Hole No. TI-03-V-01

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2399727 N 224065 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-01
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (14.0' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 31.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03 COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW (a)	DEPTH feet (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (e)	BOX OR SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc. If significant) (g)
0.0	0		0.0' TO 14.0' WATER			Time begin vibracoring: 1318 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
			OCEAN BOTTOM @14.0'		14.0'	
-14.0	14.0		SP-SM Gray, fine, poorly graded silty sand, w/shell		1	Scale changed @26.0'.
					14.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	16.0					VIBRACORE BORING From 0.0' to 17.5' Ran 17.5 Rec: 15.0'
			17.5'		17.5'	
	18.0		SM Gray, fine elastic silt, w/shell fragments.		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			19.9'		18.0'	
	20.0		MH Dark gray elastic silt, w/shell fragments.		19.9'	
			21.0'		3	
			SP-SM Dark gray, fine, poorly graded silty sand, w/shell fragments.		20.4' 21.0'	
	22.0				4	
			22.8'		21.5'	LAB CLASSIFICATION
			MH Dark gray elastic silt, with shell fragments.		22.8'	Jar Number / Classification: 1 SP; 2 SC; 3 CH; 4 SC; 5 CH; 6 SC; 7 SM; 8 SP-SM
			23.8'		5	
	24.0		SP Tan, medium, poorly graded sand.		23.3' 23.8'	
					6	
					24.3'	
	26.0				26.0'	
					7	
					26.5' 28.5'	NOTE: Terminated hole at predetermined depth at 17.5'
			29.0'		8	
	29.0		Assumed not Recovered		29.0'	
	31.0					
-31.5	31.5		BOTTOM OF HOLE AT 31.5'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-02

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2400769 N 224628 NAD 83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-02
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (4.5' OF WATER)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 24.0'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 7; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03; COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0.0		0.0' TO 4.5' WATER			Time begin vibracoring: 1345 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	4.0		OCEAN BOTTOM @4.5'		4.5'	Scale changed @16.0'.
-4.5	4.5		SM Gray, fine, silty sand, with shell fragments.		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	6.0		6.3'		5.0' 6.3'	
			MH Dark gray elastic silt, w/shell fragments.		2	VIBRACORE BORING From 0.0' to 19.5' Ran 19.5' Rec: 14.5'
	8.0		8.5'		6.8' 8.5'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SM Dark gray, fine, silty sand, with shell fragments.		3	
	10.0				9.0' 10.0'	
					4	
	12.0				10.5' 12.0'	LAB CLASSIFICATION
					5	Jar Number / Classification: 1 SC; 2 SC; 3 SC; 4 SC; 5 SC; 6 SC; 7 SC; 8 SC
			13.7'		12.5' 13.7'	
	14.0		ML Dark gray sandy silt, with shell fragments.		6	
			15.3'		14.2' 15.3'	
			SM Gray, fine, silty sand, with shell fragments.		6	
	16.0		17.3'		15.8' 17.3'	
			SP-SM Tan, fine, poorly graded silty sand.		7	
			19.0'		17.8'	
-19.0	19.0					
	21.0		Assumed not Recovered			NOTE: Terminated hole at predetermined depth at 19.5'.
-24.0	24.0		BOTTOM OF HOLE AT 24.0'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-03

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2402096 N 224229 NAD 83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-03
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (5.2' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 20.0'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03 — COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 5.2' WATER			Time begin vibracoring: 1358 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	5.0				5.2'	
-5.2	5.2		OCEAN BOTTOM @5.2'		1	
			SP Gray, coarse, poorly graded sand, w/shell fragments.		5.7'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	7.0				7.0'	
					2	VIBRACORE BORING From 0.0' to 14.8' Ran 14.8' Rec: 13.8'
					7.5'	
	9.0		9.2'		9.2'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SM Dark gray, fine, silty sand, with shell fragments.		3	
					9.7'	
	11.0				11.0'	
					4	
					11.5'	
			12.2'		12.2'	
			SP Gray, coarse, poorly graded sand.		5	
			13.0'	13.0'	12.7'	
	13.0		SM Dark gray, fine, silty sand.		6	LAB CLASSIFICATION
					13.5'	Jar Number — Classification: 1 SP; 2 SP; 3 SC; 4 SC; 5 SP; 6 SC; 7 SC; 8 SC
	15.0					
			16.0'		16.0'	
			CL Gray, sandy, lean clay.		7	
	17.0				16.5'	
			17.4'		17.4'	
			SP-SM Grayish tan, fine, poorly graded silty sand.		8	
					17.9'	
	19.0		19.0'			NOTE: Terminated hole at predetermined depth at 14.8'.
			Assumed not Recovered			
-20.0	20.0		BOTTOM OF HOLE AT 20.0'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-04

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD 2402003 N 222922 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-04
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (5.6' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 14.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03 COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 5.6' WATER			Time begin vibracoring: 1409 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	5.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-5.6	5.6		OCEAN BOTTOM @5.6'		5.6'	
	6.0		SP Tan, coarse, poorly graded sand, with shell fragments.		1	
					6.1'	VIBRACORE BORING From 0.0' to 8.9' Ran 8.9' Rec: 4.3'
	7.0					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					7.5'	
	8.0				2	
					8.0'	
	9.0				9.0'	LAB CLASSIFICATION
					3	Jar Number / Classification: 1 SP; 2 SP; 3 SP
					9.5'	
-9.9	9.9		9.9'			
			Assumed not Recovered			
	12.0					
	14.0					
-14.5	14.5		BOTTOM OF HOLE AT 14.5'			NOTE: Terminated hole at predetermined depth at 8.9'.
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-05

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2403766 N 221877 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-05
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (6.6' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 11.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03; COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' to 6.6' WATER			Time begin vibracoring: 1424 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	6.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-6.6	6.6		OCEAN BOTTOM @6.6'		6.6'	
			SP Tan, coarse, poorly graded sand, T/shell fragments.		1	
	7.0				7.1'	VIBRACORE BORING From 0.0' to 4.9' Ran 4.9' Rec: 2.5'
	8.0				9.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
	9.0		9.1'		9.5'	
			Assumed not Recovered			
	10.0					LAB CLASSIFICATION
	11.0					Jar Number / Classification: 1 SP; 2 SP
-11.5	11.5		BOTTOM OF HOLE AT 11.5'			
	14.0		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 4.9'.

Hole No. TI-03-V-06

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2404031 N 221629 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-06
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (4.7' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 13.2'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03; COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW (a)	DEPTH feet (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (e)	BOX OR SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc. If significant) (g)
0.0	0		0.0' TO 4.7' WATER			Time begin vibracoring: 1438 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	4.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-4.7	4.7		OCEAN BOTTOM @4.7'		4.7'	
	5.0		SP Tan, coarse, poorly sand, T/shell fragments.		1	
					5.2'	VIBRACORE BORING From 0.0' to 8.5' Ran 8.5 Rec: 2.5' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	6.0					
					6.5'	
					2	
	7.0		7.2'		7.0'	
			Assumed not Recovered			LAB CLASSIFICATION: Jar Number 1 SP; 2 SP
	8.0					
	9.0					
	11.0					NOTE: Terminated hole at predetermined depth at 8.5'
	13.0					
-13.2	13.2		BOTTOM OF HOLE AT 13.2'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-07

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2402867 N 220177 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-07
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (4.8' OF WATER)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 10.4'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03; COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc. If significant)
	0.0		0.0' TO 4.8' WATER			Time begin vibracoring: 1504 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	4.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-4.8	4.8		OCEAN BOTTOM @4.8'		4.8'	
	5.0		SP Tan, coarse, poorly graded sand, with shell fragments.		1	VIBRACORE BORING From 0.0' to 5.6' Ran 5.6' Rec: 2.4'
					5.3'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	6.0				6.5'	
					2	
	7.0		7.2'		7.0'	
			Assumed not Recovered			LAB CLASSIFICATION: Jar Number 1 — SP; Jar Number 2 — SM
	8.0					
	9.0					
	10.0					
-10.4	10.4		BOTTOM OF HOLE AT 10.4'			
	11.0		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.6'.

Hole No. TI-03-V-08

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2402857 N 220133 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-08
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (7.2' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 14.7'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03; COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc. If significant)
0.0	0		0.0' TO 7.2' WATER			Time begin vibracoring: 1518 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	7.0					
-7.2	7.2		OCEAN BOTTOM @7.2'		7.2'	
			SP Tan, coarse, poorly graded sand, T/shell fragments.		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	8.0				7.7'	
	9.0				9.0'	VIBRACORE BORING From 0.0' to 7.5' Ran 7.5' Rec: 4.5'
					2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	10.0				9.5'	
			10.5' with shell fragments.			
	11.0				11.0'	LAB CLASSIFICATION
					3	Jar Number: 1 SP; 2 SP; 3 SP
			11.7' Assumed not Recovered		11.5'	
	12.0					
	13.0					
	14.0					NOTE: Terminated hole at predetermined depth at 7.5'.
-14.7	14.7		BOTTOM OF HOLE AT 14.7' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-09

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2404341 N 220562 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-09
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (4.6' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 8.6'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03 COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 4.6' WATER			Time begin vibracoring: 1533 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	4.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-4.6	4.6		OCEAN BOTTOM @4.6'		4.6'	
	5.0		SP Tan, coarse, poorly graded sand, with shell fragments. 5.1'		1	
			Assumed not Recovered		5.1'	VIBRACORE BORING From 0.0' to 4.0' Ran 4.0' Rec: 0.5'
	6.0					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	7.0					
	8.0					LAB CLASSIFICATION Jar Number: 1 Classification: SP
-8.6	8.6		BOTTOM OF HOLE AT 8.6'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 4.0'.

Hole No. TI-03-V-9A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2404346 N 220561 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-9A
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (4.7' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 6.7'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED ; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03 COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' to 4.7' WATER			Time begin vibracoring: 1546 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	4.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-4.7	4.7		OCEAN BOTTOM @4.7'			
	5.0		NO SAMPLE			VIBRACORE BORING From 0.0' to 2.0' Ran 2.0' Rec: 0.0'
	6.0					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
-6.7	6.7		BOTTOM OF HOLE AT 6.7'			

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

LAB CLASSIFICATION

Jar Number	Classification

NOTE: Terminated hole at predetermined depth at 2.0'.

Hole No. TI-03-V-10

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2404405 N 220450 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-10
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (8.4' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 16.4'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03 COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW (a)	DEPTH feet (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (e)	BOX OR SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
0.0	0		0.0' TO 8.4' WATER			Time begin vibracoring: 1558 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-8.0	8.0					
-8.4	8.4		OCEAN BOTTOM @8.4'		8.4'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP Tan, coarse, poorly graded sand.		1	
	9.0				8.9'	
	10.0					VIBRACORE BORING From 0.0' to 8.0' Ran 8.0' Rec: 2.5' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					10.4'	
			10.9'		2	
	11.0		Assumed not Recovered		10.9'	
	12.0					LAB CLASSIFICATION: Jar Number 1 — SP; Jar Number 2 — SP
	13.0					
	14.0					NOTE: Terminated hole at predetermined depth at 8.0'
	16.0					
-16.4	16.4		BOTTOM OF HOLE AT 16.4'			

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

Hole No. TI-03-V-11

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2405652 N 221065 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-11
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (15.3' OF WATER)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 24.6'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED ; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03 COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	0.0		0.0' TO 15.3' WATER			Time begin vibracoring: 1614 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	15.0					
-15.3	15.3		OCEAN BOTTOM @15.3'			
			NONE			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	17.0					
	19.0					VIBRACORE BORING From 0.0' to 9.3' Ran 9.3' Rec: 0.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	21.0					
	23.0					LAB CLASSIFICATION Jar Number / Classification
-24.6	24.6		BOTTOM OF HOLE AT 24.6'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 9.3'.

Hole No. TI-03-V-11A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2405649 N 21057 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-11A
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (15.5' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 28.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03 — COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 15.5' WATER			Time begin vibracoring: 1638 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	15.0					
-15.5	15.5		OCEAN BOTTOM @15.5'		15.5'	
			SP Tan, coarse, poorly graded sand, with shell fragments.		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	17.0				16.0'	
					17.5'	VIBRACORE BORING From 0.0' to 13.0' Ran 13.0' Rec: 7.6'
			18.0' T/shell fragments.		2	
	19.0				18.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					19.5'	
					3	
	21.0				20.0'	
					21.0'	
					4	
					21.5'	
					22.5'	
	23.0		23.1' Assumed not Recovered		5	LAB CLASSIFICATION
					23.0'	Jar Number / Classification: 1 SP; 2 SP; 3 SP; 4 SP; 5 SP
	25.0					
	27.0					
-28.5	28.5		BOTTOM OF HOLE AT 28.5'			NOTE: Terminated hole at predetermined depth at 13.0'.
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-12

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2405555 N 221223 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-12
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (4.9' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 8.7'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED ; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03 COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc. If significant)
0.0	0		0.0' TO 4.9' WATER			Time begin vibracoring: 1652 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	4.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-4.9	4.9		OCEAN BOTTOM @4.9'			
	5.0		NO SAMPLE			VIBRACORE BORING From 0.0' to 3.8' Ran 3.8' Rec: 0.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	6.0					
	7.0					
	8.0					LAB CLASSIFICATION Jar Number / Classification
-8.7	8.7		BOTTOM OF HOLE AT 8.7			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.8'.

Hole No. TI-03-V-12A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2405547 N 221237 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-12A
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (3.0' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 7.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/19/03; COMPLETED 06/19/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc. If significant)
0.0	0		0.0' to 3.0' WATER			Time begin vibracoring: 1659 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-3.0	3.0		OCEAN BOTTOM @3.0'		3.0'	
			SP Tan, coarse, poorly graded sand.		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	4.0				3.5'	
	5.0					VIBRACORE BORING From 0.0' to 4.5' Ran 4.5' Rec: 3.5' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					5.5'	
	6.0				2	
					6.0'	
			6.5'			
			Assumed not Recovered			
	7.0					LAB CLASSIFICATION: Jar Number 1 SP; 2 SP
-7.5	7.5		BOTTOM OF HOLE AT 7.5'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 4.5'.

Hole No. TI-03-V-105

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2416114 N 230784 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-105	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (6.7' Water)	16. DATE HOLE STARTED 06/30/03 COMPLETED 06/30/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 14.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 6.7' WATER			Time begin vibracoring: 1237 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	6					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			OCEAN BOTTOM @6.7'	6.7'	6.7'	
-6.7	6.7		SP - Tan course poorly graded sand		1	
	7				7.2'	VIBRACORE BORING From 0.0' to 7.8' Ran 7.8' Rec: 5.8' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	8					
	9				9.0'	
					2	
					9.5'	LAB CLASSIFICATION Jar Number / Classification 1 SP 2 SP 3 SP
	10					
	11				11.0'	
					3	
					11.5'	
	12					
			12.5'			
			Assumed not Recovered			
	13					NOTE: Terminated hole at predetermined depth at 7.8'.
	14		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
			14.5'			
			BOTTOM OF HOLE AT 14.5'			

Hole No. TI-03-V-106

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2416128 N 230715 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-106	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (7.0' Water)	16. DATE HOLE: STARTED 06/30/03; COMPLETED 06/30/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 14.1'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 7.0' WATER			Time begin vibracoring: 1331 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	7		OCEAN BOTTOM @7.0'		7.0'	
			SP - Tan course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-7.0	6.7				7.5'	
	8					VIBRACORE BORING From 0.0' to 7.1' Ran 7.1' Rec: 4.6'
	9				9.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
	10				9.5'	
	11				11.0'	LAB CLASSIFICATION
					3	Jar Number / Classification: 1 SP; 2 SP; 3 SP
			11.6'		11.5'	
	12		Assumed not Recovered			
	13					NOTE: Terminated hole at predetermined depth at 7.1'.
	14		14.1'			
-14.1	14.1		BOTTOM OF HOLE AT 14.1' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-107

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2414533 N 229679 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-107
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (3.5' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	14.1'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 2 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 06/30/03 COMPLETED 06/30/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 3.5' WATER			Time begin vibracoring: 1356 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	3					
-3.5	3.5		OCEAN BOTTOM @3.5' 3.5'		3.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	4		SP - Tan course poorly graded sand		1	
					4.0'	VIBRACORE BORING From 0.0' to 4.0' Ran 4.0' Rec: 3.3'
	5					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	6				5.5'	
					2	
					6.0'	
			6.8'			
	7		Assumed not Recovered			LAB CLASSIFICATION Jar Number: 1 SP, 2 SP
			7.5'			
-7.5	7.5		BOTTOM OF HOLE AT 7.5' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 4.0'.
	8					

Hole No. TI-03-V-108

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2414584 N 229647 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-108
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (8.0' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	13.0'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 2 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 06/30/03 COMPLETED 06/30/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 8.0' WATER			Time begin vibracoring: 1412 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
			OCEAN BOTTOM @8.0'		8.0'	
-8.0	8		SP - Tan course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					8.5'	
	9					VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 3.7'
	10				10.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
	11				10.5'	
			11.7'			
	12		Assumed not Recovered			LAB CLASSIFICATION Jar Number: 1 SP; 2 SP
			13.0'			
-13.0	13.0		BOTTOM OF HOLE AT 13.0' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.0'.

Hole No. TI-03-V-108

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2414584 N 229647 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-108	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (8.0' Water)	16. DATE HOLE STARTED 06/30/03 COMPLETED 06/30/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 13.0'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 8.0' WATER			Time begin vibracoring: 1331 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-8.0	8		OCEAN BOTTOM @8.0'		8.0'	
			SP - Tan course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	9				8.5'	
	10				10.0'	VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 3.7' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
	11				10.5'	
			11.7'			
	12		Assumed not Recovered			LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP
			13.0'			
-13.0	13.0		BOTTOM OF HOLE AT 13.0' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.9'.

Hole No. TI-03-V-109

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 228346 N 2413061 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-109	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (6.1' Water)	16. DATE HOLE STARTED 06/30/03 COMPLETED 06/30/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 10.0'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 6.1' WATER			Time begin vibracoring: 1428 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	6		OCEAN BOTTOM @6.1'		6.1'	
-6.1	6.1		SP - Tan course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	7		7.3'		6.6'	VIBRACORE BORING From 0.0' to 3.9' Ran 3.9' Rec: 1.2' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			Assumed not Recovered			
	8					
	9					
			10.0'			
-10.0	10		BOTTOM OF HOLE AT 10.0' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number 1 — Classification SP-SM. NOTE: Terminated hole at predetermined depth at 3.9'.

Hole No. TI-03-V-110

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2413048 N 228399 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-110	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4, UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (10.6' Water)	16. DATE HOLE STARTED 06/30/03 COMPLETED 06/30/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 20.1'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 10.6' WATER			Time begin vibracoring: 1441 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	10					
-10.6	10.6		OCEAN BOTTOM @10.6'		10.6'	
			SP - Tan course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					11.1'	
	12				12.5'	
					2	VIBRACORE BORING From 0.0' to 9.5' Ran 9.5' Rec: 7.5'
			13.3' with tiny shell fragments		13.0'	
	14					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			15.2'		15.2'	
			SM - Gray fine silty sand T/shell fragments		3	
	16				15.7'	
			16.4'		16.4'	
			MH - Dark gray elastic silt with shell fragments		4	
					16.9'	
	18		18.1'			LAB CLASSIFICATION
			Assumed not Recovered			Jar Number / Classification: 1 SP; 2 SP; 3 SC; 4 SC
			20.1'			
-20.1	20.1		BOTTOM OF HOLE AT 20.1' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 9.5'.

