

LOG OF BORING

Project: McFaddin NWR Sand Source Investigation

Boring No.: MF-VC-13-04

Groundwater during drilling: ---

Groundwater after 24hrs: ---

Date: 11/1/2013

Northing: 13,788,936.0

Easting: 3,479,637.0

Project No.: HG1315380

Elevation: -24.6 feet

Station: --

Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 230 SIEVE	D50, MM	SHEAR STRENGTH, TSF													
					MOISTURE CONTENT, %													
					PLASTIC LIMIT					LIQUID LIMIT								
					0.5	1.0	1.5	2.0	10	20	30	40	50	60	70	80	90	
-25	0	Grayish Brown Layered Silty Clay and Sand (Munsell 5/2 2.5Y)																
		Grayish Brown Sand (Munsell 5/2 2.5Y) -200=7.3%	5.4	0.24														
-30	5	Grayish Brown Sand (Munsell 5/2 2.5Y) -200=5.0%	2.6	0.22														
		-200=5.0%	3.6	0.21														
-35	10	Dark Gray Sand (Munsell 4/1 2.5Y) Dark Gray Sandy Silt (Munsell 4/1 2.5Y) Dark Gray Silty Sand (Munsell 4/1 2.5Y) -200=23.2%	12.9	0.14														
-40	15	Dark Gray Layered Sand and Silty Clay (Munsell 4/1 2.5Y)																
-45	20	Dark Gray Silty Clay (Munsell 4/1 2.5Y)																
-50	25																	
-55	30																	

Shear Types:

● = Hand Penet.

