Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBC-21-12

Coordinate System
Latitude / Longitude

Latitude 30 10.490

Longitude 088 32.885

Date 12/15/2012

Start Time 11:30:38

End Time 11:31:02

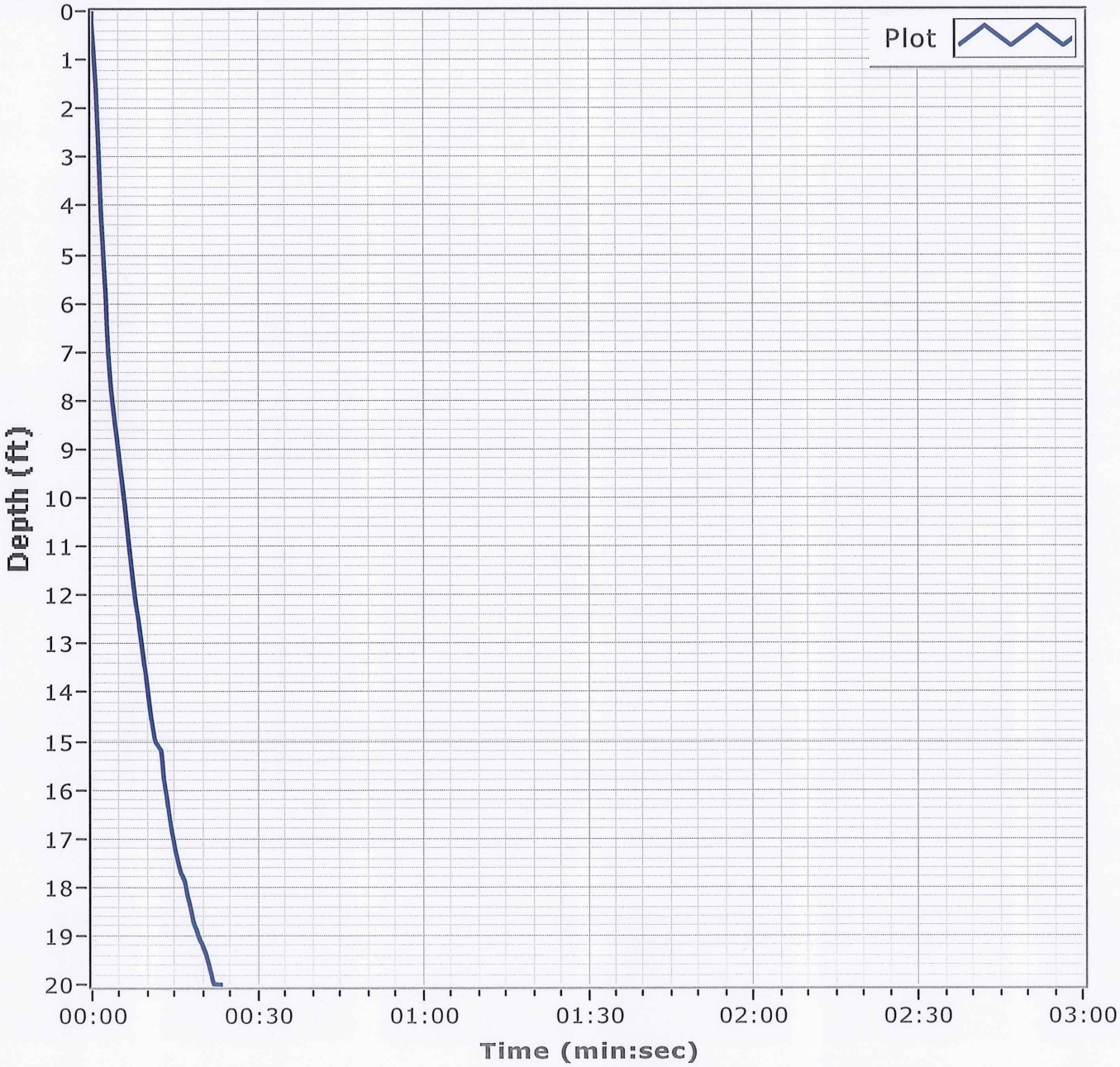
Total Time 00:00:23

Water Depth 40.6'

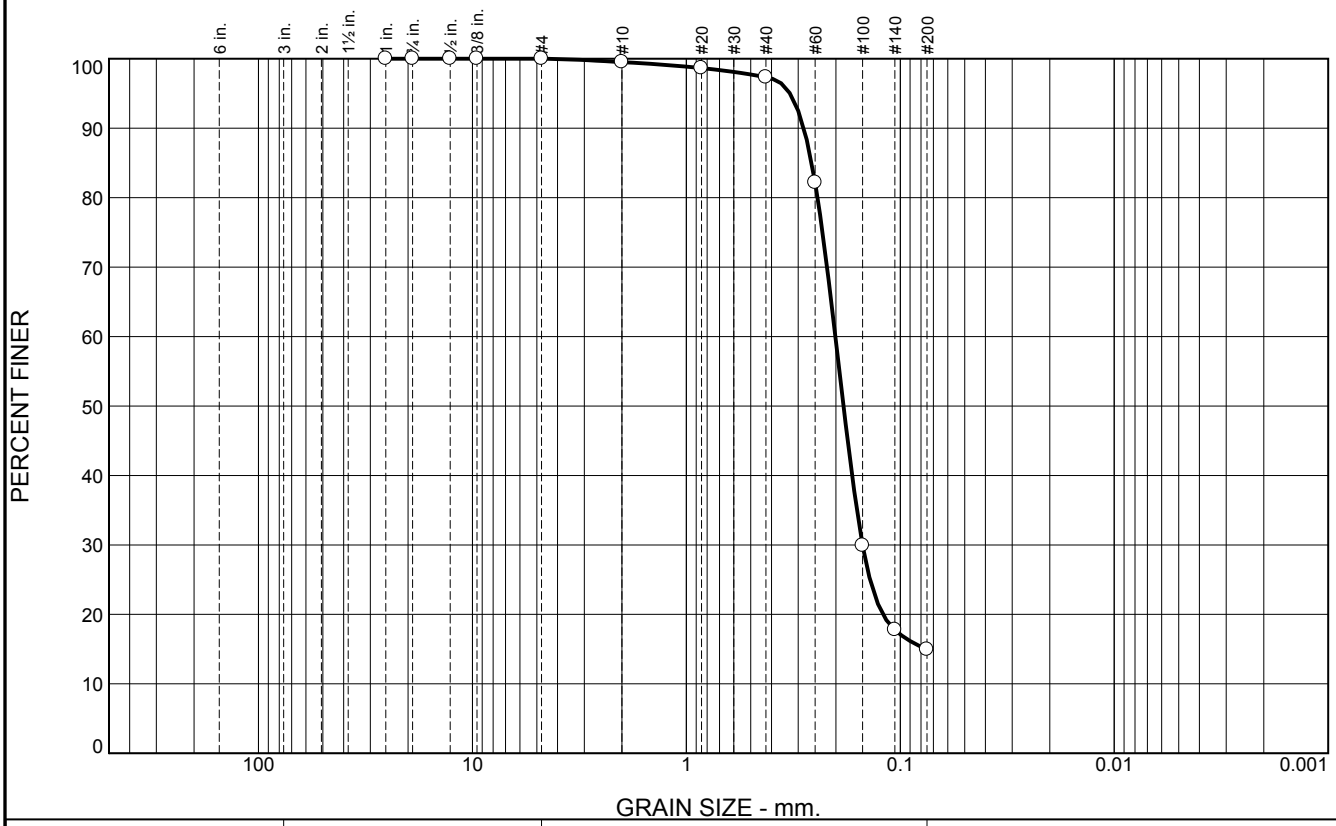
Penetration 20.0'

Recovery 15.0

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.5	2.2	82.4	14.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.5		
#20	98.7		
#40	97.3		
#60	82.2		
#100	29.9		
#140	17.8		
#200	14.9		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2829 D_{85}= 0.2597 D_{60}= 0.2012
D_{50}= 0.1844 D_{30}= 0.1502 D_{15}= 0.0757
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

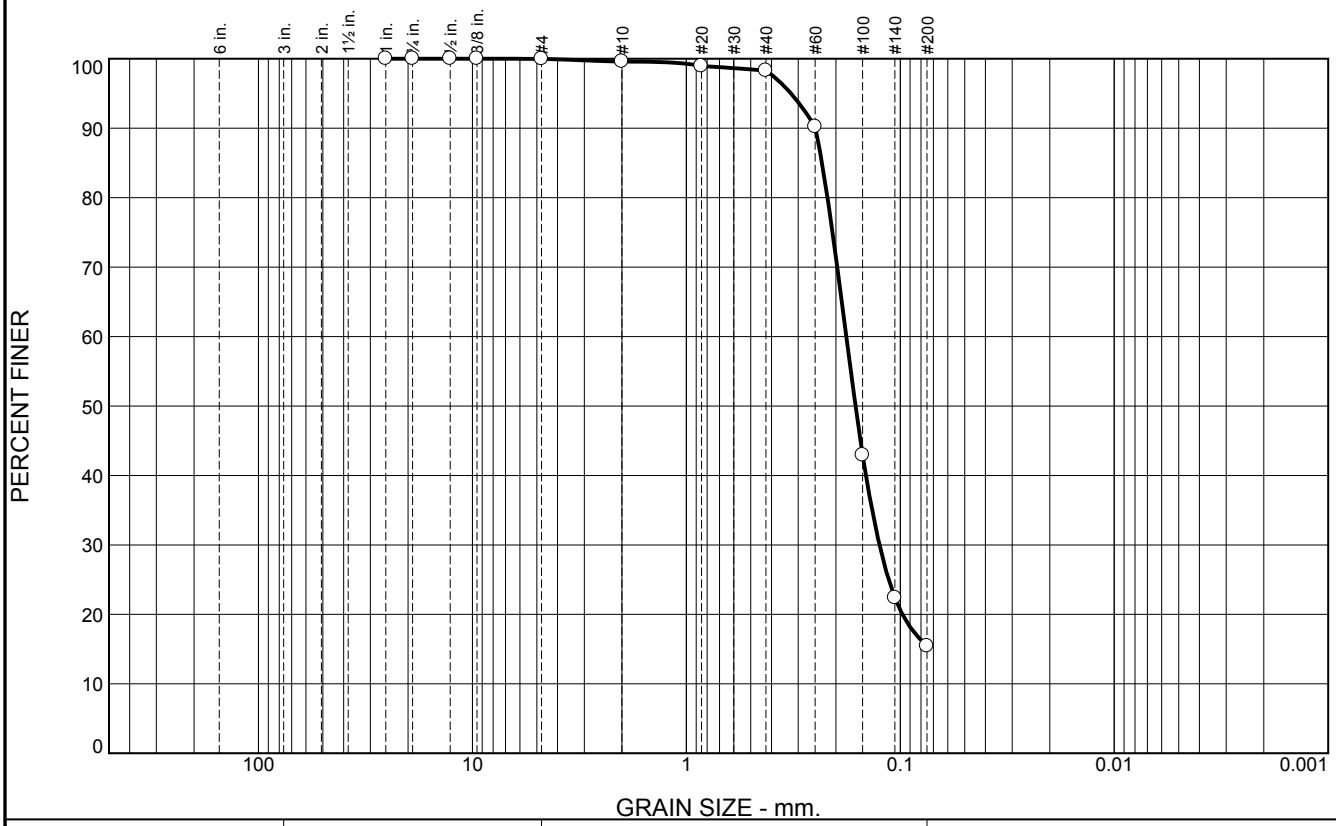
Location: BI-PBC-21-12 A
Sample Number: 6494 (27) **Depth:** 0.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.4	1.3	82.8	15.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.6		
#20	99.0		
#40	98.3		
#60	90.2		
#100	42.9		
#140	22.4		
#200	15.5		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2492 D_{85}= 0.2322 D_{60}= 0.1789
D_{50}= 0.1620 D_{30}= 0.1252 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBC-21-12 B
Sample Number: 6494 (28) **Depth:** 5.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBC-22-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Pascagoula Bar Channel	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBC-22-12 — LOCATION COORDINATES: E = 1,072,416 N = 243,379	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 41.7 Ft.
	15. DATE BORING — STARTED: 12-15-12 — COMPLETED: 12-15-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -41.7 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 14.4 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mark Green, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-41.7	0.0				
-45.2	3.5		SAND, silty, mostly fine-grained sand-sized quartz, some silt, little shell fragments, greenish gray (SM)	A	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1715 mm % Fines: 13.2
-45.7	4.0		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, greenish gray (SC)	NS	
-50.7	9.0		SAND, silty, mostly fine-grained sand-sized quartz, some silt, greenish gray (SM)	B	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1556 mm % Fines: 15.5
-54.7	13.0		SILT, inorganic-L, mostly silt, some fine-grained sand-sized quartz, trace shell fragments, greenish gray (ML)	NS	
-56.1	14.4		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace shell fragments, trace fat clay lenses, gray (SC)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.16895° Long = -88.55433°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBC-22-12

Coordinate System
Latitude / Longitude

Latitude 30 10.137

Longitude 088 33.260

Date 12/15/2012

Start Time 09:30:44

End Time 09:31:05

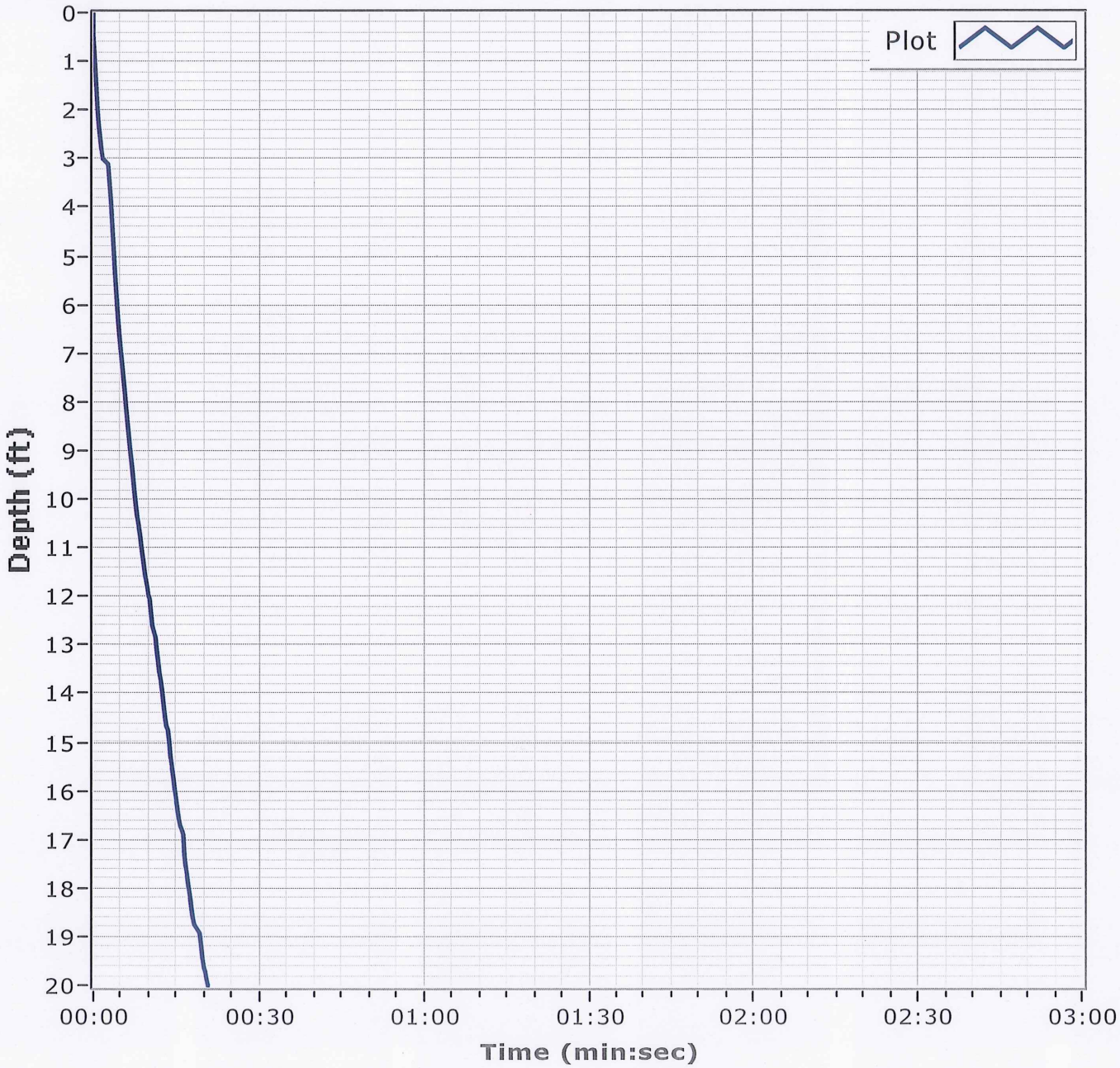
Total Time 00:00:21

Water Depth 41.7'

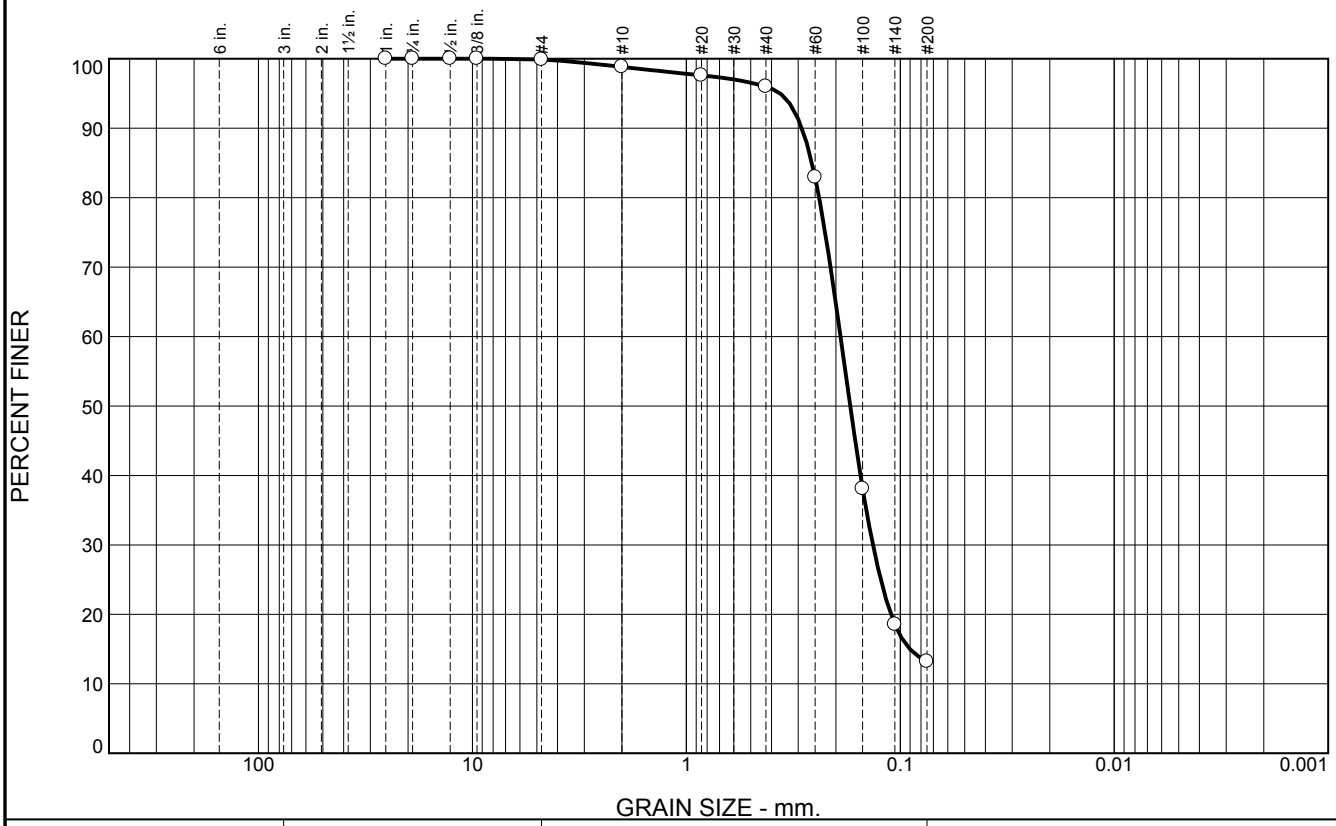
Penetration 20.0'

Recovery 14.4'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	1.1	2.8	82.8	13.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	98.8		
#20	97.6		
#40	96.0		
#60	82.9		
#100	38.1		
#140	18.6		
#200	13.2		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2886 D_{85}= 0.2588 D_{60}= 0.1904
D_{50}= 0.1715 D_{30}= 0.1343 D_{15}= 0.0902
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

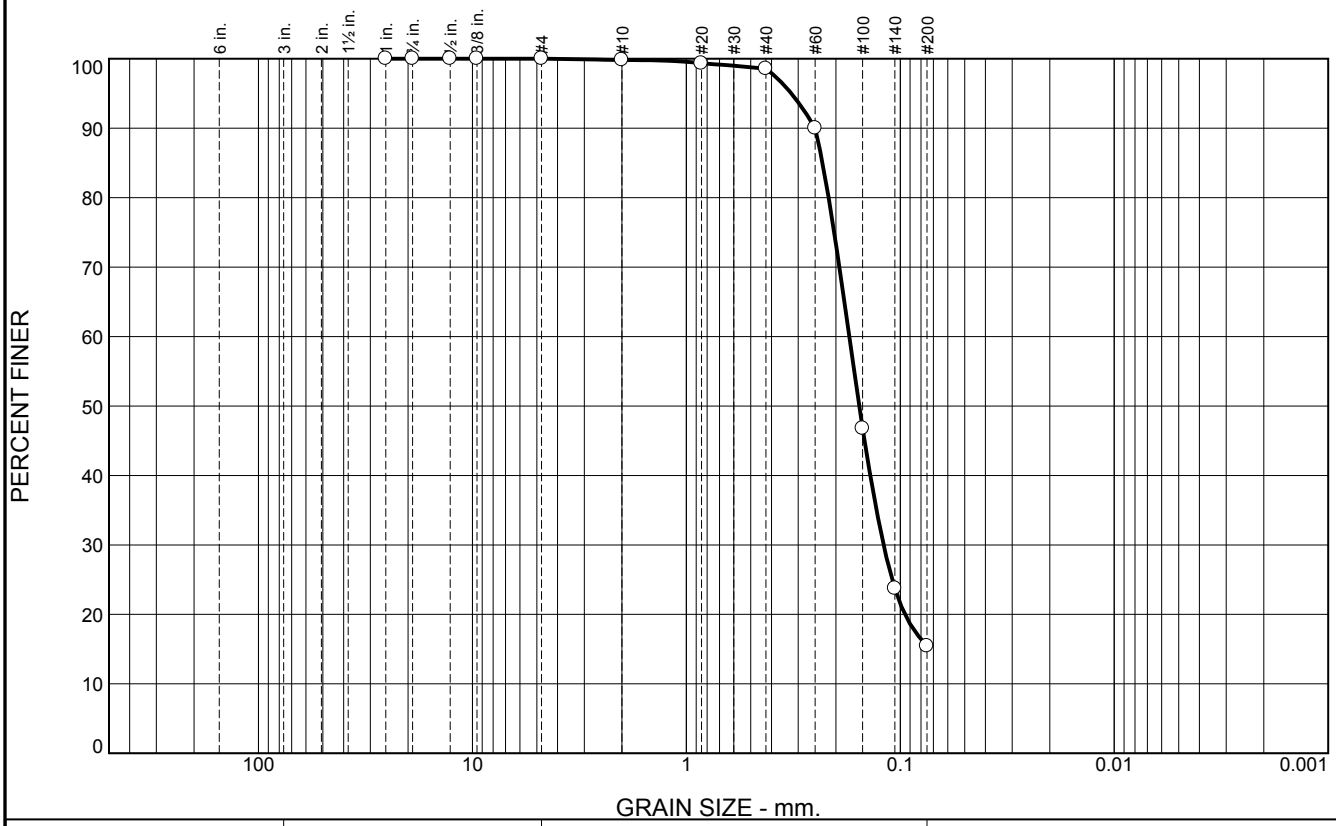
Location: BI-PBC-22-12 A
Sample Number: 6494 (29) **Depth:** 0.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.2	1.2	83.1	15.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.8		
#20	99.3		
#40	98.6		
#60	90.0		
#100	46.8		
#140	23.7		
#200	15.5		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2501 D_{85}= 0.2309 D_{60}= 0.1732
D_{50}= 0.1556 D_{30}= 0.1197 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBC-22-12 B
Sample Number: 6494 (30) **Depth:** 4.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBC-23-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Pascagoula Bar Channel	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBC-23-12 — LOCATION COORDINATES: E = 1,073,116 N = 241,417	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 42 Ft.
	15. DATE BORING — STARTED: 12-15-12 — COMPLETED: 12-15-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -42.0 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 16.4 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mark Green, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-42.0	0.0				
			SAND, silty, mostly fine-grained sand-sized quartz, some silt, little shell fragments, trace clay, lt. to dark green-gray (SM)	A	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1679 mm % Fines: 15
				B	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1626 mm % Fines: 13.9
-52.0	10.0				
			SAND, clayey, mostly fine-grained sand-sized quartz, some clay, little shell fragments, lt. to dark greenish gray (SC)	NS	
-58.4	16.4				
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System. 2. NS = Sample not submitted for laboratory analysis from this interval. 3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.		

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.16355° Long = -88.55213°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBC-23-12

Coordinate System
Latitude / Longitude

Latitude 30 09.813

Longitude 088 33.128

Date 12/15/2012

Start Time 08:24:14

End Time 08:25:58

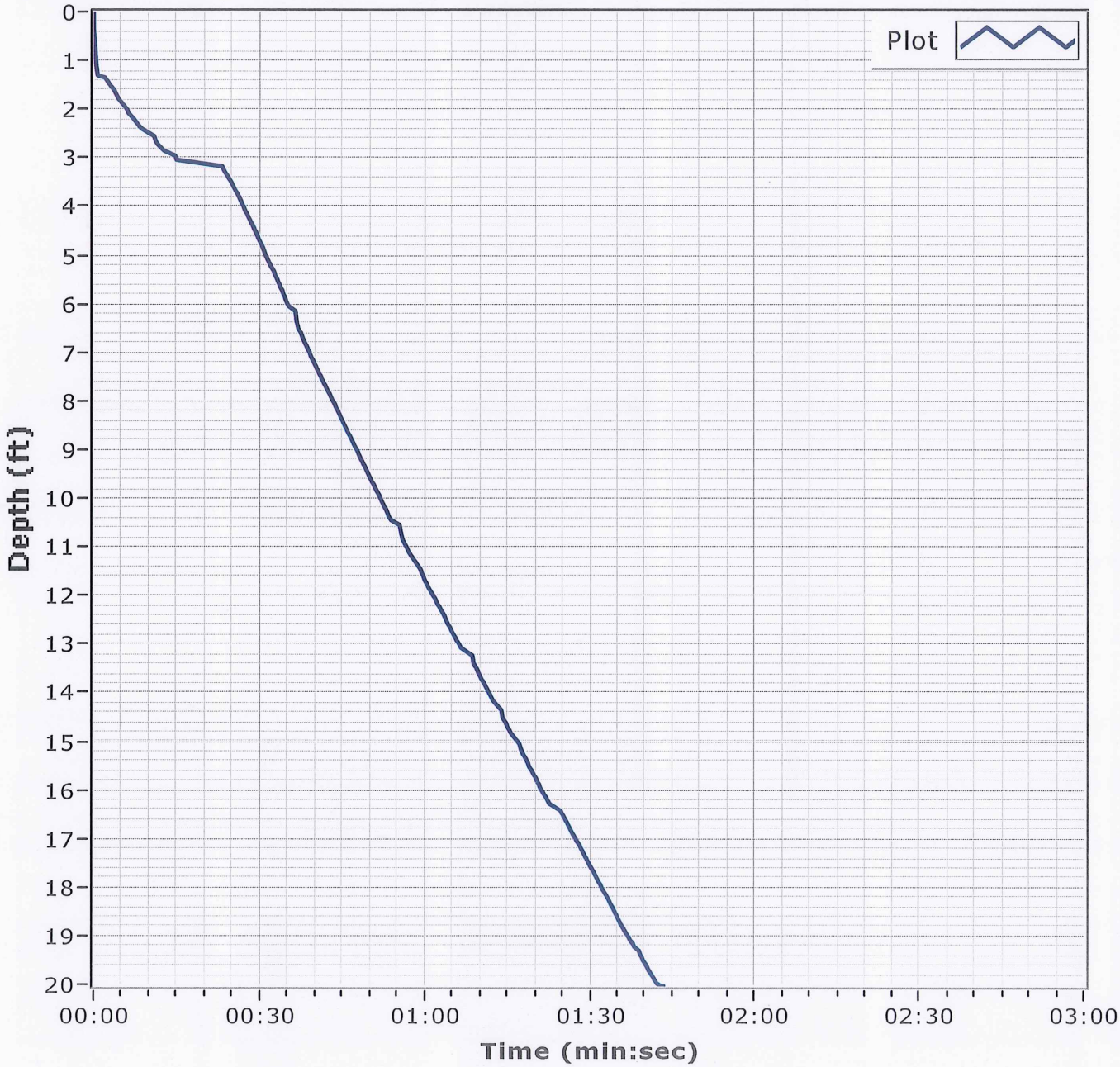
Total Time 00:01:43

Water Depth 42.0'

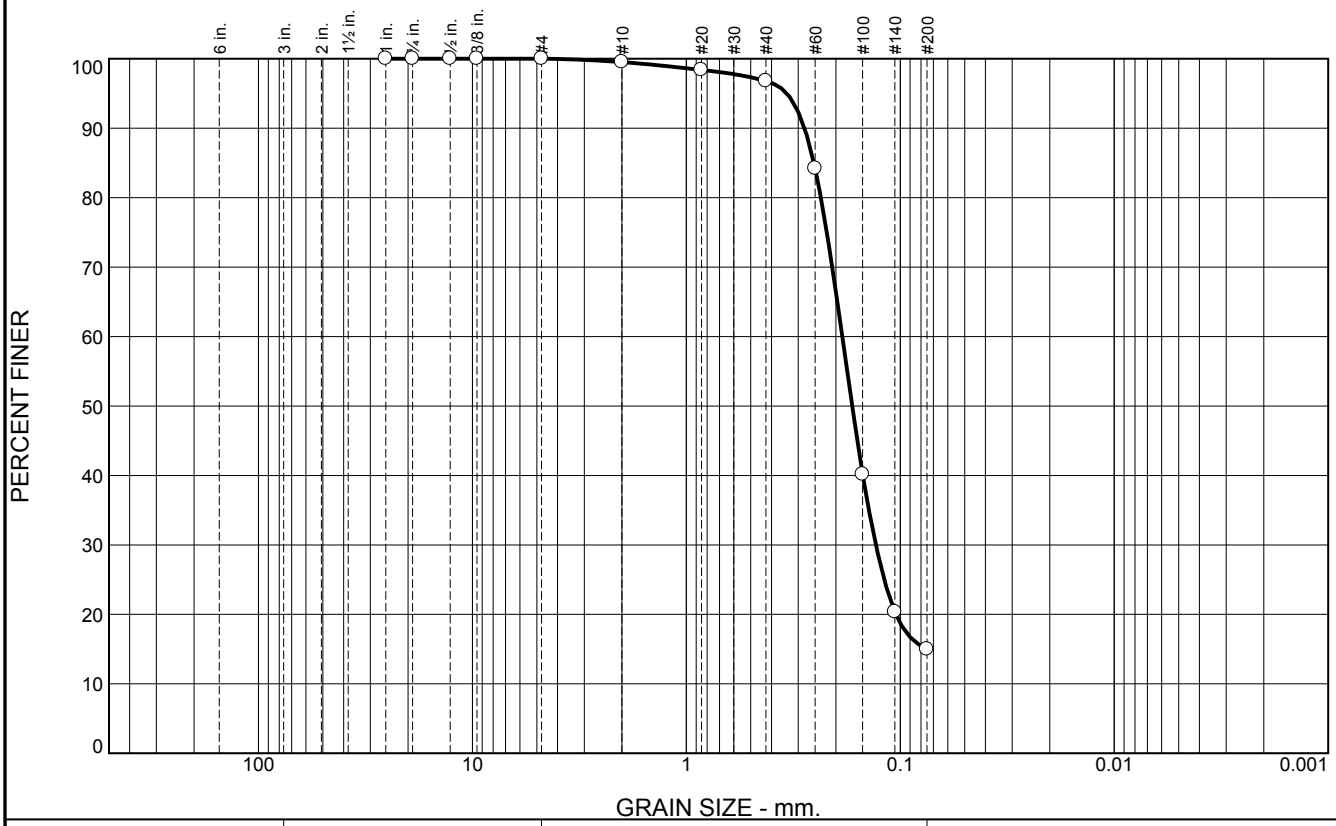
Penetration 20.0'

Recovery 16.3'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.5	2.7	81.8	15.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.5		
#20	98.4		
#40	96.8		
#60	84.2		
#100	40.2		
#140	20.4		
#200	15.0		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2805 D_{85}= 0.2533 D_{60}= 0.1867
D_{50}= 0.1679 D_{30}= 0.1301 D_{15}= 0.0751
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

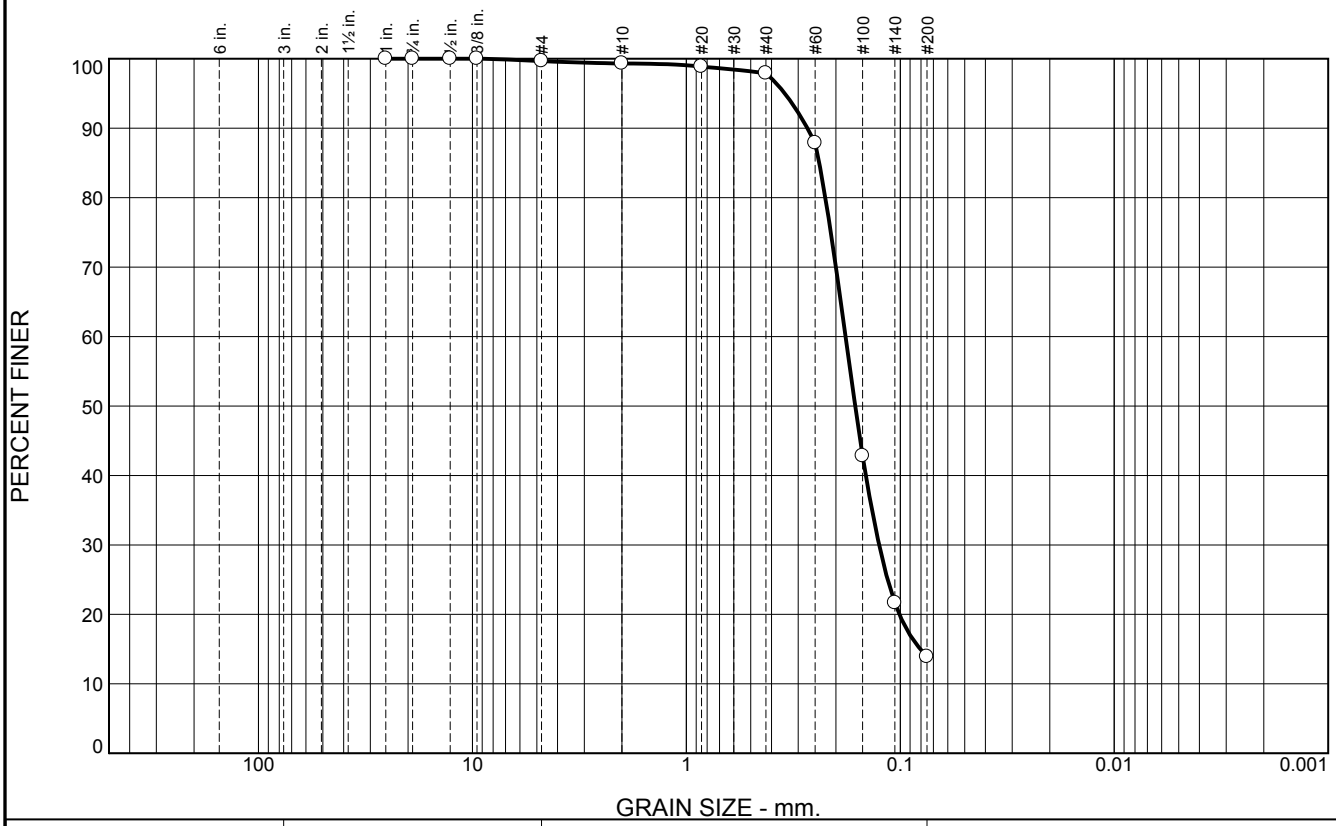
Location: BI-PBC-23-12 A
Sample Number: 6494 (31) **Depth:** 0.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.3	0.4	1.4	84.0	13.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.7		
#10	99.3		
#20	98.8		
#40	97.9		
#60	87.9		
#100	42.8		
#140	21.7		
#200	13.9		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2720 D_{85}= 0.2392 D_{60}= 0.1804
D_{50}= 0.1626 D_{30}= 0.1257 D_{15}= 0.0806
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBC-23-12 B
Sample Number: 6494 (32) **Depth:** 5.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT

Project No: 1221110095 **Figure**

Boring Designation BI-PBC-24-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Pascagoula Bar Channel	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBC-24-12 — LOCATION COORDINATES: E = 1,074,660 N = 243,101	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 40.3 Ft.
	15. DATE BORING — STARTED: 12-15-12 — COMPLETED: 12-15-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -40.2 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 15.3 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mark Green, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-40.2	0.0				
-40.7	0.5		SAND, poorly-graded, mostly fine-grained sand-sized quartz, little silt, trace shell fragments, gray (SP)	A	Classification: SP Color: 5Y 5/3-olive D50: 0.2062 mm % Fines: 4.2
			SAND, silty, mostly fine-grained sand-sized quartz, some silt, little shell fragments, gray (SM)	B	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1763 mm % Fines: 15.1
				C	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1575 mm % Fines: 15.1
-51.2	11.0				
-53.7	13.5		SILT, inorganic-L, mostly silt, some fine-grained sand-sized quartz, trace shell fragments, gray (ML)	NS	
-55.5	15.3		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace shell fragments, gray (SC)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.16817° Long = -88.54723°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBC-24-12

Coordinate System
Latitude / Longitude

Latitude 30 10.090

Longitude 088 32.834

Date 12/15/2012

Start Time 10:34:24

End Time 10:34:52

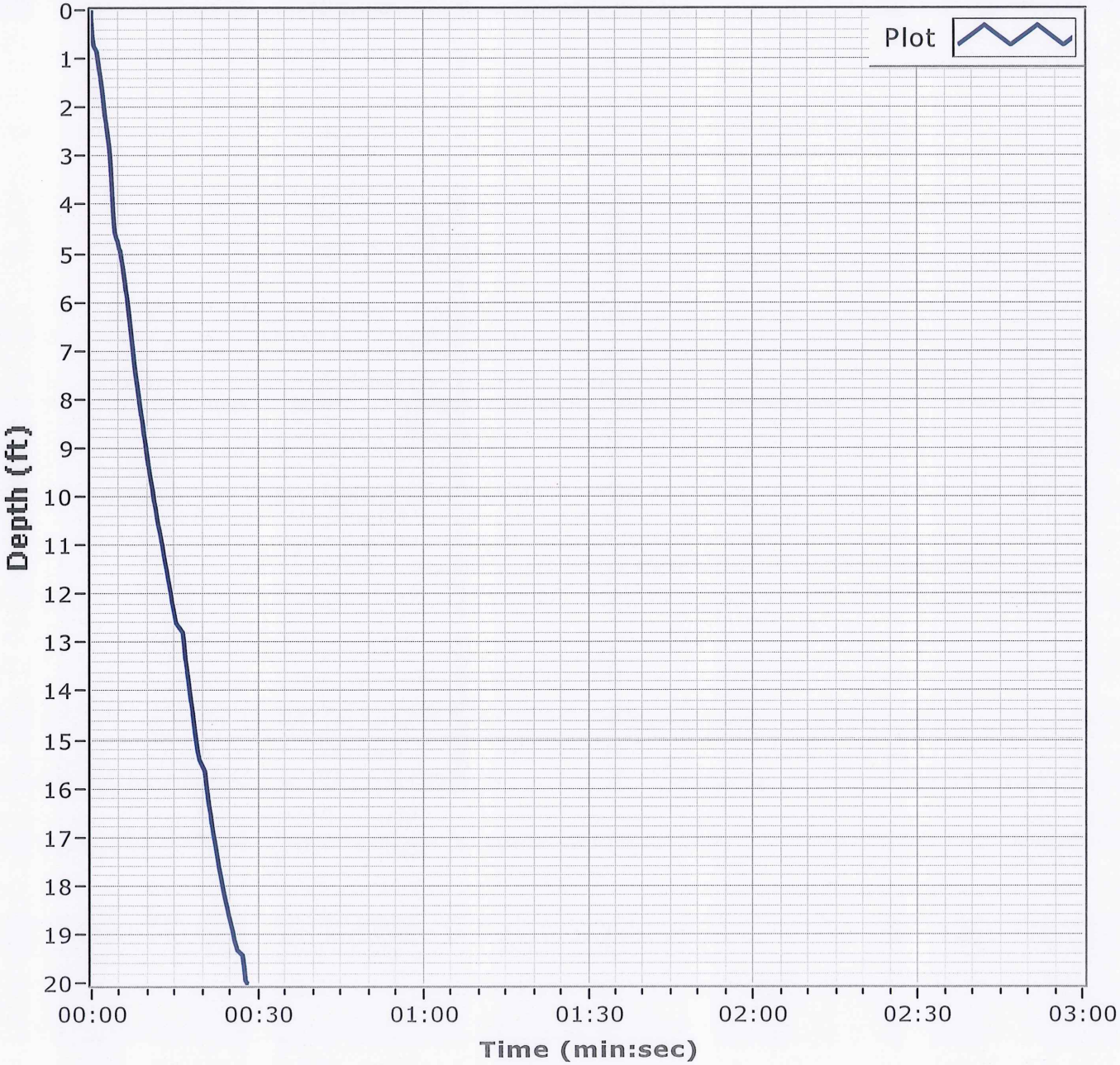
Total Time 00:00:28

Water Depth 40.3'

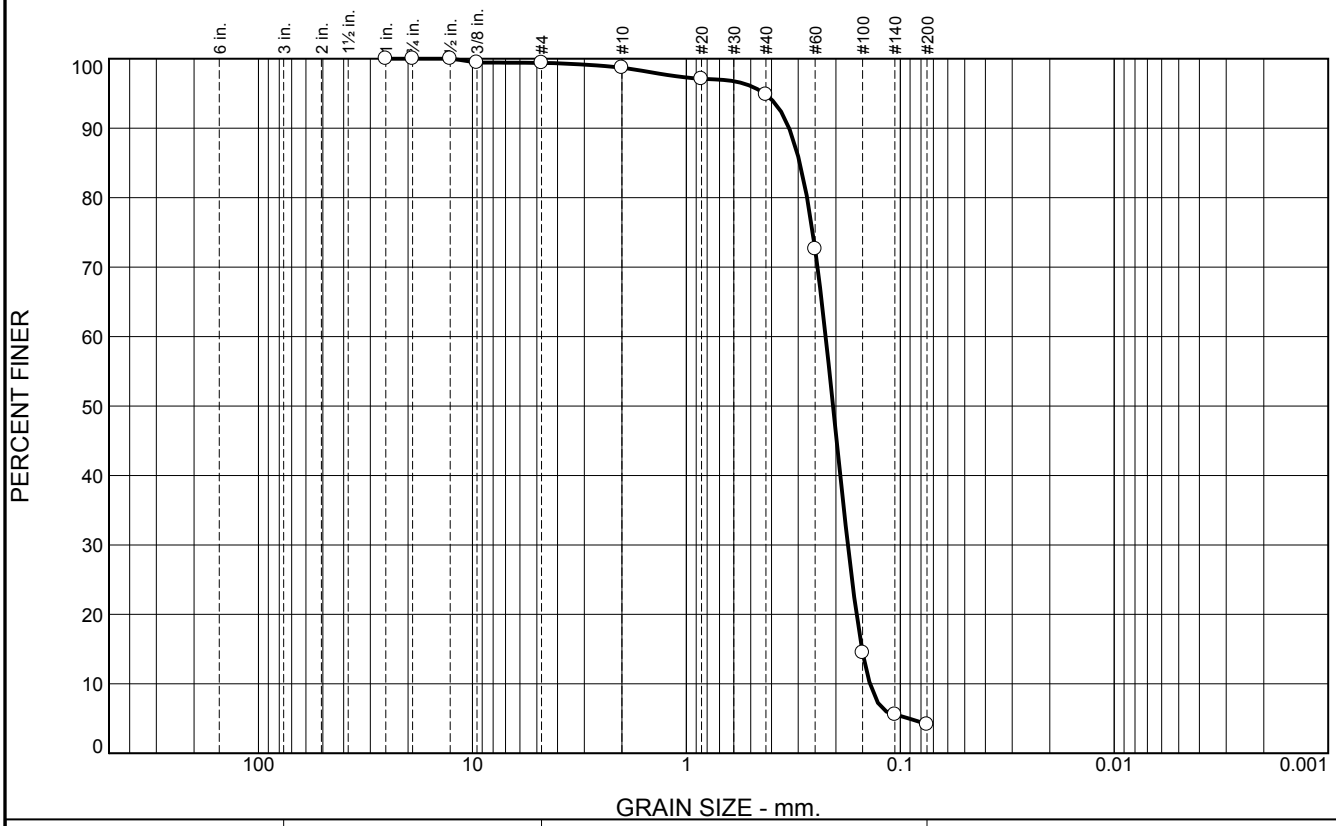
Penetration 20.0'

Recovery 15.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.6	0.7	3.9	90.6	4.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.4		
#4	99.4		
#10	98.7		
#20	97.1		
#40	94.8		
#60	72.6		
#100	14.5		
#140	5.6		
#200	4.2		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3309 D_{85}= 0.2951 D_{60}= 0.2232
D_{50}= 0.2062 D_{30}= 0.1760 D_{15}= 0.1511
D_{10}= 0.1387 C_u= 1.61 C_c= 1.00

Classification

USCS= SP AASHTO=

Remarks

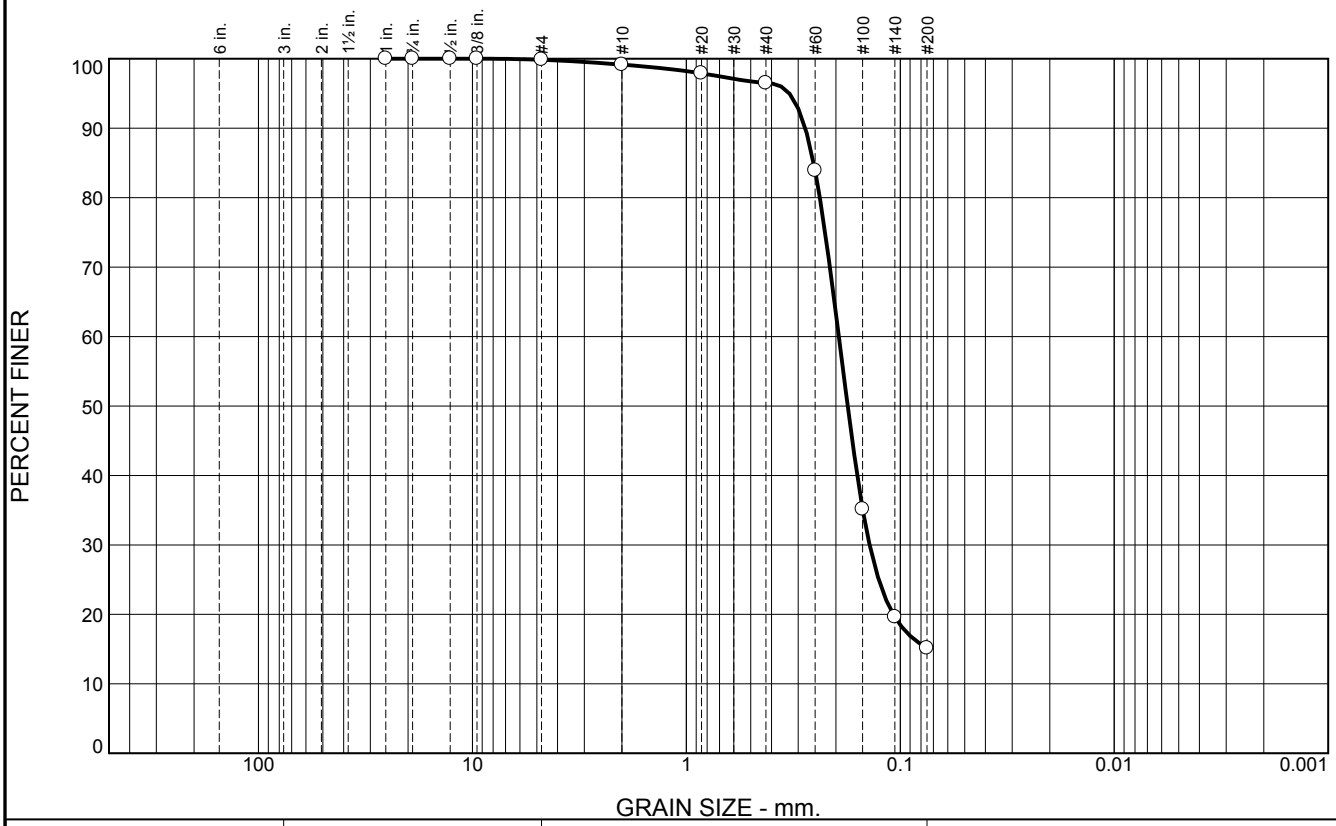
Location: BI-PBC-24-12 A
Sample Number: 6494 (33) **Depth:** 0.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	0.7	2.6	81.4	15.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	99.1		
#20	97.9		
#40	96.5		
#60	83.9		
#100	35.1		
#140	19.6		
#200	15.1		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2782 D_{85}= 0.2542 D_{60}= 0.1938
D_{50}= 0.1763 D_{30}= 0.1392 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

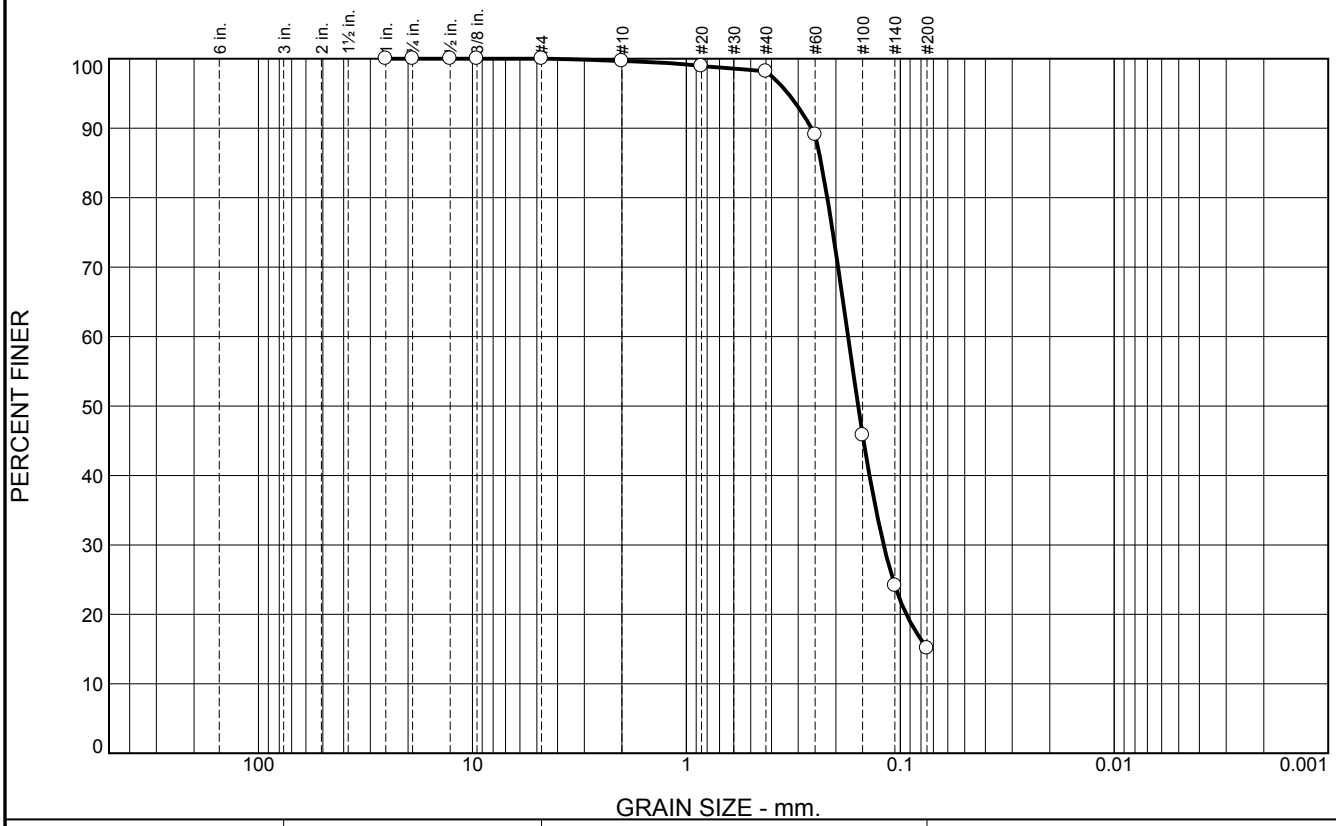
Location: BI-PBC-24-12 B
Sample Number: 6494 (34) **Depth:** 0.5' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.3	1.5	83.1	15.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.7		
#20	98.9		
#40	98.2		
#60	89.1		
#100	45.8		
#140	24.2		
#200	15.1		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2601 D_{85}= 0.2344 D_{60}= 0.1755
D_{50}= 0.1575 D_{30}= 0.1196 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBC-24-12 C
Sample Number: 6494 (35) **Depth:** 5.5' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBC-25-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Pascagoula Bar Channel	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBC-25-12 — LOCATION COORDINATES: E = 1,076,601 N = 245,401	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 41.2 Ft.
	15. DATE BORING — STARTED: 12-15-12 — COMPLETED: 12-15-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -40.9 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 14.3 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mark Green, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-40.9	0.0				
			SAND, silty, mostly fine-grained sand-sized quartz, trace shell fragments, trace clay lenses, gray (SM)	A	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1861 mm % Fines: 13.7
				B	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1801 mm % Fines: 12
-49.9	9.0				
			SILT, inorganic-L, mostly silt, some fine-grained sand-sized quartz, trace shell fragments, gray (ML)	NS	
-52.9	12.0				
-53.9	13.0		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, gray (SC)		
-55.2	14.3		CLAY, fat, mostly clay, gray (CH)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.17448° Long = -88.54107°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBC-25-12

Coordinate System
Latitude / Longitude

Latitude 30 10.469

Longitude 088 32.464

Date 12/15/2012

Start Time 11:57:13

End Time 11:57:43

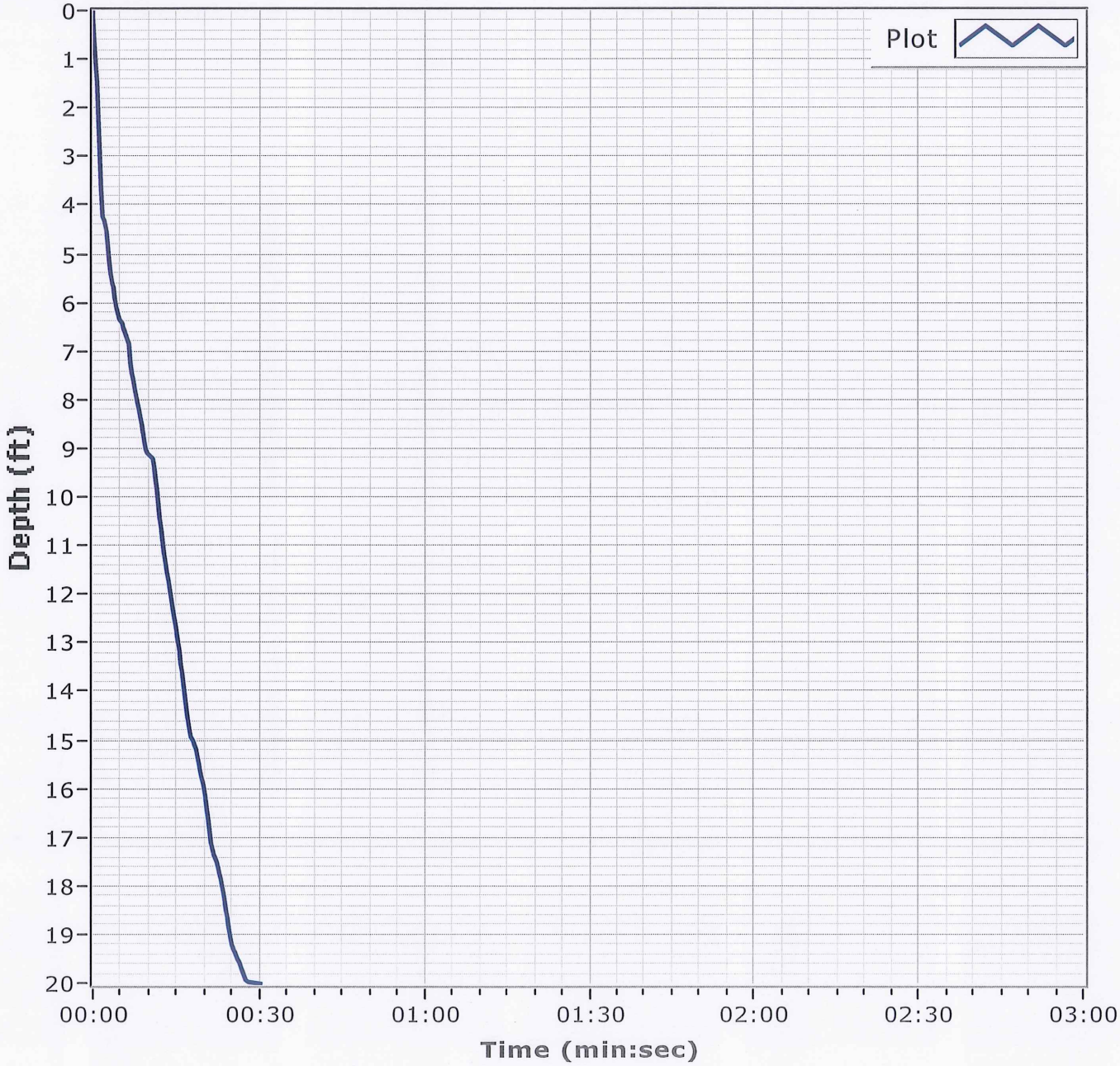
Total Time 00:00:30

Water Depth 41.2'

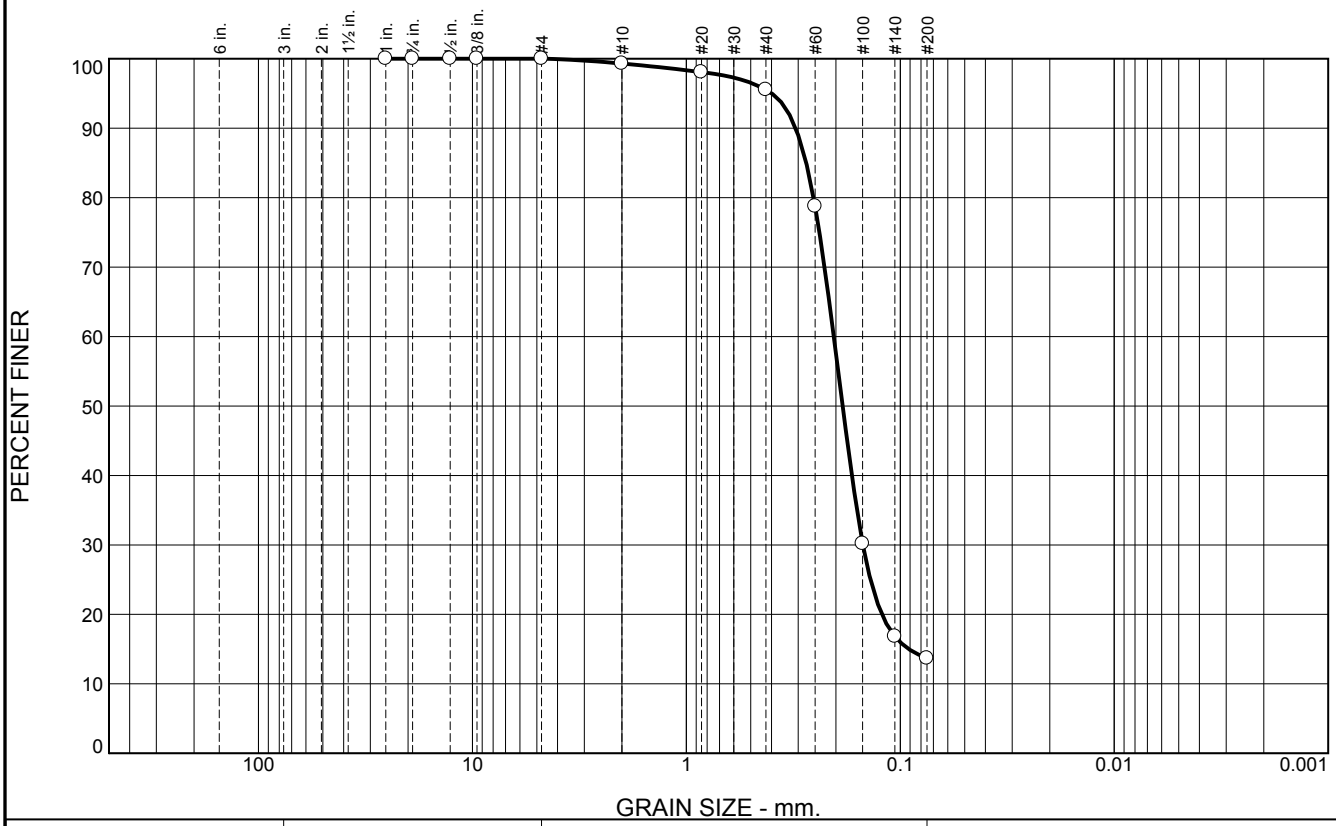
Penetration 20.0'

Recovery 14.4'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.7	3.8	81.8	13.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.3		
#20	98.1		
#40	95.5		
#60	78.7		
#100	30.2		
#140	16.8		
#200	13.7		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3087 D_{85}= 0.2754 D_{60}= 0.2046
D_{50}= 0.1861 D_{30}= 0.1496 D_{15}= 0.0913
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

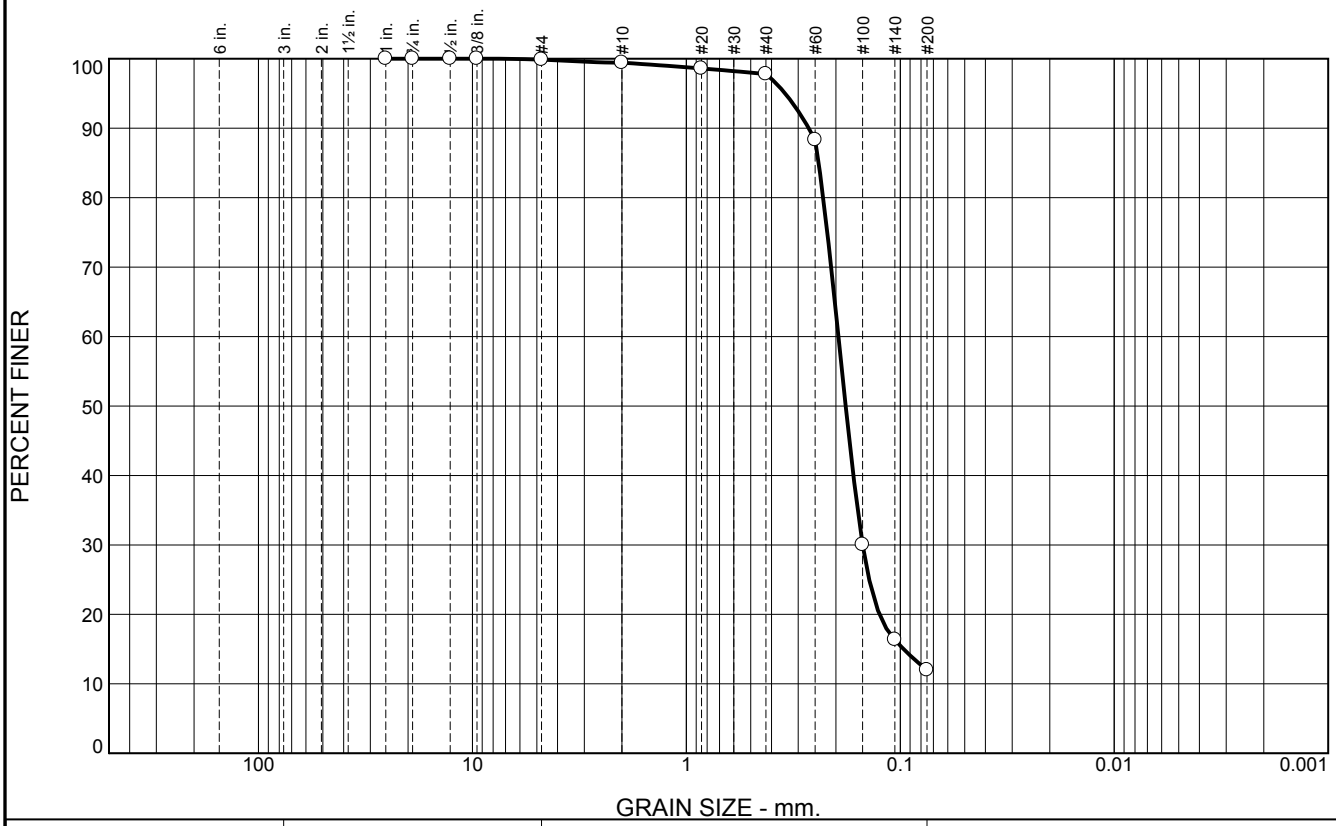
Location: BI-PBC-25-12 A
Sample Number: 6494 (36) **Depth:** 0.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.5	1.6	85.8	12.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	99.4		
#20	98.6		
#40	97.8		
#60	88.3		
#100	30.0		
#140	16.3		
#200	12.0		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2682 D_{85}= 0.2408 D_{60}= 0.1947
D_{50}= 0.1801 D_{30}= 0.1499 D_{15}= 0.0965
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBC-25-12 B
Sample Number: 6494 (37) **Depth:** 5.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBC-26-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Pascagoula Bar Channel	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBC-26-12 — LOCATION COORDINATES: E = 1,078,661 N = 247,748	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 40.1 Ft.
	15. DATE BORING — STARTED: 12-15-12 — COMPLETED: 12-15-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -39.3 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 15.7 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mark Green, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-39.3	0.0				
-40.3	1.0		CLAY, fat, mostly clay, soft, gray (CH)	NS	
-41.1	1.8		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, little shell fragments, gray (SC)	A	Classification: SM Color: 5Y 5/2-olive gray D50: 0.2016 mm % Fines: 15.6
-43.3	4.0		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, gray (SM)	B	Classification: SP-SM Color: 5Y 6/2-light olive gray D50: 0.2045 mm % Fines: 6.9
-45.3	6.0		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, trace shell fragments, gray (SP)	C	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1841 mm % Fines: 13.5
-48.3	9.0		SAND, silty, mostly fine-grained sand-sized quartz, trace shell fragments, gray (SM)		
-55.0	15.7		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, gray (SC)	NS	

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18092° Long = -88.53453°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBC-26-12

Coordinate System
Latitude / Longitude

Latitude 30 10.855

Longitude 088 32.072

Date 12/15/2012

Start Time 14:21:07

End Time 14:21:36

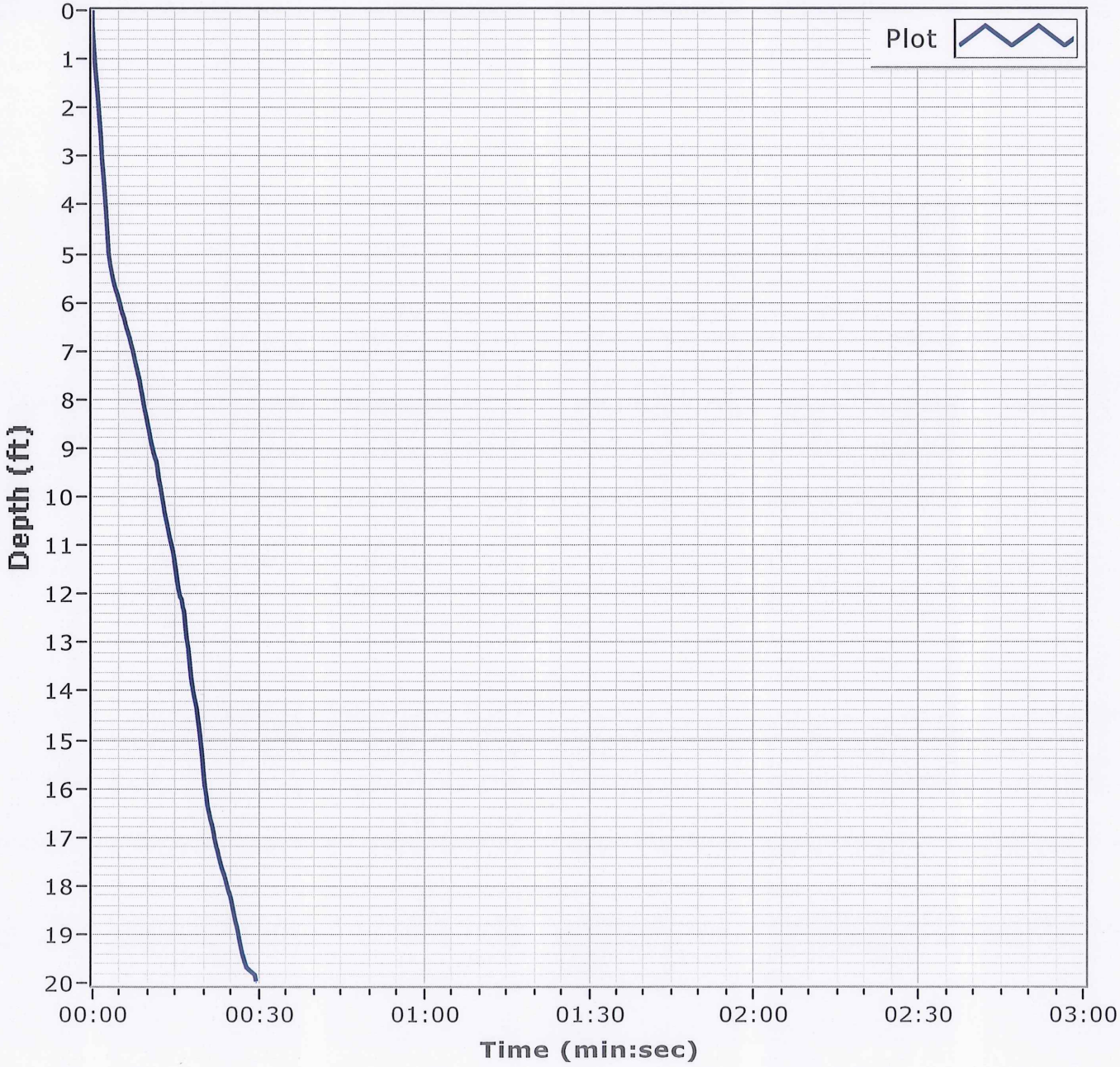
Total Time 00:00:29

Water Depth 40.1'

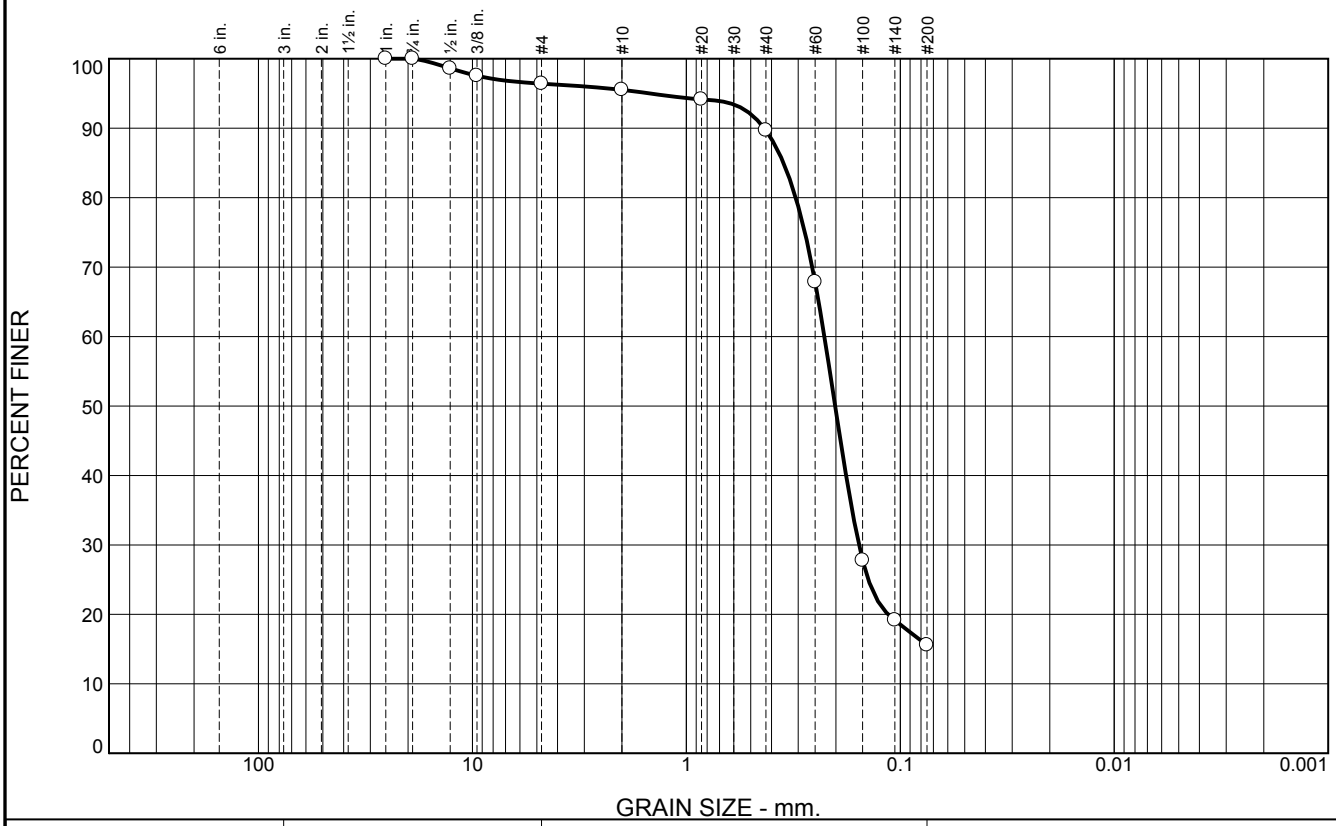
Penetration 20.0'

Recovery 15.9'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.6	0.9	5.8	74.1	15.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	98.6		
.375	97.5		
#4	96.4		
#10	95.5		
#20	94.1		
#40	89.7		
#60	67.8		
#100	27.8		
#140	19.2		
#200	15.6		

* (no specification provided)

Material Description

Fine grained, SILTY SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4328 D_{85}= 0.3514 D_{60}= 0.2263
D_{50}= 0.2016 D_{30}= 0.1561 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

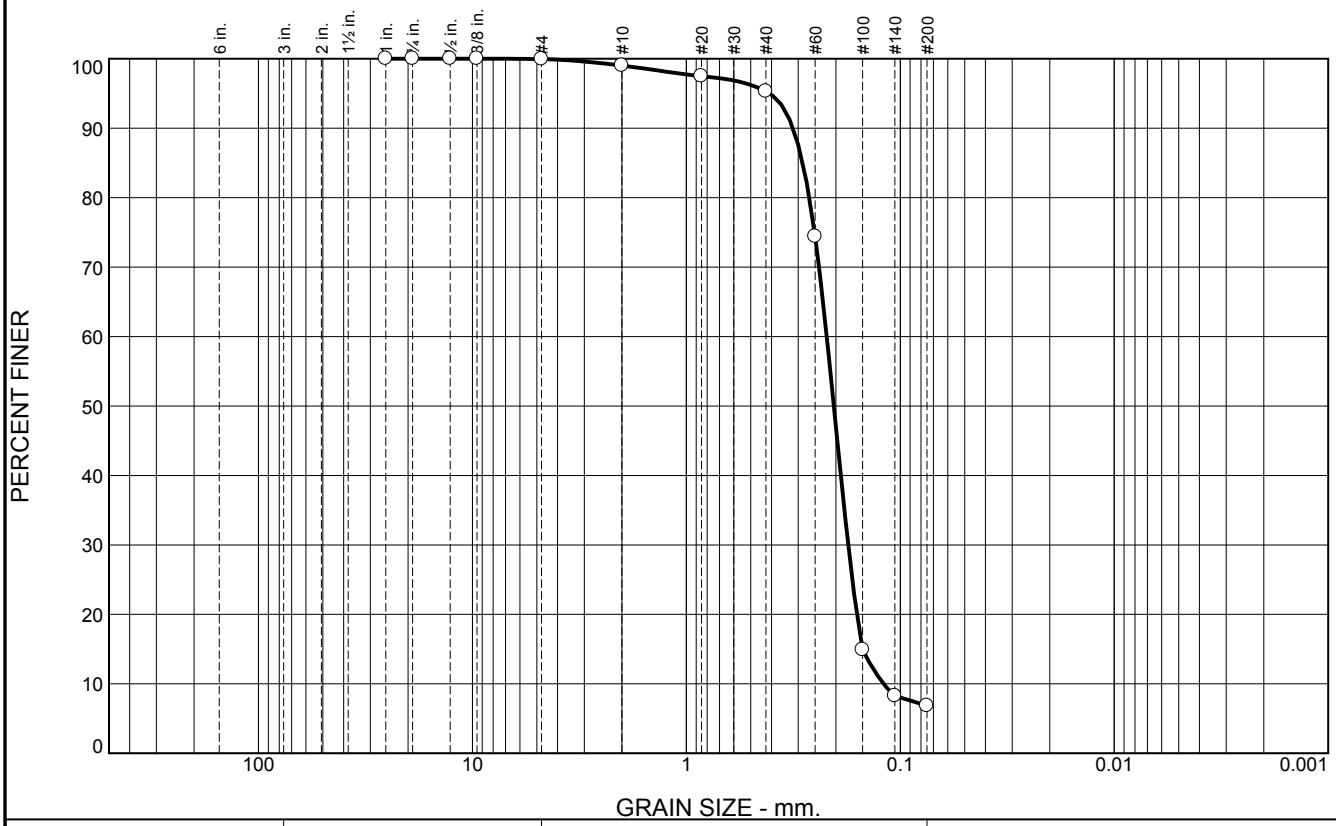
Location: BI-PBC-26-12 A
Sample Number: 6494 (38) **Depth:** 1.8' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	1.0	3.7	88.4	6.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.0		
#20	97.5		
#40	95.3		
#60	74.4		
#100	14.9		
#140	8.3		
#200	6.9		

* (no specification provided)

Material Description

Fine grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3174 D_{85}= 0.2861 D_{60}= 0.2206
D_{50}= 0.2045 D_{30}= 0.1753 D_{15}= 0.1502
D_{10}= 0.1197 C_u= 1.84 C_c= 1.16

Classification

USCS= SP-SM AASHTO=

Remarks

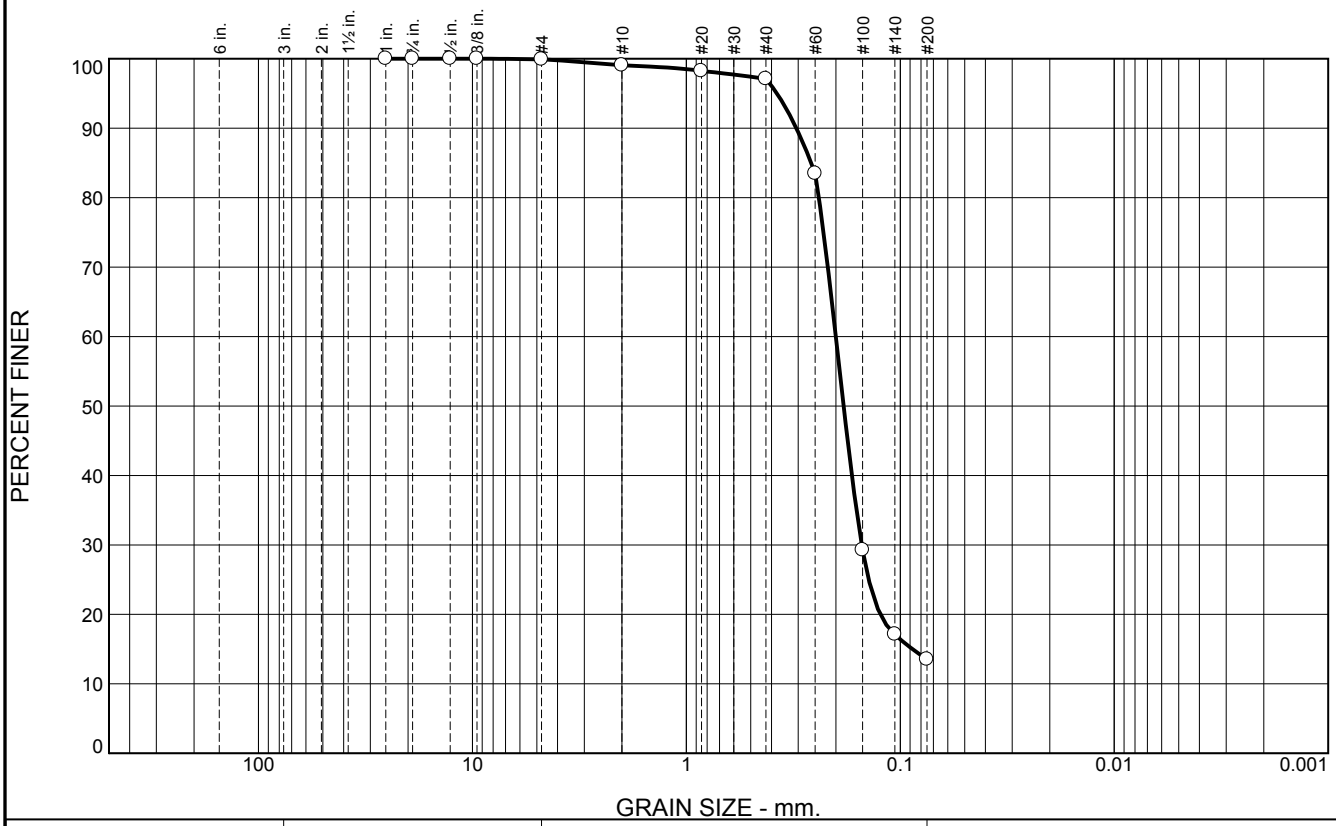
Location: BI-PBC-26-12 B
Sample Number: 6494 (39) **Depth:** 4.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.8	2.0	83.6	13.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	99.1		
#20	98.2		
#40	97.1		
#60	83.5		
#100	29.2		
#140	17.1		
#200	13.5		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3063 D_{85}= 0.2610 D_{60}= 0.2002
D_{50}= 0.1841 D_{30}= 0.1515 D_{15}= 0.0878
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBC-26-12 C
Sample Number: 6494 (40) **Depth:** 6.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBC-27-12

DRILLING LOG	DIVISION South Atlantic	INSTALLATION Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT MsCIP Barrier Island Restoration Pascagoula Bar Channel	9. SIZE AND TYPE OF BIT N/A
	10. COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.) | HORIZONTAL NAD83 | VERTICAL NAVD88
2. BORING DESIGNATION BI-PBC-27-12 | LOCATION COORDINATES E = 1,081,181 N = 250,686	11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY Corps of Engineers - CESAM | CONTRACTOR FILE NO.	12. TOTAL SAMPLES | DISTURBED | UNDISTURBED (UD) 0
4. NAME OF DRILLER American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING ☒ VERTICAL ☐ INCLINED | DEG. FROM VERTICAL | BEARING	14. WATER DEPTH 36.7 Ft.
	15. DATE BORING | STARTED 12-16-12 | COMPLETED 12-16-12
6. THICKNESS OF OVERBURDEN N/A	16. ELEVATION TOP OF BORING -35.8 Ft.
7. DEPTH DRILLED INTO ROCK N/A	17. TOTAL RECOVERY FOR BORING 100%
8. TOTAL DEPTH OF BORING 13.8 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR Mark Green, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-35.8	0.0				
-36.3	0.5		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, lt. gray (SP)	A	Classification: SM Color: 5Y 5/3-olive D50: 0.1657 mm % Fines: 19.8
-46.8	11.0		SAND, clayey, mostly quartz, some clay, little shell fragments, gray (SC)	NS	
-47.8	12.0		SILT, inorganic-L, mostly silt, some fine-grained sand-sized quartz, lt. gray (ML)		
-49.6	13.8		CLAY, lean, mostly clay, trace fine-grained sand-sized quartz, mottled lt. gray and yellowish orange (CL)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18898° Long = -88.52653°

Project Missiissippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBC-27-12

Coordinate System
Latitude / Longitude

Latitude 30 11.339

Longitude 088 31.592

Date 12/16/2012

Start Time 13:57:54

End Time 13:58:35

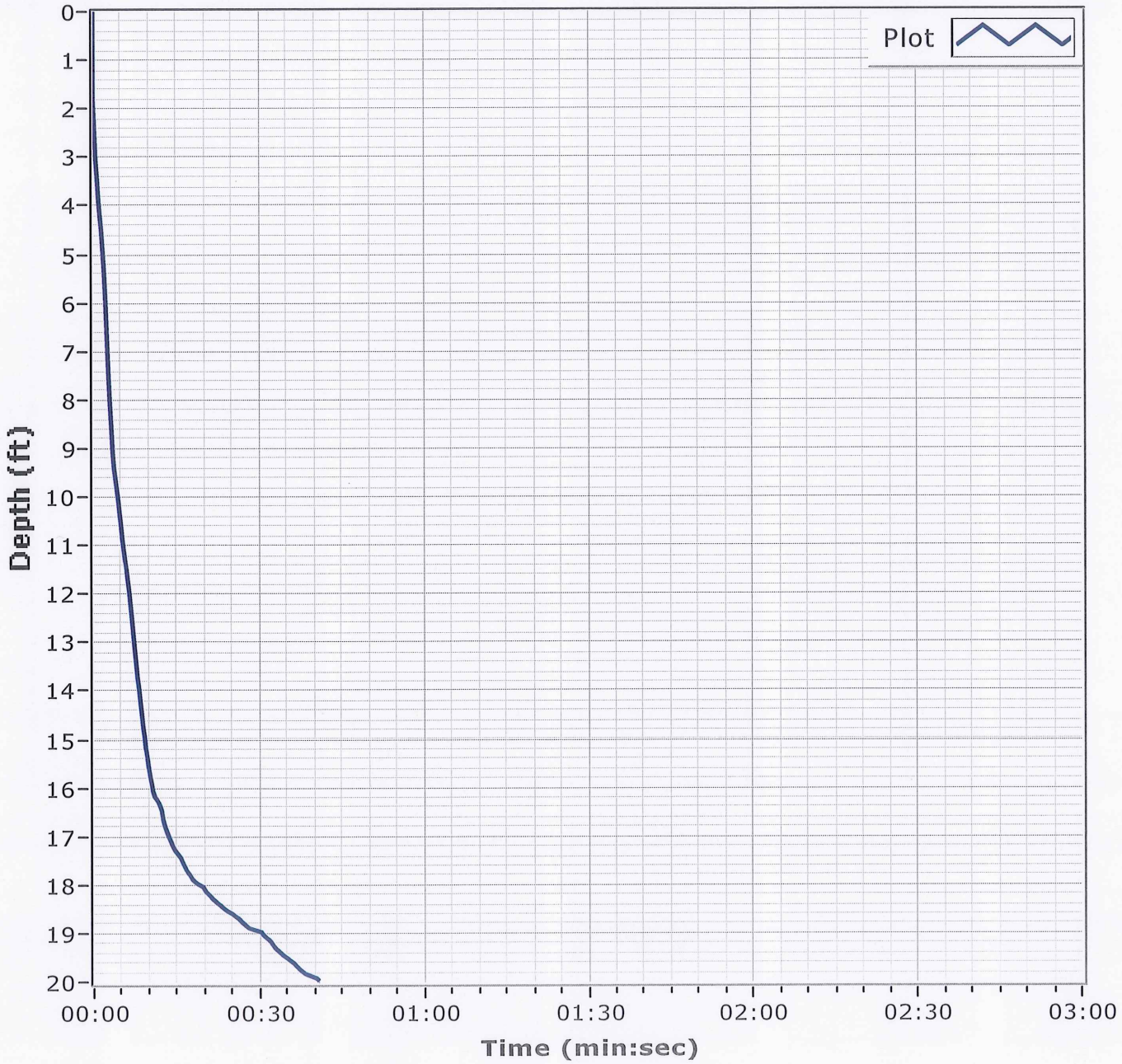
Total Time 00:00:40

Water Depth 36.7'

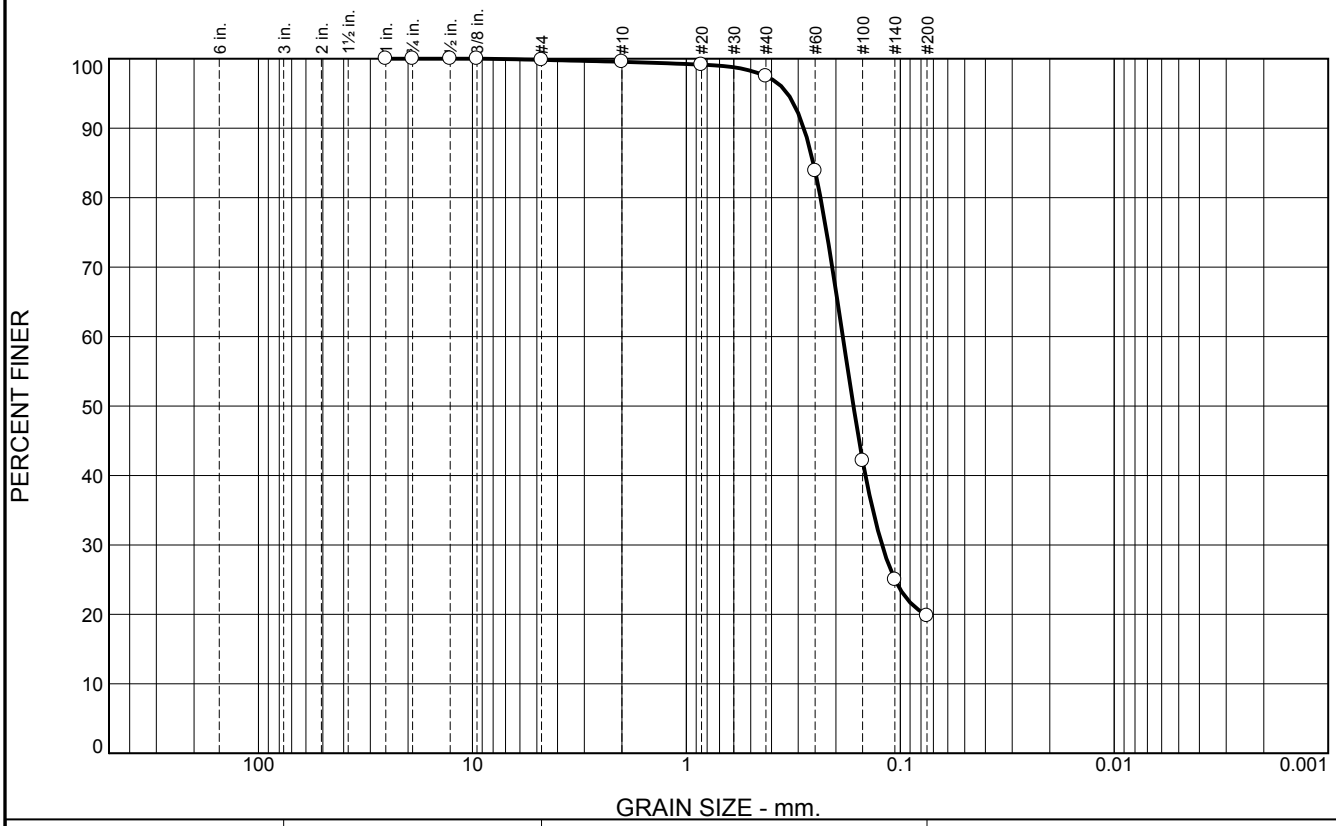
Penetration 20.0'

Recovery 14.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	0.3	2.0	77.7	19.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	99.5		
#20	99.1		
#40	97.5		
#60	83.8		
#100	42.1		
#140	25.0		
#200	19.8		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2825 D_{85}= 0.2549 D_{60}= 0.1857
D_{50}= 0.1657 D_{30}= 0.1218 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBC-27-12 A
Sample Number: 6494 (41) **Depth:** 0.0' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBC-28-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Pascagoula Bar Channel	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBC-28-12 — LOCATION COORDINATES: E = 1,080,009 N = 249,417	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 37.8 Ft.
	15. DATE BORING — STARTED: 12-16-12 — COMPLETED: 12-16-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -37.3 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 15.3 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mark Green, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-37.3	0.0				
-39.8	2.5		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace shell fragments, gray (SC)	NS	
-41.3	4.0		SAND, silty, mostly fine-grained sand-sized quartz, some silt, clayey lenses, gray (SM)	A	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1894 mm % Fines: 15.8
-43.3	6.0		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace shell fragments, gray (SC)	NS	
-46.3	9.0		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, clayey lenses, gray (SM)	B	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1921 mm % Fines: 12.6
-51.3	14.0		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace shell fragments, gray (SC)	NS	
-52.6	15.3		CLAY, fat, mostly clay, trace fine-grained sand-sized quartz, soft, gray and brown (CH)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18550° Long = -88.53025°

Project Missiissippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBC-28-12a

Coordinate System
Latitude / Longitude

Latitude 30 11.130

Longitude 088 31.815

Date 12/16/2012

Start Time 11:10:38

End Time 11:11:04

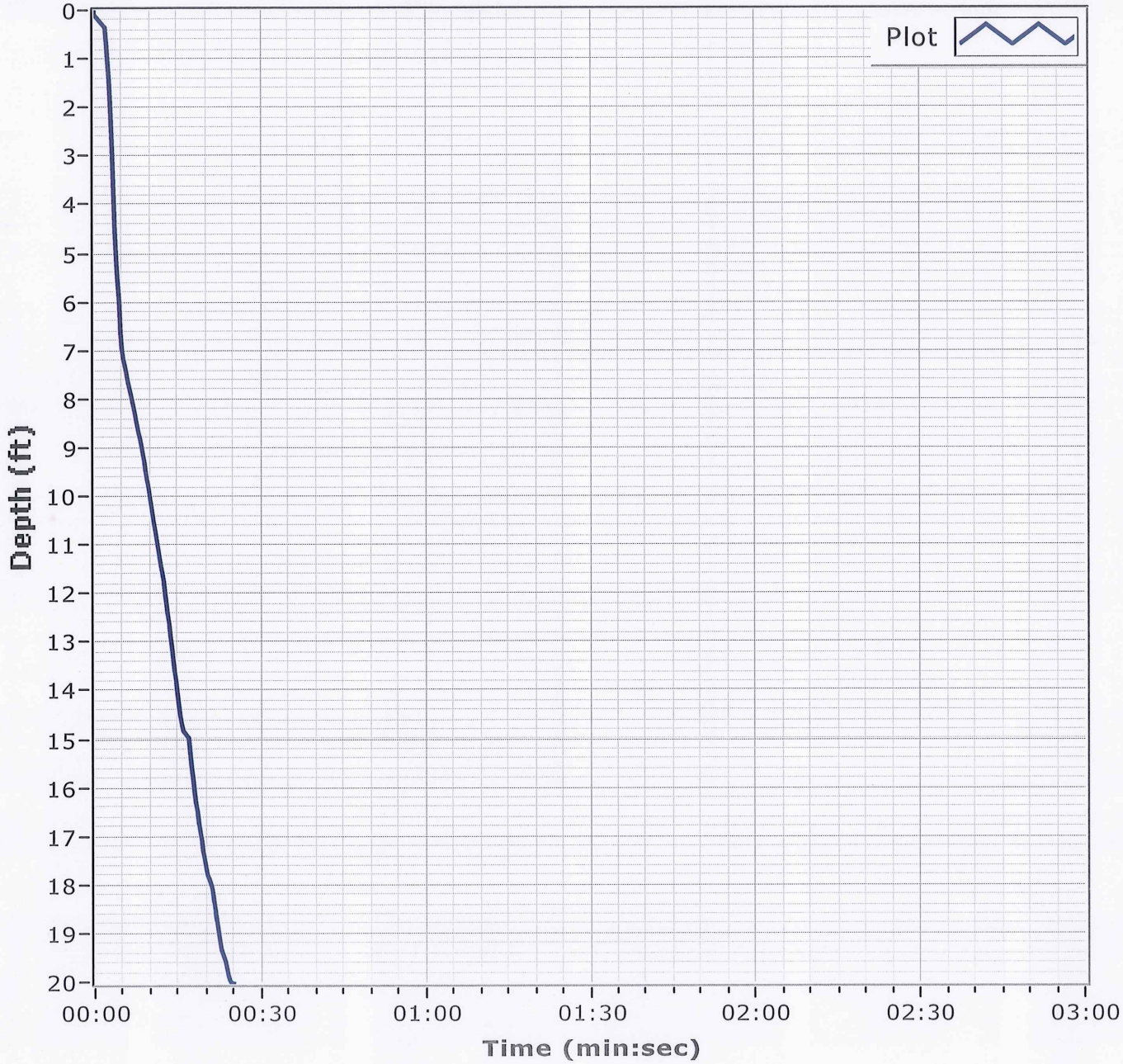
Total Time 00:00:25

Water Depth 37.8

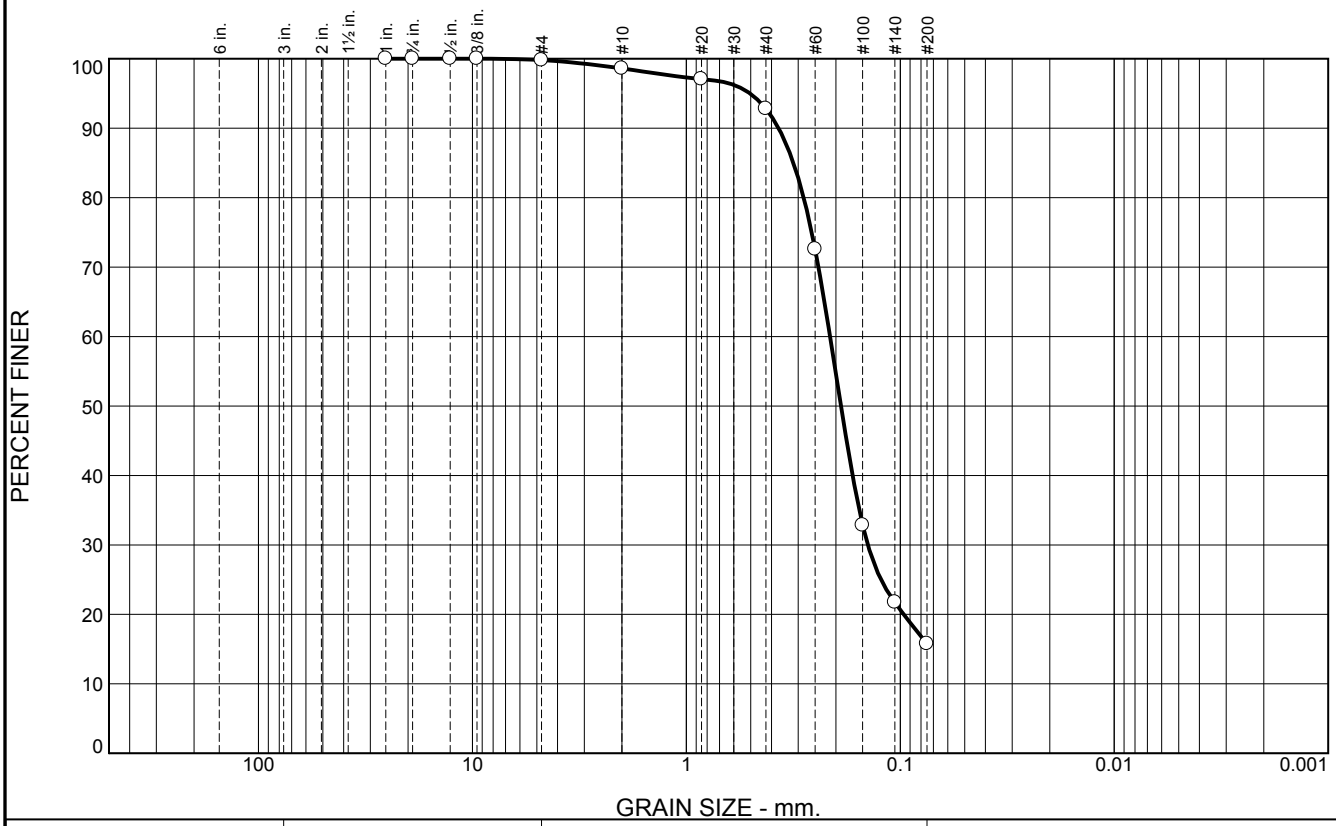
Penetration 20.0'

Recovery 15.5'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	1.2	5.8	77.0	15.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	98.6		
#20	97.1		
#40	92.8		
#60	72.6		
#100	32.8		
#140	21.7		
#200	15.8		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3705 D_{85}= 0.3160 D_{60}= 0.2130
D_{50}= 0.1894 D_{30}= 0.1418 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

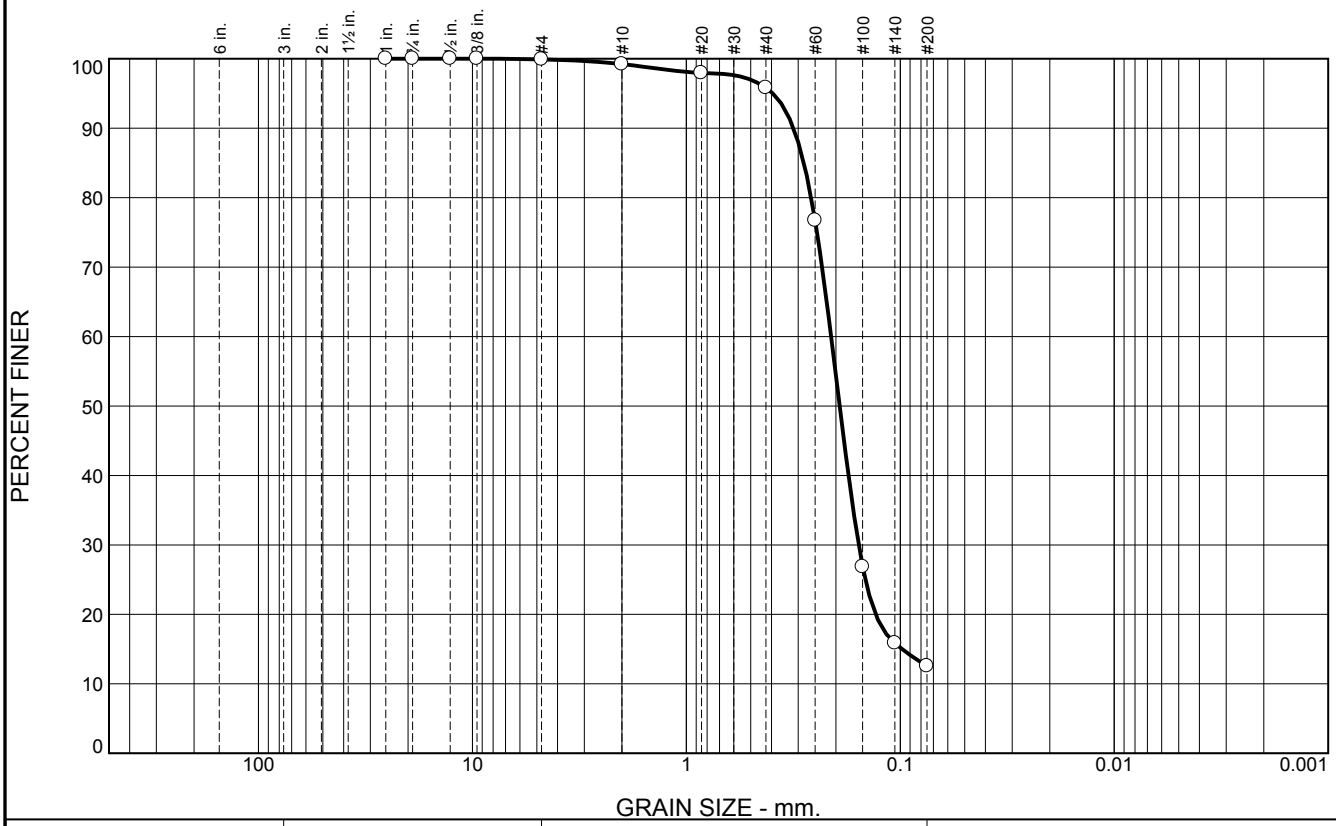
Location: BI-PBC-28-12 A
Sample Number: 6494 (42) **Depth:** 2.5' **Date:** 12/26/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.7	3.4	83.2	12.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	99.2		
#20	97.9		
#40	95.8		
#60	76.7		
#100	26.9		
#140	15.9		
#200	12.6		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3158 D_{85}= 0.2825 D_{60}= 0.2105
D_{50}= 0.1921 D_{30}= 0.1566 D_{15}= 0.0980
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBC-28-12 B
Sample Number: 6494 (43) **Depth:** 6.0' **Date:** 12/26/12

Thompson Engineering

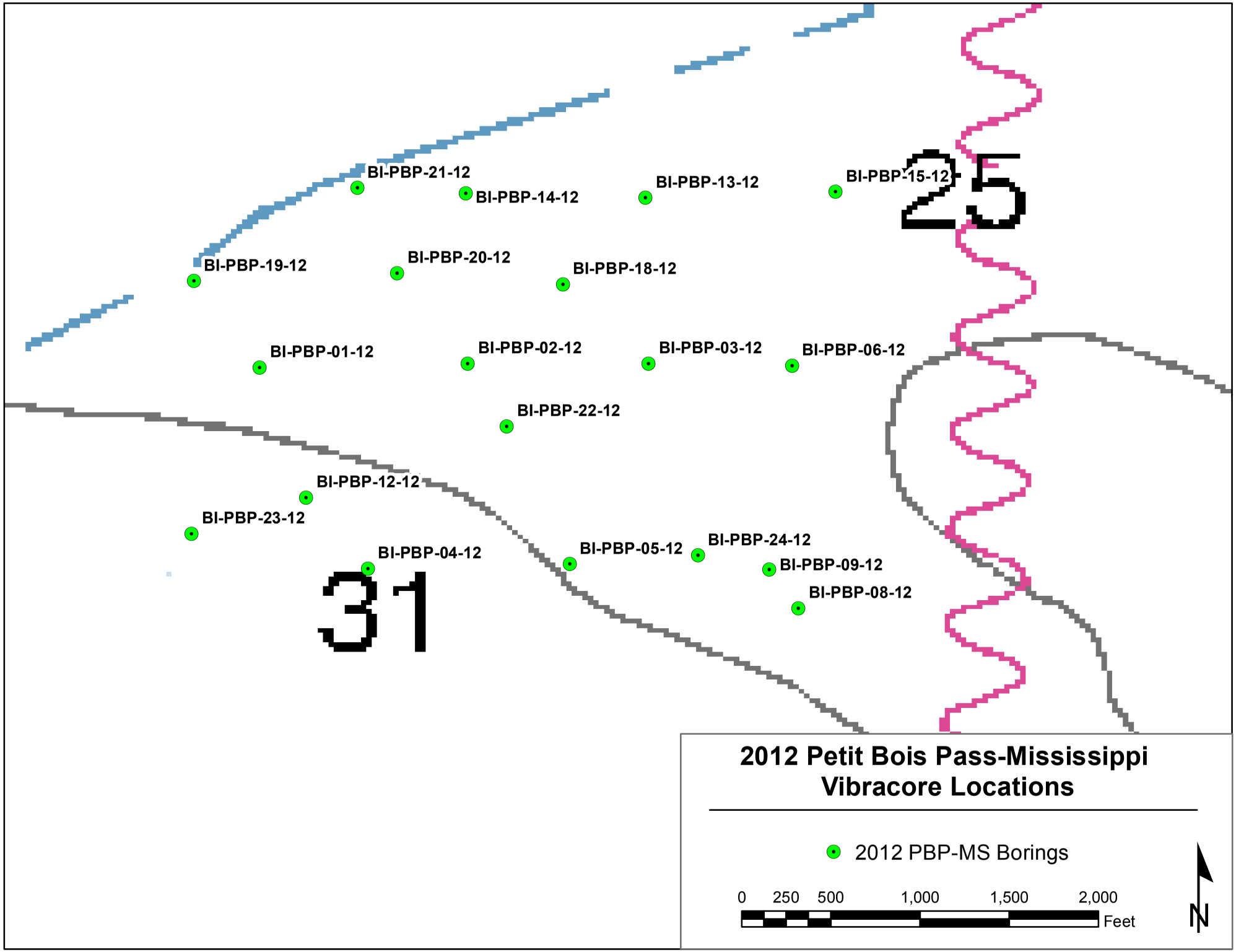
Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Appendix J

Petit Bois Pass-Mississippi Vibracores and Lab Results

This page was intentionally left blank for duplex printing.


BI-PBP-21-12
BI-PBP-14-12
BI-PBP-13-12
BI-PBP-15-12
25
BI-PBP-19-12
BI-PBP-20-12
BI-PBP-18-12
BI-PBP-01-12
BI-PBP-02-12
BI-PBP-03-12
BI-PBP-06-12
BI-PBP-22-12
BI-PBP-12-12
BI-PBP-23-12
BI-PBP-04-12
BI-PBP-05-12
BI-PBP-24-12
BI-PBP-09-12
BI-PBP-08-12
31
2012 Petit Bois Pass-Mississippi
Vibracore Locations
2012 PBP-MS Borings
0 250 500 1,000 1,500 2,000
Feet
N

This page was intentionally left blank for duplex printing.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBP-1-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	11:10 AM	30.19192	-88.39588	251890.15020	1122454.74100	20-ft Vibracore	31.7	16.3																	
BI-PBP-1-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	11:10 AM	30.19192	-88.39588	251890.15020	1122454.74100	20-ft Vibracore	31.7	16.3	0-0.6	0.6	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE	5Y 5/3	5	PALE OLIVE	5Y 6/3	6		0.25	0.27	2.1	1.9	0.9
BI-PBP-1-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	11:10 AM	30.19192	-88.39588	251890.15020	1122454.74100	20-ft Vibracore	31.7	16.3	1.3-2.5	1.2	SP	SP	SUBANGULAR TO SUBROUNDED	LT GRAY	2.5Y 7/1	7	WHITE	5Y 8/1	8		0.37	0.38	1.6	1.5	1.0
BI-PBP-1-12C	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	11:10 AM	30.19192	-88.39588	251890.15020	1122454.74100	20-ft Vibracore	31.7	16.3	2.5-6.1	3.6	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.48	0.58	1.4	2.3	0.9
BI-PBP-1-12D	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	11:10 AM	30.19192	-88.39588	251890.15020	1122454.74100	20-ft Vibracore	31.7	16.3	6.1-7.4	1.3	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.34	0.35	8.2	4.7	1.9
BI-PBP-1-12E	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	11:10 AM	30.19192	-88.39588	251890.15020	1122454.74100	20-ft Vibracore	31.7	16.3	7.4-9.2	1.8	SP	SP	SUBANGULAR TO SUBROUNDED	WHITE	2.5Y 8/1	8	WHITE	2.5Y 8.5/1	9		0.37	0.39	0.9	1.5	0.9
BI-PBP-1-12F	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	11:10 AM	30.19192	-88.39588	251890.15020	1122454.74100	20-ft Vibracore	31.7	16.3	11.7-13	1.3	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.30	0.31	3.2	1.9	1.1
BI-PBP-1-12G	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	11:10 AM	30.19192	-88.39588	251890.15020	1122454.74100	20-ft Vibracore	31.7	16.3	13-16.3	3.3	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.35	0.40	4.1	2.4	1.1
BI-PBP-2-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	12:01 PM	30.19198	-88.39268	251915.86740	1123465.64300	20-ft Vibracore	25.8	15.0																	
BI-PBP-2-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	12:01 PM	30.19198	-88.39268	251915.86740	1123465.64300	20-ft Vibracore	25.8	15.0	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.32	0.34	1.1	1.7	1.0
BI-PBP-2-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	12:01 PM	30.19198	-88.39268	251915.86740	1123465.64300	20-ft Vibracore	25.8	15.0	6-8.6	2.6	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.24	0.28	4.4	1.9	1.0
BI-PBP-2-12C	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	12:01 PM	30.19198	-88.39268	251915.86740	1123465.64300	20-ft Vibracore	25.8	15.0	8.6-11	2.4	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.36	0.39	1.7	1.7	1.0
BI-PBP-2-12D	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	12:01 PM	30.19198	-88.39268	251915.86740	1123465.64300	20-ft Vibracore	25.8	15.0	11-15	4.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.32	0.36	2.7	2.1	1.0
BI-PBP-3-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	1:07 PM	30.19198	-88.38990	251919.27520	1124343.93700	20-ft Vibracore	28.9	19.0																	
BI-PBP-3-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	1:07 PM	30.19198	-88.38990	251919.27520	1124343.93700	20-ft Vibracore	28.9	19.0	0-1.8	1.8	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.38	0.43	1.0	1.8	0.9
BI-PBP-3-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	1:07 PM	30.19198	-88.38990	251919.27520	1124343.93700	20-ft Vibracore	28.9	19.0	3.1-4	0.9	SP	SP	SUBANGULAR TO SUBROUNDED	GRAY	5Y 6/1	6	LT GRAY	5Y 7/1	7		0.34	0.37	1.6	1.9	1.1
BI-PBP-3-12D	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	1:07 PM	30.19198	-88.38990	251919.27520	1124343.93700	20-ft Vibracore	28.9	19.0	4-5.1	1.1	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.36	0.40	1.8	1.8	1.0
BI-PBP-3-12C	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	1:07 PM	30.19198	-88.38990	251919.27520	1124343.93700	20-ft Vibracore	28.9	19.0	5.1-7.1	2.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT GRAY	2.5Y 7/1	7	WHITE	2.5Y 8/1	8		0.29	0.29	2.1	1.7	1.0
BI-PBP-4-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	2:57 PM	30.18883	-88.39422	250768.37780	1122983.52100	20-ft Vibracore	32.3	15.0																	
BI-PBS-4-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	2:57 PM	30.18883	-88.39422	250768.37780	1122983.52100	20-ft Vibracore	32.3	15.0	0-4.3	4.3	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.25	0.28	5.6	2.8	1.2
BI-PBP-5-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	2:53 PM	30.18890	-88.39112	250797.62370	1123962.84600	20-ft Vibracore	31.2	16.8																	
BI-PBP-5-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	2:53 PM	30.18890	-88.39112	250797.62370	1123962.84600	20-ft Vibracore	31.2	16.8	0-4.5	4.5	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.27	0.28	1.8	1.7	1.0
BI-PBP-5-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	2:53 PM	30.18890	-88.39112	250797.62370	1123962.84600	20-ft Vibracore	31.2	16.8	6.2-7.2	1.0	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.24	0.26	5.4	1.8	1.0
BI-PBP-6-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	1:47 PM	30.19195	-88.38770	251911.07660	1125039.03300	20-ft Vibracore	33.0	6.8		5.5															
BI-PBP-6-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	1:47 PM	30.19195	-88.38770	251911.07660	1125039.03300	20-ft Vibracore	33.0	6.8	0-3.4	3.4	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.33	0.36	2.1	1.7	1.1
BI-PBP-6-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	1:47 PM	30.19195	-88.38770	251911.07660	1125039.03300	20-ft Vibracore	33.0	6.8	4.7-6.8	2.1	SP	SP	SUBANGULAR TO SUBROUNDED	DK GRAYISH BROWN	2.5Y 4/2	4	GRAYISH BROWN	2.5Y 5/2	5		0.24	0.28	2.7	2.0	0.9
BI-PBP-8-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	1:50 PM	30.18822	-88.38760	250554.65060	1125075.93300	20-ft Vibracore	27.1	16.7																	
BI-PBP-8-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	1:50 PM	30.18822	-88.38760	250554.65060	1125075.93300	20-ft Vibracore	27.1	16.7	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.36	0.41	1.0	1.8	1.0
BI-PBP-8-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	1:50 PM	30.18822	-88.38760	250554.65060	1125075.93300	20-ft Vibracore	27.1	16.7	5-6.3	1.3	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.24	0.27	1.7	1.6	0.9
BI-PBP-9-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	2:18 PM	30.18882	-88.38805	250772.30640	1124932.90500	20-ft Vibracore	28.9	18.0																	
BI-PBP-9-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	2:18 PM	30.18882	-88.38805	250772.30640	1124932.90500	20-ft Vibracore	28.9	18.0	0-2.2	2.2	SP	SP	SUBANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/2	6	LT GRAY	2.5Y 7/2	7		0.33	0.35	1.0	1.7	1.0
BI-PBP-9-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/8/2012	2:18 PM	30.18882	-88.38805	250772.30640	1124932.90500	20-ft Vibracore	28.9	18.0	2.4-5.6	3.2	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.26	0.29	1.7	1.8	0.9
BI-PBP-12-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	2:22 PM	30.18992	-88.39517	251163.64000	1122681.85100	20-ft Vibracore	32.5	8.6																	
BI-PBP-12-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	2:22 PM	30.18992	-88.39517	251163.64000	1122681.85100	20-ft Vibracore	32.5	8.6	0-2.1	2.1	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.28	0.31	2.0	1.9	0.9
BI-PBP-12-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	2:22 PM	30.18992	-88.39517	251163.64000	1122681.85100	20-ft Vibracore	32.5	8.6	3.1-5.7	2.6	SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.29	0.32	7.3	2.8	1.2
BI-PBP-12-12C	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	2:22 PM	30.18992	-88.39517	251163.64000	1122681.85100	20-ft Vibracore	32.5	8.6	6.9-8.6	1.7	SP-SM	SP	SUBANGULAR TO SUBROUNDED	DK GRAYISH BROWN	2.5Y 4/2	4	LT BROWNISH GRAY	2.5Y 6/2	6		0.23	0.27	3.1	2.3	1.0
BI-PBP-13-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	10:49 AM	30.19453	-88.38995	252846.61390	1124324.53100	20-ft Vibracore	29.0	19.3																	
BI-PBP-13-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	10:49 AM	30.19453	-88.38995	252846.61390	1124324.53100	20-ft Vibracore	29.0	19.3	0-4.8	4.8	SP	SP	SUBANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/2	6	LT GRAY	2.5Y 7/2	7		0.29	0.32	1.9	1.9	1.0
BI-PBP-13-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	10:49 AM	30.19453	-88.38995	252846.61390	1124324.53100	20-ft Vibracore	29.0	19.3	6-9.5	3.5	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	VERY DK GRAYISH BROWN	2.5Y 3/2	3	DK GRAYISH BROWN	2.5Y 4/2	4		0.24	0.27	5.3	2.7	1.0
BI-PBP-14-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	11:17 AM	30.19460	-88.39272	252868.67660	1123449.32000	20-ft Vibracore	27.3	15.5																	
BI-PBP-14-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	11:17 AM	30.19460	-88.39272	252868.67660	1123449.32000	20-ft Vibracore	27.3	15.5	0-2	2.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.26	0.30	2.5	2.3	1.0
BI-PBP-15-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	10:19 AM	30.19462	-88.38703	252882.94790	1125246.90400	20-ft Vibracore	29.4	19.6																	
BI-PBP-15-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	10:19 AM	30.19462	-88.38703	252882.94790	1125246.90400	20-ft Vibracore	29.4	19.6	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.34	0.36	1.2	1.4	1.0
BI-PBP-15-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	10:19 AM	30.19462	-88.38703	252882.94790	1125246.90400	20-ft Vibracore	29.4	19.6	5-7.2	2.2	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.23	0.27	6.9	2.7	1.0
BI-PBP-18-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	1:18 PM	30.19320	-88.39122	252361.35170	1123925.18300	20-ft Vibracore	27.0	19.1																	
BI-PBP-18-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	1:18 PM	30.19320	-88.39122	252361.35170	1123925.18300	20-ft Vibracore	27.0	19.1	0-4	4.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.20	0.22	3.4	2.0	1.1
BI-PBP-18-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	1:18 PM	30.19320	-88.39122	252361.35170	1123925.18300	20-ft Vibracore	27.0	19.1	4-8	4.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.21	0.23	3.2	1.6	1.0
BI-PBP-18-12C	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	1:18 PM	30.19320	-88.39122	252361.35170	1123925.18300	20-ft Vibracore	27.0	19.1	8.7-13.1	4.4	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	VERY DK GRAYISH BROWN	2.5Y 3/2	3	DK GRAYISH BROWN	2.5Y 4/2	4		0.27	0.27	5.5	2.7	1.1
BI-PBP-19-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	11:45 AM	30.19325	-88.39690	252372.61680	1122130.63600	20-ft Vibracore	30.5	17.7																	
BI-PBP-19-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	11:45 AM	30.19325	-88.39690	252372.61680	1122130.63600	20-ft Vibracore	30.5	17.7	0.4-3	2.6	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.33	0.36	1.7	1.9	1.0

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBP-19-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	11:45 AM	30.19325	-88.39690	252372.61680	1122130.63600	20-ft Vibracore	30.5	17.7	3-7.9	4.9	SP	SP	SUBANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/2	6	LT GRAY	2.5Y 7/2	7		0.35	0.37	1.5	1.4	1.0
BI-PBP-19-12C	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	11:45 AM	30.19325	-88.39690	252372.61680	1122130.63600	20-ft Vibracore	30.5	17.7	7.9-12	4.1	SP-SM	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.43	0.48	3.7	1.8	0.9
BI-PBP-19-12D	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	11:45 AM	30.19325	-88.39690	252372.61680	1122130.63600	20-ft Vibracore	30.5	17.7	14.1-17.7	3.6	SP	SP	SUBANGULAR TO SUBROUNDED	GRAYISH BROWN	2.5Y 5/2	5	LT BROWNISH GRAY	2.5Y 6/2			0.34	0.35	3.0	1.6	1.0
BI-PBP-20-12	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	12:49 PM	30.19337	-88.39377	252420.06100	1123119.32500	20-ft Vibracore	24.2	13.1																	
BI-PBP-20-12A	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	12:49 PM	30.19337	-88.39377	252420.06100	1123119.32500	20-ft Vibracore	24.2	13.1	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.33	0.36	0.9	1.9	1.0
BI-PBP-20-12B	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	12:49 PM	30.19337	-88.39377	252420.06100	1123119.32500	20-ft Vibracore	24.2	13.1	5-10	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.23	0.25	4.3	1.6	1.0
BI-PBP-20-12C	PETIT BOIS PASS - MISSISSIPPI	2012	12/22/2012	12:49 PM	30.19337	-88.39377	252420.06100	1123119.32500	20-ft Vibracore	24.2	13.1	10-13.1	3.1	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.30	0.31	3.1	1.8	1.0
BI-PBP-21-12	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	11:30 AM	30.19468	-88.39438	252895.74690	1122924.77300	20-ft Vibracore	25.8	13.0																	
BI-PBP-21-12A	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	11:30 AM	30.19468	-88.39438	252895.74690	1122924.77300	20-ft Vibracore	25.8	13.0	0.0-2.5	2.5	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.31	0.34	1.4	1.9	1.0
BI-PBP-21-12B	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	11:30 AM	30.19468	-88.39438	252895.74690	1122924.77300	20-ft Vibracore	25.8	13.0	2.5-7.5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT GRAY	5Y 7/1	7	WHITE	5Y 8/1	8		0.30	0.31	1.6	1.6	1.0
BI-PBP-21-12C	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	11:30 AM	30.19468	-88.39438	252895.74690	1122924.77300	20-ft Vibracore	25.8	13.0	7.5-13.0	5.5	SP	SP	SUBANGULAR TO SUBROUNDED	LT GRAY	5Y 7/1	7	WHITE	5Y 8/1	8		0.30	0.30	1.7	1.6	1.0
BI-PBP-22-12	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	10:54 AM	30.19102	-88.39208	251567.46240	1123656.55500	20-ft Vibracore	24.2	18.8																	
BI-PBP-22-12A	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	10:54 AM	30.19102	-88.39208	251567.46240	1123656.55500	20-ft Vibracore	24.2	18.8	0.0-5.0	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.31	0.31	1.3	1.6	1.0
BI-PBP-22-12B	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	10:54 AM	30.19102	-88.39208	251567.46240	1123656.55500	20-ft Vibracore	24.2	18.8	5.0-10.0	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.29	0.31	2.2	1.8	1.0
BI-PBP-22-12C	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	10:54 AM	30.19102	-88.39208	251567.46240	1123656.55500	20-ft Vibracore	24.2	18.8	10.3-14.2	3.9	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.24	0.30	4.5	1.8	1.0
BI-PBP-23-12	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	10:12 AM	30.18937	-88.39693	250961.47860	1122126.56300	20-ft Vibracore	35.4	14.9																	
BI-PBP-23-12A	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	10:12 AM	30.18937	-88.39693	250961.47860	1122126.56300	20-ft Vibracore	35.4	14.9	1.2-3.2	2.0	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.32	0.32	6.9	2.1	1.4
BI-PBP-23-12B	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	10:12 AM	30.18937	-88.39693	250961.47860	1122126.56300	20-ft Vibracore	35.4	14.9	4.8-7.3	2.5	SC	SM	SUBANGULAR TO SUBROUNDED	DK GRAYISH BROWN	2.5Y 4/2	4	GRAYISH BROWN	2.5Y 5/2	5		0.13	0.15	13.0	#VALUE!	#VALUE!
BI-PBP-23-12C	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	10:12 AM	30.18937	-88.39693	250961.47860	1122126.56300	20-ft Vibracore	35.4	14.9	9.3-11.3	2.0	SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.18	0.19	14.3	#VALUE!	#VALUE!
BI-PBP-23-12D	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	10:12 AM	30.18937	-88.39693	250961.47860	1122126.56300	20-ft Vibracore	35.4	14.9	11.3-14.4	3.1	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.14	0.14	5.4	1.5	1.1
BI-PBP-24-12	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	9:28 AM	30.18903	-88.38915	250847.32400	1124585.07000	20-ft Vibracore	27.1	19.9																	
BI-PBP-24-12A	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	9:28 AM	30.18903	-88.38915	250847.32400	1124585.07000	20-ft Vibracore	27.1	19.9	0.0-5.0	5.0	SP	SP-SM	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.33	0.35	5.1	1.9	1.0
BI-PBP-24-12B	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	9:28 AM	30.18903	-88.38915	250847.32400	1124585.07000	20-ft Vibracore	27.1	19.9	5.0-8.6	3.6	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.25	0.29	2.0	1.8	0.9
BI-PBP-24-12C	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	9:28 AM	30.18903	-88.38915	250847.32400	1124585.07000	20-ft Vibracore	27.1	19.9	8.6-11.2	2.6	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.30	0.30	6.2	2.1	1.2
BI-PBP-24-12D	PETIT BOIS PASS - MISSISSIPPI	2012	1/4/2013	9:28 AM	30.18903	-88.38915	250847.32400	1124585.07000	20-ft Vibracore	27.1	19.9	13.6-18.1	4.5	SM	SM	SUBANGULAR TO SUBROUNDED	VERY DK GRAYISH BROWN	2.5Y 3/2	3	DK GRAYISH BROWN	2.5Y 4/2	4		0.12	0.13	13.6	#VALUE!	#VALUE!

