

Beach

### Line 14

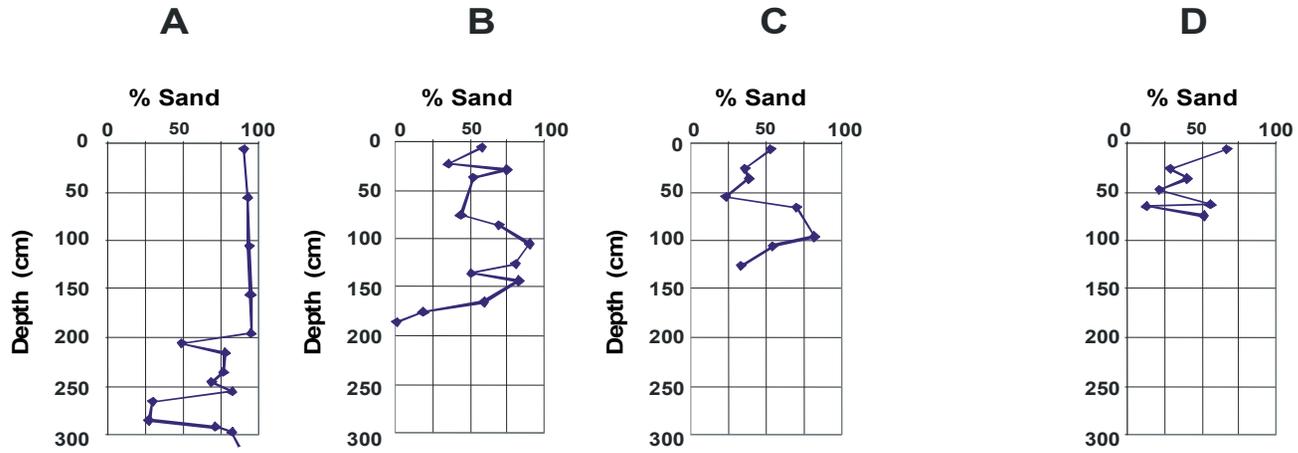


Figure 80: Fence Profile of Line 14

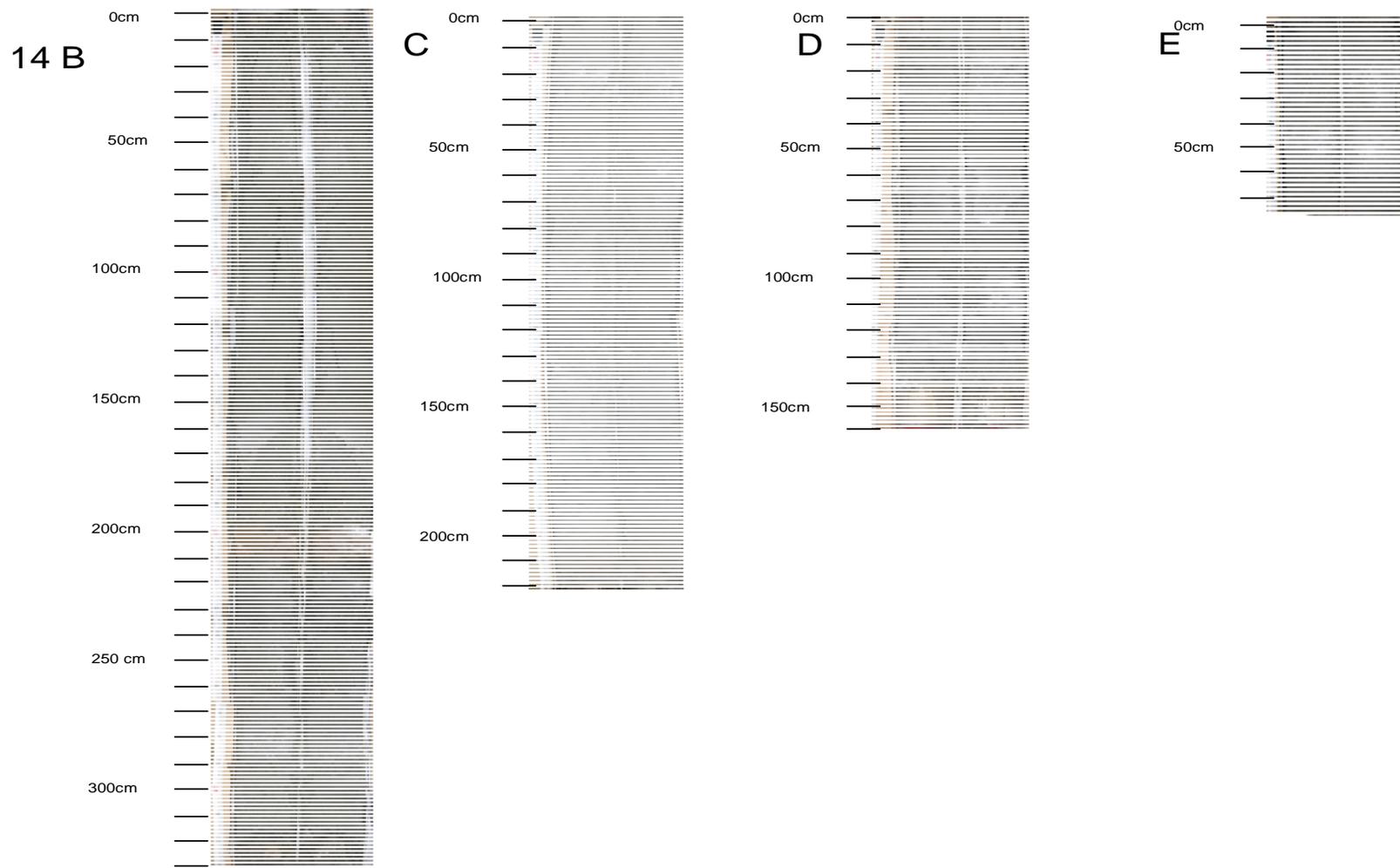


Figure 81: Core Photographs of line 14

## **CORE 14D:**

Core 14D was taken at a water depth of 8.5m (28ft) (Table 1) and had a total length of 138cm (54.3in) (Figures 97&98). A total of 8 grain size samples were taken at depths of 1-10cm (0.4-3.9in), 21-30cm (8.3-11.8in), 31-40cm (12.2-15.7in), 51-58cm (20.1-22.8in), 61-70cm (28-31.5in), 91-100cm (35.8-39.4in), 101-110cm (39.3-43.3in) and 121-130cm (47.6-51.2in). Analyses from the core revealed that there was a sandy mud layer for the first 57cm (22.4in) of the core with a sand content less than 50%. From 57cm (22.4in) to 100cm (39.4in) there is a sand layer with sand content of up to 80% and a mean grain size greater than 0.04mm (4.7phi). At the bottom of the core there is an additional muddy layer with sand content less than 45% (Tables 65&66). Sand and shell weights are shown in Table 64. Percent sand, silt and clay are shown in Table 65. Median grain size, mean grain size, skewness and sorting index are shown in Table 66. Graphs of the results are located in Figures 99-102.

