

Beach

Line 14

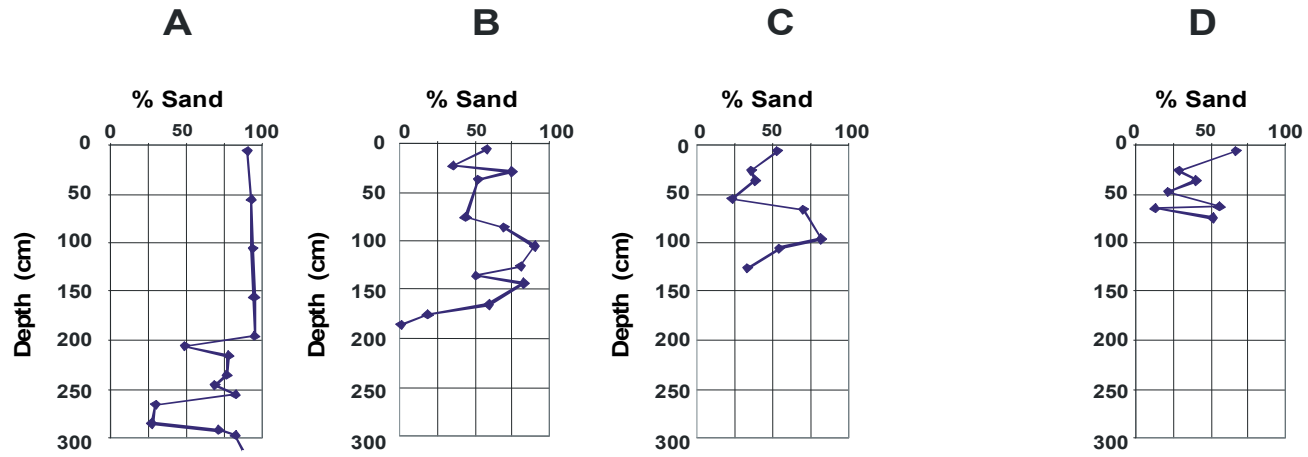


Figure 80: Fence Profile of Line 14

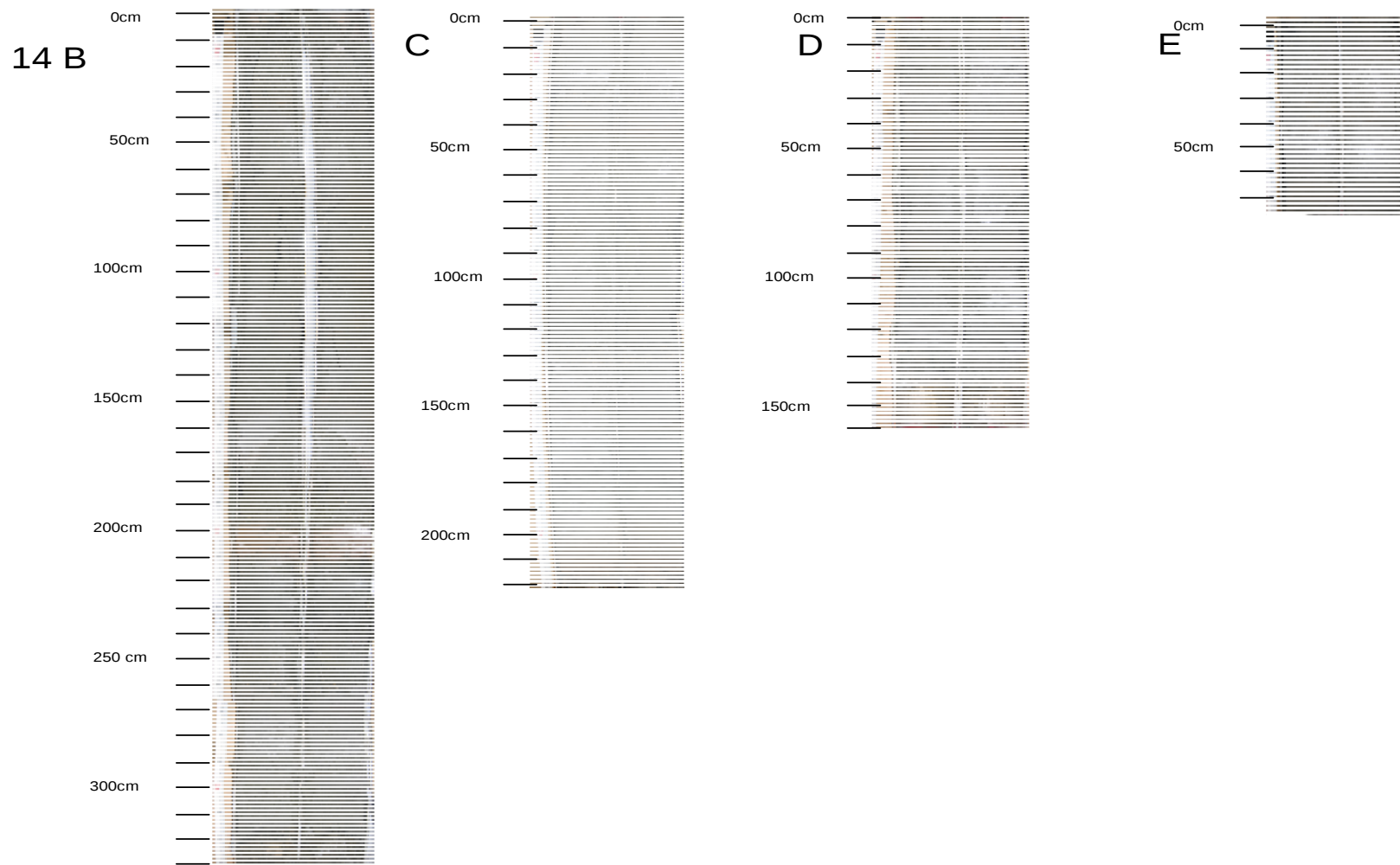


Figure 81: Core Photographs of line 14

CORE 14C:

Core 14C was taken at a water depth of 7.9m (26ft) (Table 1) and had a length 217cm (85.4in) (Figures 90-92). A total of 13 grain size samples were taken at depths of 1-10cm (0.4-3.9in), 21-24cm (8.3-9.4in), 24-34cm (9.4-13.4in), 34-40cm (13.4-15.7in), 71-80cm (28-31.5in), 81-90cm (31.9- 35.4in), 101-110cm (39.3-43.3in), 121-130cm (47.6-51.2in), 131-140cm(51.6-55.1in), 141-145cm (55.5-57.1in), 161-170cm(63.3-67in), 171-180cm (67.3-70.9in) and 181-190cm (71.3-74.8in). Core 14C observations showed that the core was composed of a mixture of sand, muds and clays, and consequently there was large range in percent sand throughout the core. Percent sand ranged from 50% at the top of the core, to 86% midway down the core to 1% at the very bottom of the core, with much variation between (Table 60). Sand and shell weights are shown in Table 59. Percent sand, silt and clay are shown in Table 60. Median grain size,

mean grain size, skewness and sorting index are shown in Table 61. Graphs of the results are located in Figures 93-96.

It was determined that core 14C had approximately 70cm (27.6in) of sediment contained at least 50% sand, of which 30cm (11.8in) was located shallower than 1m (39.4in) depth. The average grain size in the upper 1m (3.28ft) was determined to be 0.0647mm.