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Boring Designation BI-PBP-01-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 2 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-01-12 — LOCATION COORDINATES: E = 1,122,455 N = 251,890	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 31.7 Ft.
	15. DATE BORING — STARTED: 12-08-12 — COMPLETED: 12-08-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -31.1 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 16.3 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-31.1	0.0				
-31.7	0.6		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, brownish gray (SP)	A	Classification: SP Color: 5Y 6/3-pale olive D50: 0.2506 mm % Fines: 2.1
-32.1	1.0			NS	
			CLAY, fat, mostly clay, medium to high plasticity, dark gray (CH)	C	Classification: SP Color: 5Y 7/2-light gray D50: 0.4777 mm % Fines: 1.4
			SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little shell fragments, trace silt, gray (SP) At El. -32.4 Ft., mostly fine to medium-grained sand-sized quartz, some shell fragments, trace silt, gray	B	Classification: SP Color: 5Y 8/1-white D50: 0.3651 mm % Fines: 1.6
-38.5	7.4		At El. -33.6 Ft., mostly fine-grained sand-sized quartz, trace silt, trace shell fragments, trace clay stringers, lt. gray to white	E	Classification: SP Color: 2.5Y 8.5/1- D50: 0.3686 mm % Fines: 0.9
-40.3	9.2		At El. -37.4 Ft., mostly fine to medium-grained sand-sized quartz, trace silt, lt. gray to white	D	Classification: SP-SM Color: 5Y 5/2-olive gray D50: 0.3369 mm % Fines: 8.2
-42.1	11.0		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, trace shell fragments, dark gray (SP-SM)	NS	
-42.4	11.3				
-42.8	11.7		SAND, silty, mostly fine-grained sand-sized quartz, trace shell fragments, dark gray (SM)	G	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.3452 mm % Fines: 4.1
			CLAY, fat, mostly clay, medium to high plasticity, dark gray (CH)		
-47.4	16.3		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, clay banding, dark gray (SP-SM)	F	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.3004 mm % Fines: 3.2
			SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some shell fragments, trace silt, clay nodules, gray (SP) At El. -44.2 Ft., mostly fine-grained sand-sized quartz, trace silt, trace clay, trace shell fragments, gray to light gray		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Sample intervals do not match up with lithologic intervals because the contractor

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19192° Long = -88.39588°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,122,455 Y = 251,890	ELEVATION TOP OF BORING -31.1 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			reversed the tubes on the table during sampling. This caused a disjointed sampling event because there were four five-foot tubes and the tops and bottoms did not match up correctly. The original log was redrawn to correct this situation, but the samples remained from the original, incorrect intervals. Their depths have been adjusted to account for the mix up. The lab sample intervals are incorrect; they match the original sample intervals. 4. Seafloor elevation determined from USACE hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19192° Long = -88.39588°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-1-12

Coordinate System
Latitude / Longitude

Latitude 30 11.515

Longitude 088 23.753

Date 12/08/2012

Start Time 11:08:23

End Time 11:13:58

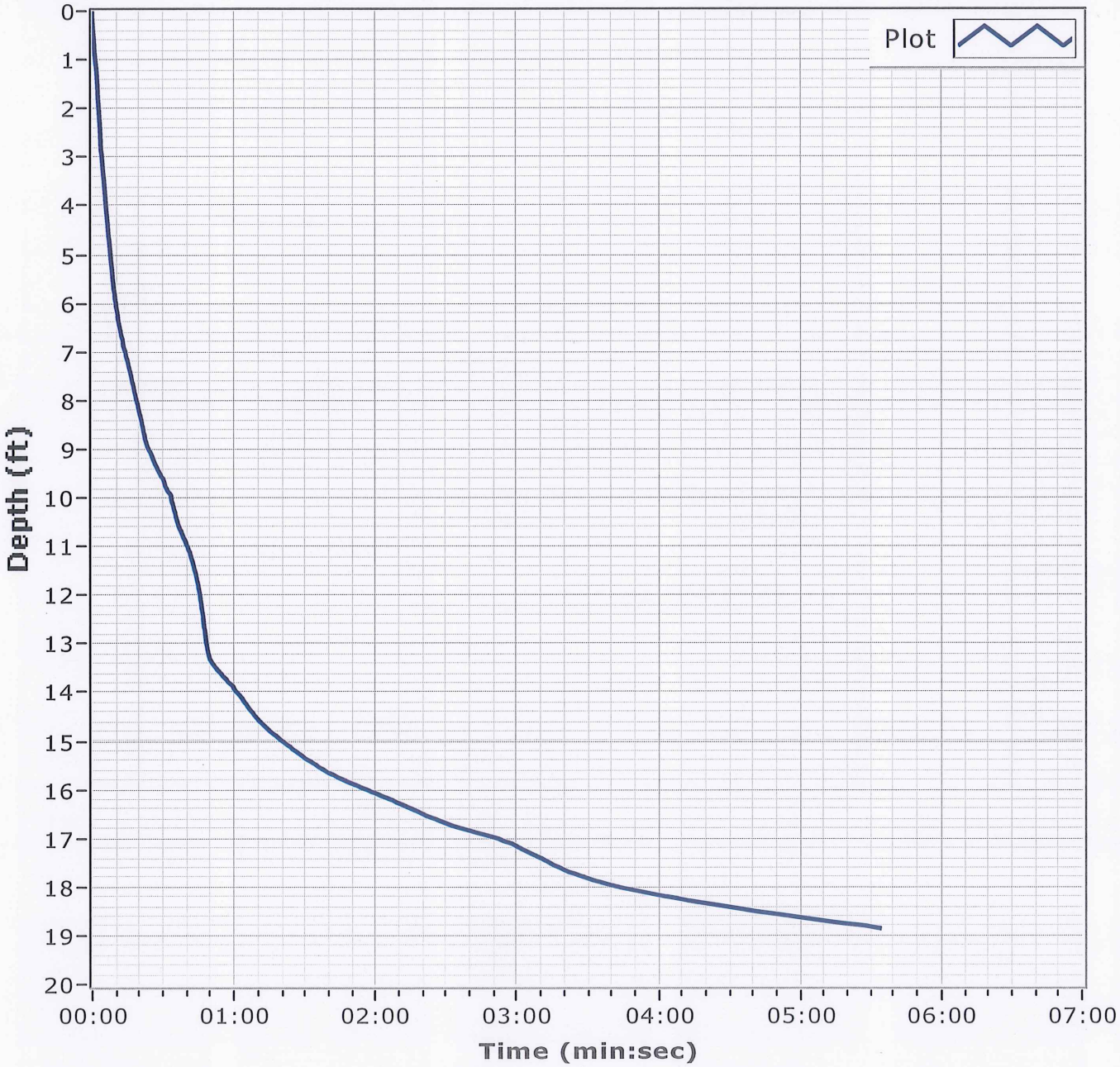
Total Time 00:05:34

Water Depth 31.7'

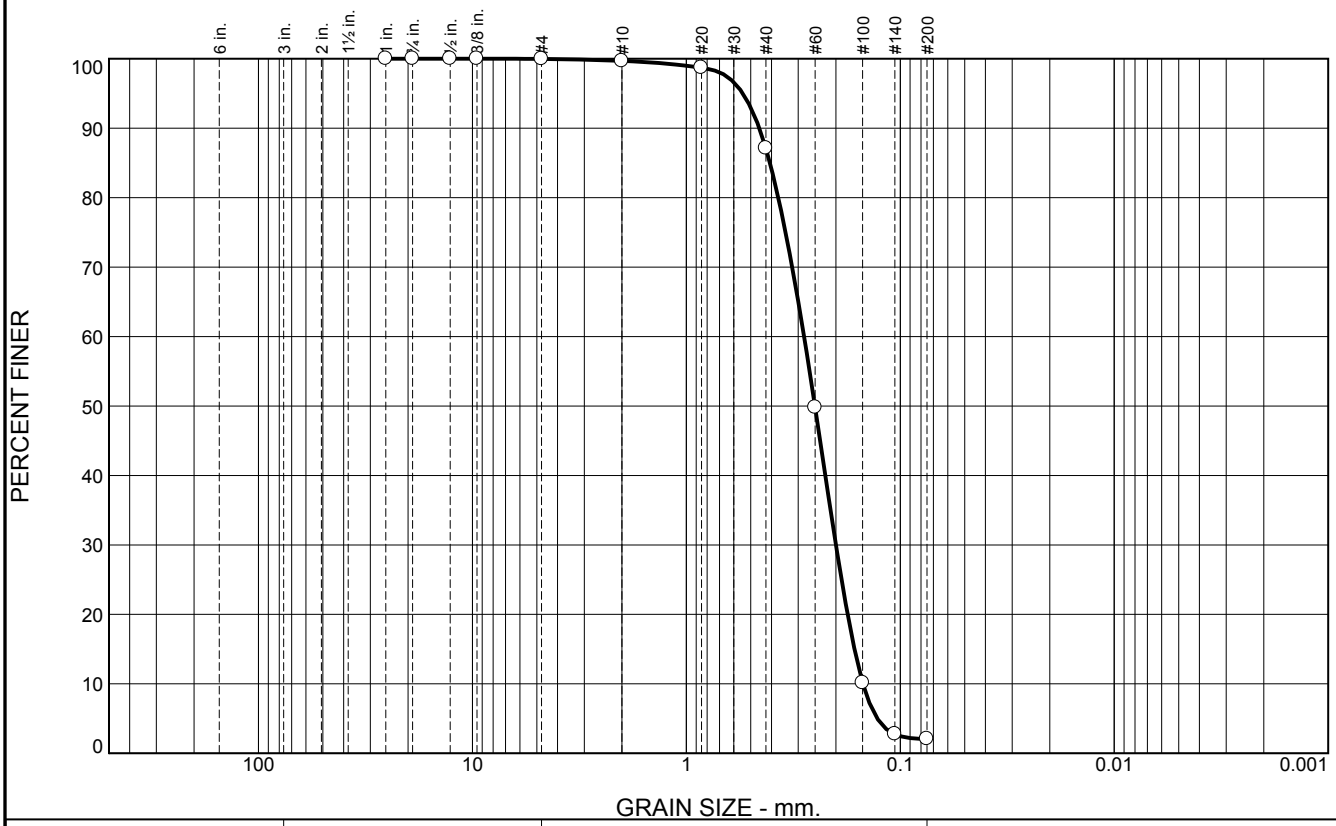
Penetration 18.9'

Recovery 16.3'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.3	12.6	85.0	2.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.7		
#20	98.7		
#40	87.1		
#60	49.8		
#100	10.1		
#140	2.8		
#200	2.1		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4561 D_{85}= 0.4068 D_{60}= 0.2818
D_{50}= 0.2506 D_{30}= 0.1999 D_{15}= 0.1639
D_{10}= 0.1495 C_u= 1.88 C_c= 0.95

Classification

USCS= SP AASHTO=

Remarks

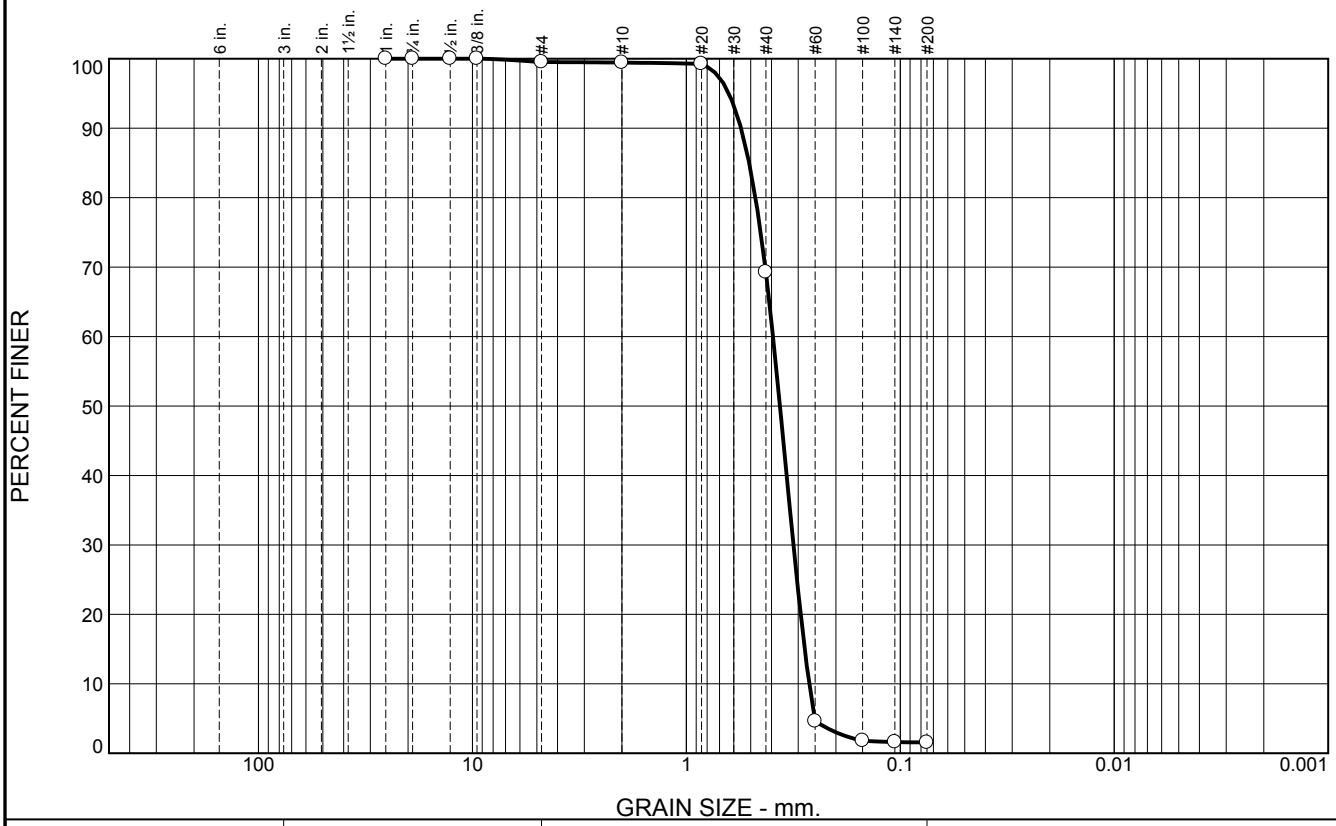
Location: BI-PBP-1-12 A
Sample Number: 6482 (20) **Depth:** 0.7' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.5	0.1	30.1	67.7	1.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.5		
#10	99.4		
#20	99.3		
#40	69.3		
#60	4.6		
#100	1.8		
#140	1.6		
#200	1.6		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5551 D_{85}= 0.5088 D_{60}= 0.3935
D_{50}= 0.3651 D_{30}= 0.3160 D_{15}= 0.2801
D_{10}= 0.2668 C_u= 1.47 C_c= 0.95

Classification

USCS= SP AASHTO=

Remarks

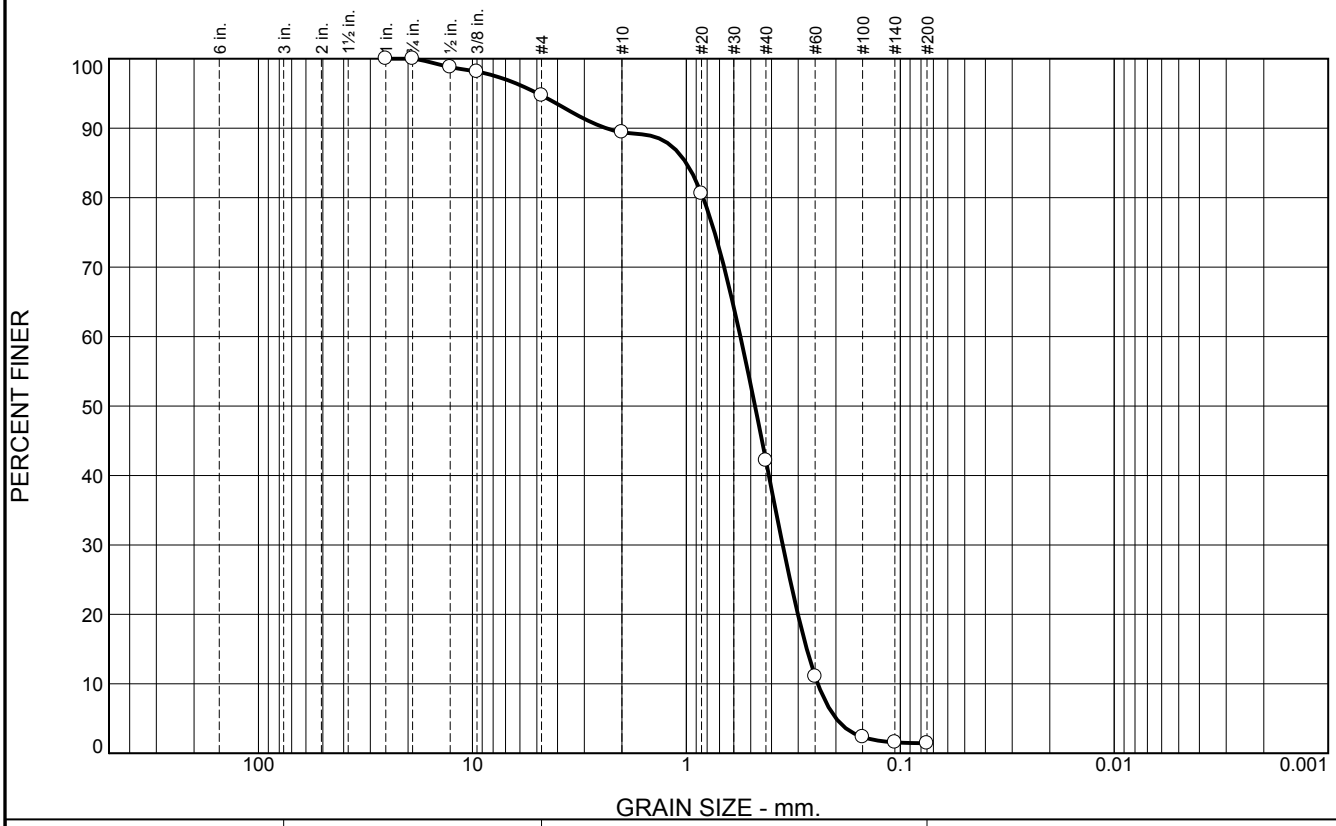
Location: BI-PBP-1-12 B
Sample Number: 6482 (21) **Depth:** 1.3' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	5.3	5.3	47.2	40.8	1.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	98.8		
.375	98.1		
#4	94.7		
#10	89.4		
#20	80.6		
#40	42.2		
#60	11.1		
#100	2.4		
#140	1.6		
#200	1.4		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 2.3797 D_{85}= 1.0022 D_{60}= 0.5589
D_{50}= 0.4777 D_{30}= 0.3545 D_{15}= 0.2737
D_{10}= 0.2429 C_u= 2.30 C_c= 0.93

Classification

USCS= SP AASHTO=

Remarks

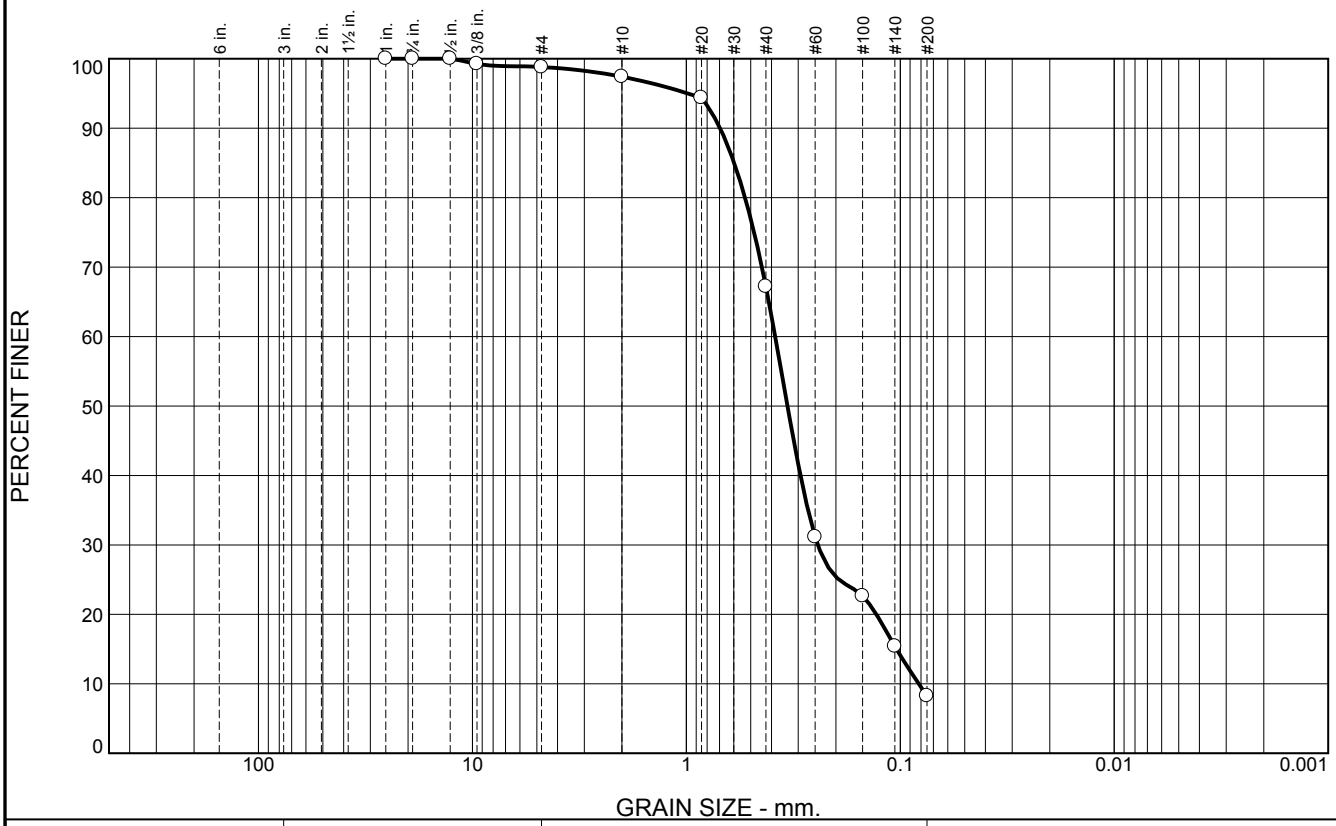
Location: BI-PBP-1-12 C
Sample Number: 6482 (22) **Depth:** 5.1' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.2	1.4	30.2	59.0	8.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.3		
#4	98.8		
#10	97.4		
#20	94.4		
#40	67.2		
#60	31.2		
#100	22.6		
#140	15.4		
#200	8.2		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6960 D_{85}= 0.5977 D_{60}= 0.3843
D_{50}= 0.3369 D_{30}= 0.2429 D_{15}= 0.1042
D_{10}= 0.0820 C_u= 4.69 C_c= 1.87

Classification

USCS= SP-SM AASHTO=

Remarks

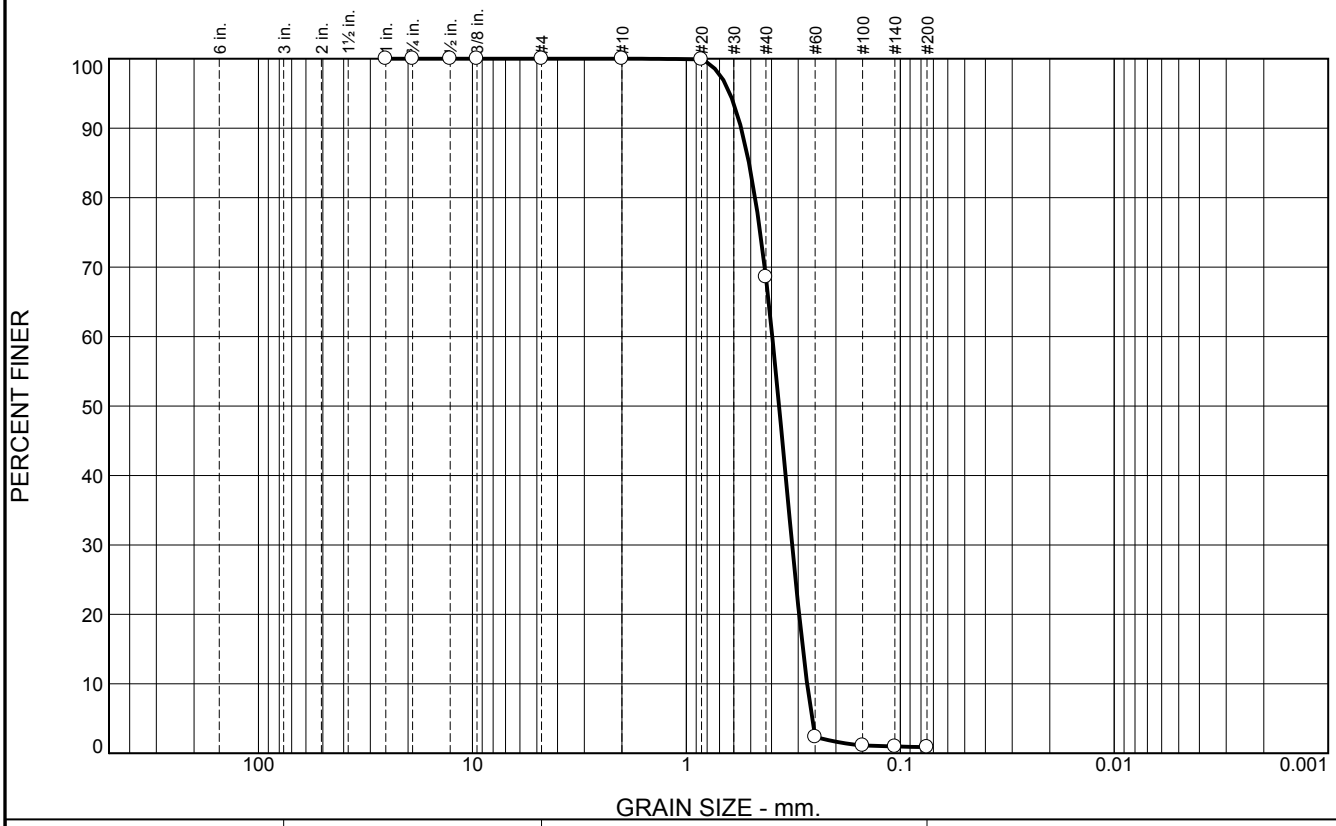
Location: BI-PBP-1-12 D
Sample Number: 6482 (23) **Depth:** 8.4' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	31.4	67.7	0.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	100.0		
#20	99.9		
#40	68.6		
#60	2.4		
#100	1.1		
#140	1.0		
#200	0.9		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5541 D_{85}= 0.5097 D_{60}= 0.3965
D_{50}= 0.3686 D_{30}= 0.3204 D_{15}= 0.2855
D_{10}= 0.2729 C_u= 1.45 C_c= 0.95

Classification

USCS= SP AASHTO=

Remarks

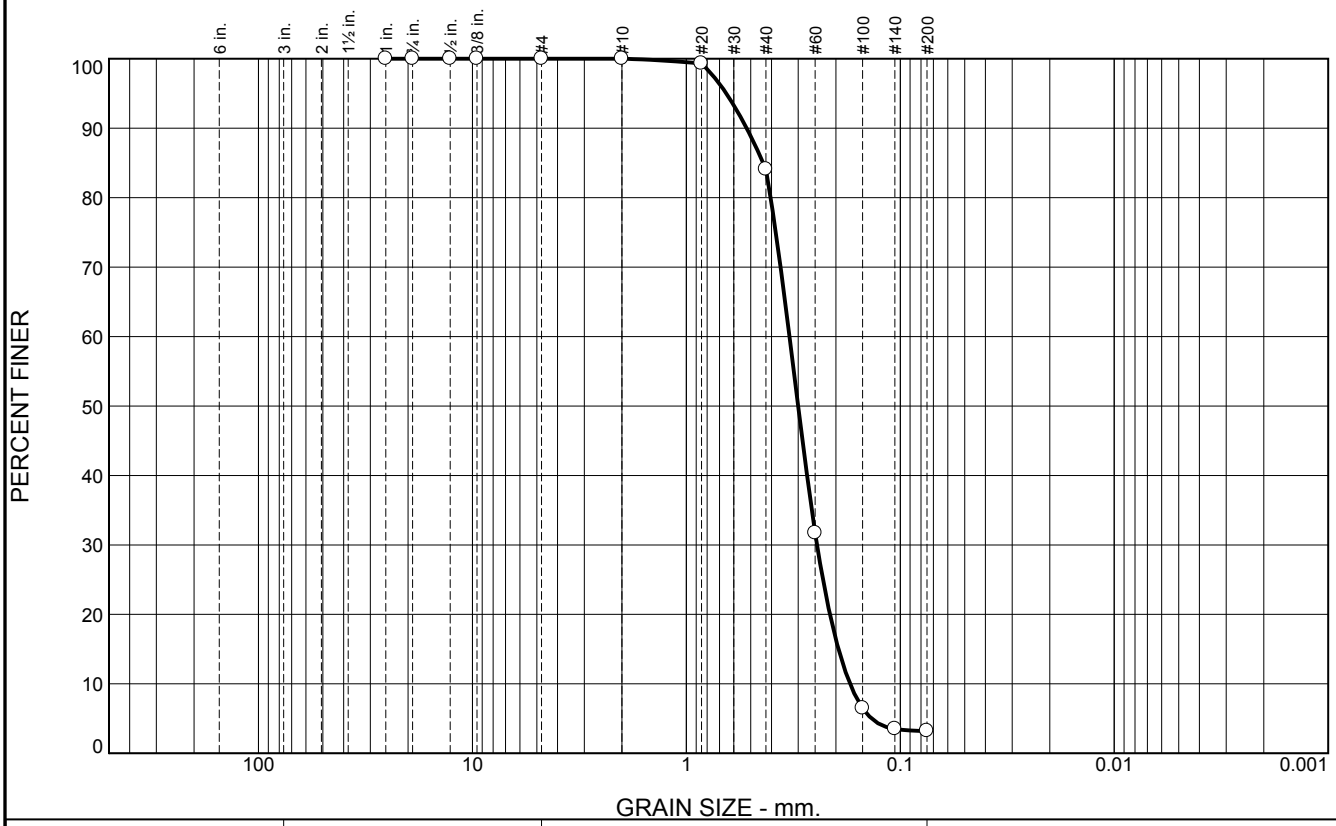
Location: BI-PBP-1-12 E
Sample Number: 6482 (24) **Depth:** 10.2' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	15.9	80.9	3.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	100.0		
#20	99.3		
#40	84.1		
#60	31.7		
#100	6.5		
#140	3.5		
#200	3.2		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5226 D_{85}= 0.4377 D_{60}= 0.3296
D_{50}= 0.3004 D_{30}= 0.2450 D_{15}= 0.1946
D_{10}= 0.1719 C_u= 1.92 C_c= 1.06

Classification

USCS= SP AASHTO=

Remarks

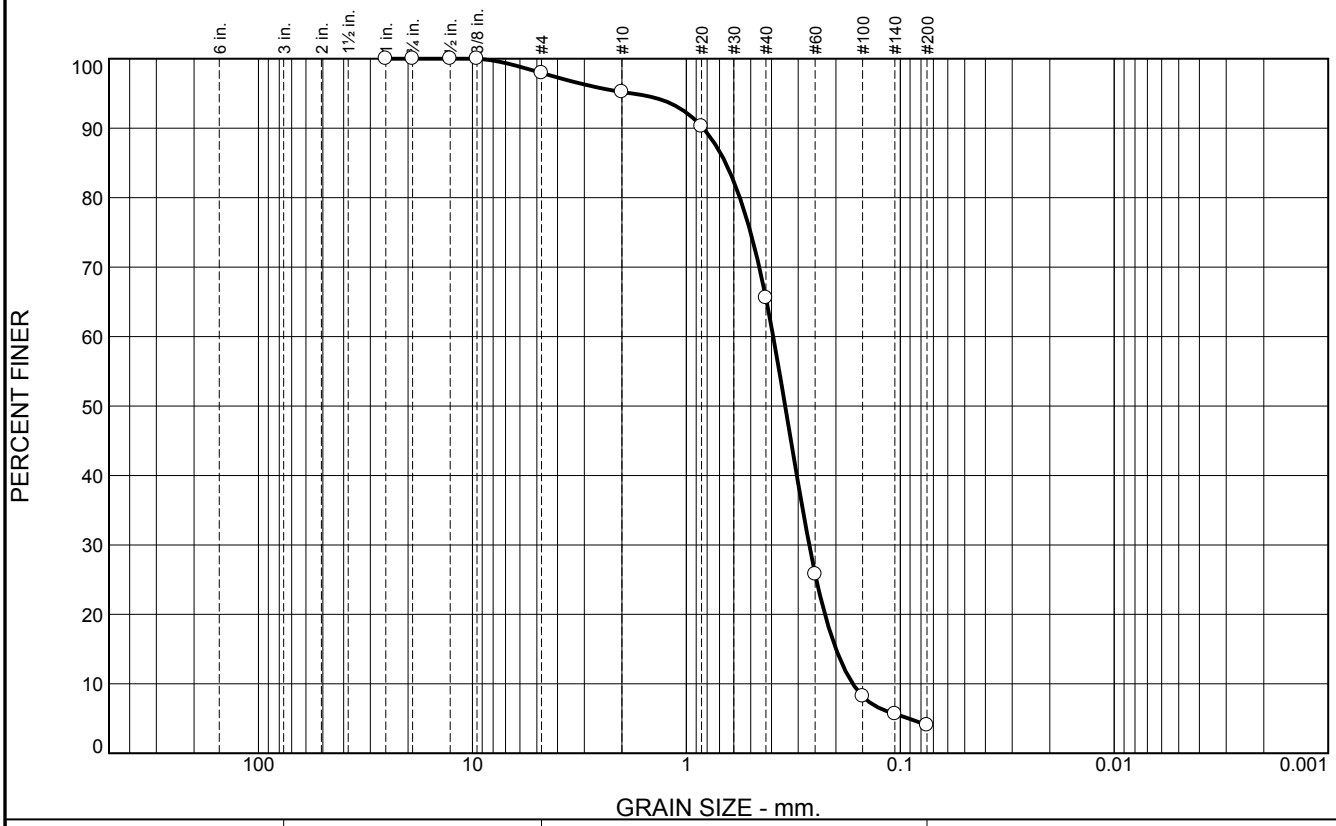
Location: BI-PBP-1-12 F
Sample Number: 6482 (25) **Depth:** 11.3' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.1	2.7	29.6	61.5	4.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	97.9		
#10	95.2		
#20	90.3		
#40	65.6		
#60	25.8		
#100	8.2		
#140	5.7		
#200	4.1		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.8355 D_{85}= 0.6555 D_{60}= 0.3926
D_{50}= 0.3452 D_{30}= 0.2666 D_{15}= 0.1998
D_{10}= 0.1668 C_u= 2.35 C_c= 1.08

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-1-12 G
Sample Number: 6482 (26) **Depth:** 14.5' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-02-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-02-12 — LOCATION COORDINATES: E = 1,123,466 N = 251,916	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 25.8 Ft.
	15. DATE BORING — STARTED: 12-08-12 — COMPLETED: 12-08-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -24.1 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 15.0 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-24.1	0.0				
-29.1	5.0		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, lt. gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.3198 mm % Fines: 1.1
-30.1	6.0		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, trace shell fragments, trace clay, lt. gray to gray (SP-SM)	NS	
			SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell fragments, silty bands at 7.2 ft. and 7.8 ft., lt. gray (SP)	B	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.2417 mm % Fines: 4.4
			At El. -32.7 Ft., mostly fine to medium-grained sand-sized quartz, little shell fragments, siltier at 10.8 ft. with a clay band at 10.9 ft., lt. gray to gray	C	Classification: SP Color: 5Y 7/2-light gray D50: 0.3588 mm % Fines: 1.7
-39.1	15.0		At El. -35.1 Ft., mostly fine to medium-grained sand-sized quartz, trace shell fragments, silty band at 12.3 to 12.5 ft., sand grades finer with depth, dense, lt. gray	D	Classification: SP Color: 5Y 7/2-light gray D50: 0.3187 mm % Fines: 2.7

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19198° Long = -88.39268°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-2-12

Coordinate System
Latitude / Longitude

Latitude 30 11.519

Longitude 088 23.561

Date 12/08/2012

Start Time 11:59:54

End Time 12:07:08

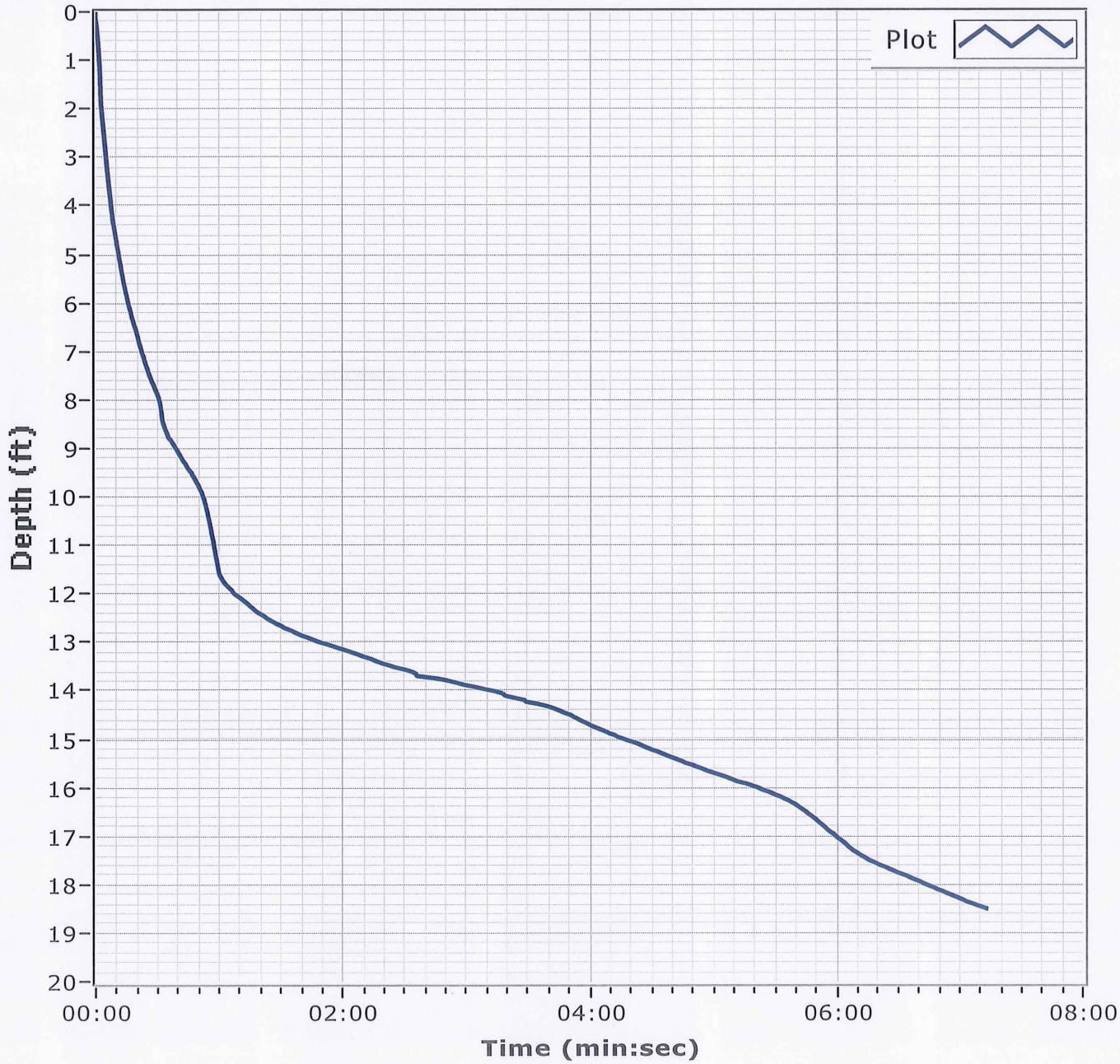
Total Time 00:07:13

Water Depth 25.8'

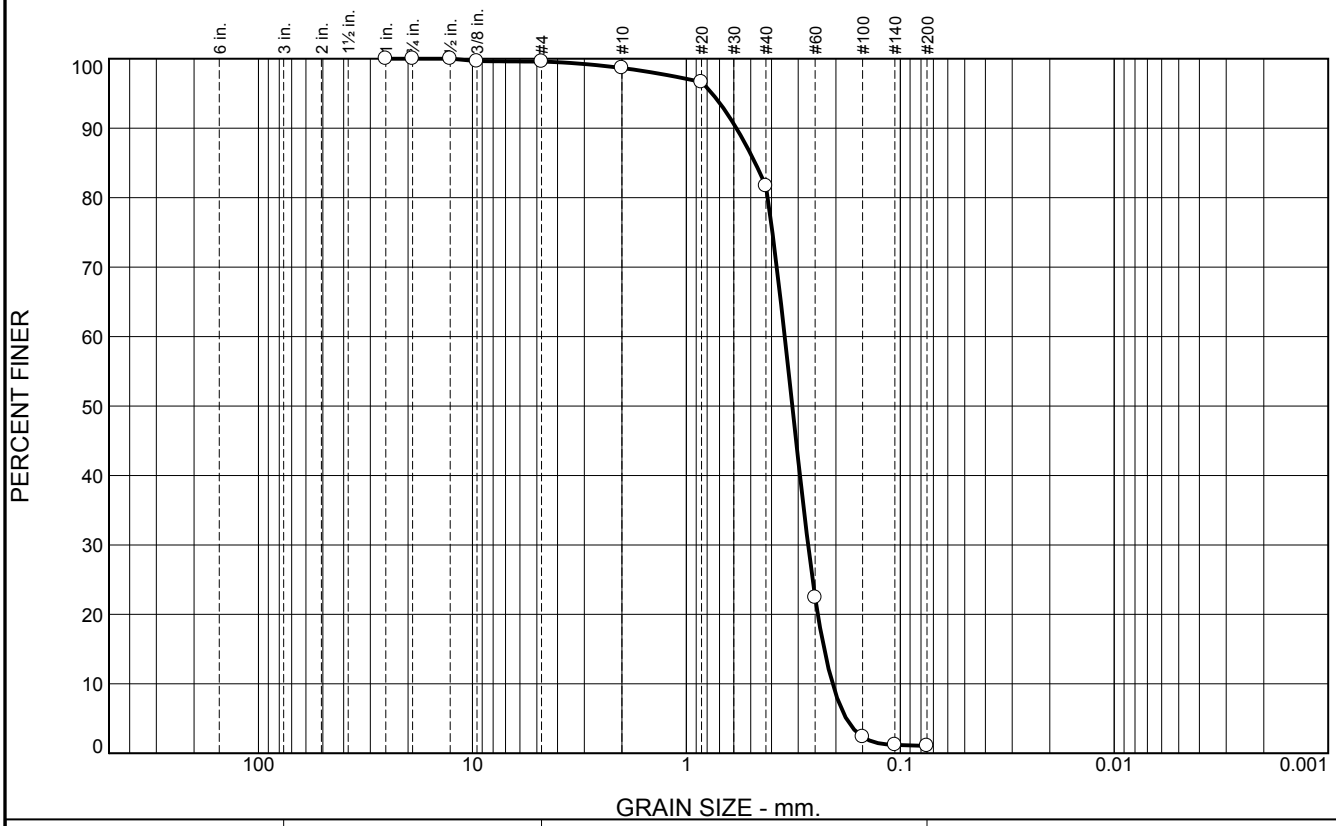
Penetration 18.5'

Recovery 15.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.4	0.9	17.0	80.6	1.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.6		
#4	99.6		
#10	98.7		
#20	96.6		
#40	81.7		
#60	22.4		
#100	2.4		
#140	1.2		
#200	1.1		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5836 D_{85}= 0.4771 D_{60}= 0.3468
D_{50}= 0.3198 D_{30}= 0.2699 D_{15}= 0.2269
D_{10}= 0.2073 C_u= 1.67 C_c= 1.01

Classification

USCS= SP AASHTO=

Remarks

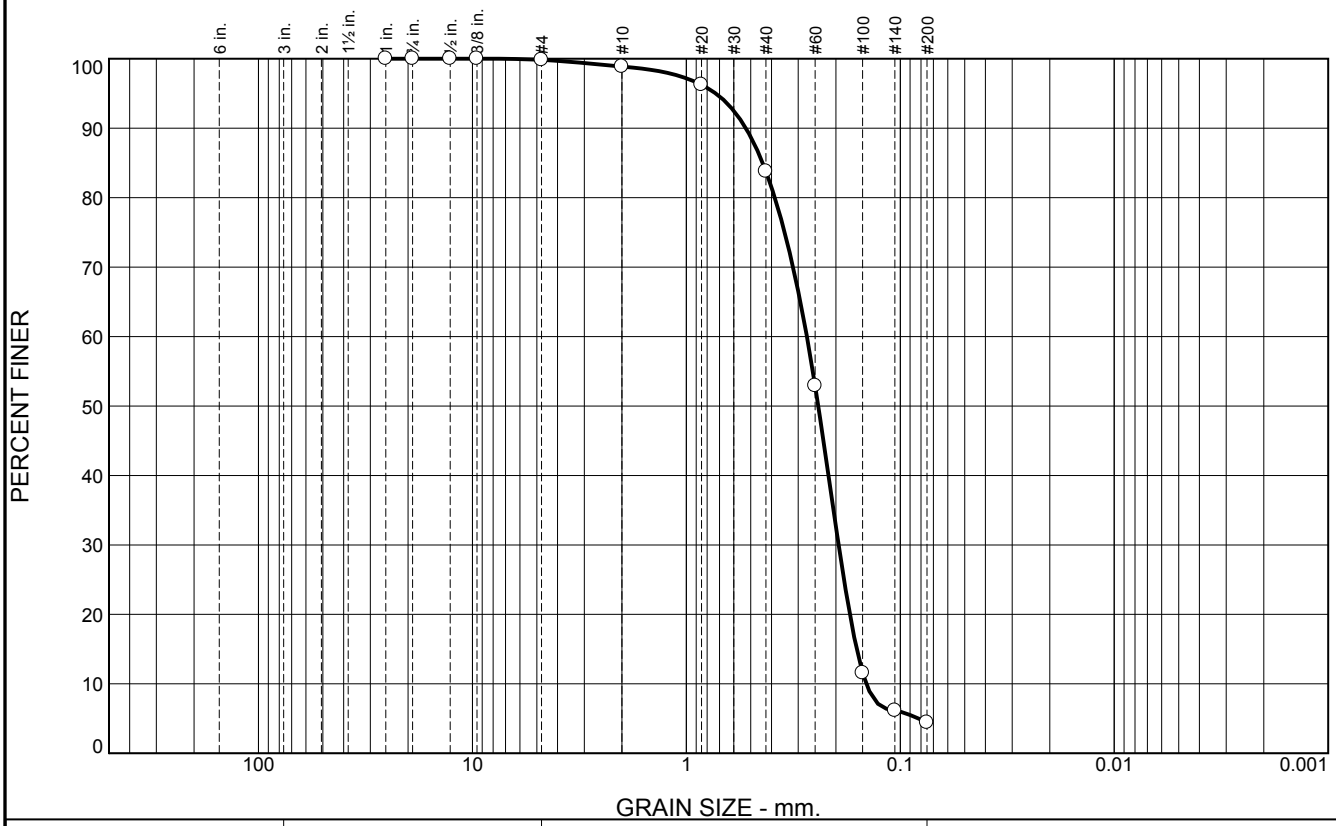
Location: BI-PBP-2-12 A
Sample Number: 6482 (27) **Depth:** 0.0' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	0.9	15.1	79.4	4.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	98.9		
#20	96.2		
#40	83.8		
#60	52.9		
#100	11.6		
#140	6.2		
#200	4.4		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5272 D_{85}= 0.4402 D_{60}= 0.2734
D_{50}= 0.2417 D_{30}= 0.1943 D_{15}= 0.1600
D_{10}= 0.1443 C_u= 1.89 C_c= 0.96

Classification

USCS= SP AASHTO=

Remarks

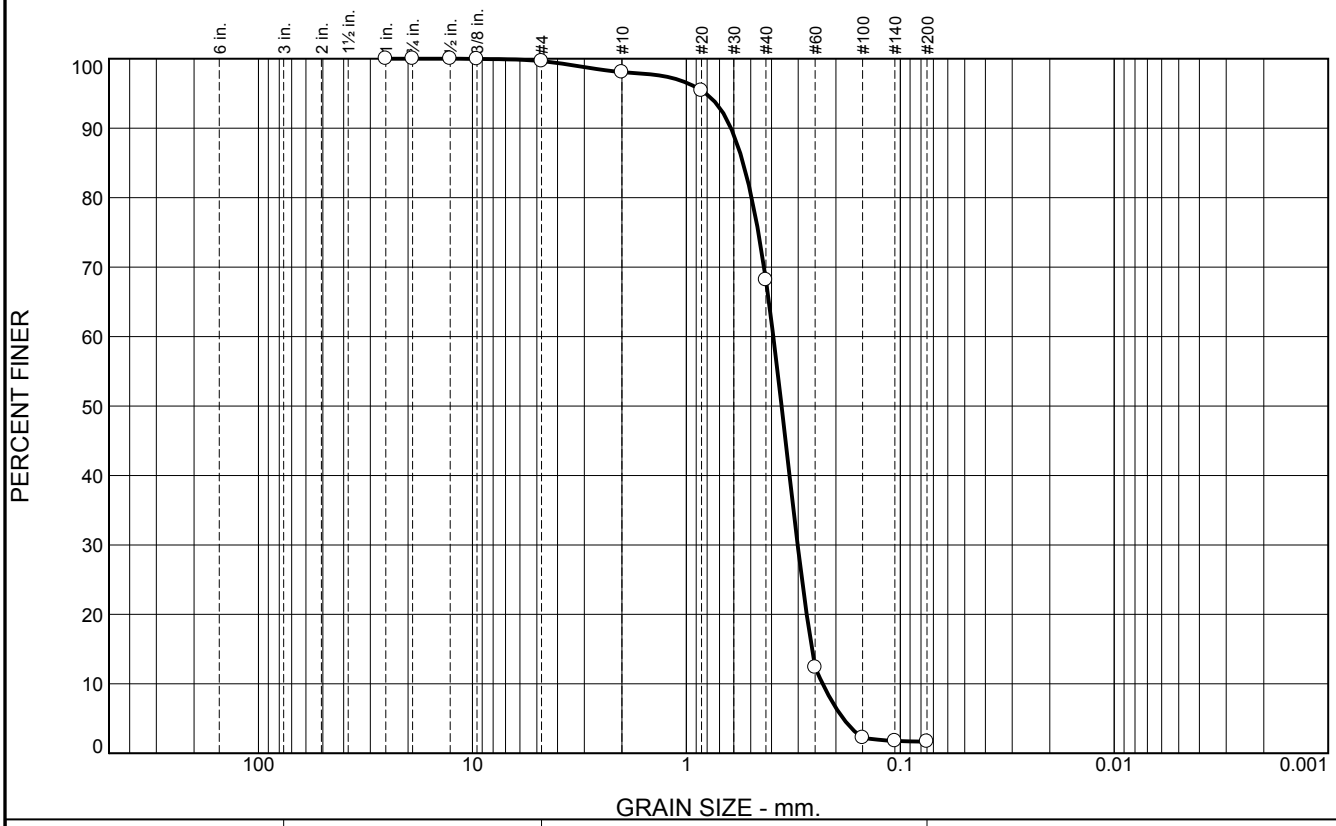
Location: BI-PBP-2-12 B
Sample Number: 6482 (28) **Depth:** 6.0' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.4	1.5	29.9	66.5	1.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.6		
#10	98.1		
#20	95.4		
#40	68.2		
#60	12.4		
#100	2.2		
#140	1.8		
#200	1.7		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6180 D_{85}= 0.5426 D_{60}= 0.3920
D_{50}= 0.3588 D_{30}= 0.3020 D_{15}= 0.2589
D_{10}= 0.2305 C_u= 1.70 C_c= 1.01

Classification

USCS= SP AASHTO=

Remarks

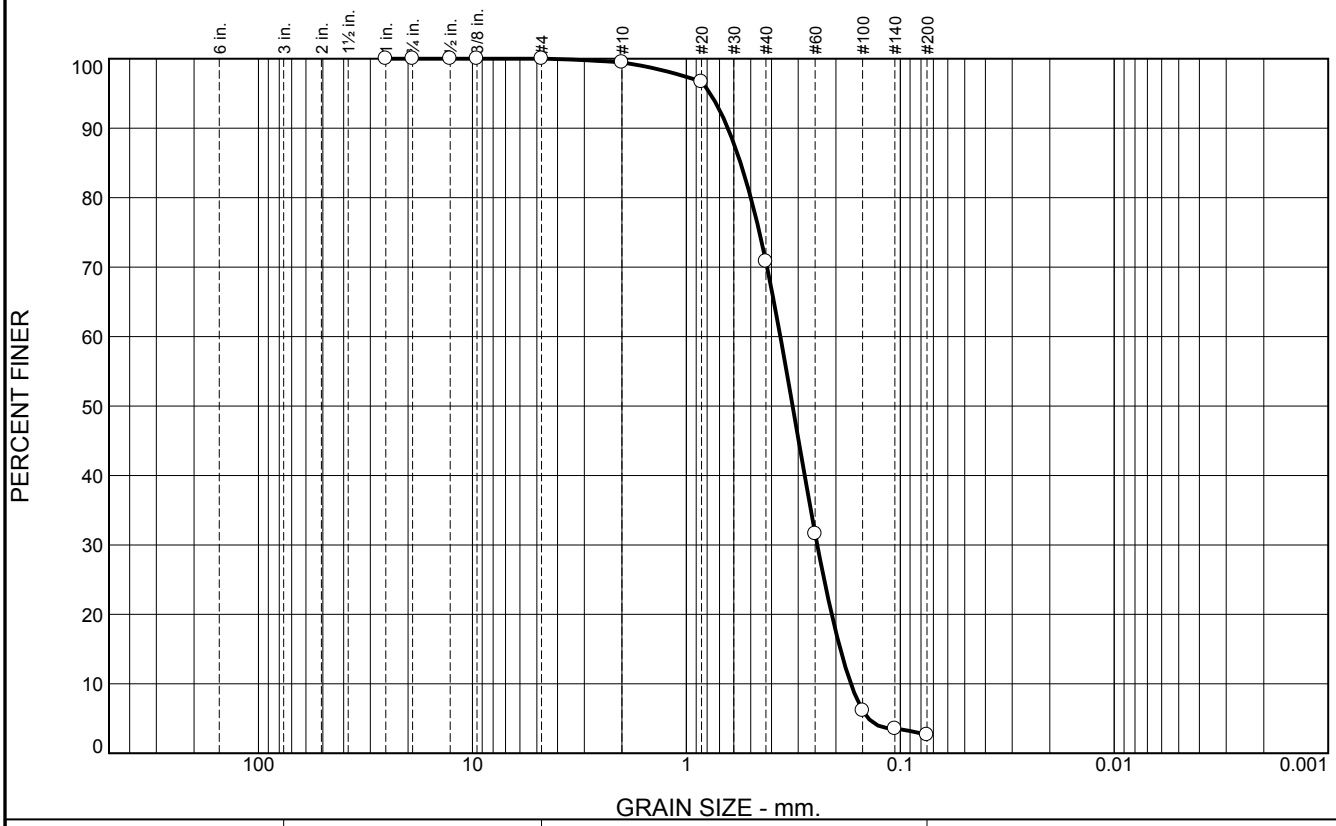
Location: BI-PBP-2-12 C
Sample Number: 6482 (29) **Depth:** 8.6' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.5	28.7	68.1	2.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.5		
#20	96.7		
#40	70.8		
#60	31.6		
#100	6.2		
#140	3.5		
#200	2.7		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6397 D_{85}= 0.5581 D_{60}= 0.3635
D_{50}= 0.3187 D_{30}= 0.2443 D_{15}= 0.1908
D_{10}= 0.1703 C_u= 2.13 C_c= 0.96

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-2-12 D
Sample Number: 6482 (30) **Depth:** 11.0' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-03-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-03-12 — LOCATION COORDINATES: E = 1,124,344 N = 251,919	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 28.9 Ft.
	15. DATE BORING — STARTED: 12-08-12 — COMPLETED: 12-08-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -27.4 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.0 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-27.4	0.0				
-29.2	1.8		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little shell fragments, trace fines, gray (SP)	B	Classification: SP Color: 5Y 7/2-light gray D50: 0.3817 mm % Fines: 1
-30.1	2.7		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, dark gray (SM)	NS	
-30.5	3.1			A	Classification: SP Color: 5Y 7/1-light gray D50: 0.3418 mm % Fines: 1.6
			CLAY, fat, mostly clay, medium to high plasticity, dark gray (CH)	D	Classification: SP Color: 5Y 7/2-light gray D50: 0.3612 mm % Fines: 1.8
-34.5	7.1		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, few shell fragments, trace silt, lt. gray (SP)	C	Classification: SP Color: 2.5Y 8/1-white D50: 0.2873 mm % Fines: 2.1
-36.0	8.6		At El. -31.4 Ft., mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, lt. gray	NS	
-36.4	9.0		At El. -32.5 Ft., mostly fine-grained sand-sized quartz, trace fines, lt. gray to white		
-38.9	11.5		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, trace clay stringers, brown (SM)		
-41.4	14.0		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little shell fragments, trace fines, lt. brown (SP)		
			SAND, silty, mostly fine-grained sand-sized quartz, some silt, brown (SM)		
			CLAY, lean, mostly clay, some fine-grained sand-sized quartz, trace shell fragments, dark brown to dark gray (CL)		
-46.4	19.0		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, with shelly bands throughout, gray (SC)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19198° Long = -88.38990°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-3-12

Coordinate System
Latitude / Longitude

Latitude 30 11.519

Longitude 088 23.396

Date 12/08/2012

Start Time 13:05:48

End Time 13:09:12

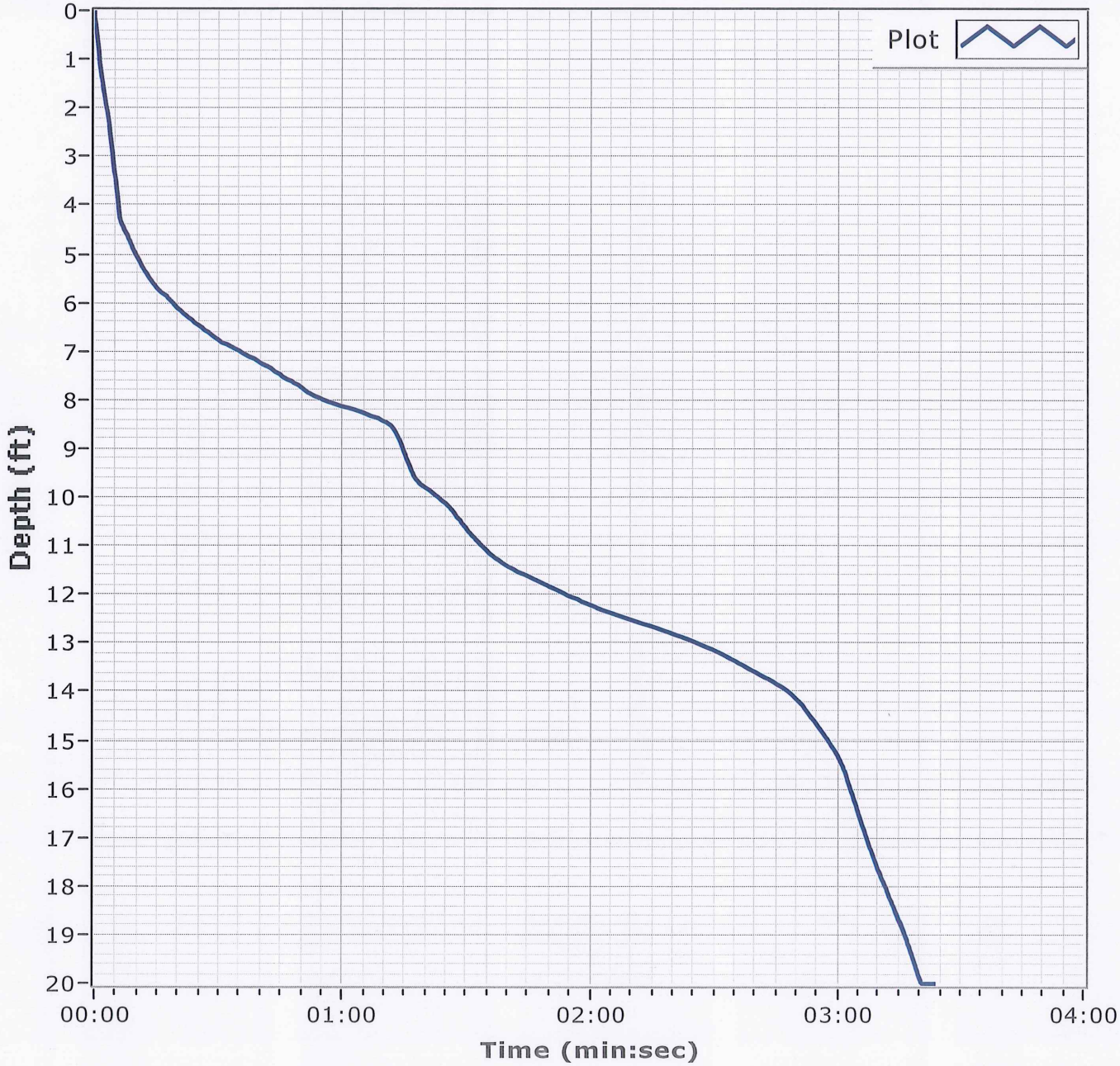
Total Time 00:03:24

Water Depth 28.9'

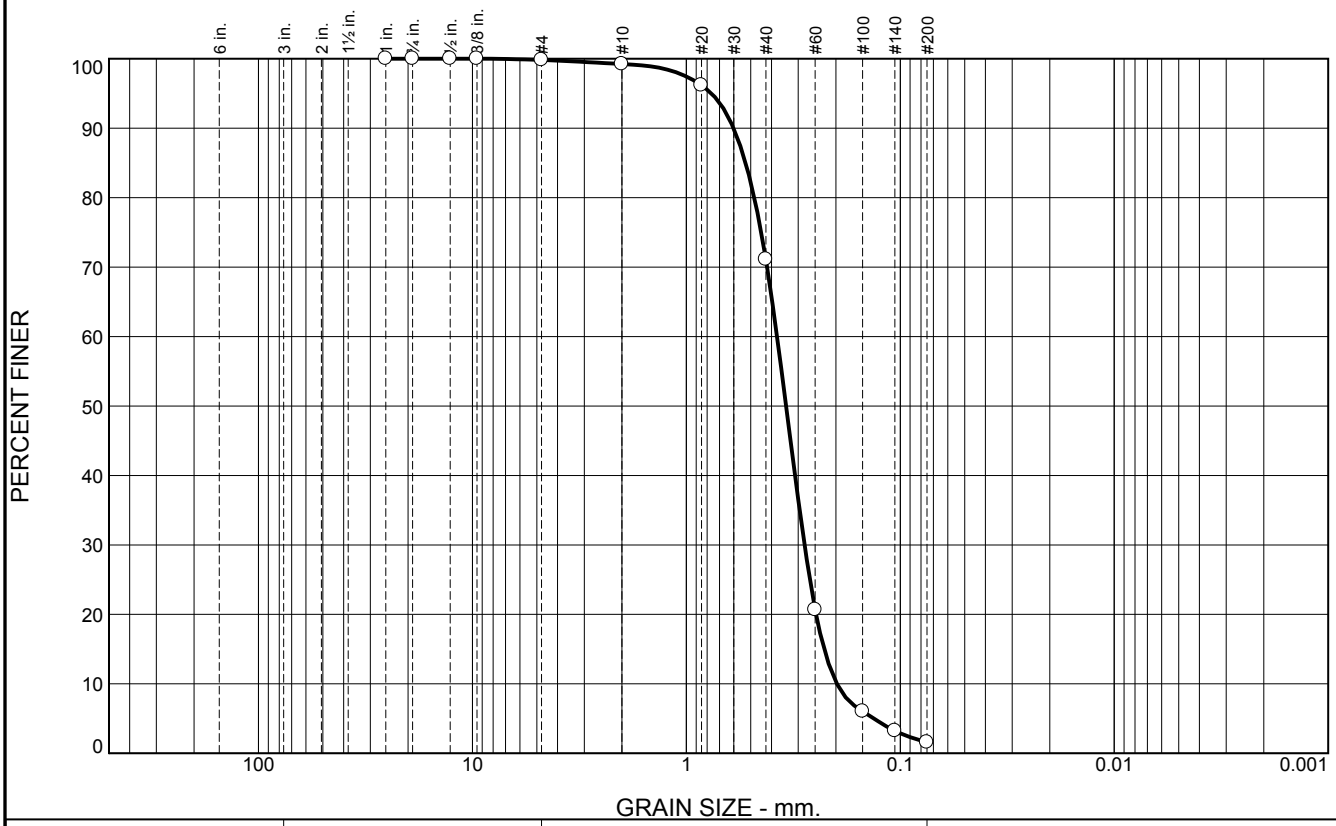
Penetration 20.0'

Recovery 19.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	0.6	28.1	69.5	1.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	99.2		
#20	96.2		
#40	71.1		
#60	20.7		
#100	6.0		
#140	3.2		
#200	1.6		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6013 D_{85}= 0.5284 D_{60}= 0.3767
D_{50}= 0.3418 D_{30}= 0.2804 D_{15}= 0.2269
D_{10}= 0.1978 C_u= 1.90 C_c= 1.05

Classification

USCS= SP AASHTO=

Remarks

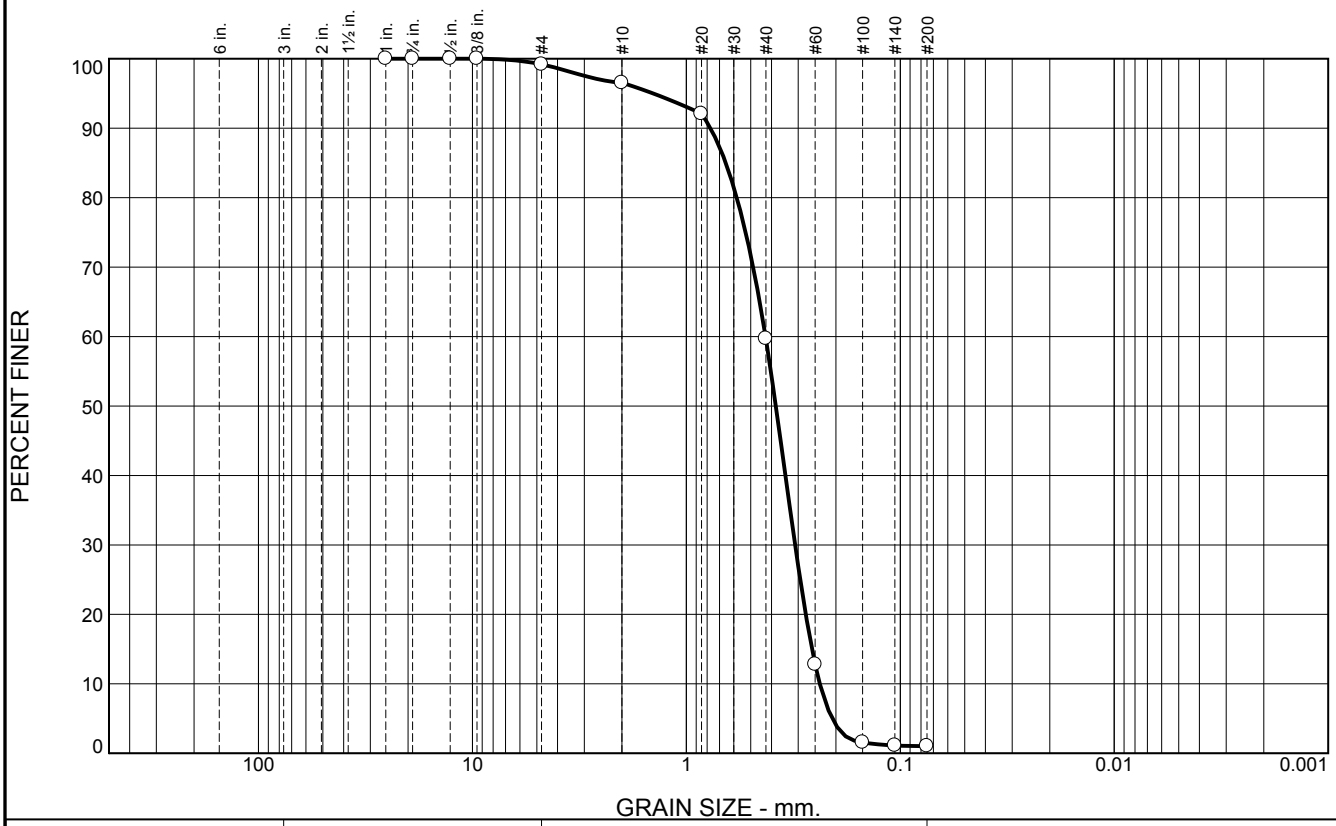
Location: BI-PBP-3-12 A
Sample Number: 6482 (31) **Depth:** 0.0' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.8	2.7	36.8	58.7	1.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.2		
#10	96.5		
#20	92.1		
#40	59.7		
#60	12.8		
#100	1.6		
#140	1.1		
#200	1.0		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.7718 D_{85}= 0.6544 D_{60}= 0.4266
D_{50}= 0.3817 D_{30}= 0.3103 D_{15}= 0.2588
D_{10}= 0.2377 C_u= 1.79 C_c= 0.95

Classification

USCS= SP AASHTO=

Remarks

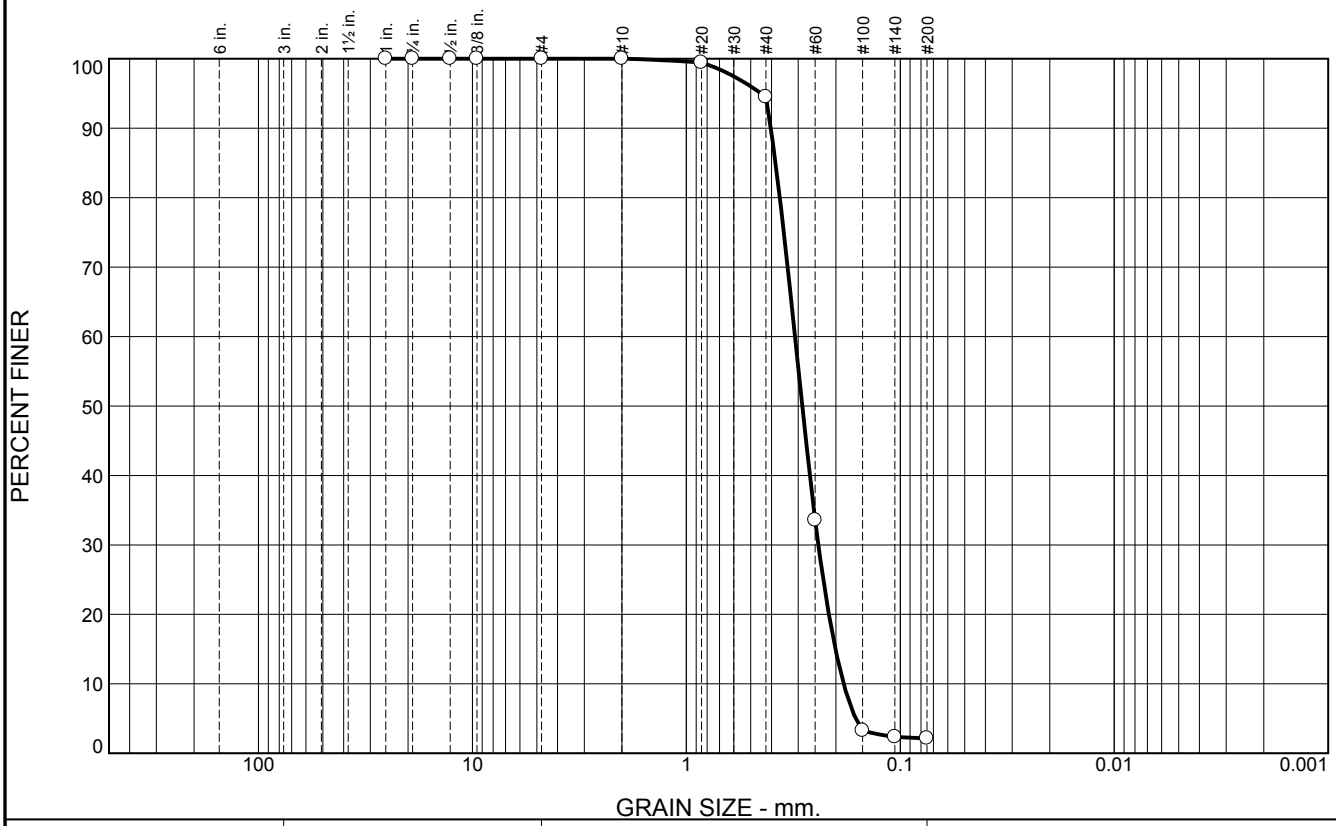
Location: BI-PBP-3-12 B
Sample Number: 6482 (32) **Depth:** 2.2' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	5.5	92.4	2.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	100.0		
#20	99.4		
#40	94.5		
#60	33.6		
#100	3.3		
#140	2.4		
#200	2.1		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4028 D_{85}= 0.3828 D_{60}= 0.3107
D_{50}= 0.2873 D_{30}= 0.2415 D_{15}= 0.2011
D_{10}= 0.1841 C_u= 1.69 C_c= 1.02

Classification

USCS= SP AASHTO=

Remarks

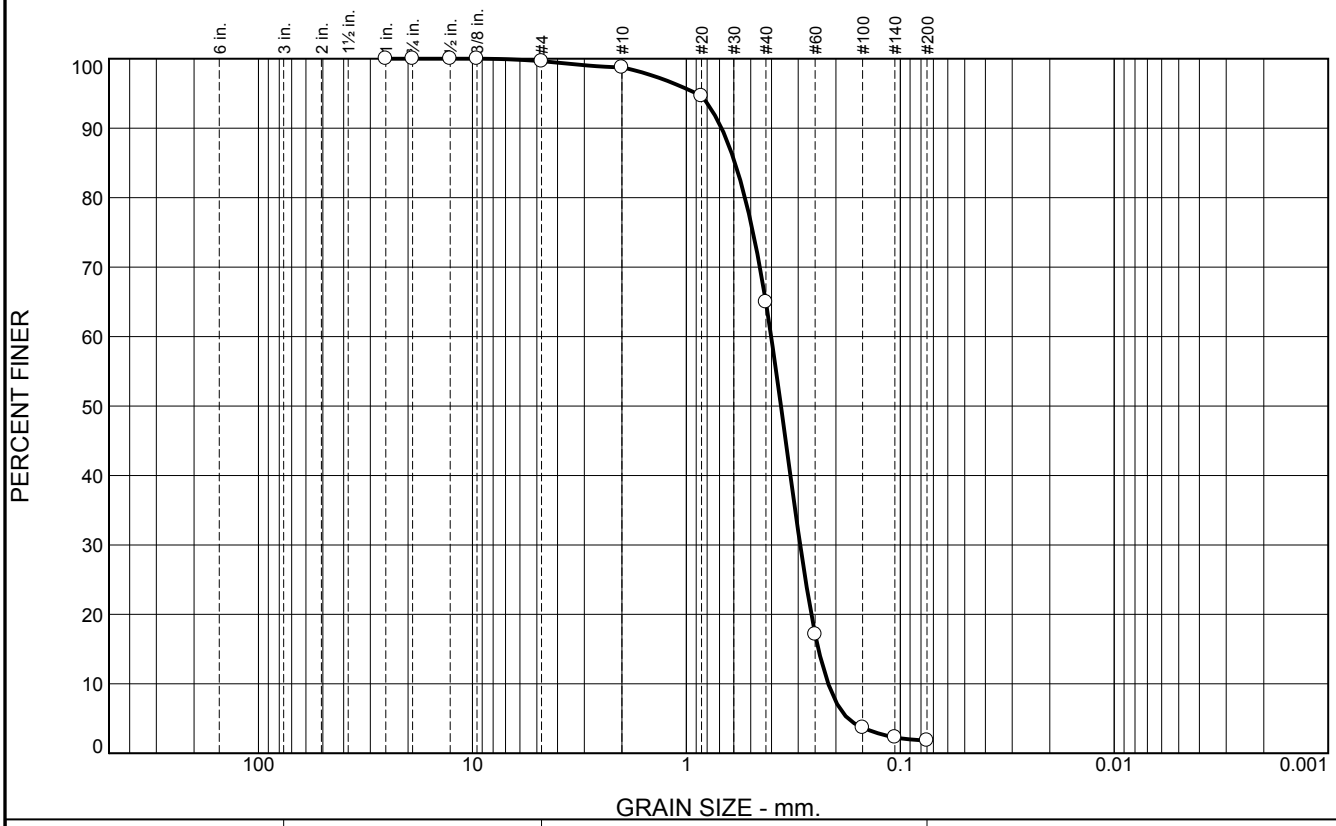
Location: BI-PBP-3-12 C
Sample Number: 6482 (33) **Depth:** 5.9' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.4	0.8	33.8	63.2	1.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.6		
#10	98.8		
#20	94.6		
#40	65.0		
#60	17.1		
#100	3.7		
#140	2.3		
#200	1.8		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6848 D_{85}= 0.5922 D_{60}= 0.4013
D_{50}= 0.3612 D_{30}= 0.2940 D_{15}= 0.2414
D_{10}= 0.2171 C_u= 1.85 C_c= 0.99

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-3-12 D
Sample Number: 6482 (34) **Depth:** 7.9' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-04-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-04-12 — LOCATION COORDINATES: E = 1,122,984 N = 250,768	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 32.3 Ft.
	15. DATE BORING — STARTED: 12-22-12 — COMPLETED: 12-22-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -31.6 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 15.0 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-31.6	0.0				
-35.9	4.3		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, slightly silty at 3.1 ft., gray (SP)	A	Classification: SP-SM Color: 5Y 6/2-light olive gray D50: 0.2498 mm % Fines: 5.6
-38.9	7.3		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace shell fragments, clay band at 5.1 ft., gray (SC)	NS	
-41.6	10.0		SAND, silty, mostly fine-grained sand-sized quartz, some silt, gray (SM)		
-43.4	11.8		SILT, inorganic-L, mostly silt, some fine-grained sand-sized quartz, little clay, brown grading to gray (ML)		
-46.6	15.0		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, some silt, few clay stringers, gray (SP-SM)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18883° Long = -88.39422°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-4-12

Coordinate System
Latitude / Longitude

Latitude 30 11.330

Longitude 088 23.653

Date 12/22/2012

Start Time 14:55:19

End Time 14:59:11

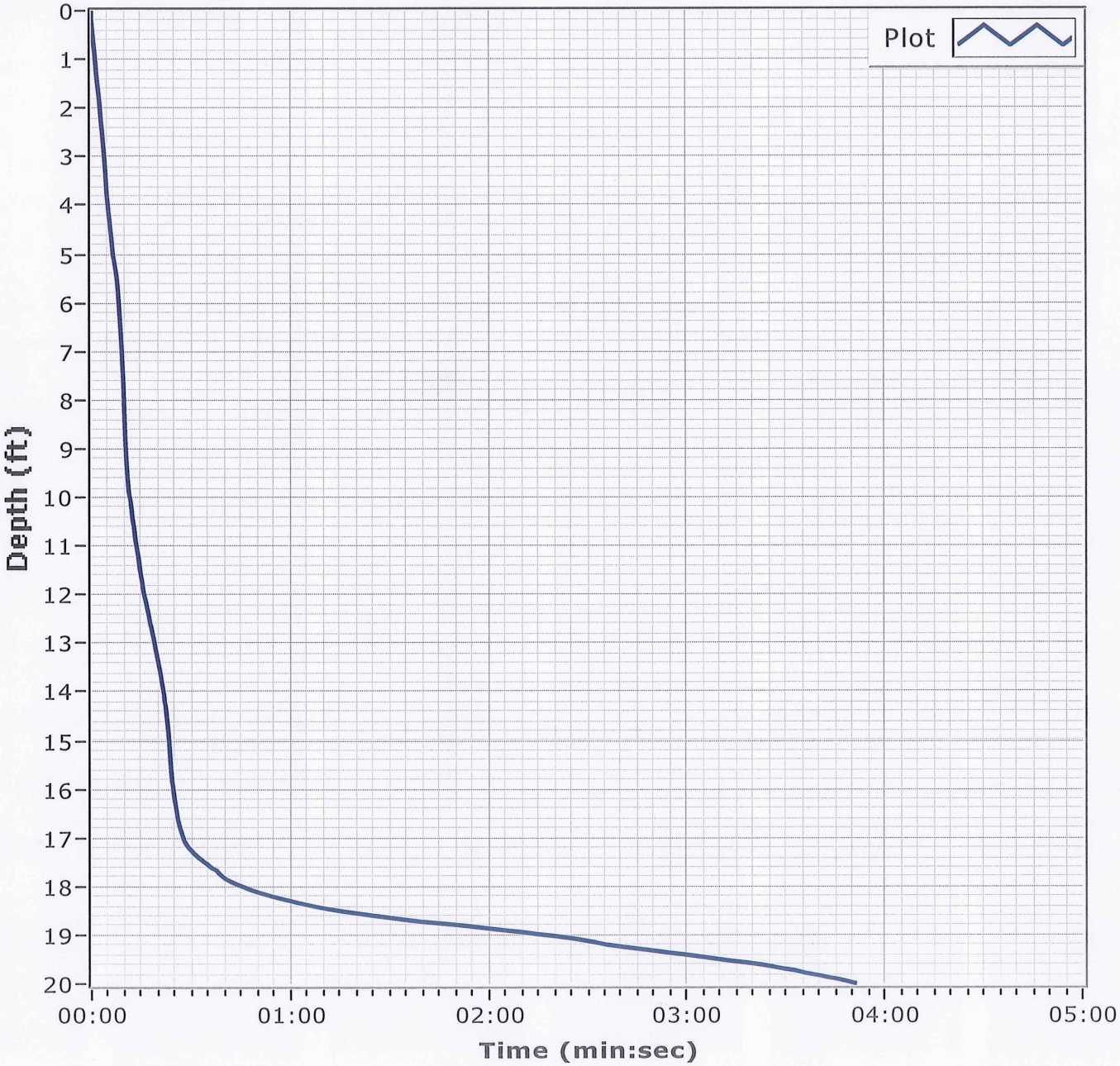
Total Time 00:03:51

Water Depth 32.3'

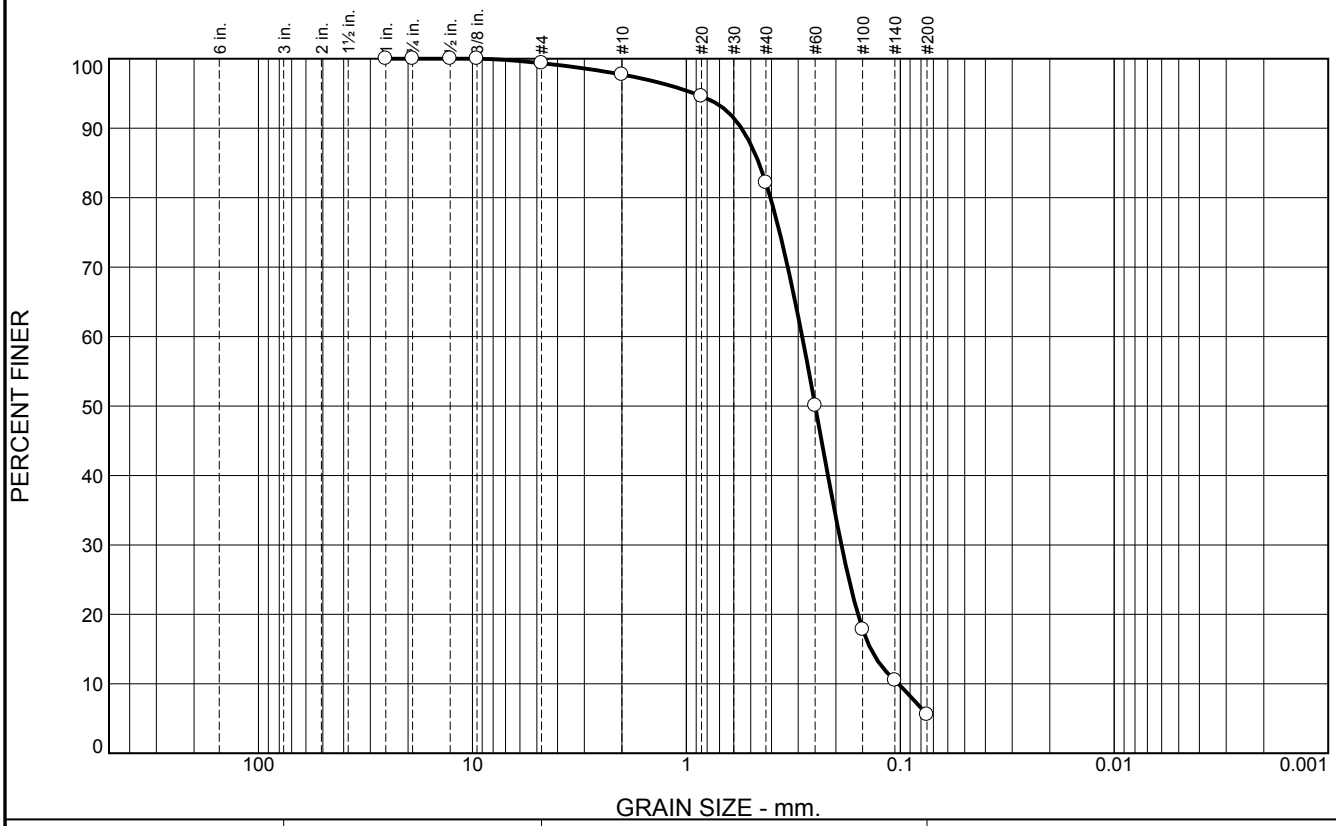
Penetration 20.0'

Recovery 15.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.7	1.6	15.5	76.6	5.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.3		
#10	97.7		
#20	94.6		
#40	82.2		
#60	50.1		
#100	17.8		
#140	10.5		
#200	5.6		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5525 D_{85}= 0.4583 D_{60}= 0.2877
D_{50}= 0.2498 D_{30}= 0.1886 D_{15}= 0.1374
D_{10}= 0.1021 C_u= 2.82 C_c= 1.21

Classification

USCS= SP-SM AASHTO=

Remarks

Location: BI-PBP-4-12 A
Sample Number: 6495 (20) **Depth:** 0.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-05-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-05-12 — LOCATION COORDINATES: E = 1,123,963 N = 250,798	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 31.2 Ft.
	15. DATE BORING — STARTED: 12-08-12 — COMPLETED: 12-08-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -29.5 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 16.8 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-29.5	0.0				
-34.0	4.5		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace shell fragments, lt. gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.2748 mm % Fines: 1.8
-35.7	6.2		SHELL, mostly shell fragments, clay band at 5.2 to 5.4 ft., gray	NS	
-36.7	7.2		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, lt. gray to gray (SP-SM)	B	Classification: SP-SM Color: 5Y 7/2-light gray D50: 0.2448 mm % Fines: 5.4
-39.5	10.0		CLAY, lean, mostly clay, some fine-grained sand-sized quartz, trace shell fragments, gray (CL)	NS	
-42.1	12.6		SAND, silty, mostly fine-grained sand-sized quartz, some silt, lt. brown to gray (SM)	NS	
-42.9	13.4		CLAY, lean, mostly clay, some fine-grained sand-sized quartz, trace shell fragments, low to medium plasticity, dark gray (CL)	NS	
-45.6	16.1		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, dark gray (SM)	NS	
-46.3	16.8		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, lt. gray (SP)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18890° Long = -88.39112°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-5-12

Coordinate System
Latitude / Longitude

Latitude 30 11.467

Longitude 088 23.334

Date 12/08/2012

Start Time 14:51:14

End Time 14:53:06

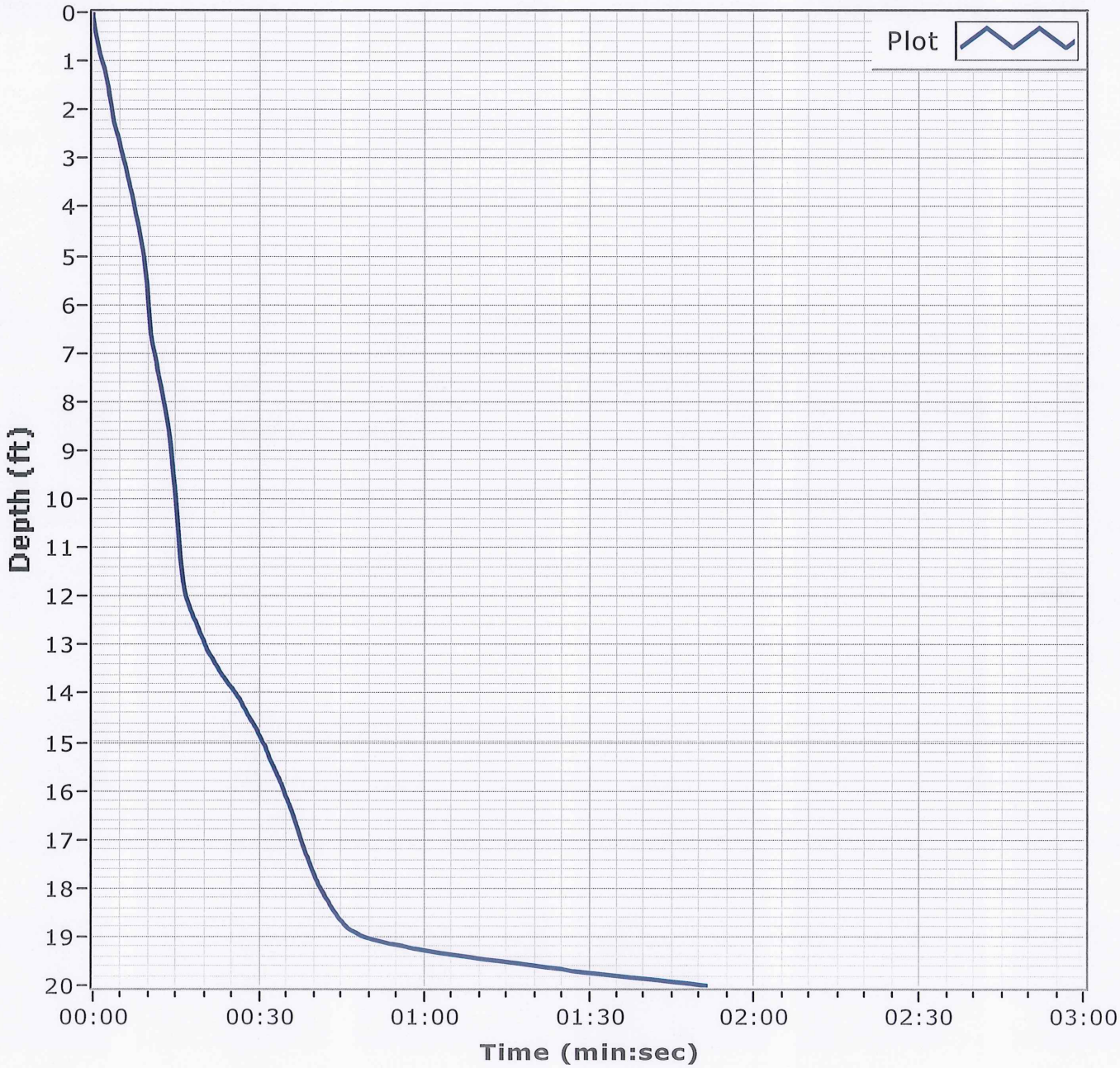
Total Time 00:01:51

Water Depth 31.2'

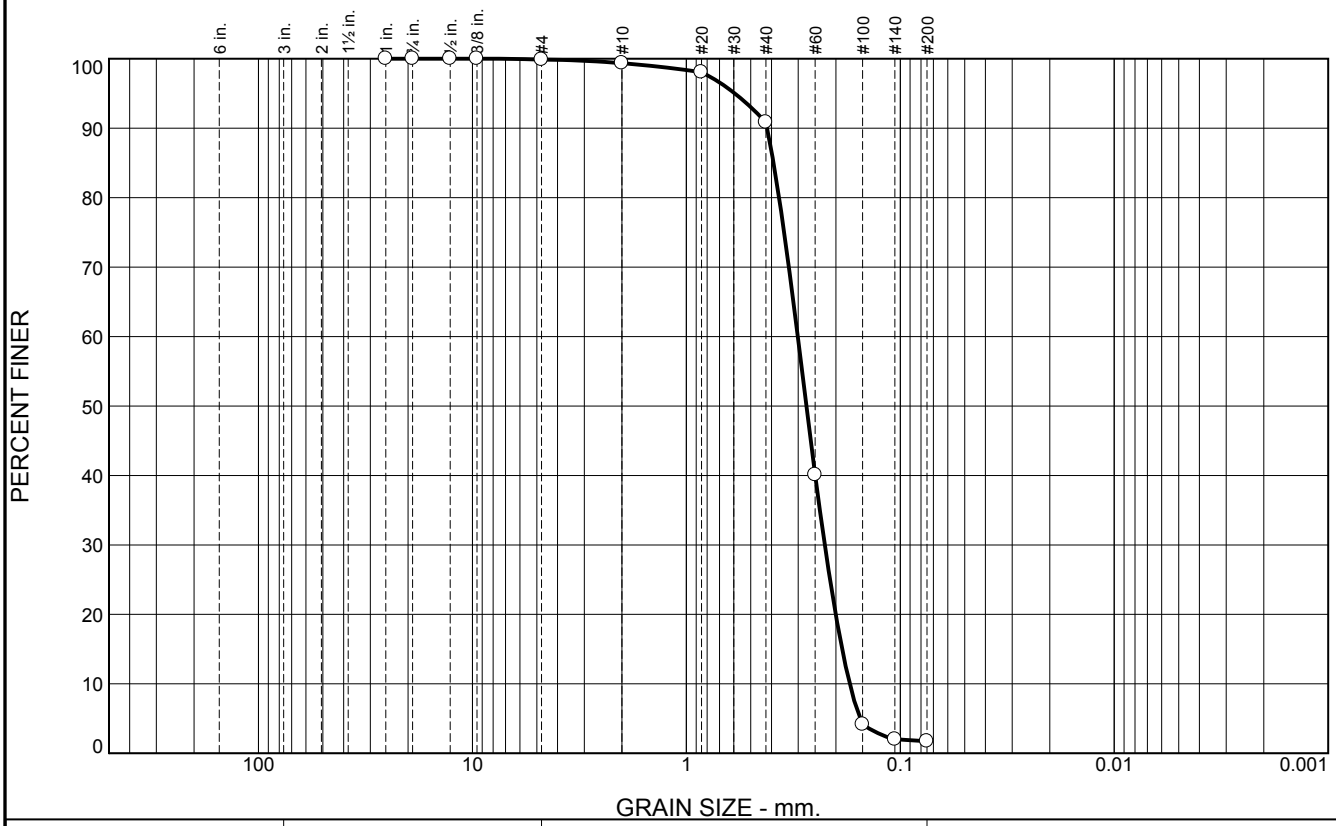
Penetration 20.0'

Recovery 16.8'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.5	8.6	89.0	1.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	99.4		
#20	98.1		
#40	90.8		
#60	40.1		
#100	4.1		
#140	2.0		
#200	1.8		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4194 D_{85}= 0.3911 D_{60}= 0.3016
D_{50}= 0.2748 D_{30}= 0.2254 D_{15}= 0.1871
D_{10}= 0.1725 C_u= 1.75 C_c= 0.98

Classification

USCS= SP AASHTO=

Remarks

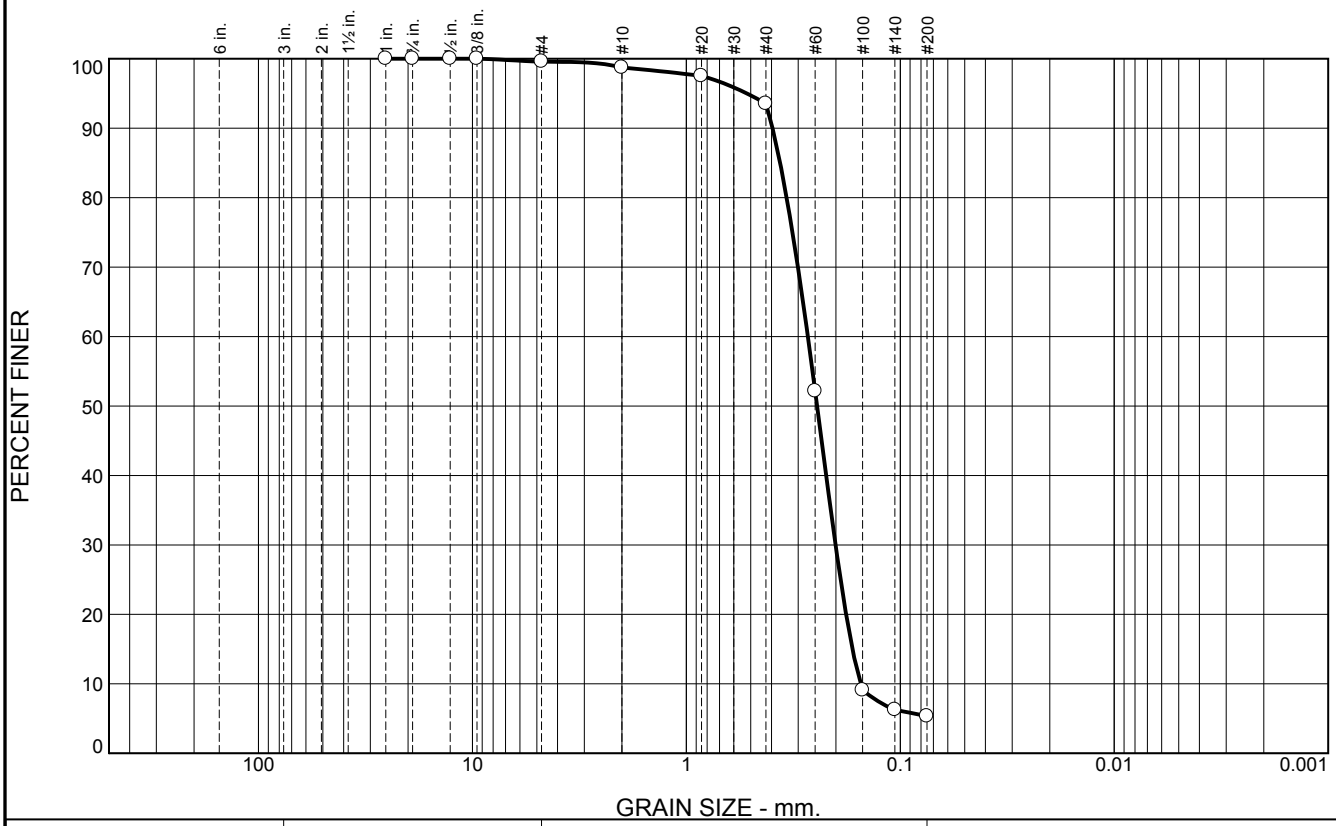
Location: BI-PBP-5-12 A
Sample Number: 6482 (35) **Depth:** 0.0' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.4	0.9	5.2	88.1	5.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.6		
#10	98.7		
#20	97.5		
#40	93.5		
#60	52.2		
#100	9.1		
#140	6.3		
#200	5.4		

* (no specification provided)

Material Description

Fine grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3954 D_{85}= 0.3643 D_{60}= 0.2705
D_{50}= 0.2448 D_{30}= 0.2008 D_{15}= 0.1675
D_{10}= 0.1533 C_u= 1.76 C_c= 0.97

Classification

USCS= SP-SM AASHTO=

Remarks

Location: BI-PBP-5-12 B
Sample Number: 6482 (36) **Depth:** 6.2' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-06-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-06-12 — LOCATION COORDINATES: E = 1,125,039 N = 251,911	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 33 Ft.
	15. DATE BORING — STARTED: 12-08-12 — COMPLETED: 12-08-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -31.5 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 6.8 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-31.5	0.0				
-34.9	3.4		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some shell fragments, trace silt, clay pocket at 0.2, gray to lt. gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.3322 mm % Fines: 2.1
-36.2	4.7		CLAY, fat, mostly clay, some sand, trace shell fragments, medium to high plasticity, greenish gray (CH)	NS	
-38.3	6.8		SAND, silty, mostly fine-grained sand-sized quartz, some silt, dark brown band at 5.3 ft., dense sand, pale brown (SM)	B	Classification: SP Color: 2.5Y 5/2-grayish brown D50: 0.24 mm % Fines: 2.7

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19195° Long = -88.38770°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

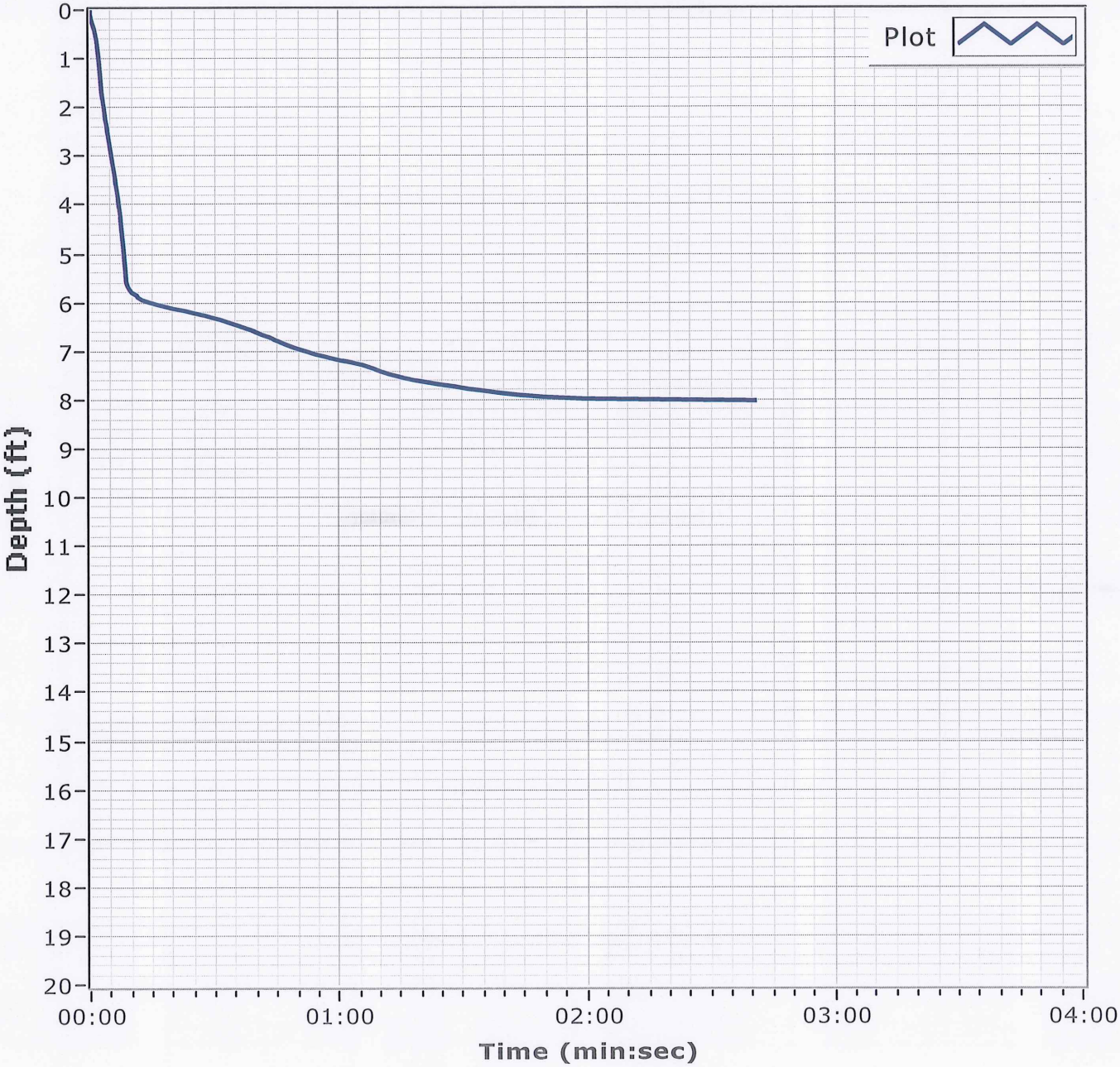
Core Identifier BI-PBP-6-12
Coordinate System
Latitude / Longitude

Latitude 30 11.517
Longitude 088 23.262

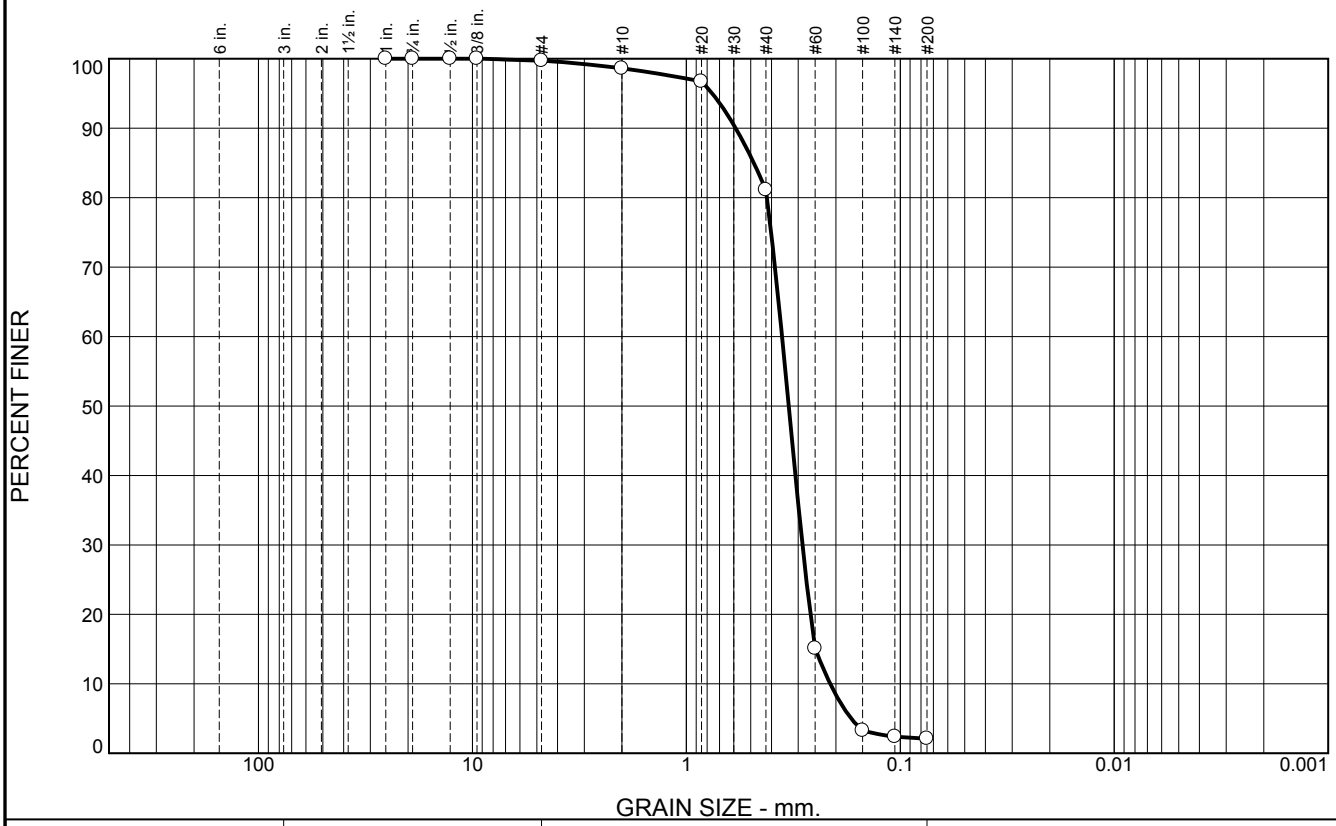
Date 12/08/2012
Start Time 13:45:51
End Time 13:48:32
Total Time 00:02:41

Water Depth 33.0'
Penetration 8.0'
Recovery 6.8'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.3	1.1	17.5	79.0	2.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.7		
#10	98.6		
#20	96.7		
#40	81.1		
#60	15.1		
#100	3.3		
#140	2.4		
#200	2.1		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5883 D_{85}= 0.4841 D_{60}= 0.3569
D_{50}= 0.3322 D_{30}= 0.2869 D_{15}= 0.2492
D_{10}= 0.2126 C_u= 1.68 C_c= 1.08

Classification

USCS= SP AASHTO=

Remarks

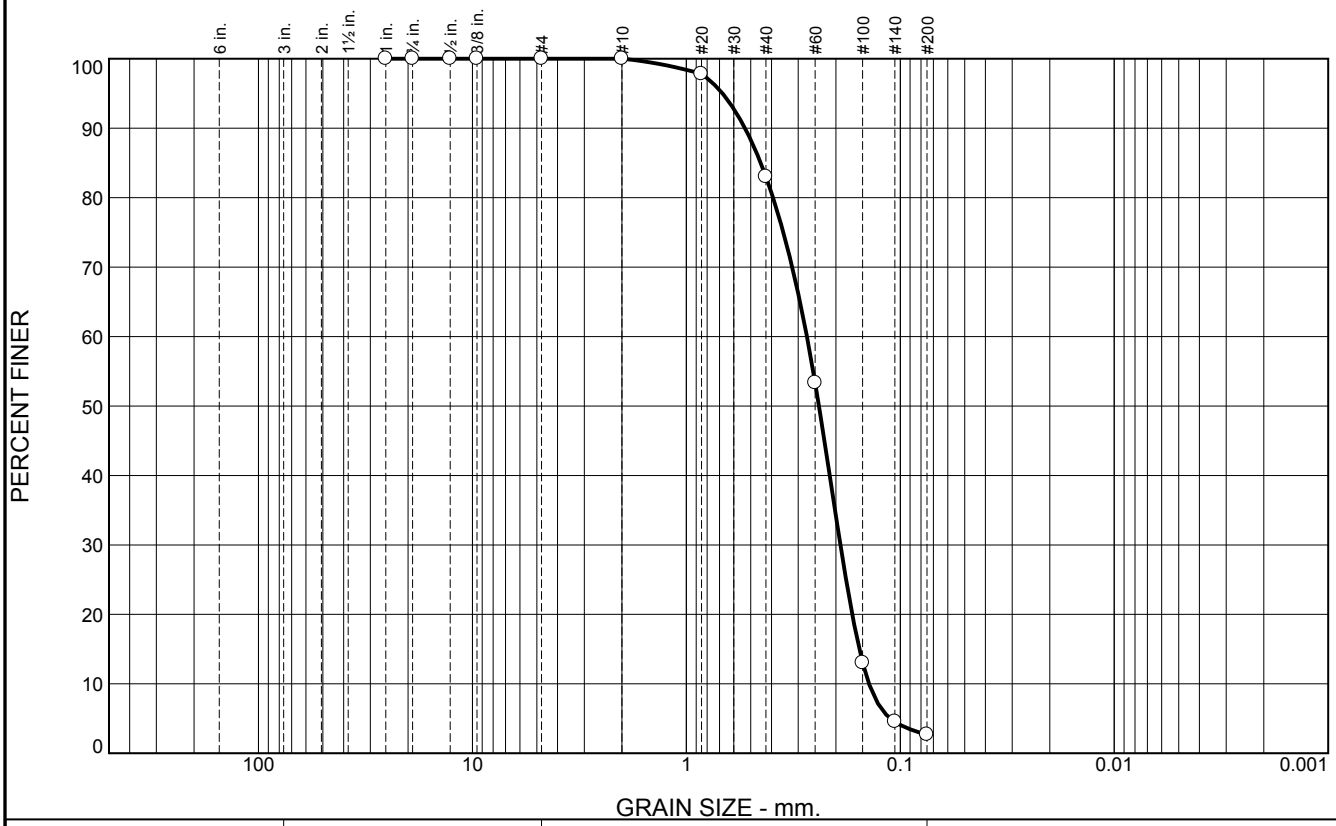
Location: BI-PBP-6-12 A
Sample Number: 6482 (37) **Depth:** 0.0' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	17.0	80.3	2.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	100.0		
#20	97.8		
#40	83.0		
#60	53.3		
#100	13.0		
#140	4.6		
#200	2.7		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5320 D_{85}= 0.4495 D_{60}= 0.2733
D_{50}= 0.2400 D_{30}= 0.1906 D_{15}= 0.1555
D_{10}= 0.1400 C_u= 1.95 C_c= 0.95