It was determined that core 14D had approximately 45cm (17.7in) of sediment contained at least 50% sand, of which 40cm (15.7in) was located shallower than 1m (39.4in) depth. The average grain size in the upper 1m (3.28ft) was determined to be 0.0451mm.

Core#: 14D  
 Core Date: 7/14/2005

Date Split/subsampled	Length: 138 cm
7/14/2005	Lat: 37° 10.467'
	Long: 97° 26.778'

Centi-Meters	Munsell Soil Color	Depths Sampled	Description:
0-23	5y 4/1	0-1	0-8 cm → sandy mud w/shell hash
23-26	5YR 4/1	10-11	8-11 cm → <del>with shell hash</del> mud w/shell hash
26-27	5YR 4/1	20-21	11-14 cm → muddy sand w/trace shell hash
27-28	5YR 4/1	30-31	14-23 cm → sandy mud w/fine sand laminations
28-29	5YR 4/1	40-41	23-26 cm → redish/brown clay dominated mud
29-30	5YR 4/1	50-51	26-57 cm → sandy mud w/fine sand laminations and trace shell hash
30-31	5YR 4/1	60-61	57-76 cm → sand w/trace shell hash
31-32	5YR 4/1	70-71	76-94 cm → shell hash layer w/sand
32-33	5YR 4/1	80-81	94-99 cm → sand w/trace shell hash
33-34	5YR 4/1	90-91	99-104 cm → muddy sand fining into mud
34-35	5YR 4/1	100-101	104-126 cm → mud w/fine sand laminations
35-36	5YR 4/1	110-111	126-138 cm → sand w/trace shell hash
36-37	5YR 4/1	120-121	
37-38	5YR 4/1	130-131	
38-39	5YR 4/1	140-141	
39-40	5YR 4/1	150-151	