Hole No. TI-03-V-111

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2411892 N 226783 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-111
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (5.0' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 9.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/30/03 — COMPLETED 06/30/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 5.0' WATER			Time begin vibracoring: 1454 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-5.0	5		OCEAN BOTTOM @5.0'		5.0'	
			SP - Tan course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	6		6.2'		5.5'	
			Assumed not Recovered			VIBRACORE BORING From 0.0' to 4.5' Ran 4.5' Rec: 1.2' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	7					
	8					
	9		9.5'			LAB CLASSIFICATION Jar Number: 1 — Classification: SP
-9.5	9.5		BOTTOM OF HOLE AT 9.5'			
	10		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 4.5'.

Hole No. TI-03-V-112

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2411944 N 226781 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-112	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (7.1' Water)	16. DATE HOLE STARTED 06/30/03 COMPLETED 06/30/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 12.2'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 7.1' WATER			Time begin vibracoring: 1505 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	7		OCEAN BOTTOM @7.1'		7.1'	
-7.1	7.1		SP - Tan course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	8				7.6'	
	9				9.0'	VIBRACORE BORING From 0.0' to 5.1' Ran 5.1' Rec: 3.7' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
	10				9.5'	
			10.8'			
	11		Assumed not Recovered			
	12		12.2'			
-12.2	12.2		BOTTOM OF HOLE AT 12.2' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.1'.

LAB CLASSIFICATION

Jar Number	Classification
1	SP
2	SP

Hole No. TI-03-V-113

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2410369 N 225368 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-113	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED; UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (4.4' Water)	16. DATE HOLE STARTED 06/30/03 COMPLETED 06/30/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 7.8'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 4.4' WATER			Time begin vibracoring: 1519 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	4					
-4.4	4.4		OCEAN BOTTOM @4.4'			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			Assumed not Recovered			
	5					VIBRACORE BORING From 0.0' to 3.4' Ran 3.4' Rec: 0'
	6					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	7					
-7.8	7.8		7.8' BOTTOM OF HOLE AT 7.8' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number 1 Classification SP NOTE: Terminated hole at predetermined depth at 3.4'.

Hole No. TI-03-V-113A

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2410366 N 225365 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-113A
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (4.6' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 7.6'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: — UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 06/30/03 — COMPLETED 06/30/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 4.6' WATER			Time begin vibracoring: 1527 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	4					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-4.6	4.6		OCEAN BOTTOM @4.6' Assumed not Recovered			
	5					VIBRACORE BORING From 0.0' to 3.0' Ran 3.0' Rec: 0'
	6					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	7		7.6'			
-7.6	7.6		BOTTOM OF HOLE AT 7.6' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number — Classification
						NOTE: Terminated hole at predetermined depth at 3.0'.

Hole No. TI-03-V-113B

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2410362 N 225374 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-113B	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN — DISTURBED: — UNDISTURBED: 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (4.6' Water)	16. DATE HOLE STARTED 06/30/03 COMPLETED 06/30/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 8.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 4.6' WATER			Time begin vibracoring: 1531 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	4					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-4.6	4.6		OCEAN BOTTOM @4.6'			
	5		Assumed not Recovered			VIBRACORE BORING From 0.0' to 3.9' Ran 3.9' Rec: 0'
	6					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	7					
	8		8.5'			LAB CLASSIFICATION Jar Number / Classification
	9		BOTTOM OF HOLE AT 8.5' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.9'.

Hole No. TI-03-V-113C

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2409998 N 225276 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-113C
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (3.5' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 7.0'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/02/03 — COMPLETED 07/02/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 3.5' WATER			Time begin vibracoring: 0925 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	3					
-3.5	3.5		OCEAN BOTTOM @3.5'		3.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	4		SP - Tan course poorly graded sand with shell fragments		1	
			4.7'		4.0'	
	5		Assumed not Recovered			VIBRACORE BORING From 0.0' to 3.5' Ran 3.5' Rec: 1.2' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	6					
			7.0'			LAB CLASSIFICATION: Jar Number 1 — Classification SP
-7.0	7.0		BOTTOM OF HOLE AT 7.0'			
	8		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.5'.

Hole No. TI-03-V-113D

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2410102 N 225259 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-113D
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (6.7' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 10.7'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/02/03 — COMPLETED 07/02/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 6.7' WATER			Time begin vibracoring: 0938 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	6					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-6.7	6.7		OCEAN BOTTOM @6.7'		6.7'	
	7		SP - Gray course poorly graded sand with shell fragments		1	
					7.2'	VIBRACORE BORING From 0.0' to 4.0' Ran 4.0' Rec: 2.8'
	8					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	9		9.0' Tan		9.0'	
			9.5'		2	
			Assumed not Recovered		9.5'	
	10		10.7'			LAB CLASSIFICATION: Jar Number 1 — SP; Jar Number 2 — SP
-10.7	10.7		BOTTOM OF HOLE AT 10.7'			NOTE: Terminated hole at predetermined depth at 4.0'.
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-114

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2407801 N 214985 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-114
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (36.2' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 51.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/01/03 — COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 36.2' WATER			Time begin vibracoring: 0807 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	36		OCEAN BOTTOM @36.2'		36.2'	
-36.2	36.2		SP-SM Gray fine poorly graded silty sand		1	
					36.7'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	38		38.0' with shell fragments			
					39.0'	VIBRACORE BORING From 0.0' to 15.3' Ran 15.3' Rec: 15.3'
					2	
					39.5'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	40					
			41.6' T/shell fragments tan			
	42				42.0'	
					3	
					42.5'	
	44					LAB CLASSIFICATION
						Jar Number — Classification: 1 SP-SC; 2 SP-SC; 3 SP-SM; 4 SP-SM; 5 SP-SM; 6 SP-SM
					45.0'	
					4	
					45.5'	
	46					
	48				48.0'	
					5	
					48.5'	NOTE: Terminated hole at predetermined depth at 15.3'.
	50				50.0'	
					6	
					50.5'	
			51.5'			
-51.5	51.5		BOTTOM OF HOLE AT 51.5'			
	52		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-115

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2407647 N 214318 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-115
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (36.5' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 45.1'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/01/03 — COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 36.5' WATER			Time begin vibracoring: 0832 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	36		OCEAN BOTTOM @36.5'		36.5'	
-36.5	36.5		SP-SM Gray medium poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	38				37.0'	
					38.5'	VIBRACORE BORING From 0.0' to 8.6' Ran 8.6' Rec: 6.3'
					2	
			39.5'		39.0'	
			Tan T/shell fragments		40.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	40				3	
					40.5'	
	42				42.0'	
					4	
			42.8'		42.5'	
			Assumed not Recovered			
	44					LAB CLASSIFICATION
			45.1'			Jar Number / Classification: 1 SP; 2 SP-SC; 3 SP-SM; 4 SM
-45.1	45.1		BOTTOM OF HOLE AT 45.1'			
	46					
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 8.6'.

Hole No. TI-03-V-116

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2407109 N 214363 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-116
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (35.7' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	45.6'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 4 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 07/01/03 COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 35.7' WATER			Time begin vibracoring: 0844 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	35		OCEAN BOTTOM @35.7'		35.7'	
-35.7	35.7		SP-SM Dark gray medium poorly graded silty sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					36.2'	
	37		37.3' With 3" siltstone		37.0' 2 37.5'	
			38.0'		38.0'	VIBRACORE BORING From 0.0' to 9.9' Ran 9.9' Rec: 7.0'
			SP - Tan course poorly graded sand.		3	
	39				38.5'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					40.0'	
	41				4	
			42.7'		40.5'	
	43		Assumed not Recovered			LAB CLASSIFICATION
						Jar Number / Classification: 1 SP; 2 SP-SM; 3 SP-SM; 4 SP-SM
	45					
			45.6'			
-45.6	45.6		BOTTOM OF HOLE AT 45.6'			
	47		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 9.9'.

Hole No. TI-03-V-117

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2408685 N 212623 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-117	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (40.3' Water)	16. DATE HOLE: STARTED 07/01/03; COMPLETED 07/01/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 46.3'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 40.3' WATER			Time begin vibracoring: 0905 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	40					
-40.3	40.3		OCEAN BOTTOM @40.3'		40.3'	
			SP - Gray course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	41				40.8'	
			41.9'		41.9'	VIBRACORE BORING From 0.0' to 6.0' Ran 6.0' Rec: 5.0'
	42		SM - Gray fine silty sand with shell fragments		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	43		43.1'		42.4'	
			SP-SM - Tan medium poorly graded silty sand		43.1' 3	
	44				43.6'	LAB CLASSIFICATION: Jar Number / Classification: 1 SP-SM; 2 SP-SM; 3 SP-SM
	45		45.3'			
			Assumed not Recovered			
	46		46.3'			
-46.3	46.3		BOTTOM OF HOLE AT 46.3'			NOTE: Terminated hole at predetermined depth at 6.0'.
	47		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-118

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2410177 N 214057 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-118
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (41.2' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 46.2'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: — UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/01/03 — COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 41.2' WATER			Time begin vibracoring: 0926 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	41					
-41.2	41.2		OCEAN BOTTOM @41.2'			
			Assumed not Recovered			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	42					
	43					VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 0.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	44					
	45					LAB CLASSIFICATION Jar Number — Classification
	46					
			46.2'			
-46.2	46.2		BOTTOM OF HOLE AT 46.2'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
	47					NOTE: Terminated hole at predetermined depth at 5.0'.

Hole No. TI-03-V-118A

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2410166 N 214103 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-118A
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (40.5' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	45.5'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 07/01/03 COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 40.5' WATER			Time begin vibracoring: 1209 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	40					
-40.5	40.5		OCEAN BOTTOM @40.5' Assumed not Recovered			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	41					
	42					VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 0.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	43					
	44					LAB CLASSIFICATION Jar Number / Classification
	45					
-45.5	45.5		45.5' BOTTOM OF HOLE AT 45.5'			
	46		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.0'.

Hole No. TI-03-V-119

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2411530 N 214616 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-119	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (42.1' Water)	16. DATE HOLE STARTED 07/01/03 COMPLETED 07/01/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 51.1'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 42.1' WATER			Time begin vibracoring: 1233 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	42		OCEAN BOTTOM @42.1'		42.1'	
-42.1	42.1		SP - Tan course poorly graded sand			Scale changed @48.0'
					1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	43				42.6'	
						VIBRACORE BORING From 0.0' to 9.0' Ran 9.0' Rec: 2.4'
	44				44.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			44.5'		2	
			Assumed not Recovered		44.5'	
	45					
	46					LAB CLASSIFICATION Jar Number / Classification: 1 SP-SM; 2 SP-SM
	47					
	48					NOTE: Terminated hole at predetermined depth at 9.0'.
	50					
			51.1'			
-51.1	51.1		BOTTOM OF HOLE AT 51.1'			
	52		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-120

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2406882 N 210869 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-120
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (39.5' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	48.5'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 2 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 07/01/03 COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 39.5' WATER			Time begin vibracoring: 1305 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	39					Scale changed @44.0'.
-39.5	39.5		OCEAN BOTTOM @39.5'		39.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	40		SM - Dark gray fine silty sand with shell fragments		1	
			41.0'		40.0'	VIBRACORE BORING From 0.0' to 9.0' Ran 9.0' Rec: 2.4'
	41		SP-SM - Tan fine poorly graded silty sand with shell and rock fragments		41.0' 2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			41.9'		41.5'	
	42		Assumed not Recovered			
	43					LAB CLASSIFICATION Jar Number: 1 SP-SM; 2 SM
	44					
	46					NOTE: Terminated hole at predetermined depth at 9.0'.
	48		48.5'			
-48.5	48.5		BOTTOM OF HOLE AT 48.5'			
	50		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-121

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2404767 N 212285 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-121
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (33.3' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 42.3'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/01/03 — COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 33.3' WATER			Time begin vibracoring: 1327 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	33					Scale changed @38.0'.
-33.3	33.3		OCEAN BOTTOM @33.3'		33.3'	
			SM - Black fine silty sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	34				33.8'	
			34.3' Gray			VIBRACORE BORING From 0.0' to 9.0' Ran 9.0' Rec: 7.7'
	35				35.0'	
					2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					35.5'	
	36		36.2'		36.2'	
			MH - Dark gray elastic silt		3	
					36.7'	LAB CLASSIFICATION
	37					Jar Number: 1 SP-SM; 2 SP-SC; 3 CH; 4 SC
			37.7'		37.7'	
			SM - Gray fine silty sand T/wood fibers.		4	
	38				38.2'	
	40					
			41.0'			NOTE: Terminated hole at predetermined depth at 9.0'.
			Assumed not Recovered			
	42		42.3'			
-42.3	42.3		BOTTOM OF HOLE AT 42.3'			
	44		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-122

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2405577 N 209655 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-122	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (38.8' Water)	16. DATE HOLE: STARTED 07/01/03; COMPLETED 07/01/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 48.2'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 38.8' WATER			Time begin vibracoring: 1403 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	38					Scale changed @42.0'.
						NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-38.8	38.8		OCEAN BOTTOM @38.8'		38.8'	
	39		SM - Gray fine silty sand		1	
					39.3'	VIBRACORE BORING From 0.0' to 9.4' Ran 9.4' Rec: 7.9'
	40		40.1'		40.1'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			MH - Dark gray elastic silt		2	
					40.6'	
	41					
	42				42.0'	LAB CLASSIFICATION
					3	Jar Number / Classification: 1 SP; 2 CH; 3 CH; 4 SC
					42.5'	
	44					
			45.0'		45.0'	
			SM - Dark gray fine silty sand with shell fragments		4	
	46				45.5'	
			46.7'			NOTE: Terminated hole at predetermined depth at 9.4'.
			Assumed not Recovered			
	48		48.2'			
-48.2	48.2		BOTTOM OF HOLE AT 48.2'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-123

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2402703 N 210407 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-123
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (33.5' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 43.4'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/01/03 — COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 33.5' WATER			Time begin vibracoring: 1424 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	33					Scale changed @37.0'.
-33.5	33.5		OCEAN BOTTOM @33.5'		33.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	34		SP - Gray course poorly graded sand with shell fragments		1	
			35.0'		34.0'	VIBRACORE BORING From 0.0' to 9.9' Ran 9.9' Rec: 4.3'
	35		SP-SM - Tan medium poorly graded silty sand T/shell fragments		35.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	36				2	
					35.5'	
	37				37.0'	LAB CLASSIFICATION Jar Number — Classification 1 — SP 2 — SM 3 — SM
			37.8'		3	
			Assumed not Recovered		37.5'	
	39					
	41					NOTE: Terminated hole at predetermined depth at 9.9'.
	43					
-43.4	43.4		43.4'			
			BOTTOM OF HOLE AT 43.4'			
	45		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-124

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2404413 N 208624 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-124	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6; UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (38.5' Water)	16. DATE HOLE STARTED 07/01/03 COMPLETED 07/01/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 55.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 38.5' WATER			Time begin vibracoring: 1445 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	38					Scale changed @52.0'.
-38.5	38.5		OCEAN BOTTOM @38.5'		38.5'	
			SP - Dark gray fine poorly graded silty sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					39.0'	
	40		40.5' Tan		40.5'	
					2	VIBRACORE BORING From 0.0' to 17.0' Ran 17.0' Rec: 15.0'
					41.0'	
	42					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			42.5'		42.5'	
			SP-SM - Tan medium poorly graded silty sand		3	
					43.0'	
	44					
					45.0'	
					4	
					45.5'	LAB CLASSIFICATION
	46					Jar Number / Classification: 1 SP-SM; 2 SC; 3 SP-SM; 4 SP-SM; 5 SM; 6 SP-SM
	48				48.0'	
					5	
					48.5'	
	50					
					51.0'	NOTE: Terminated hole at predetermined depth at 17.0'.
					6	
	52				51.5'	
			53.5'			
			Assumed not Recovered			
	55		55.5'			
-55.5	55.5		BOTTOM OF HOLE AT 55.5'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-125

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2402974 N 207216 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-125
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (38.9' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	51.0'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 6 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 07/01/03 COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 38.9' WATER			Time begin vibracoring: 1504 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	38					
-38.9	38.9		OCEAN BOTTOM @38.9'		38.9'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SM - Gray fine silty sand with shell fragments		1	
	40				39.4'	
			40.9'		40.9'	VIBRACORE BORING From 0.0' to 12.1' Ran 12.1' Rec: 12.1'
			SP-SM - Tan fine poorly graded silty sand T/shell fragments		2	
	42				41.4'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					43.0'	
					3	
	44				43.5'	
					46.0'	LAB CLASSIFICATION
	46				4	Jar Number / Classification: 1 SP-SM; 2 SP-SM; 3 SP-SM; 4 SP-SM; 5 SM; 6 SM
					46.5'	
					48.0'	
	48				5	
					48.5'	
	50				50.5'	
			51.0'		6	NOTE: Terminated hole at predetermined depth at 12.1'.
-51.0	51.0		BOTTOM OF HOLE AT 51.0'		51.0'	
	52		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-126

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2401043 N 205429 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-126
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (38.7' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 49.7'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/01/03 — COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 38.7' WATER			Time begin vibracoring: 1530 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	38					Scale changed @40.0'.
						NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-38.7	38.7		OCEAN BOTTOM @38.7'		38.7'	
	39		SP-SM - Gray fine silty sand with shell fragments		1	
					39.2'	VIBRACORE BORING From 0.0' to 11.0' Ran 11.0' Rec: 11.0'
	40					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			41.0'		41.0'	
			SP - Gray course poorly graded sand T/shell fragments		2	
	42				41.5'	
			43.5'		43.5'	
			SP-SM - Greenish gray fine poorly graded silty sand T/shell fragments		3	LAB CLASSIFICATION Jar Number — Classification 1 — SP-SM 2 — SP-SM 3 — SM 4 — SP-SM 5 — SM 6 — SP-SM
	44				44.0'	
					45.5'	
					4	
	46				46.0'	
					47.5'	
					5	
	48				48.0'	
					49.2'	NOTE: Terminated hole at predetermined depth at 11.0'.
			49.7'		6	
-49.7	49.7				49.7'	
	50		BOTTOM OF HOLE AT 49.7'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-127

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2398297 N 202867 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-127	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 3 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (39.8' Water)	16. DATE HOLE STARTED 07/01/03 COMPLETED 07/01/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 45.7'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 39.8' WATER			Time begin vibracoring: 1553 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	39					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-39.8	39.8		OCEAN BOTTOM @39.8'		39.8'	
	40		SP-SM - Gray fine poorly graded silty sand with shell fragments		1	
	41				40.3'	VIBRACORE BORING From 0.0' to 5.9' Ran 5.9' Rec: 4.9' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	42		42.3' Tan, T/shell fragments.		42.3' 2	
	43				42.8'	LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP-SM; 3 SP-SM
	44		44.7'		44.0' 3 44.5'	
	45		Assumed not Recovered			NOTE: Terminated hole at predetermined depth at 5.9'.
-45.7	45.7		45.7' BOTTOM OF HOLE AT 45.7' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
	46					

Hole No. TI-03-V-128

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2400223 N 200904 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-128
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (43.8' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 51.1'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/01/03 : COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 43.8' WATER			Time begin vibracoring: 1625 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	43					Scale changed @49.0'.
						NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-43.8	43.8		OCEAN BOTTOM @43.8'		43.8'	
	44		SM - Dark gray fine silty sand with shell fragments		1	
					44.3'	VIBRACORE BORING From 0.0' to 7.3' Ran 7.3' Rec: 7.3'
	45					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			45.6'		45.6'	
			SP-SM - Gray fine poorly graded silty sand		2	
	46				46.1'	
	47		47.3'		47.3'	LAB CLASSIFICATION
			MH - Dark gray elastic silt with 2" sand lenses		3	Jar Number / Classification: 1 SC; 2 SP-SM; 3 CH; 4 SP
	48				47.8'	
	49					
			50.1'		50.1'	NOTE: Terminated hole at predetermined depth at 7.3'.
			SP - White, course poorly graded sand with tiny shell fragments		4	
	51		51.1'		50.6'	
-51.1	51.1		BOTTOM OF HOLE AT 51.1'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-129

