VOLUME II

APPENDICES M - U

for

FINAL ENGINEERING REPORT

ISLES DERNIERES RESTORATION PROJECT:

PHASE 0 - EASTERN ISLE DERNIERE and PHASE 1 - TRINITY ISLAND

Contract No. 25085-94-02

November 19, 1993
Revised: March 31, 1994

Prepared For

LOUISIANA DEPARTMENT OF NATURAL RESOURCES

T. BAKER SMITH & SON, INC.
Civil Engineers, Land Surveyors &
Environmental Services

APPENDIX M

BOOK 081

T. BAKER SMITH & SON, INC.

EAST ISLE DERNIERES RESTORATION PROJECT

PHASE 0

JOB NO. 1136

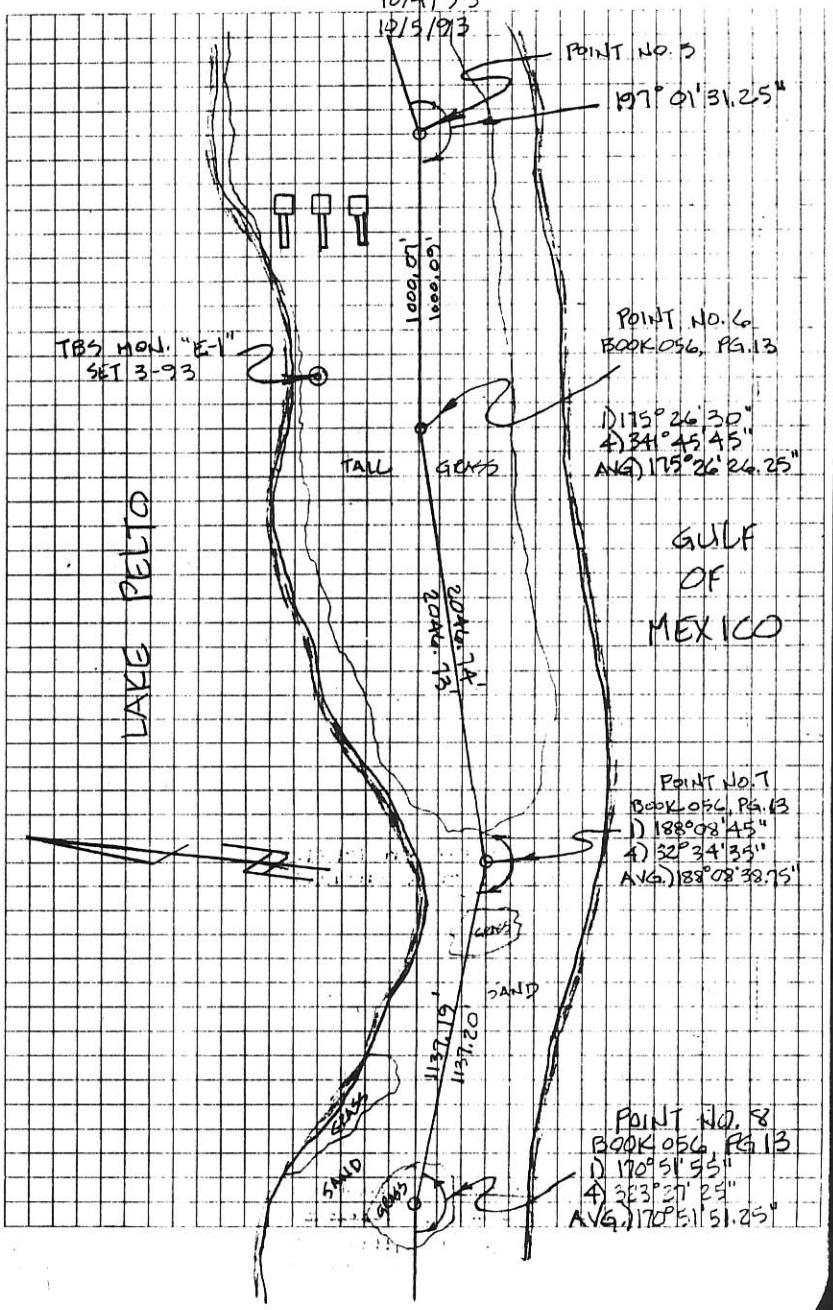
BOOK 0516, PG. 2

ESTABLISH BASE LINE FOR X-SECTIONS

STA.	ANGLE	FIELD COORDS.	ADJUSTED CALC. COORDS.	REMARKS
TRAV. 21+83.63=0+00	∡RT. 197°01'31.25"			CON'T. FROM PG. 2 3/4" G.I.P
FLD. = S82°28'38"W 1000.08' ADJ. = S82°28'33"W 1000.10'				
TRAV. 10+00.08=0+00	∡RT. 175°26'26.25"	~~Y=144,801.305~~ ~~X=2,217,918.412~~ Y=144,801.542 X=2,217,919.025	~~Y=144,800.099~~ ~~X=2,217,918.575~~ Y=144,800.725 X=2,217,919.629	FR. 1"X2" HUB 0.7' RT. SET 3/4" G.I.P. (12" ABOVE SAND)
FIELD = S17°55'04"W - 2046.74' ADJ. = S17°54'49"W - 2046.78'				
TRAV. 20+46.74=0+00	∡RT. 188°08'38.75"	~~Y=144,372.992~~ ~~X=2,215,917.021~~ Y=144,372.988 X=2,215,917.654	~~Y=144,371.521~~ ~~X=2,215,917.266~~ Y=144,372.255 X=2,215,918.196	SET 3/4" G.I.P. (12" ABOVE SAND)
FLD. = S86°03'43"W - 1137.20' ADJ. = S86°03'37"W - 1137.23'				
TRAV. 11+37.20=0+00	∡RT. 170°51'51.25"	~~Y=144,294.691~~ ~~X=2,214,783.246~~ Y=144,294.808 X=2,214,783.145	~~Y=144,293.290~~ ~~X=2,214,783.903~~ Y=144,294.121 X=2,214,783.653	FR. 1"X2" HUB 1.2' RT. SET 3/4" G.I.P. (15" ABOVE SAND)

SAME

10/4/93
10/5/93



ESTABLISH BASELINE FOR X-SECTIONS

STA.	ANGLE	FIELD COORDS.	ADJUSTED CALC. COORDS.	REMARKS
TRAV. 11437.20=0+00	∡RT. 170°51'51.25"			CON'T FROM PAGE 3 3/4" G.I.P.
FIELD=S76°55'34"W-1939.30' ~~ADJ.=S76°55'51"W-1939.05'~~ ADJ.=S76°55'20"W-1939.24'				
TRAV. 13739.30=0+00	∡RT 190°31'30"	Y=143,855.991 X=2,212,894.144	~~Y=143,854.339~~ ~~X=2,212,893.860~~ Y=143,855.384 X=2,212,894.593	U.G.C.O.C. MON "R-25"
FIELD=S87°26'45"W 1582.87' ~~ADJ.=S87°26'46"W 1582.84'~~ ADJ.=S87°24'58"W 1582.92'				
TRAV 15482.87=0+00	∡RT. 189°03'15"	~~Y=143,934.000~~ ~~X=2,211,918.563~~ Y=143,785.467 X=2,211,312.845	~~Y=143,984.002~~ ~~X=2,211,312.596~~ Y=143,784.945 X=2,211,313.246	FD. 1"x2" HUB ON PT. SET 3/4" G.I.P.
FIELD=N83°30'00"W-3065.26' ~~ADJ.=N83°29'49"W-3065.10'~~ ADJ.=N83°29'48"W-3065.37'				
TRAV. 30+65.26		~~Y=144,130.907~~ ~~X=2,208,267.007~~ Y=144,132.551 X=2,208,267.896	~~Y=144,131.785~~ ~~X=2,208,267.104~~ Y=144,132.134 X=2,208,267.604	SET 3/4" G.I.P.

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CLEAR & MILD (87°F)

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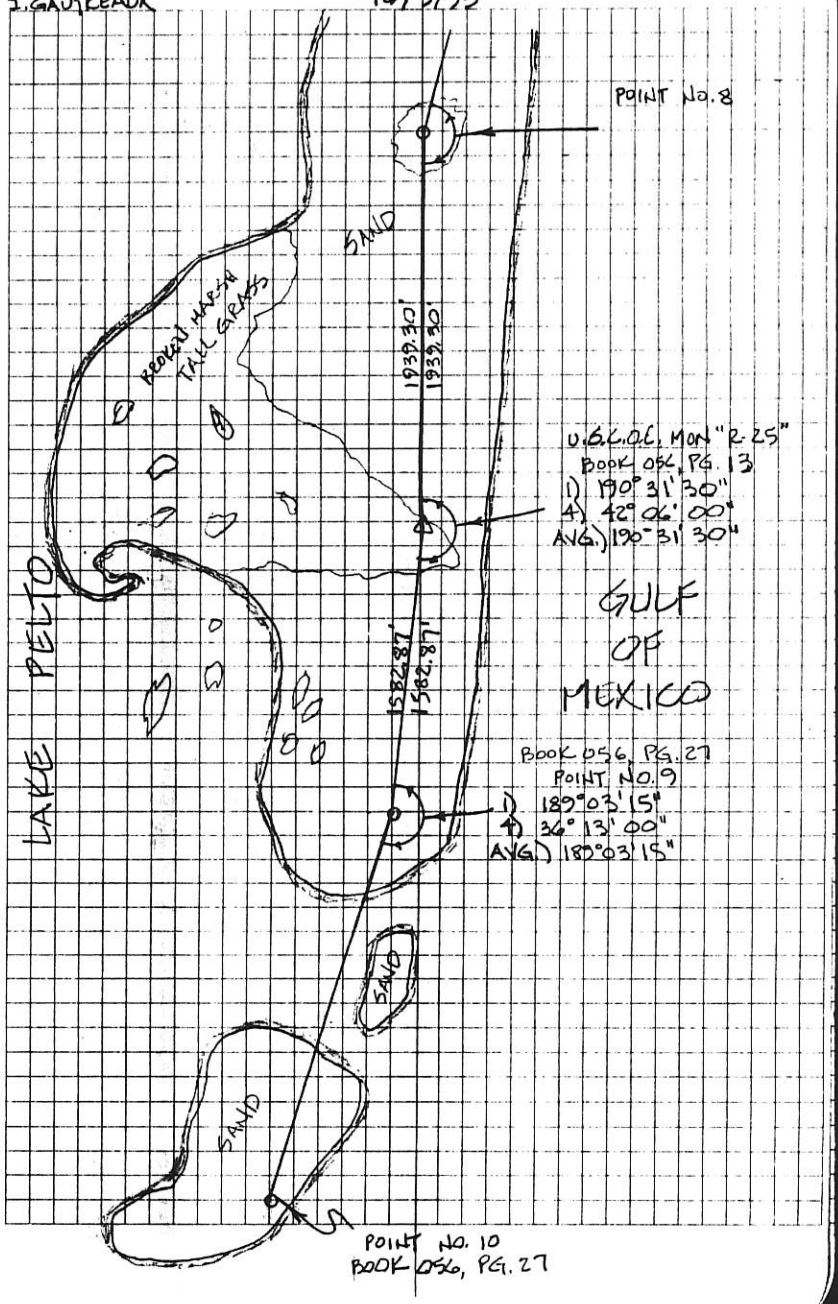
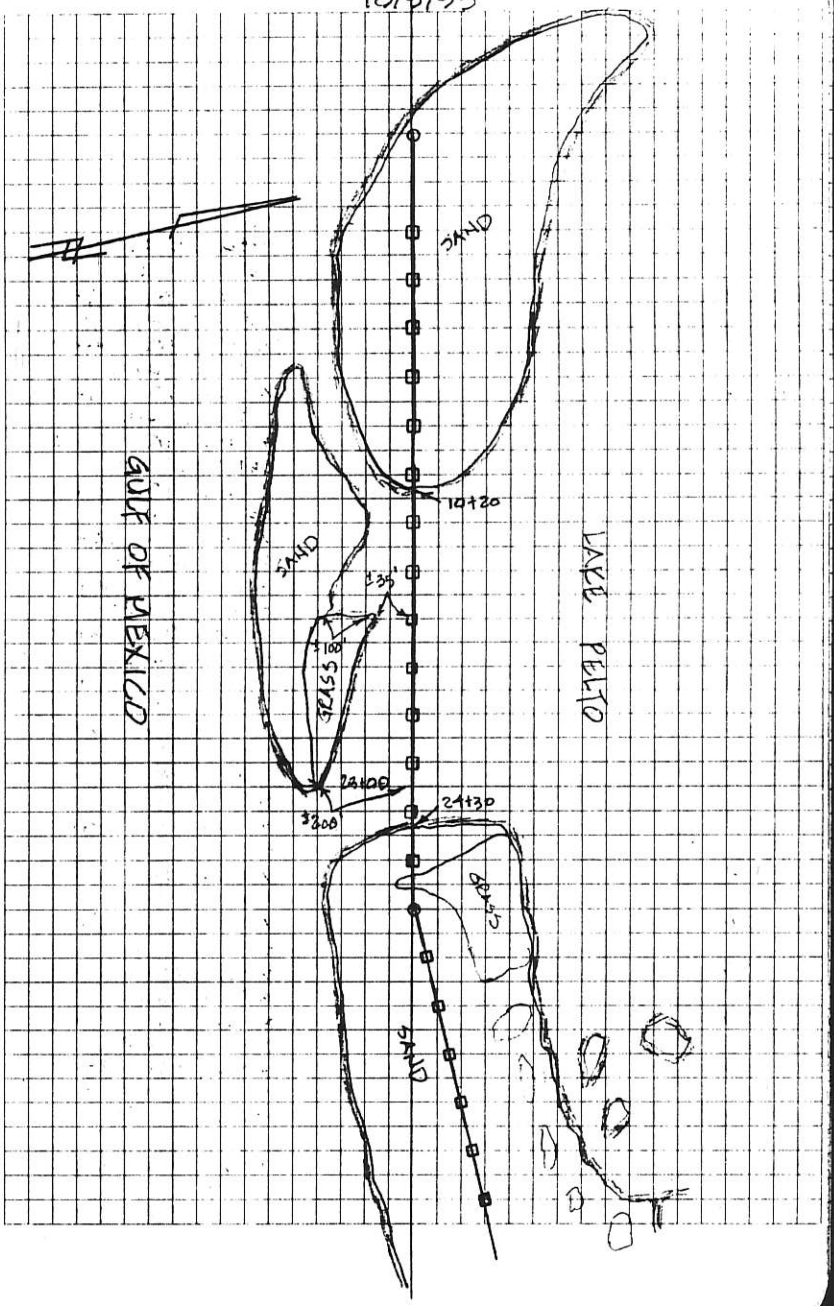


ESTABLISH BASELINE FOR X-SECTIONS

STA.	ANGLE	REMARKS
TRAV. 30+65.26=0+00		TRAV. POINT 10 3/4" G.I.P.
TRAV. 28+00		SET 1"x2" HUB X-SECT. STA. 0+00
TRAV. 26+00		SET 1"x2" HUB X-SECT. STA. 2+00
TRAV. 24+00		SET 1"x2" HUB X-SECT. STA. 4+00
TRAV. 22+00		SET 1"x2" HUB X-SECT. STA. 6+00
TRAV. 20+00		SET 1"x2" HUB X-SECT. STA. 8+00
TRAV. 18+00		SET 1"x2" HUB X-SECT. STA. 10+00
TRAV. 16+00		SET 1"x1" HUB X-SECT. STA. 12+00
TRAV. 14+00		SET 1"x1" HUB X-SECT. STA. 14+00
TRAV. 12+00		SET 1"x1" HUB X-SECT. STA. 16+00
TRAV. 10+00		SET 1"x1" HUB X-SECT. STA. 18+00
TRAV. 8+00		SET 1"x1" HUB X-SECT. STA. 20+00
TRAV. 6+00		SET 1"x1" HUB X-SECT. STA. 22+00
TRAV. 4+00		SET 1"x1" HUB X-SECT. STA. 24+00
TRAV. 2+00		SET 1"x2" HUB X-SECT. STA. 26+00
TRAV. 0+00=15+82.87	189°03'15"	3/4" G.I.P. (TRAV. PT. 9) X-SECT. STA. 28+00
TRAV. 13+82.87		SET 1"x2" HUB X-SECT. STA. 30+00
TRAV. 11+82.87		SET 1"x2" HUB X-SECT. STA. 32+00
TRAV. 9+82.87		SET 1"x2" HUB X-SECT. STA. 34+00
TRAV. 7+82.87		SET 1"x2" HUB X-SECT. STA. 36+00
TRAV. 5+82.87		SET 1"x2" HUB X-SECT. STA. 38+00
TRAV. 3+82.87		SET 1"x2" HUB X-SECT. STA. 40+00

SAME

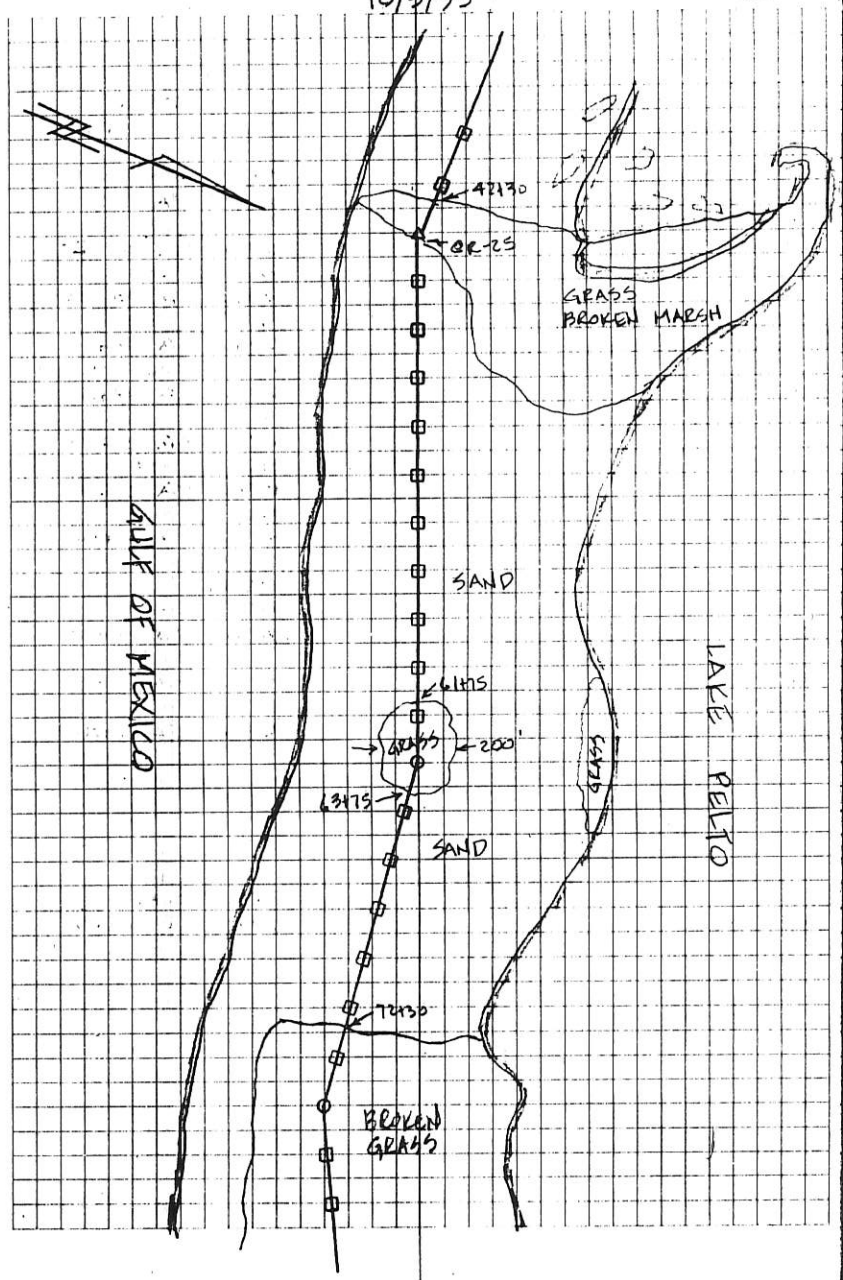
10/5/93



ESTABLISH BASELINE FOR X-SECTIONS

STA.	ANGLE	REMARKS
TRAV. 3+82.87		CONTINUED FROM PAGE 5
TRAV. 1+82.87		SET 1"x2" HUB X-SECT. STA. 42+00
TRAV. 0+00=19+39.30	190°31'30"	U.S.C.O.E. MON. "R-25
TRAV. 19+22.17		SET 1"x2" HUB X-SECT. STA. 44+00
TRAV. 17+22.17		SET 1"x2" HUB X-SECT. STA. 46+00
TRAV. 15+22.17		SET 1"x2" HUB X-SECT. STA. 48+00
TRAV. 13+22.17		SET 1"x2" HUB X-SECT. STA. 50+00
TRAV 11+22.17		SET 1"x2" HUB X-SECT. STA. 52+00
TRAV. 9+22.17		SET 1"x2" HUB X-SECT. STA. 54+00
TRAV 7+22.17		SET 1"x2" HUB X-SECT. STA. 56+00
TRAV 5+22.17		SET 1"x2" HUB X-SECT. STA. 58+00
TRAV 3+22.17		SET 1"x2" HUB X-SECT. STA. 60+00
TRAV. 1+22.17		SET 1"x2" HUB X-SECT. STA. 62+00
TRAV. 0+00=11+37.20	170°51'51"	TRAV. POINT 8 3/4" G.I.P.
TRAV. 10+59.37		SET 1"x2" HUB X-SECT. STA. 64+00
TRAV. 8+59.37		SET 1"x2" HUB X-SECT. STA. 66+00
TRAV. 6+59.37		SET 1"x2" HUB X-SECT. STA. 68+00
TRAV. 4+59.37		SET 1"x2" HUB X-SECT. STA. 70+00
TRAV. 2+59.37		SET 1"x2" HUB X-SECT. STA. 72+00
TRAV. 0+59.37		SET 1"x2" HUB X-SECT. STA. 74+00
TRAV. 0+00=20+46.74	188°08'39"	TRAV. POINT 7 3/4" G.I.P.
TRAV. 19+06.11		X-SECT. STA. 76+00
TRAV. 17+06.11		X-SECT. STA. 78+00

SAME 10/5/93 (6)

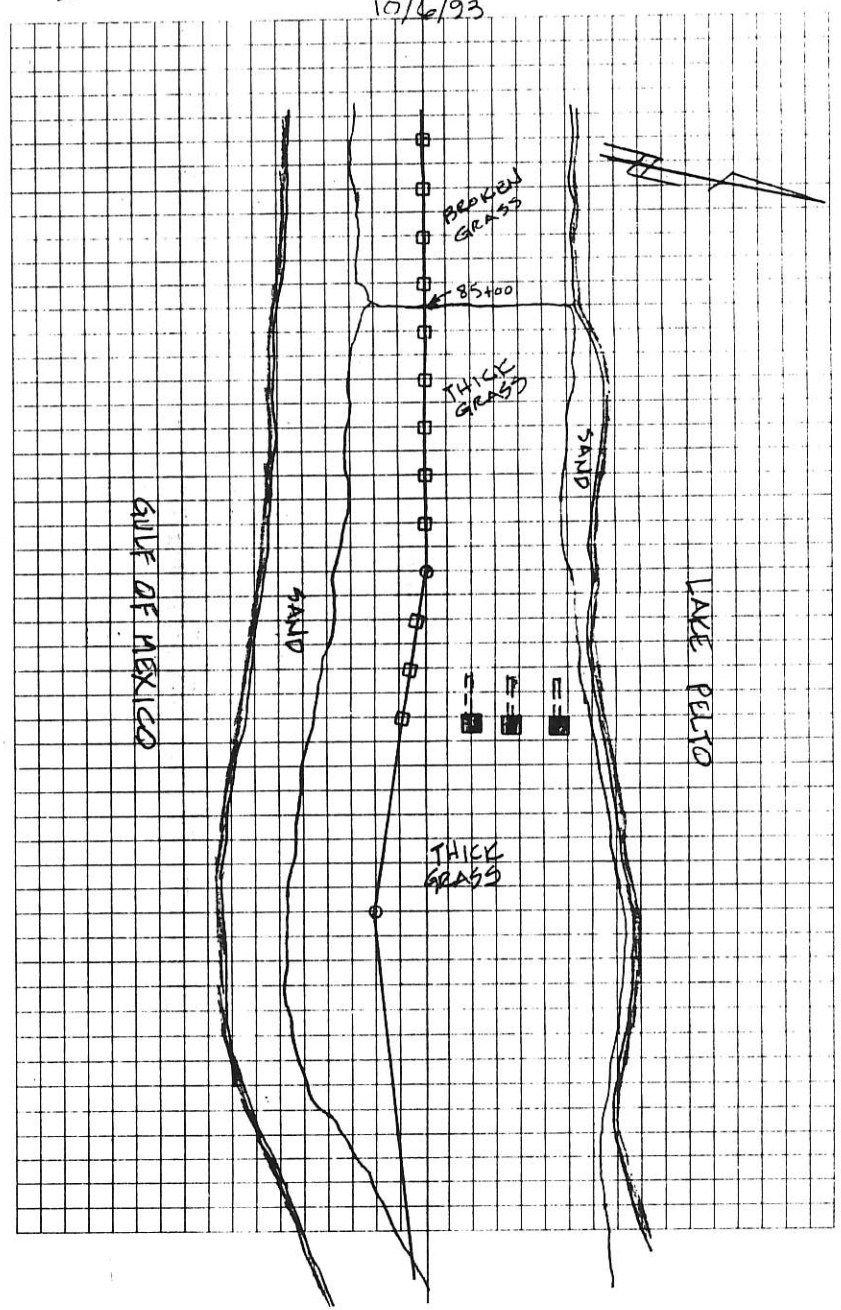


ESTABLISH BASELINE FOR X-SECTIONS

STA.	ANGLE			REMARKS
				CON'T. FROM PAGE 6
TRAV. 17+06.11				SET 1"X2" HUB X-SECT. STA. 80+00
TRAV. 15+06.11				SET 1"X2" HUB X-SECT. STA. 82+00
TRAV. 13+06.11				SET 1"X2" HUB X-SECT. STA. 84+00
TRAV. 11+06.11				SET 1"X2" HUB X-SECT. STA. 86+00
TRAV. 9+06.11				SET 1"X2" HUB X-SECT. STA. 88+00
TRAV. 7+06.11				SET 1"X2" HUB X-SECT. STA. 90+00
TRAV. 5+06.11				SET 1"X2" HUB X-SECT. STA. 92+00
TRAV. 3+06.11				SET 1"X2" HUB X-SECT. STA. 94+00
TRAV. 1+06.11				TRAV. POINT 6
TRAV. 0400=10+00.08	175° 26' 26"			3/4" G.I.P.
TRAV. 9+06.19				SET 1"X2" HUB X-SECT. STA. 96+00
TRAV. 7+06.19				SET 1"X2" HUB X-SECT. STA. 98+00
TRAV. 5+06.19				SET 1"X2" HUB X-SECT. STA. 100+00
0400=21+83.63				3/4" G.I.P. TRAV. POINT 5 X-SECT. STA. 105+06.19

SAME

10/6/93



TIE IN CONTROL POINTS

ANGLE NO. 1

X@ CONTROL POINT "C" B.S. MON. "R-23" TO "E-2"

SLOPE DIST. = 553.94'
HORIZ. DIST. = 553.48'
VERT. DIFF. = 23.14'

1) 13°19'25"
4) 53°18'00"
AVG.) 13°19'30"

ANGLE NO. 2

X@ MON. "R-23 B.S. MON. "E-2" TURN TO "C"

SLOPE = 1636.84'
HORIZ = 1636.72'
VERT. DIFF. = 21.72'

1) 06°37'25"
4) 26°30'05"
AVG.) 06°37'31.25"

ANGLE NO. 3 @ "2888-A" B.S. "C" TO "R-23"

SLOPE = 1105.48'
HORIZ. = 1105.47'
VERT. DIFF. = 0.69'

1) 160°02'55"
4) 280°12'05"
AVG.) 160°03'01.25"

ANGLE NO. 4 @ "C" B.S. MON "E-2" TO MON "E-1"

SLOPE = 4342.98'
HORIZ. = 4342.90'
VERT. DIFF. = 22.04'

1) 90°43'45"
4) 02°54'40"
AVG.) 90°43'40"

ANGLE NO. 5 @ "2888-A" B.S. "E-1" TO "C"

1) 82°01'25"
4) 328°05'50"
AVG.) 82°01'27.5"

ANGLE NO. 6 @ "E-1" B.S. "C" TO MON "E-2"

1) 07°14'50"
4) 28°59'45"
AVG.) 07°14'56.25"

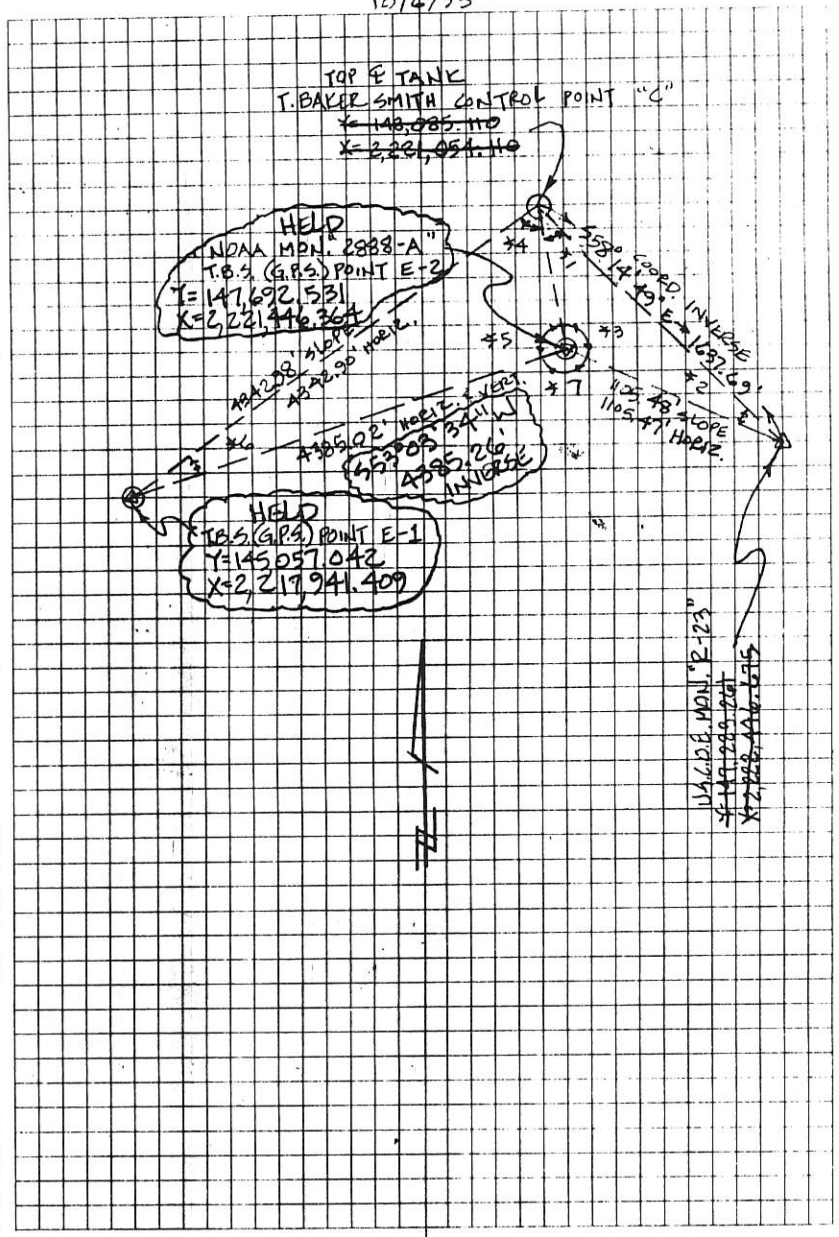
ANGLE NO. 7 @ "2888-A" B.S. "R-23" TO "E-1"

SLOPE = 4385.02'
HORIZ. = 4385.02'
VERT. DIFF. = 9.18'

SAME

10/6/93

(8)



TIE IN TOPOGRAPHY ON EASTERN END OF EAST ISLAND

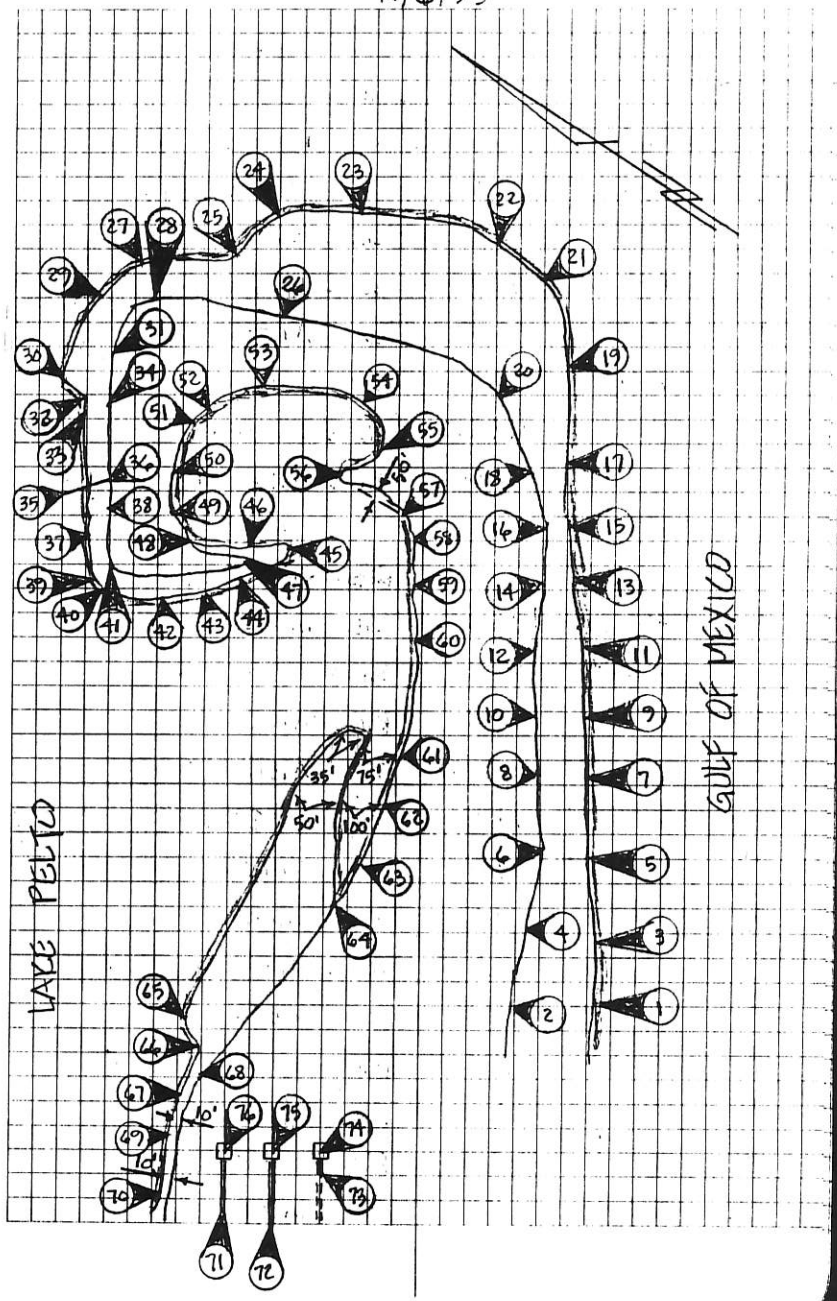
∡s RIGHT

π @ ℄ TANK POINT "C" B.S. MONUMENT "R-23"

POINT NO.	ANGLE	DISTANCE	REMARKS
1	82°11'40"	3208.76'	EDGE WATER
2	84°41'50"	3127.88'	EDGE VEGETATION
3	78°22'20"	2954.00'	EDGE WATER
4	81°04'55"	2813.22'	EDGE VEGETATION
5	69°15'20"	2518.20'	EDGE WATER
6	70°33'20"	2448.00'	EDGE VEGETATION
7	62°03'05"	2278.66'	EDGE WATER
8	62°45'20"	2241.82'	EDGE VEGETATION
9	53°05'05"	2100.00'	EDGE WATER
10	53°48'20"	2041.18'	EDGE VEGETATION
11	48°46'20"	1923.10'	EDGE WATER
12	49°07'30"	1869.68'	EDGE VEGETATION
13	31°03'35"	1855.00'	EDGE WATER
14	31°30'40"	1804.10'	EDGE VEGETATION
15	05°10'55"	1785.12'	EDGE WATER
16	05°08'50"	1688.18'	EDGE VEGETATION
17	00°02'40"	1805.22'	EDGE WATER
18	00°00'00"	1637.00'	EDGE VEGETATION
19	352°16'35"	1801.34'	EDGE WATER
20	353°00'10"	1562.50'	EDGE VEGETATION
21	340°34'05"	1756.40'	EDGE WATER

SAME

10/6/93



TOPOGRAPHY ON EASTERN END
OF EAST ISLAND (CONTINUED)

∡s RIGHT

∡@ ℄ TANK POINT "C" B.S. MONUMENT "R-23"

POINT NO.	ANGLE	DISTANCE	REMARKS
22	336° 30'00"	1673.82'	EDGE WATER
23	334° 19'40"	1570.40'	EDGE WATER
24	332° 49'10"	1452.42'	EDGE WATER
25	336° 31'15"	1359.82'	EDGE WATER
26	339° 06'15"	1314.22'	EDGE VEGETATION
27	329° 35'40"	1282.20'	EDGE WATER
28	334° 56'40"	1183.18'	EDGE VEGETATION
29	325° 42'05"	1158.64'	EDGE WATER
30	324° 42'20"	947.12'	EDGE WATER
31	340° 43'20"	935.22'	EDGE VEGETATION
32	327° 57'10"	882.46'	EDGE WATER
33	328° 51'30"	797.68'	EDGE WATER
34	330° 07'55"	798.12'	EDGE VEGETATION
35	333° 17'05"	603.66'	℄ 4" FLOWLINE
36	334° 32'30"	631.40'	℄ 4" FLOWLINE
37	337° 32'20"	495.96'	EDGE WATER
38	343° 11'45"	530.26'	EDGE VEGETATION
39	13° 49'45"	311.46'	EDGE WATER
40	24° 57'55"	368.80'	EDGE WATER
41	20° 54'50"	430.16'	EDGE VEGETATION
42	28° 13'15"	562.92'	EDGE WATER

SAME 10/6/93

TOPOGRAPHY ON EASTERN END
OF EAST ISLAND (CONTINUED)

∡s RIGHT

⊼ @ ℄ TANK POINT "C" B.S. MONUMENT "R-23"

POINT NO.	ANGLE	DISTANCE	REMARKS
43	22°32'45"	680.00'	EDGE WATER
44	18°17'15"	1050.64'	EDGE WATER
45	13°07'30"	1208.44'	EDGE WATER
46	13°54'30"	1036.18'	EDGE WATER
47	15°59'10"	1037.62'	EDGE VEGETATION
48	13°56'25"	747.08'	EDGE VEGETATION & WATER
49	11°28'15"	624.76'	" " " "
50	359°44'25"	543.22'	EDGE VEGETATION & WATER
51	352°01'25"	576.10'	" " " "
52	348°10'05"	694.52'	" " " "
53	341°55'10"	709.88'	" " " "
54	345°45'50"	1207.00'	" " " "
55	354°33'40"	1323.50'	EDGE VEGETATION & WATER
56	00°11'10"	1189.04'	" " " "
57	11°28'35"	1358.06'	" " " "
58	20°15'10"	1498.04'	" " " "
59	26°01'50"	1526.10'	" " " "
60	37°23'50"	1678.58'	EDGE VEGETATION & WATER
61	55°14'15"	1869.56'	BEGIN SAND BAR ± 70' RT. x 35' WIDE EDGE VEGETATION & WATER
62	56°37'05"	1940.20'	SAND BAR ± 100' RT. x 50' WIDE EDGE VEGETATION & WATER
63	70°35'40"	2259.92'	EDGE VEGETATION & WATER

SAME 10/6/93

TOPOGRAPHY ON EASTERN END OF EAST ISLAND (CONTINUED)

∡s RIGHT

∡@℄ TANK POINT "C" B.S. MONUMENT "R-23"

POINT NO.	ANGLE	DISTANCE	REMARKS
64	77°41'35"	2388.86'	EDGE VEGETATION & WATER
65	91°15'55"	2552.02'	EDGE WATER
66	92°25'50"	2915.60'	EDGE WATER
67	98°25'55"	3274.30'	EDGE WATER
68	98°05'40"	3288.86'	EDGE VEGETATION
69	103°20'40"	3773.10'	EDGE VEGETATION 10' LT. EDGE WATER
70	105°22'05"	4229.92'	EDGE VEGETATION 10' LT. EDGE WATER
71	104°04'25"	4222.82'	END℄ 36"Ø PIPE
72	103°09'30"	4265.42'	END℄ 36"Ø PIPE
73	100°49'40"	4196.66'	DID NOT LOCATE END ℄ 36"Ø PIPE (ENTERS SAND)
74	100°41'00"	4181.62'	℄ 5.5'X5.5' CAST IRON FRAME W/GRATING
75	102°02'20"	4124.34'	℄ 5.5'X5.5' CAST IRON FRAME W/GRATING
76	103°23'55"	4074.04'	℄ 5.5'X5.5' CAST IRON FRAME W/GRATING

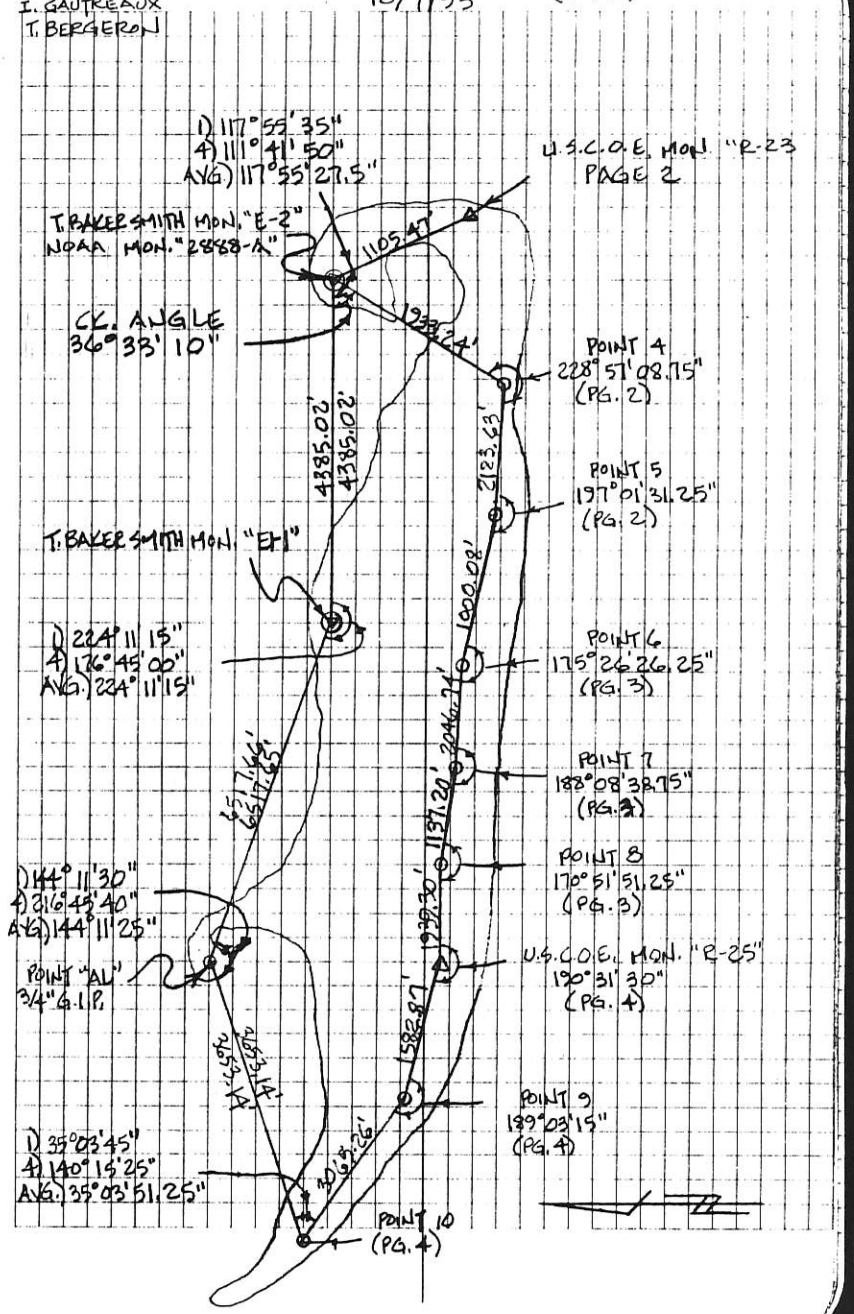
TIE IN TRAVERSE LINE TO CONTROL

W. A. BRUNET
E. ROIKE
A. CARLOS
I. GAUTREAUX
T. BERGERON

10/7/93

CLEAR TO CLOUDY
(75°F)

13



SET ELEVATION B.M.s ALONG ROUTE

MON. R-25 TO TRAVERSE POINT 10

STA.	+	H.I.	−	ELEV.	REMARKS
				4.80	B.M. TOP U.S.C. O.E. MON. R-25
	1.76	6.56			
			3.65	2.91	TOP 1"x2" HUB @ 38+00
	4.23	7.14			
			4.39	2.75	TOP 1"x2" HUB @ 32+00
	3.82	6.57			
			3.03	3.54	TOP 3/4" G.I.P. PT. 9 @ 28+00
	2.52	6.06			
			4.61	1.45	TOP 1"x1" HUB @ 22+00
	2.57	4.02			
			1.39	2.63	TOP 1"x1" HUB @ 16+00
	1.29	3.92			
			2.22	1.70	TOP 1"x2" HUB @ 10+00
	4.50	6.20			
			4.54	1.66	TOP 1"x2" HUB @ 4+00
	4.80	6.46			
			4.34	2.12	TOP 3/4" G.I.P. @ POINT 10
		LOOP	BACK		
				2.12	TOP 3/4" G.I.P.
	4.43	6.55			
			4.90	1.65	TOP 1"x2" HUB @ 4+00
	4.42	6.07			
			4.39	1.68	TOP 1"x2" HUB @ 10+00

D.A. BRUNET
L. KOIKE
I. GAUTREAUX
T. BERGERON

10/8/93

CLEAR & MILD (87°F)

14

AS ESTABLISHED BY PLAISANCE/SMITH SURVEY

SAME 10/8/93

ELEVATIONS (CON'T.)

LOOP BACK FROM R-25 TO TRAVERSE POINT 10 (CON'T.)

STA.	+	H.I.	−	ELEV.	REMARKS
				1.68	@ 10+00
	2.23	3.91			
			1.39	2.62	@ 16+00
	1.38	4.00			
			2.56	1.44	@ 22+00
	4.68	6.12			
			5.53	0.59	TOP WATER @ 11:00 A.M.
			2.60	3.52	POINT 9 3/4" G.I.P.
	3.58	7.10			
			4.26	2.84	TOP 1"x2" HUB @ 34+00
	4.40	7.24			
			4.37	2.87	@ 38+00
	3.79	6.66			
			1.88	4.78	TIE IN
				4.80	B.M. ELEV.
				-0.02'	CLOSURE

NO ADJUSTMENT REQUIRED

ELEVATIONS ALONG ROUTE

3/4" G.I.P. @ POINT 10 = 2.13
1"x2" HUB @ STA. 4+00 = 1.66
1"x2" HUB @ STA. 10+00 = 1.69
1"x2" HUB @ STA. 16+00 = 2.63
1"x2" HUB @ STA. 22+00 = 1.45
3/4" G.I.P. @ STA. 28+00 = 3.53
1"x2" HUB @ STA. 32+00 = 2.75
1"x2" HUB @ STA. 34+00 = 2.84
1"x2" HUB @ STA. 38+00 = 2.89

SAME

10/8/93

ELEVATIONS (CON'T.)

MON. R-25 TO TRAVERSE POINT 5

STA.	+	H.I.	—	ELEV.	REMARKS
				4.80	R-25
	2.25	7.05			
			4.21	2.84	TOP 1"x2" HUB @ 50+00
	2.56	5.40			
			3.05	2.35	T.P.
	4.05	6.40			
			3.58	2.82	TOP 1"x2" HUB @ 62+00
	3.25	6.07			
			2.35	3.72	TOP 3/4" G.I.P. @ POINT 8
			3.67	2.40	TOP 1"x2" HUB @ 68+00
	4.11	6.51			
			3.65	2.86	TOP 1"x2" HUB @ 74+00
	3.80	6.66			
			3.53	3.13	TOP 3/4" G.I.P. @ POINT 7
			5.33	1.33	TOP 1"x2" HUB @ 80+00
	5.20	6.53			
			2.93	3.60	TOP 1"x2" HUB @ 86+00
	3.84	7.44			
			3.89	3.55	TOP 1"x2" HUB @ 92+00
	5.00	8.55			
			3.13	5.42	TOP 3/4" G.I.P. @ POINT 6
			4.73	3.82	TOP E-1
			3.47	5.08	TOP 1"x2" HUB @ 98+00

SAME 10/8/93

ELEVATIONS (CON'T.)

STA.	+	H.I.	−	ELEV.	REMARKS
				5.08	@ 98+00
	4.83	9.91			
			3.17	6.74	TOP 3/4" G.I.P. @ POINT 5
	LOOP BACK				
				6.74	@ PT. 5
	3.33	10.07			
			4.98	5.09	@ 98+00
	3.87	8.96			
			5.40	3.56	@ 92+00
	4.28	7.84			
			4.24	3.60	@ 86+00
	3.06	6.66			
			5.32	1.34	@ 80+00
	5.33	6.67			
			3.80	2.87	@ 74+00
	3.53	6.40			
			4.00	2.40	@ 68+00
	3.83	6.23			
			3.40	2.83	@ 62+00
	3.91	6.74			
			4.39	2.35	T.P.
	3.70	6.05			
			3.21	2.84	@ 50+00

ELEVATIONS (CON'T.)

STA.	+	H.I.	—	ELEV.	REMARKS
				2.84	@ 50+00
	4.19	7.03			
			2.23	4.80	@R-25
				4.80	B.M ELEV.
				0.00'	CLOSURE

NO ADJUSTMENT REQUIRED

SAME 10/8/93

ELEVATIONS ALONG ROUTE

1"x2" HUB @ STA. 50+00 = 2.84

1"x2" HUB @ STA. 62+00 = 2.82

3/4" G.I.P. @ POINT 8 = 3.72

1"x2" HUB @ STA. 68+00 = 2.40

1"x2" HUB @ STA. 74+00 = 2.87

3/4" G.I.P. @ POINT 7 = 3.13

1"x2" HUB @ STA. 80+00 = 1.34

1"x2" HUB @ STA. 86+00 = 3.60

1"x2" HUB @ STA. 92+00 = 3.56

3/4" G.I.P. @ POINT 6 = 5.42

1"x2" HUB @ STA. 98+00 = 5.09

3/4" G.I.P. @ POINT 5 = 6.74

X-SECTION STA. 0+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				2.13	TOP 3/4" G.I.P. @ PT. 10
	4.49	6.62			
0'			4.9	1.72	@ BASELINE
SOUTHERLY +25'			4.3	2.32	
-50'			3.9	2.72	
-69'			5.2	1.42	
-82'			6.15	0.47	TOP & EDGE WATER
	SOUNDINGS			0.5	
-100'	0.8'			-0.3	
-125'	1.1'			-0.6	
-150'	1.5'			-1.0	
-175'	1.8'			-1.3	
-200'	2.0'			-1.5	
-216'	0.8'			-0.3	
-225'	0.4'			0.1	
-250'	0.4'			0.1	
-275'	0.9'			-0.4	
-300'	1.2'			-0.7	
-325'	1.2'			-0.7	
-350'	1.2'			-0.7	
-375'	1.5'			-1.0	
-400'	1.8'			-1.3	
-425'	2.2'			-1.7	

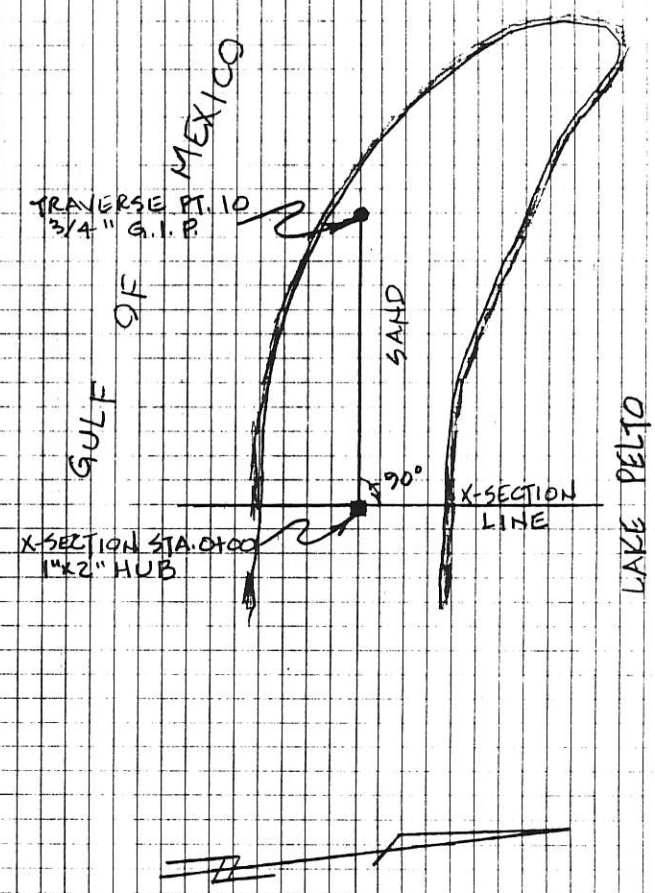
B.A. BRUNET
E KOIKE
A. CARLOS
I. GAUTREAUX
T. BERGERON

CLEAR & MILD (80°F)

10/11/93

(19)

(SEE PAGE 14)



X-SECTION STA. 0400 (CON'T)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				0.47	TOP WATER
	SOUNDINGS CON'T.			0.5	
-450'	2.4'			-1.9	
-475'	2.7'			-2.2	
-500'	3.0'			-2.5	
-526'	4.1'			-3.6	

FOR ADDITIONAL SOUNDINGS SEE BOOK 084, PAGE 18

NORTHERLY SECTION

		6.62			
25'			5.1	1.52	
50'			5.3	1.32	
73'			4.7	1.92	
86'			5.7	0.92	
100'			6.13	0.49	TOP & EDGE WATER
	SOUNDINGS			0.5	
125'	0.3'			0.2	
150'	0.4'			0.1	
175'	0.7'			-0.2	
200'	0.7'			-0.2	
225'	0.8'			-0.3	
250'	0.9'			-0.4	
275'	1.0'			-0.5	
300'	1.1'			-0.6	

SAME 10/11/93

SAME 10/11/93

X-SECTION STA. 0+00 (CON'T.)

DISTANCE	+ SOUNDINGS CON'T.	H.I.	—	ELEV.	REMARKS
				0.49	TOP WATER
				0.5	
325'	1.1'			-0.6	
350'	1.0'			-0.5	
375'	1.1'			-0.6	
400'	1.1'			-0.6	
425'	1.0'			-0.5	
450'	1.0'			-0.5	
475'	1.4'			-0.9	
500'	1.2'			-0.7	
525'	1.4'			-0.9	
550'	1.5'			-1.0	
575'	1.7'			-1.2	
600'	1.6'			-1.1	
625'	1.6'			-1.1	
650'	1.5'			-1.0	
675'	2.0'			-1.5	
700'	2.1'			-1.6	
725'	2.2'			-1.7	
750'	2.4'			-1.9	
775'	2.1'			-1.6	
800'	2.5'			-2.0	
825'	2.6'			-2.1	
850'	2.6'			-2.1	

X-SECTION STA. 0+00 (CON'T.)

NORTHERLY

SAME 10/11/93

(22)

DISTANCE	+ SOUNDINGS CON'T.	H.I.	−	ELEV.	REMARKS
				0.49 0.5	TOP WATER
875'	2.5'			-2.0	
900'	2.5'			-2.0	
925'	2.5'			-2.0	
950'	2.7'			-2.2	
975'	2.5'			-2.0	
1000'	2.5'			-2.0	
1025'	2.7'			-2.2	
1050'	2.7'			-2.2	
1075'	3.0'			-2.5	
1100'	3.0'			-2.5	
1125'	3.0'			-2.5	
1150'	3.1'			-2.6	
1175'	3.4'			-2.9	
1200'	3.4'			-2.9	
1225'	3.4'			-2.9	
1250'	3.5'			-3.0	
1275'	3.5'			-3.0	
1300'	3.6'			-3.1	
1325'	3.5'			-3.0	
1350'	3.6'			-3.1	
1375'	3.6'			-3.1	
1400'	3.5'			-3.0	

X-SECTION STA. 0+00 (CON'T.)

SAME 10/11/93

(23)

DISTANCE	+ SOUNDINGS CON'T.	H.I.	—	ELEV.	REMARKS
				0.49	TOPWATER
				0.5	
1425'	3.2'			-2.7	
1450'	3.5'			-3.0	
1475'	3.3'			-2.8	
1500'	3.3'			-2.8	
1525'	3.3'			-2.8	
1550'	3.3'			-2.8	
1575'	3.3'			-2.8	
1600'	3.5'			-3.0	
1625'	3.4'			-2.9	
1650'	3.5'			-3.0	
1675'	3.5'			-3.0	
1700'	3.5'			-3.0	
1725'	3.5'			-3.0	
1750'	3.5'			-3.0	
1775'	3.5'			-3.0	
1800'	3.5'			-3.0	
1825'	3.7'			-3.2	
1850'	4.3'			-3.8	
1875'	4.6'			-4.1	
1900'	5.0'			-4.5	
1925'	5.2'			-4.7	
1950'	5.0'			-4.5	
1975'	5.3'			-4.8	

X-SECTION STA. 0+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS CON'T.	6.62		0.49	TOP WATER
				0.5	
2000'	5.5'			-5.0	
2025'	5.5'			-5.0	
2050'	6.0'			-5.5	
2075'	6.1'			-5.6	
2100'	6.5'			-6.0	
2125'	6.6'			-6.1	
2150'	7.0'			-6.5	
2175'	7.0'			-6.5	
2200'	7.0'			-6.5	
2225'	7.0'			-6.5	
2250'	7.0'			-6.5	
2275'	7.1'			-6.6	
2300'	7.3'			-6.8	
2325'	8.0'			-7.5	
2350'	8.0'			-7.5	
2375'	8.2'			-7.7	
2400'	8.0'			-7.5	
2485'	8.3'			-7.8	
2450'	8.5'			-8.0	
2475'	8.5'			-8.0	
2500'	8.5'			-8.0	
			4.47	2.15	CK. B.M.

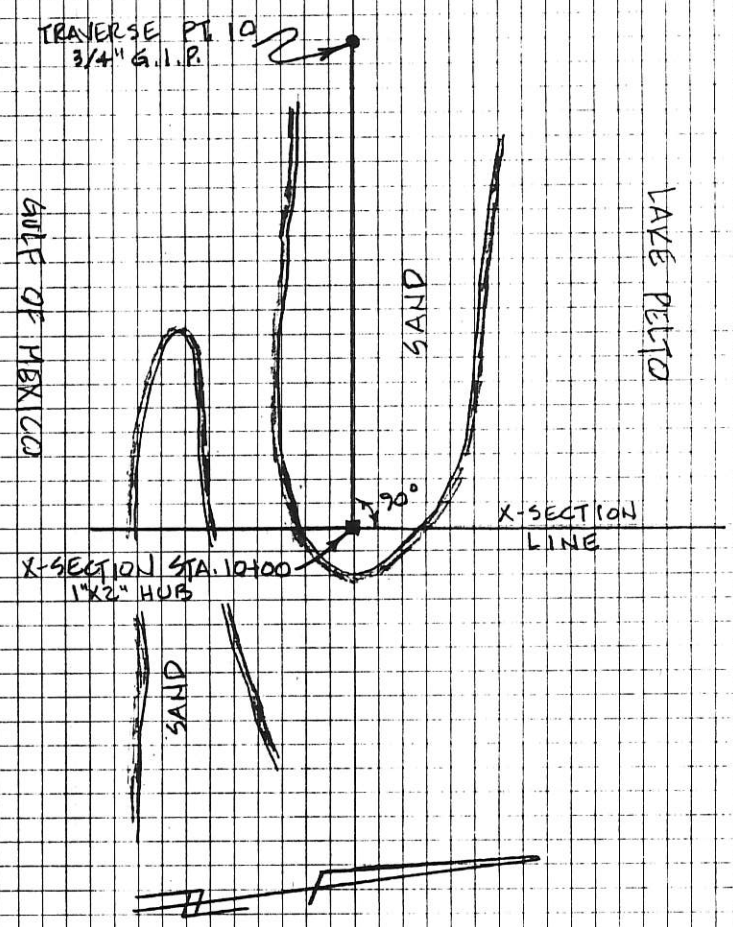
SAME 10/11/93

SAME 10/11/93

(SEE PAGE 14)

X-SECTION STA. 10+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				1.69	TOP 1"x2" HUB @ 10+00
	4.07	5.76			
0'			4.7	1.06	@ BASELINE
SOUTHERLY −25'			4.8	0.96	
−50'			5.0	0.76	
−75'			5.0	0.76	
−87'			5.30	0.46	TOP & EDGE WATER
	SOUNDINGS			0.5	
−100'	0.2'			0.3	
−125'	0.4'			0.1	
−150'	0.6'			−0.1	
−175'	1.1'			−0.6	
−200'	1.3'			−0.8	
−210'			5.3	0.46	EDGE WATER
−216'			4.8	0.96	
−225'			4.7	1.06	
−250'			4.7	1.06	
−275'			4.7	1.06	
−300'			4.8	0.96	
−325'			4.9	0.86	
−350'			5.2	0.56	
−366'			5.3	0.46	EDGE WATER



X-SECTION STA. 10+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				0.46 0.5	TOP WATER
	SOUNDINGS				
-375'	0.2'			0.3	
-400'	0.4'			0.1	
-425'	1.1'			-0.6	
-450'	1.9'			-1.4	
-475'	2.0'			-1.5	
-487'	2.4'			-1.9	
-500'	1.6'			-1.1	
-525'	2.5'			-2.0	
-550'	3.1'			-2.6	

FOR ADDITIONAL SOUNDINGS SEE BOOK 084, PAGE 19

NORTHERLY SECTION

		5.76			
25'			4.7	1.06	
50'			4.6	1.16	
75'			4.6	1.16	
100'			4.6	1.16	
125'			4.5	1.26	
134'			4.4	1.36	
150'			5.30'	0.46 0.5	TOP & EDGE WATER
	SOUNDINGS				
175'	0.2'			0.3	

SAME 10/11/93

SAME 10/11/93 (21)

X-SECTION STA. 10+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T)	H.I.	—	ELEV.	REMARKS
				0.46 0.5	TOP WATER
200'	0.6'			-0.1	
225'	0.9'			-0.4	
250'	1.0'			-0.5	
275'	1.2'			-0.7	
300'	1.2'			-0.7	
325'	1.3'			-0.8	
350'	1.3'			-0.8	
375'	1.2'			-0.7	
400'	1.0'			-0.5	
425'	0.9'			-0.4	
450'	1.0'			-0.5	
475'	1.1'			-0.6	
500'	1.0'			-0.5	
525'	1.1'			-0.6	
550'	1.1'			-0.6	
575'	1.0'			-0.5	
600'	1.1'			-0.6	
625'	1.1'			-0.6	
650'	1.1'			-0.6	
675'	1.1'			-0.6	
700'	1.2'			-0.7	
725'	1.3'			-0.8	

SAME 10/11/93

(2)

X-SECTION STA. 20+00 (CON'T)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
				0.46	TOP WATER
				0.5	
750'	2.3'			-1.8	
775'	2.5'			-2.0	
800'	3.0'			-2.5	
825'	3.7'			-3.2	
850'	4.0'			-3.5	
875'	3.9'			-3.4	
900'	4.0'			-3.5	
925'	4.0'			-3.5	
950'	4.0'			-3.5	
975'	4.0'			-3.5	
1000'	4.2'			-3.7	
1025'	4.3'			-3.8	
1050'	4.5'			-4.0	
1075'	4.5'			-4.0	
1100'	4.5'			-4.0	
1125'	4.5'			-4.0	
1150'	4.6'			-4.1	
1175'	4.8'			-4.3	
1200'	5.2'			-4.7	
1225'	5.0'			-4.5	
1250'	5.0'			-4.5	
1275'	5.0'			-4.5	

SAME 10/11/93

(36)

X-SECTION STA. 20+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.46	TOP WATER
				0.5	
1300'	5.1'			-4.6	
1325'	5.2'			-4.7	
1350'	5.3'			-4.8	
1375'	5.3'			-4.8	
1400'	5.2'			-4.7	
1425'	5.0'			-4.5	
1450'	5.3'			-4.8	
1475'	5.1'			-4.6	
1500'	5.4'			-4.9	
1525'	5.4'			-4.9	
1550'	5.5'			-5.0	
1575'	5.6'			-5.1	
1600'	5.5'			-5.0	
1625'	5.5'			-5.0	
1650'	5.5'			-5.0	
1675'	5.7'			-5.2	
1700'	6.0'			-5.5	
1725'	5.9'			-5.4	
1750'	5.8'			-5.3	
1775'	5.8'			-5.3	
1800'	5.8'			-5.3	
1825'	5.9'			-5.4	

X-SECTION STA. 20+00 (CON'T.)

SAME 10/11/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.46	TOP WATER
				0.5	
1850'	6.1'			-5.6	
1875'	6.2'			-5.7	
1900'	6.5'			-6.0	
1925'	6.3'			-5.8	
1950'	6.3'			-5.8	
1975'	6.3'			-5.8	
2000'	6.3'			-5.8	
2025'	6.5'			-6.0	
2050'	6.8'			-6.3	
2075'	6.7'			-6.2	
2100'	6.6'			-6.1	
2125'	6.6'			-6.1	
2150'	6.5'			-6.0	
2175'	6.7'			-6.2	
2200'	6.8'			-6.3	
2225'	7.0'			-6.5	
2250'	7.1'			-6.6	
2275'	7.0'			-6.5	
2300'	7.0'			-6.5	
2325'	7.2'			-6.7	
2350'	7.5'			-7.0	
2375'	7.4'			-6.9	

SAME 10/11/93 (38)

X-SECTION STA. 20+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	6.01		0.46	TOP WATER
				0.5	
2400'	7.4'			-6.9	
2425'	7.5'			-7.0	
2450'	7.5'			-7.0	
2475'	8.0'			-7.5	
2500'	8.3'			-7.8	
			3.35	2.66	CK. B.M.

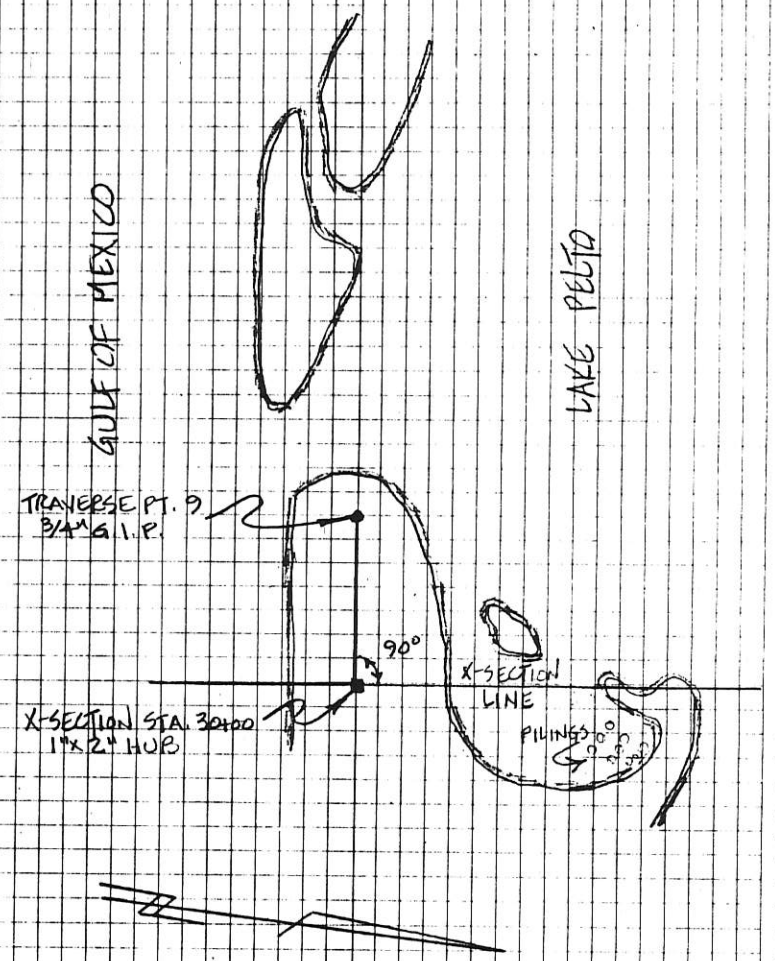
X-SECTION STA. 30+000

SAME

10/1/93

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				2.75	TOP 1"x2" HUB @ 32+00
	4.27	7.02			
			6.62	0.40	TOP WATER
0' SOUTHERLY			4.8	2.22	@ BASELINE
- 25'			4.5	2.52	
- 50'			4.6	2.42	
- 62'			4.1	2.92	
- 72'			4.7	2.32	
- 87'			5.8	1.22	
- 109'			6.1	0.92	
- 125'			5.7	1.32	
- 140'			5.4	1.62	
- 150'			6.2	0.82	
- 165'			6.62	0.40	TOP & EDGE WATER
	SOUNDINGS				
- 175'	0.6'			-0.2	
- 200'	1.0'			-0.6	
- 225'	1.0'			-0.6	
- 250'	1.0'			-0.6	
- 275'	1.5'			-1.1	
- 300'	2.4'			-2.0	
- 325'	3.0'			-2.6	
- 350'	3.3'			-2.9	

(SEE PAGE 14)



X-SECTION STA. 30+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.40	TOP WATER
- 375'	4.2'			-3.8	
- 400'	4.7'			-4.3	
- 425'	5.1'			-4.7	
- 450'	5.1'			-4.7	
- 475'	5.3'			-4.9	
- 500'	5.5'			-5.1	

FOR ADDITIONAL SOUNDINGS SEE BOOK 084, PAGE 21

NORTHERLY SECTION

		7.02			
25'			4.8	2.22	
50'			5.0	2.02	
75'			5.0	2.02	
100'			5.0	2.02	
125'			5.0	2.02	
150'			5.6	1.42	
175'			6.0	1.02	
200'			6.3	0.72	
225'			6.4	0.62	
250'			6.6	0.42	
275'			6.5	0.52	
300'			6.4	0.62	
325'			6.4	0.62	

SAME 10/11/93

X-SECTION STA. 30+00 (CON'T)

SAME 10/11/93

DISTANCE	+	H.I. 7.02	—	ELEV.	REMARKS
350'			6.4	0.62	
375'			6.3	0.72	
400'			6.3	0.72	
404'			6.2	0.82	
407'			5.5	1.52	
425'			6.0	1.02	
450'			6.62	0.40	TOP & EDGE WATER
	SOUNDINGS				
475'	0.2'			0.2	
500'	0.6'			-0.2	
525'	1.0'			-0.6	
550'	1.2'			-0.8	
575'	1.3'			-0.9	
600'	1.3'			-0.9	
625'	1.1'			-0.7	
650'	1.3'			-0.9	
675'	1.3'			-0.9	
700'	1.3'			-0.9	
725'	1.2'			-0.8	
750'	1.3'			-0.9	
775'	1.3'			-0.9	
800'	1.3'			-0.9	

X-SECTION STA. 30+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.40	TOP WATER
825'	1.3'			-0.9	
850'	1.4'			-1.0	
875'	1.5'			-1.1	
900'	1.8'			-1.4	
925'	1.8'			-1.4	
950'	1.9'			-1.5	
975'	1.7'			-1.3	
1000'	1.6'			-1.2	
1025'	1.8'			-1.4	
1050'	1.7'			-1.3	
1075'	1.7'			-1.3	
1100'	1.8'			-1.4	
1125'	1.8'			-1.4	
1150'	1.8'			-1.4	
1175'	1.7'			-1.3	
1200'	1.6'			-1.2	
1225'	1.8'			-1.4	
1250'	1.8'			-1.4	
1275'	2.0'			-1.6	
1300'	2.4'			-2.0	
1325'	2.5'			-2.1	
1350'	2.4'			-2.0	

SAME 10/11/93

X-SECTION STA. 30+00 (CON'T.)

SAME 10/11/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.40	TOP WATER
1375'	2.5'			-2.1	
1400'	2.5'			-2.1	
1425'	2.7'			-2.3	
1450'	2.8'			-2.4	
1475'	2.8'			-2.4	
1500'	3.0'			-2.6	
1525'	3.2'			-2.8	
1550'	3.3'			-2.9	
1575'	3.3'			-2.9	
1600'	3.2'			-2.8	
1625'	3.2'			-2.8	
1650'	3.2'			-2.8	
1675'	3.3'			-2.9	
1700'	3.3'			-2.9	
1725'	3.1'			-2.7	
1750'	2.7'			-2.3	
1775'	2.5'			-2.1	
1800'	2.5'			-2.1	
1825'	2.4'			-2.0	
1850'	2.3'			-1.9	
1875'	2.1'			-1.7	
1900'	1.7'			-1.4	

X-SECTION STA. 30+00 (CON'T.)

SAME 10/11/93

DISTANCE	+ SOUNDINGS (CONT.)	H.I. 7.02	—	ELEV.	REMARKS
				0.40	TOP WATER
1925'	1.3'			-0.9	
1950'	1.0'			-0.6	
1975'	0.7'			-0.3	
2000'	0.6'			-0.2	
2020'			6.62	0.40	TOP & EDGE WATER
2050'			6.3	0.70	
2075'			6.62	0.40	TOP & EDGE WATER
2100'	0.2'			0.2	
2125'	0.2'			0.2	
2150'	0.2'			0.2	
2175'	0.1'			0.3	
2185'			6.62	0.40	TOP & EDGE WATER
2200'			6.0	1.02	
2210'			6.62	0.40	TOP & EDGE WATER
2225'	0.6'			-0.4	
2250'	1.8'			-1.4	
2275'	1.5'			-1.1	
2300'	1.2'			-0.8	
2325'	1.1'			-0.7	
2350'	1.2'			-0.8	
2375'	1.7'			-1.3	
2400'	2.0'			-1.6	

SAME

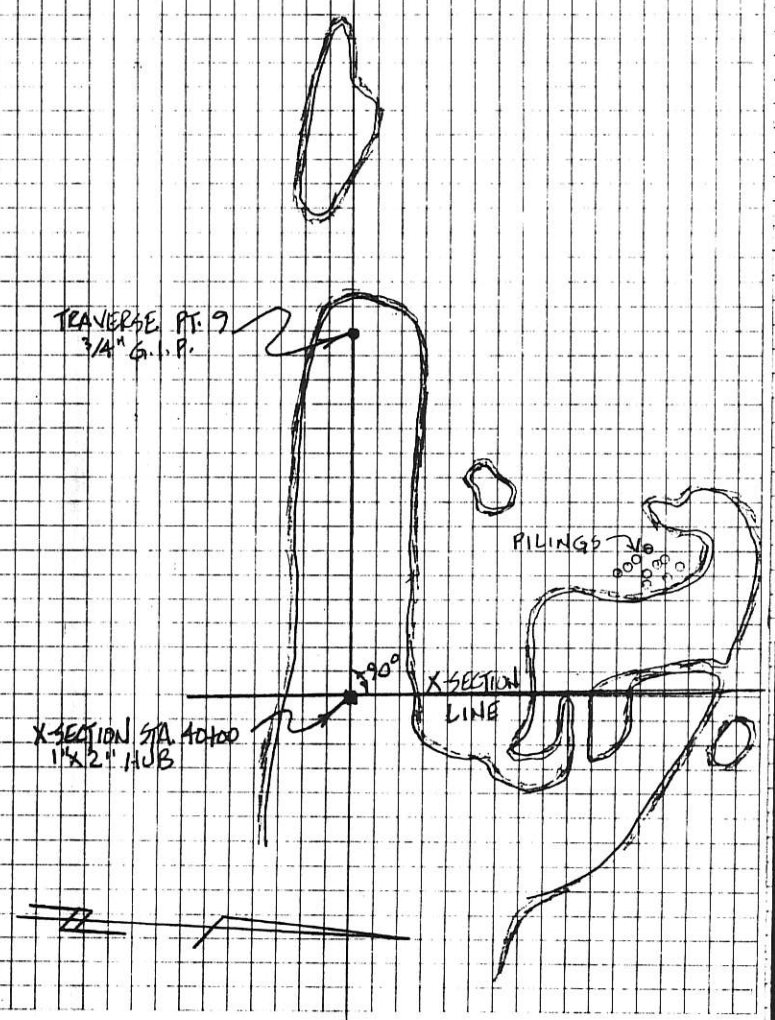
CLEAR TO P.C. & MILD (71°F)

10/2/73

X-SECTION STA. 40+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				2.89	BP 1"x2" HUB @ 38+00
	3.25	6.14			
0'			4.9	1.24	@ BASE LINE
SOUTHERLY - 25'			4.9	1.24	
- 40'			4.8	1.34	
- 55'			4.6	1.54	
- 64'	—		5.25	0.89 0.9	TOP & EDGE WATER
	SOUNDINGS				
- 75'	0.7'			0.2	
- 100'	1.3'			-0.4	
- 125'	1.5'			-0.6	
- 150'	1.7'			-0.8	
- 175'	2.0'			-1.1	
- 200'	2.6'			-1.7	
- 225'	2.7'			-1.8	
- 250'	3.0'			-2.1	
- 275'	3.0'			-2.1	
- 300'	3.1'			-2.2	
- 325'	3.5'			-2.6	
- 350'	3.9'			-3.0	
- 375'	3.7'			-2.8	
- 400'	3.9'			-3.0	
- 425'	4.6'			-3.7	

(SEE PAGE 14)



X-SECTION STA. 40+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T)	H.I.	—	ELEV.	REMARKS
				0.89 0.9	TOP WATER
-450'	5.1			-4.2	
-475'	5.7'			-4.8	
-500'	6.3'			-5.4	
	NORTHERLY SECTION				
		6.14			
25'			4.8	1.34	
50'			4.9	1.24	
75'			4.9	1.24	
100'			4.9	1.24	
125'			5.0	1.14	
150'			4.9	1.24	
175'			4.9	1.24	
200'			5.0	1.14	
204'			5.19	0.95 1.0	TOP & EDGE WATER
	SOUNDINGS				
225'	0.2'			0.8	
250'	0.5'			0.5	
275'	0.5'			0.5	
300'	0.3'			0.7	
325'	0.3'			0.7	
350'	0.3'			0.7	

SAME 10/12/93

X-SECTION STA. 40+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.95 1.0	TOP WATER
375'	0.4'			0.6	
400'	0.5'			0.5	
425'	0.7'			0.3	
450'	1.0'			0.0	
475'	1.0'			0.0	
500'	1.0'			0.0	
525'	1.0'			0.0	
550'	1.0'			0.0	
575'	0.9'			0.1	
600'	0.9'			0.1	
625'	1.2'			-0.2	
650'	0.7'			0.3	
675'	1.0'			0.0	
700'	1.0'			0.0	
725'	1.0'			0.0	
750'	1.4'			-0.4	
775'	1.7'			-0.7	
800'	1.7'			-0.7	
825'	1.8'			-0.8	
850'	2.2'			-1.2	
875'	2.0'			-1.0	
900'	1.3'			-0.3	

SAME 10/12/93

X-SECTION STA. 40+00 (CON'T.)

SAME 10/12/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
		6.14		0.95	TOP WATER
927'	0.8'			1.0 0.2	EDGE GRASS
935'	0.8'			0.2	EDGE GRASS
975'	1.7'			-0.7	
1000'	1.8'			-0.8	
1025'	1.7'			-0.7	
1050'	1.6'			-0.6	
1075'	2.2'			-1.2	
1100'	2.8'			-1.8	
1125'	2.7'			-1.7	
1150'	2.1'			-1.1	
1175'	2.1'			-1.1	
1200'	2.1'			-1.1	
1225'	1.6'			-0.6	
1250'	1.5'			-0.5	
1275'	1.5'			-0.5	
1300'	1.5'			-0.5	
1325'	1.5'			-0.5	
1350'	1.5'			-0.5	
1375'	1.0'			0.0	
1390'	0.8'			0.2	EDGE GRASS
1400'			4.9	1.24	
1450'			4.8	1.34	

X-SECTION STA. 40+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.95	TOP WATER
				1.0	
1475'	0.0'			1.0	
1500'	0.2'			0.8	
1525'	0.1'			0.9	
1541'	0.0'			1.0	EDGE GRASS
1547'	0.3'			0.7	HIGH BANK
1548'	1.6'			-0.6	LOW BANK
1575'	2.0'			-1.0	
1600'	3.2'			-2.2	
1625'	3.2'			-2.2	
1650'	3.1'			-2.1	
1675'	3.5'			-2.5	
1700'	4.1'			-3.1	
1725'	4.0'			-3.0	
1750'	4.0'			-3.0	
1775'	5.1'			-4.1	
1800'	5.9'			-4.9	
1825'	6.0'			-5.0	
1850'	6.0'			-5.0	
1875'	6.1'			-5.1	
1900'	6.7'			-5.7	
1925'	7.1'			-6.1	
1950'	7.7'			-6.7	

SAME 10/12/93

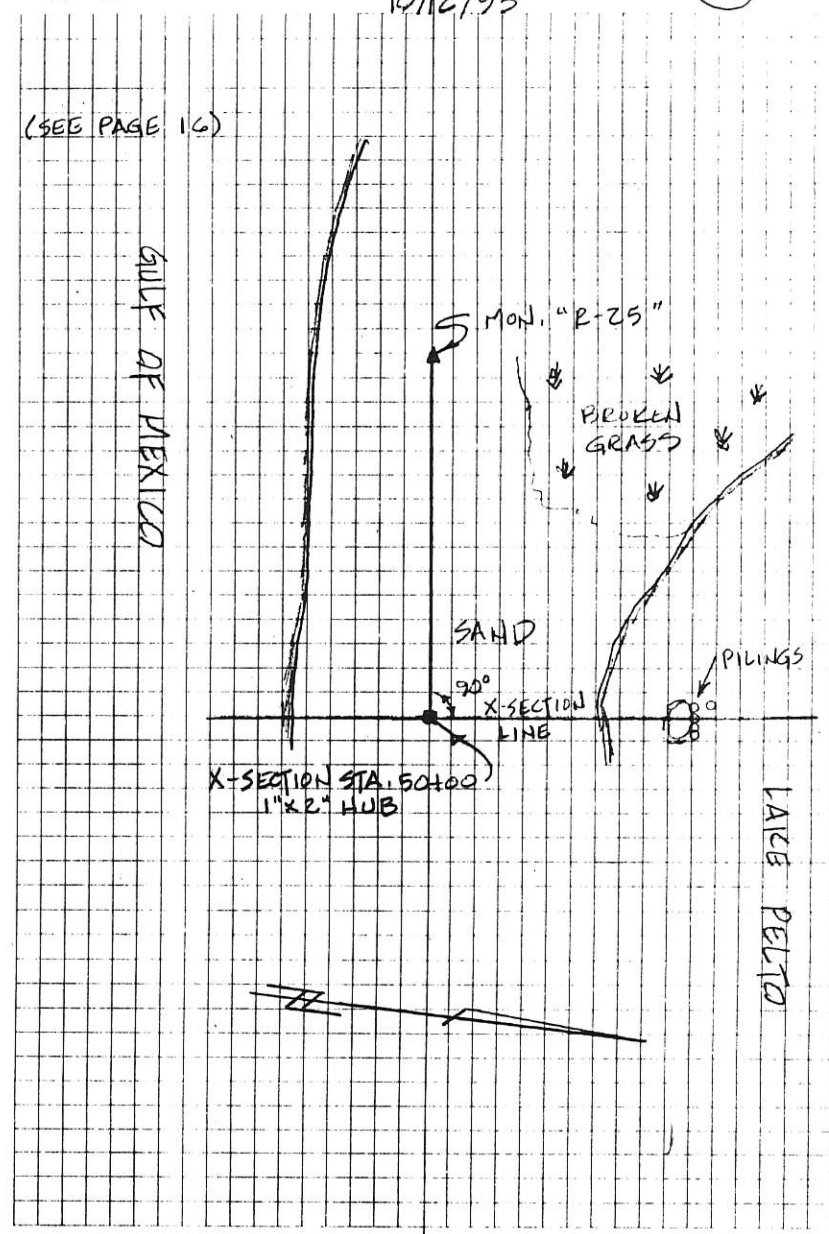
X-SECTION STA. 40+00 (CON'T.)

SAME 10/12/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I. 6.14	—	ELEV.	REMARKS
				0.95 1.0	TOP WATER
1975'	7.7'			-6.7	
2000'	7.7'			-6.7	
2025'	7.8'			-6.8	
2050'	7.9'			-6.9	
2075'	7.9'			-6.9	
2100'	7.9'			-6.9	
2125'	8.2'			-7.2	
2150'	8.9'			-7.9	
2175'	8.7'			-7.7	
2200'	8.7'			-7.7	
2225'	8.7'			-7.7	
2250'	8.6'			-7.6	
2275'	8.7'			-7.7	
2300'	8.9'			-7.9	
2325'	8.9'			-7.9	
2350'	8.9'			-7.9	
2375'	8.8'			-7.8	
2400'	8.8'			-7.8	
2425'	8.5'			-7.5	
2450'	8.5'			-7.5	
2475'	8.6'			-7.6	
2500'	8.5'			-7.5	
			3.25	2.89	CK. B.M.

X-SECTION STA. 50+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				2.84	TOP 1"x2" HUB @ 50+00
	4.57	7.41			
0'			4.8	2.61	@ BASELINE
SOUTHERLY -25'			4.4	3.01	
-46'			6.2	1.21	
-70'			5.7	1.71	
-72'			6.19	1.22 1.2	TOP & EDGE WATER
	SOUNDINGS				
-100'	1.9'			-0.7	
-125'	2.5'			-1.3	
-150'	3.6'			-2.4	
-175'	3.7'			-2.5	
-200'	3.8'			-2.6	
-225'	3.9'			-2.7	
-250'	4.0'			-2.8	
-275'	4.2'			-3.0	
-300'	4.2'			-3.0	
-325'	4.5'			-3.3	
-350'	5.0'			-3.8	
-375'	5.0'			-3.8	
-400'	5.2'			-4.0	
-425'	5.7'			-4.5	
-450'	6.0'			-4.8	



X-SECTION STA. 50+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.41		1.22 1.2	TOP WATER
-475'	5.7'			-4.5	
-500'	5.7'			-4.5	
	NORTHERLY SECTION				
		7.41			
25'			4.8	2.61	
50'			5.2	2.21	
75'			5.4	2.01	
100'			5.4	2.01	
125'			5.4	2.01	
150'			5.5	1.91	
175'			5.5	1.91	
200'			5.5	1.91	
225'			5.7	1.71	
250'			5.8	1.61	
275'			6.0	1.41	
300'			6.3	1.11	
325'			6.3	1.11	
350'			6.39	1.02 1.0	TOP & EDGE WATER
	SOUNDINGS				
375'	0.1'			0.9	
400'	0.1'			0.9	

X-SECTION STA. 50+00 (CON'T.)

SAME 10/12/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I. 7.41	—	ELEV. 1.02 1.0	REMARKS TOP WATER
425'	0.1'			0.9	
450'	0.1'			0.9	
475'	0.1'			0.9	
500'	0.1'			0.9	
525'	0.1'			0.9	
550'	0.2'			0.8	
575'	0.1'			0.9	
597'	0.0'			1.0	
600'	0.3'			0.7	
625'	0.5'			0.5	
650'	0.8'			0.2	
675'	1.3'			-0.3	
690'	0.6'			0.4	
695'			4.8	2.61	
700'			4.8	2.61	
711'			4.9	2.51	
712'	1.3'			-0.3	
725'	1.5'			-0.5	
750'	1.8'			-0.8	
775'	1.9'			-0.9	
800'	2.0'			-1.0	
825'	2.2'			-1.2	

X-SECTION STA. 50+00 (CON'T.)

SAME 10/12/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				1.02	TOP WATER
850'	2.0'			1.0 -1.0	
875'	2.1'			-1.1	
900'	2.6'			-1.6	
925'	2.7'			-1.7	
950'	2.8'			-1.8	
975'	3.0'			-2.0	
1000'	3.4'			-2.4	
1025'	3.5'			-2.5	
1050'	3.7'			-2.7	
1075'	4.0'			-3.0	
1100'	4.3'			-3.3	
1125'	4.2'			-3.2	
1150'	4.8'			-3.8	
1175'	4.9'			-3.9	
1200'	5.0'			-4.0	
1225'	5.3'			-4.3	
1250'	5.5'			-4.5	
1275'	5.7'			-4.7	
1300'	6.2'			-5.2	
1325'	6.5'			-5.5	
1350'	6.9'			-5.9	
1375'	7.0'			-6.0	

X-SECTION STA. 50+00 (CON'T.)

SAME 10/12/93 (54)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I. 7.41	—	ELEV. 1.02	REMARKS TOP WATER
425'	0.1'			1.0 0.9	
450'	0.1'			0.9	
475'	0.1'			0.9	
500'	0.1'			0.9	
525'	0.1'			0.9	
550'	0.2'			0.8	
575'	0.1'			0.9	
597'	0.0'			1.0	
600'	0.3'			0.7	
625'	0.5'			0.5	
650'	0.8'			0.2	
675'	1.3'			-0.3	
690'	0.6'			0.4	
695'			4.8	2.61	
700'			4.8	2.61	
711'			4.9	2.51	
712'	1.3'			-0.3	
725'	1.5'			-0.5	
750'	1.8'			-0.8	
775'	1.9'			-0.9	
800'	2.0'			-1.0	
825'	2.2'			-1.2	

X-SECTION STA. 50+00 (CON'T.)

SAME 10/12/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				1.02	TOP WATER
850'	2.0'			1.0 -1.0	
875'	2.1'			-1.1	
900'	2.6'			-1.6	
925'	2.7'			-1.7	
950'	2.8'			-1.8	
975'	3.0'			-2.0	
1000'	3.4'			-2.4	
1025'	3.5'			-2.5	
1050'	3.7'			-2.7	
1075'	4.0'			-3.0	
1100'	4.3'			-3.3	
1125'	4.2'			-3.2	
1150'	4.8'			-3.8	
1175'	4.9'			-3.9	
1200'	5.0'			-4.0	
1225'	5.3'			-4.3	
1250'	5.5'			-4.5	
1275'	5.7'			-4.7	
1300'	6.2'			-5.2	
1325'	6.5'			-5.5	
1350'	6.9'			-5.9	
1375'	7.0'			-6.0	

X-SECTION STA. 50+00 (CON'T.)

SAME 10/2/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				1.02	TOP WATER
1400'	7.1'			1.0 -6.1	
1425'	7.2'			-6.2	
1450'	7.4'			-6.4	
1475'	7.6'			-6.6	
1500'	7.9'			-6.9	
1525'	7.9'			-6.9	
1550'	7.9'			-6.9	
1575'	7.9'			-6.9	
1600'	8.0'			-7.0	
1625'	8.0'			-7.0	
1650'	8.0'			-7.0	
1675'	8.0'			-7.0	
1700'	8.2'			-7.2	
1725'	8.3'			-7.3	
1750'	8.4'			-7.4	
1775'	8.5'			-7.5	
1800'	8.7'			-7.7	
1825'	8.7'			-7.7	
1850'	8.7'			-7.7	
1875'	8.7'			-7.7	
1900'	8.3'			-7.3	
1925'	8.5'			-7.5	

X-SECTION STA 50+00 (CON'T.)

SAME

10/12/93

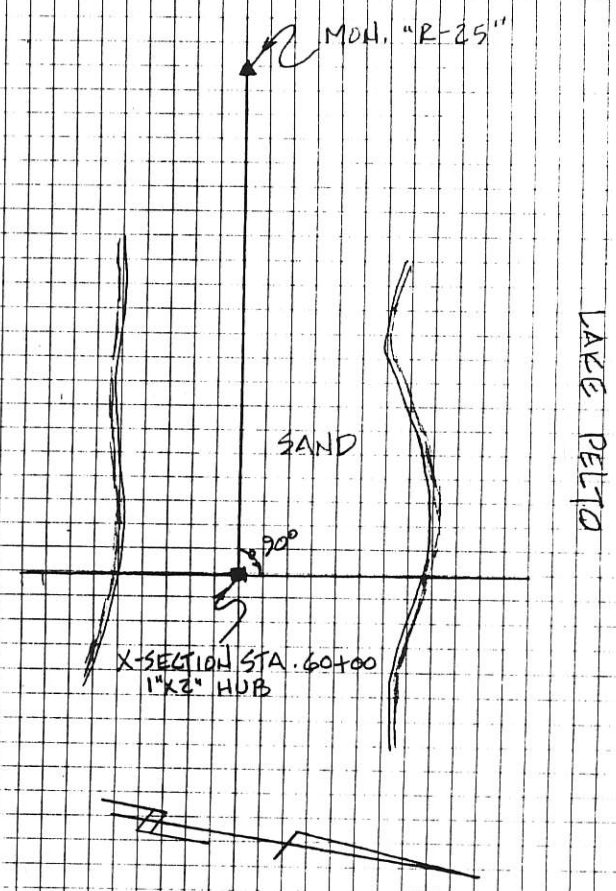
DISTANCE	+ SOUNDINGS (CON'T.)	H.I. 7.41	—	ELEV. 1.02 1.0	REMARKS TOPWATER
1950'	8.7'			-7.7	
1975'	8.3'			-7.3	
2000'	8.5'			-7.5	
2025'	8.5'			-7.5	
2050'	8.0'			-7.0	
2075'	8.2'			-7.2	
2100'	8.4'			-7.4	
2125'	8.5'			-7.5	
2150'	8.5'			-7.5	
2175'	8.6'			-7.6	
2200'	8.0'			-7.0	
2225'	8.0'			-7.0	
2250'	7.8'			-6.8	
2275'	8.0'			-7.0	
2300'	8.1'			-7.1	
2325'	8.0'			-7.0	
2350'	8.0'			-7.0	
2375'	8.0'			-7.0	
2400'	7.8'			-6.8	
2425'	8.0'			-7.0	
2450'	8.0'			-7.0	
2475'	8.0'			-7.0	
2500'	8.0'			-7.0	
			4.56	2.85	CK. B.M.

SAME 10/12/93

X-SECTION STA. 60+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				2.82	TOP 1"x2" HUB @60+00
	3.68	6.50			
0'			4.8	1.70	@BASELINE
SOUTHERLY					
- 25'			4.8	1.70	
- 50'			4.8	1.70	
- 75'			4.9	1.60	
- 100'			5.2	1.30	
- 132'			4.9	1.60	
- 140'			4.9	1.60	
- 142'			5.46	1.04 / 1.0	TOP & EDGE WATER
	SOUNDINGS				
- 150'	0.5'			0.5	
- 175'	1.1'			-0.1	
- 200'	1.8'			-0.8	
- 225'	2.7'			-1.7	
- 250'	2.8'			-1.8	
- 275'	2.8'			-1.8	
- 300'	2.8'			-1.8	
- 325'	2.9'			-1.9	
- 350'	3.0'			-2.0	
- 375'	2.7'			-1.7	
- 400'	2.2'			-1.2	
- 425'	2.5'			-1.5	

(SEE PAGE 16)



X-SECTION STA 60+00 (CON'T.)

SAME 10/12/93

(59)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	6.50		1.04	TOP WATER
				1.0	
- 450'	3.0'			-2.0	
- 475'	3.7'			-2.7	
- 500'	4.0'			-3.0	
	NORTHERLY SECTION				
25'			4.9	1.60	
50'			5.0	1.50	
75'			4.9	1.60	
100'			4.9	1.60	
125'			4.9	1.60	
150'			5.0	1.50	
175'			5.3	1.20	
200'			5.4	1.10	
225'			5.5	1.00	
250'			5.3	1.20	
275'			5.3	1.20	
300'			5.3	1.20	
325'			5.4	1.10	
342'			5.1	1.40	
345'			5.45	1.05	TOP & EDGE WATER
				1.0	
	SOUNDINGS				
350'	0.4'			0.6	

X-SECTION STA. 60+00 (CON'T.)

SAME 10/12/93

(60)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				1.05 1.0	TOP WATER
375'	0.6'			0.4	
400'	0.9'			0.1	
425'	1.0'			0.0	
450'	1.0'			0.0	
475'	1.0'			0.0	
500'	1.2'			-0.2	
525'	1.2'			-0.2	
550'	1.4'			-0.4	
575'	1.5'			-0.5	
600'	1.9'			-0.9	
625'	1.5'			-0.5	
650'	1.9'			-0.9	
675'	1.8'			-0.8	
700'	1.8'			-0.8	
725'	1.7'			-0.7	
750'	1.7'			-0.7	
775'	1.7'			-0.7	
800'	2.0'			-1.0	
825'	1.9'			-0.9	
850'	1.8'			-0.8	
875'	3.1'			-2.1	
900'	4.0'			-3.0	

X-SECTION STA. 60+00 (CON'T.)

SAME 10/12/93

(61)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				1.05 1.0	TOP WATER
925'	5.5'			-4.5	
950'	6.7'			-5.7	
975'	7.0'			-6.0	
1000'	7.7'			-6.7	
1025'	7.6'			-6.6	
1050'	7.8'			-6.8	
1075'	7.8'			-6.8	
1100'	7.8'			-6.8	
1125'	8.1'			-7.1	
1150'	8.0'			-7.0	
1175'	7.9'			-6.9	
1200'	7.9'			-6.9	
1225'	7.7'			-6.7	
1250'	7.9'			-6.9	
1275'	7.9'			-6.9	
1300'	7.8'			-6.8	
1325'	7.9'			-6.9	
1350'	8.0'			-7.0	
1375'	8.0'			-7.0	
1400'	7.9'			-6.9	
1425'	7.8'			-6.8	
1450'	7.8'			-6.8	

X-SECTION STA. 62+00 (CON'T.)

SAME 10/12/93

(35)

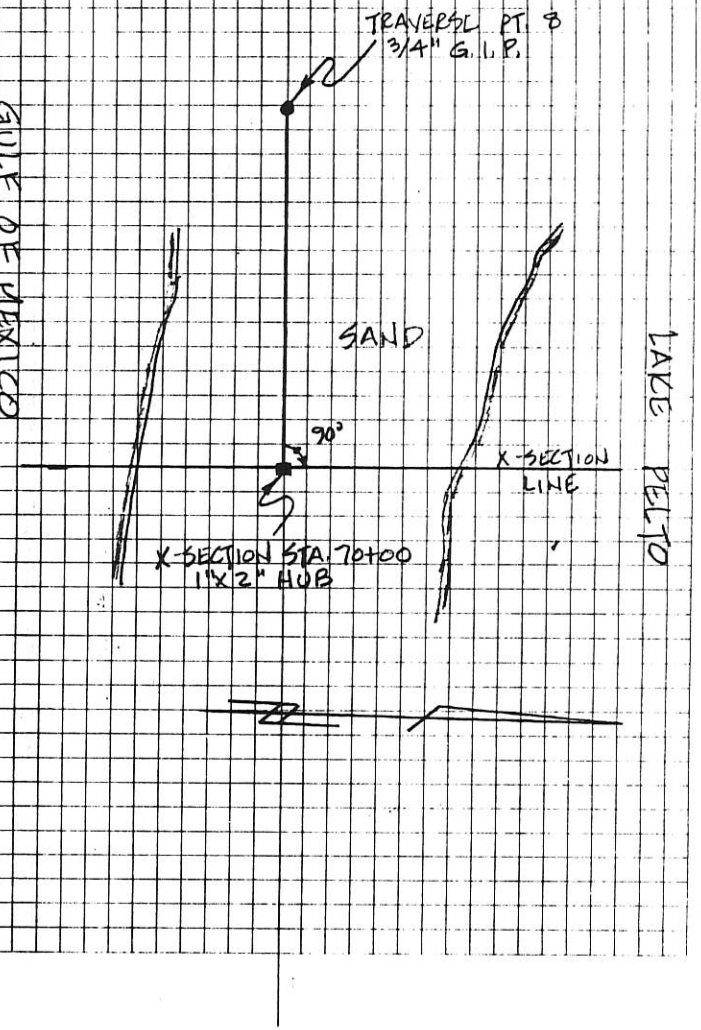
DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		6.50		1.05 1.0	TOP WATER
2025'	7.6'			-6.6	
2050'	7.6'			-6.6	
2075'	8.0'			-7.0	
2100'	7.9'			-6.9	
2125'	7.6'			-6.6	
2150'	7.6'			-6.6	
2175'	7.6'			-6.6	
2200'	7.6'			-6.6	
2225'	7.7'			-6.7	
2250'	7.6'			-6.6	
2275'	7.6'			-6.6	
2300'	7.6'			-6.6	
2325'	7.6'			-6.6	
2350'	7.8'			-6.8	
2375'	7.7'			-6.7	
2400'	7.6'			-6.6	
2425'	7.7'			-6.7	
2450'	7.7'			-6.7	
2475'	7.7'			-6.7	
2500'	7.8'			-6.8	
			3.68	2.82	CK. B.M.

SAME 10/12/93

X-SECTION STA. 70+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				2.40	TOP 1"x2" HUB @ 68+00
	4.31	6.71			
0'			4.9	1.81	@ BASELINE
SOUTHERLY - 25'			4.9	1.81	
- 50'			4.6	2.11	
- 75'			4.3	2.41	
- 100'			4.0	2.71	
- 125'			4.2	2.51	
- 137'			5.5	1.21	
- 160'			4.8	1.91	
- 165'			5.75	0.96 1.0	TOP & EDGE WATER
	SOUNDINGS				
- 175'	0.6'			0.4	
- 200'	2.0'			-1.0	
- 225'	4.0'			-3.0	
- 250'	4.7'			-3.7	
- 275'	4.6'			-3.6	
- 300'	4.5'			-3.5	
- 325'	3.8'			-2.8	
- 350'	3.5'			-2.5	
- 375'	3.2'			-2.2	
- 400'	2.9'			-2.9	
- 425'	3.5'			-2.5	

(SEE PAGE 16)



X-SECTION STA. 70+00 (CON'T.)

SAME 10/12/93

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)			0.96 1.0	TOP WATER
- 450'	3.0'			-2.0	
- 475'	3.0'			-2.0	
- 500'	3.1'			-2.1	
- 550'	4.2'			-3.1	
	NORTHERLY SECTION				
		6.71			
25'			4.9	1.81	
50'			5.0	1.71	
75'			5.2	1.51	
100'			5.2	1.51	
125'			5.4	1.31	
150'			5.5	1.21	
175'			5.5	1.21	
200'			5.7	1.01	
225'			5.7	1.01	
250'			5.3	1.41	
270'			5.68	1.03 1.0	TOP & EDGE WATER
	SOUNDINGS				
300'	0.2'			0.8	
325'	0.4'			0.6	
350'	0.5'			0.5	

X-SECTION STA. 70+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
				1.03	TOP WATER
375'	0.5'			1.0 0.5	
400'	0.6'			0.4	
425'	0.8'			0.2	
450'	0.9'			0.1	
475'	1.0'			0.0	
500'	1.3'			-0.3	
525'	1.3'			-0.3	
550'	1.5'			-0.5	
575'	1.6'			-0.6	
600'	1.8'			-0.8	
625'	1.8'			-0.8	
650'	1.9'			-0.9	
675'	2.0'			-1.0	
700'	2.2'			-1.2	
725'	2.6'			-1.6	
750'	2.9'			-1.9	
775'	4.0'			-3.0	
800'	4.5'			-3.5	
825'	4.7'			-3.7	
850'	5.3'			-4.3	
875'	6.0'			-5.0	
900'	6.4'			-5.4	

SAME 10/12/93

X-SECTION STA. 70+00 (CON'T.)

SAME 10/12/93

(38)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	-	ELEV.	REMARKS
				1.03	TOP WATER
				1.0	
1475'	7.9'			-6.9	
1500'	7.9'			-6.9	
1525'	7.8'			-6.8	
1550'	7.8'			-6.8	
1575'	7.9'			-6.9	
1600'	7.9'			-6.9	
1625'	7.9'			-6.9	
1650'	7.8'			-6.8	
1675'	7.9'			-6.9	
1700'	7.9'			-6.9	
1725'	7.8'			-6.8	
1750'	7.8'			-6.8	
1775'	7.9'			-6.9	
1800'	7.8'			-6.8	
1825'	7.8'			-6.8	
1850'	7.8'			-6.8	
1875'	7.9'			-6.9	
1900'	7.9'			-6.9	
1925'	7.9'			-6.9	
1950'	7.9'			-6.9	
1975'	7.9'			-6.9	
2000'	7.8'			-6.8	

X-SECTION STA. 70+00 (CON'T.) SAME 10/12/93 (39)

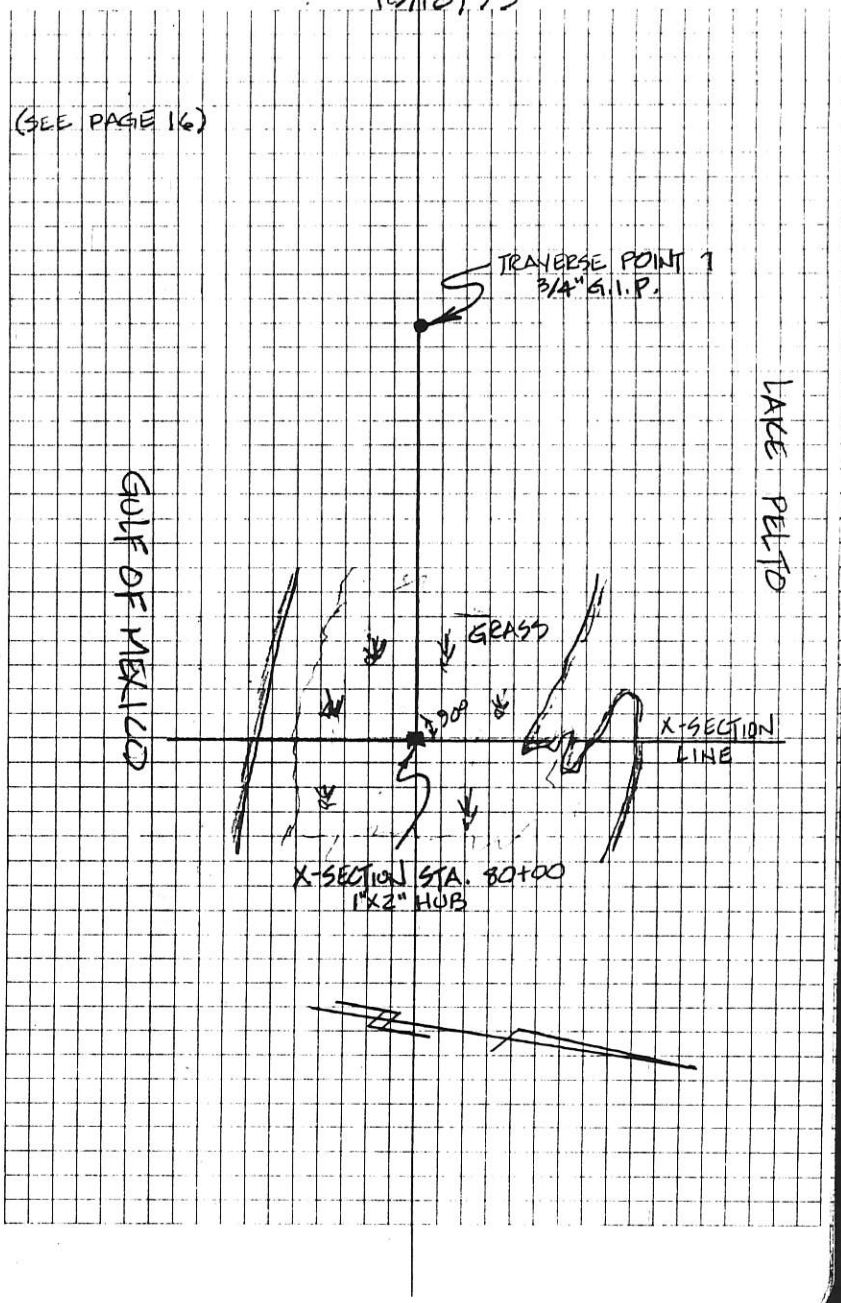
DISTANCE	+ SOUNDINGS (CON'T.)	H.I. 6.71	—	ELEV. 1.03 1.0	REMARKS TOP WATER
2025'	7.9'			-6.9	
2050'	7.9'			-6.9	
2075'	7.9'			-6.9	
2100'	7.9'			-6.9	
2125'	8.0'			-7.0	
2150'	8.0'			-7.0	
2175'	7.9'			-6.9	
2200'	7.9'			-6.9	
2225'	7.7'			-6.7	
2250'	7.8'			-6.8	
2275'	7.9'			-6.9	
2300'	7.9'			-6.9	
2325'	7.9'			-6.9	
2350'	7.9'			-6.9	
2375'	7.9'			-6.9	
2400'	7.9'			-6.9	
2425'	7.8'			-6.8	
2450'	7.7'			-6.7	
2475'	7.7'			-6.7	
2500'	7.6'			-6.6	
			4.31	2.40	CK. B.M.

SAME 10/12/93

X-SECTION STA. 80+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				1.34	TOP 1"x2" HUB @ 80+00
	4.90	6.24			
0'			5.2	1.04	℄ BASELINE
SOUTHERLY - 25'			4.7	1.54	
- 50'			4.6	1.64	
- 75'			3.2	3.04	
- 100'			3.4	2.84	
- 125'			3.2	3.04	
- 150'			3.1	3.14	
- 175'			2.9	3.34	
- 189'			4.5	1.74	
- 205'			4.2	2.04	
- 210'			5.26	0.98	TOP & EDGE WATER
	SOUNDINGS			1.0	
-225'	1.0'			0.0	
-250'	2.0'			-1.0	
- 275'	1.9'			-0.9	
- 300'	1.6'			-0.6	
- 325'	1.6'			-0.6	
- 350'	1.6'			-0.6	
- 375'	2.0'			-1.0	
- 400'	2.4'			-1.4	
- 425'	2.7'			-1.7	

(SEE PAGE 16)



X-SECTION STA. 80+00 (CON'T.)

SAME 10/12/93

(71)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	6.24		0.98 1.0	TOP WATER
-450'	3.0'			-2.0	
-475'	3.0'			-2.0	
-500'	3.1'			-2.1	
-525'	4.0'			-3.0	
-550'	4.5'			-3.5	
	NORTHERLY SECTION				
25'			5.3	0.94	
50'			5.3	0.94	
75'			5.5	0.74	
100'			5.0	1.24	
125'			6.7	-0.46	
150'			5.8	0.44	
175'			5.5	0.74	
200'			5.1	1.14	
225'			4.9	1.34	
232'			5.21	1.03 1.0	TOP & EDGE WATER
	SOUNDINGS				
237'	1.0'			0.0	
250'	2.0'			-1.0	
275'	2.1'			-1.1	
300'	2.2'			-1.2	

X-SECTION STA. 80+00 (CON'T.)

SAME 10/12/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				1.03 1.10	TOPWATER
325'	2.3'			-1.3	
350'	2.5'			-1.5	
375'	2.6'			-1.6	
400'	2.9'			-1.9	
425'	2.9'			-1.9	
450'	3.0'			-2.0	
475'	3.1'			-2.1	
500'	3.3'			-2.3	
525'	3.5'			-2.5	
550'	3.9'			-2.9	
575'	3.9'			-2.9	
600'	3.8'			-2.8	
625'	3.7'			-2.7	
650'	3.9'			-2.9	
675'	4.0'			-3.0	
700'	3.8'			-2.8	
725'	4.0'			-3.0	
750'	4.0'			-3.0	
775'	4.2'			-3.2	
800'	4.2'			-3.2	
825'	4.6'			-3.6	
850'	4.4'			-3.4	

SAME 10/12/93

SECTION STA. 80+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
				1.03	TOPWATER
875'	4.2'			1.0 −3.2	
900'	4.5'			−3.5	
925'	4.6'			−3.6	
950'	4.7'			−3.7	
975'	5.0'			−4.0	
1000'	5.1'			−4.1	
1025'	5.0'			−4.0	
1050'	5.5'			−4.5	
1075'	5.8'			−4.8	
1100'	6.1'			−5.1	
1125'	6.2'			−5.2	
1150'	5.9'			−4.9	
1175'	5.9'			−4.9	
1200'	5.8'			−4.8	
1225'	5.9'			−4.9	
1250'	6.0'			−5.0	
1275'	6.1'			−5.1	
1300'	6.3'			−5.3	
1325'	6.3'			−5.3	
1350'	6.4'			−5.4	
1375'	6.3'			−5.3	
1400'	6.3'			−5.3	

X-SECTION STA. 80+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
				1.03	TOPWATER
1425'	6.5'			1.0 -5.5	
1450'	7.0'			-6.0	
1475'	7.2'			-6.2	
1500'	7.4'			-6.4	
1525'	7.5'			-6.5	
1550'	7.7'			-6.7	
1575'	7.8'			-6.8	
1600'	7.9'			-6.9	
1625'	8.0'			-7.0	
1650'	8.1'			-7.1	
1675'	8.2'			-7.2	
1700'	8.3'			-7.3	
1725'	8.2'			-7.2	
1750'	8.0'			-7.0	
1775'	8.0'			-7.0	
1800'	8.2'			-7.2	
1825'	8.3'			-7.3	
1850'	8.3'			-7.3	
1875'	8.1'			-7.1	
1900'	8.0'			-7.0	
1925'	8.1'			-7.1	
1950'	8.1'			-7.1	

SAME 10/12/93

X-SECTION STA. 80+00 (CON'T.)

SAME 10/12/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I. 6.24	—	ELEV.	REMARKS
				1.03	TOP WATER
1975'	8.0'			-7.0	
2000'	8.1'			-7.1	
2025'	8.0'			-7.0	
2050'	8.0'			-7.0	
2075'	8.0'			-7.0	
2100'	8.0'			-7.0	
2125'	8.2'			-7.2	
2150'	8.3'			-7.3	
2175'	7.9'			-6.9	
2200'	7.8'			-6.8	
2225'	7.7'			-6.7	
2250'	7.8'			-6.8	
2275'	7.9'			-6.9	
2300'	7.8'			-6.8	
2325'	8.0'			-7.0	
2350'	8.0'			-7.0	
2375'	7.9'			-6.9	
2400'	7.7'			-6.7	
2425'	7.7'			-6.7	
2450'	7.9'			-6.9	
2475'	8.0'			-7.0	
2500'	8.0'			-7.0	
			4.90	1.34	CK. B.M.

BOOK 082

JOB NO. 1136

T. BAKER SMITH & SON, INC.

EAST ISLE DERNIERES RESTORATION

PROJECT - PHASE 0

X-SECTION STA. 90+00

(SEE BOOK 081 FOR ADDITIONAL INFO.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				3.56	TOP 1"x2" HUB @ 92+00
	3.15	6.71			
0'			4.4	2.31	@ BASELINE
SOUTHERLY - 25'			5.0	1.71	
- 50'			5.4	1.31	
- 75'			5.7	1.01	
- 100'			5.5	1.21	
- 125'			5.4	1.31	
- 150'			4.3	2.41	
- 175'			4.1	2.61	
- 200'			3.8	2.91	
- 225'			3.5	3.21	
- 250'			3.4	3.31	
- 275'			3.4	3.31	
- 300'			3.6	3.11	
- 320'			5.2	1.51	
- 344'			5.0	1.71	
- 350'			5.73	0.98 1.0	TOP & EDGE WATER
	SOUNDINGS				
- 375'	1.5'			-0.5	
- 400'	1.6'			-0.6	
- 425'	2.3'			-1.3	
- 450'	3.1'			-2.1	

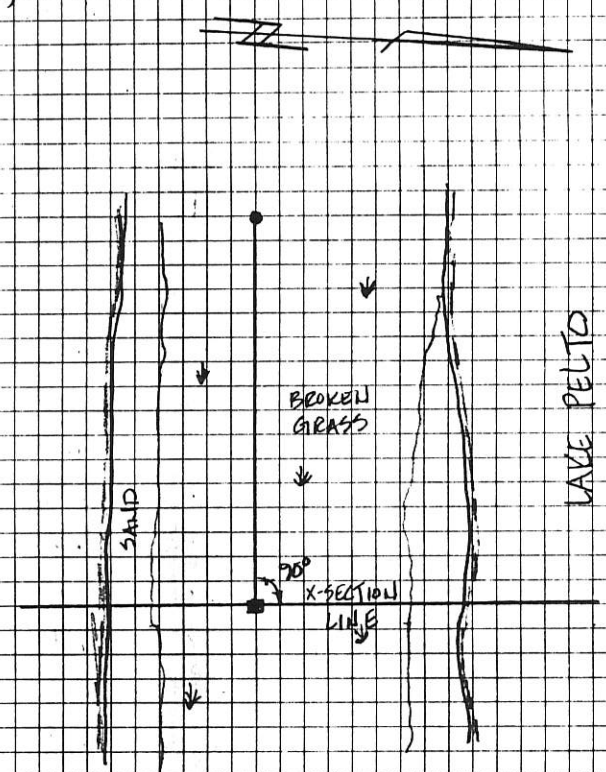
B.A. BRUNET
E. KOIKE
A. CARLOS
J. GAUTREAUX
T. BERGERON

CLEAR TO P.C. & MILD (71°F)

10/12/93

②

(SEE BOOK 081, PAGE 16)



X-SECTION STA. 90+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)			0.98 1.0	TOP WATER
-475'	3.3'			-2.3	
-500'	3.5'			-2.5	
	NORTHERLY SECTION				
		6.71			
25'			3.5	3.21	
50'			4.2	2.51	
75'			4.8	1.91	
100'			5.4	1.31	
125'			5.4	1.31	
150'			5.5	1.21	
175'			5.6	1.11	
200'			5.0	1.71	
218'			4.5	2.21	
225'			5.82	0.89 0.9	TOP & EDGE WATER
	SOUNDINGS				
250'	0.4'			0.5	
275'	0.7'			0.2	
300'	1.0'			-0.1	
325'	1.0'			-0.1	
350'	1.2'			-0.3	
375'	1.3'			-0.4	

SAME 10/12/93

X-SECTION STA. 90+00 (CON'T.)

SAME 10/12/93

4

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
				0.89 0.9	TOP WATER
400'	1.4'			-0.5	
425'	1.6'			-0.7	
450'	2.0'			-1.1	
475'	1.8'			-0.9	
500'	2.0'			-1.1	
525'	2.3'			-1.2	
550'	2.5'			-1.6	
575'	2.0'			-1.1	
600'	2.0'			-1.1	
625'	2.2'			-1.3	
650'	2.5'			-1.6	
675'	2.5'			-1.6	
700'	2.5'			-1.6	
725'	2.6'			-1.7	
750'	2.8'			-1.9	
775'	2.8'			-1.9	
800'	2.8'			-1.9	
825'	2.9'			-2.0	
850'	3.0'			-2.1	
875'	3.0'			-2.1	
900'	3.0'			-2.1	
925'	3.0'			-2.1	

SAME 10/12/93 (5)

X-SECTION STA 90+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.89 / 0.9	TOP WATER
950'	3.0'			-2.1	
975'	3.0'			-2.1	
1000'	3.1'			-2.2	
1025'	3.2'			-2.3	
1050'	3.3'			-2.4	
1075'	3.5'			-2.6	
1100'	3.7'			-2.8	
1125'	3.7'			-2.8	
1150'	3.6'			-2.5	
1175'	3.6'			-2.5	
1200'	3.8'			-2.9	
1225'	3.6'			-2.7	
1250'	3.5'			-2.6	
1275'	3.7'			-2.8	
1300'	3.8'			-2.9	
1325'	3.8'			-2.9	
1350'	3.7'			-2.8	
1375'	3.9'			-3.0	
1400'	3.9'			-3.0	
1425'	3.9'			-3.0	
1450'	4.0'			-3.1	
1475'	4.0'			-3.1	

X-SECTION STA. 90+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.89	TOP WATER
1500'	4.1'			4.9 -3.2	
1525'	4.5'			-3.6	
1550'	4.9'			-4.0	
1575'	4.9'			-4.0	
1600'	4.9'			-4.0	
1625'	5.0'			-4.1	
1650'	5.5'			-4.6	
1675'	5.5'			-4.6	
1700'	5.5'			-4.6	
1725'	6.0'			-5.1	
1750'	6.8'			-5.9	
1775'	6.9'			-6.0	
1800'	7.0'			-6.1	
1825'	7.3'			-6.4	
1850'	7.8'			-6.9	
1875'	8.0'			-7.1	
1900'	8.2'			-7.3	
1925'	7.9'			-7.0	
1950'	8.6'			-7.7	
1975'	8.6'			-7.7	
2000'	8.7'			-7.8	
2025'	8.6'			-7.7	

SAME 10/12/93

X-SECTION STA. 90+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		6.71		0.89 0.9	TOP WATER
2050'	8.5'			-7.6	
2075'	8.5'			-7.6	
2100'	8.7'			-7.8	
2125'	8.6'			-7.7	
2150'	8.5'			-7.6	
2175'	8.4'			-7.5	
2200'	8.3'			-7.4	
2225'	8.3'			-7.4	
2250'	8.4'			-7.5	
2275'	8.3'			-7.4	
2300'	8.3'			-7.4	
2325'	8.4'			-7.5	
2350'	8.5'			-7.6	
2375'	8.5'			-7.6	
2400'	8.5'			-7.6	
2425'	8.7'			-7.8	
2450'	8.8'			-7.9	
2475'	8.8'			-7.9	
2500'	8.8'			-7.9	
			3.15	3.56	CK. B.M.

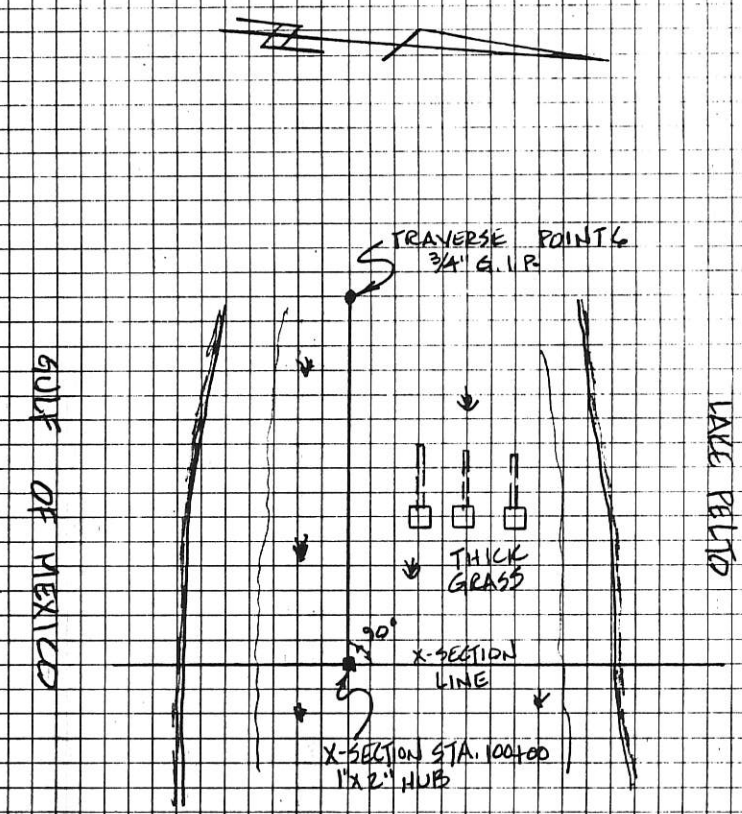
SAME 10/12/93

X-SECTION STA. 100+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				5.09	TOP 1"x2" HUB @ 98+00
	4.91	10.00			
0'			5.3	4.70	@BASELINE
SOUTHERLY - 25'			5.5	4.50	
- 50'			5.9	4.10	
- 75'			6.1	3.90	
- 100'			5.7	4.30	
- 115'			4.4	5.60	
- 125'			6.2	3.80	
- 150'			6.6	3.40	
- 175'			6.7	3.30	
- 200'			6.6	3.40	
- 225'			6.5	3.50	
- 246'			7.3	2.70	
- 250'			7.9	2.10	
- 267'			8.6	1.40	
- 275'			8.4	1.60	
- 287'			8.4	1.60	
- 290'			8.90	1.10	TOP & EDGE WATER
	SOUNDINGS				
- 300'	0.6'			0.5	
- 325'	1.3'			-0.2	
- 350'	2.0'			-0.9	

SAME 10/12/93 (8)

(SEE BOOK 081, PAGE 16)



X-SECTION STA. 100+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
		10.00			
350'			6.2	3.80	
375'			6.2	3.80	
400'			5.9	4.10	
425'			6.3	3.70	
450'			6.4	3.60	
475'			6.4	3.60	
500'			6.6	3.40	
528'			6.7	3.30	HIGH BANK
533'			9.00	1.00	TOP & EDGE WATER
	SOUNDINGS				
550'	0.5'			0.5	
575'	1.0'			0.0	
600'	1.3'			-0.3	
625'	1.3'			-0.3	
650'	1.3'			-0.3	
675'	1.3'			-0.3	
700'	1.3'			-0.3	
725'	1.5'			-0.5	
750'	1.6'			-0.6	
775'	1.9'			-0.9	
800'	2.1'			-1.1	
825'	2.1'			-1.1	

SAME 10/12/93

X-SECTION STA. 100+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
				1.00	TOP WATER
850'	2.1'			-1.1	
875'	2.3'			-1.3	
900'	2.5'			-1.5	
925'	2.5'			-1.5	
950'	2.6'			-1.6	
975'	2.7'			-1.7	
1000'	2.8'			-1.8	
1025'	2.6'			-1.6	
1050'	2.3'			-1.3	
1075'	2.6'			-1.6	
1100'	3.0'			-2.0	
1125'	3.0'			-2.0	
1150'	3.0'			-2.0	
1175'	3.1'			-2.1	
1200'	3.3'			-2.3	
1225'	3.4'			-2.4	
1250'	3.5'			-2.5	
1275'	3.3'			-2.3	
1300'	3.3'			-2.3	
1325'	3.4'			-2.4	
1350'	3.4'			-2.4	
1375'	3.4'			-2.4	

SAME 10/12/93

X-SECTION STA. 100+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
				1.00	TOP WATER
1400'	3.5'			-2.5	
1425'	3.5'			-2.5	
1450'	3.4'			-2.4	
1475'	3.5'			-2.5	
1500'	3.6'			-2.6	
1525'	3.1'			-2.1	
1550'	3.9'			-2.9	
1575'	3.7'			-2.7	
1600'	3.9'			-2.9	
1625'	3.9'			-2.9	
1650'	4.0'			-3.0	
1675'	4.0'			-3.0	
1700'	4.0'			-3.0	
1725'	4.0'			-3.0	
1750'	4.2'			-3.2	
1775'	4.1'			-3.1	
1800'	4.4'			-3.4	
1825'	4.4'			-3.4	
1850'	4.6'			-3.6	
1875'	4.5'			-3.5	
1900'	4.4'			-3.4	
1925'	4.6'			-3.6	

SAME 10/12/93

X-SECTION STA. 100+00 (CON'T)

SAME 10/12/93

(13)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I. 10.00	−	ELEV. 1.00	REMARKS TOP WATER
1950'	4.8'			-3.8	
1975'	4.8'			-3.8	
2000'	4.8'			-3.8	
2025'	5.2'			-4.2	
2050'	5.6'			-4.6	
2075'	6.0'			-5.0	
2100'	6.6'			-5.6	
2125'	7.0'			-6.0	
2150'	7.6'			-6.6	
2175'	8.0'			-7.0	
2200'	8.2'			-7.2	
2225'	8.5'			-7.5	
2250'	8.7'			-7.7	
2275'	8.7'			-7.7	
2300'	8.7'			-7.7	
2325'	8.7'			-7.7	
2350'	8.6'			-7.6	
2375'	8.6'			-7.6	
2400'	8.5'			-7.5	
2425'	8.5'			-7.5	
2450'	8.4'			-7.4	
2475'	8.5'			-7.5	
2500'	8.6'			-7.6	
			4.91	5.09	CK. B.M.

END 3000' X-SECTIONS

BEGIN 1500' X-SECTIONS

X-SECTION STA. 2+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				1.66	TOP 1"x2" HUB @4+00
	4.50	6.16			
0'			4.7	1.46	@ BASE LINE
SOUTHERLY - 25'			4.6	1.56	
- 50'			4.2	1.96	
- 75'			3.5	2.66	
- 86'			3.4	2.76	
- 94'			4.2	1.96	
- 100'			4.2	1.96	
- 106'			5.38	0.78	TOP & EDGE WATER
				0.8	
	SOUNDINGS				
-125'	0.6'			0.2	
-150'	1.1'			-0.3	
-175'	1.3'			-0.5	
-200'	1.6'			-0.8	
-225'	1.0'			-0.2	
-250'	0.8'			0.0	
-275'	1.2'			-0.4	
-300'	1.5'			-0.7	
-325'	1.8'			-1.0	
-350'	2.1'			-1.3	
-375'	1.9'			-1.1	
-400'	1.6'			-0.8	

SAME

P.C. & COOL (72°F)

10/14/93

(15)

(SEE BOOK 081, PG. 14)

X-SECTION STA. 2+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	6.16		0.78 0.8	TOP WATER
- 425'	2.3			-1.5	
- 450'	2.3			-1.5	
- 475'	2.8			-2.0	
- 500'	3.2			-2.7	
	NORTHERLY SECTION				
25'			4.8		
50'			4.7		
51'			4.4		
60'			4.1		
63'			4.6		
68'			4.7		
70'			5.42	0.74 0.7	TOP & EDGE WATER
	SOUNDINGS				
75'	0.1'			0.6	
100'	0.4'			0.3	
125'	0.5'			0.2	
150'	0.5'			0.2	
175'	0.6'			0.1	
200'	0.8'			-0.1	
225'	0.9'			-0.2	
250'	1.0'			-0.3	

X-SECTION STA. 2+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
		6.16		0.74	TOP WATER
				0.7	
825'	2.3'			−1.6	
850'	2.4'			−1.7	
875'	2.6'			−1.9	
900'	2.8'			−2.1	
925'	2.9'			−2.2	
950'	2.9'			−2.2	
975'	2.8'			−2.1	
1000'	2.8'			−2.1	
			4.50	1.66	CK. B.M.

SAME 10/14/93

X-SECTION STA. 4+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				1.66	TOP 1"X2" HUB @ 4+00
	4.43	6.09			
0'			4.8		@ BASE LINE
SOUTHERLY - 25'			4.7		
- 45'			4.1		
- 50'			4.0		
- 75'			3.5		
- 86'			3.3		
- 100'			4.3		
- 105'			5.35	0.74 0.7	TOP & EDGE WATER
	SOUNDINGS				
- 125'	0.6'			0.1	
- 150'	0.9'			-0.2	
- 175'	1.1'			-0.4	
- 200'	1.4'			-0.7	
- 225'	1.2'			-0.5	
- 250'	1.1'			-0.4	
- 275'	1.3'			-0.6	
- 300'	1.6'			-0.9	
- 325'	1.0'			-0.3	
- 350'	0.6'			0.1	
- 375'	0.7'			0.0	
- 400'	0.8'			-0.1	

SAME 10/14/93

(SEE BOOK 081, PG. 14)

X-SECTION STA. 4+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS CON'T.	6.09		0.74 0.7	TOP WATER
-425'	1.0'			-0.3	
-450'	1.5'			-0.8	
-475'	2.0'			-1.3	
-500'	2.8'			-2.1	
	NORTHERLY SECTION				
25'			4.8	1.29	
50'			4.8	1.29	
51'			4.3	1.79	
62'			4.0	2.09	
75'			5.37	0.72 0.7	TOP & EDGE WATER
	SOUNDINGS				
100'	0.4'			0.3	
125'	0.4'			0.3	
150'	0.6'			0.1	
175'	0.7'			0.0	
200'	0.8'			-0.1	
225'	1.0'			-0.3	
250'	1.2'			-0.5	
275'	1.1'			-0.4	
300'	1.1'			-0.4	
325'	1.1'			-0.4	

SAME 10/14/93

SAME 10/14/93 (21)

X-SECTION STA. 4+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
				0.72 0.7	TOPWATER
350'	1.1'			-0.4	
375'	1.2'			-0.5	
400'	1.3'			-0.6	
425'	1.3'			-0.6	
450'	1.3'			-0.6	
475'	1.4'			-0.7	
500'	1.6'			-0.9	
525'	1.6'			-0.9	
550'	1.7'			-1.0	
575'	1.6'			-0.9	
600'	1.6'			-0.9	
625'	1.7'			-1.0	
650'	1.7'			-1.0	
675'	1.8'			-1.1	
700'	1.8'			-1.1	
725'	2.0'			-1.3	
750'	2.4'			-1.7	
775'	2.6'			-1.9	
800'	2.8'			-2.1	
825'	2.8'			-2.1	
850'	2.8'			-2.1	
875'	2.8'			-2.1	

X-SECTION STA. 4+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
		6.09		0.72 0.7	TOP WATER
900'	2.6'			−1.9	
925'	2.8'			−2.1	
950'	2.8'			−2.1	
975'	2.8'			−2.1	
1000'	2.8'			−2.1	
			4.43	1.66	CK. B.M.

SAME 10/14/93

SAME 10/14/93

X-SECTION STA. 6+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				1.66	TOP 1"x2" HUB @ 4+00
	4.29	5.95			
0'			4.8	5.15	@ BASELINE
SOUTHERLY - 25'			4.1	1.85	
- 50'			3.6	2.35	
- 75'			3.0	2.95	
- 95'			5.22	0.73 0.7	TOP & EDGE WATER
	SOUNDINGS				
- 100'	0.8'			-0.1	
- 125'	1.0'			-0.3	
- 150'	1.2'			-0.5	
- 175'	1.4'			-0.7	
- 200'	1.5'			-0.8	
- 225'	1.5'			-0.8	
- 250'	1.6'			-0.9	
- 275'	1.5'			-0.8	
- 300'	1.3'			-0.6	
- 312'	0.0'			0.7	
- 325'	0.1'			0.6	
- 350'	0.2'			0.5	
- 375'	0.3'			0.4	
- 400'	0.5'			0.2	
- 425'	0.8'			-0.1	

SAME 10/14/93 (24)

X-SECTION STA. 6+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	5.95		0.73 0.7	TOP WATER
- 450'	1.3'			-0.6	
- 475'	1.4'			-0.7	
- 500'	1.6'			-0.9	
- 525'	2.5'			- 1.8	
- 535'	3.2'			-2.5	
	NORTHERLY		SECTION		
25'			4.9	1.05	
50'			5.0	0.95	
75'			5.0	0.95	
100'			4.9	1.05	
110'			5.29	0.66 0.7	TOP & EDGE WATER
	SOUNDINGS				
125'	0.2'			0.5	
150'	0.4'			0.3	
175'	0.5'			0.2	
200'	0.6'			0.1	
225'	0.6'			0.1	
250'	0.7'			0.0	
275'	0.8'			-0.1	
300'	0.8'			-0.1	
325'	0.8'			-0.1	

X-SECTION STA. 6+00 (CON'T.)

SAME 10/14/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
				0.66	TOP WATER
350'	1.0'			0.7 −0.3	
375'	1.2'			−0.5	
400'	1.5'			−0.8	
425'	1.5'			−0.8	
450'	1.4'			−0.7	
475'	1.4'			−0.7	
500'	1.4'			−0.7	
525'	1.4'			−0.7	
550'	1.5'			−0.8	
575'	1.7'			−1.0	
600'	1.9'			−1.2	
625'	2.1'			−1.4	
650'	2.3'			−1.6	
675'	2.4'			−1.7	
700'	2.6'			−1.9	
725'	2.6'			−1.9	
750'	2.5'			−1.8	
775'	2.5'			−1.8	
800'	2.6'			−1.9	
825'	2.3'			−1.6	
850'	2.3'			−1.6	
875'	2.5'			−1.8	

X-SECTION STA. 6+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
		5.95		0.66 0.7	TOP WATER
900'	2.7'			-2.0	
925'	2.7'			-2.0	
950'	2.7'			-2.0	
975'	2.8'			-2.1	
1000'	2.8'			-2.1	
			4.29	1.66	CK. B.M.

SAME 10/14/73

X-SECTION STA. 8+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				1.69	TOP 1"x2" HUB @ 10+00
	4.80	6.49			
0'			4.8	1.7	@ BASE LINE
SOUTHERLY - 25'			4.5	2.0	
- 50'			4.3	2.2	
- 69'			4.2	2.3	
- 75'			4.7	1.8	
- 94'			5.2	1.3	
- 100'			5.80	0.69	TOP & EDGE WATER
	SOUNDINGS			0.7	
-125'	0.6'			0.1	
-150'	1.0'			-0.3	
-175'	1.0'			-0.3	
-200'	1.2'			-0.5	
-225'	1.0'			-0.3	
-250'	0.1'			0.6	
-262'			5.8	0.69	EDGE WATER
-275'			5.6	0.89	
-300'			5.6	0.89	
-325'			5.7	0.79	
-350'			5.8	0.69	EDGE WATER
-375'	0.2'			0.5	
-400'	0.6'			0.1	

SAME 10/4/93

X-SECTION STA. 8+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	6.49		0.69 0.7	TOP WATER
-425'	1.0'			-0.3	
-450'	1.3'			-0.6	
-475'	1.6'			-0.9	
-500'	2.0'			-1.3	
-525'	2.8'			-2.1	
-550'	3.5'			-2.8	
	NORTHERLY SECTION				
25'			4.9	1.55	
50'			5.4	1.09	
75'			5.5	0.99	
100'			5.5	0.99	
101'			5.1	1.39	
120'			5.1	1.39	
128'			5.81	0.68 0.7	TOP'S EDGE WATER
	SOUNDINGS				
150'	0.5'			0.2	
175'	0.6'			0.1	
200'	0.7'			0.0	
225'	0.7'			0.0	
250'	0.8'			-0.1	
275'	0.8'			-0.1	

X-SECTION STA. 8+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
				0.68 0.7	TOP WATER
300'	0.8'			-0.1	
325'	0.8'			-0.1	
350'	0.8'			-0.1	
375'	0.8'			-0.1	
400'	0.8'			-0.1	
425'	0.8'			-0.1	
450'	0.9'			-0.2	
475'	0.8'			-0.1	
500'	0.8'			-0.1	
525'	0.9'			-0.2	
550'	0.9'			-0.2	
575'	1.0'			-0.3	
600'	1.0'			-0.3	
625'	1.0'			-0.3	
650'	1.0'			-0.3	
675'	1.2'			-0.5	
700'	1.4'			-0.7	
725'	2.0'			-1.3	
750'	2.1'			-1.4	
775'	2.2'			-1.5	
800'	2.5'			-1.8	
825'	2.4'			-1.7	

X-SECTION STA. 8+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	6.49		0.68 ~~0.7~~	TOP WATER
850'	2.4'			−1.7	
875'	2.6'			−1.9	
900'	2.6'			−1.9	
925'	2.7'			−2.0	
950'	2.8'			−2.1	
975'	2.8'			−2.1	
1000'	3.0'			−2.3	
			4.80	1.69	CK. B.M.

SAME 10/14/93

X-SECTION STA. 12+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				1.69	TOP 1"x2" HUB @ 10+00
	1.38	3.07			
			2.50	0.57 0.6	TOP WATER
	SOUNDINGS				
0'	2.3'			-1.7	@ BASELINE
SOUTHERLY - 25'	1.9'			-1.3	
- 50'	1.6'			-1.0	
- 65'	1.2'			-0.6	
- 70'	0.2'			0.4	
- 75'	0.2'			0.4	
- 100'	0.2'			0.4	
- 125'	0.2'			0.4	
- 150'	0.2'			0.4	
- 175'	0.2'			0.4	
- 200'	0.2'			0.4	
- 225'	0.2'			0.4	
- 250'	0.2'			0.4	
- 275'	0.2'			0.4	
- 300'	0.3'			0.3	
- 325'	0.5'			0.1	
- 350'	0.7			-0.1	
- 375'	1.0'			-0.4	
- 400'	1.6'			-1.0	

SAME 10/14/23

X-SECTION STA. 12+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.57 ~~0.6~~	TOP WATER
- 425'	1.7'			-1.1	
- 450'	1.9'			-1.3	
- 475'	2.0'			-1.4	
- 500'	2.3'			-1.7	

NORTHERLY SECTION

				0.57 ~~0.6~~	TOP WATER
25'	2.6'			-2.0	
50'	3.0'			-2.4	
75'	2.7'			-2.1	
100'	2.6'			-2.0	
125'	2.6'			-2.0	
150'	2.5'			-1.9	
175'	2.5'			-1.9	
200'	2.4'			-1.8	
225'	2.4'			-1.8	
250'	2.4'			-1.8	
275'	2.3'			-1.7	
300'	2.3'			-1.7	
325'	2.1'			-1.5	
350'	2.0'			-1.4	
375'	2.0'			-1.4	

SAME 10/14/93

SECTION STA. 12+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.57	TOP WATER
				0.6	
400'	2.0'			-1.4	
425'	2.0'			-1.4	
450'	2.0'			-1.4	
475'	2.0'			-1.4	
500'	1.9'			-1.3	
525'	1.9'			-1.3	
550'	1.9'			-1.3	
575'	1.9'			-1.3	
600'	1.8'			-1.2	
625'	1.8'			-1.2	
650'	1.6'			-1.0	
675'	1.7'			-1.1	
700'	1.8'			-1.2	
725'	1.8'			-1.2	
750'	1.9'			-1.3	
775'	1.8'			-1.2	
800'	1.7'			-1.1	
825'	1.6'			-1.0	
850'	1.5'			-0.9	
875'	2.2'			-1.6	
900'	2.9'			-2.3	
925'	3.0'			-2.4	

SAME

10/14/93

X-SECTION STA. 12+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	–	ELEV.	REMARKS
				0.57	TOP WATER
				0.6	
950'	3.3'			-2.7	
975'	3.5'			-2.9	
1000'	3.7'			-3.1	
	TOP H2O TO TOP 1"x1" HUB @ 16+00				
	2.05	+0.57		2.62	CK. B.M.

SAME

10/14/93

X-SECTION STA. 14+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS			0.58	TOP WATER
0'	1.2'			0.6 -0.6	@BASELINE
SOUTHERLY - 25'	1.1'			-0.5	
- 50'	0.9'			-0.3	
- 75'	0.8'			-0.2	
- 100'	0.4'			0.2	
- 125'	0.4'			0.2	
- 150'	0.5'			0.1	
- 175'	0.4'			0.2	
- 200'	0.4'			0.2	
- 225'	0.3'			0.3	
- 250'	0.3'			0.3	
- 275'	0.4'			0.2	
- 300'	0.4'			0.2	
- 325'	0.8'			-0.2	
- 350'	1.0'			-0.4	
- 375'	1.1'			-0.5	
- 400'	1.3'			-0.7	
- 425'	1.6'			-1.0	
- 450'	1.9'			-1.3	
- 475'	2.2'			-1.6	
- 500'	2.7'			-2.1	

SAME 10/14/93

X-SECTION STA. 14+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				0.58 0.6	TOP WATER
	NORTHERLY SECTION				
	SOUNDINGS				
25'	1.2'			-0.6	
50'	1.2'			-0.6	
75'	1.7'			-1.1	
100'	2.1'			-1.5	
125'	2.1'			-1.5	
150'	2.1'			-1.5	
175'	2.1'			-1.5	
200'	2.1'			-1.5	
225'	2.0'			-1.4	
250'	2.0'			-1.4	
275'	2.0'			-1.4	
300'	1.9'			-1.3	
325'	1.8'			-1.2	
350'	1.7'			-1.1	
375'	1.9'			-1.3	
400'	1.9'			-1.3	
425'	1.8'			-1.2	
450'	1.7'			-1.1	
475'	1.7'			-1.1	
500'	1.6'			-1.0	

SAME 10/14/93

X-SECTION STA. 14+00 (CON'T.)

SAME 10/14/93 (37)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.58 0.6	TOP WATER
525'	1.6'			-1.0	
550'	1.6'			-1.0	
575'	1.6'			-1.0	
600'	1.7'			-1.1	
625'	1.7'			-1.1	
650'	1.6'			-1.0	
675'	1.8'			-1.2	
700'	1.8'			-1.2	
725'	1.9'			-1.3	
750'	2.0'			-1.4	
775'	2.1'			-1.5	
800'	2.3'			-1.7	
825'	2.6'			-2.0	
850'	3.0'			-2.4	
875'	3.0'			-2.4	
900'	3.0'			-2.4	
925'	3.1'			-2.5	
950'	3.3'			-2.7	
975'	3.5'			-2.9	
1000'	3.7'			-3.1	

SAME

P.C. & MILD (80°F)

10/15/93

(SEE BOOK 081, PG. 14)

X-SECTION STA. 16+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				2.63	TOP 1"x 8" HUB @ 16+00
	1.55	4.18			
			3.92	0.26	TOP WATER
	SOUNDINGS				
0'	0.8'			-0.5	@ BASELINE
SOUTHERLY - 25'	1.3'			-1.0	
- 50'	0.3'			0.0	
- 53'			3.5	0.68	EDGE GRASS
- 75'			3.4	0.78	
- 100'			3.3	0.88	
- 118'			3.3	0.88	EDGE GRASS
- 125'			3.8	0.38	
- 150'			3.8	0.38	
- 165'			3.91	0.27 ~0.3	EDGE WATER
	SOUNDINGS				
- 175'	0.1'			0.2	
- 200'	0.3'			0.0	
- 225'	0.3'			0.0	
- 250'	0.3'			0.0	
- 275'	0.2'			0.1	
- 300'	0.3'			0.0	
- 325'	0.6'			-0.3	
- 350'	1.0'			-0.7	

X-SECTION STA. 16+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.26 0.3	TOP WATER
- 375'	1.0'			-0.7	
- 400'	1.2'			-0.9	
- 425'	1.3'			-1.0	
- 450'	1.3'			-1.0	
- 475'	1.7'			-1.4	
- 500'	1.9'			-1.6	
- 525'	2.4'			-2.1	

NORTHERLY SECTION

	SOUNDINGS				
25'	0.6'			-0.3	
50'	0.7'			-0.4	
75'	0.5'			-0.2	
100'	0.5'			-0.2	
125'	0.5'			-0.2	
150'	0.6'			-0.3	
175'	0.6'			-0.3	
200'	0.7'			-0.4	
225'	0.8'			-0.5	
250'	0.8'			-0.5	
275'	0.8'			-0.5	
300'	0.9'			-0.6	

X-SECTION STA. 16+00 (CON'T.)