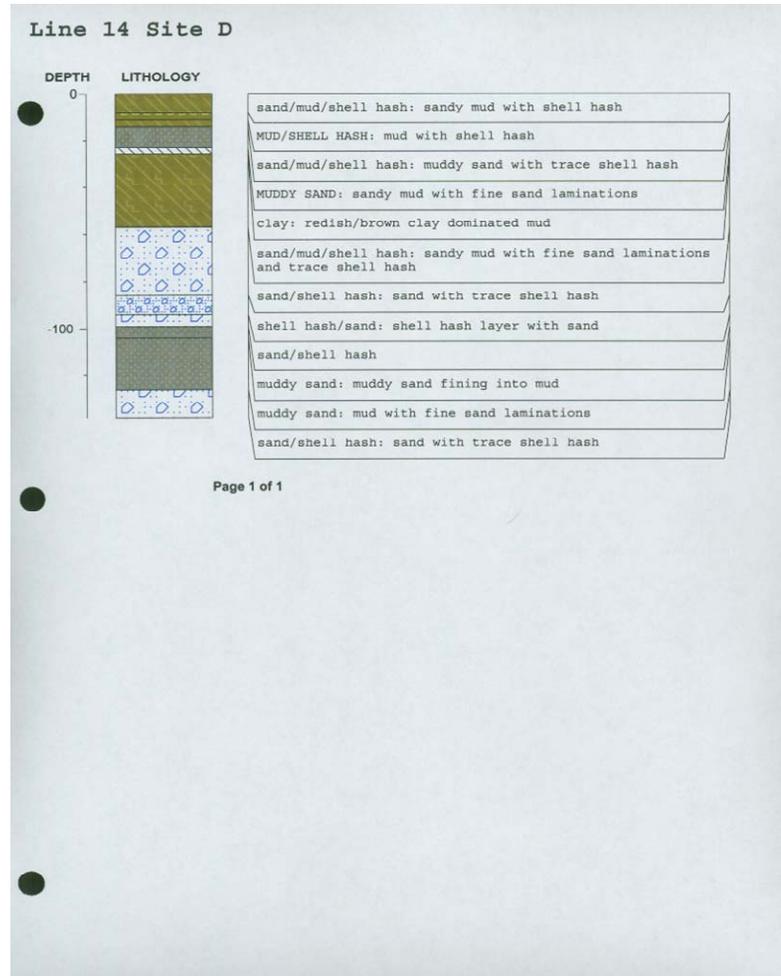


Figure 97: Core Log of 14D for depths 0-150cm  
 Figure 98: Computerized core log for 14D

Core ID	Sample Depth (cm)	#10/ 2.0mm Screen Sample Weight (g)	#14/ 1.40mm Screen Sample Weight (g)	#18/ 1.00mm Screen Sample Weight (g)	#25/ 710µm Screen Sample Weight (g)	#35/ 500µm Screen Sample Weight (g)	#45/ 355µm Screen Sample Weight (g)	#60/ 250µm Screen Sample Weight (g)	#80/ 180µm Screen Sample Weight (g)	#125/ 125µm Screen Sample Weight (g)	#170/ 90µm Screen Sample Weight (g)	#200/ 75µm Screen Sample Weight (g)	#230/ 63µm Screen Sample Weight (g)
14D	1-10											18.72	1.17
14D	21-30											15.44	1.85
14D	31-40											14.54	5.14
14D	51-58											6.95	1.58
14D	61-70	0.00	0.02	0.01	0.02	0.05	0.18	0.28	0.36	11.82	63.30	44.89	4.89
14D	91-100	0.08	0.05	0.08	0.08	0.06	0.10	0.20	0.40	13.93	88.42	24.68	2.20
14D	101-110											29.06	5.60
14D	121-130											12.50	1.54

