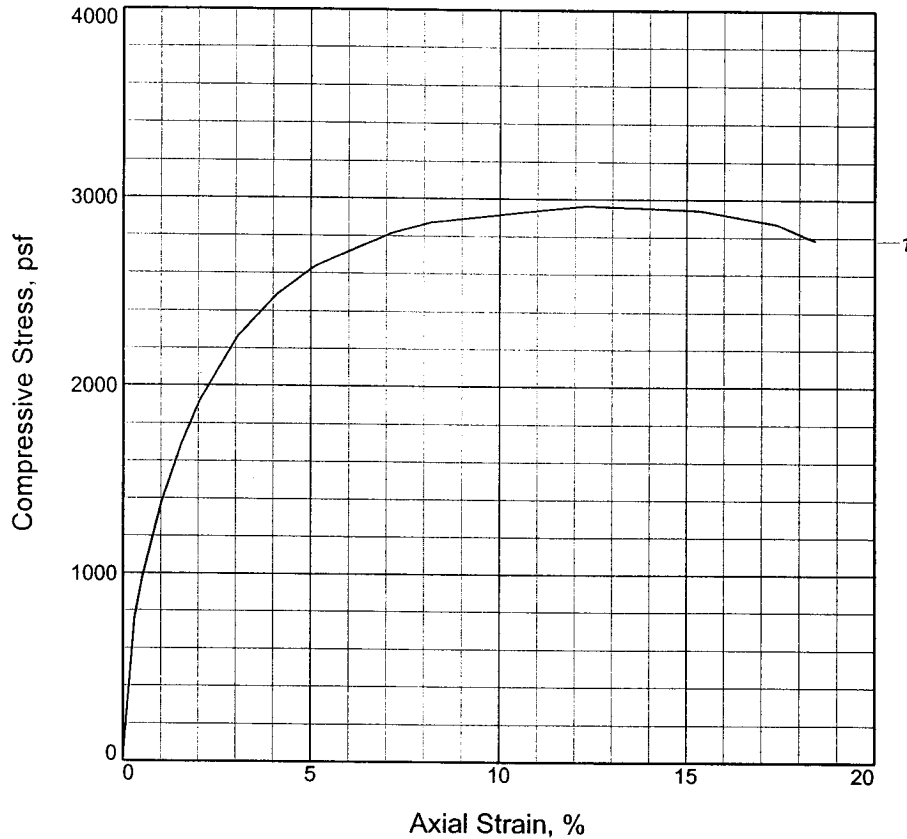


# UNCONFINED COMPRESSION TEST



Specimen No.	1		
Unconfined strength, psf	2963.6		
Undrained shear strength, psf	1481.8		
Failure strain, %	12.3		
Strain rate, in./min.	0.058		
Water content, %	31.7		
Wet density, pcf	113.8		
Dry density, pcf	86.4		
Saturation, %	88.6		
Void ratio	0.9800		
Specimen diameter, in.	1.388		
Specimen height, in.	2.930		
Height/diameter ratio	2.11		

**Description:** ST GR & T CH3 W/ LNS & LYS ML, RT

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

**Project No.:** 19082

**Date:** 11-8-05

**Remarks:**

TORVANE = 0.925 TSF

**Client:** URS Corporation

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

**Source of Sample:** B-7WG      **Depth:** 0.0

**Sample Number:** 1

UNCONFINED COMPRESSION TEST

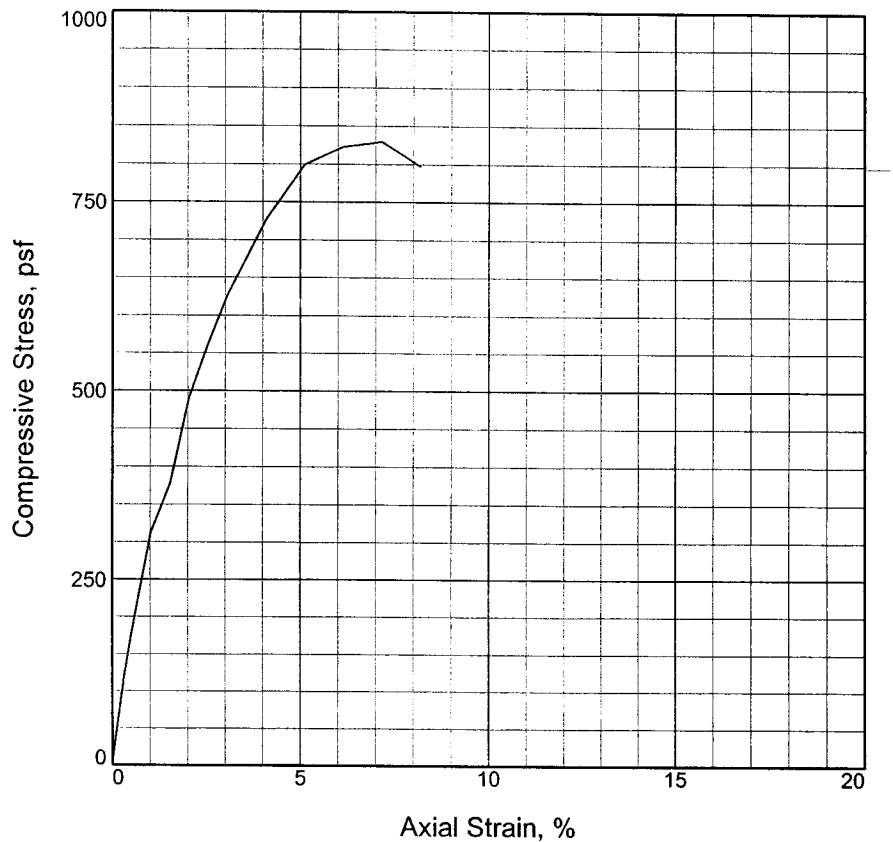
**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1

