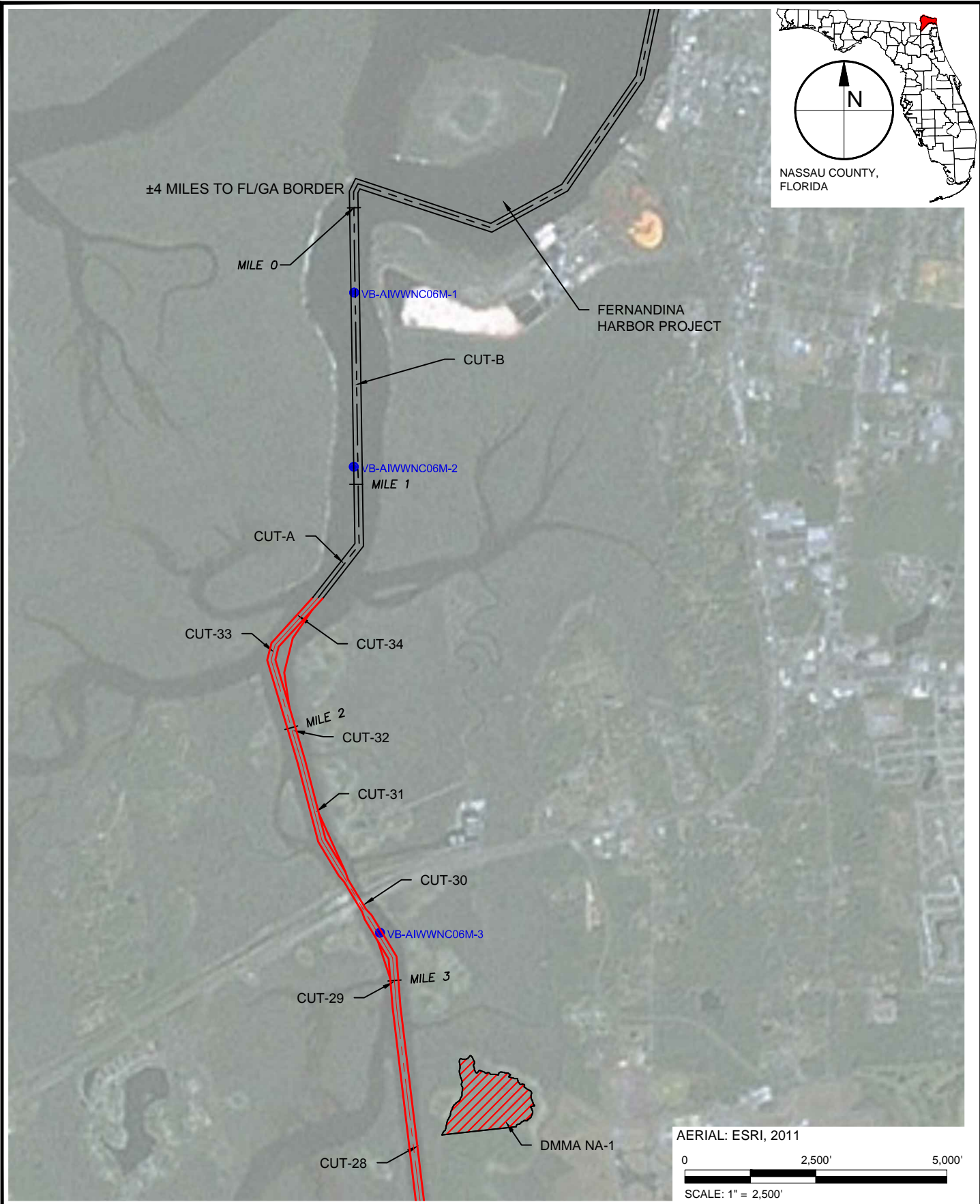
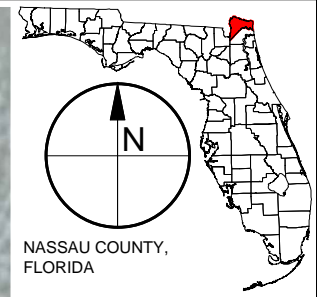


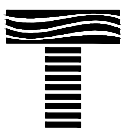


**ATLANTIC INTRACOASTAL
WATERWAY
MAINTENANCE DREDGING
NASSAU COUNTY REACH I, FLORIDA**

APPENDIX E
Geotechnical Information



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TAYLOR ENGINEERING INC.

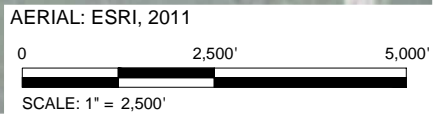
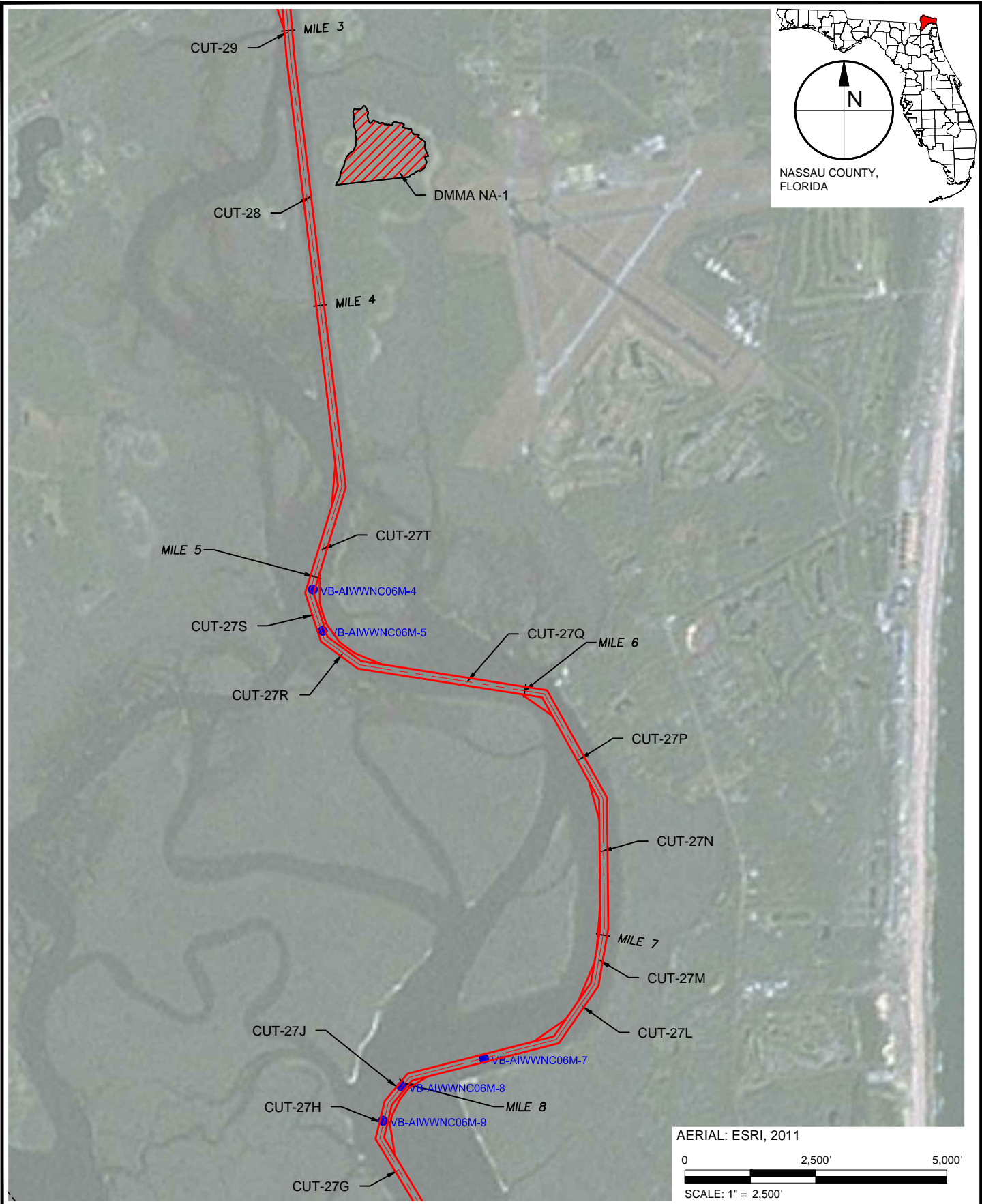