Table 62: RO-TAP data for core 14D

ASTM Classification		coarse sand	medium sand	medium sand	medium sand	medium sand	fine sand	fine sand	fine sand	fine sand	fine sand	fine sand	silt
Wentworth Classification		granule	very coarse sand	very coarse sand	coarse sand	coarse sand	medium sand	fine sand	fine sand	fine sand	very fine sand	very fine sand	very fine silt
Core ID	Sample Depth (cm)	% finer than N10/ 2.0mm/ -1.0Φ Screen	% finer than N14/ 1.40mm / -0.5Φ Screen	% finer than N18/ 1.00mm/ 0.0Φ Screen	% finer than N25/ 710μm / 0.5Φ Screen	% finer than N35/ 500μm/ 1.0Φ Screen	% finer than N45/ 355μm / 1.5Φ Screen	% finer than N60/ 250μm 2.0Φ Screen	% finer than N80/ 180μm/ 2.5 Φ Screen	% finer than N125/ 125μm/ 3.0Φ Screen	% finer than N170/ 90μm / 3.5Φ Screen	% finer than N200/ 75μm / 4.0Φ Screen	% finer than 4μm/ 8Φ
Observed Contents of the sample		shell only	shell only	shell only	shell only	shell only	shell only	shell only	sand	sand	sand	sand	silt
14D	1-10											50.2	31.3
14D	21-30											68.4	43.0
14D	31-40											71.8	31.8
14D	51-58											81.6	59.4
14D	61-70	100.0	100.0	100.0	100.0	99.9	99.8	99.7	99.5	92.9	57.7	32.7	9.5
14D	91-100	99.9	99.9	99.9	99.8	99.8	99.7	99.6	99.3	90.5	34.8	19.2	6.8
14D	101-110											54.7	27.6
14D	121-130											70.5	45.7

Table 63: Percent Finer table for core 14

Core ID	Sample Depth (cm)	shell weight	200+ weight	200-230 weight	sand + shell
14D	1-10		18.72	1.17	18.72
14D	21-30		15.44	1.85	15.44
14D	31-40		14.54	5.14	14.54
14D	51-58		6.95	1.58	6.95
14D	61-70	0.28	120.65	4.89	120.93
14D	91-100	0.45	127.63	2.20	128.08
14D	101-110		29.06	5.60	29.06
14D	121-130		12.50	1.54	12.50

Table 64: Shell and Sand weight for core 14D

Core ID	sample id	mid sample depth	% shell	% sand	%silt	%clay	total %
14D	1-10	5.5		49.8	18.9	31.3	100
14D	21-30	25.5		31.6	25.4	43.0	100
14D	31-40	35.5		28.2	40.1	31.8	100
14D	51-58	54.5		18.4	22.2	59.4	100
14D	61-70	65.5	0.2	67.1	23.2	9.5	100
14D	91-100	95.5	0.3	80.5	12.4	6.8	100
14D	101-110	105.5		45.3	27.1	27.6	100
14D	121-130	125.5		29.5	24.8	45.7	100

Table 65: Percent Shell, Sand, Silt and Clay for core 14D

Station ID	Average Depth	Median Grain Size	Median Grain Size	Mean Grain Size	Mean Grain Size	Skewness	Sorting Index
	(cm)	(phi)	(mm)	(phi)	(mm)		
CC14D/1-10	5.5						
CC14D/21-30	25.5						
CC14D/31-40	35.5						
CC14D/51-58	54.5						
CC14D/61-70	65.5	3.568	0.0839	4.7161	0.0378	0.7960	1.8985
CC14D/91-100	91	3.363	0.0968	4.2503	0.0523	0.8319	1.6389
CC14D/101-110	105.5						
CC14D/121-130	125.5						

PINK=Upper sand area

Table 66: Median grain size, Mean grain size, Skewness and Sorting Index for core 14D

