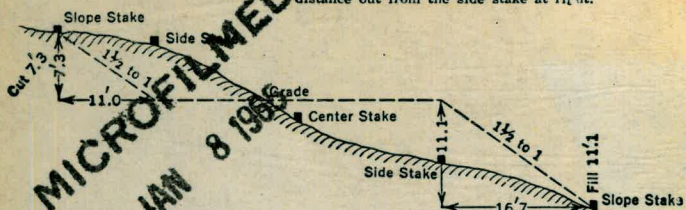


MB 116

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING
Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



MICROFILMED
 JAN 8 1968

Cut or Fill	Distance out from Side or Shoulder Stake									Cut or Fill	
	0	.1	.2	.3	.4	.5	.6	.7	.8		.9
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

KEUFFEL & ESSER CO., N. Y.

MB No 116

THIS BOOK INDEXED 2/9/1968

The paper in this book No. 373 A is made of 50% high grade rag stock with a WATER RESISTING surface sizing.

11-10-1917

The paper in this book is 31 1/2
in. wide in 50% and 31 in. wide
in 50% water resistance container

7-23-59-

Sound ②

STAN 152+00, 0+00 = W 8500 EAST

DIST	Sound	elev	DIST	Sound	elev
10+00 0+00	7.1	4.0		7.8	4.7
(3.1)	7.1	4.0	2+00	7.4	4.3
	7.1	4.0		7.5	4.4
	7.2	4.1		7.5	
	7.5	4.4		7.5	
50	7.6	4.5		7.5	
	7.6	4.5	50	7.5	
	7.7	4.6		7.5	
	7.7	4.6		7.5	
	7.8	4.7		7.5	
1400	7.9	4.8		7.5	
	7.9		3+00	7.5	
	7.9			7.6	4.5
	7.8	4.7		7.5	4.4
	7.8			7.5	
50	7.8			7.5	
	7.8		50	7.5	
	7.7	4.6		7.4	4.3
	7.8	4.7		7.3	4.2

STAN 152+00 CONT EAST

DIST	Sound elev	DIST	Sound elev	ELEV
(3.1)	7.2	4.1	7.3	4.2
	7.2		7.3	
4+00	7.2	6+00	7.3	
	7.2		7.3	
	7.3	4.2	7.3	
	7.3		7.3	
	7.3		7.3	
50	7.2	50	7.3	
	7.3		7.3	
	7.3		7.1	4.0
	7.3		7.0	3.9
	7.3		7.0	
5+00	7.3	7+00	7.0	
	7.3		6.9	3.8
	7.3		6.9	
	7.3		6.9	
	7.3		6.9	
50	7.3	50	6.9	
	7.3		6.8	3.7
	7.3		6.8	3.7

STAN 152+00 CONT EAST (3)

DIST	Sound elev	DIST	Sound elev
(3.2)	6.8	3.6	3.5
10+05	6.7	3.5	3.4
8+00	6.4	3.2	3.2
	6.2	3.0	3.2
	6.2		3.2
	6.2		3.1
	6.2		3.0
50	6.2	50	3.0
	6.1	2.9	3.0
	5.8	2.6	2.9
	5.4	2.2	2.9
	5.0	1.8	2.8
9+00	4.6	1.4	2.5
	4.5	1.3	2.5
	4.2	1.0	2.5
	4.2	1.0	2.4
	4.1	0.9	2.3
50	3.8	0.6	2.3
	3.8	0.6	2.2
	3.8	0.6	2.0
	3.8	0.6	1.5
	3.8	0.6	1.2

STAN 150+00; 0+00 = W 8500 EAST

DIST	Sound	ELEV	DIST	Sound	ELEV
10:15 0+00	8.1	4.6		5.4	1.9
(3.5)	8.1	4.6	2+00	5.3	1.8
	8.1	4.6		5.2	1.7
	8.2	4.7		5.1	1.6
	8.1	4.6		5.1	
50	8.0	4.5		5.1	
	8.0	4.5	50	5.0	1.5
	7.9	4.4		5.1	1.6
	7.4	3.9		5.0	1.5
	7.3	3.8		5.0	
14:10	7.1	3.6		5.0	
	6.9	3.4	2+00	5.0	
	6.8	3.3		5.0	
	6.4	2.9		5.0	
	6.3	2.8		4.9	1.4
50	6.1	2.6		4.9	1.4
	5.9	2.4	50	4.9	1.4
	5.6	2.1		4.9	1.4
	5.4	1.9		4.7	1.2

STAN 150+00 CONT EAST (4)

DIST	Sound	ELEV	DIST	Sound	elev.
(3.5)	4.6	1.1	(3.6)	4.1	0.5
	4.5	1.0		4.0	0.4
4+00	4.7	1.2	6+00	4.1	0.5
	4.7			4.1	
	4.7			4.1	
	4.6	1.1		4.0	0.4
	4.5	1.0		4.0	0.4
50	4.6	1.1	50	4.0	0.4
	4.3	0.8		4.0	0.4
	4.2	0.7		3.9	0.3
	4.3	0.8		3.8	0.2
	4.3			3.8	0.2
5+00	4.3		7+00	3.6	0.0
	4.3			3.6	0.0
	4.2	0.7		3.6	0.0
(3.6)	4.1	0.5		3.5	+0.1
10:20	4.1			3.5	
50	4.1		50	3.5	
	4.1			3.5	
	4.1			3.5	

STATION 150+00 CENTER EAST

DIST	Sound elev	DIST	Sound elev
(3.6)	3.4 + 0.2	(3.6)	2.5 + 1.1
	3.4 + 0.2		2.3 + 1.3
8+00	3.7 0.1	10+00	1.9 + 1.7
	3.4 + 0.2		1.8 + 1.8
	3.4 + 0.2		1.6 + 2.0
	3.3 + 0.3		1.4 + 2.2
	3.2 + 0.4	(3.7)	1.4 + 2.2
50	3.2 + 0.4	50	1.5 + 2.1
	3.2 + 0.4	10,25	1.3 + 2.3
	3.1 + 0.5		0.9 + 2.7
	3.0 + 0.6		0.8 + 2.8
	3.0 + 0.6		0.6 + 3.0
9+00	3.1 + 0.5	11+00	0.5 + 3.1
	3.1 + 0.5		0.3 + 3.3
	3.1 + 0.5	Shore	
	3.0 + 0.6		
	2.9 + 0.7		
50	2.8 + 0.8		
	2.7 + 0.9		
	2.8 + 0.8		

STATION 148+00, 0+00 = W 8+00 EAST

Sound (5)

DIST	Sound elev	DIST	Sound elev
10:30	5.0	1.2	(3.8) 4.6 0.8
0+00	5.2	1.4	2+00 4.5 0.7
(3.8)	5.1	1.3	4.5
	5.0	1.2	4.5
	5.0		4.5
50	5.0		4.5
	5.0	50	4.5
	5.0		4.5
	5.0		4.4 0.6
	5.0	(3.9)	4.5 0.6
1+00	4.9	1.1	10,35 4.5 0.6
	4.9		3+00 4.4 0.5
	4.9		4.3 0.4
	4.9		4.3 0.4
	4.8	1.0	4.3 0.4
50	4.8		4.3 0.4
	4.8	50	4.4 0.5
	4.8		4.5 0.6
	4.7	0.9	4.5 0.6

STAN 148+00 CONT EAST

DIST	Sound elev	DIST	Sound elev
(3.9)	4.3 0.4	(3.9)	4.0 0.1
	4.3		4.0
4+00	4.3	6+00	3.9 0.0
	4.2 0.3		3.9 0.0
	4.3 0.4		3.9 0.0
	4.3 0.4		3.8 + 0.1
	4.2 0.3		3.7 + 0.2
50	4.3 0.4	50	3.7 +
	4.3		3.7 +
	4.3		3.7 +
	4.3		3.6 + 0.3
	4.2 0.3		3.6 + 0.3
5+00	4.2	7+00	3.5 + 0.4
	4.2		3.5 +
	4.0 0.1		3.5 +
	4.0		3.4 + 0.5
	4.0		3.4 +
50	4.0	50	3.4 +
	4.0		3.4 +
	4.0		3.4 +

STA N148+00 CONT EAST (6)

DIST	Sound elev	DIST	Sound elev
(4.0)	3.4 + 0.6	(4.0)	1.0 + 3.0
	3.3 + 0.7		1.0 + 3.0
10+00	3.3 + 0.7	10+00	0.5 + 3.5
	3.2 + 0.8		0.4 + 3.6
	3.2 + 0.8		SHORE
	3.2 + 0.8		
	3.1 + 0.9		
50	3.1 + 0.9	50	
	3.0 + 1.0		
	3.0 +		
	3.0 +		
	2.7 + 1.3		
9+00	2.5 + 1.5	11+00	
	2.2 + 1.8		
	2.0 + 1.5		
	1.8 + 2.2		
	1.6 + 2.4		
50	1.6 + 2.4	50	
	1.4 + 2.6		
	1.2 + 2.8		

7-23-59

STAN 146400 cont EAST ②

STAN 146400; 0400 = W 8500 - Sound EAST

DIST Sound elev DIST Sound elev.

DIST	Sound elev	DIST	Sound elev
10:50 0400	5.0 0.8	④.2	4.7 0.5
④.2	5.0 0.8	2400	4.6 0.4
	5.0 0.8		4.5 0.3
	4.9 0.7		4.5
	4.9		4.5
50	4.9		4.5
	4.8 0.6	50	4.5
	4.8		4.4 0.2
	4.8		4.4
	4.8		4.4
1400	4.8		4.4
	4.8	3400	4.3 0.1
	4.8		4.3
	4.8		4.3
	4.8		4.2 0.0
50	4.8		4.1 + 0.1
	4.7 0.5	50	4.1 + 0.1
	4.7		4.1 + 0.1
	4.7		4.0 + 0.2

DIST	Sound elev	DIST	Sound elev
④.2	4.0 + 0.2	④.2	3.9 + 0.3
	4.0 +		3.9
4400	4.0 +	6400	3.9
	4.0 +		3.8 + 0.4
	4.0 +		3.8 +
	3.9 + 0.3		3.8 +
	3.9		3.8 +
50	3.9	50	3.5 + 0.7
	3.9		3.5
	3.9		3.5
	3.9		3.4 + 0.8
	4.0 + 0.2		3.4 + 0.8
5400	4.1 + 0.1	7400	3.3 + 0.9
	4.0 + 0.2		3.2 + 1.0
	4.1 + 0.1		3.2 + 1.0
	3.9 + 0.3		3.3 + 0.9
	3.8 + 0.4	④.2	3.5 + 0.7
50	3.9 + 0.3	50	3.4 + 0.8
	3.9		3.4 + 0.8
	3.9		3.3 + 0.9

STAN 14600 CENT EAST

DIST Sound elev DIST Sound elev

(4.2)	3.2 + 1.0		
	3.2 + 1.0		
8400	3.1 + 1.1	10400	
	3.2 + 1.0		
	3.0 + 1.2		
	2.8 + 1.4		
	2.0 + 2.2		
50	1.9 + 2.3	50	
	1.7 + 3.1		
	1.0 + 3.2		
	1.0 + 3.2		
	0.6 + 3.6		
9400	0.4 + 3.8	11400	
	- Shore -		

50

50

7-23-59 EAST P. 2

(8)

STAN 14400; 0700-W 8500-Sound (NORTH)

DIST Sound elev DIST Sound elev

11105	0400	4.5	0.1		4.2	+ 0.2
(4.4)		4.6	0.2	2400	4.1	+ 0.3
		4.5	0.1		4.1	+ 0.3
		4.5	0.1		3.9	+ 0.5
		4.6	0.2		4.0	+ 0.4
50		4.6			3.9	+ 0.5
		4.6		50	3.9	+ 0.5
		4.6		1.1	4.0	+ 0.4
		4.3 + 0.1		0.1	4.0	+ }
		4.3 +		5.0	4.0	+ }
1400		4.3			3.9	+ 0.5
		4.3		3400	4.0	+ 0.4
		4.3			3.8	+ 0.6
		4.2 + 0.2			3.8	+ 0.6
		4.2 + 0.2			3.9	+ 0.5
50		4.1	+ 0.3		3.8	+ 0.6
		4.1		50	3.7	+ 0.7
		4.1			3.8	+ 0.6
		4.0	+ 0.4		3.8	+ 0.5

STAN 144400 CONT EAST

DIST Sound ELEV DIST Sound elev

(4.4)	3.7	+0.7	(4.4)	3.2	+1.2
	3.8	+0.6	11.10	3.2	+1.2
4400	3.8	+	6400	3.2	+1.2
	3.8	+		3.3	+1.1
	3.7	+0.7		3.3	+1.1
	3.7	+0.7		3.4	+1.0
	3.4	+1.0		3.1	+1.3
50	3.3	+1.1	50	3.1	+1.3
	3.3	+1.1		3.2	+1.2
	3.4	+1.0		3.3	+1.1
	3.6	+0.8		3.2	+1.2
	3.5	+0.9		3.1	+1.3
5400	3.8	+0.6	7400	3.0	+1.4
	3.6	+0.8		3.2	+1.2
	3.2	+1.2		3.1	+1.3
	3.3	+1.1		3.1	+1.3
	3.3	+1.1		3.2	+1.2
50	3.2	+1.2	50	3.1	+1.3
	3.2	+1.2		3.2	+1.2
	3.2	+1.2		3.2	+1.2

STAN 144400 CONT EAST 19

DIST Sound ELEV DIST Sound elev

(4.7)	3.1	+1.3			
	3.0	+1.4			
8400	2.7	+1.7	10400		
	2.3	+2.1			
	1.6	+2.8			
	1.4	+3.0			
	1.3	+3.1			
50	0.7	+3.7	50		
	0.4	+4.0			
	0.2	+4.2			
	SHORE				

9400 11400

7-23-59

Sound

STAN 142+00 CONT EAST 110

STAN 142+00; 0+00 = W 8500 - EAST		DIST		Sound		ELEV		DIST		Sound		ELEV.	
DIST	Sound	ELEV	DIST	Sound	ELEV	(4.6)	3.5 + 1.1	(4.7)	2.8 + 1.9				
1120 0+00	5.0	0.4	(4.6)	4.0	+0.6		3.5 + 1.1		2.8 + 1.9				
(4.6)	4.0	+0.6	2+00	4.0		4+00	3.5 + 1.1	6+00	2.7 + 2.0				
	4.1	+0.5		4.0			3.5 +		2.7 + 2.0				
	4.5	+0.1		4.0			3.5 +		2.8 + 1.9				
	4.7	+0.4		4.0		(4.7)	3.5 + 1.2		2.5 + 2.2				
50	4.2			4.0		1125	3.5 + 1.2		2.5 +				
	4.2		50	4.0		50	3.5 +	50	2.5 +				
	4.2			4.0			3.5 +		2.5 +				
	4.2			4.0			3.0 + 1.7		2.5 +				
	4.2			4.0			3.0 +		2.5 +				
1+00	4.4	+0.2		3.8	+0.8		3.0 +		2.3 + 2.4				
	4.4		3+00	3.8		5+00	3.0 +	7+00	2.2 + 2.5				
	4.4			3.8			3.0 +		2.0 + 2.7				
	4.4			3.8			3.0 +		2.0 + 2.7				
	4.2	+0.4		3.8			3.2 + 1.5		1.8 + 2.9				
50	4.2			3.8			3.2 + 1.5		1.8 + 2.9				
	4.2		50	3.8		50	3.0 + 1.7	50	1.7 + 3.0				
	4.0	+0.6		3.5	+1.1		3.0 + 1.7		1.8 + 2.9				
	4.0	+0.6		3.5	+1.1		2.8 + 1.9		1.8 + 2.9				

STAN 14200 CONT EAST

DIST Sound ELEV

4.7 1.5 + 3.2

0.7 1.1 + 3.6

8+00 1.0 + 3.7

0.9 + 3.8

0.7 + 4.0

(4.7) 0.5 + 4.2

11:30 0.4 + 4.3

50 shore

7-23-59

Sound

STAN 14000; 0+00 = W 8500 EAST

11:35

DIST Sound ELEV DIST Sound elev.