10151 DEERWOOD PARK BLVD.
BLDG. 300, SUITE 300
JACKSONVILLE, FL 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 1

ATLANTIC INTRACOASTAL WATERWAY
NASSAU COUNTY, FLORIDA

| | |
|----------|-----------|
| PROJECT | |
| DRAWN BY | CAS |
| SHEET | 1 OF 3 |
| DATE | SEPT 2015 |

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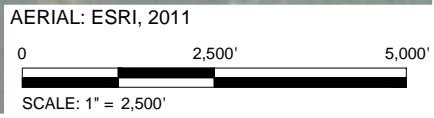
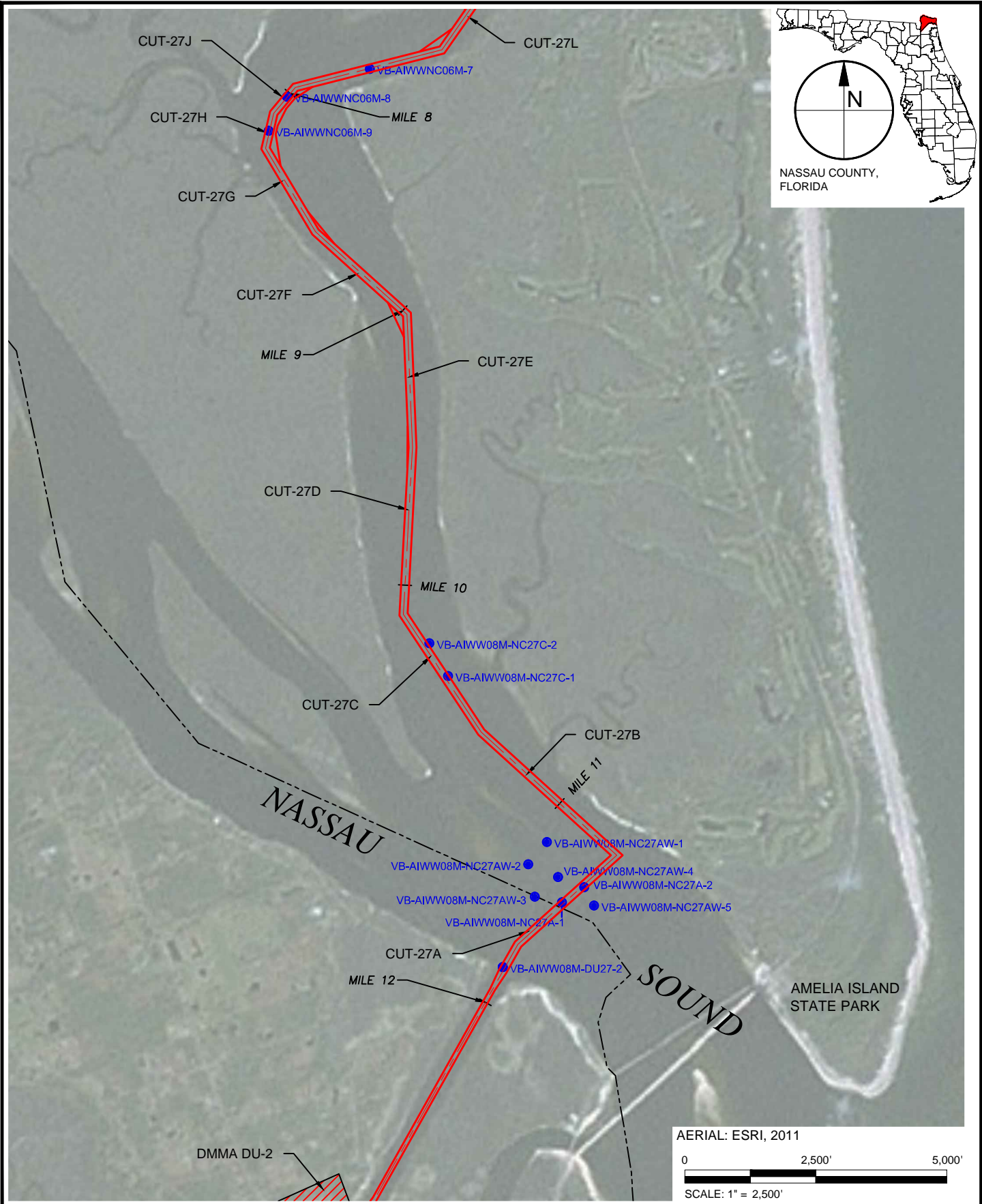



TAYLOR ENGINEERING INC.
 10151 DEERWOOD PARK BLVD.
 BLDG. 300, SUITE 300
 JACKSONVILLE, FL 32256
 CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 2
 ATLANTIC INTRACOASTAL WATERWAY
 NASSAU COUNTY, FLORIDA

| | |
|----------|-----------|
| PROJECT | |
| DRAWN BY | CAS |
| SHEET | 2 OF 3 |
| DATE | SEPT 2015 |

C:\HY-SHELL_X\IS\PROJECTS\2015-048-FIND NASSAU REACH\1\FIGURES\2015-048-F-GEOTECH EXTENTS.DWG 9/20/2015 5:10:08 PM



TAYLOR ENGINEERING INC.
 10151 DEERWOOD PARK BLVD.
 BLDG. 300, SUITE 300
 JACKSONVILLE, FL 32256
 CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 3
 ATLANTIC INTRACOASTAL WATERWAY
 NASSAU COUNTY, FLORIDA

| | |
|----------|-----------|
| PROJECT | |
| DRAWN BY | CAS |
| SHEET | 3 OF 3 |
| DATE | SEPT 2015 |

| | | | | |
|--|--|--|--|--------------------------------------|
| DRILLING LOG | | DIVISION South Atlantic | INSTALLATION Jacksonville District | SHEET 1 OF 2 SHEETS |
| 1. PROJECT AIWW Nassau - Fernandina Harbor Vibracores 2016 | | 9. SIZE AND TYPE OF BIT See Remarks | | |
| 2. BORING DESIGNATION VB-AIWW16-01 | | 10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) | | |
| 3. DRILLING AGENCY Corps of Engineers - CESAW | | 11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER | | |
| 4. NAME OF DRILLER | | 12. TOTAL SAMPLES DISTURBED: 4 UNDISTURBED (UD): 0 | | |
| 5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED | | 13. TOTAL NUMBER CORE BOXES 1 | | |
| 6. THICKNESS OF OVERBURDEN N/A | | 14. ELEVATION GROUND WATER | | |
| 7. DEPTH DRILLED INTO ROCK N/A | | 15. DATE BORING STARTED: 05-17-16 COMPLETED: 05-17-16 | | |
| 8. TOTAL DEPTH OF BORING 19.9 Ft. | | 16. ELEVATION TOP OF BORING -10.2 Ft. | | |
| | | 17. TOTAL RECOVERY FOR BORING 82.8 % | | |
| | | 18. SIGNATURE AND TITLE OF INSPECTOR | | |

| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE | | |
|-------|-------|--------------------------|--|--------|---------------|-----------|---------|-------------|---------|--|--|
| -10.2 | 0.0 | [Dotted pattern] | SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, weak reaction with HCl, 5Y 4/1 dark gray (SP) | | | | | | | | |
| | | | | | 1 | | | -11.2 | | | |
| | | | | | 2 | | | -13.2 | | | |
| | | | | | 3 | | | -15.2 | | | |
| -16.2 | 6.0 | [Dotted pattern] | SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, weak reaction with HCl, 5Y 3/1 very dark gray (SP) | | | | | | | | |
| | | | | | 4 | | | -17.2 | | | |
| -17.7 | 7.5 | [Vertical lines pattern] | SAND, silty, mostly fine-grained sand-sized quartz, little silt, weak reaction with HCl, 5Y 3/1 very dark gray (SM) From El. -18.2 to -25.0 Ft., mostly fine-grained sand-sized quartz, little silt, weak reaction with HCl, 5Y 4/1 dark gray | | | 1 | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| -25.0 | 14.8 | | | | | | | | | | |

| DRILLING LOG (Cont. Sheet) | | | INSTALLATION Jacksonville District | | | SHEET 2 OF 2 SHEETS | | | | | | | | | | | | | | | | | | |
|--|--------------|---------------------------|---|-----------|---------------------|---------------------------|---------|-----------------|---------|---|---------|-----|---|---------|-----|---|---------|-----|--|--|--|----------------|--|--|
| PROJECT AIWW Nassau - Fernandina Harbor Vibracores 2016 | | | COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) | | HORIZONTAL NAD83 | VERTICAL MLLW | | | | | | | | | | | | | | | | | | |
| LOCATION COORDINATES X = 504,389 Y = 2,301,977 | | | ELEVATION TOP OF BORING -10.2 Ft. | | | | | | | | | | | | | | | | | | | | | |
| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/ 1 FT. | N-VALUE | | | | | | | | | | | | | | | |
| -26.7 | 16.5 | | SILT, inorganic-L, little fine-grained sand-sized quartz, weak reaction with HCl, 5Y 4/1 dark gray (ML) | | | 1 | | | | | | | | | | | | | | | | | | |
| -30.1 | 19.9 | | No recovery | | | | | | | | | | | | | | | | | | | | | |
| | | | <p>NOTES:</p> <p>1. USACE Jacksonville is the custodian for these original files.</p> <p>2. Soils are field visually classified in accordance with the Unified Soils Classification System.</p> <p>3. 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>1.0/1.2</td> <td>SP*</td> </tr> <tr> <td>2</td> <td>3.0/3.2</td> <td>SP*</td> </tr> <tr> <td>3</td> <td>5.0/5.2</td> <td>SP*</td> </tr> <tr> <td>4</td> <td>7.0/7.2</td> <td>SP*</td> </tr> </tbody> </table> <p>*Lab visual classification based on gradation curve</p> <p>4. Additional Laboratory Testing</p> <p>1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell</p> | SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | 1 | 1.0/1.2 | SP* | 2 | 3.0/3.2 | SP* | 3 | 5.0/5.2 | SP* | 4 | 7.0/7.2 | SP* | | | | Abbreviations: | | |
| SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1.0/1.2 | SP* | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 3.0/3.2 | SP* | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 5.0/5.2 | SP* | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 7.0/7.2 | SP* | | | | | | | | | | | | | | | | | | | | | | |

| | | | | |
|--|--|---|--|--|
| DRILLING LOG | | DIVISION South Atlantic | INSTALLATION Jacksonville District | SHEET 1 OF 2 SHEETS |
| 1. PROJECT AIWW Nassau - Fernandina Harbor Vibracores 2016 | | | 9. SIZE AND TYPE OF BIT See Remarks | |
| 2. BORING DESIGNATION VB-AIWW16-02 | | 10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) | | HORIZONTAL NAD83 |
| 3. DRILLING AGENCY Corps of Engineers - CESAW | | 11. MANUFACTURER'S DESIGNATION OF DRILL | | <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER |
| 4. NAME OF DRILLER | | 12. TOTAL SAMPLES | | DISTURBED 4 |
| 5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED | | 13. TOTAL NUMBER CORE BOXES | | 2 |
| 6. THICKNESS OF OVERBURDEN N/A | | 14. ELEVATION GROUND WATER | | |
| 7. DEPTH DRILLED INTO ROCK N/A | | 15. DATE BORING | | STARTED 05-17-16 |
| 8. TOTAL DEPTH OF BORING 19.9 Ft. | | 16. ELEVATION TOP OF BORING | | -7.9 Ft. |
| | | 17. TOTAL RECOVERY FOR BORING | | 72.8 % |
| | | 18. SIGNATURE AND TITLE OF INSPECTOR | | |