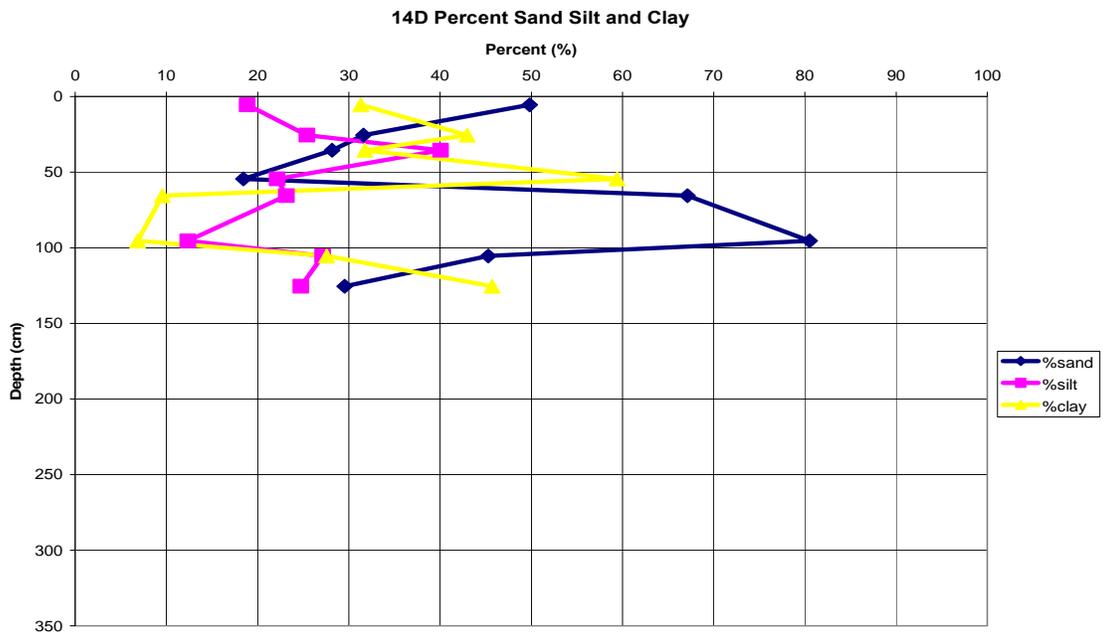


Figure 99: Percent Sand, Silt and Clay graph for core 14D

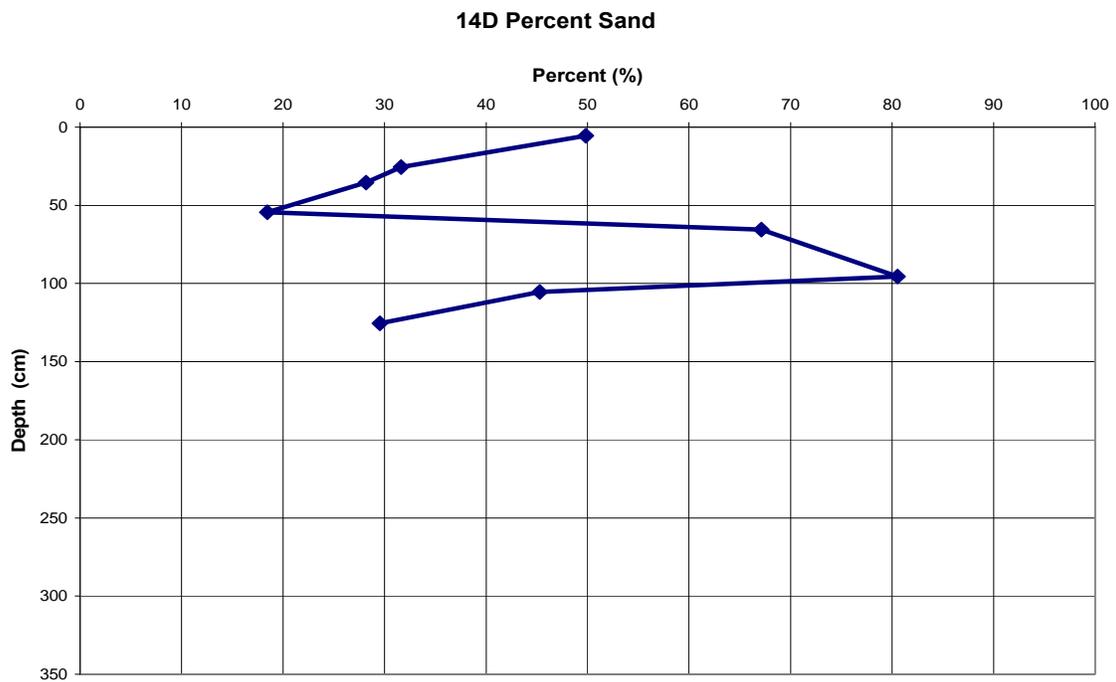


Figure 100: Percent Sand graph for core 14D