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2401453 N 202085 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-129
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (40.9' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 49.2'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/01/03 — COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 40.9' WATER			Time begin vibracoring: 1643 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	40					Scale changed @44.0'.
						NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-40.9	40.9		OCEAN BOTTOM @40.9'		40.9'	
	41		SP - Light gray course poorly graded sand with shell fragments		1	VIBRACORE BORING From 0.0' to 8.3' Ran 8.3' Rec: 8.3'
					41.4'	
	42					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					42.5'	
					2	
	43				43.0'	
			43.4'		43.4'	
			SM - Gray fine silty sand with MH lenses and T/shell fragments		3	
	44		44.3'		43.9' 44.3'	
			SP - Light gray course poorly graded sand with MH lenses and wood fibers		4	LAB CLASSIFICATION
					44.8'	Jar Number / Classification: 1 SP; 2 SP; 3 SC; 4 SP-SC; 5 CH
	46					
			47.6'		47.6'	
	48		MH - Dark gray elastic silt with wood fibers and course grain sizes at the bottom.		5	
			49.2'		48.1'	
-49.2	49.2		BOTTOM OF HOLE AT 49.2'			NOTE: Terminated hole at predetermined depth at 8.3'.
	50		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-130

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT TOPSAIL INLET		10. SIZE AND TYPE OF BIT 4" Dia. Vibracore	
2. LOCATION (Coordinates or Station) NC COORD E 2404306 N 204848 NAD83		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW	
3. DRILLING AGENCY WILMINGTON DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL	
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-130		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 4 UNDISTURBED 0	
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR		14. TOTAL NUMBER CORE BOXES N/A	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
		16. DATE HOLE STARTED 07/01/03 COMPLETED 07/01/03	
7. THICKNESS OF OVERBURDEN N/A (42.6' Water)		17. ELEVATION TOP OF HOLE 0.0' MLLW	
8. DEPTH DRILLED INTO ROCK 0.0'		18. TOTAL CORE RECOVERY FOR BORING N/A %	
9. TOTAL DEPTH OF HOLE 50.9'		19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN	

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 42.6' WATER			Time begin vibracoring: 1706 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	42					Scale changed @47.0'.
-42.6	42.6		OCEAN BOTTOM @42.6'		42.6'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	43		SP-SM - Gray medium poorly graded silty sand with shell fragments		1	
					43.1'	VIBRACORE BORING From 0.0' to 8.3' Ran 8.3' Rec: 8.3' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	44					
	45		45.1'		45.1'	
			SM - Gray fine silty sand with MH lenses and T/shell fragments		2	
					45.6'	LAB CLASSIFICATION Jar Number / Classification 1 SP-SM 2 SP 3 SP 4 SP
	46					
	47				47.0'	
					3	
					47.5'	
	49				49.0'	
					4	
					49.5'	NOTE: Terminated hole at predetermined depth at 8.3'.
-50.9	51		50.9' BOTTOM OF HOLE AT 50.9'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-131

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2407242 N 207553 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-131	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 3 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (42.2' Water)	16. DATE HOLE STARTED 07/01/03 COMPLETED 07/01/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 48.8'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 42.2' WATER			Time begin vibracoring: 1734 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	42		OCEAN BOTTOM @42.2'		42.2'	
-42.2	42.2		SP - Gray course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	43				42.7'	
	44					VIBRACORE BORING From 0.0' to 6.6' Ran 6.6' Rec: 6.6' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			44.7'		44.7'	
	45		MH - Dark gray elastic silt with sand layers		2	
					45.2'	
	46					LAB CLASSIFICATION Jar Number: 1 GP; 2 CH; 3 SP
			47.0'		47.0'	
	47		SP - Tan course poorly graded sand		3	
					47.5'	
	48					NOTE: Terminated hole at predetermined depth at 6.6'.
-48.8	48.8		48.8'			
	49		BOTTOM OF HOLE AT 48.8' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-132

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2408912 N 209079 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-132	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 : UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (42.2' Water)	16. DATE HOLE STARTED 07/01/03 : COMPLETED 07/01/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 47.6'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 42.2' WATER			Time begin vibracoring: 1759 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	42		OCEAN BOTTOM @42.2'		42.2'	
-42.2	42.2		SP - Gray course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					42.7'	
	43		43.8'		43.8'	VIBRACORE BORING From 0.0' to 5.4' Ran 5.4' Rec: 5.4'
	44		SP-SM - Tan fine poorly graded silty sand		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					44.3'	
	45					
					46.0'	LAB CLASSIFICATION
	46				3	Jar Number / Classification: 1 SP; 2 SP-SM; 3 SP-SM
					46.5'	
	47		47.6'			
-47.6	47.6		BOTTOM OF HOLE AT 47.6'			
	48		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.4'.

Hole No. TI-03-V-133

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2410632 N 210637 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-133	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 : UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (44.1' Water)	16. DATE HOLE STARTED 07/01/03 : COMPLETED 07/01/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 51.6'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 44.1' WATER			Time begin vibracoring: 1817 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	44		OCEAN BOTTOM @44.1'		44.1'	
-44.1	44.1		SP - Tan course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	45		45.5'		44.6'	VIBRACORE BORING From 0.0' to 7.5' Ran 7.5' Rec: 7.1'
			SM - Gray fine silty sand with shell fragments		45.5'	
	46				2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			47.0'		46.0'	
	47		SP-SM - Tan fine poorly graded silty sand		47.0'	
					3	
	48				47.5'	LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SC; 3 SM; 4 SP-SM
	49				49.0'	
					4	
	50				49.5'	NOTE: Terminated hole at predetermined depth at 7.5'.
	51		51.2'			
			Assumed not Recovered			
			51.6'			
-51.6	51.6		BOTTOM OF HOLE AT 51.6'			
	52		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-134

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2412256 N 212152 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-134
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (41.4' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	46.4'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 2 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 07/01/03 COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 41.4' WATER			Time begin vibracoring: 1837 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-41.4	41 41.4		OCEAN BOTTOM @41.4'		41.4'	
			SP - Gray course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	42				41.9'	
			43.0'		43.0'	VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 3.5'
	43		Tan, T/shell fragments		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	44				43.5'	
			44.9'			LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP-SM
	45		Assumed not Recovered			
	46					
-46.4	46.4		46.4'			
			BOTTOM OF HOLE AT 46.4'			
	47		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.0'.

Hole No. TI-03-V-135

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2409681 N 216446 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-135
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (36.7' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 49.7'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/01/03 — COMPLETED 07/01/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 36.7' WATER			Time begin vibracoring: 1904 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	36					
-36.7	36.7		OCEAN BOTTOM @36.7'		36.7'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP - Gray course poorly graded sand with shell fragments		1	
	38				37.2'	
					39.0'	VIBRACORE BORING From 0.0' to 13.0' Ran 13.0' Rec: 12.8'
					2	
					39.5'	
	40		40.2'		40.2'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SP-SM - Tan fine poorly graded silty sand T/shell fragments		3	
					40.7'	
	42					
					43.0'	
					4	
					43.5'	LAB CLASSIFICATION
	44					Jar Number — Classification: 1 SP; 2 SP; 3 SP-SM; 4 SM; 5 SM; 6 SM
					45.0'	
					5	
					45.5'	
	46					
					47.5'	
					6	
	48				48.0'	
			49.5'			NOTE: Terminated hole at predetermined depth at 13.0'.
-49.7	49.7		Assumed not Recovered 49.7'			
	50		BOTTOM OF HOLE AT 49.7'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-136

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2409536 N 216575 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-136	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED 0
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (36.8' Water)	16. DATE HOLE: STARTED 07/01/03 / COMPLETED 07/01/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 41.8'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 36.8' WATER			Time begin vibracoring: 1914 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	36					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-36.8	36.8		OCEAN BOTTOM @36.8'		36.8'	
	37		SP-SM - Tan fine poorly graded silty sand with shell fragments		1	VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 1.5' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	38		38.3'		37.3'	
			Assumed not Recovered			
	39					
	40					LAB CLASSIFICATION: Jar Number 1 — Classification SP-SM
	41					
			41.8'			
-41.8	41.8					
	42		BOTTOM OF HOLE AT 41.8' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.0'.

Hole No. TI-03-V-137

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2407185 N 222496 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-137	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 : UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (3.7' Water)	16. DATE HOLE: STARTED 07/02/03 : COMPLETED 07/02/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 10.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 3.7' WATER			Time begin vibracoring: 0756 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	3					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-3.7	3.7		OCEAN BOTTOM @3.7'		3.7'	
	4		SP - Grayish white course poorly graded sand T/shell fragments		1	VIBRACORE BORING From 0.0' to 6.8' Ran 6.8' Rec: 6.8'
					4.2'	
	5					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					5.5'	
					2	
	6				6.0'	
			6.5' Tan			
	7					LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP; 3 SP; 4 SP
					7.5'	
					3	
	8				8.0'	
	9					NOTE: Terminated hole at predetermined depth at 6.8'.
	10				10.0'	
					4	
-10.5	10.5		10.5' BOTTOM OF HOLE AT 10.5' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM		10.5'	

Hole No. TI-03-V-137A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2407377 N 222409 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-137A	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 2 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (7.5' Water)	16. DATE HOLE STARTED 07/02/03 COMPLETED 07/02/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 10.7'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 7.5' WATER			Time begin vibracoring: 0812 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	7					
-7.5	7.5		OCEAN BOTTOM @7.5'		7.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP - Grayish white course poorly graded sand		1	
	8				8.0'	VIBRACORE BORING From 0.0' to 3.2' Ran 3.2' Rec: 3.2' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	9				9.5'	
					2	
	10				10.0'	
-10.7	10.7		10.7' BOTTOM OF HOLE AT 10.7'			
	11		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP. NOTE: Terminated hole at predetermined depth at 3.2'.

Hole No. TI-03-V-138

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2408640 N 223907 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-138
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (5.8' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 9.6'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/02/03 : COMPLETED 07/02/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 5.8' WATER			Time begin vibracoring: 0840 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	5					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-5.8	5.8		OCEAN BOTTOM @5.8'		5.8'	
	6		SP - Grayish white course poorly graded sand T/shell fragments		1	VIBRACORE BORING From 0.0' to 3.8' Ran 3.8' Rec: 3.8'
					6.3'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	7					
	8				8.0'	
					2	
					8.5'	
	9					LAB CLASSIFICATION
			9.6'			Jar Number: 1 — Classification: SP-SM; 2 — SP
-9.6	9.6		BOTTOM OF HOLE AT 9.6'			
	10		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.8'.

Hole No. TI-03-V-138A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2408751 N 223888 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-138A	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 2 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (8.1' Water)	16. DATE HOLE STARTED 07/02/03 COMPLETED 07/02/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 11.1'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 8.1' WATER			Time begin vibracoring: 0900 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	8		OCEAN BOTTOM @8.1'		8.1'	
-8.1	8.1		SP - Gray course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					8.6'	
	9					VIBRACORE BORING From 0.0' to 3.0' Ran 3.0' Rec: 3.0'
					10.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	10				2	
					10.5'	
	11		11.1'			
-11.1	11.1		BOTTOM OF HOLE AT 11.1'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP
	12					NOTE: Terminated hole at predetermined depth at 3.0'.

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PROJECT TOPSAIL INLET | HOLE NO. TI-03-V-138A

Hole No. TI-03-V-139

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2406144 N 217430 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-139	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 3 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (6.5' Water)	16. DATE HOLE STARTED 07/08/03 COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 11.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 6.5' WATER			Time begin vibracoring: 0757 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	6					
-6.5	6.5		OCEAN BOTTOM @6.5'		6.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP - Gray fine medium poorly graded sand T/shell fragments		1	
	7				7.0'	VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 5.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	8				8.5	
					2	
	9				9.0'	
	10					LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP; 3 SP
					10.5	
					3	
	11				11.0'	
-11.5	11.5		11.5' BOTTOM OF HOLE AT 11.5'			
	12		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.0'.

Hole No. TI-03-V-140

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2404649.78 N 217699.23 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-140	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED; UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (11.1' Water)	16. DATE HOLE STARTED 07/08/03 COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 14.7'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 11.1' WATER			Time begin vibracoring: 0815 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-11.0	11.0 / 11.1		OCEAN BOTTOM @11.1' (SP) MATERIAL FELL OUT WHILE BRINGING ON DECK			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	12.0					VIBRACORE BORING From 0.0' to 3.6' Ran 3.6' Rec: 0.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	13.0					
	14.0					
-14.7	14.7		BOTTOM OF HOLE AT 14.7' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number / Classification NOTE: Terminated hole at predetermined depth at

Hole No. TI-03-V-140A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2404641 N 217702 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-140A
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (10.4' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 14.2'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED — UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/08/03 — COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 10.4' WATER			Time begin vibracoring: 0820 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	10.0					
-10.4	10.4		OCEAN BOTTOM @10.4'			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			(SP) MATERIAL FELL OUT WHILE BRINGING ON DECK.			
	11.0					VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 5.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	12.0					
	13.0					
	14.0					LAB CLASSIFICATION Jar Number — Classification
-14.2	14.2		BOTTOM OF HOLE AT 14.2'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.8'.

Hole No. TI-03-V-141

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2403599 N 217481 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-141
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (7.8' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 12.8'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/08/03 — COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 7.8' WATER			Time begin vibracoring: 0846 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	7					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-7.8	7.8		OCEAN BOTTOM @7.8'		7.8'	
	8		SP - Grayish white course poorly graded sand T/shell fragments		1	VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 5.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					8.3'	
	9					
	10				10.0	
					2	
					10.5'	LAB CLASSIFICATION: Jar Number 1 SP; 2 SP; 3 SP
	11					
	12				12.0	
					3	
					12.5'	
-12.8	12.8		12.8'			
	13		BOTTOM OF HOLE AT 12.8'			NOTE: Terminated hole at predetermined depth at 5.0'.
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-142

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2402640 N 217391 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-142
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (11.4' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 15.8'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/08/03 : COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 11.4' WATER			Time begin vibracoring: 0903 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	11					
			OCEAN BOTTOM @11.4'		11.4'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-11.4	11.4		SP - Grayish course poorly graded sand with tiny shell fragments		1	
	12				11.9'	
	13					
					13.5	
					2	
	14				14.0'	
	15					
					15.3	
					3	
			15.8'			
-15.8	15.8		BOTTOM OF HOLE AT 15.8'		15.8'	
	16		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

VIBRACORE BORING
From 0.0' to 4.4'
Ran 4.4' Rec: 4.4'

Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.

LAB CLASSIFICATION

Jar Number	Classification
1	SP
2	SP
3	SP

NOTE: Terminated hole at predetermined depth at 4.4'.

Hole No. TI-03-V-143

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2401814 N 218358 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-143	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 2 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (13.7' Water)	16. DATE HOLE STARTED 07/08/03 COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 17.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 13.7' WATER			Time begin vibracoring: 0920 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	13					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-13.7	13.7		OCEAN BOTTOM @13.7'		13.7'	
	14		SP - Gray course poorly graded sand with shell fragments		1	
					14.2'	VIBRACORE BORING From 0.0' to 3.8' Ran 3.8' Rec: 3.8' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	15					
	16				16.0'	
					2	
					16.5'	
	17					LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP
-17.5	17.5		17.5'			
	18		BOTTOM OF HOLE AT 17.5' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.8'.

Hole No. TI-03-V-144

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2401932 N 219357 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-144	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 5 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (13.5' Water)	16. DATE HOLE STARTED 07/08/03 COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 19.7'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 13.5' WATER			Time begin vibracoring: 0940 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	13					
-13.5	13.5		OCEAN BOTTOM @13.5'		13.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP - Tan course poorly graded sand with shell fragments		1	
	14				14.0'	
			14.5'		14.5'	VIBRACORE BORING From 0.0' to 6.2' Ran 6.2' Rec: 6.2'
			MH - Dark gray elastic silt with shell fragments		2	
	15				15.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	16					
			16.3'		16.3'	
			SM - Dark gray fine silty sand		3	
	17				16.8'	LAB CLASSIFICATION
			17.3'		17.3'	Jar Number / Classification: 1 SP; 2 SM; 3 SC; 4 SP-SM; 5 SP
			SP-SM - Gray fine poorly graded silty sand T/tiny shell fragments		4	
	18				17.8'	
	19				19.0'	
					5	NOTE: Terminated hole at predetermined depth at 6.2'.
-19.7	19.7		19.7'		19.5'	
	20		BOTTOM OF HOLE AT 19.7'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-145

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2417324 N 232237 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-145	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 / UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (3.1' Water)	16. DATE HOLE STARTED 07/08/03 COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 7.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 3.1' WATER			Time begin vibracoring: 1040 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	3		OCEAN BOTTOM @3.1'		3.1'	
-3.1	3.1		SP - Tan course poorly graded sand T/shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					3.6'	
	4					VIBRACORE BORING From 0.0' to 4.4' Ran 4.4' Rec: 4.4'
					5.0'	
	5		5.1' With shell fragments		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					5.5'	
	6					
	7				7.0'	LAB CLASSIFICATION
			7.5'		3	Jar Number / Classification: 1 SP; 2 SP; 3 SP
-7.5	7.5		BOTTOM OF HOLE AT 7.5'		7.5'	
	8		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 4.4'.

Hole No. TI-03-V-145A

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2417388 N 232204 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-145A
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (6.4' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 10.6'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/08/03 — COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 6.4' WATER			Time begin vibracoring: 1049 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	6					
-6.4	6.4		OCEAN BOTTOM @6.4'		6.4'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP - Tan course poorly graded sand with shell fragments		1	
	7				6.9'	
	8				8.0'	
					2	
					8.5'	
	9					
	10				10.0'	
					3	
-10.6	10.6		10.6'		10.5'	
	11		BOTTOM OF HOLE AT 10.6'			

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

VIBRACORE BORING
From 0.0' to 4.2'
Ran 4.2' Rec: 4.2'

Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.

LAB CLASSIFICATION

Jar Number	Classification
1	SP
2	SP
3	SP

NOTE: Terminated hole at predetermined depth at 4.2'.