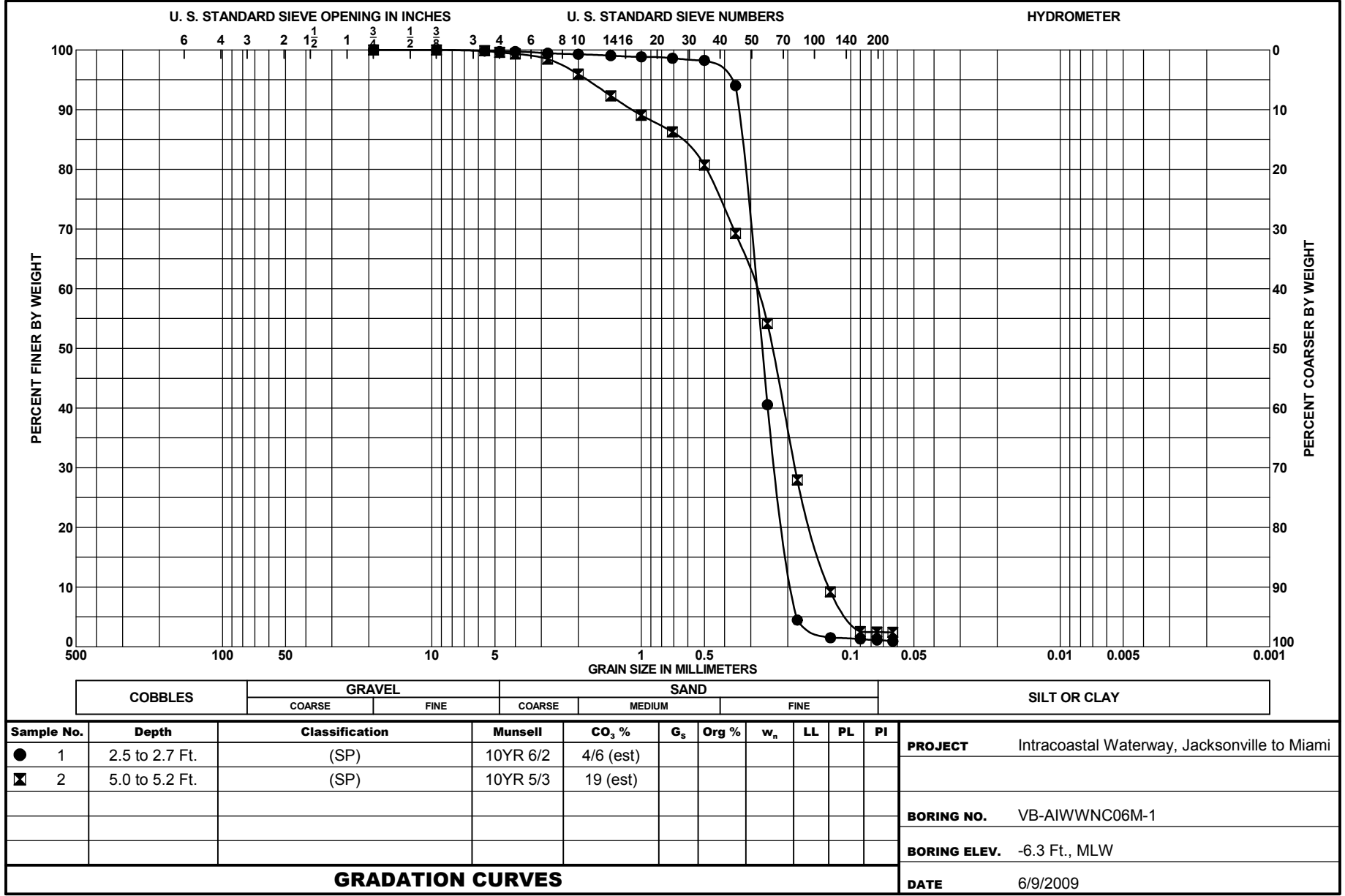
| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE |
|-------|-------|--------|---|--------|---------------|-----------|---------|-------------|---------|
| -7.9 | 0.0 | | SAND, silty, mostly fine-grained sand-sized quartz, some silt, weak reaction with HCl, intermitten silty sand seams, 10Y 3/1 very dark greenish gray (SM) | | 1 | | -8.9 | | |
| | | | | | 2 | | -10.4 | | |
| -12.9 | 5.0 | | SAND, silty, mostly fine-grained sand-sized quartz, little silt, weak reaction with HCl, intermitten sandy silt seams, 10Y 3/1 very dark greenish gray (SM) | | 3 | 1 | -12.9 | | |
| | | | | | 4 | | -13.9 | | |
| -15.6 | 7.7 | | SILT, inorganic-L, little fine-grained sand-sized quartz, weak reaction with HCl, intermitten silty sand seams, 2.5Y 3/1 very dark gray (ML) | | | | | | |
| -15.8 | 7.9 | | SAND, silty, mostly fine-grained sand-sized quartz, weak reaction with HCl, 2.5Y 3/1 very dark gray (SM) | | | | | | |
| -17.9 | 10.0 | | SILT, inorganic-L, few fine-grained sand-sized quartz, weak reaction with HCl, 2.5Y 3/1 very dark gray (ML) | | | | | | |
| | | | | | | 2 | | | |
| -22.4 | 14.5 | | | | | | | | |

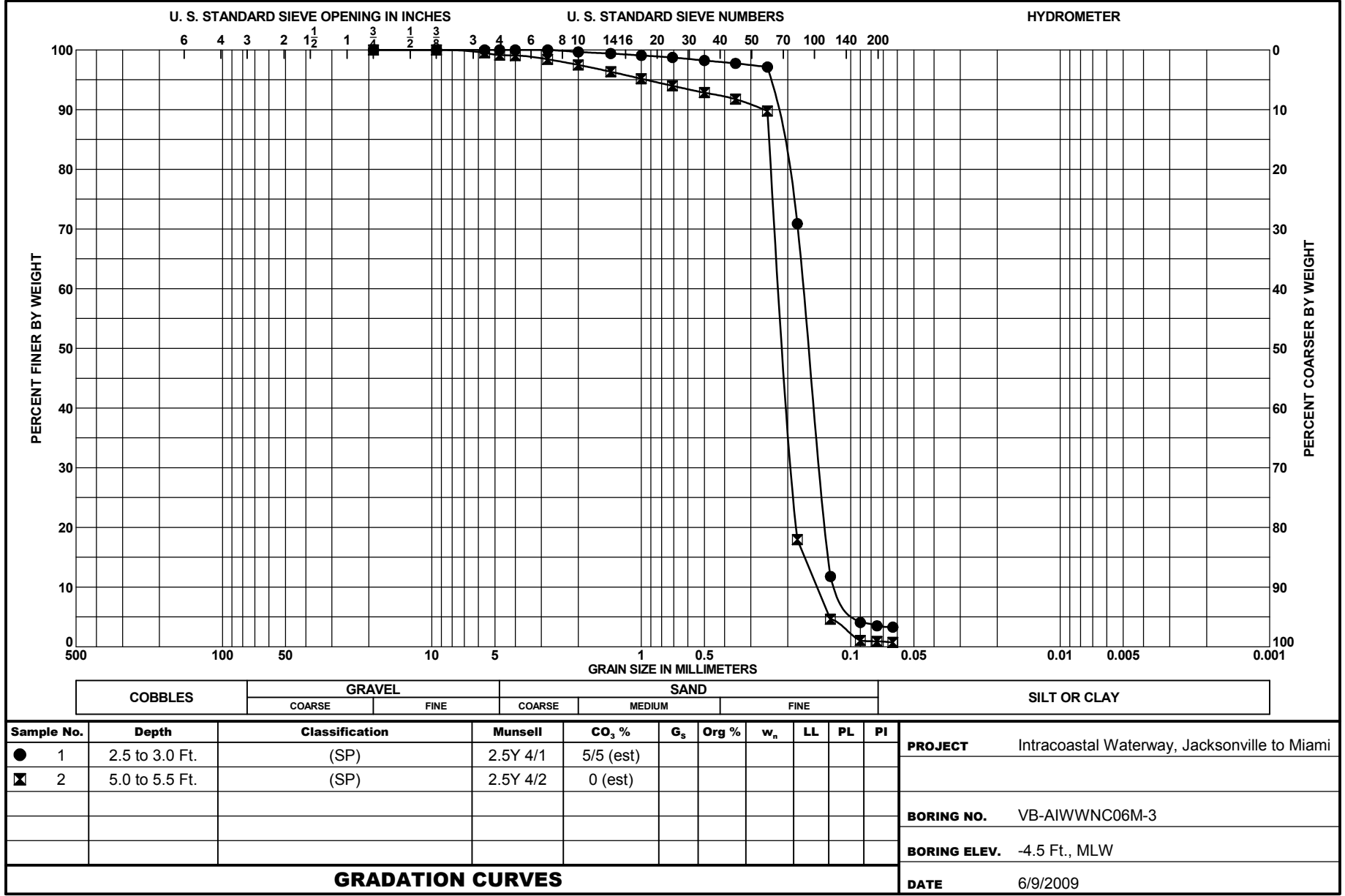
| DRILLING LOG (Cont. Sheet) | | | INSTALLATION Jacksonville District | | | SHEET 2 OF 2 SHEETS | | | | | | | | | | | | | | | | | | |
|--|--------------|---------------------------|--|-----------|---------------------|---------------------------|---------|-------------|---------|---|---------|-----|---|---------|-----|---|---------|-----|--|--|--|----------------|--|--|
| PROJECT AIWW Nassau - Fernandina Harbor Vibracores 2016 | | | COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) | | HORIZONTAL NAD83 | VERTICAL MLLW | | | | | | | | | | | | | | | | | | |
| LOCATION COORDINATES X = 506,359 Y = 2,301,735 | | | ELEVATION TOP OF BORING -7.9 Ft. | | | | | | | | | | | | | | | | | | | | | |
| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE | | | | | | | | | | | | | | | |
| -27.8 | 19.9 | | | | | | -27.8 | | | | | | | | | | | | | | | | | |
| | | | <p>NOTES:</p> <ol style="list-style-type: none"> USACE Jacksonville is the custodian for these original files. Soils are field visually classified in accordance with the Unified Soils Classification System. Wood Chips in Shoe Laboratory Testing Results <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>1.0/1.2</td> <td>SM*</td> </tr> <tr> <td>2</td> <td>2.5/2.7</td> <td>SM*</td> </tr> <tr> <td>3</td> <td>5.0/5.2</td> <td>SM*</td> </tr> <tr> <td>4</td> <td>6.0/6.2</td> <td>SM*</td> </tr> </tbody> </table> <p>*Lab visual classification based on gradation curve</p> <ol style="list-style-type: none"> Additional Laboratory Testing <ol style="list-style-type: none"> Percent Visual Shell Percent Visual Shell Percent Visual Shell Percent Visual Shell | SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | 1 | 1.0/1.2 | SM* | 2 | 2.5/2.7 | SM* | 3 | 5.0/5.2 | SM* | 4 | 6.0/6.2 | SM* | | | | Abbreviations: | | |
| SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1.0/1.2 | SM* | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2.5/2.7 | SM* | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 5.0/5.2 | SM* | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 6.0/6.2 | SM* | | | | | | | | | | | | | | | | | | | | | | |

