Boring Designation JCVC-15-11

DRILLING LOG

DIVISION

INSTALLATION

SHEET 1 OF 1 SHEETS

1. PROJECT: McFaddin Sand Search, Jefferson County, TX

9. SIZE AND TYPE OF BIT: 3.0 In.

10. COORDINATE SYSTEM/DATUM: Texas South Central | HORIZONTAL: NAD 1983 | VERTICAL: NAVD 88

2. BORING DESIGNATION: JCVC-15-11 | LOCATION COORDINATES: X = 3,474,705 Y = 13,787,695

11. MANUFACTURER'S DESIGNATION OF DRILL: Alpine Pneumatic Vibracore | ☐ AUTO HAMMER ☐ MANUAL HAMMER

3. DRILLING AGENCY: American Vibracore Services, Inc. | CONTRACTOR FILE NO.

12. TOTAL SAMPLES | DISTURBED | UNDISTURBED (UD)

4. NAME OF DRILLER: Brian McCord

13. TOTAL NUMBER CORE BOXES

5. DIRECTION OF BORING: ☒ VERTICAL ☐ INCLINED | DEG. FROM VERTICAL | BEARING

14. ELEVATION GROUND WATER

15. DATE BORING | STARTED: 01-26-15 16:41 | COMPLETED: 01-26-15 16:45

6. THICKNESS OF OVERBURDEN: 0.0 Ft.

16. ELEVATION TOP OF BORING: -23.6 Ft.

7. DEPTH DRILLED INTO ROCK: 0.0 Ft.

17. TOTAL RECOVERY FOR BORING: 19.7 Ft.

8. TOTAL DEPTH OF BORING: 20.1 Ft.

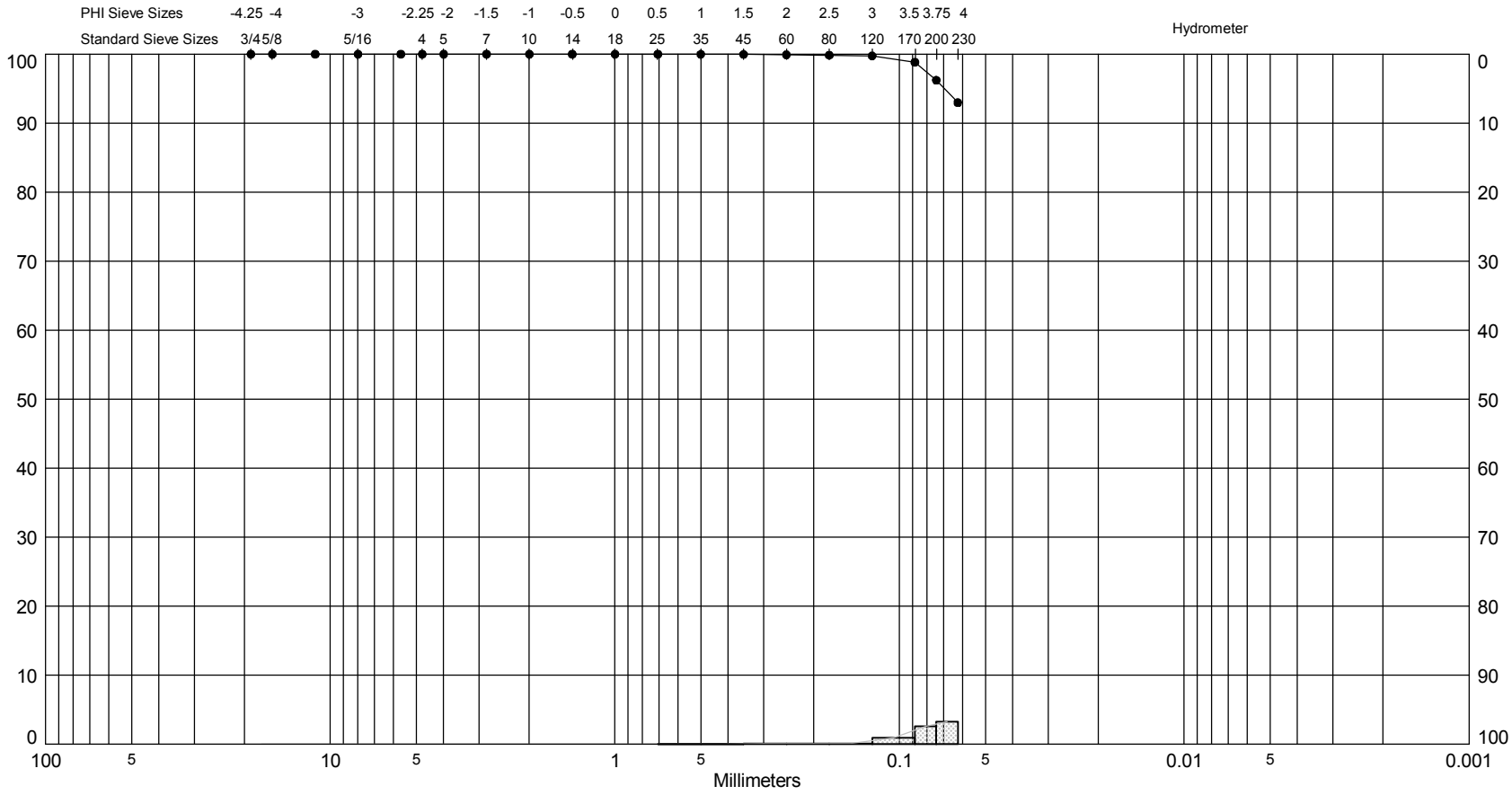
18. SIGNATURE AND TITLE OF INSPECTOR: KM