SAME 10/15/93 (40)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.26	TOP WATER
325'	0.8'			0.3 -0.5	
350'	0.8'			-0.5	
375'	0.7'			-0.4	
400'	0.6'			-0.3	
425'	0.6'			-0.3	
450'	0.7'			-0.4	
475'	0.8'			-0.5	
500'	1.0'			-0.7	
525'	1.0'			-0.7	
550'	1.1'			-0.8	
575'	1.0'			-0.7	
600'	0.8'			-0.5	
625'	0.9'			-0.6	
650'	1.0'			-0.7	
675'	1.3'			-1.0	
700'	1.7'			-1.4	
725'	2.0'			-1.7	
750'	2.6'			-2.3	
775'	3.0'			-2.7	
800'	3.4'			-3.1	
825'	3.5'			-3.2	
850'	3.6'			-3.3	

X-SECTION STA. 16+00 (CON'T.)

SAME 10/15/93 (41)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		4.18		0.26	TOP WATER
				0.3	
875'	3.7'			-3.4	
900'	4.0'			-3.7	
925'	4.1'			-3.8	
950'	4.2'			-3.9	
975'	4.5'			-4.2	
1000'	4.7'			-4.4	
			1.53	2.65	CK. B.M.

X-SECTION STA. 18+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				2.63	TOP 1"x1" HUB @ 16+00
	2.06	4.69			
			4.44	0.25 / 0.3	TOP WATER
	SOUNDINGS				
0'	0.8'			-0.5	@ BASELINE
SOUTHERLY - 25'	0.8'			-0.5	
- 50'	0.9'			-0.6	
- 75'	0.8'			-0.5	
- 100'	1.1'			-0.8	
- 125'	0.2'			0.1	
- 128'			4.43	0.26	EDGE GRASS
- 141'			2.8	1.89	
- 150'			3.2	1.49	
- 175'			3.1	1.59	
- 200'			2.8	1.89	
- 225'			2.8	1.89	
- 250'			3.4	1.29	
- 269'			4.0	0.69	EDGE GRASS
- 275'			4.43	0.26	EDGE WATER
	SOUNDINGS				
- 300'	0.6'			-0.3	
- 325'	1.0'			-0.7	
- 350'	1.3'			-1.0	

SAME

10/15/93

(SEE BOOK 081, PG. 14)

X-SECTION STA. 18+00 (CON'T)

DISTANCE	+ SOUNDINGS (CON'T)	H.I.	—	ELEV.	REMARKS
				0.25 0.3	TOP WATER
- 375'	1.6'			-1.3	
- 400'	2.4'			-2.1	
- 425'	2.3'			-2.0	
- 450'	2.0'			-1.7	
- 475'	2.1'			-1.8	
- 500'	2.4'			-2.1	
- 525'	3.0'			-2.7	

NORTHERLY SECTION

	SOUNDINGS				
25'	0.7'			-0.4	
50'	0.5'			-0.1	
75'	0.4'			-0.1	
100'	0.4'			-0.1	
125'	0.4'			-0.1	
150'	0.4'			-0.1	
175'	0.4'			-0.1	
200'	0.4'			-0.1	
225'	0.4'			-0.1	
250'	0.4'			-0.1	
275'	0.3'			0.0	
300'	0.3'			0.0	

SAME 10/15/93

X-SECTION STA. 18+00 (CON'T.)

SAME 10/15/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		4.69		0.25	TOP WATER
875'	3.8'			0.3 -3.5	
900'	4.0'			-3.7	
925'	4.2'			-3.9	
950'	4.6'			-4.3	
975'	4.6'			-4.3	
1000'	4.6'			-4.3	
			2.06	2.63	CK. B.M.

X-SECTION STA. 22+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				1.45	TOP 1"x[illegible]" HUB @ 22+00
	2.32	3.77			
			3.51	0.26 0.3	TOP WATER
	SOUNDINGS				
0'	0.6'			-0.3	@ BASELINE
SOUTHERLY - 25'	0.8'			-0.5	
- 50'	0.9'			-0.6	
- 75'	1.0'			-0.7	
- 100'	1.0'			-0.7	
- 125'	1.1'			-0.8	
- 150'	1.2'			-0.9	
- 175'	1.0'			-0.7	
- 200'	0.9'			-0.6	
- 225'	1.0'			-0.7	
- 250'	1.2'			-0.9	
- 275'	1.5'			-1.2	
- 300'	1.7'			-1.4	
- 325'	1.8'			-1.5	
- 350'	2.0'			-1.7	
- 375'	1.9'			-1.6	
- 400'	1.9'			-1.6	
- 410'	1.9'			-1.6	
- 411'	1.0'			-0.7	

SAME 10/15/93

(SEE BOOK 081, PG. 14)

X-SECTION STA 22+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.26	TOPWATER
				0.3	
- 425'	1.0'			-0.7	
- 450'	0.9'			-0.6	
- 475'	1.1'			-0.8	
- 500'	1.2'			-0.9	
- 525'	1.3'			-1.0	
- 550'	1.4'			-1.1	
- 575'	1.3'			-1.0	
- 600'	1.3'			-1.0	
- 622'	1.5'			-1.2	
- 623'	2.5'			-2.2	
- 650'	3.7'			-3.4	

NORTHERLY SECTION

	SOUNDINGS				
25'	0.4'			-0.1	
50'	0.4'			-0.1	
75'	0.4'			-0.1	
100'	0.3'			0.0	
125'	0.4'			-0.1	
150'	0.4'			-0.1	
175'	0.4'			-0.1	
200'	0.5'			-0.2	

X-SECTION STA. 22+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I. 3.77	—	ELEV.	REMARKS
				0.26 0.3	TOP WATER
775'	2.4'			-2.1	
800'	2.6'			-2.3	
825'	2.7'			-2.4	
850'	2.9'			-2.6	
875'	2.9'			-2.6	
900'	2.9'			-2.6	
925'	3.0'			-2.7	
950'	3.2'			-2.9	
975'	3.3'			-3.0	
1000'	3.4'			-3.1	
			2.32	1.45	CK. B.M.

SAME 10/15/93

X-SECTION STA. 24+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				1.45	TOP 1"x1" HUB @ 22+00
	3.01	4.46			
			4.21	0.25 03	TOP WATER
	SOUNDINGS				
0'	0.7'			-0.4	@ BASELINE
SOUTHERLY - 25'	0.7'			-0.4	
- 50'	0.6'			-0.3	
- 75'	0.5'			-0.2	
- 100'	0.4'			-0.1	
- 125'	0.5'			-0.2	
- 150'	0.7'			-0.4	
- 175'	0.8'			-0.5	
- 200'	0.9'			-0.6	
- 225'	1.0'			-0.7	
- 250'	1.0'			-0.7	
- 275'	1.3'			-1.0	
- 300'	1.7'			-1.4	
- 325'	1.7'			-1.4	
- 350'	1.8'			-1.5	
- 375'	2.2'			-1.9	
- 400'	2.7'			-2.4	
- 425'	3.1'			-2.8	
- 450'	3.5'			-3.2	

SAME 10/15/93

(SEE BOOK 081, PG. 14)

X-SECTION STA. 24+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	4.46		0.25 0.3	TOP WATER
- 475'	4.0'			-3.7	
- 500'	4.5'			-4.2	
	NORTHERLY SECTION				
25'	0.1'			0.2	
30'			4.2	0.26	EDGE WATER
50'			2.7	1.76	
80'			3.0	1.46	
100'			3.4	1.06	
125'			3.2	1.26	
150'			3.0	1.46	
175'			3.0	1.46	
200'			3.3	1.16	
225'			3.4	1.06	
250'			3.5	0.96	
275'			3.8	0.66	
300'			4.2	0.26	EDGE WATER
	SOUNDINGS				
325'	0.2'			0.1	
350'	0.2'			0.1	
375'	0.2'			0.1	
400'	0.2'			0.1	

SAME 10/15/93

X-SECTION STA. 24+00 (CON'T.)

SAME 10/15/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		4.46		0.25	TOPWATER
				0.3	
425'	0.2'			0.1	
450'	0.3'			0.0	
475'	0.2'			0.1	
500'	0.1'			0.2	
525'	0.1'			0.2	
550'	0.2'			0.1	
575'	0.2'			0.1	
600'	0.3'			0.0	
625'	0.4'			-0.1	
650'	0.4'			-0.1	
675'	0.7'			-0.3	
700'	1.0'			-0.7	
725'	1.2'			-0.9	
750'	1.5'			-1.2	
775'	1.8'			-1.5	
800'	2.2'			-1.9	
825'	2.4'			-2.1	
850'	2.6'			-2.3	
875'	2.7'			-2.4	
900'	2.8'			-2.5	
925'	2.9'			-2.6	
950'	2.9'			-2.6	
975'	3.0'			-2.7	
1000'	3.2'			-2.9	
			3.00	1.46	CK. B.M.

X-SECTION STA. 26+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				3.53	TOP 3/4" G.I.P. @ 28+00
	3.51	7.04			
0'			4.8	2.24	@ BASELINE
SOUTHERLY - 25'			4.9	2.14	
- 50'			5.1	1.94	
- 65'			6.4	0.64	
- 75'			6.4	0.64	
- 100'			6.4	0.64	
- 102'			6.6	0.44	EDGE WATER
			6.69	0.35 0.4	TOP WATER
	SOUNDINGS				
- 125'	0.5'			-0.1	
- 150'	1.1'			-0.7	
- 175'	1.6'			-1.2	
- 200'	2.0'			-1.6	
- 225'	2.2'			-1.8	
- 250'	2.4'			-2.0	
- 275'	2.5'			-2.1	
- 300'	2.5'			-2.1	
- 325'	2.8'			-2.4	
- 350'	3.0'			-2.6	
- 375'	3.2'			-2.8	
- 400'	3.5'			-3.1	

SAME 10/15/93

(SEE BOOK 081, PG. 14)

SAME 10/15/93 (52)

X-SECTION STA. 24+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		4.46		0.25	TOPWATER
				0.3	
425'	0.2'			0.1	
450'	0.3'			0.0	
475'	0.2'			0.1	
500'	0.1'			0.2	
525'	0.1'			0.2	
550'	0.2'			0.1	
575'	0.2'			0.1	
600'	0.3'			0.0	
625'	0.4'			-0.1	
650'	0.4'			-0.1	
675'	0.7'			-0.3	
700'	1.0'			-0.7	
725'	1.2'			-0.9	
750'	1.5'			-1.2	
775'	1.8'			-1.5	
800'	2.2'			-1.9	
825'	2.4'			-2.1	
850'	2.6'			-2.3	
875'	2.7'			-2.4	
900'	2.8'			-2.5	
925'	2.9'			-2.6	
950'	2.9'			-2.6	
975'	3.0'			-2.7	
1000'	3.2'			-2.9	
			3.00	1.46	CK. B.M.

X-SECTION STA. 26+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				3.53	TOP 3/4" G.I.P. @ 28+00
	3.51	7.04			
0'			4.8	2.24	@ BASELINE
SOUTHERLY - 25'			4.9	2.14	
- 50'			5.1	1.94	
- 65'			6.4	0.64	
- 75'			6.4	0.64	
- 100'			6.4	0.64	
- 102'			6.6	0.44	EDGE WATER
			6.69	0.35 0.4	TOP WATER
	SOUNDINGS				
- 125'	0.5'			-0.1	
- 150'	1.1'			-0.7	
- 175'	1.6'			-1.2	
- 200'	2.0'			-1.6	
- 225'	2.2'			-1.8	
- 250'	2.4'			-2.0	
- 275'	2.5'			-2.1	
- 300'	2.5'			-2.1	
- 325'	2.8'			-2.4	
- 350'	3.0'			-2.6	
- 375'	3.2'			-2.8	
- 400'	3.5'			-3.1	

SAME 10/15/93

(SEE BOOK 081, PG. 14)

X-SECTION STA. 26+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	7.04		0.35 0.4	TOP WATER
- 425'	3.3'			-2.9	
- 450'	3.3'			-2.9	
- 475'	3.4'			-3.0	
- 500'	3.5'			-3.1	
	NORTHERLY SECTION				
25'			5.2	1.84	
50'			5.4	1.64	
75'			5.7	1.34	
100'			5.5	1.54	
125'			6.1	0.94	
150'			6.4	0.64	
155'			6.6	0.44	EDGE WATER
	SOUNDINGS				
175'	0.1'			0.3	
200'	0.1'			0.3	
225'	0.1'			0.3	
250'	0.2'			0.2	
275'	0.6'			-0.2	
300'	1.1'			-0.7	
325'	0.8'			-0.4	
350'	0.7'			-0.3	

SAME 10/15/93 (55)

X-SECTION STA. 26+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.35 0.4	TOP WATER
375'	0.6'			-0.2	
400'	0.5'			-0.1	
425'	0.4'			0.0	
450'	0.4'			0.0	
475'	0.4'			0.0	
500'	0.4'			0.0	
525'	0.5'			-0.1	
550'	0.6'			-0.2	
575'	0.8'			-0.4	
600'	1.0'			-0.6	
625'	1.2'			-0.8	
650'	1.4'			-1.0	
675'	1.6'			-1.2	
700'	1.7'			-1.3	
725'	2.4'			-2.0	
750'	1.4'			-1.0	
775'	1.4'			-1.0	
800'	1.5'			-1.1	
825'	1.5'			-1.1	
850'	1.5'			-1.1	
875'	1.2'			-0.8	
900'	0.8'			-0.4	LOW BANK

X-SECTION STA. 26+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
		7.04		0.35	TOP WATER
901'			5.8	0.4 1.24	EDGE GRASS
950'			5.6	1.44	
1006'			6.1	0.94	EDGE GRASS
1007'	0.6'			−0.2	LOW BANK
			3.51	3.53	CK. B.M.

SAME 10/15/93

X-SECTION STA. 28+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				3.53	TOP 3/4" G.I.P. @ 28+00
	3.74	7.27			
0'			5.0	2.27	@ BASELINE
SOUTHERLY - 25'			5.4	1.87	
- 50'			4.8	2.47	
- 75'			4.5	2.77	
- 100'			5.7	1.57	
- 125'			6.5	0.77	EDGE WATER
			6.90	0.37	TOP WATER
	SOUNDINGS			2.4	
- 150'	0.3'			0.1	
- 175'	0.7'			-0.3	
- 200'	0.9'			-0.5	
- 225'	1.0'			-0.6	
- 250'	1.0'			-0.6	
- 275'	1.2'			-0.8	
- 300'	1.3'			-0.9	
- 325'	2.1'			-1.7	
- 350'	2.7'			-2.3	
- 375'	3.1'			-2.7	
- 400'	3.6'			-3.2	
- 425'	3.8'			-3.4	
- 450'	4.0'			-3.6	

SAME 10/15/93

(SEE BOOK 081, PG. 14)

NOTE: THIS X-SECTION TAKEN AT RIGHT ANGLE TO LINE AHEAD.

X-SECTION STA. 28+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.27		0.37	TOP WATER
				0.4	
-475'	4.3'			-3.9	
-500'	4.7'			-4.3	
	NORTHERLY		SECTION		
25'			5.1	2.17	
50'			5.1	2.17	
75'			5.2	2.07	
100'			5.3	1.97	
125'			5.4	1.87	
150'			5.5	1.77	
175'			5.6	1.67	
200'			6.0	1.27	EDGE GRASS
225'			6.0	1.27	
250'			6.1	1.17	
275'			6.0	1.27	
300'			6.0	1.27	
325'			6.2	1.07	
350'			6.5	0.77	
375'			6.5	0.77	
400'			6.5	0.77	
425'			6.5	0.77	
450'			6.5	0.77	

SAME 10/15/93

X-SECTION STA. 28+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
		7.27		0.37 0.4	TOP WATER
475'			6.5	0.77	
500'			6.5	0.77	
510'			6.4	0.87	HIGH BANK
511'			6.90	0.37 0.4	TOP & EDGE WATER
	SOUNDINGS				
525'	0.2'			0.2	
550'	0.7'			-0.3	
575'	1.3'			-0.9	
600'	1.1'			-0.7	
625'	0.9'			-0.5	
650'	0.9'			-0.5	
675'	0.9'			-0.5	
700'	0.9'			-0.5	
725'	1.0'			-0.6	
750'	1.0'			-0.6	
775'	1.0'			-0.6	
800'	1.0'			-0.6	
825'	0.8'			-0.4	
850'	0.7'			-0.3	
875'	0.8'			-0.2	
900'	0.8'			-0.2	
918'	0.8'			-0.2	LOW BANK

SAME 10/15/93

X-SECTION STA. 28+00 (CON'T.)

SAME 10/15/93 (60)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.27		0.37	TOP WATER
				0.4	
919'			6.3	0.97	HIGH BANK EDGE GRASS
925'			6.1	1.17	
950'			6.2	1.07	
1000'			6.2	1.07	
1040'			6.4	0.87	HIGH BANK EDGE GRASS
1041'	0.5'			-0.1	
			3.73	3.54	CK. B.M.

X-SECTION STA. 32+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				2.75	TOP 1"x2" HUB @ 32+00
	4.48	7.23			
0'			4.9	2.33	@ BASELINE
SOUTHERLY					
- 25'			4.5	2.73	
- 50'			4.5	2.73	
- 75'			5.1	2.13	
- 90'			4.9	2.33	
- 100'			5.8	1.43	
- 120'			6.4	0.83	EDGE WATER
	SOUNDINGS		6.74	0.49	TOP WATER
- 125'	0.6'			0.5 -0.1	
- 150'	0.9'			-0.4	
- 175'	1.5'			-1.0	
- 200'	2.1'			-1.6	
- 225'	2.2'			-1.7	
- 250'	2.3'			-1.8	
- 275'	2.7'			-2.2	
- 300'	2.9'			-2.4	
- 325'	3.1'			-2.6	
- 350'	3.3'			-2.8	
- 375'	3.4'			-2.9	
- 400'	3.5'			-3.0	
- 425'	3.6'			-3.1	

SAME 10/15/93

(SEE BOOK 081, PG. 14)

X-SECTION STA. 32+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.23		0.49 0.5	TOPWATER
-450'	3.8'			-3.3	
-475'	3.9'			-3.4	
-500'	4.5'			-4.2	
	NORTHERLY		SECTION		
25'			5.2	2.03	
50'			5.5	1.73	
75'			5.6	1.63	
100'			5.6	1.63	
125'			5.6	1.63	
150'			5.6	1.63	
175'			5.8	1.43	
200'			6.1	1.13	
225'			6.3	0.93	
250'			6.3	0.93	
275'			6.3	0.93	
300'			6.3	0.93	
325'			6.2	1.03	
350'			6.2	1.03	
375'			6.3	0.93	
400'			6.4	0.83	
425'			6.4	0.83	

SAME 10/15/93

X-SECTION STA. 32+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	7.23		0.49 0.5	TOP WATER
450'			6.4	0.83	
472'			6.4	0.83	
475'			5.9	1.33	
481'			5.7	1.53	
487'			6.4	0.83	
500'			6.6	0.63	
504'			6.74	0.49 0.5	TOP & EDGE WATER
	SOUNDINGS				
525'	0.6'			-0.1	
550'	0.9'			-0.4	
575'	1.2'			-0.7	
600'	1.5'			-1.0	
625'	1.6'			-1.1	
650'	1.8'			-1.3	
675'	1.9'			-1.4	
700'	2.1'			-1.6	
725'	2.0'			-1.5	
750'	2.0'			-1.5	
775'	1.9'			-1.4	
800'	1.9'			-1.4	
825'	1.9'			-1.4	
850'	1.9'			-1.4	

SAME 10/15/93

SAME 10/15/93 (6A)

X-SECTION STA. 32+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.23		0.49 / 0.5	TOP WATER
875'	2.0'			-1.5	
900'	2.1'			-1.6	
925'	2.2'			-1.7	
950'	2.3'			-1.8	
975'	2.3'			-1.8	
1000'	2.3'			-1.8	
			4.48	2.75	CK. B.M.

SAME 10/15/93 (65)

X-SECTION STA. 34+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				2.84	TOP 1"x2" HUB @ 34+00
	4.47	7.31			
0'			4.9	2.41	@ BASELINE
SOUTHERLY - 25'			4.6	2.71	
- 50'			4.2	3.11	
- 53'			4.2	3.11	
- 75'			5.5	1.81	
- 93'			6.23	1.08	EDGE WATER
	SOUNDINGS		6.69	0.62 0.6	TOP WATER
- 100'	0.4'			0.2	
- 125'	2.0'			-1.4	
- 150'	2.2'			-1.6	
- 175'	2.5'			-1.9	
- 200'	2.8'			-2.2	
- 225'	3.0'			-2.4	
- 250'	3.1'			-2.5	
- 275'	3.5'			-2.9	
- 300'	3.8'			-3.2	
- 325'	3.7'			-3.1	
- 350'	3.6'			-3.0	
- 375'	3.9'			-3.3	
- 400'	4.1'			-3.5	
- 425'	4.5'			-3.9	

X-SECTION STA. 34+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.31		0.62	TOP WATER
- 450'	4.7'			-4.1	
- 475'	5.0'			-4.4	
- 500'	5.3'			-4.7	
	NORTHERLY	SECTION			
25'			4.8	2.51	
50'			4.6	2.71	EDGE GRASS
75'			4.8	2.51	
100'			5.4	1.91	
125'			6.3	1.01	
150'			6.8	0.51	
175'			7.2	0.11	
200'			6.5	0.81	
210'			6.8	0.51	
225'			6.8	0.51	
250'			6.8	0.51	
275'			6.8	0.51	
300'			6.8	0.51	
325'			6.8	0.51	
350'			6.8	0.51	
375'			6.8	0.51	
400'			6.7	0.61	

SAME 10/15/93

X-SECTION STA. 34+00 (CON'T.)

SAME 10/15/93 (67)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
		7.31		0.62 0.6	TOP WATER
425'			6.7	0.61	
450'			6.7	0.61	
460'			6.3	1.01	
480'			6.69	0.62 0.6	TOP & EDGE WATER
	SOUNDINGS				
500'	0.4'			0.2	
525'	1.0'			-0.4	
550'	1.6'			-1.0	
575'	1.7'			-1.1	
600'	1.9'			-1.3	
625'	2.0'			-1.4	
650'	2.1'			-1.5	
675'	2.0'			-1.4	
700'	1.9'			-1.3	
725'	1.6'			-1.0	
750'	1.1'			-0.5	
775'	0.1'			0.5	
800'	1.6'			-1.0	
825'	2.0'			-1.4	
850'	2.4'			-1.8	
875'	2.5'			-1.9	
900'	2.6'			-2.0	

X-SECTION STA. 34+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.31		0.62 0.6	TOPWATER
925'	2.4'			-1.8	
950'	2.2'			-1.6	
975'	2.4'			-1.8	
1000'	2.6'			-2.0	
	—		4.47	2.84	CK. B.M.

SAME 10/18/93

X-SECTION STA. 36+00

SAME 10/15/93

(69)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				2.84	TOP 1"x2" HUB @ 34+00
	4.42	7.26			
0' SOUTHERLY			4.8	2.46	@ BASELINE
- 25'			4.4	2.86	
- 50'			5.0	2.26	
- 62'			6.1	1.16	EDGE WATER
	SOUNDINGS		6.37	0.89	TOP WATER
- 75'	0.7'			0.9 0.2	
- 100'	1.1'			-0.2	
- 125'	2.3'			-0.4	
- 150'	3.0'			-2.1	
- 175'	3.3'			-2.4	
- 200'	3.5'			-2.6	
- 225'	3.5'			-2.6	
- 250'	3.5'			-2.6	
- 275'	4.0'			-3.1	
- 300'	4.5'			-3.6	
- 325'	4.8'			-3.9	
-350'	5.6'			-4.7	
- 375'	5.3'			-4.4	
- 400'	5.2'			-4.3	
- 425'	5.3'			-4.4	
- 450'	5.5'			-4.6	

(SEE BOOK 081, PG. 14)

X-SECTION STA. 36+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	7.26		0.89 0.9	TOP WATER
- 475'	5.6'			-4.7	
- 500'	5.7'			-4.8	
	NORTHERLY SECTION				
25'			5.2	2.06	
50'			5.5	1.76	
75'			5.8	1.46	
100'			5.8	1.46	
125'			5.8	1.46	
150'			5.9	1.36	
175'			6.0	1.26	
200'			6.0	1.26	
225'			6.2	1.06	
230'			6.37	0.89 0.9	TOP & EDGE WATER
	SOUNDINGS				
250'	0.2'			0.69	
275'	0.4'			0.49	
300'	0.5'			0.39	
325'	0.5'			0.39	
350'	0.5'			0.39	
375'	0.5'			0.39	
400'	0.4'			0.49	

X-SECTION STA. 38+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	7.73		1.09 1.1	TOP WATER
- 375'	4.6'			-3.5	
- 400'	4.9'			-3.8	
- 425'	5.0'			-3.9	
- 450'	5.1'			-4.0	
- 475'	5.7'			-4.6	
- 500'	6.3'			-5.2	
NORTHERLY SECTION					
25'			5.1		
50'			5.4		
75'			5.6		
100'			6.0		
125'			6.64	1.09 1.1	TOP & EDGE WATER
	SOUNDINGS				
150'	0.3'			0.8	
175'	0.3'			0.8	
200'	0.3'			0.8	
225'	0.3'			0.8	
250'	0.3'			0.8	
275'	0.3'			0.8	
300'	0.3'			0.8	
325'	0.3'			0.8	

SAME 10/15/93

X-SECTION STA. 38+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				1.09	TOP WATER
350'	0.2'			0.9	
375'	0.2'			0.9	
400'	0.2'			0.9	
425'	0.2'			0.9	
450'	0.3'			0.8	
475'	0.3'			0.8	
500'	0.5'			0.6	
525'	0.4'			0.7	
550'	0.4'			0.7	
575'	0.5'			0.6	
600'	0.6'			0.5	
625'	0.8'			0.3	
650'	0.8'			0.3	
675'	0.9'			0.2	
700'	0.9'			0.2	
725'	0.9'			0.2	
750'	0.9'			0.2	
792'	1.3'			-0.2	
800'	1.6'			-0.5	
825'	2.2'			-1.1	
850'	2.7'			-1.6	
875'	2.7'			-1.6	

SAME 10/15/93

X-SECTION STA. 38+00 (CON'T.)

SAME 10/15/93

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.73		1.09	TOP WATER
900'	1.5'			H.I. -0.4	
909'	1.5'			-0.4	
910'	0.5'			0.6	
925'	0.5'			0.6	
950'	2.0'			-0.9	
975'	2.0'			-0.9	
1000'	2.0'			-0.9	
			4.84	2.89	CK. B.M.

SAME 10/15/93 (78)

X-SECTION STA. 42+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				1.09	TOP WATER
375'	0.7'			0.4	
400'	0.8'			0.3	
425'	0.9'			0.2	
450'	0.9'			0.2	
475'	1.0'			0.1	
500'	1.1'			0.0	
525'	1.1'			0.0	
550'	1.0'			0.1	
575'	1.1'			0.0	
600'	1.2'			-0.1	
625'	1.1'			0.0	
635'	1.0'			0.1	
650'	0.5'			0.6	
655'	0.8'			0.3	
675'	0.9'			0.2	
700'	1.0'			0.1	
725'	1.2'			-0.1	
750'	1.3'			-0.2	
775'	1.5'			-0.4	
800'	1.7'			-0.6	
825'	1.3'			-0.2	
850'	1.0'			0.1	

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PAGE NO.	REFERENCE	DATE

BOOK 083

JOB NO. 1136

T. BAKER SMITH & SON, INC.

EAST ISLE DERNIERES RESTORATION

PROJECT — PHASE 0

X-SECTION STA. 44+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				4.80	TOP MON. R-25
	3.11	7.91			
0'			4.9		@ BASELINE
SOUTHERLY - 25'			4.7		
- 50'			4.4		
- 66'			4.4		
- 75'			5.2		
- 94'			5.4		
- 103'			6.4		EDGE WATER
	SOUNDINGS		6.78	1.13	TOP WATER
- 125'	0.7'			1.1 0.4	
- 150'	1.5'			-0.4	
- 175'	2.6'			-1.5	
- 200'	3.9'			-2.8	
- 225'	4.0'			-2.9	
- 250'	4.3'			-3.2	
- 275'	4.0'			-2.9	
- 300'	3.6'			-2.5	
- 325'	3.3'			-2.2	
- 350'	3.1'			-2.0	
- 375'	3.6'			-2.5	
- 400'	4.2'			-3.1	
- 425'	5.0'			-3.9	

BRUNET
E. KOIKE
A. CARLOS
I. GAUTREAUX
T. BERGERON

10/15/93

(SEE BOOK 081, PG. 14)

X-SECTION STA. 44+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.91		1.13	TOP WATER
- 450'	5.3'			-4.2	
- 475'	6.0'			-4.9	
- 500'	6.5'			-5.4	

NORTHERLY SECTION

25'			5.2	2.71	
50'			4.6	3.31	
75'			4.4	3.51	
100'			4.3	3.61	
125'			4.6	3.31	
150'			4.2	3.71	
175'			4.0	3.91	
200'			4.3	3.61	
225'			4.4	3.51	
230'			6.1	1.81	
250'			5.1	2.81	
275'			4.6	3.31	
300'			5.3	2.61	
325'			4.9	3.01	
350'			4.9	3.01	
360'			4.9	3.01	
375'			6.6	1.31	

SAME 10/15/93

X-SECTION STA. 44+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
		7.91		1.13	TOP WATER
				1.1	
400'			6.6	1.31	
425'			6.8	1.11	
450'			6.7	1.21	
475'			6.7	1.21	
500'			6.7	1.21	
525'			6.7	1.21	
540'			6.78	1.13	TOP & EDGE WATER
				1.1	
	SOUNDINGS				
550'	0.2'			0.9	
575'	0.2'			0.9	
600'	0.5'			0.6	
625'	0.3'			0.8	
650'	0.7'			0.4	
675'	0.3'			0.8	
700'	0.2'			0.9	
725'	1.0'			0.1	
750'	1.6'			-0.5	
775'	1.7'			-0.6	
800'	2.0'			-0.9	
825'	1.8'			-0.7	
850'	1.6'			-0.5	
875'	1.5'			-0.4	

SAME

10/15/93

(+)

X-SECTION STA. 44+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.91		1.13	TOP WATER
				1.1	
900'	1.5'			-0.4	
901'	0.2'			0.9	
925'	0.0'			1.1	
950'	0.6'			0.5	
951'	1.9'			-0.8	
975'	1.0'			0.1	
1000'	0.0'			1.1	
			3.11	480	CK. B.M.
1700'±	TO EDGE GRASS				

SAME 10/15/93

X-SECTION STA. 46+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				4.80	TOP MON. R-25
	2.58	7.38			
0'			4.8		@ BASELINE
SOUTHERLY - 25'			4.6		
- 50'			4.2		
- 66'			4.0		
- 75'			4.6		
- 80'			5.0		
- 100'			6.1		EDGE WATER
	SOUNDINGS		6.14	1.24	TOP WATER
- 125'	0.7'			1.2 0.5	
- 150'	1.3'			-0.1	
- 175'	3.2'			-2.0	
- 200'	4.0'			-2.8	
- 225'	3.8'			-2.6	
- 250'	3.7'			-2.5	
- 275'	3.9'			-2.7	
- 300'	3.9'			-2.7	
- 325'	3.9'			-2.7	
- 350'	3.9'			-2.7	
- 375'	4.2'			-3.0	
- 400'	4.6'			-3.4	
- 425'	5.0'			-3.8	

SAME

10/15/93

(6)

(SEE BOOK 081, PG. 14)

X-SECTION STA. 46+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	7.38		1.24	TOPWATER
				1.2	
- 450'	5.3'			-4.1	
- 475'	5.8'			-4.6	
- 500'	6.1'			-4.9	
	NORTHERLY SECTION				
25'			5.1	2.28	
50'			5.1	2.28	
75'			5.3	2.08	
93'			5.5	1.88	
96'			6.14	1.24	TOP & EDGE WATER
				1.2	
	SOUNDINGS				
100'	0.3'			0.9	
125'	2.2'			-1.0	
150'	1.4'			0.2	
175'	0.6'			0.6	
200'	0.5'			0.7	
225'	0.8'			0.4	
250'	0.6'			0.6	
275'	0.4'			0.8	
300'	0.3'			0.9	
325'			6.1	1.28	EDGE WATER
350'			6.0	1.38	

SAME 12/15/93 ①

X-SECTION STA. 46+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
		7.38		1.24	TOP WATER
375'			5.6	1.78 (1.2)	
400'			5.2	2.18	
425'			5.6	1.78	
450'			5.8	1.58	
478'			6.2	1.18	EDGE WATER
	SOUNDINGS			1.24	TOP WATER
500'	0.4'			0.8 (1.2)	
525'	0.3'			0.9	
550'	0.4'			0.8	
575'	0.6'			0.6	
600'	0.8'			0.4	
625'	1.5'			−0.3	
650'	2.6'			−1.4	
675'	3.0'			−1.8	
700'	3.3'			−2.1	
725'	2.1'			−1.0	
750'	1.0'			0.2	
756'			6.2	1.18	EDGE WATER
775'			5.0	2.38	
800'			5.2	2.18	
825'			5.6	1.78	
850'			6.3	1.08	

SAME

10/15/93

X-SECTION STA. 46+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
		7.38		1.24	TOP WATER
875'			6.1	1.2 1.28	
900'			6.0	1.38	
925'			6.2	1.18	
950'			6.3	1.08	
975'			6.1	1.28	
1000'			6.5	0.88	
			2.58	4.80	CK. B.M.
1400' ±	TO EDGE GRASS				

SAME

10/15/93

	X-SECTION	STA.	48+00		
DISTANCE	+	H.I.	−	ELEV.	REMARKS
				2.84	TOP 1"X2" HUB @ 50+00
	4.32	7.16			
0'			4.7	2.46	@ BASELINE
SOUTHERLY − 25'			4.3	2.86	
− 50'			3.9	3.26	
− 60'			4.2	2.96	
− 75'			5.5	1.66	
− 100'			6.6	0.56	EDGE WATER
	SOUNDINGS		6.78	0.38 0.4	TOP WATER
− 125'	1.3'			−0.9	
− 150'	2.0'			−1.6	
− 175'	2.1'			−1.7	
− 200'	2.3'			−1.9	
− 225'	2.4'			−2.0	
− 250'	2.4'			−2.0	
− 275'	2.5'			−2.1	
− 300'	2.6'			−2.2	
− 325'	2.6'			−2.2	
− 350'	2.5'			−2.1	
− 375'	3.1'			−2.7	
− 400'	4.0'			−3.6	
− 425'	4.2'			−3.8	
− 450'	4.5'			−4.1	

SAME

10/18/93

CLEAR & MILD (87°F)

(10)

(SEE BOOK 081, PG. 16)

X-SECTION STA. 48+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	7.16		0.38	TOP WATER
				0.4	
-475'	4.5'			-4.1	
-500'	5.1'			-4.7	
	NORTHERLY		SECTION		
25'			4.9	2.26	
50'			5.0	2.16	
75'			5.1	2.06	
100'			5.2	1.96	
125'			5.4	1.76	
150'			5.4	1.76	
175'			5.6	1.56	
200'			5.6	1.56	
225'			6.0	1.16	
250'			6.2	0.96	
275'			6.2	0.96	
300'			6.3	0.86	
325'			6.3	0.86	
350'			6.3	0.86	
375'			6.4	0.76	
400'			6.4	0.76	
425'			6.2	0.96	
450'			6.1	1.06	

SAME 10/18/93

X-SECTION STA. 48+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
		7.16		0.38 0.4	TOP WATER
475'			6.0	1.16	
500'			6.0	1.16	
505'			5.5	1.66	
520'			5.8	1.36	
525'			6.4	0.76	
540'			6.78	0.38 0.4	TOP & EDGE WATER
	SOUNDINGS				
550'	0.2'			0.2	
575'	0.4'			0.0	
600'	0.5'			-0.1	
625'	0.7'			-0.3	
650'	0.9'			-0.5	
675'	1.0'			-0.6	
700'	1.0'			-0.6	
725'	1.4'			-1.0	
750'	1.8'			-1.4	
775'	1.8'			-1.4	
800'	1.8'			-1.4	
825'	1.9'			-1.5	
850'	1.9'			-1.5	
875'	2.0'			-1.6	
900'	2.2'			-1.8	

SAME 10/18/93

X-SECTION STA. 48+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	7.16		0.38 0.4	TOP WATER
925'	2.0'			-1.6	
950'	2.2'			-1.8	
975'	1.8'			-1.4	
1000'	2.9'			-2.5	
			4.32	2.84	CK. B.M.

SAME 10/18/93

X-SECTION STA. 52+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				2.84	TOP 1"x2" HUB @ 52+00
	4.08	6.92			
0'			4.8	2.12	@ BASELINE
SOUTHERLY - 23'			4.3	2.62	
- 34'			5.5	1.42	
- 50'			5.7	1.22	
- 75'			6.2	0.72	
- 85'			6.5	0.42	EDGE WATER
	SOUNDINGS		6.62	0.30	TOP WATER
- 100'	0.3'			0.0	
- 125'	1.3'			-1.0	
- 150'	2.2'			-1.9	
- 175'	2.5'			-2.2	
- 200'	2.8'			-2.5	
- 225'	2.8'			-2.5	
- 233'	2.0'			-1.7	
- 250'	2.3'			-2.0	
- 275'	1.7'			-1.4	
- 300'	1.2'			-0.9	
- 325'	1.7'			-1.4	
- 350'	2.0'			-1.7	
- 375'	2.3'			-2.0	
- 400'	2.8'			-2.5	

SAME

10/18/93

(14)

X-SECTION STA. 52+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I. 6.92	—	ELEV. 0.30	REMARKS TOP WATER
- 425'	3.3'			-3.0	
- 450'	4.0'			-3.7	
- 475'	4.3'			-4.0	
- 500'	4.6'			-4.3	
	NORTHERLY SECTION				
25'			4.8	2.12	
50'			4.9	2.02	
75'			5.2	1.72	
100'			5.4	1.52	
125'			5.5	1.42	
150'			5.5	1.42	
175'			5.6	1.32	
200'			5.7	1.22	
225'			5.8	1.12	
250'			5.8	1.12	
275'			5.8	1.12	
300'			5.8	1.12	
325'			5.8	1.12	
350'			5.8	1.12	
375'			5.9	1.02	
400'			5.9	1.02	

SAME 10/18/93

X-SECTION STA. 52+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
		6.92		0.30	TOP WATER
425'			6.0	0.92	
450'			5.9	1.02	
475'			6.0	0.92	
500'			6.0	0.92	
525'			6.0	0.92	
550'			6.1	0.82	
575'			6.1	0.82	
600'			6.1	0.82	
625'			6.1	0.82	
650'			6.1	0.82	
666'			6.1	0.82	
668'			5.6	1.32	
675'			5.7	1.22	
700'			6.4	0.52	
725'			6.5	0.42	
738'			6.62	0.30	TOP & EDGE WATER
	SOUNDINGS				
750'	0.1'			0.2	
775'	0.2'			0.1	
800'	0.3'			0.0	
825'	0.4'			-0.1	
850'	0.5'			-0.2	

SAME

10/18/93

X-SECTION STA. 52+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I. 6.92	—	ELEV. 0.30	REMARKS TOP WATER
875'	0.8'			-0.5	
900'	1.0'			-0.7	
925'	1.3'			-1.0	
950'	1.6'			-1.3	
975'	1.5'			-1.2	
1000'	1.4'			-1.1	
			4.07	2.85	CK. B.M.

SAME 10/18/93

X-SECTION STA. 54+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				2.84	TOP 1"x2" HUB @50+00
	3.10	5.94			
0'			4.6	1.34	@BASELINE
SOUTHERLY - 25'			4.9	1.04	
- 50'			4.9	1.04	
- 75'			5.1	0.84	
- 100'			5.8	0.14	EDGE WATER
	SOUNDINGS		5.80	0.14 0.1	EDGE & TOP WATER
- 125'	1.0'			-0.9	
- 150'	1.6'			-1.5	
- 175'	2.0'			-1.9	
- 200'	2.3'			-2.2	
- 225'	2.4'			-2.3	
- 250'	2.6'			-2.5	
- 275'	2.6'			-2.5	
- 278'	2.6'			-2.5	
- 286'	1.0'			-0.9	
- 300'	1.0'			-0.9	
- 325'	1.2'			-1.1	
- 350'	1.5'			-1.4	
- 375'	2.0'			-1.9	
- 400'	2.4'			-2.3	
- 425'	3.1'			-3.0	

SAME

10/18/93

(SEE BOOK 081, PG. 16)

X-SECTION STA. 54+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		5.94		0.14	TOP WATER
- 450'	4.2'			0.1 -4.1	
- 475'	4.2'			-4.1	
- 500'	5.0'			-4.9	
	NORTHERLY		SECTION		
25'			4.4	1.54	
50'			4.5	1.44	
75'			4.5	1.44	
100'			4.6	1.34	
125'			4.7	1.24	
150'			4.7	1.24	
175'			4.7	1.24	
200'			4.7	1.24	
225'			4.7	1.24	
250'			5.2	0.74	
275'			5.4	0.54	
300'			5.6	0.34	
325'			5.6	0.34	
350'			5.8	0.14	
375'			5.7	0.24	
400'			5.5	0.44	
425'			5.5	0.44	

SAME

10/18/93

X-SECTION STA. 54+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
		5.94		0.14	TOP WATER
				0.1	
450'			5.6	0.34	
475'			5.6	0.34	
500'			5.6	0.34	
525'			5.6	0.34	
550'			5.5	0.44	
575'			5.6	0.34	
600'			5.7	0.24	
618'			5.80	0.14	TOP & EDGE WATER
				0.1	
	SOUNDINGS				
625'	0.1'			0.0	
650'	0.2'			-0.1	
675'	0.3'			-0.2	
700'	0.4'			-0.3	
725'	0.4'			-0.3	
750'	0.6'			-0.5	
775'	0.7'			-0.6	
800'	0.8'			-0.7	
825'	0.7'			-0.6	
850'	0.7'			-0.6	
875'	0.7'			-0.6	
900'	0.7'			-0.6	
925'	0.8'			-0.7	

SAME 10/18/93

X-SECTION STA. 54+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	5.94		0.14	TOP WATER
950'	1.0'			0.1 -0.9	
975'	1.2'			-1.1	
1000'	1.5'			-1.4	
			3.11	2.83	CK. B.M.

SAME 10/18/93

21

X-SECTION STA. 56+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		6.23		0.09 0.1	TOP WATER
-425'	2.6'			-2.5	
-450'	3.0'			-2.9	
-475'	3.6'			-3.5	
-500'	4.2'			-4.1	
	NORTHERLY		SECTION		
25'			4.8	1.43	
50'			4.8	1.43	
75'			4.9	1.33	
100'			5.0	1.23	
125'			4.9	1.33	
150'			4.9	1.33	
175'			4.9	1.33	
200'			4.9	1.33	
225'			4.9	1.33	
228'			4.9	1.33	
248'			5.4	0.83	
250'			5.6	0.63	
275'			5.8	0.43	
300'			6.0	0.23	
325'			6.1	0.13	
347'			6.14	0.09 0.1	TOP & EDGE WATER

SAME 10/18/93

X-SECTION STA. 58+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				2.35	TOP T.P. SEE BOOK 081,
	4.52	6.87			
0'			4.6	2.27	@BASELINE
SOUTHERLY −17'			4.4	2.47	
−25'			5.7	1.17	
−50'			6.0	0.87	
−75'			6.3	0.57	
−100'			6.7	0.17	EDGE WATER
	SOUNDINGS		6.81	0.06	TOP WATER
−125'	0.8'			0.1 −0.7	
−150'	1.5'			−1.4	
−175'	1.6'			−1.5	
−200'	1.8'			−1.7	
−225'	1.9'			−1.8	
−250'	2.0'			−1.9	
−275'	2.2'			−2.1	
−300'	2.5'			−2.4	
−325'	2.5'			−2.4	
−350'	2.5'			−2.4	
−375'	2.6'			−2.5	
−400'	2.7'			−2.6	
−425'	3.2'			−3.1	
−450'	3.8'			−3.7	

SAME

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PG. 16

X-SECTION STA. 58+00 (cont'd)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	(cont'd)	6.87		0.06 0.1	TOP WATER
-475'	3.9'			-3.8	
-500'	4.0'			-3.9	
	NORTHERLY		SECTION		
25'			4.5	2.37	
50'			4.9	1.97	
75'			5.1	1.77	
100'			6.0	0.87	
125'			6.0	0.87	
150'			6.1	0.77	
175'			6.1	0.77	
200'			6.2	0.67	
225'			6.2	0.67	
250'			6.3	0.57	
275'			6.3	0.57	
300'			6.4	0.47	
325'			6.5	0.37	
350'			6.6	0.27	
370'			6.1	0.77	
375'			6.3	0.57	
400'			6.6	0.27	
421'			6.81	0.06 0.1	TOP & EDGE WATER

SAME 10/18/93

X-SECTION [illegible]

[illegible]	+	H.I.	—	ELEV.	REMARKS
	[illegible]	[illegible]		0.06	[illegible]
-47[illegible]'	[illegible]			[illegible]	
[illegible]	4[illegible]'			-3[illegible]	

[illegible] SECTION

25'			4[illegible]	[illegible]	
[illegible]			4.9	1.97	
[illegible]			5.1	1.77	
[illegible]			6.0	0.87	
[illegible]			[illegible]	0.87	
[illegible]			6.1	0.77	
[illegible]			[illegible]	0.77	
[illegible]			6.2	0.67	
			[illegible]	0.67	
			6.3	0.57	
			[illegible]	0.57	
			6.4	0.47	
			6.[illegible]	0.37	
			6.6	0.27	
			6.1	0.77	
[illegible]			[illegible]	0.57	
4[illegible]'			6.6	0.27	
421'			6.81	0.06	[illegible]
				0.1	

SAME

10/1[illegible]/[illegible]

[illegible]	[illegible]	[illegible]	—	[illegible]	[illegible]
	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	2.1'			[illegible]	
450'	2.3'			-[illegible]	
475'	[illegible]			-[illegible]	
500'	2.8'			-[illegible]	
525'	2.0'			-[illegible]	
550'	1.0'			-[illegible]	
575'	[illegible]			-[illegible]	
600'	[illegible]			-[illegible]	
625'	[illegible]			-[illegible]	
650'	[illegible]			-[illegible]	
675'	[illegible]			-[illegible]	
700'	[illegible]			-[illegible]	
725'	1.3'			-1.[illegible]	
750'	[illegible]			-1.1	
775'	1.1'			-1.0	
800'	1.1'			-1.0	
[illegible]	[illegible]			-1.1	
[illegible]	1.2'			-1.[illegible]	
[illegible]	[illegible]			-1.[illegible]	
[illegible]	[illegible]			-0.[illegible]	
925'	[illegible]			-1.1	
950'	1.5'			-1.4	
[illegible]	[illegible]			-[illegible]	
[illegible]	3.[illegible]		[illegible]	[illegible]	[illegible]

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[illegible]

[illegible]ANCE	+	[illegible]	−	ELEV	REMARKS
				3.82	TOP 1½" HUF @ 6 [illegible]
	1.15	6.97			
[illegible]			4.7	[illegible]	• BASELINE
[illegible]			4.2	[illegible]	
[illegible]			[illegible]	[illegible]	
[illegible]			[illegible]	[illegible]	
[illegible]			[illegible]	[illegible]	
[illegible]			[illegible]	[illegible]	
[illegible]			[illegible]	[illegible]	
[illegible]			[illegible]	[illegible]	
[illegible]			[illegible]	[illegible]	
[illegible]			[illegible]	[illegible]	
[illegible]			[illegible]	[illegible]	EDGE WATER
	[illegible]		[illegible]	[illegible]	TOP WATER
[illegible]	1.2'			−1.1	
[illegible]	1.6'			−1.[illegible]	
[illegible]	2.2'			−2.1	
[illegible]	2.3'			−2.[illegible]	
[illegible]	2.6'			−2.[illegible]	
[illegible]	2.0'			−1.[illegible]	
[illegible]	1.5'			−1.4	
[illegible]	1.8'			−1.[illegible]	
[illegible]	2.2'			−2.1	

SAME

10/18/93

(SEE BOOK 081, PG. 16)

	[illegible]	[illegible]	—	[illegible]	[illegible]
	[illegible]	6.9'		0.1	[illegible]
[illegible]	2.6'			-2.5	
[illegible]	3.0'			-2.9	
-525'	3.7'			-3.6	
-550'	4.3'			-4.2	
	NORTHERLY		SECTION		
[illegible]			4.9	2.07	
50'			4.8	2.17	
75'			5.1	1.87	
100'			5.9	1.07	
125'			6.5	0.47	
150'			6.8	0.17	
175'			6.4	0.57	
190'			6.2	0.77	
195'			5.6	1.37	
200'			5.5	1.47	
225'			5.3	1.67	
250'			5.5	1.47	
275'			5.7	1.27	
290'			6.8	0.17	[illegible] WATER
300'			6.8	0.17	EDGE WATER
309'			5.9	1.07	HIGH BANK

[illegible]

10/18/95

X-SECTION STA. 62+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
		6.97		0.12	TOP WATER
309'			6.85	0.12	TOP & EDGE WATER
	SOUNDINGS			0.1	
325'	2.2'			−0.7	
350'	1.1'			−1.0	
375'	1.0'			−0.9	
400'	1.0'			−0.9	
425'	0.1'			−0.7	
450'	0.2'			−0.7	
475'	0.2'			−0.7	
500'	0.2'			−0.7	
525'	0.2'			−0.7	
550'	[illegible]			[illegible]	
575'	[illegible]			[illegible]	
600'	[illegible]			[illegible]	
625'	[illegible]			−0.7	
650'	[illegible]			[illegible]	
675'	[illegible]			[illegible]	
700'	[illegible]			−0.8	
725'	1.0'			−0.9	
750'	1.3'			−1.2	
775'	2.1'			−2.0	
800'	2.8'			−2.7	

SAME

10/18/93

X-SECTION STA. [illegible]

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	[illegible]	[illegible]		[illegible]	TOP WATER
[illegible]	[illegible]			[illegible]	
[illegible]	[illegible]			[illegible]	
[illegible]	[illegible]			[illegible]	
[illegible]	[illegible]			[illegible]	
[illegible]	[illegible]			[illegible]	
[illegible]	[illegible]			[illegible]	
[illegible]	[illegible]			[illegible]	
[illegible]	[illegible]			[illegible]	
			[illegible]	[illegible]	[illegible]

SAME

10/18/93

X-SECTION STA. [illegible]

DISTANCE	+	[illegible]	−	ELEV.	REMARKS
				2.8[illegible]	[illegible]
	[illegible]	[illegible]			
[illegible]			4.2		@ BASELINE
-25'			4.[illegible]		
-50'			4.3		
-75'			4.[illegible]		
-100'			3.8		
-[illegible]'			3.[illegible]		
[illegible]			4.4		
[illegible]			4.[illegible]		
[illegible]			5.0		
[illegible]			5.6		
[illegible]			6.0		EDGE WATER
	[illegible]		[illegible]	[illegible]	TOP WATER
	[illegible]			[illegible]	
[illegible]	1.[illegible]			[illegible]	
[illegible]	1.[illegible]			-1.[illegible]	
-[illegible]	2.[illegible]			[illegible]	
[illegible]	[illegible]			[illegible]	
[illegible]	[illegible]		[illegible]	[illegible]	
[illegible]	[illegible]			[illegible]	
-[illegible]	[illegible]			-1.[illegible]	
-[illegible]	2.[illegible]			[illegible]	

SAME

10/18/[illegible]

(SEE BOOK 01 PG. 16)

	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	—	[illegible]	[illegible]
	[illegible]	[illegible]		[illegible]	TOP WATER
[illegible]				[illegible]	
[illegible]					
	[illegible]			[illegible]	
	[illegible]	[illegible]	[illegible]		
			5.0	1.43	
[illegible]			5.4	1.03	
[illegible]			5.5	0.93	
[illegible]			5.5	0.93	
[illegible]			5.4	1.03	
			5.3	1.13	
			5.1	1.33	
[illegible]			5.0	1.43	
			5.0	1.43	
			5.1	1.33	
[illegible]			3.9	2.53	
284'			3.7	2.73	
300'			4.5	1.93	
315'			4.5	1.93	
320'			5.6	0.83	
326'			6.31	0.12 0.1	TOP WATER

SAME 10/18/93 (53)

X-SECTION STA. 64+00 (cont.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS			0.1	TOP WATER
350'	1.4'			-1.3	
375'	0.7'			-0.6	
400'	0.5'			-0.4	
425'	0.4'			-0.3	
450'	0.4'			-0.3	
475'	0.3'			-0.2	
500'	0.2'			-0.1	
525'	0.3'			-0.2	
550'	0.5'			-0.4	
575'	0.6'			-0.5	
600'	0.7'			-0.6	
625'	0.8'			-0.7	
650'	1.0'			-0.9	
675'	1.1'			-1.0	
700'	1.3'			-1.2	
725'	1.5'			-1.4	
750'	1.7'			-1.6	
775'	2.0'			-1.9	
800'	2.2'			-2.1	
825'	2.6'			-2.5	
850'	3.6'			-3.5	
875'	4.0'			-3.9	

DATE: 10/18/93

X-SECTION STA. 66+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				2.40	TOP 1"x2" HUB @68+00
	4.12	6.52			
0'			4.8	1.72	@BASELINE
SOUTHERLY -25'			4.5	2.02	
-50'			4.3	2.22	
-75'			4.1	2.42	
-100'			4.0	2.52	
-125'			4.0	2.52	
-150'			3.9	2.62	
-165'			5.2	1.32	
-175'			5.5	1.02	
-200'			5.9	0.62	
-215'			6.1	0.42	EDGE WATER
	SOUNDINGS		6.40	0.12	TOP WATER
-225'	0.7'			0.1 -0.6	
-250'	1.2'			-1.1	
-275'	2.0'			-1.9	
-300'	2.5'			-2.4	
-375'	2.6'			-2.5	
-400'	2.8'			-2.7	
-408'	1.4'			-1.3	
-425'	2.0'			-1.9	
-450'	2.5'			-2.4	

SAME

10/18/93

(SEE BOOK 081, PG. 16)

X-SECTION STA. 66+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		6.52		0.12	TOP WATER
-475'	3.0'			-2.9 (0.1)	
-500'	3.5'			-3.4	
-525'	4.0'			-3.9	
	NORTHERLY SECTION				
25'			4.9	1.62	
50'			5.1	1.42	
75'			5.1	1.42	
100'			5.2	1.32	
125'			5.2	1.32	
150'			5.2	1.32	
175'			5.2	1.32	
200'			5.2	1.32	
225'			5.2	1.32	
250'			5.3	1.22	
275'			5.4	1.12	
300'			5.4	1.12	
325'			5.6	0.92	
350'			5.7	0.82	
375'			5.8	0.72	
400'			6.1	0.42	
425'			6.2	0.32	

SAME 10/18/93

/ SECTION STA. 66+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
		6.52		0.12 0.1	TOP WATER
450'			6.3	0.22	
475'			6.3	0.22	
485'			6.40	0.12 0.1	TOP & EDGE WATER
	SOUNDINGS				
500'	0.2'			-0.1	
525'	0.3'			-0.2	
550'	0.3'			-0.2	
575'	0.4'			-0.3	
600'	0.5'			-0.4	
625'	0.6'			-0.5	
650'	0.8'			-0.7	
675'	0.9'			-0.8	
700'	1.0'			-0.9	
725'	1.2'			-1.1	
750'	1.4'			-1.3	
775'	1.6'			-1.5	
800'	1.9'			-1.8	
825'	2.5'			-2.4	
855'	3.0'			-2.9	
875'	3.6'			-3.5	
900'	4.5'			-4.4	
925'	5.0'			-4.9	

SAME

10/18/93

X-SECTION STA. 66+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	6.52		0.12	TOP WATER
				0.1	
950'	5.7'			-5.6	
975'	6.0'			-5.9	
1000'	6.2'			-6.1	
			4.11	2.41	CK. B.M.

SAME

10/18/93

	X-SECTION	STA.	68+00		
DISTANCE	+	H.I.	—	ELEV.	REMARKS
				2.40	TOP 1"X2" HUB @68+00
	4.20	6.60			
0'			4.8	1.80	@BASELINE
SOUTHERLY -25'			4.6	2.00	
-50'			4.4	2.20	
-75'			4.0	2.60	
-100'			3.8	2.80	
-104'			4.0	2.60	
-125'			4.3	2.30	
-140'			3.9	2.70	
-155'			5.3	1.30	
-175'			5.7	0.90	
-187'			6.3	0.30	EDGE WATER
	SOUNDINGS		6.48	0.12	TOP WATER
-200'	0.5'			0.1 -0.4	
-225'	1.6'			-1.5	
-250'	2.0'			-1.9	
-275'	2.7'			-2.6	
-300'	3.5'			-3.4	
-325'	3.6'			-3.5	
-350'	3.6'			-3.5	
-370'	3.4'			-3.3	
-375'	2.4'			-2.3	

SAME 10/18/93 (12)

(SEE BOOK 081 PG. 16)

X-SECTION STA. 68+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		6.60		0.12	TOP WATER
-400'	2.2'			-2.1	
-425'	3.0'			-2.9	
-450'	3.5'			-3.4	
-475'	4.0'			-3.9	
-500'	4.2'			-4.1	

NORTHERLY SECTION

25'			4.9	1.70	
50'			5.0	1.60	
75'			5.1	1.50	
100'			5.1	1.50	
125'			5.1	1.50	
150'			5.1	1.50	
175'			5.1	1.50	
200'			5.2	1.40	
225'			5.2	1.40	
250'			5.2	1.40	
275'			5.3	1.30	
300'			5.5	1.10	
325'			5.7	0.90	
350'			5.9	0.70	
375'			6.0	0.60	

SAME 10/18/93 (43)

X-SECTION STA. 68+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
		6.60		0.12 0.1	TOP WATER
400'			6.2	0.40	
425'			6.3	0.30	
450'			6.4	0.20	
475'			6.4	0.20	
500'			6.48	0.12 0.1	TOP & EDGE WATER
	SOUNDINGS				
525'	0.2'			-0.1	
550'	0.4'			-0.3	
575'	0.5'			-0.4	
600'	0.5'			-0.4	
625'	0.7'			-0.6	
650'	0.8'			-0.7	
675'	0.9'			-0.8	
700'	1.1'			-1.0	
725'	1.3'			-1.2	
750'	1.5'			-1.4	
775'	2.3'			-2.2	
800'	3.0'			-2.9	
825'	4.0'			-3.9	
850'	5.0'			-4.9	
875'	5.5'			-5.4	
900'	6.0'			-5.9	

SAME 10/18/93

X-SECTION STA. 68+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
		6.60		0.12	TOP WATER
925'	6.0'			0.1 -5.9	
950'	6.1'			-6.0	
975'	6.2'			-6.1	
1000'	6.4'			-6.3	
			4.20	2.40	CK. B.M.

SAME

10/18/93

(13)

X-SECTION STA. 72+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				2.87	TOP 1"x2" HUB @ 74+00
	4.16	7.03			
0'			4.7	2.33	@BASELINE
SOUTHERLY -25'			4.6	2.43	
-50'			4.7	2.33	
-75'			4.6	2.43	
-100'			3.9	3.13	
-116'			3.8	3.23	
-125'			4.2	2.83	
-140'			4.3	2.73	
-150'			5.7	1.33	
-175'			6.2	0.83	EDGE WATER
	SOUNDINGS		6.70	0.33	TOP WATER
-200'	1.0'			0.3 -0.7	
-225'	2.0'			-1.7	
-250'	3.0'			-2.7	
-275'	3.0'			-2.7	
-300'	3.0'			-2.7	
-325'	2.5'			-2.2	
-350'	2.2'			-1.9	
-375'	1.5'			-1.2	
-400'	1.2'			-0.9	
-425'	2.0'			-1.7	

SAME 10/19/93 (16)

(SEE BOOK 081, PG. 16)

X-SECTION STA. 72+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T)	7.03		0.33 0.3	TOP WATER
-450'	3.2'			-2.9	
-475'	4.0'			-3.7	
-500'	4.0'			-3.7	
	NORTHERLY		SECTION		
25'			4.8	2.23	
50'			4.9	2.13	
75'			5.0	2.03	
100'			5.1	1.93	
125'			5.1	1.93	
130'			5.6	1.43	
150'			6.0	1.03	
175'			6.3	0.73	
200'			6.5	0.53	
225'			6.6	0.43	
250'			6.8	0.23	
275'			6.7	0.33	
300'			6.3	0.73	
322'			6.70	0.33 0.3	TOP WATER
	SOUNDINGS				
325'	0.1'			0.2	
350'	0.3'			0.0	

SAME

10/19/93

41

X SECTION STA. 72+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.33	TOP WATER
				0.3	
375'	0.5'			-0.2	
400'	0.7'			-0.4	
425'	0.8'			-0.5	
450'	0.9'			-0.6	
475'	1.0'			-0.7	
500'	1.0'			-0.7	
525'	1.1'			-0.8	
550'	1.2'			-0.9	
575'	1.3'			-1.0	
600'	1.5'			-1.2	
625'	1.6'			-1.3	
650'	1.8'			-1.5	
675'	2.0'			-1.7	
700'	2.3'			-2.0	
725'	3.0'			-2.7	
750'	3.6'			-3.3	
775'	4.0'			-3.7	
800'	4.5'			-4.2	
825'	4.7'			-4.4	
850'	5.0'			-4.7	
875'	5.4'			-5.1	
900'	5.8'			-5.5	

SAME

10/19/93

(10)

X-SECTION STA. 72+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.03		0.33	TOP WATER
925'	5.4'			0.3 −5.1	
950'	5.8'			−5.5	
975'	5.9'			−5.6	
1000'	6.0'			−5.7	
			4.16	2.87	CK. B.M.

SAME 10/19/93

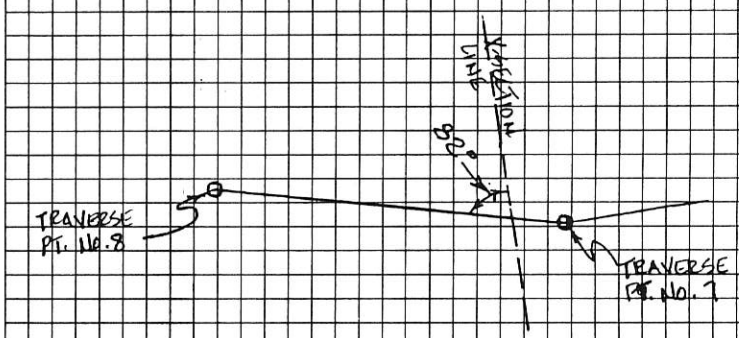
X-SECTION STA. 74+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				2.87	TOP 1"x2" HUB @74+00
	4.23	7.10			
0'			4.7	2.40	@BASELINE
SOUTHERLY −25'			4.5	2.60	
−50'			4.4	2.70	
−75'			4.1	3.00	
−100'			3.9	3.20	
−125'			4.0	3.10	
−139'			4.1	3.00	
−150'			5.4	1.70	
−170'			6.1	1.00	EDGE WATER
	SOUNDINGS		6.68	0.42	TOP WATER
−175'	0.1'			0.4 0.3	
−200'	1.7'			−1.3	
−225'	2.1'			−1.7	
−250'	2.5'			−2.1	
−275'	2.5'			−2.1	
−300'	2.0'			−1.6	
−325'	2.5'			−2.1	
−350'	2.7'			−2.3	
−375'	2.3'			−1.9	
−400'	2.0'			−1.6	
−425'	2.7'			−2.3	

SAME

10/19/93

NOTE: THIS SECTION NOT PERPENDICULAR TO TRAVERSE LINE (SEE BELOW)



X-SECTION STA. 74+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	7.10		0.42 0.4	TOP WATER
-450'	3.6'			-3.2	
-475'	4.3'			-3.9	
-500'	4.8'			-4.4	
	NORTHERLY	SECTION			
25'			4.8	2.30	
50'			5.1	2.00	
75'			5.2	1.90	
100'			5.4	1.70	
125'			5.4	1.70	
150'			5.3	1.80	
160'			5.9	1.20	
170'			6.68	0.42 0.4	TOP & EDGE WATER
	SOUNDINGS				
175'	0.1'			0.3	
200'	0.3'			0.1	
225'	0.3'			0.1	
250'	0.4'			0.0	
275'	0.5'			-0.1	
300'	0.7'			-0.3	
325'	0.7'			-0.3	
350'	0.8'			-0.4	

SAME 10/19/93

X-SECTION STA. 74+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.42	TOP WATER
375'	0.9'			-0.5	
400'	1.0'			-0.6	
425'	1.0'			-0.6	
450'	1.0'			-0.6	
475'	1.1'			-0.7	
500'	1.2'			-0.8	
525'	1.4'			-1.0	
550'	1.7'			-1.3	
575'	1.9'			-1.5	
600'	2.1'			-1.7	
625'	2.3'			-1.9	
650'	2.4'			-2.0	
675'	2.4'			-2.0	
700'	2.4'			-2.0	
725'	2.8'			-2.4	
750'	3.9'			-3.5	
775'	4.3'			-3.9	
800'	4.6'			-4.2	
825'	4.8'			-4.4	
850'	5.0'			-4.6	
875'	5.1'			-4.7	
900'	5.4'			-5.0	

SAME

10/19/93

X-SECTION STA. 74+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	7.10		0.42	TOP WATER
				0.4	
925'	5.5'			−5.1	
950'	5.7'			−5.3	
975'	5.9'			−5.5	
1000'	6.0'			−5.6	
			4.22	2.88	CK. B.M.

SAME

10/19/73

X-SECTION STA. 76+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				2.87	TOP 1"x2" HUB @ 74+00
	3.84	6.71			
0'			4.6	2.11	@ BASELINE
SOUTHERLY -25'			4.3	2.41	
-50'			3.9	2.81	
-75'			3.8	2.91	
-100'			3.7	3.01	
-125'			3.6	3.11	
-150'			3.5	3.21	
-175'			5.7	1.01	EDGE WATER
	SOUNDINGS		6.26	0.45	TOP WATER
-200'	1.6'			0.5 -1.1	
-225'	2.2'			-1.7	
-250'	2.7'			-2.2	
-275'	2.9'			-2.4	
-300'	3.0'			-2.5	
-325'	2.7'			-2.2	
-350'	2.5'			-2.0	
-375'	2.1'			-1.6	
-400'	1.8'			-1.3	
-425'	2.6'			-2.1	
-450'	3.5'			-3.0	
-475'	4.2'			-3.7	

SAME 10/19/93

(SEE BOOK 081, PG. 16)

X-SECTION STA. 76+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	6.71		0.45 0.5	TOP WATER
-500'	4.9			-4.4	
	NORTHERLY SECTION				
25'			4.7	2.01	
50'			5.0	1.71	
75'			5.1	1.61	
90'			6.26	0.45 0.5	TOP & EDGE WATER
	SOUNDINGS				
100'	0.3'			0.2	
125'	0.7'			-0.2	
150'	1.1'			-0.6	
175'	1.1'			-0.6	
200'	1.2'			-0.7	
225'	1.1'			-0.6	
250'	1.0'			-0.5	
275'	1.0'			-0.5	
300'	1.0'			-0.5	
325'	1.1'			-0.6	
350'	1.2'			-0.7	
375'	1.4'			-0.9	
400'	1.6'			-1.1	
425'	1.7'			-1.2	

SAME

10/19/93

X-SECTION STA. 76+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		6.71		0.45	TOP WATER
				0.5	
450'	1.8'			-1.3	
475'	2.1'			-1.6	
500'	2.4'			-1.9	
525'	2.5'			-2.0	
550'	2.6'			-2.1	
575'	2.8'			-2.3	
600'	3.0'			-2.5	
625'	3.3'			-2.8	
650'	3.5'			-3.0	
675'	3.7'			-3.2	
700'	4.0'			-3.5	
725'	4.1'			-3.6	
750'	4.3'			-3.8	
775'	4.5'			-4.0	
800'	4.7'			-4.2	
825'	5.0'			-4.5	
850'	5.2'			-4.7	
875'	5.5'			-5.0	
900'	5.8'			-5.3	
925'	5.8'			-5.3	
950'	5.8'			-5.3	
975'	5.8'			-5.3	
1000'	5.8'			-5.3	
			3.84	2.87	CK. B.M.

SAME

10/9/93

X-SECTION STA. 78+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				1.34	TOP 1"x2" HUB @ 80+00
	5.22	6.56			
0'			4.6	1.96	@ BASELINE
SOUTHERLY -25'			4.3	2.26	
-50'			4.2	2.36	
-75'			3.9	2.66	
-100'			3.7	2.86	
-125'			4.0	2.56	
-150'			3.6	2.96	
-166'			3.2	3.36	
-190'			5.5	1.06	
-195'			5.9	0.66	EDGE WATER
	SOUNDINGS		6.02	0.54	TOP WATER
-200'	0.7'			0.5 -0.2	
-225'	1.3'			-0.8	
-250'	2.2'			-1.7	
-275'	2.2'			-1.7	
-287'	1.2'			-0.7	
-300'	1.5'			-1.0	
-325'	1.7'			-1.2	
-350'	2.0'			-1.5	
-375'	2.0'			-1.5	
-400'	2.0'			-1.5	

SAME

10/19/93

X-SECTION STA. 78+00 (CON'T)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	6.56		0.54 0.5	TOP WATER
-425'	2.7'			-2.2	
-450'	3.4'			-2.9	
-475'	4.0'			-3.5	
-500'	4.5'			-4.0	
	NORTHERLY		SECTION		
25'			4.6	1.96	
50'			4.7	1.86	
58'			6.02	0.54 0.5	TOP & EDGE WATER
	SOUNDINGS				
75'	0.6'			-0.1	
100'	1.6'			-1.1	
125'	1.6'			-1.1	
150'	1.6'			-1.1	
175'	1.4'			-0.9	
200'	1.2'			-0.7	
225'	1.3'			-0.8	
250'	1.3'			-0.8	
275'	1.7'			-1.2	
300'	2.1'			-1.6	
325'	2.1'			-1.6	
350'	2.1'			-1.6	

SAME 10/19/93

X-SECTION STA. 78+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV	REMARKS
				0.54	TOP WATER
375'	2.3'			0.5 −1.8	
400'	2.5'			−2.0	
425'	2.6'			−2.1	
450'	2.7'			−2.2	
475'	2.8'			−2.3	
500'	2.8'			−2.3	
525'	2.9'			−2.4	
550'	3.0'			−2.5	
575'	3.1'			−2.6	
600'	3.2'			−2.7	
625'	3.4'			−2.9	
650'	3.5'			−3.0	
675'	3.6'			−3.1	
700'	3.9'			−3.4	
725'	4.0'			−3.5	
750'	4.0'			−3.5	
775'	4.1'			−3.6	
800'	4.2'			−3.7	
825'	4.5'			−4.0	
850'	4.7'			−4.2	
875'	4.9'			−4.4	
900'	5.2'			−4.7	

SAME

10/19/93

X-SECTION STA. 78+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		6.56		0.54	TOP WATER
				0.5	
925'	5.4'			-4.9	
950'	5.7'			-5.2	
975'	5.7'			-5.2	
1000'	5.7'			-5.2	
			5.20	1.36	CK. B.M.

SAME 10/19/93

X-SECTION STA. 82+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				1.34	TOP 1"x2" HUB @ 80+00
	5.03	6.37			
0'			4.8	1.57	@BASELINE
SOUTHERLY -25'			4.2	2.17	
-50'			4.0	2.37	
-75'			3.9	2.47	
-100'			3.7	2.67	
-125'			3.6	2.77	
-150'			3.4	2.97	
-175'			3.5	2.87	
-200'			3.5	2.87	
-222'			3.5	2.87	
-240'			5.6	0.77	
-250'			6.2	0.17	
-257'			6.4	-0.03	
-265'			5.7	0.67	
-275'			5.5	0.87	
-300'			5.4	0.97	
-315'			5.3	1.07	EDGE WATER
	SOUNDINGS		5.73	0.64	TOP WATER
-325'	0.6'			0.6 0.0	
-350'	1.7'			-1.1	
-375'	2.0'			-1.4	

SAME

10/19/93

(SEE BOOK 081, PG. 16)

X-SECTION STA. 82+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	6.37		0.64 0.6	TOP WATER
-400'	2.2'			-1.6	
-425'	2.0'			-1.4	
-450'	2.0'			-1.4	
-475'	2.7'			-2.1	
-500'	3.5'			-2.9	
	NORTHERLY		SECTION		
25'			4.8	1.57	
50'			5.1	1.27	
75'			5.3	1.07	
100'			6.0	0.37	
125'			5.5	0.87	
150'			5.1	1.27	
175'			5.5	0.87	
200'			5.8	0.57	
225'			5.6	0.77	
250'			5.4	0.97	
275'			5.5	0.87	
293'			5.6	0.77	
294'			5.73	0.64 0.6	TOP & EDGE WATER
	SOUNDINGS				
300'	1.0				

SAME

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X-SECTION STA. 82+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.64	TOP WATER
305'	1.2'			0.6 -0.6	
306'	1.8'			-1.2	
325'	1.9'			-1.3	
350'	2.0'			-1.4	
375'	2.0'			-1.4	
400'	2.0'			-1.4	
425'	2.1'			-1.5	
450'	2.3'			-1.7	
475'	2.4'			-1.8	
500'	2.5'			-1.9	
525'	2.6'			-2.0	
550'	2.9'			-2.3	
575'	3.0'			-2.4	
600'	3.1'			-2.5	
625'	3.2'			-2.6	
650'	3.4'			-2.8	
675'	3.5'			-2.9	
700'	3.6'			-3.0	
725'	3.7'			-3.1	
750'	3.8'			-3.2	
775'	3.9'			-3.3	
800'	4.0'			-3.4	

SAME 10/19/93 (63)

X-SECTION STA. 82+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
		6.37		0.64 0.6	TOP WATER
825'	4.1'			-3.5	
850'	4.3'			-3.7	
875'	4.5'			-3.9	
900'	4.5'			-3.9	
925'	4.6'			-4.0	
950'	4.7'			-4.1	
975'	4.7'			-4.1	
1000	4.9'			-4.2	
			5.02	1.35	CK. B.M.

SAME

10/19/93

B.A. BRUNET
A. CARLOS
T. BERGERON
I. GAUTREAUX

10/20/93

(SEE BOOK 081, PG. 16)

X-SECTION STA. 24+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				3.60	TOP 1"x2" HUB @ 86+00
	+.51	8.11			
0'			5.9	2.21	
SOUTHERLY -25'			6.0	2.11	
-50'			5.7	2.41	
-75'			5.3	2.81	
-100'			5.5	2.61	
-125'			5.4	2.71	
-150'			5.2	2.91	
-175'			5.1	3.01	
-200'			5.3	2.81	
-225'			4.9	3.21	
-235'			4.8	3.31	
-250'			5.4	2.71	
-265'			6.7	1.41	
-275'			6.7	1.41	
-300'			7.1	1.01	
-325'			7.4	0.71	
-350'			8.3	-0.19	EDGE WATER
	SOUNDINGS		7.87	0.24	TOP WATER
-375'	0.8'			0.2 -0.6	
-400'	1.7'			-1.5	
-425'	1.7'			-1.5	

X-SECTION STA. 84+00 (CON'T)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T)	8.11		0.24 / 0.2	TOP WATER
-450'	1.5'			-1.3	
-475'	2.1'			-1.9	
-500'	2.7'			-2.5	
-525'	3.4'			-3.2	
-550'	4.3'			-4.1	
	NORTHERLY		SECTION		
25'			6.2		
50'			6.5		
75'			6.7		
100'			6.9		
125'			6.2		
148'			5.9		
152'			6.2		
187'			7.87	0.24 / 0.2	TOP & EDGE WATER
	SOUNDINGS				
200'	0.2'			0.0	
225'	0.4'			0.2	
250'	0.5'			0.3	
275'	0.6'			0.4	
300'	0.7'			0.5	
325'	0.8'			0.6	

SAME 10/20/93

X-SECTION STA 24+00 (CON'T)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.24	TOP WATER
				0.2	
350'	1.2'			-1.0	
375'	1.2'			-1.0	
400'	1.5'			-1.1	
425'	1.5'			-1.3	
450'	1.7'			-1.5	
475'	1.7'			-1.5	
500'	1.7'			-1.5	
525'	2.1'			-1.9	
550'	2.3'			-2.1	
575'	2.2'			-2.0	
600'	2.3'			-2.1	
625'	2.4'			-2.2	
650'	2.5'			-2.3	
675'	2.5'			-2.3	
700'	2.7'			-2.5	
725'	2.7'			-2.5	
750'	2.7'			-2.5	
775'	2.7'			-2.5	
800'	2.8'			-2.6	
825'	2.8'			-2.6	
850'	3.0'			-2.8	
875'	3.2'			-3.0	

SAME

10/20/93

X-SECTION STA. 84+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		8.11		0.24	TOP WATER
900'	3.4'			0.2 -3.2	
925'	3.4'			-3.2	
950'	3.4'			-3.2	
975'	3.5'			-3.3	
1000'	3.8'			-3.6	
			4.52	3.59	CK. B.M.

SAME

X-SECTION STA. 86+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				3.60	TOP 1"x2" HUB @86+00
	4.51	8.11			
0'			5.0		@BASELINE
SOUTHERLY -25'			5.0		
-50'			4.9		
-75'			4.7		
-100'			4.8		
-125'			5.4		
-150'			5.1		
-175'			5.0		
-200'			4.9		
-225'			4.8		
-250'			4.9		
-275'			5.5		
-300'			6.0		
-325'			7.1		
-350'			7.5		
-360'			8.0		EDGE WATER
	SOUNDINGS		7.98	0.13	TOP WATER
-375'	0.5'			0.1 -0.4	
-400'	1.4'			-1.3	
-425'	2.0'			-1.9	
-450'	2.7'			-2.6	

SAME

10/20/93

(29)

(SEE BOOK 081, PG. 16)

X-SECTION STA. 86+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	8.11		0.13	TOP WATER
-475'	2.5'			0.1 -2.4	
-500'	2.3'			-2.2	
-525'	3.2'			-3.1	
-550'	4.0'			-3.9	
	NORTHERLY SECTION				
25'			4.8	3.31	
50'			5.0	3.11	
75'			5.5	2.61	
100'			6.1	2.01	
125'			6.0	2.11	
150'			6.0	2.11	
175'			6.0	2.11	
190'			6.0	2.11	
210'			7.8	0.31	
225'			7.8	0.31	
250'			7.9	0.21	
260'			7.9	0.21	
273'			7.98	0.13	TOP & EDGE WATER
	SOUNDINGS			0.1	
300'	0.2'			-0.1	
325'	0.3'			-0.2	

SAME

10/20/93

X-SECTION STA. 86+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
				0.13	TOP WATER
350'	0.6'			0.1 -0.5	
375'	0.7'			-0.6	
400'	0.9'			-0.8	
425'	1.0'			-0.9	
450'	1.0'			-0.9	
475'	1.0'			-0.9	
500'	1.0'			-0.9	
525'	1.3'			-1.2	
550'	1.8'			-1.7	
575'	2.1'			-2.0	
600'	2.4'			-2.3	
625'	2.4'			-2.3	
650'	2.5'			-2.4	
675'	2.3'			-2.2	
700'	2.2'			-2.1	
725'	2.2'			-2.1	
750'	2.2'			-2.1	
775'	2.4'			-2.3	
800'	2.5'			-2.4	
825'	2.6'			-2.5	
850'	2.6'			-2.5	
875'	2.7'			-2.6	

SAME

10/20/93

X-SECTION STA. 86+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	8.11		0.13	TOP WATER
				0.1	
900'	2.8'			-2.7	
925'	2.9'			-2.8	
950'	2.9'			-2.8	
975'	3.1'			-3.0	
1000'	3.1'			-3.0	
1025'	3.3'			-3.2	
1060'	3.5'			-3.4	
			4.51	3.60	CK. B.M.

SAME

10/20/93

X-SECTION STA. 88+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				3.60	TOP 1"x2" HUB @86+00
	3.63	7.23			
0'			4.9	2.33	@BASELINE
SOUTHERLY -25'			3.7	3.53	
-50'			3.3	3.93	
-75'			3.4	3.83	
-100'			5.1	2.13	
-125'			5.0	2.23	
-150'			4.6	2.63	
-175'			4.4	2.83	
-200'			4.1	3.13	
-225'			4.0	3.23	
-250'			4.2	3.03	
-275'			3.9	3.33	
-300'			4.6	2.63	
-325'			6.0	1.23	
-350'			6.5	0.73	
-370'			7.2	0.03	EDGE WATER
	SOUNDINGS		7.17	0.06	TOP WATER
-375'	0.7'			0.1 -0.6	
-400'	1.5'			-1.4	
-425'	2.0'			-1.9	
-450'	2.6'			-2.5	

SAME

10/20/93

(SEE BOOK 081, PG. 16)

X SECTION STA. 88+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		7.23		0.06	TOP WATER
-465'	1.3'			0.1 -1.2	
-475'	1.5'			-1.4	
-500'	2.2'			-2.1	
-525'	3.0'			-2.9	
-550'	3.9'			-3.8	
	NORTHERLY		SECTION		
25'			4.8	2.53	
50'			5.1	2.13	
54'			5.3	1.93	
56'			5.7	1.53	
75'			6.1	1.13	
100'			5.9	1.33	
125'			5.6	1.63	
150'			5.3	1.93	
175'			5.3	1.93	
200'			4.9	2.33	
210'			6.7	0.53	
225'			7.0	0.23	
256'			7.17	0.06 0.1	TOP & EDGE WATER
	SOUNDINGS				
275'	0.2'			-0.1	

SAME

10/20/93

X-SECTION STA. 88+00 (CON'T)

DISTANCE	+ SOUNDINGS (CON'T)	H.I.	—	ELEV.	REMARKS
				0.06	TOP WATER
300'	0.3'			0.1 -0.2	
325'	0.4'			-0.3	
350'	0.6'			-0.5	
375'	0.7'			-0.6	
400'	0.8'			-0.7	
425'	1.2'			-1.1	
450'	1.8'			-1.7	
475'	1.9'			-1.8	
500'	2.0'			-1.9	
525'	1.7'			-1.6	
550'	1.4'			-1.3	
575'	1.7'			-1.6	
600'	2.2'			-2.1	
625'	2.3'			-2.2	
650'	2.5'			-2.4	
675'	2.4'			-2.3	
700'	2.2'			-2.1	
725'	2.2'			-2.1	
750'	2.2'			-2.1	
775'	2.3'			-2.2	
800'	2.4'			-2.3	
825'	2.5'			-2.4	

SAME

10/20/93

X-SECTION STA. 88+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	−	ELEV.	REMARKS
		7.23		0.06	TOP WATER
				0.1	
850'	2.5'			−2.4	
875'	2.5'			−2.4	
900'	2.5'			−2.4	
925'	2.6'			−2.5	
950'	2.7'			−2.6	
975'	2.8'			−2.7	
1000'	3.0'			−2.9	
			3.63	3.60	CK. B.M.

SAME 10/20/93

(X)

X-SECTION STA. 92+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				3.56	TOP 1"x2" HUB @ 92+00
	4.64	8.20			
0'			5.2	3.00	@ BASELINE
SOUTHERLY -25'			5.9	2.30	
-50'			5.8	2.40	
-75'			4.2	4.00	
-100'			5.4	2.80	
-125'			6.1	2.10	
-150'			6.0	2.20	
-175'			5.7	2.50	
-200'			5.4	2.80	
-225'			5.2	3.00	
-250'			4.9	3.30	
-275'			4.9	3.30	
-300'			4.8	3.40	
-314'			4.7	3.50	
-324'			5.5	2.70	
-333'			5.4	2.80	
-350'			6.8	1.40	
-375'			7.3	0.90	
-400'			7.8	0.40	
			8.16	0.04	TOP WATER
				0.0	

SAME

10/20/93

(SEE BOOK 081, PG. 16)

X-SECTION STA. 92+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS	8.20		0.04	TOP WATER
				0.0	
-425'	0.8			-0.8	
-450'	1.6			-1.6	
-475'	1.2'			-1.2	
-500'	0.8'			-0.8	
-525'	1.0'			-1.0	
-550'	2.4'			-2.4	
-575'	3.5'			-3.5	

NORTHERLY SECTION

25'			5.0	3.20	
30'			6.7	1.50	
50'			9.8	-1.60	
75'			7.4	0.80	
79'			7.0	1.20	
80'			5.7	2.50	
100'			5.5	2.70	
113'			5.4	2.80	
125'			6.6	1.60	
150'			6.2	2.00	
175'			6.0	2.20	
200'			6.0	2.20	
213'			5.8	2.40	

SAME 10/20/93

X-SECTION STA. 92+00 (CONT.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
		2.20		0.0+ 0.0	TOP WATER
229'			7.6		
250'			7.9		
275'			8.0		
300'			8.1		
325'			8.16	0.0+ 0.0	TOP & EDGE WATER
	SOUNDINGS				
350'	0.2'			-0.2	
375'	0.3'			-0.3	
400'	0.3'			-0.3	
425'	0.5'			-0.5	
450'	0.7'			-0.7	
475'	0.7'			-0.7	
500'	0.8'			-0.8	
525'	0.8'			-0.8	
550'	1.0'			-1.0	
575'	0.9'			-0.9	
600'	0.8'			-0.8	
625'	1.1'			-1.1	
650'	1.6'			-1.6	
675'	1.8'			-1.8	
700'	2.0'			-2.0	
725'	2.0'			-2.0	

SAME 10/20/93

X SECTION STA. 92+00 (CON'T)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		8.20		0.04	TOP WATER
750'	2.0'			0.0 -2.0	
775'	1.8'			-1.8	
800'	1.6'			-1.6	
825'	1.7'			-1.7	
850'	2.0'			-2.0	
875'	2.1'			-2.1	
900'	2.3'			-2.3	
925'	2.3'			-2.3	
950'	2.3'			-2.3	
975'	2.4'			-2.4	
1000'	2.3'			-2.3	
			4.64	3.56	CK. B.M.

SAME

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PAGE NO.	REFERENCE	DATE

(1)

BOOK 084

JOB NO. 1136

T. BAKER SMITH & SON, INC.

EAST ISLE DERNIERES RESTORATION PROJECT - PHASE 0

X-SECTION STA. 9+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				3.56	TOP 1"x2" HUB @92+00
	4.56	8.12			
0'			5.1	3.02	@BASELINE
SOUTHERLY −25'			4.8	3.32	
−50'			4.4	3.72	
−75'			4.3	3.82	
−100'			4.4	3.72	
−125'			4.8	3.32	
−150'			5.5	2.62	
−175'			5.5	2.62	
−200'			5.3	2.82	
−225'			5.0	3.12	
−250'			4.9	3.22	
−275'			4.9	3.22	
−300'			5.2	2.92	
−325'			5.6	2.52	
−350'			5.8	2.32	
−375'			7.0	1.12	
−400'			7.6	0.52	
−415'			8.2	−0.08	
	SOUNDINGS		8.15	−0.03 0.0	TOP WATER
−425'	0.7'			−0.7	
−450'	1.7'			−1.7	

B.A. BRUNET
A. CARLOS
T. BERGERON
I. GAUTREAUX

10/20/93

(2)

(SEG BOOK 081, PG. 16)

X-SECTION. STA. 94+00 (CON'T.)

DISTANCE	+ SOUNDINGS (CON'T.)	H.I.	—	ELEV.	REMARKS
		8.12		-0.03 0.0	TOP WATER
-500'	1.0'			-1.0	
-525'	1.5'			-1.5	
-550'	2.7'			-2.7	
-600'	4.0'			-4.0	
	NORTHERLY SECTION				
25'			4.7	3.42	
50'			4.7	3.42	
75'			4.4	3.72	
100'			4.7	3.42	
125'			5.3	2.82	
150'			5.9	2.22	
175'			5.5	2.62	
200'			5.4	2.72	
235'			5.5	2.62	
250'			7.3	0.82	
275'			7.7	0.42	
300'			7.8	0.32	
325'			7.9	0.22	
350'			8.0	0.12	
375'			8.2	-0.08	
400'			8.15	-0.03 0.0	TOP & EDGE WATER

SAME

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X-SECTION STA. 94+00 (CON'T.)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS	8.12		-0.03	TOP WATER
425'	0.1'			-0.1	
450'	0.2'			-0.2	
475'	0.5'			-0.5	
500'	0.7'			-0.7	
525'	0.7'			-0.7	
550'	0.7'			-0.7	
575'	1.0'			-1.0	
600'	1.4'			-1.4	
625'	1.4'			-1.4	
650'	1.5'			-1.5	
675'	1.6'			-1.6	
700'	1.6'			-1.6	
725'	1.4'			-1.4	
750'	1.2'			-1.2	
775'	1.3'			-1.3	
800'	1.6'			-1.6	
825'	1.6'			-1.6	
850'	1.5'			-1.5	
875'	1.6'			-1.6	
900'	1.6'			-1.6	
925'	1.8'			-1.8	
950'	2.0'			-2.0	
975'	1.9'			-1.9	
1000'	1.9'			-1.9	

SAME

10/20/93

X-SECTION: STA. 96+00

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				5.42	TOP 3/4" G.I.P. @TRAV. PT. 6
	2.96	8.38			
0'			4.9	3.48	@BASELINE
SOUTHERLY -25'			5.0	3.38	
-50'			5.8	2.58	
-75'			5.3	3.08	
-100'			4.9	3.48	
-125'			4.2	4.18	
-150'			5.6	2.78	
-175'			5.5	2.88	
-200'			5.4	2.98	
-225'			5.2	3.18	
-250'			5.0	3.38	
-275'			5.1	3.28	
-300'			5.1	3.28	
-318'			5.0	3.38	
-325'			5.6	2.78	
-336'			5.6	2.78	
-350'			7.0	1.38	
-375'			7.6	0.78	
-400'			8.4	-0.02	EDGE WATER
	SOUNDINGS		8.46	-0.08 -0.1	TOP WATER
-425	0.8			-0.9	

SAME

10/20/93

(SEE BOOK 081, PG. 16)

X-SECTION STA: 96+00 (CON'T)

DISTANCE	+ SOUNDINGS (CON'T)	H.I.	−	ELEV.	REMARKS
		8.38		−0.08	TOP WATER
				−0.1	
−450'	1.7'			−1.8	
−475'	1.6'			−1.7	
−500'	1.4'			−1.5	
−525'	2.2'			−2.3	
−550'	3.0'			−3.1	
−580'	4.2'			−4.3	
	NORTHERLY		SECTION		
16'			5.5	2.88	
25'			4.4	3.98	
50'			5.0	3.38	
75'			5.4	2.98	
100'			5.6	2.78	
125'			5.8	2.58	
150'			5.8	2.58	
175'			5.7	2.68	
200'			5.9	2.48	
225'			6.0	2.38	
250'			6.4	1.98	
275'			6.8	1.58	
300'			6.7	1.68	
325'			6.5	1.88	

SAME 10/20/93

X-SECTION STA: 96+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
		8.38			
375'			6.3	2.08	
380'			6.4	1.98	
381'			7.6	0.78	HIGH BANK
391'			8.2	0.18	LOW BANK
416'			8.46	-0.08 -0.1	TOP & EDGE WATER
	SOUNDINGS				
425'	0.2'			-0.3	
450'	0.2'			-0.3	
475'	0.3'			-0.4	
500'	0.3'			-0.4	
525'	0.4'			-0.5	
550'	0.5'			-0.6	
575'	0.7'			-0.8	
600'	0.9'			-1.0	
625'	1.0'			-1.1	
650'	1.1'			-1.2	
675'	1.2'			-1.3	
700'	1.2'			-1.3	
725'	1.2'			-1.3	
750'	1.2'			-1.3	
775'	1.2'			-1.3	
800'	1.3'			-1.4	

SAME 10/20/93

X-SECTION STA. 96+00 (CON'T)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	8.38		-0.08 -0.1	TOP WATER
825'	1.3'			-1.4	
850'	1.4'			-1.5	
875'	1.3'			-1.4	
900'	1.3'			-1.4	
925'	1.4'			-1.5	
950'	1.6'			-1.7	
975'	1.9'			-2.0	
1000'	2.1'			-2.2	
			2.97	5.41	CK. B.M.

SAME 10/20/93.

X-SECTION STA. 98+00

DISTANCE	+	H.I.	—	ELEV.	REMARKS
				5.09	TOP 1"x2" HUB @ 98+00
	7.37	12.46			
0'			7.7	4.76	@BASELINE
SOUTHERLY -25'			8.6	3.86	
-50'			8.6	3.86	
-75'			8.5	3.96	
-100'			8.3	4.16	
-125'			9.5	2.96	
-150'			9.5	2.96	
-175'			9.3	3.16	
-200'			9.2	3.26	
-225'			8.9	3.56	
-250'			9.1	3.36	
-275'			9.0	3.46	
-280'			9.2	3.26	
-300'			9.8	2.66	
-325'			11.3	1.16	
-350'			11.8	0.66	
-375'			12.9	-0.44	EDGE WATER
	SOUNDINGS		12.52	-0.06	TOP WATER
-400'	1.8'			-0.1 -1.9	
-425'	1.3'			-1.4	
-450'	1.5'			-1.6	

SAME

10/20/93

(SEE BOOK 081, PG. 16)

NOTE: THIS SECTION TAKEN @ END OF PARISH FILL AREA.

X-SECTION: STA. 98+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	12.46		-0.06	TOP WATER
				-0.1	
-475'	1.5'			-1.6	
-500'	2.5'			-2.6	
-525'	3.4'			-3.5	
-550'	4.1'			-4.2	
	NORTHERLY		SECTION		
25'			7.7	4.76	
50'			7.6	4.86	
75'			7.5	4.96	
100'			7.1	5.36	
125'			7.0	5.46	
150'			6.0	6.46	
160'			4.4	8.06	
175'			4.9	7.56	
200'			4.5	7.96	
225'			5.0	7.46	
250'			5.5	6.96	
275'			6.6	5.86	
300'			6.7	5.76	
325'			8.1	4.36	
350'			8.0	4.46	
375'			8.1	4.36	

SAME 10/20/93

X-SECTION STA. 98+00 (CON'T)

DISTANCE	+	H.I.	−	ELEV.	REMARKS
		12.46			
400'			8.5	3.96	
425'			8.6	3.86	
450'			8.7	3.76	HIGH BANK
451'			11.4	1.06	LOW BANK
475'			12.52	-0.06	TOP'S EDGE WATER
	SOUNDINGS			-0.1	
500'	0.2'			-0.3	
525'	0.5'			-0.6	
550'	0.7'			-0.8	
575'	0.8'			-0.9	
600'	0.8'			-0.9	
625'	0.7'			-0.8	
650'	0.7'			-0.8	
675'	0.7'			-0.8	
700'	0.7'			-0.8	
725'	0.8'			-0.9	
750'	0.7'			-0.8	
775'	0.7'			-0.8	
800'	0.7'			-0.8	
825'	0.7'			-0.8	
850'	0.8'			-0.9	
875'	1.0'			-1.1	

SAME 10/20/93

X-SECTION STA. 98+00 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	12.46		-0.06	TOP WATER
				-0.1	
900'	1.8'			-1.9	
925'	1.8'			-1.9	
950'	1.8'			-1.9	
975'	1.8'			-1.9	
1000'	1.9'			-2.0	
			7.35	5.11	CK. B.M.

SAME 10/20/93

X-SECTION @ TRAVERSE POINT NO. 5

DISTANCE	+	H.I.	−	ELEV.	REMARKS
				6.74	TOP 3/4" G.I.P. @ TRAV. PT 5
	4.84	11.58			
0'			5.8	5.78	@ BASELINE
SOUTHERLY −25'			5.5	6.08	
−50'			7.9	3.68	
−75'			8.0	3.58	
−100'			8.2	3.38	
−108'			8.5	3.08	
−125'			8.9	2.68	
−150'			10.5	1.08	
−175'			10.9	0.68	
−189'			11.1	0.48	
−195'			11.7	−0.12	EDGE WATER
	SOUNDINGS		11.71	−0.13	TOP WATER
−200'	0.2'			−0.1 −0.3	
−225'	1.5'			−1.6	
−250'	2.0'			−2.1	
−275'	1.7'			−1.8	
−300'	1.4'			−1.5	
−325'	2.3'			−2.4	
−350'	3.0'			−3.1	
−375'	3.7'			−3.8	
−400'	4.4'			−4.5	

SAME 10/20/93

(SEE BOOK 081, PG. 16)

X-SECTION @ TRAV. PT. #5 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	11.58		-0.13	TOP WATER
				-0.1	
-425'	5.0'			-5.1	
-450'	5.7'			-5.8	
-475'	6.1'			-6.2	
-500'	6.8'			-6.9	
	NORTHERLY SECTION				
25'			5.2	6.38	
50'			5.2	6.38	
75'			5.7	5.88	
100'			6.2	5.38	
125'			6.4	5.18	
150'			6.3	5.28	
175'			6.1	5.48	
200'			6.0	5.58	
225'			6.3	5.28	
250'			5.9	5.68	
275'			6.3	5.28	
300'			6.4	5.18	
325'			6.4	5.18	
350'			6.3	5.28	
375'			6.4	5.18	
400'			6.3	5.28	

SAME 10/20/93

X-SECTION @ TRAV. PT. #5 (CON'T.)

DISTANCE	+	H.I. 11.58	—	ELEV.	REMARKS
425'			6.4	5.18	
450'			6.6	4.98	
475'			6.6	4.98	
500'			6.7	4.88	
525'			7.0	4.58	
550'			7.2	4.38	
570'			7.2	4.38	HIGH BANK
571'			10.0	1.58	LOW BANK
600'			11.4	0.18	
650'			11.7	-0.12	
689'			11.71	-0.13 -0.1	TOP & EDGE WATER
	SOUNDINGS				
700'	0.9'			-1.0	
725'	0.8'			-0.9	
750'	0.6'			-0.7	
775'	0.6'			-0.7	
800'	0.6'			-0.7	
825'	0.8'			-0.9	
850'	1.0'			-1.1	
875'	0.9'			-1.0	
900'	0.9'			-1.0	
925'	1.1'			-1.2	

SAME 10/20/93

X-SECTION @ TRAV. PT. #5 (CON'T.)

DISTANCE	+	H.I.	—	ELEV.	REMARKS
	SOUNDINGS (CON'T.)	11.58		-0.13	TOP WATER
				-0.1	
950'	1.5'			-1.6	
975'	1.5'			-1.6	
1000'	1.5'			-1.6	
1050'	1.6'			-1.7	
1100'	1.7'			-1.8	
1150'	2.0'			-2.1	
1200'	2.0'			-2.1	
1250'	2.3'			-2.4	
			4.84	6.74	CK. B.M.

SAME 10/20/93 (16)

STAKE & TIE IN BORE HOLE LOCATIONS

AS DRILLED BORE SITES.

∠@ POINT "AL" B.S. MON. "EI-1"

∠s RIGHT

POINT NO.	ANGLE	DISTANCE	REMARKS
B.H. # A	157°16'05"	2,950.90'	BORE HOLE DRILLED WITHOUT BEING STAKED
B.H. # 19	148°04'30"	2,046.68'	BORE HOLE DRILLED WITHOUT BEING STAKED
B.H. # 18	124°19'20"	1,342.76'	BORE HOLE DRILLED WITHOUT BEING STAKED
B.H. # 17	82°47'25"	968.86'	CLOSEST LOCATION TO ACTUAL STAKED POINT BARGE COULD REACH
B.H. # 16	52°13'55"	1,295.34'	CLOSEST LOCATION TO ACTUAL STAKED POINT BARGE COULD REACH

HAND BORE SITES

∠@ POINT "AL" B.S. MON. "EI-1"

∠s RIGHT

H.B. # 1	124°25'30"	2,564.32'	SET 1"x1" STAKE W/BLACK FLAGGIN' NEAR X-SECTION STA. 12+50 (IN WATER)
H.B. #2	102°47'20"	2,139.48'	SET 1"x1" STAKE W/BLACK FLAGGIN' NEAR X-SECTION STA. 22+00 (IN WATER)
H.B. #3	67°58'05"	2,112.32'	SET 1"x1" STAKE W/BLACK FLAGGIN' NEAR X-SECTION STA. 35+00
H.B. #4	27°06'45"	3,097.62'	SET 1"x1" STAKE W/BLACK FLAGGIN' NEAR X-SECTION STA. 55+00
H.B. #5	14°38'00"	4,173.48'	SET 1"x1" STAKE W/BLACK FLAGGIN' NEAR X-SECTION STA. 69+00
H.B. #6	06°19'20"	5,526.62'	SET 1"x1" STAKE W/BLACK FLAGGIN' NEAR X-SECTION STA. 84+00

∠@ POINT "AL" B.S. MON "EI-1" ∠s RIGHT

B.H. # 11	354°40'05"	5721.74'

B.A. BRUNET
A. CARLOS
T. BERGERON
J. GAUTREAUX

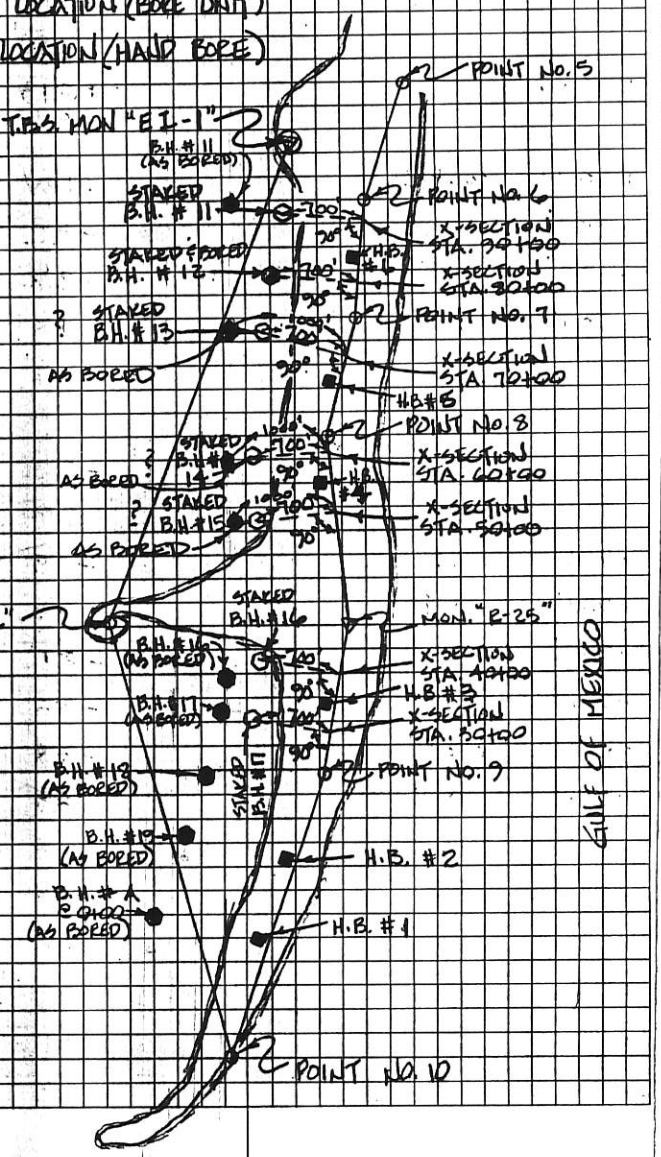
CLEAR & WINDY
(80°F)

10/26/93

● AS BORED LOCATION (BORE UNIT)

○ STAKED LOCATION (BORE UNIT)

■ STAKED LOCATION (HAND BORE)



ADDITIONAL SOUNDINGS
STATION 0+00 (SOUTH)

		2.13	TOP PIPE @ POINT 10
		-2.00'	TO TOP WATER
		+0.13	WATER ELEV.
		0.1	

DISTANCE	SOUNDING	ELEV.	REMARKS
-550'	3.3'	-3.2	
-575'	2.9'	-2.8	
-600'	1.9'	-1.8	
-625'	2.0'	-1.9	
-650'	2.0'	-1.9	
-675'	2.3'	-2.2	
-700'	3.0'	-2.9	
-725'	3.0'	-2.9	
-750'	3.4'	-3.3	
-775'	3.2'	-3.1	
-800'	3.6'	-3.5	
-825'	3.9'	-3.8	
-850'	4.0'	-3.9	
-875'	4.0'	-3.9	
-900'	4.5'	-4.4	
-925'	4.5'	-4.4	
-950'	5.0'	-4.9	
-975'	5.2'	-5.1	
-1000'	5.4'	-5.3	

B.A. BRUNET
A. CARLOS
T. BERGERON
J. GAUTREAUX

10/28/93

(SEE BOOK 081, PG. 14)

NOTE: SEE BOOK 081, PAGE 19 FOR ADDITIONAL INFORMATION.

ADDITIONAL SOUNDINGS
STATION 10+00 (SOUTH)

2.63	TOP 1"x1" HUB @ 16+00
-2.50'	TO TOP WATER
+0.13	WATER ELEV.
0.1	

DISTANCE	SOUNDING	ELEV.	REMARKS
-575'	4.0'	-3.9	
-600'	3.7'	-3.6	
-625'	3.5'	-3.4	
-650'	3.6'	-3.5	
-675'	3.7'	-3.6	
-700'	3.8'	-3.7	
-725'	4.2'	-4.1	
-750'	4.0'	-3.9	
-775'	4.0'	-3.9	
-800'	4.8'	-4.7	
-825'	4.6'	-4.5	
-850'	4.6'	-4.5	
-875'	5.0'	-4.9	
-900'	5.0'	-4.9	
-925'	5.0'	-4.9	
-950'	5.2'	-5.1	
-975'	5.4'	-5.3	
-1000'	5.6'	-5.5	

SAME

10/28/93

(SEE BOOK 081, PG 14)

NOTE: SEE BOOK 081, PAGE 25 FOR ADDITIONAL INFORMATION.

ADDITIONAL SOUNDINGS
STATION 20+00 (SOUTH)

1.45	TOP 1"x1" HUB @ 22+00
-1.31	TO TOP WATER
+0.14	WATER ELEV.
0.1	

DISTANCE	SOUNDINGS	ELEV.	REMARKS
-625'	1.6'	-1.5	
-650'	2.4'	-2.3	
-675'	3.0'	-2.9	
-700'	2.6'	-2.5	
-725'	2.6'	-2.5	
-750'	3.0'	-2.9	
-775'	3.5'	-3.4	
-800'	4.0'	-3.9	
-825'	4.4'	-4.3	
-850'	4.8'	-4.7	
-875'	5.5'	-5.4	
-900'	6.0'	-5.9	
-925'	6.3'	-6.2	
-950'	6.4'	-6.3	
-975'	6.9'	-6.8	
-1000'	7.4'	-7.3	

SAME

10/28/93

(SEE BOOK 081, PG. 14)

NOTE: SEE BOOK 081, PAGE 32
FOR ADDITIONAL INFORMATION

ADDITIONAL SOUNDINGS
STATION 30+00 (SOUTH)

1.45	TOP 1"X1" NUB @ 22+00
-1.32	TO TOP WATER
+0.13	WATER ELEV.
0.1	

DISTANCE	SOUNDINGS	ELEV.	REMARKS
-380'	4.0'	-3.9	
-390'	2.7'	-2.6	
-400'	3.5'	-3.4	
-425'	3.7'	-3.6	
-450'	3.3'	-3.2	
-475'	3.5'	-3.4	
-500'	3.5'	-3.4	
-525'	3.3'	-3.2	
-550'	4.0'	-3.9	
-575'	4.0'	-3.9	
-600'	5.0'	-4.9	
-625'	5.6'	-5.5	
-650'	6.2'	-6.1	
-675'	6.5'	-6.4	
-700'	6.8'	-6.7	
-725'	7.2'	-7.1	
-750'	7.5'	-7.4	
-775'	7.8'	-7.7	
-800'	9.0'	-8.9	

SAME

10/28/93

(SEE BOOK 081, PG. 14)

NOTE: SEE BOOK 081, PAGE 39 FOR ADDITIONAL INFORMATION.

NOTE: ELEVATION CHANGES FROM PREVIOUS X-SECTION TAKEN ON 10/11/93 (SAND BAR FORMATION PRESENT ON THIS DATE)

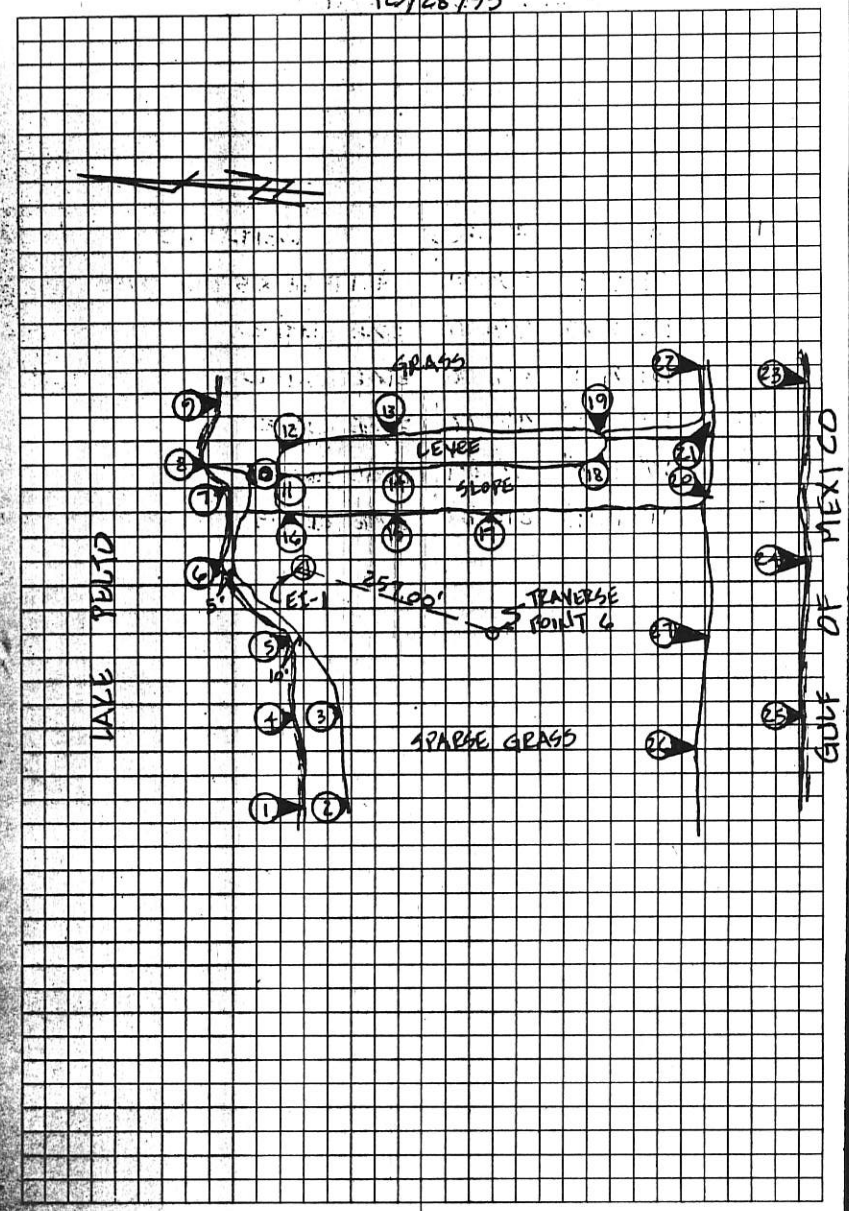
ADDITIONAL TOPOGRAPHY TIE INS
NEAR PARISH PROJECT LEVEE

∡ @ POINT #6 B.S. "EI-1" ∡s RIGHT

POINT NO.	ANGLE	DISTANCE	REMARKS
1	287°17'10"	391.30'	EDGE WATER
2	275°24'55"	329.90'	EDGE GRASS
3	292°09'45"	309.60'	EDGE GRASS
4	305°06'10"	313.78'	EDGE WATER
5	334°08'35"	268.64'	EDGE WATER
6	00°52'50"	.395;28'	EDGE WATER
7	19°01'05"	495.00'	EDGE WATER
8	19°20'10"	530.00'	EDGE WATER
9	24°48'45"	605.76'	EDGE WATER & GRASS
10	20°54'30"	483.98'	EDGE GRASS
11	21°28'40"	437.00'	TOE LEVEE
12	22°58'50"	458.46'	TOE LEVEE
13	31°34'55"	413.66'	TOE LEVEE
14	30°21'50"	375.24'	TOE LEVEE
15	25°30'50"	339.20'	TOE SLOPE
16	12°57'15"	399.12'	TOE SLOPE
17	44°23'10"	273.70'	TOE SLOPE
18	51°05'15"	307.32'	TOE LEVEE
19	52°54'05"	345.94'	TOE LEVEE
20	96°46'05"	317.00'	EDGE GRASS
21	93°49'50"	425.74'	TORN IN ± 1' HIGH LEVEE x 5' WIDE

SAME

10/28/93



ADDITIONAL TOPO (CON'T)

$\bar{x}$ @ PT. 6 B.S. "EI-1" ∡s RIGHT

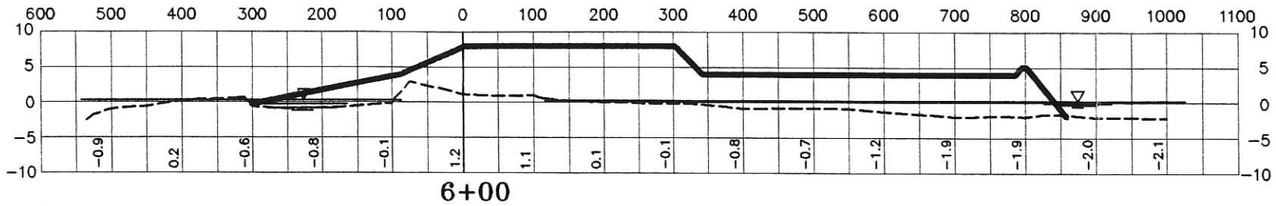
POINT NO.	ANGLE	DISTANCE	REMARKS
22	91°43'40"	496.60'	℄ 1' HIGH x 5' WIDE LEVEE
23	107°36'25"	574.82'	EDGE WATER
24	137°14'20"	412.00'	EDGE WATER
25	173°09'50"	410.66'	EDGE WATER
26	196°15'45"	187.64'	EDGE GRASS
27	118°16'45"	216.28'	EDGE GRASS

SAME

10/28/93

APPENDIX N

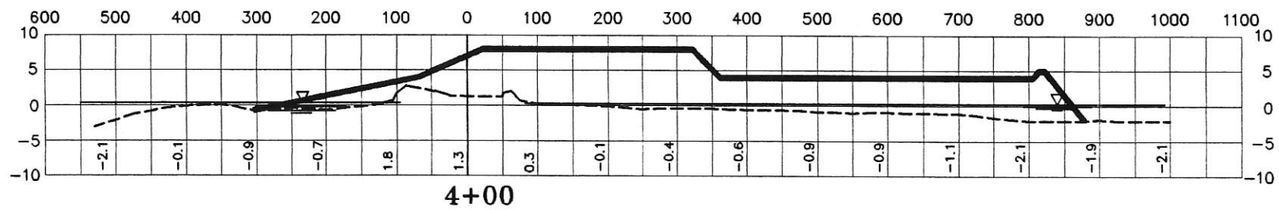
FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	16 OF 28



6+00

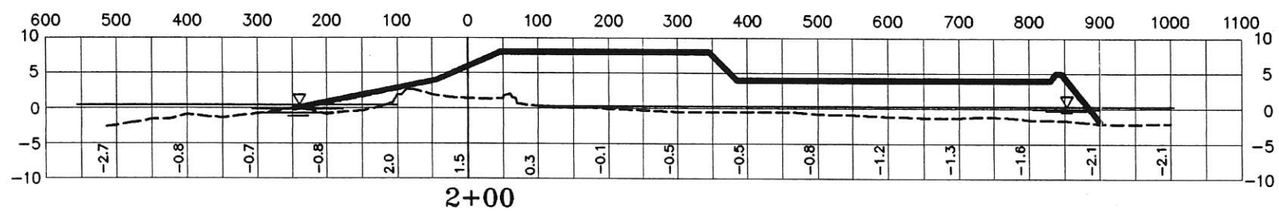
FILL = 45,208 CU.YDS.

NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.



4+00

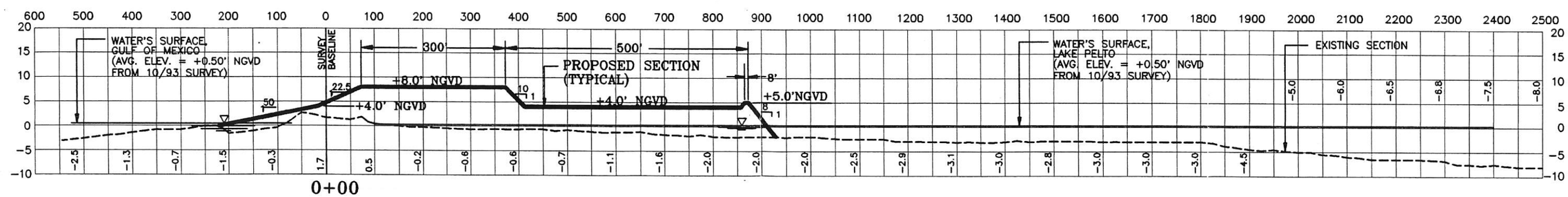
FILL = 44,719 CU.YDS.



2+00

FILL = 45,658 CU.YDS.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. INFORMATION IS BASED UPON EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).



0+00

FILL VOLUME FROM −8+00(BEGINNING OF PORJECT) TO 0+00,
FILL = 184,839 CU.YDS.

BASE BID OVERLAID ON
CROSS SECTIONS OF EAST ISLAND

SCALE:
HOR.: 1"=100'
VERT.: 1"=10'

Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

DESIGNED	DETAILED EHK	TRACED
CHECKED	CHECKED	CHECKED

DATE	DESCRIPTION	BY
	REVISIONS	

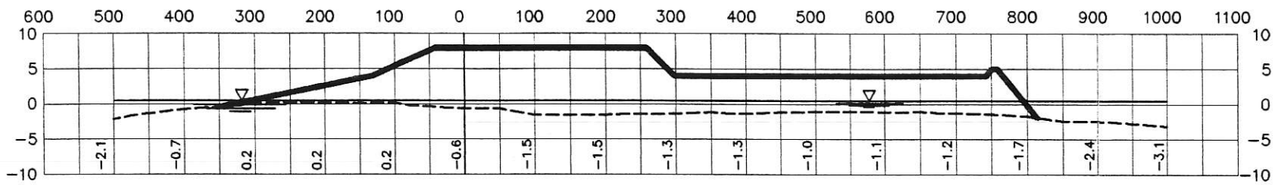
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-16
DATE: MARCH, 1994
SCALE: AS SHOWN

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2286 HOUMA, LOUISIANA 70361

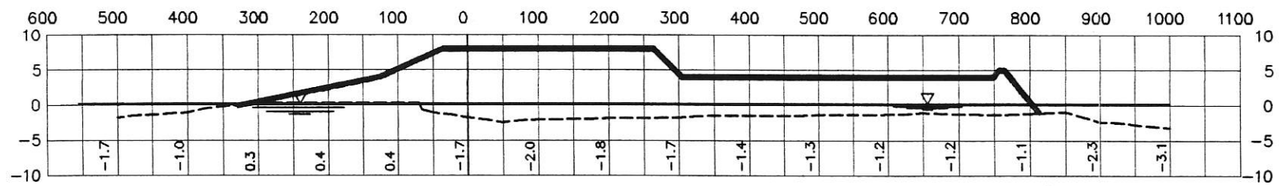
DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	17 OF 28



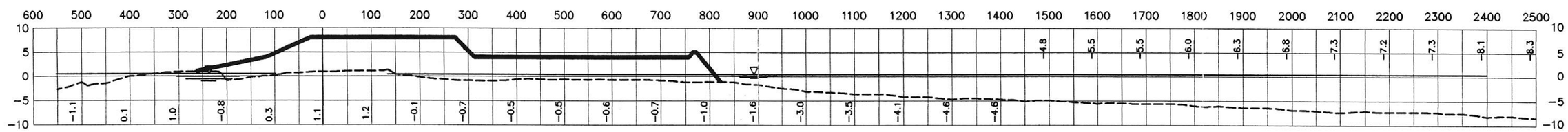
14+00

FILL = 50,376 CU.YDS.



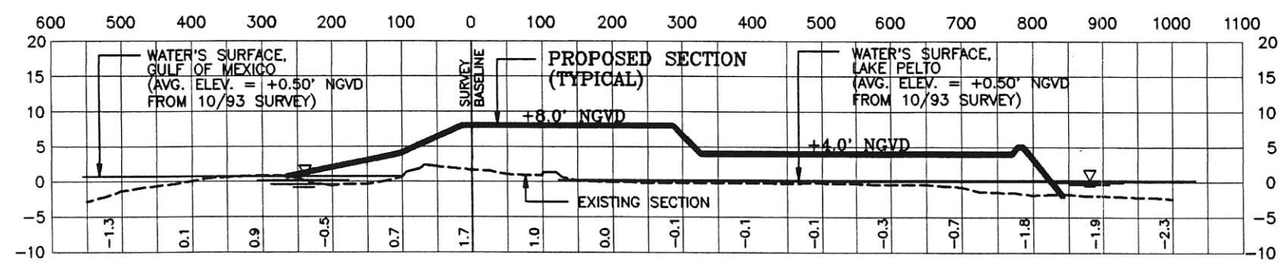
12+00

FILL = 47,079 CU.YDS.



10+00

FILL = 42,236 CU.YDS.



8+00

FILL = 43,538 CU.YDS.

NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).

SCALE:
HOR.: 1" = 100'
VERT.: 1" = 10'

BASE BID OVERLAID ON CROSS SECTIONS OF EAST ISLAND

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-17
DATE: MARCH, 1994
SCALE: AS SHOWN

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2286 HOUMA, LOUISIANA 70361

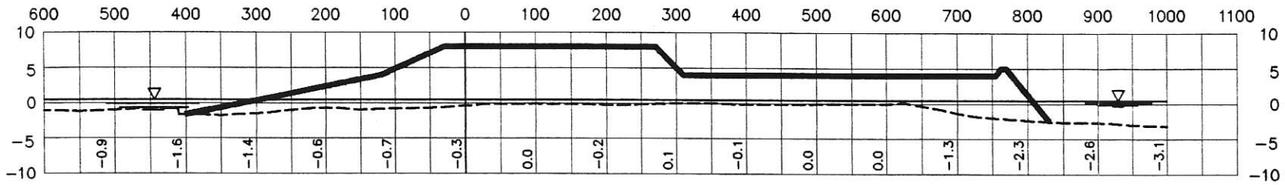
Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

DESIGNED	DETAILED EHK	TRACED
CHECKED	CHECKED	CHECKED

DATE	DESCRIPTION	BY
	REVISIONS	

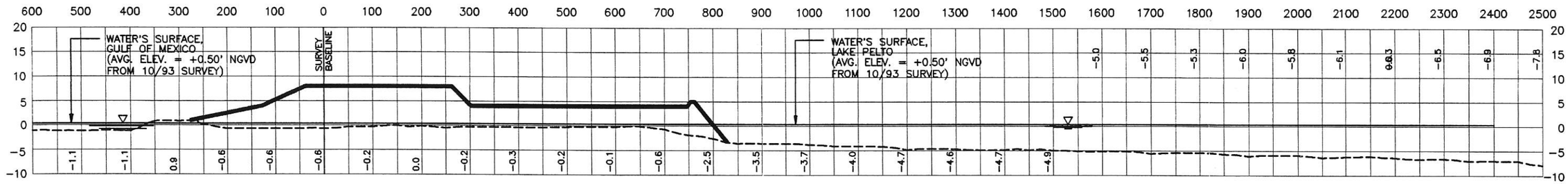
DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	18 OF 28



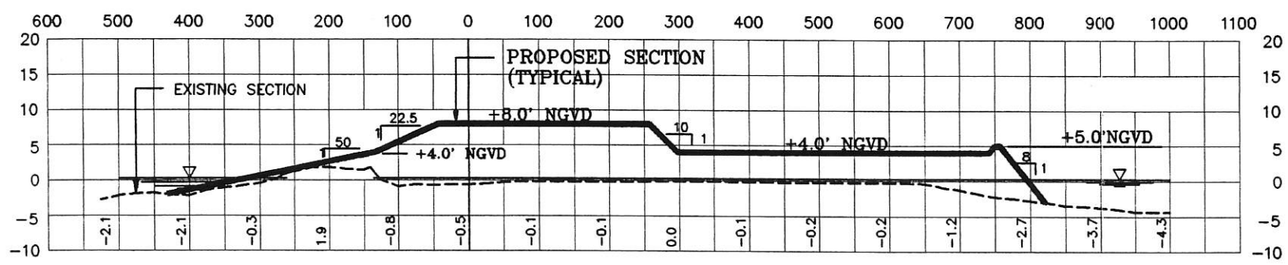
22+00

FILL = 46,522 CU. YDS.



20+00

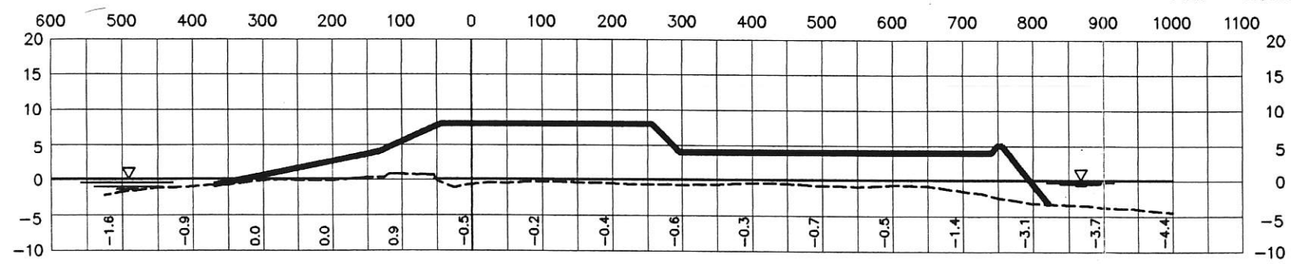
FILL = 45,240 CU. YDS.



18+00

FILL = 46,438 CU. YDS.

NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.



16+00

FILL = 48,776 CU. YDS.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).

SCALE:
HOR.: 1"=100'
VERT.: 1"=10'

BASE BID OVERLAID ON CROSS SECTIONS OF EAST ISLAND

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-18
DATE: MARCH, 1994
SCALE: AS SHOWN

Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

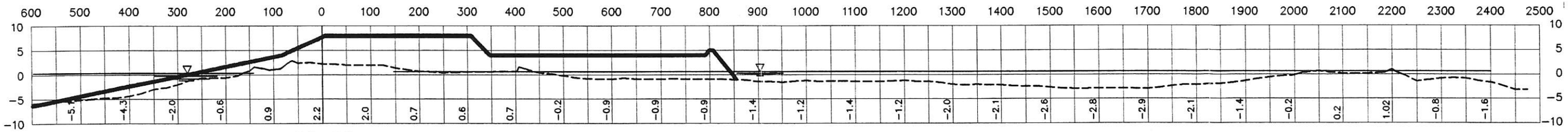
DESIGNED	DETAILED EHK	TRACED
CHECKED	CHECKED	CHECKED

DATE	DESCRIPTION	BY
	REVISIONS	

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2286 HOUMA, LOUISIANA 70361

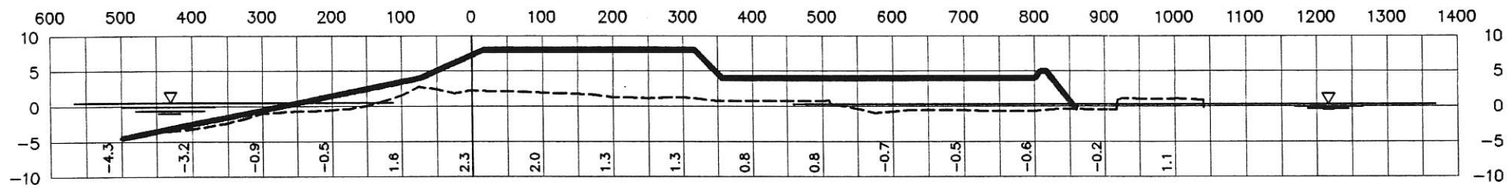
DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	19 OF 28



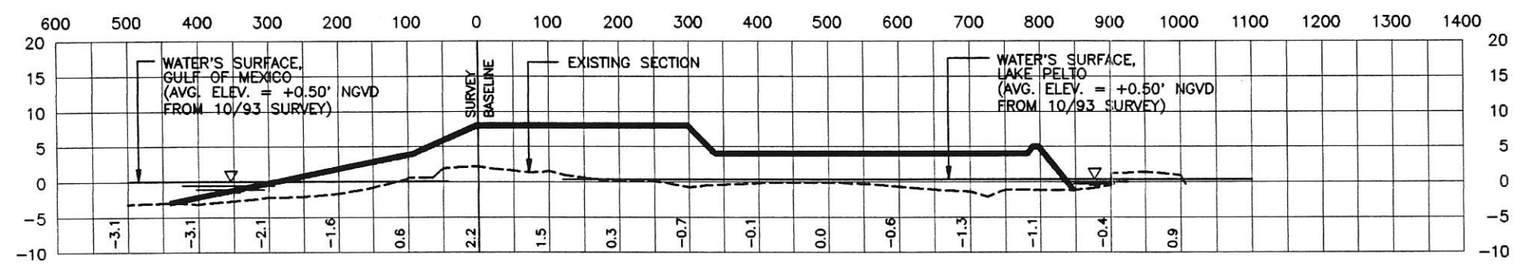
30+00

FILL = 48,364 CU.YDS.



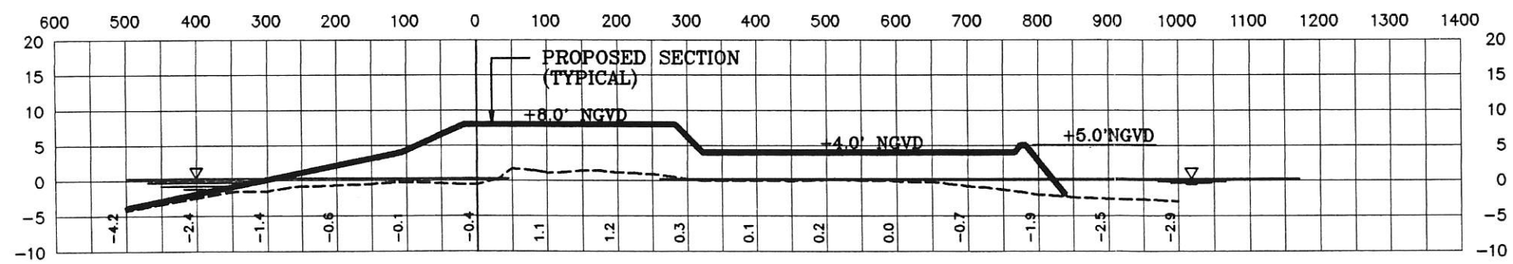
28+00

FILL = 41,219 CU.YDS.



26+00

FILL = 44,292 CU.YDS.



24+00

FILL = 45,407 CU.YDS.

NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).

SCALE:
HOR.: 1"=100'
VERT.: 1"=10'

BASE BID OVERLAID ON
CROSS SECTIONS OF EAST ISLAND

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-19
DATE: MARCH, 1994
SCALE: AS SHOWN

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL SERVICES
P.O. BOX 2286 HOUMA, LOUISIANA 70361

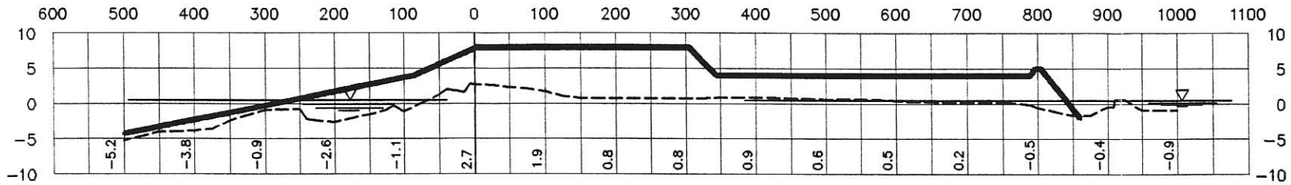
Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

DESIGNED	DETAILED EHK	TRACED
CHECKED	CHECKED	CHECKED

DATE	DESCRIPTION	BY
	REVISIONS	

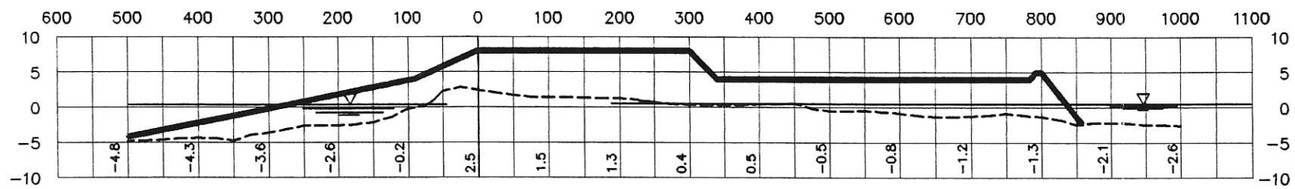
DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	20 OF 28



38+00

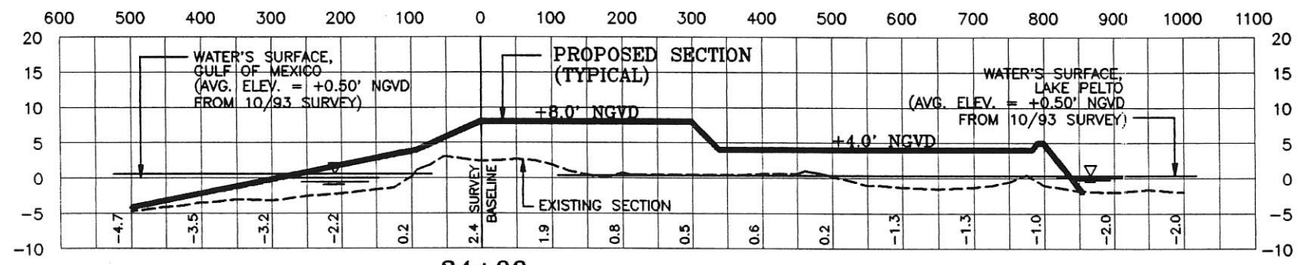
FILL = 43,414 CU.YDS.



36+00

FILL = 45,437 CU.YDS.

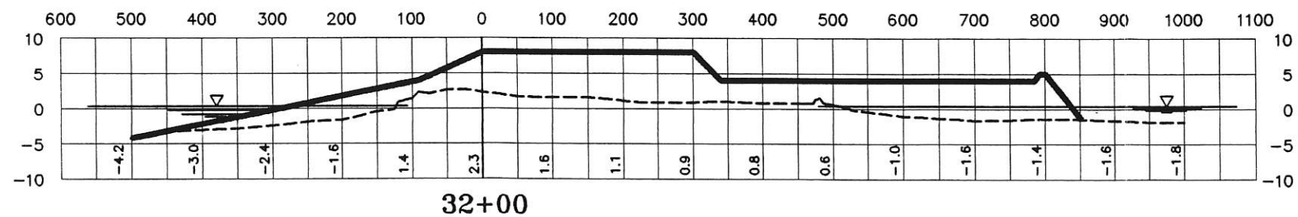
NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.



34+00

FILL = 42,767 CU.YDS.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).



32+00

FILL = 40,807 CU.YDS.

SCALE:
HOR.: 1"=100'
VERT.: 1"=10'

BASE BID OVERLAID ON
CROSS SECTIONS OF EAST ISLAND

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-20
DATE: MARCH, 1994
SCALE: AS SHOWN

Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

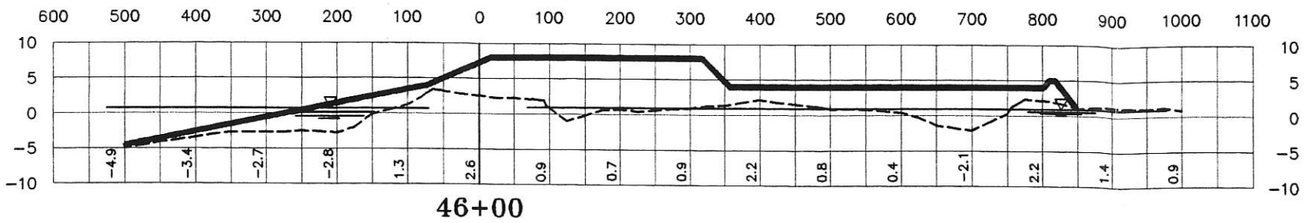
DESIGNED	DETAILED EHK	TRACED
CHECKED	CHECKED	CHECKED

DATE	DESCRIPTION	BY
	REVISIONS	

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2286 HOUMA, LOUISIANA 70361

DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

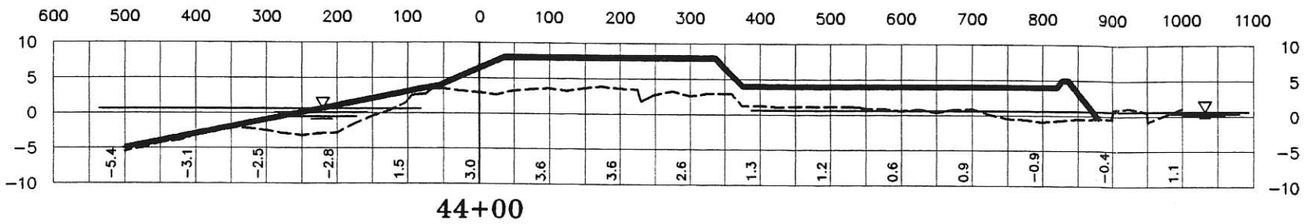
FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	21 OF 28



46+00

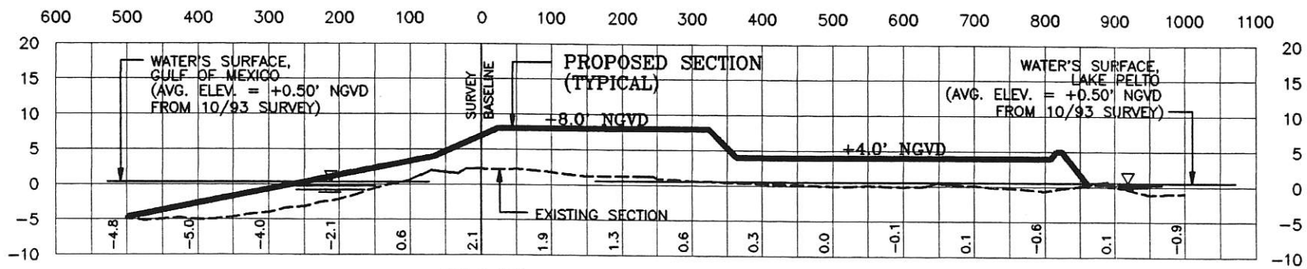
FILL = 34,152 CU.YDS.

NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.



44+00

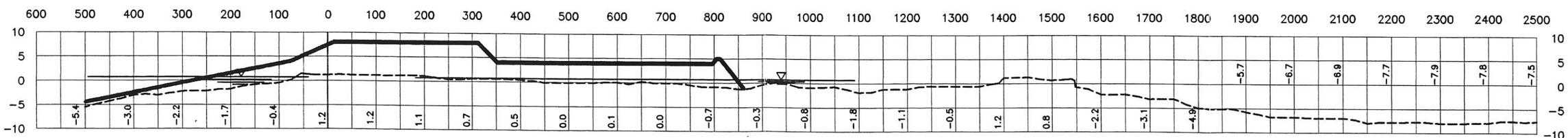
FILL = 46,398 CU.YDS.



42+00

FILL = 42,160 CU.YDS.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).



40+00

FILL = 41,082 CU.YDS.

BASE BID OVERLAID ON CROSS SECTIONS OF EAST ISLAND

SCALE:
HOR.: 1"=100'
VERT.: 1"=10'

Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

DESIGNED	DETAILED EHK	TRACED
CHECKED	CHECKED	CHECKED

DATE	DESCRIPTION	BY
	REVISIONS	

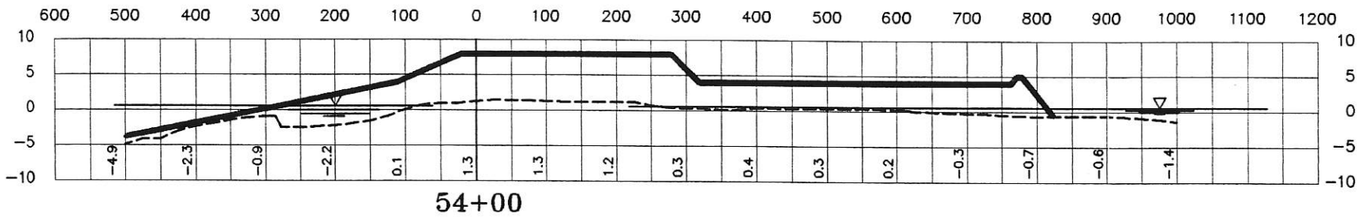
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-21
DATE: MARCH, 1994
SCALE: AS SHOWN

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2286 HOUMA, LOUISIANA 70361

DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

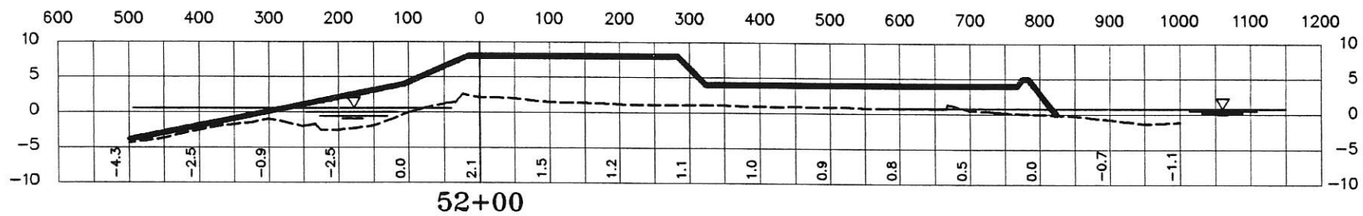
FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	22 OF 28



54+00

FILL = 38,989 CU.YD.

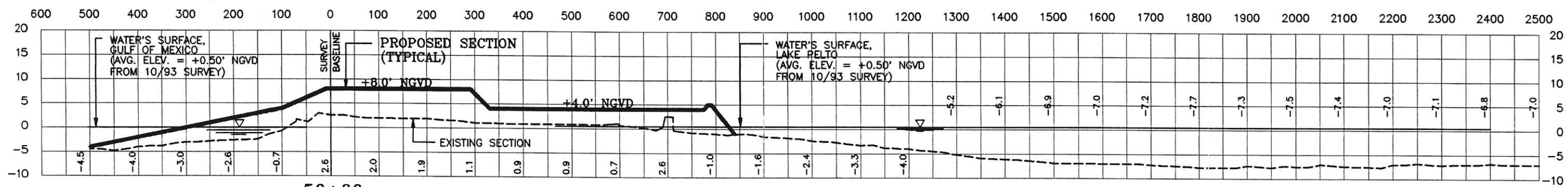
NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.



52+00

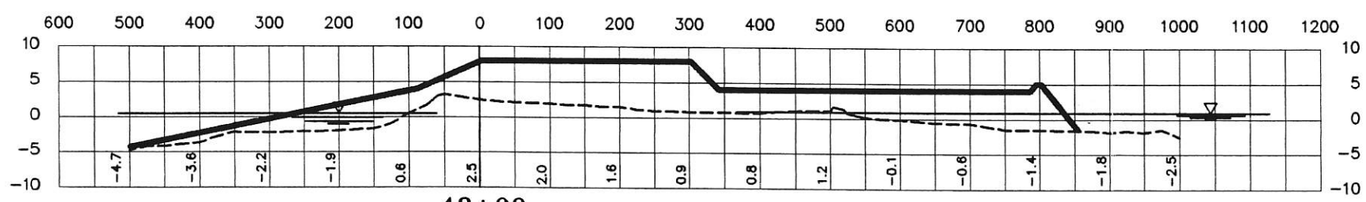
FILL = 38,951 CU.YD.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).



50+00

FILL = 40,282 CU.YD.



48+00

FILL = 38,243 CU.YD.