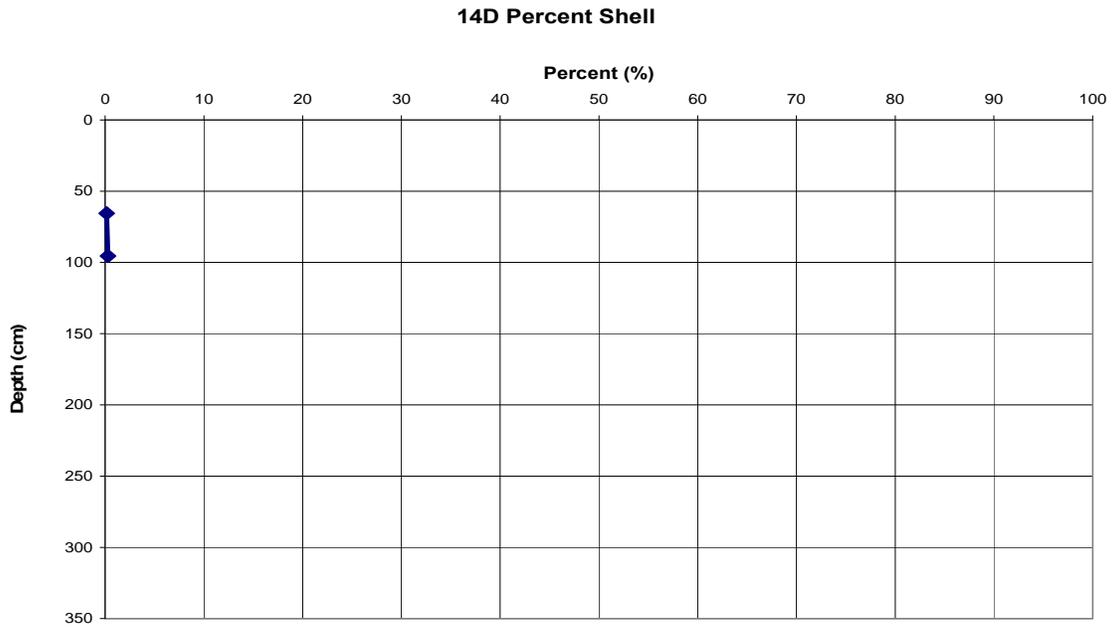


Figure 101: Percent Shell graph for core 14D

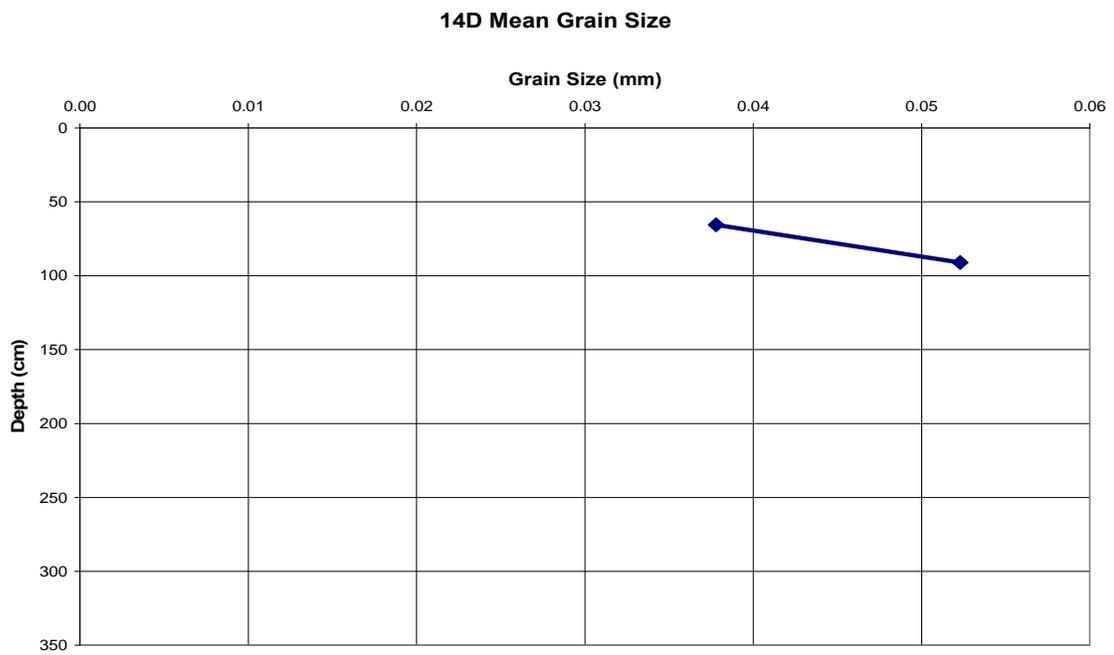


Figure 102: Mean grain size graph for core 14D