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-23.6	0.0					
			CLAY, trace carbonate rock fragments, carbonate rock fragments distributed in pockets up to 1", pale brown (10YR-6/3), (CL).		T1	Sample #T1, Depth = 3.0' Ave. Field Vane (tsf): 0.42
					T2	Sample #T2, Depth = 6.5' Ave. Field Vane (tsf): 0.43
-32.9	9.3					
			CLAY, trace sand, 1" rock fragment at 10.2', grayish brown (10YR-5/2), (CL).		1	Sample #1, Depth = 12.2' Mean (mm): 0.08, Phi Sorting: 0.35 Fines (230): 92.97% (CL)
-38.6	15.0					
			SAND, fine grained, quartz, some silt, 3" clayey pocket at 16.1', very dark grayish brown (2.5Y-3/2), (SM).		2	Sample #2, Depth = 15.7' Mean (mm): 0.10, Phi Sorting: 0.31 Fines (230): 23.23% (SM)
-40.1	16.5					
-40.7	17.1		CLAY, trace sand, dark grayish brown (2.5Y-4/2), (CL).		3	Sample #3, Depth = 16.8' Mean (mm): 0.61, Phi Sorting: 3.27 Fines (230): 95.17% (CL)
			SAND, fine grained, quartz, some silt, trace clay, clay distributed in clayey pockets up to 3", very dark grayish brown (2.5Y-3/2), (SM).		2	
-43.3	19.7					
-43.7	20.1		No Recovery.			
			End of Boring			

0 5 10 15 20 25

LOUISIANA JEFFERSON_COUNTY_2015_VCS.GPJ JPBRAZIL.GDT 6/4/15

SAJ FORM 1836 JUN 02 **MODIFIED FOR THE FLORIDA DEP** JUN 04



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
JCVC-15-11 #1	—●—	-35.8	CL	#200 - 96.22 #230 - 92.97			3.77	3.64	-3.62	22.69	0.35