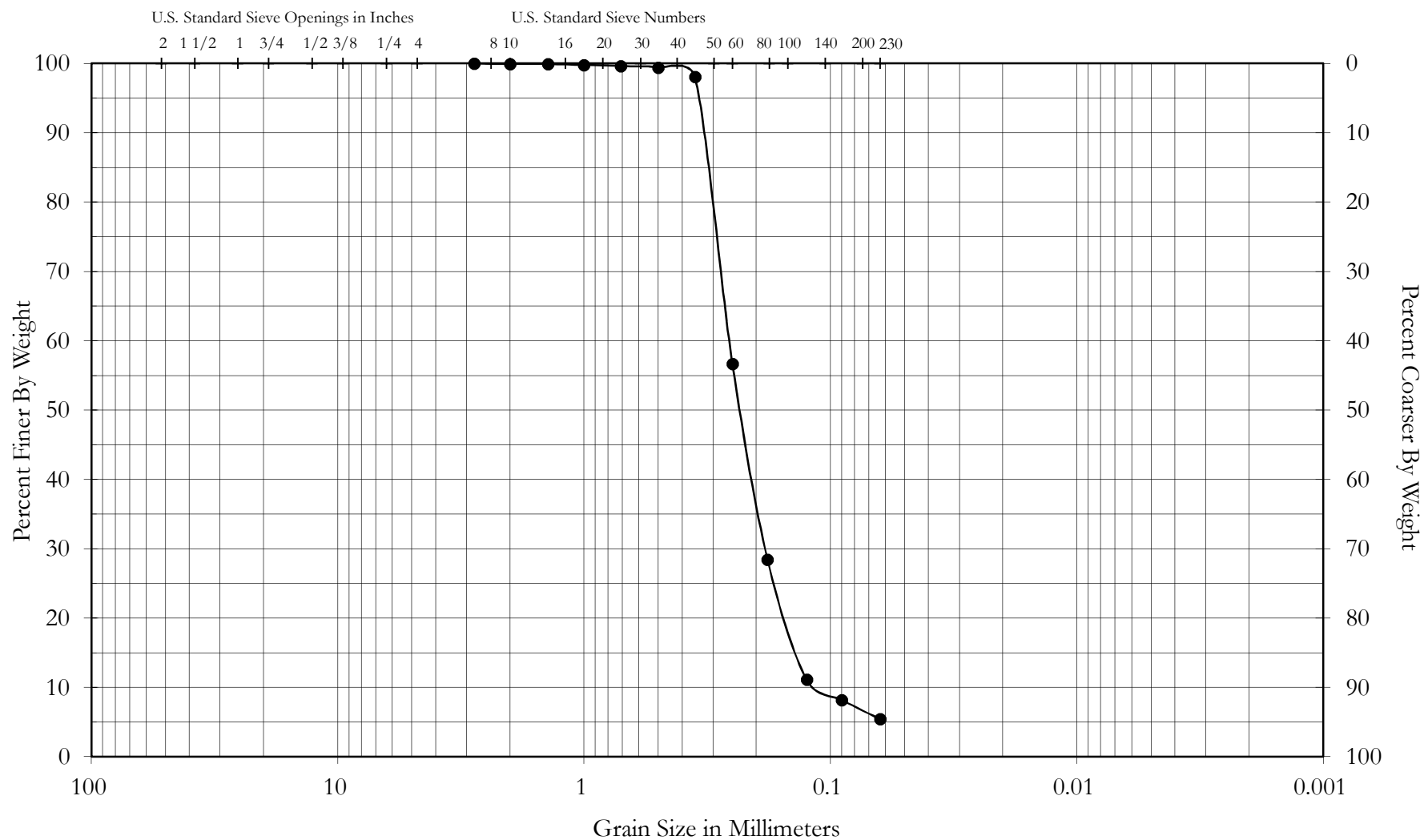
■ = Torvane

▲ = Unconf. Comp.

* = UU Triaxial

PLATE 4

LOG OF SOIL BORING HG-13-15380.GPJ HVJ.GDT 12/19/13



Sample Location

MF-VC-13-04
2-5'

C_u & C_c

C_u = 2.00
C_c = 1.01
D₅₀ = 0.24mm

Classification

Grayish Brown Poorly Graded
Sand (SP)

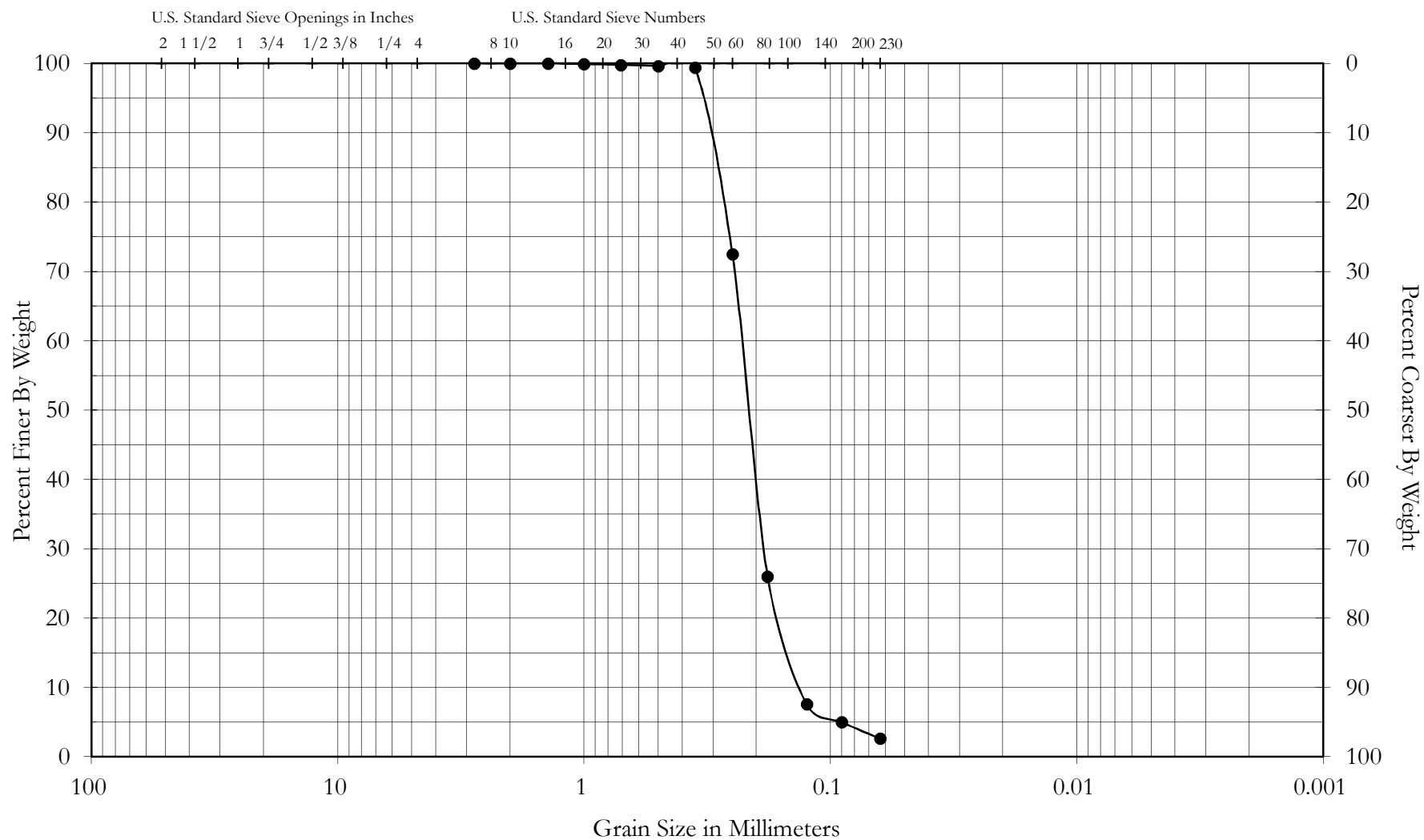
HVJ ASSOCIATES, INC.