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-6-12 B
Sample Number: 6482 (38) **Depth:** 4.7' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-08-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-08-12 — LOCATION COORDINATES: E = 1,125,076 N = 250,555	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 27.1 Ft.
	15. DATE BORING — STARTED: 12-22-12 — COMPLETED: 12-22-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -27.3 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 16.7 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-27.3	0.0				
-33.6	6.3		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, few shell fragments, trace fines, lt. gray to gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.3643 mm % Fines: 1
				B	Classification: SP Color: 5Y 7/2-light gray D50: 0.2361 mm % Fines: 1.7
-37.2	9.9		SAND, silty, mostly fine-grained sand-sized quartz, some silt, little clay stringers, gray (SM)	NS	
-39.6	12.3		SILT, inorganic-L, mostly silt, some clay, little fine-grained sand-sized quartz, dark gray (ML)		
-43.0	15.7		SAND, silty, mostly fine-grained sand-sized quartz, some silt, few clay stringers and a clay band at 14.8 ft., brown to gray (SM)		
-44.0	16.7		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, gray (SP-SM)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18822° Long = -88.38760°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-8-12

Coordinate System
Latitude / Longitude

Latitude 30 11.293

Longitude 088 23.256

Date 12/22/2012

Start Time 13:47:50

End Time 13:49:21

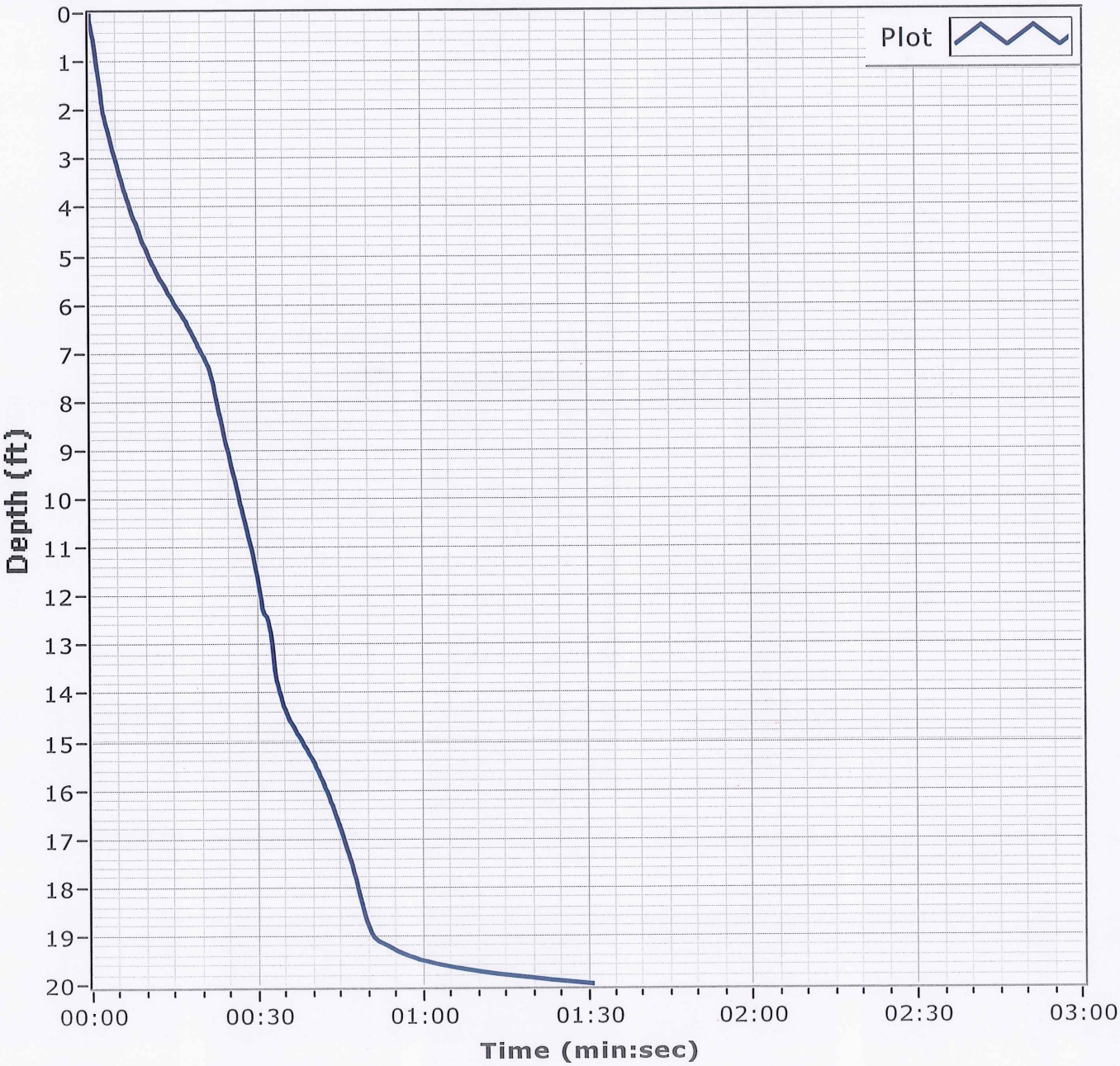
Total Time 00:01:31

Water Depth 27.1'

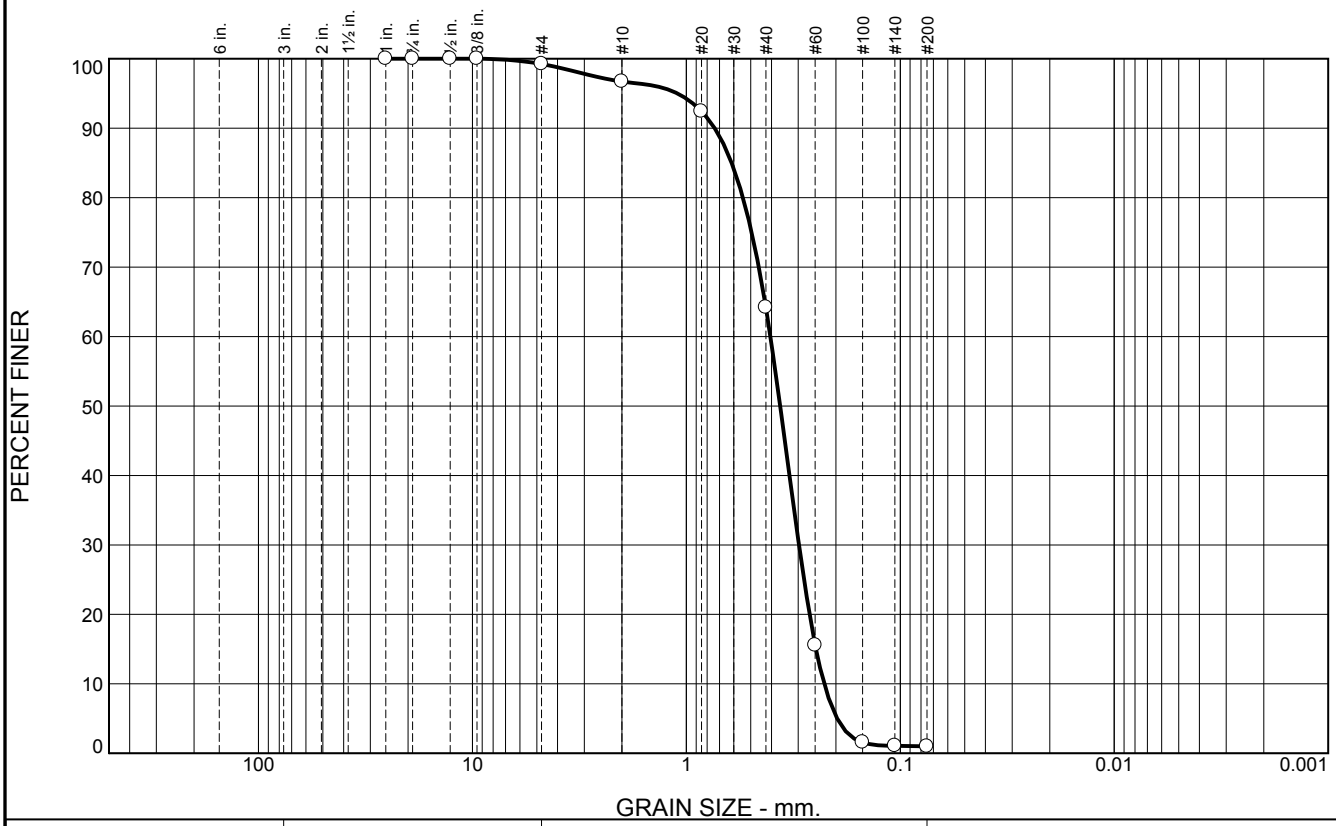
Penetration 20.0'

Recovery 16.7'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.8	2.5	32.5	63.2	1.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.2		
#10	96.7		
#20	92.4		
#40	64.2		
#60	15.5		
#100	1.6		
#140	1.1		
#200	1.0		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.7379 D_{85}= 0.6142 D_{60}= 0.4048
D_{50}= 0.3643 D_{30}= 0.2977 D_{15}= 0.2479
D_{10}= 0.2268 C_u= 1.78 C_c= 0.97

Classification

USCS= SP AASHTO=

Remarks

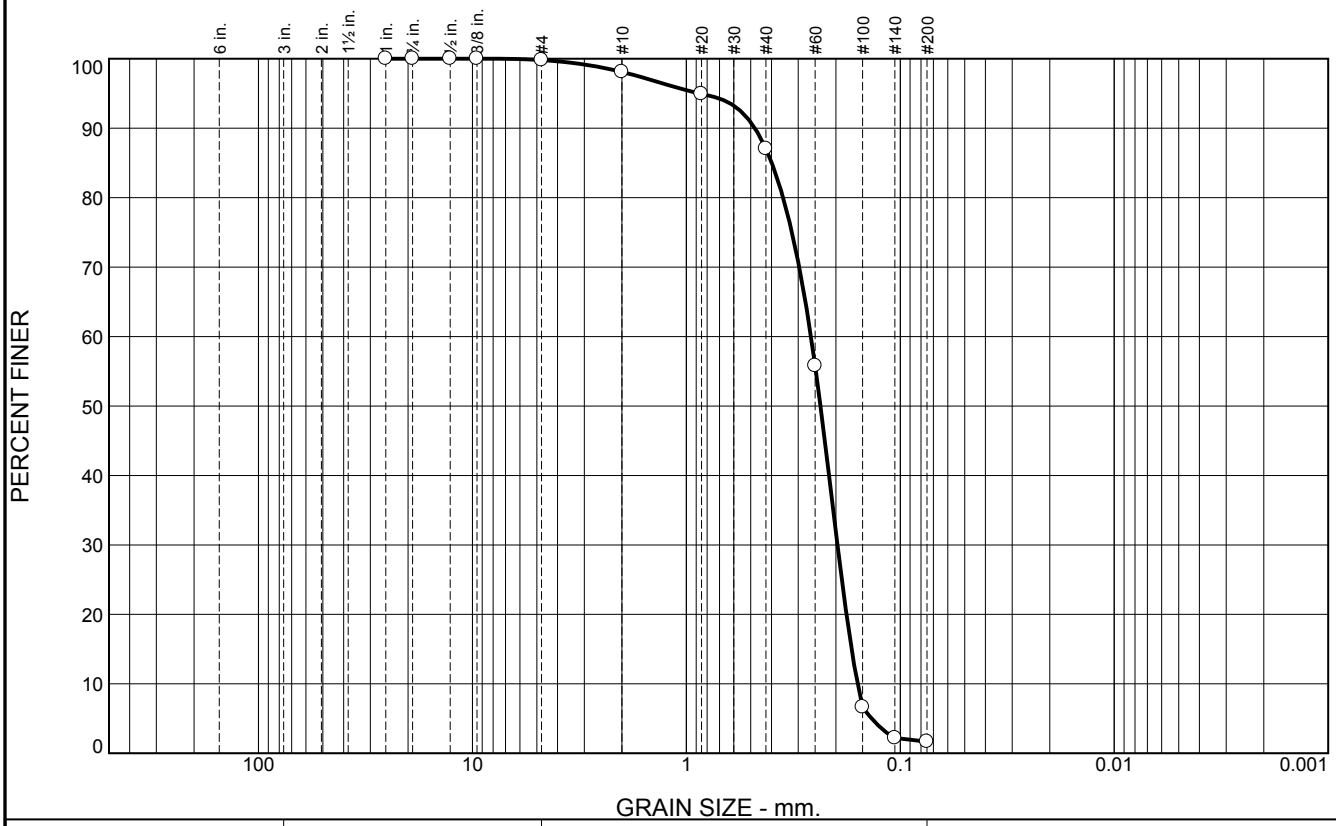
Location: BI-PBP-8-12 A
Sample Number: 6495 (21) **Depth:** 0.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	1.7	11.1	85.3	1.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	98.1		
#20	94.9		
#40	87.0		
#60	55.8		
#100	6.6		
#140	2.2		
#200	1.7		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4787 D_{85}= 0.3988 D_{60}= 0.2616
D_{50}= 0.2361 D_{30}= 0.1967 D_{15}= 0.1691
D_{10}= 0.1586 C_u= 1.65 C_c= 0.93

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-8-12 B
Sample Number: 6495 (22) **Depth:** 5.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-09-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 2 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-09-12 — LOCATION COORDINATES: E = 1,124,933 N = 250,772	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 28.9 Ft.
	15. DATE BORING — STARTED: 12-08-12 — COMPLETED: 12-08-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -27.4 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 18.0 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-27.4	0.0				
-29.6	2.2		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace shell fragments, pale lt. brown (SP)	A	Classification: SP Color: 2.5Y 7/2-light gray D50: 0.3314 mm % Fines: 1
-29.8	2.4		SHELL, mostly shell fragments, trace fine-grained sand-sized quartz, gray	NS	
-33.0	5.6		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, few shell fragments, trace fines, lt. gray (SP)	B	Classification: SP Color: 5Y 7/2-light gray D50: 0.2559 mm % Fines: 1.7
-33.9	6.5		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, gray (SC)		
-34.9	7.5		CLAY, fat, mostly clay, medium to high plasticity, dark gray (CH)		
-36.5	9.1		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace fines, trace shell fragments, gray (SP)		
			SAND, silty, mostly fine-grained sand-sized quartz, some silt, pale brown (SM)	NS	
-42.8	15.4		At El. -41.2 Ft., mostly fine-grained sand-sized quartz, some silt, trace clay, brown		
-43.3	15.9		CLAY, lean, mostly clay, trace fine-grained sand-sized quartz, low to medium plasticity, dark gray (CL)		
-45.1	17.7		SAND, silty, mostly fine-grained sand-sized quartz, some silt, gray (SM)		
-45.4	18.0		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace fines, lt. gray (SP)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18882° Long = -88.38805°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,124,933 Y = 250,772	ELEVATION TOP OF BORING -27.4 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18882° Long = -88.38805°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-9-12

Coordinate System
Latitude / Longitude

Latitude 30 11.329

Longitude 088 23.283

Date 12/08/2012

Start Time 14:17:46

End Time 14:18:59

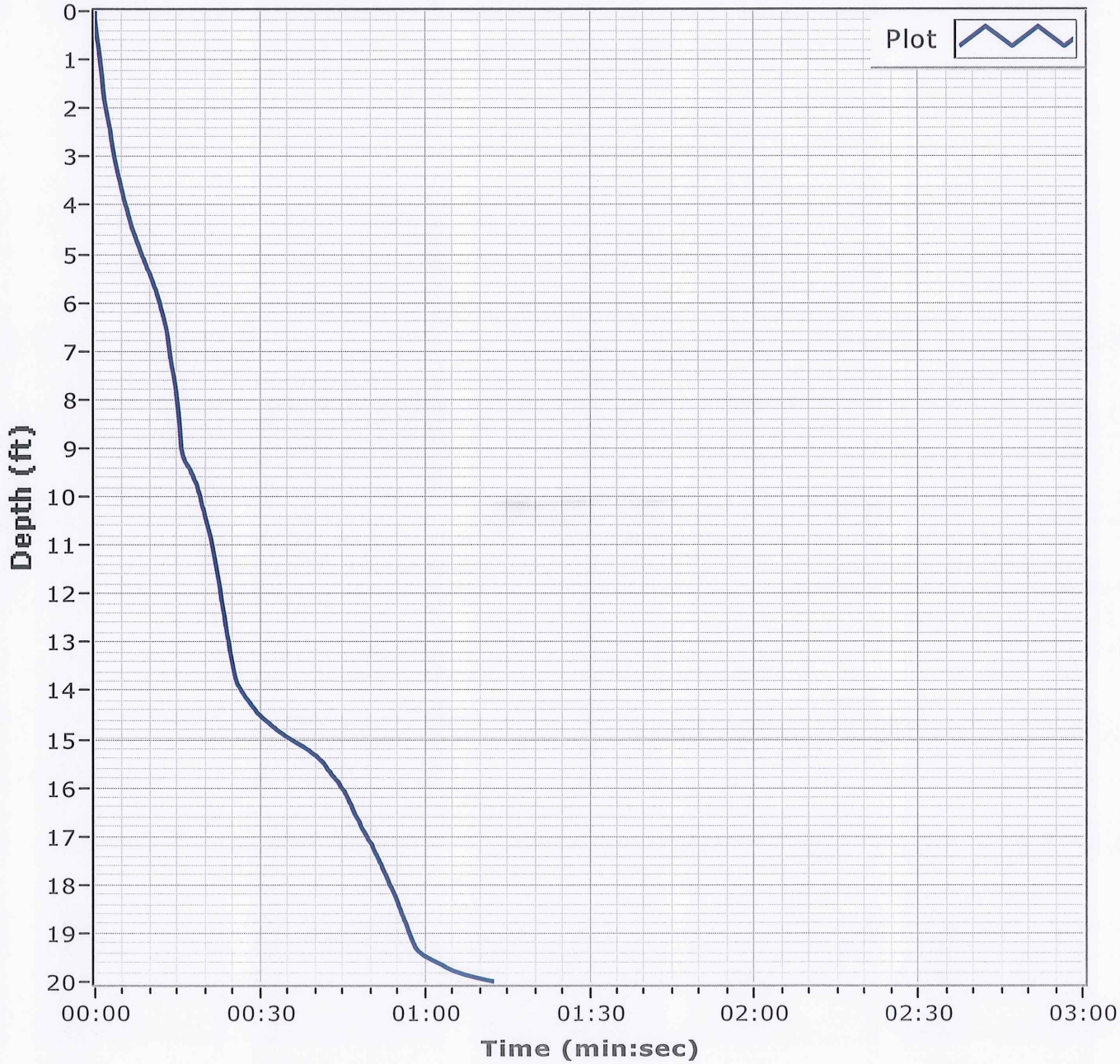
Total Time 00:01:12

Water Depth 28.9'

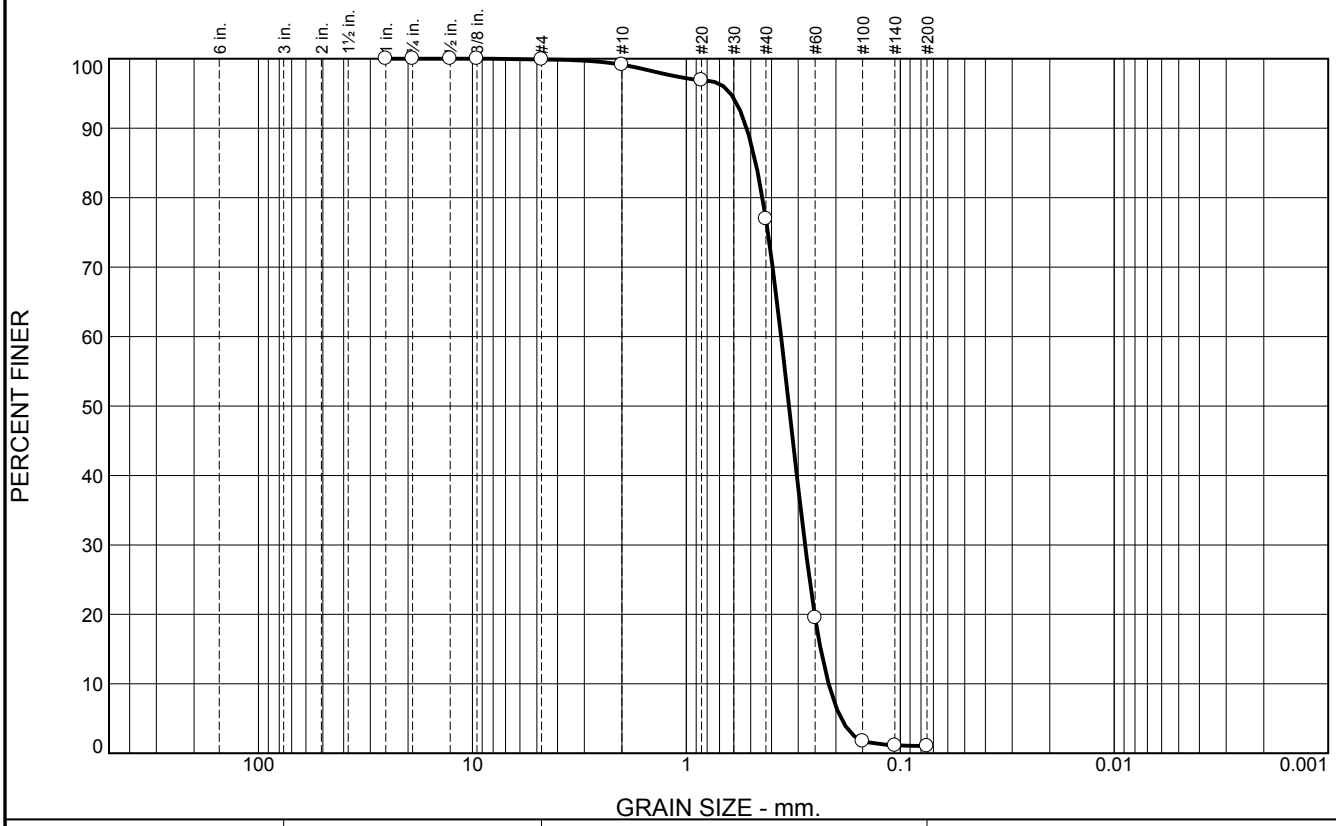
Penetration 20.0'

Recovery 18.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.8	22.1	76.0	1.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	99.1		
#20	96.9		
#40	77.0		
#60	19.5		
#100	1.7		
#140	1.1		
#200	1.0		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5225 D_{85}= 0.4741 D_{60}= 0.3607
D_{50}= 0.3314 D_{30}= 0.2788 D_{15}= 0.2355
D_{10}= 0.2163 C_u= 1.67 C_c= 1.00

Classification

USCS= SP AASHTO=

Remarks

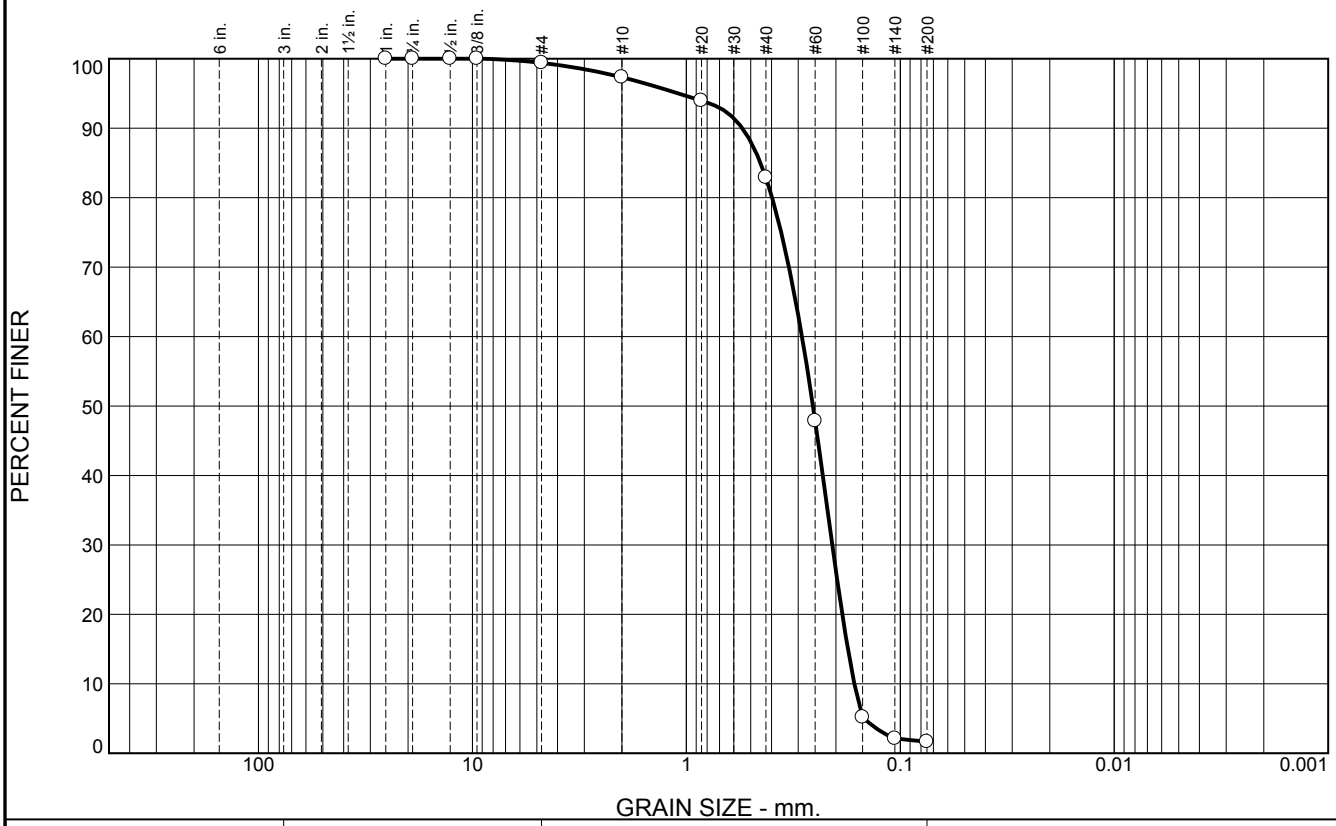
Location: BI-PBP-9-12 A
Sample Number: 6482 (39) **Depth:** 0.0' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.6	2.1	14.4	81.2	1.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.4		
#10	97.3		
#20	93.9		
#40	82.9		
#60	47.9		
#100	5.2		
#140	2.1		
#200	1.7		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5473 D_{85}= 0.4503 D_{60}= 0.2882
D_{50}= 0.2559 D_{30}= 0.2079 D_{15}= 0.1759
D_{10}= 0.1641 C_u= 1.76 C_c= 0.91

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-9-12 B
Sample Number: 6482 (40) **Depth:** 2.4' **Date:** 12/12/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-12-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-12-12 — LOCATION COORDINATES: E = 1,122,682 N = 251,164	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 32.5 Ft.
	15. DATE BORING — STARTED: 12-22-12 — COMPLETED: 12-22-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -31.0 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 8.6 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-31.0	0.0				
-33.1	2.1		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, gray (SP)	A	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.2788 mm % Fines: 2
-34.1	3.1		SAND, poorly-graded with silt, mostly fine to medium-grained sand-sized quartz, some shell fragments, few clay stringers, gray (SP-SM)	NS	
-36.7	5.7		SAND, silty, mostly fine-grained sand-sized quartz, some silt, little shell fragments, gray (SM)	B	Classification: SP-SM Color: 5Y 5/2-olive gray D50: 0.2942 mm % Fines: 7.3
-37.9	6.9		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, clay band at 6.6 ft., dark gray (SC)	NS	
-39.6	8.6		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, grades siltier with depth, gray grading to brown (SP-SM)	C	Classification: SP Color: 2.5Y 6/2-light brownish gray D50: 0.2302 mm % Fines: 3.1
				NS	

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Drilled depth was 16.3 ft. and return was 8.6 ft. Unsure of cause of poor return. Did not appear to be a mechanical issue.

4. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18992° Long = -88.39517°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-12-12

Coordinate System
Latitude / Longitude

Latitude 30 11.395

Longitude 088 23.710

Date 12/22/2012

Start Time 14:20:05

End Time 14:22:54

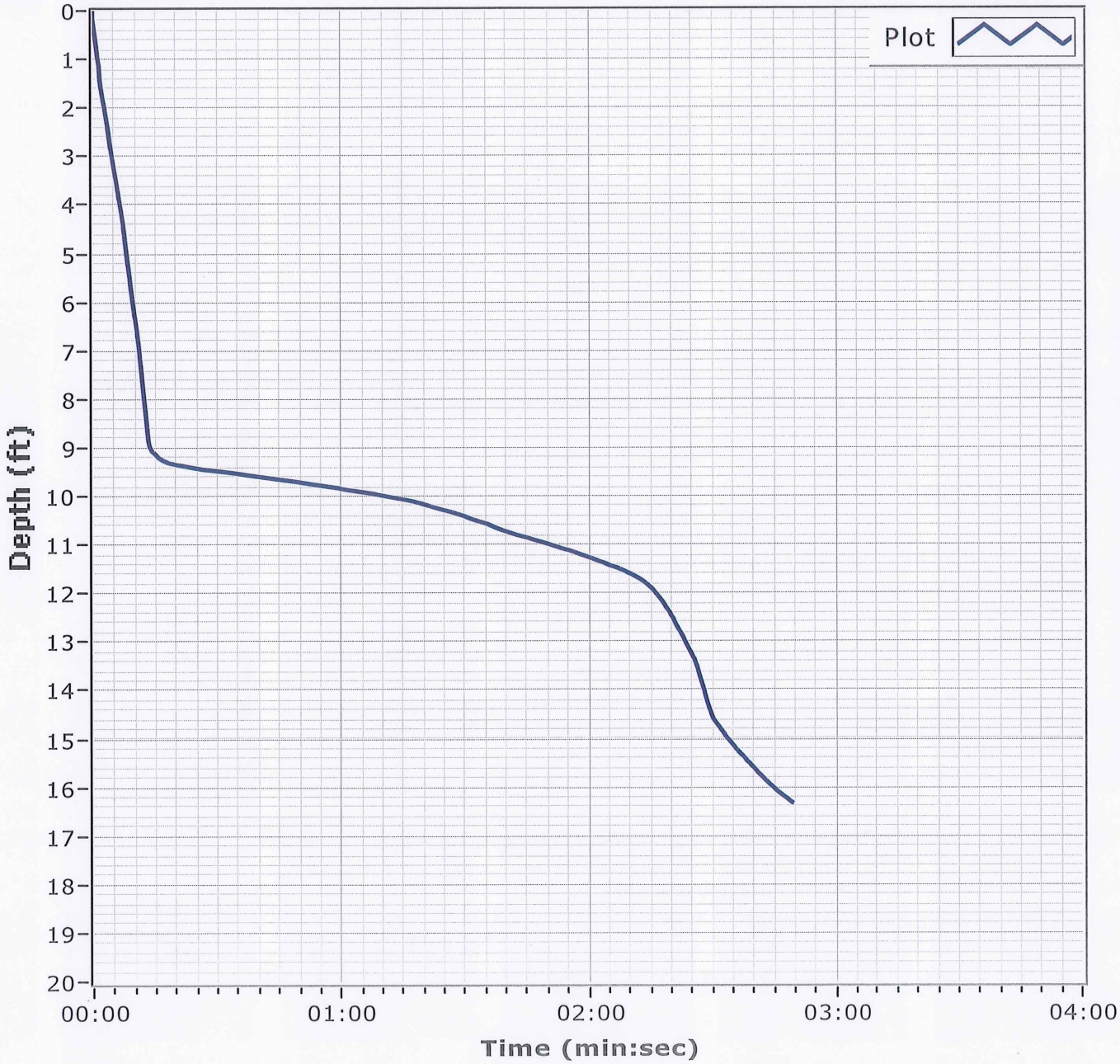
Total Time 00:02:49

Water Depth 32.5'

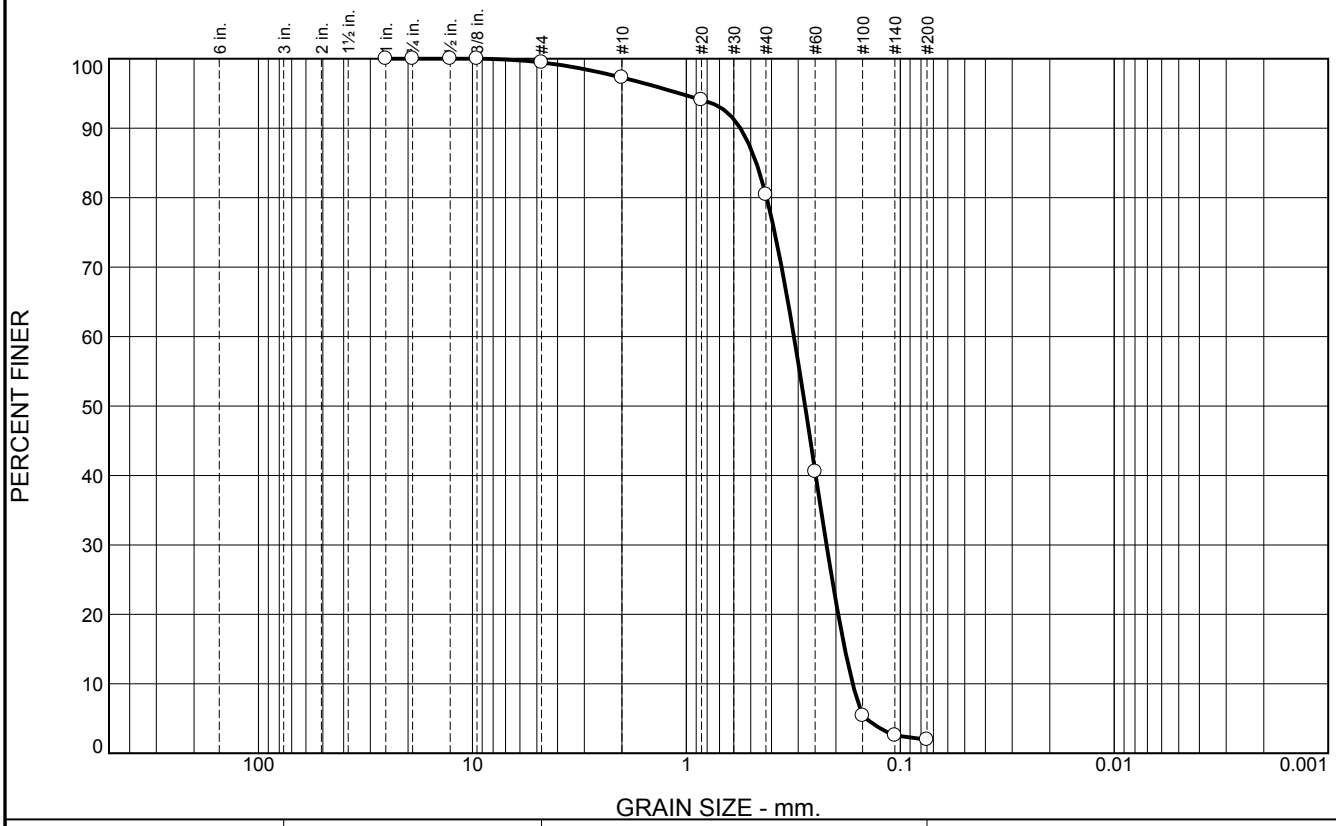
Penetration 16.3'

Recovery 8.6'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.5	2.2	16.9	78.4	2.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.5		
#10	97.3		
#20	94.1		
#40	80.4		
#60	40.6		
#100	5.4		
#140	2.6		
#200	2.0		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5591 D_{85}= 0.4710 D_{60}= 0.3143
D_{50}= 0.2788 D_{30}= 0.2212 D_{15}= 0.1817
D_{10}= 0.1670 C_u= 1.88 C_c= 0.93

Classification

USCS= SP AASHTO=

Remarks

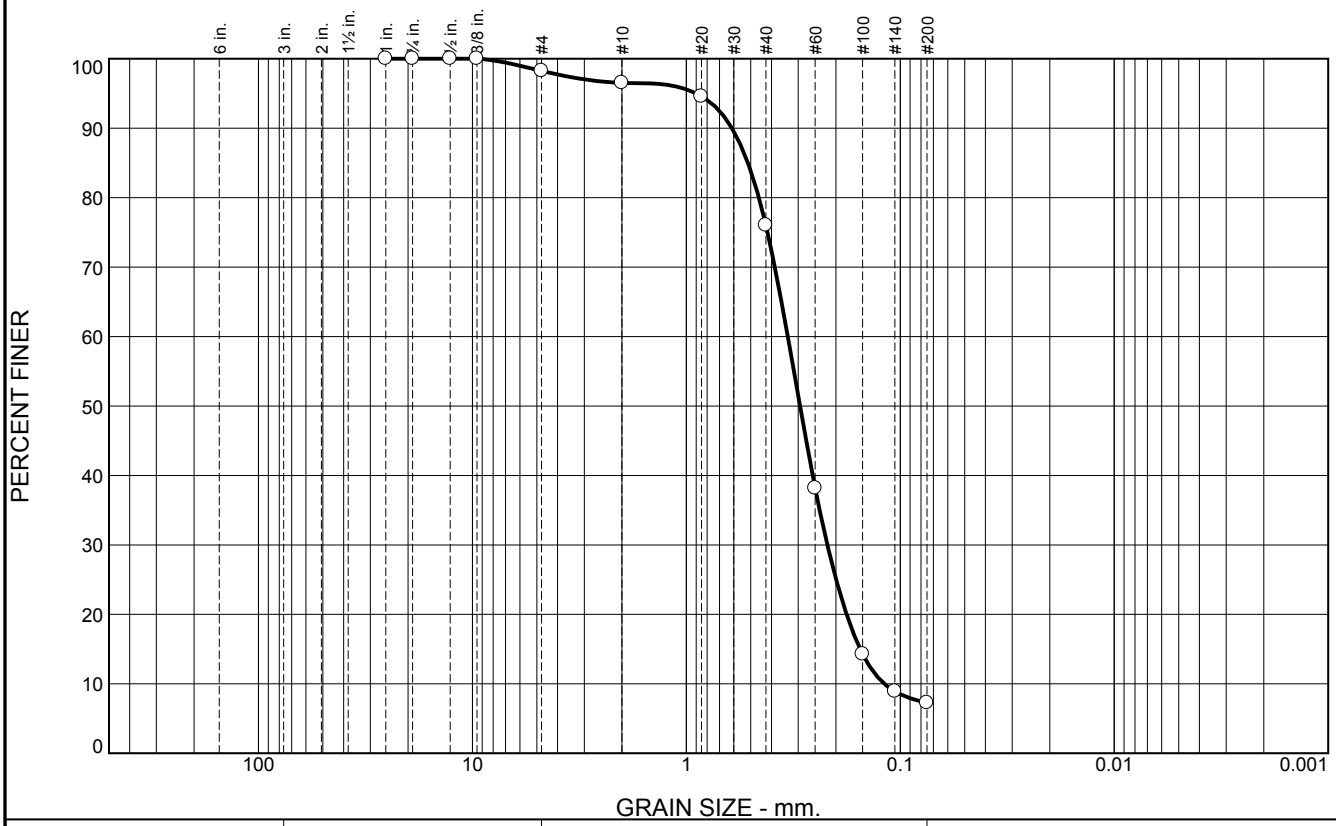
Location: BI-PBP-12-12 A
Sample Number: 6495 (23) **Depth:** 0.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.8	1.7	20.5	68.7	7.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	98.2		
#10	96.5		
#20	94.6		
#40	76.0		
#60	38.2		
#100	14.3		
#140	8.9		
#200	7.3		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6120 D_{85}= 0.5157 D_{60}= 0.3356
D_{50}= 0.2942 D_{30}= 0.2192 D_{15}= 0.1541
D_{10}= 0.1187 C_u= 2.83 C_c= 1.21

Classification

USCS= SP-SM AASHTO=

Remarks

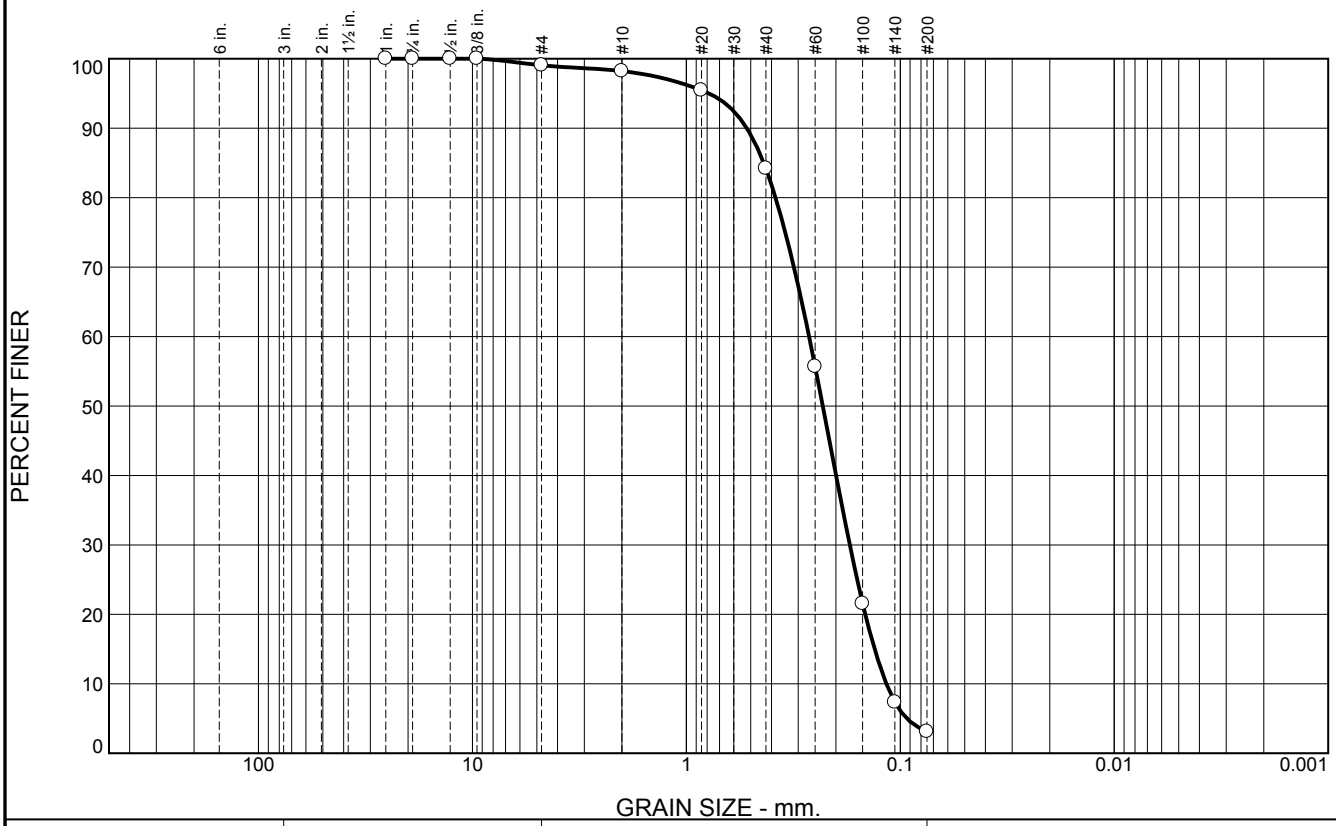
Location: BI-PBP-12-12 B
Sample Number: 6495 (24) **Depth:** 3.1' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.9	0.9	14.0	81.1	3.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.1		
#10	98.2		
#20	95.4		
#40	84.2		
#60	55.7		
#100	21.5		
#140	7.4		
#200	3.1		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5218 D_{85}= 0.4348 D_{60}= 0.2669
D_{50}= 0.2302 D_{30}= 0.1723 D_{15}= 0.1319
D_{10}= 0.1162 C_u= 2.30 C_c= 0.96

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-12-12 C
Sample Number: 6495 (25) **Depth:** 6.9' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-13-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-13-12 — LOCATION COORDINATES: E = 1,124,325 N = 252,847	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 29 Ft.
	15. DATE BORING — STARTED: 12-22-12 — COMPLETED: 12-22-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -28.9 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.3 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-28.9	0.0				
-33.7	4.8		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace shell fragments, shelly at 1.2 ft., dense, lt. gray (SP)	A	Classification: SP Color: 2.5Y 7/2-light gray D50: 0.2911 mm % Fines: 1.9
-38.4	9.5		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, thick clay bands, gray (SM) At El. -34.9 Ft., mostly fine-grained sand-sized quartz, some silt, organic staining, trace clay bands, brown	NS B	 Classification: SP-SM Color: 2.5Y 4/2-dark grayish brown D50: 0.2371 mm % Fines: 5.3
-42.7	13.8		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, little silt, trace shell fragments, gray (SC)	NS	
-48.2	19.3		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, trace clay bands, loose, gray (SM)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19453° Long = -88.38995°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-13-12

Coordinate System
Latitude / Longitude

Latitude 30 11.672 N

Longitude 088 23.397 W

Date 12/22/2012

Start Time 10:47:16

End Time 10:48:41

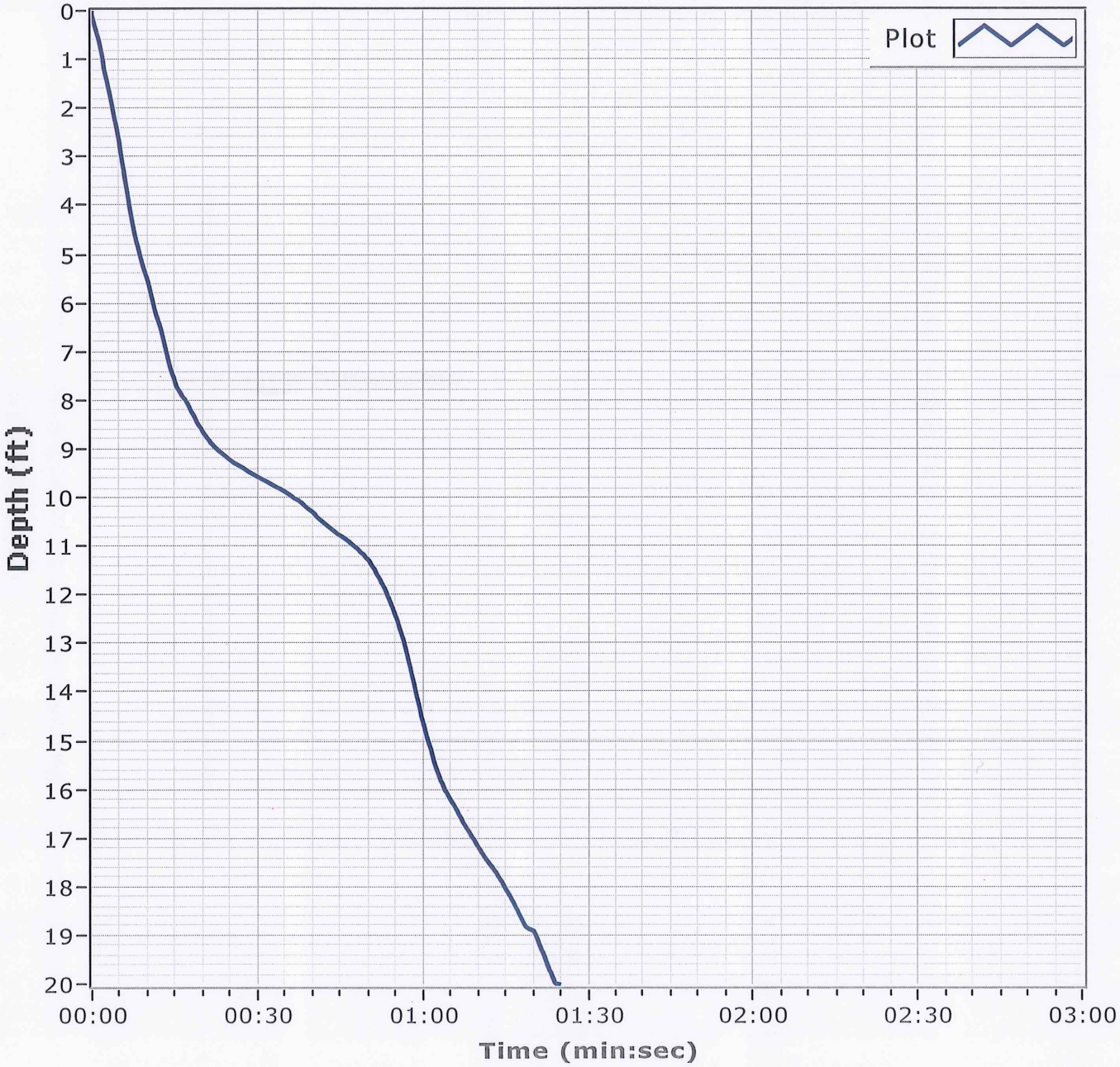
Total Time 00:01:25

Water Depth 29.0'

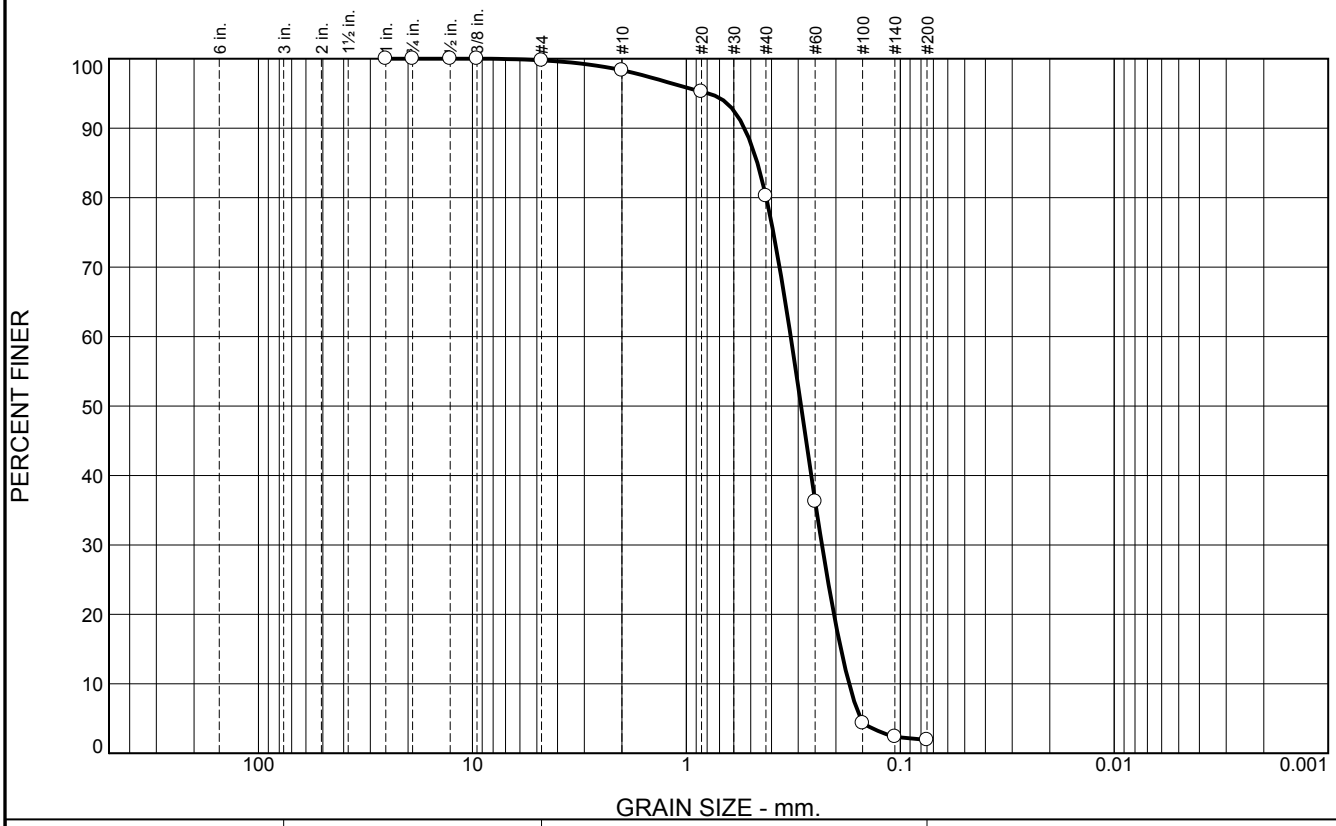
Penetration 20.0'

Recovery 19.3'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	1.5	18.0	78.4	1.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	98.3		
#20	95.3		
#40	80.3		
#60	36.3		
#100	4.3		
#140	2.4		
#200	1.9		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5350 D_{85}= 0.4657 D_{60}= 0.3253
D_{50}= 0.2911 D_{30}= 0.2323 D_{15}= 0.1896
D_{10}= 0.1736 C_u= 1.87 C_c= 0.96

Classification

USCS= SP AASHTO=

Remarks

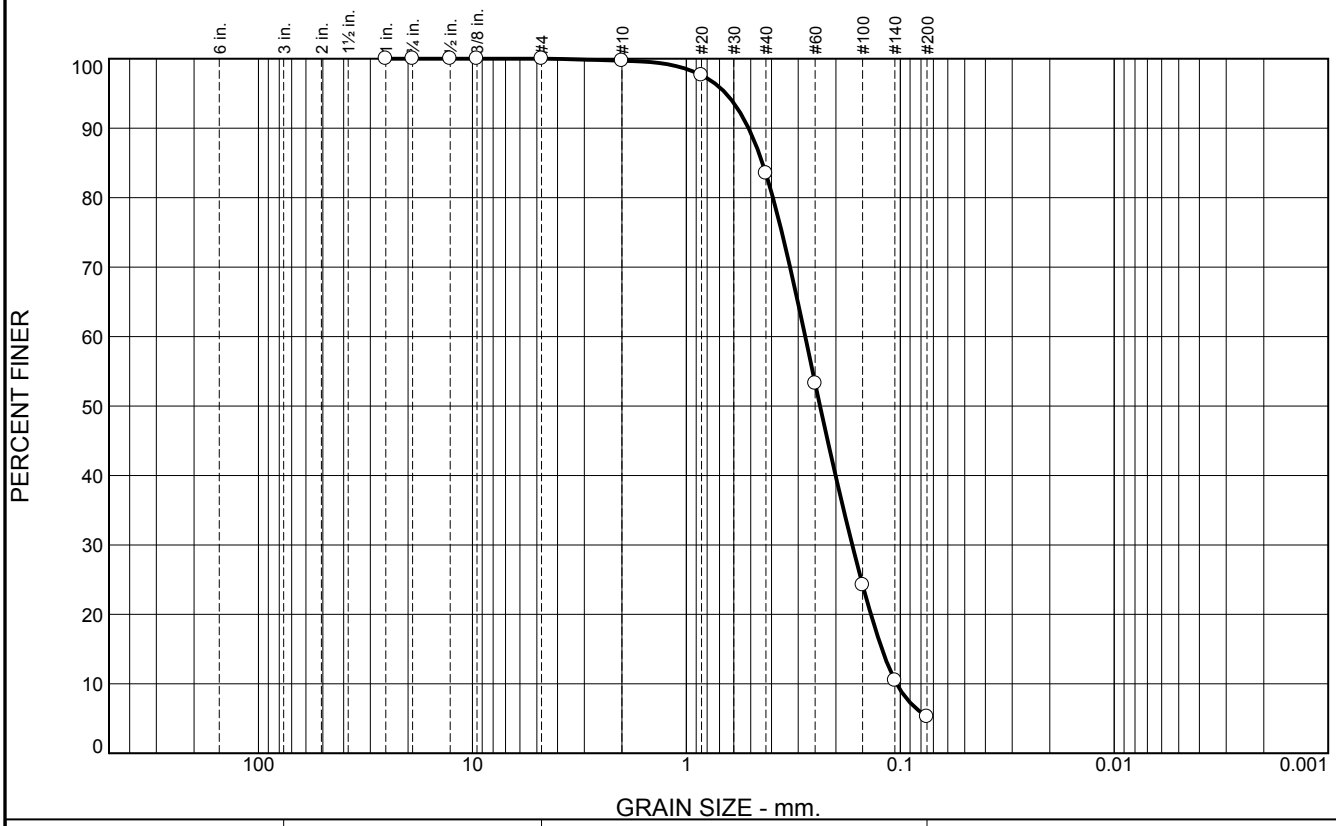
Location: BI-PBP-13-12 A
Sample Number: 6495 (26) **Depth:** 0.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.3	16.2	78.2	5.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.7		
#20	97.6		
#40	83.5		
#60	53.3		
#100	24.2		
#140	10.5		
#200	5.3		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5121 D_{85}= 0.4409 D_{60}= 0.2783
D_{50}= 0.2371 D_{30}= 0.1678 D_{15}= 0.1218
D_{10}= 0.1040 C_u= 2.68 C_c= 0.97

Classification

USCS= SP-SM AASHTO=

Remarks

Location: BI-PBP-13-12 B
Sample Number: 6495 (27) **Depth:** 6.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-14-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-14-12 — LOCATION COORDINATES: E = 1,123,449 N = 252,869	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 27.3 Ft.
	15. DATE BORING — STARTED: 12-22-12 — COMPLETED: 12-22-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -27.8 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 15.5 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-27.8	0.0				
-29.8	2.0		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, gray (SP)	A	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.2613 mm % Fines: 2.5
-43.3	15.5		SAND, silty, mostly fine-grained sand-sized quartz, some silt, alternating bands of silty, fine-grained sand and stiff, low to medium plasticity, silty clay up to 1 ft. thick, gray (SM)	NS	

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19460° Long = -88.39272°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-14-12

Coordinate System
Latitude / Longitude

Latitude 30 11.676 N

Longitude 088 23.563 W

Date 12/22/2012

Start Time 11:14:48

End Time 11:17:15

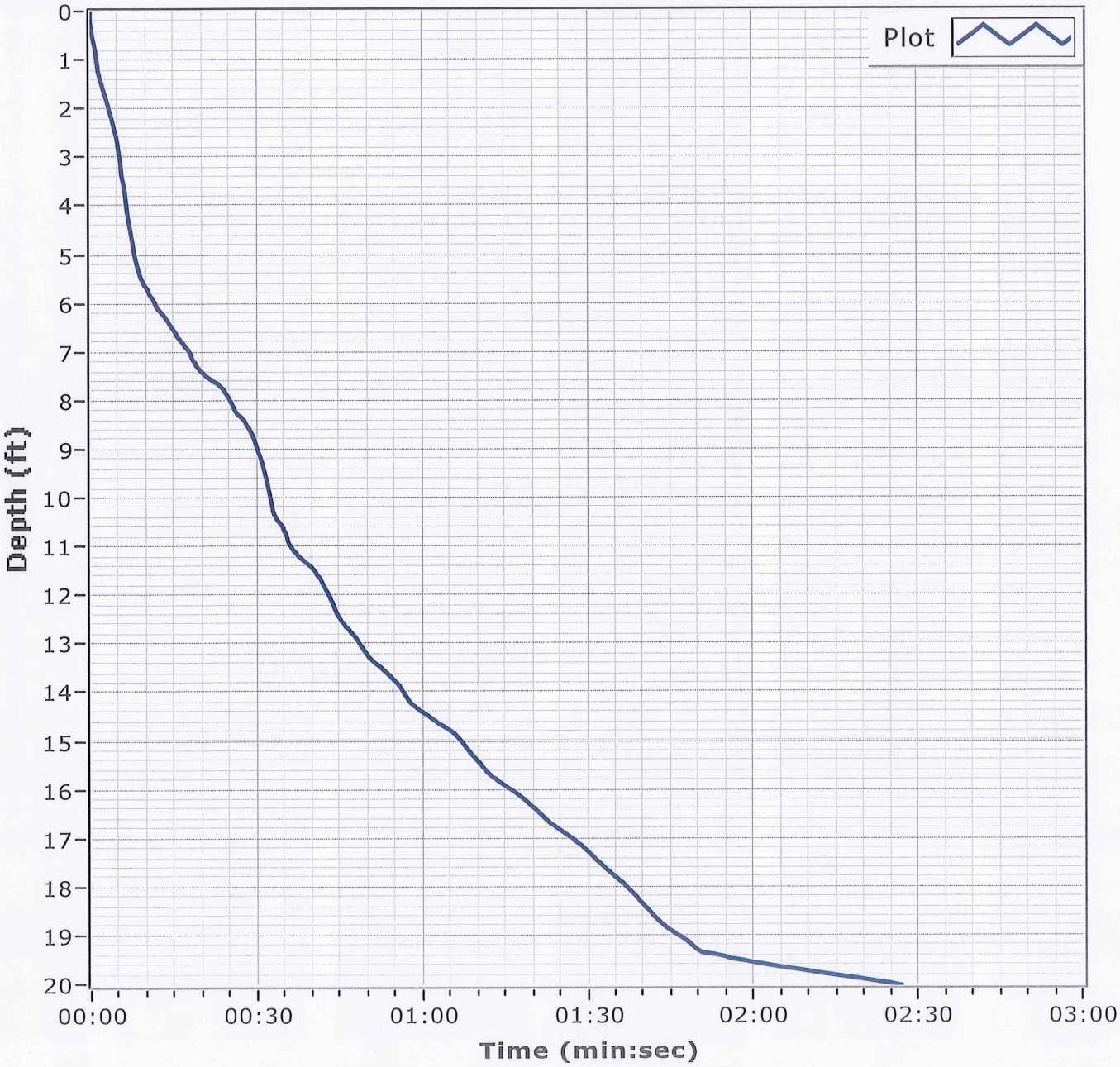
Total Time 00:02:27

Water Depth 27.3

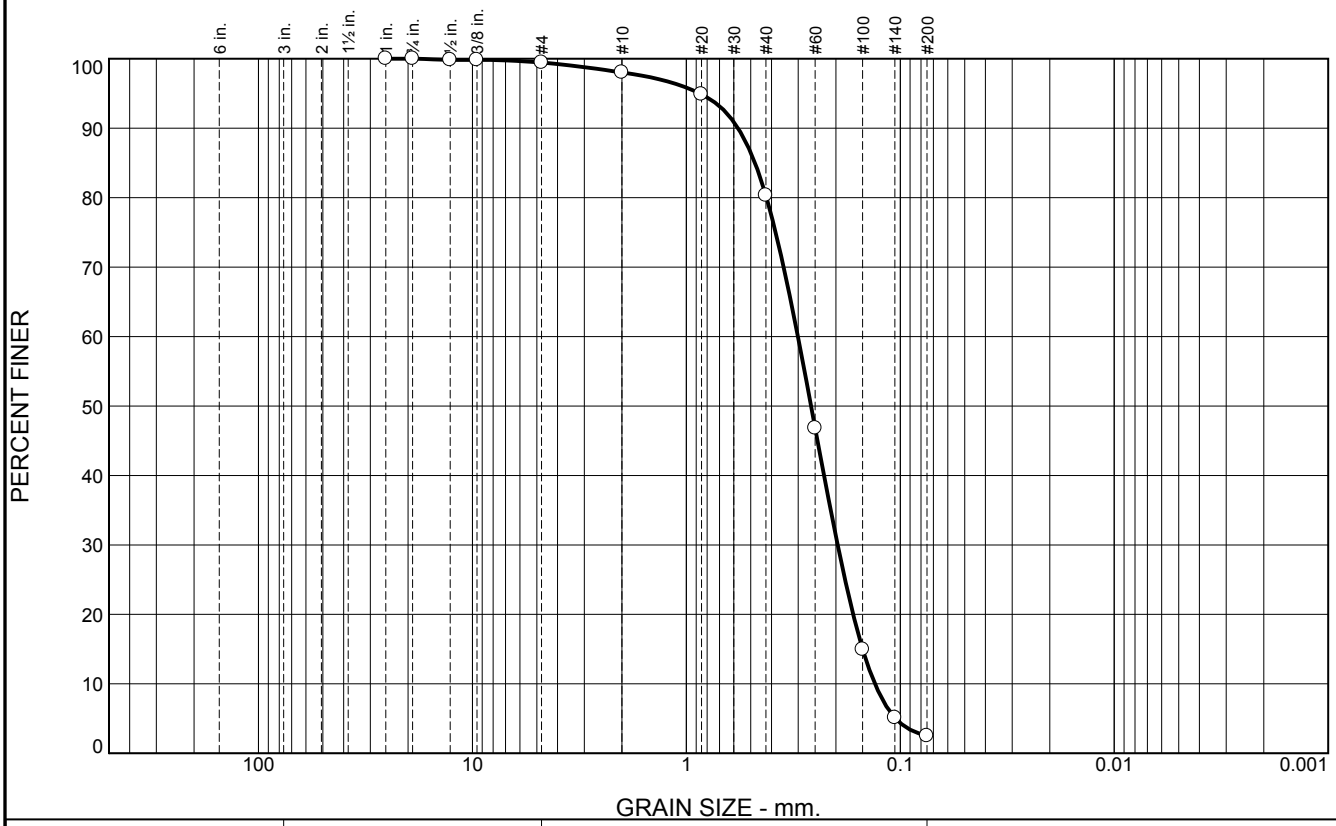
Penetration 20.0'

Recovery 15.5'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.6	1.4	17.7	77.8	2.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	99.8		
.375	99.8		
#4	99.4		
#10	98.0		
#20	94.9		
#40	80.3		
#60	46.8		
#100	15.0		
#140	5.1		
#200	2.5		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5732 D_{85}= 0.4779 D_{60}= 0.3012
D_{50}= 0.2613 D_{30}= 0.1962 D_{15}= 0.1501
D_{10}= 0.1315 C_u= 2.29 C_c= 0.97

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-14-12 A
Sample Number: 6495 (28) **Depth:** 0.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-15-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-15-12 — LOCATION COORDINATES: E = 1,125,247 N = 252,883	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 29.4 Ft.
	15. DATE BORING — STARTED: 12-22-12 — COMPLETED: 12-22-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -28.0 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.6 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-28.0	0.0				
-33.0	5.0		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace coarse-grained sand-sized quartz, some shell fragments from 0.0 to 1.3 ft. and trace fines from 0.0 to 0.3 ft., gray to lt. gray to white (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.3401 mm % Fines: 1.2
-35.2	7.2		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, few shell fragments, gray (SP-SM)	B	Classification: SP-SM Color: 5Y 5/2-olive gray D50: 0.2343 mm % Fines: 6.9
-47.6	19.6		SAND, silty, mostly fine-grained sand-sized quartz, some silt, clay bands at 9.0 ft., gray (SM) At El. -38.9 Ft., mostly fine-grained sand-sized quartz, some silt, trace clay, trace shell fragments, two 1-in. diameter cobbles within interval, gray At El. -42.6 Ft., mostly fine-grained sand-sized quartz, some silt, some clay, trace shell fragments, slightly plastic, greenish gray	NS	
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System. 2. NS = Sample not submitted for laboratory analysis from this interval. 3. Seafloor elevation determined from USGS hydrographic survey.		

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19462° Long = -88.38703°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-15-12

Coordinate System
Latitude / Longitude

Latitude 30 11.677 N

Longitude 088 23.222 W

Date 12/22/2012

Start Time 10:16:56

End Time 10:18:32

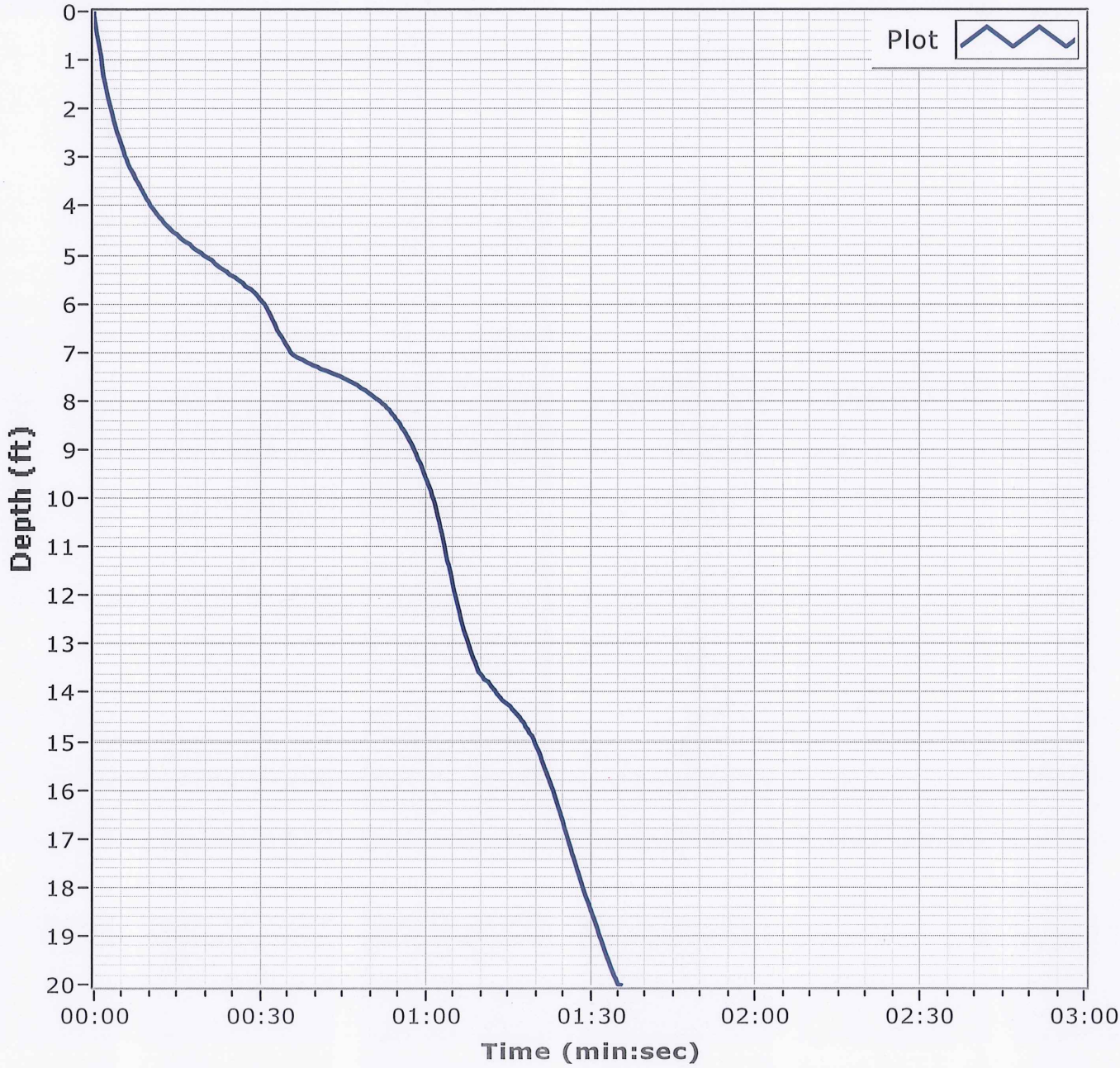
Total Time 00:01:35

Water Depth 29.4'

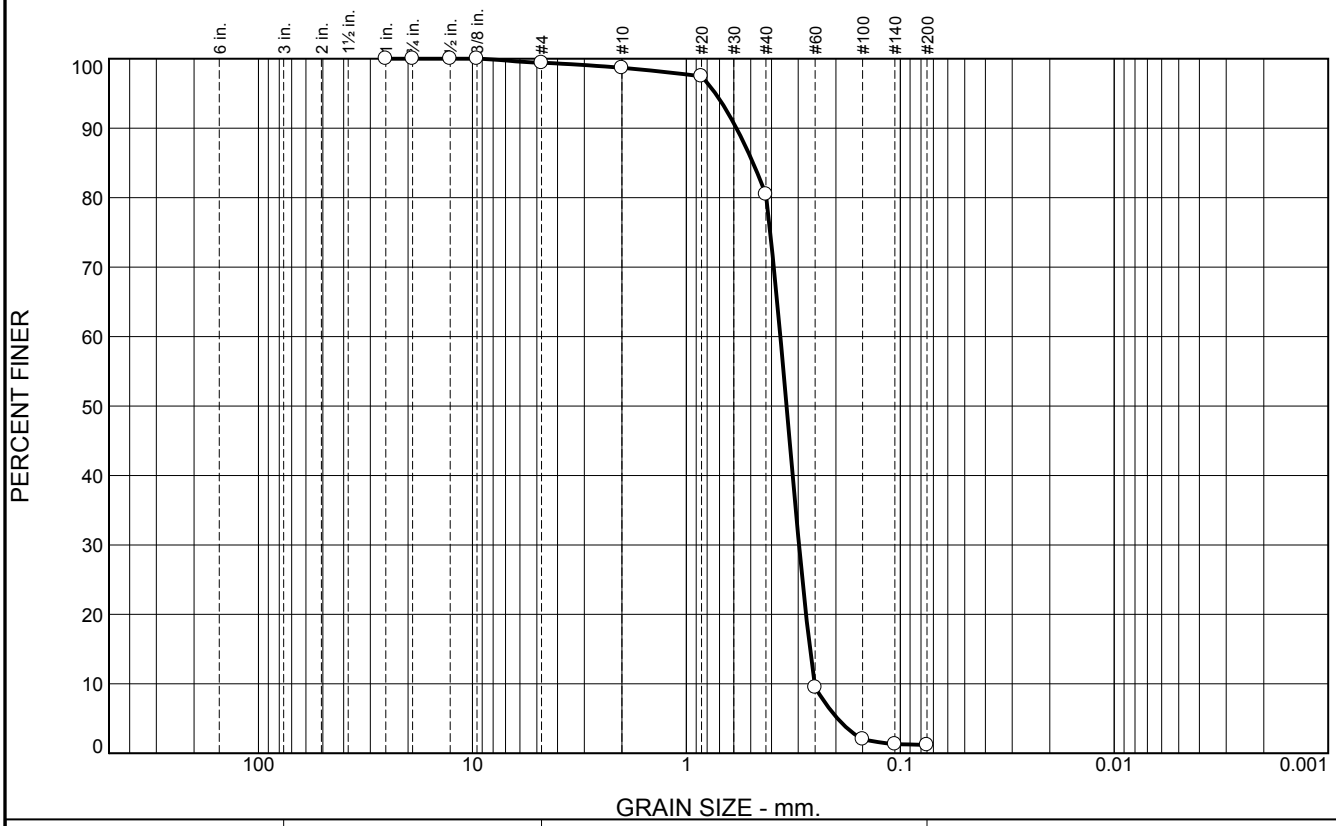
Penetration 20.0'

Recovery 19.6'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.6	0.7	18.2	79.3	1.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.4		
#10	98.7		
#20	97.5		
#40	80.5		
#60	9.5		
#100	2.0		
#140	1.3		
#200	1.2		

* (no specification provided)

Material Description

Fine ro medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5831 D_{85}= 0.4880 D_{60}= 0.3634
D_{50}= 0.3401 D_{30}= 0.2976 D_{15}= 0.2646
D_{10}= 0.2515 C_u= 1.45 C_c= 0.97

Classification

USCS= SP AASHTO=

Remarks

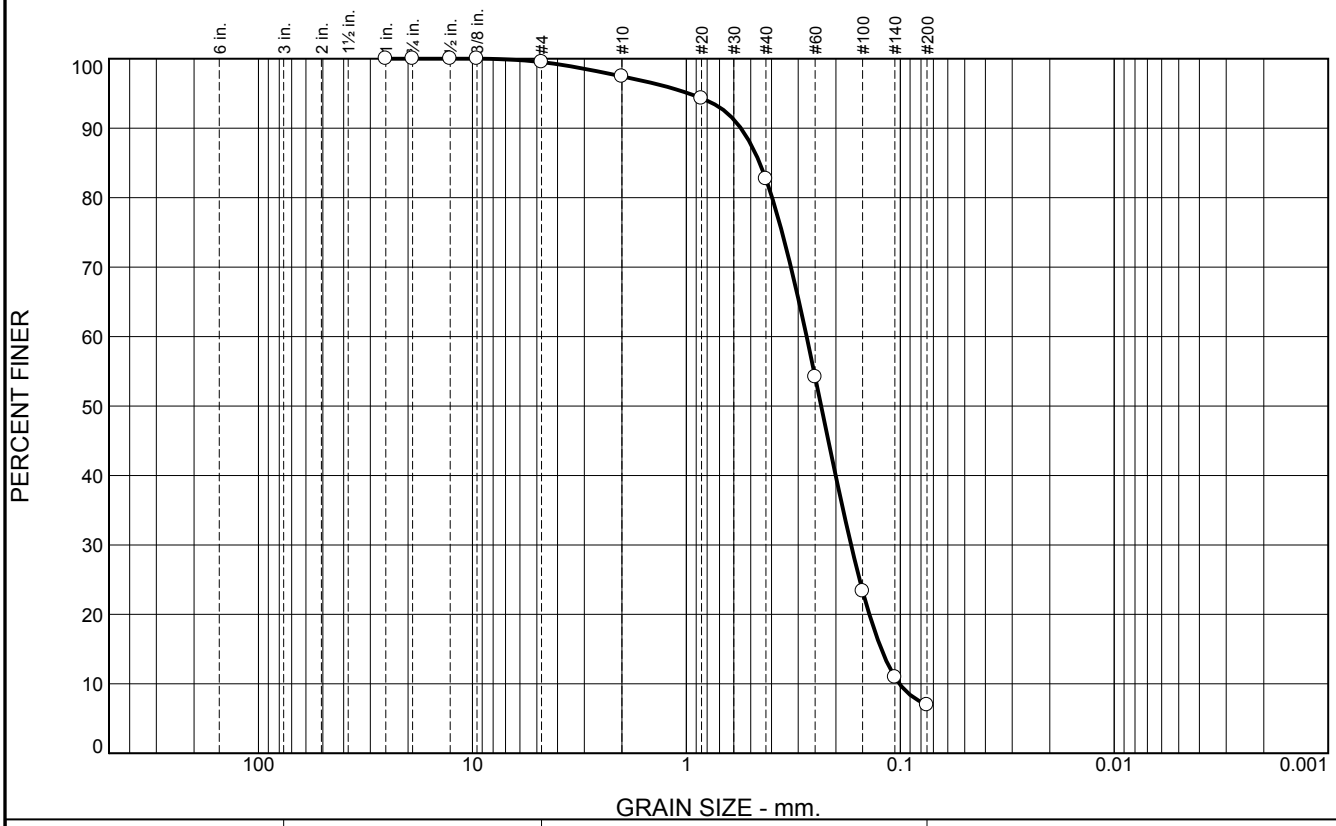
Location: BI-PBP-15-12 A
Sample Number: 6495 (29) **Depth:** 0.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.5	2.1	14.7	75.8	6.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.5		
#10	97.4		
#20	94.3		
#40	82.7		
#60	54.2		
#100	23.4		
#140	11.0		
#200	6.9		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5561 D_{85}= 0.4541 D_{60}= 0.2741
D_{50}= 0.2343 D_{30}= 0.1699 D_{15}= 0.1227
D_{10}= 0.1009 C_u= 2.72 C_c= 1.04

Classification

USCS= SP-SM AASHTO=

Remarks

Location: BI-PBP-15-12 B
Sample Number: 6495 (30) **Depth:** 5.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-18-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-18-12 — LOCATION COORDINATES: E = 1,123,925 N = 252,361	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 27 Ft.
	15. DATE BORING — STARTED: 12-22-12 — COMPLETED: 12-22-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -27.5 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.1 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-27.5	0.0				
			SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, lt. gray (SP)	A	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.2036 mm % Fines: 3.4
				B	Classification: SP Color: 5Y 7/2-light gray D50: 0.2137 mm % Fines: 3.2
-35.5	8.0				
-36.2	8.7		CLAY, lean, mostly clay, some fine-grained sand-sized quartz, little silt, low to medium plasticity, dark gray (CL)	NS	
			SAND, silty, mostly fine-grained sand-sized quartz, some silt, few organic matter, trace clay, brown (SM)	C	Classification: SP-SM Color: 2.5Y 4/2-dark grayish brown D50: 0.2694 mm % Fines: 5.5
-40.6	13.1				
-41.6	14.1		CLAY, lean, mostly clay, some fine-grained sand-sized quartz, medium plasticity, dark brown (CL)		
			SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace clay stringers, gray (SC)	NS	
-45.6	18.1				
-46.6	19.1		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace fines, lt. gray (SP)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19320° Long = -88.39122°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-18-12

Coordinate System
Latitude / Longitude

Latitude 30 11.592 N

Longitude 088 23.473 W

Date 12/22/2012

Start Time 13:16:44

End Time 13:19:25

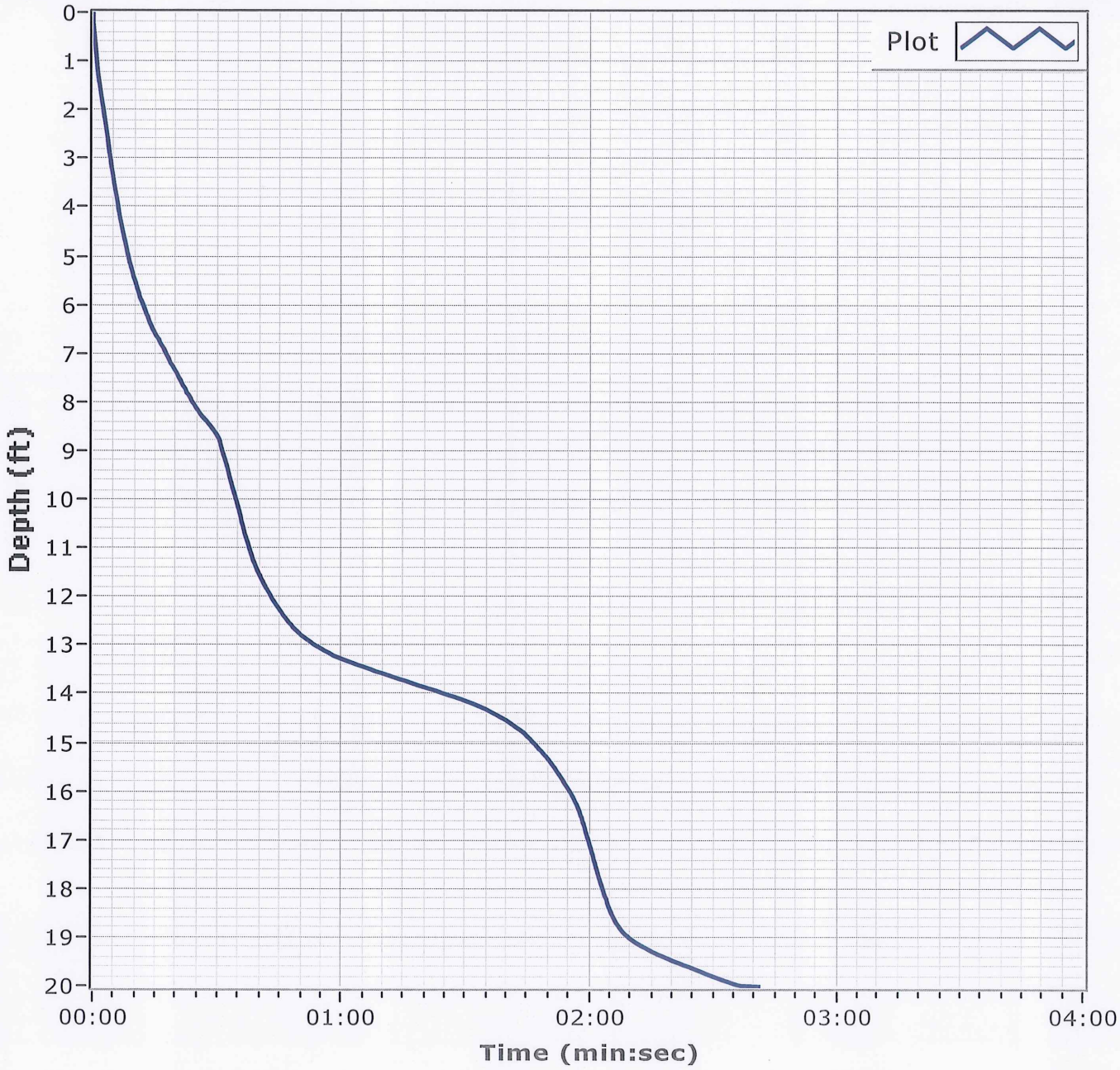
Total Time 00:02:41

Water Depth 27.0'

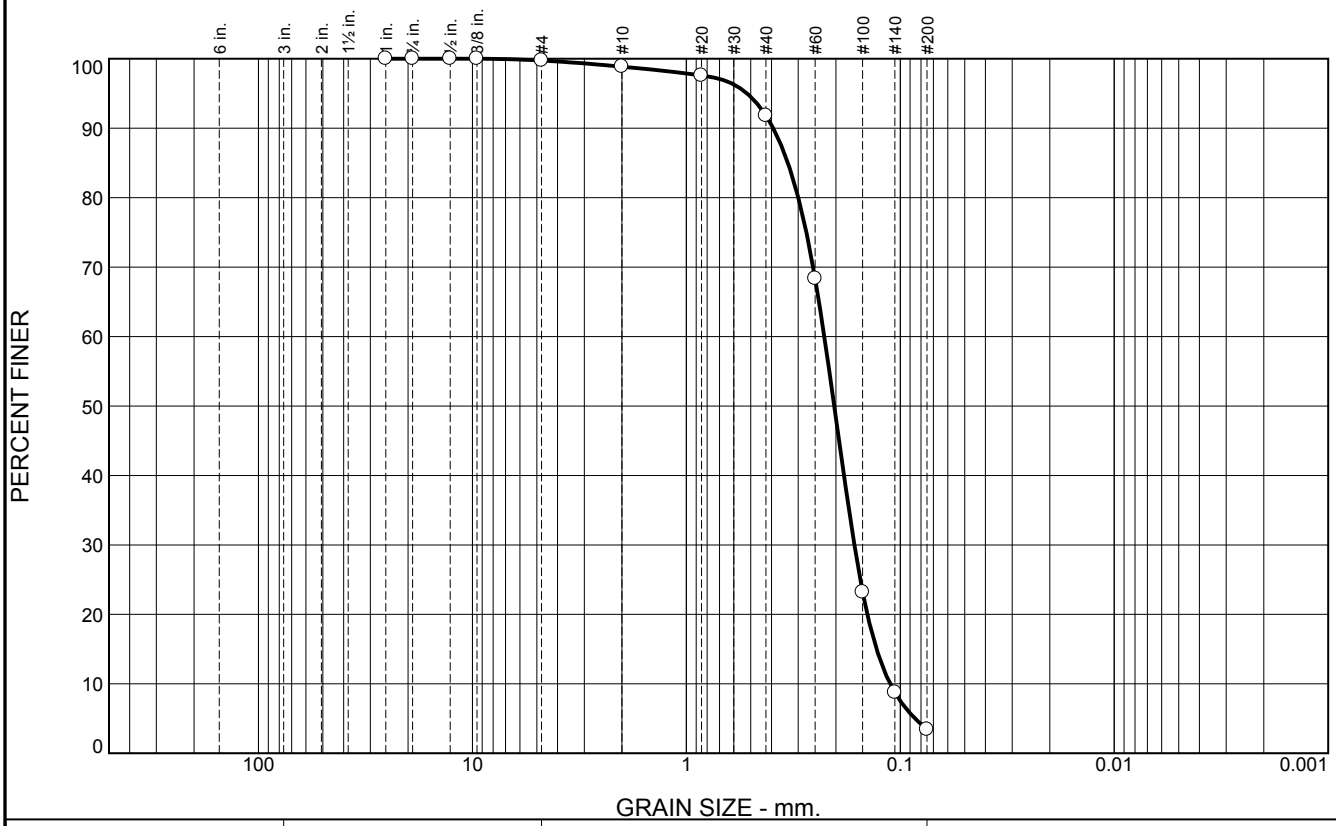
Penetration 20.0'

Recovery 19.1'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.3	0.9	7.0	88.4	3.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.7		
#10	98.8		
#20	97.6		
#40	91.8		
#60	68.3		
#100	23.2		
#140	8.8		
#200	3.4		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3927 D_{85}= 0.3353 D_{60}= 0.2265
D_{50}= 0.2036 D_{30}= 0.1640 D_{15}= 0.1292
D_{10}= 0.1115 C_u= 2.03 C_c= 1.06

Classification

USCS= SP AASHTO=

Remarks

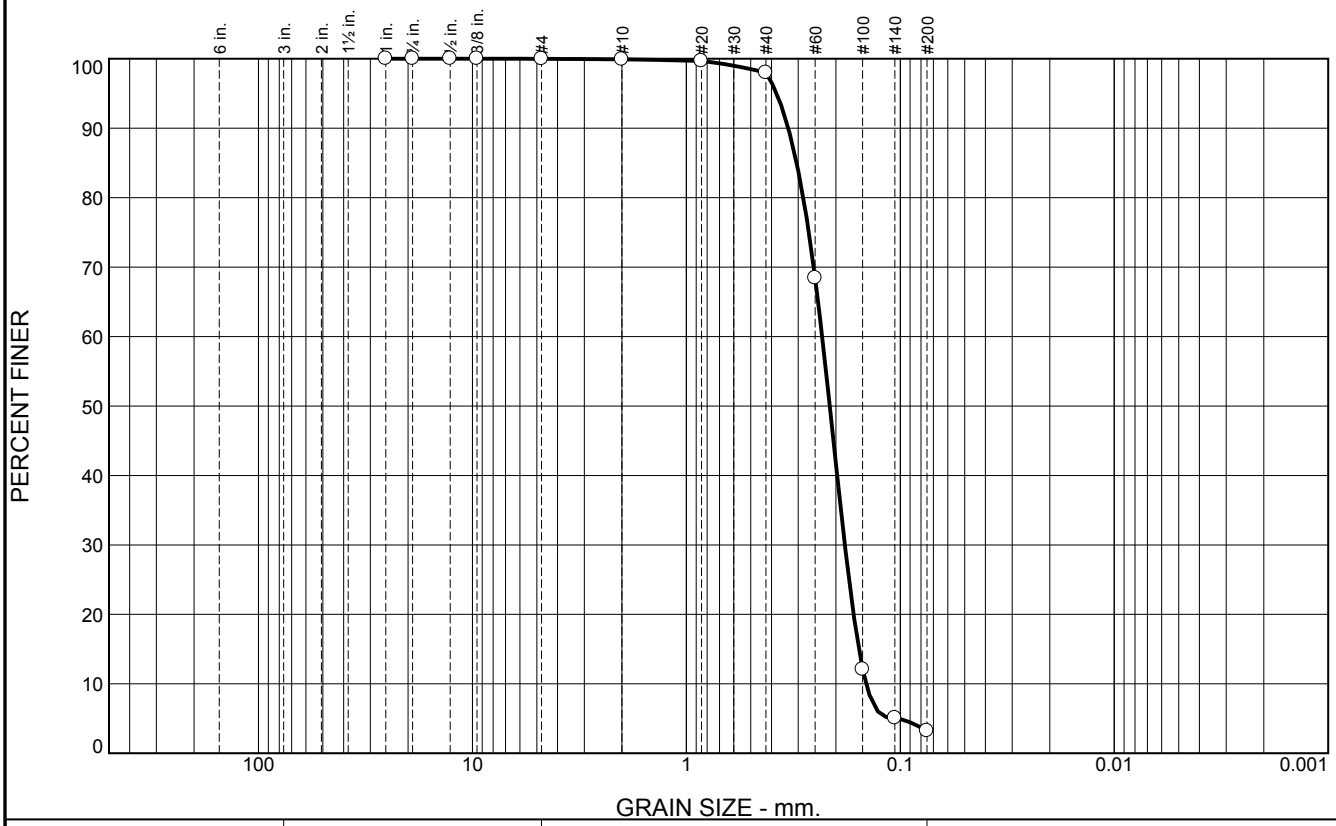
Location: BI-PBP-18-12 A
Sample Number: 6495 (31) **Depth:** 0.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	1.9	94.8	3.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.9		
#20	99.7		
#40	98.0		
#60	68.4		
#100	12.1		
#140	5.1		
#200	3.2		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3339 D_{85}= 0.3053 D_{60}= 0.2318
D_{50}= 0.2137 D_{30}= 0.1817 D_{15}= 0.1563
D_{10}= 0.1446 C_u= 1.60 C_c= 0.98

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-18-12 B
Sample Number: 6495 (32) **Depth:** 4.1' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report

% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.3	14.2	80.0	5.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.7		
#20	97.9		
#40	85.5		
#60	44.5		
#100	20.5		
#140	8.9		
#200	5.5		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5168 D_{85}= 0.4214 D_{60}= 0.3045
D_{50}= 0.2694 D_{30}= 0.1914 D_{15}= 0.1296
D_{10}= 0.1108 C_u= 2.75 C_c= 1.09

Classification

USCS= SP-SM AASHTO=

Remarks

Location: BI-PBP-18-12 C
Sample Number: 6495 (33) **Depth:** 8.7' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-19-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-19-12 — LOCATION COORDINATES: E = 1,122,131 N = 252,373	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 30.5 Ft.
	15. DATE BORING — STARTED: 12-22-12 — COMPLETED: 12-22-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -30.3 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 17.7 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-30.3	0.0				
-30.7	0.4		SILT, inorganic-L, mostly silt, trace clay, very soft, dark gray (ML)	NS	
			SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, gray (SP)	A	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.3295 mm % Fines: 1.7
			At El. -33.3 Ft., mostly fine-grained sand-sized quartz, trace fines, 1-inch clayey band at 3.7 ft., lt. gray to white	B	Classification: SP Color: 2.5Y 7/2-light gray D50: 0.346 mm % Fines: 1.5
-38.2	7.9		SAND, poorly-graded with silt, mostly fine to medium-grained sand-sized quartz, few silt, trace shell fragments, siltier at 8.6 and 11.1 ft., shell hash at 12 ft., gray (SP-SM)	C	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.4269 mm % Fines: 3.7
-42.3	12.0				
-43.0	12.7		SAND, silty, mostly fine-grained sand-sized quartz, some silt, dark brown (SM)	NS	
-43.8	13.5				
-44.4	14.1		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, dark brown (SC)		
			CLAY, fat, mostly clay, medium to high plasticity, stiff, dark gray (CH)	D	Classification: SP Color: 2.5Y 6/2-light brownish gray D50: 0.3387 mm % Fines: 3
-48.0	17.7		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, gets siltier with depth, lt. gray (SP)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19325° Long = -88.39690°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-19-12

Coordinate System
Latitude / Longitude

Latitude 30 11.676 N

Longitude 088 23.814 W

Date 12/22/2012

Start Time 11:42:59

End Time 11:48:55

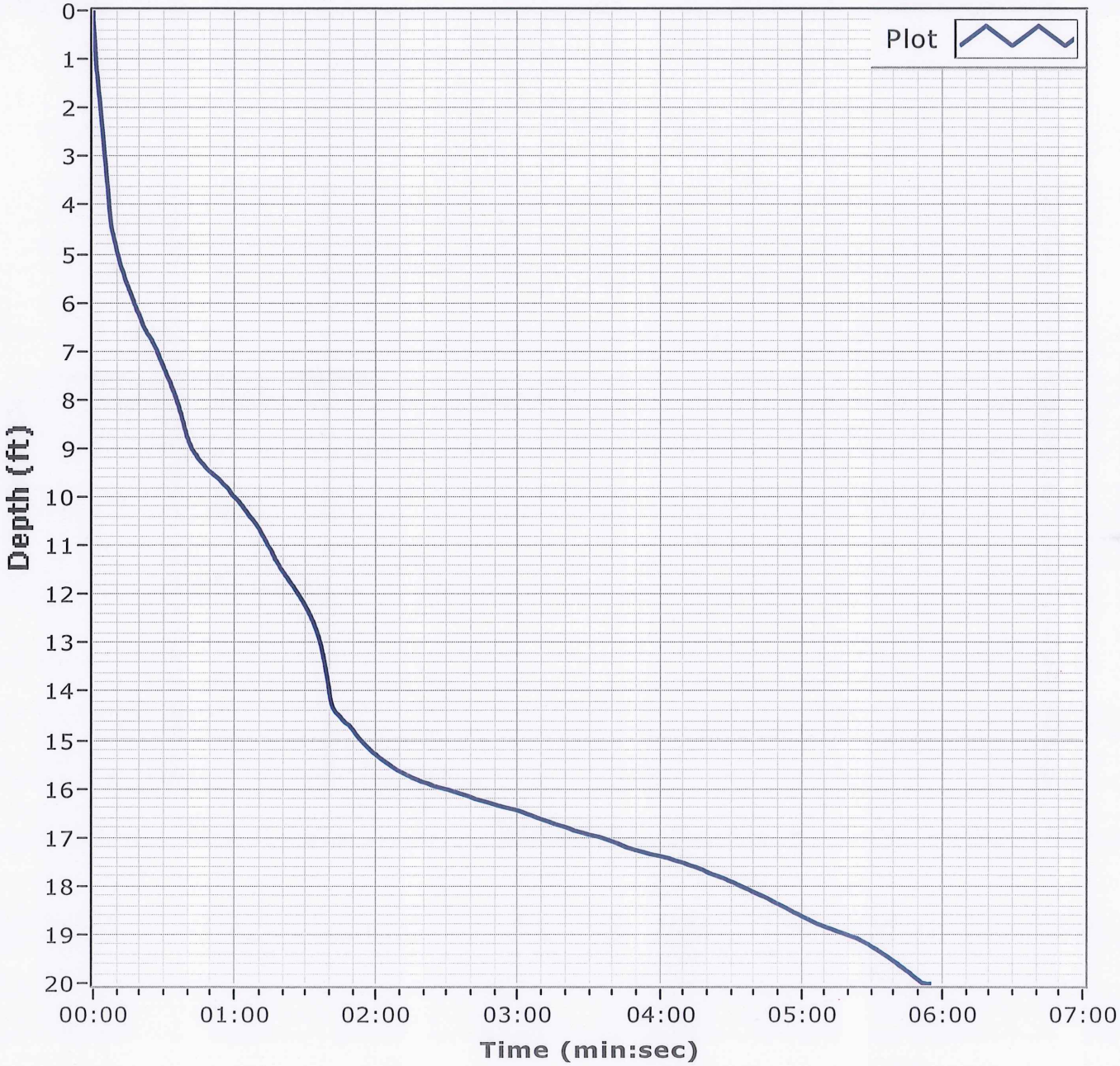
Total Time 00:05:55

Water Depth 30.5'

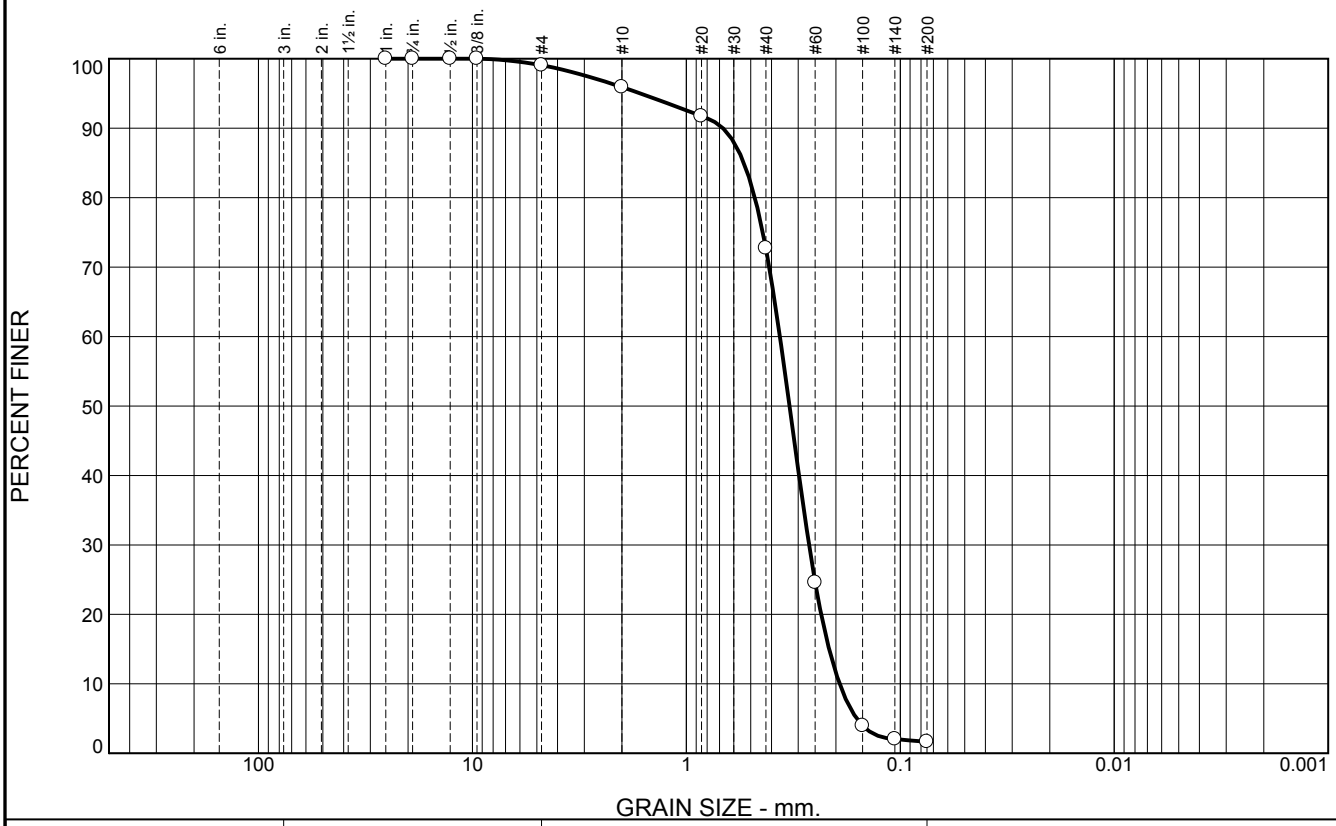
Penetration 20.0'

Recovery 17.7'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.9	3.2	23.2	71.0	1.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.1		
#10	95.9		
#20	91.7		
#40	72.7		
#60	24.6		
#100	4.0		
#140	2.0		
#200	1.7		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6750 D_{85}= 0.5385 D_{60}= 0.3654
D_{50}= 0.3295 D_{30}= 0.2671 D_{15}= 0.2152
D_{10}= 0.1923 C_u= 1.90 C_c= 1.02

Classification

USCS= SP AASHTO=

Remarks

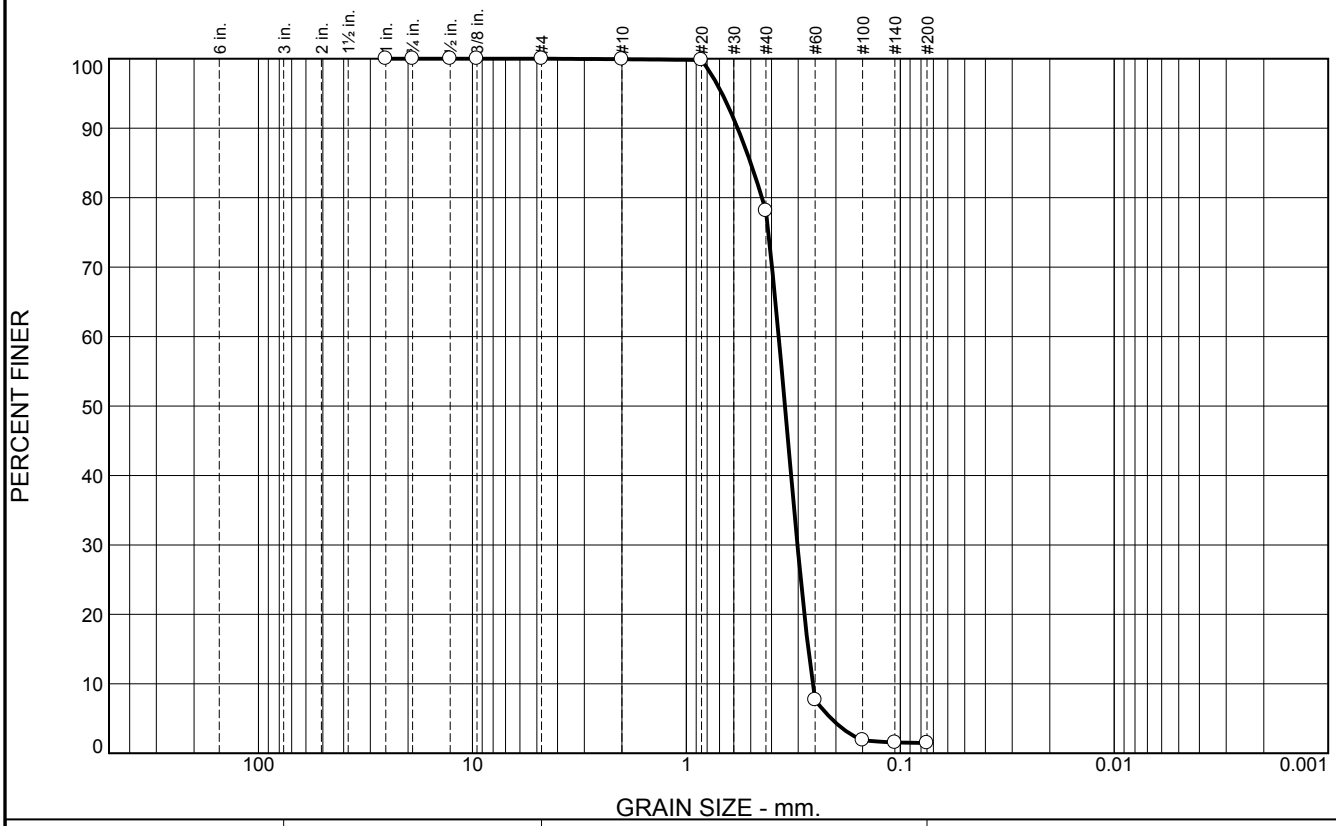
Location: BI-PBP-19-12 A
Sample Number: 6495 (34) **Depth:** 0.4' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	21.8	76.6	1.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.9		
#20	99.8		
#40	78.1		
#60	7.7		
#100	1.9		
#140	1.6		
#200	1.5		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5759 D_{85}= 0.5008 D_{60}= 0.3700
D_{50}= 0.3460 D_{30}= 0.3026 D_{15}= 0.2695
D_{10}= 0.2567 C_u= 1.44 C_c= 0.96

Classification

USCS= SP AASHTO=

Remarks

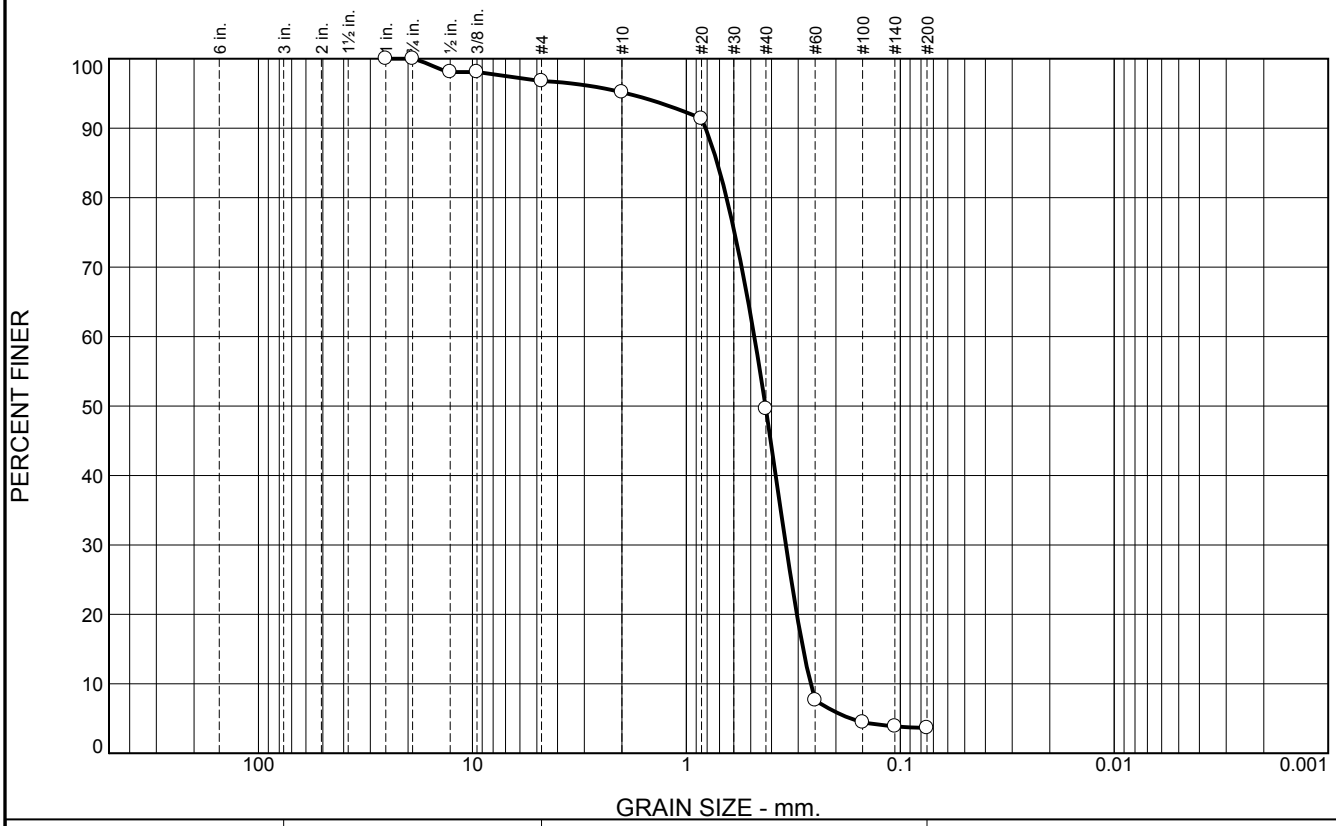
Location: BI-PBP-19-12 B
Sample Number: 6495 (35) **Depth:** 3.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.2	1.6	45.6	45.9	3.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	98.1		
.375	98.1		
#4	96.8		
#10	95.2		
#20	91.4		
#40	49.6		
#60	7.6		
#100	4.5		
#140	3.9		
#200	3.7		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.8137 D_{85}= 0.7172 D_{60}= 0.4813
D_{50}= 0.4269 D_{30}= 0.3427 D_{15}= 0.2847
D_{10}= 0.2625 C_u= 1.83 C_c= 0.93

Classification

USCS= SP AASHTO=

Remarks

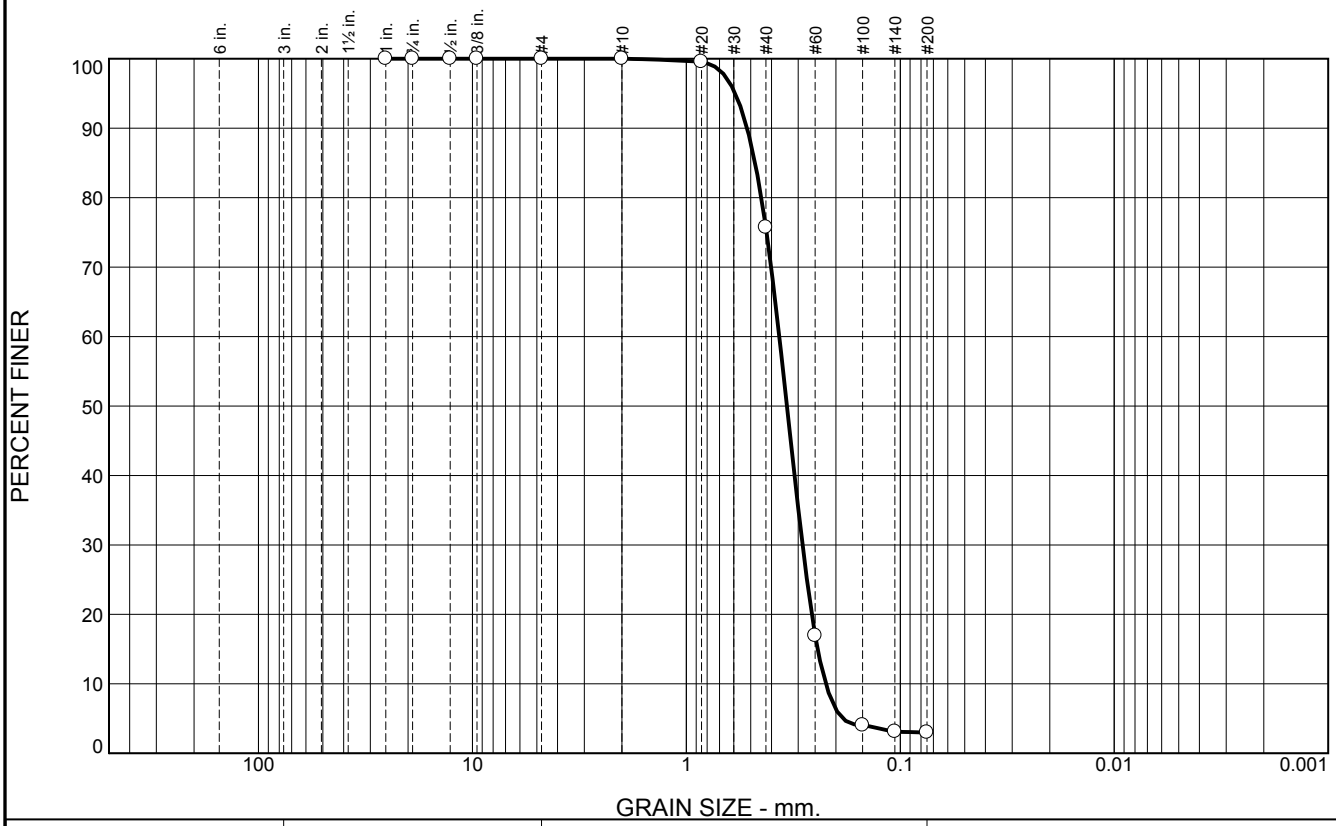
Location: BI-PBP-19-12 C
Sample Number: 6495 (36) **Depth:** 7.9' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	24.3	72.7	3.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	100.0		
#20	99.6		
#40	75.7		
#60	16.9		
#100	4.0		
#140	3.1		
#200	3.0		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5200 D_{85}= 0.4773 D_{60}= 0.3677
D_{50}= 0.3387 D_{30}= 0.2866 D_{15}= 0.2434
D_{10}= 0.2230 C_u= 1.65 C_c= 1.00

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-19-12 D
Sample Number: 6495 (37) **Depth:** 14.1' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-20-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-20-12 — LOCATION COORDINATES: E = 1,123,119 N = 252,420	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 24.2 Ft.
	15. DATE BORING — STARTED: 12-22-12 — COMPLETED: 12-22-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -24.9 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 13.1 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-24.9	0.0				
-29.9	5.0		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, few shell fragments, trace fines, pale lt. brown (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.3285 mm % Fines: 0.9
-34.9	10.0		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace shell fragments, silty zone at 7.2 ft., dense, lt. gray (SP)	B	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.2316 mm % Fines: 4.3
-38.0	13.1		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace fines, trace shell fragments, very dense, lt. gray (SP)	C	Classification: SP Color: 5Y 7/2-light gray D50: 0.3013 mm % Fines: 3.1

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Refusal reached at 16 ft.

4. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19337° Long = -88.39377°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-20-12

Coordinate System
Latitude / Longitude

Latitude 30 11.602 N

Longitude 088 23.626 W

Date 12/22/2012

Start Time 12:47:35

End Time 12:53:58

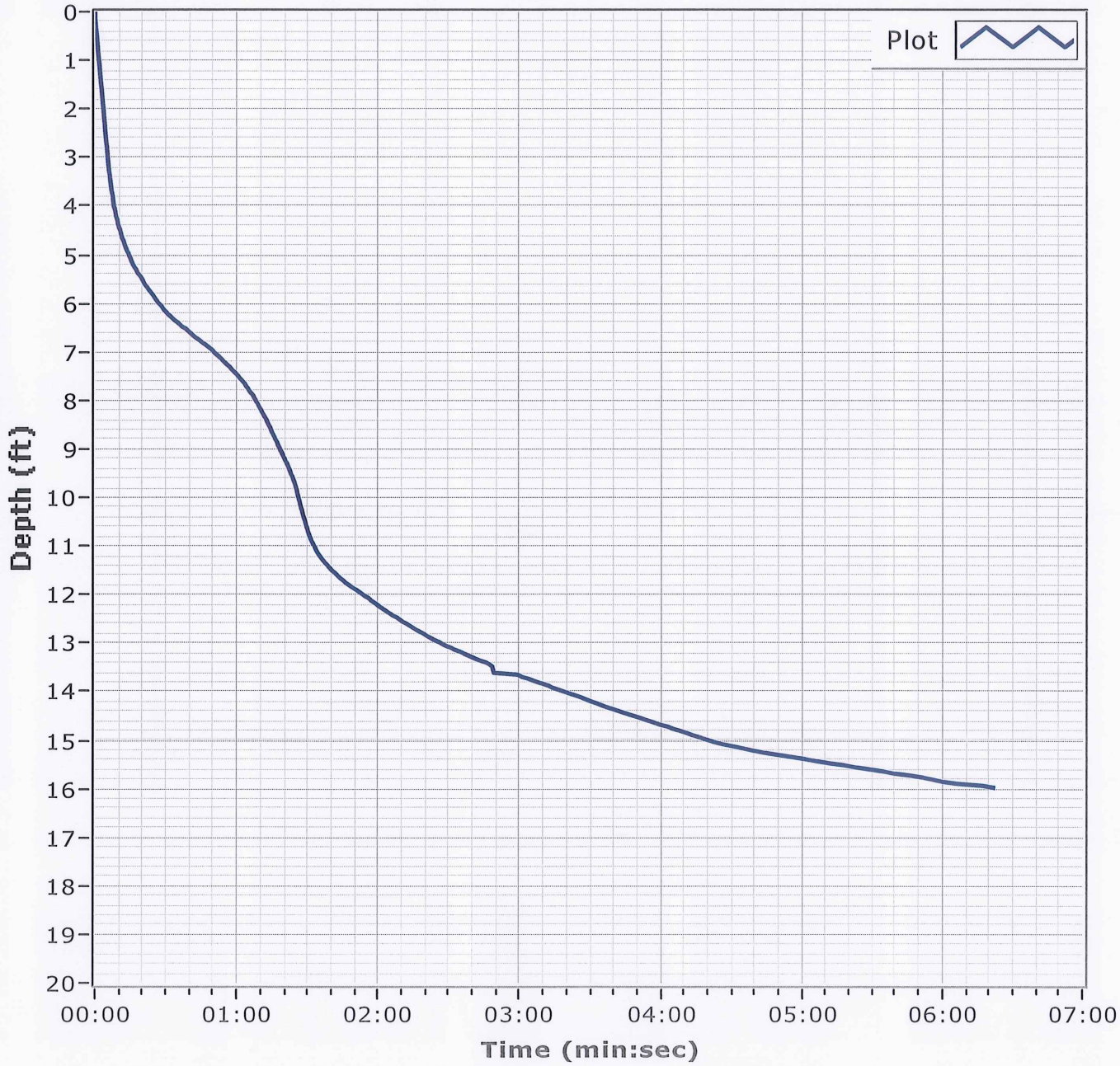
Total Time 00:06:22

Water Depth 24.2'

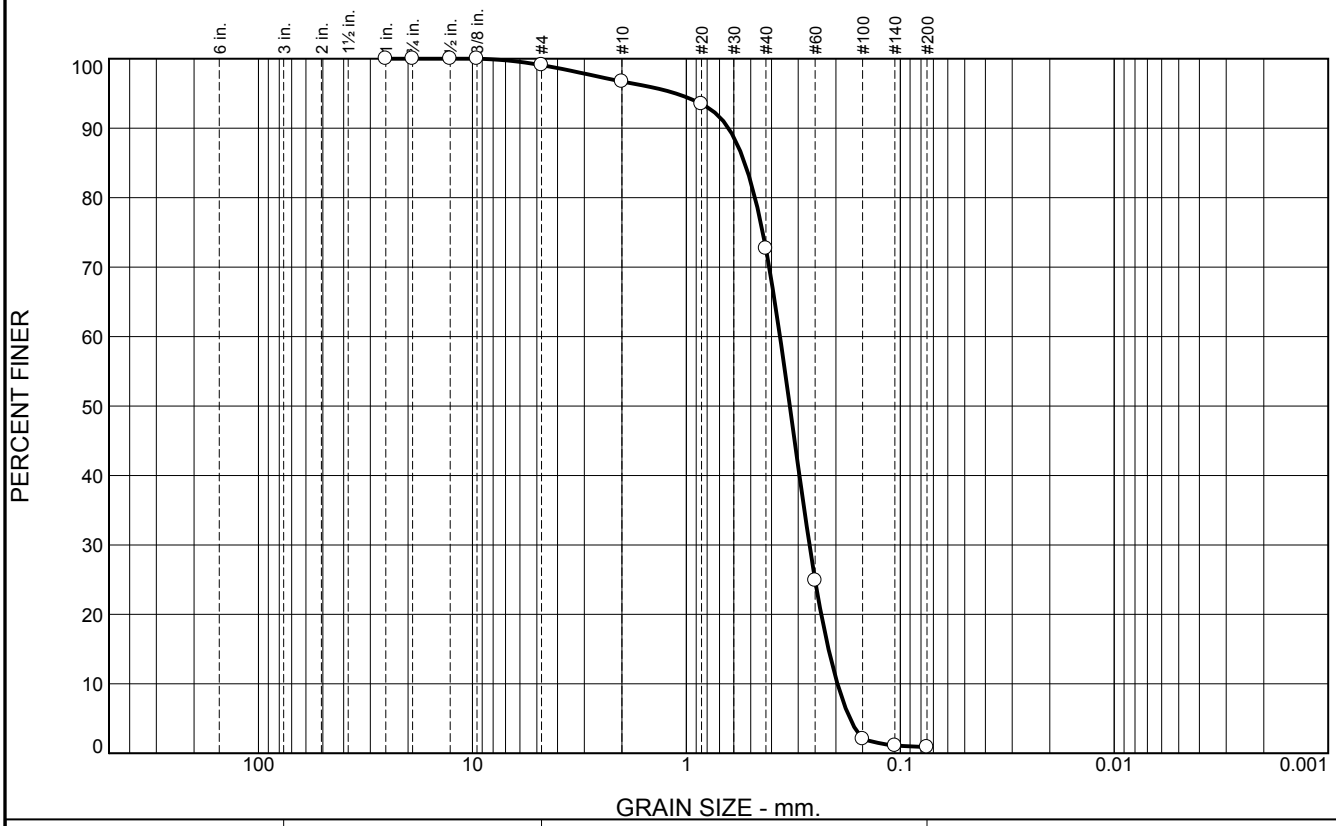
Penetration 16.0'

Recovery 13.1'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.9	2.4	24.0	71.8	0.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.1		
#10	96.7		
#20	93.5		
#40	72.7		
#60	24.9		
#100	2.1		
#140	1.1		
#200	0.9		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6353 D_{85}= 0.5335 D_{60}= 0.3649
D_{50}= 0.3285 D_{30}= 0.2658 D_{15}= 0.2165
D_{10}= 0.1967 C_u= 1.86 C_c= 0.98

Classification

USCS= SP AASHTO=

Remarks

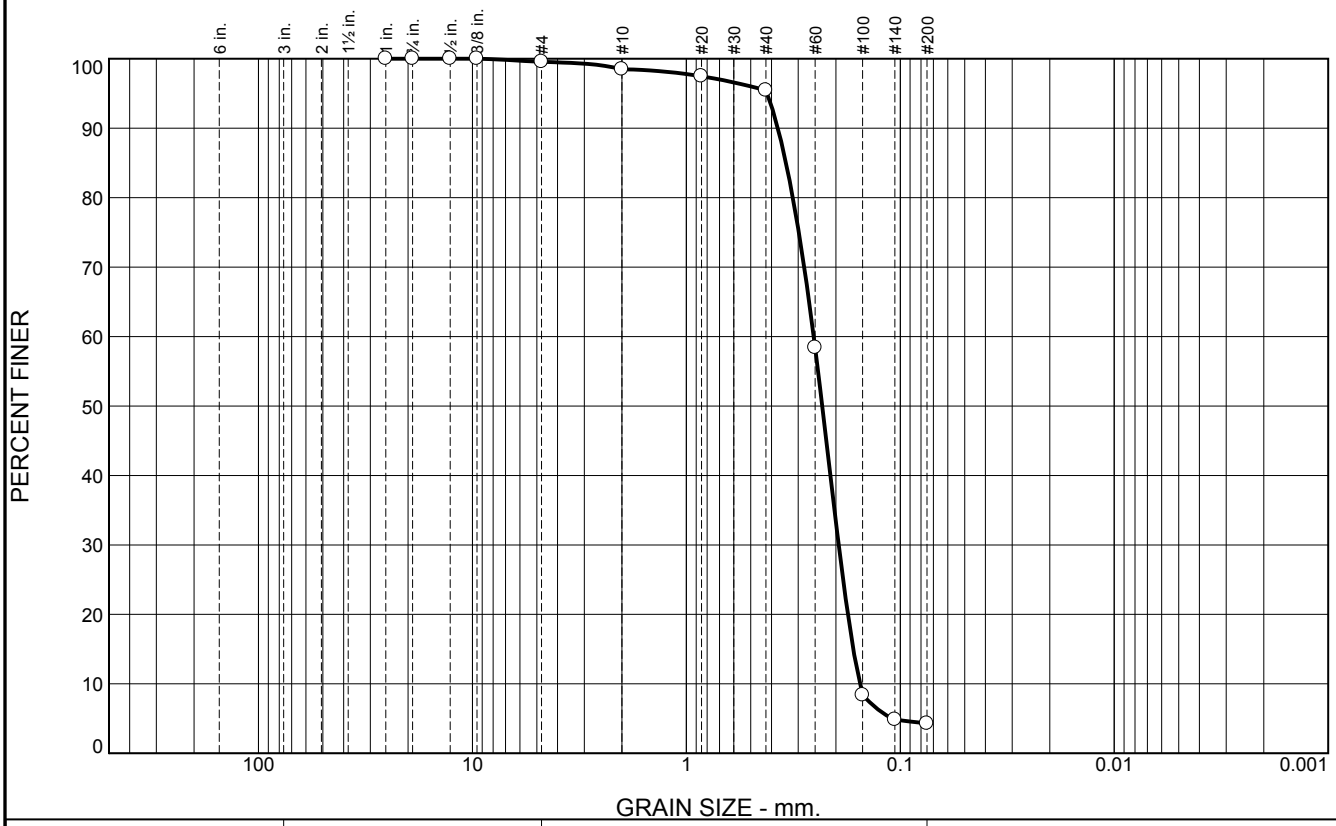
Location: BI-PBP-20-12 A
Sample Number: 6495 (38) **Depth:** 0.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.4	1.1	3.1	91.1	4.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.6		
#10	98.5		
#20	97.5		
#40	95.4		
#60	58.4		
#100	8.4		
#140	4.8		
#200	4.3		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3733 D_{85}= 0.3421 D_{60}= 0.2538
D_{50}= 0.2316 D_{30}= 0.1941 D_{15}= 0.1661
D_{10}= 0.1546 C_u= 1.64 C_c= 0.96

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-20-12 B
Sample Number: 6495 (39) **Depth:** 5.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report

% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.3	13.5	83.1	3.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.7		
#20	98.5		
#40	86.2		
#60	29.9		
#100	4.4		
#140	3.6		
#200	3.1		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5003 D_{85}= 0.4185 D_{60}= 0.3282
D_{50}= 0.3013 D_{30}= 0.2503 D_{15}= 0.2049
D_{10}= 0.1850 C_u= 1.77 C_c= 1.03

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-20-12 C
Sample Number: 6495 (40) **Depth:** 10.0' **Date:** 12/31/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-21-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-21-12 — LOCATION COORDINATES: E = 1,122,925 N = 252,896	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 25.8 Ft.
	15. DATE BORING — STARTED: 01-04-13 — COMPLETED: 01-04-13
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -25.8 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 13.0 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-25.8	0.0				
-28.3	2.5		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, pale brownish gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.314 mm % Fines: 1.4
-38.8	13.0		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, 0.5-inch clayey band at 9.1 ft., very dense, lt. gray (SP)	B	Classification: SP Color: 5Y 8/1-white D50: 0.3034 mm % Fines: 1.5
				C	Classification: SP Color: 5Y 8/1-white D50: 0.2974 mm % Fines: 1.7

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19468° Long = -88.39438°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-21-12

Coordinate System
Latitude / Longitude

Latitude 30 11.681 N

Longitude 088 23.663 W

Date 01/04/2013

Start Time 11:28:15

End Time 11:34:12

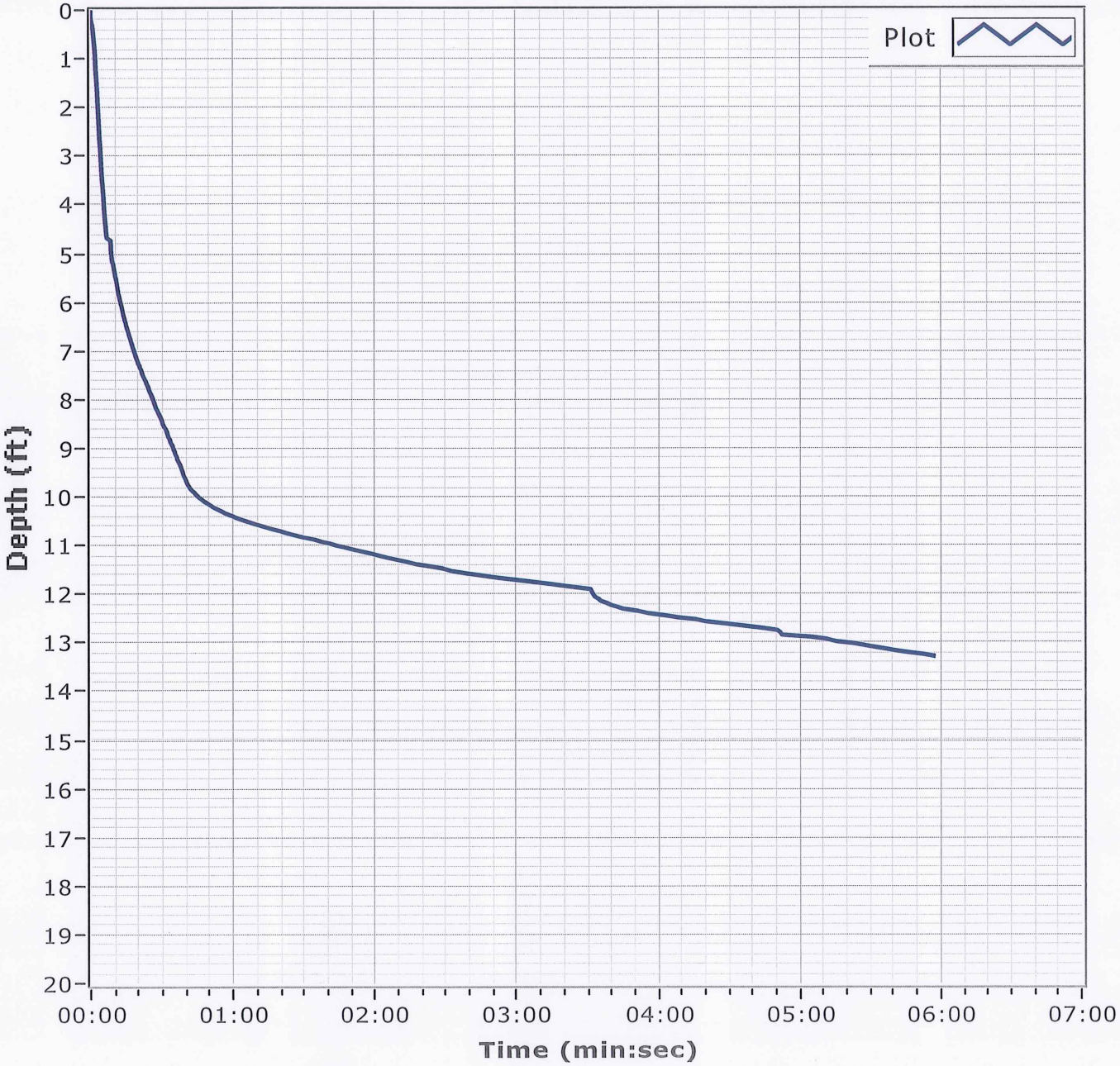
Total Time 00:05:57

Water Depth 25.8'

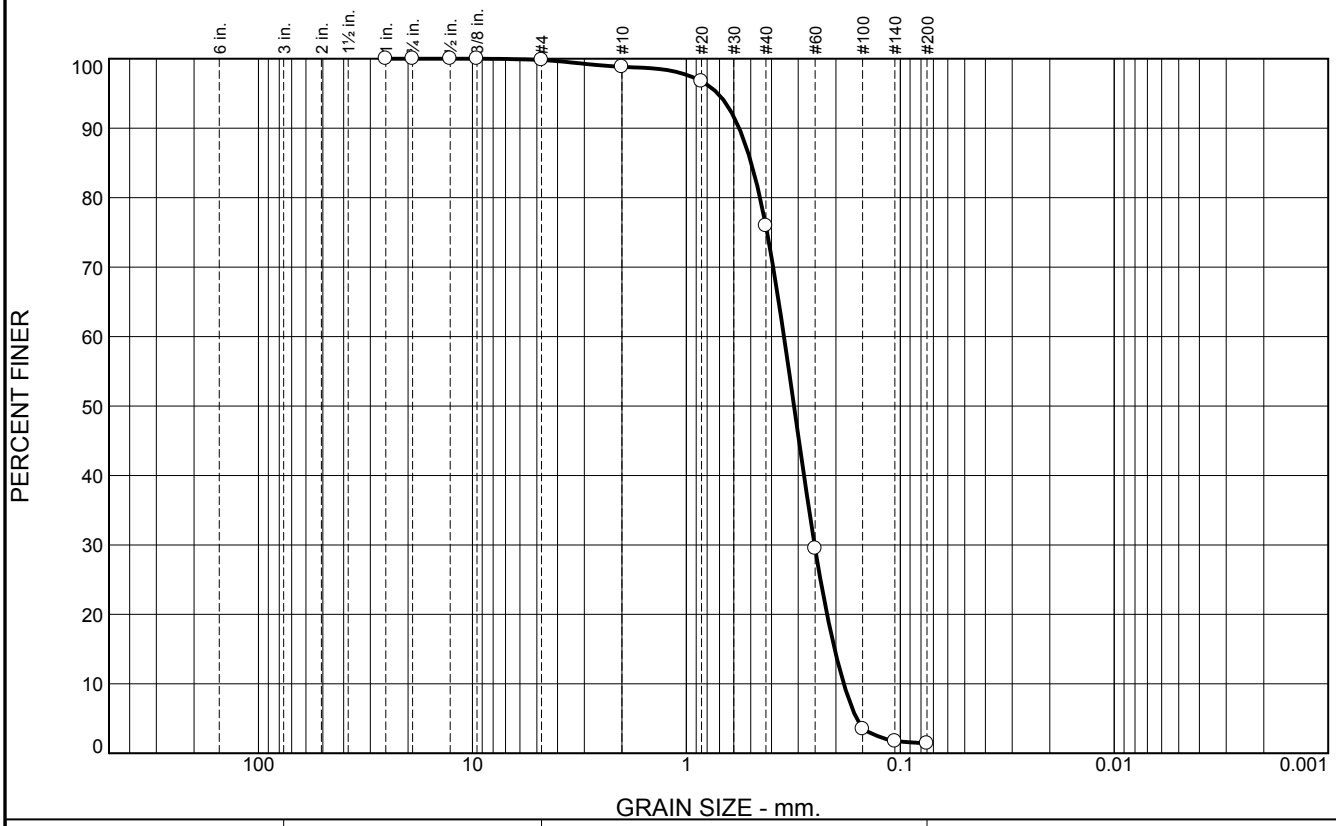
Penetration 13.3'

Recovery 13.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	1.0	22.9	74.5	1.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	98.8		
#20	96.7		
#40	75.9		
#60	29.5		
#100	3.5		
#140	1.7		
#200	1.4		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5661 D_{85}= 0.4976 D_{60}= 0.3496
D_{50}= 0.3140 D_{30}= 0.2516 D_{15}= 0.2028
D_{10}= 0.1838 C_u= 1.90 C_c= 0.99

Classification

USCS= SP AASHTO=

Remarks

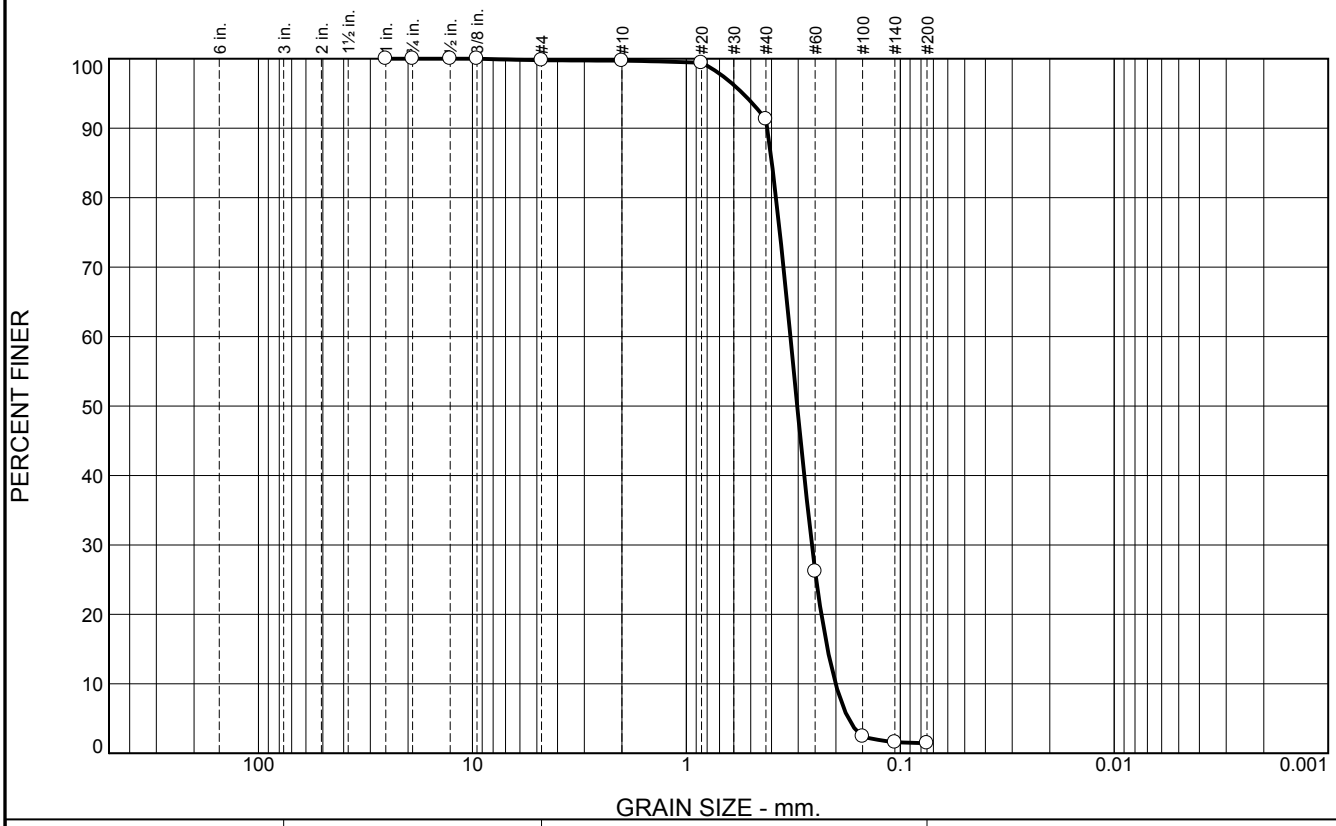
Location: BI-PBP-21-12 A
Sample Number: 6503 (1) **Depth:** 0.0' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	0.1	8.4	89.8	1.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	99.7		
#20	99.4		
#40	91.3		
#60	26.2		
#100	2.4		
#140	1.6		
#200	1.5		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4189 D_{85}= 0.3982 D_{60}= 0.3264
D_{50}= 0.3034 D_{30}= 0.2590 D_{15}= 0.2188
D_{10}= 0.2006 C_u= 1.63 C_c= 1.02

Classification

USCS= SP AASHTO=

Remarks

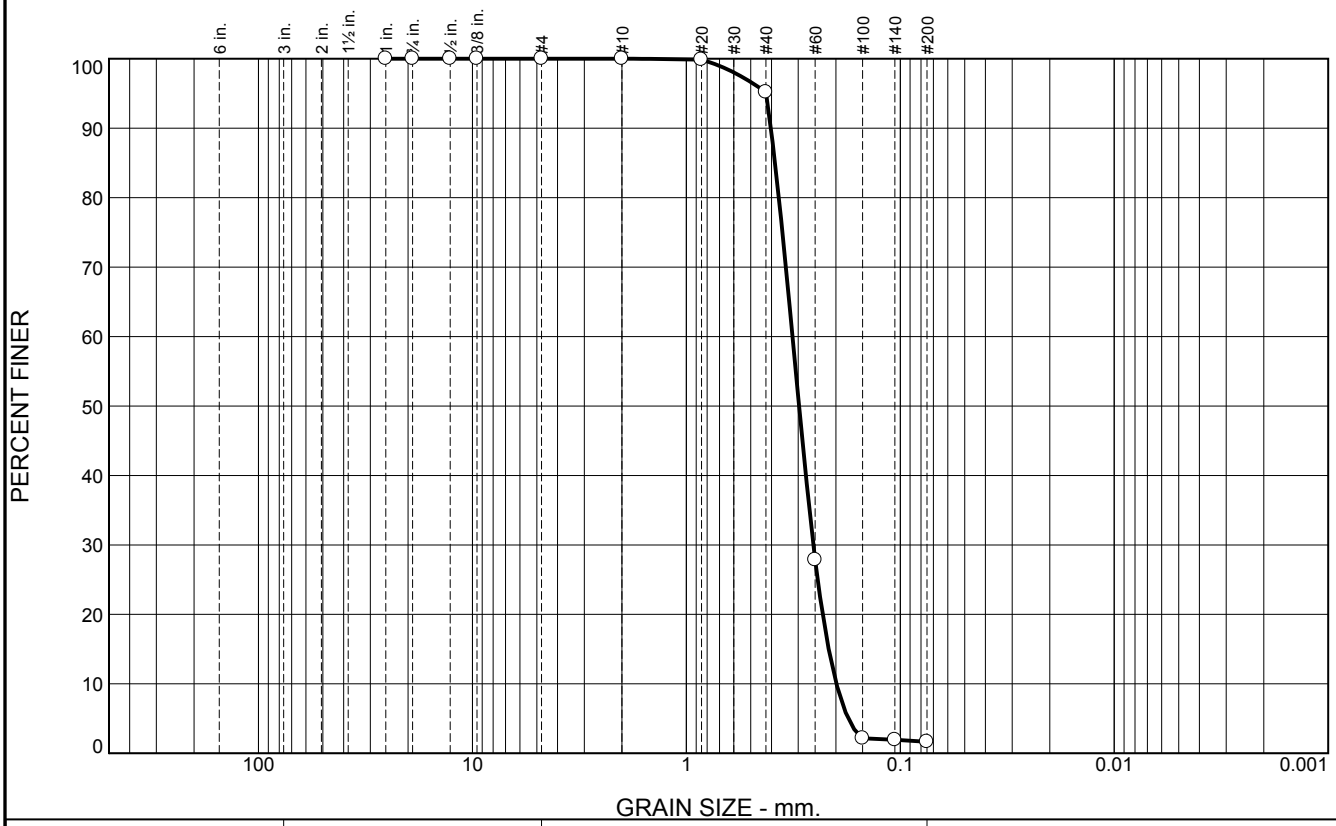
Location: BI-PBP-21-12 B
Sample Number: 6503 (2) **Depth:** 2.5' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	4.8	93.5	1.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	100.0		
#20	99.9		
#40	95.2		
#60	27.8		
#100	2.1		
#140	1.9		
#200	1.7		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4026 D_{85}= 0.3848 D_{60}= 0.3191
D_{50}= 0.2974 D_{30}= 0.2549 D_{15}= 0.2161
D_{10}= 0.1989 C_u= 1.60 C_c= 1.02

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-21-12 C
Sample Number: 6503 (3) **Depth:** 7.5' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-22-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 2 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-22-12 — LOCATION COORDINATES: E = 1,123,657 N = 251,567	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 24.2 Ft.
	15. DATE BORING — STARTED: 01-04-13 — COMPLETED: 01-04-13
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -23.7 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 18.8 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-23.7	0.0				
			SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, lt. gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.3069 mm % Fines: 1.3
				B	Classification: SP Color: 5Y 7/2-light gray D50: 0.2872 mm % Fines: 2.2
-33.7	10.0				
-34.0	10.3		CLAY, fat, mostly clay, medium to high plasticity, gray (CH)	NS	
			SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace clay stringers, gray to lt. gray (SP)	C	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.2354 mm % Fines: 4.5
-37.9	14.2				
			CLAY, lean, mostly clay, some silt, trace shell fragments, sandy zone between 14.2 to 14.7 ft., low to medium plasticity, gray (CL)	NS	
-40.4	16.7				
			SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, trace shell fragments, gray (SP-SM)		
-42.2	18.5				
-42.5	18.8				
			SAND, poorly-graded with clay, mostly fine-grained sand-sized quartz, few clay, clay band at 18.6 ft., gray (SP-SC)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19102° Long = -88.39208°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,123,657 Y = 251,567	ELEVATION TOP OF BORING -23.7 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.19102° Long = -88.39208°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-22-12

Coordinate System
Latitude / Longitude

Latitude 30 11.461 N

Longitude 088 23.525 W

Date 01/04/2013

Start Time 10:52:09

End Time 10:54:10

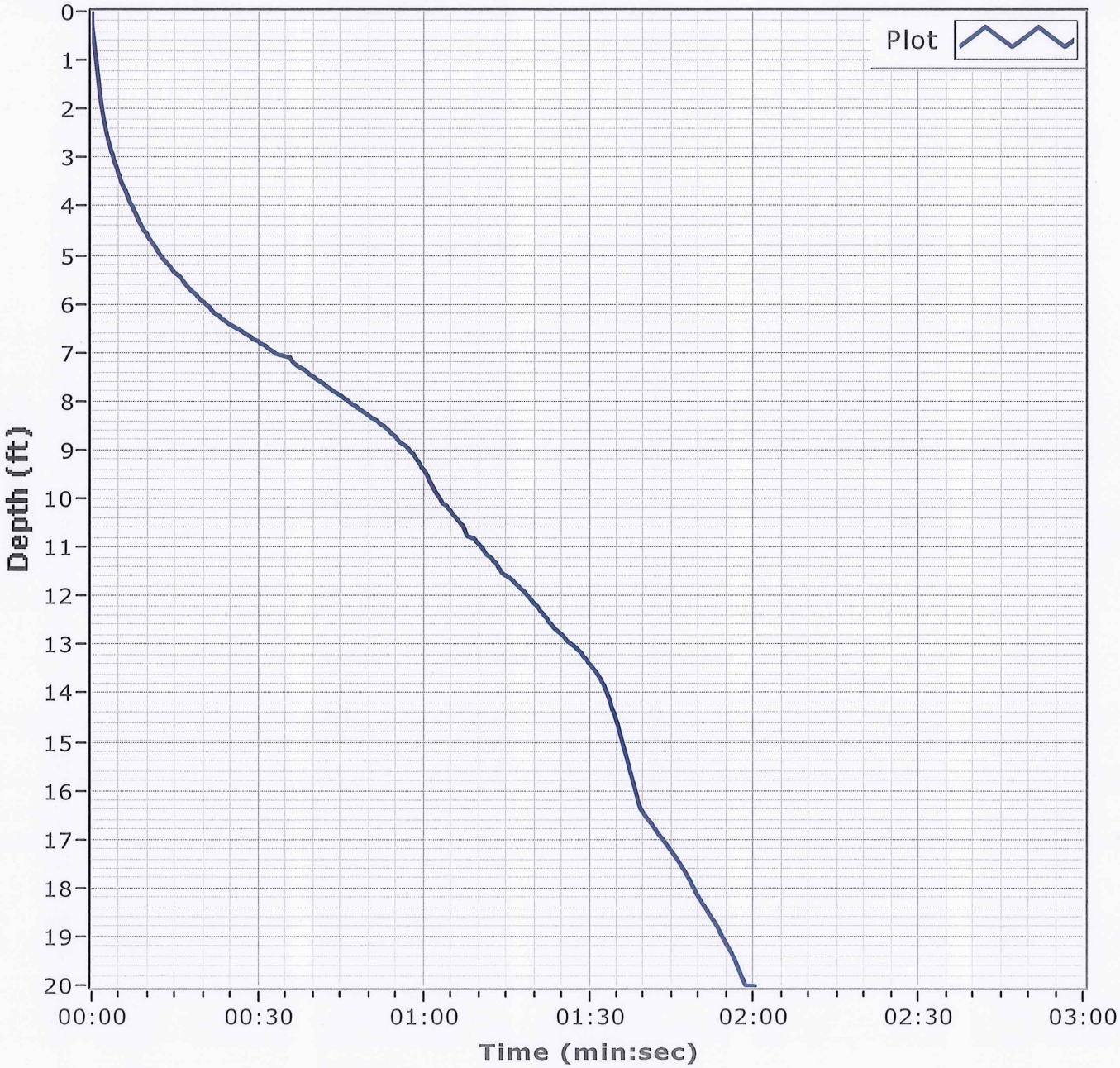
Total Time 00:02:00

Water Depth 24.2'

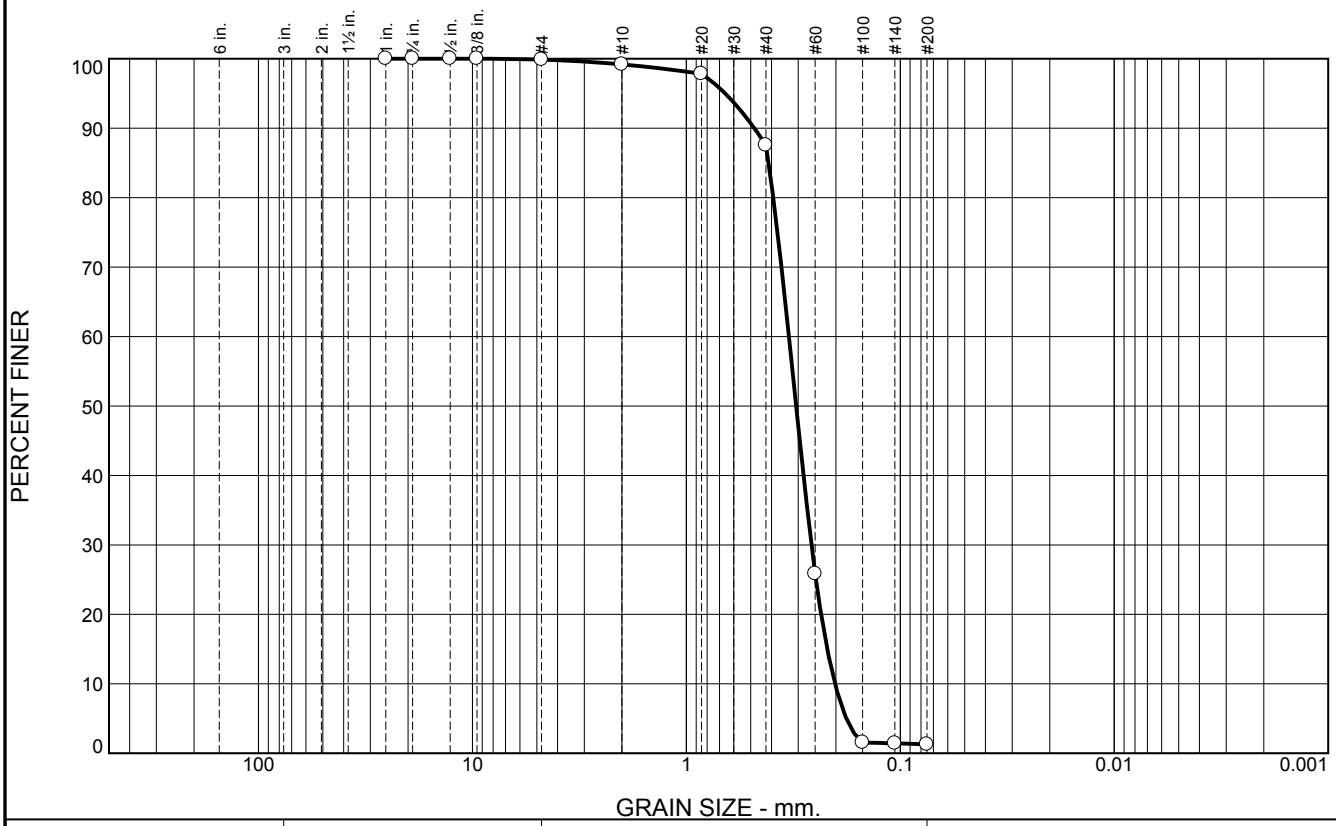
Penetration 20.0'

Recovery 18.8'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.7	11.7	86.2	1.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	99.2		
#20	97.8		
#40	87.5		
#60	25.9		
#100	1.5		
#140	1.4		
#200	1.3		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4815 D_{85}= 0.4128 D_{60}= 0.3316
D_{50}= 0.3069 D_{30}= 0.2602 D_{15}= 0.2195
D_{10}= 0.2019 C_u= 1.64 C_c= 1.01

Classification

USCS= SP AASHTO=

Remarks

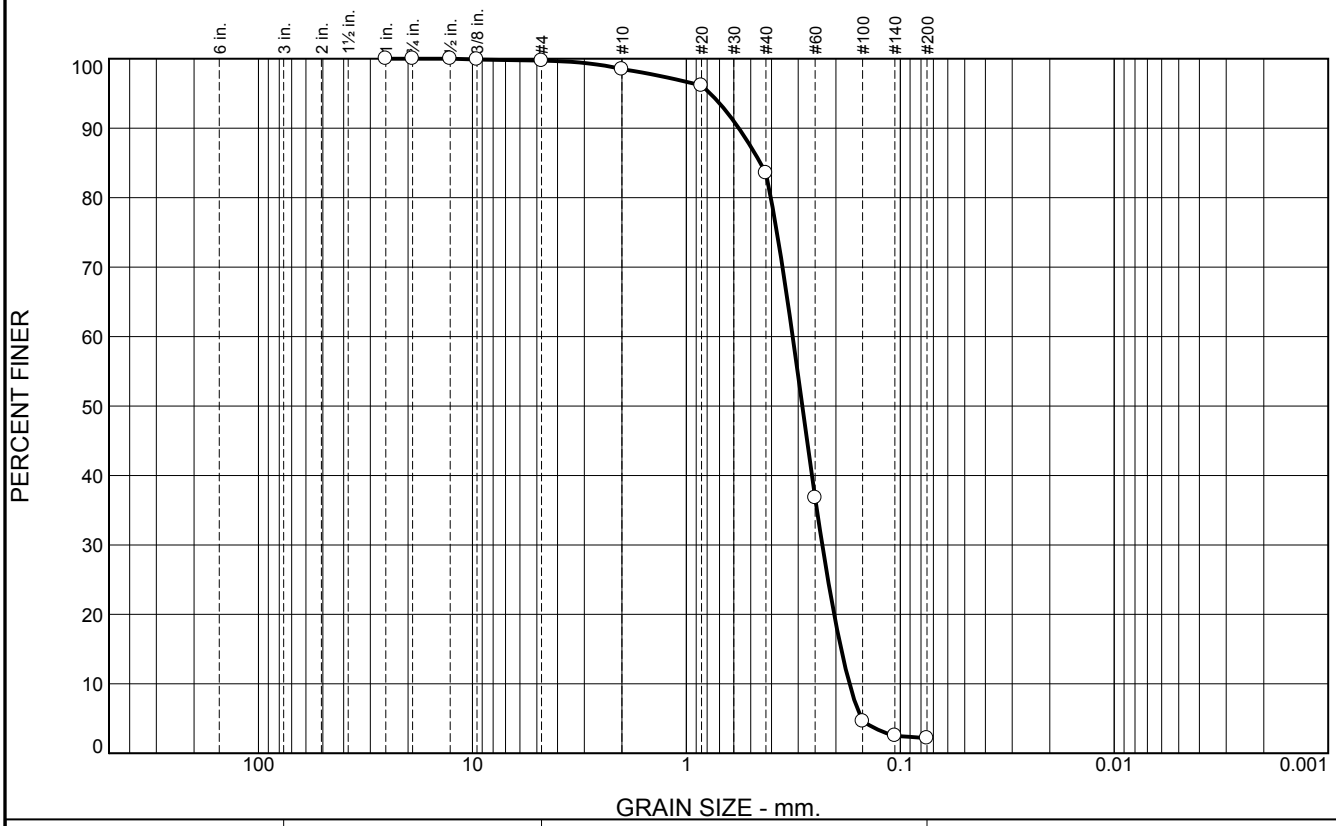
Location: BI-PBP-22-12 A
Sample Number: 6503 (4) **Depth:** 0.0' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.3	1.2	15.0	81.3	2.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.9		
#4	99.7		
#10	98.5		
#20	96.1		
#40	83.5		
#60	36.8		
#100	4.6		
#140	2.5		
#200	2.2		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5688 D_{85}= 0.4513 D_{60}= 0.3185
D_{50}= 0.2872 D_{30}= 0.2315 D_{15}= 0.1891
D_{10}= 0.1729 C_u= 1.84 C_c= 0.97

Classification

USCS= SP AASHTO=

Remarks

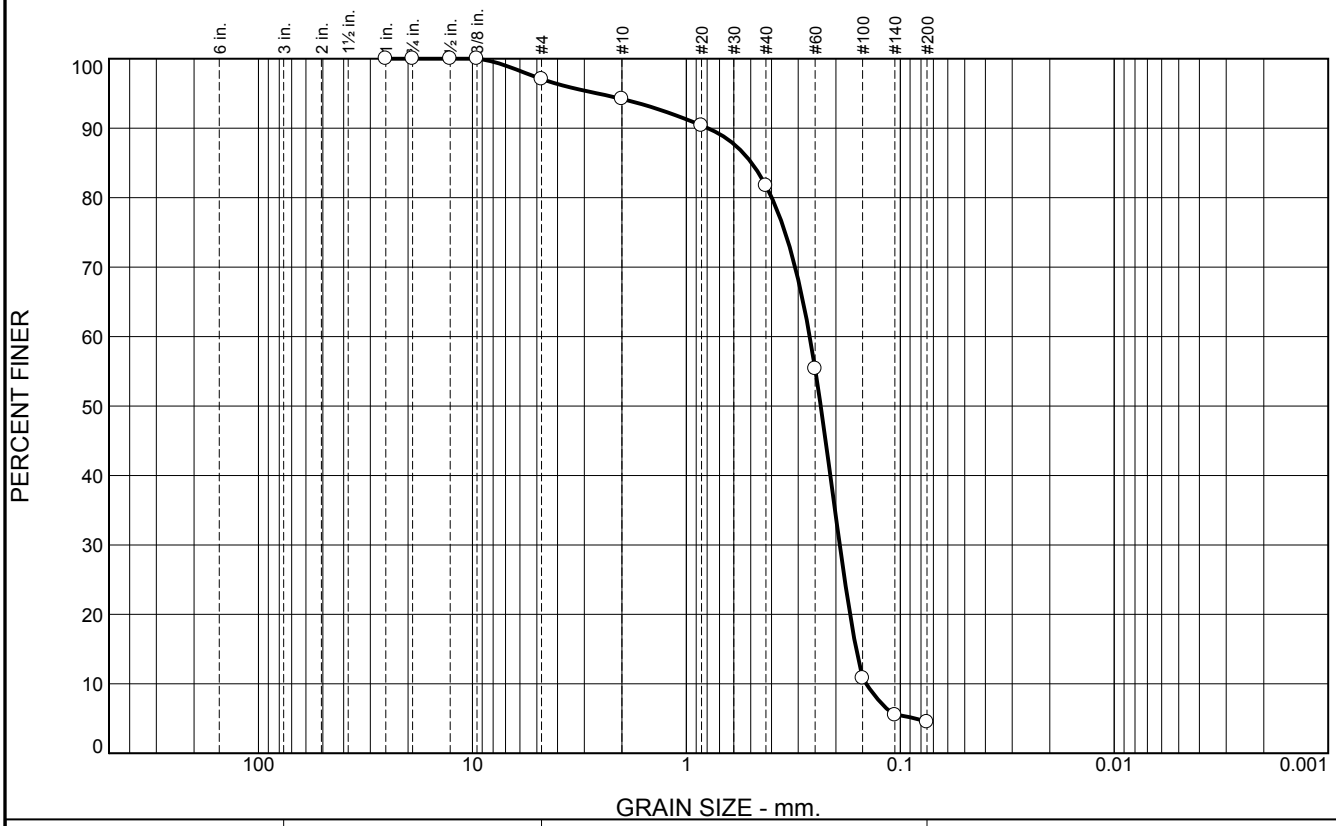
Location: BI-PBP-22-12 B
Sample Number: 6503 (5) **Depth:** 5.0' **Date:** 1/08/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.9	2.9	12.5	77.2	4.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	97.1		
#10	94.2		
#20	90.4		
#40	81.7		
#60	55.4		
#100	10.8		
#140	5.5		
#200	4.5		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.7955 D_{85}= 0.4955 D_{60}= 0.2650
D_{50}= 0.2354 D_{30}= 0.1919 D_{15}= 0.1609
D_{10}= 0.1443 C_u= 1.84 C_c= 0.96

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBP-22-12 C
Sample Number: 6503 (6) **Depth:** 10.3' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-23-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-23-12 — LOCATION COORDINATES: E = 1,122,127 N = 250,961	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 35.4 Ft.
	15. DATE BORING — STARTED: 01-04-13 — COMPLETED: 01-04-13
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -35.3 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 14.9 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-35.3	0.0				
-36.5	1.2		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, some silt, trace shells, dark gray (SC)	NS	
-38.5	3.2		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace fines, trace shell fragments, few silty bands, lt. gray (SP)	A	Classification: SP-SM Color: 5Y 5/2-olive gray D50: 0.3227 mm % Fines: 6.9
-40.1	4.8		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace shell fragments, gray (SC)	B	Classification: SM Color: 2.5Y 5/2-grayish brown D50: 0.1263 mm % Fines: 13
-42.6	7.3		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, some medium grained sand between 4.8-5.3 ft., brown (SM)	NS	
-44.6	9.3		SILT, inorganic-L, mostly silt, some fine-grained sand-sized quartz, trace clay, trace shell fragments, gray (ML)	C	Classification: SM Color: 5Y 5/2-olive gray D50: 0.1847 mm % Fines: 14.3
-46.6	11.3		SAND, silty, mostly fine-grained sand-sized quartz, some silt, gray (SM)	D	Classification: SP-SM Color: 5Y 6/2-light olive gray D50: 0.1352 mm % Fines: 5.4
-49.7	14.4		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace fines, trace silty bands, dense, lt. gray (SP)		
-50.2	14.9		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, gray (SC)	NS	

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USGS hydrographic survey.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18937° Long = -88.39693°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-23-12

Coordinate System
Latitude / Longitude

Latitude 30 11.362 N

Longitude 088 23.816 W

Date 01/04/2013

Start Time 10:09:47

End Time 10:12:55

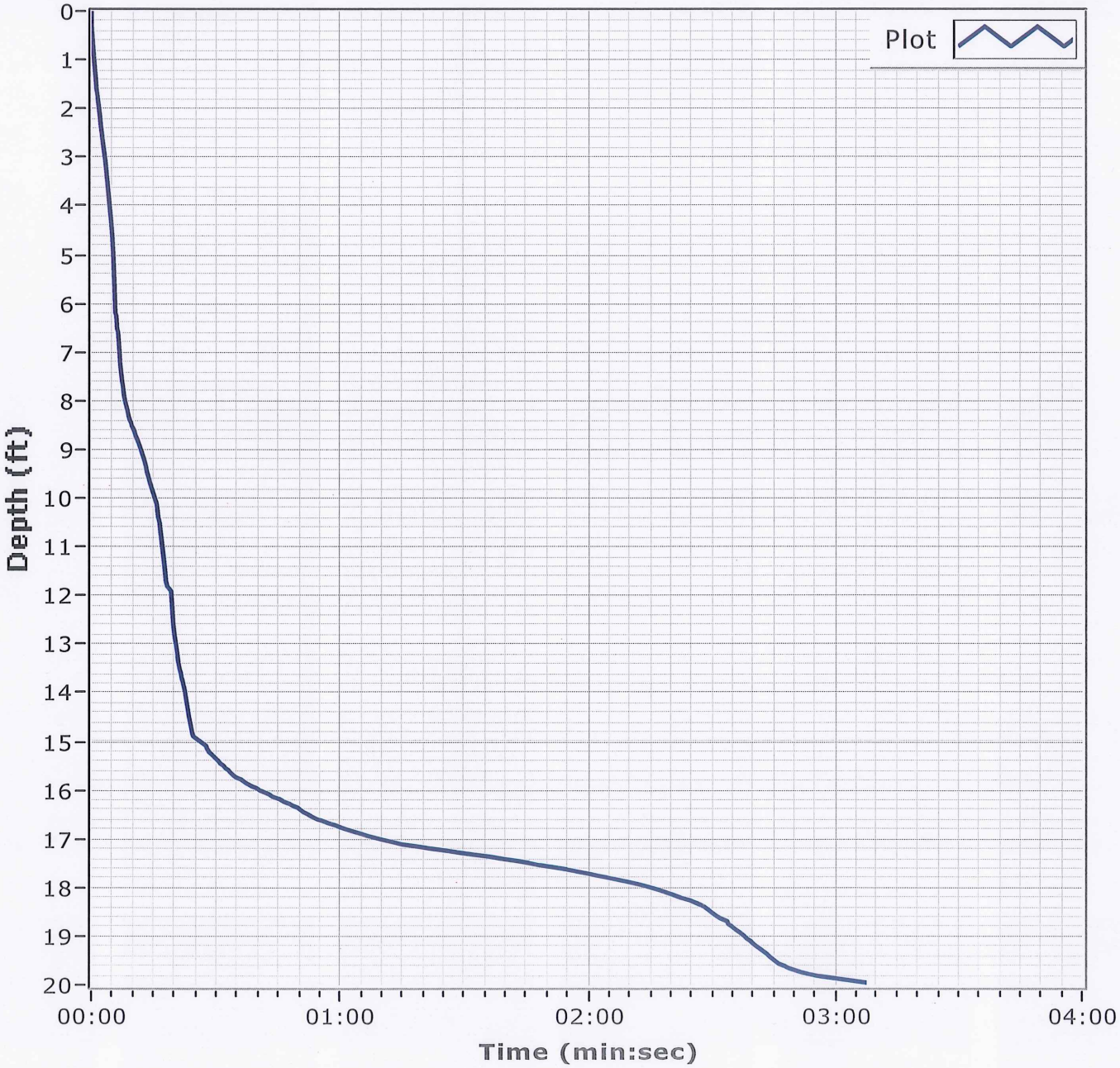
Total Time 00:03:07

Water Depth 35.4'

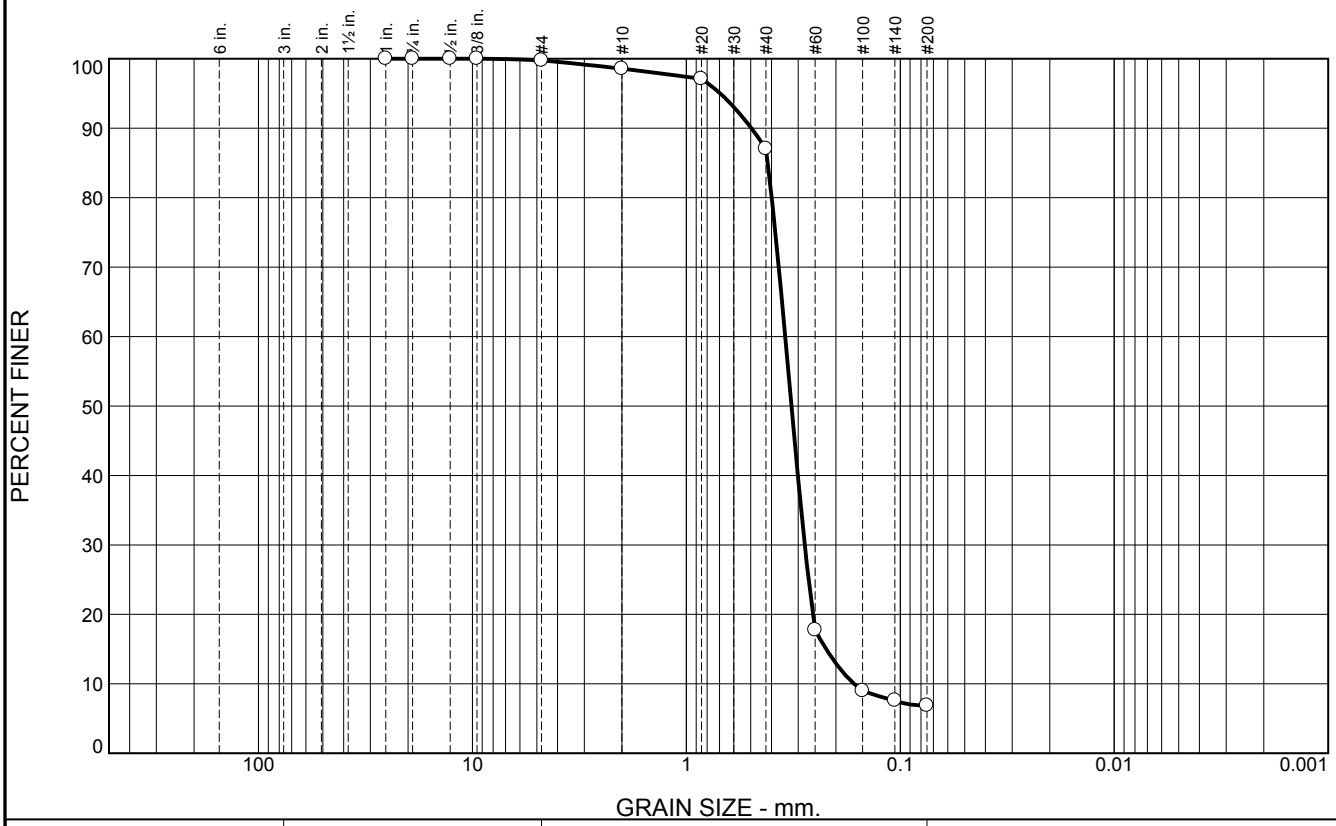
Penetration 20.0'

Recovery 14.9'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	1.2	11.5	80.2	6.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	98.6		
#20	97.1		
#40	87.1		
#60	17.7		
#100	9.0		
#140	7.6		
#200	6.9		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4967 D_{85}= 0.4166 D_{60}= 0.3450
D_{50}= 0.3227 D_{30}= 0.2800 D_{15}= 0.2220
D_{10}= 0.1646 C_u= 2.10 C_c= 1.38

Classification

USCS= SP-SM AASHTO=

Remarks

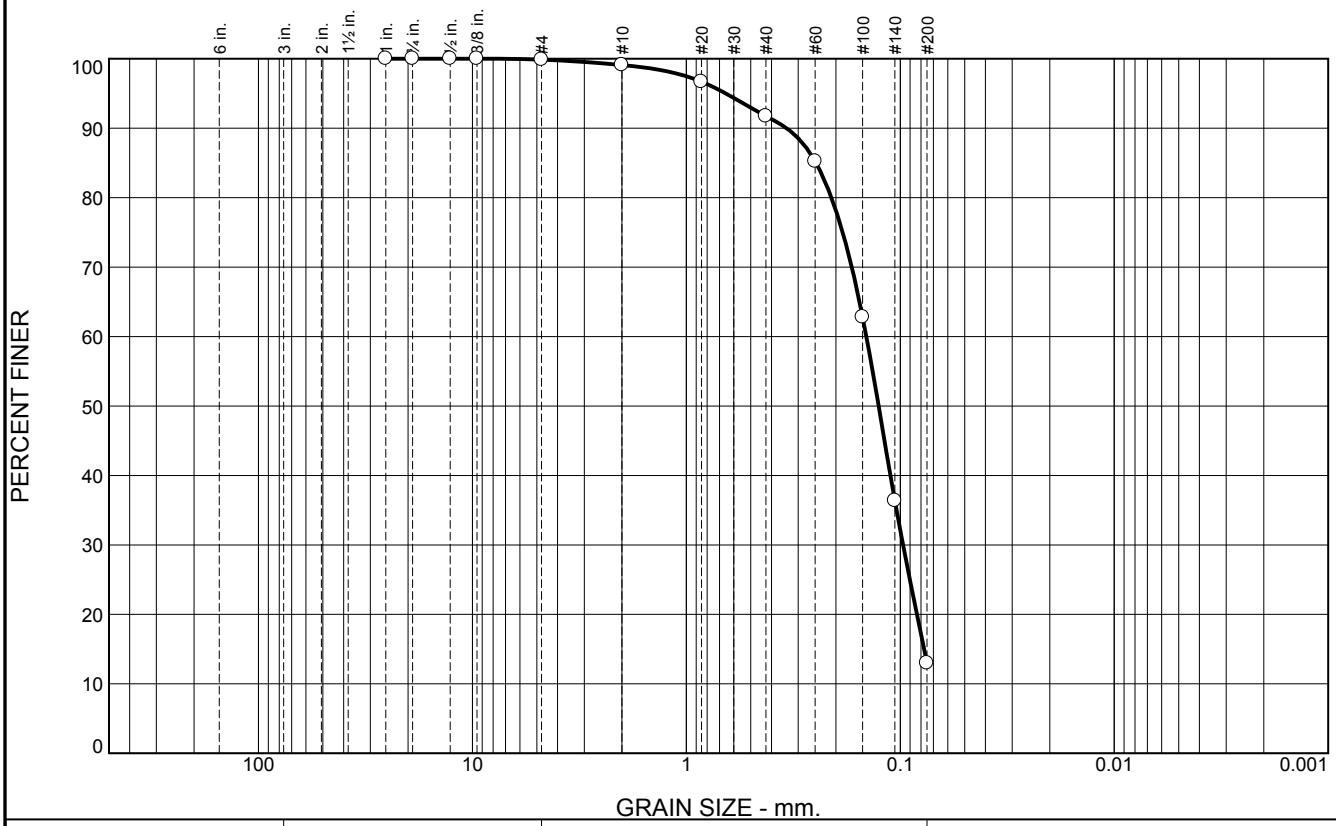
Location: BI-PBP-23-12 A
Sample Number: 6503 (7) **Depth:** 1.2' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.8	7.4	78.7	13.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	99.1		
#20	96.7		
#40	91.7		
#60	85.2		
#100	62.8		
#140	36.4		
#200	13.0		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3404 D_{85}= 0.2478 D_{60}= 0.1441
D_{50}= 0.1263 D_{30}= 0.0971 D_{15}= 0.0774
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBP-23-12 B
Sample Number: 6503 (8) **Depth:** 4.8' **Date:** 1/08/13

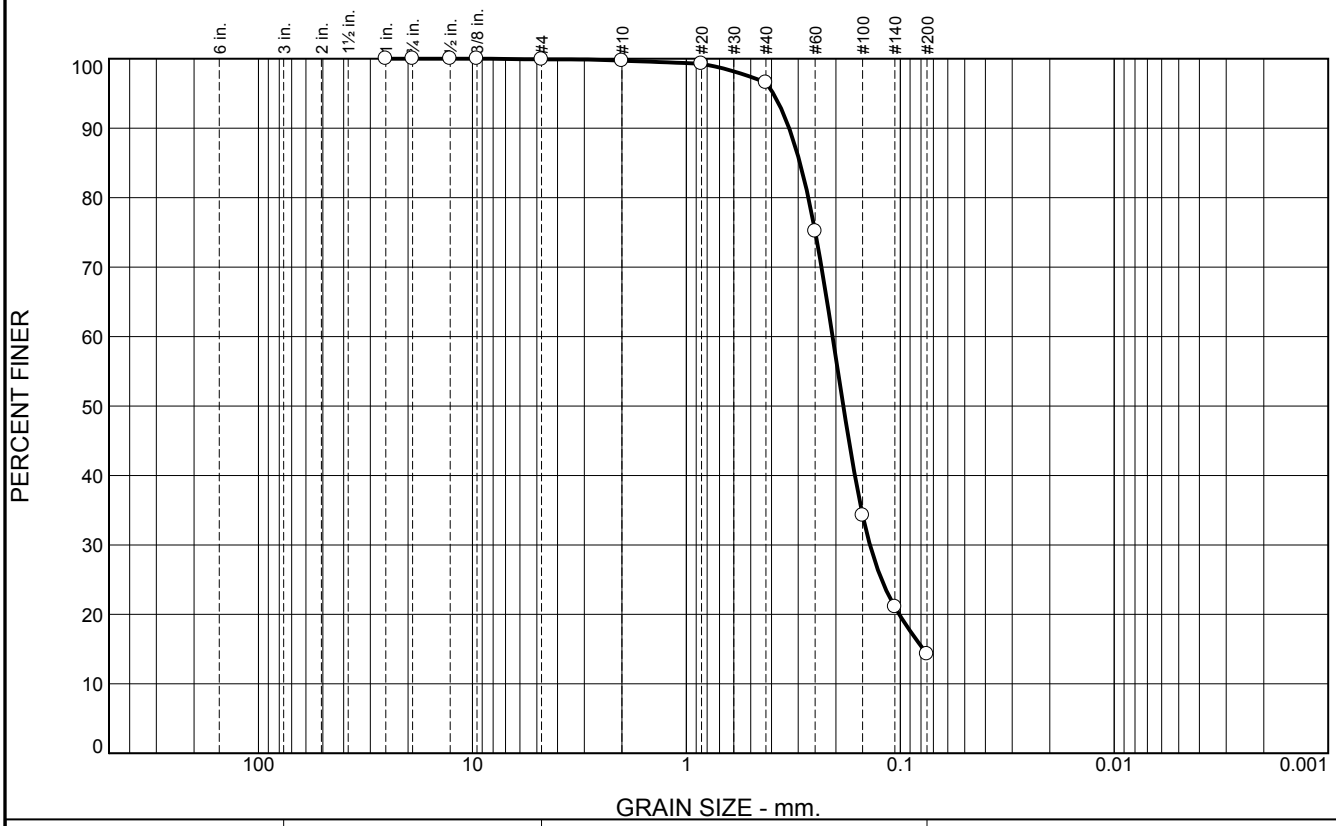
Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT

Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.2	3.1	82.3	14.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	99.7		
#20	99.3		
#40	96.6		
#60	75.2		
#100	34.3		
#140	21.1		
#200	14.3		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3308 D_{85}= 0.2946 D_{60}= 0.2073
D_{50}= 0.1847 D_{30}= 0.1387 D_{15}= 0.0781
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

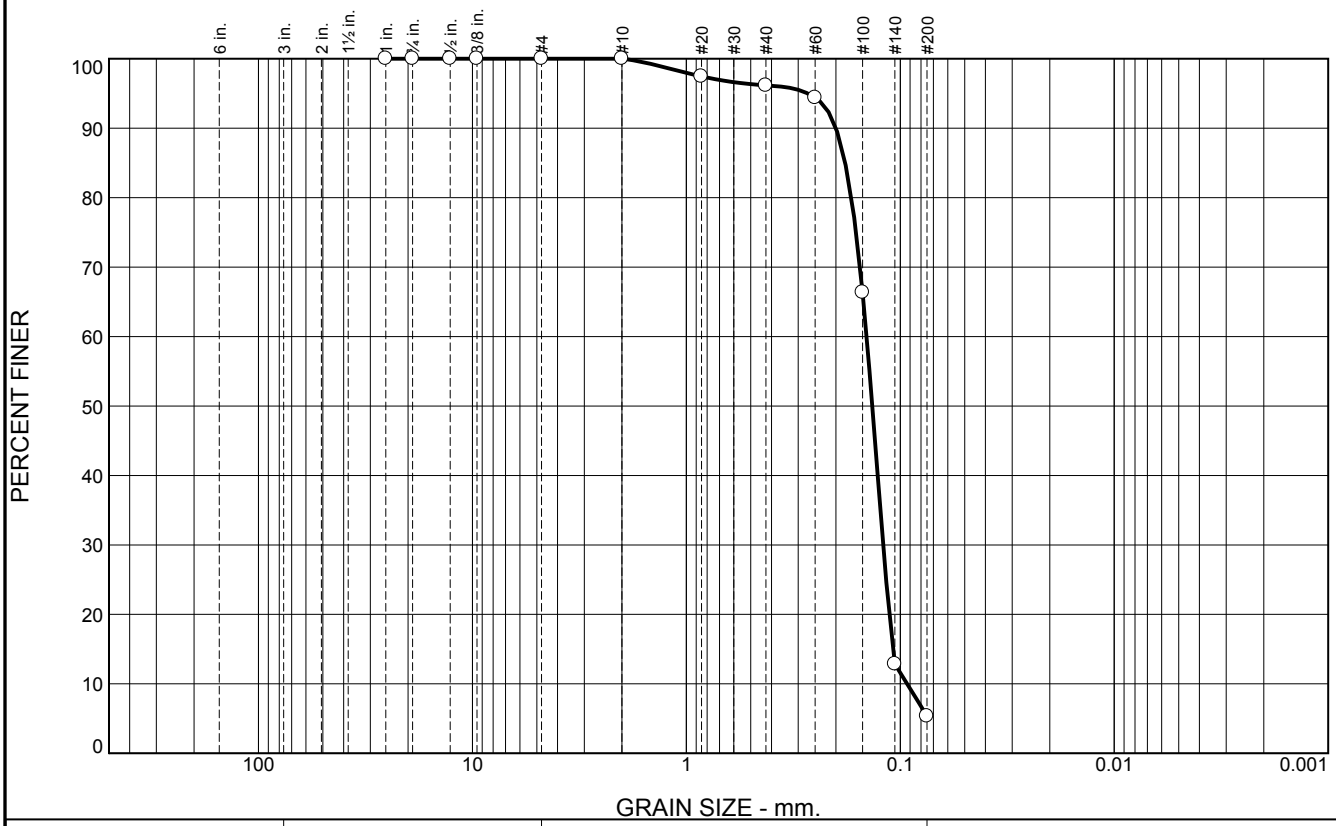
Location: BI-PBP-23-12 C
Sample Number: 6503 (9) **Depth:** 9.3' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	3.8	90.8	5.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	100.0		
#20	97.4		
#40	96.2		
#60	94.4		
#100	66.3		
#140	12.8		
#200	5.4		

* (no specification provided)

Material Description

Fine grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2000 D_{85}= 0.1811 D_{60}= 0.1437
D_{50}= 0.1352 D_{30}= 0.1202 D_{15}= 0.1081
D_{10}= 0.0929 C_u= 1.55 C_c= 1.08

Classification

USCS= SP-SM AASHTO=

Remarks

Location: BI-PBP-23-12 D
Sample Number: 6503 (10) **Depth:** 11.3' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBP-24-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 2 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-MS	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBP-24-12 — LOCATION COORDINATES: E = 1,124,585 N = 250,847	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 27.1 Ft.
	15. DATE BORING — STARTED: 01-04-13 — COMPLETED: 01-04-13
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -26.3 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.9 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-26.3	0.0				
			SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, lt. pale brown to light gray (SP)	A	Classification: SP-SM Color: 5Y 7/2-light gray D50: 0.3327 mm % Fines: 5.1
				B	Classification: SP Color: 5Y 7/2-light gray D50: 0.2546 mm % Fines: 2
-34.9	8.6				
			SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, trace shell fragments, gray (SP-SM)	C	Classification: SP-SM Color: 5Y 6/2-light olive gray D50: 0.2973 mm % Fines: 6.2
-37.5	11.2				
			SAND, clayey, mostly fine-grained sand-sized quartz, some clay, little silt, trace shell fragments, gray (SC)	NS	
-39.9	13.6				
			SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, brown (SM)	D	Classification: SM Color: 2.5Y 4/2-dark grayish brown D50: 0.1227 mm % Fines: 13.6
-44.4	18.1				
-44.7	18.4		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace shell fragments, gray (SC)	NS	
-45.9	19.6				
-46.2	19.9				
			CLAY, lean, mostly clay, some fine-grained sand-sized quartz, gray (CL)		
			SAND, clayey, mostly fine-grained sand-sized quartz, some clay, gray (SC)		
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification		

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18903° Long = -88.38915°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,124,585 Y = 250,847	ELEVATION TOP OF BORING -26.3 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			System. 2. NS = Sample not submitted for laboratory analysis from this interval. 3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.18903° Long = -88.38915°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBP-24-12

Coordinate System
Latitude / Longitude

Latitude 30 11.342 N

Longitude 088 23.349 W

Date 01/04/2013

Start Time 09:25:47

End Time 09:28:44

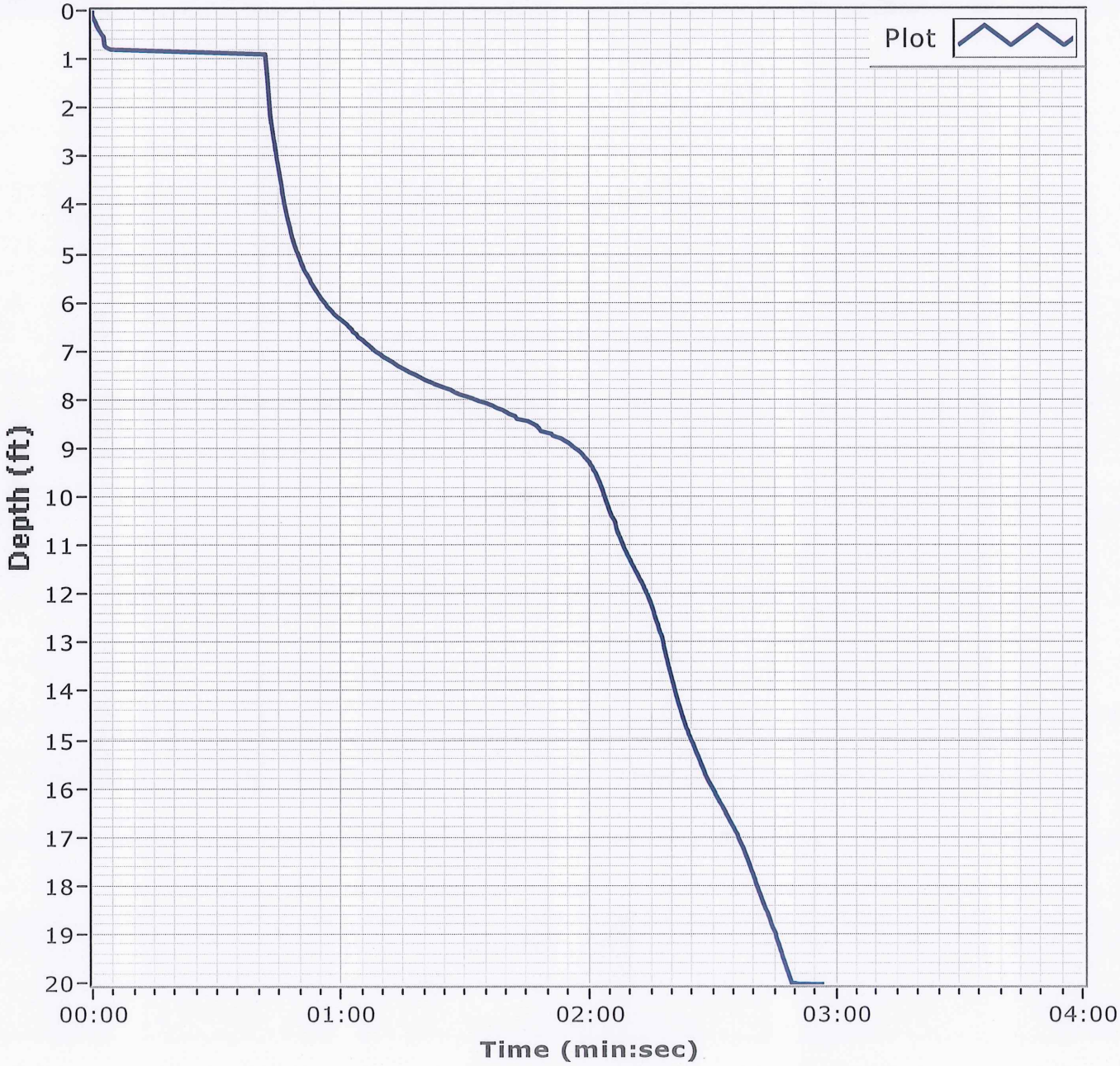
Total Time 00:02:57

Water Depth 27.1'

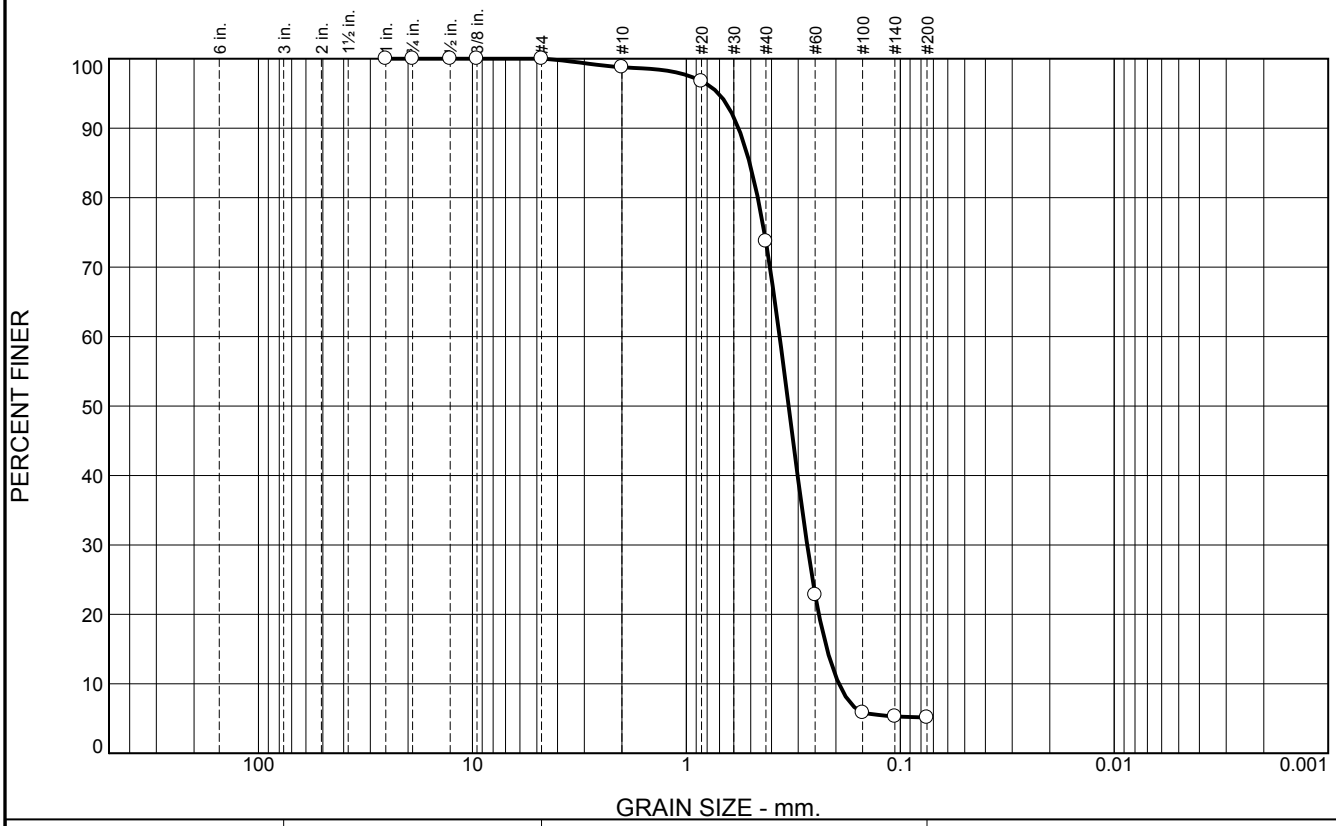
Penetration 20.0'

Recovery 19.9'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	1.2	25.1	68.6	5.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	98.8		
#20	96.8		
#40	73.7		
#60	22.8		
#100	5.8		
#140	5.3		
#200	5.1		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5703 D_{85}= 0.5061 D_{60}= 0.3663
D_{50}= 0.3327 D_{30}= 0.2726 D_{15}= 0.2202
D_{10}= 0.1937 C_u= 1.89 C_c= 1.05

Classification

USCS= SP-SM AASHTO=

Remarks

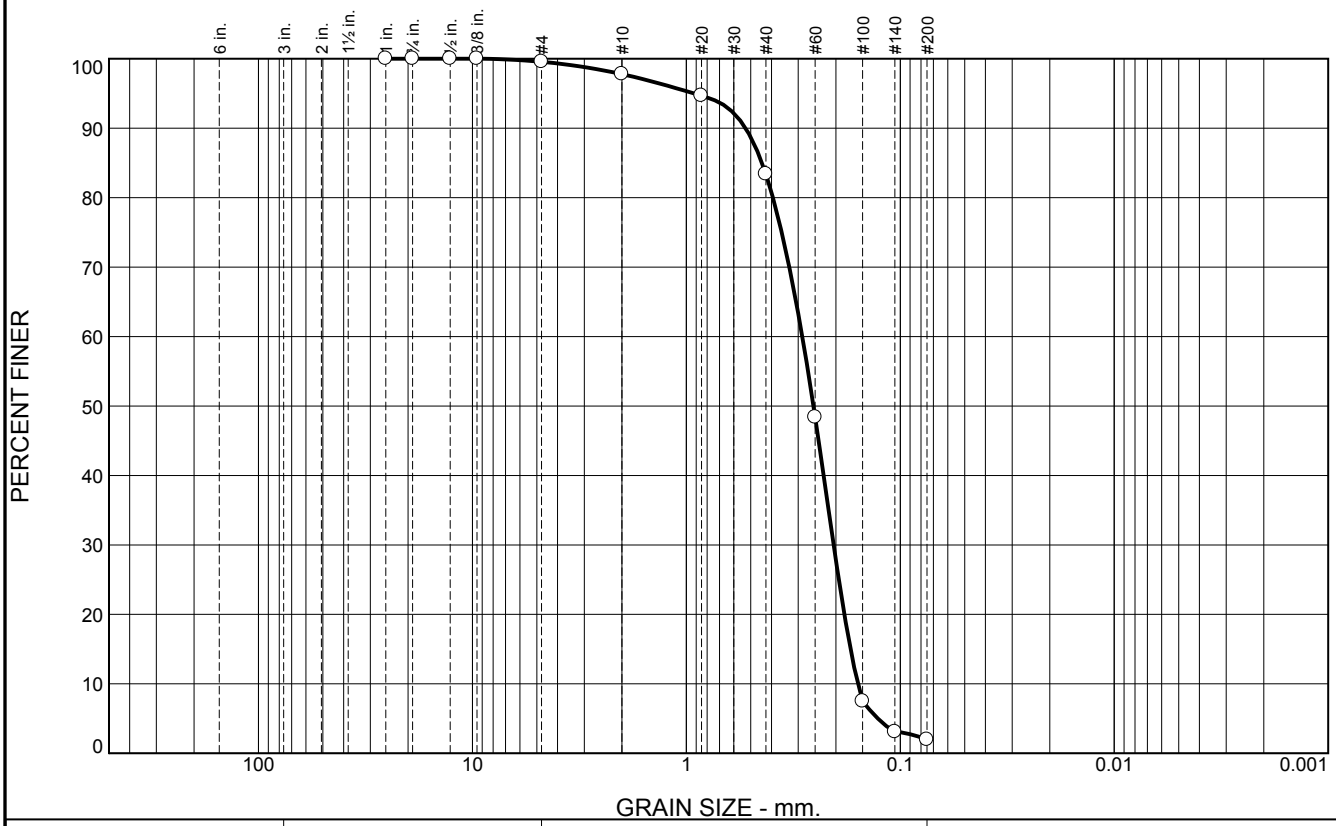
Location: BI-PBP-24-12 A
Sample Number: 6503 (11) **Depth:** 0.0' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.4	1.8	14.4	81.4	2.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.6		
#10	97.8		
#20	94.7		
#40	83.4		
#60	48.4		
#100	7.5		
#140	3.1		
#200	2.0		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5288 D_{85}= 0.4432 D_{60}= 0.2873
D_{50}= 0.2546 D_{30}= 0.2049 D_{15}= 0.1710
D_{10}= 0.1580 C_u= 1.82 C_c= 0.93

Classification

USCS= SP AASHTO=

Remarks

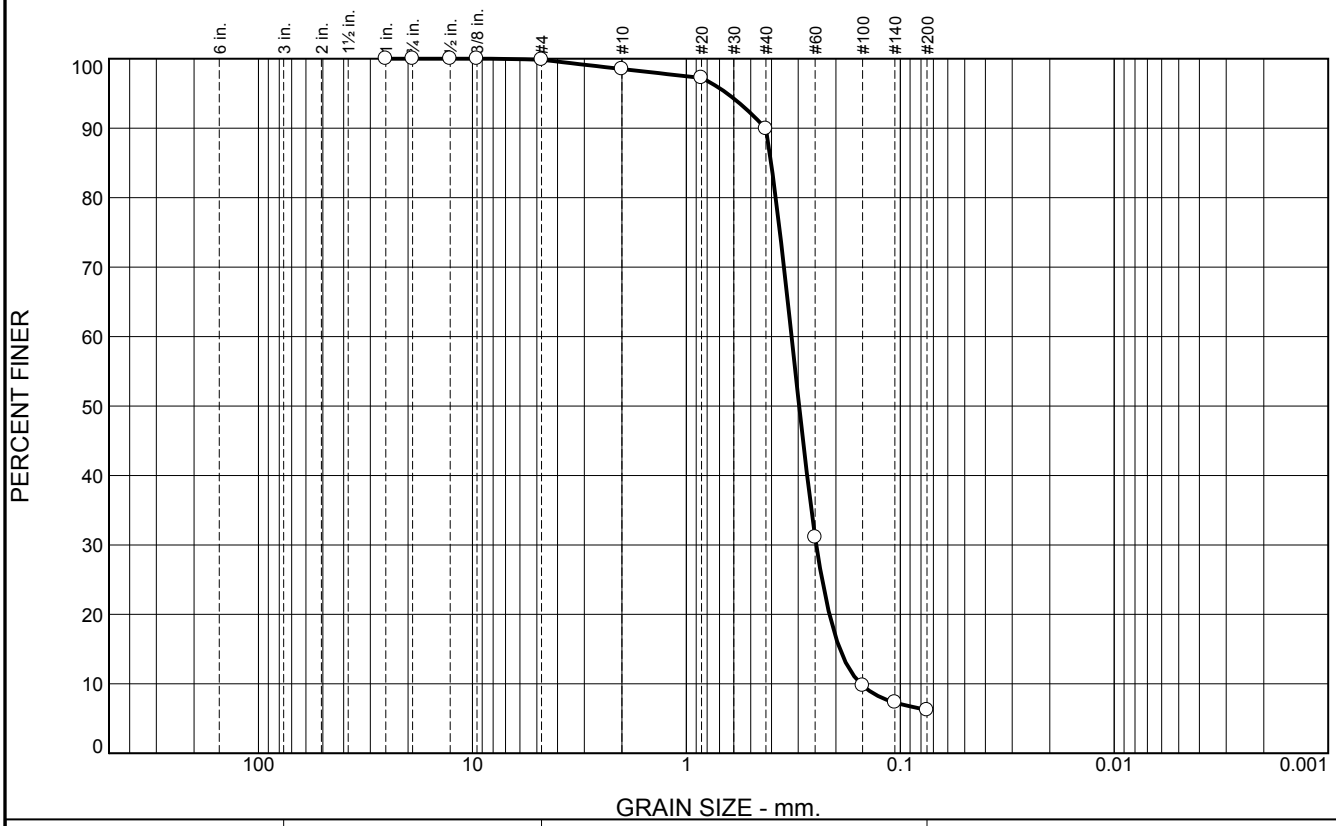
Location: BI-PBP-24-12 B
Sample Number: 6503 (12) **Depth:** 5.0' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	1.3	8.6	83.7	6.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	98.5		
#20	97.2		
#40	89.9		
#60	31.1		
#100	9.8		
#140	7.3		
#200	6.2		

* (no specification provided)

Material Description

Fine grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4275 D_{85}= 0.4015 D_{60}= 0.3223
D_{50}= 0.2973 D_{30}= 0.2470 D_{15}= 0.1917
D_{10}= 0.1529 C_u= 2.11 C_c= 1.24

Classification

USCS= SP-SM AASHTO=

Remarks

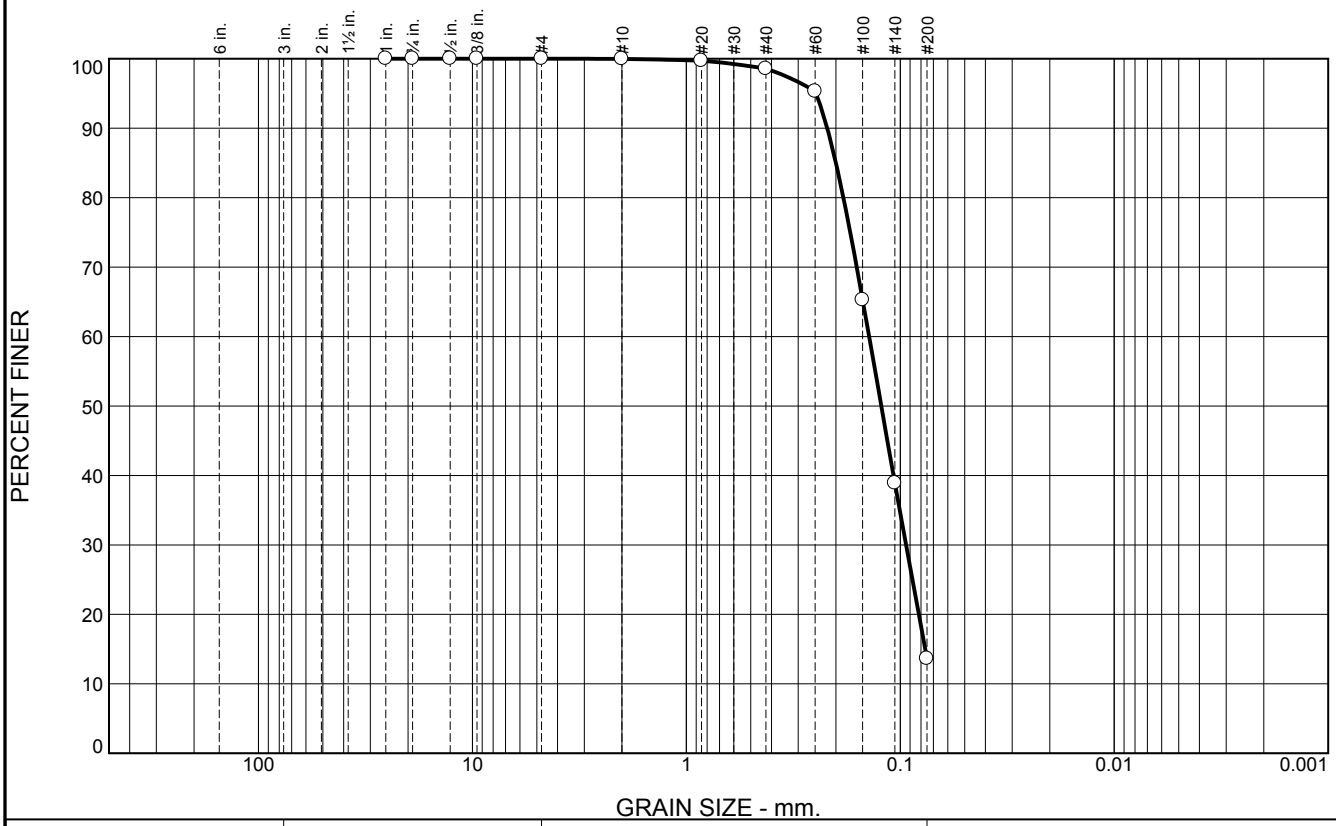
Location: BI-PBP-24-12 C
Sample Number: 6503 (13) **Depth:** 8.6' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	1.4	85.0	13.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	100.0		
#20	99.7		
#40	98.6		
#60	95.3		
#100	65.3		
#140	38.9		
#200	13.6		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2194 D_{85}= 0.2000 D_{60}= 0.1399
D_{50}= 0.1227 D_{30}= 0.0940 D_{15}= 0.0764
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBP-24-12 D
Sample Number: 6503 (14) **Depth:** 13.6' **Date:** 1/08/13

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT

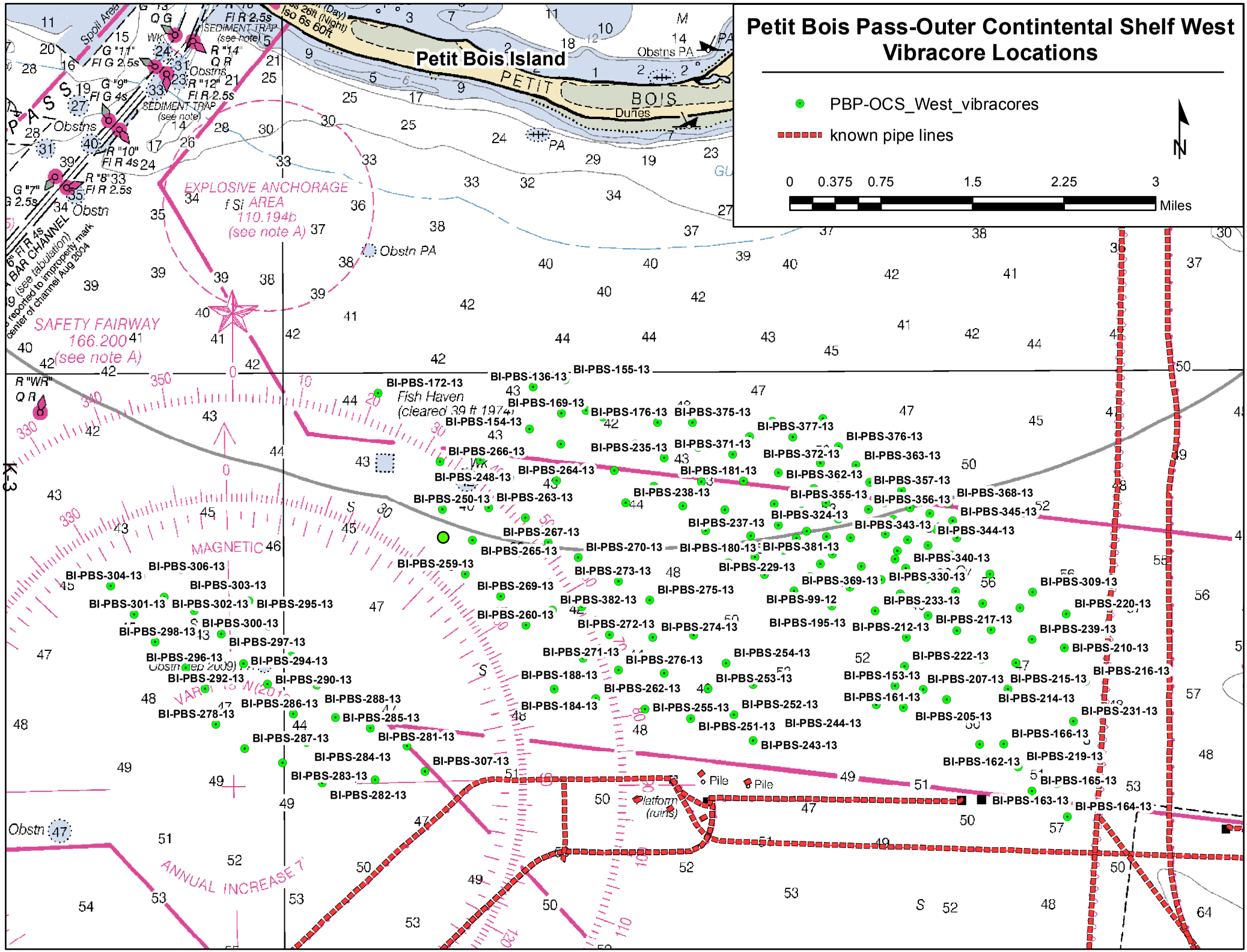
Project No: 1221110095 **Figure**

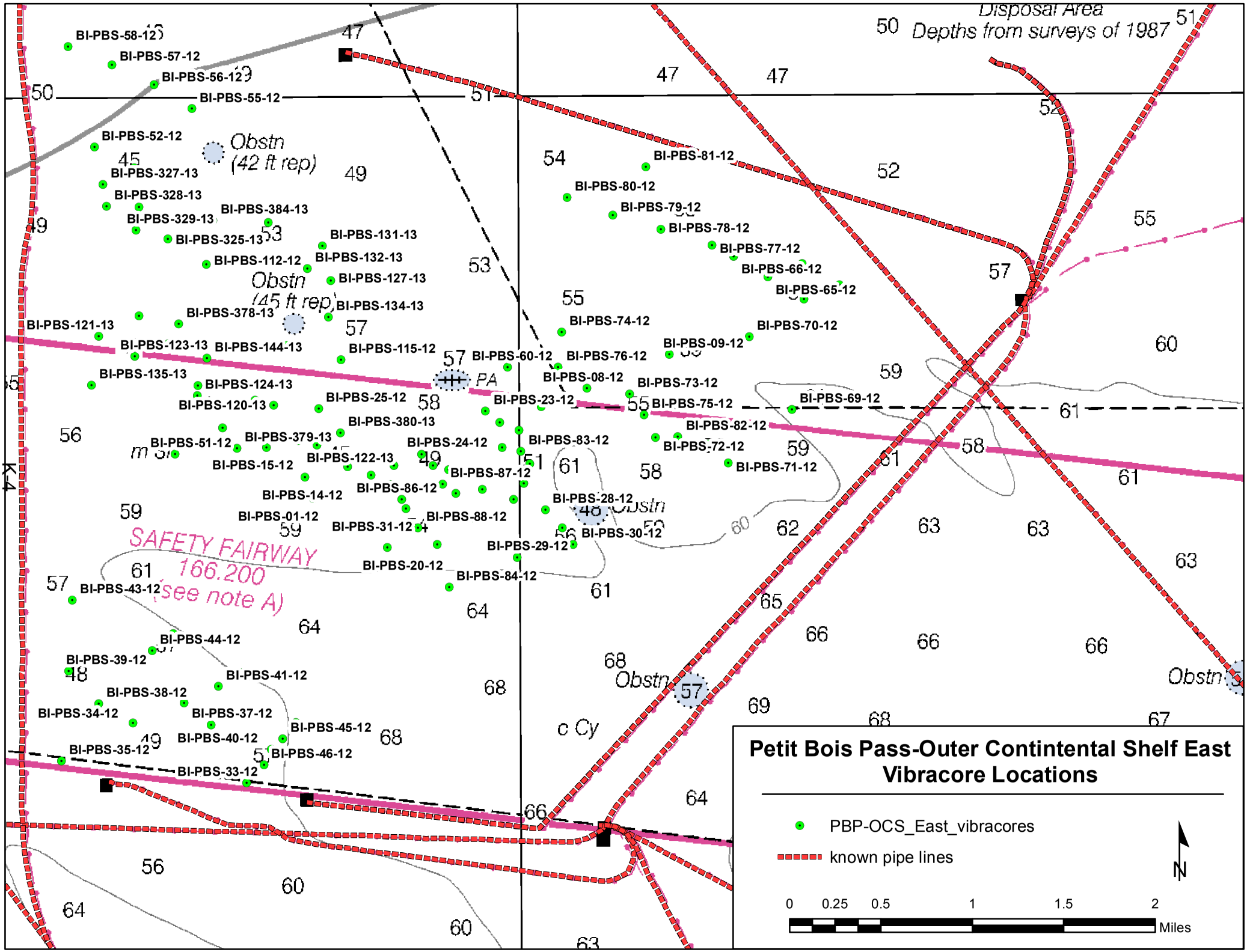
Appendix K

Petit Bois Pass-Outer Continental Shelf

Vibracores and Lab Results

This page was intentionally left blank for duplex printing.


Petit Bois Pass-Outer Contintental Shelf West Vibracore Locations
PBP-OCS_West_vibracores
known pipe lines
0 0.375 0.75 1.5 2.25 3
Miles
N
Petit Bois Island
PETIT BOIS
Dunes
EXPLOSIVE ANCHORAGE
SAFETY FAIRWAY
166.200
(see note A)
MAGNETIC
ANNUAL INCREASE
Fish Haven
(cleared 39 ft 1974)
Platform
(ruins)
Pile
K-3
BI-PBS-172-13
BI-PBS-136-13
BI-PBS-155-13
BI-PBS-169-13
BI-PBS-176-13
BI-PBS-375-13
BI-PBS-154-13
BI-PBS-377-13
BI-PBS-376-13
BI-PBS-235-13
BI-PBS-371-13
BI-PBS-266-13
BI-PBS-372-13
BI-PBS-363-13
BI-PBS-264-13
BI-PBS-181-13
BI-PBS-362-13
BI-PBS-248-13
BI-PBS-357-13
BI-PBS-238-13
BI-PBS-355-13
BI-PBS-368-13
BI-PBS-250-13
BI-PBS-263-13
BI-PBS-356-13
BI-PBS-324-13
BI-PBS-345-13
BI-PBS-237-13
BI-PBS-343-13
BI-PBS-344-13
BI-PBS-267-13
BI-PBS-265-13
BI-PBS-270-13
BI-PBS-180-13
BI-PBS-381-13
BI-PBS-340-13
BI-PBS-259-13
BI-PBS-229-13
BI-PBS-273-13
BI-PBS-369-13
BI-PBS-330-13
BI-PBS-309-13
BI-PBS-269-13
BI-PBS-275-13
BI-PBS-382-13
BI-PBS-99-12
BI-PBS-233-13
BI-PBS-220-13
BI-PBS-260-13
BI-PBS-272-13
BI-PBS-274-13
BI-PBS-195-13
BI-PBS-212-13
BI-PBS-217-13
BI-PBS-239-13
BI-PBS-271-13
BI-PBS-276-13
BI-PBS-254-13
BI-PBS-222-13
BI-PBS-210-13
BI-PBS-188-13
BI-PBS-253-13
BI-PBS-153-13
BI-PBS-207-13
BI-PBS-215-13
BI-PBS-216-13
BI-PBS-262-13
BI-PBS-161-13
BI-PBS-214-13
BI-PBS-184-13
BI-PBS-255-13
BI-PBS-252-13
BI-PBS-205-13
BI-PBS-231-13
BI-PBS-251-13
BI-PBS-244-13
BI-PBS-166-13
BI-PBS-243-13
BI-PBS-162-13
BI-PBS-219-13
BI-PBS-165-13
BI-PBS-163-13
BI-PBS-164-13
BI-PBS-304-13
BI-PBS-306-13
BI-PBS-303-13
BI-PBS-301-13
BI-PBS-302-13
BI-PBS-295-13
BI-PBS-298-13
BI-PBS-300-13
BI-PBS-297-13
BI-PBS-296-13
BI-PBS-294-13
BI-PBS-292-13
BI-PBS-290-13
BI-PBS-286-13
BI-PBS-288-13
BI-PBS-278-13
BI-PBS-285-13
BI-PBS-287-13
BI-PBS-281-13
BI-PBS-284-13
BI-PBS-307-13
BI-PBS-283-13
BI-PBS-282-13


Petit Bois Pass-Outer Contintental Shelf East Vibracore Locations
PBP-OCS_East_vibracores
known pipe lines
N
0 0.25 0.5 1 1.5 2
Miles
Disposal Area
Depths from surveys of 1987
SAFETY FAIRWAY
166.200
(see note A)
Obstn
(42 ft rep)
Obstn
(45 ft rep)
PA
BI-PBS-58-12
BI-PBS-57-12
BI-PBS-56-12
BI-PBS-55-12
BI-PBS-52-12
BI-PBS-327-13
BI-PBS-328-13
BI-PBS-329-13
BI-PBS-325-13
BI-PBS-384-13
BI-PBS-131-13
BI-PBS-132-13
BI-PBS-112-12
BI-PBS-127-13
BI-PBS-134-13
BI-PBS-378-13
BI-PBS-121-13
BI-PBS-123-13
BI-PBS-144-13
BI-PBS-115-12
BI-PBS-135-13
BI-PBS-124-13
BI-PBS-120-13
BI-PBS-25-12
BI-PBS-380-13
BI-PBS-51-12
BI-PBS-379-13
BI-PBS-24-12
BI-PBS-15-12
BI-PBS-122-13
BI-PBS-87-12
BI-PBS-14-12
BI-PBS-86-12
BI-PBS-01-12
BI-PBS-88-12
BI-PBS-31-12
BI-PBS-20-12
BI-PBS-84-12
BI-PBS-43-12
BI-PBS-44-12
BI-PBS-39-12
BI-PBS-41-12
BI-PBS-38-12
BI-PBS-34-12
BI-PBS-37-12
BI-PBS-45-12
BI-PBS-40-12
BI-PBS-35-12
BI-PBS-46-12
BI-PBS-33-12
BI-PBS-60-12
BI-PBS-76-12
BI-PBS-08-12
BI-PBS-23-12
BI-PBS-83-12
BI-PBS-28-12
BI-PBS-30-12
BI-PBS-29-12
BI-PBS-81-12
BI-PBS-80-12
BI-PBS-79-12
BI-PBS-78-12
BI-PBS-77-12
BI-PBS-66-12
BI-PBS-65-12
BI-PBS-74-12
BI-PBS-70-12
BI-PBS-09-12
BI-PBS-73-12
BI-PBS-75-12
BI-PBS-69-12
BI-PBS-82-12
BI-PBS-72-12
BI-PBS-71-12
Obstn
c Cy
K-4

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-1-12	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	1:22 AM	30.13475	-88.35205	231154.07510	1136389.87700	20-ft Vibracore	57.8	13.4																	
BI-PBS-1-12A	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	1:22 AM	30.13476	-88.35205	231157.71200	1136389.86200	20-ft Vibracore	57.8	13.4	0-0.4	0.4	SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 5.5/2	6		0.21	0.25	11.3	#VALUE!	#VALUE!
BI-PBS-2-12	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	12:37 PM	30.13658	-88.34678	231826.68140	1138052.97400	20-ft Vibracore	50.9	20.0																	
BI-PBS-2-12A	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	12:37 PM	30.13657	-88.34678	231823.04450	1138052.99000	20-ft Vibracore	50.9	20.0	0-4.5	4.5	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.22	0.29	1.6	1.5	0.9
BI-PBS-2-12B	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	12:37 PM	30.13657	-88.34678	231823.04450	1138052.99000	20-ft Vibracore	50.9	20.0	4.5-7.8	3.3	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.21	0.24	3.9	1.6	1.0
BI-PBS-3-12	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	9:52 AM	30.13733	-88.34468	232102.28110	1138715.63900	20-ft Vibracore	59.7	19.5	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-4-12	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	10:36 AM	30.13822	-88.34212	232429.43460	1139523.48400	20-ft Vibracore	49.8	20.0																	
BI-PBS-4-12A	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	10:36 AM	30.13820	-88.34209	232422.20170	1139532.99900	20-ft Vibracore	49.8	20.0	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT GRAY	5Y 7/2	7	LT GRAY	5Y 7/2	7		0.26	0.30	1.2	1.8	0.9
BI-PBS-4-12B	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	10:36 AM	30.13820	-88.34209	232422.20170	1139532.99900	20-ft Vibracore	49.8	20.0	5-8.6	3.6	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.23	0.25	2.4	1.6	1.0
BI-PBS-5-12	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	3:55 PM	30.13940	-88.33877	232863.15650	1140580.57900	20-ft Vibracore	60.1	17.4																	
BI-PBS-5-12A	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	3:55 PM	30.13938	-88.33879	232855.85540	1140574.28800	20-ft Vibracore	60.1	17.4	4-6	2.8	SP	SM	ANGULAR TO SUBROUNDED	GRAYISH BROWN	2.5Y 4.5/2	5	LT BROWNISH GRAY	2.5Y 6/2	6		0.20	0.21	14.4	#VALUE!	#VALUE!
BI-PBS-6-12	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	2:29 PM	30.14074	-88.33502	233355.65130	1141763.83300	20-ft Vibracore	55.0	19.7																	
BI-PBS-6-12A	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	2:29 PM	30.14074	-88.33502	233355.65130	1141763.83300	20-ft Vibracore	55.0	19.7	0-5	5.0	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.27	0.30	2.8	1.8	0.9
BI-PBS-6-12B	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	2:29 PM	30.14074	-88.33502	233355.65130	1141763.83300	20-ft Vibracore	55.0	19.7	6.9-16.4	9.5	SP-SM	SM	ANGULAR TO SUBROUNDED	DK OLIVE GRAY	5Y 4/1.5	4	LT OLIVE GRAY	5Y 6/2	6		0.40	#VALUE!	18.0	#VALUE!	#VALUE!
BI-PBS-7-12	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	11:39 AM	30.14197	-88.33118	233808.30520	1142975.68100	20-ft Vibracore	60.9	15.0																	
BI-PBS-7-12A	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	11:39 AM	30.14197	-88.33120	233808.27740	1142969.35900	20-ft Vibracore	60.9	15.0	3.5-10.4	6.9	SP	SM	SUBANGULAR TO SUBROUNDED	DK GRAYISH BROWN	2.5Y 4/2	4	GRAYISH BROWN	2.5Y 5/2	5		0.22	#VALUE!	18.1	#VALUE!	#VALUE!
BI-PBS-7-12B	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	11:39 AM	30.14197	-88.33120	233808.27740	1142969.35900	20-ft Vibracore	60.9	15.0	10.4-15	4.6	SP	SP-SM	SUBANGULAR TO SUBROUNDED	LT OLIVE BROWN	2.5Y 5.5/3	6	LT GRAY	2.5Y 7/2	7		0.21	0.22	6.7	2.0	1.2
BI-PBS-8-12	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	9:15 AM	30.14340	-88.32703	234334.17220	1144285.16400	20-ft Vibracore	57.0	18.1																	
BI-PBS-8-12A	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	9:15 AM	30.14339	-88.32705	234330.50720	1144278.85800	20-ft Vibracore	57.0	18.1	0.0 - 3.1	3.1	SP	SP-SM	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 5.5/2	6	LT GRAY	5Y 6.5/2	7		0.22	0.25	5.2	1.8	1.0
BI-PBS-8-12B	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	9:15 AM	30.14339	-88.32705	234330.50720	1144278.85800	20-ft Vibracore	57.0	18.1	3.1-7.3	4.2	SP	SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.19	#VALUE!	19.2	#VALUE!	#VALUE!
BI-PBS-9-12	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	10:10 AM	30.14607	-88.31945	235315.92440	1146676.75100	20-ft Vibracore	59.4	17.3	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-10-12	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	3:45 PM	30.13897	-88.35172	232689.26250	1136487.71800	20-ft Vibracore	48.1	11.9																	
BI-PBS-10-12A	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	3:45 PM	30.13897	-88.35172	232689.26250	1136487.71800	20-ft Vibracore	48.1	11.9	0-5.9	5.9	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.33	0.43	1.3	2.1	0.9
BI-PBS-10-12B	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	3:45 PM	30.13897	-88.35172	232689.26250	1136487.71800	20-ft Vibracore	48.1	11.9	5.9-8.4	2.5	SP	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 6.5/2	7		0.28	0.29	2.5	1.8	1.0
BI-PBS-11-12	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	3:08 PM	30.13808	-88.35015	232367.68150	1136985.37100	20-ft Vibracore	46.4	19.3																	
BI-PBS-11-12A	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	3:08 PM	30.13807	-88.35015	232364.04470	1136985.38600	20-ft Vibracore	46.4	19.3	0-8.6	8.6	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.28	0.36	1.6	1.9	0.9
BI-PBS-11-12B	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	3:08 PM	30.13807	-88.35015	232364.04470	1136985.38600	20-ft Vibracore	46.4	19.3	8.6-10.4	1.8	SP	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.24	0.26	3.2	1.7	0.9
BI-PBS-12-12	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	2:20 PM	30.13727	-88.34887	232074.81270	1137391.23700	20-ft Vibracore	48.7	20.0																	
BI-PBS-12-12A	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	2:20 PM	30.13725	-88.34889	232067.51220	1137384.94600	20-ft Vibracore	48.7	20.0	0-5	5.0	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 5.5/2	6	LT GRAY	5Y 6.5/2	7		0.27	0.37	1.9	1.9	0.9
BI-PBS-12-12B	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	2:20 PM	30.13725	-88.34889	232067.51220	1137384.94600	20-ft Vibracore	48.7	20.0	5-8.8	3.8	SP	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.23	0.26	2.8	1.7	1.0
BI-PBS-12-12C	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	2:20 PM	30.13725	-88.34889	232067.51220	1137384.94600	20-ft Vibracore	48.7	20.0	8.8-10	1.2	SP	SP-SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.21	0.27	9.9	3.1	1.5
BI-PBS-13-12	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	1:41 PM	30.14040	-88.36032	233197.95960	1133767.07600	20-ft Vibracore	46.7	11.8																	
BI-PBS-13-12A	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	1:41 PM	30.14042	-88.36031	233205.24640	1133770.20700	20-ft Vibracore	46.7	11.8	0-5	5.0	SP	SP	ANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/2	6	LT GRAY	2.5Y 7/1	7		0.35	0.38	1.6	1.7	1.0
BI-PBS-13-12B	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	1:41 PM	30.14042	-88.36031	233205.24640	1133770.20700	20-ft Vibracore	46.7	11.8	5-9.2	4.0	SP	SP	ANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 5.5/2	6	LT GRAY	2.5Y 6.5/2	7		0.25	0.28	2.9	1.7	0.9
BI-PBS-14-12	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	9:50 AM	30.13645	-88.35283	231771.29910	1136140.70300	20-ft Vibracore	53.4	19.6																	
BI-PBS-14-12A	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	9:50 AM	30.13649	-88.35278	231785.91300	1136156.44700	20-ft Vibracore	53.4	19.6	0-3.2	3.2	SP	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.25	0.28	3.7	2.0	1.0
BI-PBS-14-12B	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	9:50 AM	30.13649	-88.35278	231785.91300	1136156.44700	20-ft Vibracore	53.4	19.6	3.2-6	2.8	SM	SP-SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.20	0.26	11.8	#VALUE!	#VALUE!
BI-PBS-15-12	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	10:32 AM	30.13883	-88.35632	232632.23900	1135033.85700	20-ft Vibracore	48.9	19.9																	
BI-PBS-15-12A	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	10:32 AM	30.13884	-88.35632	232635.87580	1135033.84100	20-ft Vibracore	48.9	19.9	0-5.5	5.5	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/1.5	6	LT GRAY	5Y 7/2	7		0.29	0.31	2.0	1.8	1.0
BI-PBS-15-12B	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	10:32 AM	30.13884	-88.35632	232635.87580	1135033.84100	20-ft Vibracore	48.9	19.9	5.5-8.7	3.2	SM	SP-SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.20	0.23	11.6	#VALUE!	#VALUE!
BI-PBS-16-12	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	1:35 PM	30.13582	-88.34503	231552.64410	1138607.35100	20-ft Vibracore	52.8	17.8																	
BI-PBS-16-12A	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	1:35 PM	30.13583	-88.34503	231556.28090	1138607.33600	20-ft Vibracore	52.8	17.8	0-2.5	2.5	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.29	0.33	2.4	1.9	1.0
BI-PBS-16-12B	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	1:35 PM	30.13583	-88.34503	231556.28090	1138607.33600	20-ft Vibracore	52.8	17.8	2.5-3.8	1.3	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4.5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.21	0.23	3.7	1.6	1.0
BI-PBS-16-12C	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	1:35 PM	30.13583	-88.34503	231556.28090	1138607.33600	20-ft Vibracore	52.8	17.8	3.8-5.6	1.8	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4.5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.24	0.31	4.0	1.9	0.9
BI-PBS-17-12	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	10:20 AM	30.13542	-88.34137	231412.13940	1139764.95300	20-ft Vibracore	55.4	19.5																	
BI-PBS-17-12A	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	10:20 AM	30.13542	-88.34137	231412.13940	1139764.95300	20-ft Vibracore	55.4	19.5	0-1	1.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 5.5/2	6	LT GRAY	2.5Y 6.5/2	7		0.21	0.23	2.7	1.8	1.0
BI-PBS-18-12	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	10:59 AM	30.13732	-88.34108	232103.53520	1139853.64600	20-ft Vibracore	50.2	19.0																	
BI-PBS-18-12A	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	10:59 AM	30.13734	-88.34111	232110.76800	1139844.13100	20-ft Vibracore	50.2	19.0	0-2.4	2.4	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.38	0.45	1.7	2.3	0.9
BI-PBS-18-12B	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	10:59 AM	30.13734	-88.34111	232110.76800	1139844.13100	20-ft Vibracore	50.2	19.0	2.4-8.2	5.8	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.24	0.26	2.6	1.7	1.0
BI-PBS-19-12	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	11:42 AM	30.13945	-88.34275	232875.90990	1139322.41400	20-ft Vibracore	50.6	18.6																	