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

Date Split/subsampled: 7/14/2005
Length: 217 cm
Lat: 29 10 863
Long: 94 56 843

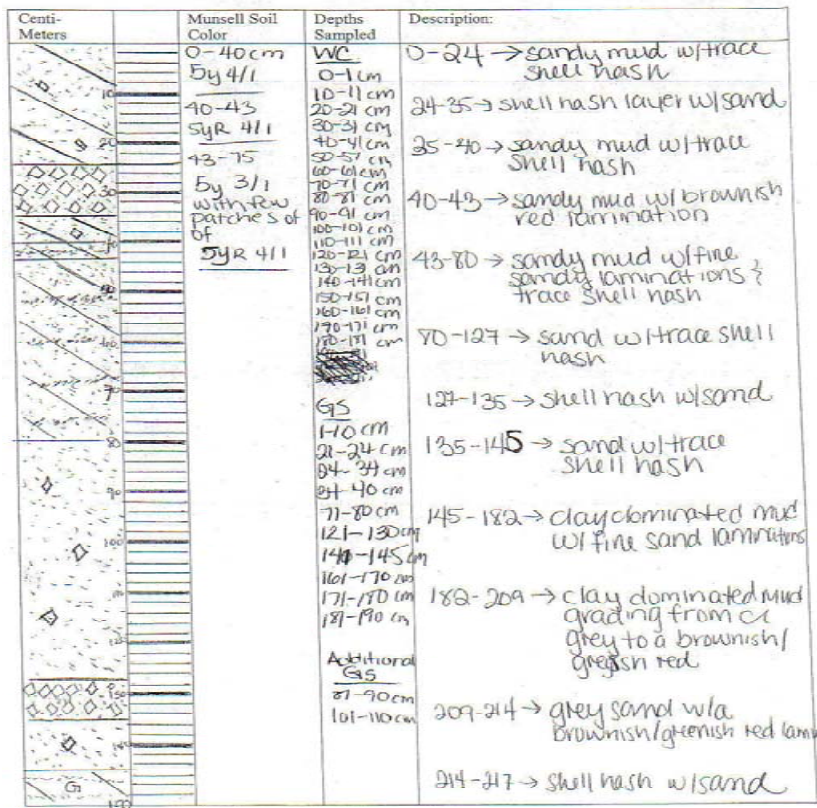
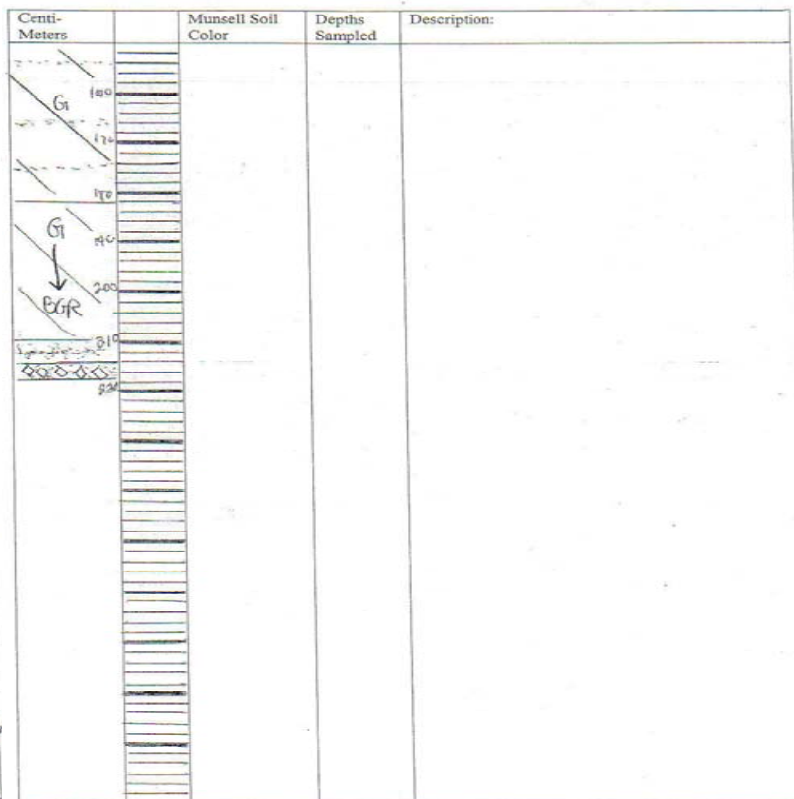


