

Beach

Line 14

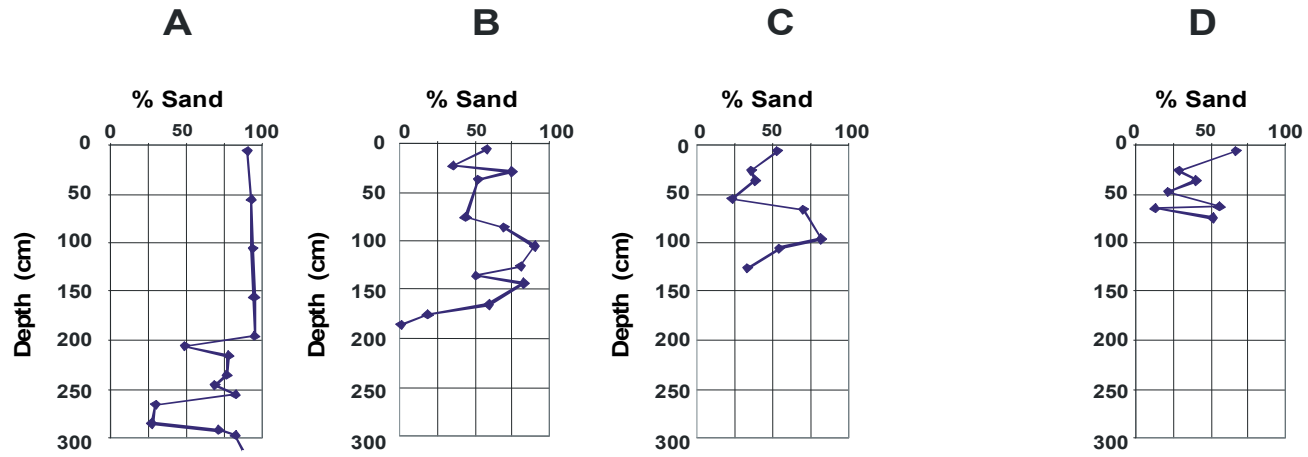


Figure 80: Fence Profile of Line 14

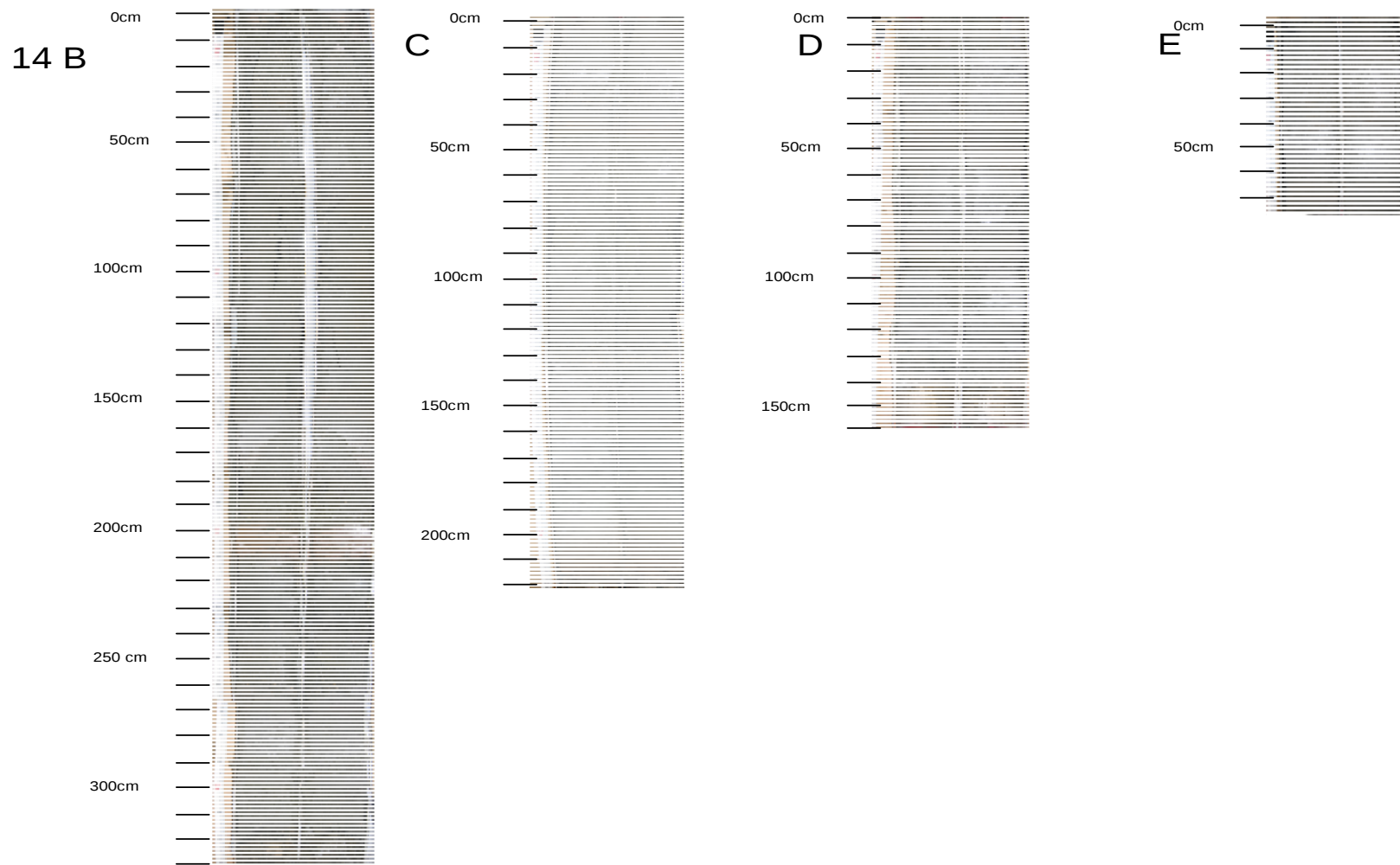


Figure 81: Core Photographs of line 14

CORE 14B:

Core 14B was and taken at a water depth of 6.7m (22.1ft) (Table 1) and had a total length of 317cm (124.8in) (Figures 82-85). A total of 15 grain size samples were taken at depths of 1-10cm (0.4-3.9in), 51-60cm (20-23.6in), 101-110cm (39.3-43.3in), 151-160cm (59.4-63in), 191-200cm (75.2-78.7in), 201-210cm (63.3-67in), 211-220cm (83.1-86.7in), 231-240cm (90.9-94.5in), 241-250cm 94.8-98.4in), 251-260cm (98.8-102.4in), 261-270cm (102.8-106.3in), 281-289cm (110.6-113.8in), 289-295cm (113.8-116.4in), 296-300cm (116.5-118.1in), 311-316cm (122.4-124.4in). Data from core 14B

showed a large sand layer at a depth from 0-200cm (0-78.7in), which had over 84% sand content with a mean grain size of no less than 0.09mm (3.4phi) . From 200cm (78.7in) through the bottom of the core there is varying amounts of sand ranging from 20 to 89% (Tables 55&56). Sand and shell weights are shown in Table 54. Percent sand, silt and clay are shown in Table 55. Median grain size, mean grain size, skewness and sorting index are shown in Table 56 Graphs of the results are located in Figures 86-89.

It was determined that core 14B had approximately 265cm (104.4in) 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 0.0978mm.

