

Rock Engineering & Testing Labratory Inc. 6817 Leopard Street Corpus Christi, TX

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Qc - STATIC CONE PENETROMETER TEST INDEX P - POCKET PENETROMETER RESISTANCE

HDR CLIENT:

PROJECT: Bird Island Cove; Phase 2

LOCATION: Galveston, Texas

NUMBER: G120036

| VI III | | DATE(S) DRILLED: 2/7/2020 DRILLING METHOD(S): Russian Sampler | |
|--|--|--|--|
| FIELD DATA | LABORATORY DATA | | |
| SAMPLE NUMBER SAMPLES N: BLOWS/FT P: TONS/SQ FT QC: TONS/SQ FT | MOISTURE CONTENT (%) T LIQUID LIMIT PLASTIC LIMIT SIBAB PLASTICITY INDEX DRY DENSITY POUNDS/CU.FT COMPRESSIVE STRENGTH (TONS/SQ FT) MINUS NO. 200 SIEVE (%) | GROUNDWATER INFORMATION: Boring was performed under 1.5 feet of water. SURFACE ELEVATION: N/A DESCRIPTION OF STRATUM | |
| AUGER Qc= 5 | 27 NP NP NP 9 | POORLY GRADED SAND WITH SILT, dark gray, wet, very loose. (SP-SM) | |
| - 4 AUGER Qc= 7 | 31 16 | SILTY SAND, dark gray, wet, very loose. Sampler refusal at a depth of 5 feet. | |
| - 6 - | | | |
| - 7 - | | | |
| - 8 - | | | |
| 9 - | | | |
| - 10 - | | | |
| | FRATION TEST RESISTANCE ENETROMETER TEST INDEX | REMARKS: Drilling operations were performed by RETL at GPS Coordinates | |



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| | | | KEY TO S | SOIL CLASSIFICATION AND S | SYMBOLS | | |
|--|------------------------------------|------------|--|--|--|---|--|
| | UNIFIE | SOIL CLASS | | TERMS CHARACTERIZING SOIL STRUCTURE | | | |
| MAJOR DIVISIONS | | SYMBOL | NAME | | | STR | |
| COARSE GRAINED SOILS | GRAVEL AND GRAVELLY SOILS | GW • | Well Graded Gradet Grad | avels or Gravel-Sand mixtures, | weakness that are sli | SLICKENSIDED - having inclined planes of weakness that are slick and glossy in appearance | |
| | | GP 000 | Poorly Graded Gravels or Gravel-Sand mixtures, little or no fines | | es, FISSURED - containing | FISSURED - containing shrinkage cracks, frequently filled with fine sand or silt; usually | |
| | | GM S | Silty Gravels, G | ravel-Sand-Silt mixtures | more or less vertical | | |
| | | GC S | Clayey Gravels, | Gravel-Sand-Clay Mixtures | of varying color and t | of varying color and texture, usually grading from sand or silt at the bottom to clay at the top | |
| | SAND AND SANDY SOILS | sw | Well Graded Sa fines | nds or Gravelly Sands, little or | | CRUMBLY - cohesive soils which break into small blocks or crumbs on drying | |
| | | SP | Poorly Graded S no fines | Sands or Gravelly Sands, little o | | CALCAREOUS - containing appreciable quantities of calcium carbonate, generally nodular | |
| | | SM | Silty Sands, Sar | nd-Silt Mixtures | WELL GRADED - having and substantial amount particle sizes | WELL GRADED - having wide range in grain sizes and substantial amounts of all intermediate particle sizes | |
| | | sc /// | Clayey Sands, S | Sand-Clay mixtures | size uniformly grade | POORLY GRADED - predominantly of one grain size uniformly graded) or having a range of sizes | |
| FINE GRAINED SOILS | SILTS AND CLAYS LL < 50 | ML | Inorganic Silts and very fine Sands, Rock Flour, Silty or Clayey fine Sands or Clayey Silts with some intermediate size missing (gap of graded) | | ite size missing (gap or skip | | |
| | | CL | Inorganic Clays of low to medium plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays | | | SYMBOLS FOR TEST DATA | |
| | | OL | Organic Silts and Organic Silt-Clays of low plasticity | | (Initial | dwater Level Reading) | |
| | SILTS AND CLAYS LL > 50 | мн | Inorganic Silts, Micaceous or Diatomaceous fine Sandy or Silty soils, Elastic Silts | | ne (Final I | Groundwater Level (Final Reading) — Shelby Tube Sample — SPT Samples — Auger Sample | |
| | | СН | Inorganic Clays of high plasticity, Fat Clays | | | | |
| | | он 🎆 | Organic Clays of medium to high plasticity, Organic Silts | | | | |
| HIGHLY ORGANIC SOILS | | PT 4 34 | Peat and other Highly Organic soils | | Rock C | Rock Core | |
| | | | TERMS [| DESCRIBING CONSISTENCY | OF SOIL | | |
| COARSE GRAINED SOILS FINE GRAINED SOILS | | | | | | | |
| DESCRIPTIVE TERM | | | BLOWS/FT. DARD PEN. TEST | DESCRIPTIVE TERM | NO. BLOWS/FT. STANDARD PEN. TEST | UNCONFINED COMPRESSION TONS PER SQ. FT. | |
| Very Loose Loose Medium Dense Very Dense | | | 0 - 4 4 - 10 10 - 30 30 - 50 over 50 | Very Soft Soft Firm Stiff Very Stiff Hard | < 2 2 - 4 4 - 8 8 - 15 15 - 30 over 30 | < 0.25 0.25 - 0.50 0.50 - 1.00 1.00 - 2.00 2.00 - 4.00 over 4.00 | |

Field Classification for "Consistency" is determined with a 0.25" diameter penetrometer