Hole No. TI-03-V-146A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2418858 N 233443 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-146A	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 2 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (7.7' Water)	16. DATE HOLE STARTED 07/08/03 COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 13.7'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 7.7' WATER			Time begin vibracoring: 1122 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	7					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-7.7	7.7		OCEAN BOTTOM @7.7'		7.7'	
	8		SP - Tan course poorly graded sand		1	
	9				8.2'	VIBRACORE BORING From 0.0' to 6.0' Ran 6.0' Rec: 3.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	10		10.0' T/shell fragments		10.0' 2	
			10.7' Assumed not Recovered		10.5'	LAB CLASSIFICATION Jar Number: 1 SP, 2 SP
	11					
	12					
	13					NOTE: Terminated hole at predetermined depth at 6.0'.
-13.7	13.7		13.7' BOTTOM OF HOLE AT 13.7' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
	14					

Hole No. TI-03-V-147

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2420340 N 234509 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-147	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 3 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (4.8' Water)	16. DATE HOLE STARTED 07/08/03 COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 10.7'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 4.8' WATER			Time begin vibracoring: 1140 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	4					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-4.8	4.8		OCEAN BOTTOM @4.8'		4.8'	
	5		SP - Gray medium poorly graded sand		1	
					5.3'	VIBRACORE BORING From 0.0' to 5.9' Ran 5.9' Rec: 4.3'
	6					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					6.5'	
					2	
	7				7.0'	
	8					LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP; 3 SP
					8.5'	
					3	
	9		9.1'		9.0'	
			Assumed not Recovered			
	10					NOTE: Terminated hole at predetermined depth at 5.9'.
-10.7	10.7		10.7' BOTTOM OF HOLE AT 10.7'			
	11		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-147A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2420418 N 2344500 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-147A
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (8.0' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 12.9'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 ; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/08/03 ; COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 8.0' WATER			Time begin vibracoring: hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-8.0	8.0		OCEAN BOTTOM @8.0'		8.0'	
			SP - Tan course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					8.5'	
	9					VIBRACORE BORING From 0.0' to 4.9' Ran 4.9' Rec: 3.5'
	10		10.0' T/shell fragments		10.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
			10.8' with shell fragments		10.5'	
	11		11.5'			
			Assumed not Recovered			LAB CLASSIFICATION
	12					Jar Number: 1 SP; 2 SP
			12.9'			
-12.9	12.9					
	13		BOTTOM OF HOLE AT 12.9'			NOTE: Terminated hole at predetermined depth at 4.9'.
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-148

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2421726 N 235951 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-148	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 3 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (2.8' Water)	16. DATE HOLE STARTED 07/08/03 COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 9.8'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 2.8' WATER			Time begin vibracoring: 1214 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	2					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-2.8	2.8		OCEAN BOTTOM @2.8'		2.8'	
	3		SP-SM - Gray fine poorly graded silty sand		1	VIBRACORE BORING From 0.0' to 7.0' Ran 7.0' Rec: 4.6' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	4				3.3'	
			4.7'		4.7'	
	5		SP - Tan course poorly graded sand T/shell fragments		2	
					5.2'	
	6					LAB CLASSIFICATION Jar Number: 1 SP, 2 SP, 3 SP
					6.5'	
	7				3	
			7.4'		7.0'	
	8		Assumed not Recovered			
	9					NOTE: Terminated hole at predetermined depth at 7.0'.
			9.8'			
-9.8	9.8		BOTTOM OF HOLE AT 9.8'			
	10		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-148A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2421791 N 235910 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-148A	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 : UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (5.0' Water)	16. DATE HOLE STARTED 07/08/03 : COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 10.0'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 5.0' WATER			Time begin vibracoring: 1225 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-5.0	5.0		OCEAN BOTTOM @5.0'		5.0'	
			SP - Gray course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					5.5'	
	6		6.0' Tan T/shell fragments			VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 3.0'
	7				7.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
	8		8.0' Assumed not Recovered		7.5'	
	9					LAB CLASSIFICATION Jar Number: 1 SP, 2 SP
-10.0	10		10.0' BOTTOM OF HOLE AT 10.0' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
	11					NOTE: Terminated hole at predetermined depth at 5.0'.

Hole No. TI-03-V-149

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2423244 N 237477 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-149	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 UNDISTURBED
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (7.0' Water)	16. DATE HOLE: STARTED 07/08/03 COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 13.2'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 7.0' WATER			Time begin vibracoring: 1253hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
			OCEAN BOTTOM @7.0'		7.0'	
-7.0	7.0		SP - Gray course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					7.5'	
	8					VIBRACORE BORING From 0.0' to 6.2' Ran 6.2' Rec: 4.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	9					
					9.5'	
	10				2	
					10.0'	
						LAB CLASSIFICATION: Jar Number 1 SP; 2 SP
	11		11.0'			
			Assumed not Recovered			
	12					
	13		13.2'			
-13.2	13.2		BOTTOM OF HOLE AT 13.2' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 6.2'.
	14					

Hole No. TI-03-V-149A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2423306 N 237489 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-149A	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 2 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (6.7' Water)	16. DATE HOLE STARTED 07/08/03 COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 11.7'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 6.7' WATER			Time begin vibracoring: 1305 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	6					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-6.7	6.7		OCEAN BOTTOM @6.7'		6.7'	
	7		SP - Gray course poorly graded sand		1	
			7.7'		7.2'	VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 2.8'
	8		with shell fragments			Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	9				9.0'	
			9.5'		2	
			Assumed not Recovered		9.5'	
	10					LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP
	11					
			11.7'			
-11.7	11.7		BOTTOM OF HOLE AT 11.7'			
	12		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.0'.

Hole No. TI-03-V-150

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2424588 N 238643 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-150	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 / UNDISTURBED 0
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (3.1' Water)	16. DATE HOLE: STARTED 07/08/03 / COMPLETED 07/08/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 10.6'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 3.1' WATER			Time begin vibracoring: 1319 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	3		OCEAN BOTTOM @3.1'		3.1'	
-3.1	3.1		SP - Tan course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					3.6'	
	4					VIBRACORE BORING From 0.0' to 7.5' Ran 7.5' Rec: 5.0'
					5.0'	
	5				2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					5.5'	
	6		6.0' with shell fragments			
					7.0'	LAB CLASSIFICATION
	7				3	Jar Number / Classification: 1 SP; 2 SP; 3 SP
					7.5'	
	8		8.1'			
			Assumed not Recovered			
	9					NOTE: Terminated hole at predetermined depth at 7.5'.
	10					
-10.6	10.6		10.6'			
	11		BOTTOM OF HOLE AT 10.6' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-150A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2424644 N 238638 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-150A
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (3.1' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 6.2'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/08/03 : COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 3.1' WATER			Time begin vibracoring: 1330 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-3.1	3.1		OCEAN BOTTOM @3.1'		3.1'	
			SP - Tan course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			4.4'		3.6'	
			Assumed not Recovered			VIBRACORE BORING From 0.0' to 3.1' Ran 3.1' Rec: 1.3' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
-6.2	6.2		6.2' BOTTOM OF HOLE AT 6.2' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number 1 — Classification SP. NOTE: Terminated hole at predetermined depth at 3.1'.

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PROJECT TOPSAIL INLET | HOLE NO. TI-03-V-150A

Hole No. TI-03-V-151

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2425207 N 240945 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-151
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (2.4' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 8.9'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/08/03 : COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 2.4' WATER			Time begin vibracoring: 1349 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	2					
-2.4	2.4		OCEAN BOTTOM @2.4'		2.4'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP-SM - Gray fine poorly graded silty sand, T/shell fragments		1	
	3				2.9'	
	4					VIBRACORE BORING From 0.0' to 6.5' Ran 6.5' Rec: 6.5' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	5				2	
					5.5'	LAB CLASSIFICATION Jar Number — Classification
	6					
	7				7.0'	
					3	
					7.5'	
	8					NOTE: Terminated hole at predetermined depth at 6.5'.
-8.9	8.9		8.9'			
	9		BOTTOM OF HOLE AT 8.9' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-151A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2425279 N 240934 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-151A
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (4.5' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 9.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/08/03 : COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 4.5' WATER			Time begin vibracoring: 1357 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	4					
-4.5	4.5		OCEAN BOTTOM @4.5'		4.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP - Tan course poorly graded sand with shell fragments		1	
	5				5.0'	VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 5.0'
			6.0'		6.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	6		MH - Dark gray elastic silt with shell fragments		2	
					6.5'	
	7					
	8		8.3'		8.3'	LAB CLASSIFICATION Jar Number: 1 SP; 2 SM
			SM - Gray fine silty sand with shell fragments		3	
	9				8.8'	
-9.5	9.5		9.5'			
			BOTTOM OF HOLE AT 9.5'			
	10		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.0'.

Hole No. TI-03-V-152

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2424165 N 241969 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-152
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (3.9' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 13.9'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: 3 — UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/08/03 — COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 3.9' WATER			Time begin vibracoring: 1410 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	3					Scale changed @8.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-3.9	3.9		OCEAN BOTTOM @3.9'		3.9'	
	4		SP-SM - Gray medium poorly graded sand, T/shell fragments		1	VIBRACORE BORING From 0.0' to 10.0' Ran 10.0' Rec: 5.2' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	5				4.4'	
			5.5'		5.5'	
			SP - Tan course poorly graded sand, T/shell fragments		2	
	6				6.0'	
	7					LAB CLASSIFICATION: Jar Number 1 SP; 2 SP; 3 SP
			7.9'		7.9'	
	8		SP-SM - Gray fine poorly graded silty sand with shell fragments		3	
			9.1'		8.4'	
			Assumed not Recovered			
	10					NOTE: Terminated hole at predetermined depth at 10.0'.
	12					
			13.9'			
-13.9	13.9		BOTTOM OF HOLE AT 13.9' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-152A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2424231 N 241955 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-152A
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (6.2' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 13.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/08/03 : COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 6.2' WATER			Time begin vibracoring: 1420 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	6					
-6.2	6.2		OCEAN BOTTOM @6.2'		6.2'	
			SP - Tan course poorly graded sand with tiny shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	7				6.7'	
	8		8.2'		8.2'	VIBRACORE BORING From 0.0' to 7.3' Ran 7.3' Rec: 7.3' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SP-SM - Gray medium poorly graded sand, T/shell fragments		2	
	9				8.7'	
	10		10.8'		10.8'	LAB CLASSIFICATION: Jar Number 1 SP; 2 SP-SM; 3 SC; 4 SM
			SM - Dark gray fine silty sand with shell fragments		3	
	11				11.3'	
	12					NOTE: Terminated hole at predetermined depth at 7.3'.
	13		13.5'		13.0'	
-13.5	13.5		BOTTOM OF HOLE AT 13.5' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM		4 13.5'	

Hole No. TI-03-V-153

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2423797 N 242578 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-153
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (2.9' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 12.9'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 07/08/03 : COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 2.9' WATER			Time begin vibracoring: 1430 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	2					Scale changed @6.0'.
						NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-2.9	2.9		OCEAN BOTTOM @2.9'		2.9'	
	3		SP-SM - Gray fine poorly graded silty sand, T/shell fragments		1	
					3.4'	VIBRACORE BORING From 0.0' to 10.0' Ran 10.0' Rec: 7.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	4					
	5				5.0'	
					2	
					5.5'	
	6					LAB CLASSIFICATION
					6.5'	Jar Number / Classification: 1 SP; 2 SP; 3 SP; 4 SM
					3	
					7.0'	
	8		8.3'		8.3'	
			SM - Dark gray fine silty sand, T/shell fragments		4	
			9.9'		8.8'	
	10		Assumed not Recovered			NOTE: Terminated hole at predetermined depth at 10.0'.
	12		12.9'			
-12.9	12.9		BOTTOM OF HOLE AT 12.9' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
	14					

Hole No. TI-03-V-153A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2423803 N 242560 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-153A
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (2.1' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	12.3'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 4 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 07/08/03 COMPLETED 07/08/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 2.1' WATER			Time begin vibracoring: 1440 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	2		OCEAN BOTTOM @2.1'		2.1'	
-2.1	2.1		SP - Tan medium poorly graded sand, T/shell fragments		1	Scale changed @6.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					2.6'	
	3					VIBRACORE BORING From 0.0' to 10.2' Ran 10.2' Rec: 7.5'
	4				4.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
					4.5'	
	5					
	6		6.2' course grain sizes with shell fragments		6.0'	LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP; 3 SP; 4 SM
					3	
					6.5'	
	8		8.3'		8.3'	
			SM - Gray fine silty sand		4	
			9.6'		8.8'	
	10		Assumed not Recovered			NOTE: Terminated hole at predetermined depth at 10.2'.
	12		12.3'			
-12.3	12.3		BOTTOM OF HOLE AT 12.3' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
	14					

Hole No. TI-03-V-170

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2401680 N 199432 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-170
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (42.4' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 62.4'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/02/03 : COMPLETED 08/02/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 42.4' WATER			Time begin vibracoring: 1212 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	42					
-42.4	42.4		OCEAN BOTTOM @42.4'		42.4'	Scale changed @52.0'.
			SP - Gray course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			43.4'		42.9' 43.4'	
			SM - Dark gray fine silty sand		2	
	44				43.9'	
			44.6'		44.6'	VIBRACORE BORING From 0.0' to 20.0' Ran 20.0' Rec: 19.7' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			MH - Dark gray elastic silt		3	
	46				45.1'	
	48					
	50				50.0'	LAB CLASSIFICATION
					4	Jar Number / Classification: 1 SP; 2 SM; 3 CH; 4 CH; 5 CH; 6 CH
					50.5'	
	52					
					55.0' 5	
					55.5'	
	57					
					60.0' 6	NOTE: Terminated hole at predetermined depth at 20.0'.
			61.1'		60.5'	
	62		Assumed not Recovered 62.4'			
-62.4	62.4		BOTTOM OF HOLE AT 62.4'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-171

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2403211 N 197330 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-171	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 5 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (42.8' Water)	16. DATE HOLE STARTED 08/02/03 COMPLETED 08/02/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 58.8'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 42.8' WATER			Time begin vibracoring: 1240 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	42					
-42.8	42.8		OCEAN BOTTOM @42.8'		42.8'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP-SM - Gray medium poorly graded silty sand, T/shell fragments		1	
	44		44.5'		43.3' / 44.5'	
			SM - Dark gray fine silty sand		2	VIBRACORE BORING From 0.0' to 16.0' Ran 16.0' Rec: 11.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	46				45.0'	
					47.0'	
					3	
	48				47.5'	
			49.7'		49.7'	
	50		ML - Dark gray sandy silt		4	LAB CLASSIFICATION: Jar 1 SP; 2 SM; 3 SM; 4 SM; 5 SP-SM
					50.2'	
	52		52.8'		52.8'	
			SP-SM - Tan fine poorly graded silty sand		5	
			53.8'		53.3'	
	54		Assumed not Recovered			NOTE: Terminated hole at predetermined depth at 16.0'.
	56					
	58		58.8'			
-58.8	58.8		BOTTOM OF HOLE AT 58.8'			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

Hole No. TI-03-V-172

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2404511 N 195062 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-172
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (44.4' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 62.4'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/02/03 — COMPLETED 08/02/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 44.4' WATER			Time begin vibracoring: 1309 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	44		OCEAN BOTTOM @44.4'		44.4'	Scale changed @60.0'.
-44.4	44.4		SP - Gray course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			45.4'		44.9' / 45.4'	
	46		SM - Gray fine silty sand with shell fragments		2	
			47.0'		45.9' / 47.0'	VIBRACORE BORING From 0.0' to 18.0' Ran 18.0' Rec: 15.0'
			ML - Dark gray sandy silt		3	
	48				47.5'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	50					
			51.9'		51.9'	
	52		MH - Dark gray elastic silt		4	LAB CLASSIFICATION
					52.4'	Jar Number / Classification: 1 SP; 2 SC; 3 SC; 4 CH; 5 CH; 6 SC
	54		54.2' 2" pocket of course grain sizes			
					55.0'	
					5	
	56				55.5'	NOTE: Terminated hole at predetermined depth at 18.0'.
	58		58.3'		58.3'	
			SM - Tan fine silty sand		6	
			59.4'		58.8'	
			Assumed not Recovered			
	60					
-62.4	62.4		62.4'			
			BOTTOM OF HOLE AT 62.4'			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

Hole No. TI-03-V-173

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2407178 N 193823 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-173	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 5 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (44.2' Water)	16. DATE HOLE STARTED 08/02/03 COMPLETED 08/02/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 64.2'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 44.2' WATER			Time begin vibracoring: 1339 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-44.2	44 / 44.2		OCEAN BOTTOM @44.2'		44.2'	Scale changed @58.0'.
			SP - Tan course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			45.4'		44.7' / 45.4'	
	46		MH - Dark gray elastic silt		2 / 45.9'	VIBRACORE BORING From 0.0' to 20.0' Ran 20.0' Rec: 10.8'
	48				48.0' / 3 / 48.5'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	50		50.2'		50.2' / 4 / 50.7'	
			SM - Dark gray fine silty sand			LAB CLASSIFICATION Jar Number / Classification 1 SP 2 CH 3 CH 4 SC 5 SP-SM
	52		53.2'		53.2' / 5 / 53.7'	
			SP-SM - Gray fine poorly graded silty sand			
	54		55.0'			
			Assumed not Recovered			
	56					NOTE: Terminated hole at predetermined depth at 20.0'.
	58					
-64.2	64 / 64.2		64.2'			
			BOTTOM OF HOLE AT 64.2' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-174

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2409207 N 191693 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-174
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (45.5' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	51.5'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 4 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 08/02/03 COMPLETED 08/02/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 45.5' WATER			Time begin vibracoring: 1408 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	45					
-45.5	45.5		OCEAN BOTTOM @45.5'		45.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	46		SP - Gray medium poorly graded sand with shell fragments		1	
	47		47.8'		46.0' 47.8'	VIBRACORE BORING From 0.0' to 6.0' Ran 6.0' Rec: 5.8' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	48		MH - Dark gray elastic silty sand		2	
	49				48.3'	LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 CH; 3 CH; 4 SM
	50		50.5'		49.5' 3 50.0' 50.5'	
	51		SM - Greenish gray fine silty sand 51.3'		4 51.0'	
-51.5	51.5		Assumed not Recovered 51.5' BOTTOM OF HOLE AT 51.5' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 6.0'.