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-19-12A	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	11:42 AM	30.13945	-88.34275	232875.90990	1139322.41400	20-ft Vibracore	50.6	18.6	0-5	5.0	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 5.5/2	6	LT GRAY	6.5/2	7		0.30	0.33	1.8	1.9	1.0
BI-PBS-20-12	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	1:01 PM	30.13082	-88.34532	229733.83110	1138523.45400	20-ft Vibracore	60.8	12.7																	
BI-PBS-20-12A	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	1:01 PM	30.13082	-88.34532	229733.83110	1138523.45400	20-ft Vibracore	60.8	12.7	4.1-6	1.9	SP	SP-SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.28	0.28	9.1	2.9	1.5
BI-PBS-20-12B	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	1:01 PM	30.13082	-88.34532	229733.83110	1138523.45400	20-ft Vibracore	60.8	12.7	12-12.7	0.7	SP-SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.29	0.29	12.8	#VALUE!	#VALUE!
BI-PBS-21-12	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	12:58 PM	30.13743	-88.33227	232155.66120	1142638.38900	20-ft Vibracore	52.0	20.0																	
BI-PBS-21-12A	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	12:58 PM	30.13743	-88.33227	232155.66120	1142638.38900	20-ft Vibracore	52.0	20.0	0-3.5	3.5	SP	SP	ANGULAR TO SUBROUNDED	LT GRAY	5Y 7/2	7	LT GRAY	2.5Y 7/2	7		0.38	0.52	1.3	2.1	0.9
BI-PBS-21-12B	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	12:58 PM	30.13744	-88.33227	232159.29800	1142638.37300	20-ft Vibracore	52.0	20.0	3.5-7.2	3.7	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 5.5/2	6	LT GRAY	5Y 6.5/2	7		0.24	0.30	3.0	1.8	0.9
BI-PBS-22-12	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	3:33 PM	30.14010	-88.33327	233125.31300	1142318.02500	20-ft Vibracore	56.0	20.0																	
BI-PBS-22-12A	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	3:33 PM	30.14006	-88.33331	233110.71020	1142305.44500	20-ft Vibracore	56.0	20.0	0-5.9	5.9	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/1	7		0.29	0.33	2.3	1.9	0.9
BI-PBS-23-12	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	9:00 AM	30.14163	-88.33627	233677.60740	1141367.30100	20-ft Vibracore	55.7	19.7																	
BI-PBS-23-12A	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	9:00 AM	30.14165	-88.33625	233684.90860	1141373.59100	20-ft Vibracore	55.7	19.7	0-3.6	3.6	SP	SP	SUBANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/2	6	LT GRAY	2.5Y 7/2	7		0.31	0.32	2.6	1.7	1.1
BI-PBS-23-12B	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	9:00 AM	30.14165	-88.33625	233684.90860	1141373.59100	20-ft Vibracore	55.7	19.7	7.9-9.7	1.8	SP-SM	SP-SM	ANGULAR TO SUBROUNDED	GRAYISH BROWN	2.5Y 5/2	5	LT BROWNISH GRAY	2.5Y 6/2	6		0.20	0.22	9.0	2.5	1.4
BI-PBS-23-12C	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	9:00 AM	30.14165	-88.33625	233684.90860	1141373.59100	20-ft Vibracore	55.7	19.7	18.7-19.7	1.0	SP-SM	SP-SM	ANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/2	6	LT GRAY	2.5Y 7/1.5	7		0.31	0.31	8.2	2.5	1.5
BI-PBS-24-12	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	2:54 PM	30.13875	-88.33477	232632.26370	1141846.02000	20-ft Vibracore	55.6	18.8																	
BI-PBS-24-12A	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	2:54 PM	30.13876	-88.33481	232635.84530	1141833.36000	20-ft Vibracore	55.6	18.8	0-3.6	3.6	SP	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.29	0.29	3.4	2.0	1.1
BI-PBS-25-12	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	11:25 AM	30.14190	-88.35155	233755.08470	1136536.95600	20-ft Vibracore	49.8	18.8																	
BI-PBS-25-12A	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	11:25 AM	30.14189	-88.35155	233751.44780	1136536.97200	20-ft Vibracore	49.8	18.8	0-5.2	5.2	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.31	0.38	1.6	2.0	0.9
BI-PBS-25-12B	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	11:25 AM	30.14189	-88.35155	233751.44780	1136536.97200	20-ft Vibracore	49.8	18.8	5.2-6.6	1.4	SP	SP-SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4.5/2	5	LT GRAY	5Y 6/1	6		0.34	0.88	5.7	3.1	0.9
BI-PBS-25-12C	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	11:25 AM	30.14189	-88.35155	233751.44780	1136536.97200	20-ft Vibracore	49.8	18.8	13.4-15.7	2.3	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	GRAYISH BROWN	2.5Y 5/2	5	LT BROWNISH GRAY	2.5Y 6/2	6		0.25	0.27	12.3	#VALUE!	#VALUE!
BI-PBS-26-12	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	9:45 AM	30.13513	-88.33902	231309.88100	1140508.28000	20-ft Vibracore	54.8	17.6																	
BI-PBS-26-12A	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	9:45 AM	30.13513	-88.33902	231309.88100	1140508.28000	20-ft Vibracore	54.8	17.6	0-3.6	3.6	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	2.5Y 7/2	7		0.31	0.35	2.1	2.0	1.1
BI-PBS-26-12B	PETIT BOIS PASS - OCS EAST	2012	11/23/2012	9:45 AM	30.13513	-88.33902	231309.88100	1140508.28000	20-ft Vibracore	54.8	17.6	3.6-4.3	2.5	SP	SP-SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.19	0.20	6.2	1.9	1.1
BI-PBS-27-12	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	2:12 PM	30.13462	-88.33377	231131.62850	1142168.70000	20-ft Vibracore	55.1	19.7																	
BI-PBS-27-12A	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	2:12 PM	30.13462	-88.33377	231131.62850	1142168.70000	20-ft Vibracore	55.1	19.7	0-6	6.0	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/1	7		0.37	0.43	1.5	1.6	1.0
BI-PBS-27-12B	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	2:12 PM	30.13462	-88.33377	231131.62850	1142168.70000	20-ft Vibracore	55.1	19.7	6-7.3	1.3	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.26	0.27	5.2	2.4	1.1
BI-PBS-27-12C	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	2:12 PM	30.13462	-88.33377	231131.62850	1142168.70000	20-ft Vibracore	55.1	19.7	10.6-12.6	2.0	SP	SP-SM	SUBANGULAR TO SUBROUNDED	GRAY	5Y 5/1	5	LT GRAY	5Y 7/2	7		0.30	0.34	9.2	2.9	1.2
BI-PBS-28-12	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	1:38 PM	30.13378	-88.33088	230830.14400	1143083.62400	20-ft Vibracore	56.4	12.4																	
BI-PBS-28-12A	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	1:38 PM	30.13377	-88.33088	230826.50720	1143083.64000	20-ft Vibracore	56.4	12.4	0-6.5	6.5	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.30	0.32	2.9	2.1	1.1
BI-PBS-28-12B	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	1:38 PM	30.13377	-88.33088	230826.50720	1143083.64000	20-ft Vibracore	56.4	12.4	11-12.4	1.4	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.28	0.32	8.5	2.5	1.1
BI-PBS-29-12	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	12:54 PM	30.13233	-88.32928	230305.03170	1143591.74600	20-ft Vibracore	62.0	7.2																	
BI-PBS-29-12A	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	12:54 PM	30.13234	-88.32928	230308.66850	1143591.73000	20-ft Vibracore	62.0	7.2	0-6	6.0	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.25	0.28	2.1	1.8	0.9
BI-PBS-29-12B	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	12:54 PM	30.13234	-88.32928	230308.66850	1143591.73000	20-ft Vibracore	62.0	7.2	6-6.6	0.6	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.19	0.21	10.9	#VALUE!	#VALUE!
BI-PBS-30-12	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	12:16 PM	30.13102	-88.32830	229829.97440	1143903.65600	20-ft Vibracore	62.7	15.6																	
BI-PBS-30-12A	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	12:16 PM	30.13102	-88.32829	229829.98840	1143906.81800	20-ft Vibracore	62.7	15.6	0-3.1	3.1	SP	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT BROWNISH GRAY	2.5Y 6/2	6		0.29	0.33	3.0	2.1	1.1
BI-PBS-30-12B	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	12:16 PM	30.13102	-88.32829	229829.98840	1143906.81800	20-ft Vibracore	62.7	15.6	14.3-15.6	1.3	SP-SM	SM	ANGULAR TO SUBROUNDED	GRAYISH BROWN	2.5Y 5/2	5	LT BROWNISH GRAY	2.5Y 6/2	6		0.34	#VALUE!	22.5	#VALUE!	#VALUE!
BI-PBS-31-12	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	9:05 AM	30.13390	-88.34360	230856.30730	1139062.39000	20-ft Vibracore	55.1	19.7																	
BI-PBS-31-12A	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	9:05 AM	30.13391	-88.34359	230859.95770	1139065.53500	20-ft Vibracore	55.1	19.7	0-3.7	3.7	SP-SM	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.27	0.30	2.4	1.9	0.9
BI-PBS-32-12	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	9:24 AM	30.11697	-88.35372	224685.55930	1135889.13000	20-ft Vibracore	62.8	20.0																	
BI-PBS-32-12A	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	9:24 AM	30.11697	-88.35372	224685.55930	1135889.13000	20-ft Vibracore	62.8	20.0	4-9	5.0	SM	SP-SM	SUBANGULAR TO SUBROUNDED	GRAYISH BROWN	2.5Y 5/2	5	LT GRAY	2.5Y 7/2	7		0.25	0.26	6.5	2.1	1.1
BI-PBS-32-12B	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	9:24 AM	30.11697	-88.35372	224685.55930	1135889.13000	20-ft Vibracore	62.8	20.0	9-12.5	3.5	SP	SP-SM	SUBANGULAR TO SUBROUNDED	GRAY	5Y 6/1.5	6	LT GRAY	2.5Y 7/1	7		0.20	0.21	6.5	1.7	1.1
BI-PBS-32-12C	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	9:24 AM	30.11697	-88.35372	224685.55930	1135889.13000	20-ft Vibracore	62.8	20.0	12.5-16.6	4.1	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/1.5	6	LT GRAY	2.5Y 7/1	7		0.19	0.19	9.7	2.6	1.7
BI-PBS-33-12	PETIT BOIS PASS - OCS EAST	2012	12/7/2012	9:32 AM	30.11218	-88.35825	222937.53110	1134464.11300	20-ft Vibracore	64.1	17.0	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-34-12	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	10:21 AM	30.11697	-88.36862	224666.07910	1131178.15100	20-ft Vibracore	51.4	16.4																	
BI-PBS-34-12A	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	10:21 AM	30.11697	-88.36862	224666.07910	1131178.15100	20-ft Vibracore	51.4	16.4	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.27	0.29	1.5	1.7	0.9
BI-PBS-34-12B	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	10:21 AM	30.11697	-88.36862	224666.07910	1131178.15100	20-ft Vibracore	51.4	16.4	5-6.9	1.9	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.26	0.27	2.1	1.7	0.9
BI-PBS-34-12C	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	10:21 AM	30.11697	-88.36862	224666.07910	1131178.15100	20-ft Vibracore	51.4	16.4	6.9-11.3	4.4	SP-SM	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.22	0.29	4.3	1.6	0.9
BI-PBS-35-12	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	3:11 PM	30.11398	-88.37517	223570.29980	1129111.58200	20-ft Vibracore	62.6	20.0	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-36-12	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	2:38 PM	30.12092	-88.35868	226115.55430	1134314.93900	20-ft Vibracore	63.9	13.7																	
BI-PBS-36-12A	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	2:38 PM	30.12092	-88.35868	226115.55430	1134314.93900	20-ft Vibracore	63.9	13.7	0-3	3.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.32	0.35	2.9	2.0	1.0
BI-PBS-37-12	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	9:48 AM	30.11855	-88.36395	225246.73740	1132652.31700	20-ft Vibracore	61.7	20.0	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-38-12	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	10:56 AM	30.11852	-88.37173	225225.79880	1130192.57500	20-ft Vibracore	50.6	19.1																	
BI-PBS-38-12A	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	10:56 AM	30.11852	-88.37173	225225.79880	1130192.57500	20-ft Vibracore	50.6	19.1	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.29	0.32	1.2	1.8	1.0
BI-PBS-38-12B	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	10:56 AM	30.11852	-88.37173	225225.79880	1130192.57500	20-ft Vibracore	50.6	19.1	5-9.1	4.1	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.22	0.25	3.7	1.5	1.0
BI-PBS-39-12	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	11:33 AM	30.12113	-88.37450	226171.48060	1129312.97500	20-ft Vibracore	49.2	15.0																	
BI-PBS-39-12A	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	11:33 AM	30.12113	-88.37450	226171.48060	1129312.97500	20-ft Vibracore	49.2	15.0	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.31	0.33	1.1	1.8	1.0
BI-PBS-39-12B	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	11:33 AM	30.12113	-88.37450	226171.48060	1129312.97500	20-ft Vibracore	49.2	15.0	5-8.1	3.1	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.26	0.28	1.6	1.7	0.9
BI-PBS-40-12	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	11:57 AM	30.11482	-88.35600	223900.62030	1135171.52300	20-ft Vibracore	66.9	15.9	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-41-12	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	8:58 AM	30.11985	-88.36078	225723.65930	1133652.61200	20-ft Vibracore	62.0	16.3																	
BI-PBS-41-12A	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	8:58 AM	30.11985	-88.36078	225723.65930	1133652.61200	20-ft Vibracore	62.0	16.3	0-3.2	3.2	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.27	0.28	2.4	1.8	1.0
BI-PBS-41-12B	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	8:58 AM	30.11985	-88.36078	225723.65930	1133652.61200	20-ft Vibracore	62.0	16.3	5.6-6.9	1.3	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	DK GRAY	2.5Y 4/1	4	GRAY	2.5Y 5/1	5		0.27	0.29	5.7	2.1	1.0
BI-PBS-41-12C	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	8:58 AM	30.11985	-88.36078	225723.65930	1133652.61200	20-ft Vibracore	62.0	16.3	7.6-10.2	2.6	SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.23	0.27	7.0	2.0	1.0
BI-PBS-41-12D	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	8:58 AM	30.11985	-88.36078	225723.65930	1133652.61200	20-ft Vibracore	62.0	16.3	10.2-11.3	1.1	SP-SM	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.26	0.26	4.8	1.7	1.0
BI-PBS-41-12E	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	8:58 AM	30.11985	-88.36078	225723.65930	1133652.61200	20-ft Vibracore	62.0	16.3	11.3-16.3	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	GRAY	2.5Y 6/1	6	LT GRAY	2.5Y 7/1	7		0.21	0.23	4.6	1.7	1.0
BI-PBS-42-12	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	1:52 PM	30.12407	-88.36487	227253.07290	1132353.20500	20-ft Vibracore	61.7	20.0																	
BI-PBS-42-12A	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	1:52 PM	30.12407	-88.36487	227253.07290	1132353.20500	20-ft Vibracore	61.7	20.0	0-1.6	1.6	SP-SC	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE	5Y 5/4	5	PALE OLIVE	5Y 6/4	6		0.22	0.28	9.7	2.7	1.3
BI-PBS-42-12B	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	1:52 PM	30.12407	-88.36487	227253.07290	1132353.20500	20-ft Vibracore	61.7	20.0	4.4-8	3.6	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	DK GRAYISH BROWN	2.5Y 4/2	4	GRAYISH BROWN	2.5Y 5/2	5		0.22	0.24	7.9	2.0	1.1
BI-PBS-42-12C	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	1:52 PM	30.12407	-88.36487	227253.07290	1132353.20500	20-ft Vibracore	61.7	20.0	9.5-14.5	5.0	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.21	0.22	6.1	1.7	1.1
BI-PBS-43-12	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	1:17 PM	30.12673	-88.37410	228208.61330	1129431.24600	20-ft Vibracore	59.3	9.8																	
BI-PBS-43-12A	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	1:17 PM	30.12673	-88.37410	228208.61330	1129431.24600	20-ft Vibracore	59.3	9.8	0-1.5	1.5	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.32	0.32	1.4	1.6	1.0
BI-PBS-44-12	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	12:10 PM	30.12272	-88.36683	226759.56340	1131735.55600	20-ft Vibracore	60.1	18.7		1.2															
BI-PBS-44-12A	PETIT BOIS PASS - OCS EAST	2012	12/9/2012	12:10 PM	30.12272	-88.36683	226759.56340	1131735.55600	20-ft Vibracore	60.1	18.7	0-1.2	1.2	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.28	0.29	2.5	1.8	1.0
BI-PBS-45-12	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	10:27 AM	30.11567	-88.35493	224211.16650	1135508.54100	20-ft Vibracore	60.5	17.2																	
BI-PBS-45-12A	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	10:27 AM	30.11567	-88.35493	224211.16650	1135508.54100	20-ft Vibracore	60.5	17.2	0-2.8	2.8	SP	SP	ANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/2	6	LT GRAY	2.5Y 7/1	7		0.50	1.85	1.4	2.6	0.9
BI-PBS-45-12B	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	10:27 AM	30.11567	-88.35493	224211.16650	1135508.54100	20-ft Vibracore	60.5	17.2	2.8-5	2.2	SP	SP	SUBANGULAR TO SUBROUNDED	GRAYISH BROWN	2.5Y 5/2	5	LT BROWNISH GRAY	2.5Y 6/2	6		0.22	0.23	3.4	1.6	1.0
BI-PBS-45-12C	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	10:27 AM	30.11567	-88.35493	224211.16650	1135508.54100	20-ft Vibracore	60.5	17.2	14-17.2	3.2	SP	SP	SUBANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/2	6	LT GRAY	2.5Y 7/2	7		0.25	0.27	4.9	1.9	1.0
BI-PBS-46-12	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	1:42 PM	30.11362	-88.35668	223463.30280	1134958.34300	20-ft Vibracore	60.9	20.0																	
BI-PBS-46-12A	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	1:42 PM	30.11362	-88.35668	223463.30280	1134958.34300	20-ft Vibracore	60.9	20.0	0-4.5	4.5	SP	SP	ANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 5.5/2	6	LT GRAY	2.5Y 7/2	7		0.26	0.30	2.3	1.8	0.9
BI-PBS-46-12B	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	1:42 PM	30.11362	-88.35668	223463.30280	1134958.34300	20-ft Vibracore	60.9	20.0	6.4-8.7	2.3	SP	SP-SM	SUBANGULAR TO SUBROUNDED	LT GRAY	2.5Y 6.5/2	7	LT GRAY	2.5Y 7/2	7		0.26	0.28	7.8	2.3	1.1
BI-PBS-46-12C	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	1:42 PM	30.11362	-88.35668	223463.30280	1134958.34300	20-ft Vibracore	60.9	20.0	8.7-10.0	1.3	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	GRAYISH BROWN	2.5Y 5/1.5	5	LT BROWNISH GRAY	2.5Y 6/2	6		0.24	0.27	6.4	1.9	1.0
BI-PBS-46-12D	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	1:42 PM	30.11362	-88.35668	223463.30280	1134958.34300	20-ft Vibracore	60.9	20.0	10-11.4	1.4	SM	SP-SM	SUBANGULAR TO SUBROUNDED	DK GRAYISH BROWN	2.5Y 3.5/2	4	GRAYISH BROWN	2.5Y 5/2	5		0.22	0.25	7.0	2.1	1.1
BI-PBS-46-12E	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	1:42 PM	30.11362	-88.35668	223463.30280	1134958.34300	20-ft Vibracore	60.9	20.0	11.4-14.3	2.9	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	GRAYISH BROWN	2.5Y 5/2	5	LT BROWNISH GRAY	2.5Y 6/2	6		0.19	0.21	6.3	1.8	1.1
BI-PBS-46-12F	PETIT BOIS PASS - OCS EAST	2012	12/1/2012	1:42 PM	30.11362	-88.35668	223463.30280	1134958.34300	20-ft Vibracore	60.9	20.0	16.7-20	3.3	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 5.5/2	6	LT GRAY	2.5Y 7/2	7		0.25	0.27	6.7	2.1	1.1
BI-PBS-47-12	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	2:22 PM	30.14375	-88.36252	234413.42560	1133066.63200	20-ft Vibracore	48.4	16.9																	
BI-PBS-47-12A	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	2:22 PM	30.14375	-88.36252	234413.42560	1133066.63200	20-ft Vibracore	48.4	16.9	0-3.7	3.7	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.28	0.32	1.7	1.8	0.9
BI-PBS-47-12B	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	2:22 PM	30.14375	-88.36252	234413.42560	1133066.63200	20-ft Vibracore	48.4	16.9	3.7-5.6	1.9	SP-SM	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.21	0.26	0.2	1.8	1.0
BI-PBS-48-12	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	11:21 AM	30.14258	-88.35732	233994.73490	1134712.06400	20-ft Vibracore	48.1	18.4																	
BI-PBS-48-12A	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	11:21 AM	30.14258	-88.35732	233994.73490	1134712.06400	20-ft Vibracore	48.1	18.4	0-1.3	1.2	SP	SP	ANGULAR TO SUBROUNDED	LT GRAY	5Y 7/2	7	LT GRAY	5Y 7/2	7		0.51	0.90	1.7	2.7	0.9
BI-PBS-48-12B	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	11:21 AM	30.14258	-88.35732	233994.73490	1134712.06400	20-ft Vibracore	48.1	18.4	1.3-3.9	2.7	SP	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.22	0.26	0.4	1.5	0.9
BI-PBS-48-12C	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	11:21 AM	30.14258	-88.35732	233994.73490	1134712.06400	20-ft Vibracore	48.1	18.4	3.9-6.3	2.4	SM	SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.19	0.24	14.9	#VALUE!	#VALUE!
BI-PBS-49-12	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	3:44 PM	30.14932	-88.36788	236432.19570	1131364.13700	20-ft Vibracore	50.6	19.2																	
BI-PBS-49-12A	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	3:44 PM	30.14932	-88.36788	236432.19570	1131364.13700	20-ft Vibracore	50.6	19.2	0-4.2	4.2	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.24	0.27	3.6	1.7	0.9
BI-PBS-50-12	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	3:03 PM	30.14710	-88.36523	235628.24340	1132205.03600	20-ft Vibracore	48.7	18.9																	
BI-PBS-50-12A	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	3:03 PM	30.14711	-88.36521	235631.90620	1132211.34200	20-ft Vibracore	48.7	18.9	0-5	5.0	SP	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.27	0.29	3.3	1.8	0.9
BI-PBS-50-12B	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	3:03 PM	30.14711	-88.36521	235631.90620	1132211.34200	20-ft Vibracore	48.7	18.9	5-6.3	1.3	SP-SC	SP-SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.21	0.26	11.4	#VALUE!	#VALUE!
BI-PBS-51-12	PETIT BOIS PASS - OCS EAST	2012	11/28/2012	12:12 PM	30.13833	-88.36465	232439.48580	1132401.46200	20-ft Vibracore	56.4	19.8	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-52-12	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	11:36 AM	30.16273	-88.37195	241303.98200	1130058.00400	20-ft Vibracore	46.6	20.0	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-53-12	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	10:51 AM	30.16107	-88.36830	240704.95040	1131213.96500	20-ft Vibracore	44.5	20.0																	
BI-PBS-53-12A	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	10:51 AM	30.16107	-88.36829	240704.96330	1131217.12500	20-ft Vibracore	44.5	20.0	0-5.5	5.5	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.33	0.36	2.4	1.7	1.1
BI-PBS-54-12	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	9:17 AM	30.15882	-88.36448	239891.60220	1132424.57300	20-ft Vibracore	45.7	20.0																	
BI-PBS-54-12A	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	9:17 AM	30.15882	-88.36450	239891.57620	1132418.25200	20-ft Vibracore	45.7	20.0	0-5	5.0	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.30	0.34	1.7	1.9	0.9

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-54-12B	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	9:17 AM	30.15882	-88.36450	239891.57620	1132418.25200	20-ft Vibracore	45.7	20.0	5.6-6.8	1.2	SP-SM	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.39	0.50	3.2	1.9	1.0
BI-PBS-54-12C	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	9:17 AM	30.15882	-88.36450	239891.57620	1132418.25200	20-ft Vibracore	45.7	20.0	7.5-9.5	2.0	SM	SP-SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.35	0.38	6.7	2.2	1.1
BI-PBS-55-12	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	12:53 PM	30.16577	-88.36303	242421.10200	1132872.40500	20-ft Vibracore	47.2	15.0																	
BI-PBS-55-12A	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	12:53 PM	30.16578	-88.36302	242424.75190	1132875.55000	20-ft Vibracore	47.2	15.0	0-3.2	3.2	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.33	0.36	1.7	1.8	1.0
BI-PBS-56-12	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	1:48 PM	30.16767	-88.36647	243107.63670	1131782.47600	20-ft Vibracore	48.3	14.8																	
BI-PBS-56-12A	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	1:48 PM	30.16766	-88.36638	243104.11630	1131810.93200	20-ft Vibracore	48.3	14.8	0-2.6	2.6	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.34	0.40	1.4	1.7	1.0
BI-PBS-56-12B	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	1:48 PM	30.16766	-88.36638	243104.11630	1131810.93200	20-ft Vibracore	48.3	14.8	2.6-4.7	2.1	SC	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.25	0.28	13.8	#VALUE!	#VALUE!
BI-PBS-56-12C	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	1:48 PM	30.16766	-88.36638	243104.11630	1131810.93200	20-ft Vibracore	48.3	14.8	4.7-7.4	2.7	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	GRAYISH BROWN	2.5Y 5/2	5	LT BROWNISH GRAY	2.5Y 6/2	6		0.24	0.25	7.2	2.0	1.1
BI-PBS-57-12	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	2:52 PM	30.16927	-88.37030	243684.59760	1130569.78900	20-ft Vibracore	47.4	14.0																	
BI-PBS-57-12A	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	2:52 PM	30.16927	-88.37030	243684.59760	1130569.78900	20-ft Vibracore	47.4	14.0	0-3.8	3.8	SP	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.34	0.38	2.3	2.0	1.0
BI-PBS-57-12C	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	2:52 PM	30.16927	-88.37030	243684.59760	1130569.78900	20-ft Vibracore	47.4	14.0	4.6-5.4	1.6	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.23	0.25	8.5	1.7	1.0
BI-PBS-58-12	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	3:42 PM	30.17072	-88.37428	244206.85530	1129309.96200	20-ft Vibracore	47.2	19.9																	
BI-PBS-58-12A	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	3:42 PM	30.17072	-88.37428	244206.85530	1129309.96200	20-ft Vibracore	47.2	19.9	0-3.2	3.2	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 5.5/2	6	LT GRAY	5Y 7/2	7		0.34	0.39	1.6	1.7	1.0
BI-PBS-58-12B	PETIT BOIS PASS - OCS EAST	2012	11/30/2012	3:42 PM	30.17072	-88.37428	244206.85530	1129309.96200	20-ft Vibracore	47.2	19.9	3.2-4.6	1.4	SC	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.24	#VALUE!	16.5	#VALUE!	#VALUE!
BI-PBS-59-12	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	11:20 AM	30.14097	-88.34617	233424.07880	1138238.98600	20-ft Vibracore	53.4	19.5																	
BI-PBS-59-12A	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	11:20 AM	30.14097	-88.34617	233424.07880	1138238.98600	20-ft Vibracore	53.4	19.5	0-1.8	1.8	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/1	7		0.32	0.34	1.1	1.8	1.0
BI-PBS-59-12B	PETIT BOIS PASS - OCS EAST	2012	11/26/2012	11:20 AM	30.14097	-88.34617	233424.07880	1138238.98600	20-ft Vibracore	53.4	19.5	1.8-2.6	0.8	SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.21	0.26	11.4	#VALUE!	#VALUE!
BI-PBS-60-12	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	3:08 PM	30.14512	-88.33425	234949.65540	1142000.26100	20-ft Vibracore	61.3	16.8																	
BI-PBS-60-12A	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	3:08 PM	30.14512	-88.33428	234949.61390	1141990.77800	20-ft Vibracore	61.3	16.8	2.8-7.9	5.1	SP-SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT BROWNISH GRAY	2.5Y 6/2	6		0.20	#VALUE!	17.9	#VALUE!	#VALUE!
BI-PBS-60-12B	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	3:08 PM	30.14512	-88.33428	234949.61390	1141990.77800	20-ft Vibracore	61.3	16.8	7.9-9.4	1.5	SP	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT BROWNISH GRAY	2.5Y 6/2	6		0.21	0.22	13.5	#VALUE!	#VALUE!
BI-PBS-60-12C	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	3:08 PM	30.14512	-88.33428	234949.61390	1141990.77800	20-ft Vibracore	61.3	16.8	9.4-11.8	2.4	SP	SP	SUBANGULAR TO SUBROUNDED	LT YELLOWISH BROWN	2.5Y 6/3	6	PALE BROWN	2.5Y 7/3	7		0.25	0.27	4.3	1.9	1.0
BI-PBS-60-12D	PETIT BOIS PASS - OCS EAST	2012	11/24/2012	3:08 PM	30.14512	-88.33428	234949.61390	1141990.77800	20-ft Vibracore	61.3	16.8	11.8-16.8	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT GRAY	2.5Y 7/2	7	PALE BROWN	2.5Y 7.5/1.5	8		0.26	0.30	1.4	1.9	0.9
BI-PBS-61-12	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	4:30 PM	30.15042	-88.30715	236915.68050	1150557.25600	20-ft Vibracore	55.0	11.2																	
BI-PBS-61-12A	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	4:30 PM	30.15041	-88.30713	236912.07280	1150563.59400	20-ft Vibracore	55.0	11.2	0-2.2	2.2	SP	SP-SM	SUBANGULAR TO SUBROUNDED	GRAYISH BROWN	5Y 5/1.5	5	LT GRAY	5Y 6.5/2	7		0.23	0.26	5.2	1.8	1.0
BI-PBS-62-12	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	1:13 PM	30.15325	-88.30730	237944.69400	1150505.09900	20-ft Vibracore	56.0	16.1																	
BI-PBS-62-12A	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	1:13 PM	30.15325	-88.30730	237944.69400	1150505.09900	20-ft Vibracore	56.0	16.1	0-0.8	0.8	SP	SP	SUBANGULAR TO SUBROUNDED	LT BROWNISH GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.24	0.26	3.0	1.8	1.0
BI-PBS-62-12B	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	1:13 PM	30.15325	-88.30730	237944.69400	1150505.09900	20-ft Vibracore	56.0	16.1	3.1-5.9	2.8	SP	SP-SM	SUBANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/2	6	LT GRAY	2.5Y 7/2	7		0.18	0.18	11.6	#DIV/0!	#DIV/0!
BI-PBS-62-12C	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	1:13 PM	30.15325	-88.30730	237944.69400	1150505.09900	20-ft Vibracore	56.0	16.1	5.9-11	5.1	SP	SP	SUBANGULAR TO SUBROUNDED	WHITE	2.5Y 8/1	8	WHITE	2.5Y 8/1	8		0.21	0.21	2.5	1.4	1.0
BI-PBS-62-12D	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	1:13 PM	30.15325	-88.30730	237944.69400	1150505.09900	20-ft Vibracore	56.0	16.1	11-16.1	5.1	SP	SP	SUBANGULAR TO SUBROUNDED	WHITE	2.5Y 8/1	8	WHITE	2.5Y 8/1	8		0.28	0.29	2.3	1.7	1.0
BI-PBS-63-12	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	2:16 PM	30.15448	-88.31182	238385.46790	1149074.46800	20-ft Vibracore	56.0	14.0																	
BI-PBS-63-12A	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	2:16 PM	30.15449	-88.31182	238389.10480	1149074.45200	20-ft Vibracore	56.0	14.0	0-1.5	1.5	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.28	0.29	2.3	1.8	1.0
BI-PBS-63-12B	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	2:16 PM	30.15449	-88.31182	238389.10480	1149074.45200	20-ft Vibracore	56.0	14.0	6.4-9	2.6	SP	SP	SUBANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/2	6	LT GRAY	2.5Y 7/2	7		0.21	0.22	3.0	1.4	1.0
BI-PBS-63-12C	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	2:16 PM	30.15449	-88.31182	238389.10480	1149074.45200	20-ft Vibracore	56.0	14.0	9-14	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT GRAY	2.5Y 6.5/2	7	PALE BROWN	2.5Y 7.5/2	8		0.24	0.25	2.0	1.6	0.9
BI-PBS-64-12	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	11:50 AM	30.15155	-88.30387	237331.44310	1151592.05000	20-ft Vibracore	56.0	16.2																	
BI-PBS-64-12A	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	11:50 AM	30.15155	-88.30387	237331.44310	1151592.05000	20-ft Vibracore	56.0	16.2	0-1	1.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.30	0.30	1.6	1.7	1.1
BI-PBS-64-12B	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	11:50 AM	30.15156	-88.30387	237335.08000	1151592.03400	20-ft Vibracore	56.0	16.2	15.2-16.2	1.0	SP	SP	SUBANGULAR TO SUBROUNDED	LT BROWNISH GRAY	10YR 6/2	6	LT GRAY	10YR 7/1	7		0.23	0.24	3.9	2.0	1.1
BI-PBS-65-12	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	3:50 PM	30.15222	-88.31045	237565.51940	1149511.23100	20-ft Vibracore	54.0	13.4																	
BI-PBS-65-12A	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	3:50 PM	30.15217	-88.31046	237547.32060	1149508.15400	20-ft Vibracore	54.0	13.4	0-2.5	2.5	SP	SP-SM	SUBANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 5.5/2	6	LT GRAY	5Y 7/1	7		0.32	0.33	5.8	2.2	1.3
BI-PBS-66-12	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	3:00 PM	30.15385	-88.31358	238153.80650	1148519.25600	20-ft Vibracore	54.0	12.6																	
BI-PBS-66-12A	PETIT BOIS PASS - OCS EAST	2012	11/16/2012	3:00 PM	30.15387	-88.31358	238161.08020	1148519.22300	20-ft Vibracore	54.0	12.6	0-2.4	2.4	SP	SP	SUBANGULAR TO SUBROUNDED	LT BROWNISH GRAY	2.5Y 6/2	6	LT GRAY	2.5Y 7/2	7		0.32	0.33	1.7	1.6	1.0
BI-PBS-67-12	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	10:58 AM	30.14215	-88.31923	233890.59050	1146752.71200	20-ft Vibracore	58.3	18.8																	
BI-PBS-67-12A	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	10:58 AM	30.14215	-88.31922	233890.60480	1146755.87300	20-ft Vibracore	58.3	18.8	0-4.2	4.2	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.19	0.20	8.3	2.4	1.3
BI-PBS-68-12	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	1:13 PM	30.13895	-88.31593	232731.51240	1147801.09900	20-ft Vibracore	57.8	19.3																	
BI-PBS-68-12A	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	1:13 PM	30.13895	-88.31593	232731.51240	1147801.09900	20-ft Vibracore	57.8	19.3	0-3.9	3.9	SP	SP	ANGULAR TO SUBROUNDED	GRAYISH BROWN	2.5Y 5/2	5	LT GRAY	2.5Y 7/1	7		0.34	0.41	2.7	2.3	1.0
BI-PBS-69-12	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	11:49 AM	30.14165	-88.30828	233724.50930	1150214.77800	20-ft Vibracore	61.8	16.3																	
BI-PBS-69-12A	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	11:49 AM	30.14165	-88.30828	233724.50930	1150214.77800	20-ft Vibracore	61.8	16.3	0.4-1.1	0.7	SP	SP-SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.29	0.36	6.2	2.9	1.1
BI-PBS-69-12B	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	11:49 AM	30.14165	-88.30828	233724.50930	1150214.77800	20-ft Vibracore	61.8	16.3	15.2-16.3	1.1	SP	SM	SUBANGULAR TO SUBROUNDED	GRAYISH BROWN	10YR 5/2	5	LT BROWNISH GRAY	10YR 6/2	6		0.14	#VALUE!	20.1	#VALUE!	#VALUE!
BI-PBS-70-12	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	9:20 AM	30.14745	-88.31215	235828.27810	1148981.85200	20-ft Vibracore	60.0	18.3																	
BI-PBS-70-12A	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	9:20 AM	30.14745	-88.31215	235828.27810	1148981.85200	20-ft Vibracore	60.0	18.3	15.2-17.6	2.4	SP	SP-SM	SUBANGULAR TO SUBROUNDED	LT GRAY	2.5Y 7/2	7	PALE BROWN	2.5Y 7.5/2	8		0.20	0.21	7.3	2.1	1.2
BI-PBS-71-12	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	2:06 PM	30.13743	-88.31410	232181.33830	1148382.08500	20-ft Vibracore	57.6	18.4																	

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-71-12A	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	2:06 PM	30.13743	-88.31410	232181.33830	1148382.08500	20-ft Vibracore	57.6	18.4	0-3.4	3.4	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.25	0.28	3.4	1.9	1.0
BI-PBS-71-12B	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	2:06 PM	30.13743	-88.31410	232181.33830	1148382.08500	20-ft Vibracore	57.6	18.4	3.4-5.2	1.8	SC	SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.21	0.39	13.2	#DIV/0!	#DIV/0!
BI-PBS-71-12C	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	2:06 PM	30.13743	-88.31410	232181.33830	1148382.08500	20-ft Vibracore	57.6	18.4	5.9-10.5	4.6	SC	SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.20	#VALUE!	15.3	#VALUE!	#VALUE!
BI-PBS-72-12	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	2:45 PM	30.13947	-88.32075	232913.75230	1146276.62800	20-ft Vibracore	58.7	16.8																	
BI-PBS-72-12A	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	2:45 PM	30.13947	-88.32075	232913.75230	1146276.62800	20-ft Vibracore	58.7	16.8	0-2.3	2.3	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.33	0.43	1.8	2.4	0.8
BI-PBS-72-12B	PETIT BOIS PASS - OCS EAST	2012	11/19/2012	2:45 PM	30.13947	-88.32075	232913.75230	1146276.62800	20-ft Vibracore	58.7	16.8	2.3-9.5	7.2	SC	SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.20	0.32	13.6	#VALUE!	#VALUE!
BI-PBS-73-12	PETIT BOIS PASS - OCS EAST	2012	11/20/2012	9:50 AM	30.14295	-88.32313	234176.00530	1145518.64600	20-ft Vibracore	55.4	19.4																	
BI-PBS-73-12A	PETIT BOIS PASS - OCS EAST	2012	11/20/2012	9:50 AM	30.14295	-88.32313	234176.00530	1145518.64600	20-ft Vibracore	55.4	19.4	0-2.9	2.9	SP	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.26	0.29	2.8	1.8	0.9
BI-PBS-73-12B	PETIT BOIS PASS - OCS EAST	2012	11/20/2012	9:50 AM	30.14295	-88.32313	234176.00530	1145518.64600	20-ft Vibracore	55.4	19.4	2.9-5.4	2.5	SP-SM	SM	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.20	0.27	13.4	#VALUE!	#VALUE!
BI-PBS-74-12	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	10:01 AM	30.14787	-88.32930	235956.66850	1143560.45800	20-ft Vibracore	55.9	17.6																	
BI-PBS-74-12A	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	10:01 AM	30.14787	-88.32930	235956.66850	1143560.45800	20-ft Vibracore	55.9	17.6	0-2.2	2.2	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.28	0.30	2.5	1.9	1.0
BI-PBS-74-12B	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	10:01 AM	30.14787	-88.32930	235956.66850	1143560.45800	20-ft Vibracore	55.9	17.6	2.2-4.4	2.2	SM	SM	ANGULAR TO SUBROUNDED	GRAY	5Y 5/1	5	LT OLIVE GRAY	5Y 6/2	6		0.18	#VALUE!	19.6	#VALUE!	#VALUE!
BI-PBS-75-12	PETIT BOIS PASS - OCS EAST	2012	11/20/2012	9:06 AM	30.14127	-88.32180	233566.89630	1145941.78600	20-ft Vibracore	56.7	19.1																	
BI-PBS-75-12A	PETIT BOIS PASS - OCS EAST	2012	11/20/2012	9:06 AM	30.14127	-88.32180	233566.89630	1145941.78600	20-ft Vibracore	56.7	19.1	0-3	3.0	SP	SP	ANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4.5/2	5	LT GRAY	5Y 6.5/2	7		0.23	0.31	3.6	1.8	0.9
BI-PBS-76-12	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	10:43 AM	30.14510	-88.32962	234948.81340	1143463.76200	20-ft Vibracore	52.8	19.4																	
BI-PBS-76-12A	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	10:43 AM	30.14510	-88.32962	234948.81340	1143463.76200	20-ft Vibracore	52.8	19.4	0-3.9	3.9	SP	SP	ANGULAR TO SUBROUNDED	LT OLIVE GRAY	5Y 6/2	6	LT GRAY	5Y 7/2	7		0.32	0.35	1.8	2.0	1.0
BI-PBS-76-12B	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	10:43 AM	30.14510	-88.32962	234948.81340	1143463.76200	20-ft Vibracore	52.8	19.4	3.9-5.4	1.5	SP	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.20	0.26	14.4	#VALUE!	#VALUE!
BI-PBS-76-12C	PETIT BOIS PASS - OCS EAST	2012	11/21/2012	10:43 AM	30.14510	-88.32962	234948.81340	1143463.76200	20-ft Vibracore	52.8	19.4	8-9	1.0	SP	SM	SUBANGULAR TO SUBROUNDED	DK GRAY	5Y 4/1	4	GRAYISH BROWN	2.5Y 5/2	5		0.21	#VALUE!	16.9	#VALUE!	#VALUE!
BI-PBS-77-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	11:16 AM	30.15473	-88.31553	238471.04710	1147901.49300	20-ft Vibracore	55.8	20.0																	
BI-PBS-77-12A	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	11:16 AM	30.15473	-88.31553	238471.04710	1147901.49300	20-ft Vibracore	55.8	20.0	0-1.9	1.9	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.25	0.27	4.6	2.3	1.1
BI-PBS-78-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	10:50 AM	30.15602	-88.32018	238933.56000	1146429.73200	20-ft Vibracore	53.9	18.2																	
BI-PBS-78-12A	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	10:50 AM	30.15602	-88.32018	238933.56000	1146429.73200	20-ft Vibracore	53.9	18.2	0-3.2	3.2	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.28	0.30	6.3	2.5	1.2
BI-PBS-79-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	9:55 AM	30.15715	-88.32458	239338.29520	1145037.28100	20-ft Vibracore	52.3	16.4																	
BI-PBS-79-12A	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	9:55 AM	30.15715	-88.32458	239338.29520	1145037.28100	20-ft Vibracore	52.3	16.4	0-1.9	1.9	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.27	0.29	1.9	1.8	0.9
BI-PBS-79-12C	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	9:55 AM	30.15715	-88.32458	239338.29520	1145037.28100	20-ft Vibracore	52.3	16.4	1.9-3.1	1.2	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.21	0.26	11.5	#VALUE!	#VALUE!
BI-PBS-80-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	9:24 AM	30.15858	-88.32878	239852.46920	1143707.58700	20-ft Vibracore	52.3	19.4																	
BI-PBS-80-12A	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	9:24 AM	30.15858	-88.32878	239852.46920	1143707.58700	20-ft Vibracore	52.3	19.4	0-2	2.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.26	0.29	1.9	1.8	0.9
BI-PBS-80-12B	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	9:24 AM	30.15858	-88.32878	239852.46920	1143707.58700	20-ft Vibracore	52.3	19.4	2-4.4	2.4	SC	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.23	0.32	11.6	#VALUE!	#VALUE!
BI-PBS-81-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	10:20 AM	30.16100	-88.32153	240742.80020	1145994.93700	20-ft Vibracore	52.0	16.9																	
BI-PBS-81-12A	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	10:20 AM	30.16100	-88.32153	240742.80020	1145994.93700	20-ft Vibracore	52.0	16.9	0-1.9	1.9	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.22	0.25	2.4	1.6	1.0
BI-PBS-81-12B	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	10:20 AM	30.16100	-88.32153	240742.80020	1145994.93700	20-ft Vibracore	52.0	16.9	1.9-3.6	1.7	SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.18	0.19	9.1	2.5	1.2
BI-PBS-82-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	11:46 AM	30.13952	-88.31872	232934.82480	1146918.23400	20-ft Vibracore	59.6	19.0	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-83-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	12:23 PM	30.13843	-88.33307	232518.23640	1142383.90800	20-ft Vibracore	52.4	19.6																	
BI-PBS-83-12A	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	12:23 PM	30.13843	-88.33307	232518.23640	1142383.90800	20-ft Vibracore	52.4	19.6	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.35	0.43	1.0	2.1	0.9
BI-PBS-83-12B	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	12:23 PM	30.13843	-88.33307	232518.23640	1142383.90800	20-ft Vibracore	52.4	19.6	5-7.7	2.7	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.24	0.34	5.2	2.0	1.0
BI-PBS-84-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	1:24 PM	30.12767	-88.33970	228595.86620	1140305.05500	20-ft Vibracore	63.7	15.5																	
BI-PBS-84-12A	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	1:24 PM	30.12767	-88.33970	228595.86620	1140305.05500	20-ft Vibracore	63.7	15.5	0-4.1	4.1	SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.20	#VALUE!	16.7	#VALUE!	#VALUE!
BI-PBS-84-12B	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	1:24 PM	30.12767	-88.33970	228595.86620	1140305.05500	20-ft Vibracore	63.7	15.5	4.1-6.2	2.1	SP	SP	SUBANGULAR TO SUBROUNDED	GRAY	2.5Y 5/1	5	GRAY	2.5Y 6/1	6		0.28	0.30	4.6	1.9	0.9
BI-PBS-85-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	3:27 PM	30.14058	-88.34798	233279.80360	1137667.45400	20-ft Vibracore	56.7	18.6																	
BI-PBS-85-12A	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	3:27 PM	30.14058	-88.34798	233279.80360	1137667.45400	20-ft Vibracore	56.7	18.6	0-1.6	1.6	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.30	0.38	1.2	2.0	0.9
BI-PBS-86-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	2:26 PM	30.13465	-88.34397	231128.56880	1138944.25600	20-ft Vibracore	54.7	17.8																	
BI-PBS-86-12A	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	2:26 PM	30.13465	-88.34397	231128.56880	1138944.25600	20-ft Vibracore	54.7	17.8	0-3.6	3.6	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.20	0.22	3.1	1.6	1.0
BI-PBS-86-12B	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	2:26 PM	30.13465	-88.34397	231128.56880	1138944.25600	20-ft Vibracore	54.7	17.8	3.6-5.9	2.3	SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.19	0.26	13.2	#VALUE!	#VALUE!
BI-PBS-87-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	2:56 PM	30.13585	-88.34023	231570.07900	1140124.64800	20-ft Vibracore	53.1	18.8																	
BI-PBS-87-12A	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	2:56 PM	30.13585	-88.34023	231570.07900	1140124.64800	20-ft Vibracore	53.1	18.8	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.26	0.29	1.5	1.8	0.9
BI-PBS-87-12B	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	2:56 PM	30.13585	-88.34023	231570.07900	1140124.64800	20-ft Vibracore	53.1	18.8	5-6.4	1.4	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.21	0.23	4.5	1.8	1.0
BI-PBS-88-12	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	1:56 PM	30.13237	-88.34248	230301.39140	1139418.83700	20-ft Vibracore	56.3	17.5																	
BI-PBS-88-12A	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	1:56 PM	30.13237	-88.34248	230301.39140	1139418.83700	20-ft Vibracore	56.3	17.5	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.23	0.26	2.6	1.8	1.0
BI-PBS-88-12B	PETIT BOIS PASS - OCS EAST	2012	12/18/2012	1:56 PM	30.13237	-88.34248	230301.39140	1139418.83700	20-ft Vibracore	56.3	17.5	5-6.1	1.1	SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.20	0.23	14.4	#VALUE!	#VALUE!
BI-PBS-94-12	PETIT BOIS PASS - OCS WEST	2012	1/5/2013	1:30 PM	30.14518	-88.46772	234811.60390	1099812.65500	20-ft Vibracore	40.0	19.5																	

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-94-12A	PETIT BOIS PASS - OCS WEST	2012	1/5/2013	1:30 PM	30.14518	-88.46772	234811.60390	1099812.65500	20-ft Vibracore	40.0	19.5	0.0-4.5	4.5	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.24	0.27	5.4	1.8	1.0
BI-PBS-94-12B	PETIT BOIS PASS - OCS WEST	2012	1/5/2013	1:30 PM	30.14518	-88.46772	234811.60390	1099812.65500	20-ft Vibracore	40.0	19.5	4.5-7.0	2.5	SP-SM	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT GRAY	5Y 7/2	7		0.33	0.36	1.1	1.6	1.0
BI-PBS-94-12C	PETIT BOIS PASS - OCS WEST	2012	1/5/2013	1:30 PM	30.14518	-88.46772	234811.60390	1099812.65500	20-ft Vibracore	40.0	19.5	7.0-10.0	3.0	SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.21	0.23	7.7	2.0	1.1
BI-PBS-95-12	PETIT BOIS PASS - OCS WEST	2012	1/5/2013	2:58 PM	30.16208	-88.45838	240967.42130	1102744.64800	20-ft Vibracore	43.8	17.9																	
BI-PBS-95-12A	PETIT BOIS PASS - OCS WEST	2012	1/5/2013	2:58 PM	30.16208	-88.45838	240967.42130	1102744.64800	20-ft Vibracore	43.8	17.9	0.0-2.2	2.2	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.32	0.32	1.2	1.6	1.1
BI-PBS-95-12B	PETIT BOIS PASS - OCS WEST	2012	1/5/2013	2:58 PM	30.16208	-88.45838	240967.42130	1102744.64800	20-ft Vibracore	43.8	17.9	2.2-4.2	2.0	SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.20	0.21	10.5	#VALUE!	#VALUE!
BI-PBS-99-12	PETIT BOIS PASS - OCS WEST	2012	1/12/2013	9:21 AM	30.14097	-88.42232	233329.34110	1114168.26800	20-ft Vibracore	43.4	18.3																	
BI-PBS-99-12A	PETIT BOIS PASS - OCS WEST	2012	1/12/2013	9:21 AM	30.14097	-88.42232	233329.34110	1114168.26800	20-ft Vibracore	43.4	18.3	0-3.8	3.8	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.30	0.31	2.1	1.7	1.0
BI-PBS-99-12B	PETIT BOIS PASS - OCS WEST	2012	1/12/2013	9:21 AM	30.14097	-88.42232	233329.34110	1114168.26800	20-ft Vibracore	43.4	18.3	3.8-6.3	2.5	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.32	0.33	2.0	1.5	1.1
BI-PBS-99-12C	PETIT BOIS PASS - OCS WEST	2012	1/12/2013	9:21 AM	30.14097	-88.42232	233329.34110	1114168.26800	20-ft Vibracore	43.4	18.3	6.3-8.7	2.4	SP-SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.26	1.67	12.5	#VALUE!	#VALUE!
BI-PBS-101-12	PETIT BOIS PASS - OCS WEST	2012	1/12/2013	10:09 AM	30.13187	-88.39965	230046.35030	1121346.73100	20-ft Vibracore	47.3	15.0																	
BI-PBS-101-12A	PETIT BOIS PASS - OCS WEST	2012	1/12/2013	10:09 AM	30.13187	-88.39965	230046.35030	1121346.73100	20-ft Vibracore	47.3	15.0	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.31	0.33	1.8	1.7	1.0
BI-PBS-101-12B	PETIT BOIS PASS - OCS WEST	2012	1/12/2013	10:09 AM	30.13187	-88.39965	230046.35030	1121346.73100	20-ft Vibracore	47.3	15.0	5-6.8	1.8	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.30	0.30	1.9	1.6	1.0
BI-PBS-104-12	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	1:56 PM	30.13105	-88.34075	229823.68440	1139967.80400	20-ft Vibracore	60.1	18.2																	
BI-PBS-104-12A	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	1:56 PM	30.13105	-88.34075	229823.68440	1139967.80400	20-ft Vibracore	60.1	18.2	0.0-1.0	1.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.28	0.29	1.9	1.8	1.0
BI-PBS-104-12B	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	1:56 PM	30.13105	-88.34075	229823.68440	1139967.80400	20-ft Vibracore	60.1	18.2	1.0-4.1	3.1	SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.21	0.23	12.9	#VALUE!	#VALUE!
BI-PBS-104-12C	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	1:56 PM	30.13105	-88.34075	229823.68440	1139967.80400	20-ft Vibracore	60.1	18.2	4.1-6.7	2.6	SC	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.24	#VALUE!	21.9	#VALUE!	#VALUE!
BI-PBS-105-12	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	3:42 PM	30.13542	-88.33660	231418.67110	1141272.82100	20-ft Vibracore	59.8	18.5																	
BI-PBS-105-12A	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	3:42 PM	30.13542	-88.33660	231418.67110	1141272.82100	20-ft Vibracore	59.8	18.5	0.0-1.5	1.5	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.26	0.28	2.1	1.7	0.9
BI-PBS-106A-12	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	2:58 PM	30.13698	-88.33967	231981.80780	1140299.89400	20-ft Vibracore	58.4	20.2																	
BI-PBS-106A-12A	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	2:58 PM	30.13698	-88.33967	231981.80780	1140299.89400	20-ft Vibracore	58.4	20.2	0.0-1.1	1.1	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE	5Y 5/3	5	PALE OLIVE	5Y 6/3	6		0.50	0.65	2.5	3.1	1.2
BI-PBS-107-12	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	1:06 PM	30.11680	-88.36145	224613.55030	1133445.36700	20-ft Vibracore	62.5	17.3																	
BI-PBS-107-12A	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	1:06 PM	30.11680	-88.36145	224613.55030	1133445.36700	20-ft Vibracore	62.5	17.3	6.0-8.1	2.1	SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.22	#VALUE!	15.1	#VALUE!	#VALUE!
BI-PBS-107-12B	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	1:06 PM	30.11680	-88.36145	224613.55030	1133445.36700	20-ft Vibracore	62.5	17.3	8.7-11.1	2.4	SM	SM	SUBANGULAR TO SUBROUNDED	DK GRAY	5Y 4/1	4	GRAY	5Y 5/1	5		0.29	0.32	13.3	#VALUE!	#VALUE!
BI-PBS-107-12C	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	1:06 PM	30.11680	-88.36145	224613.55030	1133445.36700	20-ft Vibracore	62.5	17.3	11.1-17.3	6.2	SP	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.20	0.21	6.7	1.8	1.2
BI-PBS-108-12	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	3:13 PM	30.13308	-88.33728	230566.71450	1141061.56200	20-ft Vibracore	59.1	17.5																	
BI-PBS-108-12A	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	3:13 PM	30.13308	-88.33728	230566.71450	1141061.56200	20-ft Vibracore	59.1	17.5	0.0-2.7	2.7	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.24	0.28	4.4	1.8	0.9
BI-PBS-108-12B	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	3:13 PM	30.13308	-88.33728	230566.71450	1141061.56200	20-ft Vibracore	59.1	17.5	2.7-4.1	1.4	SC	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.23	#VALUE!	27.7	#VALUE!	#VALUE!
BI-PBS-109-12	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	2:37 PM	30.12998	-88.33345	229444.57560	1142277.24800	20-ft Vibracore	60.4	16.6																	
BI-PBS-109-12A	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	2:37 PM	30.12998	-88.33345	229444.57560	1142277.24800	20-ft Vibracore	60.4	16.6	0.0-2.3	2.3	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.24	0.27	3.5	1.7	0.9
BI-PBS-109-12B	PETIT BOIS PASS - OCS EAST	2012	1/4/2013	2:37 PM	30.12998	-88.33345	229444.57560	1142277.24800	20-ft Vibracore	60.4	16.6	2.3-5.9	3.6	SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.24	#VALUE!	22.2	#VALUE!	#VALUE!
BI-PBS-110-12	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	11:47 AM	30.15670	-88.35607	239131.61470	1135085.69300	20-ft Vibracore	51.4	18.3																	
BI-PBS-110-12A	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	11:47 AM	30.15670	-88.35607	239131.61470	1135085.69300	20-ft Vibracore	51.4	18.3	0.0-2.3	2.3	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.30	0.30	2.6	1.8	1.0
BI-PBS-110-12B	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	11:47 AM	30.15670	-88.35607	239131.61470	1135085.69300	20-ft Vibracore	51.4	18.3	2.3-12.5	10.2	SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.21	0.22	14.5	#VALUE!	#VALUE!
BI-PBS-111-12	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	12:21 PM	30.15215	-88.34733	237488.51180	1137854.99200	20-ft Vibracore	52.0	19.9																	
BI-PBS-111-12A	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	12:21 PM	30.15215	-88.34733	237488.51180	1137854.99200	20-ft Vibracore	52.0	19.9	0-4	4.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	LT OLIVE GRAY	5Y 6/2	6		0.30	0.34	3.7	2.1	1.0
BI-PBS-111-12B	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	12:21 PM	30.15215	-88.34733	237488.51180	1137854.99200	20-ft Vibracore	52.0	19.9	6.4-12.8	6.4	SM	SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.20	#VALUE!	15.7	#VALUE!	#VALUE!
BI-PBS-112-12	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	11:05 AM	30.15337	-88.36170	237913.14180	1133311.35900	20-ft Vibracore	49.0	20.2																	
BI-PBS-112-12A	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	11:05 AM	30.15337	-88.36170	237913.14180	1133311.35900	20-ft Vibracore	49.0	20.2	0-5	5.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.33	0.35	2.3	1.8	1.0
BI-PBS-112-12B	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	11:05 AM	30.15337	-88.36170	237913.14180	1133311.35900	20-ft Vibracore	49.0	20.2	5-6.6	1.6	SP-SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.31	0.42	7.6	2.8	1.1
BI-PBS-112-12C	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	11:05 AM	30.15337	-88.36170	237913.14180	1133311.35900	20-ft Vibracore	49.0	20.2	9-14	5.0	SP-SM	SM	SUBANGULAR TO SUBROUNDED	VERY DK GRAY	5Y 3/1	3	GRAY	5Y 5/1	5		0.22	0.24	12.7	#VALUE!	#VALUE!
BI-PBS-112-12D	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	11:05 AM	30.15337	-88.36170	237913.14180	1133311.35900	20-ft Vibracore	49.0	20.2	14-17.8	3.8	SM	SP-SM	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 4/2	4	OLIVE GRAY	5Y 5/2	5		0.23	0.28	11.2	#VALUE!	#VALUE!
BI-PBS-112-12E	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	11:05 AM	30.15337	-88.36170	237913.14180	1133311.35900	20-ft Vibracore	49.0	20.2	17.8-20.2	2.4	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.24	0.26	4.9	1.9	1.0
BI-PBS-113-12	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	1:25 PM	30.14692	-88.35445	235576.92210	1135612.62100	20-ft Vibracore	51.0	20.2																	
BI-PBS-113-12A	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	1:25 PM	30.14692	-88.35445	235576.92210	1135612.62100	20-ft Vibracore	51.0	20.2	0-5.2	5.2	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.30	0.34	2.6	1.9	0.9
BI-PBS-113-12B	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	1:25 PM	30.14692	-88.35445	235576.92210	1135612.62100	20-ft Vibracore	51.0	20.2	5.2-8.9	3.7	SC	SM	SUBANGULAR TO SUBROUNDED	DK GRAY	5Y 4/1	4	GRAY	5Y 5/1	5		0.24	#VALUE!	16.0	#VALUE!	#VALUE!
BI-PBS-114-12	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	3:38 PM	30.13590	-88.33280	231598.48830	1142473.29200	20-ft Vibracore	57.3	18.4																	
BI-PBS-114-12A	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	3:38 PM	30.13590	-88.33280	231598.48830	1142473.29200	20-ft Vibracore	57.3	18.4	0-3	3.0	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE GRAY	5Y 5/2	5	LT OLIVE GRAY	5Y 6/2	6		0.66	1.43	3.5	3.8	1.1
BI-PBS-115-12	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	2:04 PM	30.14577	-88.34943	235165.38000	1137201.10600	20-ft Vibracore	54.0	20.0																	
BI-PBS-115-12A	PETIT BOIS PASS - OCS EAST	2012	1/12/2013	2:04 PM	30.14577	-88.34943	235165.38000	1137201.10600	20-ft Vibracore	54.0	20.0	0-1.7	1.7	SP	SP	SUBANGULAR TO SUBROUNDED	OLIVE	5Y 5/3	5	PALE OLIVE	5Y 6/3	6		0.37	0.41	2.1	1.8	1.0

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-120-13	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	10:27 AM	30.14218	-88.35563	233851.49380	1135246.86700	20-ft Vibracore	49.0	18.4																	
BI-PBS-120-13A	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	10:27 AM	30.14218	-88.35563	233851.49380	1135246.86700	20-ft Vibracore	49.0	18.4	0-3.0	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Light Greenish Gray	GLEY1 10Y 7/1	7		0.34	0.43	1.7	2.3	1.0
BI-PBS-120-13B	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	10:27 AM	30.14218	-88.35563	233851.49380	1135246.86700	20-ft Vibracore	49.0	18.4	3.0-6.0	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Greenish Gray	GLEY1 10Y 6/1	6		0.31	0.40	1.9	2.3	0.9
BI-PBS-120-13C	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	10:27 AM	30.14218	-88.35563	233851.49380	1135246.86700	20-ft Vibracore	49.0	18.4	6.0-8.1	2.1	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		0.19	0.23	11.1	#DIV/0!	#DIV/0!
BI-PBS-121-13	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	4:03 PM	30.14771	-88.37157	235841.92400	1130200.21000	20-ft Vibracore	52.0	18.2																	
BI-PBS-121-13A	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	4:03 PM	30.14771	-88.37157	235841.92400	1130200.21000	20-ft Vibracore	52.0	18.2	0.0-2.0	2.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.22	0.26	3.6	1.6	0.9
BI-PBS-121-13B	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	4:03 PM	30.14771	-88.37157	235841.92400	1130200.21000	20-ft Vibracore	52.0	18.2	2.0-3.4	1.4	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 6/1	6		0.20	0.25	10.5	#DIV/0!	#DIV/0!
BI-PBS-122-13	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	8:30 AM	30.13935	-88.35336	232825.27830	1135968.72800	20-ft Vibracore	48.0	17.4																	
BI-PBS-122-13A	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	8:30 AM	30.13935	-88.35336	232825.27830	1135968.72800	20-ft Vibracore	48.0	17.4	0.0-5.0	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Greenish Gray	GLEY1 10Y 6/1	6		0.25	0.29	2.5	1.9	0.9
BI-PBS-122-13B	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	8:30 AM	30.13935	-88.35336	232825.27830	1135968.72800	20-ft Vibracore	48.0	17.4	5.0-8.4	3.4	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Greenish Gray	10Y 3/1	3	Greenish Gray	GLEY1 10Y 5/1	5		0.19	0.23	11.9	#DIV/0!	#DIV/0!
BI-PBS-123-13	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	1:39 PM	30.14610	-88.36832	235260.56480	1131229.84000	20-ft Vibracore	50.0	20.0																	
BI-PBS-123-13A	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	1:39 PM	30.14610	-88.36832	235260.56480	1131229.84000	20-ft Vibracore	50.0	20.0	0.0-2.3	2.3	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 6/1	6		0.21	0.25	6.1	2.0	1.1
BI-PBS-123-13B	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	1:39 PM	30.14610	-88.36832	235260.56480	1131229.84000	20-ft Vibracore	50.0	20.0	2.3-5.7	3.4	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.19	0.29	14.6	#DIV/0!	#DIV/0!
BI-PBS-124-13	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	12:18 PM	30.14296	-88.36259	234126.02370	1133045.69100	20-ft Vibracore	46.0	18.7																	
BI-PBS-124-13A	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	12:18 PM	30.14296	-88.36259	234126.02370	1133045.69100	20-ft Vibracore	46.0	18.7	0.0-4.0	4.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Light Greenish Gray	GLEY1 10Y 7/1	7		0.31	0.38	1.8	2.1	0.9
BI-PBS-124-13B	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	12:18 PM	30.14296	-88.36259	234126.02370	1133045.69100	20-ft Vibracore	46.0	18.7	4.0-7.8	3.8	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Light Greenish Gray	GLEY1 10Y 7/1	7		0.36	0.45	1.5	2.3	1.0
BI-PBS-124-13C	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	12:18 PM	30.14296	-88.36259	234126.02370	1133045.69100	20-ft Vibracore	46.0	18.7	7.8-10.5	2.7	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		0.19	0.24	9.2	2.6	1.4
BI-PBS-127-13	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	1:05 PM	30.15206	-88.35036	237451.71240	1136897.46500	20-ft Vibracore	55.0	16.6																	
BI-PBS-127-13A	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	1:05 PM	30.15206	-88.35036	237451.71240	1136897.46500	20-ft Vibracore	55.0	16.6	0-1.0	1.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Gray	2.5Y 6/1	6		0.20	0.26	3.8	2.1	1.0
BI-PBS-127-13B	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	1:05 PM	30.15206	-88.35036	237451.71240	1136897.46500	20-ft Vibracore	55.0	16.6	1.0-4.2	3.2	SM-SC	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		0.16	0.21	23.4	#DIV/0!	#DIV/0!
BI-PBS-127-13C	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	1:05 PM	30.15206	-88.35036	237451.71240	1136897.46500	20-ft Vibracore	55.0	16.6	4.2-10.7	6.5	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.23	0.26	14.6	#DIV/0!	#DIV/0!
BI-PBS-127-13D	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	1:05 PM	30.15206	-88.35036	237451.71240	1136897.46500	20-ft Vibracore	55.0	16.6	10.7-12.7	2.0	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.17	0.17	8.7	2.3	1.2
BI-PBS-127-13E	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	1:05 PM	30.15206	-88.35036	237451.71240	1136897.46500	20-ft Vibracore	55.0	16.6	12.7-15.9	3.2	SM-SC	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.15	0.16	23.8	#DIV/0!	#DIV/0!
BI-PBS-127-13F	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	1:05 PM	30.15206	-88.35036	237451.71240	1136897.46500	20-ft Vibracore	55.0	16.6	15.9-16.6	0.7	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	5Y 5/1	5	Gray	2.5Y 6/1	6		0.39	0.42	10.8	#DIV/0!	#DIV/0!
BI-PBS-128-13	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	2:37 PM	30.15009	-88.34806	236738.33820	1137627.45500	20-ft Vibracore	57.0	19.2																	
BI-PBS-128-13A	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	2:37 PM	30.15009	-88.34806	236738.33820	1137627.45500	20-ft Vibracore	57.0	19.2	0.0-4.5	4.5	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.19	0.21	16.1	#DIV/0!	#DIV/0!
BI-PBS-128-13B	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	2:37 PM	30.15009	-88.34806	236738.33820	1137627.45500	20-ft Vibracore	57.0	19.2	4.5-8.8	4.3	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.24	0.38	11.8	#DIV/0!	#DIV/0!
BI-PBS-128-13C	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	2:37 PM	30.15009	-88.34806	236738.33820	1137627.45500	20-ft Vibracore	57.0	19.2	8.8-10.0	1.2	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.21	0.23	11.0	#DIV/0!	#DIV/0!
BI-PBS-131-13	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	9:10 AM	30.15479	-88.35113	238443.54320	1136649.90000	20-ft Vibracore	55.0	20.0																	
BI-PBS-131-13A	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	9:10 AM	30.15479	-88.35113	238443.54320	1136649.90000	20-ft Vibracore	55.0	20.0	0.0-3.0	3.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.20	0.19	15.6	#DIV/0!	#DIV/0!
BI-PBS-131-13B	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	9:10 AM	30.15479	-88.35113	238443.54320	1136649.90000	20-ft Vibracore	55.0	20.0	3.0-8.0	5.0	SP-SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.14	0.13	19.1	#DIV/0!	#DIV/0!
BI-PBS-131-13C	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	9:10 AM	30.15479	-88.35113	238443.54320	1136649.90000	20-ft Vibracore	55.0	20.0	8.0-11.0	3.0	SP	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	2.5Y 3/1	3	Gray	2.5Y 6/1	6		0.21	0.23	14.0	#DIV/0!	#DIV/0!
BI-PBS-131-13D	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	9:10 AM	30.15479	-88.35113	238443.54320	1136649.90000	20-ft Vibracore	55.0	20.0	11.0-14.0	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.34	0.40	3.0	2.2	1.1
BI-PBS-131-13E	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	9:10 AM	30.15479	-88.35113	238443.54320	1136649.90000	20-ft Vibracore	55.0	20.0	14.0-17.0	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.41	0.47	1.4	2.7	1.0
BI-PBS-131-13F	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	9:10 AM	30.15479	-88.35113	238443.54320	1136649.90000	20-ft Vibracore	55.0	20.0	17.0-20.0	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	10Y 4/1	4	Light Gray	2.5Y 7/1	7		0.49	0.53	1.5	2.5	0.9
BI-PBS-132-13	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	11:23 AM	30.15301	-88.35248	237794.38230	1136225.95800	20-ft Vibracore	55.0	16.1																	
BI-PBS-132-13A	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	11:23 AM	30.15301	-88.35248	237794.38230	1136225.95800	20-ft Vibracore	55.0	16.1	0.0-1.0	1.0	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 6/1	6		0.22	0.26	6.5	2.3	1.1
BI-PBS-132-13B	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	11:23 AM	30.15301	-88.35248	237794.38230	1136225.95800	20-ft Vibracore	55.0	16.1	1.0-5.0	4.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.21	0.29	10.9	#DIV/0!	#DIV/0!
BI-PBS-132-13C	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	11:23 AM	30.15301	-88.35248	237794.38230	1136225.95800	20-ft Vibracore	55.0	16.1	5.0-9.0	4.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.26	0.24	15.1	#DIV/0!	#DIV/0!
BI-PBS-132-13D	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	11:23 AM	30.15301	-88.35248	237794.38230	1136225.95800	20-ft Vibracore	55.0	16.1	9.0-10.2	1.2	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.15	0.16	11.2	#DIV/0!	#DIV/0!
BI-PBS-132-13E	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	11:23 AM	30.15301	-88.35248	237794.38230	1136225.95800	20-ft Vibracore	55.0	16.1	10.2-12.0	1.8	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.12	0.13	27.4	#DIV/0!	#DIV/0!
BI-PBS-134-13	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	3:29 PM	30.14916	-88.35058	236396.73160	1136832.39500	20-ft Vibracore	57.0	18.7	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-135-13	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	2:37 PM	30.14383	-88.37227	234429.93460	1129984.66000	20-ft Vibracore	56.0	19.9																	
BI-PBS-135-13A	PETIT BOIS PASS - OCS EAST	2013	12/1/2013	2:37 PM	30.14383	-88.37227	234429.93460	1129984.66000	20-ft Vibracore	56.0	19.9	0.0-1.5	1.5	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		0.18	0.22	14.4	#DIV/0!	#DIV/0!
BI-PBS-136-13	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	2:20 PM	30.16487	-88.46567	241974.59510	1100437.53800	20-ft Vibracore	45.4	20.0																	
BI-PBS-136-13A	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	2:20 PM	30.16487	-88.46567	241974.59510	1100437.53800	20-ft Vibracore	45.4	20.0	0.0-0.7	0.7	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Gray	2.5Y 5/1	5		0.27	1.14	3.5	2.5	0.7
BI-PBS-136-13B	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	2:20 PM	30.16487	-88.46567	241974.59510	1100437.53800	20-ft Vibracore	45.4	20.0	0.7-7.9	7.2	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Gray	2.5Y 5/1	5		0.17	0.15	15.1	#DIV/0!	#DIV/0!
BI-PBS-137-13	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	4:12 PM	30.15377	-88.46246	237941.00100	1101465.08500	20-ft Vibracore	48.0	11.4																	
BI-PBS-137-13A	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	4:12 PM	30.15377	-88.46246	237941.00100	1101465.08500	20-ft Vibracore	48.0	11.4	0.0-0.6	0.6	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Greenish Gray	5GY 3/1	3	Gray	2.5Y 5/1	5		0.26	0.47	3.3	2.1	0.8
BI-PBS-137-13B	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	4:12 PM	30.15377	-88.46246	237941.00100	1101465.08500	20-ft Vibracore	48.0	11.4	0.6-1.5	0.9	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Greenish Gray	5GY 3/1	3	Gray	2.5Y 5/1	5		0.19	0.22	10.0	#DIV/0!	#DIV/0!

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-137-13C	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	4:12 PM	30.15377	-88.46246	237941.00100	1101465.08500	20-ft Vibracore	48.0	11.4	1.5-2.4	0.9	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Greenish Gray	5GY 3/1	3	Greenish Gray	GLEY1 10Y 6/1	6		0.16	0.19	13.8	#DIV/0!	#DIV/0!
BI-PBS-138-13	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	10:29 AM	30.12693	-88.41882	228227.24260	1115293.14700	20-ft Vibracore	58.2	19.9	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-144-13	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	4:28 PM	30.14593	-88.36170	235207.32800	1133322.54600	20-ft Vibracore	50.0	18.7																	
BI-PBS-144-13A	PETIT BOIS PASS - OCS EAST	2013	11/30/2013	4:28 PM	30.14593	-88.36170	235207.32800	1133322.54600	20-ft Vibracore	50.0	18.7	0.0-4.2	4.2	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Light Greenish Gray	GLEY1 10Y 7/1	7		0.33	0.49	1.4	2.3	0.9
BI-PBS-153-13	PETIT BOIS PASS - OCS WEST	2013	12/8/2013	2:56 PM	30.12916	-88.41622	229041.24780	1116112.14800	20-ft Vibracore	56.3	19.2																	
BI-PBS-153-13A	PETIT BOIS PASS - OCS WEST	2013	12/8/2013	2:56 PM	30.12916	-88.41622	229041.24780	1116112.14800	20-ft Vibracore	56.3	19.2	0.0-0.8	0.8	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.21	0.26	7.0	2.1	1.2
BI-PBS-154-13	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	4:03 PM	30.15989	-88.46614	240162.97550	1100294.84100	20-ft Vibracore	48.1	15.2																	
BI-PBS-154-13A	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	4:03 PM	30.15989	-88.46614	240162.97550	1100294.84100	20-ft Vibracore	48.1	15.2	0.0-0.5	0.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.27	0.27	1.5	1.9	0.9
BI-PBS-154-13B	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	4:03 PM	30.15989	-88.46614	240162.97550	1100294.84100	20-ft Vibracore	48.1	15.2	0.5-1.7	1.2	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	GLEY1 10Y 6/1	6		0.25	0.27	5.7	2.0	0.9
BI-PBS-154-13C	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	4:03 PM	30.15989	-88.46614	240162.97550	1100294.84100	20-ft Vibracore	48.1	15.2	1.7-6.0	4.3	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Greenish Gray	GLEY1 10Y 5/1	5		0.15	0.14	18.1	#DIV/0!	#DIV/0!
BI-PBS-155-13	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	3:17 PM	30.16573	-88.46123	242291.91430	1101839.63800	20-ft Vibracore	47.1	12.1																	
BI-PBS-155-13A	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	3:17 PM	30.16573	-88.46123	242291.91430	1101839.63800	20-ft Vibracore	47.1	12.1	0.0-1.7	1.7	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.19	0.22	8.8	2.7	1.3
BI-PBS-160-13	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	2:40 PM	30.12543	-88.40632	227696.28540	1119246.94100	20-ft Vibracore	53.0	18.5																	
BI-PBS-160-13A	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	2:40 PM	30.12543	-88.40632	227696.28540	1119246.94100	20-ft Vibracore	53.0	18.5	0.0-5.6	5.6	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Greenish Gray	GLEY1 10Y 6/1	6		0.33	0.41	1.6	2.2	0.9
BI-PBS-160-13B	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	2:40 PM	30.12543	-88.40632	227696.28540	1119246.94100	20-ft Vibracore	53.0	18.5	5.6-6.2	0.6	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Greenish Gray	GLEY1 10Y 6/1	6		0.26	0.35	3.9	2.0	0.8
BI-PBS-160-13C	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	2:40 PM	30.12543	-88.40632	227696.28540	1119246.94100	20-ft Vibracore	53.0	18.5	6.2-8.9	2.7	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		0.20	0.23	10.4	#DIV/0!	#DIV/0!
BI-PBS-161-13	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	9:14 AM	30.12661	-88.41508	228115.17720	1116475.93800	20-ft Vibracore	57.0	18.3																	
BI-PBS-161-13A	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	9:14 AM	30.12661	-88.41508	228115.17720	1116475.93800	20-ft Vibracore	57.0	18.3	0.0-1.5	1.5	SC-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		0.21	0.29	11.5	#DIV/0!	#DIV/0!
BI-PBS-162-13	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	3:55 PM	30.12216	-88.40470	226508.96420	1119763.56100	20-ft Vibracore	57.0	19.3																	
BI-PBS-162-13A	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	3:55 PM	30.12216	-88.40470	226508.96420	1119763.56100	20-ft Vibracore	57.0	19.3	0.0-3.1	3.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 6/1	6		0.21	0.25	4.2	1.6	0.9
BI-PBS-162-13B	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	3:55 PM	30.12216	-88.40470	226508.96420	1119763.56100	20-ft Vibracore	57.0	19.3	3.1-5.5	2.4	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.20	0.24	11.1	#DIV/0!	#DIV/0!
BI-PBS-163-13	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	3:17 PM	30.11750	-88.39417	224826.85760	1123099.19900	20-ft Vibracore	54.6	16.7																	
BI-PBS-163-13A	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	3:17 PM	30.11750	-88.39417	224826.85760	1123099.19900	20-ft Vibracore	54.6	16.7	0.0-1.0	1.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.22	0.26	2.8	1.6	0.9
BI-PBS-163-13B	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	3:17 PM	30.11750	-88.39417	224826.85760	1123099.19900	20-ft Vibracore	54.6	16.7	1.0-2.5	1.5	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 5/1	5		0.20	0.23	9.6	2.7	1.5
BI-PBS-164-13	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	1:59 PM	30.11353	-88.39271	223384.81850	1123566.38000	20-ft Vibracore	54.3	19.2																	
BI-PBS-164-13A	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	1:59 PM	30.11353	-88.39271	223384.81850	1123566.38000	20-ft Vibracore	54.3	19.2	0.0-3.8	3.8	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.21	0.24	2.8	1.5	0.9
BI-PBS-164-13B	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	1:59 PM	30.11353	-88.39271	223384.81850	1123566.38000	20-ft Vibracore	54.3	19.2	3.8-4.4	0.6	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.21	0.25	8.7	2.2	1.2
BI-PBS-165-13	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	12:44 PM	30.11660	-88.39751	224495.49780	1122044.43900	20-ft Vibracore	55.6	15.0																	
BI-PBS-165-13A	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	12:44 PM	30.11660	-88.39751	224495.49780	1122044.43900	20-ft Vibracore	55.6	15.0	0.0-2.5	2.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 7/1	**7**	Light Greenish Gray	GLEY1 10Y 7/1	7		0.21	0.24	4.0	1.6	1.0
BI-PBS-165-13B	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	12:44 PM	30.11660	-88.39751	224495.49780	1122044.43900	20-ft Vibracore	55.6	15.0	2.5-2.8	0.3	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 5/1	5		0.26	0.35	11.3	#DIV/0!	#DIV/0!
BI-PBS-166-13	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	10:06 AM	30.12222	-88.40137	226534.75310	1120816.27700	20-ft Vibracore	52.5	12.9																	
BI-PBS-166-13A	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	10:06 AM	30.12222	-88.40137	226534.75310	1120816.27700	20-ft Vibracore	52.5	12.9	0.0-3.6	3.6	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Greenish Gray	10Y 7/1	7		0.24	0.27	2.7	1.8	0.9
BI-PBS-169-13	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	12:38 PM	30.16177	-88.46171	240851.23460	1101692.64500	20-ft Vibracore	45.1	17.7																	
BI-PBS-169-13A	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	12:38 PM	30.16177	-88.46171	240851.23460	1101692.64500	20-ft Vibracore	45.1	17.7	0.0-2.7	2.7	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Light Greenish Gray	GLEY1 10Y 7/1	7		0.26	0.27	1.2	1.8	0.9
BI-PBS-169-13B	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	12:38 PM	30.16177	-88.46171	240851.23460	1101692.64500	20-ft Vibracore	45.1	17.7	2.7-7.5	4.8	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.22	0.38	9.7	3.4	1.4
BI-PBS-170-13	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	2:47 PM	30.15808	-88.46185	239509.10060	1101652.77200	20-ft Vibracore	50.0	16.5																	
BI-PBS-170-13A	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	2:47 PM	30.15808	-88.46185	239509.10060	1101652.77200	20-ft Vibracore	50.0	16.5	0.0-3.2	3.2	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Greenish Gray	GLEY1 10Y 5/1	5		0.17	0.16	16.4	#DIV/0!	#DIV/0!
BI-PBS-171-13	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	1:07 PM	30.15775	-88.45673	239394.39230	1103271.29400	20-ft Vibracore	46.8	9.8																	
BI-PBS-171-13A	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	1:07 PM	30.15775	-88.45673	239394.39230	1103271.29400	20-ft Vibracore	46.8	9.8	0.0-0.8	0.8	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.25	0.30	3.2	1.8	0.9
BI-PBS-171-13B	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	1:07 PM	30.15775	-88.45673	239394.39230	1103271.29400	20-ft Vibracore	46.8	9.8	0.8-1.5	0.7	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Greenish Gray	GLEY1 10Y 5/1	5		0.20	0.24	9.8	3.0	1.5
BI-PBS-172-13	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	1:14 PM	30.16420	-88.48682	241709.99580	1093754.49600	20-ft Vibracore	45.1	16.8																	
BI-PBS-172-13A	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	1:14 PM	30.16420	-88.48682	241709.99580	1093754.49600	20-ft Vibracore	45.1	16.8	0.0-0.8	0.8	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Greenish Gray	10Y 3/1	3	Gray	2.5Y 6/1	6		0.22	0.25	1.2	1.6	0.9
BI-PBS-172-13B	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	1:14 PM	30.16420	-88.48682	241709.99580	1093754.49600	20-ft Vibracore	45.1	16.8	0.8-5.8	5.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Gray	2.5Y 5/1	5		0.18	0.19	10.9	#DIV/0!	#DIV/0!
BI-PBS-172-13C	PETIT BOIS PASS - OCS WEST	2013	12/30/2013	1:14 PM	30.16420	-88.48682	241709.99580	1093754.49600	20-ft Vibracore	45.1	16.8	5.8-10.5	4.7	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Gray	2.5Y 5/1	5		0.15	0.13	16.8	#DIV/0!	#DIV/0!
BI-PBS-173-13	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	10:39 AM	30.16127	-88.45609	240675.22490	1103469.32500	20-ft Vibracore	45.0	15.3																	
BI-PBS-173-13A	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	10:39 AM	30.16127	-88.45609	240675.22490	1103469.32500	20-ft Vibracore	45.0	15.3	0.0-2.3	2.3	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Gray	2.5Y 6/1	6		0.31	0.30	1.3	1.9	1.1
BI-PBS-173-13B	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	10:39 AM	30.16127	-88.45609	240675.22490	1103469.32500	20-ft Vibracore	45.0	15.3	2.3-4.2	1.9	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Greenish Gray	GLEY1 10Y 7/1	7		0.20	0.23	10.8	#DIV/0!	#DIV/0!
BI-PBS-174-13	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	11:06 AM	30.15491	-88.45454	238363.82530	1103966.85400	20-ft Vibracore	49.0	14.7																	
BI-PBS-174-13A	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	11:06 AM	30.15491	-88.45454	238363.82530	1103966.85400	20-ft Vibracore	49.0	14.7	0.5-1.8	1.3	SC-SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 6/1	6		0.22	0.32	15.3	#DIV/0!	#DIV/0!
BI-PBS-175-13	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	2:17 PM	30.15808	-88.45164	239519.75570	1104879.54200	20-ft Vibracore	44.8	16.6																	

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-175-13A	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	2:17 PM	30.15808	-88.45164	239519.75570	1104879.54200	20-ft Vibracore	44.8	16.6	0.0-2.7	2.7	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Light Greenish Gray	GLEY1 10Y 7/1	7		0.32	0.32	0.8	1.8	1.1
BI-PBS-175-13B	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	2:17 PM	30.15808	-88.45164	239519.75570	1104879.54200	20-ft Vibracore	44.8	16.6	2.7-5.4	2.7	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Light Greenish Gray	GLEY1 10Y 7/1	7		0.33	0.43	0.8	1.9	1.1
BI-PBS-175-13C	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	2:17 PM	30.15808	-88.45164	239519.75570	1104879.54200	20-ft Vibracore	44.8	16.6	5.4-9.0	3.6	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	GLEY1 10Y 5/1	5		0.18	0.17	15.4	#DIV/0!	#DIV/0!
BI-PBS-176-13	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	9:34 AM	30.16060	-88.44859	240439.47610	1105840.37200	20-ft Vibracore	50.1	19.8																	
BI-PBS-176-13A	PETIT BOIS PASS - OCS WEST	2013	12/29/2013	9:34 AM	30.16060	-88.44859	240439.47610	1105840.37200	20-ft Vibracore	50.1	19.8	0.0-3.2	3.2	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		0.14	0.14	22.4	#DIV/0!	#DIV/0!
BI-PBS-177-13	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	12:09 PM	30.15762	-88.44303	239361.67130	1107601.22100	20-ft Vibracore	50.4	11.5																	
BI-PBS-177-13A	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	12:09 PM	30.15762	-88.44303	239361.67130	1107601.22100	20-ft Vibracore	50.4	11.5	0.0-0.3	0.3	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray & Light Greenish Gray	10Y 5/1	5	Greenish Gray	GLEY1 10Y 5/1	5		0.21	0.25	17.1	#DIV/0!	#DIV/0!
BI-PBS-178-13	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	1:38 PM	30.15356	-88.44260	237885.58350	1107742.17700	20-ft Vibracore	44.8	19.3																	
BI-PBS-178-13A	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	1:38 PM	30.15356	-88.44260	237885.58350	1107742.17700	20-ft Vibracore	44.8	19.3	0.0-5.0	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.31	0.31	1.8	1.9	1.1
BI-PBS-178-13B	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	1:38 PM	30.15356	-88.44260	237885.58350	1107742.17700	20-ft Vibracore	44.8	19.3	5.0-6.5	1.5	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 6/1	6		0.16	0.17	18.1	#DIV/0!	#DIV/0!
BI-PBS-179-13	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	2:56 PM	30.15021	-88.43943	236670.69180	1108748.27800	20-ft Vibracore	47.4	13.6																	
BI-PBS-179-13A	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	2:56 PM	30.15021	-88.43943	236670.69180	1108748.27800	20-ft Vibracore	47.4	13.6	0.0-4.2	4.2	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	6	Gray	2.5Y 6/1	6		0.31	0.34	1.5	2.0	1.1
BI-PBS-180-13	PETIT BOIS PASS - OCS WEST	2013	12/19/2013	9:29 AM	30.14772	-88.44211	235762.20690	1107904.32800	20-ft Vibracore	48.4	14.8																	
BI-PBS-180-13A	PETIT BOIS PASS - OCS WEST	2013	12/19/2013	9:29 AM	30.14772	-88.44211	235762.20690	1107904.32800	20-ft Vibracore	48.4	14.8	0.0-1.6	1.6	SP-SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 5/1	5		0.19	0.22	14.1	#DIV/0!	#DIV/0!
BI-PBS-181-13	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	11:13 AM	30.15365	-88.43690	237924.53140	1109543.57600	20-ft Vibracore	49.4	18.8																	
BI-PBS-181-13A	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	11:13 AM	30.15365	-88.43690	237924.53140	1109543.57600	20-ft Vibracore	49.4	18.8	0.0-1.5	1.5	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 5/1	5		0.26	0.28	11.3	#DIV/0!	#DIV/0!
BI-PBS-182-13	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	3:50 PM	30.14708	-88.43591	235536.22360	1109864.79500	20-ft Vibracore	49.0	18.7																	
BI-PBS-182-13A	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	3:50 PM	30.14708	-88.43591	235536.22360	1109864.79500	20-ft Vibracore	49.0	18.7	0.0-2.9	2.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.27	0.28	3.3	2.0	0.9
BI-PBS-182-13B	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	3:50 PM	30.14708	-88.43591	235536.22360	1109864.79500	20-ft Vibracore	49.0	18.7	4.5-5.0	0.5	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.31	0.39	4.8	2.3	0.9
BI-PBS-184-13	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	9:00 AM	30.12897	-88.46291	228921.22950	1101352.14100	20-ft Vibracore	52.0	12.9																	
BI-PBS-184-13A	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	9:00 AM	30.12897	-88.46291	228921.22950	1101352.14100	20-ft Vibracore	52.0	12.9	0.0-1.5	1.5	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Greenish Gray	GLEY1 10Y 5/1	5		0.19	0.22	7.7	2.4	1.3
BI-PBS-184-13B	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	9:00 AM	30.12897	-88.46291	228921.22950	1101352.14100	20-ft Vibracore	52.0	12.9	1.5-3.0	1.5	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 6/1	6		0.14	0.13	15.4	#DIV/0!	#DIV/0!
BI-PBS-185-13	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	10:11 AM	30.15086	-88.43270	236914.49370	1110874.56900	20-ft Vibracore	50.0	20.0																	
BI-PBS-185-13A	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	10:11 AM	30.15086	-88.43270	236914.49370	1110874.56900	20-ft Vibracore	50.0	20.0	0.0-4.9	4.9	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 5/1	5		0.23	0.21	20.5	#DIV/0!	#DIV/0!
BI-PBS-185-13B	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	10:11 AM	30.15086	-88.43270	236914.49370	1110874.56900	20-ft Vibracore	50.0	20.0	4.9-9.9	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Gray	2.5Y 6/1	6		0.37	0.43	3.2	1.6	0.9
BI-PBS-185-13C	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	10:11 AM	30.15086	-88.43270	236914.49370	1110874.56900	20-ft Vibracore	50.0	20.0	9.9-14.9	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Gray	2.5Y 6/1	6		0.35	0.39	2.7	1.5	0.9
BI-PBS-185-13D	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	10:11 AM	30.15086	-88.43270	236914.49370	1110874.56900	20-ft Vibracore	50.0	20.0	14.9-18.3	3.4	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Gray	2.5Y 7/1	7	Light Gray	2.5Y 7/1	7		0.37	0.43	3.2	1.9	1.0
BI-PBS-185-13E	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	10:11 AM	30.15086	-88.43270	236914.49370	1110874.56900	20-ft Vibracore	50.0	20.0	18.3-20.0	1.7	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 5/1	5		0.32	0.34	9.0	3.3	1.9
BI-PBS-186-13	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	3:00 PM	30.14391	-88.43901	234379.94980	1108888.94500	20-ft Vibracore	48.4	16.4																	
BI-PBS-186-13A	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	3:00 PM	30.14391	-88.43901	234379.94980	1108888.94500	20-ft Vibracore	48.4	16.4	*0.0-1.1*	1.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.25	0.38	2.3	1.9	0.8
BI-PBS-188-13	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	2:01 PM	30.13259	-88.45892	230241.87130	1102609.19200	20-ft Vibracore	48.1	18.8																	
BI-PBS-188-13A	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	2:01 PM	30.13259	-88.45892	230241.87130	1102609.19200	20-ft Vibracore	48.1	18.8	0.0-1.0	1.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Greenish Gray	GLEY1 10Y 6/1	6		0.20	0.23	4.1	1.7	1.1
BI-PBS-188-13B	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	2:01 PM	30.13259	-88.45892	230241.87130	1102609.19200	20-ft Vibracore	48.1	18.8	1.0-2.4	1.4	SP-SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Gray	2.5Y 5/1	5		0.16	0.18	13.7	#DIV/0!	#DIV/0!
BI-PBS-188-13C	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	2:01 PM	30.13259	-88.45892	230241.87130	1102609.19200	20-ft Vibracore	48.1	18.8	11.7-15.0	3.3	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Grayish Brown	10YR 5/2	5	Light Gray	2.5Y 7/2	7		0.22	0.24	3.4	1.5	0.9
BI-PBS-190-13	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	4:27 PM	30.14489	-88.42474	234752.23010	1113398.21200	20-ft Vibracore	51.3	17.3																	
BI-PBS-190-13A	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	4:27 PM	30.14489	-88.42474	234752.23010	1113398.21200	20-ft Vibracore	51.3	17.3	0.0-3.0	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Greenish Gray	GLEY1 10Y 7/1	7		0.37	0.43	1.5	1.7	0.9
BI-PBS-190-13B	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	4:27 PM	30.14489	-88.42474	234752.23010	1113398.21200	20-ft Vibracore	51.3	17.3	3.0-4.6	1.6	SM-SC	SM	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Gray	2.5Y 7/1	7		0.24	0.24	13.8	#DIV/0!	#DIV/0!
BI-PBS-190-13C	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	4:27 PM	30.14489	-88.42474	234752.23010	1113398.21200	20-ft Vibracore	51.3	17.3	4.6-9.6	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.31	0.34	2.6	2.1	1.1
BI-PBS-190-13D	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	4:27 PM	30.14489	-88.42474	234752.23010	1113398.21200	20-ft Vibracore	51.3	17.3	9.6-14.6	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Gray	2.5Y 7/1	7		0.31	0.35	2.9	2.1	1.1
BI-PBS-190-13E	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	4:27 PM	30.14489	-88.42474	234752.23010	1113398.21200	20-ft Vibracore	51.3	17.3	14.6-17.3	2.7	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Gray	2.5Y 7/1	7		0.34	0.38	2.2	2.2	1.1
BI-PBS-194-13	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	3:40 PM	30.14342	-88.42076	234222.14350	1114658.15500	20-ft Vibracore	51.0	14.4																	
BI-PBS-194-13A	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	3:40 PM	30.14342	-88.42076	234222.14350	1114658.15500	20-ft Vibracore	51.0	14.4	0.0-1.5	1.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Gray	2.5Y 7/1	7		0.43	0.73	1.1	2.1	0.8
BI-PBS-194-13B	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	3:40 PM	30.14342	-88.42076	234222.14350	1114658.15500	20-ft Vibracore	51.0	14.4	1.5-5.2	3.7	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.23	0.28	13.2	#DIV/0!	#DIV/0!
BI-PBS-194-13C	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	3:40 PM	30.14342	-88.42076	234222.14350	1114658.15500	20-ft Vibracore	51.0	14.4	5.2-9.8	4.6	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.34	0.38	3.9	2.5	1.0
BI-PBS-194-13D	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	3:40 PM	30.14342	-88.42076	234222.14350	1114658.15500	20-ft Vibracore	51.0	14.4	9.8-14.4	4.6	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Gray	2.5Y 7/1	7		0.33	0.38	3.0	2.4	0.9
BI-PBS-195-13	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	12:02 PM	30.13873	-88.42483	232511.84300	1113377.78500	20-ft Vibracore	49.7	20.0																	
BI-PBS-195-13A	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	12:02 PM	30.13873	-88.42483	232511.84300	1113377.78500	20-ft Vibracore	49.7	20.0	0.0-0.6	0.6	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Greenish Gray	GLEY1 10Y 5/1	5		0.24	0.35	7.0	2.2	0.9
BI-PBS-197-13	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	2:34 PM	30.14013	-88.41544	233031.74670	1116344.12300	20-ft Vibracore	49.0	13.7																	
BI-PBS-197-13A	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	2:34 PM	30.14013	-88.41544	233031.74670	1116344.12300	20-ft Vibracore	49.0	13.7	0.0-3.0	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Greenish Gray	GLEY1 10Y 7/1	7		0.34	0.44	1.1	1.9	1.1
BI-PBS-197-13B	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	2:34 PM	30.14013	-88.41544	233031.74670	1116344.12300	20-ft Vibracore	49.0	13.7	3.0-4.1	1.1	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.23	0.27	5.8	1.8	0.9

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-198-13	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	3:05 PM	30.13575	-88.40772	231447.83540	1118790.34200	20-ft Vibracore	49.0	9.6																	
BI-PBS-198-13A	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	3:05 PM	30.13575	-88.40772	231447.83540	1118790.34200	20-ft Vibracore	49.0	9.6	0.0-1.5	1.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Gray	2.5Y 7/1	7		0.31	0.37	1.6	2.0	1.0
BI-PBS-200-13	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	9:36 AM	30.13842	-88.39909	232429.14640	1121514.69700	20-ft Vibracore	57.0	18.8	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-201-13	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	1:40 PM	30.13235	-88.40438	230215.26730	1119850.80500	20-ft Vibracore	52.0	19.4																	
BI-PBS-201-13A	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	1:40 PM	30.13235	-88.40438	230215.26730	1119850.80500	20-ft Vibracore	52.0	19.4	0.0-2.4	2.4	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Greenish Gray	GLEY1 10Y 6/1	6		0.28	0.28	2.8	1.9	1.0
BI-PBS-201-13B	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	1:40 PM	30.13235	-88.40438	230215.26730	1119850.80500	20-ft Vibracore	52.0	19.4	2.4-3.9	1.5	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.18	0.18	29.6	#DIV/0!	#DIV/0!
BI-PBS-202-13	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	11:40 AM	30.13580	-88.40302	231471.59110	1120276.00100	20-ft Vibracore	50.0	16.0																	
BI-PBS-202-13A	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	11:40 AM	30.13580	-88.40302	231471.59110	1120276.00100	20-ft Vibracore	50.0	16.0	0.0-1.2	1.2	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Greenish Gray	GLEY1 10Y 6/1	6		0.31	0.35	1.6	2.0	1.1
BI-PBS-205-13	PETIT BOIS PASS - OCS WEST	2013	12/8/2013	11:45 AM	30.12754	-88.40919	228460.27230	1118336.75300	20-ft Vibracore	54.3	20.0																	
BI-PBS-205-13A	PETIT BOIS PASS - OCS WEST	2013	12/8/2013	11:45 AM	30.12754	-88.40919	228460.27230	1118336.75300	20-ft Vibracore	54.3	20.0	0.0-1.0	1.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.23	0.30	4.7	1.7	0.9
BI-PBS-205-13B	PETIT BOIS PASS - OCS WEST	2013	12/8/2013	11:45 AM	30.12754	-88.40919	228460.27230	1118336.75300	20-ft Vibracore	54.3	20.0	1.0-3.2	2.2	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.21	0.27	6.8	2.1	1.1
BI-PBS-206-13	PETIT BOIS PASS - OCS WEST	2013	12/3/2013	10:38 AM	30.13893	-88.40418	232608.53780	1119905.03000	20-ft Vibracore	55.5	20.0	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-207-13	PETIT BOIS PASS - OCS WEST	2013	12/8/2013	1:36 PM	30.12876	-88.41234	228900.27810	1117339.28100	20-ft Vibracore	55.0	19.7																	
BI-PBS-207-13A	PETIT BOIS PASS - OCS WEST	2013	12/8/2013	1:36 PM	30.12876	-88.41234	228900.27810	1117339.28100	20-ft Vibracore	55.0	19.7	0.0-1.1	1.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.24	0.34	3.6	1.9	0.8
BI-PBS-207-13B	PETIT BOIS PASS - OCS WEST	2013	12/8/2013	1:36 PM	30.12876	-88.41234	228900.27810	1117339.28100	20-ft Vibracore	55.0	19.7	1.1-2.5	1.4	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.21	0.28	13.7	#DIV/0!	#DIV/0!
BI-PBS-210-13	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	10:17 AM	30.13365	-88.39303	230701.71850	1123436.98000	20-ft Vibracore	56.0	19.8																	
BI-PBS-210-13A	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	10:17 AM	30.13365	-88.39303	230701.71850	1123436.98000	20-ft Vibracore	56.0	19.8	0.0-1.5	1.5	SC-SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	5Y 5/1	5	Gray	2.5Y 6/1	6		0.21	0.20	24.4	#DIV/0!	#DIV/0!
BI-PBS-210-13B	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	10:17 AM	30.13365	-88.39303	230701.71850	1123436.98000	20-ft Vibracore	56.0	19.8	1.5-3.4	1.9	SC	SC	SUB-ANGULAR TO SUB-ROUNDED	Gray	5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.09	0.11	48.2	#DIV/0!	
BI-PBS-210-13C	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	10:17 AM	30.13365	-88.39303	230701.71850	1123436.98000	20-ft Vibracore	56.0	19.8	5.4-10.0	4.6	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.23	0.25	8.5	2.2	1.1
BI-PBS-210-13D	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	10:17 AM	30.13365	-88.39303	230701.71850	1123436.98000	20-ft Vibracore	56.0	19.8	11.0-13.0	2.0	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	5Y 5/1	5	Gray	2.5Y 6/1	6		0.21	0.24	6.8	2.0	1.1
BI-PBS-210-13E	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	10:17 AM	30.13365	-88.39303	230701.71850	1123436.98000	20-ft Vibracore	56.0	19.8	13.0-14.0	1.0	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.19	0.21	9.2	2.5	1.4
BI-PBS-210-13F	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	10:17 AM	30.13365	-88.39303	230701.71850	1123436.98000	20-ft Vibracore	56.0	19.8	14.0-19.0	5.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.18	0.17	12.4	#DIV/0!	#DIV/0!
BI-PBS-212-13	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	12:04 PM	30.13495	-88.41465	231148.78590	1116600.75200	20-ft Vibracore	53.0	11.9																	
BI-PBS-212-13A	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	12:04 PM	30.13495	-88.41465	231148.78590	1116600.75200	20-ft Vibracore	53.0	11.9	0.0-1.0	1.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Gray	2.5Y 7/1	7		0.30	0.32	1.5	2.0	1.0
BI-PBS-212-13B	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	12:04 PM	30.13495	-88.41465	231148.78590	1116600.75200	20-ft Vibracore	53.0	11.9	1.0-1.7	0.7	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.22	0.27	13.5	#DIV/0!	#DIV/0!
BI-PBS-214-13	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	11:31 AM	30.12965	-88.39583	229243.58340	1122557.42200	20-ft Vibracore	49.0	19.8																	
BI-PBS-214-13A	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	11:31 AM	30.12965	-88.39583	229243.58340	1122557.42200	20-ft Vibracore	49.0	19.8	0.0-5.0	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Greenish Gray	GLEY1 10Y 6/1	6		0.28	0.29	3.9	2.0	0.9
BI-PBS-214-13B	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	11:31 AM	30.12965	-88.39583	229243.58340	1122557.42200	20-ft Vibracore	49.0	19.8	5.0-7.2	2.2	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 5/2	5	Greenish Gray	GLEY1 10Y 6/1	6		0.30	0.33	1.9	2.0	1.0
BI-PBS-214-13C	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	11:31 AM	30.12965	-88.39583	229243.58340	1122557.42200	20-ft Vibracore	49.0	19.8	7.2-9.0	1.8	SM-SC	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		0.21	0.26	16.7	#DIV/0!	#DIV/0!
BI-PBS-215-13	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	1:05 PM	30.12876	-88.40077	228913.95380	1120996.95700	20-ft Vibracore	56.5	18.7																	
BI-PBS-215-13A	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	1:05 PM	30.12876	-88.40077	228913.95380	1120996.95700	20-ft Vibracore	56.5	18.7	0.0-1.3	1.3	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Greenish Gray	GLEY1 10Y 6/1	6		0.21	0.23	8.5	2.1	1.2
BI-PBS-216-13	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	10:45 AM	30.12966	-88.39019	229254.09840	1124340.39200	20-ft Vibracore	50.0	19.7																	
BI-PBS-216-13A	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	10:45 AM	30.12966	-88.39019	229254.09840	1124340.39200	20-ft Vibracore	50.0	19.7	0.0-3.4	3.4	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Gray	2.5Y 7/1	7		0.29	0.32	2.2	2.0	0.9
BI-PBS-216-13B	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	10:45 AM	30.12966	-88.39019	229254.09840	1124340.39200	20-ft Vibracore	50.0	19.7	3.4-3.7	0.3	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 5/1	5		0.24	0.37	8.3	2.2	1.0
BI-PBS-217-13	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	1:36 PM	30.13755	-88.41171	232097.78240	1117526.63600	20-ft Vibracore	48.7	11.5																	
BI-PBS-217-13A	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	1:36 PM	30.13755	-88.41171	232097.78240	1117526.63600	20-ft Vibracore	48.7	11.5	0.0-3.4	3.4	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Greenish Gray	GLEY1 10Y 7/1	7		0.28	0.29	1.3	1.9	0.9
BI-PBS-218-13	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	4:27 PM	30.13291	-88.41034	230411.89760	1117965.95600	20-ft Vibracore	55.0	19.5																	
BI-PBS-218-13A	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	4:27 PM	30.13291	-88.41034	230411.89760	1117965.95600	20-ft Vibracore	55.0	19.5	0.0-0.3	0.3	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.24	0.62	9.9	4.0	1.4
BI-PBS-219-13	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	11:08 AM	30.11952	-88.39940	225555.17330	1121442.83500	20-ft Vibracore	53.0	17.5																	
BI-PBS-219-13A	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	11:08 AM	30.11952	-88.39940	225555.17330	1121442.83500	20-ft Vibracore	53.0	17.5	0.0-5.3	5.3	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.23	0.26	3.1	1.7	0.9
BI-PBS-220-13	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	9:00 AM	30.13765	-88.39274	232156.80460	1123523.03800	20-ft Vibracore	59.0	20.0																	
BI-PBS-220-13A	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	9:00 AM	30.13765	-88.39274	232156.80460	1123523.03800	20-ft Vibracore	59.0	20.0	0.0-1.1	1.1	SM	SC	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.17	0.17	34.6	#DIV/0!	
BI-PBS-220-13B	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	9:00 AM	30.13765	-88.39274	232156.80460	1123523.03800	20-ft Vibracore	59.0	20.0	1.6-2.2	0.6	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.28	0.41	10.9	#DIV/0!	#DIV/0!
BI-PBS-220-13C	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	9:00 AM	30.13765	-88.39274	232156.80460	1123523.03800	20-ft Vibracore	59.0	20.0	2.2-7.0	4.8	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.23	0.26	9.0	2.4	1.2
BI-PBS-220-13D	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	9:00 AM	30.13765	-88.39274	232156.80460	1123523.03800	20-ft Vibracore	59.0	20.0	7.0-9.5	2.5	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.18	0.18	11.6	#DIV/0!	#DIV/0!
BI-PBS-220-13E	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	9:00 AM	30.13765	-88.39274	232156.80460	1123523.03800	20-ft Vibracore	59.0	20.0	9.5-14.5	5.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.15	0.13	16.7	#DIV/0!	#DIV/0!
BI-PBS-222-13	PETIT BOIS PASS - OCS WEST	2013	12/8/2013	4:04 PM	30.13150	-88.41491	229893.78010	1116523.16300	20-ft Vibracore	54.0	20.0																	
BI-PBS-222-13A	PETIT BOIS PASS - OCS WEST	2013	12/8/2013	4:04 PM	30.13150	-88.41491	229893.78010	1116523.16300	20-ft Vibracore	54.0	20.0	0.0-0.9	0.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.27	0.37	3.7	2.1	0.8
BI-PBS-222-13B	PETIT BOIS PASS - OCS WEST	2013	12/8/2013	4:04 PM	30.13150	-88.41491	229893.78010	1116523.16300	20-ft Vibracore	54.0	20.0	0.9-1.9	1.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 5/1	5		0.21	0.30	10.0	#DIV/0!	#DIV/0!
BI-PBS-223-13	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	9:53 AM	30.14042	-88.40788	233146.04580	1118733.43200	20-ft Vibracore	56.0	19.0																	

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-223-13A	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	9:53 AM	30.14042	-88.40788	233146.04580	1118733.43200	20-ft Vibracore	56.0	19.0	0.0-3.4	3.4	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	2.5Y 3/1	3	Gray	2.5Y 5/1	5		0.20	0.21	14.9	#DIV/0!	#DIV/0!
BI-PBS-223-13B	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	9:53 AM	30.14042	-88.40788	233146.04580	1118733.43200	20-ft Vibracore	56.0	19.0	5.1-10.3	5.2	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.21	0.24	7.4	2.0	1.1
BI-PBS-223-13C	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	9:53 AM	30.14042	-88.40788	233146.04580	1118733.43200	20-ft Vibracore	56.0	19.0	10.3-15.3	5.0	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 6/1	6		0.19	0.20	7.2	2.1	1.2
BI-PBS-224-13	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	11:08 AM	30.14188	-88.41183	233672.38900	1117482.88600	20-ft Vibracore	56.0	19.5																	
BI-PBS-224-13A	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	11:08 AM	30.14188	-88.41183	233672.38900	1117482.88600	20-ft Vibracore	56.0	19.5	3.9-7.2	3.3	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.20	0.22	7.6	1.9	1.2
BI-PBS-224-13B	PETIT BOIS PASS - OCS WEST	2013	12/4/2013	11:08 AM	30.14188	-88.41183	233672.38900	1117482.88600	20-ft Vibracore	56.0	19.5	7.2-12.5	5.3	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 6/1	6		0.20	0.23	5.8	2.0	1.1
BI-PBS-225-13	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	1:56 PM	30.14250	-88.43407	233872.58780	1110452.20300	20-ft Vibracore	48.7	20.0																	
BI-PBS-225-13A	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	1:56 PM	30.14250	-88.43407	233872.58780	1110452.20300	20-ft Vibracore	48.7	20.0	0.0-0.9	0.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 6/1	6		0.31	1.87	3.1	2.5	0.7
BI-PBS-225-13B	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	1:56 PM	30.14250	-88.43407	233872.58780	1110452.20300	20-ft Vibracore	48.7	20.0	0.9-1.4	0.5	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		0.21	1.21	13.6	#DIV/0!	#DIV/0!
BI-PBS-228-13	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	8:52 AM	30.14759	-88.42831	235730.15020	1112266.31100	20-ft Vibracore	53.0	20.0																	
BI-PBS-228-13A	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	8:52 AM	30.14759	-88.42831	235730.15020	1112266.31100	20-ft Vibracore	53.0	20.0	0.0-3.9	3.9	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 5/1	5		0.25	0.23	19.8	#DIV/0!	#DIV/0!
BI-PBS-228-13B	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	8:52 AM	30.14759	-88.42831	235730.15020	1112266.31100	20-ft Vibracore	53.0	20.0	3.9-8.9	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Gray	2.5Y 6/1	6		0.34	0.39	2.6	1.8	1.1
BI-PBS-228-13C	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	8:52 AM	30.14759	-88.42831	235730.15020	1112266.31100	20-ft Vibracore	53.0	20.0	8.9-13.9	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.32	0.35	3.1	2.0	1.2
BI-PBS-228-13D	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	8:52 AM	30.14759	-88.42831	235730.15020	1112266.31100	20-ft Vibracore	53.0	20.0	13.9-18.9	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Gray	2.5Y 6/1	6		0.51	0.55	3.7	2.2	0.9
BI-PBS-228-13E	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	8:52 AM	30.14759	-88.42831	235730.15020	1112266.31100	20-ft Vibracore	53.0	20.0	18.9-20.0	1.1	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	GLEY1 10Y 6/1	6		0.19	0.20	14.0	#DIV/0!	#DIV/0!
BI-PBS-229-13	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	3:55 PM	30.14538	-88.43136	234923.00150	1111305.11700	20-ft Vibracore	48.7	17.5																	
BI-PBS-229-13A	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	3:55 PM	30.14538	-88.43136	234923.00150	1111305.11700	20-ft Vibracore	48.7	17.5	0.0-3.6	3.6	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Gray	2.5Y 7/1	7	Light Gray	2.5Y 7/1	7		0.29	0.30	1.7	1.9	1.0
BI-PBS-229-13B	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	3:55 PM	30.14538	-88.43136	234923.00150	1111305.11700	20-ft Vibracore	48.7	17.5	3.6-4.8	1.2	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 5/1	5		0.22	0.23	17.0	#DIV/0!	#DIV/0!
BI-PBS-229-13C	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	3:55 PM	30.14538	-88.43136	234923.00150	1111305.11700	20-ft Vibracore	48.7	17.5	6.2-7.8	1.6	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	2.5Y 3/1	3	Dark Gray	2.5Y 4/1	4		0.23	0.24	14.1	#DIV/0!	#DIV/0!
BI-PBS-229-13D	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	3:55 PM	30.14538	-88.43136	234923.00150	1111305.11700	20-ft Vibracore	48.7	17.5	8.5-13.5	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.27	0.28	4.3	2.0	0.9
BI-PBS-229-13E	PETIT BOIS PASS - OCS WEST	2013	12/16/2013	3:55 PM	30.14538	-88.43136	234923.00150	1111305.11700	20-ft Vibracore	48.7	17.5	13.5-17.5	4.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.20	0.22	3.2	1.6	1.0
BI-PBS-230-13	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	8:35 AM	30.14220	-88.42780	233770.47270	1112434.47600	20-ft Vibracore	45.4	18.2																	
BI-PBS-230-13A	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	8:35 AM	30.14220	-88.42780	233770.47270	1112434.47600	20-ft Vibracore	45.4	18.2	0.0-4.4	4.4	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.29	0.29	1.8	1.9	0.9
BI-PBS-230-13B	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	8:35 AM	30.14220	-88.42780	233770.47270	1112434.47600	20-ft Vibracore	45.4	18.2	4.4-5.0	0.6	GP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray & Gray	2.5Y 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		2.60	4.03	2.7	21.5	0.3
BI-PBS-230-13C	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	8:35 AM	30.14220	-88.42780	233770.47270	1112434.47600	20-ft Vibracore	45.4	18.2	5.0-6.8	1.8	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 5/1	5		0.20	0.19	21.5	#DIV/0!	#DIV/0!
BI-PBS-230-13D	PETIT BOIS PASS - OCS WEST	2013	12/17/2013	8:35 AM	30.14220	-88.42780	233770.47270	1112434.47600	20-ft Vibracore	45.4	18.2	8.2-9.8	1.6	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 5/1	5		0.20	0.18	21.0	#DIV/0!	#DIV/0!
BI-PBS-231-13	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	9:07 AM	30.12489	-88.39184	227517.31080	1123825.48400	20-ft Vibracore	54.6	19.7																	
BI-PBS-231-13A	PETIT BOIS PASS - OCS WEST	2013	12/18/2013	9:07 AM	30.12489	-88.39184	227517.31080	1123825.48400	20-ft Vibracore	54.6	19.7	0.0-3.0	3.0	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.22	0.25	5.3	1.6	0.9
BI-PBS-233-13	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	1:42 PM	30.13810	-88.41889	232289.49350	1115256.26600	20-ft Vibracore	50.0	14.1																	
BI-PBS-233-13A	PETIT BOIS PASS - OCS WEST	2013	12/9/2013	1:42 PM	30.13810	-88.41889	232289.49350	1115256.26600	20-ft Vibracore	50.0	14.1	0.0-3.3	3.3	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Light Greenish Gray	10Y 7/1	7	Light Greenish Gray	GLEY1 10Y 7/1	7		0.29	0.29	1.6	1.9	1.0
BI-PBS-234-13	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	10:28 AM	30.14932	-88.46674	236318.24160	1100117.57600	20-ft Vibracore	48.1	13.7																	
BI-PBS-234-13A	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	10:28 AM	30.14932	-88.46674	236318.24160	1100117.57600	20-ft Vibracore	48.1	13.7	0.0-2.6	2.6	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Greenish Gray	GLEY1 10Y 6/1	6		0.39	1.03	1.3	3.0	0.9
BI-PBS-234-13B	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	10:28 AM	30.14932	-88.46674	236318.24160	1100117.57600	20-ft Vibracore	48.1	13.7	2.6-3.3	0.7	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	5Y 4/1	4	Gray	2.5Y 6/1	6		0.21	0.36	5.1	2.1	1.0
BI-PBS-234-13C	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	10:28 AM	30.14932	-88.46674	236318.24160	1100117.57600	20-ft Vibracore	48.1	13.7	3.3-7.0	3.7	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Greenish Gray	GLEY1 10Y 5/1	5		0.15	0.14	16.3	#DIV/0!	#DIV/0!
BI-PBS-235-13	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	3:24 PM	30.15642	-88.44769	238920.24160	1106129.94200	20-ft Vibracore	45.6	18.2																	
BI-PBS-235-13A	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	3:24 PM	30.15642	-88.44769	238920.24160	1106129.94200	20-ft Vibracore	45.6	18.2	0.0-5.0	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Light Greenish Gray	GLEY1 10Y 7/1	7		0.33	0.36	0.7	1.7	1.1
BI-PBS-235-13B	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	3:24 PM	30.15642	-88.44769	238920.24160	1106129.94200	20-ft Vibracore	45.6	18.2	5.0-7.6	2.6	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Greenish Gray	GLEY1 10Y 5/1	5		0.19	0.22	13.3	#DIV/0!	#DIV/0!
BI-PBS-236-13	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	9:53 AM	30.15303	-88.44914	237685.81010	1105675.82900	20-ft Vibracore	49.3	19.8																	
BI-PBS-236-13A	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	9:53 AM	30.15303	-88.44914	237685.81010	1105675.82900	20-ft Vibracore	49.3	19.8	0.0-0.6	0.6	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Greenish Gray	GLEY1 10Y 6/1	6		0.24	0.32	2.8	1.8	0.9
BI-PBS-236-13B	PETIT BOIS PASS - OCS WEST	2013	12/27/2013	9:53 AM	30.15303	-88.44914	237685.81010	1105675.82900	20-ft Vibracore	49.3	19.8	0.6-2.9	2.3	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.21	0.32	12.1	#DIV/0!	#DIV/0!
BI-PBS-237-13	PETIT BOIS PASS - OCS WEST	2013	12/19/2013	10:28 AM	30.15068	-88.44518	236835.39290	1106930.32000	20-ft Vibracore	49.7	19.7																	
BI-PBS-237-13A	PETIT BOIS PASS - OCS WEST	2013	12/19/2013	10:28 AM	30.15068	-88.44518	236835.39290	1106930.32000	20-ft Vibracore	49.7	19.7	0.0-1.3	1.3	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 6/1	6	Gray	2.5Y 6/1	6		0.23	0.26	7.0	2.2	1.1
BI-PBS-238-13	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	8:35 AM	30.15106	-88.45300	236965.26670	1104458.24000	20-ft Vibracore	45.8	18.1																	
BI-PBS-238-13A	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	8:35 AM	30.15106	-88.45300	236965.26670	1104458.24000	20-ft Vibracore	45.8	18.1	0.0-3.0	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 6/1	6		0.26	0.28	1.3	1.8	0.9
BI-PBS-238-13B	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	8:35 AM	30.15106	-88.45300	236965.26670	1104458.24000	20-ft Vibracore	45.8	18.1	3.0-6.0	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 6/1	6		0.26	0.28	1.3	1.8	0.9
BI-PBS-238-13C	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	8:35 AM	30.15106	-88.45300	236965.26670	1104458.24000	20-ft Vibracore	45.8	18.1	6.0-7.0	1.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Gray	2.5Y 5/1	5		0.23	0.39	8.0	3.3	1.1
BI-PBS-239-13	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	4:30 PM	30.13465	-88.39745	231060.03790	1122038.34400	20-ft Vibracore	54.0	19.9																	
BI-PBS-239-13A	PETIT BOIS PASS - OCS WEST	2013	12/2/2013	4:30 PM	30.13465	-88.39745	231060.03790	1122038.34400	20-ft Vibracore	54.0	19.9	0.0-1.9	1.9	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		0.22	0.20	17.9	#DIV/0!	#DIV/0!
BI-PBS-243-13	PETIT BOIS PASS - OCS WEST	2013	1/13/2014	12:24 PM	30.12275	-88.43571	226688.05960	1109958.83900	20-ft Vibracore	47.7	12.2																	
BI-PBS-243-13A	PETIT BOIS PASS - OCS WEST	2013	1/13/2014	12:24 PM	30.12275	-88.43571	226688.05960	1109958.83900	20-ft Vibracore	47.7	12.2	0.0-3.7	3.7	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	5GY 3/1	3	Light Gray	2.5Y 7/1	7		0.23	0.26	1.5	1.6	0.9

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-243-13B	PETIT BOIS PASS - OCS WEST	2013	1/13/2014	12:24 PM	30.12275	-88.43571	226688.05960	1109958.83900	20-ft Vibracore	47.7	12.2	3.7-5.2	1.5	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Greenish Gray	10Y 3/1	3	Greenish Gray	GLEY1 10Y 5/1	5		0.19	0.21	5.0	1.9	1.0
BI-PBS-243-13C	PETIT BOIS PASS - OCS WEST	2013	1/13/2014	12:24 PM	30.12275	-88.43571	226688.05960	1109958.83900	20-ft Vibracore	47.7	12.2	5.2-5.8	0.6	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Greenish Gray	10Y 3/1	3	Gray	2.5Y 5/1	5		0.18	0.17	16.4	#DIV/0!	#DIV/0!
BI-PBS-244-13	PETIT BOIS PASS - OCS WEST	2013	1/12/2014	2:15 PM	30.12671	-88.43241	228131.88730	1110997.08600	20-ft Vibracore	53.3	10.7																	
BI-PBS-244-13A	PETIT BOIS PASS - OCS WEST	2013	1/12/2014	2:15 PM	30.12671	-88.43241	228131.88730	1110997.08600	20-ft Vibracore	53.3	10.7	0.0-0.9	0.9	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.21	0.24	5.0	2.1	1.0
BI-PBS-245-13	PETIT BOIS PASS - OCS WEST	2013	1/12/2014	12:56 PM	30.12940	-88.43568	229106.57500	1109959.89800	20-ft Vibracore	52.0	18.3																	
BI-PBS-245-13A	PETIT BOIS PASS - OCS WEST	2013	1/12/2014	12:56 PM	30.12940	-88.43568	229106.57500	1109959.89800	20-ft Vibracore	52.0	18.3	0.0-1.3	1.3	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Greenish Gray	5GY 3/1	3	Gray	2.5Y 5/1	5		0.26	0.32	4.0	2.5	1.0
BI-PBS-248-13	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	1:49 PM	30.15620	-88.47290	238814.17130	1098162.69200	20-ft Vibracore	46.1	18.1																	
BI-PBS-248-13A	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	1:49 PM	30.15620	-88.47290	238814.17130	1098162.69200	20-ft Vibracore	46.1	18.1	0.0-4.8	4.8	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 5/1	5		0.17	0.19	11.7	#DIV/0!	#DIV/0!
BI-PBS-248-13B	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	1:49 PM	30.15620	-88.47290	238814.17130	1098162.69200	20-ft Vibracore	46.1	18.1	4.8-6.5	1.7	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Greenish Gray	GLEY1 10Y 5/1	5		0.13	0.12	21.7	#DIV/0!	#DIV/0!
BI-PBS-250-13	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	4:11 PM	30.15038	-88.47808	236692.40450	1096532.16700	20-ft Vibracore	44.5	15.7																	
BI-PBS-250-13A	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	4:11 PM	30.15038	-88.47808	236692.40450	1096532.16700	20-ft Vibracore	44.5	15.7	0.0-2.8	2.8	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Greenish Gray	GLEY1 10Y 6/1	6		0.24	0.27	1.6	1.8	0.9
BI-PBS-250-13B	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	4:11 PM	30.15038	-88.47808	236692.40450	1096532.16700	20-ft Vibracore	44.5	15.7	2.8-4.2	1.4	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Greenish Gray	GLEY1 10Y 5/1	5		0.20	0.22	7.2	2.0	1.1
BI-PBS-251-13	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	11:29 AM	30.12536	-88.44421	227628.00830	1107268.30300	20-ft Vibracore	48.4	14.8																	
BI-PBS-251-13A	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	11:29 AM	30.12536	-88.44421	227628.00830	1107268.30300	20-ft Vibracore	48.4	14.8	0.0-2.5	2.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	5Y 4/1	4	Gray	2.5Y 6/1	6		0.23	0.26	2.0	1.6	0.9
BI-PBS-251-13B	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	11:29 AM	30.12536	-88.44421	227628.00830	1107268.30300	20-ft Vibracore	48.4	14.8	2.5-4.6	2.1	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 5/1	5		0.20	0.24	7.0	2.2	1.1
BI-PBS-252-13	PETIT BOIS PASS - OCS WEST	2013	1/13/2014	2:10 PM	30.12580	-88.43832	227794.42340	1109129.84100	20-ft Vibracore	48.1	15.5																	
BI-PBS-252-13A	PETIT BOIS PASS - OCS WEST	2013	1/13/2014	2:10 PM	30.12580	-88.43832	227794.42340	1109129.84100	20-ft Vibracore	48.1	15.5	0.0-1.9	1.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Light Gray	2.5Y 7/1	7		0.24	0.27	1.7	1.8	0.9
BI-PBS-252-13B	PETIT BOIS PASS - OCS WEST	2013	1/13/2014	2:10 PM	30.12580	-88.43832	227794.42340	1109129.84100	20-ft Vibracore	48.1	15.5	1.9-2.8	0.9	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 5/1	5		0.19	0.22	8.0	2.4	1.2
BI-PBS-253-13	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	4:03 PM	30.12892	-88.44182	228925.29780	1108019.44800	20-ft Vibracore	48.1	11.7																	
BI-PBS-253-13A	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	4:03 PM	30.12892	-88.44182	228925.29780	1108019.44800	20-ft Vibracore	48.1	11.7	0.0-1.1	1.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.32	0.50	0.8	2.1	0.9
BI-PBS-253-13B	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	4:03 PM	30.12892	-88.44182	228925.29780	1108019.44800	20-ft Vibracore	48.1	11.7	1.1-1.7	0.6	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Greenish Gray	GLEY1 10Y 6/1	6		0.23	0.35	4.9	2.2	1.0
BI-PBS-253-13C	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	4:03 PM	30.12892	-88.44182	228925.29780	1108019.44800	20-ft Vibracore	48.1	11.7	1.7-2.4	0.7	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Greenish Gray	GLEY1 10Y 6/1	6		0.22	0.27	5.6	2.2	1.0
BI-PBS-254-13	PETIT BOIS PASS - OCS WEST	2013	1/12/2014	11:20 AM	30.13194	-88.43935	230026.30340	1108796.50600	20-ft Vibracore	52.0	16.4																	
BI-PBS-254-13A	PETIT BOIS PASS - OCS WEST	2013	1/12/2014	11:20 AM	30.13194	-88.43935	230026.30340	1108796.50600	20-ft Vibracore	52.0	16.4	0.0-0.6	0.6	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 5/1	5		0.20	0.24	9.1	2.8	1.1
BI-PBS-255-13	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	10:25 AM	30.12651	-88.45049	228039.52880	1105281.51200	20-ft Vibracore	49.0	16.7																	
BI-PBS-255-13A	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	10:25 AM	30.12651	-88.45049	228039.52880	1105281.51200	20-ft Vibracore	49.0	16.7	0.0-2.2	2.2	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 6/1	6		0.21	0.25	2.4	1.5	0.9
BI-PBS-255-13B	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	10:25 AM	30.12651	-88.45049	228039.52880	1105281.51200	20-ft Vibracore	49.0	16.7	2.2-4.2	2.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 5/1	5		0.18	0.19	12.5	#DIV/0!	#DIV/0!
BI-PBS-257-13	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	2:51 PM	30.13078	-88.44780	229595.31070	1106126.68600	20-ft Vibracore	47.1	9.3																	
BI-PBS-257-13A	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	2:51 PM	30.13078	-88.44780	229595.31070	1106126.68600	20-ft Vibracore	47.1	9.3	0.0-2.0	2.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Gray	2.5Y 6/1	6		0.25	0.28	1.7	1.8	0.9
BI-PBS-257-13B	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	2:51 PM	30.13078	-88.44780	229595.31070	1106126.68600	20-ft Vibracore	47.1	9.3	2.0-2.5	0.5	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Greenish Gray	GLEY1 10Y 6/1	6		0.21	0.25	4.8	2.0	1.1
BI-PBS-258-13	PETIT BOIS PASS - OCS WEST	2013	1/12/2014	9:58 AM	30.13528	-88.44379	231236.18280	1107388.77100	20-ft Vibracore	51.7	18.1	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-259-13	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	8:43 AM	30.14268	-88.47501	233895.08900	1097511.28000	20-ft Vibracore	46.8	14.2																	
BI-PBS-259-13A	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	8:43 AM	30.14268	-88.47501	233895.08900	1097511.28000	20-ft Vibracore	46.8	14.2	0.0-1.3	1.3	SP	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Gray	2.5Y 5/1	5		0.16	0.17	12.1	#DIV/0!	#DIV/0!
BI-PBS-260-13	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	10:54 AM	30.13656	-88.46674	231677.66140	1100132.48600	20-ft Vibracore	47.4	16.9																	
BI-PBS-260-13A	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	10:54 AM	30.13656	-88.46674	231677.66140	1100132.48600	20-ft Vibracore	47.4	16.9	0.0-1.5	1.5	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	5GY 4/1	4	Greenish Gray	GLEY1 10Y 6/1	6		0.19	0.21	6.8	2.1	1.2
BI-PBS-260-13B	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	10:54 AM	30.13656	-88.46674	231677.66140	1100132.48600	20-ft Vibracore	47.4	16.9	1.5-3.6	2.1	SP-SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	5GY 4/1	4	Greenish Gray	GLEY1 10Y 5/1	5		0.12	0.12	19.7	#DIV/0!	#DIV/0!
BI-PBS-261-13	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	12:16 PM	30.13361	-88.46355	230608.05450	1101144.34900	20-ft Vibracore	48.1	12.4																	
BI-PBS-261-13A	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	12:16 PM	30.13361	-88.46355	230608.05450	1101144.34900	20-ft Vibracore	48.1	12.4	0.0-1.7	1.7	SP	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Greenish Gray	10Y 3/1	3	Gray	2.5Y 5/1	5		0.17	0.17	12.2	#DIV/0!	#DIV/0!
BI-PBS-262-13	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	4:07 PM	30.12777	-88.45716	228490.75680	1103171.34300	20-ft Vibracore	49.4	14.0																	
BI-PBS-262-13A	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	4:07 PM	30.12777	-88.45716	228490.75680	1103171.34300	20-ft Vibracore	49.4	14.0	0.0-2.3	2.3	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Greenish Gray	GLEY1 10Y 6/1	6		0.20	0.22	2.7	1.4	0.9
BI-PBS-262-13B	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	4:07 PM	30.12777	-88.45716	228490.75680	1103171.34300	20-ft Vibracore	49.4	14.0	2.3-4.0	1.7	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Greenish Gray	GLEY1 10Y 6/1	6		0.18	0.19	10.8	#DIV/0!	#DIV/0!
BI-PBS-263-13	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	8:42 AM	30.15052	-88.47179	236749.56610	1098520.05100	20-ft Vibracore	45.4	18.2																	
BI-PBS-263-13A	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	8:42 AM	30.15052	-88.47179	236749.56610	1098520.05100	20-ft Vibracore	45.4	18.2	0.0-1.4	1.4	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Greenish Gray	GLEY1 10Y 6/1	6		0.24	0.33	3.2	1.9	0.8
BI-PBS-263-13B	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	8:42 AM	30.15052	-88.47179	236749.56610	1098520.05100	20-ft Vibracore	45.4	18.2	1.4-2.6	1.2	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Gray	2.5Y 5/1	5		0.20	0.23	4.7	1.9	1.1
BI-PBS-263-13C	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	8:42 AM	30.15052	-88.47179	236749.56610	1098520.05100	20-ft Vibracore	45.4	18.2	2.6-9.2	6.6	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Gray	2.5Y 5/1	5		0.17	0.18	10.5	#DIV/0!	#DIV/0!
BI-PBS-264-13	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	12:26 PM	30.15406	-88.46887	238039.93840	1099438.84400	20-ft Vibracore	47.4	20.0																	
BI-PBS-264-13A	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	12:26 PM	30.15406	-88.46887	238039.93840	1099438.84400	20-ft Vibracore	47.4	20.0	0.0-3.8	3.8	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 5/1	5		0.17	0.19	11.9	#DIV/0!	#DIV/0!
BI-PBS-264-13B	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	12:26 PM	30.15406	-88.46887	238039.93840	1099438.84400	20-ft Vibracore	47.4	20.0	3.8-9.0	5.2	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Greenish Gray	GLEY1 10Y 5/1	5		0.14	0.13	18.1	#DIV/0!	#DIV/0!
BI-PBS-265-13	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	1:33 PM	30.14667	-88.47398	235347.20320	1097832.28100	20-ft Vibracore	44.1	14.4																	
BI-PBS-265-13A	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	1:33 PM	30.14667	-88.47398	235347.20320	1097832.28100	20-ft Vibracore	44.1	14.4	0.0-3.1	3.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 6/1	6		0.26	0.27	1.6	1.8	0.9