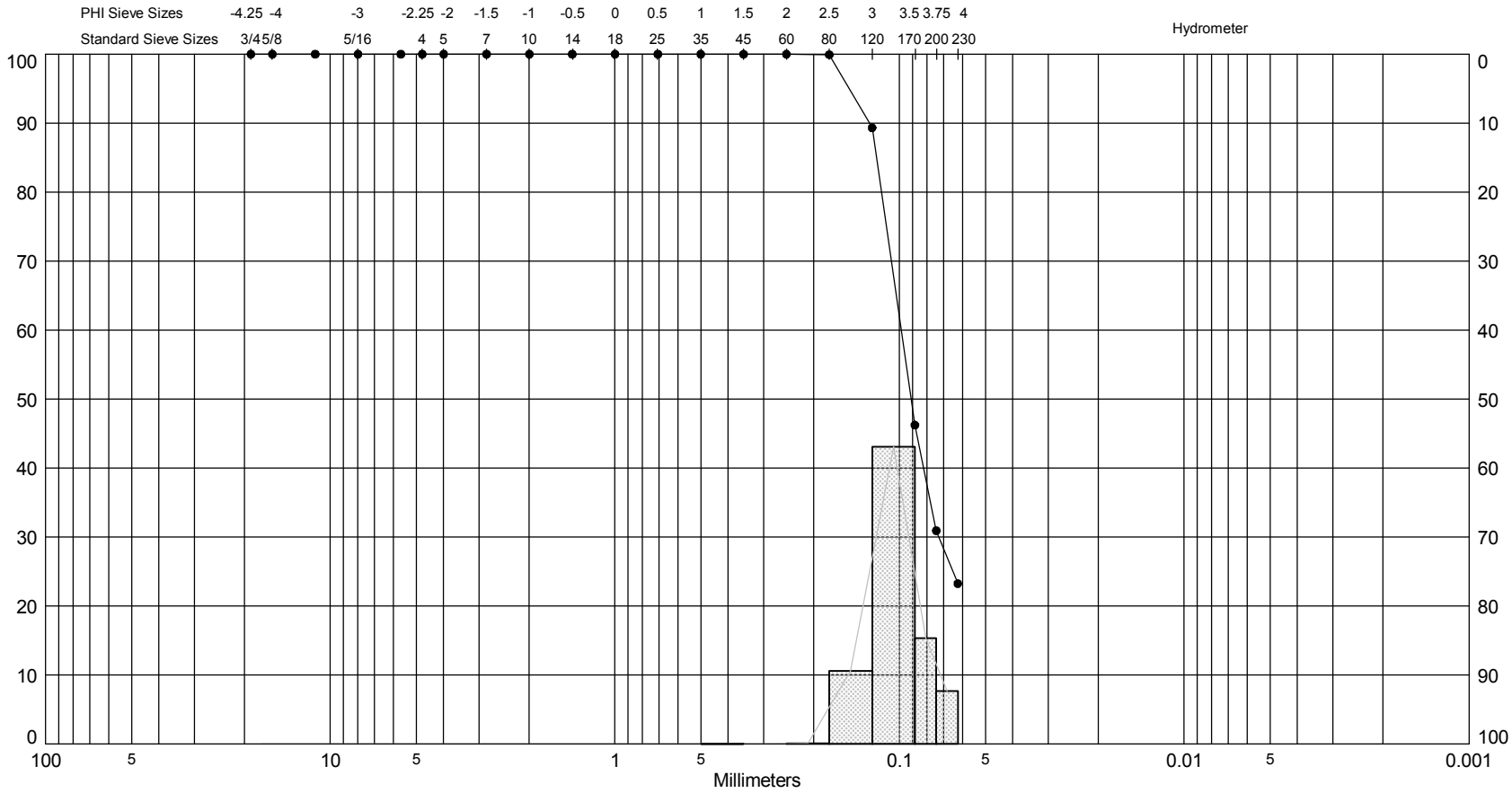
Comments:

Depths and elevations based on measured values

CB&I
Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431
ph (561) 391 8102

Sample Information	
Project Name:	McFaddin Sand Search
Analysis Date:	02-20-15
Analyzed By:	GS
Easting (X, ft):	3,474,705
Northing (Y, ft):	13,787,695
Horizontal System:	NAD 1983
Vertical System:	NAVD 88

SIEVE ANALYSIS JEFFERSON_COUNTY_2015_VCS.GPJ JPBRAZIL.GDT 4/29/15



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
JCVC-15-11 #2	—●—	-39.3	SM	#200 - 30.92 #230 - 23.23			3.46	3.32	-0.14	3.03	0.31

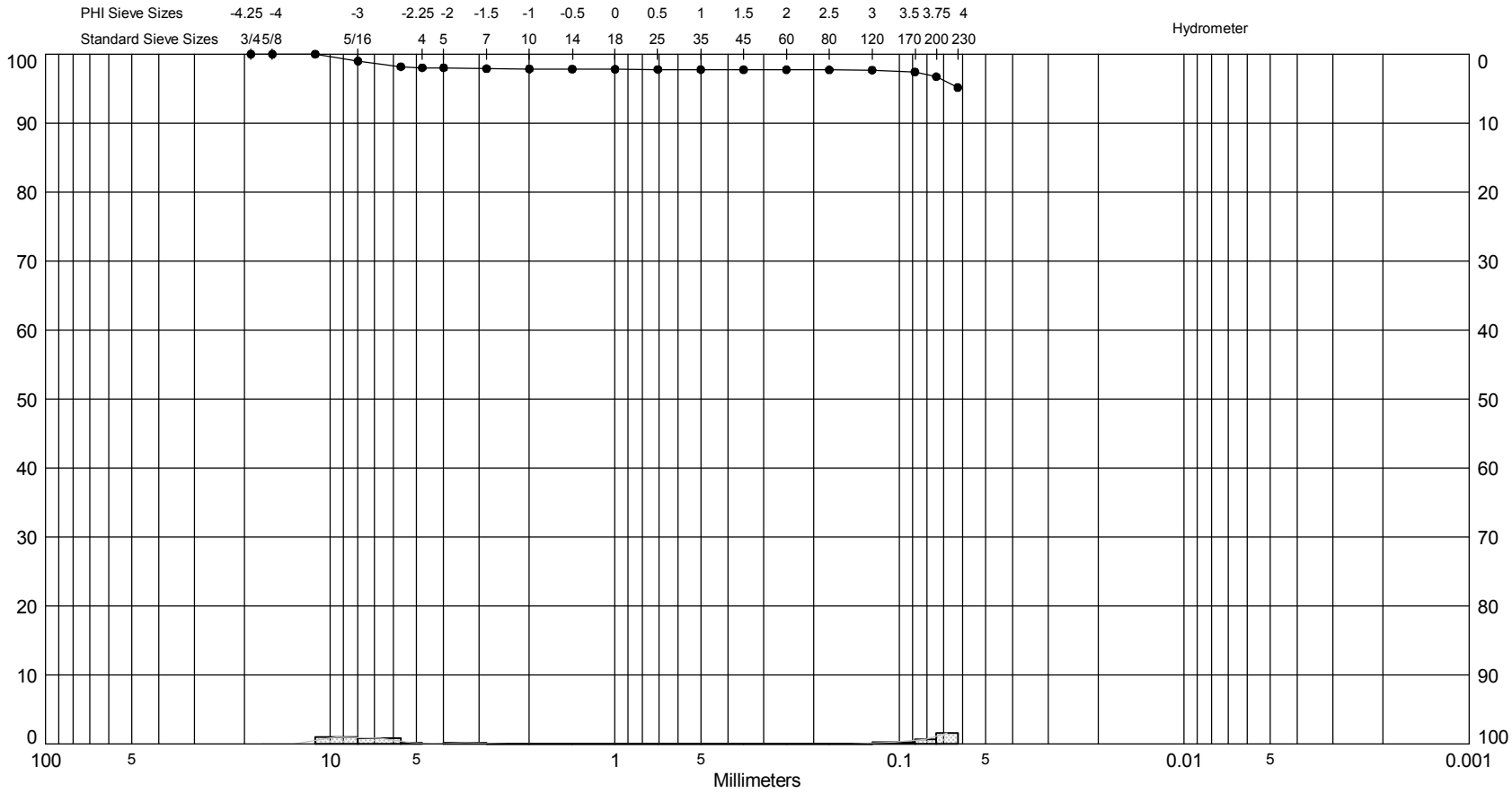
Comments:

Depths and elevations based on measured values

CB&I
Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431
ph (561) 391 8102

Sample Information	
Project Name:	McFaddin Sand Search
Analysis Date:	02-20-15
Analyzed By:	GS
Easting (X, ft):	3,474,705
Northing (Y, ft):	13,787,695
Horizontal System:	NAD 1983
Vertical System:	NAVD 88

SIEVE ANALYSIS JEFFERSON_COUNTY_2015_VCS.GPJ JPBRAZIL.GDT 4/29/15



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
JCVC-15-11 #3	—●—	-40.4	CL	#200 - 96.73 #230 - 95.17				0.71	-0.19	1.1	3.27

Comments:

Depths and elevations based on measured values

CB&I
Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431
ph (561) 391 8102

Sample Information	
Project Name:	McFaddin Sand Search
Analysis Date:	02-20-15
Analyzed By:	GS
Easting (X, ft):	3,474,705
Northing (Y, ft):	13,787,695
Horizontal System:	NAD 1983
Vertical System:	NAVD 88

SIEVE ANALYSIS JEFFERSON_COUNTY_2015_VCS.GPJ JPBRAZIL.GDT 4/29/15

Granularmetric Report

Depths and elevations based on measured values

Project Name: McFaddin Sand Search

Sample Name: JCVC-15-11 #1

Analysis Date: 02-20-15

Analyzed By: GS

CB&I
Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431
ph (561) 391 8102

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,474,705	13,787,695	Texas South Central	-35.8 NAVD 88

USCS:	Munsell:	Comments:
CL	Wet - 10YR-5/2 Dry - 10YR-7/1 Washed - 10YR-7/1	

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
108.87	9.98	2.26	0.07	#200 - 96.22 #230 - 92.97			

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.00	0.00	0.00	0.00
18	0.00	1.00	0.00	0.00	0.00	0.00
25	0.50	0.71	0.00	0.00	0.00	0.00
35	1.00	0.50	0.02	0.02	0.02	0.02
45	1.50	0.35	0.01	0.01	0.03	0.03
60	2.00	0.25	0.05	0.05	0.08	0.08
80	2.50	0.18	0.06	0.06	0.14	0.14
120	3.00	0.13	0.11	0.10	0.25	0.24
170	3.50	0.09	1.01	0.93	1.26	1.17
200	3.75	0.07	2.84	2.61	4.10	3.78
230	4.00	0.06	3.54	3.25	7.64	7.03

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
						3.84

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.64	0.08	0.35	-3.62	22.69

GRANULARMETRIC REPORT JEFFERSON_COUNTY_2015_VCS.GPJ JPBRAZIL.GDT 4/29/15

Granularmetric Report

Depths and elevations based on measured values

Project Name: McFaddin Sand Search

Sample Name: JCVC-15-11 #2

Analysis Date: 02-20-15

Analyzed By: GS

CB&I
Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431
ph (561) 391 8102

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,474,705	13,787,695	Texas South Central	-39.3 NAVD 88

USCS:	Munsell:	Comments:
SM	Wet - 2.5Y-3/2 Dry - 2.5Y-6/2 Washed - 10YR-7/1	

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
85.29	68.81	3.24	0.11	#200 - 30.92 #230 - 23.23			