0+00 4.5 + 0.3

4.5 + 0.3

(4.8)

4.5 +

2+00

4.5 +

4.5 +

4.5 +

4.5 +

4.5 +

4.0 + 0.8

4.3 + 0.5

50

4.0 + 0.8

4.0 + 0.8

4.5 + 0.3

50

4.0 + 0.8

4.0 + 0.8

4.1 + 0.7

4.5 + 0.3

4.1 + 0.7

4.5 +

4.1 + 0.7

1+00

4.5 +

4.1 +

4.5 +

3+00

4.1 +

4.5 +

4.1 +

4.5 +

4.1 +

4.5 +

4.0 + 0.8

50

4.5 +

4.0 +

4.5 +

50

4.0 +

4.5 +

4.0 +

4.5 +

4.0 +

STAN 140700 CONTRAST

7-24-59

12

DIST	Sound	ELEV	DIST	Sound elev.
(4.8)	4.0	+0.8	(4.8)	2.8 +2.0
	4.0	+0.8		2.7 +2.1
4+00	3.8	+1.0	6+00	2.5 +2.3
	3.8	/		2.5 +
	3.5	+1.3		2.5 +
	3.5	/		2.5 +
	3.5	/		2.5 +
50	3.8	/	50	2.3 +2.5
	3.5	/		2.0 +2.8
	3.5	/		2.0 +
(4.8)	3.5	/		2.0 +
11:40	3.5	/		1.8 +3.0
5+00	3.4	+1.4	7+00	1.7 +3.1
	3.4	+1.4		1.5 +3.3
	3.0	+1.8		1.5 +3.3
	3.0	+ /		1.2 +3.6
	3.0	+ /		1.2 +3.6
50	3.0	+ /	50	1.0 +3.8
	2.8	+2.0	60	1.0 +3.8
	2.8	+2.0	70	0.7 +4.1
	2.8	+2.0	80	0.4 +4.4
			90	Shore

STAN	98+00; 0700 = W 8500	Sound	elev	DIST	Sound elev
				(53)	1.9 +3.4
0+00		1.2	+4.1		
1133		1.0	+4.3	2+00	2.1 +3.2
(53)		1.2	+4.1		2.1 +3.2
		1.3	+4.0		2.0 +3.3
		1.3	+ /		2.0 +3.3
+50		1.3	+ /		2.1 +3.2
		1.3	+4.0	+50	2.1 +3.2
		1.4	+3.9		3.0 +2.3
		1.4	+ /		2.0 +3.3
		1.4	+ /		2.0 +
1400		1.4	+ /	3+00	2.0 +
		1.4	+3.9		2.0 +
		1.6	+3.7		2.0 +
		1.6	+3.7		2.0 +
		1.7	+3.6		2.0 +
+50		1.7	+3.6		2.0 +
		1.7	+3.6	+50	2.0 +3.3
		1.8	+3.5		2.3 +3.0
		1.9	+3.4		2.4 +2.9

Sta N98+00 Con 4 East			7-24-59			43					
Dist	Sound	Elev	Dist	Sound	Elev	Dist	Sound	Elev			
1:35	2.0	+3.3	(53)	2.7	+2.6	Dist	Sound	Elev			
(53)	2.0	+3.3		2.5	+2.8	0+00	(53)	1.0	+4.3		
4+00	2.3	+3.0	6+00	2.2	+3.1	1:45	1.0	+4.3	1.0	+4.3	
	2.6	+2.7		2.2	+3.1	(53)	1.0	+4.3	1.0	+4.3	
	2.7	+2.6		2.0	+3.3		1.0		0.9	+4.4	
	2.7	+		2.0	+3.3		1.0		1+00	0.9	+4.4
	2.7	+		1.6	+3.7	+50	1.0	+4.3			
+50	2.7	+	+50	1.2	+4.1						
	2.7	+2.6		1.0	+4.3	STAN 100+00; 0+00 = W8500			Sound East		
	2.8	+2.5	1:38	0.5	+4.2	0+00	2.8	+2.5	(52)	3.0	+2.2
	2.8	+2.5	≈	shore		1:52	2.8			3.0	
	2.9	+2.4				(53)	2.8			3.0	
5+00	3.0	+2.3					2.8	+2.5		3.0	
	2.7	+2.6					3.0	+2.3	+50	3.0	
	2.7	+				+50	2.8	+2.5		3.0	
	2.7	+					2.8	+2.5		3.0	+2.2
	2.7	+2.6					3.0	+2.3		3.1	+2.1
+50	2.9	+2.4					3.0	+2.3		3.0	+2.2
	2.7	+2.6					3.1	+2.2	2+00	3.0	+2.2
	3.0	+2.3				1+00	3.0	+2.3		3.0	+2.2

Sta 100+00 Cont East				7-24-59				114 Sound West	
Dist	Sound	Elev	Dist	Sound	Elev	STA N 100+00; 0+100 = W 8500	Dist	Sound	Elev
(52)	2.9	+2.3	(52)	3.1	+2.1		(52)	2.9	+2.3
	2.9	+2.3		3.1	+2.1	0+00		2.8	+2.4
	2.8	+2.4		3.1	+2.1	2:02		2.8	+2.4
+50	2.8	+2.4	+50	3.2	+2.0	(52)		2.8	}
	3.1	+2.1		3.0	+2.2		3.0	+2.2	1+00 2.8 +2.4
	2.9	+2.3		3.1	+2.1		3.8	+1.4	2.9 +2.3
1:55	2.9	}		3.0	+2.2	750	3.0	+2.2	2.9 +2.3
	2.9	}		3.0	+2.2		2.9	+2.3	2.9 +2.3
3+00	2.9	}	5+00	3.0	+2.2				
	2.9	+2.3		2.9	+2.3	STA N 102+00; 0+100 = W 8500			Sound East
	3.0	+2.2		2.9	+2.3	0+00	3.2	+2.0	1+00 3.3 +1.9
	3.0	}		2.8	+2.4		3.2	}	3.2 +2.0
	3.0	}		2.5	+2.7		3.2	}	3.2
+50	3.0	+2.2	+50	2.2	+3.0	2:08	3.2	}	3.2 +2.0
	2.9	+2.3		1.8	+3.4		3.2	}	3.1 +2.1
	2.9	+2.3		0.5	+4.7	+50	3.2	}	+50 3.1
	3.0	+2.2		Shore			3.2	+2.0	3.1
	3.0	}					3.3	+1.9	3.1
4+00	3.0	}					3.3	+1.9	3.1 +2.1
	3.0	+2.2					3.3	+1.9	3.3 +1.9

Sta N/102+00 Cont East			Sta N/102+00			7-24-59			0+00 = W 85 00 Sound West		
Dist	Sound	Elev	Dist	Sound	Elev	Dist	Sound	Elev	Dist	Sound	Elev
2+00	3.2	+1.9	4+00	3.0	+2.1	0+00			(50)	3.0	+2.0
(51)	3.2		(51)	2.9	+2.2	0+00			(50)	3.0	+2.0
	3.2			2.5	+2.6	2:15	3.2	+1.9	2+00	3.0	
	3.2			2.0	+3.1	(51)	3.2	+1.9	2:19	3.0	
	3.2	+1.9		1.8	+3.3		3.0	+2.1		3.0	
+50	3.1	+2.0	+50	1.5	+3.6		3.1	+2.0		3.0	
2:10	3.2	+1.9		1.5	+3.6	+50	3.2	+1.9		3.0	
	3.2	+1.9		1.0	+4.1		3.2		+50	3.0	+2.0
	3.0	+2.1		0.5	+4.6		3.2				
	3.0			0.2	+4.9		3.2	+1.9			
3+00	3.0		5+00	Shore			3.1	+2.0			
	3.0		2:12			1+00	3.1				
	3.0						3.1		3+00		
	3.0						3.1				
	3.0						3.1				
+50	3.0	+2.1	+50				3.1				
	3.0	+2.1				+50	3.1				
	4.5	+0.6					3.1	+2.0	+50		
	3.0	+2.1					3.0	+2.1			
	3.0	+2.1					3.0	+2.1			

7-24-59				Sound		Sta N 104+00 to 600 East 16					
Dist	Sound	Elev	Dist	Sound	Elev	Dist	Sound	Elev	Dist	Sound	Elev
0+00	3.2	+1.8	(50)	3.2	+1.8	(50)	3.0	+2.0	(58)	0.5	+4.5
2:23	3.4	+1.6	(50)	3.3	+1.7	4+00	1.5	+3.5	+50	Shore	
(50)	3.4	+1.6	2:25	3.3	+1.7		1.0	+4.0			
	3.3	+1.7	~	3.3	+1.7		0.5	+4.5			
	3.4	+1.6		3.2	+1.8	STAN 104+00; 0+00 = W 8500 Sound West					
+50	3.5	+1.5		3.2	+1.8	0+00	(49)	3.6		3.6	+1.3
	3.5	+1.5	+50	3.1	+1.9	2:32	3.5	+1.4	+50	3.4	+1.5
	3.6	+1.4		3.2	+1.8	(49)	3.6	+1.3		3.3	+1.6
	3.5	+1.5		3.2	+1.8		3.5	+1.4		3.4	+1.5
	3.5	+1.5		3.2	+1.8		3.4	+1.5		3.4	+1.5
1+00	3.6	+1.4		3.3	+1.7	+50	3.2	+1.7		3.3	+1.6
	3.4	+1.6	3+00	3.2	+1.8		3.5	+1.4	2+00	3.4	+1.5
	3.3	+1.7		3.2	}		3.4	+1.5		3.3	+1.6
	3.4	+1.6		3.2	}		3.4	}		3.2	+1.7
	3.4	+1.6		3.2	}		3.4	}		3.2	}
+50	3.3	+1.7		3.2	+1.8	1+00	3.4	}		3.2	+1.7
	3.3	}	+50	3.3	+1.7		3.4	+1.5	+50	3.3	+1.6
	3.3	}		4.0	+1.0		3.5	+1.4		3.3	+1.6
	3.3	+1.7		3.5	+1.5		3.6	+1.3		3.2	+1.7

7-24-59

Sound East			Sound West		
Dist	Sound	Elev	Dist	Sound	Elev
0+00	3.5	+1.4	(49)	3.5	+1.4
2:37	3.6	+1.3	2+00	3.5	
(49)	3.7	+1.2		3.5	
	3.7	+1.2		3.5	
	3.8	+1.1		3.5	
+50	3.8			3.5	
	3.8		+50	3.5	+1.4
	3.8	+1.1		3.6	+1.3
	3.7	+1.2		3.7	+1.2
	3.7		2:40	3.6	+1.3
1+00	3.7	+1.2		4.2	+0.7
	3.6	+1.3	3+00	3.5	+1.4
	3.7	+1.2		3.3	+1.6
	3.7	+1.2		3.2	+1.7
	3.5	+1.4		3.0	+1.9
+50	3.5			2.8	+2.1
	3.5		+50	2.5	+2.4
	3.5			2.3	+2.6
	3.5	+1.4		2.0	+2.9
				1.8	+3.1
				1.5	+3.4
				0.2	+4.1

7-24-59

Sound East			Sound West		
Dist	Sound	Elev	Dist	Sound	Elev
0+00			(49)	3.4	+1.5
			(49)	3.5	+1.4
			2+00	3.2	+1.7
				3.7	+1.2
			2:45	3.5	+1.4
				3.5	
			+50	3.5	
				3.5	
			+50	3.2	+1.7
				3.5	
				3.0	+1.9
				3.5	
				3.5	
			1+00	3.5	
				3.0	+1.9
				3.5	
			3+00	2.7	+2.2
				3.5	
				2.6	+2.3
				3.5	
				2.5	+2.4
				3.5	+1.4
			+50	3.5	+1.4
				3.4	+1.5
			+50	2.3	
				3.4	+1.5
				2.3	+2.6
				3.4	+1.5
				2.0	+2.9

Sta N 106+00 Cond West		2-24-50	
Dist	Sound Elev	Dist	Sound Elev
(49)	2.0 +2.9		1.9 +3.0
	2.0 }		1.9 +3.0
4+00	2.0 }	+50	1.8 +3.1
	2.0 +2.9		
	1.9 +3.0		

STAN 108+00; 0+00 = W 8500 Sound East

0+00	3.5 +1.3	(48)	3.6 +1.2
2:55	3.5 +1.3	+50	3.6 +1.2
(48)	3.6 +1.2		3.7 +1.1
	3.6 +1.2		3.8 +1.0
	3.6 +1.2		3.5 +1.3
+50	3.5 +1.3		3.5 +1.3
	3.5 +1.3	2+00	3.8 +1.0
	3.5 +1.3		3.8 +1.0
	3.6 +1.2		3.9 +0.9
	3.5 +1.3		4.2 +0.6
1+00	3.5 +1.3		4.2 +0.6
	3.5 +1.3	+50	3.8 +1.0
	3.4 +1.4		3.8 +1.0
	3.5 +1.3		3.8 +1.0

Sta N 108+00 Cond East		48	
Dist	Sound Elev	Dist	Sound Elev
(48)	4.0 +0.8	(48)	3.0 +1.8
	4.2 +0.6	+50	2.8 +2.0
3+00	3.5 +1.3		2.6 +2.2
2:57	3.8 +1.0		2.2 +2.6
	3.6 +1.2		2.0 +2.8
	3.2 +1.6		1.2 +3.6