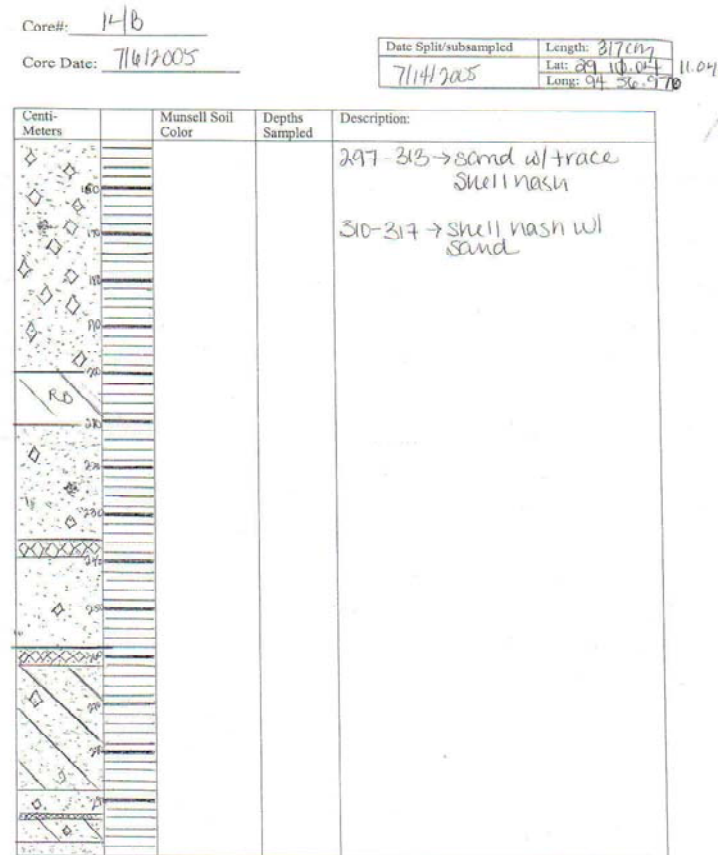


Figure 83: Core photograph of 14B for depths 150-300cm

Core#: 14B
 Core Date: 7/6/2005

Date Split/subsampled	Length: <u>317 cm</u>
<u>7/14/2005</u>	Lat: <u>29 10.64</u>
	Long: <u>84 56.90</u>

11.04

Centi-Meters	Munsell Soil Color	Depths Sampled	Description:
300			
310			
320			
330			
340			
350			
360			
370			
380			
390			
400			
410			
420			
430			
440			
450			
460			
470			
480			
490			
500			
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520			
530			
540			
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560			
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700			
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730			
740			
750			
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770			
780			
790			
800			
810			
820			
830			
840			
850			
860			
870			
880			
890			
900			
910			
920			
930			
940			
950			
960			
970			
980			
990			
1000			

Line 14 Site B

DEPTH

LITHOLOGY

0
-100
-200
-300



sand/shell hash: sand with abundant shell hash and patches of redish-brown sand

clay: redish brown clay dominated mud

sand/shell hash: sand with trace shell hash and several patches of redish brown sand

shell hash/sand

sand/shell hash: sand with trace shell hash

shell hash/sand

sand/mud/shell hash: sandy mud with trace shell hash

sand/shell hash: sand with trace shell hash

shell hash/sand

sand/mud/shell hash: sandy mud trace shell hash

sand/shell hash: sand with trace shell hash

shell hash/sand

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Figure 84: Core log of 14B for depths 300-317cm
 Figure 85: Computerized core log of 14B

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)
14B	1-10	2.69	0.51	0.42	0.29	0.15	0.17	0.44	1.48	6.41	37.02	16.55	4.46
14B	51-60	0.49	0.43	0.34	0.27	0.11	0.17	0.48	1.82	6.40	45.47	18.13	6.24
14B	101-110	0.05	0.34	0.24	0.23	0.12	0.11	0.33	1.22	6.75	40.85	22.85	5.54
14B	151-160	0.05	0.11	0.09	0.10	0.05	0.04	0.23	1.75	7.16	45.11	22.91	9.30
14B	191-200	0.24	0.27	0.18	0.16	0.15	0.29	0.44	1.43	15.12	94.18	26.25	8.87
14B	201-210											14.91	3.05
14B	211-220	0.03	0.03	0.03	0.03	0.03	0.04	0.18	0.57	2.19	15.46	31.16	28.84
14B	231-240	1.32	0.28	0.14	0.10	0.08	0.08	0.18	0.18	0.57	11.04	30.13	23.12
14B	241-250	0.08	0.10	0.09	0.07	0.02	0.06	0.14	0.33	1.82	27.57	24.98	25.30
14B	251-260	0.14	0.06	0.04	0.05	0.04	0.06	0.19	0.25	2.26	39.93	23.72	13.46
14B	261-270											10.56	5.01
14B	281-290											10.37	3.13
14B	289-295											44.64	0.86
14B	296-300	0.00	0.00	0.00	0.04	0.03	0.05	0.09	0.30	5.96	68.55	11.30	4.73
14B	310-316	0.11	0.18	0.26	0.34	0.24	0.24		0.82	3.40	83.80	12.13	7.94

