

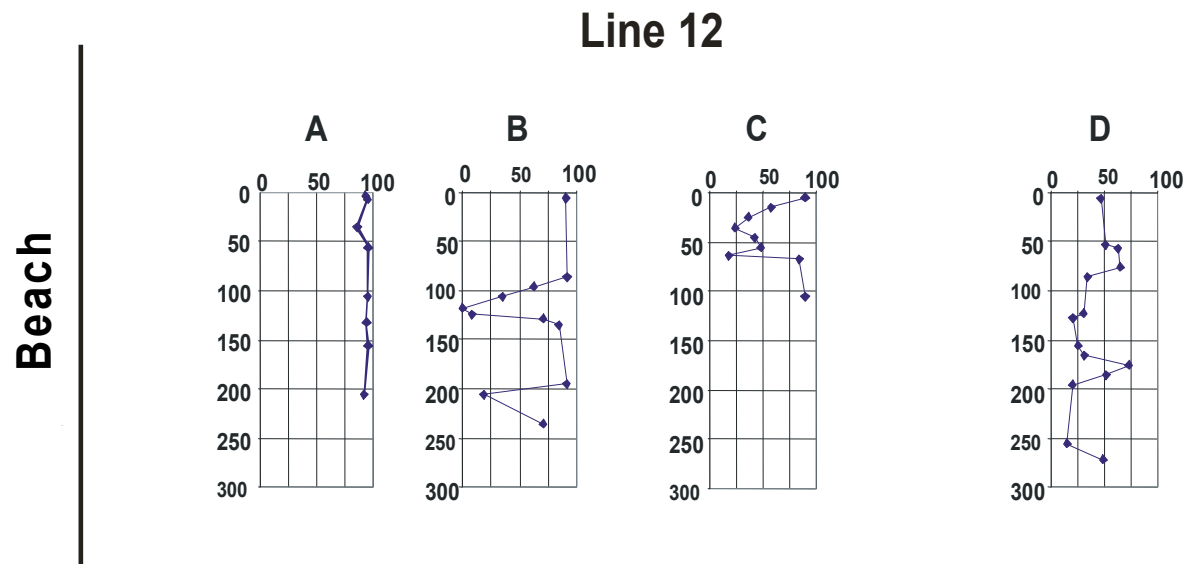


Figure 18: Fence Profile for Line 12

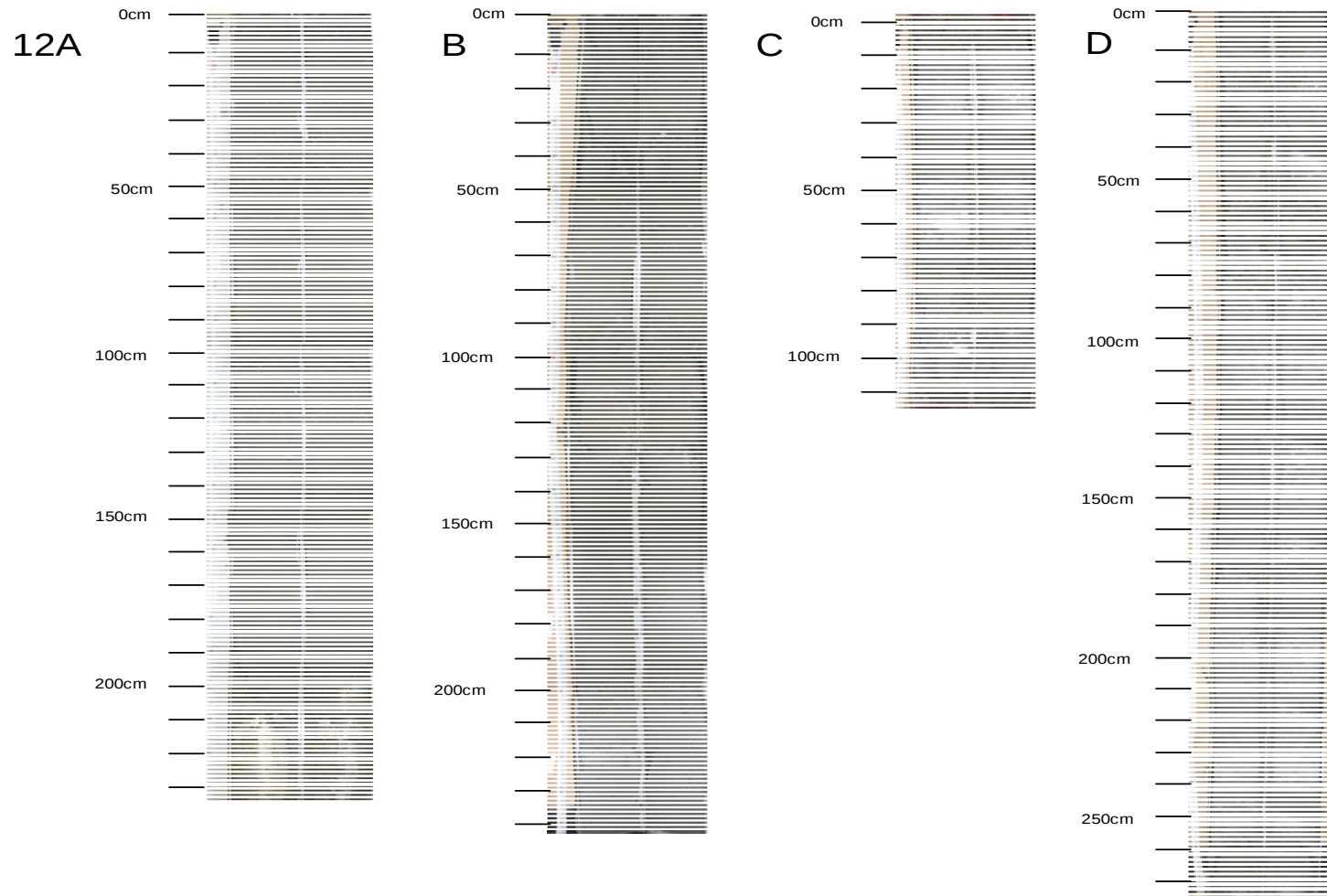


Figure 19: Core photographs of Line 12

CORE 12D:

Core 12D was taken at a water depth of 9m (29.7ft) (Table 1) and had a total length of 273cm (107.5in) (Figures 40-42). A total of 14 grain size samples were taken at depths of 1-10cm (0.4-3.9in), 51-54cm (20-22.3in), 54-60cm (22.3-23.6in), 71-80cm (28-31.5in), 81-90cm (31.9- 35.4in) , 121-124cm (47.6-48.8in), 124-130cm (48.4-51.2in), 151-160cm (59.4-63in), 161-170cm (63.3-67in), 171-180cm (67.3-70.9in), 181-190cm (71.3-74.8in), 191-200cm (75.2-78.7in) , 251-260cm (98.8-102.4in) and 271-273cm (106.7-107.5in). Core 12D contained many fine layers of muddy sands, sandy muds and clays. Its overall percent sand remained below 67% and was mostly below 40% sand; and had a mean grain size of less than 0.0221mm (5.5phi) (Tables 30&31). Sand and shell weights are shown in Table 29. Percent sand, silt and clay are shown in Table 30. Median grain size, mean grain size, skewness and sorting index are shown in Table 31. Graphs of the results are located in Figures 43-56.

It was determined that core 12D had approximately 15cm (5.9in) of sediment contained at least 50% sand, none of which was located shallower than 1m (39.4in) depth. The average grain size in the upper 1m (3.28ft) was determined to be 0.0557mm.