STAN 108+00; 0+00 = W 8500 Sound West

4+00	0.5 +4.3		
0+00		(48)	3.0 +1.8
3:00	3.4 +1.4		3.0 }
(48)	4.0 +0.8		3.0 }
	4.2 +0.6	+50	3.0 +1.8
	3.4 +1.4		3.2 +1.6
+50	3.0 +1.8		3.2 }
	3.0 +1.8		3.2 +1.6
	3.2 +1.6		3.0 +1.8
	3.1 +1.7	2+00	3.2 +1.6
	3.0 +1.8		3.0 +1.8
1+00	3.0 +1.8		3.1 +1.7
	3.0 +1.8		3.2 +1.6

Sta N 10 8+00			Cont West		
Dist	Sound	Elev	Dist	Sound	Elev
(48)	3.1	+1.7	(47)	2.2	+2.5
+50	3.0	+1.8	+50	2.2	+2.5
	3.0	}		2.0	+2.7
	3.0	+1.8		2.2	+2.5
	2.9	+1.9		2.5	+2.2
	2.8	+2.0		3.8	+0.9
3+00	2.5	+2.3	5+00	5.0	0.3
	2.4	+2.4	3:05	7.0	2.3
	2.2	+2.6	~	10.8	6.1
	2.0	+2.8		9.8	5.1
	2.0	}		10.4	5.7
+50	2.0	}	+50	10.2	5.5
	2.0	}		10.2	5.5
	2.0	+2.8		10.0	5.3
	1.8	+3.0		9.5	4.8
	1.9	+2.9		9.0	4.3
4+00	2.0	+2.8	6+00	7.2	2.5
	1.8	+3.0			
	2.0	+2.8			
	2.0	+2.8			

8-12-59 - ALLEN						69
Sta N 110 400; 50+00			W 8500			Sound East
Dist	Sound	Elev	Dist	Sound	Elev	
0+00	2.8	+1.3		3.0	+1.1	
1:15	2.8	}	2+00	3.0	}	
(4.1)	2.8	}		3.0	}	
	2.8	+1.3		3.0	}	
	2.7	+1.4		3.0	}	
+50	3.0	+1.1		3.0	}	
	4.9	0.8	+50	3.0	}	
	4.8	0.7		3.0	+1.1	
	3.8	+0.3		3.1	+1.0	
	3.0	+1.1		3.1	}	
1+00	2.6	+1.5		3.1	}	
	2.5	+1.6	1:20	3.1	}	
	2.2	+1.9	3+00	3.1	}	
	2.4	+1.7		3.1	+1.0	
	2.6	+1.5		2.9	+1.2	
5+00	2.8	+1.3		2.9	+1.2	
	2.8	+1.3	+50	2.8	+1.3	
	3.0	+1.1		2.7	+1.4	
	3.0	+1.1		2.6	+1.5	

Sta N 110-100 Cont East

8-12-59

(20)

DIST	Sound	Elev	DIST	Sound	Elev
	2.0	+2.2			
	1.6	+2.6			
4+00	1.1	+3.1			
	0.5	+3.7			
	0.2	+3.9			
	SHORE				

STAN 110+00; 0+00 = W. 8500 - Sound WEST

DIST	Sound	elev	DIST	Sound	elev
0+00	2.4	+1.8			
1125	2.8	+1.4	2+00	2.2	+2.0
(4.2)	2.9	+1.3		2.4	+1.8
	2.9	+1.3		3.0	+1.2
	3.0	+1.2		4.2	0.0
20	3.0			5.3	1.1
	3.0		50	7.0	2.8
	3.0			7.3	3.1
	3.0	+1.2		7.3	3.1
	2.9	+1.3		6.0	1.8
1+00	3.0	+1.2		4.0	0.6
	3.0	+1.2	3+00	2.8	+1.4
	2.8	+1.4		2.4	+1.8
	2.2	+2.0		2.2	+2.0
	2.4	+1.8		2.2	
50	2.5	+1.7		2.2	+2.0
	2.4	+1.8	50	2.0	+2.2
	2.4	+1.8		2.1	+2.1
	2.3	+1.9		2.2	+2.0

Sta N110+00 cont West						8-12-59					
Dist Sound Elev.			Dist Sound Elev.			STAN 112+00; 0+00 = W 8500 -			Sound EAST		
(4.3)	2.4	+1.9		2.8	+1.5	DIST	Sound	ELEV	DNT	Sound	ELEV
1/30	3.0	+1.3		3.0	+1.3	^{1.45} 0+00	2.9	+1.5		3.2	+1.2
4/400	3.8	+0.5	6+00	7.0	2.7	(4.4)	2.9	+1.5	2+00	3.1	+1.3
	4.2	+0.1		7.2	2.9		3.0	+1.4		3.1	}
	5.1	0.8		7.3	3.0		3.1	+1.3		3.1	}
	6.2	1.9		7.2	2.9		3.1	+1.3		3.1	+1.3
	7.1	2.8		7.2	2.9	50	3.2	+1.2		3.3	+1.1
50	7.4	3.1	50	5.0	0.7		3.2	+1.2	50	3.2	+1.2
	8.2	3.9		4.2	+0.1		3.1	+1.3		3.2	+1.2
	8.7	4.4		3.1	+1.2		3.0	+1.4		3.2	+1.2
	8.8	4.5		2.8	+1.5		3.1	+1.3		3.3	+1.1
	8.8	4.5		2.8	+1.5	1+00	3.1	+1.3		3.3	+1.1
5+00	8.5	4.2	7+00	2.7	+1.6		3.2	+1.2	3+00	3.3	+1.1
	8.0	3.7		2.6	+1.7		3.2	}		3.5	+0.9
	7.2	2.9		2.8	+1.8		3.2	}		3.4	+1.0
	6.0	1.7		2.6	+1.7		3.2	}		3.3	+1.1
	5.0	0.7	(4.3)	2.6	+1.7	50	3.2	+1.2		3.2	+1.2
50	4.0	+0.3	50	2.7	+1.6		3.7	+0.7	50	3.5	+0.9
	3.0	+1.3	1135	2.7	+1.6		5.2	0.8		3.3	+1.1
	2.8	+1.5		3.0	+1.3		4.2	+0.2		3.0	+1.4
				2.8	+1.5						

STAN 112+00 CONT WEST

DIST Sound elev

2.8 +1.6

2.2 +2.2

4+00 1.7 +2.7

1.0 +3.4

0.4 +4.0

0.0 +4.4

shore

50

5+00

50

STAN 112+00; 0+00 = W 8500 - SOUND WEST ⁽²²⁾

DIST Sound ELEV DIST Sound elev.

0+00

2.1 +2.4

1/50 2.9 +1.6 2+00 2.1 +2.4

(4.5) 3.0 +1.5

2.2 +2.3

3.0 +1.5

2.1 +2.4

3.0 +1.5

2.0 +2.5

50 2.9 +1.6

2.0

2.8 +1.7

50 2.0

2.7 +1.8

2.0 +2.5

2.4 +2.1

2.1 +2.4

2.3 +2.2

2.1 +2.4

1+00 2.3 +2.2

2.1 +2.4

2.2 +2.3

3+00 2.2 +2.3

2.0 +2.5

2.2 +2.3

2.1 +2.4

2.2 +2.3

2.0 +2.5

2.3 +2.2

50 1.9 +2.6

2.6 +1.9

1.9 +2.6 50 2.9 +1.6

2.0 +2.5

3.2 +1.3

2.0 +2.5

3.8 +0.7

8-12-59

STAN 114+00; 0+00-0.8500; Sound EAST

DIST	Sound elev	DIST	Sound elev
0+00	2.8 +1.9	3.8	+0.9
2:05	2.8 +1.9	2+00	3.9 +0.8
(4.7)	2.8 +1.9		3.7 +1.0
	3.0 +1.7		3.7 +1.0
	3.1 +1.6		4.2 +0.5
50	3.1 +1.6		4.2 +0.5
	3.2 +1.5	50	3.8 +0.9
	3.2 +1.5		3.8 +0.9
	3.3 +1.4		3.7 +1.0
	3.4 +1.3		3.5 +1.2
1+00	3.5 +1.2		4.0 +0.7
	3.6 +1.1	3+00	3.6 +1.1
	3.7 +1.0		3.6 +1.1
	3.8 +0.9		3.0 +1.7
	3.7 +1.0		3.0 +1.7
50	3.5 +1.2		3.0 +1.7
	3.3 +1.4	50	2.7 +2.0
	3.6 +1.1		2.6 +2.1
	3.7 +1.0		2.5 +2.2

STAN 114+00 cont EAST

(24)

DIST Sound elev

DIST	Sound elev
(4.8)	2.3 +2.5
2+10	1.7 +3.1
4+00	1.5 +3.3
	1.2 +3.6
	0.9 +3.9
	0.6 +4.2
	0.3 +4.5
50	SHORE

8-12-59

STAN 114+00		8500 - West		Sound elev	
DIST	Sound elev	DIST	Sound elev	DIST	Sound elev
0+00			2.0	+2.9	
2:15	2.8	+2.1	2:00	2.5	+2.4
(4.9)	2.8	+2.1		2.3	+2.6
	2.8	+2.1		2.4	+2.5
	2.6	+2.3		2.2	+2.7
50	2.6	+2.3		2.2	+2.7
	2.5	+2.4	50	2.5	+2.4
	2.5	+2.4		2.5	+2.4
	2.5	+2.4		2.4	+2.5
	2.6	+2.3		2.7	+2.2
1+00	2.6	+2.3		3.0	+1.9
	2.6	+2.3	3+00	3.0	+1.9
	2.5	+2.4		2.7	+2.2
	2.4	+2.5		2.8	+2.1
	2.3	+2.6		3.2	+1.7
50	2.2	+2.7		4.0	+0.9
	2.2	+2.7	50	5.0	0.1
	2.2	+2.7		6.0	1.1
	2.1	+2.8		6.4	1.5

STAN 114+00 CONT WEST (25)

DIST	Sound elev	DIST	Sound elev
(5.0)	7.0 2.0		2.8 +2.2
2:20	7.1 2.1		2.8 +2.2
4+00	7.8 2.8	6+00	3.0 +2.0
	7.7 2.7		3.0
	7.6 2.6		3.0
	7.0 2.0		3.0
	6.4 1.4		3.0 +2.0
50	5.5 0.5	50	3.1 +1.9
	5.0 0.0		3.1 +1.9
	4.0 +1.0		3.3 +1.7
	4.0 +1.0		3.4 +1.6
	3.3 +1.7		3.4 +1.6
5+00	3.2 +1.8	7+00	3.5 +1.5
	3.0 +2.0		3.4 +1.6
	3.0 +2.0		3.4 +1.6
	3.0 +2.0		3.6 +1.4
	2.8 +2.2		2.7 +1.3
50	2.8	50	3.8 +1.2
	2.8		3.9 +1.1
	2.8 +2.2		3.7 +1.3

STAN 114 +00 cont WEST

8-12-59

(26)

DIST	Sound	elev	DIST	Sound	elev
	4.0	+1.0	(5.0)	3.6	+1.4
	4.0	+1.0	2.25	4.0	+1.0
8+00	3.9	+1.1	10+00	4.2	+0.8
	3.8	+1.2			
	3.7	+1.3			
	3.3	+1.7			
	3.3	+1.7			
50	3.5	+1.5			
	3.5	+1.5			
	3.7	+1.3			
	3.8	+1.2			
	3.8	+1.2			
9400	3.8	+1.2			
	3.9	+1.1			
	3.7	+1.3			
	3.6	+1.4			
	3.5	+1.5			
50	3.4	+1.6			
	3.3	+1.7			
	3.5	+1.5			

STAN 116 +00, 0+00 = W 8500 - Sound		EAST	
DIST	Sound elev	DIST	Sound elev
2.35 0+00	3.5 +1.6		3.9 +1.2
(5.1)	3.4 +1.7	2+00	4.0 +1.1
	3.2 +1.9		4.0 +1.1
	3.3 +1.8		4.0 +1.1
	3.3 +1.8		4.2 +0.9
50	3.5 +1.6		4.0 +1.1
	3.5 +1.6	50	4.0
	3.4 +1.7		4.0
	3.5 +1.6		4.0
	3.6 +1.5		4.0
1+00	3.6 +1.5		4.0
	3.5 +1.6	3+00	4.0
	3.7 +1.4		4.0
	3.7 +1.4		4.0 +1.1
	3.8 +1.3		4.1 +1.0
50	3.9 +1.2		4.1 +1.0
	3.9	50	4.7 +0.4
	3.9		4.3 +0.8
	3.9 +1.2		4.2 +0.9

STAN 116+00 CONT EAST

8-12-59

(27)

DIST Sound elev

DIST Sound elev

STAN 116+00; 0700=W 8500 Sound West

4.4 +0.7

4.1 +1.0

4+00 4.0 +1.1

4.2 +0.9

4.0 +1.1

3.8 +1.6

3.0 +2.1

50 2.8 +2.6

2.0 +3.1

1.4 +3.7

1.0 +4.1

0.7 +4.4

5700 0.2 +4.9

Shore

SOUND-WEST 0+00 =
STA. N. 108+00; W 12300

8-18-59

0+00 1.1 +4.4

(5.5)
10:03 1.1 +4.4

1.1 +4.4

3.1 +2.4

3.8 +1.7

50 4.3 +1.2

5.0 +0.5

5.5 0.0

8.0 2.5

12.0 6.5

1+00 14.0 8.5

14.2 8.7

14.7 9.2

14.6 9.1

10:07 14.6 9.1

50 14.6 9.1

DIST Sound elev

DIST Sound elev

0+00

2:45 4.2 +1.0

2:40 3.5 +1.7

2+00 4.5 +0.7

(5.2) 3.4 +1.8

(5.3) 4.8 +0.5

3.3 +1.9

4.9 +0.4

3.4 +1.8

5.0 +0.3

50 3.3 +1.9

5.1 +0.2

3.3 +1.9

5.3 0.0

3.5 +1.7

5.7 0.4

3.5 +1.7

6.0 0.7

3.3 +1.9

6.8 1.5

1+00 3.3 +1.9

7.1 1.8

3.4 +1.8

3+00 7.3 2.0

3.4 +1.8

7.7 2.4

3.3 +1.9

7.9 2.6

3.3 +1.9

7.5 2.2

50 3.5 +1.7

7.4 2.1

2.4 +1.8

50 6.8 1.5

3.5 +1.7

5.8 0.2

3.8 +1.4

3.9 +1.4

STAN N 11600 CONT WEST

DIST Sound elev DIST Sound elev

	3.1	+2.2		3.7	+1.6
	3.0	+2.3		3.6	+1.7
4+00	3.1	+2.2	6+00	3.5	+1.8
	3.1	+2.2		3.5	
	3.2	+2.1		3.5	
	3.2	+2.1		3.5	
	3.1	+2.2		3.5	+1.8
50	3.1	+2.2	50	3.6	+1.7
	3.2	+2.1		3.9	+1.4
	3.2	+2.1		3.7	+1.6
	3.2	+2.1		3.7	+1.6
	3.1	+2.2		3.8	+1.5
5+00	3.2	+2.1	7+00	3.8	+1.5
	3.3	+2.0		3.9	+1.4
	3.3	+2.0		3.9	
	3.5	+1.8		3.9	
	3.4	+1.9		3.9	+1.4
50	3.4	+1.9	50	4.0	+1.3
	3.4	+1.9		3.9	+1.4
	3.5	+1.8		4.1	+1.2