Table 52: RO-TAP data for core 14B

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
14B	1-10	96.3	95.6	95.1	94.7	94.5	94.2	93.6	91.6	82.9	32.5	10.0	2.6
14B	51-60	99.4	98.9	98.5	98.2	98.1	97.8	97.3	95.1	87.5	33.5	11.9	3.0
14B	101-110	99.9	99.5	99.2	99.0	98.8	98.7	98.3	96.8	88.7	39.3	11.7	3.4
14B	151-160	99.9	99.8	99.7	99.6	99.6	99.5	99.3	97.3	89.5	39.8	14.6	2.6
14B	191-200	99.8	99.7	99.5	99.4	99.3	99.2	98.9	97.9	88.1	26.6	9.5	2.1
14B	201-210											59.6	39.2
14B	211-220	100.0	99.9	99.9	99.9	99.9	99.8	99.6	99.1	96.9	81.6	50.7	7.6
14B	231-240	98.4	98.1	97.9	97.8	97.7	97.6	97.4	97.2	96.5	83.5	48.0	5.6
14B	241-250	99.9	99.8	99.8	99.7	99.7	99.6	99.5	99.2	97.7	74.0	52.6	15.0
14B	251-260	99.9	99.8	99.8	99.7	99.7	99.6	99.4	99.1	96.8	55.5	30.9	4.6
14B	261-270											79.8	39.4
14B	281-290											79.1	45.1
14B	289-295											29.8	17.0
14B	296-300	100.0	100.0	100.0	100.0	99.9	99.9	99.8	99.5	94.1	32.0	21.7	8.9
14B	310-316	99.9	99.8	99.6	99.3	99.1	98.9	98.9	98.2	95.5	27.7	17.8	6.3

Table 53: Percent Finer table for core 14B

Core ID	Sample Depth (cm)	shell weight	200+ weight	200-230 weight	sand + shell
14B	1-10	4.23	61.90	4.46	66.13
14B	51-60	1.81	72.30	6.24	74.11
14B	101-110	1.09	72.00	5.54	73.09
14B	151-160	0.44	77.16	9.30	77.60
14B	191-200	1.29	137.42	8.87	138.71
14B	201-210		14.91	3.05	14.91
14B	211-220	0.19	49.56	28.84	49.75
14B	231-240	2.00	42.10	23.12	44.10
14B	241-250	0.42	54.84	25.30	55.26
14B	251-260	0.39	66.35	13.46	66.74
14B	261-270		10.56	5.01	10.56
14B	281-290		10.37	3.13	10.37
14B	289-295		44.64	0.86	44.64
14B	296-300	0.12	86.20	4.73	86.32
14B	310-316	1.37	100.15	7.94	101.52

Table 54: Shell and Sand weights for core 14B

Core ID	sample id	mid sample depth	% shell	% sand	%silt	%clay	total %
CC14B	1-10	5.5	5.8	84.2	7.4	2.6	100
CC14B	51-60	55.5	2.2	85.9	9.0	3.0	100
CC14B	101-110	105.5	1.3	87.0	8.3	3.4	100
CC14B	151-160	155.5	0.5	84.9	12.0	2.6	100
CC14B	191-200	195.5	0.8	89.6	7.4	2.1	100
CC14B	201-210	205.5		40.4	20.4	39.2	100
CC14B	211-220	215.5	0.2	49.1	43.1	7.6	100
CC14B	231-240	235.5	2.4	49.6	42.4	5.6	100
CC14B	241-250	245.5	0.4	47.0	37.6	15.0	100
CC14B	251-260	255.5	0.4	68.7	26.3	4.6	100
CC14B	261-270	265.5		20.2	40.4	39.4	100
CC14B	281-290	285.5		20.9	34.1	45.1	100
CC14B	289-295	292		70.2	12.7	17.0	100
CC14B	296-300	298	0.1	78.2	12.9	8.9	100
CC14B	310-316	313	1.1	81.1	11.5	6.3	100