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.00	0.00	0.00	0.00
18	0.00	1.00	0.00	0.00	0.00	0.00
25	0.50	0.71	0.00	0.00	0.00	0.00
35	1.00	0.50	0.00	0.00	0.00	0.00
45	1.50	0.35	0.01	0.01	0.01	0.01
60	2.00	0.25	0.00	0.00	0.01	0.01
80	2.50	0.18	0.04	0.05	0.05	0.06
120	3.00	0.13	9.05	10.61	9.10	10.67
170	3.50	0.09	36.77	43.11	45.87	53.78
200	3.75	0.07	13.05	15.30	58.92	69.08
230	4.00	0.06	6.56	7.69	65.48	76.77

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
		3.94	3.46	3.17	3.06	2.73

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.32	0.10	0.31	-0.14	3.03

GRANULARMETRIC REPORT JEFFERSON_COUNTY_2015_VCS.GPJ JPBRAZIL.GDT 4/29/15

Granularmetric Report

Depths and elevations based on measured values

Project Name: McFaddin Sand Search

Sample Name: JCVC-15-11 #3

Analysis Date: 02-20-15

Analyzed By: GS

CB&I
Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431
ph (561) 391 8102

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,474,705	13,787,695	Texas South Central	-40.4 NAVD 88

USCS:	Munsell:	Comments:
CL	Wet - 2.5Y-4/2 Dry - 2.5Y-7/1 Washed - 2.5Y-8/1	

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
123.03	6.82	0.80	0.08	#200 - 96.73 #230 - 95.17			

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	1.23	1.00	1.23	1.00
3.5	-2.50	5.66	1.01	0.82	2.24	1.82
4	-2.25	4.76	0.17	0.14	2.41	1.96
5	-2.00	4.00	0.00	0.00	2.41	1.96
7	-1.50	2.83	0.18	0.15	2.59	2.11
10	-1.00	2.00	0.04	0.03	2.63	2.14
14	-0.50	1.41	0.04	0.03	2.67	2.17
18	0.00	1.00	0.02	0.02	2.69	2.19
25	0.50	0.71	0.02	0.02	2.71	2.21
35	1.00	0.50	0.02	0.02	2.73	2.23
45	1.50	0.35	0.02	0.02	2.75	2.25
60	2.00	0.25	0.01	0.01	2.76	2.26
80	2.50	0.18	0.02	0.02	2.78	2.28
120	3.00	0.13	0.04	0.03	2.82	2.31
170	3.50	0.09	0.33	0.27	3.15	2.58
200	3.75	0.07	0.85	0.69	4.00	3.27
230	4.00	0.06	1.92	1.56	5.92	4.83

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95

Moment Statistics	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
	0.71	0.61	3.27	-0.19	1.1

GRANULARMETRIC REPORT JEFFERSON_COUNTY_2015_VCS.GPJ JPBRAZIL.GDT 4/29/15


MCFADDIN
JEFFERSON COUNTY
JCVC - I5 - 11
0.0 - 2.0


MCFADDIN
JEFFERSON COUNTY
JCVC - I5 - 11
2.0 - 4.0


MCFADDIN
JEFFERSON COUNTY
JCVC - I5 - 11
4.0 - 6.0


MCFADDIN
JEFFERSON COUNTY
JCVC - I5 - 11
6.0 - 8.0


CB&I
MCFADDIN
JEFFERSON COUNTY
JCVC - I5 - 11
8.0 - 10.0


CB&I
MCFADDIN
JEFFERSON COUNTY
JCVC - I5 - 11
10.0 - 12.0


CB&I
MCFADDIN
JEFFERSON COUNTY
JCVC - I5 - 11
12.0 - 14.0


CB&I
MCFADDIN
JEFFERSON COUNTY
JCVC - I5 - 11
14.0 - 16.0


MCFADDIN
JEFFERSON COUNTY
JCVC - I5 - 11
16.0 - 18.0


MCFADDIN
JEFFERSON COUNTY
JCVC - I5 - 11
18.0 - 19.7