

BORING LOG NO. B-13

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PROJECT: Galveston Island Sand Source Investigation

CLIENT: Atkins North America, Inc.
Houston, Texas

SITE: Sullivan Ranch Property
Galveston, Texas

GRAPHIC LOG	LOCATION See Exhibit A-6 Latitude: 29.2564° Longitude: -94.8985°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	PERCENT FINES
						TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)			LL-PL-PI	
DEPTH	POORLY GRADED SAND WITH SILT (SP-SM) , tan, medium dense to very dense - with scattered roots 0 to 2 feet - gray below 4 feet - with shell fragments below 8 feet				1.5 (HP)							
					4-6-7 N=13							
		5			10-11-11 N=22			21			11	
					4-6-9 N=15							
		10			16-23-31 N=54							
					21-32-33 N=65							
					28-37-43 N=80							
		15			12-28-36 N=64							
					21-22-31 N=53							
					13-23-28 N=51							
		20.0										
		Boring Terminated at 20 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Rope and Cathead

Advancement Method:
Dry augered to 8 feet; wet rotary thereafter.

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

- 8 ft While drilling
- 7 ft After 5 minutes
- 4.5 ft After 15 minutes

Terracon
551 League City Pkwy Ste F
League City, TX

Boring Started: 09-26-2017

Drill Rig: ATV

Project No.: 91175091

Boring Completed: 09-26-2017

Driller: Van and Sons

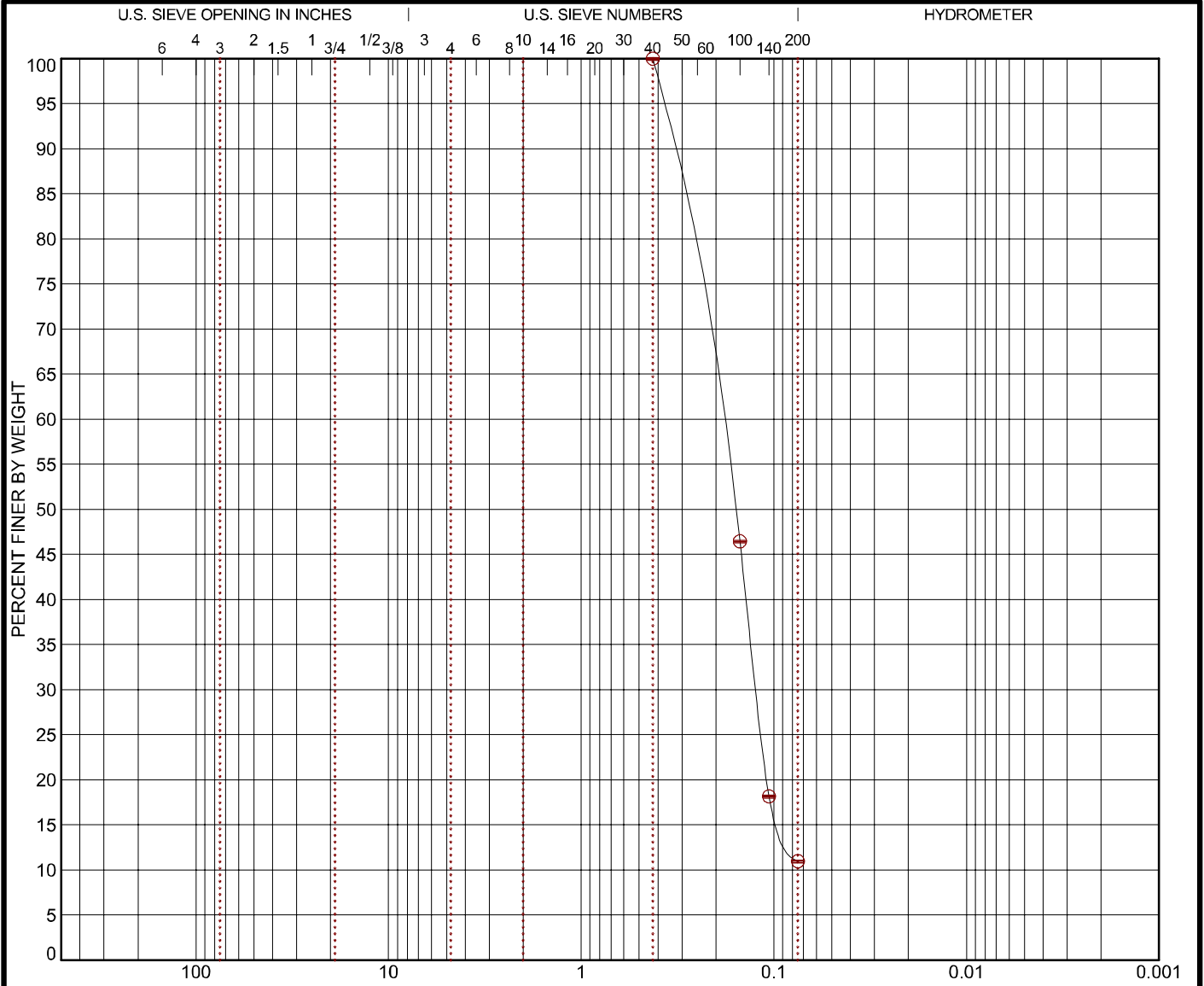
Exhibit: A-18

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 91175091 GALVESTON ISLAND REDO GPJ TERRACON_DATATEMPLATE.GDT 10/31/17

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. 91175091_ATKINS_NORTH_GRAINSIZE_TEMP 91175091 GALVESTON ISLAND.GPJ TERRACON_DATATEMPLATE.GDT 11/6/17



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring ID	Depth	USCS Classification				WC (%)	LL	PL	PI	Cc	Cu
⊖ B-13	4.5 - 6	POORLY GRADED SAND WITH SILT (SP-SM)				21				1.08	2.73
Boring ID	Depth	D ₁₀₀	D ₈₅	D ₅₀	D ₁₀	%Gravel	%Sand	%Silt	%Fines	%Clay	
⊖ B-13	4.5 - 6	0.425	0.317	0.161		0.0	89.0		11.0		

PROJECT: Galveston Island Sand Source Investigation	 551 League City Pkwy Ste F League City, TX	PROJECT NUMBER: 91175091
SITE: Sullivan Ranch Property Galveston, Texas		CLIENT: Atkins North America, Inc. Houston, Texas
		EXHIBIT: A-35