Core#: 12D
Core Date: 7/8/05

Date Split/subsampled: 7/14/05
Length: 29.73
Lat: 29 11.766
Long: 94 54.676

Centi-Meters	Munsell Soil Color	Depths Sampled	Description:
0-14 cm	5y 4/1	0-1 cm	1-53 → sandy mud w/ fine laminations of sand and trace shell hash
14-20 cm	5y 3/1	10-11 cm	52-54 → band of reddish/brown sandy mud
20-32 cm	5y 4/1	20-31 cm	54-54 → shell hash w/ muddy sand
32-38 cm	5y 3/1	30-31 cm	54-62 → slightly muddy sand w/ shell hash
38-48 cm	5y 4/1	40-41 cm	62-68 → grey/brown clay
48-54 cm	10YR 4/1	50-51 cm	68-80 → sand w/ trace shell hash
54-83 cm	5y 3/1	60-61 cm	80-83 → shell hash w/ muddy sand
83-100 cm	5y 4/1	70-71 cm	83-115 → sandy mud + trace shell hash
100-110 cm	5y 4/1	80-81 cm	115-134 → muddy sand w/ trace shell hash
110-111 cm	5y 4/1	90-91 cm	134-135 → shell hash w/ muddy sand
111-112 cm	5y 4/1	100-101 cm	135-131 → sandy mud
112-113 cm	5y 4/1	110-111 cm	145-150 → sandy mud w/ trace shell hash
113-114 cm	5y 4/1	120-121 cm	150-153 → muddy sand w/ trace shell hash
114-115 cm	5y 4/1	130-131 cm	153-159 → mud
115-116 cm	5y 4/1	140-141 cm	159-165 → muddy sand w/ trace shell hash
116-117 cm	5y 4/1	150-151 cm	
117-118 cm	5y 4/1	160-161 cm	
118-119 cm	5y 4/1	170-171 cm	
119-120 cm	5y 4/1	180-181 cm	
120-121 cm	5y 4/1	190-191 cm	
121-122 cm	5y 4/1	200-201 cm	
122-123 cm	5y 4/1	210-211 cm	
123-124 cm	5y 4/1	220-221 cm	
124-125 cm	5y 4/1	230-231 cm	
125-126 cm	5y 4/1	240-241 cm	
126-127 cm	5y 4/1	250-251 cm	
127-128 cm	5y 4/1	260-261 cm	
128-129 cm	5y 4/1	270-271 cm	
129-130 cm	5y 4/1	280-281 cm	
130-131 cm	5y 4/1	290-291 cm	
131-132 cm	5y 4/1	300-301 cm	
132-133 cm	5y 4/1	310-311 cm	
133-134 cm	5y 4/1	320-321 cm	
134-135 cm	5y 4/1	330-331 cm	
135-136 cm	5y 4/1	340-341 cm	
136-137 cm	5y 4/1	350-351 cm	
137-138 cm	5y 4/1	360-361 cm	
138-139 cm	5y 4/1	370-371 cm	
139-140 cm	5y 4/1	380-381 cm	
140-141 cm	5y 4/1	390-391 cm	
141-142 cm	5y 4/1	400-401 cm	
142-143 cm	5y 4/1	410-411 cm	
143-144 cm	5y 4/1	420-421 cm	
144-145 cm	5y 4/1	430-431 cm	
145-146 cm	5y 4/1	440-441 cm	
146-147 cm	5y 4/1	450-451 cm	
147-148 cm	5y 4/1	460-461 cm	
148-149 cm	5y 4/1	470-471 cm	
149-150 cm	5y 4/1	480-481 cm	
150-151 cm	5y 4/1	490-491 cm	
151-152 cm	5y 4/1	500-501 cm	
152-153 cm	5y 4/1	510-511 cm	
153-154 cm	5y 4/1	520-521 cm	
154-155 cm	5y 4/1	530-531 cm	
155-156 cm	5y 4/1	540-541 cm	
156-157 cm	5y 4/1	550-551 cm	
157-158 cm	5y 4/1	560-561 cm	
158-159 cm	5y 4/1	570-571 cm	
159-160 cm	5y 4/1	580-581 cm	
160-161 cm	5y 4/1	590-591 cm	
161-162 cm	5y 4/1	600-601 cm	
162-163 cm	5y 4/1	610-611 cm	
163-164 cm	5y 4/1	620-621 cm	
164-165 cm	5y 4/1	630-631 cm	
165-166 cm	5y 4/1	640-641 cm	
166-167 cm	5y 4/1	650-651 cm	
167-168 cm	5y 4/1	660-661 cm	
168-169 cm	5y 4/1	670-671 cm	
169-170 cm	5y 4/1	680-681 cm	
170-171 cm	5y 4/1	690-691 cm	
171-172 cm	5y 4/1	700-701 cm	
172-173 cm	5y 4/1	710-711 cm	