Tested By: ZH      Checked By: JS



# UNCONFINED COMPRESSION TEST



Specimen No.	1		
Unconfined strength, psf	829.3		
Undrained shear strength, psf	414.7		
Failure strain, %	7.2		
Strain rate, in./min.	0.058		
Water content, %	68.9		
Wet density, pcf	97.6		
Dry density, pcf	57.8		
Saturation, %	96.3		
Void ratio	1.9602		
Specimen diameter, in.	1.388		
Specimen height, in.	2.930		
Height/diameter ratio	2.11		

**Description:** SO GR & DGR CH4 W/ LNS SM, WD

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

**Project No.:** 19082

**Date:** 11-8-05

**Remarks:**

TORVANE = 0.380 TSF

**Client:** URS Corporation

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

**Source of Sample:** B-7WG      **Depth:** 5.0

**Sample Number:** 3

UNCONFINED COMPRESSION TEST

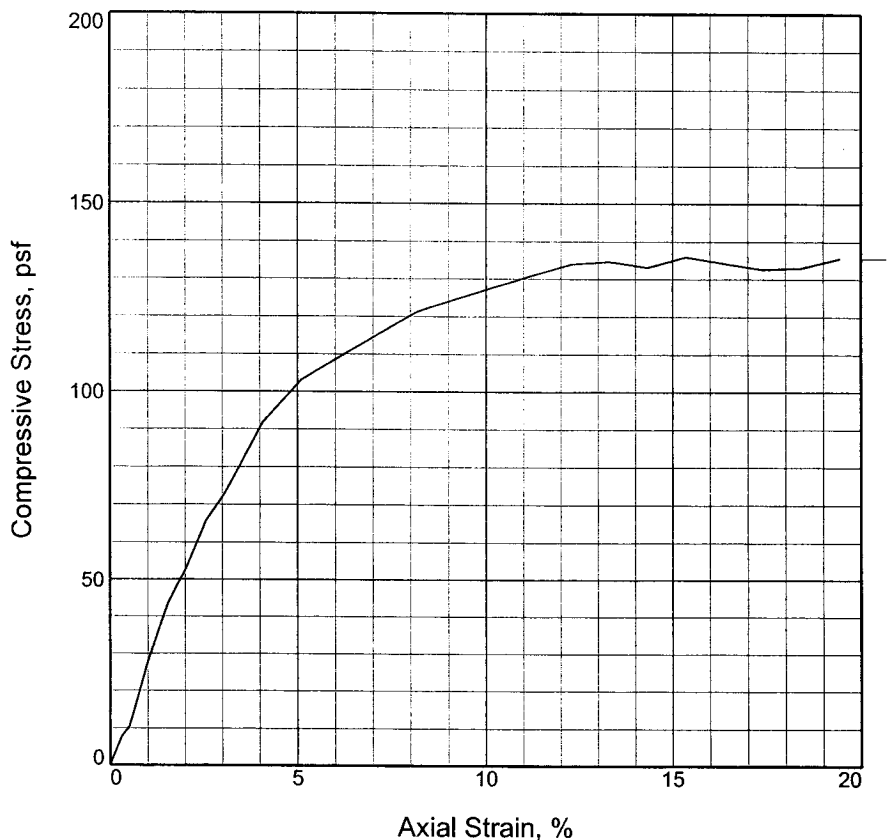
**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1

Tested By: ZH

Checked By: JS

# UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	134.6			
Undrained shear strength, psf	67.3			
Failure strain, %	13.3			
Strain rate, in./min.	0.059			
Water content, %	117.3			
Wet density, pcf	84.5			
Dry density, pcf	38.9			
Saturation, %	95.5			
Void ratio	3.2534			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