SCALE:
HOR.: 1"=100'
VERT.: 1"=10'

BASE BID OVERLAID ON CROSS SECTIONS OF EAST ISLAND

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-22
DATE: MARCH, 1994
SCALE: AS SHOWN

Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

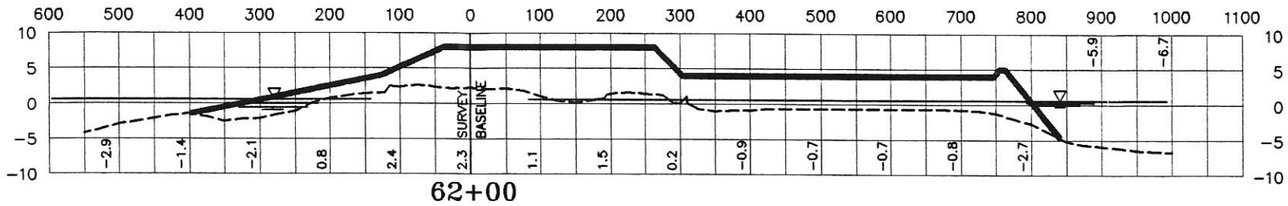
DESIGNED	DETAILED EHK	TRACED
CHECKED	CHECKED	CHECKED

DATE	DESCRIPTION	BY
	REVISIONS	

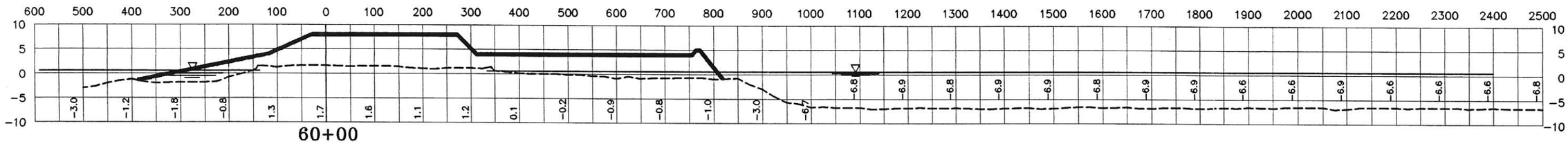
T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 12286 HOUMA, LOUISIANA 70361

DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

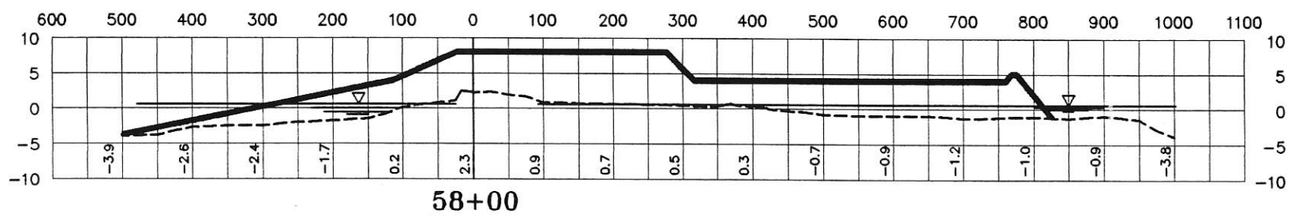
FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	23 OF 28



FILL = 40,886 CU.YDS.

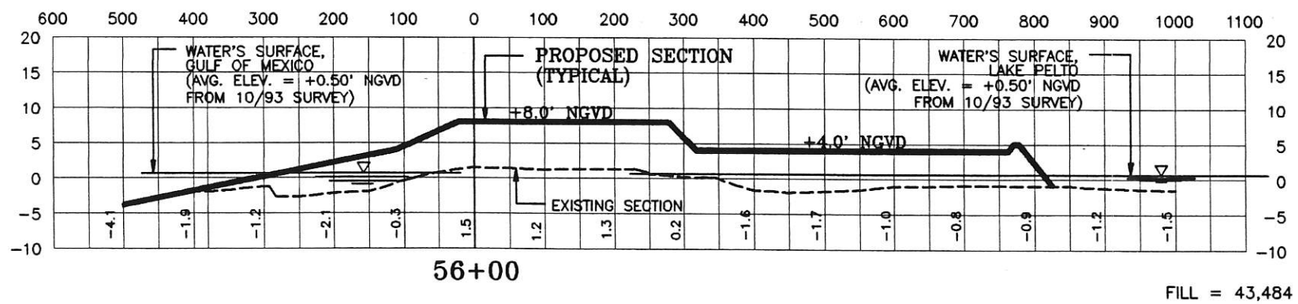


FILL = 42,344 CU.YDS.



FILL = 45,343 CU.YDS.

NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.



FILL = 43,484 CU.YDS.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).

SCALE:
HOR.: 1"=100'
VERT.: 1"=10'

BASE BID OVERLAID ON
CROSS SECTIONS OF EAST ISLAND

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

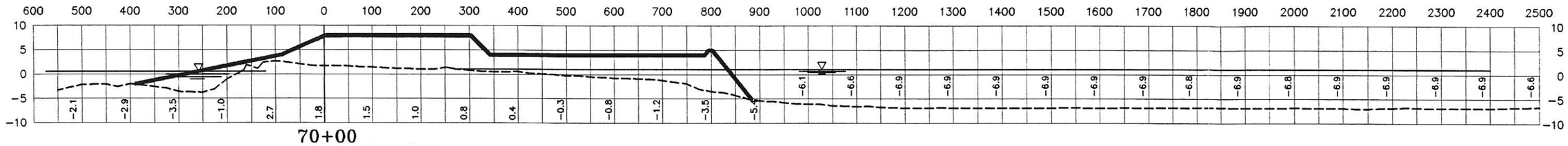
DWG. FILE: 1136-23
DATE: MARCH, 1994
SCALE: AS SHOWN

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2286 HOUMA, LOUISIANA 70361

Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

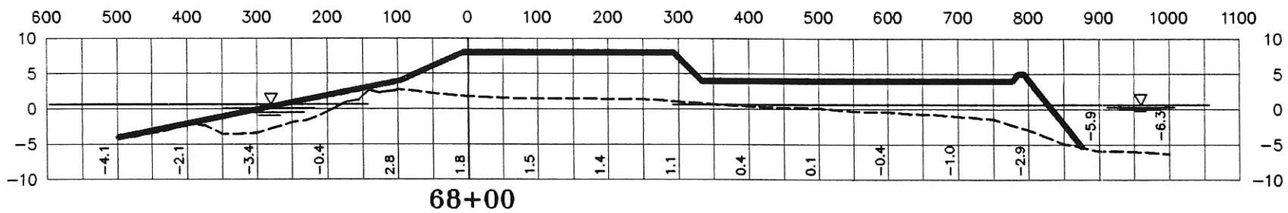
DESIGNED	DETAILED EHK	TRACED	DATE	DESCRIPTION	BY	DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED		REVISIONS		CHECKED	CHECKED	CHECKED

FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	24 OF 28



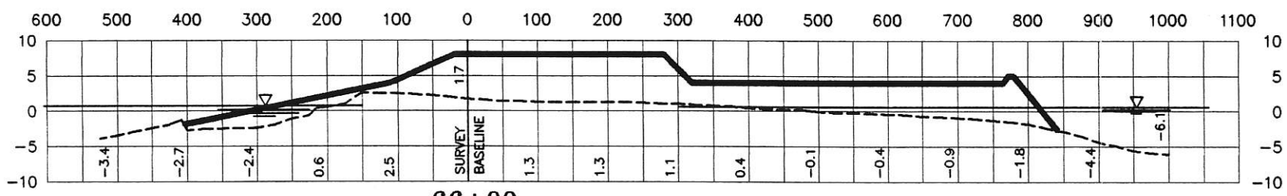
70+00

FILL = 43,437 CU. YDS.



68+00

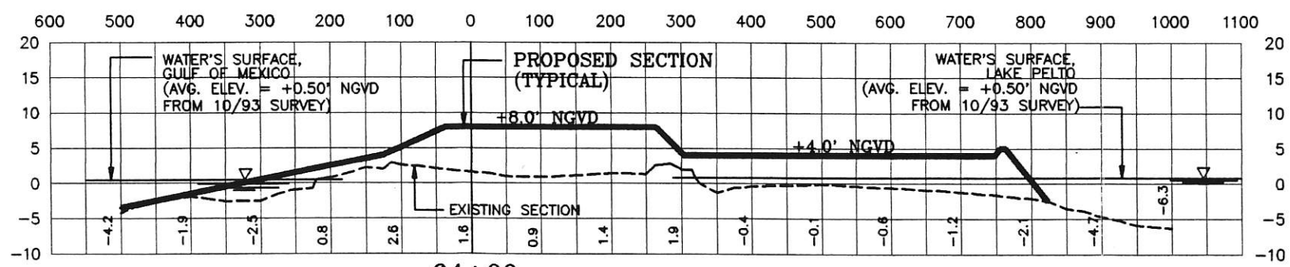
FILL = 40,896 CU. YDS.



66+00

FILL = 40,032 CU. YDS.

NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.



64+00

FILL = 31,861 CU. YDS.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).

BASE BID OVERLAID ON CROSS SECTIONS OF EAST ISLAND

SCALE:
HOR.: 1"=100'
VERT.: 1"=10'

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-24
DATE: MARCH, 1994
SCALE: AS SHOWN

Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

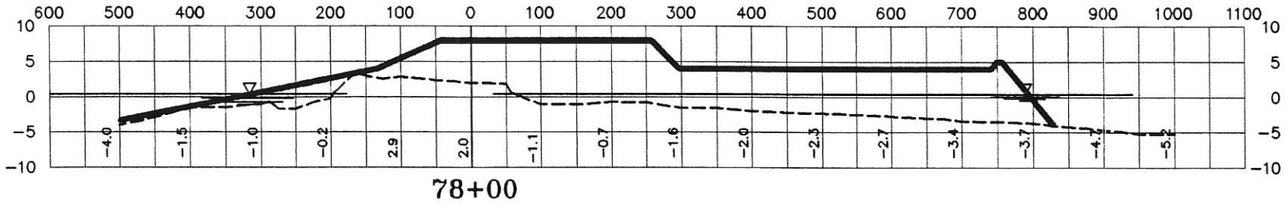
DESIGNED	DETAILED EHK	TRACED
CHECKED	CHECKED	CHECKED

DATE	DESCRIPTION	BY
	REVISIONS	

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2226 HOUMA, LOUISIANA 70361

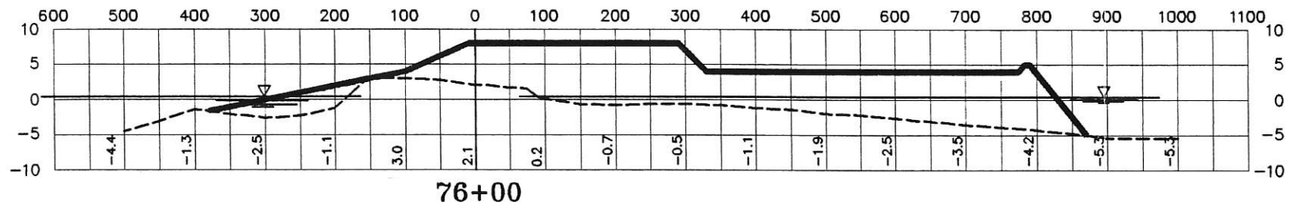
DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	25 OF 28



78+00

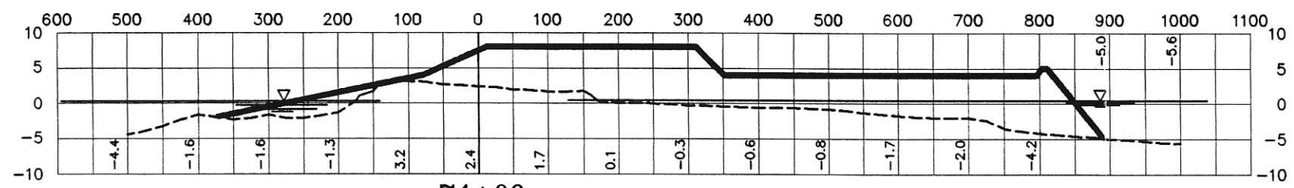
FILL = 51,458 CU. YDS.



76+00

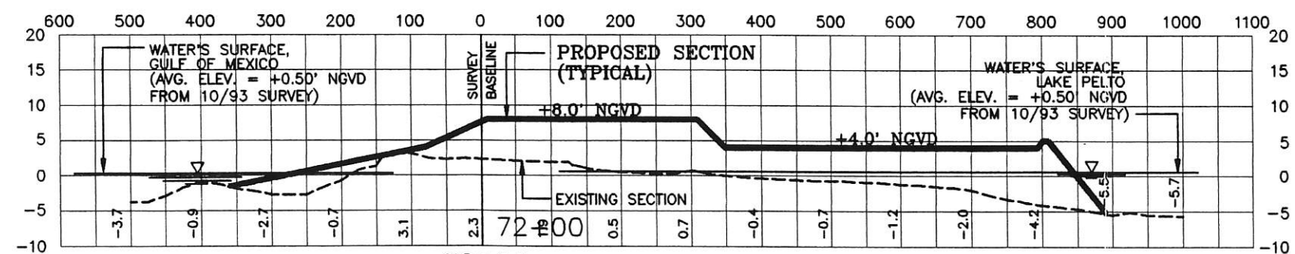
FILL= 62,598 CU. YDS.

NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.



74+00

FILL = 46,653 CU. YDS.



72+00

FILL = 45,372 CU. YDS.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).

SCALE:
HOR.: 1"=100'
VERT.: 1"=10'

BASE BID OVERLAID ON
CROSS SECTIONS OF EAST ISLAND

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-25
DATE: MARCH, 1994
SCALE: AS SHOWN

Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

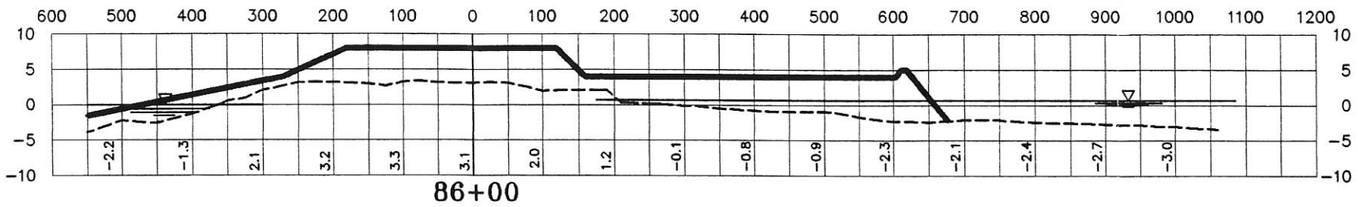
DESIGNED	DETAILED EHK	TRACED
CHECKED	CHECKED	CHECKED

DATE	DESCRIPTION	BY
	REVISIONS	

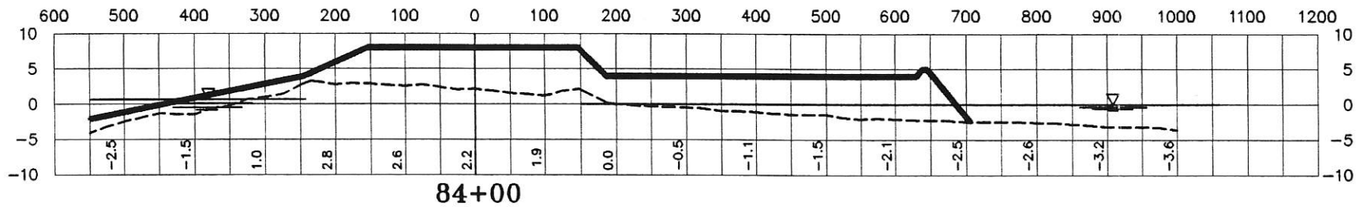
T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2266 HOUMA, LOUISIANA 70361

DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	26 OF 28

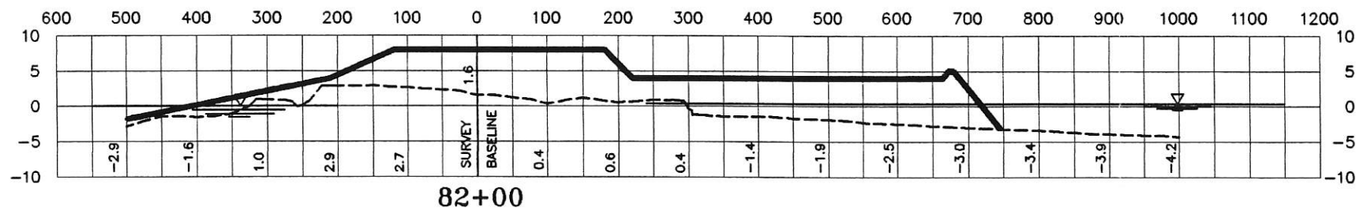


FILL = 38,108 CU. YDS.



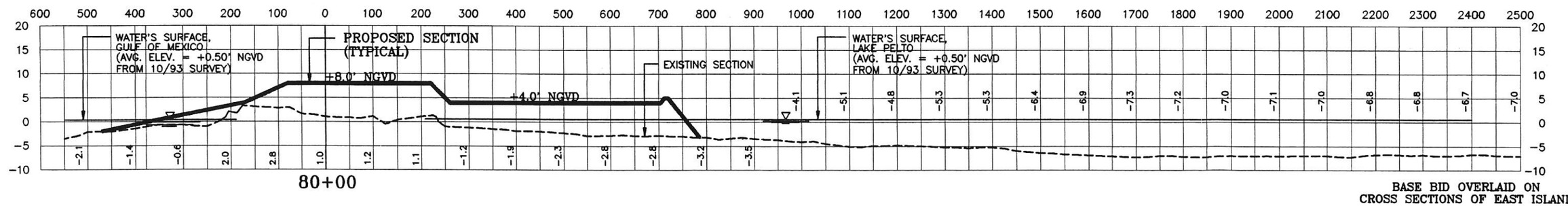
FILL = 41,528 CU. YDS.

NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.



FILL = 45,194 CU. YDS.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).



BASE BID OVERLAID ON CROSS SECTIONS OF EAST ISLAND

FILL = 49,293 CU. YDS.

SCALE:
HOR.: 1"=100'
VERT.: 1"=10'

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-26
DATE: MARCH, 1994
SCALE: AS SHOWN

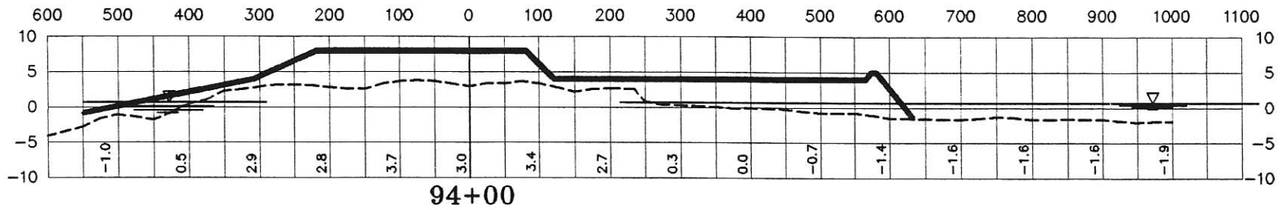
T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2266 HOUMA, LOUISIANA 70361

Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

DESIGNED	DETAILED EHK	TRACED	DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED	CHECKED	CHECKED	CHECKED

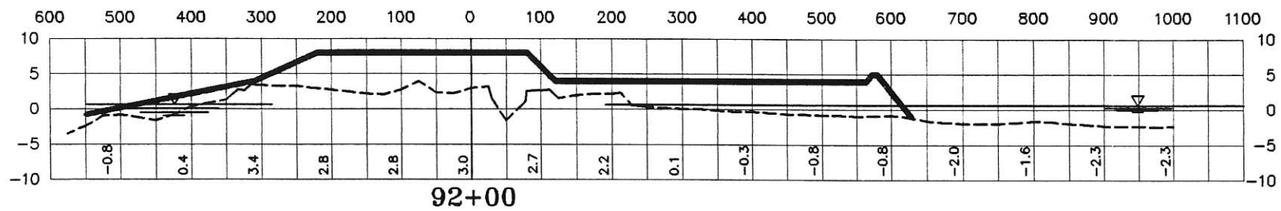
DATE	DESCRIPTION	BY
	REVISIONS	

FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	27 OF 28



94+00

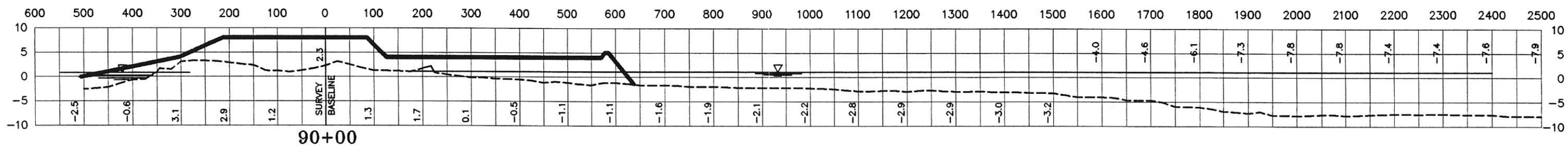
FILL = 31,425 CU. YDS.



92+00

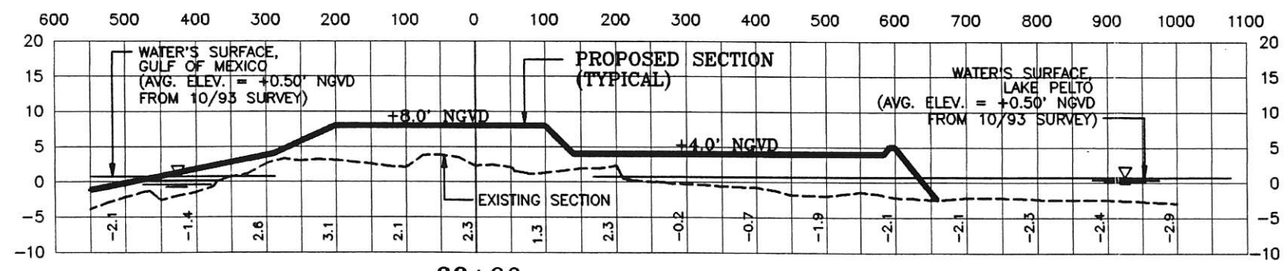
FILL = 34,204 CU. YDS.

NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.



90+00

FILL = 35,993 CU. YDS.



88+00

FILL = 36,408 CU. YDS.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).

SCALE:
HOR.: 1"=100'
VERT.: 1"=10'

BASE BID OVERLAID ON
CROSS SECTIONS OF EAST ISLAND

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-27
DATE: MARCH, 1994
SCALE: AS SHOWN

Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

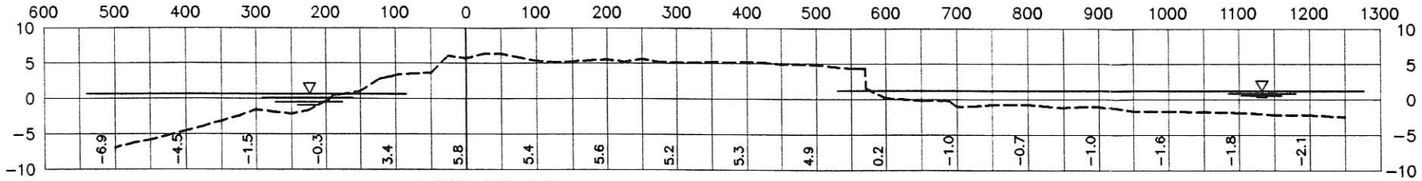
DESIGNED	DETAILED EHK	TRACED
CHECKED	CHECKED	CHECKED

DATE	DESCRIPTION	BY
	REVISIONS	

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2206 HOUMA, LOUISIANA 70361

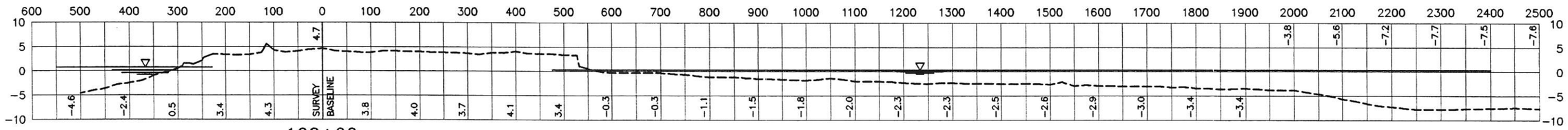
DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

FEDERAL PROJECT NO.	STATE PROJECT NO.	CONTRACT NO.	PARISH	SHEET NO.
4352F14	TE-20		TERREBONNE	28 OF 28



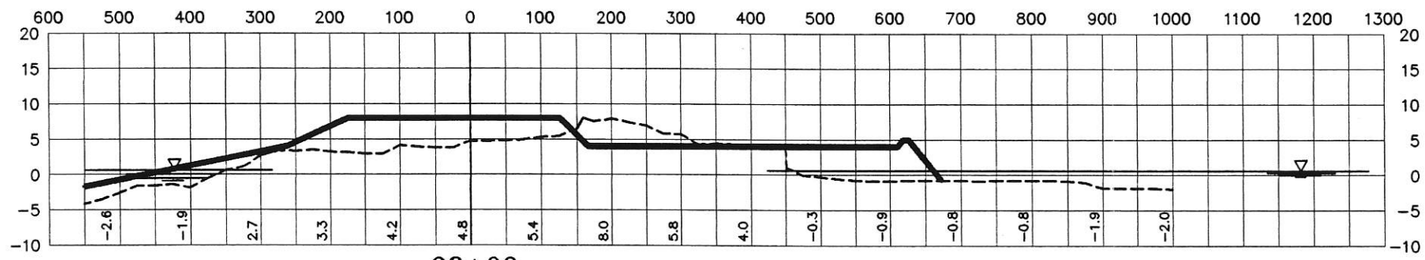
107+71.17
CROSS SECTION AT TRAVERSE PT. 5

NOTE: VOLUMES SHOWN INDICATE NET SECTION FILL.



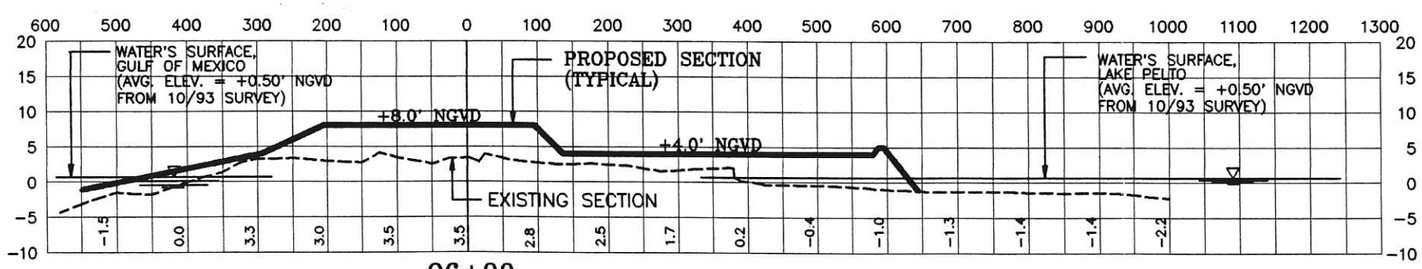
100+00

TOTAL NET SECTION
HYDRAULIC FILL = 2,261,375 CU.YDS.



98+00
STATION 98+00: END PROPOSED FILL AREA
AT BEGINNING OF PARISH FILL AREA

FILL = 24,617 CU. YDS.



96+00

FILL = 27,648 CU. YDS.

NOTE: VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY. VOLUMES WERE CALCULATED ACCORDING TO EXISTING CONDITIONS OF ISLAND AT TIME OF SURVEY (10/93).

BASE BID OVERLAID ON
CROSS SECTIONS OF EAST ISLAND

SCALE:
HOR.: 1" = 100'
VERT.: 1" = 10'

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
PHASE 0 – EAST ISLAND

DWG. FILE: 1136-28
DATE: MARCH, 1994
SCALE: AS SHOWN

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2286 HOUMA, LOUISIANA 70361

DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

Prepared By:
COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.
Engineering – Surveying – Planners – Environmental Consulting

DESIGNED	DETAILED EHK	TRACED
CHECKED	CHECKED	CHECKED

DATE	DESCRIPTION	BY
	REVISIONS	

DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

APPENDIX O

Job # 388-93

DNR - CRD

Phase 1 - Trinity Island

Note: Traverse Run
From East to West -
Stationing was set up
From West to East

Traverse Around Last Island

Pt. #1 = Monument TI #1
N - 139610.659
E - 2194762.429

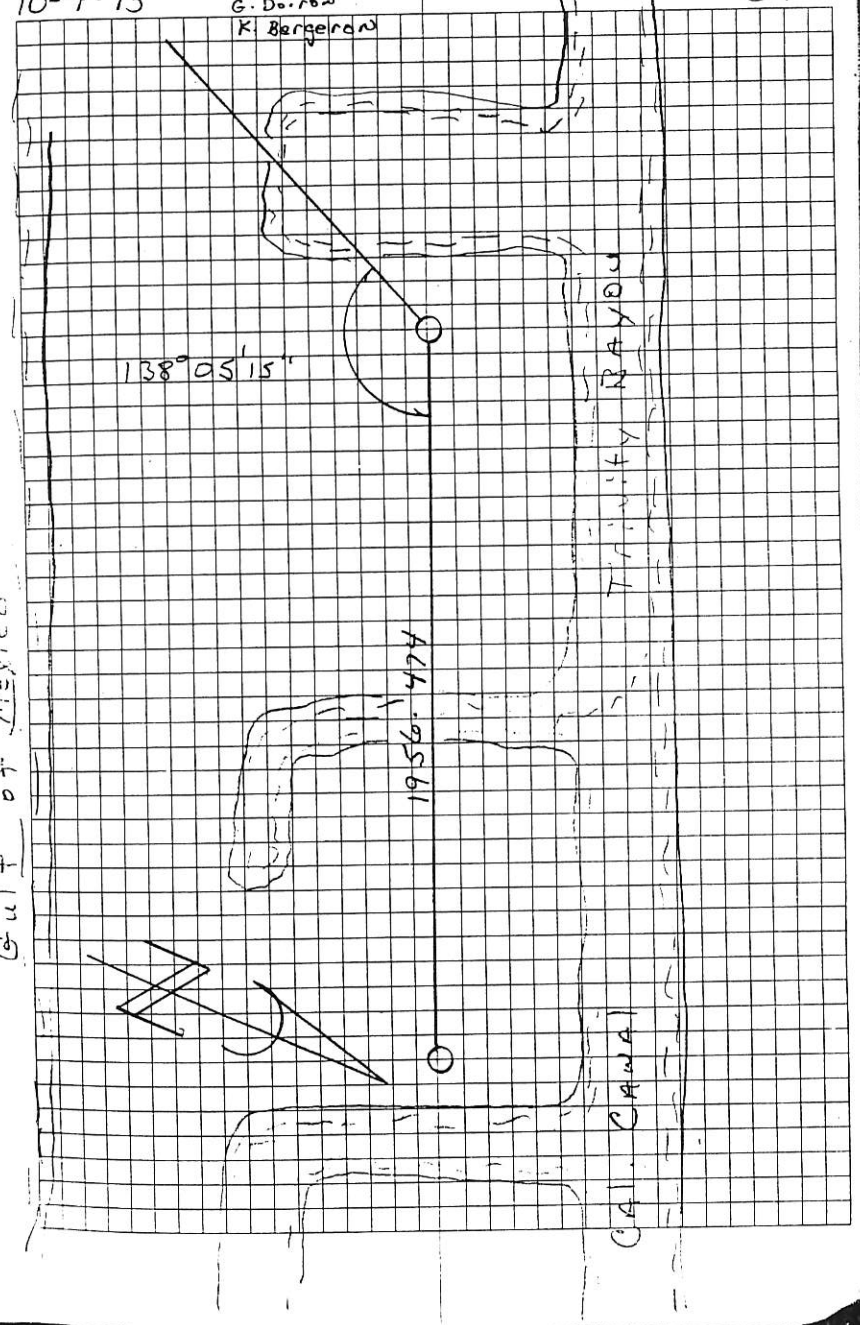
Pt. #2 = Monument TI #2
N - 140434.232
E - 2196541.724

10-4-93

D. Richard
C. Pontiff
K. Verret
G. Doiron
K. Bergeron

2094

2



Traverse Con't

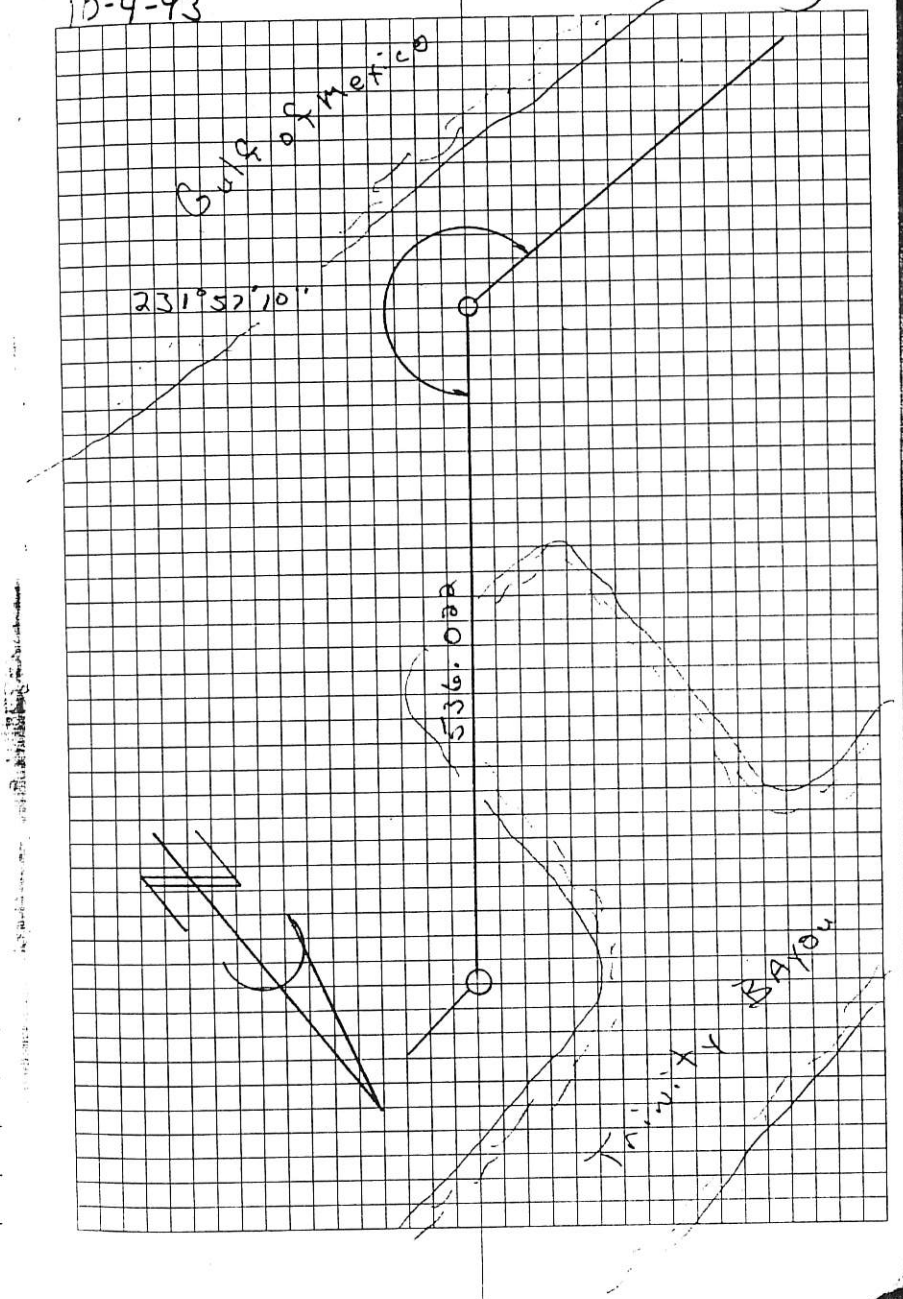
150170.420	Pt. #3	Set 3/4" GIP
		N-139119.153
		E-2194548.558

Pt. 1 = TI #1

10-4-93

2094

3



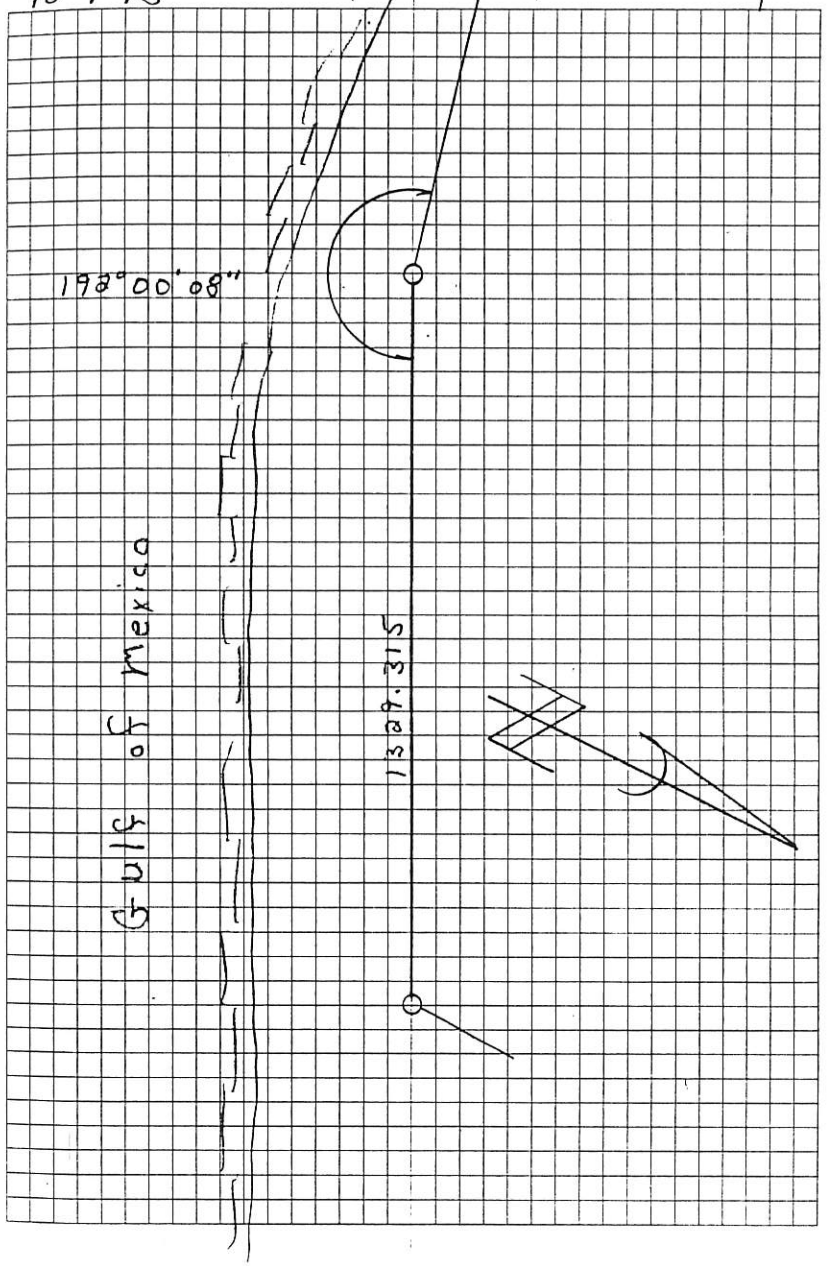
Traverse Con't

1371+41.105	Pt. #4	Set 3/4" GIP
		N- 132785.607
		E- 2193261.769
	Pt. #3	

2094

10-4-93

4



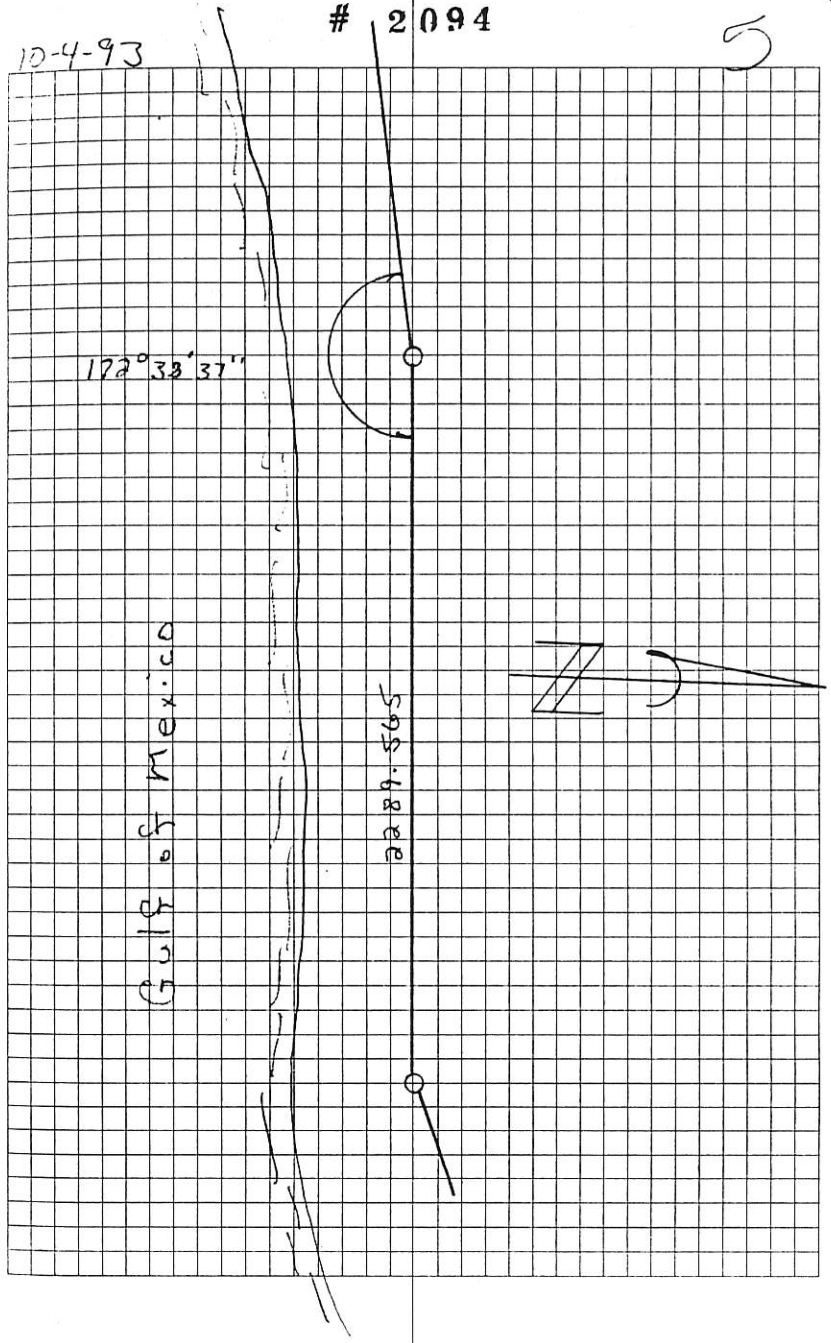
Traverse Con't

114+51.540	Pt. #5 set 3/4" CIP				
	N- 138684.554				
	E-2190974.436				
	Pt. #4				

2094

10-4-93

5



Traverse Con't

85t 72.275 Pt. #6 Set 3/4" GIP

N- 138190.224

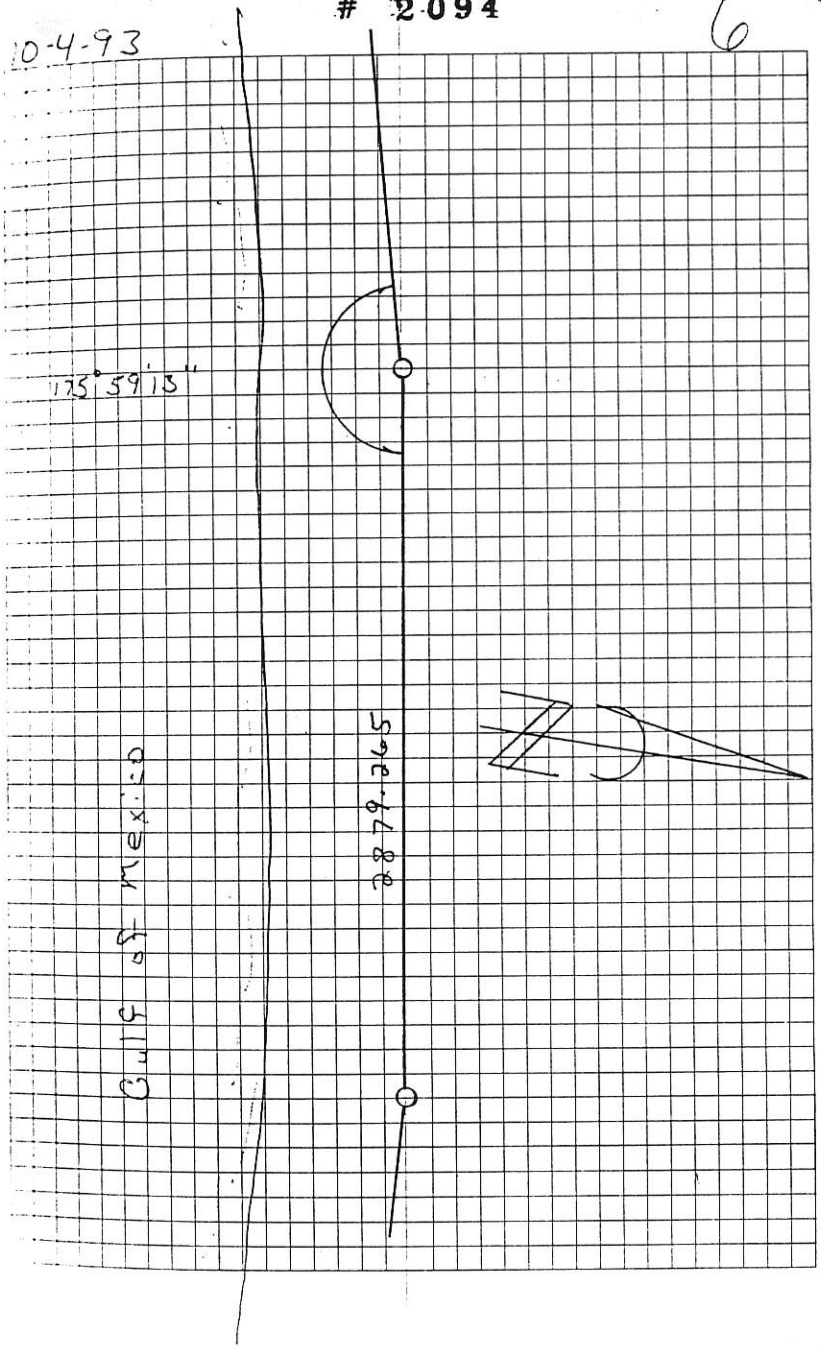
E- 2188137.923

Pt. #5

2094

6

10-4-93



Traverse Con't

61+77.445 Pt. #7 Set 3/4" GIP

N= 137614.956

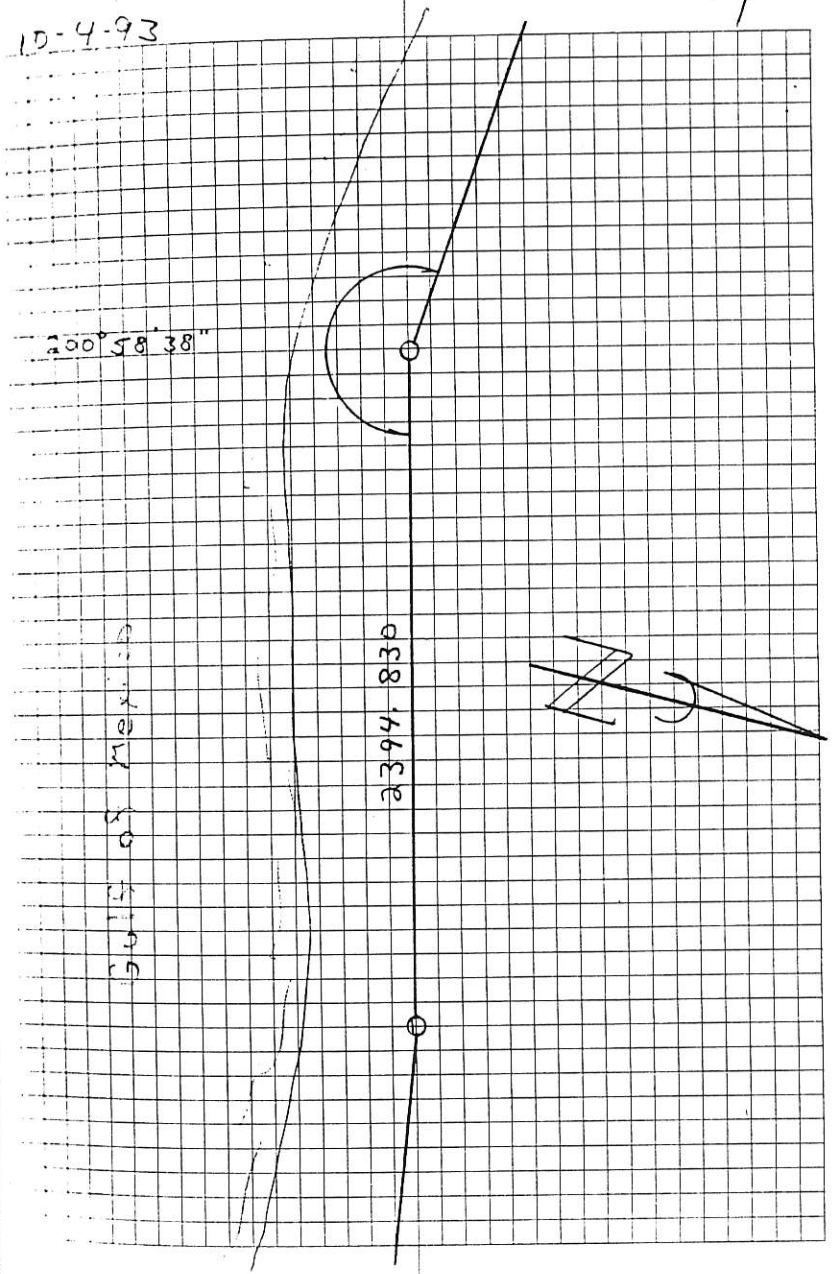
E= 2185813.213

Pt. #6

2094

7

10-4-93



Traverse Con't

47t51.836 Pt. #8 Set 3/4" GIP

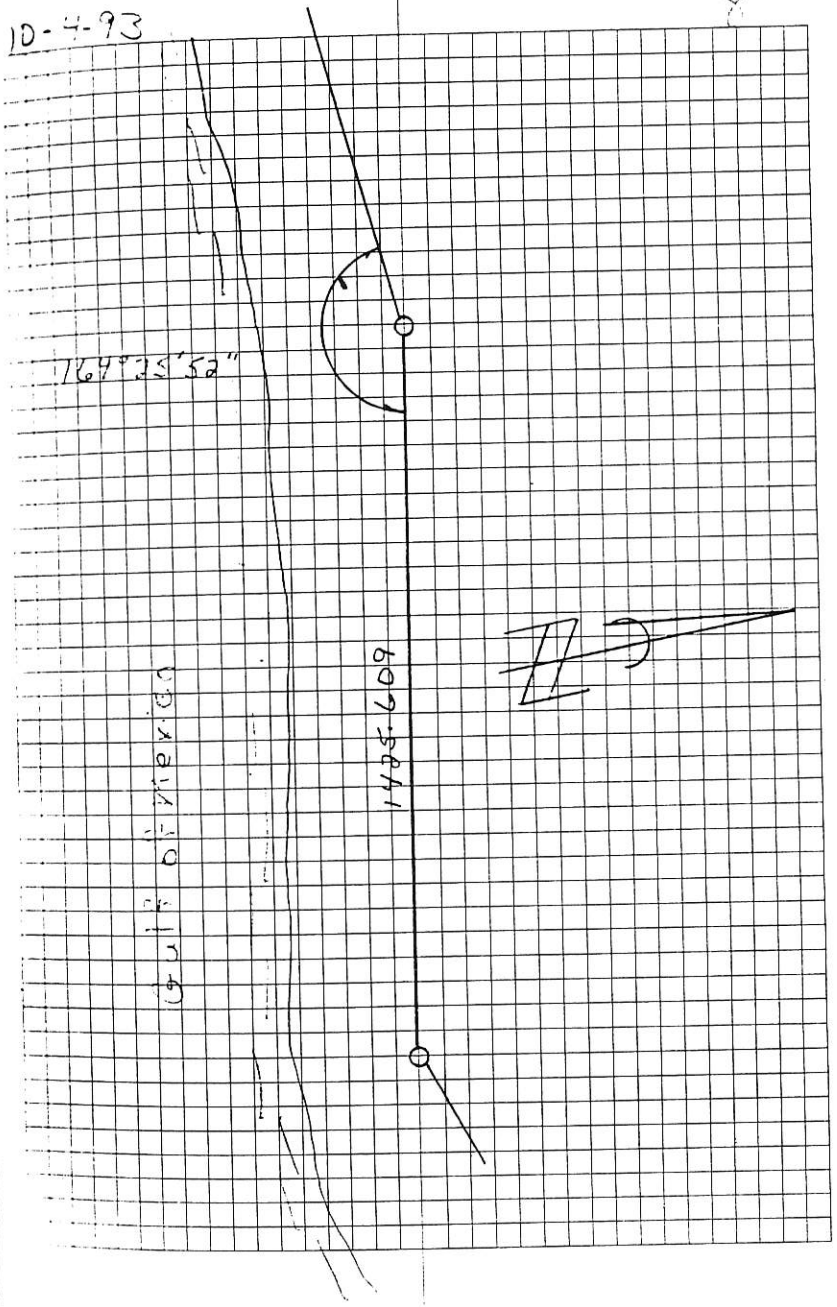
N- 137790.621

E- 2184398.467

Pt. #7

2094

10-4-93



Traverse Con't

2659.256 Pt. #9 Set 3/4." GIP

N- 137481.652

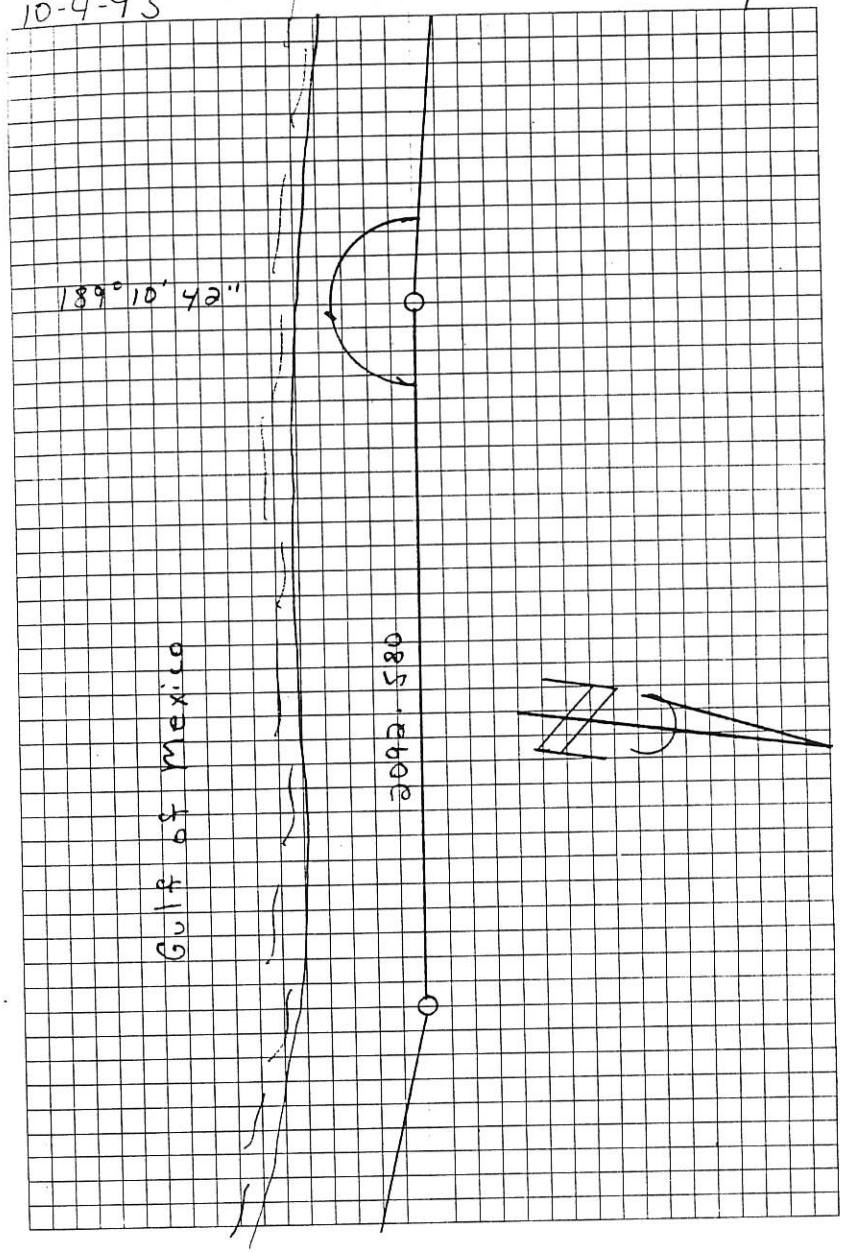
E- 2182328.823

Pt. #8

2094

9

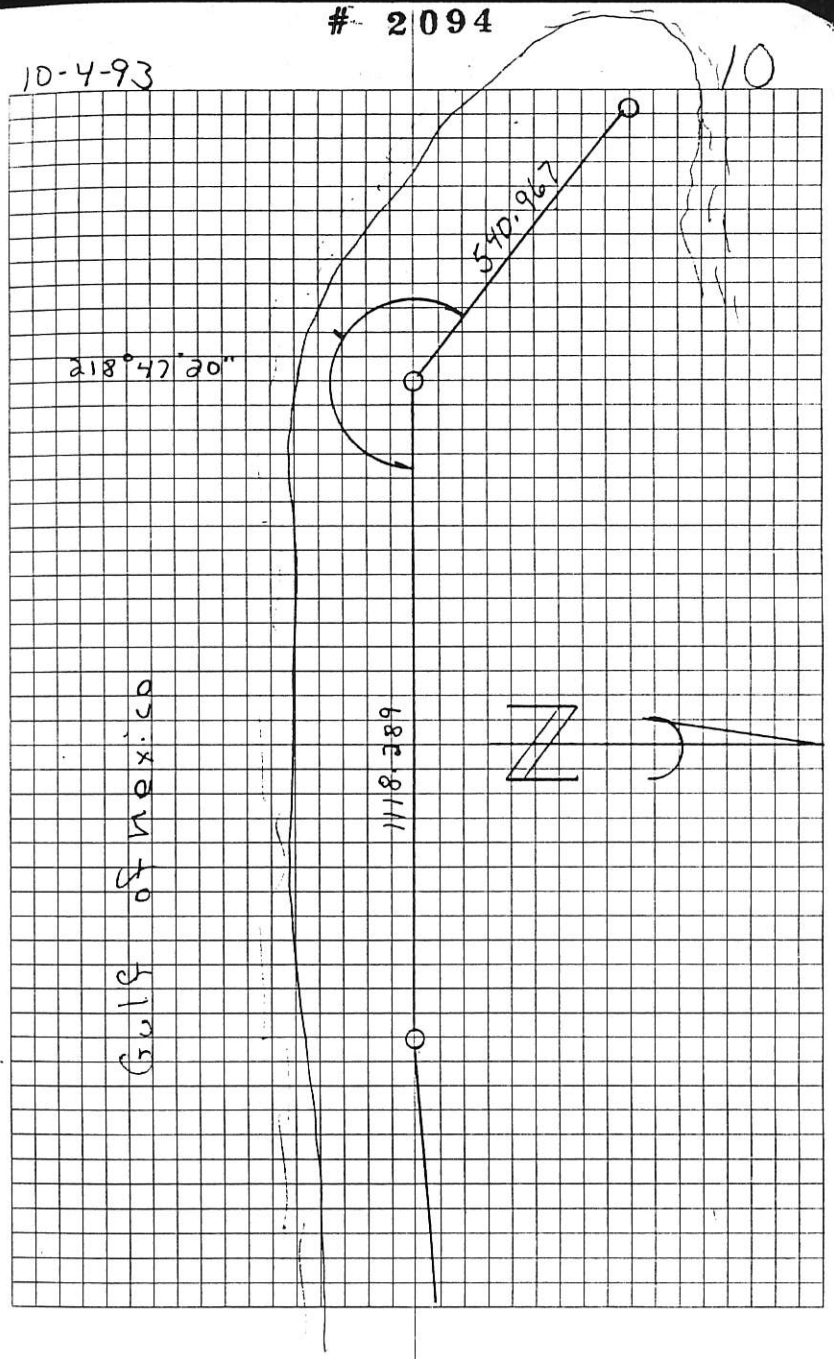
10-4-93



	Traverse Con't			
10+00	Pt. #11	Set 3/4" GIP		
	N-	137839.001		
	E-	2180793.051		
15+40.967	Pt. #10	Set 3/4" GIP		
	N-	137495.075		
	E-	2181210.614		
	Pt. #9			

10-4-93

10



Traverse Closure Raw
Along Bay Side of Island

Pt. #12 Set 3/4" GIP
N- 138910.319
E- 2182139.055

Pt #13 Set 3/4" GIP
N- 140126.289
E- 2185079.133

Pt #14 Set 3/4" GIP
N- 139932.934
E- 2188141.936

Pt #15 Set 3/4" GIP
N- 138967.251
E- 2190131.974

Pt. #16 Set 3/4" GIP
N- 139179.296
E- 2191569.637

Pt. #17 Set 3/4" GIP
N- 140049.508
E- 2194339.299

D. Richard
C. Pontiff
K. Verret
G. Malbrough
G. Doiron

2094

10-5-93

11

Pt. #18 = Pt #2 Monument TI-2
See pg 2
N- 140424.631
E- 2196541.747

Pt. #19 = Pt. #1 Monument # TI-1
See pg 2
N- 139611.010
E- 2194762.632

1 to 2	1956.474
1 to 3	536.022
3 to 4	1329.315
4 to 5	2289.565
5 to 6	2899.265
6 to 7	2394.830
7 to 8	1425.609
8 to 9	2092.580
9 to 10	1118.289
10 to 11	540.967

Pt. 11	10+00
Pt 10	15+40.967
Pt 9	26+59.256
Pt 8	47+51.836
Pt 7	61+77.445
Pt 6	85+72.275
Pt 5	114+51.54
Pt 4	137+41.105
Pt 3	150+70.420

1- N- 139610.659
E- 2194762.429
EL. 4.431

2- N- 140424.232
E- 2196541.724
EL- 5.276

3- N- 139119.153
E- 2194548.558
EL- 3.969

4- N- 138785.607
E- 2193261.769
EL- 4.079

5- N- 138684.554
E- 2190974.436
EL- 2.916

6- N- 138190.224
E- 2188137.923
EL- 1.876

7- N- 137614.956
E- 2185813.213
EL- 0.646

8- N- 137790.621
E- 2184398.467
EL-1.322

9- N- 137481.652
E- 2182328.823
EL-1.058

10- N- 137495.075
E- 2181210.614
EL-1.957

11- N- 137839.001
E- 2180793.051
EL-1.273

12- N- 138910.319
E- 2182139.055
EL-1.049

13- N- 140126.289
E- 2185079.133
EL- -0.278

14- N- 139932.934
E- 2188101.936
EL- -1.139

15- N- 138967.251
E- 2190121.974
EL- -0.890

16- N- 139179.296
E- 2191569.637
EL- -1.010

17- N- 140049.508
E- 2194338.289
EL- -1.864

Set 2" X 2" X 4' P.O.T.'s
At 200' Intervals & Set
3/4" GIP's At 1000' Intervals
Along Baseline Between
Pts 11 through 3 See pgs. 3-10

D. Richard# 2094
C. Pontiff
K. Verret
G. Malbrough
R. Bergeron

10-6-93
↓
10-7-93

12

Set 2" X 2" X 4' P.O.T.'s

At 200' Intervals & Set

3/4" GIP's At 1000' Intervals

Along Baseline Between

Pts 11 through 3 See pgs. 3-10

D. Richard# 2094
C. Pontiff
K. Verret
G. Mallbrough
R. Bergeron

10-6-93
&
10-7-93

BM Loop For Phase-1
Trinity Island

STA	+	HI	-	Elev.	BM
				4.431	TI-1
	3.290	7.721			
			3.740	3.981	150+70.42
	4.198	8.179			
			3.912	4.267	144+00
	4.340	8.607			
			3.912	4.695	137+41.105
	3.030	7.725			
			4.370	3.355	132+00
	4.200	7.555			
			3.833	3.722	126+00
	3.968	7.690			
			4.979	2.711	120+00
	4.860	7.571			
			3.801	3.770	114+51.54
	4.503	8.273			
			4.160	4.113	110+00
	3.760	7.873			
			6.047	1.826	104+00
	6.065	7.891			
			3.794	4.097	98+00

10-8-93

D. Richard
C. Pontiff
K. Verret
G. Malbrough
R. Bergeron

2094

2094

10-8-93

14

STA	+	HI	−	Eleu.	BM
				4.097	98+00
	3.705	7.802			
			3.765	4.037	92+00
	3.880	7.917			
			4.519	3.398	25+72.275
	2.307	5.705			
			5.310	0.395	80+00
	5.894	6.289			
			4.592	1.697	74+00
	4.575	6.272			
			3.148	3.124	68+00
	3.743	6.867			
			4.388	2.479	61+77.445
	4.320	6.799			
			4.200	2.599	56+00
	4.718	7.317			
			4.660	2.657	50+00
	5.150	7.807			
			4.597	3.210	47+51.836
	4.852	8.062			
			4.608	3.454	42+00
	4.623	8.077			
			3.959	4.118	36+00

2094

10-8-93

15

STA	+	HI	−	Elev.	BM
				4.118	36+00
	3.842	7.960			
			4.262	3.698	32+00
	3.591	7.289			
			4.053	3.236	26+59.256
	4.658	7.894			
			4.015	3.879	22+00
	4.510	8.389			
			4.249	4.140	18+00
	4.515	8.655			
			4.488	4.167	15+40.967
	3.176	7.343			
			3.866	3.477	10+00
* Loop Back *					
				3.477	10+00
	3.682	7.159			
			2.990	4.169	15+40.967
	4.621	8.790			
			4.647	4.143	18+[illegible]
	4.402	8.545			
			4.659	3.886	22+00

2094

10-8-93

16

STA	+	HI	−	Eleu.	BM
				3.886	22+00
	3.716	7.602			
			4.364	3.238	26+59.256
	4.215	7.453			
			3.758	3.695	32+00
	4.348	8.043			
			3.925	4.118	36+00
	3.722	7.840			
			4.380	3.460	42+00
	4.406	7.866			
			4.652	3.214	47+51.856
	4.662	7.876			
			5.215	2.661	50+00
	4.329	7.040			
			4.431	2.609	56+00
	4.341	6.950			
			4.459	2.491	61+77.445
	4.537	7.028			
			3.898	3.130	68+00
	3.335	6.465			
			4.768	1.697	74+00
	4.673	6.37			
			5.970	0.400	80+00

10-8-93

STA	+	HI	−	Elev.	BM
				0.400	80+00
	5.412	5.812			
			2.415	3.397	85+72.275
	4.696	8.093			
			4.058	4.035	92+00
	3.445	7.480			
			3.375	4.105	98+00
	4.082	8.187			
			6.353	1.834	104+00
	6.208	8.042			
			3.928	4.114	110+00
	4.288	8.402			
			4.638	3.764	114+51.54
	4.170	7.934			
			5.239	2.695	120+00
	4.760	7.455			
			3.750	3.705	126+00
	3.947	7.652			
			4.310	3.342	132+00
	4.149	7.491			
			2.801	4.690	137+41.105

2094

10-8-93

18

STA	+	HI	−	Elev.	BM
				4.690	137+41.105
	4.141	8.831			
			4.552	4.279	144+00
	4.060	8.339			
			4.340	3.999	150+70.42
	3.890	7.889			
			3.440	4.449	TI-1

VOL
388-93-8
La DNR

SDR20 V03-05	Copyright 1985-92 by Datacom Software Research Limited.		
	Serial no	Nov-02-93 16:53	
	Angle : Degrees	Dist : Feet	Press : Inch Hg
	Temp : Fahrenht	Coord : N-E-Elv	H.obs : Right
JOB	Job ID 388-93-8		
NOTE CP	Sea level crn: N		
NOTE CP	C and R crn: Y		
NOTE CP	Atmos crn: N		
SCALE	S.F. 1.000000000		
NOTE OO	Current view		
NOTE TS	Oct-28-93 08:31		
NOTE	-DNR-CRD PHASE 1 TRNITY ISLAND		
NOTE	-X-SECTIONS		
NOTE	-REF. 2094		
NOTE	-D.R. C.P. G.M. R.M. B.O.		
POS KI 0009	Nrth 137481.652	East 2182328.820	Elv 2.800
	Code CP		
POS KI 0010	Nrth 137495.075	East 2181210.610	Elv 3.740
	Code CP		
POS KI 0011	Nrth 137839.001	East 2180793.050	Elv 3.010
	Code CP		
INSTR	SET	EDM <No text>	Serial no 000000
	Theo <No text>	Serial no 000000	Mount: not applc
	V.obs : Zenith	Edm o/s <Null>	Refl o/s <Null>
	P.C. mm 0.000		
NOTE PC	P.C. mm Applied: 0.000		
STN TP 0009	Nrth 137481.652	East 2182328.820	Elv 2.800
	Theo ht 4.160	Code CP	
NOTE TL	EDM tol. error: Pt: 0010 0.040		
BKB TP 0009-0010	Azmth 270-41'16"	H.obs 0-00'05"	
TRGET	Trget ht 3.900		
OBS F1 0009-0010	Dist 1118.330	V.obs 89-57'50"	H.obs 0-00'05"

	Code CL		
TRGET	Trget ht 8.510		
POS TP 3740	Nrth 137492.902 Code TBM	East 2181469.730	Elv 3.734
POS TP 3741	Nrth 137489.660 Code TBM	East 2181869.540	Elv 3.387
NOTE	RD 1		
NOTE	STA 3000		
POS TP 3742	Nrtn 137531.715 Code BL	East 2182666.050	Elv 2.006
POS TP 3743	Nrtn 137551.374 Code EL	East 2182666.410	Elv 1.937
POS TP 3744	Nrth 137579.623 Code EL	East 2182667.750	Elv 1.797
POS TP 3745	Nrtn 137605.021 Code EL	East 2182668.370	Elv 1.675
POS TP 3746	Nrth 137630.753 Code EL	East 2182669.270	Elv 1.507
POS TP 3747	Nrth 137658.041 Code EL	East 2182669.720	Elv 1.375
POS TP 3748	Nrth 137684.343 Code EL	East 2182670.820	Elv 1.277
POS TP 3749	Nrth 137711.309 Code EL	East 2182671.870	Elv 1.185
POS TP 3750	Nrtn 137738.240 Code EL	East 2182672.510	Elv 1.126
POS TP 3751	Nrth 137758.584 Code EL	East 2182673.590	Elv 0.930
POS TP 3752	Nrth 137783.768 Code EL	East 2182673.930	Elv 0.689
POS TP 3753	Nrtn 137804.578 Code EL	East 2182674.630	Elv 0.657
POS TP 3754	Nrth 137836.104 Code EL	East 2182675.810	Elv 1.100
POS TP 3755	Nrth 137862.513 Code EL	East 2182676.580	Elv 0.931
POS TP 3756	Nrth 137896.081 Code EL	East 2182677.790	Elv 0.912
POS TP 3757	Nrth 137924.479 Code EL	East 2182678.170	Elv 0.713
POS TP 3758	Nrth 137957.121 Code EL	East 2182679.940	Elv 1.265
POS TP 3759	Nrth 137977.841 Code EL	East 2182679.930	Elv -0.128

	Code EL		
POS TP 3760	Nrtn 138001.177 Code EL	East 2182681.090	Elv -1.892
POS TP 3761	Nrtn 138021.911 Code EL	East 2182681.170	Elv -2.104
POS TP 3762	Nrtn 138048.172 Code EL	East 2182682.750	Elv -2.334
POS TP 3763	Nrtn 138079.368 Code EL	East 2182683.760	Elv -2.467
POS TP 3764	Nrtn 138109.301 Code EL	East 2182684.620	Elv -2.746
POS TP 3765	Nrtn 138129.728 Code EL	East 2182684.740	Elv -2.901
POS TP 3766	Nrtn 138153.268 Code EL	East 2182686.560	Elv -3.032
POS TP 3767	Nrtn 138175.603 Code EL	East 2182687.640	Elv -3.071
POS TP 3768	Nrtn 138200.044 Code EL	East 2182687.370	Elv -3.035
POS TP 3769	Nrtn 138226.040 Code EL	East 2182688.520	Elv -2.959
POS TP 3770	Nrtn 138251.172 Code EL	East 2182689.090	Elv -2.956
POS TP 3771	Nrtn 138280.748 Code EL	East 2182689.560	Elv -3.107
POS TP 3772	Nrtn 138310.961 Code EL	East 2182690.260	Elv -3.200
POS TP 3773	Nrtn 138333.984 Code EL	East 2182692.430	Elv -3.262
POS TP 3774	Nrtn 138356.736 Code EL	East 2182692.740	Elv -3.392
POS TP 3775	Nrtn 138380.068 Code EL	East 2182693.210	Elv -3.528
POS TP 3776	Nrtn 138402.765 Code CHECK	East 2182694.940	Elv 0.585
TRGET	Trget ht 12.710		
POS TP 3777	Nrtn 138402.774 Code EL	East 2182694.920	Elv -3.615
POS TP 3778	Nrtn 138432.486 Code EL	East 2182694.560	Elv -3.778
POS TP 3779	Nrtn 138470.181 Code EL	East 2182694.330	Elv -3.913
POS TP 3780	Nrtn 138510.786 Code EL	East 2182695.540	Elv -4.004

POS TP 3781	Nrtn 138535.537 Code EL	East 2182695.720	Elv -4.101
POS TP 3782	Nrtn 138606.559 Code EL	East 2182697.780	Elv -4.343
POS TP 3783	Nrtn 138636.981 Code EL	East 2182703.320	Elv -4.395
POS TP 3784	Nrtn 138748.809 Code EL	East 2182700.710	Elv -4.658
POS TP 3785	Nrtn 138853.213 Code EL	East 2182704.690	Elv -5.329
POS TP 3786	Nrtn 138913.762 Code EL	East 2182707.540	Elv -5.669
NOTE	STA 2800		
POS TP 3787	Nrtn 138994.352 Code EL	East 2182532.500	Elv -6.405
POS TP 3788	Nrtn 138975.020 Code EL	East 2182533.210	Elv -6.069
POS TP 3789	Nrtn 138870.024 Code EL	East 2182525.050	Elv -5.574
POS TP 3790	Nrtn 138842.204 Code EL	East 2182528.520	Elv -5.244
POS TP 3791	Nrtn 138792.791 Code EL	East 2182522.800	Elv -5.103
POS TP 3792	Nrtn 138728.576 Code EL	East 2182520.560	Elv -4.647
POS TP 3793	Nrtn 138664.621 Code EL	East 2182516.660	Elv -4.356
POS TP 3794	Nrtn 138585.075 Code EL	East 2182513.070	Elv -4.151
POS TP 3795	Nrtn 138523.159 Code EL	East 2182510.940	Elv -4.087
POS TP 3796	Nrtn 138443.750 Code EL	East 2182507.170	Elv -3.572
POS TP 3797	Nrtn 138371.601 Code EL	East 2182506.630	Elv -4.061
POS TP 3798	Nrtn 138317.882 Code EL	East 2182505.430	Elv -2.834
POS TP 3799	Nrtn 138300.170 Code EL	East 2182503.120	Elv -6.973
POS TP 3800	Nrtn 138273.835 Code EL	East 2182501.990	Elv -6.837
TRGET	Trget ht 8.510		
POS TP 3801	Nrtn 138240.573 Code EL	East 2182500.240	Elv -2.537

	Code EL		
POS TP 3802	Nrtn 138210.996 Code EL	East 2182496.650	Elv -2.392
POS TP 3803	Nrth 138190.605 Code EL	East 2182498.300	Elv -2.352
POS TP 3804	Nrtn 138155.074 Code EL	East 2182496.820	Elv -2.331
POS TP 3805	Nrtn 138125.282 Code EL	East 2182496.130	Elv -2.057
POS TP 3806	Nrtn 138099.295 Code EL	East 2182494.550	Elv -2.239
POS TP 3807	Nrth 138077.061 Code EL	East 2182493.530	Elv -2.066
POS TP 3808	Nrth 138049.932 Code EL	East 2182492.060	Elv -2.087
POS TP 3809	Nrth 138026.093 Code EL	East 2182491.130	Elv -2.025
POS TP 3810	Nrth 137996.764 Code EL	East 2182489.940	Elv -1.963
POS TP 3811	Nrth 137970.976 Code EL	East 2182488.960	Elv -1.570
POS TP 3812	Nrth 137944.424 Code EL	East 2182487.810	Elv -1.486
POS TP 3813	Nrth 137916.529 Code EL	East 2182486.620	Elv -1.321
POS TP 3814	Nrth 137893.246 Code EL	East 2182485.480	Elv -1.151
POS TP 3815	Nrth 137869.198 Code EL	East 2182484.490	Elv -1.293
POS TP 3816	Nrth 137847.162 Code EL	East 2182483.650	Elv -1.056
POS TP 3817	Nrth 137821.079 Code EL	East 2182482.460	Elv -0.427
POS TP 3818	Nrth 137799.408 Code EL	East 2182481.160	Elv 0.076
POS TP 3819	Nrth 137778.857 Code EL	East 2182480.230	Elv 1.121
POS TP 3820	Nrtn 137763.600 Code EL	East 2182479.570	Elv 1.072
POS TP 3821	Nrth 137736.577 Code EL	East 2182478.260	Elv 1.031
POS TP 3822	Nrth 137712.763 Code EL	East 2182477.060	Elv 1.154
POS TP 3823	Nrth 137689.037	East 2182477.040	Elv 1.189

Code EL

POS TP 3824	Nrtn 137665.939 Code EL	East 2182475.280	Elv 1.291
POS TP 3825	Nrtn 137637.546 Code EL	East 2182474.170	Elv 1.344
POS TP 3826	Nrtn 137611.618 Code EL	East 2182472.860	Elv 1.442
POS TP 3827	Nrtn 137587.546 Code EL	East 2182471.500	Elv 1.549
POS TP 3828	Nrtn 137562.225 Code EL	East 2182471.080	Elv 1.709
POS TP 3829	Nrtn 137540.146 Code EL	East 2182469.970	Elv 1.799
POS TP 3830	Nrtn 137517.803 Code EL	East 2182468.890	Elv 1.860
POS TP 3831	Nrtn 137502.780 Code BL	East 2182468.550	Elv 1.890
TRGET	Trget ht 8.530		
POS TP 3832	Nrtn 137486.652 Code EL	East 2182467.310	Elv 2.039
POS TP 3833	Nrtn 137466.301 Code EL	East 2182466.280	Elv 2.190
POS TP 3834	Nrtn 137444.721 Code EL	East 2182465.320	Elv 2.223
POS TP 3835	Nrtn 137422.216 Code EL	East 2182464.270	Elv 2.365
POS TP 3836	Nrtn 137400.516 Code EL	East 2182463.260	Elv 2.756
POS TP 3837	Nrtn 137382.801 Code EL	East 2182462.800	Elv 2.294
POS TP 3838	Nrtn 137360.839 Code EL	East 2182460.510	Elv 1.840
POS TP 3839	Nrtn 137339.438 Code EL	East 2182460.470	Elv -0.329
POS TP 3840	Nrtn 137319.089 Code EL	East 2182459.510	Elv -0.568
POS TP 3841	Nrtn 137299.318 Code EL	East 2182459.230	Elv -0.395
POS TP 3842	Nrtn 137276.230 Code EL	East 2182458.030	Elv -0.645
POS TP 3843	Nrtn 137251.124 Code EL	East 2182457.090	Elv -0.673
POS TP 3844	Nrtn 137225.954 Code EL	East 2182456.070	Elv -0.848

POS TP 3845	Nrth 137201.499 Code EL	East 2182455.370	Elv -0.979
POS TP 3846	Nrth 137178.344 Code EL	East 2182453.560	Elv -1.305
POS TP 3847	Nrth 137155.648 Code EL	East 2182453.050	Elv -1.720
POS TP 3848	Nrth 137133.991 Code EL	East 2182452.460	Elv -2.211
POS TP 3849	Nrtn 137113.261 Code EL	East 2182450.610	Elv -2.611
POS TP 3850	Nrtn 137093.200 Code EL	East 2182450.240	Elv -3.135
POS TP 3851	Nrtn 137072.058 Code EL	East 2182446.980	Elv -3.522
POS TP 3852	Nrtn 137051.067 Code EL	East 2182449.380	Elv -3.951
POS TP 3853	Nrtn 137031.103 Code EL	East 2182447.990	Elv -4.266
POS TP 3854	Nrtn 137007.044 Code EL	East 2182446.960	Elv -4.778
POS TP 3855	Nrtn 136984.701 Code EL	East 2182444.720	Elv -5.362
NOTE	STA 2600		
TRGET	Trget ht 8.510		
POS TP 3856	Nrtn 137002.222 Code EL	East 2182239.660	Elv -4.713
POS TP 3857	Nrtn 137027.526 Code EL	East 2182244.150	Elv -4.278
POS TP 3858	Nrtn 137045.764 Code EL	East 2182244.370	Elv -3.666
POS TP 3859	Nrtn 137065.452 Code EL	East 2182245.920	Elv -3.151
POS TP 3860	Nrtn 137086.549 Code EL	East 2182247.190	Elv -2.906
POS TP 3861	Nrtn 137107.367 Code EL	East 2182248.300	Elv -2.178
POS TP 3862	Nrtn 137127.804 Code EL	East 2182248.910	Elv -1.618
POS TP 3863	Nrtn 137150.085 Code EL	East 2182250.080	Elv -1.184
POS TP 3864	Nrtn 137171.460 Code EL	East 2182251.560	Elv -0.850
POS TP 3865	Nrtn 137199.401	East 2182253.540	Elv -0.883

Code EL

POS TP 3866	Nrtn 137226.403 Code EL	East 2182234.750	Elv -0.827
POS TP 3867	Nrtn 137249.665 Code EL	East 2182255.640	Elv -0.659
POS TP 3868	Nrtn 137272.826 Code EL	East 2182257.230	Elv -0.473
POS TP 3869	Nrtn 137297.916 Code EL	East 2182258.150	Elv -0.604
POS TP 3870	Nrtn 137325.083 Code EL	East 2182260.340	Elv -0.294
POS TP 3871	Nrtn 137347.316 Code EL	East 2182261.840	Elv 0.208
POS TP 3872	Nrtn 137364.092 Code EL	East 2182262.900	Elv 1.954
POS TP 3873	Nrtn 137388.555 Code EL	East 2182263.750	Elv 1.196
POS TP 3874	Nrtn 137410.922 Code EL	East 2182265.340	Elv 1.467
POS TP 3875	Nrtn 137427.214 Code EL	East 2182265.990	Elv 2.847
POS TP 3876	Nrtn 137451.343 Code EL	East 2182267.560	Elv 2.087
POS TP 3877	Nrtn 137482.374 Code BL	East 2182268.510	Elv 1.850
POS TP 3878	Nrtn 137513.274 Code EL	East 2182270.400	Elv 1.683
POS TP 3879	Nrtn 137537.870 Code EL	East 2182272.200	Elv 1.477
POS TP 3880	Nrtn 137566.117 Code EL	East 2182273.940	Elv 0.961
POS TP 3881	Nrtn 137591.406 Code EL	East 2182275.270	Elv 0.626
POS TP 3882	Nrtn 137617.139 Code EL	East 2182276.420	Elv 0.983
POS TP 3883	Nrtn 137643.425 Code EL	East 2182277.300	Elv 1.122
POS TP 3884	Nrtn 137670.214 Code EL	East 2182279.820	Elv 0.921
POS TP 3885	Nrtn 137699.012 Code EL	East 2182280.280	Elv 0.141
POS TP 3886	Nrtn 137727.014 Code EL	East 2182281.930	Elv 0.359
POS TP 3887	Nrtn 137753.776	East 2182283.550	Elv 0.311

Code EL

POS TP 3888	Nrtn 137781.310 Code EL	East 2182285.420	Elv 0.177
POS TP 3889	Nrtn 137807.447 Code EL	East 2182287.610	Elv -0.059
POS TP 3890	Nrtn 137833.441 Code EL	East 2182289.430	Elv -0.380
POS TP 3891	Nrtn 137864.028 Code EL	East 2182290.930	Elv -0.737
POS TP 3892	Nrtn 137890.568 Code EL	East 2182292.240	Elv -0.691
POS TP 3893	Nrtn 137920.475 Code EL	East 2182293.900	Elv -1.439
POS TP 3894	Nrtn 137950.058 Code EL	East 2182295.640	Elv -1.272
POS TP 3895	Nrtn 137963.776 Code EL	East 2182296.870	Elv -1.228
POS TP 3896	Nrtn 138018.801 Code EL	East 2182299.290	Elv -1.857
POS TP 3897	Nrtn 138051.603 Code EL	East 2182300.780	Elv -1.405
POS TP 3898	Nrtn 138082.917 Code EL	East 2182302.750	Elv -1.834
POS TP 3899	Nrtn 138109.487 Code EL	East 2182304.660	Elv -1.664
POS TP 3900	Nrtn 138143.686 Code EL	East 2182307.100	Elv -1.830
POS TP 3901	Nrtn 138175.552 Code EL	East 2182307.740	Elv -1.944
POS TP 3902	Nrtn 138206.130 Code EL	East 2182309.700	Elv -1.996
POS TP 3903	Nrtn 138238.601 Code EL	East 2182311.390	Elv -2.070
POS TP 3904	Nrtn 138272.040 Code EL	East 2182312.350	Elv -2.208
POS TP 3905	Nrtn 138309.070 Code EL	East 2182315.210	Elv -2.318
POS TP 3906	Nrtn 138343.744 Code EL	East 2182318.860	Elv -2.580
POS TP 3907	Nrtn 138380.118 Code EL	East 2182320.030	Elv -2.797
POS TP 3908	Nrtn 138413.988 Code EL	East 2182321.010	Elv -3.069
POS TP 3909	Nrtn 138447.798	East 2182322.180	Elv -3.194

	Code EL		
POS TP 3910	Nrth 138482.429 Code EL	East 2182326.910	Elv -3.276
POS TP 3911	Nrth 138515.778 Code EL	East 2182326.250	Elv -3.233
POS TP 3912	Nrth 138549.060 Code EL	East 2182327.900	Elv -3.234
POS TP 3913	Nrth 138583.631 Code EL	East 2182329.340	Elv -3.341
POS TP 3914	Nrth 138616.131 Code EL	East 2182329.350	Elv -2.981
POS TP 3915	Nrth 138645.021 Code EL	East 2182333.880	Elv -0.422
POS TP 3916	Nrth 138671.951 Code EL	East 2182335.780	Elv -0.136
POS TP 3917	Nrth 138700.848 Code EL	East 2182337.810	Elv -0.101
POS TP 3918	Nrth 138727.810 Code EL	East 2182341.210	Elv -0.219
POS TP 3919	Nrth 138756.314 Code EL	East 2182339.860	Elv -0.188
POS TP 3920	Nrth 138783.709 Code EL	East 2182339.370	Elv -0.410
POS TP 3921	Nrth 138810.546 Code EL	East 2182343.070	Elv -0.805
POS TP 3922	Nrth 138837.641 Code EL	East 2182340.600	Elv -1.052
POS TP 3923	Nrth 138865.004 Code EL	East 2182340.130	Elv -3.724
POS TP 3924	Nrth 138863.635 Code EL	East 2182348.660	Elv -5.096
POS TP 3925	Nrth 138870.481 Code EL	East 2182348.260	Elv -5.315
POS TP 3926	Nrth 138889.732 Code EL	East 2182351.630	Elv -5.401
POS TP 3927	Nrth 138907.556 Code EL	East 2182352.750	Elv -5.484
POS TP 3928	Nrth 138930.498 Code EL	East 2182349.550	Elv -5.511
POS TP 3929	Nrth 138944.683 Code EL	East 2182353.230	Elv -5.479
POS TP 3930	Nrth 138964.868 Code EL	East 2182355.980	Elv -5.676
POS TP 3931	Nrth 139013.437	East 2182360.060	Elv -6.144

Code EL

NOTE STA 2400

POS TP 3932 Nrtn 139058.738 East 2182174.030 Elv -2.920
Code CHECK

TRGET Trget ht 12.710

POS TP 3933 Nrtn 139012.843 East 2182167.740 Elv -5.925
Code EL

POS TP 3934 Nrtn 138973.251 East 2182167.890 Elv -2.031
Code EL

TRGET Trget ht 8.510

POS TP 3935 Nrtn 138953.914 East 2182164.990 Elv -0.858
Code EL

POS TP 3936 Nrtn 138915.425 East 2182164.060 Elv 0.557
Code EL

POS TP 3937 Nrtn 138908.153 East 2182163.530 Elv 2.287
Code EL

POS TP 3938 Nrtn 138887.204 East 2182159.330 Elv 2.095
Code EL

POS TP 3939 Nrtn 138869.580 East 2182157.800 Elv 2.219
Code EL

POS TP 3940 Nrtn 138845.521 East 2182155.590 Elv 1.555
Code EL

POS TP 3941 Nrtn 138816.179 East 2182155.640 Elv 1.195
Code EL

POS TP 3942 Nrtn 138816.190 East 2182155.570 Elv 1.195
Code EL

POS TP 3943 Nrtn 138788.893 East 2182152.210 Elv 0.980
Code EL

POS TP 3944 Nrtn 138765.756 East 2182150.490 Elv 0.684
Code EL

POS TP 3945 Nrtn 138740.842 East 2182150.900 Elv 0.210
Code EL

POS TP 3946 Nrtn 138715.600 East 2182147.440 Elv 0.689
Code EL

POS TP 3947 Nrtn 138679.550 East 2182148.200 Elv 0.037
Code EL

POS TP 3948 Nrtn 138654.575 East 2182148.330 Elv -1.809
Code EL

POS TP 3949 Nrtn 138629.793 East 2182147.120 Elv -2.255
Code EL

POS TP 3950 Nrtn 138601.247 East 2182144.540 Elv -2.211
Code EL

POS TP 3951 Nrtn 138571.545 East 2182142.230 Elv -2.195

POS TP 3952	Nrtn 138541.768 Code EL	East 2182139.780	Elv -2.179
POS TP 3953	Nrtn 138510.525 Code EL	East 2182137.720	Elv -2.288
POS TP 3954	Nrtn 138478.996 Code EL	East 2182134.910	Elv -2.317
POS TP 3955	Nrtn 138453.401 Code EL	East 2182133.570	Elv -2.371
POS TP 3956	Nrtn 138426.371 Code EL	East 2182130.600	Elv -2.280
POS TP 3957	Nrtn 138401.329 Code EL	East 2182129.500	Elv -2.239
POS TP 3958	Nrtn 138368.429 Code EL	East 2182127.650	Elv -2.150
POS TP 3959	Nrtn 138335.105 Code EL	East 2182126.180	Elv -1.981
POS TP 3960	Nrtn 138305.708 Code EL	East 2182124.790	Elv -1.967
POS TP 3961	Nrtn 138274.472 Code EL	East 2182119.770	Elv -1.894
POS TP 3962	Nrtn 138244.394 Code EL	East 2182119.210	Elv -1.633
POS TP 3963	Nrtn 138213.622 Code EL	East 2182116.150	Elv -1.963
POS TP 3964	Nrtn 138177.927 Code EL	East 2182115.640	Elv -1.698
POS TP 3965	Nrtn 138145.871 Code EL	East 2182113.010	Elv -1.523
POS TP 3966	Nrtn 138111.496 Code EL	East 2182111.360	Elv -1.670
POS TP 3967	Nrtn 138075.296 Code EL	East 2182108.440	Elv -1.618
POS TP 3968	Nrtn 138045.174 Code EL	East 2182106.040	Elv -1.322
POS TP 3969	Nrtn 138012.348 Code EL	East 2182104.650	Elv -1.334
POS TP 3970	Nrtn 137977.630 Code EL	East 2182101.720	Elv -1.319
POS TP 3971	Nrtn 137942.622 Code EL	East 2182099.710	Elv -1.070
POS TP 3972	Nrtn 137902.576 Code EL	East 2182097.050	Elv -1.009
POS TP 3973	Nrtn 137867.218 Code EL	East 2182094.630	Elv -0.933

Code EL

POS TP 3974	Nrtn 137832.239 Code EL	East 2182092.540	Elv -0.911
POS TP 3975	Nrtn 137796.827 Code EL	East 2182090.710	Elv -0.819
POS TP 3976	Nrtn 137763.649 Code EL	East 2182088.020	Elv -0.747
POS TP 3977	Nrtn 137730.003 Code EL	East 2182084.310	Elv -0.525
POS TP 3978	Nrtn 137698.256 Code EL	East 2182083.040	Elv -0.214
POS TP 3979	Nrtn 137666.449 Code EL	East 2182081.580	Elv 0.083
POS TP 3980	Nrtn 137631.968 Code EL	East 2182078.960	Elv 0.466
POS TP 3981	Nrtn 137599.940 Code EL	East 2182076.400	Elv 0.614
POS TP 3982	Nrtn 137566.235 Code EL	East 2182074.930	Elv 1.695
POS TP 3983	Nrtn 137537.110 Code EL	East 2182072.690	Elv 1.672
POS TP 3984	Nrtn 137508.706 Code EL	East 2182070.290	Elv 2.075
POS TP 3985	Nrtn 137484.775 Code BL	East 2182068.150	Elv 2.654
POS TP 3986	Nrtn 137475.562 Code EL	East 2182068.190	Elv 2.819
POS TP 3987	Nrtn 137456.161 Code EL	East 2182067.070	Elv 1.543
POS TP 3988	Nrtn 137435.083 Code EL	East 2182065.900	Elv 0.134
POS TP 3989	Nrtn 137411.222 Code EL	East 2182064.180	Elv -0.466
POS TP 3990	Nrtn 137385.595 Code EL	East 2182062.680	Elv -0.753
POS TP 3991	Nrtn 137361.873 Code EL	East 2182061.170	Elv -0.965
POS TP 3992	Nrtn 137337.644 Code EL	East 2182059.130	Elv -1.244
POS TP 3993	Nrtn 137306.254 Code EL	East 2182057.450	Elv -1.485
POS TP 3994	Nrtn 137282.437 Code EL	East 2182056.840	Elv -1.474
POS TP 3995	Nrtn 137256.272	East 2182053.700	Elv -2.194

	Code EL		
POS TP 3996	Nrth 137229.516 Code EL	East 2182051.770	Elv -2.037
POS TP 3997	Nrth 137206.596 Code EL	East 2182050.100	Elv -2.069
POS TP 3998	Nrth 137184.707 Code EL	East 2182048.760	Elv -2.595
POS TP 3999	Nrth 137163.295 Code EL	East 2182048.640	Elv -2.687
POS TP 4000	Nrth 137143.261 Code EL	East 2182047.080	Elv -2.944
POS TP 4001	Nrth 137121.852 Code EL	East 2182045.490	Elv -3.022
POS TP 4002	Nrth 137105.169 Code EL	East 2182044.560	Elv -3.604
POS TP 4003	Nrth 137085.865 Code EL	East 2182042.640	Elv -3.984
POS TP 4004	Nrth 137068.591 Code EL	East 2182041.690	Elv -3.935
POS TP 4005	Nrth 137055.827 Code EL	East 2182038.600	Elv -4.468
NOTE	STA 2200		
POS TP 4006	Nrth 137127.433 Code EL	East 2181842.820	Elv -4.240
POS TP 4007	Nrth 137144.125 Code EL	East 2181842.900	Elv -4.282
POS TP 4008	Nrth 137162.573 Code EL	East 2181844.070	Elv -4.118
POS TP 4009	Nrtn 137178.434 Code EL	East 2181845.600	Elv -3.936
POS TP 4010	Nrth 137196.863 Code EL	East 2181846.970	Elv -3.443
POS TP 4011	Nrth 137215.198 Code EL	East 2181849.030	Elv -3.087
POS TP 4012	Nrth 137235.340 Code EL	East 2181850.600	Elv -2.769
POS TP 4013	Nrth 137258.826 Code EL	East 2181852.350	Elv -2.373
POS TP 4014	Nrth 137280.206 Code EL	East 2181854.370	Elv -1.994
POS TP 4015	Nrth 137302.723 Code EL	East 2181855.950	Elv -1.753
POS TP 4016	Nrth 137322.939 Code EL	East 2181857.740	Elv -1.461

POS TP 4017	Nrth 137344.178 Code EL	East 2181858.610	Elv -1.331
POS TP 4018	Nrth 137362.715 Code EL	East 2181860.360	Elv -1.369
POS TP 4019	Nrth 137382.699 Code EL	East 2181861.880	Elv -1.302
POS TP 4020	Nrth 137405.243 Code EL	East 2181863.340	Elv -1.031
POS TP 4021	Nrth 137429.352 Code EL	East 2181865.070	Elv -0.697
POS TP 4022	Nrth 137453.591 Code EL	East 2181866.880	Elv -0.278
POS TP 4023	Nrth 137476.396 Code EL	East 2181868.360	Elv 1.937
POS TP 4024	Nrth 137487.282 Code BL	East 2181869.140	Elv 2.656
POS TP 4025	Nrth 137515.695 Code EL	East 2181870.900	Elv 2.139
POS TP 4026	Nrth 137541.437 Code EL	East 2181873.020	Elv 1.719
POS TP 4027	Nrth 137571.592 Code EL	East 2181875.010	Elv 1.269
POS TP 4028	Nrtn 137605.940 Code EL	East 2181877.900	Elv 0.938
POS TP 4029	Nrth 137633.211 Code EL	East 2181879.780	Elv 0.856
POS TF 4030	Nrth 137668.678 Code EL	East 2181882.940	Elv 0.729
POS TP 4031	Nrth 137711.753 Code EL	East 2181885.650	Elv 0.670
POS TP 4032	Nrth 137750.823 Code EL	East 2181888.480	Elv 0.370
POS TP 4033	Nrth 137780.887 Code EL	East 2181890.510	Elv -0.078
POS TP 4034	Nrth 137810.146 Code EL	East 2181893.270	Elv -0.063
POS TP 4035	Nrtn 137841.547 Code EL	East 2181895.460	Elv -0.642
POS TP 4036	Nrth 137877.755 Code EL	East 2181898.340	Elv -0.650
POS TP 4037	Nrth 137905.754 Code EL	East 2181899.690	Elv -0.797
POS TP 4038	Nrth 137937.410 Code EL	East 2181902.810	Elv -0.922

POS TP 4039	Nrth 137971.301 Code EL	East 2181905.010	Elv -0.976
POS TP 4040	Nrth 137997.070 Code EL	East 2181907.020	Elv -1.008
POS TP 4041	Nrth 138026.569 Code EL	East 2181908.470	Elv -1.040
POS TP 4042	Nrth 138052.933 Code EL	East 2181911.630	Elv -1.111
POS TP 4043	Nrth 138084.082 Code EL	East 2181914.590	Elv -1.114
POS TP 4044	Nrth 138119.342 Code EL	East 2181915.870	Elv -1.188
POS TP 4045	Nrth 138155.578 Code EL	East 2181919.410	Elv -1.174
POS TP 4046	Nrth 138187.070 Code EL	East 2181921.460	Elv -1.220
POS TP 4047	Nrth 138223.232 Code EL	East 2181925.090	Elv -1.331
POS TP 4048	Nrth 138223.153 Code EL	East 2181925.130	Elv -1.331
POS TP 4049	Nrth 138269.982 Code EL	East 2181927.200	Elv -1.512
POS TP 4050	Nrth 138310.024 Code EL	East 2181929.520	Elv -1.488
POS TP 4051	Nrth 138349.597 Code EL	East 2181933.000	Elv -1.531
POS TP 4052	Nrth 138391.789 Code EL	East 2181936.890	Elv -1.602
POS TP 4053	Nrth 138427.612 Code EL	East 2181937.800	Elv -1.702
POS TP 4054	Nrth 138468.320 Code EL	East 2181941.630	Elv -1.630
POS TP 4055	Nrth 138500.761 Code EL	East 2181945.430	Elv -1.658
POS TP 4056	Nrth 138539.309 Code EL	East 2181945.850	Elv -0.897
POS TP 4057	Nrth 138580.405 Code EL	East 2181950.970	Elv 1.294
POS TP 4058	Nrth 138622.530 Code EL	East 2181953.700	Elv 0.867
POS TP 4059	Nrth 138656.006 Code EL	East 2181956.610	Elv 0.691
POS TP 4060	Nrth 138682.264 Code EL	East 2181960.750	Elv 1.496

POS TP 4061	Nrth 138721.038 Code EL	East 2181961.250	Elv 2.182
POS TP 4062	Nrth 138761.191 Code EL	East 2181964.070	Elv 1.034
POS TP 4063	Nrth 138775.101 Code EL	East 2181963.660	Elv 0.413
POS TP 4064	Nrth 138811.045 Code EL	East 2181970.340	Elv -0.176
POS TP 4065	Nrth 138839.602 Code EL	East 2181969.090	Elv -1.169
POS TP 4066	Nrth 138878.172 Code EL	East 2181972.790	Elv -2.031
POS TP 4067	Nrth 138901.310 Code EL	East 2181973.000	Elv -2.464
STN TP 0010	Nrth 137495.075 Theo ht 3.680	East 2181210.610 Code CP	Elv 3.740
NOTE TL	EDM tol. error:	Pt: 0009 0.030	
BKB TP 0010-0009	Azmth 90-41'16"	H.obs 0-00'00"	
TRGET	Trget ht 3.700		
OBS F1 0010-0009	Dist 1118.320 Code CP	V.obs 90-02'35"	H.obs 0-00'00"
TRGET	Trget ht 8.510		
POS TP 4068	Nrth 137489.960 Code TBM	East 2181869.660	Elv 3.344
POS TP 4069	Nrth 137492.933 Code TBM	East 2181469.580	Elv 3.689
NOTE	STA 2000		
POS TP 4070	Nrth 137489.561 Code BL	East 2181669.960	Elv 2.545
POS TP 4071	Nrth 137467.446 Code EL	East 2181668.310	Elv 1.449
POS TP 4072	Nrth 137448.765 Code EL	East 2181666.940	Elv 1.427
POS TP 4073	Nrth 137428.751 Code EL	East 2181665.200	Elv -0.807
POS TP 4074	Nrth 137399.054 Code EL	East 2181664.130	Elv -1.749
POS TP 4075	Nrth 137377.693 Code EL	East 2181662.720	Elv -1.742
POS TP 4076	Nrth 137352.979 Code EL	East 2181660.940	Elv -2.242
POS TP 4077	Nrth 137332.173	East 2181659.670	Elv -2.359

Code EL

POS TP 4078	Nrth 137312.088 Code EL	East 2181658.850	Elv -2.564
POS TP 4079	Nrth 137289.767 Code EL	East 2181657.120	Elv -2.610
POS TP 4080	Nrth 137270.785 Code EL	East 2181656.260	Elv -1.907
POS TP 4081	Nrth 137248.026 Code EL	East 2181654.980	Elv -1.972
POS TP 4082	Nrth 137224.702 Code EL	East 2181653.620	Elv -2.242
POS TP 4083	Nrth 137183.676 Code EL	East 2181650.910	Elv -2.614
POS TP 4084	Nrtn 137136.444 Code EL	East 2181647.710	Elv -3.866
POS TP 4085	Nrth 137122.186 Code EL	East 2181649.270	Elv -4.385
NOTE TS	Nov-02-93 08:51		
POS TP 4086	Nrth 137522.405 Code EL	East 2181671.610	Elv 2.586
POS TP 4087	Nrtn 137553.689 Code EL	East 2181672.980	Elv 2.338
POS TP 4088	Nrth 137581.011 Code EL	East 2181674.730	Elv 2.141
POS TP 4089	Nrth 137610.699 Code EL	East 2181677.110	Elv 2.002
POS TP 4090	Nrtn 137640.028 Code EL	East 2181678.530	Elv 1.919
POS TP 4091	Nrth 137671.407 Code EL	East 2181680.570	Elv 1.689
POS TP 4092	Nrth 137699.606 Code EL	East 2181681.260	Elv 1.242
POS TP 4093	Nrth 137729.136 Code EL	East 2181684.030	Elv -0.009
POS TP 4094	Nrth 137758.843 Code EL	East 2181685.820	Elv -0.280
POS TP 4095	Nrth 137784.745 Code EL	East 2181687.540	Elv -0.367
POS TP 4096	Nrth 137814.031 Code EL	East 2181688.870	Elv -0.331
POS TP 4097	Nrth 137851.208 Code EL	East 2181691.050	Elv -0.546
POS TP 4098	Nrth 137884.794 Code EL	East 2181693.990	Elv -0.585

POS TP 4099	Nrth 137913.117 Code EL	East 2181695.370	Elv -0.647
POS TP 4100	Nrth 137942.164 Code EL	East 2181697.390	Elv -0.664
POS TP 4101	Nrth 137969.404 Code EL	East 2181698.000	Elv -0.685
POS TP 4102	Nrth 137996.790 Code EL	East 2181702.080	Elv -0.654
POS TP 4103	Nrth 138026.280 Code EL	East 2181702.590	Elv -0.746
POS TP 4104	Nrth 138052.249 Code EL	East 2181704.140	Elv -0.700
POS TP 4105	Nrth 138083.981 Code EL	East 2181704.570	Elv -0.798
POS TP 4106	Nrth 138114.954 Code EL	East 2181706.870	Elv -0.827
POS TP 4107	Nrth 138142.293 Code EL	East 2181708.090	Elv -0.819
POS TP 4108	Nrth 138171.078 Code EL	East 2181710.120	Elv -0.811
POS TP 4109	Nrth 138189.441 Code EL	East 2181711.510	Elv -0.515
POS TP 4110	Nrth 138218.815 Code EL	East 2181712.980	Elv 1.361
POS TP 4111	Nrth 138245.772 Code EL	East 2181714.190	Elv 1.074
POS TP 4112	Nrth 138278.334 Code EL	East 2181716.800	Elv 0.533
POS TP 4113	Nrth 138307.375 Code EL	East 2181718.600	Elv 0.369
POS TP 4114	Nrth 138333.301 Code EL	East 2181719.350	Elv 0.617
POS TP 4115	Nrth 138353.651 Code EL	East 2181721.310	Elv 0.432
POS TP 4116	Nrth 138377.076 Code EL	East 2181722.610	Elv 1.626
POS TP 4117	Nrth 138416.403 Code EL	East 2181723.950	Elv 2.359
POS TP 4118	Nrth 138448.813 Code EL	East 2181726.510	Elv 1.037
POS TP 4119	Nrth 138488.917 Code EL	East 2181729.510	Elv -0.330
POS TP 4120	Nrth 138521.985 Code EL	East 2181731.160	Elv -0.225

POS TP 4121	Nrtn 138554.599 Code EL	East 2181732.450	Elv -0.575
POS TP 4122	Nrtn 138592.064 Code EL	East 2181736.670	Elv -1.148
POS TP 4123	Nrtn 138632.508 Code EL	East 2181737.190	Elv -1.453
POS TP 4124	Nrtn 138669.548 Code EL	East 2181741.120	Elv -1.618
POS TP 4125	Nrtn 138702.228 Code EL	East 2181742.410	Elv -1.822
POS TP 4126	Nrtn 138737.461 Code EL	East 2181746.140	Elv -2.167
POS TP 4127	Nrtn 138767.947 Code EL	East 2181748.050	Elv -2.491
POS TP 4128	Nrtn 138796.025 Code EL	East 2181748.310	Elv -2.824
POS TP 4129	Nrtn 138823.006 Code EL	East 2181749.690	Elv -3.026
POS TP 4130	Nrtn 138852.112 Code EL	East 2181752.630	Elv -3.207
POS TP 4131	Nrtn 138875.392 Code EL	East 2181750.870	Elv -3.847
POS TP 4132	Nrtn 138961.127 Code CHECK	East 2181757.740	Elv -3.202
TRGET	Trget ht 12.710		
POS TP 4133	Nrtn 139023.479 Code EL	East 2181753.030	Elv -7.870
NOTE	STA 1800		
POS TP 4134	Nrtn 139108.873 Code EL	East 2181559.580	Elv -8.836
POS TP 4135	Nrtn 139070.782 Code EL	East 2181559.030	Elv -8.679
POS TP 4136	Nrtn 138994.049 Code EL	East 2181555.770	Elv -7.814
POS TP 4137	Nrtn 138924.519 Code EL	East 2181549.770	Elv -7.632
POS TP 4138	Nrtn 138858.077 Code EL	East 2181549.790	Elv -7.258
POS TP 4139	Nrtn 138748.524 Code EL	East 2181541.670	Elv -4.030
POS TP 4140	Nrtn 138679.627 Code EL	East 2181539.900	Elv -2.785
TRGET	Trget ht 8.510		

POS TP 4141	Nrth 138651.710 Code EL	East 2181535.760	Elv -2.953
POS TP 4142	Nrth 138620.110 Code EL	East 2181534.750	Elv -2.481
POS TP 4143	Nrth 138592.168 Code EL	East 2181535.010	Elv -2.034
POS TP 4144	Nrth 138558.959 Code EL	East 2181531.630	Elv -1.549
POS TP 4145	Nrth 138530.387 Code EL	East 2181529.810	Elv -1.302
POS TP 4146	Nrth 138501.306 Code EL	East 2181527.800	Elv -1.221
POS TP 4147	Nrth 138472.791 Code EL	East 2181526.440	Elv -1.043
POS TP 4148	Nrth 138445.564 Code EL	East 2181524.990	Elv -0.924
POS TP 4149	Nrth 138419.557 Code EL	East 2181523.430	Elv -0.976
POS TP 4150	Nrth 138389.728 Code EL	East 2181522.900	Elv -0.842
POS TP 4151	Nrth 138362.379 Code EL	East 2181520.730	Elv -0.648
POS TP 4152	Nrth 138333.470 Code EL	East 2181517.890	Elv -0.576
POS TP 4153	Nrth 138306.158 Code EL	East 2181517.190	Elv -0.465
POS TP 4154	Nrth 138278.115 Code EL	East 2181515.720	Elv -0.403
POS TP 4155	Nrth 138250.129 Code EL	East 2181513.850	Elv -0.090
POS TP 4156	Nrth 138218.967 Code EL	East 2181511.040	Elv 0.994
POS TP 4157	Nrth 138193.932 Code EL	East 2181510.310	Elv 1.392
POS TP 4158	Nrth 138167.604 Code EL	East 2181508.820	Elv 1.150
POS TP 4159	Nrth 138147.975 Code EL	East 2181509.520	Elv 0.365
POS TP 4160	Nrth 138127.334 Code EL	East 2181506.640	Elv 0.697
POS TP 4161	Nrth 138100.866 Code EL	East 2181504.560	Elv 0.372
POS TP 4162	Nrth 138069.933 Code EL	East 2181503.210	Elv 0.998

POS TP 4163	Nrtn 138042.699 Code EL	East 2181501.520	Elv 1.082
POS TP 4164	Nrtn 138012.168 Code EL	East 2181499.170	Elv 1.286
POS TP 4165	Nrtn 137983.496 Code EL	East 2181497.680	Elv 1.265
POS TP 4166	Nrtn 137976.094 Code EL	East 2181497.270	Elv 1.373
POS TP 4167	Nrtn 137944.834 Code EL	East 2181496.260	Elv 0.027
POS TP 4168	Nrtn 137920.554 Code EL	East 2181494.320	Elv -0.204
POS TP 4169	Nrtn 137897.939 Code EL	East 2181492.250	Elv -0.251
POS TP 4170	Nrtn 137873.135 Code EL	East 2181491.290	Elv -0.241
POS TP 4171	Nrtn 137848.166 Code EL	East 2181490.360	Elv -0.278
POS TP 4172	Nrtn 137825.720 Code EL	East 2181488.610	Elv -0.238
POS TP 4173	Nrtn 137803.986 Code EL	East 2181486.990	Elv -0.212
POS TP 4174	Nrtn 137781.634 Code EL	East 2181486.150	Elv -0.142
POS TP 4175	Nrtn 137760.972 Code EL	East 2181484.630	Elv -0.087
POS TP 4176	Nrtn 137736.631 Code EL	East 2181483.700	Elv 0.124
POS TP 4177	Nrtn 137712.233 Code EL	East 2181481.840	Elv 0.698
POS TP 4178	Nrtn 137690.518 Code EL	East 2181480.390	Elv 1.101
POS TP 4179	Nrtn 137664.176 Code EL	East 2181479.350	Elv 1.521
POS TP 4180	Nrtn 137637.698 Code EL	East 2181477.770	Elv 1.966
POS TP 4181	Nrtn 137608.776 Code EL	East 2181477.110	Elv 2.220
POS TP 4182	Nrtn 137583.817 Code EL	East 2181474.820	Elv 2.398
POS TP 4183	Nrtn 137554.815 Code EL	East 2181472.830	Elv 2.719
POS TP 4184	Nrtn 137530.785 Code EL	East 2181471.590	Elv 2.928

POS TP 4185	Nrth 137505.527 Code EL	East 2181470.100	Elv 3.293
POS TP 4186	Nrth 137492.054 Code BL	East 2181470.150	Elv 2.787
POS TP 4187	Nrth 137469.092 Code EL	East 2181468.200	Elv 1.773
POS TP 4188	Nrtn 137449.330 Code EL	East 2181466.630	Elv -0.080
POS TP 4189	Nrth 137427.847 Code EL	East 2181465.210	Elv -1.395
POS TP 4190	Nrtn 137403.661 Code EL	East 2181463.750	Elv -2.328
POS TP 4191	Nrth 137382.301 Code EL	East 2181462.610	Elv -2.440
POS TP 4192	Nrth 137355.892 Code EL	East 2181461.090	Elv -2.415
POS TP 4193	Nrth 137333.391 Code EL	East 2181459.740	Elv -2.780
POS TP 4194	Nrth 137305.010 Code EL	East 2181458.310	Elv -3.033
POS TP 4195	Nrth 137274.528 Code EL	East 2181456.520	Elv -3.474
POS TP 4196	Nrth 137246.687 Code EL	East 2181454.310	Elv -3.298
POS TP 4197	Nrth 137216.745 Code EL	East 2181453.310	Elv -3.710
POS TP 4198	Nrth 137185.866 Code EL	East 2181451.510	Elv -4.118
NOTE	STA 1600		
POS TP 4199	Nrth 137156.346 Code EL	East 2181245.600	Elv -4.712
POS TP 4200	Nrth 137182.047 Code EL	East 2181248.050	Elv -3.839
POS TP 4201	Nrth 137205.722 Code EL	East 2181248.840	Elv -3.933
POS TP 4202	Nrth 137243.209 Code EL	East 2181251.790	Elv -4.262
POS TP 4203	Nrth 137270.930 Code EL	East 2181253.800	Elv -3.391
POS TP 4204	Nrth 137290.333 Code EL	East 2181255.240	Elv -3.121
POS TP 4205	Nrth 137315.087 Code EL	East 2181256.650	Elv -2.769

POS TP 4206	Nrth 137339.683 Code EL	East 2181258.480	Elv -2.461
POS TP 4207	Nrth 137365.260 Code EL	East 2181260.320	Elv -2.020
POS TP 4208	Nrtn 137391.993 Code EL	East 2181262.070	Elv -0.922
POS TP 4209	Nrtn 137418.416 Code EL	East 2181263.800	Elv 0.170
POS TP 4210	Nrtn 137442.732 Code EL	East 2181265.160	Elv 0.772
POS TP 4211	Nrth 137466.721 Code EL	East 2181266.870	Elv 2.340
POS TP 4212	Nrtn 137494.017 Code BL	East 2181269.040	Elv 3.123
POS TP 4213	Nrth 137525.525 Code EL	East 2181270.590	Elv 2.672
POS TP 4214	Nrtn 137558.429 Code EL	East 2181274.170	Elv 2.434
POS TP 4215	Nrtn 137593.245 Code EL	East 2181276.220	Elv 2.200
POS TP 4216	Nrth 137617.755 Code EL	East 2181277.700	Elv 2.067
POS TP 4217	Nrth 137653.716 Code EL	East 2181280.230	Elv 1.838
POS TP 4218	Nrth 137684.316 Code EL	East 2181282.150	Elv 1.594
POS TP 4219	Nrth 137717.010 Code EL	East 2181284.710	Elv 1.509
POS TP 4220	Nrth 137748.189 Code EL	East 2181286.440	Elv 1.486
POS TP 4221	Nrth 137779.012 Code EL	East 2181288.630	Elv 1.239
POS TP 4222	Nrth 137812.623 Code EL	East 2181291.040	Elv 0.786
POS TP 4223	Nrth 137840.849 Code EL	East 2181292.750	Elv 0.524
POS TP 4224	Nrth 137865.799 Code EL	East 2181294.050	Elv 0.424
POS TP 4225	Nrtn 137894.702 Code EL	East 2181297.000	Elv 0.440
POS TP 4226	Nrth 137923.340 Code EL	East 2181298.940	Elv 0.334
POS TP 4227	Nrth 137951.712 Code EL	East 2181300.540	Elv 0.641

POS TP 4228	Nrth 137991.717 Code EL	East 2181304.280	Elv 1.439
POS TP 4229	Nrth 138024.882 Code EL	East 2181306.[illegible]	Elv 1.762
POS TP 4230	Nrth 138054.684 Code EL	East 2181308.800	Elv 0.514
POS TP 4231	Nrth 138089.021 Code EL	East 2181310.820	Elv -1.608
POS TP 4232	Nrth 138113.865 Code EL	East 2181312.420	Elv -2.055
POS TP 4233	Nrth 138137.024 Code EL	East 2181312.910	Elv -2.279
POS TP 4234	Nrth 138173.565 Code EL	East 2181315.700	Elv -1.729
POS TP 4235	Nrth 138209.346 Code EL	East 2181318.750	Elv -0.554
POS TP 4236	Nrth 138243.942 Code EL	East 2181322.570	Elv -0.362
POS TP 4237	Nrth 138285.357 Code EL	East 2181324.110	Elv -0.419
POS TP 4238	Nrth 138331.014 Code EL	East 2181327.560	Elv -0.625
POS TP 4239	Nrth 138373.549 Code EL	East 2181329.260	Elv -0.988
POS TP 4240	Nrth 138417.277 Code EL	East 2181333.320	Elv -1.456
POS TP 4241	Nrth 138458.951 Code EL	East 2181336.940	Elv -2.131
POS TP 4242	Nrth 138492.354 Code EL	East 2181336.950	Elv -2.580
POS TP 4243	Nrth 138526.105 Code EL	East 2181340.970	Elv -3.159
POS TP 4244	Nrth 138552.032 Code EL	East 2181342.370	Elv -3.339
POS TP 4245	Nrth 138580.348 Code EL	East 2181343.820	Elv -3.530
POS TP 4246	Nrth 138605.247 Code EL	East 2181346.080	Elv -3.965
TRGET	Trget ht 12.710		
POS TP 4247	Nrth 138760.588 Code EL	East 2181354.960	Elv -7.418
POS TP 4248	Nrth 138855.996 Code EL	East 2181359.200	Elv -8.006
NOTE	STA 1400		

POS TP 4249	Nrth 138777.175 Code EL	East 2181160.060	Elv -8.429
POS TP 4250	Nrth 138722.541 Code EL	East 2181157.650	Elv -7.701
POS TP 4251	Nrth 138668.095 Code EL	East 2181157.120	Elv -7.311
POS TP 4252	Nrth 138609.214 Code EL	East 2181154.530	Elv -6.589
POS TP 4253	Nrth 138526.453 Code EL	East 2181149.120	Elv -5.218
POS TP 4254	Nrth 138445.306 Code EL	East 2181147.130	Elv -3.725
POS TP 4255	Nrth 138386.497 Code EL	East 2181141.870	Elv -3.323
TRGET	Trget ht 8.510		
POS TP 4256	Nrth 138347.446 Code EL	East 2181140.140	Elv -2.713
POS TP 4257	Nrth 138309.292 Code EL	East 2181137.650	Elv -2.186
POS TP 4258	Nrth 138273.918 Code EL	East 2181136.520	Elv -1.514
POS TP 4259	Nrth 138228.621 Code EL	East 2181134.060	Elv -0.900
POS TP 4260	Nrth 138192.938 Code EL	East 2181131.790	Elv -1.216
POS TP 4261	Nrth 138154.870 Code EL	East 2181130.090	Elv -1.033
POS TP 4262	Nrth 138121.669 Code EL	East 2181128.660	Elv -0.990
POS TP 4263	Nrth 138093.199 Code EL	East 2181126.420	Elv -0.760
POS TP 4264	Nrth 138064.152 Code EL	East 2181125.410	Elv -0.930
POS TP 4265	Nrth 138038.924 Code EL	East 2181124.470	Elv -0.884
POS TP 4266	Nrth 138008.135 Code EL	East 2181123.220	Elv -0.126
POS TP 4267	Nrth 137975.057 Code EL	East 2181121.370	Elv 2.240
POS TP 4268	Nrth 137951.678 Code EL	East 2181120.560	Elv 0.167
POS TP 4269	Nrth 137930.785 Code EL	East 2181118.570	Elv 0.523

POS TP 4270	Nrth 137908.[illegible] Code EL	East 2181118.[illegible]	Elv -0.[illegible]
POS TP 4271	Nrth 137886.235 Code EL	East 2181117.290	Elv -0.395
POS TP 4272	Nrth 137867.661 Code EL	East 2181115.530	Elv 0.246
POS TP 4273	Nrth 137837.834 Code EL	East 2181114.250	Elv 0.535
POS TP 4274	Nrth 137816.104 Code EL	East 2181113.370	Elv 0.774
POS TP 4275	Nrth 137790.337 Code EL	East 2181113.110	Elv 0.676
POS TP 4276	Nrth 137772.926 Code EL	East 2181111.160	Elv 0.765
POS TP 4277	Nrth 137753.947 Code EL	East 2181110.570	Elv -0.530
POS TP 4278	Nrth 137740.404 Code EL	East 2181108.950	Elv -1.217
POS TP 4279	Nrth 137726.795 Code EL	East 2181108.920	Elv 0.960
POS TP 4280	Nrth 137710.085 Code EL	East 2181108.020	Elv 0.586
POS TP 4281	Nrth 137692.040 Code EL	East 2181107.330	Elv 1.030
POS TP 4282	Nrth 137670.529 Code EL	East 2181105.980	Elv 1.253
POS TP 4283	Nrth 137649.423 Code EL	East 2181105.020	Elv 1.436
POS TP 4284	Nrth 137627.252 Code EL	East 2181104.330	Elv 1.682
POS TP 4285	Nrth 137607.287 Code EL	East 2181103.350	Elv 1.910
POS TP 4286	Nrth 137585.100 Code BL	East 2181101.680	Elv 2.162
POS TP 4287	Nrth 137556.737 Code EL	East 2181100.550	Elv 2.392
POS TP 4288	Nrth 137526.003 Code EL	East 2181098.950	Elv 1.953
POS TP 4289	Nrth 137497.330 Code EL	East 2181097.640	Elv 1.932
POS TP 4290	Nrth 137467.256 Code EL	East 2181095.920	Elv 1.377
POS TP 4291	Nrth 137438.215 Code EL	East 2181094.580	Elv 0.962

POS TP 4292	Nrtn 137407.720 Code EL	East 2181092.090	Elv -0.311
POS TP 4293	Nrtn 137379.522 Code EL	East 2181092.190	Elv -0.544
POS TP 4294	Nrtn 137352.005 Code EL	East 2181089.730	Elv -0.690
POS TP 4295	Nrtn 137326.049 Code EL	East 2181089.000	Elv -1.079
POS TP 4296	Nrtn 137299.210 Code EL	East 2181088.720	Elv -1.721
POS TP 4297	Nrtn 137268.687 Code EL	East 2181084.930	Elv -2.532
POS TP 4298	Nrtn 137236.684 Code EL	East 2181083.690	Elv -3.411
NOTE	STA 1200		
POS TP 4299	Nrtn 137254.867 Code EL	East 2180928.420	Elv -3.540
POS TP 4300	Nrtn 137280.352 Code EL	East 2180928.220	Elv -2.945
POS TP 4301	Nrtn 137306.909 Code EL	East 2180930.080	Elv -2.472
POS TP 4302	Nrtn 137337.059 Code EL	East 2180930.730	Elv -2.467
POS TP 4303	Nrtn 137362.159 Code EL	East 2180931.530	Elv -1.538
POS TP 4304	Nrtn 137385.983 Code EL	East 2180932.910	Elv -1.891
POS TP 4305	Nrtn 137408.254 Code EL	East 2180933.920	Elv -1.215
POS TP 4306	Nrtn 137434.771 Code EL	East 2180935.280	Elv -1.191
POS TP 4307	Nrtn 137470.763 Code EL	East 2180936.910	Elv -1.102
POS TP 4308	Nrtn 137505.381 Code EL	East 2180938.770	Elv -0.607
POS TP 4309	Nrtn 137536.799 Code EL	East 2180940.010	Elv -0.146
POS TP 4310	Nrtn 137569.864 Code EL	East 2180941.120	Elv 0.769
POS TP 4311	Nrtn 137600.946 Code EL	East 2180942.900	Elv 2.080
POS TP 4312	Nrtn 137631.772 Code EL	East 2180943.630	Elv 2.031
POS TP 4313	Nrtn 137659.075 Code EL	East 2180945.540	Elv 1.783

Code EL

POS TP 4314	Nrtn 137690.264 Code EL	East 2180947.170	Elv 2.020
POS TP 4315	Nrtn 137712.040 Code EL	East 2180946.920	Elv 1.818
POS TP 4316	Nrtn 137742.135 Code EL	East 2180948.800	Elv 1.461
POS TP 4317	Nrtn 137774.448 Code EL	East 2180949.780	Elv -0.096
POS TP 4318	Nrtn 137800.079 Code EL	East 2180952.090	Elv 1.016
POS TP 4319	Nrtn 137821.830 Code EL	East 2180952.900	Elv 0.205
POS TP 4320	Nrtn 137842.489 Code EL	East 2180953.410	Elv -0.678
POS TP 4321	Nrtn 137862.492 Code EL	East 2180955.290	Elv 0.172
POS TP 4322	Nrtn 137885.166 Code EL	East 2180954.940	Elv 1.447
POS TP 4323	Nrtn 137912.949 Code EL	East 2180956.250	Elv 1.903
POS TP 4324	Nrtn 137937.764 Code EL	East 2180957.370	Elv 0.980
POS TP 4325	Nrtn 137968.773 Code EL	East 2180959.250	Elv -0.434
POS TP 4326	Nrtn 137991.319 Code EL	East 2180960.130	Elv -0.706
POS TP 4327	Nrtn 138015.924 Code EL	East 2180961.560	Elv -0.845
POS TP 4328	Nrtn 138051.268 Code EL	East 2180962.760	Elv -1.068
POS TP 4329	Nrtn 138082.932 Code EL	East 2180964.780	Elv -1.252
POS TP 4330	Nrtn 138111.138 Code EL	East 2180965.590	Elv -1.418
POS TP 4331	Nrtn 138147.841 Code EL	East 2180967.150	Elv -1.502
POS TP 4332	Nrtn 138179.220 Code EL	East 2180969.170	Elv -1.853
POS TP 4333	Nrtn 138215.339 Code EL	East 2180970.610	Elv -2.642
POS TP 4334	Nrtn 138246.139 Code EL	East 2180972.070	Elv -3.159
POS TP 4335	Nrtn 138274.845	East 2180973.350	Elv -3.408

	Code EL		
POS TP 4336	Nrth 138311.130 Code EL	East 2180974.430	Elv -3.752
POS TP 4337	Nrth 138426.132 Code CHECK	East 2180976.880	Elv -1.374
TRGET	Trget ht 12.710		
POS TP 4338	Nrth 138528.835 Code EL	East 2180986.190	Elv -6.703
POS TP 4339	Nrth 138628.088 Code EL	East 2180987.160	Elv -7.810
NOTE	STA 1000		
POS TP 4340	Nrth 138576.293 Code EL	East 2180829.360	Elv -8.153
POS TP 4341	Nrth 138526.331 Code EL	East 2180828.980	Elv -7.744
POS TP 4342	Nrth 138439.501 Code EL	East 2180823.090	Elv -6.828
POS TP 4343	Nrth 138356.437 Code EL	East 2180818.680	Elv -6.166
POS TP 4344	Nrth 138303.432 Code EL	East 2180615.530	Elv -5.448
POS TP 4345	Nrth 138248.302 Code EL	East 2180814.980	Elv -4.863
POS TP 4346	Nrth 138195.123 Code EL	East 2180809.200	Elv -3.888
POS TP 4347	Nrth 138141.559 Code EL	East 2180810.630	Elv -3.472
POS TP 4348	Nrth 138084.231 Code EL	East 2180807.260	Elv -2.597
TRGET	Trget ht 8.510		
POS TP 4349	Nrth 138052.298 Code EL	East 2180805.130	Elv -1.949
POS TP 4350	Nrth 138018.330 Code EL	East 2180803.070	Elv -1.547
POS TP 4351	Nrth 137988.723 Code EL	East 2180801.410	Elv -1.486
POS TP 4352	Nrth 137952.692 Code EL	East 2180799.880	Elv -1.336
POS TP 4353	Nrth 137922.775 Code EL	East 2180797.850	Elv -1.025
POS TP 4354	Nrth 137896.285 Code EL	East 2180796.020	Elv -0.048
POS TP 4355	Nrth 137873.750	East 2180795.190	Elv 1.138

	Code EL		
POS TP 4356	Nrth 137851.764 Code EL	East 2180793.020	Elv 2.016
POS TP 4357	Nrth 137839.439 Code BL	East 2180792.710	Elv 2.053
POS TP 4358	Nrth 137817.157 Code EL	East 2180791.920	Elv 2.104
POS TP 4359	Nrth 137786.966 Code EL	East 2180789.900	Elv 1.361
POS TP 4360	Nrth 137763.595 Code EL	East 2180788.380	Elv 1.632
POS TP 4361	Nrth 137736.108 Code EL	East 2180787.640	Elv 1.724
POS TP 4362	Nrth 137706.748 Code EL	East 2180785.600	Elv 1.355
POS TP 4363	Nrth 137676.721 Code EL	East 2180784.410	Elv 0.902
POS TP 4364	Nrth 137644.891 Code EL	East 2180782.010	Elv -0.392
POS TP 4365	Nrth 137615.065 Code EL	East 2180781.030	Elv -1.108
POS TP 4366	Nrth 137591.807 Code EL	East 2180779.440	Elv -0.475
POS TP 4367	Nrth 137569.298 Code EL	East 2180777.790	Elv -0.575
POS TP 4368	Nrth 137542.150 Code EL	East 2180777.100	Elv -0.928
POS TP 4369	Nrth 137516.127 Code EL	East 2180775.010	Elv -0.980
POS TP 4370	Nrth 137482.846 Code EL	East 2180773.110	Elv -1.128
POS TP 4371	Nrth 137460.550 Code EL	East 2180771.500	Elv -1.481
POS TP 4372	Nrth 137437.650 Code EL	East 2180770.960	Elv -1.344
POS TP 4373	Nrth 137407.985 Code EL	East 2180769.370	Elv -1.500
POS TP 4374	Nrth 137380.544 Code EL	East 2180767.530	Elv -2.129
POS TP 4375	Nrth 137349.768 Code EL	East 2180766.910	Elv -2.896

* END OF REPORT *

027
388-93-7
LaDNR

027

388-93-7.DXF

SDR20 V03-05	Copyright 1985-92 by Datacom Software Research Limited.		
	Serial no	Oct-27-93 17:54	
	Angle : Degrees	Dist : Feet	Press : Inch Hg
	Temp : Fahrenht	Coord : N-E-Elv	H.obs : Right
JOB	Job ID 388-93-7		
NOTE CP	Sea level crn: N		
NOTE CP	C and R crn: Y		
NOTE CP	Atmos crn: N		
SCALE	S.F. 1.000000000		
NOTE OO	Current view		
NOTE TS	Oct-27-93 08:19		
NOTE	-DNR-CRD PHASE 1 TRNITY ISLAND		
NOTE	-X-SECTIONS		
NOTE	-REF. BK 2094		
NOTE	-D.R. C.P. G.M. R.B. B.O.		
POS KI 0008	Nrth 137790.621	East 2184398.470	Elv 2.780
	Code CP		
POS KI 0009	Nrtn 137481.632	East 2182328.820	Elv 2.800
	Code CP		
POS KI 0010	Nrth 137495.075	East 2181210.610	Elv 3.740
	Code CP		
INSTR	SET	EDM <No text>	Serial no 000000
	Theo <No text>	Serial no 000000	Mount: not applc
	V.obs : Zenith	Edm o/s <Null>	Refl o/s <Null>
	P.C. mm 0.000		
NOTE PC	P.C. mm Applied: 0.000		
STN TP 0008	Nrth 137790.621	East 2184398.470	Elv 2.780
	Theo ht 4.180	Code CP	
NOTE TL	EDM tol. error: Pt: 0009 0.051		
BKB TP 0008-0009	Azmth 261-30'33"	H.obs 0-00'00"	
TRGET	Trget ht 3.820		
OBS F1 0008-0009	Dist 2092.630	V.obs 90-00'35"	H.obs 0-00'00"
	Code CP		

TRGET	Trget ht 8.530		
POS TP 3245	Nrtn 137620.319 Code TBM	East 2183259.220	Elv 8.763
POS TP 3246	Nrtn 137709.089 Code TBM	East 2183352.680	Elv 3.051
NOTE	RD 1		
NOTE	STA 4600		
POS TP 3247	Nrtn 137768.209 Code BL	East 2184247.840	Elv 1.971
POS TP 3248	Nrtn 137806.896 Code EL	East 2184250.740	Elv 1.511
POS TP 3249	Nrtn 137840.106 Code EL	East 2184252.560	Elv 1.269
POS TP 3250	Nrtn 137870.059 Code EL	East 2184254.780	Elv 0.425
POS TP 3251	Nrtn 137901.617 Code EL	East 2184257.200	Elv 1.114
POS TP 3252	Nrtn 137928.581 Code EL	East 2184258.630	Elv 0.897
TRGET	Trget ht 8.510		
POS TP 3253	Nrtn 137952.684 Code EL	East 2184260.020	Elv 0.885
POS TP 3254	Nrtn 137974.827 Code EL	East 2184261.480	Elv -2.350
POS TP 3255	Nrtn 137999.292 Code EL	East 2184263.030	Elv -1.989
POS TP 3256	Nrtn 138031.084 Code EL	East 2184264.400	Elv -1.976
POS TP 3257	Nrtn 138049.173 Code EL	East 2184267.040	Elv -0.466
POS TP 3258	Nrtn 138075.954 Code EL	East 2184268.240	Elv 1.326
POS TP 3259	Nrtn 138104.128 Code EL	East 2184270.600	Elv 1.194
POS TP 3260	Nrtn 138129.455 Code EL	East 2184270.650	Elv 0.902
POS TP 3261	Nrtn 138158.407 Code EL	East 2184274.100	Elv 0.749
POS TP 3262	Nrtn 138171.683 Code EL	East 2184274.770	Elv 0.376
POS TP 3263	Nrtn 138198.335 Code EL	East 2184276.180	Elv -2.145

POS TP 3264	Nrtn 138221.722 Code EL	East 2184277.360	Elv -2.924
POS TP 3265	Nrtn 138238.600 Code EL	East 2184278.320	Elv -1.950
POS TP 3266	Nrtn 138263.779 Code EL	East 2184280.470	Elv -0.871
POS TP 3267	Nrtn 138281.681 Code EL	East 2184281.880	Elv -0.982
POS TP 3268	Nrtn 138305.736 Code EL	east 2184282.660	Elv -1.250
POS TP 3269	Nrtn 138325.590 Code EL	East 2184284.620	Elv -1.226
POS TP 3270	Nrtn 138343.620 Code EL	East 2184285.550	Elv -1.174
POS TP 3271	Nrtn 138361.499 Code EL	East 2184285.900	Elv -1.430
POS TP 3272	Nrtn 138378.961 Code EL	East 2184288.000	Elv -1.441
POS TP 3273	Nrtn 138402.682 Code EL	East 2184289.300	Elv -1.798
POS TP 3274	Nrtn 138426.381 Code EL	East 2184289.570	Elv -2.245
NOTE	STA 4400		
POS TP 3275	Nrtn 138511.843 Code EL	East 2184100.680	Elv -0.762
POS TP 3276	Nrtn 138486.086 Code EL	East 2184098.450	Elv -0.620
POS TP 3277	Nrtn 138461.362 Code EL	East 2184097.670	Elv -0.148
POS TP 3278	Nrtn 138428.437 Code EL	East 2184095.870	Elv 0.685
POS TP 3279	Nrtn 138403.638 Code EL	East 2184093.560	Elv 0.302
POS TP 3280	Nrtn 138376.222 Code EL	East 2184092.170	Elv 0.349
POS TP 3281	Nrtn 138349.991 Code EL	East 2184089.560	Elv 0.533
POS TP 3282	Nrtn 138325.803 Code EL	East 2184088.540	Elv 0.647
POS TP 3283	Nrtn 138299.494 Code EL	East 2184086.220	Elv 0.643
POS TP 3284	Nrtn 138272.864 Code EL	East 2184084.620	Elv 0.828
POS TP 3285	Nrtn 138272.597	East 2184084.600	Elv 0.827

	Code EL		
POS TP 3286	Nrtn 138248.636 Code EL	East 2184083.550	Elv 0.585
POS TP 3287	Nrtn 138220.413 Code EL	East 2184081.830	Elv 0.966
POS TP 3288	Nrtn 138190.528 Code EL	East 2184079.970	Elv 1.219
POS TP 3289	Nrtn 138168.449 Code EL	East 2184077.640	Elv -0.368
POS TP 3290	Nrtn 138143.910 Code EL	East 2184076.990	Elv -1.325
POS TP 3291	Nrtn 138120.595 Code EL	East 2184075.610	Elv -1.232
POS TP 3292	Nrtn 138100.465 Code EL	East 2184073.550	Elv -1.415
POS TP 3293	Nrtn 138072.175 Code EL	East 2184071.600	Elv -1.745
POS TP 3294	Nrtn 138046.695 Code EL	East 2184070.800	Elv -0.962
POS TP 3295	Nrtn 138025.386 Code EL	East 2184069.280	Elv 0.649
POS TP 3296	Nrtn 137997.871 Code EL	East 2184067.790	Elv 0.364
POS TP 3297	Nrtn 137974.557 Code EL	East 2184065.970	Elv 0.415
POS TP 3298	Nrtn 137951.668 Code EL	East 2184064.140	Elv 0.684
POS TP 3299	Nrtn 137927.205 Code EL	East 2184062.420	Elv 0.660
POS TP 3300	Nrtn 137907.882 Code EL	East 2184061.600	Elv 0.649
POS TP 3301	Nrtn 137888.586 Code EL	East 2184060.340	Elv 0.714
POS TP 3302	Nrtn 137849.250 Code EL	East 2184057.350	Elv 0.844
POS TP 3303	Nrtn 137830.231 Code EL	East 2184056.170	Elv 1.134
POS TP 3304	Nrtn 137814.317 Code EL	East 2184054.640	Elv 1.368
POS TP 3305	Nrtn 137788.007 Code EL	East 2184053.210	Elv 1.633
POS TP 3306	Nrtn 137760.768 Code EL	East 2184051.670	Elv 1.769
POS TP 3307	Nrtn 137738.720	East 2184050.170	Elv 2.012

	Code EL		
TRGET	Trget ht 8.530		
POS TP 3308	Nrtn 137717.786 Code EL	East 2184049.380	Elv 2.288
POS TP 3309	Nrtn 137694.699 Code EL	East 2184048.010	Elv 2.791
POS TP 3310	Nrtn 137676.357 Code EL	East 2184046.490	Elv 3.143
POS TP 3311	Nrtn 137659.654 Code EL	East 2184045.700	Elv 2.045
POS TP 3312	Nrtn 137639.501 Code EL	East 2184043.990	Elv 0.255
POS TP 3313	Nrtn 137619.818 Code EL	East 2184043.660	Elv -1.023
POS TP 3314	Nrtn 137599.209 Code EL	East 2184041.550	Elv -1.783
POS TP 3315	Nrtn 137576.143 Code EL	East 2184040.110	Elv -2.346
POS TP 3316	Nrtn 137555.527 Code EL	East 2184038.930	Elv -2.597
POS TP 3317	Nrtn 137532.884 Code EL	East 2184037.810	Elv -2.802
POS TP 3318	Nrtn 137515.524 Code EL	East 2184037.770	Elv -3.138
POS TP 3319	Nrtn 137494.366 Code EL	East 2184035.480	Elv -3.315
POS TP 3320	Nrtn 137476.828 Code EL	East 2184035.240	Elv -3.345
POS TP 3321	Nrtn 137455.598 Code EL	East 2184033.460	Elv -3.523
POS TP 3322	Nrtn 137436.332 Code EL	East 2184031.510	Elv -2.690
POS TP 3323	Nrtn 137417.762 Code EL	East 2184031.390	Elv -2.097
POS TP 3324	Nrtn 137393.445 Code EL	East 2184027.990	Elv -2.525
POS TP 3325	Nrtn 137371.991 Code EL	East 2184026.920	Elv -2.839
POS TP 3326	Nrtn 137350.912 Code EL	East 2184024.100	Elv -3.243
POS TP 3327	Nrtn 137329.994 Code EL	East 2184024.080	Elv -3.462
POS TP 3328	Nrtn 137309.901 Code EL	East 2184024.390	Elv -3.703

POS TP 3329	Nrtn 137289.337 Code EL	East 2184025.220	Elv -3.819
POS TP 3330	Nrtn 137264.260 Code EL	East 2184021.480	Elv -3.837
POS TP 3331	Nrtn 137246.585 Code EL	East 2184017.000	Elv -3.912
POS TP 3332	Nrtn 137218.824 Code EL	East 2184014.280	Elv -4.132
POS TP 3333	Nrtn 137202.965 Code EL	East 2184016.290	Elv -4.211
POS TP 3334	Nrtn 137185.850 Code EL	East 2184013.810	Elv -4.235
POS TP 3335	Nrtn 137172.818 Code EL	East 2184014.760	Elv -4.274
POS TP 3336	Nrtn 137159.944 Code EL	East 2184013.230	Elv -4.353
NOTE	STA 4200		
POS TP 3337	Nrtn 137204.670 Code EL	East 2183830.210	Elv -4.544
POS TP 3338	Nrtn 137221.293 Code EL	East 2183830.330	Elv -4.052
POS TP 3339	Nrtn 137235.816 Code EL	East 2183832.200	Elv -3.844
POS TP 3340	Nrtn 137252.459 Code EL	East 2183832.990	Elv -3.734
POS TP 3341	Nrtn 137274.012 Code EL	East 2183833.960	Elv -3.691
POS TP 3342	Nrtn 137297.384 Code EL	East 2183834.390	Elv -3.611
POS TP 3343	Nrtn 137317.824 Code EL	East 2183835.410	Elv -3.466
POS TP 3344	Nrtn 137338.454 Code EL	East 2183836.740	Elv -3.133
POS TP 3345	Nrtn 137359.914 Code EL	East 2183836.890	Elv -2.812
POS TP 3346	Nrtn 137378.088 Code EL	East 2183838.360	Elv -2.572
POS TP 3347	Nrtn 137402.706 Code EL	East 2183840.370	Elv -2.417
POS TP 3348	Nrtn 137425.943 Code EL	East 2183841.340	Elv -2.610
POS TP 3349	Nrtn 137446.309 Code EL	East 2183841.230	Elv -3.054

POS TP 3350	Nrtn 137466.760 Code EL	East 2183842.090	Elv -3.138
POS TP 3351	Nrtn 137485.874 Code EL	East 2183842.330	Elv -3.299
POS TP 3352	Nrtn 137506.508 Code EL	East 2183843.410	Elv -2.998
POS TP 3353	Nrtn 137529.930 Code EL	East 2183844.200	Elv -2.765
POS TP 3354	Nrtn 137553.777 Code EL	East 2183845.360	Elv -2.511
POS TP 3355	Nrtn 137578.256 Code EL	East 2183846.490	Elv -1.305
POS TP 3356	Nrtn 137601.211 Code EL	East 2183847.220	Elv 0.217
POS TP 3357	Nrtn 137624.096 Code EL	East 2183848.420	Elv 1.850
POS TP 3358	Nrtn 137643.885 Code EL	East 2183849.850	Elv 2.828
POS TP 3359	Nrtn 137665.134 Code EL	East 2183850.640	Elv 2.905
POS TP 3360	Nrtn 137687.378 Code EL	East 2183852.020	Elv 2.427
POS TP 3361	Nrtn 137708.979 Code BL	East 2183852.580	Elv 2.089
TRGET	Trget ht 8.510		
POS TP 3362	Nrtn 137734.590 Code EL	East 2183853.860	Elv 1.840
POS TP 3363	Nrtn 137759.098 Code EL	East 2183855.270	Elv 1.608
POS TP 3364	Nrtn 137784.288 Code EL	East 2183855.700	Elv 1.390
POS TP 3365	Nrtn 137810.489 Code EL	East 2183857.240	Elv 1.357
POS TP 3366	Nrtn 137834.552 Code EL	East 2183858.460	Elv 1.227
POS TP 3367	Nrtn 137860.615 Code EL	East 2183859.510	Elv 0.419
POS TP 3368	Nrtn 137883.998 Code EL	East 2183860.410	Elv 0.349
POS TP 3369	Nrtn 137908.822 Code EL	East 2183862.260	Elv 0.360
POS TP 3370	Nrtn 137931.767 Code EL	East 2183863.550	Elv 0.481
POS TP 3371	Nrtn 137961.599	East 2183863.420	Elv -0.441

