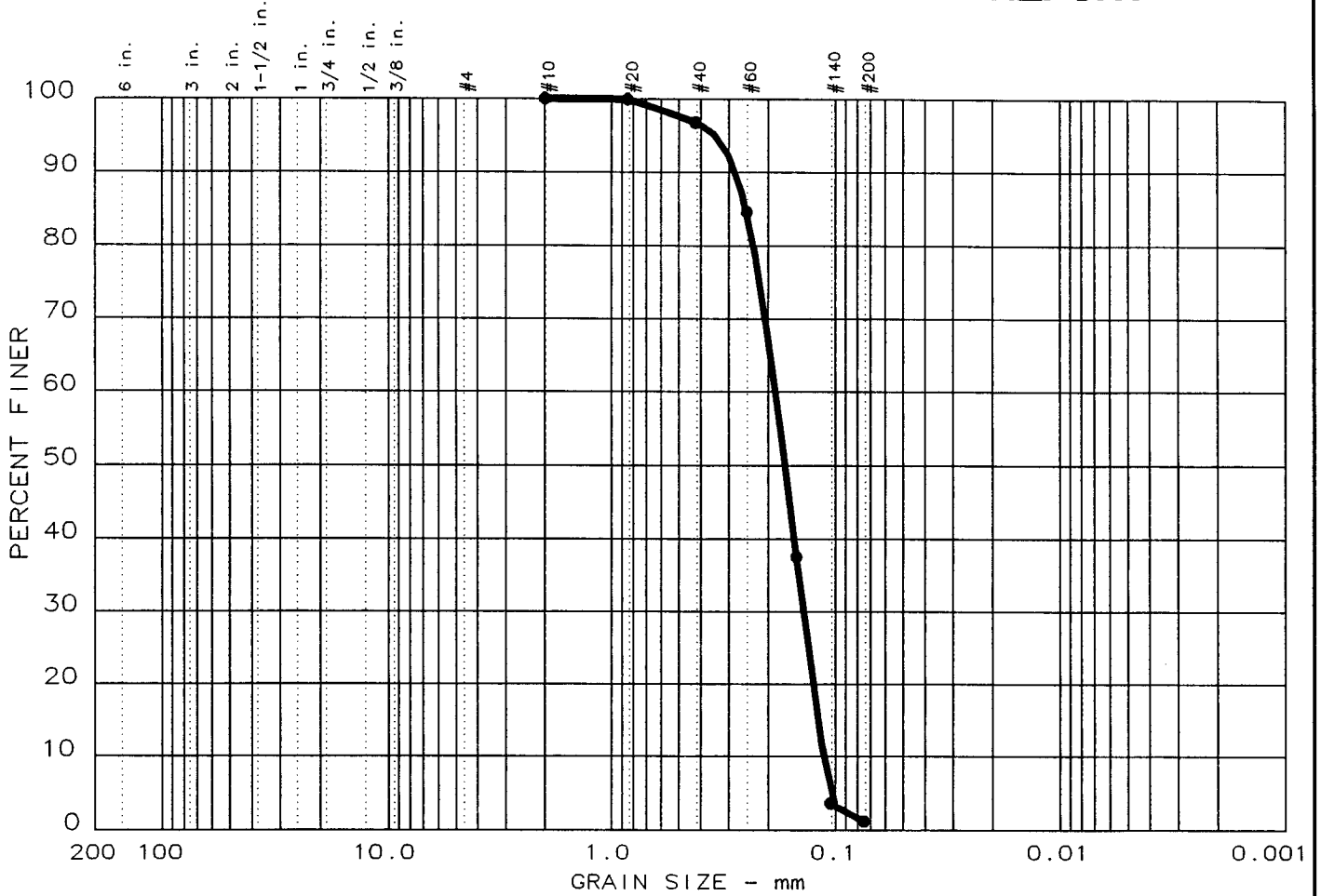
UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH Checked By: RNE

PARTICLE SIZE DISTRIBUTION TEST REPORT



% +3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PI
0.0	0.0	98.9	1.1		SP		

SIEVE inches size	PERCENT FINER		
	●		
X	GRAIN SIZE		
D ₆₀	0.19		
D ₃₀	0.14		
D ₁₀	0.11		
X	COEFFICIENTS		
C _c	0.92		
C _u	1.6		

SIEVE number size	PERCENT FINER		
	●		
10	100.0		
20	99.9		
40	96.8		
60	84.6		
100	37.5		
140	3.6		
200	1.1		

Sample information:
 ● Boring 8, Sample 22
 BR SP

Remarks:
 Sample depth 50.0'-52.5'

**Eustis
Engineering
Company, Inc.**

Project No.: 19082
 Project: USACE-IHNC (Gulf Intracoastal Waterway)
 Date: 11-3-05 Data Sheet No. _____