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-265-13B	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	1:33 PM	30.14667	-88.47398	235347.20320	1097832.28100	20-ft Vibracore	44.1	14.4	3.1-4.0	0.9	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 5/1	5		0.20	0.22	6.7	2.0	1.1
BI-PBS-265-13C	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	1:33 PM	30.14667	-88.47398	235347.20320	1097832.28100	20-ft Vibracore	44.1	14.4	5.3-8.0	2.7	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 5/1	5		0.14	0.13	19.5	#DIV/0!	#DIV/0!
BI-PBS-266-13	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	3:00 PM	30.15605	-88.47837	238754.19710	1096434.09200	20-ft Vibracore	44.5	17.7																	
BI-PBS-266-13A	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	3:00 PM	30.15605	-88.47837	238754.19710	1096434.09200	20-ft Vibracore	44.5	17.7	0.0-1.0	1.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 6/1	6		0.30	0.41	1.2	2.2	0.8
BI-PBS-266-13B	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	3:00 PM	30.15605	-88.47837	238754.19710	1096434.09200	20-ft Vibracore	44.5	17.7	1.0-6.0	5.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Greenish Gray	GLEY1 10Y 5/1	5		0.19	0.21	9.1	2.6	1.3
BI-PBS-266-13C	PETIT BOIS PASS - OCS WEST	2013	1/8/2014	3:00 PM	30.15605	-88.47837	238754.19710	1096434.09200	20-ft Vibracore	44.5	17.7	6.0-10.7	4.7	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Gray	2.5Y 5/1	5		0.14	0.13	19.2	#DIV/0!	#DIV/0!
BI-PBS-267-13	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	10:00 AM	30.14638	-88.46361	235252.20880	1101110.33400	20-ft Vibracore	50.0	20.0																	
BI-PBS-267-13A	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	10:00 AM	30.14638	-88.46361	235252.20880	1101110.33400	20-ft Vibracore	50.0	20.0	0.0-0.9	0.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Greenish Gray	10Y 3/1	3	Light Gray	2.5Y 7/1	7		0.32	0.40	1.0	2.2	1.0
BI-PBS-267-13B	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	10:00 AM	30.14638	-88.46361	235252.20880	1101110.33400	20-ft Vibracore	50.0	20.0	0.9-2.0	1.1	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Greenish Gray	GLEY1 10Y 5/1	5		0.19	0.23	8.4	2.5	1.1
BI-PBS-267-13C	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	10:00 AM	30.14638	-88.46361	235252.20880	1101110.33400	20-ft Vibracore	50.0	20.0	2.0-5.0	3.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Greenish Gray	GLEY1 10Y 6/1	6		0.15	0.16	14.4	#DIV/0!	#DIV/0!
BI-PBS-268-13	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	9:06 AM	30.14156	-88.46340	233499.47690	1101182.39400	20-ft Vibracore	42.5	14.6																	
BI-PBS-268-13A	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	9:06 AM	30.14156	-88.46340	233499.47690	1101182.39400	20-ft Vibracore	42.5	14.6	0.0-4.5	4.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Light Greenish Gray	GLEY1 10Y 7/1	7		0.28	0.29	0.9	1.9	0.9
BI-PBS-268-13B	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	9:06 AM	30.14156	-88.46340	233499.47690	1101182.39400	20-ft Vibracore	42.5	14.6	4.5-5.3	0.8	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 6/1	6		0.25	0.28	3.4	1.9	0.9
BI-PBS-268-13C	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	9:06 AM	30.14156	-88.46340	233499.47690	1101182.39400	20-ft Vibracore	42.5	14.6	5.3-6.4	1.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 6/1	6		0.25	0.28	2.2	1.9	0.9
BI-PBS-268-13D	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	9:06 AM	30.14156	-88.46340	233499.47690	1101182.39400	20-ft Vibracore	42.5	14.6	6.4-8.3	1.9	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Gray	2.5Y 5/1	5		0.20	0.23	6.3	2.0	1.1
BI-PBS-269-13	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	9:46 AM	30.13999	-88.47020	232921.59210	1099034.78100	20-ft Vibracore	46.8	16.0																	
BI-PBS-269-13A	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	9:46 AM	30.13999	-88.47020	232921.59210	1099034.78100	20-ft Vibracore	46.8	16.0	0.0-0.8	0.8	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Gray	2.5Y 6/1	6		0.20	0.23	5.1	1.7	1.0
BI-PBS-269-13B	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	9:46 AM	30.13999	-88.47020	232921.59210	1099034.78100	20-ft Vibracore	46.8	16.0	0.8-3.4	2.6	SP-SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 6/1	6		0.14	0.12	16.3	#DIV/0!	#DIV/0!
BI-PBS-270-13	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	2:10 PM	30.14457	-88.45954	234598.13610	1102398.92500	20-ft Vibracore	51.0	8.5																	
BI-PBS-270-13A1	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	2:10 PM	30.14457	-88.45954	234598.13610	1102398.92500	20-ft Vibracore	51.0	8.5	0.0-0.1	0.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	10Y 4/1	4	Greenish Gray	GLEY1 10Y 6/1	6		0.29	0.34	1.2	2.0	0.9
BI-PBS-270-13A2	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	2:10 PM	30.14457	-88.45954	234598.13610	1102398.92500	20-ft Vibracore	51.0	8.5	0.1-1.3	1.2	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Greenish Gray	GLEY1 10Y 5/1	5		0.19	0.23	8.1	2.5	1.1
BI-PBS-271-13	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	11:52 AM	30.13536	-88.45524	231253.10430	1103769.18100	20-ft Vibracore	45.1	8.6																	
BI-PBS-271-13A1	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	11:52 AM	30.13536	-88.45524	231253.10430	1103769.18100	20-ft Vibracore	45.1	8.6	-2.1-0	2.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	5Y 4/1	4	Light Greenish Gray	GLEY1 10Y 7/1	7		0.27	0.28	1.3	1.8	0.9
BI-PBS-271-13A2	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	11:52 AM	30.13536	-88.45524	231253.10430	1103769.18100	20-ft Vibracore	45.1	8.6	0.0-1.3	1.3	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	5Y 4/1	4	Gray	2.5Y 6/1	6		0.25	0.29	2.0	1.9	0.9
BI-PBS-271-13B	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	11:52 AM	30.13536	-88.45524	231253.10430	1103769.18100	20-ft Vibracore	45.1	8.6	1.3-2.4	1.1	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Gray	2.5Y 6/1	6		0.20	0.23	6.3	2.0	1.1
BI-PBS-272-13	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	11:00 AM	30.13871	-88.45901	232467.50930	1102573.44100	20-ft Vibracore	44.1	13.9																	
BI-PBS-272-13A	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	11:00 AM	30.13871	-88.45901	232467.50930	1102573.44100	20-ft Vibracore	44.1	13.9	0.0-2.8	2.8	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 5/1	5		0.26	0.29	1.8	1.9	0.9
BI-PBS-272-13B	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	11:00 AM	30.13871	-88.45901	232467.50930	1102573.44100	20-ft Vibracore	44.1	13.9	2.8-5.3	2.5	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 4/2	4	Gray	2.5Y 5/1	5		0.20	0.22	8.4	2.3	1.2
BI-PBS-273-13	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	4:20 PM	30.14173	-88.45402	233571.03750	1104147.13800	20-ft Vibracore	50.0	14.5																	
BI-PBS-273-13A	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	4:20 PM	30.14173	-88.45402	233571.03750	1104147.13800	20-ft Vibracore	50.0	14.5	0.0-2.9	2.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	10Y 5/1	5	Gray	2.5Y 6/1	6		0.34	0.45	0.8	2.1	1.1
BI-PBS-273-13B	PETIT BOIS PASS - OCS WEST	2013	1/9/2014	4:20 PM	30.14173	-88.45402	233571.03750	1104147.13800	20-ft Vibracore	50.0	14.5	2.9-3.3	0.4	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Greenish Gray	GLEY1 10Y 6/1	6		0.23	0.33	9.1	3.4	1.2
BI-PBS-274-13	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	1:37 PM	30.13506	-88.44935	231150.21640	1105631.45200	20-ft Vibracore	46.8	8.9																	
BI-PBS-274-13A	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	1:37 PM	30.13506	-88.44935	231150.21640	1105631.45200	20-ft Vibracore	46.8	8.9	0.0-1.4	1.4	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Olive Gray	5Y 4/2	4	Light Gray	2.5Y 7/1	7		0.33	0.57	0.9	2.2	1.0
BI-PBS-274-13B	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	1:37 PM	30.13506	-88.44935	231150.21640	1105631.45200	20-ft Vibracore	46.8	8.9	1.4-2.6	1.2	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Greenish Gray	GLEY1 10Y 6/1	6		0.21	0.25	3.9	1.9	1.0
BI-PBS-274-13C	PETIT BOIS PASS - OCS WEST	2013	1/16/2014	1:37 PM	30.13506	-88.44935	231150.21640	1105631.45200	20-ft Vibracore	46.8	8.9	2.6-3.5	0.9	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Greenish Gray	GLEY1 10Y 6/1	6		0.20	0.23	8.3	2.4	1.2
BI-PBS-275-13	PETIT BOIS PASS - OCS WEST	2013	1/12/2014	8:42 AM	30.13948	-88.44976	232757.25440	1105496.44200	20-ft Vibracore	50.7	16.9																	
BI-PBS-275-13A	PETIT BOIS PASS - OCS WEST	2013	1/12/2014	8:42 AM	30.13948	-88.44976	232757.25440	1105496.44200	20-ft Vibracore	50.7	16.9	0.0-1.6	1.6	SP-SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 5/1	5		0.17	0.20	14.1	#DIV/0!	#DIV/0!
BI-PBS-276-13	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	3:15 PM	30.13115	-88.45413	229723.16910	1104125.15400	20-ft Vibracore	47.7	14.6																	
BI-PBS-276-13A	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	3:15 PM	30.13115	-88.45413	229723.16910	1104125.15400	20-ft Vibracore	47.7	14.6	0.0-1.8	1.8	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 6/1	6		0.21	0.24	3.0	1.5	0.9
BI-PBS-276-13B	PETIT BOIS PASS - OCS WEST	2013	1/18/2014	3:15 PM	30.13115	-88.45413	229723.16910	1104125.15400	20-ft Vibracore	47.7	14.6	1.8-5.4	3.6	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 5/1	5		0.19	0.21	10.1	#DIV/0!	#DIV/0!
BI-PBS-277-13	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	1:17 PM	30.11821	-88.48740	224983.73480	1093621.91200	20-ft Vibracore	48.4	14.6																	
BI-PBS-277-13A	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	1:17 PM	30.11821	-88.48740	224983.73480	1093621.91200	20-ft Vibracore	48.4	14.6	0.0-2.4	2.4	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 5/1	5		0.21	0.25	2.5	1.6	0.9
BI-PBS-277-13B	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	1:17 PM	30.11821	-88.48740	224983.73480	1093621.91200	20-ft Vibracore	48.4	14.6	2.4-4.1	1.7	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	GLEY1 3/N	3	Gray	2.5Y 5/1	5		0.20	0.24	4.1	1.9	1.1
BI-PBS-277-13C	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	1:17 PM	30.11821	-88.48740	224983.73480	1093621.91200	20-ft Vibracore	48.4	14.6	4.1-6.3	2.2	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	GLEY1 3/N	3	Gray	2.5Y 5/1	5		0.15	0.17	13.0	#DIV/0!	#DIV/0!
BI-PBS-278-13	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	3:16 PM	30.12488	-88.50919	227389.26460	1086725.75800	20-ft Vibracore	50.7	19.1																	
BI-PBS-278-13A	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	3:16 PM	30.12488	-88.50919	227389.26460	1086725.75800	20-ft Vibracore	50.7	19.1	0.0-3.5	3.5	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	GLEY1 3/N	3	Gray	2.5Y 5/1	5		0.18	0.19	7.2	2.1	1.1
BI-PBS-278-13B	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	3:16 PM	30.12488	-88.50919	227389.26460	1086725.75800	20-ft Vibracore	50.7	19.1	3.5-5.0	1.5	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Gray	2.5Y 5/1	5		0.18	0.21	7.3	2.4	1.0
BI-PBS-278-13C	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	3:16 PM	30.12488	-88.50919	227389.26460	1086725.75800	20-ft Vibracore	50.7	19.1	5.0-10.2	5.2	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Gray	2.5Y 5/1	5		0.11	0.11	16.9	#DIV/0!	#DIV/0!
BI-PBS-279-13	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	10:33 AM	30.12224	-88.48312	226453.49130	1094970.61000	20-ft Vibracore	49.7	7.3																	
BI-PBS-279-13A	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	10:33 AM	30.12224	-88.48312	226453.49130	1094970.61000	20-ft Vibracore	49.7	7.3	0.0-1.7	1.7	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.21	0.27	5.3	2.4	1.1

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-281-13	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	4:43 PM	30.12434	-88.48810	227212.42470	1093393.85400	20-ft Vibracore	48.7	12.5																	
BI-PBS-281-13A	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	4:43 PM	30.12434	-88.48810	227212.42470	1093393.85400	20-ft Vibracore	48.7	12.5	0.0-3.3	3.3	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 8/1	8		0.23	0.27	2.1	1.6	0.9
BI-PBS-281-13B	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	4:43 PM	30.12434	-88.48810	227212.42470	1093393.85400	20-ft Vibracore	48.7	12.5	3.3-8.2	4.9	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	GLEY1 3/N	3	Light Greenish Gray	10Y 7/1	7		0.14	0.16	12.2	#DIV/0!	#DIV/0!
BI-PBS-282-13	PETIT BOIS PASS - OCS WEST	2013	2/18/2014	10:33 AM	30.11787	-88.49464	224853.22110	1091333.23300	20-ft Vibracore	49.3	7.4																	
BI-PBS-282-13A	PETIT BOIS PASS - OCS WEST	2013	2/18/2014	10:33 AM	30.11787	-88.49464	224853.22110	1091333.23300	20-ft Vibracore	49.3	7.4	0.0-2.2	2.2	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.18	0.20	6.9	2.2	1.2
BI-PBS-283-13	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	2:17 PM	30.12025	-88.50005	225713.74610	1089620.24000	20-ft Vibracore	50.4	19.9																	
BI-PBS-283-13A	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	2:17 PM	30.12025	-88.50005	225713.74610	1089620.24000	20-ft Vibracore	50.4	19.9	0.0-2.0	2.0	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	GLEY1 3/N	3	Gray	2.5Y 5/1	5		0.18	0.20	6.0	1.9	1.1
BI-PBS-283-13B	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	2:17 PM	30.12025	-88.50005	225713.74610	1089620.24000	20-ft Vibracore	50.4	19.9	2.0-6.0	4.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	GLEY1 3/N	3	Gray	2.5Y 5/1	5		0.15	0.17	11.0	#DIV/0!	#DIV/0!
BI-PBS-283-13C	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	2:17 PM	30.12025	-88.50005	225713.74610	1089620.24000	20-ft Vibracore	50.4	19.9	6.0-9.5	3.5	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	GLEY1 3/N	3	Gray	2.5Y 5/1	5		0.11	0.11	19.0	#DIV/0!	#DIV/0!
BI-PBS-284-13	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	4:04 PM	30.12266	-88.49679	226593.23840	1090648.33800	20-ft Vibracore	48.4	17.5																	
BI-PBS-284-13A	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	4:04 PM	30.12266	-88.49679	226593.23840	1090648.33800	20-ft Vibracore	48.4	17.5	0.0-2.9	2.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.20	0.22	1.8	1.6	1.0
BI-PBS-284-13B	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	4:04 PM	30.12266	-88.49679	226593.23840	1090648.33800	20-ft Vibracore	48.4	17.5	2.9-7.5	4.6	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Gray	2.5Y 6/1	6		0.19	0.22	5.6	2.0	1.1
BI-PBS-284-13C	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	4:04 PM	30.12266	-88.49679	226593.23840	1090648.33800	20-ft Vibracore	48.4	17.5	7.5-10.5	3.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Gray	2.5Y 6/1	6		0.13	0.15	13.0	#DIV/0!	#DIV/0!
BI-PBS-285-13	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	3:50 PM	30.12563	-88.49289	227677.02460	1091878.11100	20-ft Vibracore	47.7	16.7																	
BI-PBS-285-13A	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	3:50 PM	30.12563	-88.49289	227677.02460	1091878.11100	20-ft Vibracore	47.7	16.7	0.0-3.5	3.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 8/1	8		0.22	0.25	2.2	1.6	0.9
BI-PBS-285-13B	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	3:50 PM	30.12563	-88.49289	227677.02460	1091878.11100	20-ft Vibracore	47.7	16.7	3.5-8.2	4.7	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.14	0.16	12.2	#DIV/0!	#DIV/0!
BI-PBS-286-13	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	3:07 PM	30.12609	-88.49854	227839.03480	1090091.41300	20-ft Vibracore	47.7	19.2																	
BI-PBS-286-13A	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	3:07 PM	30.12609	-88.49854	227839.03480	1090091.41300	20-ft Vibracore	47.7	19.2	0.0-3.5	3.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Gray	2.5Y 6/1	6		0.20	0.22	1.9	1.5	0.9
BI-PBS-286-13B	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	3:07 PM	30.12609	-88.49854	227839.03480	1090091.41300	20-ft Vibracore	47.7	19.2	3.5-7.0	3.5	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 6/1	6		0.19	0.22	5.1	2.0	1.0
BI-PBS-286-13C	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	3:07 PM	30.12609	-88.49854	227839.03480	1090091.41300	20-ft Vibracore	47.7	19.2	7.0-12.0	5.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Gray	2.5Y 6/1	6		0.12	0.11	15.7	#DIV/0!	#DIV/0!
BI-PBS-287-13	PETIT BOIS PASS - OCS WEST	2013	2/18/2014	12:22 PM	30.12197	-88.50527	226334.49580	1087968.08800	20-ft Vibracore	50.0	8.2																	
BI-PBS-287-13A	PETIT BOIS PASS - OCS WEST	2013	2/18/2014	12:22 PM	30.12197	-88.50527	226334.49580	1087968.08800	20-ft Vibracore	50.0	8.2	0.0-4.3	4.3	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.18	0.19	7.4	2.2	1.1
BI-PBS-288-13	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	2:36 PM	30.12950	-88.49541	229082.10070	1091077.26400	20-ft Vibracore	47.7	14.7																	
BI-PBS-288-13A	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	2:36 PM	30.12950	-88.49541	229082.10070	1091077.26400	20-ft Vibracore	47.7	14.7	0.0-0.9	0.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 8/1	8		0.25	0.38	1.4	1.9	0.8
BI-PBS-288-13B	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	2:36 PM	30.12950	-88.49541	229082.10070	1091077.26400	20-ft Vibracore	47.7	14.7	0.9-2.0	1.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.23	0.28	3.1	1.7	0.9
BI-PBS-288-13C	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	2:36 PM	30.12950	-88.49541	229082.10070	1091077.26400	20-ft Vibracore	47.7	14.7	2.0-3.5	1.5	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.19	0.21	6.5	2.2	1.1
BI-PBS-288-13D	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	2:36 PM	30.12950	-88.49541	229082.10070	1091077.26400	20-ft Vibracore	47.7	14.7	3.5-6.0	2.5	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.14	0.15	9.5	2.0	1.0
BI-PBS-288-13E	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	2:36 PM	30.12950	-88.49541	229082.10070	1091077.26400	20-ft Vibracore	47.7	14.7	10.3-14.7	4.4	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 8/1	8		0.15	0.16	12.7	#DIV/0!	#DIV/0!
BI-PBS-290-13	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	2:02 PM	30.12964	-88.50214	229126.78010	1088949.55800	20-ft Vibracore	47.4	15.9																	
BI-PBS-290-13A	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	2:02 PM	30.12964	-88.50214	229126.78010	1088949.55800	20-ft Vibracore	47.4	15.9	0.0-1.9	1.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 5/1	5		0.21	0.24	3.0	1.5	0.9
BI-PBS-290-13B	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	2:02 PM	30.12964	-88.50214	229126.78010	1088949.55800	20-ft Vibracore	47.4	15.9	1.9-2.5	0.6	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 5/1	5		0.20	0.23	4.8	1.8	1.1
BI-PBS-290-13C	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	2:02 PM	30.12964	-88.50214	229126.78010	1088949.55800	20-ft Vibracore	47.4	15.9	2.5-7.5	5.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Gray	2.5Y 5/1	5		0.18	0.21	5.8	2.1	1.0
BI-PBS-291-13	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	1:28 PM	30.13295	-88.49887	230333.57700	1089979.77600	20-ft Vibracore	47.7	17.6																	
BI-PBS-291-13A	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	1:28 PM	30.13295	-88.49887	230333.57700	1089979.77600	20-ft Vibracore	47.7	17.6	0.0-2.2	2.2	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 8/1	8		0.23	0.29	3.0	1.9	0.9
BI-PBS-291-13B	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	1:28 PM	30.13295	-88.49887	230333.57700	1089979.77600	20-ft Vibracore	47.7	17.6	2.2-4.0	1.8	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.16	0.17	9.1	2.4	1.1
BI-PBS-291-13C	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	1:28 PM	30.13295	-88.49887	230333.57700	1089979.77600	20-ft Vibracore	47.7	17.6	4.0-7.4	3.4	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.12	0.11	18.0	#DIV/0!	#DIV/0!
BI-PBS-292-13	PETIT BOIS PASS - OCS WEST	2013	2/18/2014	4:01 PM	30.12912	-88.51067	228929.94280	1086253.50500	20-ft Vibracore	48.5	19.0																	
BI-PBS-292-13A	PETIT BOIS PASS - OCS WEST	2013	2/18/2014	4:01 PM	30.12912	-88.51067	228929.94280	1086253.50500	20-ft Vibracore	48.5	19.0	0.0-5.0	5.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.18	0.20	7.2	2.2	1.1
BI-PBS-292-13B	PETIT BOIS PASS - OCS WEST	2013	2/18/2014	4:01 PM	30.12912	-88.51067	228929.94280	1086253.50500	20-ft Vibracore	48.5	19.0	5.0-10.0	5.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	GLEY1 10Y 4/1	4	Gray	2.5Y 6/1	6		0.13	0.12	17.7	#DIV/0!	#DIV/0!
BI-PBS-293-13	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	11:42 AM	30.13651	-88.50183	231625.55040	1089040.30200	20-ft Vibracore	48.1	15.7																	
BI-PBS-293-13A	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	11:42 AM	30.13651	-88.50183	231625.55040	1089040.30200	20-ft Vibracore	48.1	15.7	0.0-2.5	2.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 8/1	8		0.25	0.32	2.0	1.9	0.8
BI-PBS-293-13B	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	11:42 AM	30.13651	-88.50183	231625.55040	1089040.30200	20-ft Vibracore	48.1	15.7	2.5-3.5	1.0	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.19	0.22	6.5	2.2	1.0
BI-PBS-293-13C	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	11:42 AM	30.13651	-88.50183	231625.55040	1089040.30200	20-ft Vibracore	48.1	15.7	3.5-9.5	6.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.11	0.10	18.8	#DIV/0!	#DIV/0!
BI-PBS-294-13	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	11:55 AM	30.13207	-88.50545	230007.50250	1087900.63000	20-ft Vibracore	46.8	18.4																	
BI-PBS-294-13A	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	11:55 AM	30.13207	-88.50545	230007.50250	1087900.63000	20-ft Vibracore	46.8	18.4	0.0-2.6	2.6	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 8/1	8		0.21	0.24	1.9	1.5	0.9
BI-PBS-294-13B	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	11:55 AM	30.13207	-88.50545	230007.50250	1087900.63000	20-ft Vibracore	46.8	18.4	2.6-3.7	1.1	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.21	0.24	3.4	1.6	1.0
BI-PBS-294-13C	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	11:55 AM	30.13207	-88.50545	230007.50250	1087900.63000	20-ft Vibracore	46.8	18.4	3.7-8.7	5.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.17	0.19	6.8	2.2	1.0
BI-PBS-295-13	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	10:25 AM	30.13952	-88.50465	232717.65120	1088145.72400	20-ft Vibracore	48.1	14.9																	
BI-PBS-295-13A	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	10:25 AM	30.13952	-88.50465	232717.65120	1088145.72400	20-ft Vibracore	48.1	14.9	0.0-2.5	2.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.23	0.26	4.5	2.1	1.0
BI-PBS-295-13B	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	10:25 AM	30.13952	-88.50465	232717.65120	1088145.72400	20-ft Vibracore	48.1	14.9	2.5-3.5	1.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.21	0.29	4.1	2.1	1.0

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-295-13C	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	10:25 AM	30.13952	-88.50465	232717.65120	1088145.72400	20-ft Vibracore	48.1	14.9	3.5-5.8	2.3	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.16	0.17	10.7	#DIV/0!	#DIV/0!
BI-PBS-296-13	PETIT BOIS PASS - OCS WEST	2013	2/19/2014	3:13 PM	30.13161	-88.51329	229833.17480	1085422.70100	20-ft Vibracore	48.5	16.0																	
BI-PBS-296-13A	PETIT BOIS PASS - OCS WEST	2013	2/19/2014	3:13 PM	30.13161	-88.51329	229833.17480	1085422.70100	20-ft Vibracore	48.5	16.0	0.0-1.7	1.7	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.19	0.20	4.7	1.8	1.1
BI-PBS-297-13	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	10:53 AM	30.13560	-88.50845	231288.58280	1086948.60900	20-ft Vibracore	46.8	19.3																	
BI-PBS-297-13A	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	10:53 AM	30.13560	-88.50845	231288.58280	1086948.60900	20-ft Vibracore	46.8	19.3	0.0-1.8	1.8	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 8/1	8		0.21	0.24	2.6	1.5	0.9
BI-PBS-297-13B	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	10:53 AM	30.13560	-88.50845	231288.58280	1086948.60900	20-ft Vibracore	46.8	19.3	1.8-7.0	5.2	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 8/1	8		0.19	0.22	4.0	1.9	1.0
BI-PBS-297-13C	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	10:53 AM	30.13560	-88.50845	231288.58280	1086948.60900	20-ft Vibracore	46.8	19.3	7.0-12.0	5.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	GLEY1 3/N	3	Light Greenish Gray	10Y 7/1	7		0.13	0.15	14.2	#DIV/0!	#DIV/0!
BI-PBS-298-13	PETIT BOIS PASS - OCS WEST	2013	2/19/2014	2:13 PM	30.13466	-88.51749	230938.70130	1084091.91300	20-ft Vibracore	48.5	17.5																	
BI-PBS-298-13A	PETIT BOIS PASS - OCS WEST	2013	2/19/2014	2:13 PM	30.13466	-88.51749	230938.70130	1084091.91300	20-ft Vibracore	48.5	17.5	0.0-6.5	6.5	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	GLEY1 10Y 4/1	4	Gray	2.5Y 6/1	6		0.16	0.17	10.6	#DIV/0!	#DIV/0!
BI-PBS-299-13	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	8:57 AM	30.14152	-88.50935	233440.76420	1086657.99600	20-ft Vibracore	47.4	18.8																	
BI-PBS-299-13A	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	8:57 AM	30.14152	-88.50935	233440.76420	1086657.99600	20-ft Vibracore	47.4	18.8	0.0-5.4	5.4	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.21	0.24	5.4	2.1	1.1
BI-PBS-299-13B	PETIT BOIS PASS - OCS WEST	2013	1/22/2014	8:57 AM	30.14152	-88.50935	233440.76420	1086657.99600	20-ft Vibracore	47.4	18.8	5.4-9.0	3.6	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.16	0.17	9.7	2.4	1.1
BI-PBS-300-13	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	9:52 AM	30.13843	-88.51215	232314.48840	1085776.10200	20-ft Vibracore	46.4	16.8																	
BI-PBS-300-13A	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	9:52 AM	30.13843	-88.51215	232314.48840	1085776.10200	20-ft Vibracore	46.4	16.8	0.0-1.8	1.8	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 8/1	8		0.21	0.24	1.9	1.5	0.9
BI-PBS-300-13B	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	9:52 AM	30.13843	-88.51215	232314.48840	1085776.10200	20-ft Vibracore	46.4	16.8	1.8-7.0	5.2	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.19	0.22	4.8	1.9	1.0
BI-PBS-300-13C	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	9:52 AM	30.13843	-88.51215	232314.48840	1085776.10200	20-ft Vibracore	46.4	16.8	7.0-12.0	5.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.14	0.15	12.1	#DIV/0!	#DIV/0!
BI-PBS-301-13	PETIT BOIS PASS - OCS WEST	2013	2/19/2014	12:29 PM	30.13796	-88.52032	232136.38210	1083194.01900	20-ft Vibracore	48.1	14.6																	
BI-PBS-301-13A	PETIT BOIS PASS - OCS WEST	2013	2/19/2014	12:29 PM	30.13796	-88.52032	232136.38210	1083194.01900	20-ft Vibracore	48.1	14.6	0.0-5.0	5.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	GLEY1 10Y 4/1	4	Gray	2.5Y 6/1	6		0.18	0.18	9.1	2.4	1.2
BI-PBS-302-13	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	8:44 AM	30.14001	-88.51623	232885.49690	1084484.81000	20-ft Vibracore	46.1	18.8		15.5															
BI-PBS-302-13A	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	8:44 AM	30.14001	-88.51623	232885.49690	1084484.81000	20-ft Vibracore	46.1	18.8	0.0-1.8	1.8	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 8/1	8		0.20	0.23	3.3	1.6	1.0
BI-PBS-302-13B	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	8:44 AM	30.14001	-88.51623	232885.49690	1084484.81000	20-ft Vibracore	46.1	18.8	1.8-5.8	4.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.19	0.20	7.3	2.1	1.2
BI-PBS-302-13C	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	8:44 AM	30.14001	-88.51623	232885.49690	1084484.81000	20-ft Vibracore	46.1	18.8	5.8-10.8	5.0	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.14	0.15	12.5	#DIV/0!	#DIV/0!
BI-PBS-302-13D	PETIT BOIS PASS - OCS WEST	2013	1/26/2014	8:44 AM	30.14001	-88.51623	232885.49690	1084484.81000	20-ft Vibracore	46.1	18.8	10.8-15.5	4.7	SC-SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.10	0.08	26.2	#DIV/0!	#DIV/0!
BI-PBS-303-13	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	2:50 PM	30.14332	-88.51382	234091.40570	1085243.23200	20-ft Vibracore	46.4	12.8																	
BI-PBS-303-13A	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	2:50 PM	30.14332	-88.51382	234091.40570	1085243.23200	20-ft Vibracore	46.4	12.8	0.0-1.4	1.4	SP	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 6/1	6		0.18	0.21	7.8	2.4	1.2
BI-PBS-303-13B	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	2:50 PM	30.14332	-88.51382	234091.40570	1085243.23200	20-ft Vibracore	46.4	12.8	1.4-4.4	3.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Olive Gray	5Y 3/2	3	Gray	2.5Y 5/1	5		0.28	0.35	1.8	2.0	0.9
BI-PBS-304-13	PETIT BOIS PASS - OCS WEST	2013	2/19/2014	11:18 AM	30.14135	-88.52354	233366.48170	1082172.82000	20-ft Vibracore	47.7	17.6																	
BI-PBS-304-13A	PETIT BOIS PASS - OCS WEST	2013	2/19/2014	11:18 AM	30.14135	-88.52354	233366.48170	1082172.82000	20-ft Vibracore	47.7	17.6	0.2-5.0	4.8	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	GLEY1 10Y 4/1	4	Gray	2.5Y 6/1	6		0.18	0.19	9.1	2.5	1.3
BI-PBS-306-13	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	4:03 PM	30.14246	-88.51942	233773.72670	1083474.01000	20-ft Vibracore	46.1	13.3																	
BI-PBS-306-13A	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	4:03 PM	30.14246	-88.51942	233773.72670	1083474.01000	20-ft Vibracore	46.1	13.3	0.0-4.0	4.0	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Gray	2.5Y 5/1	5		0.19	0.20	5.8	1.9	1.1
BI-PBS-306-13B	PETIT BOIS PASS - OCS WEST	2013	1/20/2014	4:03 PM	30.14246	-88.51942	233773.72670	1083474.01000	20-ft Vibracore	46.1	13.3	4.0-8.3	4.3	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Black	10Y 2.5/1	3	Gray	2.5Y 6/1	6		0.11	0.10	24.2	#DIV/0!	#DIV/0!
BI-PBS-307-13	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	11:36 AM	30.11920	-88.48064	225350.31670	1095758.08700	20-ft Vibracore	50.4	20.0																	
BI-PBS-307-13A	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	11:36 AM	30.11920	-88.48064	225350.31670	1095758.08700	20-ft Vibracore	50.4	20.0	0.0-2.2	2.2	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Gray	2.5Y 6/1	6		0.22	0.44	4.7	2.2	1.0
BI-PBS-307-13B	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	11:36 AM	30.11920	-88.48064	225350.31670	1095758.08700	20-ft Vibracore	50.4	20.0	2.2-4.0	1.8	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Gray	2.5Y 5/1	5		0.14	0.15	11.6	#DIV/0!	#DIV/0!
BI-PBS-307-13C	PETIT BOIS PASS - OCS WEST	2013	1/27/2014	11:36 AM	30.11920	-88.48064	225350.31670	1095758.08700	20-ft Vibracore	50.4	20.0	4.0-4.9	0.9	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Gray	2.5Y 5/1	5		0.12	0.11	16.3	#DIV/0!	#DIV/0!
BI-PBS-308-13	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	2:06 PM	30.14243	-88.40321	233882.58320	1120206.85100	20-ft Vibracore	58.2	14.5																	
BI-PBS-308-13A	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	2:06 PM	30.14243	-88.40321	233882.58320	1120206.85100	20-ft Vibracore	58.2	14.5	3.0-6.7	3.7	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.21	0.23	4.7	1.9	1.1
BI-PBS-309-13	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	3:03 PM	30.14026	-88.39735	233100.42070	1122062.16100	20-ft Vibracore	58.9	12.5	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-310-13	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	12:48 PM	30.14471	-88.40845	234705.57490	1118547.44700	20-ft Vibracore	57.2	18.6																	
BI-PBS-310-13A	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	12:48 PM	30.14471	-88.40845	234705.57490	1118547.44700	20-ft Vibracore	57.2	18.6	2.7-4.7	2.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.23	0.25	4.8	1.7	0.9
BI-PBS-310-13B	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	12:48 PM	30.14471	-88.40845	234705.57490	1118547.44700	20-ft Vibracore	57.2	18.6	4.7-6.2	1.5	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.20	0.22	4.9	1.9	1.1
BI-PBS-310-13C	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	12:48 PM	30.14471	-88.40845	234705.57490	1118547.44700	20-ft Vibracore	57.2	18.6	6.2-8.2	2.0	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.20	0.22	4.5	1.9	1.1
BI-PBS-311-13	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	10:57 AM	30.14656	-88.41438	235371.45700	1116670.60000	20-ft Vibracore	56.3	15.5																	
BI-PBS-311-13A	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	10:57 AM	30.14656	-88.41438	235371.45700	1116670.60000	20-ft Vibracore	56.3	15.5	2.6-5.5	2.9	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.23	0.25	4.3	1.7	0.9
BI-PBS-311-13B	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	10:57 AM	30.14656	-88.41438	235371.45700	1116670.60000	20-ft Vibracore	56.3	15.5	5.5-8.4	2.9	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.21	0.23	3.1	1.6	1.0
BI-PBS-311-13C	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	10:57 AM	30.14656	-88.41438	235371.45700	1116670.60000	20-ft Vibracore	56.3	15.5	8.4-12.9	4.5	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.19	0.20	4.5	1.9	1.0
BI-PBS-312-13	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	9:49 AM	30.14838	-88.42062	236026.17120	1114695.88200	20-ft Vibracore	55.3	17.7																	
BI-PBS-312-13A	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	9:49 AM	30.14838	-88.42062	236026.17120	1114695.88200	20-ft Vibracore	55.3	17.7	0.0-5.0	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.27	0.28	2.9	1.9	0.9
BI-PBS-312-13B	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	9:49 AM	30.14838	-88.42062	236026.17120	1114695.88200	20-ft Vibracore	55.3	17.7	5.0-8.0	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.24	0.27	3.0	1.8	0.9
BI-PBS-312-13C	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	9:49 AM	30.14838	-88.42062	236026.17120	1114695.88200	20-ft Vibracore	55.3	17.7	8.0-10.1	2.1	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.20	0.23	3.6	1.7	1.0

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-312-13D	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	9:49 AM	30.14838	-88.42062	236026.17120	1114695.88200	20-ft Vibracore	55.3	17.7	10.1-11.6	1.5	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.19	0.21	4.8	1.8	1.1
BI-PBS-313-13	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	8:29 AM	30.15098	-88.42560	236966.08700	1113118.46500	20-ft Vibracore	54.0	20.0																	
BI-PBS-313-13A	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	8:29 AM	30.15098	-88.42560	236966.08700	1113118.46500	20-ft Vibracore	54.0	20.0	0.6-4.2	3.6	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	GLEY1 3/N	3	Gray	2.5Y 5/1	5		0.20	0.22	4.9	1.9	1.1
BI-PBS-313-13B	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	8:29 AM	30.15098	-88.42560	236966.08700	1113118.46500	20-ft Vibracore	54.0	20.0	4.2-5.0	0.8	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Gray	2.5Y 5/1	5		0.20	0.23	6.8	2.0	1.1
BI-PBS-313-13C	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	8:29 AM	30.15098	-88.42560	236966.08700	1113118.46500	20-ft Vibracore	54.0	20.0	5.0-9.7	4.7	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.22	0.25	3.9	1.7	0.9
BI-PBS-313-13D	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	8:29 AM	30.15098	-88.42560	236966.08700	1113118.46500	20-ft Vibracore	54.0	20.0	9.7-12.7	3.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.20	0.23	3.7	1.6	1.0
BI-PBS-313-13E	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	8:29 AM	30.15098	-88.42560	236966.08700	1113118.46500	20-ft Vibracore	54.0	20.0	12.7-14.4	1.7	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	GLEY1 4/N	4	Light Greenish Gray	10Y 7/1	7		0.19	0.19	5.6	1.8	1.1
BI-PBS-314-13	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	4:02 PM	30.14427	-88.41615	234536.57270	1116114.18800	20-ft Vibracore	57.9	10.7																	
BI-PBS-314-13A	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	4:02 PM	30.14427	-88.41615	234536.57270	1116114.18800	20-ft Vibracore	57.9	10.7	2.5-4.0	1.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.20	0.21	2.9	1.6	1.0
BI-PBS-314-13B	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	4:02 PM	30.14427	-88.41615	234536.57270	1116114.18800	20-ft Vibracore	57.9	10.7	4.0-5.3	1.3	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.22	0.24	4.5	1.7	1.0
BI-PBS-314-13C	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	4:02 PM	30.14427	-88.41615	234536.57270	1116114.18800	20-ft Vibracore	57.9	10.7	5.3-6.0	0.7	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.24	0.26	3.9	1.8	0.9
BI-PBS-314-13D	PETIT BOIS PASS - OCS WEST	2013	1/31/2014	4:02 PM	30.14427	-88.41615	234536.57270	1116114.18800	20-ft Vibracore	57.9	10.7	6.0-8.0	2.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Light Greenish Gray	10Y 7/1	7		0.20	0.21	6.5	1.9	1.1
BI-PBS-315-13	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	8:46 AM	30.14680	-88.42223	235449.71460	1114189.07700	20-ft Vibracore	55.3	18.6																	
BI-PBS-315-13A	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	8:46 AM	30.14680	-88.42223	235449.71460	1114189.07700	20-ft Vibracore	55.3	18.6	5.5-10.5	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.22	0.25	2.3	1.6	0.9
BI-PBS-316-13	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	8:38 AM	30.14694	-88.42554	235496.87530	1113142.68100	20-ft Vibracore	54.0	19.4																	
BI-PBS-316-13A	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	8:38 AM	30.14694	-88.42554	235496.87530	1113142.68100	20-ft Vibracore	54.0	19.4	0.0-4.1	4.1	SC-SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.22	0.21	15.4	#DIV/0!	#DIV/0!
BI-PBS-316-13B	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	8:38 AM	30.14694	-88.42554	235496.87530	1113142.68100	20-ft Vibracore	54.0	19.4	5.2-6.3	1.1	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.22	0.24	10.9	#DIV/0!	#DIV/0!
BI-PBS-316-13C	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	8:38 AM	30.14694	-88.42554	235496.87530	1113142.68100	20-ft Vibracore	54.0	19.4	7.3-12.5	5.2	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.22	0.24	4.7	1.6	0.9
BI-PBS-316-13D	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	8:38 AM	30.14694	-88.42554	235496.87530	1113142.68100	20-ft Vibracore	54.0	19.4	12.5-19.4	6.9	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 6/1	6		0.20	0.22	4.2	1.6	1.0
BI-PBS-317-13	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	1:53 PM	30.15002	-88.42889	236613.24940	1112079.85500	20-ft Vibracore	53.0	18.7	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-318-13	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	11:37 AM	30.15199	-88.42986	237328.61940	1111770.73600	20-ft Vibracore	54.3	19.1																	
BI-PBS-318-13A	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	11:37 AM	30.15199	-88.42986	237328.61940	1111770.73600	20-ft Vibracore	54.3	19.1	3.0-8.0	5.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.22	0.24	2.9	1.5	0.9
BI-PBS-318-13B	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	11:37 AM	30.15199	-88.42986	237328.61940	1111770.73600	20-ft Vibracore	54.3	19.1	8.0-13.0	5.0	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.19	0.20	2.7	1.6	1.0
BI-PBS-319-13	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	11:19 AM	30.14777	-88.41046	235816.08520	1117907.99400	20-ft Vibracore	55.3	16.9																	
BI-PBS-319-13A	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	11:19 AM	30.14777	-88.41046	235816.08520	1117907.99400	20-ft Vibracore	55.3	16.9	0.0-1.1	1.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.23	0.25	2.8	1.7	0.9
BI-PBS-319-13B	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	11:19 AM	30.14777	-88.41046	235816.08520	1117907.99400	20-ft Vibracore	55.3	16.9	1.1-3.5	2.4	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.21	0.25	3.7	1.7	1.0
BI-PBS-319-13C	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	11:19 AM	30.14777	-88.41046	235816.08520	1117907.99400	20-ft Vibracore	55.3	16.9	3.5-5.5	2.0	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.19	0.21	4.8	1.8	1.1
BI-PBS-321-13	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	10:21 AM	30.15270	-88.42722	237589.79550	1112604.21500	20-ft Vibracore	54.0	19.6																	
BI-PBS-321-13A	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	10:21 AM	30.15270	-88.42722	237589.79550	1112604.21500	20-ft Vibracore	54.0	19.6	0.0-3.0	3.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.22	0.24	6.5	2.1	1.1
BI-PBS-321-13B	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	10:21 AM	30.15270	-88.42722	237589.79550	1112604.21500	20-ft Vibracore	54.0	19.6	3.0-6.3	3.3	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.19	0.20	4.5	1.8	1.0
BI-PBS-321-13C	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	10:21 AM	30.15270	-88.42722	237589.79550	1112604.21500	20-ft Vibracore	54.0	19.6	6.3-11.0	4.7	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.22	0.25	3.8	1.6	0.9
BI-PBS-321-13D	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	10:21 AM	30.15270	-88.42722	237589.79550	1112604.21500	20-ft Vibracore	54.0	19.6	11.0-16.0	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.22	0.24	2.2	1.5	0.9
BI-PBS-321-13E	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	10:21 AM	30.15270	-88.42722	237589.79550	1112604.21500	20-ft Vibracore	54.0	19.6	16.0-19.6	3.6	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Greenish Gray	10Y 7/1	7		0.19	0.19	4.6	1.8	1.1
BI-PBS-322-13	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	12:03 PM	30.15169	-88.42242	237227.90870	1114122.61600	20-ft Vibracore	55.0	20.0													0.26				
BI-PBS-322-13A	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	12:03 PM	30.15169	-88.42242	237227.90870	1114122.61600	20-ft Vibracore	55.0	20.0	1.4-4.7	3.3	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 5/1	5		0.23	0.26	4.8	1.8	0.9
BI-PBS-322-13B	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	12:03 PM	30.15169	-88.42242	237227.90870	1114122.61600	20-ft Vibracore	55.0	20.0	4.7-9.0	4.3	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 5/1	5		0.24	0.27	3.8	1.8	0.9
BI-PBS-322-13C	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	12:03 PM	30.15169	-88.42242	237227.90870	1114122.61600	20-ft Vibracore	55.0	20.0	9.0-11.0	2.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 5/1	5		0.24	0.26	2.6	1.7	0.9
BI-PBS-322-13D	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	12:03 PM	30.15169	-88.42242	237227.90870	1114122.61600	20-ft Vibracore	55.0	20.0	11.0-13.0	2.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 5/1	5		0.37	0.43	2.5	1.6	0.9
BI-PBS-322-13E	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	12:03 PM	30.15169	-88.42242	237227.90870	1114122.61600	20-ft Vibracore	55.0	20.0	13.0-15.4	2.4	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 6/1	6		0.21	0.23	3.1	1.5	0.9
BI-PBS-323-13	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	10:52 AM	30.14906	-88.42387	236269.77400	1113667.76100	20-ft Vibracore	55.6	18.6																	
BI-PBS-323-13A	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	10:52 AM	30.14906	-88.42387	236269.77400	1113667.76100	20-ft Vibracore	55.6	18.6	1.6-4.0	2.4	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 6/1	6		0.20	0.22	2.7	1.7	1.0
BI-PBS-323-13B	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	10:52 AM	30.14906	-88.42387	236269.77400	1113667.76100	20-ft Vibracore	55.6	18.6	4.0-7.0	3.0	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 6/1	6		0.20	0.23	3.7	1.8	1.1
BI-PBS-323-13C	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	10:52 AM	30.14906	-88.42387	236269.77400	1113667.76100	20-ft Vibracore	55.6	18.6	7.0-12.5	5.5	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 6/1	6		0.21	0.24	3.8	1.7	1.0
BI-PBS-324-13	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	2:58 PM	30.14836	-88.43206	236005.99740	1111080.04800	20-ft Vibracore	52.7	18.8																	
BI-PBS-324-13A	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	2:58 PM	30.14836	-88.43206	236005.99740	1111080.04800	20-ft Vibracore	52.7	18.8	3.4-6.5	3.1	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 5/1	5		0.26	0.28	9.9	3.8	1.5
BI-PBS-324-13B	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	2:58 PM	30.14836	-88.43206	236005.99740	1111080.04800	20-ft Vibracore	52.7	18.8	6.5-9.5	3.0	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 5/1	5		0.26	0.28	4.6	1.9	0.9
BI-PBS-324-13C	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	2:58 PM	30.14836	-88.43206	236005.99740	1111080.04800	20-ft Vibracore	52.7	18.8	9.5-14.0	4.5	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 5/1	5		0.28	0.28	2.4	2.0	1.0
BI-PBS-324-13D	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	2:58 PM	30.14836	-88.43206	236005.99740	1111080.04800	20-ft Vibracore	52.7	18.8	14.0-18.0	4.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.33	0.34	1.6	1.6	1.0
BI-PBS-325-13	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	2:52 PM	30.15540	-88.36524	238646.81300	1132189.48800	20-ft Vibracore	50.7	18.4																	
BI-PBS-325-13A	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	2:52 PM	30.15540	-88.36524	238646.81300	1132189.48800	20-ft Vibracore	50.7	18.4	0.0-1.9	1.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.34	0.40	1.9	2.3	1.1

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-325-13B	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	2:52 PM	30.15540	-88.36524	238646.81300	1132189.48800	20-ft Vibracore	50.7	18.4	6.0-7.0	1.0	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 6/1	6		0.27	0.28	6.8	2.2	1.0
BI-PBS-326-13	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	11:25 AM	30.15794	-88.36787	239567.17070	1131354.50500	20-ft Vibracore	53.3	17.6																	
BI-PBS-326-13A	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	11:25 AM	30.15794	-88.36787	239567.17070	1131354.50500	20-ft Vibracore	53.3	17.6	0.0-1.5	1.5	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	GLEY1 10Y 4/1	4	Gray	2.5Y 5/1	5		0.20	0.23	10.0	#DIV/0!	#DIV/0!
BI-PBS-327-13	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	8:49 AM	30.15978	-88.37115	240232.13500	1130315.17400	20-ft Vibracore	52.3	19.8	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-328-13	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	9:55 AM	30.15801	-88.37082	239588.83550	1130422.07700	20-ft Vibracore	50.0	19.9																	
BI-PBS-328-13A	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	9:55 AM	30.15801	-88.37082	239588.83550	1130422.07700	20-ft Vibracore	50.0	19.9	0.0-0.8	0.8	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.30	0.33	1.8	2.0	1.0
BI-PBS-328-13B	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	9:55 AM	30.15801	-88.37082	239588.83550	1130422.07700	20-ft Vibracore	50.0	19.9	0.8-3.5	2.7	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	GLEY1 10Y 4/1	4	Gray	2.5Y 5/1	5		0.23	0.27	3.9	2.0	0.9
BI-PBS-329-13	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	1:18 PM	30.15611	-88.36813	238901.29210	1131275.04900	20-ft Vibracore	50.4	17.6																	
BI-PBS-329-13A	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	1:18 PM	30.15611	-88.36813	238901.29210	1131275.04900	20-ft Vibracore	50.4	17.6	0.0-1.7	1.7	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	GLEY1 10Y 4/1	4	Greenish Gray	GLEY1 10Y 6/1	6		0.22	0.24	9.1	3.1	1.3
BI-PBS-329-13B	PETIT BOIS PASS - OCS EAST	2013	2/10/2014	1:18 PM	30.15611	-88.36813	238901.29210	1131275.04900	20-ft Vibracore	50.4	17.6	14.3-17.6	3.3	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Gray	2.5Y 6/1	6		0.28	0.28	2.7	1.9	1.0
BI-PBS-330-13	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	11:36 AM	30.14180	-88.41808	233636.05040	1115507.41400	20-ft Vibracore	50.7	12.2																	
BI-PBS-330-13A	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	11:36 AM	30.14180	-88.41808	233636.05040	1115507.41400	20-ft Vibracore	50.7	12.2	0.0-2.1	2.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 6/1	6		0.33	0.38	0.7	2.0	1.1
BI-PBS-331-13	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	2:26 PM	30.14522	-88.41590	234882.36060	1116191.94500	20-ft Vibracore	57.2	16.1																	
BI-PBS-331-13A	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	2:26 PM	30.14522	-88.41590	234882.36060	1116191.94500	20-ft Vibracore	57.2	16.1	3.8-5.3	1.5	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.22	0.24	5.1	1.8	1.0
BI-PBS-331-13B	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	2:26 PM	30.14522	-88.41590	234882.36060	1116191.94500	20-ft Vibracore	57.2	16.1	5.3-7.9	2.6	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 6/1	6		0.28	0.28	2.0	1.9	0.9
BI-PBS-331-13C	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	2:26 PM	30.14522	-88.41590	234882.36060	1116191.94500	20-ft Vibracore	57.2	16.1	7.9-13.5	5.6	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.19	0.21	8.4	2.2	1.2
BI-PBS-332-13	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	3:59 PM	30.14725	-88.41745	235618.84800	1115699.32700	20-ft Vibracore	56.3	18.9													0.28				
BI-PBS-332-13A	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	3:59 PM	30.14725	-88.41745	235618.84800	1115699.32700	20-ft Vibracore	56.3	18.9	0.0-4.5	4.5	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 5/1	5		0.27	0.28	5.4	2.0	0.9
BI-PBS-332-13B	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	3:59 PM	30.14725	-88.41745	235618.84800	1115699.32700	20-ft Vibracore	56.3	18.9	4.5-9.0	4.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 5/1	5		0.29	0.30	1.6	2.0	0.9
BI-PBS-332-13C	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	3:59 PM	30.14725	-88.41745	235618.84800	1115699.32700	20-ft Vibracore	56.3	18.9	9.0-10.5	1.5	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 5/1	5		0.26	0.28	2.2	1.9	0.9
BI-PBS-332-13D	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	3:59 PM	30.14725	-88.41745	235618.84800	1115699.32700	20-ft Vibracore	56.3	18.9	10.5-16.5	6.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 5/1	5		0.19	0.21	5.8	1.9	1.1
BI-PBS-333-13	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	10:21 AM	30.15020	-88.41975	236689.07050	1114968.46400	20-ft Vibracore	55.0	16.5													0.24				
BI-PBS-333-13A	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	10:21 AM	30.15020	-88.41975	236689.07050	1114968.46400	20-ft Vibracore	55.0	16.5	0.0-3.0	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 6/1	6		0.27	0.29	2.4	1.9	0.9
BI-PBS-333-13B	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	10:21 AM	30.15020	-88.41975	236689.07050	1114968.46400	20-ft Vibracore	55.0	16.5	3.0-7.8	4.8	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 6/1	6		0.23	0.26	2.7	1.6	0.9
BI-PBS-333-13C	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	10:21 AM	30.15020	-88.41975	236689.07050	1114968.46400	20-ft Vibracore	55.0	16.5	7.8-9.6	1.8	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 6/1	6		0.21	0.24	5.3	1.7	1.0
BI-PBS-333-13D	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	10:21 AM	30.15020	-88.41975	236689.07050	1114968.46400	20-ft Vibracore	55.0	16.5	9.6-12.5	2.9	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.19	0.21	4.9	1.8	1.1
BI-PBS-334-13	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	9:04 AM	30.14900	-88.41639	236256.51660	1116032.04100	20-ft Vibracore	55.3	17.8													0.23				
BI-PBS-334-13A	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	9:04 AM	30.14900	-88.41639	236256.51660	1116032.04100	20-ft Vibracore	55.3	17.8	0.0-4.5	4.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 6/1	6	Light Gray	2.5Y 7/1	7		0.24	0.27	2.2	1.8	0.9
BI-PBS-334-13B	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	9:04 AM	30.14900	-88.41639	236256.51660	1116032.04100	20-ft Vibracore	55.3	17.8	4.5-9.0	4.5	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.22	0.25	2.3	1.6	0.9
BI-PBS-334-13C	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	9:04 AM	30.14900	-88.41639	236256.51660	1116032.04100	20-ft Vibracore	55.3	17.8	9.0-10.8	1.8	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.21	0.23	4.1	1.6	1.0
BI-PBS-334-13D	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	9:04 AM	30.14900	-88.41639	236256.51660	1116032.04100	20-ft Vibracore	55.3	17.8	10.8-16.0	5.2	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.18	0.19	6.0	1.9	1.1
BI-PBS-335-13	PETIT BOIS PASS - OCS WEST	2013	2/17/2014	1:43 PM	30.14676	-88.40765	235452.06820	1118797.53200	20-ft Vibracore	56.2	15.7	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-337-13	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	10:12 AM	30.14851	-88.41352	236081.63860	1116939.81700	20-ft Vibracore	55.6	19.9																	
BI-PBS-337-13A	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	10:12 AM	30.14851	-88.41352	236081.63860	1116939.81700	20-ft Vibracore	55.6	19.9	0.2-2.4	2.2	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.25	0.27	4.1	1.8	0.9
BI-PBS-337-13B	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	10:12 AM	30.14851	-88.41352	236081.63860	1116939.81700	20-ft Vibracore	55.6	19.9	2.4-6.2	3.8	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.24	0.27	5.5	1.8	0.9
BI-PBS-337-13C	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	10:12 AM	30.14851	-88.41352	236081.63860	1116939.81700	20-ft Vibracore	55.6	19.9	6.2-8.5	2.3	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.20	0.23	4.0	1.7	1.0
BI-PBS-338-13	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	3:59 PM	30.14677	-88.42962	235430.46260	1111853.30900	20-ft Vibracore	51.0	17.8																	
BI-PBS-338-13A	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	3:59 PM	30.14677	-88.42962	235430.46260	1111853.30900	20-ft Vibracore	51.0	17.8	0.6-6.0	5.4	SC-SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.23	0.21	15.6	#DIV/0!	#DIV/0!
BI-PBS-338-13B	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	3:59 PM	30.14677	-88.42962	235430.46260	1111853.30900	20-ft Vibracore	51.0	17.8	7.6-10.9	3.3	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.34	0.38	4.8	2.1	1.2
BI-PBS-338-13C	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	3:59 PM	30.14677	-88.42962	235430.46260	1111853.30900	20-ft Vibracore	51.0	17.8	10.9-13.5	2.6	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.36	0.41	1.3	1.5	0.9
BI-PBS-338-13D	PETIT BOIS PASS - OCS WEST	2013	2/1/2014	3:59 PM	30.14677	-88.42962	235430.46260	1111853.30900	20-ft Vibracore	51.0	17.8	13.5-17.8	4.3	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.35	0.39	1.2	1.5	0.9
BI-PBS-339-13	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	1:05 PM	30.14587	-88.41167	235123.67140	1117528.09800	20-ft Vibracore	57.2	18.6																	
BI-PBS-339-13A	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	1:05 PM	30.14587	-88.41167	235123.67140	1117528.09800	20-ft Vibracore	57.2	18.6	0.0-1.7	1.7	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.24	0.26	4.0	1.8	0.9
BI-PBS-339-13B	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	1:05 PM	30.14587	-88.41167	235123.67140	1117528.09800	20-ft Vibracore	57.2	18.6	1.7-5.6	3.9	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.21	0.24	2.5	1.6	0.9
BI-PBS-339-13C	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	1:05 PM	30.14587	-88.41167	235123.67140	1117528.09800	20-ft Vibracore	57.2	18.6	5.6-10.0	4.4	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.19	0.20	5.7	1.9	1.1
BI-PBS-340-13	PETIT BOIS PASS - OCS WEST	2013	2/3/2014	1:14 PM	30.14319	-88.41475	234145.41580	1116558.14800	20-ft Vibracore	57.0	14.2	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-341-13	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	9:49 AM	30.14372	-88.42643	234324.81210	1112865.55000	20-ft Vibracore	47.7	19.4																	
BI-PBS-341-13A	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	9:49 AM	30.14372	-88.42643	234324.81210	1112865.55000	20-ft Vibracore	47.7	19.4	0.0-3.6	3.6	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Greenish Gray	10Y 6/1	6		0.34	0.41	0.7	2.0	1.1
BI-PBS-341-13B	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	9:49 AM	30.14372	-88.42643	234324.81210	1112865.55000	20-ft Vibracore	47.7	19.4	3.6-5.6	2.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 6/1	6		0.22	0.25	2.3	1.6	0.9
BI-PBS-341-13C	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	9:49 AM	30.14372	-88.42643	234324.81210	1112865.55000	20-ft Vibracore	47.7	19.4	12.5-16.0	3.5	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.21	0.24	3.1	1.5	0.9

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-341-13D	PETIT BOIS PASS - OCS WEST	2013	2/2/2014	9:49 AM	30.14372	-88.42643	234324.81210	1112865.55000	20-ft Vibracore	47.7	19.4	16.0-19.4	3.4	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Greenish Gray	10Y 5/1	5		0.19	0.20	4.4	1.6	1.1
BI-PBS-342-13	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	2:25 PM	30.15096	-88.41764	236967.89390	1115634.35600	20-ft Vibracore	55.3	18.6													0.26				
BI-PBS-342-13A	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	2:25 PM	30.15096	-88.41764	236967.89390	1115634.35600	20-ft Vibracore	55.3	18.6	0.0-5.0	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.27	0.29	1.5	1.9	0.9
BI-PBS-342-13B	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	2:25 PM	30.15096	-88.41764	236967.89390	1115634.35600	20-ft Vibracore	55.3	18.6	5.0-11.2	6.2	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.24	0.27	2.0	1.8	0.9
BI-PBS-342-13C	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	2:25 PM	30.15096	-88.41764	236967.89390	1115634.35600	20-ft Vibracore	55.3	18.6	11.2-14.0	2.8	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.20	0.22	5.1	1.8	1.1
BI-PBS-343-13	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	3:43 PM	30.15037	-88.41409	236757.42710	1116757.17100	20-ft Vibracore	55.0	17.7																	
BI-PBS-343-13A	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	3:43 PM	30.15037	-88.41409	236757.42710	1116757.17100	20-ft Vibracore	55.0	17.7	0.5-1.3	0.8	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.28	0.30	3.7	2.0	0.9
BI-PBS-343-13B	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	3:43 PM	30.15037	-88.41409	236757.42710	1116757.17100	20-ft Vibracore	55.0	17.7	1.3-4.0	2.7	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Light Gray	2.5Y 7/1	7		0.25	0.28	3.1	1.9	0.9
BI-PBS-343-13C	PETIT BOIS PASS - OCS WEST	2013	2/8/2014	3:43 PM	30.15037	-88.41409	236757.42710	1116757.17100	20-ft Vibracore	55.0	17.7	4.0-7.0	3.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.22	0.25	2.2	1.6	0.9
BI-PBS-344-13	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	8:57 AM	30.14964	-88.41138	236495.09640	1117614.69000	20-ft Vibracore	54.6	20.0																	
BI-PBS-344-13A	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	8:57 AM	30.14964	-88.41138	236495.09640	1117614.69000	20-ft Vibracore	54.6	20.0	1.1-7.0	5.9	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.21	0.24	3.3	1.6	0.9
BI-PBS-344-13B	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	8:57 AM	30.14964	-88.41138	236495.09640	1117614.69000	20-ft Vibracore	54.6	20.0	7.0-8.5	1.5	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.20	0.22	3.9	1.7	1.0
BI-PBS-344-13C	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	8:57 AM	30.14964	-88.41138	236495.09640	1117614.69000	20-ft Vibracore	54.6	20.0	8.5-10.0	1.5	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.19	0.21	4.7	1.8	1.1
BI-PBS-345-13	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	10:04 AM	30.14880	-88.40826	236193.26340	1118601.96000	20-ft Vibracore	55.3	20.0	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-354-13	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	11:15 AM	30.15431	-88.42921	238173.09170	1111973.18600	20-ft Vibracore	53.3	16.9													0.25				
BI-PBS-354-13A	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	11:15 AM	30.15431	-88.42921	238173.09170	1111973.18600	20-ft Vibracore	53.3	16.9	0.0-3.5	3.5	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.25	0.28	3.6	2.2	0.9
BI-PBS-354-13B	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	11:15 AM	30.15431	-88.42921	238173.09170	1111973.18600	20-ft Vibracore	53.3	16.9	3.5-8.5	5.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.26	0.28	2.0	1.9	0.9
BI-PBS-354-13C	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	11:15 AM	30.15431	-88.42921	238173.09170	1111973.18600	20-ft Vibracore	53.3	16.9	8.5-11.0	2.5	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.23	0.27	3.0	1.7	0.9
BI-PBS-355-13	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	12:32 PM	30.15400	-88.42394	238066.28970	1113639.18800	20-ft Vibracore	53.3	18.0													0.29				
BI-PBS-355-13A	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	12:32 PM	30.15400	-88.42394	238066.28970	1113639.18800	20-ft Vibracore	53.3	18.0	0.0-3.6	3.6	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.30	0.33	3.0	2.1	1.0
BI-PBS-355-13B	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	12:32 PM	30.15400	-88.42394	238066.28970	1113639.18800	20-ft Vibracore	53.3	18.0	3.6-8.6	5.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.31	0.36	2.5	2.1	1.0
BI-PBS-355-13C	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	12:32 PM	30.15400	-88.42394	238066.28970	1113639.18800	20-ft Vibracore	53.3	18.0	8.6-12.5	3.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.25	0.28	2.5	1.9	0.9
BI-PBS-355-13D	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	12:32 PM	30.15400	-88.42394	238066.28970	1113639.18800	20-ft Vibracore	53.3	18.0	12.5-16.0	3.5	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.20	0.22	6.2	1.9	1.1
BI-PBS-356-13	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	2:23 PM	30.15340	-88.41958	237853.05210	1115017.97400	20-ft Vibracore	55.0	17.1													0.33				
BI-PBS-356-13A	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	2:23 PM	30.15340	-88.41958	237853.05210	1115017.97400	20-ft Vibracore	55.0	17.1	0.0-5.2	5.2	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.29	0.31	2.7	2.0	1.0
BI-PBS-356-13B	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	2:23 PM	30.15340	-88.41958	237853.05210	1115017.97400	20-ft Vibracore	55.0	17.1	5.2-9.9	4.7	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.39	0.56	2.2	2.6	1.0
BI-PBS-356-13C	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	2:23 PM	30.15340	-88.41958	237853.05210	1115017.97400	20-ft Vibracore	55.0	17.1	9.9-12.0	2.1	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.27	0.32	2.1	2.0	0.9
BI-PBS-356-13D	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	2:23 PM	30.15340	-88.41958	237853.05210	1115017.97400	20-ft Vibracore	55.0	17.1	12.0-14.0	2.0	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.20	0.24	6.2	1.9	1.1
BI-PBS-357-13	PETIT BOIS PASS - OCS WEST	2013	2/9/2014	3:51 PM	30.15242	-88.41525	237501.63250	1116387.80200	20-ft Vibracore	54.3	20.0	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-361-13	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	9:16 AM	30.15570	-88.42638	238681.79170	1112865.81100	20-ft Vibracore	51.7	16.9													0.28				
BI-PBS-361-13A	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	9:16 AM	30.15570	-88.42638	238681.79170	1112865.81100	20-ft Vibracore	51.7	16.9	0.0-5.0	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.29	0.30	2.3	2.0	1.0
BI-PBS-361-13B	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	9:16 AM	30.15570	-88.42638	238681.79170	1112865.81100	20-ft Vibracore	51.7	16.9	5.0-8.5	3.5	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.30	0.34	3.3	2.1	1.0
BI-PBS-361-13C	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	9:16 AM	30.15570	-88.42638	238681.79170	1112865.81100	20-ft Vibracore	51.7	16.9	8.5-12.0	3.5	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.25	0.28	3.3	1.8	0.9
BI-PBS-362-13	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	10:38 AM	30.15459	-88.43206	238271.74270	1111072.07800	20-ft Vibracore	52.7	17.2	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-363-13	PETIT BOIS PASS - OCS WEST	2013	2/17/2014	11:47 AM	30.15548	-88.42145	238607.37460	1114424.21800	20-ft Vibracore	52.3	19.5	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-368-13	PETIT BOIS PASS - OCS WEST	2013	2/10/2014	4:26 PM	30.15091	-88.40877	236960.03530	1118437.90800	20-ft Vibracore	55.0	18.7	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-369-13	PETIT BOIS PASS - OCS WEST	2013	2/17/2014	3:03 PM	30.14053	-88.43002	233160.63560	1111734.90100	20-ft Vibracore	49.7	15.4																	
BI-PBS-369-13A	PETIT BOIS PASS - OCS WEST	2013	2/17/2014	3:03 PM	30.14053	-88.43002	233160.63560	1111734.90100	20-ft Vibracore	49.7	15.4	0.0-1.8	1.8	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.25	0.28	2.0	1.8	0.9
BI-PBS-370-13	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	11:52 AM	30.15695	-88.43316	239128.81380	1110721.40900	20-ft Vibracore	50.7	17.2																	
BI-PBS-370-13A	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	11:52 AM	30.15695	-88.43316	239128.81380	1110721.40900	20-ft Vibracore	50.7	17.2	3.8-8.8	5.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.22	0.25	4.1	1.6	0.9
BI-PBS-371-13	PETIT BOIS PASS - OCS WEST	2013	2/17/2014	4:16 PM	30.15680	-88.43837	239068.52140	1109075.00900	20-ft Vibracore	52.3	16.3	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-372-13	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	4:23 PM	30.15884	-88.43011	239819.57060	1111682.91400	20-ft Vibracore	50.7	17.8													0.25				
BI-PBS-372-13A	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	4:23 PM	30.15884	-88.43011	239819.57060	1111682.91400	20-ft Vibracore	50.7	17.8	0.0-3.6	3.6	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 5/1	5		0.24	0.27	4.1	1.9	0.9
BI-PBS-372-13B	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	4:23 PM	30.15884	-88.43011	239819.57060	1111682.91400	20-ft Vibracore	50.7	17.8	3.6-6.6	3.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.25	0.27	2.3	1.8	0.9
BI-PBS-372-13C	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	4:23 PM	30.15884	-88.43011	239819.57060	1111682.91400	20-ft Vibracore	50.7	17.8	6.6-11.8	5.2	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.25	0.27	2.5	1.8	0.9
BI-PBS-372-13D	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	4:23 PM	30.15884	-88.43011	239819.57060	1111682.91400	20-ft Vibracore	50.7	17.8	11.8-13.6	1.8	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.26	0.27	1.9	1.8	0.9
BI-PBS-372-13E	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	4:23 PM	30.15884	-88.43011	239819.57060	1111682.91400	20-ft Vibracore	50.7	17.8	13.6-14.2	0.6	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 6/1	6		0.23	0.26	7.4	2.3	1.1
BI-PBS-373-13	PETIT BOIS PASS - OCS WEST	2013	2/17/2014	8:50 AM	30.16100	-88.42595	240609.79980	1112994.82600	20-ft Vibracore	49.7	19.1																	
BI-PBS-373-13A	PETIT BOIS PASS - OCS WEST	2013	2/17/2014	8:50 AM	30.16100	-88.42595	240609.79980	1112994.82600	20-ft Vibracore	49.7	19.1	6.5-11.5	5.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.25	0.26	4.0	1.8	0.9
BI-PBS-374-13	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	3:17 PM	30.16073	-88.43288	240503.84780	1110805.07400	20-ft Vibracore	50.0	20.0													0.24				

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

Vibracore / Sample ID	Investigation Area	Sample Event	Date of Sample	Time_CST	Latitude	Longitude	Northing_Y	Easting_X	Sample Method	Water Depth (feet)	Boring Depth (feet below seafloor surface)	Sample Depth (Feet below seafloor surface)	Sample Thickness (feet)	Field USCS	Lab USCS	Angularity	Wet Munsell Color	Wet Munsell Color Code	Wet Munsell Value	Dry Munsell Color	Dry Munsell Color Code	Dry Munsell Value	CaCO3	D50 (mm)	Graphic Mean (mm)	% Fines	Cu (D60/D10)	Cc (D30)^2 / (D10*D60)
BI-PBS-374-13A	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	3:17 PM	30.16073	-88.43288	240503.84780	1110805.07400	20-ft Vibracore	50.0	20.0	1.6-6.0	4.4	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.26	0.28	5.8	2.3	1.0
BI-PBS-374-13B	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	3:17 PM	30.16073	-88.43288	240503.84780	1110805.07400	20-ft Vibracore	50.0	20.0	6.0-11.0	5.0	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.23	0.25	2.4	1.6	0.9
BI-PBS-374-13C	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	3:17 PM	30.16073	-88.43288	240503.84780	1110805.07400	20-ft Vibracore	50.0	20.0	11.0-16.3	5.3	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.23	0.25	2.3	1.6	0.9
BI-PBS-375-13	PETIT BOIS PASS - OCS WEST	2013	2/18/2014	8:40 AM	30.16060	-88.44382	240444.59370	1107347.84600	20-ft Vibracore	51.3	13.8	NO SAMPLE TAKEN		CL	NO SAMPLE TESTED													
BI-PBS-376-13	PETIT BOIS PASS - OCS WEST	2013	2/17/2014	10:35 AM	30.15765	-88.42387	239393.81380	1113656.54600	20-ft Vibracore	51.3	15.3																	
BI-PBS-376-13A	PETIT BOIS PASS - OCS WEST	2013	2/17/2014	10:35 AM	30.15765	-88.42387	239393.81380	1113656.54600	20-ft Vibracore	51.3	15.3	4.0-9.5	5.5	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.21	0.23	4.0	1.5	0.9
BI-PBS-376-13B	PETIT BOIS PASS - OCS WEST	2013	2/17/2014	10:35 AM	30.15765	-88.42387	239393.81380	1113656.54600	20-ft Vibracore	51.3	15.3	9.5-15.3	5.8	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.21	0.23	5.2	1.7	1.0
BI-PBS-377-13	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	1:47 PM	30.15887	-88.43604	239823.90350	1109808.77000	20-ft Vibracore	51.0	20.0																	
BI-PBS-377-13A	PETIT BOIS PASS - OCS WEST	2013	2/16/2014	1:47 PM	30.15887	-88.43604	239823.90350	1109808.77000	20-ft Vibracore	51.0	20.0	5.4-10.4	5.0	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Dark Gray	2.5Y 4/1	4	Gray	2.5Y 5/1	5		0.25	0.42	4.9	1.9	0.9
BI-PBS-378-13	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	11:43 AM	30.14865	-88.36428	236193.18770	1132502.99100	20-ft Vibracore	51.3	18.1																	
BI-PBS-378-13A	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	11:43 AM	30.14865	-88.36428	236193.18770	1132502.99100	20-ft Vibracore	51.3	18.1	0.0-3.4	3.4	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.31	0.40	1.3	2.2	0.8
BI-PBS-379-13	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	10:34 AM	30.13875	-88.35901	232599.59970	1134183.65900	20-ft Vibracore	55.0	18.3																	
BI-PBS-379-13A	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	10:34 AM	30.13875	-88.35901	232599.59970	1134183.65900	20-ft Vibracore	55.0	18.3	0.0-1.6	1.6	SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.22	0.25	2.5	1.6	0.9
BI-PBS-380-13	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	9:29 AM	30.13995	-88.34956	233048.56150	1137168.99000	20-ft Vibracore	55.6	18.5																	
BI-PBS-380-13A	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	9:29 AM	30.13995	-88.34956	233048.56150	1137168.99000	20-ft Vibracore	55.6	18.5	0.0-2.9	2.9	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Gray	2.5Y 6/1	6		0.40	1.11	1.1	3.2	0.8
BI-PBS-380-13B	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	9:29 AM	30.13995	-88.34956	233048.56150	1137168.99000	20-ft Vibracore	55.6	18.5	2.9-4.0	1.1	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	GLEY1 10Y 4/1	4	Gray	2.5Y 5/1	5		0.20	0.30	9.6	3.1	1.1
BI-PBS-381-13	PETIT BOIS PASS - OCS WEST	2013	2/22/2014	2:07 PM	30.14458	-88.43534	234627.64500	1110048.12900	20-ft Vibracore	48.7	18.8																	
BI-PBS-381-13A	PETIT BOIS PASS - OCS WEST	2013	2/22/2014	2:07 PM	30.14458	-88.43534	234627.64500	1110048.12900	20-ft Vibracore	48.7	18.8	0.0-1.8	1.8	SP	SP	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Light Gray	2.5Y 7/1	7		0.30	0.29	1.1	1.9	1.1
BI-PBS-381-13B	PETIT BOIS PASS - OCS WEST	2013	2/22/2014	2:07 PM	30.14458	-88.43534	234627.64500	1110048.12900	20-ft Vibracore	48.7	18.8	1.8-2.9	1.1	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.24	0.55	7.5	3.3	1.1
BI-PBS-382-13	PETIT BOIS PASS - OCS WEST	2013	2/22/2014	3:09 PM	30.13832	-88.46310	232321.45570	1101281.04500	20-ft Vibracore	47.4	19.3																	
BI-PBS-382-13A	PETIT BOIS PASS - OCS WEST	2013	2/22/2014	3:09 PM	30.13832	-88.46310	232321.45570	1101281.04500	20-ft Vibracore	47.4	19.3	0.0-3.0	3.0	SP-SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.20	0.24	7.3	2.1	1.1
BI-PBS-384-13	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	12:37 PM	30.15685	-88.36111	239179.53700	1133492.59300	20-ft Vibracore	56.3	17.5																	
BI-PBS-384-13A	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	12:37 PM	30.15685	-88.36111	239179.53700	1133492.59300	20-ft Vibracore	56.3	17.5	0.0-2.3	2.3	SM	SM	SUB-ANGULAR TO SUB-ROUNDED	Very Dark Gray	5Y 3/1	3	Gray	2.5Y 5/1	5		0.28	0.30	19.7	#DIV/0!	#DIV/0!
BI-PBS-384-13B	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	12:37 PM	30.15685	-88.36111	239179.53700	1133492.59300	20-ft Vibracore	56.3	17.5	2.9-8.0	5.1	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Dark Greenish Gray	GLEY1 10Y 4/1	4	Gray	2.5Y 5/1	5		0.25	0.26	11.7	#DIV/0!	#DIV/0!
BI-PBS-384-13C	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	12:37 PM	30.15685	-88.36111	239179.53700	1133492.59300	20-ft Vibracore	56.3	17.5	8.0-13.7	5.7	SM	SP-SM	SUB-ANGULAR TO SUB-ROUNDED	Greenish Gray	GLEY1 10Y 5/1	5	Gray	2.5Y 6/1	6		0.23	0.25	8.9	2.4	1.2
BI-PBS-384-13D	PETIT BOIS PASS - OCS EAST	2013	2/22/2014	12:37 PM	30.15685	-88.36111	239179.53700	1133492.59300	20-ft Vibracore	56.3	17.5	13.7-17.5	3.8	SP-SM	SP	SUB-ANGULAR TO SUB-ROUNDED	Gray	2.5Y 5/1	5	Light Gray	2.5Y 7/1	7		0.22	0.24	3.9	1.6	0.9

Cu: Coefficient of Uniformity
Cc: Coefficient of Curvature
The "#Value!" error message indicates that data was not available for that calculation.

This page was intentionally left blank for duplex printing.

Boring Designation BI-PBS-001-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-001-12 — LOCATION COORDINATES: E = 1,136,390 N = 231,154	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 57.8 Ft.
	15. DATE BORING — STARTED: 11-26-12 — COMPLETED: 11-26-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -56.8 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 13.4 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-56.8	0.0				
-57.2	0.4		SAND, poorly-graded with silt, mostly fine to medium-grained sand-sized quartz, few silt, trace shell fragments, gray (SP-SM)	A	Classification: SP-SM Color: 5Y 5.5/2- D50: 0.2136 mm % Fines: 11.3
-59.3	2.5		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, gray (SM)		
-61.6	4.8		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, some silt, alternating layers of clayey sand and silty sand, greenish gray mottled with gray (SC)		
-62.8	6.0		SILT, inorganic-L, mostly silt, little fine-grained sand-sized quartz, trace clay, trace wood debris, lt. gray mottled with gray (ML)	NS	
-69.3	12.5		CLAY, fat, mostly clay, some silt, trace fine-grained sand-sized quartz, trace wood debris, low to medium plasticity, gray (CH)		
-70.2	13.4		CLAY, lean, mostly clay, some fine-grained sand-sized quartz, little shell fragments, trace wood debris, gray (CL)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13475° Long = -88.35205°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-01-12

Coordinate System
Latitude / Longitude

Latitude 30 08.085

Longitude 088 21.123

Date 11/26/2012

Start Time 13:30:56

End Time 13:35:54

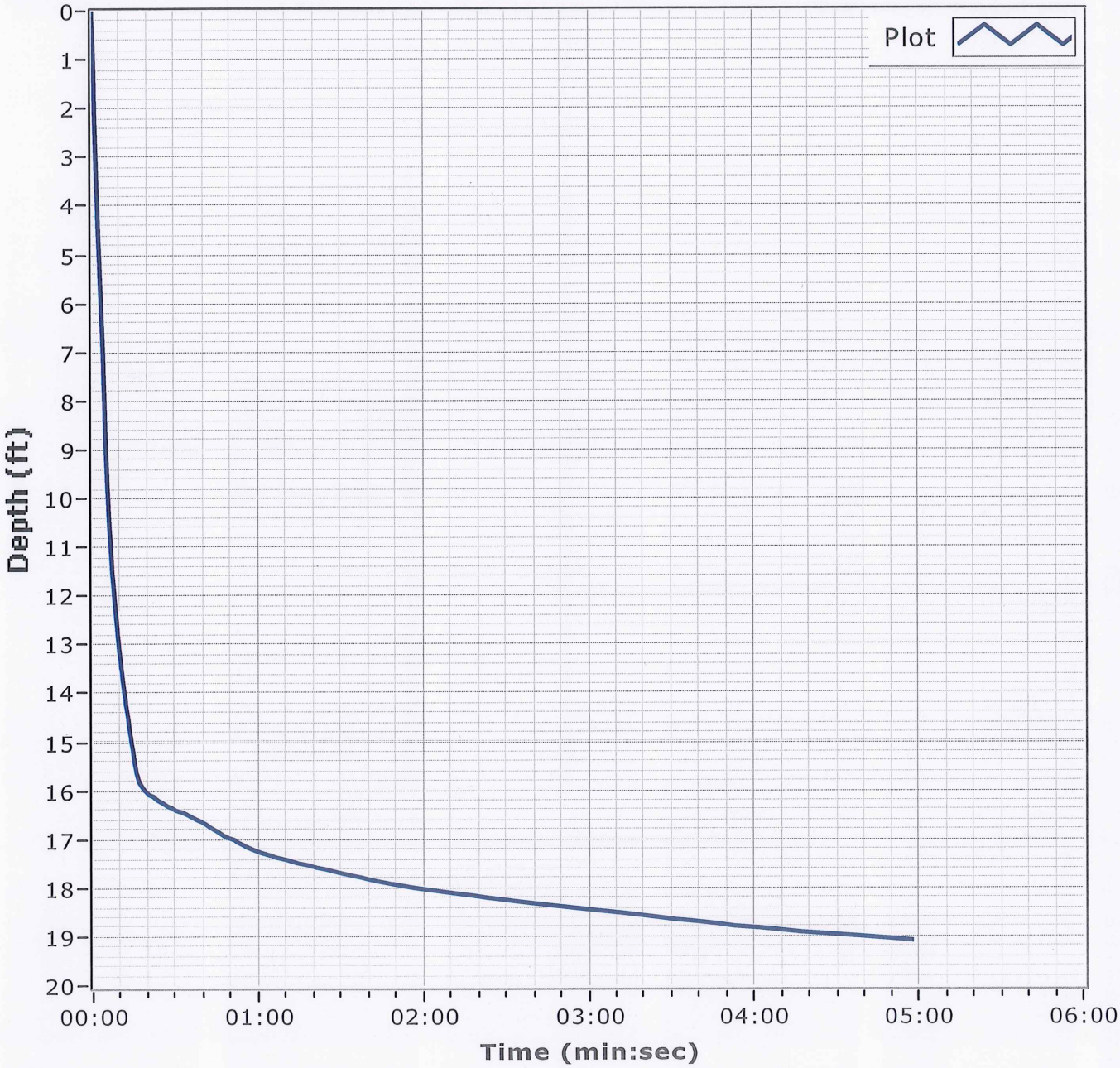
Total Time 00:04:58

Water Depth 57.8'

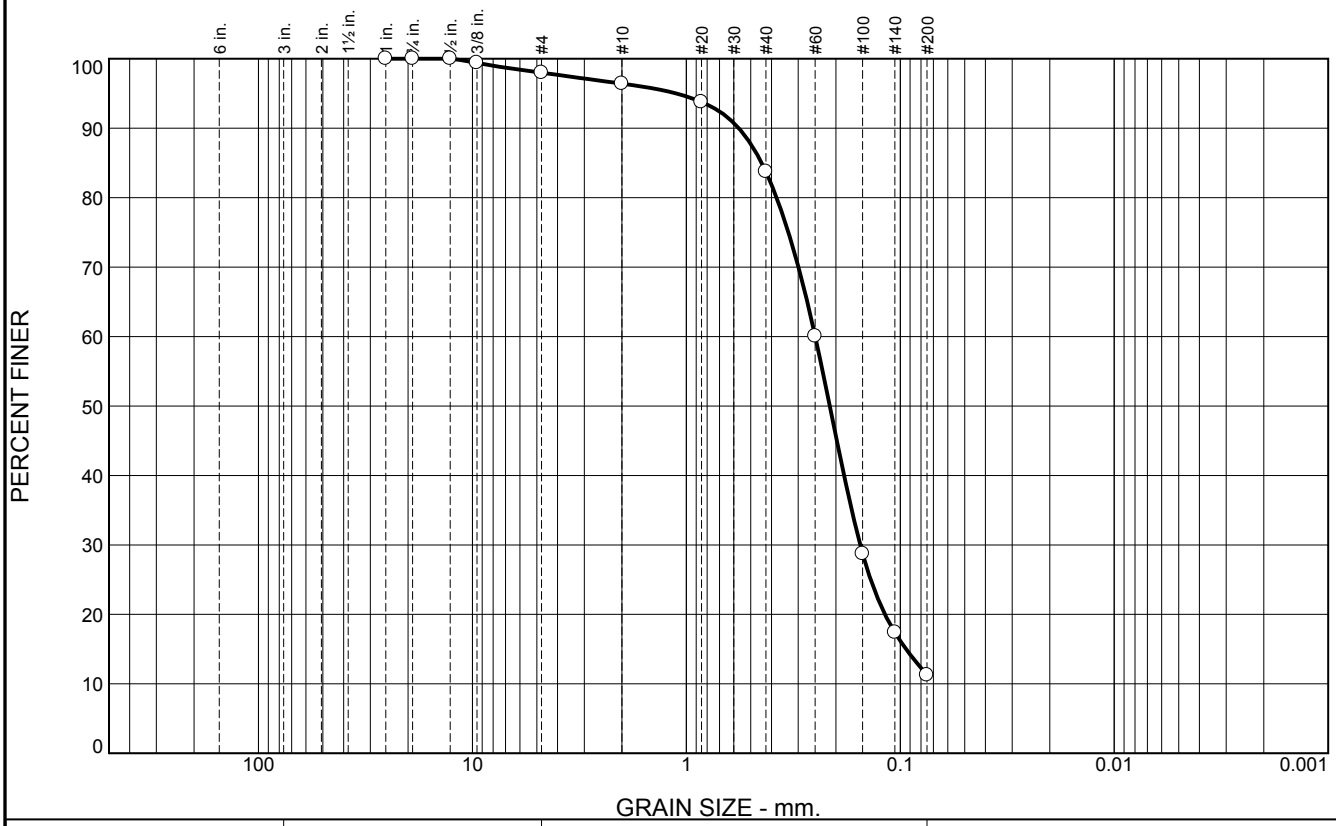
Penetration 19.1'

Recovery 13.4'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.0	1.6	12.7	72.4	11.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.4		
#4	98.0		
#10	96.4		
#20	93.8		
#40	83.7		
#60	60.1		
#100	28.7		
#140	17.4		
#200	11.3		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5689 D_{85}= 0.4448 D_{60}= 0.2498
D_{50}= 0.2136 D_{30}= 0.1540 D_{15}= 0.0940
D_{10}= C_u= C_c=

Classification

USCS= SP-SM AASHTO=

Remarks

Location: BI-PBS-01-12 A
Sample Number: 6471 (45) **Depth:** 0.0' **Date:** 12/03/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-002-12

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 2 SHEETS
	South Atlantic	Mobile District	

1. PROJECT	MsCIP Barrier Island Restoration Petit Bois Pass-OCS East
2. BORING DESIGNATION	BI-PBS-002-12
LOCATION COORDINATES	E = 1,138,053 N = 231,827
3. DRILLING AGENCY	Corps of Engineers - CESAM
CONTRACTOR FILE NO.	
4. NAME OF DRILLER	American Vibracore Systems, Inc.
5. DIRECTION OF BORING	☒ VERTICAL ☐ INCLINED
DEG. FROM VERTICAL	
BEARING	
6. THICKNESS OF OVERBURDEN	N/A
7. DEPTH DRILLED INTO ROCK	N/A
8. TOTAL DEPTH OF BORING	20.0 Ft.
9. SIZE AND TYPE OF BIT	N/A
10. COORDINATE SYSTEM/DATUM	State Plane, MSE (U.S. Ft.)
HORIZONTAL	NAD83
VERTICAL	NAVD88
11. MANUFACTURER'S DESIGNATION OF DRILL	Vibracore
☐ AUTO HAMMER ☐ MANUAL HAMMER	
12. TOTAL SAMPLES	
DISTURBED	
UNDISTURBED (UD)	0
13. TOTAL NUMBER CORE BOXES	
14. WATER DEPTH	50.9 Ft.
15. DATE BORING	STARTED 11-26-12 / COMPLETED 11-26-12
16. ELEVATION TOP OF BORING	-50.2 Ft.
17. TOTAL RECOVERY FOR BORING	100%
18. SIGNATURE AND TITLE OF INSPECTOR	Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-50.2	0.0				
-58.0	7.8		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, shell fragments in interval 0-2.7 ft., greenish gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.22 mm % Fines: 1.6
				B	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.21 mm % Fines: 3.9
-59.7	9.5		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace shell fragments, greenish gray (SC)	NS	
-61.7	11.5		CLAY, lean, mostly clay, some sand, trace shell fragments, greenish gray (CL)		
-66.7	16.5		CLAY, fat, mostly clay, moderately stiff with some clayey sand nodules, greenish gray mottled with brown (CH)		
-68.6	18.4		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace clay, trace shell fragments, gray (SM)		
-70.2	20.0		CLAY, fat, mostly clay, trace fine-grained sand-sized quartz, trace wood debris, moderately stiff, gray (CH)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13658° Long = -88.34678°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,138,053 Y = 231,827	ELEVATION TOP OF BORING -50.2 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13658° Long = -88.34678°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-02-12

Coordinate System
Latitude / Longitude

Latitude 30 08.195

Longitude 088 20.807

Date 11/26/2012

Start Time 12:43:05

End Time 12:44:50

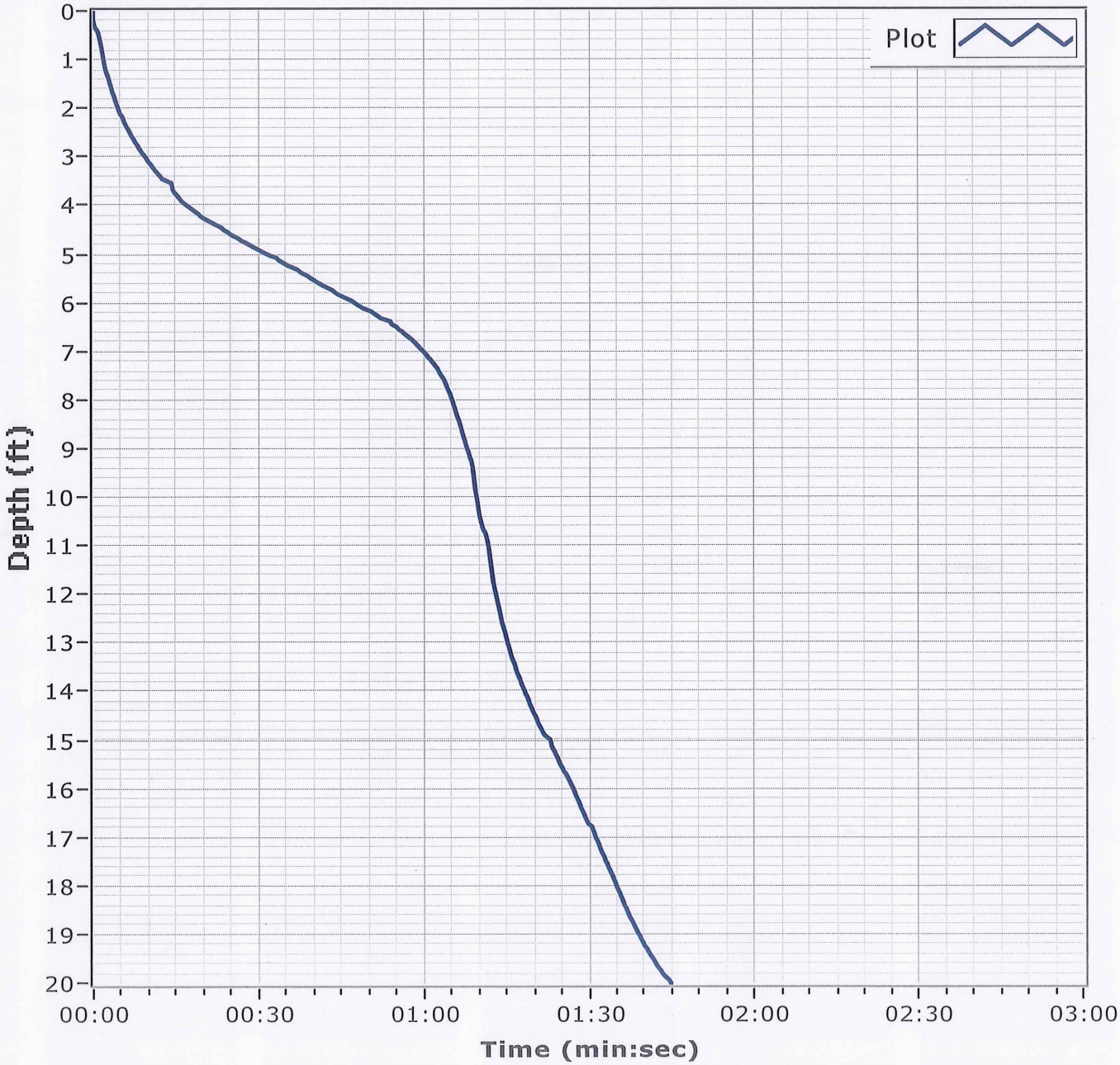
Total Time 00:01:45

Water Depth 50.9'

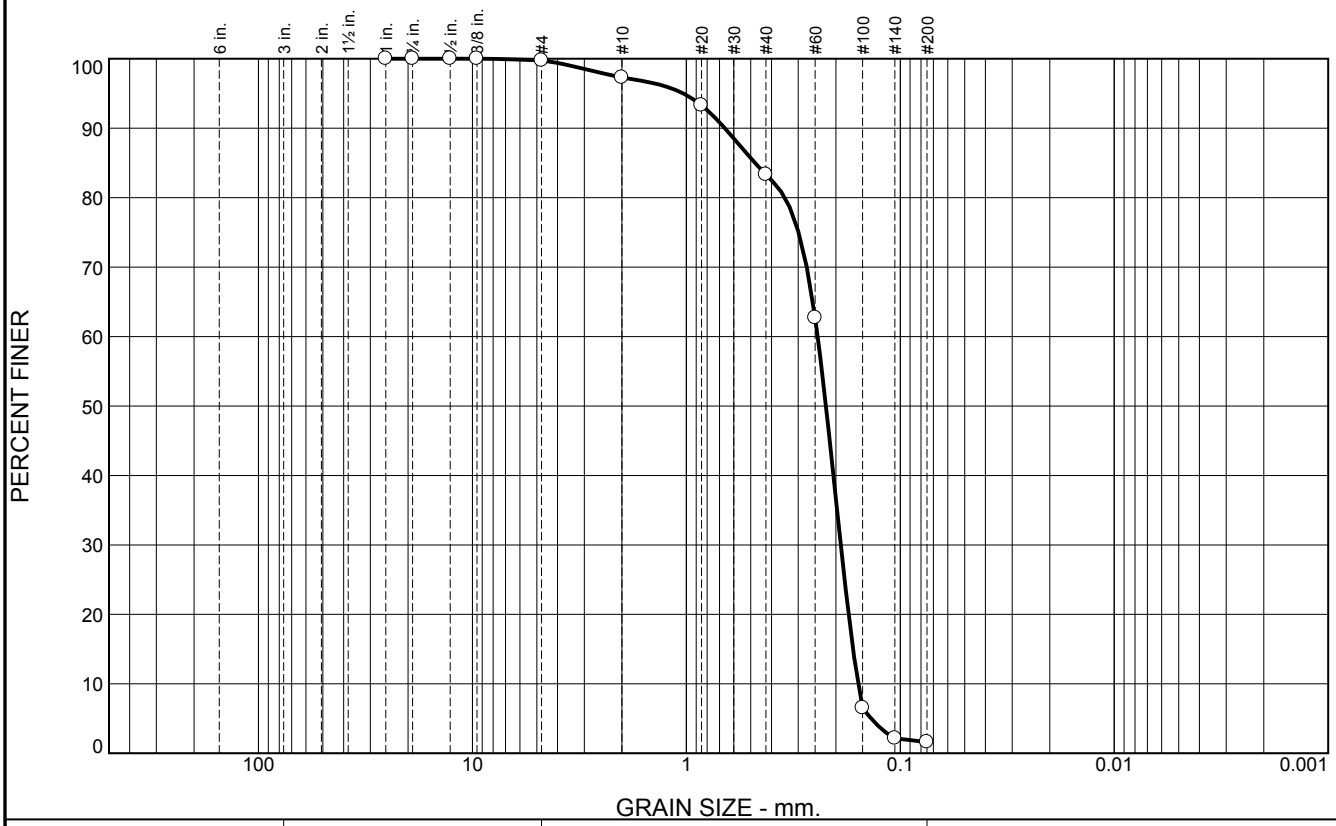
Penetration 20.0'

Recovery 19.5'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.3	2.4	14.0	81.7	1.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.7		
#10	97.3		
#20	93.3		
#40	83.3		
#60	62.7		
#100	6.5		
#140	2.2		
#200	1.6		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6616 D_{85}= 0.4781 D_{60}= 0.2432
D_{50}= 0.2225 D_{30}= 0.1898 D_{15}= 0.1665
D_{10}= 0.1575 C_u= 1.54 C_c= 0.94

Classification

USCS= SP AASHTO=

Remarks

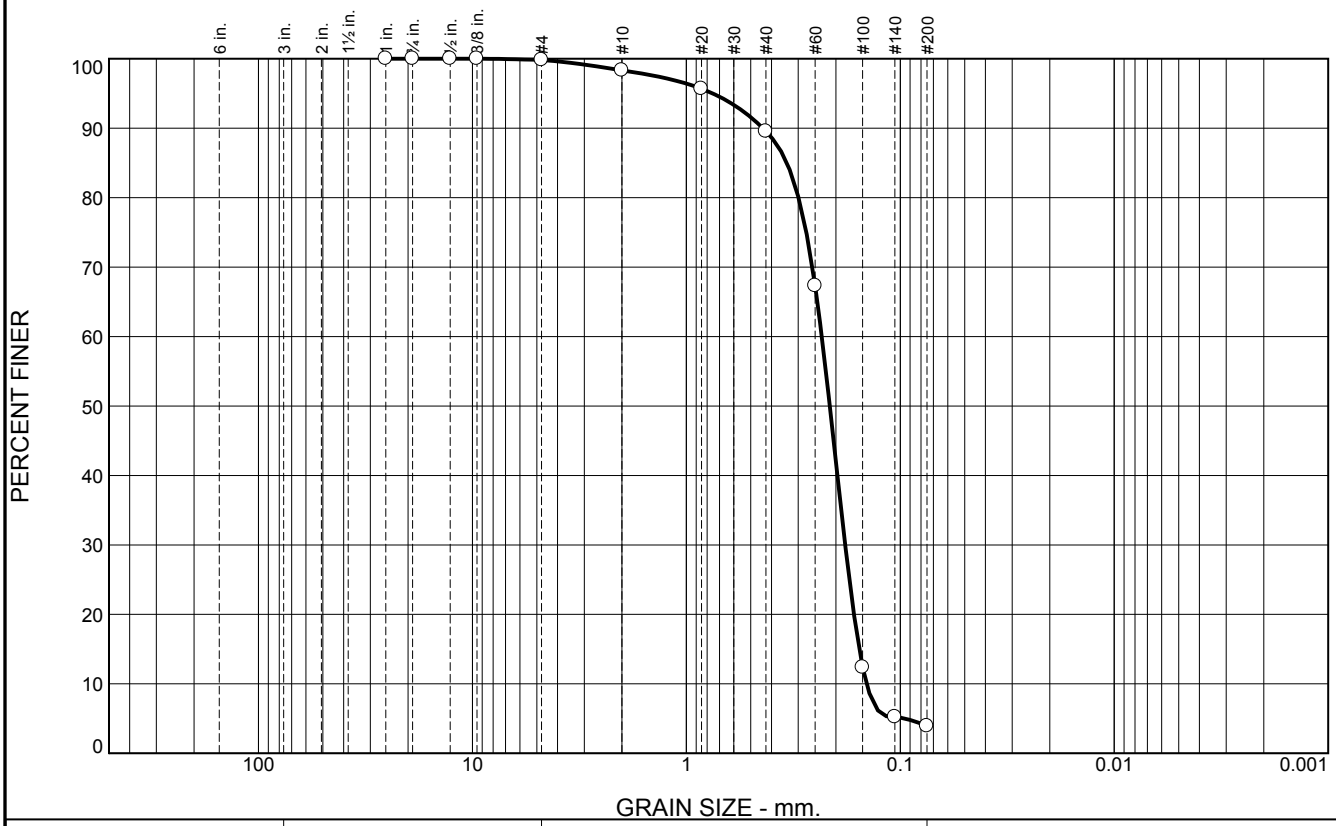
Location: BI-PBS-02-12 A
Sample Number: 6469 (55) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	1.5	8.8	85.6	3.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	98.3		
#20	95.7		
#40	89.5		
#60	67.3		
#100	12.4		
#140	5.2		
#200	3.9		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4395 D_{85}= 0.3391 D_{60}= 0.2327
D_{50}= 0.2136 D_{30}= 0.1810 D_{15}= 0.1556
D_{10}= 0.1438 C_u= 1.62 C_c= 0.98

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBS-02-12 B
Sample Number: 6469 (56) **Depth:** 4.5' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-003-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 2 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-003-12 — LOCATION COORDINATES: E = 1,138,716 N = 232,102	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 59.7 Ft.
	15. DATE BORING — STARTED: 11-26-12 — COMPLETED: 11-26-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -59.4 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.5 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-59.4	0.0				
-61.2	1.8		SAND, clayey, mostly fine-grained sand-sized quartz, some shell fragments, with sandy clay stringers, gray mottled with brown (SC)		
-66.5	7.1		CLAY, lean, mostly clay, trace shell fragments, pockets of sandy clay, medium plasticity, gray mottled with brown (CL)		
-78.9	19.5		SAND, clayey, mostly fine-grained sand-sized quartz, trace shell fragments, low plasticity, gray (SC) At El. -67.6 Ft., mostly fine-grained sand-sized quartz, some clay, trace shell fragments, trace wood debris, alternating layers of clayey sand and sandy clay, gray	NS	

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13733° Long = -88.34468°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,138,716 Y = 232,102	ELEVATION TOP OF BORING -59.4 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			applying NOAA tidal gauge data conversion factor.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13733° Long = -88.34468°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-03-12

Coordinate System
Latitude / Longitude

Latitude 30 08.240

Longitude 088 20.681

Date 11/26/2012

Start Time 09:52:42

End Time 09:53:38

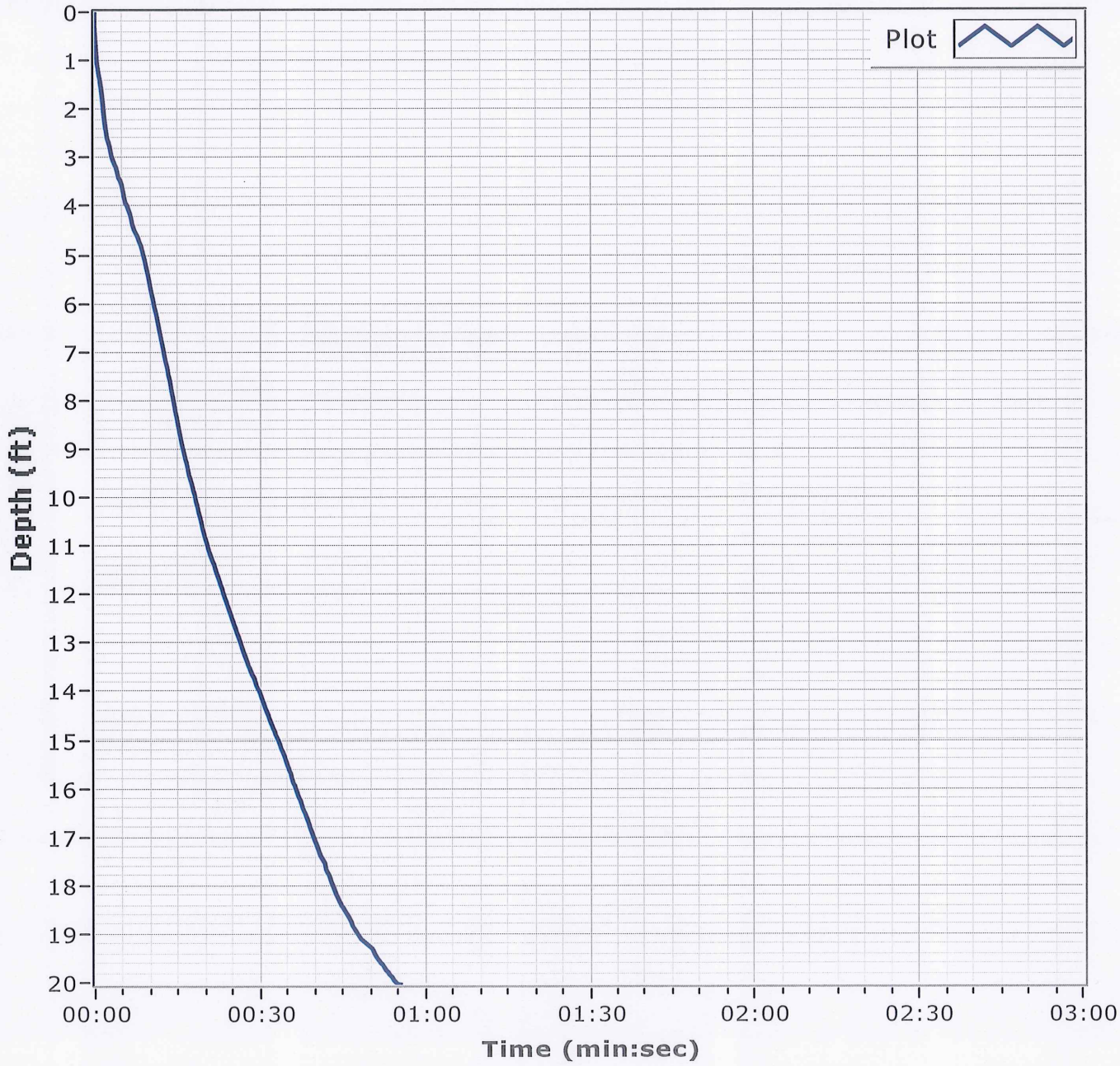
Total Time 00:00:55

Water Depth 59.7'

Penetration 20.0'

Recovery 19.5'

Comments



Boring Designation BI-PBS-004-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 2 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-004-12 — LOCATION COORDINATES: E = 1,139,523 N = 232,429	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 49.8 Ft.
	15. DATE BORING — STARTED: 11-26-12 — COMPLETED: 11-26-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -50.1 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 20.0 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-50.1	0.0				
			SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, trace wood debris, greenish gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.26 mm % Fines: 1.2
				B	Classification: SP Color: 5Y 7/2-light gray D50: 0.23 mm % Fines: 2.4
-58.7	8.6				
-59.8	9.7		SAND, silty, mostly fine to medium-grained sand-sized quartz, some shell fragments, greenish gray (SM)	NS	
			CLAY, lean, mostly clay, some fine-grained sand-sized quartz, trace shell fragments, medium stiffness, brown mottled with gray (CL) At El. -60.6 Ft., mostly clay, some fine-grained sand-sized quartz, medium stiffness, some bands of fat clay throughout interval, greenish gray mottled with brown		
-65.6	15.5				
			SAND, clayey, mostly fine-grained sand-sized quartz, trace shell fragments, gray (SC)		
-69.6	19.5				
-70.1	20.0		CLAY, fat, mostly clay, trace shell fragments, medium stiffness, gray (CH)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13822° Long = -88.34212°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,139,523 Y = 232,429	ELEVATION TOP OF BORING -50.1 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13822° Long = -88.34212°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-04-12

Coordinate System
Latitude / Longitude

Latitude 30 08.293

Longitude 088 20.527

Date 11/26/2012

Start Time 10:36:10

End Time 10:37:58

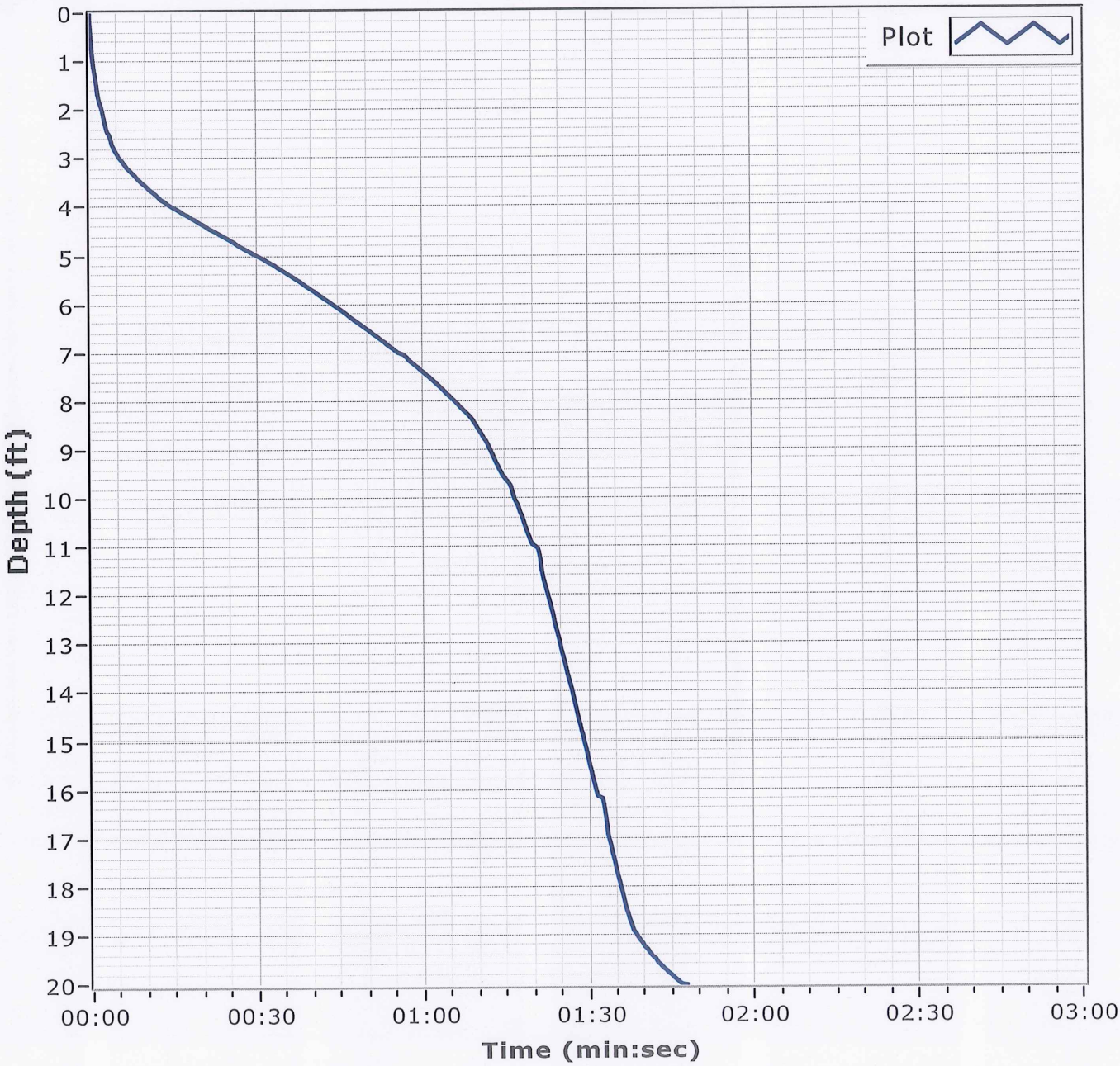
Total Time 00:01:48

Water Depth 59.3'

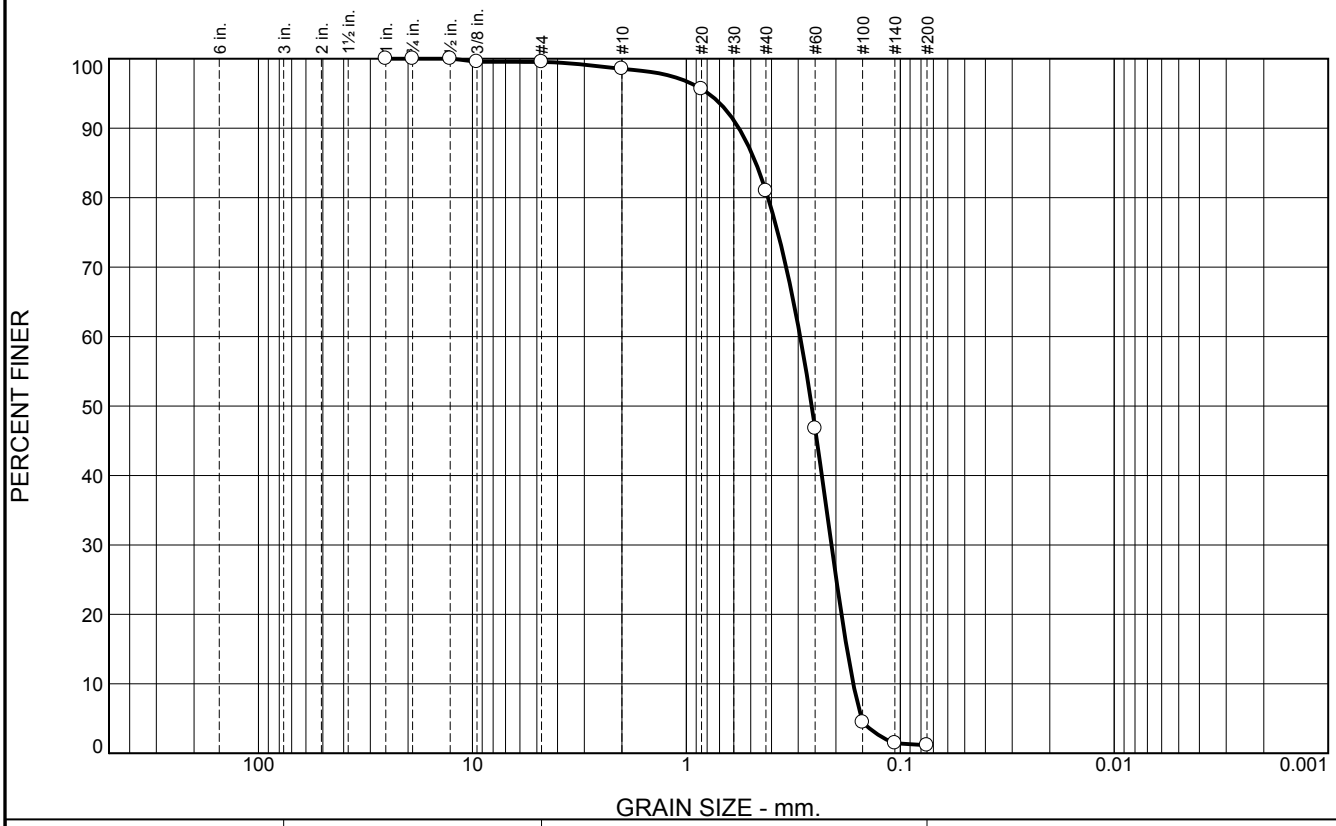
Penetration 20.0'

Recovery 20.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.5	1.0	17.5	79.8	1.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.6		
#4	99.5		
#10	98.5		
#20	95.6		
#40	81.0		
#60	46.8		
#100	4.5		
#140	1.5		
#200	1.2		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5681 D_{85}= 0.4736 D_{60}= 0.2939
D_{50}= 0.2594 D_{30}= 0.2097 D_{15}= 0.1776
D_{10}= 0.1660 C_u= 1.77 C_c= 0.90

Classification

USCS= SP AASHTO=

Remarks

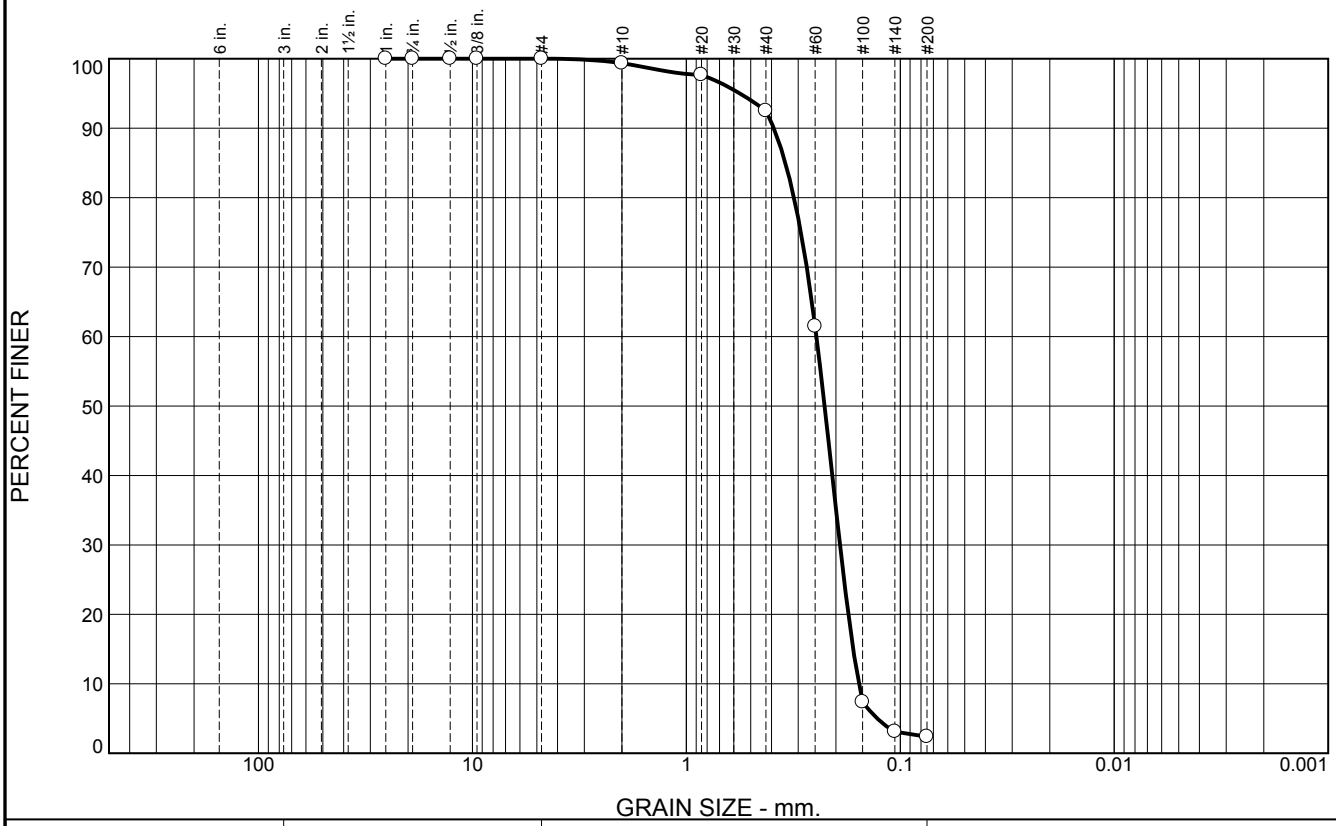
Location: BI-PBS-04-12 A
Sample Number: 6469 (57) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.7	6.8	90.1	2.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.3		
#20	97.7		
#40	92.5		
#60	61.5		
#100	7.4		
#140	3.1		
#200	2.4		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3901 D_{85}= 0.3443 D_{60}= 0.2465
D_{50}= 0.2258 D_{30}= 0.1914 D_{15}= 0.1662
D_{10}= 0.1563 C_u= 1.58 C_c= 0.95

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBS-04-12 B
Sample Number: 6469 (58) **Depth:** 5.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-005-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-005-12 — LOCATION COORDINATES: E = 1,140,581 N = 232,863	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 60.1 Ft.
	15. DATE BORING — STARTED: 11-24-12 — COMPLETED: 11-24-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -60.1 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 17.4 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-60.1	0.0				
-62.1	2.0		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, some shell fragments, dark gray (SC)	NS	
-63.1	3.0		CLAY, lean, mostly clay, little fine-grained sand-sized quartz, dark gray (CL)		
-64.1	4.0		SAND, silty, mostly fine-grained sand-sized quartz, some silt, little shell fragments, gray (SM)	A	Classification: SM Color: 2.5Y 6/2-light brownish gray D50: 0.2 mm % Fines: 14.4
-66.1	6.0		SAND, poorly-graded, mostly fine-grained sand-sized quartz, little shell fragments, trace silt, gray (SP)	NS	
-66.9	6.8		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, gray (SM)		
-71.3	11.2		CLAY, silty, some clay, some silt, trace fine-grained sand-sized quartz, gray (CL-ML)		
-73.0	12.9		SAND, silty, mostly fine-grained sand-sized quartz, some silt, little clay, gray (SM)		
-77.5	17.4		CLAY, fat, mostly clay, trace fine-grained sand-sized quartz, stiff, lt. gray to tan (CH)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13940° Long = -88.33877°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-05-12

Coordinate System
Latitude / Longitude

Latitude 30 08.364

Longitude 088 20.326

Date 11/24/2012

Start Time 15:56:19

End Time 15:56:29

Total Time 00:00:10

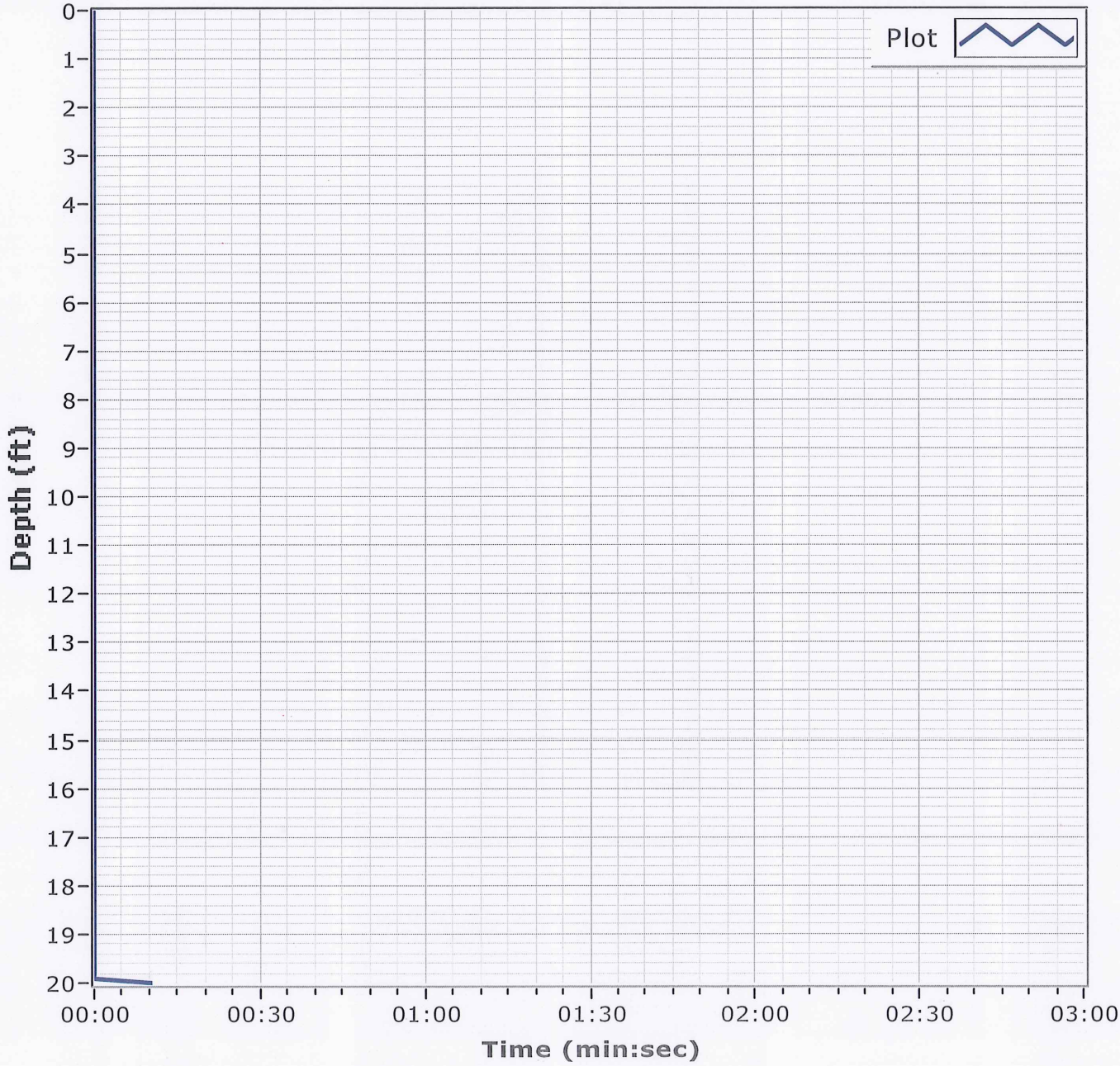
Water Depth 60.1'

Penetration 20.0'

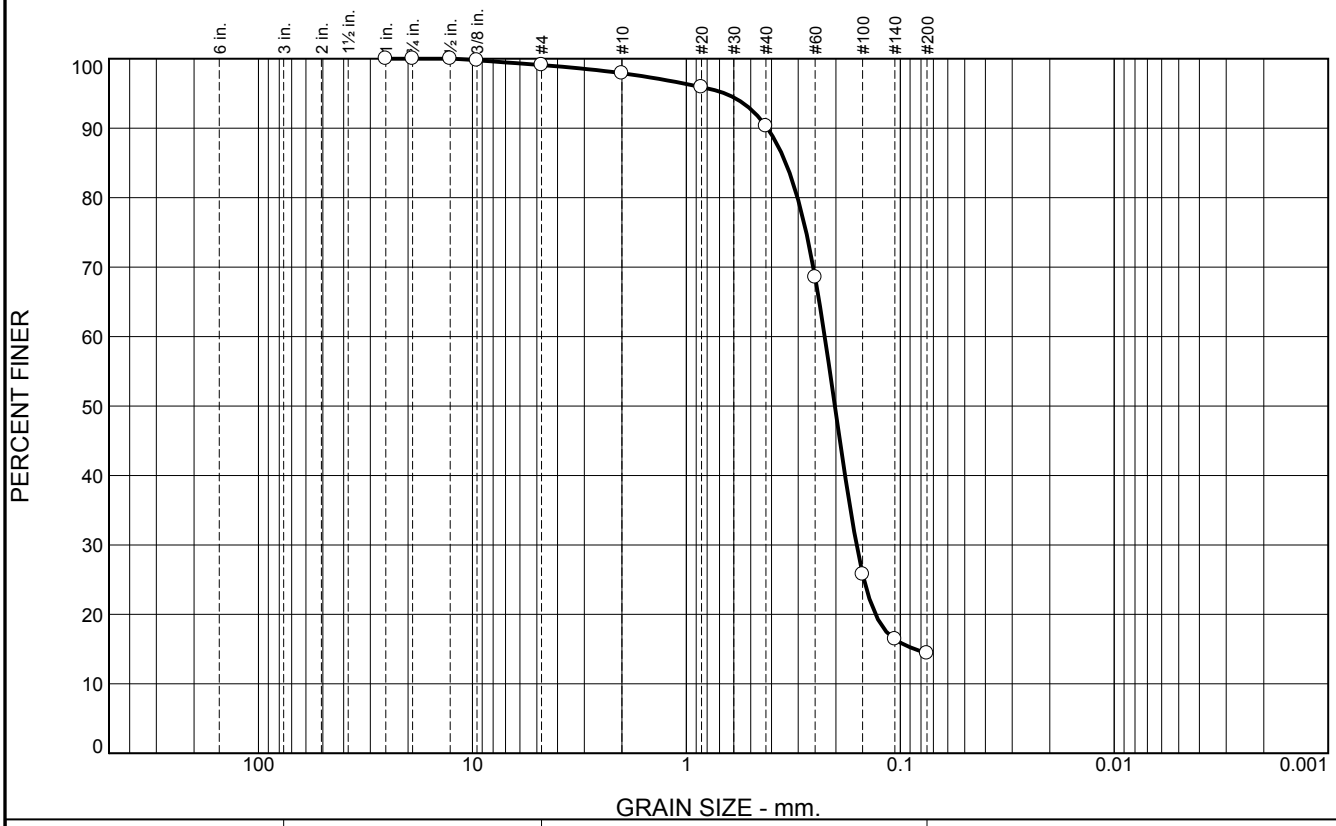
Recovery 17.4'

Comments

Note: Penetrometer cable damaged.