	Code EL		
POS TP 3372	Nrth 137992.003 Code EL	East 2183867.230	Elv -0.621
POS TP 3373	Nrth 138016.099 Code EL	East 2183867.160	Elv 0.528
POS TP 3374	Nrth 138040.897 Code EL	East 2183868.430	Elv 0.546
POS TP 3375	Nrth 138064.131 Code EL	East 2183868.860	Elv 0.451
POS TP 3376	Nrth 138087.395 Code EL	East 2183869.790	Elv 0.309
POS TP 3377	Nrth 138110.416 Code EL	East 2183870.990	Elv 0.387
POS TP 3378	Nrth 138135.304 Code EL	East 2183871.950	Elv 0.380
POS TP 3379	Nrth 138159.444 Code EL	East 2183872.130	Elv 0.359
POS TP 3380	Nrth 138204.428 Code EL	East 2183876.020	Elv -1.525
POS TP 3381	Nrth 138232.403 Code EL	East 2183876.680	Elv -1.574
POS TP 3382	Nrth 138262.203 Code EL	East 2183878.020	Elv -1.761
POS TP 3383	Nrth 138290.565 Code EL	East 2183878.840	Elv -1.609
POS TP 3384	Nrth 138326.919 Code EL	East 2183880.690	Elv -1.412
POS TP 3385	Nrth 138356.466 Code EL	East 2183879.050	Elv -1.221
POS TP 3386	Nrth 138386.966 Code EL	East 2183884.720	Elv 0.924
POS TP 3387	Nrth 138413.689 Code EL	East 2183885.470	Elv 0.479
POS TP 3388	Nrth 138437.764 Code EL	East 2183885.490	Elv 0.486
NOTE	STA 4000		
TRGET	Trget ht 8.530		
POS TP 3389	Nrth 137679.665 Code BL	East 2183654.850	Elv 2.469
TRGET	Trget ht 8.510		
POS TP 3390	Nrth 138900.459 Code EL	East 2183735.510	Elv -0.419
POS TP 3391	Nrth 138875.306	East 2183732.130	Elv 1.199

	Code EL		
POS TP 3392	Nrtn 138845.249 Code EL	East 2183730.420	Elv 0.600
POS TP 3393	Nrtn 138822.542 Code EL	East 2183732.150	Elv 1.131
POS TP 3394	Nrtn 138789.447 Code EL	East 2183733.090	Elv 0.662
POS TP 3395	Nrtn 138762.514 Code EL	East 2183735.230	Elv -0.095
POS TP 3396	Nrtn 138735.087 Code EL	East 2183725.050	Elv -0.116
POS TP 3397	Nrtn 138705.432 Code EL	East 2183722.900	Elv -0.200
POS TP 3398	Nrtn 138671.205 Code EL	East 2183721.270	Elv -0.178
POS TP 3399	Nrtn 138640.666 Code EL	East 2183717.780	Elv 0.190
POS TP 3400	Nrtn 138612.829 Code EL	East 2183719.000	Elv 0.490
POS TP 3401	Nrtn 138588.688 Code EL	East 2183718.350	Elv 0.150
POS TP 3402	Nrtn 138560.855 Code EL	East 2183712.970	Elv 0.546
POS TP 3403	Nrtn 138535.496 Code EL	East 2183708.930	Elv 0.489
POS TP 3404	Nrtn 138508.035 Code EL	East 2183707.000	Elv 0.596
POS TP 3405	Nrtn 138482.475 Code EL	East 2183704.890	Elv -0.153
POS TP 3406	Nrtn 138462.080 Code EL	East 2183704.760	Elv -0.080
POS TP 3407	Nrtn 138438.492 Code EL	East 2183702.480	Elv -0.010
POS TP 3408	Nrtn 138403.930 Code EL	East 2183701.700	Elv 0.290
POS TP 3409	Nrtn 138372.074 Code EL	East 2183703.420	Elv 0.532
POS TP 3410	Nrtn 138336.339 Code EL	East 2183698.050	Elv 0.274
POS TP 3411	Nrtn 138299.149 Code EL	East 2183694.950	Elv 0.422
POS TP 3412	Nrtn 138267.394 Code EL	East 2183692.980	Elv 0.612
POS TP 3413	Nrtn 138239.355	East 2183692.420	Elv 0.513

	Code EL		
POS TP 3414	Nrtn 138207.820 Code EL	East 2183691.850	Elv 0.753
POS TP 3415	Nrtn 138168.580 Code EL	East 2183686.660	Elv -1.615
POS TP 3416	Nrtn 138139.059 Code EL	East 2183684.750	Elv -0.882
POS TP 3417	Nrtn 138117.140 Code EL	East 2183684.810	Elv -0.700
POS TP 3418	Nrtn 138069.057 Code EL	East 2183681.220	Elv -0.008
POS TP 3419	Nrtn 138039.456 Code EL	East 2183678.110	Elv 0.383
POS TP 3420	Nrtn 138001.372 Code EL	East 2183676.300	Elv 0.431
POS TP 3421	Nrtn 137972.875 Code EL	East 2183674.710	Elv 0.343
POS TP 3422	Nrtn 137944.669 Code EL	East 2183672.750	Elv 0.332
POS TP 3423	Nrtn 137914.909 Code EL	East 2183669.720	Elv 0.397
POS TP 3424	Nrtn 137887.164 Code EL	East 2183668.660	Elv 0.371
POS TP 3425	Nrtn 137858.746 Code EL	East 2183666.920	Elv 0.402
POS TP 3426	Nrtn 137828.172 Code EL	East 2183664.120	Elv 0.867
POS TP 3427	Nrtn 137799.969 Code EL	East 2183662.050	Elv 1.425
POS TP 3428	Nrtn 137772.739 Code EL	East 2183661.160	Elv 1.572
POS TP 3429	Nrtn 137745.675 Code EL	East 2183659.010	Elv 1.802
POS TP 3430	Nrtn 137719.305 Code EL	East 2183657.890	Elv 2.032
TRGET	Trget ht 8.530		
POS TP 3431	Nrtn 137662.061 Code EL	East 2183653.680	Elv 2.711
POS TP 3432	Nrtn 137637.748 Code EL	East 2183652.200	Elv 3.132
POS TP 3433	Nrtn 137616.874 Code EL	East 2183651.040	Elv 3.371
POS TP 3434	Nrtn 137595.292 Code EL	East 2183649.280	Elv 2.327

POS TP 3435	Nrtn 137570.489 Code EL	East 2183647.660	Elv 1.212
POS TP 3436	Nrtn 137546.776 Code EL	East 2183645.910	Elv -0.349
POS TP 3437	Nrtn 137524.075 Code EL	East 2183644.740	Elv -1.402
POS TP 3438	Nrtn 137503.644 Code EL	East 2183642.520	Elv -2.537
POS TP 3439	Nrtn 137485.151 Code EL	East 2183641.630	Elv -2.902
POS TP 3440	Nrtn 137465.986 Code EL	East 2183642.020	Elv -3.152
POS TP 3441	Nrtn 137444.343 Code EL	East 2183639.180	Elv -3.660
POS TP 3442	Nrtn 137426.185 Code EL	East 2183638.230	Elv -3.681
POS TP 3443	Nrtn 137406.287 Code EL	East 2183637.220	Elv -3.746
POS TP 3444	Nrtn 137389.668 Code EL	East 2183635.790	Elv -3.936
POS TP 3445	Nrtn 137375.430 Code EL	East 2183634.460	Elv -4.063
POS TP 3446	Nrtn 137363.330 Code EL	East 2183632.410	Elv -4.191
POS TP 3447	Nrtn 137350.077 Code EL	East 2183634.280	Elv -4.270
POS TP 3448	Nrtn 137336.203 Code EL	East 2183633.080	Elv -4.553
POS TP 3449	Nrtn 137325.700 Code EL	East 2183632.650	Elv -4.659
POS TP 3450	Nrtn 137317.510 Code EL	East 2183633.980	Elv -3.972
POS TP 3451	Nrtn 137298.555 Code EL	East 2183631.070	Elv -3.321
POS TP 3452	Nrtn 137281.836 Code EL	East 2183629.550	Elv -3.273
POS TP 3453	Nrtn 137260.346 Code EL	East 2183628.690	Elv -3.455
POS TP 3454	Nrtn 137240.656 Code EL	East 2183627.810	Elv -3.617
POS TP 3455	Nrtn 137223.950 Code EL	East 2183626.700	Elv -3.802
POS TP 3456	Nrtn 137206.178 Code EL	East 2183624.770	Elv -4.019

POS TP 3457	Nrth 137185.783 Code EL	East 2183621.730	Elv -4.223
POS TP 3458	Nrth 137171.936 Code EL	East 2183619.640	Elv -4.419
POS TP 3459	Nrth 137159.107 Code EL	East 2183619.280	Elv -4.540
POS TP 3460	Nrth 137144.772 Code EL	East 2183617.630	Elv -4.666
NOTE	STA 3800		
POS TP 3461	Nrth 137132.070 Code EL	East 2183428.450	Elv -4.526
POS TP 3462	Nrth 137147.204 Code EL	East 2183428.380	Elv -4.364
POS TP 3463	Nrth 137165.523 Code EL	East 2183429.860	Elv -4.225
POS TP 3464	Nrth 137183.763 Code EL	East 2183432.210	Elv -4.060
POS TP 3465	Nrth 137198.914 Code EL	East 2183433.060	Elv -3.904
POS TP 3466	Nrth 137215.377 Code EL	East 2183433.190	Elv -3.750
POS TP 3467	Nrth 137234.096 Code EL	East 2183433.960	Elv -3.542
POS TP 3468	Nrth 137256.246 Code EL	East 2183435.600	Elv -3.414
POS TP 3469	Nrth 137274.721 Code EL	East 2183437.230	Elv -3.635
POS TP 3470	Nrth 137292.603 Code EL	East 2183437.260	Elv -4.616
POS TP 3471	Nrth 137316.909 Code EL	East 2183435.420	Elv -4.590
POS TP 3472	Nrth 137353.360 Code EL	East 2183440.180	Elv -4.330
POS TP 3473	Nrth 137385.805 Code EL	East 2183442.100	Elv -3.788
POS TP 3474	Nrth 137408.373 Code EL	East 2183443.000	Elv -3.594
POS TP 3475	Nrth 137431.172 Code EL	East 2183444.650	Elv -3.278
POS TP 3476	Nrth 137453.360 Code EL	East 2183445.800	Elv -2.455
POS TP 3477	Nrth 137477.390 Code EL	East 2183446.650	Elv -1.209

POS TP 3478	Nrth 137503.100 Code EL	East 2183448.920	Elv 0.062
POS TP 3479	Nrth 137524.489 Code EL	East 2183450.110	Elv 0.814
POS TP 3480	Nrth 137549.808 Code EL	East 2183451.740	Elv 2.073
POS TP 3481	Nrth 137576.664 Code EL	East 2183452.840	Elv 3.291
POS TP 3482	Nrth 137603.192 Code EL	East 2183454.570	Elv 3.021
POS TP 3483	Nrth 137629.637 Code EL	East 2183455.890	Elv 2.667
POS TP 3484	Nrth 137650.066 Code BL	East 2183456.600	Elv 2.465
STN TP 0009	Nrth 137481.652 Theo ht 4.268	East 2182328.820 Code CP	Elv 2.800
BKB TP 0009-0010	Azmth 270-41'16"	H.obs 0-00'05"	
TRGET	Trget ht 4.030		
OBS F1 0009-0010	Dist 1118.300 Code CP	V.obs 89-57'50"	H.obs 0-00'05"
TRGET	Trget ht 8.530		
POS TP 3485	Nrth 137620.623 Code TBM	East 2183259.040	Elv 3.686
POS TP 3486	Nrth 137561.458 Code TBM	East 2182863.720	Elv 3.277
TRGET	Trget ht 8.510		
POS TP 3487	Nrth 137675.955 Code EL	East 2183459.140	Elv 2.199
POS TP 3488	Nrth 137700.406 Code EL	East 2183460.240	Elv 2.077
POS TP 3489	Nrth 137726.297 Code EL	East 2183461.440	Elv 1.900
POS TP 3490	Nrth 137755.445 Code EL	East 2183463.700	Elv 1.642
POS TP 3491	Nrth 137787.345 Code EL	East 2183465.080	Elv 1.410
POS TP 3492	Nrth 137814.208 Code EL	East 2183466.610	Elv 1.288
POS TP 3493	Nrth 137839.165 Code EL	East 2183467.920	Elv 1.047
POS TP 3494	Nrth 137861.857 Code EL	East 2183468.920	Elv 0.744
POS TP 3495	Nrth 137880.569	East 2183470.450	Elv 0.611

	Code EL		
POS TP 3496	Nrth 137909.903 Code EL	East 2183471.120	Elv 0.422
POS TP 3497	Nrth 137939.187 Code EL	East 2183473.240	Elv 0.292
POS TP 3498	Nrth 137970.574 Code EL	East 2183474.790	Elv 0.553
POS TP 3499	Nrth 137998.917 Code EL	East 2183476.380	Elv 0.574
POS TP 3500	Nrth 138025.467 Code EL	East 2183477.630	Elv 0.501
POS TP 3501	Nrth 138050.197 Code EL	East 2183479.620	Elv -0.226
POS TP 3502	Nrth 138077.222 Code EL	East 2183481.150	Elv -0.747
POS TP 3503	Nrth 138112.022 Code EL	East 2183483.280	Elv -0.928
POS TP 3504	Nrth 138135.247 Code EL	East 2183485.630	Elv -0.858
POS TP 3505	Nrth 138153.894 Code EL	East 2183485.090	Elv -0.368
POS TP 3506	Nrth 138183.512 Code EL	East 2183487.110	Elv 0.566
POS TP 3507	Nrth 138226.854 Code EL	East 2183488.990	Elv 0.369
POS TP 3508	Nrth 138253.368 Code EL	East 2183490.970	Elv -0.117
POS TP 3509	Nrth 138270.444 Code EL	East 2183491.510	Elv 0.370
POS TP 3510	Nrth 138292.156 Code EL	East 2183488.680	Elv -0.200
POS TP 3511	Nrth 138312.418 Code EL	East 2183493.520	Elv -0.602
POS TP 3512	Nrth 138332.776 Code EL	East 2183496.020	Elv 0.317
POS TP 3513	Nrth 138360.708 Code EL	East 2183497.270	Elv 0.232
POS TP 3514	Nrth 138391.743 Code EL	East 2183498.720	Elv -0.067
POS TP 3515	Nrth 138419.817 Code EL	East 2183499.970	Elv -0.559
POS TP 3516	Nrth 138451.910 Code EL	East 2183501.620	Elv 0.524
POS TP 3517	Nrth 138484.039	East 2183503.630	Elv 0.367

	Code EL		
POS TP 3518	Nrtn 138528.463 Code EL	East 2183506.470	Elv -0.474
POS TP 3519	Nrtn 138565.980 Code EL	East 2183508.520	Elv 0.397
POS TP 3520	Nrtn 138601.374 Code EL	East 2183510.780	Elv 0.744
POS TP 3521	Nrtn 138642.105 Code EL	East 2183513.560	Elv 0.424
POS TP 3522	Nrtn 138675.266 Code EL	East 2183514.950	Elv 1.028
POS TP 3523	Nrtn 138703.105 Code EL	East 2183515.720	Elv 0.971
POS TP 3524	Nrtn 138728.197 Code EL	East 2183517.520	Elv 0.247
POS TP 3525	Nrtn 138759.424 Code EL	East 2183519.330	Elv -0.406
POS TP 3526	Nrtn 138780.800 Code EL	East 2183519.690	Elv -1.634
POS TP 3527	Nrtn 138801.469 Code EL	East 2183521.030	Elv -2.024
POS TP 3528	Nrtn 138816.746 Code EL	East 2183519.990	Elv -2.287
POS TP 3529	Nrtn 138834.048 Code EL	East 2183520.550	Elv -2.511
NOTE	STA 3600		
TRGET	Trget ht 8.530		
POS TP 3530	Nrtn 137620.445 Code BL	East 2183259.080	Elv 2.409
TRGET	Trget ht 8.510		
POS TP 3531	Nrtn 138675.032 Code EL	East 2183316.620	Elv -3.533
POS TP 3532	Nrtn 138772.360 Code EL	East 2183322.360	Elv -4.151
POS TP 3533	Nrtn 138723.735 Code EL	East 2183320.620	Elv -3.895
POS TP 3534	Nrtn 138665.000 Code EL	East 2183317.050	Elv -3.411
POS TP 3535	Nrtn 138613.401 Code EL	East 2183313.850	Elv -3.214
POS TP 3536	Nrtn 138575.652 Code EL	East 2183313.680	Elv -2.932
POS TP 3537	Nrtn 138532.233	East 2183308.420	Elv -2.514

	Code EL		
POS TP 3538	Nrtn 138494.982 Code EL	East 2183306.590	Elv -1.674
POS TP 3539	Nrtn 138475.259 Code EL	East 2183305.290	Elv 0.658
POS TP 3540	Nrtn 138445.865 Code EL	East 2183303.760	Elv 0.757
POS TP 3541	Nrtn 138420.630 Code EL	East 2183302.260	Elv 0.268
POS TP 3542	Nrtn 138399.100 Code EL	East 2183300.470	Elv 0.117
POS TP 3543	Nrtn 138380.998 Code EL	East 2183301.510	Elv 0.649
POS TP 3544	Nrtn 138358.269 Code EL	East 2183299.660	Elv 0.559
POS TP 3545	Nrtn 138334.553 Code EL	East 2183298.580	Elv 0.565
POS TP 3546	Nrtn 138313.158 Code EL	East 2183297.210	Elv 0.293
POS TP 3547	Nrtn 138291.803 Code EL	East 2183296.620	Elv 0.182
POS TP 3548	Nrtn 138265.268 Code EL	East 2183294.220	Elv 0.579
POS TP 3549	Nrtn 138236.108 Code EL	East 2183293.480	Elv 0.370
POS TP 3550	Nrtn 138209.501 Code EL	East 2183291.560	Elv 0.402
POS TP 3551	Nrtn 138188.462 Code EL	East 2183290.790	Elv 0.555
POS TP 3552	Nrtn 138165.287 Code EL	East 2183290.350	Elv 0.846
POS TP 3553	Nrtn 138140.728 Code EL	East 2183288.340	Elv 0.646
POS TP 3554	Nrtn 138121.013 Code EL	East 2183287.160	Elv 0.037
POS TP 3555	Nrtn 138098.212 Code EL	East 2183285.650	Elv -1.250
POS TP 3556	Nrtn 138073.907 Code EL	East 2183282.910	Elv -0.981
POS TP 3557	Nrtn 138059.224 Code EL	East 2183283.250	Elv 0.422
POS TP 3558	Nrtn 138042.844 Code EL	East 2183283.130	Elv 0.515
POS TP 3559	Nrtn 138031.996	East 2183282.160	Elv -0.430

Code EL

POS TP 3560	Nrtn 138017.657 Code EL	East 2183281.220	Elv -0.835
POS TP 3561	Nrtn 137999.161 Code EL	East 2183280.760	Elv 0.263
POS TP 3562	Nrtn 137978.533 Code EL	East 2183279.610	Elv 0.714
POS TP 3563	Nrtn 137952.783 Code EL	East 2183277.860	Elv 0.662
POS TP 3564	Nrtn 137933.947 Code EL	East 2183276.560	Elv 0.566
POS TP 3565	Nrtn 137915.176 Code EL	East 2183276.160	Elv 0.474
POS TP 3566	Nrtn 137896.172 Code EL	East 2183274.630	Elv 0.658
POS TP 3567	Nrtn 137873.720 Code EL	East 2183273.490	Elv 0.861
POS TP 3568	Nrtn 137863.604 Code EL	East 2183272.620	Elv 0.974
POS TP 3569	Nrtn 137835.264 Code EL	East 2183270.920	Elv 1.164
POS TP 3570	Nrtn 137815.110 Code EL	East 2183269.700	Elv 1.240
POS TP 3571	Nrtn 137795.097 Code EL	East 2183268.500	Elv 1.340
POS TP 3572	Nrtn 137777.140 Code EL	East 2183267.750	Elv 1.441
POS TP 3573	Nrtn 137759.235 Code EL	East 2183266.530	Elv 1.565
POS TP 3574	Nrtn 137739.228 Code EL	East 2183265.740	Elv 1.710
POS TP 3575	Nrtn 137719.798 Code EL	East 2183264.640	Elv 1.807
POS TP 3576	Nrtn 137699.545 Code EL	East 2183263.540	Elv 1.881
POS TP 3577	Nrtn 137679.650 Code EL	East 2183262.690	Elv 1.978
POS TP 3578	Nrtn 137660.051 Code EL	East 2183261.350	Elv 2.098
POS TP 3579	Nrtn 137641.315 Code EL	East 2183260.330	Elv 2.196
TRGET	Trget ht 8.530		
POS TP 3580	Nrtn 137604.577 Code EL	East 2183258.040	Elv 2.578

POS TP 3581	Nrtn 137583.385 Code EL	East 2183257.160	Elv 2.835
POS TP 3582	Nrtn 137557.604 Code EL	East 2183255.720	Elv 3.155
POS TP 3583	Nrtn 137532.005 Code EL	East 2183253.650	Elv 2.956
POS TP 3584	Nrtn 137506.964 Code EL	East 2183252.800	Elv 1.760
POS TP 3585	Nrtn 137482.766 Code EL	East 2183251.220	Elv 0.948
POS TP 3586	Nrtn 137469.873 Code EL	East 2183250.530	Elv 1.125
POS TP 3587	Nrtn 137445.444 Code EL	East 2183249.710	Elv -0.417
POS TP 3588	Nrtn 137423.709 Code EL	East 2183248.670	Elv -1.489
POS TP 3589	Nrtn 137401.572 Code EL	East 2183247.170	Elv -2.495
POS TP 3590	Nrtn 137377.788 Code EL	East 2183245.130	Elv -3.143
POS TP 3591	Nrtn 137356.057 Code EL	East 2183244.340	Elv -3.662
POS TP 3592	Nrtn 137332.306 Code EL	East 2183243.720	Elv -4.073
POS TP 3593	Nrtn 137312.791 Code EL	East 2183243.360	Elv -4.420
POS TP 3594	Nrtn 137293.690 Code EL	East 2183240.890	Elv -4.537
POS TP 3595	Nrtn 137274.296 Code EL	East 2183236.690	Elv -4.401
POS TP 3596	Nrtn 137257.446 Code EL	East 2183239.320	Elv -4.240
POS TP 3597	Nrtn 137240.487 Code EL	East 2183237.830	Elv -3.952
POS TP 3598	Nrtn 137221.929 Code EL	East 2183237.980	Elv -3.575
POS TP 3599	Nrtn 137203.396 Code EL	East 2183237.050	Elv -3.470
POS TP 3600	Nrtn 137184.423 Code EL	East 2183234.170	Elv -3.476
POS TP 3601	Nrtn 137164.174 Code EL	East 2183234.750	Elv -3.723
POS TP 3602	Nrtn 137145.691 Code EL	East 2183235.410	Elv -4.044

POS TP 3603	Nrtn 137129.262 Code EL	East 2183231.610	Elv -4.309
POS TP 3604	Nrtn 137115.523 Code EL	East 2183233.010	Elv -4.492
NOTE	STA 3400		
POS TP 3605	Nrtn 137116.028 Code EL	East 2183032.170	Elv -4.408
POS TP 3606	Nrtn 137130.363 Code EL	East 2183032.560	Elv -4.234
POS TP 3607	Nrtn 137144.872 Code EL	East 2183036.610	Elv -4.071
POS TP 3608	Nrtn 137162.556 Code EL	East 2183033.890	Elv -3.926
POS TP 3609	Nrtn 137182.828 Code EL	East 2183036.520	Elv -3.945
POS TP 3610	Nrtn 137202.694 Code EL	East 2183036.590	Elv -4.198
POS TP 3611	Nrtn 137231.308 Code EL	East 2183037.130	Elv -4.437
POS TP 3612	Nrtn 137251.142 Code EL	East 2183038.430	Elv -4.543
POS TP 3613	Nrtn 137272.241 Code EL	East 2183039.000	Elv -4.340
POS TP 3614	Nrtn 137293.891 Code EL	East 2183042.120	Elv -4.312
POS TP 3615	Nrtn 137311.301 Code EL	East 2183043.180	Elv -3.801
POS TP 3616	Nrtn 137330.723 Code EL	East 2183045.530	Elv -3.262
POS TP 3617	Nrtn 137351.191 Code EL	East 2183047.480	Elv -2.513
POS TP 3618	Nrtn 137370.408 Code EL	East 2183047.630	Elv -1.486
POS TP 3619	Nrtn 137386.998 Code EL	East 2183048.170	Elv -0.765
POS TP 3620	Nrtn 137412.644 Code EL	East 2183050.230	Elv 0.147
POS TP 3621	Nrtn 137439.875 Code EL	East 2183051.480	Elv 0.532
POS TP 3622	Nrtn 137445.149 Code EL	East 2183051.760	Elv -0.328
POS TP 3623	Nrtn 137464.713 Code EL	East 2183053.440	Elv 1.852

POS TP 3624	Nrth 137480.740 Code EL	East 2183054.720	Elv 2.733
POS TP 3625	Nrth 137515.689 Code EL	East 2183056.640	Elv 3.353
POS TP 3626	Nrth 137543.428 Code EL	East 2183058.380	Elv 3.022
POS TP 3627	Nrth 137567.077 Code EL	East 2183059.710	Elv 2.741
POS TP 3628	Nrth 137590.952 Code BL	East 2183061.890	Elv 2.592
TRGET	Trget ht 8.510		
POS TP 3629	Nrth 137621.195 Code EL	East 2183063.150	Elv 2.338
POS TP 3630	Nrth 137649.147 Code EL	East 2183065.080	Elv 2.578
POS TP 3631	Nrth 137678.571 Code EL	East 2183067.830	Elv 2.000
POS TP 3632	Nrth 137708.385 Code EL	East 2183068.900	Elv 1.666
POS TP 3633	Nrth 137737.521 Code EL	East 2183070.470	Elv 1.614
POS TP 3634	Nrth 137766.017 Code EL	East 2183072.480	Elv 1.466
POS TP 3635	Nrth 137796.562 Code EL	East 2183074.380	Elv 1.475
POS TP 3636	Nrth 137826.481 Code EL	East 2183076.060	Elv 1.325
POS TP 3637	Nrth 137855.928 Code EL	East 2183078.280	Elv 0.197
POS TP 3638	Nrth 137886.948 Code EL	East 2183079.980	Elv -0.765
POS TP 3639	Nrth 137915.743 Code EL	East 2183084.330	Elv 0.834
POS TP 3640	Nrth 137951.151 Code EL	East 2183084.050	Elv 0.514
POS TP 3641	Nrth 137979.488 Code EL	East 2183086.990	Elv 0.510
POS TP 3642	Nrth 138028.766 Code EL	East 2183088.900	Elv 0.801
POS TP 3643	Nrth 138056.354 Code EL	East 2183090.600	Elv 0.612
POS TP 3644	Nrth 138091.715 Code EL	East 2183097.770	Elv -1.327
POS TP 3645	Nrth 138128.276	East 2183094.120	Elv 0.692

	Code EL		
POS TP 3646	Nrth 138160.208 Code EL	East 2183096.680	Elv 0.145
POS TP 3647	Nrth 138196.083 Code EL	East 2183100.570	Elv 0.518
POS TP 3648	Nrth 138229.397 Code EL	East 2183100.890	Elv 0.249
POS TP 3649	Nrth 138274.425 Code EL	East 2183103.820	Elv -1.067
POS TP 3650	Nrth 138294.533 Code EL	East 2183105.180	Elv -1.797
POS TP 3651	Nrth 138317.439 Code EL	East 2183107.310	Elv -2.080
POS TP 3652	Nrth 138341.234 Code EL	East 2183109.960	Elv -2.231
POS TP 3653	Nrth 138366.158 Code EL	East 2183111.300	Elv -2.587
POS TP 3654	Nrth 138382.970 Code EL	East 2183112.680	Elv -2.745
POS TP 3655	Nrth 138403.931 Code EL	East 2183112.440	Elv -2.879
POS TP 3656	Nrth 138423.543 Code EL	East 2183114.200	Elv -3.284
POS TP 3657	Nrth 138444.360 Code EL	East 2183115.280	Elv -3.158
POS TP 3658	Nrth 138465.646 Code EL	East 2183118.800	Elv -3.214
POS TP 3659	Nrth 138492.773 Code EL	East 2183121.730	Elv -3.339
POS TP 3660	Nrth 138521.679 Code EL	East 2183121.720	Elv -3.467
POS TP 3661	Nrth 138545.371 Code EL	East 2183123.110	Elv -3.626
POS TP 3662	Nrth 138577.488 Code EL	East 2183122.930	Elv -3.832
POS TP 3663	Nrth 138619.199 Code EL	East 2183126.090	Elv -4.029
POS TP 3664	Nrth 138669.249 Code EL	East 2183129.040	Elv -4.281
POS TP 3665	Nrth 138717.180 Code EL	East 2183136.820	Elv -4.367
NOTE	STA 3200		
POS TP 3666	Nrth 138750.241 Code EL	East 2183141.210	Elv -4.536

POS TP 3667	Nrtn 138582.263 Code EL	East 2182921.050	Elv -4.107
POS TP 3668	Nrtn 138543.498 Code EL	East 2182918.900	Elv -4.032
POS TP 3669	Nrtn 138492.649 Code EL	East 2182915.690	Elv -3.908
POS TP 3670	Nrtn 138437.970 Code EL	East 2182913.170	Elv -3.698
POS TP 3671	Nrtn 138394.101 Code EL	East 2182910.740	Elv -3.543
POS TP 3672	Nrtn 138339.366 Code EL	East 2182907.210	Elv -3.326
POS TP 3673	Nrtn 138287.189 Code EL	East 2182903.380	Elv -3.101
POS TP 3674	Nrtn 138233.790 Code EL	East 2182901.430	Elv -2.867
POS TP 3675	Nrtn 138198.773 Code EL	East 2182898.600	Elv -2.513
POS TP 3676	Nrtn 138162.685 Code EL	East 2182896.610	Elv -1.963
POS TP 3677	Nrtn 138110.051 Code EL	East 2182894.640	Elv 0.663
POS TP 3678	Nrtn 138077.654 Code EL	East 2182891.450	Elv 0.598
POS TP 3679	Nrtn 138038.899 Code EL	East 2182890.660	Elv 0.547
POS TP 3680	Nrtn 138005.899 Code EL	East 2182887.850	Elv 0.502
POS TP 3681	Nrtn 137974.917 Code EL	East 2182886.880	Elv 0.628
POS TP 3682	Nrtn 137922.904 Code EL	East 2182883.970	Elv -0.778
POS TP 3683	Nrtn 137886.296 Code EL	East 2182881.820	Elv -0.602
POS TP 3684	Nrtn 137862.326 Code EL	East 2182880.960	Elv -0.311
POS TP 3685	Nrtn 137823.324 Code EL	East 2182878.280	Elv 0.245
POS TP 3686	Nrtn 137785.740 Code EL	East 2182877.040	Elv 0.390
POS TP 3687	Nrtn 137751.038 Code EL	East 2182875.260	Elv 0.087
POS TP 3688	Nrtn 137716.465 Code EL	East 2182872.350	Elv 1.206

POS TP 3689	Nrtn 137683.623 Code EL	East 2182869.550	Elv 1.643
POS TP 3690	Nrtn 137651.258 Code EL	East 2182868.030	Elv 1.826
POS TP 3691	Nrtn 137618.946 Code EL	East 2182866.480	Elv 1.968
POS TP 3692	Nrtn 137592.073 Code EL	East 2182865.110	Elv 2.068
POS TP 3693	Nrtn 137561.730 Code BL	East 2182863.940	Elv 2.289
TRGET	Trget ht 8.530		
POS TP 3694	Nrtn 137544.437 Code EL	East 2182862.300	Elv 2.359
POS TP 3695	Nrtn 137522.112 Code EL	East 2182860.750	Elv 2.527
POS TP 3696	Nrtn 137497.767 Code EL	East 2182859.730	Elv 2.806
POS TP 3697	Nrtn 137469.235 Code EL	East 2182858.340	Elv 3.179
POS TP 3698	Nrtn 137443.229 Code EL	East 2182856.740	Elv 2.804
POS TP 3699	Nrtn 137416.064 Code EL	East 2182855.690	Elv 1.903
POS TP 3700	Nrtn 137407.511 Code EL	East 2182854.680	Elv 1.595
POS TP 3701	Nrtn 137385.627 Code EL	East 2182853.730	Elv -0.279
POS TP 3702	Nrtn 137371.767 Code EL	East 2182853.780	Elv 0.312
POS TP 3703	Nrtn 137351.256 Code EL	East 2182851.700	Elv 0.242
POS TP 3704	Nrtn 137328.421 Code EL	East 2182850.150	Elv -0.402
POS TP 3705	Nrtn 137304.359 Code EL	East 2182848.580	Elv -1.482
POS TP 3706	Nrtn 137284.719 Code EL	East 2182847.550	Elv -1.994
POS TP 3707	Nrtn 137266.441 Code EL	East 2182846.890	Elv -2.516
POS TP 3708	Nrtn 137247.734 Code EL	East 2182845.580	Elv -2.817
POS TP 3709	Nrtn 137229.704 Code EL	East 2182845.290	Elv -3.531

POS TP 3710	Nrtn 137212.361 Code EL	East 2182844.440	Elv -3.666
POS TP 3711	Nrtn 137196.760 Code EL	East 2182843.660	Elv -4.008
POS TP 3712	Nrtn 137175.926 Code EL	East 2182841.400	Elv -4.059
POS TP 3713	Nrtn 137154.626 Code EL	East 2182842.260	Elv -3.860
POS TP 3714	Nrtn 137136.766 Code EL	East 2182840.580	Elv -3.633
POS TP 3715	Nrtn 137116.741 Code EL	East 2182838.020	Elv -3.914
POS TP 3716	Nrtn 137091.099 Code EL	East 2182838.970	Elv -4.381
POS TP 3717	Nrtn 137076.376 Code EL	East 2182835.740	Elv -4.679
POS TP 3718	Nrtn 137065.248 Code EL	East 2182838.340	Elv -4.962
NOTE	STA 3000		
POS TP 3719	Nrtn 137104.012 Code EL	East 2182652.750	Elv -3.616
POS TP 3720	Nrtn 137118.104 Code EL	East 2182652.870	Elv -3.429
POS TP 3721	Nrtn 137134.875 Code EL	East 2182653.670	Elv -3.209
POS TP 3722	Nrtn 137153.823 Code EL	East 2182655.320	Elv -2.927
POS TP 3723	Nrtn 137170.783 Code EL	East 2182655.340	Elv -2.671
POS TP 3724	Nrtn 137194.054 Code EL	East 2182655.690	Elv -2.292
POS TP 3725	Nrtn 137211.534 Code EL	East 2182655.980	Elv -1.654
POS TP 3726	Nrtn 137228.322 Code EL	East 2182656.120	Elv -1.238
POS TP 3727	Nrtn 137250.811 Code EL	East 2182654.920	Elv -0.955
POS TP 3728	Nrtn 137274.638 Code EL	East 2182656.250	Elv -0.201
POS TP 3729	Nrtn 137301.533 Code EL	East 2182658.080	Elv 0.715
POS TP 3730	Nrtn 137317.049 Code EL	East 2182658.620	Elv 0.766
POS TP 3731	Nrtn 137330.328	East 2182658.620	Elv -0.536

	Code EL		
POS TP 3732	Nrth 137353.883 Code EL	East 2182659.410	Elv 0.706
POS TP 3733	Nrth 137376.972 Code EL	East 2182660.690	Elv 2.128
POS TP 3734	Nrth 137408.437 Code EL	East 2182661.660	Elv 3.142
POS TP 3735	Nrth 137437.114 Code EL	East 2182662.730	Elv 2.697
POS TP 3736	Nrth 137465.215 Code EL	East 2182663.380	Elv 2.422
POS TP 3737	Nrth 137494.485 Code EL	East 2182664.620	Elv 2.247
POS TP 3738	Nrth 137521.484 Code EL	East 2182665.520	Elv 2.033
POS TP 3739	Nrth 137531.810 Code BL	East 2182666.020	Elv 1.986

* END OF REPORT *

026
388-93-6
La DNR

026

388-93-6

SDR20 V03-05	Copyright 1985-92 by Datacom Software Research Limited.		
	Serial no	Oct-26-93 18:22	
	Angle : Degrees	Dist : Feet	Press : Inch Hg
	Temp : Fahrenht	Coord : N-E-Elv	H.obs : Right
JOB	Job ID 388-93-6		
NOTE CP	Sea level crn: N		
NOTE CP	C and R crn: Y		
NOTE CP	Atmos crn: N		
SCALE	S.F. 1.000000000		
NOTE OO	Current view		
NOTE TS	Oct-25-93 11:25		
NOTE	-DNR-CRD PHASE 1 TRNITY ISLAND		
NOTE	-X-SECTIONS		
NOTE	-REF. 2094		
NOTE	-D.R. C.P. G.M. R.B. B.O.		
POS KI 0006	Nrth 138190.224	East 2188137.920	Elv 2.960
	Code CP		
POS KI 0007	Nrth 137614.956	East 2185813.210	Elv 2.060
	Code CP		
POS KI 0008	Nrth 137790.621	East 2184398.470	Elv 2.780
	Code CP		
INSTR	SET	EDM <No text>	Serial no 000000
	Theo <No text>	Serial no 000000	Mount: not applc
	V.obs : Zenith	Edm o/s <Null>	Refl o/s <Null>
	P.C. mm 0.000		
NOTE PC	P.C. mm Applied: 0.000		
STN TP 0007	Nrth 137614.956	East 2185813.210	Elv 2.060
	Theo ht 4.068	Code CP	
NOTE TL	EDM tol. error:	Pt: 0006 0.030	
BKB TP 0007-0006	Azmth 76-06'03"	H.obs 0-00'00"	
TRGET	Trget ht 3.980		
OBS F1 0007-0006	Dist 2394.860	V.obs 89-59'00"	H.obs 0-00'00"
	Code CP		

TRGET	Trget ht 8.530		
POS TP 2458	Nrth 137764.624 Code TBM	East 2186417.600	Elv 2.738
POS TP 2459	Nrth 137764.567 Code TBM	East 2186417.930	Elv 2.725
NOTE	<No text>		
NOTE	<No text>		
POS TP 2460	Nrth 137908.741 Code TBM	East 2186999.930	Elv 1.333
NOTE	RD 1		
NOTE	STA 7200		
POS TP 2461	Nrth 137860.666 Code BL	East 2186806.150	Elv 0.446
POS TP 2462	Nrth 137836.802 Code EL	East 2186804.750	Elv 0.452
POS TP 2463	Nrth 137806.380 Code EL	East 2186801.930	Elv 0.377
POS TP 2464	Nrth 137776.591 Code EL	East 2186800.510	Elv 0.286
POS TP 2465	Nrth 137750.083 Code EL	East 2186798.180	Elv 0.293
POS TP 2466	Nrth 137721.103 Code EL	East 2186797.120	Elv 0.281
POS TP 2467	Nrth 137692.021 Code EL	East 2186794.440	Elv 0.099
POS TP 2468	Nrth 137662.781 Code EL	East 2186792.840	Elv -0.266
POS TP 2469	Nrth 137631.641 Code EL	East 2186790.370	Elv -0.534
POS TP 2470	Nrth 137604.156 Code EL	East 2186788.830	Elv -0.703
POS TP 2471	Nrth 137575.541 Code EL	East 2186786.510	Elv -0.895
POS TP 2472	Nrth 137547.631 Code EL	East 2186784.570	Elv -1.273
POS TP 2473	Nrth 137518.396 Code EL	East 2186782.360	Elv -1.226
POS TP 2474	Nrth 137480.970 Code EL	East 2186779.890	Elv -1.791
POS TP 2475	Nrth 137452.230 Code EL	East 2186777.920	Elv -2.193
POS TP 2476	Nrth 137426.610	East 2186774.620	Elv -2.282

	Code EL		
POS TP 2477	Nrth 137401.688 Code EL	East 2186774.910	Elv -3.075
NOTE	STA 7000		
POS TP 2478	Nrth 137362.474 Code EL	East 2186586.530	Elv -3.039
POS TP 2479	Nrth 137379.592 Code EL	East 2186587.300	Elv -2.545
POS TP 2480	Nrth 137396.276 Code EL	East 2186586.540	Elv -2.252
POS TP 2481	Nrth 137417.555 Code EL	East 2186588.380	Elv -1.574
POS TP 2482	Nrth 137437.447 Code EL	East 2186588.460	Elv -1.252
POS TP 2483	Nrth 137459.491 Code EL	East 2186590.780	Elv -1.332
POS TP 2484	Nrth 137480.219 Code EL	East 2186591.160	Elv -1.164
POS TP 2485	Nrth 137501.038 Code EL	East 2186592.680	Elv -0.842
POS TP 2486	Nrth 137522.880 Code EL	East 2186594.790	Elv -0.424
POS TP 2487	Nrth 137546.733 Code EL	East 2186595.040	Elv -0.449
POS TP 2488	Nrth 137572.193 Code EL	East 2186596.590	Elv -0.183
POS TP 2489	Nrth 137595.686 Code EL	East 2186598.840	Elv -0.027
POS TP 2490	Nrth 137620.238 Code EL	East 2186598.900	Elv -0.294
POS TP 2491	Nrth 137643.288 Code EL	East 2186601.340	Elv -0.114
POS TP 2492	Nrth 137667.962 Code EL	East 2186602.760	Elv 0.181
POS TP 2493	Nrth 137691.931 Code EL	East 2186605.120	Elv 0.080
POS TP 2494	Nrth 137714.796 Code EL	East 2186605.950	Elv 0.439
POS TP 2495	Nrth 137740.830 Code EL	East 2186607.660	Elv 0.731
POS TP 2496	Nrth 137763.111 Code EL	East 2186608.890	Elv 1.398
POS TP 2497	Nrth 137781.864 Code EL	East 2186610.390	Elv 1.481

POS TP 2498	Nrth 137800.512 Code EL	East 2186611.270	Elv 1.624
POS TP 2499	Nrth 137812.842 Code BL	East 2186611.980	Elv 1.661
TRGET	Trget ht 8.510		
POS TP 2500	Nrth 137849.911 Code EL	East 2186614.010	Elv 1.780
POS TP 2501	Nrth 137881.479 Code EL	East 2186615.490	Elv 1.403
POS TP 2502	Nrth 137908.683 Code EL	East 2186617.830	Elv 0.104
POS TP 2503	Nrth 137946.666 Code EL	East 2186619.590	Elv -0.760
POS TP 2504	Nrth 137967.229 Code EL	East 2186621.010	Elv -0.507
POS TP 2505	Nrth 137985.025 Code EL	East 2186623.620	Elv 0.139
POS TP 2506	Nrth 138001.243 Code EL	East 2186624.330	Elv 1.337
POS TP 2507	Nrth 138025.550 Code EL	East 2186625.010	Elv 1.208
POS TP 2508	Nrth 138061.617 Code EL	East 2186627.260	Elv 0.989
POS TP 2509	Nrth 138090.019 Code EL	East 2186629.030	Elv 0.703
POS TP 2510	Nrth 138114.677 Code EL	East 2186630.530	Elv 0.586
POS TP 2511	Nrth 138139.830 Code EL	East 2186632.390	Elv 1.151
POS TP 2512	Nrth 138164.628 Code EL	East 2186633.860	Elv 1.325
POS TP 2513	Nrth 138198.214 Code EL	East 2186635.740	Elv 1.403
POS TP 2514	Nrth 138232.288 Code EL	East 2186643.930	Elv 1.127
POS TP 2515	Nrth 138237.297 Code EL	East 2186636.450	Elv 0.917
POS TP 2516	Nrth 138269.176 Code EL	East 2186639.980	Elv -0.085
POS TP 2517	Nrth 138299.236 Code EL	East 2186642.520	Elv -0.612
POS TP 2518	Nrth 138327.396 Code EL	East 2186644.050	Elv -0.766

POS TP 2519	Nrth 138352.218 Code EL	East 2186645.910	Elv -0.793
POS TP 2520	Nrth 138368.491 Code EL	East 2186645.810	Elv -0.913
POS TP 2521	Nrth 138396.464 Code EL	East 2186647.400	Elv -0.942
POS TP 2522	Nrth 138422.667 Code EL	East 2186648.960	Elv -1.340
POS TP 2523	Nrth 138450.215 Code EL	East 2186650.810	Elv -0.891
POS TP 2524	Nrth 138483.027 Code EL	East 2186652.460	Elv -0.830
POS TP 2525	Nrth 138508.522 Code EL	East 2186655.050	Elv -1.071
POS TP 2526	Nrth 138541.192 Code EL	East 2186655.760	Elv -0.954
POS TP 2527	Nrth 138567.696 Code EL	East 2186657.840	Elv -1.052
POS TP 2528	Nrth 138596.256 Code EL	East 2186659.530	Elv -1.217
POS TP 2529	Nrth 138627.983 Code EL	East 2186660.890	Elv -1.642
POS TP 2530	Nrth 138654.042 Code EL	East 2186663.510	Elv -1.596
POS TP 2531	Nrth 138681.684 Code EL	East 2186665.480	Elv -1.582
POS TP 2532	Nrtn 138712.882 Code EL	East 2186666.370	Elv -1.432
POS TP 2533	Nrth 138745.996 Code EL	East 2186668.210	Elv -1.241
POS TP 2534	Nrth 138781.097 Code EL	East 2186671.950	Elv -1.145
POS TP 2535	Nrth 138807.597 Code EL	East 2186671.910	Elv -1.019
POS TP 2536	Nrth 138843.617 Code EL	East 2186674.400	Elv -1.099
POS TP 2537	Nrth 138885.694 Code EL	East 2186678.100	Elv -1.290
POS TP 2538	Nrth 138931.556 Code EL	East 2186679.870	Elv -1.337
POS TP 2539	Nrth 138968.268 Code EL	East 2186682.610	Elv -1.315
POS TP 2540	Nrth 139003.014 Code EL	East 2186683.640	Elv -1.096

POS TP 2541	Nrth 139032.680 Code EL	East 2186685.580	Elv -1.034
NOTE	STA 6800		
POS TP 2542	Nrth 138995.130 Code EL	East 2186485.280	Elv 0.904
POS TP 2543	Nrth 138963.573 Code EL	East 2186482.330	Elv 0.986
POS TP 2544	Nrth 138939.196 Code EL	East 2186481.190	Elv 1.223
POS TP 2545	Nrth 138918.211 Code EL	East 2186478.790	Elv 0.819
POS TP 2546	Nrth 138894.807 Code EL	East 2186479.130	Elv -0.626
POS TP 2547	Nrth 138866.626 Code EL	East 2186477.790	Elv -0.967
POS TP 2548	Nrth 138839.760 Code EL	East 2186475.950	Elv -1.026
POS TP 2549	Nrth 138809.406 Code EL	East 2186474.690	Elv -0.987
POS TP 2550	Nrth 138780.238 Code EL	East 2186472.750	Elv -1.047
POS TP 2551	Nrth 138752.895 Code EL	East 2186471.180	Elv -1.072
POS TP 2552	Nrth 138721.619 Code EL	East 2186469.640	Elv -1.132
POS TP 2553	Nrth 138695.525 Code EL	East 2186468.080	Elv -1.185
POS TP 2554	Nrth 138666.240 Code EL	East 2186466.680	Elv -1.390
POS TP 2555	Nrth 138640.564 Code EL	East 2186465.360	Elv -1.527
POS TP 2556	Nrth 138612.686 Code EL	East 2186463.680	Elv -1.833
POS TP 2557	Nrth 138584.782 Code EL	East 2186461.630	Elv -2.015
POS TP 2558	Nrth 138558.927 Code EL	East 2186461.740	Elv -2.216
POS TP 2559	Nrth 138523.268 Code EL	East 2186458.770	Elv -1.735
POS TP 2560	Nrth 138493.723 Code EL	East 2186457.280	Elv -1.275
POS TP 2561	Nrth 138471.334 Code EL	East 2186456.120	Elv -1.216

	Code EL		
POS TP 2563	Nrth 138422.065 Code EL	East 2186453.390	Elv -0.962
POS TP 2564	Nrtn 138406.024 Code EL	East 2186452.400	Elv -1.005
POS TP 2565	Nrth 138375.852 Code EL	East 2186451.170	Elv -1.134
POS TP 2566	Nrth 138351.066 Code EL	East 2186449.060	Elv -1.019
POS TP 2567	Nrth 138321.512 Code EL	East 2186447.680	Elv -0.959
POS TP 2568	Nrth 138295.481 Code EL	East 2186445.800	Elv -0.810
POS TP 2569	Nrth 138265.203 Code EL	East 2186445.790	Elv 0.098
POS TP 2570	Nrth 138237.499 Code EL	East 2186443.460	Elv 1.242
POS TP 2571	Nrth 138210.527 Code EL	East 2186442.360	Elv 1.372
POS TP 2572	Nrth 138182.861 Code EL	East 2186440.460	Elv 1.448
POS TP 2573	Nrth 138150.491 Code EL	East 2186438.760	Elv 1.345
POS TP 2574	Nrth 138121.288 Code EL	East 2186438.160	Elv 1.355
POS TP 2575	Nrth 138092.996 Code EL	East 2186435.230	Elv 1.453
POS TP 2576	Nrth 138066.107 Code EL	East 2186433.680	Elv 1.256
POS TP 2577	Nrth 138035.918 Code EL	East 2186432.920	Elv 1.044
POS TP 2578	Nrth 138008.588 Code EL	East 2186431.410	Elv 1.147
POS TP 2579	Nrth 137978.812 Code EL	East 2186429.230	Elv 1.184
POS TP 2580	Nrth 137944.075 Code EL	East 2186427.680	Elv 1.244
POS TP 2581	Nrth 137916.417 Code EL	East 2186426.530	Elv -0.119
POS TP 2582	Nrth 137884.718 Code EL	East 2186424.110	Elv -0.349
POS TP 2583	Nrth 137860.956 Code EL	East 2186422.620	Elv -0.350
POS TP 2584	Nrth 137841.588	East 2186422.280	Elv 0.068

	Code EL		
POS TP 2585	Nrth 137823.580 Code EL	East 2186420.610	Elv 1.145
POS TP 2586	Nrth 137794.048 Code EL	East 2186419.090	Elv 1.807
POS TP 2587	Nrth 137776.141 Code EL	East 2186418.200	Elv 2.012
POS TP 2588	Nrth 137764.883 Code BL	East 2186417.950	Elv 1.991
TRGET	Trget ht 8.530		
POS TP 2589	Nrth 137744.843 Code EL	East 2186417.060	Elv 1.828
POS TP 2590	Nrth 137718.388 Code EL	East 2186415.120	Elv 0.922
POS TP 2591	Nrth 137690.275 Code EL	East 2186413.720	Elv 0.936
POS TP 2592	Nrth 137664.061 Code EL	East 2186412.920	Elv 0.537
POS TP 2593	Nrth 137632.665 Code EL	East 2186410.200	Elv 0.182
POS TP 2594	Nrth 137605.964 Code EL	East 2186408.930	Elv 0.017
POS TP 2595	Nrth 137579.851 Code EL	East 2186406.600	Elv -0.147
POS TP 2596	Nrth 137553.797 Code EL	East 2186406.060	Elv -0.271
POS TP 2597	Nrth 137528.050 Code EL	East 2186404.450	Elv -0.483
POS TP 2598	Nrth 137505.838 Code EL	East 2186403.350	Elv -0.474
POS TP 2599	Nrth 137478.032 Code EL	East 2186401.630	Elv -0.374
POS TP 2600	Nrth 137456.804 Code EL	East 2186399.990	Elv -0.877
POS TP 2601	Nrth 137429.514 Code EL	East 2186400.580	Elv -1.125
POS TP 2602	Nrth 137407.728 Code EL	East 2186398.650	Elv -1.250
POS TP 2603	Nrth 137381.408 Code EL	East 2186397.800	Elv -1.707
POS TP 2604	Nrth 137366.082 Code EL	East 2186396.900	Elv -1.902
POS TP 2605	Nrth 137341.338 Code EL	East 2186397.740	Elv -2.472

POS TP 2606	Nrth 137312.602 Code EL	East 2186392.020	Elv -2.805
POS TP 2607	Nrth 137286.877 Code EL	East 2186391.040	Elv -3.053
POS TP 2608	Nrth 137262.002 Code EL	East 2186390.570	Elv -3.541
POS TP 2609	Nrth 137244.367 Code EL	East 2186388.630	Elv -3.786
NOTE	STA 6600		
POS TP 2610	Nrth 137205.082 Code EL	East 2186191.660	Elv -3.829
POS TP 2611	Nrth 137241.765 Code EL	East 2186195.960	Elv -2.966
POS TP 2612	Nrth 137263.250 Code EL	East 2186197.210	Elv -2.800
POS TP 2613	Nrth 137293.137 Code EL	East 2186197.310	Elv -2.312
POS TP 2614	Nrth 137317.836 Code EL	East 2186199.210	Elv -2.102
POS TP 2615	Nrth 137340.329 Code EL	East 2186201.930	Elv -1.786
POS TP 2616	Nrth 137362.191 Code EL	East 2186203.020	Elv -1.316
POS TP 2617	Nrth 137385.074 Code EL	East 2186203.400	Elv -0.674
POS TP 2618	Nrth 137408.089 Code EL	East 2186204.020	Elv -0.844
POS TP 2619	Nrth 137432.537 Code EL	East 2186206.180	Elv -0.844
POS TP 2620	Nrth 137455.628 Code EL	East 2186207.600	Elv -0.522
POS TP 2621	Nrth 137474.948 Code EL	East 2186208.930	Elv -0.251
POS TP 2622	Nrth 137496.152 Code EL	East 2186210.230	Elv 0.002
POS TP 2623	Nrth 137513.843 Code EL	East 2186210.790	Elv 0.973
POS TP 2624	Nrth 137535.819 Code EL	East 2186212.600	Elv 0.760
POS TP 2625	Nrth 137556.106 Code EL	East 2186213.720	Elv 0.977
POS TP 2626	Nrth 137579.289 Code EL	East 2186215.430	Elv 1.389

POS TP 2627	Nrth 137604.884 Code EL	East 2186217.040	Elv 1.322
POS TP 2628	Nrth 137628.580 Code EL	East 2186218.190	Elv 1.334
POS TP 2629	Nrth 137650.426 Code EL	East 2186219.390	Elv 1.021
POS TP 2630	Nrth 137668.795 Code EL	East 2186219.700	Elv 1.011
POS TP 2631	Nrth 137689.750 Code EL	East 2186221.940	Elv 1.107
POS TP 2632	Nrth 137704.614 Code EL	East 2186222.830	Elv 0.976
POS TP 2633	Nrth 137716.451 Code BL	East 2186223.830	Elv 0.893
TRGET	Trget ht 8.510		
POS TP 2634	Nrth 137750.464 Code EL	East 2186226.530	Elv 0.922
POS TP 2635	Nrth 137784.740 Code EL	East 2186228.470	Elv 1.211
POS TP 2636	Nrth 137815.210 Code EL	East 2186229.350	Elv 1.227
POS TP 2637	Nrth 137837.698 Code EL	East 2186231.190	Elv -0.104
POS TP 2638	Nrth 137856.753 Code EL	East 2186232.760	Elv -0.910
POS TP 2639	Nrth 137883.614 Code EL	East 2186234.170	Elv 0.359
POS TP 2640	Nrth 137908.764 Code EL	East 2186235.870	Elv 1.180
POS TP 2641	Nrth 137939.066 Code EL	East 2186237.120	Elv 1.349
POS TP 2642	Nrth 137966.059 Code EL	East 2186239.510	Elv 1.386
POS TP 2643	Nrth 137994.641 Code EL	East 2186240.980	Elv 1.507
POS TP 2644	Nrth 138023.635 Code EL	East 2186242.760	Elv 1.549
POS TP 2645	Nrth 138052.658 Code EL	East 2186243.880	Elv 1.421
POS TP 2646	Nrth 138087.103 Code EL	East 2186246.800	Elv 1.402
POS TP 2647	Nrth 138118.749 Code EL	East 2186248.220	Elv 1.322

	Code EL		
POS TP 2649	Nrtn 138178.083 Code EL	East 2186252.160	Elv 1.073
POS TP 2650	Nrtn 138197.347 Code EL	East 2186253.350	Elv 1.009
POS TP 2651	Nrtn 138223.118 Code EL	East 2186254.990	Elv 0.436
POS TP 2652	Nrtn 138249.101 Code EL	East 2186255.270	Elv -0.215
POS TP 2653	Nrtn 138274.588 Code EL	East 2186257.530	Elv -0.480
POS TP 2654	Nrtn 138300.587 Code EL	East 2186258.550	Elv -0.644
POS TP 2655	Nrtn 138329.094 Code EL	East 2186261.060	Elv -0.712
POS TP 2656	Nrtn 138355.376 Code EL	East 2186262.550	Elv -0.834
POS TP 2657	Nrtn 138379.234 Code EL	East 2186263.570	Elv -1.119
POS TP 2658	Nrtn 138400.343 Code EL	East 2186265.380	Elv -1.245
POS TP 2659	Nrtn 138429.149 Code EL	East 2186266.480	Elv -1.641
POS TP 2660	Nrtn 138455.223 Code EL	East 2186269.430	Elv -2.062
POS TP 2661	Nrtn 138476.948 Code EL	East 2186270.890	Elv -2.268
POS TP 2662	Nrtn 138503.644 Code EL	East 2186270.960	Elv -2.361
POS TP 2663	Nrtn 138530.714 Code EL	East 2186272.840	Elv -2.410
POS TP 2664	Nrtn 138565.624 Code EL	East 2186275.250	Elv -1.411
POS TP 2665	Nrtn 138597.752 Code EL	East 2186276.810	Elv -1.251
POS TP 2666	Nrtn 138627.796 Code EL	East 2186278.020	Elv -1.222
POS TP 2667	Nrtn 138667.903 Code EL	East 2186282.130	Elv -1.041
POS TP 2668	Nrtn 138699.761 Code EL	East 2186282.670	Elv -1.035
POS TP 2669	Nrtn 138729.958 Code EL	East 2186285.440	Elv -0.972
POS TP 2670	Nrtn 138760.673	East 2186286.670	Elv -0.427

	Code EL		
POS TP 2671	Nrth 138796.966 Code EL	East 2186288.470	Elv 1.234
POS TP 2672	Nrth 138840.308 Code EL	East 2186291.360	Elv 0.778
POS TP 2673	Nrth 138871.496 Code EL	East 2186292.500	Elv 0.720
POS TP 2674	Nrth 138908.654 Code EL	East 2186294.110	Elv 0.534
POS TP 2675	Nrth 138908.447 Code EL	East 2186294.780	Elv 0.434
POS TP 2676	Nrth 138932.215 Code EL	East 2186299.310	Elv 0.586
NOTE	STA 6400		
POS TP 2677	Nrth 138766.645 Code EL	East 2186100.740	Elv 0.409
POS TP 2678	Nrth 138738.558 Code EL	East 2186098.180	Elv 0.512
POS TP 2679	Nrth 138700.792 Code EL	East 2186095.560	Elv 0.636
POS TP 2680	Nrth 138667.062 Code EL	East 2186093.560	Elv 0.678
POS TP 2681	Nrth 138635.270 Code EL	East 2186094.380	Elv 0.848
POS TP 2682	Nrth 138603.084 Code EL	East 2186088.780	Elv 1.096
POS TP 2683	Nrth 138569.002 Code EL	East 2186086.350	Elv 1.054
POS TP 2684	Nrth 138537.679 Code EL	East 2186084.830	Elv -0.614
POS TP 2685	Nrth 138499.556 Code EL	East 2186082.670	Elv -1.445
POS TP 2686	Nrth 138467.743 Code EL	East 2186080.020	Elv -2.387
POS TP 2687	Nrth 138426.668 Code EL	East 2186078.970	Elv -2.864
POS TP 2688	Nrth 138403.154 Code EL	East 2186079.610	Elv -2.569
POS TP 2689	Nrth 138369.065 Code EL	East 2186077.230	Elv -1.555
POS TP 2690	Nrth 138341.001 Code EL	East 2186076.530	Elv -1.153
POS TP 2691	Nrth 138313.335 Code EL	East 2186073.590	Elv -0.437

POS TP 2692	Nrth 138293.121 Code EL	East 2186072.700	Elv 0.533
POS TP 2693	Nrth 138264.891 Code EL	East 2186070.830	Elv 1.729
POS TP 2694	Nrth 138241.249 Code EL	East 2186067.090	Elv 0.380
POS TP 2695	Nrth 138222.366 Code EL	East 2186066.840	Elv 0.020
POS TP 2696	Nrth 138203.900 Code EL	East 2186066.760	Elv 0.362
POS TP 2697	Nrth 138194.290 Code EL	East 2186065.980	Elv 0.415
POS TP 2698	Nrth 138171.892 Code EL	East 2186063.850	Elv 0.735
POS TP 2699	Nrth 138147.193 Code EL	East 2186063.450	Elv 1.075
POS TP 2700	Nrth 138119.566 Code EL	East 2186061.190	Elv 1.291
POS TP 2701	Nrth 138098.407 Code EL	East 2186059.760	Elv 1.215
POS TP 2702	Nrth 138073.805 Code EL	East 2186059.010	Elv 1.144
POS TP 2703	Nrth 138046.961 Code EL	East 2186057.350	Elv 1.280
POS TP 2704	Nrth 138016.692 Code EL	East 2186054.560	Elv 1.269
POS TP 2705	Nrth 137995.851 Code EL	East 2186052.450	Elv 1.144
POS TP 2706	Nrth 137976.954 Code EL	East 2186053.110	Elv 1.233
POS TP 2707	Nrth 137957.441 Code EL	East 2186051.430	Elv 1.313
POS TP 2708	Nrth 137935.827 Code EL	East 2186050.020	Elv 1.575
POS TP 2709	Nrth 137917.536 Code EL	East 2186048.870	Elv 1.489
POS TP 2710	Nrth 137897.739 Code EL	East 2186047.860	Elv 1.353
POS TP 2711	Nrth 137874.560 Code EL	East 2186046.260	Elv 0.927
POS TP 2712	Nrth 137854.522 Code EL	East 2186044.150	Elv 0.968
POS TP 2713	Nrth 137835.545 Code EL	East 2186044.300	Elv 1.175

POS TP 2714	Nrth 137816.658 Code EL	East 2186041.580	Elv 1.069
POS TP 2715	Nrth 137796.616 Code EL	East 2186040.650	Elv 1.176
POS TP 2716	Nrth 137776.094 Code EL	East 2186039.700	Elv 1.191
POS TP 2717	Nrth 137754.453 Code EL	East 2186038.020	Elv 1.269
POS TP 2718	Nrth 137732.589 Code EL	East 2186036.710	Elv 0.307
POS TP 2719	Nrth 137708.947 Code EL	East 2186034.990	Elv 0.206
POS TP 2720	Nrth 137689.331 Code EL	East 2186034.370	Elv 0.119
POS TP 2721	Nrth 137669.461 Code BL	East 2186034.090	Elv -1.195
STN TP 0007	Nrth 137614.956 Theo ht 4.250	East 2185813.210 Code CP	Elv 2.060
BKB TP 0007-0008	Azmth 277-04'41"	H.obs 0-00'00"	
TRGET	Trget ht 4.180		
OBS F1 0007-0008	Dist 1425.610 Code CP	V.obs 89-58'25"	H.obs 0-00'00"
TRGET	Trget ht 8.510		
POS TP 2722	Nrth 137710.616 Code CHECK	East 2185041.580	Elv 1.054
POS TP 2723	Nrth 137686.184 Code CHECK	East 2185240.020	Elv 2.287
STN TP 0007	Nrth 137614.956 Theo ht 4.170	East 2185813.210 Code CP	Elv 2.060
BKB TP 0007-0008	Azmth 277-04'41"	H.obs 0-00'00"	
TRGET	Trget ht 4.180		
OBS F1 0007-0008	Dist 1425.610 Code CP	V.obs 89-58'10"	H.obs 0-00'00"
TRGET	Trget ht 8.510		
POS TP 2724	Nrth 137686.190 Code TBM	East 2185239.970	Elv 2.236
POS TP 2725	Nrth 137659.844 Code EL	East 2186032.920	Elv -1.034
POS TP 2726	Nrth 137653.531 Code EL	East 2186032.890	Elv 0.587
POS TP 2727	Nrth 137637.750 Code EL	East 2186032.290	Elv 1.619

POS TP 2728	Nrtn 137614.424 Code EL	East 2186030.070	Elv 1.333
POS TP 2729	Nrtn 137590.107 Code EL	East 2186029.030	Elv 1.386
POS TP 2730	Nrtn 137557.711 Code EL	East 2186026.730	Elv 1.001
POS TP 2731	Nrtn 137529.488 Code EL	East 2186024.990	Elv 0.633
POS TP 2732	Nrtn 137504.004 Code EL	East 2186023.490	Elv 0.522
POS TP 2733	Nrtn 137482.683 Code EL	East 2186021.790	Elv 0.008
POS TP 2734	Nrtn 137457.154 Code EL	East 2186020.420	Elv -0.416
POS TP 2735	Nrtn 137433.367 Code EL	East 2186019.110	Elv -0.575
POS TP 2736	Nrtn 137409.174 Code EL	East 2186018.170	Elv -0.631
POS TP 2737	Nrtn 137382.522 Code EL	East 2186017.800	Elv -0.919
POS TP 2738	Nrtn 137359.021 Code EL	East 2186015.970	Elv -1.067
POS TP 2739	Nrtn 137336.717 Code EL	East 2186015.820	Elv -1.185
POS TP 2740	Nrtn 137305.894 Code EL	East 2186014.850	Elv -1.830
POS TP 2741	Nrtn 137277.280 Code EL	East 2186012.430	Elv -2.125
POS TP 2742	Nrtn 137255.719 Code EL	East 2186010.610	Elv -2.495
POS TP 2743	Nrtn 137231.763 Code EL	East 2186010.130	Elv -2.589
POS TP 2744	Nrtn 137210.440 Code EL	East 2186008.180	Elv -3.016
POS TP 2745	Nrtn 137186.646 Code EL	East 2186003.970	Elv -3.798
POS TP 2746	Nrtn 137181.294 Code EL	East 2186000.100	Elv -3.867
NOTE	STA 6200		
POS TP 2747	Nrtn 137152.070 Code EL	East 2185812.360	Elv -4.093
POS TP 2748	Nrtn 137166.578 Code EL	East 2185813.380	Elv -3.732

POS TP 2749	Nrtn 137181.768 Code EL	East 2185814.370	Elv -3.179
POS TP 2750	Nrtn 137199.032 Code EL	East 2185815.300	Elv -2.992
POS TP 2751	Nrtn 137217.691 Code EL	East 2185815.140	Elv -2.575
POS TP 2752	Nrtn 137238.165 Code EL	East 2185816.980	Elv -2.460
POS TP 2753	Nrtn 137262.406 Code EL	East 2185818.480	Elv -1.748
POS TP 2754	Nrtn 137281.873 Code EL	East 2185819.350	Elv -1.511
POS TP 2755	Nrtn 137302.709 Code EL	East 2185820.360	Elv -1.286
POS TP 2756	Nrtn 137325.660 Code EL	East 2185820.900	Elv -1.289
POS TP 2757	Nrtn 137348.768 Code EL	East 2185822.160	Elv -1.246
POS TP 2758	Nrtn 137368.255 Code EL	East 2185823.050	Elv -1.112
POS TP 2759	Nrtn 137392.322 Code EL	East 2185824.230	Elv -0.912
POS TP 2760	Nrtn 137411.564 Code EL	East 2185824.820	Elv -0.610
POS TP 2761	Nrtn 137431.427 Code EL	East 2185825.810	Elv -0.429
POS TP 2762	Nrtn 137453.157 Code EL	East 2185827.240	Elv -1.193
POS TP 2763	Nrtn 137473.772 Code EL	East 2185828.490	Elv -1.450
POS TP 2764	Nrtn 137490.569 Code EL	East 2185829.320	Elv -1.216
POS TP 2765	Nrtn 137509.078 Code EL	East 2185830.010	Elv -1.027
POS TP 2766	Nrtn 137529.033 Code EL	East 2185830.710	Elv -0.760
POS TP 2767	Nrtn 137547.070 Code EL	East 2185831.070	Elv -0.101
POS TP 2768	Nrtn 137563.442 Code EL	East 2185831.830	Elv 0.583
POS TP 2769	Nrtn 137585.266 Code EL	East 2185833.090	Elv 1.026
POS TP 2770	Nrtn 137606.294 Code EL	East 2185834.250	Elv 1.061

POS TP 2771	Nrth 137620.407 Code BL	East 2185835.380	Elv 1.133
TRGET	Trget ht 8.520		
POS TP 2772	Nrth 137642.953 Code EL	East 2185836.900	Elv 1.249
POS TP 2773	Nrth 137665.552 Code EL	East 2185838.100	Elv 1.171
POS TP 2774	Nrth 137685.601 Code EL	East 2185839.880	Elv 1.132
POS TP 2775	Nrth 137709.389 Code EL	East 2185841.050	Elv 0.835
POS TP 2776	Nrth 137731.685 Code EL	East 2185842.680	Elv 0.737
POS TP 2777	Nrth 137755.404 Code EL	East 2185844.450	Elv 1.094
POS TP 2778	Nrth 137781.896 Code EL	East 2185846.460	Elv 1.008
POS TP 2779	Nrth 137816.651 Code EL	East 2185848.980	Elv 1.103
POS TP 2780	Nrth 137844.485 Code EL	East 2185850.150	Elv 0.619
POS TP 2781	Nrth 137869.355 Code EL	East 2185852.170	Elv 1.318
POS TP 2782	Nrth 137894.024 Code EL	East 2185853.750	Elv 1.335
POS TP 2783	Nrth 137923.961 Code EL	East 2185855.370	Elv 1.454
POS TP 2784	Nrth 137963.120 Code EL	East 2185858.660	Elv 0.709
POS TP 2785	Nrth 137994.405 Code EL	East 2185860.240	Elv 0.141
POS TP 2786	Nrth 138017.425 Code EL	East 2185861.680	Elv -0.626
POS TP 2787	Nrth 138049.840 Code EL	East 2185864.320	Elv -0.651
POS TP 2788	Nrth 138081.602 Code EL	East 2185865.780	Elv -0.601
POS TP 2789	Nrth 138110.452 Code EL	East 2185868.100	Elv -0.533
POS TP 2790	Nrth 138146.445 Code EL	East 2185870.850	Elv -0.055
POS TP 2791	Nrth 138184.131 Code EL	East 2185873.290	Elv -0.327
POS TP 2792	Nrth 138213.742	East 2185875.420	Elv -0.896

	Code EL		
POS TP 2793	Nrth 138245.897 Code EL	East 2185877.030	Elv -1.682
POS TP 2794	Nrth 138278.155 Code EL	East 2185879.360	Elv -2.442
POS TP 2795	Nrth 138300.283 Code EL	East 2185880.680	Elv -2.731
POS TP 2796	Nrth 138328.672 Code EL	East 2185882.900	Elv -2.749
POS TP 2797	Nrth 138361.960 Code EL	East 2185885.880	Elv -2.479
POS TP 2798	Nrth 138392.128 Code EL	East 2185887.560	Elv -1.558
POS TP 2799	Nrth 138419.210 Code EL	East 2185888.810	Elv -1.160
POS TP 2800	Nrth 138457.033 Code EL	East 2185891.250	Elv 0.410
POS TP 2801	Nrth 138490.870 Code EL	East 2185892.030	Elv 1.116
POS TP 2802	Nrth 138522.953 Code EL	East 2185895.670	Elv 1.064
POS TP 2803	Nrth 138564.923 Code EL	East 2185897.790	Elv 0.919
POS TP 2804	Nrth 138602.694 Code EL	East 2185900.260	Elv 0.591
POS TP 2805	Nrth 138637.122 Code EL	East 2185903.390	Elv 0.393
POS TP 2806	Nrth 138669.182 Code EL	East 2185906.510	Elv 0.529
POS TP 2807	Nrth 138695.310 Code EL	East 2185905.840	Elv 0.074
POS TP 2808	Nrth 138730.091 Code EL	East 2185907.890	Elv 0.367
POS TP 2809	Nrth 138749.763 Code EL	East 2185905.800	Elv 0.359
POS TP 2810	Nrth 138767.269 Code EL	East 2185897.330	Elv -1.058
POS TP 2811	Nrth 138819.910 Code EL	East 2185916.460	Elv -0.882
NOTE	STA 6000		
POS TP 2812	Nrth 138809.108 Code EL	East 2185716.320	Elv 0.586
POS TP 2813	Nrth 138781.263	East 2185711.690	Elv 0.434

POS TP 2814	Nrth 138763.072 Code EL	East 2185711.650	Elv -1.341
POS TP 2815	Nrth 138730.590 Code EL	East 2185709.120	Elv -0.743
POS TP 2816	Nrth 138710.937 Code EL	East 2185708.120	Elv -0.530
POS TP 2817	Nrth 138651.463 Code EL	East 2185703.970	Elv 0.057
POS TP 2818	Nrth 138620.436 Code EL	East 2185700.880	Elv 0.551
POS TP 2819	Nrth 138597.848 Code EL	East 2185701.680	Elv 0.128
POS TP 2820	Nrth 138568.209 Code EL	East 2185697.790	Elv 0.732
POS TP 2821	Nrth 138543.999 Code EL	East 2185698.210	Elv 0.928
POS TP 2822	Nrth 138512.270 Code EL	East 2185695.460	Elv -0.167
POS TP 2823	Nrth 138475.899 Code EL	East 2185691.260	Elv 0.065
POS TP 2824	Nrth 138448.485 Code EL	East 2185690.750	Elv 0.155
POS TP 2825	Nrth 138422.088 Code EL	East 2185689.050	Elv 0.159
POS TP 2826	Nrth 138396.424 Code EL	East 2185689.210	Elv 0.581
POS TP 2827	Nrth 138368.775 Code EL	East 2185686.170	Elv 1.706
POS TP 2828	Nrth 138346.458 Code EL	East 2185683.570	Elv 1.521
POS TP 2829	Nrth 138314.830 Code EL	East 2185682.220	Elv -0.398
POS TP 2830	Nrth 138288.891 Code EL	East 2185680.080	Elv -1.081
POS TP 2831	Nrth 138250.443 Code EL	East 2185678.400	Elv -2.124
POS TP 2832	Nrth 138220.728 Code EL	East 2185675.940	Elv -2.643
POS TP 2833	Nrth 138193.238 Code EL	East 2185673.720	Elv -2.715
POS TP 2834	Nrth 138162.489 Code EL	East 2185671.800	Elv -2.311
POS TP 2835	Nrth 138134.418 Code EL	East 2185670.500	Elv -1.579

POS TP 2836	Nrth 138107.753 Code EL	East 2185668.770	Elv -0.953
POS TP 2837	Nrth 138088.026 Code EL	East 2185666.940	Elv -0.689
POS TP 2838	Nrth 138058.988 Code EL	East 2185665.310	Elv -0.323
POS TP 2839	Nrth 138028.520 Code EL	East 2185663.010	Elv -0.419
POS TP 2840	Nrth 138002.040 Code EL	East 2185661.410	Elv -0.492
POS TP 2841	Nrth 137967.487 Code EL	East 2185658.700	Elv -0.626
POS TP 2842	Nrth 137939.575 Code EL	East 2185656.730	Elv -0.488
POS TP 2843	Nrth 137911.757 Code EL	East 2185655.430	Elv -0.242
POS TP 2844	Nrth 137885.759 Code EL	East 2185653.890	Elv -0.056
POS TP 2845	Nrth 137855.433 Code EL	East 2185651.680	Elv 0.837
POS TP 2846	Nrth 137812.653 Code EL	East 2185648.270	Elv 1.144
POS TP 2847	Nrth 137785.560 Code EL	East 2185646.790	Elv 0.756
POS TP 2848	Nrth 137759.908 Code EL	East 2185644.890	Elv 1.147
POS TP 2849	Nrth 137738.566 Code EL	East 2185644.220	Elv 0.863
POS TP 2850	Nrth 137719.020 Code EL	East 2185643.300	Elv 0.933
POS TP 2851	Nrth 137699.852 Code EL	East 2185641.770	Elv 0.800
POS TP 2852	Nrth 137682.361 Code EL	East 2185639.550	Elv 1.120
POS TP 2853	Nrth 137654.385 Code EL	East 2185638.230	Elv 1.203
POS TP 2854	Nrth 137636.993 Code BL	East 2185636.580	Elv 1.262
TRGET	Trget ht 8.510		
POS TP 2855	Nrth 137614.630 Code EL	East 2185635.730	Elv 1.344
POS TP 2856	Nrth 137590.383 Code EL	East 2185633.790	Elv 0.930

POS TP 2857	Nrth 137565.390 Code EL	East 2185632.650	Elv 0.744
POS TP 2858	Nrth 137540.636 Code EL	East 2185630.530	Elv 0.848
POS TP 2859	Nrth 137518.031 Code EL	East 2185630.070	Elv 0.398
POS TP 2860	Nrth 137507.938 Code EL	East 2185629.350	Elv 1.063
POS TP 2861	Nrth 137484.702 Code EL	East 2185626.910	Elv -0.295
POS TP 2862	Nrth 137466.014 Code EL	East 2185625.650	Elv -1.222
POS TP 2863	Nrth 137443.747 Code EL	East 2185624.530	Elv -1.933
POS TP 2864	Nrth 137422.433 Code EL	East 2185623.230	Elv -1.911
POS TP 2865	Nrth 137409.973 Code EL	East 2185621.000	Elv -0.712
POS TP 2866	Nrth 137392.085 Code EL	East 2185622.120	Elv -0.855
POS TP 2867	Nrth 137363.708 Code EL	East 2185619.560	Elv -1.240
POS TP 2868	Nrth 137338.667 Code EL	East 2185618.530	Elv -1.499
POS TP 2869	Nrth 137315.184 Code EL	East 2185615.340	Elv -2.034
POS TP 2870	Nrth 137296.270 Code EL	East 2185614.600	Elv -2.295
POS TP 2871	Nrth 137277.428 Code EL	East 2185613.450	Elv -2.172
POS TP 2872	Nrth 137260.024 Code EL	East 2185613.520	Elv -2.474
POS TP 2873	Nrth 137240.097 Code EL	East 2185611.620	Elv -2.039
POS TP 2874	Nrth 137220.746 Code EL	East 2185610.250	Elv -2.480
POS TP 2875	Nrth 137201.826 Code EL	East 2185608.410	Elv -3.013
POS TP 2876	Nrth 137183.763 Code EL	East 2185605.630	Elv -3.180
POS TP 2877	Nrth 137158.245 Code EL	East 2185605.060	Elv -3.723
POS TP 2878	Nrth 137146.388 Code EL	East 2185603.380	Elv -4.004

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POS TP 2879	Nrth 137127.284 Code EL	East 2185411.900	Elv -4.201
POS TP 2880	Nrth 137142.215 Code EL	East 2185414.010	Elv -3.862
POS TP 2881	Nrth 137160.035 Code EL	East 2185415.290	Elv -3.445
POS TP 2882	Nrth 137183.037 Code EL	East 2185416.810	Elv -3.097
POS TP 2883	Nrth 137202.341 Code EL	East 2185416.950	Elv -2.911
POS TP 2884	Nrth 137220.323 Code EL	East 2185419.000	Elv -2.896
POS TP 2885	Nrth 137241.758 Code EL	East 2185419.900	Elv -3.063
POS TP 2886	Nrth 137262.827 Code EL	East 2185418.860	Elv -3.248
POS TP 2887	Nrth 137283.322 Code EL	East 2185420.330	Elv -3.346
POS TP 2888	Nrth 137304.509 Code EL	East 2185421.480	Elv -3.450
POS TP 2889	Nrth 137324.374 Code EL	East 2185424.010	Elv -3.288
POS TP 2890	Nrth 137345.007 Code EL	East 2185424.020	Elv -2.310
POS TP 2891	Nrth 137365.449 Code EL	East 2185423.840	Elv -1.446
POS TP 2892	Nrth 137382.080 Code EL	East 2185426.380	Elv -1.050
POS TP 2893	Nrth 137400.755 Code EL	East 2185426.800	Elv -1.226
POS TP 2894	Nrth 137415.245 Code EL	East 2185427.490	Elv -0.307
POS TP 2895	Nrth 137434.341 Code EL	East 2185427.860	Elv -0.182
POS TP 2896	Nrth 137459.209 Code EL	East 2185429.680	Elv -0.089
POS TP 2897	Nrth 137483.897 Code EL	East 2185431.080	Elv 0.132
POS TP 2898	Nrth 137509.781 Code EL	East 2185431.950	Elv -0.005
POS TP 2899	Nrth 137535.903 Code EL	East 2185432.590	Elv 0.767

	Code EL		
POS TP 2901	Nrth 137588.825 Code EL	East 2185435.020	Elv 1.050
POS TP 2902	Nrth 137615.250 Code EL	East 2185436.330	Elv 1.359
POS TP 2903	Nrth 137641.895 Code EL	East 2185437.550	Elv 1.530
POS TP 2904	Nrth 137661.333 Code BL	East 2185438.150	Elv 1.516
STN TP 0007	Nrth 137614.956 Theo ht 4.160	East 2185813.210 Code CP	Elv 2.060
BKB TP 0007-0008	Azmth 277-04'41"	H.obs 0-00'00"	
TRGET	Trget ht 4.180		
OBS F1 0007-0008	Dist 1425.590 Code CP	V.obs 89-58'25"	H.obs 0-00'00"
TRGET	Trget ht 8.520		
POS TP 2905	Nrth 137687.815 Code EL	East 2185439.360	Elv 1.452
POS TP 2906	Nrth 137713.218 Code EL	East 2185440.840	Elv 1.419
POS TP 2907	Nrth 137739.681 Code EL	East 2185442.310	Elv 1.365
POS TP 2908	Nrth 137766.193 Code EL	East 2185442.880	Elv 1.233
POS TP 2909	Nrth 137792.429 Code EL	East 2185444.300	Elv 1.088
POS TP 2910	Nrth 137818.740 Code EL	East 2185445.200	Elv 1.069
POS TP 2911	Nrth 137845.864 Code EL	East 2185446.950	Elv 0.548
POS TP 2912	Nrth 137873.100 Code EL	East 2185450.870	Elv -0.614
POS TP 2913	Nrth 137898.642 Code EL	East 2185456.490	Elv -0.561
POS TP 2914	Nrth 137928.920 Code EL	East 2185452.960	Elv -0.384
POS TP 2915	Nrth 137955.384 Code EL	East 2185452.940	Elv -0.481
POS TP 2916	Nrth 137983.510 Code EL	East 2185454.130	Elv -0.561
POS TP 2917	Nrth 138008.801 Code EL	East 2185455.630	Elv -0.837
POS TP 2918	Nrth 138035.077	East 2185456.610	Elv -1.252

	Code EL		
POS TP 2919	Nrth 138063.286 Code EL	East 2185457.020	Elv -1.641
POS TP 2920	Nrth 138085.537 Code EL	East 2185459.800	Elv -2.050
POS TP 2921	Nrth 138109.137 Code EL	East 2185461.620	Elv -2.469
POS TP 2922	Nrth 138132.875 Code EL	East 2185461.180	Elv -2.474
POS TP 2923	Nrth 138159.636 Code EL	East 2185462.180	Elv -2.009
POS TP 2924	Nrth 138187.923 Code EL	East 2185464.770	Elv -1.202
POS TP 2925	Nrth 138214.683 Code EL	East 2185466.480	Elv 0.195
POS TP 2926	Nrth 138243.107 Code EL	East 2185465.920	Elv 2.600
POS TP 2927	Nrth 138274.010 Code EL	East 2185465.940	Elv 1.576
POS TP 2928	Nrth 138304.018 Code EL	East 2185465.270	Elv 0.351
POS TP 2929	Nrth 138333.378 Code EL	East 2185467.310	Elv 0.168
POS TP 2930	Nrth 138361.280 Code EL	East 2185471.110	Elv 0.122
POS TP 2931	Nrth 138387.685 Code EL	East 2185472.130	Elv 0.151
POS TP 2932	Nrth 138412.016 Code EL	East 2185476.820	Elv -0.187
POS TP 2933	Nrth 138438.769 Code EL	East 2185480.100	Elv 0.947
POS TP 2934	Nrth 138467.161 Code EL	East 2185481.310	Elv 0.732
POS TP 2935	Nrth 138497.929 Code EL	East 2185485.480	Elv 0.686
POS TP 2936	Nrth 138525.993 Code EL	East 2185477.490	Elv 0.708
POS TP 2937	Nrth 138552.169 Code EL	East 2185474.750	Elv 0.233
POS TP 2938	Nrth 138567.993 Code EL	East 2185476.350	Elv -0.662
POS TP 2939	Nrth 138589.825 Code EL	East 2185477.150	Elv -0.953
POS TP 2940	Nrth 138603.581	East 2185471.550	Elv -1.481

Code EL

POS TP 2941 Nrth 138644.530 East 2185479.270 Elv -0.282
Code EL

NOTE STA 5600

POS TP 2942 Nrth 138597.090 East 2185294.970 Elv 0.067
Code EL

POS TP 2943 Nrth 138570.654 East 2185295.670 Elv 0.649
Code EL

POS TP 2944 Nrth 138544.031 East 2185294.420 Elv -1.013
Code EL

POS TP 2945 Nrth 138519.136 East 2185297.630 Elv -1.647
Code EL

POS TP 2946 Nrth 138498.765 East 2185300.660 Elv -0.372
Code EL

POS TP 2947 Nrth 138458.837 East 2185288.090 Elv 0.467
Code EL

POS TP 2948 Nrth 138432.319 East 2185281.660 Elv 0.627
Code EL

POS TP 2949 Nrth 138404.046 East 2185285.110 Elv 0.711
Code EL

POS TP 2950 Nrth 138376.017 East 2185285.960 Elv 0.725
Code EL

POS TP 2951 Nrth 138349.343 East 2185285.210 Elv 0.764
Code EL

POS TP 2952 Nrth 138319.453 East 2185281.810 Elv 0.647
Code EL

POS TP 2953 Nrth 138292.579 East 2185278.600 Elv 0.331
Code EL

POS TP 2954 Nrth 138265.495 East 2185274.570 Elv 0.683
Code EL

POS TP 2955 Nrth 138238.811 East 2185274.400 Elv 0.771
Code EL

POS TP 2956 Nrth 138210.774 East 2185271.590 Elv 1.168
Code EL

POS TP 2957 Nrth 138182.240 East 2185269.840 Elv 1.216
Code EL

POS TP 2958 Nrth 138153.457 East 2185267.990 Elv 1.130
Code EL

POS TP 2959 Nrth 138124.537 East 2185266.890 Elv -0.478
Code EL

POS TP 2960 Nrth 138095.821 East 2185265.510 Elv -1.176
Code EL

POS TP 2961 Nrth 138066.629 East 2185263.750 Elv -1.652
Code EL

POS TP 2962	Nrtn 138038.631 Code EL	East 2185261.460	Elv -2.020
POS TP 2963	Nrtn 138012.188 Code EL	East 2185260.440	Elv -1.713
POS TP 2964	Nrtn 137987.872 Code EL	East 2185259.040	Elv -1.481
POS TP 2965	Nrtn 137962.255 Code EL	East 2185256.910	Elv -1.306
POS TP 2966	Nrtn 137933.877 Code EL	East 2185255.790	Elv -1.280
POS TP 2967	Nrtn 137905.458 Code EL	East 2185254.110	Elv -0.978
POS TP 2968	Nrtn 137878.835 Code EL	East 2185252.130	Elv -0.413
POS TP 2969	Nrtn 137853.262 Code EL	East 2185249.870	Elv 0.495
POS TP 2970	Nrtn 137824.122 Code EL	East 2185248.700	Elv 1.239
POS TP 2971	Nrtn 137793.456 Code EL	East 2185246.370	Elv 0.949
POS TP 2972	Nrtn 137764.120 Code EL	East 2185244.360	Elv 1.043
POS TP 2973	Nrtn 137730.218 Code EL	East 2185243.160	Elv 1.161
POS TP 2974	Nrtn 137699.182 Code EL	East 2185241.030	Elv 1.296
POS TP 2975	Nrtn 137686.148 Code BL	East 2185239.970	Elv 1.278
TRGET	Trget ht 8.510		
POS TP 2976	Nrtn 137670.415 Code EL	East 2185238.880	Elv 1.172
POS TP 2977	Nrtn 137642.232 Code EL	East 2185237.550	Elv 1.154
POS TP 2978	Nrtn 137614.146 Code EL	East 2185235.460	Elv 1.064
POS TP 2979	Nrtn 137593.881 Code EL	East 2185234.960	Elv 1.013
POS TP 2980	Nrtn 137566.309 Code EL	East 2185233.360	Elv 0.425
POS TP 2981	Nrtn 137543.458 Code EL	East 2185231.820	Elv 0.486
POS TP 2982	Nrtn 137516.860 Code EL	East 2185229.950	Elv 0.140

POS TP 2983	Nrtn 137494.642 Code EL	East 2185228.660	Elv -0.380
POS TP 2984	Nrtn 137470.701 Code EL	East 2185227.860	Elv -0.047
POS TP 2985	Nrtn 137451.056 Code EL	East 2185226.180	Elv 0.259
POS TP 2986	Nrtn 137429.219 Code EL	East 2185224.820	Elv -0.083
POS TP 2987	Nrtn 137404.701 Code EL	East 2185223.460	Elv -0.476
POS TP 2988	Nrtn 137383.072 Code EL	East 2185222.520	Elv -0.559
POS TP 2989	Nrtn 137356.891 Code EL	East 2185219.850	Elv -1.293
POS TP 2990	Nrtn 137330.496 Code EL	East 2185218.160	Elv -1.849
POS TP 2991	Nrtn 137307.762 Code EL	East 2185218.140	Elv -1.972
POS TP 2992	Nrtn 137285.388 Code EL	East 2185218.040	Elv -1.588
POS TP 2993	Nrtn 137265.978 Code EL	East 2185215.500	Elv -1.190
POS TP 2994	Nrtn 137244.471 Code EL	East 2185215.640	Elv -1.070
POS TP 2995	Nrtn 137214.853 Code EL	East 2185212.740	Elv -1.562
POS TP 2996	Nrtn 137184.939 Code EL	East 2185210.500	Elv -2.404
POS TP 2997	Nrtn 137164.220 Code EL	East 2185211.150	Elv -2.661
POS TP 2998	Nrtn 137147.944 Code EL	East 2185207.870	Elv -3.019
POS TP 2999	Nrtn 137131.029 Code EL	East 2185205.400	Elv -3.464
POS TP 3000	Nrtn 137116.097 Code EL	East 2185202.090	Elv -3.731
NOTE	STA 5400		
POS TP 3001	Nrtn 137110.371 Code EL	East 2185011.980	Elv -4.177
POS TP 3002	Nrtn 137124.902 Code EL	East 2185013.900	Elv -3.840
POS TP 3003	Nrtn 137143.916 Code EL	East 2185016.630	Elv -3.439
POS TP 3004	Nrtn 137164.472	East 2185016.630	Elv -3.528

	Code EL		
POS TP 3005	Nrth 137184.212 Code EL	East 2185017.160	Elv -2.602
POS TP 3006	Nrth 137202.836 Code EL	East 2185016.960	Elv -1.969
POS TP 3007	Nrth 137220.714 Code EL	East 2185014.880	Elv -1.497
POS TP 3008	Nrth 137239.865 Code EL	East 2185018.100	Elv -1.081
POS TP 3009	Nrth 137260.808 Code EL	East 2185019.430	Elv -1.010
POS TP 3010	Nrth 137283.422 Code EL	East 2185021.450	Elv -0.881
POS TP 3011	Nrth 137305.215 Code EL	East 2185022.270	Elv -0.525
POS TP 3012	Nrth 137326.183 Code EL	East 2185023.380	Elv -0.237
POS TP 3013	Nrth 137350.041 Code EL	East 2185024.890	Elv -0.461
POS TP 3014	Nrth 137368.784 Code EL	East 2185024.920	Elv -0.294
POS TP 3015	Nrth 137389.907 Code EL	East 2185026.130	Elv -0.252
POS TP 3016	Nrth 137411.851 Code EL	East 2185026.510	Elv 0.008
POS TP 3017	Nrth 137439.306 Code EL	East 2185028.550	Elv 0.140
POS TP 3018	Nrth 137463.583 Code EL	East 2185030.500	Elv 0.525
POS TP 3019	Nrth 137487.133 Code EL	East 2185031.320	Elv 0.508
POS TP 3020	Nrth 137508.386 Code EL	East 2185031.970	Elv 1.087
POS TP 3021	Nrth 137531.259 Code EL	East 2185033.050	Elv 1.108
POS TP 3022	Nrth 137555.977 Code EL	East 2185034.330	Elv 1.112
POS TP 3023	Nrth 137580.258 Code EL	East 2185035.290	Elv 0.988
POS TP 3024	Nrth 137604.623 Code EL	East 2185036.570	Elv 1.111
POS TP 3025	Nrth 137628.954 Code EL	East 2185037.350	Elv 1.052
POS TP 3026	Nrth 137652.171	East 2185039.300	Elv 0.859

	Code EL		
POS TP 3027	Nrth 137674.063 Code EL	East 2185039.950	Elv 0.937
POS TP 3028	Nrth 137696.662 Code EL	East 2185041.090	Elv 0.414
POS TP 3029	Nrtn 137710.783 Code BL	East 2185041.600	Elv 0.060
TRGET	Trget ht 8.520		
POS TP 3030	Nrth 137759.134 Code EL	East 2185043.340	Elv -1.908
POS TP 3031	Nrth 137758.274 Code EL	East 2185043.600	Elv -1.832
POS TP 3032	Nrth 137784.801 Code EL	East 2185044.900	Elv -1.543
POS TP 3033	Nrth 137808.661 Code EL	East 2185046.070	Elv -1.424
POS TP 3034	Nrth 137833.616 Code EL	East 2185047.590	Elv -1.650
POS TP 3035	Nrth 137858.315 Code EL	East 2185048.380	Elv -1.470
POS TP 3036	Nrtn 137887.152 Code EL	East 2185049.630	Elv -0.990
POS TP 3037	Nrtn 137912.988 Code EL	East 2185050.560	Elv -0.698
POS TP 3038	Nrth 137937.363 Code EL	East 2185052.400	Elv -0.523
POS TP 3039	Nrtn 137965.300 Code EL	East 2185052.880	Elv -0.358
POS TP 3040	Nrth 137993.306 Code EL	East 2185054.640	Elv -0.333
POS TP 3041	Nrth 138023.648 Code EL	East 2185056.790	Elv -0.701
POS TP 3042	Nrth 138037.231 Code EL	East 2185056.530	Elv 0.068
POS TP 3043	Nrth 138059.870 Code EL	East 2185057.400	Elv -0.201
POS TP 3044	Nrth 138082.094 Code EL	East 2185059.720	Elv -0.328
POS TP 3045	Nrth 138102.908 Code EL	East 2185059.960	Elv -0.108
POS TP 3046	Nrth 138135.227 Code EL	East 2185062.090	Elv 0.929
POS TP 3047	Nrth 138180.948 Code EL	East 2185062.800	Elv 0.771

POS TP 3048	Nrtn 138231.987 Code EL	East 2185066.990	Elv 0.771
POS TP 3049	Nrtn 138261.251 Code EL	East 2185068.170	Elv 0.661
POS TP 3050	Nrtn 138298.261 Code EL	East 2185068.650	Elv 0.734
POS TP 3051	Nrtn 138343.750 Code EL	East 2185071.740	Elv 0.495
POS TP 3052	Nrtn 138373.020 Code EL	East 2185073.380	Elv -0.505
POS TP 3053	Nrtn 138393.365 Code EL	East 2185073.100	Elv -0.141
POS TP 3054	Nrtn 138409.551 Code EL	East 2185073.830	Elv -0.276
POS TP 3055	Nrtn 138433.601 Code EL	East 2185075.070	Elv -1.313
POS TP 3056	Nrtn 138460.271 Code EL	East 2185076.420	Elv -1.866
POS TP 3057	Nrtn 138478.622 Code EL	East 2185080.060	Elv -0.434
POS TP 3058	Nrtn 138501.461 Code EL	East 2185080.640	Elv 0.654
POS TP 3059	Nrtn 138534.243 Code EL	East 2185081.370	Elv 0.662
NOTE	STA 5200		
POS TP 3060	Nrtn 138475.956 Code EL	East 2184880.840	Elv 0.717
POS TP 3061	Nrtn 138447.491 Code EL	East 2184878.530	Elv 0.615
POS TP 3062	Nrtn 138423.016 Code EL	East 2184877.350	Elv 0.699
POS TP 3063	Nrtn 138390.315 Code EL	East 2184874.680	Elv 0.445
POS TP 3064	Nrtn 138363.841 Code EL	East 2184869.960	Elv -0.577
POS TP 3065	Nrtn 138334.825 Code EL	East 2184873.990	Elv 0.167
POS TP 3066	Nrtn 138313.012 Code EL	East 2184872.190	Elv 0.455
POS TP 3067	Nrtn 138286.618 Code EL	East 2184871.490	Elv 0.447
POS TP 3068	Nrtn 138258.566 Code EL	East 2184868.790	Elv 0.580

POS TP 3069	Nrth 138219.979 Code EL	East 2184867.070	Elv 0.448
POS TP 3070	Nrtn 138186.518 Code EL	East 2184865.840	Elv 0.354
POS TP 3071	Nrtn 138158.909 Code EL	East 2184864.650	Elv 0.375
POS TP 3072	Nrtn 138135.187 Code EL	East 2184864.200	Elv 0.321
POS TP 3073	Nrtn 138109.474 Code EL	East 2184862.420	Elv 0.140
POS TP 3074	Nrtn 138097.465 Code EL	East 2184860.690	Elv 0.777
POS TP 3075	Nrtn 138077.170 Code EL	East 2184860.330	Elv -0.043
POS TP 3076	Nrtn 138061.563 Code EL	East 2184859.520	Elv 0.684
POS TP 3077	Nrtn 138042.164 Code EL	East 2184858.870	Elv -0.072
POS TP 3078	Nrtn 138017.600 Code EL	East 2184857.320	Elv 0.689
POS TP 3079	Nrtn 137995.057 Code EL	East 2184855.570	Elv 0.719
POS TP 3080	Nrtn 137964.343 Code EL	East 2184854.670	Elv 0.170
POS TP 3081	Nrtn 137938.450 Code EL	East 2184853.220	Elv 0.643
POS TP 3082	Nrtn 137916.318 Code EL	East 2184852.230	Elv 0.773
POS TP 3083	Nrtn 137895.391 Code EL	East 2184850.930	Elv 0.661
POS TP 3084	Nrtn 137879.136 Code EL	East 2184849.940	Elv 0.553
POS TP 3085	Nrtn 137856.354 Code EL	East 2184848.620	Elv 0.733
POS TP 3086	Nrtn 137833.282 Code EL	East 2184847.500	Elv 0.792
POS TP 3087	Nrtn 137809.469 Code EL	East 2184846.630	Elv 0.947
POS TP 3088	Nrtn 137790.322 Code EL	East 2184845.590	Elv 1.391
POS TP 3089	Nrtn 137766.654 Code EL	East 2184844.370	Elv 2.046
POS TP 3090	Nrtn 137735.507 Code BL	East 2184842.530	Elv 2.082

POS TP 3091	Nrtn 137718.089 Code EL	East 2184841.750	Elv 2.172
TRGET	Trget ht 8.510		
POS TP 3092	Nrtn 137694.910 Code EL	East 2184841.350	Elv 2.339
POS TP 3093	Nrtn 137668.395 Code EL	East 2184840.110	Elv 2.124
POS TP 3094	Nrtn 137642.879 Code EL	East 2184838.260	Elv 0.070
POS TP 3095	Nrtn 137616.758 Code EL	East 2184837.530	Elv -0.024
POS TP 3096	Nrtn 137591.278 Code EL	East 2184836.440	Elv -0.162
POS TP 3097	Nrtn 137565.061 Code EL	East 2184835.220	Elv -0.015
POS TP 3098	Nrtn 137539.166 Code EL	East 2184833.460	Elv -0.198
POS TP 3099	Nrtn 137514.706 Code EL	East 2184833.080	Elv -0.431
POS TP 3100	Nrtn 137491.347 Code EL	East 2184830.880	Elv -0.782
POS TP 3101	Nrtn 137468.283 Code EL	East 2184830.950	Elv -1.066
POS TP 3102	Nrtn 137447.217 Code EL	East 2184829.430	Elv -0.818
POS TP 3103	Nrtn 137430.584 Code EL	East 2184828.400	Elv -0.861
POS TP 3104	Nrtn 137412.301 Code EL	East 2184827.390	Elv -0.317
POS TP 3105	Nrtn 137395.592 Code EL	East 2184825.970	Elv -0.087
POS TP 3106	Nrtn 137373.832 Code EL	East 2184825.420	Elv -0.395
POS TP 3107	Nrtn 137353.294 Code EL	East 2184824.400	Elv -0.632
POS TP 3108	Nrtn 137332.875 Code EL	East 2184823.220	Elv -0.921
POS TP 3109	Nrtn 137312.314 Code EL	East 2184822.180	Elv -1.364
POS TP 3110	Nrtn 137292.662 Code EL	East 2184821.280	Elv -1.332
POS TP 3111	Nrtn 137277.023 Code EL	East 2184820.690	Elv -0.971
POS TP 3112	Nrtn 137258.042	East 2184820.400	Elv -0.912

	Code EL		
POS TP 3113	Nrth 137239.580 Code EL	East 2184818.850	Elv -1.030
POS TP 3114	Nrth 137220.410 Code EL	East 2184819.220	Elv -1.022
POS TP 3115	Nrth 137198.867 Code EL	East 2184817.290	Elv -1.272
POS TP 3116	Nrth 137178.270 Code EL	East 2184816.370	Elv -1.817
POS TP 3117	Nrth 137157.265 Code EL	East 2184815.310	Elv -2.345
POS TP 3118	Nrth 137136.290 Code EL	East 2184815.640	Elv -3.043
POS TP 3119	Nrth 137117.499 Code EL	East 2184814.730	Elv -3.427
POS TP 3120	Nrth 137101.556 Code EL	East 2184815.310	Elv -3.924
NOTE	STA 5000		
POS TP 3121	Nrth 137279.922 Code CHECK	East 2184404.430	Elv -3.967
POS TP 3122	Nrth 137296.118 Code CHECK	East 2184404.920	Elv -3.857
POS TP 3123	Nrth 137312.177 Code CHECK	East 2184406.340	Elv -3.713
POS TP 3124	Nrth 137339.975 Code CHECK	East 2184408.530	Elv -3.289
POS TP 3125	Nrth 137275.152 Code EL	East 2184620.410	Elv -3.641
POS TP 3126	Nrth 137292.732 Code EL	East 2184621.960	Elv -3.695
POS TP 3127	Nrth 137311.190 Code EL	East 2184623.040	Elv -3.569
POS TP 3128	Nrth 137328.716 Code EL	East 2184624.850	Elv -3.030
POS TP 3129	Nrth 137346.251 Code EL	East 2184625.950	Elv -3.263
POS TP 3130	Nrth 137362.870 Code EL	East 2184625.940	Elv -3.731
POS TP 3131	Nrth 137377.969 Code EL	East 2184625.830	Elv -3.815
POS TP 3132	Nrth 137392.885 Code EL	East 2184626.240	Elv -3.782
POS TP 3133	Nrth 137407.194 Code EL	East 2184626.670	Elv -3.603

POS TP 3134	Nrth 137424.655 Code EL	East 2184628.400	Elv -3.453
POS TP 3135	Nrth 137442.663 Code EL	East 2184629.100	Elv -3.218
POS TP 3136	Nrth 137462.740 Code EL	East 2184631.980	Elv -2.983
POS TP 3137	Nrth 137481.802 Code EL	East 2184631.760	Elv -2.664
POS TP 3138	Nrth 137507.203 Code EL	East 2184632.950	Elv -2.376
POS TP 3139	Nrth 137531.753 Code EL	East 2184634.370	Elv -2.175
POS TP 3140	Nrth 137551.696 Code EL	East 2184635.000	Elv -2.004
POS TP 3141	Nrth 137574.735 Code EL	East 2184635.920	Elv -1.690
POS TP 3142	Nrth 137598.366 Code EL	East 2184637.000	Elv -1.577
POS TP 3143	Nrth 137623.875 Code EL	East 2184638.350	Elv -1.293
POS TP 3144	Nrth 137649.137 Code EL	East 2184639.630	Elv -0.981
POS TP 3145	Nrth 137671.471 Code EL	East 2184640.290	Elv -0.924
POS TP 3146	Nrth 137693.467 Code EL	East 2184640.710	Elv -0.296
POS TP 3147	Nrth 137701.813 Code EL	East 2184642.170	Elv 0.443
POS TP 3148	Nrth 137720.123 Code EL	East 2184643.220	Elv 2.864
POS TP 3149	Nrth 137740.959 Code EL	East 2184644.140	Elv 2.327
POS TP 3150	Nrtn 137760.258 Code BL	East 2184644.390	Elv 1.878
TRGET	Trget ht 8.520		
POS TP 3151	Nrth 137785.373 Code EL	East 2184645.870	Elv 1.475
POS TP 3152	Nrth 137813.315 Code EL	East 2184647.520	Elv 1.111
POS TP 3153	Nrth 137839.702 Code EL	East 2184648.430	Elv 0.863
POS TP 3154	Nrth 137866.789 Code EL	East 2184649.420	Elv 0.673

POS TP 3155	Nrth 137892.691 Code EL	East 2184650.050	Elv -0.560
POS TP 3156	Nrth 137921.287 Code EL	East 2184651.990	Elv 0.728
POS TP 3157	Nrth 137950.195 Code EL	East 2184653.350	Elv 0.510
POS TP 3158	Nrth 137981.568 Code EL	East 2184654.700	Elv 0.322
POS TP 3159	Nrth 138007.022 Code EL	East 2184656.030	Elv 0.189
POS TP 3160	Nrth 138030.914 Code EL	East 2184657.250	Elv 0.262
POS TP 3161	Nrth 138059.594 Code EL	East 2184658.170	Elv -0.798
POS TP 3162	Nrth 138083.776 Code EL	East 2184659.550	Elv 0.147
POS TP 3163	Nrth 138108.173 Code EL	East 2184661.000	Elv -0.202
POS TP 3164	Nrth 138135.502 Code EL	East 2184662.280	Elv 0.550
POS TP 3165	Nrth 138164.670 Code EL	East 2184664.030	Elv 0.513
POS TP 3166	Nrth 138195.493 Code EL	East 2184664.100	Elv 0.543
POS TP 3167	Nrth 138222.282 Code EL	East 2184666.320	Elv -0.818
POS TP 3168	Nrth 138251.831 Code EL	East 2184667.420	Elv -1.089
POS TP 3169	Nrth 138292.267 Code EL	East 2184668.020	Elv 0.575
POS TP 3170	Nrth 138319.854 Code EL	East 2184670.100	Elv 0.341
POS TP 3171	Nrth 138349.160 Code EL	East 2184672.990	Elv 0.401
POS TP 3172	Nrth 138378.365 Code EL	East 2184669.980	Elv -0.562
POS TP 3173	Nrth 138405.755 Code EL	East 2184674.120	Elv 0.563
POS TP 3174	Nrth 138438.969 Code EL	East 2184672.800	Elv -2.089
NOTE	STA 4800		
POS TP 3175	Nrth 138458.735 Code EL	East 2184502.400	Elv 0.924
POS TP 3176	Nrth 138433.840	East 2184500.330	Elv -1.313

	Code EL		
POS TP 3177	Nrth 138414.112 Code EL	East 2184498.270	Elv -3.221
POS TP 3178	Nrth 138386.081 Code EL	East 2184495.800	Elv -1.771
POS TP 3179	Nrth 138357.594 Code EL	East 2184493.910	Elv -0.491
POS TP 3180	Nrth 138329.453 Code EL	East 2184490.870	Elv 0.443
POS TP 3181	Nrth 138297.666 Code EL	East 2184489.080	Elv -0.051
POS TP 3182	Nrth 138261.906 Code EL	East 2184485.480	Elv 0.860
POS TP 3183	Nrth 138236.311 Code EL	East 2184487.360	Elv 0.122
POS TP 3184	Nrth 138209.648 Code EL	East 2184480.400	Elv -0.558
POS TP 3185	Nrth 138179.926 Code EL	East 2184480.720	Elv -0.994
POS TP 3186	Nrth 138153.081 Code EL	East 2184477.320	Elv 0.396
POS TP 3187	Nrth 138124.541 Code EL	East 2184474.960	Elv 0.450
POS TP 3188	Nrth 138095.006 Code EL	East 2184473.530	Elv 0.674
POS TP 3189	Nrth 138062.540 Code EL	East 2184468.510	Elv 0.387
POS TP 3190	Nrth 138031.592 Code EL	East 2184466.260	Elv 0.578
POS TP 3191	Nrth 137999.912 Code EL	East 2184462.330	Elv 0.431
POS TP 3192	Nrth 137967.821 Code EL	East 2184459.780	Elv -0.022
POS TP 3193	Nrth 137945.264 Code EL	East 2184458.830	Elv -0.368
POS TP 3194	Nrth 137915.309 Code EL	East 2184457.190	Elv 0.534
POS TP 3195	Nrth 137887.305 Code EL	East 2184454.730	Elv 0.494
POS TP 3196	Nrth 137855.710 Code EL	East 2184452.880	Elv 0.854
POS TP 3197	Nrth 137825.868 Code EL	East 2184450.190	Elv 1.751
POS TP 3198	Nrth 137796.663	East 2184446.880	Elv 1.882

	Code EL		
POS TP 3199	Nrth 137785.054 Code BL	East 2184446.010	Elv 2.047
TRGET	Trget ht 6.510		
POS TP 3200	Nrth 137767.127 Code EL	East 2184444.650	Elv 2.322
POS TP 3201	Nrth 137741.476 Code EL	East 2184443.290	Elv 2.951
POS TP 3202	Nrth 137728.438 Code EL	East 2184442.340	Elv 3.284
POS TP 3203	Nrth 137707.831 Code EL	East 2184440.170	Elv 0.518
POS TP 3204	Nrth 137687.650 Code EL	East 2184438.360	Elv -0.883
POS TP 3205	Nrth 137664.779 Code EL	East 2184436.400	Elv -1.550
POS TP 3206	Nrth 137641.053 Code EL	East 2184435.250	Elv -1.917
POS TP 3207	Nrth 137615.163 Code EL	East 2184432.270	Elv -2.083
POS TP 3208	Nrth 137588.731 Code EL	East 2184431.400	Elv -2.251
POS TP 3209	Nrth 137567.518 Code EL	East 2184429.610	Elv -2.452
POS TP 3210	Nrth 137544.934 Code EL	East 2184426.190	Elv -2.789
POS TP 3211	Nrth 137523.481 Code EL	East 2184424.180	Elv -2.790
POS TP 3212	Nrth 137500.082 Code EL	East 2184424.140	Elv -2.757
POS TP 3213	Nrth 137479.676 Code EL	East 2184422.000	Elv -2.351
POS TP 3214	Nrth 137454.011 Code EL	East 2184419.790	Elv -2.454
POS TP 3215	Nrth 137430.786 Code EL	East 2184418.440	Elv -2.761
POS TP 3216	Nrth 137407.579 Code EL	East 2184415.610	Elv -3.139
POS TP 3217	Nrth 137387.196 Code EL	East 2184415.320	Elv -2.764
POS TP 3218	Nrth 137365.024 Code EL	East 2184412.430	Elv -2.766
POS TP 3219	Nrth 137341.566 Code EL	East 2184409.440	Elv -3.288

POS TP 3220	Nrtn 137319.320 Code EL	East 2184408.430	Elv -3.674
POS TP 3221	Nrtn 137294.756 Code EL	East 2184408.080	Elv -3.784
POS TP 3222	Nrtn 137280.233 Code EL	East 2184408.770	Elv -4.032
NOTE	STA 4600		
POS TP 3223	Nrtn 137300.257 Code EL	East 2184217.340	Elv -3.931
POS TP 3224	Nrtn 137323.640 Code EL	East 2184218.740	Elv -3.336
POS TP 3225	Nrtn 137338.046 Code EL	East 2184219.480	Elv -3.060
POS TP 3226	Nrtn 137356.973 Code EL	East 2184221.070	Elv -2.627
POS TP 3227	Nrtn 137376.817 Code EL	East 2184221.850	Elv -2.120
POS TP 3228	Nrtn 137396.775 Code EL	East 2184223.560	Elv -1.887
POS TP 3229	Nrtn 137422.769 Code EL	East 2184225.650	Elv -1.695
POS TP 3230	Nrtn 137443.481 Code EL	East 2184227.540	Elv -2.702
POS TP 3231	Nrtn 137468.910 Code EL	East 2184227.950	Elv -2.894
POS TP 3232	Nrtn 137492.036 Code EL	East 2184230.180	Elv -2.931
POS TP 3233	Nrtn 137511.658 Code EL	East 2184231.200	Elv -2.815
POS TP 3234	Nrtn 137533.592 Code EL	East 2184232.710	Elv -2.814
POS TP 3235	Nrtn 137555.533 Code EL	East 2184234.290	Elv -2.583
POS TP 3236	Nrtn 137576.303 Code EL	East 2184236.070	Elv -2.468
POS TP 3237	Nrtn 137599.187 Code EL	East 2184237.470	Elv -2.163
POS TP 3238	Nrtn 137621.070 Code EL	East 2184238.700	Elv -1.705
POS TP 3239	Nrtn 137643.674 Code EL	East 2184240.480	Elv -1.133
POS TP 3240	Nrtn 137665.925 Code EL	East 2184241.340	Elv -0.028

POS TP 3241	Nrtn 137692.881 Code EL	East 2184243.450	Elv 1.990
POS TP 3242	Nrtn 137715.410 Code EL	East 2184245.170	Elv 2.941
POS TP 3243	Nrtn 137742.376 Code EL	East 2184246.720	Elv 2.371
POS TP 3244	Nrtn 137768.093 Code BL	East 2184247.950	Elv 1.916

* END OF REPORT *

025
388-93-5
La DNR

SDR20 V03-05	Copyright 1985-92 by Datacom Software Research Limited.		
	Serial no	Oct-25-93 06:10	
	Angle : Degrees	Dist : Feet	Press : Inch Hg
	Temp : Fahrenht	Coord : N-E-Elv	H.obs : Right
JOB	Job ID 388-93-5		
NOTE CP	Sea level crn: N		
NOTE CP	C and R crn: Y		
NOTE CP	Atmos crn: N		
SCALE	S.F. 1.000000000		
NOTE OO	Current view		
NOTE TS	Oct-21-93 12:57		
NOTE	-DNR-CRD PHASE1-TRINITY ISLAND		
NOTE	-X-SECTIONS		
NOTE	-REFERENCE BK 2094		
NOTE	-		
POS KI 0005	Nrth 138684.554	East 2190974.440	Elv 3.300
	Code CP		
POS KI 0006	Nrth 138190.224	East 2188137.920	Elv 2.960
	Code CP		
POS KI 0007	Nrth 137614.956	East 2185813.210	Elv 2.060
	Code CP		
INSTR	SET	EDM <No text>	Serial no 000000
	Theo <No text>	Serial no 000000	Mount: not applc
	V.obs : Zenitn	Edm o/s <Null>	Refl o/s <Null>
	P.C. mm 0.000		
NOTE PC	P.C. mm Applied: 0.000		
STN TP 0006	Nrth 138190.224	East 2188137.920	Elv 2.960
	Theo ht 4.018	Code CP	
NOTE TL	EDM tol. error: Pt: 0005 0.045		
BKB TP 0006-0005	Azmth 80-06'51"	H.obs 0-00'00"	
TRGET	Trget ht 3.880		
OBS F1 0006-0005	Dist 2879.310	V.obs 89-59'50"	H.obs 0-00'00"
	Code CP		

TRGET	Trget ht 4.877		
POS TP 1727	Nrth 138297.951 Code TBM	East 2188756.340	Elv 3.616
TRGET	Trget ht 4.740		
POS TP 1728	Nrth 138052.760 Code TBM	East 2187582.330	Elv -0.003
NOTE	RD 1		
NOTE	STA 9400		
TRGET	Trget ht 8.530		
POS TP 1729	Nrth 138332.494 Code BL	East 2188953.700	Elv 2.698
POS TP 1730	Nrth 138311.357 Code EL	East 2188951.970	Elv 1.654
POS TP 1731	Nrth 138290.846 Code EL	East 2188954.180	Elv 0.695
POS TP 1732	Nrth 138260.498 Code EL	East 2188949.580	Elv 0.200
POS TP 1733	Nrth 138231.725 Code EL	East 2188948.280	Elv -0.850
POS TP 1734	Nrth 138195.823 Code EL	East 2188946.060	Elv -1.499
POS TP 1735	Nrth 138165.522 Code EL	East 2188944.380	Elv -1.617
POS TP 1736	Nrth 138133.503 Code EL	East 2188943.130	Elv -1.499
POS TP 1737	Nrth 138104.337 Code EL	East 2188941.930	Elv -2.440
POS TP 1738	Nrth 138069.936 Code EL	East 2188940.640	Elv -2.935
POS TP 1739	Nrth 138032.839 Code EL	East 2188938.360	Elv -2.745
POS TP 1740	Nrth 137997.977 Code EL	East 2188935.520	Elv -1.876
POS TP 1741	Nrth 137968.658 Code EL	East 2188933.700	Elv -2.659
POS TP 1742	Nrth 137941.120 Code EL	East 2188931.390	Elv -3.070
POS TP 1743	Nrth 137898.381 Code EL	East 2188931.300	Elv -3.484
POS TP 1744	Nrth 137880.403 Code EL	East 2188930.070	Elv -3.970
TRGET	Trget ht 8.510		

POS TP 1745	Nrth 138369.149 Code EL	East 2188955.420	Elv 2.600
POS TP 1746	Nrth 138397.938 Code EL	East 2188956.890	Elv 2.251
POS TP 1747	Nrth 138421.454 Code EL	East 2188958.200	Elv 2.016
POS TP 1748	Nrth 138448.226 Code EL	East 2188959.060	Elv 1.759
POS TP 1749	Nrth 138475.155 Code EL	East 2188961.150	Elv 1.588
POS TP 1750	Nrth 138506.846 Code EL	East 2188962.700	Elv 1.568
POS TP 1751	Nrth 138533.428 Code EL	East 2188963.840	Elv 1.455
POS TP 1752	Nrth 138550.151 Code EL	East 2188964.630	Elv 1.370
POS TP 1753	Nrth 138584.986 Code EL	East 2188966.400	Elv 1.021
POS TP 1754	Nrth 138615.909 Code EL	East 2188968.100	Elv 0.770
POS TP 1755	Nrth 138645.923 Code EL	East 2188970.280	Elv 0.764
POS TP 1756	Nrth 138679.109 Code EL	East 2188971.350	Elv 0.689
POS TP 1757	Nrth 138702.593 Code EL	East 2188973.040	Elv 0.697
POS TP 1758	Nrth 138731.879 Code EL	East 2188974.220	Elv 0.807
POS TP 1759	Nrth 138759.844 Code EL	East 2188975.270	Elv 0.306
POS TP 1760	Nrth 138792.739 Code EL	East 2188977.190	Elv -0.007
POS TP 1761	Nrth 138823.601 Code EL	East 2188979.090	Elv -0.105
POS TP 1762	Nrth 138855.693 Code EL	East 2188980.900	Elv -0.311
POS TP 1763	Nrth 138885.460 Code EL	East 2188981.530	Elv -0.368
POS TP 1764	Nrth 138911.384 Code EL	East 2188984.000	Elv -0.456
POS TP 1765	Nrth 138938.629 Code EL	East 2188984.760	Elv -0.656
POS TP 1766	Nrth 138967.892 Code EL	East 2188986.690	Elv -0.640

POS TP 1767	Nrth 138998.636 Code EL	East 2188988.130	Elv -0.764
POS TP 1768	Nrth 139031.574 Code EL	East 2188990.200	Elv -0.922
POS TP 1769	Nrth 139062.473 Code EL	East 2188991.440	Elv -0.998
POS TP 1770	Nrth 139095.300 Code EL	East 2188993.530	Elv -1.410
POS TP 1771	Nrth 139127.861 Code EL	East 2188994.610	Elv -2.361
POS TP 1772	Nrth 139156.919 Code EL	East 2188995.570	Elv -2.625
POS TP 1773	Nrth 139197.987 Code EL	East 2188999.320	Elv -2.749
POS TP 1774	Nrth 139234.844 Code EL	East 2189000.920	Elv -2.775
POS TP 1775	Nrth 139263.176 Code EL	East 2189002.150	Elv -2.795
POS TP 1776	Nrth 139340.160 Code EL	East 2189008.230	Elv -2.923
POS TP 1777	Nrth 139389.142 Code EL	East 2189008.640	Elv -2.995
POS TP 1778	Nrth 139441.729 Code EL	East 2189012.170	Elv -2.927
POS TP 1779	Nrth 139483.063 Code EL	East 2189015.580	Elv -3.073
POS TP 1780	Nrth 139537.371 Code EL	East 2189013.010	Elv -3.114
POS TP 1781	Nrth 139584.146 Code EL	East 2189020.600	Elv -3.316
POS TP 1782	Nrth 139627.608 Code EL	East 2189015.700	Elv -3.270
POS TP 1783	Nrth 139673.087 Code EL	East 2189012.520	Elv -3.432
POS TP 1784	Nrth 139707.368 Code EL	East 2189027.000	Elv -3.429
NOTE	STA 9200		
POS TP 1785	Nrth 139662.975 Code EL	East 2188843.510	Elv -3.773
POS TP 1786	Nrth 139620.621 Code EL	East 2188841.390	Elv -3.450
POS TP 1787	Nrth 139580.772 Code EL	East 2188841.360	Elv -3.484

POS TP 1788	Nrth 139539.953 Code EL	East 2188839.720	Elv -3.218
POS TP 1789	Nrth 139504.795 Code EL	East 2188837.800	Elv -3.183
POS TP 1790	Nrth 139476.464 Code EL	East 2188835.660	Elv -3.120
POS TP 1791	Nrth 139432.051 Code EL	East 2188832.120	Elv -3.077
POS TP 1792	Nrth 139396.579 Code EL	East 2188829.900	Elv -3.043
POS TP 1793	Nrth 139339.869 Code EL	East 2188827.760	Elv -2.893
POS TP 1794	Nrth 139290.661 Code EL	East 2188822.340	Elv -2.723
POS TP 1795	Nrth 139243.111 Code EL	East 2188821.390	Elv -2.747
POS TP 1796	Nrth 139214.979 Code EL	East 2188818.490	Elv -2.843
POS TP 1797	Nrth 139172.196 Code EL	East 2188814.290	Elv -2.746
POS TP 1798	Nrth 139136.621 Code EL	East 2188813.400	Elv -1.730
POS TP 1799	Nrth 139103.774 Code EL	East 2188811.700	Elv -1.533
POS TP 1800	Nrth 139076.111 Code EL	East 2188809.850	Elv -1.075
POS TP 1801	Nrth 139051.978 Code EL	East 2188807.780	Elv -1.164
POS TP 1802	Nrth 139016.734 Code EL	East 2188804.240	Elv -1.149
POS TP 1803	Nrth 138993.938 Code EL	East 2188801.210	Elv -1.055
POS TP 1804	Nrth 138967.328 Code EL	East 2188801.740	Elv 1.190
POS TP 1805	Nrth 138932.199 Code EL	East 2188799.420	Elv 1.091
POS TP 1806	Nrth 138899.070 Code EL	East 2188797.010	Elv 1.021
POS TP 1807	Nrth 138863.992 Code EL	East 2188794.890	Elv 0.904
POS TP 1808	Nrth 138831.456 Code EL	East 2188790.770	Elv 1.014
POS TP 1809	Nrth 138802.979 Code EL	East 2188789.810	Elv 0.610

POS TP 1810	Nrth 138770.417 Code EL	East 2188787.790	Elv 0.300
POS TP 1811	Nrtn 138745.635 Code EL	East 2188786.030	Elv -0.234
POS TP 1812	Nrth 138715.271 Code EL	East 2188784.060	Elv 0.036
POS TP 1813	Nrtn 138683.862 Code EL	East 2188782.250	Elv 0.370
POS TP 1814	Nrth 138653.169 Code EL	East 2188780.240	Elv 0.650
POS TP 1815	Nrth 138621.841 Code EL	East 2188778.060	Elv 0.857
POS TP 1816	Nrth 138593.602 Code EL	East 2188776.010	Elv 1.097
POS TP 1817	Nrth 138567.040 Code EL	East 2188774.460	Elv 1.187
POS TP 1818	Nrth 138549.486 Code EL	East 2188773.170	Elv 1.398
POS TP 1819	Nrth 138518.419 Code EL	East 2188771.530	Elv 1.471
POS TP 1820	Nrth 138489.108 Code EL	East 2188769.350	Elv 1.509
POS TP 1821	Nrth 138459.710 Code EL	East 2188767.660	Elv 1.483
POS TP 1822	Nrth 138432.512 Code EL	East 2188765.610	Elv 1.527
POS TP 1823	Nrth 138403.015 Code EL	East 2188763.550	Elv 1.585
POS TP 1824	Nrth 138376.099 Code EL	East 2188762.040	Elv 1.808
POS TP 1825	Nrth 138348.889 Code EL	East 2188760.340	Elv 2.011
POS TP 1826	Nrth 138321.503 Code EL	East 2188758.070	Elv 2.395
POS TP 1827	Nrth 138298.038 Code BL	East 2188756.390	Elv 2.737
TRGET	Trget ht 8.530		
POS TP 1828	Nrth 138280.553 Code EL	East 2188755.240	Elv 2.585
POS TP 1829	Nrth 138257.526 Code EL	East 2188753.160	Elv 1.802
POS TP 1830	Nrth 138234.025 Code EL	East 2188751.730	Elv 0.559
POS TP 1831	Nrth 138204.481	East 2188749.930	Elv 0.029

	Code EL		
POS TP 1832	Nrth 138172.636 Code EL	East 2188747.900	Elv -0.879
POS TP 1833	Nrth 138143.099 Code EL	East 2188745.900	Elv -1.175
POS TP 1834	Nrth 138114.067 Code EL	East 2188744.060	Elv -1.381
POS TP 1835	Nrth 138089.556 Code EL	East 2188742.170	Elv -1.292
POS TP 1836	Nrth 138063.877 Code EL	East 2188740.440	Elv -2.022
POS TP 1837	Nrth 138037.155 Code EL	East 2188738.730	Elv -3.167
POS TP 1838	Nrth 138005.281 Code EL	East 2188737.790	Elv -3.385
POS TP 1839	Nrth 137970.096 Code EL	East 2188734.420	Elv -3.147
POS TP 1840	Nrth 137953.690 Code EL	East 2188734.780	Elv -2.337
POS TP 1841	Nrth 137925.971 Code EL	East 2188730.740	Elv -2.613
POS TP 1842	Nrth 137899.073 Code EL	East 2188730.270	Elv -2.519
POS TP 1843	Nrth 137870.413 Code EL	East 2188729.460	Elv -3.189
POS TP 1844	Nrth 137846.529 Code EL	East 2188725.000	Elv -3.967
NOTE	STA 9000		
POS TP 1845	Nrth 137808.394 Code EL	East 2188540.600	Elv -4.102
POS TP 1846	Nrth 137839.648 Code EL	East 2188541.550	Elv -3.360
POS TP 1847	Nrth 137857.565 Code EL	East 2188542.490	Elv -3.070
POS TP 1848	Nrth 137879.449 Code EL	East 2188543.680	Elv -2.736
POS TP 1849	Nrth 137902.017 Code EL	East 2188543.970	Elv -2.428
POS TP 1850	Nrth 137923.454 Code EL	East 2188544.750	Elv -2.066
POS TP 1851	Nrth 137942.372 Code EL	East 2188545.250	Elv -1.929
POS TP 1852	Nrth 137964.570 Code EL	East 2188547.250	Elv -2.669

POS TP 1853	Nrtn 137990.053 Code EL	East 2188548.400	Elv -3.064	7C
POS TP 1854	Nrtn 138013.744 Code EL	East 2188549.040	Elv -2.871	
POS TP 1855	Nrtn 138038.790 Code EL	East 2188550.030	Elv -2.910	
POS TP 1856	Nrtn 138061.164 Code EL	East 2188551.470	Elv -2.850	
POS TP 1857	Nrtn 138086.178 Code EL	East 2188551.970	Elv -2.449	
POS TP 1858	Nrtn 138109.441 Code EL	East 2188553.290	Elv -1.743	
POS TP 1859	Nrtn 138131.262 Code EL	East 2188554.080	Elv -0.835	
POS TP 1860	Nrtn 138155.917 Code EL	East 2188554.940	Elv -0.331	
POS TP 1861	Nrtn 138179.605 Code EL	East 2188555.750	Elv 0.326	
POS TP 1862	Nrtn 138204.903 Code EL	East 2188557.150	Elv 0.872	
POS TP 1863	Nrtn 138230.257 Code EL	East 2188557.970	Elv 1.653	
POS TP 1864	Nrtn 138253.310 Code EL	East 2188559.000	Elv 2.508	
POS TP 1865	Nrtn 138263.820 Code BL	East 2188559.800	Elv 2.708	
TRGET	Trget ht 8.510			
POS TP 1866	Nrtn 138287.375 Code EL	East 2188560.650	Elv 2.457	
POS TP 1867	Nrtn 138315.923 Code EL	East 2188561.870	Elv 2.084	
POS TP 1868	Nrtn 138348.806 Code EL	East 2188563.270	Elv 1.751	
POS TP 1869	Nrtn 138374.887 Code EL	East 2188564.150	Elv 1.625	
POS TP 1870	Nrtn 138403.613 Code EL	East 2188565.170	Elv 1.506	
POS TP 1871	Nrtn 138434.320 Code EL	East 2188566.650	Elv 1.224	
POS TP 1872	Nrtn 138461.857 Code EL	East 2188567.190	Elv 1.133	
POS TP 1873	Nrtn 138492.054 Code EL	East 2188568.780	Elv 1.101	

POS TP 1874	Nrtn 138525.799 Code EL	East 2188570.050	Elv 1.153
POS TP 1875	Nrtn 138556.175 Code EL	East 2188570.860	Elv 0.866
POS TP 1876	Nrtn 138583.648 Code EL	East 2188572.170	Elv 0.762
POS TP 1877	Nrtn 138606.483 Code EL	East 2188573.120	Elv 0.709
POS TP 1878	Nrtn 138636.782 Code EL	East 2188573.980	Elv 0.579
POS TP 1879	Nrtn 138665.459 Code EL	East 2188575.840	Elv 0.403
POS TP 1880	Nrtn 138691.730 Code EL	East 2188576.790	Elv 0.416
POS TP 1881	Nrtn 138721.378 Code EL	East 2188577.530	Elv 0.483
POS TP 1882	Nrtn 138750.500 Code EL	East 2188578.430	Elv 0.448
POS TP 1883	Nrtn 138778.121 Code EL	East 2188579.420	Elv 0.618
POS TP 1884	Nrtn 138807.442 Code EL	East 2188581.170	Elv 0.930
POS TP 1885	Nrtn 138836.172 Code EL	East 2188582.150	Elv 1.027
POS TP 1886	Nrtn 138865.357 Code EL	East 2188583.850	Elv 0.953
POS TP 1887	Nrtn 138895.844 Code EL	East 2188584.600	Elv 0.932
POS TP 1888	Nrtn 138924.862 Code EL	East 2188585.720	Elv 1.048
POS TP 1889	Nrtn 138954.123 Code EL	East 2188586.850	Elv 1.040
POS TP 1890	Nrtn 138982.321 Code EL	East 2188588.100	Elv 0.583
POS TP 1891	Nrtn 138974.025 Code EL	East 2188588.410	Elv 1.575
POS TP 1892	Nrtn 139007.855 Code EL	East 2188589.670	Elv -0.699
POS TP 1893	Nrtn 139034.859 Code EL	East 2188591.080	Elv -1.165
POS TP 1894	Nrtn 139062.487 Code EL	East 2188592.380	Elv -0.988
POS TP 1895	Nrtn 139092.803 Code EL	East 2188594.790	Elv -1.045

POS TP 1896	Nrtn 139120.738 Code EL	East 2188595.850	Elv -1.158
POS TP 1897	Nrtn 139149.825 Code EL	East 2188596.120	Elv -1.328
POS TP 1898	Nrtn 139180.163 Code EL	East 2188598.430	Elv -1.296
POS TP 1899	Nrtn 139208.109 Code EL	East 2188601.240	Elv -2.320
POS TP 1900	Nrtn 139235.417 Code EL	East 2188600.790	Elv -2.863
POS TP 1901	Nrtn 139258.512 Code EL	East 2188603.670	Elv -2.973
POS TP 1902	Nrtn 139285.726 Code EL	East 2188603.880	Elv -2.801
POS TP 1903	Nrth 139309.774 Code EL	East 2188602.900	Elv -2.765
POS TP 1904	Nrth 139336.856 Code EL	East 2188605.150	Elv -2.701
POS TP 1905	Nrth 139366.553 Code EL	East 2188606.150	Elv -2.727
POS TP 1906	Nrth 139390.023 Code EL	East 2188608.330	Elv -2.779
POS TP 1907	Nrth 139416.754 Code EL	East 2188609.910	Elv -2.643
POS TP 1908	Nrtn 139449.732 Code EL	East 2188611.240	Elv -3.941
POS TP 1909	Nrth 139473.797 Code EL	East 2188610.370	Elv -3.284
POS TP 1910	Nrth 139498.725 Code EL	East 2188608.980	Elv -2.942
POS TP 1911	Nrth 139528.149 Code EL	East 2188610.220	Elv -2.626
TRGET	Trget ht 8.510		
POS TP 1912	Nrth 139567.610 Code EL	East 2188615.000	Elv -2.972
POS TP 1913	Nrth 139614.367 Code EL	East 2188614.250	Elv -3.051
POS TP 1914	Nrth 139648.777 Code EL	East 2188619.950	Elv -3.234
POS TP 1915	Nrth 139691.057 Code EL	East 2188621.120	Elv -3.354
NOTE	STA 8800		
POS TP 1916	Nrth 139691.884 Code EL	East 2188469.350	Elv -2.602

POS TP 1917	Nrth 139661.516 Code EL	East 2188470.620	Elv -2.290
POS TP 1918	Nrth 139626.473 Code EL	East 2188467.640	Elv -1.880
POS TP 1919	Nrth 139600.530 Code EL	East 2188464.750	Elv -1.559
POS TP 1920	Nrth 139567.166 Code EL	East 2188459.830	Elv -0.737
POS TP 1921	Nrth 139534.189 Code EL	East 2188458.070	Elv -1.560
POS TP 1922	Nrth 139498.546 Code EL	East 2188457.470	Elv -1.821
POS TP 1923	Nrth 139464.392 Code EL	East 2188454.930	Elv -2.038
POS TP 1924	Nrth 139429.322 Code EL	East 2188453.000	Elv -2.118
POS TP 1925	Nrth 139396.372 Code EL	East 2188450.170	Elv -2.225
POS TP 1926	Nrth 139366.905 Code EL	East 2188448.550	Elv -2.298
POS TP 1927	Nrth 139337.182 Code EL	East 2188444.090	Elv -2.395
POS TP 1928	Nrth 139306.719 Code EL	East 2188443.890	Elv -2.430
POS TP 1929	Nrth 139276.179 Code EL	East 2188444.680	Elv -2.573
POS TP 1930	Nrth 139237.110 Code EL	East 2188438.310	Elv -2.484
POS TP 1931	Nrth 139209.678 Code EL	East 2188436.010	Elv -1.946
POS TP 1932	Nrth 139179.411 Code EL	East 2188431.980	Elv -1.035
POS TP 1933	Nrth 139157.197 Code EL	East 2188430.720	Elv -0.948
POS TP 1934	Nrth 139124.943 Code EL	East 2188428.020	Elv -1.038
POS TP 1935	Nrth 139091.508 Code EL	East 2188426.380	Elv -1.055
POS TP 1936	Nrth 139056.631 Code EL	East 2188424.560	Elv -1.006
POS TP 1937	Nrth 139026.658 Code EL	East 2188424.140	Elv -1.002
POS TP 1938	Nrth 138998.086 Code EL	East 2188419.870	Elv 0.018

POS TP 1939	Nrtn 138966.217 Code EL	East 2188415.620	Elv 0.820
POS TP 1940	Nrtn 138938.265 Code EL	East 2188411.120	Elv 0.701
POS TP 1941	Nrtn 138910.065 Code EL	East 2188407.940	Elv 0.679
POS TP 1942	Nrtn 138876.882 Code EL	East 2188409.430	Elv 0.985
POS TP 1943	Nrtn 138842.412 Code EL	East 2188404.690	Elv 0.630
POS TP 1944	Nrtn 138812.181 Code EL	East 2188404.750	Elv 0.987
POS TP 1945	Nrtn 138775.841 Code EL	East 2188400.810	Elv 1.060
POS TP 1946	Nrtn 138722.366 Code EL	East 2188398.800	Elv 0.659
POS TP 1947	Nrtn 138689.654 Code EL	East 2188396.610	Elv 0.247
POS TP 1948	Nrtn 138658.941 Code EL	East 2188393.290	Elv 0.609
POS TP 1949	Nrtn 138622.335 Code EL	East 2188390.420	Elv 1.082
POS TP 1950	Nrtn 138584.877 Code EL	East 2188387.830	Elv 0.998
POS TP 1951	Nrtn 138556.310 Code EL	East 2188385.870	Elv 1.098
POS TP 1952	Nrtn 138527.741 Code EL	East 2188383.500	Elv 1.224
POS TP 1953	Nrtn 138496.077 Code EL	East 2188381.430	Elv 1.295
POS TP 1954	Nrtn 138470.517 Code EL	East 2188379.360	Elv 1.314
POS TP 1955	Nrtn 138437.413 Code EL	East 2188376.910	Elv 1.379
POS TP 1956	Nrtn 138407.475 Code EL	East 2188375.380	Elv 1.404
POS TP 1957	Nrtn 138381.911 Code EL	East 2188374.010	Elv 1.610
POS TP 1958	Nrtn 138353.165 Code EL	East 2188371.640	Elv 1.813
POS TP 1959	Nrtn 138323.623 Code EL	East 2188368.610	Elv 2.022
POS TP 1960	Nrtn 138289.633 Code EL	East 2188366.550	Elv 2.108

POS TP 1961	Nrth 138261.147 Code EL	East 2188364.400	Elv 2.243
POS TP 1962	Nrth 138229.341 Code BL	East 2188362.410	Elv 1.237
TRGET	Trget ht 8.530		
POS TP 1963	Nrth 138211.107 Code EL	East 2188360.990	Elv 0.828
POS TP 1964	Nrth 138187.356 Code EL	East 2188358.970	Elv 0.442
POS TP 1965	Nrth 138165.448 Code EL	East 2188356.980	Elv 0.394
POS TP 1966	Nrth 138140.814 Code EL	East 2188355.840	Elv -0.126
POS TP 1967	Nrth 138120.787 Code EL	East 2188354.410	Elv -0.327
POS TP 1968	Nrth 138096.794 Code EL	East 2188352.100	Elv -0.475
POS TP 1969	Nrth 138074.955 Code EL	East 2188351.220	Elv -1.386
POS TP 1970	Nrth 138049.560 Code EL	East 2188349.120	Elv -2.098
POS TP 1971	Nrth 138023.275 Code EL	East 2188347.210	Elv -2.355
POS TP 1972	Nrth 137992.322 Code EL	East 2188346.700	Elv -2.561
POS TP 1973	Nrth 137964.969 Code EL	East 2188343.450	Elv -2.999
POS TP 1974	Nrth 137934.526 Code EL	East 2188339.980	Elv -3.051
POS TP 1975	Nrth 137901.661 Code EL	East 2188338.490	Elv -2.751
POS TP 1976	Nrth 137869.454 Code EL	East 2188335.290	Elv -3.138
POS TP 1977	Nrth 137834.971 Code EL	East 2188333.160	Elv -3.642
POS TP 1978	Nrth 137805.270 Code EL	East 2188331.940	Elv -3.983
POS TP 1979	Nrth 137764.185 Code EL	East 2188328.650	Elv -4.512
NOTE	STA 8600		
POS TP 1980	Nrth 137676.324 Code EL	East 2188131.590	Elv -4.985
POS TP 1981	Nrth 137708.671	East 2188135.180	Elv -4.536

	Code EL		
POS TP 1982	Nrth 137723.502 Code EL	East 2188137.890	Elv -4.353
POS TP 1983	Nrtn 137736.823 Code EL	East 2188138.610	Elv -4.285
POS TP 1984	Nrth 137751.154 Code EL	East 2188139.300	Elv -4.124
POS TP 1985	Nrtn 137767.064 Code EL	East 2188141.180	Elv -4.051
POS TP 1986	Nrth 137782.808 Code EL	East 2188142.620	Elv -3.909
POS TP 1987	Nrth 137800.830 Code EL	East 2188141.890	Elv -3.701
POS TP 1988	Nrtn 137820.202 Code EL	East 2188142.040	Elv -3.433
POS TP 1989	Nrtn 137842.088 Code EL	East 2188143.830	Elv -3.170
POS TP 1990	Nrth 137859.516 Code EL	East 2188145.570	Elv -2.993
POS TP 1991	Nrth 137880.041 Code EL	East 2188146.710	Elv -2.851
POS TP 1992	Nrtn 137899.227 Code EL	East 2188146.980	Elv -2.715
POS TP 1993	Nrtn 137915.748 Code EL	East 2188148.190	Elv -2.696
POS TP 1994	Nrth 137942.924 Code EL	East 2188149.240	Elv -2.277
POS TP 1995	Nrth 137962.991 Code EL	East 2188150.310	Elv -1.865
POS TP 1996	Nrth 137987.972 Code EL	East 2188153.360	Elv -1.586
POS TP 1997	Nrth 138003.601 Code EL	East 2188154.510	Elv -0.965
POS TP 1998	Nrth 138028.040 Code EL	East 2188154.430	Elv 0.025
POS TP 1999	Nrth 138052.907 Code EL	East 2188156.620	Elv -0.188
POS TP 2000	Nrtn 138080.016 Code EL	East 2188158.370	Elv 0.073
POS TP 2001	Nrth 138106.129 Code EL	East 2188159.530	Elv 0.505
POS TP 2002	Nrth 138131.183 Code EL	East 2188160.910	Elv 0.790
POS TP 2003	Nrth 138147.652	East 2188162.380	Elv 2.449

	Code EL		
POS TP 2004	Nrth 138165.227 Code EL	East 2188163.370	Elv 2.415
POS TP 2005	Nrth 138181.306 Code EL	East 2188164.210	Elv 2.030
POS TP 2006	Nrth 138195.144 Code BL	East 2188165.130	Elv 1.260
TRGET	Trget ht 8.510		
POS TP 2007	Nrth 138214.850 Code EL	East 2188166.940	Elv 0.778
POS TP 2008	Nrth 138224.167 Code EL	East 2188166.520	Elv 1.116
POS TP 2009	Nrth 138244.491 Code EL	East 2188167.980	Elv 1.727
POS TP 2010	Nrth 138283.827 Code EL	East 2188170.490	Elv 1.436
POS TP 2011	Nrth 138312.797 Code EL	East 2188172.100	Elv 1.242
POS TP 2012	Nrth 138343.299 Code EL	East 2188173.980	Elv 1.259
POS TP 2013	Nrth 138379.520 Code EL	East 2188176.110	Elv 1.348
POS TP 2014	Nrth 138408.584 Code EL	East 2188178.080	Elv 1.359
POS TP 2015	Nrth 138439.444 Code EL	East 2188179.750	Elv 1.097
POS TP 2016	Nrth 138471.327 Code EL	East 2188181.290	Elv 1.097
POS TP 2017	Nrth 138499.703 Code EL	East 2188182.960	Elv 1.176
POS TP 2018	Nrth 138529.331 Code EL	East 2188184.560	Elv 1.184
POS TP 2019	Nrth 138559.517 Code EL	East 2188186.700	Elv 1.261
POS TP 2020	Nrth 138589.506 Code EL	East 2188188.640	Elv 1.291
POS TP 2021	Nrth 138618.333 Code EL	East 2188189.740	Elv 0.740
POS TP 2022	Nrth 138640.988 Code EL	East 2188191.340	Elv -0.207
POS TP 2023	Nrth 138653.482 Code EL	East 2188192.520	Elv 0.813
POS TP 2024	Nrth 138669.747 Code EL	East 2188196.260	Elv -0.169

POS TP 2025	Nrth 138690.703 Code EL	East 2188194.650	Elv 0.940
POS TP 2026	Nrth 138723.812 Code EL	East 2188195.580	Elv 1.024
POS TP 2027	Nrth 138753.181 Code EL	East 2188198.010	Elv 0.986
POS TP 2028	Nrth 138775.679 Code EL	East 2188199.700	Elv 0.687
POS TP 2029	Nrth 138805.048 Code EL	East 2188202.890	Elv 0.319
POS TP 2030	Nrth 138838.742 Code EL	East 2188203.400	Elv 0.942
POS TP 2031	Nrth 138864.846 Code EL	East 2188204.670	Elv 0.910
POS TP 2032	Nrtn 138897.649 Code EL	East 2188207.980	Elv 1.046
POS TP 2033	Nrtn 138910.769 Code EL	East 2188205.280	Elv 0.742
POS TP 2034	Nrth 138933.331 Code EL	East 2188209.530	Elv -0.380
POS TP 2035	Nrth 138952.557 Code EL	East 2188211.010	Elv -0.369
POS TP 2036	Nrth 138974.055 Code EL	East 2188211.890	Elv 1.725
POS TP 2037	Nrth 138997.010 Code EL	East 2188213.620	Elv -0.261
POS TP 2038	Nrth 139022.331 Code EL	East 2188218.090	Elv -1.193
POS TP 2039	Nrth 139048.516 Code EL	East 2188219.920	Elv -1.350
POS TP 2040	Nrth 139083.098 Code EL	East 2188224.380	Elv -1.255
POS TP 2041	Nrth 139121.292 Code EL	East 2188222.590	Elv -0.879
POS TP 2042	Nrth 139154.998 Code EL	East 2188224.600	Elv -0.761
POS TP 2043	Nrth 139191.191 Code EL	East 2188230.830	Elv -1.511
POS TP 2044	Nrth 139228.415 Code EL	East 2188233.270	Elv -1.939
POS TP 2045	Nrth 139266.534 Code EL	East 2188233.670	Elv -1.796
POS TP 2046	Nrth 139297.121 Code EL	East 2188234.360	Elv -1.587