**Description:** VSO DGR & GR CHOB W/ WD

LL =      PL =      PI =      Assumed GS= 2.65      Type: UNDISTURBED

**Project No.:** 19082

**Date:** 11-8-05

**Remarks:**

**Client:** URS Corporation

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

**Source of Sample:** B-7WG      **Depth:** 7.5

**Sample Number:** 4

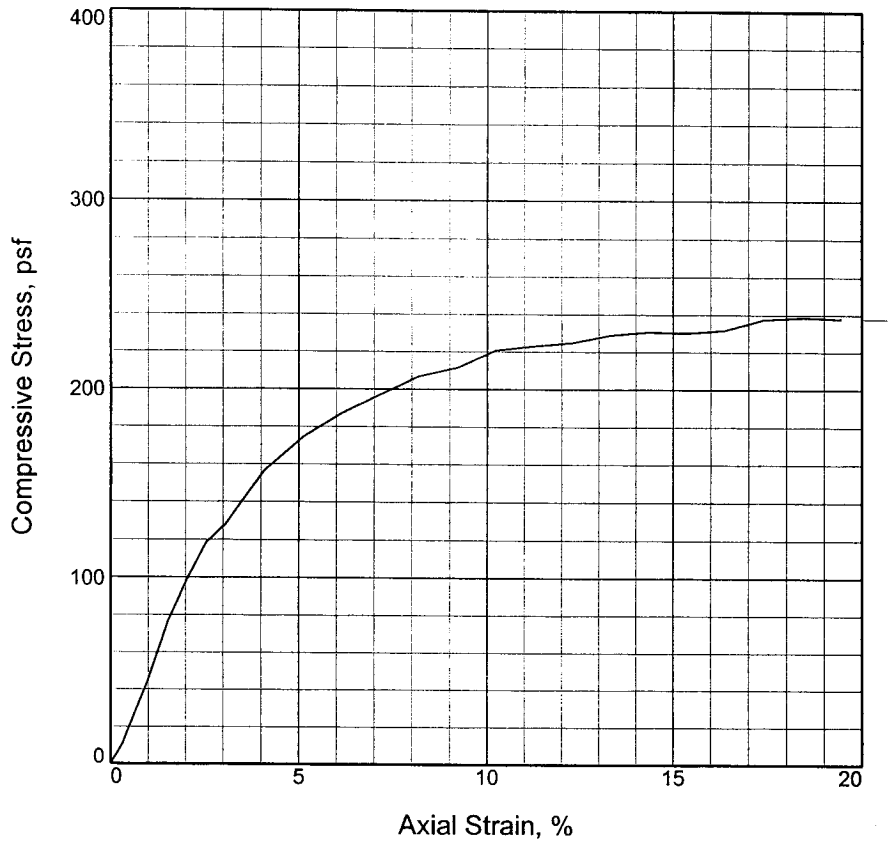
UNCONFINED COMPRESSION TEST

**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1

Tested By: ZH      Checked By: JS

# UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	230.6			
Undrained shear strength, psf	115.3			
Failure strain, %	14.3			
Strain rate, in./min.	0.059			
Water content, %	67.2			
Wet density, pcf	99.6			
Dry density, pcf	59.6			
Saturation, %	98.4			
Void ratio	1.8710			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

**Description:** VSO GR CH4 W/ LNS ML, RT

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

**Date:** 11-8-05

**Remarks:**

**Client:** URS Corporation

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

**Source of Sample:** B-7WG      **Depth:** 12.5

**Sample Number:** 6

UNCONFINED COMPRESSION TEST

**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1

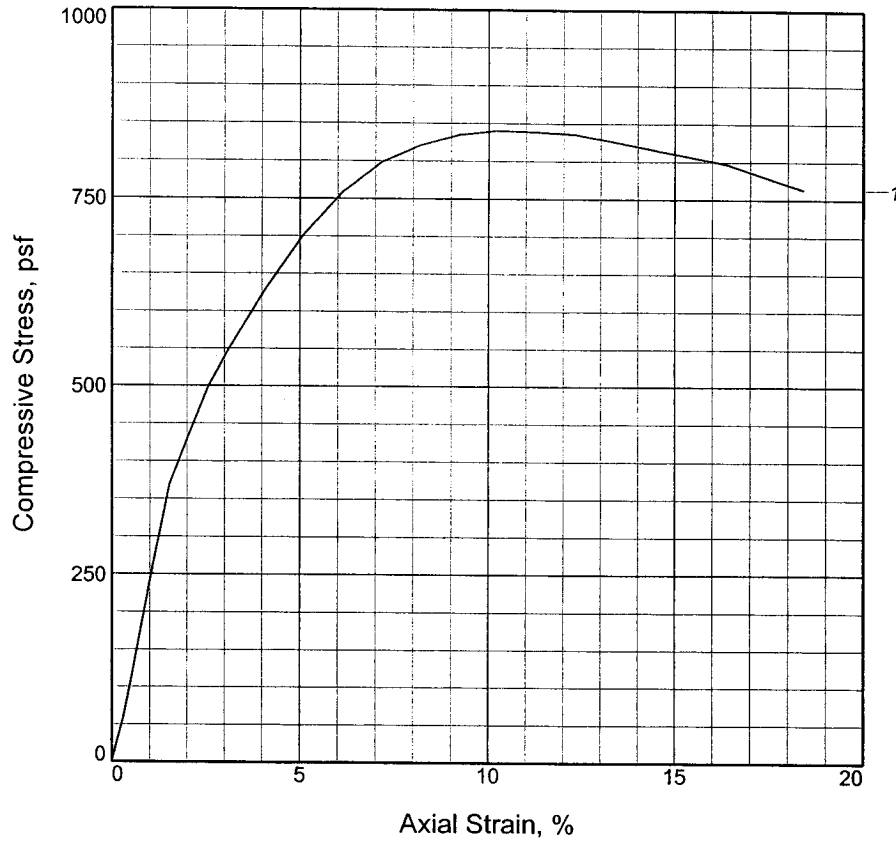
Tested By: ZH

Checked By: JS





# UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	840.1			
Undrained shear strength, psf	420.0			
Failure strain, %	10.2			
Strain rate, in./min.	0.058			
Water content, %	74.1			
Wet density, pcf	95.1			
Dry density, pcf	54.7			
Saturation, %	95.3			
Void ratio	2.1299			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