Table 55: Percent Shell, Sand, Silt and Clay for core 14B

Station ID	Average Depth	Median Grain Size	Median Grain Size	Mean Grain Size	Mean Grain Size	Skewness	Sorting Index
	(cm)	(phi)	(mm)	(phi)	(mm)		
CC14B/1-10	5.5	3.348	0.0978	3.3314	0.0989	-0.3905	0.7505
CC14B/51-60	55.5	3.36	0.097	3.3650	0.0966	0.0344	0.3368
CC14B/101-110	105.5	3.414	0.0934	3.3952	0.0946	-0.0486	0.3339
CC14B/151-160	155.5	3.414	0.0934	3.4087	0.0937	-0.0056	0.3309
CC14B/191-200	195.5	3.313	0.1002	3.3279	0.0992	0.1281	0.3016
CC14B/201-210	205.5						
CC14B/211-220	215.5	3.755	0.0737	3.7633	0.0733	0.4723	1.7228
CC14B/231-240	235.5	3.736	0.0747	3.7618	0.0734	0.5315	1.6915
CC14B/241-250	245.5	3.779	0.0725	3.7768	0.0726	0.4320	1.8042
CC14B/251-260	255.5	3.551	0.0849	3.5932	0.0825	0.1778	0.3982
CC14B/261-270	265.5						
CC14B/281-289	285						
CC14B/289-295	292						
CC14B/296-300	298	3.340	0.098	3.5072	0.0876	0.7167	1.6649
CC14B/310-316	313	3.322	0.0996	3.4174	0.0932	0.6645	1.6843

PINK=Upper sand area

Table 56: Median grain size, mean grain size, skewness, and sorting index for core 14B