Figure 90: Core log of 14C for depths 0-150cm

Figure 91: Core log of 14C for depths 150-300cm

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

Date Split/subsampled: 7/14/2005
Length: 217 cm
Lat: 29 10 863
Long: 94 56 843



Line 14 Site C

DEPTH

LITHOLOGY

0
-100
-200



sand/mud/shell hash: sandy mud with trace shell hash
shell hash/sand: shell hash layer with sand
sand/mud/shell hash: sandy mud with trace shell hash
muddy sand: sandy mud with brownish red laminations
sand/mud/shell hash: sandy mud with fine sandy laminations and trace shell hash
sand/shell hash: sand with trace shell hash
shell hash/sand: shell hash with sand
sand/shell hash: sand with trace shell hash
clay: clay dominated mud with fine sand laminations
clay: clay dominated mud graded from grey to a brownish greyish red
sand: grey sand with a brownish/greenish red lamination
shell hash/sand: shell hash with sand

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Figure 92: Computerized core log of 14C

Core ID	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)
14C	1-10											26.91	7.06
14C	21-24											13.62	1.97
14C	24-34	3.38	3.24	2.14	1.62	0.76	0.49	0.72	1.35	3.55	43.23	32.78	11.79
14C	34-40											21.76	3.40
14C	71-80											21.60	9.19
14C	81-90	0.00	0.01	0.02	0.02	0.01	0.03	0.05	0.22	3.29	39.34	29.05	5.81
14C	101-110	0.08	0.01	0.04	0.03	0.05	0.11	0.23	0.48	5.97	53.66	23.71	3.67
14C	121-130	1.14	0.25	0.70	0.76	0.80	0.86	1.58	5.98	10.87	33.08	28.04	20.14
14C	141-145	0.01	0.05	0.08	0.13	0.08	0.13	0.29	0.82	32.38	24.84	20.92	7.59
14C	161-170											15.20	3.34
14C	171-180											6.46	3.19
14C	181-190											0.23	0.20
14C	131-140	1.89	0.56	1.50	1.21	0.98	0.76	1.31	2.93	4.12	19.72	12.81	7.83

Table 57: RO-TAP data for core 14C

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
14C	1-10											53.7	28.9
14C	21-24											68.4	50.6
14C	24-34	97.3	94.7	93.0	91.7	91.1	90.7	90.1	89.0	86.2	51.5	25.2	9.5
14C	34-40											54.4	29.6
14C	71-80											69.1	23.5
14C	81-90	100.0	100.0	100.0	100.0	99.9	99.9	99.9	99.7	96.7	61.5	35.4	6.3
14C	101-110	99.9	99.9	99.9	99.8	99.8	99.7	99.4	98.9	92.8	37.7	13.4	4.7
14C	121-130	99.1	98.9	98.3	97.7	97.0	96.3	95.0	90.2	81.4	54.5	31.7	3.9
14C	131-140	97.4	96.7	94.6	92.9	91.6	90.6	88.8	84.8	79.1	52.2	34.7	4.1
14C	141-145	100.0	99.9	99.9	99.7	99.7	99.5	99.2	98.4	66.0	41.2	20.3	8.1
14C	161-170											74.6	44.2
14C	171-180											87.7	45.3
14C	181-190											99.4	72.7

Table 58: Percent Finer table for core 14C

Core ID	Sample Depth (cm)	shell weight	200+ weight	200-230 weight	sand + shell
14C	1-10		26.91	7.06	26.91
14C	21-24		13.62	1.97	13.62
14C	24-34	11.63	81.63	11.79	93.26
14C	34-40		21.76	3.40	21.76
14C	71-80		21.60	9.19	21.60
14C	81-90	0.09	71.95	5.81	72.04
14C	101-110	0.32	84.05	3.67	84.37
14C	121-130	4.51	79.55	20.14	84.06
14C	141-145	0.48	79.25	7.59	79.73
14C	161-170		15.20	3.34	15.20
14C	171-180		6.46	3.19	6.46
14C	181-190		0.23	0.20	0.23
14C	131-140	6.90	40.89	7.83	47.79

