

## Boring Designation CB-DUC04-19

| DRILLING LOG  |       | DIVISION<br>South Atlantic                        |   | INSTALLATION<br>Jacksonville District   |               | SHEET 1<br>OF 2 SHEETS   |                    |             |         |
|---|-------|---|---|---|---------------|--|--------------------|-------------|---------|
| 1. PROJECT<br>Duval County FL BEC<br>Borrow Area A  |       |   |   | 9. SIZE AND TYPE OF BIT<br>See Remarks  |               |  |                    |             |         |
| 2. BORING DESIGNATION<br>CB-DUC04-19  |       | LOCATION COORDINATES<br>X = 418,182 Y = 2,185,405 |   | 10. COORDINATE SYSTEM/DATUM<br>State Plane, FLE (U.S. Ft.)                                      |               | HORIZONTAL<br>NAD27<br>VERTICAL<br>MLLW  |                    |             |         |
| 3. DRILLING AGENCY<br>Alpine Ocean Seismic Survey, Inc.   |       | CONTRACTOR FILE NO.                               |   | 11. MANUFACTURER'S DESIGNATION OF DRILL<br>Vibrocure  |               | <input type="checkbox"/> AUTO HAMMER<br><input type="checkbox"/> MANUAL HAMMER |                    |             |         |
| 4. NAME OF DRILLER<br>James F. Cole   |       |   |   | 12. TOTAL SAMPLES<br>4  |               | DISTURBED<br>0<br>UNDISTURBED (UD)   |                    |             |         |
| 5. DIRECTION OF BORING<br><input checked="" type="checkbox"/> VERTICAL<br><input type="checkbox"/> INCLINED |       | DEG. FROM VERTICAL                                |   | 13. TOTAL NUMBER CORE BOXES<br>1  |               | 14. ELEVATION GROUND WATER<br>Tidal  |                    |             |         |
| 6. THICKNESS OF OVERBURDEN<br>N/A   |       |   |   | 15. DATE BORING<br>04-16-04   |               | STARTED<br>04-16-04<br>COMPLETED<br>04-16-04                                   |                    |             |         |
| 7. DEPTH DRILLED INTO ROCK<br>N/A   |       |   |   | 16. ELEVATION TOP OF BORING<br>-54.2 Ft.  |               | 17. TOTAL RECOVERY FOR BORING<br>100 %   |                    |             |         |
| 8. TOTAL DEPTH OF BORING<br>19.0 Ft.  |       |   |   | 18. SIGNATURE AND TITLE OF INSPECTOR<br>William H. Brenner, Geologist <i>William H. Brenner</i> |               |  |                    |             |         |
| ELEV.   | DEPTH | LEGEND  | CLASSIFICATION OF MATERIALS   | % REC.  | BOX OR SAMPLE | RQD OR UD  | REMARKS            | BLOWS/1 FT. | N-VALUE |
| -54.2   | 0.0   |   | SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few fine-grained sand-sized carbonate, trace silt, trace angular coarse-grained sand-sized shell up to 1/2", weak reaction with HCl, wet, occasional layers of clay up to 1", 10Y 6/1 greenish gray (SP-SM) | 100   |               |  | -54.2<br>Vibrocure |             |         |
|   |       |   |   | 100   | 1             |  | -57.2<br>Vibrocure |             |         |
|   |       |   |   | 100   |               |  | -58.2<br>Vibrocure |             |         |
|   |       |   |   | 100   |               |  | -62.2<br>Vibrocure |             |         |
|   |       |   |   | 100   | 2             |  | -63.2<br>Vibrocure |             |         |
|   |       |   |   | 100   |               |  | -66.2<br>Vibrocure |             |         |
|   |       |   |   | 100   | 3             |  | -67.2<br>Vibrocure |             |         |
|   |       |   |   | 100   |               |  | Vibrocure          |             |         |

