

BORING LOG NO. B-9

Page 1 of 1

PROJECT: Galveston Island Sand Source Investigation

CLIENT: Atkins North America, Inc.
Houston, Texas

SITE: Sunset Cove Property
Galveston, Texas

GRAPHIC LOG	LOCATION See Exhibit A-5 Latitude: 29.1464° Longitude: -95.0363°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	STRENGTH TEST			WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
						TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)				
DEPTH	SILTY SAND (SM) , tan, medium dense to very dense - gray below 4 feet	5			6-8-8 N=16							
					8-11-12 N=23							
					28-30-31 N=61				17			13
					30-31-42 N=73							
					32-28-39 N=67							
10.0	Boring Terminated at 10 Feet	10										

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

Hammer Type: Rope and Cathead

Advancement Method:
Dry augered to 10 feet.

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
551 League City Pkwy Ste F
League City, TX

Boring Started: 09-27-2017

Drill Rig: Truck

Project No.: 91175091

Boring Completed: 09-27-2017

Driller: Van and Sons

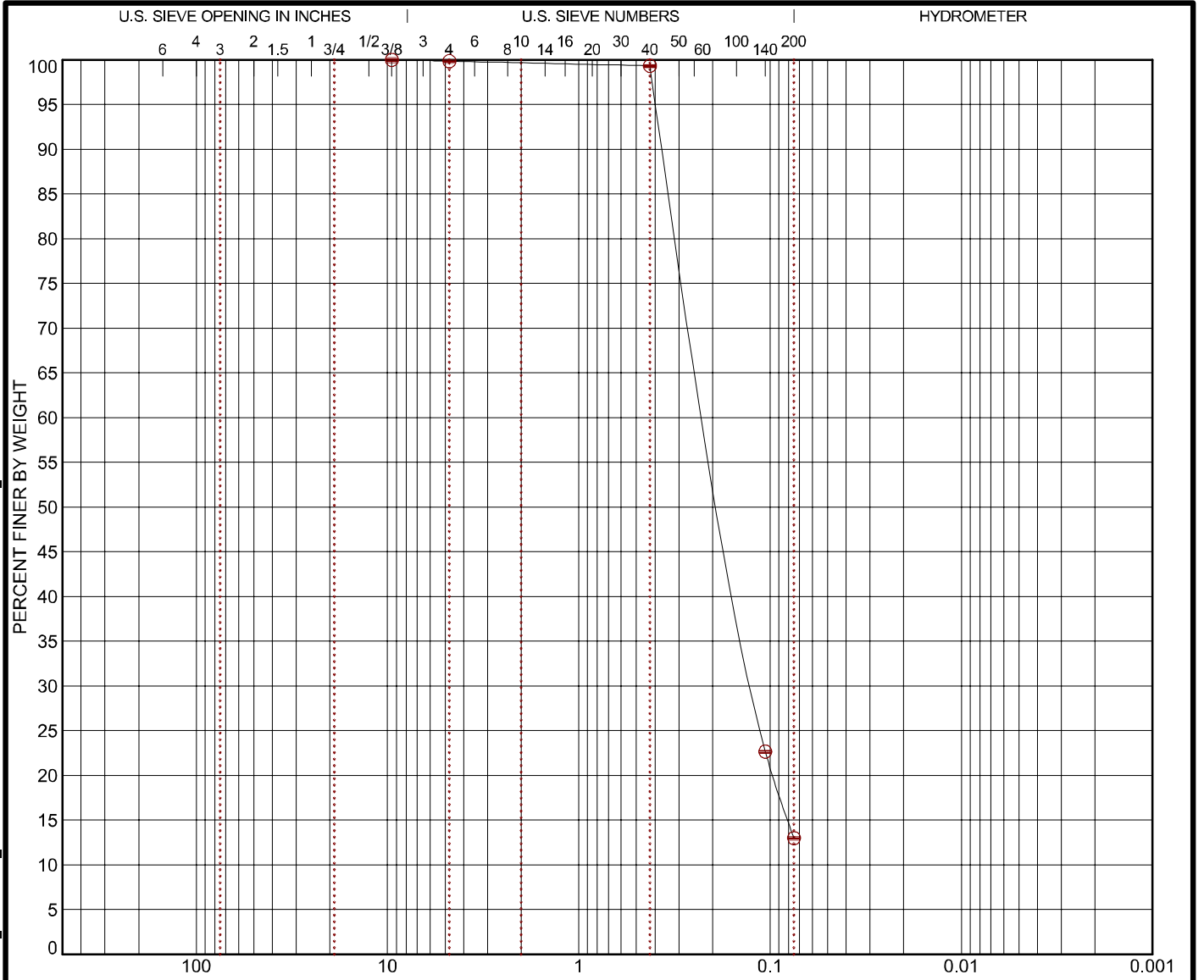
Exhibit: A-14

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-9	4.5 - 6	SILTY SAND (SM)				17					
Boring ID	Depth	D ₁₀₀	D ₈₅	D ₅₀	D ₁₀	%Gravel	%Sand	%Silt	%Fines	%Clay	
B-9	4.5 - 6	9.5	0.328	0.174		0.2	86.9		13.0		

PROJECT: Galveston Island Sand Source Investigation				PROJECT NUMBER: 91175091			
SITE: Sunset Cove Property Galveston, Texas				CLIENT: Atkins North America, Inc. Houston, Texas			
				EXHIBIT: A-31			

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