**GRAIN SIZE ANALYSIS CURVE
ASTM D6913**

PROJECT NO.

HG1315380

PLATE 56



Sample Location

MF-VC-13-04
5-10' Top

C_u & C_c

C_u = 1.47
C_c = 1.09
D₅₀ = 0.22mm

Classification

Grayish Brown Poorly Graded
Sand (SP)

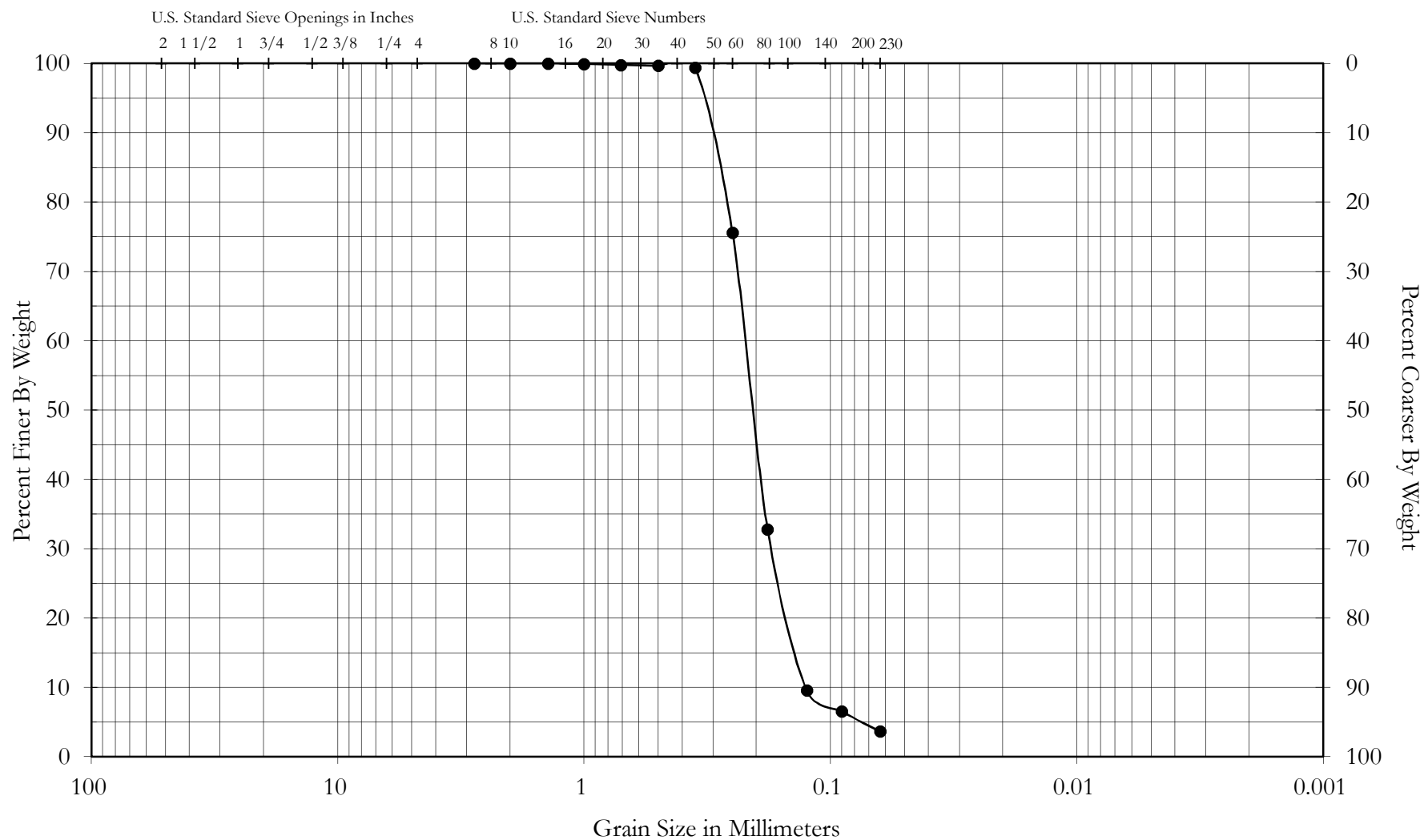
HVJ ASSOCIATES, INC.

**GRAIN SIZE ANALYSIS CURVE
ASTM D6913**

PROJECT NO.