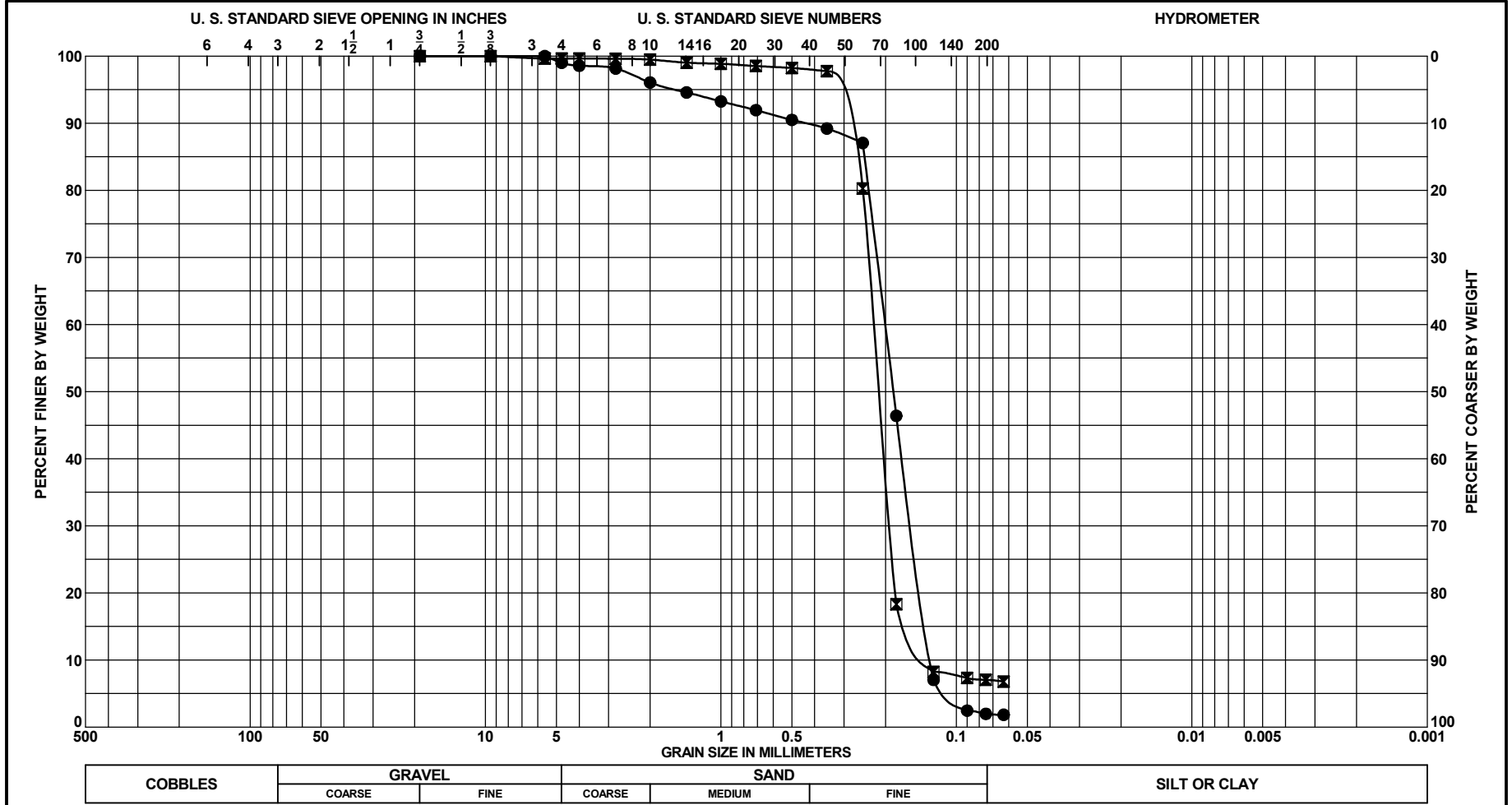
| | | | | |
|--|--|--|--|--------------------------------------|
| DRILLING LOG | | DIVISION South Atlantic | INSTALLATION Jacksonville District | SHEET 1 OF 2 SHEETS |
| 1. PROJECT AIWW Nassau - Fernandina Harbor Vibracores 2016 | | 9. SIZE AND TYPE OF BIT See Remarks | | |
| 2. BORING DESIGNATION VB-AIWW16-03 | | 10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) | | |
| 3. DRILLING AGENCY Corps of Engineers - CESAW | | 11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER | | |
| 4. NAME OF DRILLER | | 12. TOTAL SAMPLES DISTURBED: 2 UNDISTURBED (UD): 0 | | |
| 5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED | | 13. TOTAL NUMBER CORE BOXES 1 | | |
| 6. THICKNESS OF OVERBURDEN N/A | | 14. ELEVATION GROUND WATER | | |
| 7. DEPTH DRILLED INTO ROCK N/A | | 15. DATE BORING STARTED: 05-17-16 COMPLETED: 05-17-16 | | |
| 8. TOTAL DEPTH OF BORING 18.8 Ft. | | 16. ELEVATION TOP OF BORING -11.1 Ft. | | |
| | | 17. TOTAL RECOVERY FOR BORING 100 % | | |
| | | 18. SIGNATURE AND TITLE OF INSPECTOR | | |

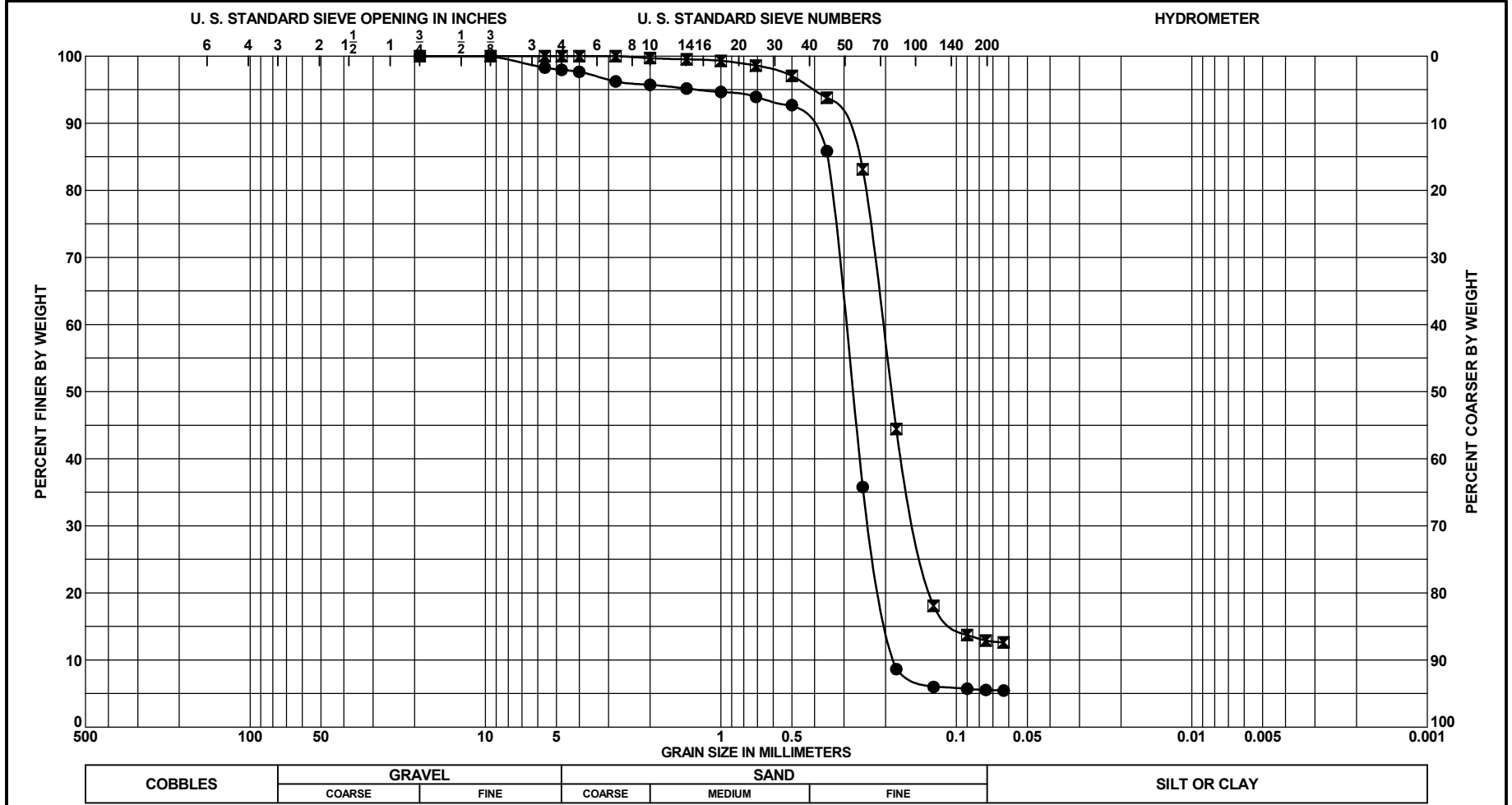
| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE |
|-------|-------|--------|---|--------|---------------|-----------|---------|-------------|---------|
| -11.1 | 0.0 | | SILT, organic-H, few fine-grained sand-sized quartz, few organic matter, trace shell, weak reaction with HCl, 5Y 2.5/1 black (OH) | | | | -11.6 | | 0 |
| | | | | 1 | | | | | |
| -13.1 | 2.0 | | SILT, inorganic-H, trace organic matter, trace quartz, weak reaction with HCl, 5Y 2.5/1 black (MH) | | | | -13.1 | | 5 |
| | | | | 2 | | | | | |
| -19.1 | 8.0 | | SAND, silty, mostly fine-grained sand-sized quartz, little fine to coarse-grained sand-sized shell, little silt, strong reaction with HCl, 5Y 2.5/1 black (SM) From El. -19.6 to -22.6 Ft., mostly fine-grained sand-sized quartz, little silt, trace organic matter, weak reaction with HCl, 5Y 2.5/1 black | | | 1 | | | 10 |
| | | | | | | | | | |
| -22.6 | 11.5 | | SILT, inorganic-L, little fine-grained sand-sized quartz, no reaction with HCl, 5Y 2.5/1 black (ML) | | | | | | 15 |
| | | | | | | | | | |
| -23.4 | 12.3 | | SAND, silty, mostly fine-grained sand-sized quartz, little silt, no reaction with HCl, 5Y 2.5/1 black (SM) | | | | | | |
| | | | | | | | | | |