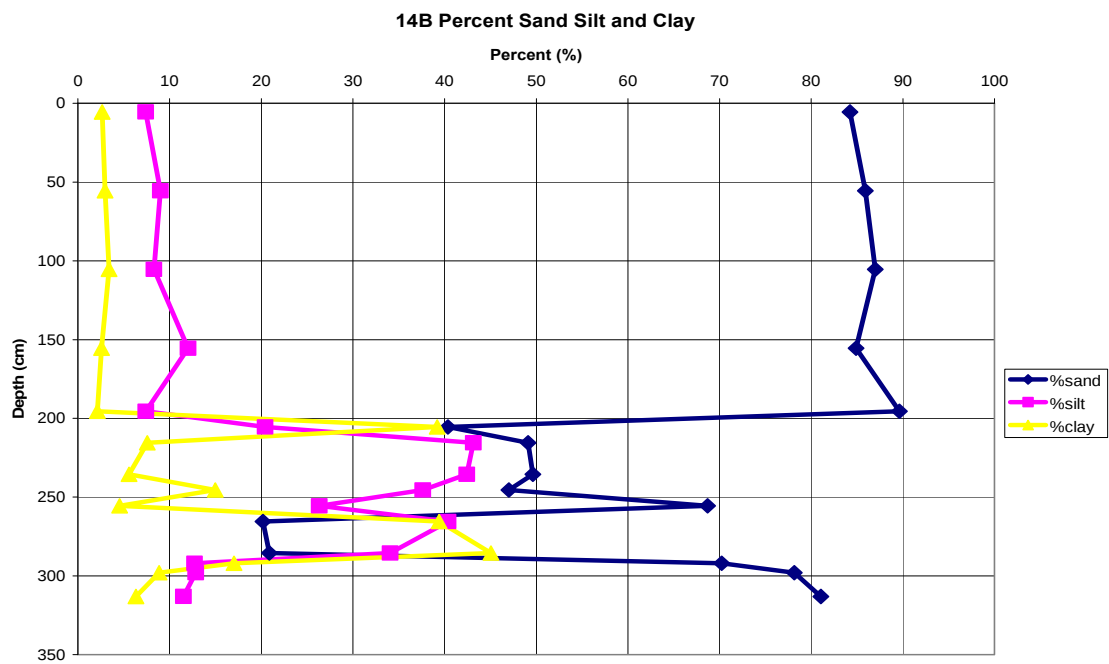


Figure 86: Percent Sand, Silt and Clay graph for core 14B

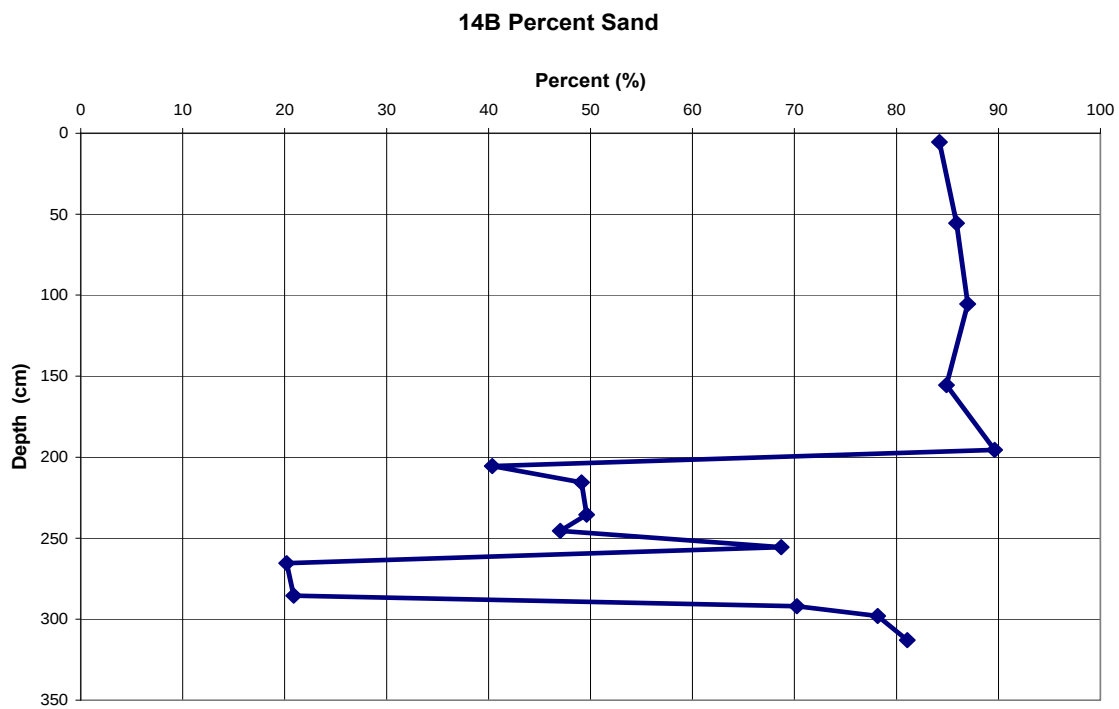


Figure 87: Percent Sand for core 14B