**Description:** SO GR CH4 W/ LNS SM, SL

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

**Project No.:** 19082

**Date:** 11-8-05

**Remarks:**  
TORVANE = 0.260 TSF

**Client:** URS Corporation

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

**Source of Sample:** B-7WG      **Depth:** 37.5

**Sample Number:** 16

UNCONFINED COMPRESSION TEST

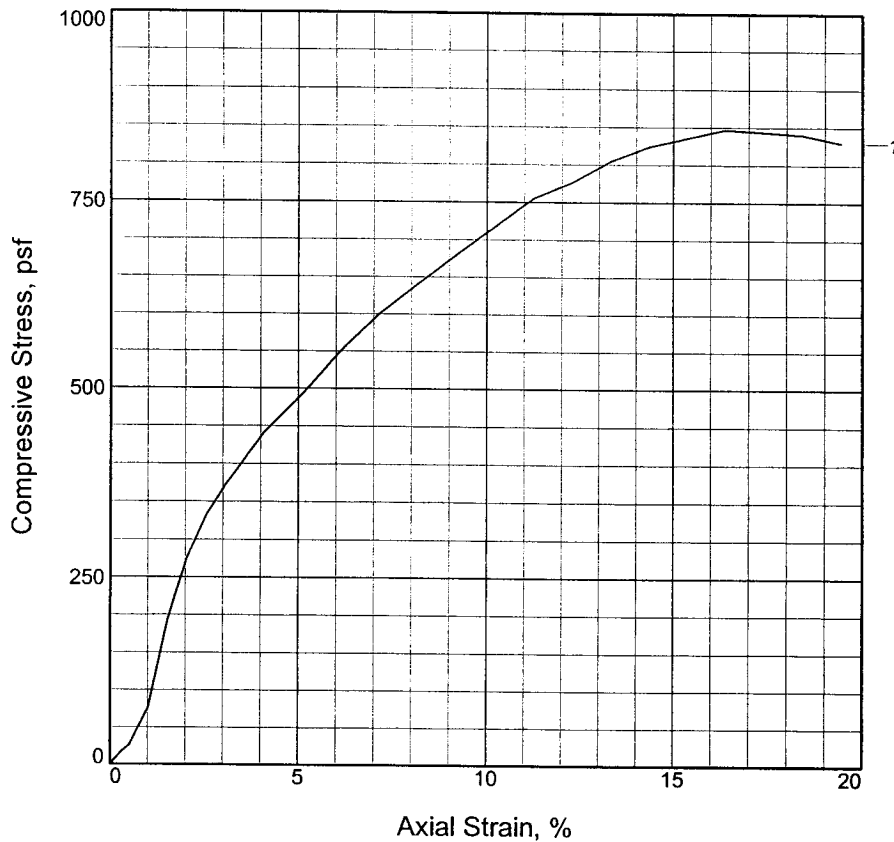
**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1

Tested By: JL      Checked By: JS



# UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	846.6			
Undrained shear strength, psf	423.3			
Failure strain, %	16.4			
Strain rate, in./min.	0.058			
Water content, %	72.8			
Wet density, pcf	95.4			
Dry density, pcf	55.2			
Saturation, %	95.1			
Void ratio	2.0969			
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:** 11-8-05

**Remarks:**

TORVANE = 0.300 TSF

**Client:** URS Corporation

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

**Source of Sample:** B-7WG      **Depth:** 42.5

**Sample Number:** 18

UNCONFINED COMPRESSION TEST

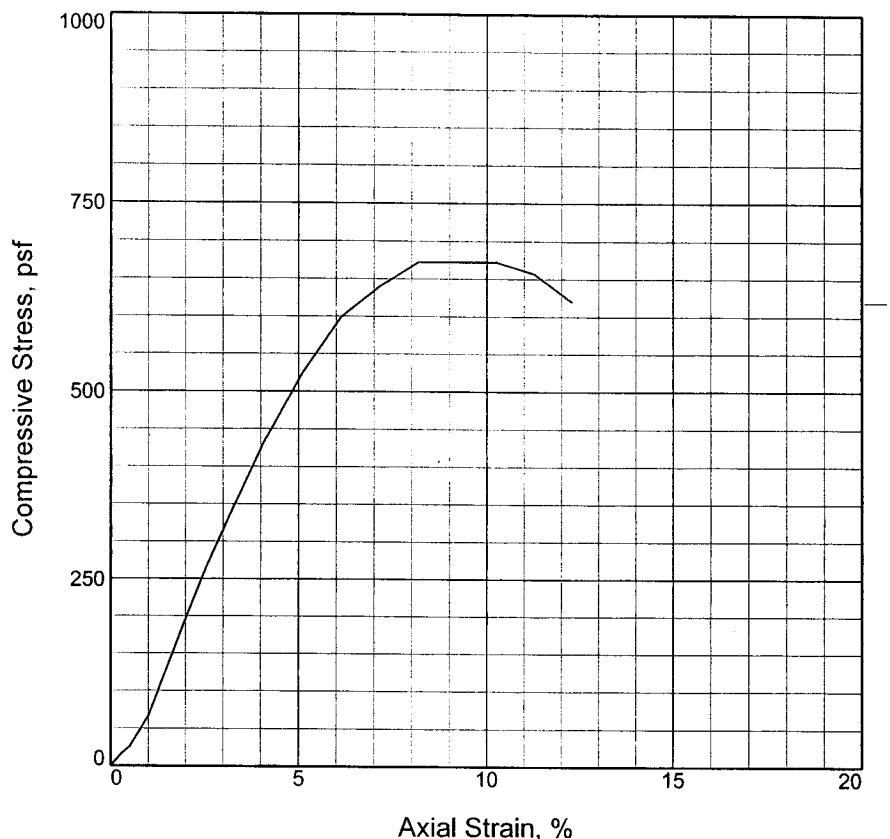
**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1