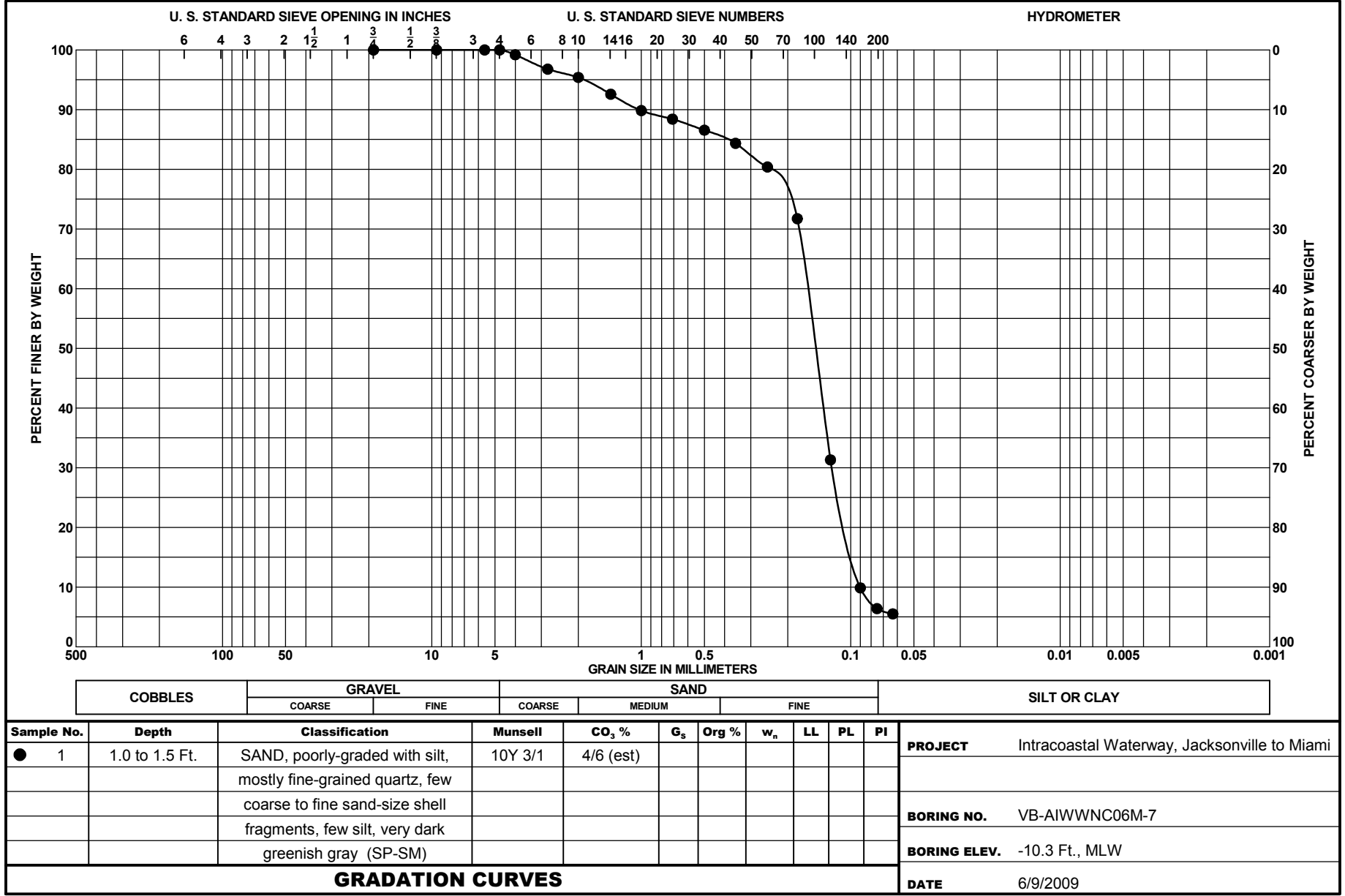
| DRILLING LOG (Cont. Sheet) | | | INSTALLATION Jacksonville District | | | SHEET 2 OF 2 SHEETS | | | | | | | | | | | | | | | |
|--|----------------------|---------------------------|---|-----------|---------------------|---------------------------|---------|-------------|---------|---|---------|-----|---|----------------------|---|----------------------|--|--|--|----------------|--|
| PROJECT AIWW Nassau - Fernandina Harbor Vibracores 2016 | | | COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) | | HORIZONTAL NAD83 | VERTICAL MLLW | | | | | | | | | | | | | | | |
| LOCATION COORDINATES X = 507,972 Y = 2,274,738 | | | ELEVATION TOP OF BORING -11.1 Ft. | | | | | | | | | | | | | | | | | | |
| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE | | | | | | | | | | | | |
| -29.9 | 18.8 | | From El. -28.1 to -31.1 Ft., mostly fine-grained sand-sized quartz, little fine gravel-sized shell, little fine-grained sand-sized shell, little silt, strong reaction with HCl, N 6/11 gray | | | 1 | | | | | | | | | | | | | | | |
| -31.1 | 20.0 | | <p>NOTES:</p> <ol style="list-style-type: none"> USACE Jacksonville is the custodian for these original files. Soils are field visually classified in accordance with the Unified Soils Classification System. Laboratory Testing Results <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>0.5/0.7</td> <td>OH*</td> </tr> <tr> <td>2</td> <td>2.0/2.2</td> <td>MH*</td> </tr> </tbody> </table> <p>*Lab visual classification based on gradation curve</p> <ol style="list-style-type: none"> Additional Laboratory Testing <table border="1"> <tbody> <tr> <td>1</td> <td>Percent Visual Shell</td> </tr> <tr> <td>2</td> <td>Percent Visual Shell</td> </tr> </tbody> </table> | SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | 1 | 0.5/0.7 | OH* | 2 | 2.0/2.2 | MH* | 1 | Percent Visual Shell | 2 | Percent Visual Shell | | | | Abbreviations: | |
| SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | | | | | | | | | | | | | | | | | | | |
| 1 | 0.5/0.7 | OH* | | | | | | | | | | | | | | | | | | | |
| 2 | 2.0/2.2 | MH* | | | | | | | | | | | | | | | | | | | |
| 1 | Percent Visual Shell | | | | | | | | | | | | | | | | | | | | |
| 2 | Percent Visual Shell | | | | | | | | | | | | | | | | | | | | |