POS TP 2047	Nrth 139330.595 Code EL	East 2188236.690	Elv -1.477
POS TP 2048	Nrth 139361.185 Code EL	East 2188241.580	Elv -1.532
POS TP 2049	Nrtn 139406.707 Code EL	East 2188241.210	Elv -1.413
POS TP 2050	Nrtn 139435.447 Code EL	East 2188241.220	Elv -1.258
POS TP 2051	Nrth 139473.046 Code EL	East 2188243.270	Elv -1.123
POS TP 2052	Nrth 139501.243 Code EL	East 2188246.900	Elv -0.954
NOTE	STA 8400		
POS TP 2053	Nrth 139418.092 Code EL	East 2188023.480	Elv -0.933
POS TP 2054	Nrth 139386.175 Code EL	East 2188024.260	Elv -1.065
POS TP 2055	Nrth 139346.839 Code EL	East 2188028.600	Elv -1.110
POS TP 2056	Nrth 139314.377 Code EL	East 2188020.680	Elv -1.177
POS TP 2057	Nrth 139280.795 Code EL	East 2188020.820	Elv -1.188
POS TP 2058	Nrth 139228.456 Code EL	East 2188016.400	Elv -1.256
POS TP 2059	Nrth 139181.752 Code EL	East 2188015.480	Elv -1.245
POS TP 2060	Nrth 139120.751 Code EL	East 2188011.840	Elv -1.263
POS TP 2061	Nrth 139086.439 Code EL	East 2188010.840	Elv -1.076
POS TP 2062	Nrth 139057.705 Code EL	East 2188005.640	Elv -1.027
POS TP 2063	Nrth 139026.565 Code EL	East 2188008.930	Elv -0.984
POS TP 2064	Nrth 138989.321 Code EL	East 2188007.130	Elv -0.989
POS TP 2065	Nrtn 138962.371 Code EL	East 2188003.920	Elv -0.607
POS TP 2066	Nrth 138935.421 Code EL	East 2188003.140	Elv 0.095
POS TP 2067	Nrth 138907.415 Code EL	East 2188000.790	Elv 1.612

POS TP 2068	Nrtn 138884.961 Code EL	East 2188001.170	Elv -0.286
POS TP 2069	Nrtn 138858.904 Code EL	East 2187999.040	Elv -1.191
POS TP 2070	Nrtn 138838.020 Code EL	East 2187998.360	Elv -0.800
POS TP 2071	Nrtn 138813.222 Code EL	East 2187999.650	Elv -0.023
POS TP 2072	Nrtn 138785.706 Code EL	East 2187996.110	Elv 0.731
POS TP 2073	Nrtn 138746.652 Code EL	East 2187994.140	Elv 0.927
POS TP 2074	Nrtn 138726.398 Code EL	East 2187989.200	Elv 0.147
POS TP 2075	Nrtn 138701.302 Code EL	East 2187993.410	Elv 0.572
POS TP 2076	Nrtn 138672.324 Code EL	East 2187991.640	Elv 1.062
POS TP 2077	Nrtn 138647.493 Code EL	East 2187991.450	Elv 0.812
POS TP 2078	Nrtn 138622.862 Code EL	East 2187990.670	Elv 1.164
POS TP 2079	Nrtn 138603.307 Code EL	East 2187993.420	Elv -0.011
POS TP 2080	Nrtn 138577.974 Code EL	East 2187987.850	Elv -0.359
POS TP 2081	Nrtn 138542.417 Code EL	East 2187987.830	Elv 1.199
POS TP 2082	Nrtn 138514.027 Code EL	East 2187985.840	Elv 1.315
POS TP 2083	Nrtn 138482.512 Code EL	East 2187984.430	Elv 1.263
POS TP 2084	Nrtn 138451.947 Code EL	East 2187983.360	Elv 1.218
POS TP 2085	Nrtn 138418.033 Code EL	East 2187981.830	Elv 1.080
POS TP 2086	Nrtn 138390.817 Code EL	East 2187981.050	Elv 1.025
POS TP 2087	Nrtn 138363.930 Code EL	East 2187979.740	Elv 0.958
POS TP 2088	Nrtn 138336.181 Code EL	East 2187977.290	Elv 1.179
POS TP 2089	Nrtn 138303.707 Code EL	East 2187977.490	Elv 1.060

POS TP 2090	Nrth 138264.633 Code EL	East 2187975.850	Elv 0.904
POS TP 2091	Nrth 138235.794 Code EL	East 2187974.680	Elv 0.823
POS TP 2092	Nrth 138207.487 Code EL	East 2187973.450	Elv 0.730
POS TP 2093	Nrth 138178.495 Code EL	East 2187972.080	Elv 0.633
POS TP 2094	Nrth 138149.169 Code BL	East 2187970.390	Elv 0.313
POS TP 2095	Nrth 138129.742 Code EL	East 2187970.030	Elv 0.515
POS TP 2096	Nrth 138107.151 Code EL	East 2187969.120	Elv 0.371
POS TP 2097	Nrth 138078.601 Code EL	East 2187968.130	Elv 0.385
TRGET	Trget ht 8.530		
POS TP 2098	Nrth 138046.934 Code EL	East 2187966.350	Elv -0.028
NOTE	--TARGET HT 2095-	2097 8.53	
POS TP 2099	Nrth 138020.251 Code EL	East 2187965.210	Elv -0.123
POS TP 2100	Nrth 137993.784 Code EL	East 2187964.400	Elv -0.165
POS TP 2101	Nrth 137970.899 Code EL	East 2187963.360	Elv 0.196
POS TP 2102	Nrth 137943.159 Code EL	East 2187962.050	Elv -0.352
POS TP 2103	Nrth 137914.924 Code EL	East 2187959.400	Elv -0.651
POS TP 2104	Nrth 137888.005 Code EL	East 2187959.520	Elv -0.750
POS TP 2105	Nrth 137863.827 Code EL	East 2187959.520	Elv -1.252
POS TP 2106	Nrth 137840.229 Code EL	East 2187957.200	Elv -1.673
POS TP 2107	Nrth 137805.191 Code EL	East 2187955.460	Elv -2.323
POS TP 2108	Nrth 137771.852 Code EL	East 2187955.190	Elv -2.843
POS TP 2109	Nrth 137737.557 Code EL	East 2187953.680	Elv -3.407
POS TP 2110	Nrth 137707.761 Code EL	East 2187952.480	Elv -3.890

POS TP 2111	Nrtn 137686.799 Code EL	East 2187949.810	Elv -4.282
POS TP 2112	Nrtn 137668.571 Code EL	East 2187944.260	Elv -4.958
NOTE	STA 8200		
POS TP 2113	Nrtn 137598.432 Code EL	East 2187731.340	Elv -4.744
POS TP 2114	Nrtn 137619.553 Code EL	East 2187735.560	Elv -4.470
POS TP 2115	Nrtn 137640.558 Code EL	East 2187738.790	Elv -4.227
POS TP 2116	Nrtn 137659.809 Code EL	East 2187740.030	Elv -4.034
POS TP 2117	Nrtn 137679.763 Code EL	East 2187743.670	Elv -3.560
POS TP 2118	Nrtn 137697.741 Code EL	East 2187745.340	Elv -2.872
POS TP 2119	Nrtn 137723.714 Code EL	East 2187747.610	Elv -2.753
POS TP 2120	Nrtn 137749.351 Code EL	East 2187748.760	Elv -2.357
POS TP 2121	Nrtn 137774.631 Code EL	East 2187747.480	Elv -2.001
POS TP 2122	Nrtn 137796.262 Code EL	East 2187752.520	Elv -1.185
POS TP 2123	Nrtn 137820.426 Code EL	East 2187753.380	Elv -0.887
POS TP 2124	Nrtn 137842.239 Code EL	East 2187756.330	Elv -0.507
POS TP 2125	Nrtn 137883.253 Code EL	East 2187757.660	Elv 0.111
POS TP 2126	Nrtn 137908.808 Code EL	East 2187760.030	Elv -0.325
POS TP 2127	Nrtn 137933.001 Code EL	East 2187763.580	Elv -0.359
POS TP 2128	Nrtn 137958.664 Code EL	East 2187765.480	Elv -0.240
POS TP 2129	Nrtn 137985.618 Code EL	East 2187767.950	Elv 0.061
POS TP 2130	Nrtn 138011.713 Code EL	East 2187769.040	Elv -0.058
POS TP 2131	Nrtn 138033.759 Code EL	East 2187771.090	Elv -0.099

POS TP 2132	Nrth 138061.291 Code EL	East 2187773.290	Elv 0.111
POS TP 2133	Nrth 138082.358 Code EL	East 2187774.530	Elv 0.114
POS TP 2134	Nrth 138100.798 Code BL	East 2187776.070	Elv 0.122
TRGET	Trget ht 8.510		
POS TP 2135	Nrth 138134.828 Code EL	East 2187778.930	Elv 0.276
POS TP 2136	Nrth 138165.907 Code EL	East 2187781.590	Elv 0.280
POS TP 2137	Nrth 138202.989 Code EL	East 2187784.460	Elv 0.460
POS TP 2138	Nrth 138233.667 Code EL	East 2187786.660	Elv 0.538
POS TP 2139	Nrth 138262.833 Code EL	East 2187788.850	Elv 0.381
POS TP 2140	Nrth 138284.012 Code EL	East 2187791.140	Elv 0.352
POS TP 2141	Nrth 138308.628 Code EL	East 2187792.810	Elv 0.921
POS TP 2142	Nrth 138336.218 Code EL	East 2187795.230	Elv 1.053
POS TP 2143	Nrth 138366.508 Code EL	East 2187798.360	Elv 1.059
POS TP 2144	Nrth 138397.533 Code EL	East 2187800.350	Elv 1.102
POS TP 2145	Nrth 138427.830 Code EL	East 2187802.550	Elv 0.982
POS TP 2146	Nrth 138458.238 Code EL	East 2187805.440	Elv 0.718
POS TP 2147	Nrth 138486.772 Code EL	East 2187807.080	Elv 0.357
POS TP 2148	Nrth 138508.711 Code EL	East 2187809.690	Elv 0.900
POS TP 2149	Nrth 138536.139 Code EL	East 2187811.240	Elv 0.952
POS TP 2150	Nrth 138565.487 Code EL	East 2187813.280	Elv 0.963
POS TP 2151	Nrth 138592.142 Code EL	East 2187816.600	Elv 0.943
POS TP 2152	Nrth 138621.585 Code EL	East 2187817.890	Elv 1.039
POS TP 2153	Nrth 138657.097	East 2187823.720	Elv 1.053

	Code EL		
POS TP 2154	Nrth 138685.424 Code EL	East 2187826.200	Elv 0.971
POS TP 2155	Nrth 138712.704 Code EL	East 2187825.730	Elv 0.099
POS TP 2156	Nrth 138735.849 Code EL	East 2187826.670	Elv -0.808
POS TP 2157	Nrth 138754.674 Code EL	East 2187826.810	Elv -0.633
POS TP 2158	Nrth 138775.699 Code EL	East 2187831.580	Elv -0.562
POS TP 2159	Nrth 138795.656 Code EL	East 2187836.580	Elv -0.572
POS TP 2160	Nrth 138815.187 Code EL	East 2187837.320	Elv -0.547
POS TP 2161	Nrth 138853.009 Code EL	East 2187836.320	Elv -0.974
POS TP 2162	Nrth 138881.991 Code EL	East 2187839.530	Elv -0.863
POS TP 2163	Nrth 138933.646 Code EL	East 2187843.230	Elv -1.383
POS TP 2164	Nrth 138979.328 Code EL	East 2187844.510	Elv -1.375
POS TP 2165	Nrth 139020.501 Code EL	East 2187852.060	Elv -2.048
POS TP 2166	Nrth 139049.119 Code EL	East 2187861.110	Elv -1.471
POS TP 2167	Nrth 139082.091 Code EL	East 2187858.650	Elv -1.537
POS TP 2168	Nrth 139128.002 Code EL	East 2187848.210	Elv -1.298
POS TP 2169	Nrth 139156.701 Code EL	East 2187845.110	Elv -1.364
POS TP 2170	Nrth 139197.764 Code EL	East 2187865.080	Elv -1.383
POS TP 2171	Nrth 139238.203 Code EL	East 2187866.930	Elv -1.324
POS TP 2172	Nrth 139271.797 Code EL	East 2187864.250	Elv -1.182
POS TP 2173	Nrth 139291.036 Code EL	East 2187866.750	Elv -1.203
POS TP 2174	Nrth 139310.498 Code EL	East 2187865.290	Elv -1.057
POS TP 2175	Nrth 139335.658	East 2187861.990	Elv -0.932

	Code EL		
POS TP 2176	Nrth 139362.699 Code EL	East 2187852.020	Elv -0.771
POS TP 2177	Nrth 139388.633 Code EL	East 2187851.080	Elv -0.635
POS TP 2178	Nrth 139415.117 Code EL	East 2187849.820	Elv -0.615
POS TP 2179	Nrth 139444.610 Code EL	East 2187848.550	Elv -0.406
STN TP 0006	Nrth 138190.224 Theo ht 4.109	East 2188137.920 Code CP	Elv 2.960
NOTE TL	EDM tol. error:	Pt: 0005 0.075	
BKB TP 0006-0005	Azmth 80-06'51"	H.obs 0-00'05"	
TRGET	Trget ht 3.900		
OBS F1 0006-0005	Dist 2879.340 Code CP	V.obs 90-00'10"	H.obs 0-00'05"
TRGET	Trget ht 4.700		
POS TP 2180	Nrth 138297.945 Code TBM	East 2188756.300	Elv 3.594
TRGET	Trget ht 8.510		
POS TP 2181	Nrth 138052.862 Code TBM	East 2187582.570	Elv -0.034
NOTE	STA 8000		
TRGET	Trget ht 8.530		
POS TP 2182	Nrth 138052.624 Code BL	East 2187582.360	Elv -0.164
POS TP 2183	Nrth 138031.416 Code EL	East 2187581.790	Elv -0.262
POS TP 2184	Nrth 138004.174 Code EL	East 2187580.210	Elv -0.414
POS TP 2185	Nrth 137977.416 Code EL	East 2187578.270	Elv -0.409
POS TP 2186	Nrth 137949.105 Code EL	East 2187576.620	Elv -0.580
POS TP 2187	Nrth 137923.231 Code EL	East 2187575.240	Elv -0.713
POS TP 2188	Nrth 137903.137 Code EL	East 2187574.240	Elv -0.287
POS TP 2189	Nrth 137873.067 Code EL	East 2187571.750	Elv -0.477
POS TP 2190	Nrth 137845.190 Code EL	East 2187569.850	Elv -0.646

POS TP 2191	Nrth 137819.307 Code EL	East 2187568.660	Elv -0.743
POS TP 2192	Nrtn 137788.816 Code EL	East 2187565.620	Elv -0.705
POS TP 2193	Nrth 137763.159 Code EL	East 2187564.410	Elv -0.896
POS TP 2194	Nrtn 137735.524 Code EL	East 2187563.940	Elv -1.290
POS TP 2195	Nrtn 137706.289 Code EL	East 2187562.750	Elv -1.850
POS TP 2196	Nrth 137686.236 Code EL	East 2187559.990	Elv -2.230
POS TP 2197	Nrth 137645.815 Code EL	East 2187558.100	Elv -2.720
POS TP 2198	Nrth 137616.539 Code EL	East 2187557.350	Elv -2.971
POS TP 2199	Nrth 137597.678 Code EL	East 2187559.060	Elv -3.495
TRGET	Trget ht 8.510		
POS TP 2200	Nrth 138081.987 Code EL	East 2187586.220	Elv -0.058
POS TP 2201	Nrth 138107.777 Code EL	East 2187584.780	Elv -0.147
POS TP 2202	Nrth 138130.796 Code EL	East 2187583.730	Elv -0.448
POS TP 2203	Nrtn 138156.119 Code EL	East 2187585.560	Elv -0.764
POS TP 2204	Nrth 138179.599 Code EL	East 2187588.600	Elv 0.017
POS TP 2205	Nrtn 138207.956 Code EL	East 2187592.700	Elv 0.945
POS TP 2206	Nrth 138238.780 Code EL	East 2187595.230	Elv 1.048
POS TP 2207	Nrth 138269.479 Code EL	East 2187595.950	Elv 0.955
POS TP 2208	Nrth 138298.658 Code EL	East 2187598.740	Elv 0.992
POS TP 2209	Nrth 138328.902 Code EL	East 2187600.250	Elv 1.015
POS TP 2210	Nrth 138358.087 Code EL	East 2187602.780	Elv 1.013
POS TP 2211	Nrth 138380.303 Code EL	East 2187602.810	Elv 0.314

POS TP 2212	Nrtn 138400.401 Code EL	East 2187605.050	Elv -0.448
POS TP 2213	Nrtn 138423.108 Code EL	East 2187605.860	Elv 0.762
POS TP 2214	Nrtn 138442.927 Code EL	East 2187608.060	Elv -0.096
POS TP 2215	Nrtn 138463.986 Code EL	East 2187612.320	Elv 0.017
POS TP 2216	Nrtn 138489.200 Code EL	East 2187609.850	Elv 0.670
POS TP 2217	Nrtn 138516.251 Code EL	East 2187613.120	Elv 0.753
POS TP 2218	Nrtn 138543.994 Code EL	East 2187613.690	Elv 0.989
POS TP 2219	Nrtn 138573.291 Code EL	East 2187615.840	Elv 0.781
POS TP 2220	Nrtn 138601.190 Code EL	East 2187617.940	Elv 0.849
POS TP 2221	Nrtn 138627.450 Code EL	East 2187617.990	Elv 0.709
POS TP 2222	Nrtn 138652.157 Code EL	East 2187620.930	Elv -0.356
POS TP 2223	Nrtn 138674.552 Code EL	East 2187620.190	Elv -0.726
POS TP 2224	Nrtn 138695.417 Code EL	East 2187617.950	Elv -0.798
POS TP 2225	Nrtn 138733.715 Code EL	East 2187628.300	Elv -0.996
POS TP 2226	Nrtn 138767.601 Code EL	East 2187629.050	Elv -0.906
POS TP 2227	Nrtn 138793.774 Code EL	East 2187630.320	Elv -0.702
POS TP 2228	Nrtn 138813.196 Code EL	East 2187629.720	Elv -0.707
POS TP 2229	Nrtn 138838.079 Code EL	East 2187628.830	Elv -0.908
POS TP 2230	Nrtn 138854.201 Code EL	East 2187632.540	Elv -1.063
POS TP 2231	Nrtn 138881.440 Code EL	East 2187632.700	Elv -1.281
POS TP 2232	Nrtn 138900.352 Code EL	East 2187630.570	Elv -1.489
POS TP 2233	Nrtn 138916.976 Code EL	East 2187638.630	Elv -1.297

POS TP 2234	Nrtn 138937.763 Code EL	East 2187638.460	Elv -1.664
POS TP 2235	Nrtn 138960.734 Code EL	East 2187640.470	Elv -1.579
POS TP 2236	Nrth 138978.206 Code EL	East 2187646.840	Elv -1.851
POS TP 2237	Nrtn 138999.985 Code EL	East 2187645.290	Elv -1.514
POS TP 2238	Nrtn 139025.164 Code EL	East 2187648.640	Elv -1.492
POS TP 2239	Nrth 139065.249 Code EL	East 2187640.400	Elv -1.274
POS TP 2240	Nrth 139096.482 Code EL	East 2187643.680	Elv -1.269
POS TP 2241	Nrth 139141.141 Code EL	East 2187650.420	Elv -1.158
POS TP 2242	Nrth 139172.424 Code EL	East 2187656.340	Elv -1.231
POS TP 2243	Nrth 139203.169 Code EL	East 2187654.960	Elv -1.089
POS TP 2244	Nrth 139229.498 Code EL	East 2187649.340	Elv -0.690
POS TP 2245	Nrth 139261.867 Code EL	East 2187652.280	Elv -0.500
POS TP 2246	Nrtn 139286.993 Code EL	East 2187646.970	Elv -0.450
POS TP 2247	Nrth 139315.196 Code EL	East 2187640.620	Elv -0.426
NOTE	STA 7800		
POS TP 2248	Nrth 139203.121 Code EL	East 2187425.060	Elv -0.689
POS TP 2249	Nrth 139179.213 Code EL	East 2187419.720	Elv -0.788
POS TP 2250	Nrth 139133.458 Code EL	East 2187423.520	Elv -0.724
POS TP 2251	Nrth 139086.764 Code EL	East 2187422.550	Elv -0.774
POS TP 2252	Nrth 139059.508 Code EL	East 2187416.200	Elv -0.757
POS TP 2253	Nrtn 139000.256 Code EL	East 2187417.380	Elv -0.812
POS TP 2254	Nrth 138960.263 Code EL	East 2187413.230	Elv -0.854
POS TP 2255	Nrtn 138914.763	East 2187414.620	Elv -1.072

	Code EL		
POS TP 2256	Nrtn 138878.636 Code EL	East 2187412.740	Elv -1.396
POS TP 2257	Nrtn 138845.519 Code EL	East 2187413.580	Elv -1.161
POS TP 2258	Nrtn 138804.624 Code EL	East 2187415.200	Elv -1.124
POS TP 2259	Nrtn 138774.641 Code EL	East 2187412.390	Elv -1.401
POS TP 2260	Nrtn 138740.345 Code EL	East 2187412.370	Elv -0.254
POS TP 2261	Nrtn 138714.464 Code EL	East 2187414.570	Elv 1.174
POS TP 2262	Nrtn 138686.837 Code EL	East 2187414.380	Elv 0.064
POS TP 2263	Nrtn 138662.372 Code EL	East 2187408.450	Elv -0.730
POS TP 2264	Nrtn 138642.441 Code EL	East 2187406.320	Elv -1.030
POS TP 2265	Nrtn 138622.517 Code EL	East 2187404.120	Elv -0.022
POS TP 2266	Nrtn 138590.281 Code EL	East 2187407.090	Elv 0.229
POS TP 2267	Nrtn 138560.472 Code EL	East 2187405.180	Elv 0.205
POS TP 2268	Nrtn 138528.466 Code EL	East 2187404.790	Elv 0.099
POS TP 2269	Nrtn 138505.133 Code EL	East 2187403.880	Elv -0.014
POS TP 2270	Nrtn 138460.210 Code EL	East 2187403.750	Elv 1.549
POS TP 2271	Nrtn 138430.051 Code EL	East 2187401.160	Elv 1.182
POS TP 2272	Nrtn 138395.785 Code EL	East 2187403.080	Elv 0.661
POS TP 2273	Nrtn 138365.657 Code EL	East 2187400.280	Elv -0.253
POS TP 2274	Nrtn 138337.169 Code EL	East 2187397.790	Elv -0.112
POS TP 2275	Nrtn 138310.875 Code EL	East 2187398.580	Elv 0.005
POS TP 2276	Nrtn 138278.829 Code EL	East 2187397.170	Elv 0.071
POS TP 2277	Nrtn 138245.917	East 2187396.310	Elv 0.031

	Code EL		
POS TP 2278	Nrtn 138215.241 Code EL	East 2187395.300	Elv -0.169
POS TP 2279	Nrtn 138187.038 Code EL	East 2187394.570	Elv -1.195
POS TP 2280	Nrtn 138162.507 Code EL	East 2187393.280	Elv -1.267
POS TP 2281	Nrtn 138132.469 Code EL	East 2187387.550	Elv -0.134
POS TP 2282	Nrtn 138101.344 Code EL	East 2187390.370	Elv 0.031
POS TP 2283	Nrtn 138067.519 Code EL	East 2187390.060	Elv -0.162
POS TP 2284	Nrtn 138032.602 Code EL	East 2187388.860	Elv -0.427
POS TP 2285	Nrtn 138004.539 Code BL	East 2187387.670	Elv -0.642
TRGET	Trget ht 8.530		
POS TP 2286	Nrtn 137979.578 Code EL	East 2187388.230	Elv -0.599
POS TP 2287	Nrtn 137948.725 Code EL	East 2187387.110	Elv -0.683
POS TP 2288	Nrtn 137920.725 Code EL	East 2187386.550	Elv -0.674
POS TP 2289	Nrtn 137886.565 Code EL	East 2187384.810	Elv -0.857
POS TP 2290	Nrtn 137855.808 Code EL	East 2187384.200	Elv -0.568
POS TP 2291	Nrtn 137829.626 Code EL	East 2187383.650	Elv -0.271
POS TP 2292	Nrtn 137803.342 Code EL	East 2187382.150	Elv -0.294
POS TP 2293	Nrtn 137772.916 Code EL	East 2187381.440	Elv -0.252
POS TP 2294	Nrtn 137741.263 Code EL	East 2187380.150	Elv -0.399
POS TP 2295	Nrtn 137714.593 Code EL	East 2187379.000	Elv -0.359
POS TP 2296	Nrtn 137693.526 Code EL	East 2187378.680	Elv -0.586
POS TP 2297	Nrtn 137670.658 Code EL	East 2187377.960	Elv -0.953
POS TP 2298	Nrtn 137648.088 Code EL	East 2187377.670	Elv -1.760

POS TP 2299	Nrth 137628.631 Code EL	East 2187375.540	Elv -1.971
POS TP 2300	Nrth 137602.743 Code EL	East 2187376.620	Elv -2.188
POS TP 2301	Nrth 137581.075 Code EL	East 2187374.390	Elv -2.507
POS TP 2302	Nrth 137563.394 Code EL	East 2187371.850	Elv -3.216
NOTE	STA 7600		
POS TP 2303	Nrtn 137484.281 Code EL	East 2187153.530	Elv -3.604
POS TP 2304	Nrth 137508.615 Code EL	East 2187156.850	Elv -3.082
POS TP 2305	Nrth 137534.069 Code EL	East 2187161.040	Elv -2.773
POS TP 2306	Nrth 137562.754 Code EL	East 2187164.790	Elv -2.444
POS TP 2307	Nrth 137589.738 Code EL	East 2187165.310	Elv -2.155
POS TP 2308	Nrtn 137616.670 Code EL	East 2187165.450	Elv -1.544
POS TP 2309	Nrth 137639.900 Code EL	East 2187165.220	Elv -0.948
POS TP 2310	Nrth 137662.848 Code EL	East 2187170.580	Elv -0.875
POS TP 2311	Nrth 137686.635 Code EL	East 2187173.330	Elv -0.962
POS TP 2312	Nrth 137713.944 Code EL	East 2187175.120	Elv -0.890
POS TP 2313	Nrth 137735.823 Code EL	East 2187175.960	Elv -0.716
POS TP 2314	Nrth 137758.484 Code EL	East 2187178.930	Elv -1.056
POS TP 2315	Nrth 137780.270 Code EL	East 2187179.750	Elv -0.757
POS TP 2316	Nrtn 137800.367 Code EL	East 2187181.740	Elv -0.563
POS TP 2317	Nrth 137822.704 Code EL	East 2187183.670	Elv -0.349
POS TP 2318	Nrth 137844.601 Code EL	East 2187185.230	Elv -0.703
POS TP 2319	Nrth 137862.700 Code EL	East 2187186.710	Elv -0.221

POS TP 2320	Nrth 137883.050 Code EL	East 2187187.980	Elv 0.278
POS TP 2321	Nrtn 137905.345 Code EL	East 2187190.280	Elv 0.478
POS TP 2322	Nrtn 137928.536 Code EL	East 2187192.240	Elv 0.533
POS TP 2323	Nrtn 137945.321 Code EL	East 2187193.680	Elv 0.450
TRGET	Trget ht 8.510		
POS TP 2324	Nrth 137956.689 Code BL	East 2187193.840	Elv 0.394
POS TP 2325	Nrth 137982.700 Code EL	East 2187194.360	Elv 0.499
POS TP 2326	Nrth 138030.364 Code EL	East 2187199.810	Elv 0.192
POS TP 2327	Nrth 138062.987 Code EL	East 2187202.470	Elv 0.385
POS TP 2328	Nrth 138090.635 Code EL	East 2187205.580	Elv 0.214
POS TP 2329	Nrtn 138118.665 Code EL	East 2187207.580	Elv 0.115
POS TP 2330	Nrtn 138147.906 Code EL	East 2187210.380	Elv -0.118
POS TP 2331	Nrth 138170.313 Code EL	East 2187211.840	Elv -0.323
POS TP 2332	Nrth 138191.393 Code EL	East 2187213.500	Elv -0.751
POS TP 2333	Nrth 138214.779 Code EL	East 2187220.740	Elv -1.312
POS TP 2334	Nrtn 138237.133 Code EL	East 2187217.300	Elv -1.491
POS TP 2335	Nrtn 138260.179 Code EL	East 2187218.920	Elv -1.424
POS TP 2336	Nrtn 138279.622 Code EL	East 2187221.400	Elv -1.156
POS TP 2337	Nrtn 138306.078 Code EL	East 2187223.190	Elv -0.775
POS TP 2338	Nrtn 138330.408 Code EL	East 2187224.210	Elv -0.998
POS TP 2339	Nrtn 138353.516 Code EL	East 2187226.610	Elv -1.468
POS TP 2340	Nrtn 138375.979 Code EL	East 2187228.200	Elv -1.468

	Code EL		
POS TP 2342	Nrth 138419.338 Code EL	East 2187232.400	Elv -1.015
POS TP 2343	Nrth 138446.268 Code EL	East 2187234.180	Elv -0.649
POS TP 2344	Nrth 138472.511 Code EL	East 2187235.780	Elv -0.139
POS TP 2345	Nrth 138504.270 Code EL	East 2187239.070	Elv 0.263
POS TP 2346	Nrth 138548.411 Code EL	East 2187242.090	Elv 0.028
POS TP 2347	Nrth 138581.869 Code EL	East 2187244.210	Elv -0.239
POS TP 2348	Nrth 138616.866 Code EL	East 2187244.130	Elv -0.509
POS TP 2349	Nrth 138641.339 Code EL	East 2187250.550	Elv 0.413
POS TP 2350	Nrth 138674.346 Code EL	East 2187249.680	Elv 1.351
POS TP 2351	Nrth 138700.675 Code EL	East 2187254.790	Elv 0.237
POS TP 2352	Nrth 138722.454 Code EL	East 2187257.910	Elv -0.746
POS TP 2353	Nrth 138761.506 Code EL	East 2187256.320	Elv -1.062
POS TP 2354	Nrth 138789.353 Code EL	East 2187267.100	Elv -1.085
POS TP 2355	Nrth 138821.369 Code EL	East 2187263.630	Elv -1.626
POS TP 2356	Nrth 138860.595 Code EL	East 2187268.310	Elv -0.591
POS TP 2357	Nrth 138897.473 Code EL	East 2187269.550	Elv -0.601
POS TP 2358	Nrth 138934.805 Code EL	East 2187273.210	Elv -0.501
POS TP 2359	Nrth 138982.598 Code EL	East 2187280.080	Elv -0.564
POS TP 2360	Nrth 139010.700	East 2187282.840	Elv -0.550

	Code EL		
POS TP 2361	Nrth 139042.067 Code EL	East 2187281.700	Elv -0.650
POS TP 2362	Nrth 139082.435 Code EL	East 2187287.790	Elv -0.663
POS TP 2363	Nrth 139114.014 Code EL	East 2187290.070	Elv -0.740
POS TP 2364	Nrth 139142.279 Code EL	East 2187288.190	Elv -0.758
NOTE	-RED 2364 WAS	CHECKING DISTANCE	PRESSED BY MISTAKE
RED IN 2324-2364	Azmth 4-33'00" Code EL	H.dist 1189.338	V.dist -1.152
POS TP 2365	Nrth 139181.013 Code EL	East 2187290.760	Elv -0.837
POS TP 2366	Nrth 139210.935 Code EL	East 2187282.760	Elv -0.823
STN TP 0007	Nrth 137614.956 Theo ht 4.020	East 2185813.210 Code CP	Elv 2.060
NOTE TL	EDM tol. error:	Pt: 0006 0.040	
BKB TP 0007-0006	Azmth 76-06'03"	H.obs 0-00'05"	
TRGET	Trget ht 3.949		
OBS F1 0007-0006	Dist 2394.870 Code CP	V.obs 89-59'00"	H.obs 0-00'05"
TRGET	Trget ht 5.000		
POS TP 2367	Nrth 137812.681 Code CHECK	East 2186611.570	Elv 2.111
POS TP 2368	Nrth 137764.565 Code TBM	East 2186417.670	Elv 2.733
POS TP 2369	Nrth 137686.024 Code TBM	East 2185240.000	Elv 2.207
NOTE	STA 7400		
TRGET	Trget ht 8.530		
POS TP 2370	Nrth 137908.781 Code BL	East 2186999.970	Elv 0.218

POS TP 2371	Nrth 137890.215 Code EL	East 2186999.600	Elv 0.386
POS TP 2372	Nrth 137861.197 Code EL	East 2186999.030	Elv 0.369
POS TP 2373	Nrth 137835.466 Code EL	East 2186998.590	Elv 0.649
POS TP 2374	Nrth 137806.831 Code EL	East 2186997.820	Elv 0.169
POS TP 2375	Nrth 137777.374 Code EL	East 2186998.390	Elv 0.189
POS TP 2376	Nrth 137748.227 Code EL	East 2186997.640	Elv 0.035
POS TP 2377	Nrth 137718.809 Code EL	East 2186996.180	Elv -0.233
POS TP 2378	Nrth 137694.380 Code EL	East 2186995.420	Elv -0.727
POS TP 2379	Nrth 137668.963 Code EL	East 2186995.370	Elv -1.446
POS TP 2380	Nrth 137643.794 Code EL	East 2186995.120	Elv -1.590
POS TP 2381	Nrth 137618.517 Code EL	East 2186994.600	Elv -1.304
POS TP 2382	Nrth 137596.104 Code EL	East 2186995.620	Elv -1.160
POS TP 2383	Nrth 137566.499 Code EL	East 2186993.530	Elv -1.791
POS TP 2384	Nrth 137532.829 Code EL	East 2186992.760	Elv -2.192
POS TP 2385	Nrth 137504.212 Code EL	East 2186991.570	Elv -2.479
POS TP 2386	Nrth 137471.956 Code EL	East 2186991.390	Elv -2.651
POS TP 2387	Nrth 137446.916 Code EL	East 2186991.740	Elv -3.171
TRGET	Trget ht 8.510		
POS TP 2388	Nrth 137961.556 Code EL	East 2187001.130	Elv -0.029
POS TP 2389	Nrth 138011.871 Code EL	East 2187001.920	Elv 0.792
POS TP 2390	Nrth 138057.748 Code EL	East 2187003.550	Elv 0.774
POS TP 2391	Nrth 138109.166 Code EL	East 2187004.350	Elv 0.261

POS TP 2392	Nrth 138152.022 Code EL	East 2187004.730	Elv 0.108
POS TP 2393	Nrth 138207.154 Code EL	East 2187005.510	Elv 0.156
POS TP 2394	Nrth 138257.399 Code EL	East 2187006.750	Elv 0.269
POS TP 2395	Nrth 138314.250 Code EL	East 2187006.900	Elv 0.728
POS TP 2396	Nrth 138365.553 Code EL	East 2187009.230	Elv 0.212
POS TP 2397	Nrth 138405.411 Code EL	East 2187009.390	Elv 0.010
POS TP 2398	Nrth 138450.822 Code EL	East 2187010.820	Elv -0.156
POS TP 2399	Nrth 138487.378 Code EL	East 2187011.530	Elv -0.552
POS TP 2400	Nrth 138529.313 Code EL	East 2187012.070	Elv -0.958
POS TP 2401	Nrth 138561.339 Code EL	East 2187013.140	Elv -1.122
POS TP 2402	Nrth 138589.210 Code EL	East 2187013.740	Elv -1.256
POS TP 2403	Nrth 138617.135 Code EL	East 2187013.440	Elv -1.205
POS TP 2404	Nrth 138640.951 Code EL	East 2187014.630	Elv -1.421
POS TP 2405	Nrth 138667.873 Code EL	East 2187014.280	Elv -1.758
POS TP 2406	Nrth 138693.912 Code EL	East 2187015.650	Elv -1.436
POS TP 2407	Nrth 138722.082 Code EL	East 2187017.240	Elv -1.423
POS TP 2408	Nrth 138752.665 Code EL	East 2187016.290	Elv -0.648
POS TP 2409	Nrth 138792.160 Code EL	East 2187024.970	Elv -0.160
POS TP 2410	Nrth 138823.611 Code EL	East 2187018.220	Elv -0.260
POS TP 2411	Nrth 138862.796 Code EL	East 2187020.850	Elv -0.137
POS TP 2412	Nrth 138904.585 Code EL	East 2187020.180	Elv -0.268
POS TP 2413	Nrth 138938.683 Code EL	East 2187020.160	Elv -0.323

POS TP 2414	Nrtn 138964.626 Code EL	East 2187022.300	Elv -0.561
POS TP 2415	Nrtn 138992.243 Code EL	East 2187020.270	Elv -1.118
POS TP 2416	Nrtn 139026.383 Code EL	East 2187023.820	Elv -1.593
POS TP 2417	Nrtn 139060.016 Code EL	East 2187029.150	Elv -1.899
POS TP 2418	Nrtn 139096.806 Code EL	East 2187025.710	Elv -1.798
POS TP 2419	Nrtn 139130.020 Code EL	East 2187024.580	Elv -2.070
NOTE	STA 7200		
POS TP 2420	Nrtn 139179.392 Code EL	East 2186900.560	Elv -1.524
POS TP 2421	Nrtn 139129.127 Code EL	East 2186896.350	Elv -2.178
POS TP 2422	Nrtn 139097.125 Code EL	East 2186890.990	Elv -1.783
POS TP 2423	Nrtn 139065.183 Code EL	East 2186891.700	Elv -1.881
POS TP 2424	Nrtn 139030.817 Code EL	East 2186886.970	Elv -1.762
POS TP 2425	Nrtn 138998.871 Code EL	East 2186885.430	Elv -1.561
POS TP 2426	Nrtn 138971.791 Code EL	East 2186876.880	Elv -1.366
POS TP 2427	Nrtn 138927.792 Code EL	East 2186879.840	Elv -1.182
POS TP 2428	Nrtn 138893.662 Code EL	East 2186875.530	Elv -1.325
POS TP 2429	Nrtn 138838.245 Code EL	East 2186873.360	Elv -1.003
POS TP 2430	Nrtn 138807.378 Code EL	East 2186871.310	Elv -0.677
POS TP 2431	Nrtn 138773.289 Code EL	East 2186869.050	Elv -0.518
POS TP 2432	Nrtn 138742.765 Code EL	East 2186869.090	Elv -0.508
POS TP 2433	Nrtn 138704.372 Code EL	East 2186864.620	Elv -0.474
POS TP 2434	Nrtn 138648.216 Code EL	East 2186861.900	Elv -0.458
POS TP 2435	Nrtn 138603.937	East 2186858.860	Elv -0.364

	Code EL		
POS TP 2436	Nrtn 138562.417 Code EL	East 2186856.520	Elv -0.544
POS TP 2437	Nrth 138531.899 Code EL	East 2186853.260	Elv -0.542
POS TP 2438	Nrth 138504.571 Code EL	East 2186852.250	Elv -0.568
POS TP 2439	Nrth 138467.542 Code EL	East 2186849.050	Elv -0.377
POS TP 2440	Nrtn 138437.718 Code EL	East 2186846.930	Elv -0.440
POS TP 2441	Nrth 138408.975 Code EL	East 2186845.340	Elv -0.501
POS TP 2442	Nrth 138385.197 Code EL	East 2186843.580	Elv -0.618
POS TP 2443	Nrth 138363.870 Code EL	East 2186841.940	Elv -0.608
POS TP 2444	Nrth 138331.993 Code EL	East 2186839.400	Elv -0.395
POS TP 2445	Nrth 138286.024 Code EL	East 2186836.850	Elv 0.063
POS TP 2446	Nrth 138235.535 Code EL	East 2186833.250	Elv 0.494
POS TP 2447	Nrth 138179.225 Code EL	East 2186828.610	Elv 0.386
POS TP 2448	Nrth 138148.983 Code EL	East 2186827.200	Elv 1.014
POS TP 2449	Nrth 138136.428 Code EL	East 2186826.960	Elv 0.222
POS TP 2450	Nrth 138090.825 Code EL	East 2186823.070	Elv -0.321
POS TP 2451	Nrth 138063.749 Code EL	East 2186819.750	Elv -0.642
POS TP 2452	Nrth 138021.286 Code EL	East 2186816.860	Elv -0.831
POS TP 2453	Nrth 137988.297 Code EL	East 2186814.690	Elv 0.495
POS TP 2454	Nrth 137959.445 Code EL	East 2186813.690	Elv 1.287
POS TP 2455	Nrth 137930.621 Code EL	East 2186811.730	Elv 0.740
POS TP 2456	Nrth 137891.377 Code EL	East 2186808.890	Elv 0.498
POS TP 2457	Nrth 137860.570	East 2186806.170	Elv 0.442

Code BL

37 C

* END OF REPORT *

019
388-93-4
La DNR

019

SDR20 V03-05	Copyright 1985-92 by Datacom Software Research Limited.		
	Serial no	Oct-19-93 18:55	
	Angle : Degrees	Dist : Feet	Press : Inch Hg
	Temp : Fahrenht	Coord : N-E-Elv	H.obs : Right
JOB	Job ID 388-93-4		
NOTE CP	Sea level crn: N		
NOTE CP	C and R crn: Y		
NOTE CP	Atmos crn: N		
SCALE	S.F. 1.000000000		
NOTE OO	Current view		
NOTE TS	Oct-17-93 09:16		
NOTE	-DNR-CRD PHASE 1 TRNITY ISLAND		
NOTE	-X-SECTIONS		
POS KI 0005	Nrth 138684.554	East 2190974.440	Elv 3.300
	Code CP		
POS KI 0004	Nrth 138765.607	East 2193261.770	Elv 4.210
	Code CP		
POS KI 0006	Nrth 138190.224	East 2188137.920	Elv 2.960
	Code CP		
INSTR	SET	EDM <No text>	Serial no 000000
	Theo <No text>	Serial no 000000	Mount: not applc
	V.obs : Zenith	Edm o/s <Null>	Refl o/s <Null>
	P.C. mm 0.000		
NOTE PC	P.C. mm Applied: 0.000		
STN TP 0005	Nrth 138684.554	East 2190974.440	Elv 3.300
	Theo ht 3.999	Code CP	
NOTE TL	EDM tol. error:	Pt: 0004 0.056	
BKB TP 0005-0004	Azmth 87-28'13"	H.obs 0-00'00"	
TRGET	Trget ht 3.620		
OBS F1 0005-0004	Dist 2289.620	V.obs 89-59'20"	H.obs 0-00'00"
	Code CP		
TRGET	Trget ht 8.510		
POS TP 1140	Nrth 138709.974	East 2191533.370	Elv 3.339

	Code TBM		
POS TP 1141	Nrth 138607.073 Code TBM	East 2190529.480	Elv 3.666
NOTE	RD 1		
NOTE	STA 11000		
POS TP 1142	Nrth 138607.012 Code BL	East 2190529.270	Elv 3.032
POS TP 1143	Nrtn 138626.590 Code EL	East 2190531.280	Elv 2.704
POS TP 1144	Nrtn 138648.043 Code EL	East 2190532.620	Elv 2.554
POS TP 1145	Nrtn 138667.184 Code EL	East 2190534.880	Elv 2.376
POS TP 1146	Nrtn 138686.756 Code EL	East 2190536.940	Elv 2.272
POS TP 1147	Nrtn 138705.574 Code EL	East 2190538.300	Elv 2.191
POS TP 1148	Nrtn 138724.810 Code EL	East 2190540.110	Elv 2.039
POS TP 1149	Nrtn 138744.311 Code EL	East 2190541.370	Elv 1.983
POS TP 1150	Nrtn 138765.616 Code EL	East 2190544.210	Elv 1.860
POS TP 1151	Nrtn 138786.681 Code EL	East 2190545.040	Elv 1.628
POS TP 1152	Nrtn 138806.980 Code EL	East 2190546.750	Elv 1.370
POS TP 1153	Nrtn 138829.306 Code EL	East 2190549.350	Elv 1.188
POS TP 1154	Nrtn 138850.936 Code EL	East 2190551.320	Elv 1.042
POS TP 1155	Nrtn 138874.003 Code EL	East 2190552.610	Elv 0.744
POS TP 1156	Nrtn 138896.053 Code EL	East 2190555.760	Elv 0.203
POS TP 1157	Nrtn 138914.229 Code EL	East 2190557.030	Elv -0.883
POS TP 1158	Nrtn 138929.204 Code EL	East 2190559.070	Elv -0.973
POS TP 1159	Nrtn 138949.741 Code EL	East 2190560.810	Elv -0.646
POS TP 1160	Nrtn 138967.397 Code EL	East 2190562.160	Elv -0.891

POS TP 1161	Nrtn 138982.659 Code EL	East 2190563.550	Elv -1.267
POS TP 1162	Nrtn 139000.700 Code EL	East 2190565.360	Elv -1.306
POS TP 1163	Nrtn 139020.653 Code EL	East 2190566.810	Elv -1.077
POS TP 1164	Nrtn 139040.926 Code EL	East 2190569.390	Elv -0.708
POS TP 1165	Nrtn 139062.322 Code EL	East 2190570.580	Elv -0.159
POS TP 1166	Nrtn 139082.786 Code EL	East 2190573.190	Elv 0.125
POS TP 1167	Nrtn 139099.650 Code EL	East 2190574.240	Elv 0.473
POS TP 1168	Nrtn 139116.090 Code EL	East 2190575.730	Elv 1.061
POS TP 1169	Nrtn 139133.606 Code EL	East 2190576.580	Elv 0.149
POS TP 1170	Nrtn 139153.654 Code EL	East 2190577.230	Elv 0.376
POS TP 1171	Nrtn 139177.450 Code EL	East 2190580.330	Elv 1.520
POS TP 1172	Nrtn 139197.464 Code EL	East 2190583.260	Elv 2.081
POS TP 1173	Nrtn 139214.841 Code EL	East 2190584.500	Elv 2.260
POS TP 1174	Nrtn 139238.142 Code EL	East 2190586.880	Elv 1.501
POS TP 1175	Nrtn 139258.911 Code EL	East 2190588.700	Elv 0.962
POS TP 1176	Nrtn 139278.388 Code EL	East 2190590.320	Elv 1.148
POS TP 1177	Nrtn 139298.225 Code EL	East 2190592.350	Elv -0.044
POS TP 1178	Nrtn 139313.853 Code EL	East 2190590.890	Elv -0.753
POS TP 1179	Nrtn 139332.835 Code EL	East 2190594.780	Elv -2.183
POS TP 1180	Nrtn 139352.770 Code EL	East 2190591.440	Elv -3.906
POS TP 1181	Nrtn 139376.910 Code EL	East 2190597.970	Elv -1.217
POS TP 1182	Nrtn 139398.697 Code EL	East 2190600.020	Elv -0.709

POS TP 1183	Nrtn 139421.584 Code EL	East 2190603.530	Elv -0.677
POS TP 1184	Nrtn 139440.617 Code EL	East 2190604.170	Elv -0.911
POS TP 1185	Nrtn 139466.894 Code EL	East 2190605.750	Elv -0.818
POS TP 1186	Nrtn 139481.961 Code EL	East 2190607.150	Elv -0.280
POS TP 1187	Nrtn 139503.965 Code EL	East 2190607.910	Elv 0.002
POS TP 1188	Nrtn 139522.562 Code EL	East 2190610.370	Elv 1.176
POS TP 1189	Nrtn 139542.158 Code EL	East 2190615.340	Elv 0.362
POS TP 1190	Nrtn 139559.006 Code EL	East 2190616.040	Elv 0.457
POS TP 1191	Nrtn 139575.994 Code EL	East 2190617.700	Elv 0.158
POS TP 1192	Nrtn 139596.090 Code EL	East 2190619.340	Elv 0.255
POS TP 1193	Nrtn 139613.320 Code EL	East 2190620.950	Elv -0.107
POS TP 1194	Nrtn 139631.038 Code EL	East 2190623.240	Elv 0.083
POS TP 1195	Nrtn 139651.246 Code EL	East 2190624.890	Elv 0.356
POS TP 1196	Nrtn 139651.719 Code EL	East 2190624.930	Elv 0.356
POS TP 1197	Nrtn 139672.411 Code EL	East 2190627.410	Elv 0.512
POS TP 1198	Nrtn 139694.675 Code EL	East 2190629.080	Elv 0.624
POS TP 1199	Nrtn 139714.339 Code EL	East 2190630.700	Elv 0.261
POS TP 1200	Nrtn 139727.578 Code EL	East 2190633.790	Elv -0.814
NOTE	--ES		
NOTE	STA 10800		
POS TP 1201	Nrtn 139981.159 Code EL	East 2190416.350	Elv 0.062
POS TP 1202	Nrtn 139964.835 Code EL	East 2190413.310	Elv -1.069
POS TP 1203	Nrtn 139944.048 Code EL	East 2190412.490	Elv -1.339

POS TP 1204	Nrth 139925.497 Code EL	East 2190410.160	Elv -1.470
POS TP 1205	Nrth 139907.593 Code EL	East 2190409.260	Elv -1.631
POS TP 1206	Nrth 139889.113 Code EL	East 2190407.420	Elv -1.788
POS TP 1207	Nrth 139868.535 Code EL	East 2190406.660	Elv -1.971
POS TP 1208	Nrth 139845.229 Code EL	East 2190401.730	Elv -2.118
POS TP 1209	Nrth 139821.225 Code EL	East 2190398.800	Elv -2.259
POS TP 1210	Nrth 139796.491 Code EL	East 2190397.500	Elv -2.302
POS TP 1211	Nrth 139775.076 Code EL	East 2190396.410	Elv -2.257
POS TP 1212	Nrth 139754.282 Code EL	East 2190392.400	Elv -2.066
POS TP 1213	Nrth 139733.512 Code EL	East 2190390.150	Elv -1.618
POS TP 1214	Nrth 139713.126 Code EL	East 2190399.770	Elv 0.617
POS TP 1215	Nrth 139694.998 Code EL	East 2190399.340	Elv 0.733
POS TP 1216	Nrth 139675.966 Code EL	East 2190397.830	Elv 0.846
POS TP 1217	Nrth 139659.191 Code EL	East 2190396.140	Elv 1.260
POS TP 1218	Nrth 139634.643 Code EL	East 2190392.400	Elv 1.137
POS TP 1219	Nrth 139618.362 Code EL	East 2190387.290	Elv 1.007
POS TP 1220	Nrth 139597.696 Code EL	East 2190386.790	Elv 0.603
POS TP 1221	Nrth 139576.435 Code EL	East 2190386.310	Elv 0.548
POS TP 1222	Nrth 139559.828 Code EL	East 2190385.960	Elv 0.525
POS TP 1223	Nrth 139540.001 Code EL	East 2190386.920	Elv 0.547
POS TP 1224	Nrth 139518.279 Code EL	East 2190387.390	Elv 0.541
POS TP 1225	Nrth 139493.332	East 2190385.500	Elv 1.477

POS TP 1226	Nrth 139477.000 Code EL	East 2190386.200	Elv -0.210
POS TP 1227	Nrth 139458.431 Code EL	East 2190386.070	Elv -0.579
POS TP 1228	Nrth 139440.158 Code EL	East 2190385.320	Elv -0.751
POS TP 1229	Nrth 139421.348 Code EL	East 2190385.810	Elv -1.238
POS TP 1230	Nrth 139401.333 Code EL	East 2190383.790	Elv -1.711
POS TP 1231	Nrth 139370.815 Code EL	East 2190380.080	Elv -2.823
POS TP 1232	Nrth 139341.299 Code EL	East 2190376.570	Elv -2.702
POS TP 1233	Nrth 139306.314 Code EL	East 2190374.810	Elv -2.222
POS TP 1234	Nrth 139260.916 Code EL	East 2190374.190	Elv -1.560
POS TP 1235	Nrth 139240.890 Code EL	East 2190372.090	Elv -0.362
POS TP 1236	Nrth 139218.454 Code EL	East 2190370.550	Elv 0.756
POS TP 1237	Nrth 139194.378 Code EL	East 2190369.320	Elv 0.893
POS TP 1238	Nrth 139170.632 Code EL	East 2190368.420	Elv 0.929
POS TP 1239	Nrth 139148.598 Code EL	East 2190366.600	Elv 1.359
POS TP 1240	Nrth 139126.043 Code EL	East 2190366.270	Elv 1.296
POS TP 1241	Nrth 139100.738 Code EL	East 2190363.910	Elv 1.362
POS TP 1242	Nrth 139077.860 Code EL	East 2190360.840	Elv 0.567
POS TP 1243	Nrth 139060.144 Code EL	East 2190362.450	Elv -0.173
POS TP 1244	Nrth 139041.607 Code EL	East 2190361.590	Elv 0.467
POS TP 1245	Nrth 139022.624 Code EL	East 2190359.900	Elv 0.533
POS TP 1246	Nrth 139005.088 Code EL	East 2190358.170	Elv 0.752
POS TP 1247	Nrth 138985.888 Code EL	East 2190357.510	Elv 0.147

POS TP 1248	Nrth 138963.497 Code EL	East 2190355.750	Elv 0.180
POS TP 1249	Nrth 138944.901 Code EL	East 2190354.030	Elv 0.201
POS TP 1250	Nrth 138919.564 Code EL	East 2190354.170	Elv 0.342
POS TP 1251	Nrth 138896.143 Code EL	East 2190352.340	Elv 0.502
POS TP 1252	Nrth 138869.421 Code EL	East 2190350.760	Elv 0.595
POS TP 1253	Nrth 138843.912 Code EL	East 2190348.400	Elv 0.724
POS TP 1254	Nrth 138824.506 Code EL	East 2190347.160	Elv 0.667
POS TP 1255	Nrth 138801.301 Code EL	East 2190345.180	Elv 1.031
POS TP 1256	Nrth 138776.557 Code EL	East 2190345.130	Elv 1.202
POS TP 1257	Nrth 138752.910 Code EL	East 2190343.730	Elv 1.396
POS TP 1258	Nrth 138729.862 Code EL	East 2190342.060	Elv 1.948
POS TP 1259	Nrth 138717.392 Code EL	East 2190341.000	Elv 2.780
POS TP 1260	Nrth 138693.171 Code EL	East 2190339.300	Elv 2.062
POS TP 1261	Nrth 138670.404 Code EL	East 2190338.200	Elv 2.099
POS TP 1262	Nrth 138646.517 Code EL	East 2190336.380	Elv 2.191
POS TP 1263	Nrth 138622.180 Code EL	East 2190335.480	Elv 2.377
POS TP 1264	Nrth 138597.418 Code EL	East 2190333.750	Elv 2.716
POS TP 1265	Nrth 138579.693 Code EL	East 2190332.560	Elv 2.991
POS TP 1266	Nrth 138572.593 Code BL	East 2190332.130	Elv 2.354
TRGET	Trget ht 8.530		
POS TP 1267	Nrth 138547.468 Code EL	East 2190330.980	Elv 1.361
POS TP 1268	Nrth 138525.718 Code EL	East 2190329.820	Elv 0.806

POS TP 1269	Nrth 138498.153 Code EL	East 2190328.180	Elv 0.555
POS TP 1270	Nrth 138473.308 Code EL	East 2190326.820	Elv -0.264
POS TP 1271	Nrth 138449.511 Code EL	East 2190325.600	Elv -0.970
POS TP 1272	Nrth 138425.773 Code EL	East 2190324.030	Elv -0.882
POS TP 1273	Nrth 138402.502 Code EL	East 2190322.750	Elv -1.685
POS TP 1274	Nrth 138380.707 Code EL	East 2190321.030	Elv -1.570
POS TP 1275	Nrth 138358.133 Code EL	East 2190320.030	Elv -1.734
POS TP 1276	Nrth 138334.228 Code EL	East 2190318.080	Elv -2.698
POS TP 1277	Nrth 138318.617 Code EL	East 2190317.250	Elv -3.170
POS TP 1278	Nrth 138298.020 Code EL	East 2190315.430	Elv -3.404
POS TP 1279	Nrth 138274.948 Code EL	East 2190314.640	Elv -3.383
POS TP 1280	Nrth 138253.454 Code EL	East 2190313.390	Elv -3.476
POS TP 1281	Nrth 138232.234 Code EL	East 2190312.890	Elv -2.966
POS TP 1282	Nrth 138207.943 Code EL	East 2190310.490	Elv -2.981
POS TP 1283	Nrth 138184.168 Code EL	East 2190309.100	Elv -3.255
POS TP 1284	Nrth 138156.478 Code EL	East 2190308.380	Elv -3.524
POS TP 1285	Nrth 138129.635 Code EL	East 2190306.340	Elv -3.468
POS TP 1286	Nrth 138106.550 Code EL	East 2190304.530	Elv -3.424
POS TP 1287	Nrth 138084.698 Code EL	East 2190302.960	Elv -3.746
POS TP 1288	Nrth 138059.005 Code EL	East 2190302.160	Elv -3.818
POS TP 1289	Nrth 138032.162 Code EL	East 2190301.030	Elv -4.236
POS TP 1290	Nrth 138004.877 Code EL	East 2190297.890	Elv -4.676

POS TP 1291	Nrth 137983.244 Code EL	East 2190296.670	Elv -4.876
POS TP 1292	Nrth 137962.203 Code EL	East 2190295.130	Elv -5.249
POS TP 1293	Nrth 137929.008 Code EL	East 2190292.190	Elv -5.429
NOTE	STA 10600		
POS TP 1294	Nrth 137718.608 Code EL	East 2190103.220	Elv -5.516
POS TP 1295	Nrth 137765.804 Code EL	East 2190104.750	Elv -5.031
POS TP 1296	Nrth 137766.242 Code EL	East 2190103.560	Elv -4.972
POS TP 1297	Nrth 137795.921 Code EL	East 2190106.180	Elv -4.813
POS TP 1298	Nrth 137817.759 Code EL	East 2190106.140	Elv -4.858
POS TP 1299	Nrth 137889.448 Code EL	East 2190109.190	Elv -5.304
POS TP 1300	Nrth 137931.133 Code EL	East 2190111.720	Elv -4.813
POS TP 1301	Nrth 137959.596 Code EL	East 2190112.480	Elv -4.536
POS TP 1302	Nrth 137984.318 Code EL	East 2190114.600	Elv -4.566
POS TP 1303	Nrth 138004.373 Code EL	East 2190115.930	Elv -4.525
POS TP 1304	Nrth 138030.263 Code EL	East 2190117.080	Elv -4.240
POS TP 1305	Nrth 138052.359 Code EL	East 2190117.880	Elv -3.969
POS TP 1306	Nrth 138078.561 Code EL	East 2190118.800	Elv -3.470
POS TP 1307	Nrth 138102.765 Code EL	East 2190120.250	Elv -3.138
POS TP 1308	Nrth 138124.608 Code EL	East 2190121.160	Elv -3.387
POS TP 1309	Nrth 138148.723 Code EL	East 2190121.600	Elv -2.919
POS TP 1310	Nrth 138172.682 Code EL	East 2190122.370	Elv -2.608
POS TP 1311	Nrth 138193.736 Code EL	East 2190123.660	Elv -2.830
POS TP 1312	Nrth 138216.154	East 2190124.000	Elv -2.849

	Code EL		
POS TP 1313	Nrth 138242.894 Code EL	East 2190124.320	Elv -3.720
POS TP 1314	Nrth 138270.635 Code EL	East 2190125.690	Elv -3.570
POS TP 1315	Nrth 138295.027 Code EL	East 2190126.640	Elv -2.977
POS TP 1316	Nrth 138320.285 Code EL	East 2190127.450	Elv -2.644
POS TP 1317	Nrth 138344.580 Code EL	East 2190128.390	Elv -2.098
POS TP 1318	Nrth 138370.213 Code EL	East 2190129.410	Elv -1.630
POS TP 1319	Nrth 138397.007 Code EL	East 2190130.270	Elv -1.193
POS TP 1320	Nrth 138421.844 Code EL	East 2190131.210	Elv -0.851
POS TP 1321	Nrth 138451.450 Code EL	East 2190132.090	Elv -1.046
POS TP 1322	Nrth 138475.483 Code EL	East 2190132.710	Elv -0.753
POS TP 1323	Nrth 138504.893 Code EL	East 2190134.640	Elv -0.466
POS TP 1324	Nrth 138525.545 Code EL	East 2190135.060	Elv -0.222
POS TP 1325	Nrth 138537.868 Code BL	East 2190135.570	Elv 0.353
POS TP 1326	Nrth 138558.943 Code CHECK	East 2190136.500	Elv 2.008
TRGET	Trget ht 8.510		
POS TP 1327	Nrth 138558.958 Code EL	East 2190136.600	Elv 2.007
POS TP 1328	Nrth 138571.161 Code EL	East 2190136.580	Elv 2.903
POS TP 1329	Nrth 138589.772 Code EL	East 2190137.190	Elv 2.644
POS TP 1330	Nrth 138612.255 Code EL	East 2190138.560	Elv 2.078
POS TP 1331	Nrth 138634.606 Code EL	East 2190138.630	Elv 1.949
POS TP 1332	Nrth 138655.399 Code EL	East 2190139.750	Elv 1.820
POS TP 1333	Nrth 138677.104 Code EL	East 2190140.070	Elv 1.756

POS TP 1334	Nrth 138702.916 Code EL	East 2190140.540	Elv 1.653
POS TP 1335	Nrth 138725.516 Code EL	East 2190142.150	Elv 1.510
POS TP 1336	Nrth 138746.404 Code EL	East 2190143.140	Elv 1.087
POS TP 1337	Nrth 138768.254 Code EL	East 2190143.740	Elv 0.908
POS TP 1338	Nrth 138790.524 Code EL	East 2190145.080	Elv 0.891
POS TP 1339	Nrth 138813.177 Code EL	East 2190145.660	Elv 0.735
POS TP 1340	Nrth 138835.693 Code EL	East 2190146.720	Elv 0.272
POS TP 1341	Nrth 138856.968 Code EL	East 2190146.400	Elv 0.177
POS TP 1342	Nrth 138879.304 Code EL	East 2190147.150	Elv 0.349
POS TP 1343	Nrth 138899.517 Code EL	East 2190148.660	Elv 0.562
POS TP 1344	Nrth 138920.504 Code EL	East 2190149.520	Elv 0.530
POS TP 1345	Nrth 138938.505 Code EL	East 2190150.070	Elv 0.916
POS TP 1346	Nrth 138957.343 Code EL	East 2190151.050	Elv 0.487
POS TP 1347	Nrth 138979.834 Code EL	East 2190151.620	Elv 0.500
POS TP 1348	Nrth 138998.408 Code EL	East 2190152.100	Elv 0.704
POS TP 1349	Nrth 139025.842 Code EL	East 2190153.120	Elv -0.440
POS TP 1350	Nrth 139052.072 Code EL	East 2190152.020	Elv -0.910
POS TP 1351	Nrth 139074.865 Code EL	East 2190154.270	Elv -1.216
POS TP 1352	Nrth 139095.943 Code EL	East 2190156.460	Elv -2.059
POS TP 1353	Nrth 139118.153 Code EL	East 2190157.700	Elv -2.247
POS TP 1354	Nrth 139148.556 Code EL	East 2190158.090	Elv -2.490
POS TP 1355	Nrth 139170.605 Code EL	East 2190158.660	Elv -2.505

POS TP 1356	Nrth 139195.214 Code EL	East 2190156.690	Elv -2.558
POS TP 1357	Nrth 139218.518 Code EL	East 2190161.280	Elv -2.536
POS TP 1358	Nrth 139240.666 Code EL	East 2190163.380	Elv -2.598
POS TP 1359	Nrth 139263.134 Code EL	East 2190162.490	Elv -2.713
POS TP 1360	Nrth 139279.992 Code EL	East 2190164.320	Elv -2.726
POS TP 1361	Nrth 139299.374 Code EL	East 2190163.570	Elv -2.892
POS TP 1362	Nrth 139320.486 Code EL	East 2190164.200	Elv -3.087
POS TP 1363	Nrth 139344.185 Code EL	East 2190165.350	Elv -2.808
POS TP 1364	Nrth 139368.356 Code EL	East 2190165.010	Elv -2.832
POS TP 1365	Nrth 139397.416 Code EL	East 2190165.520	Elv -2.808
POS TP 1366	Nrth 139427.480 Code EL	East 2190164.450	Elv -2.891
POS TP 1367	Nrth 139459.420 Code EL	East 2190166.440	Elv -2.922
POS TP 1368	Nrth 139488.924 Code EL	East 2190170.990	Elv -2.921
POS TP 1369	Nrth 139525.614 Code EL	East 2190173.380	Elv -3.042
POS TP 1370	Nrth 139556.552 Code EL	East 2190174.260	Elv -2.990
POS TP 1371	Nrth 139588.084 Code EL	East 2190174.890	Elv -2.907
POS TP 1372	Nrth 139597.053 Code EL	East 2190195.110	Elv -2.665
POS TP 1373	Nrth 139659.406 Code EL	East 2190173.000	Elv -2.738
POS TP 1374	Nrth 139692.453 Code EL	East 2190178.630	Elv -2.827
POS TP 1375	Nrth 139724.578 Code EL	East 2190177.580	Elv -2.795
POS TP 1376	Nrth 139763.916 Code EL	East 2190177.310	Elv -2.670
POS TP 1377	Nrth 139807.720 Code EL	East 2190175.900	Elv -2.642

	Code EL		
POS TP 1378	Nrth 139854.885 Code EL	East 2190175.910	Elv -2.578
POS TP 1379	Nrtn 139907.144 Code EL	East 2190183.370	Elv -2.473
POS TP 1380	Nrtn 139962.621 Code EL	East 2190188.280	Elv -2.292
STN TP 0005	Nrtn 138684.554 Theo ht 4.911	East 2190974.440 Code CP	Elv 3.300
POS KI 0006	Nrth 138190.224 Code CP	East 2188137.920	Elv 2.960
NOTE TL	EDM tol. error: Pt: 0006 0.034		
NOTE TL	V.obs tol. error: Pt: 0006 0-00'51"		
BKB TP 0005-0006	Azmth 260-06'51"	H.obs 0-00'00"	
TRGET	Trget ht 3.870		
OBS F1 0005-0006	Dist 2879.300 Code CP	V.obs 90-01'00"	H.obs 0-00'00"
TRGET	Trget ht 8.530		
POS TP 1381	Nrth 138607.040 Code TBM	East 2190529.330	Elv 4.647
STN TP 0005	Nrtn 138684.554 Theo ht 4.911	East 2190974.440 Code CP	Elv 3.300
STN TP 0005	Nrtn 138684.554 Theo ht 3.911	East 2190974.440 Code CP	Elv 3.300
STN TP 0005	Nrtn 138684.554 Theo ht 3.902	East 2190974.440 Code CP	Elv 3.300
NOTE TL	V.obs tol. error: Pt: 0006 0-00'21"		
BKB TP 0005-0006	Azmth 260-06'51"	H.obs 0-00'05"	
TRGET	Trget ht 3.870		
OBS F1 0005-0006	Dist 2879.290 Code CP	V.obs 90-01'00"	H.obs 0-00'05"
TRGET	Trget ht 4.715		
POS TP 1382	Nrth 138607.073 Code TBM	East 2190529.460	Elv 3.663
POS TP 1383	Nrtn 138435.301 Code CP	East 2189544.410	Elv 2.003
STN TP 1383	Nrtn 138435.301 Theo ht 4.345	East 2189544.410 Code CP	Elv 2.003
NOTE TL	EDM tol. error: Pt: 0006 0.055		
BKB TP 1383-0006	Azmth 260-06'56"	H.obs 0-00'00"	
TRGET	Trget ht 3.870		

TRGET	Trget ht 8.670		
OBS F1 1383-0006	Dist 1427.730 Code CP	V.obs 89-59'05"	H.obs 0-00'00"
TRGET	Trget ht 8.510		
POS TP 1384	Nrth 138400.715 Code TBM	East 2189347.410	Elv 3.634
POS TP 1385	Nrth 138503.861 Code BL	East 2189938.320	Elv 0.245
POS TP 1386	Nrth 138482.097 Code EL	East 2189936.780	Elv -0.971
POS TP 1387	Nrth 138461.293 Code EL	East 2189935.180	Elv -0.773
POS TP 1388	Nrth 138439.089 Code EL	East 2189933.300	Elv -1.452
POS TP 1389	Nrth 138416.858 Code EL	East 2189931.880	Elv -1.294
POS TP 1390	Nrth 138387.027 Code EL	East 2189929.600	Elv -1.896
POS TP 1391	Nrth 138361.397 Code EL	East 2189927.830	Elv -2.349
POS TP 1392	Nrth 138335.040 Code EL	East 2189926.050	Elv -2.484
POS TP 1393	Nrth 138307.507 Code EL	East 2189924.830	Elv -2.830
POS TP 1394	Nrth 138283.870 Code EL	East 2189922.930	Elv -3.365
POS TP 1395	Nrth 138257.179 Code EL	East 2189920.210	Elv -2.824
POS TP 1396	Nrth 138234.577 Code EL	East 2189919.450	Elv -1.922
POS TP 1397	Nrth 138208.970 Code EL	East 2189915.760	Elv -2.412
POS TP 1398	Nrth 138184.952 Code EL	East 2189917.210	Elv -3.759
POS TP 1399	Nrth 138160.602 Code EL	East 2189914.060	Elv -3.509
POS TP 1400	Nrth 138143.768 Code EL	East 2189912.460	Elv -2.647
POS TP 1401	Nrth 138127.812 Code EL	East 2189910.640	Elv -2.332
POS TP 1402	Nrth 138103.157 Code EL	East 2189908.820	Elv -2.648
POS TP 1403	Nrth 138072.505 Code EL	East 2189907.270	Elv -3.413

POS TP 1404	Nrth 138046.073 Code EL	East 2189906.930	Elv -3.807
POS TP 1405	Nrth 138015.208 Code EL	East 2189903.320	Elv -4.085
POS TP 1406	Nrth 137992.205 Code EL	East 2189902.790	Elv -3.772
POS TP 1407	Nrth 137962.994 Code EL	East 2189899.540	Elv -4.132
POS TP 1408	Nrth 137939.014 Code EL	East 2189899.510	Elv -4.640
POS TP 1409	Nrth 138528.642 Code EL	East 2189939.830	Elv 1.613
TRGET	Trget ht 8.530		
POS TP 1410	Nrth 138539.270 Code EL	East 2189940.600	Elv 2.687
POS TP 1411	Nrth 138566.024 Code EL	East 2189942.430	Elv 2.757
POS TP 1412	Nrth 138592.008 Code EL	East 2189944.340	Elv 2.236
POS TP 1413	Nrth 138619.439 Code EL	East 2189946.370	Elv 1.734
POS TP 1414	Nrth 138645.436 Code EL	East 2189948.030	Elv 1.462
POS TP 1415	Nrth 138672.192 Code EL	East 2189950.140	Elv 1.398
POS TP 1416	Nrth 138700.574 Code EL	East 2189951.940	Elv 1.370
POS TP 1417	Nrth 138728.763 Code EL	East 2189954.080	Elv 1.304
POS TP 1418	Nrth 138757.952 Code EL	East 2189955.940	Elv 1.233
POS TP 1419	Nrth 138784.978 Code EL	East 2189957.890	Elv 1.158
POS TP 1420	Nrth 138815.447 Code EL	East 2189960.180	Elv 1.115
POS TP 1421	Nrth 138845.803 Code EL	East 2189962.320	Elv 0.650
POS TP 1422	Nrth 138876.412 Code EL	East 2189964.310	Elv 0.423
POS TP 1423	Nrth 138906.894 Code EL	East 2189966.760	Elv 0.235
POS TP 1424	Nrth 138937.640 Code EL	East 2189969.020	Elv -0.021
POS TP 1425	Nrth 138968.788	East 2189971.260	Elv -0.185

	Code EL		
POS TP 1426	Nrth 138996.886 Code EL	East 2189975.280	Elv -0.425
POS TP 1427	Nrth 139026.702 Code EL	East 2189975.340	Elv -0.664
POS TP 1428	Nrtn 139056.056 Code EL	East 2189977.770	Elv -1.198
POS TP 1429	Nrth 139083.401 Code EL	East 2189979.550	Elv -2.151
POS TP 1430	Nrth 139111.965 Code EL	East 2189981.370	Elv -2.345
POS TP 1431	Nrth 139144.786 Code EL	East 2189983.790	Elv -2.370
POS TP 1432	Nrth 139175.530 Code EL	East 2189985.720	Elv -2.397
POS TP 1433	Nrtn 139208.982 Code EL	East 2189988.120	Elv -2.274
POS TP 1434	Nrth 139243.230 Code EL	East 2189991.180	Elv -2.254
POS TP 1435	Nrth 139277.633 Code EL	East 2189992.840	Elv -2.418
POS TP 1436	Nrth 139310.276 Code EL	East 2189995.320	Elv -2.353
POS TP 1437	Nrth 139343.850 Code EL	East 2189997.950	Elv -2.432
POS TP 1438	Nrth 139376.167 Code EL	East 2190000.620	Elv -2.515
POS TP 1439	Nrth 139407.910 Code EL	East 2190003.180	Elv -2.576
POS TP 1440	Nrth 139437.608 Code EL	East 2190004.040	Elv -2.772
POS TP 1441	Nrth 139466.995 Code EL	East 2190007.080	Elv -2.978
POS TP 1442	Nrth 139497.019 Code EL	East 2190008.480	Elv -3.082
POS TP 1443	Nrth 139525.428 Code EL	East 2190011.670	Elv -2.987
POS TP 1444	Nrth 139555.110 Code EL	East 2190013.570	Elv -2.976
POS TP 1445	Nrth 139584.802 Code EL	East 2190015.660	Elv -2.994
POS TP 1446	Nrtn 139625.683 Code EL	East 2190018.720	Elv -3.018
POS TP 1447	Nrth 139655.994	East 2190020.170	Elv -3.100

	Code EL		
POS TP 1448	Nrtn 139684.428 Code EL	East 2190021.200	Elv -3.118
POS TP 1449	Nrtn 139714.004 Code EL	East 2190024.020	Elv -3.170
POS TP 1450	Nrtn 139745.593 Code EL	East 2190024.450	Elv -3.123
POS TP 1451	Nrtn 139772.362 Code EL	East 2190027.650	Elv -3.209
NOTE	STA 10200		
POS TP 1452	Nrtn 139870.412 Code EL	East 2189792.340	Elv -3.586
POS TP 1453	Nrtn 139844.730 Code EL	East 2189787.260	Elv -3.562
POS TP 1454	Nrtn 139819.642 Code EL	East 2189787.370	Elv -3.573
POS TP 1455	Nrtn 139795.131 Code EL	East 2189787.110	Elv -3.550
POS TP 1456	Nrtn 139768.046 Code EL	East 2189786.250	Elv -3.524
POS TP 1457	Nrtn 139738.703 Code EL	East 2189785.260	Elv -3.496
POS TP 1458	Nrtn 139710.053 Code EL	East 2189783.010	Elv -3.500
POS TP 1459	Nrtn 139681.028 Code EL	East 2189782.740	Elv -3.379
POS TP 1460	Nrtn 139652.307 Code EL	East 2189782.050	Elv -3.353
POS TP 1461	Nrtn 139624.523 Code EL	East 2189780.750	Elv -3.269
POS TP 1462	Nrtn 139597.813 Code EL	East 2189780.280	Elv -3.217
POS TP 1463	Nrtn 139570.066 Code EL	East 2189779.980	Elv -3.194
POS TP 1464	Nrtn 139542.332 Code EL	East 2189779.070	Elv -3.144
POS TP 1465	Nrtn 139515.674 Code EL	East 2189777.910	Elv -3.068
POS TP 1466	Nrtn 139488.673 Code EL	East 2189776.790	Elv -2.917
POS TP 1467	Nrtn 139459.810 Code EL	East 2189776.050	Elv -2.822
POS TP 1468	Nrtn 139432.928	East 2189774.910	Elv -2.682

POS TP 1469	Nrtn 139405.208 Code EL	East 2189772.470	Elv -2.500
POS TP 1470	Nrtn 139377.012 Code EL	East 2189772.840	Elv -2.422
POS TP 1471	Nrtn 139349.714 Code EL	East 2189772.000	Elv -2.415
POS TP 1472	Nrtn 139321.000 Code EL	East 2189771.220	Elv -2.254
POS TP 1473	Nrtn 139292.237 Code EL	East 2189770.580	Elv -2.102
POS TP 1474	Nrtn 139262.581 Code EL	East 2189769.480	Elv -1.918
POS TP 1475	Nrtn 139234.260 Code EL	East 2189767.940	Elv -1.867
POS TP 1476	Nrtn 139205.700 Code EL	East 2189767.140	Elv -1.878
POS TP 1477	Nrtn 139176.268 Code EL	East 2189766.380	Elv -1.795
POS TP 1478	Nrtn 139148.022 Code EL	East 2189765.110	Elv -1.737
POS TP 1479	Nrtn 139121.637 Code EL	East 2189764.330	Elv -1.543
POS TP 1480	Nrtn 139093.271 Code EL	East 2189762.770	Elv -1.114
POS TP 1481	Nrtn 139066.432 Code EL	East 2189762.190	Elv -0.830
POS TP 1482	Nrtn 139042.201 Code EL	East 2189761.230	Elv -0.643
POS TP 1483	Nrtn 139015.350 Code EL	East 2189759.970	Elv -0.330
POS TP 1484	Nrtn 138986.144 Code EL	East 2189759.100	Elv 1.021
POS TP 1485	Nrtn 138961.721 Code EL	East 2189758.270	Elv 0.579
POS TP 1486	Nrtn 138935.975 Code EL	East 2189757.650	Elv 0.581
POS TP 1487	Nrtn 138909.770 Code EL	East 2189756.660	Elv 0.696
POS TP 1488	Nrtn 138883.744 Code EL	East 2189755.680	Elv 0.899
POS TP 1489	Nrtn 138857.025 Code EL	East 2189754.630	Elv 1.180
POS TP 1490	Nrtn 138830.525 Code EL	East 2189754.010	Elv 1.335

012
388-93-2

SDR20 V03-05	Copyright 1985-92 by Datacom Software Research Limited.		
	Serial no	Oct-12-93 18:01	
	Angle : Degrees	Dist : Feet	Press : Inch Hg
	Temp : Fahrenht	Coord : N-E-Elv	H.obs : Right
JOB	Job ID 388-93-2		
NOTE CP	Sea level crn: N		
NOTE CP	C and R crn: Y		
NOTE CP	Atmos crn: N		
SCALE	S.F. 1.000000000		
NOTE OO	Current view		
NOTE TS	Oct-12-93 09:56		
NOTE	-DNR-CRD PHASE-1 TRNITY ISLAND		
POS KI 0003	Nrth 139119.153	East 2194548.560	Elv 3.981
	Code CP		
POS KI 0004	Nrth 138785.607	East 2193261.770	Elv 4.211
	Code CP		
INSTR	SET	EDM <No text>	Serial no 000000
	Theo <No text>	Serial no 000000	Mount: not applc
	V.obs : Zenith	Edm o/s <Null>	Refl o/s <Null>
	P.C. mm 0.000		
NOTE PC	P.C. mm Applied: 0.000		
STN TP 0003	Nrth 139119.153	East 2194548.560	Elv 3.981
	Theo ht 3.621	Code CP	
NOTE TL	EDM tol. error: Pt: 0004 0.025		
BKB TP 0003-0004	Azmth 255-28'06"	H.obs 0-00'01"	
TRGET	Trget ht 3.180		
OBS F1 0003-0004	Dist 1329.340	V.obs 90-00'45"	H.obs 0-00'01"
	Code CP		
TRGET	Trget ht 0.230		
POS TP 0100	Nrth 138950.876	East 2193899.670	Elv 3.778
	Code TBM		
TRGET	Trget ht 8.510		
POS TP 0101	Nrth 139610.654	East 2194762.550	Elv 4.425

POS TP 1491	Nrth 138803.409 Code EL	East 2189752.890	Elv 1.539
POS TP 1492	Nrth 138775.065 Code EL	East 2189751.460	Elv 1.390
POS TP 1493	Nrth 138748.795 Code EL	East 2189750.760	Elv 1.369
POS TP 1494	Nrth 138722.376 Code EL	East 2189749.610	Elv 1.310
POS TP 1495	Nrth 138695.819 Code EL	East 2189749.020	Elv 1.209
POS TP 1496	Nrth 138669.645 Code EL	East 2189748.060	Elv 1.312
POS TP 1497	Nrth 138641.887 Code EL	East 2189746.860	Elv 1.395
POS TP 1498	Nrth 138614.974 Code EL	East 2189745.950	Elv 1.543
POS TP 1499	Nrth 138587.830 Code EL	East 2189745.010	Elv 1.845
POS TP 1500	Nrth 138561.519 Code EL	East 2189743.950	Elv 2.221
POS TP 1501	Nrth 138533.254 Code EL	East 2189743.260	Elv 2.693
POS TP 1502	Nrth 138502.612 Code EL	East 2189742.350	Elv 2.000
POS TP 1503	Nrth 138469.676 Code BL	East 2189741.400	Elv 0.645
TRGET	Trget ht 8.510		
POS TP 1504	Nrth 138454.440 Code EL	East 2189740.490	Elv 0.312
POS TP 1505	Nrth 138430.243 Code EL	East 2189739.890	Elv -0.465
POS TP 1506	Nrth 138404.133 Code EL	East 2189738.900	Elv -0.896
POS TP 1507	Nrth 138377.446 Code EL	East 2189738.180	Elv -1.441
POS TP 1508	Nrth 138353.042 Code EL	East 2189737.690	Elv -1.209
POS TP 1509	Nrth 138324.744 Code EL	East 2189736.420	Elv -1.350
POS TP 1510	Nrth 138296.620 Code EL	East 2189735.090	Elv -1.716
POS TP 1511	Nrth 138267.193 Code EL	East 2189733.910	Elv -2.118

POS TP 1512	Nrth 138235.894 Code EL	East 2189733.310	Elv -2.034
POS TP 1513	Nrth 138212.865 Code EL	East 2189732.480	Elv -1.356
POS TP 1514	Nrth 138185.267 Code EL	East 2189730.450	Elv -1.277
POS TP 1515	Nrth 138154.424 Code EL	East 2189729.840	Elv -1.801
POS TP 1516	Nrth 138129.546 Code EL	East 2189729.370	Elv -2.290
POS TP 1517	Nrth 138107.681 Code EL	East 2189725.770	Elv -2.632
POS TP 1518	Nrth 138083.615 Code EL	East 2189727.320	Elv -3.207
POS TP 1519	Nrth 138056.010 Code EL	East 2189727.240	Elv -3.588
POS TP 1520	Nrth 138028.544 Code EL	East 2189726.820	Elv -3.974
POS TP 1521	Nrth 138006.038 Code EL	East 2189724.460	Elv -4.212
NOTE	STA 10000		
POS TP 1522	Nrth 137859.582 Code EL	East 2189511.750	Elv -4.672
POS TP 1523	Nrth 137878.151 Code EL	East 2189511.590	Elv -4.158
POS TP 1524	Nrth 137900.597 Code EL	East 2189515.090	Elv -3.948
POS TP 1525	Nrth 137938.251 Code EL	East 2189516.070	Elv -3.835
POS TP 1526	Nrth 137961.282 Code EL	East 2189519.400	Elv -3.331
POS TP 1527	Nrth 137979.230 Code EL	East 2189520.300	Elv -3.498
POS TP 1528	Nrth 137997.384 Code EL	East 2189520.510	Elv -3.020
POS TP 1529	Nrth 138016.458 Code EL	East 2189521.310	Elv -2.759
POS TP 1530	Nrth 138039.327 Code EL	East 2189523.430	Elv -2.015
POS TP 1531	Nrth 138065.580 Code EL	East 2189523.720	Elv -2.797
POS TP 1532	Nrth 138088.139 Code EL	East 2189525.640	Elv -2.809
POS TP 1533	Nrth [illegible]	East [illegible]	Elv [illegible]

	Code EL		
POS TP 1534	Nrth 138139.724 Code EL	East 2189528.230	Elv -2.720
POS TP 1535	Nrth 138161.231 Code EL	East 2189529.790	Elv -2.474
POS TP 1536	Nrth 138187.197 Code EL	East 2189531.120	Elv -2.282
POS TP 1537	Nrth 138214.383 Code EL	East 2189532.850	Elv -2.017
POS TP 1538	Nrtn 138244.600 Code EL	East 2189534.480	Elv -1.754
POS TP 1539	Nrth 138268.740 Code EL	East 2189536.100	Elv -1.527
POS TP 1540	Nrth 138325.941 Code EL	East 2189539.310	Elv -1.777
POS TP 1541	Nrth 138347.005 Code EL	East 2189540.000	Elv -1.382
POS TP 1542	Nrth 138368.704 Code EL	East 2189541.380	Elv -1.443
POS TP 1543	Nrth 138389.277 Code EL	East 2189542.650	Elv -0.428
POS TP 1544	Nrth 138411.688 Code EL	East 2189543.520	Elv 0.590
TRGET	Trget ht 5.200		
POS TP 1545	Nrth <Null> Code BL	East <Null>	Elv <Null>
TRGET	Trget ht 8.530		
POS TP 1546	Nrth 138450.387 Code EL	East 2189545.750	Elv 2.590
POS TP 1547	Nrth 138475.550 Code EL	East 2189546.140	Elv 2.698
POS TP 1548	Nrth 138503.026 Code EL	East 2189547.910	Elv 2.256
POS TP 1549	Nrth 138526.938 Code EL	East 2189549.640	Elv 1.979
POS TP 1550	Nrth 138551.576 Code EL	East 2189550.580	Elv 1.901
POS TP 1551	Nrth 138577.716 Code EL	East 2189551.980	Elv 1.736
POS TP 1552	Nrth 138603.552 Code EL	East 2189553.140	Elv 1.625
POS TP 1553	Nrth 138630.317 Code EL	East 2189554.090	Elv 1.487

POS TP 1554	Nrtn 138656.906 Code EL	East 2189555.680	Elv 1.380
POS TP 1555	Nrtn 138682.723 Code EL	East 2189557.430	Elv 1.399
POS TP 1556	Nrtn 138705.778 Code EL	East 2189558.820	Elv 1.102
POS TP 1557	Nrtn 138705.800 Code EL	East 2189558.780	Elv 1.102
POS TP 1558	Nrtn 138735.760 Code EL	East 2189560.420	Elv 0.773
POS TP 1559	Nrtn 138762.435 Code EL	East 2189562.160	Elv 0.981
POS TP 1560	Nrtn 138794.417 Code EL	East 2189563.590	Elv 0.845
POS TP 1561	Nrtn 138824.292 Code EL	East 2189565.590	Elv 1.003
POS TP 1562	Nrtn 138850.121 Code EL	East 2189567.070	Elv 0.983
POS TP 1563	Nrtn 138879.579 Code EL	East 2189568.480	Elv 0.917
POS TP 1564	Nrtn 138906.960 Code EL	East 2189569.950	Elv 0.845
POS TP 1565	Nrtn 138934.887 Code EL	East 2189571.730	Elv 0.661
POS TP 1566	Nrtn 138965.802 Code EL	East 2189573.040	Elv 0.566
POS TP 1567	Nrtn 138988.759 Code EL	East 2189574.370	Elv 1.425
POS TP 1568	Nrtn 139013.192 Code EL	East 2189575.660	Elv 0.083
POS TP 1569	Nrtn 139037.467 Code EL	East 2189576.830	Elv -0.421
POS TP 1570	Nrtn 139062.173 Code EL	East 2189578.860	Elv -0.683
POS TP 1571	Nrtn 139087.021 Code EL	East 2189579.780	Elv -0.845
POS TP 1572	Nrtn 139112.849 Code EL	East 2189581.270	Elv -1.186
POS TP 1573	Nrtn 139134.807 Code EL	East 2189582.260	Elv -1.306
POS TP 1574	Nrtn 139162.290 Code EL	East 2189583.520	Elv -1.430
POS TP 1575	Nrtn 139192.441 Code EL	East 2189585.430	Elv -1.693

POS TP 1576	Nrth 139221.508 Code EL	East 2189587.200	Elv -1.788
POS TP 1577	Nrth 139248.859 Code EL	East 2189588.650	Elv -1.853
POS TP 1578	Nrth 139277.282 Code EL	East 2189589.930	Elv -2.025
POS TP 1579	Nrth 139311.749 Code EL	East 2189592.030	Elv -2.188
POS TP 1580	Nrth 139340.862 Code EL	East 2189593.120	Elv -2.341
POS TP 1581	Nrth 139372.749 Code EL	East 2189596.070	Elv -2.392
POS TP 1582	Nrth 139406.653 Code EL	East 2189596.920	Elv -2.611
POS TP 1583	Nrth 139434.662 Code EL	East 2189599.170	Elv -2.720
POS TP 1584	Nrth 139466.069 Code EL	East 2189601.710	Elv -2.786
POS TP 1585	Nrth 139492.492 Code EL	East 2189600.360	Elv -2.878
POS TP 1586	Nrth 139521.141 Code EL	East 2189600.550	Elv -2.922
POS TP 1587	Nrth 139547.322 Code EL	East 2189602.930	Elv -3.075
POS TP 1588	Nrth 139572.744 Code EL	East 2189603.550	Elv -3.177
POS TP 1589	Nrth 139601.836 Code EL	East 2189604.470	Elv -3.174
POS TP 1590	Nrth 139630.508 Code EL	East 2189606.900	Elv -3.226
POS TP 1591	Nrth 139656.079 Code EL	East 2189608.510	Elv -3.278
POS TP 1592	Nrth 139678.706 Code EL	East 2189609.730	Elv -3.388
POS TP 1593	Nrth 139702.214 Code EL	East 2189608.040	Elv -3.379
POS TP 1594	Nrth 139729.577 Code EL	East 2189610.450	Elv -3.436
TRGET	Trget ht 5.200		
POS TP 1595	Nrth 138435.284 Code BL	East 2189544.310	Elv 1.148
NOTE	STA 9800		
TRGET	Trget ht 8.530		

POS TP 1596	Nrth 139745.230 Code EL	East 2189410.360	Elv -3.328
POS TP 1597	Nrth 139718.962 Code EL	East 2189408.170	Elv -3.337
POS TP 1598	Nrth 139694.321 Code EL	East 2189407.050	Elv -3.316
POS TP 1599	Nrth 139676.136 Code EL	East 2189407.000	Elv -3.300
POS TP 1600	Nrth 139650.553 Code EL	East 2189405.890	Elv -3.189
POS TP 1601	Nrth 139630.015 Code EL	East 2189404.560	Elv -3.144
POS TP 1602	Nrth 139604.603 Code EL	East 2189403.260	Elv -3.039
POS TP 1603	Nrth 139582.637 Code EL	East 2189402.970	Elv -3.136
POS TP 1604	Nrth 139553.798 Code EL	East 2189400.000	Elv -2.949
POS TP 1605	Nrth 139530.037 Code EL	East 2189400.530	Elv -2.960
POS TP 1606	Nrth 139505.715 Code EL	East 2189398.810	Elv -2.865
POS TP 1607	Nrth 139478.623 Code EL	East 2189398.250	Elv -2.849
POS TP 1608	Nrth 139451.073 Code EL	East 2189397.360	Elv -2.758
POS TP 1609	Nrth 139424.795 Code EL	East 2189395.130	Elv -2.744
POS TP 1610	Nrth 139395.821 Code EL	East 2189394.090	Elv -2.705
POS TP 1611	Nrth 139363.728 Code EL	East 2189392.880	Elv -2.552
POS TP 1612	Nrth 139335.688 Code EL	East 2189391.780	Elv -2.519
POS TP 1613	Nrth 139309.752 Code EL	East 2189390.220	Elv -2.381
POS TP 1614	Nrth 139281.165 Code EL	East 2189388.780	Elv -2.230
POS TP 1615	Nrth 139255.559 Code EL	East 2189387.610	Elv -2.148
POS TP 1616	Nrth 139228.299 Code EL	East 2189386.630	Elv -2.130
POS TP 1617	Nrth 139203.240 Code EL	East 2189384.600	Elv -2.018

POS TP 1618	Nrtn 139171.666 Code EL	East 2189383.970	Elv -1.878
POS TP 1619	Nrtn 139146.876 Code EL	East 2189382.420	Elv -1.765
POS TP 1620	Nrtn 139121.295 Code EL	East 2189381.160	Elv -1.711
POS TP 1621	Nrtn 139092.077 Code EL	East 2189379.680	Elv -1.303
POS TP 1622	Nrtn 139063.229 Code EL	East 2189378.880	Elv -0.946
POS TP 1623	Nrtn 139029.733 Code EL	East 2189377.540	Elv -0.768
POS TP 1624	Nrth 138992.938 Code EL	East 2189375.640	Elv -0.226
POS TP 1625	Nrth 138959.846 Code EL	East 2189373.310	Elv 0.659
POS TP 1626	Nrth 138934.274 Code EL	East 2189372.530	Elv 0.113
POS TP 1627	Nrth 138894.072 Code EL	East 2189370.700	Elv -0.061
POS TP 1628	Nrth 138866.106 Code EL	East 2189369.370	Elv -0.318
POS TP 1629	Nrtn 138836.991 Code EL	East 2189368.450	Elv -0.499
POS TP 1630	Nrth 138808.596 Code EL	East 2189366.510	Elv -0.385
POS TP 1631	Nrth 138786.070 Code EL	East 2189365.640	Elv -0.337
POS TP 1632	Nrth 138757.202 Code EL	East 2189369.000	Elv 0.922
POS TP 1633	Nrth 138727.200 Code EL	East 2189362.630	Elv 0.162
POS TP 1634	Nrth 138694.091 Code EL	East 2189361.600	Elv 0.938
POS TP 1635	Nrth 138666.650 Code EL	East 2189360.210	Elv 1.311
POS TP 1636	Nrth 138637.722 Code EL	East 2189359.100	Elv 1.245
POS TP 1637	Nrth 138605.537 Code EL	East 2189357.280	Elv 1.836
POS TP 1638	Nrth 138570.990 Code EL	East 2189355.550	Elv 1.624
POS TP 1639	Nrtn 138537.812 Code EL	East 2189353.970	Elv 1.814

POS TP 1640	Nrth 138504.453 Code EL	East 2189352.510	Elv 1.928
POS TP 1641	Nrth 138469.806 Code EL	East 2189350.460	Elv 2.241
POS TP 1642	Nrth 138435.582 Code EL	East 2189348.720	Elv 2.696
POS TP 1643	Nrtn 138400.949 Code BL	East 2189346.630	Elv 1.678
TRGET	Trget ht 8.510		
POS TP 1644	Nrtn 138374.721 Code EL	East 2189345.940	Elv 0.575
POS TP 1645	Nrth 138347.539 Code EL	East 2189344.730	Elv -0.755
POS TP 1646	Nrth 138319.615 Code EL	East 2189343.370	Elv -1.796
POS TP 1647	Nrtn 138292.236 Code EL	East 2189341.930	Elv -1.795
POS TP 1648	Nrth 138272.928 Code EL	East 2189341.070	Elv -2.199
POS TP 1649	Nrth 138262.019 Code EL	East 2189340.360	Elv -1.389
POS TP 1650	Nrth 138234.200 Code EL	East 2189339.020	Elv -1.373
POS TP 1651	Nrth 138206.376 Code EL	East 2189337.850	Elv -1.779
POS TP 1652	Nrth 138179.689 Code EL	East 2189336.910	Elv -2.232
POS TP 1653	Nrth 138152.727 Code EL	East 2189335.380	Elv -2.322
POS TP 1654	Nrth 138124.710 Code EL	East 2189333.960	Elv -2.060
POS TP 1655	Nrth 138097.279 Code EL	East 2189332.690	Elv -2.111
POS TP 1656	Nrth 138070.071 Code EL	East 2189331.430	Elv -2.077
POS TP 1657	Nrth 138038.256 Code EL	East 2189329.510	Elv -2.618
POS TP 1658	Nrth 138009.477 Code EL	East 2189327.950	Elv -2.737
POS TP 1659	Nrth 137981.176 Code EL	East 2189326.990	Elv -3.060
POS TP 1660	Nrth 137954.842 Code EL	East 2189325.500	Elv -3.680
NOTE	STA 9500		

POS TP 1661	Nrtn 137896.905 Code EL	East 2189134.340	Elv -3.941
POS TP 1662	Nrtn 137927.498 Code EL	East 2189135.120	Elv -3.229
POS TP 1663	Nrtn 137952.492 Code EL	East 2189135.050	Elv -2.691
POS TP 1664	Nrtn 137980.757 Code EL	East 2189136.340	Elv -2.125
POS TP 1665	Nrtn 138010.417 Code EL	East 2189137.390	Elv -1.941
POS TP 1666	Nrtn 138036.260 Code EL	East 2189138.490	Elv -2.128
POS TP 1667	Nrtn 138059.006 Code EL	East 2189139.380	Elv -2.384
POS TP 1668	Nrtn 138091.379 Code EL	East 2189140.140	Elv -2.517
POS TP 1669	Nrtn 138118.354 Code EL	East 2189141.750	Elv -3.238
POS TP 1670	Nrtn 138141.781 Code EL	East 2189141.800	Elv -2.653
POS TP 1671	Nrtn 138168.304 Code EL	East 2189143.260	Elv -2.053
POS TP 1672	Nrtn 138199.071 Code EL	East 2189144.160	Elv -2.766
POS TP 1673	Nrtn 138229.691 Code EL	East 2189145.140	Elv -2.409
POS TP 1674	Nrtn 138257.698 Code EL	East 2189146.540	Elv -1.546
POS TP 1675	Nrtn 138285.513 Code EL	East 2189147.530	Elv -1.696
POS TP 1676	Nrtn 138315.395 Code EL	East 2189148.740	Elv -0.165
POS TP 1677	Nrtn 138342.576 Code EL	East 2189149.580	Elv 0.879
POS TP 1678	Nrtn 138366.345 Code BL	East 2189149.970	Elv 2.248
TRGET	Trget ht 8.530		
POS TP 1679	Nrtn 138366.514 Code EL	East 2189149.920	Elv 2.247
POS TP 1680	Nrtn 138389.957 Code CHECK	East 2189145.810	Elv 2.732
POS TP 1681	Nrtn 138390.737 Code EL	East 2189151.300	Elv 2.741

POS TP 1682	Nrtn 138444.586 Code EL	East 2189153.320	Elv 2.278
POS TP 1683	Nrtn 138473.790 Code EL	East 2189154.510	Elv 2.038
POS TP 1684	Nrtn 138503.560 Code EL	East 2189155.430	Elv 1.937
POS TP 1685	Nrtn 138536.533 Code EL	East 2189156.700	Elv 1.794
POS TP 1686	Nrtn 138567.502 Code EL	East 2189157.580	Elv 1.795
POS TP 1687	Nrtn 138596.004 Code EL	East 2189158.450	Elv 1.642
POS TP 1688	Nrtn 138627.267 Code EL	East 2189159.830	Elv 1.583
POS TP 1689	Nrtn 138661.979 Code EL	East 2189160.970	Elv 1.234
POS TP 1690	Nrtn 138694.214 Code EL	East 2189162.200	Elv 0.978
POS TP 1691	Nrtn 138727.891 Code EL	East 2189163.420	Elv 0.966
POS TP 1692	Nrtn 138761.878 Code EL	East 2189164.930	Elv 0.857
POS TP 1693	Nrtn 138789.779 Code EL	East 2189165.200	Elv -0.025
POS TP 1694	Nrtn 138819.594 Code EL	East 2189166.840	Elv -0.505
POS TP 1695	Nrtn 138844.124 Code EL	East 2189166.980	Elv -0.490
STN TP 1383	Nrtn 138435.301 Theo ht 4.100	East 2189544.410 Code CP	Elv 2.003
NOTE TL	EDM tol. error: Pt: 0006 0.045		
BKB TP 1383-0006	Azmth 260-06'56"	H.obs 0-00'00"	
TRGET	Trget ht 3.870		
OBS F1 1383-0006	Dist 1427.720 Code CP	V.obs 89-58'20"	H.obs 0-00'00"
TRGET	Trget ht 8.530		
POS TP 1696	Nrtn 138873.562 Code EL	East 2189168.070	Elv -0.376
POS TP 1697	Nrtn 138904.831 Code EL	East 2189169.480	Elv -0.497
POS TP 1698	Nrtn 138938.133 Code EL	East 2189170.600	Elv -0.536
POS TP 1699	Nrtn [illegible]	East [illegible]	Elv [illegible]

	Code EL		
POS TP 1700	Nrth 139000.301 Code EL	East 2189172.570	Elv -1.008
POS TP 1701	Nrth 139030.826 Code EL	East 2189174.270	Elv -1.092
POS TP 1702	Nrth 139065.240 Code EL	East 2189176.000	Elv -1.302
POS TP 1703	Nrth 139096.757 Code EL	East 2189176.230	Elv -1.682
POS TP 1704	Nrth 139134.727 Code EL	East 2189176.510	Elv -2.108
POS TP 1705	Nrth 139160.743 Code EL	East 2189178.140	Elv -2.197
POS TP 1706	Nrth 139185.828 Code EL	East 2189179.050	Elv -2.251
POS TP 1707	Nrth 139211.098 Code EL	East 2189179.740	Elv -2.371
POS TP 1708	Nrth 139240.109 Code EL	East 2189180.270	Elv -2.454
POS TP 1709	Nrth 139272.385 Code EL	East 2189181.160	Elv -2.521
POS TP 1710	Nrth 139297.775 Code EL	East 2189183.160	Elv -2.591
POS TP 1711	Nrth 139322.475 Code EL	East 2189184.490	Elv -2.617
POS TP 1712	Nrth 139354.879 Code EL	East 2189182.750	Elv -2.671
POS TP 1713	Nrth 139374.680 Code EL	East 2189185.070	Elv -2.724
POS TP 1714	Nrth 139397.533 Code EL	East 2189188.050	Elv -2.754
POS TP 1715	Nrth 139420.238 Code EL	East 2189189.730	Elv -2.659
POS TP 1716	Nrth 139442.794 Code EL	East 2189187.800	Elv -2.741
POS TP 1717	Nrth 139471.069 Code EL	East 2189187.210	Elv -2.748
POS TP 1718	Nrth 139491.383 Code EL	East 2189189.600	Elv -2.780
POS TP 1719	Nrth 139512.797 Code EL	East 2189190.520	Elv -2.896
POS TP 1720	Nrth 139534.715 Code EL	East 2189190.930	Elv -2.904

	Code EL		
POS TP 1722	Nrth 139573.444 Code EL	East 2189188.410	Elv -2.976
POS TP 1723	Nrth 139587.430 Code EL	East 2189189.210	Elv -2.982
POS TP 1724	Nrth 139605.468 Code EL	East 2189191.550	Elv -3.019
POS TP 1725	Nrth 139623.143 Code EL	East 2189190.930	Elv -3.027
POS TP 1726	Nrth 139644.418 Code EL	East 2189192.300	Elv -3.127

* END OF REPORT *

016
388-93-3
LaDNR

1E

SDR20 V03-05	Copyright 1985-92 by Datacom Software Research Limited.		
	Serial no	Oct-16-93 17:51	
	Angle : Degrees	Dist : Feet	Press : inch Hg
	Temp : Fahrenht	Coord : N-E-Elv	H.obs : Right
JOB	Job ID 388-93-3		
NOTE CP	Sea level crn: N		
NOTE CP	C and R crn: Y		
NOTE CP	Atmos crn: N		
SCALE	S.F. 1.000000000		
NOTE OO	Current view		
NOTE TS	Oct-14-93 12:57		
NOTE	-DNR-CRD PHASE-1 TRNITY ISLAND		
NOTE	-X-SECTIONS		
NOTE	-D.R. C.P. K.V. G.M. R.B.		
NOTE	-REF. BK 2094		
POS KI 0004	Nrth 138785.607 Code CP	East 2193261.770	Elv 4.210
POS KI 0005	Nrth 138684.554 Code CP	East 2190974.440	Elv 3.300
POS KI 0003	Nrth 139119.153 Code CP	East 2194548.560	Elv 3.980
INSTR	SET Theo <No text> V.obs : Zenith P.C. mm 0.000	EDM <No text> Serial no 000000 Edm o/s <Null>	Serial no 000000 Mount: not applc Refl o/s <Null>
NOTE PC	P.C. mm Applied: 0.000		
STN TP 0004	Nrth 138785.607 Theo ht 3.840	East 2193261.770 Code CP	Elv 4.210
BKB TP 0004-0003	Azmth 75-28'06"	H.obs 0-00'00"	
TRGET	Trget ht 3.740		
OBS F1 0004-0003	Dist 1329.330 Code CP	V.obs 90-01'00"	H.obs 0-00'00"
TRGET	Trget ht 8.530		

POS TP 0443	Nrtn 138951.001 Code CHECK	East 2193900.160	Elv 2.790
TRGET	Trget ht 6.510		
POS TP 0444	Nrtn 138761.719 Code TBM	East 2192721.500	Elv 2.889
TRGET	Trget ht 6.530		
POS TP 0445	Nrtn 138950.807 Code TBM	East 2193899.790	Elv 3.811
NOTE	RD 1		
NOTE	STA 13200		
POS TP 0446	Nrtn 138761.657 Code BL	East 2192720.980	Elv 1.993
POS TP 0447	Nrtn 138729.066 Code EL	East 2192719.880	Elv 2.313
POS TP 0448	Nrtn 138700.451 Code EL	East 2192718.480	Elv 2.272
POS TP 0449	Nrtn 138674.857 Code EL	East 2192716.730	Elv 0.740
POS TP 0450	Nrtn 138648.726 Code EL	East 2192715.190	Elv 0.209
POS TP 0451	Nrtn 138623.561 Code EL	East 2192714.210	Elv 0.219
POS TP 0452	Nrtn 138597.942 Code EL	East 2192712.070	Elv 0.048
POS TP 0453	Nrtn 138570.099 Code EL	East 2192710.710	Elv 0.259
POS TP 0454	Nrtn 138541.520 Code EL	East 2192709.290	Elv 0.040
POS TP 0455	Nrtn 138514.587 Code EL	East 2192708.140	Elv -0.188
POS TP 0456	Nrtn 138491.342 Code EL	East 2192706.220	Elv -0.319
POS TP 0457	Nrtn 138466.286 Code EL	East 2192704.140	Elv -1.749
POS TP 0458	Nrtn 138443.956 Code EL	East 2192703.450	Elv -2.343
POS TP 0459	Nrtn 138423.531 Code EL	East 2192705.690	Elv -2.932
POS TP 0460	Nrtn 138407.035 Code EL	East 2192701.940	Elv -3.682
TRGET	Trget ht 8.510		
POS TP 0461	Nrtn 138795.953	East 2192720.340	Elv 1.712

	Code EL		
POS TP 0462	Nrtn 138833.380 Code EL	East 2192721.480	Elv 1.702
POS TP 0463	Nrtn 138869.445 Code EL	East 2192722.990	Elv 1.635
POS TP 0464	Nrtn 138891.143 Code EL	East 2192723.310	Elv 1.661
POS TP 0465	Nrtn 138913.397 Code EL	East 2192724.740	Elv 1.634
POS TP 0466	Nrtn 138934.647 Code EL	East 2192730.910	Elv 1.605
POS TP 0467	Nrtn 138956.370 Code EL	East 2192731.900	Elv 1.584
POS TP 0468	Nrtn 138980.427 Code EL	East 2192733.300	Elv 1.513
POS TP 0469	Nrtn 139003.206 Code EL	East 2192734.420	Elv 1.414
POS TP 0470	Nrtn 139027.591 Code EL	East 2192736.300	Elv 1.089
POS TP 0471	Nrtn 139046.415 Code EL	East 2192737.470	Elv 0.583
POS TP 0472	Nrtn 139069.018 Code EL	East 2192738.530	Elv 1.278
POS TP 0473	Nrtn 139089.733 Code EL	East 2192739.500	Elv 0.866
POS TP 0474	Nrtn 139110.076 Code EL	East 2192741.450	Elv 0.886
POS TP 0475	Nrtn 139130.749 Code EL	East 2192741.830	Elv 1.182
POS TP 0476	Nrtn 139154.722 Code EL	East 2192743.360	Elv 1.091
POS TP 0477	Nrtn 139178.463 Code EL	East 2192744.830	Elv 0.934
POS TP 0478	Nrtn 139198.975 Code EL	East 2192745.780	Elv 0.927
POS TP 0479	Nrtn 139219.628 Code EL	East 2192747.020	Elv 0.953
POS TP 0480	Nrtn 139241.322 Code EL	East 2192747.840	Elv 0.815
POS TP 0481	Nrtn 139250.148 Code EL	East 2192749.530	Elv -0.232
POS TP 0482	Nrtn 139258.109 Code EL	East 2192748.230	Elv 0.413
POS TP 0483	Nrtn 139280.479	East 2192750.090	Elv 0.862

	Code EL		
POS TP 0484	Nrtn 139302.029 Code EL	East 2192751.[illegible]	Elv 0.747
POS TP 0485	Nrtn 139322.628 Code EL	East 2192753.120	Elv 0.466
POS TP 0486	Nrtn 139344.153 Code EL	East 2192754.080	Elv 0.668
POS TP 0487	Nrtn 139355.149 Code EL	East 2192753.440	Elv 0.662
POS TP 0488	Nrtn 139362.960 Code EL	East 2192753.490	Elv -0.336
POS TP 0489	Nrtn 139370.367 Code EL	East 2192755.310	Elv 0.190
POS TP 0490	Nrtn 139390.330 Code EL	East 2192756.670	Elv 1.023
POS TP 0491	Nrtn 139407.928 Code EL	East 2192759.220	Elv 1.880
POS TP 0492	Nrtn 139418.134 Code EL	East 2192759.810	Elv 2.196
NOTE	-ES		
NOTE	STA 13000		
POS TP 0493	Nrtn 139392.050 Code EL	East 2192558.030	Elv 1.877
POS TP 0494	Nrtn 139373.852 Code EL	East 2192556.790	Elv 1.026
POS TP 0495	Nrtn 139366.136 Code EL	East 2192555.690	Elv 0.576
POS TP 0496	Nrtn 139357.435 Code EL	East 2192554.750	Elv -1.192
POS TP 0497	Nrtn 139344.590 Code EL	East 2192554.400	Elv 0.671
POS TP 0498	Nrtn 139325.200 Code EL	East 2192553.890	Elv 0.570
POS TP 0499	Nrtn 139312.250 Code EL	East 2192552.330	Elv 0.156
POS TP 0500	Nrtn 139282.132 Code EL	East 2192551.490	Elv 0.270
POS TP 0501	Nrtn 139265.267 Code EL	East 2192549.680	Elv 1.116
POS TP 0502	Nrtn 139244.873 Code EL	East 2192549.250	Elv 0.911
POS TP 0503	Nrtn 139237.482 Code EL	East 2192548.700	Elv -1.898

POS TP 0504	Nrtn 139230.245 Code EL	East 2192549.210	Elv 0.796
POS TP 0505	Nrtn 139209.524 Code EL	East 2192547.030	Elv 1.085
POS TP 0506	Nrtn 139189.966 Code EL	East 2192546.430	Elv 1.108
POS TP 0507	Nrtn 139170.115 Code EL	East 2192545.170	Elv 1.032
POS TP 0508	Nrtn 139151.154 Code EL	East 2192543.580	Elv 0.706
POS TP 0509	Nrtn 139130.455 Code EL	East 2192542.610	Elv 1.080
POS TP 0510	Nrtn 139119.166 Code EL	East 2192541.220	Elv -1.198
POS TP 0511	Nrtn 139104.518 Code EL	East 2192541.550	Elv 0.087
POS TP 0512	Nrtn 139067.325 Code EL	East 2192541.580	Elv 0.423
POS TP 0513	Nrtn 139087.327 Code EL	East 2192541.620	Elv 0.423
POS TP 0514	Nrtn 139071.503 Code EL	East 2192540.100	Elv 0.644
POS TP 0515	Nrtn 139054.730 Code EL	East 2192539.150	Elv -0.186
POS TP 0516	Nrtn 139032.074 Code EL	East 2192537.210	Elv 0.776
POS TP 0517	Nrtn 139010.005 Code EL	East 2192535.750	Elv 0.657
POS TP 0518	Nrtn 138990.938 Code EL	East 2192535.220	Elv 0.577
POS TP 0519	Nrtn 138970.169 Code EL	East 2192533.810	Elv 0.626
POS TP 0520	Nrtn 138952.593 Code EL	East 2192533.170	Elv 0.530
POS TP 0521	Nrtn 138937.063 Code EL	East 2192532.210	Elv 0.292
POS TP 0522	Nrtn 138918.181 Code EL	East 2192530.870	Elv 1.406
POS TP 0523	Nrtn 138896.937 Code EL	East 2192529.970	Elv 1.579
POS TP 0524	Nrtn 138874.858 Code EL	East 2192528.890	Elv 1.574
POS TP 0525	Nrtn 138852.905 Code EL	East 2192527.060	Elv 1.679

POS TP 0526	Nrtn 138833.214 Code EL	East 2192526.460	Elv 1.695
POS TP 0527	Nrtn 138812.223 Code EL	East 2192524.780	Elv 1.482
POS TP 0528	Nrtn 138790.336 Code EL	East 2192523.380	Elv 1.735
POS TP 0529	Nrtn 138769.094 Code EL	East 2192522.130	Elv 1.829
POS TP 0530	Nrtn 138753.173 Code BL	East 2192521.300	Elv 1.815
TRGET	Trget ht 8.530		
POS TP 0531	Nrtn 138729.022 Code EL	East 2192519.990	Elv 1.948
POS TP 0532	Nrtn 138704.022 Code EL	East 2192519.280	Elv 2.302
POS TP 0533	Nrtn 138677.432 Code EL	East 2192517.710	Elv 2.648
POS TP 0534	Nrtn 138648.068 Code EL	East 2192515.930	Elv 0.653
POS TP 0535	Nrtn 138621.697 Code EL	East 2192514.430	Elv 0.107
POS TP 0536	Nrtn 138594.169 Code EL	East 2192512.840	Elv 0.301
POS TP 0537	Nrtn 138567.573 Code EL	East 2192511.410	Elv -0.108
POS TP 0538	Nrtn 138540.194 Code EL	East 2192509.870	Elv -0.333
POS TP 0539	Nrtn 138512.942 Code EL	East 2192508.240	Elv -0.428
POS TP 0540	Nrtn 138484.159 Code EL	East 2192506.440	Elv -0.427
POS TP 0541	Nrtn 138455.076 Code EL	East 2192504.900	Elv -0.306
POS TP 0542	Nrtn 138428.289 Code EL	East 2192503.570	Elv -1.156
POS TP 0543	Nrtn 138402.703 Code EL	East 2192502.640	Elv -1.846
POS TP 0544	Nrtn 138373.942 Code EL	East 2192500.530	Elv -2.961
POS TP 0545	Nrtn 138350.325 Code EL	East 2192499.960	Elv -3.910
TRGET	Trget ht 4.710		
POS TP 0546	Nrtn 138752.942 Code CP	East 2192521.370	Elv 2.130

NOTE	-ES		
STN TP 0546	Nrtn 138752.942 Theo ht 4.510	East 2192521.370 Code CP	Elv 2.130
NOTE TL	EDM tol. error:	Pt: 0004 0.030	
BKB TP 0546-0004	Azmtn 87-28'26"	H.obs 0-00'05"	
TRGET	Trget ht 3.570		
OBS F1 0546-0004	Dist 741.090 Code CP	V.obs 89-54'50"	H.obs 0-00'05"
NOTE	<No text>		
TRGET	Trget ht 8.510		
POS TP 0547	Nrtn 138761.958 Code TBM	East 2192720.790	Elv 2.859
TRGET	Trget ht 8.530		
POS TP 0548	Nrtn 138735.330 Code TBM	East 2192121.940	Elv 3.231
NOTE	STA 12600		
TRGET	Trget ht 8.510		
POS TP 0549	Nrtn 138744.086 Code BL	East 2192321.080	Elv 2.072
TRGET	Trget ht 8.530		
POS TP 0550	Nrtn 138717.648 Code EL	East 2192319.570	Elv 2.213
POS TP 0551	Nrtn 138692.621 Code EL	East 2192318.360	Elv 2.181
POS TP 0552	Nrtn 138669.845 Code EL	East 2192316.270	Elv 2.462
POS TP 0553	Nrtn 138643.556 Code EL	East 2192314.230	Elv 2.393
POS TP 0554	Nrtn 138622.076 Code EL	East 2192312.640	Elv 0.864
POS TP 0555	Nrtn 138598.421 Code EL	East 2192311.560	Elv 0.038
POS TP 0556	Nrtn 138573.260 Code EL	East 2192309.220	Elv -0.137
POS TP 0557	Nrtn 138545.707 Code EL	East 2192307.310	Elv -0.957
POS TP 0558	Nrtn 138518.751 Code EL	East 2192305.790	Elv -1.572
POS TP 0559	Nrtn 138495.385 Code EL	East 2192303.230	Elv -0.898

POS TP 0560	Nrth 138470.041 Code EL	East 2192301.370	Elv -0.637
POS TP 0561	Nrth 138443.665 Code EL	East 2192298.830	Elv -0.632
POS TP 0562	Nrth 138419.165 Code EL	East 2192297.360	Elv -0.815
POS TP 0563	Nrth 138392.949 Code EL	East 2192295.440	Elv -1.475
POS TP 0564	Nrth 138368.717 Code EL	East 2192293.160	Elv -2.027
POS TP 0565	Nrth 138342.997 Code EL	East 2192292.600	Elv -2.853
POS TP 0566	Nrth 138317.326 Code EL	East 2192288.620	Elv -3.921
TRGET	Trget ht 8.510		
POS TP 0567	Nrth 138764.628 Code EL	East 2192320.750	Elv 1.940
POS TP 0568	Nrth 138786.985 Code EL	East 2192320.720	Elv 1.861
POS TP 0569	Nrth 138806.344 Code EL	East 2192326.650	Elv 1.695
POS TP 0570	Nrth 138829.697 Code EL	East 2192328.780	Elv 1.604
POS TP 0571	Nrth 138850.532 Code EL	East 2192330.250	Elv 1.590
POS TP 0572	Nrth 138872.261 Code EL	East 2192331.690	Elv 1.455
POS TP 0573	Nrth 138894.319 Code EL	East 2192333.060	Elv 1.396
POS TP 0574	Nrth 138916.885 Code EL	East 2192334.450	Elv 1.277
POS TP 0575	Nrth 138938.116 Code EL	East 2192335.230	Elv 1.084
POS TP 0576	Nrth 138957.795 Code EL	East 2192337.130	Elv 0.776
POS TP 0577	Nrth 138980.698 Code EL	East 2192338.910	Elv 0.855
POS TP 0578	Nrth 139003.182 Code EL	East 2192340.200	Elv 0.888
POS TP 0579	Nrth 139024.661 Code EL	East 2192341.900	Elv 1.037
POS TP 0580	Nrth 139048.631 Code EL	East 2192344.040	Elv 0.874
POS TP 0581	Nrth 139071.524	East 2192345.610	Elv 0.717

	Code EL		
POS TP 0582	Nrth 139091.360 Code EL	East 2192346.640	Elv 0.329
POS TP 0583	Nrth 139111.874 Code EL	East 2192346.460	Elv 0.914
POS TP 0584	Nrth 139132.970 Code EL	East 2192349.050	Elv 0.773
POS TP 0585	Nrth 139138.793 Code EL	East 2192349.680	Elv 0.314
POS TP 0586	Nrth 139142.146 Code EL	East 2192350.600	Elv -1.279
POS TP 0587	Nrth 139154.418 Code EL	East 2192351.550	Elv 0.522
POS TP 0588	Nrth 139172.738 Code EL	East 2192352.570	Elv 0.657
POS TP 0589	Nrth 139192.957 Code EL	East 2192354.510	Elv 0.940
POS TP 0590	Nrth 139212.406 Code EL	East 2192355.840	Elv 0.964
POS TP 0591	Nrth 139233.406 Code EL	East 2192356.980	Elv 1.311
POS TP 0592	Nrth 139255.081 Code EL	East 2192358.340	Elv 1.015
POS TP 0593	Nrth 139268.425 Code EL	East 2192359.420	Elv 0.323
POS TP 0594	Nrth 139291.725 Code EL	East 2192361.050	Elv -0.651
POS TP 0595	Nrth 139331.346 Code EL	East 2192366.770	Elv -1.326
POS TP 0596	Nrth 139357.541 Code EL	East 2192366.780	Elv -2.437
POS TP 0597	Nrth 139415.826 Code EL	East 2192372.120	Elv -3.228
POS TP 0598	Nrth 139454.769 Code EL	East 2192373.720	Elv -3.129
POS TP 0599	Nrth 139487.405 Code EL	East 2192373.350	Elv -1.514
POS TP 0600	Nrth 139511.796 Code EL	East 2192377.030	Elv -0.360
POS TP 0601	Nrth 139525.511 Code EL	East 2192376.710	Elv 0.981
POS TP 0602	Nrth 139540.507 Code EL	East 2192378.510	Elv 2.431
POS TP 0603	Nrth 139550.209	East 2192379.280	Elv 2.168

	Code EL		
POS TP 0604	Nrtn 139567.900 Code EL	East 2192380.570	Elv 1.792
POS TP 0605	Nrtn 139585.935 Code EL	East 2192383.200	Elv 1.296
POS KI 0606	Nrtn 138444.060 Code BH	East 2181697.670	Elv <Null>
POS KI 0607	Nrtn 138547.030 Code BH	East 2183348.360	Elv <Null>
POS KI 0609	Nrtn 138336.150 Code BH	East 2185555.590	Elv <Null>
POS KI 0610	Nrtn 138637.290 Code BH	East 2186548.160	Elv <Null>
POS KI 0611	Nrtn 138935.840 Code BH	East 2187489.460	Elv <Null>
POS KI 0612	Nrtn 139239.360 Code BH	East 2188478.530	Elv <Null>
POS KI 0613	Nrtn 139357.610 Code BH	East 2189488.900	Elv <Null>
POS KI 0614	Nrtn 139444.160 Code BH	East 2190428.120	Elv <Null>
POS KI 0615	Nrtn 139338.830 Code BH	East 2192369.290	Elv <Null>
POS KI 0006	Nrtn 138190.224 Code CP	East 2188137.920	Elv 2.960
STN TP 0006	Nrtn 138190.224 Theo ht 4.300	East 2188137.920 Code CP	Elv 2.960
NOTE TL	EDM tol. error:	Pt: 0005 0.055	
BKB TP 0006-0005	Azmtn 80-06'51"	H.obs 0-00'00"	
TRGET	Trget ht 3.730		
OBS F1 0006-0005	Dist 2879.320 Code CP	V.obs 90-00'30"	H.obs 0-00'00"
STN TP 0005	Nrtn 138684.554 Theo ht 4.175	East 2190974.440 Code CP	Elv 3.300
BKB TP 0005-0006	Azmth 260-06'51"	H.obs 0-00'00"	
TRGET	Trget ht 3.700		
OBS F1 0005-0006	Dist <Null> Code CP	V.obs 90-01'00"	H.obs 0-00'00"
TRGET	Trget ht 6.000		
POS TP 0616	Nrtn 139338.385 Code 0615	East 2192368.380	Elv -0.081
NOTE SO	D.North 0.445	D.East 0.907	

STN SO 0006	Nrtn 138190.224 Theo ht 4.240	East 2188137.920 Code CP	Elv 2.960
NOTE TL	EDM tol. error:	Pt: 0005 0.045	
BKB TP 0006-0005	Azmth 80-06'51"	H.obs 0-00'00"	
TRGET	Trget ht 3.970		
OBS F1 0006-0005	Dist 2879.310 Code CP	V.obs 90-00'10"	H.obs 0-00'00"
TRGET	Trget ht 6.500		
POS TP 0617	Nrtn 139443.941 Code 0614	East 2190427.780	Elv -0.552
NOTE SO	D.North 0.219	D.East 0.345	
TRGET	Trget ht 8.000		
POS TP 0618	Nrtn 139357.589 Code 0613	East 2189488.620	Elv -1.990
NOTE SO	D.North 0.021	D.East 0.084	
TRGET	Trget ht 7.500		
POS TP 0619	Nrtn 139239.311 Code 0612	East 2188478.540	Elv -1.933
NOTE SO	D.North 0.049	D.East -0.014	
POS TP 0620	Nrtn 138934.833 Code 0611	East 2187490.360	Elv -0.926
NOTE SO	D.North 1.007	D.East -0.905	
TRGET	Trget ht 6.000		
POS TP 0621	Nrtn 138637.184 Code 0610	East 2186548.580	Elv -1.425
NOTE SO	D.North 0.106	D.East -0.417	
POS TP 0622	Nrtn 138336.148 Code 0609	East 2185555.040	Elv 3.533
NOTE SO	D.North 0.002	D.East 0.547	
POS KI 0623	Nrtn 138415.170 Code CP	East 2184498.830	Elv <Null>
POS TP 0624	Nrtn 138415.284 Code 0623	East 2184497.570	Elv 1.474
NOTE SO	D.North -0.114	D.East 1.257	
POS KI 0010	Nrtn 137495.075 Code CP	East 2181210.610	Elv 3.010
POS KI 0010	Nrtn 137495.075 Code CP	East 2181210.610	Elv 3.740
POS KI 0011	Nrtn 137839.001	East 2180798.050	Elv 3.010

	Code CP		
STN SO 0011	Nrth 137839.001 Theo ht 3.840	East 2180793.050 Code CP	Elv 3.010
BKB TP 0011-0010	Azmth 129-28'36"	H.obs 0-00'00"	
TRGET	Trget ht 2.400		
OBS F1 0011-0010	Dist <Null> Code CP	V.obs 90-04'40"	H.obs 0-00'00"
TRGET	Trget ht 6.300		
POS TP 0625	Nrth 138547.150 Code 0607	East 2183348.750	Elv -3.034
NOTE SO	D.North -0.120	D.East -0.394	
TRGET	Trget ht 8.650		
POS TP 0626	Nrth 138443.791 Code 0606	East 2181897.160	Elv -1.432
NOTE SO	D.North 0.269	D.East 0.509	
STN TP 0546	Nrtn 138752.942 Theo ht 4.571	East 2192521.370 Code CP	Elv 2.130
BKB TP 0546-0004	Azmth 87-28'26"	H.obs 0-00'00"	
TRGET	Trget ht 3.540		
OBS F1 0546-0004	Dist 741.120 Code CP	V.obs 89-55'05"	H.obs 0-00'00"
TRGET	Trget ht 8.530		
POS TP 0627	Nrth 138761.827 Code TBM	East 2192721.330	Elv 2.879
POS TP 0628	Nrth 138735.234 Code TBM	East 2192121.540	Elv 3.248
NOTE	STA 12600		
POS TP 0629	Nrth 138734.960 Code BL	East 2192121.490	Elv 1.997
POS TP 0630	Nrth 138710.239 Code EL	East 2192122.140	Elv 2.242
POS TP 0631	Nrth 138685.384 Code EL	East 2192120.390	Elv 2.521
POS TP 0632	Nrth 138659.026 Code EL	East 2192119.460	Elv 2.657
POS TP 0633	Nrth 138631.647 Code EL	East 2192118.700	Elv 0.723
POS TP 0634	Nrth 138604.514 Code EL	East 2192117.160	Elv -0.312
POS TP 0635	Nrth 138577.709 Code EL	East 2192115.940	Elv -0.594

POS TP 0636	Nrtn 138554.602 Code EL	East 2192114.660	Elv -0.213
POS TP 0637	Nrtn 138520.639 Code EL	East 2192114.510	Elv -0.417
POS TP 0638	Nrtn 138504.686 Code EL	East 2192113.680	Elv -0.367
POS TP 0639	Nrtn 138482.125 Code EL	East 2192113.240	Elv -0.554
POS TP 0640	Nrtn 138458.311 Code EL	East 2192112.560	Elv -2.020
POS TP 0641	Nrtn 138436.374 Code EL	East 2192111.430	Elv -3.519
POS TP 0642	Nrtn 138415.593 Code EL	East 2192109.920	Elv -3.603
POS TP 0643	Nrtn 138391.406 Code EL	East 2192109.700	Elv -3.284
POS TP 0644	Nrtn 138369.000 Code EL	East 2192107.980	Elv -3.710
POS TP 0645	Nrtn 138349.677 Code EL	East 2192107.140	Elv -4.023
POS TP 0646	Nrtn 138332.415 Code EL	East 2192107.370	Elv -4.140
POS TP 0647	Nrtn 138312.525 Code EL	East 2192107.260	Elv -4.284
POS TP 0648	Nrtn 138292.643 Code EL	East 2192105.430	Elv -4.333
POS TP 0649	Nrtn 138272.412 Code EL	East 2192104.630	Elv -3.733
POS TP 0650	Nrtn 138249.503 Code EL	East 2192103.280	Elv -3.248
POS TP 0651	Nrtn 138224.971 Code EL	East 2192104.110	Elv -2.913
POS TP 0652	Nrtn 138202.648 Code EL	East 2192101.290	Elv -3.229
POS TP 0653	Nrtn 138181.198 Code EL	East 2192100.630	Elv -3.746
POS TP 0654	Nrtn 138158.384 Code EL	East 2192100.630	Elv -4.184
POS TP 0655	Nrtn 138138.827 Code EL	East 2192099.190	Elv -4.582
POS TP 0656	Nrtn 138119.545 Code EL	East 2192098.610	Elv -4.919
POS TP 0657	Nrtn 138100.912 Code EL	East 2192098.090	Elv -5.209

POS TP 0658	Nrth 138083.134 Code EL	East 2192098.540	Elv -5.484
TRGET	Trget ht 8.510		
POS TP 0659	Nrth 138760.725 Code EL	East 2192122.660	Elv 1.771
POS TP 0660	Nrth 138790.601 Code EL	East 2192123.660	Elv 1.738
POS TP 0661	Nrth 138820.295 Code EL	East 2192124.750	Elv 0.847
POS TP 0662	Nrth 138837.630 Code EL	East 2192125.500	Elv -0.363
POS TP 0663	Nrth 138858.532 Code EL	East 2192125.810	Elv -0.625
POS TP 0664	Nrth 138879.940 Code EL	East 2192126.910	Elv 0.464
POS TP 0665	Nrth 138886.841 Code EL	East 2192127.080	Elv 1.384
POS TP 0666	Nrth 138913.142 Code EL	East 2192128.000	Elv 0.861
POS TP 0667	Nrth 138943.763 Code EL	East 2192128.850	Elv 0.776
POS TP 0668	Nrth 138967.662 Code EL	East 2192130.370	Elv 0.011
POS TP 0669	Nrth 138979.467 Code EL	East 2192130.400	Elv 0.999
POS TP 0670	Nrth 139003.745 Code EL	East 2192131.230	Elv 0.626
POS TP 0671	Nrth 139016.534 Code EL	East 2192131.850	Elv -0.870
POS TP 0672	Nrth 139040.575 Code EL	East 2192132.760	Elv -0.550
POS TP 0673	Nrth 139061.856 Code EL	East 2192133.000	Elv -0.565
POS TP 0674	Nrth 139075.673 Code EL	East 2192133.140	Elv 0.533
POS TP 0675	Nrth 139094.639 Code EL	East 2192134.720	Elv -0.365
POS TP 0676	Nrth 139121.860 Code EL	East 2192135.750	Elv 0.098
POS TP 0677	Nrth 139142.288 Code EL	East 2192135.920	Elv 0.720
POS TP 0678	Nrth 139170.759 Code EL	East 2192137.230	Elv 1.417

POS TP 0679	Nrtn 139201.985 Code EL	East 2192138.080	Elv -0.142
POS TP 0680	Nrtn 139222.829 Code EL	East 2192139.570	Elv -1.082
POS TP 0681	Nrtn 139240.536 Code EL	East 2192139.590	Elv -1.801
POS TP 0682	Nrtn 139263.113 Code EL	East 2192139.970	Elv -2.357
POS TP 0683	Nrtn 139286.161 Code EL	East 2192142.160	Elv -2.831
POS TP 0684	Nrtn 139308.065 Code EL	East 2192144.350	Elv -3.036
POS TP 0685	Nrtn 139329.768 Code EL	East 2192143.330	Elv -3.154
POS TP 0686	Nrtn 139348.254 Code EL	East 2192143.600	Elv -2.705
POS TP 0687	Nrtn 139377.439 Code EL	East 2192143.830	Elv -1.356
POS TP 0688	Nrtn 139399.741 Code EL	East 2192145.010	Elv 0.089
POS TP 0689	Nrtn 139417.669 Code EL	East 2192146.120	Elv 1.718
POS TP 0690	Nrtn 139452.499 Code EL	East 2192147.130	Elv 1.723
POS TP 0691	Nrtn 139479.609 Code EL	East 2192149.160	Elv 1.133
POS TP 0692	Nrtn 139507.884 Code EL	East 2192151.210	Elv 1.099
NOTE	-ES		
NOTE	STA 12400		
POS TP 0693	Nrtn 139412.897 Code EL	East 2191949.060	Elv 1.234
POS TP 0694	Nrtn 139387.266 Code EL	East 2191948.360	Elv 1.127
POS TP 0695	Nrtn 139361.674 Code EL	East 2191947.600	Elv 1.429
POS TP 0696	Nrtn 139352.213 Code EL	East 2191946.830	Elv 1.968
POS TP 0697	Nrtn 139334.831 Code EL	East 2191946.720	Elv 1.614
POS TP 0698	Nrtn 139316.787 Code EL	East 2191946.210	Elv -0.488
POS TP 0699	Nrtn 139299.920 Code EL	East 2191945.340	Elv -1.199

POS TP 0700	Nrtn 139279.745 Code EL	East 2191945.530	Elv -2.270
POS TP 0701	Nrtn 139259.042 Code EL	East 2191943.740	Elv -2.728
POS TP 0702	Nrtn 139236.271 Code EL	East 2191942.580	Elv -3.041
POS TP 0703	Nrtn 139210.238 Code EL	East 2191942.160	Elv -2.871
POS TP 0704	Nrtn 139180.408 Code EL	East 2191940.630	Elv -2.341
POS TP 0705	Nrtn 139154.672 Code EL	East 2191938.610	Elv -1.525
POS TP 0706	Nrtn 139136.943 Code EL	East 2191938.150	Elv -0.513
POS TP 0707	Nrtn 139114.681 Code EL	East 2191937.670	Elv 0.581
POS TP 0708	Nrtn 139095.477 Code EL	East 2191937.350	Elv 1.138
POS TP 0709	Nrtn 139068.410 Code EL	East 2191935.830	Elv 0.779
POS TP 0710	Nrtn 139040.698 Code EL	East 2191934.640	Elv 0.813
POS TP 0711	Nrtn 139015.135 Code EL	East 2191933.520	Elv 0.930
POS TP 0712	Nrtn 138989.178 Code EL	East 2191932.530	Elv 0.783
POS TP 0713	Nrtn 138964.037 Code EL	East 2191931.540	Elv 0.598
POS TP 0714	Nrtn 138944.901 Code EL	East 2191930.930	Elv -0.688
POS TP 0715	Nrtn 138934.760 Code EL	East 2191930.060	Elv -0.662
POS TP 0716	Nrtn 138924.088 Code EL	East 2191929.780	Elv 1.020
POS TP 0717	Nrtn 138900.979 Code EL	East 2191928.660	Elv 0.937
POS TP 0718	Nrtn 138875.215 Code EL	East 2191928.130	Elv 0.973
POS TP 0719	Nrtn 138849.405 Code EL	East 2191927.080	Elv 0.869
POS TP 0720	Nrtn 138822.497 Code EL	East 2191925.690	Elv 1.426
POS TP 0721	Nrtn 138795.629 Code EL	East 2191924.470	Elv 1.825

POS TP 0722	Nrtn 138770.272 Code EL	East 2191923.660	Elv 1.864
POS TP 0723	Nrtn 138743.497 Code EL	East 2191922.740	Elv 1.884
POS TP 0724	Nrtn 138726.520 Code BL	East 2191921.820	Elv 1.762
TRGET	Trget ht 8.530		
POS TP 0725	Nrtn 138700.239 Code EL	East 2191921.790	Elv 2.132
POS TP 0726	Nrth 138674.236 Code EL	East 2191920.260	Elv 2.763
POS TP 0727	Nrth 138645.195 Code EL	East 2191919.090	Elv 1.560
POS TP 0728	Nrth 138618.149 Code EL	East 2191917.780	Elv 0.083
POS TP 0729	Nrth 138592.188 Code EL	East 2191916.610	Elv -0.122
POS TP 0730	Nrtn 138567.164 Code EL	East 2191915.390	Elv 0.161
POS TP 0731	Nrtn 138539.329 Code EL	East 2191914.680	Elv -0.199
POS TP 0732	Nrtn 138514.419 Code EL	East 2191913.460	Elv -0.887
POS TP 0733	Nrtn 138488.700 Code EL	East 2191911.950	Elv -1.965
POS TP 0734	Nrth 138465.335 Code EL	East 2191911.550	Elv -2.752
POS TP 0735	Nrth 138441.290 Code EL	East 2191910.410	Elv -3.050
POS TP 0736	Nrth 138417.448 Code EL	East 2191910.120	Elv -3.442
POS TP 0737	Nrth 138393.557 Code EL	East 2191909.050	Elv -3.179
POS TP 0738	Nrth 138370.560 Code EL	East 2191908.570	Elv -3.289
POS TP 0739	Nrth 138342.382 Code EL	East 2191906.560	Elv -3.574
POS TP 0740	Nrth 138318.359 Code EL	East 2191905.400	Elv -4.321
POS TP 0741	Nrth 138299.863 Code EL	East 2191904.320	Elv -4.508
POS TP 0742	Nrth 138277.706 Code EL	East 2191902.150	Elv -4.277

POS TP 0743	Nrtn 138256.171 Code EL	East 2191903.270	Elv -3.774
POS TP 0744	Nrtn 138230.420 Code EL	East 2191903.160	Elv -3.229
POS TP 0745	Nrtn 138205.916 Code EL	East 2191900.860	Elv -2.918
POS TP 0746	Nrtn 138182.223 Code EL	East 2191899.930	Elv -3.246
POS TP 0747	Nrtn 138155.030 Code EL	East 2191899.230	Elv -3.738
POS TP 0748	Nrtn 138129.233 Code EL	East 2191899.110	Elv -4.248
POS TP 0749	Nrtn 138102.610 Code EL	East 2191894.540	Elv -4.702
POS TP 0750	Nrtn 138079.873 Code EL	East 2191894.330	Elv -5.134
POS TP 0751	Nrtn 138053.544 Code EL	East 2191891.260	Elv -5.531
NOTE	-ES		
NOTE	STA 12200		
POS TP 0752	Nrtn 138001.964 Code EL	East 2191683.530	Elv -5.622
POS TP 0753	Nrtn 138025.805 Code EL	East 2191685.420	Elv -5.296
POS TP 0754	Nrtn 138044.563 Code EL	East 2191685.540	Elv -5.071
POS TP 0755	Nrtn 138059.923 Code EL	East 2191687.360	Elv -4.775
POS TP 0756	Nrtn 138079.539 Code EL	East 2191688.330	Elv -4.480
POS TP 0757	Nrtn 138098.762 Code EL	East 2191689.300	Elv -4.244
POS TP 0758	Nrtn 138118.900 Code EL	East 2191691.280	Elv -3.833
POS TP 0759	Nrtn 138143.743 Code EL	East 2191693.180	Elv -3.378
POS TP 0760	Nrtn 138164.401 Code EL	East 2191694.230	Elv -3.039
POS TP 0761	Nrtn 138185.377 Code EL	East 2191695.250	Elv -2.902
POS TP 0762	Nrtn 138208.110 Code EL	East 2191697.130	Elv -3.294
POS TP 0763	Nrtn 138227.671 Code EL	East 2191696.980	Elv -4.156

POS TP 0764	Nrtn 138243.106 Code EL	East 2191697.340	Elv -4.699
POS TP 0765	Nrtn 138262.986 Code EL	East 2191698.730	Elv -4.665
POS TP 0766	Nrtn 138279.323 Code EL	East 2191698.870	Elv -3.881
POS TP 0767	Nrtn 138296.527 Code EL	East 2191699.190	Elv -3.407
POS TP 0768	Nrtn 138317.733 Code EL	East 2191700.940	Elv -2.870
POS TP 0769	Nrtn 138336.731 Code EL	East 2191703.720	Elv -2.390
POS TP 0770	Nrtn 138360.035 Code EL	East 2191704.560	Elv -1.637
POS TP 0771	Nrtn 138381.100 Code EL	East 2191705.060	Elv -0.965
POS TP 0772	Nrtn 138403.732 Code EL	East 2191706.270	Elv -0.609
POS TP 0773	Nrtn 138431.150 Code EL	East 2191708.090	Elv -0.499
POS TP 0774	Nrtn 138458.533 Code EL	East 2191709.050	Elv -0.348
POS TP 0775	Nrtn 138486.684 Code EL	East 2191710.140	Elv -0.552
POS TP 0776	Nrtn 138514.624 Code EL	East 2191711.770	Elv -0.342
POS TP 0777	Nrtn 138542.175 Code EL	East 2191713.580	Elv -0.135
POS TP 0778	Nrtn 138568.757 Code EL	East 2191714.370	Elv -0.150
POS TP 0779	Nrtn 138597.348 Code EL	East 2191715.990	Elv -0.165
POS TP 0780	Nrtn 138627.241 Code EL	East 2191717.240	Elv 0.276
POS TP 0781	Nrtn 138656.047 Code EL	East 2191719.010	Elv 2.710
POS TP 0782	Nrtn 138686.271 Code EL	East 2191720.850	Elv 2.371
POS TP 0783	Nrtn 138717.285 Code BL	East 2191721.950	Elv 2.160
TRGET	Trget ht 8.510		
POS TP 0784	Nrtn 138736.277 Code EL	East 2191722.880	Elv 2.037

POS TP 0785	Nrth 138758.300 Code EL	East 2191723.970	Elv 1.548
POS TP 0786	Nrth 138760.985 Code EL	East 2191725.070	Elv 1.410
POS TP 0787	Nrth 138802.723 Code EL	East 2191726.180	Elv 1.448
POS TP 0788	Nrth 138824.999 Code EL	East 2191727.290	Elv 1.006
POS TP 0789	Nrth 138843.888 Code EL	East 2191728.470	Elv 0.874
POS TP 0790	Nrth 138865.989 Code EL	East 2191729.150	Elv 1.036
POS TP 0791	Nrth 138889.015 Code EL	East 2191730.530	Elv 1.141
POS TP 0792	Nrth 138910.562 Code EL	East 2191732.080	Elv 1.053
POS TP 0793	Nrth 138931.972 Code EL	East 2191732.850	Elv 0.870
POS TP 0794	Nrth 138946.932 Code EL	East 2191733.580	Elv 0.328
POS TP 0795	Nrth 138962.176 Code EL	East 2191733.950	Elv 0.930
POS TP 0796	Nrth 138983.738 Code EL	East 2191735.230	Elv 1.283
POS TP 0797	Nrth 139003.298 Code EL	East 2191736.980	Elv 0.959
POS TP 0798	Nrth 139017.842 Code EL	East 2191736.630	Elv 0.092
POS TP 0799	Nrth 139043.432 Code EL	East 2191738.480	Elv -1.107
POS TP 0800	Nrth 139055.193 Code EL	East 2191738.360	Elv -1.774
POS TP 0801	Nrth 139074.550 Code EL	East 2191737.870	Elv -2.287
POS TP 0802	Nrth 139107.446 Code EL	East 2191741.790	Elv -2.770
POS TP 0803	Nrth 139134.756 Code EL	East 2191741.230	Elv -2.847
POS TP 0804	Nrth 139160.267 Code EL	East 2191744.440	Elv -2.517
POS TP 0805	Nrth 139191.371 Code EL	East 2191742.720	Elv -2.139
POS TP 0806	Nrth 139213.103 Code EL	East 2191744.880	Elv -1.202

POS TP 0807	Nrth 139228.950 Code EL	East 2191745.570	Elv -0.623
POS TP 0808	Nrth 139247.317 Code EL	East 2191746.220	Elv 0.877
POS TP 0809	Nrth 139264.844 Code EL	East 2191751.020	Elv 2.446
POS TP 0810	Nrth 139283.986 Code EL	East 2191750.330	Elv 1.204
POS TP 0811	Nrth 139305.550 Code EL	East 2191751.710	Elv 0.919
POS TP 0812	Nrth 139325.683 Code EL	East 2191752.560	Elv 1.161
POS TP 0813	Nrth 139344.817 Code EL	East 2191753.120	Elv 0.514
NOTE	-ES		
STN TP 0005	Nrth 138684.554 Theo ht 3.799	East 2190974.440 Code CP	Elv 3.300
NOTE TL	EDM tol. error:	Pt: 0004 0.046	
BKB TP 0005-0004	Azmth 87-28'13"	H.obs 0-00'00"	
TRGET	Trget ht 3.540		
OBS F1 0005-0004	Dist 2289.610 Code CP	V.obs 89-59'15"	H.obs 0-00'00"
TRGET	Trget ht 8.530		
POS TP 0814	Nrth 138607.161 Code TBM	East 2190529.420	Elv 3.665
POS TP 0815	Nrth 138708.644 Code TBM	East 2191522.440	Elv 2.258
NOTE	STA 12000		
TRGET	Trget ht 8.510		
POS TP 0816	Nrth 139303.682 Code EL	East 2191553.010	Elv 0.740
POS TP 0817	Nrth 139286.076 Code EL	East 2191552.440	Elv 0.363
POS TP 0818	Nrth 139272.548 Code EL	East 2191551.630	Elv 0.321
POS TP 0819	Nrth 139257.822 Code EL	East 2191552.240	Elv 0.319
POS TP 0820	Nrth 139239.681 Code EL	East 2191551.180	Elv 0.562
POS TP 0821	Nrth 139219.630 Code EL	East 2191549.710	Elv 0.773
POS TP 0822	Nrth 139200.236	East 2191548.210	Elv 0.995