Tested By: JL

Checked By: JS

# UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	672.0			
Undrained shear strength, psf	336.0			
Failure strain, %	9.2			
Strain rate, in./min.	0.058			
Water content, %	41.9			
Wet density, pcf	109.0			
Dry density, pcf	76.8			
Saturation, %	94.3			
Void ratio	1.2103			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

**Description:** SO GR CH3 W/ LNS & LYS SM, SIF

LL =	PL =	PI =	Assumed GS= 2.72	Type: UNDISTURBED
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**Project No.:** 19082

**Date:** 11-8-05

**Remarks:**

TORVANE = 0.310 TSF

**Client:** URS Corporation

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

**Source of Sample:** B-7WG      **Depth:** 47.5

**Sample Number:** 20

UNCONFINED COMPRESSION TEST

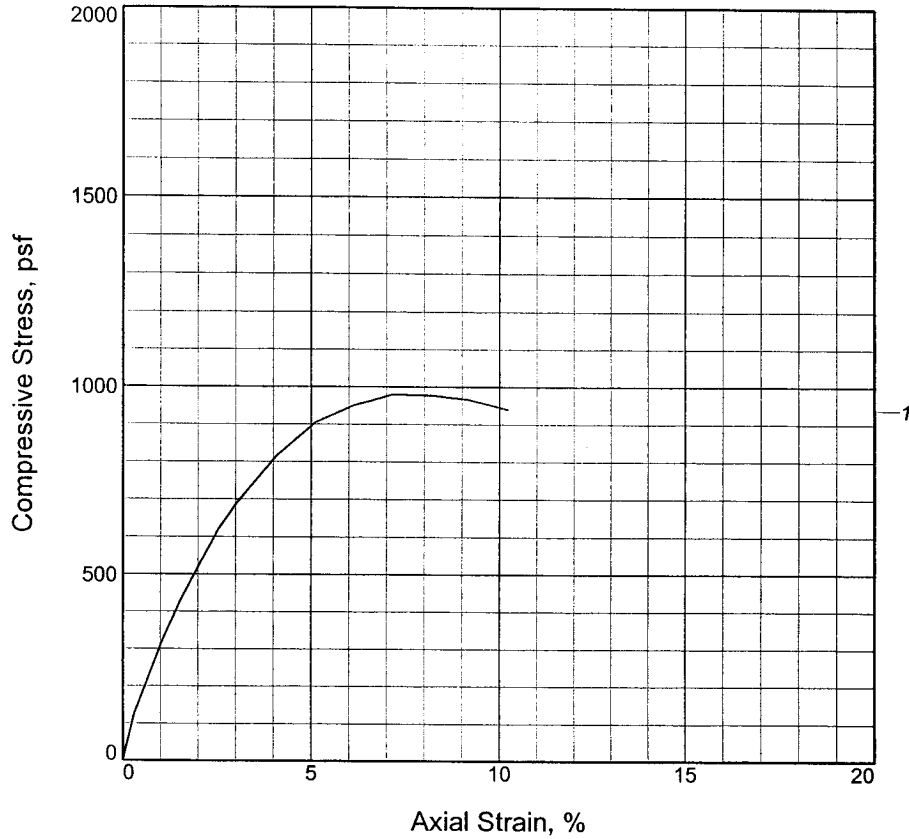
**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1

Tested By: JL

Checked By: JS

# UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	976.4			
Undrained shear strength, psf	488.2			
Failure strain, %	8.2			
Strain rate, in./min.	0.058			
Water content, %	31.8			
Wet density, pcf	116.1			
Dry density, pcf	88.1			
Saturation, %	94.0			
Void ratio	0.9132			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

**Description:** SO GR CL5 W/ ARS CH

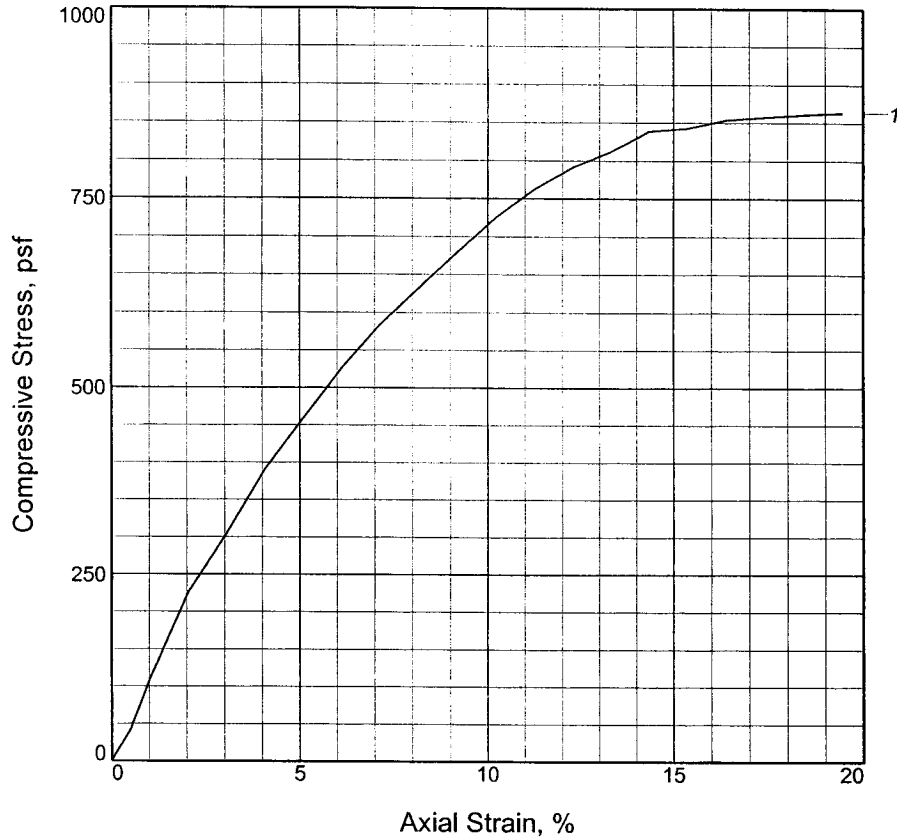
LL =      PL =      PI =      Assumed GS= 2.70      Type: UNDISTURBED