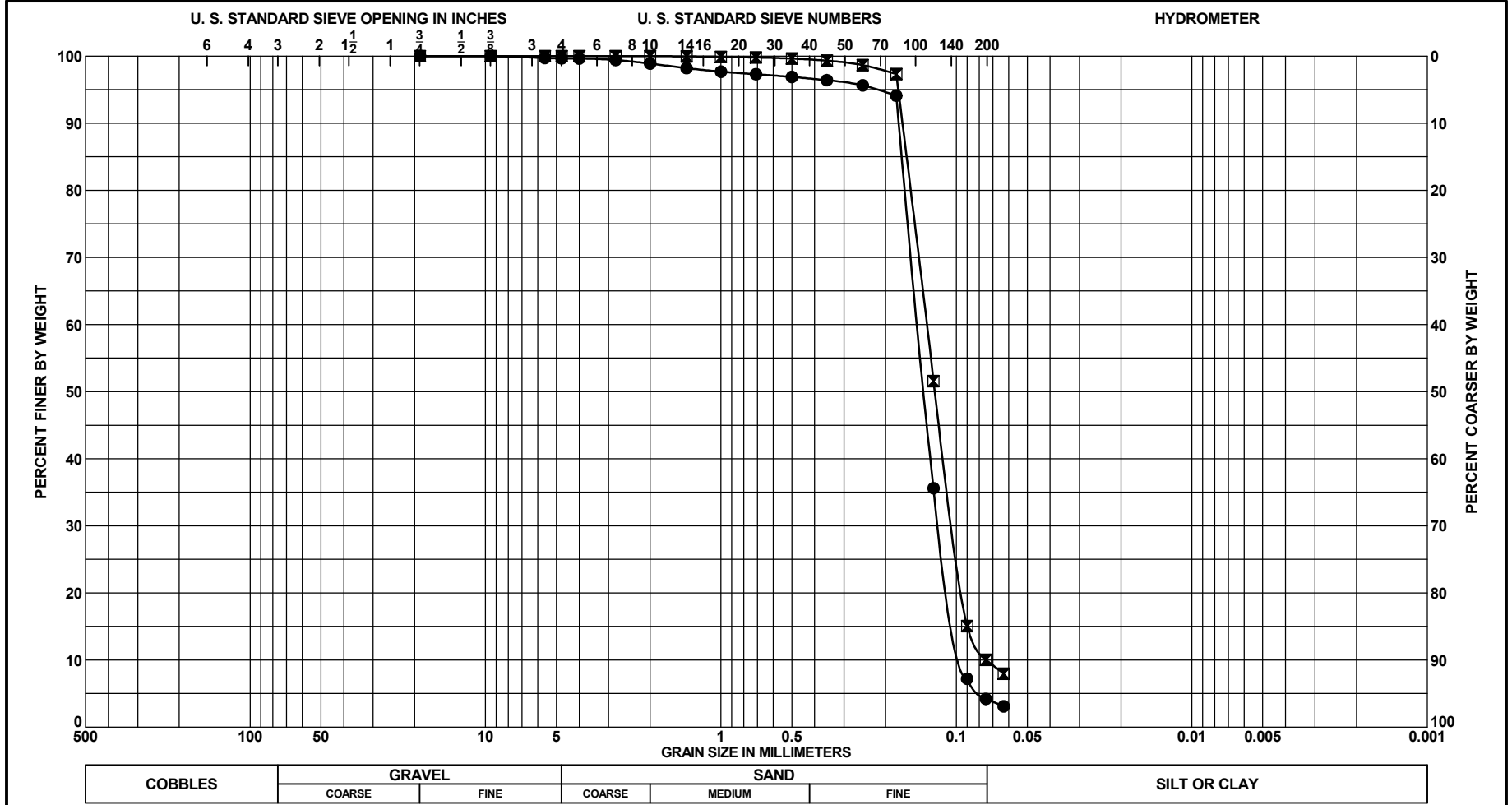












| | | | | | | |
|---------|--------|------|--------|--------|------|--------------|
| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

| Sample No. | Depth | Classification | Munsell | CO ₃ % | G _s | Org % | w _n | LL | PL | PI | PROJECT |
|-------------------------|----------------|----------------|---------|-------------------|----------------|-------|----------------|----|----|----|--|
| ● 1 | 1.0 to 1.5 Ft. | (SP) | 5Y 4/3 | 4/6 (est) | | | | | | | Intracoastal Waterway, Jacksonville to Miami |
| ⊠ 2 | 3.0 to 3.5 Ft. | (SP-SM) | 5Y 3/1 | 0 (est) | | | | | | | BORING NO. VB-AIWWNC06M-8 |
| | | | | | | | | | | | BORING ELEV. -7.7 Ft., MLW |
| GRADATION CURVES | | | | | | | | | | | DATE 6/9/2009 |

| | | | | | |
|--|--|--|--|---|--|
| DRILLING LOG | | DIVISION South Atlantic | INSTALLATION Jacksonville District | | SHEET 1 OF 1 SHEETS |
| 1. PROJECT Intracoastal Waterway, Jacksonville to Miami | | | 9. SIZE AND TYPE OF BIT See Remarks | | |
| 2. BORING DESIGNATION VB-AIWWNC06M-1 | | LOCATION COORDINATES X = 347,646 Y = 2,300,084 | | 10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) | HORIZONTAL NAD27 |
| 3. DRILLING AGENCY Corps of Engineers - CESAW | | CONTRACTOR FILE NO. | | 11. MANUFACTURER'S DESIGNATION OF DRILL Alpine 270 Vibracore on D/B Snell | <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER |
| 4. NAME OF DRILLER L. Gaughf | | | 12. TOTAL SAMPLES | | DISTURBED 2 |
| 5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED | | | DEG. FROM VERTICAL | BEARING | UNDISTURBED (UD) 0 |
| 6. THICKNESS OF OVERBURDEN N/A | | | 13. TOTAL NUMBER CORE BOXES 1 | | |
| 7. DEPTH DRILLED INTO ROCK N/A | | | 14. ELEVATION GROUND WATER N/A | | |
| 8. TOTAL DEPTH OF BORING 6.8 Ft. | | | 15. DATE BORING | | STARTED 06-10-06 |
| | | | 16. ELEVATION TOP OF BORING -6.3 Ft. | | COMPLETED 06-10-06 |
| | | | 17. TOTAL RECOVERY FOR BORING 100 % | | |
| | | | 18. SIGNATURE AND TITLE OF INSPECTOR | | |

| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE | | | | | | | | | |
|--|--------------|---------------------------|--|--------|---------------|-----------|-----------------------|-------------|---------|-----------|--------------|---------------------------|---|---------|-----|---|---------|-----|
| -6.3 | 0.0 | | SAND, poorly-graded, mostly fine-grained sand-sized quartz, dry, 10YR 6/2 light brownish gray (SP) | 100 | | | -6.3 Vibracore | | 0 | | | | | | | | | |
| | | | | 100 | 1 | | -8.8 -9.0 | | | | | | | | | | | |
| | | | | 100 | | | | | | | | | | | | | | |
| | | | From El. -10.9 to -11.5 Ft., moist, 10YR 5/3 brown | 100 | 2 | | -11.3 -11.5 | | 5 | | | | | | | | | |
| -11.8 | 5.5 | | SILT, inorganic-H, medium plasticity, firm, mostly silt, some fine-grained sand-sized quartz, moist, 5GY 4/1 dark greenish gray (MH) | 100 | | | | | | | | | | | | | | |
| -12.1 | 5.8 | | CLAY, fat, medium plasticity, firm, mostly clay, little fine-grained sand-sized quartz, moist, 5BG 5/1 greenish gray (CH) | | | | -13.1 | | | | | | | | | | | |
| -13.1 | 6.8 | | | | | | | | | | | | | | | | | |
| <p>NOTES:</p> <ol style="list-style-type: none"> Soils are field visually classified in accordance with the Unified Soils Classification System. Elevation based on predicted tide Laboratory Testing Results <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>2.5/2.7</td> <td>SP*</td> </tr> <tr> <td>2</td> <td>5.0/5.2</td> <td>SP*</td> </tr> </tbody> </table> <p>*Lab visual classification based on gradation curve. No Atterberg limits.</p> | | | | | | | | | | SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | 1 | 2.5/2.7 | SP* | 2 | 5.0/5.2 | SP* |
| SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | | | | | | | | | | | | | | | | |
| 1 | 2.5/2.7 | SP* | | | | | | | | | | | | | | | | |
| 2 | 5.0/5.2 | SP* | | | | | | | | | | | | | | | | |

| | | | | | |
|--|--|--|--|---|--|
| DRILLING LOG | | DIVISION South Atlantic | INSTALLATION Jacksonville District | | SHEET 1 OF 1 SHEETS |
| 1. PROJECT Intracoastal Waterway, Jacksonville to Miami | | | 9. SIZE AND TYPE OF BIT See Remarks | | |
| 2. BORING DESIGNATION VB-AIWWNC06M-2 | | LOCATION COORDINATES X = 347,644 Y = 2,296,757 | | 10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) | HORIZONTAL NAD27 |
| 3. DRILLING AGENCY Corps of Engineers - CESAW | | CONTRACTOR FILE NO. | | 11. MANUFACTURER'S DESIGNATION OF DRILL Alpine 270 Vibracore on D/B Snell | <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER |
| 4. NAME OF DRILLER L. Gaughf | | | 12. TOTAL SAMPLES | | DISTURBED 1 |
| 5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED | | | DEG. FROM VERTICAL | BEARING | UNDISTURBED (UD) 0 |
| 6. THICKNESS OF OVERBURDEN N/A | | | 13. TOTAL NUMBER CORE BOXES 1 | | |
| 7. DEPTH DRILLED INTO ROCK N/A | | | 14. ELEVATION GROUND WATER N/A | | |
| 8. TOTAL DEPTH OF BORING 7.7 Ft. | | | 15. DATE BORING | | STARTED 06-10-06 |
| | | | 16. ELEVATION TOP OF BORING -5.1 Ft. | | COMPLETED 06-10-06 |
| | | | 17. TOTAL RECOVERY FOR BORING 100 % | | |
| | | | 18. SIGNATURE AND TITLE OF INSPECTOR | | |

| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE | | | | | | |
|-----------|--------------|---------------------------|---|-----------|---------------|---------------------------|---------|-------------|---------|--|--|--|--|--|----|
| -5.1 | 0.0 | | SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, trace shell, moist, 10YR 6/2 light brownish gray (SP) | 100 | | | -5.1 | | 0 | | | | | | |
| | | | From El. -10.1 to -11.9 Ft., discontinue shell, 10YR 5/1 gray | 100 | 1 | | -9.1 | | 5 | | | | | | |
| -12.8 | 7.7 | | | | | | -12.8 | | | | | | | | |
| | | | NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System. 2. Elevation based on predicted tide 3. Laboratory Testing Results <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>4.0/4.5</td> <td>SP*</td> </tr> </tbody> </table> *Lab visual classification based on gradation curve. No Atterberg limits. | SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | 1 | 4.0/4.5 | SP* | | | | | | 10 |
| SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | | | | | | | | | | | | | |
| 1 | 4.0/4.5 | SP* | | | | | | | | | | | | | |