	Code EL		
POS TP 0823	Nrth 139179.622 Code EL	East 2191547.100	Elv 1.152
POS TP 0824	Nrth 139157.007 Code EL	East 2191545.830	Elv 1.889
POS TP 0825	Nrth 139142.751 Code EL	East 2191545.020	Elv 1.917
STN TP 0005	Nrth 138664.554 Theo ht 3.799	East 2190974.440 Code CP	Elv 3.300
BKB TP 0005-0004	Azmth 87-28'13"	H.obs 0-00'00"	
TRGET	Trget ht 3.540		
OBS F1 0005-0004	Dist <Null> Code CP	V.obs 89-59'10"	H.obs 0-00'00"
TRGET	Trget ht 8.510		
POS TP 0826	Nrth 139139.534 Code EL	East 2191544.770	Elv 0.563
POS TP 0827	Nrth 139128.872 Code EL	East 2191544.010	Elv -0.017
POS TP 0828	Nrth 139115.474 Code EL	East 2191544.380	Elv -0.881
POS TP 0829	Nrth 139096.093 Code EL	East 2191542.100	Elv -1.605
POS TP 0830	Nrth 139074.942 Code EL	East 2191541.210	Elv -2.102
POS TP 0831	Nrth 139056.252 Code EL	East 2191540.040	Elv -2.238
POS TP 0832	Nrth 139035.784 Code EL	East 2191538.760	Elv -2.369
POS TP 0833	Nrth 139007.029 Code EL	East 2191537.590	Elv -2.189
POS TP 0834	Nrth 138987.314 Code EL	East 2191537.140	Elv -2.007
POS TP 0835	Nrth 138962.491 Code EL	East 2191535.590	Elv -1.615
POS TP 0836	Nrth 138937.407 Code EL	East 2191534.250	Elv -0.912
POS TP 0837	Nrth 138923.364 Code EL	East 2191533.180	Elv -0.122
POS TP 0838	Nrth 138907.857 Code EL	East 2191532.720	Elv 0.710
POS TP 0839	Nrth 138890.608 Code EL	East 2191531.000	Elv 1.445
POS TP 0840	Nrth 138869.358	East 2191530.700	Elv 1.125

	Code EL		
POS TP 0841	Nrtn 138850.316 Code EL	East 2191529.720	Elv 0.942
POS TP 0842	Nrtn 138838.893 Code EL	East 2191528.810	Elv 1.525
POS TP 0843	Nrtn 138825.310 Code EL	East 2191528.080	Elv 0.313
POS TP 0844	Nrtn 138810.806 Code EL	East 2191527.630	Elv -1.349
POS TP 0845	Nrtn 138794.081 Code EL	East 2191526.160	Elv -1.173
POS TP 0846	Nrtn 138784.193 Code EL	East 2191525.650	Elv -0.020
POS TP 0847	Nrtn 138780.263 Code EL	East 2191526.190	Elv 1.188
POS TP 0848	Nrtn 138758.739 Code EL	East 2191524.690	Elv 1.583
POS TP 0849	Nrtn 138739.077 Code EL	East 2191523.740	Elv 1.593
POS TP 0850	Nrtn 138719.207 Code EL	East 2191523.030	Elv 1.700
TRGET	Trget ht 8.530		
POS TP 0851	Nrtn 138708.784 Code BL	East 2191522.580	Elv 1.767
POS TP 0852	Nrtn 138684.081 Code EL	East 2191521.410	Elv 1.877
POS TP 0853	Nrtn 138658.576 Code EL	East 2191519.500	Elv 2.266
POS TP 0854	Nrtn 138630.835 Code EL	East 2191517.610	Elv 2.624
POS TP 0855	Nrtn 138601.714 Code EL	East 2191515.910	Elv 0.248
POS TP 0856	Nrtn 138576.310 Code EL	East 2191514.740	Elv -0.182
POS TP 0857	Nrtn 138555.291 Code EL	East 2191514.200	Elv -0.120
POS TP 0858	Nrtn 138533.940 Code EL	East 2191512.430	Elv -0.355
POS TP 0859	Nrtn 138507.786 Code EL	East 2191511.300	Elv -0.575
POS TP 0860	Nrtn 138484.556 Code EL	East 2191510.040	Elv -0.302
POS TP 0861	Nrtn 138459.984 Code EL	East 2191508.930	Elv -0.300

POS TP 0862	Nrth 138434.126 Code EL	East 2191507.530	Elv -0.424
POS TP 0863	Nrth 138411.835 Code EL	East 2191506.540	Elv -0.539
POS TP 0864	Nrth 138389.057 Code EL	East 2191506.200	Elv -0.819
POS TP 0865	Nrth 138364.914 Code EL	East 2191504.810	Elv -0.673
POS TP 0866	Nrth 138340.553 Code EL	East 2191503.210	Elv -1.591
POS TP 0867	Nrth 138314.509 Code EL	East 2191502.080	Elv -2.125
POS TP 0868	Nrth 138290.534 Code EL	East 2191501.540	Elv -3.368
POS TP 0869	Nrth 138267.304 Code EL	East 2191499.260	Elv -3.291
POS TP 0870	Nrth 138246.473 Code EL	East 2191497.770	Elv -3.357
POS TP 0871	Nrth 138221.743 Code EL	East 2191495.770	Elv -3.770
POS TP 0872	Nrth 138198.895 Code EL	East 2191495.330	Elv -4.286
POS TP 0873	Nrth 138179.633 Code EL	East 2191493.390	Elv -3.579
POS TP 0874	Nrth 138154.300 Code EL	East 2191493.910	Elv -2.787
POS TP 0875	Nrth 138128.095 Code EL	East 2191492.190	Elv -3.188
POS TP 0876	Nrth 138100.437 Code EL	East 2191490.600	Elv -3.591
POS TP 0877	Nrth 138076.007 Code EL	East 2191490.300	Elv -3.932
POS TP 0878	Nrth 138048.625 Code EL	East 2191487.040	Elv -4.427
POS TP 0879	Nrth 138020.081 Code EL	East 2191486.670	Elv -4.752
POS TP 0880	Nrth 137990.339 Code EL	East 2191487.380	Elv -5.203
NOTE	-ES		
NOTE	STA 11800		
POS TP 0881	Nrth 137994.079 Code EL	East 2191279.260	Elv -5.865
POS TP 0882	Nrth 138000.694	East 2191278.130	Elv -5.609

	Code EL		
POS TP 0883	Nrtn 138006.371 Code EL	East 2191281.110	Elv -5.443
POS TP 0884	Nrtn 138018.149 Code EL	East 2191283.920	Elv -5.160
POS TP 0885	Nrtn 138037.580 Code EL	East 2191284.310	Elv -4.759
POS TP 0886	Nrtn 138056.750 Code EL	East 2191284.400	Elv -4.374
POS TP 0887	Nrtn 138074.906 Code EL	East 2191285.820	Elv -4.027
POS TP 0888	Nrtn 138098.188 Code EL	East 2191287.990	Elv -3.662
POS TP 0889	Nrtn 138124.274 Code EL	East 2191288.680	Elv -3.307
POS TP 0890	Nrtn 138148.458 Code EL	East 2191288.620	Elv -3.336
POS TP 0891	Nrtn 138171.834 Code EL	East 2191289.800	Elv -4.108
POS TP 0892	Nrtn 138191.218 Code EL	East 2191291.530	Elv -4.040
POS TP 0893	Nrtn 138209.247 Code EL	East 2191293.100	Elv -4.032
POS TP 0894	Nrtn 138229.606 Code EL	East 2191295.060	Elv -3.718
POS TP 0895	Nrtn 138252.203 Code EL	East 2191297.130	Elv -2.733
POS TP 0896	Nrtn 138276.239 Code EL	East 2191298.340	Elv -3.182
POS TP 0897	Nrtn 138297.252 Code EL	East 2191299.280	Elv -2.921
POS TP 0898	Nrtn 138318.215 Code EL	East 2191298.310	Elv -1.758
POS TP 0899	Nrtn 138339.393 Code EL	East 2191300.000	Elv -1.081
POS TP 0900	Nrtn 138361.089 Code EL	East 2191301.850	Elv -0.735
POS TP 0901	Nrtn 138382.770 Code EL	East 2191303.060	Elv -0.648
POS TP 0902	Nrtn 138407.751 Code EL	East 2191304.630	Elv -0.571
POS TP 0903	Nrtn 138434.474 Code EL	East 2191305.970	Elv -1.538
POS TP 0904	Nrtn 138460.191	East 2191308.080	Elv -1.116

	Code EL		
POS TP 0905	Nrtn 138487.704 Code EL	East 2191309.410	Elv -0.825
POS TP 0906	Nrtn 138512.320 Code EL	East 2191310.560	Elv -0.650
POS TP 0907	Nrtn 138539.038 Code EL	East 2191311.850	Elv -0.404
POS TP 0908	Nrtn 138564.673 Code EL	East 2191314.580	Elv 0.023
POS TP 0909	Nrtn 138592.284 Code EL	East 2191316.510	Elv 0.839
POS TP 0910	Nrtn 138621.536 Code EL	East 2191317.710	Elv 2.802
POS TP 0911	Nrtn 138649.616 Code EL	East 2191319.250	Elv 2.352
POS TP 0912	Nrtn 138678.412 Code EL	East 2191320.700	Elv 2.165
POS TP 0913	Nrtn 138699.919 Code BL	East 2191323.180	Elv 1.990
TRGET	Trget ht 8.510		
POS TP 0914	Nrtn 138723.388 Code EL	East 2191324.140	Elv 1.739
POS TP 0915	Nrtn 138748.585 Code EL	East 2191325.070	Elv 1.140
POS TP 0916	Nrtn 138770.025 Code EL	East 2191326.780	Elv 0.508
POS TP 0917	Nrtn 138785.279 Code EL	East 2191327.440	Elv 0.879
POS TP 0918	Nrtn 138810.507 Code EL	East 2191328.660	Elv 1.308
POS TP 0919	Nrtn 138822.588 Code EL	East 2191329.840	Elv -0.123
POS TP 0920	Nrtn 138838.767 Code EL	East 2191331.270	Elv -0.343
POS TP 0921	Nrtn 138851.202 Code EL	East 2191332.030	Elv 1.165
POS TP 0922	Nrtn 138876.691 Code EL	East 2191333.220	Elv 0.664
POS TP 0923	Nrtn 138900.591 Code EL	East 2191334.840	Elv -0.083
POS TP 0924	Nrtn 138923.578 Code EL	East 2191336.620	Elv -0.871
POS TP 0925	Nrtn 138937.678 Code EL	East 2191336.900	Elv -1.107

POS TP 0926	Nrth 138956.083 Code EL	East 2191338.400	Elv -1.308
POS TP 0927	Nrth 138973.281 Code EL	East 2191339.260	Elv -1.587
POS TP 0928	Nrth 138993.214 Code EL	East 2191340.450	Elv -1.546
POS TP 0929	Nrth 139010.550 Code EL	East 2191341.520	Elv -1.561
POS TP 0930	Nrth 139030.002 Code EL	East 2191343.050	Elv -1.430
POS TP 0931	Nrth 139052.812 Code EL	East 2191344.230	Elv -0.925
POS TP 0932	Nrth 139074.022 Code EL	East 2191345.930	Elv -0.570
POS TP 0933	Nrth 139095.331 Code EL	East 2191346.660	Elv -0.101
POS TP 0934	Nrth 139112.833 Code EL	East 2191347.840	Elv 1.709
POS TP 0935	Nrth 139140.669 Code EL	East 2191349.990	Elv 1.189
POS TP 0936	Nrth 139169.084 Code EL	East 2191351.020	Elv 0.813
NOTE	-ES		
NOTE	STA 11600		
POS TP 0937	Nrth 139212.410 Code EL	East 2191138.570	Elv 0.686
POS TP 0938	Nrth 139187.618 Code EL	East 2191138.090	Elv 1.083
POS TP 0939	Nrth 139168.541 Code EL	East 2191136.750	Elv 1.836
POS TP 0940	Nrth 139150.488 Code EL	East 2191134.850	Elv 2.321
POS TP 0941	Nrth 139132.821 Code EL	East 2191135.520	Elv 2.693
POS TP 0942	Nrth 139119.070 Code EL	East 2191135.420	Elv 2.031
POS TP 0943	Nrth 139116.146 Code EL	East 2191135.090	Elv 0.781
POS TP 0944	Nrth 139093.582 Code EL	East 2191134.470	Elv -0.257
POS TP 0945	Nrth 139078.546 Code EL	East 2191133.930	Elv -0.789
POS TP 0946	Nrth 139061.842	East 2191133.370	Elv -0.614

	Code EL		
POS TP 0947	Nrtn 139040.770 Code EL	East 2191132.520	Elv -1.238
POS TP 0948	Nrtn 139018.149 Code EL	East 2191132.130	Elv -1.113
POS TP 0949	Nrtn 138994.593 Code EL	East 2191131.470	Elv -0.777
POS TP 0950	Nrtn 138976.413 Code EL	East 2191131.210	Elv -0.855
POS TP 0951	Nrtn 138953.703 Code EL	East 2191130.240	Elv -0.783
POS TP 0952	Nrtn 138933.463 Code EL	East 2191129.690	Elv -1.103
POS TP 0953	Nrtn 138911.769 Code EL	East 2191128.990	Elv -0.723
POS TP 0954	Nrtn 138892.581 Code EL	East 2191126.290	Elv -0.287
POS TP 0955	Nrtn 138884.427 Code EL	East 2191126.540	Elv 0.224
POS TP 0956	Nrtn 138858.429 Code EL	East 2191127.670	Elv 1.478
POS TP 0957	Nrtn 138833.806 Code EL	East 2191127.240	Elv 1.241
POS TP 0958	Nrtn 138808.171 Code EL	East 2191126.010	Elv 1.250
POS TP 0959	Nrtn 138783.825 Code EL	East 2191125.470	Elv 1.411
POS TP 0960	Nrtn 138758.429 Code EL	East 2191124.860	Elv 1.897
POS TP 0961	Nrtn 138733.835 Code EL	East 2191123.940	Elv 2.177
POS TP 0962	Nrtn 138709.168 Code EL	East 2191123.270	Elv 2.317
TRGET	Trget ht 8.530		
POS TP 0963	Nrtn 138690.874 Code BL	East 2191123.290	Elv 2.355
POS TP 0964	Nrtn 138666.952 Code EL	East 2191121.430	Elv 2.306
POS TP 0965	Nrtn 138639.191 Code EL	East 2191120.930	Elv 2.827
POS TP 0966	Nrtn 138611.294 Code EL	East 2191119.740	Elv 2.239
POS TP 0967	Nrtn 138584.873 Code EL	East 2191118.770	Elv 0.479

POS TP 0968	Nrth 138557.940 Code EL	East 2191118.300	Elv -0.041
POS TP 0969	Nrth 138528.928 Code EL	East 2191118.230	Elv -0.526
POS TP 0970	Nrth 138503.371 Code EL	East 2191116.860	Elv -1.067
POS TP 0971	Nrth 138477.423 Code EL	East 2191116.490	Elv -1.302
POS TP 0972	Nrth 138452.554 Code EL	East 2191115.370	Elv -1.581
POS TP 0973	Nrth 138428.622 Code EL	East 2191114.910	Elv -1.861
POS TP 0974	Nrth 138405.310 Code EL	East 2191114.250	Elv -2.171
POS TP 0975	Nrth 138380.866 Code EL	East 2191113.750	Elv -1.372
POS TP 0976	Nrth 138359.616 Code EL	East 2191113.310	Elv -0.820
POS TP 0977	Nrth 138338.906 Code EL	East 2191112.220	Elv -0.589
POS TP 0978	Nrth 138316.954 Code EL	East 2191111.780	Elv -0.676
POS TP 0979	Nrth 138293.264 Code EL	East 2191110.160	Elv -1.116
POS TP 0980	Nrth 138270.542 Code EL	East 2191109.740	Elv -1.723
POS TP 0981	Nrth 138249.930 Code EL	East 2191110.520	Elv -2.277
POS TP 0982	Nrth 138224.365 Code EL	East 2191109.530	Elv -2.821
POS TP 0983	Nrth 138199.386 Code EL	East 2191109.050	Elv -3.135
POS TP 0984	Nrth 138173.819 Code EL	East 2191108.300	Elv -3.563
POS TP 0985	Nrth 138146.448 Code EL	East 2191107.390	Elv -3.158
POS TP 0986	Nrth 138126.199 Code EL	East 2191106.750	Elv -3.205
POS TP 0987	Nrth 138100.829 Code EL	East 2191105.170	Elv -3.628
POS TP 0988	Nrth 138077.586 Code EL	East 2191104.010	Elv -3.996
POS TP 0989	Nrth 138049.788 Code EL	East 2191104.150	Elv -4.359

POS TP 0990	Nrth 138024.098 Code EL	East 2191103.570	Elv -4.766
POS TP 0991	Nrth 138675.451 Code BL	East 2190922.990	Elv 3.320
POS TP 0992	Nrth 138648.910 Code EL	East 2190922.340	Elv 3.155
POS TP 0993	Nrth 138621.842 Code EL	East 2190920.990	Elv 1.548
POS TP 0994	Nrth 138596.586 Code EL	East 2190920.560	Elv 0.285
POS TP 0995	Nrth 138568.393 Code EL	East 2190919.190	Elv -0.760
POS TP 0996	Nrth 138544.344 Code EL	East 2190918.110	Elv -1.394
POS TP 0997	Nrth 138523.202 Code EL	East 2190917.510	Elv -1.824
POS TP 0998	Nrth 138497.962 Code EL	East 2190916.910	Elv -2.292
POS TP 0999	Nrth 138473.558 Code EL	East 2190916.010	Elv -2.624
POS TP 1000	Nrth 138448.442 Code EL	East 2190915.010	Elv -2.852
POS TP 1001	Nrth 138425.246 Code EL	East 2190913.530	Elv -2.837
POS TP 1002	Nrth 138400.204 Code EL	East 2190912.780	Elv -2.558
POS TP 1003	Nrth 138374.461 Code EL	East 2190912.250	Elv -2.878
POS TP 1004	Nrth 138350.408 Code EL	East 2190910.400	Elv -2.979
POS TP 1005	Nrth 138330.036 Code EL	East 2190910.330	Elv -3.009
POS TP 1006	Nrth 138302.804 Code EL	East 2190909.370	Elv -3.183
POS TP 1007	Nrth 138277.249 Code EL	East 2190908.330	Elv -3.418
POS TP 1008	Nrth 138250.523 Code EL	East 2190907.010	Elv -3.152
POS TP 1009	Nrth 138225.435 Code EL	East 2190907.040	Elv -2.484
POS TP 1010	Nrth 138201.869 Code EL	East 2190905.040	Elv -2.856
POS TP 1011	Nrth 138174.500 Code EL	East 2190905.090	Elv -3.260

POS TP 1012	Nrtn 138152.081 Code EL	East 2190907.480	Elv -3.220
POS TP 1013	Nrtn 138125.621 Code EL	East 2190903.620	Elv -3.487
POS TP 1014	Nrtn 138099.686 Code EL	East 2190901.850	Elv -3.838
TRGET	Trget ht 8.510		
POS TP 1015	Nrtn 138699.429 Code EL	East 2190923.220	Elv 2.497
POS TP 1016	Nrtn 138723.166 Code EL	East 2190924.750	Elv 2.606
POS TP 1017	Nrtn 138748.509 Code EL	East 2190926.460	Elv 1.994
POS TP 1018	Nrtn 138773.646 Code EL	East 2190926.970	Elv 1.514
POS TP 1019	Nrtn 138799.562 Code EL	East 2190928.060	Elv 1.479
POS TP 1020	Nrtn 138826.811 Code EL	East 2190929.060	Elv 1.116
POS TP 1021	Nrtn 138852.187 Code EL	East 2190930.530	Elv 1.350
STN TP 0005	Nrtn 138684.554 Theo ht 3.799	East 2190974.440 Code CP	Elv 3.300
NOTE TL	EDM tol. error:	Pt: 0004 0.066	
BKB TP 0005-0004	Azmth 87-28'13"	H.obs 0-00'00"	
TRGET	Trget ht 3.540		
OBS F1 0005-0004	Dist 2289.630 Code CP	V.obs 89-59'25"	H.obs 0-00'00"
TRGET	Trget ht 8.510		
POS TP 1022	Nrtn 138871.803 Code EL	East 2190931.870	Elv -0.084
POS TP 1023	Nrtn 138889.318 Code EL	East 2190931.880	Elv -0.498
POS TP 1024	Nrtn 138909.877 Code EL	East 2190933.070	Elv -0.721
POS TP 1025	Nrtn 138926.947 Code EL	East 2190933.600	Elv -0.748
POS TP 1026	Nrtn 138949.142 Code EL	East 2190934.070	Elv -0.722
POS TP 1027	Nrtn 138970.779 Code EL	East 2190935.290	Elv -0.751
POS TP 1028	Nrtn 138992.647	East 2190936.110	Elv -0.800

	Code EL		
POS TP 1029	Nrth 139014.489 Code EL	East 2190537.030	Elv -0.733
POS TP 1030	Nrth 139034.334 Code EL	East 2190537.750	Elv -0.607
POS TP 1031	Nrth 139057.094 Code EL	East 2190538.610	Elv -0.374
POS TP 1032	Nrth 139081.012 Code EL	East 2190540.030	Elv -0.279
POS TP 1033	Nrth 139103.874 Code EL	East 2190540.280	Elv -0.765
POS TP 1034	Nrth 139124.777 Code EL	East 2190541.030	Elv -0.401
POS TP 1035	Nrth 139147.620 Code EL	East 2190542.090	Elv 0.855
POS TP 1036	Nrth 139170.527 Code EL	East 2190542.170	Elv 2.584
POS TP 1037	Nrth 139185.979 Code EL	East 2190543.040	Elv 2.260
NOTE	STA 11200		
TRGET	Trget ht 8.530		
POS TP 1038	Nrth 138641.259 Code BL	East 2190726.060	Elv 2.800
TRGET	Trget ht 8.510		
POS TP 1039	Nrth 139511.317 Code CHECK	East 2190776.450	Elv 0.294
POS TP 1040	Nrth 139802.201 Code EL	East 2190795.630	Elv -0.040
POS TP 1041	Nrth 139777.917 Code EL	East 2190794.320	Elv 0.172
POS TP 1042	Nrth 139760.643 Code EL	East 2190792.690	Elv 0.069
POS TP 1043	Nrth 139752.260 Code EL	East 2190793.010	Elv -0.442
POS TP 1044	Nrth 139744.653 Code EL	East 2190793.620	Elv -0.006
POS TP 1045	Nrth 139727.058 Code EL	East 2190794.150	Elv 0.176
POS TP 1046	Nrth 139707.558 Code EL	East 2190789.540	Elv 0.476
POS TP 1047	Nrth 139687.496 Code EL	East 2190788.190	Elv 0.416
POS TP 1048	Nrth 139669.771	East 2190786.780	Elv 0.336

	Code EL		
POS TP 1049	Nrth 139652.771 Code EL	East 2190785.400	Elv 0.355
POS TP 1050	Nrtn 139640.439 Code EL	East 2190784.720	Elv -0.092
POS TP 1051	Nrtn 139628.342 Code EL	East 2190782.840	Elv -0.388
POS TP 1052	Nrtn 139615.163 Code EL	East 2190782.880	Elv 0.082
POS TP 1053	Nrtn 139597.669 Code EL	East 2190782.170	Elv 0.484
POS TP 1054	Nrtn 139575.536 Code EL	East 2190780.340	Elv 0.618
POS TP 1055	Nrtn 139555.794 Code EL	East 2190779.790	Elv 0.661
POS TP 1056	Nrtn 139536.648 Code EL	East 2190778.340	Elv 0.618
POS TP 1057	Nrtn 139514.907 Code EL	East 2190778.640	Elv 0.444
POS TP 1058	Nrtn 139487.661 Code EL	East 2190776.130	Elv 0.809
POS TP 1059	Nrtn 139471.690 Code EL	East 2190775.300	Elv 0.355
POS TP 1060	Nrtn 139453.212 Code EL	East 2190774.960	Elv 0.450
POS TP 1061	Nrtn 139434.442 Code EL	East 2190773.630	Elv 0.615
POS TP 1062	Nrtn 139421.806 Code EL	East 2190772.870	Elv 0.065
TRGET	Trget ht 16.650		
POS TP 1063	Nrtn 139408.950 Code EL	East 2190772.400	Elv -1.955
POS TP 1064	Nrtn 139386.005 Code EL	East 2190768.790	Elv -3.303
POS TP 1065	Nrtn 139369.724 Code EL	East 2190767.200	Elv -4.786
POS TP 1066	Nrtn 139354.399 Code EL	East 2190767.670	Elv -4.511
POS TP 1067	Nrtn 139324.578 Code EL	East 2190762.870	Elv -1.061
POS TP 1068	Nrtn 139295.007 Code EL	East 2190762.400	Elv 0.594
POS TP 1069	Nrtn 139266.390 Code EL	East 2190762.200	Elv 0.562

POS TP 1070	Nrtn 139227.414 Code EL	East 2190760.550	Elv 0.881
POS TP 1071	Nrtn 139194.682 Code EL	East 2190757.630	Elv 1.756
POS TP 1072	Nrtn 139167.828 Code EL	East 2190755.500	Elv -0.413
POS TP 1073	Nrtn 139147.631 Code EL	East 2190754.710	Elv -0.599
POS TP 1074	Nrtn 139123.444 Code EL	East 2190754.480	Elv -0.310
POS TP 1075	Nrtn 139107.094 Code EL	East 2190754.760	Elv 0.522
POS TP 1076	Nrtn 139089.640 Code EL	East 2190753.240	Elv 0.401
POS TP 1077	Nrtn 139064.354 Code EL	East 2190750.190	Elv -0.169
POS TP 1078	Nrtn 139041.815 Code EL	East 2190749.370	Elv -0.590
POS TP 1079	Nrtn 139016.346 Code EL	East 2190746.940	Elv -1.638
POS TP 1080	Nrtn 138991.160 Code EL	East 2190746.400	Elv -1.127
POS TP 1081	Nrtn 138964.391 Code EL	East 2190744.200	Elv -1.439
POS TP 1082	Nrtn 138936.315 Code EL	East 2190743.050	Elv -0.138
POS TP 1083	Nrtn 138912.255 Code EL	East 2190741.120	Elv 1.377
POS TP 1084	Nrtn 138888.284 Code EL	East 2190740.690	Elv 2.604
POS TP 1085	Nrtn 138861.350 Code EL	East 2190738.700	Elv 2.901
POS TP 1086	Nrtn 138834.065 Code EL	East 2190737.040	Elv 2.407
POS TP 1087	Nrtn 138805.514 Code EL	East 2190737.930	Elv 1.346
POS TP 1088	Nrtn 138778.308 Code EL	East 2190734.340	Elv 1.604
POS TP 1089	Nrtn 138755.785 Code EL	East 2190733.550	Elv 1.729
POS TP 1090	Nrtn 138733.589 Code EL	East 2190731.820	Elv 1.895
POS TP 1091	Nrtn 138712.351 Code EL	East 2190729.440	Elv 2.114

POS TP 1092	Nrtn 138690.489 Code EL	East 2190727.580	Elv 2.267
POS TP 1093	Nrtn 138666.027 Code EL	East 2190726.860	Elv 2.406
TRGET	Trget ht 8.530		
POS TP 1094	Nrtn 138616.785 Code EL	East 2190725.940	Elv 2.617
POS TP 1095	Nrtn 138592.834 Code EL	East 2190724.430	Elv 1.598
POS TP 1096	Nrtn 138568.730 Code EL	East 2190722.620	Elv 0.284
POS TP 1097	Nrtn 138545.653 Code EL	East 2190720.940	Elv -0.469
POS TP 1098	Nrtn 138523.973 Code EL	East 2190719.310	Elv -1.393
POS TP 1099	Nrtn 138502.235 Code EL	East 2190718.450	Elv -2.023
POS TP 1100	Nrtn 138478.316 Code EL	East 2190716.550	Elv -2.213
POS TP 1101	Nrtn 138454.910 Code EL	East 2190716.110	Elv -2.317
POS TP 1102	Nrtn 138428.564 Code EL	East 2190713.890	Elv -2.331
POS TP 1103	Nrtn 138402.390 Code EL	East 2190712.210	Elv -2.558
POS TP 1104	Nrtn 138378.586 Code EL	East 2190711.280	Elv -2.553
POS TP 1105	Nrtn 138351.317 Code EL	East 2190709.640	Elv -2.376
POS TP 1106	Nrtn 138328.420 Code EL	East 2190708.570	Elv -2.752
POS TP 1107	Nrtn 138307.386 Code EL	East 2190707.940	Elv -2.804
POS TP 1108	Nrtn 138281.463 Code EL	East 2190706.260	Elv -2.705
POS TP 1109	Nrtn 138254.054 Code EL	East 2190704.520	Elv -2.226
POS TP 1110	Nrtn 138226.531 Code EL	East 2190702.460	Elv -2.407
POS TP 1111	Nrtn 138200.316 Code EL	East 2190701.280	Elv -2.584
POS TP 1112	Nrtn 138173.923 Code EL	East 2190699.850	Elv -2.830

POS TP 1113	Nrtn 138149.906 Code EL	East 2190698.130	Elv -3.335
POS TP 1114	Nrtn 138123.692 Code EL	East 2190696.920	Elv -3.612
POS TP 1115	Nrtn 138098.627 Code EL	East 2190697.460	Elv -4.062
NOTE	STA 11000		
POS TP 1116	Nrtn 138053.695 Code EL	East 2190477.290	Elv -4.358
POS TP 1117	Nrtn 138088.092 Code EL	East 2190480.250	Elv -3.935
POS TP 1118	Nrtn 138109.972 Code EL	East 2190484.020	Elv -3.543
POS TP 1119	Nrtn 138128.906 Code EL	East 2190484.740	Elv -3.251
POS TP 1120	Nrtn 138150.007 Code EL	East 2190488.230	Elv -3.277
POS TP 1121	Nrtn 138175.872 Code EL	East 2190490.760	Elv -2.748
POS TP 1122	Nrtn 138199.095 Code EL	East 2190492.740	Elv -2.482
POS TP 1123	Nrtn 138219.864 Code EL	East 2190493.870	Elv -2.394
POS TP 1124	Nrtn 138244.985 Code EL	East 2190496.390	Elv -2.162
POS TP 1125	Nrtn 138268.914 Code EL	East 2190497.710	Elv -3.278
POS TP 1126	Nrtn 138290.757 Code EL	East 2190500.110	Elv -2.947
POS TP 1127	Nrtn 138311.724 Code EL	East 2190502.550	Elv -2.459
POS TP 1128	Nrtn 138333.513 Code EL	East 2190504.340	Elv -2.178
POS TP 1129	Nrtn 138352.962 Code EL	East 2190505.850	Elv -1.995
POS TP 1130	Nrtn 138375.206 Code EL	East 2190508.100	Elv -1.614
POS TP 1131	Nrtn 138396.594 Code EL	East 2190510.040	Elv -1.345
POS TP 1132	Nrtn 138421.060 Code EL	East 2190512.390	Elv -1.412
POS TP 1133	Nrtn 138446.563 Code EL	East 2190514.470	Elv -1.400
POS TP 1134	Nrtn 138469.760	East 2190516.860	Elv -1.217

	Code EL		
POS TP 1135	Nrtn 138495.169 Code EL	East 2190519.270	Elv -0.482
POS TP 1136	Nrtn 138521.558 Code EL	East 2190521.540	Elv 0.289
POS TP 1137	Nrtn 138551.290 Code EL	East 2190524.400	Elv 1.111
POS TP 1138	Nrtn 138579.595 Code EL	East 2190526.220	Elv 2.033
POS TP 1139	Nrtn 138606.972 Code BL	East 2190528.720	Elv 3.015

* END OF REPORT *

	Code TBM		
NOTE	RD 1		
NOTE	STA 15000		
TRGET	Trget ht 8.530		
POS TP 0104	Nrth 139101.479 Code BL	East 2194480.290	Elv 3.059
POS TP 0105	Nrth 139077.229 Code EL	East 2194478.640	Elv 2.952
POS TP 0106	Nrth 139070.192 Code EL	East 2194477.490	Elv 2.743
POS TP 0107	Nrth 139050.147 Code EL	East 2194476.790	Elv 1.442
POS TP 0108	Nrth 139019.800 Code EL	East 2194474.970	Elv -0.561
POS TP 0109	Nrth 138993.042 Code EL	East 2194472.600	Elv -1.552
POS TP 0110	Nrth 138943.525 Code EL	East 2194469.640	Elv -2.208
POS TP 0111	Nrth 138911.943 Code EL	East 2194467.120	Elv -3.291
POS TP 0112	Nrth 138900.539 Code EL	East 2194466.730	Elv -2.362
POS TP 0113	Nrth 138845.217 Code EL	East 2194462.110	Elv -2.860
POS TP 0114	Nrth 138789.546 Code EL	East 2194459.390	Elv -2.732
POS TP 0115	Nrth 138742.072 Code EL	East 2194455.490	Elv -2.427
POS TP 0116	Nrth 138698.424 Code EL	East 2194451.260	Elv -3.432
POS TP 0117	Nrth 139124.218 Code EL	East 2194481.840	Elv 3.021
POS TP 0118	Nrth 139149.870 Code EL	East 2194483.400	Elv 2.886
POS TP 0119	Nrth 139176.259 Code EL	East 2194485.380	Elv 2.670
POS TP 0120	Nrth 139198.682 Code EL	East 2194486.890	Elv 2.580
POS TP 0121	Nrth 139218.478 Code EL	East 2194488.180	Elv 2.206
TRGET	Trget ht 8.510		
POS TP 0122	Nrth 139247.509 Code EL	East 2194490.080	Elv 0.733

POS TP 0123	Nrth 139271.258 Code EL	East 2194492.500	Elv 0.159
POS TP 0124	Nrth 139291.905 Code EL	East 2194493.290	Elv -0.175
POS TP 0125	Nrth 139314.697 Code EL	East 2194495.030	Elv -0.276
POS TP 0126	Nrth 139329.458 Code EL	East 2194496.100	Elv -0.211
POS TP 0127	Nrth 139343.297 Code EL	East 2194496.880	Elv 0.857
POS TP 0128	Nrth 139355.038 Code EL	East 2194497.720	Elv 2.030
POS TP 0129	Nrth 139390.307 Code EL	East 2194500.280	Elv 3.344
POS TP 0130	Nrth 139427.256 Code EL	East 2194502.720	Elv 3.062
POS TP 0131	Nrth 139457.371 Code EL	East 2194504.480	Elv 2.887
POS TP 0132	Nrth 139487.907 Code EL	East 2194506.350	Elv 2.718
NOTE	-ES		
POS TP 0133	Nrth 139353.833 Code EL	East 2194488.170	Elv 1.825
POS TP 0134	Nrth 139339.498 Code EL	East 2194460.680	Elv 1.843
POS TP 0135	Nrth 139319.805 Code EL	East 2194457.600	Elv 2.437
POS TP 0136	Nrth 139288.364 Code EL	East 2194457.680	Elv 2.477
POS TP 0137	Nrth 139230.429 Code EL	East 2194469.910	Elv 2.301
POS TP 0138	Nrth 139220.180 Code EL	East 2194483.620	Elv 1.936
POS TP 0139	Nrth 139218.235 Code EL	East 2194425.920	Elv 0.887
POS TP 0140	Nrth 139260.146 Code EL	East 2194422.670	Elv -0.022
POS TP 0141	Nrth 139322.537 Code EL	East 2194415.670	Elv -0.241
POS TP 0142	Nrth 139397.997 Code EL	East 2194410.740	Elv 1.348
POS TP 0143	Nrth 139372.599 Code EL	East 2194387.720	Elv 0.908

POS TP 0144	Nrth 139367.568 Code EL	East 2194385.430	Elv -0.551
POS TP 0145	Nrth 139357.310 Code EL	East 2194385.460	Elv 1.187
POS TP 0146	Nrth 139292.441 Code EL	East 2194394.870	Elv 1.222
POS TP 0147	Nrth 139211.609 Code EL	East 2194408.720	Elv 1.891
NOTE	STA 14800		
TRGET	Trget ht 8.530		
POS TP 0148	Nrth 139051.154 Code BL	East 2194286.160	Elv 2.686
POS TP 0149	Nrth 139030.160 Code EL	East 2194285.830	Elv 2.192
POS TP 0150	Nrth 139023.454 Code EL	East 2194285.060	Elv 1.701
POS TP 0151	Nrth 138989.634 Code EL	East 2194283.660	Elv 0.038
POS TP 0152	Nrth 138951.889 Code EL	East 2194281.910	Elv -0.098
POS TP 0153	Nrth 138899.391 Code EL	East 2194279.670	Elv -0.219
POS TP 0154	Nrth 138847.307 Code EL	East 2194277.050	Elv -0.289
POS TP 0155	Nrth 138826.539 Code EL	East 2194276.280	Elv -1.511
POS TP 0156	Nrth 138795.711 Code EL	East 2194273.810	Elv -2.802
POS TP 0157	Nrth 138764.787 Code EL	East 2194273.440	Elv -3.438
TRGET	Trget ht 8.510		
POS TP 0158	Nrth 139076.233 Code EL	East 2194287.670	Elv 2.265
POS TP 0159	Nrth 139101.525 Code EL	East 2194288.780	Elv 2.288
POS TP 0160	Nrth 139126.045 Code EL	East 2194289.810	Elv 2.163
POS TP 0161	Nrth 139150.193 Code EL	East 2194291.420	Elv 2.010
POS TP 0162	Nrth 139176.752 Code EL	East 2194292.400	Elv 1.931
POS TP 0163	Nrth 139201.195 Code EL	East 2194293.710	Elv 1.756

POS TP 0164	Nrth 139225.590 Code EL	East 2194295.230	Elv 1.814
POS TP 0165	Nrth 139249.239 Code EL	East 2194295.750	Elv 1.699
POS TP 0166	Nrth 139271.365 Code EL	East 2194297.040	Elv 1.551
POS TP 0167	Nrth 139295.925 Code EL	East 2194298.080	Elv 1.253
POS TP 0168	Nrth 139322.578 Code EL	East 2194299.490	Elv 0.982
POS TP 0169	Nrth 139349.231 Code EL	East 2194301.010	Elv 0.444
POS TP 0170	Nrth 139377.126 Code EL	East 2194302.670	Elv 1.029
POS TP 0171	Nrth 139386.313 Code EL	East 2194303.000	Elv -0.512
POS TP 0172	Nrth 139396.587 Code EL	East 2194303.440	Elv 0.941
POS TP 0173	Nrth 139427.699 Code EL	East 2194304.770	Elv 0.989
POS TP 0174	Nrth 139459.483 Code EL	East 2194306.440	Elv 0.842
POS TP 0175	Nrth 139477.802 Code EL	East 2194307.840	Elv 1.278
POS TP 0176	Nrth 139490.878 Code EL	East 2194307.970	Elv -0.882
POS TP 0177	Nrth 139519.466 Code EL	East 2194309.560	Elv -0.890
POS TP 0178	Nrth 139536.198 Code EL	East 2194309.860	Elv 1.119
POS TP 0179	Nrth 139574.686 Code EL	East 2194311.800	Elv 1.133
POS TP 0180	Nrth 139602.834 Code EL	East 2194313.170	Elv 1.337
NOTE	-ES		
NOTE	STA 14600		
POS TP 0181	Nrth 139627.570 Code EL	East 2194113.420	Elv 1.911
POS TP 0182	Nrth 139609.816 Code EL	East 2194113.300	Elv 2.154
POS TP 0183	Nrth 139598.472 Code EL	East 2194112.820	Elv 0.945
POS TP 0184	Nrth 139570.628 Code EL	East 2194112.180	Elv 0.596

POS TP 0185	Nrth 139539.953 Code EL	East 2194110.540	Elv 1.159
POS TP 0186	Nrth 139528.064 Code EL	East 2194110.090	Elv -1.149
POS TP 0187	Nrth 139513.232 Code EL	East 2194109.850	Elv 0.639
POS TP 0188	Nrth 139481.489 Code EL	East 2194109.080	Elv 0.630
POS TP 0189	Nrth 139446.642 Code EL	East 2194107.950	Elv 0.716
POS TP 0190	Nrth 139418.887 Code EL	East 2194106.990	Elv 0.008
POS TP 0191	Nrth 139384.801 Code EL	East 2194105.960	Elv 0.984
POS TP 0192	Nrth 139372.746 Code EL	East 2194106.570	Elv 0.868
POS TP 0193	Nrth 139364.052 Code EL	East 2194104.820	Elv -0.348
POS TP 0194	Nrth 139354.527 Code EL	East 2194104.850	Elv 0.853
POS TP 0195	Nrth 139326.736 Code EL	East 2194103.940	Elv 0.491
POS TP 0196	Nrth 139302.423 Code EL	East 2194103.210	Elv 0.920
POS TP 0197	Nrth 139270.696 Code EL	East 2194102.160	Elv 0.589
POS TP 0198	Nrth 139240.195 Code EL	East 2194101.140	Elv 1.123
POS TP 0199	Nrth 139210.953 Code EL	East 2194099.860	Elv 1.974
POS TP 0200	Nrth 139184.488 Code EL	East 2194099.170	Elv 2.436
POS TP 0201	Nrth 139154.692 Code EL	East 2194098.020	Elv 2.442
POS TP 0202	Nrth 139124.816 Code EL	East 2194097.400	Elv 2.365
POS TP 0203	Nrth 139096.400 Code EL	East 2194096.060	Elv 2.422
POS TP 0204	Nrth 139060.239 Code EL	East 2194094.710	Elv 2.480
POS TP 0205	Nrth 139029.817 Code EL	East 2194094.020	Elv 2.546
POS TP 0206	Nrth 139001.027 Code EL	East 2194092.970	Elv 2.661

TRGET	Trget ht 8.530		
POS TP 0207	Nrth 138973.744 Code EL	East 2194091.950	Elv 2.283
POS TP 0208	Nrth 138954.988 Code EL	East 2194091.500	Elv 0.657
POS TP 0209	Nrth 138916.268 Code EL	East 2194090.050	Elv 0.078
POS TP 0210	Nrth 138864.522 Code EL	East 2194088.630	Elv -0.301
POS TP 0211	Nrth 138800.636 Code EL	East 2194086.710	Elv -0.370
POS TP 0212	Nrth 138778.776 Code EL	East 2194085.970	Elv -1.549
POS TP 0213	Nrth 138738.250 Code EL	East 2194083.280	Elv -3.377
POS TP 0214	Nrth 138709.898 Code EL	East 2194084.920	Elv -3.668
POS TP 0215	Nrth 138688.997 Code EL	East 2194080.360	Elv -3.930
NOTE	-ES		
NOTE	STA 14400		
POS TP 0216	Nrth 138950.751 Code BL	East 2193899.340	Elv 2.763
POS TP 0217	Nrth 138916.507 Code EL	East 2193898.290	Elv 2.876
POS TP 0218	Nrth 138901.628 Code EL	East 2193897.830	Elv 1.534
POS TP 0219	Nrth 138887.029 Code EL	East 2193897.280	Elv 0.218
POS TP 0220	Nrth 138840.828 Code EL	East 2193895.210	Elv -0.023
POS TP 0221	Nrth 138784.455 Code EL	East 2193892.190	Elv -0.192
POS TP 0222	Nrth 138747.353 Code EL	East 2193891.300	Elv -1.389
POS TP 0223	Nrth 138714.326 Code EL	East 2193891.460	Elv -2.556
POS TP 0224	Nrth 138685.894 Code EL	East 2193890.250	Elv -3.366
POS TP 0225	Nrth 138650.857 Code EL	East 2193886.410	Elv -3.256
POS TP 0226	Nrth 138601.116	East 2193885.910	Elv -2.730

	Code EL		
POS TP 0227	Nrth 138551.730 Code EL	East 2193882.500	Elv -3.337
POS TP 0228	Nrth 138526.711 Code EL	East 2193881.000	Elv -3.961
TRGET	Trget ht 8.510		
POS TP 0229	Nrth 138974.338 Code EL	East 2193900.120	Elv 2.574
POS TP 0230	Nrth 138998.574 Code EL	East 2193901.470	Elv 2.395
POS TP 0231	Nrth 139021.122 Code EL	East 2193902.560	Elv 2.383
POS TP 0232	Nrth 139043.799 Code EL	East 2193903.810	Elv 2.189
POS TP 0233	Nrth 139066.446 Code EL	East 2193904.490	Elv 2.225
POS TP 0234	Nrth 139090.784 Code EL	East 2193905.050	Elv 2.084
POS TP 0235	Nrth 139114.199 Code EL	East 2193906.740	Elv 2.160
POS TP 0236	Nrth 139138.394 Code EL	East 2193907.370	Elv 2.227
POS TP 0237	Nrth 139159.836 Code EL	East 2193908.350	Elv 2.221
POS TP 0238	Nrth 139185.482 Code EL	East 2193909.610	Elv 2.091
POS TP 0239	Nrth 139208.424 Code EL	East 2193910.710	Elv 1.709
POS TP 0240	Nrth 139229.155 Code EL	East 2193911.350	Elv 1.161
POS TP 0241	Nrth 139243.694 Code EL	East 2193911.970	Elv 1.186
POS TP 0242	Nrth 139270.195 Code EL	East 2193913.370	Elv 1.343
POS TP 0243	Nrth 139297.155 Code EL	East 2193914.750	Elv 1.218
POS TP 0244	Nrth 139323.133 Code EL	East 2193915.190	Elv 1.073
POS TP 0245	Nrth 139355.018 Code EL	East 2193916.930	Elv 0.766
POS TP 0246	Nrth 139383.455 Code EL	East 2193917.500	Elv 0.890
POS TP 0247	Nrth 139410.858 Code EL	East 2193918.270	Elv 0.718

POS TP 0248	Nrth 139437.101 Code EL	East 2193919.620	Elv 0.749
POS TP 0249	Nrth 139461.395 Code EL	East 2193922.080	Elv 0.701
POS TP 0250	Nrth 139485.143 Code EL	East 2193922.270	Elv 0.404
POS TP 0251	Nrth 139510.813 Code EL	East 2193923.280	Elv 0.999
POS TP 0252	Nrth 139531.952 Code EL	East 2193924.850	Elv 2.348
NOTE	-ES		
NOTE	STA 14200		
POS TP 0253	Nrth 139442.443 Code EL	East 2193742.480	Elv 1.168
POS TP 0254	Nrth 139417.803 Code EL	East 2193741.740	Elv 1.340
POS TP 0255	Nrth 139399.015 Code EL	East 2193738.890	Elv -0.181
POS TP 0256	Nrth 139374.981 Code EL	East 2193737.670	Elv 0.795
POS TP 0257	Nrth 139349.145 Code EL	East 2193735.250	Elv 0.842
POS TP 0258	Nrth 139318.931 Code EL	East 2193733.700	Elv 1.053
POS TP 0259	Nrth 139290.574 Code EL	East 2193731.830	Elv 1.014
POS TP 0260	Nrth 139264.933 Code EL	East 2193730.060	Elv 1.039
POS TP 0261	Nrth 139237.486 Code EL	East 2193728.900	Elv 1.128
POS TP 0262	Nrth 139210.531 Code EL	East 2193726.670	Elv 1.173
POS TP 0263	Nrth 139184.524 Code EL	East 2193724.670	Elv 1.172
POS TP 0264	Nrth 139159.924 Code EL	East 2193722.470	Elv 1.682
POS TP 0265	Nrth 139130.468 Code EL	East 2193720.970	Elv 1.965
POS TP 0266	Nrth 139087.041 Code EL	East 2193717.720	Elv 2.216
POS TP 0267	Nrth 139061.118 Code EL	East 2193716.370	Elv 2.267
POS TP 0268	Nrth 139035.075 Code EL	East 2193714.150	Elv 2.292

	Code EL		
POS TP 0269	Nrth 139009.686 Code EL	East 2193713.140	Elv 2.323
POS TP 0270	Nrth 138984.723 Code EL	East 2193711.240	Elv 2.393
POS TP 0271	Nrth 138959.097 Code EL	East 2193709.320	Elv 2.377
POS TP 0272	Nrth 138933.150 Code EL	East 2193708.400	Elv 2.868
TRGET	Trget ht 8.530		
POS TP 0273	Nrth 138900.691 Code BL	East 2193705.850	Elv 3.331
POS TP 0274	Nrth 138879.065 Code EL	East 2193704.480	Elv 1.825
POS TP 0275	Nrth 138861.427 Code EL	East 2193703.130	Elv 0.220
POS TP 0276	Nrth 138834.984 Code EL	East 2193700.240	Elv -1.154
POS TP 0277	Nrth 138791.431 Code EL	East 2193689.840	Elv -1.730
POS TP 0278	Nrth 138754.663 Code EL	East 2193696.400	Elv -1.683
POS TP 0279	Nrth 138710.404 Code EL	East 2193692.520	Elv -2.220
POS TP 0280	Nrth 138656.940 Code EL	East 2193690.290	Elv -2.128
POS TP 0281	Nrth 138595.993 Code EL	East 2193686.730	Elv -2.839
POS TP 0282	Nrth 138556.766 Code EL	East 2193682.410	Elv -2.650
POS TP 0283	Nrth 138518.383 Code EL	East 2193680.360	Elv -3.119
POS TP 0284	Nrth 138489.525 Code EL	East 2193678.630	Elv -3.911
NOTE	-ES		
STN TP 0004	Nrth 138785.607 Theo ht 3.720	East 2193261.770 Code CP	Elv 4.211
BKB TP 0004-0003	Azmth 75-28'06"	H.obs 359-59'59"	
TRGET	Trget ht 3.360		
OBS F1 0004-0003	Dist 1329.330 Code CP	V.obs 90-01'45"	H.obs 359-59'59"
NOTE	STA 14000		
TRGET	Trget ht 8.530		

POS TP 0285	Nrth 138951.026 Code TBM	East 2193900.040	Elv 2.798
POS TP 0286	Nrth 138850.599 Code BL	East 2193512.620	Elv 3.214
POS TP 0287	Nrth 138820.308 Code EL	East 2193521.510	Elv 1.770
POS TP 0288	Nrth 138800.121 Code EL	East 2193509.170	Elv 1.414
POS TP 0289	Nrth 138787.645 Code EL	East 2193509.060	Elv 0.158
POS TP 0290	Nrth 138754.232 Code EL	East 2193507.520	Elv -0.772
POS TP 0291	Nrth 138704.836 Code EL	East 2193504.320	Elv -1.931
POS TP 0292	Nrth 138652.856 Code EL	East 2193502.150	Elv -2.745
POS TP 0293	Nrth 138608.497 Code EL	East 2193499.590	Elv -3.309
POS TP 0294	Nrth 138576.673 Code EL	East 2193497.000	Elv -2.818
POS TP 0295	Nrth 138527.078 Code EL	East 2193495.190	Elv -2.489
POS TP 0296	Nrth 138466.039 Code EL	East 2193492.880	Elv -3.075
POS TP 0297	Nrth 138416.646 Code EL	East 2193489.830	Elv -3.924
TRGET	Trget ht 8.510		
POS TP 0298	Nrth 138875.511 Code EL	East 2193511.870	Elv 3.062
POS TP 0299	Nrth 138901.551 Code EL	East 2193511.750	Elv 2.756
POS TP 0300	Nrth 138925.963 Code EL	East 2193512.490	Elv 2.741
POS TP 0301	Nrth 138950.732 Code EL	East 2193518.040	Elv 2.510
POS TP 0302	Nrth 138976.280 Code EL	East 2193519.510	Elv 2.376
POS TP 0303	Nrth 138998.035 Code EL	East 2193520.740	Elv 2.180
POS TP 0304	Nrth 139021.096 Code EL	East 2193521.230	Elv 2.114
POS TP 0305	Nrth 139043.550 Code EL	East 2193522.470	Elv 2.197

POS TP 0306	Nrth 139065.626 Code EL	East 2193524.390	Elv 2.211
POS TP 0307	Nrth 139087.801 Code EL	East 2193525.010	Elv 2.223
POS TP 0308	Nrth 139112.497 Code EL	East 2193526.530	Elv 2.158
POS TP 0309	Nrth 139137.187 Code EL	East 2193527.710	Elv 1.727
POS TP 0310	Nrth 139162.351 Code EL	East 2193529.850	Elv 1.219
POS TP 0311	Nrth 139185.907 Code EL	East 2193530.290	Elv 0.683
POS TP 0312	Nrth 139208.499 Code EL	East 2193531.870	Elv 0.479
POS TP 0313	Nrth 139227.989 Code EL	East 2193533.150	Elv 0.385
POS TP 0314	Nrth 139248.213 Code EL	East 2193533.720	Elv 0.389
POS TP 0315	Nrth 139268.690 Code EL	East 2193534.730	Elv 0.406
POS TP 0316	Nrth 139286.960 Code EL	East 2193536.550	Elv 0.668
POS TP 0317	Nrth 139308.291 Code EL	East 2193536.720	Elv 0.317
POS TP 0318	Nrth 139329.224 Code EL	East 2193538.320	Elv 0.391
POS TP 0319	Nrth 139350.787 Code EL	East 2193539.290	Elv 1.005
POS TP 0320	Nrth 139374.311 Code EL	East 2193541.110	Elv 1.143
POS TP 0321	Nrth 139402.065 Code EL	East 2193542.900	Elv 1.287
NOTE	-ES		
NOTE	STA 13800		
POS TP 0322	Nrth 139361.852 Code EL	East 2193344.250	Elv 1.171
POS TP 0323	Nrth 139336.794 Code EL	East 2193343.660	Elv 1.166
POS TP 0324	Nrth 139313.941 Code EL	East 2193342.450	Elv 0.408
POS TP 0325	Nrth 139294.389 Code EL	East 2193341.420	Elv 0.769
POS TP 0326	Nrth 139271.909 Code EL	East 2193340.470	Elv 0.381

POS TP 0327	Nrth 139251.424 Code EL	East 2193339.630	Elv 0.339
POS TP 0328	Nrth 139233.062 Code EL	East 2193338.620	Elv 0.889
POS TP 0329	Nrth 139210.452 Code EL	East 2193337.860	Elv 1.338
POS TP 0330	Nrth 139185.815 Code EL	East 2193336.440	Elv 1.513
POS TP 0331	Nrth 139160.994 Code EL	East 2193336.360	Elv 1.202
POS TP 0332	Nrth 139135.367 Code EL	East 2193334.020	Elv 1.521
POS TP 0333	Nrth 139108.959 Code EL	East 2193333.160	Elv 2.020
POS TP 0334	Nrth 139084.037 Code EL	East 2193332.320	Elv 2.331
POS TP 0335	Nrth 139058.485 Code EL	East 2193330.390	Elv 2.505
POS TP 0336	Nrth 139034.373 Code EL	East 2193329.580	Elv 2.474
POS TP 0337	Nrth 139009.275 Code EL	East 2193328.570	Elv 2.470
POS TP 0338	Nrth 138983.194 Code EL	East 2193327.320	Elv 2.431
POS TP 0339	Nrth 138958.485 Code EL	East 2193325.990	Elv 2.134
POS TP 0340	Nrth 138935.781 Code EL	East 2193325.570	Elv 2.214
POS TP 0341	Nrth 138911.819 Code EL	East 2193323.980	Elv 2.299
POS TP 0342	Nrth 138888.098 Code EL	East 2193322.890	Elv 2.408
POS TP 0343	Nrth 138864.743 Code EL	East 2193321.790	Elv 2.416
POS TP 0344	Nrth 138839.888 Code EL	East 2193320.840	Elv 2.716
POS TP 0345	Nrth 138816.100 Code EL	East 2193320.030	Elv 2.819
TRGET	Trget ht 8.530		
POS TP 0346	Nrth 138800.606 Code BL	East 2193319.080	Elv 3.120
POS TP 0347	Nrth 138771.784 Code EL	East 2193317.830	Elv 3.331

POS TP 0348	Nrtn 138746.983 Code EL	East 2193316.190	Elv 1.302
POS TP 0349	Nrtn 138725.308 Code EL	East 2193315.640	Elv 1.594
POS TP 0350	Nrtn 138691.952 Code EL	East 2193314.230	Elv 0.045
POS TP 0351	Nrtn 138666.139 Code EL	East 2193313.000	Elv -0.818
POS TP 0352	Nrtn 138617.654 Code EL	East 2193310.630	Elv -1.794
POS TP 0353	Nrtn 138572.971 Code EL	East 2193308.670	Elv -3.014
POS TP 0354	Nrtn 138520.585 Code EL	East 2193306.760	Elv -3.521
POS TP 0355	Nrtn 138489.361 Code EL	East 2193304.850	Elv -3.889
POS TP 0356	Nrtn 138460.430 Code EL	East 2193303.840	Elv -3.505
POS TP 0357	Nrtn 138426.397 Code EL	East 2193302.510	Elv -2.865
POS TP 0358	Nrtn 138376.421 Code EL	East 2193300.530	Elv -3.696
POS TP 0359	Nrtn 138355.580 Code EL	East 2193298.770	Elv -4.173
NOTE	-ES		
NOTE	STA 13400		
TRGET	Trget ht 8.510		
POS TP 0360	Nrtn 138770.660 Code BL	East 2192920.380	Elv 2.310
POS TP 0361	Nrtn 138793.899 Code EL	East 2192921.180	Elv 2.156
POS TP 0362	Nrtn 138816.190 Code EL	East 2192922.320	Elv 2.065
POS TP 0363	Nrtn 138840.238 Code EL	East 2192922.950	Elv 1.865
POS TP 0364	Nrtn 138865.068 Code EL	East 2192924.010	Elv 1.768
POS TP 0365	Nrtn 138890.591 Code EL	East 2192924.920	Elv 1.657
POS TP 0366	Nrtn 138915.886 Code EL	East 2192925.330	Elv 1.623
POS TP 0367	Nrtn 138941.238 Code EL	East 2192925.870	Elv 1.492

POS TP 0368	Nrth 138965.905 Code EL	East 2192927.420	Elv 1.537
POS TP 0369	Nrth 138991.611 Code EL	East 2192927.610	Elv 1.526
POS TP 0370	Nrth 139016.469 Code EL	East 2192929.190	Elv 1.231
POS TP 0371	Nrth 139039.545 Code EL	East 2192929.420	Elv 1.282
POS TP 0372	Nrth 139060.862 Code EL	East 2192930.530	Elv 0.929
POS TP 0373	Nrth 139083.175 Code EL	East 2192931.110	Elv 0.756
POS TP 0374	Nrth 139105.616 Code EL	East 2192932.400	Elv 0.801
POS TP 0375	Nrth 139130.857 Code EL	East 2192932.650	Elv 0.913
POS TP 0376	Nrth 139152.497 Code EL	East 2192933.460	Elv 0.323
POS TP 0377	Nrth 139178.333 Code EL	East 2192934.680	Elv 1.210
POS TP 0378	Nrth 139201.231 Code EL	East 2192935.810	Elv 0.182
POS TP 0379	Nrth 139229.558 Code EL	East 2192937.330	Elv 0.954
POS TP 0380	Nrth 139253.458 Code EL	East 2192936.680	Elv 1.056
POS TP 0381	Nrth 139279.468 Code EL	East 2192937.780	Elv 0.847
POS TP 0382	Nrth 139306.508 Code EL	East 2192938.370	Elv 0.705
POS TP 0383	Nrth 139333.280 Code EL	East 2192939.160	Elv 0.789
POS TP 0384	Nrth 139354.005 Code EL	East 2192941.460	Elv 0.923
POS TP 0385	Nrth 139378.909 Code EL	East 2192940.800	Elv 1.010
POS TP 0386	Nrth 139399.436 Code EL	East 2192941.220	Elv 1.573
TRGET	Trget ht 8.530		
POS TP 0387	Nrth 138733.164 Code EL	East 2192919.160	Elv 2.648
POS TP 0388	Nrth 138704.381 Code EL	East 2192918.410	Elv 1.603
POS TP 0389	[illegible]	[illegible]	[illegible]

	Code EL		
POS TP 0390	Nrth 138614.844 Code EL	East 2192915.670	Elv 0.108
POS TP 0391	Nrth 138575.376 Code EL	East 2192914.170	Elv 0.004
POS TP 0392	Nrth 138529.378 Code EL	East 2192912.480	Elv -1.347
POS TP 0393	Nrth 138493.615 Code EL	East 2192912.170	Elv -2.485
POS TP 0394	Nrth 138459.928 Code EL	East 2192910.210	Elv -3.647
POS TP 0395	Nrth 138422.493 Code EL	East 2192908.730	Elv -4.395
NOTE	-ES		
NOTE	STA 13600		
TRGET	Trget ht 8.510		
POS TP 0396	Nrth 139364.085 Code EL	East 2193139.610	Elv 1.763
POS TP 0397	Nrth 139347.329 Code EL	East 2193138.690	Elv 1.163
POS TP 0398	Nrth 139323.682 Code EL	East 2193138.440	Elv 0.941
POS TP 0399	Nrth 139299.943 Code EL	East 2193137.400	Elv 0.806
POS TP 0400	Nrth 139277.090 Code EL	East 2193136.900	Elv 0.840
POS TP 0401	Nrth 139250.741 Code EL	East 2193135.890	Elv 0.937
POS TP 0402	Nrth 139225.960 Code EL	East 2193134.100	Elv 1.021
POS TP 0403	Nrth 139199.055 Code EL	East 2193134.960	Elv 1.040
POS TP 0404	Nrth 139173.210 Code EL	East 2193134.230	Elv 1.197
POS TP 0405	Nrth 139146.752 Code EL	East 2193132.730	Elv 1.291
POS TP 0406	Nrth 139118.869 Code EL	East 2193131.510	Elv 1.329
POS TP 0407	Nrth 139093.877 Code EL	East 2193131.140	Elv 1.539
POS TP 0408	Nrth 139068.692 Code EL	East 2193130.430	Elv 2.175

	Code EL		
POS TP 0410	Nrth 139016.150 Code EL	East 2193129.000	Elv 2.461
POS TP 0411	Nrth 138989.944 Code EL	East 2193127.720	Elv 2.340
POS TP 0412	Nrth 138963.925 Code EL	East 2193127.220	Elv 2.148
POS TP 0413	Nrth 138938.097 Code EL	East 2193126.540	Elv 1.757
POS TP 0414	Nrth 138913.250 Code EL	East 2193125.740	Elv 1.422
POS TP 0415	Nrth 138889.582 Code EL	East 2193124.450	Elv 1.135
POS TP 0416	Nrth 138864.886 Code EL	East 2193124.120	Elv 1.724
POS TP 0417	Nrth 138838.972 Code EL	East 2193123.270	Elv 2.146
POS TP 0418	Nrth 138814.043 Code EL	East 2193122.980	Elv 2.222
POS TP 0419	Nrth 138786.725 Code EL	East 2193120.830	Elv 2.634
POS TP 0420	Nrth 138779.641 Code BL	East 2193120.380	Elv 2.978
TRGET	Trget ht 8.530		
POS TP 0421	Nrth 138738.225 Code EL	East 2193119.420	Elv 2.801
POS TP 0422	Nrth 138718.020 Code EL	East 2193119.190	Elv 2.462
POS TP 0423	Nrth 138694.280 Code EL	East 2193118.150	Elv 1.246
POS TP 0424	Nrth 138685.376 Code EL	East 2193117.700	Elv 1.539
POS TP 0425	Nrth 138674.387 Code EL	East 2193118.160	Elv 0.394
POS TP 0426	Nrth 138631.581 Code EL	East 2193115.450	Elv 0.138
POS TP 0427	Nrth 138590.620 Code EL	East 2193114.220	Elv -0.023
POS TP 0428	Nrth 138570.953 Code EL	East 2193113.960	Elv -0.944
POS TP 0429	Nrth 138539.970 Code EL	East 2193113.080	Elv -2.157
POS TP 0430	Nrth 138506.119 Code EL	East 2193111.570	Elv -3.117

	Code EL		
POS TP 0431	Nrth 138475.727 Code EL	East 2193110.390	Elv -3.639
POS TP 0432	Nrth 138445.140 Code EL	East 2193110.060	Elv -3.611
POS TP 0433	Nrth 138411.998 Code EL	East 2193107.700	Elv -3.430
POS TP 0434	Nrth 138382.187 Code EL	East 2193105.600	Elv -2.963
POS TP 0435	Nrth 138336.801 Code EL	East 2193102.670	Elv -3.392
POS TP 0436	Nrth 138308.559 Code EL	East 2193105.030	Elv -4.092
POS TP 0437	Nrth 138288.917 Code EL	East 2193103.280	Elv -4.686
TRGET	Trget ht 8.865		
POS TP 0438	Nrth 138664.658 Code CHECK	East 2190974.380	Elv -1.200
TRGET	Trget ht 4.705		
POS TP 0439	Nrth 138708.840 Code TBM	East 2191522.300	Elv 2.086
TRGET	Trget ht 4.689		
POS TP 0440	Nrth 138684.660 Code CP	East 2190974.420	Elv 2.953
TRGET	Trget ht 4.865		
POS TP 0441	Nrth 138735.297 Code TBM	East 2192121.800	Elv 3.149
POS TP 0442	Nrth 138761.744 Code TBM	East 2192721.180	Elv 2.835

* END OF REPORT *

C 06
388-93-1

388-93 La DNR-CRD

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@ SDR20      V03-05  Copyright 1985-92 by Datacom Software Research Limited.
                     Serial no            Oct-06-93 09:45
                     Angle : Degrees      Dist : Feet          Press : Inch Hg
                     Temp : Fahrenht      Coord : N-E-Elv      H.obs : Right

JOB                  Job ID 388-93-1

NOTE CP              Sea level crn: N

NOTE CP              C and R crn: N

NOTE CP              Atmos crn: N

SCALE                S.F. 1.000000000

NOTE OO              Current view

NOTE TS              Oct-04-93 09:12

NOTE                 -DNR-CRD PHASE 1 TRINITY ISLAND

NOTE                 -SET UP TRAVERSE

NOTE                 -D.RICHARD C.PONTIFF K.VERRET

NOTE TS              Oct-04-93 09:17

NOTE TS              Oct-04-93 09:17

POS KI 0001          Nrth 139610.659      East 2194762.430     Elv 4.431
                     Code CP

POS KI 0002          Nrth 140424.232      East 2196541.720     Elv 5.276
                     Code CP

INSTR                SET                  EDM <No text>        Serial no 000000
                     Theo <No text>       Serial no 000000     Mount: not applc
                     V.obs : Zenith       Edm o/s <Null>       Refl o/s <Null>
                     P.C. mm 0.000

NOTE PC              P.C. mm Applied: 0.000

STN SC 0001          Nrth 139610.659      East 2194762.430     Elv 4.431
                     Theo ht 4.520        Code CP