173-174 cm	5y 4/1	720-721 cm	
174-175 cm	5y 4/1	730-731 cm	
175-176 cm	5y 4/1	740-741 cm	
176-177 cm	5y 4/1	750-751 cm	
177-178 cm	5y 4/1	760-761 cm	
178-179 cm	5y 4/1	770-771 cm	
179-180 cm	5y 4/1	780-781 cm	
180-181 cm	5y 4/1	790-791 cm	
181-182 cm	5y 4/1	800-801 cm	
182-183 cm	5y 4/1	810-811 cm	
183-184 cm	5y 4/1	820-821 cm	
184-185 cm	5y 4/1	830-831 cm	
185-186 cm	5y 4/1	840-841 cm	
186-187 cm	5y 4/1	850-851 cm	
187-188 cm	5y 4/1	860-861 cm	
188-189 cm	5y 4/1	870-871 cm	
189-190 cm	5y 4/1	880-881 cm	
190-191 cm	5y 4/1	890-891 cm	
191-192 cm	5y 4/1	900-901 cm	
192-193 cm	5y 4/1	910-911 cm	
193-194 cm	5y 4/1	920-921 cm	
194-195 cm	5y 4/1	930-931 cm	
195-196 cm	5y 4/1	940-941 cm	
196-197 cm	5y 4/1	950-951 cm	
197-198 cm	5y 4/1	960-961 cm	
198-199 cm	5y 4/1	970-971 cm	
199-200 cm	5y 4/1	980-981 cm	
200-201 cm	5y 4/1	990-991 cm	
201-202 cm	5y 4/1	1000-1001 cm	
202-203 cm	5y 4/1	1010-1011 cm	
203-204 cm	5y 4/1	1020-1021 cm	
204-205 cm	5y 4/1	1030-1031 cm	
205-206 cm	5y 4/1	1040-1041 cm	
206-207 cm	5y 4/1	1050-1051 cm	
207-208 cm	5y 4/1	1060-1061 cm	
208-209 cm	5y 4/1	1070-1071 cm	
209-210 cm	5y 4/1	1080-1081 cm	
210-211 cm	5y 4/1	1090-1091 cm	
211-212 cm	5y 4/1	1100-1101 cm	
212-213 cm	5y 4/1	1110-1111 cm	
213-214 cm	5y 4/1	1120-1121 cm	
214-215 cm	5y 4/1	1130-1131 cm	
215-216 cm	5y 4/1	1140-1141 cm	
216-217 cm	5y 4/1	1150-1151 cm	
217-218 cm	5y 4/1	1160-1161 cm	
218-219 cm	5y 4/1	1170-1171 cm	
219-220 cm	5y 4/1	1180-1181 cm	
220-221 cm	5y 4/1	1190-1191 cm	
221-222 cm	5y 4/1	1200-1201 cm	
222-223 cm	5y 4/1	1210-1211 cm	
223-224 cm	5y 4/1	1220-1221 cm	
224-225 cm	5y 4/1	1230-1231 cm	
225-226 cm	5y 4/1	1240-1241 cm	
226-227 cm	5y 4/1	1250-1251 cm	
227-228 cm	5y 4/1	1260-1261 cm	
228-229 cm	5y 4/1	1270-1271 cm	
229-230 cm	5y 4/1	1280-1281 cm	
230-231 cm	5y 4/1	1290-1291 cm	
231-232 cm	5y 4/1	1300-1301 cm	
232-233 cm	5y 4/1	1310-1311 cm	
233-234 cm	5y 4/1	1320-1321 cm	
234-235 cm	5y 4/1	1330-1331 cm	
235-236 cm	5y 4/1	1340-1341 cm	
236-237 cm	5y 4/1	1350-1351 cm	
237-238 cm	5y 4/1	1360-1361 cm	
238-239 cm	5y 4/1	1370-1371 cm	
239-240 cm	5y 4/1	1380-1381 cm	
240-241 cm	5y 4/1	1390-1391 cm	
241-242 cm	5y 4/1	1400-1401 cm	
242-243 cm	5y 4/1	1410-1411 cm	
243-244 cm	5y 4/1	1420-1421 cm	
244-245 cm	5y 4/1	1430-1431 cm	
245-246 cm	5y 4/1	1440-1441 cm	
246-247 cm	5y 4/1	1450-1451 cm	
247-248 cm	5y 4/1	1460-1461 cm	
248-249 cm	5y 4/1	1470-1471 cm	
249-250 cm	5y 4/1	1480-1481 cm	
250-251 cm	5y 4/1	1490-1491 cm	
251-252 cm	5y 4/1	1500-1501 cm	
252-253 cm	5y 4/1	1510-1511 cm	
253-254 cm	5y 4/1	1520-1521 cm	
254-255 cm	5y 4/1	1530-1531 cm	
255-256 cm	5y 4/1	1540-1541 cm	
256-257 cm	5y 4/1	1550-1551 cm	
257-258 cm	5y 4/1	1560-1561 cm	
258-259 cm	5y 4/1	1570-1571 cm	
259-260 cm	5y 4/1	1580-1581 cm	
260-261 cm	5y 4/1	1590-1591 cm	
261-262 cm	5y 4/1	1600-1601 cm	