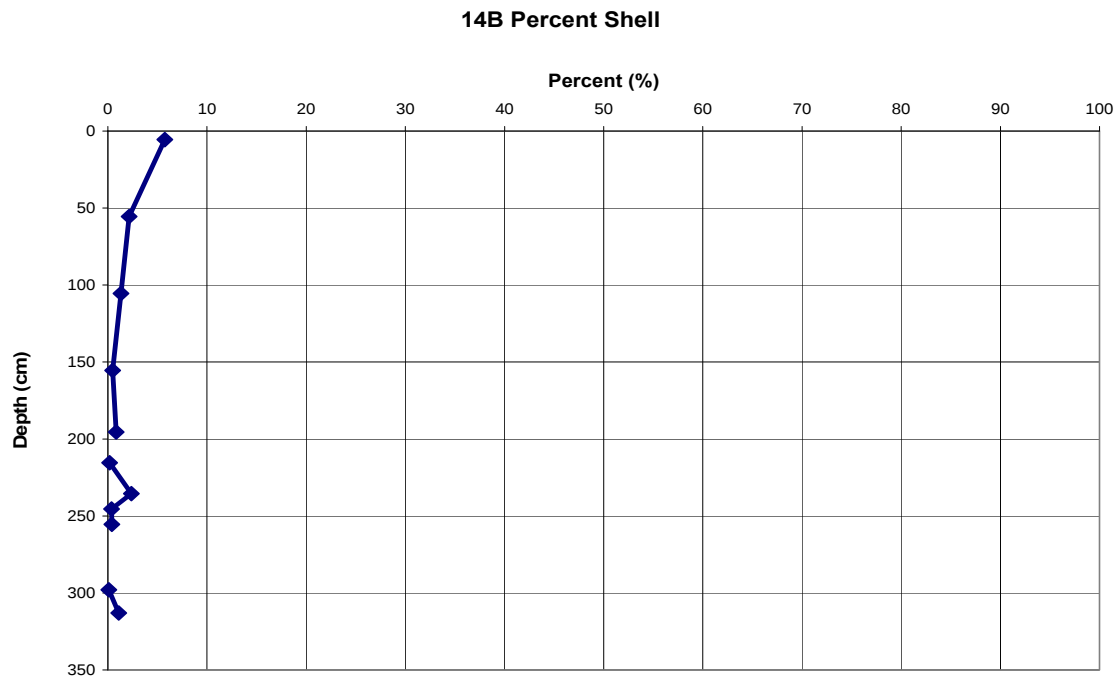


Figure 88: Percent Shell graph for core 14B

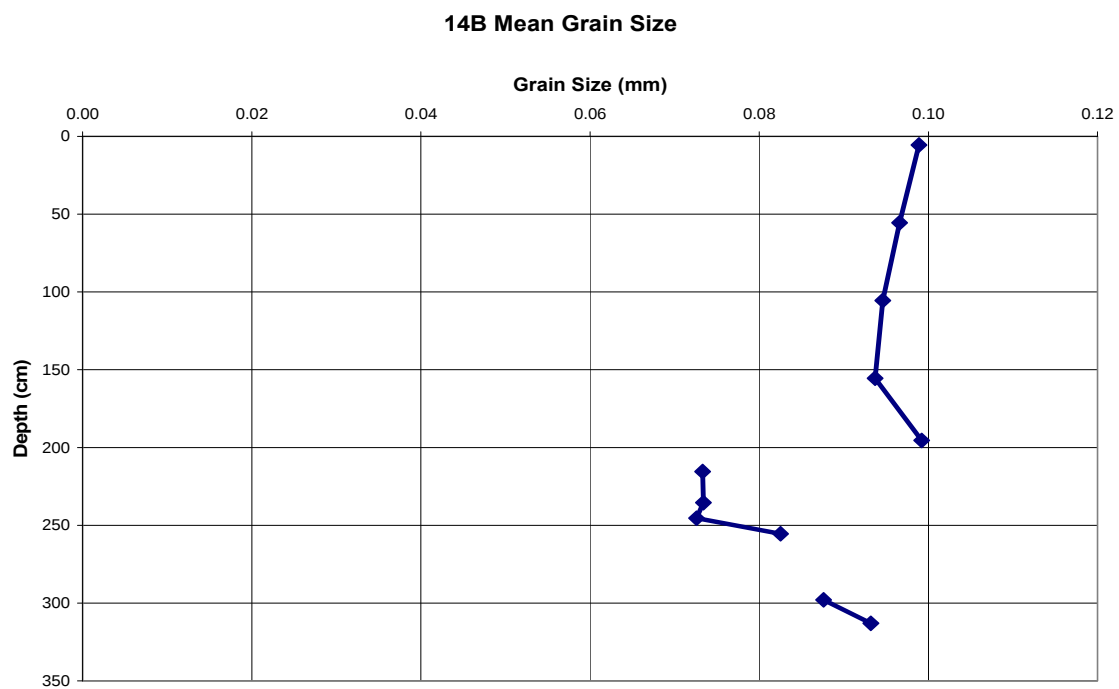


Figure 89: Mean grain size graph for core 14B