Hole No. TI-03-V-175

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2410992 N 189848 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-175	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 5 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (46.4' Water)	16. DATE HOLE STARTED 08/02/03 COMPLETED 08/02/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 60.4'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 46.4' WATER			Time begin vibracoring: 1429 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46		OCEAN BOTTOM @46.4'		46.4'	
-46.4	46.4		SM - Greenish gray fine silty sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	48				46.9'	
			49.6'		49.6'	VIBRACORE BORING From 0.0' to 14.0' Ran 14.0' Rec: 12.6'
	50		SP-SM - Gray fine poorly graded silty sand, T/shell fragments		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					50.1'	
	52				52.0'	
					3	
					52.5'	
	54					LAB CLASSIFICATION
					55.0'	Jar Number / Classification: 1 SM; 2 SM; 3 SM; 4 SM; 5 SM
					4	
	56				55.5'	
					57.5'	
					5	
	58				58.0'	
			59.0'			NOTE: Terminated hole at predetermined depth at 14.0'.
			Assumed not Recovered			
	60		60.4'			
-60.4	60.4		BOTTOM OF HOLE AT 60.4' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-176

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2412837 N 187952 NAD83	11. DATUM FOR ELEVATION SHOWN (BM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-176	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 6 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (47.5' Water)	16. DATE HOLE STARTED 08/02/03 COMPLETED 08/02/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 64.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 47.5' WATER			Time begin vibracoring: 1455 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	47					
-47.5	47.5		OCEAN BOTTOM @47.5'		47.5'	Scale changed @61.0'.
			SM - Gray medium poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			48.5'		48.0' 48.5'	
			SP-SM - Greenish gray fine poorly graded silty sand, T/shell fragments		2	
	49				49.0'	
						VIBRACORE BORING From 0.0' to 17.0' Ran 17.0' Rec: 14.5'
	51				51.5'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					3	
					52.0'	
	53					
					54.0'	
					4	
					54.5'	
	55					LAB CLASSIFICATION
						Jar Number / Classification: 1 SP-SM; 2 SM; 3 SM; 4 SM; 5 SM; 6 SM
	57				57.0'	
					5	
					57.5'	
	59					NOTE: Terminated hole at predetermined depth at 17.0'.
	61				61.0'	
					6	
			62.0'		61.5'	
			Assumed not Recovered			
			64.5			
-64.5	64.5		BOTTOM OF HOLE AT 64.5'			
	65		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-177

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2414715 N 189749 NAD83	11. DATUM FOR ELEVATION SHOWN (BM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-177	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 5 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (46.5' Water)	16. DATE HOLE STARTED 08/02/03 COMPLETED 08/02/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 56.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 46.5' WATER			Time begin vibracoring: 1523 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46					Scale changed @50.0'.
-46.5	46.5		OCEAN BOTTOM @46.5'		46.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	47		SM - Dark gray fine silty sand with shell fragments		1	
					47.0'	VIBRACORE BORING From 0.0' to 10.0' Ran 10.0' Rec: 8.5'
	48				48.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
					48.5'	
	49					
			49.7'		49.7'	
			SP-SM - Gray fine poorly graded silty sand		3	LAB CLASSIFICATION
	50				50.2'	Jar Number / Classification: 1 SM; 2 SM; 3 SM; 4 SM; 5 SM
	52				52.0'	
					4	
					52.5'	
	54				54.0'	
					5	
			55.0'		54.5'	NOTE: Terminated hole at predetermined depth at 10.0'.
			Assumed not Recovered			
	56					
			56.5'			
-56.5	56.5		BOTTOM OF HOLE AT 56.5'			
	58		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-178

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2413316 N 191142 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-178	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8 / UNDISTURBED 0
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (46.3' Water)	16. DATE HOLE: STARTED 08/02/03 / COMPLETED 08/02/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 66.3'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 46.3' WATER			Time begin vibracoring: 1545 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46		OCEAN BOTTOM @46.3'		46.3'	Scale changed @56.0'.
-46.3	46.3		SP-SM - Gray fine poorly graded silty sand, T/shell fragments		1 46.8'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	48				48.5' 2 49.0'	VIBRACORE BORING From 0.0' to 20.0' Ran 20.0' Rec: 17.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	50				50.5' 3 51.0'	
	52		52.0' SP - Tan course poorly graded sand, T/shell fragments		52.0' 4 52.5'	
	54				54.5' 5 55.0'	LAB CLASSIFICATION: Jar Number 1 SP-SM; 2 SP-SM; 3 SP-SM; 4 SP-SM; 5 SP; 6 SP; 7 SP; 8 SP
	56				57.0' 6 57.5'	
	60				60.0' 7 60.5'	
			63.3'		62.5' 8 63.0'	NOTE: Terminated hole at predetermined depth at 20.0'.
	66		66.3'			
-66.3	66.3		BOTTOM OF HOLE AT 66.3' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-179

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2411791 N 194146 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-179
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (46.0' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 56.0'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/02/03 : COMPLETED 08/02/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 46.0' WATER			Time begin vibracoring: 1613 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
			OCEAN BOTTOM @46.0'		46.0'	
-46.0	46.0		SP-SM - Gray fine poorly graded silty sand, T/shell fragments		1	Scale changed @51.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					46.5'	
	47					VIBRACORE BORING From 0.0' to 10.0' Ran 10.0' Rec: 9.1'
	48				48.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
					48.5'	
	49					
			49.4'		49.4'	
			SP - Tan course poorly graded sand, T/shell fragments		3	LAB CLASSIFICATION
	50				49.9'	Jar Number / Classification: 1 SM; 2 SM; 3 SP-SM; 4 SM; 5 SM
					51.5'	
					4	
	52				52.0'	
					53.0'	
					5	
	54				53.5'	
			55.1'			NOTE: Terminated hole at predetermined depth at 10.0'.
			Assumed not Recovered			
			56.0'			
-56.0	56.0		BOTTOM OF HOLE AT 56.0'			
	58		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-180

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2409234 N 195736 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-180
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (44.2' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	53.2'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 4 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 08/02/03 COMPLETED 08/02/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 44.2' WATER			Time begin vibracoring: 1635 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	44					
-44.2	44.2		OCEAN BOTTOM @44.2'		44.2'	Scale changed @49.0'.
			SM - Gray fine silty sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	45				44.7'	
						VIBRACORE BORING From 0.0' to 9.0' Ran 9.0' Rec: 7.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	46				46.0'	
					2	
					46.5'	
	47		47.2'		47.2'	
			SP - Tan fine medium poorly graded sand		3	
					47.7'	LAB CLASSIFICATION
	48					Jar Number / Classification: 1 SM; 2 SM; 3 SP-SM; 4 SP-SM
	49				49.0'	
					4	
					49.5'	
	51		51.2'			
			Assumed not Recovered			NOTE: Terminated hole at predetermined depth at 9.0'.
	53		53.2'			
-53.2	53.2		BOTTOM OF HOLE AT 53.2'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-181

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2407127 N 197488 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-181	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 4 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (44.0' Water)	16. DATE HOLE STARTED 08/02/03 COMPLETED 08/02/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 53.0'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 44.0' WATER			Time begin vibracoring: 1704 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
			OCEAN BOTTOM @44.0'		44.0'	
-44.0	44.0		SM - Gray fine silty sand with shell fragments		1	Scale changed @49.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					44.5'	
	45					VIBRACORE BORING From 0.0' to 9.0' Ran 9.0' Rec: 7.7'
	46				46.0	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
	47				46.5'	
			48.0'		48.0'	LAB CLASSIFICATION
	48		SP - Tan fine medium poorly graded sand		3	Jar Number / Classification: 1 SP-SM; 2 SM; 3 SM; 4 SP-SM
					48.5'	
	49				50.0	
					4	
	51				50.5'	
			51.7'			NOTE: Terminated hole at predetermined depth at 9.0'.
			Assumed not Recovered			
			53.0'			
-53.0	53.0		BOTTOM OF HOLE AT 53.0' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-182

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2409287 N 199517 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-182
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (44.7' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	52.7'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: 4 UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED: 08/02/03 COMPLETED: 08/02/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 44.7' WATER			Time begin vibracoring: 1731 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	44					Scale changed @50.0'.
						NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-44.7	44.7		OCEAN BOTTOM @44.7'		44.7'	
	45		SP - Gray course poorly graded sand with shell fragments		1	
					45.2'	VIBRACORE BORING From 0.0' to 8.0' Ran 8.0' Rec: 7.6'
	46				46.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
					46.5'	
	47		47.0'		47.0'	
			SP-SM - Tan fine poorly graded silty sand		3	
					47.5'	
	48					LAB CLASSIFICATION
						Jar Number / Classification: 1 SP; 2 SP; 3 SP-SM; 4 SP-SM
	49				49.0'	
					4	
					49.5'	
	50					NOTE: Terminated hole at predetermined depth at 8.0'.
	52		52.3'			
			Assumed not Recovered 52.7'			
-52.7	52.7		BOTTOM OF HOLE AT 52.7' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
	54					

Hole No. TI-03-V-183

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2411241 N 197600 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-183	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 3 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (45.7' Water)	16. DATE HOLE STARTED 08/02/03 COMPLETED 08/02/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 50.7'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 45.7' WATER			Time begin vibracoring: 1751 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	45					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-45.7	45.7		OCEAN BOTTOM @45.7'		45.7'	
	46		SP-SM - Greenish gray fine poorly graded silty sand		1	
					46.2'	VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 4.6' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	47					
	48				48.0'	
					2	
					48.5'	
	49					LAB CLASSIFICATION Jar Number / Classification: 1 SP-SM; 2 SM; 3 SM
					49.5'	
					3	
	50				50.0'	
			50.3' Assumed not Recovered 50.7'			
-50.7	50.7		BOTTOM OF HOLE AT 50.7'			
	51		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.0'.

Hole No. TI-03-V-184

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2414179 N 196288 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-184
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (47.1' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	67.1'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 8 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 08/02/03 COMPLETED 08/02/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 47.1' WATER			Time begin vibracoring: 1827 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-47.1	47 47.1		OCEAN BOTTOM @47.1'		47.1'	
			SM - Dark gray fine silty sand with shell fragments with some course grain sizes		1	Scale changed @57.0'.
	49				47.6'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			50.3'		50.3'	VIBRACORE BORING From 0.0' to 20.0' Ran 20.0' Rec: 18.7'
			ML - Dark gray sand silt		2	
	51		51.3'		50.8' 51.3'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SM - Dark gray fine silty sand		3	
	53				51.8'	
			54.0'		54.0'	
			ML - Dark gray sand silt		4	
			54.7'	54.5' 54.7'		
			SM - Dark gray fine silty sand with iinterbedded silt lenses		5	LAB CLASSIFICATION
	55				55.2'	Jar Number / Classification: 1 SM; 2 SC; 3 SM; 4 MH; 5 SM; 6 SM; 7 SM; 8 SM
	57				58.0'	
					6	
					58.5'	
	62				63.0'	
					7	
	64				63.5' 65.3'	NOTE: Terminated hole at predetermined depth at 20.0'.
			65.8'		8	
			Assumed not Recovered		65.8'	
			67.1'			
-67.1	67.1		BOTTOM OF HOLE AT 67.1'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-185

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2415302 N 193753 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-185	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 8 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (46.5' Water)	16. DATE HOLE STARTED 08/02/03 COMPLETED 08/02/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 66.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 46.5' WATER			Time begin vibracoring: 1843 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46					
			OCEAN BOTTOM @46.5'		46.5'	Scale changed @58.0'.
-46.5	46.5		SP - Tan course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					47.0'	
	48					
			48.5'		48.5'	VIBRACORE BORING From 0.0' to 20.0' Ran 20.0' Rec: 18.3' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SM - Gray fine silty sand with shell fragments		2	
					49.0'	
	50					
					51.0'	
					3	
					51.5'	
	52					
			53.0'		53.0'	
			MH - Dark gray elastic silt		4	
					53.5'	LAB CLASSIFICATION
	54					Jar Number / Classification: 1 SP; 2 SP-SM; 3 SM; 4 SM; 5 CH; 6 CH; 7 SM; 8 SM
					55.0'	
					5	
					55.5'	
	56					
	58		58.0'		58.0'	
			SM - Gray fine silty sand		6	
					58.5'	NOTE: Terminated hole at predetermined depth at 20.0'.
	61				61.0'	
					7	
					61.5'	
	63					
					64.3'	
			64.8'		8	
			Assumed not Recovered		64.8'	
			66.5'			
-66.5	66.5		BOTTOM OF HOLE AT 66.5'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-186

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2417347 N 192119 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-186
5. NAME OF DRILLER: LESTER GAUGHF — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (47.7' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 67.7'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/02/03 : COMPLETED 08/02/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 47.7' WATER			Time begin vibracoring: 1906 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	47					Scale changed @57.0'.
-47.7	47.7		OCEAN BOTTOM @47.7'		47.7'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP - Gray course poorly graded sand with shell fragments		1	
	49		49.5'		48.2' / 49.5'	
			SP-SM - Gray fine poorly graded silty sand, T/shell fragments		2	VIBRACORE BORING From 0.0' to 20.0' Ran 20.0' Rec: 17.8'
	51		51.0'		50.0' / 51.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SM - Gray fine silty sand with shell fragments		3	
	53		53.9'		51.5' / 53.9'	
			MH - Dark gray elastic silt, T/shell fragments		4	
	55				54.4'	LAB CLASSIFICATION (Jar Number / Classification): 1 SP; 2 SP; 3 SP-SM; 4 CH; 5 CH; 6 SM; 7 SP-SM; 8 SC
					56.0'	
					5	
					56.5'	
	57		57.0'		57.0' / 6	
			SM - Gray fine silty sand, T/shell fragments		57.5'	
					60.0' / 7	
					60.5'	
	62		63.0'		63.0' / 8	
	64		SP-SM - Poorly graded silty sand		63.5'	NOTE: Terminated hole at predetermined depth at 20.0'.
			65.5'			
	66		Assumed not Recovered			
			67.7'			
-67.7	67.7		BOTTOM OF HOLE AT 67.7'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-187

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2407902 N 204964 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-187	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 6 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (42.5' Water)	16. DATE HOLE STARTED 08/03/03 COMPLETED 08/03/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 57.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 42.5' WATER			Time begin vibracoring: 0805 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	42					
-42.5	42.5		OCEAN BOTTOM @42.5'		42.5'	
			SP-SM - Gray fine poorly graded silty sand, T/shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	44				43.0'	
					44.5	VIBRACORE BORING From 0.0' to 15.0' Ran 15.0' Rec: 13'
					2	
					45.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	46					
			46.5'		46.5'	
			SP - Tan medium poorly graded sand with traces of tiny shell fragments		3	
					47.0'	
	48					
					49.0'	
					4	
					49.5'	LAB CLASSIFICATION
	50					Jar Number / Classification: 1 SP; 2 SP-SM; 3 SP-SM; 4 SP-SM; 5 SP-SM; 6 SM
	52				52.0'	
					5	
					52.5'	
	54					
					54.0'	
					6	
					54.5'	NOTE: Terminated hole at predetermined depth at 15.0'.
			55.5'			
			Assumed not Recovered			
	56					
			57.5'			
-57.5	57.5		BOTTOM OF HOLE AT 57.5' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
	58					

Hole No. TI-03-V-188

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2409013 N 202653 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-188	10. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 4 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	10. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (44.2' Water)	16. DATE HOLE STARTED 08/03/03 COMPLETED 08/03/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 54.2'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 44.2' WATER			Time begin vibracoring: 0831 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-44.2	44 / 44.2		OCEAN BOTTOM @44.2'		44.2'	
			SM - Gray fine silty sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	46				44.7'	
			47.8'		47.8'	VIBRACORE BORING From 0.0' to10.0' Ran 10.0' Rec: 10'
	48		SP-SM - Gray fine poorly graded silty sand, T/shell fragments		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					48.3'	
	50				50.0'	
					3	
					50.5'	
	52				52.0'	LAB CLASSIFICATION
					4	Jar Number / Classification: 1 SP; 2 SP–SM; 3 SP–SM; 4 SP–SM
					52.5'	
-54.2	54 / 54.2		54.2'			
			BOTTOM OF HOLE AT 54.2' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 10.0'.
	56					

Hole No. TI-03-V-189

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	15. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2411275 N 201372 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-189	15. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 : UNDISTURBED 0
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (45.5' Water)	16. DATE HOLE: STARTED 08/03/03 : COMPLETED 08/03/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 60.5'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 45.5' WATER			Time begin vibracoring: 0853 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	45					
-45.5	45.5		OCEAN BOTTOM @45.5'		45.5'	
			SP - Gray course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	47				46.0'	
			47.5'		47.5'	
			SM - Gray fine silty sand with shell fragments		2	VIBRACORE BORING From 0.0' to15.0' Ran 15.0' Rec: 14.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	49				48.0'	
	51				51.0'	
					3	
					51.5'	
	53					LAB CLASSIFICATION: Jar Number 1 SP; 2 SP-SM; 3 SP-SM; 4 SP-SM; 5 SP-SM; 6 SP-SM
			54.8'		54.8'	
	55		SP-SM - Tan fine poorly graded silty sand, T/shell fragments		4	
					55.3'	
	57				57.0'	
					5	
					57.5'	NOTE: Terminated hole at predetermined depth at 15.0'.
	59				59.0'	
			59.5'		6	
			Assumed not Recovered		59.5'	
			60.5'			
-60.5	60.5		BOTTOM OF HOLE AT 60.5'			
	61		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-190

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2413215 N 199408 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-190
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (47.5' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	62.5'
15. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
15. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 7 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 08/03/03 COMPLETED 08/03/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 47.5' WATER			Time begin vibracoring: 0913 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	47					
-47.5	47.5		OCEAN BOTTOM @47.5'		47.5'	
			SP - Gray course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			48.9'		48.0'	
	49		SM - Gray fine silty sand with shell fragments		48.9' 2	
					49.4'	VIBRACORE BORING From 0.0' to15.0' Ran 15.0' Rec: 14.0'
	51				51.0' 3	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					51.5'	
	53					
			54.0'		54.0' 4	
			SP-SM - Tan fine poorly graded silty sand, T/shell fragments		54.5'	LAB CLASSIFICATION
	55					Jar Number / Classification: 1 SP; 2 SM; 3 SM; 4 SP-SM; 5 SP; 6 SP-SM; 7 SP-SM
					57.0' 5	
	57				57.5'	
					59.0' 6	
	59				59.5'	NOTE: Terminated hole at predetermined depth at 15.0'.
					61.0' 7	
	61		61.5'		61.5'	
			Assumed not Recovered			
			62.5'			
-62.5	62.5		BOTTOM OF HOLE AT 62.5'			
	63		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-191

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2415210 N 197315 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-191
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (47.2' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	67.2'
20. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 8 UNDISTURBED 0
19.5. TOTAL NUMBER CORE BOXES	N/A
20. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 08/03/03 COMPLETED 08/03/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 47.2' WATER			Time begin vibracoring: 0935 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	47				47.2'	
-47.2	47.2		OCEAN BOTTOM @47.2'		1	Scale changed @57.0'.
			SP - Gray course poorly graded sand with shell fragments 48.0'	47.7' 48.0'		NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SM - Gray fine silty sand, T/shell fragments		2	
					48.5'	
	49					VIBRACORE BORING From 0.0' to 20.0' Ran 20.0' Rec: 19.5'
	51					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			51.7'		51.7'	
			MH - Dark gray elastic silt		3	
					52.2'	
	53					
					54.0'	
					4	
					54.5'	
	55					LAB CLASSIFICATION
						Jar Number / Classification: 1 SP; 2 SM; 3 SC; 4 CH; 5 SC; 6 SP-SM; 7 SM; 8 SM
			56.2'		56.2'	
			SM - Dark gray fine silty sand with shell fragments		5	
					56.7'	
	57				59.0'	
					6	
					59.5'	
					62.0'	
	62				7	
					62.5'	NOTE: Terminated hole at predetermined depth at 20.0'.
					66.2'	
			66.7'		8	
	67		Assumed not Recovered 67.2'		66.7'	
-67.2	67.2		BOTTOM OF HOLE AT 67.2'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-192

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2417022 N 195388 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-192
5. NAME OF DRILLER	LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (47.0' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	51.0'
20. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 2 UNDISTURBED 0
3.0. TOTAL NUMBER CORE BOXES	N/A
20. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 08/03/03 COMPLETED 08/03/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 47.0' WATER			Time begin vibracoring: 0955 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-47.0	47.0		OCEAN BOTTOM @47.0'		47.0'	
			SP - Gray course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	48				47.5'	
	49		49.0'		49.0'	VIBRACORE BORING From 0.0' to4.0' Ran 4.0' Rec: 3.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			CL - Dark sandy lean clay		2	
			49.5'		49.5'	
			SM - Gray fine silty sand with shell fragments			
	50		50.0'			
			Assumed not Recovered			
			51.0'			
-51.0	51.0		BOTTOM OF HOLE AT 51.0'			LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SC
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 4.0'.

ENG FORM 1926 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE.