262-263 cm	5y 4/1	1610-1611 cm	
263-264 cm	5y 4/1	1620-1621 cm	
264-265 cm	5y 4/1	1630-1631 cm	
265-266 cm	5y 4/1	1640-1641 cm	
266-267 cm	5y 4/1	1650-1651 cm	
267-268 cm	5y 4/1	1660-1661 cm	
268-269 cm	5y 4/1	1670-1671 cm	
269-270 cm	5y 4/1	1680-1681 cm	
270-271 cm	5y 4/1	1690-1691 cm	
271-272 cm	5y 4/1	1700-1701 cm	
272-273 cm	5y 4/1	1710-1711 cm	
273-274 cm	5y 4/1	1720-1721 cm	
274-275 cm	5y 4/1	1730-1731 cm	
275-276 cm	5y 4/1	1740-1741 cm	
276-277 cm	5y 4/1	1750-1751 cm	
277-278 cm	5y 4/1	1760-1761 cm	
278-279 cm	5y 4/1	1770-1771 cm	
279-280 cm	5y 4/1	1780-1781 cm	
280-281 cm	5y 4/1	1790-1791 cm	
281-282 cm	5y 4/1	1800-1801 cm	
282-283 cm	5y 4/1	1810-1811 cm	
283-284 cm	5y 4/1	1820-1821 cm	
284-285 cm	5y 4/1	1830-1831 cm	
285-286 cm	5y 4/1	1840-1841 cm	
286-287 cm	5y 4/1	1850-1851 cm	
287-288 cm	5y 4/1	1860-1861 cm	
288-289 cm	5y 4/1	1870-1871 cm	
289-290 cm	5y 4/1	1880-1881 cm	
290-291 cm	5y 4/1	1890-1891 cm	
291-292 cm	5y 4/1	1900-1901 cm	
292-293 cm	5y 4/1	1910-1911 cm	
293-294 cm	5y 4/1	1920-1921 cm	
294-295 cm	5y 4/1	1930-1931 cm	
295-296 cm	5y 4/1	1940-1941 cm	
296-297 cm	5y 4/1	1950-1951 cm	
297-298 cm	5y 4/1	1960-1961 cm	
298-299 cm	5y 4/1	1970-1971 cm	
299-300 cm	5y 4/1	1980-1981 cm	
300-301 cm	5y 4/1	1990-1991 cm	
301-302 cm	5y 4/1	2000-2001 cm	
302-303 cm	5y 4/1	2010-2011 cm	
303-304 cm	5y 4/1	2020-2021 cm	
304-305 cm	5y 4/1	2030-2031 cm	
305-306 cm	5y 4/1	2040-2041 cm	
306-307 cm	5y 4/1	2050-2051 cm	
307-308 cm	5y 4/1	2060-2061 cm	
308-309 cm	5y 4/1	2070-2071 cm	
309-310 cm	5y 4/1	2080-2081 cm	
310-311 cm	5y 4/1	2090-2091 cm	
311-312 cm	5y 4/1	2100-2101 cm	
312-313 cm	5y 4/1	2110-2111 cm	
313-314 cm	5y 4/1	2120-2121 cm	
314-315 cm	5y 4/1	2130-2131 cm	
315-316 cm	5y 4/1	2140-2141 cm	
316-317 cm	5y 4/1	2150-2151 cm	
317-318 cm	5y 4/1	2160-2161 cm	
318-319 cm	5y 4/1	2170-2171 cm	
319-320 cm	5y 4/1	2180-2181 cm	
320-321 cm	5y 4/1	2190-2191 cm	
321-322 cm	5y 4/1	2200-2201 cm	
322-323 cm	5y 4/1	2210-2211 cm	
323-324 cm	5y 4/1	2220-2221 cm	
324-325 cm	5y 4/1	2230-2231 cm	
325-326 cm	5y 4/1	2240-2241 cm	
326-327 cm	5y 4/1	2250-2251 cm	
327-328 cm	5y 4/1	2260-2261 cm	
328-329 cm	5y 4/1	2270-2271 cm	
329-330 cm	5y 4/1	2280-2281 cm	
330-331 cm	5y 4/1	2290-2291 cm	
331-332 cm	5y 4/1	2300-2301 cm	
332-333 cm	5y 4/1	2310-2311 cm	
333-334 cm	5y 4/1	2320-2321 cm	
334-335 cm	5y 4/1	2330-2331 cm	
335-336 cm	5y 4/1	2340-2341 cm	
336-337 cm	5y 4/1	2350-2351 cm	
337-338 cm	5y 4/1	2360-2361 cm	
338-339 cm	5y 4/1	2370-2371 cm	
339-340 cm	5y 4/1	2380-2381 cm	
340-341 cm	5y 4/1	2390-2391 cm	
341-342 cm	5y 4/1	2400-2401 cm	
342-343 cm	5y 4/1	2410-2411 cm	
343-344 cm	5y 4/1	2420-2421 cm	
344-345 cm	5y 4/1	2430-2431 cm	
345-346 cm	5y 4/1	2440-2441 cm	
346-347 cm	5y 4/1	2450-2451 cm	
347-348 cm	5y 4/1	2460-2461 cm	
348-349 cm	5y 4/1	2470-2471 cm	
349-350 cm	5y 4/1	2480-2481 cm	

