

Figure 18: Fence Profile for Line 12

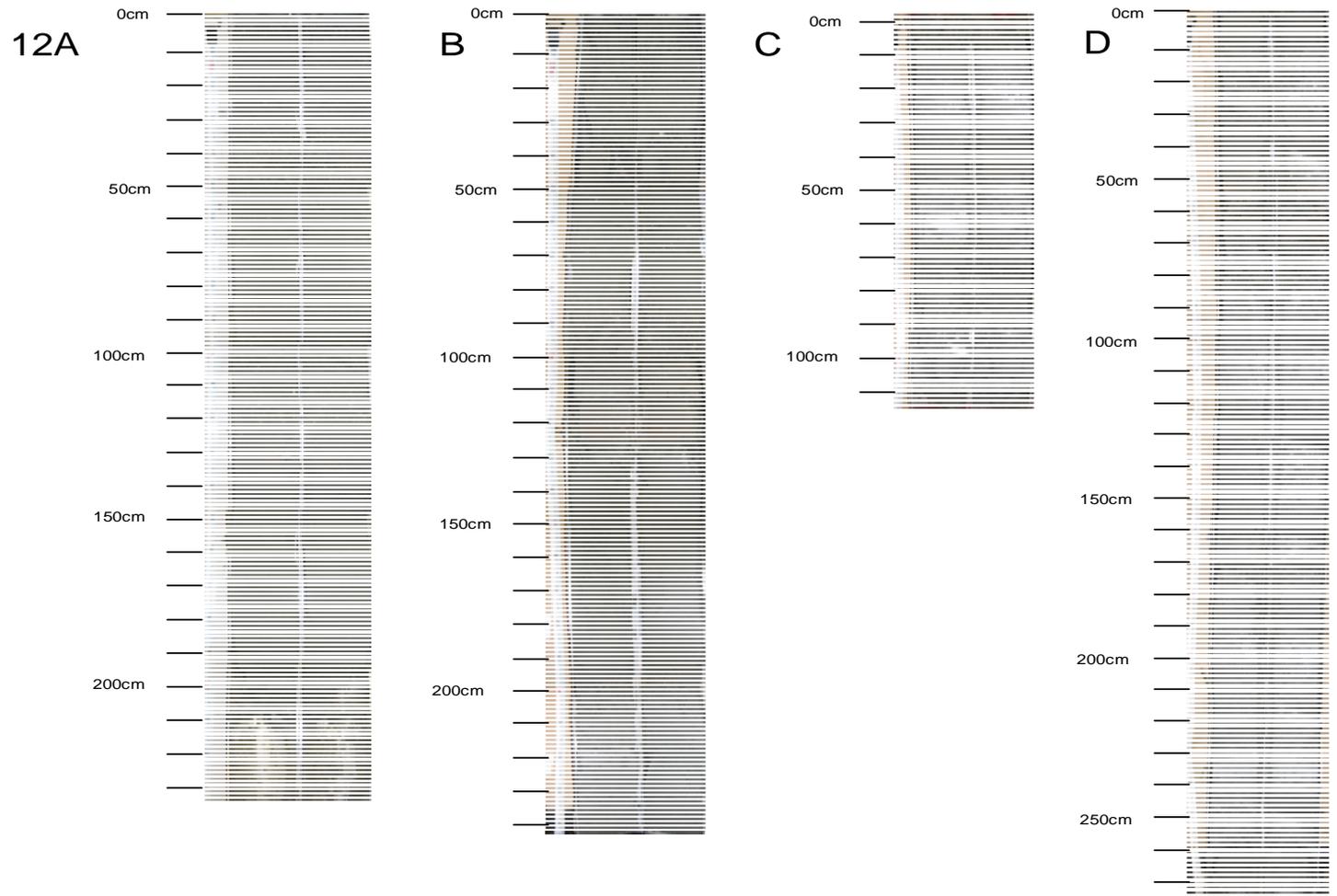


Figure 19: Core photographs of Line 12

CORE 12A:

Core 12A was taken at a water depth of 4.9m (16ft) (Table 1) and was a total length of 208cm (81.9in) (Figures 20-22). A total of 8 grain size samples were taken at

depths of 1-5cm (0.4-2in), 5-10cm (2-3.9in), 31-40cm (12.2-15.7in), 51-60cm (20-23.6in), 101-110cm (39.3-49.8in), 131-134cm (51.6-52.8in), 151-160cm (59.4-63in) and 201-210cm(78.7-82.7in). The core contained mostly sand with some shell hash and grain size analyses revealed that the entire core had at least 83% sand and a mean grain size of at least 0.094mm (3.4phi) (Tables 15&16). Sand and shell weights are shown in Table 14. Percent sand, silt and clay are shown in Table 15. Median grain size, mean grain size, skewness and sorting index are shown in Table 16. Graphs of the results are located in Figures 23-26.

It was determined that core 12A had approximately 208cm (81.9in) of sediment contained at least 50% sand, of which 100cm (39.4in) was located shallower than 1m (39.4in) depth. The average grain size in the upper 1m (3.28ft) was determined to be 0.1021mm.

Core#: 12A
 Core Date: 7/8/2005

Date Split/subsampled	Length: 208cm
7/13/2005	Lat: 39 12.473
	Long: 94 54.962

Centi-Meters	Munsell Soil Color	Depths Sampled	Description:
0-5cm		WC	0-4cm → slightly darker sand w/some shell hash
5-30cm	5Y 3/1	0-1cm 10-11cm 20-21cm 29-30cm 30-41cm 50-51cm 60-61cm 70-71cm	4-7cm → shell hash w/sand 7-29cm → sand w/trace shell hash 29-52cm → shell hash w/sand
30-33cm	2.5YR 4/4	80-81cm 90-91cm 100-101cm 110-111cm 120-121cm 130-131cm 140-141cm 150-151cm 160-161cm 170-171cm 180-181cm 190-191cm 200-201cm	52-97cm → sand w/trace shell hash 97-103cm → shell hash w/sand 103-130cm → sand w/ trace shell hash 130-181cm → sand w/ trace shell hash & patch of red/brown sand
150-160cm		GS	134-165cm → sand w/trace shell hash 165-169cm → sand w/ trace shell hash & circular ring of slightly darker sand 169-193cm → sand w/trace shell hash 193-200cm → slightly darker sand w/trace shell hash

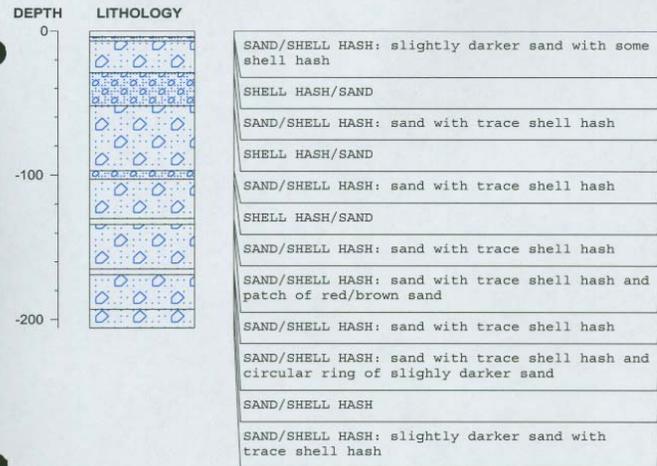
Core#: 12A
 Core Date: 7/8/2005

Date Split/subsampled	Length: 209cm
7/13/2005	Lat: 39 12.473
	Long: 94 54.962

Centi-Meters	Munsell Soil Color	Depths Sampled	Description:
150-160cm			
160-170cm			
170-180cm			
180-190cm			
190-200cm			

Figure 20: Core Log of 12A for depths 0-150cm
 Figure 21: Core Log of 12A for depths 150-300cm

