

## Boring Designation CB-DUC03-14R

DRILLING LOG		DIVISION South Atlantic		INSTALLATION Jacksonville District			SHEET 1 OF 3 SHEETS		
1. PROJECT Duval County, FL, BEC St. John's River Entrance, North Jetty				9. SIZE AND TYPE OF BIT 3" Vibracore					
2. BORING DESIGNATION CB-DUC03-14R		LOCATION COORDINATES X = 529,391 Y = 2,206,721		10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD83	VERTICAL MLLW		
3. DRILLING AGENCY Athena Technologies		CONTRACTOR FILE NO.		11. MANUFACTURER'S DESIGNATION OF DRILL Athena Technologies Vibracore System					
4. NAME OF DRILLER G. Bonn				12. TOTAL SAMPLES		DISTURBED 8	UNDISTURBED (UD) 0		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG. FROM VERTICAL		13. TOTAL NUMBER CORE BOXES		3			
6. THICKNESS OF OVERBURDEN		N/A		14. ELEVATION GROUND WATER		N/A			
7. DEPTH DRILLED INTO ROCK		N/A		15. DATE BORING		STARTED 08-09-03	COMPLETED 08-24-03		
8. TOTAL DEPTH OF BORING		32.4 Ft.		16. ELEVATION TOP OF BORING		-10.6 Ft.			
				17. TOTAL RECOVERY FOR BORING		50 %			
				18. SIGNATURE AND TITLE OF INSPECTOR Julie Minton, Geologist					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	ROD OR UD	REMARKS	BLOWS/ 1 FT.	N-VALUE
-10.6	0.0		SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt, strong reaction with HCl, moist, 5Y 7/1 light gray (SP)	100			-10.6		
			At El. -12.1 Ft., few medium to coarse-grained sand-sized shell	100	1		-11.1 Vibracore		
			At El. -12.6 Ft., little sand to gravel-sized shell up to 1/2"	100			-11.6 Vibracore		
				100			-13.1 Vibracore		
				100	2		-13.6 Vibracore		
			At El. -15.4 Ft., few medium to coarse-grained sand-sized shell	100			-16.6 Vibracore		
			At El. -16.1 Ft., little medium to coarse-grained sand-sized shell	100			-17.1 Vibracore		
			At El. -16.6 Ft., few medium to coarse-grained sand-sized shell	100	3		-18.6 Vibracore		
			At El. -18.1 Ft., trace shell	100			-19.1 Vibracore		
-19.0	8.4			100	4		-19.5 Vibracore		
-19.5	8.9		SHELL, mostly sand to gravel-sized shell up to 1-1/2", few fine-grained sand-sized quartz, trace silt, strong reaction with HCl, moist, 5Y 6/1 gray	100			-20.0 Vibracore		
-20.3	9.7		SAND, poorly-graded, mostly sand to gravel-sized shell up to 1/2", little fine-grained sand-sized quartz, trace silt, strong reaction with HCl, moist, 5Y 6/1 gray (SP)	100	5AJ		-21.6 Vibracore		
-20.5	9.9			100			-22.1 Vibracore		
-20.9	10.3		SAND, clayey, mostly fine-grained sand-sized quartz, little clay, trace shell, strong reaction with HCl, moist, 10Y 5/1 greenish gray (SC)	100	9AJ		-23.0 Vibracore		
-21.2	10.6		SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, few shell, strong reaction with HCl, moist, 10Y 7/1 light greenish gray (SP-SM)	100			-23.4 Vibracore		
			SAND, clayey, mostly fine-grained sand-sized quartz, little clay, trace shell, strong reaction with HCl, moist, 10Y 5/1 greenish gray (SC)	100	6AJ		-23.6 Vibracore		
			SAND, poorly-graded, mostly fine-grained sand-sized quartz, few shell, trace silt, strong reaction with HCl, moist, 10Y 7/1 light greenish gray (SP)	100	8BJ		-24.1 Vibracore		
			At El. -23.0 Ft., few medium to coarse-grained	15					

DRILLING LOG (Cont. Sheet)			INSTALLATION Jacksonville District			SHEET 2 OF 3 SHEETS			
PROJECT Duval County, FL, BEC			COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD83	VERTICAL MLW			
LOCATION COORDINATES X = 529,391 Y = 2,206,721			ELEVATION TOP OF BORING -10.6 Ft.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	ROD OR UD	REMARKS	BLOWS/ 1 FT.	N-VALUE
-26.9	16.3		sand-sized shell, 5Y 6/1 gray At El. -23.7 Ft., little sand to gravel-sized shell up to 1" At El. -24.1 Ft., few medium to coarse-grained sand-sized shell At El. -25.5 Ft., trace shell	15			Vibracore		
-43.0	32.4	NO RECOVERY							
			NOTES:  1. Soils are field visually classified in accordance with the Unified Soils Classification System.  2. Boring was completed through multiple attempts of the vibracore to reach the target depth. These						

DRILLING LOG (Cont. Sheet)			INSTALLATION Jacksonville District			SHEET 3 OF 3 SHEETS																											
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			<p>multiple attempts were combined to produce the final boring log. Physical samples of each separate attempt were prepared under the original boring designations of CB-DUC03-14, CB-DUC03-14AJ and CB-DUC03-14BJ.</p> <p>3. X,Y data from initial drilling attempt (14) is used for 14R.</p> <p>4. Lab samples have a letter following the sample number which refers to the initial assigned hole number. Example: sample number 1AJ reflects sample 1 from hole AJ.</p> <p>5. Laboratory Testing Results</p> <table border="1"> <thead> <tr> <th>SAMPLE ID</th> <th>SAMPLE DEPTH</th> <th>LABORATORY CLASSIFICATION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.5/1.0</td> <td>SP*</td> </tr> <tr> <td>2</td> <td>2.5/3.0</td> <td>SP*</td> </tr> <tr> <td>3</td> <td>6.0/6.5</td> <td>SP*</td> </tr> <tr> <td>4</td> <td>8.0/8.5</td> <td>SP*</td> </tr> <tr> <td>5AJ</td> <td>8.9/9.4</td> <td>SP*</td> </tr> <tr> <td>6AJ</td> <td>12.4/12.8</td> <td>SP*</td> </tr> <tr> <td>8BJ</td> <td>13.0/13.5</td> <td>SP*</td> </tr> </tbody> </table> <p>*Lab visual classification based on gradation curve. No Atterberg limits.</p> <p>6. Additional Laboratory Testing</p> <p>2 Specific Gravity</p>	SAMPLE ID	SAMPLE DEPTH	LABORATORY CLASSIFICATION	1	0.5/1.0	SP*	2	2.5/3.0	SP*	3	6.0/6.5	SP*	4	8.0/8.5	SP*	5AJ	8.9/9.4	SP*	6AJ	12.4/12.8	SP*	8BJ	13.0/13.5	SP*						
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