PROJECT TOPSAIL INLET | HOLE NO. TI-03-V-192

Hole No. TI-03-V-194

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	20. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2409639 N 206546 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-194	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 UNDISTURBED 0
5. NAME OF DRILLER: ROBBIE PAGE CRANE OPERATOR	6.5. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (42.7' Water)	16. DATE HOLE: STARTED 08/15/03 COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 49.2'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 42.7' WATER			Time begin vibracoring: 1109 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	42					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-42.7	42.7		OCEAN BOTTOM @42.7'		42.7'	
	43		SP-SM - Tan fine poorly graded silty sand with shell fragments		1	
					43.2'	VIBRACORE BORING From 0.0' to 6.5' Ran 6.5' Rec: 6.5' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	44					
	45				45.0'	
					2	
					45.5'	LAB CLASSIFICATION Jar Number / Classification
	46					
	47					
					47.5'	
					3	
	48				48.0'	
						NOTE: Terminated hole at predetermined depth at 6.5'
	49					
			49.2'			
-49.2	49.2		BOTTOM OF HOLE AT 49.2'			
	50		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-195

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2410409 N 204021 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-195	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 2 UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	5.6. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (43.7' Water)	16. DATE HOLE STARTED 08/15/03 COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 49.3'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 43.7' WATER			Time begin vibracoring: 1130 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	43					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-43.7	43.7		OCEAN BOTTOM @43.7'		43.7'	
	44		SP - Tan medium poorly graded sand, T/shell fragments		1	
	45				44.2'	VIBRACORE BORING From 0.0' to 5.6' Ran 5.6' Rec: 3.8' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	46				46.0'	
					2	
	47				46.5'	LAB CLASSIFICATION Jar Number: 1 SP-SM; 2 SP-SM
			47.5'			
			Assumed not Recovered			
	48					
	49					
-49.3	49.3		49.3' BOTTOM OF HOLE AT 49.3'			NOTE: Terminated hole at predetermined depth at 5.6'
	50		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-196

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2412135 N 202063 NAD83	11. DATUM FOR ELEVATION SHOWN (GS or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-196	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 : UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	8.6. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (44.8' Water)	16. DATE HOLE STARTED 08/15/03 : COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 53.4'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 44.8' WATER			Time begin vibracoring: 1151 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	44					Scale changed @50.0'.
						NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-44.8	44.8		OCEAN BOTTOM @44.8'		44.8'	
	45		SP - Tan course poorly graded sand		1	
					45.3'	VIBRACORE BORING From 0.0' to 8.6' Ran 8.6' Rec: 8.0'
	46		46.4'		46.4'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SM - Grayish tan fine silty sand		2	
	47				46.9'	
	48				48.5'	LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SC; 3 SC; 4 SP-SM
					3	
	49				49.0'	
	50				50.5'	
					4	NOTE: Terminated hole at predetermined depth at 8.6'
	52		52.8'		51.0'	
			Assumed not Recovered 53.4'			
-53.4	53.4		BOTTOM OF HOLE AT 53.4'			
	54		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-197

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2414068 N 200168 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-197	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 7 UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	14.3. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (45.5' Water)	16. DATE HOLE STARTED 08/15/03 COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 59.8'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 45.5' WATER			Time begin vibracoring: 1212 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	45					
-45.5	45.5		OCEAN BOTTOM @45.5'		45.5'	
			SP - Tan course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	47		47.0'		46.0' / 47.0'	
			SM - Gray fine silty sand		2	VIBRACORE BORING From 0.0' to 14.3' Ran 14.3' Rec: 12.0'
					47.5'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	49				49.5'	
					3	
					50.0'	
	51					
			52.0'		52.0'	
			MH - Dark gray elastic silt	52.5'	4	
			52.9'	52.9'		LAB CLASSIFICATION
	53		SM - Gray fine silty sand		5	Jar Number / Classification: 1 SP; 2 SP-SM; 3 SM; 4 CH; 5 SC; 6 SC; 7 CH
					53.4'	
					55.0'	
	55				6	
					55.5'	
			56.7'		56.7'	
	57		MH - Dark gray elastic silt		7	
			57.5'		57.2'	
			Assumed not Recovered			NOTE: Terminated hole at predetermined depth at 14.3'
	59					
			59.8'			
-59.8	59.8		BOTTOM OF HOLE AT 59.8'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
	61					

Hole No. TI-03-V-198

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2418885 N 193430 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-198
5. NAME OF DRILLER	ROBBIE PAGE CRANE OPERATOR
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (46.5' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	57.0'
20. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 5 UNDISTURBED 0
10.5. TOTAL NUMBER CORE BOXES	N/A
20. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 08/15/03 COMPLETED 08/15/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' TO 46.5' WATER			Time begin vibracoring: 1311 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46					Scale changed @49.0'.
-46.5	46.5		OCEAN BOTTOM @46.5'		46.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP - Tan course poorly graded sand with shell fragments		1	
	47				47.0'	VIBRACORE BORING From 0.0' to 10.5' Ran 10.5' Rec: 8.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	48				48.5'	
					2	
	49				49.0'	
			49.5'		49.5'	
			SM - Gray fine silty sand		3	
			50.5'		50.0' 50.5'	
			SP - Whitish gray course poorly graded sand		4	LAB CLASSIFICATION Jar Number: 1 SP, 2 SP, 3 SM, 4 SP-SM, 5 SP-SM
	51				51.0'	
			52.5'		52.5'	
			SP-SM - Light gray fine poorly graded silty sand		5	
	53				53.0'	
			54.5'			
			Assumed not Recovered			NOTE: Terminated hole at predetermined depth at 10.5'
	55					
			57.0'			
-57.0	57.0		BOTTOM OF HOLE AT 57.0'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
	59					

Hole No. TI-03-V-199

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2420955 N 195485 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-199	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 3 UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	7.4. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (46.6' Water)	16. DATE HOLE STARTED 08/15/03 COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 54.0'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 46.6' WATER			Time begin vibracoring: 1451 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-46.6	46.6		OCEAN BOTTOM @46.6'		46.6'	
	47		SP - Light gray course poorly graded sand with shell fragments		1	
	48				47.1'	VIBRACORE BORING From 0.0' to 7.4' Ran 7.4' Rec: 5.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			48.8'		48.8'	
	49		SM - Gray fine silty sand, T/shell fragments		2	
					49.3'	
	50					LAB CLASSIFICATION Jar Number: 1 SP; 2 SM; 3 SM
	51				51.1'	
			51.6'		3	
			Assumed not Recovered		51.6'	
	52					NOTE: Terminated hole at predetermined depth at 7.4'
	53					
			54.0'			
-54.0	54.0		BOTTOM OF HOLE AT 54.0'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-200

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2419104 N 197378 NAD83	11. DATUM FOR ELEVATION SHOWN (BM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-200	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 : UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	8.5. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (46.3' Water)	16. DATE HOLE STARTED 08/15/03 : COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 54.8'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 46.3' WATER			Time begin vibracoring: 1517 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46					Scale changed @53.0'.
-46.3	46.3		OCEAN BOTTOM @46.3'		46.3'	
			SP - Light gray course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	47				46.8'	
			47.6'		47.6'	VIBRACORE BORING From 0.0' to 8.5' Ran 8.5' Rec: 6.7'
			MH - Dark gray elastic silt		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	48				48.1'	
	49				49.5'	
					3	
	50				50.0'	LAB CLASSIFICATION
			50.5' with shell fragments			Jar Number / Classification: 1 SP; 2 CH; 3 CH; 4 SM
	51		51.3'		51.3'	
			SP-SM - Tan fine poorly graded silty sand		4	
	52				51.8'	
						NOTE: Terminated hole at predetermined depth at 8.5'
	53		53.0'			
			Assumed not Recovered			
-54.8	54.8		54.8'			
	55		BOTTOM OF HOLE AT 54.8'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-201

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	20. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2417406 N 199345 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-201	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 : UNDISTURBED 0
5. NAME OF DRILLER: ROBBIE PAGE CRANE OPERATOR	3.7. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (46.1' Water)	16. DATE HOLE: STARTED 08/15/03 : COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 49.8'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 46.1' WATER			Time begin vibracoring: 1532 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46		OCEAN BOTTOM @46.1'		46.1'	
-46.1	46.1		SM - Gray fine silty sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	47				46.6'	
	48				48.1'	VIBRACORE BORING From 0.0' to 3.7' Ran 3.7' Rec: 2.5' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			48.6'		2	
			Assumed not Recovered		48.6'	
	49		49.8'			
-49.8	49.8		BOTTOM OF HOLE AT 49.8'			LAB CLASSIFICATION: Jar Number 1 Classification SM; Jar Number 2 Classification SM
	50		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			
	51					NOTE: Terminated hole at predetermined depth at 3.7'

Hole No. TI-03-V-202

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2416026 N 201998 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-202	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 4 UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	9.3. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (46.3' Water)	16. DATE HOLE STARTED 08/15/03 COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 55.6'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 46.3' WATER			Time begin vibracoring: 1605 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46		OCEAN BOTTOM @46.3'		46.3'	Scale changed @50.0'.
-46.3	46.3		SP - Light gray course silty sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	47				46.8'	
	48		48.0'		48.0'	VIBRACORE BORING From 0.0' to 9.3' Ran 9.3' Rec: 7.6' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SM - Gray fine silty sand with shell fragments		2	
	49				48.5'	
	50				50.0'	LAB CLASSIFICATION
					3	Jar Number / Classification: 1 SP; 2 SP–SM; 3 SM; 4 SM
					50.5'	
	52				52.0'	
					4	
					52.5'	
	54		53.9'			
			Assumed not Recovered			NOTE: Terminated hole at predetermined depth at 9.3'
-55.6	55.6		55.6'			
	56		BOTTOM OF HOLE AT 55.6'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-203

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2414052 N 203893 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-203	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 2 UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	4.0. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (43.4' Water)	16. DATE HOLE STARTED 08/15/03 COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 47.4'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 43.4' WATER			Time begin vibracoring: 1625 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	43		OCEAN BOTTOM @43.4'		43.4'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-43.4	43.4		SP - Light gray course poorly graded sandy, T/shell fragments		1	
	44				43.9'	VIBRACORE BORING From 0.0' to 4.0' Ran 4.0' Rec: 3.2' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	45				45.5'	
					2	
	46				46.0'	
			46.6'			
			Assumed not Recovered			LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP
	47		47.4'			
-47.4	47.4		BOTTOM OF HOLE AT 47.4'			
	48		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 4.0'

Hole No. TI-03-V-204

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2412016 N 205448 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-204	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 : UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	15.0. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (43.6' Water)	16. DATE HOLE STARTED 08/15/03 : COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 58.6'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 43.6' WATER			Time begin vibracoring: 1643 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	43		OCEAN BOTTOM @43.6'		43.6'	
-43.6	43.6		SP - Tan course poorly graded sand		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					44.1'	
	45		45.0'		45.0'	
			SM - Gray fine silty sand		2	VIBRACORE BORING From 0.0' to 15.0' Ran 15.0' Rec: 9.4'
					45.5'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	47		47.6'		47.6'	
			MH - Dark gray elastic silt		3	
					48.1'	
	49					
					50.5'	
					4	LAB CLASSIFICATION
	51				51.0'	Jar Number / Classification: 1 SP; 2 SC; 3 CH; 4 CH
	53		53.0'			
			Assumed not Recovered			
	55					NOTE: Terminated hole at predetermined depth at 15.0'
	57					
-58.6	58.6		58.6'			
	59		BOTTOM OF HOLE AT 58.6'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-205

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2410957 N 207734 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-205	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 : UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	18.6. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (43.2' Water)	16. DATE HOLE STARTED 08/15/03 : COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 61.8'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 43.2' WATER			Time begin vibracoring: 1715 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	43		OCEAN BOTTOM @43.2'		43.2'	Scale changed @55.0'.
-43.2	43.2		SP - Gray course poorly graded sand, T/shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	45		45.2'		43.7' / 45.2'	
			MH - Dark gray elastic silt		2	VIBRACORE BORING From 0.0' to 18.6' Ran 18.6' Rec: 12.0'
	47		47.2'		45.7' / 47.2'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SM - Dark gray fine silty sand with shell fragments		3	
	49				47.7'	
					50.0'	
					4	LAB CLASSIFICATION
	51				50.5'	Jar Number / Classification: 1 SP; 2 CH; 3 SC; 4 SC; 5 SC
					53.0'	
	53				5	
					53.5'	
	55		55.2'			
			Assumed not Recovered			NOTE: Terminated hole at predetermined depth at 18.6'
	60					
-61.8	61.8		61.8'			
			BOTTOM OF HOLE AT 61.8'			
	65		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-206

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2412238 N 208881 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-206	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 : UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	3.0. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (44.2' Water)	16. DATE HOLE STARTED 08/15/03 : COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 47.2'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 44.2' WATER			Time begin vibracoring: 1736 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	44					
-44.2	44.2		OCEAN BOTTOM @44.2'		44.2'	
			SP-SM - Grayish tan fine poorly graded silty sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	45		45.7'		44.7'	VIBRACORE BORING From 0.0' to 3.0' Ran 3.0' Rec: 1.5'
			Assumed not Recovered			Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	46					
	47		47.2'			
-47.2	47.2		BOTTOM OF HOLE AT 47.2'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number: 1 — Classification: SM
	48					NOTE: Terminated hole at predetermined depth at 3.0'

Hole No. TI-03-V-207

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2413829 N 207127 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-207	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 : UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	3.4. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (46.2' Water)	16. DATE HOLE STARTED 08/15/03 : COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 49.6'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 46.2' WATER			Time begin vibracoring: 1758 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46		OCEAN BOTTOM @46.2'		46.2'	
-46.2	46.2		SP-SM - Gray fine poorly graded silty sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	47				46.7'	
	48				48.0'	VIBRACORE BORING From 0.0' to 3.4' Ran 3.4' Rec: 3.1' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
	49		49.3'		48.5'	
			Assumed not Recovered 49.6'			
-49.6	49.6		BOTTOM OF HOLE AT 49.6'			LAB CLASSIFICATION Jar Number / Classification: 1 SP-SM; 2 SP-SM
	50		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.4'

Hole No. TI-03-V-208

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2415564 N 205206 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-208	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 2 UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	3.5. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (49.0' Water)	16. DATE HOLE STARTED 08/15/03 COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 52.5'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 49.0' WATER			Time begin vibracoring: 1830 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-49.0	49.0		OCEAN BOTTOM @49.0'		49.0'	
			SP - Tan course poorly graded sand, T/shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	50				49.5'	
	51				51.0'	VIBRACORE BORING From 0.0' to 3.5' Ran 3.5' Rec: 3.2' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
	52		52.2'		51.5'	
			Assumed not Recovered 52.5'			
-52.5	52.5		BOTTOM OF HOLE AT 52.5'			
	53		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP-SM. NOTE: Terminated hole at predetermined depth at 3.5'

Hole No. TI-03-V-209

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	20. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2417402 N 203240 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-209	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 0 / UNDISTURBED 0
5. NAME OF DRILLER: ROBBIE PAGE CRANE OPERATOR	2.0. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (44.4' Water)	16. DATE HOLE: STARTED 08/15/03 / COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 46.4'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 44.4' WATER			Time begin vibracoring: 1847 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	44					
-44.4	44.4		OCEAN BOTTOM @44.4'			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			Assumed not Recovered			
	45					
	46					VIBRACORE BORING From 0.0' to 2.0' Ran 2.0' Rec: 0.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			46.4'			
-46.4	46.4		BOTTOM OF HOLE AT 46.4'			
	47					
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number / Classification
						NOTE: Terminated hole at predetermined depth at 2.0'

Hole No. TI-03-V-209A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	20. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2417412 N 203231 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-209A	20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 0 UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	2.0. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	20. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (47.8' Water)	16. DATE HOLE STARTED 08/15/03 COMPLETED 08/15/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 49.8'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 47.8' WATER			Time begin vibracoring: 1856 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	47					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-47.8	47.8		OCEAN BOTTOM @47.8'			
	48		Assumed not Recovered			VIBRACORE BORING From 0.0' to 2.0' Ran 2.0' Rec: 0.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	49					
-49.8	49.8		49.8' BOTTOM OF HOLE AT 49.8'			
	50					
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number / Classification
						NOTE: Terminated hole at predetermined depth at 2.0'

Hole No. TI-03-V-210

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2419363 N 201064 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-210
5. NAME OF DRILLER: ROBBIE PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (47.3' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 49.0'

20. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
20. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 : UNDISTURBED 0
2.0. TOTAL NUMBER CORE BOXES: N/A
20. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/15/03 : COMPLETED 08/15/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 47.8' WATER			Time begin vibracoring: 0756 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	47					
-47.3	47.3		OCEAN BOTTOM @47.3'		47.3'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP - Gray course poorly graded sand with shell fragments		1	
	48		48.3'		47.8'	VIBRACORE BORING From 0.0' to 1.7' Ran 1.7' Rec: 1.0
			Assumed not Recovered			Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
-49.0	49.0		49.0'			
			BOTTOM OF HOLE AT 49.0'			
	50		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION: Jar Number 1 — Classification SP
						NOTE: Terminated hole at predetermined depth at 1.7'

Hole No. TI-03-V-211

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2421161 N 199148 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-211
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (49.1' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 50.3'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 49.1' WATER			Time begin vibracoring: 0814 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	49.0		OCEAN BOTTOM @49.1'		49.1'	
-49.1	49.1		SP Gray, coarse, poorly graded sand, T/shell fragments.		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			49.9'		49.6'	
	50.0		Assumed not Recovered			
-50.3	50.3		BOTTOM OF HOLE AT 50.3'			

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

VIBRACORE BORING
From 0.0' to 1.2'
Ran 1.2' Rec: 0.8'

Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.

LAB CLASSIFICATION

Jar Number	Classification
1	SP

NOTE: Terminated hole at predetermined depth at 1.2'

Hole No. TI-03-V-212

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2422944 N 197201 NAD 83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-212
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (49.9' OF WATER)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 59.4'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 0; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03; COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0.0		0.0' TO 49.9' WATER			Time begin vibracoring: 0834 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	49.0					
-49.9	49.9		OCEAN BOTTOM @49.9'			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			Assumed not Recovered			
	51.0					VIBRACORE BORING From 0.0' to 9.5' Ran 9.5' Rec: 0.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	53.0					
	55.0					
	57.0					LAB CLASSIFICATION Jar Number / Classification
	59.0					
-59.4	59.4		BOTTOM OF HOLE AT 59.4'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 9.5'.

Hole No. TI-03-V-212A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2422952 N 197200 NAD 83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-212A	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
5. NAME OF DRILLER ROBY PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (49.7' OF WATER)	16. DATE HOLE: STARTED 08/16/03; COMPLETED 08/16/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 59.4'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0.0		0.0' TO 49.7' WATER			Time begin vibracoring: 0840 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	49.0					Scale changed @52.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-49.7	49.7		OCEAN BOTTOM @49.7'		49.7'	
	50.0		SP Tan, coarse, poorly graded sand, T/shell fragments.		1	
					50.2'	VIBRACORE BORING From 0.0' to 9.7' Ran 9.7' Rec: 8.0'
	51.0		51.2'		51.2'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SM Gray, fine, silty sand.		2	
	52.0				51.7'	
					53.0'	
					3	
					53.5'	LAB CLASSIFICATION
	54.0					Jar Number / Classification: 1 SP; 2 SM; 3 SM; 4 SM
	56.0				56.0'	
					4	
					56.5'	
			57.7'			
	58.0		Assumed not Recovered			
-59.4	59.4		BOTTOM OF HOLE AT 59.4'			NOTE: Terminated hole at predetermined depth at 9.7'.
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-213

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2424730 N 198909 NAD 83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-213
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (49.9' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 52.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 49,9' WATER			Time begin vibracoring: 0901 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	49.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-49.9	49.9		OCEAN BOTTOM @49.9'		49.9'	
	50.0		SP Tan, coarse, poorly graded sand, w/shell fragments.		1	VIBRACORE BORING From 0.0' to 2.6' Ran 2.6' Rec: 1.4'
	51.0				50.4'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			51.3'			
	52.0		Assumed not Recovered			
-52.5	52.5		BOTTOM OF HOLE AT 52.5'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number 1 — Classification SP
						NOTE: Terminated hole at predetermined depth at 2.6'.