Line 12 Site A



Page 1 of 1

Figure 22: Computerized core log for core 12A

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)
12A	1-5	1.19	0.87	0.58	0.35	0.20	0.24	0.39	0.68	3.68	54.36	24.46	7.94
12A	5-10	0.89	0.22	0.22	0.14	0.10	0.14	0.26	0.58	5.32	60.73	9.30	3.86
12A	31-40	4.42	1.44	3.06	2.15	1.39	0.79	1.04	2.03	10.78	73.63	9.96	2.90
12A	51-60	0.24	0.20	0.39	0.32	0.20	0.18	0.39	0.80	4.53	70.02	8.20	2.47
12A	101-110	0.62	0.23	0.28	0.15	0.13	0.11	0.18	0.56	8.78	64.99	7.95	2.68
12A	131-134	0.31	0.05	0.04	0.01	0.01	0.07	0.23	0.50	5.77	54.65	7.10	2.95
12A	151-160	0.00	0.00	0.03	0.04	0.03	0.09	0.16	0.47	13.07	58.82	8.42	1.99
12A	201-210	0.00	0.00	0.02	0.04	0.02	0.04	0.07	0.34	6.23	51.08	15.99	7.83

Table 12: RO-TAP data for core 12A

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
12A	1-5	98.8	97.9	97.3	97.0	96.7	96.5	96.1	95.4	91.7	36.3	11.3	1.5
12A	5-10	98.9	98.7	98.4	98.3	98.1	98.0	97.7	97.0	90.7	18.8	7.7	2.1
12A	31-40	96.2	95.0	92.4	90.5	89.3	88.7	87.8	86.0	76.8	13.8	5.3	2.0
12A	51-60	99.7	99.5	99.1	98.7	98.5	98.3	97.9	97.0	92.0	14.7	5.6	2.0
12A	101-110	99.3	99.1	98.7	98.6	98.4	98.3	98.1	97.5	87.7	15.3	6.5	2.0
12A	131-134	99.6	99.5	99.5	99.5	99.4	99.4	99.1	98.4	90.8	18.8	9.5	3.3
12A	151-160	100.0	100.0	100.0	99.9	99.9	99.8	99.6	99.1	84.0	16.4	6.7	2.5
12A	201-210	100.0	100.0	100.0	99.9	99.9	99.9	99.8	99.4	92.4	34.6	16.5	2.5

Table 13: Percent finer table for core 12A

Core ID	Sample Depth (cm)	shell weight	200+ weight	200-230 weight	sand + shell
12A	1-5	3.43	83.57	7.94	87.00
12A	5-10	1.71	76.19	3.86	77.90
12A	31-40	13.25	97.44	2.90	110.69
12A	51-60	1.53	83.94	2.47	85.47
12A	101-110	1.52	82.46	2.68	83.98
12A	131-134	0.49	68.25	2.95	68.74
12A	151-160	0.19	80.94	1.99	81.13
12A	201-210	0.12	73.71	7.83	73.83

Table 14: Shell and Sand weights for core 12A

Core ID	sample id	mid sample depth	% shell	% sand	%silt	%clay	total %
CC12A	1-5	3	3.5	85.2	9.8	1.5	100
CC12A	5-10	7	2.0	90.2	5.7	2.1	100
CC12A	31-40	35.5	11.3	83.4	3.3	2.0	100
CC12A	51-60	55.5	1.7	92.7	3.7	2.0	100
CC12A	101-110	105.5	1.7	91.8	4.5	2.0	100
CC12A	131-134	132.5	0.6	89.9	6.2	3.3	100
CC12A	151-160	155.5	0.2	93.1	4.2	2.5	100
CC12A	201-210	205.5	0.1	83.4	14.0	2.5	100