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.9	1.2	7.6	75.9	14.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.8		
#4	99.1		
#10	97.9		
#20	95.9		
#40	90.3		
#60	68.5		
#100	25.8		
#140	16.4		
#200	14.4		

* (no specification provided)

Material Description

Fine grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4182 D_{85}= 0.3430 D_{60}= 0.2255
D_{50}= 0.2022 D_{30}= 0.1602 D_{15}= 0.0857
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBS-05-12 A
Sample Number: 6469 (54) **Depth:** 4.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-006-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 2 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-006-12 — LOCATION COORDINATES: E = 1,141,764 N = 233,356	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 55 Ft.
	15. DATE BORING — STARTED: 11-24-12 — COMPLETED: 11-24-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -55.1 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.7 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-55.1	0.0				
-60.1	5.0		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace fines, lt. gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.27 mm % Fines: 2.8
-62.0	6.9		SAND, silty, mostly fine-grained sand-sized quartz, clay lenses throughout, gray (SM)	NS	
-71.5	16.4		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, trace shells, clay lenses throughout, gray (SP-SM)	B	Classification: SM Color: 5Y 6/2-light olive gray D50: 0.1672 mm % Fines: 18
-74.1	19.0		SAND, silty, mostly fine-grained sand-sized quartz, some shells, gray (SM)	NS	
-74.8	19.7		CLAY, lean, mostly clay, little fine-grained sand-sized quartz, little shell fragments, gray (CL)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.14072° Long = -88.33502°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,141,764 Y = 233,356	ELEVATION TOP OF BORING -55.1 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.14072° Long = -88.33502°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-06-12-a

Coordinate System
Latitude / Longitude

Latitude 30 08.443

Longitude 088 20.105

Date 11/24/2012

Start Time 14:29:00

End Time 14:30:10

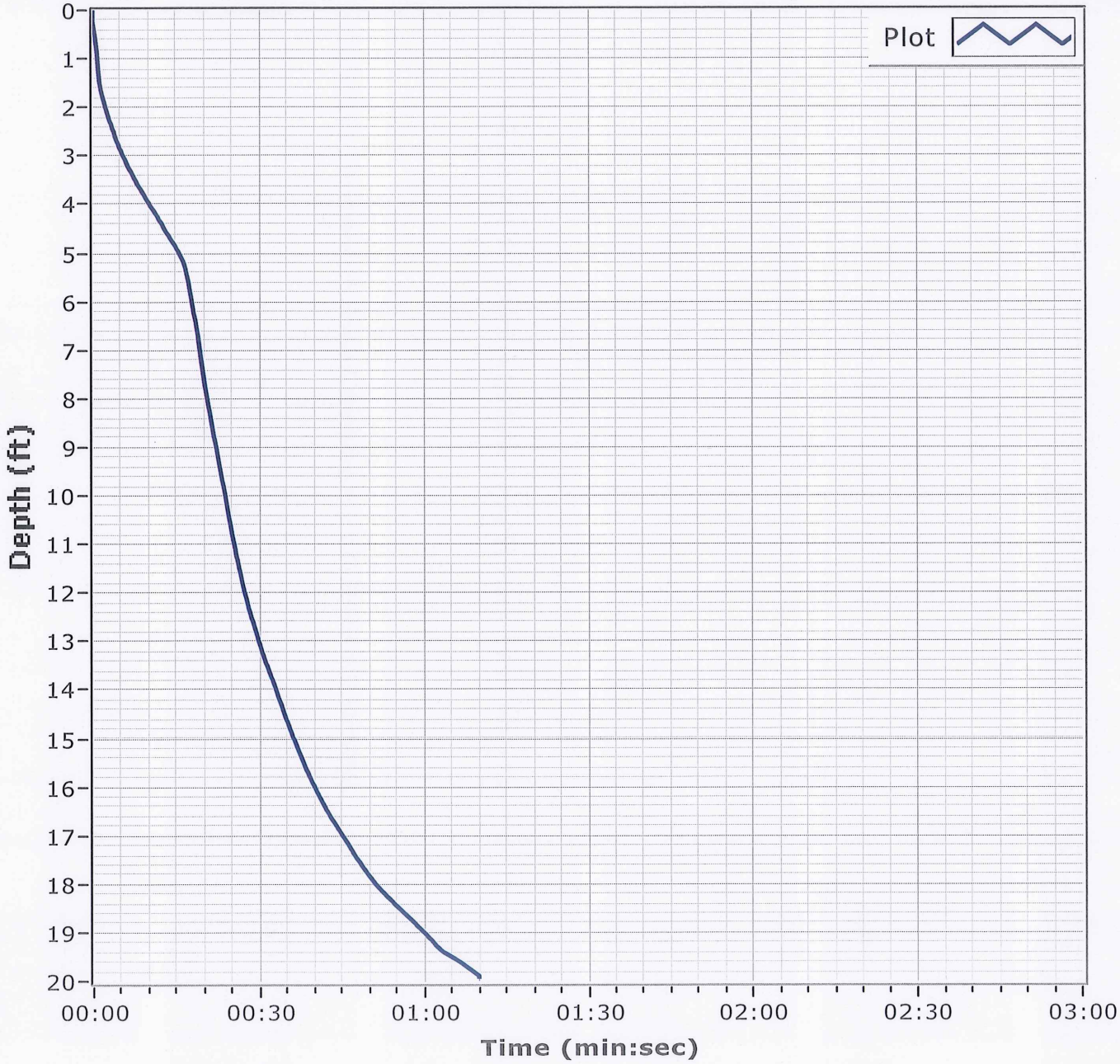
Total Time 00:01:10

Water Depth 55.0'

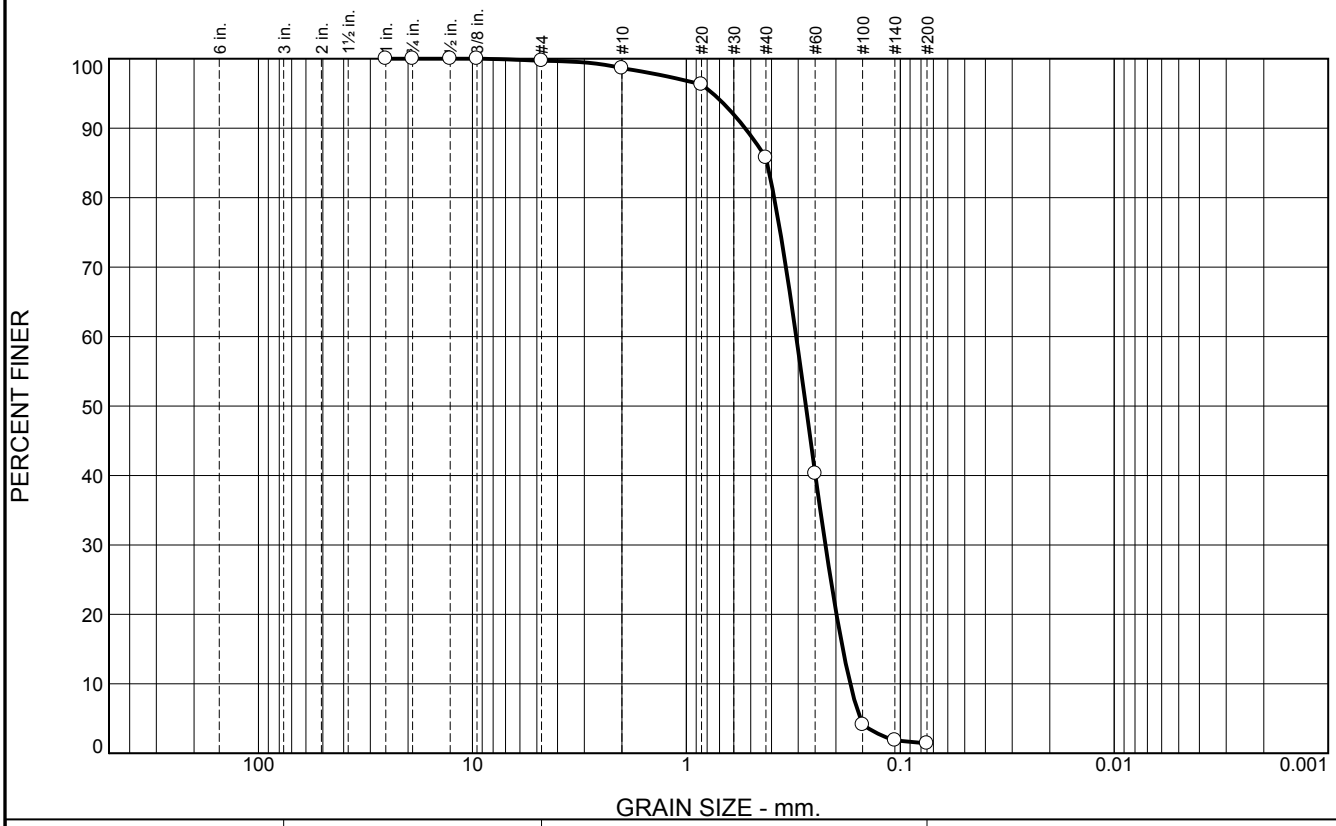
Penetration 20.0'

Recovery 19.7'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.3	1.1	12.8	84.4	1.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.7		
#10	98.6		
#20	96.3		
#40	85.8		
#60	40.3		
#100	4.1		
#140	1.9		
#200	1.4		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5317 D_{85}= 0.4195 D_{60}= 0.3067
D_{50}= 0.2764 D_{30}= 0.2238 D_{15}= 0.1857
D_{10}= 0.1715 C_u= 1.79 C_c= 0.95

Classification

USCS= SP AASHTO=

Remarks

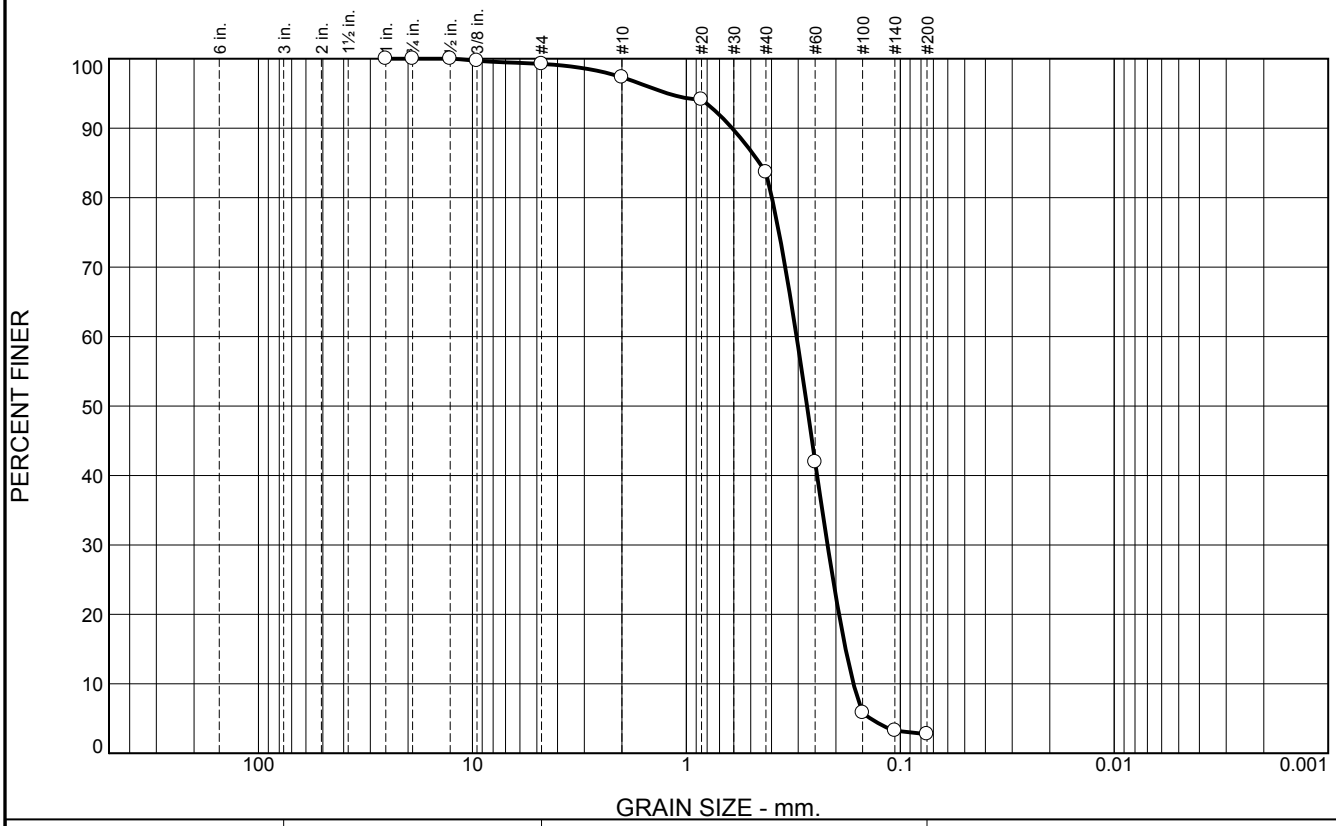
Location: BI-PBS-06-12a A
Sample Number: 6469 (47) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.8	1.9	13.7	80.8	2.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.7		
#4	99.2		
#10	97.3		
#20	94.1		
#40	83.6		
#60	41.9		
#100	5.8		
#140	3.3		
#200	2.8		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6106 D_{85}= 0.4553 D_{60}= 0.3055
D_{50}= 0.2731 D_{30}= 0.2188 D_{15}= 0.1802
D_{10}= 0.1656 C_u= 1.84 C_c= 0.95

Classification

USCS= SP AASHTO=

Remarks

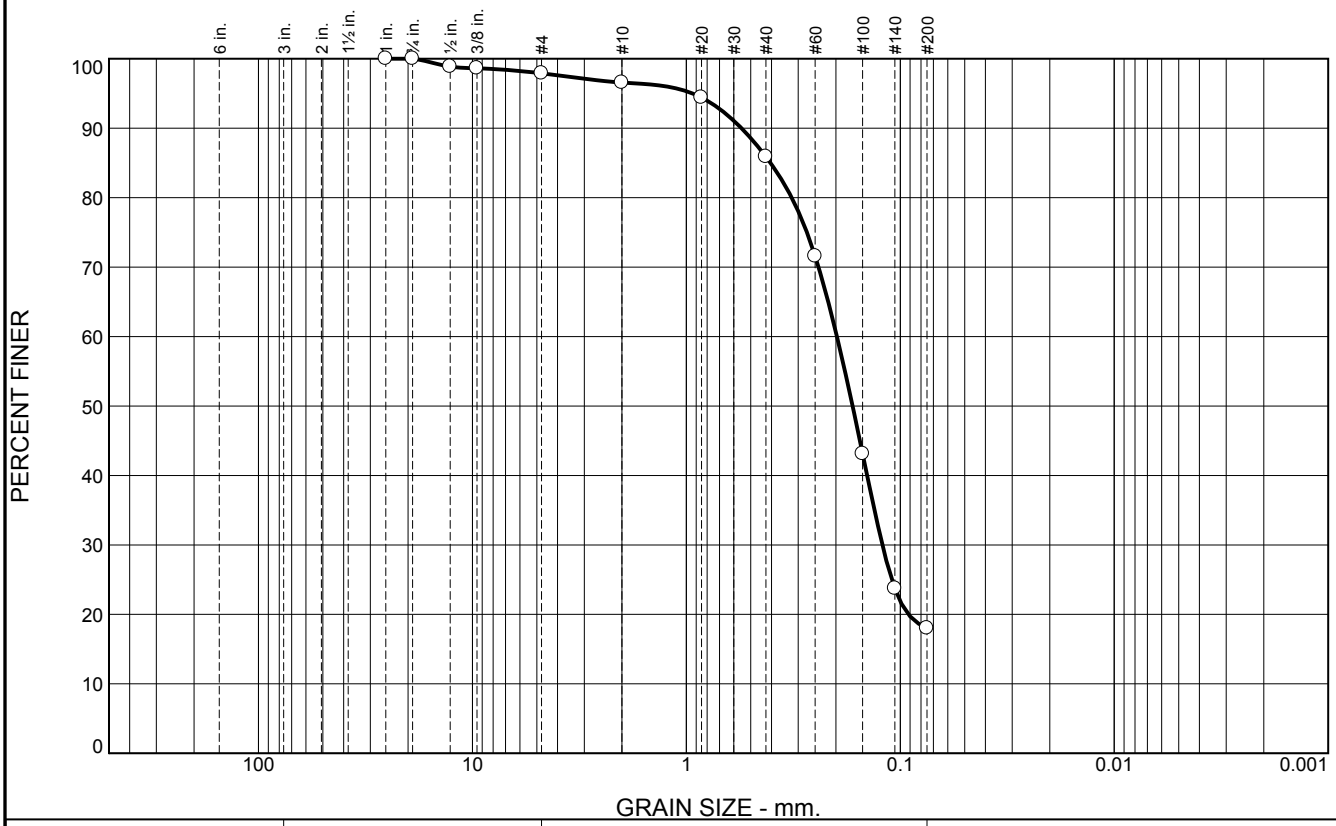
Location: BI-PBS-06-12b A
Sample Number: 6469 (48) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.1	1.3	10.7	67.9	18.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	98.9		
.375	98.6		
#4	97.9		
#10	96.6		
#20	94.4		
#40	85.9		
#60	71.6		
#100	43.1		
#140	23.7		
#200	18.0		

* (no specification provided)

Material Description

Fine to medium grained, SILTY SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5527 D_{85}= 0.4046 D_{60}= 0.1978
D_{50}= 0.1672 D_{30}= 0.1213 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBS-06-12b B
Sample Number: 6469 (49) **Depth:** 6.9' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-007-12

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
	South Atlantic	Mobile District	

1. PROJECT	MsCIP Barrier Island Restoration Petit Bois Pass-OCS East
2. BORING DESIGNATION	BI-PBS-007-12
LOCATION COORDINATES	E = 1,142,976 N = 233,808
3. DRILLING AGENCY	Corps of Engineers - CESAM
CONTRACTOR FILE NO.	
4. NAME OF DRILLER	American Vibracore Systems, Inc.
5. DIRECTION OF BORING	☒ VERTICAL ☐ INCLINED
DEG. FROM VERTICAL	
BEARING	
6. THICKNESS OF OVERBURDEN	N/A
7. DEPTH DRILLED INTO ROCK	N/A
8. TOTAL DEPTH OF BORING	15.0 Ft.
9. SIZE AND TYPE OF BIT	N/A
10. COORDINATE SYSTEM/DATUM	State Plane, MSE (U.S. Ft.)
HORIZONTAL	NAD83
VERTICAL	NAVD88
11. MANUFACTURER'S DESIGNATION OF DRILL	Vibracore
☐ AUTO HAMMER ☐ MANUAL HAMMER	
12. TOTAL SAMPLES	DISTURBED: ; UNDISTURBED (UD): 0
13. TOTAL NUMBER CORE BOXES	
14. WATER DEPTH	60.9 Ft.
15. DATE BORING	STARTED 11-21-12; COMPLETED 11-21-12
16. ELEVATION TOP OF BORING	-60.5 Ft.
17. TOTAL RECOVERY FOR BORING	100%
18. SIGNATURE AND TITLE OF INSPECTOR	John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-60.5	0.0				
-64.0	3.5		SILT, inorganic-L, mostly silt, some fine-grained sand-sized quartz, trace shell fragments, gray (ML)	NS	
			SAND, poorly-graded, mostly fine-grained sand-sized quartz, few silt, trace wood debris, gray (SP)	A	Classification: SM Color: 2.5Y 5/2-grayish brown D50: 0.22 mm % Fines: 18.1
			At El. -71.0 Ft., mostly fine-grained sand-sized quartz, trace shell fragments, lt. gray to white	B	Classification: SP-SM Color: 2.5Y 7/2-light gray D50: 0.21 mm % Fines: 6.7
-75.5	15.0				

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.14197° Long = -88.33118°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-7-12

Coordinate System
Latitude / Longitude

Latitude 30 08.518

Longitude 088 19.871

Date 11/21/2012

Start Time 11:38:15

End Time 11:41:01

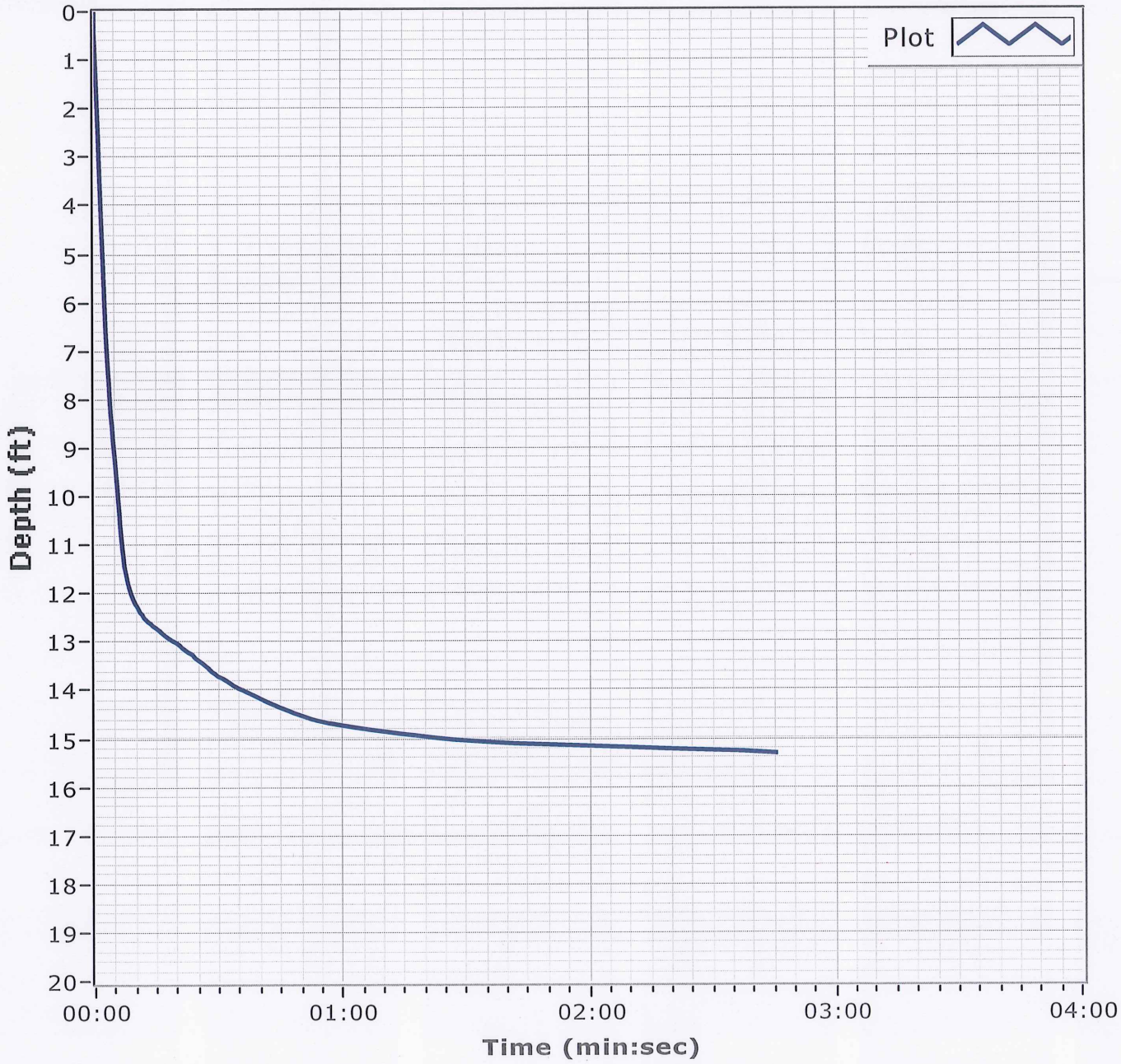
Total Time 00:02:45

Water Depth 60.9'

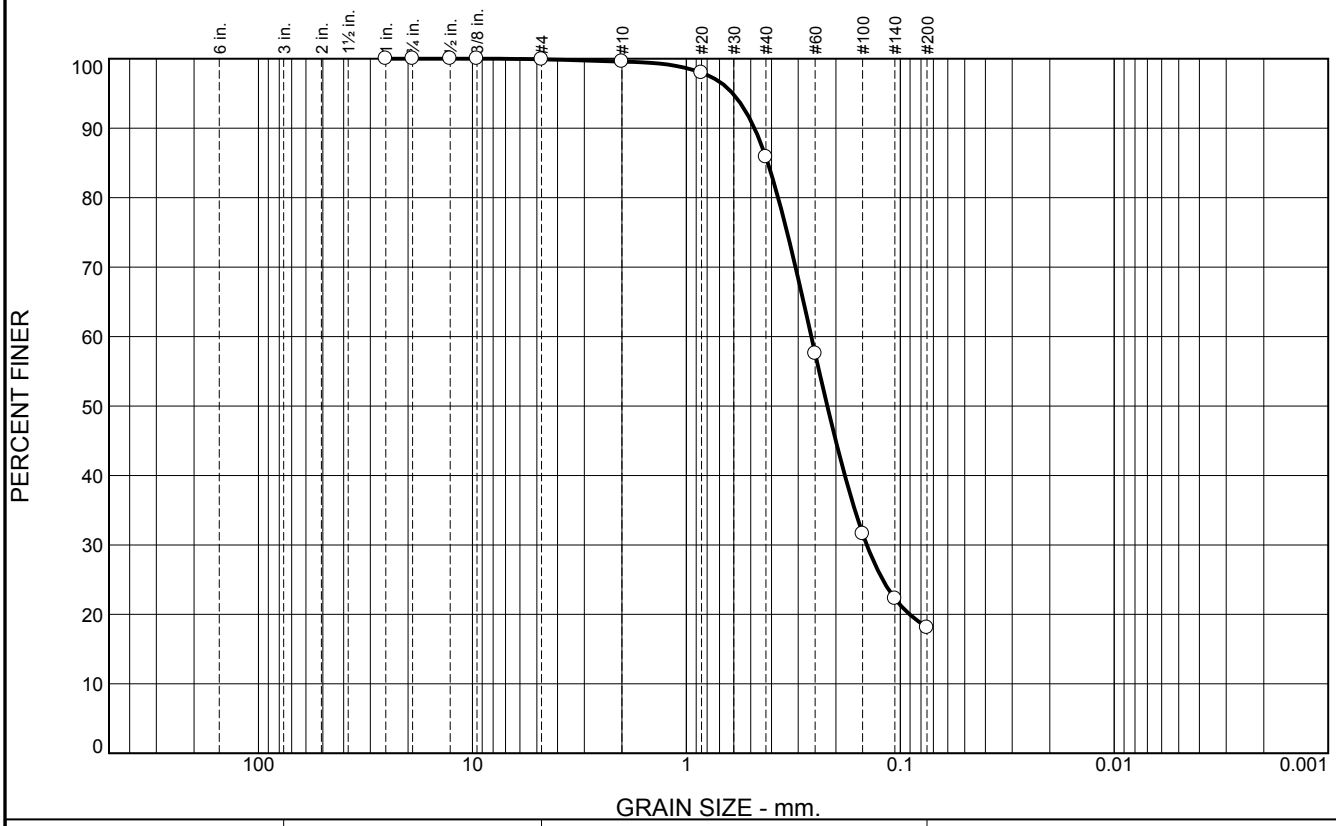
Penetration 15.3'

Recovery 15.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.3	13.8	67.7	18.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	99.6		
#20	98.0		
#40	85.8		
#60	57.6		
#100	31.6		
#140	22.3		
#200	18.1		

* (no specification provided)

Material Description

Fine to medium grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4805 D_{85}= 0.4161 D_{60}= 0.2606
D_{50}= 0.2193 D_{30}= 0.1435 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

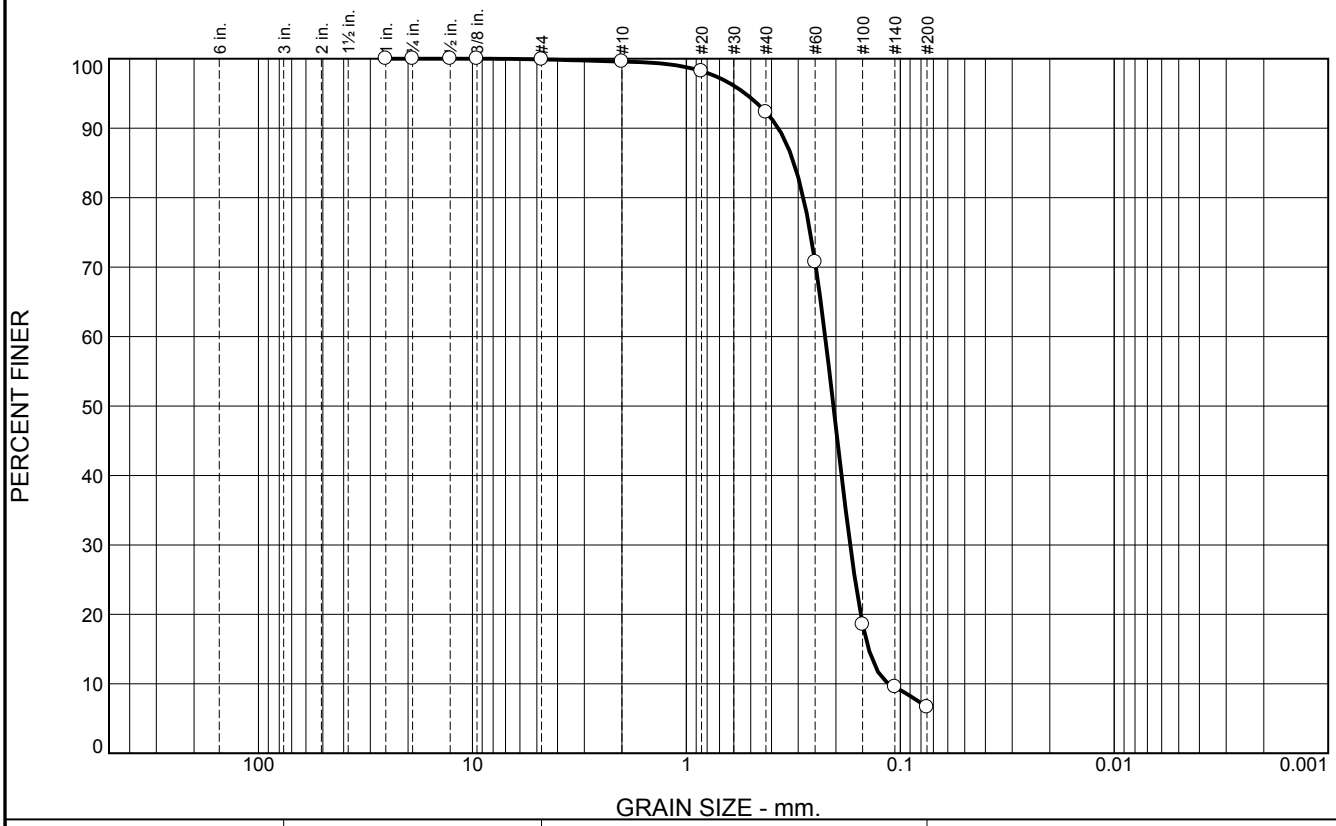
Location: BI-PBS-07-12 A
Sample Number: 6469 (8) **Depth:** 3.5' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.3	7.3	85.6	6.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	99.6		
#20	98.2		
#40	92.3		
#60	70.7		
#100	18.6		
#140	9.6		
#200	6.7		

* (no specification provided)

Material Description

Fine grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3716 D_{85}= 0.3144 D_{60}= 0.2244
D_{50}= 0.2054 D_{30}= 0.1716 D_{15}= 0.1406
D_{10}= 0.1125 C_u= 1.99 C_c= 1.17

Classification

USCS= SP-SM AASHTO=

Remarks

Location: BI-PBS-07-12 B
Sample Number: 6469 (9) **Depth:** 10.4' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-008-12

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
	South Atlantic	Mobile District	

1. PROJECT	MsCIP Barrier Island Restoration Petit Bois Pass-OCS East
2. BORING DESIGNATION	BI-PBS-008-12
LOCATION COORDINATES	E = 1,144,285 N = 234,334
3. DRILLING AGENCY	Corps of Engineers - CESAM
CONTRACTOR FILE NO.	
4. NAME OF DRILLER	American Vibracore Systems, Inc.
5. DIRECTION OF BORING	☒ VERTICAL ☐ INCLINED
DEG. FROM VERTICAL	
BEARING	
6. THICKNESS OF OVERBURDEN	N/A
7. DEPTH DRILLED INTO ROCK	N/A
8. TOTAL DEPTH OF BORING	18.1 Ft.
9. SIZE AND TYPE OF BIT	N/A
10. COORDINATE SYSTEM/DATUM	State Plane, MSE (U.S. Ft.)
HORIZONTAL	NAD83
VERTICAL	NAVD88
11. MANUFACTURER'S DESIGNATION OF DRILL	Vibracore
☐ AUTO HAMMER ☐ MANUAL HAMMER	
12. TOTAL SAMPLES	DISTURBED: ; UNDISTURBED (UD): 0
13. TOTAL NUMBER CORE BOXES	
14. WATER DEPTH	57 Ft.
15. DATE BORING	STARTED 11-21-12; COMPLETED 11-21-12
16. ELEVATION TOP OF BORING	-56.6 Ft.
17. TOTAL RECOVERY FOR BORING	100%
18. SIGNATURE AND TITLE OF INSPECTOR	John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-56.6	0.0				
-59.7	3.1		SAND, poorly-graded, mostly fine to medium-grained quartz, trace fines, trace shell fragments, lt. gray to gray (SP)	A	Classification: SP-SM Color: 5Y 6.5/2- D50: 0.22 mm % Fines: 5.2
-63.9	7.3		SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fines, few shell fragments, gray (SP)	B	Classification: SM Color: 5Y 5/2-olive gray D50: 0.19 mm % Fines: 19.2
-66.6	10.0		SAND, silty, mostly fine-grained sand-sized quartz, some fines, fines content increases with depth, gray (SM)	NS	
-68.1	11.5		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, clayey sand bordering on sandy clay with SP lense at 11.5 ft., dark gray (SC)		
-74.7	18.1		CLAY, lean, mostly clay, some sand, low to medium plasticity, lt. gray mottled with orange (CL)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.14340° Long = -88.32703°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-08-12

Coordinate System
Latitude / Longitude

Latitude 30 08.604

Longitude 088 19.622

Date 11/21/2012

Start Time 09:13:51

End Time 09:14:41

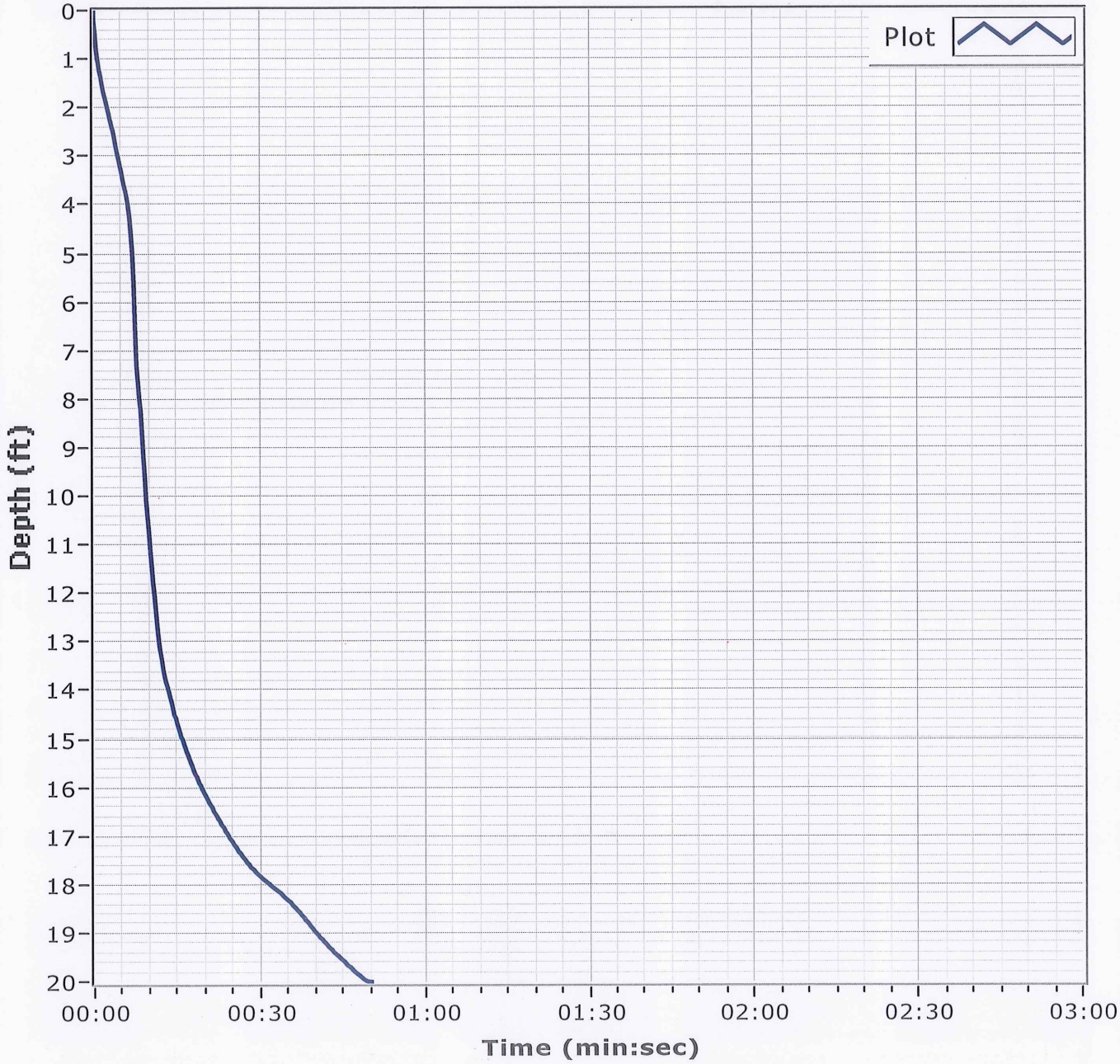
Total Time 00:00:50

Water Depth 57.0'

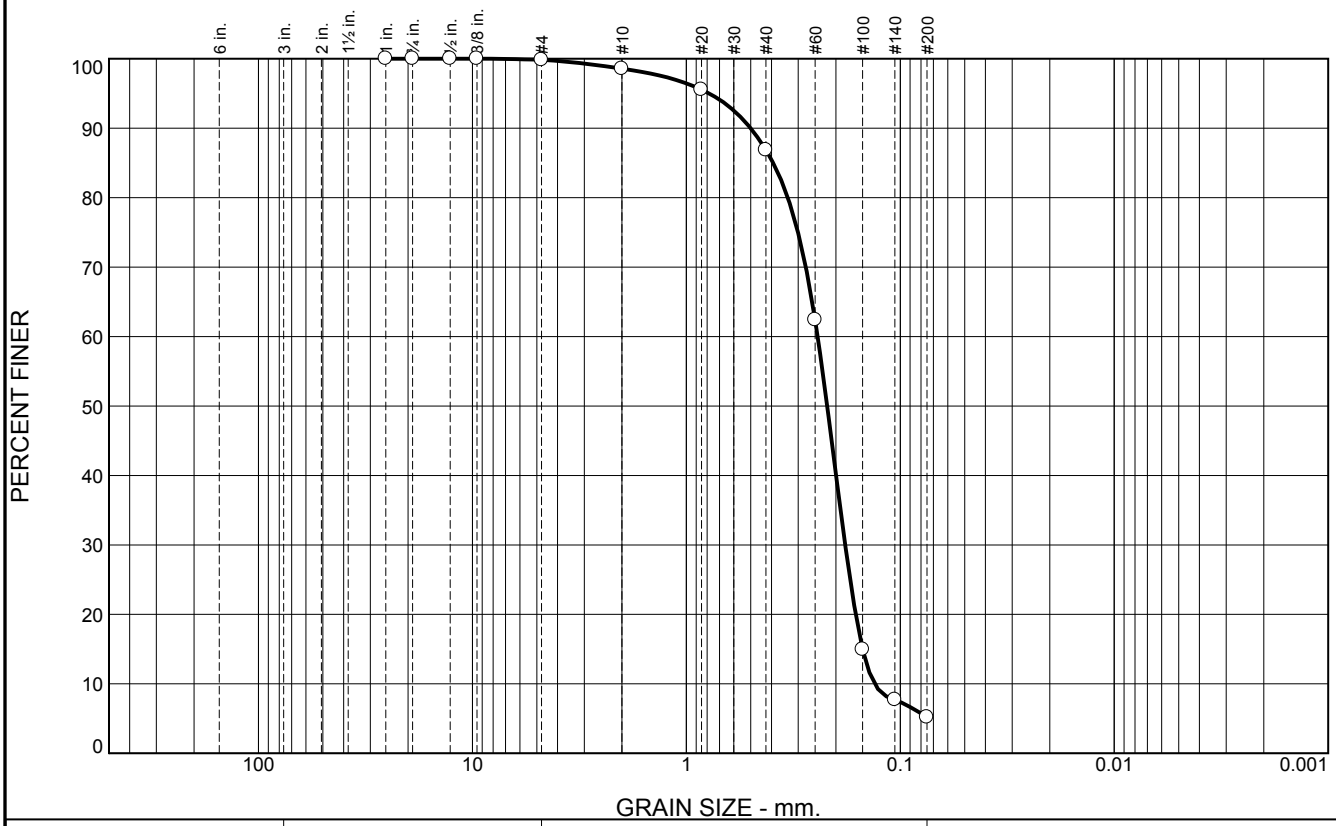
Penetration 20.0'

Recovery 18.1'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	1.2	11.7	81.7	5.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	98.6		
#20	95.5		
#40	86.9		
#60	62.4		
#100	15.0		
#140	7.7		
#200	5.2		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5011 D_{85}= 0.3929 D_{60}= 0.2433
D_{50}= 0.2196 D_{30}= 0.1810 D_{15}= 0.1501
D_{10}= 0.1320 C_u= 1.84 C_c= 1.02

Classification

USCS= SP-SM AASHTO=

Remarks

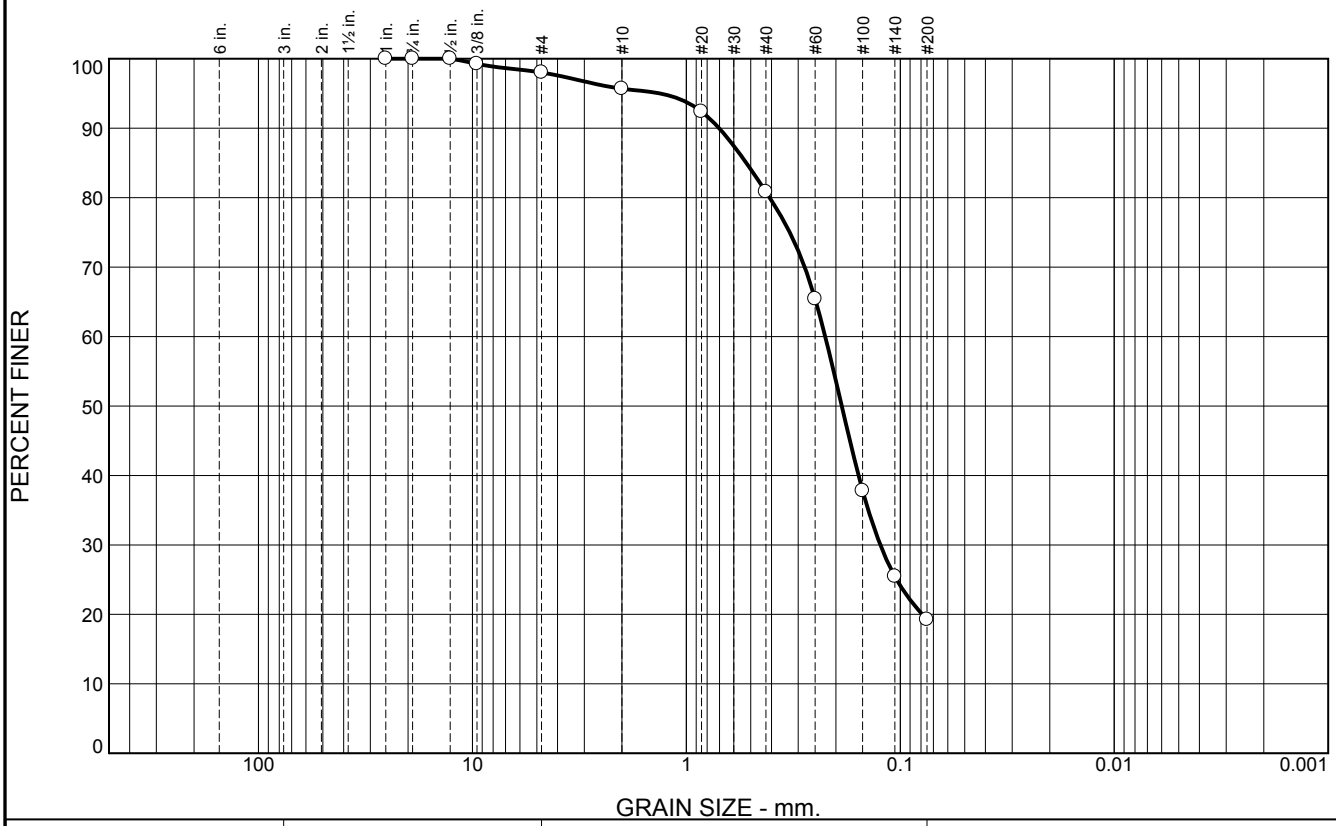
Location: BI-PBS-08-12 A
Sample Number: 6469 (1) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.0	2.3	14.9	61.6	19.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.2		
#4	98.0		
#10	95.7		
#20	92.4		
#40	80.8		
#60	65.4		
#100	37.8		
#140	25.4		
#200	19.2		

* (no specification provided)

Material Description

Fine to medium grained, SILTY SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.7036 D_{85}= 0.5247 D_{60}= 0.2243
D_{50}= 0.1878 D_{30}= 0.1240 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBS-08-12 B
Sample Number: 6469 (2) **Depth:** 3.1' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-009-12

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
	South Atlantic	Mobile District	

1. PROJECT MsCIP Barrier Island Restoration Petit Bois Pass-OCS East		9. SIZE AND TYPE OF BIT N/A	
		10. COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83 / VERTICAL NAVD88
2. BORING DESIGNATION BI-PBS-009-12	LOCATION COORDINATES E = 1,146,677 N = 235,316	11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore	☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY Corps of Engineers - CESAM	CONTRACTOR FILE NO.	12. TOTAL SAMPLES	DISTURBED / UNDISTURBED (UD) 0
4. NAME OF DRILLER American Vibracore Systems, Inc.		13. TOTAL NUMBER CORE BOXES	
5. DIRECTION OF BORING ☒ VERTICAL ☐ INCLINED	DEG. FROM VERTICAL / BEARING	14. WATER DEPTH 59.4 Ft.	
		15. DATE BORING	STARTED 11-19-12 / COMPLETED 11-19-12
6. THICKNESS OF OVERBURDEN N/A		16. ELEVATION TOP OF BORING -59.4 Ft.	
7. DEPTH DRILLED INTO ROCK N/A		17. TOTAL RECOVERY FOR BORING 100%	
8. TOTAL DEPTH OF BORING 17.3 Ft.		18. SIGNATURE AND TITLE OF INSPECTOR John Bass, Geotechnical Engineer	

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-59.4	0.0				
-62.0	2.6		SAND, clayey, mostly fine-grained sand-sized quartz, trace shell fragments, gray (SC)		
-76.7	17.3		CLAY, fat, mostly clay, trace fine-grained sand-sized quartz, trace shell fragments, trace wood debris, gray (CH)	NS	

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.14607° Long = -88.31945°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-9-12

Coordinate System
Latitude / Longitude

Latitude 30 08.764

Longitude 88 19.167

Date 11/19/2012

Start Time 10:09:30

End Time 10:10:26

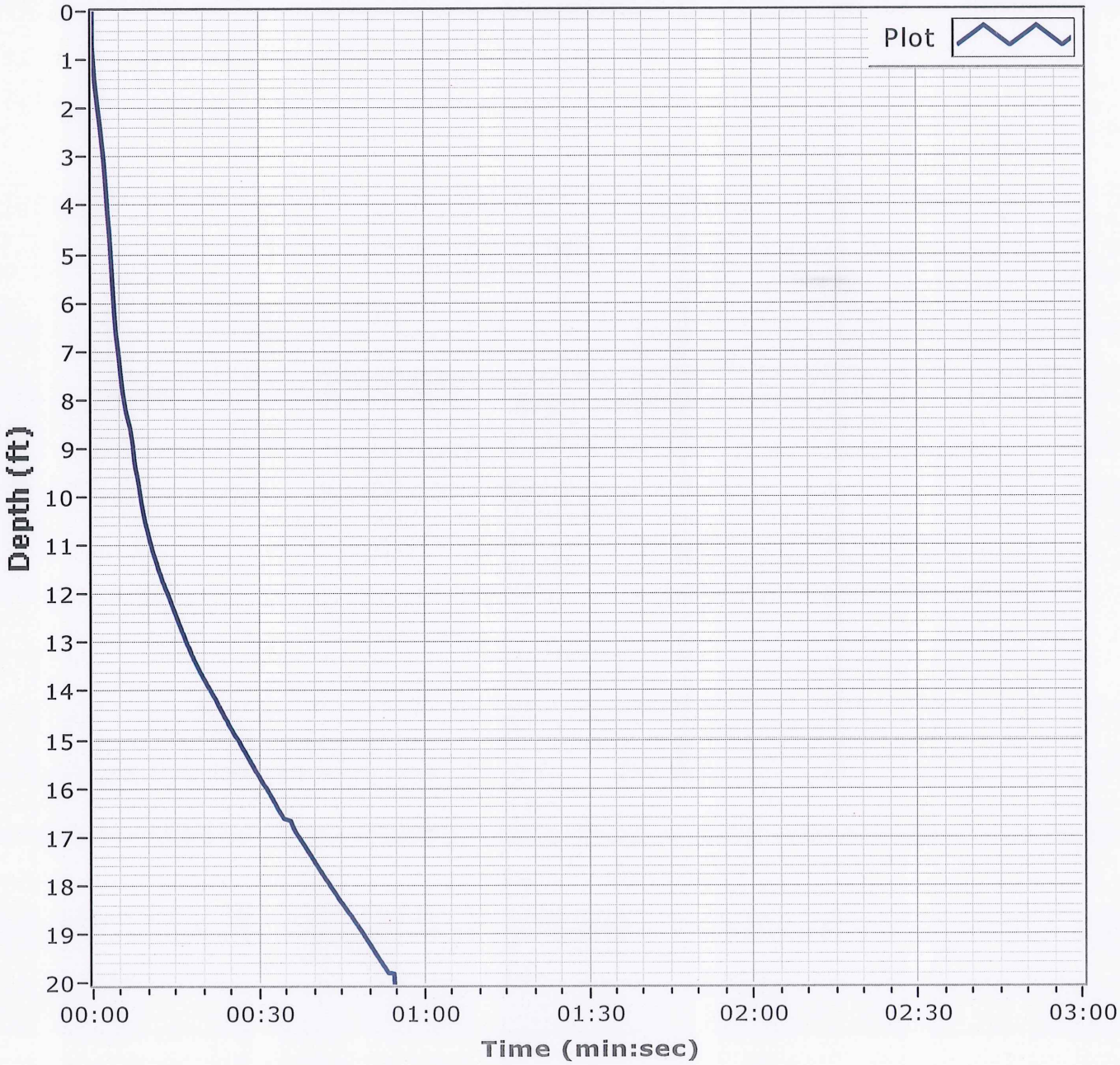
Total Time 00:00:55

Water Depth 59.4'

Penetration 20.8'

Recovery 17.2'

Comments



Boring Designation BI-PBS-010-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-010-12 — LOCATION COORDINATES: E = 1,136,488 N = 232,689	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 48.1 Ft.
	15. DATE BORING — STARTED: 11-23-12 — COMPLETED: 11-23-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -47.3 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 11.9 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-47.3	0.0				
-53.2	5.9		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little shell fragments, trace fines, gray to light gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.33 mm % Fines: 1.3
-55.7	8.4		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, trace shell fragments, gray to light gray (SP)	B	Classification: SP Color: 5Y 6.5/2- D50: 0.28 mm % Fines: 2.5
-57.0	9.7		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, trace shell fragments, gray (SP-SM)	NS	
-59.2	11.9		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, gray (SM)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13897° Long = -88.35172°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-10-12

Coordinate System
Latitude / Longitude

Latitude 30 08.338

Longitude 088 20.103

Date 11/23/2012

Start Time 15:44:24

End Time 15:50:33

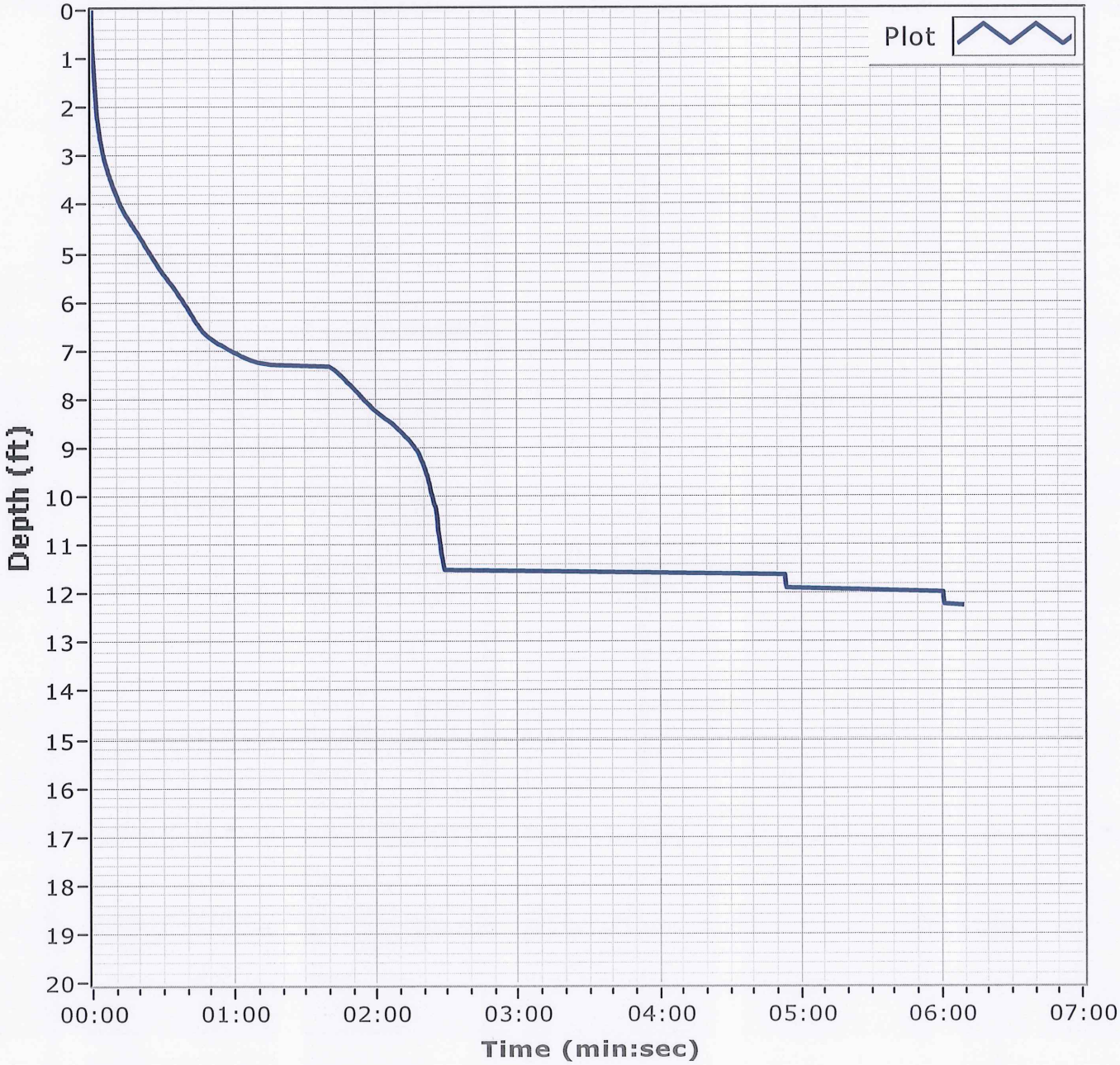
Total Time 00:06:09

Water Depth 48.1'

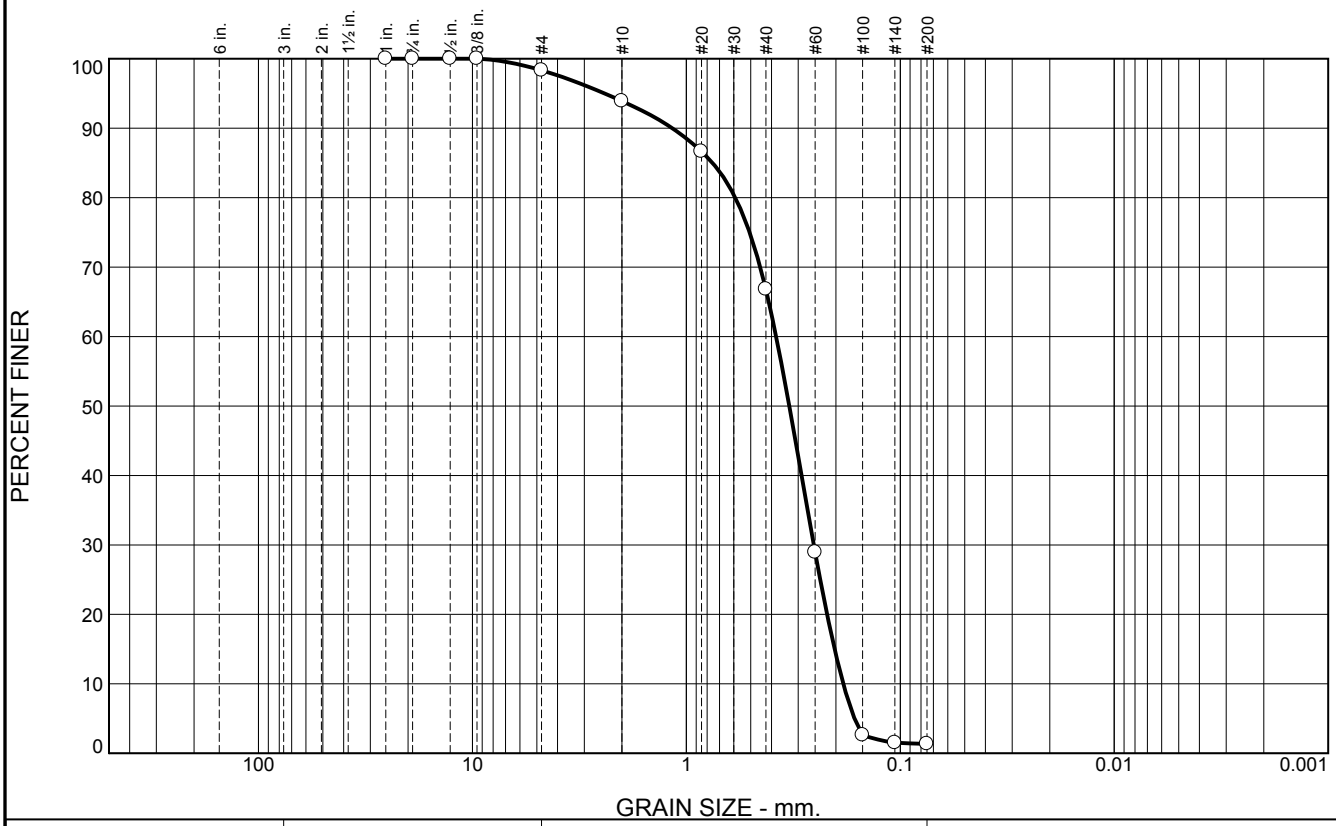
Penetration 12.3'

Recovery 11.9'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.7	4.4	27.1	65.5	1.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	98.3		
#10	93.9		
#20	86.6		
#40	66.8		
#60	28.9		
#100	2.6		
#140	1.5		
#200	1.3		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 1.1641 D_{85}= 0.7550 D_{60}= 0.3804
D_{50}= 0.3303 D_{30}= 0.2537 D_{15}= 0.2028
D_{10}= 0.1848 C_u= 2.06 C_c= 0.92

Classification

USCS= SP AASHTO=

Remarks

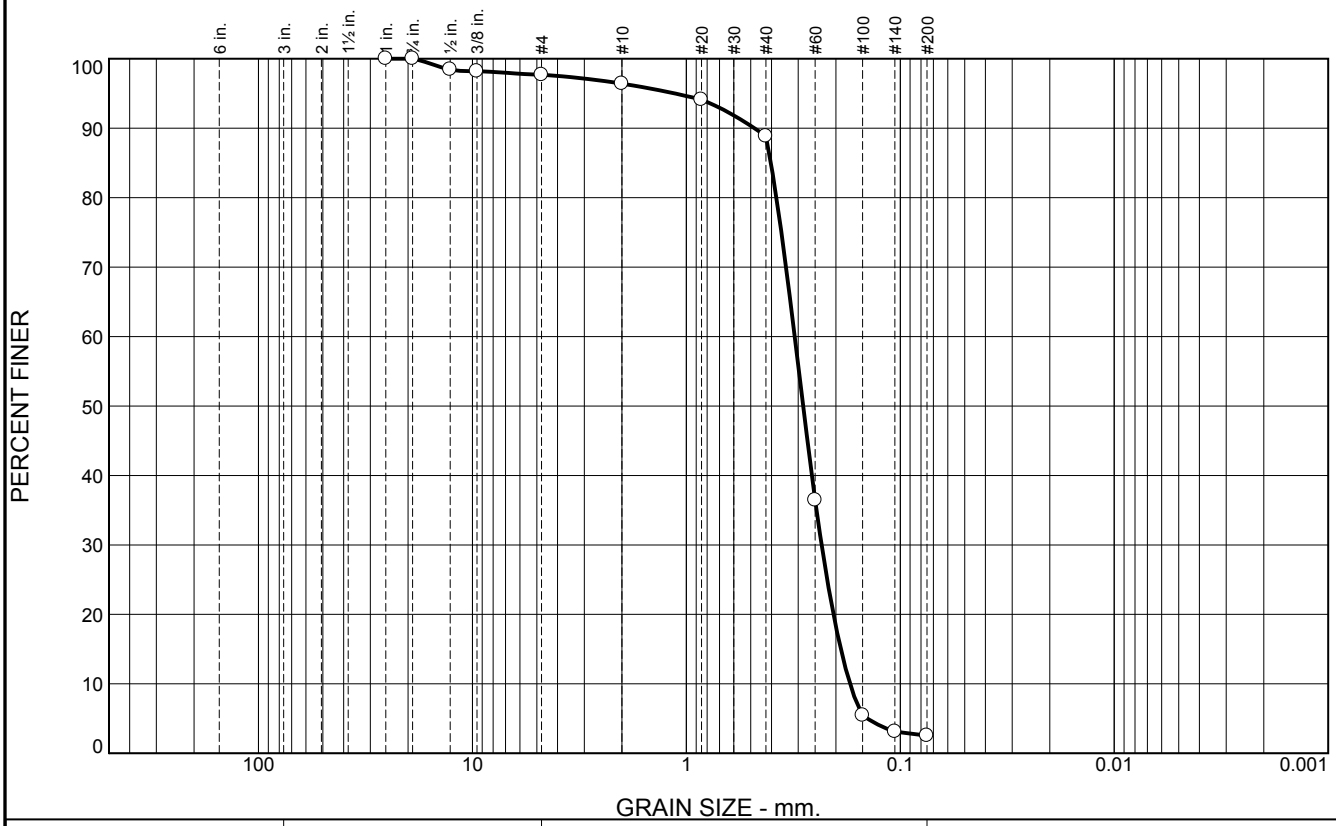
Location: BI-PBS-10-12 A
Sample Number: 6469 (38) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.3	1.3	7.6	86.3	2.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	98.4		
.375	98.2		
#4	97.7		
#10	96.4		
#20	94.1		
#40	88.8		
#60	36.4		
#100	5.4		
#140	3.1		
#200	2.5		

* (no specification provided)

Material Description

Fine grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4813 D_{85}= 0.4025 D_{60}= 0.3117
D_{50}= 0.2846 D_{30}= 0.2332 D_{15}= 0.1898
D_{10}= 0.1720 C_u= 1.81 C_c= 1.01

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBS-10-12 B
Sample Number: 6469 (39) **Depth:** 5.9' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-011-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-011-12 — LOCATION COORDINATES: E = 1,136,985 N = 232,368	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 46.4 Ft.
	15. DATE BORING — STARTED: 11-23-12 — COMPLETED: 11-23-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -46.2 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.3 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-46.2	0.0				
-54.8	8.6		SAND, poorly-graded, mostly fine-grained sand-sized quartz, little shell fragments, trace fines, lt. gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.28 mm % Fines: 1.6
-56.6	10.4		SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fines, trace shell fragments, lt. gray (SP)	B	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.24 mm % Fines: 3.2
-60.0	13.8		SAND, silty, mostly fine-grained sand-sized quartz, little shell fragments, gray (SM)	NS	
-60.7	14.5		CLAY, lean, mostly clay, some fine-grained sand-sized quartz, lt. gray mottled with gray and orange (CL)		
-61.8	15.6		SAND, silty, mostly fine-grained sand-sized quartz, some silt, gray (SM)		
-65.5	19.3		CLAY, lean, mostly clay, with sandy lenses throughout, lt. gray mottled with gray and orange (CL)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13808° Long = -88.35015°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-11-12

Coordinate System
Latitude / Longitude

Latitude 30 08.285

Longitude 088 20.009

Date 11/23/2012

Start Time 15:04:48

End Time 15:09:25

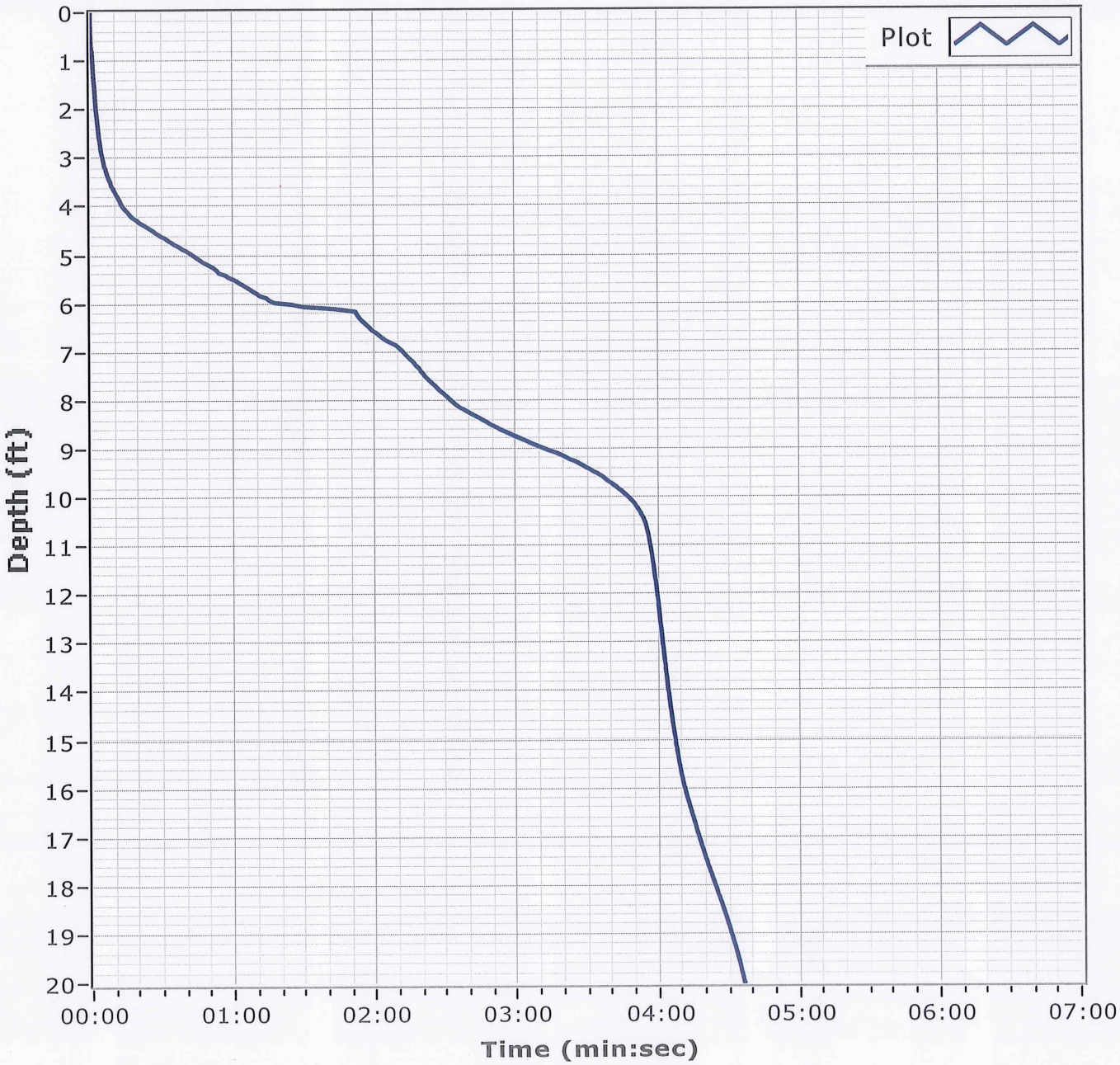
Total Time 00:04:36

Water Depth 46.4

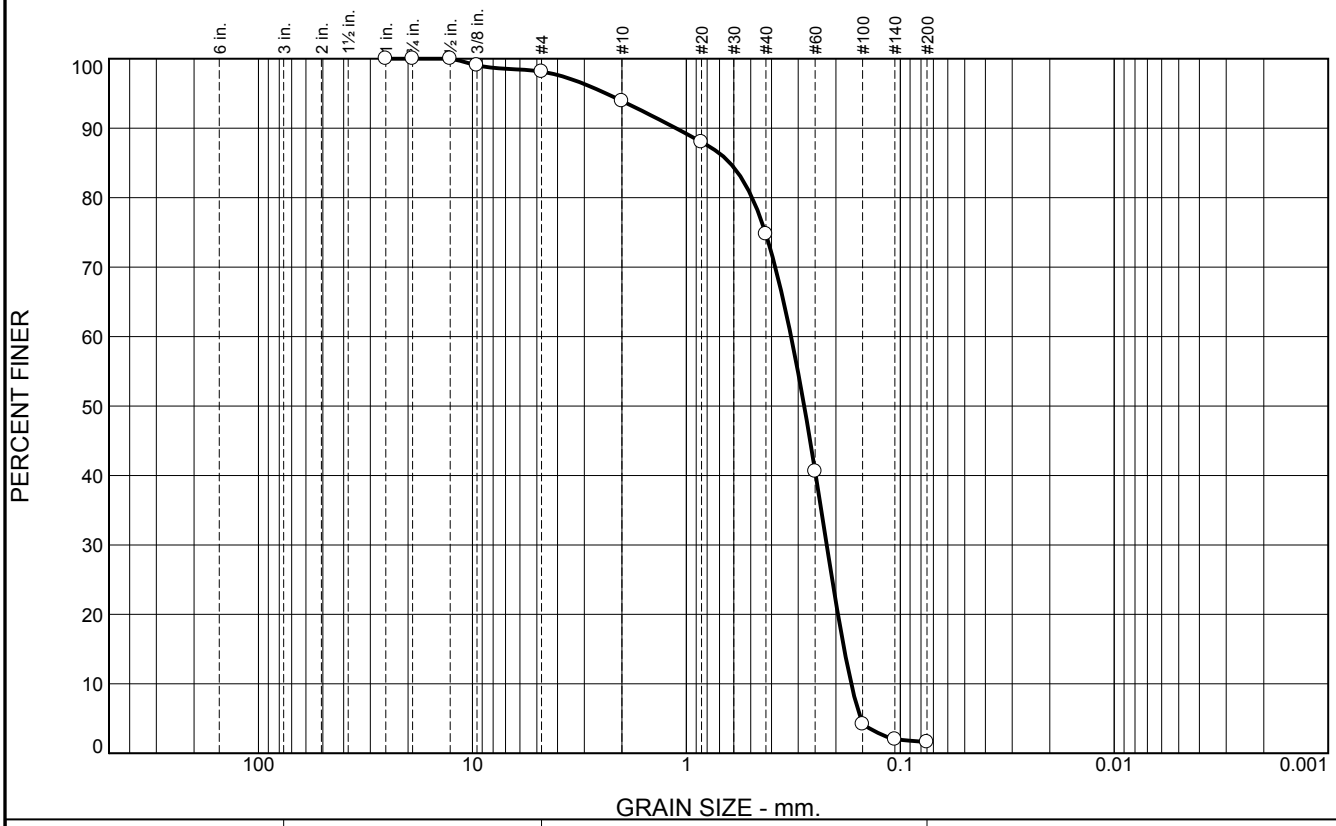
Penetration 20.0'

Recovery 19.3'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.9	4.2	19.1	73.2	1.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.1		
#4	98.1		
#10	93.9		
#20	88.0		
#40	74.8		
#60	40.6		
#100	4.2		
#140	2.0		
#200	1.6		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 1.1206 D_{85}= 0.6257 D_{60}= 0.3240
D_{50}= 0.2814 D_{30}= 0.2208 D_{15}= 0.1831
D_{10}= 0.1697 C_u= 1.91 C_c= 0.89

Classification

USCS= SP AASHTO=

Remarks

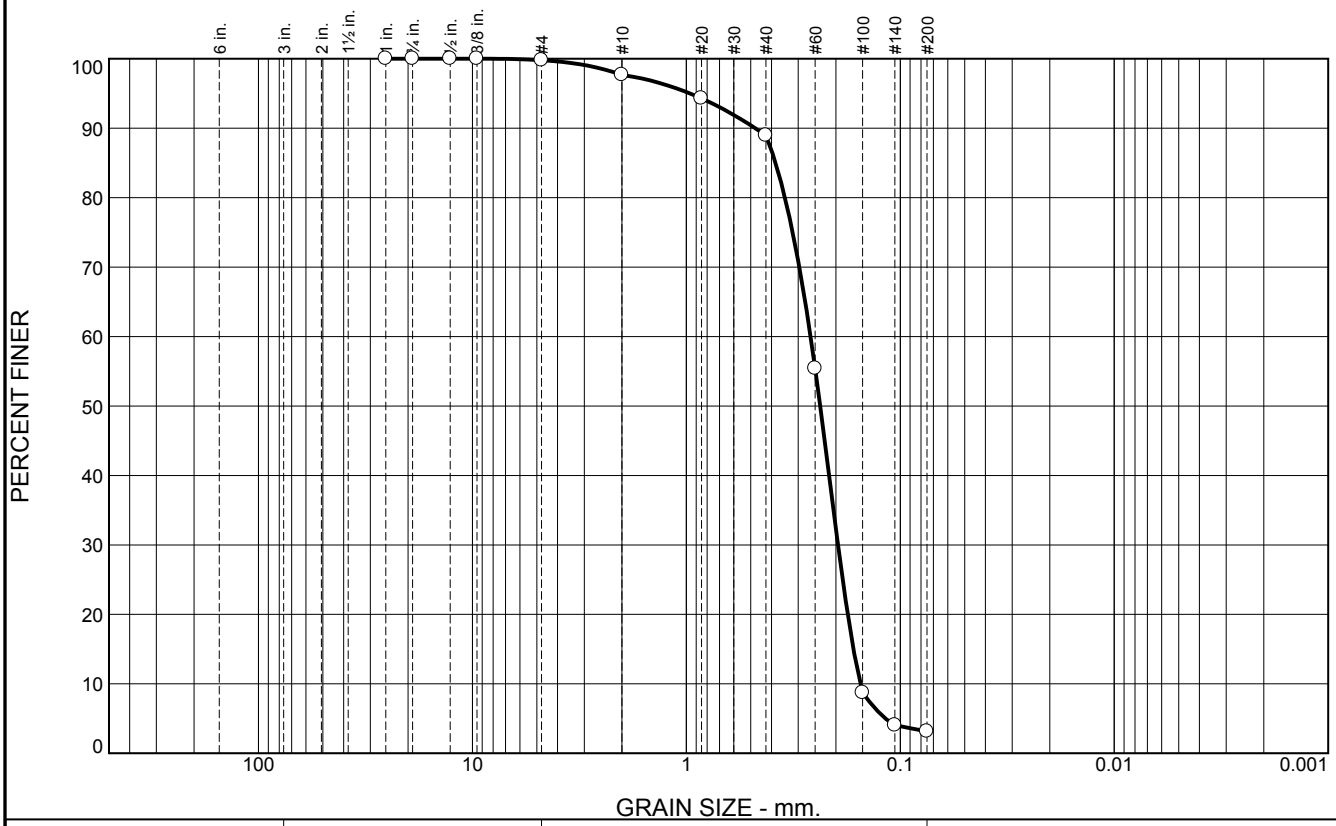
Location: BI-PBS-11-12 A
Sample Number: 6469 (36) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	2.1	8.8	85.7	3.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.8		
#10	97.7		
#20	94.3		
#40	88.9		
#60	55.4		
#100	8.7		
#140	4.0		
#200	3.2		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4772 D_{85}= 0.3827 D_{60}= 0.2626
D_{50}= 0.2368 D_{30}= 0.1955 D_{15}= 0.1658
D_{10}= 0.1537 C_u= 1.71 C_c= 0.95

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBS-11-12 B
Sample Number: 6469 (37) **Depth:** 8.6' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-012-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 2 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-012-12 — LOCATION COORDINATES: E = 1,137,391 N = 232,075	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 48.7 Ft.
	15. DATE BORING — STARTED: 11-23-12 — COMPLETED: 11-23-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -49.2 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 20.0 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-49.2	0.0				
-54.2	5.0		SAND, poorly-graded, mostly fine to medium-grained quartz, little shell fragments, trace fines, sand and shell debris layer at 3.0-3.8 ft, lt. gray (SP)	A	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.27 mm % Fines: 1.9
-58.0	8.8		SAND, poorly-graded, mostly fine-grained sand-sized quartz, little fines, trace shell fragments, lt. gray (SP)	B	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.23 mm % Fines: 2.8
-59.2	10.0		SAND, poorly-graded, mostly fine-grained sand-sized quartz, little fines, lt. gray (SP)	C	Classification: SP-SM Color: 5Y 5/2-olive gray D50: 0.21 mm % Fines: 9.9
-62.7	13.5		SAND, silty, mostly fine-grained sand-sized quartz, with clay lenses, gray (SM)	NS	
-68.0	18.8		CLAY, silty, mostly clay, trace fine-grained sand-sized quartz, lt. gray mottled with orange (CL-ML)		
-69.2	20.0		SAND, silty, mostly fine-grained sand-sized quartz, trace wood debris, gray (SM)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13727° Long = -88.34887°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,137,391 Y = 232,075	ELEVATION TOP OF BORING -49.2 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13727° Long = -88.34887°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

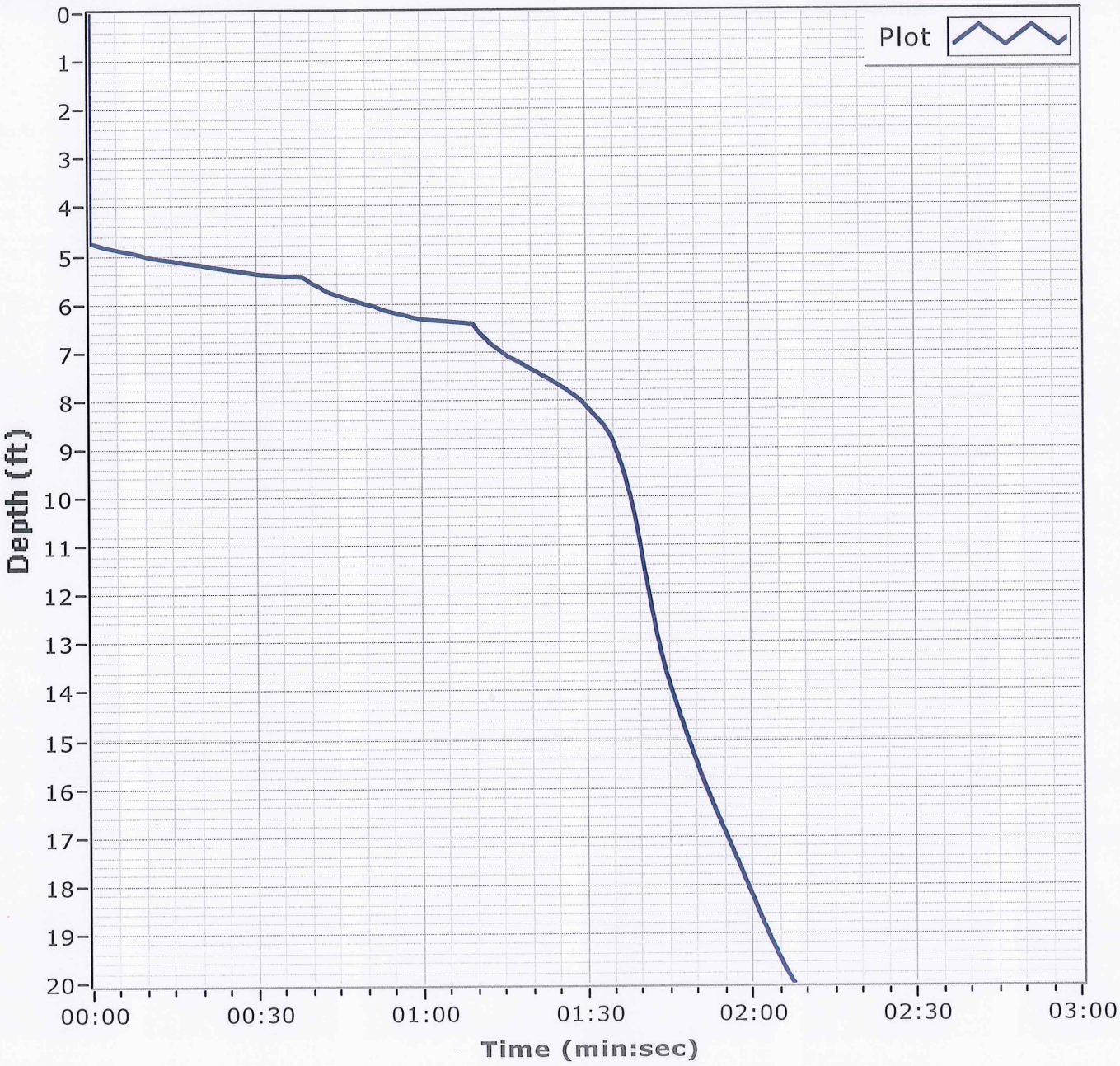
Core Identifier BI-PBS-12-12
Coordinate System
Latitude / Longitude

Latitude 30 08.236
Longitude 088 20.932

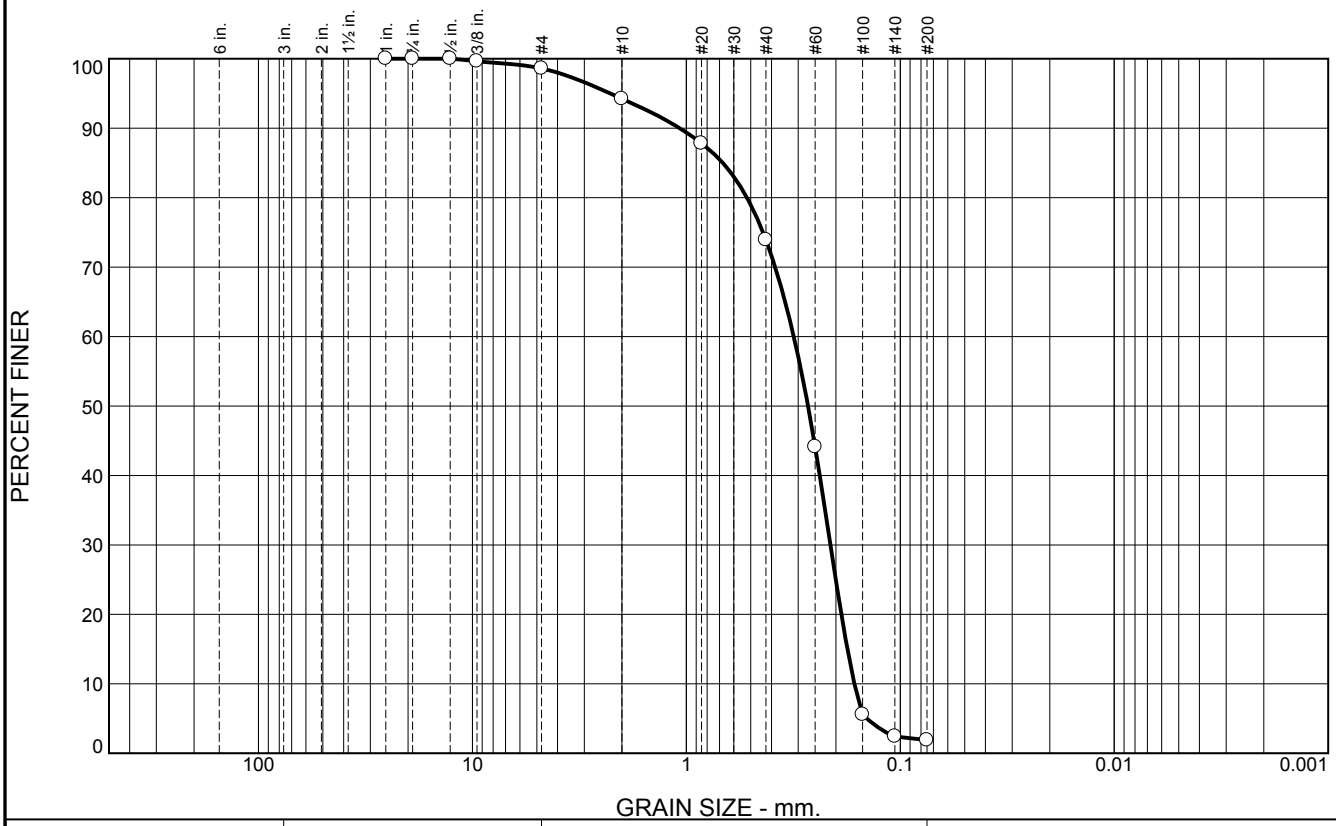
Date 11/23/2012
Start Time 14:18:11
End Time 14:20:19
Total Time 00:02:07

Water Depth 48.7'
Penetration 20.0'
Recovery 20.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.4	4.4	20.3	72.0	1.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.6		
#4	98.6		
#10	94.2		
#20	87.8		
#40	73.9		
#60	44.1		
#100	5.6		
#140	2.4		
#200	1.9		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 1.0750 D_{85}= 0.6757 D_{60}= 0.3148
D_{50}= 0.2700 D_{30}= 0.2121 D_{15}= 0.1768
D_{10}= 0.1640 C_u= 1.92 C_c= 0.87

Classification

USCS= SP AASHTO=

Remarks

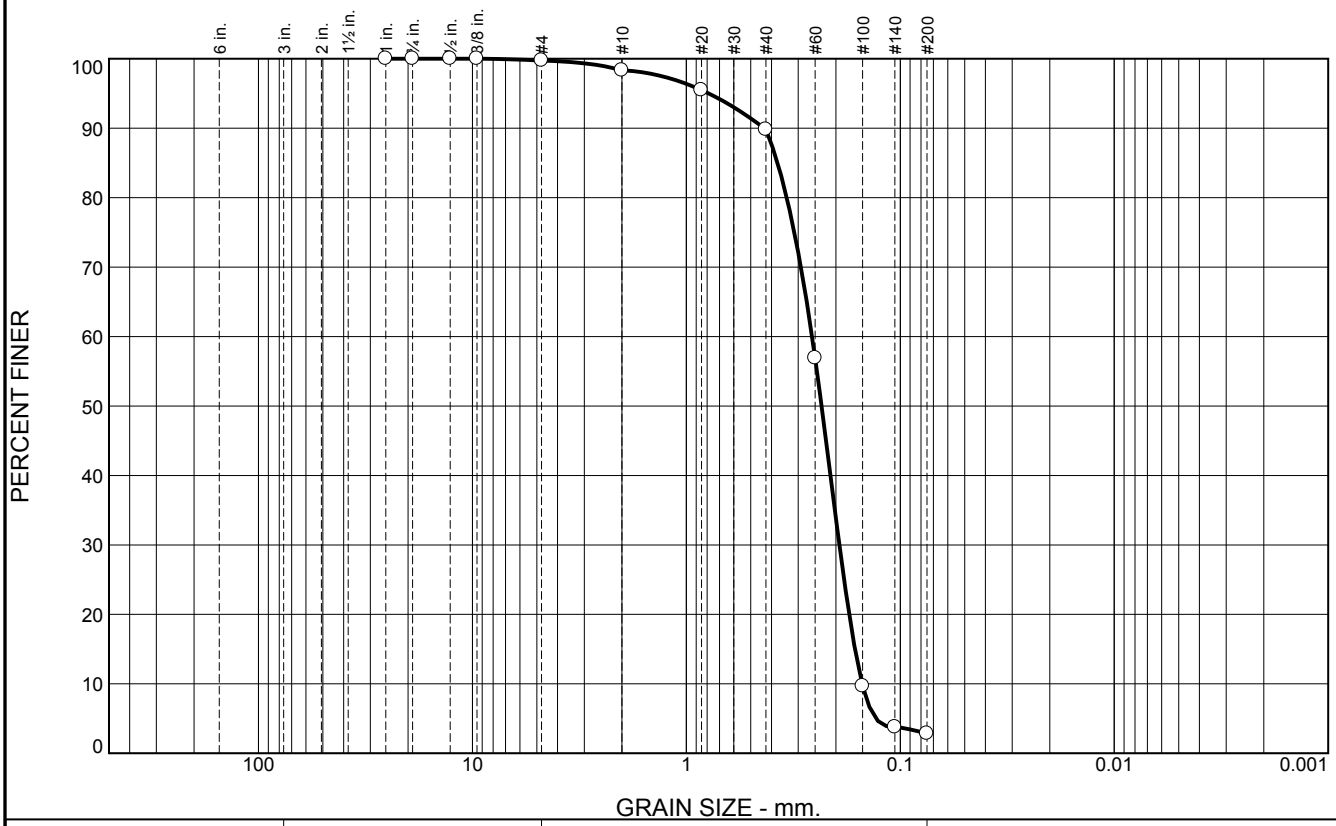
Location: BI-PBS-12-12 A
Sample Number: 6469 (33) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.3	1.4	8.5	87.0	2.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.7		
#10	98.3		
#20	95.5		
#40	89.8		
#60	56.9		
#100	9.7		
#140	3.8		
#200	2.8		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4338 D_{85}= 0.3746 D_{60}= 0.2585
D_{50}= 0.2333 D_{30}= 0.1927 D_{15}= 0.1631
D_{10}= 0.1509 C_u= 1.71 C_c= 0.95

Classification

USCS= SP AASHTO=

Remarks

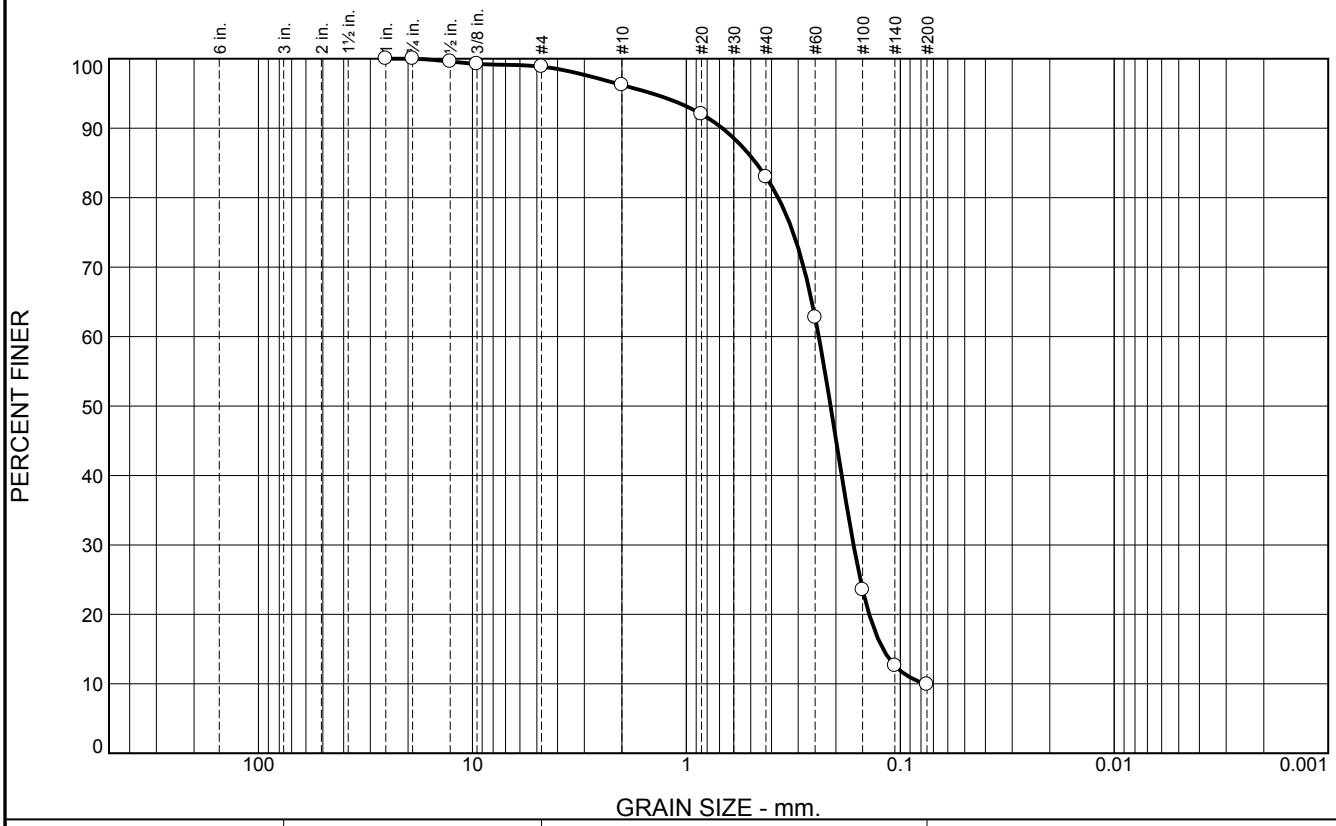
Location: BI-PBS-12-12 B
Sample Number: 6469 (34) **Depth:** 5.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.2	2.6	13.2	73.1	9.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	99.6		
.375	99.3		
#4	98.8		
#10	96.2		
#20	92.0		
#40	83.0		
#60	62.8		
#100	23.6		
#140	12.6		
#200	9.9		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6799 D_{85}= 0.4731 D_{60}= 0.2404
D_{50}= 0.2117 D_{30}= 0.1656 D_{15}= 0.1204
D_{10}= 0.0766 C_u= 3.14 C_c= 1.49

Classification

USCS= SP-SM AASHTO=

Remarks

Location: BI-PBS-12-12 C
Sample Number: 6469 (35) **Depth:** 8.8' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-013-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-013-12 — LOCATION COORDINATES: E = 1,133,767 N = 233,198	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 46.7 Ft.
	15. DATE BORING — STARTED: 11-28-12 — COMPLETED: 11-28-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -47.3 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 11.8 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-47.3	0.0				
			SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace shell fragments, occasional bands of shelly sand, gray (SP)	A	Classification: SP Color: 2.5Y 7/1-light gray D50: 0.35 mm % Fines: 1.6
				B	Classification: SP Color: 2.5Y 6.5/2- D50: 0.25 mm % Fines: 2.9
-56.5	9.2				
-59.1	11.8		CLAY, fat, mostly clay, trace silt, trace fine-grained sand-sized quartz, moderately stiff to stiff, medium to high plasticity, gray mottled with brown (CH)	NS	

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.14040° Long = -88.36032°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

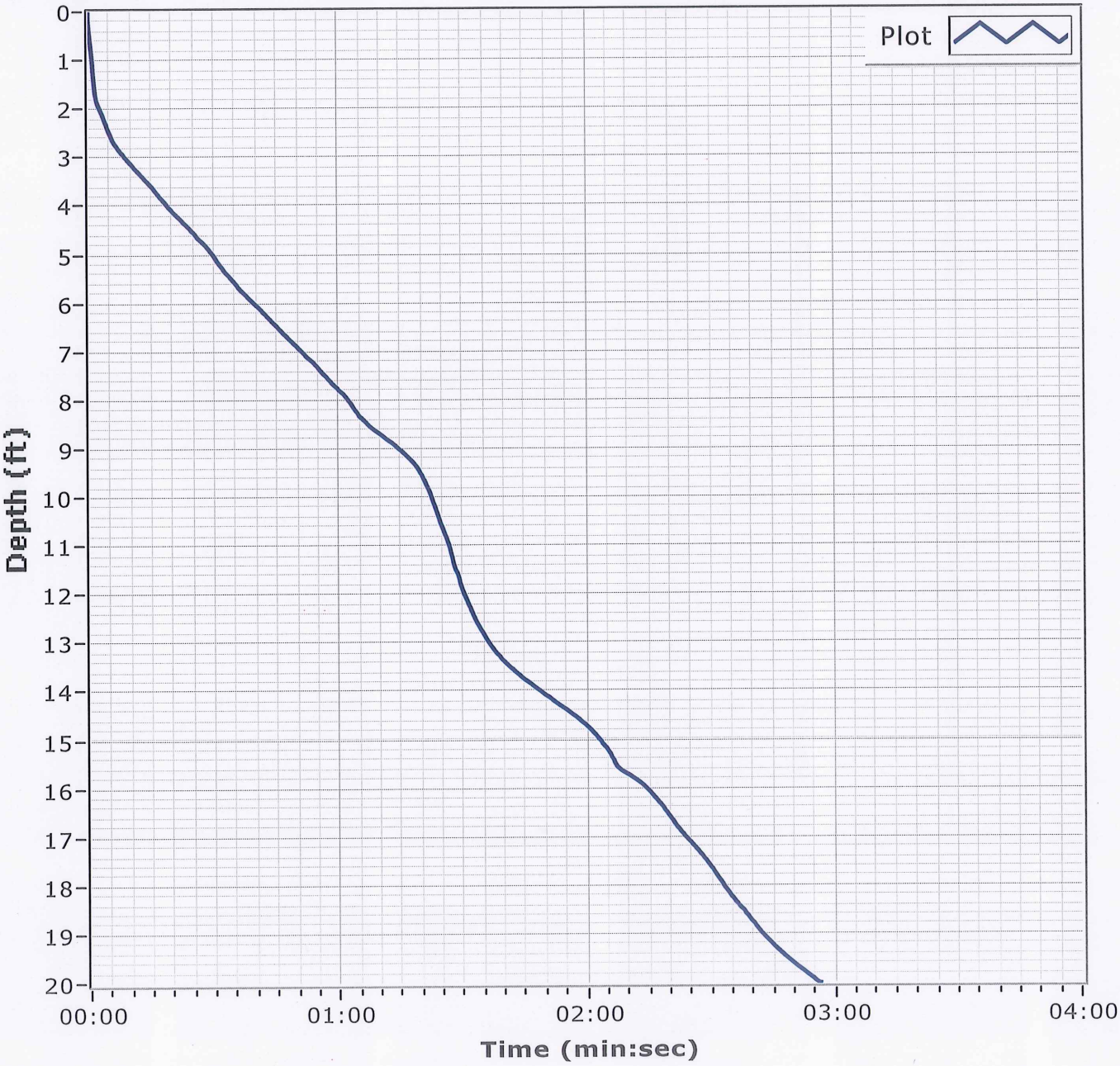
Core Identifier BI-PBS-13-12
Coordinate System
Latitude / Longitude

Latitude 30 08.424
Longitude 088 21.619

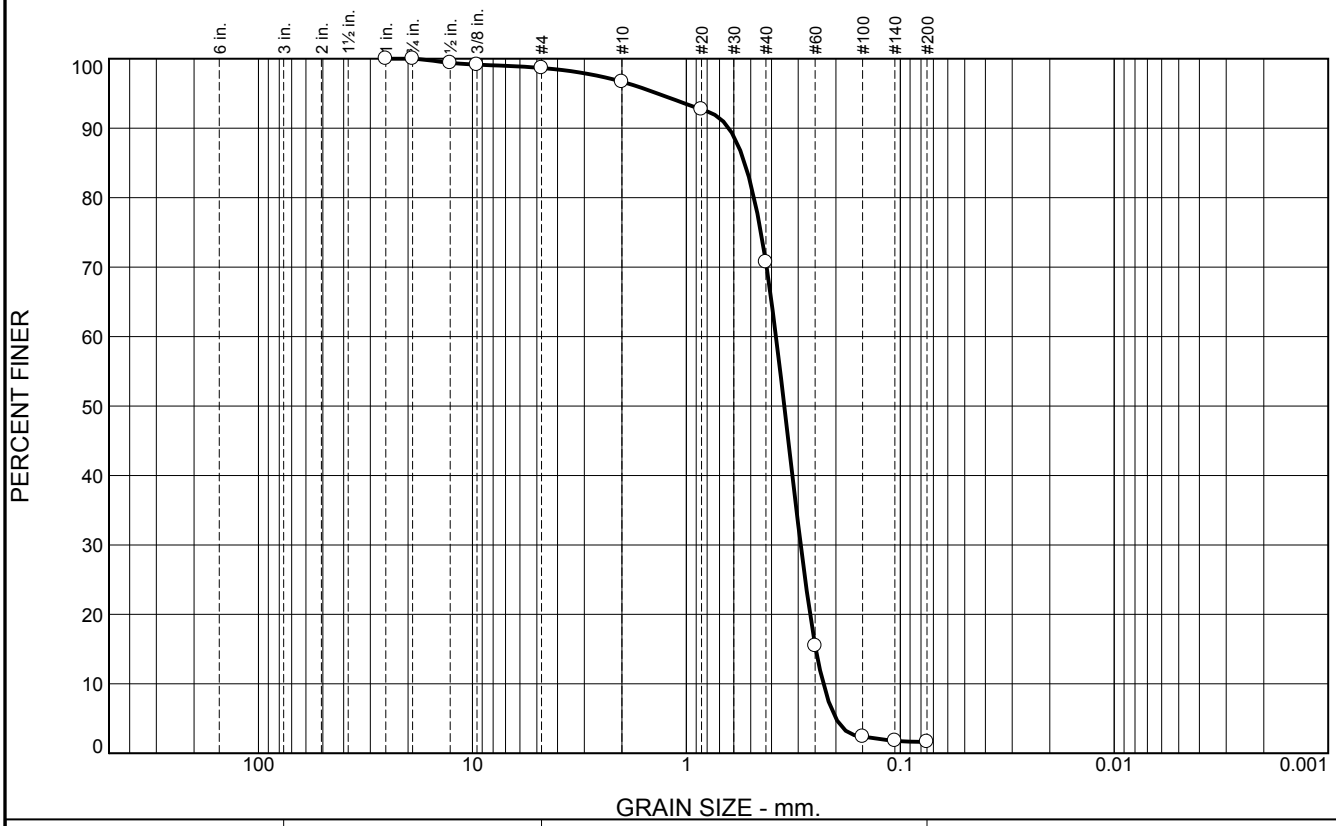
Date 11/28/2012
Start Time 13:40:11
End Time 13:43:08
Total Time 00:02:56

Water Depth 46.7'
Penetration 20.0'
Recovery 12.1'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.3	2.0	26.0	69.1	1.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	99.4		
.375	99.1		
#4	98.7		
#10	96.7		
#20	92.7		
#40	70.7		
#60	15.5		
#100	2.4		
#140	1.8		
#200	1.6		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6331 D_{85}= 0.5337 D_{60}= 0.3810
D_{50}= 0.3484 D_{30}= 0.2923 D_{15}= 0.2483
D_{10}= 0.2289 C_u= 1.66 C_c= 0.98

Classification

USCS= SP AASHTO=

Remarks

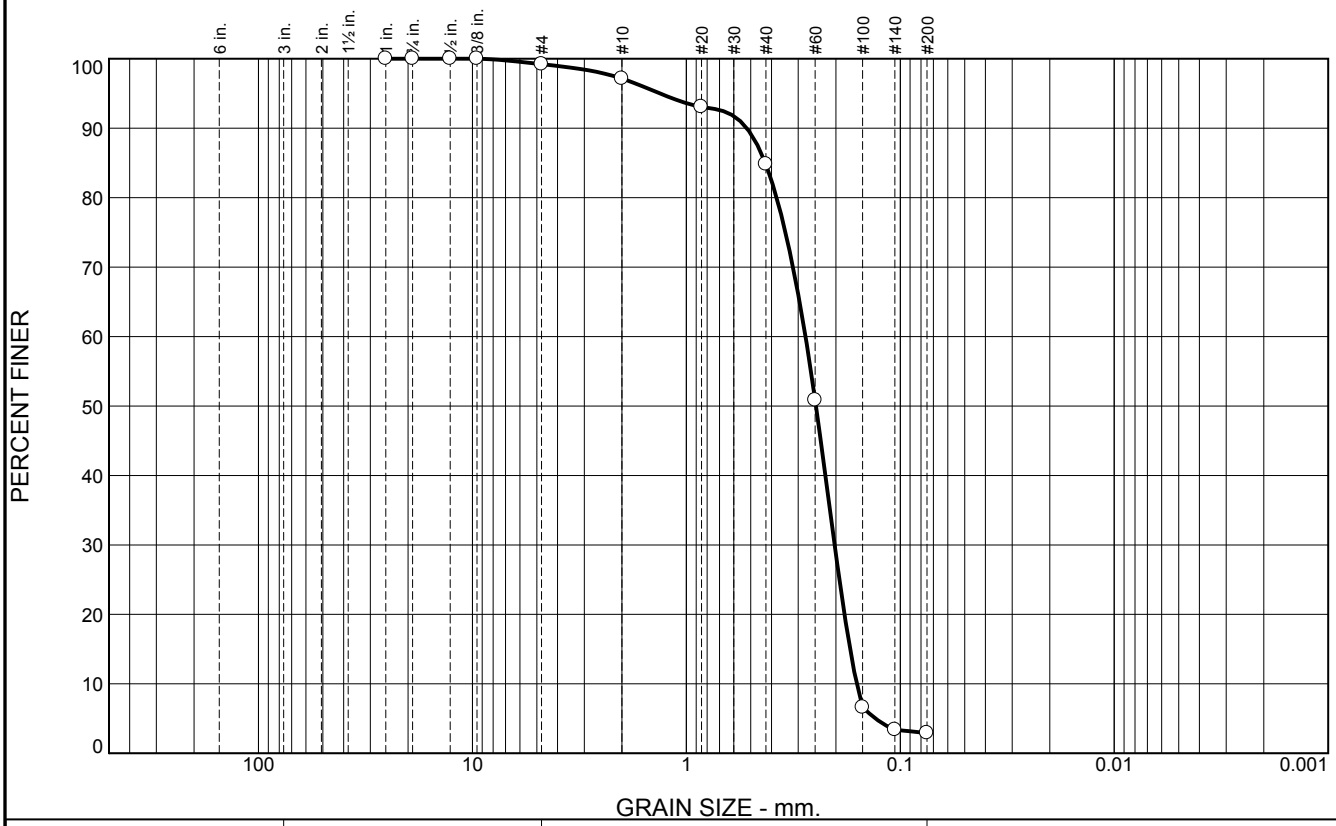
Location: BI-PBS-13-12 A
Sample Number: 6471 (1) **Depth:** 0.0' **Date:** 12/03/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.8	2.1	12.3	81.9	2.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.2		
#10	97.1		
#20	93.1		
#40	84.8		
#60	50.9		
#100	6.6		
#140	3.4		
#200	2.9		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5218 D_{85}= 0.4275 D_{60}= 0.2775
D_{50}= 0.2477 D_{30}= 0.2028 D_{15}= 0.1718
D_{10}= 0.1600 C_u= 1.73 C_c= 0.93

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBS-13-12 B
Sample Number: 6471 (2) **Depth:** 5.0' **Date:** 12/03/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-014-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-014-12 — LOCATION COORDINATES: E = 1,136,141 N = 231,771	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 53.4 Ft.
	15. DATE BORING — STARTED: 11-28-12 — COMPLETED: 11-28-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -53.2 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.6 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: Mike FitzHarris, Geologist

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-53.2	0.0				
-56.4	3.2		SAND, poorly-graded, mostly fine to medium-grained quartz, trace silt, trace shell fragments, greenish gray (SP)	A	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.25 mm % Fines: 3.7
-59.2	6.0		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace clay, trace shell fragments, greenish gray (SM)	B	Classification: SP-SM Color: 5Y 5/2-olive gray D50: 0.2 mm % Fines: 11.8
-61.4	8.2		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace shell fragments, alternating bands of clayey sand and sandy clay, gray mottled with greenish gray and brown (SC)		
-72.8	19.6		CLAY, fat, mostly clay, trace fine-grained sand-sized quartz, trace wood debris, trace shell fragments, occasional shelly bands and sandy pockets, moderately stiff, gray (CH)	NS	

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13645° Long = -88.35283°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-14-12

Coordinate System
Latitude / Longitude

Latitude 30 08.187

Longitude 088 21.170

Date 11/28/2012

Start Time 09:49:38

End Time 09:50:16

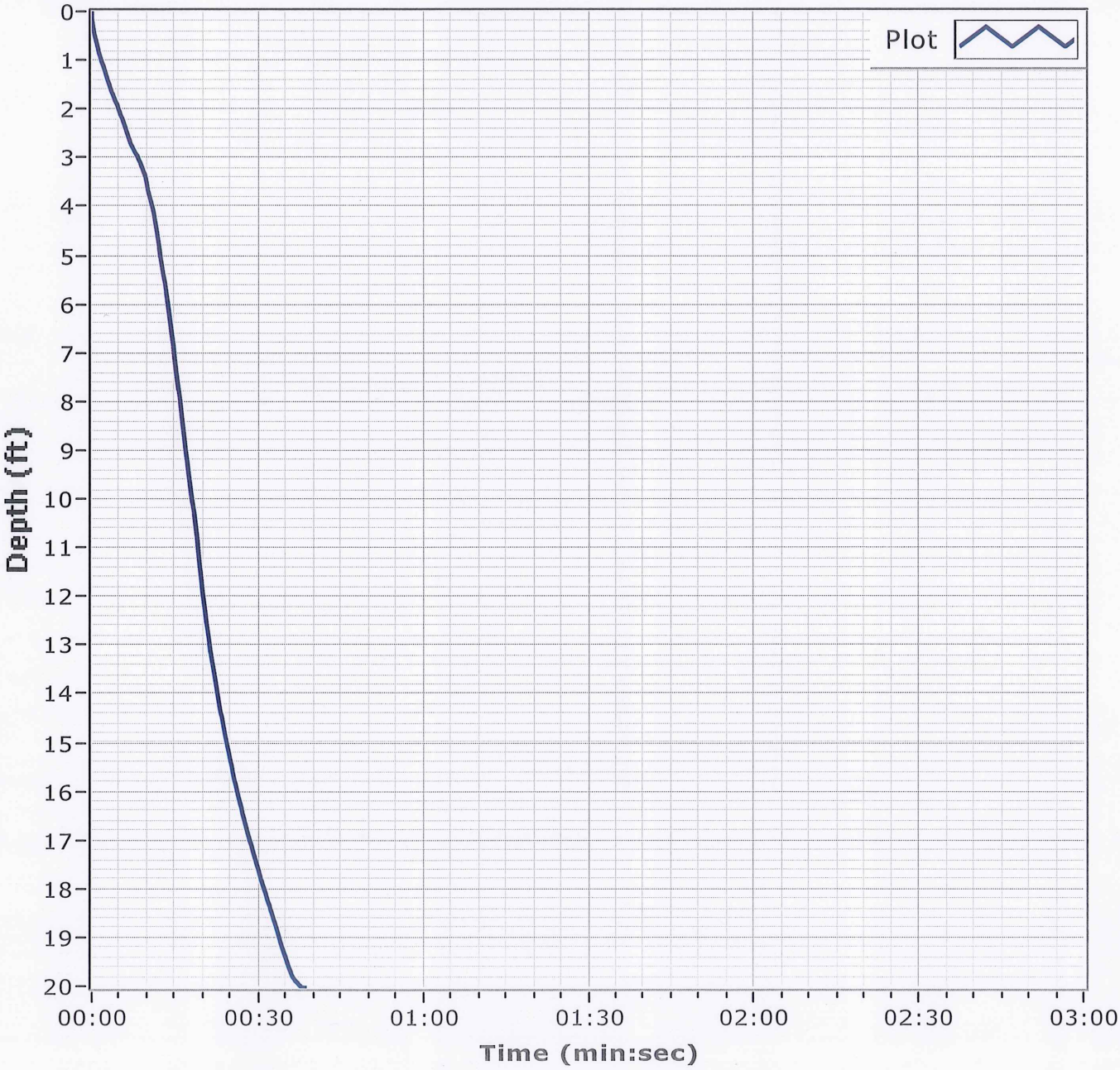
Total Time 00:00:38

Water Depth 53.4'

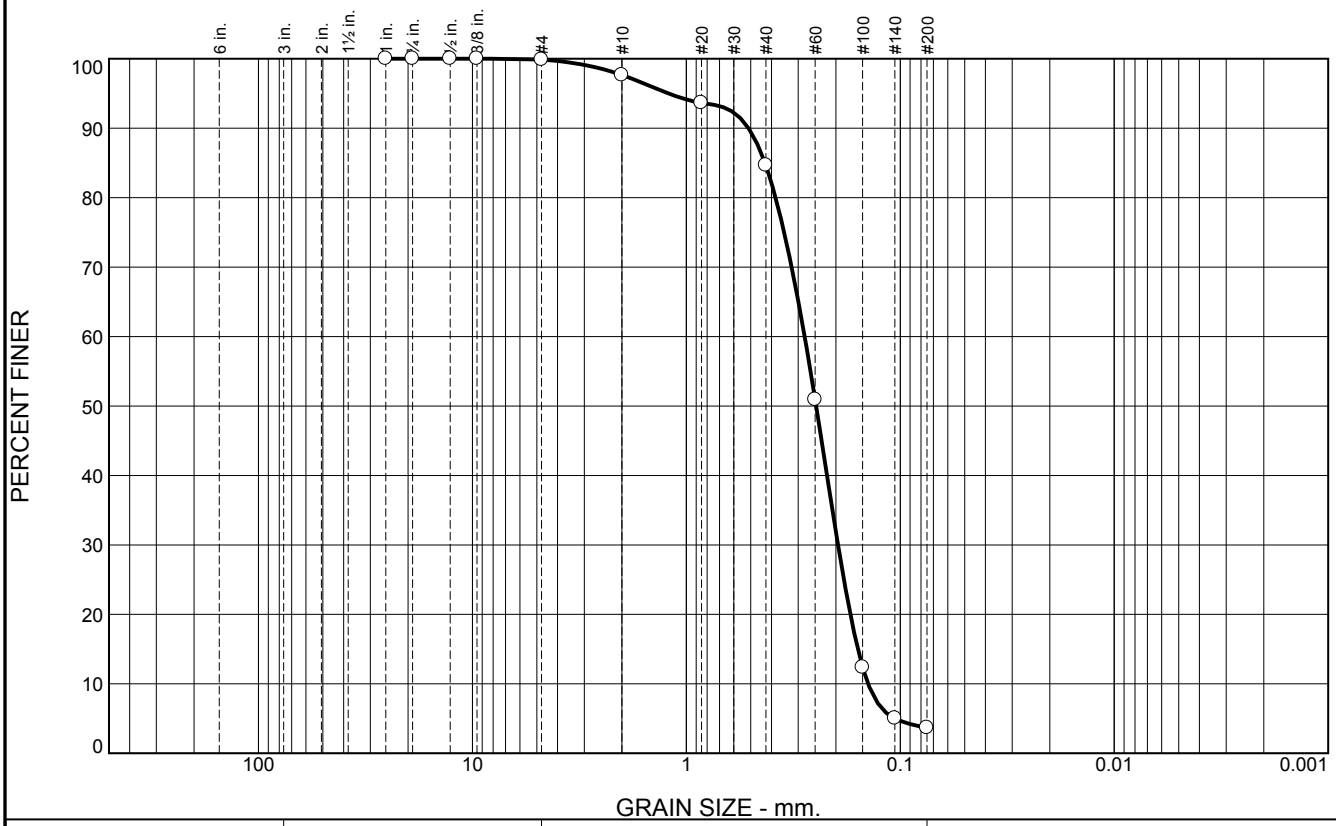
Penetration 20.0'

Recovery 19.6

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	2.3	13.0	80.9	3.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	97.6		
#20	93.6		
#40	84.6		
#60	50.9		
#100	12.4		
#140	5.0		
#200	3.7		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5125 D_{85}= 0.4290 D_{60}= 0.2801
D_{50}= 0.2473 D_{30}= 0.1955 D_{15}= 0.1580
D_{10}= 0.1414 C_u= 1.98 C_c= 0.96

Classification

USCS= SP AASHTO=

Remarks

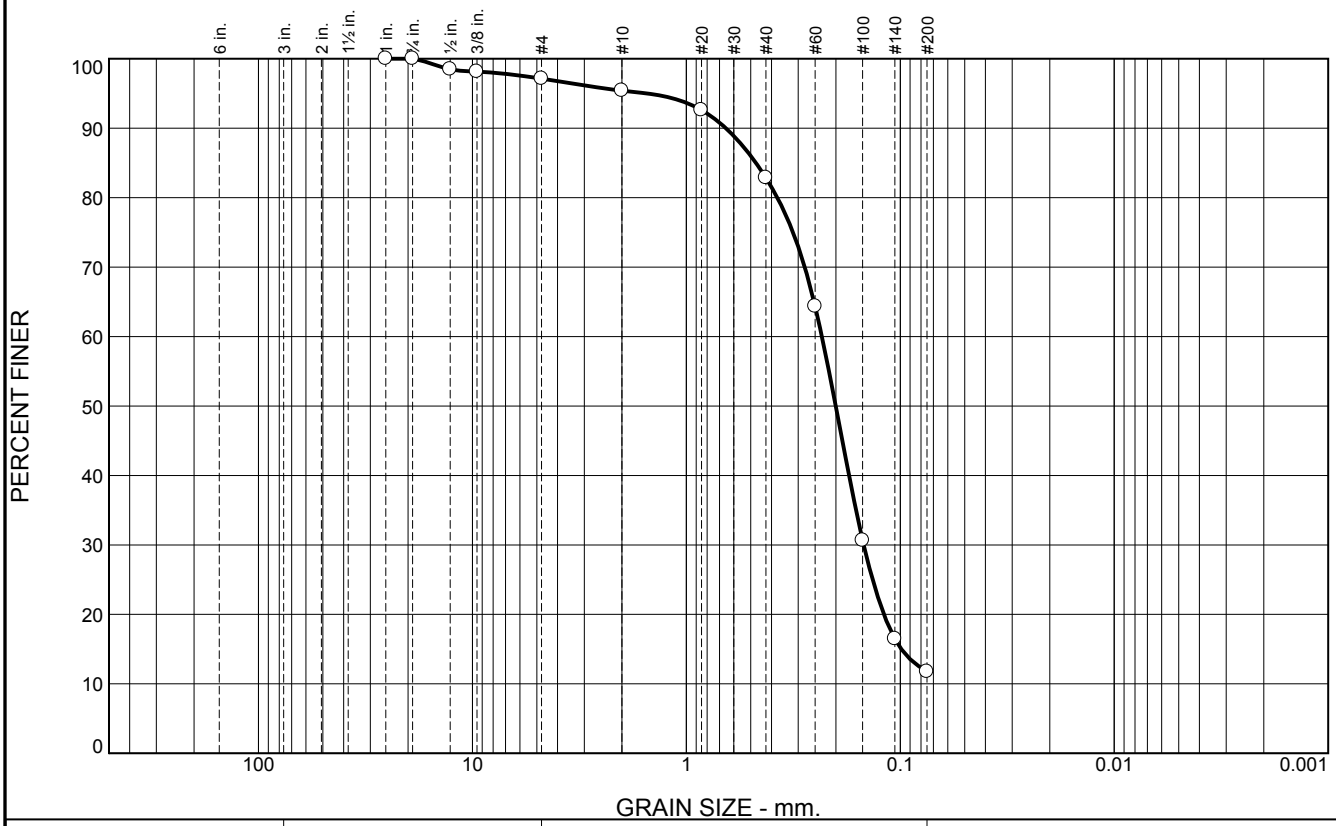
Location: BI-PBS-14-12 A
Sample Number: 6471 (3) **Depth:** 0.0' **Date:** 12/03/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.9	1.7	12.6	71.0	11.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	98.5		
.375	98.1		
#4	97.1		
#10	95.4		
#20	92.6		
#40	82.8		
#60	64.3		
#100	30.6		
#140	16.5		
#200	11.8		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6538 D_{85}= 0.4732 D_{60}= 0.2325
D_{50}= 0.2004 D_{30}= 0.1484 D_{15}= 0.0989
D_{10}= C_u= C_c=

Classification

USCS= SP-SM AASHTO=

Remarks

Location: BI-PBS-14-12 B
Sample Number: 6471 (4) **Depth:** 3.2' **Date:** 12/03/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-015-12

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 2 SHEETS
	South Atlantic	Mobile District	

1. PROJECT MsCIP Barrier Island Restoration Petit Bois Pass-OCS East		9. SIZE AND TYPE OF BIT N/A	
		10. COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83 / VERTICAL NAVD88
2. BORING DESIGNATION BI-PBS-015-12	LOCATION COORDINATES E = 1,135,034 N = 232,632	11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore	☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY Corps of Engineers - CESAM	CONTRACTOR FILE NO.	12. TOTAL SAMPLES	DISTURBED / UNDISTURBED (UD) 0
4. NAME OF DRILLER American Vibracore Systems, Inc.		13. TOTAL NUMBER CORE BOXES	
5. DIRECTION OF BORING ☒ VERTICAL ☐ INCLINED	DEG. FROM VERTICAL / BEARING	14. WATER DEPTH 48.9 Ft.	
		15. DATE BORING	STARTED 11-28-12 / COMPLETED 11-28-12
6. THICKNESS OF OVERBURDEN N/A		16. ELEVATION TOP OF BORING -49.7 Ft.	
7. DEPTH DRILLED INTO ROCK N/A		17. TOTAL RECOVERY FOR BORING 100%	
8. TOTAL DEPTH OF BORING 19.9 Ft.		18. SIGNATURE AND TITLE OF INSPECTOR Mike FitzHarris, Geologist	

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-49.7	0.0				
-55.2	5.5		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace silt, trace shell fragments, gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.29 mm % Fines: 2
				NS	
-58.4	8.7		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, trace clay, gray (SM)	B	Classification: SP-SM Color: 5Y 5/2-olive gray D50: 0.2 mm % Fines: 11.6
-64.6	14.9		CLAY, lean, mostly clay, trace wood debris, occasional pockets of clayey sand, gray mottled with greenish gray and brown (CL)	NS	
-67.8	18.1		CLAY, fat, mostly clay, trace shell fragments, trace wood debris, moderately stiff, gray (CH)		
-68.3	18.6				
-69.6	19.9		SAND, clayey, mostly fine-grained sand-sized quartz, trace silt, trace shell fragments, gray (SC)		
			SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, trace shell fragments, trace clay, gray (SP-SM)		
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System.		