BKB SC 0001-0002     Azmth <Null>         H.obs <Null>

NOTE SC              Exit set  Y

NOTE SC              Set #: 1 Stn: 0001 Point count: 4

TRGET                Trget ht 4.680

OBS F1 0001-0002     Dist 1956.360        V.obs 89-58'00"      H.obs 0-00'00"
```

	Code CP		
TRGET	Trget ht 4.703		
OBS F1 0001-0003	Dist 536.020 Code CP	V.obs 90-01'25"	H.obs 138-05'25"
NOTE TS	Oct-04-93 10:18		
NOTE TL	V.obs tol. error:	Pt: 0003 0-00'20"	
NOTE TL	H.obs tol. error:	Pt: 0003 0-00'20"	
OBS F2 0001-0003	Dist 536.020 Code CP	V.obs 269-57'55"	H.obs 318-04'45"
NOTE TL	V.obs tol. error:	Pt: 0002 0-00'15"	
NOTE TL	H.obs tol. error:	Pt: 0002 0-00'15"	
TRGET	Trget ht 4.680		
OBS F2 0001-0002	Dist 1956.360 Code CP	V.obs 270-01'30"	H.obs 179-59'30"
SET SC 0001	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0001-0002	Dist 1956.360 Code CP	V ang 89-58'32"	Azmth 65-25'41"
OBS MC 0001-0003	Dist 536.020 Code CP	V ang 90-02'55"	Azmth 203-31'01"
BKB SC 0001-0002	Azmth 65-25'41"	H.obs 359-59'45"	
NOTE SC	Set #: 2 Stn: 0001 Point count: 4		
OBS F1 0001-0002	Dist 1956.360 Code CP	V.obs 89-58'00"	H.obs 0-00'00"
TRGET	Trget ht 4.703		
OBS F1 0001-0003	Dist 536.030 Code CP	V.obs 90-01'35"	H.obs 138-05'15"
NOTE TL	V.obs tol. error:	Pt: 0003 0-00'15"	
NOTE TL	H.obs tol. error:	Pt: 0003 0-00'10"	
OBS F2 0001-0003	Dist 536.020 Code CP	V.obs 269-57'55"	H.obs 318-04'55"
NOTE TL	V.obs tol. error:	Pt: 0002 0-00'15"	
NOTE TL	H.obs tol. error:	Pt: 0002 0-00'10"	
TRGET	Trget ht 4.680		
OBS F2 0001-0002	Dist 1956.370 Code CP	V.obs 270-01'30"	H.obs 179-59'40"
SET SC 0001	Count 002		

OBS MC 0001-0002	Dist 1956.362 Code CP	V ang 89-58'32"	Azmth 65-25'41"
OBS MC 0001-0003	Dist 536.023 Code CP	V ang 90-02'58"	Azmth 203-30'58"
BKB SC 0001-0002	Azmth 65-25'41"	H.obs 359-59'50"	
NOTE SC	Set #: 3 Stn: 0001 Point count: 4		
OBS F1 0001-0002	Dist 1956.360 Code CP	V.obs 89-58'00"	H.obs 0-00'00"
TRGET	Trget ht 4.703		
OBS F1 0001-0003	Dist 536.020 Code CP	V.obs 90-01'30"	H.obs 138-05'10"
OBS F2 0001-0003	Dist 536.020 Code CP	V.obs 269-57'55"	H.obs 318-04'35"
TRGET	Trget ht 4.680		
OBS F2 0001-0002	Dist 1956.370 Code CP	V.obs 270-01'25"	H.obs 179-59'25"
SET SC 0001	Count 002		
NOTE SC	The following MCs are derived from set(s) 1, 2, 3.		
OBS MC 0001-0002	Dist 1956.363 Code CP	V ang 89-58'33"	Azmth 65-25'41"
OBS MC 0001-0003	Dist 536.022 Code CP	V ang 90-02'58"	Azmth 203-30'56"
BKB SC 0001-0002	Azmth 65-25'41"	H.obs 359-59'42"	
STN SC 0003	Nrth 139119.153 Theo ht 3.902	East 2194548.560 Code CP	Elv 3.969
NOTE SC	Set #: 1 Stn: 0003 Point count: 4		
TRGET	Trget ht 4.856		
OBS F1 0003-0001	Dist 536.050 Code CP	V.obs 89-50'40"	H.obs 0-00'00"
TRGET	Trget ht 4.710		
OBS F1 0003-0004	Dist 1329.320 Code CP	V.obs 89-57'20"	H.obs 231-57'05"
OBS F2 0003-0004	Dist 1329.310 Code CP	V.obs 270-02'05"	H.obs 51-56'40"
TRGET	Trget ht 4.856		
OBS F2 0003-0001	Dist 536.040 Code CP	V.obs 270-08'45"	H.obs 179-59'25"
SET SC 0003	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		

OBS MC 0003-0001	Dist 536.043 Code CP	V ang 89-57'05"	Azmth 23-30'56"
OBS MC 0003-0004	Dist 1329.315 Code CP	V ang 89-59'43"	Azmth 255-28'06"
BKB SC 0003-0001	Azmth 23-30'56"	H.obs 359-59'42"	
STN SC 0004	Nrth 138785.607 Theo ht 3.701	East 2193261.770 Code CP	Elv 4.079
NOTE SC	Set #: 1 Stn: 0004 Point count: 4		
TRGET	Trget ht 4.700		
OBS F1 0004-0003	Dist 1329.320 Code CP	V.obs 89-58'05"	H.obs 0-00'00"
TRGET	Trget ht 4.698		
OBS F1 0004-0005	Dist 2289.570 Code CP	V.obs 90-00'00"	H.obs 192-00'05"
OBS F2 0004-0005	Dist 2289.560 Code CP	V.obs 269-59'30"	H.obs 11-59'50"
TRGET	Trget ht 4.700		
OBS F2 0004-0003	Dist 1329.310 Code CP	V.obs 270-01'25"	H.obs 179-59'40"
SET SC 0004	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0004-0003	Dist 1329.315 Code CP	V ang 90-00'55"	Azmth 75-28'06"
OBS MC 0004-0005	Dist 2289.565 Code CP	V ang 90-01'45"	Azmth 267-28'13"
BKB SC 0004-0003	Azmth 75-28'06"	H.obs 359-59'50"	
NOTE TS	Oct-04-93 11:34		
STN SC 0005	Nrth 138684.554 Theo ht 3.700	East 2190974.440 Code CP	Elv 2.916
NOTE SC	Set #: 1 Stn: 0005 Point count: 4		
TRGET	Trget ht 4.704		
OBS F1 0005-0004	Dist 2289.550 Code CP	V.obs 89-57'15"	H.obs 0-00'00"
TRGET	Trget ht 4.705		
OBS F1 0005-0006	Dist 2879.270 Code CP	V.obs 89-59'45"	H.obs 172-38'40"
OBS F2 0005-0006	Dist 2879.260 Code CP	V.obs 269-59'40"	H.obs 352-38'15"
TRGET	Trget ht 4.704		
OBS F2 0005-0004	Dist 2289.570	V.obs 270-02'15"	H.obs 179-59'40"

	Code CP		
SET SC 0005	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0005-0004	Dist 2289.559 Code CP	V ang 89-59'00"	Azmth 87-28'13"
OBS MC 0005-0006	Dist 2879.265 Code CP	V ang 90-01'14"	Azmth 260-06'51"
BKB SC 0005-0004	Azmth 87-28'13"	H.obs 359-59'50"	
NOTE TS	Oct-04-93 13:16		
STN SC 0006	Nrth 138190.224 Theo ht 4.170	East 2188137.920 Code CP	Elv 1.876
NOTE SC	Set #: 1 Stn: 0006 Point count: 4		
TRGET	Trget ht 4.695		
OBS F1 0006-0005	Dist 2879.330 Code CP	V.obs 89-59'20"	H.obs 0-00'00"
TRGET	Trget ht 4.703		
OBS F1 0006-0007	Dist 2394.830 Code CP	V.obs 90-00'45"	H.obs 175-59'15"
OBS F2 0006-0007	Dist 2394.830 Code CP	V.obs 269-58'45"	H.obs 355-58'50"
TRGET	Trget ht 4.695		
OBS F2 0006-0005	Dist 2879.330 Code CP	V.obs 270-00'15"	H.obs 179-59'40"
SET SC 0006	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0006-0005	Dist 2879.330 Code CP	V ang 90-00'10"	Azmth 80-06'51"
OBS MC 0006-0007	Dist 2394.830 Code CP	V ang 90-01'46"	Azmth 256-06'03"
BKB SC 0006-0005	Azmth 80-06'51"	H.obs 359-59'50"	
NOTE TS	Oct-04-93 14:30		
STN SC 0007	Nrth 137614.956 Theo ht 3.988	East 2185813.210 Code CP	Elv 0.646
NOTE SC	Set #: 1 Stn: 0007 Point count: 4		
TRGET	Trget ht 4.699		
OBS F1 0007-0006	Dist 2394.840 Code CP	V.obs 89-57'55"	H.obs 0-00'00"
TRGET	Trget ht 4.712		
OBS F1 0007-0008	Dist 1435.610	V.obs 88-56'20"	H.obs 300-50'10"

	Code CP		
OBS F2 0007-0008	Dist 1425.610 Code CP	V.obs 270-03'05"	H.obs 20-58'10"
TRGET	Trget ht 4.699		
OBS F2 0007-0006	Dist 2394.870 Code CP	V.obs 270-01'25"	H.obs 179-59'35"
SET SC 0007	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0007-0006	Dist 2394.855 Code CP	V ang 89-59'16"	Azmth 76-06'03"
OBS MC 0007-0008	Dist 1425.609 Code CP	V ang 89-58'22"	Azmth 277-04'41"
BKB SC 0007-0006	Azmth 76-06'03"	H.obs 359-59'47"	
STN SC 0008	Nrth 137790.621 Theo ht 4.175	East 2184398.470 Code CP	Elv 1.322
NOTE SC	Set #: 1 Stn: 0008 Point count: 4		
TRGET	Trget ht 4.703		
OBS F1 0008-0007	Dist 1425.610 Code CP	V.obs 90-00'30"	H.obs 0-00'00"
TRGET	Trget ht 4.718		
OBS F1 0008-0009	Dist 2092.580 Code CP	V.obs 89-59'15"	H.obs 164-25'55"
OBS F2 0008-0009	Dist 2092.580 Code CP	V.obs 270-00'10"	H.obs 344-25'25"
TRGET	Trget ht 4.703		
OBS F2 0008-0007	Dist 1425.600 Code CP	V.obs 269-59'05"	H.obs 179-59'35"
SET SC 0008	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0008-0007	Dist 1425.605 Code CP	V ang 90-01'59"	Azmth 97-04'41"
OBS MC 0008-0009	Dist 2092.580 Code CP	V ang 90-00'26"	Azmth 261-30'33"
BKB SC 0008-0007	Azmth 97-04'41"	H.obs 359-59'47"	
NOTE TS	Oct-05-93 09:50		
STN SC 0009	Nrth 137481.652 Theo ht 4.038	East 2182328.820 Code CP	Elv 1.058
BKB SC 0009-0008	Azmth <Null>	H.obs <Null>	
TRGET	Trget ht 4.715		

OBS F1 0009-0008	Dist 2092.610 Code CP	V.obs 89-58'55"	H.obs 0-00'00"
TRGET	Trget ht 4.724		
OBS F1 0009-0010	Dist 1118.290 Code CP	V.obs 89-54'35"	H.obs 189-10'45"
NOTE SC	Exit set Y		
NOTE SC	Set #: 1 Stn: 0009 Point count: 4		
TRGET	Trget ht 4.715		
OBS F1 0009-0008	Dist 2092.650 Code CP	V.obs 89-58'55"	H.obs 0-00'00"
TRGET	Trget ht 4.724		
OBS F1 0009-0010	Dist 1118.290 Code CP	V.obs 89-54'50"	H.obs 189-10'45"
OBS F2 0009-0010	Dist 1118.290 Code CP	V.obs 270-04'35"	H.obs 9-10'15"
TRGET	Trget ht 4.715		
OBS F2 0009-0008	Dist 2092.620 Code CP	V.obs 270-00'25"	H.obs 179-59'35"
SET SC 0009	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0009-0008	Dist 2092.635 Code CP	V ang 90-00'22"	Azmth 81-30'33"
OBS MC 0009-0010	Dist 1118.289 Code CP	V ang 89-57'14"	Azmth 270-41'16"
BKB SC 0009-0008	Azmth 81-30'33"	H.obs 359-59'47"	
STN SC 0010	Nrth 137495.075 Theo ht 3.970	East 2181210.610 Code CP	Elv 1.957
NOTE SC	Set #: 1 Stn: 0010 Point count: 4		
TRGET	Trget ht 4.719		
OBS F1 0010-0009	Dist 1118.310 Code CP	V.obs 90-00'25"	H.obs 0-00'00"
TRGET	Trget ht 4.709		
OBS F1 0010-0011	Dist 540.970 Code CP	V.obs 89-59'20"	H.obs 218-47'20"
OBS F2 0010-0011	Dist 540.980 Code CP	V.obs 270-00'00"	H.obs 38-46'55"
NOTE TL	V.obs tol. error: Pt: 0009 0-00'20"		
TRGET	Trget ht 4.719		
OBS F2 0010-0009	Dist 1118.320 Code CP	V.obs 269-58'55"	H.obs 179-59'30"

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SET SC 0010          Count 002

NOTE SC              The following MCs are derived from set(s)  1.

OBS MC 0010-0009     Dist 1118.315        V ang 90-03'03"      Azmth 90-41'16"
                     Code CP

OBS MC 0010-0011     Dist 540.975         V ang 90-04'22"      Azmth 309-28'38"
                     Code CP

BKB SC 0010-0009     Azmth 90-41'16"      H.obs 359-59'45"

NOTE SC              Set #: 2 Stn: 0010 Point count: 4

OBS F1 0010-0009     Dist 1118.310        V.obs 90-00'25"      H.obs 0-00'05"
                     Code CP

TRGET                Trget ht 4.709

OBS F1 0010-0011     Dist 540.960         V.obs 89-59'20"      H.obs 218-47'25"
                     Code CP

OBS F2 0010-0011     Dist 540.960         V.obs 270-00'00"     H.obs 38-47'00"
                     Code CP

NOTE TL              V.obs tol. error:  Pt: 0009 0-00'20"

TRGET                Trget ht 4.719

OBS F2 0010-0009     Dist 1118.300        V.obs 269-58'55"     H.obs 179-59'45"
                     Code CP

SET SC 0010          Count 002

NOTE SC              The following MCs are derived from set(s)  1, 2.

OBS MC 0010-0009     Dist 1118.310        V ang 90-03'03"      Azmth 90-41'16"
                     Code CP

OBS MC 0010-0011     Dist 540.968         V ang 90-04'22"      Azmth 309-28'36"
                     Code CP

BKB SC 0010-0009     Azmth 90-41'16"      H.obs 359-59'55"

NOTE SC              Set #: 3 Stn: 0010 Point count: 4

OBS F1 0010-0009     Dist 1118.310        V.obs 90-00'25"      H.obs 0-00'00"
                     Code CP

TRGET                Trget ht 4.709

OBS F1 0010-0011     Dist 540.970         V.obs 89-59'20"      H.obs 218-47'20"
                     Code CP

OBS F2 0010-0011     Dist 540.960         V.obs 270-00'05"     H.obs 38-46'55"
                     Code CP

TRGET                Trget ht 4.719

OBS F2 0010-0009     Dist 1118.280        V.obs 269-59'00"     H.obs 179-59'35"
                     Code CP

SET SC 0010          Count 002

NOTE SC              The following MCs are derived from set(s)  1, 2, 3.
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NOTE SC	The following MCs are derived from set(s) 1, 2, 3.		
OBS MC 0010-0009	Dist 1118.305 Code CP	V ang 90-03'02"	Azmth 90-41'16"
OBS MC 0010-0011	Dist 540.967 Code CP	V ang 90-04'21"	Azmth 309-28'36"
BKB SC 0010-0009	Azmth 90-41'16"	H.obs 359-59'47"	
STN SC 0011	Nrth 137839.001 Theo ht 4.170	East 2180793.050 Code CP	Elv 1.273
NOTE SC	Set #: 1 Stn: 0011 Point count: 4		
TRGET	Trget ht 4.718		
OBS F1 0011-0010	Dist 540.970 Code CP	V.obs 89-51'50"	H.obs 0-00'05"
TRGET	Trget ht 4.707		
OBS F1 0011-0012	Dist 1720.310 Code CP	V.obs 89-59'05"	H.obs 282-00'35"
OBS F2 0011-0012	Dist 1720.300 Code CP	V.obs 270-00'20"	H.obs 102-00'00"
NOTE TS	Oct-05-93 10:50		
TRGET	Trget ht 4.718		
OBS F2 0011-0010	Dist 540.970 Code CP	V.obs 270-07'30"	H.obs 179-59'45"
SET SC 0011	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0011-0010	Dist 540.969 Code CP	V ang 89-55'39"	Azmth 129-28'36"
OBS MC 0011-0012	Dist 1720.305 Code CP	V ang 90-00'27"	Azmth 51-28'58"
BKB SC 0011-0010	Azmth 129-28'36"	H.obs 359-59'55"	
STN SC 0012	Nrth 138910.319 Theo ht 4.260	East 2182139.060 Code CP	Elv 1.049
NOTE SC	Set #: 1 Stn: 0012 Point count: 4		
TRGET	Trget ht 4.707		
OBS F1 0012-0011	Dist 1720.310 Code CP	V.obs 89-58'50"	H.obs 0-00'00"
TRGET	Trget ht 4.700		
OBS F1 0012-0013	Dist 3181.610 Code CP	V.obs 90-00'40"	H.obs 196-03'00"
OBS F2 0012-0013	Dist 3181.610 Code CP	V.obs 269-58'45"	H.obs 16-02'30"
TRGET	Trget ht 4.707		

OBS F2 0012-0011	Dist 1720.320 Code CP	V.obs 270-00'40"	H.obs 179-59'45"
SET SC 0012	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0012-0011	Dist 1720.315 Code CP	V ang 89-59'59"	Azmth 231-28'58"
OBS MC 0012-0013	Dist 3181.610 Code CP	V ang 90-01'26"	Azmth 67-31'51"
BKB SC 0012-0011	Azmth 231-28'58"	H.obs 359-59'52"	
STN SC 0013	Nrth 140126.289 Theo ht 4.325	East 2185079.130 Code CP	Elv -0.278
NOTE SC	Set #: 1 Stn: 0013 Point count: 4		
NOTE TS	Oct-05-93 11:55		
TRGET	Trget ht 4.706		
OBS F1 0013-0012	Dist 3181.630 Code CP	V.obs 89-58'25"	H.obs 0-00'00"
TRGET	Trget ht 4.709		
OBS F1 0013-0014	Dist 3028.980 Code CP	V.obs 90-00'15"	H.obs 206-07'50"
OBS F2 0013-0014	Dist 3028.980 Code CP	V.obs 269-59'10"	H.obs 26-07'15"
TRGET	Trget ht 4.706		
OBS F2 0013-0012	Dist 3181.620 Code CP	V.obs 270-00'55"	H.obs 179-59'35"
SET SC 0013	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0013-0012	Dist 3181.625 Code CP	V ang 89-59'10"	Azmth 247-31'51"
OBS MC 0013-0014	Dist 3028.980 Code CP	V ang 90-00'59"	Azmth 93-39'36"
BKB SC 0013-0012	Azmth 247-31'51"	H.obs 359-59'47"	
NOTE TS	Oct-05-93 13:05		
STN SC 0014	Nrth 139932.934 Theo ht 4.470	East 2188101.940 Code CP	Elv -1.139
NOTE SC	Set #: 1 Stn: 0014 Point count: 4		
TRGET	Trget ht 4.703		
OBS F1 0014-0013	Dist 3028.930 Code CP	V.obs 89-59'00"	H.obs 0-00'00"
TRGET	Trget ht 4.709		

OBS F1 0014-0015	Dist 2239.000 Code CP	V.obs 89-58'55"	H.obs 201-53'25"
OBS F2 0014-0015	Dist 2238.990 Code CP	V.obs 270-00'25"	H.obs 21-53'00"
TRGET	Trget ht 4.703		
OBS F2 0014-0013	Dist 3028.940 Code CP	V.obs 270-00'30"	H.obs 179-59'35"
SET SC 0014	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0014-0013	Dist 3028.935 Code CP	V ang 89-59'31"	Azmth 273-39'36"
OBS MC 0014-0015	Dist 2238.995 Code CP	V ang 89-59'37"	Azmth 115-33'01"
BKB SC 0014-0013	Azmth 273-39'36"	H.obs 359-59'47"	
STN SC 0015	Nrth 138967.251 Theo ht 4.430	East 2190121.970 Code CP	Elv -0.890
NOTE SC	Set #: 1 Stn: 0015 Point count: 4		
NOTE TS	Oct-05-93 14:11		
TRGET	Trget ht 4.702		
OBS F1 0015-0014	Dist 2238.950 Code CP	V.obs 90-00'10"	H.obs 0-00'00"
TRGET	Trget ht 4.710		
OBS F1 0015-0016	Dist 1463.110 Code CP	V.obs 89-59'20"	H.obs 146-07'00"
OBS F2 0015-0016	Dist 1463.110 Code CP	V.obs 270-00'05"	H.obs 326-06'30"
TRGET	Trget ht 4.702		
OBS F2 0015-0014	Dist 2238.970 Code CP	V.obs 269-59'15"	H.obs 179-59'30"
SET SC 0015	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0015-0014	Dist 2238.960 Code CP	V ang 90-00'53"	Azmth 295-33'01"
OBS MC 0015-0016	Dist 1463.110 Code CP	V ang 90-00'17"	Azmth 81-40'01"
BKB SC 0015-0014	Azmth 295-33'01"	H.obs 359-59'45"	
NOTE TS	Oct-05-93 15:20		
STN SC 0016	Nrth 139179.296 Theo ht 4.735	East 2191569.640 Code CP	Elv -1.010
NOTE SC	Set #: 1 Stn: 0016 Point count: 4		

TRGET	Trget ht 6.649		
OBS F1 0016-0015	Dist 1463.060 Code CP	V.obs 89-56'10"	H.obs 0-00'05"
TRGET	Trget ht 4.709		
OBS F1 0016-0017	Dist 2902.190 Code CP	V.obs 90-00'45"	H.obs 170-53'05"
OBS F2 0016-0017	Dist 2902.190 Code CP	V.obs 269-58'45"	H.obs 350-52'45"
NOTE TL	EDM tol. error: Pt: 0015 0.025		
TRGET	Trget ht 6.649		
OBS F2 0016-0015	Dist 1463.110 Code CP	V.obs 270-03'30"	H.obs 179-59'35"
SET SC 0016	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0016-0015	Dist 1463.084 Code CP	V ang 90-00'50"	Azmth 261-40'01"
OBS MC 0016-0017	Dist 2902.190 Code CP	V ang 90-00'58"	Azmth 72-33'06"
BKB SC 0016-0015	Azmth 261-40'01"	H.obs 359-59'50"	
BKB SC 0016-0015	Azmth <Null>	H.obs <Null>	
OBS F1 0016-0015	Dist 1463.110 Code CP	V.obs 89-56'05"	H.obs 0-00'05"
TRGET	Trget ht 4.709		
OBS F1 0016-0017	Dist 2902.280 Code CP	V.obs 90-00'45"	H.obs 170-53'10"
NOTE SC	Exit set Y		
NOTE SC	Set #: 2 Stn: 0016 Point count: 4		
TRGET	Trget ht 6.649		
OBS F1 0016-0015	Dist 1463.110 Code CP	V.obs 89-56'05"	H.obs 0-00'00"
TRGET	Trget ht 4.709		
OBS F1 0016-0017	Dist 2902.190 Code CP	V.obs 90-00'50"	H.obs 170-53'10"
OBS F2 0016-0017	Dist 2902.190 Code CP	V.obs 269-58'40"	H.obs 350-52'40"
TRGET	Trget ht 6.649		
OBS F2 0016-0015	Dist 1463.120 Code CP	V.obs 270-03'20"	H.obs 179-59'40"
SET SC 0016	Count 003		

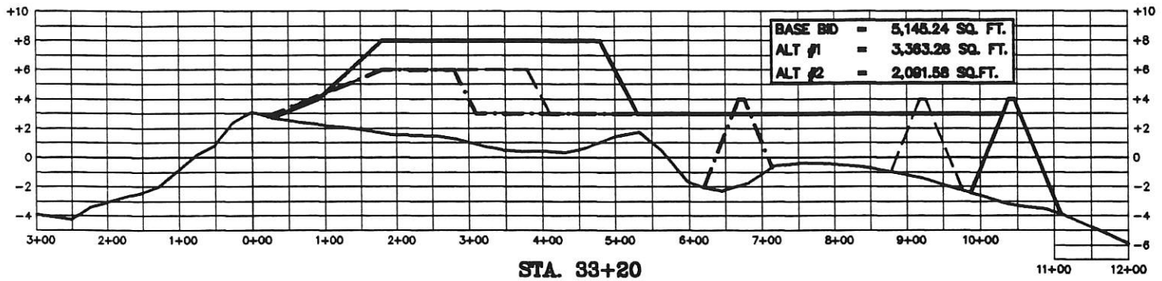
NOTE SC	The following MCs are derived from set(s) 1, 2.		
OBS MC 0016-0015	Dist 1463.099 Code CP	V ang 90-00'51"	Azmth 261-40'01"
OBS MC 0016-0017	Dist 2902.190 Code CP	V ang 90-01'01"	Azmth 72-33'06"
BKB SC 0016-0015	Azmth 261-40'01"	H.obs 359-59'50"	
STN SC 0017	Nrth 140049.508 Theo ht 4.715	East 2194338.290 Code CP	Elv -1.864
BKB SC 0017-0016	Azmth <Null>	H.obs <Null>	
NOTE SC	Exit set Y		
NOTE SC	Set #: 1 Stn: 0017 Point count: 4		
NOTE TS	Oct-05-93 16:31		
TRGET	Trget ht 4.700		
OBS F1 0017-0016	Dist 2902.180 Code CP	V.obs 89-59'10"	H.obs 0-00'00"
TRGET	Trget ht 4.860		
OBS F1 0017-0018	Dist 2235.160 Code CP	V.obs 89-52'50"	H.obs 187-47'15"
OBS F2 0017-0018	Dist 2235.170 Code CP	V.obs 270-06'35"	H.obs 7-46'45"
TRGET	Trget ht 4.700		
OBS F2 0017-0016	Dist 2902.180 Code CP	V.obs 270-00'25"	H.obs 179-59'35"
SET SC 0017	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0017-0016	Dist 2902.180 Code CP	V ang 89-59'21"	Azmth 252-33'06"
OBS MC 0017-0018	Dist 2235.165 Code CP	V ang 89-53'21"	Azmth 80-20'18"
BKB SC 0017-0016	Azmth 252-33'06"	H.obs 359-59'47"	
STN SC 0018	Nrth 140424.631 Theo ht 4.220	East 2196541.750 Code CP	Elv 2.461
NOTE SC	Set #: 1 Stn: 0018 Point count: 4		
TRGET	Trget ht 4.702		
OBS F1 0018-0017	Dist 2235.180 Code CP	V.obs 90-05'40"	H.obs 0-00'05"
TRGET	Trget ht 4.860		
OBS F1 0018-0019	Dist 1956.330 Code CP	V.obs 90-00'25"	H.obs 345-05'15"

OBS F2 0018-0019	Dist 1956.330 Code CP	V.obs 269-59'05"	H.obs 165-04'45"
TRGET	Trget ht 4.702		
OBS F2 0018-0017	Dist 2235.180 Code CP	V.obs 269-53'45"	H.obs 179-59'35"
SET SC 0018	Count 002		
NOTE SC	The following MCs are derived from set(s) 1.		
OBS MC 0018-0017	Dist 2235.181 Code CP	V ang 90-06'42"	Azmth 260-20'18"
OBS MC 0018-0019	Dist 1956.330 Code CP	V ang 90-01'47"	Azmth 245-25'28"
BKB SC 0018-0017	Azmth 260-20'18"	H.obs 359-59'50"	

* END OF REPORT *

APPENDIX P

FEDERAL PROJECT NO.	STATE PROJECT NO.	ENGINEERING CONTRACT NO.	PARISH	SHEET NO.
4353F15	TE-24/XTE-41	25085-94-02	TERREBONNE	17



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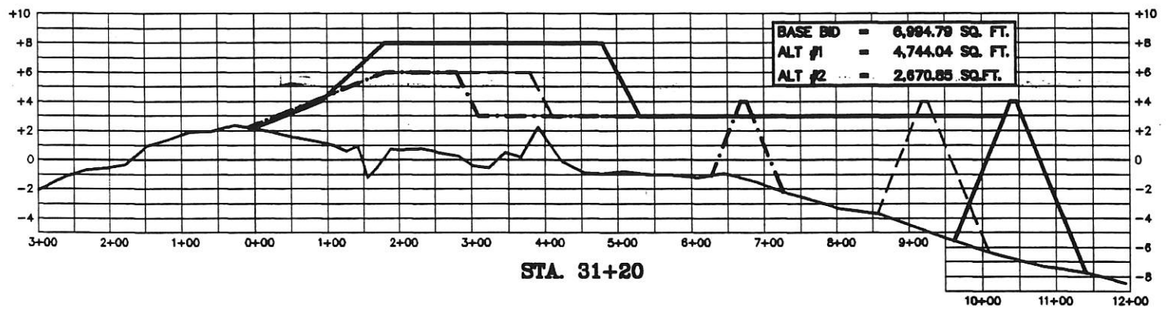

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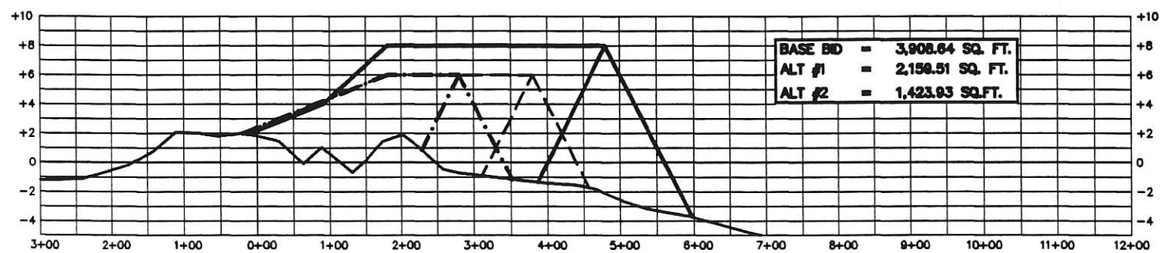

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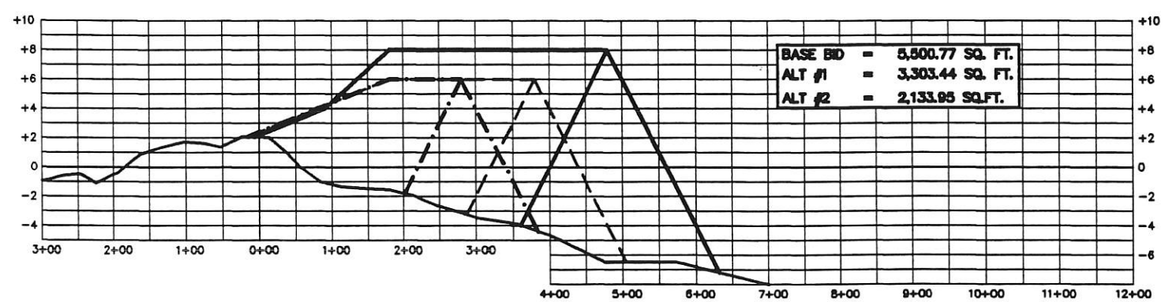

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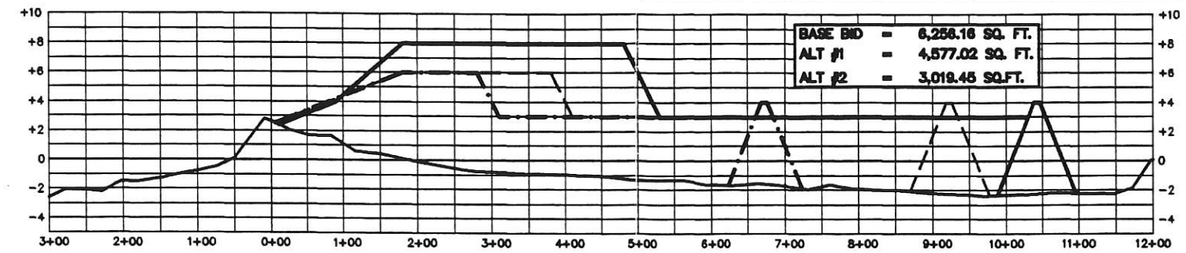

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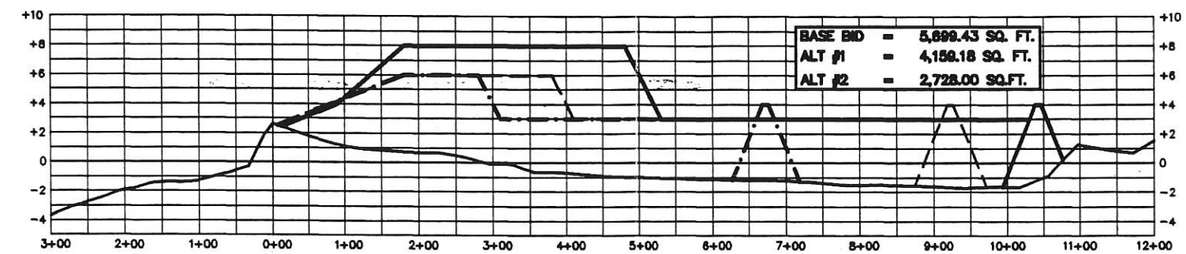
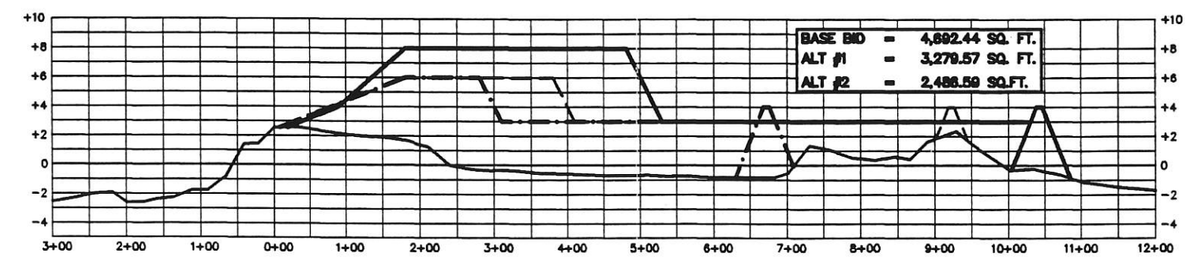
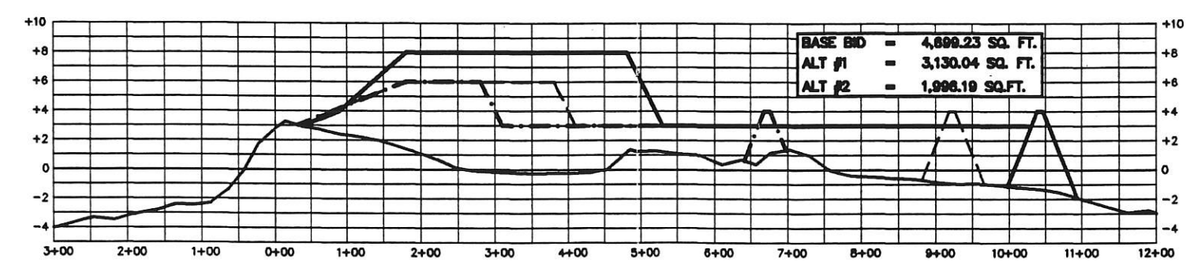


STA. 39+20



STA. 37+20



STA. 35+20

TOPOGRAPHIC & CONTOUR AERIAL MAP

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURES
COASTAL RESTORATION DIVISION

ISLE DERNIERES RESTORATION PROJECT
TRINITY ISLAND – PHASE 1

DWG. FILE: TIXSEC1 DATE: MARCH 1994
SCALE: N/A

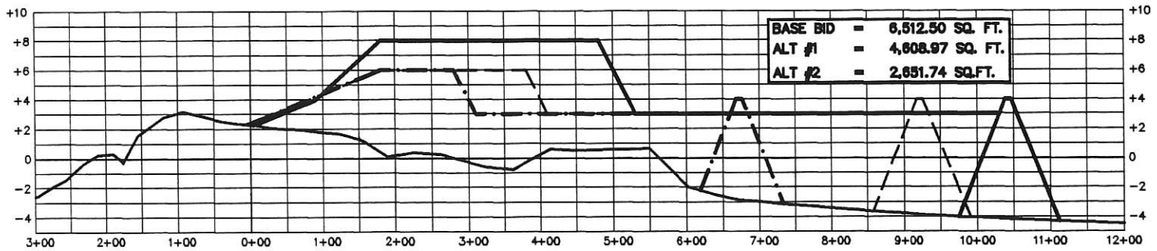
SCALE: 1"=100'(HORIZ.)
1"=5'(VERT.)

DATE	DESCRIPTION	BY
	REVISIONS	

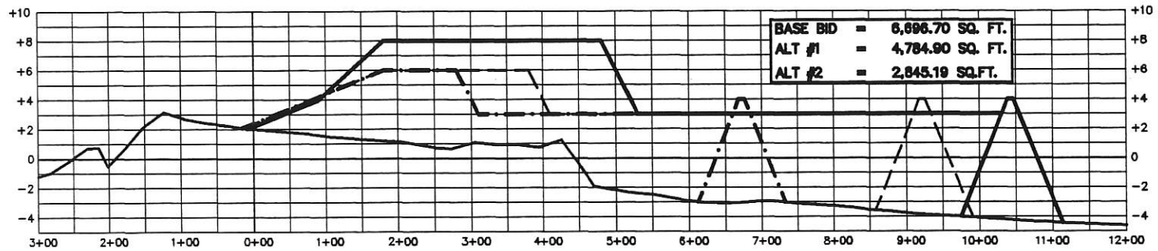
T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2560 HOUMA, LOUISIANA 70361

DESIGNED M.J.R.	DETAILED B.A.S.	TRACED
CHECKED M.J.R.	CHECKED M.J.R.	CHECKED

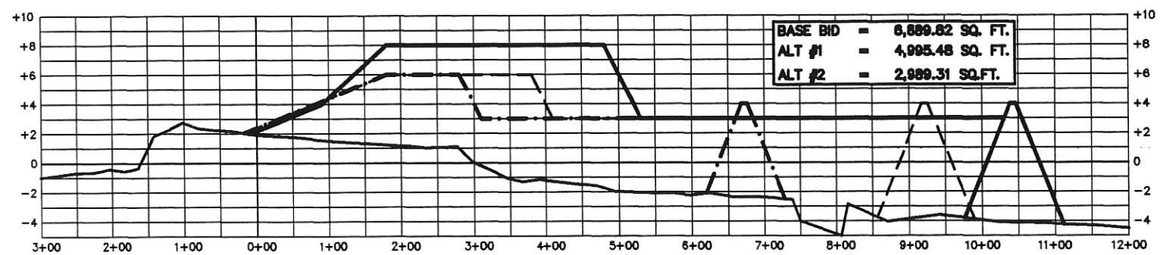
FEDERAL PROJECT NO.	STATE PROJECT NO.	ENGINEERING CONTRACT NO.	PARISH	SHEET NO.
4353F15	TE-24/XTE-41	25085-94-02	TERREBONNE	18



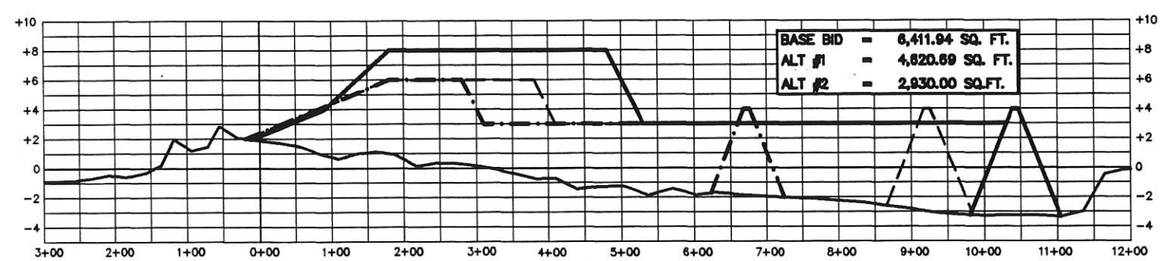
STA. 49+20



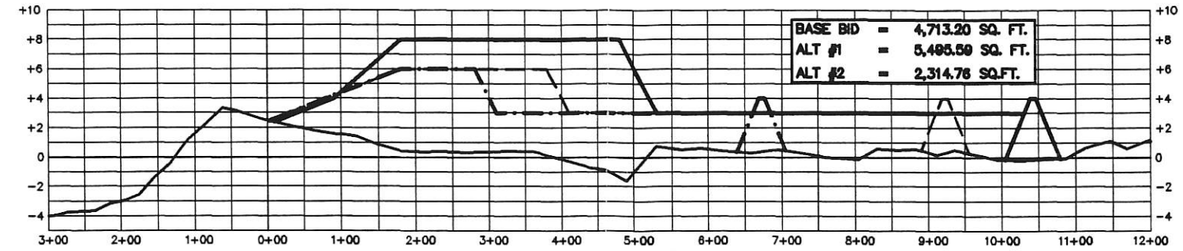
STA. 47+20



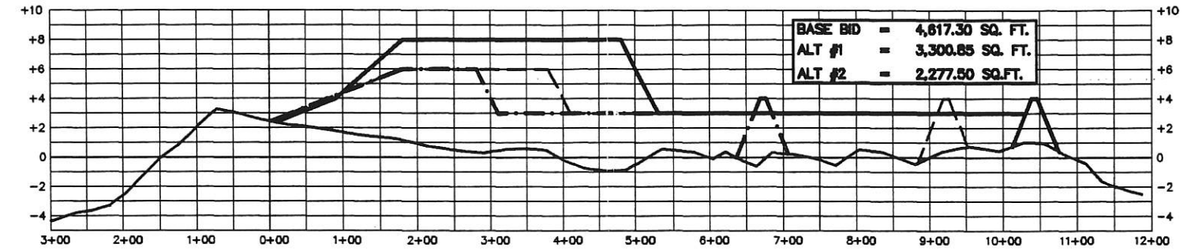
STA. 45+20



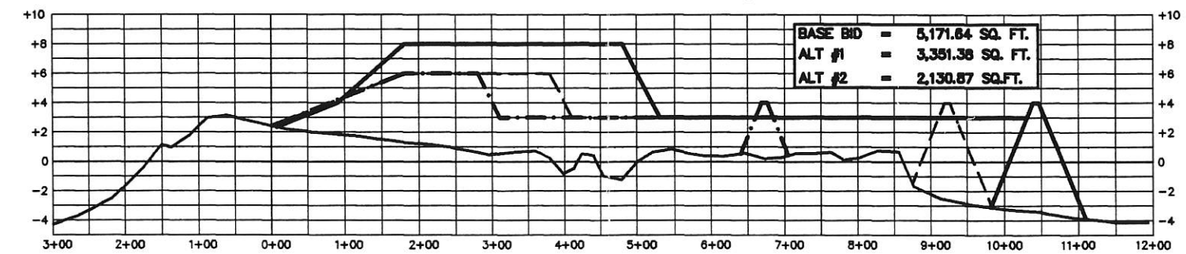
STA. 43+20



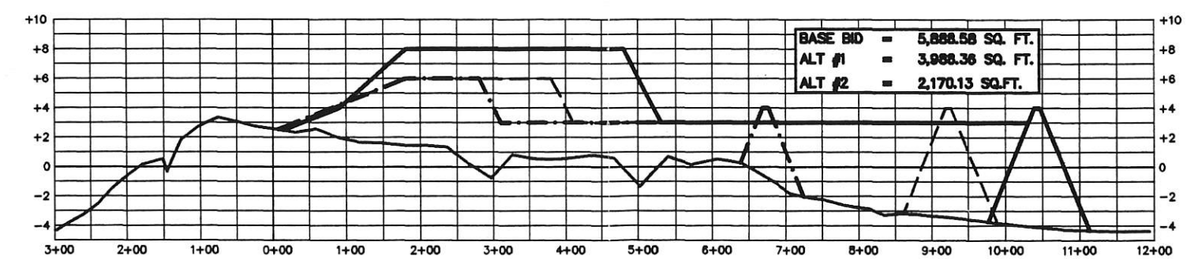
STA. 57+20



STA. 55+20



STA. 53+20



STA. 51+40

TOPOGRAPHIC & CONTOUR AERIAL MAP

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
TRINITY ISLAND - PHASE 1

DWG. FILE: TIXSEC2 DATE: MARCH 1994
SCALE: N/A

SCALE: 1"=100'(HORIZ.)
1"=5'(VERT.)

STATE OF LOUISIANA
MARC J. ROGERS
REG. No. 19940
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

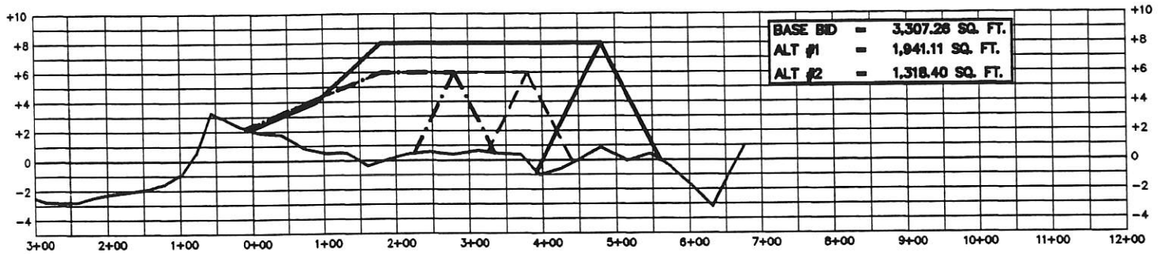
DATE	DESCRIPTION	BY
	REVISIONS	

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS - SURVEYORS - ENVIRONMENTAL RESEARCH
P.O. BOX 2266 HOUMA, LOUISIANA 70361

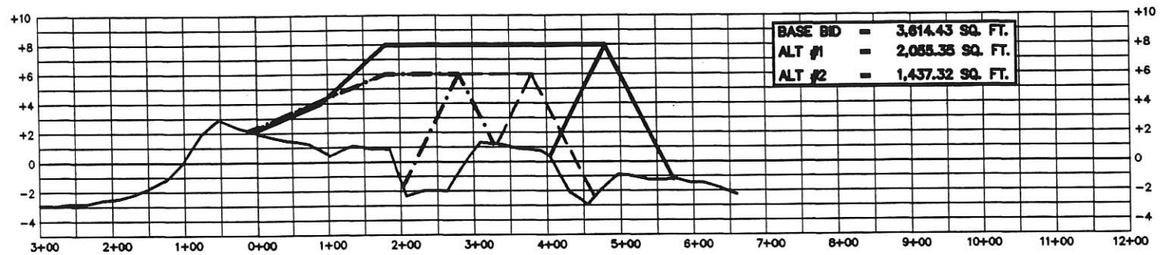
DESIGNED M.J.R.	DETAILED B.A.S.	TRACED
CHECKED M.J.R.	CHECKED M.J.R.	CHECKED

TIXSEC2.DWG P.S. 1"=100'B.A.S.

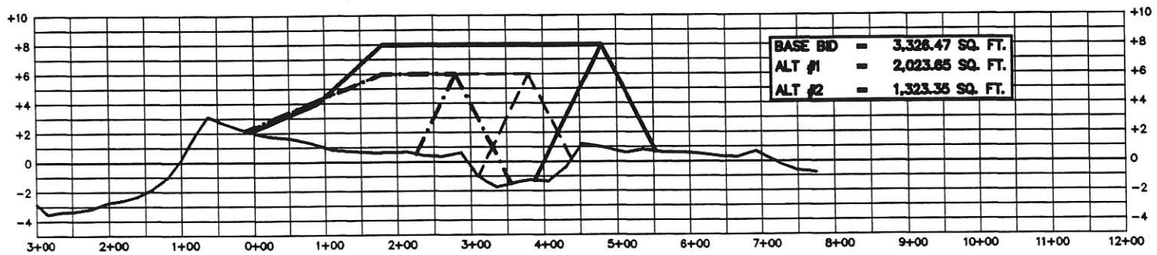
FEDERAL PROJECT NO.	STATE PROJECT NO.	ENGINEERING CONTRACT NO.	PARISH	SHEET NO.
4353F15	TE-24/XTE-41	25085-94-02	TERREBONNE	19



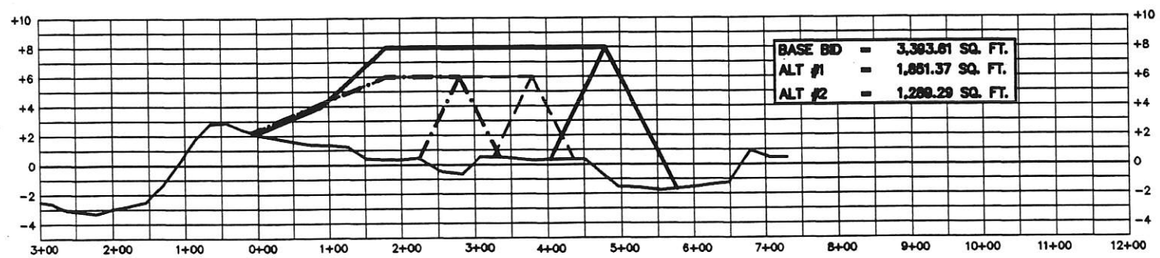
STA. 65+20



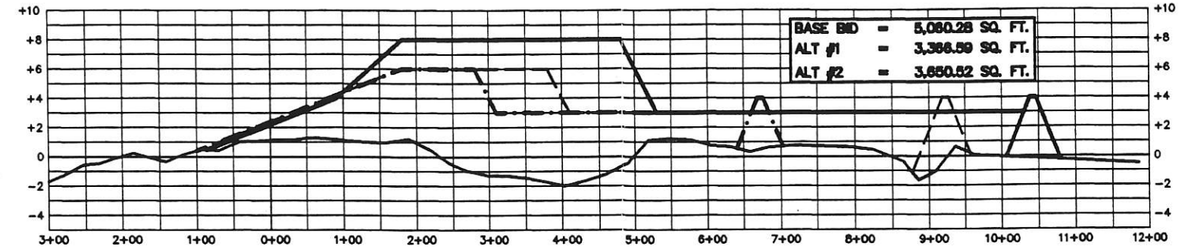
STA. 63+20



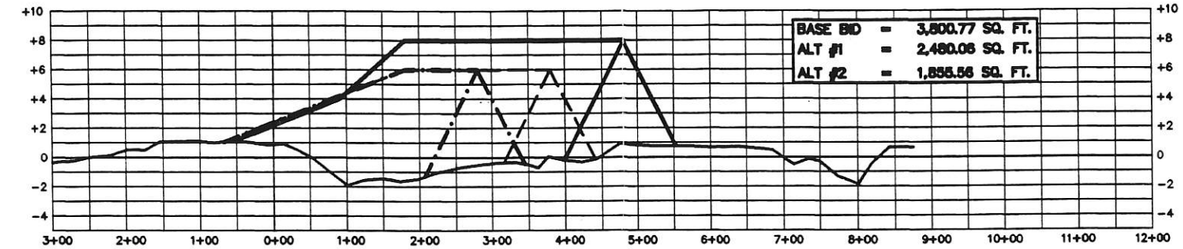
STA. 61+20



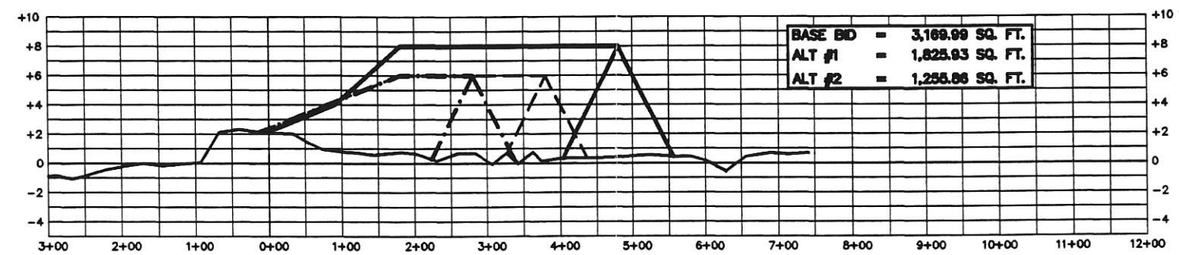
STA. 59+20



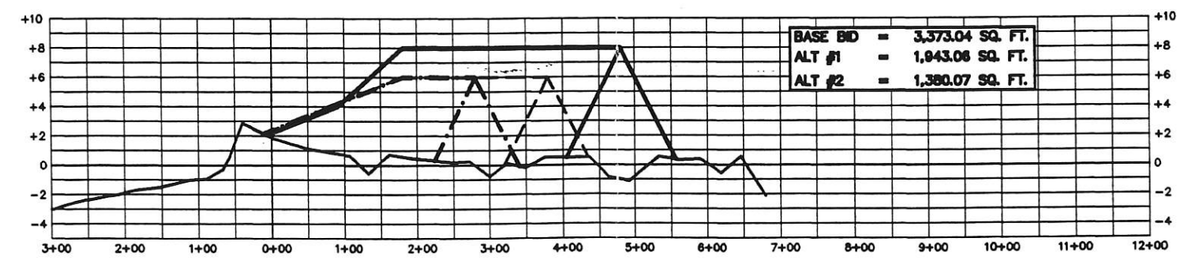
STA. 73+20



STA. 71+20



STA. 69+20



STA. 67+20

TOPOGRAPHIC & CONTOUR AERIAL MAP

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURES
COASTAL RESTORATION DIVISION

ISLE DERNIERES RESTORATION PROJECT
TRINITY ISLAND – PHASE 1

DWG. FILE: TIXSEC3 DATE: MARCH 1994
SCALE: N/A

SCALE: 1"=100'(HORIZ.)
1"=5'(VERT.)

STATE OF LOUISIANA
MARC J. ROGERS
REG. No. 32240
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

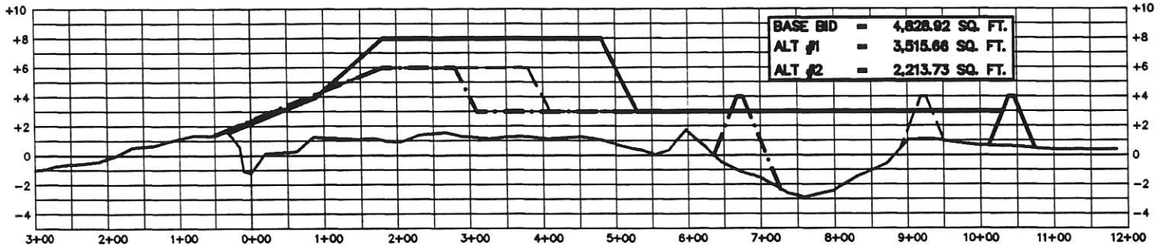
DATE	DESCRIPTION	BY
	REVISIONS	

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2286 HOUMA, LOUISIANA 70361

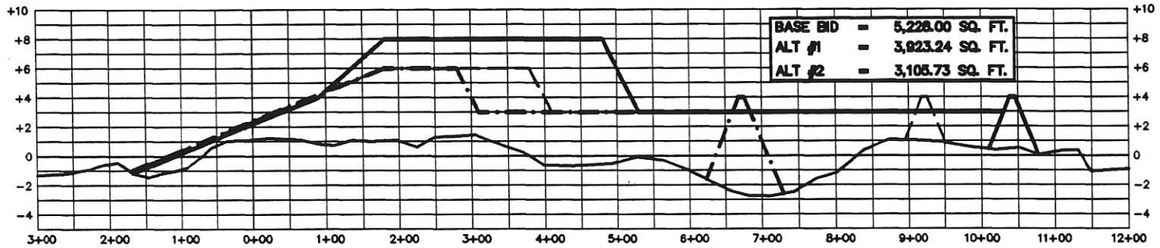
DESIGNED M.J.R.	DETAILED B.A.S.	TRACED
CHECKED M.J.R.	CHECKED M.J.R.	CHECKED

REDUCED FROM 1"=100'(H.)A.S.

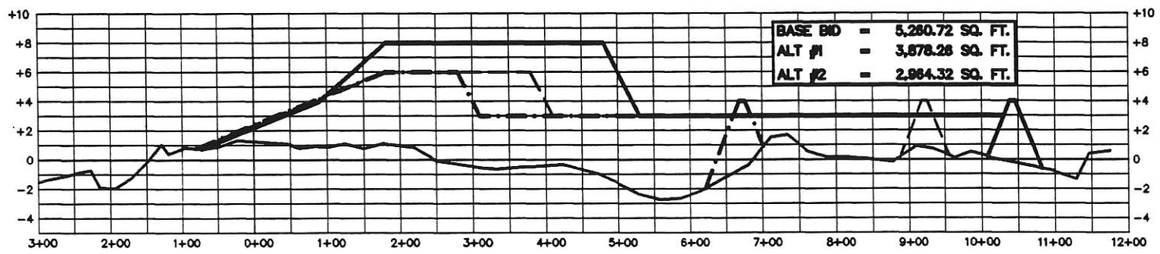
FEDERAL PROJECT NO.	STATE PROJECT NO.	ENGINEERING CONTRACT NO.	PARISH	SHEET NO.
4353F15	TE-24/XTE-41	25085-94-02	TERREBONNE	20



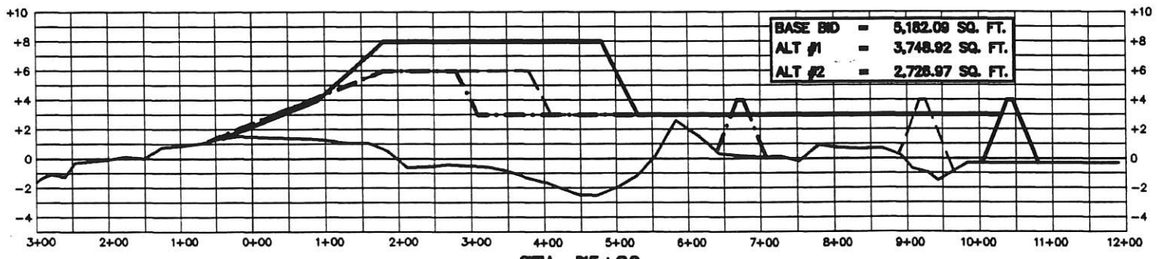
STA. 81+20



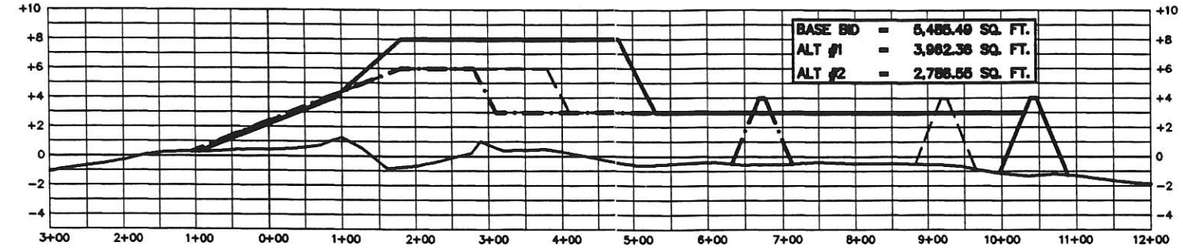
STA. 79+20



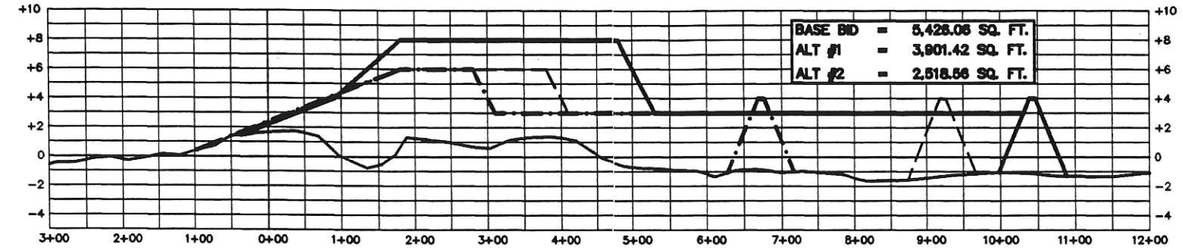
STA. 77+20



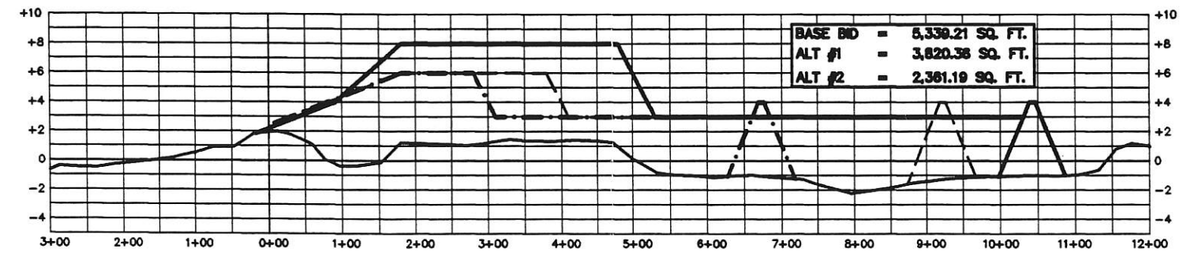
STA. 75+20



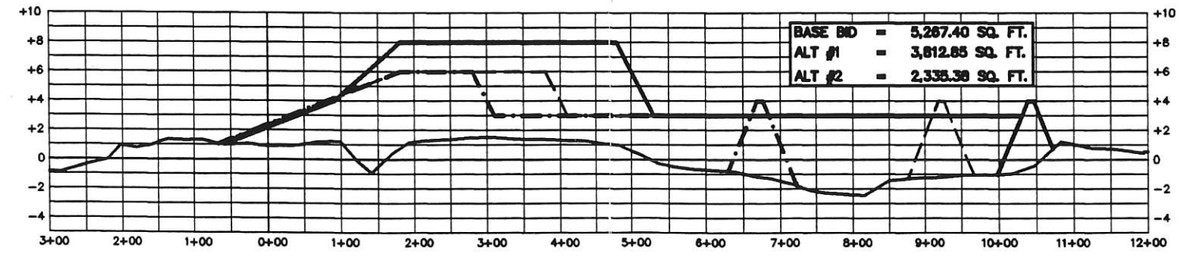
STA. 89+20



STA. 87+20



STA. 85+20



STA. 83+20

TOPOGRAPHIC & CONTOUR AERIAL MAP

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURES
COASTAL RESTORATION DIVISION

ISLE DERNIERES RESTORATION PROJECT
TRINITY ISLAND – PHASE 1

DWG. FILE: TIXSEC4

DATE: MARCH 1994
SCALE: N/A

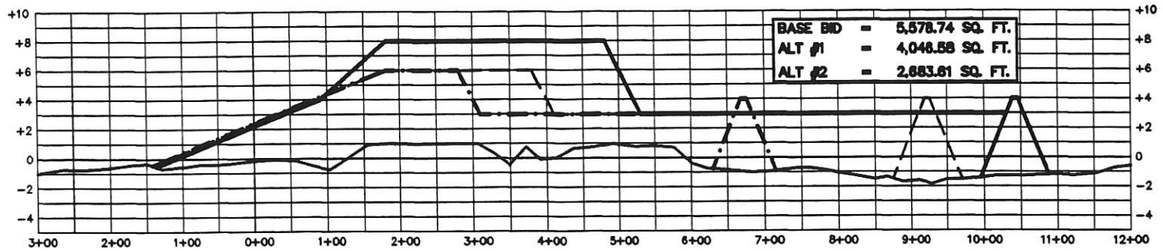
SCALE: 1"=100'(HORIZ.)
1"=5'(VERT.)

DATE	DESCRIPTION	BY
	REVISIONS	

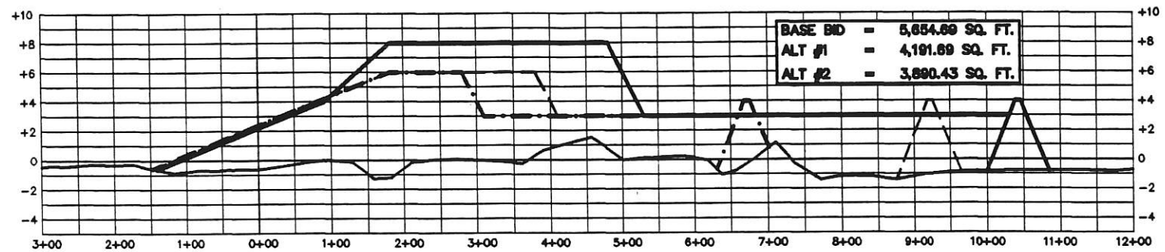
T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS – SURVEYORS – ENVIRONMENTAL RESEARCH
P.O. BOX 2286 HOUMA, LOUISIANA 70361

DESIGNED M.J.R.	DETAILED B.A.S.	TRACED
CHECKED M.J.R.	CHECKED M.J.R.	CHECKED

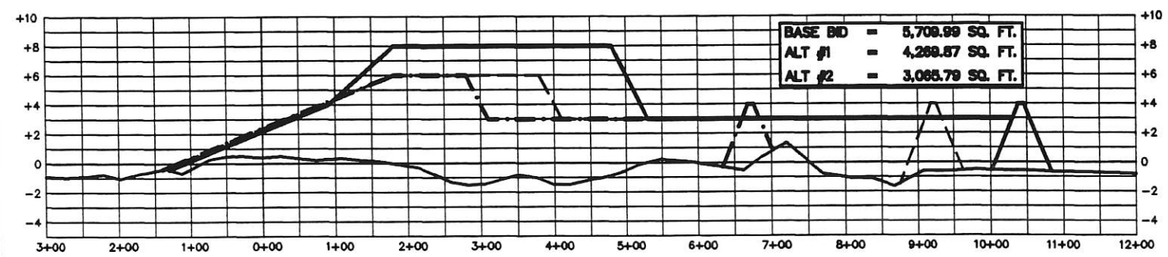
FEDERAL PROJECT NO.	STATE PROJECT NO.	ENGINEERING CONTRACT NO.	PARISH	SHEET NO.
4353F15	TE-24/XTE-41	25085-94-02	TERREBONNE	21



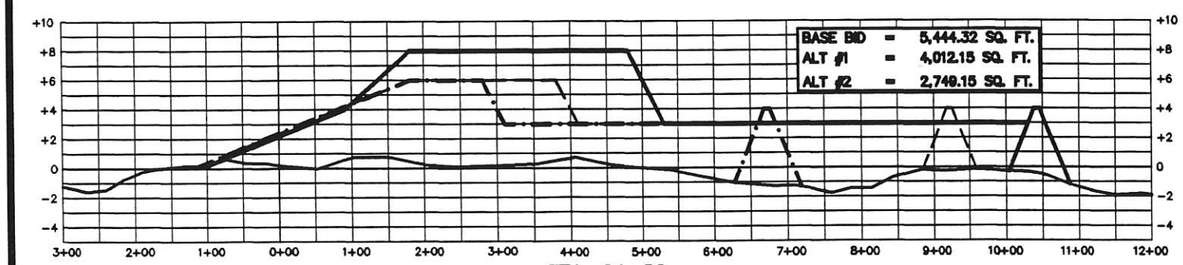
STA. 97+20



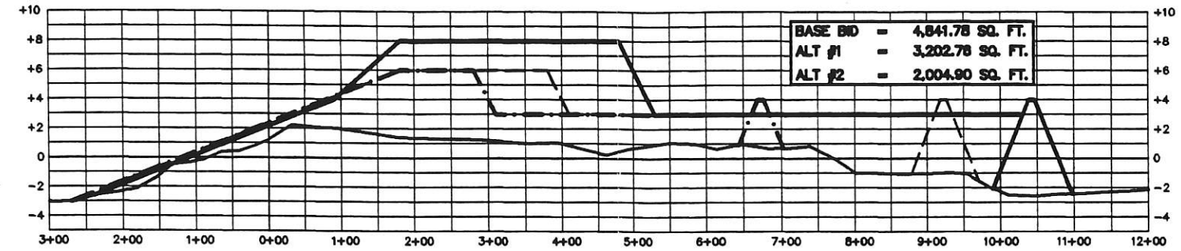
STA. 95+20



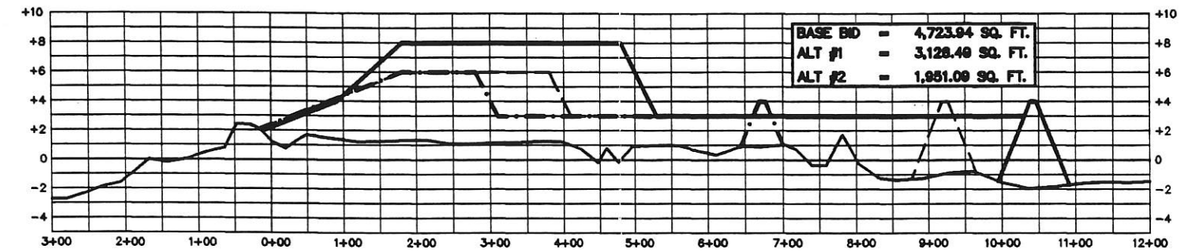
STA. 93+20



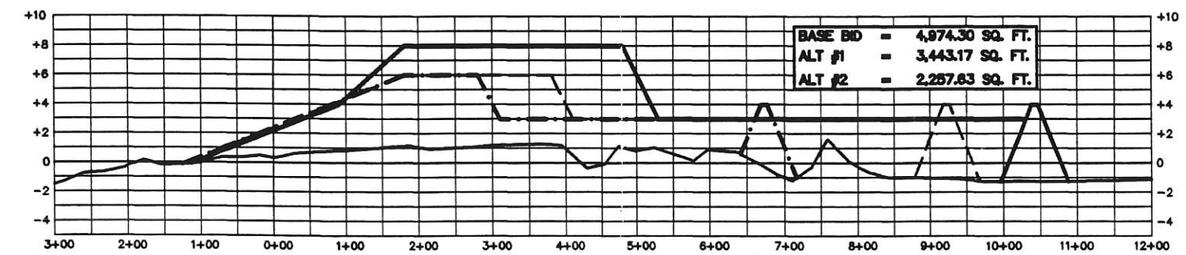
STA. 91+20



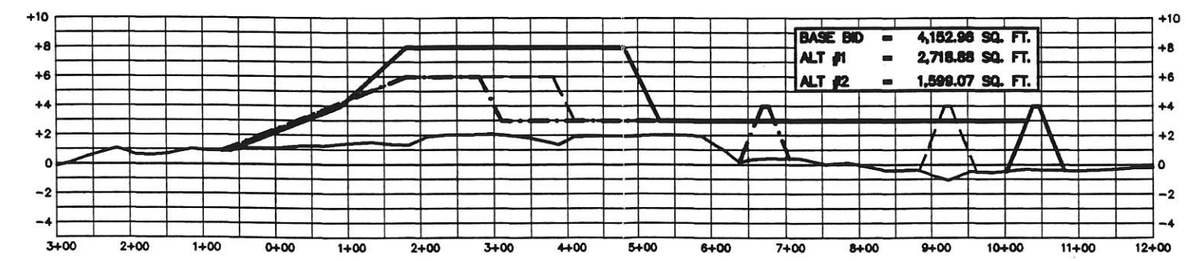
STA. 105+20



STA. 103+20



STA. 101+20



STA. 99+20

TOPOGRAPHIC & CONTOUR AERIAL MAP

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
TRINITY ISLAND - PHASE 1

DWG. FILE: TIXSEC5
DATE: MARCH 1994
SCALE: N/A

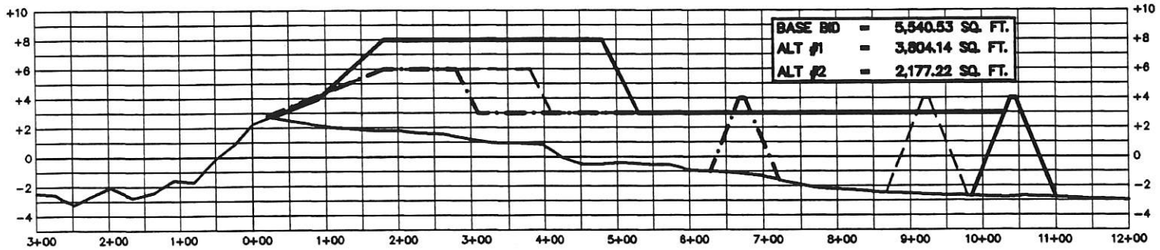
SCALE: 1"=100'(HORIZ.)
1"=5'(VERT.)

DATE	DESCRIPTION	BY
	REVISIONS	

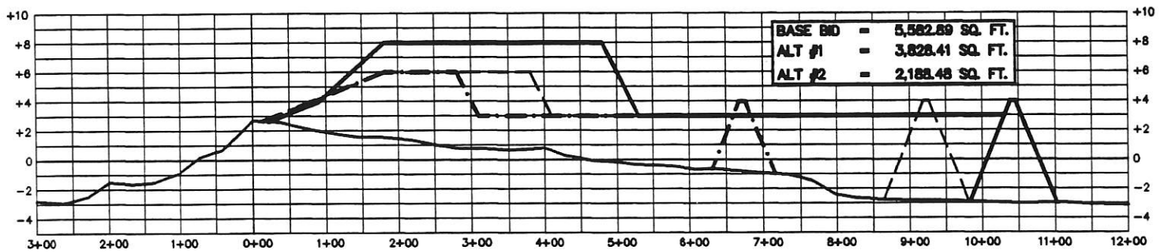
T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS - SURVEYORS - ENVIRONMENTAL RESEARCH
P.O. BOX 2266 HOUMA, LOUISIANA 70361

DESIGNED M.J.R.	DETAILED B.A.S.	TRACED
CHECKED M.J.R.	CHECKED M.J.R.	CHECKED

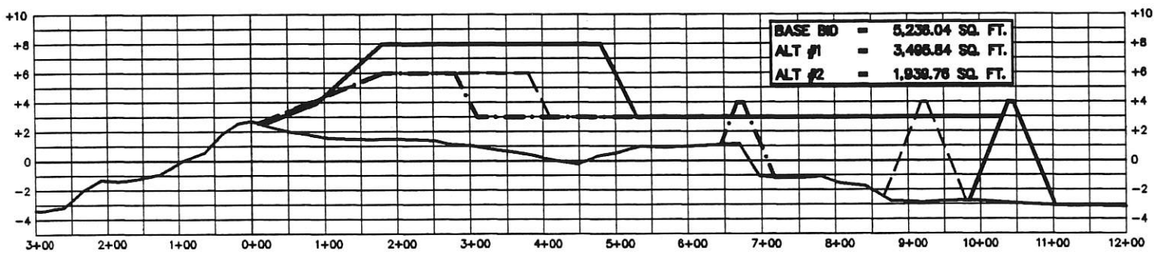
FEDERAL PROJECT NO.	STATE PROJECT NO.	ENGINEERING CONTRACT NO.	PARISH	SHEET NO.
4353F15	TE-24/XTE-41	25085-94-02	TERREBONNE	22



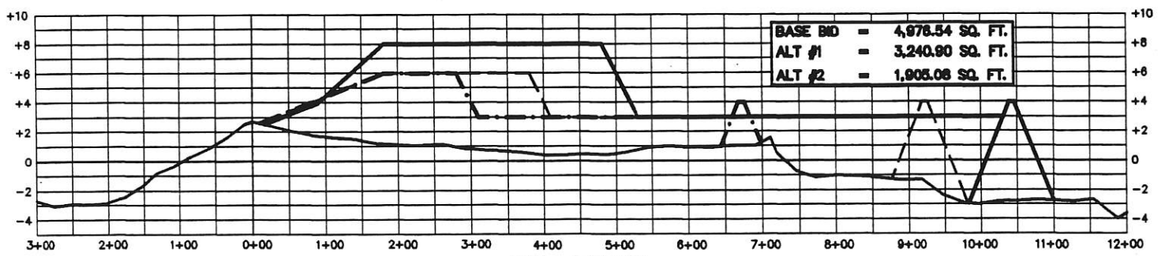
STA. 113+20



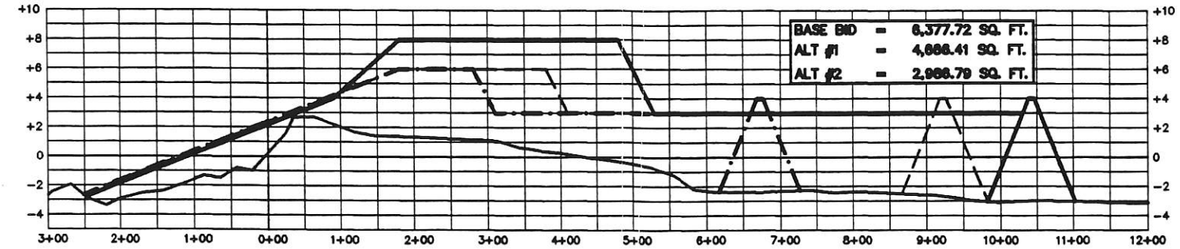
STA. 111+20



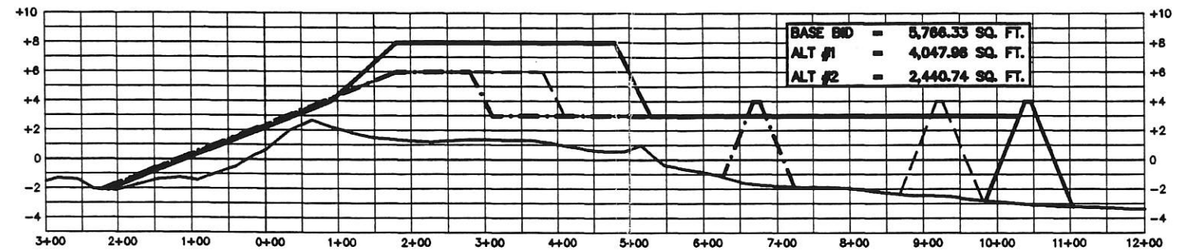
STA. 109+20



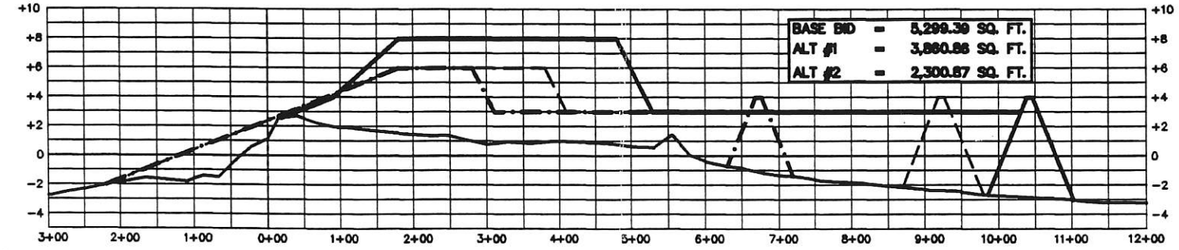
STA. 107+20



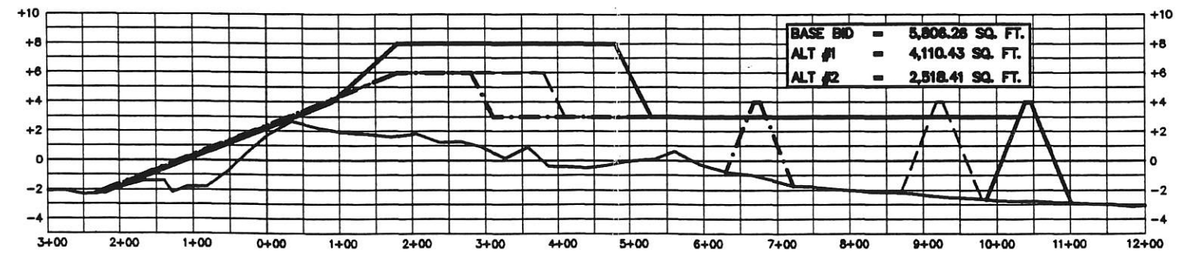
STA. 121+20



STA. 119+20



STA. 117+20



STA. 115+20

TOPOGRAPHIC & CONTOUR AERIAL MAP

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURES
COASTAL RESTORATION DIVISION

ISLE DERNIERES RESTORATION PROJECT
TRINITY ISLAND – PHASE 1

DWG. FILE: TIXSEC6

DATE: MARCH 1994

SCALE: N/A

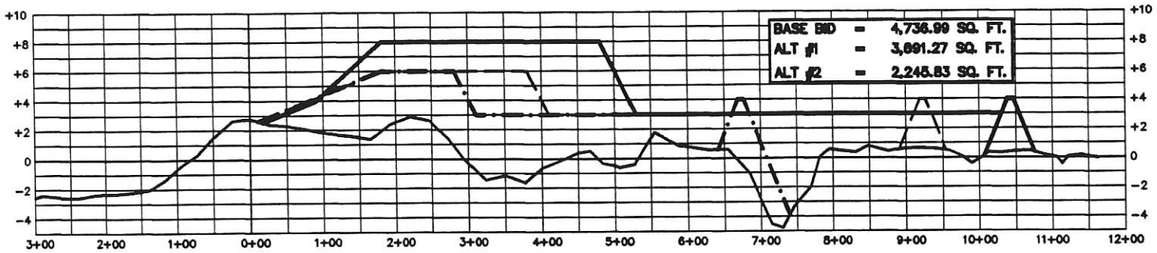
SCALE: 1"=100'(HORIZ.)
1"=5'(VERT.)

DATE	DESCRIPTION	BY
	REVISIONS	

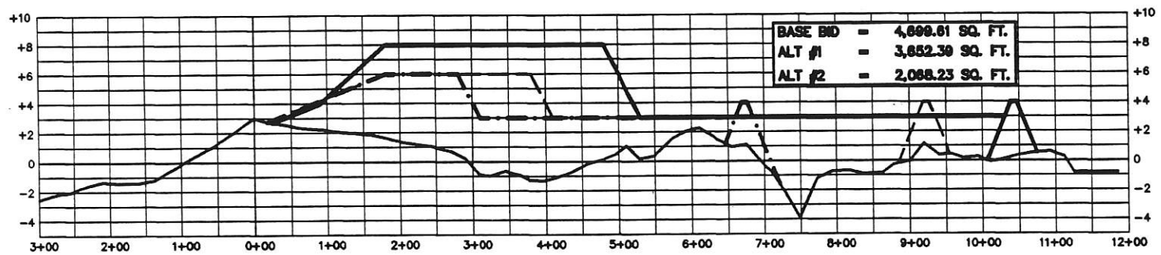
T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS - SURVEYORS - ENVIRONMENTAL SCIENTISTS
P.O. BOX 2290 HOUMA, LOUISIANA 70361

DESIGNED M.J.R.	DETAILED B.A.S.	TRACED
CHECKED M.J.R.	CHECKED M.J.R.	CHECKED

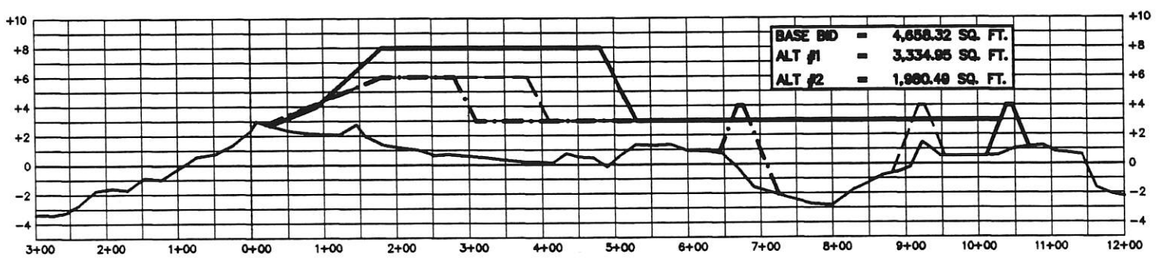
FEDERAL PROJECT NO.	STATE PROJECT NO.	ENGINEERING CONTRACT NO.	PARISH	SHEET NO.
4353F15	TE-24/XTE-41	25085-94-02	TERREBONNE	23



STA. 129+20



STA. 127+20



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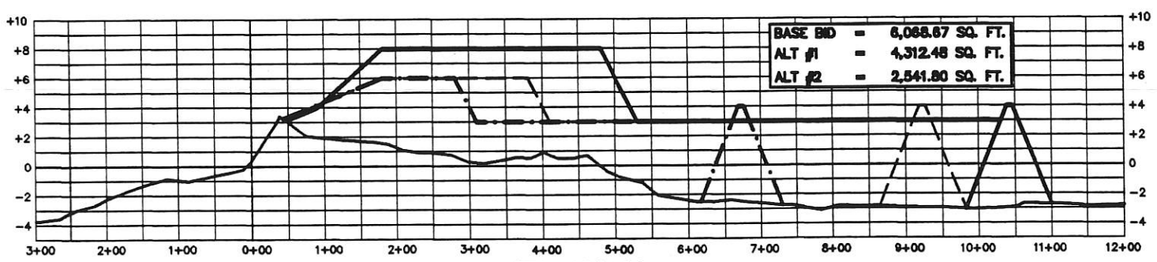

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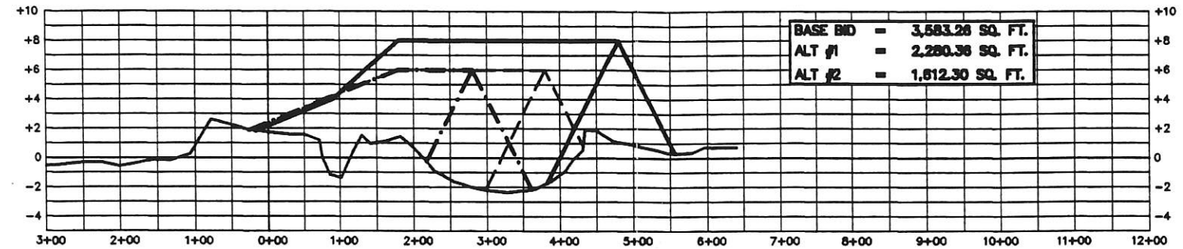

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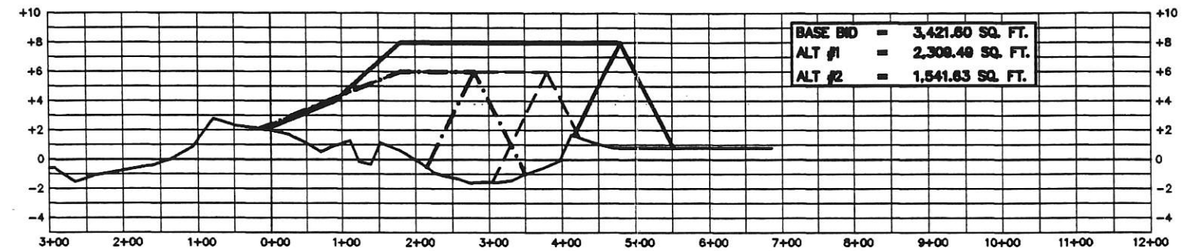

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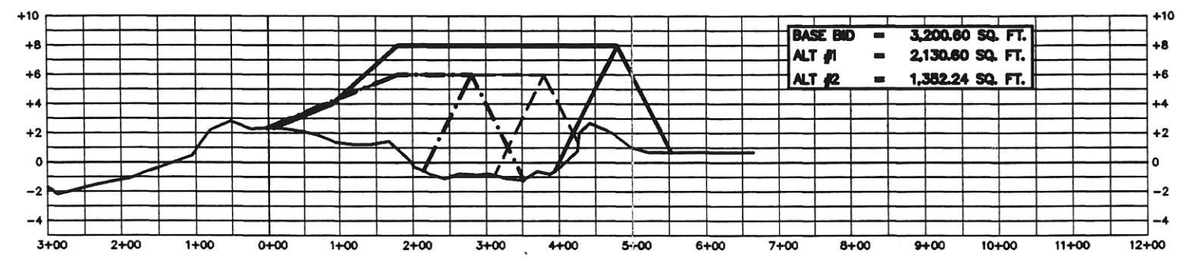

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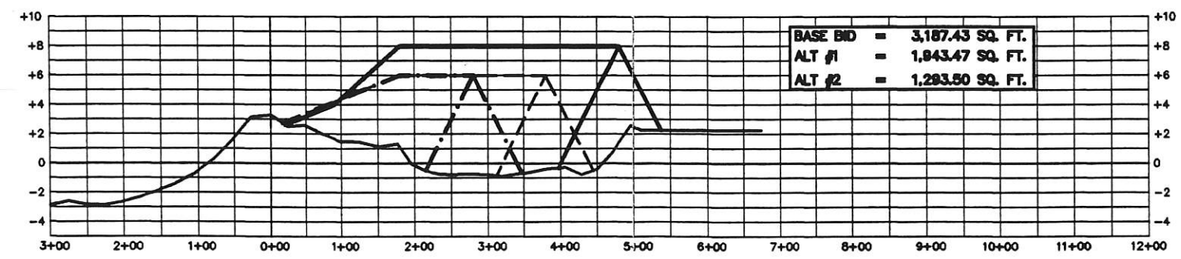

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TOPOGRAPHIC & CONTOUR AERIAL MAP

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURES
COASTAL RESTORATION DIVISION

ISLE DERNIERES RESTORATION PROJECT
TRINITY ISLAND - PHASE 1

DWG. FILE: TIXSEC7 DATE: MARCH 1994
SCALE: N/A

SCALE: 1"=100'(HORIZ.)
1"=5'(VERT.)

DATE	DESCRIPTION	BY
	REVISIONS	

T. BAKER SMITH & SON, INC.
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DESIGNED M.J.R.	DETAILED B.A.S.	TRACED
CHECKED M.J.R.	CHECKED M.J.R.	CHECKED

FEDERAL PROJECT NO.	STATE PROJECT NO.	ENGINEERING CONTRACT NO.	PARISH	SHEET NO.
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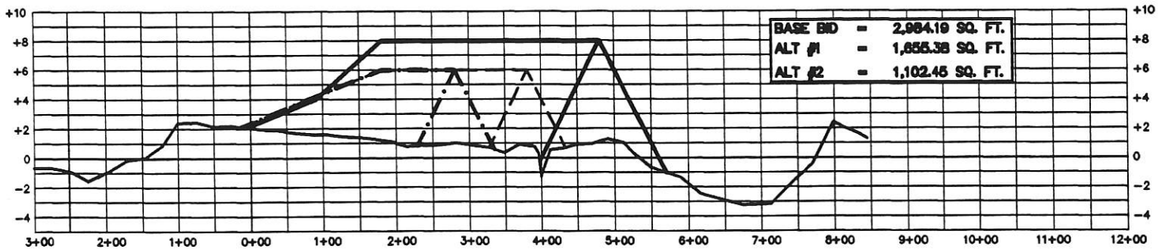

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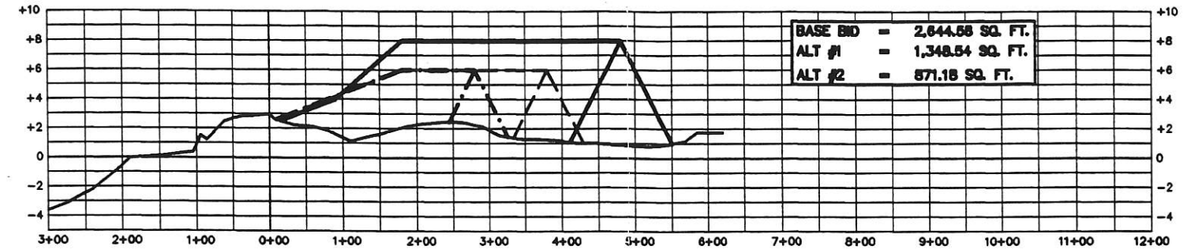

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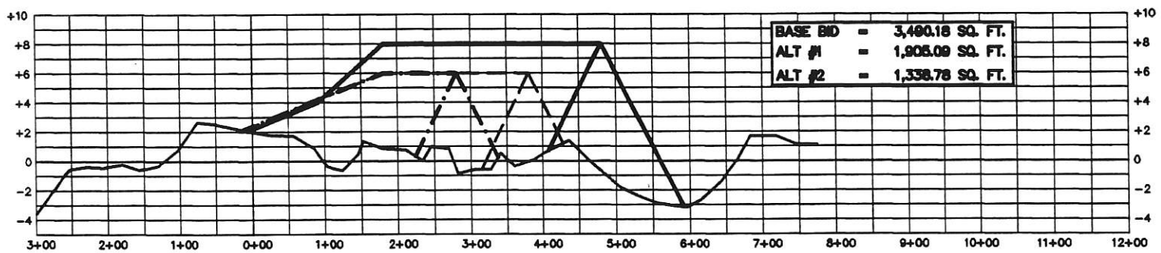

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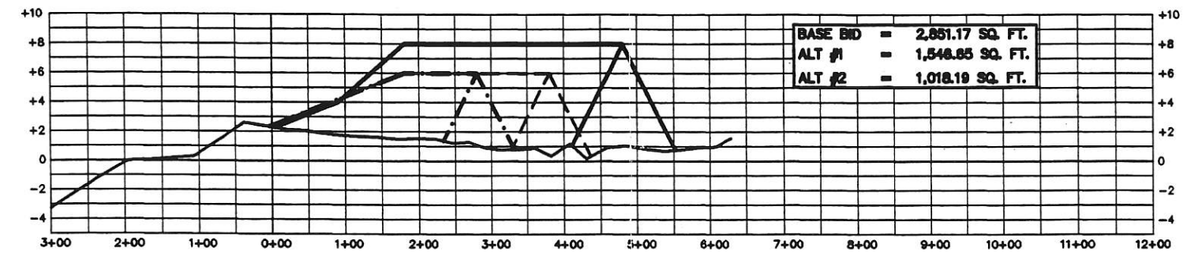

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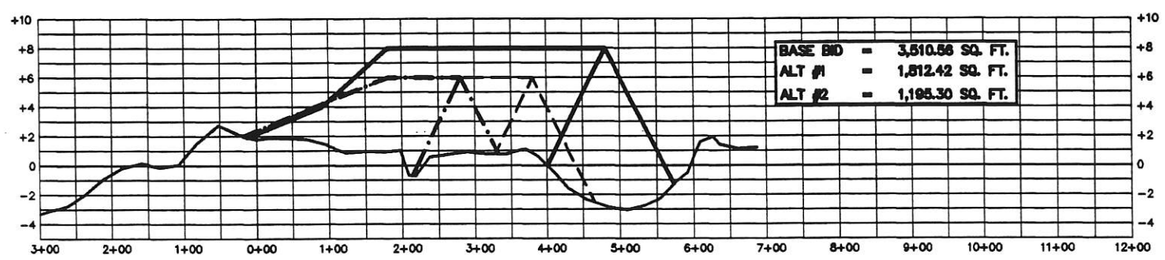

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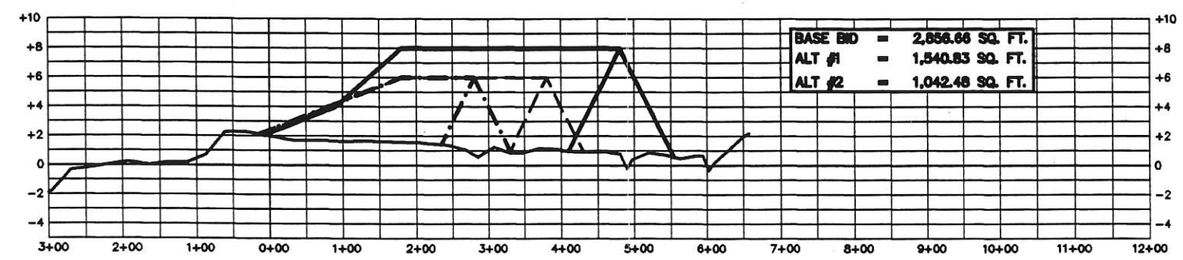

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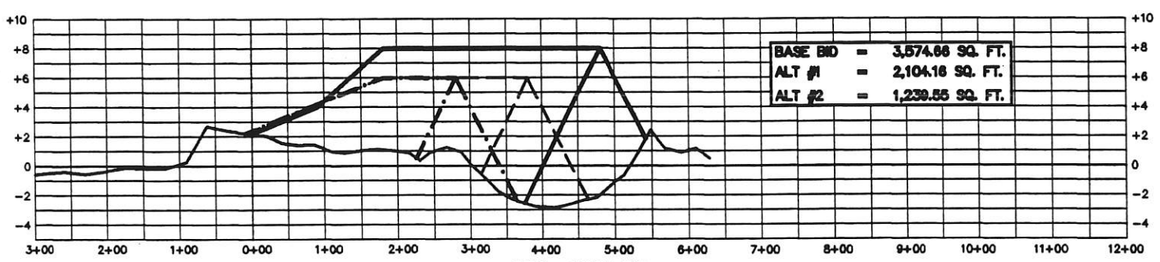

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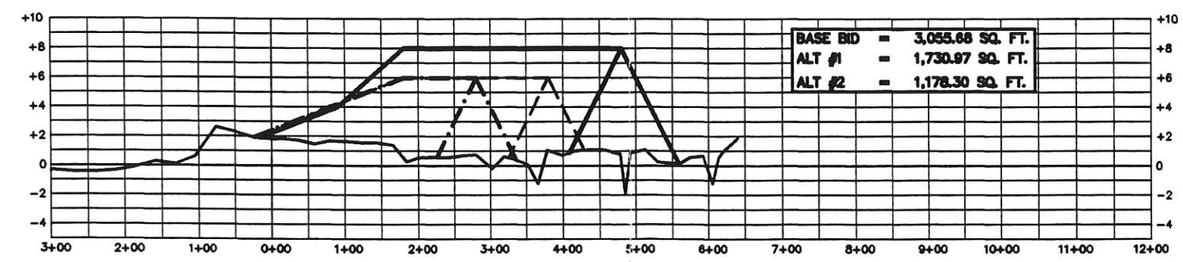

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TOPOGRAPHIC & CONTOUR AERIAL MAP

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
TRINITY ISLAND – PHASE 1

DWG. FILE: TIXSEC8 DATE: MARCH 1994
SCALE: N/A

SCALE: 1"=100'(HORIZ.)
1"=5'(VERT.)

DATE	DESCRIPTION	BY
	REVISIONS	

T. BAKER SMITH & SON, INC.
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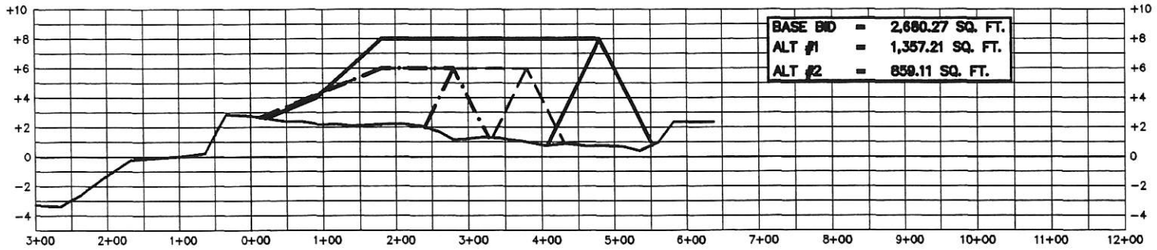
DESIGNED M.J.R.	DETAILED B.A.S.	TRACED
CHECKED M.J.R.	CHECKED M.J.R.	CHECKED

FEDERAL PROJECT NO.	STATE PROJECT NO.	ENGINEERING CONTRACT NO.	PARISH	SHEET NO.
4353F15	TE-24/XTE-41	25085-94-02	TERREBONNE	25



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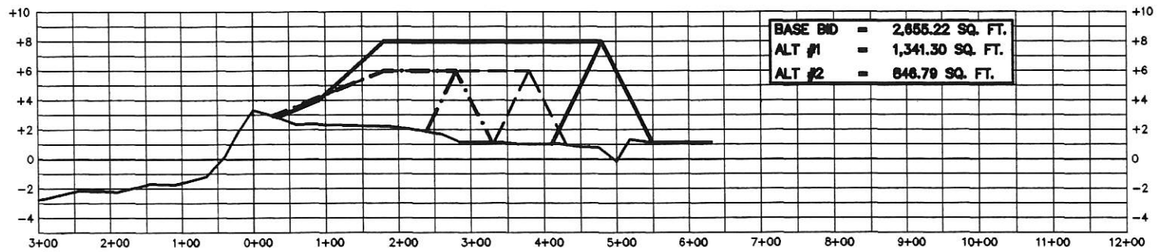

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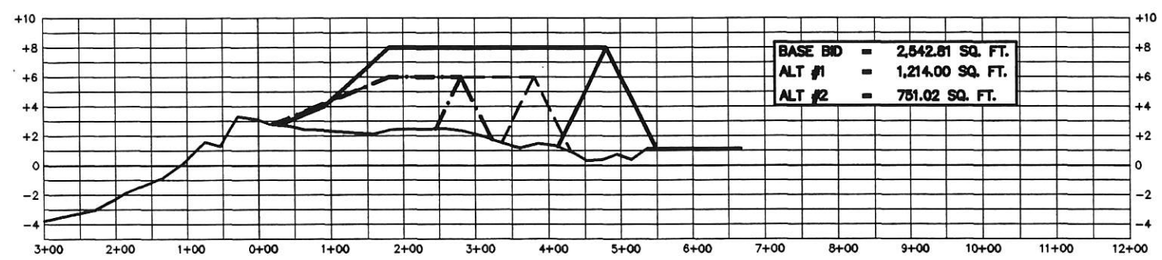

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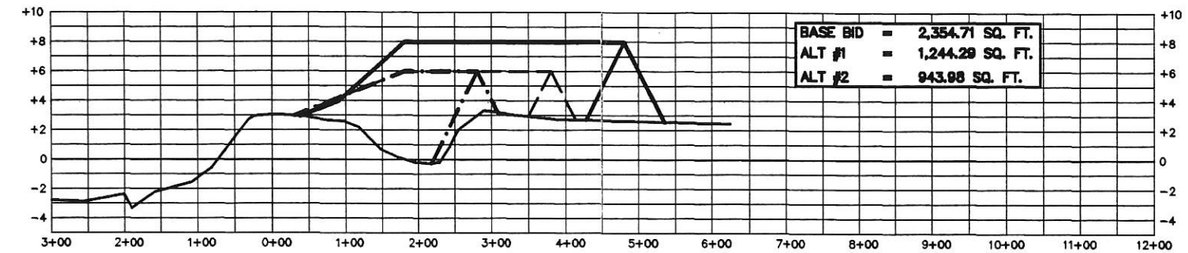

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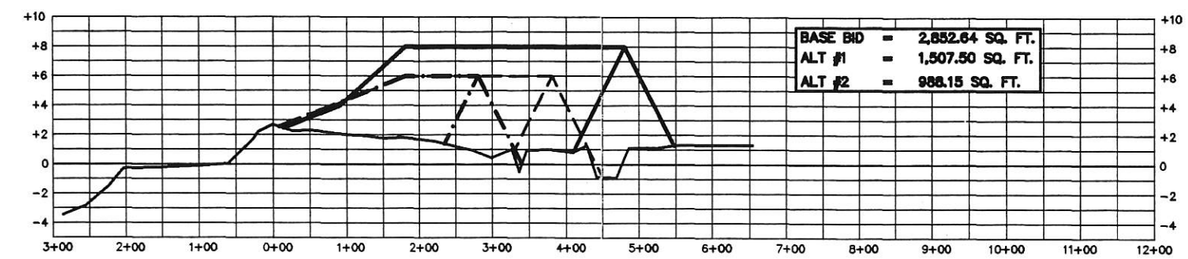

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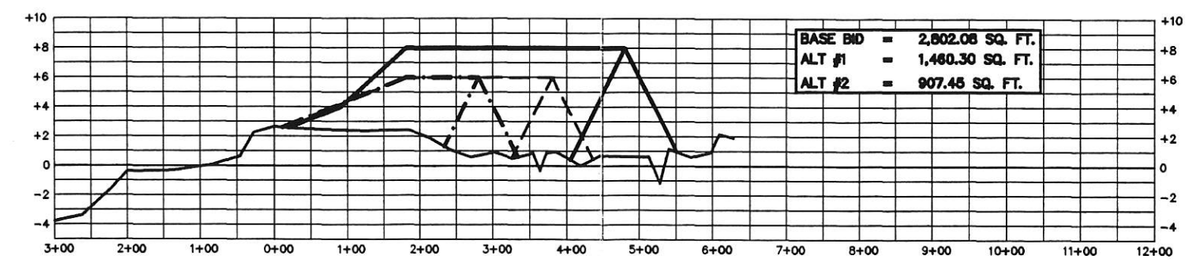

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TOPOGRAPHIC & CONTOUR AERIAL MAP

STATE OF LOUISIANA
DEPT. OF NATURAL RESOURES
COASTAL RESTORATION DIVISION
ISLE DERNIERES RESTORATION PROJECT
TRINITY ISLAND - PHASE 1

DWG. FILE: TIXSEC9 DATE: MARCH 1994
SCALE: N/A

SCALE: 1"=100'(HORIZ.)
1"=5'(VERT.)

STATE OF LOUISIANA
MARC J. ROGERS
REG. No. 19840
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

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DESIGNED M.J.R.	DETAILED B.A.S.	TRACED
CHECKED M.J.R.	CHECKED M.J.R.	CHECKED

APPENDIX Q

SUBSOIL INVESTIGATION

ISLE DERNIERES RESTORATION

EASTERN ISLE DERNIERE & TRINITY ISLAND

TERREBONNE PARISH, LOUISIANA

PROJECT NO. 5449

FOR

STATE OF LOUISIANA

DEPT. OF NATURAL RESOURCES

T. BAKER SMITH & SON, INC.

CONSULTING ENGINEERS

HOUMA, LOUISIANA

GORE ENGINEERING, INC.

SOIL AND FOUNDATION INVESTIGATIONS

METAIRIE, LOUISIANA

GORE ENGINEERING, INC.

SOIL AND FOUNDATION INVESTIGATIONS

LAWRENCE W. GILBERT, D. ENGR.
REG. C.E.

JAMES R. GORE
(1925 - 1991)

BORINGS TESTING
ANALYSES REPORTS

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24 November 1993

State of Louisiana
Dept. of Natural Resources
c/o T. Baker Smith & Son, Inc.
550 South Van Avenue
P.O. Box 2266
Houma, Louisiana 70361

Subsoil Investigation
Isle Dernieres Restoration
Eastern Isle Derniere & Trinity Island
Terrebonne Parish, Louisiana

Gentlemen:

Herein is our report on the results of a subsoil foundation investigation made for the subject project.

Yours very truly,

GORE ENGINEERING, INC.

Lawrence W. Gilbert

LWG:laq

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SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

INTRODUCTION

1. This report contains the results of a subsoil foundation investigation made at the subject site. Instructions to proceed with the investigation were received by Letter Agreement for Professional Services dated October 5, 1993 with T. Baker Smith & Son, Inc. Consulting Engineers for the project. The study was made for the Department of Natural Resources of the State of Louisiana.

2. The study included the drilling of soil test borings to determine subsurface conditions and stratification and the performance of soil mechanics laboratory tests on samples obtained from the borings to evaluate their physical characteristics. Engineering analyses were made, based on the borings and test data to develop criteria to be used in the restoration of Isle Dernieres.

SOIL BORINGS AND SUBSOIL CONDITIONS

Field Exploration

3. Sixteen (16) undisturbed sample type soil test borings (B-1, B-2, B-6 thru B-9 and B-11 thru B-20) were drilled to depths of 28 to 30 ft. below water surface during the period of October 18-27, 1993. The borings were made with a drill rig mounted

to the deck of a spud barge and at designated locations approximately as shown in a plan on Figure 1. Undisturbed sampling was performed continuously in all cohesive or semi-cohesive materials with a three inch diameter thin wall tube sampler. Representative samples were cut from the cores and placed in moisture proof containers for preservation until laboratory testing could be performed.

4. When cohesionless material was encountered, which could not be sampled by undisturbed methods, the Standard Penetration test was performed. This test consists of driving a two inch diameter splitspoon sample 1 ft. (after first seating it 6 inches) with a 140 lb. hammer falling 30 inches. The number of blows required to drive the sampler gives an indication of the density of the material.

5. In addition, ten (10) hand auger sample soil test borings (A-1 thru A-6 and T-1 thru T-4) were drilled to the 3 ft. depth at designed locations on land and approximately as shown in plan on Figures 19 thru 21. These borings were terminated when the borehole began to cave during drilling as free water was encountered. Disturbed samples were taken of representative materials and placed in moisture proof containers for preservation until further laboratory visual classification and testing could be performed.

6. Subsoil profiles developed from the deep undisturbed borings showing the general stratification and character of the soils are given on Figures 1 and 2. Logs of

all the individual borings showing the detailed stratification and sample depths are given on Figures 3 thru 21.

Subsoil Description

7. **Trinity Island (B-1 thru B-9)** Reference to the subsoil profile on Figure 1 and logs of borings B-1 thru B-9 shows that the borings were drilled in from 3 to 4 ft. of water. Beginning at the mud bottom in borings B-1 thru B-7, there is generally very soft gray sandy clay or clay with sand layers and shell which extends to the 6½ to 12 ft. depth. This is underlain in boring B-2 by 4 ft. of soft brown humus with much wood. Beginning at the mud bottom in boring B-9, there is very soft gray organic clay with humus to the 9½ ft. depth and then very soft gray sandy clay with humus and wood to the 12 ft. depth. Underlying these near surface more cohesive soils and beginning at the mud bottom in boring B-8, loose to dense gray fine sand with wood, shell or a trace of organic was encountered and extends to the 14 to 18 ft. depth. As can be seen on the subsoil profile, this sand stratum is thickest on the eastern side of the island.

8. Beginning at the 14 to 18 ft. depth in all borings there is very soft to soft gray clay or sandy clay with shell or shell fragments. Borings B-1, B-2 and B-8 were all terminated in this stratum at the 28 to 28½ ft. depth, however it extends to the 18½ to 27 ft. depth in borings B-6, B-7 and B-9. Beginning at the 18½ to 27 ft. depth in borings B-6,

B-7 and B-9 there is soft to medium stiff gray clay or sandy clay which extends to at least the 28 to 29 ft. depth, the maximum depth explored by these borings.

9. **Eastern Isle Derniere (B-11 thru B-20)** Reference to the subsoil profile on Figure 2 and logs of borings B-11 thru B-20 shows that these borings were drilled in from 3 to 5 ft. of water. The subsoils encountered in borings B-11 thru B-14 primarily consist of medium dense to dense gray fine sand with shell or shell fragments to the maximum depth explored of 28 to 28½ ft. However, 2 to 4½ ft. of very soft clay or sandy clay was interbedded within this sand stratum in borings B-11 thru B-13 beginning at the 6 to 6½ ft. depth.

10. The subsoils below mud bottom in borings B-15 thru B-20 are more heterogeneous in character. These soils generally consist of very soft to soft clay, silty clay or organic clay and loose to medium dense clayey sand or sandy silt to the 11 to 15½ ft. depth. Beginning at this depth in borings B-15 thru B-17 and B-19 and B-20 there is medium dense to dense gray fine sand with shell or shell fragments which extends to the 21 to 26 ft. depth. Beneath this sand in borings B-15 and B-17 and beginning at the 12 ft. depth in boring B-18 there is very soft to soft clay or sandy clay which extends to the 25½ and 27 ft. depth in borings B-18 and B-15, respectively, and to at least the 28 ft. depth in boring B-17 where this boring was terminated. Beginning at the 21½ to 27 ft. depth in the remaining borings, loose gray clayey sand or sand was encountered. Borings B-15, B-16 and

B-18 were terminated in this stratum at depths ranging from 28 to 30 ft., however it extends to the 26 and 27 ft. depths in borings B-20 and B-19, respectively. The clayey sands are underlain in these two borings by soft gray clay to at least the 28½ ft. depth, the maximum depth explored by these borings.

11. **Hand Auger Borings (A-1 thru A-6 and T-1 thru T-4)** As previously indicated, hand auger borings were drilled on both islands to determine the character of the near surface soils. Borings A-1 thru A-6, made on Eastern Isle Derniere, indicate that the subsoils to the maximum depth explored of 3 ft. consist of medium dense to dense tan and gray, brownish gray or gray fine sand with shell. The borings made on Trinity Island (T-1 thru T-4) indicate that the subsoils to the 1 to 2½ ft. depth consist of gray, tan and gray or black fine sand with specks of shell, root fibers and some organic. This surface sand is underlain in all borings by very soft gray or brown organic clay or clay with organic. Borings T-2 thru T-4 were terminated in these clays at the 3 ft. depth, however it extends to the 2½ ft. depth in boring T-1. Beginning at the 2½ ft. depth in boring T-1 there is loose gray clayey fine sand with organic to at least the 3 ft. depth where this boring was terminated.

LABORATORY TESTS

12. In order to develop the physical properties of the soils, soil mechanics laboratory test were performed on samples obtained from the borings. This testing consisted primarily of Natural Moisture Content, Unit Weight and Unconfined Compression. Grain

Size and Triaxial Shear Tests were performed on some of the more granular materials and Atterberg Limits were performed on selected samples. The results of all the laboratory tests except Grain Size are tabulated along side the boring logs at the appropriate sample and depth on Figures 3 thru 21. Grain Size Test results are given on Figures 22 thru 33.

13. The unconfined compressive strength is used in analyses to determine undrained shear strength of cohesive soils for slope stability analyses. The Atterberg Limits along with the Natural Moisture Content give an indication of the compressibility of the soils and are used empirically to estimate settlements.

FOUNDATION ANALYSIS

General

14. It is understood that the proposed construction consists of restoration of Isle Dernieres. This includes both East Isle Derniere and Trinity Island. The general restoration procedures will consist of building up the existing dune along the Gulf of Mexico to Elev. +8 using overwash sands where available and supplemented with hydraulic sand fill. A back dike will also be constructed and will be about 500 ft. landward of and parallel to the dune. This back dike will have a crown at Elev. +4 and will be constructed in from 1 to 2 ft. of water. Construction of this back dike will be from insitu material taken from a borrow pit on the Gulf of Mexico side of the back dike. Upon completion of the dune

and back dike, the area between them will be raised with hydraulic fill. Subsequent to this, the restored islands will be planted with dune and marsh vegetation.

15. Slope stability analyses were made to develop a cross-section of the back dike as well as the limits of equipment flotation and borrow excavation. In addition, settlement analyses were made to allow for an estimation of the long term settlements of the restored islands. Discussion is also given with regard to estimated shrinkage of the hydraulic fill material.

Back Dike

16. Slope Stability Analyses Analyses were made based on the Wedge Method or Method of Planes to estimate the stability of the proposed back dike. This includes determining the dike side slopes based on an 8 ft. wide crown at Elev. +4. The analyses assume this dike will be constructed in a maximum of 2 ft. of water and are based on a low water level at Elev. 0. The analyses were also made to develop the limits of flotation and borrow excavation on the Gulf of Mexico side of the proposed back dike. It was assumed that the dike will be constructed using bucket dredge operations. The analyses were based on subsoils consisting of very soft clays as encountered in some of the soil borings.

17. <u>Results of Analyses</u> The results of slope stability analyses made with regard to the proposed back dike are given on Figure 34. As can be seen, dike side slopes of 1 vertical on 8 horizontal are recommended for design. A 25 ft. wide berm should be maintained from the Gulf of Mexico side toe of dike. The flotation and borrow excavation could then extend on a 1 vertical on 1 horizontal side slope to Elev. -8 and then on a 1 vertical on 7 horizontal side slope to Elev. -25. Based on this configuration, a minimum factor of safety of 1.30 was calculated for the stability of the dike and a factor of safety of 1.34 was calculated for a potential failure of the dike into the flotation and borrow excavation. These factors of safety are believed adequate considering the temporary nature of the back dike and that some gain in shear strength will occur during staged construction, as will be discussed.

18. The slope stability analyses were made assuming the subsoils beneath the dike are primarily very soft clays. As can be seen by the logs of borings, areas exist where the subsoils are more granular in character and consist of loose to dense sands. Where primarily sands exist beneath the proposed back dike, increased stability exists. However placement of sands by bucket dredging will result in relatively flat side slopes below water. Also, these type soils are highly susceptible to erosion. Consequently, the side slopes indicated above are also recommended for the case where sands exist below mud bottom. This average side slope may be composed of a flatter underwater slope and a

steeper above water slope. This may be needed since it cannot be assured that the underwater placement of sand will stand on a 1 vertical or 8 horizontal slope.

19. **Construction Considerations** Some discussion with regard to construction of the back dike is warranted. While it is believed that the factors of safety given above are adequate, the stability of the back dike and flotation and borrow excavation is highly dependent on the methods, means and sequence of construction. It is believed that best results would be achieved by staged construction. For this case, small increases in the dike grade are placed over a relatively wide base. Time should be allowed between successive lifts in order to permit for some consolidation and strength gain of the subsoils and some "crusting" of the exposed surface when the material is placed above water. The adjacent borrow material should be carefully placed into the dike section and in relatively small quantities to minimize disturbance of the very soft subgrade. While not included in the stability analyses, geotexile fabric should be considered by the contractor as a means of increasing base stability. If used, the fabric should extend from toe to toe of the dike section in continuous or adequately sewn pieces.

20. It is understood that the construction period allowed for the back dike will be about 6 months and that the dike will have to last for about 1 year. It should be recognized that this dike will be highly susceptible to erosion, particularly where the borrow material consists of sand. Long term maintenance will be needed to rebuild any sections

of the dike which erode and also to compensate for long term settlements, as will be discussed. Visqueen, sand bags or other means of controlling erosion should be considered by the contractor, as needed, to minimize erosion of the dike side slopes.

21. In view of the above, it is recommended that all potential contractors be clearly advised of the risks associated with the dike construction and maintenance difficulties in a pre bid conference. This will allow them an opportunity to realistically assess their costs associated with this project.

22. **Estimated Settlements** Analyses were made to estimate the settlements that should be expected due to the fill placed on the subsoils as a result of the restoration project. These will be the result of a combination of long term consolidation settlements due to the fill load as well as shrinkage of the fill material, itself. In general, long term consolidation settlements will be greatest where the subsoils are cohesive in character and particularly where organic materials exist. Lesser consolidation settlements would be expected where subsoils are primarily granular in character. With regard to shrinkage of the fill material, these will also be greatest where the dredged material is more cohesive in character and will be small where the dredged materials consist primarily of sands.

23. <u>Consolidation Settlements</u> Analyses were made based on various representative soil borings to estimate the long term consolidation settlements that should be expected. The analyses were made based on a large loaded area and were based on uniform unit loads ranging from 400 to 1,000 lbs. per sq. ft. Results of these settlement analyses are given in the following table.

UNIFORM UNIT LOAD (LBS/SQ.FT.)	ESTIMATED CONSOLIDATION SETTLEMENT (INCHES)			
	B-2 & B-9	B-6	B-12	B-16 & B-18
400	10 to 15	6 to 10	3 to 6	10 to 15
600	15 to 20	8 to 13	4 to 7	12 to 17
800	17 to 22	10 to 15	5 to 8	14 to 19
1000	20 to 25	12 to 17	6 to 10	17 to 22

In determining the magnitude of settlements, the uniform unit load due to the fill material can be calculated using an average unit weight of fill of 40 lbs. per cu. ft. below water and 100 lbs. per cu. ft. above water.

24. As can be seen, the largest settlements were calculated at borings where the subsoils to the maximum depth explored are primarily cohesive in character. The magnitude of settlements generally decreases as the percentage of sands within the soil borings increases. The settlement estimates given above are based on calculations for the maximum depth of these soil borings (approximately 30 ft.). Additional settlements should be expected due to consolidation of the subsoils beneath the maximum depth explored.

While no detailed analyses were made, it is estimated that this may increase the settlements by about 25 percent.

25. No detailed time/rate of settlement analyses were made, but it is believed that approximately 30 to 50 percent of the estimated settlements may occur within the first year after fill placement. The remaining settlements will take a long period of time and on the order of 10 to 15 years to completely occur. Consideration should be given to these estimated settlements in selecting the grades at which the fill material will be placed.

26. **Shrinkage Factors** In addition to the long term consolidation settlements given above, some additional settlements due to shrinkage of the fill material, itself, should be considered. While no detailed analyses were made, the following estimated ranges of shrinkage factors are given based on the type of material placed.

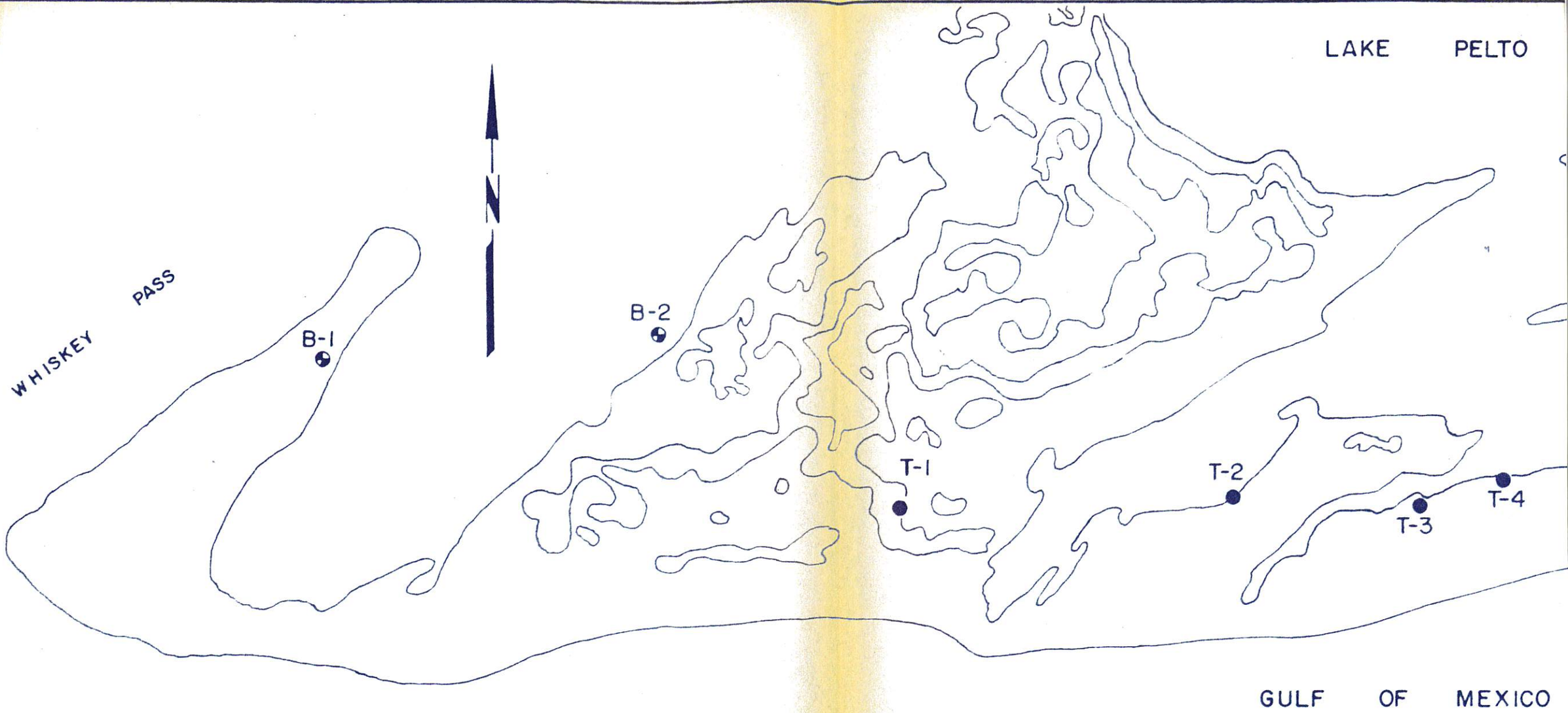
TYPE MATERIAL	SHRINKAGE FACTOR (PERCENT)
Fine Sand (SM,SP)	5 to 10
Sandy Silt (ML)	10 to 15
Silty Clay (CL)	20 to 30

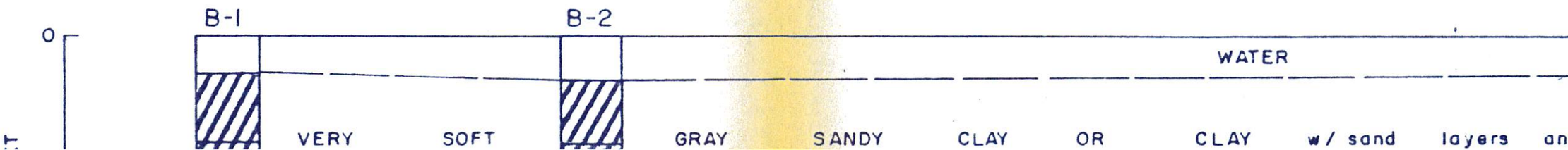
As can be seen from the above table, the least amount of shrinkage would be expected to occur where sands are used as fill material. In order to calculate the amount of settlement due to shrinkage, the total height of fill placement should be multiplied by the shrinkage

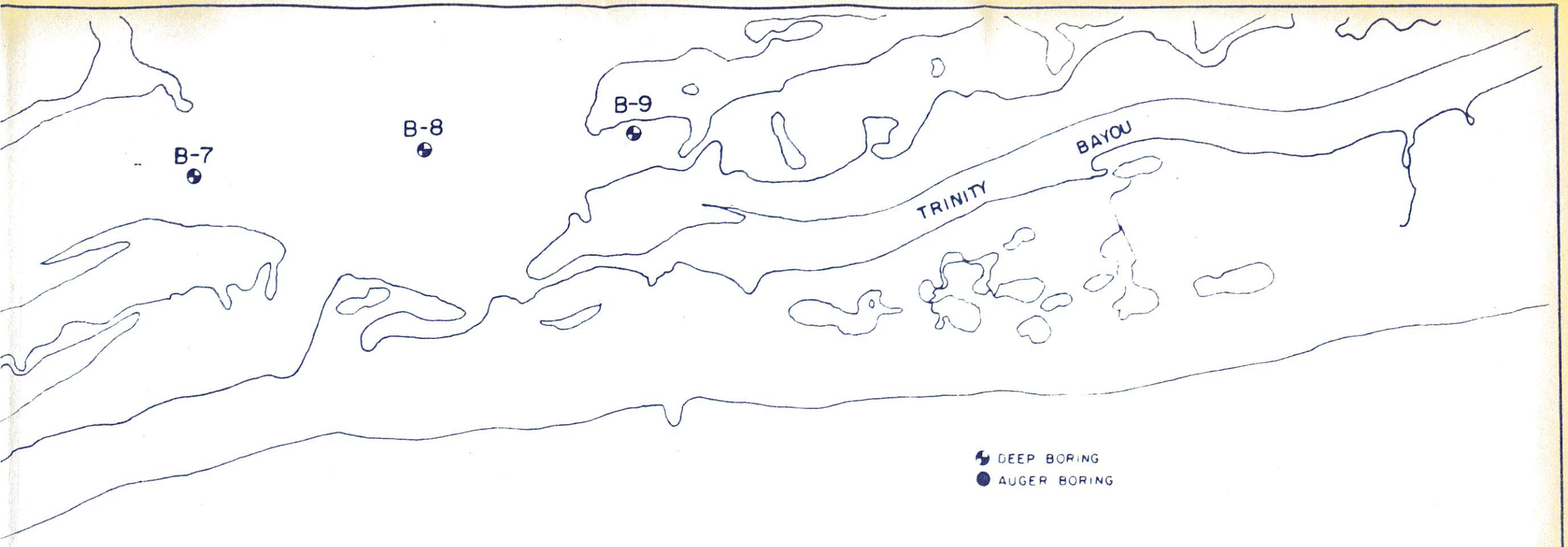
factors given above. These settlements due to shrinkage would be additive to those due to consolidation settlements, as given above.

GORE ENGINEERING, INC.

Lawrence W. Gilbert


LAKE PELTO
WHISKEY PASS
N
B-1
B-2
T-1
T-2
T-3
T-4
GULF OF MEXICO


B-1
B-2
0
WATER
VERY SOFT GRAY SANDY CLAY OR CLAY w/ sand layers an



BORING LOCATIONS

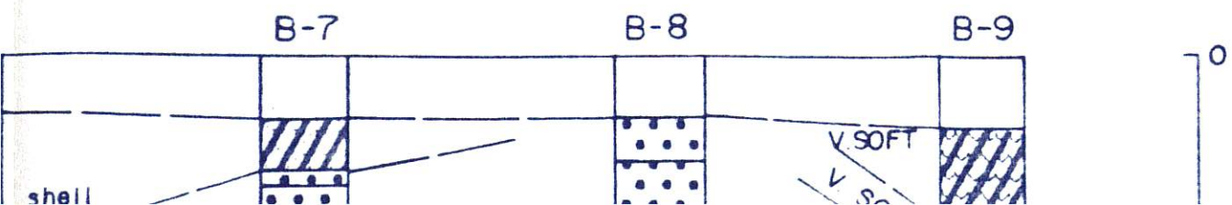
SCALE: 1" = 500'

LEGEND

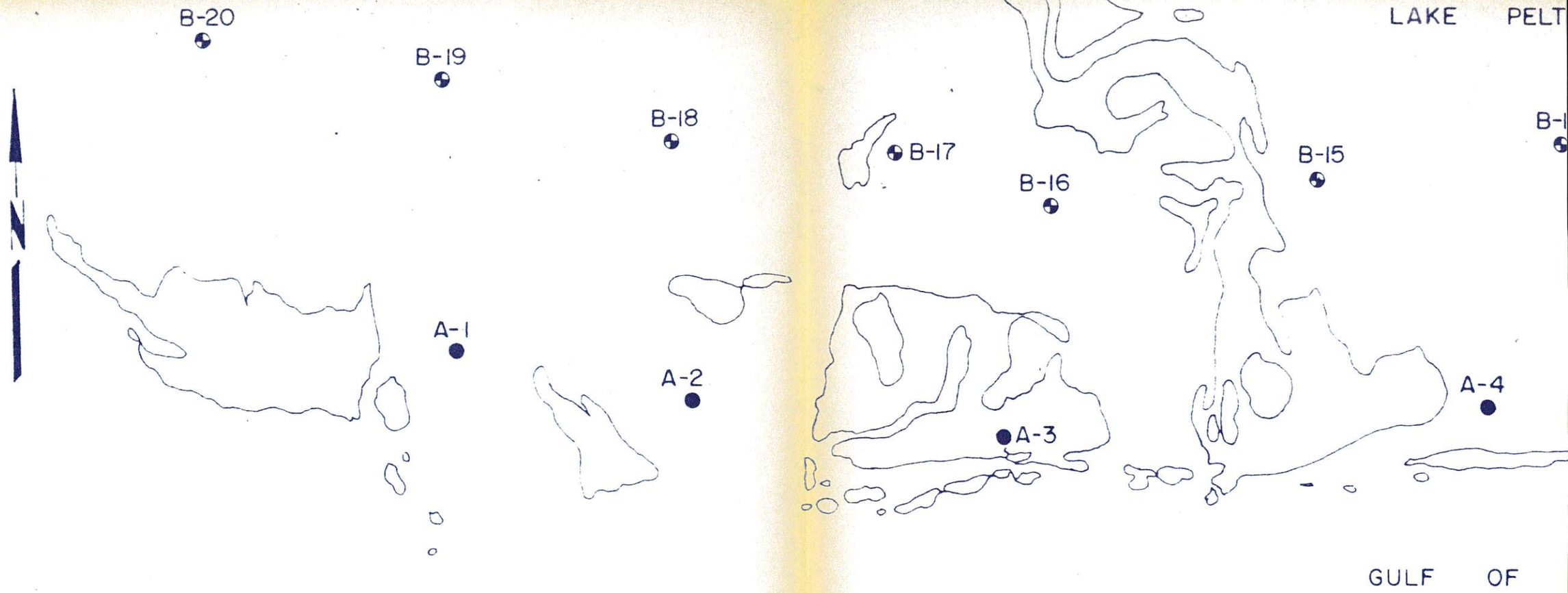
CLAY SILT SAND ORGANIC

PREDOMINANT TYPE HEAVY
MODIFYING TYPE LIGHT

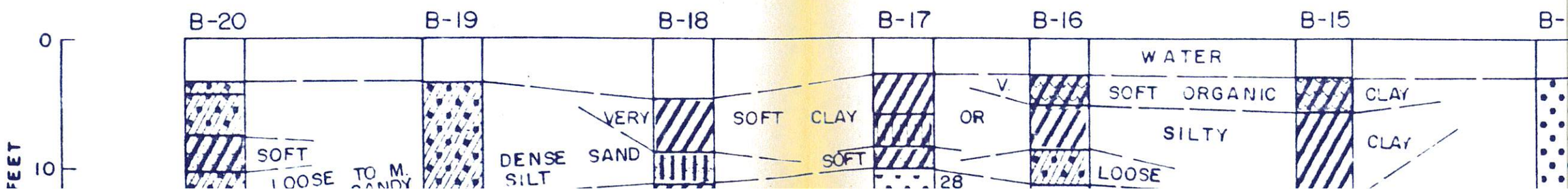
FIGURES BESIDE BORINGS ARE BLOWS OF 140 lb. HAMMER FALLING 30 in TO DRIVE A 2 in DIA. SAMPLER ONE FOOT.

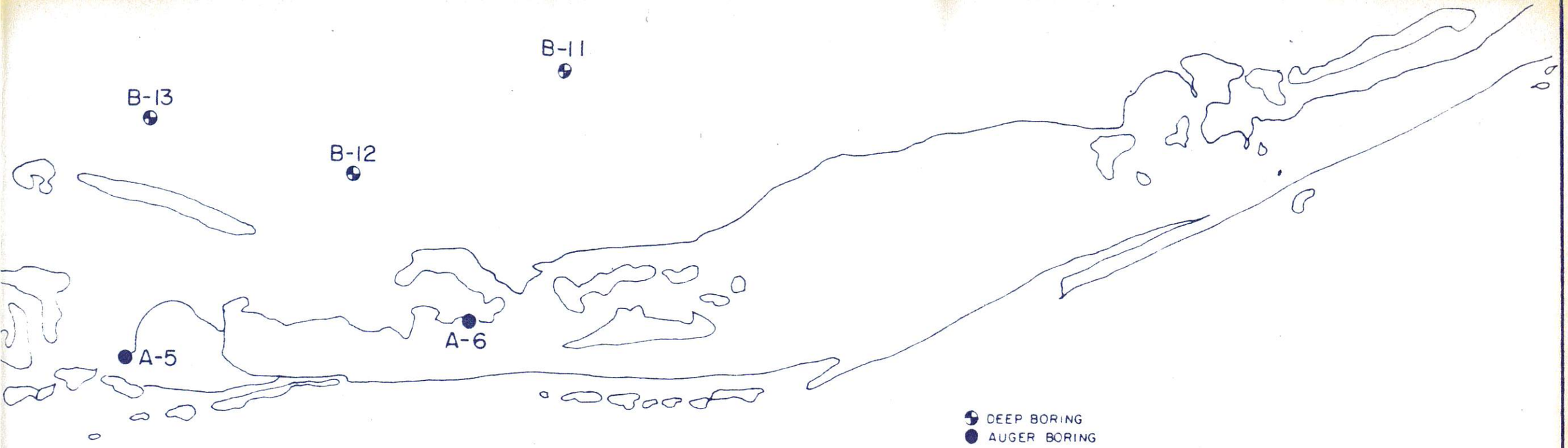


SUBSOIL INVESTIGATION

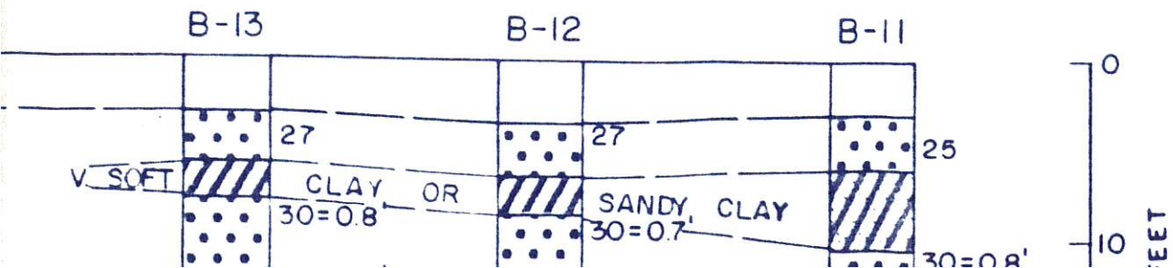

B-20
B-19
B-18
B-17
B-16
B-15
B-
A-1
A-2
A-3
A-4
N
LAKE PELT
GULF OF

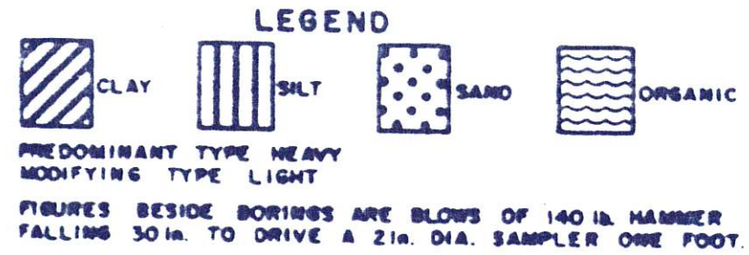
BORIN
SCA


B-20
B-19
B-18
B-17
B-16
B-15
B-
0
10
FEET
WATER
SOFT
LOOSE TO M.
DENSE SAND
SILT
VERY
SOFT CLAY
SOFT
V.
OR
28
SOFT ORGANIC
SILTY
LOOSE
CLAY
CLAY



ONS





SUBSOIL INVESTIGATION

ISLE DERNIERES RESTORATION

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J#5449

Boring No. B-1

LOG OF BORING AND TEST RESULTS

Date of Boring: 18 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
			3.0											
1	3.5	4.0		VERY SOFT GRAY CLAY W/SAND LENSES & LAYERS & SHELL			5		94.6					
2	6.5	7.0						245	82.1	49.5	90.1	83	46	37
			8.5											
3	9.5	10.0		VERY SOFT GRAY CLAY W/MUCH SHELL			10		47.9					
			12.0											
4	12.5	13.0		LOOSE GRAY CLAYEY FINE SAND W/MUCH SHELL				660+	29.3	84.5	109.3		(24)	
			14.0											
5	17.5	18.0		VERY SOFT GRAY CLAY W/SPECKS SHELL & TRACE ORGANIC			15 20	205	98.4	44.4	88.0			
			21.0											
6	22.5	23.0		SHELL W/SOME CLAY					23.0					
			23.5											
7	27.5	28.0		SOFT GRAY CLAY W/SAND LENSES & LAYERS & SOME ORGANIC			25	710	125.5	44.0	99.2			
			28.0											

VALUES IN PARENTHESIS () INDICATE PERCENT PASSING NO. 200 SIEVE.

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS: *equivalent Qu from 1-point triaxial test

FIG. 3

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J"5449

Boring No. B-2

LOG OF BORING AND TEST RESULTS

Date of Boring: 18 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERES & TRINITY ISLAND - TERREBONNE, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
			3.5											
1	6.0	6.5		VERY SOFT GRAY CLAY W/SAND LAYERS & SAND			5	225	67.6	56.9	95.3	61	14	47
			8.5											
2	9.0	9.5		VERY SOFT GRAY SANDY CLAY W/SAND LAYERS & SPECKS SHELL			10	235	28.4	85.0	109.1	40	24	16
			12.0											
3	12.0	12.5		SOFT BROWN HUMUS W/MUCH WOOD			15		199.3					
			16.0											
4	17.0	17.5		LOOSE GRAY FINE SAND W/WOOD & CLAY LAYERS					35.5				(12)	
			18.0											
5	22.0	22.5		VERY SOFT GRAY CLAY W/SAND LENSES & LAYERS & SHELL FRAGMENTS			20 25	310	62.6	59.2	96.3		(90)	
6	28.0	28.5						180	51.3	67.0	101.4			
			28.5											

VALUES IN PARENTHESIS () INDICATE PERCENT PASSING NO. 200 SIEVE

CLAY SILT SAND ORGANIC
Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

FIG. 4

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J#5449

Boring No. B-6

LOG OF BORING AND TEST RESULTS

Date of Boring: 18 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
			3.0											
1	3.5	4.0		VERY SOFT GRAY SANDY CLAY W/CLAY & SAND LAYERS (W/SPECKS WOOD @ 8.5 - 12.0')			5	180	17.2	89.4	104.8	42	14	28
2	6.5	7.0						200	35.4	80.2	108.6	31	18	13
3	9.5	10.0					10	120	30.3	80.5	104.9			
			11.0											
4	12.5	13.0		LOOSE GRAY FINE SAND W/SHELL & CLAY			15		27.9					
			16.0											
5	17.5	18.0		VERY SOFT GRAY SANDY CLAY W/SAND LENSES & LAYERS & WOOD			20	325	48.0	69.3	102.6			
			22.0											
6	22.5	23.0		VERY SOFT CLAY W/MUCH SHELL			25		24.8					
			26.5	SOFT TO MEDIUM STIFF GRAY CLAY W/SAND LENSES & SHELL FRAGMENTS										
7	27.5	28.0	28.0					990	63.8	59.6	97.6			

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

FIG. 5

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J#5449

Boring No. B-7

LOG OF BORING AND TEST RESULTS

Date of Boring: 19 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
1	3.5	4.0	3.5	VERY SOFT GRAY SANDY CLAY W/HUMUS & SHELL			5		39.9			34	27	7
2	6.5	7.0	6.5	LOOSE GRAY FINE SAND W/TRACE OF HUMUS					25.0					
3	8.0	8.5	7.0	DENSE GRAY FINE SAND W/SPECKS SHELL					21.5					
4	8.5	9.0							16.0					
			9.5	SHELL W/SOME SAND			10							
5	11.0	11.5	10.0	MEDIUM DENSE TO DENSE GRAY FINE SAND W/MUCH SHELL					18.7					
6	13.5	14.0					15		20.6					
			15.5											
7	17.5	18.0		VERY SOFT GRAY CLAY W/SAND LENSES & SHELL FRAGMENTS			20	455	76.8	52.1	92.1			
			21.0											
8	22.5	23.0		VERY SOFT GRAY SANDY CLAY W/SHELL			25	360	42.4	72.9	103.8			
			27.0	SOFT TO MEDIUM STIFF GRAY CLAY W/SAND LENSES & LAYERS & SHELL FRAGMENTS										
9	28.0	28.5	28.5					915	54.3	64.6	99.7			

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

FIG. 6

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J#5449

Boring No. B-9

LOG OF BORING AND TEST RESULTS

Date of Boring: 20 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
			4.0											
1	6.5	7.0		VERY SOFT GRAY ORGANIC CLAY W/HUMUS			5	80	183.8	26.7	75.7	122	24	98
2	9.5	10.0	9.5	VERY SOFT GRAY SANDY CLAY W/HUMUS & WOOD			10	495	35.0	80.2	108.3	31	25	6
			12.0											
3	12.0	13.5		MEDIUM DENSE GRAY FINE SAND W/SPECKS SHELL	26		15		22.1					
4	17.5	18.0	17.0	VERY SOFT GRAY SANDY CLAY W/PLENTY SHELL				325	45.5	68.8	100.1			
			18.5											
5	22.5	23.0		MEDIUM STIFF GRAY CLAY W/SAND LENSES			20 25	1050	60.0	62.3	99.6			
			28.0											
6	28.5	29.0		SOFT GRAY SANDY CLAY W/SHELL FRAGMENTS				600	44.8	71.5	103.6			
			29.0				30							

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J*5449

Boring No. B-11

LOG OF BORING AND TEST RESULTS

Date of Boring: 27 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
			3.0											
1	3.5	5.0		DENSE GRAY FINE SAND	25		5		28.3					
			6.0											
2	6.5	7.0		SOFT GRAY SANDY CLAY				620	29.4	90.3	116.8			
3	9.5	10.0					10	665	34.7	83.4	112.3			
			10.5											
4	10.5	11.5			30 = .8'				27.2					
5	13.5	15.0			30 = .8'		15		25.9					
6	17.0	18.5		DENSE GRAY FINE SAND W/SHELL FRAGMENTS	30		20		26.0					
7	20.5	22.0			30 = .8'				22.1					
8	24.0	25.5			30 = .7'		25		26.7					
9	26.5	28.0			30 = .8'				23.8					
			28.0											

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

FIG. 9

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J#5449

Boring No. B-12

LOG OF BORING AND TEST RESULTS

Date of Boring: 27 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
1	3.5	4.0	3.5	DENSE GRAY FINE SAND	27		5		27.4					
2	6.5	7.0	6.5	VERY SOFT BROWNISH GRAY CLAY W/HUMUS & SAND LENSES				170	141.6	33.2	80.3	98	38	60
			8.5											
3	8.5	10.0			30 = .7'		10		23.4					
4	12.0	13.5			30		15		23.8					
				DENSE GRAY FINE SAND W/SPECKS SHELL										
5	15.5	17.0			30 = .8'				28.7					
6	19.0	20.5			30 = .8'		20		26.1					
7	22.5	24.0			30 = .7'		25		22.6					
8	27.0	28.5	28.5		30 = .8'				24.1					

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

FIG. 10

J#5449

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

LOG OF BORING AND TEST RESULTS

Date of Boring: 27 Oct 1993

Boring No. B-13

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
1	3.5	5.0	3.0	DENSE GRAY FINE SAND	27		5		24.0					
2	6.5	7.0	6.0	VERY SOFT BROWNISH GRAY CLAY W/HUMUS & SAND LAYERS				195	116.6	37.9	82.0	98	20	78
3	8.0	9.5	8.0		30 = .8'		10		21.1					
4	11.5	13.0			30 = .6'		15		22.0					
5	15.0	16.5		DENSE GRAY FINE SAND W/SPECKS SHELL	30 = .6'				19.7					
6	18.5	20.0			28		20		20.9					
7	22.0	23.5			30 = .6'		25		23.5					
8	26.5	28.0	28.0		30 = .7'				25.6					

CLAY SILT SAND ORGANIC
Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

FIG. 11

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J#5449

Boring No. B-14

LOG OF BORING AND TEST RESULTS

Date of Boring: 26 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
			3.0											
1	3.0	4.0			30 = .6'		5		22.7					
2	6.0	7.5			30 = .6'				21.8					
3	9.5	11.0		DENSE GRAY FINE SAND W/SPECKS SHELL	28		10		21.5					
4	13.0	14.5			30 = .5'		15		22.6					
5	16.5	18.0			30 = .6'				24.6					
6	20.0	21.5			27		20		22.3					
7	23.5	25.0			30 = .7'		25		29.9					
8	27.0	28.5	28.5		30 = .7'				30.2					

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

FIG. 12

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J#5449

LOG OF BORING AND TEST RESULTS

Boring No. B-15

Date of Boring: 26 Oct 1993

Project: ISLE DERNIERES TESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
1	3.5	4.0	3.0	VERY SOFT BROWN & GRAY ORGANIC CLAY			5		146.6			146	39	107
2	6.5	7.0	6.0	VERY SOFT GRAY CLAY W/ORGANIC & SAND LENSES				180	117.0	37.3	80.9			
3	9.5	10.0					10	165	87.3	46.9	87.8	90	26	64
4	12.5	13.0	13.0					135	108.2	39.9	83.0			
5	13.0	14.5		MEDIUM DENSE TO DENSE GRAY FINE SAND W/SPECKS SHELL	30 = .6'		15		25.0					
6	16.5	18.0			29		20		23.6					
7	20.0	21.5			27				22.6					
8	22.5	23.0	22.0	VERY SOFT GRAY CLAY W/SAND LENSES & LAYERS			25	490	46.1	72.1	105.4			
9	27.5	28.0	27.0	MEIDUM DENSE GRAY FINE SAND W/CLAY LENSES					28.4					
			28.0											

CLAY SILT SAND ORGANIC
Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

FIG. 13

J#5449

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

LOG OF BORING AND TEST RESULTS

Boring No. B-16

Date of Boring: 26 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
1	3.5	4.0	3.0	VERY SOFT BROWNISH GRAY ORGANIC CLAY			5	80	142.3	32.0	77.5	109	36	73
2	6.5	7.0	5.5	VERY SOFT GRAY CLAY W/SOME ORGANIC				75	94.7	43.1	84.0	94	30	64
3	9.5	10.0	9.0	LOOSE GRAY CLAYEY FINE SAND W/CLAY LAYERS			10	750+	29.0	89.4	115.3	25	22	3
4	12.0	13.5	12.0	MEDIUM DENSE TO DENSE GRAY FINE SAND W/SHELL FRAGMENTS	27		15		25.9					
5	15.5	17.0			30 = .7'									
6	19.0	20.5			26		20		26.3					
7	22.5	24.0			30 = .7'		25		23.6					
8	27.5	28.0	26.0	LOOSE GRAY CLAYEY FINE SAND				540	28.9	88.3	113.8			
			28.0											

CLAY SILT SAND ORGANIC
Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS: *equivalent Qu from 1-point triaxial test

FIG. 14

J*5449

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

LOG OF BORING AND TEST RESULTS

Date of Boring: 25 Oct 1993

Boring No. B-17

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
1	3.5	4.0	3.0	VERY SOFT GRAY CLAY W/TRACE OF ORGANIC & SPECKS WOOD			5	45	117.2	38.4	83.3	96	28	68
2	6.5	7.0	6.5	VERY SOFT GRAY SILTY CLAY W/TRACE OF ORGANIC & SPECKS WOOD				140	46.9	71.3	104.8	45	19	26
3	9.5	10.0	9.0	VERY SOFT GRAY SANDY CLAY			10	180	43.2	74.2	106.2	38	22	16
4	11.0	12.5	11.0	MEDIUM DENSE TO DENSE GRAY FINE SAND W/SHELL	28				20.6					
							15							
5	14.5	16.0			29				23.6					
6	18.0	19.5			29		20		22.4					
7	22.5	23.0	21.0	SOFT GRAY CLAY W/SAND LENSES & LAYERS			25	775	68.9	56.6	95.6			
8	27.5	28.0	25.5	VERY SOFT GRAY SANDY CLAY W/SPECKS SHELL					29.6					
			28.0											

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

FIG. 15

GORE ENGINEERING, INC.

J#5449

Soil and Foundation Investigations
Metairie, Louisiana

Boring No. B-18

LOG OF BORING AND TEST RESULTS

Date of Boring: 20 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER			5							
1	6.5	7.0	5.0	VERY SOFT GRAY CLAY W/HUMUS, SAND LENSES & SHELL FRAGMENTS				165	59.3	60.7	96.7	55	26	29
2	9.5	10.0	9.5	LOOSE GRAY SANDY SILT W/SOME CLAY			10	155	37.4	79.8	109.7	37	--	NP
3	12.5	13.0	12.0	VERY SOFT GRAY CLAY W/SANDY SILT LENSES & SHELL FRAGMENTS			15	165	82.8	50.5	92.3			
4	17.5	18.0					20	645	60.7	61.7	99.1	53	22	31
5	22.5	23.0	20.0	SOFT GRAY CLAY W/SAND LENSES			25	420	50.6	68.6	103.3			
6	29.5	30.0	25.5	LOOSE GRAY CLAYEY FINE SAND W/TRACE HUMUS			30	840*	32.2	83.2	110.0			
			30.0											

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS: *equivalent Qu from 1-point triaxial test

FIG. 16

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J#5449

Boring No. B-19

LOG OF BORING AND TEST RESULTS

Date of Boring: 20 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
1	3.5	4.0	3.5	LOOSE TO MEDIUM DENSE GRAY CLAYEY FINE SAND W/SHELL FRAGMENTS & CLAY LAYERS (MUCH SHELL @ 11.5 - 12.0')			5	1100*	25.6	90.8	114.0	24	--	NP
2	6.5	7.0						860	29.8	85.7	111.2			
3	9.5	10.0					10		29.8					
4	13.0	14.5	13.0	MEDIUM DENSE GRAY FINE SAND W/SHELL FRAGMENTS	18		15		24.6					
5	16.5	18.0			14		20		23.8					
6	20.0	21.5			12				25.7					
7	22.5	23.0	22.0	LOOSE GRAY CLAYEY FINE SAND			25		27.0					
8	28.0	28.5	27.0	SOFT GRAY CLAY W/SAND LENSES & LAYERS				620	64.7	59.0	97.1			
			28.5											

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS: *equivalent Qu from 1-point triaxial test

FIG. 17

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J#5449

Boring No. B-20

LOG OF BORING AND TEST RESULTS

Date of Boring: 20 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0	WATER										
1	3.5	4.0	3.5	LOOSE GRAY CLAYEY FINE SAND W/SHELL FRAG.			5	450	29.9	87.8	114.1			
2	6.5	7.0	4.5	LOOSE GRAY CLAYEY FINE SAND					29.4					
3	9.5	10.0	8.0	SOFT GRAY SANDY CLAY W/SHELL			10		31.1			35	21	14
4	12.5	13.0	11.0	LOOSE GRAY FINE CLAYEY SAND W/SHELL				180	39.6	77.7	108.4	26	--	NP
5	15.0	15.5	14.0	LOOSE GRAY FINE SAND W/SPECKS SHELL			15	410*	28.5	90.1	115.8			
6	17.5	18.0	15.5	MEDIUM DENSE GRAY FINE SAND W/SPECKS SHELL			20		25.7					
7	22.5	23.0	21.5	LOOSE GRAY CLAYEY FINE SAND			25		22.8					
8	28.0	28.5	26.0	SOFT GRAY CLAY W/SHELL FRAGMENTS & SAND LAYERS				590	53.7	65.6	100.8			
			28.5											

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS: *equivalent Qu from 1-point triaxial test

FIG. 18

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J#5449

Boring No. A-1

LOG OF BORING AND TEST RESULTS

Date of Boring: 28 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0											
1	.5	1.0		MEDIUM DENSE TAN & GRAY FINE SAND					15.9			17	--	NP
2	1.5	2.0		W/SPECKS SHELL					17.1					
			2.5	DENSE BROWNISH GRAY CLAYEY FINE SAND										
3	2.5	3.0	3.0	W/SHELL & CLAY LAYERS					24.4					
				Boring Number A-2										
			.0											
1	.5	1.0		MEDIUM DENSE BROWNISH GRAY FINE SAND	W/SHELL				23.0			20	--	NP
			1.0											
2	1.5	2.0		DENSE GRAY FINE SAND W/SHELL					22.8					
3	2.5	3.0							22.5					
			3.0											
				Boring Number A-3										
			.0											
1	.5	1.0		MEDIUM DENSE BROWN & GRAY FINE SAND					20.4					
2	1.5	2.0		W/SPECKS SHELL					17.5			24	--	NP
			2.5	DENSE GRAY FINE SAND W/SHELL										
3	2.5	3.0	3.0						23.3					

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

FIG. 19

GORE ENGINEERING, INC.

J"5449

Soil and Foundation Investigations
Metairie, Louisiana

Boring No. A-4

LOG OF BORING AND TEST RESULTS

Date of Boring: 28 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0											
1	.5	1.0	1.0	MEDIUM DENSE BROWNISH GRAY FINE SAND W/SHELL					23.1					
2	1.5	2.0		DENSE GRAY FINE SAND W/SHELL (W/MUCH SHELL @ 2.5 - 3.0')					32.4					
3	2.5	3.0	3.0						29.7			17	--	NP
				Boring Number A-5										
			.0											
1	.5	1.0	1.0	MEDIUM DENSE BROWNISH GRAY SAND W/SPECKS SHELL					22.4			20	--	NP
2	1.5	2.0		DENSE GRAY FINE SAND W/FEW SHELL FRAGMENTS					25.6					
			2.5											
3	2.5	3.0	3.0	DENSE GRAY FINE SAND W/SHELL					23.5					
				Boring Number A-6										
			.0											
1	.5	1.0	1.0	MEDIUM DENSE BROWNISH GRAY SAND W/SPECKS SHELL					24.3					
2	1.5	2.0		DENSE GRAY FINE SAND W/FEW SHELL FRAGMENTS					21.2			20	--	NP
			2.5											
3	2.5	3.0	3.0	DENSE GRAY & BLACK CLAYEY FINE SAND W/ORGANIC & CLAY					21.1					

CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

FIG. 20

GORE ENGINEERING, INC.

Soil and Foundation Investigations
Metairie, Louisiana

J#5449

Boring No. T-1

LOG OF BORING AND TEST RESULTS

Date of Boring: 28 Oct 1993

Project: ISLE DERNIERES RESTORATION - EASTERN ISLE DERNIERE & TRINITY ISLAND - TERREBONNE PARISH, LOUISIANA
FOR: STATE OF LOUISIANA - DEPT. OF NATURAL RESOURCES
T. BAKER SMITH & SON, INC. - CONSULTING ENGINEERS - HOUMA, LOUISIANA

Recorded By: Daren Dupepe

Sample No.	SAMPLE Depth in Feet From	To	STRATUM Depth in feet	VISUAL CLASSIFICATION	*Blows per Foot	Symbol Log	Scale (ft)	UNCONFINED COMP. (qu) (lbs/sq.ft)	WATER CONTENT (percent)	UNIT WEIGHT (lbs./cu.ft.) DRY	WET	ATTERBERG LIMITS L.L.	P.L.	P.I.
			.0											
1	.5	1.0		MEDIUM DENSE GRAY FINE SAND W/SPECKS SHELL					19.3					
			1.0											
2	1.5	2.0		VERY SOFT GRAY ORGANIC CLAY W/WOOD & SAND					72.1			88	39	49
			2.5											
3	2.5	3.0		LOOSE GRAY FINE SAND W/ORGANIC					33.2					
			3.0											
				FREE WATER AT 1.5' (SEE TEXT)										
				Boring Number T-2										
			.0											
1	.5	1.0		MEDIUM DENSE TAN & GRAY FINE SAND W/ROOT FIBERS					22.1					
			1.0											
2	1.5	2.0		DENSE BLACK FINE SAND					22.4					
			2.5											
3	2.5	3.0		VERY SOFT BROWN ORGANIC CLAY W/SAND					67.0			82	32	50
			3.0											
				FREE WATER AT 2.0' (SEE TEXT)										
				Boring Number T-3										
			.0											
1	.5	1.0		MEDIUM DENSE BLACK FINE SAND W/ORGANIC					28.3					
			1.0											
2	1.5	2.0		DENSE GRAY & BLACK CLAYEY FINE SAND W/ORGANIC & CLAY					34.9					
			2.5											
3	2.5	3.0		VERY SOFT GRAY CLAY W/ORG. & ROOT FIBERS					65.1			87	22	65
			3.0											
				FREE WATER AT 1.5' (SEE TEXT)										
				Boring Number T-4										
			.0											
1	.5	1.0		MEDIUM DENSE DARK GRAY FINE SAND W/ROOTS & SPECKS SHELL					29.2					
			1.0											
2	1.5	2.0		VERY SOFT BROWNISH GRAY ORGANIC CLAY W/ROOTS & SHELL & SAND					88.8			84	29	55
			2.5											
3	2.5	3.0		VERY SOFT BROWN ORGANIC CLAY W/ROOTS					150.2			142	52	90
			3.0											
				FREE WATER AT 2.0' (SEE TEXT)										

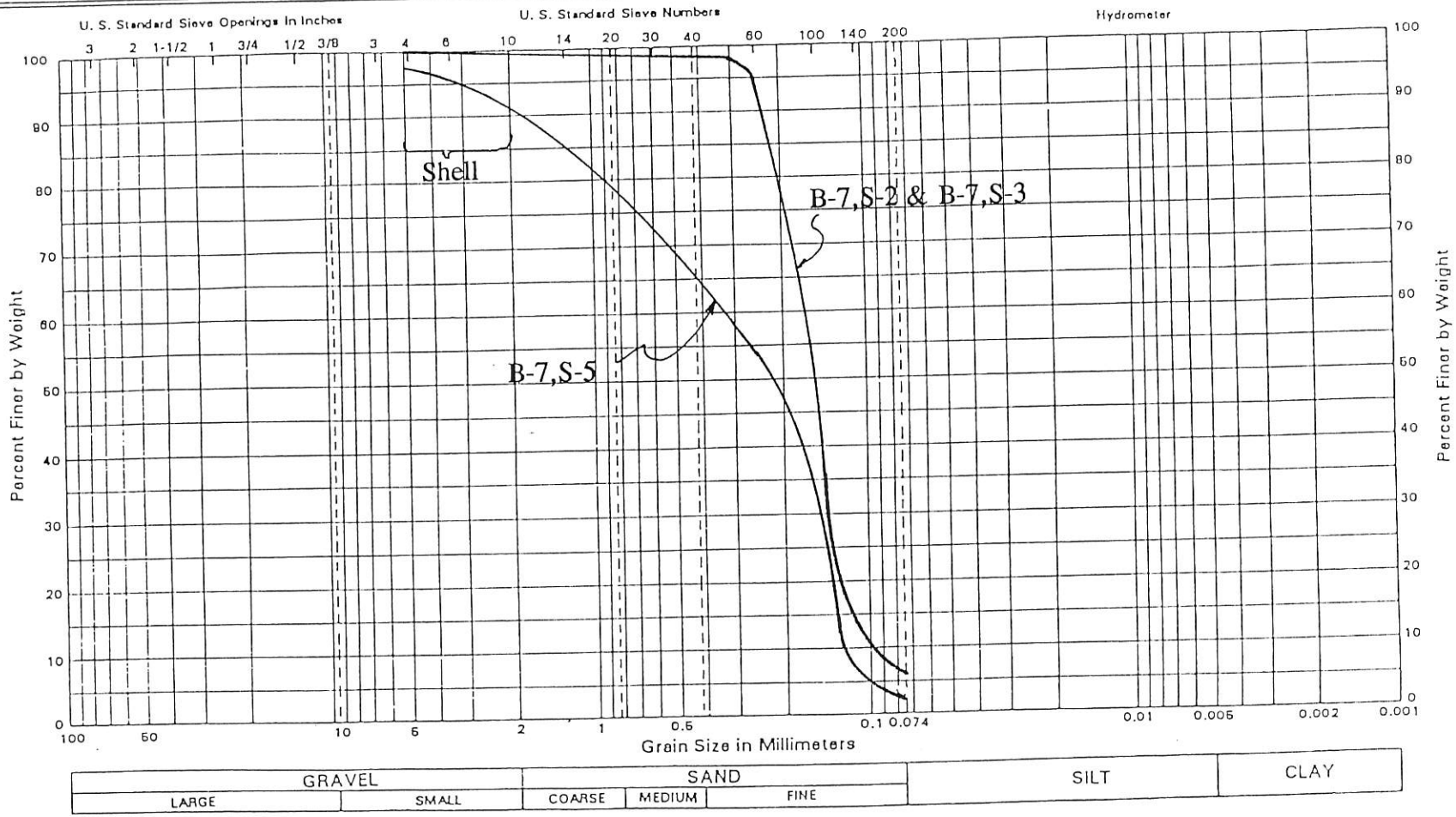
CLAY SILT SAND ORGANIC

Predominant type bold. Modifying type light.

*140 lb. hammer dropped 30 in. on 2 in. splitspoon sampler after first being seated 6 in.

REMARKS:

J-5449



GRAIN SIZE DETERMINATIONS

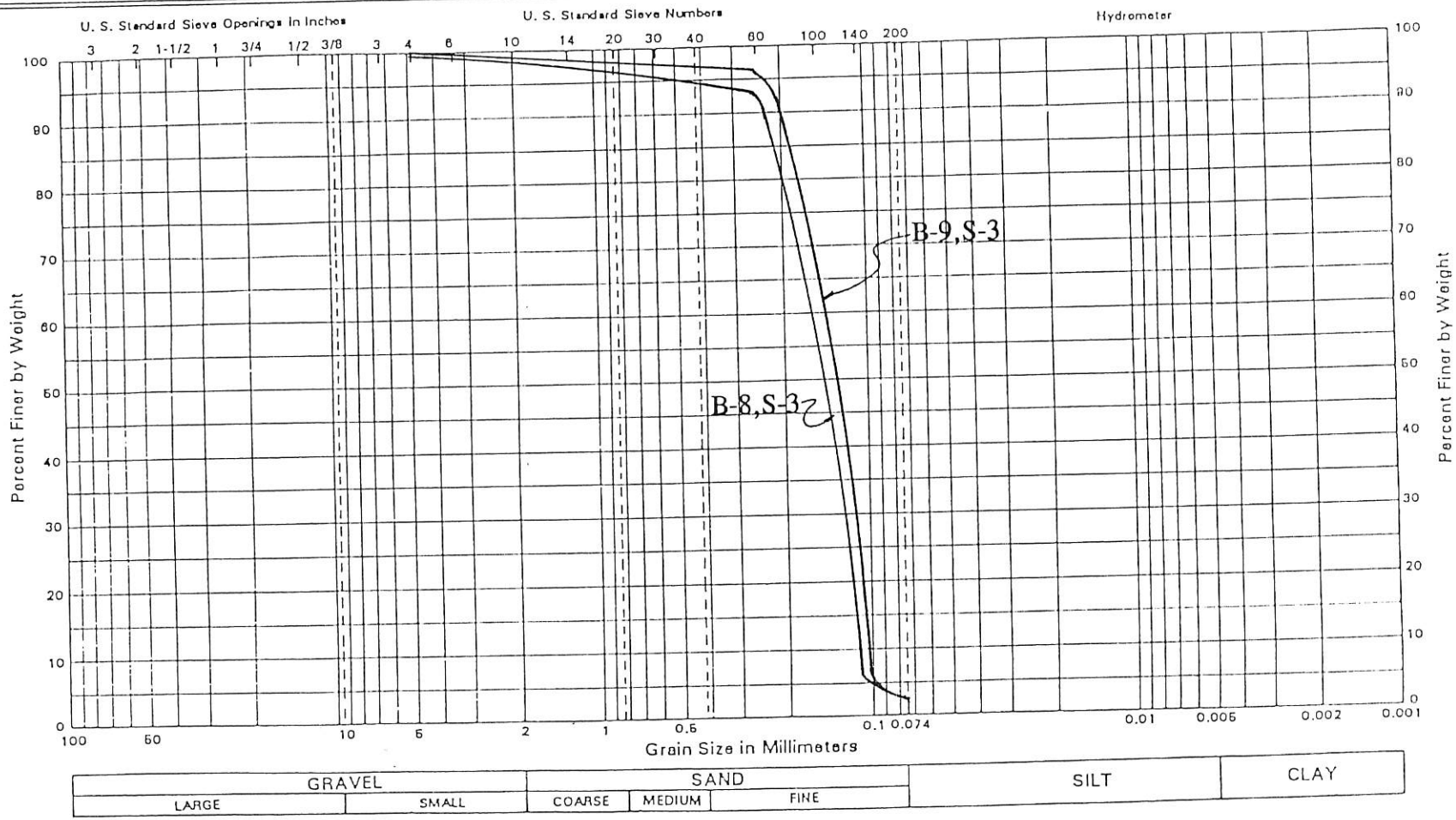
SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 22

J-5449



GRAIN SIZE DETERMINATIONS

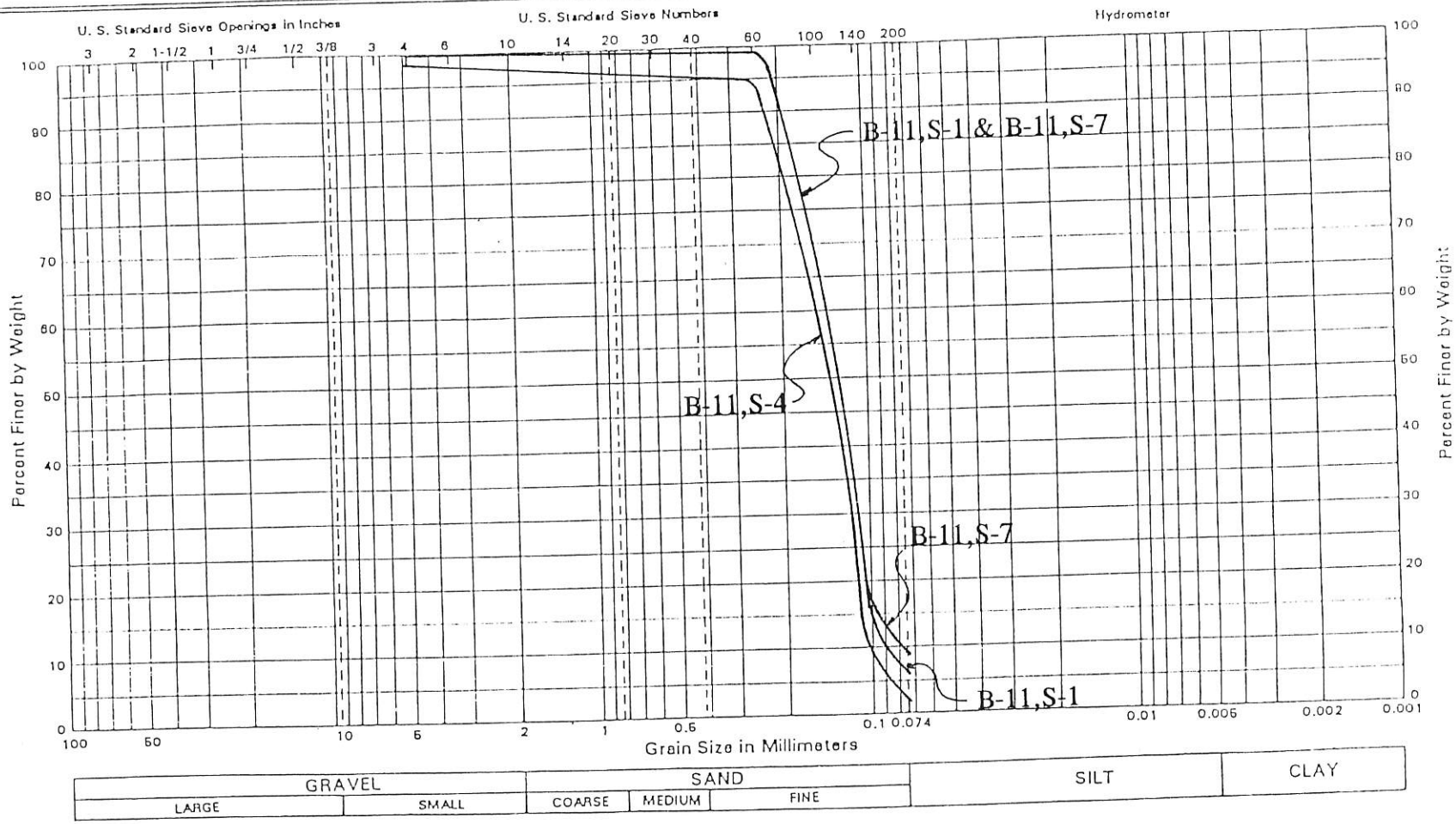
SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 23

J-5449



GRAIN SIZE DETERMINATIONS

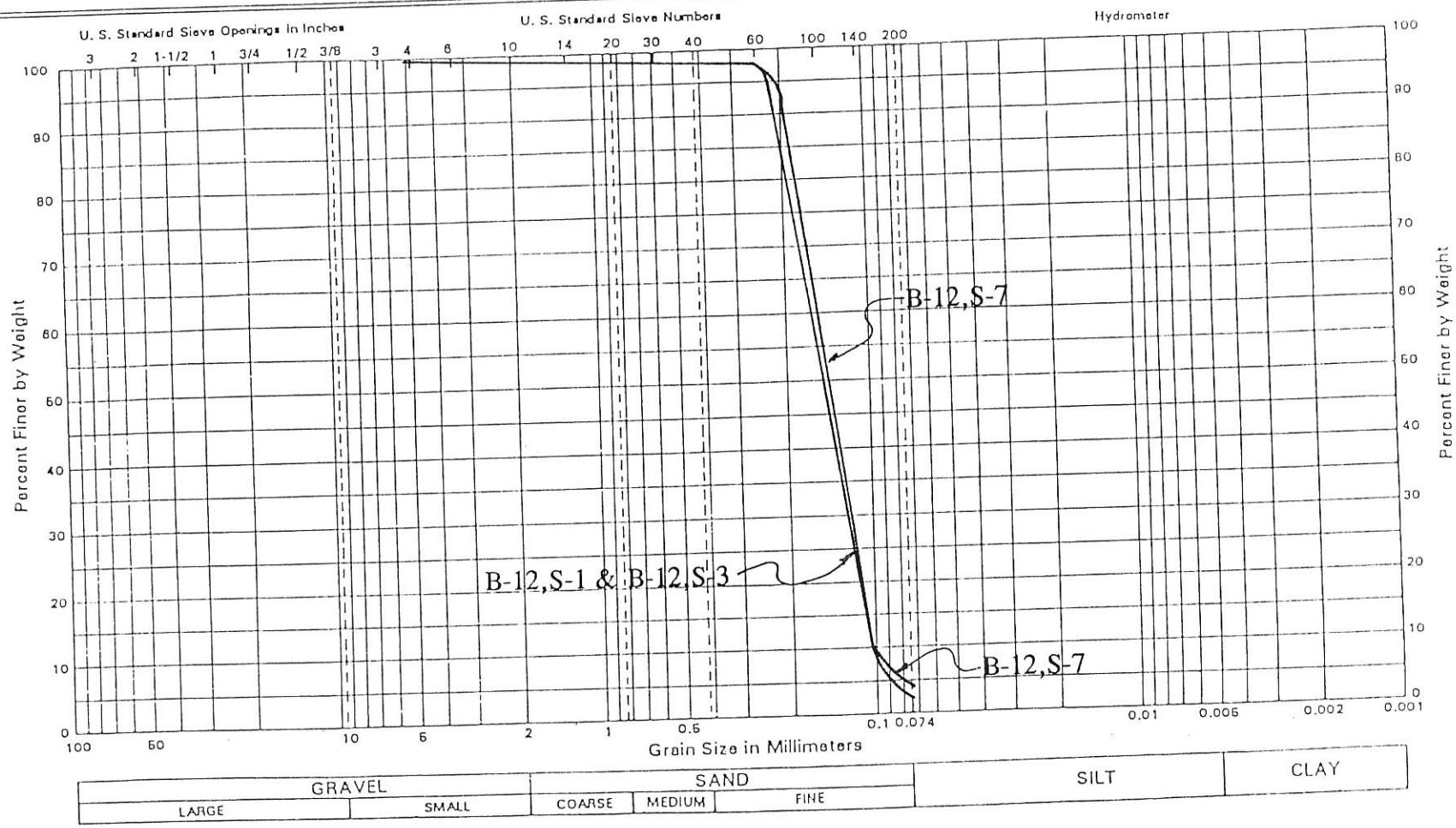
SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 24

J-5449



GRAIN SIZE DETERMINATIONS

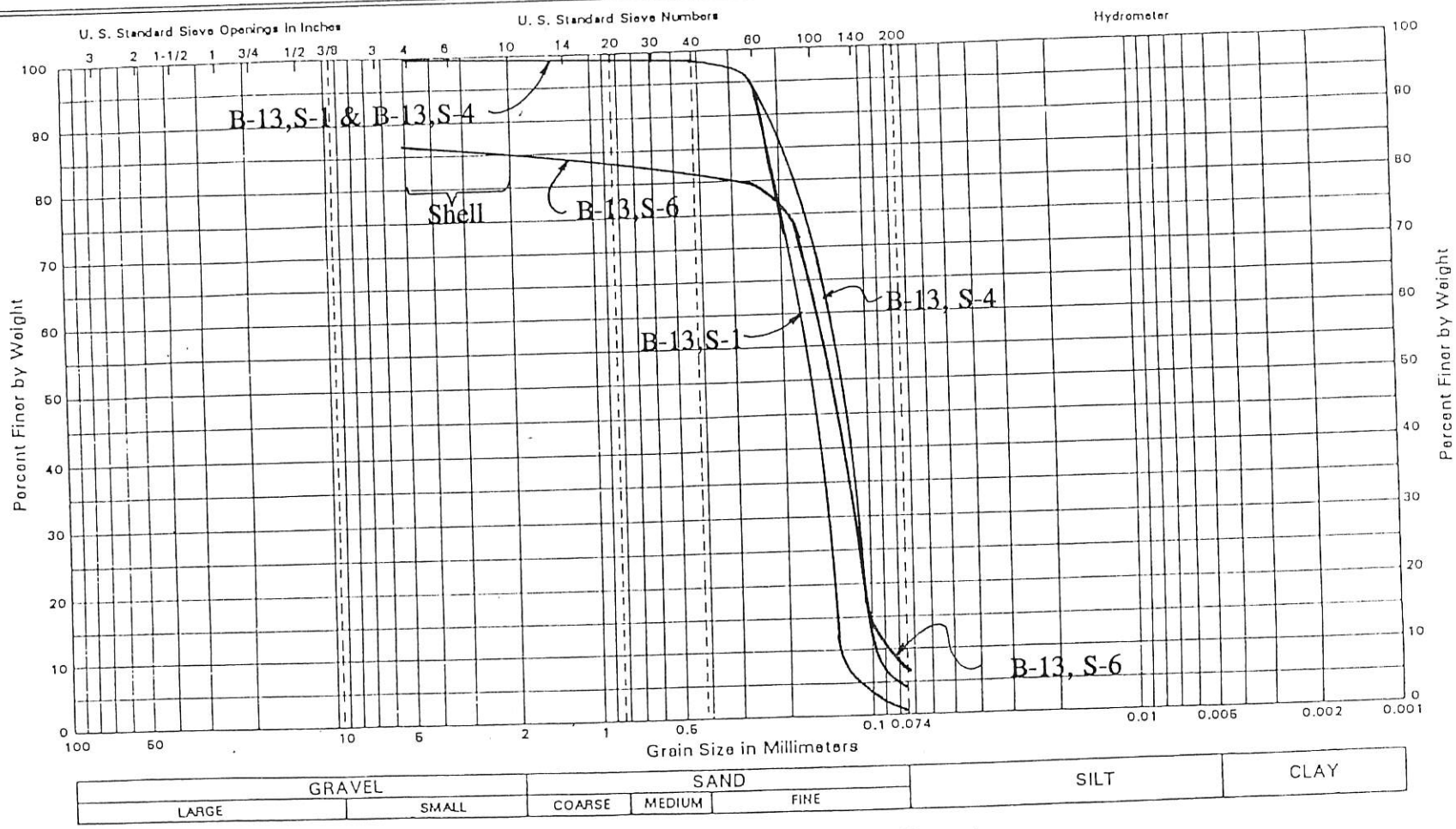
SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 25

J-5449



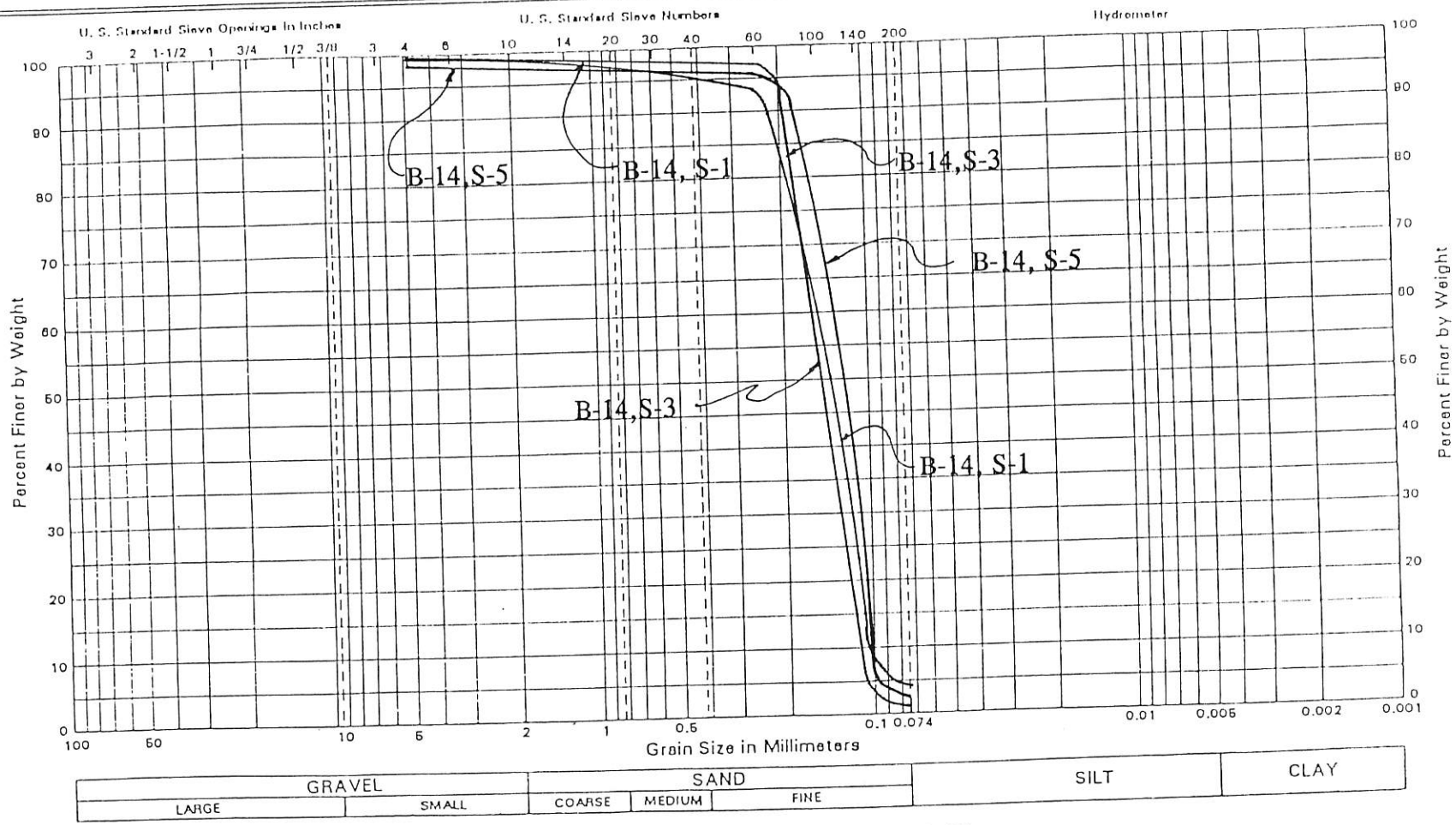
GRAIN SIZE DETERMINATIONS

SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 26



GRAIN SIZE DETERMINATIONS

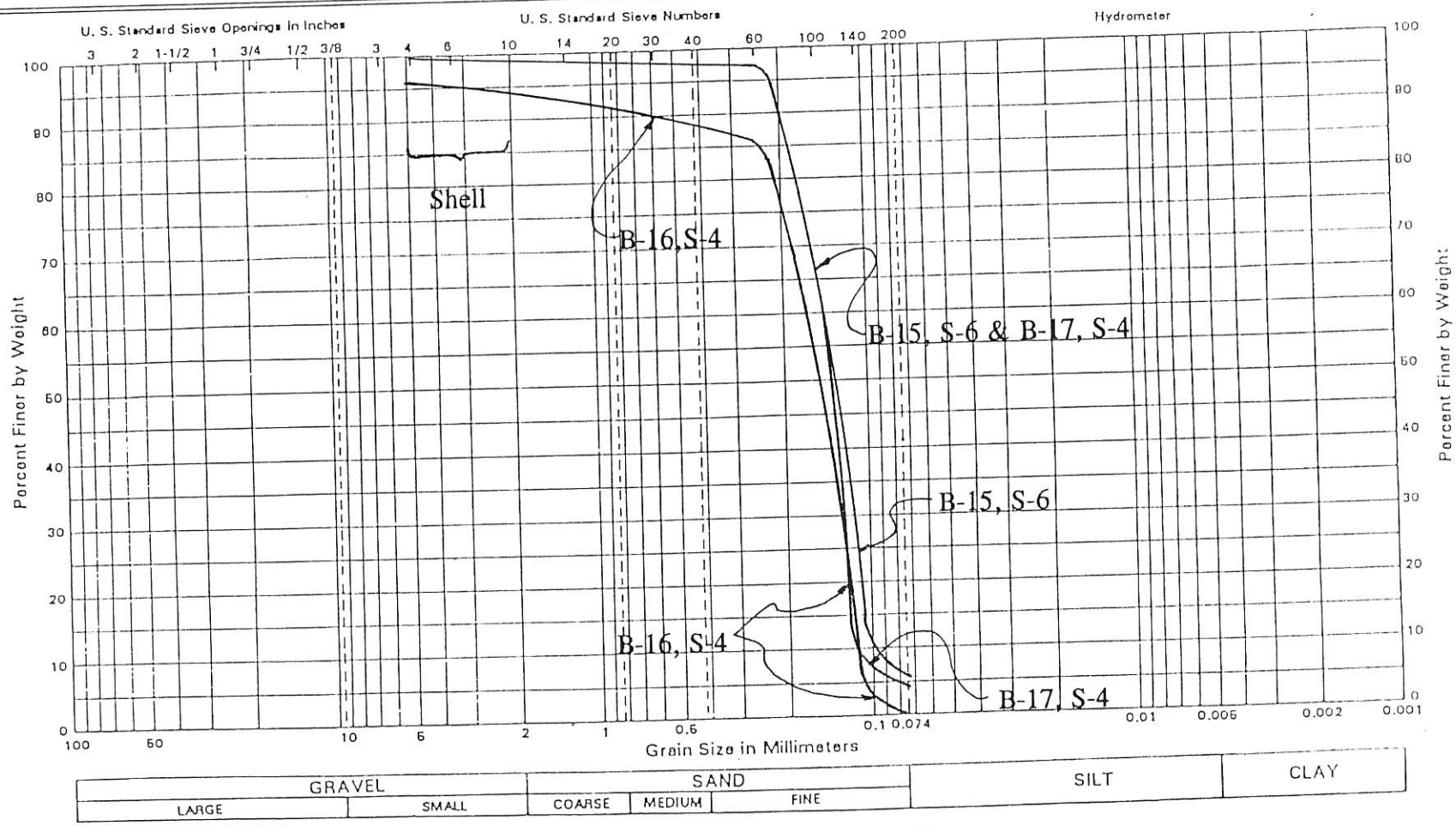
SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

J-5449

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 27



GRAIN SIZE DETERMINATIONS

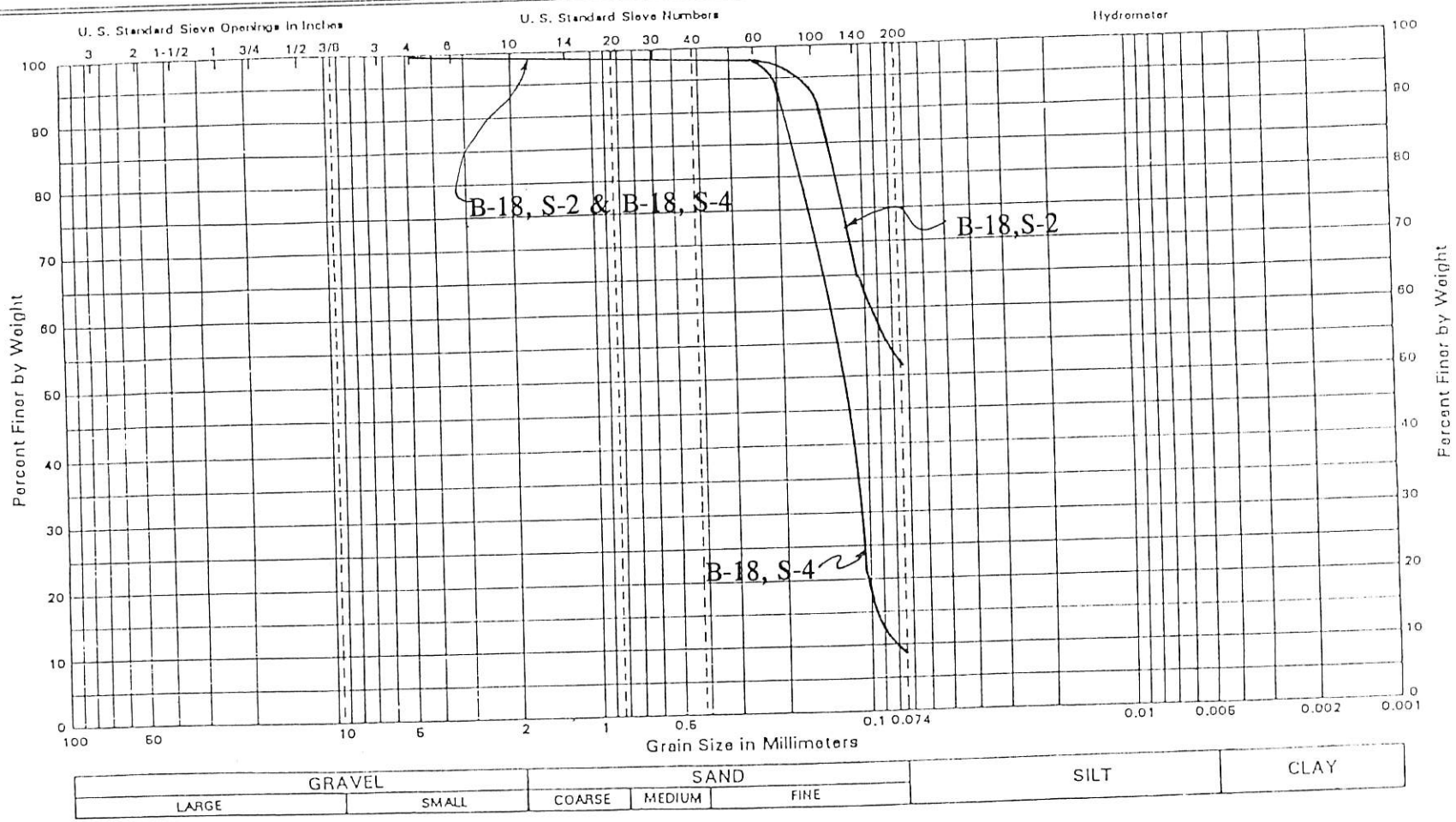
SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

J-5449

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 28



GRAIN SIZE DETERMINATIONS

SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

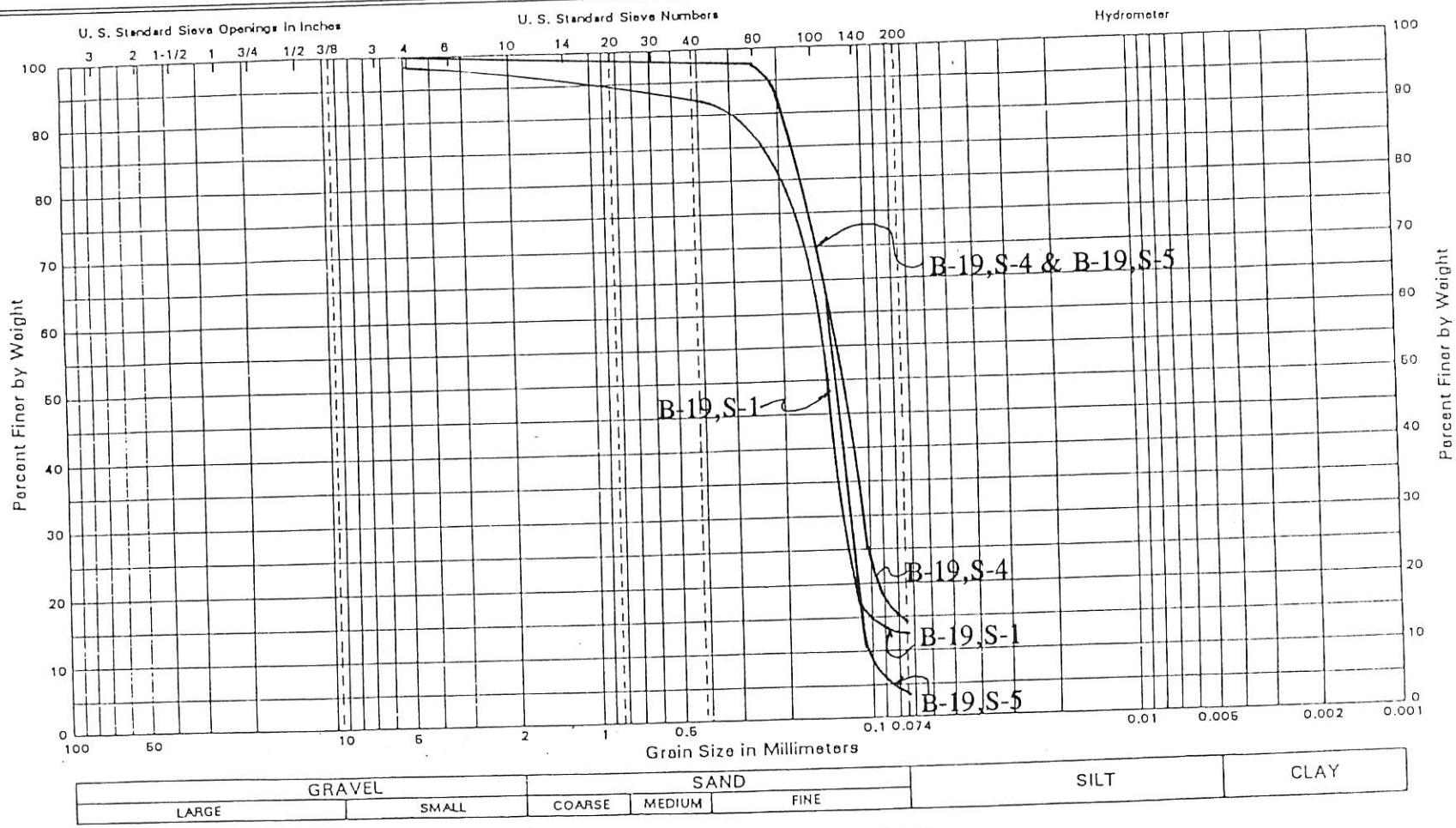
FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

J-5449

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 29

J-5449



GRAIN SIZE DETERMINATIONS

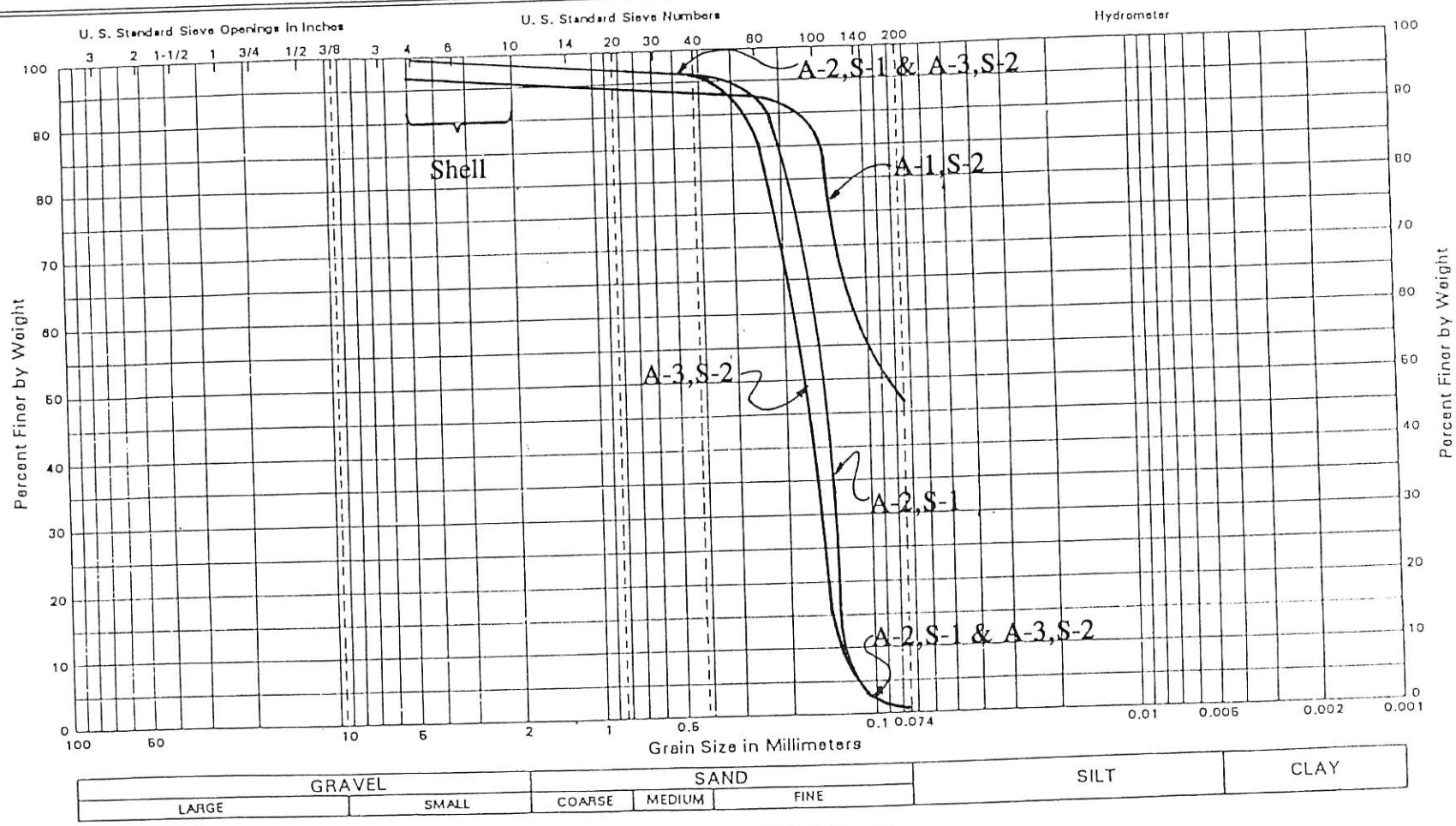
SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 30

J-5449



GRAIN SIZE DETERMINATIONS

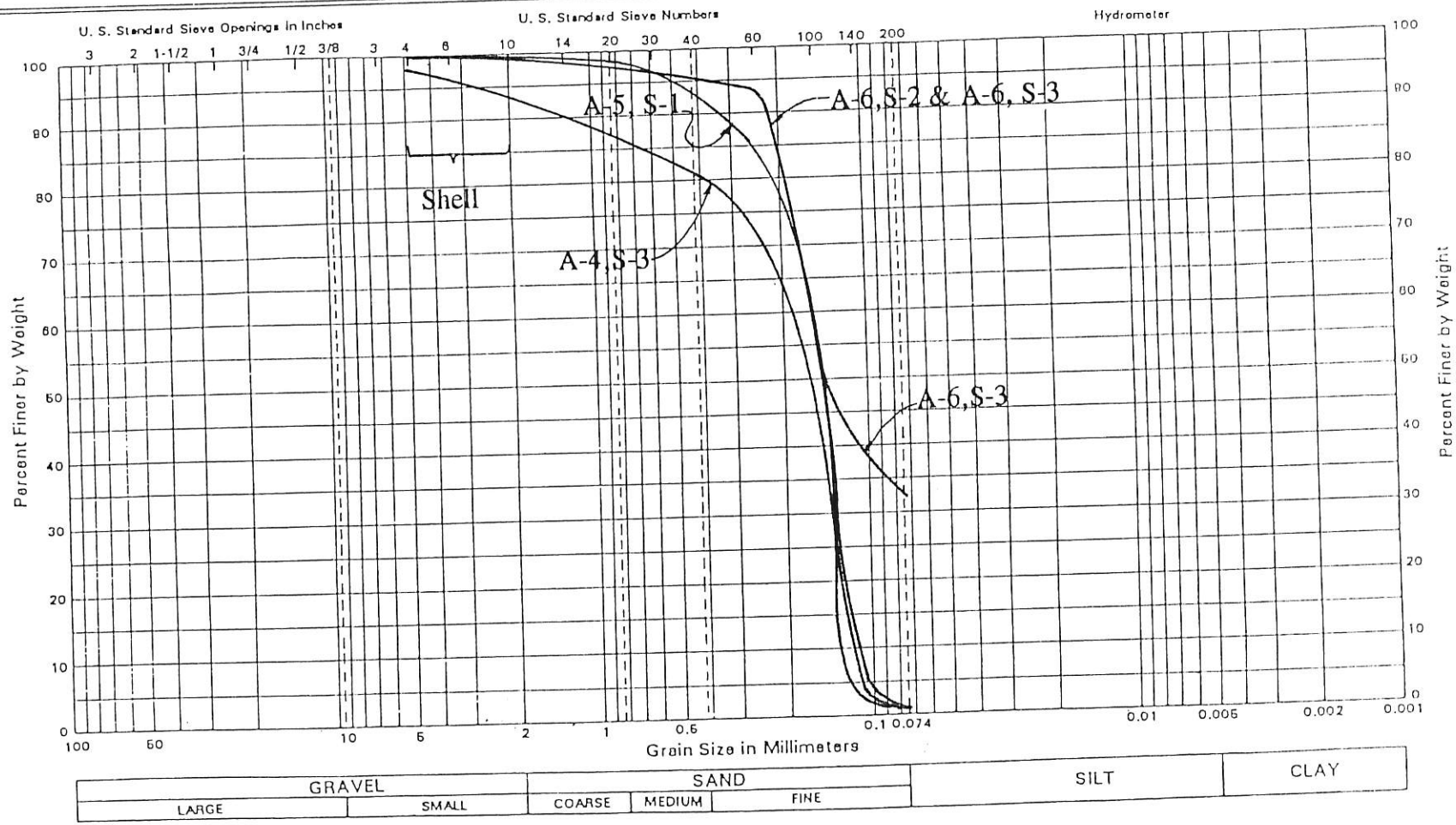
SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 31

J-5449



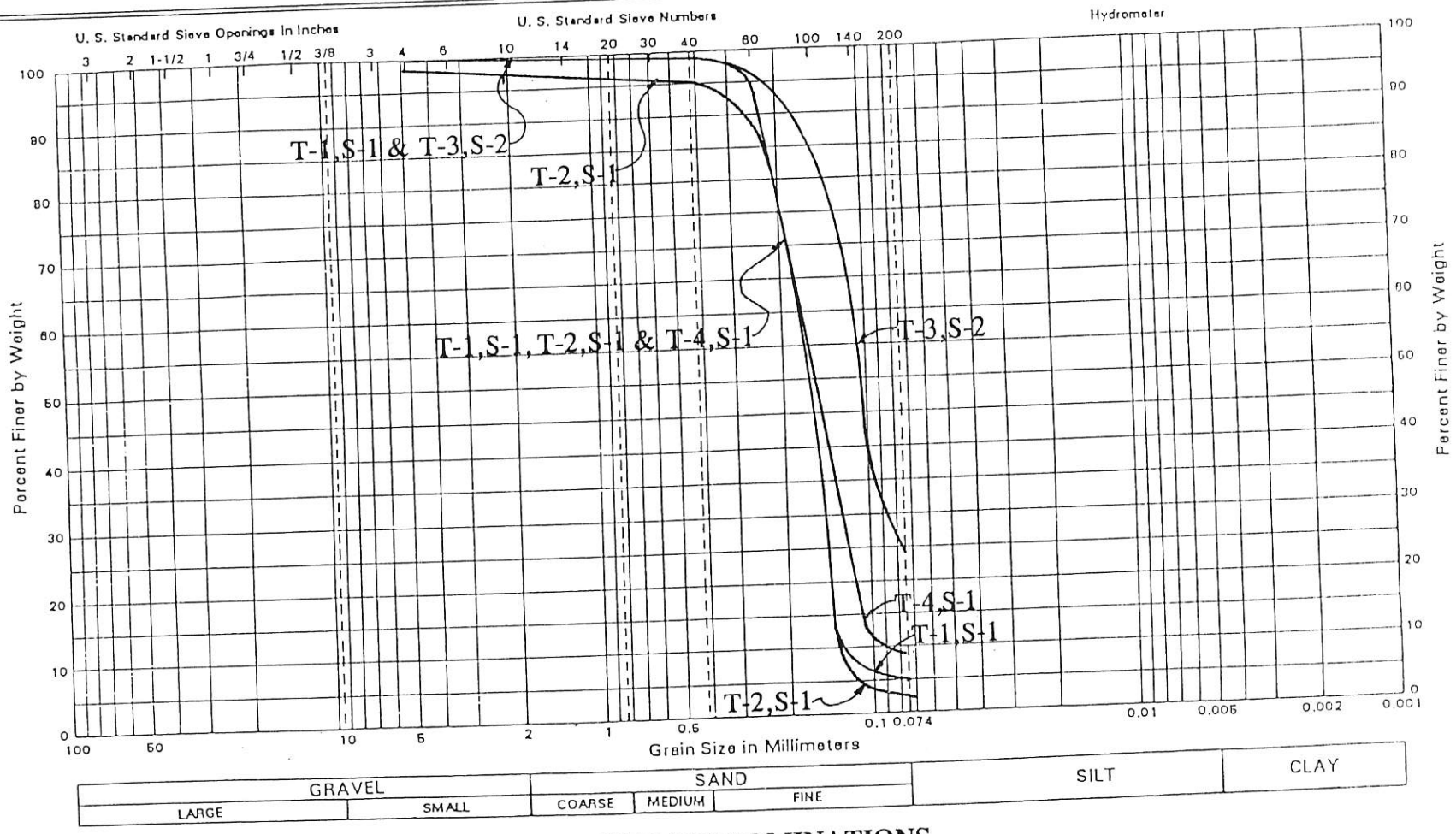
GRAIN SIZE DETERMINATIONS

SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 32



GRAIN SIZE DETERMINATIONS

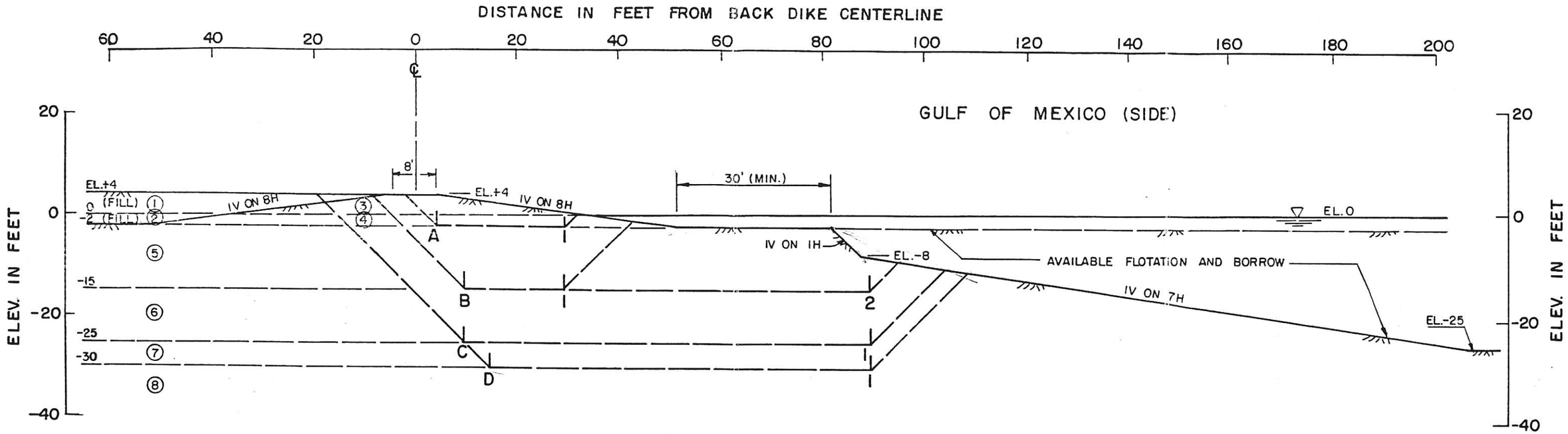
SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

J-5449

GORE ENGINEERING, INC.
SOIL AND FOUNDATION INVESTIGATIONS

Fig. 33



SLOPE STABILITY ANALYSIS
BACK DIKE STABILITY

STRATUM NO.	ANGLE OF FRICTION (DEGREES)	EFFECTIVE UNIT WEIGHT (LBS./CU.FT.)	UNIT COHESION (LBS./SQ.FT.)	
			Center of Stratum	Bottom of Stratum
1	0	90	0	0
2	0	28	0	0
3	0	90	50	50
4	0	28	50	50
5	0	40	90	90
6	0	40	200	200
7	0	40	300	300
8	0	40	300	300

ASSUMED FAILURE PLANE	FACTOR OF SAFETY
A 1	1.91
B 1	1.30
B 2	1.34
C 1	1.73
D 1	2.06

RESULTS OF ANALYSES

$$F.S. = \frac{R_a + R_b + R_p}{D_a - D_p}$$

$$F.S._{B1} = \frac{2660+1800+2127}{8293-3215} = 1.30$$

SUBSOIL INVESTIGATION
ISLE DERNIERES RESTORATION
EASTERN ISLE DERNIERE & TRINITY ISLAND
TERREBONNE PARISH, LOUISIANA

STABILITY ANALYSES

FOR
STATE OF LOUISIANA
DEPT. OF NATURAL RESOURCES

T. BAKER SMITH & SON, INC.
CONSULTING ENGINEERS
HOUMA, LOUISIANA

T.J.McG.
J-5449

NOVEMBER, 1993

GORE ENGINEERING, INC.

FIG. 34

APPENDIX R

State of Louisiana

EDWIN W. EDWARDS
GOVERNOR

JOHN F. ALES
SECRETARY

DEPARTMENT OF NATURAL RESOURCES

December 7, 1993

Mr. Marc J. Rogers, Sr., P.E.
Project Manager
T. BAKER SMITH & SON, INC.
P.O. Box 2266
Houma, Louisiana 70361

Dear Mr. Rogers:

SUBJECT: Contract No. 25085-94-02
Isles Dernieres Restoration
Project No. TE-20, Phase 0, East Island
Project No. TE-24/XTE-41, Phase 1, Trinity Island

REFERENCE: PRELIMINARY ENGINEERING REPORT
REVIEW COMMENTS

The Preliminary Engineering Report dated November 19, 1993, Volumes I through III, has been reviewed by this office. This is a comprehensive and understandable document, and it adequately conforms to the contract requirements as a Preliminary Report.

The following comments are offered for your information and consideration:

A. CONSTRUCTION BUDGET:

1. Base Budget:

PHASE O, EAST ISLAND	$ 3,775,728
PHASE I, TRINITY ISLAND	$ 5,592,719
TOTAL	$ 9,368,447

2. Relocations Budget:

PHASE 0, EAST ISLAND	$	217,153
PHASE 1, TRINITY ISLAND	$	0

3. Contingency Budget:

PHASE 0, EAST ISLAND	$	354,918
PHASE 1, TRINITY ISLAND	$	525,716
RELOCATIONS:	$	20,412
TOTAL	$	901,046

There are no known relocations on East Island, but any that may be present should be accommodated within the construction contract as an integral element of the contract. Accordingly, the total construction budget for East Island can reasonably be considered to include relocations thereby allowing a total of $3,992,881 for construction.

The Contingency Budget, including that for relocations, should not be used in determining the construction total budget. It may become necessary to use some of the contingency subsequent to the receipt of Bid Proposals, but it is preferred that the contingency allowance be available for use after construction contract award to accommodate changes, etc. that would require additional funding through approved Change Orders and Contract Amendment.

PROJECT OBJECTIVES:

The objectives of the two projects are to be accommodated to the fullest extent possible within the restrictions imposed by their respective Budgets. It is not likely that any additional funding can be obtained, even though the scope of the required restorations necessary to meet all project parameters are considerably more than were originally estimated because of the damages caused by Hurricane Andrew.

It would appear that project objectives can be more adequately accommodated by providing restoration for the full length of the island but at a reduced total width. The decrease in width would be in the dune section rather than in the back marsh area. Should this not provide sufficient savings, a reduction in the dune elevation may also be necessary; and this too appears to be within the basic intent of the projects.

Maintaining the full width of either or both projects and shortening their lengths to stay within the budget, leaves part of the islands not restored and unprotected. This would to be contrary to the objectives of the projects.

CONSTRUCTION PROPOSAL BID FORMS:

In lieu of bidding construction under just one format, and for each project, it might be well to consider having a base bid for the preferred project design and one or more Alternates that would have to be bid. These Alternates would have the dimensional changes that would either increase or decrease the quantities of materials and thereby increase or decrease the project costs.

Although Alternates could be of the "add" or "deduct" type, it would be preferred if each would be all inclusive in scope and price.

DREDGING METHOD:

The use of both confined and unconfined dredging in either or both projects, and the different methods of payment that are required, would be a project control problem requiring extra attention and effort during the construction phase. I have to concur, however, that this is probably necessary because of the insufficiency of insitu material for dune construction.

The "net section borrow" method as used for the Repair and Restoration Project at Raccoon Island has a firm Unit Price of $1.27/CY which is very close to your $1.25/CY estimated cost. The Raccoon Island project has no confined dredging, therefore your estimated unit price of $2.28/CY for "net section fill" can not be verified.

The mobilization/demobilization cost for the dredge "Proteus" at Raccoon Island, a 20 inch cutter head hydraulic dredge with a 1000 HP ladder pump and a 4000 HP main pump, is $350,000. It does, however, include every cost but actual dredging costs. For example, it includes a quarters barge, accommodations and subsistence for the construction inspectors, an equipped office for the Owner's representatives, discharge piping, crew boat services, land equipment, etc.

The "Proteus'"draft is approximately 5.5 feet, and there were some problems getting it on station because of shallow shoals enroute to and within the borrow area. It is unlikely that a lesser draft will be used for the East and Trinity Island projects.

At Raccoon Island, it is expected that the maximum quantity of sand to be pumped each 24 hour day is 14,000 CY. The average will actually be less because of dredge advancement, regular maintenance, movement of discharge pipes, breakdowns, etc. An overfill ratio of 3:1 was estimated for the project. A higher overfill ratio has been experienced to date on the project. We should be able to determine and advise you of a more accurate value by mid-January, 1994.

PROBABLE PROJECT BUDGET: EAST ISLAND

Based upon net section fill, your budget estimate in Exhibit 29 on page 76 of Volume I indicates a quantity of 1,936,300 CY of hydraulic fill. However, the last page of Appendix N denotes a total volume of 1,650,802 CY including 40,000 CY for end retaining walls which should be at the lesser unit price of $0.75/CY.

This 325,498 CY difference at $2.28/CY translates into a cost difference of $742,135.

If the lower quantity is the correct value, disparity with the Budget is reduced from $1,318,224 to $576,089, and a design accommodation that will be within the budget should be less difficult to obtain.

There is no estimated fill quantity provided at STA 16+00 on page 3 of Appendix N.

On page 76 of Exhibit 29, the final cost value is the "TOTAL PROBABLE ENGINEERING AND CONSTRUCTION COST".The same statement applies on page 82, Exhibit 31 and all other "Probable Project Budget" pages.

OTHER COMMENTS:

1. A definitive review of Trinity Island has not been completed, but it would appear that most of the comments made herein may applicable to Trinity Island also. Calculations and values should be checked and evaluated

2. All estimated production rates and costs should be based upon production time per 24 hour work day. Production time is that time the dredge is effectively pumping slurry; all other time is downtime. Any downtime for breakdowns, repairs, weather, etc. are not reimbursable nor will claims for such downtime be considered. Such claims, however, may be allowable within the project schedule and/or be sufficient grounds for an extension of the contract time.

3. On page 6 of Volume I, paragraph No. 4: The paragraph should be preceded by "It is expected that....."

4. With reference to page 20, item 2.5.3. There will be no Construction Agreement between EPA and T. Baker Smith & Son, Inc.

5. With reference to page 26, paragraph No. 4. Dredging has started at Raccoon Island, and the initial activity has been to construct a beach dune and foreslope at the center of the island. The initial results have been less than satisfactory, and procedural changes are being implemented to correct the conditions as experienced thus far.

a. There is a much higher clay content in the material than previous investigations indicated for area A in the upper 15 feet of the borrow site. Clay balls in the initial cut at the top indicates that there is some clay overlay of the bottom. Below the 15 ft depth there is no acceptable material.

b. The maximum slurry mixture for the first 15 ft of the dredging depth has been approximately 30 % solids rather than the +40% expected.

c. A 1:50 slope has not yet been obtained. The slope is at least 1:100 and may be 1:200. To date, it has not been possible to establish a dune platform.

d. For the first 30,000 CY, the overfill ratio is probably 5:1 or greater.

6. The limited experience to date at Raccoon Island is not enough to suggest that conditions will be similar at East and Trinity Islands:however, alternate consideration(s) with regards to the proposed unconfined placement of dredged material in the dune area and the foreslopes might be appropriate.

7. An Hourly Rate (HR) method of payment as discussed in item No. 5.3.4 on page No. 69 was determined to be unacceptable for the Raccoon Island project. It is also a method of payment opposed by the Corps of Engineers except in infrequent cases where no other method of payment is possible.

8. Construction of a back retention dike in the manner proposed may not be possible because of the potential fluidity of the material to be used. While stone levees are generally opposed by EPA, their consideration should not be avoided if their use is the only acceptable alternative to accomplish the project objectives. The bottom is firm and can adequately support a stone structure.

Specific information relating to the Raccoon Island Project will be forwarded for your information and consideration as it becomes available.

Very truly yours,

Arthur L. Long

Arthur L. Long, P.E.
Project Manager

cc: Jeanene Peckham, EPA
Contract File
Project Files

EASTERN ISLES DERNIERES BARRIER ISLAND RESTORATION/COASTAL WETLAND CREATION

Candidate Project
for the
Priority Project List
of the
Coastal Wetlands Planning, Protection and Restoration Act

Local Sponsor
Terrebonne Parish Consolidated Government

PROPOSED BY
U.S. Environmental Protection Agency, Region 6

Point of Contact: Jeanene Peckham
Phone: (214) 655-2263

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
PROPOSED PROJECT
EASTERN ISLES DERNIERES BARRIER ISLAND RESTORATION,
COASTAL WETLAND CREATION

PROJECT DESCRIPTION

LOCATION:

The project involves restoration of Eastern Isles Dernieres in Terrebonne Parish and includes marsh creation. The project is centered at Longitude 90* 42' west and latitude 29* 03'north. (FIGURE 1)

JUSTIFICATION:

The U.S. Geological Survey Circular 1075, 1990, features the Isles Dernieres in its publication entitled COASTS IN CRISIS and states that due to natural and human forces, the island has one of the most rapidly deteriorating shorelines in the world. The entire chain may be submerged by 2020, with Eastern Isle Dernieres predicted to be submerged much earlier. Using the Louisiana Geological Survey shoreline erosion rates, Eastern Isles Dernieres except for approximately 30 acres will be lost in 20 years.

The rapid erosion, breaching, and disappearance of the island will expose the wetlands and estuaries adjacent to greater wave and current action. Bay areas will be open to direct wave attack from the Gulf of Mexico, and increase the frequency and residence time of saline water incursions and the impact of tidal cycles. The result is accelerated conversion of estuarine areas to a less productive open Gulf of Mexico habitat.

Without the protection of barrier islands, the estuaries in the lower deltaic plain are susceptible to a dramatic increase in erosion rates, and, consequently, further land loss.

Restoration of barrier islands is considered a vital component in any comprehensive plan for wetlands protection in Louisiana and was addressed in the State's application for the Terrebonne-Barataria Estuary to be included in the National Estuary Program.

Experience has demonstrated that the most cost-effective method of restoration is to use only sediment and vegetation to nourish beaches and to build back-island marshes. Extensive information is included in Penland et al (1990), McBride et. al., (1989) and a number of other reports listed as references.

OBJECTIVES

The objectives of the project are to restore the coastal dunes and wetlands of the Eastern Isles Dernieres, enhance the physical integrity of the islands, and protect the lower

Terrebonne estuary and associated vegetated wetlands against direct exposure to the Gulf of Mexico.

Specific objectives are to increase the height and width of the barrier island, and close breaches, using sediment and vegetation. The overwash will be prevented and will lessen loss of back marsh. Habitat will be provided for fish and wildlife, including migratory birds.

PROJECT FEATURES

The proposed two-mile restoration and marsh creation is based on experience gained in a successful pilot project implemented by Terrebonne Parish in 1985. As illustrated in Figure 2, overwash sediments will be used to build up dunes; dune height will be approximately 8 feet and dunes will be seeded.Emergent sands will be used to close breaches and build retaining structure behind and over which dredged material will be pumped. (Figure 2)

Sediment will be suction dredged from bay areas behind the island and used to hydraulically fill the area between dunes and earthen retaining structure. An elevated platform up to 3 feet NGVD will be planted with species appropriate to brackish marsh. This project will create wetlands and provide wildlife and fisheries habitat.

The project will be additive to the existing restoration at the eastern most end and will extend two miles to the west. At least 105 acres of saline marsh will be directly created by the project.

WETLANDS PROTECTED

Construction of a barrier island system which is continuous, high and wide will provide greater protection to back-barrier bays, estuaries and marshes, compared to the existing system. The protection comes from a combination of island features, including: reduction of overwash erosion and island breaching; reduction of fetch for local wind-induced waves; greater energy dissipation of storm surges; fewer tidal inlets and less saline intrusion. Direct benefits have been estimated beyond those retaining the integrity of the island itself, to a reduction in land loss at least 100 acres per mile of restoration, however, these benefits are not included in the approach to evaluation of benefits.

LIFE EXPECTANCY OF BENEFITS

The lifetime of the islands will be extended to possibly some 30-40 years in to the future. See diagram for remaining project area after 20 years. (Map, Future with Project)

SECTION 10/404

Section 10/404 permits will be needed for the proposed dredging and for discharge into waters of the United States. No aspects of the project are known to pose a significant permitting problem. The dredging area for Eastern Isles Dernieres previously has been permitted by the New Orleans District Corps of Engineers.

LOUISIANA COASTAL MANAGEMENT PROGRAM

The project is located in the Louisiana Coastal zone and requires a Coastal Use Permit. There are no aspects of the project which are known to pose a significant permitting problem. The dredging area for Eastern Isle Dernieres previously has been permitted by the State of Louisiana Department of Natural Resources, Coastal Management Division.

LOUISIANA WATER QUALITY CERTIFICATION

No request for certification has been filed. There are no aspects of this project which are known to pose a significant certification problem.

ENDANGERED SPECIES ACT

This project is not believed to adversely affect endangered or threatened species, but the project will be coordinated with the U.S. Fish and Wildlife Service.

PROJECT IMPLEMENTATION SCHEDULE

Construction is proposed to be completed in approximately 14 months after listing.

POTENTIAL FUNDING SOURCES

FEDERAL FUNDING SOURCE(S)

No present Federal funding sources have been identified other than the Coastal Wetlands Planning, Protection and Restoration Act.

NON-FEDERAL FUNDING SOURCE(S)

Only known non-Federal funding sources are from the State of Louisiana and the Terrebonne Parish Consolidated Government.

OFFICE OF THE PRESIDENT
TERREBONNE PARISH CONSOLIDATED GOVERNMENT
P. O. BOX 6097
HOUMA, LOUISIANA 70361

T. L. "TEDDY" DUHE'
PARISH PRESIDENT

(504) 873-6401

July 31, 1991

Mr. Russell S. Rhoades, 6E
Director of Environmental Services Division
1445 Ross Avenue
Dallas, TX 75202

RE: EPA Barrier Island Pilot Project
Terrebonne Parish

Dear Mr. Rhoades:

In 1978, Terrebonne Parish established and maintains through today, the restoration of its Barrier Island as a major priority of the Parish. As evidence of this priority and its commitment to it, the Parish has spent over $1 million of local funds to date toward Barrier Island restoration projects. In addition, the Parish has worked closely with State and Federal agencies to produce the same end results.

EPA's current interest in Terrebonne's Islands, as expressed by Ms. Jeanene Peckham of your office is gratifying.

At this time, Terrebonne Parish is interested in further pursuing the development of an EPA/local sponsored project.

If my office can be of any assistance in this matter, please do not hesitate to call.

Sincerely,

T.L. "Teddy" Duhe'
Parish President

TLD/eja

xc: Mr. Jim Edmonson

EASTERN ISLE DERNIERES RESTORATION

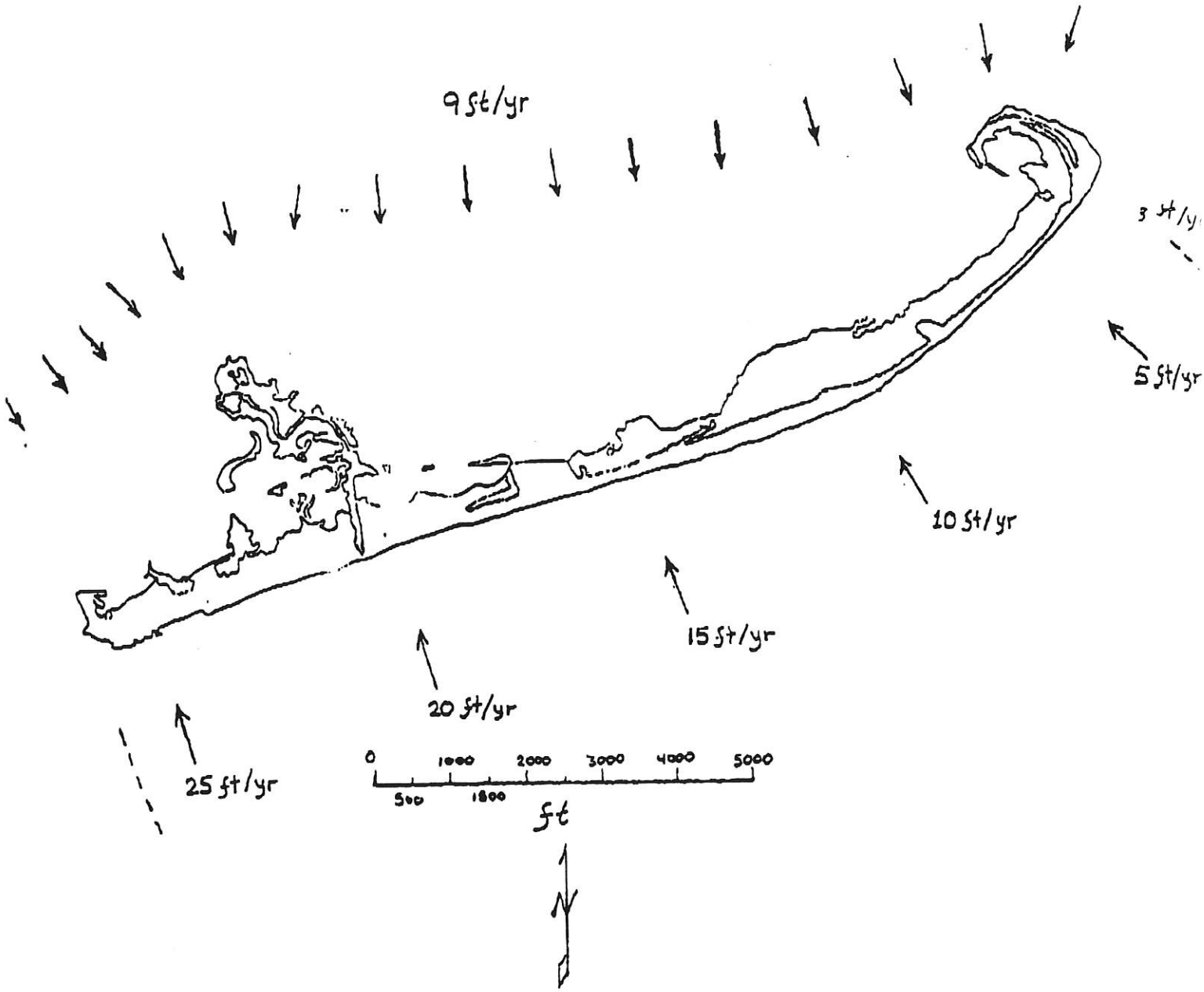
Wetland Value Assessment

Methodology

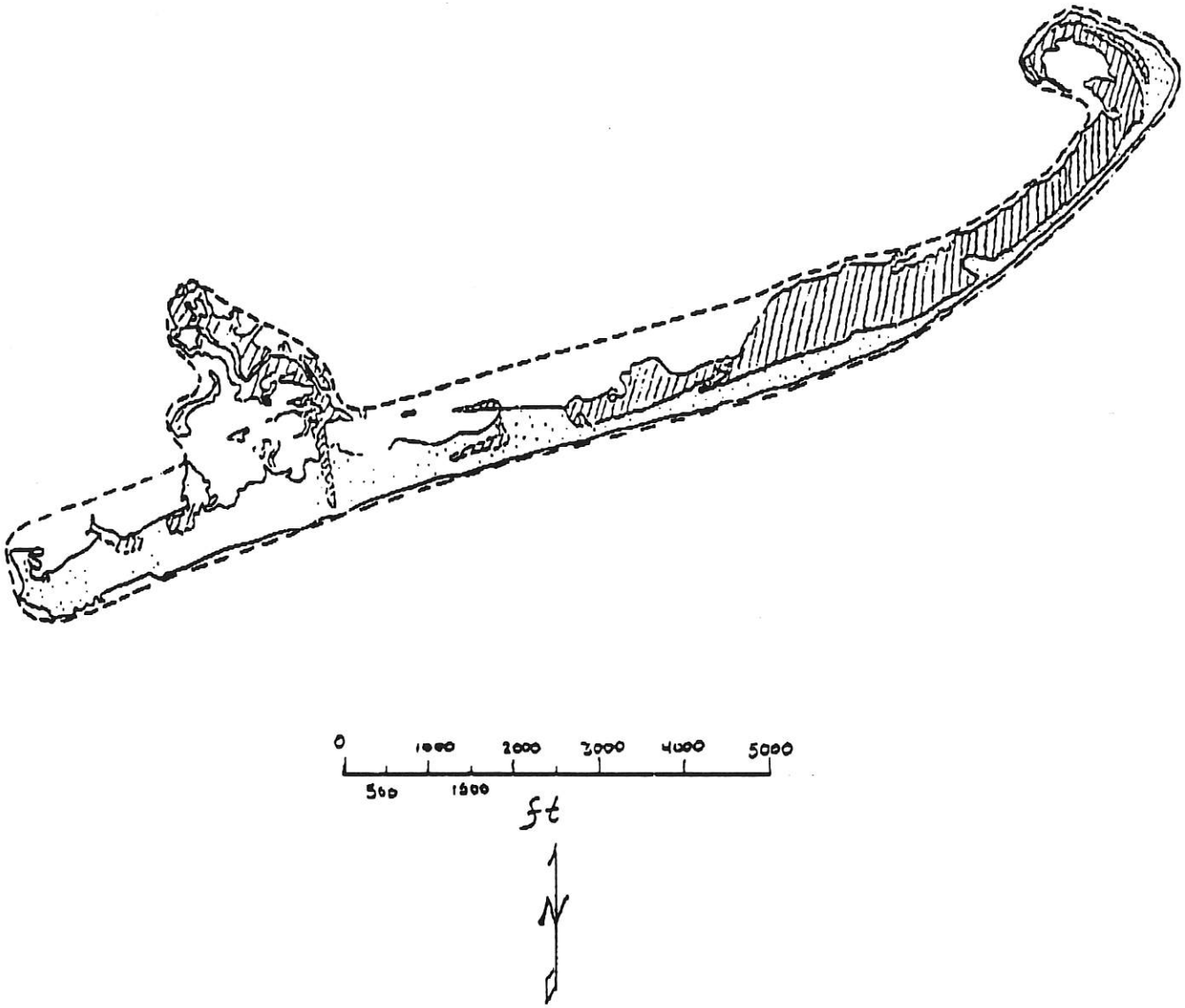
The study site was delineated from 1989 color infrared (CIR) aerial photography. The Island was then surrounded by a study site boundary which remained constant throughout the project life and each habitat type was indicated on the study site map. Louisiana Geologic Survey shoreline erosion rates on the beach side of the east, west, and backside of the island were 3 ft/yr, 25 ft/yr, and 9ft/yr, respectively. Erosion rates on the beach side were pro-rated from east to west into 3, 5, 10, 15, 20, and 25 ft/yr. Erosion rates were then used to determine island habitat acreage over 5-yr periods, both with and without the project. Erosion rates were assumed not to change with the project.

From the baseline data, maps for years 5, 10, 15, and 20 were drawn both with and without project, based on the above shoreline erosion rates. Acreage were planimetered for each (Table 1). It was assumed that the unvegetated beach and foredune of the island remained fairly constant and moved back as the shoreline eroded with and without the project. Also, it was assumed that the saline marsh, which received only irregular tidal flooding comprised 10 percent of the total saline marsh at baseline. This area moved back as the unvegetated dune moved.

Once areas were obtained for each year, they were used to formulate the HSI for each variable (Table 2). Average Annual Salinity (Variable 6) was assumed to be 22 ppt and was not expected to chance with the project. Also, no modifiers were present both before or after the project for Aquatic Organism Access (Variable 7). For both Water Duration (Variable 4) and Open Water Depth (Variable 5), a weighted average was used to indicate the HSI, Acreage from each category were multiplied by their SI, added together and divided by the total amount of acreage available in that category.

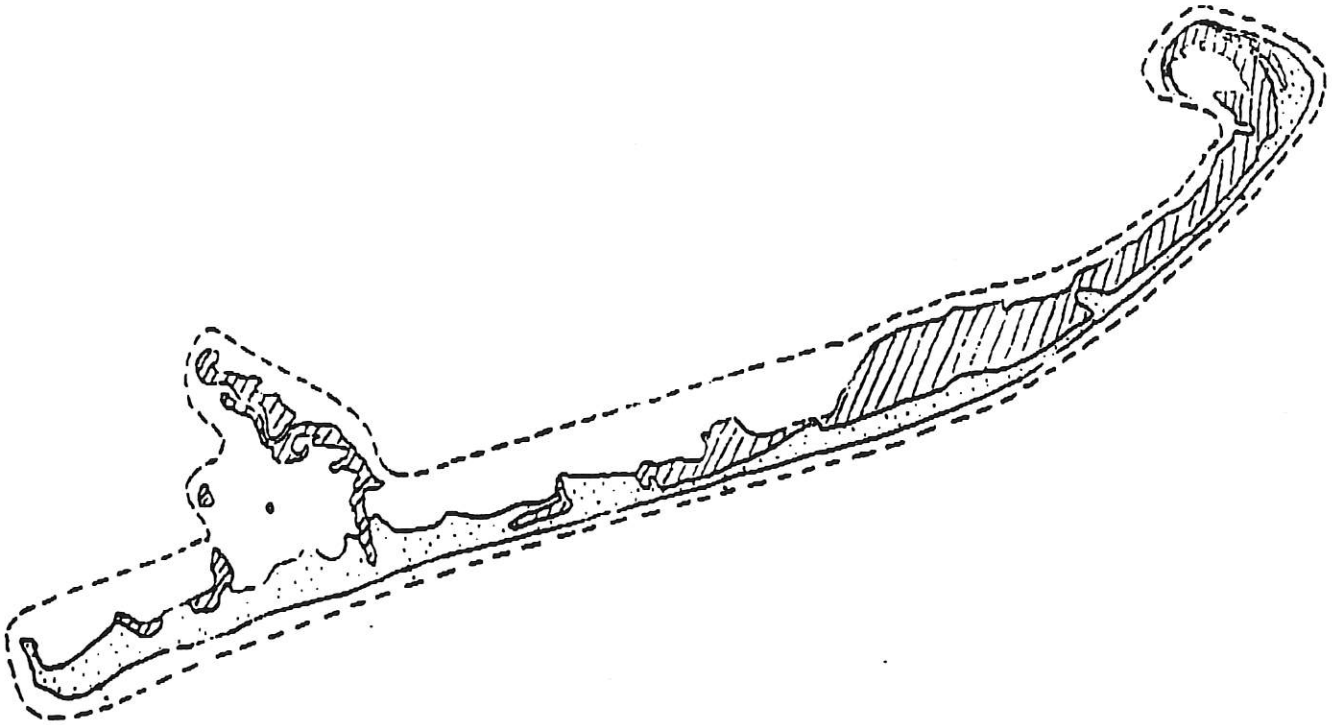


MAP
EROSION RATES
E-N11



MAP
BASELINE

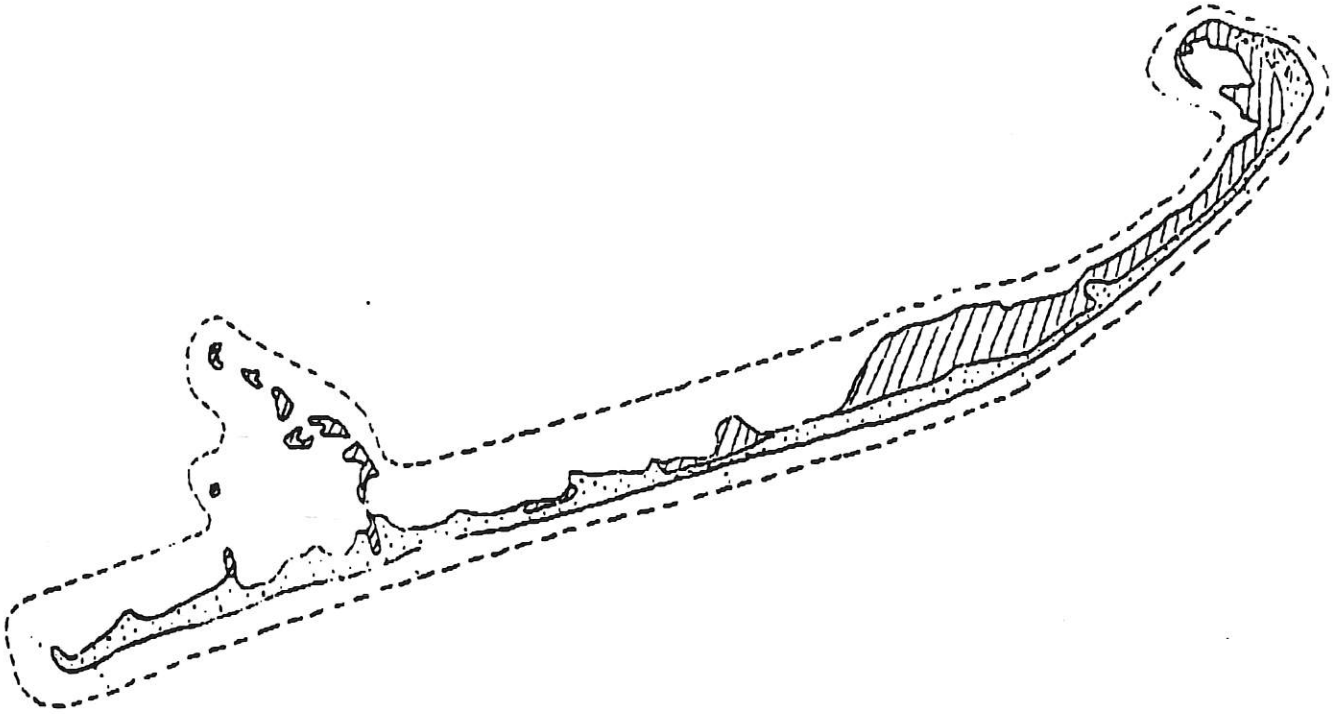
E-N13



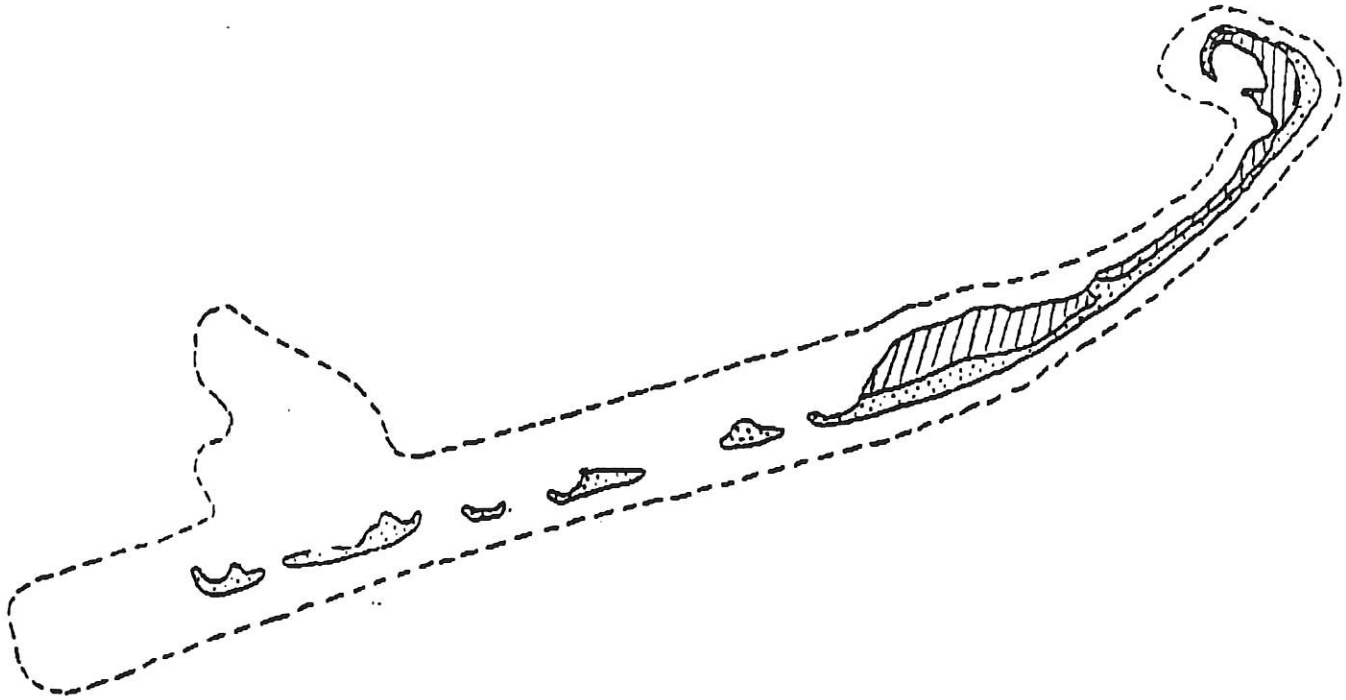
MAP

5 YEARS WITHOUT PROJECT

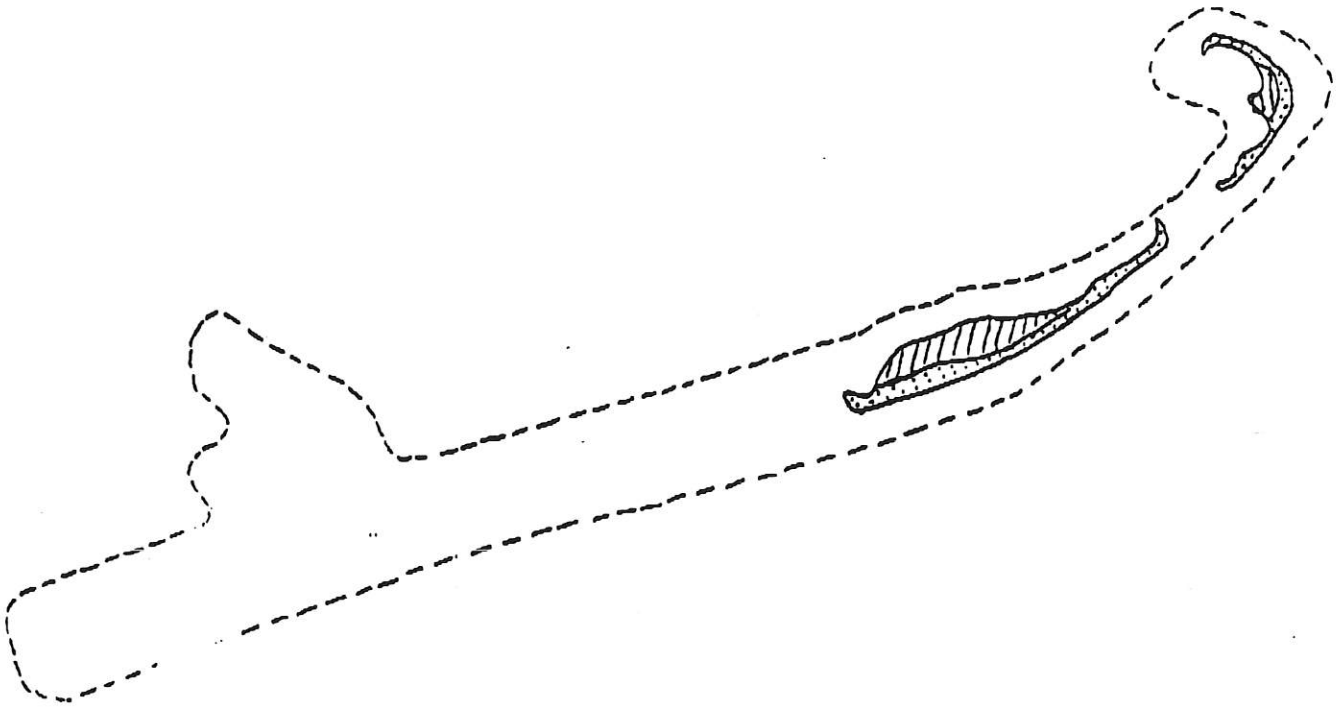
E-N15



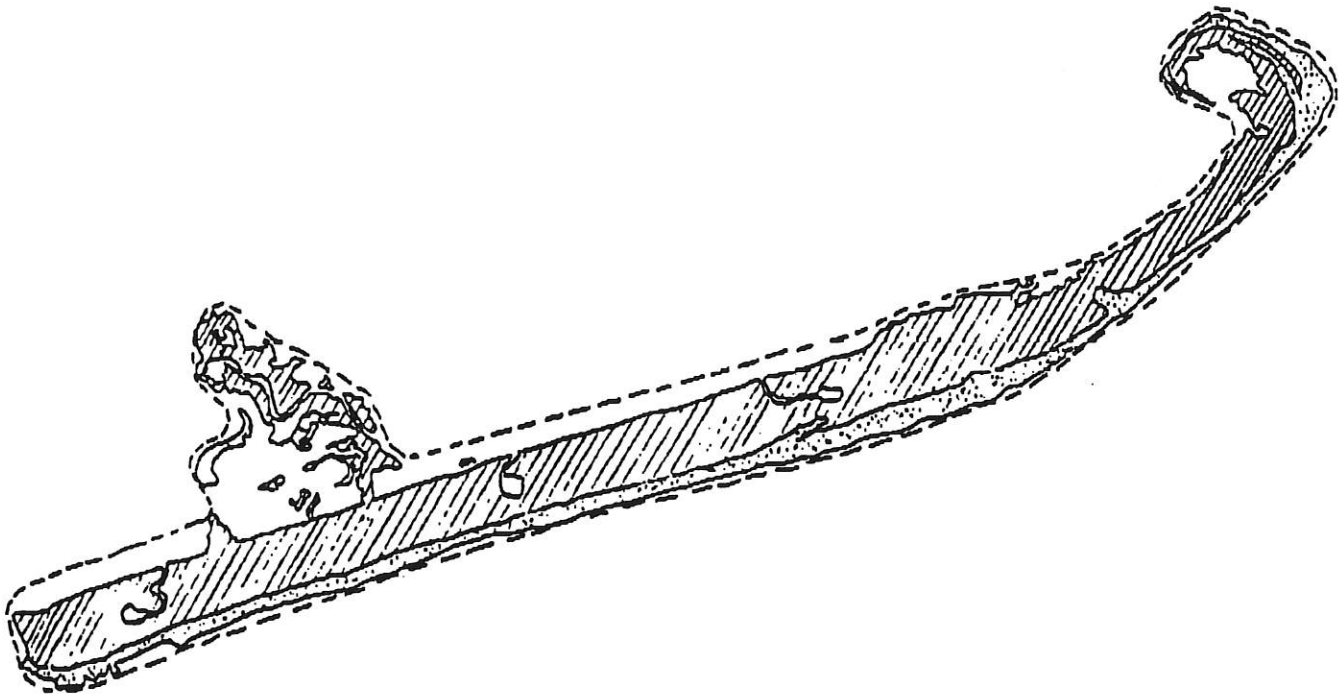
MAP
10 YEARS WITHOUT PROJECT
E-N17



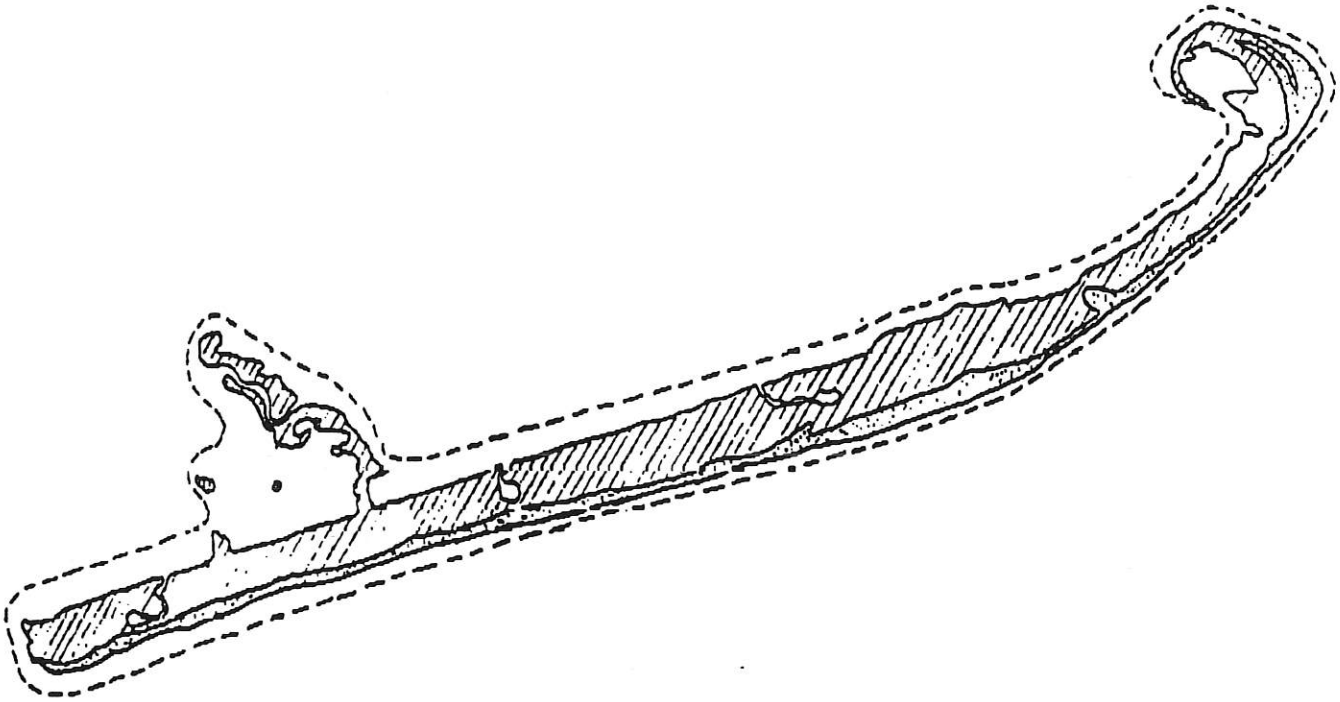
MAP
15 YEARS WITHOUT PROJECT
E-N19



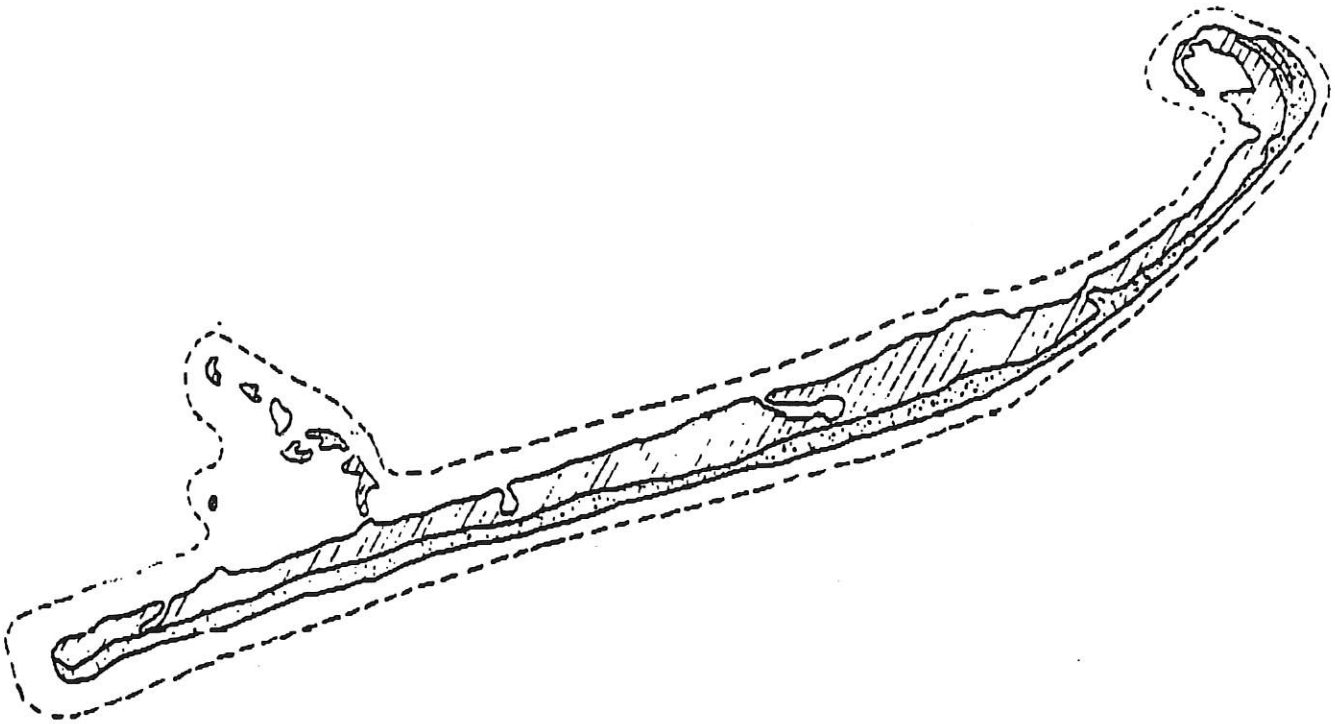
MAP
20 YEARS WITHOUT PROJECT
E-N21



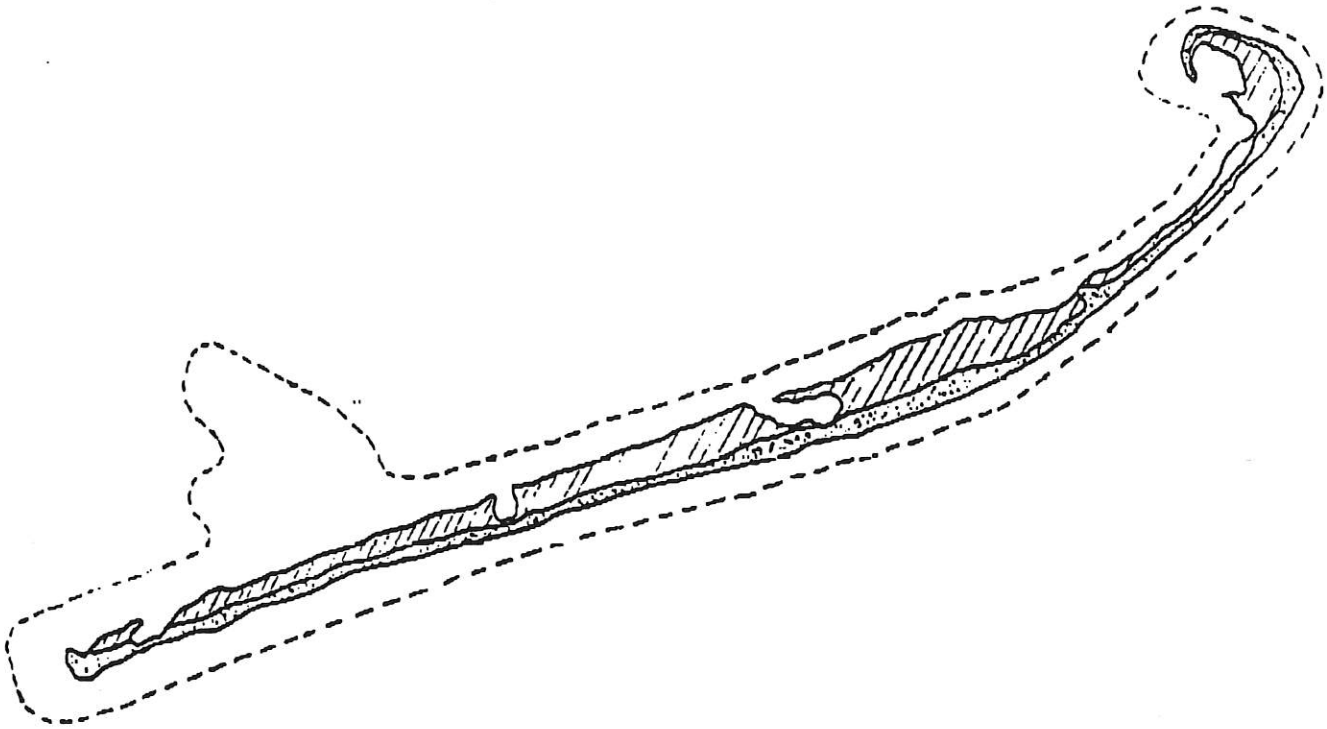
MAP
1 YEAR WITH PROJECT
E-N23



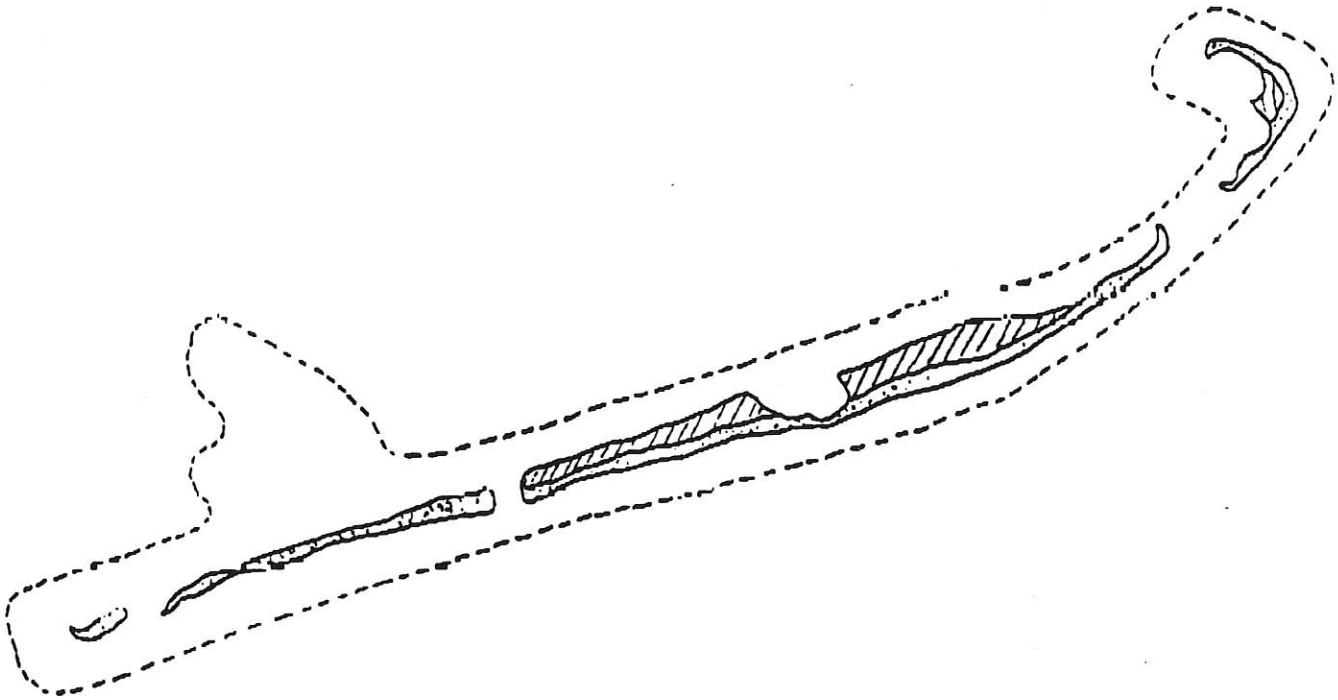
MAP
5 YEARS WITH PROJECT
E-N25



MAP
10 YEARS WITH PROJECT
E-N27



MAP
15 YEARS WITH PROJECT
E-N29



MAP
20 YEARS WITH PROJECT
E-N31

PROJECT: EASTERN ISLES DERNIERS

TOTAL FIRST COSTS	$5,414,000
TOTAL FULLY FUNDED COSTS	$6,345,000

ANNUAL CHARGES	PRESENT WORTH	AVERAGE ANNUAL
INTEREST & AMORTIZATION	$5,674,039	$610,527
MONITORING	$145,374	$15,642
IMPACT TO WATER SUPPLY		$0
ACCESS OIL & GAS		$0
INDUCED DREDGING		$0
IMPACT TO SHIPPING		$0
EMERGENCY CLOSURE		$0
OYSTER LEASES		$0
O & M COSTS		$0
REPLACEMENT COSTS		$0
OTHER COSTS		$0
TOTAL	$5,819,413	$626,169

AVERAGE ANNUAL HABITAT UNITS	44.89
COST PER HABITAT UNIT	$13,949
AVERAGE ANNUAL ACRES OF EMERGENT MARSH	61

EASTERN ISLES DERNIERES BARRIER ISLAND RESTORATION/COASTAL WETLAND CREATION

Candidate Project
for the
Priority Project List
of the
Coastal Wetlands Planning, Protection and Restoration Act

Local Sponsor
Terrebonne Parish Consolidated Government

PROPOSED BY
U.S. Environmental Protection Agency, Region 6

Point of Contact: Jeanene Peckham
Phone: (214) 655-2263

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
PROPOSED PROJECT
EASTERN ISLES DERNIERES BARRIER ISLAND RESTORATION,
COASTAL WETLAND CREATION

PROJECT DESCRIPTION

LOCATION:

The project involves restoration of Eastern Isles Dernieres in Terrebonne Parish and includes marsh creation. The project is centered at Longitude 90* 42' west and latitude 29* 03'north. (FIGURE 1)

JUSTIFICATION:

The U.S. Geological Survey Circular 1075, 1990, features the Isles Dernieres in its publication entitled COASTS IN CRISIS and states that due to natural and human forces, the island has one of the most rapidly deteriorating shorelines in the world. The entire chain may be submerged by 2020, with Eastern Isle Dernieres predicted to be submerged much earlier. Using the Louisiana Geological Survey shoreline erosion rates, Eastern Isles Dernieres except for approximately 30 acres will be lost in 20 years.

The rapid erosion, breaching, and disappearance of the island will expose the wetlands and estuaries adjacent to greater wave and current action. Bay areas will be open to direct wave attack from the Gulf of Mexico, and increase the frequency and residence time of saline water incursions and the impact of tidal cycles. The result is accelerated conversion of estuarine areas to a less productive open Gulf of Mexico habitat.

Without the protection of barrier islands, the estuaries in the lower deltaic plain are susceptible to a dramatic increase in erosion rates, and, consequently, further land loss.

Restoration of barrier islands is considered a vital component in any comprehensive plan for wetlands protection in Louisiana and was addressed in the State's application for the Terrebonne-Barataria Estuary to be included in the National Estuary Program.

Experience has demonstrated that the most cost-effective method of restoration is to use only sediment and vegetation to nourish beaches and to build back-island marshes. Extensive information is included in Penland et al (1990), McBride et. al., (1989) and a number of other reports listed as references.

OBJECTIVES

The objectives of the project are to restore the coastal dunes and wetlands of the Eastern Isles Dernieres, enhance the physical integrity of the islands, and protect the lower

Terrebonne estuary and associated vegetated wetlands against direct exposure to the Gulf of Mexico.

Specific objectives are to increase the height and width of the barrier island, and close breaches, using sediment and vegetation. The overwash will be prevented and will lessen loss of back marsh. Habitat will be provided for fish and wildlife, including migratory birds.

PROJECT FEATURES

The proposed two-mile restoration and marsh creation is based on experience gained in a successful pilot project implemented by Terrebonne Parish in 1985. As illustrated in Figure 2, overwash sediments will be used to build up dunes; dune height will be approximately 8 feet and dunes will be seeded.Emergent sands will be used to close breaches and build retaining structure behind and over which dredged material will be pumped. (Figure 2)

Sediment will be suction dredged from bay areas behind the island and used to hydraulically fill the area between dunes and earthen retaining structure. An elevated platform up to 3 feet NGVD will be planted with species appropriate to brackish marsh. This project will create wetlands and provide wildlife and fisheries habitat.

The project will be additive to the existing restoration at the eastern most end and will extend two miles to the west. At least 105 acres of saline marsh will be directly created by the project.

WETLANDS PROTECTED

Construction of a barrier island system which is continuous, high and wide will provide greater protection to back-barrier bays, estuaries and marshes, compared to the existing system. The protection comes from a combination of island features, including: reduction of overwash erosion and island breaching; reduction of fetch for local wind-induced waves; greater energy dissipation of storm surges; fewer tidal inlets and less saline intrusion. Direct benefits have been estimated beyond those retaining the integrity of the island itself, to a reduction in land loss at least 100 acres per mile of restoration, however, these benefits are not included in the approach to evaluation of benefits.

LIFE EXPECTANCY OF BENEFITS

The lifetime of the islands will be extended to possibly some 30-40 years in to the future. See diagram for remaining project area after 20 years. (Map, Future with Project)

SECTION 10/404

Section 10/404 permits will be needed for the proposed dredging and for discharge into waters of the United States. No aspects of the project are known to pose a significant permitting problem. The dredging area for Eastern Isles Dernieres previously has been permitted by the New Orleans District Corps of Engineers.

LOUISIANA COASTAL MANAGEMENT PROGRAM

The project is located in the Louisiana Coastal zone and requires a Coastal Use Permit. There are no aspects of the project which are known to pose a significant permitting problem. The dredging area for Eastern Isle Dernieres previously has been permitted by the State of Louisiana Department of Natural Resources, Coastal Management Division.

LOUISIANA WATER QUALITY CERTIFICATION

No request for certification has been filed. There are no aspects of this project which are known to pose a significant certification problem.

ENDANGERED SPECIES ACT

This project is not believed to adversely affect endangered or threatened species, but the project will be coordinated with the U.S. Fish and Wildlife Service.

PROJECT IMPLEMENTATION SCHEDULE

Construction is proposed to be completed in approximately 14 months after listing.

POTENTIAL FUNDING SOURCES

FEDERAL FUNDING SOURCE(S)

No present Federal funding sources have been identified other than the Coastal Wetlands Planning, Protection and Restoration Act.

NON-FEDERAL FUNDING SOURCE(S)

Only known non-Federal funding sources are from the State of Louisiana and the Terrebonne Parish Consolidated Government.

OFFICE OF THE PRESIDENT
TERREBONNE PARISH CONSOLIDATED GOVERNMENT
P. O. BOX 6097
HOUMA, LOUISIANA 70361

T. L. "TEDDY" DUHE'
PARISH PRESIDENT

(504) 873-6401

July 31, 1991

Mr. Russell S. Rhoades, 6E
Director of Environmental Services Division
1445 Ross Avenue
Dallas, TX 75202

**RE: EPA Barrier Island Pilot Project
Terrebonne Parish**

Dear Mr. Rhoades:

In 1978, Terrebonne Parish established and maintains through today, the restoration of its Barrier Island as a major priority of the Parish. As evidence of this priority and its commitment to it, the Parish has spent over $1 million of local funds to date toward Barrier Island restoration projects. In addition, the Parish has worked closely with State and Federal agencies to produce the same end results.

EPA's current interest in Terrebonne's Islands, as expressed by Ms. Jeanene Peckham of your office is gratifying.

At this time, Terrebonne Parish is interested in further pursuing the development of an EPA/local sponsored project.

If my office can be of any assistance in this matter, please do not hesitate to call.

Sincerely,

T.L. "Teddy" Duhe'
Parish President

TLD/eja

xc: Mr. Jim Edmonson

EASTERN ISLE DERNIERES RESTORATION

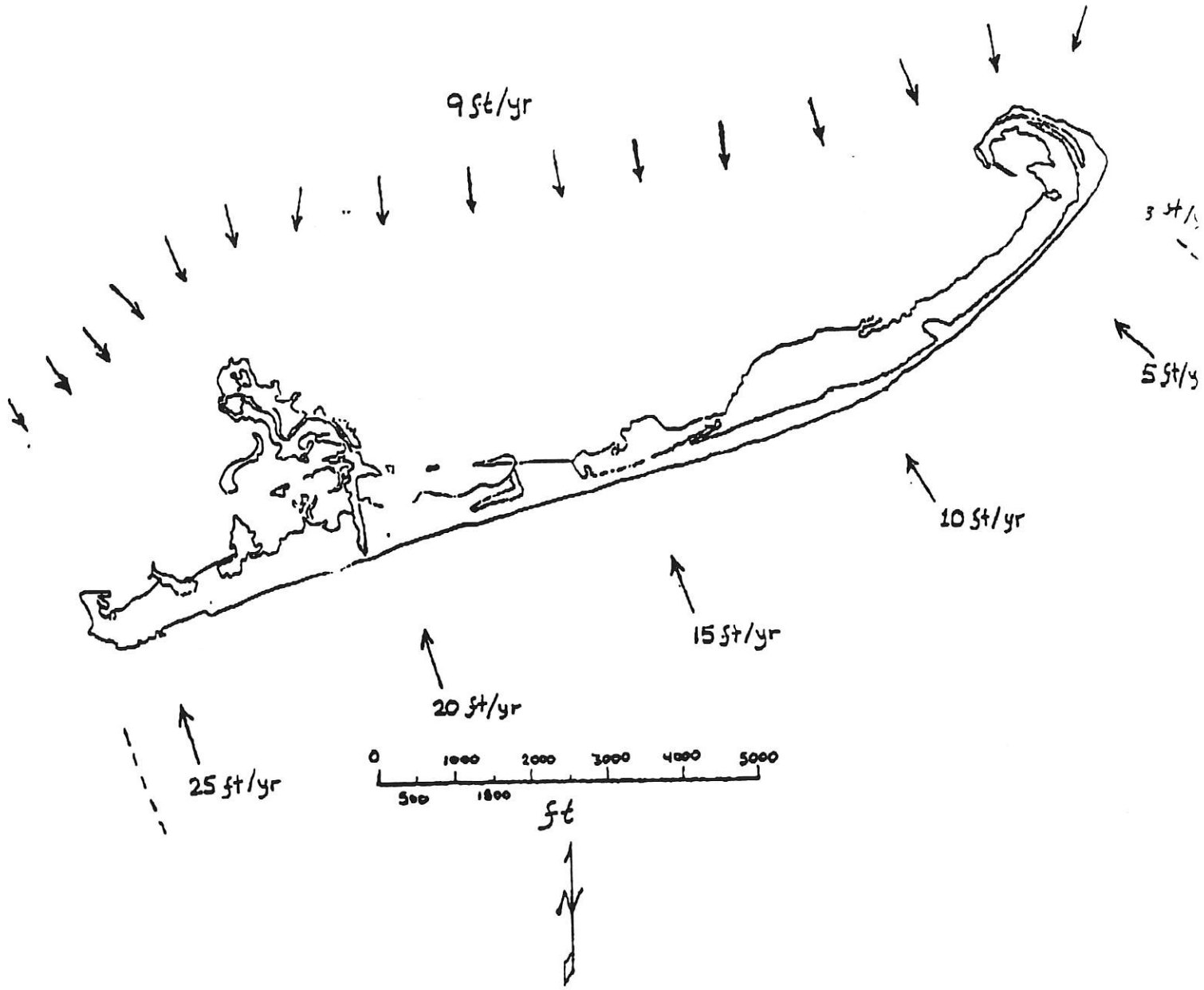
Wetland Value Assessment

Methodology

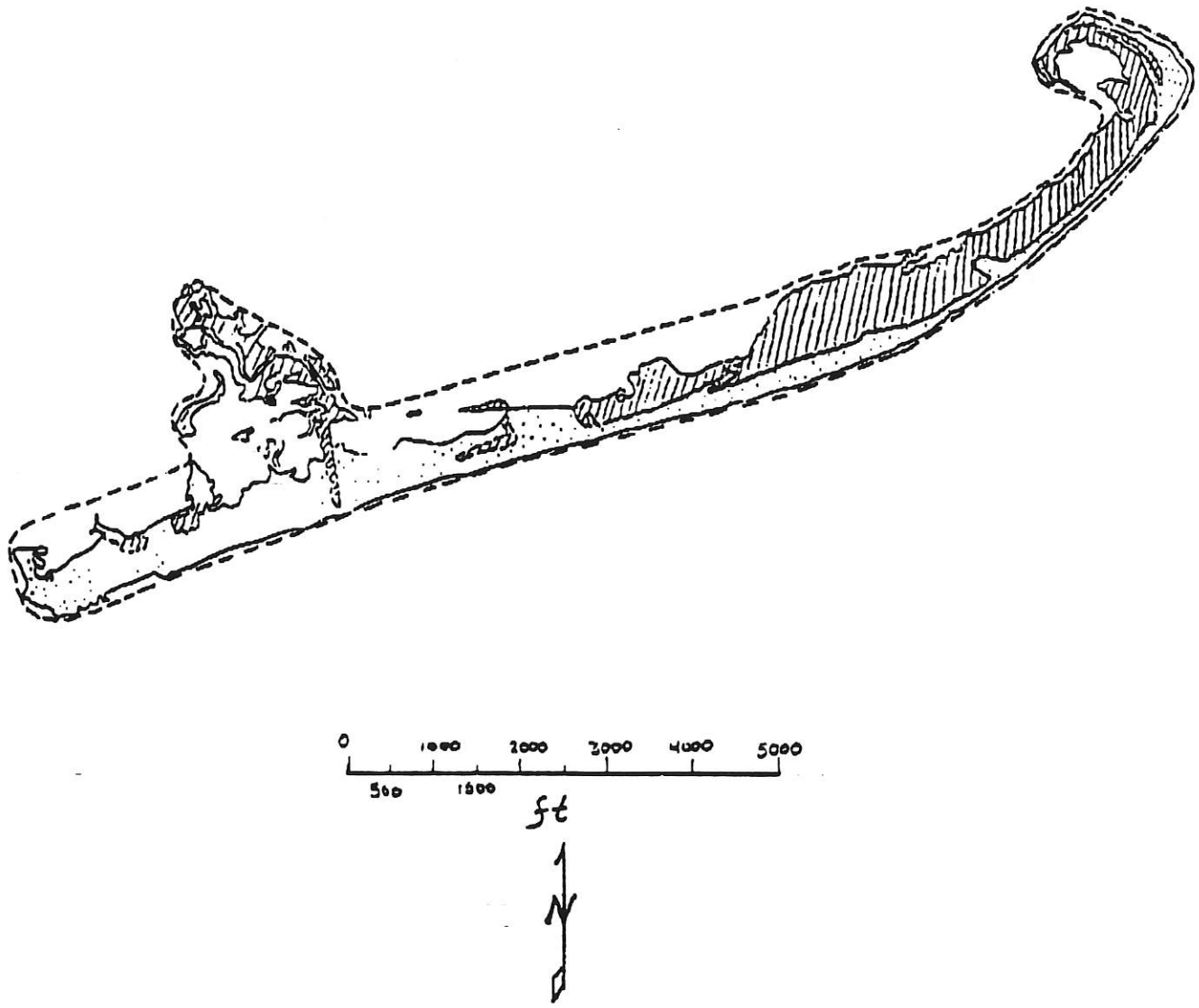
The study site was delineated from 1989 color infrared (CIR) aerial photography. The Island was then surrounded by a study site boundary which remained constant throughout the project life and each habitat type was indicated on the study site map. Louisiana Geologic Survey shoreline erosion rates on the beach side of the east, west, and backside of the island were 3 ft/yr, 25 ft/yr, and 9ft/yr, respectively. Erosion rates on the beach side were pro-rated from east to west into 3, 5, 10, 15, 20, and 25 ft/yr. Erosion rates were then used to determine island habitat acreage over 5-yr periods, both with and without the project. Erosion rates were assumed not to change with the project.

From the baseline data, maps for years 5, 10, 15, and 20 were drawn both with and without project, based on the above shoreline erosion rates. Acreage were planimetered for each (Table 1). It was assumed that the unvegetated beach and foredune of the island remained fairly constant and moved back as the shoreline eroded with and without the project. Also, it was assumed that the saline marsh, which received only irregular tidal flooding comprised 10 percent of the total saline marsh at baseline. This area moved back as the unvegetated dune moved.

Once areas were obtained for each year, they were used to formulate the HSI for each variable (Table 2). Average Annual Salinity (Variable 6) was assumed to be 22 ppt and was not expected to chance with the project. Also, no modifiers were present both before or after the project for Aquatic Organism Access (Variable 7). For both Water Duration (Variable 4) and Open Water Depth (Variable 5), a weighted average was used to indicate the HSI, Acreage from each category were multiplied by their SI, added together and divided by the total amount of acreage available in that category.

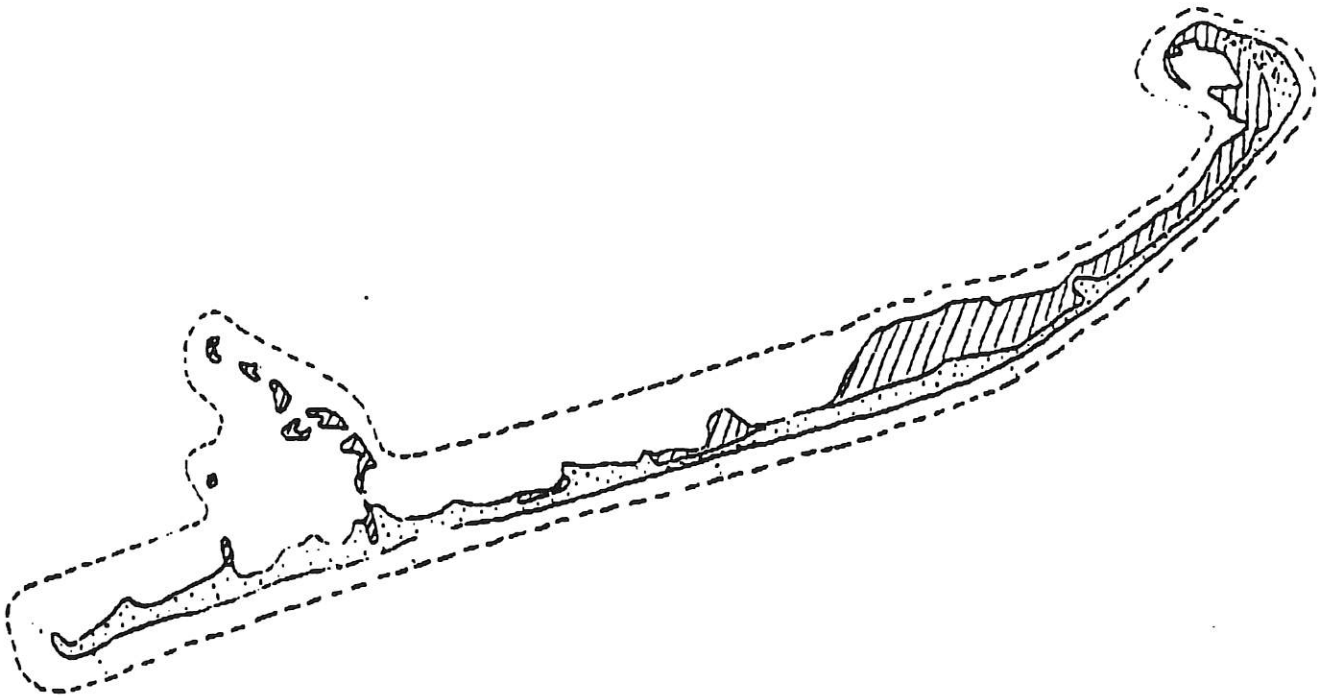


MAP
EROSION RATES
E-N11

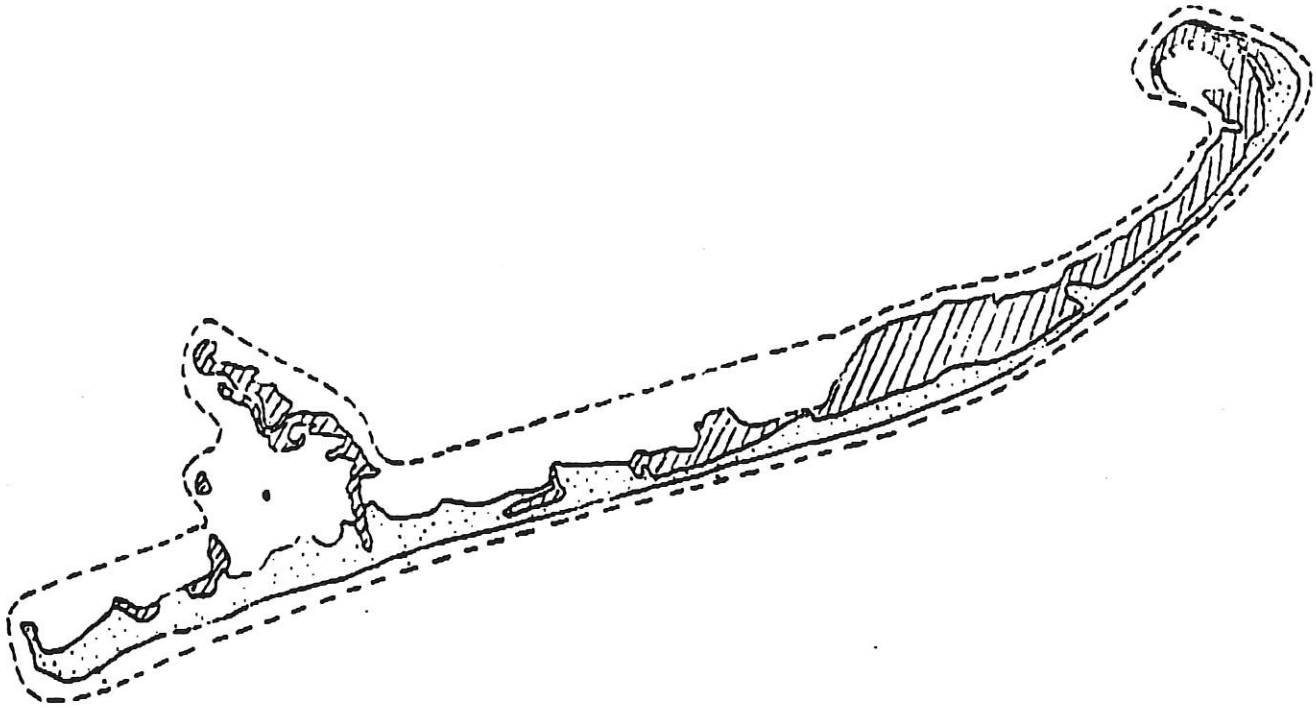


MAP
BASELINE

E-N13



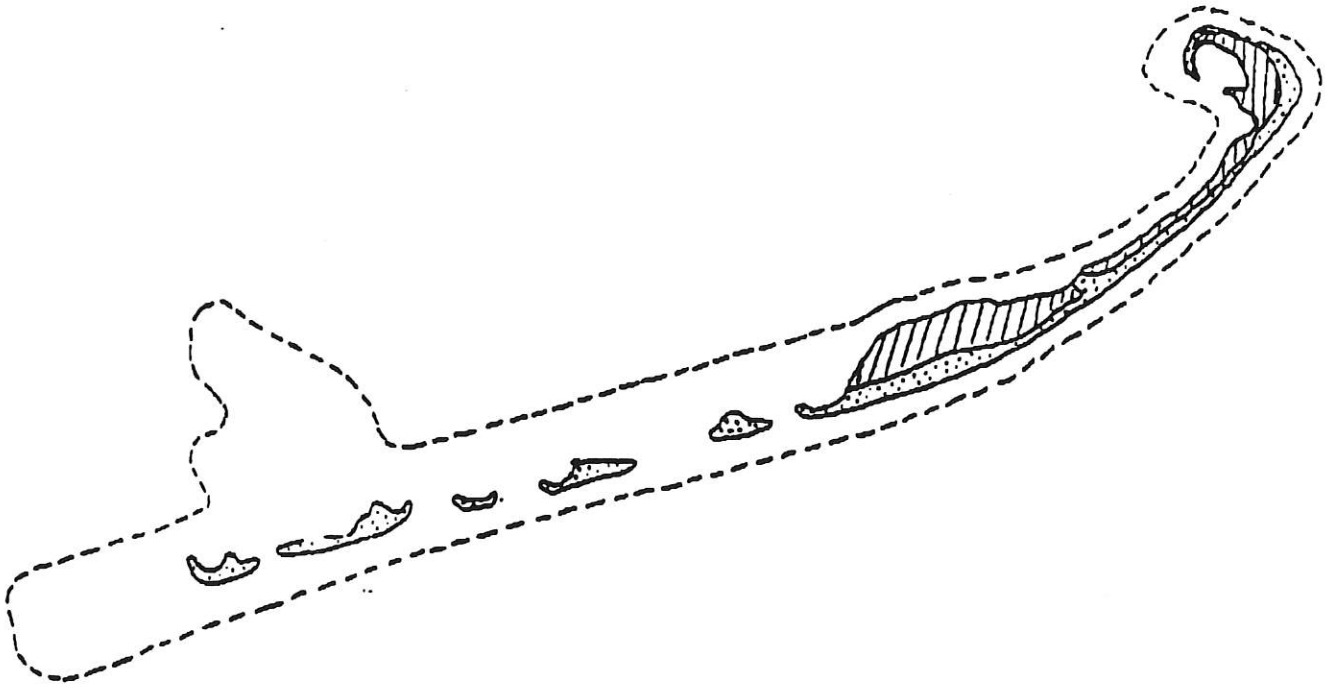
MAP
10 YEARS WITHOUT PROJECT



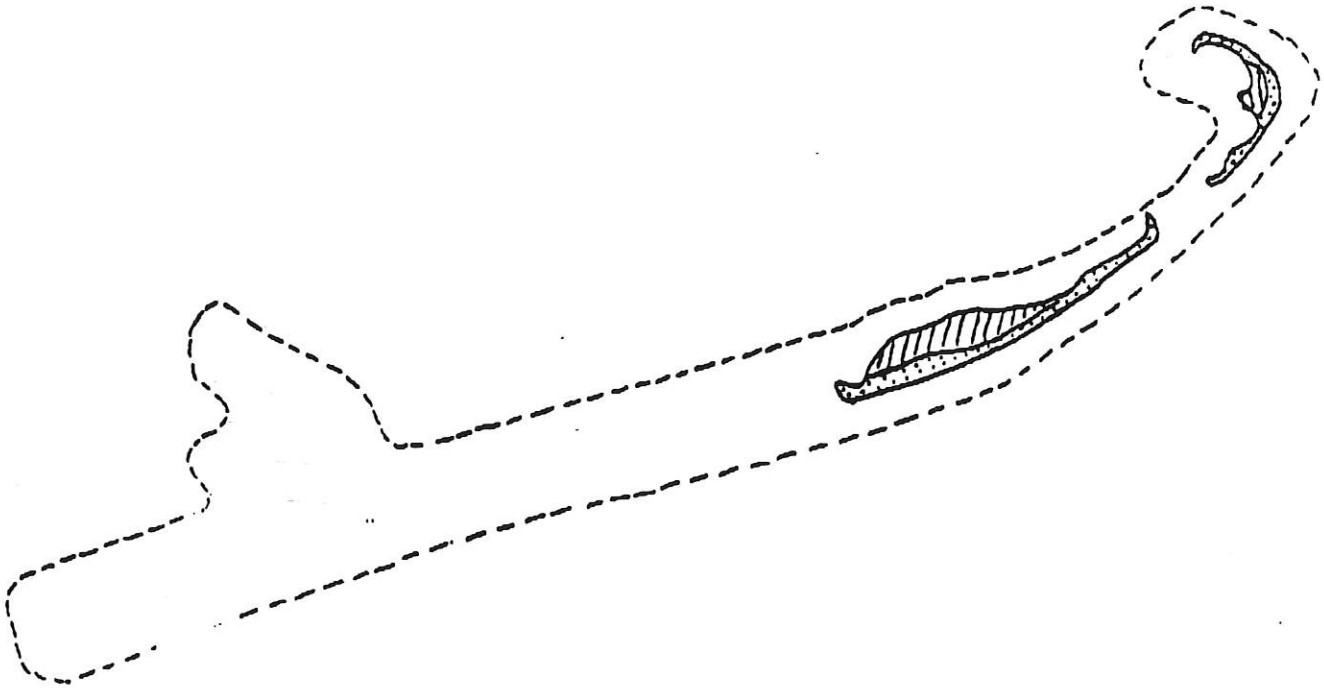
MAP

5 YEARS WITHOUT PROJECT

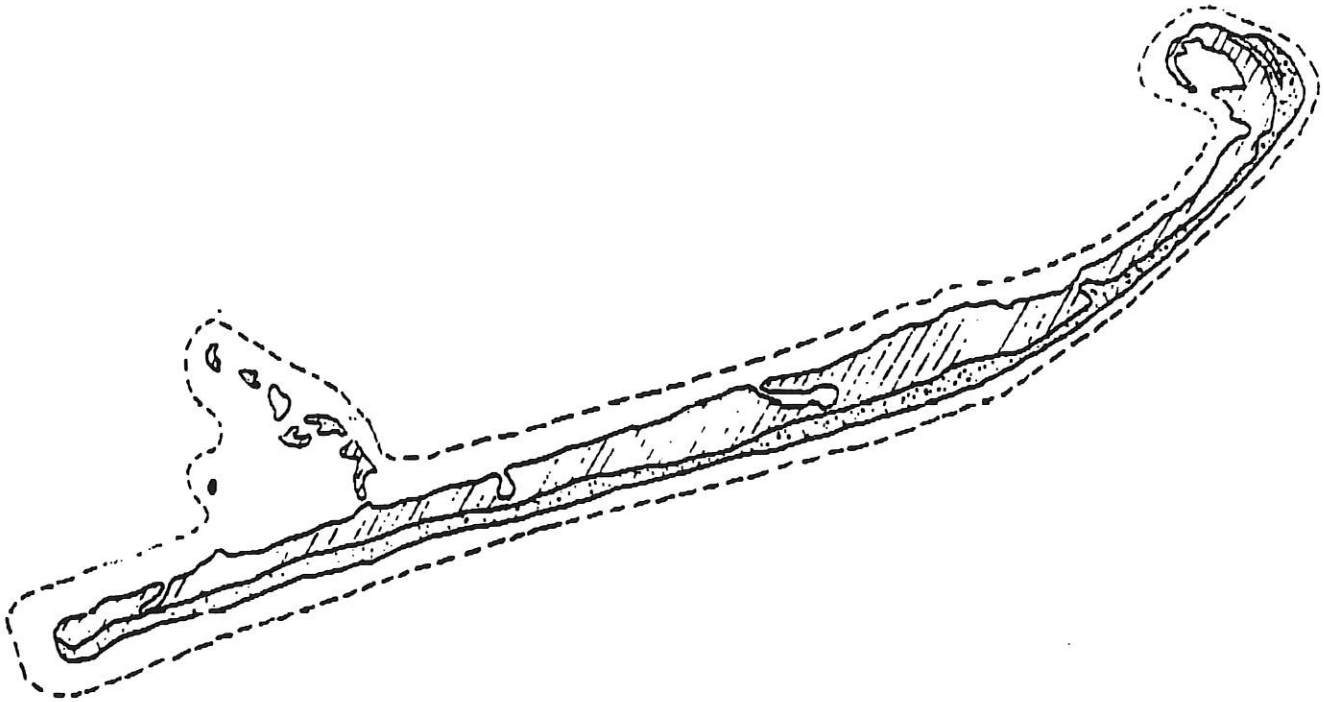
E-N15



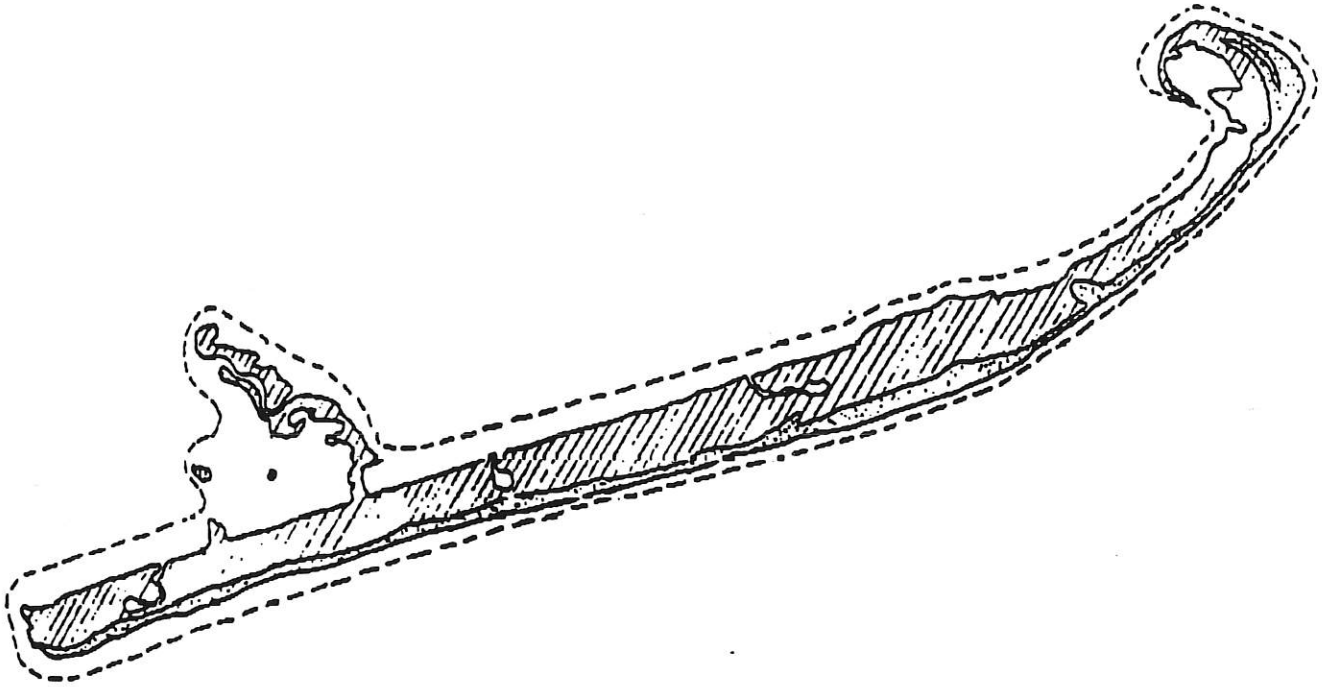
MAP
15 YEARS WITHOUT PROJECT



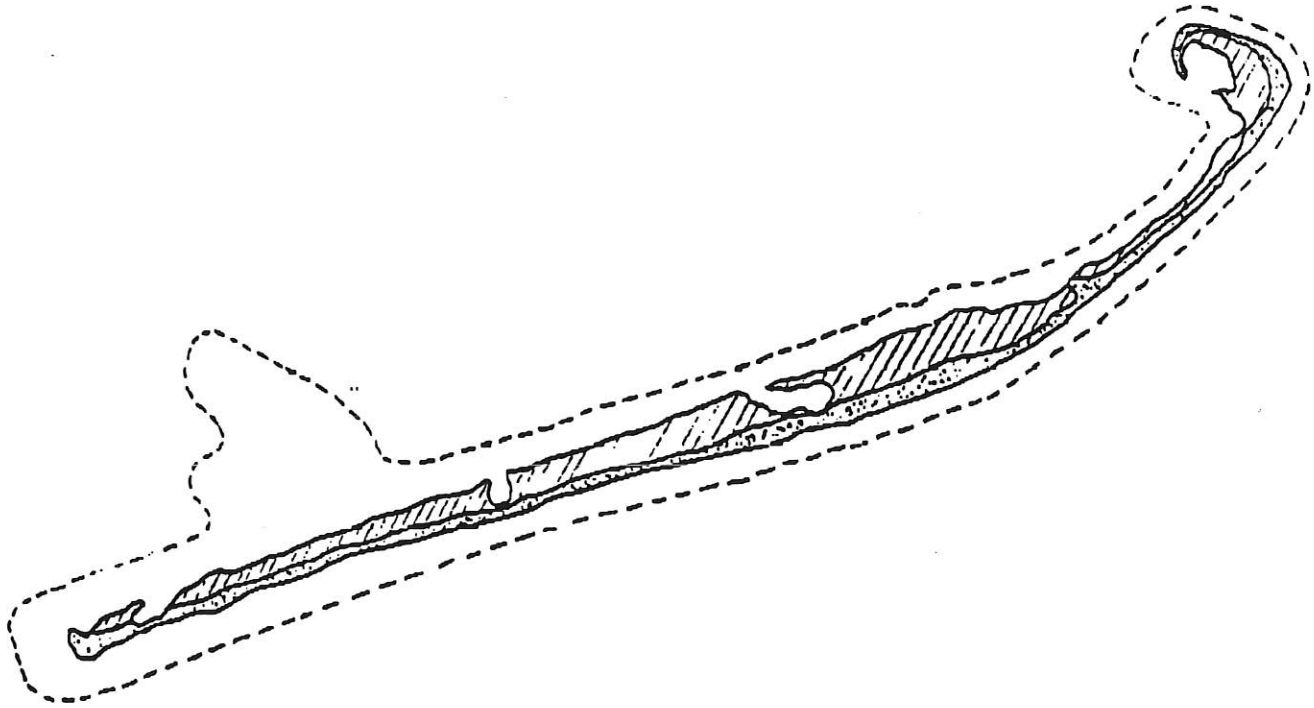
MAP
20 YEARS WITHOUT PROJECT



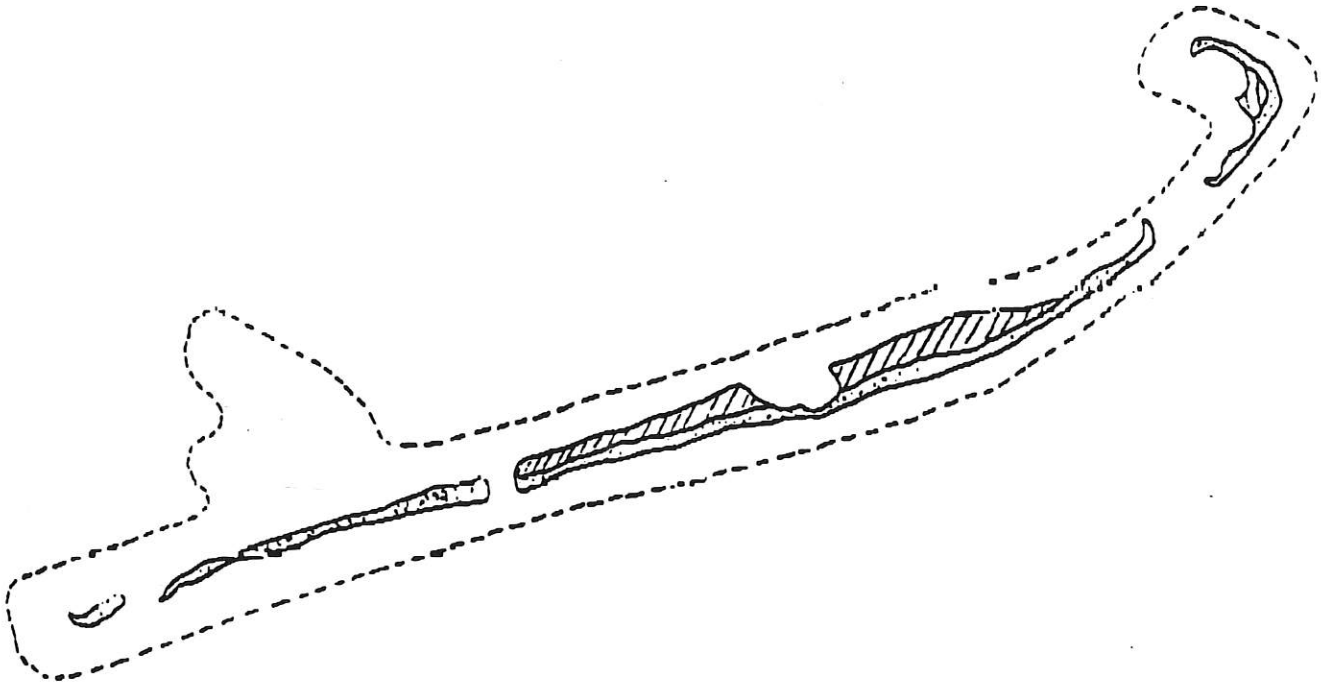
MAP
10 YEARS WITH PROJECT
E-N27



MAP
5 YEARS WITH PROJECT



MAP
15 YEARS WITH PROJECT



MAP
20 YEARS WITH PROJECT

PROJECT: EASTERN ISLES DERNIERS

TOTAL FIRST COSTS	$5,414,000
TOTAL FULLY FUNDED COSTS	$6,345,000

ANNUAL CHARGES	PRESENT WORTH	AVERAGE ANNUAL
INTEREST & AMORTIZATION	$5,674,039	$610,527
MONITORING	$145,374	$15,642
IMPACT TO WATER SUPPLY		$0
ACCESS OIL & GAS		$0
INDUCED DREDGING		$0
IMPACT TO SHIPPING		$0
EMERGENCY CLOSURE		$0
OYSTER LEASES		$0
O & M COSTS		$0
REPLACEMENT COSTS		$0
OTHER COSTS		$0
TOTAL	$5,819,413	$626,169

AVERAGE ANNUAL HABITAT UNITS	44.89
COST PER HABITAT UNIT	$13,949
AVERAGE ANNUAL ACRES OF EMERGENT MARSH	61

APPENDIX S

BARRIER ISLAND RESTORATION, ISLES DERNIERES

CANDIDATE PROJECT

FOR THE

PRIORITY PROJECT LIST II

OF THE

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

by the

Terrebonne Parish Consolidated Government

with assistance by

The Louisiana Geological Survey

and

T. Baker Smith and Son, Inc.

Proposed By

Environmental Protection Agency Region 6

POINT OF CONTACT: Robert S. Jones
PHONE: (504)873-6720
DATE: 8/3/92

COST ESTIMATE
PHASE 1, TRINITY ISLAND RESTORATION
COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
PRIORITY LIST NO 2 CANDIDATE

Construction Costs	$ 5,327,244	
Relocations	$ -0-	
Contingencies	$ 266,365	
Subtotal		$ 5,593,609
Engineering and Design		$ 266,365
Supervision and Administration		$ 260,365
Real Estate		$ 6,000
Operation and Maintenance		$ -0-
Project Monitoring		$ -0-
Total Cost (Phase 1)		$ 6,126,339

COMPREHENSIVE PROJECT COSTS
PHASES 1 THRU 4

TOTAL COST	$ 29,280,961

ISLE DERNIERES COST ESTIMATE

TABLE 5A

Unit Cost

PHASE 1

14,069 Length in ft +- 299 Area in acres

962,134	C.Y.	Levee	@	$2.40	=	$2,309,121.60
2,409,482	C.Y.	Cell dredge	@	$1.00	=	$2,409,482.00
0	C.Y.	Unconfined dredge	@	$1.30	=	$0.00
0	C.Y.	Access dredge hyd.	@	$1.00	=	$0.00
0	C.Y.	Access dredge bkt.	@	$0.90	=	$0.00
0	L.F.	Stone levee	@	$200.00	=	$0.00
	LUMP	Structure relocation	@	$0.00	=	$0.00
	LUMP	Mobilize & Demobilize	@	$400,000.00	=	$400,000.00
6	EACH	Control Structures	@	$10,710.00	=	$64,260.00
206.3	ACRE	Planting	@	$700.00	=	$144,431.00
					SUBTOTAL	$5,327,294.60
		Agency administration	@	2%	=	$106,545.89
		Engineering	@	10%	=	$532,729.46
		Contingency	@	5%	=	$266,364.73
					TOTAL	$6,232,934.68

PHASE 2

15,271 Length in ft +- 306 Area in acres

484,375	C.Y.	Levee	@	$2.40	=	$1,162,500.00
2,471,834	C.Y.	Cell dredge	@	$1.00	=	$2,471,834.00
1,264,286	C.Y.	Unconfined dredge	@	$1.30	=	$1,643,571.80
89,630	C.Y.	Access dredge hyd.	@	$1.00	=	$89,630.00
28,750	C.Y.	Access dredge bkt.	@	$0.90	=	$25,875.00
1,425	L.F.	Stone levee	@	$200.00	=	$285,000.00
	LUMP	Structure relocation	@	$60,000.00	=	$60,000.00
	LUMP	Mobilize & Demobilize	@	$400,000.00	=	$400,000.00
4	EACH	Control Structures	@	$10,710.00	=	$42,840.00
205.4	ACRE	Planting	@	$700.00	=	$143,808.00
					SUBTOTAL	$6,325,058.80
		Agency administration	@	2%	=	$126,501.18
		Engineering	@	10%	=	$632,505.88
		Contingency	@	5%	=	$316,252.94
					TOTAL	$7,400,318.80

APPENDIX T

R O A D C A L C

PROJECT: EAST ISLAND TRAVERSE AOJUST
SUB-PROJECT: 032 - CROSS SECTION OF EAST ISLAND

TITLE: DESIGN EARTHWORK: RAW VOLUMES
PAGE: 1

Front Dune

DATE: 11-16-93
TIME: 14:13:58

STATION	CUT AREA (SF)	CUT VOL (CY)	FILL AREA (SF)	FILL VOL (CY)
0.00	0	0	0	0
200.00	0	0	0	0
400.00	0	0	0	0
600.00	0	0	0	0
800.00	0	0	0	0
1000.00	0	0	0	0
1200.00	0	0	0	0
1400.00	0	0	0	0
1600.00	0	0	1375	5091
1800.00	35	128	1297	9897
2000.00	0	128	1544	10525
2200.00	0	0	1700	12014
2400.00	0	0	1513	11899
2600.00	0	0	1444	10954
2800.00	0	0	1077	9337
3000.00	0	0	1213	7686
3200.00	0	0	1196	8925
3400.00	0	0	1341	9399
3600.00	0	0	1634	11021
3800.00	15	57	1224	10585
4000.00	0	57	1312	9392

STATION	CUT AREA (SF)	CUT VOL (CY)	FILL AREA (SF)	FILL VOL (CY)
4200.00	0	0	1354	9877
4400.00	16	57	777	7273
4600.00	0	60	1166	7195
4800.00	0	0	1259	8980
5000.00	0	0	1775	11235
5200.00	0	0	2381	15392
5400.00	0	0	1628	14848
5600.00	0	0	1734	12452
5800.00	0	0	1836	13221
6000.00	0	0	1403	11995
6200.00	0	0	1286	9958
6400.00	0	0	1342	11407
6600.00	0	0	1278	9704
6800.00	0	0	1475	10196
7000.00	0	0	1417	10713
7200.00	49	181	1080	9250
7400.00	29	288	957	7547
7600.00	44	194	995	6630
7800.00	8	192	879	6941
8000.00	8	59	825	6311
8200.00	42	187	640	5428

R O A D C A L C

PROJECT: EAST ISLAND TRAVERSE ADJUST
SUB-PROJECT: 032 - CROSS SECTION OF EAST ISLAND

TITLE: DESIGN EARTHWORK: RAW VOLUMES
PAGE: 3

DATE: 11-16-93
TIME: 14:13:58

STATION	CUT AREA (SF)	CUT VOL (CY)	FILL AREA (SF)	FILL VOL (CY)
8400.00	92	498	542	4377
8600.00	0	342	425	3582
8800.00	149	553	551	3615
9000.00	144	1088	768	4883
9200.00	212	1318	514	4749
9400.00	169	1411	421	3466
9600.00	129	1247	440	3361
9800.00	71	742	450	3296
10000.00	0	263	0	1666
10771.17	0	0	0	0
TOTALS		9051		366274

R O A D C A L C

PROJECT: EAST ISLAND TRAVERSE ADJUST
SUB-PROJECT: 032 - CROSS SECTION OF EAST ISLAND

TITLE: PAVEMENT VOLUMES
PAGE: 1

DATE: 11-16-93
TIME: 14:15:34

STATION	MATERIAL	END AREA (SF)	VOLUME (CY)
0.00	HYDRAULIC FILL	0.00	0.00
	BACK DIKE	0.00	0.00
	TOTAL:	0.00	0.00
200.00	HYDRAULIC FILL	0.00	0.00
	BACK DIKE	0.00	0.00
	TOTAL:	0.00	0.00
400.00	HYDRAULIC FILL	0.00	0.00
	BACK DIKE	0.00	0.00
	TOTAL:	0.00	0.00
600.00	HYDRAULIC FILL	0.00	0.00
	BACK DIKE	0.00	0.00
	TOTAL:	0.00	0.00
800.00	HYDRAULIC FILL	0.00	0.00
	BACK DIKE	0.00	0.00
	TOTAL:	0.00	0.00
1000.00	HYDRAULIC FILL	0.00	0.00
	BACK DIKE	0.00	0.00
	TOTAL:	0.00	0.00
1200.00	HYDRAULIC FILL	0.00	0.00
	BACK DIKE	0.00	0.00
	TOTAL:	0.00	0.00
1400.00	HYDRAULIC FILL	0.00	0.00
	BACK DIKE	0.00	0.00
	TOTAL:	0.00	0.00
1600.00	HYDRAULIC FILL	3960.91	14670.04
	BACK DIKE	393.35	1456.85
	TOTAL:	4354.26	16126.89
1800.00	HYDRAULIC FILL	3752.34	28567.58
	BACK DIKE	373.46	2840.02
	TOTAL:	4125.79	31407.60

STATION	MATERIAL	END AREA (SF)	VOLUME (CY)
2000.00	HYDRAULIC FILL	3724.19	27690.83
	BACK DIKE	362.06	2724.13
	TOTAL:	4086.25	30414.96
2200.00	HYDRAULIC FILL	3677.74	27414.56
	BACK DIKE	320.68	2528.65
	TOTAL:	3998.42	29943.21
2400.00	HYDRAULIC FILL	3359.04	26062.16
	BACK DIKE	279.44	2222.66
	TOTAL:	3638.48	28284.81
2600.00	HYDRAULIC FILL	3756.32	26353.17
	BACK DIKE	209.64	1811.41
	TOTAL:	3965.96	28164.59
2800.00	HYDRAULIC FILL	3164.22	25631.62
	BACK DIKE	162.06	1376.69
	TOTAL:	3326.28	27008.30
3000.00	HYDRAULIC FILL	3462.10	31785.02
	BACK DIKE	194.02	2169.23
	TOTAL:	3656.12	33954.25
3200.00	HYDRAULIC FILL	3443.25	25575.38
	BACK DIKE	234.95	1588.75
	TOTAL:	3678.20	27164.14
3400.00	HYDRAULIC FILL	3617.57	26151.19
	BACK DIKE	243.91	1773.53
	TOTAL:	3861.48	27924.71
3600.00	HYDRAULIC FILL	3624.36	26821.98
	BACK DIKE	286.61	1964.87
	TOTAL:	3910.97	28786.85
3800.00	HYDRAULIC FILL	3192.94	25249.27
	BACK DIKE	226.91	1901.93
	TOTAL:	3419.85	27151.20

STATION	MATERIAL	END AREA (SF)	VOLUME (CY)
4000.00	HYDRAULIC FILL	3442.58	24575.99
	BACK DIKE	195.30	1563.74
	TOTAL:	3637.88	26139.73
4200.00	HYDRAULIC FILL	3374.37	25247.95
	BACK DIKE	108.33	1124.55
	TOTAL:	3482.70	26372.50
4400.00	HYDRAULIC FILL	2612.58	30878.12
	BACK DIKE	139.66	1658.96
	TOTAL:	2752.24	32537.07
4600.00	HYDRAULIC FILL	3089.08	21117.24
	BACK DIKE	61.64	745.55
	TOTAL:	3150.71	21862.80
4800.00	HYDRAULIC FILL	3230.83	23407.07
	BACK DIKE	243.17	1128.89
	TOTAL:	3474.00	24535.96
5000.00	HYDRAULIC FILL	2864.06	22573.66
	BACK DIKE	203.25	1653.37
	TOTAL:	3067.30	24227.03
5200.00	HYDRAULIC FILL	3122.41	22172.10
	BACK DIKE	125.90	1219.06
	TOTAL:	3248.31	23391.16
5400.00	HYDRAULIC FILL	3215.90	23475.22
	BACK DIKE	173.63	1109.38
	TOTAL:	3389.53	24584.59
5600.00	HYDRAULIC FILL	3751.03	25803.46
	BACK DIKE	188.94	1342.86
	TOTAL:	3939.98	27146.31
5800.00	HYDRAULIC FILL	3476.92	26770.19
	BACK DIKE	211.92	1484.67
	TOTAL:	3688.84	28254.86

STATION	MATERIAL	END AREA (SF)	VOLUME (CY)
6000.00	HYDRAULIC FILL	3198.97	24725.52
	BACK DIKE	174.69	1431.87
	TOTAL:	3373.66	26157.39
6200.00	HYDRAULIC FILL	3439.65	24587.48
	BACK DIKE	194.97	1369.08
	TOTAL:	3634.61	25956.57
6400.00	HYDRAULIC FILL	3272.90	19464.92
	BACK DIKE	226.80	666.50
	TOTAL:	3499.69	20131.43
6600.00	HYDRAULIC FILL	3167.28	23852.51
	BACK DIKE	213.01	1628.92
	TOTAL:	3380.29	25481.42
6800.00	HYDRAULIC FILL	3184.63	23525.62
	BACK DIKE	264.51	1768.59
	TOTAL:	3449.15	25294.21
7000.00	HYDRAULIC FILL	3356.08	24224.85
	BACK DIKE	356.61	2300.46
	TOTAL:	3712.69	26525.31
7200.00	HYDRAULIC FILL	3728.87	26240.55
	BACK DIKE	494.70	3153.03
	TOTAL:	4223.58	29393.57
7400.00	HYDRAULIC FILL	3990.16	28589.01
	BACK DIKE	530.20	3795.94
	TOTAL:	4520.36	32384.95
7600.00	HYDRAULIC FILL	4609.06	40401.72
	BACK DIKE	553.69	6310.63
	TOTAL:	5162.75	46712.36
7800.00	HYDRAULIC FILL	4840.93	34999.98
	BACK DIKE	475.09	3810.31
	TOTAL:	5316.02	38810.29

STATION	MATERIAL	END AREA (SF)	VOLUME (CY)
8000.00	HYDRAULIC FILL	4495.41	34579.03
	BACK DIKE	412.08	3285.83
	TOTAL:	4907.49	37864.85
8200.00	HYDRAULIC FILL	4200.64	32207.58
	BACK DIKE	418.21	3075.17
	TOTAL:	4618.85	35282.74
8400.00	HYDRAULIC FILL	4028.15	30476.99
	BACK DIKE	335.88	2792.95
	TOTAL:	4364.03	33269.94
8600.00	HYDRAULIC FILL	3624.88	28344.55
	BACK DIKE	301.89	2362.13
	TOTAL:	3926.78	30706.69
8800.00	HYDRAULIC FILL	3731.17	27244.64
	BACK DIKE	304.84	2247.15
	TOTAL:	4036.01	29491.80
9000.00	HYDRAULIC FILL	3442.15	26567.87
	BACK DIKE	263.57	2105.23
	TOTAL:	3705.73	28673.09
9200.00	HYDRAULIC FILL	3353.60	25169.44
	BACK DIKE	278.89	2009.14
	TOTAL:	3632.49	27178.58
9400.00	HYDRAULIC FILL	2923.44	23248.29
	BACK DIKE	245.12	1940.79
	TOTAL:	3168.56	25189.08
9600.00	HYDRAULIC FILL	2673.61	18421.58
	BACK DIKE	222.20	1250.05
	TOTAL:	2895.81	19671.63
9800.00	HYDRAULIC FILL	1515.12	15513.81
	BACK DIKE	183.54	1502.75
	TOTAL:	1698.67	17016.56

STATION	MATERIAL	END AREA (SF)	VOLUME (CY)
10000.00	HYDRAULIC FILL	0.00	5611.56
	BACK DIKE	0.00	679.79
	TOTAL:	0.00	6291.35
10771.17	HYDRAULIC FILL	0.00	0.00
	BACK DIKE	0.00	0.00
	TOTAL:	0.00	0.00
TOTALS	HYDRAULIC FILL		1095991.29
	BACK DIKE		86876.05
	TOTAL:		1182867.34

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Chkd _____ Date _____
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Appendix 4
Sample Calculations
Phase I - Trinity Island

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By JPE
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Job No. ____

Subject ISLE DERNIERES RESTORATION PROJECT

NOTES AND METHODOLOGY FOR VOLUME CALCULATIONS

1) FIELD DATA COLLECTOR FILES WRITTEN OUT OF ~~OF~~ THE SDR SOFTWARE INTO X, Y, Z ASCII FILES. (8 TOTAL)

2.) QUICKSURF SOFTWARE LOADED INTO AUTOCAD DWG. BY USING QSSS.MNU FILE. (TEST1.DWG)

3) ABOUT 5000 POINTS ARE EXTRACTED ONTO CURRENT SURFACE.

NOTE: ADD'L DATA POINTS ON WEST END OF ISLAND ADDED.

4.) "GRID" CONFIGURED AS FOLLOWS

STD, Ø DERIVATIVES, 2 WEIGHTING POWER, 4 LOCAL EXTREMA

CELL SIZE 20 x 20

5) BOUNDARY ESTABLISHED JUST BEYOND DATA POINTS TO SPEED EXECUTION.

6) CONTOURS SET AT 1 FT. INTERVALS
COLOR CONTOURS CYCLES AT 1 FT INCREMENTS
COLOR SURFACES ELEVATION

7) SURFACE "GRIDED" SAVED AS TGRID1.QSB (SURFACE)

CONTOURS DRAWN IN SAVED AS TEST3A.DWG

8) PLOTTED OUT CONTOURS AND THEN DEVELOPED AN ALIGNMENT FOR FRONT DUNE.

PROPOSED TEMPLATE DEVELOPED IN TEMP3.DWGT

+8 max front, +3 back

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9) BOUNDARY SET AT EDGE OF TEMPLATE
"GRIDED" USING SAME PARAMETERS
SAVED AS TOTAL2.QSB

10) TGRID1.QSB and TOTAL2.QSB LOADED
BOUNDARY SET AT EDGE OF TOTAL2.DWG
TGRID1 MAX TOTAL2
WRITTEN OUT AS MAX4.QSB

11) BOUNDARY VOLUMES USED ON MAX4.QSB TO GET QUANTITY ~~OF~~ ~~CUT~~ ABOVE AND BELOW 0.0 ELEV.

12) TGRID1.QSB LOADED
BOUNDARY ESTABLISHED
BOUNDARY VOLUMES USED TO GET QUANTITY ABOVE AND BELOW 0.0. ELEV.

13) SUBTRACT VOLUME FROM TGRID1.QSB AND ~~TOTA~~ MAX4.QSB.