<p><b>Project No.:</b> 19082  <b>Date:</b> 11-8-05  <b>Remarks:</b>                  TORVANE = 0.420 TSF</p>	<p><b>Client:</b> URS Corporation  <b>Project:</b> U.S. Army Corps of Engineers                  Inner Harbor Navigational Canal  <b>Source of Sample:</b> B-7WG      <b>Depth:</b> 52.5  <b>Sample Number:</b> 22</p>
UNCONFINED COMPRESSION TEST <b>EUSTIS ENGINEERING COMPANY, INC.</b>	

Figure 1

Tested By: JL      Checked By: JS

# UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	863.5			
Undrained shear strength, psf	431.7			
Failure strain, %	19.5			
Strain rate, in./min.	0.058			
Water content, %	44.4			
Wet density, pcf	109.3			
Dry density, pcf	75.6			
Saturation, %	96.5			
Void ratio	1.2615			
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:** 11-8-05

**Remarks:**  
TORVANE = 0.300 TSF

**Client:** URS Corporation

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

**Source of Sample:** B-7WG      **Depth:** 62.5

**Sample Number:** 26

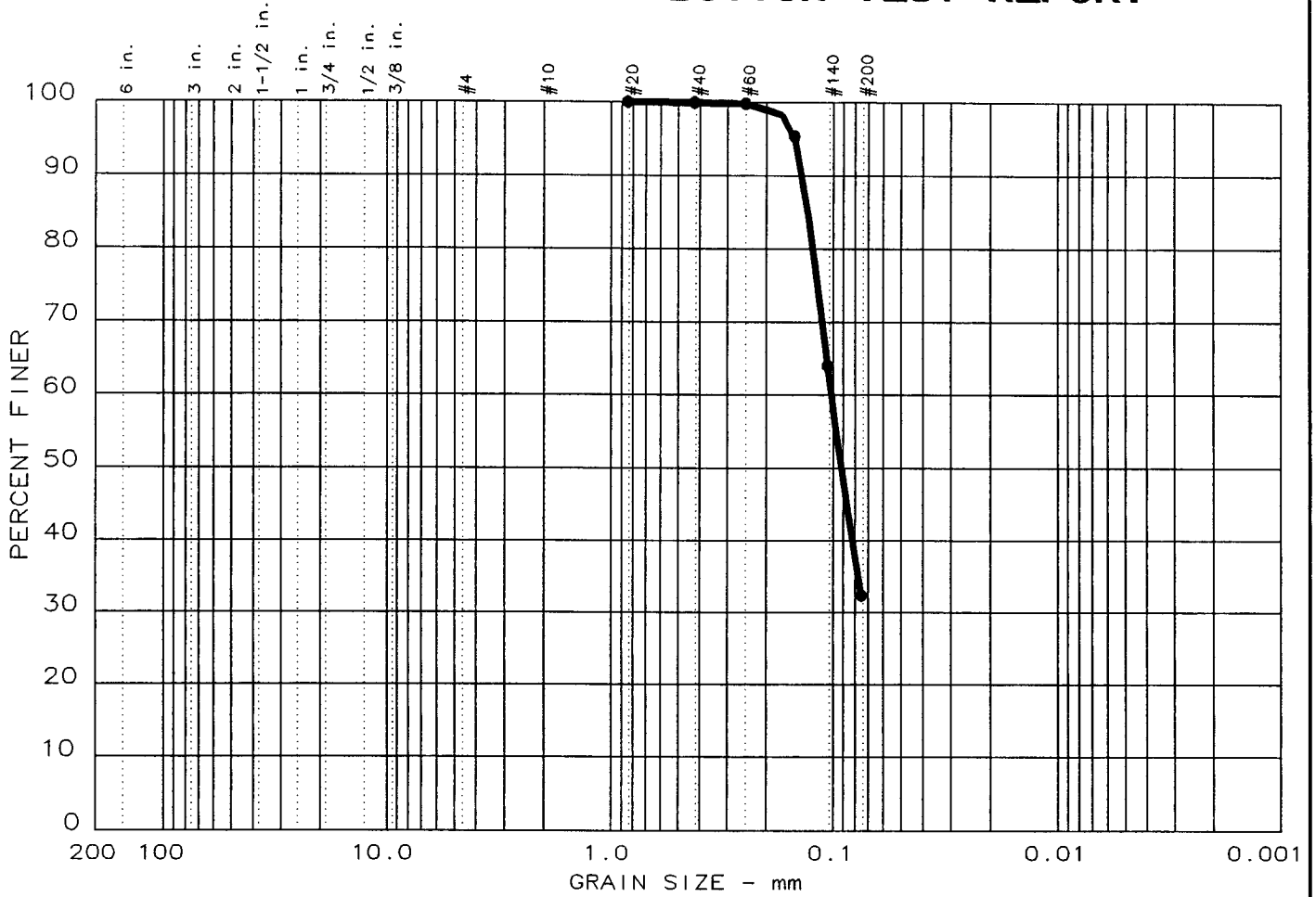
UNCONFINED COMPRESSION TEST

**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1

Tested By: ZH      Checked By: JS

# PARTICLE SIZE DISTRIBUTION TEST REPORT



●	% +3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PI
●	0.0	0.0	67.6	32.4		SM1		

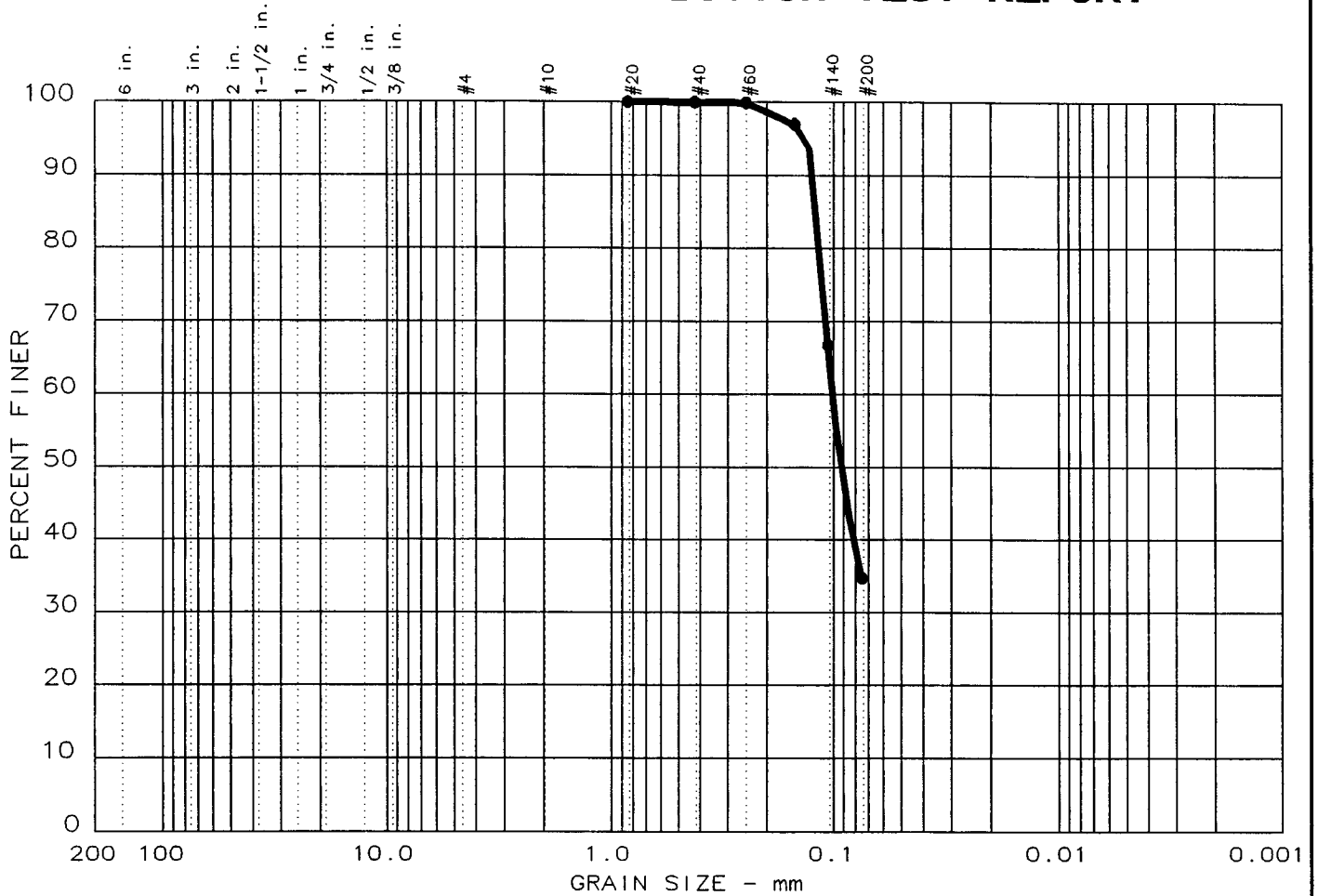
SIEVE inches size	PERCENT FINER		
	●		
<del> </del>			
GRAIN SIZE			
D <sub>60</sub>	0.10		
D <sub>30</sub>			
D <sub>10</sub>			
COEFFICIENTS			
C <sub>c</sub>			
C <sub>u</sub>			

SIEVE number size	PERCENT FINER		
	●		
20	100.0		
40	99.9		
60	99.8		
100	95.4		
140	64.1		
200	32.4		

Sample information:  
 ● Boring 7WG, Sample 9  
 GR SM1 W/ WD

Remarks:  
 Sample depth 20.0'

# PARTICLE SIZE DISTRIBUTION TEST REPORT



% +3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PI
0.0	0.0	65.3	34.7		SM1		