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13883° Long = -88.35632°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,135,034 Y = 232,632	ELEVATION TOP OF BORING -49.7 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			2. NS = Sample not submitted for laboratory analysis from this interval. 3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13883° Long = -88.35632°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-15-12

Coordinate System
Latitude / Longitude

Latitude 30 08.330

Longitude 088 21.379

Date 11/28/2012

Start Time 10:32:11

End Time 10:33:48

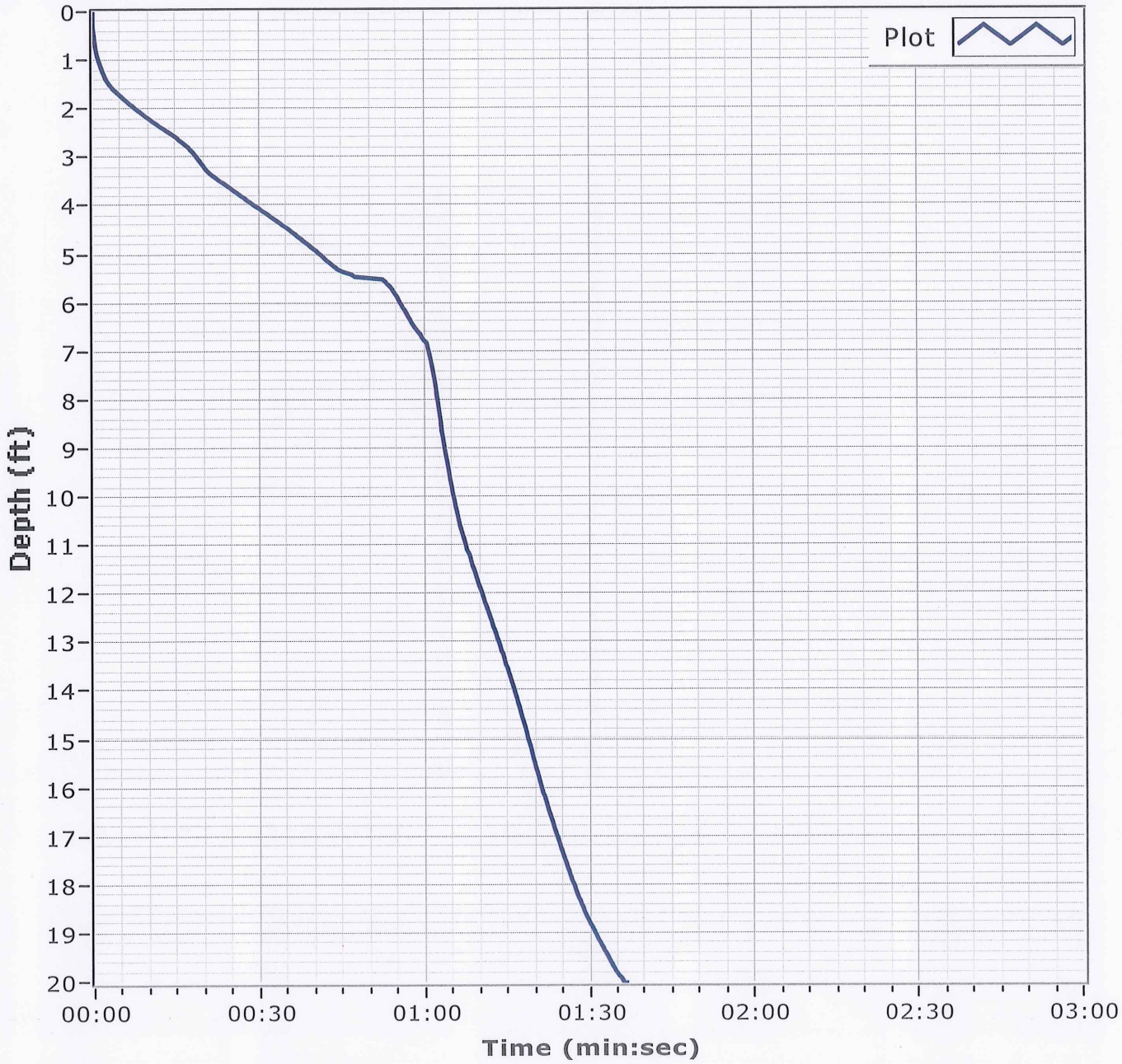
Total Time 00:01:37

Water Depth 48.9'

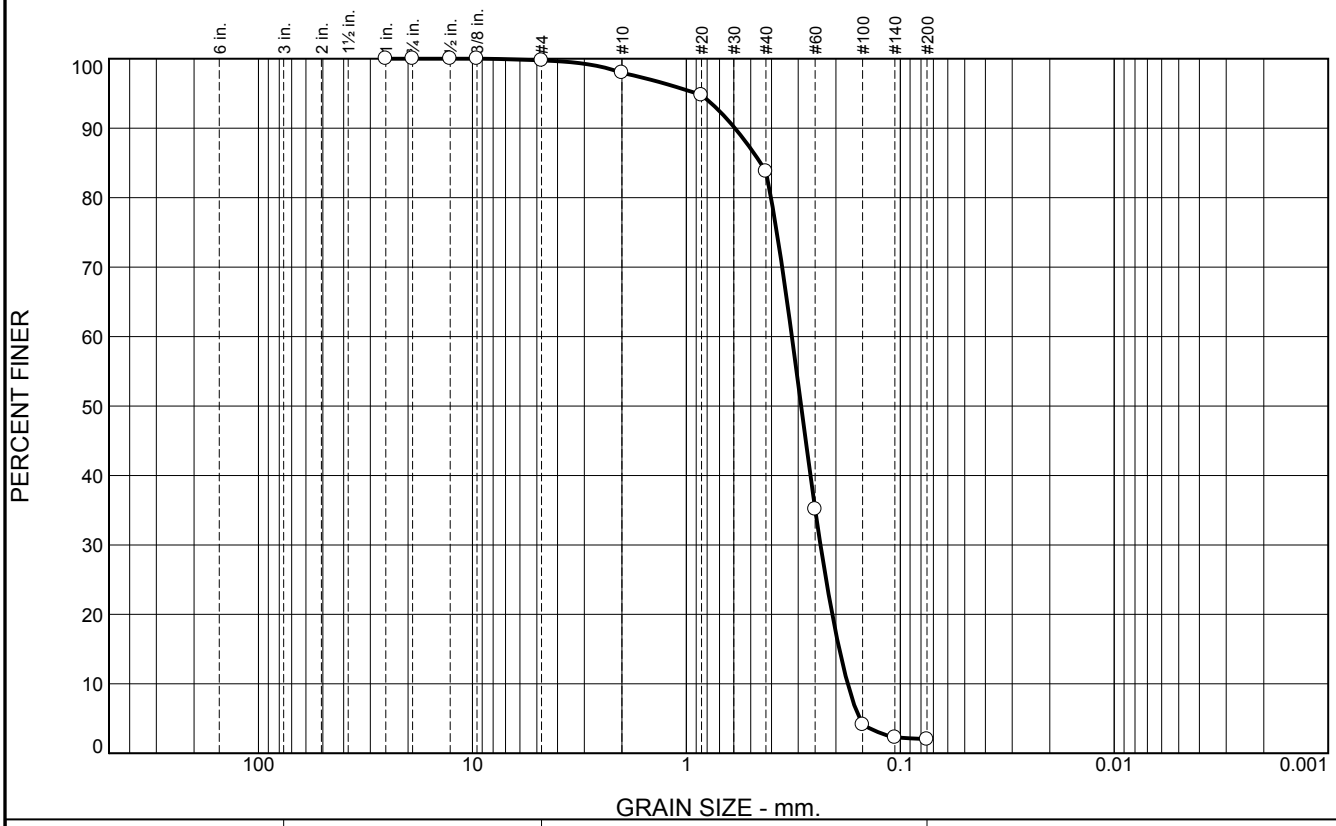
Penetration 20.0'

Recovery 19.9'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.3	1.7	14.2	81.8	2.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.7		
#10	98.0		
#20	94.8		
#40	83.8		
#60	35.1		
#100	4.1		
#140	2.3		
#200	2.0		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5930 D_{85}= 0.4505 D_{60}= 0.3212
D_{50}= 0.2909 D_{30}= 0.2360 D_{15}= 0.1929
D_{10}= 0.1763 C_u= 1.82 C_c= 0.98

Classification

USCS= SP AASHTO=

Remarks

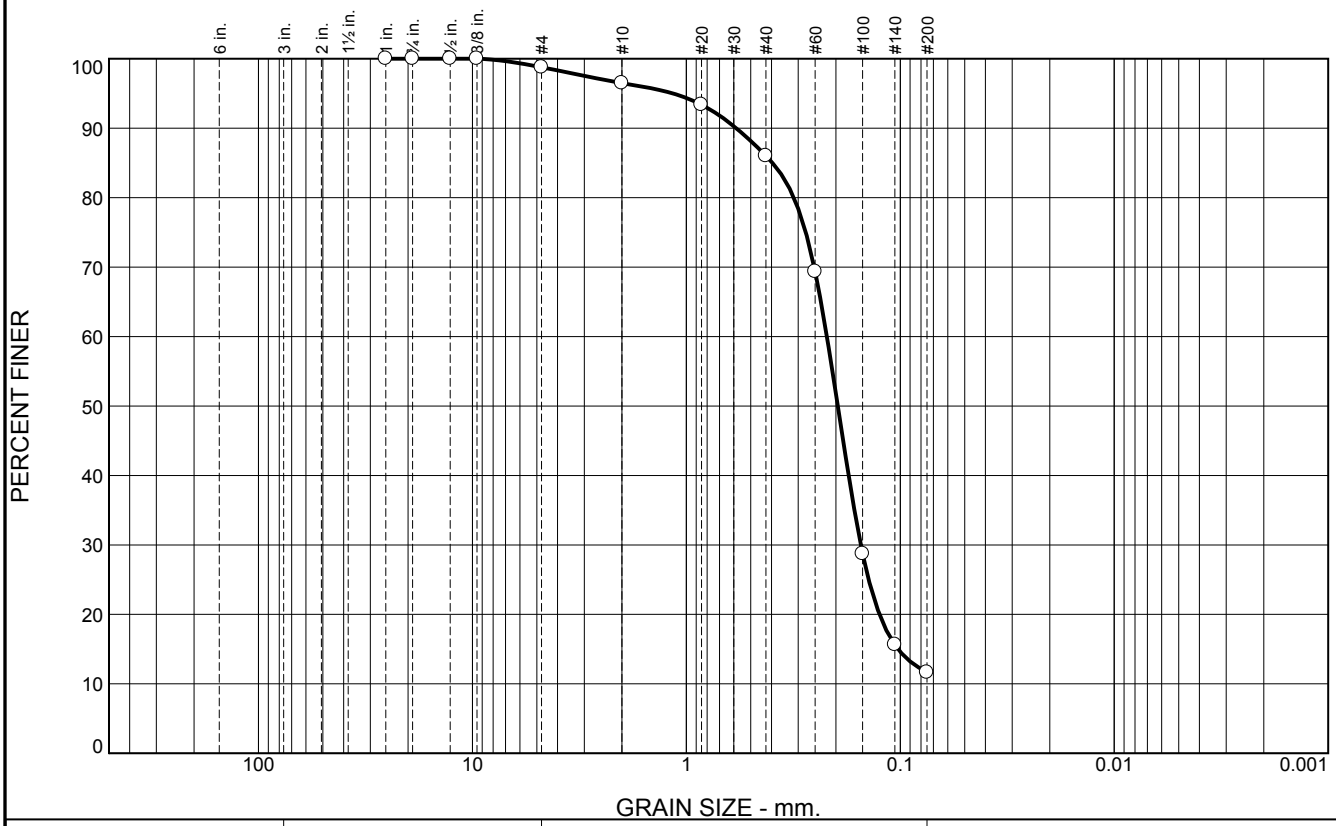
Location: BI-PBS-15-12 A
Sample Number: 6471 (5) **Depth:** 0.0' **Date:** 12/03/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.2	2.3	10.5	74.4	11.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	98.8		
#10	96.5		
#20	93.4		
#40	86.0		
#60	69.4		
#100	28.7		
#140	15.6		
#200	11.6		

* (no specification provided)

Material Description

Fine to medium grained, SLIGHTLY SILTY SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5851 D_{85}= 0.3961 D_{60}= 0.2203
D_{50}= 0.1960 D_{30}= 0.1530 D_{15}= 0.1024
D_{10}= C_u= C_c=

Classification

USCS= SP-SM AASHTO=

Remarks

Location: BI-PBS-15-12 B
Sample Number: 6471 (6) **Depth:** 5.5' **Date:** 12/03/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-016-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-016-12 — LOCATION COORDINATES: E = 1,138,607 N = 231,553	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 52.8 Ft.
	15. DATE BORING — STARTED: 11-23-12 — COMPLETED: 11-23-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -52.5 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 17.8 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-52.5	0.0				
-55.0	2.5		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace fines, trace shell fragments, gray (SP)	A	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.29 mm % Fines: 2.4
-56.3	3.8		SAND, poorly-graded, mostly fine-grained sand-sized quartz, little fines, little shell fragments, gray (SP)	B	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.21 mm % Fines: 3.7
-58.1	5.6		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little fines, gray (SP)	C	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.24 mm % Fines: 4
-61.3	8.8		SAND, silty, mostly fine-grained sand-sized quartz, little shell fragments, gray (SM)	NS	
-64.6	12.1		CLAY, lean, mostly clay, some sand, lt. gray mottled with orange (CL)		
-65.6	13.1		SAND, clayey, mostly fine-grained sand-sized quartz, lt. gray mottled with orange (SC)		
-66.4	13.9		CLAY, lean, mostly clay, little fine-grained sand-sized quartz, low plasticity, dark gray (CL)		
-68.2	15.7		SAND, silty, mostly fine-grained sand-sized quartz, trace shell fragments, trace wood debris, gray (SM)		
-70.3	17.8		CLAY, lean, mostly clay, trace fine-grained sand-sized quartz, gray (CL)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13582° Long = -88.34503°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-16-12

Coordinate System
Latitude / Longitude

Latitude 30 08.149

Longitude 088 20.702

Date 11/23/2012

Start Time 13:34:56

End Time 13:36:37

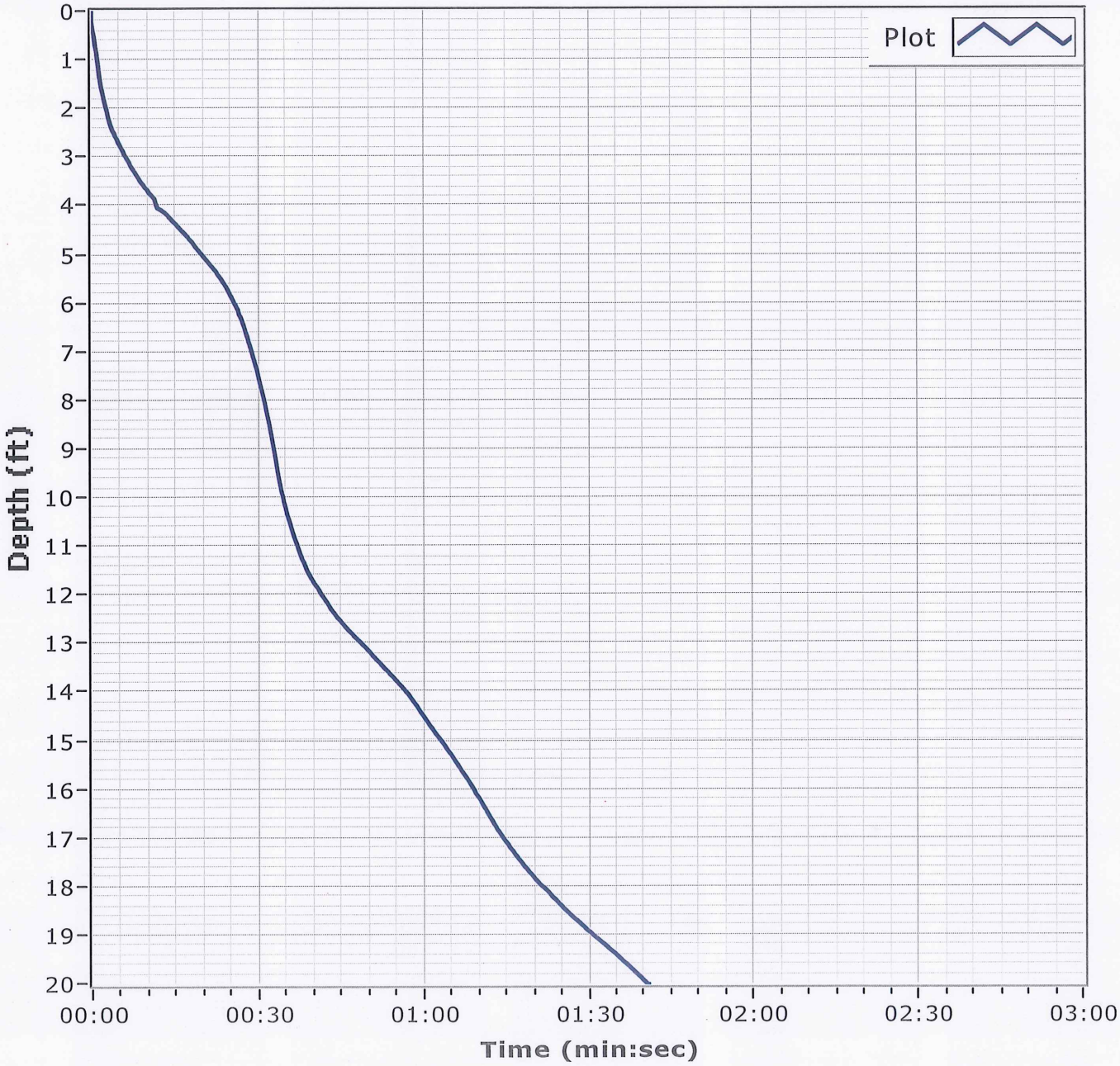
Total Time 00:01:41

Water Depth 52.8'

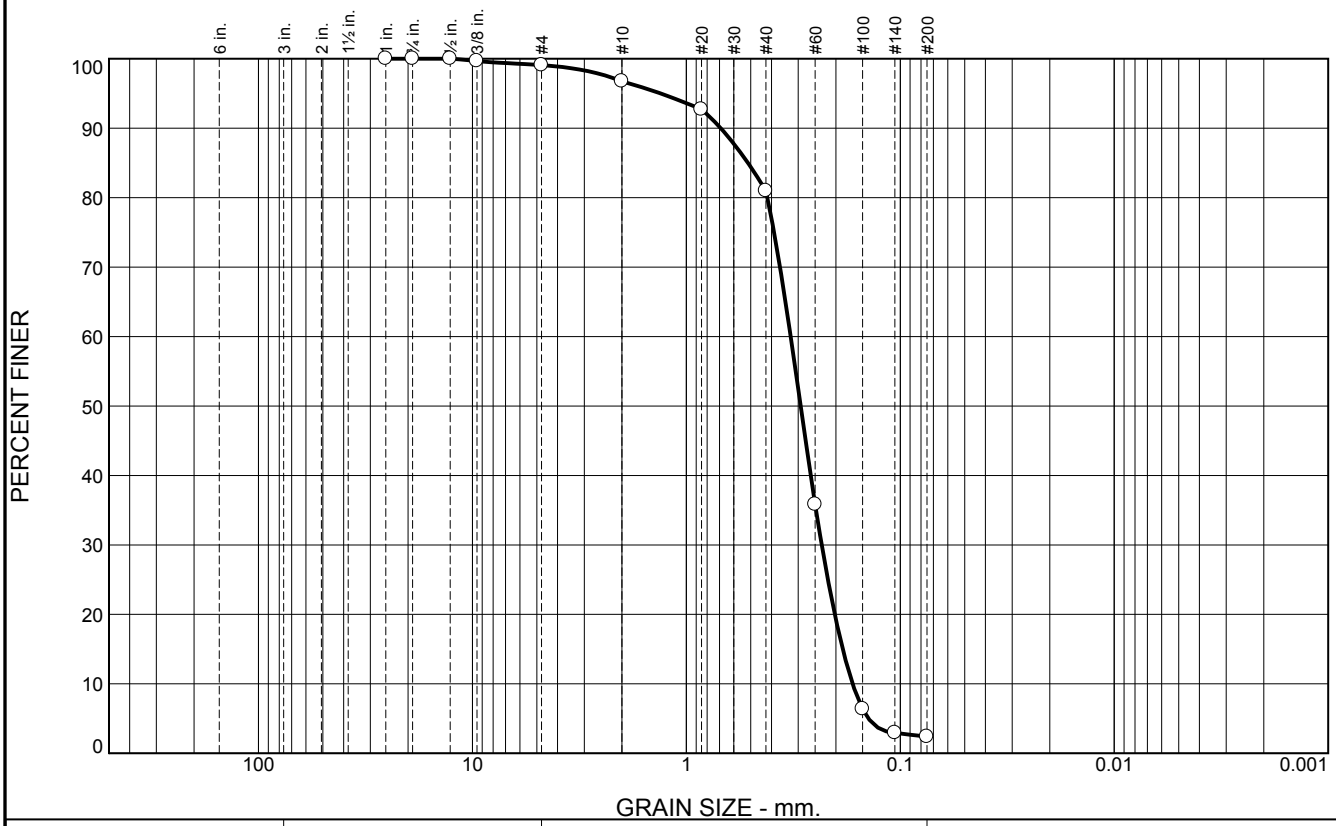
Penetration 20.0'

Recovery 17.8'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.9	2.4	15.7	78.6	2.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.7		
#4	99.1		
#10	96.7		
#20	92.7		
#40	81.0		
#60	35.8		
#100	6.4		
#140	2.9		
#200	2.4		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6916 D_{85}= 0.5156 D_{60}= 0.3255
D_{50}= 0.2923 D_{30}= 0.2329 D_{15}= 0.1859
D_{10}= 0.1672 C_u= 1.95 C_c= 1.00

Classification

USCS= SP AASHTO=

Remarks

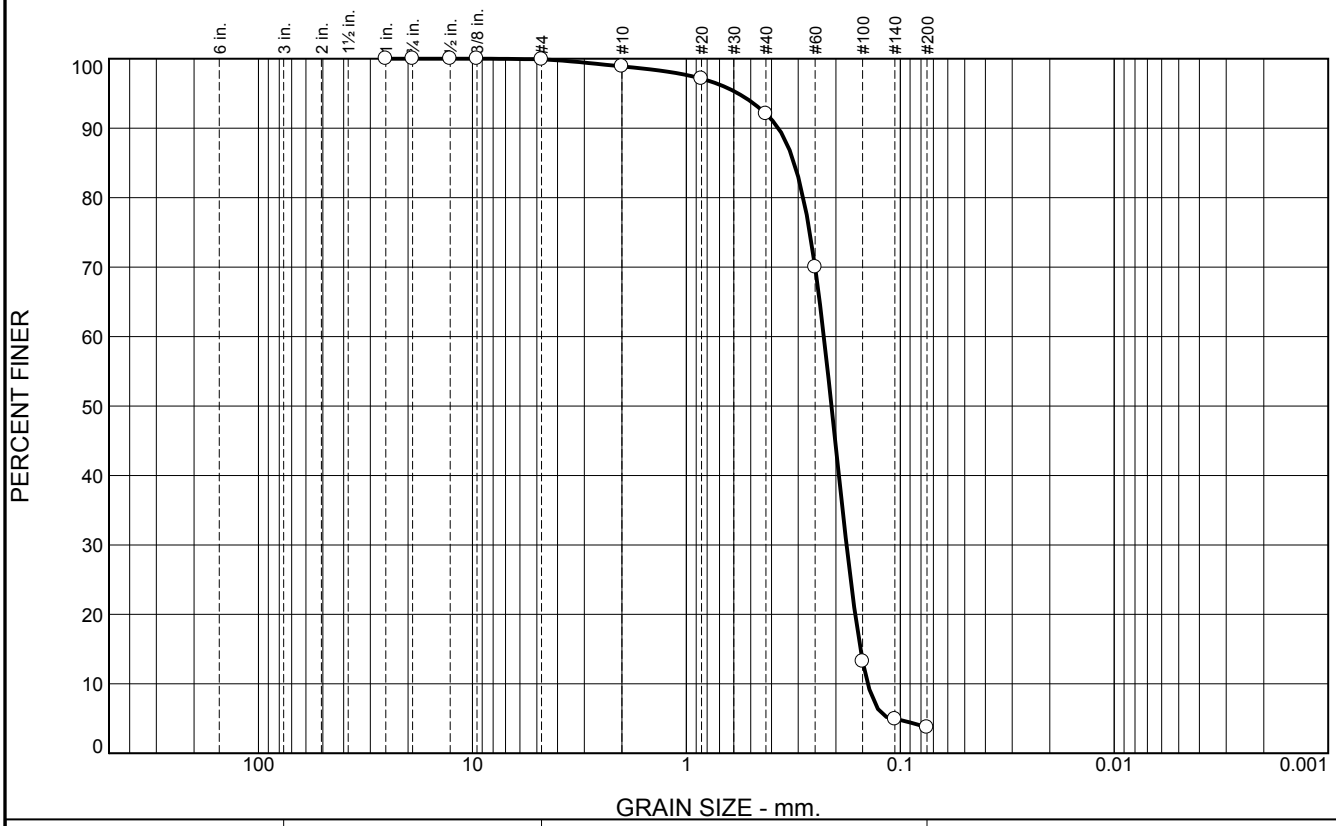
Location: BI-PBS-16-12 A
Sample Number: 6469 (30) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	1.0	6.8	88.4	3.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	98.9		
#20	97.1		
#40	92.1		
#60	70.0		
#100	13.2		
#140	4.9		
#200	3.7		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3712 D_{85}= 0.3135 D_{60}= 0.2276
D_{50}= 0.2097 D_{30}= 0.1785 D_{15}= 0.1537
D_{10}= 0.1420 C_u= 1.60 C_c= 0.99

Classification

USCS= SP AASHTO=

Remarks

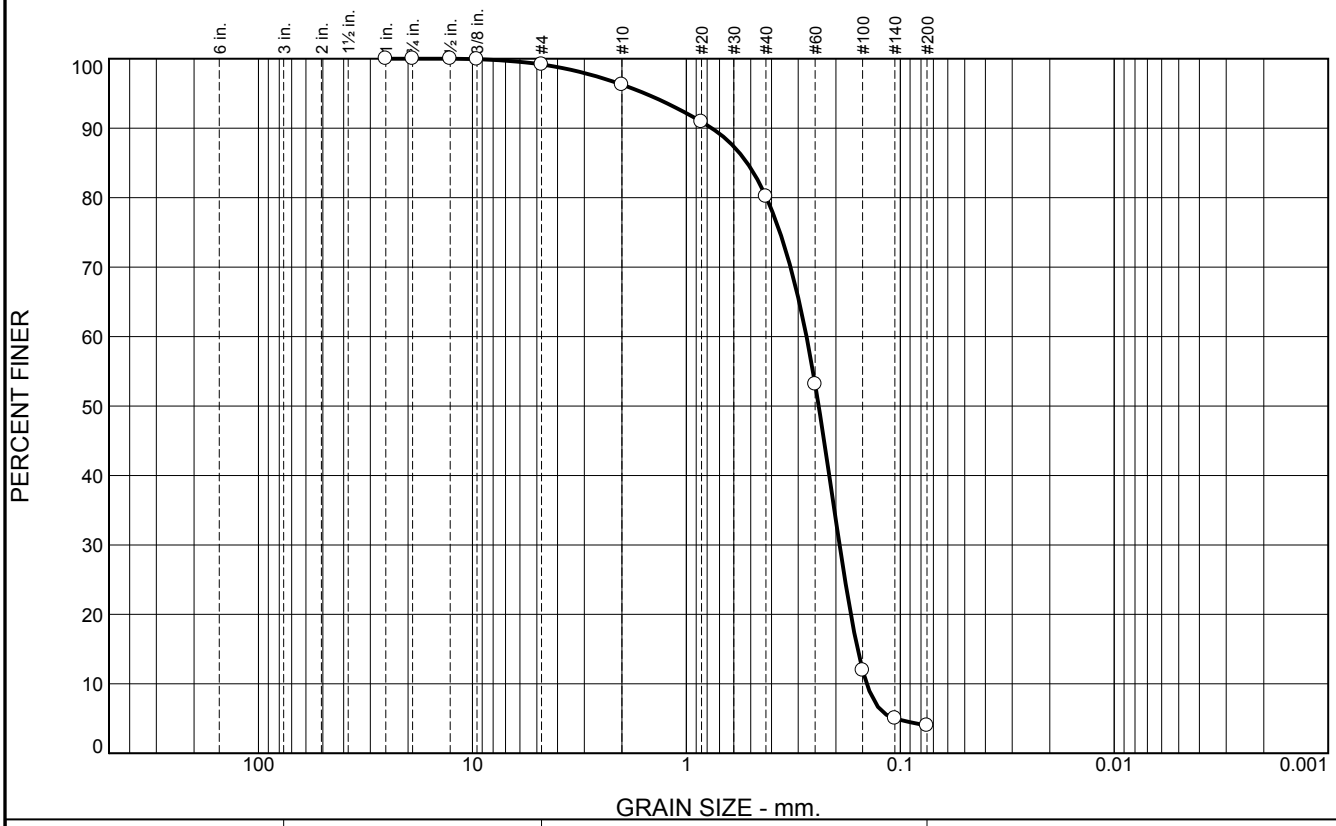
Location: BI-PBS-16-12 B
Sample Number: 6469 (31) **Depth:** 2.5' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.8	2.9	16.1	76.2	4.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.9		
#4	99.2		
#10	96.3		
#20	90.9		
#40	80.2		
#60	53.1		
#100	11.9		
#140	5.0		
#200	4.0		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.7616 D_{85}= 0.5200 D_{60}= 0.2745
D_{50}= 0.2406 D_{30}= 0.1923 D_{15}= 0.1585
D_{10}= 0.1436 C_u= 1.91 C_c= 0.94

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBS-16-12 C
Sample Number: 6469 (32) **Depth:** 3.8' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-017-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-017-12 — LOCATION COORDINATES: E = 1,139,765 N = 231,412	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 55.4 Ft.
	15. DATE BORING — STARTED: 11-23-12 — COMPLETED: 11-23-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -58.5 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.5 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-58.5	0.0				
-59.5	1.0		SAND, poorly-graded, mostly fine-grained sand-sized quartz, little fines, gray (SP)	A	Classification: SP Color: 2.5Y 6/2-light brownish gray D50: 0.21 mm % Fines: 2.7
-59.7	1.2				
-60.5	2.0		SAND, silty, mostly fine-grained sand-sized quartz, gray (SM)		
			SAND, poorly-graded with silt, mostly fine to medium-grained sand-sized quartz, few shell fragments, trace wood debris, gray (SP-SM)		
			SILT, inorganic-L, little sand, sand lense at 4.5 ft, lt. gray mottled with orange (ML)		
-66.0	7.5				
			SAND, silty, mostly fine-grained sand-sized quartz, trace wood debris, trace shell fragments, gray (SM)	NS	
-70.5	12.0				
			SILT, inorganic-L, trace sand, trace wood debris, gray (ML)		
-74.9	16.4				
-76.0	17.5		SAND, silty, mostly fine-grained sand-sized quartz, trace shell fragments, gray (SM)		
			CLAY, lean, stiff, sand lense at 18.7 ft, lt. gray to gray (CL)		
-78.0	19.5				

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13542° Long = -88.34137°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

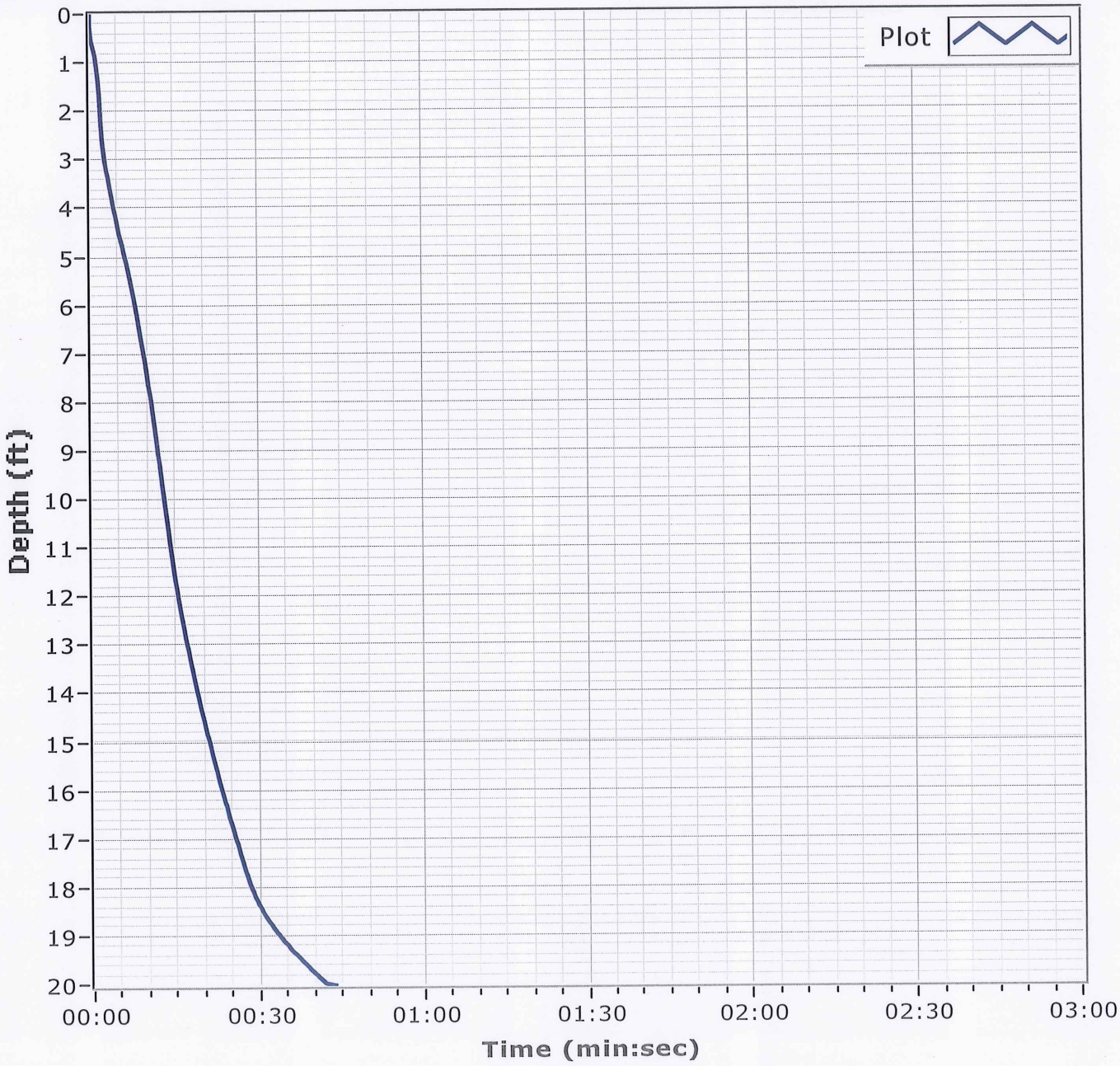
Core Identifier BI-PBS-17-12
Coordinate System
Latitude / Longitude

Latitude 30 08.125
Longitude 088 20.482

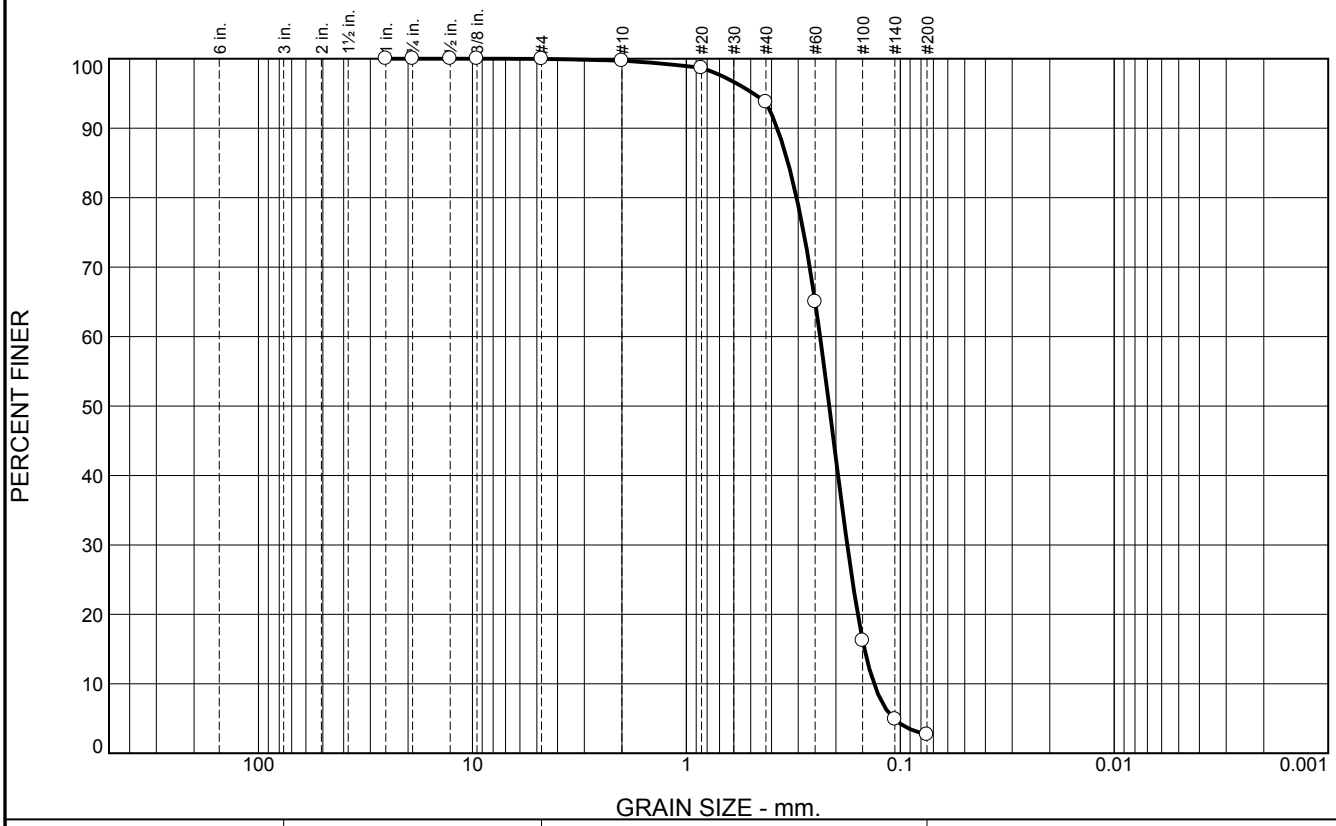
Date 11/23/2012
Start Time 10:21:34
End Time 10:22:18
Total Time 00:00:44

Water Depth 58.7'
Penetration 20.0'
Recovery 19.5'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.3	6.0	91.0	2.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.7		
#20	98.7		
#40	93.7		
#60	65.0		
#100	16.2		
#140	4.9		
#200	2.7		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3762 D_{85}= 0.3346 D_{60}= 0.2370
D_{50}= 0.2148 D_{30}= 0.1771 D_{15}= 0.1471
D_{10}= 0.1328 C_u= 1.78 C_c= 1.00

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBS-17-12 A
Sample Number: 6469 (24) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-018-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-018-12 — LOCATION COORDINATES: E = 1,139,854 N = 232,104	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 50.2 Ft.
	15. DATE BORING — STARTED: 11-23-12 — COMPLETED: 11-23-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -51.1 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.0 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-51.1	0.0				
-53.5	2.4		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little shell fragments, trace fines, lt. gray (SP)	A	Classification: SP Color: 5Y 7/2-light gray D50: 0.3756 mm % Fines: 1.7
-59.3	8.2		SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fines, fines increase with depth, lt. gray to gray (SP)	B	Classification: SP Color: 5Y 7/2-light gray D50: 0.2358 mm % Fines: 2.6
-59.7	8.6				
-61.9	10.8		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, little shell fragments, gray (SP-SM)	NS	
-63.9	12.8		SAND, silty, mostly fine-grained sand-sized quartz, trace shell fragments, gray mottled with lt. gray and reddish brown (SM)		
-68.1	17.0		CLAY, silty, some fine-grained sand-sized quartz, trace shell fragments, trace wood debris, gray (CL-ML)		
-70.1	19.0		SAND, silty, mostly fine-grained sand-sized quartz, trace shell fragments, trace wood debris, gray (SM)		
			CLAY, lean, little fine-grained sand-sized quartz, trace wood debris, gray (CL)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13732° Long = -88.34108°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-18-12

Coordinate System
Latitude / Longitude

Latitude 30 08.239

Longitude 088 20.465

Date 11/23/2012

Start Time 10:57:35

End Time 11:00:41

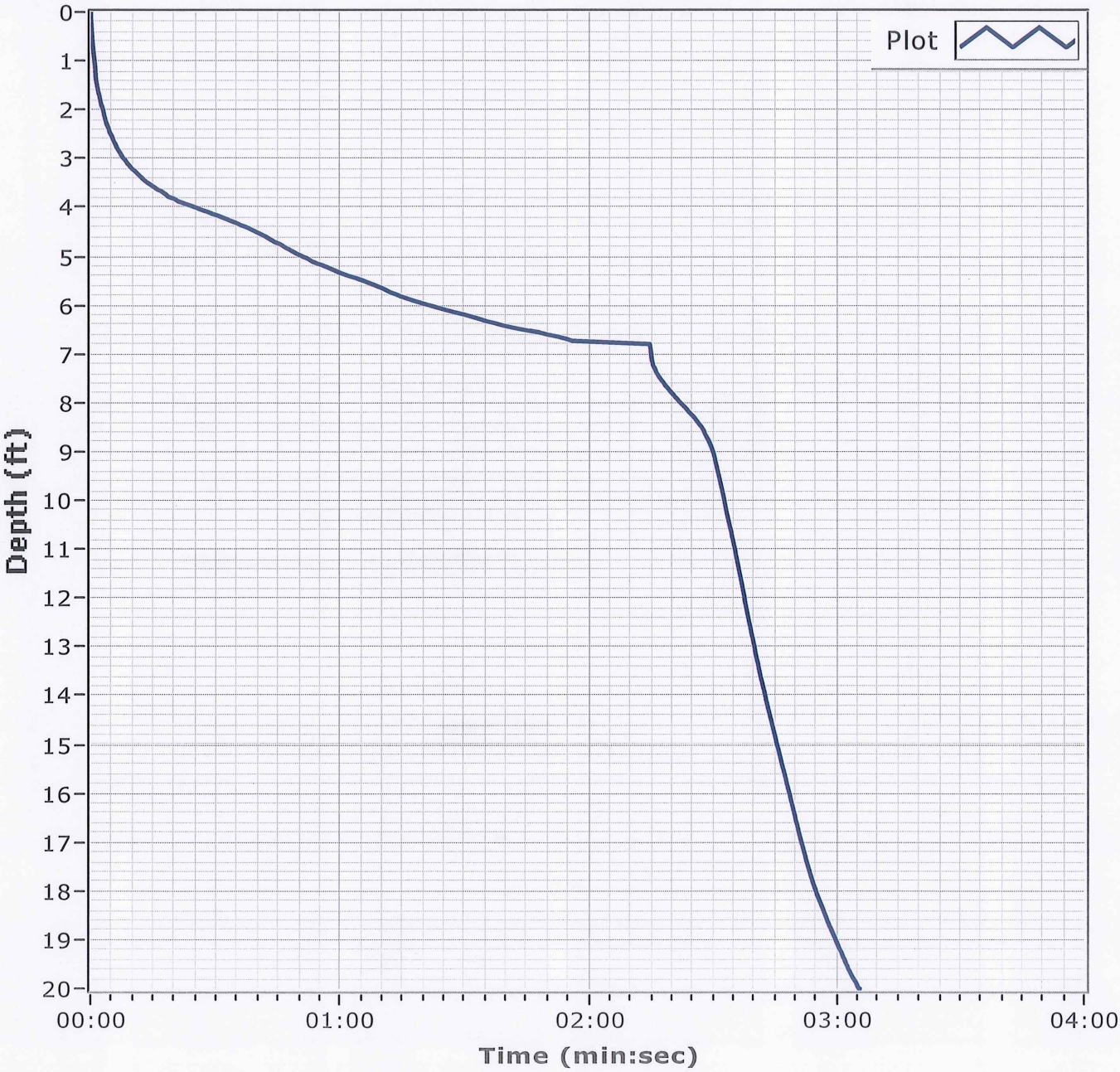
Total Time 00:03:06

Water Depth 50.2'

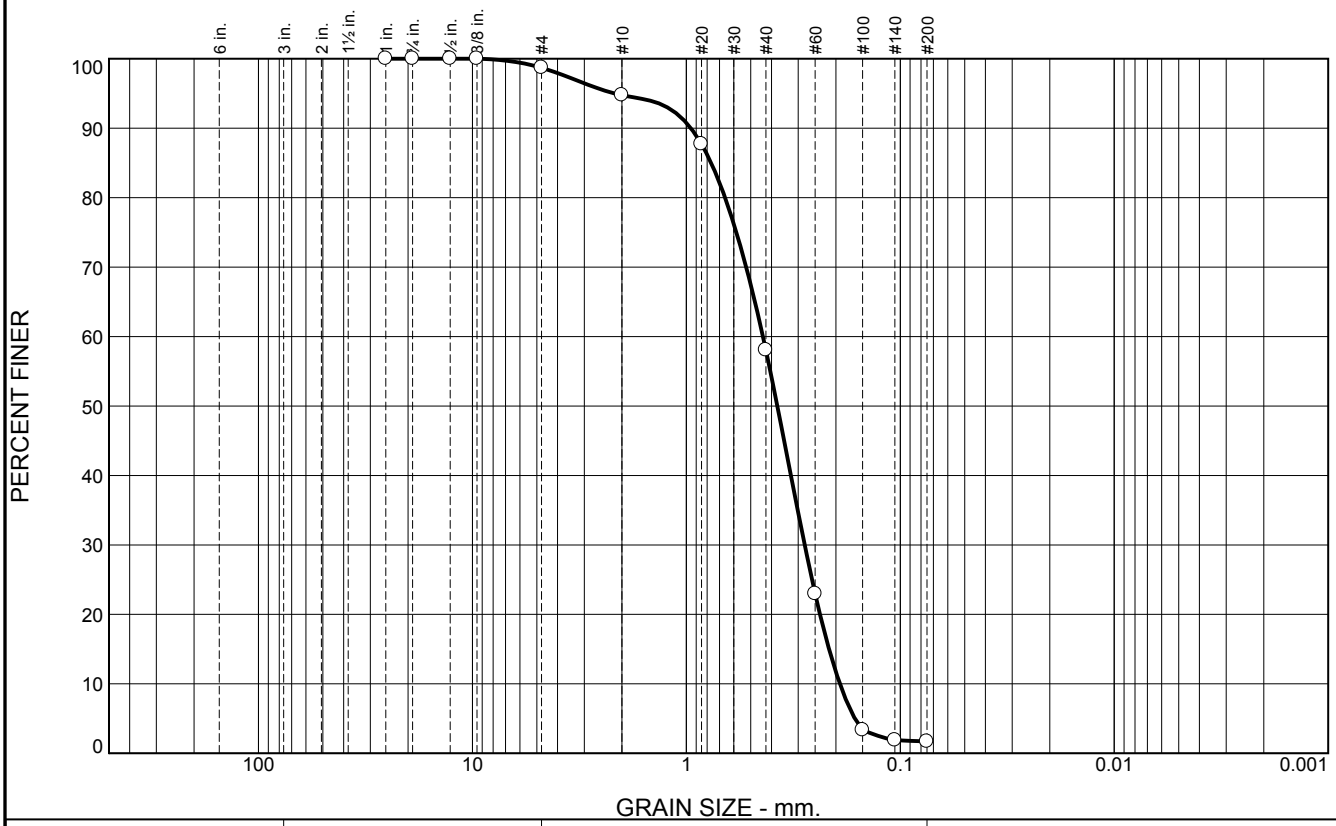
Penetration 20.0'

Recovery 19.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.3	4.0	36.6	56.4	1.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	98.7		
#10	94.7		
#20	87.7		
#40	58.1		
#60	23.0		
#100	3.4		
#140	1.9		
#200	1.7		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.9531 D_{85}= 0.7661 D_{60}= 0.4386
D_{50}= 0.3756 D_{30}= 0.2799 D_{15}= 0.2153
D_{10}= 0.1917 C_u= 2.29 C_c= 0.93

Classification

USCS= SP AASHTO=

Remarks

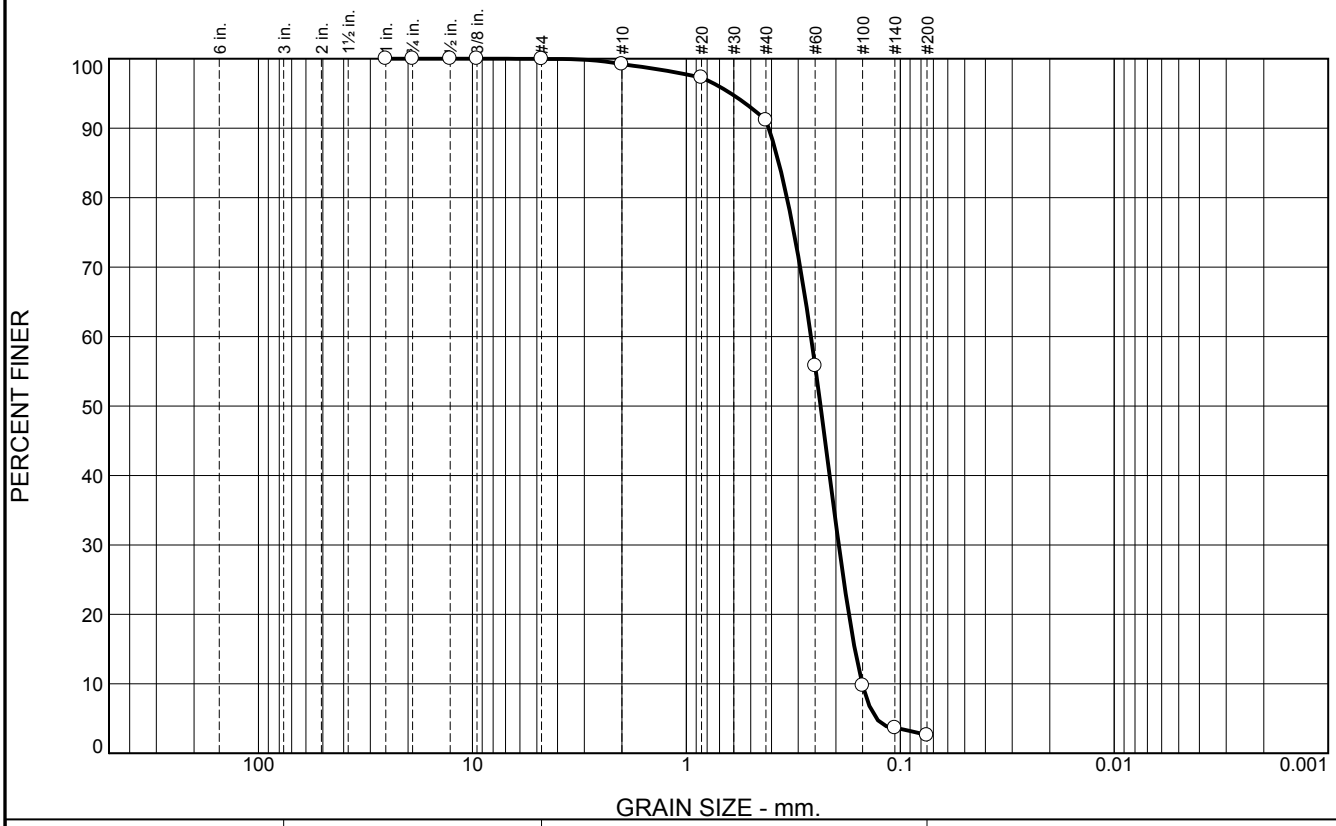
Location: BI-PBS-18-12 A
Sample Number: 6469 (25) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.8	8.0	88.6	2.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.2		
#20	97.3		
#40	91.2		
#60	55.8		
#100	9.8		
#140	3.6		
#200	2.6		

* (no specification provided)

Material Description

Fine grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4120 D_{85}= 0.3695 D_{60}= 0.2615
D_{50}= 0.2358 D_{30}= 0.1940 D_{15}= 0.1633
D_{10}= 0.1507 C_u= 1.74 C_c= 0.96

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBS-18-12 B
Sample Number: 6469 (26) **Depth:** 2.4' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-019-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT	MsCIP Barrier Island Restoration Petit Bois Pass-OCS East
2. BORING DESIGNATION	BI-PBS-019-12
LOCATION COORDINATES	E = 1,139,322 N = 232,876
3. DRILLING AGENCY	Corps of Engineers - CESAM
CONTRACTOR FILE NO.	
4. NAME OF DRILLER	American Vibracore Systems, Inc.
5. DIRECTION OF BORING	☒ VERTICAL ☐ INCLINED
DEG. FROM VERTICAL	
BEARING	
6. THICKNESS OF OVERBURDEN	N/A
7. DEPTH DRILLED INTO ROCK	N/A
8. TOTAL DEPTH OF BORING	18.6 Ft.
9. SIZE AND TYPE OF BIT	N/A
10. COORDINATE SYSTEM/DATUM	State Plane, MSE (U.S. Ft.)
HORIZONTAL	NAD83
VERTICAL	NAVD88
11. MANUFACTURER'S DESIGNATION OF DRILL	Vibracore
☐ AUTO HAMMER ☐ MANUAL HAMMER	
12. TOTAL SAMPLES	DISTURBED: ; UNDISTURBED (UD): 0
13. TOTAL NUMBER CORE BOXES	
14. WATER DEPTH	50.6 Ft.
15. DATE BORING	STARTED 11-23-12; COMPLETED 11-23-12
16. ELEVATION TOP OF BORING	-51.2 Ft.
17. TOTAL RECOVERY FOR BORING	100%
18. SIGNATURE AND TITLE OF INSPECTOR	John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-51.2	0.0				
-55.8	4.6		SAND, poorly-graded, mostly fine-grained sand-sized quartz, little shell fragments, trace fines, gray to light gray (SP)	A	Classification: SP Color: 5Y 6/2-light olive gray D50: 0.2978 mm % Fines: 1.8
-56.2	5.0				
-57.4	6.2		SAND, poorly-graded, mostly fine-grained sand-sized quartz, some shell fragments, few fines, gray (SP)		
-60.1	8.9		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, little shell fragments, gray (SP-SM)		
-60.9	9.7		SAND, silty, mostly fine-grained sand-sized quartz, trace shell fragments, gray mottled with lt. gray and orange (SM)		
-61.2	10.0				
-63.1	11.9		CLAY, silty, little fine-grained sand-sized quartz, lt. gray mottled with orange (CL-ML)	NS	
			SAND, silty, mostly fine-grained sand-sized quartz, gray (SM)		
			CLAY, lean, little fine-grained sand-sized quartz, lt. gray mottled with orange (CL)		
-67.2	16.0		SAND, silty, mostly fine-grained sand-sized quartz, gray to tan (SM)		
-69.8	18.6		SILT, inorganic-L, mostly silt, trace fine-grained sand-sized quartz, trace wood debris, trace shell fragments, gray (ML)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13945° Long = -88.34275°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-19-12

Coordinate System
Latitude / Longitude

Latitude 30 08.367

Longitude 088 20.565

Date 11/23/2012

Start Time 11:42:08

End Time 11:43:20

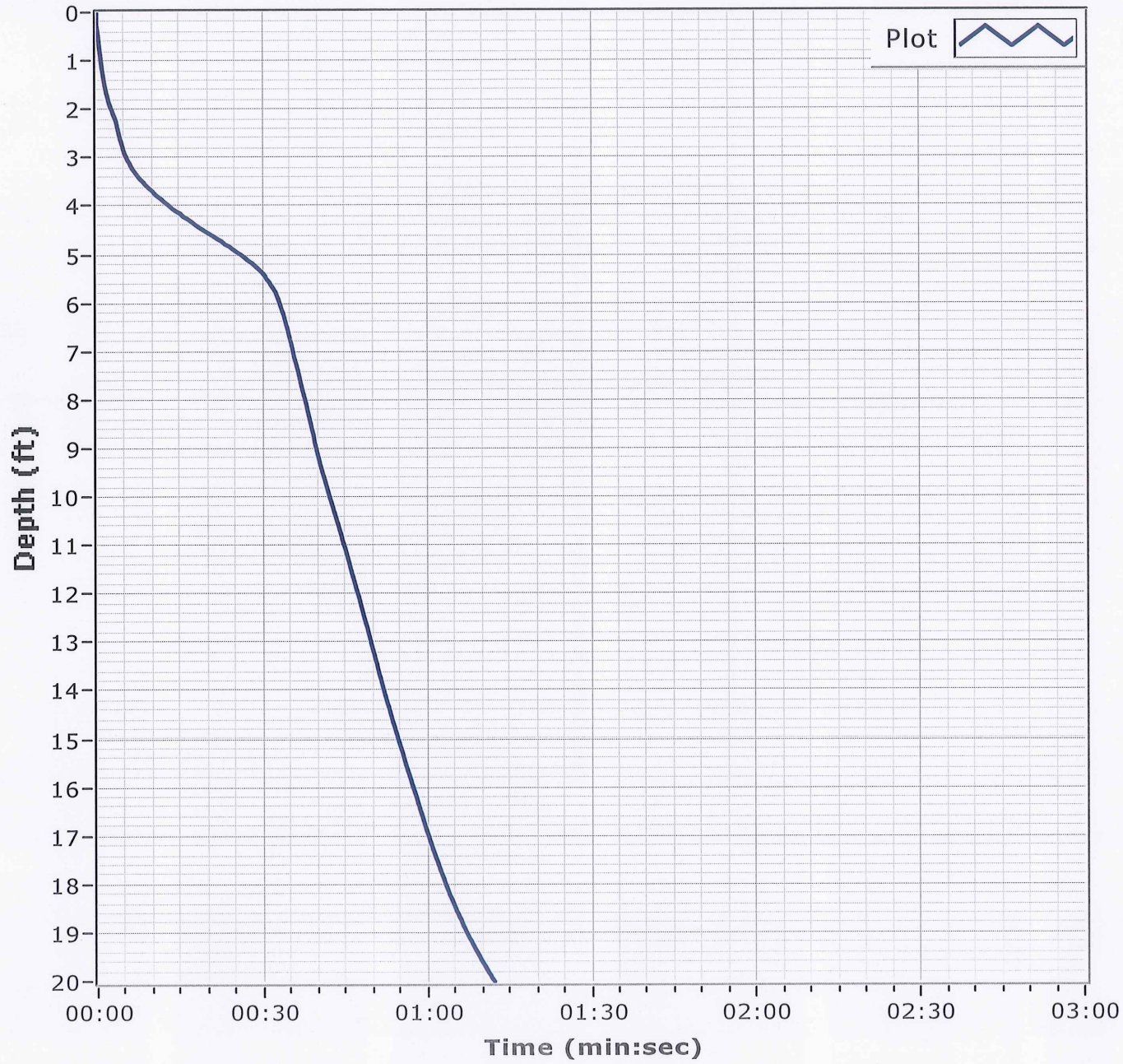
Total Time 00:01:12

Water Depth 50.6'

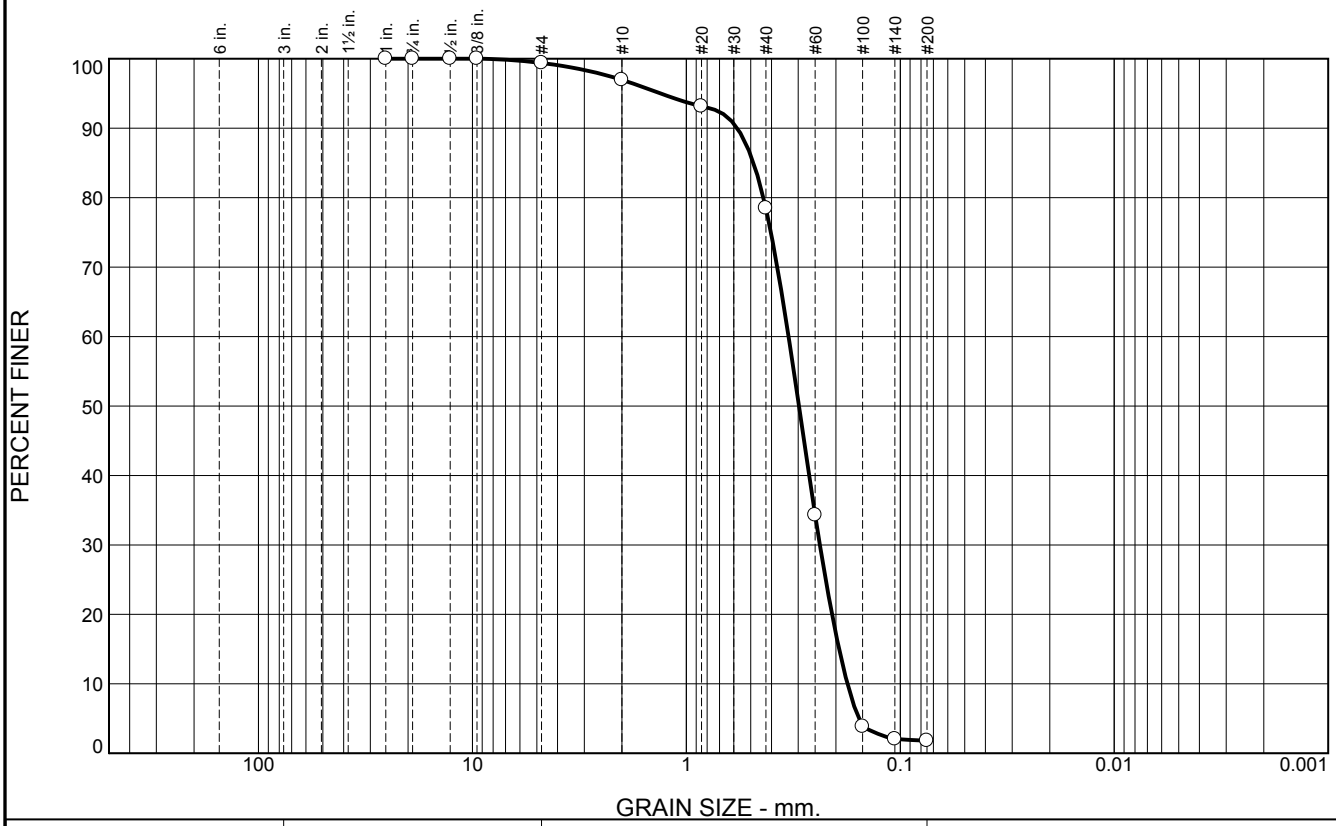
Penetration 20.0'

Recovery 18.6'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.6	2.5	18.4	76.7	1.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.4		
#10	96.9		
#20	93.1		
#40	78.5		
#60	34.3		
#100	3.9		
#140	2.0		
#200	1.8		

* (no specification provided)

Material Description

Fine to medium grained, SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.5783 D_{85}= 0.4857 D_{60}= 0.3329
D_{50}= 0.2978 D_{30}= 0.2376 D_{15}= 0.1933
D_{10}= 0.1768 C_u= 1.88 C_c= 0.96

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBS-19-12 A
Sample Number: 6469 (27) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-020-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-020-12 — LOCATION COORDINATES: E = 1,138,523 N = 229,734	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 60.8 Ft.
	15. DATE BORING — STARTED: 11-23-12 — COMPLETED: 11-23-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -60.1 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 12.7 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-60.1	0.0				
-60.3	0.2		SILT, inorganic-L, mostly silt, trace fine-grained sand-sized quartz, trace shell fragments, gray (ML)	NS	
-64.2	4.1		SAND, silty, mostly fine-grained sand-sized quartz, trace shell fragments, gray (SM)		
-66.1	6.0		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell fragments, lt. gray (SP)	A	Classification: SP-SM Color: 5Y 6/2-light olive gray D50: 0.2777 mm % Fines: 9.1
-72.1	12.0		CLAY, lean, mostly clay, some fine-grained sand-sized quartz, trace wood debris, gray (CL) At El. -66.7 Ft., mostly clay, trace fine-grained sand-sized quartz, trace shell fragments, trace wood debris, gray	NS	
-72.8	12.7		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, gray mottled with brown (SP-SM)	B	Classification: SM Color: 5Y 5/2-olive gray D50: 0.2927 mm % Fines: 12.8

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation calculated using sampling vessel's fathometer water depth reading and applying NOAA tidal gauge data conversion factor.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13082° Long = -88.34532°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

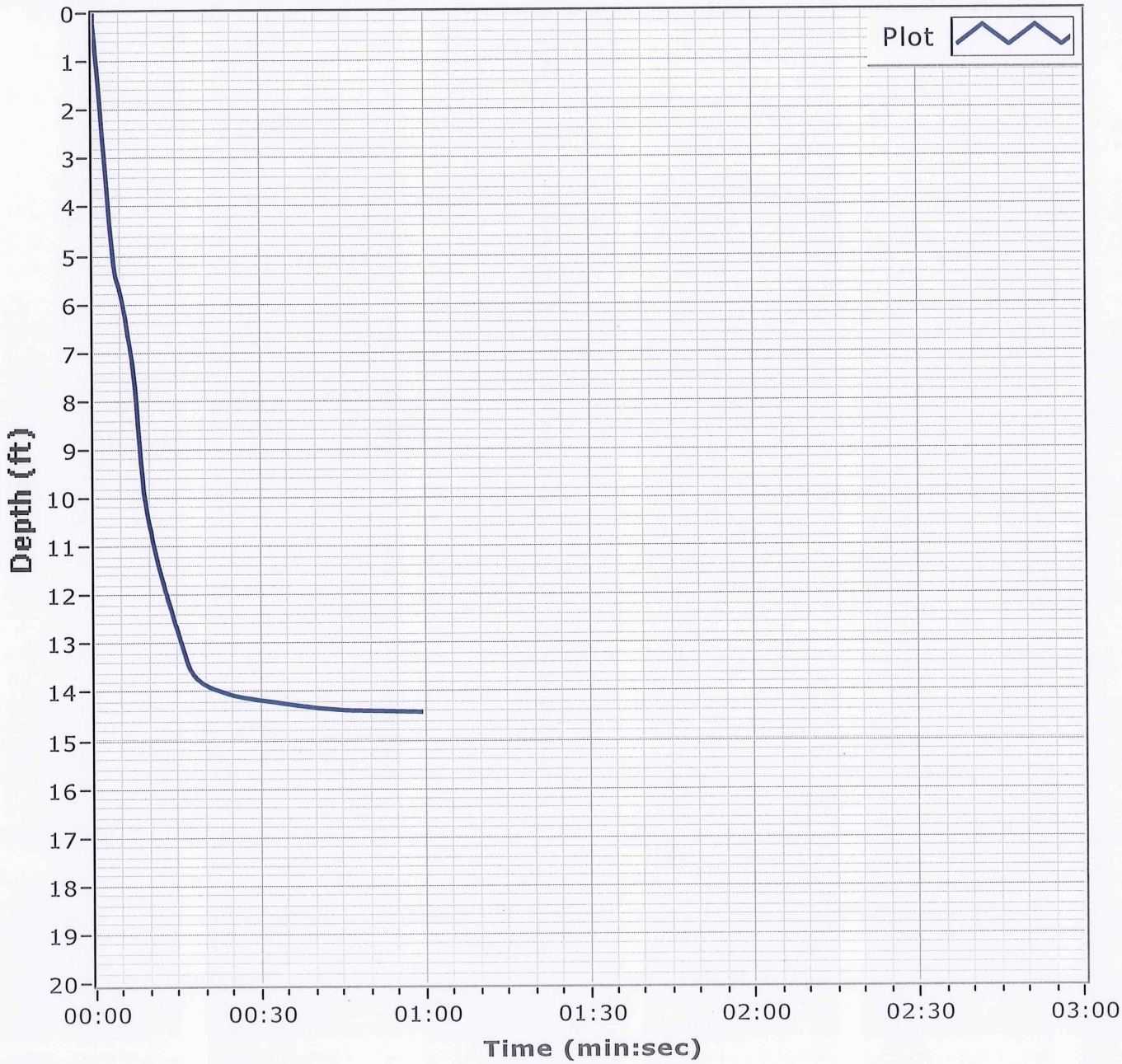
Core Identifier BI-PBS-20-12
Coordinate System
Latitude / Longitude

Latitude 30 08.849
Longitude 088 20.719

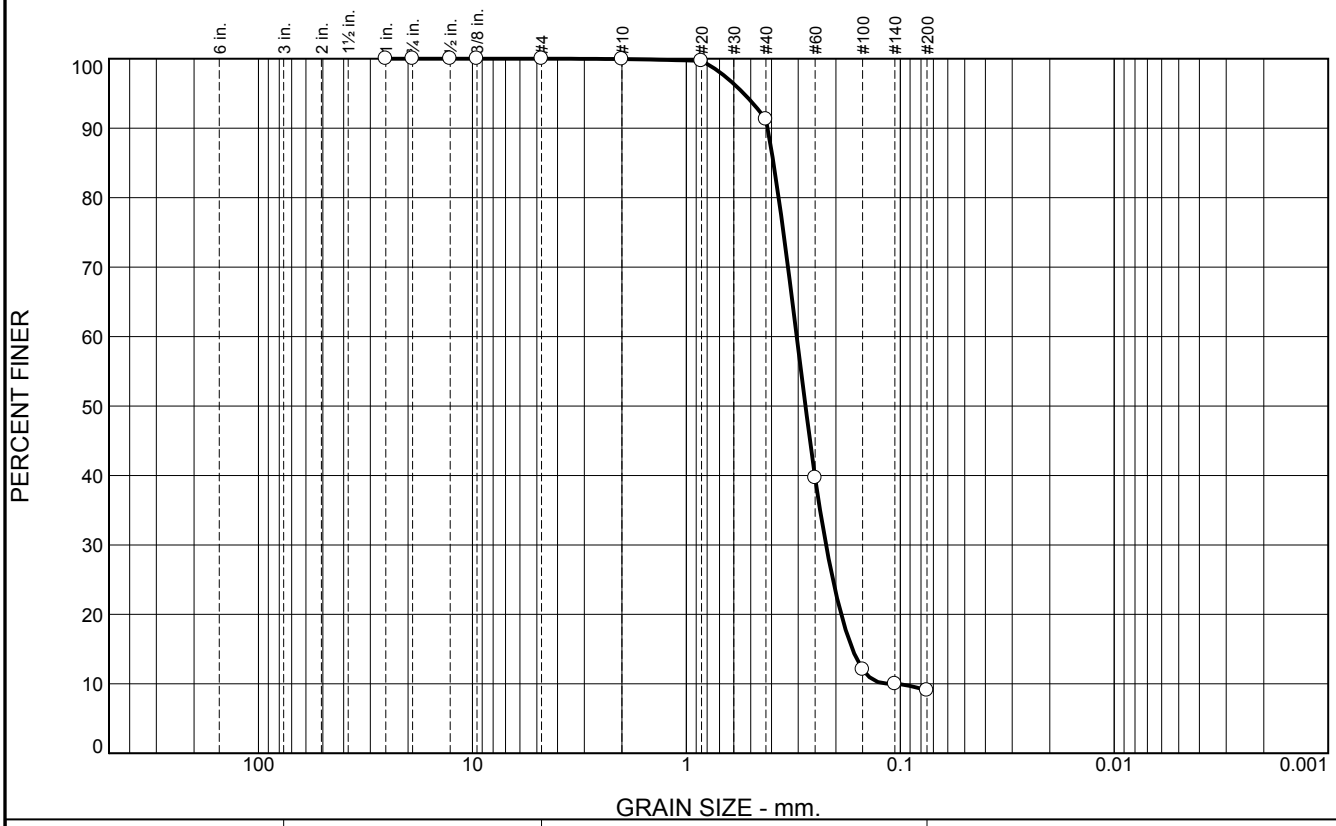
Date 11/23/2012
Start Time 12:58:43
End Time 12:59:43
Total Time 00:00:59

Water Depth 60.8
Penetration 14.4'
Recovery 12.7'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	8.6	82.2	9.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	100.0		
#10	99.9		
#20	99.7		
#40	91.3		
#60	39.6		
#100	12.1		
#140	10.0		
#200	9.1		

* (no specification provided)

Material Description

Fine grained, SLIGHTLY SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4172 D_{85}= 0.3913 D_{60}= 0.3050
D_{50}= 0.2777 D_{30}= 0.2224 D_{15}= 0.1676
D_{10}= 0.1055 C_u= 2.89 C_c= 1.54

Classification

USCS= SP-SM AASHTO=

Remarks

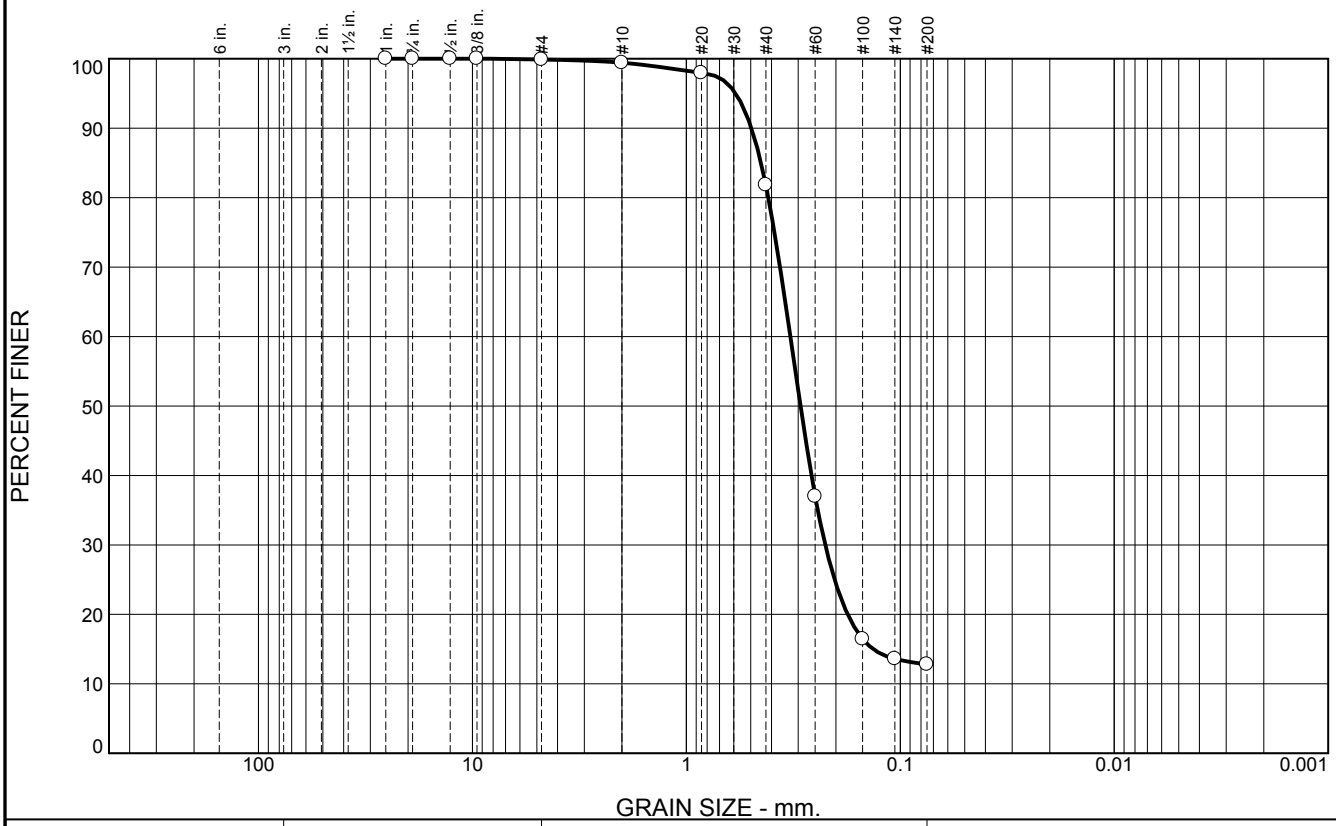
Location: BI-PBS-20-12 A
Sample Number: 6469 (28) **Depth:** 4.1' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.5	17.6	69.0	12.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	100.0		
#4	99.9		
#10	99.4		
#20	97.9		
#40	81.8		
#60	37.0		
#100	16.5		
#140	13.6		
#200	12.8		

* (no specification provided)

Material Description

Fine to medium grained, SILTY SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4965 D_{85}= 0.4477 D_{60}= 0.3265
D_{50}= 0.2927 D_{30}= 0.2243 D_{15}= 0.1339
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Location: BI-PBS-20-12 B
Sample Number: 6469 (29) **Depth:** 12.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-021-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 2 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-021-12 — LOCATION COORDINATES: E = 1,142,638 N = 232,156	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 52 Ft.
	15. DATE BORING — STARTED: 11-21-12 — COMPLETED: 11-21-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -52.9 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 20.0 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-52.9	0.0				
-56.4	3.5		SAND, poorly-graded, mostly fine to medium-grained quartz, little shell fragments, trace fines, lt. gray (SP)	A	Classification: SP Color: 2.5Y 7/2-light gray D50: 0.3757 mm % Fines: 1.3
-60.1	7.2		SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fines, trace shell fragments, lt. gray (SP)	B	Classification: SP Color: 5Y 6.5/2- D50: 0.2445 mm % Fines: 3
-60.9	8.0		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace wood debris, gray (SC)	NS	
-61.4	8.5		CLAY, lean, mostly fine-grained sand-sized quartz, some fine-grained sand-sized quartz, light gray mottled with brown (CL)		
-65.9	13.0		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, trace shell fragments, trace wood debris, gray to dark gray (SC)		
-69.4	16.5		SAND, silty, mostly fine-grained sand-sized quartz, some silt, trace shell fragments, trace wood debris, gray (SM)		
-72.4	19.5		SILT, inorganic-L, mostly silt, some fine-grained sand-sized quartz, trace wood debris, gray (ML)		
-72.9	20.0		SAND, silty, mostly fine-grained sand-sized quartz, some silt, gray (SM)		

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13743° Long = -88.33227°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,142,638 Y = 232,156	ELEVATION TOP OF BORING -52.9 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.13743° Long = -88.33227°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-21-12

Coordinate System
Latitude / Longitude

Latitude 30 08.246

Longitude 088 19.936

Date 11/21/2012

Start Time 12:57:37

End Time 12:58:34

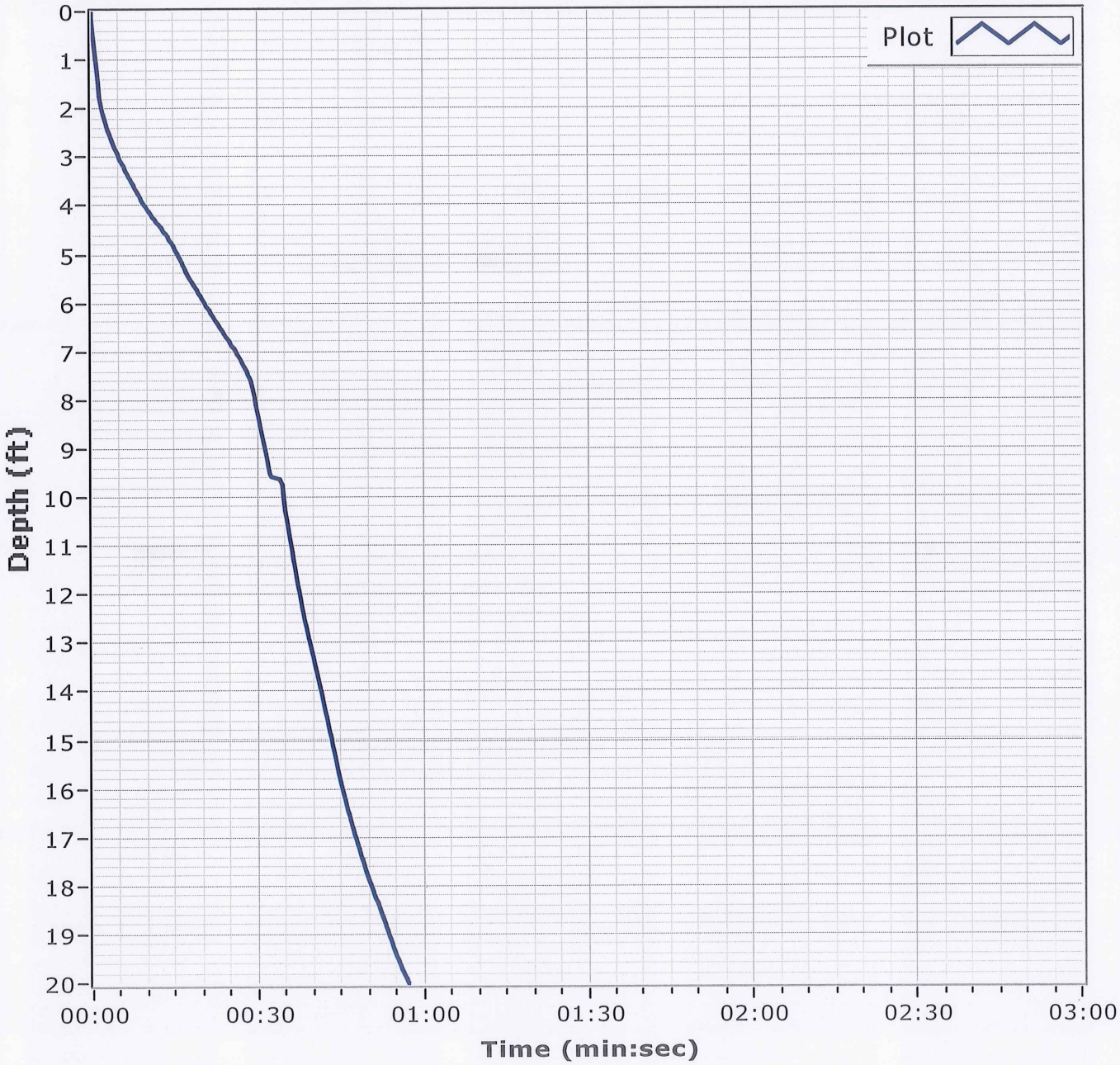
Total Time 00:00:57

Water Depth 52.0'

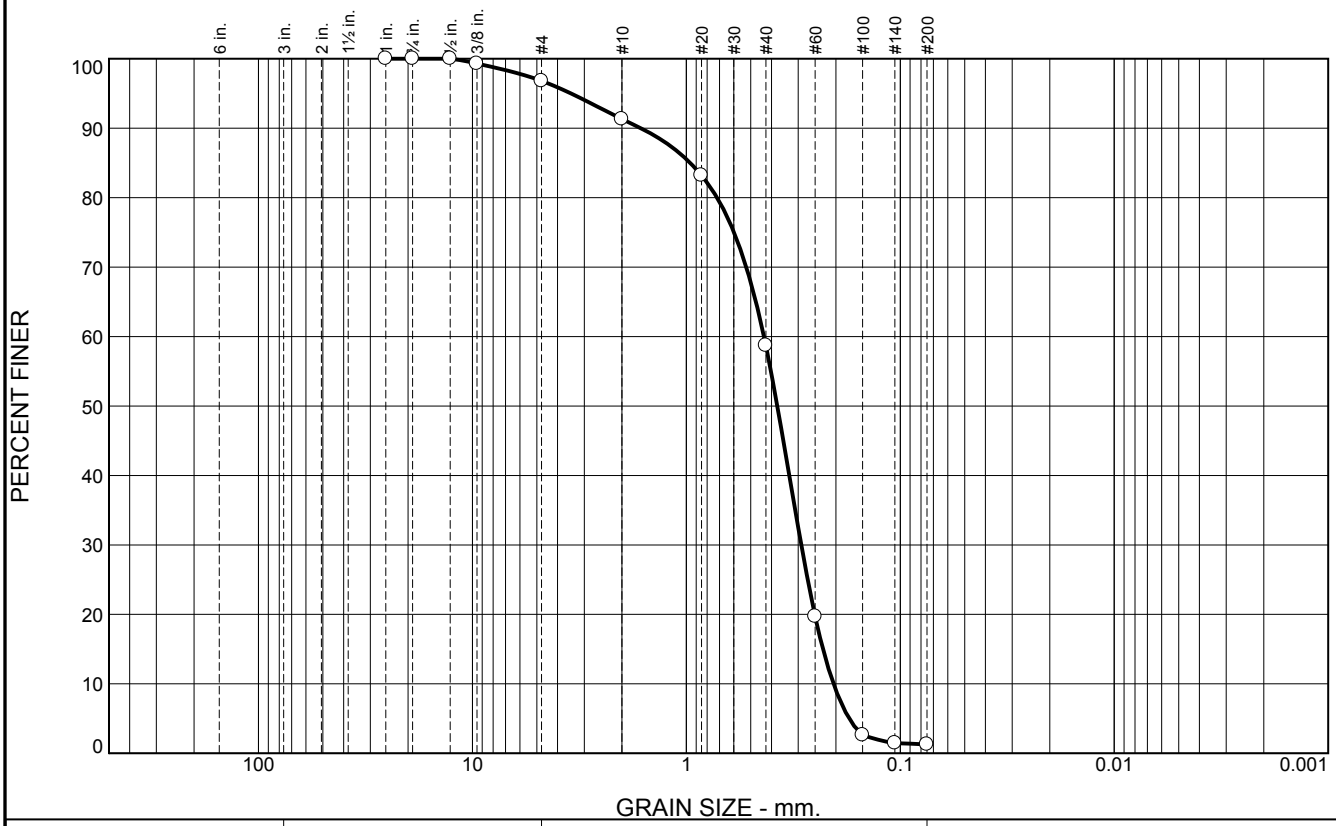
Penetration 20.0'

Recovery 20.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.2	5.5	32.6	57.4	1.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	100.0		
.375	99.3		
#4	96.8		
#10	91.3		
#20	83.2		
#40	58.7		
#60	19.7		
#100	2.6		
#140	1.5		
#200	1.3		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 1.6366 D_{85}= 0.9602 D_{60}= 0.4338
D_{50}= 0.3757 D_{30}= 0.2904 D_{15}= 0.2298
D_{10}= 0.2052 C_u= 2.11 C_c= 0.95

Classification

USCS= SP AASHTO=

Remarks

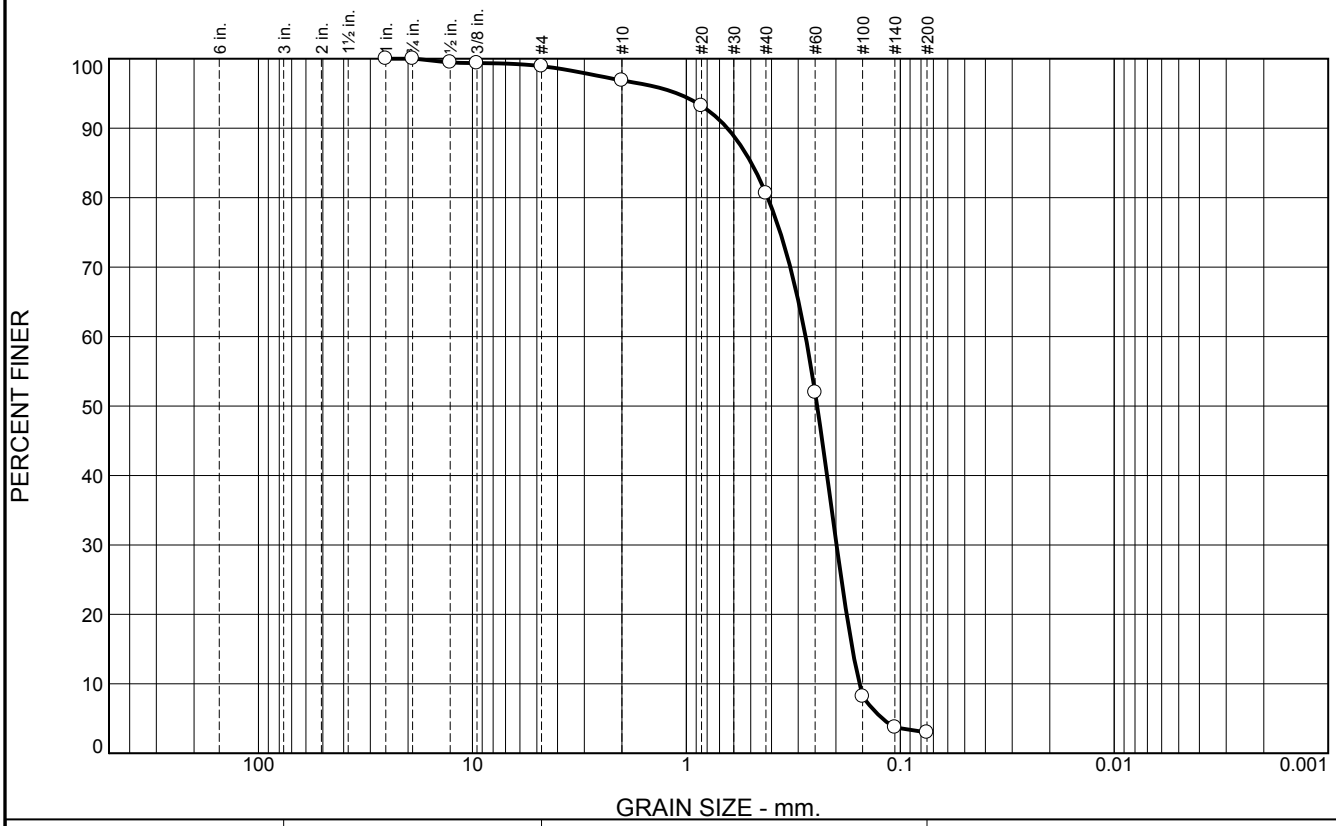
Location: BI-PBS-21-12 A
Sample Number: 6469 (10) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.1	2.0	16.3	77.6	3.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	99.5		
.375	99.4		
#4	98.9		
#10	96.9		
#20	93.2		
#40	80.6		
#60	51.9		
#100	8.2		
#140	3.7		
#200	3.0		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.6431 D_{85}= 0.4973 D_{60}= 0.2772
D_{50}= 0.2445 D_{30}= 0.1986 D_{15}= 0.1676
D_{10}= 0.1554 C_u= 1.78 C_c= 0.92

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBS-21-12 B
Sample Number: 6469 (11) **Depth:** 3.5' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-022-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 2 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-022-12 — LOCATION COORDINATES: E = 1,142,318 N = 233,125	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.:	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES:
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 56 Ft.
	15. DATE BORING — STARTED: 11-21-12 — COMPLETED: 11-21-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -53.1 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 20.0 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-53.1	0.0				
-59.0	5.9		SAND, poorly-graded, mostly fine to medium-grained quartz, little shell fragments, trace fines, gray (SP)	A	Classification: SP Color: 5Y 7/1-light gray D50: 0.291 mm % Fines: 2.3
-59.8	6.7		SAND, silty, mostly fine-grained sand-sized quartz, trace shell fragments, trace wood debris, gray (SM)		
-61.1	8.0		CLAY, lean, mostly clay, some fine-grained sand-sized quartz, trace wood debris, gray (CL)		
-73.1	20.0		SAND, silty, mostly fine-grained sand-sized quartz, little shell fragments, gray (SM)	NS	

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

3. Seafloor elevation determined from USACE

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.14010° Long = -88.33327°

Boring Designation BI-PBS-022-12

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,142,318 Y = 233,125	ELEVATION TOP OF BORING -53.1 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.14010° Long = -88.33327°

Project Mississippi Barrier Island Restoration Project

AVS
AMERICAN VIBRACORE SERVICES

Core Identifier BI-PBS-22-12

Coordinate System
Latitude / Longitude

Latitude 30 08.406

Longitude 088 19.996

Date 11/21/2012

Start Time 15:33:14

End Time 15:34:34

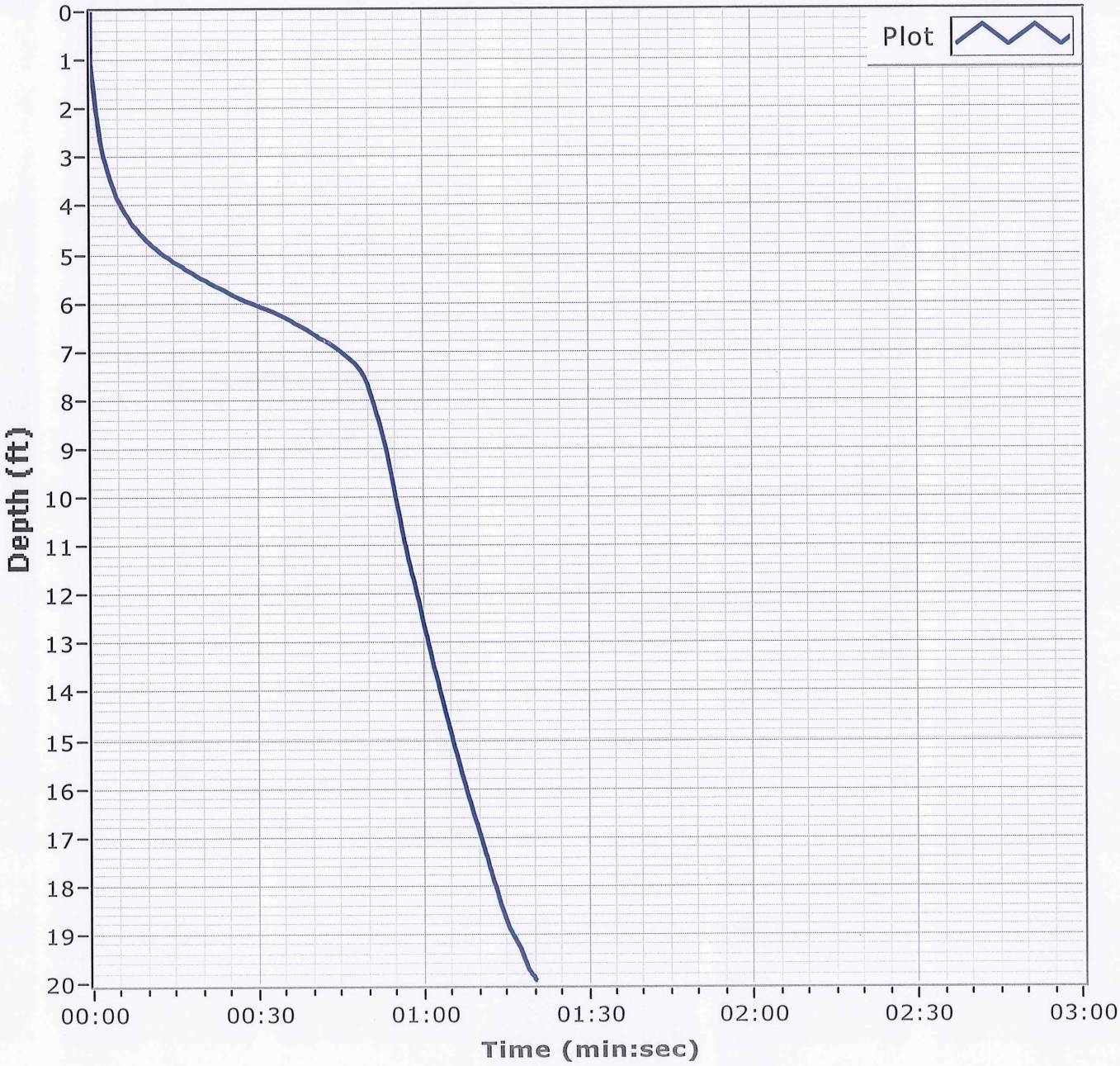
Total Time 00:01:20

Water Depth 56.0'

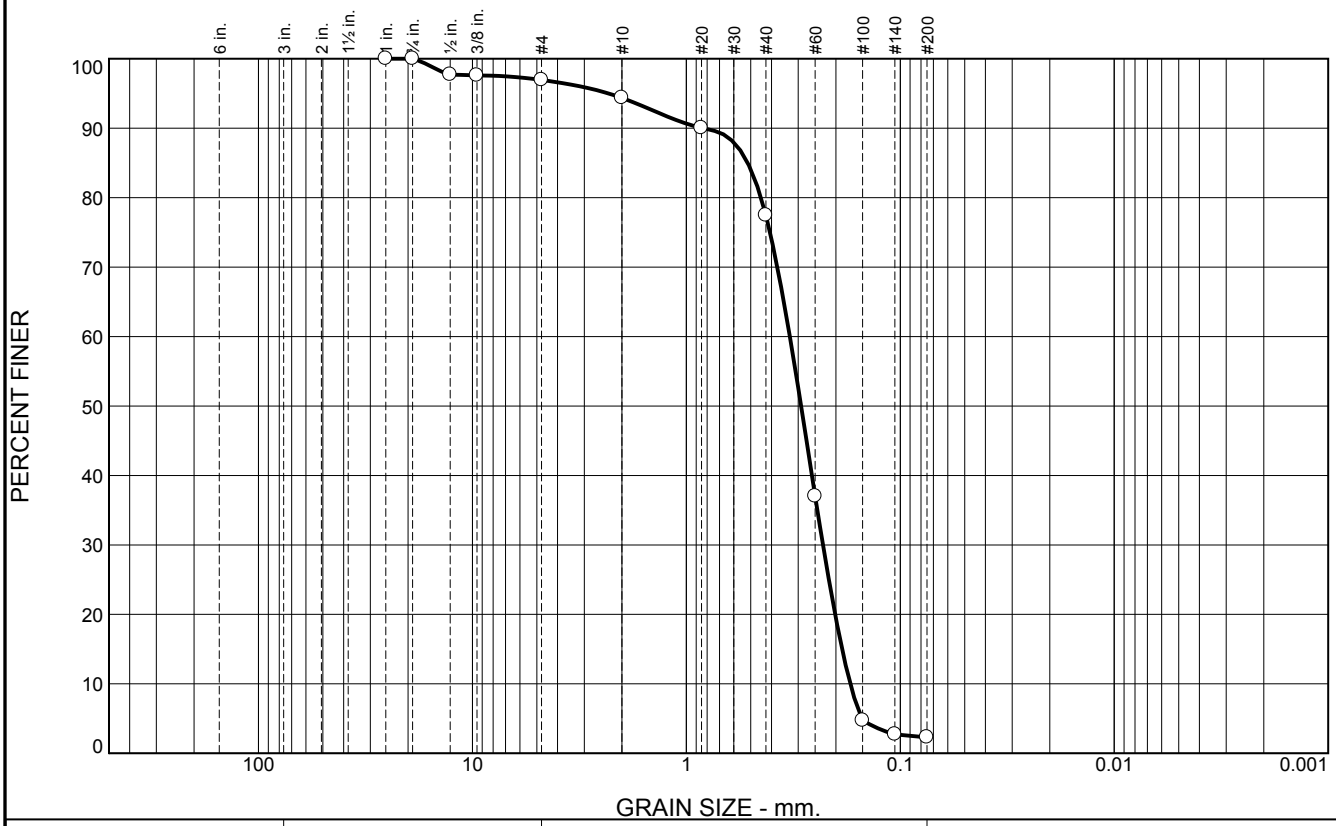
Penetration 20.0'

Recovery 20.0'

Comments



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.1	2.5	16.9	75.2	2.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	100.0		
.5	97.7		
.375	97.6		
#4	96.9		
#10	94.4		
#20	90.0		
#40	77.5		
#60	37.0		
#100	4.7		
#140	2.7		
#200	2.3		

* (no specification provided)

Material Description

Fine to medium grained, SAND, with trace SHELL

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.8388 D_{85}= 0.5167 D_{60}= 0.3283
D_{50}= 0.2910 D_{30}= 0.2298 D_{15}= 0.1872
D_{10}= 0.1715 C_u= 1.92 C_c= 0.94

Classification

USCS= SP AASHTO=

Remarks

Location: BI-PBS-22-12 A
Sample Number: 6469 (18) **Depth:** 0.0' **Date:** 11/28/12

Thompson Engineering

Mobile, Alabama

Client: CDM/Thompson Engineering JV
Project: MsCIP Barrier Island Restoration GT
Project No: 1221110095 **Figure**

Boring Designation BI-PBS-023-12

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 2 SHEETS

1. PROJECT: MsCIP Barrier Island Restoration, Petit Bois Pass-OCS East	9. SIZE AND TYPE OF BIT: N/A
	10. COORDINATE SYSTEM/DATUM: State Plane, MSE (U.S. Ft.) — HORIZONTAL: NAD83 — VERTICAL: NAVD88
2. BORING DESIGNATION: BI-PBS-023-12 — LOCATION COORDINATES: E = 1,141,367 N = 233,678	11. MANUFACTURER'S DESIGNATION OF DRILL: Vibracore — ☐ AUTO HAMMER ☐ MANUAL HAMMER
3. DRILLING AGENCY: Corps of Engineers - CESAM — CONTRACTOR FILE NO.	12. TOTAL SAMPLES — DISTURBED: — UNDISTURBED (UD): 0
4. NAME OF DRILLER: American Vibracore Systems, Inc.	13. TOTAL NUMBER CORE BOXES
5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED — DEG. FROM VERTICAL: — BEARING:	14. WATER DEPTH: 55.7 Ft.
	15. DATE BORING — STARTED: 11-23-12 — COMPLETED: 11-23-12
6. THICKNESS OF OVERBURDEN: N/A	16. ELEVATION TOP OF BORING: -55.9 Ft.
7. DEPTH DRILLED INTO ROCK: N/A	17. TOTAL RECOVERY FOR BORING: 100%
8. TOTAL DEPTH OF BORING: 19.7 Ft.	18. SIGNATURE AND TITLE OF INSPECTOR: John Bass, Geotechnical Engineer

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
-55.9	0.0				
-59.5	3.6		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace fines, trace shell fragments, lt. gray (SP)	A	Classification: SP Color: 2.5Y 7/2-light gray D50: 0.3131 mm % Fines: 2.6
-60.2	4.3		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, stringers of brown clay, lt. gray mottled with reddish brown (SP-SM)	NS	
-60.9	5.0				
-63.8	7.9		SILT, inorganic-L, mostly silt, some fine-grained sand-sized quartz, trace shell fragments, lt. gray (ML)		
-65.6	9.7		SAND, silty, mostly fine-grained sand-sized quartz, little shell fragments, trace wood debris, lt. gray (SM)	B	Classification: SP-SM Color: 2.5Y 6/2-light brownish gray D50: 0.2021 mm % Fines: 9
-72.9	17.0		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, little silt, trace shell fragments, gray (SP-SM) SAND, silty, mostly fine-grained sand-sized quartz, little shell fragments, gray (SM)	NS	
-74.6	18.7		CLAY, lean, mostly clay, lt. gray mottled with orange (CL)		
-75.6	19.7		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace fines, lt. gray mottled with reddish brown (SP)	C	Classification: SP-SM Color: 2.5Y 7/2-light gray D50: 0.3065 mm % Fines: 8.2

NOTES:

1. Soils are field visually classified in accordance with the Unified Soils Classification System.

2. NS = Sample not submitted for laboratory analysis from this interval.

0 5 10 15 20 25

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.14163° Long = -88.33627°

DRILLING LOG (Cont. Sheet)	INSTALLATION Mobile District		SHEET 2 OF 2 SHEETS
PROJECT MsCIP Barrier Island Restoration	COORDINATE SYSTEM/DATUM State Plane, MSE (U.S. Ft.)	HORIZONTAL NAD83	VERTICAL NAVD88
LOCATION COORDINATES X = 1,141,367 Y = 233,678	ELEVATION TOP OF BORING -55.9 Ft.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	SAMPLE	LABORATORY RESULTS
			3. Seafloor elevation determined from USACE hydrographic survey completed April 2014.		

30
35
40
45
50
55
60

SAM FORM 1836 - MsCIP
MAY 2010

Lat = 30.14163° Long = -88.33627°