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|--|--|--|---|---|
| DRILLING LOG | | DIVISION South Atlantic | INSTALLATION Jacksonville District | SHEET 1 OF 1 SHEETS |
| 1. PROJECT Intracoastal Waterway, Jacksonville to Miami | | | 9. SIZE AND TYPE OF BIT See Remarks | |
| 2. BORING DESIGNATION VB-AIWWNC06M-3 | | LOCATION COORDINATES X = 348,140 Y = 2,287,865 | | 10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) |
| 3. DRILLING AGENCY Corps of Engineers - CESAW | | CONTRACTOR FILE NO. | | HORIZONTAL NAD27 |
| 4. NAME OF DRILLER L. Gaughf | | | 11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER | |
| 5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED | | DEG. FROM VERTICAL | BEARING | UNDISTURBED (UD) 0 |
| 6. THICKNESS OF OVERBURDEN N/A | | | 12. TOTAL SAMPLES 2 | |
| 7. DEPTH DRILLED INTO ROCK N/A | | | 13. TOTAL NUMBER CORE BOXES 1 | |
| 8. TOTAL DEPTH OF BORING 7.8 Ft. | | | 14. ELEVATION GROUND WATER N/A | |
| | | | 15. DATE BORING STARTED 06-10-06 COMPLETED 06-10-06 | |
| | | | 16. ELEVATION TOP OF BORING -4.5 Ft. | |
| | | | 17. TOTAL RECOVERY FOR BORING 100 % | |
| | | | 18. SIGNATURE AND TITLE OF INSPECTOR | |

| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE | | | | | | | | | |
|--|--------------|---------------------------|--|--------|---------------|-----------|-------------------|-------------|---------|-----------|--------------|---------------------------|---|---------|-----|---|---------|-----|
| -4.5 | 0.0 | | SAND, poorly-graded, mostly fine-grained sand-sized quartz, moist, 2.5Y 6/2 light brownish gray (SP) | 100 | | | -4.5 Vibracore | | 0 | | | | | | | | | |
| -6.6 | 2.1 | | SAND, silty, mostly fine-grained sand-sized quartz, little silt, moist, 2.5Y 4/1 dark gray (SM) | | 1 | | -7.0 | | | | | | | | | | | |
| -7.7 | 3.2 | | SAND, poorly-graded, mostly fine-grained sand-sized quartz, moist, 2.5Y 6/2 light brownish gray (SP) | 100 | | | | | | | | | | | | | | |
| -8.6 | 4.1 | | SAND, silty, mostly fine-grained sand-sized quartz, some silt, moist, 2.5Y 3/1 very dark gray (SM) | | | | | | | | | | | | | | | |
| -8.8 | 4.3 | | SILT, organic-L, medium plasticity, soft, mostly silt, some fine-grained sand-sized quartz, moist (OL) | | 2 | | -9.5 | | 5 | | | | | | | | | |
| -10.2 | 5.7 | | SAND, poorly-graded, mostly fine-grained sand-sized quartz, moist, 2.5Y 5/2 grayish brown (SP) | 100 | | | | | | | | | | | | | | |
| -12.0 | 7.5 | | SILT, organic-L, low plasticity, soft, mostly silt, some fine-grained sand-sized quartz, moist, 2.5Y 3/1 very dark gray (OL) | | | | -12.3 | | | | | | | | | | | |
| -12.3 | 7.8 | | | | | | | | | | | | | | | | | |
| <p>NOTES:</p> <ol style="list-style-type: none"> Soils are field visually classified in accordance with the Unified Soils Classification System. Elevation based on predicted tide Laboratory Testing Results <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>2.5/3.0</td> <td>SP*</td> </tr> <tr> <td>2</td> <td>5.0/5.5</td> <td>SP*</td> </tr> </tbody> </table> <p>*Lab visual classification based on gradation curve. No Atterberg limits.</p> | | | | | | | | | | SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | 1 | 2.5/3.0 | SP* | 2 | 5.0/5.5 | SP* |
| SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | | | | | | | | | | | | | | | | |
| 1 | 2.5/3.0 | SP* | | | | | | | | | | | | | | | | |
| 2 | 5.0/5.5 | SP* | | | | | | | | | | | | | | | | |

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|--|--|--|--|---|--|
| DRILLING LOG | | DIVISION South Atlantic | INSTALLATION Jacksonville District | | SHEET 1 OF 1 SHEETS |
| 1. PROJECT Intracoastal Waterway, Jacksonville to Miami | | | 9. SIZE AND TYPE OF BIT See Remarks | | |
| 2. BORING DESIGNATION VB-AIWWNC06M-4 | | LOCATION COORDINATES X = 348,887 Y = 2,276,280 | | 10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) | HORIZONTAL NAD27 |
| 3. DRILLING AGENCY Corps of Engineers - CESAW | | CONTRACTOR FILE NO. | | 11. MANUFACTURER'S DESIGNATION OF DRILL Alpine 270 Vibracore on D/B Snell | <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER |
| 4. NAME OF DRILLER L. Gaughf | | | 12. TOTAL SAMPLES | | DISTURBED 2 |
| 5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED | | | DEG. FROM VERTICAL | | UNDISTURBED (UD) 0 |
| 6. THICKNESS OF OVERBURDEN N/A | | | 13. TOTAL NUMBER CORE BOXES 2 | | 14. ELEVATION GROUND WATER N/A |
| 7. DEPTH DRILLED INTO ROCK N/A | | | 15. DATE BORING | | STARTED 06-10-06 |
| 8. TOTAL DEPTH OF BORING 6.4 Ft. | | | 16. ELEVATION TOP OF BORING -5.4 Ft. | | COMPLETED 06-10-06 |
| | | | 17. TOTAL RECOVERY FOR BORING 100 % | | 18. SIGNATURE AND TITLE OF INSPECTOR |

| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE |
|--|-------|--------|--|--------|---------------|---------------------------|---------|-------------|---------|
| -5.4 | 0.0 | | SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, moist, 2.5Y 5/3 light olive brown (SP) | 100 | | | -5.4 | | |
| -8.2 | 2.8 | | SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, moist, 2.5Y 4/2 dark grayish brown (SP-SM) | 100 | 1 | | -7.4 | | |
| | | | | 100 | 2 | | -8.2 | | |
| | | | | | | | -8.4 | | |
| -11.8 | 6.4 | | From El. -10.6 to -11.3 Ft., moist, 2.5Y 3/1 very dark gray | 100 | | | -11.8 | | |
| NOTES: | | | | | | | | | |
| 1. Soils are field visually classified in accordance with the Unified Soils Classification System. | | | | | | | | | |
| 2. Elevation based on predicted tide | | | | | | | | | |
| 3. Laboratory Testing Results | | | | | | | | | |
| SAMPLE ID | | | SAMPLE DEPTH | | | LABORATORY CLASSIFICATION | | | |
| 1 | | | 2.0/2.5 | | | SP* | | | |
| 2 | | | 3.0/3.5 | | | SP-SM* | | | |
| *Lab visual classification based on gradation curve. No Atterberg limits. | | | | | | | | | |

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|--|--|--|---|---|
| DRILLING LOG | | DIVISION South Atlantic | INSTALLATION Jacksonville District | SHEET 1 OF 1 SHEETS |
| 1. PROJECT Intracoastal Waterway, Jacksonville to Miami | | | 9. SIZE AND TYPE OF BIT See Remarks | |
| 2. BORING DESIGNATION VB-AIWWNC06M-5 | | LOCATION COORDINATES X = 349,077 Y = 2,275,495 | | 10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) |
| 3. DRILLING AGENCY Corps of Engineers - CESAW | | CONTRACTOR FILE NO. | | HORIZONTAL NAD27 |
| 4. NAME OF DRILLER L. Gaughf | | | 11. MANUFACTURER'S DESIGNATION OF DRILL Alpine 270 Vibracore on D/B Snell | |
| 5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED | | DEG. FROM VERTICAL | BEARING | VERTICAL MLW |
| 6. THICKNESS OF OVERBURDEN N/A | | 12. TOTAL SAMPLES | | DISTURBED 2 |
| 7. DEPTH DRILLED INTO ROCK N/A | | 13. TOTAL NUMBER CORE BOXES 1 | | UNDISTURBED (UD) 0 |
| 8. TOTAL DEPTH OF BORING 7.2 Ft. | | 14. ELEVATION GROUND WATER N/A | | 15. DATE BORING |
| | | 16. ELEVATION TOP OF BORING -8.9 Ft. | | STARTED 06-10-06 |
| | | 17. TOTAL RECOVERY FOR BORING 100 % | | COMPLETED 06-10-06 |
| 18. SIGNATURE AND TITLE OF INSPECTOR | | | | |

| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE | | | | | | | | | |
|---|--------------|---------------------------|---|--------|---------------|-----------|----------------|-------------|---------|-----------|--------------|---------------------------|---|---------|--------|---|---------|-----|
| -8.9 | 0.0 | | SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, moist, 2.5Y 6/3 light yellowish brown (SP) | 100 | | | -8.9 | | | | | | | | | | | |
| -10.4 | 1.5 | | SILT, organic-L, low plasticity, soft, mostly silt, little fine-grained sand-sized quartz, moist, 2.5Y 3/1 very dark gray (OL) | 100 | 1 | | -9.9 -10.4 | | | | | | | | | | | |
| -11.4 | 2.5 | | SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, moist, 2.5Y 6/1 gray (SP) | 100 | 2 | | -10.9 -11.4 | | | | | | | | | | | |
| -12.9 | 4.0 | | SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, moist, 2.5Y 4/2 dark grayish brown (SP-SM) | 100 | | | -12.9 | | | | | | | | | | | |
| -15.6 | 6.7 | | SHELL, mostly sand to gravel-sized shell, little fine-grained sand-sized quartz, little silt, moist, 10Y 3/1 dark greenish gray | 100 | | | -15.6 | | | | | | | | | | | |
| -16.1 | 7.2 | | | | | | -16.1 | | | | | | | | | | | |
| <p>NOTES:</p> <ol style="list-style-type: none"> Soils are field visually classified in accordance with the Unified Soils Classification System. Elevation based on predicted tide Laboratory Testing Results <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>1.0/1.5</td> <td>SP-SM*</td> </tr> <tr> <td>2</td> <td>2.0/2.5</td> <td>SM*</td> </tr> </tbody> </table> <p>*Lab visual classification based on gradation curve. No Atterberg limits.</p> | | | | | | | | | | SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | 1 | 1.0/1.5 | SP-SM* | 2 | 2.0/2.5 | SM* |
| SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | | | | | | | | | | | | | | | | |
| 1 | 1.0/1.5 | SP-SM* | | | | | | | | | | | | | | | | |
| 2 | 2.0/2.5 | SM* | | | | | | | | | | | | | | | | |