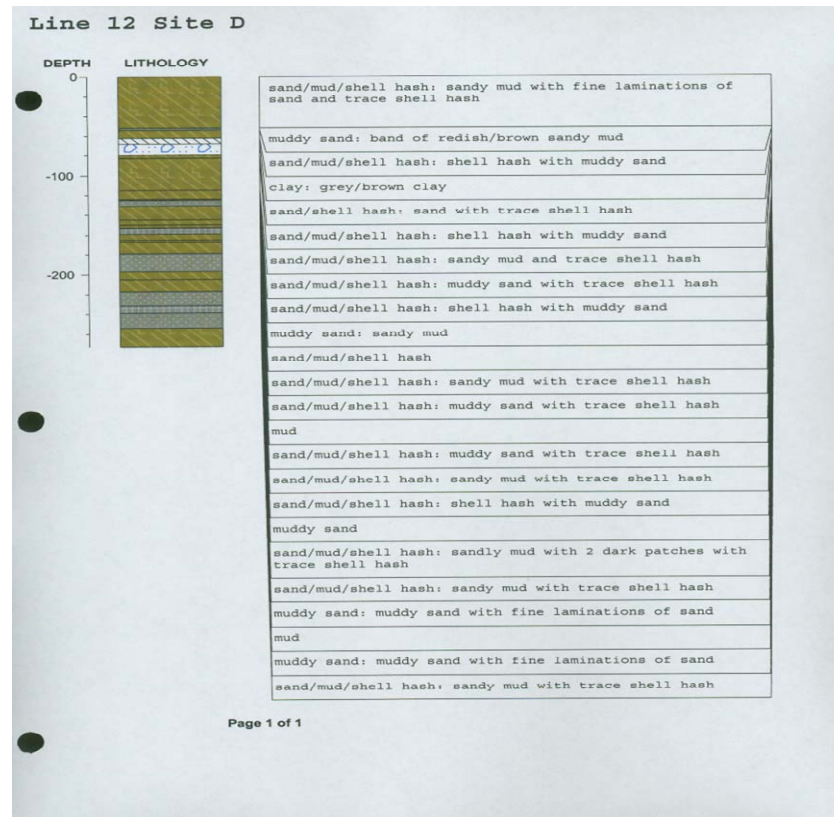


Figure 42: Computerized core log of 12D

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)
12D	1-10											21.90	3.31
12D	51-54											19.21	6.77
12D	54-60	4.06	1.58	0.60	0.38	0.20	0.13	0.07	0.17	1.01	19.11	18.72	12.37
12D	71-80	0.52	0.28	0.23	0.15	0.05	0.07	0.18	0.24	1.16	17.61	23.51	34.82
12D	81-90	9.07	3.31	2.50	1.49	0.61	0.36	0.29	0.72	4.77	13.86	9.55	7.96
12D	121-124											13.74	9.11
12D	124-130											10.09	3.34
12D	151-160											8.76	2.97
12D	161-170											27.26	5.75
12D	171-180	0.54	0.65	0.45	0.43	0.26	0.30	0.47	2.75	34.49	58.98	12.13	10.99
12D	181-190											33.14	5.37
12D	191-200											8.41	1.22
12D	251-260											4.85	1.88
12D	271-273											10.42	3.17

Table 27: RO-TAP data for core 12D

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
12D	51-54											62.2	24.8
12D	54-60	95.0	93.1	92.4	91.9	91.6	91.5	91.4	91.2	90.0	66.6	43.6	9.1
12D	71-80	99.6	99.3	99.1	99.0	99.0	98.9	98.7	98.5	97.6	82.7	62.8	7.9
12D	81-90	91.6	88.5	86.2	84.8	84.2	83.9	83.6	83.0	78.5	65.7	56.8	23.1
12D	121-124											81.5	20.1
12D	124-130											84.2	29.3
12D	151-160											80.6	28.6
12D	161-170											73.9	24.6
12D	171-180	99.7	99.3	99.0	98.7	98.6	98.4	98.1	96.4	75.3	39.1	31.7	9.5
12D	181-190											55.2	25.2
12D	191-200											82.3	53.3
12D	251-260											88.9	29.8
12D	271-273											62.3	17.1

Table 28: Percent Finer table for core 12D

Core ID	Sample Depth (cm)	shell weight	200+ weight	200-230 weight	sand + shell
12D	1-10		21.90	3.31	21.90
12D	51-54		19.21	6.77	19.21
12D	54-60	6.95	39.08	12.37	46.03
12D	71-80	1.30	42.70	34.82	44.00
12D	81-90	17.34	29.19	7.96	46.53
12D	121-124		13.74	9.11	13.74
12D	124-130		10.09	3.34	10.09
12D	151-160		8.76	2.97	8.76
12D	161-170		27.26	5.75	27.26
12D	171-180	2.63	108.82	10.99	111.45
12D	181-190		33.14	5.37	33.14
12D	191-200		8.41	1.22	8.41
12D	251-260		4.85	1.88	4.85
12D	271-273		10.42	3.17	10.42

Table 29: Shell and Sand weights for core 12D

Core ID	sample id	mid sample depth	% shell	% sand	%silt	%clay	total %
12D	1-10	5.5		40.8	23.3	36.0	100
12D	51-54	52.5		37.8	37.4	24.8	100
12D	54-60	57	8.5	47.8	34.5	9.1	100
12D	71-80	75.5	1.1	36.1	54.9	7.9	100
12D	81-90	85.5	16.1	27.1	33.8	23.1	100
12D	121-124	122.5		18.5	61.4	20.1	100
12D	124-130	127		15.8	54.9	29.3	100
12D	151-160	155.5		19.4	52.0	28.6	100
12D	161-170	165.5		26.1	49.3	24.6	100
12D	171-180	175.5	1.6	66.7	22.2	9.5	100
12D	181-190	185.5		44.8	30.1	25.2	100
12D	191-200	195.5		17.7	29.0	53.3	100
12D	251-260	255.5		11.1	59.1	29.8	100
12D	271-273	272		37.7	45.1	17.1	100

Table 30: Percent Shell, Sand, Silt and Clay for core 12D

Station ID	Average Depth	Median Grain Size	Median Grain Size	Mean Grain Size	Mean Grain Size	Skewness	Sorting Index
	(cm)	(phi)	(mm)	(phi)	(mm)		
CC12D/1-10	5.5						
CC12D/51-54	52.5						
CC12D/54-60	57	3.677	0.0778	3.7277	0.0751	0.2420	2.4215
CC12D/71-80	75.5	3.863	0.0684	3.8313	0.0699	0.3649	1.7631
CC12D/81-90	85.5	3.979	0.0631	5.4876	0.0221	0.3671	4.62
CC12D/121-124	122.5						
CC12D/124-130	127						
CC12D/151-160	155.5						
CC12D/161-170	165.5						
CC12D/171-180	175.5	3.324	0.0994	3.5201	0.0868	0.6200	1.9334
CC12D/181-190	185.5						
CC12D/191-200	195.5						
CC12D/251-260	255.5						
CC12D/271-273	272						

PINK=Upper sand area

Table 31: Median grain size, Mean grain size, Skewness and Sorting index for core 12D

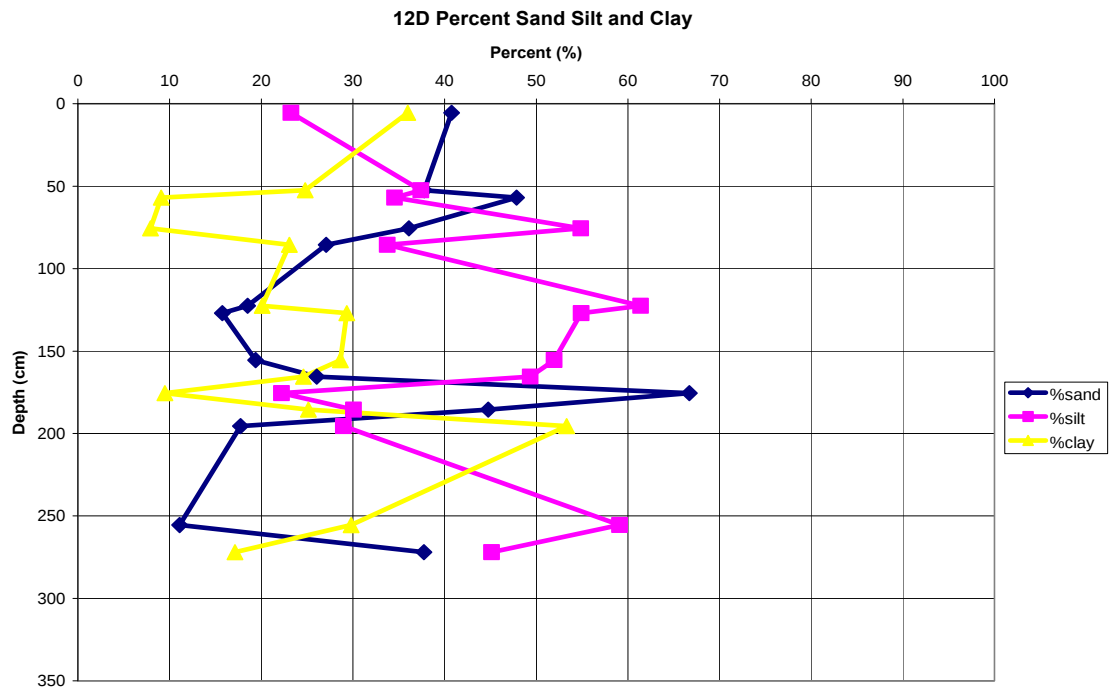


Figure 43: Percent Sand, Silt and Clay graph for core 12D

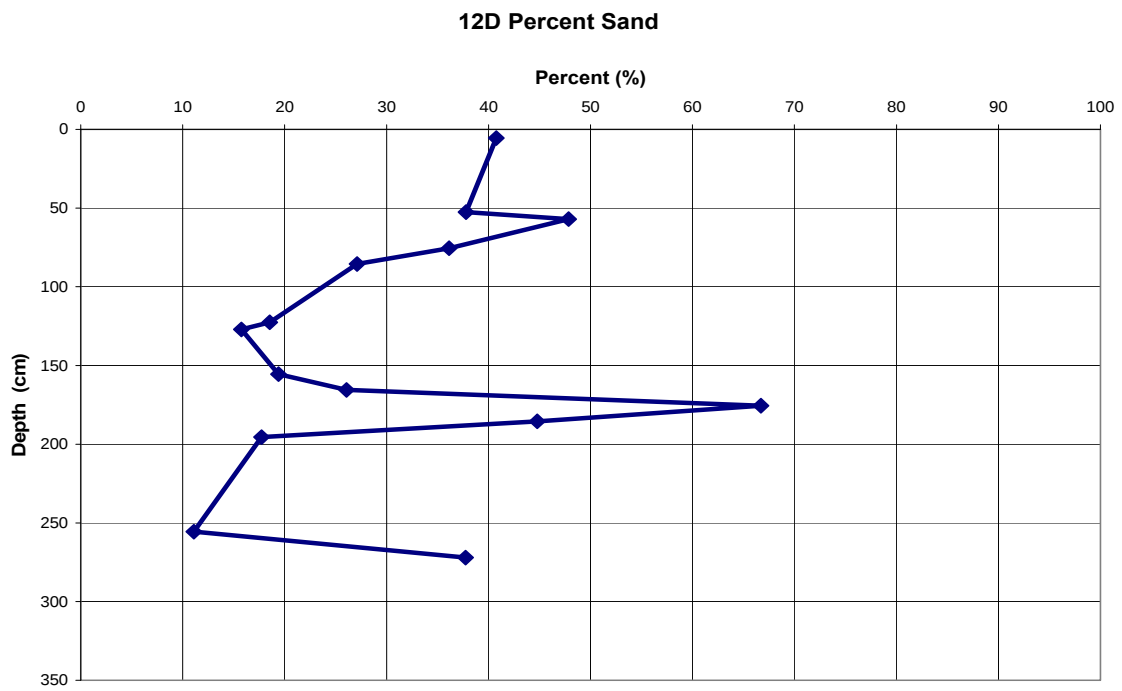


Figure 44: Percent Sand graph for core 12D

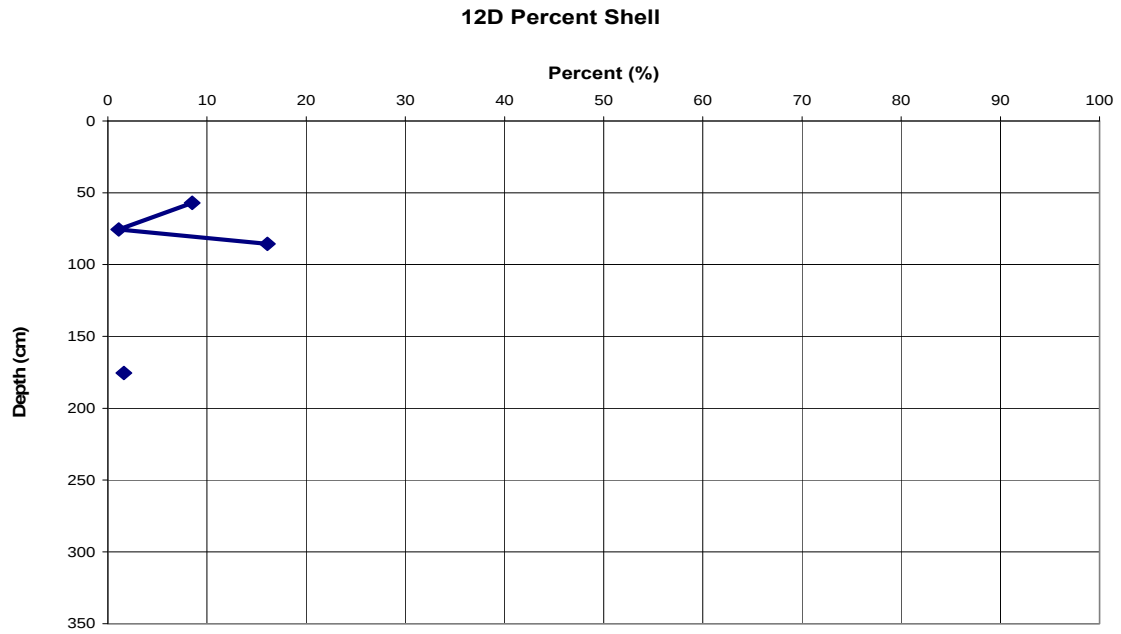


Figure 45: Percent Shell for core 12D

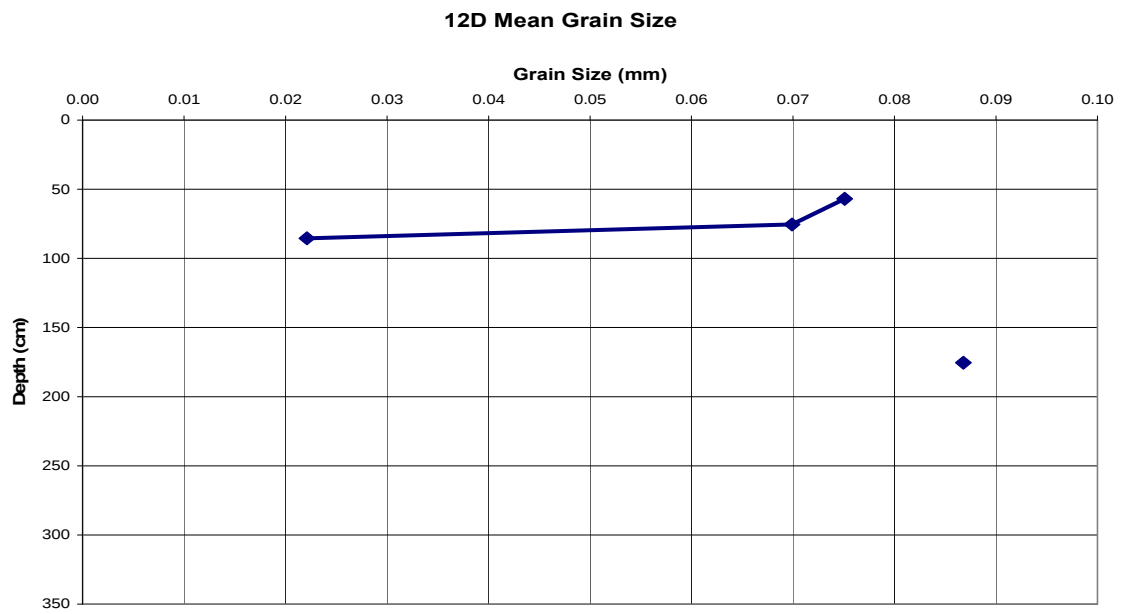


Figure 46: Mean grain size graph for core 12D