Table 59: Shell and Sand weight for core 14C

Core ID	sample id	mid sample depth	% shell	% sand	%silt	%clay	total %
CC14C	1-10	5.5		46.3	24.8	28.9	100
CC14C	21-24	22.5		31.6	17.8	50.6	100
CC14C	24-34	29	9.3	65.5	15.7	9.5	100
CC14C	34-40	37		45.6	24.7	29.6	100
CC14C	71-80	75.5		30.9	45.6	23.5	100
CC14C	81-90	85.5	0.1	64.5	29.1	6.3	100
CC14C	101-110	105.5	0.3	86.3	8.7	4.7	100
CC14C	121-130	125.5	3.7	64.7	27.7	3.9	100
CC14C	131-140	135.5	5.1	58.9	13.7	22.3	100
CC14C	141-145	143	1.3	41.6	48.9	8.2	100
CC14C	161-170	165.5		28.9	34.8	36.3	100
CC14C	171-180	175.5		0.6	36.0	63.4	100
CC14C	181-190	185.5		44.7	29.3	26.0	100

Table 60: Percent Shell, Sand, Silt and Clay for core 14C

Station ID	Average Depth	Median Grain Size	Median Grain Size	Mean Grain Size	Mean Grain Size	Skewness	Sorting Index
	(cm)	(phi)	(mm)	(phi)	(mm)		
CC14C/1-10	5.5						
CC14C/21-24	22.5						
CC14C/24-34	29	3.513	0.0872	3.5209	0.0867	0.2045	2.2423
CC14C/34-40	37						
CC14C/71-80	75.5						
CC14C/81-90	85.5	3.599	0.0821	4.5418	0.0427	0.7955	1.6596
CC14C/101-110	105.5	3.403	0.0941	3.4081	0.0938	0.4227	0.8975
CC14C/121-130	125.5	3.550	0.085	3.4784	0.0893	-0.3005	0.6053
CC14C/131-140	135.5	3.759	0.0735	6.3320	0.0123	0.6570	4.2849
CC14C/141-145	143						
CC14C/161-170	165.5						
CC14C/171-180	175.5						
CC14C/181-190	185.5	3.405	0.0939	3.4049	0.0940	0.2027	0.7479

PINK=Upper sand area

Table 61: Median grain size, Mean grain size, Skewness and Sorting Index for core 14C