STAN N 11600 CONT WEST 28

DIST Sound elev DIST Sound elev

	3.9	+1.4		3.8	+1.5
	4.0	+1.3		3.8	+1.5
8+00	3.9	+1.4	10+00	3.9	+1.4
	4.0	+1.3	(5.3)	3.9	+1.4
	3.9	+1.4		4.0	+1.3
	3.9	+1.4	2:50	4.0	+1.3
	3.9	+1.4			
50	3.8	+1.5	50	3.8	+1.5
	3.8	+1.5			
	3.9	+1.4			
	3.9	+1.4			
	4.0	+1.3			
9+00	4.0	+1.3			
	4.2	+1.1			
	4.5	+0.8			
	4.7	+0.6			
	4.7	+0.6			
50	4.3	+1.0	50	4.3	+1.0
	3.9	+1.4			
	3.9	+1.4			

8-18-59

STAN 118+00; 0+00 - W 8' 500 - Sound EAST

DIST Sound elev DIST Sound elev

DIST	Sound elev	DIST	Sound elev	(55)	4.6	+0.9	SOUND WEST	
0+00	3.7 +1.8	(55)	3.8 +1.7		4.6	+0.9	0+10 3.7 +1.8	
(55)	3.7	2+00	3.8 +1.7	4+00	4.5	+1.0	(55) 3.8 +1.7	
<u>10:32</u>	3.7	<u>10:33</u>	3.8 +1.7	<u>10:35</u>	4.6	+0.9	<u>10:40</u> 3.9 +1.6	
	3.7		3.9 +1.6		4.7	+0.8		4.3 +1.2
	3.7 +1.8		4.0 +1.5		4.6	+0.9	50	5.5 0.0
50	3.6 +1.9		4.0 +1.5		4.6	+0.9		6.2 0.7
	3.6	50	4.0 +1.5	50	4.6	+0.9		6.7 1.2
	3.6		3.9 +1.6		4.5	+1.0		6.9 1.4
	3.6 +1.9		4.1 +1.4		4.2	+1.3		6.8 1.3
	3.5 +2.0		4.0 +1.5		3.6	+1.9	1+00	6.7 1.2
1+00	3.5 +2.0		4.0 +1.5		3.1	+2.4		6.3 0.8
	3.6 +1.9	2+00	4.0 +1.5	5+00	2.9	+2.6		6.5 1.0
	3.6 +1.9		4.1 +1.4		2.3	+3.2		6.9 1.4
	3.7 +1.8		4.2 +1.3		2.0	+3.5		7.0 1.5
	3.6 +1.9		4.2 +1.3		1.5	+4.0	50	7.0 1.5
50	3.6 +1.9		4.2 +1.3		1.1	+4.4		7.1 1.6
	3.6 +1.9	50	4.2 +1.3	50	0.8	+4.7		7.1 1.6
	3.7 +1.8		4.3 +1.2	SHORE				6.8 1.3
	3.7 +1.8		4.4 +1.1					6.2 0.7

STA. N. 118+00; SOUND WEST 8-18-59

DIST	Sound	Elev	DIST	Sound	Elev
2+00	4.9	+0.6	4+00	4.0	+1.5
(55)	4.0	+1.5	(55)	4.0	+1.5
10.42	3.5	+2.0		4.0	+1.5
	3.6	+1.9		4.1	+1.4
	3.7	+1.8		4.1	+1.4
50	3.5	+2.0	50	4.1	+1.4
	3.4	+2.1		4.2	+1.3
	3.6	+1.9		4.2	+1.3
	3.6			4.3	+1.2
	3.6			4.3	+1.2
3+00	3.6		5+00	4.3	+1.2
	3.6	+1.9		4.4	+1.1
10.43	3.5	+2.0		4.5	+1.0
	3.5	+2.0		4.5	
	3.7	+1.8		4.5	
50	3.7	+1.8	50	4.5	+1.0
	3.8	+1.7		4.7	+0.8
	3.8	+1.7		4.7	+0.8
	3.9	+1.6		4.7	+0.8
	4.0	+1.5		4.8	+0.7

STA. N. 118+00 - WEST (30)

DIST	Sound	Elev	DIST	Sound	Elev
6+00	4.8	+0.7	8+00	4.4	+1.1
(55)	4.7	+0.8	(55)	4.4	+1.1
10.45	4.8	+0.7		4.4	+1.1
	4.8	+0.7		4.5	+1.0
	4.7	+0.8		4.6	+0.9
50	4.7	+0.8	50	4.6	+0.9
	4.9	+0.6		4.6	+0.9
	4.8	+0.7		4.5	+1.0
	4.9	+0.6		4.5	+1.0
	4.9	+0.6		4.5	+1.0
7+00	4.9	+0.6	9+00	4.4	+1.1
	4.8	+0.7		4.6	+0.9
	4.8	+0.7		4.6	+0.9
	4.9	+0.6		4.6	+0.9
	4.9	+0.6		4.8	+0.7
50	4.9	+0.6	50	4.7	+0.8
	4.8	+0.7		4.7	
	4.7	+0.8		4.7	
	4.6	+0.9		4.7	
	4.5	+1.0	10+00	4.7	+0.8

8-18-59

STA. N. 120+00; 0+00 = W. 8500; SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	7.8	2.4	(54)	3.4	+2.0
(54)	8.5	3.1	2+00	3.6	+1.8
<u>10:55</u>	8.4	3.0		3.5	+1.9
	8.3	2.9		3.4	+2.0
	6.2	0.8		3.4	
50	5.4	0.0		3.4	
	4.1	+1.3	50	3.4	
	3.8	+1.6		3.4	+2.0
	3.8	+1.6	<u>10:58</u>	3.6	+1.8
	3.7	+1.7		3.6	+1.8
1+00	3.7	+1.7		3.5	+1.9
	3.5	+1.9	3+00	3.8	+1.6
	3.5	+1.9		3.7	+1.7
	3.4	+2.0		3.7	+1.7
	3.4	+2.0		3.7	+1.7
50	3.3	+2.1		4.0	+1.4
	3.3	+2.1	50	4.0	+1.4
	3.3	+2.1		3.9	+1.5
	3.4	+2.0		3.9	+1.5

31

STA. N. 120+00 - EAST

Dist	Sound	Elev	Dist	Sound	Elev
(54)	3.9	+1.5	(54)	2.0	+3.4
	3.9	+1.5		1.5	+3.9
4+00	3.9	+1.5	6+00	1.4	+4.0
	4.1	+1.3	<u>11:00</u>	1.2	+4.2
	4.1	+1.3		0.6	+4.8
	4.2	+1.2	SOUND WEST		
	4.1	+1.3	0+10	7.1	1.7
50	4.1	+1.3	(54)	6.2	0.8
	4.2	+1.2	<u>11:05</u>	5.5	0.1
	4.7	+0.7		4.8	+0.6
	4.3	+1.1	50	4.2	+1.2
	4.3	+1.1		4.0	+1.4
5+00	4.3	+1.1		4.0	+1.4
	4.2	+1.2		4.1	+1.3
	4.2	+1.2		4.1	+1.3
	3.8	+1.6	1+00	4.0	+1.4
	3.2	+2.2		4.0	+1.4
50	3.1	+2.3		3.9	+1.5
	2.8	+2.6		3.9	+1.5
	2.1	+3.3		3.9	+1.5

STA. N. 120+00; SOUND WEST.			STA. N. 120+00 - WEST 8-18-59		
Dist	Sound	Elev	Dist	Sound	Elev
50	3.9	+1.5	50	4.3	+1.1
(54)	3.9	+1.5	(54)	4.2	+1.2
<u>11:07</u>	3.9	+1.5	<u>11:08</u>	4.2	
	4.0	+1.4		4.2	
	4.0			4.2	
2+00	4.0		4+00	4.2	
	4.0	+1.4		4.2	
	4.1	+1.3		4.2	
	4.2	+1.2		4.2	+1.2
	4.1	+1.3		4.7	+0.7
50	4.1	+1.3	50	4.7	+0.7
	4.2	+1.2		5.2	+0.2
	4.2	+1.2		4.8	+0.6
	4.1	+1.3		4.4	+1.0
	4.1	+1.3		4.4	
3+00	4.1	+1.3	5+00	4.4	
	4.2	+1.2		4.4	+1.0
	4.2	+1.2		4.3	+1.1
	4.3	+1.1		4.2	+1.2
	4.3	+1.1		4.2	+1.2

STA. N. 120+00 - WEST 8-18-59			3.2		
Dist	Sound	Elev	Dist	Sound	Elev
50	4.2	+1.2	50	4.7	+0.7
(54)	4.2		(54)	4.7	
<u>11:10</u>	4.2			4.7	
	4.2	+1.2		4.7	
	4.3	+1.1		4.7	
6+00	4.5	+0.9	8+00	4.7	+0.7
	4.6	+0.8		4.8	+0.6
	4.5	+0.9		4.9	+0.5
	4.6	+0.8		4.9	
	4.7	+0.7		4.9	
50	4.9	+0.5	50	4.9	+0.5
	4.9	+0.5		5.0	+0.4
	5.1	+0.3		5.1	+0.3
	5.0	+0.4		5.1	
	5.0	+0.4		5.1	
7+00	4.9	+0.5	9+00	5.1	+0.3
	4.9	+0.5		5.0	+0.4
	4.8	+0.6		5.1	+0.3
	4.7	+0.7		5.1	+0.3
	4.7	+0.7		5.0	+0.4
			50	5.0	+0.4

8-18-59

STA. N.122+00; 0+00-W.8500; SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	3.7	+1.5	(52)	3.4	+1.8
(52)	3.7	+1.5	2+00	3.4	+1.8
<u>11:20</u>	3.7	+1.5		3.3	+1.9
	4.1	+1.1		3.2	+2.0
	4.9	+0.3		3.2	
50	6.0	0.8		3.2	
	6.2	1.0	50	3.2	+2.0
	6.5	1.3		3.5	+1.7
	6.7	1.5		3.3	+1.9
	6.7	1.5		3.4	+1.8
1+00	6.6	1.4		3.4	+1.8
	6.0	0.8	3+00	3.6	+1.6
	4.5	+0.7		3.6	+1.6
	3.9	+1.3		3.4	+1.8
	3.5	+1.7		3.3	+1.9
50	3.5	+1.7		3.3	+1.9
	3.6	+1.6	50	3.4	+1.8
	3.6	+1.6		3.3	+1.9
	3.5	+1.7		3.3	+1.9

STA. N.122+00-EAST

33

Dist	Sound	Elev	Dist	Sound	Elev
(52)	3.3	+1.9	(52)	4.1	+1.1
<u>11:23</u>	3.4	+1.8		4.1	+1.1
4+00	3.5	+1.7	6+00	3.9	+1.3
	3.6	+1.6		3.7	+1.5
	3.7	+1.5		3.2	+2.0
	3.5	+1.7		3.1	+2.1
	3.8	+1.4		2.7	+2.5
50	3.6	+1.6	50	2.2	+3.0
	4.0	+1.2		1.5	+3.7
	3.8	+1.4	11:25	1.3	+3.9
	3.9	+1.3		0.6	+4.6
	3.9		SOUND-WEST		
5+00	3.9		0+10	3.6	+1.6
	3.9	+1.3		3.6	
	4.0	+1.2	<u>11:29</u>	3.6	
	4.1	+1.1		3.6	
	4.1		50	3.6	+1.6
	4.1			3.5	+1.7
	4.1			3.7	+1.5
	4.1	+1.1		3.6	+1.6

STA. N. 122+00 SOUND WEST 8-18-59

DIST SOUND ELEV DIST SOUND ELEV

(51)	3.7	+1.4	(51)	3.8	+1.3
1+00	3.6	+1.5	3+00	3.8	+1.3
11:30	3.7	+1.4		3.9	+1.2
	3.8	+1.3		4.0	+1.1
	3.8	+1.3		4.0	+1.1
	3.7	+1.4		4.1	+1.0
50	4.0	+1.1	50	4.0	+1.1
	3.9	+1.2		3.9	+1.2
	3.9	}		4.0	+1.1
	3.9	}		4.0	}
	3.9	+1.2		4.0	}
2+00	3.8	+1.3	4+00	4.0	}
	3.8	+1.3		4.0	}
	3.8	+1.3		4.0	}
	3.9	+1.2	11:32	4.0	+1.1
	3.8	+1.3		4.1	+1.0
50	3.8	+1.3	50	4.1	}
	4.0	+1.1		4.1	}
	3.9	+1.2		4.1	}
	3.9	+1.2		4.1	+1.0

STA. N. 122+00-WEST

DIST SOUND ELEV DIST SOUND ELEV

(50)	4.1	+0.9	(50)	4.2	+0.8
5+00	4.1	}	7+00	4.2	+0.8
11:33	4.1	}		4.3	+0.7
	4.1	}		4.3	+0.7
	4.1	}		4.3	+0.7
	4.1	}		4.6	+0.4
50	4.1	+0.9	50	4.7	+0.3
	4.3	+0.7		4.9	+0.1
	5.3	0.3	11:35	4.8	+0.2
	5.9	0.9		4.8	+0.2
	6.1	1.1		5.1	0.1
6+00	5.9	0.9	8+00	5.0	0.0
	5.3	0.3		5.0	0.0
	4.5	+0.5		5.0	0.0
	4.0	+1.0		4.9	+0.1
	4.1	+0.9		4.9	+0.1
50	4.2	+0.8	50	4.9	+0.1
	4.3	+0.7			
	4.2	+0.8			
	4.2	+0.8			

(34)

8-18-59

STA. N. 124+00 0+00 - W. 8500' SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	3.9	+1.0	(49)	4.0	+0.9
(49)	3.9	}	2+00	3.8	+1.1
11:42	3.9		11:43	3.6	+1.3
	3.9			3.6	+1.3
	3.9	+1.0		3.5	+1.4
50	3.8	+1.1		3.4	+1.5
	3.8	+1.1	50	3.4	}
	3.8	+1.1		3.4	
	3.7	+1.7		3.4	
	3.8	+1.1		3.4	}
1+00	3.8	+1.1		3.4	
	4.5	+0.4	3+00	3.3	+1.6
	5.2	0.3		3.3	+1.6
	5.7	0.8		3.2	+1.7
	6.3	1.4		3.2	+1.7
50	6.3	1.4		3.2	+1.7
	6.3	1.4	50	3.1	+1.8
	5.9	1.0		3.2	+1.7
	4.7	+0.2		3.2	+1.7