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|--|--|---|--|--|
| DRILLING LOG | | DIVISION South Atlantic | INSTALLATION Jacksonville District | SHEET 1 OF 1 SHEETS |
| 1. PROJECT Intracoastal Waterway, Jacksonville to Miami | | | 9. SIZE AND TYPE OF BIT See Remarks | |
| 2. BORING DESIGNATION VB-AIWWNC06M-7 | | 10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) | | HORIZONTAL NAD27 |
| 3. DRILLING AGENCY Corps of Engineers - CESAW | | 11. MANUFACTURER'S DESIGNATION OF DRILL Alpine 270 Vibracore on D/B Snell | | <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER |
| 4. NAME OF DRILLER L. Gaughf | | 12. TOTAL SAMPLES | | DISTURBED 1 |
| 5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED | | 13. TOTAL NUMBER CORE BOXES | | UNDISTURBED (UD) 0 |
| 6. THICKNESS OF OVERBURDEN N/A | | 14. ELEVATION GROUND WATER | | N/A |
| 7. DEPTH DRILLED INTO ROCK N/A | | 15. DATE BORING | | STARTED 06-10-06 |
| 8. TOTAL DEPTH OF BORING 7.0 Ft. | | 16. ELEVATION TOP OF BORING | | COMPLETED 06-10-06 |
| | | 17. TOTAL RECOVERY FOR BORING | | 100 % |
| | | 18. SIGNATURE AND TITLE OF INSPECTOR | | |

| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE | | | | | | |
|-----------|--------------|---------------------------|--|-----------|---------------|---------------------------|---------|-------------|---------|--|--|--|--|--|--|
| -10.3 | 0.0 | | SILT, organic-L, low plasticity, soft, mostly silt, some fine-grained sand-sized quartz, moist, 10Y 3/1 dark greenish gray (OL) | 100 | | | -10.3 | | | | | | | | |
| -12.0 | 1.7 | | SAND, silty, mostly fine-grained sand-sized quartz, little silt, moist, 10Y 4/1 dark greenish gray (SM) From El. -12.2 to -14.6 Ft., mostly fine-grained sand-sized quartz, some silt, moist, 10Y 4/1 dark greenish gray | 100 | 1 | | -11.3 | | | | | | | | |
| -15.1 | 4.8 | | From El. -14.6 to -15.1 Ft., little sand to gravel-sized shell | | | | | | | | | | | | |
| -16.0 | 5.7 | | CLAY, fat, high plasticity, firm, mostly clay, little fine-grained sand-sized quartz, 10Y 3/1 dark greenish gray (CH) | | | | | | | | | | | | |
| -16.4 | 6.1 | | SHELL, mostly fine gravel-sized shell, few silt, 10GY 4/1 dark greenish gray | | | | | | | | | | | | |
| -17.3 | 7.0 | | CLAY, fat, high plasticity, firm, mostly clay, 7.5YR 4/1 dark gray (CH) | | | | -17.3 | | | | | | | | |
| | | | NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System. 2. Elevation based on predicted tide 3. Laboratory Testing Results <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>1.0/1.5</td> <td>SP-SM*</td> </tr> </tbody> </table> *Lab visual classification based on gradation curve. No Atterberg limits. | SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | 1 | 1.0/1.5 | SP-SM* | | | | | | |
| SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | | | | | | | | | | | | | |
| 1 | 1.0/1.5 | SP-SM* | | | | | | | | | | | | | |

| | | | | |
|--|--|--|--|---|
| DRILLING LOG | | DIVISION South Atlantic | INSTALLATION Jacksonville District | SHEET 1 OF 1 SHEETS |
| 1. PROJECT Intracoastal Waterway, Jacksonville to Miami | | | 9. SIZE AND TYPE OF BIT See Remarks | |
| 2. BORING DESIGNATION VB-AIWWNC06M-8 | | LOCATION COORDINATES X = 350,580 Y = 2,266,797 | | 10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) |
| 3. DRILLING AGENCY Corps of Engineers - CESAW | | CONTRACTOR FILE NO. | | HORIZONTAL NAD27 |
| 4. NAME OF DRILLER L. Gaughf | | | 11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER Alpine 270 Vibracore on D/B Snell | |
| 5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED | | DEG. FROM VERTICAL | BEARING | 12. TOTAL SAMPLES 2 |
| 6. THICKNESS OF OVERBURDEN N/A | | 7. DEPTH DRILLED INTO ROCK N/A | | DISTURBED 2 |
| 8. TOTAL DEPTH OF BORING 6.4 Ft. | | 13. TOTAL NUMBER CORE BOXES 2 | | UNDISTURBED (UD) 0 |
| 14. ELEVATION GROUND WATER N/A | | | 15. DATE BORING STARTED 06-10-06 COMPLETED 06-10-06 | |
| 16. ELEVATION TOP OF BORING -7.7 Ft. | | | 17. TOTAL RECOVERY FOR BORING 100 % | |
| 18. SIGNATURE AND TITLE OF INSPECTOR | | | | |

| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE |
|-------|-------|--------|---|--------|---------------|-----------|--------------------|-------------|---------|
| -7.7 | 0.0 | | SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, trace shell, moist, 10Y 4/1 dark greenish gray (SP) | 100 | | | -7.7 Vibracore | | 0 |
| -9.5 | 1.8 | | SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, moist, 5Y 3/1 very dark gray (SP-SM) | 100 | 1 | | -8.7 Vibracore | | |
| -13.1 | 5.4 | | SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, moist, 5Y 4/4 olive (SP-SM) | 101 | 2 | | -10.7 Vibracore | | |
| -13.3 | 5.6 | | | | | | | | |
| -14.1 | 6.4 | | | | | | -14.1 | | |

NOTES:

- Soils are field visually classified in accordance with the Unified Soils Classification System.
- Elevation based on predicted tide
- Laboratory Testing Results

| SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION |
|-----------|--------------|---------------------------|
| 1 | 1.0/1.5 | SP* |
| 2 | 3.0/3.5 | SP-SM* |

*Lab visual classification based on gradation curve. No Atterberg limits.

| | | | | |
|--|--|--|---|---|
| DRILLING LOG | | DIVISION South Atlantic | INSTALLATION Jacksonville District | SHEET 1 OF 1 SHEETS |
| 1. PROJECT Intracoastal Waterway, Jacksonville to Miami | | | 9. SIZE AND TYPE OF BIT See Remarks | |
| 2. BORING DESIGNATION VB-AIWWNC06M-9 | | LOCATION COORDINATES X = 350,225 Y = 2,266,146 | | 10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.) |
| 3. DRILLING AGENCY Corps of Engineers - CESAW | | CONTRACTOR FILE NO. | | HORIZONTAL NAD27 |
| 4. NAME OF DRILLER L. Gaughf | | | 11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER | |
| 5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED | | DEG. FROM VERTICAL | BEARING | 12. TOTAL SAMPLES DISTURBED: 1 UNDISTURBED (UD): 0 |
| 6. THICKNESS OF OVERBURDEN N/A | | 13. TOTAL NUMBER CORE BOXES 2 | | |
| 7. DEPTH DRILLED INTO ROCK N/A | | 14. ELEVATION GROUND WATER N/A | | |
| 8. TOTAL DEPTH OF BORING 5.8 Ft. | | 15. DATE BORING STARTED: 06-10-06 COMPLETED: 06-10-06 | | |
| | | 16. ELEVATION TOP OF BORING -9.9 Ft. | | |
| | | 17. TOTAL RECOVERY FOR BORING 100 % | | |
| | | 18. SIGNATURE AND TITLE OF INSPECTOR | | |

| ELEV. | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS | % REC. | BOX OR SAMPLE | RQD OR UD | REMARKS | BLOWS/1 FT. | N-VALUE | | | | | | |
|---|--------------|---------------------------|--|--------|---------------|-----------|-----------|-------------|---------|-----------|--------------|---------------------------|---|---------|--------|
| -9.9 | 0.0 | | SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, moist, 5Y 5/4 olive (SP) | 100 | | | -9.9 | | | | | | | | |
| | | | | | 1 | | Vibracore | | | | | | | | |
| -11.9 | 2.0 | | SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, moist, 5GY 4/1 dark greenish gray (SP-SM) | 100 | | | -10.9 | | | | | | | | |
| -14.0 | 4.1 | | SAND, silty, mostly fine-grained sand-sized quartz, some silt, moist, 5GY 4/1 dark greenish gray (SM) | | | | | | | | | | | | |
| -14.6 | 4.7 | | SILT, inorganic-L, low plasticity, very soft, mostly silt, little fine-grained sand-sized quartz, moist, 5GY 4/1 dark greenish gray (ML) | | | | | | | | | | | | |
| -15.5 | 5.6 | | SAND, silty, mostly fine-grained sand-sized quartz, some silt, moist, 5GY 4/1 dark greenish gray (SM) | | | | -15.7 | | | | | | | | |
| -15.7 | 5.8 | | | | | | | | | | | | | | |
| <p>NOTES:</p> <ol style="list-style-type: none"> Soils are field visually classified in accordance with the Unified Soils Classification System. Elevation based on predicted tide Laboratory Testing Results <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>1.0/1.5</td> <td>SP-SM*</td> </tr> </tbody> </table> <p>*Lab visual classification based on gradation curve. No Atterberg limits.</p> | | | | | | | | | | SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | 1 | 1.0/1.5 | SP-SM* |
| SAMPLE ID | SAMPLE DEPTH | LABORATORY CLASSIFICATION | | | | | | | | | | | | | |
| 1 | 1.0/1.5 | SP-SM* | | | | | | | | | | | | | |