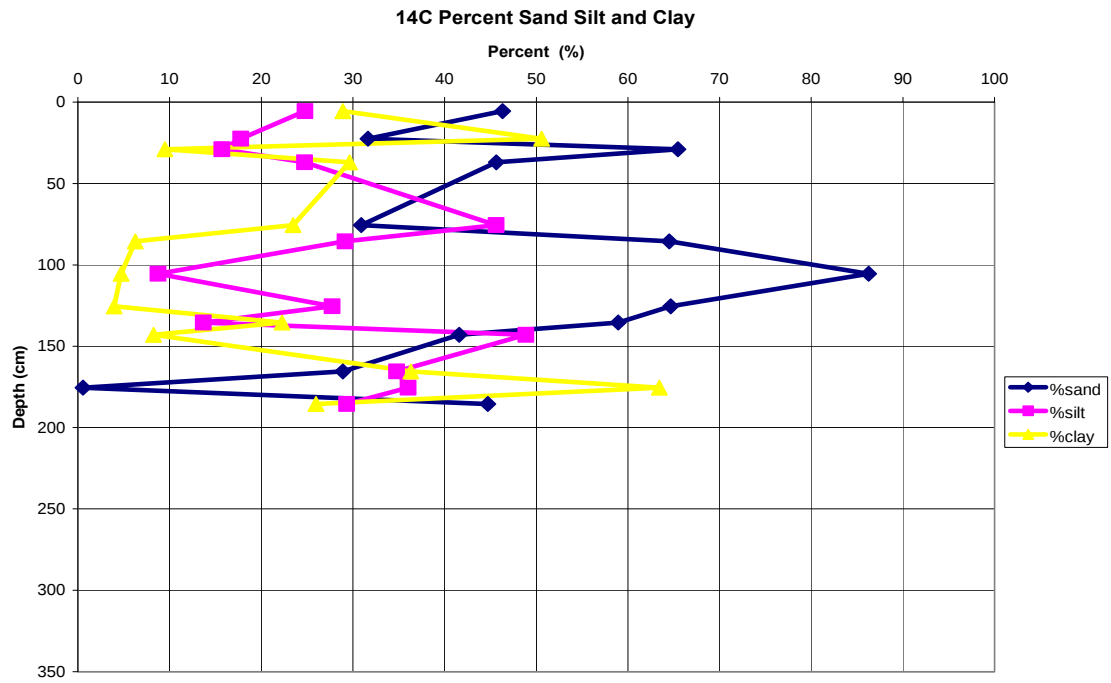


Figure 93: Percent Sand, Silt and Clay graph for core 14C

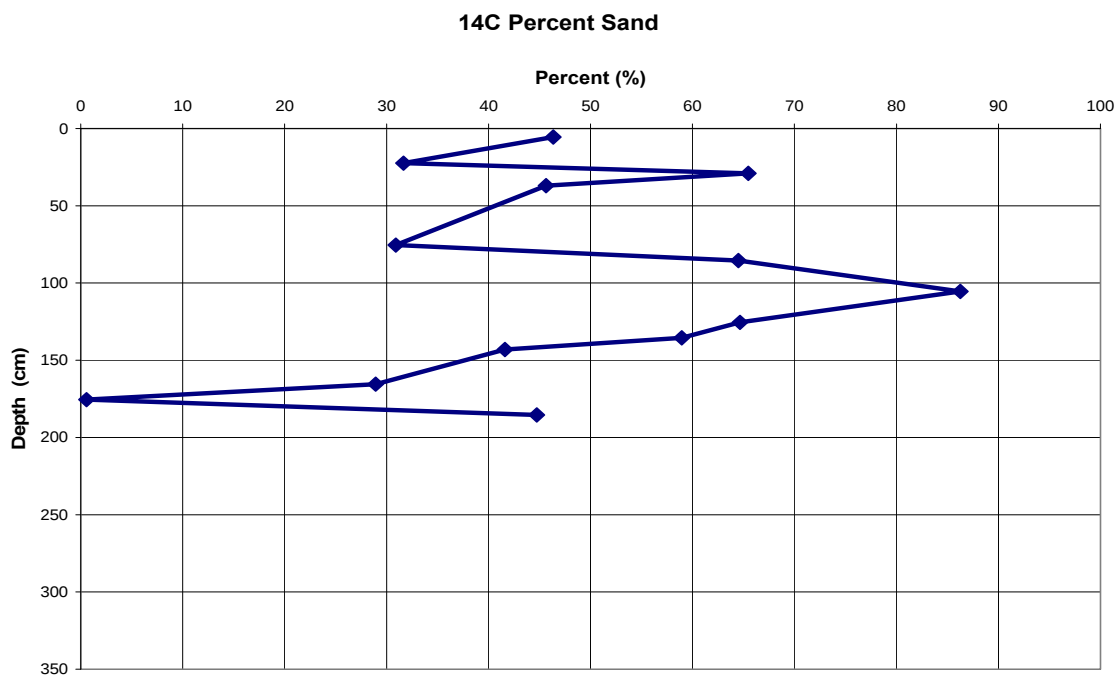


Figure 94: Percent Sand graph for core 14C