Table 15: Percent Shell, Sand, Silt and Clay for core 12A

Station ID	Average Depth	Median Grain Size	Median Grain Size	Mean Grain Size	Mean Grain Size	Skewness	Sorting Index
	(cm)	(phi)	(mm)	(phi)	(mm)		
CC12A/1-5	3	3.392	0.0948	3.3034	0.0947	0.0299	0.2942
CC12A/5-10	7.5	3.276	0.1028	3.2894	0.1018	0.1948	0.2621
CC12A/31-40	35.5	3.213	0.1074	3.1934	0.1089	-0.4184	0.7933
CC12A/51-60	55.5	3.264	0.1037	3.2716	0.1031	0.1763	0.2333
CC12A/101-110	105.5	3.252	0.1045	3.2592	0.1040	0.1673	0.2611
CC12A/131-134	132.5	3.274	0.1029	3.2898	0.1018	0.2544	0.2844
CC12A/151-160	155.5	3.244	0.1051	3.2495	0.1047	0.1480	0.2879
CC12A/201-210	205.5	3.367	0.0965	3.4067	0.0939	0.2316	0.3395

PINK=Upper sand area

Table 16: Median grain size, Mean grain size, Skewness and Sorting Index

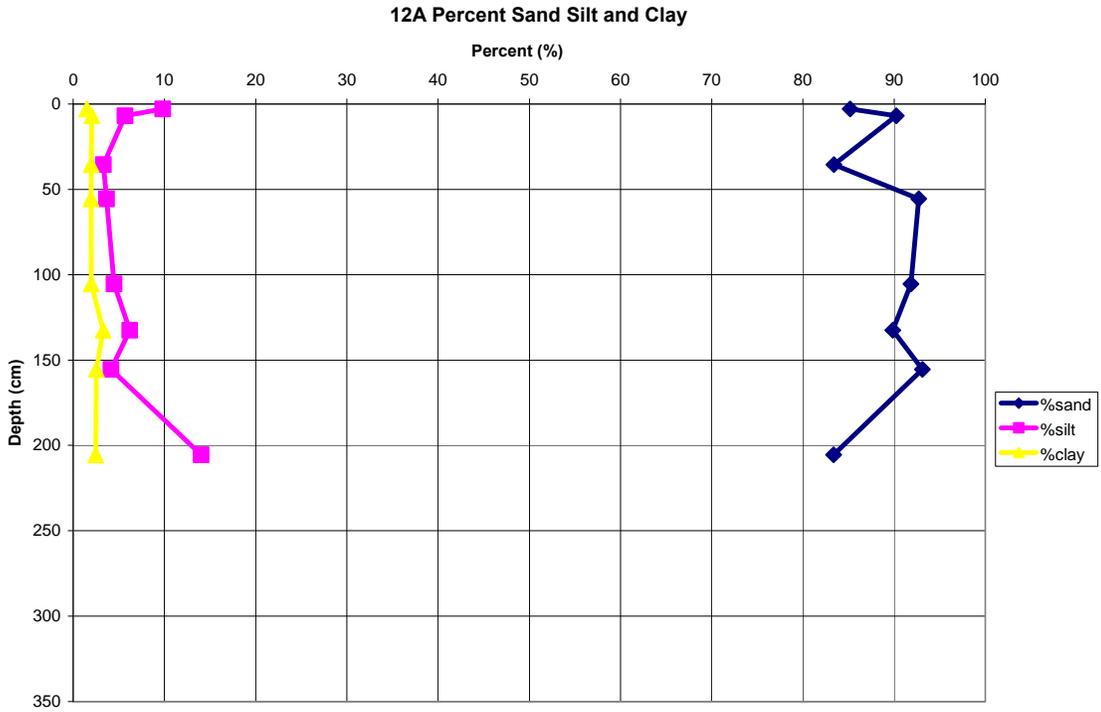


Figure 23: Percent Sand, Silt and Clay graph for core 12A

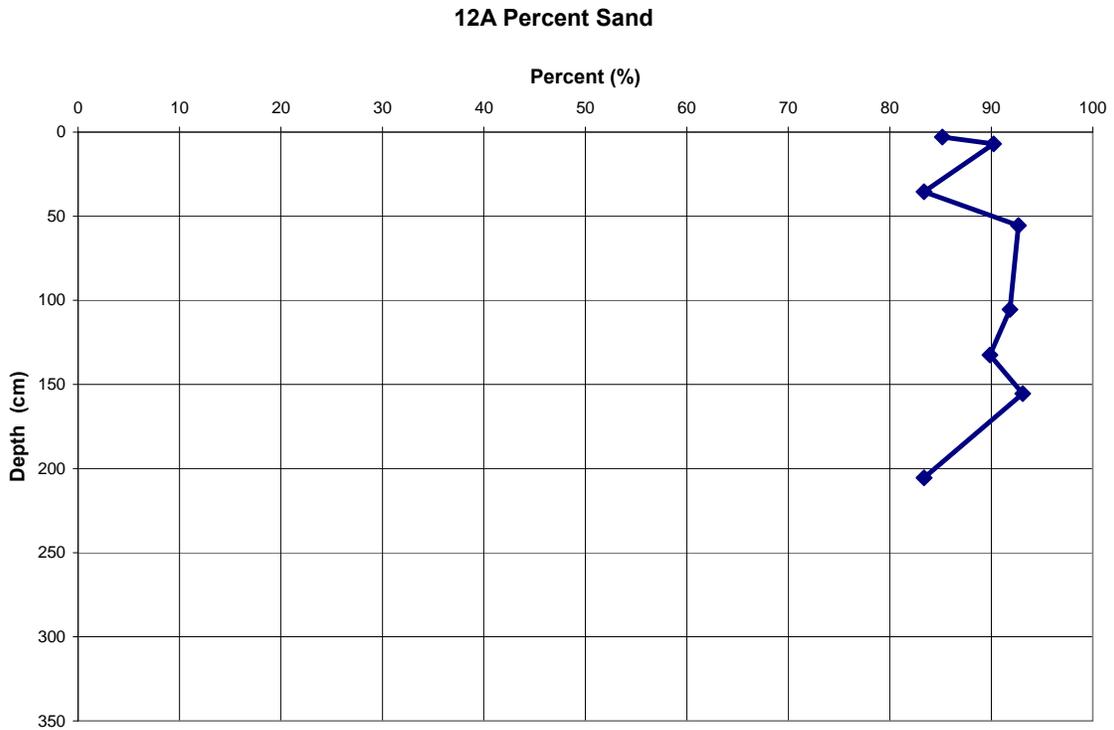


Figure 24: Percent Sand graph for core 12A

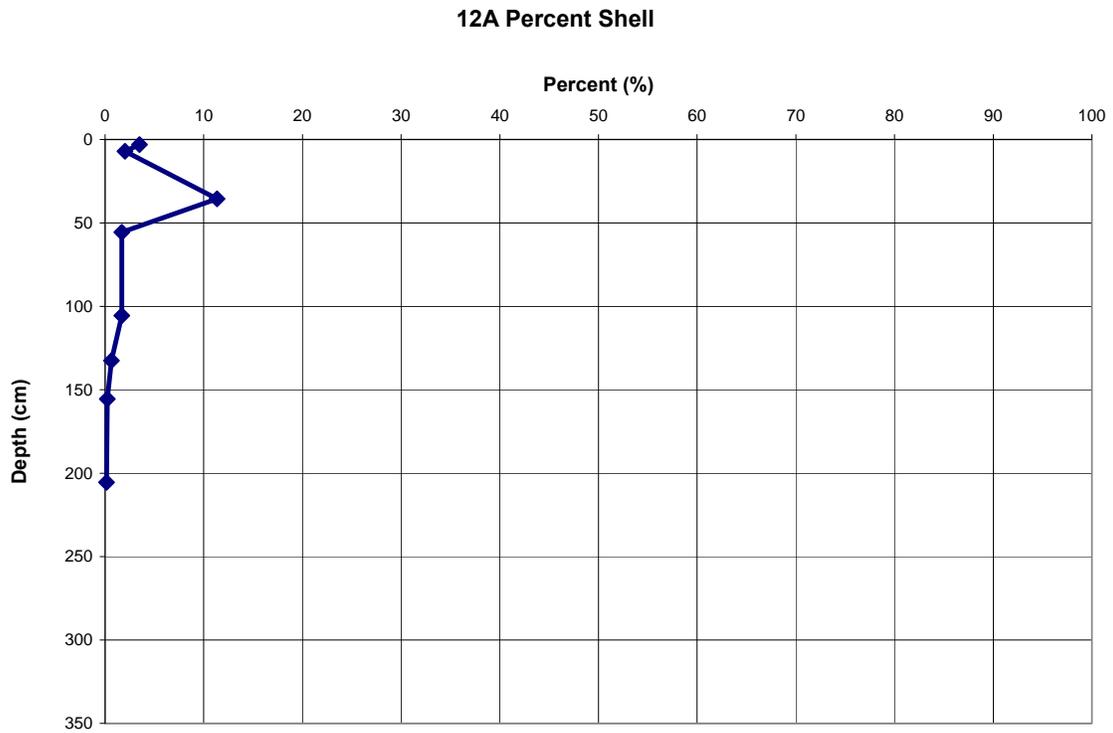


Figure 25: Percent Shell for core 12A

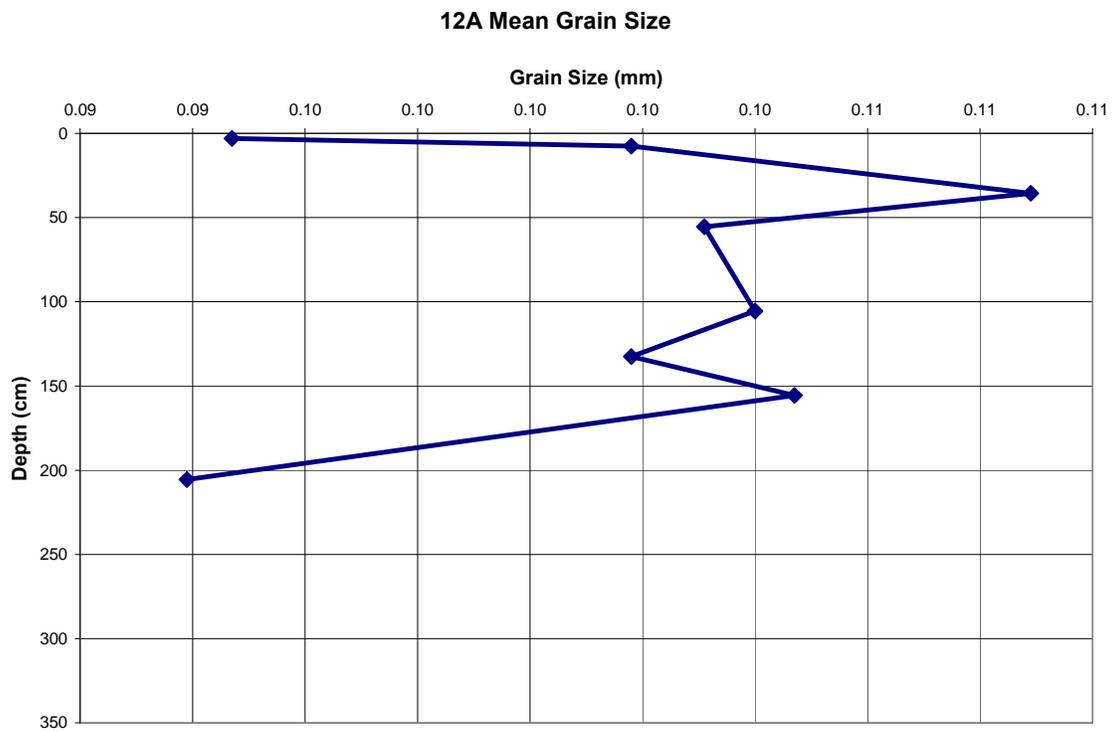


Figure 26: Mean Grain Size for core 12A