SIEVE inches size	PERCENT FINER		
●			
X	GRAIN SIZE		
D <sub>60</sub> D <sub>30</sub> D <sub>10</sub>	0.10		
X	COEFFICIENTS		
C <sub>c</sub> C <sub>u</sub>			

SIEVE number size	PERCENT FINER		
●			
20	100.0		
40	99.9		
60	99.8		
100	97.0		
140	66.8		
200	34.7		

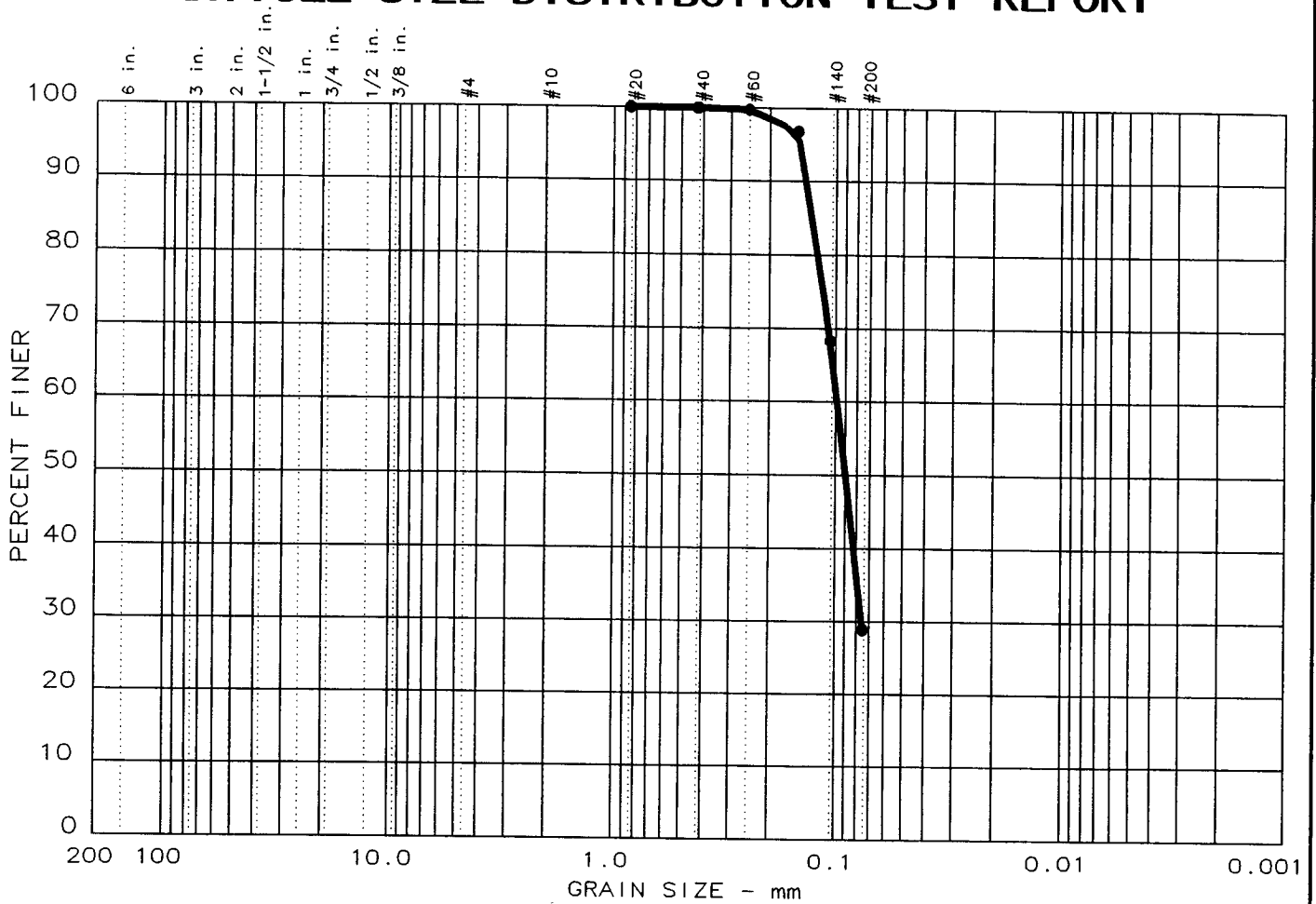
Sample information:  
 ● Boring 7WG, Sample 24  
 GR SM1

Remarks:  
 Sample depth 57.5'

**Eustis  
Engineering  
Company, Inc.**

Project No.: 19082  
 Project: USACE  
 Date: 11-15-05  
 Data Sheet No. \_\_\_\_\_

# PARTICLE SIZE DISTRIBUTION TEST REPORT



● % +3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PI
0.0	0.0	71.1	28.9		SM1		

SIEVE inches size	PERCENT FINER		
	●		
<del>X</del>	GRAIN SIZE		
D <sub>60</sub>	0.10		
D <sub>30</sub>	0.08		
D <sub>10</sub>			
<del>X</del>	COEFFICIENTS		
C <sub>c</sub>			
C <sub>u</sub>			

SIEVE number size	PERCENT FINER		
	●		
20	100.0		
40	99.9		
60	99.7		
100	96.8		
140	68.3		
200	28.9		

Sample information:  
 ● Boring 7WG, Sample 32  
 GR SM1

Remarks:  
 Sample depth 77.5'