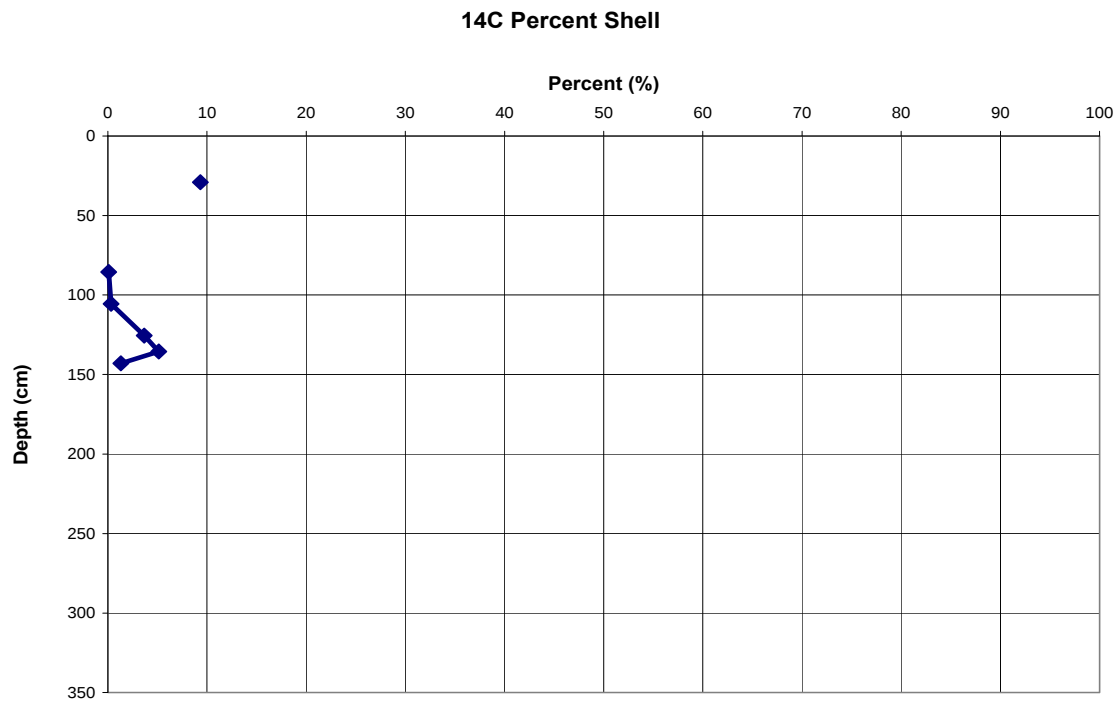


Figure 95: Percent Shell graph for core 14C

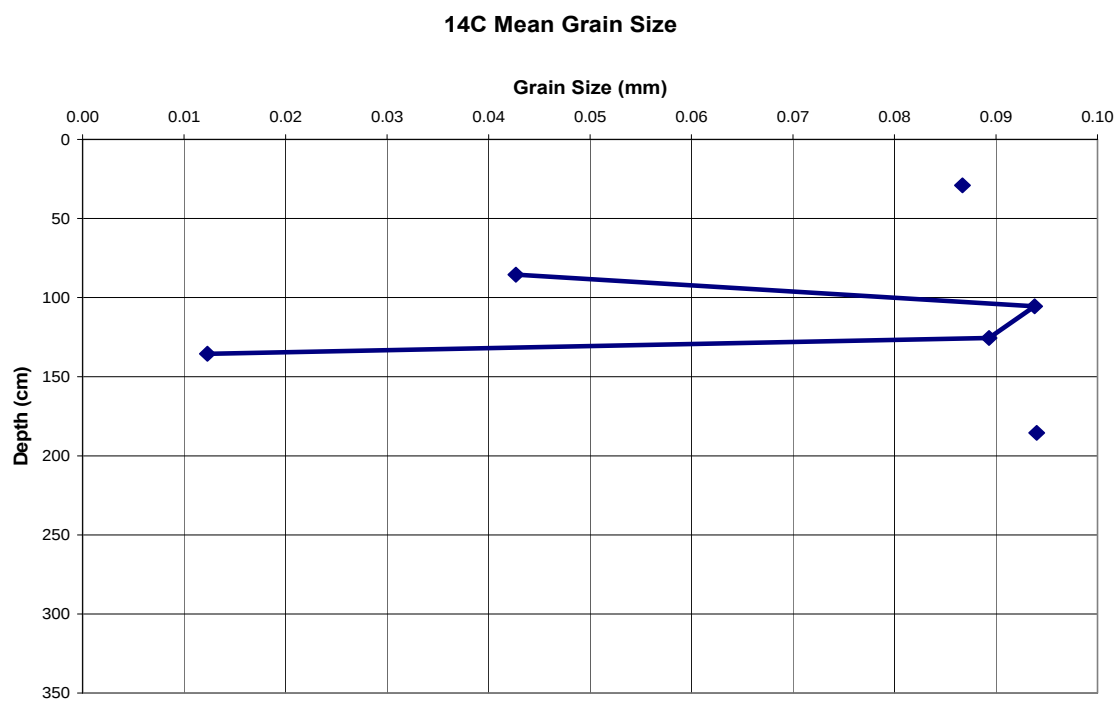


Figure 96: Mean grain size graph for core 14C