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Hole No. TI-03-V-214

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD 2423188 N 201056 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-214
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (50.5' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 59.2'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BEN LACKEY AND LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 50.5' WATER			Time begin vibracoring: 0933 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	50.0					Scale changed @55.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-50.5	50.5		OCEAN BOTTOM @50.5'		50.5'	
			MH Dark gray, elastic silt.		1	
	51.0				51.0'	VIBRACORE BORING From 0.0' to 8.7' Ran 8.7' Rec: 6.3'
	52.0				52.5'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
	53.0				53.0'	
	54.0				54.5'	LAB CLASSIFICATION Jar Number / Classification: 1 CH; 2 CH; 3 SC; 4 SC
					3	
	55.0				55.0'	
			55.7'			
			SM Dark gray, fine, silty sand, T/shell fragments.		4	
			56.8'		56.2'	
-56.8	56.8					
	57.0		Assumed not Recovered			
	59.0					
-59.2	59.2		BOTTOM OF HOLE AT 59.2'			NOTE: Terminated hole at predetermined depth at 8.7'.
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-215

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2421469 N 203113 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-215
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (49.4' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 52.8'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0	0		0.0' to 49.4' WATER			Time begin vibracoring: 0949 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	49.0					
-49.4	49.4		OCEAN BOTTOM @49.4'		49.4'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP Tan, coarse, poorly graded sand, T/shell fragments.		1	
	50.0				49.9'	
						VIBRACORE BORING From 0.0' to 3.4' Ran 3.4' Rec: 3.4'
			50.6'		50.6'	
			GP Gray, coarse, poorly graded gravel.		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	51.0				51.1'	
			51.7'		51.7'	
			SM Tan, fine, silty sand.		3	
	52.0				52.2'	
-52.8	52.8		BOTTOM OF HOLE AT 52.8'			LAB CLASSIFICATION

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

Jar Number	Classification
1	SP-SM
2	SP-SM
3	SM

NOTE: Terminated hole at predetermined depth at 3.4'.

Hole No. TI-03-V-216

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2419338 N 205038 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-216
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (48.2' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 51.1'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03; COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 48.2' WATER			Time begin vibracoring: 1007 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	48.0					
-48.2	48.2		OCEAN BOTTOM @48.2'		48.2'	
			SP Tan, coarse, poorly graded sand, w/shell fragments.		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			49.0'		48.7' 49.0'	
	49.0		SM Gray, fine, silty sand, w/shell fragments.		2	VIBRACORE BORING From 0.0' to 2.9' Ran 2.9' Rec: 2.1'
					49.5'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	50.0		50.3'			
			Assumed not Recovered			
	51.0					
-51.1	51.1		BOTTOM OF HOLE AT 51.1'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

LAB CLASSIFICATION

Jar Number	Classification
1	SP
2	SP-SM

NOTE: Terminated hole at predetermined depth at 2.9'

Hole No. TI-03-V-217

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2417713 N 207313 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-217
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (45.4' OF WATER)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 45.8'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 0; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03; COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	0.0		0.0' TO 45.4' WATER			Time begin vibracoring: 1026 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	45.0					
-45.4	45.4		OCEAN BOTTOM @45.4' Assumed not Recovered			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-45.8	45.8		BOTTOM OF HOLE AT 45.8'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			VIBRACORE BORING From 0.0' to 0.4' Ran 0.4' Rec: 0.0' Top of vibracore soil ginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
						LAB CLASSIFICATION Jar Number / Classification
						NOTE: Terminated hole at predetermined depth at 0.4'.
			sample is logged as be-			

Hole No. TI-03-V-217A

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2417691 N 207324 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-217A
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (45.3' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 45.8'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 0 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 45.3' WATER			Time begin vibracoring: 1034 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	45.0					
-45.3	45.3		OCEAN BOTTOM @45.3' Assumed not Recovered			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-45.8	45.8		BOTTOM OF HOLE AT 45.8'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

VIBRACORE BORING
From 0.0' to 0.5'
Ran 0.5' Rec: 0.0'

Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.

LAB CLASSIFICATION

Jar Number	Classification

NOTE: Terminated hole at predetermined depth at 0.5'.

Hole No. TI-03-V-218

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2415460 N 210149 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-218
5. NAME OF DRILLER: ROBY PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (45.3' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 47.1'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 : COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 45.3' WATER			Time begin vibracoring: 1052 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	45.0					
-45.3	45.3		OCEAN BOTTOM @45.3'		45.3'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP-SM Tan, fine, poorly graded, silty sand, T/shell fragments.		1	
	46.0				45.8'	
	47.0					
47.1	47.1		BOTTOM OF HOLE AT 47.1'			

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

VIBRACORE BORING
From 0.0' to 1.8'
Ran 1.8' Rec: 1.8'

Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.

LAB CLASSIFICATION

Jar Number	Classification
1	SP-SM

NOTE: Terminated hole at predetermined depth at 1.8'.

Hole No. TI-03-V-219

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2413590 N 210149 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-219
5. NAME OF DRILLER: ROBY PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (42.7' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 45.0'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 — COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW (a)	DEPTH feet (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (e)	BOX OR SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
0.0	0		0.0' to 42.7' WATER			Time begin vibracoring: 1111 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	42.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-42.7	42.7		OCEAN BOTTOM @42.7'		42.7'	
	43.0		SP Gray, coarse, poorly graded sand.		1	
	44.0				43.2'	VIBRACORE BORING From 0.0' to 2.3' Ran 2.3' Rec: 1.6' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
-44.3	44.3		44.3' ASSUMED NOT RECOVERED			
-45.0	45.0		BOTTOM OF HOLE AT 45.0'			

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

LAB CLASSIFICATION

Jar Number	Classification
1	SP

NOTE: Terminated hole at predetermined depth at 2.3'.

Hole No. TI-03-V-220

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2414662 N 211075 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-220
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (44.2' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 47.9'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 44.2' WATER			Time begin vibracoring: 1131 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	44.0					
-44.2	44.2		OCEAN BOTTOM @44.2'		44.2'	
			SP Grayish tan, medium, poorly graded sand, T/shell fragments.		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					44.7'	
	45.0					VIBRACORE BORING From 0.0' to 3.7' Ran 3.7' Rec: 3.7'
			46.0'		46.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	46.0		SP-SM Tan, fine, poorly graded silty sand.		2	
					46.5'	
	47.0					
-47.9	47.9		BOTTOM OF HOLE AT 47.9'			LAB CLASSIFICATION
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			Jar Number: 1 — Classification: SP; 2 — SP-SM
						NOTE: Terminated hole at predetermined depth at 3.7'

Hole No. TI-03-V-221

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2416925 N 210105 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-221
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (46.7' OF WATER)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 52.1'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03; COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0.0		0.0' TO 46.7' WATER			Time begin vibracoring: 1218 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-46.7	46.7		OCEAN BOTTOM @46.7		46.7'	
	47.0		SP Gray, medium, poorly graded sand, T/shell fragments.		1	
	48.0				47.2'	VIBRACORE BORING From 0.0' to 5.4' Ran 5.4' Rec: 3.6' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			48.5'		48.5'	
	49.0		SM Tan, fine, silty sand, with shell fragments.		2	
	50.0		50.3'		49.0'	LAB CLASSIFICATION: Jar Number 1 — SP; 2 — SM
			ASSUMED NOT RECOVERED			
	51.0					
	52.0					
-52.1	52.1		BOTTOM OF HOLE AT 52.1'			NOTE: Terminated hole at predetermined depth at 5.4'.
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-222

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2419581 N 208964 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-222
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (45.4' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 51.6'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 45.4' WATER			Time begin vibracoring: 1239 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	45.0					
-45.4	45.4		OCEAN BOTTOM @45.4'		45.4'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP Gray, coarse, poorly graded sand, w/shell fragments.		1	
	46.0				45.9'	
			47.0'		47.0'	
	47.0		GP Gray, coarse, poorly graded gravel.		2	
					47.5'	
	48.0					
			48.4'		48.4'	
			SM Grayish tan, fine, silty sand, T/shell fragments.		3	
	49.0				48.9'	
			49.7'			
			Assumed not Recovered			
	50.0					
	51.0					
-51.6	51.6		BOTTOM OF HOLE AT 51.6'			NOTE: Terminated hole at predetermined depth at 6.2'.
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

VIBRACORE BORING
From 0.0' to 6.2'
Ran 6.2 Rec: 4.3'

Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.

LAB CLASSIFICATION

Jar Number	Classification
1	SP
2	SP
3	SM

Hole No. TI-03-V-223

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2421422 N 206932 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-223	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 3 UNDISTURBED 0
5. NAME OF DRILLER ROBY PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (43.5' of Water)	16. DATE HOLE STARTED 08/16/03 COMPLETED 08/16/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 52.1'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 43.5' WATER			Time begin vibracoring: 1259 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	43.0					Scale changed @48.0'.
-43.5	43.5		OCEAN BOTTOM @43.5'		43.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP Tan, coarse, poorly graded sand, w/shell fragments.		1	
	44.0				44.0'	
						VIBRACORE BORING From 0.0' to 8.6' Ran 8.6' Rec: 3.7'
	45.0				45.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
					45.5'	
	46.0					
			46.5'		46.5'	
			SM Gray, fine, silty sand, T/shell fragments.		3	LAB CLASSIFICATION Jar Number: 1 SP, 2 SP, 3 SM
	47.0		47.2'		47.0'	
			ASSUMED NOT RECOVERED			
	48.0					
	50.0					
	52.0					
-52.1	52.1		BOTTOM OF HOLE AT 52.1'			NOTE: Terminated hole at predetermined depth at 8.6'.
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-224

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2423382 N 204873 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-224
5. NAME OF DRILLER: ROBY PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (46.4' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 52.6'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 : COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' to 46.4' WATER			Time begin vibracoring: 1322 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46.0					
-46.4	46.4		OCEAN BOTTOM @46.4'		46.4'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP Tan, coarse, poorly graded sand, with shell fragments.		1	
	47.0				46.9'	
	48.0					VIBRACORE BORING From 0.0' to 6.2' Ran 6.2' Rec: 6.2' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			48.4'		48.4'	
			SM Greenish gray, fine, silty sand.		2	
	49.0				48.9'	
	50.0					LAB CLASSIFICATION: Jar Number 1 SP; 2 SM; 3 SM
					50.5'	
					3	
	51.0				51.0'	
	52.0					
-52.6	52.6		BOTTOM OF HOLE AT 52.6'			NOTE: Terminated hole at predetermined depth at 6.2'.
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-225

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2425197 N 202896 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-225
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (46.9' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 50.2'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 0 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 46.9' WATER			Time begin vibracoring: 1343 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-46.9	46.9		OCEAN BOTTOM @46.9'			
	47.0		ASSUMED NOT RECOVERED			VIBRACORE BORING From 0.0' to 3.3' Ran 3.3' Rec: 0.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	48.0					
	49.0					
	50.0					LAB CLASSIFICATION Jar Number / Classification
-50.2	50.2		BOTTOM OF HOLE AT 50.2'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.3'

Hole No. TI-03-V-225A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2425316 N 202799 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-225A
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (47.0' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 50.9'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 0 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 47.0' WATER			Time begin vibracoring: 1353 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	47.0		OCEAN BOTTOM @47.0'			
			ASSUMED NOT RECOVERED			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	48.0					VIBRACORE BORING From 0.0' to 3.9' Ran 3.9' Rec: 0.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	49.0					
	50.0					
-50.9	50.9		BOTTOM OF HOLE AT 50.9'			LAB CLASSIFICATION Jar Number / Classification
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.9'

Hole No. TI-03-V-225B

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2425320 N 202789 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-225B
5. NAME OF DRILLER: ROBY PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (46.8' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 51.4'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/16/03 COMPLETED 08/16/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 46.8' WATER			Time begin vibracoring: 1423 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-46.8	46.8		OCEAN BOTTOM @46.8'		46.8'	
	47.0		SP Gray, coarse, poorly graded sand, T/shell fragments.		1	
	48.0				47.3'	VIBRACORE BORING From 0.0' to 4.6' Ran 4.6' Rec: 4.6' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			48.6'		48.6'	
	49.0		SM Grayish tan, fine, silty sand, T/shell fragments.		2	
					49.1'	
	50.0					LAB CLASSIFICATION: Jar Number 1 SP; 2 SM; 3 SM
					50.5'	
					3	
	51.0				51.0'	
-51.4	51.4		BOTTOM OF HOLE AT 51.4'			NOTE: Terminated hole at predetermined depth at 4.6'

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

Hole No. TI-03-V-226

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2426996 N 200873 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-226	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED 0
5. NAME OF DRILLER ROBY PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (47.8' of Water)	16. DATE HOLE STARTED 08/16/03 COMPLETED 08/16/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 49.9'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 47.8' WATER			Time begin vibracoring: 1511 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	47.0					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-47.8	47.8		OCEAN BOTTOM @47.8'		47.8'	
	48.0		SP Gray, coarse, poorly graded sand, T/shell fragments.		1	
	49.0				48.3'	VIBRACORE BORING From 0.0' to 2.1' Ran 2.1' Rec: 1.5' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			49.3'			
			ASSUMED NOT RECOVERED			
-49.9	49.9		BOTTOM OF HOLE AT 49.9'			

LAB CLASSIFICATION

Jar Number	Classification
1	SP

NOTE: Terminated hole at predetermined depth at 2.1'

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

Hole No. TI-03-V-227

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2423584 N 208874 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-227
5. NAME OF DRILLER: ROBBIE PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (47.7' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 57.7'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/17/03 : COMPLETED 08/17/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 47.7' WATER			Time begin vibracoring: 0846 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	47					Scale changed @50.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-47.7	47.7		OCEAN BOTTOM @47.7'		47.7'	
	48		SP-SM - Gray fine poorly graded silty sand, T/shell fragments		1	
					48.2'	VIBRACORE BORING From 0.0' to 10.0' Ran 10.0' Rec: 6.3'
	49					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					49.5'	
					2	
	50				50.0'	
	52		52.6'		52.6'	LAB CLASSIFICATION: Jar Number 1 — Classification SP-SM; Jar Number 2 — Classification SP-SM; Jar Number 3 — Classification SM
					3	
					53.1'	
	54		54.0' Assumed Not Recovered			
	56					
-57.7	57.7		57.7'			
	58		BOTTOM OF HOLE AT 57.7'			NOTE: Terminated hole at predetermined depth at 10.0'
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-228

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2425464 N 206734 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-228
5. NAME OF DRILLER: ROBBIE PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (46.9' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 56.9'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/17/03 : COMPLETED 08/17/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 46.9' WATER			Time begin vibracoring: 0906 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46					Scale changed @49.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-46.9	46.9		OCEAN BOTTOM @46.9'		46.9'	
	47		SP - Gray course poorly graded sand, T/shell fragments		1	VIBRACORE BORING From 0.0' to 10.0' Ran 10.0' Rec: 6.7'
					47.4'	
			47.9'		47.9'	
	48		SP-SM - Gray medium poorly graded silty sand with shell fragments		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					48.4'	
	49					
			50.6'		50.6'	
			T/shell fragments Tan, fine grain sizes		3	LAB CLASSIFICATION
	51				51.1'	Jar Number / Classification: 1 SP; 2 SP-SM; 3 SP-SM; 4 SP-SM
					52.5'	
					4	
	53		53.6'		53.0'	
			Assumed Not Recovered			
	55					
			56.9'			
-56.9	56.9		BOTTOM OF HOLE AT 56.9'			NOTE: Terminated hole at predetermined depth at 10.0'
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-229

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2427160 N 204809 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-229	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 4 UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (48.5' Water)	16. DATE HOLE STARTED 08/17/03 COMPLETED 08/17/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 55.7'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 48.5' WATER			Time begin vibracoring: 0926 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	48					
-48.5	48.5		OCEAN BOTTOM @48.5'		48.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP-SM - Gray fine poorly graded silty sand with shell fragments		1	
	49				49.0'	
			49.7'		49.7'	VIBRACORE BORING From 0.0' to 7.2' Ran 7.2' Rec: 6.3'
			SM - Gray fine silty sand with shell fragments		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	50				50.2'	
	51					
					52.0'	LAB CLASSIFICATION
	52				3	Jar Number / Classification: 1 SP-SM; 2 SC; 3 SC; 4 SM
					52.5'	
	53					
					54.0'	
	54				4	
			54.8'		54.5'	
	55		Assumed Not Recovered			
			55.7'			NOTE: Terminated hole at predetermined depth at 7.2'
-55.7	55.7		BOTTOM OF HOLE AT 55.7'			
	56		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-230

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT	TOPSAIL INLET
2. LOCATION (Coordinates or Station)	NC COORD E 2428243 N 202087 NAD83
3. DRILLING AGENCY	WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	TI-03-V-230
5. NAME OF DRILLER	ROBBIE PAGE CRANE OPERATOR
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	N/A (48.3' Water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	60.3'
10. SIZE AND TYPE OF BIT	4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: 5 UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED: 08/17/03 COMPLETED: 08/17/03
17. ELEVATION TOP OF HOLE	0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 48.3' WATER			Time begin vibracoring: 0949 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	48		OCEAN BOTTOM @48.3'		48.3'	
-48.3	48.3		SM - Dark gray fine silty sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	50		50.8'		48.8'	VIBRACORE BORING From 0.0' to 12.0' Ran 12.0' Rec: 11.8'
			MH - Dark gray elastic silt with shell fragments		50.8' 2 51.3'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	52					
	54				54.0' 3 54.5'	
	56					LAB CLASSIFICATION
						Jar Number / Classification: 1 SC; 2 CH; 3 CH; 4 CH; 5 CH
	58				57.0' 4 57.5'	
					59.0' 5 59.5'	
	60		60.1'			
-60.3	60.3		Assumed Not Recovered 60.3' BOTTOM OF HOLE AT 60.3'			NOTE: Terminated hole at predetermined depth at 12.0'
	61		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-231

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2430211 N 201136 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-231	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 : UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (48.0' Water)	16. DATE HOLE STARTED 08/17/03 : COMPLETED 08/17/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 53.6'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 48.0' WATER			Time begin vibracoring: 1010 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-48.0	48.0		OCEAN BOTTOM @48.0'		48.0'	
			SM - gray fine silty sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	49				48.5'	
	50					VIBRACORE BORING From 0.0' to 5.6' Ran 5.6' Rec: 5.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			50.7'		50.7'	
	51		MH - Dark gray elastic silty, T/shell fragments		2	
			51.8'		51.2' 51.8'	
	52		SM - Gray fine silty sand with shell fragments		3	LAB CLASSIFICATION Jar Number: 1 SP-SM; 2 CH; 3 SM
			53.0'		52.3'	
	53		Assumed Not Recovered			
			53.6'			
-53.6	53.6		BOTTOM OF HOLE AT 53.6'			
	54		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.6'

Hole No. TI-03-V-232

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2432886 N 203642 NAD83	11. DATUM FOR ELEVATION SHOWN (BM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-232	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 3 UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (48.3' Water)	16. DATE HOLE STARTED 08/17/03 COMPLETED 08/17/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 53.3'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 48.3' WATER			Time begin vibracoring: 1035 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	48					
-48.3	48.3		OCEAN BOTTOM @48.3'		48.3'	
			SP-SM - Gray fine poorly graded silty sand, T/shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	49				48.8'	
			50.1'		50.1'	VIBRACORE BORING From 0.0' to 5.0' Ran 5.0' Rec: 4.0'
	50		SM - Gray fine slilty sand with shell fragments		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			51.1'		50.6'	
	51		GP - Light gray course poorly graded sandy gravel(limestone)		51.1' 3	
			52.3'		51.6'	LAB CLASSIFICATION
	52		Assumed Not Recovered			Jar Number / Classification: 1 SP; 2 SM; 3 SM
			53.3'			
	53					
-53.3	53.3		BOTTOM OF HOLE AT 53.3'			
	54		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 5.0'

Hole No. TI-03-V-233

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2430968 N 204647 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-233
5. NAME OF DRILLER: ROBBIE PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (48.5' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 51.6'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/17/03 : COMPLETED 08/17/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.0			0.0' TO 48.5' WATER			Time begin vibracoring: 1039 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	48					
-48.5	48.5		OCEAN BOTTOM @48.5'		48.5'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SM - Tan fine silty sand, T/shell fragments		1	
	49				49.0'	
	50				50.5'	VIBRACORE BORING From 0.0' to 3.1' Ran 3.1' Rec: 2.6' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					2	
	51		51.1'		51.0'	
			Assumed Not Recovered 51.6'			
-51.6	51.6		BOTTOM OF HOLE AT 51.6'			
	52					

LAB CLASSIFICATION

Jar Number	Classification
1	SM
2	SM

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

NOTE: Terminated hole at predetermined depth at 3.1'

Hole No. TI-03-V-234

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2420980 N 206495 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-234
5. NAME OF DRILLER: ROBBIE PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (48.3' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 49.0'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (GS or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/17/03 — COMPLETED 08/17/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 48.3' WATER			Time begin vibracoring: 1105 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	48					
-48.3	48.3		OCEAN BOTTOM @48.3'		48.3'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP - Tan course poorly graded sand with shell fragments 48.8'		1	
			Assumed Not Recovered 49.0'		48.8'	
-49.0	49.0		BOTTOM OF HOLE AT 49.0'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

VIBRACORE BORING
From 0.0' to 0.7'
Ran 0.7' Rec: 0.5'

Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.