STA. N. 124+00 - EAST

Dist Sound Elev Dist Sound Elev

(49)

Dist	Sound	Elev	Dist	Sound	Elev	
(49)	3.2	+1.7	(49)	3.8	+1.1	
	3.2	+1.7		3.8	+1.1	
4+00	3.2	+1.7	6+00	3.9	+1.0	
11:45	3.1	+1.8		3.9	+1.0	
	3.1	+1.8		3.8	+1.1	
	3.1	+1.8		3.8	+1.1	
	3.2	+1.7		3.7	+1.2	
50	3.2	}	50	3.7	+1.2	
	3.2				3.6	+1.3
	3.2	+1.7		3.5	+1.4	
	3.3	+1.6		3.5	+1.4	
	3.4	+1.5		3.4	+1.5	
5+00	3.4	}	7+00	3.3	+1.6	
	3.4				3.0	+1.9
	3.4				2.8	+2.1
	3.4	+1.5		2.3	+2.6	
	3.5	+1.4		2.1	+2.8	
50	3.5	+1.4	50	1.7	+3.2	
	3.6	+1.3		1.3	+3.6	
	3.7	+1.2		1.0	+3.9	

(35)

STA. N. 124+00; SOUND WEST 8-18-59

DIST	Sound	Elev	DIST	Sound	Elev
0+10	3.7	+1.1	(48)	4.2	+0.6
(4.8)	3.8	+1.0		4.2	
<u>11.50</u>	3.9	+0.9		4.2	
	4.1	+0.7	<u>11.53</u>	4.2	
50	4.1	+0.7	<u>50</u>	4.2	
	4.0	+0.8		4.2	
	4.0	+0.8		4.2	
	4.0	+0.8		4.2	+0.6
	4.0	+0.8		4.3	+0.5
1+00	4.1	+0.7	3+00	4.3	
	4.1	+0.7		4.3	
	4.1			4.3	
	4.1			4.3	+0.5
	4.1			4.2	+0.6
50	4.1		50	4.2	
	4.1			4.2	
	4.1			4.2	
	4.1	+0.7		4.2	
	4.2	+0.6		4.2	
2+00	4.2	+0.6	4+00	4.2	+0.6

STA. N. 124+00-WEST

DIST	Sound	Elev	DIST	Sound	Elev
(48)	4.2	+0.6	(48)	3.9	+0.9
	4.2			3.8	+1.0
	4.2			3.9	+0.9
	4.1	+0.7		3.9	+0.9
50	4.2	+0.6	50	4.0	+0.8
<u>11.55</u>	4.2			4.0	+0.8
	4.2			4.0	
	4.2			4.0	
	4.2			4.0	
	4.2		<u>11.57</u>	4.0	
5+00	4.2	+0.6	<u>7+00</u>	4.0	+0.8
	4.1	+0.7			
	4.1				
	4.1				
	4.1				
50	4.1	+0.7	50		
	3.9	+0.9			
	3.8	+1.0			
	3.9	+0.9			
	4.1	+0.7			
6+00	4.0	+0.8	8+00		

8-19-59

STA. N. 126+00 EAST

(57)

STA. N. 126+00; 0+00 = W. 8500; SOUND EAST			Dist Sound Elev			Dist Sound Elev		
			(57)	4.0	+1.7	(57)	4.6	+1.1
0+00	4.7	+1.0	(57)	4.5	+1.2		4.6	+1.1
(57)	4.8	+0.9	2+00	4.6	+1.1	4+00	4.0	6+00 4.7 +1.0
<u>11:08</u>	4.9	+0.8	<u>11:10</u>	4.6	+1.1	<u>11:12</u>	4.0	<u>11:14</u> 4.5 +1.2
	4.9	+0.8		4.3	+1.4		4.0	4.3 +1.4
	4.9			4.2	+1.5		4.0	+1.7 4.5 +1.2
50	4.9	+0.8		4.0	+1.7	3.9	+1.8	4.5
	5.0	+0.7	50	4.1	+1.6	50	4.1	+1.6 50 4.5
	5.1	+0.6		4.1	+1.6		4.1	+1.6 4.5
	5.7	0.0		4.1	+1.6		4.1	+1.6 4.5
	6.1	0.4		4.1	+1.6		4.2	+1.5 4.5 +1.2
1+00	6.3	0.6		4.2	+1.5		4.2	+1.5 4.6 +1.7
	7.0	1.3	3+00	4.0	+1.7	5+00	4.2	7+00 4.7 +1.0
	7.3	1.6		4.0			4.2	4.8 +0.9
	7.3	1.6		4.0			4.2	4.9 +0.8
	7.1	1.4		4.0			4.2	+1.5 4.9
50	6.0	0.3		4.0			4.4	+1.3 4.9
	5.1	+0.6	50	4.0		50	4.4	+1.3 50 4.7 +1.0
	5.0	+0.7		4.0			4.5	+1.2 4.5 +1.2
	4.8	+0.9		4.0	+1.7		4.5	+1.2 4.3 +1.4

STA. N. 126+00			8-19-59		
Dist	Sound	Elev	Dist	Sound	Elev
(57)	4.1	+1.6	(55)	5.1	+0.5
	3.8	+1.9	1+00	5.2	+0.4
8+00	3.3	+2.4		5.2	
<u>11:15</u>	3.1	+2.5		5.2	
	2.7	+3.0		5.3	+0.3
	2.2	+3.5		5.5	+0.1
	2.1	+3.6	50	5.5	
50	2.0	+3.7		5.5	
	1.5	+4.2		5.3	+0.3
	0.7	+5.0	<u>11:22</u>	5.2	+0.4
8+80	0.5	+5.2		5.2	
SOUND WEST			2+00	5.2	
0+10	4.3	+1.4			
	4.6	+1.1			
<u>11:20</u>	4.8	+0.9			
	5.0	+0.7			
50	5.0	+0.7	50		
	5.1	0.6			
	5.1				
	5.1				

STAN 128+00; 0+00 = W 8500; SOUND EAST					
Dist	Sound	Elev	Dist	Sound	Elev
0+00	4.2	+1.4	(56)	4.2	+1.4
(56)	4.2	+1.4	2+00	4.2	+1.4
<u>11:26</u>	4.2	+1.4		4.1	+1.5
	4.3	+1.3		4.1	+1.5
	4.3	+1.3		4.0	+1.6
50	4.4	+1.2	50	4.0	+1.6
	4.3	+1.3	50	4.2	+1.4
	4.3		<u>11:28</u>	4.3	+1.3
	4.3			4.1	+1.5
	4.4	+1.2		4.1	
1+00	4.4			4.1	
	4.4		3+00	4.1	
	4.2	+1.4		4.0	+1.6
	4.2			4.0	
	4.2			4.0	
50	4.0	+1.6		4.2	+1.4
	4.0		50	4.0	+1.6
	4.0			4.0	
	4.2	+1.4		4.0	

STA. N. 128+00 - EAST 8-19-59

Dist	Sound	Elev	Dist	Sound	Elev
(56)	4.0	+1.6	(56)	4.5	+1.1
	4.0			4.5	
4+00	4.0		6+00	4.5	
	4.0			4.5	
	4.0			4.5	
	4.0			4.5	
	4.0			4.6	+1.0
50	4.0		50	4.6	+1.0
11/30	4.0			4.5	+1.1
<u> </u>	4.1	+1.5		4.5	
	4.2	+1.4		4.5	
	4.1	+1.5		4.5	
5+00	4.3	+1.3	7+00	4.5	
	4.0	+1.6		4.4	+1.2
	4.0			4.4	+1.2
	4.0			4.6	+1.6
	4.0			4.6	
50	4.0		50	4.6	
	4.3	+1.3		4.7	+0.9
	4.5	+1.1		4.8	+0.8

STA. N. 128+00 - EAST (39)

Dist	Sound	Elev	Dist	Sound	Elev
(55)	4.8	+0.7			
11/33	4.8	+0.7			
8+00	4.7	+0.8			
	4.6	+0.9			
	4.2	+1.3			
	4.1	+1.4			
	4.0	+1.5			
50	3.9	+1.6			
	3.5	+2.0			
	3.1	+2.4			
	3.0	+2.5			
	2.6	+2.9			
9+00	2.1	+3.4			
	1.8	+3.7			
	1.6	+3.9			
	1.0	+4.5			
	0.6	+4.9			
50	0.4	+5.1			

8-19-59 SOUND
 STA. N. 130+00: 0+00 = W 8500; EAST

STA. N. 130+00 - EAST
 Dist Sound Eled Dist Sound Eled

(20)

Dist	Sound	Eled	Dist	Sound	Eled
			(54)	4.8	+0.6
0+00	4.6	+0.8	(34)	4.8	+0.6
(54)	4.6	+0.8	2+00	4.6	+0.8
<u>11:41</u>	4.7	+0.7	<u>11:43</u>	4.5	+0.9
	4.7			4.4	+1.0
	4.7			4.4	+1.0
50	4.7			4.5	+0.9
50	4.7		50	4.5	+0.9
	4.8	+0.6		4.6	+0.8
	4.8			4.6	
	4.8			4.6	
1+00	4.7	+0.7		4.6	
	4.7		3+00	4.6	
	4.7			4.6	
	4.8	+0.6		4.4	+1.0
	4.7	+0.7		4.4	
50	4.8	+0.6		4.4	
	4.8		50	4.5	+0.9
	4.8			4.6	+0.8
	4.8			4.3	+1.1

Dist	Sound	Eled	Dist	Sound	Eled
(54)	4.4	+1.0	(54)	4.6	+0.8
	4.4	+1.0		4.6	
4+00	4.5	+0.9	6+00	4.6	
	4.5			4.7	+0.7
	4.5			4.6	+0.8
	4.7	+0.7		4.6	
	4.7	+0.7		4.8	+0.6
50	4.6	+0.8	50	4.8	
	4.6			4.8	
	4.6			4.6	+0.8
<u>11:45</u>	4.6			4.6	
	4.5	+0.9		4.6	
5+00	4.7	+0.7	7+00	4.4	+1.0
	4.7			4.4	+1.0
	4.7			4.3	+1.1
	4.6	+0.8		4.2	+1.2
	4.5	+0.9		4.2	+1.2
50	4.5	+0.9	50	4.1	+1.3
	4.7	+0.7		4.0	+1.4
	4.6	+0.8		3.9	+1.5

STA. N. 130+00 - EAST 8-19-59

Dist	Sound	Elev	Dist	Sound	Elev
(54)	3.7	+1.7	9+80	0.8	+5.2
1147	3.2	+2.2			
8+00	3.1	+2.3			
	3.0	+2.4			
	3.0				
	3.0				
	2.9	+2.5			
50	2.9	+2.5			
	2.7	+2.7			
	2.5	+2.9			
	2.5				
	2.5				
9+00	2.2	+3.2			
	1.9	+3.5			
	1.9				
	1.9				
	1.7	+3.7			
50	1.0	+4.4			
	0.9	+4.5			
	0.6	+4.8			

8-19-59

(41)

STA. N. 132+00: 0+00 - N. 8500; SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	4.8	+0.5	(53)	5.0	+0.3
(53)	4.7	+0.6	2+00	5.1	+0.2
1155	4.8	+0.5		5.1	+0.2
	4.9	+0.4		4.7	0.6
	4.8	+0.5		4.8	0.5
50	4.8	+0.5		4.9	0.4
	4.9	+0.4	50	4.8	0.5
	4.9	+0.4		4.8	
	4.8	+0.5		4.8	
	4.9	+0.4		4.9	0.4
1+00	4.8	+0.5		5.0	0.3
	4.7	+0.6	3+00	4.9	0.4
	4.8	+0.5		4.9	0.4
	4.8			4.7	0.6
	4.8			4.7	
50	4.8			4.7	
	4.8		50	4.7	
	4.8			4.8	0.5
	4.8			4.7	0.6

STA. N. 132+00 CONTD EAST

Dist	Sound	Elev	Dist	Sound	Elev
(5.2)	4.8	+0.4	(5.2)	4.7	+0.5
<u>11.58</u>	4.8	+0.4	<u>1200</u>	4.6	+0.6
4+00	4.9	+0.3	6+00	4.6	+0.6
	4.9			4.5	+0.7
	4.9			4.5	+0.7
	4.9			4.4	+0.8
	4.8	+0.4		4.3	+0.9
50	4.8	+0.4	50	4.3	
	4.7	+0.5		4.3	
	4.7			4.3	
	4.7			4.2	+1.0
	4.7			4.1	+1.1
5+00	4.9	+0.3	7+00	4.1	
	4.8	+0.4		4.1	
	4.7	+0.5		3.8	+1.4
	4.7	+0.5		3.3	+1.9
	4.6	+0.6		3.2	+2.0
50	4.6		50	3.3	+1.9
	4.6			3.2	+2.0
	4.6			3.0	+2.2

STA. N. 132+00-EAST 8-19-59 (42)

Dist	Sound	Elev	Dist	Sound	Elev
(6.2)	2.7	+2.5			
	2.7				
8+00	2.7		10+00		
	2.7				
	2.6	+2.6			
<u>1202</u>	2.6	+2.6			
	2.3	+2.9			
50	1.8	+3.4	50		
	1.9	+3.3			
	2.0	+3.2			
	2.1	+3.1			
	2.1	+3.1			
9+00	1.9	+3.3	11+00		
	1.7	+3.5			
	1.5	+3.7			
	1.1	+4.1			
	0.7	+4.5			
50	0.4	+4.8			
Shore					
6					

CRESCENT 8-19-59 BAY

STA. N. 128+00; 0+00=W/6,610; SOUND WEST

DIST SOUND ELEV DIST SOUND ELEV

0+00

(3.2)

2:05

0.5 +2.7

0.7 +2.5

50 0.9 +2.3

1.2 +2.0

1.3 +1.9

1.8 +1.4

2.9 +0.3

1+00 3.9 0.7

4.3 1.1

4.4 1.2

5.1 1.9

5.2 2.0

50 5.6 2.4

8.3 5.1

9.3 6.1

9.2 6.0

(3.2)

2+00

2:10

9.7 6.5

9.9 6.7

10.2 7.0

50 10.2 7.0

10.9 7.7

10.9 7.7

11.0 7.8

10.9 7.7

3+00 10.4 7.2

10.5 7.3

10.5 7.3

10.4 7.2

10.4 7.2

50 10.3 7.1

10.2 7.0

Begin 12.1 8.9

9.2 6.0

9.2 6.0

9.5 6.3

9.7 6.5

9.9 6.7

10.2 7.0

10.2 7.0

10.9 7.7

10.9 7.7

11.0 7.8

10.9 7.7

10.4 7.2

10.5 7.3

10.5 7.3

10.4 7.2

10.4 7.2

10.3 7.1

10.2 7.0

12.1 8.9

STA. N. 128+00 - WEST

DIST SOUND ELEV DIST SOUND ELEV

(3.1)

2:17

4+00

12.3 9.2

12.0 8.9

11.5 8.4

11.5 8.4

50 11.5 8.4

11.2 8.1

11.0 7.9

11.0

11.0

5+00 11.0

11.0

11.0

11.0 7.9

11.3 8.2

better 50 11.3 8.2

11.1 8.0

11.2 8.1

(3.0)

2:22

6+00

11.5 8.5

10.8 7.8

10.5 7.5

10.1 7.1

50 10.0 7.0

9.5 6.5

9.0 6.0

9.0 6.0

2.8 8.9 5.9

7+00 9.1 6.1

2:23 9.3 6.3

9.7 6.7

9.3 6.3

9.2 6.2

50 9.3 6.3

9.1 6.1

9.4 6.4

(13)

STA. N. 128+00 WEST 8-19-59

Dist	Sound	Elev	Dist	Sound	Elev
(29)	9.9	7.0	(29)	9.9	7.0
	9.3	6.4		10.0	7.1
8+00	9.2	6.3	10+00	10.0	7.1
	9.3	6.4		10.0	7.1
	10.0	7.1		9.8	6.9
224	10.0	7.1		9.8	
	10.6	7.7		9.8	
50	10.0	7.1	50	9.8	
	9.3	6.4		9.8	6.9
	9.4	6.5		10.0	7.1
	9.0	6.1		10.0	
	9.4	6.5		10.0	
9+00	9.4	6.5	11+00	10.0	
	9.3	6.4		10.0	
	9.3	6.4		10.0	7.1
	9.8	6.9		10.1	7.2
	9.7	6.8		10.3	7.4
50	9.8	6.9	50	10.0	7.1
	10.0	7.1		10.0	7.1
	9.8	6.9		10.2	7.3

STA. N. 128+00 - WEST

Dist	Sound	Elev	Dist	Sound	Elev
(29)	10.1	7.2	(29)	10.0	7.1
	10.0	7.1		10.0	
12+00	10.1	7.2	14+00	10.0	
	11.1	8.2		10.0	
	11.0	8.1		10.0	7.1
	10.9	8.0		9.7	6.8
	10.7	7.8		9.5	6.6
50	10.3	7.3	50	9.8	6.9
	9.9	7.0		9.6	6.7
	9.8	6.9		9.9	7.0
	10.1	7.2		10.0	7.1
	10.0	7.1		10.1	7.2
13+00	10.0	7.1	15+00	10.1	7.2
	9.9	7.0		9.9	7.0
	10.0	7.1		10.0	7.1
	10.0	7.1		11.1	7.2
	10.0	7.1		10.2	7.3
50	10.1	7.2	50	10.3	7.4
	10.0	7.1		10.3	7.4
	10.0	7.1		10.6	7.7

STA N. 128+00 - WEST 9-19-39

Dist Sound Elev Dist Sound Elev

(29)	11.0	8.1	(2.8)	10.3	7.5
<u>2:30</u>	11.8	8.9		10.0	7.2
16+00	12.0	9.1	18+00	10.0	
	11.9	9.0		10.0	
	11.9	9.0		10.0	
	11.0	8.1		10.0	7.2
	11.7	8.8		10.1	7.3
50	12.0	9.1	50	10.5	7.7
	11.6	8.7		10.6	7.8
	11.5	8.6		10.2	7.4
	10.3	7.4		10.1	7.3
	10.1	7.2		9.9	7.1
17+00	10.1		19+00	9.6	6.8
	10.1			9.7	6.9
	10.1	7.2		9.9	7.1
	10.0	7.1		10.0	7.2
	10.1	7.2		10.1	7.3
50	10.0	7.1	50	10.2	7.4
	10.1	7.2		10.0	7.2
	10.3	7.4		10.0	7.2

STA N. 128+00 - WEST

Dist Sound Elev Dist Sound

(2.8)	10.1	7.3	(2.8)	11.2	8.4
<u>2:34</u>	10.2	7.4	<u>2:36</u>	11.7	8.9
20+00	10.3	7.5	22+00	11.2	8.4
	10.4	7.6		11.5	8.7
	11.3	8.5		11.7	8.9
	12.2	9.4		11.8	9.0
	11.7	8.9		11.0	8.2
50	11.1	8.3	50	5.2	2.4
	11.0	8.2		3.2	0.4
	11.0	8.2		3.3	0.5
	11.0	8.2		3.4	0.6
	11.3	8.5		3.3	0.5
21+00	11.9	9.1	23+00	3.3	0.5
	11.7	8.9			
	11.1	8.3			
	11.1	8.3			
	11.1	8.3			
50	11.2	8.4	50		
	11.2	8.4			
	11.0	8.2			

8-19-59
 STA. N. 129+00; 0+00 = W 16620; SOUND WEST

DIST	Sound	Elev	DIST	Sound	Elev
0+00			(2.6)	9.5	6.9
(2.6)			2+00	9.9	7.5
			<u>2:50</u>	10.0	7.4
<u>2:47</u>				10.1	7.5
				10.0	7.4
50	0.2	+2.4		10.0	
	0.2	+2.4	50	10.0	
	0.5	+2.1		10.0	7.4
	0.6	+2.0		10.1	7.5
	0.6	+2.0		12.0	9.4
1+00	1.3	+1.3		11.6	9.0
	2.8	0.2	3+00	11.9	9.3
	3.4	0.8		11.2	8.6
	3.7	1.1		11.0	8.4
	3.5	0.9		11.9	9.3
50	3.4	0.8		12.2	9.6
	3.2	0.6	50	12.3	9.7
	4.0	1.4		13.0	10.4
	8.1	5.5		12.2	9.6

STA. N. 129+00 - WEST (46)

DIST	Sound	Elev	DIST	Sound	Elev
(2.5)	12.0	9.5	(2.5)	10.9	8.4
	12.3	9.8	<u>2:55</u>	11.1	8.6
4+00	12.3	9.8	6+00	11.1	8.6
<u>2:53</u>	12.0	9.5		11.2	8.7
	11.7	9.2		11.3	8.8
	9.9	7.4		11.2	8.7
	10.3	7.8		11.0	8.5
50	10.3	7.8	50	11.0	
	10.3	7.8		11.0	
	10.4	7.9		11.0	8.5
	10.6	8.1		10.2	7.7
	10.2	7.7		9.5	7.0
5+00	10.3	7.8	7+00	9.3	6.8
	10.3			9.2	6.7
	10.3			9.2	6.7
	10.3	7.8		9.2	6.7
	10.4	7.9		9.3	6.8
50	10.6	8.1	50	9.5	7.0
	10.7	8.2		9.6	7.1
	10.8	8.3		9.5	7.0

STA. N. 129+00 CONTD - WEST 9-19-59

Dist	Sound	Elev	Dist	Sound	Elev
(2.5)	9.5	7.0	(2.5)	9.8	7.3
2.57	9.6	7.1		9.8	7.3
8+00	9.3	6.8	10+00	9.8	7.3
	9.6	7.1		9.7	7.2
	9.2	6.7		9.6	7.1
	9.3	6.8		9.4	6.9
	9.3	6.8		9.3	6.8
50	9.3	6.8	50	9.3	6.8
	9.2	6.7		9.4	6.9
	9.0	6.5		9.6	7.1
	9.0	6.5		9.7	7.2
	8.9	6.4		9.7	7.2
9+00	9.2	6.7	11+00	9.7	7.2
	9.2	6.7		9.8	7.3
	9.3	6.8		10.0	7.5
	9.3	6.8		10.0	
	9.5	7.0		10.0	
50	9.8	7.3	50	10.0	
	9.9	7.4		10.0	
	9.9	7.4		10.0	7.5

STA. N. 129+00 - WEST ④

Dist	Sound	Elev	Dist	Sound	Elev
(2.5)	10.0	7.5	(2.5)	9.8	7.3
3.00	10.0			9.7	7.2
12+00	10.0		14+00	9.5	7.0
	10.0			9.5	7.0
	10.0			9.5	7.0
	10.0			9.6	7.1
	10.0			9.7	7.2
50	10.0	7.5	50	9.4	6.9
	9.8	7.3		9.4	
	10.0	7.5		9.4	
	9.7	7.2		9.4	6.9
	9.7	7.2		9.7	7.2
13+00	9.9	7.4	15+00	9.8	7.3
	9.9			9.8	7.3
	9.9			9.7	7.2
	9.9			9.7	7.2
	9.9			9.6	7.1
50	9.9		50	9.5	7.0
	9.9			9.6	7.1
	9.9	7.4		9.8	7.3

STA. N. 129+00 - WEST 8-19-59

Dist	Sound	Elev	Dist	Sound	Elev
(24)	9.9	7.5	(24)	9.9	7.5
203	10.0	7.6		9.9	
16700	10.1	7.7	18+00	9.9	
	10.1	7.7		9.9	
	10.0	7.6		9.9	7.5
	10.0	7.6		10.1	7.7
	10.1	7.7		10.0	7.6
50	10.2	7.8	50	9.8	7.4
	10.4	8.0		10.3	7.9
	10.3	7.9		10.7	8.3
	10.2	7.8		10.5	8.1
	10.2	7.8	205	10.2	7.8
17+00	10.1	7.7	19+00	9.9	7.5
	10.1	7.7		9.9	7.5
	10.0	7.6		9.9	7.5
	9.9	7.5		10.1	7.7
	9.9			10.3	7.9
50	9.9		50	10.6	8.2
	9.9			10.7	8.3
	9.9	7.5		10.7	8.3

STA. N. 129+00 - WEST (48)

Dist	Sound	Elev	Dist	Sound	Elev
(24)	10.5	8.1	(24)	9.6	7.2
	10.8	8.4		9.7	7.3
20+00	10.7	8.3	22+00	9.8	7.4
2107	10.7	8.3		9.8	7.4
=	10.6	8.2		9.9	7.5
	10.5	8.1		10.0	7.6
	10.5	8.1		10.1	7.7
50	10.3	7.9	50	10.2	7.8
	10.1	7.7		10.3	7.9
	10.2	7.8		3.1	0.7
	10.3	7.9		3.1	
	10.3	7.9	2:10	3.1	
21+00	10.3	7.9	23+00	3.1	0.7
	10.2	7.8			
	10.2	7.8			
	10.2	7.8			
	10.1	7.7			
50	10.0	7.6	50		
	10.0	7.6			
	10.0	7.6			

8-20-59

STA. N. 134+00; 0+00 = W 8500; SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	4.5	+0.2	(47)	4.8	0.1
(4.7)	4.5	+0.2	2+00	4.8	}
<u>9:33</u>	4.7	0.0	<u>9:36</u>	4.8	}
	4.7	}		4.7	0.0
	4.7	}		4.7	}
50	4.7	}		4.7	}
	4.7	}	50	4.9	0.2
	4.7	}		4.6	+0.1
	4.7	}		4.6	}
	4.7	}		4.6	}
1+00	4.7	}		4.5	+0.2
	4.7	}	3+00	4.7	0.0
	4.7	}		4.6	+0.1
	4.7	}		4.6	+0.1
	4.7	}		4.9	0.2
50	4.8	0.1		4.9	}
	4.8	0.1	50	4.9	}
	4.8	}		4.9	}
	4.8	}		4.9	}

STA. N. 134+00 - EAST

Dist	Sound	Elev	Dist	Sound	Elev
(48)	4.8	0.0	(48)	4.6	+0.2
<u>9:37</u>	4.9	0.1		4.5	+0.3
4+00	5.0	0.2	6+00	4.5	}
	5.0	}		4.5	}
	5.0	}		4.5	}
	5.0	}		4.5	}
	4.9	0.1		4.5	}
50	4.9	}	50	4.5	}
	4.9	}		4.5	}
	4.8	0.0		4.3	+0.5
	4.7	+0.1		4.3	}
	4.7	+0.1		4.3	}
5+00	4.9	0.1	7+00	4.2	+0.6
	4.7	+0.1		4.1	+0.7
	4.7	}		4.1	+0.7
	4.7	}		4.0	+0.8
	4.7	}		4.0	}
50	4.4	+0.4	50	4.0	}
	4.6	+0.2		4.0	}
	4.8	0.0		3.9	+0.9

STA. N. 134+00 CONTD. EAST

Dist	Sound	Elev	Dist	Sound	Elev
(48)	39	+0.9			
<u>940</u>	3.8	+1.0			
<u>8+00</u>	3.3	+1.5			
	3.0	+1.8			
	2.9	+1.9			
	2.7	+2.1			
	2.2	+2.6			
50	2.0	+2.8			
	1.7	+3.1			
	1.3	+3.5			
	1.0	+3.8			
	0.5	+4.3			
<u>9+00</u>	0.2	+4.6			

8-20-59

(50)

STA. N. 136+00; 0+00 = W. 8500; SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	4.7	+0.2	(49)	5.2	0.3
(49)	4.9	0.0	2+00	5.2	
<u>947</u>	5.0	0.1	<u>948</u>	5.2	
	4.9	0.0		5.1	0.2
	5.0	0.1		5.2	0.3
50	4.9	0.0		5.1	0.2
	5.0	0.1	50	5.3	0.4
	5.0			5.2	0.3
	5.0			5.1	0.2
	5.0			5.2	0.3
1+00	5.2	0.3		5.3	0.4
	5.1	0.2	3+00	5.3	0.4
	5.2	0.3		5.2	0.3
	5.2			5.2	0.3
	5.2			5.0	0.1
50	5.3	0.4		5.0	0.1
	5.2	0.3	50	5.1	0.2
	5.1	0.2		5.2	0.3
	5.1	0.2		5.0	0.1

STA. N. 136+00 - CONTO EAST

Dist	Sound	Elev	Dist	Sound	Elev
(49)	5.0	0.1	(49)	4.9	0.0
<u>9.50</u>	5.0	}		5.0	0.1
4+00	5.0		6+00	5.0	0.1
	5.1	0.2		4.9	0.0
	5.0	0.1		4.9	0.0
	5.0	}		4.8	+0.1
	5.0			4.8	+0.1
50	5.0	}	50	4.9	0.0
	5.0			4.7	+0.2
	5.0	}		4.9	0.0
	5.0			4.6	+0.3
	5.0	}		4.7	+0.2
5+00	5.5		0.6	7+00	4.7
	5.0	0.1		4.6	+0.3
	4.9	0.0		4.0	+0.9
	4.9	}		3.8	+1.1
	4.9			3.2	+1.7
50	4.9	}	50	3.0	+1.9
	4.9			2.9	+2.0
	5.0	0.1		2.4	+2.5

STA. N. 136+00 - EAST B-20-59

⑤1

Dist	Sound	Elev	Dist	Sound	Elev
(50)	2.4	+2.6			
<u>9.53</u>	2.0	+3.0			
8+00	1.6	+3.4			
	1.2	+3.8			
	1.1	+3.9			
	1.0	+4.0			
	0.5	+4.5			
50	0.2	+4.8			

8-20-59

STA. N. 138+00; 0+00 = W. B. 500; SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	4.9	+0.2	(51)	5.1	0.0
(51)	4.9	}	2+00	5.0	+0.1
<u>9:58</u>	4.9			5.0	+0.1
	5.0	+0.1		4.9	+0.2
	5.0	}	<u>1000</u>	5.1	0.0
50	5.0			4.9	+0.2
	5.0	}	50	4.9	+0.2
	5.0			5.2	0.1
	5.0	}		5.0	+0.1
	5.1		+0.2	5.0	+0.1
1+00	5.0	+0.1	5.0	+0.1	
	4.9	+0.2	3+00	4.8	+0.3
	4.9	}		5.0	+0.1
	4.9			4.9	+0.2
	5.0	+0.1	4.9	}	
50	5.0	}	4.9		
	5.0			50	4.9
	5.1	0.0	5.0	+0.1	
	4.8	+0.3	5.0	+0.1	

STA. N. 138+00 - EAST

Dist	Sound	Elev	Dist	Sound	Elev
(51)	4.9	+0.2	(52)	4.3	+0.9
	4.7	+0.4		4.1	+1.1
4+00	4.7	+0.4	6+00	4.1	+1.1
	4.9	+0.2	<u>1003</u>	4.2	+1.0
<u>10:02</u>	5.2	0.1		4.3	+0.9
	4.8	+0.3		4.2	+1.0
	4.8	}		4.1	+1.1
50	4.8			50	4.0
	4.8	}		4.2	+1.0
	4.9		+0.2		4.0
	4.9	+0.2		3.9	+1.3
	4.6	+0.5		3.6	+1.6
5+00	4.6	}	7+00	3.3	+1.9
	4.6				3.1
	4.6	}		2.9	+2.3
	4.6				2.5
	4.3	+0.8		1.9	+3.3
50	4.3	+0.8	50	1.6	+3.6
	4.2	+0.9		1.5	+3.7
Contd	4.2	+0.9		1.0	+4.2
	4.4	+0.7		0.9	+4.3
<u>FBI 10</u>	4.4	+0.7		0.5	+4.7
			8+00	0.1	+5.1

(52)

REMEDIAL 8-25-59

EAST
?

EAST
?

(53)

STA. N. 66+00; 0+00 = W. 17,500; SOUND SOUTH

STA. N. 67+00; 0+00 = W. 17,470; SOUND SOUTH

Dist	Sound	Elev	Dist	Sound	Elev	Dist	Sound	Elev	Dist	Sound	Elev
0+00			(50)	20.4	15.4	0+00			(50)	18.3	13.3
(4.9)	2.9	+2.0	2+00	20.4	15.4	(50)			2+00	17.2	12.2
<u>11.07</u>	7.2	2.3		20.5	15.5	<u>11.22</u>	7.3	2.3		17.0	12.0
	10.1	5.2		20.6	15.6		13.9	8.9		17.1	12.1
	12.0	7.1		20.6	15.6		15.2	10.2	<u>11.27</u>	17.3	12.3
50	13.6	8.7		20.7	15.7	50	16.2	11.2		17.3	12.3
	16.0	11.1	50	20.9	15.9		17.2	12.2	50	17.2	12.2
	18.3	13.4		21.0	16.0		17.6	12.6		17.2	12.2
	19.8	14.9		20.9	15.9		19.4	14.4		17.9	12.9
	21.0	16.1		20.9	15.9		19.5	14.5		17.0	12.0
1+00	21.5	16.6	<u>11.13</u>	20.9	15.9	1+00	19.2	14.2		17.1	12.1
	22.0	17.1	3+00	21.0	16.0		19.2	14.2	3+00	17.2	12.2
<u>11.10</u>	22.2	17.3					18.5	13.5			
	22.2	17.3					18.5	13.5			
	22.0	17.1					19.0	14.0			
50	20.9	16.0				50	19.1	14.1			
	21.0	16.1				<u>11.25</u>	19.0	14.1			
	21.3	16.4					18.5	13.5			
	21.1	16.2					18.4	13.4			

8-25-59						EAST 59					
STA. N. 68+00; 0+00 = W. 17,430			SOUND SOUTH			STA. N. 69+00; 0+00 = W. 17,400			SOUND SOUTH		
Dist	Sound	Elev	Dist	Sound	Elev	Dist	Sound	Elev	Dist	Sound	Elev
0+00			(51)	16.0	10.9	0+00			(52)	16.2	11.0
(50)			2+00	16.5	11.4	(52)			2+00	16.4	11.2
<u>11.32</u>	5.0	0.0	<u>11.35</u>	16.8	11.7	<u>11.40</u>	3.4	+1.8	<u>11.44</u>	16.9	11.7
	5.7	0.7		16.9	11.8		5.0	+0.2		17.3	12.1
	6.0	1.0		17.2	12.1		5.3	0.1		17.4	12.2
50	6.5	1.5		17.5	12.4	50	5.6	0.4		17.6	12.4
	7.4	2.4	50	17.6	12.5		5.9	0.7	50	17.5	12.3
	11.0	6.0		17.8	12.7		9.0	3.8		17.5	12.3
	14.6	9.6		17.4	12.3		13.9	8.7		17.5	12.3
	16.1	11.1		17.6	12.5		14.5	9.3		17.4	12.2
1+00	16.1	11.1		18.0	12.9	1+00	14.7	9.5		17.4	12.2
	15.9	10.9	3+00	18.3	13.2		15.0	9.8	3+00	17.5	12.3
	15.0	10.0					15.1	9.9			
	15.0						14.7	9.5			
	15.0						14.9	9.7			
50	15.0					50	15.4	10.2			
	15.0	10.0					15.7	10.5			
	15.5	10.5					15.8	10.6			
	15.7	10.7					16.0	10.8			

8-26-59

STA. N. 60+03.80; 0+00 = W/16797.22; SOUND S. 20° W

Dist	Sound	Elev	Dist	Sound	Elev
0+00	17.7	14.8	(39)	22.8	18.9
(39)	19.5	15.6	2+00	22.7	18.8
<u>11:24</u>	20.1	16.2		22.2	18.3
	20.3	16.4		22.6	18.7
	20.5	16.6		23.3	19.4
50	17.8	13.9		22.0	18.1
	17.2	13.3	50	22.7	18.8
	16.8	12.9		22.8	18.9
	18.1	14.2	<u>11:28</u>	22.9	19.0
	20.3	16.4		23.4	19.5
1+00	23.0	19.1		24.0	20.1
	23.1	19.2	3+00	24.0	20.1
	23.2	19.3	SOUND N. 40° E	18.2	14.3
	23.3	19.4	0+10		
	23.2	19.3	(39)	16.7	12.8
	23.2	19.3	<u>11:30</u>	19.1	15.2
50	23.2	19.3		17.9	14.0
	23.1	19.2	50	19.6	15.7
	23.1	19.2		21.1	17.2
				22.3	18.4
				22.5	18.6
	22.9	19.0		21.5	17.6
			1+00	21.2	17.3

8-26-59

SOUND (55)

STA. N. 60+63.80; 0+00 = W/16869.23; S. 40° W

Dist	Sound	Elev	Dist	Sound	Elev
0+00	17.0	13.1	(39)	24.0	20.1
(39)	18.1	14.2	2+00	24.1	20.2
<u>11:12</u>	19.9	16.0		24.1	20.2
	20.7	16.8		23.8	19.9
	20.8	16.9		23.3	19.4
50	18.8	14.9		23.4	19.5
	18.4	14.5	50	24.2	20.3
	19.2	15.3		24.1	20.2
	20.0	16.1		24.0	20.1
	21.6	17.9		23.6	19.7
1+00	23.5	19.6		23.4	19.5
<u>11:14</u>	23.3	19.4	3+00	23.5	19.6
	23.2	19.3	SOUND N. 40° E	16.3	12.4
	23.1	19.2	0+10		
	23.9	20.0	(39)	19.0	15.1
	24.2	20.3	<u>11:18</u>	20.8	16.9
50	24.2	20.3		21.6	17.7
	24.5	20.6	50	22.1	18.2
				22.5	18.6
				22.8	18.9
	24.2	20.3		22.6	18.7
	24.2	20.3		22.1	18.2
			1+00	21.7	17.8

8-26-59

STA. N. 61+37.72; 0+00 = W. 16957.32; SOUND S. 40° W

Dist	Sound	Elev	Dist	Sound	Elev
0+00	18.3	14.5	(39)	24.1	20.2
(38)	16.2	12.4	2+00	24.2	20.3
<u>11:00</u>	16.9	13.1	<u>11:03</u>	23.7	19.8
	16.6	12.8		23.8	19.9
	17.0	13.2		23.6	19.7
50	17.0	13.2		23.8	19.9
	17.0	13.2	50	24.2	20.3
	19.1	15.3		24.0	20.1
	22.7	18.9		24.1	20.2
	23.1	19.3		24.3	20.4
1+00	23.1	19.3		24.5	20.6
	23.0	19.2	3+00	24.5	20.6
	23.0	19.2	SOUND N. 40° E	0+10	18.5
	23.1	19.3	(39)	20.6	16.7
	23.2	19.4	<u>11:07</u>	21.0	17.1
50	23.4	19.6		20.4	16.5
	23.5	19.7	50	21.2	17.3
	24.0	20.2		22.0	18.1
	24.0	20.2		22.6	18.7
				22.2	18.3
				22.0	18.1
			1+00	20.7	16.8

8-26-59

(58)

STA. N. 61+48.78; 0+00 = W. 17030.10; SOUND S. 40° W

Dist	Sound	Elev	Dist	Sound	Elev
0+00	17.1	13.3	(38)	23.0	19.2
(38)	17.0	13.2	2+00	23.0	19.2
<u>10:48</u>	17.6	13.8		22.8	19.0
	17.7	13.9		22.4	18.6
	17.2	13.4		21.8	18.0
50	17.0	13.2		22.5	18.7
	18.0	14.2	50	23.0	19.2
	18.2	14.4		22.9	19.1
	19.0	15.2		23.0	19.2
	22.3	18.5	<u>10:53</u>	23.0	19.2
1+00	22.6	18.8		23.0	19.2
	23.0	19.2	3+00	23.1	19.3
	23.0	19.2	SOUND N. 40° E	0+10	19.1
	23.2	19.4	(38)	20.6	16.8
	24.0	20.2	<u>10:55</u>	21.0	17.2
50	23.9	19.1		20.4	16.6
	23.5	19.7	50	20.2	16.4
	23.2	19.4		20.3	16.5
	23.0	19.2		19.9	16.1
				19.0	15.2
				19.0	15.2
			1+00	19.0	15.2

8-26-59

STAN. 62+63.06; 0+00=N. 17/06.10; SOUND S. 40° W

Dist	Sound	Elev	Dist	Sound	Elev
0+00	17.3	13.5	(38)	25.5	21.7
(38)	16.7	12.9	2+00	25.3	21.5
<u>10:28</u>	16.1	12.3		25.2	21.4
	16.0	12.2	<u>10:33</u>	24.9	21.1
	15.5	11.7		24.1	20.3
50	15.2	11.4		24.0	20.2
Rock →	15.2	11.4	50	23.6	19.8
"	15.0	11.2		23.8	20.0
"	17.7	13.9		24.2	20.4
"	20.6	16.8		24.3	20.5
1+00	26.5	22.7		24.4	20.7
	26.7	22.9	3+00	24.4	20.7
	27.0	23.2	SOUND N. 40° E	19.8	16.0
	26.5	22.7	(38)	21.6	17.8
	23.2	19.4	<u>10:38</u>	22.0	18.2
50	24.0	20.2		21.3	17.5
	24.7	20.9	50	20.8	17.0
	25.6	21.8		20.1	16.3
	25.5	21.7		20.0	16.2
				20.2	16.4
				20.8	17.0
			1+00	21.0	17.2

8-26-59

(57)

STA. N. 63+29.27; 0+00=W. 17/85.60; SOUND S. 40° W

Dist	Sound	Elev	Dist	Sound	Elev
0+00	22.0	18.3	(3.8)	25.3	21.5
(37)	24.1	20.4	2+00	26.0	22.2
<u>10:16</u>	25.3	21.6	<u>10:20</u>	26.1	22.3
	26.1	22.4		25.4	21.6
	25.5	21.8		24.6	20.8
50	23.8	20.1		24.0	20.2
Rock →	19.5	15.8	50	24.0	20.2
"	20.8	17.1		24.1	20.3
	24.0	20.3		24.7	20.9
	25.4	21.7		24.6	20.8
1+00	25.5	21.8		24.1	20.3
	24.6	20.9	3+00	24.0	20.2
	24.0	20.3	SOUND N. 40° E	17.5	13.7
	23.2	19.5	(38)	19.0	15.2
	23.0	19.3	<u>10:24</u>	21.2	17.4
50	22.8	19.1		22.2	18.4
	23.5	19.8	50	23.0	19.2
	24.0	20.3		23.1	19.3
	24.2	20.5		23.1	19.3
				23.1	19.3
				21.2	17.4
			1+00	21.1	17.3

8-26-59

STA. N. 63+87.76; 0+00=W. 17255.31; SOUND S. 40° W

Dist	Sound	Elev	Dist	Sound	Elev
0+00	24.5	20.8	(37)	25.4	21.7
(37)	26.7	23.0	2+00	25.0	21.3
<u>1005</u>	26.8	23.1	<u>1008</u>	25.0	21.3
	27.0	23.3		24.7	21.0
	27.0	23.3		24.6	20.9
50	26.0	22.3		24.2	20.5
Rock	20.2	16.5	50	25.3	21.6
"	23.0	19.3		25.7	22.0
	26.1	22.4		26.0	22.3
	27.2	23.5		26.0	22.3
1+00	28.0	24.3		25.5	21.8
	28.0	24.3	3+00	25.0	21.3
	27.1	23.4	SOUND N. 40° E	23.7	20.0
	26.6	22.9	0+10	23.7	20.0
	26.1	22.4	(37)	24.9	21.2
	26.1	22.4	<u>10:12</u>	24.9	21.2
50	26.0	22.3		24.6	20.9
	26.0	22.3	50	24.0	20.3
	25.8	22.1		23.2	19.5
	25.3	21.6		22.3	18.6
				22.5	18.8
				22.3	18.6
			1+00	22.0	18.3