```
Using current surface for volume calculation, Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

235004 triangles built
VOLUMES:
  Area #1 - Volume 72485995.928748 [98.542144]
            Neg Volume -17611183.130168
  Outside Area - Volume 1072375.196607 [1.457856]
                 Neg Volume -13114551.217747

Total Volume 73558371.125355
      Neg Volume -30725734.347915

Volumes are in file "_volume.txt"

Command:
```

MAX 4.QSB

TGRID1 MAX TOTAL2

NOTE TOP ELEVS +8 and +3

From TEMP3.DWG
11/15/93 JH

72,485,995
9,268,447
63 217548

30,115,603
17,611,183
12,504,420

75 721 968 c.f.
2804,517 c.y.

```
Using current surface for volume calculation, Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

235004 triangles built
VOLUMES:
  Area #1 - Volume 9268447.026074 [83.988872]
            Neg Volume -30115603.190542
  Outside Area - Volume 1766880.416327 [16.011128]
                 Neg Volume -26200783.881299

Total Volume 11035327.4424
      Neg Volume -56316387.071841

Volumes are in file "_volume.txt"

Command:
```

THR101.QSB
Boundary Volumes
w/ TEMP3.DWG template.

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Sheet No. ___ of ___
Date 11/12/93
By MJR
Chkd ___ Date ___
Job No. ___

Subject Vegetative Calculations

Length of Project with Marsh Platform = 9080'
" " " without " " = 4350'

Marsh Platform

Dune

① St. Augustine Sod 9SF / 10' = 10SY / 100' Dune
9080 ÷ 100 x 10 = 908 SY.

② Roseau Cane 1 plant / 4' & 1-Row
9080 x 2 ÷ 4 = 4540 Plants

③ Bitter Ponicum 1-25' strip w/ Row @ 3' & plants @ 3'
25 ÷ 3 = 8.33 use 9 rows
9080 x 9 ÷ 3 = 27,240 plants

④ Marshhay (wiregrass) 2-25' Strips w/ Rows @ 4' & plants @ 4'
25 ÷ 4 = 6.25 Use 7 rows
9080 x 14 ÷ 4 = 31,780 plants

⑤ Saltgrass 1-25' strip w/ Rows @ 3' & plants @ 3'
25 ÷ 3 = 8.33 Use 9 rows
9080 x 9 ÷ 3 = 27240 plants

Marsh Platform

① Bitter Ponicum 1-25' strip
Use 27,240 Plants

② Marshhay (wiregrass) 2-25' Strips
Use 31,780 plants

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Date 11/12/93
By MJR
Chkd ____ Date ____
Job No. ____

Subject Vegetative Calculations

③ Saltgrass 1- 25' Strip

Use 27,240 Plants

④ Smooth Cordgrass 1- 50' Strip w/ Row @ 4' & plants @ 4'

50 ÷ 4 = 12.5 Use 13 Rows

9080 x 13 ÷ 4 = 29,510 Plants

Dune

Dune

① St. Augustine Sod same

4350 ÷ 100 x 10 = 435 SY.

② Roseau Cane same

4350 x 2 ÷ 4 = 2,175 plants

③ Bitter Panicum same

4350 x 9 ÷ 3 = 13,050 plants

④ Marshhay (Wiregrass) same

4350 x 14 ÷ 4 = 15,225 Plants

⑤ Saltgrass same

4350 x 9 ÷ 3 = 13,050 Plants

Aerial Planting

Back Levee L = ± 12450 Surface Area = ± 70' wide

A = 12450 x 70 ÷ 43560 = 20 Acres

Dune L = 13430 Surface Area = 200' wide

A = 13430 x 200 ÷ 43560 = 62 Acres

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Subject ____

Total Aerial Planting = 82 acres

Summmary of Species

	Dike	Dune	Marsh	Total
① Smooth Cordgrass	–	–	29510	29510
Morshhay	–	47,005	31,780	78785
Saltgrass	–	40290	27,240	67530
Roseau Come	3,112	2175	4540	9827
Bitter Ponicum	3,270	40290	27240	69800

QUICKSURF VERSION 4.7 for AutoCAD Release 11 and 12

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Section 1: Introduction

Quicksurf is a general-purpose surface modeling system that operates totally within AutoCAD Release 11 and 12. It converts surface mapping data (point and/or breakline data) into contours, grids, triangulated irregular networks (TIN), and Triangulated grids (TGRD) . A suite of sophisticated tools allows you to manipulate modeled surfaces into high-quality finished maps and perform a variety of engineering computations.

The speed and power of *Quicksurf* have brought it wide acceptance in numerous fields as the digital terrain modeling standard for AutoCAD users. *Quicksurf* meets the needs of a broad range of professional disciplines such as civil and mechanical engineering, surveying, mapping, photogrammetry, mining, oil and gas exploration, environmental studies, landscape architecture, oceanography, and finite difference computation.

Quicksurf was designed to operate seamlessly with all AutoCAD applications software. All of the three-dimensional models produced by *Quicksurf* are completely compatible with AutoSHADE, Renderman, 3D Studio, and the SHADE and HIDE commands.

Quicksurf consolidates the most powerful surface modeling techniques available into a single easy-to-use system. Its processing speeds equal or better any other system in the MS-DOS industry. An available demonstration copy will allow you to evaluate all the system functions in about 15 minutes, and may be converted to a fully functional version by obtaining a password from Schreiber Instruments.

1.1 System software requirements

Quicksurf ADS is implemented for operation inside AutoCAD Release 11 or 12, MS-DOS 386 DOS Extender Version. The AutoCAD Development System (ADS), new in Release 11, permitted Schreiber Instruments to program *Quicksurf* primarily in the C language for high-speed operation within the AutoCAD environment.

1.2 System hardware requirements

Quicksurf ADS operates totally inside AutoCAD and has no hardware requirements over and above those of AutoCAD itself. We suggest the following basic system configuration as a minimum for efficient operation:

- 80386 processor with math coprocessor, or 80486
- 6 megabytes RAM
- 50 megabytes of free hard disk space
- VGA monitor or better
- Mouse, digitizing pad or other pointing device.

When large data sets (100,000 points or more) are to be processed, execution speed will depend on the amount of memory available.

When enough memory is present to prevent disk swapping, *Quicksurf* processes approximately 40,000 data points per minute on a 33-Mhz 486 EISA machine, or 20,000 per minute on a 20-Mhz 386. Please refer to your AutoCAD installation and performance guide for details on system requirements.

1.3 *Quicksurf* surface memory

Quicksurf creates a unique unit of memory storage inside AutoCAD controlled memory commonly referred to as a "surface". A surface is a mathematical description of a single-valued function of the independent variables x,y. This means that no part of a surface may be overhanging or exactly vertical, since it would have more than one elevation at an x,y, point. A surface may consist of any combination of each of the following elements:

Points
Break lines (Breaks)
Triangulated irregular network (TIN)
Derivatives
Grid

A new surface may be created with just Points as a result of loading X,Y,Z triplets from an ASCII file or extracting points from entities in the drawing with the Extract to surface command (QSX). Breaks may be incrementally added to a surface by extracting polyline entities as break lines with Extract Breaks (QSBX). The calculation of a surface model with the TIN, Grid, TGRD, or Contour commands create the TIN, Derivatives and Grid parts of the surface.

Quicksurf also has the ability to manage an unlimited number of these surfaces (*dependent on your machines resources*) with each having any combination of these elements. Multiple surfaces allow you to perform specific operations between surfaces resulting in surfaces representing thicknesses, cut and fill volumes, exaggerated surfaces, slopes and many other possibilities. *Quicksurf* maintains one special surface which is the "current" surface named <.> "dot". When you load data from an ASCII file you create a new <.> surface. When you use the Extract to surface command (QSX) to extract X,Y,Z data from AutoCAD entities, you create a new <.> surface. The results of any surface operation are placed in the <.> surface. Any of these actions replace the pre-existing contents of the <.> surface. You may save surfaces as *named* surfaces with the Surface Operations commands of Save, Copy, Move or Rename.

Quicksurf uses surface memory storage (rather than the AutoCAD drawing database) to decrease the amount of memory required to manipulate data, providing fast execution of modeling operations. Fast and efficient operation in memory provides instantaneous results allowing for analysis and design to predominate the process rather than waiting for results of calculations.

A surface is stored in AutoCAD-controlled memory, and is not part of the drawing until you instruct *Quicksurf* to add it to the drawing by issuing a DRAW response to a *Quicksurf* command. A surface will not be visible until you use specific commands (Points, Breaks, Contour, TIN, Grid, Triangulated grid) and their "Draw" or "Show" options to either draw or display the surface in the current viewport. The "Show" option will highlight pixels equivalent to the requested surface element or contours on your drawing screen, which may be removed with the AutoCAD REDRAW command. The "Draw" option will add the requested surface element or contours into the drawing database as AutoCAD entities.

Surfaces in memory will not be saved when an AutoCAD SAVE or END command is executed. *Quicksurf* instead provides a separate command (Write QSB) that allows the user to write a single or group of memory surfaces to disk independently of the AutoCAD drawing. This provides more efficient use of storage (as much as 50% less) and preserves all parts of a surface in a quickly retrievable form.

1.4 Input

Quicksurf accepts input from these basic sources:

- ASCII disk files of x,y,z coordinate triplets
- AutoCAD drawing entities
- Binary surface files
- Directly from database files with the GEOKIT option.
  (Databases supported : Paradox, Dbase IV, FoxPro)

The default form for ASCII input files is a free-field columnar format with three columns for x,y and z values. However, *Quicksurf* may optionally read any desired parameter from any column in decimal or exponential notation. Multiple column capability allows you to load points successively from a single ASCII file targeting separate columns for the Z value and build numerous surfaces in memory with related x, y coordinates. This can be invaluable when environmental or geological analysis is desired between several layers of data.

ASCII files are commonly generated by many sources such as:

- Total stations
- COGO programs
- Spreadsheets
- Databases
- Word processors and text editors.
- Simulation software

Quicksurf can derive data from all AutoCAD entities by extracting their defining points directly to memory, making the data immediately available for surface modeling. This drawing data may take the form of any AutoCAD drawing entity. A detailed list of entities and related point data is provided in the command reference section under the Extract to surface (QSX) command.

1.5 Output

Quicksurf outputs data in several ways as follows: Drawing entities, Binary files, ASCII X,Y,Z triplet files. Contours, 3D surface representations, and annotation can all produce professional quality maps inside AutoCAD. Output may be performed using AutoCAD's various functions such as the PLOT for vector plots, SAVEIMG for raster images, DXF for exchange, or the AutoCAD DWG file. Surface data may also be written to a disk file using the *Quicksurf* binary file (QSB), or exported from drawing entities into ASCII text files containing X, Y, Z triplets using the DWG2TXT command.

Incorporating data into a drawing involves invoking *Quicksurf* commands and selecting the "Draw" option. In this case and only this case is data moved from a memory surface and permanently added to the drawing. The following *Quicksurf* commands have the ability to draw AutoCAD entities into the drawing from surface memory:

Points
Breaks
TIN (triangulated irregular network)
Grid
Triangulated Grid
Contour

The surface models created by *Quicksurf* are render ready surfaces for AutoCAD, 3D Studio or similar rendering packages. All surfaces produced by *Quicksurf* have all of the normals pointing up thus not requiring the application of a material to both sides of the surface. A surface may be drawn into AutoCAD and exported to any DXF compatible rendering package, word processor, or DXF compatible program. AutoCAD Release 12 provides additional rendering and image capturing commands under the render menu (Render and Saveimg).

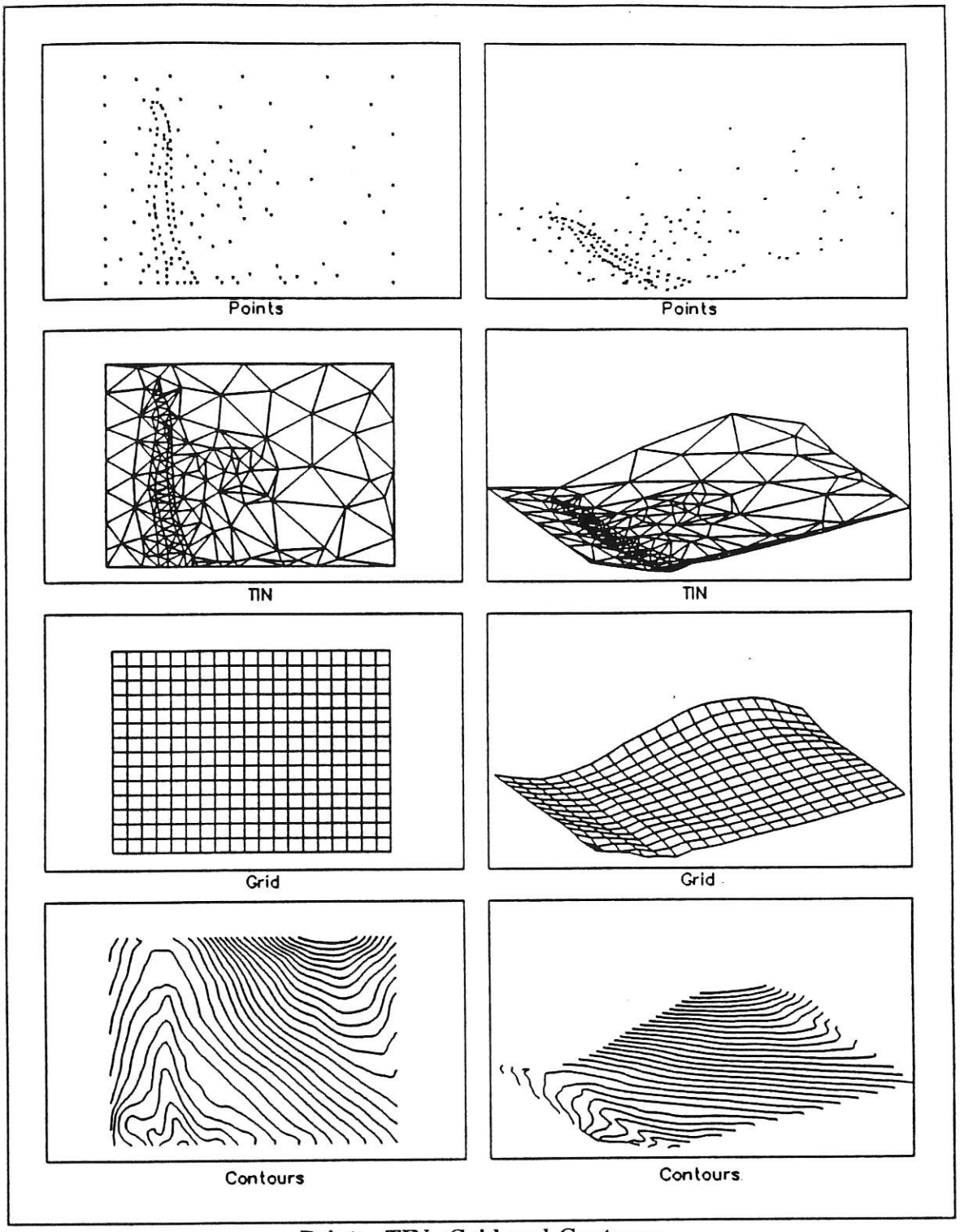
1.6 Surface modeling concepts

Quicksurf offers several surface models which may be displayed with the following commands: Points, Triangulated Irregular Network (TIN), Triangulated Grid (TGRD), Grid, and Contour. A surface is comprised of one or more of the following basic elements:

Points
Break lines
TIN
Derivatives
Grid

Contours are not part of the surface as they may be generated from differing parts of the same surface. Contours are generated based on a surface which could be a TIN, Triangulated grid, or GRID.

The figure on the following page shows Points, TIN, Grid and Contours in both plan and perspective views.



Points, TIN, Grid and Contours

APPENDIX U

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Sheet No. 1 of ____
Date 11/15/93
By JFE
Chkd ____ Date ____
Job No. ____

Subject ISLE DERNIERES RESTORATION PROJECT

NOTES AND METHODOLOGY FOR VOLUME CALCULATIONS

1) FIELD DATA COLLECTOR FILES WRITTEN OUT OF ~~OF~~ THE SDR SOFTWARE INTO X, Y, Z ASCII FILES. (8 TOTAL)

2.) QUICKSURF SOFTWARE LOADED INTO AUTOCAD DWG. BY USING QSSS.MNU FILE. (TEST1.DWG)

3) ABOUT 5000 POINTS ARE EXTRACTED ONTO CURRENT SURFACE.

NOTE: ADD'L DATA POINTS ON WEST END OF ISLAND ADDED.

4.) "GRID" CONFIGURED AS FOLLOWS

STD, Ø DERIVATIVES, 2 WEIGHTING POWER, 4 LOCAL EXTREMA

CELL SIZE 20 x 20

5) BOUNDARY ESTABLISHED JUST BEYOND DATA POINTS TO SPEED EXECUTION.

6) CONTOURS SET AT 1 FT. INTERVALS
COLOR CONTOURS CYCLES AT 1 FT INCREMENTS
COLOR SURFACES ELEVATION

7) SURFACE "GRIDED" SAVED AS TGR101.QSB (SURFACE)

CONTOURS DRAWN IN SAVED AS TEST3A.DWG

8) PLOTTED OUT CONTOURS AND THEN DEVELOPED AN ALIGNMENT FOR FRONT DUNE.

PROPOSED TEMPLATE DEVELOPED IN TEMP3.DWG

+8 max front, +3 back

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By ____
Chkd ____ Date ____
Job No. ____

Subject ____

9) BOUNDARY SET AT EDGE OF TEMPLATE
"GRIDED" USING SAME PARAMETERS
SAVED AS TOTAL2.QSB

10) TGRID1.QSB and TOTAL 2.QSB LOADED
BOUNDARY SET AT EDGE OF TOTAL 2.DWG
TGRID1 MAX TOTAL 2
WRITTEN OUT AS MAX4.QSB

11) BOUNDARY VOLUMES USED ON MAX 4.QSB TO GET QUANTITY ~~OF~~ ~~GET~~ ABOVE AND BELOW 0.0 ELEV.

12) TGRID1.QSB LOADED
BOUNDARY ESTABLISHED
BOUNDARY VOLUMES USED TO GET QUANTITY ABOVE AND BELOW 0.0. ELEV.

13) SUBTRACT VOLUME FROM TGRID1.QSB AND ~~TOTA~~ MAX 4.QSB.

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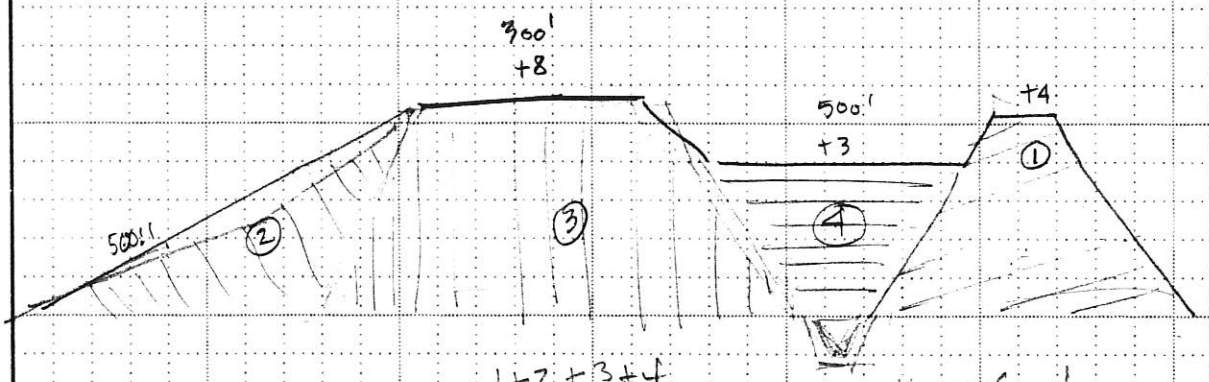
Sheet No. ____ of ____
Date 3-21-94
By JR
Chkd ____ Date ____
Job No. ____

Subject TEMP6 DWG (BASE BID)



1+2+3+4

TOTAL AREA 2,431,582 cu.yd. + 78,906

① BACK LEVEE 78,906 cu.yd.

② FRONT DUNE SLOPE 608,058 cu.yd

③ FRONT RETENTION DIKE 1,431,217 cu.yd.

2039275 ÷ 2431,582 = 84%

84% x 2864,000 = 2405,760

④ MARSH PLATFORM

2,431,582
− 78,906
− 608,058
− 1,431,217
313,401 cu.yd.

608058 / 2039275 x 2,405,760 = 717,334 = ②

∴ ③ = 2,405,760 − 717334
= 1,688,426

Marsh Platform = 2864,000 − 2,405,760
= 458240

78906 x 2 = 157812 < 182,000 USE 182,000 CY.

2,431,582 + 182,000 = 2613,582 CYS

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Sheet No. ____ of ____
Date 2/7/94
By JFE
Chkd ____ Date ____
Subject ____ Job No. ____

LOADED TEMP6.DWG (BASE BID)

boundary
extract
break
grid

TOTAL6.QSB

MAX7.QSB Max of TGRID1 and TOTAL6

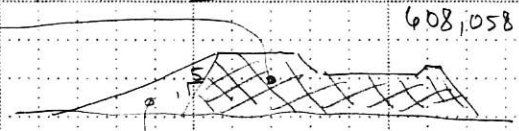
used boundary volumes (manual) - 10AM

TGRID1 original surface volume computed 2,431,582 cu yd
when temp 5 used. -

- ADDED 5:1 SLOPE ON FRONT - TOOK OF -7,4,0 line
created TOTAL6A.QSB

MAX7A.QSB - TGRID1 and TOTAL6A. - 1,823,524
608,058 cu yd

Boundary volume on MAX7A



not in this calc.

- TOOK OFF BACK MARSH PLATFORM

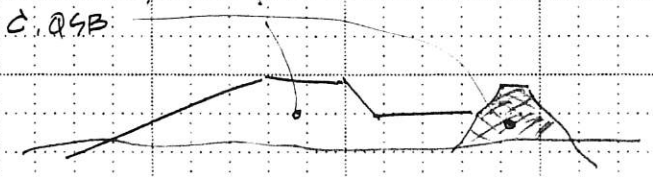
CREATED TOTAL6B.QSB

created MAX7B.QSB

not in this calc.

- ONLY LEAVE BACK LEVEE ON
CREATED TOTAL6C.QSB

Created MAX7C.QSB



```
Using current surface for volume calculation. Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

234992 triangles built
VOLUMES:
  Area #1 - Volume 64114161.527431 [98.524833]
            Neg Volume -19231994.002456
  Outside Area - Volume 959951.746785 [1.475167]
                 Neg Volume -12410188.687883

Total Volume 65074113.274216
      Neg Volume -31642182.690339

Volumes are in file "_volume.txt"

Command:
```

2/17/94

MAX7.QSB which is

TGR01.QSB maxed w/ TOTAL6.QSB

from TEMP6.DWG.

64 114 161	30 055 593
9 285 030	19 231 994
54 829 131	10,823,599

65 652 730 cu.ft.

=> 2,431,582 cu.yds TOTAL

```
Using current surface for volume calculation. Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

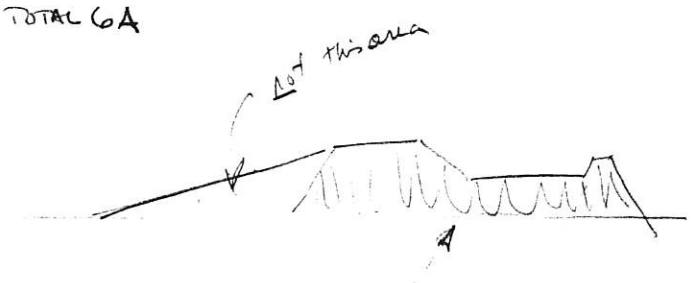
234992 triangles built
VOLUMES:
  Area #1 - Volume 54386145.788303 [98.098333]
            Neg Volume -25921542.056797
  Outside Area - Volume 1054292.765875 [1.901667]
                 Neg Volume -14048266.850251

Total Volume 55440438.554178
      Neg Volume -39969808.907048

Volumes are in file "_volume.txt"

Command:
```

MAX 7A => TGRID1 & TOTAL 6A



54386145
9285030

45101115

30055593
25921542

4,134,051

49 235 166

1,823524 cu. yds³ All of project minus front dune

```
Using current surface for volume calculation. Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

234992 triangles built
VOLUMES:
  Area #1 - Volume 45778682.71542 [97.748617]
            Neg Volume -27906385.405478
  Outside Area - Volume 1054391.811682 [2.251383]
                 Neg Volume -13245994.667049

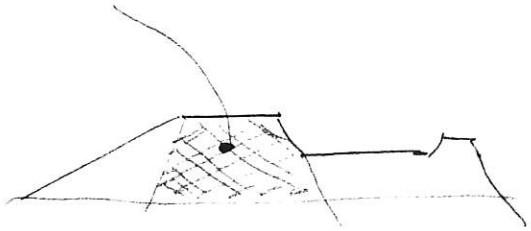
Total Volume 46833074.527101
      Neg Volume -41152380.072527

Volumes are in file "_volume.txt"

Command:
```

MAX7B.QSB which is

TORIDI moved w/ TOTAL6B



45778682 — 30055593

9285030 — 27906385

36493652 — 2149208

38642860 cu.ft.

1,431,217 cu.yds.

```
Using current surface for volume calculation. Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

234992 triangles built
VOLUMES:
  Area #1 - Volume 10557641.47378 [90.920610]
            Neg Volume -29197726.40095
  Outside Area - Volume 1054292.765875 [9.079390]
                 Neg Volume -14048294.258552

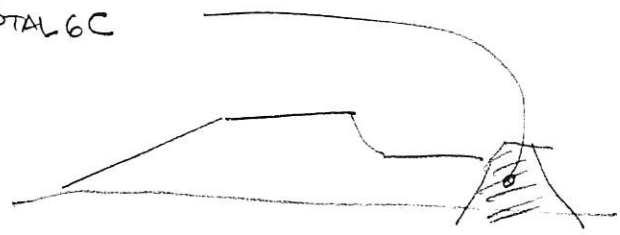
Total Volume 11611934.239655
      Neg Volume -43246020.659502

Volumes are in file "_volume.txt"

Command:
```

MAX 7C.QSB

TGRID1 moved w/ TOTAL6C



10,557,641	30055593
9 285 030	29197726
1 272 611	857 867

2 130 478 cu ft.

78906 cu.yds.

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Sheet No. ____ of ____
Date 2/12/94
By JR
Chkd ____ Date ____
Job No. ____

Subject ____

LOADED TEMP7.DING (ALTERNATE NO. 2)

etc guided

created TOTAL7.QSB

MAXB.QSB max of TGRID1 and TOTAL7

used boundary volumes command - 1,471,290

TGRID1 original surface volume computed when TEMP5 used.

OVERALL VOLUME OF FILL

- ADDED 5:1 SLOPE ON FRONT - TOOK OF -7, 0, 4 lines
created TOTAL7A.QSB

MAX8A.QSB max of TGRID1 & TOTAL7A 839,049
used boundary volumes

- TOOK OFF BACK MARSH PLATFORM
CREATED TOTAL7B.QSB

CREATED MAX8B.QSB 487,883

- ONLY LEAVE BACK LEVEE ON
CREATE
TOTAL7C.QSB

CREATED MAX8C.QSB
57,615

```
Using current surface for volume calculation, Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

234992 triangles built
VOLUMES:
  Area #1 - Volume 40050193.591882 [97.676821]
            Neg Volume -21095917.756653
  Outside Area - Volume 952567.536698 [2.323179]
                 Neg Volume -12381128.251391

Total Volume 41002761.12858
      Neg Volume -33477046.008044

Volumes are in file "_volume.txt"

Command:
```

2/17/94

MAX8.QSB which is

TERI01.QSB mixed w / TOTAL 7.QSB
from TEMP7.DWG

40,050,193	30,055,593
9,285,030	21,095,917
30,765,163	8959676

39,724,839 cu.ft.

⇒ 1,471,290 cu.yds

```
Command:
Using current surface for volume calculation. Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

234992 triangles built
VOLUMES:
  Area #1 - Volume 30,113,200.01234 [96.617332]
            Neg Volume -28,229,436.318483
  Outside Area - Volume 1054292.765875 [3.382668]
                 Neg Volume -14048349.826907

Total Volume 31167492.778214
      Neg Volume -42277786.14539

Volumes are in file "_volume.txt"

Command:
```

2/21/94

MAX 8A

TGRID1 marked w/ TOTAL 7A FROM TEMP 7.DWG

30 113 200	30055 593
9 285030	28 229436
20,828,170	1,826,157

22,654,327 cu.ft.

839,049 cu.yds.

```
Using current surface for volume calculation. Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

215462 triangles built
VOLUMES:
  Area #1 - Volume 21931195.787497 [95.333399]
            Neg Volume -29528894.4017
  Outside Area - Volume 1073539.096597 [4.666601]
                 Neg Volume -14684061.489454

Total Volume 23004734.884094
      Neg Volume -44212955.891153

Volumes are in file "_volume.txt"

Command:
```

2/22/94

MAX 8B.QSB

TGRID1 Maxed w/ TOTAL 7B.QSB

TEM7.DWG

21 931 195
9 285 030
12 646 165

30 055 593
29 528 894
526 699

13172 864 cu.ft.

487,883 cu.yds.

```
Using current surface for volume calculation. Select areas...
Return to select all visible or
Select objects: 1 selected. 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

234992 triangles built
VOLUMES:
  Area #1 - Volume 10432978.568035 [90.822078]
            Neg Volume -29647929.73346
  Outside Area - Volume 1054292.765875 [9.177922]
                 Neg Volume -14048338.441878

Total Volume 11487271.33391
      Neg Volume -43696268.175338

Volumes are in file "_volume.txt"

Command:
```

2/22/94

MAX 8C .QSB

TGRID1 mapped w/ TOTAL 7C.QSB

TEMP7.DWG

10,432,978	30 055 593
9 285 030	29 647929
1,147,948	407,664

1,555,612 cu. ft.

57,615 cu. yds.

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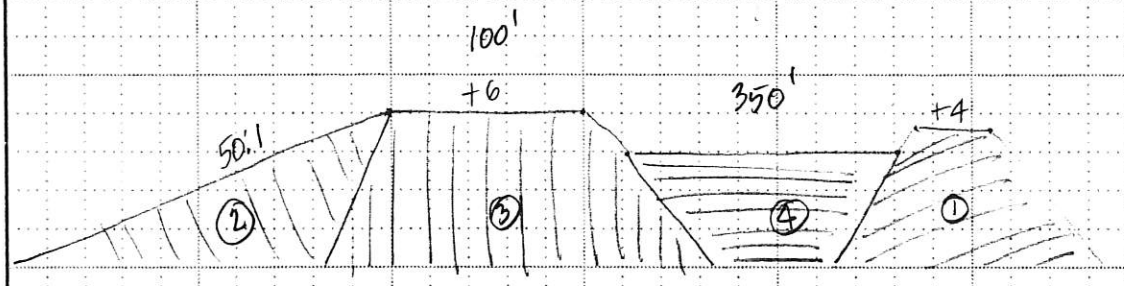
Sheet No. ____ of ____
Date 2/22/94
By JE
Chkd ____ Date ____
Job No. ____

Subject TEMP7.DWG (ALT. NO.2)



TOTAL AREA 1,471,290 cu.yds. + 57615 cu.yd.

1 BACK LEVEE 57,615 cu.yd.

2 FRONT DUNE SLOPE 1,471,290 − 839,049 = 632,241 cu.yds

3 FRONT RETENTION DIKE 487,883 cu.yds. 487,883

1,120,124 ÷ 1,471,290 = 76%

4 MARSH PLATFORM 1,471,290
− 57,615 76% X 1,950,000 = 1,482,000
− 632,241 $\frac{632241}{1120124}$ X 1482000 = 836,498 = 2
− 487,883 ∴ 3 = 1482,000 − 836498 = 645502
293,551 cu.yd. Marsh Platform = 1,950,000 − 1,482,000 = 468,000

1,471,290 + 165,000 = 1,636,290 CY's.

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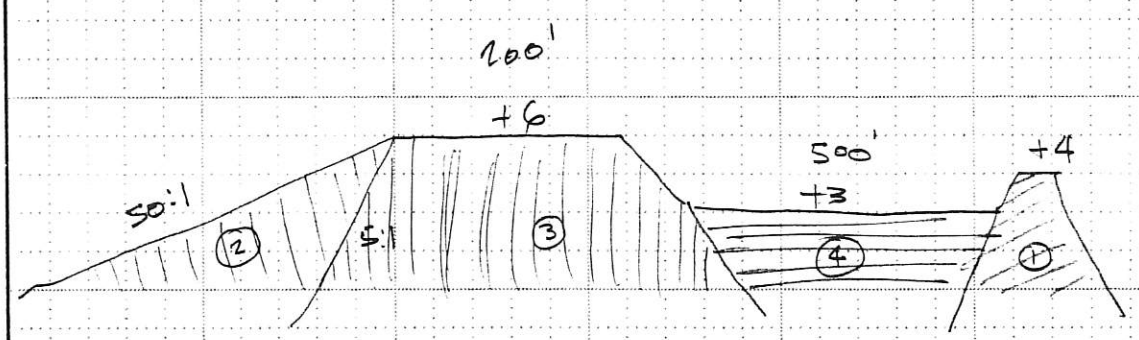
Sheet No. ____ of ____
Date 7/23/94
By JB
Chkd ____ Date ____
Job No. ____

Subject TEMP5.DWG (ACT. NO. 1)

TOTAL AREA 1,810,940 cu.yds. + 81,409 cu.yds.



① BACK LEVEE 81,409 cu.yds

② FRONT DUNE SLOPE 1,810,940 − 1,187,888 = 623,052 cu.yds

③ FRONT RETENTION DIKE 725,186 cu.yds.

$\frac{725,186}{1,348,238} \div 1,810,940 = 74\%$

④ MARSH PLATFORM 1,810,940

− 81,409

− 623,052

− 725,186

381,293 cu.yds.

74% × 2,190,000 = 1,620,600

$\frac{623,052}{1348238} \times 1620600 = 748,917 = ②$

∴ ③ = 1,620,600 − 748917 = 871,683

Marsh Platform = 2,190,000 − 1,620,600
= 569,400

1,810,940 + 182,000 = 1,992,940 CY's.

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Sheet No. ____ of ____
Date 2/16/94
By JR
Chkd ____ Date ____
Job No. ____

Subject: BARRIER ISLANDS

LOADED TEMPS.DWG (Alternate No. 1)

set boundary
extract
break extract (50)
grid 20 x 20

TOTAL5.QSB Saved as

MAX6.QSB MAX of TGRID1 & TOTAL5

used boundary volumes command -

LOADED TGRID1.QSB - original surface

used new boundary - got boundary volumes -

difference is total fill

- ADDED 5:1 slope on front took off Back Marsh Platform
created TOTAL5A.QSB

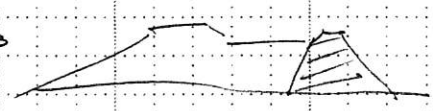
MAX6A.QSB

- add slope on front leave out
CREATE TOTAL5B.QSB

MAX6B.QSB

- just back level
Create TOTAL5C.QSB

MAX6C.QSB



```
Select objects: 1 selected, 1 found



Using current surface for volume calculation, Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

212598 triangles built
VOLUMES:
  Area #1 - Volume 47,941,324.911674 [97.962136]
            Neg Volume -19816508.036411
  Outside Area - Volume 997302.881026 [2.037864]
                 Neg Volume -12648128.673373

Total Volume 48938627.7927
      Neg Volume -32464636.709783

Volumes are in file "_volume.txt"

Command:
```

2/16/94

MAXG.QSB which is

TGRID1.QSB maxed w/ TOTAL5.QSB

from TEMPS.QSB

47941324	30 055 593
9285030	19 816 508
38,656,294	10,239,085

48,895,379 cu. ft.

$\Rightarrow$ 1,810,940 cu. yds.

```
Using current surface for volume calculation. Select areas...
Return to select all visible or
Select objects: 1 selected. 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

234992 triangles built
VOLUMES:
  Area #1 - Volume 9285030.78234 [84.138939]
            Neg Volume -30055593.764436
  Outside Area - Volume 1750324.454091 [15.861061]
                 Neg Volume -26269855.911434

Total Volume 11035355.236431
      Neg Volume -56325449.67587

Volumes are in file "_volume.txt"

Command:
```

TGRID1 . QSB

Boundary Volumes w/ new BNDY

```
Using current surface for volume calculation. Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

234992 triangles built
VOLUMES:
  Area #1 - Volume 9284292.405383 [84.139431]
            Neg Volume -30594332.63483
  Outside Area - Volume 1750120.696344 [15.860569]
                 Neg Volume -26860071.767785

Total Volume 11034413.101726
      Neg Volume -57454404.402615

Volumes are in file "_volume.txt"

Command:
```

2/18/93

T6R101

double check of volume

```
Using current surface for volume calculation. Select areas...
Return to select all visible or
Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

234992 triangles built
VOLUMES:
  Area #1 - Volume 27857740.24153 [96.353446]
            Neg Volume -29048279.557284
  Outside Area - Volume 1054292.765875 [3.646554]
                 Neg Volume -14048349.826907

Total Volume 28912033.007405
      Neg Volume -43096629.384191

Volumes are in file "_volume.txt"

Command:
```

2/22/94

MAXGA.QSB

max of TOTALSA.QSB and TGR101.QSB

TEMPS.DWG

27 857 740	30 055 593
9 285 030	29 048 279
18572710	1,007,314

19,580,024 cu.ft.

725,186 cu.yds.

```
Using current surface for volume calculation. Select areas...
 Return to select all visible or

Select objects: 1 selected, 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

234992 triangles built
VOLUMES:
  Area #1 - Volume 37952506.963609 [97.297156]
            Neg Volume -26650067.724022
  Outside Area - Volume 1054292.765875 [2.702844]
                 Neg Volume -14048326.525931

Total Volume 39006799.729484
     Neg Volume -40698394.249952

Volumes are in file "_volume.txt"

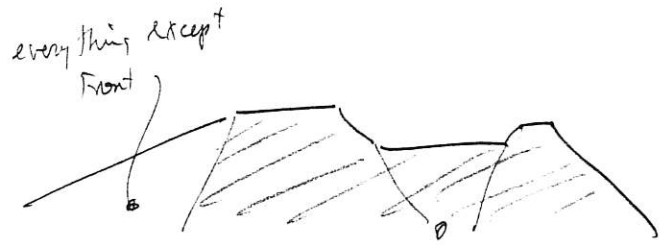
Command:
```

2/23/94

MAX6B.QSB

TEMP5.DWG

TOTAL5B.QSB maxed w/ TGR101.QSB



37 952 506	30 055 593
9 285 030	26 650 067
28 667 476	3,405 526

32,073,002 cu.ft.

1,187,888 cu.yds

```
Using current surface for volume calculation. Select areas...
Return to select all visible or
Select objects: 1 selected. 1 found

Select objects:

File type: Ascii/Paradox/Dbase <A>:

Select zero polyline:

Using a step size of 10

234992 triangles built
VOLUMES:
  Area #1 - Volume 10565969.522791 [90.927117]
            Neg Volume -29138479.206992
  Outside Area - Volume 1054292.765875 [9.072883]
                 Neg Volume -14048315.140902

Total Volume 11620262.288666
      Neg Volume -43186794.347894

Volumes are in file "_volume.txt"

Command:
```

2/23/94

MAX6C.QSB - TEMP5.DWG

TOTAL 5C mixed w/ TG2101

10 565 969	30 055 593
9 285 030	29 138 479
1,280,939	917,114

2,198,053 cu.ft.

81,409 cu.yds.

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Sheet No. ___ of ___
Date 11/12/93
By MJR
Chkd ___ Date ___
Job No. ___

Subject Vegetative Calculations

Length of Project with Marsh Platform = 9,080'
" " " without " " = 4,350'

Marsh Platform

Dune

① St. Augustine Sod 9SF / 10' = 10SY / 100' Dune
9080 ÷ 100 X 10 = 908 SY.

② Roseau Cane 1 Plant / 4' & 1-Row
9080 X 2 ÷ 4 = 4540 Plants

③ Bitter Ponicum 1-25' strip w/ Row @ 3' & plants @ 3'
25 ÷ 3 = 8.33 use 9 rows
9080 X 9 ÷ 3 = 27,240 plants

④ Marshhay (wiregrass) 2-25' Strips w/ Rows @ 4' & plants @ 4'
25 ÷ 4 = 6.25 Use 7 rows
9080 X 14 ÷ 4 = 31,780 plants

⑤ Saltgrass 1-25' strip w/ Rows @ 3' & plants @ 3'
25 ÷ 3 = 8.33 Use 9 rows
9080 X 9 ÷ 3 = 27240 plants

Marsh Platform

① Bitter Ponicum 1-25' strip
Use 27,240 Plants

② Marshhay (wiregrass) 2-25' Strips
Use 31,780 plants

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Sheet No. ____ of ____
Date 11/12/93
By MJR
Chkd ____ Date ____
Job No. ____

Subject Vegetative Calculations

③ Saltgrass 1-25' Strip

Use 27,240 Plants

④ Smooth Cordgrass 1-50' Strip w/Row @ 4' & plants @ 4'

50 ÷ 4 = 12.5 Use 13 Rows

9080 x 13 ÷ 4 = 29,510 Plants

Dune

Dune

① St. Augustine Sod same

4350 ÷ 100 x 10 = 435 S.Y.

② Roseau Cane same

4350 x 2 ÷ 4 = 2,175 plants

③ Bitter Panicum same

4350 x 9 ÷ 3 = 13,050 plants

④ Marshhay (Wiregrass) same

4350 x 14 ÷ 4 = 15,225 Plants

⑤ Saltgrass same

4350 x 9 ÷ 3 = 13,050 Plants

Aerial Planting

Back Levee L = ± 12450 Surface Area = ± 70' wide

A = 12450 x 70 ÷ 43560 = 20 Acres

Dune L = 13430 Surface Area = 200' wide

A = 13430 x 200 ÷ 43560 = 62 Acres

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Sheet No. ____ of ____
Date ____
By ____
Chkd ____ Date ____
Job No. ____

Subject ____

Total Aerial Planting = 82 acres

Summmory of Species

	Dike	Dune	Marsh	Total
① Smooth Cordgrass	–	—	29510	29510
Marshhay	–	47,005	31,780	78785
Saltgrass	–	40290	27240	67530
Roseau Come	3,112	2175	4540	9827
Bitter Ponicum	2,270	40290	27240	69800

QUICKSURF VERSION 4.7 for AutoCAD Release 11 and 12

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Section 1: Introduction

Quicksurf is a general-purpose surface modeling system that operates totally within AutoCAD Release 11 and 12. It converts surface mapping data (point and/or breakline data) into contours, grids, triangulated irregular networks (TIN), and Triangulated grids (TGRD). A suite of sophisticated tools allows you to manipulate modeled surfaces into high-quality finished maps and perform a variety of engineering computations.

The speed and power of *Quicksurf* have brought it wide acceptance in numerous fields as the digital terrain modeling standard for AutoCAD users. *Quicksurf* meets the needs of a broad range of professional disciplines such as civil and mechanical engineering, surveying, mapping, photogrammetry, mining, oil and gas exploration, environmental studies, landscape architecture, oceanography, and finite difference computation.

Quicksurf was designed to operate seamlessly with all AutoCAD applications software. All of the three-dimensional models produced by *Quicksurf* are completely compatible with AutoSHADE, Renderman, 3D Studio, and the SHADE and HIDE commands.

Quicksurf consolidates the most powerful surface modeling techniques available into a single easy-to-use system. Its processing speeds equal or better any other system in the MS-DOS industry. An available demonstration copy will allow you to evaluate all the system functions in about 15 minutes, and may be converted to a fully functional version by obtaining a password from Schreiber Instruments.

1.1 System software requirements

Quicksurf ADS is implemented for operation inside AutoCAD Release 11 or 12, MS-DOS 386 DOS Extender Version. The AutoCAD Development System (ADS), new in Release 11, permitted Schreiber Instruments to program *Quicksurf* primarily in the C language for high-speed operation within the AutoCAD environment.

1.2 System hardware requirements

Quicksurf ADS operates totally inside AutoCAD and has no hardware requirements over and above those of AutoCAD itself. We suggest the following basic system configuration as a minimum for efficient operation:

- 80386 processor with math coprocessor, or 80486
- 6 megabytes RAM
- 50 megabytes of free hard disk space
- VGA monitor or better
- Mouse, digitizing pad or other pointing device.

When large data sets (100,000 points or more) are to be processed, execution speed will depend on the amount of memory available.

When enough memory is present to prevent disk swapping, *Quicksurf* processes approximately 40,000 data points per minute on a 33-Mhz 486 EISA machine, or 20,000 per minute on a 20-Mhz 386. Please refer to your AutoCAD installation and performance guide for details on system requirements.

1.3 *Quicksurf* surface memory

Quicksurf creates a unique unit of memory storage inside AutoCAD controlled memory commonly referred to as a "surface". A surface is a mathematical description of a single-valued function of the independent variables x,y. This means that no part of a surface may be overhanging or exactly vertical, since it would have more than one elevation at an x,y, point. A surface may consist of any combination of each of the following elements:

Points
Break lines (Breaks)
Triangulated irregular network (TIN)
Derivatives
Grid

A new surface may be created with just Points as a result of loading X,Y,Z triplets from an ASCII file or extracting points from entities in the drawing with the Extract to surface command (QSX). Breaks may be incrementally added to a surface by extracting polyline entities as break lines with Extract Breaks (QSBX). The calculation of a surface model with the TIN, Grid, TGRD, or Contour commands create the TIN, Derivatives and Grid parts of the surface.

Quicksurf also has the ability to manage an unlimited number of these surfaces (*dependent on your machines resources*) with each having any combination of these elements. Multiple surfaces allow you to perform specific operations between surfaces resulting in surfaces representing thicknesses, cut and fill volumes, exaggerated surfaces, slopes and many other possibilities. *Quicksurf* maintains one special surface which is the "current" surface named <.> "dot". When you load data from an ASCII file you create a new <.> surface. When you use the Extract to surface command (QSX) to extract X,Y,Z data from AutoCAD entities, you create a new <.> surface. The results of any surface operation are placed in the <.> surface. Any of these actions replace the pre-existing contents of the <.> surface. You may save surfaces as *named* surfaces with the Surface Operations commands of Save, Copy, Move or Rename.

Quicksurf uses surface memory storage (rather than the AutoCAD drawing database) to decrease the amount of memory required to manipulate data, providing fast execution of modeling operations. Fast and efficient operation in memory provides instantaneous results allowing for analysis and design to predominate the process rather than waiting for results of calculations.

A surface is stored in AutoCAD-controlled memory, and is not part of the drawing until you instruct *Quicksurf* to add it to the drawing by issuing a DRAW response to a *Quicksurf* command. A surface will not be visible until you use specific commands (Points, Breaks, Contour, TIN, Grid, Triangulated grid) and their "Draw" or "Show" options to either draw or display the surface in the current viewport. The "Show" option will highlight pixels equivalent to the requested surface element or contours on your drawing screen, which may be removed with the AutoCAD REDRAW command. The "Draw" option will add the requested surface element or contours into the drawing database as AutoCAD entities.

Surfaces in memory will not be saved when an AutoCAD SAVE or END command is executed. *Quicksurf* instead provides a separate command (Write QSB) that allows the user to write a single or group of memory surfaces to disk independently of the AutoCAD drawing. This provides more efficient use of storage (as much as 50% less) and preserves all parts of a surface in a quickly retrievable form.

1.4 Input

Quicksurf accepts input from these basic sources:

- ASCII disk files of x,y,z coordinate triplets
- AutoCAD drawing entities
- Binary surface files
- Directly from database files with the GEOKIT option.
  (Databases supported : Paradox, Dbase IV, FoxPro)

The default form for ASCII input files is a free-field columnar format with three columns for x,y and z values. However, *Quicksurf* may optionally read any desired parameter from any column in decimal or exponential notation. Multiple column capability allows you to load points successively from a single ASCII file targeting separate columns for the Z value and build numerous surfaces in memory with related x, y coordinates. This can be invaluable when environmental or geological analysis is desired between several layers of data.

ASCII files are commonly generated by many sources such as:

- Total stations
- COGO programs
- Spreadsheets
- Databases
- Word processors and text editors.
- Simulation software

Quicksurf can derive data from all AutoCAD entities by extracting their defining points directly to memory, making the data immediately available for surface modeling. This drawing data may take the form of any AutoCAD drawing entity. A detailed list of entities and related point data is provided in the command reference section under the Extract to surface (QSX) command.

1.5 Output

Quicksurf outputs data in several ways as follows: Drawing entities, Binary files, ASCII X,Y,Z triplet files. Contours, 3D surface representations, and annotation can all produce professional quality maps inside AutoCAD. Output may be performed using AutoCAD's various functions such as the PLOT for vector plots, SAVEIMG for raster images, DXF for exchange, or the AutoCAD DWG file. Surface data may also be written to a disk file using the *Quicksurf* binary file (QSB), or exported from drawing entities into ASCII text files containing X, Y, Z triplets using the DWG2TXT command.

Incorporating data into a drawing involves invoking *Quicksurf* commands and selecting the "Draw" option. In this case and only this case is data moved from a memory surface and permanently added to the drawing. The following *Quicksurf* commands have the ability to draw AutoCAD entities into the drawing from surface memory:

Points
Breaks
TIN (triangulated irregular network)
Grid
Triangulated Grid
Contour

The surface models created by *Quicksurf* are render ready surfaces for AutoCAD, 3D Studio or similar rendering packages. All surfaces produced by *Quicksurf* have all of the normals pointing up thus not requiring the application of a material to both sides of the surface. A surface may be drawn into AutoCAD and exported to any DXF compatible rendering package, word processor, or DXF compatible program. AutoCAD Release 12 provides additional rendering and image capturing commands under the render menu (Render and Saveimg).

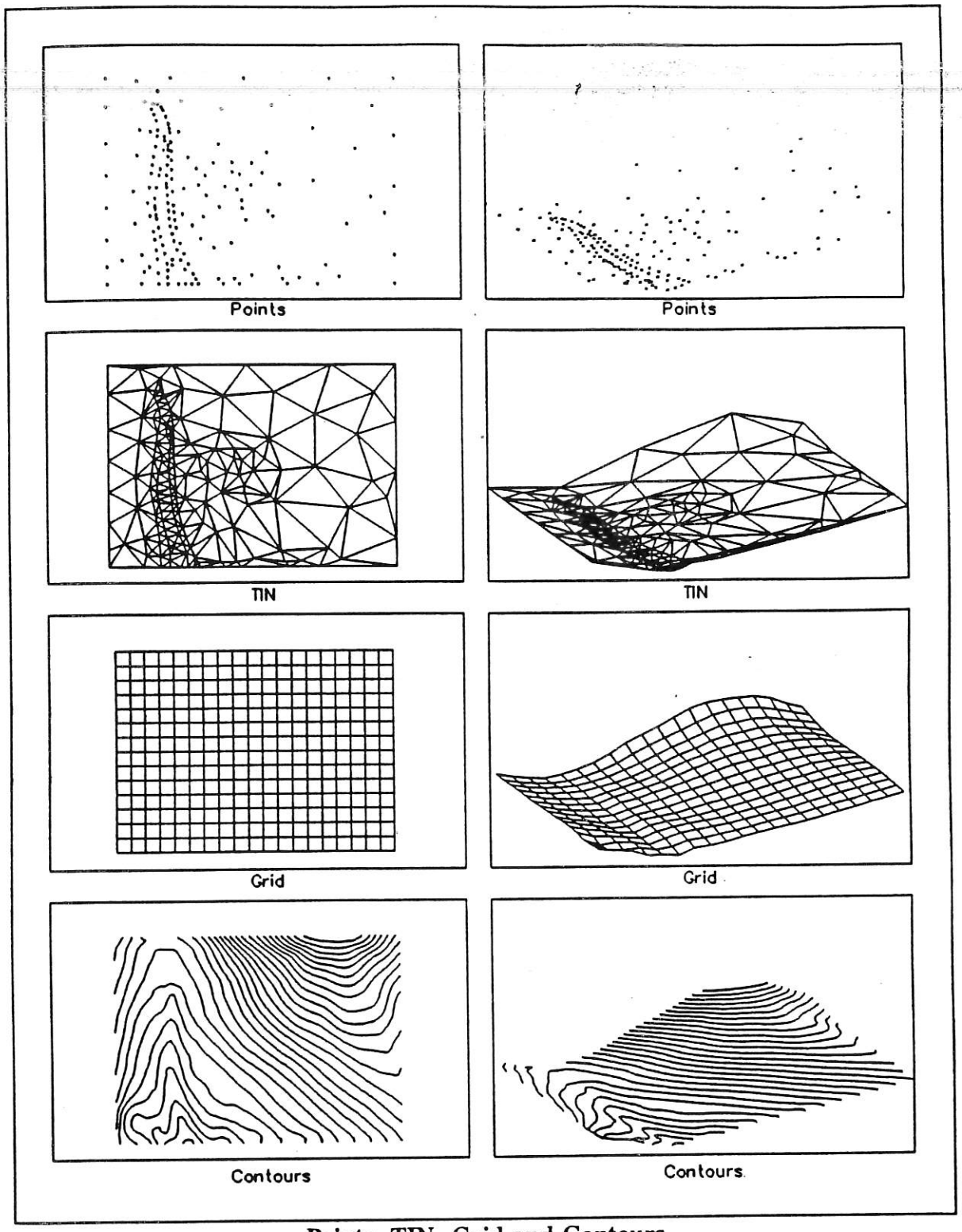
1.6 Surface modeling concepts

Quicksurf offers several surface models which may be displayed with the following commands: Points, Triangulated Irregular Network (TIN), Triangulated Grid (TGRD), Grid, and Contour. A surface is comprised of one or more of the following basic elements:

Points
Break lines
TIN
Derivatives
Grid

Contours are not part of the surface as they may be generated from differing parts of the same surface. Contours are generated based on a surface which could be a TIN, Triangulated grid, or GRID.

The figure on the following page shows Points, TIN, Grid and Contours in both plan and perspective views.



Points, TIN, Grid and Contours