LAB CLASSIFICATION

Jar Number	Classification
1	SP-SM

NOTE: Terminated hole at predetermined depth at 0.7'

Hole No. TI-03-V-235

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2425348 N 214315 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-235
5. NAME OF DRILLER: ROBBIE PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (45.8' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 49.7'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: 2 — UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED: 08/20/03 — COMPLETED: 08/20/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 45.8' WATER			Time begin vibracoring: 0805 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	45					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-45.8	45.8		OCEAN BOTTOM @45.8'		45.8'	
	46		SP - Gray course poorly graded sand with shell fragments		1	VIBRACORE BORING From 0.0' to 3.9' Ran 3.9' Rec: 2.5'
					46.3'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	47		47.3'		47.3'	
			SM - Olive gray fine silty sand		2	
	48		48.3'		47.8'	
			Assumed Not Recovered			LAB CLASSIFICATION
	49		49.7'			Jar Number: 1 — Classification: SP; 2 — SM
-49.7	49.7		BOTTOM OF HOLE AT 49.7'			
	50		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.9'

Hole No. TI-03-V-236

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2427253 N 212294 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-236	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED 0
5. NAME OF DRILLER: ROBBIE PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (46.8' Water)	16. DATE HOLE: STARTED 08/20/03 / COMPLETED 08/20/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 49.7'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 46.8' WATER			Time begin vibracoring: 0827 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	46					NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-46.8	46.8		OCEAN BOTTOM @46.8'		46.8'	
	47		SP-SM - Gray fine poorly graded silty sand		1	VIBRACORE BORING From 0.0' to 2.9' Ran 2.9' Rec: 1.2'
			48.0'		47.3'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	48		Assumed Not Recovered			
	49		49.7'			
-49.7	49.7		BOTTOM OF HOLE AT 49.7'			LAB CLASSIFICATION: Jar Number 1 — Classification SM
	50		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 2.9'

Hole No. TI-03-V-237

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2429152 N 210165 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-237
5. NAME OF DRILLER: ROBBIE PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (49.1' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 51.4'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: 1 — UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED: 08/20/03 — COMPLETED: 08/20/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 49.1' WATER			Time begin vibracoring: 0849 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	49		OCEAN BOTTOM @49.1'		49.1'	
-49.1	49.1		SP-SM - Gray medium poorly graded silty sand, T/shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	50		50.6'		49.6'	VIBRACORE BORING From 0.0' to 2.3' Ran 2.3' Rec: 1.5'
			Assumed Not Recovered			Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	51		51.4'			
-51.4	51.4		BOTTOM OF HOLE AT 51.4'			
	52		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION: Jar Number 1 — Classification SP-SM
						NOTE: Terminated hole at predetermined depth at 2.3'

Hole No. TI-03-V-238

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2430958 N 208179 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-238	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 UNDISTURBED 0
5. NAME OF DRILLER: ROBBIE PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (48.3' Water)	16. DATE HOLE: STARTED 08/20/03 COMPLETED 08/20/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 50.5'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 48.3' WATER			Time begin vibracoring: 0909 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	48					
-48.3	48.3		OCEAN BOTTOM @48.3'		48.3'	
			SP - Gray course poorly graded sand, T/shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	49				48.8'	
			49.4'		49.4'	VIBRACORE BORING From 0.0' to 2.2' Ran 2.2' Rec: 1.8'
			SM - Gray fine silty sand		2	
	50		50.1'		49.9'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			Assumed Not Recovered 50.5'			
-50.5	50.5		BOTTOM OF HOLE AT 50.5'			
	51					
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION: Jar Number 1 — SP; 2 — SP-SM
						NOTE: Terminated hole at predetermined depth at 2.2'

Hole No. TI-03-V-239

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2432775 N 206175 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-239
5. NAME OF DRILLER: ROBBIE PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (48.1' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 50.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/20/03 — COMPLETED 08/20/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 48.1' WATER			Time begin vibracoring: 0940 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	48		OCEAN BOTTOM @48.1'		48.1'	
-48.1	48.1		SP - Tan course poorly graded sand, T/shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					48.6'	
	49					VIBRACORE BORING From 0.0' to 2.4' Ran 2.4' Rec: 2.4'
			49.6'		49.6'	
			GP - Light gray course poorly graded gravel (limestone)		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	50				50.1'	
-50.5	50.5		50.5' BOTTOM OF HOLE AT 50.5'			
	51					

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM

LAB CLASSIFICATION

Jar Number	Classification
1	SP
2	SP-SM

NOTE: Terminated hole at predetermined depth at 2.4'

Hole No. TI-03-V-240

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2435058 N 208427 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-240
5. NAME OF DRILLER: ROBBIE PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (50.0' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 59.6'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (GS or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: 2 — UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED: 08/20/03 — COMPLETED: 08/20/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 50.0' WATER			Time begin vibracoring: 1008 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-50.0	50.0		OCEAN BOTTOM @50.0'		50.0'	
			SP - Gray course poorly graded sand, T/shell fragments		1	Scale changed @54.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	51				50.5'	
			52.0'		52.0'	VIBRACORE BORING From 0.0' to 9.6' Ran 9.6' Rec: 2.8'
	52		SM - Gray fine silty sand, T/shell fragments		2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			52.8'		52.5'	
	53		Assumed Not Recovered			
	54					LAB CLASSIFICATION
						Jar Number 1 — Classification SP
						Jar Number 2 — Classification SP-SM
	56					
	58					
			59.6'			
-59.6	59.6		BOTTOM OF HOLE AT 59.6'			
	60		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 9.6'

Hole No. TI-03-V-241

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2432931 N 210063 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-241	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 4 UNDISTURBED 0
5. NAME OF DRILLER ROBBIE PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (49.0' Water)	16. DATE HOLE STARTED 08/20/03 COMPLETED 08/20/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 58.4'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 49.0' WATER			Time begin vibracoring: 1029 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-49.0	49.0		OCEAN BOTTOM @49.0'		49.0'	
			SP - Gray course poorly graded sand, T/shell fragments		1	Scale changed @53.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	50				49.5'	
			50.8' with shell fragments			VIBRACORE BORING From 0.0' to 9.4' Ran 9.4' Rec: 7.1'
	51		51.2'		51.2'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			SM - Gray fine silty sand, T/shell fragments		2	
	52				51.7'	
			53.0'		53.0'	LAB CLASSIFICATION
	53		MH - Dark gray elastic silt		3	Jar Number / Classification: 1 SP; 2 SP-SM; 3 SC; 4 SC
			54.0'		53.5' 54.0'	
			SM - Dark gray fine silty sand, T/shell fragments		4	
	55				54.5'	
			56.1'			
			Assumed Not Recovered			
	57					
			58.4'			
-58.4	58.4		BOTTOM OF HOLE AT 58.4'			NOTE: Terminated hole at predetermined depth at 9.4'
	59		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-242

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2435123 N 211995 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-242	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 0 / UNDISTURBED 0
5. NAME OF DRILLER: ROBBIE PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (49.0' Water)	16. DATE HOLE: STARTED 08/20/03 / COMPLETED 08/20/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 51.0'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 49.0' WATER			Time begin vibracoring: 1059 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
			OCEAN BOTTOM @49.0'			
-49.0	49.0		Assumed Not Recovered			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	50					VIBRACORE BORING From 0.0' to 2.0' Ran 2.0' Rec: 0.0'
			51.0'			Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
-51.0	51.0		BOTTOM OF HOLE AT 51.0'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number / Classification
						NOTE: Terminated hole at predetermined depth at 2.0'

Hole No. TI-03-V-242A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2435128 N 211996 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-242A
5. NAME OF DRILLER: ROBBIE PAGE CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (49.5' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 51.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (BM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 0 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/20/03 COMPLETED 08/20/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW (a)	DEPTH feet (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (e)	BOX OR SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
0.0			0.0' TO 49.5' WATER			Time begin vibracoring: 1107 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	49					
-49.5	49.5		OCEAN BOTTOM @49.5'			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			Assumed Not Recovered			
	50					VIBRACORE BORING From 0.0' to 2.0' Ran 2.0' Rec: 0.0'
	51					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
			51.5'			
-51.5	51.5		BOTTOM OF HOLE AT 51.5'			
	51		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number / Classification
						NOTE: Terminated hole at predetermined depth at 2.0'

Hole No. TI-03-V-243

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2437071 N 210130 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-243
5. NAME OF DRILLER: ROBBIE PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (50.6' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 53.8'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: 0 — UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 08/20/03 — COMPLETED 08/20/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 50.6' WATER			Time begin vibracoring: 1126 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	50					
-50.6	50.6		OCEAN BOTTOM @50.6'			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			Assumed Not Recovered			VIBRACORE BORING From 0.0' to 3.2' Ran 3.2' Rec: 0.0'
	51					
	52					Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	53					
			53.8'			
-53.8	53.8		BOTTOM OF HOLE AT 53.8'			LAB CLASSIFICATION Jar Number — Classification
	54		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 3.2'

Hole No. TI-03-V-244

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2438605 N 211705 NAD83	11. DATUM FOR ELEVATION SHOWN (BM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-244	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 0 UNDISTURBED 0
5. NAME OF DRILLER: ROBBIE PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (50.5' Water)	16. DATE HOLE: STARTED 08/20/03 COMPLETED 08/20/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 52.5'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 50.5' WATER			Time begin vibracoring: 1148 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	50					
-50.5	50.5		OCEAN BOTTOM @50.5'			NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	51		Assumed Not Recovered			
	52		52.5'			VIBRACORE BORING From 0.0' to 2.0' Ran 2.0' Rec: 0.0' Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
-52.5	52.5		BOTTOM OF HOLE AT 52.5'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number / Classification
						NOTE: Terminated hole at predetermined depth at 2.0'

Hole No. TI-03-V-245

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD E 2441687 N 214522 NAD83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-245
5. NAME OF DRILLER: ROBBIE PAGE — CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (47.2' Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 50.2'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE — SNELL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: 2 — UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED: 08/20/03 — COMPLETED: 08/20/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 47.2' WATER			Time begin vibracoring: 1217 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	47				47.2'	
-47.2	47.2		OCEAN BOTTOM @47.2'			
			SP - Tan course poorly graded sand with shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	48				47.7'	
			48.3'			VIBRACORE BORING From 0.0' to 3.0' Ran 3.0' Rec: 2.5'
			T/shell fragments		48.5'	
					2	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	49				49.0'	
			49.7'			
			Assumed Not Recovered			
	50		50.2'			
-50.2	50.2		BOTTOM OF HOLE AT 50.2'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION: Jar Number 1 — Classification SP; Jar Number 2 — Classification SP
	51					NOTE: Terminated hole at predetermined depth at 3.0'

Hole No. TI-03-V-246

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET	10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
2. LOCATION (Coordinates or Station): NC COORD E 2439717 N 216282 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-246	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED 0
5. NAME OF DRILLER: ROBBIE PAGE CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES: N/A
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN: N/A (48.0' Water)	16. DATE HOLE: STARTED 08/20/03 / COMPLETED 08/20/03
8. DEPTH DRILLED INTO ROCK: 0.0'	17. ELEVATION TOP OF HOLE: 0.0' MLLW
9. TOTAL DEPTH OF HOLE: 50.1'	18. TOTAL CORE RECOVERY FOR BORING: N/A %
	19. SIGNATURE OF INSPECTOR: STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 48.0' WATER			Time begin vibracoring: 1236 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
-48.0	48.0		OCEAN BOTTOM @48.0'		48.0'	
			SP - Light gray course poorly graded sand with rock fragments and T/shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
	49				48.5'	
			49.3'			VIBRACORE BORING From 0.0' to 2.1' Ran 2.1' Rec: 1.3'
			Assumed Not Recovered			Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	50		50.1'			
-50.1	50.1		BOTTOM OF HOLE AT 50.1'			
	51		SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			LAB CLASSIFICATION Jar Number 1 — Classification SP-SM
						NOTE: Terminated hole at predetermined depth at 2.1'

Hole No. TI-03-V-263

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT TOPSAIL INLET	10. SIZE AND TYPE OF BIT 4" Dia. Vibracore
2. LOCATION (Coordinates or Station) NC COORD E 2406107 N 221247 NAD83	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY WILMINGTON DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRA CORE SNELL
4. HOLE NO. (As shown on drawing title and file number) TI-03-V-263	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 2 UNDISTURBED 0
5. NAME OF DRILLER LESTER GAUGHF CRANE OPERATOR	14. TOTAL NUMBER CORE BOXES N/A
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
7. THICKNESS OF OVERBURDEN N/A (9.8' Water)	16. DATE HOLE STARTED 08/21/03 COMPLETED 08/21/03
8. DEPTH DRILLED INTO ROCK 0.0'	17. ELEVATION TOP OF HOLE 0.0' MLLW
9. TOTAL DEPTH OF HOLE 19.8'	18. TOTAL CORE RECOVERY FOR BORING N/A %
	19. SIGNATURE OF INSPECTOR STACEY SMITH

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0			0.0' TO 9.8' WATER			Time begin vibracoring: 0711 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	9					
			OCEAN BOTTOM @9.8'		9.8'	
-9.8	9.8		SP - Course poorly graded sand with tiny shell fragments		1	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
					10.3'	
	11				11.3'	
			11.8'		2	VIBRACORE BORING From 0.0' to 10.0' Ran 10.0' Rec: 2.0'
			Assumed Not Recovered		11.8'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	13					
	15					
	17					LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP
	19		19.8'			
-19.8	19.8		BOTTOM OF HOLE AT 19.8' SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			NOTE: Terminated hole at predetermined depth at 10.0'
	21					

Hole No. TI-03-V-363

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD. E 2408123 N 217889 NAD 83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-363
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (18.9' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 26.9'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL)
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 : UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 11/22/03 : COMPLETED 11/22/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 18.9' WATER			Time begin vibracoring: 0759 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	18.0					Scale changed @23.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
-18.9	18.9		OCEAN BOTTOM @ 18.9'		18.9'	
	19.0		SP Tan, coarse, poorly graded, sand.		1	VIBRACORE BORING From 0.0' to 8.0' Ran 8.0 Rec: 4.0'
					19.4'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
	20.0					
	21.0				21.0'	
					2	
					21.5'	
	22.0					LAB CLASSIFICATION Jar Number / Classification: 1 SP; 2 SP
			22.9'			
	23.0		ASSUMED NOT RECOVERED			
	25.0					NOTE: Terminated hole at vibraore refusal depth at 8.0'
-26.9	26.9		BOTTOM OF HOLE AT 26.9'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-364

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD. E 2410443 N 220053 NAD 83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-364
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (23.8' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 37.8'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL)
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 11/22/03 COMPLETED 11/22/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 23.8' WATER			Time begin vibracoring: 0858 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	23.0					Scale changed @35.0'.
-23.8	23.8		OCEAN BOTTOM @ 23.8'		23.8'	NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SP Gray, fine, poorly graded, sand.		1	
	25.0				24.3'	
					25.5'	VIBRACORE BORING From 0.0' to 14.0' Ran 14.0' Rec: 11.0'
					2	
	27.0				26.0'	Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.
					27.5'	
					3	
	29.0				28.0'	
					29.5'	
					4	
					30.0'	
	31.0					LAB CLASSIFICATION
			31.8'		31.8'	Jar Number / Classification: 1 SP; 2 SP; 3 SP; 4 SP; 5 SP; 6 SP-SM
			SP-SM Gray, fine, poorly graded, silty sand.		5	
	33.0				32.3'	
			34.0' with shell fragments.		34.0'	
					6	
			34.8' ASSUMED NOT RECOVERED		34.5'	
	35.0					NOTE: Terminated hole at vibraore refusal depth at 14.0'
	37.0					
-37.8	37.8		BOTTOM OF HOLE AT 37.8'			
			SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM			

Hole No. TI-03-V-365

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION WILMINGTON DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT: TOPSAIL INLET
2. LOCATION (Coordinates or Station): NC COORD. E 2411909 N 218452 NAD 83
3. DRILLING AGENCY: WILMINGTON DISTRICT
4. HOLE NO. (As shown on drawing title and file number): TI-03-V-365
5. NAME OF DRILLER: LESTER GAUGHF CRANE OPERATOR
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: N/A (35.5' of Water)
8. DEPTH DRILLED INTO ROCK: 0.0'
9. TOTAL DEPTH OF HOLE: 48.5'
10. SIZE AND TYPE OF BIT: 4" Dia. Vibracore
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRA CORE SNELL)
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 11/22/03 COMPLETED 11/22/03
17. ELEVATION TOP OF HOLE: 0.0' MLLW
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: LARRY BENJAMIN

ELEVATION MLLW	DEPTH feet	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	0		0.0' TO 35.5' WATER			Time begin vibracoring: 0946 hrs. Soils described by Larry Benjamin, Civil Engr. Tech.
	35.0					
-35.5	35.5		OCEAN BOTTOM @ 35.5'		35.5' 1 36.0'	Scale changed @49.0'. NOTE: TOP OF HOLE is defined as surface of water and compensation is made for the tide such that top of Hole is 0.0 EL MLLW.
			SM Gray, fine, silty sand, w/shell fragments.			
			34.0'			
	37.0		trace of shell fragments.		37.5' 2 38.0'	
	39.0				39.5' 3 40.0'	
	41.0				41.5' 4 42.0'	
	43.0				43.5' 5 44.0'	
	45.0				45.5' 6 46.0'	
			46.1' ASSUMED NOT RECOVERED			
	47.0					
-48.5	48.5		BOTTOM OF HOLE AT 48.5'			

VIBRACORE BORING
From 0.0' to 13.0'
Ran 13.0' Rec: 10.6'

Top of vibracore soil sample is logged as beginning at Ocean Bottom. When Run is greater than Recovery, the difference is depicted as Assumed Not Recovered.

LAB CLASSIFICATION

Jar Number	Classification
1	SP-SM
2	SM
3	SM
4	SM
5	SM
6	SM

NOTE: Terminated hole at vibraore refusal depth at 13.0'

SOILS ARE FIELD VISUALLY CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM