

Figure 18: Fence Profile for Line 12

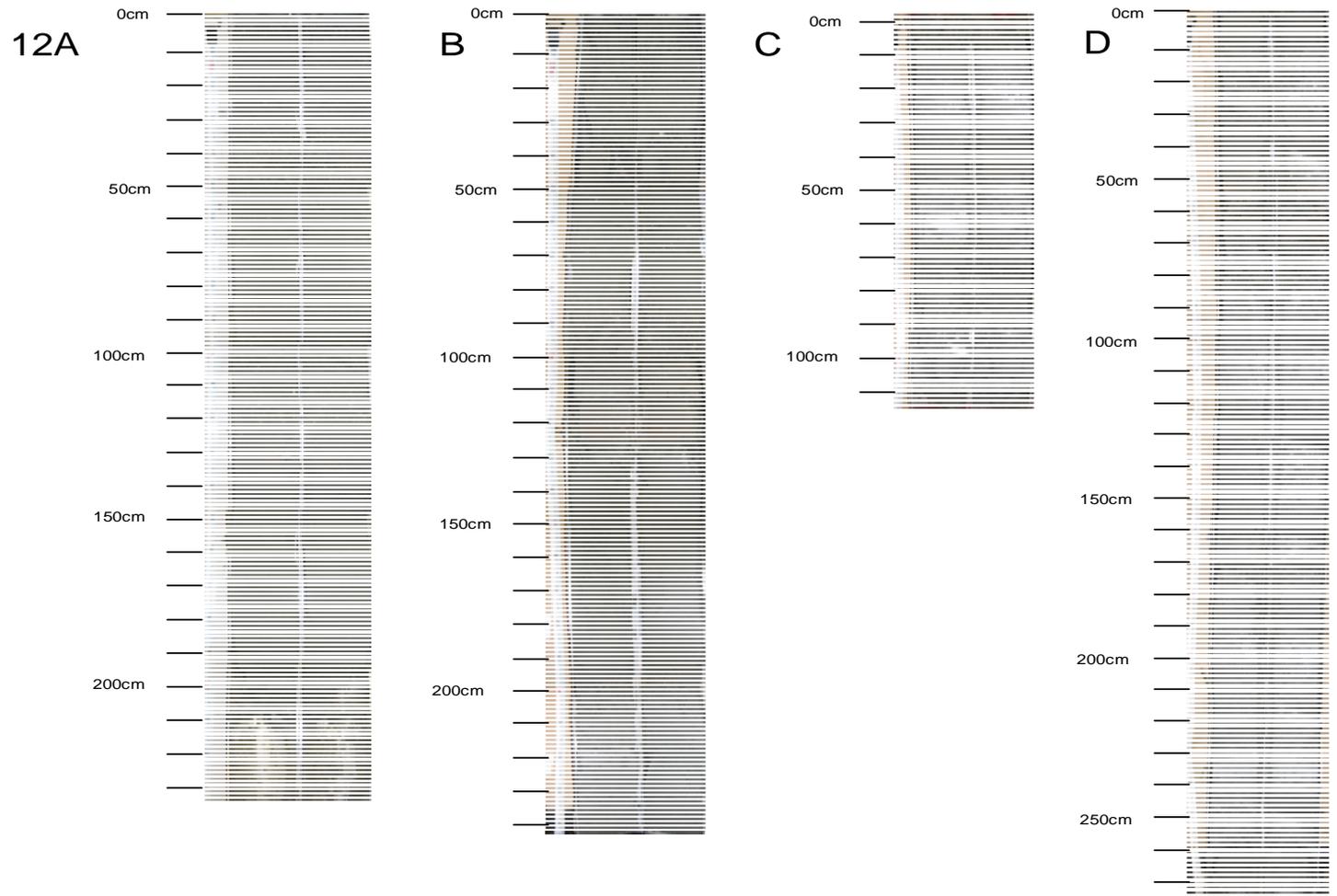


Figure 19: Core photographs of Line 12

## **CORE 12B:**

Core 12B was taken at a water depth of 5.9m(19.2ft) (Table 1) and had a total length of 241cm (94.9in) (Figures 27-29). A total of 11 grain size samples were taken at depths of 1-10cm (0.4-3.9in), 81-90cm (31.9- 35.4in), 91-100cm (35.8-39.4in), 101-110cm (39.3-49.8in), 115-120cm (45.3-47.2), 121-127cm (47.6- 50in), 127-130cm (50-51.2in), 131-140cm (51.6-55.1in), 191-200cm (75.2-78.7in), 201-210cm (78.7-82.7in) and 231-240cm (90.9-94.5in). The top 90cm (35.4in) of the core contained sandy sediment which had a percent sand of over 83% and mean grain size of at least 0.093mm (3.4phi). Below this depth sand percent dropped to almost 0% at a depth of 120cm (47.2in) when clayey sediment was encountered. At a depth of approximately 125cm to 200cm (49.2 to 78.7in) another sandy layer was observed, percent sand in this region

increased to a maximum of 82% and had a mean grain size of at least 0.096mm (3.4phi). At the bottom of the core another clayey region was encountered and sand percents dropped to below 20% (Tables 20&21). Sand and shell weights are shown in Table 19. Percent sand, silt and clay are shown in Table 20. Median grain size, mean grain size, skewness and sorting index are shown in Table 21. Graphs of the results are located in figures 30-33.

It was determined that core 12B had approximately 185cm (72.8in) of sediment contained at least 50% sand, of which 100cm (39.4) was located shallower than 1m (39.4in) depth. The average grain size in the upper 1m (3.28ft) was determined to be 0.0694mm.

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

Date Split/subsampled: 7/13/2005  
 Length: 241 cm  
 Lat: 29 18.340  
 Long: 94 54.899

Centi-Meters	Munsell Soil Color	Depths Sampled	Description:
0-99 cm	5Y 4/1	WC	0-4 cm → shell hash w/ sand
99-102 cm	5YR 4/1	0-1 cm 10-11 cm 20-21 cm 30-31 cm	4-83 cm → sand w/ shell hash
102-114 cm	5Y 4/1	40-41 cm 50-51 cm 60-61 cm 70-71 cm 80-81 cm 90-91 cm 100-101 cm 110-111 cm	83-87 cm → shell hash w/ sand 88-100 cm → grey clay w/ trace shell hash
114-136 cm	5YR 4/1	120-121 cm 130-131 cm	100-102 → reddish brown clay 102-115 → grey sandy mud w/ trace shell hash
136-153 cm	5Y 4/1	140-141 cm 150-151 cm	115-120 cm → brown grey clay 120 → red brown clay w/ trace shell hash
153-197 cm	5Y 3/1	160-161 cm 170-171 cm 180-181 cm 190-191 cm	126-153 cm → sand w/ trace shell hash 153-154 cm → slightly lighter band of sand w/ shell hash
197-241 cm	Grey 7/1	200-201 cm 210-211 cm 220-221 cm 230-231 cm	197-198 → sand w/ trace shell hash 198-208 → muddy sand w/ shell hash layer
		GS	208-216 → clay 216-219 → muddy sand 219-222 → clay 222-224 → muddy sand w/ shell hash 224-228 → clay 228-230 → muddy sand w/ shell hash 230-234 → clay 234-237 → muddy sand w/ shell hash 237-240 → clay 240-241 → muddy sand w/ shell hash

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

Date Split/subsampled: 7/13/2005  
 Length: 241 cm  
 Lat: 29 18.340  
 Long: 94 54.899

Centi-Meters	Munsell Soil Color	Depths Sampled	Description:
150-160 cm			
160-170 cm			
170-180 cm			
180-190 cm			
190-200 cm			
200-210 cm			
210-220 cm			
220-230 cm			
230-240 cm			
240-250 cm			
250-260 cm			
260-270 cm			
270-280 cm			
280-290 cm			
290-300 cm			

Figure 27: Core Log of 12B for depths 0-150cm  
 Figure 28: Core Log of 12B for depths 150-300cm

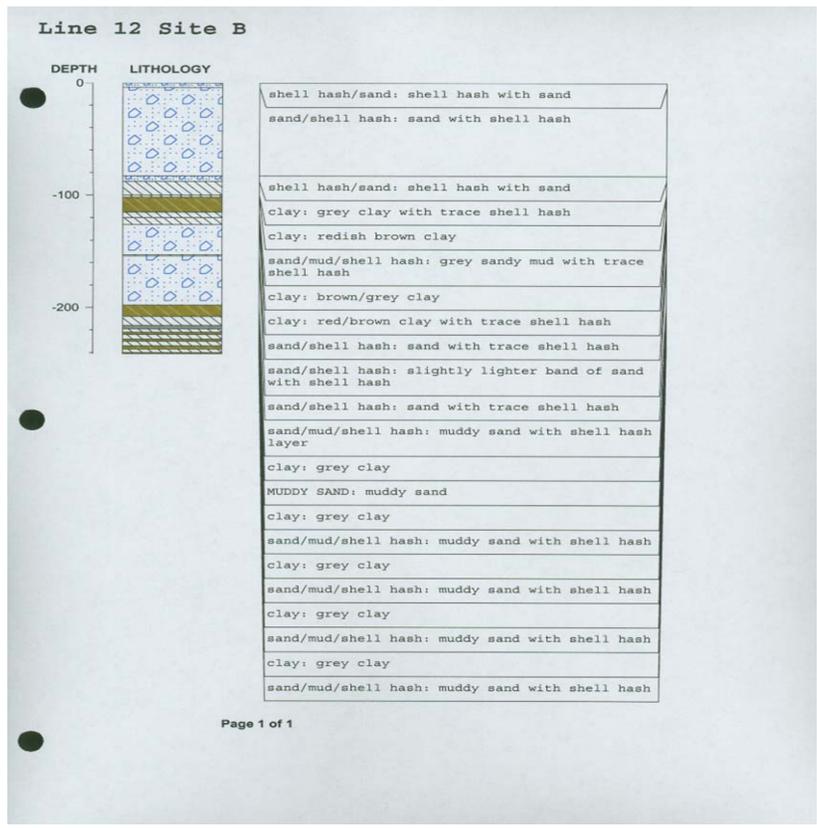


Figure 29: Computerized core log of 12B

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)
12B	1-10	1.02	0.95	0.74	0.52	0.25	0.28	0.40	0.68	3.04	48.12	24.56	7.24
12B	81-90	0.53	0.45	0.38	0.34	0.16	0.20	0.39	1.34	7.11	54.76	19.68	6.31
12B	91-100	1.47	0.30	0.22	0.21	0.14	0.10	0.27	1.34	7.13	47.72	18.27	7.76
12B	101-110											13.80	3.45
12B	115-120											0.11	0.23
12B	121-127											1.95	0.56
12B	127-130	0.00	0.01	0.03	0.04	0.02	0.04	0.13	0.36	2.58	29.64	15.39	12.91
12B	131-140	0.00	0.02	0.00	0.02	0.02	0.03	0.05	0.19	3.31	40.47	16.70	12.03
12B	191-200	0.50	0.27	0.19	0.01	0.07	0.09	0.15	0.34	8.16	48.43	10.78	6.90
12B	201-210											4.10	0.50
12B	231-240											36.38	4.19

Table 17: RO-TAP data for core 12B

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
12B	1-10	98.9	97.9	97.1	96.5	96.3	96.0	95.5	94.8	91.5	39.8	13.5	3.7
12B	81-90	99.5	99.0	98.6	98.3	98.1	97.9	97.5	96.1	88.9	32.8	12.7	4.6
12B	91-100	98.9	98.7	98.5	98.3	98.2	98.2	98.0	97.0	91.6	55.7	41.9	20.4
12B	101-110											71.7	47.4
12B	115-120											99.6	79.8
12B	121-127											92.9	76.2
12B	127-130	100.0	100.0	100.0	99.9	99.9	99.8	99.7	99.3	96.3	61.7	43.8	13.2
12B	131-140	100.0	100.0	100.0	100.0	99.9	99.9	99.8	99.6	95.8	48.9	29.6	3.7
12B	191-200	99.4	99.1	98.8	98.8	98.7	98.6	98.4	98.0	88.1	29.3	16.3	3.9
12B	201-210											82.9	62.7
12B	231-240											36.3	20.2

Table 18: Percent Sediment passing through RO-TAP screens for 12B

Core ID	Sample Depth (cm)	shell weight	200+ weight	200-230 weight	sand + shell
12B	1-10	3.76	76.80	7.24	80.56
12B	81-90	2.06	83.28	6.31	85.34
12B	91-100	2.44	74.73	7.76	77.17
12B	101-110		13.80	3.45	13.80
12B	115-120		0.11	0.23	0.11
12B	121-127		1.95	0.56	1.95
12B	127-130	0.14	48.10	12.91	48.24
12B	131-140	0.09	60.72	12.03	60.81
12B	191-200	1.13	67.86	6.90	68.99
12B	201-210		4.10	0.50	4.10
12B	231-240		36.38	4.19	36.38

Table 19: Shell and Sand weights for core 12B

Core ID	sample id	mid sample depth	% shell	% sand	%silt	%clay	total %
CC12B	1-10	5.5	4.0	82.5	9.7	3.7	100
CC12B	81-90	85.5	2.1	85.2	8.1	4.6	100
CC12B	91-100	95.5	1.8	56.3	21.5	20.4	100
CC12B	101-110	105.5		28.3	24.3	47.4	100
CC12B	115-120	117.5		0.4	19.7	79.8	100
CC12B	121-127	124		7.1	16.6	76.2	100
CC12B	127-130	128.5	0.2	56.1	30.6	13.2	100
CC12B	131-140	135.5	0.1	70.3	25.8	3.7	100
CC12B	191-200	195.5	1.4	82.4	12.3	3.9	100
CC12B	201-210	205.5		17.1	20.3	62.7	100
CC12B	231-240	235.5		63.7	16.0	20.2	100

Table 20: Percent Shell, Sand, Silt and Clay for core 12B

Station ID	Average Depth	Median Grain Size	Median Grain Size	Mean Grain Size	Mean Grain Size	Skewness	Sorting Index
	(cm)	(phi)	(mm)	(phi)	(mm)		
CC12B/1-10	5.5	3.419	0.0931	3.4149	0.0933	-0.1819	0.4457
CC12B/81-90	85.5	3.356	0.0972	3.3698	0.0963	0.1391	0.3432
CC12B/91-100	95.5	3.585	0.0829	5.7321	0.0187	0.8702	3.3592
CC12B/101-110	105.5						
CC12B/115-120	117.5						
CC12B/121-127	124						
CC12B/127-130	128.5	3.659	0.0788	3.7112	0.0760	0.5147	1.8364
CC12B/131-140	135.5	3.489	0.0887	3.5460	0.0852	0.2153	0.3947
CC12B/191-200	195.5	3.317	0.0999	3.3730	0.0961	0.2652	0.3608
CC12B/201-210	205.5						
CC12B/231-240	235.5						

PINK=Upper sand area

Table 21: Median grain size, Mean grain size, Skewness, Sorting Index

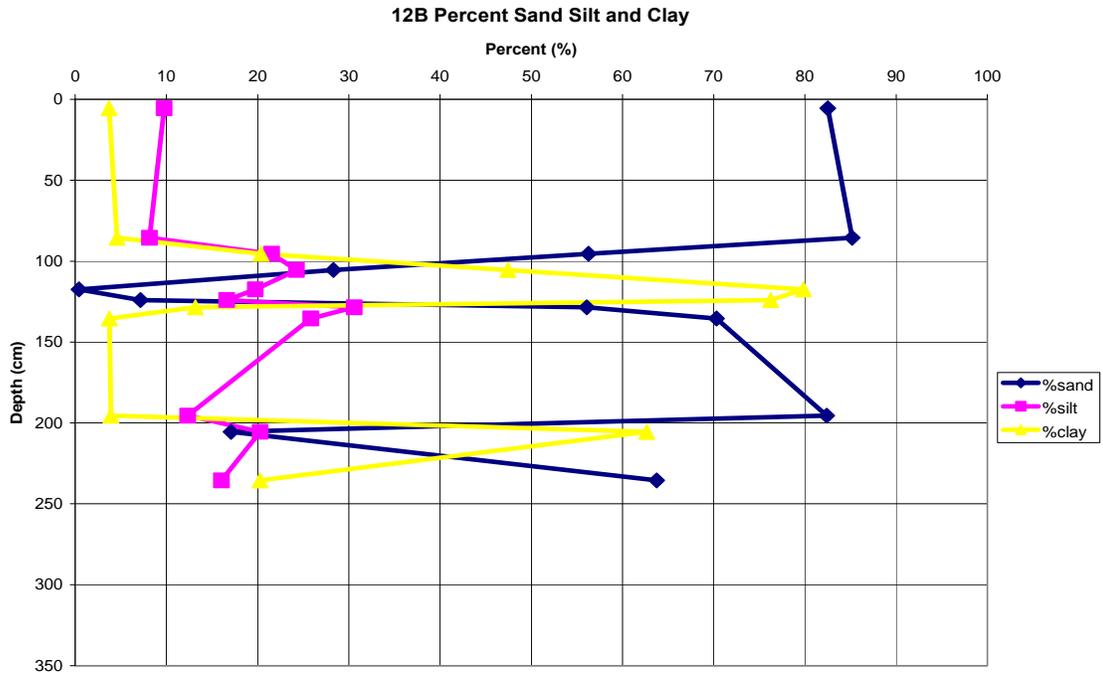


Figure 30: Percent Sand, Silt and Clay graph for core 12B

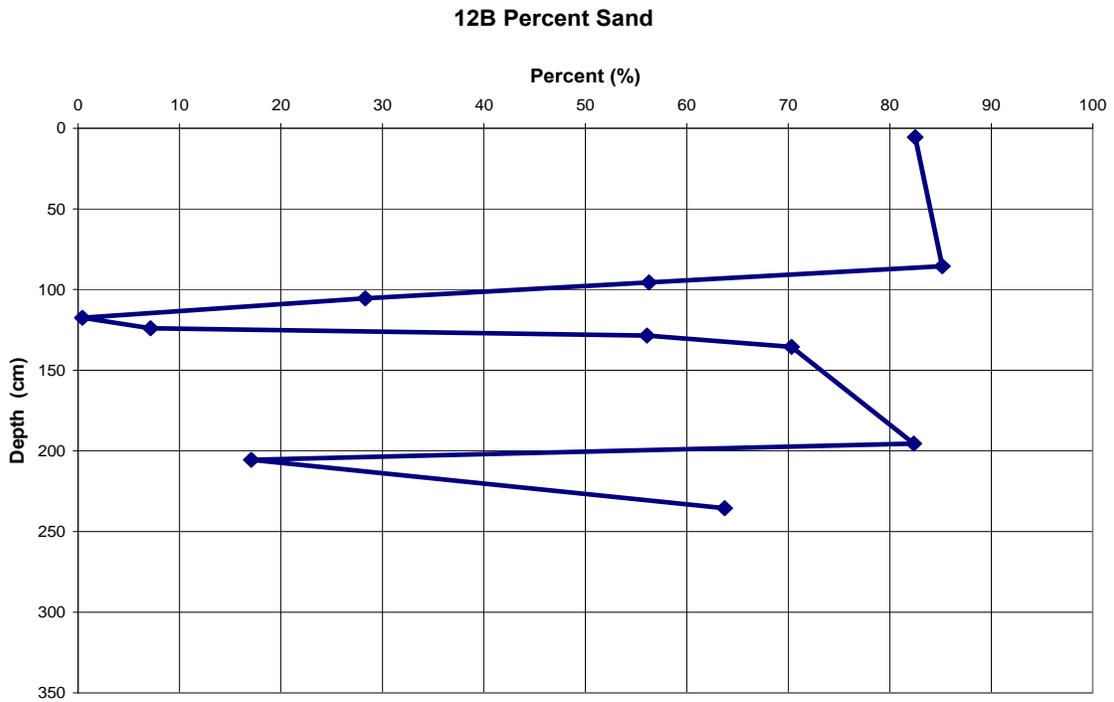