| DRILLING LOG (Cont. Sheet)   |              |                           | INSTALLATION<br>Jacksonville District  |              |                           | SHEET 2<br>OF 2 SHEETS |           |                 |         |         |     |   |           |     |   |           |        |  |  |  |  |  |  |
|--|--------------|---------------------------|--|--------------|---------------------------|------------------------|-----------|-----------------|---------|---------|-----|---|-----------|-----|---|-----------|--------|--|--|--|--|--|--|
| PROJECT<br>Duval County FL BEC   |              |                           | COORDINATE SYSTEM/DATUM<br>State Plane, FLE (U.S. Ft.)   |              | HORIZONTAL<br>NAD27       | VERTICAL<br>MLLW       |           |                 |         |         |     |   |           |     |   |           |        |  |  |  |  |  |  |
| LOCATION COORDINATES<br>X = 418,182 Y = 2,185,405  |              |                           | ELEVATION TOP OF BORING<br>-54.2 Ft.   |              |                           |                        |           |                 |         |         |     |   |           |     |   |           |        |  |  |  |  |  |  |
| ELEV.  | DEPTH        | LEGEND                    | CLASSIFICATION OF MATERIALS  | %<br>REC.    | BOX OR<br>SAMPLE          | RQD<br>OR<br>UD        | REMARKS   | BLOWS/<br>1 FT. | N-VALUE |         |     |   |           |     |   |           |        |  |  |  |  |  |  |
| -70.7  | 16.5         |                           |  | 100          |                           |                        | Vibracore |                 |         |         |     |   |           |     |   |           |        |  |  |  |  |  |  |
|  |              |                           | SAND, poorly-graded with silt, mostly fine-grained sand-sized carbonate, little fine-grained sand-sized quartz, trace silt, trace angular coarse-grained sand-sized shell up to 1/2", weak reaction with HCl, wet, 10Y 5/1 greenish gray (SP-SM) | 100          | 4                         |                        | Vibracore |                 |         |         |     |   |           |     |   |           |        |  |  |  |  |  |  |
| -73.2  | 19.0         |                           | At El. -72.2 Ft., moderate cementation   | 100          |                           |                        | Vibracore |                 |         |         |     |   |           |     |   |           |        |  |  |  |  |  |  |
| NOTES:<br><br>1. Soils are field visually classified in accordance with the Unified Soils Classification System.<br><br>2. Laboratory Testing Results<br><br><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>3.0/4.0</td> <td>SP-SM*</td> </tr> <tr> <td>2</td> <td>8.0/9.0</td> <td>SP*</td> </tr> <tr> <td>3</td> <td>12.0/13.0</td> <td>SP*</td> </tr> <tr> <td>4</td> <td>16.5/17.5</td> <td>SP-SM*</td> </tr> </tbody> </table><br>*Lab visual classification based on gradation curve. No Atterberg limits.<br><br>3. Additional Laboratory Testing<br><br>2 Specific Gravity |              |                           | SAMPLE ID  | SAMPLE DEPTH | LABORATORY CLASSIFICATION | 1                      | 3.0/4.0   | SP-SM*          | 2       | 8.0/9.0 | SP* | 3 | 12.0/13.0 | SP* | 4 | 16.5/17.5 | SP-SM* |  |  |  |  |  |  |
| SAMPLE ID  | SAMPLE DEPTH | LABORATORY CLASSIFICATION |  |              |                           |                        |           |                 |         |         |     |   |           |     |   |           |        |  |  |  |  |  |  |
| 1  | 3.0/4.0      | SP-SM*                    |  |              |                           |                        |           |                 |         |         |     |   |           |     |   |           |        |  |  |  |  |  |  |
| 2  | 8.0/9.0      | SP*                       |  |              |                           |                        |           |                 |         |         |     |   |           |     |   |           |        |  |  |  |  |  |  |
| 3  | 12.0/13.0    | SP*                       |  |              |                           |                        |           |                 |         |         |     |   |           |     |   |           |        |  |  |  |  |  |  |
| 4  | 16.5/17.5    | SP-SM*                    |  |              |                           |                        |           |                 |         |         |     |   |           |     |   |           |        |  |  |  |  |  |  |