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FINAL REPORT

ENVIRONMENTAL SURVEY OF IDENTIFIED SAND RESOURCE AREAS OFFSHORE ALABAMA

VOLUME II: APPENDICES

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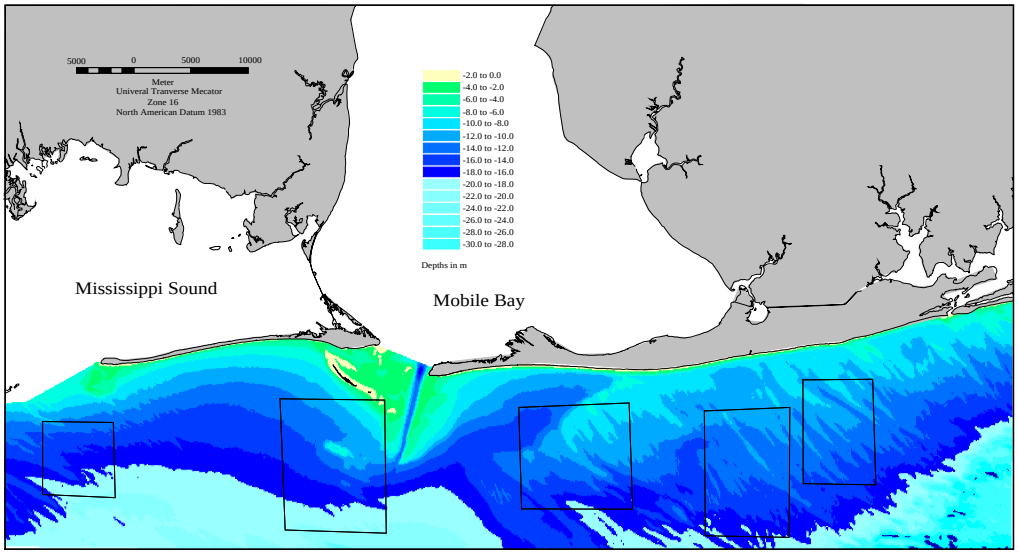

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U.S. Department of the Interior
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APPENDIX A. HIGH-WATER SHORELINE POSITION CHANGE

The following data tables provide shoreline position (UTM-x, UTM-y) and change statistics for the entire Gulf coast of Alabama at a 50-m longshore spacing. Transect 1 is located at the very western end of Dauphin Island as the island was mapped in 1981/82. Cumulative and incremental change rates are provided on the left half of the table, and shoreline position for each transect is listed on the right side of the table. All length measurements are recorded in meters.

				High-Water Shoreline Position Change Rate										High-Water Shoreline Position (UTM Zone 16, NAD 1983)									
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to		Transect #		1847/67		1917/18		1934		1957		1978/82	
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)			UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
Start												Start									372386.3	3344648.0	
1												1									372437.2	3344642.0	
2												2									372487.5	3344641.0	
3												3									372537.6	3344643.0	
4												4									372587.8	3344644.0	
5												5									372637.4	3344650.0	
6												6									372687.2	3344654.0	
7												7									372737.6	3344652.0	
8												8									372788.6	3344645.0	
9												9									372839.9	3344635.0	
10												10									372890.3	3344633.0	
11												11									372940.2	3344637.0	
12												12									372990.1	3344640.0	
13												13									373040.1	3344642.0	
14												14									373090.3	3344643.0	
15												15									373140.7	3344642.0	
16												16									373191.0	3344641.0	
17												17									373241.5	3344638.0	
18												18									373293.2	3344624.0	
19												19								373290.5	3345157.0	373346.2	3344596.0
20										27.8		20								373345.0	3345114.0	373398.1	3344580.0
21										26.5		21								373399.1	3345076.0	373448.4	3344578.0
22										24.7		22								373452.7	3345041.0	373498.3	3344583.0
23										22.8		23								373505.2	3345019.0	373548.0	3344588.0
24										21.4		24								373559.3	3344980.0	373597.4	3344596.0
25										19.1		25								373611.3	3344962.0	373647.1	3344602.0
26										17.9		26								373664.1	3344936.0	373697.2	3344603.0
27										16.5		27								373719.5	3344884.0	373748.8	3344589.0
28										14.6		28								373778.0	3344801.0	373798.4	3344596.0
29										10.2		29								373830.8	3344776.0	373846.7	3344615.0
30										8.0		30								373882.8	3344758.0	373895.7	3344628.0
31										6.4		31								373937.1	3344717.0	373944.9	3344638.0
32										3.9		32								373991.3	3344678.0	373994.3	3344648.0
33										1.9		33								374043.2	3344661.0	374043.5	3344657.0
34										0.2		34								374094.2	3344653.0	374092.8	3344667.0
35										-0.7		35								374145.2	3344646.0	374142.5	3344673.0
36										-1.3		36								374195.9	3344641.0	374192.3	3344677.0
37										-1.8		37								374246.0	3344642.0	374242.7	3344675.0
38										-1.7		38								374295.8	3344648.0	374293.1	3344674.0
39										-1.3		39								374346.7	3344641.0	374343.0	3344677.0
40										-1.8		40								374397.5	3344634.0	374392.9	3344681.0
41										-2.3		41								374448.4	3344628.0	374442.8	3344685.0
42										-2.8		42								374499.4	3344621.0	374492.3	3344692.0
43										-3.5		43								374550.4	3344613.0	374541.8	3344699.0
44										-4.3		44								374601.6	3344603.0	374591.4	3344706.0
45										-5.1		45								374652.4	3344597.0	374641.4	3344708.0
46										-5.5		46								374703.3	3344591.0	374691.4	3344711.0
47										-6.0		47								374753.9	3344588.0	374741.4	3344714.0
48										-6.3		48								374803.9	3344590.0	374791.1	3344719.0
49										-6.4		49								374853.5	3344597.0	374840.9	3344723.0
50										-6.3		50								374902.6	3344608.0	374891.4	3344721.0
51										-5.6		51								374951.6	3344621.0	374941.8	3344720.0
52										-4.9		52								375000.9	3344630.0	374991.8	3344721.0
53										-4.5		53								375050.2	3344640.0	375041.7	3344725.0
54										-4.2		54								375100.2	3344642.0	375091.0	3344734.0
55										-4.6		55								375150.7	3344640.0	375140.8	3344739.0
56										-5.0		56								375200.9	3344640.0	375190.6	3344744.0
57										-5.2		57								375250.3	3344648.0	375240.4	3344749.0
58										-5.0		58			375251.5	3345143.0				375299.3	3344661.0	375290.3	3344752.0
59							12.0	6.5		-4.5		59			375302.5	3345136.0				375349.0	3344666.0	375340.2	3344756.0
60							11.7	6.3		-4.4		60			375353.4	3345128.0				375398.7	3344672.0	375390.2	3344758.0
61							11.3	6.1		-4.3		61			375404.2	3345123.0				375448.7	3344675.0	375440.3	3344760.0
62							11.1	6.0		-4.2		62			375454.8	3345119.0				375498.6	3344679.0	375490.0	3344765.0
63							11.0	5.9		-4.3		63			375505.0	3345120.0				375548.5	3344682.0	375539.8	3344770.0
64							10.9	5.8		-4.4		64			375555.3	3345119.0				375597.8	3344691.0	375589.5	3344775.0
65							10.6	5.7		-4.2		65			375605.5	3345120.0				375646.9	3344703.0	375639.3	3344780.0
66							10.4	5.6		-3.8		66			375655.7	3345120.0				375696.5	3344709.0	375688.2	3344793.0
67							10.2	5.4		-4.2		67			375705.8	3345122.0				375746.5	3344712.0	375736.8	3344809.0
68							10.2	5.2		-4.8		68			375755.5	3345127.0				375796.1	3344718.0	375787.0	3344810.0
69							10.2	5.2		-4.6		69			375805.2	3345132.0				375845.8	3344723.0	375837.3	3344809.0
70							10.2	5.4		-4.3		70			375855.0	3345137.0				375895.6	3344728.0	375887.6	3344809.0
71							10.2	5.4		-4.0		71			375906.0	3345129.0				375945.4	3344733.0	375937.9	3344808.0
72							9.9	5.3		-3.7		72			375960.3	3345089.0				375996.1	3344729.0	375987.9	3344811.0
73							9.0	4.6		-4.1		73			376037.5	3344817.0				376045.6	3344736.0	376037.2	3344820.0
74							2.0	-0.1		-4.2		74			376090.8	3344786.0				376094.3	3344751.0	376086.4	3344830.0
75							0.9	-0.7		-4.0		75			376144.3	3344754.0				376143.8	3344759.0	376135.7	3344841.0

				High-Water Shoreline Position Change Rate										High-Water Shoreline Position (UTM Zone 16, NAD 1983)								
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to		Transect #		1847/67		1917/18		1934		1957		1978/82
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)			UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
76						-0.1	-1.4			-4.0		76			376198.2	3344717.0			376193.4	3344766.0	376184.9	3344851.0
77						-1.2	-2.2			-4.2		77			376250.1	3344700.0			376242.8	3344774.0	376234.2	3344861.0
78						-1.8	-2.7			-4.3		78			376300.8	3344696.0			376292.1	3344783.0	376283.4	3344871.0
79						-2.2	-2.9			-4.3		79			376350.9	3344697.0			376341.3	3344794.0	376332.7	3344880.0
80						-2.4	-3.0			-4.3		80			376400.4	3344704.0			376391.0	3344799.0	376382.0	3344890.0
81						-2.4	-3.1			-4.5		81			376450.3	3344709.0			376440.8	3344804.0	376431.6	3344897.0
82						-2.4	-3.1			-4.6		82			376499.6	3344717.0			376490.7	3344807.0	376480.5	3344910.0
83						-2.2	-3.2			-5.1		83			376549.1	3344725.0			376540.4	3344813.0	376529.3	3344924.0
84						-2.2	-3.3			-5.5		84			376598.5	3344734.0			376590.0	3344819.0	376578.4	3344936.0
85						-2.1	-3.4			-5.8		85			376648.3	3344738.0			376639.1	3344831.0	376628.5	3344937.0
86						-2.3	-3.3			-5.3		86			376698.5	3344739.0			376687.7	3344847.0	376679.3	3344932.0
87						-2.7	-3.2			-4.2		87			376748.6	3344740.0			376737.1	3344856.0	376730.2	3344925.0
88						-2.9	-3.1			-3.4		88			376798.3	3344746.0			376786.5	3344864.0	376780.8	3344922.0
89						-2.9	-2.9			-2.9		89			376847.6	3344755.0			376835.7	3344875.0	376830.5	3344927.0
90						-3.0	-2.9			-2.6		90			376896.9	3344765.0			376885.2	3344883.0	376879.3	3344942.0
91						-2.9	-2.9			-2.9		91			376946.2	3344775.0			376934.6	3344891.0	376927.5	3344962.0
92						-2.9	-3.1			-3.5		92			376995.7	3344782.0			376984.0	3344899.0	376975.7	3344983.0
93						-2.9	-3.3			-4.2		93			377045.2	3344789.0			377033.1	3344911.0	377023.8	3345005.0
94						-3.0	-3.6			-4.7		94			377095.3	3344790.0			377082.2	3344923.0	377072.7	3345018.0
95						-3.3	-3.8			-4.8		95			377144.7	3344799.0			377131.3	3344934.0	377121.7	3345031.0
96						-3.4	-3.8			-4.8		96			377193.7	3344812.0			377180.5	3344945.0	377170.8	3345042.0
97						-3.3	-3.8			-4.8		97			377242.6	3344826.0			377230.0	3344952.0	377220.2	3345051.0
98						-3.1	-3.7			-4.9		98			377292.1	3344833.0			377279.8	3344957.0	377269.7	3345058.0
99						-3.1	-3.7			-5.0		99			377341.8	3344838.0			377329.5	3344963.0	377319.3	3345065.0
100						-3.1	-3.8			-5.1		100			377391.6	3344843.0			377378.8	3344972.0	377368.9	3345072.0
101						-3.2	-3.8			-5.0		101			377441.1	3344851.0			377427.5	3344987.0	377418.4	3345078.0
102						-3.4	-3.8			-4.5		102			377490.7	3344856.0			377476.8	3344997.0	377468.0	3345085.0
103						-3.5	-3.8			-4.4		103			377540.6	3344861.0			377525.7	3345011.0	377517.4	3345094.0
104						-3.7	-3.9			-4.1		104			377590.3	3344866.0			377575.3	3345017.0	377566.6	3345105.0
105						-3.7	-4.0			-4.4		105			377640.4	3344868.0			377625.0	3345023.0	377615.8	3345115.0
106						-3.9	-4.1			-4.6		106			377690.2	3344872.0			377674.3	3345032.0	377665.0	3345126.0
107						-4.0	-4.2			-4.6		107			377739.8	3344879.0			377723.7	3345040.0	377714.2	3345136.0
108						-4.0	-4.3			-4.7		108			377788.8	3344891.0			377773.1	3345049.0	377763.5	3345146.0
109						-3.9	-4.2			-4.8		109			377837.7	3344905.0			377822.4	3345059.0	377812.7	3345157.0
110						-3.8	-4.2			-4.9		110			377886.5	3344919.0			377871.7	3345068.0	377861.8	3345168.0
111						-3.7	-4.1			-5.0		111			377935.3	3344934.0			377921.1	3345077.0	377911.1	3345178.0
112						-3.6	-4.0			-5.0		112			377983.7	3344952.0			377970.0	3345090.0	377960.2	3345189.0
113						-3.4	-3.9			-4.9		113			378032.5	3344966.0			378018.8	3345104.0	378009.2	3345201.0
114						-3.4	-3.9			-4.8		114			378081.5	3344979.0			378067.7	3345118.0	378058.3	3345213.0
115						-3.5	-3.9			-4.7		115			378130.3	3344994.0			378116.8	3345130.0	378107.5	3345223.0
116						-3.4	-3.8			-4.6		116			378179.1	3345008.0			378165.9	3345141.0	378156.9	3345232.0
117						-3.3	-3.7			-4.5		117			378228.0	3345022.0			378215.1	3345151.0	378206.0	3345243.0
118						-3.2	-3.7			-4.5		118			378276.8	3345037.0			378264.5	3345161.0	378255.0	3345256.0
119						-3.1	-3.6			-4.7		119			378325.5	3345052.0			378313.7	3345171.0	378303.8	3345270.0
120						-3.0	-3.6			-4.9		120			378374.7	3345063.0			378362.3	3345187.0	378352.7	3345284.0
121						-3.1	-3.7			-4.8		121			378423.7	3345075.0			378411.4	3345198.0	378401.7	3345297.0
122						-3.1	-3.7			-4.9		122			378472.8	3345086.0			378460.5	3345211.0	378450.8	3345309.0
123						-3.1	-3.7			-4.9		123			378521.5	3345102.0			378509.8	3345220.0	378500.0	3345319.0
124						-2.9	-3.6			-4.9		124			378570.6	3345114.0			378558.9	3345232.0	378549.2	3345329.0
125						-2.9	-3.6			-4.8		125			378619.9	3345123.0			378608.0	3345243.0	378598.4	3345340.0
126						-3.0	-3.6			-4.8		126			378669.4	3345130.0			378657.3	3345253.0	378647.6	3345350.0
127						-3.0	-3.6			-4.8		127			378718.9	3345138.0			378706.7	3345261.0	378696.8	3345361.0
128						-3.1	-3.7			-5.0		128			378768.0	3345150.0			378756.3	3345268.0	378746.0	3345372.0
129						-2.9	-3.7			-5.1		129			378817.0	3345162.0			378805.6	3345277.0	378795.1	3345383.0
130						-2.8	-3.6			-5.2		130			378865.9	3345176.0			378854.7	3345289.0	378844.2	3345394.0
131						-2.8	-3.6			-5.2		131			378914.9	3345189.0			378903.7	3345301.0	378893.3	3345406.0
132						-2.8	-3.6			-5.2		132			378964.4	3345196.0			378952.8	3345313.0	378942.7	3345415.0
133						-2.9	-3.6			-5.0		133			379013.4	3345208.0			379001.9	3345324.0	378992.0	3345424.0
134						-2.9	-3.6			-4.9		134			379062.2	3345223.0			379051.0	3345336.0	379041.3	3345433.0
135						-2.8	-3.5			-4.8		135			379110.7	3345240.0			379100.2	3345347.0	379090.6	3345443.0
136						-2.6	-3.4			-4.8		136			379159.8	3345253.0			379149.5	3345356.0	379139.9	3345452.0
137						-2.6	-3.3			-4.8		137			379208.7	3345266.0			379198.8	3345366.0	379189.2	3345462.0
138						-2.5	-3.2			-4.8		138			379257.2	3345284.0			379247.6	3345380.0	379238.6	3345471.0
139						-2.4	-3.1			-4.5		139			379305.3	3345305.0			379296.7	3345391.0	379287.8	3345481.0
140						-2.2	-2.9			-4.5		140			379353.8	3345323.0			379346.3	3345398.0	379336.8	3345494.0
141						-1.9	-2.8			-4.7		141			379402.6	3345337.0			379395.5	3345409.0	379386.3	3345502.0
142						-1.8	-2.7			-4.6		142			379451.7	3345349.0			379444.8	3345419.0	379435.9	3345508.0
143						-1.7	-2.6			-4.4		143			379500.8	3345360.0			379493.6	3345433.0	379485.2	3345517.0
144						-1.8	-2.6			-4.2		144			379549.7	3345373.0			379542.3	3345448.0	379534.2	3345530.0
145						-1.9	-2.6			-4.1		145			379598.7	3345387.0			379591.4	3345460.0	379583.3	3345542.0
146						-1.8	-2.6			-4.1		146			379647.4	3345402.0			379640.9	3345468.0	379632.3	3345554.0
147						-1.6	-2.5			-4.3		147			379696.1	3345418.0			379690.3	3345476.0	379681.3	3345567.0
148	5.1		2.7	1.6		-1.4	-2.5			-4.5		148	379718.8	3345694.0	379745.2	3345429.0			379739.7	3345484.0	379730.3	3345579.0
149	3.8		1.9	0.9		-1.4	-2.5			-4.7		149	379775.3	3345631.0	379794.4	3345439.0			379788.7	3345497.0	379779.4	3345591.0
150	2.8		1.2	0.3		-1.4	-2.5			-4.7		150	379828.9	3345598.0	379844.0	3345446.0			379837.6	3345511.0	379828.4	3345603.0
151	2.2		0.8	0.0		-1.6	-2.6			-4.6		151	379880.4	3345586.0	379893.6	3345452.0			379886.6	3345523.0	379877.5	3345614.0

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to 1917/18 (m/yr)	1847/67 to 1934 (m/yr)	1847/67 to 1957 (m/yr)	1847/67 to 1978/82 (m/yr)	1917/18 to 1934 (m/yr)	1917/18 to 1957 (m/yr)	1917/18 to 1978/82 (m/yr)	1934 to 1957 (m/yr)	1934 to 1978/82 (m/yr)	1957 to 1978/82 (m/yr)
152	1.9		0.6	-0.2		-1.8	-2.7			-4.5
153	1.8		0.4	-0.3		-2.0	-2.7			-4.1
154	1.6		0.3	-0.4		-2.0	-2.6			-4.0
155	1.2		0.0	-0.6		-2.1	-2.6			-3.8
156	1.0		-0.2	-0.7		-2.2	-2.7			-3.6
157	0.7		-0.3	-0.8		-2.1	-2.7			-3.7
158	0.3		-0.5	-1.0		-1.9	-2.6			-3.9
159	-0.1		-0.7	-1.3		-1.8	-2.6			-4.2
160	-0.4		-0.9	-1.5		-1.8	-2.8			-4.8
161	-0.8		-1.2	-1.8		-1.8	-2.9			-4.9
162	-1.2		-1.5	-2.0		-1.9	-2.9			-4.9
163	-1.4		-1.6	-2.1		-2.0	-2.9			-4.8
164	-1.5		-1.7	-2.1		-1.9	-2.8			-4.6
165	-1.5		-1.7	-2.1		-2.0	-2.8			-4.4
166	-1.5		-1.7	-2.1		-2.0	-2.7			-4.0
167	-1.4		-1.7	-2.0		-2.2	-2.7			-3.5
168	-1.3		-1.7	-1.9		-2.4	-2.6			-3.1
169	-1.2		-1.7	-1.9		-2.4	-2.6			-3.1
170	-1.2		-1.6	-1.9		-2.3	-2.7			-3.4
171	-1.3		-1.6	-1.9		-2.1	-2.7			-3.7
172	-1.2		-1.6	-2.0		-2.2	-2.9			-4.3
173	-1.1		-1.5	-2.0		-2.3	-3.1			-4.7
174	-1.1		-1.6	-2.0		-2.4	-3.0			-4.3
175	-1.1		-1.6	-2.0		-2.5	-3.0			-3.8
176	-1.1		-1.6	-1.9		-2.6	-2.9			-3.3
177	-1.1		-1.7	-1.9		-2.6	-2.8			-3.0
178	-1.1		-1.7	-1.9		-2.6	-2.8			-3.1
179	-1.1		-1.7	-1.9		-2.6	-2.8			-3.1
180	-1.1		-1.7	-1.9		-2.6	-2.8			-3.2
181	-1.2		-1.7	-1.9		-2.5	-2.8			-3.4
182	-1.2	-1.7	-1.7	-2.0	-3.8	-2.6	-2.9	-1.7	-2.5	-3.4
183	-1.4	-1.7	-1.7	-2.1	-3.3	-2.3	-2.8	-1.6	-2.7	-3.9
184		-1.8	-1.8	-2.1				-1.8	-2.7	-3.8
185		-1.7	-1.8	-2.1				-2.0	-2.8	-3.6
186		-1.7	-1.8	-2.1				-2.2	-2.7	-3.3
187		-1.7	-1.9	-2.0				-2.3	-2.6	-2.9
188		-1.8	-1.8	-2.0				-2.2	-2.4	-2.7
189		-1.8	-1.8	-1.9				-2.0	-2.3	-2.7
190		-1.7	-1.8	-1.9				-2.1	-2.4	-2.7
191		-1.7	-1.8	-2.0				-2.2	-2.4	-2.6
192		-1.7	-1.8	-2.0				-2.3	-2.5	-2.7
193		-1.7	-1.9	-2.0				-2.4	-2.6	-2.9
194		-1.7	-1.9	-2.0				-2.3	-2.7	-3.1
195		-1.8	-1.9	-2.1				-2.3	-2.6	-2.9
196		-1.9	-1.9	-2.1				-1.6	-2.4	-3.3
197		-2.0	-1.9	-2.1				-1.7	-2.3	-3.0
198		-2.0	-2.0	-2.1				-1.8	-2.2	-2.7
199		-2.0	-2.0	-2.1				-1.8	-2.2	-2.7
200		-2.0	-2.0	-2.1				-1.9	-2.2	-2.6
201		-2.0	-2.0	-2.1				-1.8	-2.4	-3.0
202		-2.0	-2.0	-2.1				-2.1	-2.3	-2.6
203		-2.0	-2.1	-2.1				-2.2	-2.3	-2.4
204		-2.1	-2.1	-2.2				-2.4	-2.3	-2.2
205		-2.1	-2.2	-2.2				-2.4	-2.4	-2.4
206		-2.1	-2.1	-2.2				-1.8	-2.3	-2.9
207		-2.2	-2.1	-2.2				-1.7	-2.2	-2.7
208		-2.2	-2.1	-2.2				-1.7	-2.2	-2.8
209		-2.2	-2.1	-2.2				-1.8	-2.2	-2.7
210		-2.2	-2.1	-2.2				-2.1	-2.3	-2.5
211		-2.2	-2.2	-2.2				-2.1	-2.1	-2.2
212		-2.2	-2.2	-2.2				-2.0	-2.0	-1.9
213		-2.3	-2.2	-2.2				-1.7	-2.0	-2.4
214		-2.3	-2.2	-2.2				-1.8	-2.0	-2.3
215		-2.3	-2.2	-2.2				-1.8	-2.1	-2.3
216		-2.3	-2.2	-2.2				-1.7	-2.2	-2.6
217		-2.3	-2.3	-2.3				-2.3	-2.2	-2.1
218		-2.3	-2.3	-2.3				-2.1	-2.1	-2.1
219		-2.4	-2.3	-2.3				-1.9	-2.0	-2.1
220		-2.4	-2.2	-2.3				-1.5	-2.0	-2.6
221		-2.5	-2.3	-2.3				-1.6	-1.9	-2.3
222		-2.6	-2.4	-2.4				-1.4	-1.9	-2.6
223		-2.7	-2.3	-2.4				-1.1	-2.0	-2.9
224		-2.7	-2.4	-2.4				-1.2	-2.0	-3.0
225		-2.7	-2.4	-2.4				-1.4	-2.0	-2.7
226		-2.6	-2.4	-2.4				-1.5	-2.0	-2.5
227		-2.6	-2.4	-2.4				-1.6	-2.1	-2.6

				High-Water Shoreline Position (UTM Zone 16, NAD 1983)							
Transect #		1847/67		1917/18		1934		1957		1978/82	
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
152	379930.7	3345585.0	379943.3	3345458.0			379935.3	3345538.0	379927.1	3345621.0
153	379981.6	3345578.0	379992.8	3345466.0			379984.8	3345546.0	379976.9	3345626.0
154	380033.6	3345561.0	380042.1	3345475.0			380033.8	3345558.0	380026.3	3345634.0
155	380084.3	3345555.0	380091.4	3345484.0			380082.5	3345574.0	380075.3	3345647.0
156	380135.3	3345548.0	380140.4	3345497.0			380131.8	3345584.0	380124.4	3345659.0
157	380186.5	3345538.0	380189.0	3345514.0			380181.2	3345592.0	380173.4	3345671.0
158	380238.1	3345525.0	380237.8	3345529.0			380230.4	3345603.0	380222.0	3345688.0
159	380289.8	3345511.0	380286.8	3345541.0			380279.8	3345612.0	380270.2	3345708.0
160	380341.6	3345495.0	380335.9	3345552.0			380328.7	3345625.0	380318.8	3345724.0
161	380393.7	3345476.0	380385.4	3345560.0			380377.8	3345637.0	380368.0	3345735.0
162	380444.3	3345473.0	380434.6	3345570.0			380426.6	3345651.0	380417.1	3345746.0
163	380493.8	3345480.0	380483.3	3345586.0			380475.6	3345663.0	380466.4	3345756.0
164	380543.0	3345490.0	380532.6	3345595.0			380524.7	3345675.0	380516.0	3345763.0
165	380592.4	3345499.0	380582.1	3345603.0			380574.0	3345685.0	380565.9	3345766.0
166	380641.4	3345512.0	380631.8	3345608.0			380623.0	3345697.0	380615.9	3345769.0
167	380690.3	3345525.0	380681.3	3345616.0			380671.9	3345711.0	380665.7	3345773.0
168	380739.3	3345538.0	380730.7	3345625.0			380721.1	3345721.0	380714.8	3345784.0
169	380788.2	3345552.0	380779.8	3345637.0			380770.5	3345729.0	380763.8	3345797.0
170	380837.1	3345565.0	380828.4	3345652.0			380819.9	3345739.0	380812.4	3345814.0
171	380886.1	3345577.0	380877.8	3345662.0			380869.0	3345749.0	380860.5	3345836.0
172	380935.3	3345588.0	380927.6	3345666.0			380918.4	3345758.0	380909.2	3345852.0
173	380984.6	3345598.0	380977.0	3345674.0			380967.4	3345771.0	380958.8	3345858.0
174	381034.0	3345606.0	381026.6	3345681.0			381016.5	3345783.0	381008.8	3345860.0
175	381083.4	3345615.0	381076.1	3345689.0			381065.6	3345794.0	381058.9	3345861.0
176	381132.7	3345624.0	381125.0	3345702.0			381114.6	3345807.0	381108.5	3345868.0
177	381182.0	3345633.0	381174.3	3345711.0			381164.0	3345815.0	381157.7	3345878.0
178	381231.3	3345643.0	381223.5	3345722.0			381213.2	3345826.0	381206.9	3345889.0
179	381280.5	3345654.0	381272.6	3345733.0			381262.4	3345836.0	381256.0	3345901.0
180	381329.8	3345664.0	381321.7	3345745.0			381311.7	3345846.0	381304.9	3345914.0
181	381379.3	3345671.0	381370.7	3345758.0	381364.4	3345821.0	381360.3	3345862.0	381353.6	3345930.0
182	381428.8	3345678.0	381419.2	3345775.0	381413.8	3345830.0	381410.1	3345867.0	381402.3	3345945.0
183	381478.3	3345686.0	381466.2	3345808.0	381463.2	3345838.0	381459.1	3345879.0	381451.5	3345955.0
184	381527.6	3345695.0			381512.8	3345845.0	381508.0	3345892.0	381500.9	3345964.0
185	381576.9	3345704.0			381562.1	3345854.0	381556.9	3345906.0	381550.3	3345973.0
186	381626.3	3345713.0			381611.3	3345864.0	381605.9	3345918.0	381600.2	3345976.0
187	381675.6	3345723.0			381660.4	3345876.0	381655.4	3345927.0	381650.0	3345981.0
188	381724.8	3345734.0			381709.6	3345887.0	381704.9	3345933.0	381699.6	3345987.0
189	381774.0	3345744.0			381759.2	3345893.0	381754.4	3345942.0	381748.9	3345996.0
190	381823.2	3345754.0			381808.3	3345904.0	381803.3	3345955.0	381798.0	3346008.0
191	381872.3	3345766.0			381857.6	3345914.0	381852.3	3345968.0	381846.9	3346022.0
192	381921.8	3345773.0			381907.0	3345923.0	381901.5	3345978.0	381895.8	3346035.0
193	381971.3	3345781.0			381956.6	3345930.0	381951.1	3345984.0	381944.9	3346047.0
194	382020.6	3345791.0			382004.9	3345949.0	381999.6	3346003.0	381993.7	3346061.0
195	382069.8	3345801.0			382053.2	3345968.0	382049.4	3346007.0	382042.8	3346073.0
196	382119.1	3345811.0			382102.2	3345981.0	382098.2	3346021.0	382092.2	3346082.0
197	382168.3	3345821.0			382151.2	3345994.0	382147.0	3346036.0	382141.5	3346091.0
198	382217.8	3345828.0			382200.4	3346004.0	382196.3	3346045.0	382191.0	3346099.0
199	382267.4	3345835.0			382250.0	3346010.0	382245.6	3346054.0	382240.4	3346107.0
200	382317.0	3345841.0			382299.7	3346016.0	382295.5	3346058.0	382289.5	3346118.0
201	382366.5	3345849.0			382349.2	3346023.0	382344.3	3346073.0	382339.2	3346125.0
202	382416.1	3345856.0			382398.5	3346033.0	382393.3	3346085.0	382388.6	3346133.0
203	382465.8	3345861.0			382447.9	3346042.0	382442.4	3346097.0	382437.9	3346142.0
204	382515.3	3345868.0			382497.1	3346052.0	382491.6	3346107.0	382486.8	3346155.0
205	382564.4	3345880.0			382546.1	3346065.0	382541.9	3346107.0	382536.1	3346166.0
206	382613.8	3345889.0			382594.8	3346080.0	382590.8	3346120.0	382585.4	3346175.0
207	382663.1	3345899.0			382644.0	3346091.0	382640.1	3346130.0	382634.6	3346185.0
208	382712.4	3345908.0			382693.6	3346097.0	382689.3	3346140.0	382683.9	3346195.0
209	382761.8	3345917.0			382743.2	3346104.0	382738.4	3346152.0	382733.5	3346202.0
210	382811.1	3345926.0			382792.3	3346116.0	382787.5	3346164.0	382783.0	3346209.0
211	382860.5	3345935.0			382841.2	3346129.0	382836.4	3346177.0	382832.5	3346216.0
212	382909.8	3345944.0			382890.1	3346142.0	382886.2	3346182.0	382881.4	3346230.0
213	382959.0	3345955.0			382939.3	3346153.0	382935.1	3346195.0	382930.6	3346241.0
214	383008.5	3345962.0			382988.9	3346160.0	382984.6	3346202.0	382980.0	3346249.0
215	383058.3	3345966.0			383038.7	3346164.0	383034.6	3346205.0	383029.4	3346258.0
216	383108.0	3345972.0			383088.4	3346169.0	383083.0	3346223.0	383078.8	3346266.0
217	383157.7	3345978.0			383137.7	3346179.0	383132.8	3346228.0	383128.6	3346271.0
218	383207.5	3345982.0			383186.8	3346191.0	383182.4	3346235.0	383178.2	3346277.0
219	383256.9	3345991.0			383235.9	3346202.0	383232.4	3346237.0	383227.3	3346289.0
220	383306.6	3345996.0			383284.8	3346216.0	383281.0	3346253.0	383276.4	3346300.0
221	383356.5	3345999.0			383333.9	3346227.0	383330.8	3346258.0	383325.6	3346310.0
222	383406.3	3346004.0			383383.4	3346234.0	383380.8	3346261.0	383375.0	3346320.0
223	383456.0	3346010.0			383433.0	3346241.0	383430.3	3346268.0	383424.4	3346328.0
224	383505.6	3346016.0			383482.7	3346247.0	383479.5	3346279.0	383474.2	3346332.0
225	383555.0	3346025.0			383532.4	3346252.0	383528.9	3346288.0	383523.8	3346339.0
226	383604.3	3346035.0			383582.1	3346258.0	383578.5	3346294.0	383573.2	3346347.0
227	383653.6	3346044.0			383631.9	3346262.0	383627.8	3346303.0	383622.0	3346362.0

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to 1917/18 (m/yr)	1847/67 to 1934 (m/yr)	1847/67 to 1957 (m/yr)	1847/67 to 1978/82 (m/yr)	1917/18 to 1934 (m/yr)	1917/18 to 1957 (m/yr)	1917/18 to 1978/82 (m/yr)	1934 to 1957 (m/yr)	1934 to 1978/82 (m/yr)	1957 to 1978/82 (m/yr)
228		-2.5	-2.4	-2.4				-1.8	-2.3	-2.9
229		-2.5	-2.4	-2.5				-1.9	-2.4	-3.1
230		-2.7	-2.4	-2.5				-1.4	-2.1	-2.9
231		-2.7	-2.4	-2.5				-1.3	-2.1	-3.0
232		-2.7	-2.4	-2.5				-1.4	-2.2	-3.1
233		-2.7	-2.4	-2.5				-1.3	-2.1	-3.1
234		-2.8	-2.4	-2.5				-1.2	-2.1	-3.1
235		-2.8	-2.5	-2.5				-1.2	-2.0	-2.9
236		-2.7	-2.5	-2.5				-1.6	-2.2	-2.8
237		-2.6	-2.5	-2.5				-2.0	-2.4	-2.8
238		-2.6	-2.5	-2.6				-2.1	-2.5	-2.9
239		-2.7	-2.6	-2.6				-2.2	-2.4	-2.8
240		-2.8	-2.5	-2.6				-1.6	-2.1	-2.6
241		-2.9	-2.5	-2.5				-1.0	-1.7	-2.6
242		-2.9	-2.5	-2.5				-0.9	-1.7	-2.7
243		-2.8	-2.4	-2.5				-1.0	-1.8	-2.9
244		-2.9	-2.5	-2.5				-1.0	-1.9	-2.9
245		-2.8	-2.5	-2.5				-1.1	-2.0	-3.0
246		-2.8	-2.5	-2.6				-1.5	-2.2	-2.9
247		-2.8	-2.6	-2.6				-1.9	-2.3	-2.7
248		-2.8	-2.7	-2.6				-2.0	-2.2	-2.5
249		-2.9	-2.7	-2.6				-1.9	-2.1	-2.4
250		-3.0	-2.7	-2.6				-1.6	-1.9	-2.3
251		-3.1	-2.7	-2.6				-1.0	-1.6	-2.2
252		-3.3	-2.7	-2.6				-0.7	-1.3	-2.1
253		-3.2	-2.7	-2.6				-0.8	-1.4	-1.9
254		-3.2	-2.7	-2.6				-1.0	-1.4	-1.9
255		-3.1	-2.7	-2.6				-1.3	-1.6	-1.9
256		-3.1	-2.8	-2.6				-1.4	-1.7	-1.9
257		-3.3	-2.8	-2.7				-0.9	-1.4	-1.9
258		-3.4	-2.8	-2.7				-0.5	-1.2	-2.0
259		-3.5	-2.9	-2.7				-0.6	-1.3	-2.1
260		-3.4	-2.8	-2.8				-0.6	-1.4	-2.3
261		-3.4	-2.8	-2.8				-0.7	-1.5	-2.5
262		-3.4	-2.8	-2.8				-0.8	-1.5	-2.4
263		-3.4	-2.8	-2.8				-0.6	-1.5	-2.4
264		-3.5	-2.9	-2.8				-0.6	-1.4	-2.5
265		-3.5	-2.9	-2.8				-0.7	-1.5	-2.5
266		-3.5	-2.9	-2.8				-0.9	-1.6	-2.5
267		-3.4	-2.9	-2.9				-1.1	-1.8	-2.6
268		-3.4	-3.0	-2.9				-1.3	-1.9	-2.7
269		-3.6	-3.0	-2.9				-0.8	-1.6	-2.6
270		-3.8	-3.1	-3.0				-0.6	-1.5	-2.5
271		-3.8	-3.2	-3.0				-1.0	-1.5	-2.1
272		-3.7	-3.2	-3.1				-1.2	-1.7	-2.3
273		-3.7	-3.2	-3.2				-1.3	-2.3	-3.5
274		-3.7	-3.2	-3.1				-1.4	-1.9	-2.4
275		-3.7	-3.2	-3.0				-1.3	-1.7	-2.3
276		-3.7	-3.2	-3.0				-1.3	-1.5	-1.8
277		-3.8	-3.2	-3.0				-0.8	-1.3	-2.0
278		-3.8	-3.2	-3.0				-0.7	-1.3	-2.0
279		-3.8	-3.2	-3.0				-0.9	-1.4	-1.9
280		-3.7	-3.1	-3.0				-0.9	-1.5	-2.2
281		-3.7	-3.1	-3.0				-0.9	-1.6	-2.3
282		-3.8	-3.1	-3.0				-0.8	-1.5	-2.3
283		-3.8	-3.2	-3.0				-0.8	-1.4	-2.0
284		-3.8	-3.2	-3.0				-0.9	-1.4	-1.9
285		-3.8	-3.2	-3.0				-1.1	-1.4	-1.8
286		-3.7	-3.2	-3.0				-1.2	-1.5	-1.9
287		-3.7	-3.1	-3.0				-1.0	-1.6	-2.3
288		-3.6	-3.0	-2.9				-1.0	-1.6	-2.3
289		-3.5	-3.0	-2.9				-1.1	-1.6	-2.2
290		-3.5	-3.0	-2.9				-1.1	-1.6	-2.1
291		-3.6	-3.0	-2.9				-1.1	-1.5	-2.0
292		-3.7	-3.1	-2.9				-0.8	-1.3	-1.8
293		-3.8	-3.0	-2.9				-0.4	-1.1	-1.8
294		-3.7	-3.0	-2.8				-0.4	-1.0	-1.7
295		-3.7	-3.0	-2.8				-0.5	-1.2	-1.9
296		-3.6	-3.0	-2.9				-0.9	-1.4	-2.0
297		-3.6	-3.1	-2.9				-1.2	-1.5	-1.9
298		-3.6	-3.1	-2.9				-1.0	-1.6	-2.2
299		-3.6	-3.0	-2.9				-0.8	-1.6	-2.5
300		-3.6	-3.0	-2.9				-0.9	-1.6	-2.4
301		-3.5	-3.0	-2.9				-0.9	-1.6	-2.4
302		-3.5	-3.0	-2.9				-1.0	-1.5	-2.2
303		-3.6	-3.0	-2.9				-0.9	-1.5	-2.1

					High-Water Shoreline Position (UTM Zone 16, NAD 1983)					
Transect #		1847/67		1917/18		1934		1957		1978/82
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
228	383703.0	3346052.0			383681.4	3346269.0	383677.1	3346313.0	383671.0	3346375.0
229	383752.4	3346060.0			383729.4	3346293.0	383726.1	3346325.0	383720.3	3346384.0
230	383801.8	3346069.0			383778.5	3346303.0	383775.6	3346333.0	383769.6	3346393.0
231	383851.5	3346074.0			383828.3	3346308.0	383825.2	3346340.0	383819.0	3346402.0
232	383901.2	3346080.0			383877.8	3346316.0	383874.7	3346347.0	383868.5	3346409.0
233	383950.8	3346086.0			383927.0	3346326.0	383924.3	3346353.0	383918.2	3346415.0
234	384000.4	3346093.0			383976.3	3346336.0	383973.5	3346364.0	383967.8	3346422.0
235	384049.9	3346100.0			384026.6	3346335.0	384022.8	3346373.0	384017.3	3346429.0
236	384099.5	3346107.0			384077.1	3346333.0	384072.3	3346381.0	384066.7	3346438.0
237	384149.3	3346112.0			384126.7	3346339.0	384121.8	3346389.0	384116.0	3346447.0
238	384198.8	3346119.0			384175.9	3346349.0	384170.9	3346400.0	384165.4	3346455.0
239	384248.0	3346130.0			384223.9	3346372.0	384220.2	3346410.0	384215.0	3346462.0
240	384297.3	3346140.0			384272.3	3346390.0	384270.0	3346414.0	384264.9	3346466.0
241	384346.6	3346149.0			384321.8	3346399.0	384319.7	3346419.0	384314.3	3346474.0
242	384396.1	3346157.0			384371.6	3346403.0	384369.4	3346425.0	384363.7	3346483.0
243	384445.8	3346162.0			384421.2	3346410.0	384418.9	3346433.0	384413.1	3346492.0
244	384495.3	3346169.0			384470.9	3346415.0	384468.4	3346440.0	384462.5	3346500.0
245	384545.2	3346173.0			384521.3	3346413.0	384517.8	3346449.0	384512.0	3346507.0
246	384595.3	3346174.0			384571.5	3346414.0	384567.0	3346459.0	384561.7	3346513.0
247	384645.4	3346176.0			384621.0	3346421.0	384616.4	3346468.0	384611.3	3346519.0
248	384695.2	3346180.0			384670.3	3346431.0	384665.8	3346476.0	384661.1	3346524.0
249	384744.8	3346187.0			384719.2	3346445.0	384715.5	3346482.0	384710.8	3346529.0
250	384794.3	3346194.0			384767.3	3346466.0	384765.0	3346489.0	384760.6	3346534.0
251	384843.9	3346200.0			384816.0	3346482.0	384814.4	3346497.0	384810.3	3346539.0
252	384893.7	3346206.0			384865.9	3346485.0	384864.0	3346505.0	384860.1	3346544.0
253	384943.4	3346210.0			384916.1	3346486.0	384913.7	3346510.0	384909.8	3346549.0
254	384993.2	3346215.0			384966.5	3346484.0	384963.5	3346515.0	384959.6	3346554.0
255	385043.3	3346217.0			385016.4	3346487.0	385013.1	3346521.0	385009.3	3346560.0
256	385093.4	3346218.0			385064.9	3346505.0	385062.8	3346527.0	385058.9	3346566.0
257	385143.4	3346221.0			385113.8	3346519.0	385112.6	3346531.0	385108.5	3346572.0
258	385193.2	3346225.0			385163.5	3346524.0	385162.1	3346539.0	385157.9	3346581.0
259	385242.8	3346232.0			385213.2	3346530.0	385211.8	3346544.0	385207.1	3346591.0
260	385292.4	3346238.0			385263.1	3346533.0	385261.5	3346549.0	385256.5	3346599.0
261	385342.0	3346244.0			385312.9	3346538.0	385311.1	3346556.0	385306.3	3346605.0
262	385391.9	3346248.0			385362.3	3346546.0	385360.8	3346561.0	385356.0	3346610.0
263	385441.9	3346251.0			385411.9	3346552.0	385410.6	3346565.0	385405.7	3346615.0
264	385491.8	3346254.0			385461.8	3346556.0	385460.3	3346571.0	385455.4	3346621.0
265	385541.7	3346257.0			385512.0	3346557.0	385510.0	3346577.0	385505.1	3346627.0
266	385591.6	3346261.0			385562.2	3346557.0	385559.7	3346583.0	385554.5	3346635.0
267	385641.5	3346264.0			385612.2	3346560.0	385609.2	3346590.0	385603.8	3346644.0
268	385691.5	3346267.0			385660.4	3346580.0	385658.6	3346599.0	385653.4	3346650.0
269	385741.8	3346266.0			385709.6	3346591.0	385708.2	3346605.0	385703.1	3346656.0
270	385791.8	3346269.0			385759.4	3346595.0	385757.1	3346619.0	385752.8	3346662.0
271	385841.8	3346272.0			385809.6	3346596.0	385806.8	3346623.0	385802.3	3346670.0
272	385891.5	3346277.0			385859.7	3346598.0	385856.6	3346628.0	385849.6	3346699.0
273	385941.3	3346281.0			385909.8	3346599.0	385906.4	3346632.0	385901.7	3346680.0
274	385991.1	3346286.0			385959.3	3346606.0	385956.4	3346636.0	385951.8	3346682.0
275	386040.7	3346292.0			386008.5	3346617.0	386005.6	3346646.0	386001.9	3346683.0
276	386090.6	3346296.0			386057.6	3346628.0	386055.8	3346646.0	386051.9	3346686.0
277	386140.5	3346299.0			386107.4	3346632.0	386105.8	3346648.0	386101.9	3346688.0
278	386190.1	3346306.0			386157.5	3346634.0	386155.6	3346654.0	386151.7	3346693.0
279	386239.7	3346312.0			386207.5	3346636.0	386205.4	3346658.0	386200.9	3346703.0
280	386289.3	3346318.0			386257.3	3346641.0	386255.2	3346663.0	386250.5	3346709.0
281	386339.2	3346322.0			386306.8	3346649.0	386304.9	3346667.0	386300.4	3346713.0
282	386389.1	3346326.0			386356.3	3346657.0	386354.3	3346676.0	386350.3	3346717.0
283	386438.9	3346330.0			386406.1	3346660.0	386404.0	3346682.0	386400.2	3346720.0
284	386488.7	3346335.0			386456.3	3346662.0	386453.7	3346688.0	386450.1	3346724.0
285	386538.5	3346339.0			386506.5	3346662.0	386503.7	3346690.0	386500.0	3346727.0
286	386588.2	3346345.0			386556.7	3346662.0	386554.5	3346684.0	386549.9	3346731.0
287	386637.5	3346354.0			386606.7	3346665.0	386604.3	3346688.0	386599.8	3346734.0
288	386687.0	3346362.0			386656.6	3346668.0	386654.1	3346693.0	386649.7	3346737.0
289	386736.8	3346366.0			386706.4	3346672.0	386703.8	3346698.0	386699.7	3346740.0
290	386786.6	3346371.0			386755.9	3346679.0	386753.4	3346705.0	386749.5	3346744.0
291	386836.4	3346375.0			386804.8	3346694.0	386803.0	3346711.0	386799.3	3346749.0
292	386886.3	3346379.0			386854.0	3346704.0	386853.0	3346714.0	386849.4	3346750.0
293	386936.1	3346383.0			386903.9	3346707.0	386903.0	3346716.0	386899.6	3346751.0
294	386986.0	3346387.0			386954.3	3346706.0	386953.0	3346719.0	386949.3	3346757.0
295	387035.9	3346390.0			387004.8	3346704.0	387002.8	3346724.0	386998.7	3346765.0
296	387085.9	3346393.0			387054.9	3346705.0	387052.1	3346733.0	387048.3	3346771.0
297	387135.6	3346398.0			387104.8	3346709.0	387102.3	3346733.0	387097.9	3346778.0
298	387185.4	3346403.0			387154.6	3346713.0	387152.6	3346733.0	387147.6	3346784.0
299	387235.1	3346408.0			387204.4	3346717.0	387202.3	3346738.0	387197.6	3346786.0
300	387284.8	3346413.0			387254.4	3346720.0	387252.3	3346740.0	387247.7	3346788.0
301	387334.8	3346416.0			387304.3	3346723.0	387302.1	3346745.0	387297.7	3346790.0
302	387385.0	3346417.0			387354.1	3346727.0	387352.0	3346749.0	387347.8	3346792.0
303	387435.2	3346417.0			387404.2	3346729.0	387402.1	3346751.0	387398.0	3346792.0

				High-Water Shoreline Position Change Rate								High-Water Shoreline Position (UTM Zone 16, NAD 1983)									
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to	Transect #		1847/67		1917/18		1934		1957		1978/82
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)		UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
304		-3.6	-3.0	-2.9				-0.9	-1.4	-2.0	304	387485.4	3346418.0			387454.4	3346729.0	387452.2	3346752.0	387448.3	3346792.0
305		-3.6	-3.0	-2.9				-1.0	-1.4	-2.0	305	387535.6	3346418.0			387504.8	3346728.0	387502.3	3346753.0	387498.3	3346793.0
306		-3.6	-3.1	-2.9				-1.1	-1.5	-2.0	306	387585.7	3346419.0			387554.9	3346729.0	387552.3	3346756.0	387548.4	3346796.0
307		-3.6	-3.1	-2.9				-1.1	-1.5	-2.0	307	387635.6	3346423.0			387604.3	3346738.0	387602.2	3346759.0	387598.6	3346796.0
308		-3.6	-3.1	-2.9				-0.9	-1.3	-1.8	308	387685.1	3346430.0			387654.2	3346742.0	387652.2	3346762.0	387648.9	3346795.0
309		-3.6	-3.0	-2.8				-0.9	-1.2	-1.7	309	387734.8	3346436.0			387704.2	3346744.0	387702.1	3346765.0	387699.2	3346795.0
310		-3.6	-3.0	-2.8				-0.9	-1.2	-1.5	310	387784.6	3346441.0			387754.6	3346743.0	387752.0	3346769.0	387749.5	3346794.0
311		-3.5	-3.0	-2.7				-1.1	-1.2	-1.3	311	387834.5	3346443.0			387805.3	3346739.0	387802.3	3346768.0	387799.7	3346794.0
312		-3.4	-3.0	-2.7				-1.3	-1.3	-1.3	312	387884.5	3346446.0			387855.5	3346738.0	387852.5	3346769.0	387849.5	3346799.0
313		-3.4	-2.9	-2.7				-1.3	-1.4	-1.5	313	387934.5	3346449.0			387905.3	3346743.0	387902.5	3346771.0	387899.6	3346800.0
314		-3.4	-2.9	-2.7				-1.2	-1.3	-1.5	314	387984.4	3346452.0			387954.9	3346749.0	387952.8	3346771.0	387949.6	3346802.0
315		-3.4	-2.9	-2.7				-0.9	-1.2	-1.6	315	388034.3	3346456.0			388004.7	3346754.0	388002.8	3346773.0	388000.0	3346801.0
316		-3.4	-2.9	-2.7				-0.8	-1.1	-1.4	316	388084.2	3346460.0			388054.8	3346755.0	388052.9	3346775.0	388050.3	3346800.0
317		-3.4	-2.9	-2.6				-0.8	-1.0	-1.3	317	388134.3	3346461.0			388105.6	3346750.0	388102.9	3346777.0	388100.3	3346803.0
318		-3.3	-2.9	-2.6				-1.1	-1.2	-1.3	318	388184.5	3346461.0			388156.1	3346748.0	388152.8	3346781.0	388150.3	3346806.0
319		-3.3	-2.9	-2.6				-1.4	-1.3	-1.2	319	388234.6	3346463.0			388206.2	3346749.0	388202.9	3346782.0	388199.9	3346812.0
320		-3.3	-2.9	-2.7				-1.4	-1.4	-1.5	320	388284.7	3346464.0			388256.5	3346748.0	388253.1	3346782.0	388249.6	3346818.0
321		-3.3	-2.9	-2.7				-1.5	-1.6	-1.8	321	388334.6	3346468.0			388306.8	3346747.0	388303.2	3346784.0	388299.6	3346821.0
322		-3.2	-2.9	-2.7				-1.6	-1.7	-1.8	322	388384.5	3346471.0			388357.1	3346747.0	388353.3	3346785.0	388349.6	3346823.0
323		-3.2	-2.9	-2.7				-1.6	-1.7	-1.9	323	388434.6	3346473.0			388407.1	3346750.0	388403.6	3346784.0	388399.8	3346824.0
324		-3.2	-2.8	-2.7				-1.5	-1.7	-2.0	324	388484.9	3346472.0			388457.0	3346753.0	388453.7	3346787.0	388450.1	3346823.0
325		-3.2	-2.9	-2.7				-1.5	-1.6	-1.8	325	388534.9	3346475.0			388506.9	3346757.0	388503.6	3346790.0	388500.5	3346821.0
326		-3.3	-2.9	-2.7				-1.4	-1.5	-1.5	326	388585.0	3346476.0			388556.9	3346759.0	388554.2	3346786.0	388551.1	3346818.0
327		-3.3	-2.8	-2.6				-1.2	-1.3	-1.6	327	388635.2	3346477.0			388607.0	3346761.0	388604.2	3346788.0	388601.8	3346813.0
328		-3.3	-2.8	-2.6				-1.2	-1.2	-1.2	328	388685.5	3346476.0			388657.3	3346759.0	388654.7	3346786.0	388651.5	3346818.0
329		-3.3	-2.8	-2.6				-1.1	-1.4	-1.6	329	388735.3	3346480.0			388707.8	3346758.0	388705.3	3346783.0	388701.4	3346822.0
330		-3.2	-2.8	-2.6				-1.1	-1.5	-1.9	330	388785.0	3346485.0			388758.3	3346754.0	388755.4	3346784.0	388751.4	3346824.0
331		-3.1	-2.7	-2.6				-1.3	-1.6	-2.0	331	388834.7	3346491.0			388809.0	3346750.0	388805.4	3346787.0	388801.4	3346827.0
332		-3.0	-2.7	-2.6				-1.6	-1.8	-2.0	332	388884.4	3346497.0			388859.5	3346747.0	388855.3	3346790.0	388851.5	3346828.0
333		-2.9	-2.7	-2.5				-1.8	-1.9	-1.9	333	388934.0	3346504.0			388910.1	3346744.0	388905.6	3346789.0	388902.0	3346825.0
334		-2.8	-2.6	-2.5				-1.9	-1.9	-1.8	334	388983.8	3346508.0			388960.6	3346742.0	388956.1	3346787.0	388952.6	3346822.0
335		-2.7	-2.5	-2.4				-1.9	-1.9	-1.7	335	389033.7	3346511.0			389010.9	3346741.0	389006.4	3346787.0	389002.9	3346821.0
336		-2.6	-2.5	-2.4				-2.0	-1.9	-1.7	336	389083.6	3346515.0			389061.2	3346741.0	389056.7	3346786.0	389053.3	3346821.0
337		-2.6	-2.5	-2.4				-1.9	-1.8	-1.7	337	389133.8	3346516.0			389111.5	3346740.0	389106.9	3346786.0	389103.4	3346821.0
338		-2.6	-2.5	-2.3				-2.0	-1.9	-1.7	338	389183.8	3346518.0			389162.0	3346738.0	389157.2	3346786.0	389153.7	3346821.0
339		-2.5	-2.4	-2.3				-2.1	-1.9	-1.7	339	389233.7	3346521.0			389212.6	3346734.0	389207.3	3346787.0	389204.4	3346816.0
340		-2.5	-2.4	-2.3				-2.3	-1.9	-1.5	340	389283.7	3346524.0			389262.9	3346734.0	389257.6	3346787.0	389254.9	3346814.0
341		-2.4	-2.4	-2.2				-2.3	-1.9	-1.4	341	389333.3	3346530.0			389312.4	3346740.0	389307.9	3346787.0	389305.2	3346813.0
342		-2.4	-2.3	-2.2				-2.0	-1.7	-1.3	342	389382.8	3346538.0			389362.5	3346742.0	389358.3	3346784.0	389354.9	3346818.0
343		-2.4	-2.2	-2.2				-1.8	-1.8	-1.7	343	389432.5	3346544.0			389412.7	3346743.0	389408.5	3346785.0	389405.0	3346820.0
344		-2.3	-2.2	-2.1				-1.8	-1.8	-1.7	344	389482.3	3346548.0			389462.8	3346744.0	389458.8	3346785.0	389455.2	3346820.0
345		-2.3	-2.2	-2.1				-1.7	-1.8	-1.8	345	389532.4	3346549.0			389512.7	3346748.0	389509.1	3346784.0	389505.5	3346820.0
346		-2.3	-2.1	-2.1				-1.5	-1.7	-1.8	346	389582.6	3346549.0			389563.0	3346747.0	389559.5	3346782.0	389555.6	3346822.0
347		-2.3	-2.1	-2.1				-1.5	-1.7	-2.0	347	389632.8	3346551.0			389613.8	3346742.0	389610.0	3346779.0	389605.6	3346824.0
348		-2.2	-2.1	-2.1				-1.6	-1.9	-2.2	348	389682.9	3346552.0			389664.7	3346735.0	389660.7	3346775.0	389655.9	3346823.0
349		-2.1	-2.0	-2.1				-1.7	-2.0	-2.4	349	389733.0	3346553.0			389715.3	3346732.0	389711.6	3346769.0	389706.3	3346822.0
350		-2.1	-2.0	-2.1				-1.6	-2.1	-2.6	350	389782.9	3346557.0			389765.8	3346729.0	389762.0	3346767.0	389756.8	3346820.0
351		-2.0	-1.9	-2.0				-1.6	-2.1	-2.6	351	389832.8	3346561.0			389816.3	3346726.0	389811.2	3346777.0	389807.3	3346817.0
352	-4.5	-1.9	-2.0	-2.0				-2.2	-2.1	-2.0	352	389882.5	3346565.0			389866.4	3346728.0	389861.4	3346778.0	389857.6	3346817.0
353	-4.5	-1.9	-1.9	-1.9		2.6	1.1	-2.1	-2.0	-1.9	353	389932.3	3346570.0	389909.3	3346802.0	389916.5	3346729.0	389912.1	3346774.0	389907.8	3346816.0
354	-3.3	-1.8	-1.9	-1.9	4.3	0.7	-0.2	-1.9	-2.0	-2.1	354	389982.3	3346573.0	389964.3	3346754.0	389966.8	3346728.0	389962.4	3346773.0	389958.2	3346816.0
355	-2.6	-1.8	-1.8	-1.9	1.5	-0.5	-1.0	-1.9	-2.0	-2.1	355	390032.7	3346571.0	390016.6	3346733.0	390017.1	3346728.0	390013.0	3346769.0	390008.8	3346812.0
356	-2.3	-1.8	-1.8	-1.9	0.3	-0.9	-1.3	-1.8	-1.9	-2.1	356	390083.2	3346569.0	390067.4	3346727.0	390067.5	3346727.0	390063.6	3346766.0	390059.4	3346808.0
357	-2.3	-1.8	-1.8	-1.8	0.0	-1.0	-1.3	-1.7	-1.9	-2.1	357	390133.6	3346567.0	390117.8	3346727.0	390118.0	3346724.0	390113.2	3346773.0	390110.0	3346804.0
358	-2.3	-1.8	-1.9	-1.8	0.2	-1.2	-1.3	-2.1	-1.9	-1.6	358	390184.1	3346564.0	390167.8	3346728.0	390168.5	3346722.0	390163.0	3346777.0	390160.6	3346801.0
359	-2.4	-1.8	-1.9	-1.8	0.4	-1.2	-1.2	-2.4	-1.8	-1.2	359	390234.6	3346562.0	390218.2	3346727.0	390218.8	3346720.0	390214.3	3346766.0	390211.2	3346798.0
360	-2.4	-1.8	-1.9	-1.8	0.4	-1.0	-1.2	-2.0	-1.8	-1.6	360	390284.7	3346564.0	390269.2	3346720.0	390269.5	3346717.0	390265.2	3346760.0	390262.0	3346792.0
361	-2.2	-1.8	-1.8	-1.8	0.2	-1.0	-1.2	-1.9	-1.7	-1.6	361	390334.7	3346566.0	390320.5	3346709.0	390320.0	3346714.0	390315.1	3346763.0	390312.8	3346786.0
362	-2.0	-1.7	-1.8	-1.7	-0.3	-1.3	-1.3	-2.1	-1.7	-1.1	362	390384.9	3346566.0	390371.2	3346705.0	390370.4	3346712.0	390365.2	3346765.0	390363.7	3346780.0
363	-2.0	-1.7	-1.8	-1.6	-0.4	-1.5	-1.2	-2.3	-1.6	-0.7	363	390435.2	3346566.0	390421.8	3346701.0	390420.9	3346710.0	390416.4	3346754.0	390414.5	3346774.0
364	-1.9	-1.7	-1.7	-1.6	-0.5	-1.3	-1.2	-1.9	-1.5	-1.0	364	390485.7	3346563.0	390472.1	3346700.0	390471.2	3346710.0	390467.8	3346744.0	390465.3	3346768.0
365	-2.0	-1.7	-1.6	-1.6	-0.6	-1.1	-1.1	-1.5	-1.4	-1.2	365	390536.4	3346559.0	390522.8	3346695.0	390521.3	3346710.0	390517.8	3346746.0	390516.2	3346762.0
366	-2.0	-1.7	-1.7	-1.6	-0.9	-1.3	-1.1	-1.5	-1.2	-0.8	366	390587.1	3346554.0	390573.5	3346690.0	390572.6	3346700.0	390567.8	3346748.0	390567.2	3346755.0
367	-2.0	-1.7	-1.8	-1.5	-0.6	-1.4	-1.1	-2.0	-1.3	-0.3	367	390637.9	3346549.0	390624.7	3346681.0	390623.6	3346693.0	390619.0	3346739.0	390618.1	3346748.0
368	-1.9	-1.7	-1.7	-1.5	-0.7	-1.4	-1.1	-2.0	-1.3	-0.5	368	390688.6	3346544.0	390675.7	3346674.0	390674.3	3346688.0	390670.8	3346723.0	390669.0	3346741.0
369	-1.9	-1.7	-1.6	-1.5	-0.8	-1.2	-1.1	-1.5	-1.2	-0.9	369	390738.8	3346544.0	390726.6	3346667.0	390725.0	3346683.0	390721.2	3346721.0	390719.9	3346734.0
370	-1.8	-1.6	-1.6	-1.5	-0.9	-1.3	-1.1	-1.6	-1.2	-0.6	370	390789.5	3346540.0	390777.5	3346660.0	390775.7	3346679.0	390772.0	3346716.0	390770.9	3346727.0
371	-1.7	-1.6	-1.6	-1.4	-1.1	-1.4	-1.1	-1.6	-1.1	-0.6	371	390839.8	3346539.0	390828.2	3346656.0	390826.3	3346676.0	390822.8	3346710.0	390821.6	3346722.0
372	-1.7	-1.6	-1.6	-1.4	-1.2	-1.4	-1.1	-1.5	-1.1	-0.6	372	390889.9	3346541.0	390878.9	3346651.0	390876.8	3346673.0	390873.5	3346706.0	390873.5	3346706.0
373	-1.6	-1.5	-1.5	-1.3	-1.3	-1.4	-0.9	-1.4	-0.8	0.0	373	390939.9	3346543.0	390929.9	3346643.0	390927.3	3346670.0	390923.8	3346706.0	390924.5	3346698.0
374	-1.4	-1.5	-1.5	-1.2	-1.6	-1.5	-0.9	-1.5	-0.6	0.4	374	390989.9	3346546.0	390980.9	3346636.0	390978.0	3346666.0	390974.5	3346701.0	390974.9	3346697.0
375	-1.3	-1.4	-1.4	-1.2	-1.8	-1.6	-1.0	-1.5	-0.7	0.2	375	391039.8	3346550.0	391031.8	3346629.0	391028.9	3346659.0	391025.8	3346690.0	391025.4	3346694.0
376	-1.1	-1.3	-1.3	-1.1	-1.7	-1.5	-1.1	-1.3	-0.8	-0.2	376	391089.7	3346553.0	391083.0	3346620.0	391080.0	3346650.0	391078.0	3346670.0	391076.3	3346687.0
377	-1.0	-1.1	-1.1	-1.0	-1.8	-1.2	-1.1	-0.9	-0.8	-0.8	377	391139.8	3346553.0	391133.1	3346621.0	391131.1	3346642.0	391130.0	3346653.0	391127.5	3346678.0
378	-1.0	-1.0	-0.9	-1.0	-1.2	-0.8	-0.9	-0.5	-0.8	-1.3	378	391190.2	3346553.0	391183.3	3346622.0	391182.0	3346635.0	391181.6	3346639.0	391178.5	3346670.0
379	-1.0	-0.9	-0.8	-0.9	-0.8	-0.4	-0.8	-0.2	-0.8	-1.5	379	391240.9	3346547.0	391234.3	3346614.0	391233.7	3346621.0	391233.8	3346619.0	391228.6	3346672.0

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
380	-1.0	-0.8	-0.7	-1.0	-0.4	-0.1	-1.0	0.1	-1.2	-2.6
381	-1.0	-0.8	-0.6	-1.1	-0.2	0.2	-1.1	0.4	-1.5	-3.7
382	-1.0	-0.7	-0.6	-1.1	0.3	0.0	-1.3	-0.1	-1.9	-4.1
383	-0.8	-0.6	-0.5	-1.1	0.6	-0.1	-1.5	-0.5	-2.3	-4.5
384	-0.7	-0.4	-0.5	-1.1	1.0	0.0	-1.5	-0.7	-2.5	-4.6
385	-0.7	-0.3	-0.4	-1.1	1.5	0.0	-1.6	-1.0	-2.8	-4.8
386	-0.5	0.0	-0.3	-1.1	2.2	0.2	-1.7	-1.3	-3.2	-5.3
387	-0.4	0.2	-0.3	-1.0	2.5	-0.1	-1.8	-1.9	-3.5	-5.2
388	-0.3	0.2	-0.3	-1.0	2.0	-0.3	-1.9	-2.0	-3.4	-4.9
389	-0.2	0.1	-0.4	-1.0	1.4	-0.7	-2.0	-2.2	-3.3	-4.5
390	-0.1	0.1	-0.4	-1.0	0.6	-1.1	-2.1	-2.3	-3.2	-4.2
391	0.0	0.0	-0.5	-1.0	0.0	-1.4	-2.3	-2.4	-3.2	-4.0
392	0.1	0.0	-0.5	-1.1	-0.4	-1.5	-2.4	-2.3	-3.1	-4.1
393	0.3	0.0	-0.4	-1.0	-1.3	-1.7	-2.5	-2.1	-3.0	-4.1
394	0.6	0.1	-0.4	-0.9	-2.1	-2.2	-2.7	-2.3	-2.9	-3.6
395	0.8	0.1	-0.4	-0.8	-2.4	-2.3	-2.7	-2.3	-2.8	-3.3
396	0.9	0.2	-0.3	-0.7	-2.6	-2.3	-2.6	-2.1	-2.6	-3.1
397	1.1	0.2	-0.2	-0.6	-3.2	-2.4	-2.5	-1.8	-2.3	-2.8
398	1.3	0.3	-0.1	-0.5	-3.6	-2.4	-2.5	-1.5	-2.1	-2.7
399	1.4	0.5	0.1	-0.3	-3.3	-2.2	-2.3	-1.4	-1.9	-2.4
400	1.5	0.6	0.2	-0.2	-2.9	-2.0	-2.1	-1.4	-1.7	-2.1
401	1.7	0.8	0.3	0.0	-2.9	-2.1	-2.0	-1.4	-1.7	-1.9
402	1.9	1.0	0.4	0.1	-2.8	-2.3	-2.0	-1.9	-1.6	-1.4
403	2.1	1.3	0.5	0.3	-2.4	-2.4	-1.8	-2.4	-1.6	-0.7
404	2.3	1.5	0.6	0.5	-1.8	-2.3	-1.6	-2.7	-1.6	-0.3
405	2.5	1.7	0.8	0.6	-1.7	-2.3	-1.6	-2.8	-1.6	-0.2
406	2.7	1.9	0.9	0.8	-1.3	-2.2	-1.4	-2.8	-1.5	0.1
407	2.8	2.0	1.2	1.0	-1.3	-1.6	-1.2	-1.9	-1.2	-0.3
408	2.9	2.1	1.4	1.1	-1.1	-1.3	-1.0	-1.5	-0.9	-0.3
409	3.0	2.3	1.6	1.3	-0.6	-0.9	-0.7	-1.1	-0.8	-0.5
410	3.1	2.5	1.7	1.4	0.1	-0.7	-0.5	-1.3	-0.8	-0.2
411	3.1	2.7	1.9	1.5	1.3	-0.1	-0.3	-1.2	-0.9	-0.6
412	3.0	2.9	2.1	1.6	2.6	0.4	-0.1	-1.1	-1.2	-1.2
413	2.9	3.1	2.1	1.6	3.5	0.7	0.0	-1.3	-1.4	-1.5
414	2.8	3.1	2.3	1.6	4.5	1.5	0.2	-0.6	-1.5	-2.5
415	2.8	3.2	2.5	1.6	5.0	1.9	0.2	-0.3	-1.6	-3.2
416	2.6	3.2	2.6	1.6	5.2	2.4	0.4	0.4	-1.5	-3.8
417	2.5	2.9	2.5	1.6	4.4	2.5	0.4	1.1	-1.1	-3.7
418	2.3	2.7	2.4	1.5	4.3	2.6	0.7	1.4	-0.7	-3.1
419	2.2	2.5	2.3	1.6	3.6	2.4	0.8	1.5	-0.3	-2.4
420	2.4	2.3	2.1	1.5	2.1	1.7	0.5	1.5	-0.1	-1.9
421	2.2	2.0	1.9	1.3	1.0	1.2	0.3	1.3	0.0	-1.6
422	2.1	1.8	1.6	1.1	0.5	0.7	-0.1	0.8	-0.3	-1.6
423	1.8	1.6	1.3	0.8	0.5	0.2	-0.4	0.0	-0.7	-1.5
424	1.5	1.4	1.0	0.5	0.8	0.0	-0.6	-0.6	-1.1	-1.7
425	1.2	1.2	0.7	0.3	1.3	-0.2	-0.8	-1.3	-1.7	-2.1
426	1.0	1.0	0.5	0.0	1.0	-0.4	-1.0	-1.4	-1.8	-2.3
427	0.7	0.7	0.2	-0.2	0.7	-0.6	-1.3	-1.6	-2.0	-2.5
428	0.4	0.5	0.0	-0.4	0.8	-0.7	-1.4	-1.7	-2.2	-2.8
429	-0.1	0.2	-0.3	-0.7	1.4	-0.7	-1.4	-2.2	-2.4	-2.8
430	-0.4	0.1	-0.5	-0.8	2.0	-0.8	-1.3	-2.8	-2.6	-2.4
431	-0.4	0.1	-0.6	-0.7	2.1	-0.8	-1.1	-2.9	-2.3	-1.6
432	-0.4	0.1	-0.6	-0.4	2.1	-0.9	-0.4	-3.1	-1.3	0.7
433	-0.4	0.2	-0.6	-0.3	2.4	-0.9	-0.2	-3.3	-1.2	1.4
434	-0.4	0.3	-0.6	-0.2	2.9	-1.0	0.0	-3.8	-1.2	1.9
435	-0.5	0.2	-0.6	-0.2	2.9	-0.9	0.1	-3.6	-1.0	2.0
436	-0.5	0.1	-0.7	-0.2	2.5	-0.9	0.1	-3.4	-0.8	2.2
437	-0.6	0.0	-0.7	-0.2	2.5	-0.9	0.3	-3.3	-0.6	2.6
438	-0.8	-0.1	-0.8	-0.2	2.9	-0.7	0.5	-3.2	-0.4	2.9
439	-1.0	-0.2	-0.8	-0.2	3.1	-0.4	0.8	-3.1	-0.2	3.2
440	-1.2	-0.3	-0.8	-0.2	3.4	-0.2	1.0	-2.9	0.0	3.4
441	-1.2	-0.3	-0.8	-0.2	3.4	-0.2	1.0	-2.7	0.1	3.4
442	-1.2	-0.3	-0.8	-0.1	3.2	-0.2	1.1	-2.7	0.3	3.7
443	-1.2	-0.3	-0.8	-0.1	3.2	-0.2	1.1	-2.7	0.3	3.9
444	-1.0	-0.3	-0.8	-0.1	2.7	-0.4	1.0	-2.7	0.4	3.9
445	-0.8	-0.2	-0.7	0.0	2.1	-0.7	0.9	-2.6	0.4	3.9
446	-0.6	-0.2	-0.7	0.0	1.5	-0.8	0.7	-2.5	0.4	3.6
447	-0.4	0.0	-0.6	0.1	1.3	-0.9	0.6	-2.5	0.3	3.5
448	-0.2	0.1	-0.5	0.1	1.0	-1.1	0.5	-2.6	0.2	3.5
449	0.0	0.2	-0.4	0.2	0.9	-1.2	0.4	-2.7	0.3	3.7
450	0.1	0.3	-0.4	0.3	1.1	-1.2	0.4	-2.9	0.2	3.8
451	0.2	0.4	-0.3	0.3	1.0	-1.3	0.3	-3.0	0.1	3.6
452	0.4	0.5	-0.2	0.3	0.8	-1.3	0.2	-2.8	0.0	3.3
453	0.6	0.6	-0.1	0.4	0.5	-1.3	0.2	-2.6	0.0	3.0
454	0.7	0.6	-0.1	0.4	0.0	-1.3	0.1	-2.3	0.1	2.9
455	0.8	0.6	-0.1	0.4	-0.3	-1.5	0.0	-2.5	0.1	3.0

					High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
Transect #		1847/67		1917/18		1934		1957		1978/82	
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
380	391292.5	3346534.0	391285.7	3346603.0	391285.4	3346606.0	391286.3	3346597.0	391278.9	3346671.0		
381	391344.3	3346518.0	391337.7	3346585.0	391338.2	3346581.0	391337.8	3346583.0	391329.8	3346665.0		
382	391395.5	3346509.0	391389.8	3346566.0	391390.8	3346557.0	391389.6	3346569.0	391380.7	3346658.0		
383	391446.7	3346499.0	391441.5	3346551.0	391443.2	3346534.0	391441.6	3346551.0	391432.4	3346643.0		
384	391497.8	3346491.0	391492.9	3346540.0	391495.5	3346514.0	391493.1	3346538.0	391483.6	3346634.0		
385	391548.4	3346487.0	391544.7	3346525.0	391548.4	3346487.0	391545.3	3346518.0	391534.7	3346625.0		
386	391599.3	3346481.0	391596.8	3346506.0	391600.9	3346464.0	391596.4	3346510.0	391585.9	3346615.0		
387	391650.4	3346472.0	391648.3	3346493.0	391651.8	3346458.0	391647.1	3346505.0	391637.2	3346605.0		
388	391701.4	3346464.0	391700.2	3346476.0	391702.6	3346453.0	391697.5	3346504.0	391688.5	3346594.0		
389	391753.0	3346451.0	391752.5	3346455.0	391753.6	3346445.0	391748.3	3346499.0	391739.8	3346584.0		
390	391804.5	3346438.0	391804.7	3346436.0	391804.7	3346436.0	391799.0	3346493.0	391791.1	3346573.0		
391	391855.8	3346427.0	391856.4	3346421.0	391855.7	3346429.0	391850.4	3346481.0	391842.3	3346564.0		
392	391906.7	3346421.0	391908.8	3346400.0	391906.7	3346421.0	391901.8	3346470.0	391893.6	3346553.0		
393	391957.2	3346419.0	391961.2	3346378.0	391957.8	3346413.0	391952.5	3346466.0	391945.2	3346539.0		
394	392007.6	3346417.0	392012.9	3346364.0	392008.8	3346404.0	392003.5	3346458.0	391996.9	3346524.0		
395	392058.1	3346415.0	392064.1	3346354.0	392059.8	3346397.0	392054.9	3346446.0	392048.7	3346509.0		
396	392108.5	3346412.0	392116.0	3346337.0	392110.6	3346391.0	392106.4	3346434.0	392100.8	3346490.0		
397	392159.0	3346410.0	392167.7	3346322.0	392161.8	3346382.0	392158.2	3346418.0	392152.9	3346472.0		
398	392209.4	3346408.0	392218.9	3346313.0	392213.3	3346369.0	392210.0	3346403.0	392205.2	3346451.0		
399	392260.0	3346405.0	392270.1	3346303.0	392265.2	3346352.0	392262.0	3346385.0	392257.8	3346428.0		
400	392310.6	3346401.0	392322.3	3346284.0	392317.3	3346333.0	392314.1	3346367.0	392310.2	3346406.0		
401	392360.8	3346402.0	392374.3	3346266.0	392369.7	3346313.0	392365.3	3346357.0	392362.6	3346384.0		
402	392411.2	3346400.0	392426.1	3346251.0	392422.1	3346291.0	392416.5	3346347.0	392415.2	3346361.0		
403	392461.8	3346396.0	392477.6	3346238.0	392474.5	3346269.0	392468.4	3346331.0	392467.7	3346337.0		
404	392512.4	3346393.0	392530.0	3346216.0	392527.1	3346245.0	392520.6	3346310.0	392520.2	3346315.0		
405	392563.1	3346389.0	392581.5	3346203.0	392579.3	3346226.0	392572.9	3346290.0	392573.0	3346289.0		
406	392613.8	3346385.0	392633.2	3346188.0	392631.0	3346210.0	392626.7	3346254.0	392626.0	3346261.0		
407	392664.6	3346378.0	392684.8	3346175.0	392683.0	3346193.0	392679.7	3346227.0	392679.0	3346234.0		
408	392715.6	3346371.0	392736.3	3346162.0	392735.3	3346173.0	392732.8	3346197.0	392731.8	3346207.0		
409	392766.6	3346364.0	392787.8	3346150.0	392788.1	3346147.0	392785.2	3346176.0	392784.7	3346181.0		
410	392817.8	3346354.0	392839.2	3346138.0	392841.4	3346116.0	392838.8	3346143.0	392837.5	3346155.0		
411	392869.4	3346340.0	392890.4	3346129.0	392894.7	3346085.0	392892.1	3346112.0	392889.6	3346136.0		
412	392921.4	3346322.0	392941.8	3346117.0	392947.6	3346058.0	392944.7	3346088.0	392941.8	3346117.0		
413	392973.4	3346304.0	392992.9	3346108.0	393000.4	3346032.0	392998.9	3346047.0	392994.0	3346098.0		
414	393025.7	3346284.0	393044.9	3346090.0	393053.3	3346006.0	393052.7	3346012.0	393046.3	3346077.0		
415	393078.1	3346262.0	393096.4	3346078.0	393105.2	3345989.0	393106.2	3345980.0	393098.6	3346056.0		
416	393130.9	3346237.0	393148.5	3346060.0	393155.9	3345985.0	393158.4	3345959.0	393151.0	3346034.0		
417	393183.5	3346213.0	393199.4	3346053.0	393206.6	3345980.0	393209.8	3345949.0	393203.4	3346012.0		
418	393235.8	3346192.0	393251.2	3346037.0	393257.3	3345976.0	393260.7	3345941.0	393255.9	3345989.0		
419	393288.1	3346171.0	393304.5	3346007.0	393308.0	3345971.0	393311.4	3345937.0	393307.6	3345975.0		
420	393340.6	3346149.0	393356.1	3345992.0	393357.8	3345976.0	393360.9	3345944.0	393357.8	3345976.0		
421	393392.9	3346128.0	393407.1	3345985.0	393408.0	3345976.0	393409.9	3345957.0	393406.8	3345989.0		
422	393445.0	3346109.0	393457.8	3345981.0	393458.5	3345973.0	393458.7	3345972.0	393455.6	3346003.0		
423	393497.3	3346088.0	393507.9	3345982.0	393509.3	3345968.0	393507.8	3345983.0	393504.4	3346017.0		
424	393549.7	3346067.0	393558.3	3345981.0	393560.5	3345959.0	393557.4	3345989.0	393553.3	3346031.0		
425	393602.0	3346046.0	393608.8	3345978.0	393610.5	3345961.0	393607.3	3345994.0	393602.5	3346041.0		
426	393654.3	3346025.0	393659.3	3345975.0	393660.5	3345963.0	393656.9	3345999.0	393651.9	3346050.0		
427	393707.0	3346001.0	393709.5	3345975.0	393710.8	3345962.0	393706.9	3346002.0	393701.4	3346058.0		
428	393759.8	3345976.0	393759.3	3345980.0	393761.6	3345957.0	393756.6	3346007.0	393751.0	3346063.0		
429	393811.8	3345958.0	393809.2	3345984.0	393812.5	3345950.0	393806.1	3346015.0	393801.3	3346063.0		
430	393861.9	3345959.0	393859.1	3345988.0	393862.6	3345952.0	393855.8	3346020.0	393852.7	3346052.0		
431	393911.6	3345964.0	393909.0	3345991.0	393912.6	3345954.0	393905.5	3346026.0	393906.8	3346012.0		
432	393961.3	3345971.0	393958.8	3345995.0	393962.8	3345955.0	393955.1	3346032.0	393957.8	3346005.0		
433	394011.1	3345975.0	394008.5	3346001.0	394013.4	3345952.0	394004.7	3346039.0	394008.4	3346002.0		
434	394061.6	3345972.0	394058.3	3346005.0	394063.3	3345955.0	394054.9	3346040.0	394058.9	3345999.0		
435	394112.1	3345969.0	394108.7	3346004.0	394112.8	3345962.0	394105.0	3346041.0	394109.4	3345996.0		
436	394162.8	3345965.0	394158.5	3346008.0	394162.7	3345966.0	394154.9	3346044.0	394160.2	3345991.0		
437	394213.5	3345960.0	394207.8	3346017.0	394212.7	3345968.0	394205.2	3346044.0	394211.0	3345986.0		
438	394264.3	3345955.0	394257.2	3346026.0	394262.5	3345973.0	394255.4	3346044.0	394261.8	3345980.0		
439	394315.0	3345950.0	394306.7	3346033.0	394312.4	3345976.0	394305.8	3346042.0	394312.6	3345975.0		
440	394365.0	3345952.0	394356.7	3346036.0	394362.4	3345979.0	394356.1	3346043.0	394363.0	3345973.0		
441	394415.0	3345955.0	394406.7	3346039.0	394412.1	3345984.0	394405.9	3346046.0	394413.4	3345971.0		
442	394465.0	3345957.0	394456.8	3346040.0	394462.2	3345986.0	394455.9	3346049.0	394463.7	3345971.0		
443	394514.6	3345964.0	394507.6	3346035.0	394512.2	3345988.0	394505.9	3346051.0	394513.8	3345972.0		
444	394564.1	3345971.0	394558.6	3346027.0	394562.0	3345992.0	394556.0	3346053.0	394563.8	3345975.0		
445	394613.5	3345980.0	394609.6	3346020.0	394612.0	3345995.0	394606.4	3346052.0	394613.6	3345979.0		
446	394662.5	3345992.0	394660.0	3346018.0	394662.2	3345996.0	394656.4	3346054.0	394663.3	3345984.0		
447	394711.5	3346005.0	394710.3	3346017.0	394712.0	3346000.0	394706.1	3346060.0	394713.1	3345989.0		
448	394760.4	3346019.0	394760.2	3346020.0	394761.8	3346004.0	394755.6	3346067.0	394762.9	3345993.0		
449	394809.3	3346033.0	394809.9	3346026.0	394811.7	3346008.0	394804.9	3346076.0	394812.5	3346000.0		
450	394858.1	3346047.0	394859.7	3346031.0	394861.5	3346013.0	394854.6	3346082.0	394861.8	3346010.0		
451	394906.7	3346063.0	394909.5	3346035.0	394910.9	3346021.0	394904.4	3346087.0	394911.0	3346020.0		
452	394955.3	3346080.0	394959.4	3346038.0	394960.3	3346029.0	394954.4	3346089.0	394960.4	3346029.0		
453	395004.5	3346090.0	395009.3	3346043.0	395009.3	3346042.0	395003.9	3346096.0	395009.8	3346037.0		
454	395053.9	3346099.0	395059.3	3346044.0	395058.8	3346049.0	395053.2	3346106.0	395059.2	3346046.0		
455	395103.3	3346107.0	395109.4	3346046.0	395108.3	3346058.0	395102.5	3346115.0	395108.7	3346053.0		

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
456	0.9	0.6	-0.1	0.4	-0.7	-1.7	-0.1	-2.5	0.1	3.1
457	1.0	0.6	-0.1	0.4	-1.0	-1.8	-0.2	-2.5	0.1	3.1
458	1.1	0.7	0.0	0.5	-1.3	-1.9	-0.2	-2.3	0.1	3.0
459	1.3	0.7	0.1	0.4	-1.8	-2.1	-0.6	-2.2	-0.1	2.4
460	1.5	0.7	0.1	0.4	-2.5	-2.3	-0.9	-2.1	-0.3	1.9
461	1.6	0.8	0.2	0.3	-2.6	-2.3	-1.1	-2.0	-0.6	1.1
462	1.6	0.8	0.3	0.3	-2.4	-2.0	-1.2	-1.7	-0.8	0.4
463	1.5	0.7	0.3	0.2	-2.3	-1.8	-1.2	-1.4	-0.8	-0.1
464	1.3	0.7	0.3	0.2	-1.7	-1.3	-1.0	-1.1	-0.8	-0.5
465	1.1	0.7	0.3	0.2	-1.2	-1.1	-0.9	-1.0	-0.8	-0.5
466	1.0	0.6	0.3	0.2	-1.1	-0.9	-0.8	-0.8	-0.7	-0.6
467	1.1	0.6	0.4	0.2	-1.4	-0.6	-0.8	-0.1	-0.6	-1.2
468	1.0	0.5	0.5	0.2	-1.5	-0.4	-0.7	0.4	-0.4	-1.4
469	1.1	0.5	0.6	0.2	-2.0	-0.3	-0.7	0.9	-0.2	-1.6
470	1.2	0.5	0.7	0.2	-2.5	-0.3	-0.9	1.3	-0.2	-2.0
471	1.3	0.5	0.8	0.3	-3.0	-0.2	-0.9	1.9	-0.1	-2.4
472	1.4	0.5	0.9	0.3	-3.5	0.0	-1.0	2.5	0.0	-3.0
473	1.5	0.5	1.0	0.3	-3.7	0.1	-1.0	2.8	0.0	-3.2
474	1.7	0.5	1.1	0.4	-4.0	0.2	-1.1	3.3	0.1	-3.6
475	1.7	0.6	1.2	0.4	-4.0	0.2	-1.2	3.2	-0.1	-3.8
476	1.8	0.8	1.3	0.4	-3.5	0.3	-1.2	3.1	-0.3	-4.2
477	1.9	1.0	1.4	0.5	-3.0	0.4	-1.2	2.9	-0.4	-4.3
478	2.0	1.2	1.4	0.5	-2.1	0.4	-1.1	2.1	-0.7	-4.0
479	1.8	1.4	1.3	0.6	-0.4	0.3	-0.8	0.8	-0.9	-2.9
480	1.4	1.3	1.1	0.6	0.9	0.6	-0.3	0.4	-0.7	-2.0
481	1.2	1.2	0.9	1.0	1.6	0.5	0.9	-0.2	0.6	1.6
482	0.6	1.0	0.7	0.9	2.5	0.8	1.1	-0.4	0.6	1.8
483	0.1	0.8	0.5	0.7	3.9	1.3	1.5	-0.5	0.6	1.9
484		0.4	0.2	0.6	4.9	1.7	2.0	-0.5	0.8	2.4
485				0.3	5.9	1.8	2.7	-1.1	1.5	4.5
486										
487										
Main Channel										
488										
489								2.2	2.0	-2.2
490								0.5	-1.3	-3.2
491								0.5	-1.8	-4.1
492								1.0	-2.0	-4.9
493								0.7	-2.2	-5.1
494								-0.1	-2.6	-5.0
495								-1.1	-2.9	-4.7
496								-2.1	-3.0	-4.0
497								-3.2	-3.0	-2.8
498								-3.3	-3.0	-2.7
499								-2.4	-2.9	-3.3
500		3.2	2.2	1.2				-1.1	-2.5	-3.8
501	2.1	2.9	2.1	1.1	6.3	2.2	0.1	-0.6	-2.0	-3.5
502	2.0	2.5	2.0	1.1	4.6	1.9	0.1	0.0	-1.5	-2.9
503	2.2	2.3	1.9	1.1	2.7	1.3	-0.1	0.3	-1.1	-2.4
504	2.2	2.1	1.8	1.1	2.0	1.0	-0.1	0.4	-0.8	-1.9
505	2.2	2.1	1.7	1.2	1.8	0.9	0.0	0.3	-0.6	-1.4
506	2.2	2.1	1.7	1.2	2.0	0.9	0.1	0.2	-0.5	-1.2
507	2.2	2.1	1.6	1.2	1.8	0.7	0.2	-0.1	-0.4	-0.6
508	2.3	2.0	1.5	1.2	0.8	0.1	0.0	-0.4	-0.3	-0.2
509	2.5	2.0	1.5	1.2	-0.2	-0.4	-0.2	-0.5	-0.2	0.0
510	2.5	2.0	1.3	1.2	-0.6	-0.8	-0.3	-1.0	-0.2	0.6
511	2.3	1.9	1.2	1.2	0.0	-0.6	-0.1	-1.1	-0.1	0.8
512	2.0	1.8	1.2	1.1	1.0	-0.4	0.2	-1.3	-0.1	1.0
513	2.0	1.8	1.2	1.2	0.9	-0.2	0.2	-1.0	0.0	1.0
514	2.0	1.8	1.2	1.2	0.9	-0.1	0.3	-0.8	0.1	1.0
515	2.1	1.7	1.2	1.2	0.4	-0.4	0.3	-1.0	0.3	1.6
516	2.1	1.7	1.1	1.2	-0.2	-0.6	0.3	-0.9	0.4	1.7
517	2.2	1.6	1.1	1.2	-0.7	-0.7	0.2	-0.8	0.5	1.7
518	2.3	1.6	1.1	1.2	-1.2	-0.8	0.1	-0.6	0.5	1.6
519	2.3	1.6	1.1	1.2	-1.7	-1.0	0.0	-0.6	0.6	1.7
520	2.5	1.6	1.2	1.3	-2.0	-1.0	-0.1	-0.4	0.6	1.6
521	2.5	1.6	1.2	1.3	-2.0	-1.0	0.0	-0.3	0.6	1.6
522	2.5	1.7	1.3	1.3	-1.8	-0.8	0.0	-0.1	0.6	1.3
523	2.5	1.7	1.4	1.3	-1.8	-0.6	-0.1	0.3	0.5	0.8
524	2.6	1.7	1.4	1.3	-2.2	-0.6	-0.2	0.4	0.4	0.4
525	2.7	1.7	1.4	1.2	-2.7	-0.8	-0.4	0.5	0.3	0.1
526	2.6	1.6	1.4	1.1	-3.0	-0.9	-0.6	0.5	0.3	0.0
527	2.8	1.6	1.3	1.1	-3.3	-1.1	-0.7	0.3	0.2	0.0
528	2.7	1.7	1.4	1.1	-3.0	-1.0	-0.7	0.3	0.1	-0.1
529	2.7	1.7	1.5	1.1	-3.0	-0.8	-0.7	0.7	0.1	-0.5
530	2.7	1.7	1.5	1.1	-2.7	-0.6	-0.6	0.9	0.1	-0.7

					High-Water Shoreline Position (UTM Zone 16, NAD 1983)					
Transect #		1847/67			1917/18		1934		1957	
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
456	395152.6	3346117.0	395159.4	3346048.0	395157.8	3346065.0	395152.1	3346123.0	395158.3	3346059.0
457	395201.5	3346130.0	395209.3	3346052.0	395207.2	3346073.0	395201.8	3346127.0	395207.8	3346067.0
458	395250.3	3346145.0	395259.5	3346052.0	395256.4	3346083.0	395251.3	3346135.0	395256.1	3346086.0
459	395299.3	3346158.0	395309.8	3346051.0	395305.6	3346094.0	395300.6	3346144.0	395304.4	3346107.0
460	395348.4	3346169.0	395359.4	3346058.0	395355.0	3346102.0	395350.4	3346149.0	395352.6	3346127.0
461	395397.6	3346180.0	395408.4	3346071.0	395404.3	3346112.0	395400.3	3346152.0	395401.1	3346145.0
462	395446.8	3346190.0	395457.1	3346086.0	395453.3	3346125.0	395450.1	3346157.0	395449.9	3346159.0
463	395496.2	3346199.0	395505.0	3346110.0	395502.3	3346138.0	395499.8	3346162.0	395498.8	3346173.0
464	395545.3	3346210.0	395553.1	3346132.0	395551.0	3346152.0	395548.8	3346175.0	395547.8	3346185.0
465	395594.3	3346222.0	395601.6	3346149.0	395599.7	3346169.0	395597.9	3346186.0	395596.7	3346199.0
466	395643.3	3346236.0	395650.6	3346162.0	395648.3	3346185.0	395648.1	3346187.0	395645.6	3346212.0
467	395692.3	3346249.0	395699.3	3346177.0	395696.8	3346203.0	395697.7	3346193.0	395694.9	3346222.0
468	395741.0	3346264.0	395748.5	3346188.0	395745.2	3346222.0	395747.3	3346200.0	395744.1	3346232.0
469	395789.8	3346278.0	395798.2	3346194.0	395793.9	3346237.0	395797.0	3346206.0	395793.0	3346246.0
470	395838.7	3346292.0	395847.9	3346199.0	395842.8	3346250.0	395847.1	3346207.0	395842.2	3346256.0
471	395887.6	3346305.0	395897.5	3346205.0	395891.6	3346265.0	395897.3	3346207.0	395891.4	3346267.0
472	395936.6	3346318.0	395947.2	3346211.0	395941.0	3346274.0	395947.4	3346209.0	395941.0	3346274.0
473	395985.5	3346331.0	395997.0	3346216.0	395990.2	3346284.0	395997.7	3346209.0	395990.5	3346281.0
474	396034.7	3346342.0	396046.7	3346221.0	396040.0	3346288.0	396047.5	3346213.0	396039.8	3346291.0
475	396083.8	3346353.0	396096.3	3346227.0	396090.4	3346287.0	396097.6	3346215.0	396089.3	3346299.0
476	396132.8	3346365.0	396146.1	3346232.0	396141.0	3346283.0	396147.8	3346215.0	396139.2	3346302.0
477	396182.0	3346377.0	396195.6	3346239.0	396192.1	3346275.0	396197.1	3346225.0	396189.0	3346306.0
478	396231.3	3346386.0	396243.9	3346259.0	396243.2	3346266.0	396245.0	3346248.0	396239.1	3346307.0
479	396281.0	3346392.0	396290.8	3346293.0	396292.2	3346279.0	396293.2	3346269.0	396289.2	3346309.0
480	396330.7	3346397.0	396338.7	3346316.0	396341.4	3346290.0	396340.8	3346295.0	396344.0	3346263.0
481	396381.2	3346394.0	396385.6	3346350.0	396389.8	3346308.0	396388.8	3346318.0	396392.5	3346281.0
482	396431.9	3346390.0	396432.3	3346386.0	396438.8	3346321.0	396437.5	3346333.0	396441.3	3346295.0
483	396483.1	3346381.0	396478.5	3346427.0	396486.7	3346344.0	396485.4	3346357.0	396490.3	3346308.0
484	396534.7	3346367.0	396522.7	3346488.0	396532.6	3346388.0	396530.0	3346414.0	396538.9	3346324.0
485	396585.7	3346359.0	396568.1	3346537.0	396575.9	3346458.0	396574.1	3346476.0	396584.4	3346372.0
486	396635.8	3346360.0								
487	396689.8	3346323.0								
Main Channel										
488					401009.2	3343740.0	401023.4	3343596.0	401018.4	3343647.0
489					401076.1	3343572.0	401077.3	3343560.0	401070.0	3343634.0
490					401129.0	3343545.0	401130.3	3343533.0	401120.9	3343627.0
491					401180.8	3343530.0	401183.0	3343507.0	401171.7	3343622.0
492					401232.5	3343515.0	401234.1	3343499.0	401222.4	3343617.0
493					401284.4	3343499.0	401284.2	3343501.0	401272.6	3343617.0
494					401335.9	3343486.0	401333.3	3343512.0	401322.6	3343619.0
495					401386.6	3343481.0	401381.7	3343531.0	401372.6	3343622.0
496					401436.6	3343484.0	401429.1	3343559.0	401422.6	3343625.0
497					401486.4	3343488.0	401478.8	3343565.0	401472.7	3343626.0
498					401536.0	3343494.0	401530.5	3343551.0	401522.8	3343627.0
499	401557.9	3343781.0			401584.4	3343513.0	401581.8	3343540.0	401573.1	3343627.0
500	401609.0	3343772.0	401623.1	3343630.0	401633.1	3343529.0	401631.7	3343543.0	401623.7	3343624.0
501	401660.0	3343764.0	401673.9	3343624.0	401681.2	3343551.0	401681.2	3343551.0	401674.4	3343619.0
502	401710.9	3343758.0	401725.8	3343607.0	401730.0	3343565.0	401730.7	3343558.0	401725.1	3343614.0
503	401761.3	3343756.0	401776.2	3343606.0	401779.3	3343575.0	401780.3	3343565.0	401775.8	3343610.0
504	401811.4	3343757.0	401826.2	3343608.0	401829.0	3343580.0	401829.7	3343573.0	401826.5	3343606.0
505	401861.0	3343764.0	401875.8	3343615.0	401879.0	3343582.0	401879.4	3343579.0	401876.7	3343606.0
506	401910.7	3343770.0	401925.7	3343618.0	401928.6	3343589.0	401928.3	3343592.0	401926.9	3343606.0
507	401960.4	3343774.0	401976.3	3343615.0	401977.6	3343602.0	401976.8	3343610.0	401976.3	3343615.0
508	402010.2	3343780.0	402027.3	3343608.0	402027.0	3343611.0	402025.8	3343622.0	402025.8	3343622.0
509	402059.9	3343785.0	402077.3	3343610.0	402076.3	3343620.0	402074.0	3343643.0	402075.4	3343629.0
510	402109.8	3343788.0	402125.4	3343631.0	402125.5	3343630.0	402123.1	3343655.0	402125.0	3343636.0
511	402159.6	3343793.0	402173.5	3343653.0	402175.1	3343637.0	402172.1	3343667.0	402174.5	3343643.0
512	402209.0	3343801.0	402222.7	3343664.0	402224.1	3343650.0	402221.8	3343673.0	402224.1	3343649.0
513	402258.1	3343813.0	402271.8	3343675.0	402273.3	3343660.0	402271.5	3343678.0	402273.8	3343654.0
514	402307.6	3343820.0	402321.6	3343679.0	402322.2	3343673.0	402320.0	3343696.0	402323.6	3343660.0
515	402357.1	3343828.0	402371.5	3343683.0	402371.2	3343686.0	402369.1	3343707.0	402373.1	3343667.0
516	402406.4	3343837.0	402421.3	3343687.0	402420.3	3343698.0	402418.4	3343716.0	402422.3	3343677.0
517	402455.8	3343847.0	402471.2	3343691.0	402469.3	3343710.0	402467.9	3343724.0	402471.6	3343687.0
518	402505.1	3343856.0	402521.1	3343694.0	402518.4	3343722.0	402517.1	3343735.0	402521.1	3343695.0
519	402554.1	3343868.0	402570.8	3343699.0	402567.7	3343731.0	402566.8	3343740.0	402570.4	3343704.0
520	402602.9	3343882.0	402619.9	3343712.0	402616.8	3343743.0	402615.9	3343751.0	402619.7	3343714.0
521	402651.8	3343896.0	402668.9	3343724.0	402666.0	3343753.0	402665.8	3343756.0	402668.8	3343726.0
522	402700.8	3343909.0	402717.9	3343737.0	402715.1	3343765.0	402715.7	3343759.0	402717.5	3343740.0
523	402749.8	3343921.0	402767.8	3343740.0	402764.3	3343775.0	402765.3	3343765.0	402766.3	3343755.0
524	402799.4	3343928.0	402817.7	3343744.0	402813.4	3343786.0	402814.7	3343774.0	402814.9	3343771.0
525	402849.0	3343935.0	402867.0	3343753.0	402862.3	3343801.0	402863.4	3343789.0	402863.5	3343788.0
526	402897.9	3343948.0	402916.7	3343758.0	402911.5	3343811.0	402912.3	3343803.0	402912.2	3343804.0
527	402946.8	3343961.0	402965.4	3343774.0	402960.7	3343821.0	402961.4	3343815.0	402961.1	3343817.0
528	402995.6	3343976.0	403014.3	3343788.0	403009.6	3343835.0	403011.2	3343819.0	403010.0	3343831.0
529	403044.6	3343989.0	403062.9	3343804.0	403058.6	3343848.0	403060.5	3343828.0	403058.9	3343844.0
530	403093.8	3343999.0	403111.6	3343820.0	403107.8	3343859.0	403108.4	3343851.0	403107.8	3343858.0

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
531	2.6	1.7	1.4	1.1	-2.4	-0.8	-0.6	0.3	0.0	-0.3
532	2.5	1.6	1.4	1.0	-2.1	-0.7	-0.6	0.3	0.0	-0.4
533	2.5	1.6	1.4	1.0	-2.1	-0.6	-0.6	0.4	0.0	-0.4
534	2.5	1.7	1.3	1.1	-2.0	-0.7	-0.5	0.1	0.0	-0.1
535	2.5	1.8	1.4	1.2	-1.5	-0.4	-0.3	0.3	0.1	-0.1
536	2.5	1.8	1.5	1.2	-1.1	-0.4	-0.2	0.0	0.1	0.1
537	2.5	1.9	1.4	1.3	-0.8	-0.5	-0.1	-0.2	0.1	0.5
538	2.6	1.9	1.4	1.3	-1.0	-0.6	-0.1	-0.3	0.2	0.6
539	2.6	2.0	1.5	1.3	-0.6	-0.4	0.0	-0.2	0.2	0.6
540	2.6	1.9	1.4	1.3	-0.9	-0.6	0.0	-0.4	0.2	0.9
541	2.6	2.0	1.5	1.3	-0.6	-0.5	0.0	-0.4	0.2	0.7
542	2.6	1.9	1.5	1.3	-0.7	-0.3	-0.1	0.0	0.2	0.3
543	2.5	1.9	1.6	1.2	-1.1	0.0	-0.2	0.6	0.1	-0.4
544	2.5	1.8	1.6	1.3	-1.2	0.1	-0.1	1.0	0.2	-0.6
545	2.7	1.8	1.7	1.3	-1.7	0.0	-0.2	1.1	0.3	-0.6
546	2.8	1.9	1.7	1.4	-1.6	-0.1	-0.1	0.9	0.4	-0.2
547	2.8	2.0	1.7	1.4	-1.3	-0.2	-0.1	0.6	0.3	0.0
548	2.9	2.1	1.8	1.4	-1.1	0.0	-0.1	0.8	0.2	-0.4
549	3.0	2.2	1.9	1.5	-1.4	0.0	-0.2	1.0	0.3	-0.5
550	3.0	2.1	1.9	1.5	-1.4	0.0	-0.1	0.9	0.3	-0.3
551	2.9	2.2	1.9	1.5	-0.9	0.1	-0.1	0.8	0.2	-0.5
552	2.8	2.2	1.9	1.5	-0.5	0.2	0.1	0.7	0.3	-0.2
553	2.8	2.2	1.9	1.5	-0.3	0.3	0.0	0.6	0.1	-0.4
554	2.7	2.2	1.9	1.4	-0.2	0.4	0.0	0.7	0.1	-0.5
555	2.7	2.3	1.9	1.5	0.2	0.4	0.1	0.5	0.0	-0.4
556	2.7	2.3	1.8	1.5	0.3	0.3	0.3	0.3	0.3	0.2
557	2.7	2.2	1.9	1.5	0.3	0.5	0.3	0.6	0.2	-0.1
558	2.7	2.3	1.9	1.5	0.2	0.4	0.2	0.5	0.2	-0.1
559	2.7	2.3	1.9	1.5	0.3	0.4	0.2	0.5	0.1	-0.2
560	2.7	2.3	1.8	1.5	0.5	0.4	0.3	0.3	0.2	0.1
561	2.8	2.2	1.9	1.6	-0.1	0.3	0.2	0.6	0.4	0.1
562	2.8	2.3	1.9	1.6	0.1	0.4	0.3	0.7	0.4	0.0
563	2.8	2.2	1.9	1.6	-0.2	0.3	0.2	0.6	0.3	0.0
564	2.8	2.3	1.9	1.5	0.1	0.4	0.2	0.6	0.2	-0.2
565	2.8	2.1	1.9	1.5	-0.8	0.4	0.2	1.2	0.5	-0.2
566	2.8	2.0	1.9	1.6	-1.3	0.2	0.2	1.3	0.7	0.1
567	2.8	1.9	1.8	1.5	-1.8	0.2	0.1	1.5	0.8	0.1
568	2.8	1.9	1.8	1.5	-1.6	0.0	0.1	1.1	0.7	0.2
569	2.7	1.9	1.7	1.4	-1.4	0.0	0.0	0.8	0.5	0.1
570	2.6	1.9	1.7	1.4	-1.3	0.0	0.0	0.9	0.5	0.0
571	2.5	1.9	1.6	1.4	-0.5	0.1	0.1	0.6	0.3	0.1
572	2.4	1.9	1.6	1.4	-0.1	0.3	0.2	0.6	0.4	0.1
573	2.2	1.8	1.6	1.3	0.4	0.6	0.4	0.8	0.4	-0.1
574	2.0	1.7	1.6	1.3	0.2	0.7	0.5	1.1	0.6	0.1
575	2.0	1.7	1.5	1.3	0.2	0.6	0.5	0.8	0.6	0.3
576	2.1	1.7	1.6	1.3	0.1	0.7	0.5	1.1	0.6	0.1
577	2.0	1.7	1.6	1.3	0.2	0.8	0.4	1.2	0.5	-0.1
578	2.0	1.7	1.6	1.3	0.0	0.8	0.4	1.3	0.6	-0.2
579	2.0	1.7	1.6	1.2	0.3	0.8	0.4	1.1	0.5	-0.2
580	2.1	1.7	1.5	1.2	0.0	0.6	0.3	1.1	0.5	-0.2
581	2.1	1.6	1.5	1.2	-0.1	0.6	0.3	1.1	0.5	-0.2
582	2.0	1.7	1.5	1.2	0.2	0.6	0.3	0.9	0.4	-0.1
583	1.9	1.6	1.5	1.2	0.5	0.8	0.4	1.0	0.4	-0.3
584	1.7	1.6	1.4	1.1	1.1	1.0	0.5	0.9	0.3	-0.2
585	1.5	1.5	1.4	1.1	1.5	1.3	0.7	1.1	0.4	-0.3
586	1.5	1.5	1.4	1.1	1.4	1.3	0.7	1.1	0.4	-0.3
587	1.6	1.4	1.4	1.1	0.8	1.0	0.6	1.2	0.5	-0.2
588	1.7	1.4	1.4	1.1	-0.2	0.7	0.3	1.4	0.5	-0.3
589	1.9	1.3	1.3	1.1	-1.0	0.4	0.2	1.3	0.7	0.0
590	1.9	1.3	1.3	1.0	-1.1	0.3	0.1	1.3	0.5	-0.2
591	1.8	1.3	1.3	1.0	-0.8	0.4	0.2	1.3	0.5	-0.3
592	1.6	1.2	1.2	1.0	-0.3	0.6	0.3	1.2	0.5	-0.2
593	1.6	1.2	1.2	0.9	-0.5	0.6	0.2	1.3	0.4	-0.4
594	1.6	1.1	1.1	0.9	-0.9	0.3	0.0	1.2	0.4	-0.5
595	1.6	1.1	1.1	0.8	-1.4	0.1	-0.1	1.1	0.3	-0.5
596	1.7	0.9	1.0	0.8	-2.3	-0.2	-0.2	1.3	0.5	-0.4
597	1.5	0.9	1.0	0.7	-1.5	0.0	-0.2	1.0	0.3	-0.5
598	1.5	0.9	0.9	0.7	-1.7	-0.1	-0.2	0.9	0.3	-0.4
599	1.3	0.8	0.8	0.6	-1.3	0.0	-0.1	0.9	0.3	-0.2
600	1.2	0.7	0.8	0.6	-1.6	0.0	-0.1	1.2	0.4	-0.4
601	1.1	0.7	0.8	0.5	-1.2	0.2	-0.1	1.2	0.3	-0.6
602	1.0	0.5	0.7	0.5	-1.3	0.2	0.0	1.3	0.4	-0.4
603	1.0	0.5	0.7	0.5	-1.4	0.3	0.0	1.4	0.4	-0.5
604	1.1	0.5	0.7	0.5	-2.0	0.0	-0.2	1.3	0.5	-0.4
605	1.1	0.4	0.7	0.5	-2.5	-0.1	-0.2	1.6	0.5	-0.5
606	0.9	0.4	0.7	0.4	-1.9	0.2	-0.1	1.7	0.5	-0.6

				High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
Transect #		1847/67		1917/18		1934		1957		1978/82
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
531	403143.1	3344009.0	403160.3	3343835.0	403156.9	3343869.0	403157.7	3343862.0	403156.8	3343871.0
532	403192.2	3344021.0	403209.2	3343849.0	403205.9	3343882.0	403206.8	3343873.0	403205.8	3343884.0
533	403241.1	3344034.0	403258.3	3343861.0	403255.0	3343893.0	403255.3	3343890.0	403255.1	3343893.0
534	403289.6	3344052.0	403306.6	3343880.0	403304.3	3343903.0	403304.9	3343897.0	403304.6	3343900.0
535	403338.2	3344068.0	403355.3	3343896.0	403353.6	3343913.0	403353.8	3343911.0	403354.0	3343908.0
536	403386.9	3344084.0	403404.2	3343910.0	403402.8	3343923.0	403402.3	3343928.0	403403.4	3343917.0
537	403435.7	3344099.0	403453.3	3343920.0	403451.8	3343936.0	403451.1	3343943.0	403452.6	3343928.0
538	403484.5	3344113.0	403501.9	3343937.0	403500.9	3343947.0	403500.3	3343953.0	403501.7	3343940.0
539	403533.4	3344126.0	403551.0	3343949.0	403549.6	3343963.0	403548.7	3343972.0	403550.7	3343952.0
540	403582.3	3344140.0	403599.7	3343965.0	403598.7	3343975.0	403597.8	3343983.0	403599.5	3343966.0
541	403631.3	3344152.0	403648.7	3343977.0	403647.5	3343989.0	403647.6	3343988.0	403648.3	3343981.0
542	403680.8	3344160.0	403698.1	3343986.0	403696.4	3344002.0	403697.9	3343987.0	403697.0	3343996.0
543	403730.1	3344170.0	403747.2	3343997.0	403745.3	3344016.0	403747.7	3343992.0	403746.4	3344005.0
544	403779.1	3344182.0	403797.2	3343999.0	403794.5	3344026.0	403797.1	3344000.0	403795.8	3344014.0
545	403827.9	3344196.0	403846.8	3344007.0	403844.2	3344032.0	403846.4	3344010.0	403845.9	3344015.0
546	403876.4	3344214.0	403895.7	3344020.0	403893.6	3344041.0	403894.9	3344027.0	403894.9	3344028.0
547	403924.9	3344232.0	403944.4	3344035.0	403942.6	3344053.0	403944.6	3344034.0	403943.6	3344043.0
548	403973.4	3344249.0	403993.7	3344045.0	403991.5	3344067.0	403993.8	3344044.0	403992.7	3344054.0
549	404022.7	3344258.0	404042.9	3344055.0	404040.8	3344077.0	404042.9	3344055.0	404042.1	3344063.0
550	404072.2	3344266.0	404091.8	3344069.0	404090.4	3344083.0	404092.3	3344063.0	404091.2	3344075.0
551	404121.6	3344275.0	404140.8	3344082.0	404139.9	3344091.0	404141.6	3344074.0	404141.1	3344079.0
552	404170.9	3344284.0	404189.9	3344093.0	404189.4	3344097.0	404190.9	3344083.0	404189.9	3344093.0
553	404220.3	3344293.0	404238.9	3344106.0	404238.6	3344108.0	404240.3	3344091.0	404239.1	3344104.0
554	404269.6	3344303.0	404288.2	3344115.0	404288.5	3344112.0	404289.6	3344101.0	404288.7	3344110.0
555	404318.8	3344313.0	404337.3	3344127.0	404337.7	3344122.0	404338.5	3344115.0	404339.0	3344110.0
556	404368.2	3344322.0	404386.4	3344138.0	404386.9	3344133.0	404388.3	3344119.0	404388.1	3344121.0
557	404417.3	3344332.0	404435.9	3344145.0	404436.3	3344142.0	404437.3	3344131.0	404437.2	3344133.0
558	404466.5	3344343.0	404485.3	3344155.0	404485.7	3344150.0	404486.8	3344139.0	404486.3	3344143.0
559	404516.0	3344350.0	404534.4	3344166.0	404535.1	3344158.0	404535.8	3344151.0	404536.0	3344149.0
560	404565.5	3344359.0	404584.5	3344167.0	404584.3	3344169.0	404585.7	3344155.0	404586.0	3344152.0
561	404614.8	3344367.0	404633.9	3344176.0	404634.0	3344175.0	404635.5	3344159.0	404635.6	3344158.0
562	404664.2	3344377.0	404683.3	3344184.0	404683.0	3344187.0	404684.3	3344174.0	404684.3	3344173.0
563	404713.5	3344386.0	404732.3	3344197.0	404732.4	3344195.0	404733.7	3344182.0	404733.3	3344187.0
564	404762.8	3344396.0	404781.8	3344204.0	404780.5	3344217.0	404783.3	3344188.0	404782.9	3344193.0
565	404812.3	3344403.0	404831.3	3344211.0	404829.2	3344232.0	404832.3	3344201.0	404832.6	3344198.0
566	404862.2	3344406.0	404881.2	3344215.0	404878.4	3344243.0	404881.8	3344209.0	404882.2	3344205.0
567	404912.2	3344409.0	404931.1	3344219.0	404928.5	3344245.0	404931.1	3344219.0	404931.5	3344214.0
568	404962.2	3344411.0	404980.7	3344225.0	404978.6	3344247.0	404980.5	3344227.0	404980.8	3344224.0
569	405012.2	3344414.0	405030.2	3344233.0	405028.2	3344253.0	405030.3	3344232.0	405030.4	3344231.0
570	405062.0	3344419.0	405079.1	3344247.0	405078.2	3344255.0	405079.6	3344241.0	405079.8	3344239.0
571	405111.5	3344426.0	405127.7	3344263.0	405127.6	3344264.0	405129.0	3344250.0	405129.2	3344247.0
572	405161.7	3344427.0	405176.5	3344278.0	405177.1	3344272.0	405179.0	3344252.0	405178.8	3344254.0
573	405211.8	3344428.0	405225.7	3344288.0	405226.0	3344285.0	405228.4	3344260.0	405228.7	3344257.0
574	405261.6	3344432.0	405275.6	3344292.0	405275.9	3344288.0	405277.8	3344269.0	405278.6	3344261.0
575	405311.3	3344437.0	405325.4	3344296.0	405325.5	3344295.0	405328.1	3344269.0	405328.2	3344268.0
576	405361.1	3344443.0	405375.0	3344302.0	405375.3	3344299.0	405378.1	3344271.0	405377.8	3344274.0
577	405410.8	3344447.0	405424.7	3344308.0	405424.8	3344307.0	405427.8	3344276.0	405427.4	3344280.0
578	405460.8	3344450.0	405474.5	3344312.0	405474.9	3344308.0	405477.5	3344282.0	405477.0	3344287.0
579	405510.5	3344456.0	405524.6	3344314.0	405524.6	3344314.0	405527.0	3344289.0	405526.6	3344293.0
580	405560.3	3344460.0	405574.4	3344319.0	405574.2	3344321.0	405576.6	3344296.0	405576.3	3344300.0
581	405610.3	3344463.0	405623.8	3344326.0	405624.2	3344323.0	405626.3	3344302.0	405626.0	3344305.0
582	405660.5	3344463.0	405673.3	3344334.0	405674.1	3344326.0	405676.5	3344302.0	405675.8	3344309.0
583	405710.8	3344463.0	405722.3	3344347.0	405724.0	3344330.0	405726.2	3344308.0	405725.6	3344314.0
584	405760.9	3344464.0	405771.1	3344362.0	405773.5	3344337.0	405776.1	3344311.0	405775.4	3344318.0
585	405811.0	3344466.0	405821.1	3344363.0	405823.4	3344340.0	405826.1	3344314.0	405825.4	3344321.0
586	405860.9	3344469.0	405871.6	3344361.0	405872.8	3344349.0	405875.7	3344321.0	405875.2	3344325.0
587	405910.9	3344471.0	405922.8	3344352.0	405922.5	3344355.0	405925.7	3344323.0	405924.9	3344331.0
588	405960.9	3344474.0	405973.6	3344346.0	405972.1	3344361.0	405975.2	3344330.0	405975.1	3344331.0
589	406010.8	3344477.0	406023.8	3344347.0	406022.1	3344364.0	406025.0	3344335.0	406024.5	3344340.0
590	406060.9	3344478.0	406073.0	3344357.0	406071.8	3344369.0	406074.8	3344339.0	406074.2	3344346.0
591	406111.2	3344478.0	406122.2	3344368.0	406121.7	3344373.0	406124.4	3344345.0	406124.0	3344349.0
592	406161.6	3344477.0	406172.3	3344370.0	406171.4	3344378.0	406174.4	3344348.0	406173.4	3344358.0
593	406211.9	3344476.0	406222.8	3344367.0	406221.4	3344381.0	406224.1	3344354.0	406223.0	3344365.0
594	406262.4	3344474.0	406273.6	3344361.0	406271.3	3344384.0	406273.9	3344358.0	406272.8	3344369.0
595	406312.8	3344473.0	406324.3	3344357.0	406320.7	3344393.0	406323.6	3344363.0	406322.8	3344372.0
596	406363.0	3344473.0	406373.1	3344371.0	406370.8	3344394.0	406373.2	3344370.0	406372.0	3344382.0
597	406413.1	3344474.0	406423.3	3344372.0	406420.7	3344398.0	406422.8	3344377.0	406421.9	3344386.0
598	406463.3	3344475.0	406472.1	3344386.0	406470.1	3344406.0	406472.1	3344386.0	406471.5	3344392.0
599	406513.5	3344475.0	406522.0	3344390.0	406519.4	3344416.0	406522.1	3344389.0	406521.1	3344399.0
600	406563.8	3344474.0	406571.3	3344399.0	406569.3	3344419.0	406572.0	3344392.0	406570.8	3344404.0
601	406614.0	3344475.0	406620.7	3344407.0	406618.6	3344429.0	406621.5	3344399.0	406620.6	3344409.0
602	406664.1	3344476.0	406670.6	3344411.0	406668.4	3344433.0	406671.7	3344400.0	406670.5	3344412.0
603	406714.1	3344479.0	406721.4	3344405.0	406718.2	3344437.0	406721.3	3344406.0	406720.5	3344415.0
604	406764.3	3344480.0	406771.8	3344403.0	406767.9	3344443.0	406771.6	3344406.0	406770.3	3344418.0
605	406814.4	3344480.0	406820.5	3344419.0	406817.6	3344449.0	406821.5	3344409.0	406820.1	3344424.0
606	406864.6	3344481.0	406868.6	3344441.0	406867.8	3344449.0	406871.2	3344415.0	406869.8	3344429.0

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
607	0.6	0.4	0.6	0.4	-0.5	0.7	0.2	1.4	0.4	-0.6
608	0.6	0.4	0.6	0.4	-0.5	0.6	0.2	1.4	0.4	-0.6
609	0.7	0.4	0.6	0.4	-1.1	0.4	0.1	1.5	0.5	-0.5
610	0.9	0.3	0.6	0.4	-2.7	0.0	-0.1	1.8	0.8	-0.3
611	0.9	0.1	0.6	0.4	-3.3	0.0	-0.2	2.2	0.9	-0.5
612	0.9	0.2	0.6	0.4	-2.7	0.0	-0.2	2.0	0.7	-0.6
613	0.9	0.2	0.6	0.4	-2.8	-0.1	-0.3	1.8	0.6	-0.6
614	0.8	0.2	0.6	0.3	-2.8	0.1	-0.2	2.1	0.7	-0.8
615	0.8	0.1	0.6	0.3	-2.7	0.2	-0.2	2.1	0.7	-0.8
616	0.7	0.1	0.6	0.3	-2.3	0.5	-0.1	2.4	0.7	-0.9
617	0.6	0.1	0.5	0.3	-2.1	0.4	0.0	2.1	0.7	-0.6
618	0.5	0.0	0.4	0.2	-2.2	0.3	0.0	2.1	0.7	-0.6
619	0.5	-0.1	0.4	0.2	-2.4	0.2	-0.1	2.0	0.7	-0.7
620	0.5	-0.1	0.3	0.2	-2.6	0.0	-0.2	1.7	0.6	-0.6
621	0.5	-0.1	0.3	0.1	-2.5	0.0	-0.3	1.7	0.5	-0.7
622	0.4	-0.1	0.3	0.1	-2.4	0.1	-0.3	1.8	0.4	-1.0
623	0.5	0.0	0.3	0.1	-2.2	-0.1	-0.3	1.4	0.4	-0.7
624	0.4	0.0	0.2	0.1	-2.1	-0.2	-0.3	1.1	0.4	-0.4
625	0.3	-0.1	0.1	0.0	-2.1	-0.3	-0.3	0.9	0.2	-0.5
626	0.2	-0.2	0.0	-0.1	-1.9	-0.3	-0.4	0.8	0.1	-0.6
627	0.3	-0.3	0.0	-0.1	-2.5	-0.5	-0.5	0.9	0.1	-0.6
628	0.3	-0.3	-0.1	-0.1	-2.6	-0.6	-0.5	0.7	0.1	-0.5
629	0.3	-0.3	-0.1	-0.1	-2.7	-0.6	-0.6	0.8	0.1	-0.5
630	0.3	-0.3	0.0	-0.1	-2.9	-0.7	-0.6	0.7	0.1	-0.5
631	0.4	-0.3	-0.1	-0.1	-3.4	-0.9	-0.7	0.8	0.2	-0.4
632	0.3	-0.4	-0.2	-0.2	-3.4	-1.0	-0.7	0.7	0.3	-0.1
633	0.1	-0.4	-0.2	-0.2	-2.7	-0.6	-0.5	0.8	0.3	-0.3
634	0.2	-0.4	-0.1	-0.2	-3.0	-0.6	-0.5	1.1	0.3	-0.4
635	0.4	-0.4	-0.1	-0.1	-3.8	-0.9	-0.7	1.1	0.4	-0.3
636	0.5	-0.3	0.0	-0.1	-4.1	-1.0	-0.8	1.1	0.3	-0.5
637	0.6	-0.3	0.0	-0.1	-4.4	-1.1	-0.9	1.1	0.3	-0.5
638	0.6	-0.4	0.0	-0.1	-4.6	-1.2	-1.0	1.2	0.3	-0.6
639	0.4	-0.4	-0.1	-0.2	-3.8	-0.9	-0.8	1.0	0.2	-0.6
640	0.3	-0.3	-0.1	-0.2	-3.2	-0.8	-0.8	0.8	0.1	-0.7
641	0.3	-0.3	-0.1	-0.2	-3.0	-0.8	-0.8	0.7	0.0	-0.8
642	0.2	-0.3	-0.1	-0.2	-2.5	-0.7	-0.7	0.5	-0.1	-0.8
643	0.1	-0.3	-0.2	-0.2	-2.1	-0.7	-0.6	0.3	-0.2	-0.6
644	0.2	-0.3	-0.2	-0.3	-2.6	-0.8	-0.8	0.5	-0.1	-0.8
645	0.2	-0.3	-0.2	-0.3	-2.9	-1.0	-0.9	0.3	-0.2	-0.8
646	0.3	-0.3	-0.2	-0.3	-3.3	-1.2	-1.1	0.2	-0.3	-0.8
647	0.4	-0.4	-0.3	-0.3	-3.6	-1.4	-1.1	0.2	-0.2	-0.6
648	0.3	-0.4	-0.3	-0.4	-3.2	-1.4	-1.1	-0.1	-0.3	-0.6
649	0.3	-0.3	-0.3	-0.3	-2.8	-1.3	-1.0	-0.2	-0.4	-0.6
650	0.1	-0.3	-0.3	-0.3	-2.0	-1.1	-0.9	-0.4	-0.5	-0.5
651	0.1	-0.2	-0.3	-0.3	-1.5	-0.8	-0.8	-0.4	-0.5	-0.7
652	0.0	-0.3	-0.3	-0.4	-1.3	-0.8	-0.8	-0.4	-0.6	-0.8
653	0.0	-0.4	-0.3	-0.4	-1.7	-0.8	-0.8	-0.1	-0.5	-1.0
654	0.0	-0.5	-0.3	-0.5	-2.5	-0.9	-0.9	0.2	-0.4	-1.0
655	0.0	-0.5	-0.4	-0.5	-3.0	-1.1	-1.0	0.2	-0.3	-0.9
656	0.1	-0.6	-0.3	-0.5	-3.3	-1.1	-1.1	0.5	-0.3	-1.1
657	0.1	-0.6	-0.3	-0.5	-3.6	-1.1	-1.1	0.6	-0.2	-1.0
658	0.2	-0.6	-0.3	-0.4	-3.8	-1.2	-1.1	0.6	-0.2	-1.0
659	0.3	-0.6	-0.3	-0.5	-4.1	-1.3	-1.3	0.6	-0.3	-1.1
660	0.3	-0.6	-0.3	-0.4	-4.2	-1.4	-1.2	0.6	-0.2	-1.0
661	0.3	-0.5	-0.3	-0.4	-4.0	-1.4	-1.2	0.5	-0.2	-0.8
662	0.4	-0.5	-0.3	-0.4	-4.3	-1.5	-1.2	0.4	-0.1	-0.6
663	0.3	-0.5	-0.3	-0.4	-4.0	-1.3	-1.1	0.5	-0.1	-0.6
664	0.1	-0.6	-0.4	-0.4	-3.6	-1.2	-1.0	0.4	-0.1	-0.6
665	0.1	-0.6	-0.4	-0.4	-3.9	-1.3	-1.0	0.5	0.0	-0.4
666	0.1	-0.6	-0.4	-0.4	-3.7	-1.2	-0.9	0.5	0.0	-0.4
667	0.4	-0.5	-0.3	-0.3	-4.3	-1.5	-1.1	0.5	0.0	-0.4
668	0.6	-0.5	-0.3	-0.3	-5.1	-1.8	-1.3	0.4	0.0	-0.3
669	0.7	-0.5	-0.3	-0.3	-5.8	-2.1	-1.5	0.4	0.0	-0.5
670	0.8	-0.6	-0.3	-0.4	-6.7	-2.3	-1.7	0.7	0.0	-0.7
671	0.8	-0.6	-0.3	-0.4	-6.7	-2.2	-1.7	0.9	0.0	-0.9
672	0.7	-0.6	-0.3	-0.4	-6.3	-2.1	-1.7	0.8	0.0	-0.9
673	0.7	-0.6	-0.3	-0.4	-6.0	-2.0	-1.5	0.7	0.0	-0.7
674	0.6	-0.5	-0.3	-0.3	-5.6	-1.8	-1.4	0.7	0.0	-0.8
675	0.6	-0.5	-0.3	-0.3	-5.5	-1.8	-1.4	0.8	0.0	-0.7
676	0.6	-0.6	-0.3	-0.3	-5.6	-1.8	-1.3	0.7	0.2	-0.4
677	0.4	-0.6	-0.3	-0.3	-4.9	-1.6	-1.1	0.7	0.2	-0.3
678	0.3	-0.6	-0.4	-0.4	-4.5	-1.5	-1.1	0.5	0.1	-0.3
679	0.3	-0.7	-0.4	-0.4	-4.8	-1.5	-1.1	0.8	0.1	-0.5
680	0.2	-0.7	-0.3	-0.4	-4.8	-1.3	-1.1	1.1	0.2	-0.7
681	0.3	-0.6	-0.3	-0.4	-4.4	-1.2	-1.1	1.1	0.1	-0.9
682	0.2	-0.7	-0.3	-0.4	-4.5	-1.2	-1.1	1.1	0.1	-0.9

					High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
Transect #		1847/67		1917/18		1934		1957		1978/82	
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-y (m)
607	406914.9	3344481.0	406918.8	3344441.0	406918.0	3344449.0	406921.2	3344417.0	406919.9	3344430.0	
608	406964.9	3344483.0	406969.6	3344436.0	406967.9	3344453.0	406971.3	3344419.0	406970.3	3344429.0	
609	407014.8	3344486.0	407021.2	3344422.0	407017.0	3344465.0	407021.2	3344422.0	407020.5	3344430.0	
610	407064.7	3344490.0	407071.1	3344426.0	407065.9	3344478.0	407071.1	3344426.0	407069.9	3344438.0	
611	407114.5	3344495.0	407120.5	3344434.0	407116.2	3344478.0	407120.7	3344432.0	407119.4	3344445.0	
612	407164.4	3344499.0	407170.8	3344434.0	407166.3	3344479.0	407170.6	3344436.0	407169.1	3344451.0	
613	407214.3	3344502.0	407220.0	3344444.0	407215.6	3344489.0	407220.5	3344440.0	407218.7	3344457.0	
614	407264.3	3344505.0	407269.8	3344448.0	407265.5	3344492.0	407270.4	3344442.0	407268.6	3344461.0	
615	407314.4	3344505.0	407319.0	3344459.0	407315.3	3344496.0	407320.8	3344441.0	407318.6	3344463.0	
616	407364.8	3344504.0	407368.8	3344464.0	407365.4	3344498.0	407370.2	3344450.0	407368.8	3344464.0	
617	407415.4	3344501.0	407418.6	3344468.0	407415.1	3344503.0	407419.9	3344455.0	407418.6	3344468.0	
618	407465.9	3344498.0	407469.0	3344467.0	407465.3	3344504.0	407469.9	3344457.0	407468.4	3344473.0	
619	407516.2	3344497.0	407519.6	3344463.0	407515.5	3344504.0	407519.6	3344464.0	407518.2	3344478.0	
620	407566.4	3344498.0	407569.6	3344466.0	407565.7	3344505.0	407569.6	3344465.0	407568.0	3344482.0	
621	407616.5	3344499.0	407619.6	3344468.0	407615.8	3344506.0	407620.1	3344463.0	407617.9	3344485.0	
622	407666.5	3344502.0	407669.8	3344468.0	407666.4	3344503.0	407669.7	3344470.0	407668.0	3344486.0	
623	407716.9	3344500.0	407720.0	3344469.0	407716.7	3344503.0	407719.2	3344477.0	407718.3	3344486.0	
624	407767.8	3344494.0	407770.1	3344470.0	407766.8	3344503.0	407769.1	3344481.0	407767.9	3344492.0	
625	407818.5	3344489.0	407820.2	3344472.0	407817.2	3344502.0	407819.0	3344484.0	407817.7	3344497.0	
626	407869.2	3344485.0	407870.9	3344468.0	407866.9	3344508.0	407868.9	3344487.0	407867.5	3344501.0	
627	407919.1	3344488.0	407920.8	3344470.0	407916.8	3344511.0	407918.5	3344494.0	407917.5	3344505.0	
628	407969.1	3344491.0	407971.0	3344471.0	407966.8	3344514.0	407968.5	3344496.0	407967.4	3344507.0	
629	408019.1	3344493.0	408021.5	3344469.0	408016.9	3344515.0	408018.6	3344498.0	408017.5	3344509.0	
630	408069.2	3344494.0	408072.0	3344466.0	408066.7	3344520.0	408068.5	3344502.0	408067.6	3344511.0	
631	408119.7	3344492.0	408121.8	3344471.0	408116.5	3344524.0	408118.0	3344509.0	408117.7	3344512.0	
632	408170.1	3344490.0	408170.8	3344483.0	408166.5	3344526.0	408168.3	3344508.0	408167.8	3344514.0	
633	408219.9	3344494.0	408221.1	3344483.0	408216.3	3344531.0	408218.8	3344507.0	408217.9	3344515.0	
634	408269.6	3344501.0	408272.0	3344476.0	408266.1	3344536.0	408268.5	3344511.0	408267.9	3344517.0	
635	408319.1	3344508.0	408322.8	3344471.0	408316.2	3344537.0	408318.9	3344510.0	408317.8	3344521.0	
636	408369.3	3344508.0	408373.5	3344466.0	408366.5	3344536.0	408369.1	3344511.0	408367.8	3344523.0	
637	408419.8	3344506.0	408424.0	3344464.0	408416.6	3344538.0	408419.3	3344510.0	408418.0	3344523.0	
638	408470.2	3344504.0	408473.2	3344474.0	408467.2	3344535.0	408469.6	3344511.0	408468.2	3344524.0	
639	408520.6	3344503.0	408523.0	3344479.0	408517.8	3344530.0	408519.7	3344512.0	408518.2	3344527.0	
640	408570.9	3344502.0	408572.9	3344482.0	408568.1	3344530.0	408569.8	3344514.0	408567.9	3344532.0	
641	408621.1	3344503.0	408622.5	3344489.0	408618.6	3344528.0	408619.7	3344516.0	408617.9	3344535.0	
642	408671.2	3344504.0	408672.1	3344495.0	408668.8	3344528.0	408669.4	3344522.0	408668.0	3344536.0	
643	408721.5	3344503.0	408722.7	3344491.0	408718.6	3344532.0	408719.8	3344521.0	408717.9	3344539.0	
644	408771.8	3344503.0	408773.5	3344486.0	408768.9	3344532.0	408769.7	3344524.0	408767.9	3344543.0	
645	408822.1	3344503.0	408824.4	3344479.0	408819.2	3344532.0	408819.7	3344526.0	408817.9	3344544.0	
646	408872.6	3344500.0	408875.0	3344476.0	408869.2	3344534.0	408869.6	3344530.0	408868.2	3344545.0	
647	408922.9	3344499.0	408924.8	3344480.0	408919.8	3344530.0	408919.6	3344533.0	408918.3	3344546.0	
648	408972.9	3344502.0	408974.8	3344482.0	408970.4	3344527.0	408969.8	3344532.0	408968.4	3344547.0	
649	409022.9	3344505.0	409023.9	3344494.0	409020.8	3344526.0	409019.8	3344536.0	409018.5	3344548.0	
650	409072.9	3344507.0	409073.3	3344503.0	409070.9	3344527.0	409070.0	3344536.0	409068.4	3344552.0	
651	409123.3	3344505.0	409123.1	3344507.0	409121.1	3344527.0	409120.2	3344536.0	409118.3	3344556.0	
652	409174.0	3344501.0	409173.7	3344504.0	409170.9	3344532.0	409170.7	3344534.0	409168.4	3344556.0	
653	409224.8	3344495.0	409224.7	3344496.0	409220.7	3344537.0	409221.1	3344532.0	409218.9	3344554.0	
654	409275.3	3344492.0	409275.4	3344491.0	409270.7	3344539.0	409271.2	3344533.0	409269.2	3344554.0	
655	409325.6	3344492.0	409326.0	3344488.0	409320.7	3344541.0	409321.9	3344529.0	409319.3	3344555.0	
656	409375.5	3344495.0	409376.3	3344488.0	409370.6	3344545.0	409372.0	3344531.0	409369.7	3344554.0	
657	409425.5	3344498.0	409426.9	3344484.0	409420.8	3344545.0	409422.2	3344531.0	409419.9	3344554.0	
658	409475.7	3344498.0	409477.6	3344480.0	409471.0	3344546.0	409472.4	3344532.0	409469.8	3344558.0	
659	409525.8	3344499.0	409527.7	3344480.0	409521.1	3344547.0	409522.4	3344533.0	409520.1	3344557.0	
660	409575.9	3344502.0	409577.8	3344483.0	409571.4	3344547.0	409572.5	3344536.0	409570.6	3344554.0	
661	409625.8	3344505.0	409628.2	3344481.0	409621.3	3344549.0	409622.3	3344540.0	409621.0	3344553.0	
662	409676.0	3344505.0	409677.9	3344486.0	409671.5	3344551.0	409672.6	3344539.0	409671.2	3344554.0	
663	409726.5	3344503.0	409727.4	3344494.0	409721.7	3344551.0	409722.7	3344541.0	409721.4	3344554.0	
664	409776.7	3344503.0	409777.5	3344495.0	409771.3	3344557.0	409772.5	3344545.0	409771.5	3344555.0	
665	409826.6	3344507.0	409827.3	3344499.0	409821.5	3344558.0	409822.7	3344546.0	409821.7	3344556.0	
666	409876.1	3344514.0	409878.7	3344488.0	409871.9	3344557.0	409872.9	3344546.0	409872.0	3344556.0	
667	409926.2	3344516.0	409930.1	3344476.0	409922.1	3344557.0	409923.1	3344547.0	409922.3	3344555.0	
668	409976.5	3344515.0	409981.5	3344465.0	409972.4	3344556.0	409973.3	3344547.0	409972.3	3344557.0	
669	410027.0	3344513.0	410032.5	3344457.0	410022.0	3344563.0	410023.7	3344546.0	410022.2	3344561.0	
670	410077.4	3344511.0	410082.8	3344457.0	410072.1	3344564.0	410074.1	3344544.0	410072.1	3344564.0	
671	410127.7	3344511.0	410132.5	3344462.0	410122.5	3344563.0	410124.3	3344545.0	410122.3	3344565.0	
672	410177.7	3344513.0	410182.3	3344467.0	410172.8	3344562.0	410174.5	3344545.0	410172.8	3344562.0	
673	410227.7	3344516.0	410232.1	3344471.0	410223.3	3344560.0	410224.9	3344543.0	410223.1	3344561.0	
674	410277.8	3344517.0	410282.0	3344474.0	410273.3	3344562.0	410275.1	3344544.0	410273.5	3344560.0	
675	410328.6	3344512.0	410332.4	3344473.0	410323.6	3344561.0	410325.3	3344545.0	410324.4	3344554.0	
676	410379.2	3344507.0	410381.7	3344482.0	410373.9	3344561.0	410375.5	3344545.0	410374.7	3344553.0	
677	410429.8	3344504.0	410431.8	3344484.0	410424.6	3344557.0	410425.8	3344545.0	410425.0	3344552.0	
678	410480.3	3344502.0	410482.1	3344484.0	410474.5	3344560.0	410476.3	3344542.0	410475.1	3344554.0	
679	410530.3	3344504.0	410531.9	3344487.0	410524.4	3344563.0	410526.8	3344539.0	410525.1	3344556.0	
680	410580.3	3344507.0	410582.0	3344489.0	410575.1	3344559.0	410577.5	3344534.0	410575.4	3344556.0	
681	410630.6	3344506.0	410632.2	3344490.0	410625.0	3344562.0	410627.7	3344535.0	410625.6	3344556.0	
682	410681.2	3344502.0	410682.6	3344489.0	410675.2	3344562.0	410677.6	3344539.0	410675.7	3344557.0	

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
683	0.2	-0.7	-0.3	-0.4	-4.6	-1.3	-1.1	1.0	0.1	-0.8
684	0.1	-0.7	-0.4	-0.5	-4.3	-1.3	-1.1	0.7	0.0	-0.7
685	0.1	-0.7	-0.4	-0.5	-4.2	-1.4	-1.1	0.5	0.0	-0.6
686	0.0	-0.8	-0.5	-0.5	-4.1	-1.4	-1.1	0.5	0.0	-0.5
687	0.0	-0.9	-0.5	-0.5	-4.5	-1.5	-1.1	0.6	0.0	-0.5
688	0.0	-0.8	-0.6	-0.6	-4.3	-1.5	-1.1	0.4	0.0	-0.5
689	-0.1	-0.8	-0.6	-0.5	-3.9	-1.4	-1.0	0.3	0.0	-0.3
690	-0.2	-0.9	-0.6	-0.5	-4.0	-1.4	-1.0	0.4	0.1	-0.2
691	-0.2	-0.9	-0.6	-0.5	-3.9	-1.3	-0.9	0.4	0.1	-0.2
692	-0.1	-0.9	-0.6	-0.5	-4.4	-1.5	-1.0	0.4	0.2	-0.1
693	0.0	-0.9	-0.6	-0.5	-4.8	-1.7	-1.1	0.4	0.1	-0.2
694	0.0	-0.9	-0.6	-0.5	-4.9	-1.6	-1.1	0.6	0.1	-0.3
695	0.0	-1.0	-0.6	-0.6	-5.1	-1.6	-1.1	0.8	0.2	-0.3
696	-0.1	-1.1	-0.6	-0.6	-5.3	-1.5	-1.2	1.0	0.2	-0.6
697	0.0	-1.1	-0.6	-0.6	-5.7	-1.7	-1.3	1.1	0.3	-0.6
698	0.2	-1.1	-0.6	-0.6	-6.5	-1.9	-1.5	1.3	0.3	-0.7
699	0.2	-1.0	-0.5	-0.6	-6.3	-1.9	-1.4	1.1	0.2	-0.7
700	0.3	-1.0	-0.5	-0.5	-7.0	-1.9	-1.5	1.5	0.4	-0.7
701	0.4	-1.0	-0.5	-0.5	-7.3	-2.0	-1.5	1.7	0.4	-0.8
702	0.3	-1.1	-0.5	-0.5	-7.0	-1.9	-1.5	1.6	0.4	-0.7
703	0.1	-1.1	-0.5	-0.5	-6.3	-1.6	-1.2	1.7	0.5	-0.7
704	0.0	-1.2	-0.5	-0.6	-6.1	-1.5	-1.2	1.7	0.4	-0.9
705	-0.1	-1.2	-0.7	-0.7	-5.9	-1.6	-1.2	1.3	0.3	-0.6
706	-0.3	-1.3	-0.7	-0.7	-5.6	-1.4	-1.2	1.4	0.3	-0.7
707	-0.3	-1.3	-0.7	-0.7	-5.5	-1.3	-1.1	1.6	0.4	-0.8
708	-0.3	-1.2	-0.6	-0.7	-5.5	-1.3	-1.1	1.6	0.4	-0.8
709	-0.2	-1.2	-0.6	-0.7	-5.6	-1.4	-1.3	1.5	0.2	-1.1
710	0.0	-1.2	-0.6	-0.7	-6.3	-1.7	-1.4	1.5	0.2	-1.0
711	0.1	-1.1	-0.6	-0.6	-6.4	-1.8	-1.4	1.3	0.3	-0.7
712	0.1	-1.1	-0.6	-0.6	-6.5	-1.8	-1.3	1.4	0.4	-0.5
713	0.2	-1.1	-0.6	-0.6	-6.4	-1.8	-1.4	1.3	0.4	-0.5
714	0.2	-1.0	-0.6	-0.6	-6.1	-1.9	-1.4	1.0	0.2	-0.6
715	0.2	-1.0	-0.6	-0.6	-5.8	-1.9	-1.4	0.8	0.2	-0.5
716	0.1	-0.9	-0.6	-0.5	-5.4	-1.7	-1.2	0.8	0.2	-0.5
717	0.1	-0.9	-0.5	-0.5	-5.5	-1.7	-1.3	0.8	0.2	-0.4
718	0.2	-1.0	-0.5	-0.5	-5.9	-1.8	-1.3	1.0	0.3	-0.3
719	0.1	-0.9	-0.5	-0.5	-5.4	-1.7	-1.1	0.9	0.3	-0.2
720	0.3	-0.9	-0.5	-0.5	-5.9	-1.9	-1.3	0.8	0.2	-0.4
721	0.6	-0.8	-0.4	-0.5	-6.7	-2.2	-1.6	0.8	0.1	-0.6
722	0.6	-0.8	-0.4	-0.5	-6.8	-2.2	-1.7	0.9	0.1	-0.7
723	0.5	-0.8	-0.4	-0.5	-6.4	-2.0	-1.5	1.0	0.1	-0.7
724	0.5	-0.8	-0.4	-0.4	-6.4	-2.0	-1.5	1.0	0.2	-0.6
725	0.7	-0.7	-0.4	-0.4	-6.8	-2.2	-1.6	1.0	0.3	-0.5
726	0.6	-0.7	-0.3	-0.4	-6.7	-2.0	-1.5	1.2	0.3	-0.7
727	0.4	-0.8	-0.3	-0.4	-5.9	-1.6	-1.3	1.3	0.3	-0.8
728	0.2	-0.8	-0.4	-0.4	-5.1	-1.4	-1.1	1.2	0.3	-0.6
729	0.1	-0.8	-0.4	-0.5	-4.8	-1.3	-1.1	1.1	0.2	-0.7
730	0.0	-0.8	-0.4	-0.5	-4.6	-1.2	-1.1	1.1	0.1	-1.0
731	-0.1	-0.9	-0.4	-0.5	-4.2	-1.1	-1.1	1.1	0.0	-1.0
732	-0.2	-0.9	-0.5	-0.6	-4.0	-1.2	-1.0	0.8	0.0	-0.7
733	0.0	-0.9	-0.5	-0.5	-4.5	-1.3	-1.1	0.8	0.1	-0.6
734	0.1	-0.9	-0.5	-0.5	-4.9	-1.5	-1.2	0.8	0.1	-0.6
735	0.0	-0.9	-0.5	-0.5	-4.9	-1.4	-1.1	1.0	0.2	-0.5
736	-0.1	-0.9	-0.6	-0.5	-4.6	-1.4	-1.0	0.8	0.2	-0.4
737	-0.2	-1.0	-0.6	-0.6	-4.4	-1.3	-1.0	0.8	0.2	-0.3
738	-0.1	-1.0	-0.7	-0.6	-5.1	-1.7	-1.1	0.7	0.2	-0.2
739	0.0	-1.1	-0.7	-0.6	-5.7	-2.0	-1.3	0.6	0.2	-0.1
740	0.0	-1.1	-0.7	-0.6	-5.5	-1.9	-1.2	0.6	0.3	0.0
741	0.0	-1.0	-0.7	-0.5	-5.3	-1.8	-1.1	0.5	0.3	0.1
742	0.0	-1.0	-0.7	-0.5	-5.4	-2.0	-1.1	0.4	0.3	0.3
743	0.0	-0.9	-0.7	-0.5	-5.0	-1.8	-1.1	0.4	0.2	0.0
744	-0.1	-0.9	-0.6	-0.6	-4.4	-1.6	-1.1	0.4	0.1	-0.2
745	-0.1	-0.9	-0.6	-0.6	-4.3	-1.5	-1.0	0.3	0.1	-0.2
746	-0.1	-0.9	-0.7	-0.6	-4.7	-1.7	-1.1	0.3	0.1	-0.1
747	-0.1	-0.9	-0.6	-0.5	-4.5	-1.6	-1.0	0.4	0.2	0.0
748	0.0	-0.9	-0.6	-0.5	-4.6	-1.5	-1.0	0.7	0.3	-0.1
749	0.0	-0.9	-0.6	-0.5	-5.1	-1.7	-1.1	0.6	0.3	0.0
750	0.1	-0.9	-0.6	-0.5	-5.2	-1.8	-1.1	0.5	0.3	0.0
751	0.1	-0.9	-0.6	-0.5	-5.4	-1.8	-1.1	0.7	0.3	0.0
752	0.1	-0.9	-0.5	-0.5	-5.3	-1.7	-1.1	0.7	0.3	-0.1
753	0.2	-0.9	-0.5	-0.4	-5.4	-1.8	-1.2	0.6	0.3	0.0
754	0.2	-0.8	-0.6	-0.5	-5.4	-1.9	-1.2	0.5	0.3	0.0
755	0.2	-0.8	-0.5	-0.5	-5.4	-1.8	-1.2	0.6	0.2	-0.3
756	0.2	-0.9	-0.5	-0.5	-5.3	-1.6	-1.2	0.9	0.2	-0.6
757	0.2	-0.9	-0.5	-0.5	-5.3	-1.6	-1.3	0.9	0.1	-0.7
758	0.2	-0.9	-0.5	-0.5	-5.3	-1.5	-1.2	1.0	0.2	-0.6

					High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
Transect #		1847/67			1917/18		1934		1957		1978/82
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
683	410731.8	3344498.0	410732.8	3344489.0	410726.0	3344558.0	410727.6	3344541.0	410725.9	3344558.0	
684	410782.5	3344494.0	410783.2	3344487.0	410776.6	3344553.0	410777.9	3344541.0	410776.5	3344554.0	
685	410833.4	3344488.0	410833.5	3344486.0	410827.0	3344552.0	410828.1	3344541.0	410826.9	3344553.0	
686	410884.1	3344483.0	410884.0	3344484.0	410876.9	3344555.0	410878.3	3344542.0	410877.2	3344553.0	
687	410934.7	3344480.0	410934.5	3344482.0	410927.7	3344550.0	410928.7	3344540.0	410927.4	3344552.0	
688	410985.1	3344478.0	410984.5	3344484.0	410978.3	3344546.0	410979.0	3344540.0	410978.3	3344547.0	
689	411035.8	3344474.0	411034.7	3344485.0	411028.4	3344548.0	411029.3	3344538.0	411028.8	3344544.0	
690	411086.3	3344471.0	411085.0	3344483.0	411078.9	3344546.0	411079.9	3344535.0	411079.3	3344541.0	
691	411136.7	3344469.0	411136.3	3344473.0	411129.4	3344543.0	411130.4	3344533.0	411130.2	3344535.0	
692	411187.5	3344464.0	411187.8	3344461.0	411180.2	3344537.0	411181.2	3344527.0	411180.7	3344532.0	
693	411238.2	3344459.0	411238.4	3344457.0	411230.7	3344535.0	411232.0	3344521.0	411231.3	3344529.0	
694	411289.1	3344453.0	411288.9	3344454.0	411280.8	3344536.0	411282.6	3344518.0	411281.8	3344526.0	
695	411340.0	3344446.0	411339.4	3344452.0	411331.0	3344536.0	411333.4	3344513.0	411332.0	3344526.0	
696	411390.4	3344444.0	411390.4	3344444.0	411381.3	3344536.0	411383.9	3344510.0	411382.5	3344524.0	
697	411440.6	3344445.0	411441.9	3344431.0	411431.6	3344535.0	411434.5	3344506.0	411432.9	3344522.0	
698	411490.7	3344446.0	411492.3	3344430.0	411482.4	3344530.0	411485.0	3344503.0	411483.4	3344520.0	
699	411541.2	3344444.0	411543.4	3344421.0	411532.4	3344532.0	411535.9	3344497.0	411534.3	3344513.0	
700	411591.6	3344442.0	411594.4	3344414.0	411582.9	3344530.0	411586.7	3344491.0	411584.8	3344511.0	
701	411642.0	3344441.0	411644.2	3344418.0	411633.1	3344530.0	411636.8	3344493.0	411635.1	3344510.0	
702	411692.7	3344436.0	411693.5	3344428.0	411683.6	3344528.0	411687.4	3344489.0	411685.8	3344505.0	
703	411743.6	3344429.0	411743.5	3344431.0	411733.9	3344527.0	411737.7	3344488.0	411735.8	3344508.0	
704	411794.5	3344423.0	411793.6	3344432.0	411784.3	3344526.0	411787.3	3344495.0	411785.9	3344510.0	
705	411845.3	3344418.0	411843.4	3344436.0	411834.6	3344525.0	411837.8	3344492.0	411836.3	3344509.0	
706	411895.8	3344414.0	411893.7	3344436.0	411885.0	3344524.0	411888.6	3344487.0	411886.8	3344505.0	
707	411946.0	3344415.0	411944.2	3344434.0	411935.5	3344521.0	411939.2	3344483.0	411937.3	3344503.0	
708	411996.5	3344413.0	411995.3	3344424.0	411986.6	3344513.0	411990.1	3344477.0	411987.5	3344503.0	
709	412047.0	3344410.0	412047.1	3344409.0	412037.1	3344510.0	412040.5	3344476.0	412038.2	3344499.0	
710	412097.7	3344406.0	412098.2	3344401.0	412088.1	3344502.0	412091.0	3344473.0	412089.5	3344488.0	
711	412147.8	3344406.0	412148.8	3344397.0	412138.5	3344501.0	412141.6	3344469.0	412140.5	3344481.0	
712	412198.3	3344405.0	412199.4	3344393.0	412189.3	3344494.0	412192.3	3344465.0	412191.0	3344477.0	
713	412248.9	3344401.0	412250.1	3344389.0	412240.5	3344486.0	412242.7	3344463.0	412241.3	3344478.0	
714	412299.4	3344398.0	412300.6	3344387.0	412291.3	3344480.0	412293.2	3344461.0	412292.0	3344472.0	
715	412349.8	3344397.0	412350.4	3344390.0	412341.9	3344476.0	412343.8	3344457.0	412342.8	3344468.0	
716	412400.1	3344396.0	412401.1	3344386.0	412392.4	3344474.0	412394.3	3344455.0	412393.3	3344465.0	
717	412450.6	3344394.0	412451.7	3344383.0	412442.4	3344476.0	412444.7	3344453.0	412443.9	3344461.0	
718	412500.8	3344394.0	412501.6	3344387.0	412493.0	3344473.0	412495.0	3344452.0	412494.5	3344457.0	
719	412550.8	3344396.0	412552.9	3344375.0	412543.7	3344468.0	412545.6	3344449.0	412544.7	3344458.0	
720	412601.1	3344396.0	412605.0	3344357.0	412594.4	3344464.0	412596.3	3344444.0	412594.8	3344459.0	
721	412651.6	3344393.0	412655.8	3344352.0	412645.0	3344459.0	412647.1	3344438.0	412645.5	3344455.0	
722	412702.0	3344391.0	412705.7	3344355.0	412695.6	3344457.0	412697.8	3344435.0	412696.1	3344451.0	
723	412752.4	3344391.0	412756.1	3344353.0	412746.0	3344455.0	412748.2	3344432.0	412746.9	3344446.0	
724	412802.7	3344390.0	412807.3	3344343.0	412796.5	3344452.0	412798.8	3344429.0	412797.7	3344440.0	
725	412853.3	3344387.0	412857.6	3344343.0	412847.0	3344450.0	412849.8	3344421.0	412848.3	3344437.0	
726	412904.1	3344381.0	412906.9	3344352.0	412897.6	3344446.0	412900.5	3344417.0	412898.7	3344435.0	
727	412954.9	3344375.0	412956.4	3344360.0	412948.3	3344441.0	412951.0	3344414.0	412949.6	3344429.0	
728	413005.8	3344368.0	413006.4	3344363.0	412998.9	3344438.0	413001.5	3344412.0	412999.8	3344428.0	
729	413056.6	3344363.0	413056.9	3344360.0	413049.7	3344432.0	413052.3	3344406.0	413050.1	3344429.0	
730	413107.3	3344358.0	413106.8	3344364.0	413100.2	3344430.0	413102.6	3344406.0	413100.2	3344430.0	
731	413158.0	3344354.0	413156.9	3344365.0	413150.6	3344428.0	413152.3	3344411.0	413150.7	3344427.0	
732	413208.3	3344354.0	413208.0	3344356.0	413200.8	3344428.0	413202.8	3344409.0	413201.3	3344424.0	
733	413258.6	3344353.0	413259.1	3344348.0	413251.3	3344426.0	413253.2	3344407.0	413251.9	3344420.0	
734	413309.1	3344350.0	413309.1	3344350.0	413301.4	3344428.0	413303.6	3344405.0	413302.5	3344417.0	
735	413359.8	3344345.0	413359.4	3344349.0	413352.1	3344423.0	413353.9	3344405.0	413353.0	3344414.0	
736	413410.7	3344339.0	413409.5	3344351.0	413402.5	3344422.0	413404.3	3344404.0	413403.5	3344412.0	
737	413461.6	3344332.0	413460.9	3344339.0	413452.8	3344421.0	413454.5	3344404.0	413453.9	3344410.0	
738	413512.3	3344328.0	413512.4	3344327.0	413503.3	3344418.0	413504.7	3344404.0	413504.4	3344407.0	
739	413562.7	3344326.0	413562.5	3344328.0	413553.7	3344417.0	413555.0	3344403.0	413555.0	3344403.0	
740	413612.9	3344326.0	413612.7	3344329.0	413604.3	3344414.0	413605.5	3344401.0	413605.8	3344398.0	
741	413663.0	3344328.0	413663.4	3344324.0	413654.8	3344411.0	413655.7	3344402.0	413656.3	3344396.0	
742	413713.3	3344328.0	413713.2	3344329.0	413705.3	3344408.0	413706.1	3344400.0	413706.2	3344399.0	
743	413763.6	3344327.0	413762.8	3344335.0	413755.9	3344404.0	413756.8	3344396.0	413756.3	3344400.0	
744	413814.1	3344324.0	413813.2	3344334.0	413806.4	3344402.0	413807.2	3344394.0	413806.7	3344399.0	
745	413864.7	3344321.0	413864.2	3344326.0	413856.8	3344401.0	413857.5	3344393.0	413857.2	3344396.0	
746	413914.8	3344323.0	413914.1	3344330.0	413906.9	3344401.0	413907.9	3344392.0	413908.0	3344391.0	
747	413965.0	3344323.0	413964.7	3344326.0	413957.4	3344400.0	413959.0	3344384.0	413958.6	3344387.0	
748	414015.7	3344318.0	414016.0	3344315.0	414007.9	3344397.0	414009.2	3344384.0	414009.2	3344384.0	
749	414066.1	3344317.0	414066.8	3344309.0	414058.6	3344392.0	414059.9	3344379.0	414059.8	3344380.0	
750	414116.5	3344315.0	414117.4	3344306.0	414108.9	3344392.0	414110.4	3344376.0	414110.4	3344377.0	
751	414166.9	3344314.0	414167.8	3344304.0	414159.5	3344388.0	414161.2	3344371.0	414161.0	3344373.0	
752	414217.3	3344313.0	414218.6	3344299.0	414210.1	3344385.0	414211.5	3344371.0	414211.5	3344371.0	
753	414267.7	3344310.0	414269.1	3344297.0	414260.6	3344382.0	414261.8	3344370.0	414261.8	3344370.0	
754	414318.2	3344308.0	414319.6	3344294.0	414311.1	3344379.0	414312.5	3344365.0	414311.9	3344371.0	
755	414368.7	3344305.0	414369.9	3344294.0	414361.4	3344379.0	414363.5	3344357.0	414362.2	3344371.0	
756	414419.3	3344302.0	414420.4	3344290.0	414412.0	3344375.0	414414.1	3344354.0	414412.5	3344370.0	
757	414469.7	3344301.0	414470.8	3344289.0	414462.4	3344374.0	414464.8	3344349.0	414463.3	3344364.0	
758	414520.1	3344299.0	414521.5	3344285.0	414513.1	3344370.0	414515.3	3344347.0	414514.1	3344359.0	

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
759	0.2	-0.8	-0.4	-0.5	-5.3	-1.6	-1.2	1.0	0.2	-0.5
760	0.2	-0.8	-0.4	-0.4	-5.2	-1.5	-1.1	0.9	0.3	-0.4
761	0.2	-0.8	-0.4	-0.4	-5.1	-1.5	-1.1	1.0	0.3	-0.4
762	0.2	-0.8	-0.4	-0.4	-4.8	-1.4	-1.0	0.9	0.4	-0.2
763	0.1	-0.7	-0.4	-0.3	-4.4	-1.4	-0.8	0.7	0.4	0.1
764	0.0	-0.7	-0.4	-0.3	-3.8	-1.0	-0.6	0.9	0.5	0.1
765	0.1	-0.6	-0.4	-0.3	-3.6	-1.1	-0.6	0.6	0.4	0.2
766	0.1	-0.6	-0.3	-0.2	-3.8	-1.2	-0.6	0.6	0.5	0.4
767	0.2	-0.6	-0.3	-0.2	-4.0	-1.1	-0.6	0.8	0.6	0.3
768	0.2	-0.5	-0.3	-0.2	-3.6	-1.1	-0.7	0.5	0.3	0.2
769	0.2	-0.5	-0.3	-0.3	-3.6	-1.3	-0.8	0.3	0.2	0.0
770	0.3	-0.4	-0.3	-0.3	-3.7	-1.5	-0.9	0.1	0.0	-0.1
771	0.4	-0.5	-0.3	-0.3	-4.3	-1.5	-1.1	0.3	0.0	-0.3
772	0.6	-0.5	-0.3	-0.3	-5.1	-1.8	-1.3	0.4	0.0	-0.5
773	0.8	-0.4	-0.2	-0.3	-5.5	-1.9	-1.4	0.6	0.0	-0.6
774	0.8	-0.4	-0.2	-0.2	-5.3	-1.7	-1.2	0.7	0.2	-0.3
775	0.7	-0.3	-0.1	-0.1	-5.0	-1.5	-1.0	0.9	0.4	-0.2
776	0.9	-0.3	-0.1	-0.1	-5.3	-1.7	-1.1	0.7	0.3	-0.1
777	1.1	-0.3	-0.1	-0.1	-6.0	-2.1	-1.3	0.6	0.3	0.0
778	1.1	-0.3	-0.1	-0.1	-6.0	-2.1	-1.3	0.5	0.4	0.2
779	0.9	-0.2	-0.1	0.0	-5.1	-1.9	-1.1	0.4	0.3	0.3
780	0.7	-0.2	-0.1	0.0	-4.1	-1.5	-0.8	0.2	0.4	0.6
781	0.7	-0.3	-0.1	0.0	-4.3	-1.5	-0.7	0.3	0.5	0.6
782	0.7	-0.3	-0.1	0.0	-4.4	-1.5	-0.7	0.5	0.5	0.6
783	0.6	-0.2	-0.1	0.0	-3.7	-1.3	-0.7	0.3	0.3	0.3
784	0.8	-0.1	0.0	0.0	-4.0	-1.4	-0.8	0.3	0.3	0.3
785	0.8	-0.1	0.0	0.0	-4.2	-1.6	-0.9	0.2	0.3	0.3
786	0.8	-0.1	0.0	0.0	-4.2	-1.4	-0.8	0.5	0.4	0.3
787	0.7	-0.1	0.0	0.1	-3.6	-1.2	-0.7	0.5	0.3	0.2
788	0.8	-0.1	0.0	0.0	-3.6	-1.2	-0.8	0.4	0.2	0.0
789	0.7	-0.1	0.1	0.0	-3.6	-1.1	-0.8	0.7	0.2	-0.2
790	0.8	-0.1	0.1	0.0	-3.8	-1.1	-0.8	0.7	0.2	-0.3
791	0.7	-0.1	0.0	0.0	-3.7	-1.2	-0.8	0.5	0.2	-0.1
792	0.5	-0.1	0.0	0.0	-2.7	-0.9	-0.6	0.3	0.1	-0.1
793	0.6	-0.1	0.0	0.0	-3.2	-1.1	-0.7	0.4	0.2	-0.1
794	0.6	-0.2	0.0	-0.1	-4.0	-1.2	-0.8	0.7	0.3	-0.1
795	0.7	-0.2	0.0	0.0	-4.1	-1.3	-0.8	0.7	0.3	-0.1
796	0.7	-0.2	-0.1	0.0	-4.0	-1.4	-0.8	0.5	0.3	0.1
797	0.6	-0.2	-0.1	0.0	-3.9	-1.4	-0.8	0.3	0.3	0.3
798	0.6	-0.2	-0.1	0.0	-4.1	-1.5	-0.8	0.3	0.4	0.4
799	0.6	-0.3	-0.1	0.0	-3.8	-1.2	-0.6	0.6	0.4	0.2
800	0.6	-0.3	0.0	0.0	-3.8	-1.1	-0.6	0.8	0.5	0.2
801	0.6	-0.3	0.0	0.0	-4.1	-1.2	-0.6	0.8	0.6	0.4
802	0.6	-0.3	0.0	0.0	-4.2	-1.1	-0.6	0.9	0.6	0.3
803	0.7	-0.3	0.0	0.0	-4.5	-1.2	-0.7	1.1	0.6	0.1
804	0.7	-0.3	0.0	0.0	-4.8	-1.2	-0.7	1.3	0.7	0.0
805	0.7	-0.3	0.0	0.0	-5.0	-1.3	-0.9	1.2	0.5	-0.1
806	0.7	-0.4	0.0	0.0	-5.1	-1.3	-0.9	1.2	0.6	-0.1
807	0.7	-0.4	0.0	0.0	-4.9	-1.4	-0.8	1.1	0.7	0.3
808	0.7	-0.4	-0.1	0.0	-5.0	-1.5	-0.8	0.9	0.6	0.4
809	0.7	-0.4	-0.1	0.0	-5.1	-1.5	-0.8	0.9	0.6	0.3
810	0.7	-0.4	-0.1	0.0	-5.0	-1.5	-0.9	0.9	0.5	0.2
811	0.8	-0.4	-0.1	-0.1	-5.6	-1.7	-1.0	0.9	0.5	0.2
812	1.0	-0.4	-0.1	-0.1	-6.4	-2.1	-1.3	0.9	0.5	0.1
813	1.3	-0.4	-0.1	-0.1	-7.5	-2.5	-1.5	0.9	0.5	0.2
814	1.2	-0.3	-0.1	0.0	-6.9	-2.4	-1.4	0.7	0.5	0.3
815	1.1	-0.3	-0.1	0.0	-6.5	-2.3	-1.3	0.5	0.4	0.3
816	1.1	-0.4	-0.1	-0.1	-7.0	-2.3	-1.4	0.9	0.5	0.1
817	1.1	-0.5	-0.2	-0.1	-7.1	-2.3	-1.4	1.0	0.5	0.0
818	1.1	-0.4	-0.1	-0.1	-6.6	-2.2	-1.4	0.8	0.4	0.0
819	1.0	-0.3	-0.1	-0.1	-6.2	-2.1	-1.3	0.7	0.4	0.1
820	1.0	-0.3	-0.1	-0.1	-6.2	-2.1	-1.3	0.7	0.4	0.2
821	0.9	-0.3	-0.2	-0.1	-5.5	-2.1	-1.2	0.2	0.4	0.5
822	0.9	-0.3	-0.2	-0.1	-5.4	-2.2	-1.1	0.0	0.3	0.7
823	0.9	-0.2	-0.2	0.0	-5.2	-2.2	-1.1	-0.1	0.4	0.8
824	0.9	-0.2	-0.1	0.0	-4.8	-1.9	-1.0	0.1	0.4	0.6
825	1.1	-0.2	-0.1	0.0	-5.7	-2.2	-1.2	0.2	0.3	0.4
826	1.2	-0.1	-0.1	0.0	-6.0	-2.4	-1.3	0.0	0.3	0.5
827	1.2	-0.1	-0.1	0.0	-5.6	-2.4	-1.3	-0.3	0.2	0.6
828	1.1	-0.1	-0.2	0.0	-5.6	-2.4	-1.3	-0.2	0.1	0.5
829	1.1	-0.2	-0.2	-0.1	-5.6	-2.4	-1.4	-0.2	0.0	0.3
830	1.1	-0.1	-0.2	-0.1	-5.7	-2.5	-1.6	-0.4	-0.2	0.1
831	1.2	-0.2	-0.2	-0.2	-6.1	-2.6	-1.7	-0.2	-0.2	-0.2
832	1.2	-0.2	-0.1	-0.2	-6.1	-2.5	-1.7	0.0	-0.2	-0.4
833	1.3	-0.2	-0.1	-0.2	-7.0	-2.7	-1.9	0.2	-0.1	-0.5
834	1.3	-0.2	-0.2	-0.2	-6.9	-2.8	-1.9	0.0	-0.2	-0.4

					High-Water Shoreline Position (UTM Zone 16, NAD 1983)					
Transect #		1847/67		1917/18		1934		1957		1978/82
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
759	414570.6	3344296.0	414571.9	3344283.0	414563.7	3344366.0	414565.9	3344344.0	414564.9	3344354.0
760	414620.9	3344295.0	414622.3	3344281.0	414614.3	3344362.0	414616.5	3344340.0	414615.6	3344349.0
761	414671.3	3344294.0	414672.6	3344281.0	414665.0	3344358.0	414667.1	3344336.0	414666.7	3344340.0
762	414721.9	3344290.0	414722.9	3344281.0	414716.0	3344350.0	414717.6	3344334.0	414717.9	3344331.0
763	414772.6	3344286.0	414772.8	3344284.0	414766.8	3344344.0	414768.8	3344324.0	414769.0	3344322.0
764	414823.2	3344283.0	414823.8	3344276.0	414818.1	3344334.0	414819.4	3344321.0	414819.8	3344317.0
765	414873.6	3344281.0	414874.6	3344271.0	414868.5	3344332.0	414870.0	3344317.0	414870.8	3344308.0
766	414924.0	3344279.0	414925.4	3344265.0	414919.1	3344329.0	414921.0	3344309.0	414921.8	3344301.0
767	414974.5	3344277.0	414975.8	3344263.0	414970.2	3344320.0	414971.4	3344308.0	414971.8	3344304.0
768	415024.9	3344275.0	415026.6	3344258.0	415020.8	3344316.0	415021.5	3344309.0	415021.6	3344308.0
769	415075.3	3344274.0	415077.5	3344251.0	415071.6	3344311.0	415071.8	3344309.0	415071.7	3344310.0
770	415125.7	3344272.0	415128.6	3344243.0	415121.9	3344311.0	415122.6	3344303.0	415121.8	3344311.0
771	415176.2	3344270.0	415180.4	3344227.0	415172.4	3344308.0	415173.3	3344299.0	415172.2	3344310.0
772	415226.4	3344270.0	415231.7	3344217.0	415222.9	3344305.0	415224.2	3344292.0	415222.8	3344306.0
773	415276.6	3344271.0	415281.7	3344219.0	415273.3	3344303.0	415274.9	3344287.0	415274.3	3344294.0
774	415326.7	3344272.0	415331.7	3344221.0	415323.9	3344300.0	415325.8	3344280.0	415325.5	3344284.0
775	415377.1	3344270.0	415383.3	3344208.0	415374.9	3344293.0	415376.5	3344276.0	415376.4	3344278.0
776	415427.9	3344264.0	415435.2	3344192.0	415425.7	3344287.0	415427.1	3344273.0	415427.2	3344272.0
777	415478.7	3344259.0	415485.9	3344187.0	415476.4	3344283.0	415477.5	3344271.0	415478.0	3344266.0
778	415529.4	3344255.0	415535.6	3344192.0	415527.5	3344273.0	415528.4	3344265.0	415529.1	3344257.0
779	415580.0	3344251.0	415584.7	3344204.0	415578.2	3344269.0	415578.7	3344264.0	415580.0	3344251.0
780	415630.6	3344248.0	415635.2	3344201.0	415628.4	3344269.0	415629.3	3344261.0	415630.7	3344247.0
781	415681.1	3344245.0	415685.8	3344197.0	415678.9	3344267.0	415679.9	3344257.0	415681.2	3344244.0
782	415731.5	3344243.0	415735.8	3344200.0	415730.0	3344259.0	415730.7	3344251.0	415731.4	3344244.0
783	415781.7	3344244.0	415786.8	3344192.0	415780.6	3344255.0	415781.3	3344248.0	415782.0	3344241.0
784	415832.1	3344242.0	415837.8	3344184.0	415831.3	3344251.0	415831.8	3344245.0	415832.6	3344238.0
785	415882.5	3344240.0	415887.8	3344187.0	415881.3	3344253.0	415882.4	3344242.0	415883.2	3344234.0
786	415932.9	3344239.0	415937.7	3344191.0	415932.0	3344248.0	415933.1	3344237.0	415933.6	3344233.0
787	415983.1	3344240.0	415988.2	3344188.0	415982.5	3344246.0	415983.4	3344236.0	415983.5	3344236.0
788	416033.4	3344239.0	416038.4	3344188.0	416032.8	3344246.0	416034.3	3344230.0	416033.8	3344235.0
789	416083.8	3344237.0	416089.1	3344184.0	416083.2	3344244.0	416084.7	3344229.0	416084.0	3344235.0
790	416134.3	3344234.0	416139.3	3344185.0	416133.4	3344244.0	416134.6	3344232.0	416134.3	3344235.0
791	416184.8	3344232.0	416188.4	3344196.0	416184.0	3344240.0	416184.8	3344232.0	416184.7	3344234.0
792	416235.3	3344230.0	416239.2	3344191.0	416234.1	3344241.0	416235.1	3344232.0	416234.9	3344234.0
793	416285.8	3344227.0	416290.0	3344185.0	416283.7	3344248.0	416285.4	3344231.0	416285.1	3344234.0
794	416336.1	3344227.0	416340.7	3344180.0	416334.2	3344246.0	416335.8	3344230.0	416335.5	3344233.0
795	416386.5	3344225.0	416391.1	3344179.0	416384.7	3344243.0	416385.8	3344232.0	416386.0	3344230.0
796	416437.1	3344222.0	416441.3	3344179.0	416435.1	3344242.0	416435.8	3344234.0	416436.6	3344227.0
797	416487.5	3344220.0	416491.8	3344176.0	416485.5	3344241.0	416486.1	3344234.0	416487.1	3344224.0
798	416537.9	3344219.0	416541.7	3344180.0	416535.8	3344240.0	416537.2	3344226.0	416537.8	3344220.0
799	416588.3	3344217.0	416592.2	3344178.0	416586.2	3344239.0	416588.0	3344220.0	416588.4	3344215.0
800	416638.8	3344214.0	416643.1	3344171.0	416636.6	3344236.0	416638.4	3344218.0	416639.3	3344209.0
801	416689.3	3344212.0	416693.6	3344169.0	416687.0	3344235.0	416689.2	3344213.0	416689.7	3344207.0
802	416739.7	3344210.0	416744.3	3344164.0	416737.3	3344235.0	416739.8	3344209.0	416739.9	3344208.0
803	416790.2	3344208.0	416794.9	3344160.0	416787.3	3344237.0	416790.4	3344206.0	416790.4	3344206.0
804	416840.7	3344205.0	416845.8	3344154.0	416837.8	3344234.0	416840.7	3344205.0	416840.3	3344209.0
805	416891.3	3344202.0	416896.4	3344151.0	416888.3	3344232.0	416891.1	3344203.0	416890.9	3344205.0
806	416941.9	3344198.0	416946.8	3344149.0	416938.9	3344228.0	416941.4	3344203.0	416942.0	3344197.0
807	416992.5	3344195.0	416997.4	3344145.0	416989.5	3344224.0	416991.5	3344204.0	416992.5	3344194.0
808	417043.1	3344191.0	417048.0	3344141.0	417040.1	3344222.0	417042.2	3344200.0	417042.8	3344194.0
809	417093.7	3344187.0	417098.6	3344138.0	417090.7	3344218.0	417092.8	3344197.0	417093.2	3344193.0
810	417144.2	3344185.0	417149.8	3344128.0	417141.0	3344217.0	417143.1	3344196.0	417143.5	3344192.0
811	417194.7	3344183.0	417201.5	3344113.0	417191.4	3344215.0	417193.5	3344194.0	417193.8	3344192.0
812	417245.1	3344181.0	417253.8	3344093.0	417242.0	3344212.0	417244.1	3344191.0	417244.4	3344187.0
813	417295.6	3344178.0	417303.8	3344096.0	417292.8	3344206.0	417294.6	3344189.0	417295.2	3344183.0
814	417346.3	3344173.0	417354.1	3344095.0	417343.8	3344199.0	417345.1	3344186.0	417345.8	3344178.0
815	417397.3	3344166.0	417404.7	3344091.0	417393.7	3344202.0	417395.7	3344182.0	417395.9	3344180.0
816	417447.5	3344166.0	417454.9	3344091.0	417443.7	3344205.0	417445.9	3344182.0	417446.0	3344181.0
817	417497.8	3344166.0	417504.9	3344094.0	417494.4	3344200.0	417496.3	3344181.0	417496.4	3344180.0
818	417548.0	3344166.0	417554.9	3344097.0	417545.2	3344195.0	417546.7	3344179.0	417546.9	3344178.0
819	417598.4	3344165.0	417605.3	3344095.0	417595.5	3344194.0	417597.0	3344179.0	417597.4	3344175.0
820	417648.7	3344164.0	417655.2	3344099.0	417646.4	3344187.0	417646.9	3344183.0	417648.0	3344171.0
821	417699.1	3344163.0	417705.3	3344100.0	417696.8	3344185.0	417696.9	3344185.0	417698.4	3344170.0
822	417749.2	3344164.0	417755.7	3344099.0	417747.4	3344182.0	417747.3	3344184.0	417749.1	3344165.0
823	417799.4	3344164.0	417805.5	3344103.0	417797.8	3344180.0	417798.1	3344177.0	417799.5	3344163.0
824	417849.6	3344165.0	417857.3	3344087.0	417848.2	3344179.0	417848.8	3344173.0	417849.8	3344163.0
825	417900.0	3344163.0	417908.3	3344080.0	417898.9	3344175.0	417898.9	3344174.0	417900.1	3344163.0
826	417950.5	3344161.0	417958.5	3344081.0	417949.6	3344170.0	417949.0	3344176.0	417950.4	3344162.0
827	418001.0	3344159.0	418008.6	3344082.0	417999.8	3344170.0	417999.3	3344175.0	418000.4	3344165.0
828	418051.5	3344156.0	418059.0	3344080.0	418050.1	3344170.0	418049.6	3344175.0	418050.3	3344168.0
829	418102.0	3344153.0	418109.8	3344074.0	418100.9	3344164.0	418099.9	3344174.0	418100.2	3344172.0
830	418152.5	3344150.0	418160.8	3344067.0	418151.1	3344165.0	418150.8	3344168.0	418150.3	3344173.0
831	418202.9	3344149.0	418211.2	3344065.0	418201.5	3344163.0	418201.4	3344164.0	418200.5	3344174.0
832	418253.4	3344147.0	418262.4	3344056.0	418251.4	3344166.0	418251.8	3344162.0	418250.8	3344173.0
833	418304.1	3344142.0	418313.0	3344053.0	418302.1	3344163.0	418302.2	3344162.0	418301.3	3344171.0
834	418354.8	3344138.0	418363.2	3344053.0	418353.1	3344154.0	418352.5	3344161.0	418351.8	3344167.0

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
835	1.2	-0.2	-0.2	-0.2	-6.4	-2.8	-1.8	-0.3	-0.3	-0.3
836	1.3	-0.2	-0.2	-0.2	-6.7	-2.8	-1.9	-0.1	-0.2	-0.3
837	1.3	-0.3	-0.2	-0.2	-7.1	-2.7	-1.8	0.3	0.0	-0.4
838	1.2	-0.3	-0.2	-0.2	-6.6	-2.5	-1.7	0.3	0.0	-0.3
839	1.2	-0.2	-0.1	-0.2	-6.3	-2.4	-1.6	0.3	-0.1	-0.4
840	1.1	-0.3	-0.2	-0.2	-6.1	-2.4	-1.6	0.2	0.0	-0.2
841	1.1	-0.3	-0.1	-0.2	-6.6	-2.4	-1.6	0.5	0.1	-0.4
842	1.3	-0.3	-0.2	-0.2	-7.2	-2.7	-1.8	0.4	0.1	-0.2
843	1.4	-0.3	-0.1	-0.1	-7.9	-2.9	-1.9	0.6	0.2	-0.2
844	1.3	-0.4	-0.2	-0.2	-7.6	-2.7	-1.7	0.7	0.3	-0.1
845	1.2	-0.4	-0.2	-0.2	-7.3	-2.7	-1.8	0.5	0.1	-0.3
846	1.2	-0.5	-0.3	-0.3	-7.5	-2.8	-1.9	0.4	0.0	-0.4
847	1.2	-0.4	-0.3	-0.3	-7.6	-3.0	-2.0	0.2	0.0	-0.2
848	1.1	-0.6	-0.3	-0.3	-7.5	-2.7	-1.8	0.6	0.2	-0.2
849	0.8	-0.6	-0.3	-0.3	-6.6	-2.3	-1.6	0.7	0.2	-0.3
850	0.8	-0.5	-0.3	-0.3	-6.0	-2.2	-1.6	0.3	-0.1	-0.5
851	0.8	-0.4	-0.3	-0.4	-5.7	-2.2	-1.6	0.2	-0.2	-0.6
852	0.8	-0.5	-0.3	-0.3	-6.0	-2.1	-1.5	0.5	0.0	-0.5
853	0.9	-0.5	-0.3	-0.3	-6.3	-2.2	-1.6	0.6	0.1	-0.5
854	0.8	-0.5	-0.2	-0.3	-6.1	-2.1	-1.5	0.5	0.0	-0.5
855	0.8	-0.5	-0.2	-0.3	-6.0	-2.1	-1.5	0.6	0.1	-0.5
856	0.9	-0.5	-0.2	-0.3	-6.1	-2.2	-1.6	0.5	0.0	-0.5
857	0.9	-0.5	-0.2	-0.3	-6.4	-2.3	-1.6	0.5	0.1	-0.4
858	1.0	-0.4	-0.2	-0.2	-6.5	-2.4	-1.6	0.4	0.1	-0.1
859	1.1	-0.4	-0.2	-0.2	-6.6	-2.5	-1.6	0.4	0.1	-0.2
860	1.0	-0.4	-0.2	-0.2	-6.1	-2.3	-1.5	0.4	0.0	-0.3
861	1.0	-0.3	-0.2	-0.2	-6.0	-2.3	-1.5	0.2	0.0	-0.2
862	1.0	-0.3	-0.3	-0.2	-5.9	-2.4	-1.4	-0.1	0.1	0.2
863	0.9	-0.3	-0.3	-0.2	-5.6	-2.4	-1.4	-0.3	0.1	0.4
864	0.9	-0.3	-0.2	-0.2	-5.3	-2.3	-1.4	-0.2	-0.1	0.0
865	1.0	-0.2	-0.2	-0.2	-5.5	-2.3	-1.5	-0.1	-0.1	-0.1
866	1.1	-0.2	-0.2	-0.2	-5.6	-2.3	-1.6	-0.1	-0.2	-0.4
867	1.1	-0.2	-0.1	-0.2	-5.9	-2.3	-1.7	0.2	-0.3	-0.7
868	1.0	-0.3	-0.2	-0.3	-5.8	-2.2	-1.7	0.2	-0.3	-0.8
869	0.9	-0.4	-0.2	-0.3	-6.0	-2.2	-1.6	0.4	-0.1	-0.7
870	0.9	-0.4	-0.2	-0.3	-6.0	-2.2	-1.7	0.4	-0.2	-0.8
871	1.0	-0.4	-0.2	-0.3	-6.3	-2.3	-1.8	0.5	-0.2	-0.9
872	1.0	-0.4	-0.2	-0.3	-6.7	-2.3	-1.9	0.7	-0.2	-1.1
873	1.2	-0.3	-0.1	-0.3	-7.0	-2.5	-2.0	0.7	-0.2	-1.1
874	1.4	-0.3	-0.1	-0.3	-7.6	-2.8	-2.1	0.5	-0.3	-1.0
875	1.4	-0.3	-0.1	-0.3	-7.8	-2.9	-2.2	0.5	-0.3	-1.0
876	1.3	-0.3	-0.2	-0.3	-7.5	-2.8	-2.1	0.4	-0.2	-0.8
877	1.2	-0.3	-0.2	-0.3	-6.9	-2.7	-2.0	0.2	-0.3	-0.8
878	1.3	-0.3	-0.2	-0.3	-7.2	-2.7	-2.0	0.3	-0.3	-0.9
879	1.2	-0.3	-0.2	-0.3	-6.9	-2.7	-2.0	0.2	-0.3	-0.9
880	1.1	-0.3	-0.2	-0.3	-6.3	-2.4	-1.8	0.2	-0.3	-0.9
881	1.0	-0.3	-0.1	-0.3	-5.8	-2.2	-1.7	0.3	-0.3	-1.0
882	1.1	-0.2	-0.1	-0.3	-5.8	-2.3	-1.8	0.1	-0.4	-0.9
883	1.1	-0.3	-0.2	-0.3	-6.1	-2.3	-1.7	0.2	-0.2	-0.7
884	1.0	-0.3	-0.2	-0.3	-5.9	-2.2	-1.6	0.3	-0.1	-0.6
885	0.8	-0.4	-0.2	-0.3	-5.5	-2.1	-1.4	0.2	0.0	-0.3
886	0.8	-0.4	-0.2	-0.3	-5.3	-2.0	-1.4	0.2	-0.1	-0.3
887	0.9	-0.4	-0.2	-0.2	-5.8	-2.3	-1.5	0.2	-0.1	-0.3
888	1.0	-0.3	-0.2	-0.2	-6.1	-2.5	-1.6	0.0	-0.1	-0.2
889	1.1	-0.3	-0.2	-0.2	-6.1	-2.4	-1.7	0.1	-0.2	-0.4
890	1.2	-0.2	-0.1	-0.2	-6.4	-2.4	-1.7	0.3	-0.2	-0.6
891	1.1	-0.2	-0.1	-0.2	-6.0	-2.2	-1.7	0.4	-0.2	-0.8
892	1.0	-0.3	-0.1	-0.3	-6.1	-2.1	-1.7	0.7	-0.2	-1.1
893	1.0	-0.3	-0.1	-0.3	-6.3	-2.2	-1.8	0.6	-0.2	-1.0
894	1.0	-0.4	-0.2	-0.3	-6.5	-2.4	-1.8	0.5	-0.2	-0.8
895	1.0	-0.4	-0.2	-0.3	-6.6	-2.4	-1.8	0.5	-0.1	-0.8
896	1.0	-0.4	-0.2	-0.3	-6.8	-2.5	-1.8	0.5	-0.1	-0.7
897	1.0	-0.5	-0.2	-0.3	-6.9	-2.5	-1.8	0.6	0.0	-0.6
898	1.1	-0.5	-0.2	-0.3	-7.2	-2.4	-1.7	0.8	0.1	-0.5
899	1.2	-0.4	-0.1	-0.2	-7.3	-2.4	-1.8	0.9	0.1	-0.6
900	1.3	-0.4	-0.1	-0.2	-7.6	-2.5	-1.8	1.0	0.1	-0.8
901	1.3	-0.4	-0.1	-0.2	-7.9	-2.5	-1.9	1.1	0.1	-0.9
902	1.3	-0.4	-0.1	-0.2	-8.0	-2.6	-1.9	1.1	0.1	-0.9
903	1.3	-0.4	-0.1	-0.2	-7.6	-2.5	-2.0	1.0	0.0	-1.0
904	1.4	-0.3	-0.1	-0.2	-7.6	-2.7	-2.0	0.6	-0.1	-0.8
905	1.4	-0.3	-0.1	-0.2	-7.7	-2.7	-2.0	0.7	-0.1	-0.9
906	1.4	-0.3	-0.1	-0.2	-7.6	-2.6	-2.0	0.9	0.0	-0.9
907	1.4	-0.3	-0.1	-0.2	-7.9	-2.6	-2.1	1.0	0.0	-1.1
908	1.5	-0.4	-0.1	-0.3	-8.6	-3.0	-2.2	0.8	0.0	-0.8
909	1.5	-0.4	-0.2	-0.3	-8.4	-3.2	-2.2	0.3	-0.1	-0.5
910	1.5	-0.4	-0.2	-0.3	-8.4	-3.2	-2.2	0.3	-0.2	-0.6

				High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
Transect #		1847/67		1917/18		1934		1957		1978/82
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
835	418405.3	3344135.0	418413.9	3344048.0	418403.3	3344155.0	418403.1	3344157.0	418402.4	3344164.0
836	418455.5	3344135.0	418464.3	3344047.0	418453.1	3344159.0	418453.9	3344152.0	418453.0	3344160.0
837	418506.0	3344133.0	418514.2	3344051.0	418503.7	3344156.0	418504.3	3344150.0	418503.6	3344157.0
838	418556.5	3344131.0	418564.3	3344051.0	418554.4	3344152.0	418555.0	3344145.0	418554.1	3344154.0
839	418607.0	3344128.0	418614.4	3344053.0	418604.8	3344150.0	418605.3	3344145.0	418604.7	3344151.0
840	418657.5	3344125.0	418665.1	3344048.0	418654.7	3344154.0	418655.9	3344141.0	418654.9	3344151.0
841	418707.9	3344123.0	418716.6	3344036.0	418705.3	3344150.0	418706.1	3344142.0	418705.6	3344147.0
842	418758.1	3344124.0	418767.8	3344027.0	418755.2	3344153.0	418756.6	3344139.0	418756.2	3344143.0
843	418808.8	3344119.0	418817.4	3344032.0	418805.4	3344154.0	418807.0	3344138.0	418806.7	3344141.0
844	418859.6	3344114.0	418867.5	3344034.0	418855.9	3344151.0	418857.2	3344138.0	418856.6	3344144.0
845	418910.3	3344109.0	418918.2	3344030.0	418906.4	3344148.0	418907.3	3344139.0	418906.4	3344148.0
846	418960.9	3344106.0	418969.3	3344022.0	418957.2	3344143.0	418957.7	3344138.0	418957.1	3344144.0
847	419011.5	3344102.0	419018.7	3344029.0	419006.8	3344149.0	419008.1	3344136.0	419007.7	3344141.0
848	419062.1	3344098.0	419067.8	3344041.0	419057.3	3344147.0	419058.9	3344131.0	419058.1	3344139.0
849	419112.7	3344095.0	419118.3	3344039.0	419108.8	3344134.0	419109.6	3344127.0	419108.3	3344139.0
850	419163.3	3344092.0	419168.5	3344039.0	419159.5	3344129.0	419160.0	3344125.0	419158.6	3344138.0
851	419213.7	3344090.0	419219.0	3344037.0	419209.5	3344132.0	419210.6	3344121.0	419209.4	3344133.0
852	419264.0	3344090.0	419269.8	3344030.0	419259.8	3344131.0	419261.2	3344117.0	419260.1	3344128.0
853	419314.1	3344091.0	419319.8	3344033.0	419310.3	3344130.0	419311.5	3344117.0	419310.4	3344128.0
854	419364.5	3344089.0	419369.9	3344035.0	419360.4	3344130.0	419361.9	3344116.0	419360.8	3344127.0
855	419414.9	3344088.0	419420.7	3344029.0	419411.0	3344127.0	419412.3	3344114.0	419411.1	3344126.0
856	419465.3	3344086.0	419471.5	3344024.0	419461.5	3344125.0	419462.7	3344113.0	419461.8	3344122.0
857	419515.5	3344087.0	419522.4	3344017.0	419512.1	3344121.0	419512.9	3344112.0	419512.7	3344115.0
858	419565.6	3344088.0	419572.9	3344014.0	419562.5	3344120.0	419563.3	3344111.0	419562.9	3344116.0
859	419615.8	3344088.0	419622.6	3344020.0	419612.8	3344118.0	419613.7	3344110.0	419613.0	3344117.0
860	419666.1	3344088.0	419672.7	3344022.0	419663.2	3344117.0	419663.8	3344112.0	419663.3	3344116.0
861	419716.2	3344090.0	419722.8	3344023.0	419713.5	3344117.0	419713.3	3344118.0	419713.8	3344113.0
862	419766.2	3344092.0	419772.4	3344029.0	419763.6	3344118.0	419763.0	3344124.0	419763.9	3344115.0
863	419815.9	3344097.0	419822.3	3344033.0	419813.8	3344118.0	419813.3	3344123.0	419813.3	3344123.0
864	419865.7	3344102.0	419872.5	3344033.0	419863.9	3344120.0	419863.6	3344123.0	419863.3	3344126.0
865	419915.7	3344105.0	419922.8	3344032.0	419914.0	3344121.0	419913.8	3344123.0	419912.9	3344132.0
866	419966.0	3344104.0	419973.5	3344029.0	419964.1	3344123.0	419964.4	3344120.0	419962.8	3344136.0
867	420016.4	3344102.0	420023.4	3344031.0	420014.3	3344124.0	420014.7	3344119.0	420012.9	3344137.0
868	420066.8	3344101.0	420073.1	3344037.0	420063.7	3344132.0	420064.6	3344122.0	420063.0	3344139.0
869	420116.9	3344102.0	420123.2	3344039.0	420113.7	3344134.0	420114.7	3344124.0	420112.9	3344143.0
870	420167.0	3344103.0	420173.5	3344038.0	420163.6	3344138.0	420164.7	3344127.0	420162.6	3344148.0
871	420216.8	3344108.0	420223.9	3344036.0	420213.3	3344143.0	420215.0	3344127.0	420212.5	3344152.0
872	420266.2	3344117.0	420274.7	3344031.0	420263.6	3344143.0	420265.1	3344128.0	420262.5	3344154.0
873	420316.0	3344121.0	420325.7	3344024.0	420313.7	3344145.0	420314.9	3344133.0	420312.4	3344157.0
874	420366.1	3344122.0	420376.0	3344023.0	420363.7	3344147.0	420364.8	3344135.0	420362.4	3344160.0
875	420416.3	3344122.0	420425.3	3344033.0	420413.5	3344152.0	420414.3	3344143.0	420412.4	3344162.0
876	420466.6	3344123.0	420474.9	3344039.0	420464.0	3344148.0	420464.5	3344144.0	420462.6	3344163.0
877	420516.7	3344124.0	420525.5	3344036.0	420514.1	3344150.0	420514.8	3344143.0	420512.8	3344163.0
878	420566.9	3344124.0	420575.4	3344039.0	420564.6	3344148.0	420564.9	3344144.0	420563.0	3344164.0
879	420617.1	3344125.0	420624.6	3344050.0	420614.6	3344150.0	420615.1	3344145.0	420613.1	3344165.0
880	420667.1	3344128.0	420673.9	3344059.0	420664.8	3344151.0	420665.5	3344144.0	420663.3	3344166.0
881	420716.8	3344133.0	420724.2	3344058.0	420715.0	3344151.0	420715.3	3344148.0	420713.3	3344168.0
882	420766.9	3344134.0	420774.2	3344061.0	420764.5	3344158.0	420765.1	3344152.0	420763.6	3344168.0
883	420817.1	3344135.0	420823.7	3344068.0	420814.4	3344162.0	420815.1	3344155.0	420813.8	3344168.0
884	420867.3	3344135.0	420872.9	3344079.0	420864.2	3344166.0	420864.8	3344161.0	420864.0	3344168.0
885	420917.4	3344137.0	420922.7	3344083.0	420914.3	3344168.0	420914.8	3344163.0	420914.0	3344171.0
886	420967.2	3344141.0	420973.4	3344079.0	420964.3	3344171.0	420964.6	3344167.0	420964.0	3344173.0
887	421017.0	3344145.0	421024.0	3344075.0	421014.4	3344172.0	421014.4	3344172.0	421014.0	3344176.0
888	421066.7	3344151.0	421074.1	3344077.0	421064.4	3344174.0	421064.6	3344172.0	421063.7	3344181.0
889	421116.1	3344159.0	421124.3	3344078.0	421114.2	3344179.0	421114.8	3344173.0	421113.5	3344186.0
890	421165.9	3344164.0	421173.4	3344089.0	421163.9	3344184.0	421164.9	3344174.0	421163.0	3344194.0
891	421216.1	3344165.0	421223.1	3344094.0	421213.4	3344192.0	421215.0	3344176.0	421212.5	3344201.0
892	421266.1	3344167.0	421273.3	3344095.0	421263.3	3344196.0	421264.6	3344182.0	421262.3	3344206.0
893	421316.2	3344169.0	421323.2	3344098.0	421313.0	3344201.0	421314.0	3344191.0	421312.2	3344209.0
894	421366.3	3344170.0	421373.3	3344100.0	421362.8	3344205.0	421363.9	3344194.0	421362.2	3344212.0
895	421416.3	3344172.0	421423.4	3344101.0	421412.7	3344209.0	421413.8	3344197.0	421412.1	3344215.0
896	421466.3	3344176.0	421473.3	3344105.0	421462.3	3344215.0	421463.7	3344202.0	421462.3	3344216.0
897	421515.8	3344182.0	421523.1	3344109.0	421511.8	3344223.0	421513.6	3344205.0	421512.4	3344216.0
898	421565.2	3344191.0	421573.2	3344110.0	421561.7	3344226.0	421563.7	3344206.0	421562.3	3344220.0
899	421614.8	3344198.0	421623.3	3344111.0	421611.4	3344232.0	421613.8	3344208.0	421611.9	3344227.0
900	421664.5	3344203.0	421673.5	3344112.0	421661.0	3344238.0	421663.7	3344212.0	421661.6	3344233.0
901	421714.3	3344208.0	421723.2	3344118.0	421710.5	3344246.0	421713.2	3344219.0	421711.2	3344239.0
902	421764.0	3344213.0	421773.0	3344123.0	421760.9	3344244.0	421763.1	3344222.0	421760.8	3344245.0
903	421813.6	3344220.0	421822.8	3344127.0	421810.8	3344247.0	421812.3	3344233.0	421810.4	3344251.0
904	421862.9	3344229.0	421872.7	3344130.0	421860.5	3344253.0	421862.2	3344237.0	421860.2	3344257.0
905	421912.6	3344235.0	421922.1	3344139.0	421910.1	3344260.0	421912.0	3344240.0	421909.9	3344262.0
906	421962.3	3344240.0	421972.0	3344142.0	421959.5	3344268.0	421961.8	3344245.0	421959.3	3344270.0
907	422012.1	3344245.0	422022.2	3344143.0	422008.6	3344280.0	422010.5	3344260.0	422008.7	3344279.0
908	422061.7	3344251.0	422071.8	3344149.0	422058.6	3344283.0	422059.3	3344275.0	422058.1	3344287.0
909	422111.3	3344258.0	422121.4	3344156.0	422108.2	3344289.0	422108.9	3344282.0	422107.5	3344296.0
910	422160.7	3344266.0	422170.8	3344165.0	422158.1	3344292.0	422159.3	3344280.0	422157.1	3344303.0

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to 1917/18 (m/yr)	1847/67 to 1934 (m/yr)	1847/67 to 1957 (m/yr)	1847/67 to 1978/82 (m/yr)	1917/18 to 1934 (m/yr)	1917/18 to 1957 (m/yr)	1917/18 to 1978/82 (m/yr)	1934 to 1957 (m/yr)	1934 to 1978/82 (m/yr)	1957 to 1978/82 (m/yr)
911	1.5	-0.3	-0.1	-0.3	-8.0	-2.9	-2.2	0.5	-0.2	-1.0
912	1.4	-0.3	-0.1	-0.3	-7.4	-2.7	-2.0	0.5	-0.2	-1.0
913	1.2	-0.3	-0.1	-0.2	-6.8	-2.5	-1.8	0.4	-0.2	-0.7
914	1.2	-0.2	-0.1	-0.2	-6.2	-2.3	-1.7	0.3	-0.1	-0.5
915	1.1	-0.2	-0.1	-0.1	-5.6	-2.1	-1.4	0.3	0.0	-0.3
916	0.9	-0.2	-0.1	-0.1	-5.1	-1.9	-1.3	0.3	0.1	-0.2
917	0.8	-0.2	-0.1	-0.1	-4.8	-1.9	-1.1	0.1	0.2	0.3
918	0.7	-0.2	-0.2	-0.1	-4.2	-1.7	-0.9	0.0	0.2	0.4
919	0.6	-0.2	-0.2	-0.1	-3.9	-1.6	-0.9	0.0	0.1	0.2
920	0.5	-0.3	-0.2	-0.2	-3.7	-1.4	-0.9	0.2	0.1	0.0
921	0.3	-0.4	-0.2	-0.2	-3.1	-1.0	-0.8	0.4	0.0	-0.4
922	0.1	-0.3	-0.2	-0.3	-2.0	-0.8	-0.7	0.1	-0.2	-0.5
923	0.1	-0.3	-0.2	-0.3	-2.2	-0.7	-0.7	0.3	-0.2	-0.7
924	0.1	-0.4	-0.3	-0.3	-2.5	-0.9	-0.8	0.2	-0.2	-0.7
925	0.2	-0.3	-0.3	-0.4	-2.3	-1.1	-1.0	-0.2	-0.5	-0.7
926	0.2	-0.3	-0.3	-0.4	-2.1	-1.1	-1.1	-0.5	-0.7	-1.0
927	0.4	-0.3	-0.2	-0.4	-3.0	-1.3	-1.3	-0.2	-0.7	-1.2
928	0.4	-0.3	-0.2	-0.4	-3.4	-1.5	-1.4	-0.1	-0.7	-1.2
929	0.4	-0.3	-0.3	-0.4	-3.4	-1.4	-1.3	-0.1	-0.6	-1.2
930	0.4	-0.4	-0.2	-0.4	-3.9	-1.4	-1.4	0.3	-0.6	-1.4
931	0.5	-0.4	-0.2	-0.4	-4.4	-1.5	-1.5	0.5	-0.5	-1.6
932	0.6	-0.4	-0.2	-0.5	-4.8	-1.6	-1.6	0.7	-0.5	-1.6
933	0.7	-0.5	-0.2	-0.4	-5.5	-1.9	-1.7	0.6	-0.4	-1.4
934	0.6	-0.5	-0.2	-0.4	-4.8	-1.4	-1.5	0.9	-0.4	-1.7
935	0.5	-0.5	-0.2	-0.4	-4.9	-1.4	-1.5	0.9	-0.3	-1.6
936	0.4	-0.6	-0.3	-0.4	-4.9	-1.4	-1.4	0.9	-0.2	-1.3
937	0.3	-0.6	-0.3	-0.4	-4.3	-1.4	-1.3	0.7	-0.2	-1.1
938	0.2	-0.5	-0.3	-0.4	-3.8	-1.3	-1.2	0.4	-0.3	-1.0
939	0.3	-0.6	-0.3	-0.4	-4.2	-1.3	-1.3	0.7	-0.2	-1.2
940	0.6	-0.6	-0.3	-0.4	-5.4	-1.7	-1.5	0.8	-0.1	-1.0
941	0.8	-0.6	-0.3	-0.4	-6.4	-2.2	-1.6	0.6	0.0	-0.7
942	0.8	-0.5	-0.2	-0.3	-6.3	-2.1	-1.5	0.9	0.1	-0.6
943	0.7	-0.5	-0.2	-0.3	-5.7	-1.8	-1.3	0.8	0.2	-0.5
944	0.6	-0.5	-0.2	-0.2	-5.2	-1.8	-1.2	0.5	0.1	-0.3
945	0.8	-0.5	-0.2	-0.2	-5.7	-2.0	-1.3	0.6	0.2	-0.2
946	1.0	-0.4	-0.2	-0.2	-6.3	-2.3	-1.6	0.5	0.0	-0.4
947	1.1	-0.3	-0.2	-0.2	-6.6	-2.3	-1.7	0.6	0.0	-0.5
948	1.2	-0.3	-0.1	-0.2	-6.9	-2.3	-1.7	0.8	0.0	-0.8
949	1.2	-0.3	-0.1	-0.2	-6.9	-2.5	-1.7	0.6	0.1	-0.3
950	1.2	-0.4	-0.1	-0.2	-7.3	-2.6	-1.7	0.7	0.2	-0.2
951	1.3	-0.4	-0.1	-0.1	-7.5	-2.6	-1.7	0.8	0.3	-0.2
952	1.4	-0.3	-0.1	-0.1	-7.6	-2.6	-1.7	0.8	0.3	-0.1
953	1.4	-0.3	-0.1	0.0	-7.5	-2.6	-1.6	0.7	0.4	0.1
954	1.4	-0.3	-0.1	0.0	-7.4	-2.7	-1.5	0.6	0.5	0.4
955	1.3	-0.3	0.0	0.0	-7.0	-2.3	-1.4	0.8	0.5	0.1
956	1.2	-0.3	0.0	0.0	-6.6	-2.2	-1.3	0.8	0.5	0.2
957	1.1	-0.2	-0.1	0.0	-6.0	-2.1	-1.2	0.5	0.4	0.4
958	1.1	-0.2	0.0	0.0	-5.5	-2.0	-1.1	0.4	0.4	0.5
959	1.1	-0.1	0.0	0.1	-5.5	-1.9	-1.1	0.6	0.4	0.2
960	1.1	0.0	0.0	0.1	-4.9	-1.8	-1.1	0.4	0.2	0.1
961	1.1	0.0	0.1	0.1	-4.5	-1.7	-1.1	0.3	0.1	0.0
962	1.1	0.0	0.1	0.1	-4.6	-1.7	-1.0	0.3	0.2	0.0
963	1.1	0.0	0.1	0.0	-4.7	-1.6	-1.1	0.5	0.1	-0.3
964	1.0	0.0	0.0	0.0	-4.3	-1.8	-1.1	-0.1	0.0	0.1
965	1.0	0.0	-0.1	-0.1	-4.3	-2.0	-1.2	-0.3	-0.1	0.2
966	1.0	-0.1	-0.1	-0.1	-4.8	-1.9	-1.2	0.0	0.0	-0.1
967	1.1	-0.1	0.0	0.0	-5.4	-2.0	-1.3	0.2	0.0	-0.2
968	1.1	-0.1	0.0	0.0	-5.2	-1.9	-1.3	0.3	0.1	-0.2
969	1.1	-0.2	-0.1	-0.1	-5.5	-2.1	-1.3	0.2	0.1	0.0
970	0.9	-0.2	-0.1	-0.1	-4.8	-1.9	-1.3	0.2	0.0	-0.2
971	1.1	-0.1	0.0	-0.1	-5.1	-1.9	-1.4	0.3	-0.1	-0.5
972	1.1	-0.1	0.1	-0.1	-5.2	-1.8	-1.4	0.6	-0.1	-0.8
973	1.0	-0.1	0.1	-0.1	-4.8	-1.6	-1.4	0.6	-0.2	-0.9
974	1.0	-0.1	0.1	-0.1	-5.0	-1.6	-1.4	0.7	-0.1	-1.0
975	1.1	-0.1	0.1	-0.1	-5.4	-1.7	-1.5	0.8	-0.1	-1.1
976	1.1	-0.2	0.1	-0.1	-5.5	-1.7	-1.5	0.9	-0.1	-1.1
977	1.0	-0.2	0.1	-0.1	-5.3	-1.5	-1.4	1.2	0.0	-1.2
978	0.9	-0.2	0.1	-0.1	-5.2	-1.4	-1.2	1.2	0.1	-1.0
979	0.9	-0.2	0.1	-0.1	-4.7	-1.3	-1.1	1.0	0.1	-0.8
980	0.8	-0.1	0.0	-0.1	-4.1	-1.4	-1.0	0.5	0.0	-0.5
981	0.7	-0.1	0.0	-0.1	-3.7	-1.3	-1.0	0.3	0.0	-0.4
982	0.7	-0.2	-0.1	-0.1	-3.7	-1.3	-0.9	0.4	0.1	-0.2
983	0.5	-0.2	-0.1	-0.1	-3.2	-1.2	-0.7	0.2	0.2	0.1
984	0.6	-0.2	-0.1	0.0	-3.8	-1.3	-0.8	0.5	0.3	0.1
985	0.7	-0.2	-0.1	0.0	-4.4	-1.5	-0.9	0.4	0.4	0.3
986	0.9	-0.3	-0.2	0.0	-5.3	-2.0	-1.0	0.3	0.4	0.6

				High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
Transect #		1847/67		1917/18		1934		1957		1978/82
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
911	422210.5	3344270.0	422219.8	3344178.0	422208.1	3344295.0	422209.3	3344282.0	422207.1	3344305.0
912	422260.3	3344276.0	422268.8	3344190.0	422258.0	3344298.0	422259.0	3344288.0	422257.3	3344305.0
913	422309.9	3344281.0	422317.9	3344201.0	422308.0	3344301.0	422308.8	3344293.0	422307.6	3344304.0
914	422359.7	3344286.0	422366.9	3344214.0	422358.0	3344303.0	422358.7	3344296.0	422358.0	3344304.0
915	422409.6	3344289.0	422416.0	3344225.0	422408.0	3344306.0	422408.6	3344299.0	422408.2	3344303.0
916	422459.5	3344293.0	422465.2	3344236.0	422457.6	3344312.0	422457.9	3344309.0	422458.5	3344303.0
917	422509.3	3344297.0	422514.3	3344248.0	422507.6	3344314.0	422507.6	3344314.0	422508.6	3344305.0
918	422559.1	3344302.0	422563.4	3344258.0	422557.2	3344321.0	422557.3	3344320.0	422557.7	3344316.0
919	422608.9	3344306.0	422612.2	3344273.0	422606.3	3344332.0	422606.7	3344329.0	422606.7	3344328.0
920	422658.8	3344310.0	422660.8	3344290.0	422655.9	3344340.0	422656.8	3344330.0	422655.8	3344340.0
921	422708.7	3344314.0	422709.5	3344306.0	422706.3	3344338.0	422706.5	3344336.0	422705.4	3344347.0
922	422758.5	3344318.0	422759.1	3344312.0	422755.6	3344347.0	422756.3	3344340.0	422754.8	3344356.0
923	422808.3	3344322.0	422809.1	3344315.0	422805.1	3344355.0	422805.6	3344350.0	422804.0	3344365.0
924	422857.8	3344330.0	422858.9	3344319.0	422855.3	3344356.0	422854.7	3344361.0	422853.0	3344378.0
925	422907.4	3344337.0	422908.5	3344325.0	422905.3	3344358.0	422904.2	3344369.0	422902.0	3344391.0
926	422956.3	3344350.0	422958.8	3344324.0	422954.1	3344372.0	422953.8	3344375.0	422951.1	3344403.0
927	423005.6	3344360.0	423008.6	3344329.0	423003.3	3344383.0	423002.9	3344386.0	423000.1	3344415.0
928	423055.3	3344365.0	423057.9	3344338.0	423052.6	3344392.0	423052.4	3344394.0	423049.6	3344422.0
929	423105.0	3344370.0	423108.0	3344340.0	423101.8	3344402.0	423102.5	3344396.0	423099.2	3344429.0
930	423154.6	3344377.0	423158.3	3344340.0	423151.4	3344410.0	423152.5	3344399.0	423148.8	3344435.0
931	423204.3	3344382.0	423208.3	3344343.0	423200.6	3344420.0	423202.2	3344404.0	423198.5	3344441.0
932	423253.8	3344391.0	423258.5	3344343.0	423249.8	3344430.0	423251.2	3344417.0	423248.1	3344448.0
933	423303.4	3344397.0	423307.1	3344359.0	423299.5	3344436.0	423301.7	3344414.0	423297.7	3344454.0
934	423353.0	3344403.0	423356.5	3344368.0	423348.8	3344445.0	423351.0	3344423.0	423347.3	3344460.0
935	423402.7	3344409.0	423405.6	3344380.0	423397.8	3344458.0	423400.0	3344436.0	423397.0	3344466.0
936	423452.4	3344414.0	423454.5	3344393.0	423447.7	3344462.0	423449.2	3344446.0	423446.7	3344472.0
937	423502.1	3344420.0	423503.7	3344404.0	423497.7	3344464.0	423498.7	3344454.0	423496.3	3344478.0
938	423551.8	3344425.0	423553.8	3344405.0	423547.2	3344472.0	423548.9	3344454.0	423546.0	3344483.0
939	423601.3	3344433.0	423605.1	3344395.0	423596.5	3344481.0	423598.3	3344463.0	423595.9	3344487.0
940	423650.6	3344442.0	423655.9	3344388.0	423645.9	3344490.0	423647.4	3344475.0	423645.8	3344490.0
941	423699.7	3344454.0	423705.1	3344399.0	423695.1	3344500.0	423697.1	3344480.0	423695.6	3344495.0
942	423748.9	3344464.0	423753.7	3344416.0	423744.7	3344507.0	423746.5	3344488.0	423745.4	3344500.0
943	423798.0	3344475.0	423802.4	3344431.0	423794.2	3344514.0	423795.4	3344502.0	423794.8	3344508.0
944	423847.2	3344487.0	423852.3	3344434.0	423843.3	3344525.0	423844.6	3344512.0	423844.2	3344517.0
945	423896.3	3344498.0	423903.2	3344428.0	423893.3	3344528.0	423894.4	3344517.0	423893.4	3344527.0
946	423945.6	3344507.0	423953.1	3344432.0	423942.7	3344536.0	423944.0	3344523.0	423942.9	3344535.0
947	423995.0	3344516.0	424003.3	3344433.0	423992.3	3344543.0	423994.3	3344523.0	423992.5	3344541.0
948	424044.5	3344524.0	424052.6	3344442.0	424041.6	3344552.0	424042.9	3344539.0	424042.2	3344547.0
949	424093.8	3344532.0	424102.3	3344447.0	424090.8	3344563.0	424092.3	3344548.0	424091.8	3344553.0
950	424143.1	3344542.0	424152.1	3344452.0	424140.2	3344572.0	424142.0	3344554.0	424141.5	3344558.0
951	424192.4	3344552.0	424201.8	3344457.0	424189.8	3344578.0	424191.6	3344560.0	424191.3	3344563.0
952	424241.6	3344562.0	424251.0	3344468.0	424239.1	3344588.0	424240.8	3344571.0	424241.1	3344568.0
953	424290.8	3344574.0	424299.9	3344481.0	424288.3	3344599.0	424289.6	3344585.0	424290.6	3344575.0
954	424339.9	3344585.0	424348.8	3344494.0	424337.8	3344606.0	424339.7	3344586.0	424339.9	3344584.0
955	424389.3	3344593.0	424397.5	3344511.0	424387.0	3344616.0	424388.9	3344597.0	424389.3	3344593.0
956	424438.4	3344605.0	424446.1	3344527.0	424436.7	3344622.0	424437.8	3344611.0	424438.7	3344601.0
957	424487.6	3344615.0	424494.8	3344542.0	424486.1	3344630.0	424487.1	3344621.0	424488.2	3344610.0
958	424536.6	3344628.0	424544.1	3344552.0	424535.4	3344640.0	424536.8	3344625.0	424537.3	3344621.0
959	424585.7	3344640.0	424593.1	3344565.0	424585.3	3344644.0	424586.1	3344635.0	424586.3	3344633.0
960	424634.8	3344651.0	424642.0	3344579.0	424634.8	3344651.0	424635.5	3344644.0	424635.5	3344644.0
961	424684.1	3344661.0	424691.3	3344587.0	424684.2	3344660.0	424684.9	3344652.0	424684.8	3344653.0
962	424733.6	3344668.0	424741.0	3344593.0	424733.6	3344668.0	424734.8	3344656.0	424734.1	3344663.0
963	424783.3	3344673.0	424790.0	3344606.0	424783.2	3344675.0	424782.9	3344677.0	424783.2	3344674.0
964	424832.9	3344679.0	424839.5	3344614.0	424832.6	3344683.0	424831.8	3344690.0	424832.2	3344687.0
965	424882.4	3344687.0	424889.3	3344617.0	424881.8	3344693.0	424881.8	3344693.0	424881.7	3344695.0
966	424931.7	3344697.0	424939.3	3344620.0	424930.8	3344705.0	424931.4	3344700.0	424931.1	3344703.0
967	424981.0	3344707.0	424988.3	3344633.0	424980.0	3344716.0	424980.8	3344708.0	424980.5	3344712.0
968	425030.5	3344713.0	425037.9	3344640.0	425029.2	3344727.0	425029.7	3344722.0	425029.7	3344722.0
969	425080.3	3344718.0	425086.3	3344657.0	425078.8	3344734.0	425079.2	3344730.0	425078.6	3344736.0
970	425128.9	3344735.0	425136.1	3344663.0	425127.9	3344745.0	425128.6	3344738.0	425127.5	3344749.0
971	425177.6	3344751.0	425185.1	3344675.0	425176.8	3344758.0	425178.3	3344744.0	425176.5	3344762.0
972	425226.7	3344762.0	425233.8	3344691.0	425226.1	3344768.0	425227.5	3344754.0	425225.4	3344775.0
973	425275.9	3344772.0	425283.0	3344701.0	425275.1	3344781.0	425276.7	3344765.0	425274.5	3344787.0
974	425325.5	3344779.0	425332.8	3344705.0	425324.3	3344791.0	425326.1	3344773.0	425323.7	3344798.0
975	425374.9	3344788.0	425382.1	3344715.0	425373.5	3344802.0	425375.6	3344781.0	425373.0	3344806.0
976	425424.1	3344798.0	425430.9	3344729.0	425422.5	3344814.0	425425.3	3344787.0	425422.5	3344814.0
977	425473.3	3344809.0	425479.7	3344744.0	425471.5	3344827.0	425474.3	3344798.0	425472.1	3344820.0
978	425522.7	3344817.0	425528.6	3344758.0	425521.1	3344833.0	425523.5	3344809.0	425521.8	3344827.0
979	425572.1	3344826.0	425577.5	3344771.0	425571.1	3344836.0	425572.2	3344825.0	425571.1	3344836.0
980	425621.4	3344835.0	425626.3	3344786.0	425620.5	3344845.0	425621.3	3344837.0	425620.3	3344847.0
981	425670.8	3344844.0	425675.2	3344800.0	425669.3	3344859.0	425670.1	3344851.0	425669.7	3344855.0
982	425720.0	3344854.0	425723.6	3344818.0	425718.6	3344869.0	425719.1	3344863.0	425719.3	3344862.0
983	425769.3	3344864.0	425773.5	3344821.0	425767.5	3344882.0	425768.6	3344871.0	425768.8	3344868.0
984	425818.6	3344873.0	425823.7	3344822.0	425816.7	3344893.0	425817.7	3344883.0	425818.3	3344876.0
985	425868.0	3344882.0	425874.0	3344822.0	425865.7	3344906.0	425866.2	3344900.0	425867.5	3344887.0
986	425917.4	3344890.0	425924.3	3344821.0	425915.1	3344914.0	425915.8	3344906.0	425916.6	3344898.0

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
987	1.0	-0.3	-0.1	-0.1	-5.8	-2.2	-1.2	0.3	0.3	0.3
988	1.1	-0.3	-0.1	-0.1	-6.1	-2.2	-1.4	0.5	0.3	0.0
989	1.2	-0.3	-0.1	-0.1	-6.7	-2.3	-1.5	0.8	0.3	-0.1
990	1.2	-0.2	0.0	0.0	-6.6	-2.2	-1.4	0.8	0.3	-0.1
991	1.1	-0.2	-0.1	0.0	-5.9	-2.1	-1.3	0.4	0.2	0.0
992	1.0	-0.2	0.0	-0.1	-5.1	-1.8	-1.2	0.5	0.1	-0.3
993	0.9	-0.2	0.0	-0.1	-4.6	-1.7	-1.2	0.4	0.0	-0.3
994	0.9	-0.1	0.0	-0.1	-4.8	-1.6	-1.2	0.5	0.0	-0.6
995	0.9	-0.2	0.0	-0.1	-4.9	-1.7	-1.3	0.5	-0.1	-0.6
996	0.8	-0.1	0.0	-0.1	-4.3	-1.4	-1.2	0.6	-0.1	-0.9
997	0.8	-0.2	0.0	-0.1	-4.3	-1.2	-1.1	0.9	0.0	-1.0
998	0.9	-0.2	0.0	-0.1	-4.7	-1.4	-1.2	0.8	0.0	-0.8
999	0.9	-0.2	0.0	-0.1	-5.0	-1.5	-1.2	0.8	0.1	-0.6
1000	0.8	-0.2	0.0	-0.1	-4.7	-1.6	-1.1	0.6	0.1	-0.3
1001	0.7	-0.2	-0.1	-0.1	-4.2	-1.4	-0.9	0.5	0.2	-0.1
1002	0.5	-0.2	-0.1	-0.1	-3.3	-1.2	-0.7	0.3	0.2	0.1
1003	0.4	-0.2	-0.2	0.0	-2.7	-1.1	-0.5	0.0	0.3	0.6
1004	0.3	-0.2	-0.1	0.0	-2.2	-1.0	-0.3	-0.1	0.3	0.7
1005	0.3	-0.2	-0.1	0.0	-2.4	-0.8	-0.3	0.2	0.4	0.6
1006	0.3	-0.2	0.0	0.0	-2.5	-0.6	-0.3	0.7	0.4	0.2
1007	0.2	-0.3	-0.1	-0.1	-2.5	-0.5	-0.4	0.9	0.4	-0.1
1008	0.1	-0.3	-0.1	-0.1	-2.2	-0.5	-0.4	0.7	0.2	-0.3
1009	0.1	-0.4	-0.2	-0.2	-2.5	-0.7	-0.6	0.6	0.1	-0.3
1010	0.1	-0.4	-0.2	-0.3	-2.7	-0.7	-0.8	0.6	-0.1	-0.9
1011	0.2	-0.4	-0.2	-0.4	-2.9	-0.8	-1.0	0.6	-0.3	-1.3
1012	0.3	-0.3	-0.2	-0.4	-2.7	-1.0	-1.1	0.2	-0.5	-1.3
1013	0.3	-0.3	-0.3	-0.4	-2.8	-1.2	-1.2	-0.1	-0.7	-1.3
1014	0.3	-0.3	-0.3	-0.4	-2.8	-1.2	-1.2	-0.2	-0.7	-1.2
1015	0.3	-0.3	-0.2	-0.4	-3.0	-1.2	-1.2	0.1	-0.6	-1.2
1016	0.4	-0.3	-0.2	-0.4	-3.5	-1.4	-1.3	0.1	-0.5	-1.1
1017	0.6	-0.3	-0.3	-0.4	-4.1	-1.8	-1.4	-0.3	-0.5	-0.8
1018	0.7	-0.4	-0.4	-0.4	-4.7	-2.2	-1.6	-0.5	-0.6	-0.7
1019	0.7	-0.5	-0.4	-0.5	-5.5	-2.4	-1.8	-0.2	-0.5	-0.8
1020	0.7	-0.5	-0.4	-0.5	-5.7	-2.4	-1.9	-0.2	-0.6	-0.9
1021	0.6	-0.5	-0.4	-0.5	-5.4	-2.2	-1.8	0.1	-0.6	-1.2
1022	0.5	-0.5	-0.4	-0.5	-5.0	-2.0	-1.7	0.1	-0.6	-1.3
1023	0.4	-0.6	-0.3	-0.6	-4.7	-1.6	-1.6	0.6	-0.5	-1.7
1024	0.3	-0.6	-0.4	-0.5	-4.2	-1.5	-1.4	0.4	-0.5	-1.3
1025	0.2	-0.6	-0.4	-0.5	-4.0	-1.4	-1.3	0.4	-0.4	-1.1
1026	0.1	-0.6	-0.4	-0.5	-3.9	-1.4	-1.2	0.2	-0.2	-0.7
1027	0.1	-0.6	-0.4	-0.4	-4.0	-1.4	-1.1	0.3	-0.1	-0.6
1028	0.1	-0.6	-0.5	-0.4	-3.7	-1.4	-1.0	0.2	-0.1	-0.3
1029	-0.1	-0.7	-0.5	-0.4	-3.4	-1.2	-0.9	0.2	0.0	-0.2
1030	-0.2	-0.7	-0.5	-0.5	-2.9	-1.0	-0.8	0.4	-0.1	-0.5
1031	-0.2	-0.7	-0.6	-0.5	-2.8	-1.1	-0.8	0.0	-0.1	-0.2
1032	-0.3	-0.7	-0.6	-0.5	-2.6	-1.1	-0.7	-0.1	0.0	0.0
1033	-0.3	-0.7	-0.5	-0.4	-2.7	-0.9	-0.6	0.3	0.1	-0.2
1034	-0.2	-0.8	-0.5	-0.4	-3.2	-1.1	-0.6	0.4	0.2	0.1
1035	-0.2	-0.8	-0.6	-0.4	-3.7	-1.2	-0.7	0.4	0.3	0.3
1036	-0.2	-0.9	-0.6	-0.4	-4.0	-1.4	-0.7	0.4	0.4	0.5
1037	-0.2	-1.0	-0.6	-0.4	-4.3	-1.5	-0.6	0.5	0.6	0.8
1038	-0.2	-0.9	-0.7	-0.4	-4.2	-1.5	-0.6	0.3	0.7	1.1
1039	-0.2	-0.9	-0.7	-0.3	-4.1	-1.5	-0.5	0.3	0.7	1.1
1040	-0.2	-0.9	-0.6	-0.3	-4.0	-1.2	-0.5	0.7	0.7	0.8
1041	-0.1	-0.8	-0.5	-0.4	-3.9	-1.1	-0.6	0.9	0.5	0.1
1042	-0.1	-0.9	-0.4	-0.4	-4.6	-1.1	-0.8	1.3	0.5	-0.4
1043	0.0	-0.9	-0.5	-0.5	-4.6	-1.3	-0.9	0.9	0.3	-0.3
1044	-0.1	-0.9	-0.5	-0.5	-4.4	-1.1	-0.9	1.1	0.4	-0.4
1045	-0.2	-0.9	-0.4	-0.5	-3.9	-0.9	-0.8	1.1	0.3	-0.6
1046	-0.2	-0.8	-0.4	-0.5	-3.5	-0.8	-0.8	1.0	0.2	-0.7
1047	-0.2	-0.8	-0.5	-0.4	-3.6	-1.0	-0.8	0.7	0.2	-0.3
1048	0.0	-0.7	-0.4	-0.5	-3.7	-1.2	-1.0	0.4	-0.1	-0.5
1049	0.2	-0.6	-0.4	-0.5	-3.9	-1.5	-1.3	0.1	-0.5	-1.0
1050	0.3	-0.5	-0.5	-0.5	-4.1	-1.9	-1.3	-0.3	-0.4	-0.5
1051	0.4	-0.5	-0.4	-0.3	-4.6	-1.9	-1.2	-0.1	0.0	0.0
1052	0.5	-0.5	-0.4	-0.3	-5.2	-2.1	-1.2	0.0	0.2	0.4
1053	0.6	-0.5	-0.4	-0.2	-5.0	-2.1	-1.1	-0.1	0.2	0.5
1054	0.6	-0.5	-0.4	-0.2	-5.2	-2.1	-1.1	-0.1	0.3	0.6
1055	0.7	-0.4	-0.4	-0.2	-5.1	-2.3	-1.2	-0.4	0.1	0.6
1056	0.6	-0.4	-0.4	-0.3	-4.8	-2.1	-1.3	-0.3	-0.1	0.1
1057	0.5	-0.4	-0.4	-0.4	-4.3	-1.8	-1.3	0.0	-0.3	-0.5
1058	0.4	-0.4	-0.3	-0.4	-3.8	-1.6	-1.3	-0.1	-0.4	-0.8
1059	0.3	-0.3	-0.4	-0.4	-3.1	-1.6	-1.2	-0.6	-0.5	-0.4
1060	0.2	-0.3	-0.4	-0.4	-2.7	-1.4	-1.1	-0.5	-0.5	-0.5
1061	0.3	-0.4	-0.3	-0.4	-3.0	-1.2	-1.1	0.1	-0.4	-0.9
1062	0.3	-0.4	-0.3	-0.4	-3.3	-1.4	-1.2	-0.1	-0.4	-0.8

					High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
Transect #		1847/67		1917/18		1934		1957		1978/82	
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
987	425966.8	3344899.0	425974.0	3344826.0	425964.4	3344923.0	425965.6	3344911.0	425965.7	3344910.0		
988	426015.6	3344914.0	426023.7	3344832.0	426013.2	3344938.0	426014.9	3344921.0	426014.7	3344922.0		
989	426064.3	3344929.0	426072.8	3344844.0	426062.3	3344949.0	426064.0	3344932.0	426063.9	3344933.0		
990	426113.5	3344939.0	426121.2	3344862.0	426111.9	3344956.0	426112.9	3344945.0	426113.0	3344944.0		
991	426162.9	3344948.0	426169.7	3344880.0	426161.6	3344961.0	426162.8	3344949.0	426162.1	3344956.0		
992	426212.3	3344957.0	426218.3	3344896.0	426211.0	3344970.0	426211.8	3344961.0	426211.1	3344969.0		
993	426261.5	3344967.0	426267.8	3344904.0	426260.3	3344980.0	426261.4	3344968.0	426260.1	3344981.0		
994	426310.7	3344977.0	426317.1	3344913.0	426309.4	3344991.0	426310.5	3344980.0	426309.1	3344994.0		
995	426360.0	3344988.0	426365.6	3344931.0	426358.8	3344999.0	426360.2	3344985.0	426358.2	3345005.0		
996	426409.2	3344998.0	426414.4	3344946.0	426407.5	3345014.0	426409.6	3344994.0	426407.4	3345016.0		
997	426458.3	3345009.0	426464.3	3344949.0	426456.8	3345024.0	426458.7	3345006.0	426456.8	3345025.0		
998	426507.6	3345019.0	426513.8	3344957.0	426505.8	3345037.0	426507.8	3345017.0	426506.3	3345032.0		
999	426556.9	3345029.0	426562.7	3344970.0	426555.2	3345045.0	426556.6	3345032.0	426555.8	3345040.0		
1000	426606.2	3345038.0	426610.9	3344990.0	426604.3	3345057.0	426605.5	3345045.0	426605.3	3345047.0		
1001	426655.4	3345048.0	426659.0	3345012.0	426653.8	3345065.0	426654.5	3345058.0	426654.8	3345055.0		
1002	426704.7	3345058.0	426707.4	3345031.0	426703.1	3345074.0	426703.0	3345075.0	426704.5	3345060.0		
1003	426753.9	3345068.0	426756.2	3345046.0	426752.7	3345081.0	426752.4	3345083.0	426754.1	3345066.0		
1004	426803.2	3345078.0	426805.4	3345055.0	426801.7	3345094.0	426802.2	3345088.0	426803.6	3345074.0		
1005	426852.8	3345085.0	426854.7	3345065.0	426850.8	3345105.0	426852.3	3345089.0	426852.8	3345084.0		
1006	426902.8	3345088.0	426904.1	3345074.0	426900.0	3345115.0	426902.1	3345094.0	426901.9	3345096.0		
1007	426952.6	3345092.0	426953.4	3345083.0	426949.9	3345119.0	426951.6	3345102.0	426950.9	3345109.0		
1008	427002.5	3345095.0	427003.3	3345087.0	426999.3	3345127.0	427000.6	3345114.0	426999.8	3345122.0		
1009	427052.4	3345099.0	427053.4	3345089.0	427049.0	3345132.0	427050.5	3345117.0	427048.5	3345138.0		
1010	427101.8	3345107.0	427103.2	3345093.0	427098.5	3345140.0	427100.0	3345125.0	427097.1	3345154.0		
1011	427151.1	3345117.0	427152.8	3345099.0	427148.5	3345143.0	427149.0	3345138.0	427146.0	3345168.0		
1012	427200.6	3345124.0	427202.5	3345105.0	427198.1	3345150.0	427197.8	3345152.0	427194.8	3345182.0		
1013	427249.8	3345135.0	427251.7	3345115.0	427247.2	3345161.0	427246.8	3345164.0	427244.1	3345192.0		
1014	427298.8	3345147.0	427300.9	3345126.0	427296.2	3345173.0	427296.4	3345171.0	427293.6	3345199.0		
1015	427347.8	3345159.0	427350.8	3345130.0	427345.2	3345186.0	427345.4	3345184.0	427343.0	3345208.0		
1016	427397.2	3345168.0	427401.1	3345129.0	427394.6	3345195.0	427393.9	3345201.0	427392.1	3345219.0		
1017	427447.0	3345172.0	427451.5	3345128.0	427444.1	3345202.0	427442.8	3345215.0	427441.3	3345230.0		
1018	427496.9	3345176.0	427501.5	3345130.0	427492.8	3345218.0	427492.3	3345223.0	427490.4	3345241.0		
1019	427546.3	3345184.0	427551.1	3345136.0	427542.1	3345227.0	427541.7	3345231.0	427539.6	3345252.0		
1020	427595.7	3345193.0	427600.0	3345150.0	427591.4	3345236.0	427591.6	3345235.0	427588.8	3345263.0		
1021	427645.2	3345201.0	427648.8	3345165.0	427640.8	3345245.0	427641.2	3345242.0	427638.1	3345272.0		
1022	427695.1	3345204.0	427697.7	3345178.0	427690.3	3345253.0	427691.6	3345240.0	427687.8	3345278.0		
1023	427744.8	3345210.0	427746.7	3345191.0	427740.0	3345258.0	427740.8	3345250.0	427737.8	3345280.0		
1024	427794.5	3345215.0	427795.7	3345203.0	427789.4	3345267.0	427790.2	3345259.0	427787.7	3345283.0		
1025	427844.1	3345222.0	427844.9	3345214.0	427838.7	3345276.0	427839.3	3345270.0	427837.6	3345287.0		
1026	427893.3	3345232.0	427894.3	3345222.0	427888.0	3345285.0	427888.8	3345277.0	427887.5	3345290.0		
1027	427942.7	3345241.0	427943.2	3345236.0	427937.3	3345295.0	427937.8	3345291.0	427937.1	3345297.0		
1028	427992.3	3345247.0	427992.0	3345250.0	427986.7	3345304.0	427987.1	3345299.0	427986.6	3345304.0		
1029	428042.1	3345252.0	428040.8	3345264.0	428036.3	3345310.0	428037.1	3345302.0	428035.9	3345314.0		
1030	428091.5	3345260.0	428089.8	3345277.0	428085.5	3345321.0	428085.6	3345320.0	428085.1	3345325.0		
1031	428140.8	3345270.0	428138.7	3345291.0	428134.7	3345332.0	428134.5	3345333.0	428134.5	3345333.0		
1032	428190.1	3345280.0	428188.0	3345300.0	428183.8	3345342.0	428184.6	3345335.0	428184.2	3345338.0		
1033	428239.4	3345288.0	428237.9	3345304.0	428232.9	3345354.0	428233.7	3345346.0	428234.0	3345343.0		
1034	428289.3	3345292.0	428288.1	3345305.0	428282.3	3345363.0	428283.3	3345353.0	428283.8	3345347.0		
1035	428339.2	3345296.0	428338.0	3345307.0	428331.7	3345372.0	428332.5	3345363.0	428333.7	3345351.0		
1036	428388.8	3345303.0	428387.5	3345315.0	428380.7	3345384.0	428381.8	3345372.0	428383.6	3345354.0		
1037	428438.3	3345310.0	428436.9	3345324.0	428430.3	3345390.0	428431.0	3345384.0	428433.5	3345358.0		
1038	428487.5	3345320.0	428486.2	3345333.0	428479.8	3345398.0	428480.5	3345390.0	428483.1	3345365.0		
1039	428536.6	3345332.0	428535.4	3345344.0	428529.1	3345407.0	428530.6	3345392.0	428532.4	3345374.0		
1040	428585.8	3345342.0	428585.1	3345349.0	428578.9	3345412.0	428580.9	3345392.0	428581.1	3345389.0		
1041	428635.3	3345350.0	428634.9	3345354.0	428627.6	3345427.0	428630.6	3345397.0	428629.7	3345406.0		
1042	428684.8	3345357.0	428684.6	3345359.0	428677.4	3345432.0	428679.6	3345410.0	428678.9	3345417.0		
1043	428734.3	3345365.0	428733.5	3345373.0	428726.6	3345443.0	428729.1	3345417.0	428728.2	3345426.0		
1044	428783.8	3345373.0	428782.6	3345385.0	428776.4	3345447.0	428779.0	3345421.0	428777.6	3345435.0		
1045	428833.3	3345380.0	428831.9	3345394.0	428826.4	3345449.0	428828.8	3345425.0	428827.2	3345441.0		
1046	428882.8	3345387.0	428881.8	3345398.0	428876.0	3345456.0	428877.7	3345439.0	428877.0	3345446.0		
1047	428932.2	3345396.0	428932.4	3345394.0	428926.6	3345453.0	428927.5	3345443.0	428926.3	3345456.0		
1048	428981.6	3345405.0	428983.0	3345390.0	428976.8	3345453.0	428977.0	3345451.0	428974.7	3345474.0		
1049	429031.1	3345412.0	429033.3	3345390.0	429026.8	3345455.0	429026.1	3345462.0	429025.0	3345473.0		
1050	429080.5	3345420.0	429083.4	3345391.0	429076.1	3345465.0	429076.0	3345466.0	429076.0	3345465.0		
1051	429129.8	3345430.0	429133.4	3345393.0	429125.2	3345476.0	429125.3	3345476.0	429126.1	3345467.0		
1052	429179.3	3345438.0	429183.4	3345397.0	429175.4	3345477.0	429175.1	3345480.0	429176.3	3345467.0		
1053	429228.8	3345445.0	429233.2	3345401.0	429225.0	3345484.0	429224.8	3345485.0	429226.3	3345471.0		
1054	429278.3	3345453.0	429282.7	3345408.0	429274.7	3345489.0	429273.9	3345497.0	429275.2	3345484.0		
1055	429327.8	3345460.0	429331.7	3345421.0	429324.0	3345498.0	429323.4	3345504.0	429323.6	3345503.0		
1056	429377.3	3345468.0	429380.4	3345436.0	429373.6	3345505.0	429373.5	3345506.0	429372.3	3345518.0		
1057	429426.7	3345476.0	429429.2	3345451.0	429423.3	3345511.0	429423.1	3345513.0	429421.2	3345532.0		
1058	429475.9	3345487.0	429477.9	3345466.0	429473.1	3345515.0	429471.6	3345530.0	429470.7	3345539.0		
1059	429525.3	3345496.0	429526.9	3345479.0	429522.6	3345523.0	429521.5	3345534.0	429520.3	3345546.0		
1060	429574.8	3345503.0	429576.7	3345484.0	429571.8	3345532.0	429572.0	3345531.0	429569.9	3345552.0		
1061	429624.5	3345508.0	429626.6	3345487.0	429621.4	3345539.0	429621.3	3345541.0	429619.4	3345559.0		
1062	429673.9	3345516.0	429675.6	3345500.0	429671.6	3345540.0	429671.2	3345544.0	429668.9	3345567.0		

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
1063	0.2	-0.3	-0.3	-0.4	-2.5	-1.1	-1.1	-0.2	-0.6	-1.0
1064	0.3	-0.2	-0.3	-0.4	-2.7	-1.5	-1.1	-0.6	-0.6	-0.6
1065	0.5	-0.2	-0.3	-0.4	-3.3	-1.6	-1.3	-0.5	-0.7	-0.8
1066	0.6	-0.2	-0.3	-0.4	-3.5	-1.8	-1.4	-0.6	-0.7	-0.9
1067	0.5	-0.2	-0.4	-0.4	-3.4	-1.9	-1.4	-0.9	-0.7	-0.5
1068	0.5	-0.3	-0.3	-0.4	-3.5	-1.8	-1.3	-0.6	-0.6	-0.6
1069	0.5	-0.2	-0.3	-0.4	-3.4	-1.7	-1.3	-0.5	-0.5	-0.6
1070	0.6	-0.2	-0.3	-0.3	-3.5	-1.9	-1.3	-0.7	-0.5	-0.2
1071	0.6	-0.1	-0.3	-0.3	-3.0	-1.8	-1.2	-0.9	-0.6	-0.3
1072	0.6	-0.1	-0.3	-0.3	-3.2	-1.9	-1.2	-1.0	-0.5	-0.1
1073	0.6	-0.1	-0.3	-0.3	-3.5	-1.9	-1.2	-0.8	-0.4	-0.1
1074	0.7	-0.2	-0.3	-0.2	-3.7	-2.0	-1.2	-0.9	-0.3	0.2
1075	0.7	-0.2	-0.3	-0.2	-4.0	-2.1	-1.1	-0.8	-0.2	0.4
1076	0.7	-0.2	-0.2	-0.1	-4.0	-1.9	-1.0	-0.4	0.0	0.4
1077	0.6	-0.3	-0.2	-0.1	-3.8	-1.6	-0.9	0.0	0.1	0.3
1078	0.4	-0.3	-0.3	-0.1	-3.4	-1.5	-0.7	-0.1	0.2	0.5
1079	0.3	-0.3	-0.2	-0.2	-2.9	-1.1	-0.7	0.1	0.0	-0.1
1080	0.3	-0.3	-0.2	-0.3	-2.9	-1.1	-0.8	0.1	-0.2	-0.4
1081	0.3	-0.4	-0.3	-0.3	-3.4	-1.3	-1.0	0.0	-0.1	-0.3
1082	0.4	-0.4	-0.3	-0.3	-4.1	-1.7	-1.1	-0.1	-0.1	-0.2
1083	0.5	-0.5	-0.3	-0.3	-4.6	-1.8	-1.2	0.2	0.0	-0.2
1084	0.3	-0.5	-0.4	-0.3	-4.0	-1.6	-0.9	0.1	0.2	0.2
1085	0.2	-0.5	-0.4	-0.3	-3.7	-1.5	-0.8	0.0	0.2	0.4
1086	0.2	-0.6	-0.4	-0.3	-4.1	-1.6	-0.9	0.0	0.2	0.4
1087	0.3	-0.6	-0.5	-0.3	-4.6	-1.9	-1.0	-0.1	0.3	0.6
1088	0.1	-0.7	-0.5	-0.4	-4.1	-1.7	-1.0	-0.1	0.1	0.3
1089	0.0	-0.8	-0.6	-0.4	-4.3	-1.6	-0.9	0.3	0.2	0.2
1090	-0.2	-0.7	-0.6	-0.4	-3.3	-1.3	-0.8	0.1	0.1	0.1
1091	-0.3	-0.7	-0.5	-0.4	-2.2	-0.8	-0.6	0.1	0.0	-0.1
1092	-0.2	-0.7	-0.6	-0.4	-2.6	-1.1	-0.6	-0.1	0.0	0.2
1093	-0.3	-0.7	-0.6	-0.4	-2.4	-1.1	-0.6	-0.2	0.1	0.4
1094	-0.3	-0.7	-0.5	-0.4	-2.1	-0.9	-0.5	0.0	0.1	0.2
1095	-0.3	-0.6	-0.5	-0.4	-2.1	-0.9	-0.5	0.0	0.1	0.2
1096	-0.3	-0.6	-0.4	-0.3	-1.9	-0.7	-0.4	0.1	0.1	0.0
1097	-0.4	-0.5	-0.4	-0.3	-1.3	-0.3	-0.3	0.3	0.1	-0.2
1098	-0.5	-0.5	-0.3	-0.3	-0.6	0.1	-0.1	0.6	0.1	-0.5
1099	-0.6	-0.6	-0.3	-0.3	-0.4	0.2	0.0	0.7	0.1	-0.5
1100	-0.5	-0.7	-0.3	-0.4	-1.5	0.1	-0.3	1.1	0.1	-1.0
1101	-0.4	-0.7	-0.3	-0.5	-1.8	-0.1	-0.5	1.0	-0.1	-1.2
1102	-0.5	-0.7	-0.4	-0.5	-1.3	-0.1	-0.5	0.6	-0.3	-1.1
1103	-0.6	-0.6	-0.3	-0.5	-0.7	0.1	-0.4	0.7	-0.3	-1.4
1104	-0.6	-0.6	-0.3	-0.5	-0.5	0.2	-0.4	0.8	-0.4	-1.5
1105	-0.6	-0.6	-0.3	-0.5	-0.4	0.2	-0.4	0.6	-0.4	-1.3
1106	-0.5	-0.5	-0.3	-0.5	-0.5	0.1	-0.4	0.6	-0.4	-1.4
1107	-0.3	-0.5	-0.3	-0.5	-1.2	-0.1	-0.6	0.6	-0.4	-1.4
1108	-0.4	-0.5	-0.3	-0.4	-0.8	-0.1	-0.5	0.3	-0.4	-1.1
1109	-0.5	-0.5	-0.3	-0.4	-0.4	0.0	-0.3	0.2	-0.3	-0.8
1110	-0.7	-0.6	-0.4	-0.4	0.1	0.1	-0.1	0.1	-0.2	-0.4
1111	-1.0	-0.7	-0.6	-0.5	0.4	0.2	0.1	0.0	0.0	-0.1
1112	-1.0	-0.7	-0.6	-0.5	0.7	0.1	0.1	-0.2	-0.1	0.1
1113	-1.0	-0.6	-0.6	-0.4	1.0	0.1	0.2	-0.4	-0.1	0.3
1114	-1.0	-0.6	-0.6	-0.4	1.2	0.2	0.3	-0.5	0.0	0.5
1115	-1.1	-0.6	-0.6	-0.4	1.3	0.2	0.3	-0.6	0.0	0.6
1116	-1.1	-0.7	-0.6	-0.5	1.0	0.1	0.2	-0.5	-0.1	0.3
1117	-0.9	-0.7	-0.6	-0.5	0.1	-0.3	-0.2	-0.6	-0.3	0.1
1118	0.0	-0.6	-0.6	-0.6	-1.2	-1.7	-1.2	-0.6	-0.5	-0.4
1119	-0.3	-0.5	-0.5	-0.6	-1.1	-1.0	-0.9	-0.8	-0.8	-0.8
1120	-0.4	-0.5	-0.5	-0.6	1.5	0.3	-0.2	-0.5	-0.8	-1.1
1121	-0.4	-0.5	-0.5	-0.6	1.9	1.7	0.6	-0.5	-0.9	-1.2
1122	-0.4	-0.4	-0.4	-0.6	0.9	0.2	-0.4	-0.3	-0.9	-1.5
1123	-0.4	-0.4	-0.4	-0.5	0.0	-0.4	-0.6	-0.6	-0.8	-1.1
1124	-0.1	-0.3	-0.5	-0.5	-0.9	-1.1	-0.8	-1.2	-0.8	-0.4
1125	-0.1	-0.3	-0.4	-0.4	-0.8	-0.9	-0.7	-0.9	-0.7	-0.5
1126	-0.2	-0.3	-0.4	-0.3	-0.6	-0.6	-0.5	-0.5	-0.4	-0.3
1127	-0.1	-0.3	-0.4	-0.3	-1.3	-1.1	-0.6	-0.9	-0.4	0.1
1128	0.1	-0.2	-0.3	-0.3	-1.6	-1.0	-0.8	-0.6	-0.5	-0.4
1129	-0.1	-0.2	-0.3	-0.3	-0.5	-0.6	-0.5	-0.6	-0.5	-0.5
1130	0.2	-0.1	-0.3	-0.3	-1.8	-1.1	-0.8	-0.7	-0.5	-0.3
1131	0.3	-0.1	-0.2	-0.3	-1.9	-1.2	-0.9	-0.7	-0.6	-0.5
1132	0.1	-0.1	-0.2	-0.3	-1.0	-0.8	-0.8	-0.7	-0.7	-0.8
1133	0.3	-0.1	-0.2	-0.4	-1.5	-1.1	-1.0	-0.8	-0.9	-1.0
1134	0.1	-0.2	-0.2	-0.4	-1.1	-0.6	-1.0	-0.3	-0.9	-1.6
1135	-0.2	-0.2	-0.3	-0.5	-0.4	-0.4	-0.8	-0.4	-1.0	-1.5
1136	-0.1	-0.2	-0.3	-0.5	-0.3	-0.7	-0.8	-1.0	-1.0	-1.0
1137	-0.1	-0.1	-0.2	-0.4	-0.3	-0.5	-0.8	-0.7	-1.0	-1.3
1138	0.0	-0.1	-0.2	-0.4	-0.4	-0.7	-0.8	-0.8	-0.9	-1.1

Transect #		1847/67		High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
				1917/18		1934		1957		1978/82
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
1063	429723.3	3345525.0	429725.4	3345504.0	429721.3	3345546.0	429719.8	3345561.0	429718.4	3345575.0
1064	429772.6	3345535.0	429776.0	3345500.0	429770.9	3345552.0	429769.7	3345564.0	429767.8	3345583.0
1065	429821.9	3345544.0	429826.1	3345502.0	429820.5	3345559.0	429819.2	3345572.0	429817.2	3345592.0
1066	429871.7	3345549.0	429875.4	3345512.0	429870.0	3345566.0	429867.9	3345587.0	429866.7	3345599.0
1067	429921.4	3345554.0	429924.8	3345520.0	429919.3	3345575.0	429917.9	3345589.0	429916.5	3345604.0
1068	429970.9	3345562.0	429974.2	3345529.0	429968.8	3345583.0	429967.6	3345595.0	429966.3	3345609.0
1069	430020.0	3345573.0	430023.9	3345534.0	430018.3	3345590.0	430016.6	3345607.0	430016.1	3345613.0
1070	430069.4	3345582.0	430073.3	3345542.0	430068.6	3345590.0	430066.4	3345612.0	430065.8	3345618.0
1071	430119.0	3345588.0	430123.0	3345548.0	430118.0	3345598.0	430115.8	3345621.0	430115.6	3345623.0
1072	430168.6	3345595.0	430172.8	3345552.0	430167.4	3345607.0	430165.6	3345625.0	430165.3	3345628.0
1073	430218.2	3345601.0	430222.8	3345555.0	430216.8	3345615.0	430214.8	3345635.0	430215.4	3345630.0
1074	430267.8	3345608.0	430272.7	3345559.0	430266.3	3345623.0	430264.6	3345640.0	430265.5	3345631.0
1075	430317.4	3345614.0	430322.1	3345567.0	430315.8	3345631.0	430314.8	3345641.0	430315.8	3345631.0
1076	430367.2	3345619.0	430371.0	3345581.0	430364.9	3345642.0	430364.9	3345642.0	430365.5	3345636.0
1077	430416.9	3345625.0	430419.7	3345596.0	430414.3	3345650.0	430414.0	3345653.0	430415.2	3345642.0
1078	430466.6	3345630.0	430468.5	3345611.0	430463.9	3345657.0	430464.1	3345655.0	430463.9	3345657.0
1079	430516.3	3345635.0	430518.1	3345617.0	430513.6	3345663.0	430513.9	3345660.0	430512.8	3345670.0
1080	430566.1	3345640.0	430568.1	3345619.0	430562.8	3345673.0	430562.9	3345672.0	430562.2	3345679.0
1081	430615.9	3345645.0	430618.9	3345614.0	430612.4	3345680.0	430612.2	3345682.0	430611.8	3345686.0
1082	430665.9	3345647.0	430669.3	3345613.0	430661.9	3345687.0	430662.4	3345682.0	430662.1	3345685.0
1083	430715.9	3345649.0	430717.8	3345630.0	430711.4	3345694.0	430711.7	3345691.0	430712.3	3345686.0
1084	430765.8	3345653.0	430767.1	3345640.0	430761.3	3345698.0	430761.4	3345697.0	430762.2	3345689.0
1085	430816.1	3345653.0	430817.5	3345638.0	430811.1	3345702.0	430811.3	3345701.0	430812.1	3345692.0
1086	430866.3	3345653.0	430868.2	3345633.0	430860.9	3345707.0	430860.7	3345709.0	430862.0	3345696.0
1087	430916.6	3345652.0	430917.6	3345642.0	430911.1	3345708.0	430910.9	3345709.0	430911.7	3345702.0
1088	430966.8	3345653.0	430966.9	3345652.0	430960.2	3345719.0	430960.8	3345713.0	430961.3	3345709.0
1089	431016.8	3345655.0	431015.7	3345666.0	431010.5	3345719.0	431010.8	3345716.0	431011.0	3345714.0
1090	431066.3	3345662.0	431064.2	3345683.0	431060.7	3345719.0	431060.9	3345717.0	431060.7	3345720.0
1091	431115.8	3345670.0	431114.3	3345686.0	431110.1	3345728.0	431109.9	3345730.0	431110.3	3345726.0
1092	431165.3	3345678.0	431163.3	3345698.0	431159.4	3345737.0	431158.9	3345742.0	431159.9	3345732.0
1093	431214.8	3345686.0	431212.4	3345710.0	431209.0	3345743.0	431208.9	3345744.0	431209.5	3345739.0
1094	431263.8	3345697.0	431262.0	3345716.0	431258.7	3345749.0	431258.7	3345749.0	431259.0	3345746.0
1095	431312.8	3345710.0	431311.1	3345727.0	431308.2	3345757.0	431308.4	3345754.0	431308.5	3345754.0
1096	431362.2	3345718.0	431359.7	3345744.0	431357.6	3345765.0	431358.4	3345757.0	431357.9	3345762.0
1097	431411.7	3345727.0	431408.0	3345763.0	431407.1	3345772.0	431408.5	3345758.0	431407.4	3345769.0
1098	431461.4	3345731.0	431457.3	3345773.0	431456.6	3345780.0	431458.2	3345764.0	431457.1	3345775.0
1099	431511.3	3345735.0	431508.2	3345766.0	431505.9	3345790.0	431508.4	3345764.0	431506.3	3345786.0
1100	431561.1	3345740.0	431558.3	3345768.0	431555.6	3345796.0	431557.8	3345772.0	431555.2	3345799.0
1101	431610.9	3345745.0	431607.3	3345780.0	431605.3	3345800.0	431606.8	3345786.0	431604.2	3345812.0
1102	431660.0	3345756.0	431656.2	3345794.0	431655.0	3345806.0	431656.6	3345790.0	431653.4	3345822.0
1103	431709.3	3345766.0	431705.3	3345806.0	431704.4	3345814.0	431706.2	3345796.0	431702.7	3345832.0
1104	431758.6	3345774.0	431754.5	3345816.0	431753.8	3345823.0	431755.1	3345810.0	431752.1	3345840.0
1105	431807.8	3345786.0	431804.2	3345821.0	431803.3	3345830.0	431804.7	3345817.0	431801.6	3345848.0
1106	431857.0	3345796.0	431854.8	3345818.0	431853.0	3345837.0	431854.3	3345823.0	431851.1	3345856.0
1107	431906.3	3345805.0	431903.8	3345831.0	431902.5	3345843.0	431903.3	3345836.0	431900.7	3345862.0
1108	431956.0	3345811.0	431952.4	3345847.0	431951.8	3345853.0	431952.4	3345847.0	431950.6	3345865.0
1109	432006.2	3345811.0	432001.2	3345862.0	432001.3	3345861.0	432001.6	3345858.0	432000.6	3345868.0
1110	432056.7	3345809.0	432050.0	3345876.0	432050.7	3345870.0	432050.6	3345870.0	432050.5	3345871.0
1111	432106.2	3345816.0	432099.4	3345884.0	432100.6	3345873.0	432100.0	3345879.0	432100.3	3345876.0
1112	432155.8	3345823.0	432148.8	3345893.0	432150.4	3345877.0	432149.4	3345887.0	432150.1	3345880.0
1113	432205.4	3345830.0	432198.3	3345901.0	432200.2	3345882.0	432199.0	3345894.0	432200.0	3345883.0
1114	432255.3	3345833.0	432247.8	3345908.0	432249.8	3345888.0	432248.5	3345901.0	432249.8	3345889.0
1115	432305.3	3345835.0	432298.2	3345907.0	432299.8	3345891.0	432298.5	3345904.0	432299.1	3345897.0
1116	432355.2	3345839.0	432349.3	3345898.0	432349.6	3345896.0	432348.3	3345909.0	432348.4	3345907.0
1117	432404.7	3345847.0	432404.7	3345847.0	432399.6	3345897.0	432398.3	3345911.0	432397.4	3345920.0
1118	432453.9	3345856.0	432451.8	3345878.0	432450.0	3345896.0	432448.1	3345915.0	432446.3	3345934.0
1119	432503.1	3345867.0	432496.5	3345934.0	432498.9	3345910.0	432497.7	3345922.0	432495.2	3345947.0
1120	432551.8	3345883.0	432540.2	3346000.0	432547.9	3345922.0	432546.7	3345934.0	432544.1	3345961.0
1121	432600.4	3345899.0	432595.6	3345948.0	432597.0	3345933.0	432596.4	3345940.0	432593.0	3345974.0
1122	432649.1	3345916.0	432646.0	3345946.0	432646.0	3345947.0	432644.6	3345960.0	432642.1	3345985.0
1123	432698.0	3345929.0	432696.9	3345939.0	432695.5	3345954.0	432692.8	3345981.0	432691.8	3345991.0
1124	432747.2	3345939.0	432746.3	3345948.0	432745.0	3345961.0	432743.0	3345981.0	432741.8	3345993.0
1125	432796.5	3345949.0	432794.9	3345965.0	432794.0	3345974.0	432792.7	3345987.0	432792.0	3345994.0
1126	432845.9	3345957.0	432845.3	3345964.0	432843.2	3345985.0	432841.2	3346005.0	432841.5	3346002.0
1127	432895.2	3345967.0	432895.8	3345961.0	432893.2	3345987.0	432891.8	3346001.0	432890.8	3346011.0
1128	432943.9	3345983.0	432943.3	3345988.0	432942.5	3345997.0	432941.1	3346010.0	432940.0	3346022.0
1129	432992.7	3345997.0	432994.3	3345981.0	432991.5	3346009.0	432989.9	3346025.0	432989.1	3346033.0
1130	433041.9	3346007.0	433044.0	3345986.0	433040.9	3346017.0	433039.4	3346033.0	433038.3	3346044.0
1131	433091.1	3346018.0	433091.9	3346010.0	433090.3	3346026.0	433088.8	3346041.0	433086.9	3346060.0
1132	433140.2	3346029.0	433142.0	3346011.0	433139.7	3346035.0	433137.9	3346053.0	433135.6	3346076.0
1133	433189.7	3346037.0	433190.2	3346032.0	433188.4	3346050.0	433187.8	3346056.0	433184.3	3346092.0
1134	433239.1	3346045.0	433238.1	3346056.0	433237.4	3346063.0	433236.3	3346073.0	433233.0	3346107.0
1135	433288.0	3346059.0	433287.2	3346067.0	433286.7	3346072.0	433284.4	3346096.0	433282.0	3346120.0
1136	433336.7	3346075.0	433336.3	3346078.0	433335.8	3346084.0	433334.3	3346099.0	433331.3	3346129.0
1137	433385.8	3346086.0	433385.9	3346086.0	433385.2	3346093.0	433383.3	3346111.0	433380.9	3346136.0
1138	433435.3	3346094.0	433435.1	3346095.0	433434.0	3346107.0	433431.9	3346128.0	433431.0	3346137.0

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
1139	0.0	-0.1	-0.3	-0.3	-0.7	-0.8	-0.7	-0.9	-0.6	-0.4
1140	0.0	-0.2	-0.3	-0.2	-1.1	-0.8	-0.4	-0.6	-0.2	0.1
1141	-0.1	-0.2	-0.3	-0.1	-1.0	-0.8	-0.3	-0.6	0.0	0.6
1142	0.0	-0.2	-0.3	-0.1	-1.0	-0.7	-0.2	-0.4	0.1	0.6
1143	-0.1	-0.3	-0.3	-0.1	-1.1	-0.6	0.0	-0.3	0.3	1.0
1144	0.1	-0.3	-0.2	-0.1	-1.9	-0.7	-0.2	0.1	0.4	0.8
1145	0.1	-0.3	-0.2	-0.1	-2.1	-0.8	-0.3	0.0	0.4	0.7
1146	0.0	-0.4	-0.3	-0.1	-1.8	-0.7	-0.2	0.1	0.3	0.6
1147	-0.2	-0.4	-0.3	-0.2	-1.4	-0.4	-0.2	0.2	0.3	0.3
1148	-0.3	-0.4	-0.3	-0.2	-1.1	-0.3	-0.2	0.2	0.1	0.0
1149	-0.3	-0.4	-0.3	-0.3	-0.8	-0.4	-0.3	-0.2	-0.1	0.0
1150	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.3	-0.4	-0.3	-0.1
1151	-0.3	-0.3	-0.3	-0.3	-0.3	-0.5	-0.3	-0.6	-0.4	-0.1
1152	-0.2	-0.3	-0.3	-0.3	-0.4	-0.5	-0.4	-0.5	-0.4	-0.2
1153	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4
1154	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3	-0.2	-0.3	-0.4
1155	0.0	-0.1	-0.2	-0.1	-0.4	-0.4	-0.3	-0.4	-0.3	-0.1
1156	0.0	-0.1	-0.2	-0.1	-0.2	-0.4	-0.3	-0.6	-0.3	0.1
1157	0.0	-0.1	-0.1	-0.1	-0.4	-0.4	-0.3	-0.3	-0.2	-0.1
1158	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1	-0.2	-0.4
1159	-0.3	-0.1	-0.2	-0.1	0.4	0.0	0.0	-0.3	-0.2	0.0
1160	-0.2	-0.1	-0.1	-0.1	0.5	-0.1	-0.1	-0.5	-0.2	0.0
1161	0.0	0.0	-0.1	-0.1	0.1	-0.2	-0.2	-0.4	-0.3	-0.2
1162	0.0	0.1	-0.1	-0.1	0.2	-0.3	-0.3	-0.6	-0.5	-0.4
1163	0.1	0.1	0.0	-0.1	0.1	-0.3	-0.4	-0.6	-0.6	-0.7
1164	0.1	0.1	0.1	-0.1	0.3	0.0	-0.4	-0.2	-0.7	-1.1
1165	0.1	0.1	0.0	-0.1	-0.2	-0.3	-0.4	-0.4	-0.5	-0.5
1166	0.1	0.0	0.0	-0.1	-0.8	-0.3	-0.4	0.0	-0.3	-0.5
1167	0.2	-0.1	-0.1	-0.1	-1.0	-0.5	-0.4	-0.2	-0.1	0.0
1168	0.3	-0.1	0.0	-0.1	-1.6	-0.5	-0.5	0.2	-0.1	-0.5
1169	0.2	-0.1	0.0	-0.1	-1.2	-0.3	-0.5	0.4	-0.2	-0.7
1170	-0.1	-0.2	-0.1	-0.2	-0.5	0.0	-0.3	0.4	-0.3	-0.9
1171	-0.2	-0.2	-0.2	-0.3	-0.3	-0.1	-0.3	0.1	-0.4	-0.8
1172	-0.2	-0.1	-0.1	-0.3	0.4	0.1	-0.4	-0.1	-0.7	-1.2
1173	-0.1	0.0	-0.1	-0.3	0.5	0.0	-0.4	-0.3	-0.8	-1.2
1174	-0.2	-0.1	-0.2	-0.3	0.5	-0.1	-0.4	-0.4	-0.6	-0.8
1175	-0.2	-0.2	-0.2	-0.2	0.2	-0.1	-0.2	-0.3	-0.3	-0.4
1176	-0.3	-0.1	-0.2	-0.2	0.7	0.0	0.0	-0.5	-0.2	0.0
1177	-0.5	-0.2	-0.2	-0.2	1.0	0.3	0.2	-0.2	0.0	0.1
1178	-0.5	-0.2	-0.2	-0.1	0.7	0.3	0.3	-0.1	0.2	0.4
1179	-0.5	-0.2	-0.2	-0.1	0.9	0.4	0.4	0.0	0.2	0.4
1180	-0.5	-0.2	-0.1	-0.1	0.9	0.5	0.4	0.2	0.2	0.2
1181	-0.4	-0.2	-0.2	-0.1	0.7	0.2	0.2	-0.2	0.1	0.3
1182	-0.3	-0.1	-0.2	-0.1	0.8	0.2	0.1	-0.3	-0.1	0.0
1183	-0.3	-0.1	-0.1	-0.1	0.9	0.3	0.1	-0.1	-0.2	-0.2
1184	-0.3	-0.1	-0.1	-0.1	1.0	0.4	0.2	-0.1	0.0	0.0
1185	-0.3	-0.2	0.0	0.0	0.4	0.4	0.2	0.4	0.2	0.0
1186	-0.2	0.0	0.0	0.0	0.5	0.3	0.3	0.1	0.2	0.3
1187	-0.2	0.0	0.1	0.1	0.8	0.4	0.4	0.2	0.2	0.3
1188	-0.3	0.0	0.0		1.0	0.4		0.0		
1189	-0.4	-0.1	-0.1		1.1	0.5		0.1		
1190	-0.5	-0.1	-0.1		1.8	0.7		-0.1		
1191	-0.5	-0.2	-0.1		1.4	0.7		0.2		
1192	-0.5	-0.2	-0.1		1.3	0.6		0.1		
1193	-0.5	0.0	-0.1		1.8	0.4		-0.5		
1194	-0.5	-0.1	-0.2		1.7	0.4		-0.5		
1195	-0.4	-0.2	-0.2		1.1	0.3		-0.3		
1196	-0.3	-0.2	-0.2		0.4	0.1		0.0		
1197	-0.3	-0.2	-0.1		0.2	0.1		0.1		
1198	-0.4	-0.3	-0.2		0.2	0.2		0.1		
1199	-0.4	-0.3	-0.2		0.1	0.0		0.0		
1200	-0.2	-0.2	-0.2		-0.3	-0.2		-0.1		
1201	0.0	-0.2	-0.2		-1.0	-0.4		0.0		
1202	-0.1	-0.1	-0.2		-0.3	-0.4		-0.4		
1203	-0.1	-0.1	-0.2		-0.2	-0.3		-0.4		
1204	0.0	-0.2	-0.2		-0.9	-0.5		-0.3		
1205	0.0	-0.2	-0.3		-1.4	-0.9		-0.6		
1206	0.1	-0.2	-0.3		-1.4	-1.0		-0.8		
1207	0.0	-0.2	-0.4		-1.2	-1.1		-1.1		
1208	-0.2	-0.4	-0.7		-1.2	-1.4		-1.6		
1209	-0.3	-0.5	-0.7		-1.5	-1.6		-1.6		
1210	-0.1	-0.5	-0.7		-2.3	-1.7		-1.3		
1211	0.1	-0.5	-0.6		-3.3	-1.7		-0.7		
1212	0.2	-0.4	-0.5		-3.4	-1.8		-0.7		
1213	0.3	-0.3	-0.4		-2.8	-1.7		-1.0		
1214	0.4	-0.2	-0.4		-2.9	-1.8		-1.0		

					High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
Transect #		1847/67		1917/18		1934		1957		1978/82	
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
1139	433484.6	3346104.0	433484.3	3346106.0	433482.6	3346123.0	433481.3	3346136.0	433481.6	3346133.0		
1140	433533.8	3346114.0	433533.4	3346118.0	433531.8	3346134.0	433530.4	3346148.0	433531.8	3346133.0		
1141	433582.8	3346126.0	433582.7	3346127.0	433581.1	3346144.0	433580.1	3346154.0	433581.6	3346139.0		
1142	433631.9	3346138.0	433631.3	3346143.0	433629.7	3346160.0	433628.9	3346168.0	433631.1	3346146.0		
1143	433681.1	3346148.0	433681.5	3346145.0	433678.6	3346174.0	433678.7	3346172.0	433680.5	3346155.0		
1144	433730.3	3346159.0	433731.1	3346151.0	433727.8	3346185.0	433727.8	3346184.0	433729.4	3346168.0		
1145	433779.9	3346166.0	433779.8	3346167.0	433776.9	3346196.0	433777.0	3346195.0	433778.4	3346180.0		
1146	433829.7	3346170.0	433828.6	3346181.0	433826.3	3346204.0	433826.9	3346198.0	433827.5	3346192.0		
1147	433879.8	3346172.0	433878.0	3346189.0	433876.3	3346207.0	433876.7	3346203.0	433876.7	3346203.0		
1148	433929.4	3346178.0	433927.5	3346197.0	433926.3	3346209.0	433925.9	3346213.0	433925.9	3346213.0		
1149	433979.1	3346184.0	433976.9	3346205.0	433976.4	3346211.0	433975.5	3346220.0	433975.2	3346223.0		
1150	434028.4	3346193.0	434026.5	3346212.0	434026.0	3346217.0	434024.7	3346230.0	434024.4	3346233.0		
1151	434077.6	3346203.0	434076.0	3346220.0	434075.4	3346226.0	434074.2	3346238.0	434073.6	3346243.0		
1152	434126.5	3346217.0	434125.2	3346231.0	434124.7	3346235.0	434124.0	3346242.0	434123.2	3346250.0		
1153	434175.3	3346231.0	434174.6	3346238.0	434174.3	3346241.0	434173.8	3346246.0	434172.9	3346255.0		
1154	434224.7	3346240.0	434224.6	3346241.0	434224.0	3346247.0	434223.0	3346257.0	434222.8	3346259.0		
1155	434274.5	3346245.0	434274.3	3346247.0	434273.9	3346250.0	434272.6	3346264.0	434272.7	3346263.0		
1156	434324.4	3346248.0	434324.3	3346249.0	434323.6	3346256.0	434322.8	3346264.0	434322.5	3346267.0		
1157	434374.2	3346253.0	434373.5	3346259.0	434373.4	3346260.0	434373.2	3346262.0	434372.3	3346271.0		
1158	434424.3	3346254.0	434422.5	3346272.0	434423.2	3346266.0	434422.5	3346272.0	434422.4	3346273.0		
1159	434473.7	3346263.0	434472.4	3346275.0	434473.2	3346268.0	434472.1	3346279.0	434472.1	3346279.0		
1160	434522.7	3346275.0	434522.5	3346277.0	434522.7	3346275.0	434521.7	3346285.0	434521.3	3346289.0		
1161	434571.7	3346287.0	434572.0	3346284.0	434572.4	3346281.0	434571.0	3346295.0	434570.1	3346303.0		
1162	434620.9	3346298.0	434621.8	3346289.0	434622.0	3346287.0	434620.6	3346301.0	434619.1	3346316.0		
1163	434670.2	3346307.0	434671.0	3346300.0	434671.4	3346295.0	434670.9	3346300.0	434668.4	3346325.0		
1164	434720.1	3346311.0	434721.0	3346302.0	434720.7	3346305.0	434719.7	3346315.0	434718.5	3346327.0		
1165	434770.2	3346313.0	434771.2	3346303.0	434770.0	3346315.0	434769.9	3346315.0	434768.8	3346327.0		
1166	434820.0	3346317.0	434821.2	3346306.0	434819.5	3346322.0	434819.0	3346327.0	434818.9	3346328.0		
1167	434869.8	3346322.0	434871.6	3346304.0	434869.0	3346330.0	434869.5	3346324.0	434868.4	3346336.0		
1168	434919.6	3346326.0	434920.7	3346315.0	434918.7	3346335.0	434919.5	3346327.0	434917.9	3346344.0		
1169	434970.2	3346322.0	434969.4	3346331.0	434968.6	3346339.0	434969.5	3346329.0	434967.4	3346351.0		
1170	435020.4	3346323.0	435018.9	3346338.0	435018.4	3346343.0	435018.6	3346341.0	435016.8	3346359.0		
1171	435070.1	3346329.0	435068.7	3346343.0	435069.3	3346336.0	435069.2	3346338.0	435066.3	3346367.0		
1172	435119.5	3346337.0	435118.5	3346347.0	435119.3	3346339.0	435118.6	3346346.0	435115.8	3346375.0		
1173	435169.6	3346339.0	435168.1	3346353.0	435168.9	3346346.0	435167.9	3346356.0	435165.9	3346375.0		
1174	435219.4	3346343.0	435217.8	3346359.0	435218.1	3346356.0	435217.4	3346363.0	435216.6	3346371.0		
1175	435269.1	3346348.0	435267.0	3346370.0	435268.0	3346360.0	435266.9	3346370.0	435267.0	3346369.0		
1176	435319.5	3346347.0	435316.1	3346382.0	435317.6	3346366.0	435317.2	3346371.0	435317.4	3346368.0		
1177	435369.0	3346354.0	435365.8	3346387.0	435366.9	3346375.0	435366.8	3346376.0	435367.7	3346368.0		
1178	435418.5	3346362.0	435415.4	3346393.0	435416.8	3346379.0	435416.9	3346378.0	435417.7	3346370.0		
1179	435468.4	3346366.0	435465.3	3346397.0	435466.7	3346383.0	435467.1	3346379.0	435467.6	3346373.0		
1180	435518.5	3346366.0	435515.9	3346393.0	435517.0	3346382.0	435516.6	3346386.0	435517.3	3346379.0		
1181	435568.6	3346368.0	435566.3	3346391.0	435567.6	3346378.0	435566.9	3346385.0	435567.0	3346385.0		
1182	435618.6	3346371.0	435616.3	3346395.0	435617.7	3346380.0	435617.4	3346383.0	435617.0	3346387.0		
1183	435668.6	3346374.0	435666.3	3346396.0	435667.9	3346380.0	435667.8	3346382.0	435667.7	3346382.0		
1184	435718.4	3346378.0	435716.5	3346397.0	435717.1	3346391.0	435718.1	3346381.0	435718.0	3346382.0		
1185	435767.8	3346387.0	435766.7	3346398.0	435767.4	3346391.0	435767.7	3346387.0	435768.3	3346381.0		
1186	435817.6	3346391.0	435816.4	3346403.0	435817.8	3346389.0	435818.2	3346385.0	435818.8	3346379.0		
1187	435868.2	3346387.0	435866.2	3346408.0	435867.8	3346391.0	435867.8	3346391.0	435868.7	3346383.0		
1188	435918.4	3346388.0	435915.7	3346415.0	435917.4	3346397.0	435917.6	3346395.0				
1189	435968.5	3346389.0	435965.1	3346424.0	435967.9	3346395.0	435967.6	3346398.0				
1190	436018.3	3346394.0	436014.7	3346430.0	436017.0	3346407.0	436017.5	3346402.0				
1191	436068.4	3346395.0	436065.1	3346428.0	436067.2	3346407.0	436067.5	3346404.0				
1192	436118.8	3346393.0	436115.8	3346424.0	436118.6	3346395.0	436117.4	3346408.0				
1193	436169.1	3346393.0	436165.9	3346425.0	436168.6	3346398.0	436167.4	3346410.0				
1194	436219.1	3346396.0	436216.1	3346426.0	436217.8	3346408.0	436217.2	3346415.0				
1195	436268.9	3346400.0	436266.6	3346423.0	436267.2	3346418.0	436267.1	3346419.0				
1196	436318.6	3346406.0	436316.5	3346427.0	436316.8	3346424.0	436317.0	3346422.0				
1197	436369.0	3346404.0	436366.5	3346429.0	436366.8	3346426.0	436367.1	3346423.0				
1198	436419.3	3346403.0	436416.9	3346428.0	436417.1	3346426.0	436417.0	3346426.0				
1199	436468.8	3346411.0	436467.6	3346423.0	436467.1	3346428.0	436466.8	3346432.0				
1200	436518.3	3346418.0	436518.2	3346419.0	436516.7	3346435.0	436516.7	3346435.0				
1201	436567.8	3346426.0	436567.1	3346434.0	436566.6	3346438.0	436565.6	3346448.0				
1202	436617.5	3346431.0	436616.8	3346438.0	436616.5	3346442.0	436615.6	3346451.0				
1203	436667.3	3346436.0	436667.1	3346438.0	436665.7	3346452.0	436665.0	3346459.0				
1204	436717.2	3346440.0	436717.4	3346438.0	436715.2	3346460.0	436713.8	3346474.0				
1205	436766.9	3346445.0	436767.5	3346439.0	436765.3	3346461.0	436763.6	3346479.0				
1206	436817.1	3346446.0	436817.2	3346444.0	436815.4	3346463.0	436812.8	3346489.0				
1207	436868.5	3346434.0	436866.9	3346450.0	436865.0	3346469.0	436861.4	3346505.0				
1208	436918.3	3346438.0	436916.4	3346457.0	436914.1	3346481.0	436910.3	3346518.0				
1209	436966.5	3346459.0	436966.1	3346463.0	436962.4	3346500.0	436959.3	3346531.0				
1210	437014.8	3346479.0	437015.5	3346471.0	437010.4	3346523.0	437008.8	3346539.0				
1211	437063.0	3346499.0	437064.7	3346482.0	437059.3	3346536.0	437057.7	3346553.0				
1212	437111.3	3346518.0	437113.5	3346497.0	437109.0	3346542.0	437106.7	3346565.0				
1213	437159.8	3346536.0	437162.6	3346508.0	437158.0	3346555.0	437155.6	3346579.0				
1214	437208.4	3346553.0	437211.9	3346518.0	437206.6	3346571.0	437204.0	3346597.0				

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
1215	0.5	-0.2	-0.4		-3.4	-2.0		-1.1		
1216	0.7	-0.1	-0.3		-3.6	-2.2		-1.2		
1217	0.9	0.0	-0.3		-3.8	-2.3		-1.2		
1218	0.9	0.0	-0.3		-3.8	-2.2		-1.1		
1219	0.9	0.0	-0.2		-3.9	-2.3		-1.2		
1220	1.1	0.1	-0.2		-4.3	-2.5		-1.2		
1221	1.1	0.1	-0.2		-4.1	-2.3		-1.0		
1222	1.0	0.0	-0.1		-4.1	-2.1		-0.8		
1223	1.0	0.0	-0.2		-4.1	-2.1		-0.8		
1224	0.9	0.0	-0.2		-4.1	-2.2		-0.9		
1225	0.8	-0.1	-0.2		-4.1	-2.0		-0.6		
1226	0.6	-0.2	-0.2		-3.5	-1.6		-0.3		
1227	0.5	-0.1	-0.2		-2.8	-1.3		-0.3		
1228	0.4	-0.2	-0.2		-2.7	-1.2		-0.2		
1229	0.4	-0.2	-0.2		-2.5	-1.1		-0.2		
1230	0.3	-0.2	-0.2		-2.4	-1.0		-0.1		
1231	0.3	-0.2	-0.1		-2.5	-0.9		0.2		
1232	0.3	-0.3	-0.2		-2.9	-1.0		0.2		
1233	0.4	-0.3	-0.1		-3.3	-1.0		0.5		
1234	0.3	-0.3	-0.1		-3.0	-0.8		0.7		
1235	0.3	-0.3	-0.1		-2.7	-0.7		0.7		
1236	0.3	-0.2	0.0		-2.1	-0.6		0.5		
1237	0.2	-0.2	0.0		-1.7	-0.4		0.5		
1238	0.1	-0.1	0.0		-1.0	-0.2		0.3		
1239	-0.3	0.0	0.1		1.1	0.7		0.4		
1240	-0.4	0.1	0.2		1.9	1.1		0.5		
1241	-0.2	0.1	0.2		1.2	0.7		0.4		
1242	-0.1	0.0	0.1		0.6	0.6		0.6		
1243	-0.2	0.1	0.2		1.2	0.9		0.7		
1244	-0.2	0.1	0.2		1.3	0.9		0.7		
1245	-0.1	0.2	0.2		1.5	0.9		0.5		
1246	-0.2	0.1	0.2		1.6	0.8		0.3		
1247	-0.2	0.0	0.0		0.7	0.5		0.3		
1248	-0.4	-0.3	-0.2		0.3	0.2		0.2		
1249	-0.2	-0.2	-0.1		0.0	0.1		0.1		
1250	0.1	0.0	0.0		-0.4	-0.3		-0.2		
1251	0.2	0.0	0.0		-0.8	-0.4		-0.1		
1252	0.3	-0.1	-0.1		-1.6	-0.8		-0.2		
1253	0.2	-0.1	-0.2		-1.6	-0.9		-0.4		
1254	0.1	-0.2	-0.2		-1.6	-0.8		-0.2		
1255	0.1	-0.2	-0.1		-1.5	-0.6		0.1		
1256	0.1	-0.2	-0.1		-1.5	-0.5		0.2		
1257	0.1	-0.3	-0.2		-1.9	-0.7		0.1		
1258	0.2	-0.3	-0.2		-2.5	-0.9		0.2		
1259	0.1	-0.3	-0.2		-2.1	-0.8		0.1		
1260	0.0	-0.4	-0.3		-1.8	-0.7		0.0		
1261	0.1	-0.3	-0.2		-2.2	-0.8		0.1		
1262	0.2	-0.3	-0.2		-2.4	-0.9		0.2		
1263	0.4	-0.2	-0.1		-2.6	-1.1		0.0		
1264	0.4	0.0	-0.2		-2.0	-1.3		-0.8		
1265	0.4	-0.2	-0.2		-2.8	-1.3		-0.3		
1266	0.5	-0.3	-0.2		-3.6	-1.4		0.1		
1267	0.3	-0.4	-0.2		-3.2	-1.2		0.2		
1268	0.2	-0.4	-0.2		-3.0	-1.0		0.4		
1269	0.3	-0.4			-3.5					
1270	0.2	-0.5			-3.6					
1271	0.0	-0.6			-3.0					
1272	-0.1	-0.6			-2.6					
1273	-0.1	-0.6			-2.4					
1274	-0.1	-0.5			-2.2					
1275	-0.1	-0.4			-1.7					
1276	0.0	-0.3			-1.9					
1277	0.2	-0.3			-2.6					
1278	0.3	-0.4			-3.3					
1279	0.3	-0.4			-3.3					
1280	0.3	-0.4			-3.7					
1281	0.4	-0.4			-3.7					
1282	0.4	-0.4			-3.5					
1283	0.3	-0.4			-3.4					
1284	0.2	-0.5			-3.3					
1285	0.2	-0.5			-3.3					
1286	0.2	-0.5			-3.7					
1287	0.3	-0.5			-4.0					
1288	0.3	-0.4			-3.5					
1289	0.4	-0.3			-3.3					
1290	0.4	-0.3			-3.6					

				High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
Transect #		1847/67		1917/18		1934		1957		1978/82
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
1215	437256.1	3346579.0	437260.9	3346530.0	437255.3	3346587.0	437252.5	3346615.0		
1216	437303.8	3346604.0	437309.7	3346545.0	437303.7	3346605.0	437300.9	3346633.0		
1217	437351.9	3346625.0	437357.9	3346565.0	437351.9	3346626.0	437349.3	3346652.0		
1218	437399.8	3346650.0	437406.2	3346585.0	437400.0	3346648.0	437397.3	3346675.0		
1219	437447.4	3346676.0	437454.7	3346603.0	437447.9	3346671.0	437445.1	3346699.0		
1220	437495.3	3346699.0	437502.6	3346626.0	437496.0	3346692.0	437493.7	3346716.0		
1221	437543.7	3346718.0	437550.5	3346649.0	437544.1	3346714.0	437542.3	3346733.0		
1222	437592.2	3346736.0	437598.8	3346669.0	437592.3	3346735.0	437590.5	3346753.0		
1223	437640.9	3346751.0	437647.2	3346688.0	437640.7	3346754.0	437638.7	3346774.0		
1224	437690.0	3346763.0	437695.5	3346707.0	437689.1	3346772.0	437687.6	3346787.0		
1225	437738.9	3346777.0	437742.8	3346738.0	437737.3	3346793.0	437736.5	3346801.0		
1226	437787.2	3346796.0	437790.6	3346762.0	437786.1	3346807.0	437785.3	3346815.0		
1227	437836.3	3346808.0	437839.0	3346780.0	437834.8	3346823.0	437834.4	3346827.0		
1228	437885.5	3346818.0	437887.9	3346794.0	437884.0	3346833.0	437883.6	3346837.0		
1229	437934.5	3346831.0	437936.6	3346809.0	437932.9	3346847.0	437932.6	3346850.0		
1230	437983.7	3346842.0	437985.6	3346822.0	437981.6	3346862.0	437982.1	3346857.0		
1231	438032.9	3346852.0	438035.3	3346828.0	438030.7	3346874.0	438031.2	3346869.0		
1232	438082.1	3346862.0	438084.6	3346837.0	438079.4	3346889.0	438080.6	3346877.0		
1233	438131.1	3346874.0	438133.2	3346854.0	438128.3	3346903.0	438129.9	3346887.0		
1234	438179.8	3346891.0	438181.6	3346872.0	438177.3	3346916.0	438178.9	3346899.0		
1235	438228.5	3346906.0	438230.3	3346888.0	438227.0	3346921.0	438228.1	3346910.0		
1236	438277.6	3346917.0	438279.0	3346903.0	438276.3	3346930.0	438277.5	3346919.0		
1237	438327.0	3346926.0	438327.8	3346918.0	438326.2	3346935.0	438326.8	3346928.0		
1238	438375.8	3346941.0	438373.8	3346961.0	438375.5	3346943.0	438376.4	3346934.0		
1239	438424.5	3346956.0	438422.0	3346981.0	438425.0	3346951.0	438426.2	3346939.0		
1240	438474.0	3346964.0	438472.9	3346975.0	438474.7	3346957.0	438475.7	3346947.0		
1241	438523.7	3346970.0	438522.8	3346978.0	438523.7	3346969.0	438525.1	3346955.0		
1242	438572.4	3346985.0	438570.8	3347000.0	438572.8	3346981.0	438574.4	3346965.0		
1243	438621.5	3346996.0	438620.3	3347008.0	438622.4	3346987.0	438623.9	3346972.0		
1244	438670.7	3347007.0	438669.8	3347016.0	438672.1	3346992.0	438673.2	3346981.0		
1245	438720.7	3347009.0	438719.1	3347026.0	438721.6	3347000.0	438722.4	3346993.0		
1246	438770.9	3347010.0	438769.4	3347025.0	438770.5	3347014.0	438771.2	3347007.0		
1247	438822.2	3346999.0	438819.4	3347027.0	438819.8	3347023.0	438820.3	3347018.0		
1248	438870.7	3347017.0	438869.3	3347031.0	438869.3	3347031.0	438869.5	3347029.0		
1249	438918.6	3347041.0	438919.1	3347035.0	438918.5	3347041.0	438918.1	3347045.0		
1250	438967.7	3347052.0	438969.0	3347039.0	438967.7	3347052.0	438967.5	3347054.0		
1251	439016.8	3347063.0	439018.8	3347043.0	439016.4	3347068.0	439015.9	3347073.0		
1252	439066.1	3347073.0	439067.8	3347056.0	439065.2	3347082.0	439064.3	3347090.0		
1253	439115.6	3347081.0	439116.6	3347070.0	439114.1	3347095.0	439113.7	3347100.0		
1254	439164.7	3347092.0	439165.4	3347085.0	439163.0	3347109.0	439163.2	3347107.0		
1255	439213.5	3347106.0	439214.1	3347100.0	439211.7	3347124.0	439212.3	3347119.0		
1256	439262.9	3347115.0	439263.7	3347107.0	439260.8	3347136.0	439261.1	3347134.0		
1257	439312.2	3347125.0	439313.6	3347111.0	439309.6	3347151.0	439310.1	3347146.0		
1258	439361.3	3347136.0	439361.9	3347130.0	439358.6	3347163.0	439358.8	3347161.0		
1259	439410.8	3347144.0	439410.4	3347147.0	439407.6	3347176.0	439407.7	3347175.0		
1260	439459.0	3347164.0	439460.0	3347154.0	439456.5	3347189.0	439456.8	3347187.0		
1261	439507.5	3347182.0	439509.0	3347166.0	439505.2	3347205.0	439505.6	3347201.0		
1262	439555.6	3347204.0	439558.2	3347177.0	439554.0	3347219.0	439554.1	3347219.0		
1263	439604.5	3347217.0	439607.3	3347188.0	439604.2	3347220.0	439602.3	3347239.0		
1264	439653.2	3347232.0	439656.3	3347202.0	439651.9	3347246.0	439651.1	3347253.0		
1265	439702.1	3347246.0	439705.4	3347213.0	439699.6	3347271.0	439699.9	3347268.0		
1266	439751.0	3347259.0	439753.1	3347239.0	439748.1	3347289.0	439748.4	3347286.0		
1267	439799.7	3347275.0	439801.2	3347260.0	439796.5	3347307.0	439797.4	3347299.0		
1268	439848.8	3347287.0	439850.9	3347266.0	439845.3	3347322.0	439846.3	3347312.0		
1269	439898.3	3347295.0	439899.6	3347281.0	439893.9	3347338.0				
1270	439947.5	3347305.0	439947.6	3347304.0	439942.7	3347353.0				
1271	439996.8	3347314.0	439996.1	3347322.0	439991.9	3347364.0				
1272	440045.8	3347327.0	440044.9	3347336.0	440041.1	3347374.0				
1273	440094.5	3347342.0	440093.7	3347351.0	440090.2	3347386.0				
1274	440142.9	3347361.0	440141.9	3347371.0	440139.2	3347398.0				
1275	440191.1	3347382.0	440191.2	3347380.0	440188.3	3347410.0				
1276	440239.7	3347399.0	440240.9	3347387.0	440236.8	3347428.0				
1277	440288.6	3347412.0	440290.4	3347393.0	440285.2	3347446.0				
1278	440337.9	3347421.0	440339.8	3347403.0	440334.5	3347455.0				
1279	440386.8	3347436.0	440389.1	3347412.0	440383.3	3347470.0				
1280	440435.3	3347452.0	440437.9	3347426.0	440432.1	3347485.0				
1281	440484.1	3347467.0	440486.5	3347443.0	440481.0	3347499.0				
1282	440533.2	3347479.0	440534.9	3347461.0	440529.6	3347515.0				
1283	440582.3	3347490.0	440583.6	3347477.0	440578.5	3347529.0				
1284	440631.3	3347503.0	440632.4	3347492.0	440627.3	3347543.0				
1285	440680.3	3347516.0	440681.8	3347500.0	440676.0	3347559.0				
1286	440729.1	3347530.0	440731.4	3347507.0	440725.2	3347570.0				
1287	440778.2	3347542.0	440780.5	3347518.0	440775.0	3347574.0				
1288	440826.9	3347557.0	440829.3	3347533.0	440824.1	3347585.0				
1289	440875.6	3347572.0	440878.7	3347542.0	440872.9	3347600.0				
1290	440924.6	3347585.0	440926.4	3347567.0	440921.3	3347618.0				

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
1291	0.3	-0.4			-3.3					
1292	0.1	-0.4			-2.5					
1293	0.0	-0.3			-1.6					
1294	0.1	-0.3			-1.9					
1295	0.2	-0.2			-1.9					
1296	0.2	-0.3			-2.1					
1297	0.2	-0.3			-2.5					
1298	0.0	-0.4			-2.1					
1299	0.0	-0.3			-1.6					
1300	-0.1	-0.4			-1.5					
1301	-0.3	-0.5			-1.6					
1302	-0.4	-0.6			-1.7					
1303	-0.5	-0.7			-1.4					
1304	-0.5	-0.6			-1.2					
1305	-0.5	-0.6			-1.3					
1306	-0.4	-0.7			-1.6					
1307	-0.5	-0.7			-1.6					
1308	-0.6	-0.8			-1.6					
1309	-0.6	-0.8			-1.5					
1310	-0.6	-0.8			-1.9					
1311	-0.6	-0.8			-1.7					
1312	-0.4	-0.7			-1.6					
1313	-0.4	-0.6			-1.6					
1314	-0.4	-0.8			-2.2					
1315	-0.5	-0.8			-1.9					
1316	-0.6	-0.8			-1.9					
1317	-0.7	-0.9			-1.8					
1318	-0.7	-0.8			-1.2					
1319	-0.6	-0.6			-1.0					
1320	-0.5	-0.6			-0.8					
1321	-0.6	-0.7			-1.0					
1322	-0.7	-0.7			-0.8					
1323	-0.7	-0.8			-1.0					
1324	-0.7	-0.8			-1.1					
1325	-0.6	-0.8			-1.7					
1326	-0.6	-0.8			-1.8					
1327	-0.5	-0.8			-2.0					
1328	-0.4	-0.9			-2.8					
1329	-0.4	-0.9			-3.2					
1330	-0.4	-0.8			-2.5					
1331	-0.6	-0.8			-1.9					
1332	-0.7	-0.8			-1.4					
1333	-0.7	-1.0			-1.9					
1334	-0.5	-0.8			-2.2					
1335	-0.3	-0.7			-2.3					
1336	-0.3	-0.6			-2.3					
1337	-0.2	-0.6			-2.2					
1338	-0.3	-0.6			-1.9					
1339	-0.3	-0.5			-1.4					
1340	-0.5	-0.5			-0.8					
1341	-0.6	-0.5			0.0					
1342	-0.5	-0.4			0.2					
1343	-0.3	-0.2			0.1					
1344	-0.2	-0.2			0.2					
1345	-0.2	-0.1			0.1					
1346	-0.1	-0.1			-0.1					
1347	-0.1	-0.1			0.0					
1348	-0.1	0.0			0.4					
1349	-0.2	-0.1			0.4					
1350	-0.2	0.0			0.7					
1351	-0.2	-0.1			0.5					
1352	-0.3	-0.1			0.8					
1353	-0.6	-0.3			1.3					
1354	-0.7	-0.2			2.1					
1355	-0.5	-0.2			1.2					
1356	-0.3	-0.2			0.3					
1357	-0.2	-0.1			0.3					
1358	-0.2	-0.1			0.8					
1359	-0.3	-0.1			0.8					
1360	-0.3	0.0			1.0					
1361	-0.4	-0.2			0.8					
1362	-0.4	-0.2			0.5					
1363	-0.4	-0.3			0.1					
1364	-0.3	-0.3			-0.1					
1365	-0.3	-0.3			-0.3					
1366	-0.4	-0.4			-0.2					

				High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
Transect #		1847/67		1917/18		1934		1957		1978/82
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
1291	440973.5	3347599.0	440974.1	3347593.0	440970.0	3347633.0				
1292	441022.3	3347613.0	441022.3	3347613.0	441019.7	3347639.0				
1293	441071.3	3347626.0	441071.9	3347619.0	441069.0	3347649.0				
1294	441120.2	3347639.0	441121.4	3347627.0	441118.3	3347658.0				
1295	441169.4	3347650.0	441170.5	3347639.0	441167.2	3347672.0				
1296	441218.6	3347661.0	441219.6	3347650.0	441215.8	3347689.0				
1297	441267.8	3347671.0	441267.8	3347671.0	441264.4	3347705.0				
1298	441316.4	3347688.0	441316.3	3347688.0	441313.8	3347714.0				
1299	441365.8	3347696.0	441364.8	3347706.0	441362.4	3347731.0				
1300	441415.3	3347703.0	441413.4	3347723.0	441410.8	3347749.0				
1301	441464.7	3347712.0	441462.2	3347737.0	441459.6	3347764.0				
1302	441513.8	3347723.0	441510.6	3347756.0	441508.3	3347779.0				
1303	441562.6	3347738.0	441559.2	3347773.0	441557.2	3347792.0				
1304	441611.2	3347754.0	441608.1	3347786.0	441606.1	3347806.0				
1305	441660.4	3347766.0	441657.4	3347795.0	441654.9	3347821.0				
1306	441709.5	3347777.0	441705.9	3347813.0	441703.4	3347838.0				
1307	441758.9	3347785.0	441754.5	3347829.0	441752.0	3347855.0				
1308	441807.7	3347800.0	441803.4	3347843.0	441801.1	3347867.0				
1309	441856.3	3347816.0	441852.4	3347855.0	441849.4	3347886.0				
1310	441905.9	3347823.0	441901.5	3347867.0	441898.8	3347894.0				
1311	441953.8	3347847.0	441950.8	3347877.0	441948.2	3347903.0				
1312	442002.5	3347862.0	441999.6	3347891.0	441997.1	3347917.0				
1313	442051.4	3347875.0	442048.6	3347904.0	442045.2	3347939.0				
1314	442100.3	3347889.0	442096.8	3347924.0	442093.9	3347954.0				
1315	442149.5	3347900.0	442145.4	3347941.0	442142.5	3347971.0				
1316	442198.4	3347913.0	442193.9	3347958.0	442191.1	3347987.0				
1317	442246.7	3347933.0	442241.7	3347984.0	442239.8	3348002.0				
1318	442294.1	3347962.0	442290.3	3348000.0	442288.7	3348016.0				
1319	442342.4	3347981.0	442338.7	3348018.0	442337.4	3348032.0				
1320	442391.4	3347994.0	442387.0	3348038.0	442385.5	3348054.0				
1321	442440.3	3348007.0	442435.5	3348056.0	442434.1	3348069.0				
1322	442489.0	3348023.0	442484.0	3348073.0	442482.4	3348089.0				
1323	442537.3	3348042.0	442532.4	3348092.0	442530.7	3348109.0				
1324	442586.0	3348058.0	442581.9	3348099.0	442579.2	3348127.0				
1325	442634.7	3348074.0	442630.8	3348112.0	442628.0	3348141.0				
1326	442683.2	3348091.0	442679.8	3348126.0	442676.5	3348158.0				
1327	442731.7	3348109.0	442728.8	3348138.0	442724.3	3348184.0				
1328	442780.2	3348126.0	442777.7	3348152.0	442772.7	3348202.0				
1329	442828.8	3348143.0	442825.7	3348174.0	442821.7	3348215.0				
1330	442877.6	3348157.0	442873.7	3348197.0	442870.7	3348227.0				
1331	442926.8	3348168.0	442922.3	3348213.0	442920.1	3348235.0				
1332	442976.4	3348174.0	442971.4	3348225.0	442968.3	3348256.0				
1333	443024.1	3348200.0	443020.5	3348236.0	443017.1	3348271.0				
1334	443071.8	3348226.0	443069.5	3348249.0	443065.8	3348286.0				
1335	443120.4	3348243.0	443118.7	3348260.0	443115.1	3348296.0				
1336	443169.3	3348255.0	443167.8	3348271.0	443164.3	3348306.0				
1337	443218.3	3348268.0	443216.3	3348288.0	443213.4	3348318.0				
1338	443266.7	3348287.0	443264.3	3348311.0	443262.1	3348333.0				
1339	443315.3	3348303.0	443312.2	3348335.0	443311.0	3348347.0				
1340	443364.4	3348315.0	443360.2	3348357.0	443360.3	3348357.0				
1341	443412.5	3348337.0	443409.1	3348371.0	443409.3	3348369.0				
1342	443460.7	3348357.0	443458.6	3348379.0	443458.8	3348376.0				
1343	443509.4	3348373.0	443507.8	3348389.0	443508.1	3348386.0				
1344	443558.2	3348387.0	443557.0	3348400.0	443557.2	3348398.0				
1345	443606.8	3348404.0	443606.2	3348410.0	443606.0	3348412.0				
1346	443655.8	3348417.0	443655.1	3348424.0	443655.1	3348423.0				
1347	443704.8	3348429.0	443703.9	3348438.0	443704.5	3348433.0				
1348	443754.2	3348438.0	443753.2	3348448.0	443753.7	3348443.0				
1349	443803.4	3348448.0	443802.1	3348462.0	443803.1	3348451.0				
1350	443852.4	3348461.0	443851.0	3348475.0	443851.8	3348467.0				
1351	443901.6	3348471.0	443899.2	3348495.0	443900.4	3348483.0				
1352	443951.3	3348476.0	443947.2	3348518.0	443949.2	3348498.0				
1353	443999.7	3348495.0	443994.9	3348544.0	443998.1	3348511.0				
1354	444048.0	3348515.0	444044.3	3348552.0	444046.2	3348533.0				
1355	444096.6	3348532.0	444094.6	3348552.0	444095.0	3348548.0				
1356	444145.3	3348548.0	444143.7	3348564.0	444144.2	3348558.0				
1357	444194.2	3348561.0	444192.5	3348578.0	444193.8	3348565.0				
1358	444243.4	3348571.0	444241.7	3348589.0	444242.9	3348576.0				
1359	444292.4	3348584.0	444290.6	3348602.0	444292.2	3348586.0				
1360	444342.2	3348589.0	444339.5	3348616.0	444340.8	3348602.0				
1361	444391.3	3348600.0	444388.6	3348627.0	444389.4	3348619.0				
1362	444440.4	3348611.0	444438.0	3348636.0	444438.2	3348633.0				
1363	444489.3	3348624.0	444487.2	3348646.0	444487.0	3348648.0				
1364	444538.4	3348636.0	444536.1	3348660.0	444535.6	3348665.0				
1365	444587.8	3348646.0	444584.8	3348675.0	444584.5	3348679.0				
1366	444636.9	3348657.0	444633.0	3348696.0	444633.8	3348688.0				

				High-Water Shoreline Position Change Rate						
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)
1367	-0.6	-0.4			0.5					
1368	-0.5	-0.4			0.0					
1369	-0.5	-0.4			-0.1					
1370	-0.5	-0.4			0.0					
1371	-0.3	-0.3			0.0					
1372	-0.2	-0.2			-0.1					
1373	-0.3	-0.2			0.1					
1374	-0.4	-0.3			-0.2					
1375	-0.5	-0.4			0.0					
1376	-0.6	-0.5			-0.3					
1377	-0.4	-0.4			-0.5					
1378	-0.3	-0.4			-1.1					
1379	-0.2	-0.4			-1.2					
1380	-0.3	-0.5			-1.3					
1381	-0.1	-0.3			-1.5					
1382	0.2	-0.2			-2.0					
1383	0.3	-0.2			-2.4					
1384	0.4	-0.2			-2.7					
1385	0.3	-0.4			-3.3					
1386	0.2	-0.4			-3.3					
1387	0.4	-0.4			-3.7					
1388	0.7	-0.1			-3.6					
1389	0.8	0.0			-3.4					
1390	0.9	0.1			-3.4					
1391	0.8	0.0			-3.9					
1392	1.1	0.1			-4.4					
1393	1.4	0.1			-5.2					
1394	1.5	0.2			-5.6					
1395	1.7	0.3			-5.4					
1396	1.7	0.4			-5.1					
1397	1.7	0.5			-5.1					
1398	1.9	0.5			-5.5					
1399	1.9	0.5			-5.5					
1400	1.9	0.4			-6.2					
1401	2.1	0.6			-6.0					
1402	2.2	0.5			-6.6					
1403	2.2	0.5			-6.8					
1404	2.2	0.5			-6.8					
1405	2.2	0.5			-7.0					
1406	2.2	0.4			-7.1					
1407	2.1	0.5			-6.5					
1408	1.9	0.4			-6.1					
1409	1.8	0.3			-6.3					
1410	1.7	0.1			-7.1					
1411	1.5	0.0			-6.5					
1412	1.4	0.0			-6.3					
1413	1.3	-0.2			-6.5					
1414	1.0	-0.4			-6.0					
1415	0.5	-0.6			-5.4					
1416		-1.6			-5.3					
1417										
Perdido Pass										
1418	-3.5	-3.3								
1419	-4.0	-2.8								
1420	-4.8	-2.9			2.0					
1421	-5.2	-2.7			5.1					
1422	-4.1	-2.5			8.2					
1423	-3.8	-2.2			4.4					
1424	-3.6	-1.8			4.4					
1425	-3.7	-1.5			5.9					
1426	-3.5	-1.4			7.8					
1427	-3.3	-1.2			7.8					
1428	-3.2	-0.8			7.9					
1429	-3.1	-0.6			9.8					
1430	-2.2	-0.4			9.8					
1431	-2.2	-0.2			7.4					
1432	-2.2	-0.3			8.5					
1433	-2.2	-0.2			7.9					
1434	-2.1	0.0			8.3					
1435	-2.2	0.0			9.0					
1436	-2.3	-0.1			9.4					
1437	-2.5	-0.1			9.3					
1438	-2.7	-0.1			10.3					

				High-Water Shoreline Position (UTM Zone 16, NAD 1983)						
Transect #		1847/67		1917/18		1934		1957		1978/82
	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
1367	444686.0	3348668.0	444682.5	3348704.0	444682.4	3348704.0				
1368	444735.1	3348679.0	444732.0	3348710.0	444731.9	3348712.0				
1369	444784.7	3348686.0	444781.5	3348718.0	444781.5	3348719.0				
1370	444833.2	3348704.0	444830.9	3348727.0	444831.0	3348726.0				
1371	444881.9	3348720.0	444880.2	3348737.0	444880.0	3348738.0				
1372	444930.9	3348732.0	444929.0	3348751.0	444929.2	3348749.0				
1373	444980.2	3348741.0	444977.7	3348767.0	444977.3	3348770.0				
1374	445030.1	3348745.0	445026.7	3348779.0	445026.7	3348780.0				
1375	445079.7	3348751.0	445075.9	3348789.0	445075.5	3348794.0				
1376	445128.3	3348768.0	445125.3	3348798.0	445124.5	3348806.0				
1377	445177.1	3348782.0	445175.0	3348804.0	445173.3	3348820.0				
1378	445226.2	3348794.0	445224.5	3348811.0	445222.7	3348830.0				
1379	445275.4	3348804.0	445273.7	3348822.0	445271.5	3348843.0				
1380	445323.9	3348822.0	445323.4	3348827.0	445321.1	3348851.0				
1381	445372.1	3348842.0	445373.4	3348829.0	445370.3	3348861.0				
1382	445421.0	3348856.0	445423.3	3348834.0	445419.4	3348872.0				
1383	445470.4	3348865.0	445472.9	3348840.0	445468.6	3348883.0				
1384	445521.0	3348861.0	445522.8	3348843.0	445517.6	3348896.0				
1385	445570.8	3348866.0	445572.3	3348851.0	445567.0	3348904.0				
1386	445619.1	3348885.0	445621.8	3348859.0	445615.8	3348918.0				
1387	445666.4	3348915.0	445671.0	3348869.0	445665.3	3348926.0				
1388	445714.3	3348939.0	445719.9	3348882.0	445714.4	3348937.0				
1389	445763.4	3348950.0	445769.2	3348891.0	445763.9	3348945.0				
1390	445812.7	3348959.0	445818.5	3348901.0	445812.4	3348963.0				
1391	445860.3	3348986.0	445867.8	3348911.0	445860.8	3348981.0				
1392	445907.6	3349016.0	445916.9	3348922.0	445908.8	3349004.0				
1393	445955.6	3349039.0	445966.1	3348933.0	445957.3	3349022.0				
1394	446004.1	3349057.0	446015.3	3348943.0	446006.8	3349029.0				
1395	446052.8	3349071.0	446064.3	3348956.0	446056.3	3349037.0				
1396	446101.8	3349084.0	446113.7	3348965.0	446105.7	3349046.0				
1397	446150.4	3349101.0	446163.1	3348973.0	446154.3	3349061.0				
1398	446199.2	3349116.0	446212.3	3348983.0	446203.6	3349071.0				
1399	446248.2	3349128.0	446261.5	3348994.0	446251.7	3349093.0				
1400	446296.3	3349150.0	446310.8	3349004.0	446301.3	3349100.0				
1401	446345.4	3349161.0	446360.1	3349013.0	446349.7	3349118.0				
1402	446394.5	3349172.0	446409.2	3349025.0	446398.4	3349133.0				
1403	446443.6	3349184.0	446458.6	3349034.0	446447.8	3349143.0				
1404	446493.0	3349193.0	446507.9	3349042.0	446496.9	3349154.0				
1405	446542.6	3349199.0	446557.5	3349049.0	446546.3	3349163.0				
1406	446592.4	3349204.0	446606.7	3349060.0	446596.3	3349164.0				
1407	446642.5	3349205.0	446655.6	3349073.0	446646.0	3349170.0				
1408	446692.4	3349209.0	446704.5	3349087.0	446694.6	3349186.0				
1409	446741.8	3349217.0	446753.6	3349098.0	446742.4	3349211.0				
1410	446791.3	3349225.0	446801.7	3349120.0	446791.4	3349224.0				
1411	446840.8	3349233.0	446850.5	3349134.0	446840.5	3349235.0				
1412	446890.9	3349234.0	446899.6	3349146.0	446889.3	3349250.0				
1413	446942.5	3349220.0	446949.0	3349155.0	446939.5	3349250.0				
1414	446995.2	3349196.0	446998.3	3349164.0	446989.8	3349250.0				
1415	447052.3	3349126.0	447047.4	3349175.0	447039.1	3349260.0				
1416	447095.4	3349198.0	447095.9	3349193.0	447084.1	3349312.0				
1417	447141.2	3349243.0	447144.4	3349211.0	447125.0	3349406.0				
Perdido Pass										
1418	447439.3	3349277.0								
1419	447491.3	3349259.0	447412.3	3349549.0	447415.5	3349517.0				
1420	447540.9	3349266.0	447458.8	3349587.0	447466.8	3349506.0				
1421	447590.8	3349270.0	447505.3	3349625.0	447518.3	3349494.0				
1422	447639.8	3349282.0	447562.7	3349553.0	447569.6	3349483.0				
1423	447688.7	3349295.0	447614.1	3349541.0	447621.1	3349471.0				
1424	447737.8	3349307.0	447663.9	3349545.0	447673.3	3349451.0				
1425	447786.9	3349318.0	447712.9	3349558.0	447725.1	3349435.0				
1426	447836.2	3349329.0	447763.3	3349557.0	447775.5	3349433.0				
1427	447885.2	3349341.0	447813.6	3349556.0	447826.1	3349430.0				
1428	447934.7	3349348.0	447863.4	3349560.0	447878.9	3349404.0				
1429	447984.5	3349353.0	447913.8	3349558.0	447929.3	3349402.0				
1430	448034.2	3349358.0	447969.2	3349507.0	447980.9	3349389.0				
1431	448083.8	3349365.0	448019.3	3349508.0	448032.7	3349374.0				
1432	448133.0	3349375.0	448068.9	3349514.0	448081.5	3349388.0				
1433	448181.8	3349390.0	448118.1	3349526.0	448131.2	3349394.0				
1434	448231.1	3349400.0	448167.2	3349537.0	448181.4	3349394.0				
1435	448280.1	3349412.0	448216.0	3349551.0	448230.9	3349402.0				
1436	448329.3	3349422.0	448264.5	3349569.0	448279.2	3349421.0				
1437	448378.9	3349429.0	448312.4	3349592.0	448328.7	3349428.0				
1438	448427.8	3349442.0	448360.7	3349612.0	448377.9	3349439.0				

				High-Water Shoreline Position Change Rate									High-Water Shoreline Position (UTM Zone 16, NAD 1983)									
Transect #	1847/67 to	1847/67 to	1847/67 to	1847/67 to	1917/18 to	1917/18 to	1917/18 to	1934 to	1934 to	1957 to		Transect #		1847/67		1917/18		1934		1957		1978/82
	1917/18 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1934 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1957 (m/yr)	1978/82 (m/yr)	1978/82 (m/yr)			UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)	UTM-x (m)	UTM-y (m)
1439	-2.6	-0.1			10.9							1439	448477.1	3349452.0	448410.4	3349617.0	448427.3	3349448.0				
1440	-2.6	-0.1			10.6							1440	448526.4	3349461.0	448459.6	3349628.0	448476.4	3349459.0				
1441	-2.5	-0.1			10.7							1441	448575.6	3349472.0	448509.4	3349633.0	448525.7	3349469.0				
1442	-2.4	-0.1			10.3							1442	448624.3	3349487.0	448559.0	3349639.0	448575.0	3349478.0				
1443	-2.3	0.0			10.1							1443	448673.3	3349501.0	448608.6	3349646.0	448624.5	3349486.0				
1444	-2.8	0.1			10.1							1444	448722.2	3349513.0	448654.2	3349692.0	448674.3	3349490.0				
1445	-3.8	0.2			12.7							1445	448770.7	3349531.0	448696.6	3349771.0	448723.7	3349499.0				
1446	-4.2	0.2			17.1							1446	448819.4	3349547.0	448741.8	3349823.0	448772.7	3349511.0				
1447	-3.9	0.3			19.6							1447	448868.1	3349563.0	448792.5	3349817.0	448822.0	3349521.0				
1448	-3.6	0.3			18.6							1448	448916.9	3349577.0	448843.3	3349812.0	448870.7	3349536.0				
1449	-3.3	0.4			17.3							1449	448965.8	3349591.0	448894.1	3349807.0	448920.6	3349540.0				
1450	-3.1	0.5			16.8							1450	449014.8	3349603.0	448944.8	3349802.0	448970.2	3349547.0				
1451	-2.8	0.5			16.0							1451	449063.9	3349615.0	448995.6	3349797.0	449019.2	3349559.0				
1452	-2.6	0.5			14.9							1452	449113.8	3349618.0	449046.3	3349791.0	449068.3	3349571.0				
1453	-2.5	0.4			13.8							1453	449163.8	3349620.0	449097.1	3349786.0	449117.2	3349584.0				
1454	-2.3	0.4			12.7							1454	449212.9	3349632.0	449147.9	3349781.0	449166.9	3349590.0				
1455	-2.1	0.5			12.0							1455	449261.9	3349644.0	449198.6	3349776.0	449216.7	3349594.0				
1456	-1.8	0.5			11.4							1456	449311.2	3349654.0	449249.4	3349771.0	449266.0	3349604.0				
1457	-1.4	0.5			10.5							1457	449359.9	3349669.0	449301.3	3349754.0	449315.4	3349612.0				
1458	-1.1	0.6			8.9							1458	449408.6	3349686.0	449352.3	3349746.0	449364.7	3349621.0				
1459	0.9	0.7			7.9							1459	449457.7	3349697.0	449414.6	3349625.0	449414.8	3349623.0				
1460	1.2	0.7			0.1							1460	449507.0	3349707.0	449465.9	3349615.0	449463.7	3349637.0				
1461	1.3	0.7			-1.4							1461	449555.8	3349721.0	449515.7	3349619.0	449512.9	3349647.0				
1462	1.1	0.7			-1.7							1462	449605.0	3349731.0	449563.1	3349648.0	449561.9	3349660.0				
1463	0.9	0.7			-0.7							1463	449654.4	3349740.0	449611.2	3349669.0	449610.6	3349675.0				
1464	0.7	0.6			-0.4							1464	449703.5	3349751.0	449659.1	3349693.0	449659.5	3349689.0				
1465	0.6	0.7			0.3							1465	449752.4	3349765.0	449707.6	3349710.0	449709.0	3349696.0				
1466	0.6	0.7			0.9							1466	449801.8	3349774.0	449756.3	3349725.0	449758.3	3349706.0				
1467	0.4	0.5			1.2							1467	449850.8	3349787.0	449804.6	3349746.0	449805.9	3349732.0				
1468	0.4	0.6			0.8							1468	449899.7	3349800.0	449853.6	3349758.0	449855.4	3349740.0				
1469	0.5	0.7			1.2							1469	449948.9	3349811.0	449903.2	3349764.0	449905.4	3349743.0				
1470	0.8	0.7			1.4							1470	449998.2	3349820.0	449954.2	3349757.0	449955.1	3349748.0				
1471	0.9	0.8			0.6							1471	450048.0	3349824.0	450004.5	3349757.0	450004.7	3349754.0				
1472	0.5	0.7			0.1							1472	450097.8	3349829.0	450051.2	3349792.0	450053.8	3349766.0				
1473	0.1	0.6			1.6							1473	450147.3	3349837.0	450098.2	3349825.0	450102.9	3349778.0				
1474	0.1	0.6			3.0							1474	450196.1	3349851.0	450148.1	3349828.0	450151.9	3349790.0				
1475	0.4	0.6			2.4							1475	450244.3	3349871.0	450198.7	3349825.0	450201.1	3349801.0				
1476	0.5	0.7			1.5							1476	450293.3	3349884.0	450247.9	3349835.0	450250.3	3349811.0				
1477	0.6	0.7			1.5							1477	450342.5	3349895.0	450297.3	3349844.0	450299.1	3349826.0				
1478	0.7	0.7			1.1							1478	450392.0	3349902.0	450347.4	3349845.0	450348.4	3349835.0				
1479	0.6	0.7			0.6							1479	450441.3	3349912.0	450395.8	3349864.0	450397.8	3349844.0				
1480	0.4	0.7			1.3							1480	450490.9	3349918.0	450443.8	3349886.0	450447.3	3349851.0				
1481	0.2	0.7			2.2							1481	450539.8	3349932.0	450492.0	3349907.0	450496.5	3349862.0				
1482	0.2	0.7			2.9							1482	450588.6	3349946.0	450540.9	3349920.0	450545.5	3349874.0				
1483	0.3	0.7			2.9							1483	450637.6	3349959.0	450590.5	3349927.0	450594.8	3349883.0				
1484	0.4	0.7			2.7							1484	450686.9	3349968.0	450640.3	3349931.0	450643.3	3349901.0				
1485	0.5	0.6			1.9							1485	450736.0	3349980.0	450690.4	3349933.0	450691.8	3349919.0				
1486	0.5	0.6			0.9							1486	450784.5	3349997.0	450739.5	3349944.0	450741.1	3349929.0				
1487	0.5	0.6			1.0							1487	450833.2	3350013.0	450787.8	3349964.0	450789.9	3349943.0				
1488	0.6	0.7			1.3							1488	450882.2	3350026.0	450837.3	3349972.0	450838.8	3349957.0				
1489	0.5	0.7			0.9							1489	450931.2	3350038.0	450885.7	3349991.0	450887.8	3349969.0				
1490	0.4	0.6			1.4							1490	450980.4	3350049.0	450934.1	3350009.0	450936.3	3349986.0				
1491	0.3	0.6			1.4							1491	451029.6	3350059.0	450982.8	3350025.0	450985.3	3349999.0				
1492	0.4	0.5			1.6							1492	451078.8	3350069.0	451032.2	3350033.0	451034.1	3350014.0				
1493	0.5	0.5			1.2							1493	451128.0	3350080.0	451081.9	3350038.0	451082.8	3350030.0				
1494	0.6	0.5			0.5							1494	451177.4	3350089.0	451132.2	3350038.0	451132.4	3350036.0				
1495	0.7	0.5			0.1							1495	451226.8	3350097.0	451182.3	3350040.0	451181.9	3350043.0				
1496	0.8	0.5			-0.2							1496	451276.4	3350104.0	451232.0	3350045.0	451231.3	3350052.0				
1497	0.8	0.5			-0.5							1497	451326.0	3350110.0	451281.9	3350048.0	451280.7	3350060.0				
1498	0.8	0.4			-0.7							1498	451375.3	3350119.0	451331.3	3350057.0	451329.2	3350078.0				
1499	0.5	0.3			-1.3							1499	451424.5	3350130.0	451378.9	3350083.0	451377.6	3350097.0				
1500	0.5	0.2			-0.9							1500	451473.8	3350140.0	451427.6	3350099.0	451426.4	3350111.0				
1501	0.4	0.2			-0.8							1501	451523.0	3350150.0	451476.7	3350111.0	451475.6	3350122.0				
1502	0.3	0.3			-0.7							1502	451572.3	3350160.0	451525.2	3350128.0	451525.3	3350127.0				
1503	0.3	0.3			0.1							1503	451622.1	3350165.0	451574.3	3350140.0	451575.1	3350132.0				
1504	0.2	0.4			0.5							1504	451671.8	3350170.0	451623.5	3350150.0	451625.7	3350128.0				
1505	0.1	0.4			1.4							1505	451721.2	3350178.0	451672.4	3350163.0	451675.4	3350134.0				
1506		0.4			1.8							1506	451770.5	3350188.0	451720.7	3350184.0	451724.8	3350142.0				
1507		0.4			2.6							1507	451819.8	3350197.0	451770.0	3350193.0	451774.0	3350152.0				
1508		0.3			2.6							1508	451868.9	3350209.0	451819.6	3350200.0	451822.3	3350172.0				
1509					1.7							1509			451870.1	3350197.0	451872.3	3350175.0				

APPENDIX B. WAVE TRANSFORMATION NUMERICAL MODELING INFORMATION

B1. Directional and Frequency Verification

Presented in this appendix are seasonally-based directional and frequency spectral plots at WIS stations 1046 and 1047 (Figures B1-1 through B1-8). These figures illustrate the seasonal input conditions used at Grid A (WIS 1047 data) and Grid B (WIS 1046 data). The WIS data are plotted as histogram plots, and the generated spectra are represented by solid black lines. Each figure includes directional verification and utilization, as well as frequency verification and utilization.

The generated spectra (direction and frequency) are tailored to reflect the associated wave climate during each season at each site. This is accomplished by a combination of techniques. It includes:

- determining seasonal wave statistics at each site
- stretching or compressing the directional or frequency spread

Both of these allow a custom fit of WIS wave data to generated spectra. Sections 4.2.2.1 and 4.2.2.2 provide a more thorough discussion of directional and frequency spectral theory.

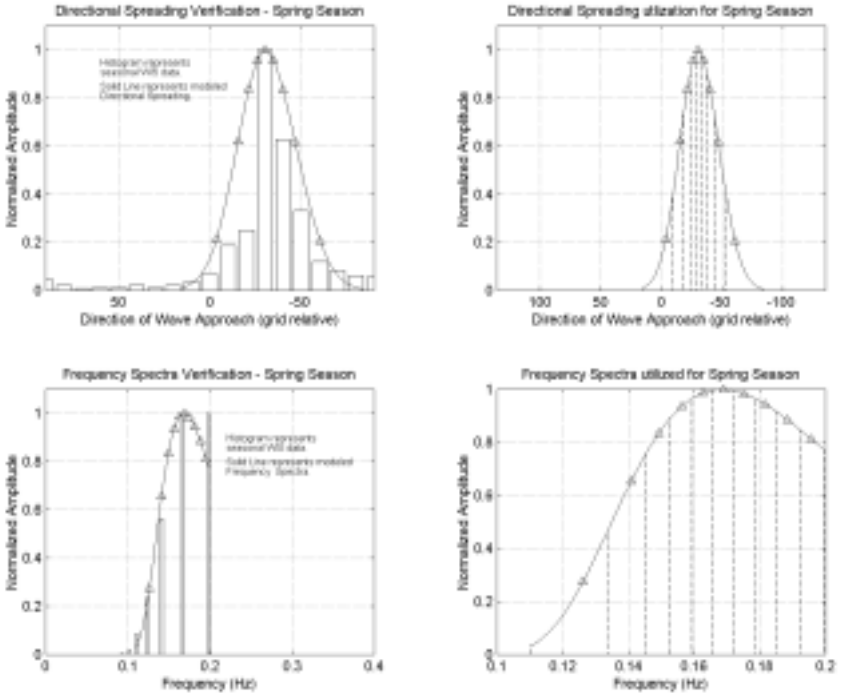


Figure B1-1. Spring spectral verification and utilization at WIS 1046.

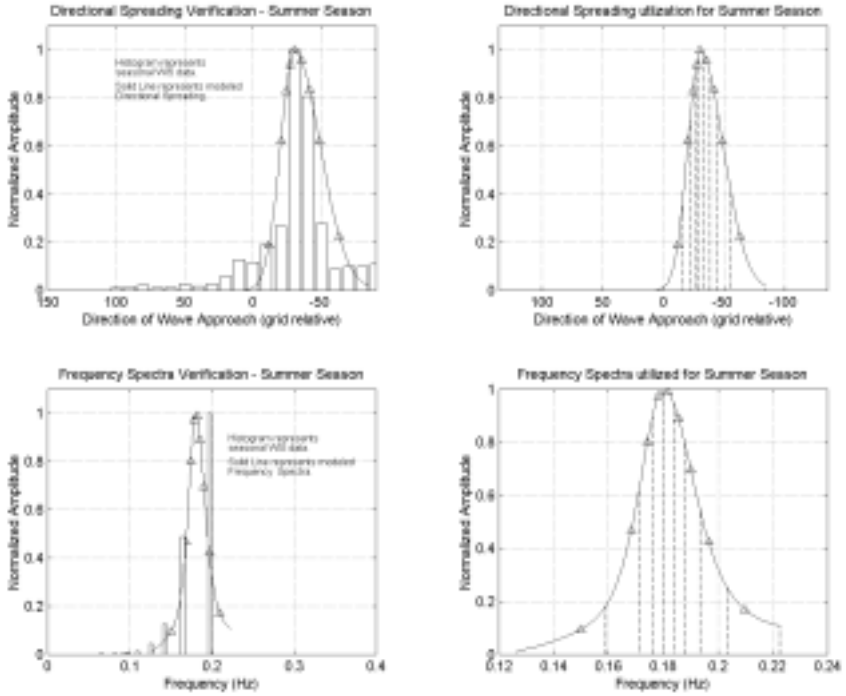


Figure B1-2. Summer spectral verification and utilization at WIS 1046.

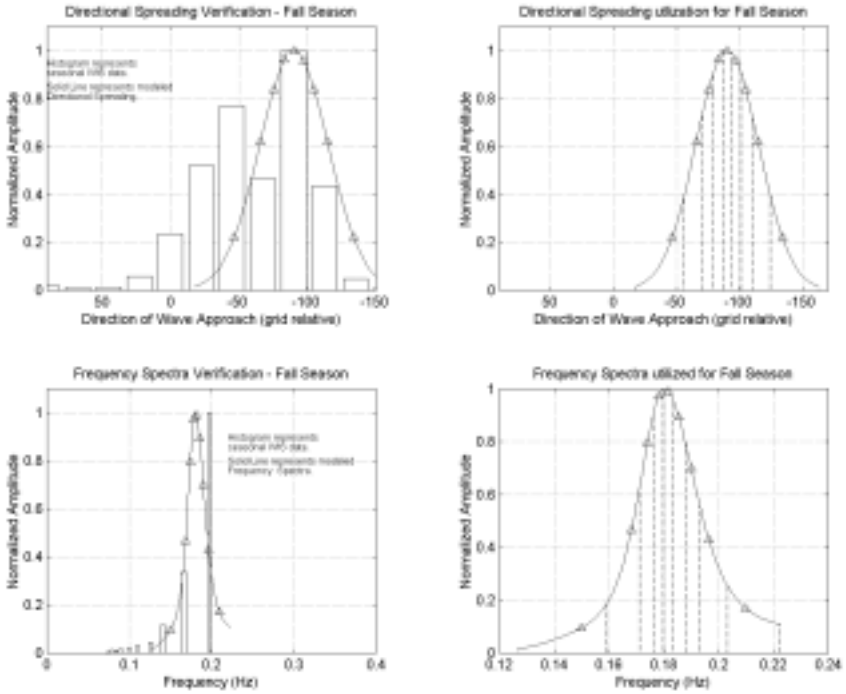


Figure B1-3. Fall spectral verification and utilization at WIS 1046.

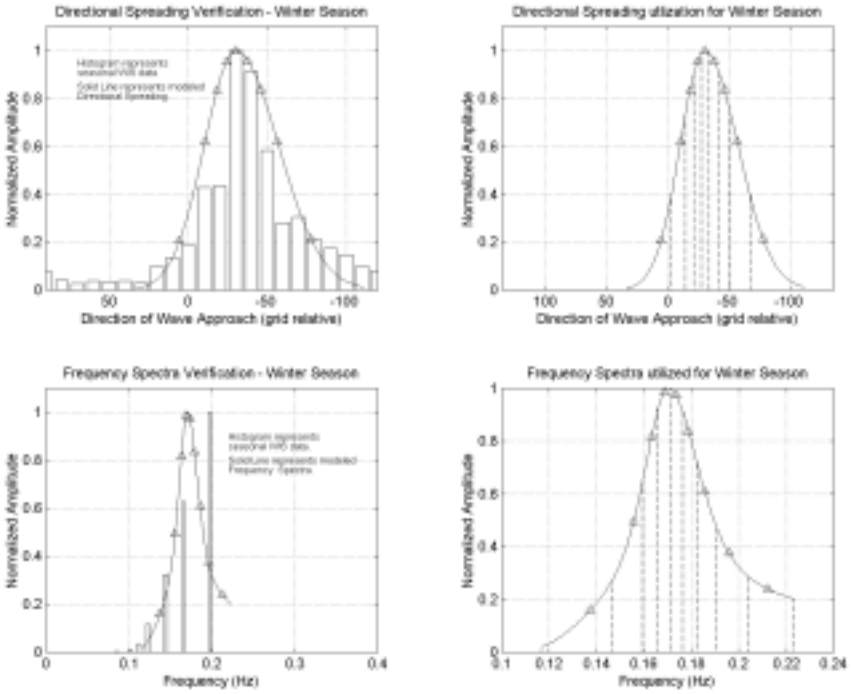


Figure B1-4. Winter spectral verification and utilization at WIS 1046.

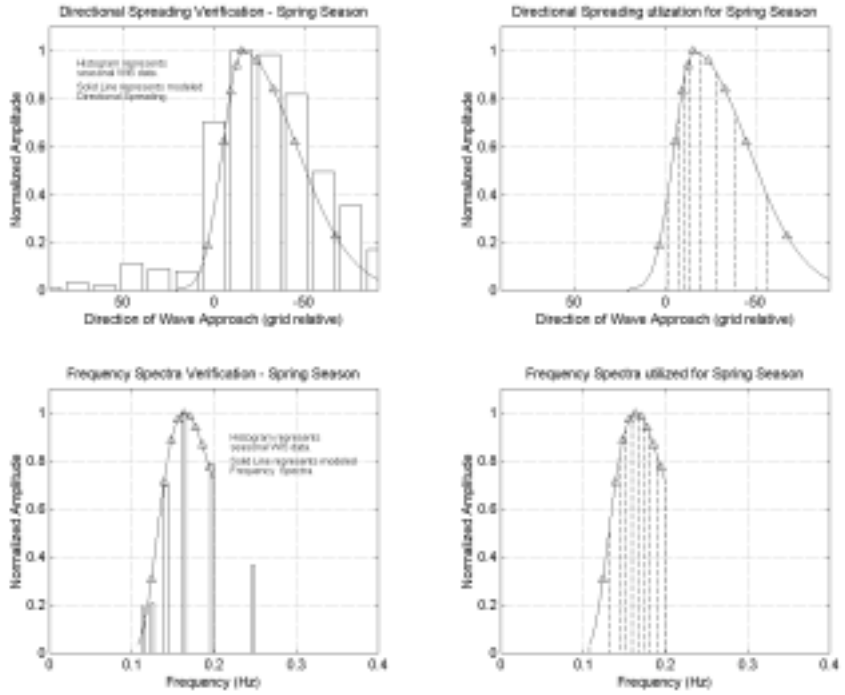


Figure B1-5. Spring spectral verification and utilization at WIS 1047.

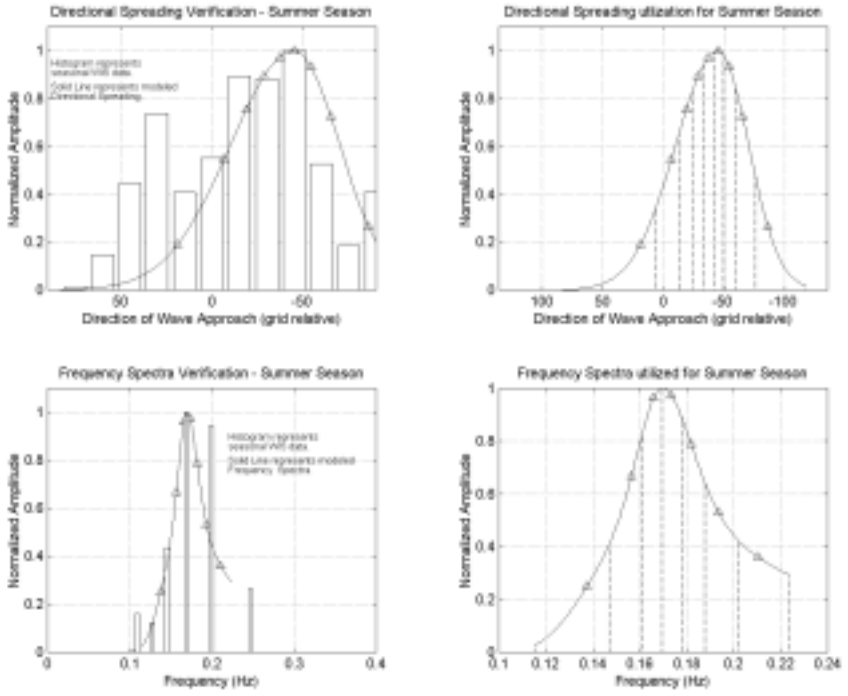


Figure B1-6. Summer spectral verification and utilization at WIS 1047.

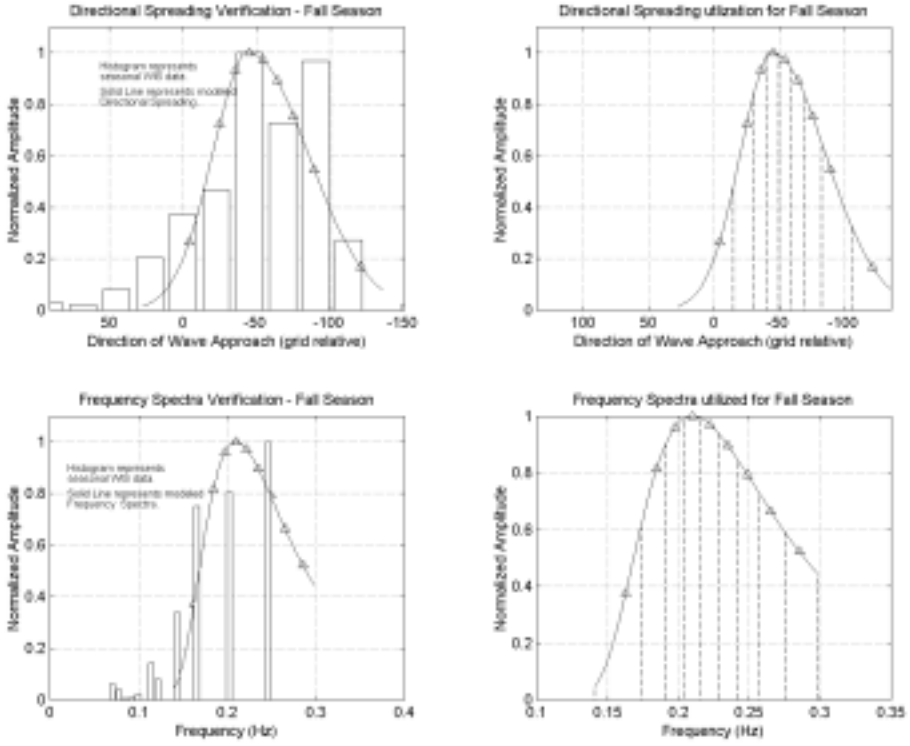


Figure B1-7. Fall spectral verification and utilization at WIS 1047.

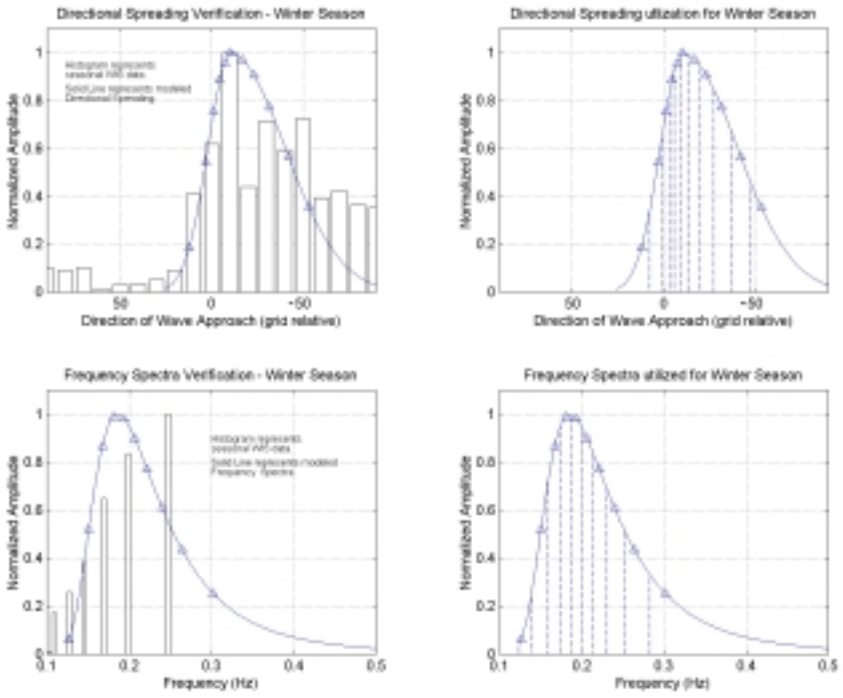


Figure B1-8. Winter spectral verification and utilization at WIS 1047.

B2. Existing Conditions Wave Model

Presented in this appendix are the existing condition (pre-dredging) numerical wave transformation modeling results. Results are presented for all of the simulations (seasonal and 50-year storm) at both grids (A and B).

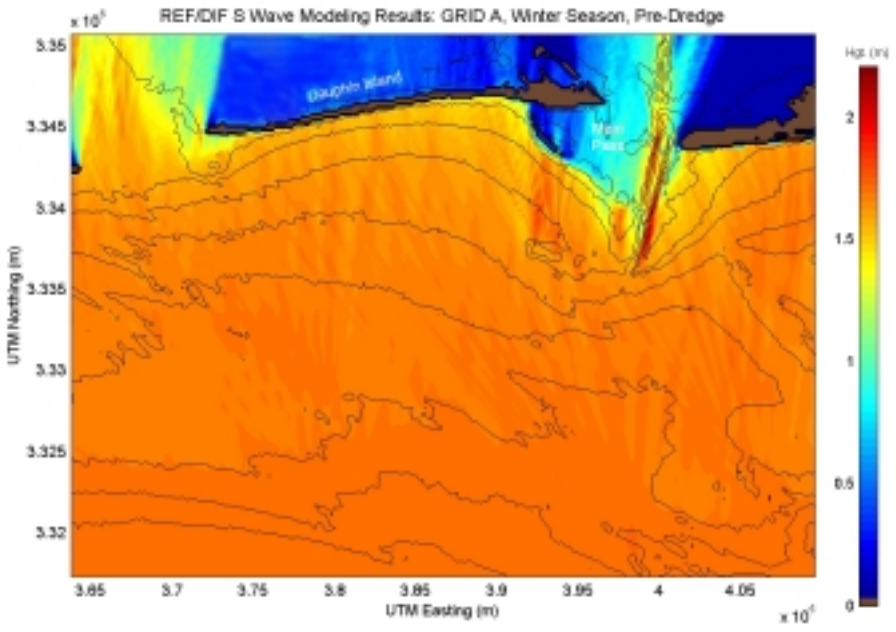


Figure B2-1. Spectral wave modeling results for existing conditions utilizing a typical winter season at reference Grid A.

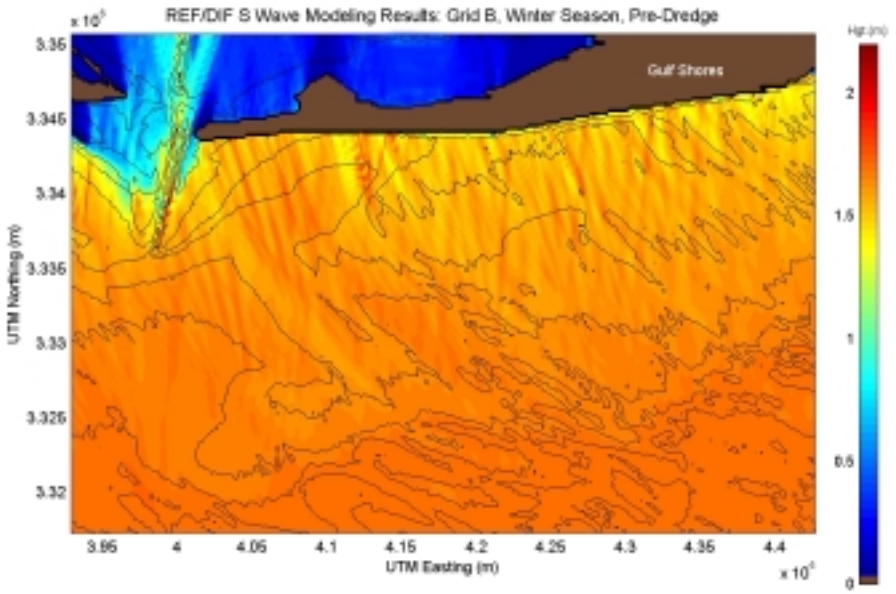


Figure B2-2. Spectral wave modeling results for existing conditions utilizing a typical winter season at reference Grid B.

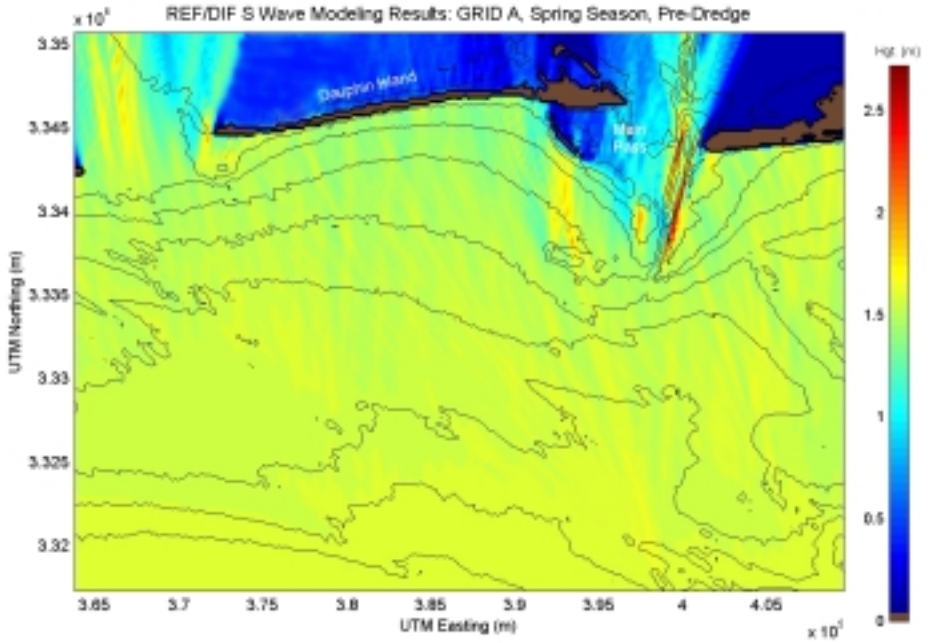


Figure B2-3. Spectral wave modeling results for existing conditions utilizing a typical spring season at reference Grid A.

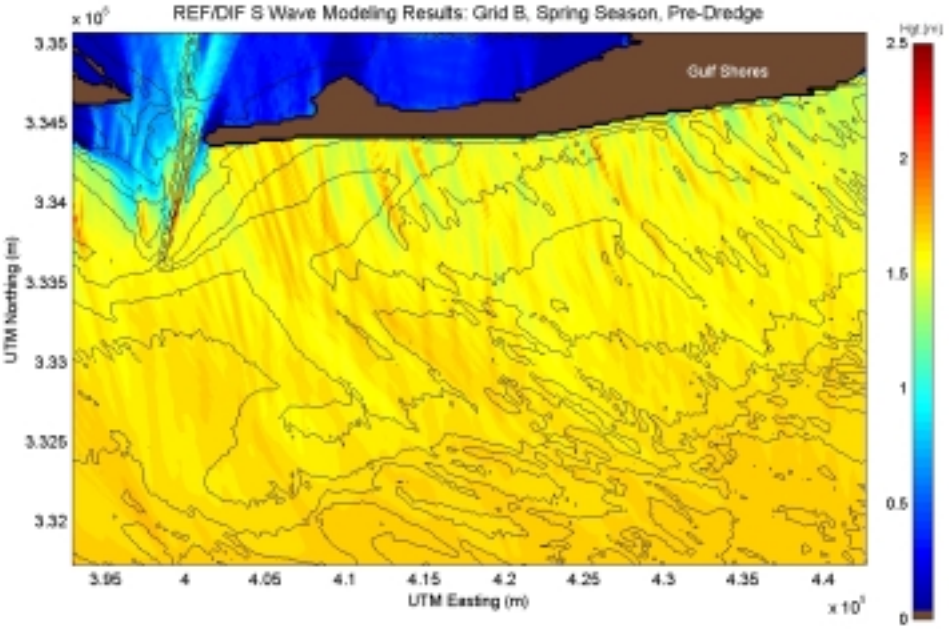


Figure B2-4. Spectral wave modeling results for existing conditions utilizing a typical spring season at reference Grid B.

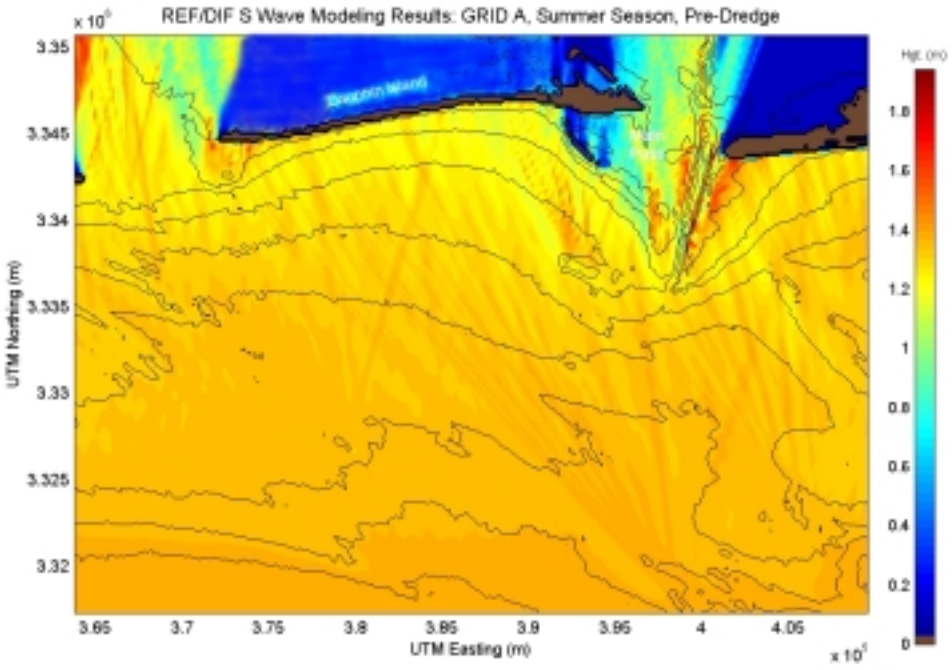


Figure B2-5. Spectral wave modeling results for existing conditions utilizing a typical summer season at reference Grid A.

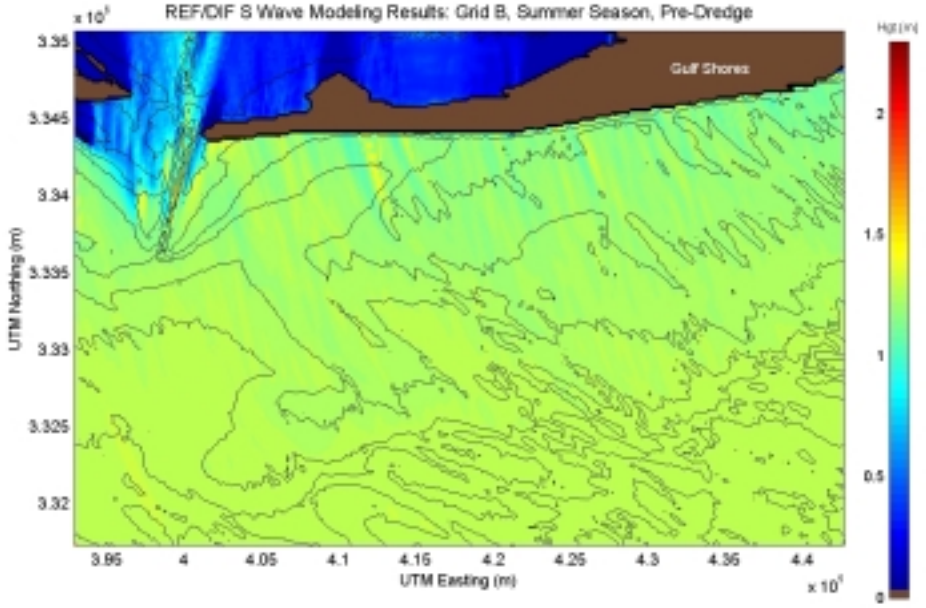


Figure B2-6. Spectral wave modeling results for existing conditions utilizing a typical summer season at reference Grid B.

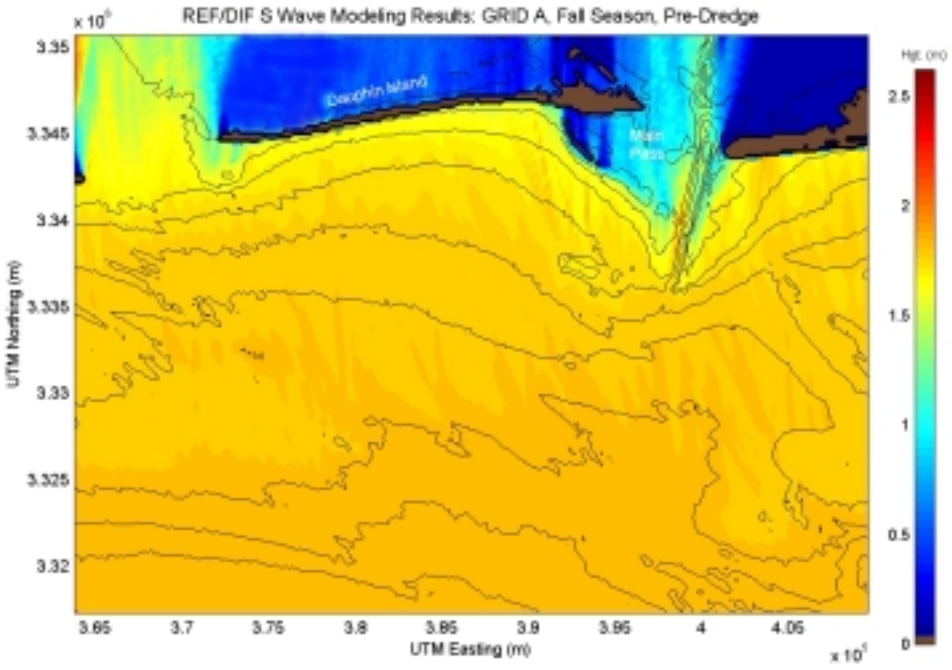


Figure B2-7. Spectral wave modeling results for existing conditions utilizing a typical fall season at reference Grid A.

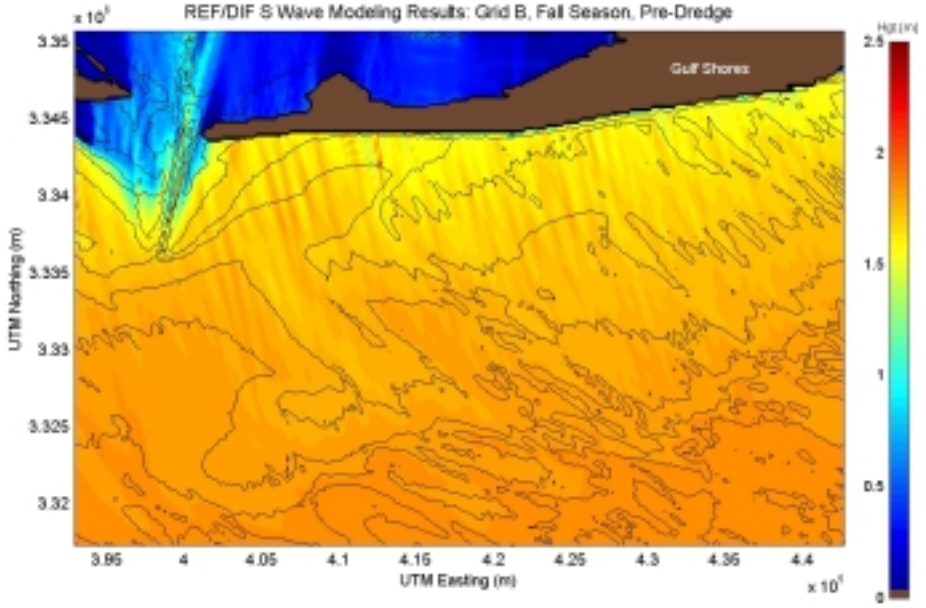


Figure B2-8. Spectral wave modeling results for existing conditions utilizing a typical fall season at reference Grid B.

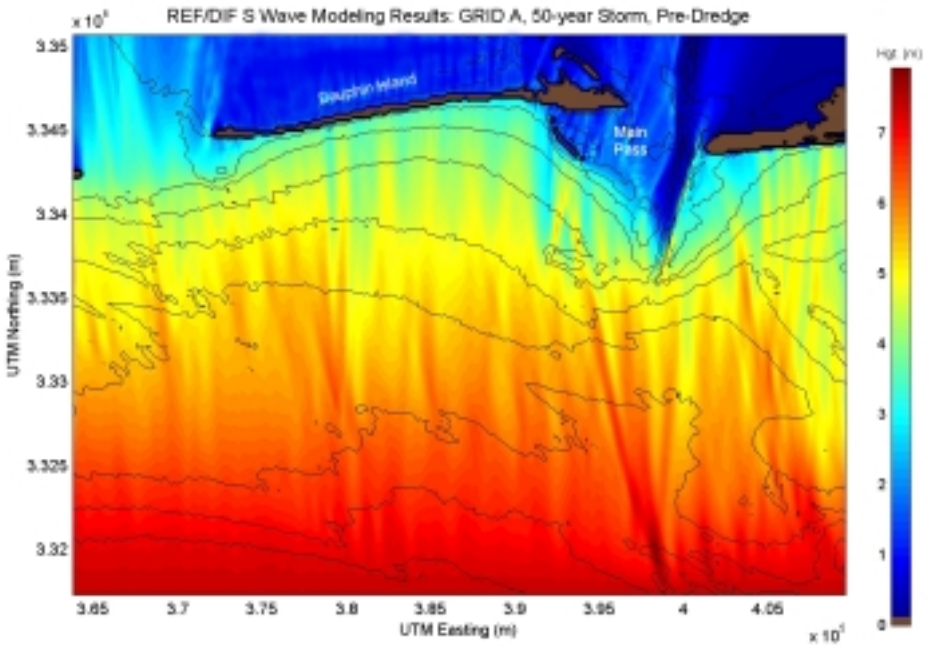


Figure B2-9. Spectral wave modeling results for existing conditions using a 50-year storm at reference Grid A.

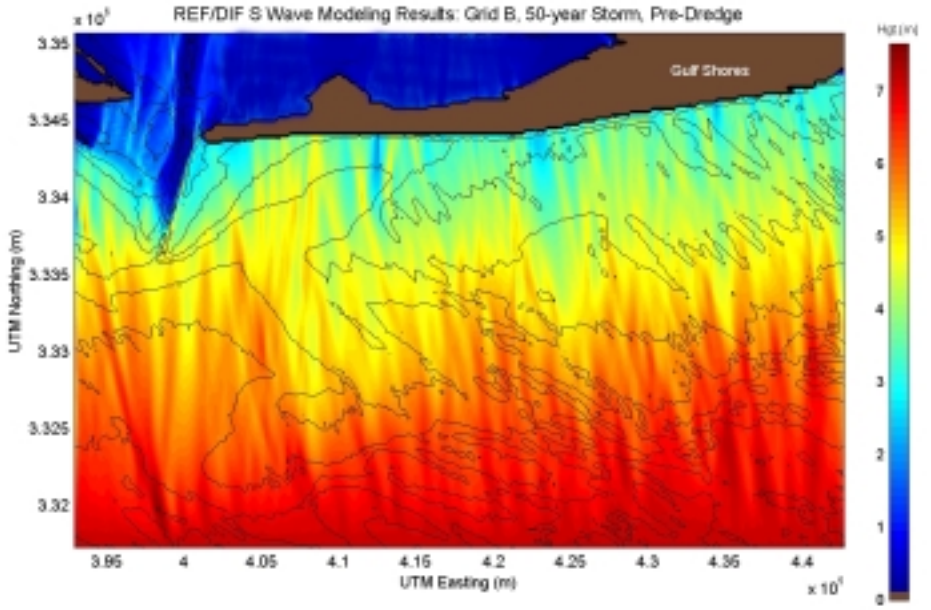


Figure B2-10. Spectral wave modeling results for existing conditions using a 50-year storm at reference Grid B.

B3. Post-Dredging Wave Model Results

Presented in this appendix are the post-dredged numerical wave transformation modeling results. Results are presented for all of the simulations (seasonal and 50-year storm) at both grids (A and B).

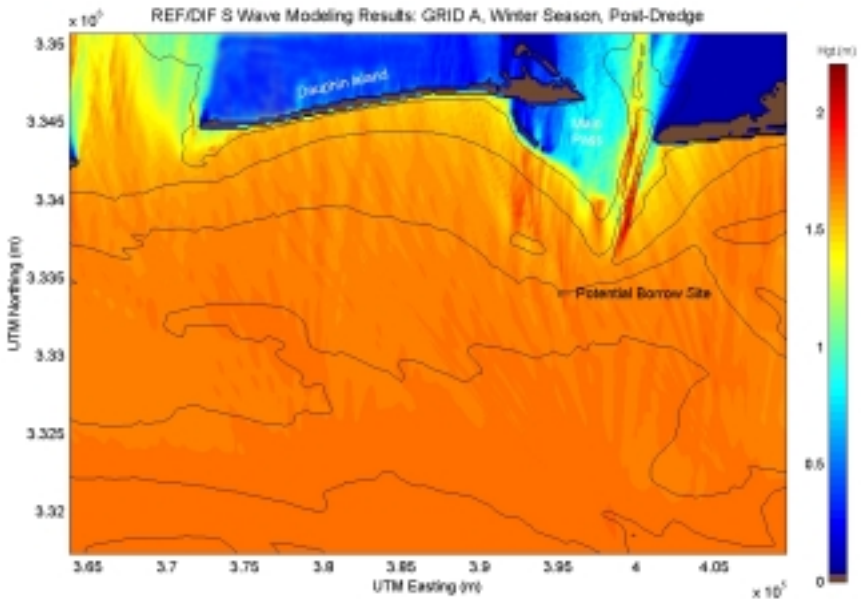


Figure B3-1. Spectral wave modeling results for post-dredged conditions utilizing a typical winter season at reference Grid A.

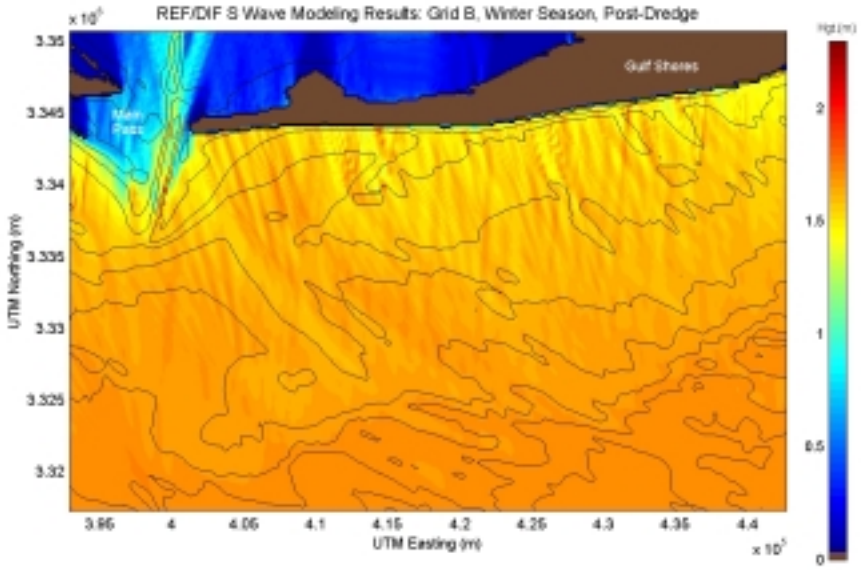


Figure B3-2. Spectral wave modeling results for post-dredged conditions utilizing a typical winter season at reference Grid B.

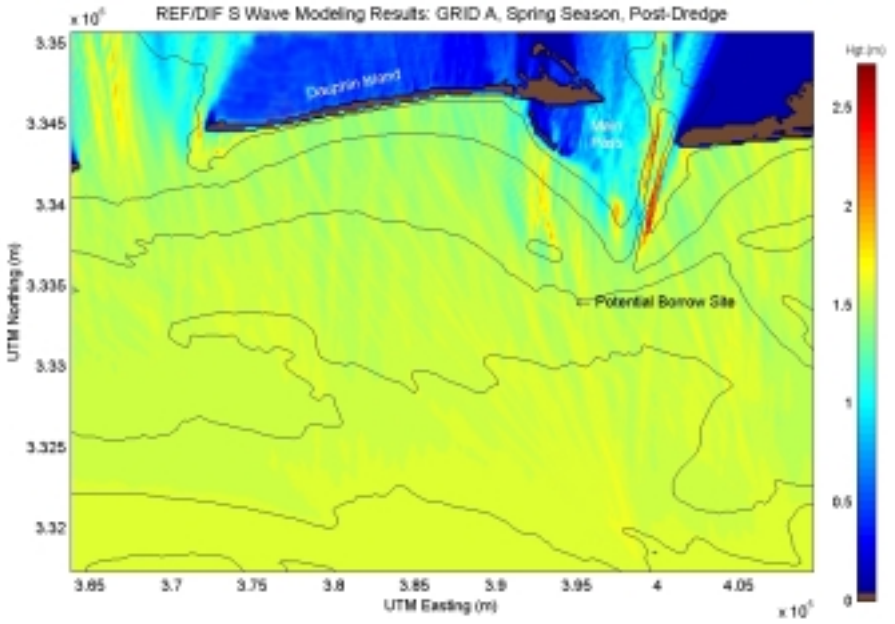


Figure B3-3. Spectral wave modeling results for post-dredged conditions utilizing a typical spring season at reference Grid A.

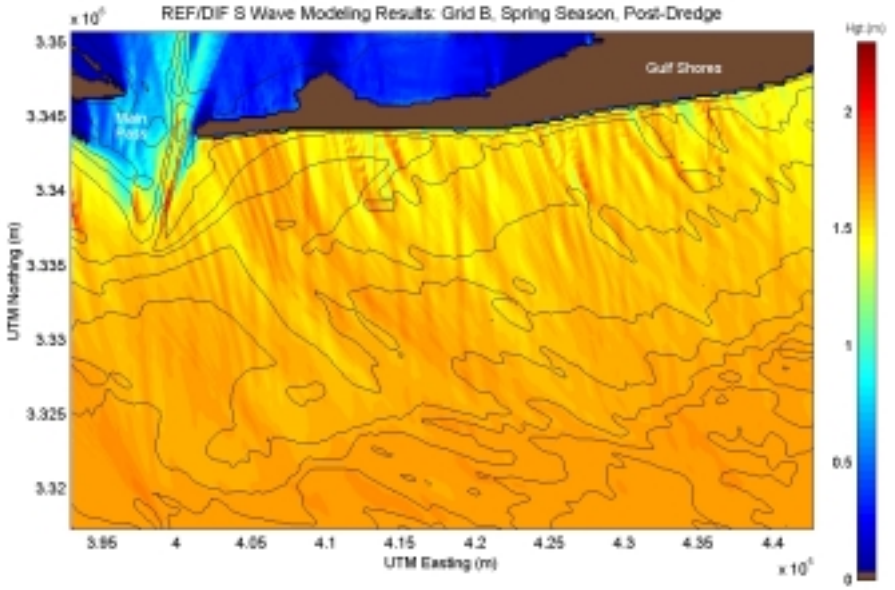


Figure B3-4. Spectral wave modeling results for post-dredged conditions utilizing a typical spring season at reference Grid B.

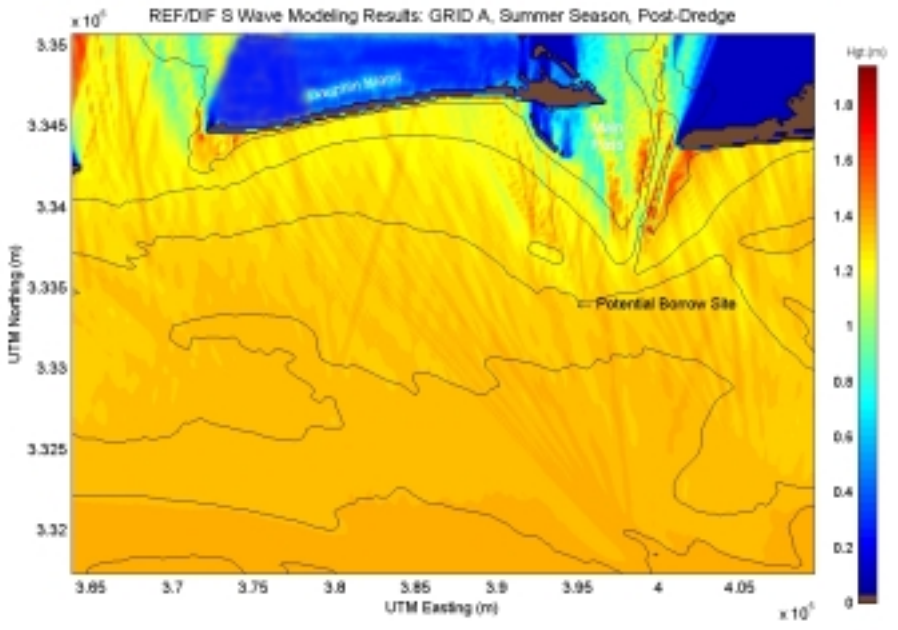


Figure B3-5. Spectral wave modeling results for post-dredged conditions utilizing a typical summer season at reference Grid A.

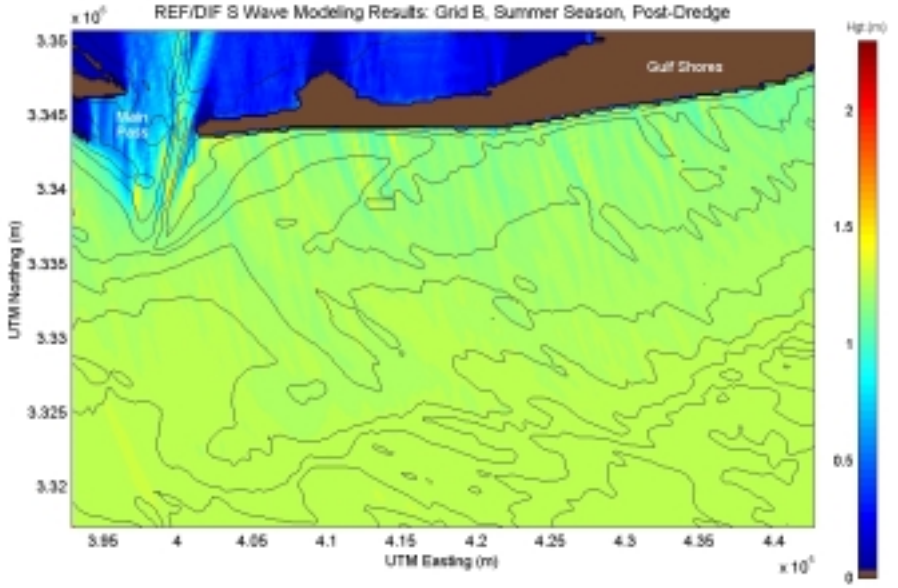


Figure B3-6. Spectral wave modeling results for post-dredged conditions utilizing a typical summer season at reference Grid B.

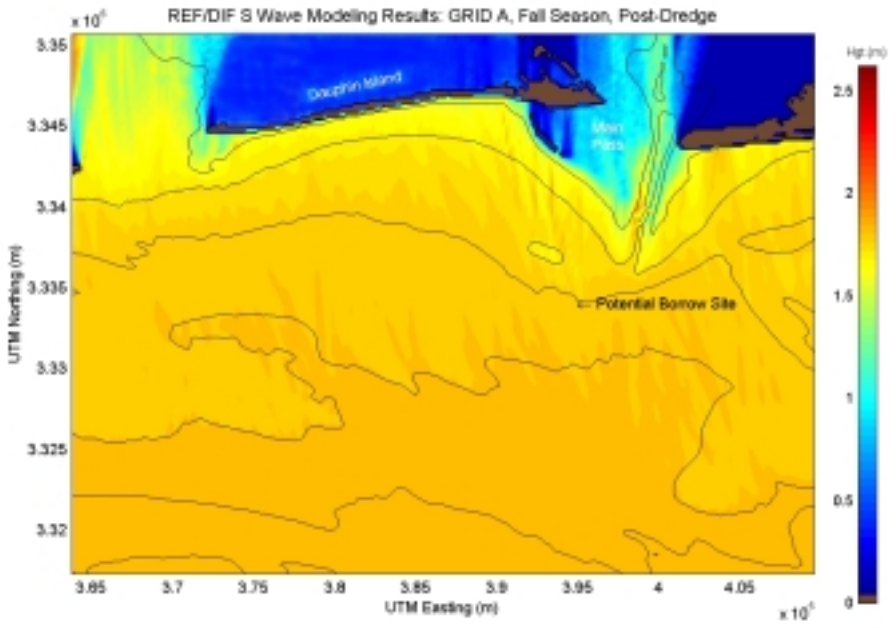


Figure B3-7. Spectral wave modeling results for post-dredged conditions utilizing a typical fall season at reference Grid A.

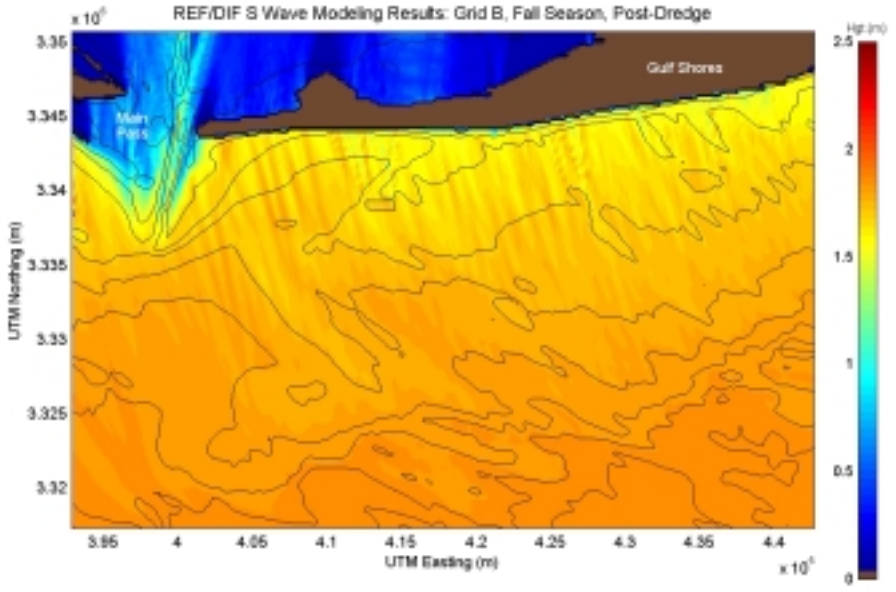


Figure B3-8. Spectral wave modeling results for post-dredged conditions utilizing a typical fall season at reference Grid B.

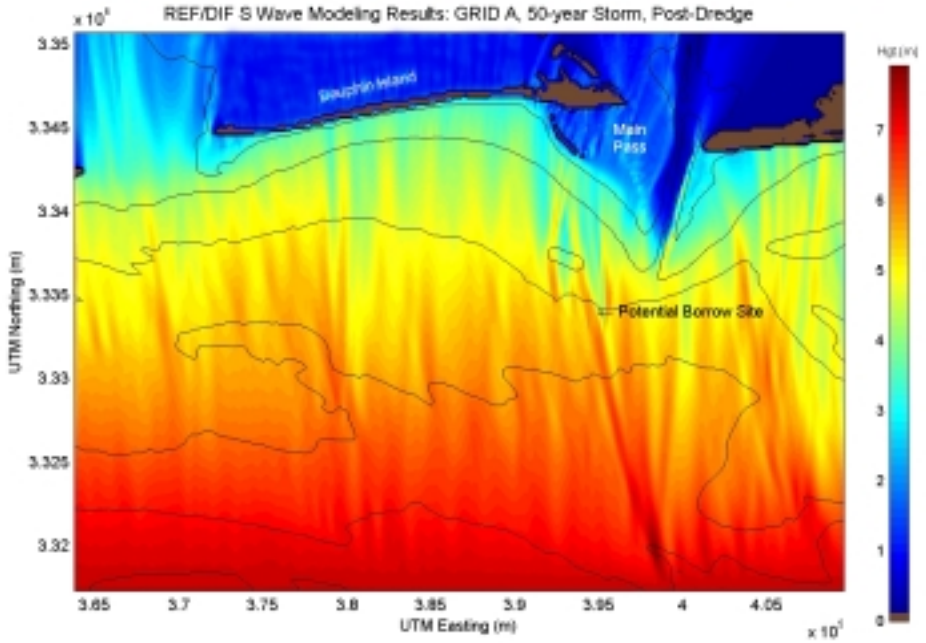


Figure B3-9. Spectral wave modeling results for post-dredged conditions utilizing a 50-year storm at reference Grid A.

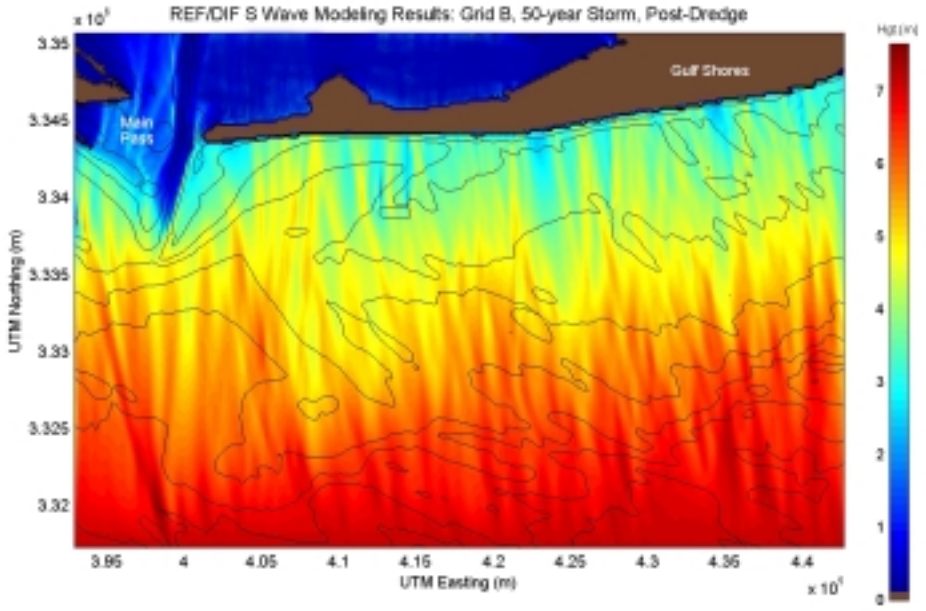


Figure B3-10. Spectral wave modeling results for post-dredged conditions utilizing a 50-year storm at reference Grid B.

B4. Pre- and Post-Dredging Difference Plots

Presented in this appendix are wave height modifications caused by the offshore sand mining of various potential borrow sites. Results are presented for all of the simulations (seasonal and 50-year storm). For all figures, hot colors (reds) identify areas of increased wave height, while cold colors (blues) identify areas of decreased wave height. Solid black lines indicate depth contours and the color bar on the right indicates the magnitude of the modifications.

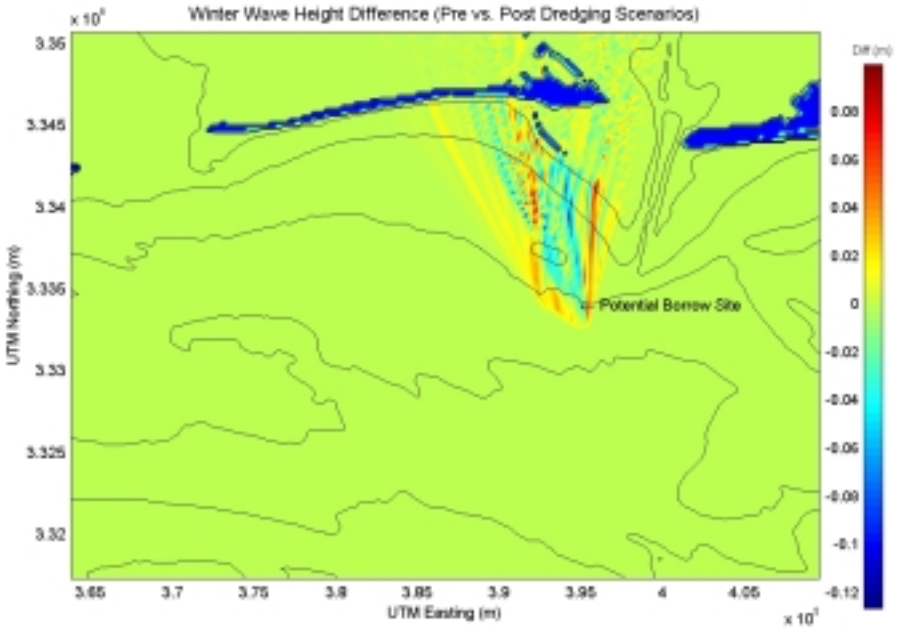


Figure B4-1. Wave height modifications caused by the offshore sand mining at Resource Area 4 for a typical winter season.

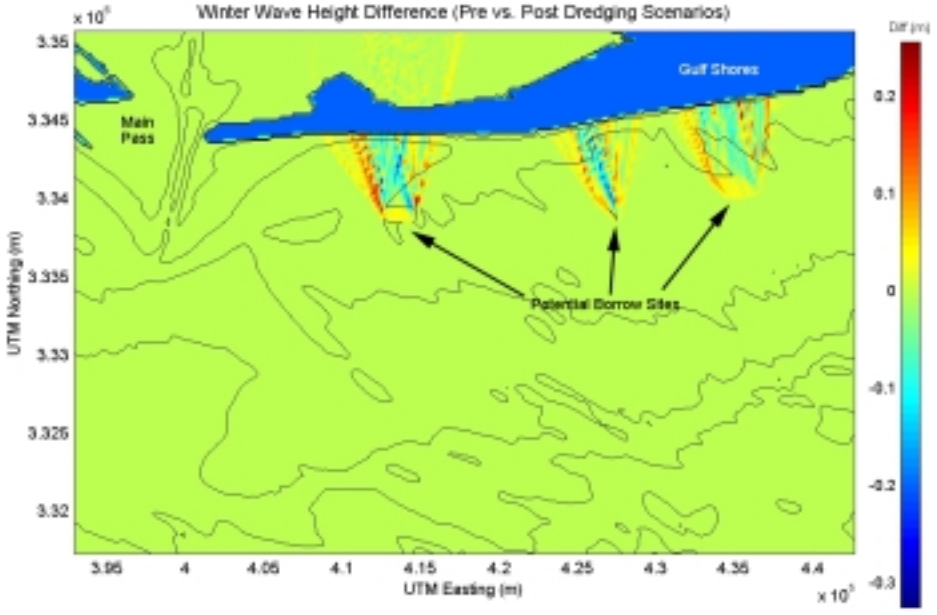


Figure B4-2. Wave height modifications caused by the offshore sand mining at Resource Areas 1, 2, and 3 for a typical winter season.

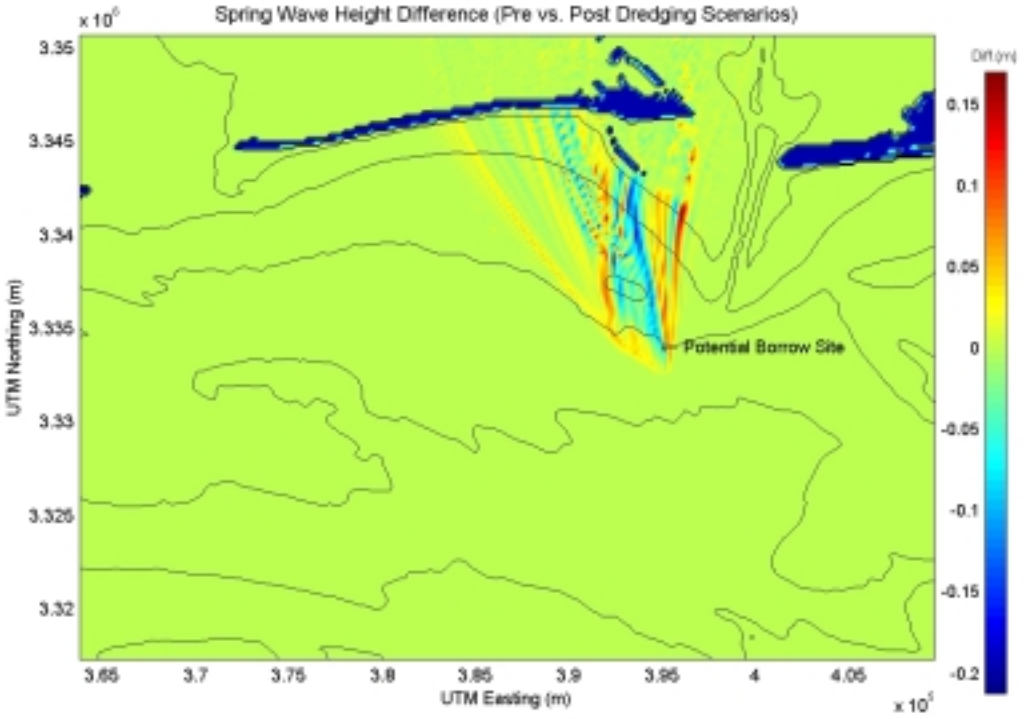


Figure B4-3. Wave height modifications caused by the offshore sand mining at Resource Area 4 for a typical spring season.

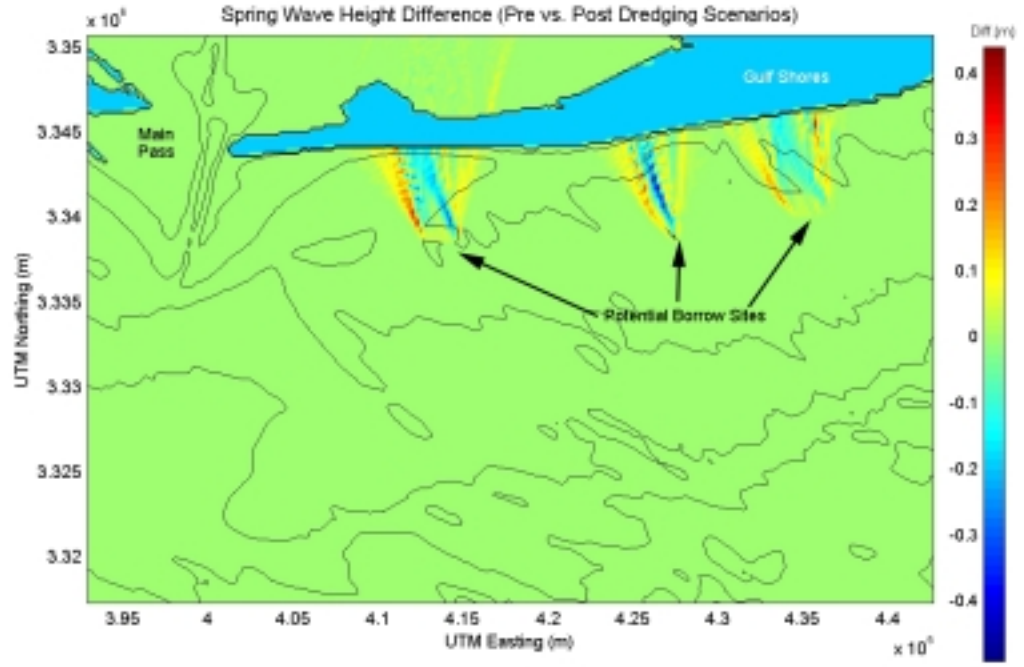


Figure B4-4. Wave height modifications caused by the offshore sand mining at Resource Areas 1, 2, and 3 for a typical spring season.

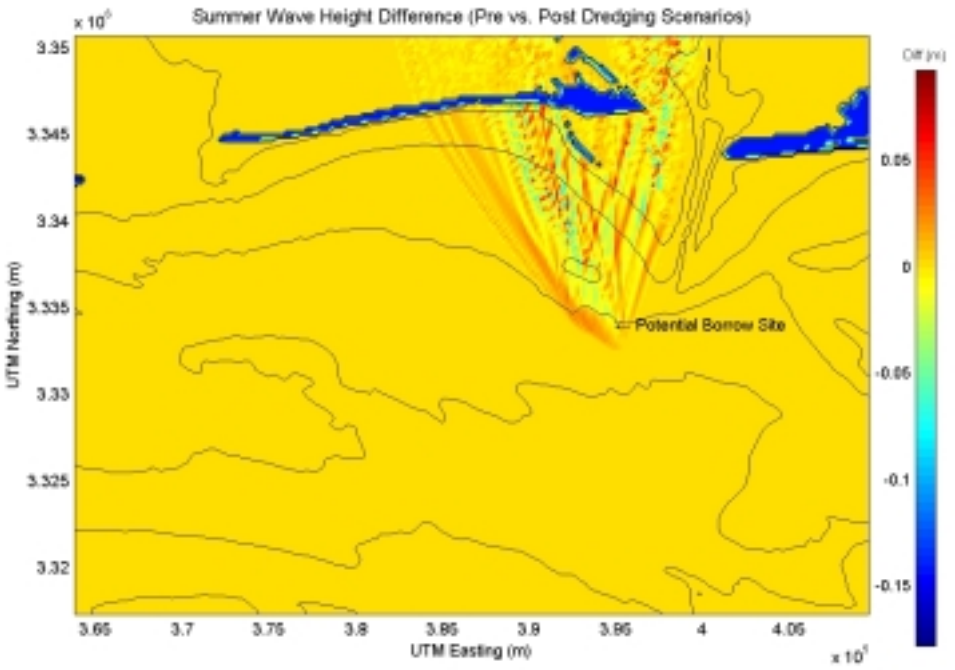


Figure B4-5. Wave height modifications caused by the offshore sand mining at Resource Area 4 for a typical summer season.

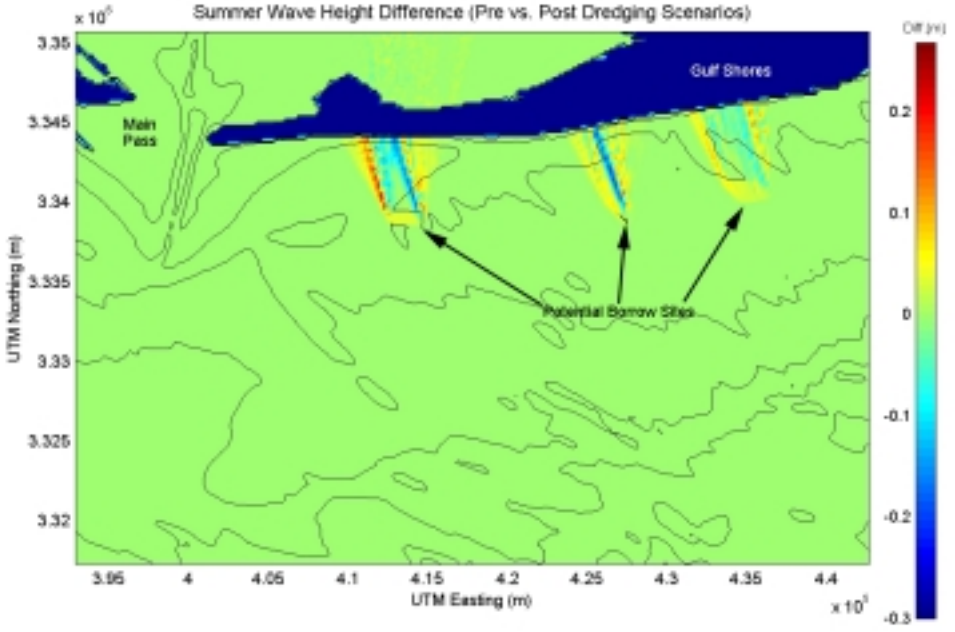


Figure B4-6. Wave height modifications caused by the offshore sand mining at Resource Areas 1, 2, and 3 for a typical summer season.

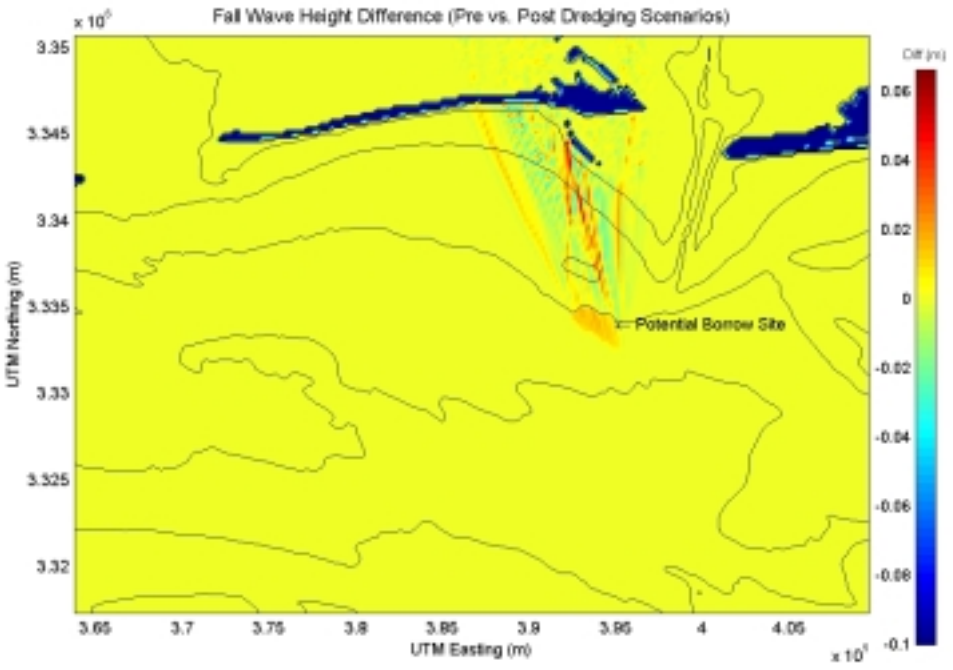


Figure B4-7. Wave height modifications caused by the offshore sand mining at Resource Area 4 for a typical fall season.

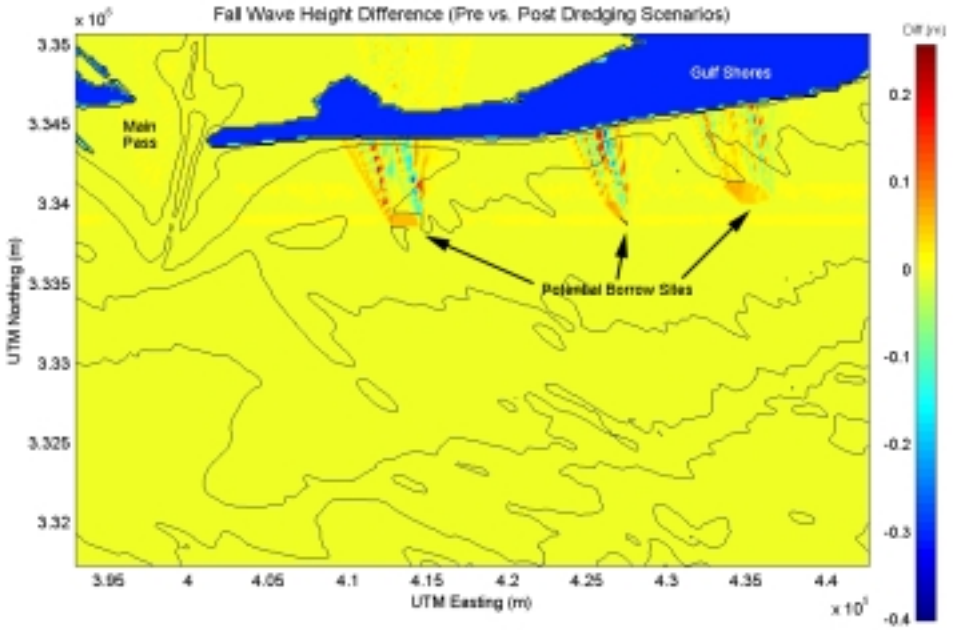


Figure B4-8. Wave height modifications caused by the offshore sand mining at Resource Areas 1, 2, and 3 for a typical fall season.

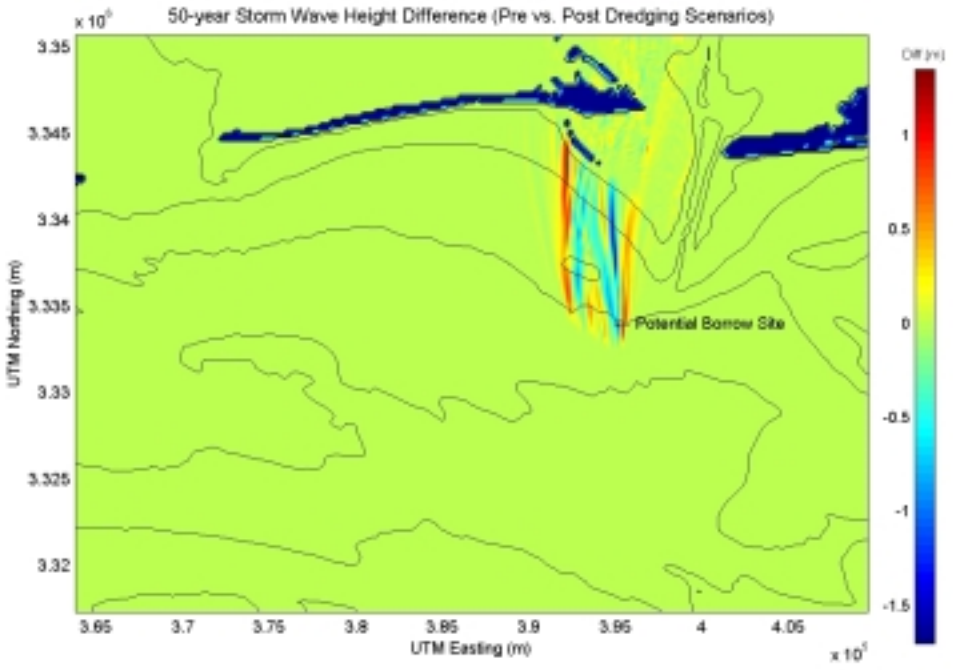


Figure B4-9. Wave height modifications caused by the offshore sand mining at Resource Area 4 for a 50-year storm.

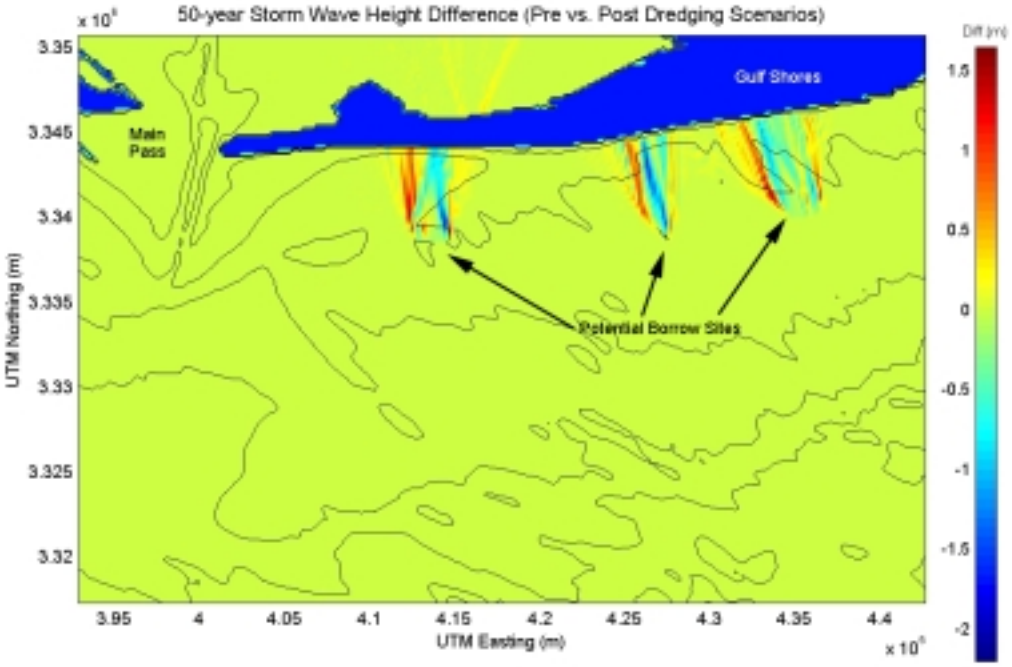


Figure B4-10. Wave height modifications caused by the offshore sand mining at Resource Areas 1, 2, and 3 for a 50-year storm.

APPENDIX C. SEDIMENT TRANSFORMATION NUMERICAL MODELING INFORMATION

C1. Hydrodynamic and Sediment Transport Results at Sand Resource Areas 1, 2, and 3

Presented in this appendix are seasonal and extreme hydrodynamic and sediment transport results for the offshore Alabama resource areas, including potential borrow sites one, two, and three (four was presented and discussed in the main text, and it is not repeated here). Each figure includes maximum wave-induced velocities and directions, steady near bottom velocities and directions, initiation potential, and sediment transport rates and directions.

The resource area is affected by a combination of wave-induced bottom currents and steady near bottom currents. In turn these hydrodynamic processes may cause sediment transport. The extreme, or storm, cases at each resource area cause much more transport than the seasonally-averaged results. Storms are large initiators and movers of sediment given their large wave heights and long periods. Tables 5-4 and 5-5 in the main text present extreme and “average” results.

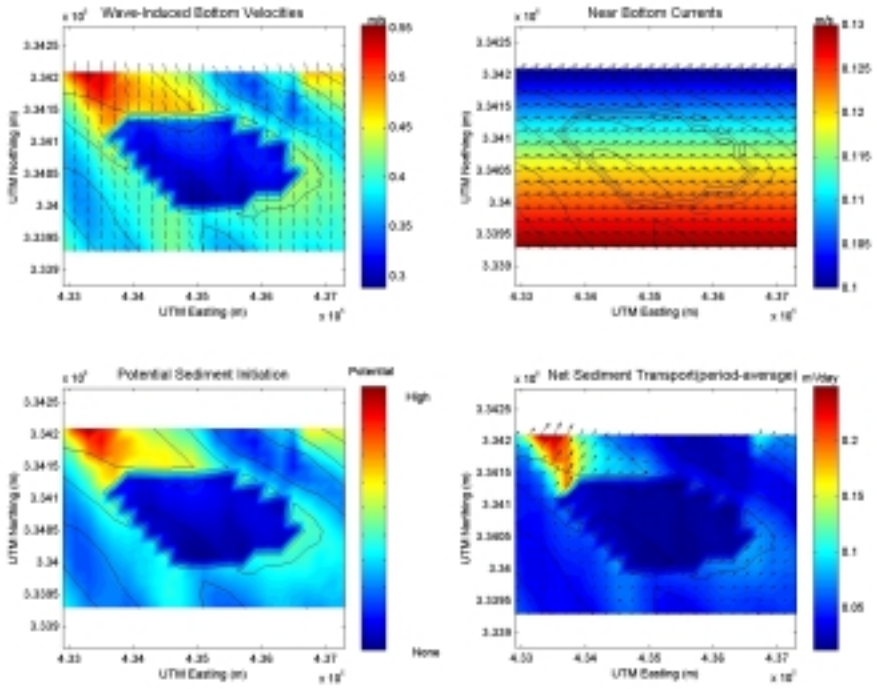


Figure C1-1. Northeast winter hydrodynamic and sediment transport results at Sand Resource Area 1. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

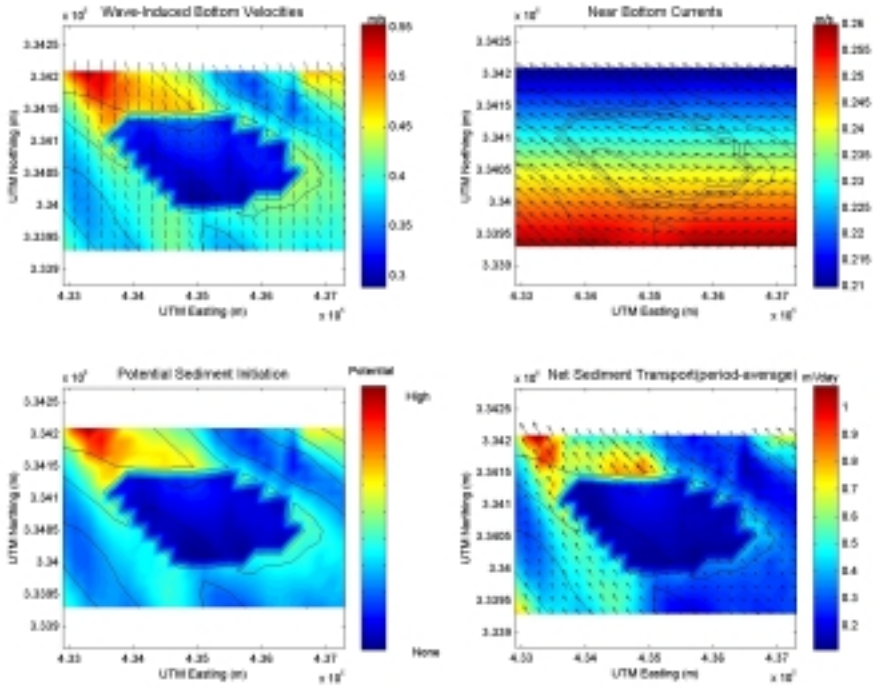


Figure C1-2. West winter hydrodynamic and sediment transport results at Sand Resource Area 1. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

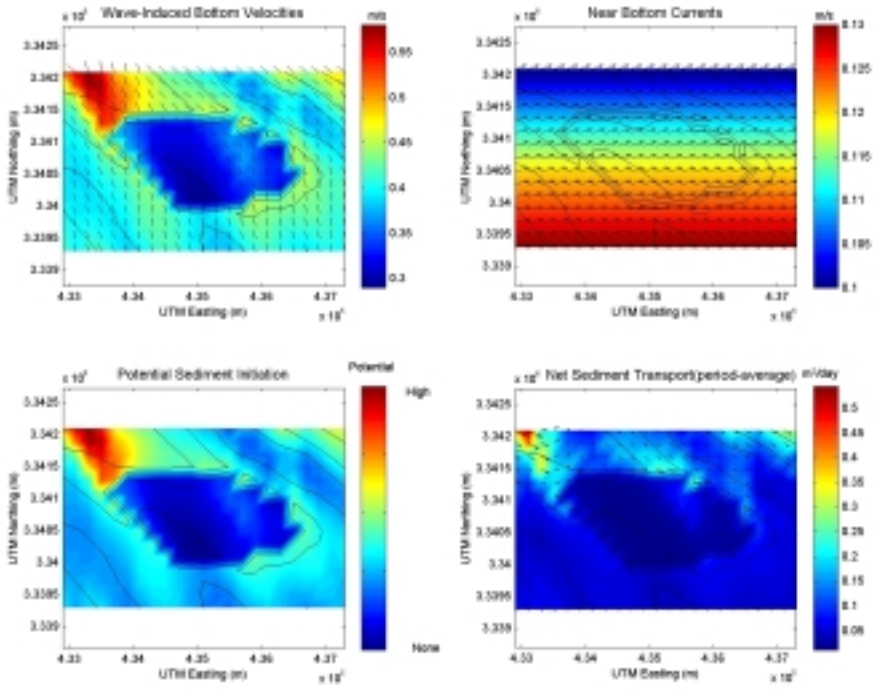


Figure C1-3. Spring hydrodynamic and sediment transport results at Sand Resource Area 1. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

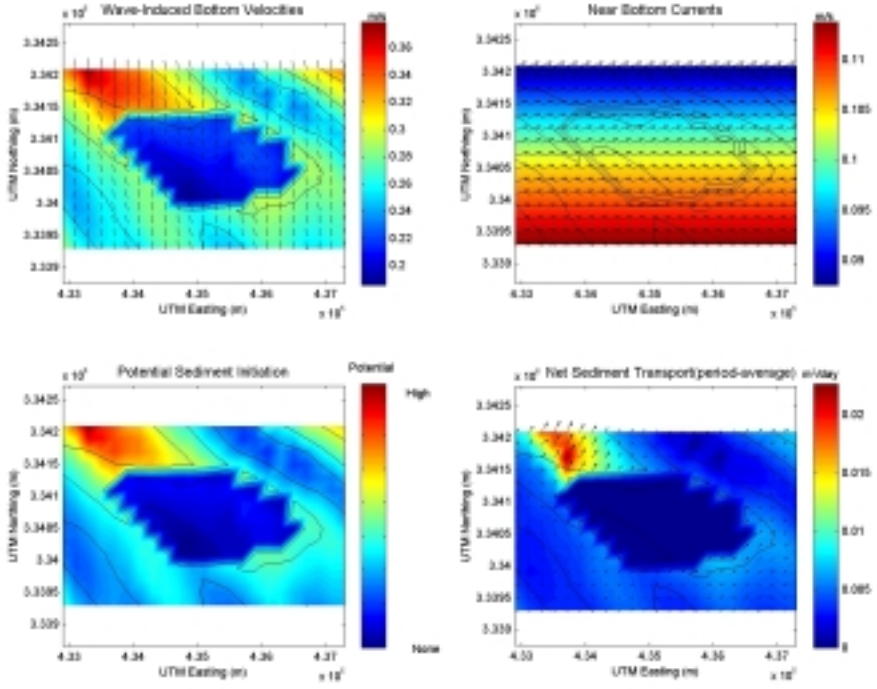


Figure C1-4. Summer hydrodynamic and sediment transport results at Sand Resource Area 1. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

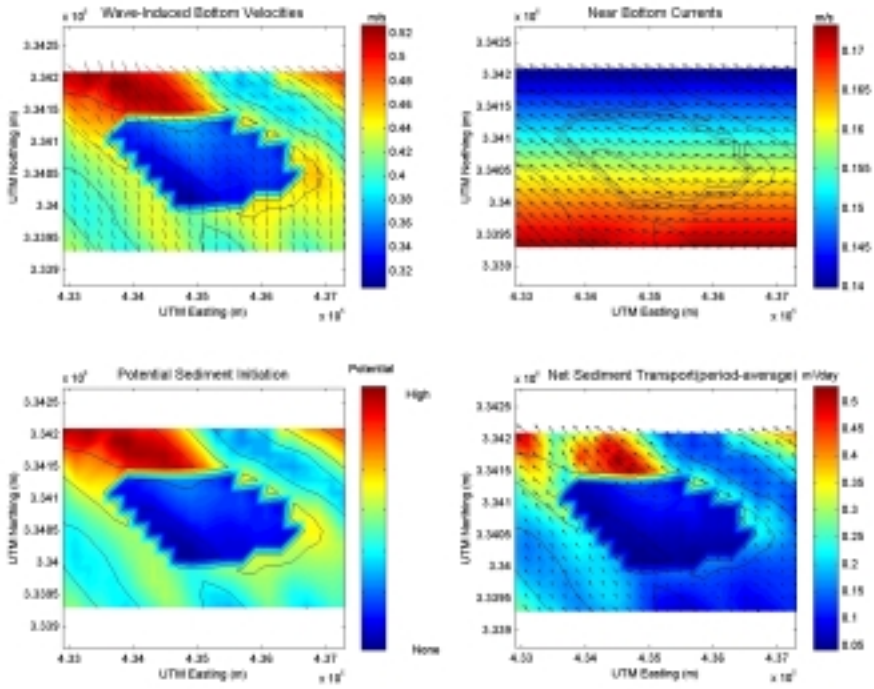


Figure C1-5. Fall hydrodynamic and sediment transport results at Sand Resource Area 1. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

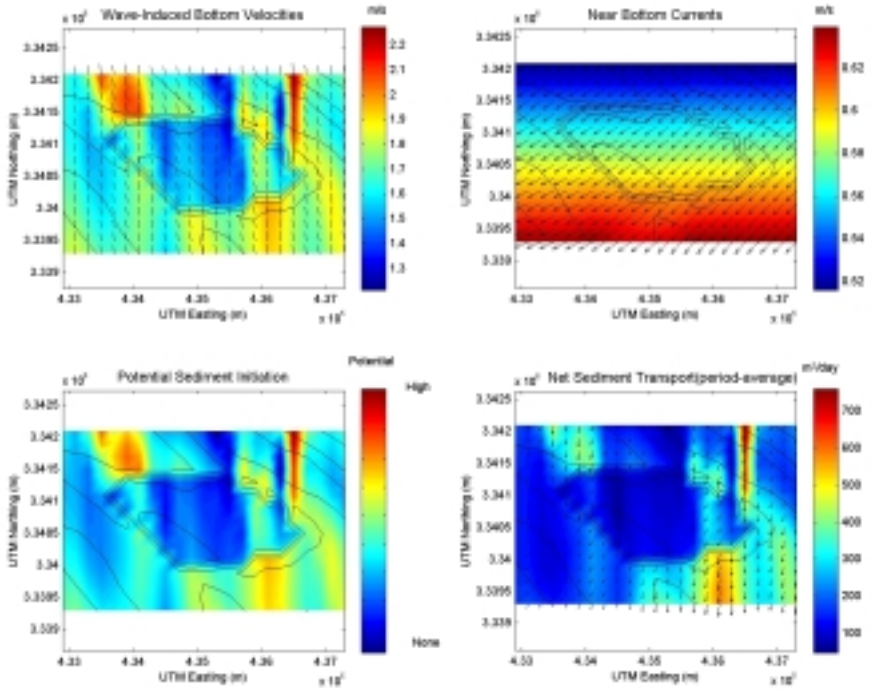


Figure C1-6. Storm hydrodynamic and sediment transport results at Sand Resource Area 1. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

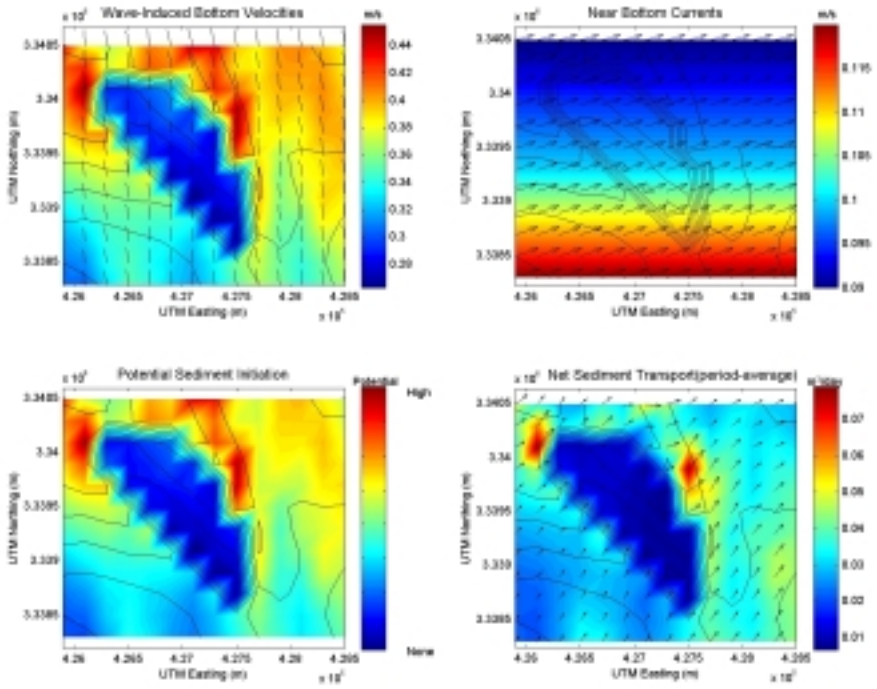


Figure C1-7. Northeast winter hydrodynamic and sediment transport results at Sand Resource Area 2. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

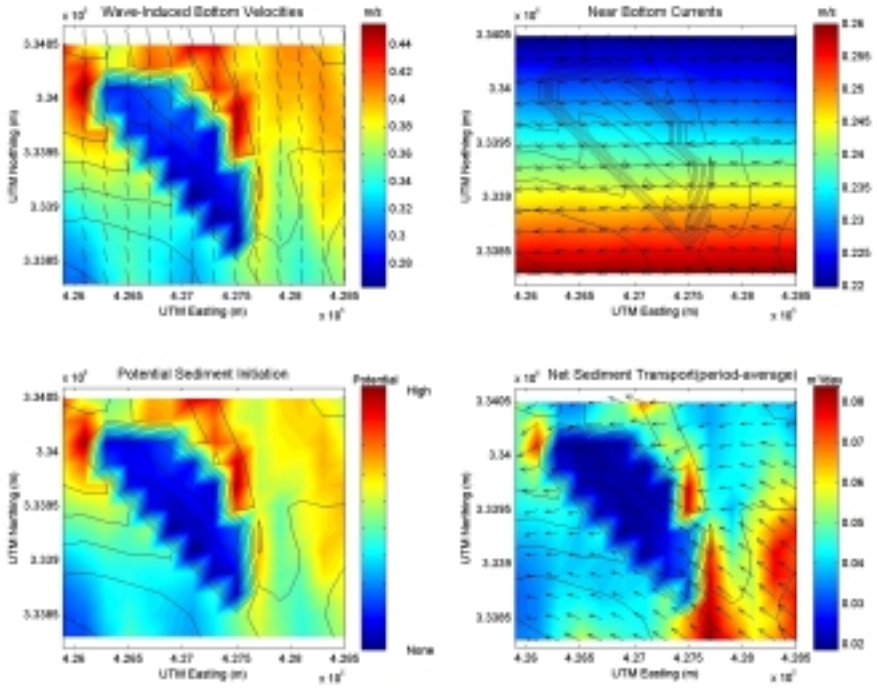


Figure C1-8. West winter hydrodynamic and sediment transport results at Sand Resource Area 2. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

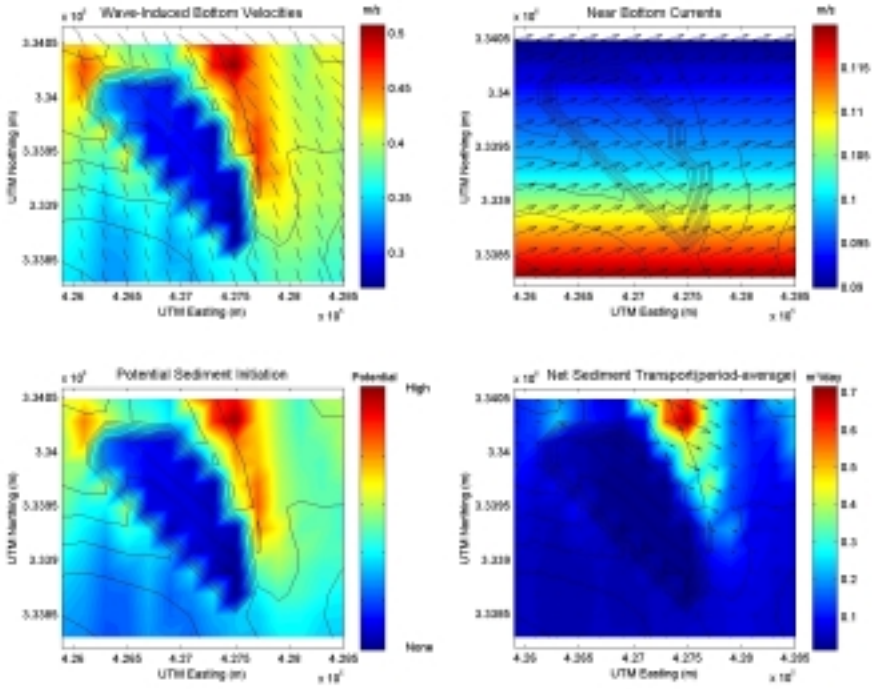


Figure C1-9. Spring hydrodynamic and sediment transport results at Sand Resource Area 2. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

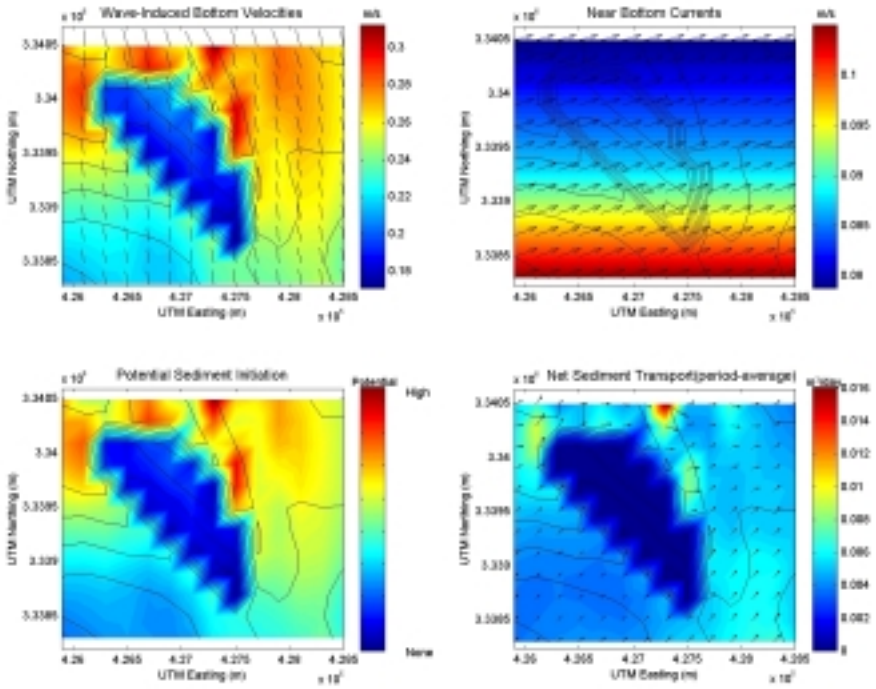


Figure C1-10. Summer hydrodynamic and sediment transport results at Sand Resource Area 2. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

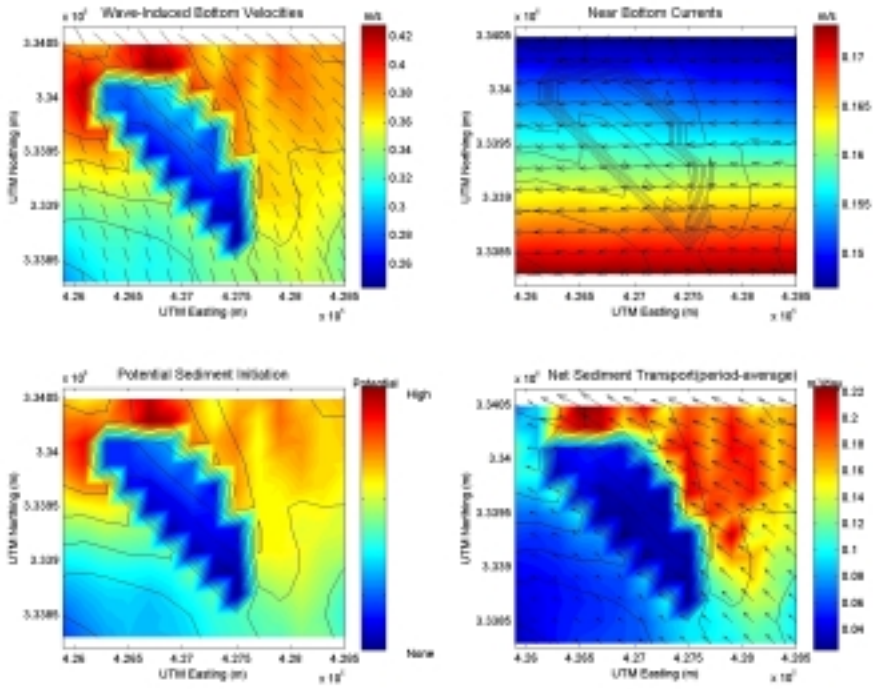


Figure C1-11. Fall hydrodynamic and sediment transport results at Sand Resource Area 2. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

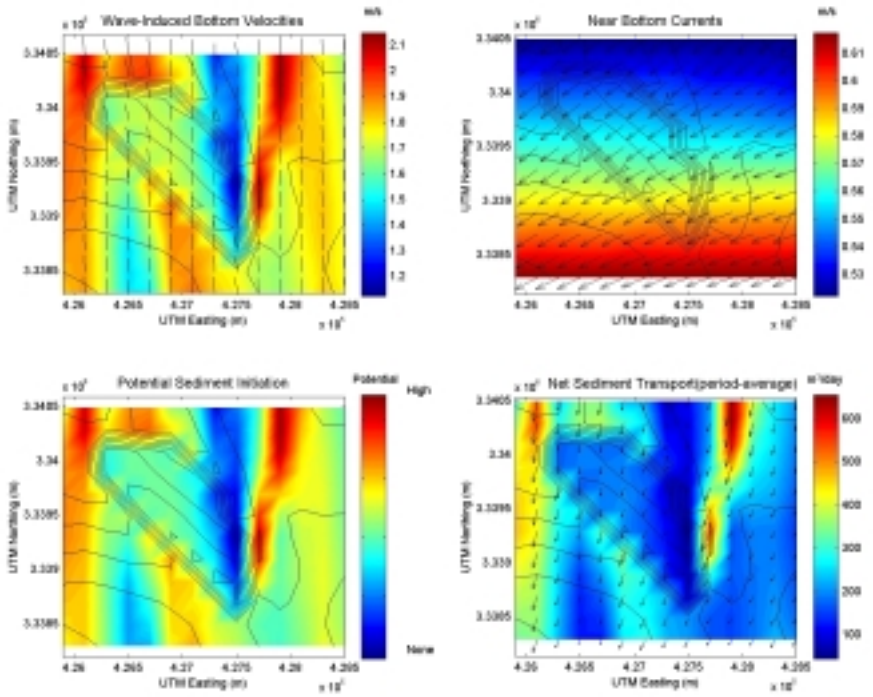


Figure C1-12. Storm hydrodynamic and sediment transport results at Sand Resource Area 2. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

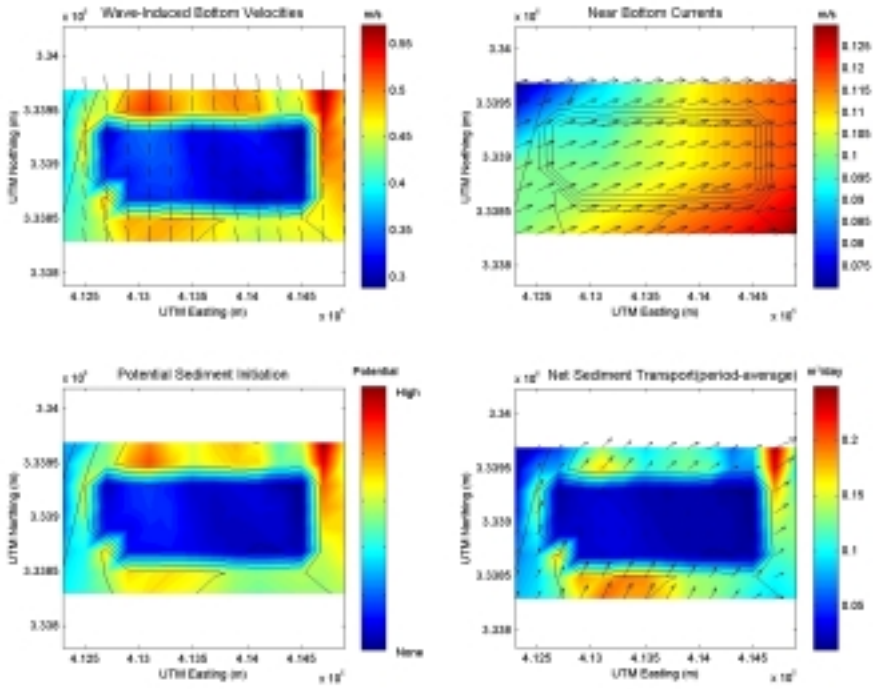


Figure C1-13. Northeast winter hydrodynamic and sediment transport results at Sand Resource Area 3. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

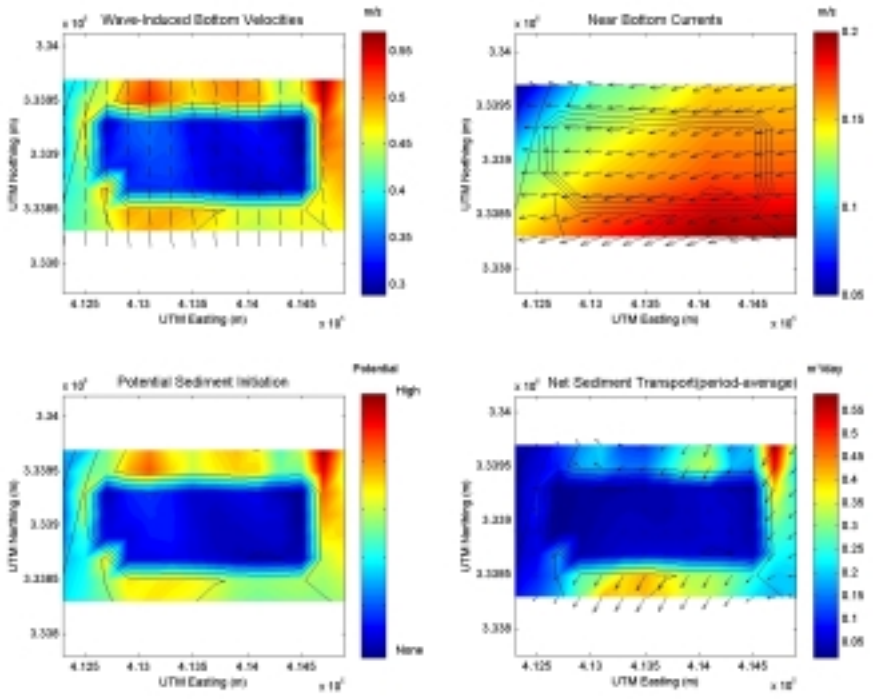


Figure C1-14. West winter hydrodynamic and sediment transport results at Sand Resource Area 3. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

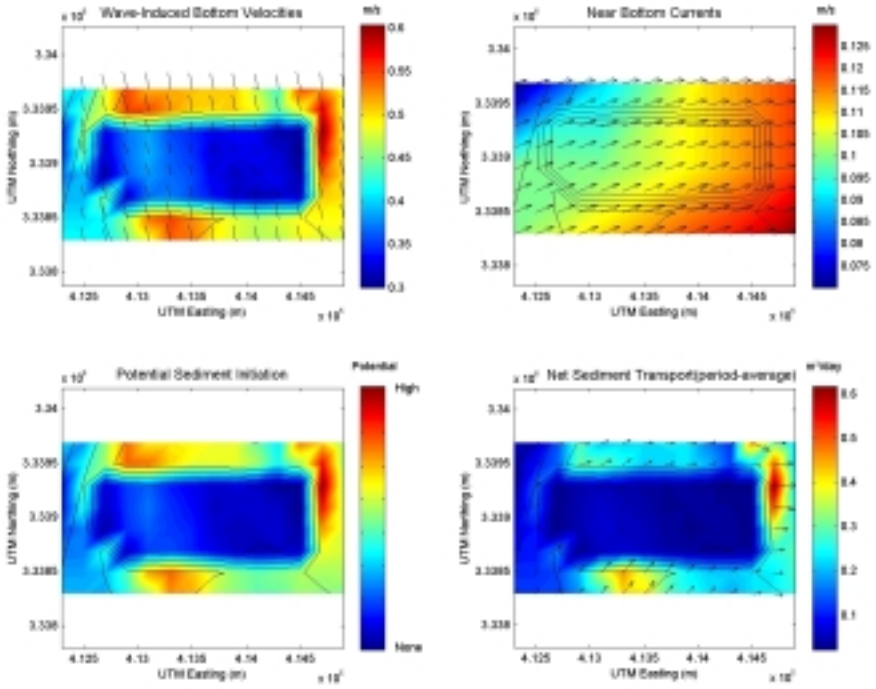


Figure C1-15. Spring hydrodynamic and sediment transport results at Sand Resource Area 3. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

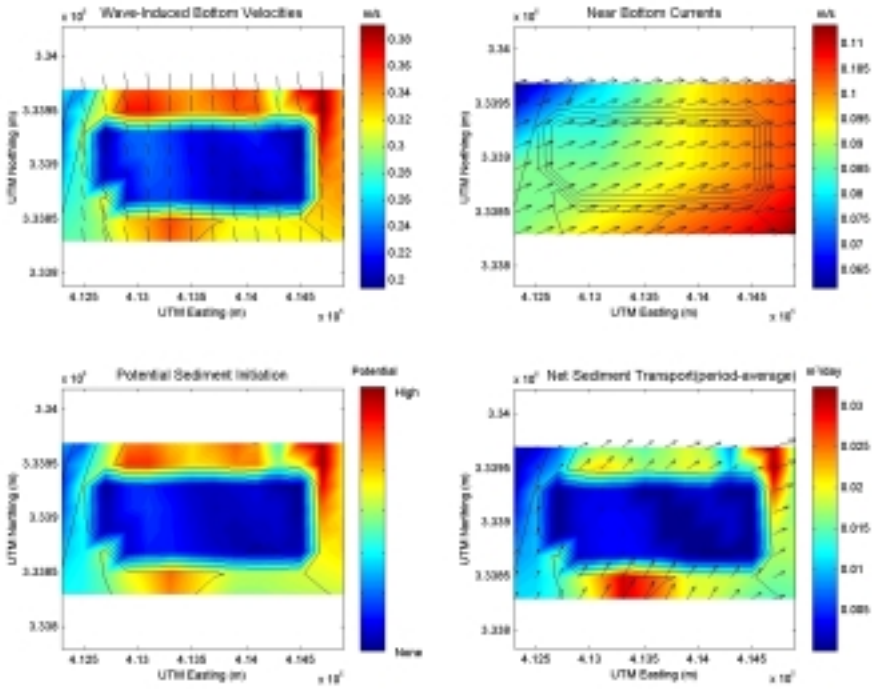


Figure C1-16. Summer hydrodynamic and sediment transport results at Sand Resource Area 3. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

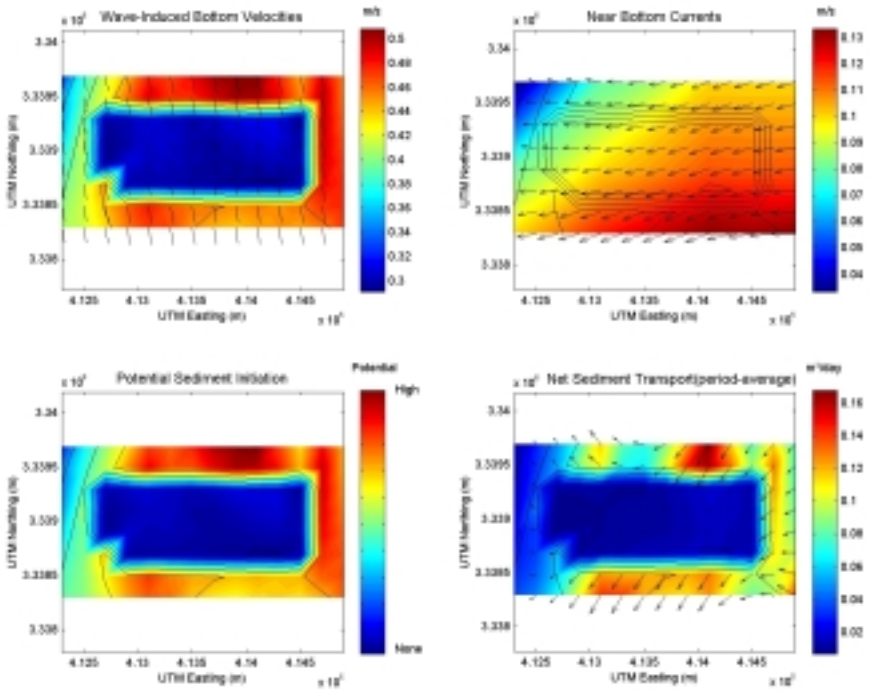


Figure C1-17. Fall hydrodynamic and sediment transport results at Sand Resource Area 3. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

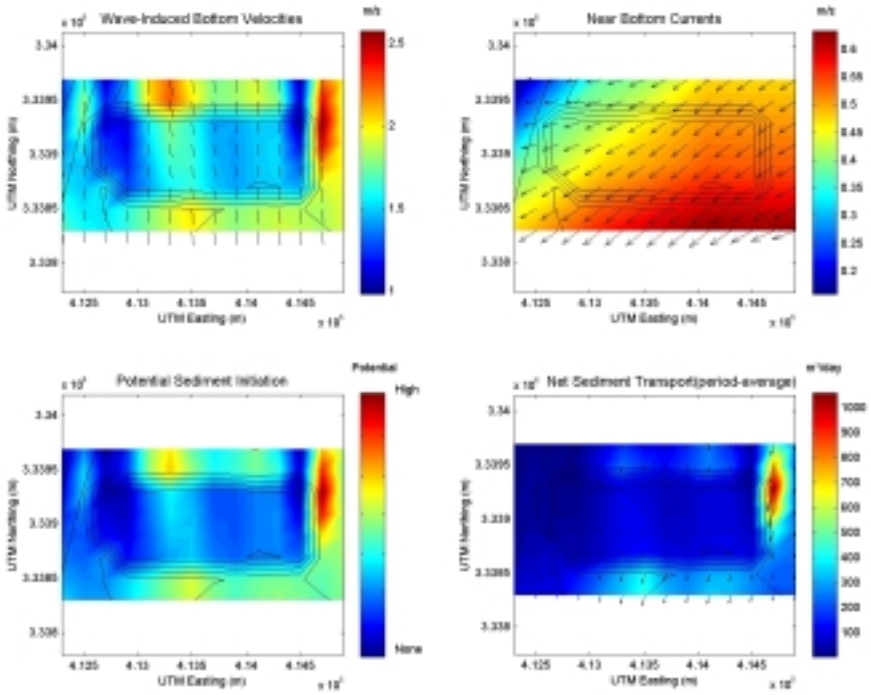


Figure C1-18. Storm hydrodynamic and sediment transport results at Sand Resource Area 3. The solid black lines represent depth contours, and sediment transport results are based on 200 m cell widths.

C2. Longshore Sediment Transport Model Results

The following 20 plots provide S_{xy} radiation stress values as well as annualized longshore sediment transport rates. The radiation stress variation indicates the relative strength of longshore sediment transport potential. By plotting the nearshore variability of this quantity, areas of increased wave energy focusing can be determined. As expected areas of high radiation stress correspond to areas of high longshore sediment transport rate.

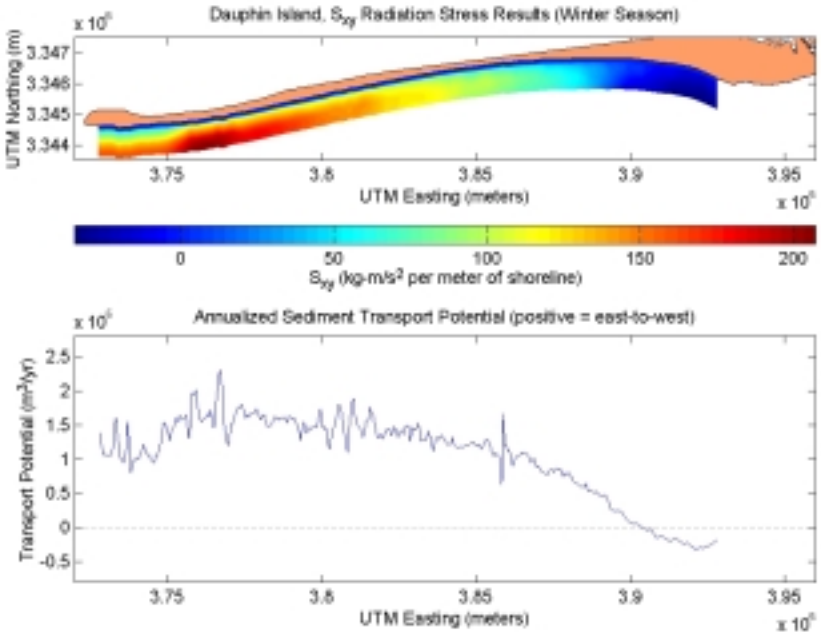


Figure C2-1. S_{xy} radiation stress and annualized sediment transport potential for existing conditions at Dauphin Island during the winter season.

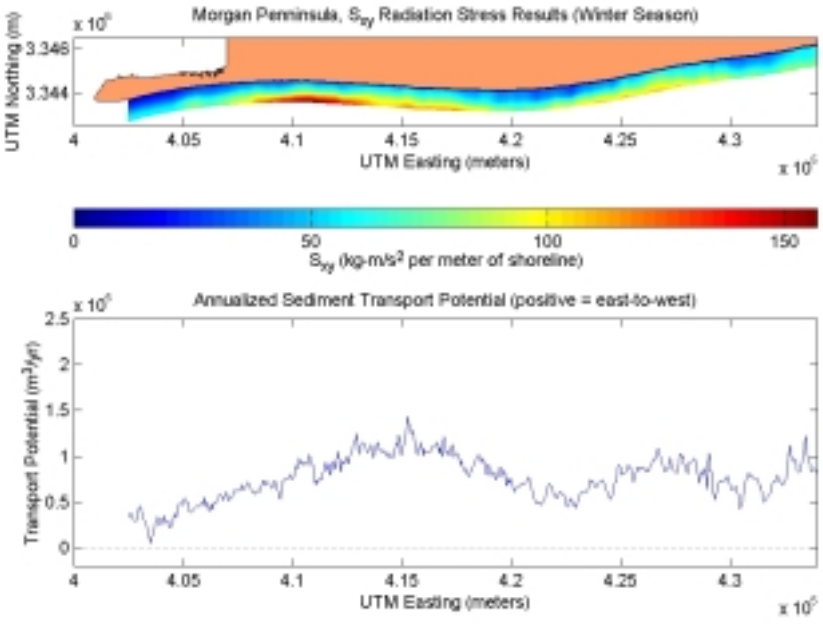


Figure C2-2. S_{xy} radiation stress and annualized sediment transport potential for existing conditions at Morgan Peninsula during the winter season.

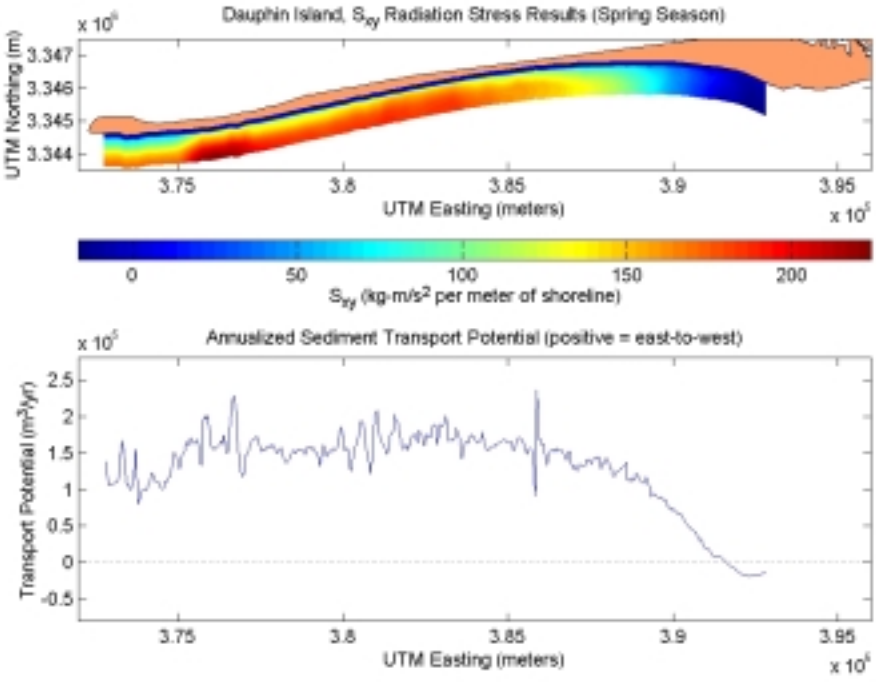


Figure C2-3. S_{xy} radiation stress and annualized sediment transport potential for existing conditions at Dauphin Island during the spring season.

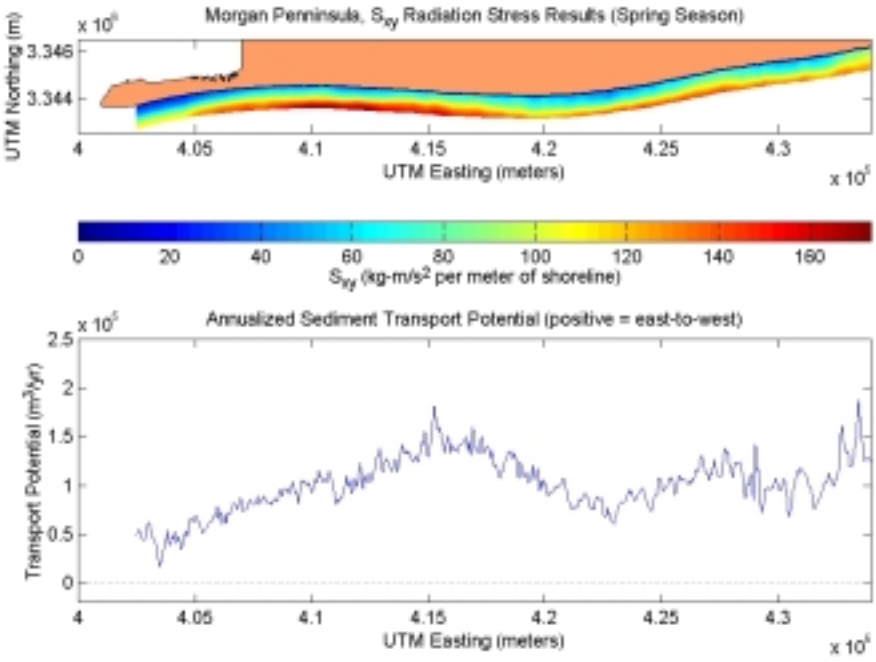


Figure C2-4. S_{xy} radiation stress and annualized sediment transport potential for existing conditions at Morgan Peninsula during the spring season.

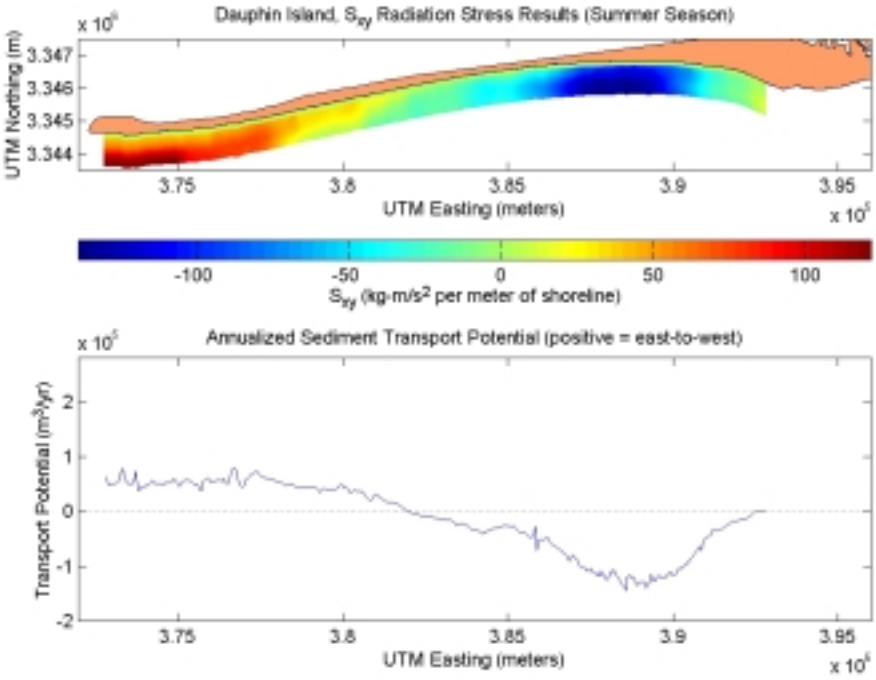


Figure C2-5. S_{xy} radiation stress and annualized sediment transport potential for existing conditions at Dauphin Island during the summer season.

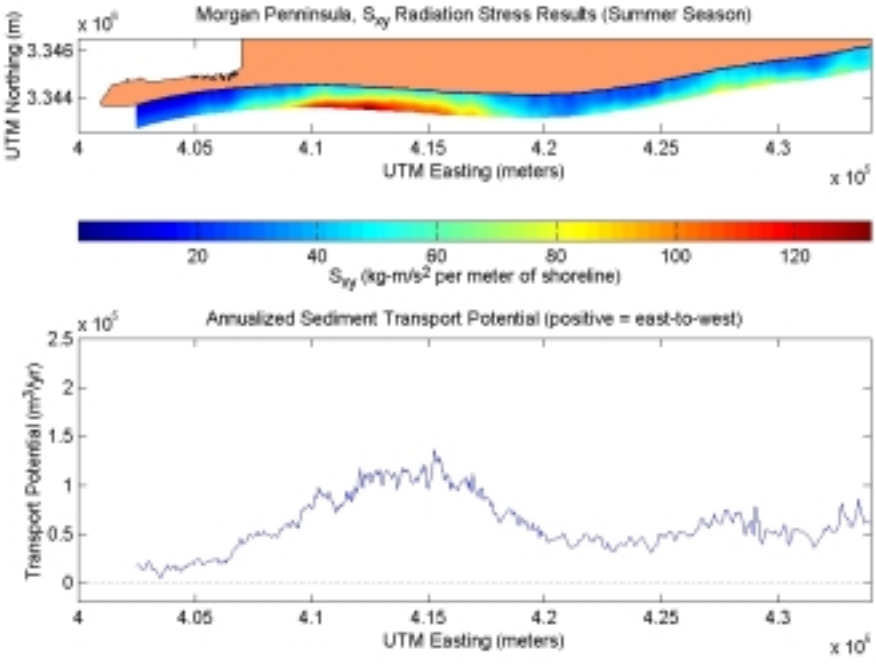


Figure C2-6. S_{xy} radiation stress and annualized sediment transport potential for existing conditions at Morgan Peninsula during the summer season.

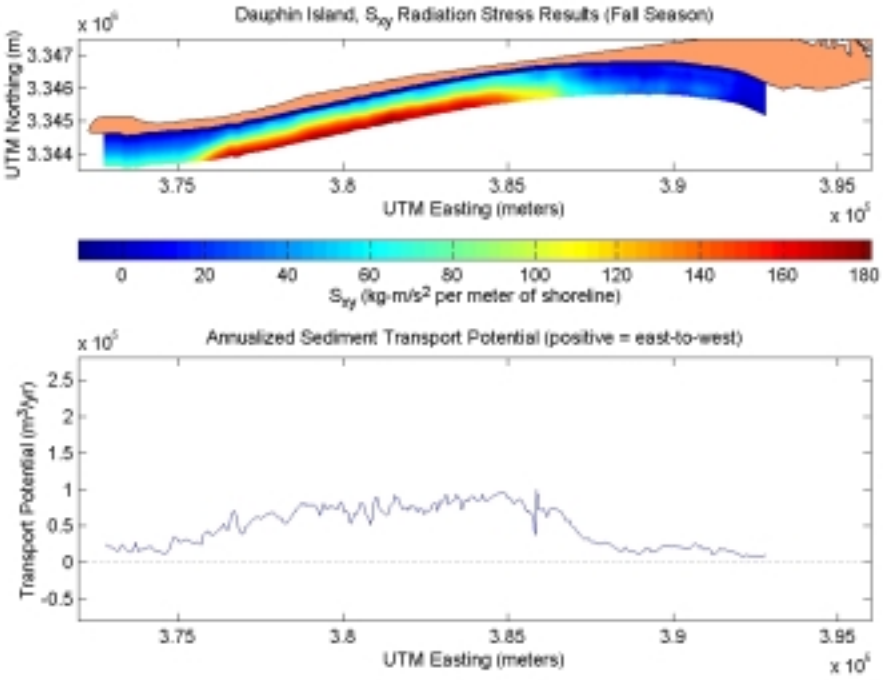


Figure C2-7. S_{xy} radiation stress and annualized sediment transport potential for existing conditions at Dauphin Island during the fall season.

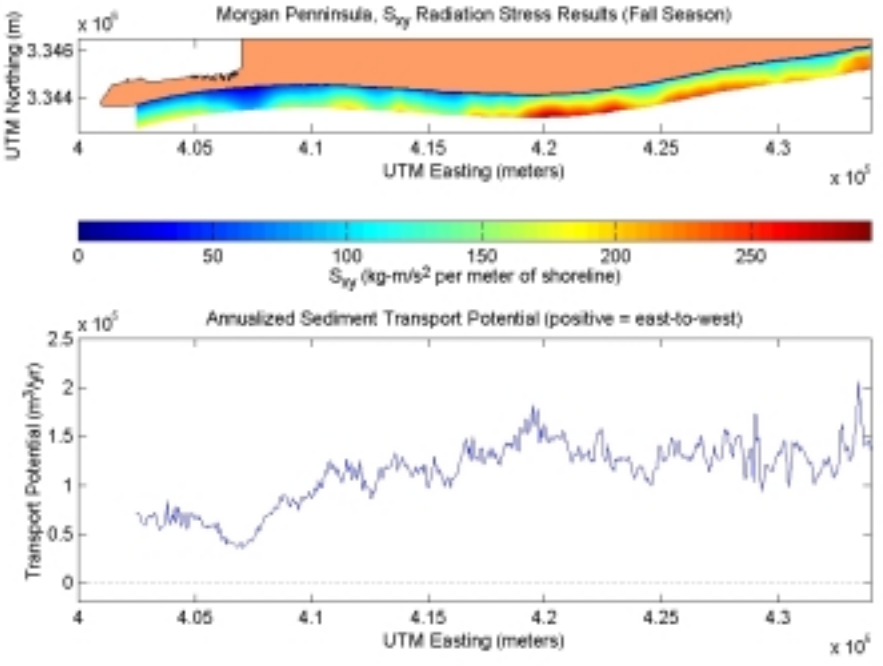


Figure C2-8. S_{xy} radiation stress and annualized sediment transport potential for existing conditions at Morgan Peninsula during the fall season.

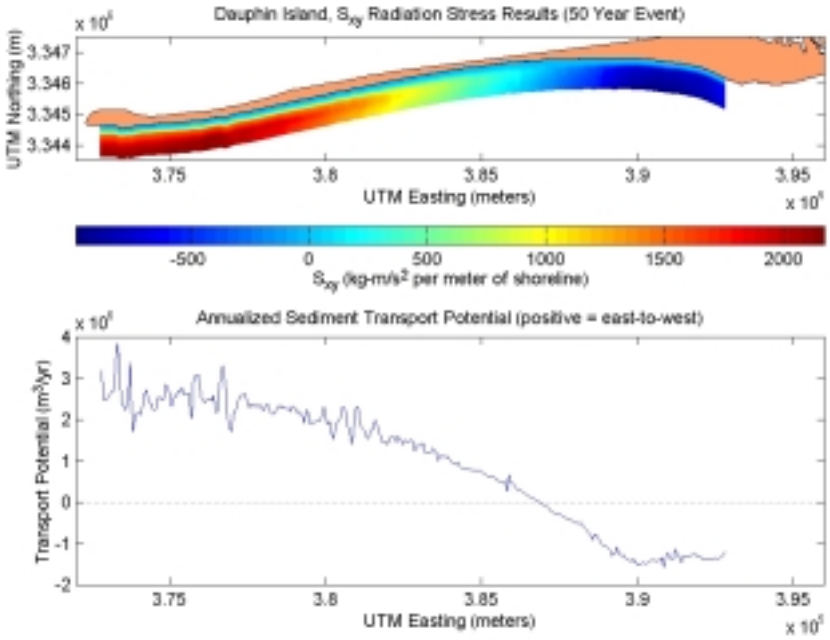


Figure C2-9. S_{xy} radiation stress and annualized sediment transport potential for existing conditions at Dauphin Island during a 50-year storm.

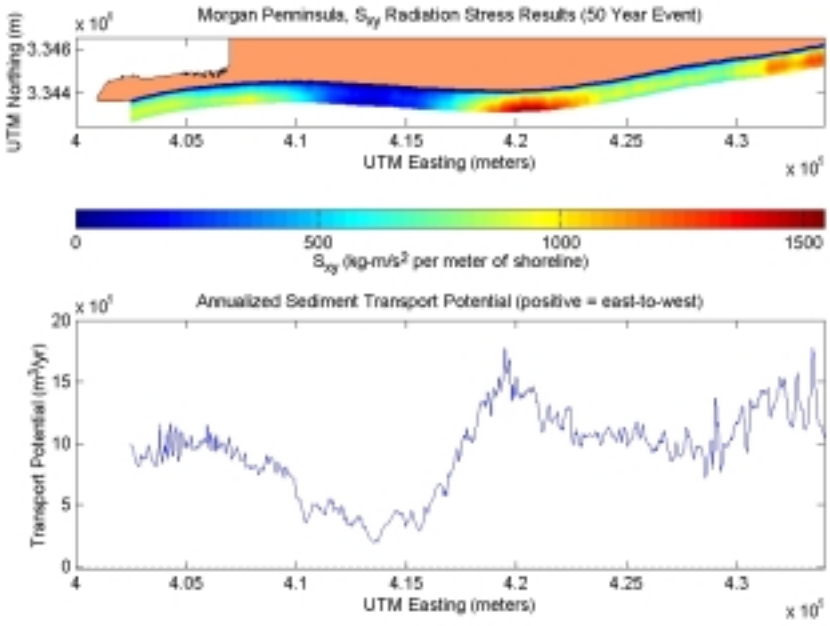


Figure C2-10. S_{xy} radiation stress and annualized sediment transport potential for existing conditions at Morgan Peninsula during a 50-year storm.

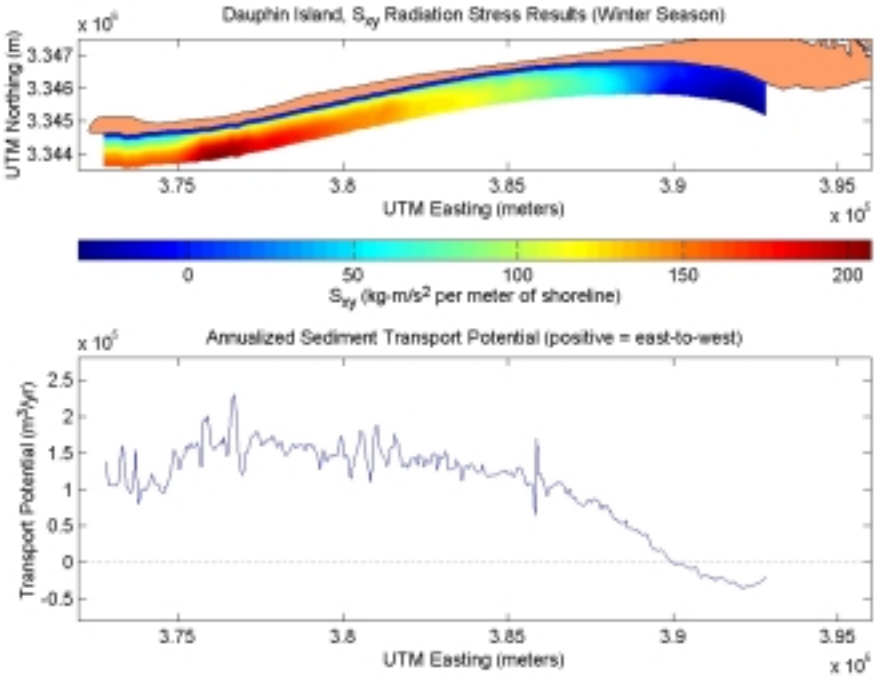


Figure C2-11. S_{xy} radiation stress and annualized sediment transport potential for post-dredging scenario at Dauphin Island during the winter season.

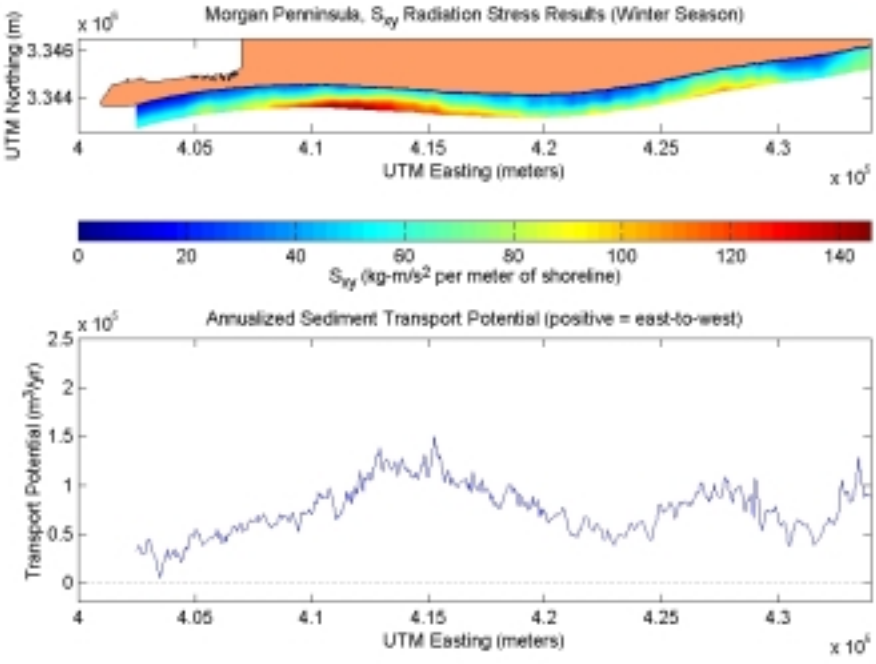


Figure C2-12. S_{xy} radiation stress and annualized sediment transport potential for post-dredging scenario at Morgan Peninsula during the winter season.

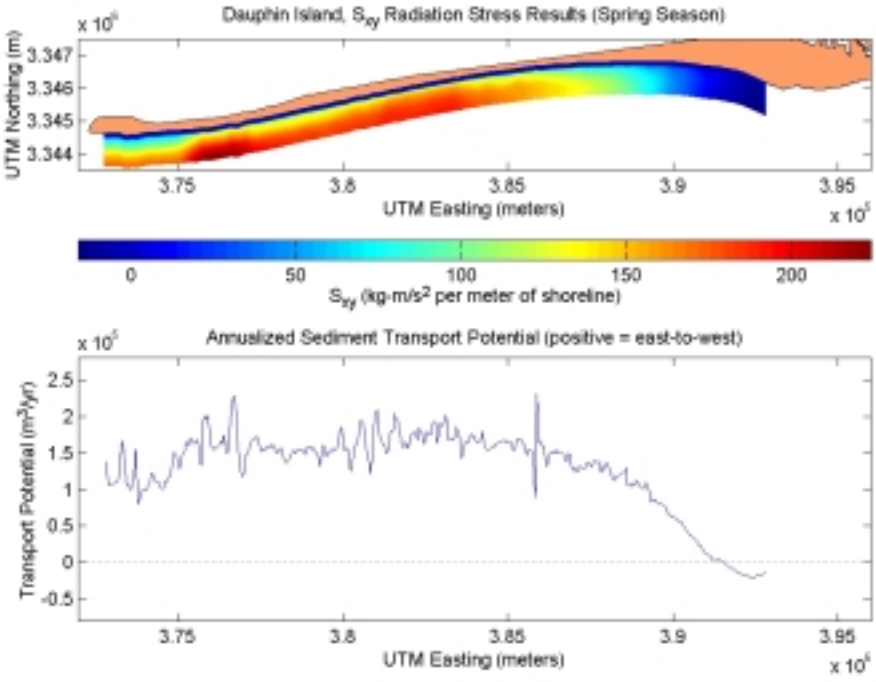


Figure C2-13. S_{xy} radiation stress and annualized sediment transport potential for post-dredging scenario at Dauphin Island during the spring season.

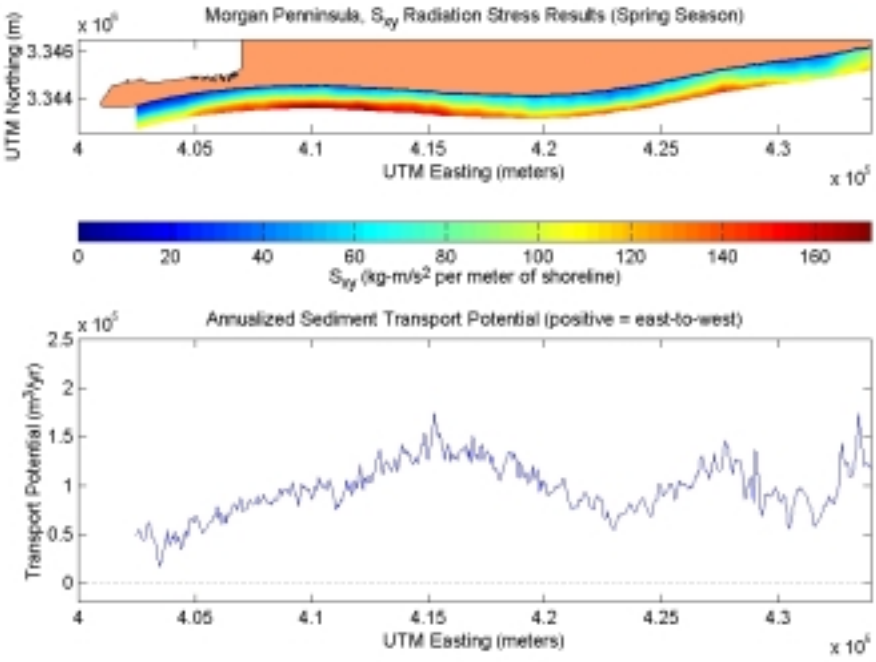


Figure C2-14. S_{xy} radiation stress and annualized sediment transport potential for post-dredging scenario at Morgan Peninsula during the spring season.

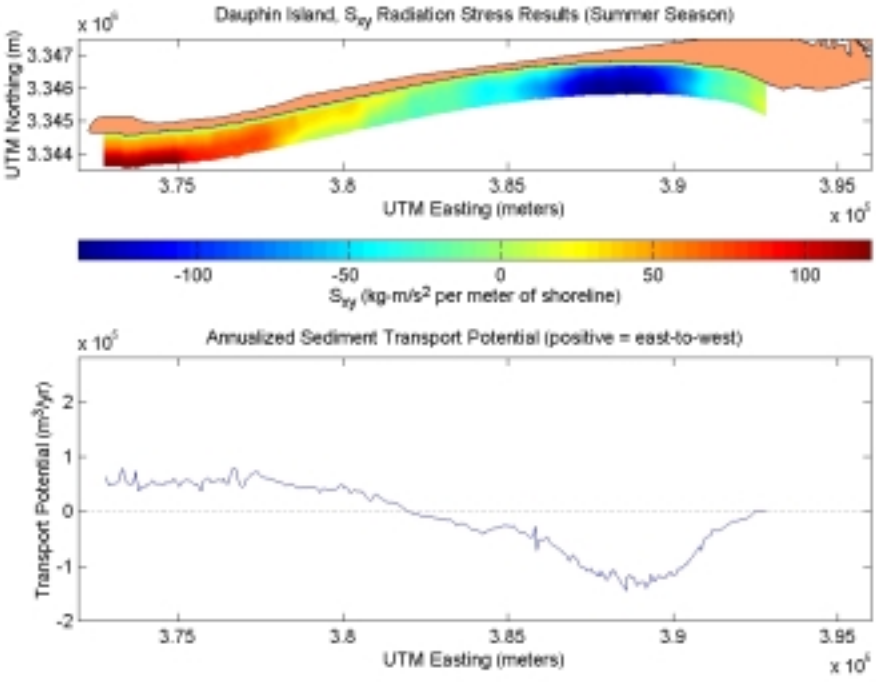


Figure C2-15. S_{xy} radiation stress and annualized sediment transport potential for post-dredging scenario at Dauphin Island during the summer season.

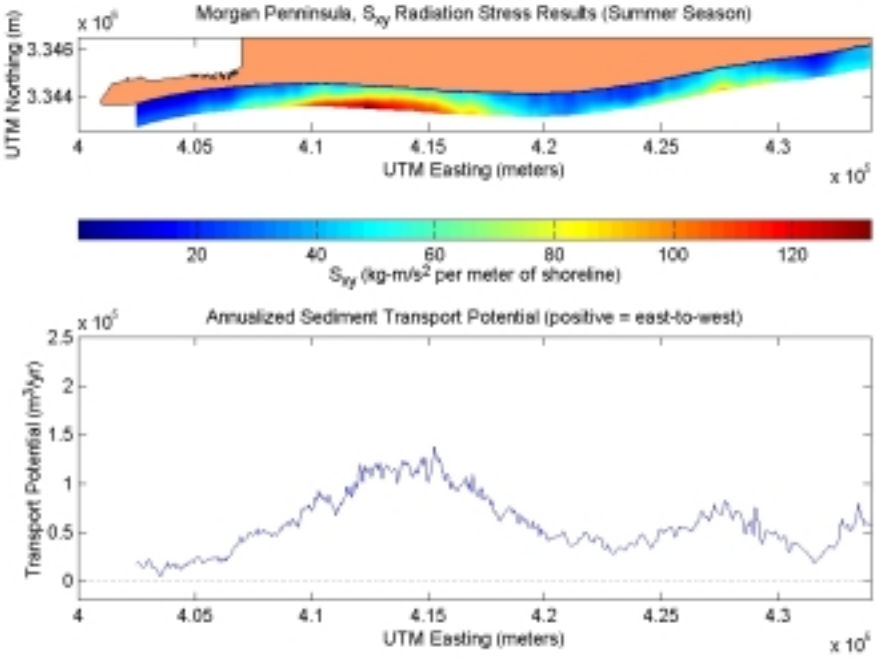


Figure C2-16. S_{xy} radiation stress and annualized sediment transport potential for post-dredging scenario at Morgan Peninsula during the summer season.

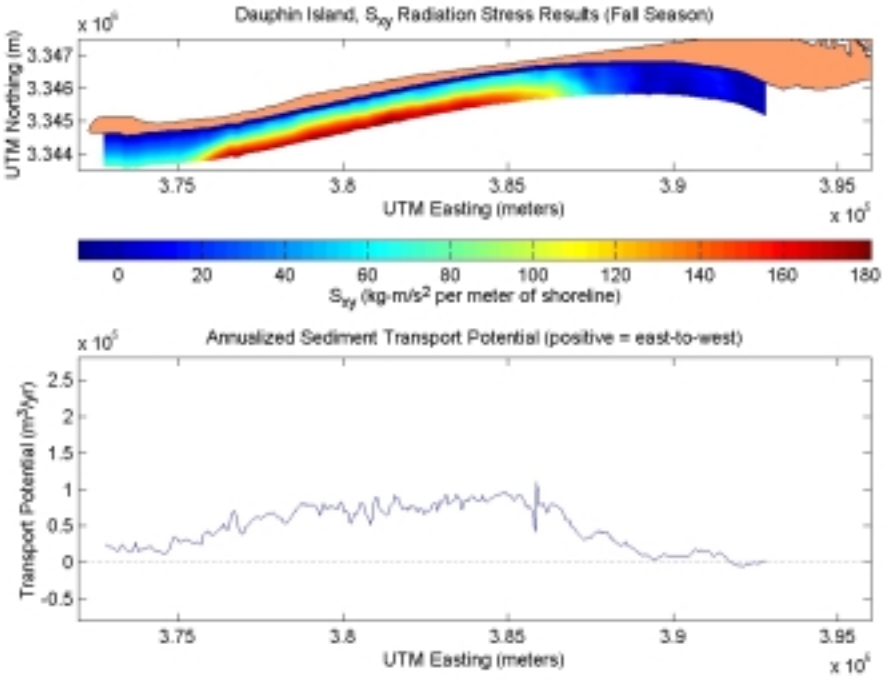


Figure C2-17. S_{xy} radiation stress and annualized sediment transport potential for post-dredging scenario at Dauphin Island during the fall season.

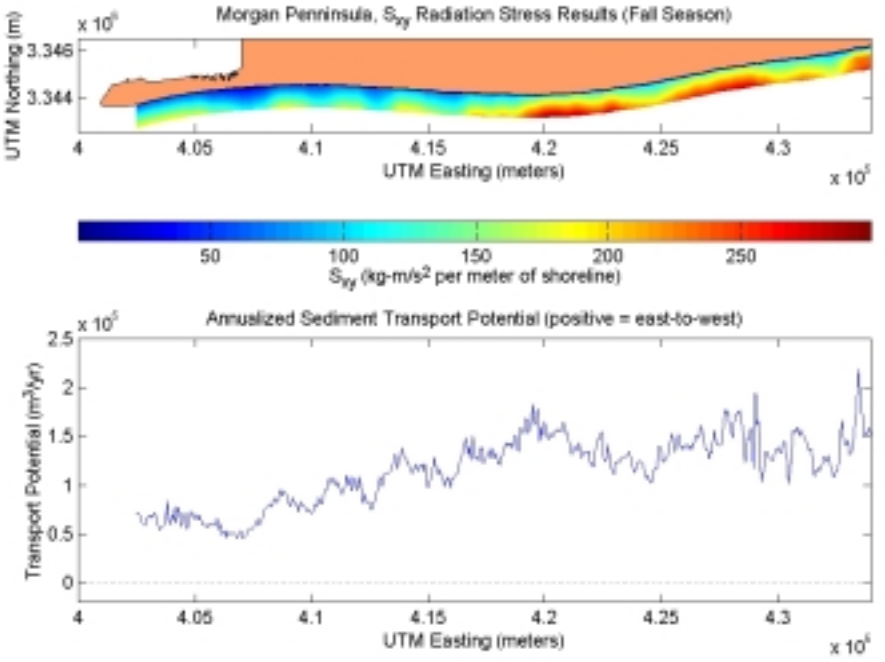


Figure C2-18. S_{xy} radiation stress and annualized sediment transport potential for post-dredging scenario at Morgan Peninsula during the fall season.

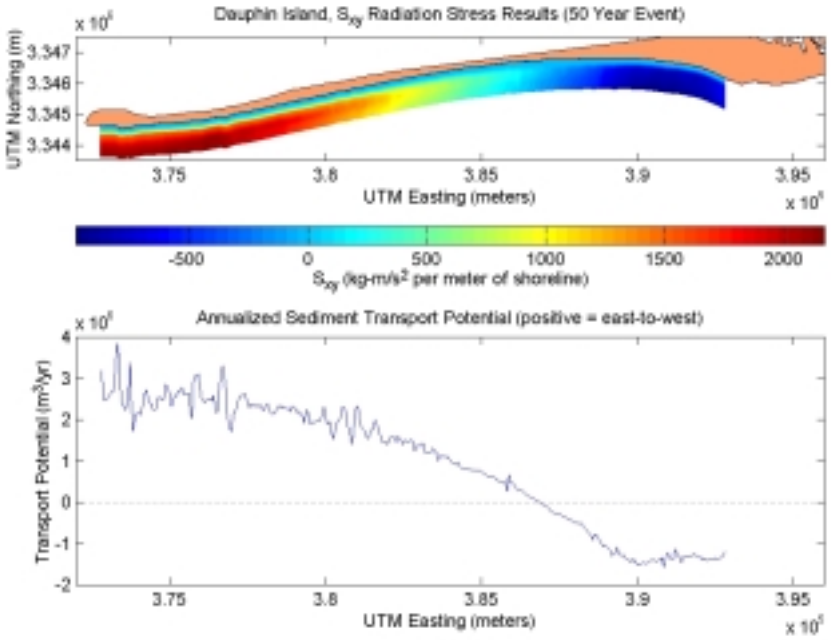


Figure C2-19. S_{xy} radiation stress and annualized sediment transport potential for post-dredging scenario at Dauphin Island during a 50-year storm.

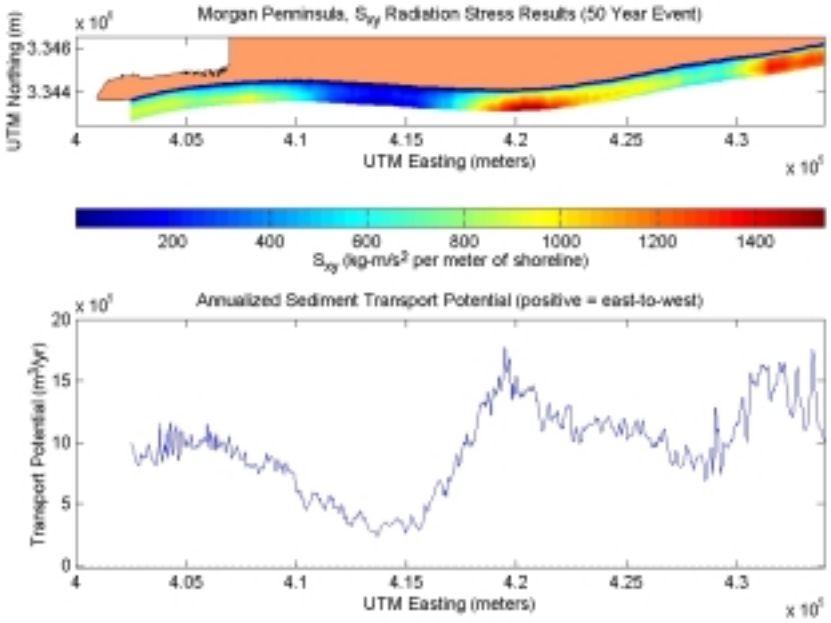


Figure C2-20. S_{xy} radiation stress and annualized sediment transport potential for post-dredging scenario at Morgan Peninsula during a 50-year storm.

APPENDIX D. FIELD SURVEY DATA

D1. Sample Types, Sample Codes, Coordinates, and Water Depths

The following appendix provides the sample types, sample codes, coordinates, and water depths for the May 1997 Survey 1 and December 1997 Survey 2 in the five sand resource areas offshore Alabama. Sample types include grain size (GS), infauna, Hydrolab, and trawl. Sample codes are in the format S1-A1-1 where S1 refers to Survey 1, A1 means Area 1, and –1 refers to Station 1. Within some sample codes, HL means Hydrolab, STR means trawl start, and END means trawl end. X and Y coordinates are Universal Transverse Mercator projection and given in meters. Station coordinates also are given in latitude/longitude (World Grid System [WGS] 84). Water depths are in meters.

Table D1-1. Survey 1

Sample Type	Station Code	X	Y	Latitude	Longitude	Depth
GS/Infauna	S1-A1-1	434037	3339677	N 30° 11' 12.30"	W 87° 41' 06.72"	12
	S1-A1-2	435889	3340588	N 30° 11' 42.23"	W 87° 39' 57.69"	10
	S1-A1-3	437708	3340590	N 30° 11' 42.66"	W 87° 38' 49.66"	12
	S1-A1-4	439233	3340883	N 30° 11' 52.44"	W 87° 37' 52.68"	11
	S1-A1-5	439515	3338747	N 30° 10' 43.10"	W 87° 37' 41.69"	13
	S1-A1-6	438308	3338456	N 30° 10' 33.42"	W 87° 38' 26.78"	13
	S1-A1-7	436475	3337534	N 30° 10' 03.15"	W 87° 39' 35.11"	12
	S1-A1-8	433722	3338169	N 30° 10' 23.23"	W 87° 41' 18.19"	11
	S1-A1-9	434024	3336635	N 30° 09' 33.47"	W 87° 41' 06.53"	12
	S1-A1-10	436460	3336330	N 30° 09' 24.04"	W 87° 39' 35.42"	14
	S1-A1-11	437678	3336939	N 30° 09' 44.03"	W 87° 38' 50.01"	14
	S1-A1-12	438591	3336924	N 30° 09' 43.71"	W 87° 38' 15.88"	13
	S1-A1-13	433720	3335721	N 30° 09' 03.73"	W 87° 41' 17.68"	14
	S1-A1-14	435537	3334813	N 30° 08' 34.56"	W 87° 40' 09.58"	14
	S1-A1-15	437059	3335416	N 30° 08' 54.46"	W 87° 39' 12.83"	15
	S1-A1-16	439193	3334183	N 30° 08' 14.79"	W 87° 37' 52.81"	16
	S1-A1-17	441568	3338081	N 30° 10' 21.82"	W 87° 36' 24.80"	14
	S1-A1-18	445129	3334610	N 30° 08' 29.68"	W 87° 34' 11.01"	21
	S1-A1-19	441153	3331217	N 30° 06' 38.76"	W 87° 36' 38.94"	23
	S1-A1-20	436566	3331895	N 30° 06' 59.95"	W 87° 39' 30.50"	16
Hydrolab 1	S1-A1-HL1	435869	3340291	N 30° 11' 32.58"	W 87° 39' 58.35"	11
Hydrolab 2	S1-A1-HL2	435851	3335113	N 30° 08' 44.38"	W 87° 39' 57.92"	14
Trawl 1 start	S1-A1-1STR	436893	3340285	N 30° 11' 32.58"	W 87° 39' 20.06"	11
Trawl 1 end	S1-A1-1END	436204	3340295	N 30° 11' 32.78"	W 87° 39' 45.83"	10
Trawl 2 start	S1-A1-2STR	435920	3335104	N 30° 08' 44.09"	W 87° 39' 55.31"	14
Trawl 2 end	S1-A1-2END	436785	3335117	N 30° 08' 44.69"	W 87° 39' 22.99"	13

Table D1-1. Continued						
Sample Type	Station Code	X	Y	Latitude	Longitude	Depth
GS/Infauna	S1-A2-1	426710	3336977	N 30° 09' 43.06"	W 87° 45' 40.03"	13
	S1-A2-2	427625	3337271	N 30° 09' 52.80"	W 87° 45' 05.89"	12
	S1-A2-3	429460	3338799	N 30° 10' 42.84"	W 87° 43' 57.67"	12
	S1-A2-4	430985	3339084	N 30° 10' 52.43"	W 87° 43' 00.72"	12
	S1-A2-5	425797	3334848	N 30° 08' 33.72"	W 87° 46' 13.62"	14
	S1-A2-6	428537	3335751	N 30° 09' 03.62"	W 87° 44' 31.42"	13
	S1-A2-7	429456	3335442	N 30° 08' 53.80"	W 87° 43' 57.00"	13
	S1-A2-8	431277	3334816	N 30° 08' 33.81"	W 87° 42' 48.80"	12
	S1-A2-9	426103	3333929	N 30° 08' 03.93"	W 87° 46' 01.96"	14
	S1-A2-10	427923	3333317	N 30° 07' 44.43"	W 87° 44' 53.81"	14
	S1-A2-11	428835	3334224	N 30° 08' 14.07"	W 87° 44' 19.92"	14
	S1-A2-12	431877	3332689	N 30° 07' 24.84"	W 87° 42' 25.90"	16
	S1-A2-13	426072	3330886	N 30° 06' 25.06"	W 87° 46' 02.36"	17
	S1-A2-14	427923	3331488	N 30° 06' 45.02"	W 87° 44' 53.36"	16
	S1-A2-15	429127	3330877	N 30° 06' 25.43"	W 87° 44' 08.21"	17
	S1-A2-16	431268	3331172	N 30° 06' 35.45"	W 87° 42' 48.28"	16
	S1-A2-17	428785	3327323	N 30° 04' 29.90"	W 87° 44' 20.13"	18
	S1-A2-18	420939	3330236	N 30° 06' 02.80"	W 87° 49' 13.97"	16
	S1-A2-19	423268	3331452	N 30° 06' 42.82"	W 87° 47' 47.26"	13
	S1-A2-20	422161	3336144	N 30° 09' 14.99"	W 87° 48' 29.88"	13
Hydrolab 1	S1-A2-HL1	428366	3331773	N 30° 06' 54.38"	W 87° 44' 36.87"	15
Hydrolab 2	S1-A2-HL2	430380	3338447	N 30° 10' 31.60"	W 87° 43' 23.18"	12
Trawl 1 start	S1-A2-1STR	430075	3338487	N 30° 10' 32.84"	W 87° 43' 34.62"	12
Trawl 1 end	S1-A2-1END	429469	3338514	N 30° 10' 33.58"	W 87° 43' 57.27"	13
Trawl 2 start	S1-A2-2STR	428940	3331745	N 30° 06' 53.58"	W 87° 44' 15.40"	15
Trawl 2 end	S1-A2-2END	429704	3331667	N 30° 06' 51.21"	W 87° 43' 46.83"	16
GS/Infauna	S1-A3-1	409965	3337667	N 30° 10' 01.44"	W 87° 56' 06.20"	14
	S1-A3-2	412396	3337355	N 30° 09' 51.95"	W 87° 54' 35.24"	11
	S1-A3-3	414234	3338255	N 30° 10' 21.65"	W 87° 53' 26.78"	10
	S1-A3-4	417271	3337941	N 30° 10' 12.20"	W 87° 51' 33.18"	11
	S1-A3-5	411173	3336740	N 30° 09' 31.64"	W 87° 55' 20.79"	12
	S1-A3-6	411479	3335533	N 30° 08' 52.51"	W 87° 55' 08.97"	14
	S1-A3-7	414829	3337034	N 30° 09' 42.15"	W 87° 53' 04.20"	12
	S1-A3-8	417872	3336719	N 30° 09' 32.65"	W 87° 51' 10.35"	11
	S1-A3-9	409333	3334932	N 30° 08' 32.44"	W 87° 56' 29.01"	13
	S1-A3-10	412995	3334900	N 30° 08' 32.34"	W 87° 54' 12.11"	13
	S1-A3-11	415737	3334594	N 30° 08' 23.11"	W 87° 52' 29.57"	14
	S1-A3-12	418484	3334269	N 30° 08' 13.21"	W 87° 50' 46.80"	15
	S1-A3-13	409948	3333388	N 30° 07' 42.43"	W 87° 56' 05.56"	15
	S1-A3-14	412982	3333070	N 30° 07' 32.91"	W 87° 54' 12.08"	17
	S1-A3-15	415409	3332758	N 30° 07' 23.37"	W 87° 52' 41.28"	17
	S1-A3-16	416646	3333682	N 30° 07' 53.70"	W 87° 51' 55.32"	15
	S1-A3-17	418478	3334276	N 30° 08' 13.45"	W 87° 50' 47.02"	15
	S1-A3-18	411693	3328403	N 30° 05' 00.96"	W 87° 54' 58.83"	14
	S1-A3-19	408925	3331496	N 30° 06' 40.71"	W 87° 56' 43.19"	15
	S1-A3-20	406468	3334779	N 30° 08' 26.67"	W 87° 58' 16.03"	15
Hydrolab 1	S1-A3-HL1	412163	3337431	N 30° 09' 54.34"	W 87° 54' 43.99"	11
Hydrolab 2	S1-A3-HL2	413971	3333275	N 30° 07' 39.79"	W 87° 53' 35.17"	16
Trawl 1 start	S1-A3-1STR	412355	3337793	N 30° 10' 06.17"	W 87° 54' 36.90"	11
Trawl 1 end	S1-A3-1END	413042	3337810	N 30° 10' 06.89"	W 87° 54' 11.22"	10
Trawl 2 start	S1-A3-2STR	414024	3332721	N 30° 07' 21.83"	W 87° 53' 33.03"	18
Trawl 2 end	S1-A3-2END	414269	3332090	N 30° 07' 01.39"	W 87° 53' 23.68"	19

Table D1-1. Continued						
Sample Type	Station Code	X	Y	Latitude	Longitude	Depth
GS/Infauna	S1-A4-1	393192	3337432	N 30° 09' 48.90"	W 88° 06' 33.13"	8
	S1-A4-2	394107	3337126	N 30° 09' 39.26"	W 88° 05' 58.85"	10
	S1-A4-3	395023	3336495	N 30° 09' 19.05"	W 88° 05' 24.39"	12
	S1-A4-4	395333	3337117	N 30° 09' 39.35"	W 88° 05' 13.00"	12
	S1-A4-5	393196	3335908	N 30° 08' 59.40"	W 88° 06' 32.45"	13
	S1-A4-6	393499	3335899	N 30° 08' 59.21"	W 88° 06' 21.11"	12
	S1-A4-7	395012	3336197	N 30° 09' 09.37"	W 88° 05' 24.68"	11
	S1-A4-8	395319	3335582	N 30° 08' 49.48"	W 88° 05' 12.98"	12
	S1-A4-9	392881	3334984	N 30° 08' 29.31"	W 88° 06' 43.88"	15
	S1-A4-10	393807	3334688	N 30° 08' 19.97"	W 88° 06' 09.18"	15
	S1-A4-11	394398	3334675	N 30° 08' 19.73"	W 88° 05' 47.06"	14
	S1-A4-12	395315	3334972	N 30° 08' 29.66"	W 88° 05' 12.92"	13
	S1-A4-13	393190	3333463	N 30° 07' 40.01"	W 88° 06' 31.79"	17
	S1-A4-14	393480	3333461	N 30° 07' 40.03"	W 88° 06' 20.94"	17
	S1-A4-15	394397	3333757	N 30° 07' 49.93"	W 88° 05' 46.77"	15
	S1-A4-16	394404	3333152	N 30° 07' 30.26"	W 88° 05' 46.30"	16
	S1-A4-17	394393	3331019	N 30° 06' 20.99"	W 88° 05' 45.94"	20
	S1-A4-18	389834	3334691	N 30° 08' 18.81"	W 88° 08' 37.66"	16
	S1-A4-19	391073	3336522	N 30° 09' 18.68"	W 88° 07' 52.03"	14
	S1-A4-20	389547	3338667	N 30° 10' 27.84"	W 88° 08' 49.86"	14
Hydrolab 1	S1-A4-HL1	393195	3336820	N 30° 09' 29.04"	W 88° 06' 32.82"	10
Hydrolab 2	S1-A4-HL2	395027	3334070	N 30° 08' 00.29"	W 88° 05' 23.34"	16
Trawl 1 start	S1-A4-1STR	393263	3336841	N 30° 09' 29.75"	W 88° 06' 30.27"	9
Trawl 1 end	S1-A4-1END	394318	3336774	N 30° 09' 27.89"	W 88° 05' 50.81"	9
Trawl 2 start	S1-A4-2STR	395034	3333928	N 30° 07' 55.67"	W 88° 05' 23.03"	16
Trawl 2 end	S1-A4-2END	394586	3333818	N 30° 07' 51.98"	W 88° 05' 39.76"	15
GS/Infauna	S1-A5-1	368814	3337837	N 30° 09' 53.48"	W 88° 21' 44.52"	14
	S1-A5-2	369438	3338143	N 30° 10' 03.65"	W 88° 21' 21.36"	15
	S1-A5-3	371571	3338741	N 30° 10' 23.92"	W 88° 20' 01.89"	14
	S1-A5-4	373398	3339660	N 30° 10' 54.43"	W 88° 18' 53.98"	13
	S1-A5-5	367604	3336938	N 30° 09' 23.81"	W 88° 22' 29.36"	15
	S1-A5-6	370651	3336914	N 30° 09' 24.23"	W 88° 20' 35.45"	16
	S1-A5-7	371861	3336608	N 30° 09' 14.75"	W 88° 19' 50.10"	17
	S1-A5-8	373381	3336910	N 30° 09' 25.11"	W 88° 18' 53.44"	17
	S1-A5-9	367905	3336015	N 30° 08' 53.97"	W 88° 22' 17.69"	15
	S1-A5-10	370343	3335403	N 30° 08' 35.02"	W 88° 20' 46.31"	18
	S1-A5-11	370943	3335086	N 30° 08' 24.95"	W 88° 20' 23.76"	18
	S1-A5-12	372782	3335998	N 30° 08' 55.27"	W 88° 19' 15.44"	18
	S1-A5-13	367586	3334184	N 30° 07' 54.36"	W 88° 22' 28.77"	19
	S1-A5-14	370012	3333265	N 30° 07' 25.47"	W 88° 20' 57.72"	20
	S1-A5-15	370946	3334183	N 30° 07' 55.63"	W 88° 20' 23.25"	18
	S1-A5-16	373069	3334168	N 30° 07' 55.94"	W 88° 19' 03.90"	19
	S1-A5-17	377611	3335161	N 30° 08' 29.89"	W 88° 16' 14.61"	19
	S1-A5-18	375145	3331953	N 30° 06' 44.79"	W 88° 17' 45.39"	21
	S1-A5-19	370334	3331560	N 30° 06' 30.21"	W 88° 20' 44.95"	20
	S1-A5-20	364355	3335328	N 30° 08' 30.23"	W 88° 24' 30.05"	17
Hydrolab 1	S1-A5-HL1	370867	3337718	N 30° 09' 50.43"	W 88° 20' 27.76"	16
Hydrolab 2	S1-A5-HL2	371637	3333580	N 30° 07' 36.32"	W 88° 19' 57.18"	19
Trawl 1 start	S1-A5-1STR	370213	3337968	N 30° 09' 58.27"	W 88° 20' 52.30"	16
Trawl 1 end	S1-A5-1END	370735	3337725	N 30° 09' 50.60"	W 88° 20' 32.69"	16
Trawl 2 start	S1-A5-2STR	371331	3333575	N 30° 07' 36.02"	W 88° 20' 08.60"	19
Trawl 2 end	S1-A5-2END	370581	3333568	N 30° 07' 35.53"	W 88° 20' 36.61"	19

Table D1-2. Survey 2						
Sample Type	Station Code	X	Y	Latitude	Longitude	Depth
GS/Infauna	S2-A1-1	434053	3339694	N 30° 11' 12.85"	W 87° 41' 06.15"	12
	S2-A1-2	435878	3340596	N 30° 11' 42.50"	W 87° 39' 58.09"	10
	S2-A1-3	437707	3340550	N 30° 11' 41.35"	W 87° 38' 49.68"	12
	S2-A1-4	439221	3340896	N 30° 11' 52.86"	W 87° 37' 53.13"	11
	S2-A1-5	433728	3338168	N 30° 10' 23.22"	W 87° 41' 17.95"	11
	S2-A1-6	436463	3337537	N 30° 10' 03.24"	W 87° 39' 35.54"	12
	S2-A1-7	438301	3338450	N 30° 10' 33.23"	W 87° 38' 27.05"	13
	S2-A1-8	439529	3338732	N 30° 10' 42.61"	W 87° 37' 41.15"	13
	S2-A1-9	434032	3336628	N 30° 09' 33.22"	W 87° 41' 06.22"	12
	S2-A1-10	436463	3336322	N 30° 09' 23.75"	W 87° 39' 35.31"	14
	S2-A1-11	437682	3336937	N 30° 09' 43.96"	W 87° 38' 49.84"	14
	S2-A1-12	438604	3336918	N 30° 09' 43.52"	W 87° 38' 15.39"	13
	S2-A1-13	433719	3335725	N 30° 09' 03.86"	W 87° 41' 17.74"	14
	S2-A1-14	435547	3334802	N 30° 08' 34.21"	W 87° 40' 09.21"	14
	S2-A1-15	437077	3335409	N 30° 08' 54.21"	W 87° 39' 12.14"	15
	S2-A1-16	439197	3334177	N 30° 08' 14.59"	W 87° 37' 52.64"	16
	S2-A1-17	441564	3338091	N 30° 10' 22.15"	W 87° 36' 24.97"	14
	S2-A1-18	445131	3334622	N 30° 08' 30.04"	W 87° 34' 10.95"	21
	S2-A1-19	441143	3331227	N 30° 06' 39.08"	W 87° 36' 39.32"	23
	S2-A1-20	436578	3331889	N 30° 06' 59.79"	W 87° 39' 30.02"	16
Hydrolab 1	S2-A1-HL1	435997	3340289	N 30° 11' 32.55"	W 87° 39' 53.59"	11
Hydrolab 2	S2-A1-HL2	438390	3334956	N 30° 08' 39.74"	W 87° 38' 22.97"	14
Trawl 1 start	S2-A1-1STR	437594	3340285	N 30° 11' 32.70"	W 87° 38' 53.86"	11
Trawl 1 end	S2-A1-1END	436755	3340286	N 30° 11' 32.61"	W 87° 39' 25.23"	11
Trawl 2 start	S2-A1-2STR	436303	3335105	N 30° 08' 44.21"	W 87° 39' 41.00"	14
Trawl 2 end	S2-A1-2END	429384	3338497	N 30° 10' 33.02"	W 87° 44' 00.45"	13
GS/Infauna	S2-A2-1	426725	3336989	N 30° 09' 43.45"	W 87° 45' 39.48"	13
	S2-A2-2	427635	3337279	N 30° 09' 53.07"	W 87° 45' 05.53"	12
	S2-A2-3	429479	3338798	N 30° 10' 42.83"	W 87° 43' 56.95"	12
	S2-A2-4	430987	3339084	N 30° 10' 52.43"	W 87° 43' 00.65"	12
	S2-A2-5	425794	3334852	N 30° 08' 33.85"	W 87° 46' 13.75"	14
	S2-A2-6	428529	3335755	N 30° 09' 03.77"	W 87° 44' 31.73"	13
	S2-A2-7	429451	3335451	N 30° 08' 54.07"	W 87° 43' 57.18"	13
	S2-A2-8	431295	3334840	N 30° 08' 34.60"	W 87° 42' 48.13"	12
	S2-A2-9	426103	3333927	N 30° 08' 03.84"	W 87° 46' 01.98"	14
	S2-A2-10	427921	3333313	N 30° 07' 44.30"	W 87° 44' 53.88"	14
	S2-A2-11	428849	3334224	N 30° 08' 14.10"	W 87° 44' 19.41"	14
	S2-A2-12	431887	3332686	N 30° 07' 24.75"	W 87° 42' 25.50"	16
	S2-A2-13	426078	3330883	N 30° 06' 24.96"	W 87° 46' 02.12"	17
	S2-A2-14	427923	3331476	N 30° 06' 44.62"	W 87° 44' 53.36"	16
	S2-A2-15	429134	3330876	N 30° 06' 25.41"	W 87° 44' 07.94"	17
	S2-A2-16	431261	3331176	N 30° 06' 35.58"	W 87° 42' 48.55"	16
	S2-A2-17	428790	3327321	N 30° 04' 29.82"	W 87° 44' 19.95"	18
	S2-A2-18	420950	3330242	N 30° 06' 02.98"	W 87° 49' 13.57"	16
	S2-A2-19	423285	3331462	N 30° 06' 43.15"	W 87° 47' 46.63"	13
	S2-A2-20	422159	3336145	N 30° 09' 15.04"	W 87° 48' 29.95"	13
Hydrolab 1	S2-A2-HL1	427096	3331753	N 30° 06' 53.45"	W 87° 45' 24.30"	16
Hydrolab 2	S2-A2-HL2	428845	3331747	N 30° 06' 53.64"	W 87° 44' 18.95"	16
Trawl 1 start	S2-A2-1STR	428733	3338441	N 30° 10' 31.05"	W 87° 44' 24.78"	13
Trawl 1 end	S2-A2-1END	429657	3338489	N 30° 10' 32.80"	W 87° 43' 50.24"	13
Trawl 2 start	S2-A2-2STR	428845	3331747	N 30° 06' 53.64"	W 87° 44' 18.95"	16

Table D1-2. Continued						
Trawl 2 end	S2-A2-2END	428189	3331790	N 30° 06' 54.90"	W 87° 44' 43.47"	16
GS/Infauna	S2-A3-1	409962	3337647	N 30° 10' 00.78"	W 87° 56' 06.33"	14
	S2-A3-2	412397	3337349	N 30° 09' 51.74"	W 87° 54' 35.22"	12
	S2-A3-3	414233	3338255	N 30° 10' 21.66"	W 87° 53' 26.85"	10
	S2-A3-4	417264	3337930	N 30° 10' 11.84"	W 87° 51' 33.42"	10
	S2-A3-5	411188	3336742	N 30° 09' 31.70"	W 87° 55' 20.22"	12
	S2-A3-6	411480	3335517	N 30° 08' 51.98"	W 87° 55' 08.95"	14
	S2-A3-7	414824	3337023	N 30° 09' 41.77"	W 87° 53' 04.40"	12
	S2-A3-8	417874	3336719	N 30° 09' 32.65"	W 87° 51' 10.29"	11
	S2-A3-9	409335	3334922	N 30° 08' 32.10"	W 87° 56' 28.93"	13
	S2-A3-10	412995	3334911	N 30° 08' 32.69"	W 87° 54' 12.11"	13
	S2-A3-11	415736	3334592	N 30° 08' 23.03"	W 87° 52' 29.58"	14
	S2-A3-12	418461	3334272	N 30° 08' 13.32"	W 87° 50' 47.64"	15
	S2-A3-13	409942	3333406	N 30° 07' 43.01"	W 87° 56' 05.75"	15
	S2-A3-14	412996	3333074	N 30° 07' 33.03"	W 87° 54' 11.55"	17
	S2-A3-15	415421	3332758	N 30° 07' 23.39"	W 87° 52' 40.84"	17
	S2-A3-16	416654	3333674	N 30° 07' 53.43"	W 87° 51' 55.04"	15
	S2-A3-17	413420	3330789	N 30° 06' 18.91"	W 87° 53' 55.03"	15
	S2-A3-18	411697	3328410	N 30° 05' 01.17"	W 87° 54' 58.69"	14
	S2-A3-19	408931	3331499	N 30° 06' 40.81"	W 87° 56' 42.95"	15
	S2-A3-20	406480	3334793	N 30° 08' 27.12"	W 87° 58' 15.60"	15
Hydrolab 1	S2-A3-HL1	414579	3337906	N 30° 10' 10.41"	W 87° 53' 13.78"	10
Hydrolab 2	S2-A3-HL2	412175	3332743	N 30° 07' 22.07"	W 87° 54' 42.13"	16
Trawl 1 start	S2-A3-1STR	412392	3337956	N 30° 10' 11.45"	W 87° 54' 35.57"	11
Trawl 1 end	S2-A3-1END	413064	3337954	N 30° 10' 11.58"	W 87° 54' 10.47"	9
Trawl 2 start	S2-A3-2STR	413206	3332773	N 30° 07' 23.31"	W 87° 54' 03.62"	18
Trawl 2 end	S2-A3-2END	412524	3332757	N 30° 07' 22.60"	W 87° 54' 29.08"	17
GS/Infauna	S2-A4-1	393192	3337431	N 30° 09' 48.87"	W 88° 06' 33.14"	8
	S2-A4-2	394112	3337121	N 30° 09' 39.11"	W 88° 05' 58.65"	10
	S2-A4-3	395014	3336503	N 30° 09' 19.32"	W 88° 05' 24.72"	12
	S2-A4-4	395323	3337097	N 30° 09' 38.70"	W 88° 05' 13.35"	12
	S2-A4-5	393193	3335896	N 30° 08' 59.03"	W 88° 06' 32.56"	13
	S2-A4-6	393508	3335897	N 30° 08' 59.17"	W 88° 06' 20.78"	12
	S2-A4-7	395042	3336212	N 30° 09' 09.87"	W 88° 05' 23.57"	11
	S2-A4-8	395319	3335589	N 30° 08' 49.73"	W 88° 05' 13.00"	12
	S2-A4-9	392888	3334992	N 30° 08' 29.58"	W 88° 06' 43.62"	15
	S2-A4-10	393780	3334689	N 30° 08' 20.02"	W 88° 06' 10.16"	15
	S2-A4-11	394395	3334685	N 30° 08' 20.06"	W 88° 05' 47.19"	14
	S2-A4-12	395325	3334974	N 30° 08' 29.74"	W 88° 05' 12.55"	13
	S2-A4-13	393188	3333472	N 30° 07' 40.28"	W 88° 06' 31.85"	17
	S2-A4-14[a]	393464	3333461	N 30° 07' 40.01"	W 88° 06' 21.55"	17
	S2-A4-14[b]	393479	3333458	N 30° 07' 39.94"	W 88° 06' 21.00"	17
	S2-A4-14[c]	393482	3333474	N 30° 07' 40.45"	W 88° 06' 20.86"	17
	S2-A4-15	394403	3333764	N 30° 07' 50.17"	W 88° 05' 46.56"	15
	S2-A4-16	394389	3333158	N 30° 07' 30.46"	W 88° 05' 46.86"	16
	S2-A4-17	394376	3331032	N 30° 06' 21.40"	W 88° 05' 46.58"	20
	S2-A4-18	389825	3334711	N 30° 08' 19.47"	W 88° 08' 37.97"	16
	S2-A4-19	391044	3336514	N 30° 09' 18.42"	W 88° 07' 53.10"	14
	S2-A4-20	389541	3338675	N 30° 10' 28.11"	W 88° 08' 50.11"	14
Hydrolab 1	S2-A4-HL1	394030	3336814	N 30° 09' 29.09"	W 88° 06' 01.59"	10
Hydrolab 2	S2-A4-HL2	394541	3333431	N 30° 07' 39.38"	W 88° 05' 41.29"	15
Trawl 1 start	S2-A4-1STR	394713	3336824	N 30° 09' 29.66"	W 88° 05' 36.09"	11
Trawl 1 end	S2-A4-1END	394030	3336814	N 30° 09' 29.09"	W 88° 06' 01.59"	10

Table D1-2. Continued						
Trawl 2 start	S2-A4-2STR	393511	3334078	N 30° 08' 00.08"	W 88° 06' 20.02"	14
Trawl 2 end	S2-A4-2END	394134	3334036	N 30° 07' 58.92"	W 88° 05' 56.71"	14
GS/Infauna	S2-A5-1	368814	3337835	N 30° 09' 53.43"	W 88° 21' 44.55"	14
	S2-A5-2	369430	3338131	N 30° 10' 03.27"	W 88° 21' 21.66"	15
	S2-A5-3	371561	3338744	N 30° 10' 24.00"	W 88° 20' 02.26"	14
	S2-A5-4	373403	3339649	N 30° 10' 54.09"	W 88° 18' 53.80"	13
	S2-A5-5	367602	3336904	N 30° 09' 22.72"	W 88° 22' 29.43"	15
	S2-A5-6	370667	3336906	N 30° 09' 23.96"	W 88° 20' 34.86"	16
	S2-A5-7	371860	3336605	N 30° 09' 14.65"	W 88° 19' 50.14"	16
	S2-A5-8	373397	3336897	N 30° 09' 24.71"	W 88° 18' 52.82"	17
	S2-A5-9	367885	3336015	N 30° 08' 53.94"	W 88° 22' 18.45"	15
	S2-A5-10	370342	3335394	N 30° 08' 34.75"	W 88° 20' 46.34"	18
	S2-A5-11	370928	3335091	N 30° 08' 25.12"	W 88° 20' 24.33"	18
	S2-A5-12	372767	3335981	N 30° 08' 54.72"	W 88° 19' 15.97"	18
	S2-A5-13	367579	3334186	N 30° 07' 54.43"	W 88° 22' 29.06"	19
	S2-A5-14	370012	3333248	N 30° 07' 24.91"	W 88° 20' 57.71"	20
	S2-A5-15	370935	3334163	N 30° 07' 54.97"	W 88° 20' 23.64"	18
	S2-A5-16	373074	3334153	N 30° 07' 55.46"	W 88° 19' 03.72"	19
	S2-A5-17	377589	3335172	N 30° 08' 30.23"	W 88° 16' 15.43"	19
	S2-A5-18	375139	3331951	N 30° 06' 44.70"	W 88° 17' 45.62"	21
	S2-A5-19	370321	3331565	N 30° 06' 30.38"	W 88° 20' 45.44"	20
	S2-A5-20	364353	3335324	N 30° 08' 30.10"	W 88° 24' 30.13"	17
Hydrolab 1	S2-A5-HL1	373889	3338096	N 30° 10' 03.84"	W 88° 18' 34.96"	15
Hydrolab 2	S2-A5-HL2	369936	3334406	N 30° 08' 02.48"	W 88° 21' 01.08"	17
Trawl 1 start	S2-A5-1STR	371268	3338096	N 30° 10' 02.86"	W 88° 20' 12.91"	15
Trawl 1 end	S2-A5-1END	372142	3338128	N 30° 10' 04.20"	W 88° 19' 40.26"	15
Trawl 2 start	S2-A5-2STR	371176	3333574	N 30° 07' 35.95"	W 88° 20' 14.39"	19
Trawl 2 end	S2-A5-2END	370357	3333552	N 30° 07' 34.92"	W 88° 20' 44.99"	19

[a] Smith MacIntyre grab.
[b] Van Veen grab.
[c] Gravity core.

D2. Hydrolab Data

Table D2-1. Temperature, conductivity, salinity, dissolved oxygen (DO), and depth data recorded during the May 1997 survey (S1) in the five potential sand resource areas (A1 to A5) by Hydrolab (HL) at the surface (S), middle (M), and bottom (B) at the beginning of north (1) and south (2) transects.

Sample Code	Temp (°C)	Salinity (ppt)	DO (mg/L)	Depth (m)
S1A1-HL-S1	24.4	26.00	7.49	0.9
S1A1-HL-M1	23.7	28.80	7.21	5.2
S1A1-HL-B1	21.8	31.57	6.12	10.0
S1A1-HL-S2	24.7	27.23	7.22	1.2
S1A1-HL-M2	21.9	31.51	6.41	8.6
S1A1-HL-B2	21.5	32.24	6.19	12.4
S1A2-HL-S1	25.9	18.52	4.78	0.9
S1A2-HL-M1	23.1	26.91	4.28	6.4
S1A2-HL-B1	21.5	28.54	2.86	12.2
S1A2-HL-S2	25.3	20.65	4.53	0.9
S1A2-HL-M2	23.2	26.26	3.75	4.6
S1A2-HL-B2	21.7	28.35	3.20	10.0
S1A3-HL-S1	26.9	17.22	4.75	0.9
S1A3-HL-M1	22.9	26.85	3.54	4.3
S1A3-HL-B1	21.7	28.15	2.85	8.8
S1A3-HL-S2	26.1	18.34	4.92	0.7
S1A3-HL-M2	21.4	28.22	2.07	7.2
S1A3-HL-B2	21.4	28.41	2.37	13.8
S1A4-HL-S1	25.6	20.27	4.45	0.9
S1A4-HL-M1	23.6	28.93	3.94	4.6
S1A4-HL-B1	21.3	33.11	1.22	7.6
S1A4-HL-S2	25.9	20.08	4.38	0.1
S1A4-HL-M2	22.0	31.97	3.13	7.4
S1A4-HL-B2	21.2	33.91	1.64	14.0
S1A5-HL-S1	25.9	18.34	4.37	0.5
S1A5-HL-M1	22.1	31.77	3.70	7.1
S1A5-HL-B1	21.5	33.44	2.56	12.2
S1A5-HL-S2	26.1	19.27	4.48	0.3
S1A5-HL-M2	23.8	28.15	3.89	8.7
S1A5-HL-B2	21.4	33.71	2.63	16.3

Table D2-2. Temperature, conductivity, salinity, dissolved oxygen (DO), and depth data recorded during the December 1997 survey (S2) in the five potential sand resource areas (A1 to A5) by Hydrolab (HL) at the surface (S), middle (M), and bottom (B) at the beginning of north (1) and south (2) transects.

Sample Code	Temp (°C)	Salinity (ppt)	DO (mg/L)	Depth (m)
S2A1-HL-S1	15.0	31.19	6.96	0.5
S2A1-HL-M1	15.0	31.26	7.16	5.4
S2A1-HL-B1	15.1	31.26	7.16	10.6
S2A1-HL-S2	15.4	31.45	7.79	0.6
S2A1-HL-M2	15.5	31.59	7.60	7.5
S2A1-HL-B2	15.6	31.65	7.65	14.5
S2A2-HL-S1	14.8	31.12	6.43	0.6
S2A2-HL-M1	14.9	31.26	6.64	6.5
S2A2-HL-B1	14.9	31.19	6.59	12.4
S2A2-HL-S2	15.3	31.65	6.89	1.9
S2A2-HL-M2	15.3	31.65	6.87	7.9
S2A2-HL-B2	16.6	32.11	6.86	16.0
S2A3-HL-S1	16.9	31.71	7.03	1.6
S2A3-HL-M1	16.9	31.71	6.66	5.0
S2A3-HL-B1	16.9	31.71	6.73	9.9
S2A3-HL-S2	16.3	31.32	6.86	1.3
S2A3-HL-M2	16.3	31.32	6.70	7.0
S2A3-HL-B2	16.3	31.32	6.69	16.2
S2A4-HL-S1	16.5	30.59	7.07	1.5
S2A4-HL-M1	17.6	31.18	6.54	5.9
S2A4-HL-B1	18.2	31.58	6.44	11.0
S2A4-HL-S2	16.2	30.40	7.30	1.0
S2A4-HL-M2	18.1	31.98	6.39	7.7
S2A4-HL-B2	18.5	31.98	6.37	14.6
S2A5-HL-S1	14.2	29.22	7.46	0.8
S2A5-HL-M1	16.2	30.53	7.05	9.5
S2A5-HL-B1	18.4	32.11	6.76	19.6
S2A5-HL-S2	15.2	30.14	7.04	1.0
S2A5-HL-M2	15.3	30.20	6.98	7.5
S2A5-HL-B2	18.2	31.71	6.51	15.2

D3. Sediment Grain Size Data

Table D3-1. Sediment grain size data for samples collected during the May 1997 Survey 1 in the five sand resource areas offshore Alabama.

Area	Station	Median (mm)	% Gravel	% Sand	% Silt	% Clay	Unaccounted	Folk Descriptions
1	1	0.23	0.47	99.28	0.00	0.00	0.25	slightly gravelly sand
1	2	0.23	0.05	99.84	0.00	0.00	0.11	slightly gravelly sand
1	3	0.31	0.09	99.75	0.00	0.00	0.16	slightly gravelly sand
1	4	0.35	2.94	96.95	0.00	0.00	0.12	slightly gravelly sand
1	5	0.27	0.03	99.89	0.00	0.00	0.08	slightly gravelly sand
1	6	0.25	0.06	99.76	0.00	0.00	0.18	slightly gravelly sand
1	7	0.21	0.33	99.57	0.00	0.00	0.10	slightly gravelly sand
1	8	0.27	0.91	98.86	0.00	0.00	0.23	slightly gravelly sand
1	9	0.25	0.03	99.80	0.00	0.00	0.17	slightly gravelly sand
1	10	0.23	0.06	99.77	0.00	0.00	0.16	slightly gravelly sand
1	11	0.29	0.03	99.79	0.00	0.00	0.18	slightly gravelly sand
1	12	0.25	0.12	99.56	0.00	0.00	0.32	slightly gravelly sand
1	13	0.21	0.06	99.68	0.00	0.00	0.26	slightly gravelly sand
1	14	0.22	0.03	99.72	0.00	0.00	0.26	slightly gravelly sand
1	15	0.26	0.12	99.82	0.00	0.00	0.06	slightly gravelly sand
1	16	0.24	0.23	99.74	0.00	0.00	0.03	slightly gravelly sand
1	17	0.27	0.13	99.81	0.00	0.00	0.05	slightly gravelly sand
1	18	0.27	2.79	97.18	0.00	0.00	0.03	slightly gravelly sand
1	19	0.29	1.52	98.40	0.00	0.00	0.08	slightly gravelly sand
1	20	0.28	0.22	99.75	0.00	0.00	0.03	slightly gravelly sand
2	1	0.21	0.39	99.50	0.00	0.00	0.11	slightly gravelly sand
2	2	0.20	0.06	99.76	0.00	0.00	0.18	slightly gravelly sand
2	3	0.20	0.25	99.63	0.00	0.00	0.11	slightly gravelly sand
2	4	0.23	0.26	99.60	0.00	0.00	0.14	slightly gravelly sand

Table D3-1. Continued.								
2	5	0.27	0.84	98.94	0.00	0.00	0.21	slightly gravelly sand
2	6	0.20	0.12	99.64	0.00	0.00	0.24	slightly gravelly sand
2	7	0.24	0.13	99.49	0.00	0.00	0.38	slightly gravelly sand
2	8	0.36	1.47	98.15	0.00	0.00	0.38	slightly gravelly sand
2	9	0.26	0.05	99.70	0.00	0.00	0.25	slightly gravelly sand
2	10	0.22	0.03	99.89	0.00	0.00	0.08	slightly gravelly sand
2	11	0.21	0.00	99.73	0.00	0.00	0.27	sand
2	12	0.22	0.11	99.83	0.00	0.00	0.06	slightly gravelly sand
2	13	0.24	0.21	99.35	0.00	0.00	0.44	slightly gravelly sand
2	14	0.21	0.00	99.82	0.00	0.00	0.18	sand
2	15	0.18	1.14	83.83	8.80	6.23	0.00	slightly gravelly muddy sand
2	16	0.31	0.25	99.41	0.00	0.00	0.34	slightly gravelly sand
2	17	0.25	0.49	99.07	0.00	0.00	0.43	slightly gravelly sand
2	18	0.20	0.18	99.75	0.00	0.00	0.06	slightly gravelly sand
2	19	0.40	3.35	96.17	0.00	0.00	0.49	slightly gravelly sand
2	20	0.25	3.94	96.03	0.00	0.00	0.03	slightly gravelly sand
3	1	0.15	0.10	83.57	7.33	9.00	0.00	slightly gravelly muddy sand
3	2	0.21	0.03	99.81	0.00	0.00	0.16	slightly gravelly sand
3	3	0.24	0.06	99.72	0.00	0.00	0.22	slightly gravelly sand
3	4	0.28	0.34	99.46	0.00	0.00	0.20	slightly gravelly sand
3	5	0.21	0.09	99.72	0.00	0.00	0.19	slightly gravelly sand
3	6	0.19	0.49	85.99	5.66	7.86	0.00	slightly gravelly muddy sand
3	7	0.20	0.03	99.50	0.00	0.00	0.48	slightly gravelly sand
3	8	0.31	0.25	99.72	0.00	0.00	0.03	slightly gravelly sand
3	9	0.30	2.05	97.75	0.00	0.00	0.20	slightly gravelly sand
3	10	0.19	0.34	99.38	0.00	0.00	0.28	slightly gravelly sand
3	11	0.19	0.51	99.25	0.00	0.00	0.24	slightly gravelly sand

Table D3-1. Continued.								
3	12	0.21	0.34	99.63	0.00	0.00	0.03	slightly gravelly sand
3	13	0.30	0.12	99.82	0.00	0.00	0.06	slightly gravelly sand
3	14	0.19	0.52	99.14	0.00	0.00	0.34	slightly gravelly sand
3	15	0.19	0.49	98.64	0.00	0.00	0.86	slightly gravelly sand
3	16	0.22	0.32	99.59	0.00	0.00	0.10	slightly gravelly sand
3	17	0.26	0.81	98.83	0.00	0.00	0.36	slightly gravelly sand
3	18	0.37	3.54	96.26	0.00	0.00	0.20	slightly gravelly sand
3	19	0.32	0.98	98.70	0.00	0.00	0.33	slightly gravelly sand
3	20	0.21	0.03	99.20	0.00	0.00	0.77	slightly gravelly sand
4	1	0.17	0.13	71.44	8.83	19.60	0.00	slightly gravelly muddy sand
4	2	0.01	0.48	42.34	16.34	40.85	0.00	slightly gravelly sandy mud
4	3	0.27	0.13	99.79	0.00	0.00	0.18	slightly gravelly sand
4	4	0.17	0.93	81.32	3.45	14.31	0.00	slightly gravelly muddy sand
4	5	0.07	0.00	51.61	14.47	33.92	0.00	clayey sand
4	6	0.20	0.03	99.57	0.00	0.00	0.40	slightly gravelly sand
4	7	0.17	0.00	85.27	7.46	7.27	0.00	muddy sand
4	8	0.23	0.06	99.70	0.00	0.00	0.24	slightly gravelly sand
4	9	0.07	0.15	51.71	18.98	29.16	0.00	slightly gravelly muddy sand
4	10	0.15	0.75	64.28	11.49	23.49	0.00	slightly gravelly muddy sand
4	11	0.07	0.51	50.42	21.57	27.50	0.00	slightly gravelly muddy sand
4	12	0.31	0.16	99.56	0.00	0.00	0.28	slightly gravelly sand
4	13	0.15	0.80	70.63	13.70	14.87	0.00	slightly gravelly muddy sand
4	14	0.13	0.77	65.55	16.60	17.08	0.00	slightly gravelly muddy sand
4	15	0.34	0.06	99.81	0.00	0.00	0.12	slightly gravelly sand
4	16	0.23	0.16	91.23	4.53	4.09	0.00	slightly gravelly sand
4	17	0.15	0.30	78.33	9.90	11.47	0.00	slightly gravelly muddy sand
4	18	0.11	0.00	63.35	17.28	19.38	0.00	muddy sand

Table D3-1. Continued.								
4	19	0.01	0.36	31.94	28.65	39.04	0.00	slightly gravelly sandy mud
4	20	0.03	0.00	3.46	40.37	56.17	0.00	muddy sand
5	1	0.29	0.43	99.29	0.00	0.00	0.28	slightly gravelly sand
5	2	0.20	0.90	98.70	0.00	0.00	0.39	slightly gravelly sand
5	3	0.17	1.62	82.91	7.63	7.85	0.00	slightly gravelly muddy sand
5	4	0.31	1.35	98.23	0.00	0.00	0.43	slightly gravelly sand
5	5	0.17	0.81	69.37	13.99	15.83	0.00	slightly gravelly muddy sand
5	6	0.26	0.03	99.73	0.00	0.00	0.24	slightly gravelly sand
5	7	0.46	2.74	96.88	0.00	0.00	0.37	slightly gravelly sand
5	8	0.30	1.69	72.82	10.94	14.56	0.00	slightly gravelly muddy sand
5	9	0.26	0.65	99.29	0.00	0.00	0.06	slightly gravelly sand
5	10	0.15	2.85	61.56	15.95	19.64	0.00	slightly gravelly muddy sand
5	11	0.16	2.70	72.03	13.22	12.05	0.00	slightly gravelly muddy sand
5	12	0.14	0.82	79.80	7.84	11.54	0.00	slightly gravelly muddy sand
5	13	0.06	0.84	48.67	15.01	35.49	0.00	slightly gravelly muddy sand
5	14	0.11	0.22	62.58	14.51	22.69	0.00	slightly gravelly muddy sand
5	15	0.19	5.80	55.32	14.61	24.26	0.00	gravelly muddy sand
5	16	0.15	1.37	76.80	8.37	13.46	0.00	Slightly gravelly muddy sand
5	17	0.14	1.69	75.28	10.29	12.74	0.00	slightly gravelly muddy sand
5	18	0.13	0.03	69.65	12.80	17.52	0.00	slightly gravelly muddy sand
5	19	0.30	7.59	80.35	5.49	6.57	0.00	gravelly muddy sand
5	20	0.37	5.47	93.96	0.00	0.00	0.56	gravelly sand

Table D3-2. Sediment grain size data for samples collected during the December 1997 Survey 2 in the five sand resource areas offshore Alabama.

Area	Station	Median (mm)	% Gravel	% Sand	% Silt	% Clay	Unaccounted	Folk Descriptions
1	1	0.19	0.03	99.78	0.00	0.00	0.18	slightly gravelly sand
1	2	0.32	0.07	99.89	0.00	0.00	0.04	slightly gravelly sand
1	3	0.28	0.31	99.57	0.00	0.00	0.12	slightly gravelly sand
1	4	0.39	4.03	95.83	0.00	0.00	0.14	slightly gravelly sand
1	5	0.31	0.44	99.47	0.00	0.00	0.09	slightly gravelly sand
1	6	0.24	0.03	99.86	0.00	0.00	0.10	slightly gravelly sand
1	7	0.19	0.03	99.77	0.00	0.00	0.19	slightly gravelly sand
1	8	0.21	0.07	99.70	0.00	0.00	0.23	slightly gravelly sand
1	9	0.21	0.04	99.82	0.00	0.00	0.14	slightly gravelly sand
1	10	0.24	1.28	98.49	0.00	0.00	0.22	slightly gravelly sand
1	11	0.26	0.13	99.07	0.00	0.00	0.80	slightly gravelly sand
1	12	0.24	0.04	99.85	0.00	0.00	0.11	slightly gravelly sand
1	13	0.32	0.16	99.58	0.00	0.00	0.26	slightly gravelly sand
1	14	0.32	0.36	99.61	0.00	0.00	0.03	slightly gravelly sand
1	15	0.24	0.56	99.06	0.00	0.00	0.38	slightly gravelly sand
1	16	0.23	0.33	99.40	0.00	0.00	0.26	slightly gravelly sand
1	17	0.23	0.04	99.70	0.00	0.00	0.26	slightly gravelly sand
1	18	0.19	0.97	95.88	0.00	0.00	3.16	slightly gravelly sand
1	19	0.34	2.20	97.59	0.00	0.00	0.21	slightly gravelly sand
1	20	0.30	0.96	99.01	0.00	0.00	0.03	slightly gravelly sand
2	1	0.23	0.03	99.61	0.00	0.00	0.36	slightly gravelly sand
2	2	0.19	0.00	99.83	0.00	0.00	0.17	sand
2	3	0.19	0.23	99.53	0.00	0.00	0.23	slightly gravelly sand
2	4	0.20	0.03	99.87	0.00	0.00	0.10	slightly gravelly sand

Table D3-2. Continued.								
2	5	0.27	0.03	99.60	0.00	0.00	0.36	slightly gravelly sand
2	6	0.20	0.03	99.78	0.00	0.00	0.19	slightly gravelly sand
2	7	0	0.05	10.40	29.54	60.00	0.00	slightly gravelly sandy mud
2	8	0.36	1.08	98.66	0.00	0.00	0.26	slightly gravelly sand
2	9	0.22	0.03	99.75	0.00	0.00	0.22	slightly gravelly sand
2	10	0.21	0.21	99.55	0.00	0.00	0.24	slightly gravelly sand
2	11	0.24	0.11	99.70	0.00	0.00	0.19	slightly gravelly sand
2	12	0.21	0.15	99.70	0.00	0.00	0.15	slightly gravelly sand
2	13	0.24	0.19	99.36	0.00	0.00	0.45	slightly gravelly sand
2	14	0.21	0.12	99.54	0.00	0.00	0.35	slightly gravelly sand
2	15	0.20	0.00	99.34	0.00	0.00	0.66	sand
2	16	0.28	0.47	99.33	0.00	0.00	0.20	slightly gravelly sand
2	17	0.30	0.97	98.59	0.00	0.00	0.44	slightly gravelly sand
2	18	0.20	0.11	99.72	0.00	0.00	0.18	slightly gravelly sand
2	19	0.35	1.71	98.01	0.00	0.00	0.28	slightly gravelly sand
2	20	0.23	0.48	99.38	0.00	0.00	0.14	slightly gravelly sand
3	1	0.17	0.00	97.40	0.00	0.00	2.60	sand
3	2	0.20	0.00	99.80	0.00	0.00	0.20	sand
3	3	0.31	0.17	99.69	0.00	0.00	0.14	slightly gravelly sand
3	4	0.28	0.13	99.69	0.00	0.00	0.19	slightly gravelly sand
3	5	0.20	0.00	99.63	0.00	0.00	0.37	sand
3	6	0.31	0.26	99.41	0.00	0.00	0.33	slightly gravelly sand
3	7	0.21	0.08	99.62	0.00	0.00	0.31	slightly gravelly sand
3	8	0.28	0.15	99.64	0.00	0.00	0.22	slightly gravelly sand
3	9	0.22	0.23	98.66	0.00	0.00	1.11	slightly gravelly sand
3	10	0.19	0.03	99.93	0.00	0.00	0.03	slightly gravelly sand
3	11	0.27	0.19	99.37	0.00	0.00	0.44	slightly gravelly sand

Table D3-2. Continued.								
3	12	0.21	1.78	97.82	0.00	0.00	0.40	slightly gravelly sand
3	13	0.24	0.15	97.71	0.00	0.00	2.14	slightly gravelly sand
3	14	0.18	0.67	98.47	0.00	0.00	0.86	slightly gravelly sand
3	15	0.18	0.29	99.45	0.00	0.00	0.26	slightly gravelly sand
3	16	0.24	0.42	99.37	0.00	0.00	0.21	slightly gravelly sand
3	17	0.36	0.72	99.07	0.00	0.00	0.21	slightly gravelly sand
3	18	0.37	2.65	97.01	0.00	0.00	0.35	slightly gravelly sand
3	19	0.33	0.59	99.09	0.00	0.00	0.31	slightly gravelly sand
3	20	0.24	0.43	96.64	0.00	0.00	2.93	slightly gravelly sand
4	1	0.29	0.00	99.62	0.00	0.00	0.38	sand
4	2	0.29	0.29	99.12	0.00	0.00	0.59	slightly gravelly sand
4	3	0.31	0.00	99.90	0.00	0.00	0.10	sand
4	4	0.12	0.00	68.30	9.81	21.89	0.00	clayey sand
4	5	0.15	0.00	66.90	9.40	23.70	0.00	clayey sand
4	6	0.20	0.16	99.55	0.00	0.00	0.29	slightly gravelly sand
4	7	0.19	0.00	99.85	0.00	0.00	0.15	sand
4	8	0.25	0.03	99.82	0.00	0.00	0.15	slightly gravelly sand
4	9	0.01	0.05	42.08	15.85	42.02	0.00	slightly gravelly sandy mud
4	10	0.13	0.10	54.46	12.53	32.91	0.00	slightly gravelly muddy sand
4	11	0.02	0.15	40.06	26.25	33.54	0.00	slightly gravelly sandy mud
4	12	0.34	0.99	98.68	0.00	0.00	0.34	slightly gravelly sand
4	13	0.15	0.10	64.02	12.14	23.75	0.00	slightly gravelly muddy sand
4	14(A)	0.14	0.12	59.81	14.31	25.76	0.00	slightly gravelly muddy sand
4	14(B)	0.08	4.84	48.06	14.81	32.28	0.00	slightly gravelly muddy sand
4	14(C)	0.03	0.19	45.89	15.41	38.50	0.00	slightly gravelly sandy mud
4	14(D)	0.01	0.52	41.30	14.85	43.32	0.00	slightly gravelly sandy mud
4	14(E)	0.17	9.56	59.15	7.78	23.52	0.00	gravelly muddy sand

Table D3-2. Continued.								
4	15	0.33	0.35	99.24	0.00	0.00	0.42	slightly gravelly sand
4	16	0.27	0.71	98.90	0.00	0.00	0.39	slightly gravelly sand
4	17	0.18	0.75	94.88	0.00	0.00	4.37	slightly gravelly sand
4	18	0.17	0.05	77.42	9.78	12.76	0.00	Slightly gravelly muddy sand
4	19	0.06	0.05	51.11	17.47	31.36	0.00	Slightly gravelly muddy sand
4	20	0.11	0.00	60.14	11.56	28.30	0.00	clayey sand
5	1	0.33	0.12	99.59	0.00	0.00	0.29	slightly gravelly sand
5	2	0.19	0.00	97.52	0.00	0.00	2.48	sand
5	3	0	0.05	12.82	31.69	55.44	0.00	Slightly gravelly sandy mud
5	4	0.20	0.00	99.47	0.00	0.00	0.53	sand
5	5	0.25	2.52	96.97	0.00	0.00	0.51	slightly gravelly sand
5	6	0.28	0.00	97.01	0.00	0.00	2.99	sand
5	7	0.53	4.75	94.49	0.00	0.00	0.76	slightly gravelly sand
5	8	0.55	3.25	95.20	0.00	0.00	1.55	slightly gravelly sand
5	9	0.22	0.31	99.61	0.00	0.00	0.08	slightly gravelly sand
5	10	0.02	0.21	35.47	28.57	35.75	0.00	Slightly gravelly sandy mud
5	11	0.03	1.30	44.91	17.77	36.02	0.00	Slightly gravelly sandy mud
5	12	0.14	0.18	70.63	11.10	18.09	0.00	Slightly gravelly muddy sand
5	13	0.09	0.16	62.54	12.50	24.81	0.00	Slightly gravelly muddy sand
5	14	0.15	0.61	64.83	12.36	22.20	0.00	Slightly gravelly muddy sand
5	15	0.28	4.92	72.10	9.93	13.04	0.00	Slightly gravelly muddy sand
5	16	0.19	0.23	82.32	8.60	8.85	0.00	Slightly gravelly muddy sand
5	17	0.14	0.18	65.70	11.20	22.92	0.00	Slightly gravelly muddy sand
5	18	0.17	0.66	64.23	9.49	25.62	0.00	Slightly gravelly muddy sand
5	19	0.22	8.49	66.08	7.22	18.20	0.00	gravelly muddy sand
5	20	0.32	1.77	97.97	0.00	0.00	0.27	slightly gravelly sand

14(A) = Smith-McIntyre grab; 14(B) = Gravity corer, bottom; 14(C) = Van Veen grab, bottom; 14(D) = Gravity corer, top; 14(E) = Van Veen grab, top.

D4. Infaunal Data

Table D4-1. Phylogenetic list of infauna collected during the May 1997 Survey 1 and December 1997 Survey 2 in the five sand resource areas offshore Alabama.

PHYLUM	CLASS	TAXONOMIC NAME
ANNELIDA	OLIGOCHAETA	OLIGOCHAETA (LPIL)
ANNELIDA	POLYCHAETA	EURYTHOE SP.A
ANNELIDA	POLYCHAETA	PARAMPHINOME SP.B
ANNELIDA	POLYCHAETA	CHLOEIA VIRIDIS
ANNELIDA	POLYCHAETA	ARENICOLIDAE (LPIL)
ANNELIDA	POLYCHAETA	AMPHARETE SP.A
ANNELIDA	POLYCHAETA	MELINNA MACULATA
ANNELIDA	POLYCHAETA	ISOLDA PULCHELLA
ANNELIDA	POLYCHAETA	CAPITELLA CAPITATA
ANNELIDA	POLYCHAETA	MEDIOMASTUS CALIFORNIENSIS
ANNELIDA	POLYCHAETA	MEDIOMASTUS AMBISETA
ANNELIDA	POLYCHAETA	MEDIOMASTUS (LPIL)
ANNELIDA	POLYCHAETA	NOTOMASTUS HEMIPODUS
ANNELIDA	POLYCHAETA	NOTOMASTUS LATERICEUS
ANNELIDA	POLYCHAETA	NOTOMASTUS DAUERI
ANNELIDA	POLYCHAETA	NOTOMASTUS TENUIS
ANNELIDA	POLYCHAETA	MESOCHAETOPTERUS (LPIL)
ANNELIDA	POLYCHAETA	SPIOCHAETOPTERUS OCULATUS
ANNELIDA	POLYCHAETA	CIRRATULIDAE (LPIL)
ANNELIDA	POLYCHAETA	CIRRIFORMIA SP.A
ANNELIDA	POLYCHAETA	CIRRIFORMIA SP.B
ANNELIDA	POLYCHAETA	THARYX ACUTUS
ANNELIDA	POLYCHAETA	CHAETOZONE SP.A
ANNELIDA	POLYCHAETA	CHAETOZONE SP.D
ANNELIDA	POLYCHAETA	CAULLERIELLA CF. ALATA
ANNELIDA	POLYCHAETA	CAULLERIELLA SP.B
ANNELIDA	POLYCHAETA	MONTICELLINA DORSOBRANCHIALIS
ANNELIDA	POLYCHAETA	APHELOCHAETA MARIONI
ANNELIDA	POLYCHAETA	PALEANOTUS SP.A
ANNELIDA	POLYCHAETA	BHAWANIA HETEROSETA
ANNELIDA	POLYCHAETA	SCHISTOMERINGOS RUDOLPHI
ANNELIDA	POLYCHAETA	PETTIBONEIA DUOFURCA
ANNELIDA	POLYCHAETA	PROTODORVILLEA KEFERSTEINI
ANNELIDA	POLYCHAETA	COSSURA SOYERI
ANNELIDA	POLYCHAETA	COSSURA DELTA
ANNELIDA	POLYCHAETA	PIROMIS ROBERTI
ANNELIDA	POLYCHAETA	THEROCHAETA SP.A
ANNELIDA	POLYCHAETA	GLYCERA AMERICANA
ANNELIDA	POLYCHAETA	GLYCERA SP.A
ANNELIDA	POLYCHAETA	GLYCERA DIBRANCHIATA
ANNELIDA	POLYCHAETA	GLYCERA SP.C
ANNELIDA	POLYCHAETA	GLYCERA SP.E
ANNELIDA	POLYCHAETA	GLYCERA CAPITATA
ANNELIDA	POLYCHAETA	GLYCERA SP.I
ANNELIDA	POLYCHAETA	GLYCERA SP.D
ANNELIDA	POLYCHAETA	HEMIPODUS ROSEUS
ANNELIDA	POLYCHAETA	GLYCINDE SOLITARIA
ANNELIDA	POLYCHAETA	GONIADIDES CAROLINAE
ANNELIDA	POLYCHAETA	OPHIOGLYCERA (LPIL)
ANNELIDA	POLYCHAETA	PROGONIADA REGULARIS
ANNELIDA	POLYCHAETA	PROGONIADA (LPIL)
ANNELIDA	POLYCHAETA	GONIADA MACULATA
ANNELIDA	POLYCHAETA	PODARKE OBSCURA
ANNELIDA	POLYCHAETA	PODARKE SP.D
ANNELIDA	POLYCHAETA	HETEROPODARKE LYONSI
ANNELIDA	POLYCHAETA	PODARKEOPSIS LEVIFUSCINA

Table D4-1. Continued

PHYLUM	CLASS	TAXONOMIC NAME
ANNELIDA	POLYCHAETA	LUMBRINERIS SP.D
ANNELIDA	POLYCHAETA	LUMBRINERIS JANUARII
ANNELIDA	POLYCHAETA	LUMBRINERIS LATREILLI
ANNELIDA	POLYCHAETA	LUMBRINERIS SP.C
ANNELIDA	POLYCHAETA	LUMBRINERIS COCCINEA
ANNELIDA	POLYCHAETA	NINOE SP.B
ANNELIDA	POLYCHAETA	LUMBRINERIDES DAYI
ANNELIDA	POLYCHAETA	SCOLETOMA ERNESTI
ANNELIDA	POLYCHAETA	SCOLETOMA VERRILLI
ANNELIDA	POLYCHAETA	ASYCHIS ELONGATUS
ANNELIDA	POLYCHAETA	AXIOTHELLA SP.A
ANNELIDA	POLYCHAETA	AXIOTHELLA MUCOSA
ANNELIDA	POLYCHAETA	EUCLYMENE SP.B
ANNELIDA	POLYCHAETA	CLYMENELLA TORQUATA
ANNELIDA	POLYCHAETA	BOGUEA ENIGMATICA
ANNELIDA	POLYCHAETA	BOGUEA SP.A
ANNELIDA	POLYCHAETA	BOGUELLA SP.A
ANNELIDA	POLYCHAETA	MAGELONA SP.I
ANNELIDA	POLYCHAETA	MAGELONA SP.B
ANNELIDA	POLYCHAETA	MAGELONA PETTIBONEAE
ANNELIDA	POLYCHAETA	MAGELONA SP.C
ANNELIDA	POLYCHAETA	MAGELONA SP.H
ANNELIDA	POLYCHAETA	MAGELONA SP.G
ANNELIDA	POLYCHAETA	MAGELONA SP.L
ANNELIDA	POLYCHAETA	AGLAOPHAMUS VERRILLI
ANNELIDA	POLYCHAETA	AGLAOPHAMUS CIRCINATA
ANNELIDA	POLYCHAETA	NEPHTYS PICTA
ANNELIDA	POLYCHAETA	NEPHTYS INCISA
ANNELIDA	POLYCHAETA	NEPHTYS SIMONI
ANNELIDA	POLYCHAETA	NEPHTYS SQUAMOSA
ANNELIDA	POLYCHAETA	CERATONEREIS IRRITABILIS
ANNELIDA	POLYCHAETA	NEREIS LAMELLOSA
ANNELIDA	POLYCHAETA	NEREIS MICROMMA
ANNELIDA	POLYCHAETA	NEREIS SUCCINEA
ANNELIDA	POLYCHAETA	NEREIS ACUMINATA
ANNELIDA	POLYCHAETA	NEREIS FALSA
ANNELIDA	POLYCHAETA	NEREIS GRAYI
ANNELIDA	POLYCHAETA	CERATOCEPHALE OCULATA
ANNELIDA	POLYCHAETA	LAEONEREIS CULVERI
ANNELIDA	POLYCHAETA	STENONINEREIS MARTINI
ANNELIDA	POLYCHAETA	RULLIERINEREIS SP.A
ANNELIDA	POLYCHAETA	ARMANDIA MACULATA
ANNELIDA	POLYCHAETA	ARMANDIA AGILIS
ANNELIDA	POLYCHAETA	OPHELIA DENTICULATA
ANNELIDA	POLYCHAETA	TRAVISIA HOBSONAE
ANNELIDA	POLYCHAETA	OPHELINA CF. ACUMINATA
ANNELIDA	POLYCHAETA	DIOPATRA CUPREA
ANNELIDA	POLYCHAETA	ONUPHIS EREMITA OCULATA
ANNELIDA	POLYCHAETA	MOOREONUPHIS PALLIDULA
ANNELIDA	POLYCHAETA	MOOREONUPHIS CF. NEBULOSA
ANNELIDA	POLYCHAETA	MOOREONUPHIS NEBULOSA
ANNELIDA	POLYCHAETA	KINBERGONUPHIS SP.A
ANNELIDA	POLYCHAETA	KINBERGONUPHIS SP.C
ANNELIDA	POLYCHAETA	KINBERGONUPHIS VIRGATA
ANNELIDA	POLYCHAETA	KINBERGONUPHIS PULCHRA
ANNELIDA	POLYCHAETA	MYRIOWENIA SP.A
ANNELIDA	POLYCHAETA	GALATHOWENIA OCULATA
ANNELIDA	POLYCHAETA	OWENIA FUSIFORMIS

Table D4-1. Continued

PHYLUM	CLASS	TAXONOMIC NAME
ANNELIDA	POLYCHAETA	SCOLOPLOS RUBRA
ANNELIDA	POLYCHAETA	SCOLOPLOS SP.B
ANNELIDA	POLYCHAETA	NAINERIS SP.A
ANNELIDA	POLYCHAETA	LEITOSCOLOPLOS FRAGILIS
ANNELIDA	POLYCHAETA	LEITOSCOLOPLOS FOLIOSUS
ANNELIDA	POLYCHAETA	LEITOSCOLOPLOS ROBUSTUS
ANNELIDA	POLYCHAETA	ORBINIA RISERI
ANNELIDA	POLYCHAETA	ARICIDEA PHILBINAE
ANNELIDA	POLYCHAETA	ARICIDEA FINITIMA
ANNELIDA	POLYCHAETA	ARICIDEA CATHERINAE
ANNELIDA	POLYCHAETA	ARICIDEA SP.L
ANNELIDA	POLYCHAETA	ARICIDEA WASSI
ANNELIDA	POLYCHAETA	ARICIDEA SP.M
ANNELIDA	POLYCHAETA	ARICIDEA SP.H
ANNELIDA	POLYCHAETA	ARICIDEA CERRUTII
ANNELIDA	POLYCHAETA	ARICIDEA SIMPLEX
ANNELIDA	POLYCHAETA	ARICIDEA SP.X
ANNELIDA	POLYCHAETA	ARICIDEA TAYLORI
ANNELIDA	POLYCHAETA	ARICIDEA SUECICA
ANNELIDA	POLYCHAETA	ARICIDAE BRYANI
ANNELIDA	POLYCHAETA	CIRROPHORUS BRANCHIATUS
ANNELIDA	POLYCHAETA	CIRROPHORUS PERDIDOENSIS
ANNELIDA	POLYCHAETA	PARAONIS FULGENS
ANNELIDA	POLYCHAETA	LEVINSENIA GRACILIS
ANNELIDA	POLYCHAETA	LEVINSENIA SP.E
ANNELIDA	POLYCHAETA	ANCISTROSYLLIS HARTMANAE
ANNELIDA	POLYCHAETA	ANCISTROSYLLIS JONESI
ANNELIDA	POLYCHAETA	ANCISTROSYLLIS PAPILLOSA
ANNELIDA	POLYCHAETA	ANCISTROSYLLIS SP.C
ANNELIDA	POLYCHAETA	ANCISTROSYLLIS SP.H
ANNELIDA	POLYCHAETA	CABIRA INCERTA
ANNELIDA	POLYCHAETA	SIGAMBRA BASSI
ANNELIDA	POLYCHAETA	SIGAMBRA TENTACULATA
ANNELIDA	POLYCHAETA	SYNELMIS EWINGI
ANNELIDA	POLYCHAETA	LITOCORSA ANTENNATA
ANNELIDA	POLYCHAETA	PARANAITIS SPECIOSA
ANNELIDA	POLYCHAETA	PARANAITIS GARDINERI
ANNELIDA	POLYCHAETA	PHYLLODOCE ARENAE
ANNELIDA	POLYCHAETA	PHYLLODOCE MUCOSA
ANNELIDA	POLYCHAETA	PHYLLODOCE LONGIPES
ANNELIDA	POLYCHAETA	HYPERETEONE HETEROPODA
ANNELIDA	POLYCHAETA	HYPERETEONE FOLIOSA
ANNELIDA	POLYCHAETA	HYPERETEONE AESTURINA
ANNELIDA	POLYCHAETA	HYPERETEONE LACTEA
ANNELIDA	POLYCHAETA	POLYNOIDAE GENUS A
ANNELIDA	POLYCHAETA	LEPIDASTHENIA VARIUS
ANNELIDA	POLYCHAETA	LEPIDONOTUS SP.A
ANNELIDA	POLYCHAETA	MALMGRENIELLA TAYLORI
ANNELIDA	POLYCHAETA	MALMGRENIELLA MACCRARYAE
ANNELIDA	POLYCHAETA	MALMGRENIELLA SP.B
ANNELIDA	POLYCHAETA	HARMOTHOE (LPIL)
ANNELIDA	POLYCHAETA	PHYLLOHARTMANIA TAYLORI
ANNELIDA	POLYCHAETA	EUARCHE TUBIFEX
ANNELIDA	POLYCHAETA	POLYODONTES FRONS
ANNELIDA	POLYCHAETA	PISIONE REMOTA
ANNELIDA	POLYCHAETA	STHENELAIS SP.A
ANNELIDA	POLYCHAETA	SIGALION SP.A
ANNELIDA	POLYCHAETA	FIMBRIOSTHENELAIS MINOR
ANNELIDA	POLYCHAETA	FIMBRIOSTHENELAIS SP.A

Table D4-1. Continued

PHYLUM	CLASS	TAXONOMIC NAME
ANNELIDA	POLYCHAETA	APOPRIONOSPIO PYGMAEA
ANNELIDA	POLYCHAETA	MALACOCEROS VANDERHORSTI
ANNELIDA	POLYCHAETA	PARAPRIONOSPIO PINNATA
ANNELIDA	POLYCHAETA	POLYDORA CORNUTA
ANNELIDA	POLYCHAETA	PRIONOSPIO CIRRIFERA
ANNELIDA	POLYCHAETA	PRIONOSPIO CRISTATA
ANNELIDA	POLYCHAETA	PRIONOSPIO HETEROBRANCHIA
ANNELIDA	POLYCHAETA	PRIONOSPIO PERKINSI
ANNELIDA	POLYCHAETA	SPIO PETTIBONEAE
ANNELIDA	POLYCHAETA	SPIOPHANES BOMBYX
ANNELIDA	POLYCHAETA	SPIOPHANES CF. MISSIONENSIS
ANNELIDA	POLYCHAETA	STREBLOSPIO BENEDICTI
ANNELIDA	POLYCHAETA	DISPIO UNCINATA
ANNELIDA	POLYCHAETA	SCOLELEPIS SQUAMATA
ANNELIDA	POLYCHAETA	SCOLELEPIS TEXANA
ANNELIDA	POLYCHAETA	CARAZZIELLA HOBSONAE
ANNELIDA	POLYCHAETA	AONIDES MAYAGUEZENSIS
ANNELIDA	POLYCHAETA	AONIDES PAUCIBRANCHIATA
ANNELIDA	POLYCHAETA	LAONICE CIRRATA
ANNELIDA	POLYCHAETA	MICROSPIO PIGMENTATA
ANNELIDA	POLYCHAETA	DIPOLYDORA SOCIALIS
ANNELIDA	POLYCHAETA	PARAPIONOSYLLIS UEBELACKERAE
ANNELIDA	POLYCHAETA	BRANIA WELLFLEETENSIS
ANNELIDA	POLYCHAETA	SPHAEROSYLLIS TAYLORI
ANNELIDA	POLYCHAETA	SPHAEROSYLLIS ACICULATA
ANNELIDA	POLYCHAETA	SPHAEROSYLLIS PIRIFEROPSIS
ANNELIDA	POLYCHAETA	SYLLIDES FLORIDANUS
ANNELIDA	POLYCHAETA	STREPTOSYLLIS PETTIBONEAE
ANNELIDA	POLYCHAETA	SYLLIS GRACILIS
ANNELIDA	POLYCHAETA	TYPOSYLLIS AMICA
ANNELIDA	POLYCHAETA	PIONOSYLLIS GESAE
ANNELIDA	POLYCHAETA	EXOGONE DISPAR
ANNELIDA	POLYCHAETA	EXOGONE LOUREI
ANNELIDA	POLYCHAETA	EXOGONE ROLANI
ANNELIDA	POLYCHAETA	PLAKOSYLLIS QUADRIOCULATA
ANNELIDA	POLYCHAETA	ODONTOSYLLIS ENOPLA
ANNELIDA	POLYCHAETA	EURYSYLLIS TUBERCULATA
ANNELIDA	POLYCHAETA	GRUBEOSYLLIS CLAVATA
ANNELIDA	POLYCHAETA	MEGALOMMA BIOCULATUM
ANNELIDA	POLYCHAETA	CHONE (LPIL)
ANNELIDA	POLYCHAETA	EUCHONE (LPIL)
ANNELIDA	POLYCHAETA	DEMONAX MICROPHTHALMUS
ANNELIDA	POLYCHAETA	FABRICINUDA TRILOBATA
ANNELIDA	POLYCHAETA	POTAMETHUS SP.B
ANNELIDA	POLYCHAETA	HYDROIDES PROTULICOLA
ANNELIDA	POLYCHAETA	HYDROIDES BISPINOSA
ANNELIDA	POLYCHAETA	SERPULIDAE GENUS C
ANNELIDA	POLYCHAETA	STERNASPIS SCUTATA
ANNELIDA	POLYCHAETA	LOIMIA SP.A
ANNELIDA	POLYCHAETA	LOIMIA MEDUSA
ANNELIDA	POLYCHAETA	PISTA QUADRILOBATA
ANNELIDA	POLYCHAETA	PISTA FASCIATA
ANNELIDA	POLYCHAETA	POLYCIRRUS SP.C
ANNELIDA	POLYCHAETA	POLYCIRRUS SP.G
ANNELIDA	POLYCHAETA	STREBLOSOMA HARTMANAE
ANNELIDA	POLYCHAETA	EUPOLYMNIA SP.A
ANNELIDA	POLYCHAETA	LYSILLA SP.B
ANNELIDA	POLYCHAETA	PARAEUPOLYMNIA SP.A
ANNELIDA	POLYCHAETA	POECILOCHAETUS JOHNSONI

Table D4-1. Continued

PHYLUM	CLASS	TAXONOMIC NAME
ANNELIDA	POLYCHAETA	EPHESIELLA MIXTA
ANNELIDA	POLYCHAETA	CLAVODORUM MEXICANUM
ANNELIDA	POLYCHAETA	COMMENSODORUM SP.A
ANNELIDA	POLYCHAETA	DRILONEREIS LONGA
ANNELIDA	POLYCHAETA	EULEPETHIDAE (LPIL)
ANNELIDA	POLYCHAETA	PECTINARIA GOULDII
ANNELIDA	POLYCHAETA	AMPHICTENE SP.A
ANNELIDA	POLYCHAETA	POLYGORDIUS (LPIL)
ANNELIDA	POLYCHAETA	SABACO AMERICANUS
ANNELIDA	POLYCHAETA	SABELLARIA SP.A
ANNELIDA	POLYCHAETA	LUMBRICALUS DAYI
ARTHROPODA (ARACHNIDA)	ACARINA	ACARINA (LPIL)
ARTHROPODA (CRUSTACEA)	AMPHIPODA	COROPHIUM SP.I
ARTHROPODA (CRUSTACEA)	AMPHIPODA	AMPELISCA ABDITA
ARTHROPODA (CRUSTACEA)	AMPHIPODA	AMPELISCA AGASSIZI
ARTHROPODA (CRUSTACEA)	AMPHIPODA	AMPELISCA VADORUM
ARTHROPODA (CRUSTACEA)	AMPHIPODA	AMPELISCA SP.A
ARTHROPODA (CRUSTACEA)	AMPHIPODA	AMPELISCA SP.C
ARTHROPODA (CRUSTACEA)	AMPHIPODA	AMPELISCA BICARINATA
ARTHROPODA (CRUSTACEA)	AMPHIPODA	AMPELISCA SP.N
ARTHROPODA (CRUSTACEA)	AMPHIPODA	AMPELISCA CRISTATA
ARTHROPODA (CRUSTACEA)	AMPHIPODA	MONOCULODES SP.D
ARTHROPODA (CRUSTACEA)	AMPHIPODA	MONOCULODES NYEI
ARTHROPODA (CRUSTACEA)	AMPHIPODA	HARTMANODES NYEI
ARTHROPODA (CRUSTACEA)	AMPHIPODA	AMERICHELIDIUM AMERICANUM
ARTHROPODA (CRUSTACEA)	AMPHIPODA	PARAMETOPELLA CYPRIS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	LISTRIELLA BARNARDI
ARTHROPODA (CRUSTACEA)	AMPHIPODA	LISTRIELLA CARINATA
ARTHROPODA (CRUSTACEA)	AMPHIPODA	LISTRIELLA SP.F
ARTHROPODA (CRUSTACEA)	AMPHIPODA	UNCIOLA SERRATA
ARTHROPODA (CRUSTACEA)	AMPHIPODA	LEMBOS BRUNNEOMACULATUS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	LEMBOS SMITHI
ARTHROPODA (CRUSTACEA)	AMPHIPODA	LEMBOS BRUNNEOMACULATUS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	LEMBOS SPINICARPUS INERMIS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	ACUMINODEUTOPUS NAGLEI
ARTHROPODA (CRUSTACEA)	AMPHIPODA	ARGISSA HAMATIPES
ARTHROPODA (CRUSTACEA)	AMPHIPODA	METHARPINIA FLORIDANA
ARTHROPODA (CRUSTACEA)	AMPHIPODA	RHEPOXYNIUS EPISTOMUS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	ACANTHOHAUSTORIUS INTERMEDIUS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	ACANTHOHAUSTORIUS UNCINUS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	PROTOHAUSTORIUS BOUSFIELDI
ARTHROPODA (CRUSTACEA)	AMPHIPODA	PROTOHAUSTORIUS SP.C
ARTHROPODA (CRUSTACEA)	AMPHIPODA	PARAHAUSTORIUS LONGIMERUS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	EUDEVENOPUS HONDURANUS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	MAERA (LPIL)
ARTHROPODA (CRUSTACEA)	AMPHIPODA	JERBARNIA AMERICANA
ARTHROPODA (CRUSTACEA)	AMPHIPODA	HIPPOMEDON SP.B
ARTHROPODA (CRUSTACEA)	AMPHIPODA	METATIRON TRIOCELLATUS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	METATIRON TROPAKIS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	AMPHILOCHUS (LPIL)
ARTHROPODA (CRUSTACEA)	AMPHIPODA	CERAPUS SP.B
ARTHROPODA (CRUSTACEA)	AMPHIPODA	CERAPUS SP.F
ARTHROPODA (CRUSTACEA)	AMPHIPODA	ERICHTHONIUS BRASILIENSIS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	GAMMAROPSIS (LPIL)
ARTHROPODA (CRUSTACEA)	AMPHIPODA	PHOTIS MELANICUS
ARTHROPODA (CRUSTACEA)	AMPHIPODA	PHOTIS SP.D
ARTHROPODA (CRUSTACEA)	AMPHIPODA	PHOTIS PUGNATOR
ARTHROPODA (CRUSTACEA)	AMPHIPODA	PHOTIS SP.I
ARTHROPODA (CRUSTACEA)	AMPHIPODA	NEOMEGAMPHOPUS (LPIL)

Table D4-1. Continued

PHYLUM	CLASS	TAXONOMIC NAME
ARTHROPODA (CRUSTACEA)	AMPHIPODA	DEUTELLA INCERTA
ARTHROPODA (CRUSTACEA)	AMPHIPODA	GIBBEROSUS MYERSI
ARTHROPODA (CRUSTACEA)	BRANCHIOPODA	BRANCHIOPODA (LPIL)
ARTHROPODA (CRUSTACEA)	CUMACEA	CYCLASPIS VARIANS
ARTHROPODA (CRUSTACEA)	CUMACEA	CYCLASPIS UNICORNIS
ARTHROPODA (CRUSTACEA)	CUMACEA	CYCLASPIS SP.N
ARTHROPODA (CRUSTACEA)	CUMACEA	CYCLASPIS SP.O
ARTHROPODA (CRUSTACEA)	CUMACEA	CYCLASPIS PUSTULATA
ARTHROPODA (CRUSTACEA)	CUMACEA	CYCLASPIS SP.T
ARTHROPODA (CRUSTACEA)	CUMACEA	OXYUROSTYLIS SMITHI
ARTHROPODA (CRUSTACEA)	CUMACEA	OXYUROSTYLIS SP.B
ARTHROPODA (CRUSTACEA)	CUMACEA	OXYUROSTYLIS LECROYAE
ARTHROPODA (CRUSTACEA)	CUMACEA	LEUCON AMERICANUS
ARTHROPODA (CRUSTACEA)	CUMACEA	EUDORELLA MONODON
ARTHROPODA (CRUSTACEA)	CUMACEA	CAMPYLASPIS SP.O
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	ACETES AMERICANUS CAROLINAE
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	OGYRIDES ALPHAEROSTRIS
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	TRACHYPENAEUS CONSTRICTUS
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	TRACHYPENAEUS SIMILIS
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	PROCESSA HEMPHILLI
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	PROCESSA BERMUDENSIS
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	PROCESSA VICINA
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	AUTOMATE EVERMANNI
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	AUTOMATE SP.D
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	ALPHEUS FLORIDANUS
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	LEPTOCHELA SERRATORBITA
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	LATREUTES PARVULUS
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	TOZEUMA SERRATUM
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	SOLENOCERA ATLANTIDIS
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	SICYONIIDAE (LPIL)
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	SICYONIA DORSALIS
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	SICYONIA PARRI
ARTHROPODA (CRUSTACEA)	DECAPODA (NATANTIA)	LUCIFER FAXONI
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	PINNIXA PEARSEI
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	PINNIXA FLORIDANA
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	PINNIXA SAYANA
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	PINNIXA CYLINDRICA
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	PINNIXA SP.H
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	DISSODACTYLUS MELLITAE
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	SPEOCARCINUS LOBATUS
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	ALBUNEA PARETII
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	LEPIDOPA WEBSTERI
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	EUCERAMUS PRAELONGUS
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	PERSEPHONA MEDITERRANEA
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	CALLINECTES SIMILIS
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	CALLINECTES SAPIDUS
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	PORTUNUS ORDWAYI
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	OVALIPES FLORIDANUS
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	PAGURUS (LPIL)
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	HEPATUS EPHELITICUS
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	MESORHOEA SEXSPINOSA
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	LIBINIA DUBIA
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	PAGURISTES (LPIL)
ARTHROPODA (CRUSTACEA)	DECAPODA (REPTANTIA)	EMERITA TALPOIDA
ARTHROPODA (CRUSTACEA)	GASTROPODA	GASTEROPTERON RUBRUM
ARTHROPODA (CRUSTACEA)	ISOPODA	PTILANTHURA TRICARINA
ARTHROPODA (CRUSTACEA)	ISOPODA	AMAKUSANTHURA MAGNIFICA
ARTHROPODA (CRUSTACEA)	ISOPODA	AMAKUSANTHURA SIGNATA
ARTHROPODA (CRUSTACEA)	ISOPODA	CHIRIDOTEA SP.A

Table D4-1. Continued

PHYLUM	CLASS	TAXONOMIC NAME
ARTHROPODA (CRUSTACEA)	ISOPODA	EDOTIA TRILOBA
ARTHROPODA (CRUSTACEA)	ISOPODA	MUNNA (LPIL)
ARTHROPODA (CRUSTACEA)	ISOPODA	UROMUNNA HAYESI
ARTHROPODA (CRUSTACEA)	ISOPODA	SEROLIS MGRAYI
ARTHROPODA (CRUSTACEA)	ISOPODA	XENANTHURA BREVITELSON
ARTHROPODA (CRUSTACEA)	ISOPODA	SANTIA MILLERI
ARTHROPODA (CRUSTACEA)	LEPTOSTRACA	NEBALIA BIPES
ARTHROPODA (CRUSTACEA)	MYSIDACEA	MYSIDOPSIS (LPIL)
ARTHROPODA (CRUSTACEA)	MYSIDACEA	BOWMANIELLA PORTORICENSIS
ARTHROPODA (CRUSTACEA)	MYSIDACEA	ANCHIALINA TYPICA
ARTHROPODA (CRUSTACEA)	MYSIDACEA	AMERICAMYSIS BIGELOWI
ARTHROPODA (CRUSTACEA)	MYSIDACEA	AMERICAMYSIS FURCA
ARTHROPODA (CRUSTACEA)	OSTRACODA	HAPLOCYTHERIDEA SETIPUNCTATA
ARTHROPODA (CRUSTACEA)	OSTRACODA	RETICULOCYTHEREIS SP.A
ARTHROPODA (CRUSTACEA)	OSTRACODA	RETICULOCYTHEREIS SP.B
ARTHROPODA (CRUSTACEA)	OSTRACODA	ASTEROPTERYGION OCULITRISTIS
ARTHROPODA (CRUSTACEA)	OSTRACODA	SYNASTEROPE SETISPARSA
ARTHROPODA (CRUSTACEA)	OSTRACODA	ASTEROPELLA MACLAUGHLINAE
ARTHROPODA (CRUSTACEA)	OSTRACODA	ASTEROPELLA PAX
ARTHROPODA (CRUSTACEA)	OSTRACODA	AMBOLEBERIS AMERICANA
ARTHROPODA (CRUSTACEA)	OSTRACODA	PARASTEROPE POLLEX
ARTHROPODA (CRUSTACEA)	OSTRACODA	PARASTEROPE ZETA
ARTHROPODA (CRUSTACEA)	OSTRACODA	PARASTEROPE HULINGSI
ARTHROPODA (CRUSTACEA)	OSTRACODA	PARASTEROPE EXTRACHELATA
ARTHROPODA (CRUSTACEA)	OSTRACODA	HARBANSUS PAUCICHELATUS
ARTHROPODA (CRUSTACEA)	OSTRACODA	PSEUDOPHILOMEDES AMBON
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA DISPARALIS
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA ELOFSONI
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA SP.E
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA TEXANA
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA GETTLESONI
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA CRESSEYI
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA SPINOSA
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA BAKERI
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA GREYI
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA CHILDI
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA ABSENS
ARTHROPODA (CRUSTACEA)	OSTRACODA	EUSARSIELLA SP.U
ARTHROPODA (CRUSTACEA)	OSTRACODA	EURYPYLUS ROUSEI
ARTHROPODA (CRUSTACEA)	OSTRACODA	RUTIDERMA DARBYI
ARTHROPODA (CRUSTACEA)	STOMATOPODA	SQUILLA EMPUSA
ARTHROPODA (CRUSTACEA)	STOMATOPODA	SQUILLA CHYDAEA
ARTHROPODA (CRUSTACEA)	STOMATOPODA	BIGELOWINA BIMINIENSIS
ARTHROPODA (CRUSTACEA)	TANAIDACEA	KALLIAPSEUDES SP.C
ARTHROPODA (CRUSTACEA)	TANAIDACEA	LEPTOCHELIA (LPIL)
ARTHROPODA (CRUSTACEA)	TANAIDACEA	APSEUDES SP.A
BRACHIOPODA	--	BRACHIOPODA (LPIL)
CEPHALOCHORDATA	LEPTOCARDII	BRANCHIOSTOMA (LPIL)
CNIDARIA	ACTINIARIA	ACTINIARIA (LPIL)
ECHINODERMATA	ASTEROIDEA	ASTROPECTEN DUPLICATUS
ECHINODERMATA	ASTEROIDEA	ASTROPECTEN ARTICULATUS
ECHINODERMATA	ECHINOIDEA	ENCOPE ABERRANS
ECHINODERMATA	ECHINOIDEA	ENCOPE (LPIL)
ECHINODERMATA	HOLOTHUROIDEA	LEPTOSYNAPTA CRASSIPATINA
ECHINODERMATA	OPHIUROIDEA	AMPHIOPLUS CONIORTODES
ECHINODERMATA	OPHIUROIDEA	AMPHIODIA TRYCHNA
ECHINODERMATA	OPHIUROIDEA	AMPHIODIA PULCHELLA
ECHINODERMATA	OPHIUROIDEA	HEMIPHOLIS ELONGATA
ECHINODERMATA	OPHIUROIDEA	OPHIODERMA (LPIL)

Table D4-1. Continued

PHYLUM	CLASS	TAXONOMIC NAME
ECHIURA	--	ECHIURA (LPIL)
HEMICHORDATA	ENTEROPNEUSTA	BALANOGLOSSUS (LPIL)
MOLLUSCA	BIVALVIA	UNGULINIDAE (LPIL)
MOLLUSCA	BIVALVIA	DIPLODONTA PUNCTATA
MOLLUSCA	BIVALVIA	DIPLODONTA SEMIASPERA
MOLLUSCA	BIVALVIA	DIPLODONTA (LPIL)
MOLLUSCA	BIVALVIA	ABRA AEQUALIS
MOLLUSCA	BIVALVIA	SEMELE NUCULOIDES
MOLLUSCA	BIVALVIA	SEMELE BELLASTRIATA
MOLLUSCA	BIVALVIA	CUMINGIA TELLINOIDES
MOLLUSCA	BIVALVIA	ENSIS MINOR
MOLLUSCA	BIVALVIA	NUCULA PROXIMA
MOLLUSCA	BIVALVIA	NUCULA AEGEENIS
MOLLUSCA	BIVALVIA	ANADARA TRANSVERSA
MOLLUSCA	BIVALVIA	BARBATIA CANDIDA
MOLLUSCA	BIVALVIA	AMYGDALUM SAGITTATUM
MOLLUSCA	BIVALVIA	AMYGDALUM PAPYRIA
MOLLUSCA	BIVALVIA	MUSCULUS LATERALIS
MOLLUSCA	BIVALVIA	CRENELLA DIVARICATA
MOLLUSCA	BIVALVIA	LAEVICARDIUM LAEVIGATUM
MOLLUSCA	BIVALVIA	LAEVICARDIUM MORTONI
MOLLUSCA	BIVALVIA	LAEVICARDIUM SYBARITICUM
MOLLUSCA	BIVALVIA	TRACHYCARDIUM MURICATUM
MOLLUSCA	BIVALVIA	AMERICARDIA MEDIA
MOLLUSCA	BIVALVIA	LINGA AMIANTUS
MOLLUSCA	BIVALVIA	DIVARICELLA QUADRISULCATA
MOLLUSCA	BIVALVIA	LUCINA SOMBRERENSIS
MOLLUSCA	BIVALVIA	LUCINA NASSULA
MOLLUSCA	BIVALVIA	LUCINA MULTILINEATA
MOLLUSCA	BIVALVIA	ANODONTIA (LPIL)
MOLLUSCA	BIVALVIA	CODAKIA COSTATA
MOLLUSCA	BIVALVIA	TELLINA VERSICOLOR
MOLLUSCA	BIVALVIA	TELLINA ALTERNATA
MOLLUSCA	BIVALVIA	TELLINA AEQUISTRIATA
MOLLUSCA	BIVALVIA	TELLINA SYBARITICA
MOLLUSCA	BIVALVIA	TELLINA NITENS
MOLLUSCA	BIVALVIA	TELLINA SQUAMIFERA
MOLLUSCA	BIVALVIA	MACOMA TENTA
MOLLUSCA	BIVALVIA	MACOMA BREVIFRONS
MOLLUSCA	BIVALVIA	STRIGILLA MIRABILIS
MOLLUSCA	BIVALVIA	STRIGILLA PISIFORMIS
MOLLUSCA	BIVALVIA	STRIGILLA SURINAMENSIS
MOLLUSCA	BIVALVIA	CORBULA CONTRACTA
MOLLUSCA	BIVALVIA	CORBULA BARRATTIANA
MOLLUSCA	BIVALVIA	VARICORBULA OPERCULATA
MOLLUSCA	BIVALVIA	POTAMOCORBULA AMURENSIS
MOLLUSCA	BIVALVIA	PHOLADIDAE (LPIL)
MOLLUSCA	BIVALVIA	DOSINIA DISCUS
MOLLUSCA	BIVALVIA	CHIONE LATILIRATA
MOLLUSCA	BIVALVIA	CHIONE CANCELLATA
MOLLUSCA	BIVALVIA	CHIONE GRUS
MOLLUSCA	BIVALVIA	CHIONE INTAPURPUREA
MOLLUSCA	BIVALVIA	CHIONE (LPIL)
MOLLUSCA	BIVALVIA	ANOMALOCARDIA AUBERIANA
MOLLUSCA	BIVALVIA	MACROCALLISTA NIMBOSA
MOLLUSCA	BIVALVIA	MACROCALLISTA MACULATA
MOLLUSCA	BIVALVIA	PITAR FULMINATUS
MOLLUSCA	BIVALVIA	TAGELUS (LPIL)
MOLLUSCA	BIVALVIA	CRASSINELLA LUNULATA

Table D4-1. Continued

PHYLUM	CLASS	TAXONOMIC NAME
MOLLUSCA	BIVALVIA	CRASSINELLA MARTINICENSIS
MOLLUSCA	BIVALVIA	MULINIA LATERALIS
MOLLUSCA	BIVALVIA	CARDIOMYA ORNATISSIMA
MOLLUSCA	BIVALVIA	HIATELLA AZARIA
MOLLUSCA	BIVALVIA	NUCULANA CONCENTRICA
MOLLUSCA	BIVALVIA	NUCULANA ACUTA
MOLLUSCA	BIVALVIA	LYONSIA HYALINA FLORIDANA
MOLLUSCA	BIVALVIA	NEAEROMYA (LPIL)
MOLLUSCA	BIVALVIA	PANDORA BUSHIANA
MOLLUSCA	BIVALVIA	PANDORA TRILINEATA
MOLLUSCA	BIVALVIA	PANDORA ARENOSA
MOLLUSCA	BIVALVIA	ARGOPECTEN GIBBUS
MOLLUSCA	BIVALVIA	CHLAMYS BENEDICTI
MOLLUSCA	BIVALVIA	ANOMIA SIMPLEX
MOLLUSCA	BIVALVIA	ERVILIA CONCENTRICA
MOLLUSCA	BIVALVIA	PLEUROMERIS TRIDENTATA
MOLLUSCA	BIVALVIA	VERTICORDIA ORNATA
MOLLUSCA	BIVALVIA	GLYCYMERIS PECTINATA
MOLLUSCA	BIVALVIA	BUSHIA SP.A
MOLLUSCA	BIVALVIA	ASTHENOTHAERUS (LPIL)
MOLLUSCA	BIVALVIA	COOPERELLA ATLANTICA
MOLLUSCA	BIVALVIA	PYTHINELLA CUNEATA
MOLLUSCA	BIVALVIA	MYSELLA PLANULATA
MOLLUSCA	BIVALVIA	NEAROMYA (LPIL)
MOLLUSCA	GASTROPODA	NUDIBRANCHIA (LPIL)
MOLLUSCA	GASTROPODA	EPITONIUM MULTISTRIATUM
MOLLUSCA	GASTROPODA	EPITONIUM NOVANGLIAE
MOLLUSCA	GASTROPODA	EPITONIUM FOLIACEICOSTUM
MOLLUSCA	GASTROPODA	NATICA PUSILLA
MOLLUSCA	GASTROPODA	NATICA CANRENA
MOLLUSCA	GASTROPODA	SINUM PERSPECTIVUM
MOLLUSCA	GASTROPODA	SIGATICA SEMISULCATA
MOLLUSCA	GASTROPODA	SIGATICA CAROLINENSIS
MOLLUSCA	GASTROPODA	TECTONATICA PUSILLA
MOLLUSCA	GASTROPODA	ANACHIS OBESA
MOLLUSCA	GASTROPODA	ANACHIS FLORIDANA
MOLLUSCA	GASTROPODA	MITRELLA LUNATA
MOLLUSCA	GASTROPODA	NASSARIUS ACUTUS
MOLLUSCA	GASTROPODA	NASSARIUS ALBUS
MOLLUSCA	GASTROPODA	RICTAXIS PUNCTOSTRIATUS
MOLLUSCA	GASTROPODA	CANTHARUS CANCELLARIUS
MOLLUSCA	GASTROPODA	ENGONIOPHOS UNICINCTUS
MOLLUSCA	GASTROPODA	CAECUM JOHNSONI
MOLLUSCA	GASTROPODA	CAECUM PULCHELLUM
MOLLUSCA	GASTROPODA	CAECUM IMBRICATUM
MOLLUSCA	GASTROPODA	CAECUM COOPERI
MOLLUSCA	GASTROPODA	CAECUM NITIDIUM
MOLLUSCA	GASTROPODA	CAECUM BIPARTITUM
MOLLUSCA	GASTROPODA	TURBONILLA CONRADI
MOLLUSCA	GASTROPODA	TURBONILLA SP.F
MOLLUSCA	GASTROPODA	TURBONILLA HEMPHILLI
MOLLUSCA	GASTROPODA	TURBONILLA PORTORICANA
MOLLUSCA	GASTROPODA	TURBONILLA INTERRUPTA
MOLLUSCA	GASTROPODA	ODOSTOMIA WEBERI
MOLLUSCA	GASTROPODA	ODOSTOMIA LAEVIGATA
MOLLUSCA	GASTROPODA	ODOSTOMIA SP.K
MOLLUSCA	GASTROPODA	ODOSTOMIA SP.L
MOLLUSCA	GASTROPODA	PYRAMIDELLA CRENULATA
MOLLUSCA	GASTROPODA	CYCLOSTREMISCUS PENTAGONUS

Table D4-1. Continued

PHYLUM	CLASS	TAXONOMIC NAME
MOLLUSCA	GASTROPODA	VITRINELLA FLORIDANA
MOLLUSCA	GASTROPODA	SOLARIORBIS INFRACARINATA
MOLLUSCA	GASTROPODA	TEREBRA CONCAVA
MOLLUSCA	GASTROPODA	TEREBRA DISLOCATA
MOLLUSCA	GASTROPODA	KURTZIELLA RUBELLA
MOLLUSCA	GASTROPODA	KURTZIELLA CERINA
MOLLUSCA	GASTROPODA	NANNODIELLA OXIA
MOLLUSCA	GASTROPODA	CRYOTURRIS (LPIL)
MOLLUSCA	GASTROPODA	MANGELIA (LPIL)
MOLLUSCA	GASTROPODA	NEODRILLIA CYDIA
MOLLUSCA	GASTROPODA	OLIVA SAYANA
MOLLUSCA	GASTROPODA	OLIVELLA DEALBATA
MOLLUSCA	GASTROPODA	OLIVELLA FLORALIA
MOLLUSCA	GASTROPODA	OLIVELLA NIVEA
MOLLUSCA	GASTROPODA	OLIVELLA MINUTA
MOLLUSCA	GASTROPODA	OLIVELLA PUSILLA
MOLLUSCA	GASTROPODA	CANCELLARIA RETICULATA
MOLLUSCA	GASTROPODA	ALVANIA SP.G
MOLLUSCA	GASTROPODA	CERITHIIDAE (LPIL)
MOLLUSCA	GASTROPODA	VOLVULELLA TEXASIANA
MOLLUSCA	GASTROPODA	VOLVULELLA PERSIMILIS
MOLLUSCA	GASTROPODA	VOLVULELLA RECTA
MOLLUSCA	GASTROPODA	PHILINE SAGRA
MOLLUSCA	GASTROPODA	BULLA STRIATA
MOLLUSCA	GASTROPODA	STROMBIFORMIS BILINEATUS
MOLLUSCA	GASTROPODA	STROMBIFORMIS HEMPHILLI
MOLLUSCA	GASTROPODA	NISO AEGLEES
MOLLUSCA	GASTROPODA	ACTEOCINA CANDEI
MOLLUSCA	GASTROPODA	ACTEOCINA CANALICULATA
MOLLUSCA	GASTROPODA	ACTEOCINA BIDENTATA
MOLLUSCA	GASTROPODA	ACTEOCINA SP.B
MOLLUSCA	GASTROPODA	HAMINOEA SUCCINEA
MOLLUSCA	GASTROPODA	ATYS SANDERSONI
MOLLUSCA	GASTROPODA	ATYS RIISEANA
MOLLUSCA	GASTROPODA	OPISTHOBRANCHIA (LPIL)
MOLLUSCA	GASTROPODA	CREPIDULA FORNICATA
MOLLUSCA	GASTROPODA	CREPIDULA PLANA
MOLLUSCA	GASTROPODA	CREPIDULA MACULOSA
MOLLUSCA	GASTROPODA	CALYPTRAEA CENTRALIS
MOLLUSCA	GASTROPODA	CYLINDROBULLA BEAUII
MOLLUSCA	SCAPHOPODA	SCAPHOPODA (LPIL)
MOLLUSCA	SCAPHOPODA	DENTALIUM TEXASIANUM
MOLLUSCA	SCAPHOPODA	ANTALIS CERATUM
MOLLUSCA	SCAPHOPODA	ANTALIS EBOREUM
MOLLUSCA	SCAPHOPODA	CADULUS TETRODON
MOLLUSCA	SCAPHOPODA	CADULUS QUADRIDENTATUS
PHORONIDA	--	PHORONIS (LPIL)
PLATYHELMINTHES	TURBELLARIA	TURBELLARIA (LPIL)
RHYNCHOCOELA	ANOPLA	TUBULANUS (LPIL)
RHYNCHOCOELA	ANOPLA	LINEIDAE (LPIL)
SIPUNCULA	--	GOLFINGIA SP.C
SIPUNCULA	--	GOLFINGIA SP.V
SIPUNCULA	--	PHASCOLION STROMBI
SIPUNCULA	--	ASPIDOSIPHON ALBUS
SIPUNCULA	--	ASPIDOSIPHON MUELLERI
UROCHORDATA	ASCIDIACEA	ASCIDIACEA (LPIL)

Table D4-2. Infaunal assemblage summary parameters for the May 1997 Survey 1 in the five sand resource areas offshore Alabama.

Area	Station	Total Number of Taxa	Total Number of Individuals	Mean Density (no./sq.m.)	Diversity (H')	Evenness (J')	Richness (D)
1	1	61	290	2,900	3.24	0.79	10.58
1	2	61	350	3,500	3.44	0.84	10.24
1	3	63	1,332	13,320	2.06	0.50	8.62
1	4	86	592	5,920	3.66	0.82	13.32
1	5	72	356	3,560	3.35	0.78	12.09
1	6	64	311	3,110	3.32	0.80	10.98
1	7	79	940	9,400	2.27	0.52	11.39
1	8	92	988	9,880	2.59	0.57	13.20
1	9	80	540	5,400	3.33	0.76	12.56
1	10	84	1,098	10,980	2.39	0.54	11.86
1	11	94	1,454	14,540	2.03	0.45	12.77
1	12	74	536	5,360	2.87	0.67	11.62
1	13	59	229	2,290	3.27	0.80	10.67
1	14	93	1,000	10,000	2.95	0.65	13.32
1	15	110	1,432	14,320	2.78	0.59	15.00
1	16	99	2,050	20,500	1.96	0.43	12.85
1	17	105	1,009	10,090	3.37	0.72	15.04
1	18	88	338	3,380	3.78	0.84	14.94
1	19	116	595	5,950	3.98	0.84	18.00
1	20	107	1,327	13,270	2.50	0.54	14.74
2	1	104	697	6,970	3.51	0.76	15.73
2	2	82	764	7,640	2.91	0.66	12.20
2	3	82	416	4,160	3.52	0.80	13.43
2	4	65	329	3,290	3.21	0.77	11.04
2	5	89	1,971	19,710	1.89	0.42	11.60
2	6	80	1,213	12,130	2.15	0.49	11.13
2	7	75	704	7,040	2.94	0.68	11.29
2	8	86	831	8,310	3.09	0.69	12.64
2	9	86	1,236	12,360	2.65	0.59	11.94
2	10	91	1,874	18,740	1.94	0.43	11.94
2	11	112	1,752	17,520	2.44	0.52	14.86
2	12	107	1,612	16,120	2.42	0.52	14.35
2	13	109	1,593	15,930	2.38	0.51	14.65
2	14	108	1,477	14,770	2.62	0.56	14.66
2	15	107	511	5,110	3.75	0.80	17.00
2	16	89	1,556	15,560	1.87	0.42	11.97
2	17	107	1,929	19,290	2.47	0.53	14.01
2	18	111	1,371	13,710	2.65	0.56	15.23
2	19	88	911	9,110	3.28	0.73	12.77
2	20	126	899	8,990	3.90	0.81	18.38
3	1	122	1,412	14,120	3.44	0.72	16.68
3	2	84	367	3,670	3.60	0.81	14.06
3	3	100	742	7,420	3.57	0.78	14.98

Table D4-2. Continued.

Area	Station	Total Number of Taxa	Total Number of Individuals	Mean Density (no./sq.m.)	Diversity (H')	Evenness (J')	Richness (D)
3	5	76	449	4,490	3.64	0.84	12.28
3	6	109	693	6,930	3.85	0.82	16.51
3	7	111	593	5,930	3.92	0.83	17.23
3	8	102	886	8,860	3.48	0.75	14.88
3	9	120	687	6,870	3.86	0.81	18.22
3	10	83	471	4,710	3.88	0.88	13.32
3	11	119	561	5,610	4.08	0.85	18.64
3	12	119	792	7,920	3.96	0.83	17.68
3	13	109	691	6,910	3.70	0.79	16.52
3	14	87	386	3,860	3.97	0.89	14.44
3	15	114	604	6,040	4.07	0.86	17.65
3	16	125	886	8,860	3.93	0.81	18.27
3	17	101	453	4,530	3.84	0.83	16.35
3	18	92	1,118	11,180	2.90	0.64	12.96
3	19	41	240	2,400	2.36	0.64	7.30
3	20	73	248	2,480	3.69	0.86	13.06
4	1	53	172	1,720	3.52	0.89	10.10
4	2	48	124	1,240	3.53	0.91	9.75
4	3	53	190	1,900	3.49	0.88	9.91
4	4	57	621	6,210	2.69	0.67	8.71
4	5	44	528	5,280	1.91	0.50	6.86
4	6	54	171	1,710	3.31	0.83	10.31
4	7	52	316	3,160	2.53	0.64	8.85
4	8	72	321	3,210	3.82	0.89	12.30
4	9	50	513	5,130	2.18	0.56	7.85
4	10	41	297	2,970	2.33	0.63	7.03
4	11	29	253	2,530	1.67	0.50	5.06
4	12	55	282	2,820	3.42	0.85	9.57
4	13	41	318	3,180	2.22	0.60	6.94
4	14	27	191	1,910	1.97	0.60	4.95
4	15	57	203	2,030	3.53	0.87	10.54
4	16	49	215	2,150	3.32	0.85	8.93
4	17	81	357	3,570	3.88	0.88	13.61
4	18	43	197	1,970	3.06	0.81	7.95
4	19	32	237	2,370	2.11	0.61	5.67
4	20	36	585	5,850	1.83	0.51	5.49
5	1	79	316	3,160	3.52	0.81	13.55
5	2	62	205	2,050	3.61	0.87	11.46
5	3	85	544	5,440	3.53	0.79	13.34
5	4	48	261	2,610	2.72	0.70	8.45
5	6	47	142	1,420	3.51	0.91	9.28
5	7	48	158	1,580	3.39	0.88	9.28
5	8	68	195	1,950	3.69	0.87	12.71
5	9	91	474	4,740	3.58	0.79	14.61

Table D4-2. Continued.

Area	Station	Total Number of Taxa	Total Number of Individuals	Mean Density (no./sq.m.)	Diversity (H')	Evenness (J')	Richness (D)
5	11	66	189	1,890	3.66	0.87	12.40
5	12	68	199	1,990	3.84	0.91	12.66
5	13	17	117	1,170	1.65	0.58	3.36
5	14	30	142	1,420	2.33	0.69	5.85
5	15	63	206	2,060	3.48	0.84	11.64
5	16	85	333	3,330	3.75	0.84	14.46
5	17	44	203	2,030	2.87	0.76	8.09
5	18	51	166	1,660	3.36	0.85	9.78
5	19	98	743	7,430	3.63	0.79	14.67
5	20	58	135	1,350	3.63	0.89	11.62

Table D4-3. Infaunal assemblage summary parameters for the December 1997 Survey 2 in the five sand resource areas offshore Alabama.

Area	Station	Total Number of Taxa	Total Number of Individuals	Mean Density (no./sq.m.)	Diversity (H')	Evenness (J')	Richness (D)
1	1	36	171	1,710	2.98	0.83	6.81
1	2	47	235	2,350	3.12	0.81	8.43
1	3	56	380	3,800	3.12	0.78	9.26
1	4	76	403	4,030	3.64	0.84	12.50
1	5	61	329	3,290	3.37	0.82	10.35
1	6	61	243	2,430	3.62	0.88	10.92
1	7	53	639	6,390	2.64	0.66	8.05
1	8	64	491	4,910	2.80	0.67	10.17
1	9	55	352	3,520	3.20	0.80	9.21
1	10	54	514	5,140	2.65	0.66	8.49
1	11	87	818	8,180	2.67	0.60	12.82
1	12	62	460	4,600	3.17	0.77	9.95
1	13	55	375	3,750	2.87	0.72	9.11
1	14	63	626	6,260	2.82	0.68	9.63
1	15	80	969	9,690	2.24	0.51	11.49
1	16	63	1,954	19,540	1.39	0.34	8.18
1	17	78	545	5,450	3.13	0.72	12.22
1	18	109	631	6,310	3.48	0.74	16.75
1	19	116	413	4,130	4.15	0.87	19.09
1	20	63	879	8,790	2.36	0.57	9.15
2	1	88	551	5,510	3.26	0.73	13.78
2	2	34	103	1,030	2.93	0.83	7.12
2	3	47	189	1,890	3.21	0.83	8.78
2	4	35	151	1,510	2.94	0.83	6.78
2	5	44	250	2,500	2.45	0.65	7.79
2	6	62	269	2,690	3.32	0.80	10.90
2	7	58	624	6,240	2.32	0.57	8.86
2	8	59	259	2,590	3.34	0.82	10.44
2	9	57	339	3,390	2.71	0.67	9.61
2	10	60	371	3,710	2.74	0.67	9.97
2	11	42	227	2,270	2.86	0.77	7.56
2	12	69	569	5,690	2.94	0.69	10.72
2	13	84	379	3,790	3.55	0.80	13.98
2	4	26	44	1,440	2.37	0.73	5.03
2	15	45	305	3,050	2.50	0.66	7.69
2	16	77	551	5,510	3.18	0.73	12.04
2	17	85	822	8,220	2.71	0.61	12.52
2	18	54	260	2,600	2.85	0.71	9.53
2	19	70	292	2,920	3.48	0.82	12.15
2	20	48	238	2,380	2.86	0.74	8.59
3	1	24	77	770	2.83	0.89	5.29
3	2	37	85	850	3.15	0.87	8.10

Table D4-3. Continued.

Area	Station	Total Number of Taxa	Total Number of Individuals	Mean Density (no./sq.m.)	Diversity (H')	Evenness (J')	Richness (D)
3	4	44	234	2,340	3.00	0.79	7.88
3	5	52	155	1,550	3.47	0.88	10.11
3	6	41	182	1,820	2.61	0.70	7.69
3	7	44	104	1,040	3.53	0.93	9.26
3	8	47	247	2,470	3.03	0.79	8.35
3	9	44	100	1,000	3.41	0.90	9.34
3	10	42	150	1,500	3.10	0.83	8.18
3	11	47	208	2,080	3.37	0.88	8.62
3	12	39	125	1,250	3.12	0.85	7.87
3	13	53	254	2,540	3.04	0.77	9.39
3	14	38	87	870	3.10	0.85	8.28
3	15	48	120	1,200	3.40	0.88	9.82
3	16	50	131	1,310	3.38	0.86	10.05
3	17	71	379	3,790	3.15	0.74	11.79
3	18	66	265	2,650	3.62	0.86	11.65
3	19	53	292	2,920	3.12	0.79	9.16
3	20	62	249	2,490	3.40	0.82	11.06
4	1	23	130	1,300	2.55	0.81	4.52
4	2	24	87	870	2.45	0.77	5.15
4	3	30	174	1,740	2.14	0.63	5.62
4	4	39	306	3,060	2.73	0.75	6.64
4	5	31	107	1,070	3.04	0.89	6.42
4	6	33	76	760	3.16	0.90	7.39
4	7	38	110	1,100	3.12	0.86	7.87
4	8	19	75	750	2.23	0.76	4.17
4	9	34	125	1,250	2.93	0.83	6.83
4	10	41	174	1,740	3.05	0.82	7.75
4	11	36	135	1,350	3.09	0.86	7.14
4	12	39	226	2,260	2.00	0.55	7.01
4	13	33	145	1,450	2.90	0.83	6.43
4	14	18	61	610	2.58	0.89	4.14
4	15	48	206	2,060	2.86	0.74	8.82
4	16	33	86	860	2.97	0.85	7.18
4	17	75	315	3,150	3.71	0.86	12.86
4	18	37	117	1,170	3.28	0.91	7.56
4	19	39	167	1,670	2.84	0.78	7.42
4	20	27	75	750	2.89	0.88	6.02
5	1	37	128	1,280	2.64	0.73	7.42
5	2	16	35	350	2.37	0.85	4.22
5	3	15	115	1,150	1.17	0.43	2.95
5	5	25	63	630	2.88	0.89	5.79
5	6	43	172	1,720	2.89	0.77	8.16
5	7	33	109	1,090	2.79	0.80	6.82
5	8	29	113	1,130	1.94	0.58	5.92

Table D4-3. Continued.

Area	Station	Total Number of Taxa	Total Number of Individuals	Mean Density (no./sq.m.)	Diversity (H')	Evenness (J')	Richness (D)
5	10	28	83	830	3.04	0.91	6.11
5	11	32	91	910	3.14	0.91	6.87
5	12	37	113	1,130	3.19	0.88	7.62
5	13	20	48	480	2.42	0.81	4.91
5	14	25	62	620	2.95	0.92	5.82
5	15	67	217	2,170	3.49	0.83	12.27
5	16	55	215	2,150	3.49	0.87	10.05
5	17	54	225	2,250	3.33	0.83	9.79
5	18	59	187	1,870	3.50	0.86	11.09
5	19	59	203	2,030	3.45	0.85	10.92
5	20	29	70	700	2.93	0.87	6.59

Table D4-4. Numbers of taxa occurring in infaunal samples collected during the May 1997 Survey 1 in the five sand resource areas offshore Alabama.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%
1	1	29	47.5	16	26.2	11	18.0	1	1.6	4	6.5
1	2	17	27.8	16	26.2	22	36.0	1	1.6	5	8.2
1	3	24	38.1	17	26.9	16	25.4	2	3.1	4	6.3
1	4	42	48.8	21	24.4	18	20.9	0	0.0	5	5.8
1	5	25	34.7	24	33.3	22	30.5	1	1.3	0	0.0
1	6	29	45.3	15	23.4	15	23.4	1	1.5	4	6.2
1	7	30	37.9	23	29.1	20	25.3	2	2.5	4	5.0
1	8	35	38.0	25	27.1	23	25.0	3	3.2	6	6.5
1	9	31	38.7	24	30.0	21	26.2	1	1.2	3	3.7
1	10	28	33.3	29	34.5	20	23.8	2	2.3	5	5.9
1	11	35	37.2	35	37.2	18	19.1	1	1.0	5	5.3
1	12	32	43.2	19	25.6	14	18.9	2	2.7	7	9.4
1	13	20	33.9	21	35.5	13	22.0	2	3.3	3	5.0
1	14	32	34.4	33	35.4	19	20.4	2	2.1	7	7.5
1	15	39	35.4	37	33.6	24	21.8	1	0.9	9	8.1
1	16	36	36.3	34	34.3	20	20.2	3	3.0	6	6.0
1	17	36	34.2	36	34.2	25	23.8	2	1.9	6	5.7
1	18	36	40.9	24	27.2	24	27.2	0	0.0	4	4.5
1	19	53	45.6	27	23.2	26	22.4	3	2.5	7	6.0
1	20	39	36.4	38	35.5	23	21.5	2	1.8	5	4.6
2	1	39	37.5	39	37.5	16	15.3	3	2.8	7	6.7
2	2	33	40.2	26	31.7	15	18.2	3	3.6	5	6.1
2	3	26	31.7	29	35.3	19	23.1	1	1.2	7	8.5
2	4	23	35.3	20	30.7	17	26.1	1	1.5	4	6.1
2	5	37	41.5	29	32.5	16	17.9	2	2.2	5	5.6
2	6	26	32.5	27	33.7	17	21.2	2	2.5	8	10.0
2	7	29	38.6	29	38.6	11	14.6	2	2.6	4	5.3
2	8	44	51.1	24	27.9	13	15.1	0	0.0	5	5.8
2	9	42	48.8	38	44.1	0	0.0	2	2.3	4	4.6
2	10	34	37.3	34	37.3	17	18.6	1	1.1	5	5.4
2	11	43	38.3	35	31.2	27	24.1	2	1.7	5	4.4
2	12	42	39.2	37	34.5	18	16.8	2	1.8	8	7.4
2	13	42	38.5	39	35.7	21	19.2	1	0.9	6	5.5
2	14	41	37.9	35	32.4	21	19.4	3	2.7	8	7.4
2	15	44	41.1	36	33.6	17	15.8	2	1.8	8	7.4

Table D4-4. Continued.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%
2	16	35	39.3	28	31.4	17	19.1	3	3.3	6	6.7
2	17	39	36.4	42	39.2	18	16.8	1	0.9	7	6.5
2	18	45	40.5	36	32.4	20	18.0	2	1.8	8	7.2
2	19	52	59.0	27	30.6	0	0.0	3	3.4	6	6.8
2	20	51	40.4	43	34.1	22	17.4	2	1.5	8	6.3
3	1	55	45.0	33	27.0	27	22.1	0	0.0	7	5.7
3	2	30	35.7	29	34.5	20	23.8	0	0.0	5	5.9
3	3	29	29.0	35	35.0	26	26.0	3	3.0	7	7.0
3	4	30	35.2	30	35.2	18	21.1	1	1.1	6	7.0
3	5	30	39.4	24	31.5	17	22.3	0	0.0	5	6.5
3	6	44	40.3	31	28.4	23	21.1	0	0.0	11	10.0
3	7	34	30.6	31	27.9	33	29.7	3	2.7	10	9.0
3	8	33	32.3	33	32.3	26	25.4	3	2.9	7	6.8
3	9	53	44.1	31	25.8	26	21.6	0	0.0	10	8.3
3	10	34	40.9	26	31.3	17	20.4	0	0.0	6	7.2
3	11	38	31.9	40	33.6	32	26.8	0	0.0	9	7.5
3	12	36	30.2	45	37.8	27	22.6	2	1.6	9	7.5
3	13	31	28.4	50	45.8	19	17.4	1	0.9	8	7.3
3	14	36	41.3	31	35.6	12	13.7	0	0.0	8	9.2
3	15	54	47.3	36	31.5	11	9.6	1	0.8	12	10.5
3	16	42	33.6	49	39.2	22	17.6	3	2.4	9	7.2
3	17	36	35.6	37	36.6	18	17.8	1	0.9	9	8.9
3	18	37	40.2	26	28.2	22	23.9	0	0.0	7	7.6
3	19	13	31.7	17	41.4	6	14.6	0	0.0	5	12.2
3	20	29	39.7	21	28.7	15	20.5	0	0.0	8	10.9
4	1	19	35.8	13	24.5	15	28.3	2	3.7	4	7.5
4	2	17	35.4	19	39.5	7	14.5	1	2.0	4	8.3
4	3	23	43.4	13	24.5	11	20.7	1	1.8	5	9.4
4	4	25	43.8	11	19.3	12	21.0	1	1.7	8	14.0
4	5	26	59.0	4	9.0	9	20.4	0	0.0	5	11.3
4	6	25	46.3	12	22.2	9	16.6	1	1.8	7	12.9
4	7	28	53.8	4	7.6	12	23.0	2	3.8	6	11.5
4	8	23	31.9	27	37.5	11	15.2	3	4.1	8	11.1
4	9	27	54.0	10	20.0	9	18.0	1	2.0	3	6.0
4	10	24	58.5	5	12.2	7	17.0	0	0.0	5	12.2
4	11	17	58.6	3	10.3	4	13.7	2	6.9	3	10.3

Table D4-4. Continued.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%
4	12	20	36.3	12	21.8	14	25.4	1	1.8	8	14.5
4	13	23	56.1	7	17.0	7	17.0	0	0.0	4	9.7
4	14	18	66.6	2	7.4	3	11.1	0	0.0	4	14.8
4	15	26	45.6	16	28.0	9	15.7	0	0.0	6	10.5
4	16	26	53.0	17	34.6	0	0.0	1	2.0	5	10.2
4	17	44	54.3	20	24.6	10	12.3	1	1.2	6	7.4
4	18	27	62.7	6	13.9	4	9.3	1	2.3	5	11.6
4	19	21	65.6	3	9.3	4	12.5	1	3.1	3	9.3
4	20	21	58.3	7	19.4	5	13.8	0	0.0	3	8.3
5	1	24	30.3	28	35.4	15	18.9	2	2.5	10	12.6
5	2	27	43.5	15	24.1	14	22.5	1	1.6	5	8.0
5	3	36	42.3	25	29.4	14	16.4	1	1.1	9	10.5
5	4	18	37.5	17	35.4	4	8.3	0	0.0	9	18.7
5	5	15	27.7	25	46.3	8	14.8	1	1.8	5	9.2
5	6	18	38.3	16	34.0	5	10.6	0	0.0	8	17.0
5	7	30	62.5	6	12.5	8	16.6	0	0.0	4	8.3
5	8	37	54.4	10	14.7	14	20.5	1	1.4	6	8.8
5	9	41	45.0	33	36.2	9	9.8	1	1.1	7	7.6
5	10	39	51.3	17	22.3	9	11.8	3	3.9	8	10.5
5	11	37	56.0	15	22.7	7	10.6	1	1.5	6	9.0
5	12	32	47.0	20	29.4	8	11.7	1	1.4	7	10.2
5	13	12	70.5	2	11.7	0	0.0	0	0.0	3	17.6
5	14	14	46.6	8	26.6	3	10.0	1	3.3	4	13.3
5	15	37	58.7	9	14.2	11	17.4	1	1.5	5	7.9
5	16	49	57.6	19	22.3	10	11.7	1	1.1	6	7.0
5	17	26	59.0	9	20.4	3	6.8	2	4.5	4	9.0
5	18	23	45.1	16	31.3	5	9.8	1	1.9	6	11.7
5	19	69	70.4	17	17.3	0	0.0	3	3.0	9	9.1
5	20	26	44.8	20	34.4	4	6.9	0	0.0	8	13.7

Table D4-5. Numbers of taxa occurring in infaunal samples collected during the December 1997 Survey 2 in the sand resource areas offshore Alabama.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%
1	1	18	50.0	2	5.5	12	33.3	1	2.7	3	8.3
1	2	18	38.3	8	17.0	17	36.1	1	2.1	3	6.3
1	3	23	41.0	11	19.6	18	32.1	2	3.5	2	3.5
1	4	35	46.0	16	21.0	16	21.0	4	5.2	5	6.5
1	5	31	50.8	8	13.1	16	26.2	2	3.2	4	6.5
1	6	22	36.0	16	26.2	18	29.5	2	3.2	3	4.9
1	7	23	43.4	12	22.6	14	26.4	2	3.7	2	3.7
1	8	23	35.9	15	23.4	23	35.9	1	1.5	2	3.1
1	9	21	38.1	12	21.8	17	30.9	3	5.4	2	3.6
1	10	28	51.8	12	22.2	11	20.3	1	1.8	2	3.7
1	11	32	36.7	25	28.7	25	28.7	2	2.3	3	3.4
1	12	29	46.7	12	19.3	16	25.8	2	3.2	3	4.8
1	13	23	41.8	12	21.8	14	25.4	3	5.4	3	5.4
1	14	33	52.3	11	17.4	14	22.2	1	1.5	4	6.3
1	15	31	38.7	23	28.7	16	20.0	3	3.7	7	8.7
1	16	28	44.4	14	22.2	14	22.2	2	3.1	5	7.9
1	17	39	50.0	12	15.3	22	28.2	0	0.0	5	6.4
1	18	58	53.2	21	19.2	25	22.9	0	0.0	5	4.5
1	19	64	55.1	15	12.9	31	26.7	1	0.8	5	4.3
1	20	38	60.3	8	12.7	12	19.0	2	3.1	3	4.7
2	1	44	50.0	15	17.0	18	20.4	2	2.2	9	10.2
2	2	20	58.8	7	20.5	5	14.7	1	2.9	1	2.9
2	3	27	57.4	6	12.7	8	17.0	0	0.0	6	12.7
2	4	20	57.1	7	20.0	5	14.2	2	5.7	1	2.8
2	5	23	52.2	10	22.7	8	18.1	1	2.2	2	4.5
2	6	31	50.0	13	20.9	13	20.9	1	1.6	4	6.4
2	7	31	53.4	11	18.9	11	18.9	1	1.7	4	6.9
2	8	31	52.5	9	15.2	13	22.0	2	3.3	4	6.7
2	9	29	50.8	13	22.8	10	17.5	2	3.5	3	5.2
2	10	28	46.6	15	25.0	11	18.3	2	3.3	4	6.6
2	11	19	45.2	10	23.8	9	21.4	2	4.7	2	4.7
2	12	31	44.9	14	20.2	19	27.5	2	2.9	3	4.3
2	13	33	39.2	22	26.1	21	25.0	3	3.5	5	5.9
2	14	8	30.7	7	26.9	8	30.7	1	3.8	2	7.6
2	15	24	53.3	10	22.2	7	15.5	1	2.2	3	6.6

Table D4-5. Continued.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%
2	16	42	54.5	14	18.1	13	16.8	2	2.6	6	7.7
2	17	32	37.6	26	30.5	20	23.5	2	2.3	5	5.8
2	18	25	46.3	16	29.6	7	12.9	2	3.7	4	7.4
2	19	32	45.7	14	20.0	11	15.7	4	5.7	9	12.8
2	20	21	43.7	13	27.0	11	22.9	0	0.0	3	6.2
3	1	14	58.3	5	20.8	1	4.1	0	0.0	4	16.6
3	2	16	43.2	6	16.2	10	27.0	1	2.7	4	10.8
3	3	16	36.3	14	31.8	10	22.7	1	2.2	3	6.8
3	4	19	43.1	11	25.0	6	13.6	1	2.2	7	15.9
3	5	23	44.2	14	26.9	10	19.2	1	1.9	4	7.6
3	6	22	53.6	9	21.9	7	17.0	0	0.0	3	7.3
3	7	20	45.4	11	25.0	9	20.4	1	2.2	3	6.8
3	8	24	51.0	11	23.4	8	17.0	1	2.1	3	6.3
3	9	23	52.2	8	18.1	8	18.1	1	2.2	4	9.0
3	10	21	50.0	6	14.2	12	28.5	1	2.3	2	4.7
3	11	26	55.3	8	17.0	7	14.8	0	0.0	6	12.7
3	12	18	46.1	8	20.5	7	17.9	1	2.5	5	12.8
3	13	23	43.4	11	20.7	11	20.7	1	1.8	7	13.2
3	14	15	39.4	8	21.0	8	21.0	0	0.0	7	18.4
3	15	18	37.5	18	37.5	8	16.6	0	0.0	4	8.3
3	16	26	52.0	14	28.0	6	12.0	0	0.0	4	8.0
3	17	31	43.6	21	29.5	14	19.7	1	1.4	4	5.6
3	18	31	46.9	16	24.2	11	16.6	2	3.0	6	9.0
3	19	25	47.1	15	28.3	10	18.8	2	3.7	1	1.8
3	20	21	33.8	18	29.0	17	27.4	1	1.6	5	8.0
4	1	7	30.4	6	26.0	8	34.7	1	4.3	1	4.3
4	2	12	50.0	3	12.5	6	25.0	0	0.0	3	12.5
4	3	9	30.0	8	26.6	9	30.0	1	3.3	3	10.0
4	4	21	53.8	7	17.9	5	12.8	1	2.5	5	12.8
4	5	18	58.0	1	3.2	5	16.1	2	6.4	5	16.1
4	6	13	39.3	8	24.2	6	18.1	2	6.0	4	12.1
4	7	17	44.7	3	7.8	10	26.3	2	5.2	6	15.7
4	8	10	52.6	2	10.5	3	15.7	1	5.2	3	15.7
4	9	21	61.7	5	14.7	6	17.6	0	0.0	2	5.8
4	10	23	56.1	7	17.0	4	9.7	1	2.4	6	14.6
4	11	19	52.7	8	22.2	6	16.6	0	0.0	3	8.3
4	12	22	56.4	6	15.3	7	17.9	0	0.0	4	10.2

Table D4-5. Continued.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%	Total Taxa	%
4	13	19	57.5	6	18.1	4	12.1	0	0.0	4	12.1
4	14	13	72.2	1	5.5	0	0.0	0	0.0	4	22.2
4	15	19	39.5	14	29.1	10	20.8	1	2.0	4	8.3
4	16	18	54.5	6	18.1	5	15.1	0	0.0	4	12.1
4	17	53	70.6	9	12.0	6	8.0	1	1.3	6	8.0
4	18	25	67.5	1	2.7	5	13.5	0	0.0	6	16.2
4	19	19	48.7	7	17.9	8	20.5	1	2.5	4	10.2
4	20	21	77.7	1	3.7	1	3.7	0	0.0	4	14.8
5	1	22	59.4	5	13.5	5	13.5	1	2.7	4	10.8
5	2	11	68.7	1	6.2	1	6.2	0	0.0	3	18.7
5	3	6	40.0	4	26.6	2	13.3	0	0.0	3	20.0
5	4	8	38.1	6	28.5	3	14.2	0	0.0	4	19.0
5	5	7	28.0	12	48.0	2	8.0	0	0.0	4	16.0
5	6	23	53.4	7	16.2	6	13.9	0	0.0	7	16.2
5	7	17	51.5	8	24.2	4	12.1	1	3.0	3	9.0
5	8	17	58.6	4	13.7	3	10.3	1	3.4	4	13.7
5	9	13	36.1	12	33.3	6	16.6	1	2.7	4	11.1
5	10	19	67.8	1	3.5	2	7.1	1	3.5	5	17.8
5	11	20	62.5	4	12.5	2	6.2	1	3.1	5	15.6
5	12	26	70.2	2	5.4	3	8.1	1	2.7	5	13.5
5	13	8	40.0	5	25.0	3	15.0	0	0.0	4	20.0
5	14	13	52.0	3	12.0	3	12.0	1	4.0	5	20.0
5	15	45	67.1	9	13.4	6	8.9	2	2.9	5	7.4
5	16	29	52.7	13	23.6	7	12.7	0	0.0	6	10.9
5	17	38	70.3	2	3.7	9	16.6	0	0.0	5	9.2
5	18	33	55.9	14	23.7	5	8.4	1	1.6	6	10.1
5	19	32	54.2	15	25.4	6	10.1	1	1.6	5	8.4
5	20	16	55.1	6	20.6	3	10.3	0	0.0	4	13.7

Table D4-6. Numbers of individuals occurring in infaunal samples collected during the May 1997 Survey 1 in the five sand resource areas offshore Alabama.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%
1	1	124	42.7	132	45.5	23	7.9	1	0.30	10	3.4
1	2	105	30.0	131	37.4	103	29.4	2	0.50	9	2.5
1	3	148	11.1	1109	83.2	55	4.1	11	0.80	9	0.6
1	4	192	32.4	329	55.5	34	5.7	0	0.00	37	6.2
1	5	81	22.7	209	58.7	65	18.2	1	0.20	0	0.0
1	6	84	27.0	170	54.6	45	14.4	6	1.90	6	1.9
1	7	107	11.3	759	80.7	53	5.6	12	1.20	9	0.9
1	8	136	13.7	752	76.1	72	7.2	5	0.50	23	2.3
1	9	137	25.3	317	58.7	68	12.5	5	0.90	13	2.4
1	10	111	10.1	879	80.0	84	7.6	10	0.90	14	1.2
1	11	155	10.6	1221	83.9	60	4.1	3	0.20	15	1.0
1	12	117	21.8	357	66.6	47	8.7	4	0.70	11	2.0
1	13	53	23.1	140	61.1	26	11.3	7	3.00	3	1.3
1	14	181	18.1	741	74.1	61	6.1	2	0.20	15	1.5
1	15	192	13.4	1093	76.3	108	7.5	2	0.10	37	2.5
1	16	168	8.2	1789	87.2	56	2.7	10	0.40	27	1.3
1	17	174	17.2	733	72.6	88	8.7	4	0.40	10	0.9
1	18	179	52.9	97	28.7	50	14.7	0	0.00	12	3.5
1	19	277	46.5	248	41.6	38	6.3	6	1.00	26	4.3
1	20	158	11.9	1065	80.2	93	7.0	3	0.20	8	0.6
2	1	180	25.8	444	63.7	34	4.8	9	1.20	30	4.3
2	2	179	23.4	527	68.9	31	4.0	6	0.70	21	2.7
2	3	149	35.8	172	41.3	76	18.2	1	0.20	18	4.3
2	4	87	26.4	193	58.6	39	11.8	1	0.30	9	2.7
2	5	143	7.2	1759	89.2	56	2.8	4	0.20	9	0.4
2	6	119	9.8	1040	85.7	32	2.6	10	0.80	12	0.9
2	7	177	25.1	471	66.9	17	2.4	3	0.40	36	5.1
2	8	156	18.7	578	69.5	45	5.4	0	0.00	52	6.2
2	9	246	19.9	977	79.0	0	0.0	3	0.20	10	0.8
2	10	145	7.7	1662	88.6	47	2.5	4	0.20	16	0.8
2	11	244	13.9	1403	80.0	83	4.7	5	0.20	17	0.9
2	12	288	17.8	1245	77.2	52	3.2	3	0.10	24	1.4
2	13	190	11.9	1328	83.3	50	3.1	1	0.00	24	1.5
2	14	250	16.9	1159	78.4	34	2.3	9	0.60	25	1.6

Table D4-6. Continued.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%
2	15	148	28.9	297	58.1	38	7.4	2	0.30	26	5.0
2	16	108	6.9	1374	88.3	53	3.4	7	0.40	14	0.9
2	17	256	13.2	1565	81.1	76	3.9	3	0.10	29	1.5
2	18	226	16.4	1067	77.8	52	3.7	2	0.10	24	1.7
2	19	338	37.1	408	44.7	0	0.0	12	1.30	153	16.7
2	20	390	43.3	417	46.3	52	5.7	5	0.50	35	3.8
3	1	787	55.7	251	17.7	208	14.7	0	0.00	166	11.7
3	2	124	33.7	167	45.5	61	16.6	0	0.00	15	4.0
3	3	178	23.9	378	50.9	130	17.5	5	0.60	51	6.8
3	4	256	43.6	230	39.1	74	12.6	3	0.50	24	4.0
3	5	185	41.2	195	43.4	58	12.9	0	0.00	11	2.4
3	6	309	44.5	240	34.6	50	7.2	0	0.00	94	13.5
3	7	226	38.1	210	35.4	111	18.7	3	0.50	43	7.2
3	8	216	24.3	546	61.6	87	9.8	3	0.30	34	3.8
3	9	211	30.7	337	49.0	97	14.1	0	0.00	42	6.1
3	10	171	36.3	215	45.6	61	12.9	0	0.00	24	5.1
3	11	224	39.9	179	31.9	103	18.3	0	0.00	55	9.8
3	12	272	34.3	347	43.8	67	8.4	4	0.50	102	12.8
3	13	204	29.5	408	59.0	42	6.0	1	0.10	36	5.2
3	14	186	48.1	89	23.0	56	14.5	0	0.00	55	14.2
3	15	266	44.0	178	29.4	31	5.1	1	0.10	128	21.1
3	16	242	27.3	516	58.2	40	4.5	3	0.30	85	9.5
3	17	181	39.9	194	42.8	35	7.7	2	0.40	41	9.0
3	18	160	14.3	857	76.6	58	5.1	0	0.00	43	3.8
3	19	17	7.0	183	76.2	17	7.0	0	0.00	23	9.5
3	20	85	34.2	106	42.7	27	10.8	0	0.00	30	12.1
4	1	44	25.5	49	28.4	60	34.8	5	2.90	14	8.1
4	2	43	34.6	58	46.7	11	8.8	4	3.20	8	6.4
4	3	66	34.7	38	20.0	32	16.8	5	2.60	49	25.7
4	4	457	73.5	74	11.9	48	7.7	3	0.40	39	6.2
4	5	458	86.7	7	1.3	27	5.1	0	0.00	36	6.8
4	6	119	69.5	14	8.1	14	8.1	1	0.50	23	13.4
4	7	258	81.6	21	6.6	24	7.5	5	1.50	8	2.5
4	8	105	32.7	130	40.5	45	14.0	5	1.50	36	11.2
4	9	417	81.2	17	3.3	61	11.8	1	0.10	17	3.3

Table D4-6. Continued.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%
4	10	253	85.1	15	5.0	14	4.7	0	0.00	15	5.0
4	11	223	88.1	10	3.9	5	1.9	3	1.10	12	4.7
4	12	162	57.4	36	12.7	64	22.7	1	0.30	19	6.7
4	13	283	88.9	13	4.0	8	2.5	0	0.00	14	4.4
4	14	173	90.5	4	2.0	5	2.6	0	0.00	9	4.7
4	15	80	39.4	74	36.4	23	11.3	0	0.00	26	12.8
4	16	143	66.5	43	20.0	0	0.0	2	0.90	27	12.5
4	17	170	47.6	122	34.1	43	12.0	1	0.20	21	5.8
4	18	128	64.9	9	4.5	31	15.7	1	0.50	28	14.2
4	19	210	88.6	6	2.5	12	5.0	3	1.20	6	2.5
4	20	442	75.5	12	2.0	14	2.3	0	0.00	117	20.0
5	1	73	23.1	177	56.0	26	8.2	3	0.90	37	11.7
5	2	123	60.0	22	10.7	31	15.1	1	0.40	28	13.6
5	3	265	48.7	109	20.0	107	19.6	1	0.10	62	11.4
5	4	44	16.8	83	31.8	64	24.5	0	0.00	70	26.8
5	5	46	20.5	148	66.0	10	4.4	1	0.40	19	8.4
5	6	51	35.9	60	42.2	7	4.9	0	0.00	24	16.9
5	7	116	73.4	19	12.0	10	6.3	0	0.00	13	8.2
5	8	107	54.8	39	20.0	37	18.9	1	0.50	11	5.6
5	9	141	29.7	274	57.8	14	2.9	1	0.20	44	9.2
5	10	172	59.1	48	16.4	24	8.2	18	6.10	29	9.9
5	11	83	43.9	29	15.3	43	22.7	3	1.50	31	16.4
5	12	91	45.7	48	24.1	21	10.5	2	1.00	37	18.5
5	13	101	86.3	13	11.1	0	0.0	0	0.00	3	2.5
5	14	111	78.1	12	8.4	4	2.8	1	0.70	14	9.8
5	15	119	57.7	15	7.2	31	15.0	1	0.40	40	19.4
5	16	232	69.6	42	12.6	33	9.9	2	0.60	24	7.2
5	17	152	74.8	22	10.8	9	4.4	3	1.40	17	8.3
5	18	109	65.6	27	16.2	6	3.6	1	0.60	23	13.8
5	19	583	78.4	52	7.0	0	0.0	4	0.50	104	14.0
5	20	62	45.9	32	23.7	5	3.7	0	0.00	36	26.6

Table D4-7. Numbers of individuals occurring in infaunal samples collected during the December 1997 Survey 2 in the five sand resource areas offshore Alabama.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%
1	1	90	52.6	9	5.2	56	32.7	6	3.50	10	5.8
1	2	60	25.5	24	10.2	126	53.6	16	6.80	9	3.8
1	3	94	24.7	132	34.7	134	35.2	12	3.10	8	2.1
1	4	145	35.9	73	18.1	56	13.9	65	16.10	64	15.8
1	5	136	41.3	67	20.3	87	26.4	28	8.50	11	3.3
1	6	67	27.5	57	23.4	97	39.9	15	6.10	7	2.8
1	7	118	18.4	338	52.9	141	22.0	22	3.40	20	3.1
1	8	106	21.5	244	49.6	125	25.4	12	2.40	4	0.8
1	9	139	39.4	101	28.6	88	25.0	20	5.60	4	1.1
1	10	187	36.3	260	50.5	51	9.9	8	1.50	8	1.5
1	11	319	39.0	398	48.6	81	9.9	6	0.70	14	1.7
1	12	134	29.1	166	36.0	136	29.5	13	2.80	11	2.3
1	13	156	41.6	125	33.3	79	21.0	9	2.40	6	1.6
1	14	175	27.9	275	43.9	135	21.5	26	4.10	15	2.4
1	15	91	9.3	773	79.7	77	7.9	14	1.40	14	1.4
1	16	217	11.1	1617	82.7	97	4.9	9	0.40	14	0.7
1	17	212	38.9	227	41.6	93	17.0	0	0.00	13	2.3
1	18	374	59.2	176	27.8	52	8.2	0	0.00	29	4.6
1	19	275	66.5	65	15.7	59	14.2	1	0.20	13	3.1
1	20	252	28.6	525	59.7	88	10.0	4	0.40	10	1.1
2	1	194	35.2	235	42.6	81	14.7	2	0.30	39	7.0
2	2	42	40.7	50	48.5	7	6.8	1	0.90	3	2.9
2	3	126	66.6	33	17.4	16	8.4	0	0.00	14	7.4
2	4	73	48.3	21	13.9	50	33.1	4	2.60	3	1.9
2	5	80	32.0	148	59.2	12	4.8	2	0.80	8	3.2
2	6	121	44.9	116	43.1	22	8.1	1	0.30	9	3.3
2	7	176	28.2	376	60.2	42	6.7	1	0.10	29	4.6
2	8	95	36.6	55	21.2	45	17.3	54	20.80	10	3.8
2	9	148	43.6	163	48.0	21	6.1	4	1.10	3	0.8
2	10	127	34.2	197	53.1	31	8.3	7	1.80	9	2.4
2	11	95	41.8	97	42.7	23	10.1	9	3.90	3	1.3
2	12	170	29.8	271	47.6	103	18.1	2	0.30	23	4.0
2	13	172	45.3	135	35.6	43	11.3	6	1.50	23	6.0

Table D4-7. Continued.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%
2	14	13	9.0	37	25.6	39	27.0	21	14.50	34	23.6
2	15	112	36.7	165	54.1	17	5.5	2	0.60	9	2.9
2	16	320	58.0	146	26.5	63	11.4	2	0.30	20	3.6
2	17	229	27.8	479	58.2	83	10.1	13	1.50	18	2.1
2	18	93	35.7	131	50.3	24	9.2	4	1.50	8	3.0
2	19	81	27.7	87	29.7	24	8.2	67	22.90	33	11.3
2	20	103	43.2	104	43.7	16	6.7	0	0.00	15	6.3
3	1	58	75.3	10	12.9	1	1.3	0	0.00	8	10.3
3	2	33	38.8	23	27.0	21	24.7	1	1.10	7	8.2
3	3	71	30.4	74	31.7	63	27.0	9	3.80	16	6.8
3	4	101	43.1	40	17.0	35	14.9	39	16.60	19	8.1
3	5	69	44.5	43	27.7	33	21.2	1	0.60	9	5.8
3	6	137	75.2	27	14.8	14	7.6	0	0.00	4	2.2
3	7	48	46.1	19	18.2	29	27.8	2	1.90	6	5.7
3	8	83	33.6	45	18.2	80	32.3	28	11.30	11	4.4
3	9	68	68.0	16	16.0	9	9.0	1	1.00	6	6.0
3	10	56	37.3	37	24.6	49	32.6	2	1.30	6	4.0
3	11	99	47.6	77	37.0	19	9.1	0	0.00	13	6.2
3	12	79	63.2	25	20.0	9	7.2	1	0.80	11	8.8
3	13	154	60.6	70	27.5	13	5.1	1	0.30	16	6.3
3	14	37	42.5	27	31.0	14	16.0	0	0.00	9	10.3
3	15	65	54.1	34	28.3	12	10.0	0	0.00	9	7.5
3	16	51	38.9	62	47.3	9	6.8	0	0.00	9	6.8
3	17	79	20.8	221	58.3	36	9.5	25	6.60	18	4.7
3	18	105	39.6	92	34.7	29	10.9	11	4.10	28	10.5
3	19	137	46.9	62	21.2	41	14.0	42	14.30	10	3.4
3	20	105	42.1	102	40.9	24	9.6	1	0.40	17	6.8
4	1	9	6.9	47	36.1	34	26.1	13	10.00	27	20.7
4	2	38	43.6	10	11.4	12	13.7	0	0.00	27	31.0
4	3	55	31.6	13	7.4	19	10.9	2	1.10	85	48.8
4	4	226	73.8	18	5.8	17	5.5	1	0.30	44	14.3
4	5	55	51.4	3	2.8	16	14.9	4	3.70	29	27.1
4	6	26	34.2	15	19.7	8	10.5	14	18.40	13	17.1
4	7	50	45.4	10	9.0	12	10.9	2	1.80	36	32.7
4	8	41	54.6	2	2.6	6	8.0	2	2.60	24	32.0

Table D4-7. Continued.

Area	Station	Annelida		Mollusca		Arthropoda		Echinodermata		Miscellaneous	
		Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%	Total Individuals	%
4	9	100	80.0	5	4.0	9	7.2	0	0.00	11	8.8
4	10	120	68.9	25	14.3	8	4.6	1	0.50	20	11.4
4	11	77	57.0	18	13.3	18	13.3	0	0.00	22	16.3
4	12	190	84.0	9	3.9	9	3.9	0	0.00	18	7.9
4	13	114	78.6	9	6.2	8	5.5	0	0.00	14	9.6
4	14	52	85.2	5	8.2	0	0.0	0	0.00	4	6.5
4	15	53	25.7	50	24.2	31	15.0	2	0.90	70	33.9
4	16	54	62.7	15	17.4	7	8.1	0	0.00	10	11.6
4	17	241	76.5	32	10.1	13	4.1	2	0.60	27	8.5
4	18	71	60.6	5	4.2	16	13.6	0	0.00	25	21.3
4	19	138	82.6	11	6.5	9	5.3	1	0.60	8	4.7
4	20	61	81.3	1	1.3	2	2.6	0	0.00	11	14.6
5	1	101	78.9	7	5.4	7	5.4	2	1.50	11	8.5
5	2	27	77.1	1	2.8	2	5.7	0	0.00	5	14.2
5	3	93	80.8	5	4.3	2	1.7	0	0.00	15	13.0
5	4	44	34.6	31	24.4	6	4.7	0	0.00	46	36.2
5	5	20	31.7	22	34.9	6	9.5	0	0.00	15	23.8
5	6	130	75.5	13	7.5	8	4.6	0	0.00	21	12.2
5	7	84	77.0	12	11.0	4	3.6	3	2.70	6	5.5
5	8	96	84.9	6	5.3	5	4.4	1	0.80	5	4.4
5	9	22	27.1	29	35.8	7	8.6	10	12.30	13	16.0
5	10	37	44.5	2	2.4	9	10.8	7	8.40	28	33.7
5	11	59	64.8	9	9.8	2	2.2	1	1.10	20	21.9
5	12	91	80.5	3	2.6	7	6.1	1	0.80	11	9.7
5	13	11	22.9	27	56.2	3	6.2	0	0.00	7	14.5
5	14	41	66.1	5	8.0	5	8.0	1	1.60	10	16.1
5	15	173	79.7	12	5.5	9	4.1	4	1.80	19	8.7
5	16	132	61.4	42	19.5	22	10.2	0	0.00	19	8.7
5	17	180	80.0	5	2.2	19	8.4	0	0.00	21	9.3
5	18	119	63.6	35	18.7	14	7.4	1	0.50	18	9.6
5	19	126	62.0	46	22.6	6	2.9	1	0.40	24	11.8
5	20	41	58.5	7	10.0	3	4.2	0	0.00	19	27.1

Table D4-8. Stations groups formed by normal cluster analysis of infaunal samples collected during the May 1997 Survey 1 and December 1997 Survey 2 in the five sand resource areas offshore Alabama.

GROUP A

Survey 1	Area 4	Station 01
Survey 1	Area 4	Station 02
Survey 1	Area 5	Station 07
Survey 1	Area 4	Station 03
Survey 1	Area 4	Station 08
Survey 1	Area 4	Station 06
Survey 1	Area 4	Station 12
Survey 1	Area 4	Station 15
Survey 1	Area 4	Station 07
Survey 1	Area 4	Station 16
Survey 1	Area 5	Station 02
Survey 1	Area 4	Station 04
Survey 1	Area 5	Station 03
Survey 1	Area 5	Station 06
Survey 1	Area 5	Station 01
Survey 1	Area 5	Station 04
Survey 1	Area 5	Station 20

GROUP B

Survey 1	Area 2	Station 19
Survey 1	Area 3	Station 19
Survey 1	Area 1	Station 01
Survey 1	Area 2	Station 07
Survey 1	Area 1	Station 18
Survey 1	Area 2	Station 03
Survey 1	Area 1	Station 13
Survey 1	Area 2	Station 04
Survey 1	Area 1	Station 08
Survey 1	Area 1	Station 09
Survey 1	Area 1	Station 10
Survey 1	Area 1	Station 11
Survey 1	Area 1	Station 15
Survey 1	Area 1	Station 17
Survey 1	Area 2	Station 13
Survey 1	Area 2	Station 02
Survey 1	Area 1	Station 12
Survey 1	Area 1	Station 14
Survey 1	Area 1	Station 20
Survey 1	Area 2	Station 16
Survey 1	Area 2	Station 06
Survey 1	Area 2	Station 09
Survey 1	Area 2	Station 05
Survey 1	Area 2	Station 10
Survey 1	Area 2	Station 11
Survey 1	Area 2	Station 17
Survey 1	Area 1	Station 16
Survey 1	Area 2	Station 12
Survey 1	Area 2	Station 14
Survey 1	Area 2	Station 18
Survey 1	Area 1	Station 19
Survey 1	Area 2	Station 20
Survey 1	Area 3	Station 15
Survey 1	Area 3	Station 02
Survey 1	Area 3	Station 05
Survey 1	Area 3	Station 10
Survey 1	Area 3	Station 09
Survey 1	Area 3	Station 13
Survey 1	Area 3	Station 07
Survey 1	Area 3	Station 11
Survey 1	Area 3	Station 12
Survey 1	Area 3	Station 16
Survey 1	Area 2	Station 15
Survey 1	Area 2	Station 01
Survey 1	Area 3	Station 17
Survey 1	Area 1	Station 03
Survey 1	Area 1	Station 02
Survey 1	Area 1	Station 05
Survey 1	Area 1	Station 06
Survey 1	Area 1	Station 07
Survey 1	Area 3	Station 03
Survey 1	Area 3	Station 04
Survey 1	Area 3	Station 08
Survey 1	Area 2	Station 08
Survey 1	Area 1	Station 04
Survey 1	Area 3	Station 18
Survey 1	Area 3	Station 14
Survey 1	Area 3	Station 01
Survey 1	Area 3	Station 06
Survey 1	Area 3	Station 20
Survey 1	Area 5	Station 09

Table D4-8. Continued.

GROUP C

Survey 2	Area 1	Station 02
Survey 2	Area 1	Station 01
Survey 2	Area 3	Station 02
Survey 2	Area 2	Station 04
Survey 2	Area 3	Station 08
Survey 2	Area 1	Station 09
Survey 2	Area 1	Station 03
Survey 2	Area 1	Station 05
Survey 2	Area 1	Station 11
Survey 2	Area 1	Station 15
Survey 2	Area 1	Station 07
Survey 2	Area 1	Station 06
Survey 2	Area 1	Station 10
Survey 2	Area 1	Station 12
Survey 2	Area 1	Station 14
Survey 2	Area 1	Station 16
Survey 2	Area 1	Station 17
Survey 2	Area 1	Station 20
Survey 2	Area 2	Station 16
Survey 2	Area 2	Station 17
Survey 2	Area 1	Station 08
Survey 2	Area 2	Station 10
Survey 2	Area 1	Station 13
Survey 2	Area 2	Station 09
Survey 2	Area 2	Station 11
Survey 2	Area 2	Station 18
Survey 2	Area 2	Station 08
Survey 2	Area 1	Station 04
Survey 2	Area 2	Station 19
Survey 2	Area 3	Station 18
Survey 2	Area 3	Station 17
Survey 2	Area 3	Station 19
Survey 2	Area 1	Station 19
Survey 2	Area 3	Station 04
Survey 2	Area 3	Station 12
Survey 2	Area 3	Station 06
Survey 2	Area 3	Station 05
Survey 2	Area 3	Station 07
Survey 2	Area 3	Station 10
Survey 2	Area 3	Station 11
Survey 2	Area 2	Station 03
Survey 2	Area 1	Station 18
Survey 2	Area 2	Station 13
Survey 2	Area 2	Station 01
Survey 2	Area 2	Station 07
Survey 2	Area 2	Station 12
Survey 2	Area 2	Station 15
Survey 2	Area 2	Station 05
Survey 2	Area 2	Station 02
Survey 2	Area 3	Station 16
Survey 2	Area 2	Station 20
Survey 2	Area 3	Station 13
Survey 2	Area 2	Station 06
Survey 2	Area 3	Station 20

GROUP D

Survey 2	Area 2	Station 14
Survey 2	Area 3	Station 03
Survey 2	Area 4	Station 01
Survey 2	Area 4	Station 02
Survey 2	Area 4	Station 03
Survey 2	Area 4	Station 08
Survey 2	Area 4	Station 15

Table D4-8. Continued.

GROUP E

Survey 2	Area 5	Station 02
Survey 2	Area 5	Station 10
Survey 1	Area 5	Station 05
Survey 1	Area 5	Station 08
Survey 1	Area 4	Station 05
Survey 1	Area 4	Station 09
Survey 1	Area 4	Station 19
Survey 1	Area 4	Station 20
Survey 1	Area 4	Station 11
Survey 1	Area 5	Station 13
Survey 1	Area 5	Station 14
Survey 1	Area 4	Station 10
Survey 1	Area 4	Station 13
Survey 1	Area 4	Station 14
Survey 1	Area 4	Station 18
Survey 2	Area 4	Station 04
Survey 2	Area 4	Station 18
Survey 2	Area 4	Station 09
Survey 2	Area 4	Station 10
Survey 2	Area 4	Station 11
Survey 2	Area 4	Station 13
Survey 2	Area 4	Station 14
Survey 2	Area 4	Station 19
Survey 2	Area 4	Station 20
Survey 1	Area 5	Station 11
Survey 1	Area 5	Station 15
Survey 1	Area 5	Station 10
Survey 1	Area 5	Station 12
Survey 1	Area 4	Station 17
Survey 1	Area 5	Station 16
Survey 1	Area 5	Station 17
Survey 1	Area 5	Station 18
Survey 2	Area 4	Station 17
Survey 2	Area 5	Station 11
Survey 2	Area 5	Station 14
Survey 2	Area 5	Station 12
Survey 2	Area 5	Station 16
Survey 2	Area 5	Station 17
Survey 2	Area 5	Station 18
Survey 1	Area 5	Station 19
Survey 2	Area 5	Station 07
Survey 2	Area 5	Station 01
Survey 2	Area 5	Station 15
Survey 2	Area 5	Station 19

GROUP F

Survey 2	Area 3	Station 14
Survey 2	Area 3	Station 01
Survey 2	Area 3	Station 15
Survey 2	Area 5	Station 13
Survey 2	Area 4	Station 06
Survey 2	Area 3	Station 09
Survey 2	Area 4	Station 07
Survey 2	Area 4	Station 12
Survey 2	Area 4	Station 16
Survey 2	Area 5	Station 09
Survey 2	Area 5	Station 03
Survey 2	Area 5	Station 04
Survey 2	Area 5	Station 05
Survey 2	Area 5	Station 06
Survey 2	Area 5	Station 08
Survey 2	Area 4	Station 05
Survey 2	Area 5	Station 20

D5. Acoustic Doppler Current Profiler Data

Appendix D5 presents measurements of the spatial and temporal variation of currents in Sand Resource Areas 2 and 4 performed during two field surveys in late May and late September/early October, 1997. The data acquisition program was designed to observe how the current regime varied throughout the areas with the intent of understanding the flow field mechanisms driving sediment transport. The data are presented as vector maps, showing the speed and direction of the velocity vectors displayed as arrows. The length of the arrow represents speed, and the orientation of the arrow represents direction.

A general discussion of the instrumentation and field methods used to collect the data is presented. Discussion of the results was presented previously in the main body of this report: Section 5, Circulation and Sediment Transport Dynamics.

Survey Equipment

The ADCP (Acoustic Doppler Current Profiler) is capable of high-resolution measurements of the spatial structure of current flow beneath the instrument transducer. When mounted to a moving platform such as a small vessel, this method results in a detailed picture of regional current patterns. Repeating transect cycles at regular time intervals throughout a complete tidal cycle offers an unparalleled determination of the temporal variation in current structure in the study area.

The ADCP measures currents using acoustic pulses emitted individually from four angled (at 20° from the vertical) transducers in the instrument. The instrument listens to the backscattered echoes from discrete depth layers in the water column, with the returned echoes, reflected from ambient sound scatters (plankton, debris, sediment, etc.), compared in the frequency domain to the original emitted pulse. The change in frequency (doppler shift) between the emitted versus the reflected pulse is directly proportional to the speed of the water normal to the individual beam. For example, an echo of lower frequency indicates water moving away from the transducer while an echo of higher frequency indicates water moving toward the transducer. By combining the doppler velocity components for at least three of the four directional beams, the current velocities can be transformed to an orthogonal earth coordinate system in terms of east, north, and vertical components of current velocity.

Vertical resolution is gained using a technique called ‘range-gating’. Returning pulses are divided into discrete ‘bins’ based on discrete time intervals following the emission of the original pulse. With knowledge of the speed of sound, the discrete time intervals reflect the range (or depth) of each discrete bin from the transducer face.

The collection of accurate current data with an ADCP requires the removal of the speed of the transducer (mounted to the vessel) from the estimates of current velocity. This is performed by ‘bottom tracking’ or, using the doppler shift to measure simultaneously the velocity of the transducer relative to the bottom. Bottom tracking allows the ADCP to record absolute versus relative velocities beneath the transducer. In addition, the accuracy of the current measurements can be compromised by random errors (or noise) inherent to this technique. Improvements in the accuracy of each measurement are achieved typically by averaging several individual pulses together. These averaged results are termed ‘ensembles’; the more pings used in the average, the lower the standard deviation of the random error.

For this study, the standard deviation (or accuracy) of current estimates (resulting from an ensemble average of 5 individual pulses) was approximately 1.3 cm/sec. Each ensemble took approximately 4 seconds to collect. Averaging parameters resulted in a horizontal resolution of approximately 10-12 meters along the transect line. For example, a transect line was approximately 11 km in length, resulting in approximately 1000 independent velocity profiles per transect. The vertical resolution was set to 1 meter, or one velocity observation per every 1 meter of water depth.

The first measurement bin was centered 2.0 m from the surface, allowing for the transducer draft as well as an appropriate blanking distance between the transducer and the first measurement. The transducer draft was 50 cm below the surface; the blanking distance was set to 1 meter.

Position information was collected using a NorthStar 941DX differential GPS linked to Hypack, an integrated navigation software package running on a PC computer. Position data were read from the device in WGS-84 coordinate system, and transformed on-the-fly to NAD 1983 State Plane Alabama West zone. Position updates were available every 2 seconds, although brief interruptions of position data were experienced when thunderstorms were in the area. These brief losses of position data (less than 10 seconds) did not compromise results. Raw position data was also sent to the ADCP Toshiba laptop to assist in verifying the clock synchronization between the GPS and ADCP.

Survey Methods

The surveys were designed to measure synoptically spatial variations in currents through the resource areas. Some compromise was required between absolute synopticity and adequate spatial coverage. The compromise resulted with survey transects approximating a butterfly pattern, with two parallel lines running cross-shore (longitudinally north-to-south) separated by approximately 3 nautical miles. Two return lines were run diagonally from the (offshore) end of one cross-shore line to the start of the second cross-shore line in the near-shore zone. The intersection of the two diagonal return lines was located in the approximate center of each resource area. The two north-south longitudinal transects were traversed in the offshore-onshore direction, while the two diagonal return lines were run in the onshore-offshore direction.

Each line was completed in approximately one hour, with an entire four-line cycle traversed in four hours. The transect schedule allowed for three complete cycles to be completed for Resource Area 2, and two and a half cycles to be completed within Resource Area 4. The intersection point (center of the resource area) was passed at twice the cycle frequency, resulting in six (6) measurements in the center of the site (once every two hours) per survey. This survey technique provided adequate spatial coverage of the sites with reasonable synopticity, and was designed with a cross-shore bias to more adequately observe the more dominant along-shore flow processes.

Data Processing and Quality

The survey results in two types of data: current velocity and vessel position. The ADCP data for a single transect consisted of velocity components at every depth bin for every ensemble. In addition, the raw ADCP (binary) files also include ancillary data such as correlation magnitudes, echo amplitudes, percent good pings, and error velocities (among others). These data can be used to recalculate velocities, as well as assure quality of the results. Each ensemble also includes header information such as the ensemble number, time of the ensemble, and surface water temperature.

Position data were recorded as time-northing-easting within Hypack. The northing-easting pairs were referenced to NAD83 State Plane coordinate system, Alabama West zone.

The raw ADCP data were converted to ASCII files using RDI's proprietary software to a user-defined data format. For this program, the two (2) earth-referenced velocity components (Veast and Vnorth) were reported, as well as current speed, current direction, and error velocity. The conversion process outputs each ensemble profile as a function of depth (i.e. Veast vs. depth, Vnorth vs. depth, etc.). The entire data file represents each ensemble profile along the transect. Approximately 1000 individual profiles were obtained per transect. Twelve (12) transects were

completed each survey day, resulting approximately 12,000 independent current profiles through the study area per day.

The ensemble profiles must be merged with the position data to assign a unique x-y pair to every ensemble. This merging operation is done using time and GPS position as the common link between the Hypack and ADCP data files. By searching for the unique position at a specific time for each of the data sets, an accurate x-y location was assigned to each ensemble.

The error velocity column is an indicator of the quality of the data. Error velocities are higher typically in the bottom bins than in the mid-water bins. The bottom bins can become contaminated by the higher amplitude echoes reflected near the ocean bottom and should be discounted.

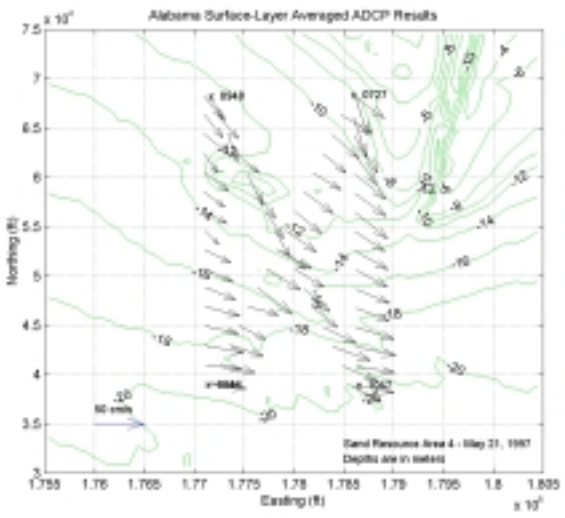
Plots of error velocity showed the data quality was high. However, there do exist portions of each data file that tend to have higher noise levels than others. These elevated noise levels can results from two sources: measurement noise and/or environmental noise. Measurement noise can be due to unwanted vessel motions (for example vessel pitch and roll in the waves), cavitation near the transducer head, or contamination due to vessel wake. It is difficult in practice to distinguish between noise sources. Plots of error velocity are one method of assuring the measurements reflect actual flow conditions and not unwanted platform motions.

Data Presentation

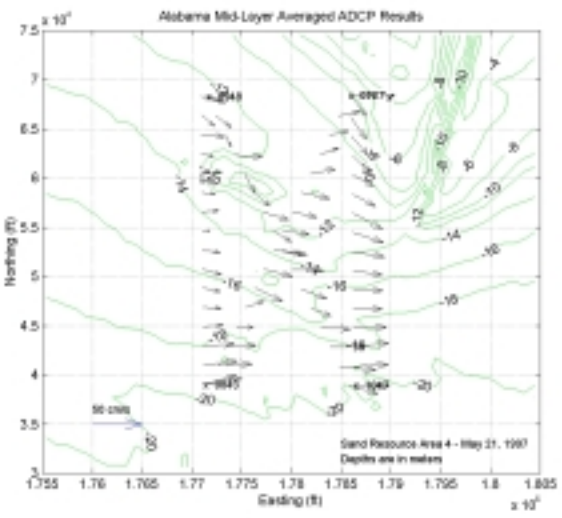
The flow vectors are presented as vector maps through the survey area. The vector maps represent spatially-averaged current velocities at specific locations within the survey domain. The velocity profiles were separated into near-surface, mid-depth and near-bottom layers, and grouped within discrete ‘neighborhoods’ along the transect paths. Each survey transect was divided into 16 segments, with an average velocity value calculated for each transect segment at the three depth layers. Each segment was approximately 1500 feet in length. The resulting vector was located within the center of each segment. The vectors corresponding to a single survey cycle (4 transects) were then displayed on an area map. These vector maps were produced for each of the three depth layers and for each of the three survey cycles. Each survey cycle took approximately four hours to complete. A series of these plots show temporal variation in horizontal and vertical currents during the survey.

Results of the May 21, 1997 survey of sand resource area 4 are presented as the first three pages of maps. The first page presents the surface layer, mid-depth layer, and bottom layer vectors for the first transect cycle that occurred from 0727 hours to 1154 hours. The second page represents the same depth layers for the second transect cycle that occurred from 1157 hours to 1618 hours. The third page of maps represents the final transect cycle from 1621 hours to 2000 hours.

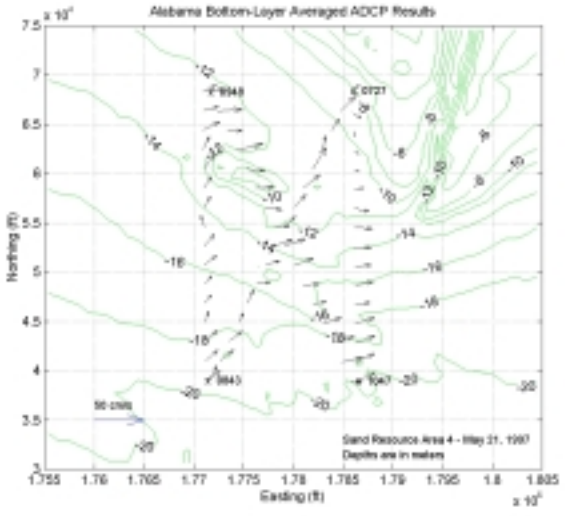
Results from the May 22, 1997 survey of sand resource site 2 are presented next in a similar format, followed by results from the September 30, 1997 survey of sand resource area 4 and finally, results of the October 1, 1997 survey of sand resource area 2.



Surface Layer

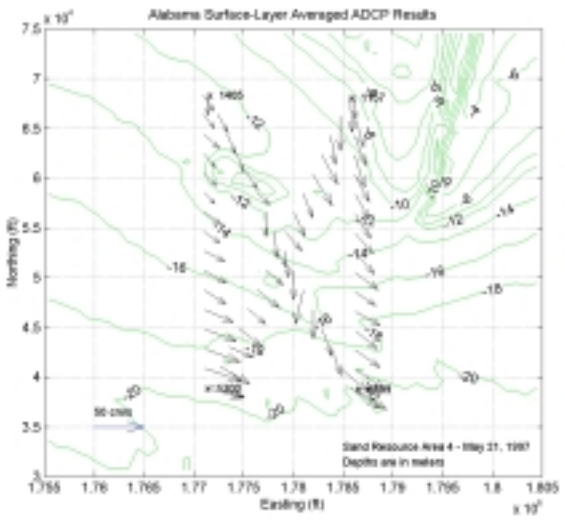


Middle Layer

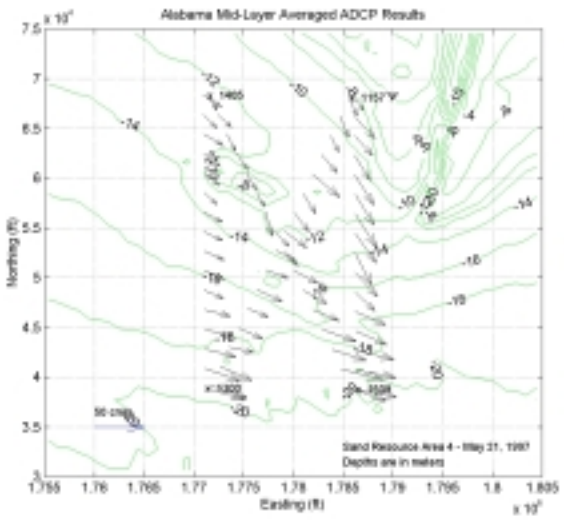


Bottom Layer

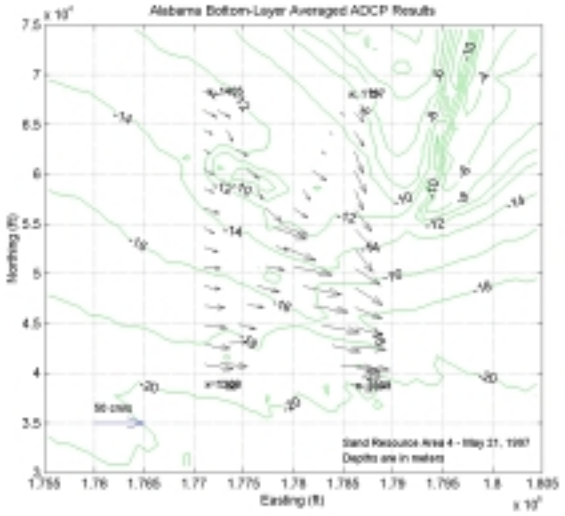
Figure D5-1. ADCP Survey transect cycle 1 for all layers in Sand Resource Area 4, May 21, 1997, 0727 – 1154 hours.



Surface Layer

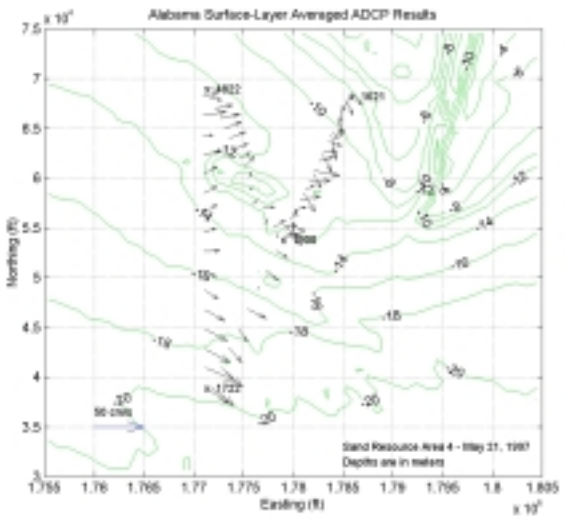


Middle Layer

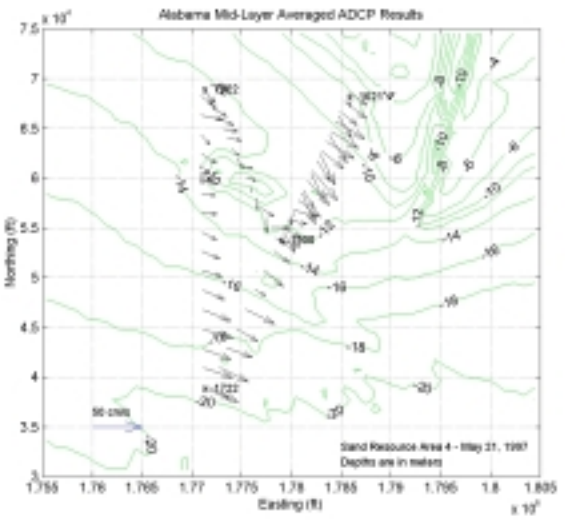


Bottom Layer

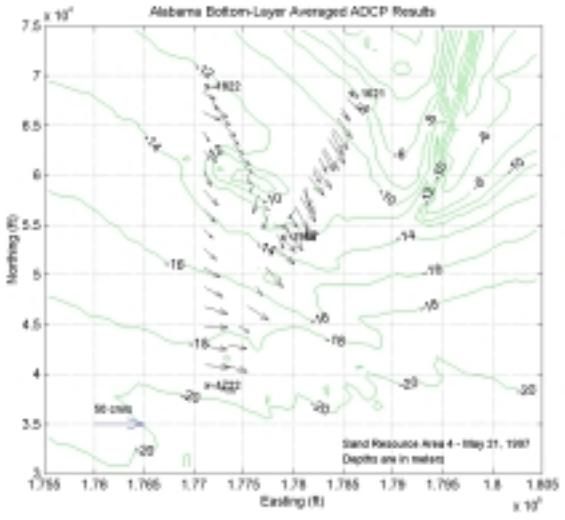
Figure D5-2. ADCP Survey transect cycle 2 for all layers in Sand Resource Area 4, May 21, 1997, 1157 - 1618 hours.



Surface Layer

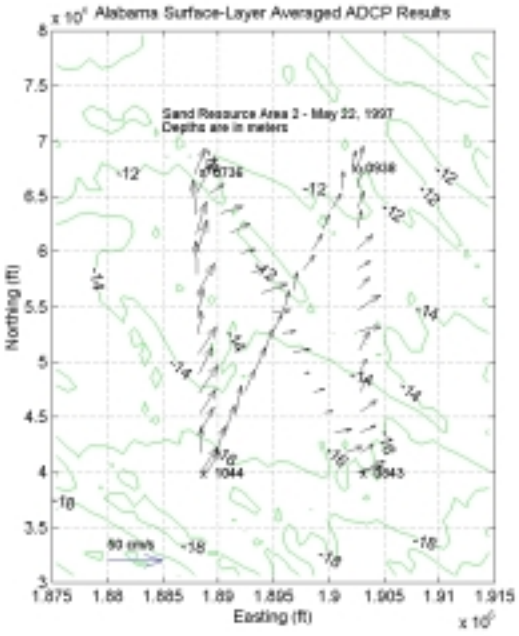


Middle Layer

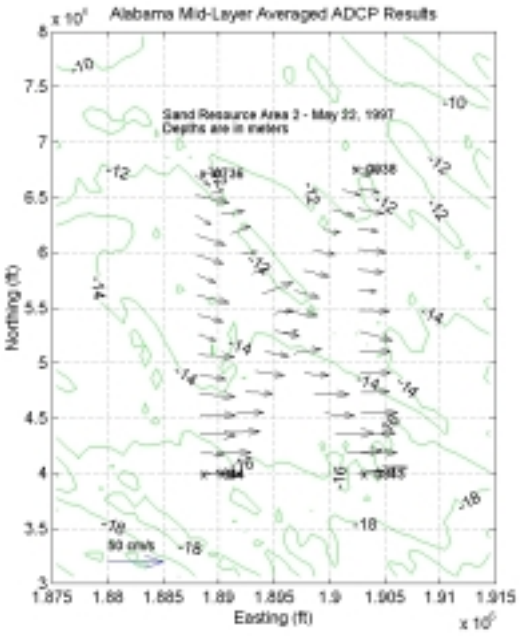


Bottom Layer

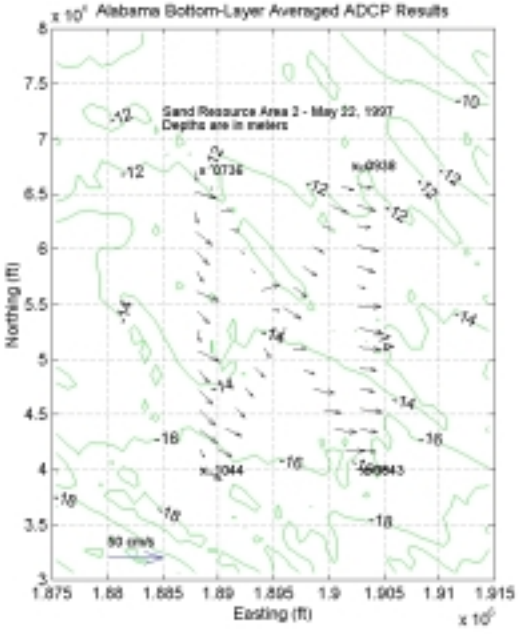
Figure D5-3. ADCP Survey transect cycle 3 for all layers in Sand Resource Area 4, May 21, 1997, 1621 - 2000 hours.



Surface Layer

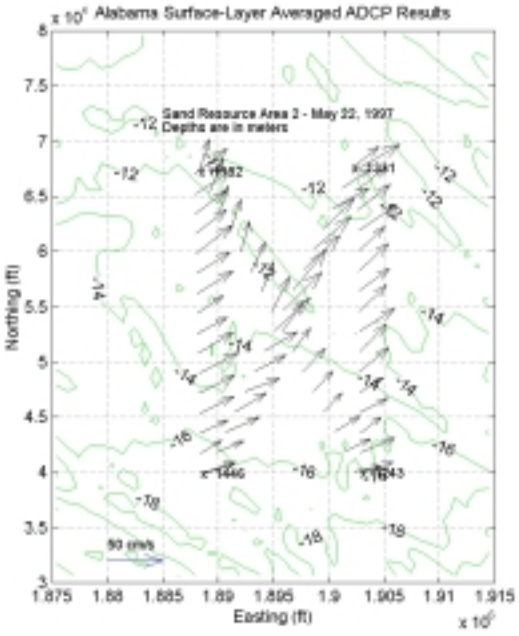


Middle Layer

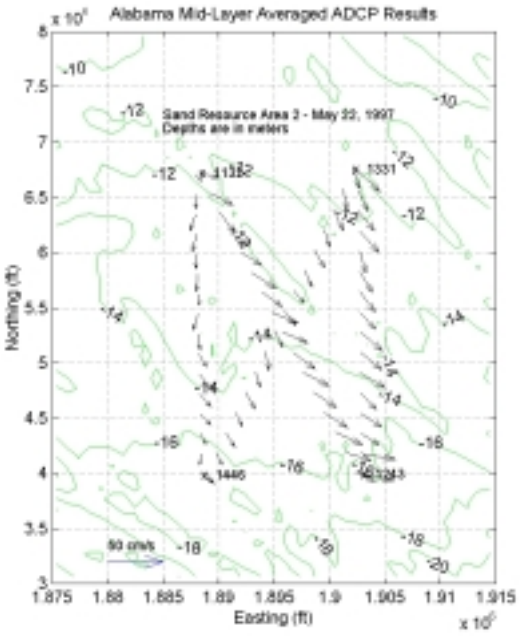


Bottom Layer

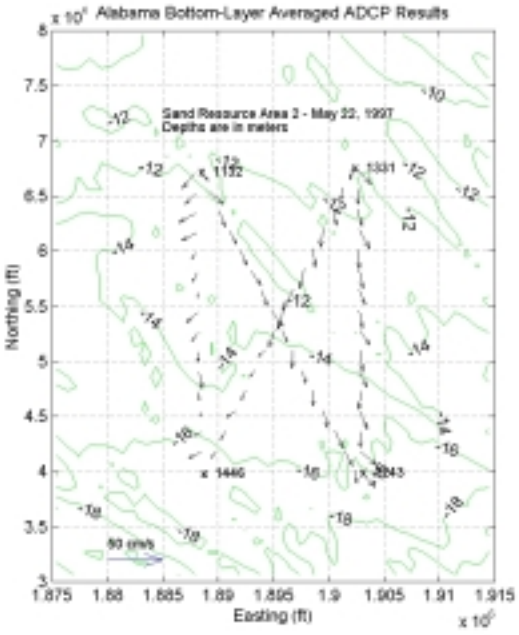
Figure D5-4. ADCP Survey transect cycle 1 for all layers in Sand Resource Area 2, May 22, 1997, 0727 – 1129 hours.



Surface Layer

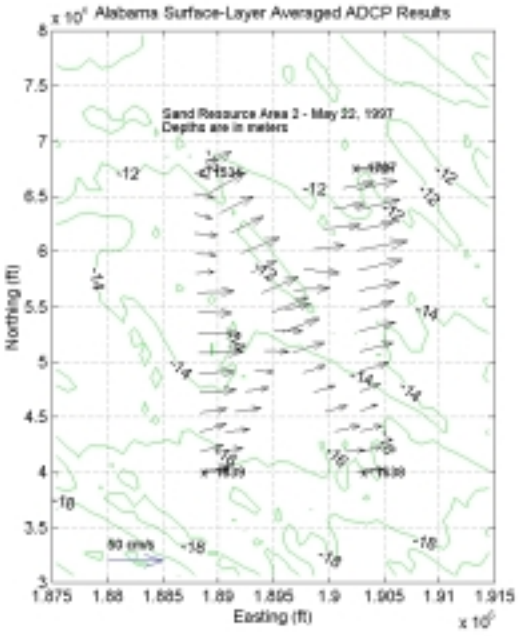


Middle Layer

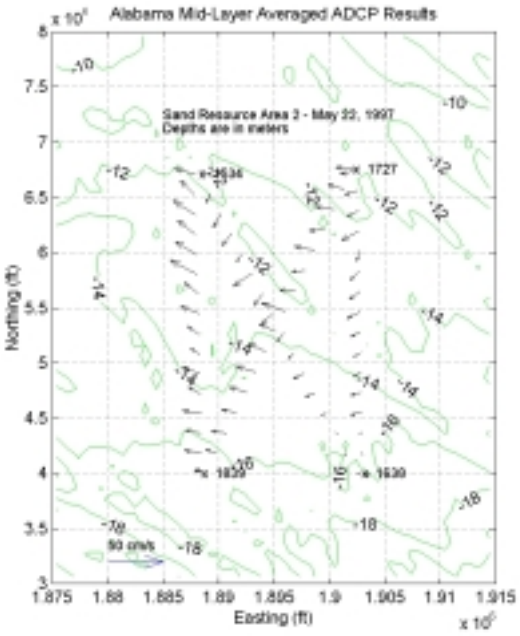


Bottom Layer

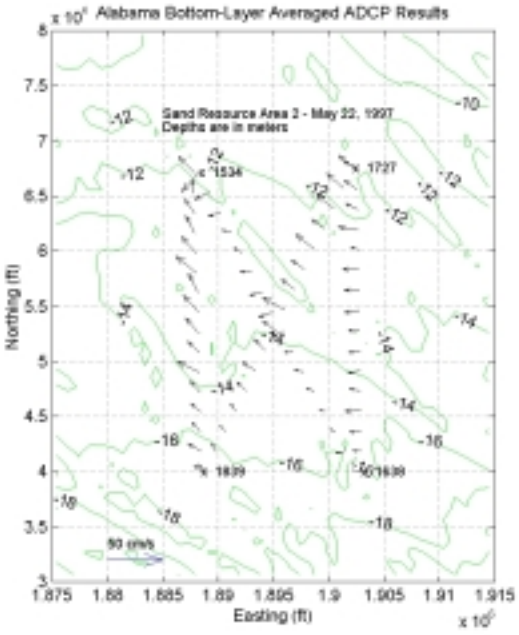
Figure D5-5. ADCP Survey transect cycle 2 for all layers in Sand Resource Area 2, May 22, 1997, 1132 - 1531 hours.



Surface Layer

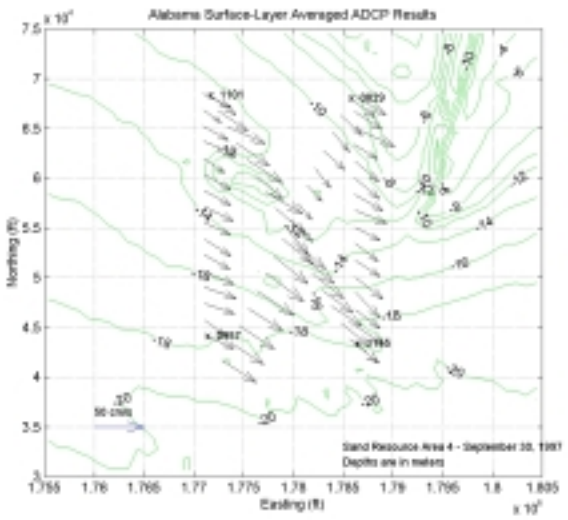


Middle Layer

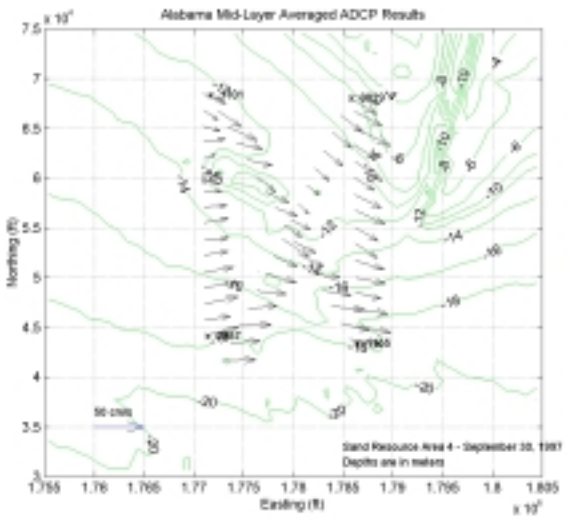


Bottom Layer

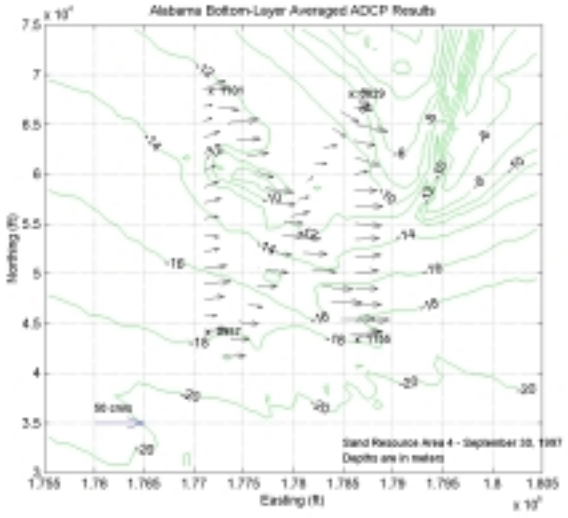
Figure D5-6. ADCP Survey transect cycle 3 for all layers in Sand Resource Area 2, May 22, 1997, 1534 - 1939 hours.



Surface Layer

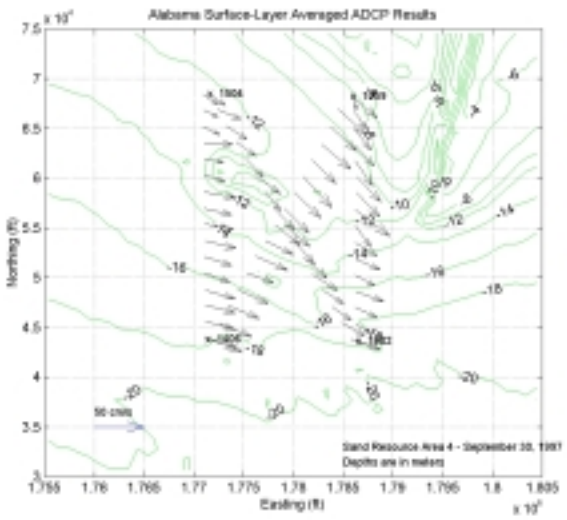


Middle Layer

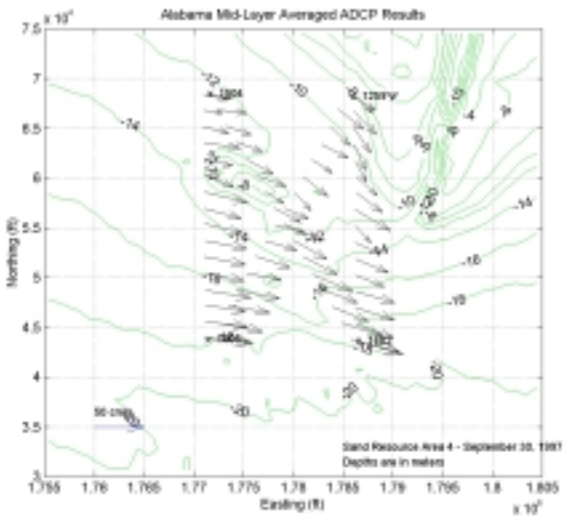


Bottom Layer

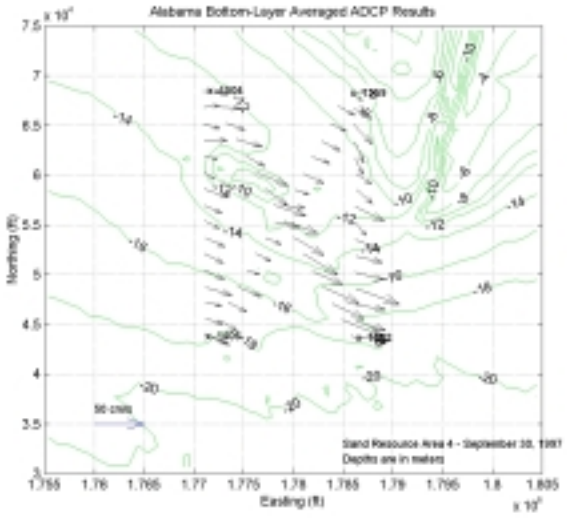
Figure D5-7. ADCP Survey transect cycle 1 for all layers in Sand Resource Area 4, September 30, 1997, 0829 – 1256 hours.



Surface Layer

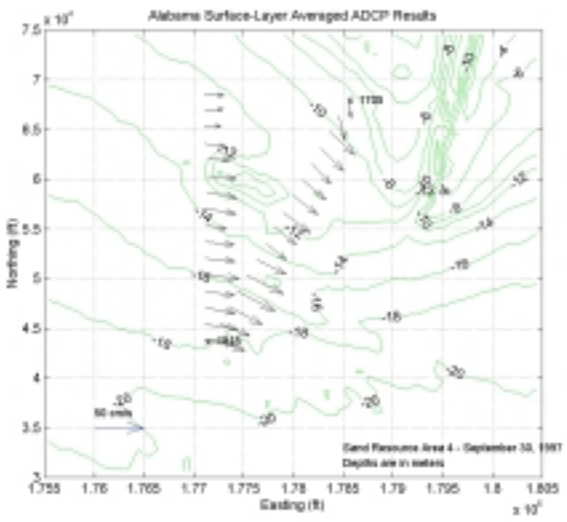


Middle Layer

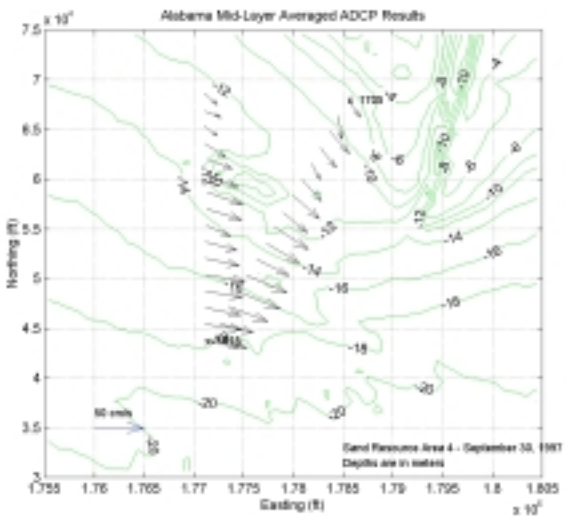


Bottom Layer

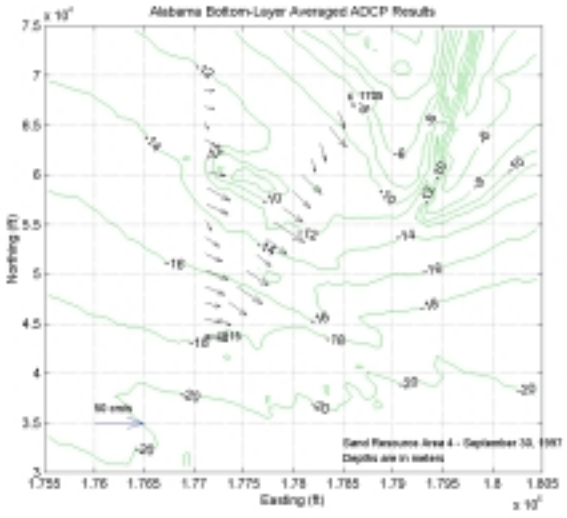
Figure D5-8. ADCP Survey transect cycle 2 for all layers in Sand Resource Area 4, September 30, 1997, 1259 – 1702 hours.



Surface Layer

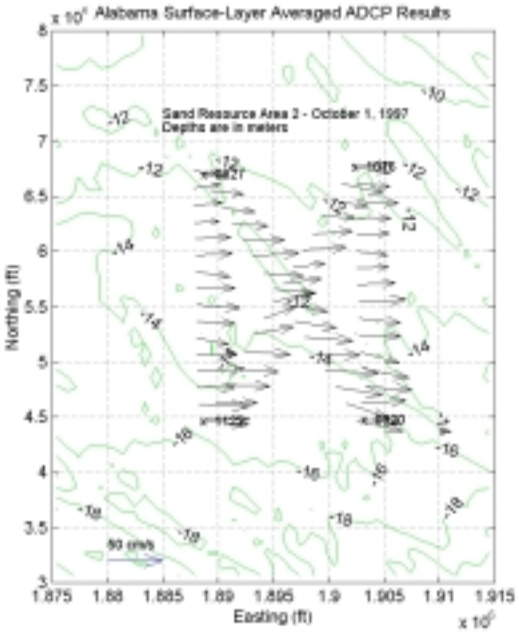


Middle Layer

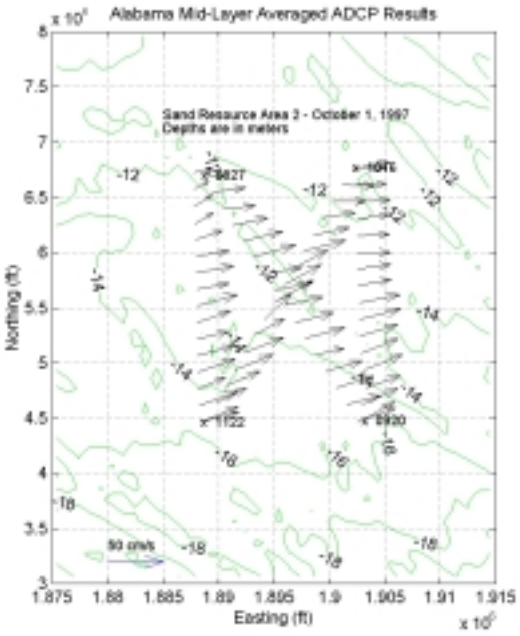


Bottom Layer

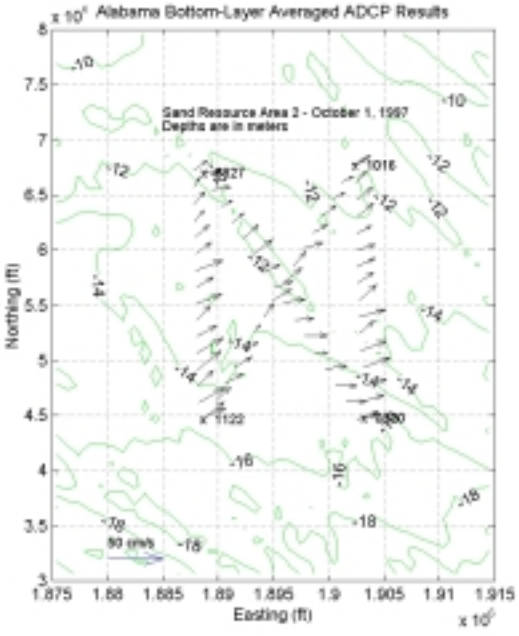
Figure D5-9. ADCP Survey transect cycle 3 for all layers in Sand Resource Area 4, September 30, 1997, 1705 – 1954 hours.



Surface Layer

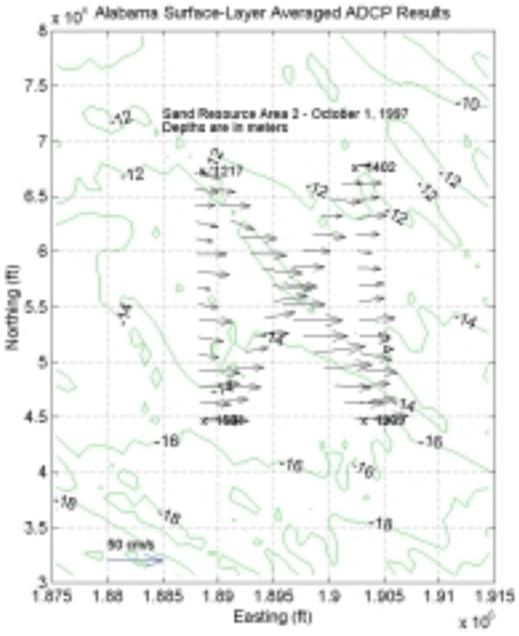


Middle Layer

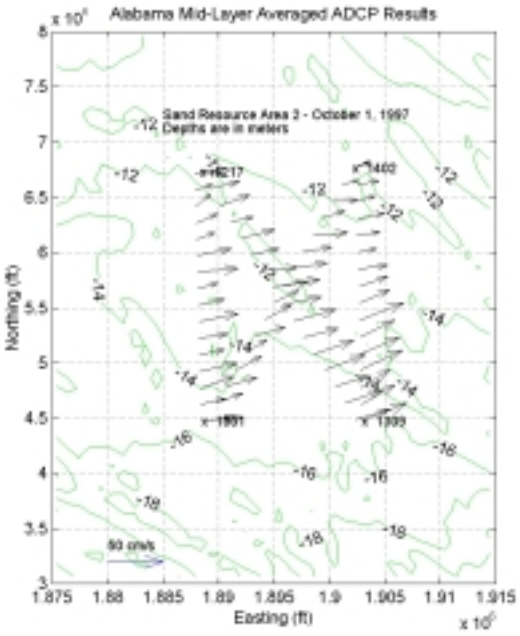


Bottom Layer

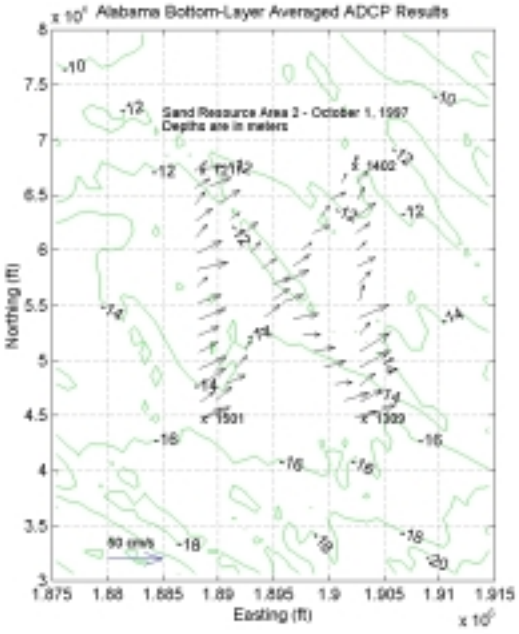
Figure D5-10. ADCP Survey transect cycle 1 for all layers in Sand Resource Area 2, October 1, 1997, 0827 – 1214 hours.



Surface Layer

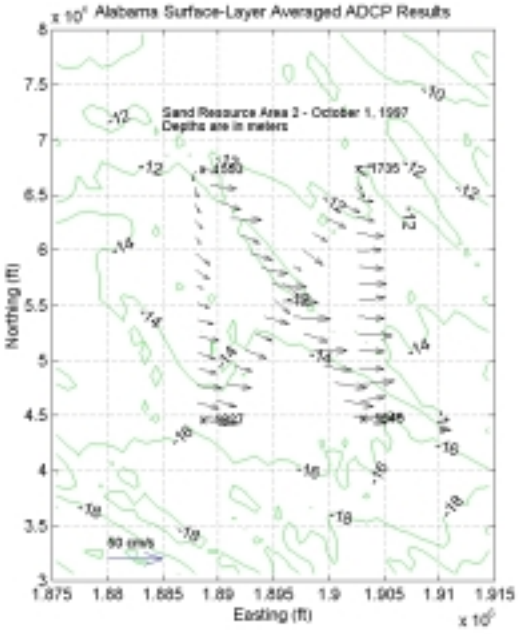


Middle Layer

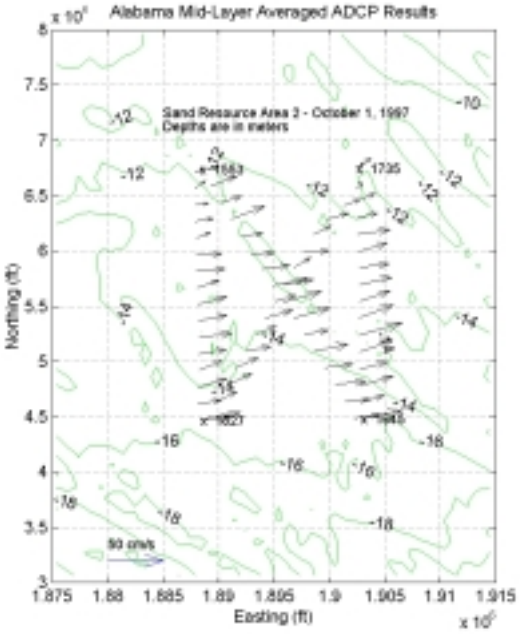


Bottom Layer

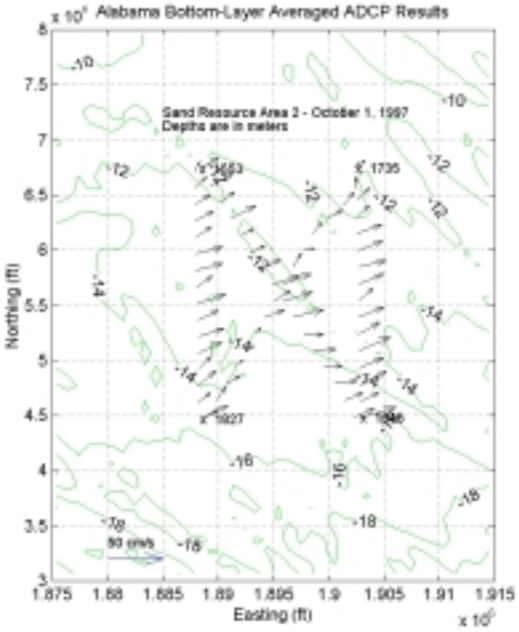
Figure D5-11. ADCP Survey transect cycle 2 for all layers in Sand Resource Area 2, October 1, 1997, 1217 - 1550 hours.



Surface Layer



Middle Layer



Bottom Layer

Figure D5-12. ADCP Survey transect cycle 3 for all layers in Sand Resource Area 2, October 1, 1997, 1553 - 1927 hours.