Figure 31: Percent Sand graph for core 12B

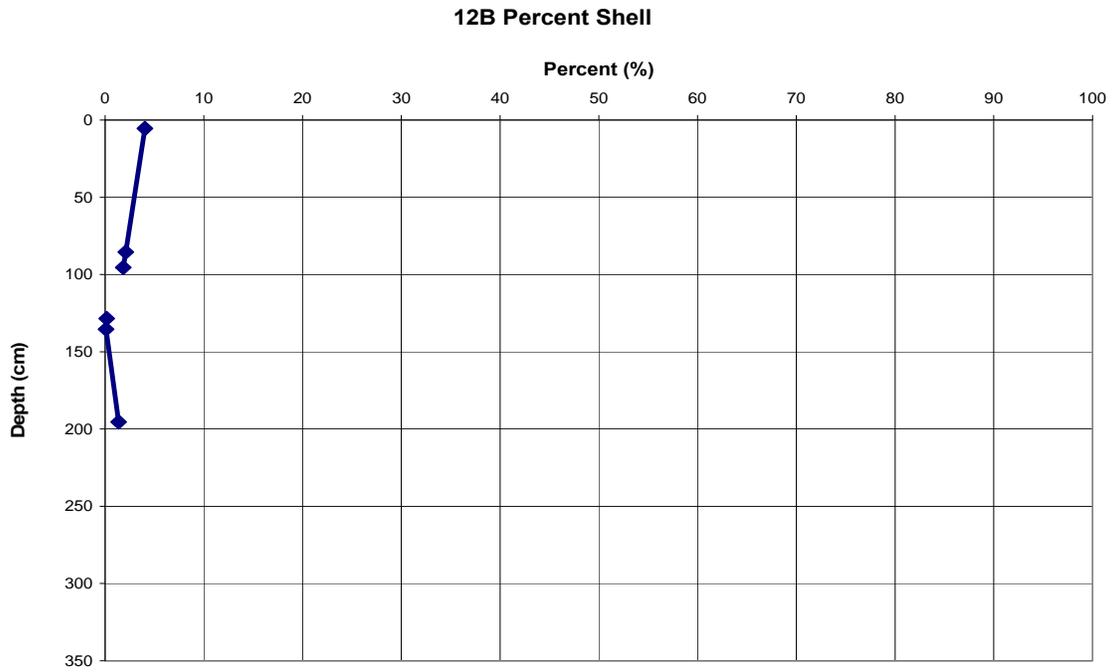


Figure 32: Percent Shell graph for core 12B

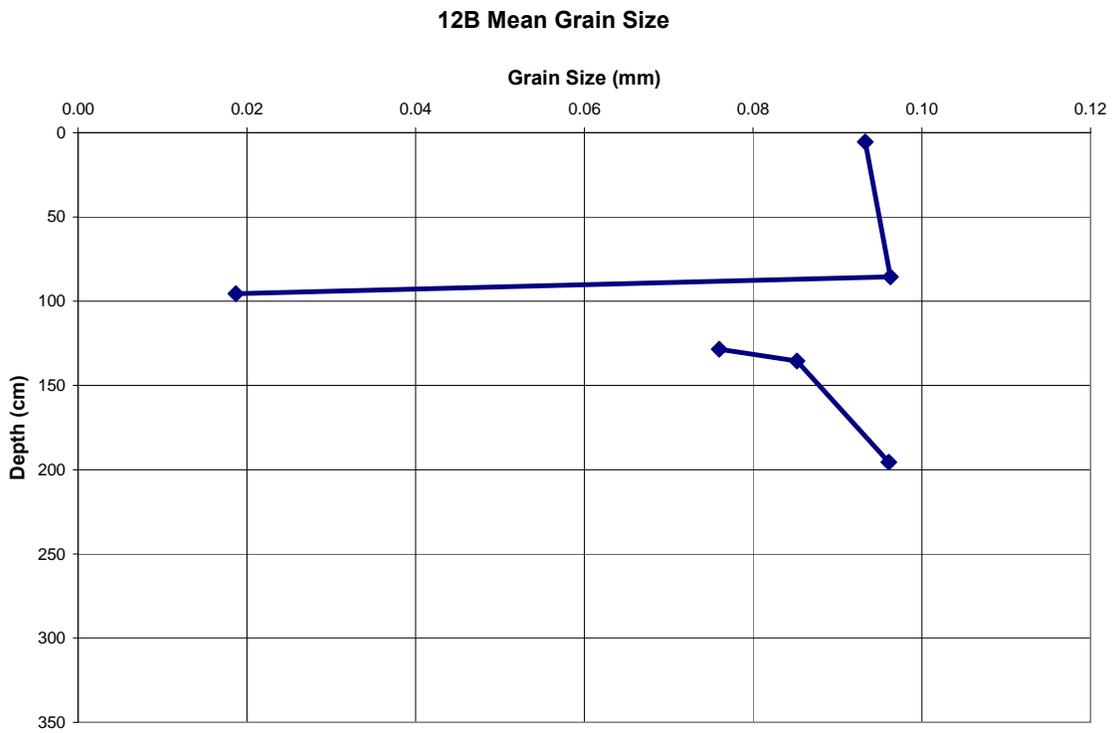


Figure 33: Mean Grain Size for core 12B