HG1315380

PLATE 57



Sample Location

MF-VC-13-04
5-10' Bottom

C_u & C_c

C_u = 1.52
C_c = 1.07
D₅₀ = 0.21mm

Classification

Grayish Brown Poorly Graded
Sand (SP)

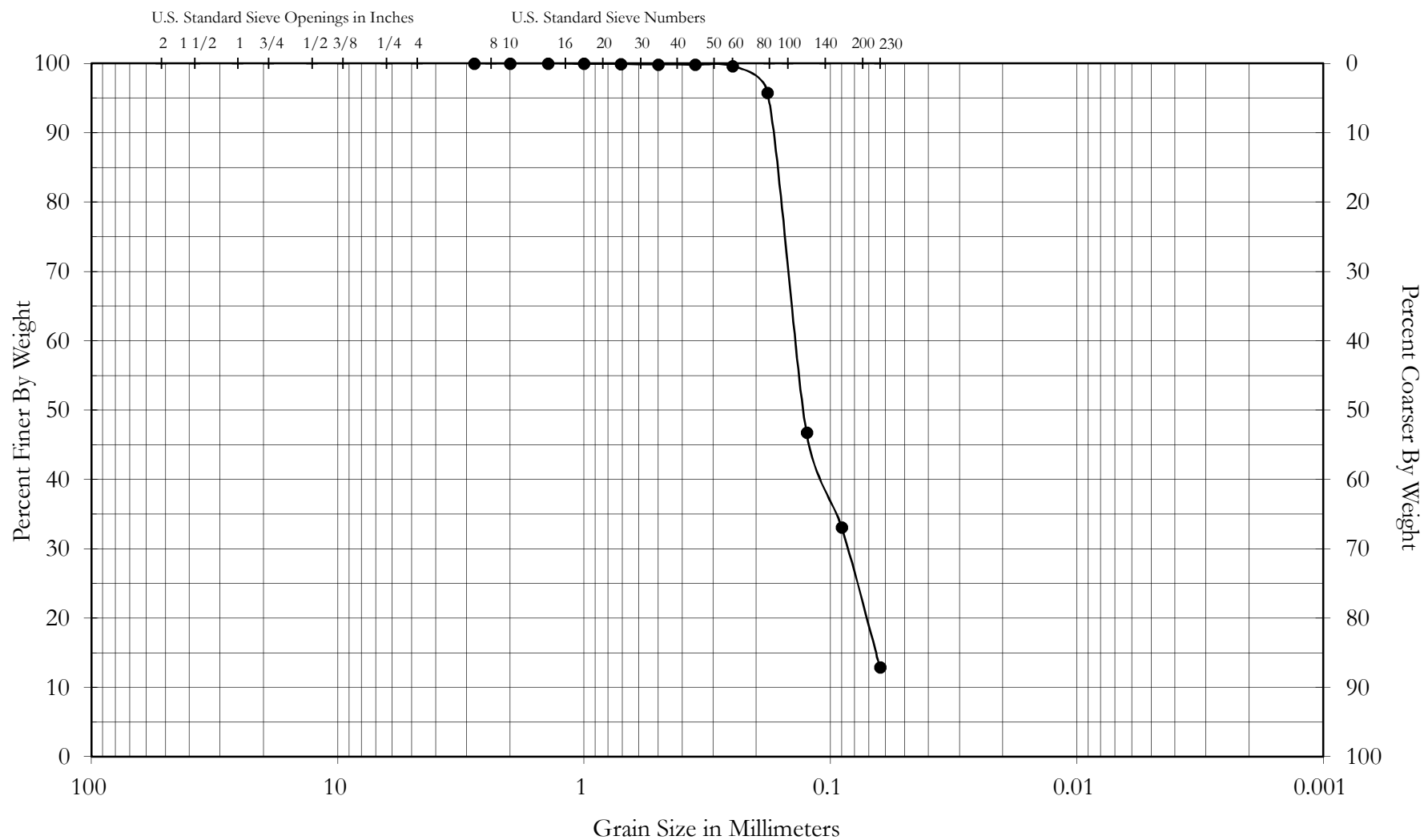
HVJ ASSOCIATES, INC.

**GRAIN SIZE ANALYSIS CURVE
ASTM D6913**

PROJECT NO.

HG1315380

PLATE 58



Sample Location

MF-VC-13-04
12-15'

C_u & C_c

C_u = NA
C_c = NA
D₅₀ = 0.14mm

Classification

Dark Gray Silty Sand (SM)

HVJ ASSOCIATES, INC.

**GRAIN SIZE ANALYSIS CURVE
ASTM D6913**

PROJECT NO.

HG1315380

PLATE 59