8-26-59

STA. N. 64+64.46; 0+00=W. 17341.88; SOUND S. 40° W

Dist	Sound	Elev	Dist	Sound	Elev
0+00	23.4	19.7	(37)	25.0	21.3
(37)	25.2	21.5	2+00	25.0	21.3
<u>9:53</u>	26.0	22.3		25.0	21.3
	25.7	23.0		25.2	21.5
	25.1	21.4		25.2	21.5
50	24.5	20.8		25.1	21.4
Rock	21.0	17.3	50	25.0	21.3
"	20.1	16.4		24.9	21.2
"	22.7	19.0		24.2	20.5
	24.5	20.8	<u>9:58</u>	24.2	20.5
1+00	26.4	22.7		24.2	20.5
	26.5	22.8	3+00	24.2	20.5
	26.3	22.6	SOUND N. 40° E	22.8	19.1
	25.5	21.8	0+10	22.8	19.1
	25.5	21.8	<u>10:00</u>	24.0	20.3
	25.5	21.8	(37)	25.2	21.5
50	25.5	21.8		24.9	21.2
	25.4	21.7	50	24.0	20.3
	25.2	21.5		23.6	19.9
	25.1	21.4		23.2	19.5
				22.3	19.6
				21.0	17.3
			1+00	20.8	17.1

8-25-59

STA. N. 65+21.46; 0+00 = W. 174/4.65; SOUND S. 40° W

Dist	Sound	Elev	Dist	Sound	Elev
0+00	20.8	15.5	(53)	25.6	20.3
(53)	20.1	14.8	2+00	25.6	20.3
<u>2:04</u>	20.1	14.8		25.5	20.2
	19.3	14.0	<u>2:14</u>	25.5	20.2
	19.0	13.7		25.7	20.4
50	17.9	12.6		25.8	20.5
	17.1	11.8	50	25.4	20.1
	18.1	12.8		25.5	20.2
	21.2	15.9		25.4	20.1
	23.1	17.8		25.2	19.9
1+00	24.5	19.2		24.9	19.6
	25.1	19.8	3+00	25.0	19.7
	26.2	20.9	SOUND N. 40° E	19.3	14.0
			0+10		
<u>2:10</u>	25.8	20.5	(53)	23.0	17.7
(53)	25.7	20.4	<u>2:17</u>	24.7	19.4
50	25.7	20.4		25.1	19.8
	26.0	20.7	50	24.4	19.1
				23.4	18.1
	25.7	20.4		23.2	17.9
	25.6	20.3		23.2	17.9
				22.7	16.8
				21.3	16.0

(59)

STA. N. 65+21.46; 0+00 = W. 174/4.65; SOUND S. 40° W

Dist	Sound	Elev	Dist	Sound	Elev
0+00	6.1	0.9	(52)	9.9	4.7
(52)	6.2	1.0	2+00	9.9	4.7
1:52	5.4	0.2	1:55	10.2	5.0
	5.0	+0.2		12.1	6.9
	4.6	+0.6		12.2	7.0
50	4.5	+0.7		12.2	7.0
	5.0	+0.2	50	12.6	7.4
	5.7	0.5		12.8	7.6
	6.1	0.9		12.8	7.6
	6.5	1.3		12.3	7.1
1+00	6.7	1.5		8.4	3.2
	6.6	1.4	3+00	9.1	3.9
	8.1	2.9	SOUND N. 40° E	7.9	2.7
	10.8	5.6	0+10		
			(52)	8.0	2.8
	12.2	7.0	1:58	7.4	2.2
50	13.7	8.5		8.2	3.0
	13.7	8.5	50	11.1	5.9
				12.6	7.1
	12.9	7.7		13.4	8.2
				12.2	7.0
	11.7	6.5		8.4	3.2
			1+00	10.4	5.2

CRESCENT 8-25-59 BAY
 STA. N. 125+00; 0+00 = W. 16.470; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	0.7	+4.7	(54)	8.7	3.3
(54)	1.3	+4.1	2+00	8.2	2.8
<u>2.52</u>	2.0	+3.4		7.7	2.3
	2.3	+3.1		11.8	6.4
	2.7	+2.7		12.4	7.0
50	3.1	+2.3	<u>255</u>	12.7	7.3
	3.2	+2.2	50	12.6	7.2
	3.8	+1.6		12.5	7.1
	4.8	+0.6		12.9	7.4
	6.1	0.7		13.0	7.6
1+00	7.5	2.1		13.1	7.7
	9.0	3.6	3+00	13.3	7.9
	9.2	3.8		13.2	7.8
	9.6	4.2		13.1	7.7
	10.0	4.6		13.3	7.9
50	9.3	3.9		13.6	8.2
	9.2	3.8	50	13.7	8.3
	9.0	3.6		14.0	8.6
	8.9	3.5		14.1	8.7

(60)

STA. N. 125+00 - WEST

Dist	Sound	Elev	Dist	Sound	Elev
(54)	14.1	8.7	(54)	13.6	8.2
	14.1	8.7		13.6	8.2
4+00	14.2	8.8	6+00	13.6	8.2
	14.7	9.3	<u>257</u>	13.2	7.8
	14.7	9.3		13.0	7.6
	14.8	9.4		13.1	7.7
	14.6	9.2		12.8	7.4
50	15.1	9.7	50	13.3	7.9
	15.0	9.6		14.9	9.5
	14.8	9.4		14.8	9.4
	14.7	9.3		15.0	9.6
	14.6	9.2		15.0	9.6
5+00	14.2	8.8	7+00	15.2	9.8
	14.1	8.7		15.2	9.8
	13.9	8.5		15.2	9.8
	13.6	8.2		15.1	9.7
	13.9	8.4		14.7	9.3
50	13.7	8.3	50	14.1	8.7
	13.7	8.3		13.3	7.9
	13.5	8.1		13.4	8.0

STA. N. 125+00 CONTD WEST 8-25-59

Dist	Sound	Elev	Dist	Sound	Elev
(54)	13.6	8.2	(54)	14.3	8.9
3:00	13.9	8.5		14.2	8.8
8+00	13.9	8.5	10+00	14.1	8.7
	13.9	8.5		14.1	8.7
	14.1	8.7		13.9	8.5
	14.3	8.9		13.4	8.0
	14.2	8.8		13.6	8.2
50	14.2	}	50	13.5	8.1
	14.2	}		13.5	8.1
	14.2	8.8		13.7	8.3
	14.3	8.9		13.4	8.0
	14.3	8.9		13.5	8.1
9+00	14.3	8.9	11+00	13.4	8.0
	14.2	8.8		13.9	8.5
	14.3	8.9		14.1	8.7
	14.4	9.0		14.0	8.6
	14.4	9.0		14.2	8.8
50	14.0	8.6	50	14.7	9.3
	14.2	8.8		14.8	9.4
	14.2	8.8		14.7	9.3

STA. N. 125+00 - WEST

Dist	Sound	Elev	Dist	Sound	Elev
(54)	14.7	9.3	(54)	15.0	9.6
303	14.7	9.3		15.1	9.7
12+00	14.9	9.5	14+00	15.1	9.7
	14.8	9.4	3:05	14.9	9.5
	14.4	9.0		14.4	9.0
	14.3	8.9		14.3	8.9
	14.4	9.0		14.2	8.8
50	14.3	8.9	50	14.7	9.3
	14.0	8.6		14.2	8.8
	14.2	8.8		14.8	9.4
	14.0	8.6		15.1	9.7
	13.9	8.5		15.1	9.7
13+00	13.4	8.0	15+00	15.2	9.8
	13.1	7.7		15.2	9.8
	13.1	7.7		15.2	9.8
	13.1	7.7		15.3	9.9
	13.2	7.8		15.2	9.8
50	14.1	8.7	50	15.0	9.6
	14.2	8.8		14.1	8.7
	15.0	9.6		14.1	8.7

STA. N. 125+00			CONTD WEST 8-25-59		
Dist	Sound	Elev	Dist	Sound	Elev
(59)	14.0	8.6	(59)	13.7	8.3
	14.0	}		13.4	8.0
16+00	14.0		18+00	13.8	8.4
3'07	14.0	}		13.9	8.5
	14.0			14.5	9.1
	14.0	8.6		14.6	9.2
	13.9	8.5		14.6	9.2
50	13.9	8.5	50	14.5	9.1
	13.9	8.5		14.3	8.9
	13.4	8.0		14.2	8.8
	13.4	8.0		14.2	8.8
	14.1	8.7		14.2	8.8
17+00	14.2	8.8	19+00	13.3	7.9
	14.1	8.7		14.1	8.7
	14.3	8.9		14.0	8.6
	14.6	9.2		14.1	8.7
	14.4	9.0		14.1	8.7
50	14.2	8.8	50	14.2	8.8
	14.2	8.8		14.7	9.3
	14.0	8.6		14.2	8.8

STA. N. 125+00 - WEST			(62)		
Dist	Sound	Elev	Dist	Sound	Elev
(59)	14.2	8.8	(59)	14.1	8.7
3'10	14.1	8.7		14.1	8.7
20+00	14.0	8.6	22+00	14.3	8.9
	14.0	8.6		14.6	9.2
	13.8	8.4		14.7	9.3
	13.7	8.3		14.6	9.2
	14.0	8.6		14.5	9.1
50	14.0	8.6	50	14.8	9.4
	14.1	8.7		14.8	9.4
	14.1	}		14.7	9.3
	14.1			14.8	9.4
	14.1	}		15.0	9.6
	14.1			15.3	9.9
21+00	14.1	8.7	23+00	15.3	9.9
	14.1	8.7		15.2	9.8
	13.8	8.4		14.9	9.5
	13.9	8.5		14.5	9.1
	13.9	8.5		14.5	9.1
50	13.8	8.4	50	14.1	8.7
	13.7	8.3		13.9	8.5
	13.7	8.3		13.5	8.1

STA. N. 125+00 - WEST 8-25-59

Dist	Sound	Elev	Dist	Sound	Elev
(59)	13.7	8.3	(59)	5.2	+0.2
	13.4	8.0	<u>316</u>	5.1	+0.3
24+00	13.4	8.0	26+00	4.9	+0.5
	13.3	7.9			
<u>314</u>	13.2	7.8			
	13.1	7.7			
	13.6	8.2			
50	13.5	8.1			
	13.6	8.2			
	13.3	7.9			
	13.7	8.3			
	13.9	8.5			
25+00	14.1	8.7			
	14.4	9.0			
	14.7	9.3			
	14.3	8.9			
	5.2	+0.2			
50	5.8	+0.2			
	5.2	+0.2			
	5.2	+0.2			

(63)

8-27-59

STA. N. 124+00; 0+00 - W. 16,460' SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00	0.1	+4.4	(45)	4.0	+0.5
(45)	0.6	+3.9	2+00	6.7	2.2
<u>2110</u>	1.1	+3.4	<u>2115</u>	9.9	5.4
	2.1	+2.4		10.2	5.7
	2.2	+2.3		10.3	5.8
50	2.9	+1.6		10.5	6.0
	3.4	+1.1	50	10.6	6.1
	5.5	1.0		10.8	6.3
	7.5	3.0		11.1	6.6
	8.3	3.8		11.1	6.6
1+00	9.0	4.5		11.1	6.6
<u>2113</u>	8.0	3.5	3+00	11.2	6.7
	7.3	2.8		11.2	6.7
	6.2	1.7		11.5	7.0
	6.1	1.6		12.0	7.5
50	5.4	0.9		12.0	}
	5.1	0.6	50	12.0	}
	5.0	0.5		12.0	7.5
	4.3	+0.2		12.5	8.0

STA. N. 124+00 CONTD-WEST 8-27-59					
Dist	Sound	Elev	Dist	Sound	Elev
(46)	13.0	8.4	(47)	14.2	9.5
	13.4	8.8		14.2	9.5
4+00	13.5	8.9	6+00	14.0	9.3
<u>2:18</u>	14.2	9.6		14.0	9.3
	15.1	10.5	<u>2:23</u>	14.2	9.5
	15.3	10.7		14.0	9.3
	15.2	10.6		13.8	9.1
50	15.1	10.5	50	13.5	8.8
	15.0	10.4		13.5	8.8
	14.9	10.3		13.9	9.2
	14.3	9.7		13.6	8.9
	14.2	9.6		14.2	9.5
5+00	14.0	9.4	7+00	14.2	9.5
	14.1	9.5		13.6	8.9
	14.1	9.5		13.5	8.8
	14.1	9.5		13.7	9.0
	13.8	9.2		13.7	9.0
50	14.0	9.4	50	13.5	8.8
	14.0	9.4		13.4	8.7
	14.0	9.4		13.1	8.4

STA. N. 124+00-WEST (6A)					
Dist	Sound	Elev	Dist	Sound	Elev
(47)	13.2	8.5	(47)	12.9	8.2
<u>2:26</u>	13.0	8.3	<u>2:30</u>	13.0	8.3
8+00	12.7	8.0	10+00	13.1	8.4
	13.0	8.3		13.0	8.3
	13.4	8.7		13.1	8.4
	13.7	9.0		12.9	8.2
	13.9	9.2		12.0	7.3
50	14.2	9.5	50	12.2	7.5
	13.6	8.9		12.6	7.9
	13.6	8.9		12.6	7.9
	13.3	8.6		12.6	7.9
	13.0	8.3		12.2	7.5
9+00	13.2	8.5	11+00	12.0	7.3
	13.0	8.3		11.9	7.2
	13.0	8.3		12.0	7.3
	13.0	8.3		12.1	7.4
	12.8	8.1		12.2	7.5
50	13.5	8.8	50	12.5	7.8
	12.8	8.1		12.5	7.8
	12.8	8.1		13.0	8.3

STA. N. 124+00 - WEST			8-27-59		
Dist	Sound	Elev	Dist	Sound	Elev
(4.7)	13.2	8.5	(4.7)	13.2	8.5
<u>2:33</u>	13.1	8.4	<u>2:35</u>	13.4	8.7
<u>12+00</u>	13.0	8.3	<u>14+00</u>	14.0	9.3
	13.0	}		14.0	9.3
	13.0			13.3	8.6
	13.0			13.6	8.9
	13.0	8.3		13.7	9.0
50	12.9	8.2	50	13.2	8.5
	12.9	8.2		13.4	8.7
	12.5	7.8		13.5	8.8
	12.5	7.8		13.6	8.9
	12.5	7.8		14.0	9.3
<u>13+00</u>	13.0	8.3	<u>15+00</u>	14.1	9.4
	13.1	8.4		14.3	9.6
	12.9	8.2		14.4	9.7
	13.0	8.3		14.2	9.5
	12.7	8.0		14.5	9.8
50	12.7	8.0	50	14.7	10.0
	12.7	8.0		13.0	8.3
	13.0	8.3		13.2	8.5

STA. N. 124+00 - WEST			(65)		
Dist	Sound	Elev	Dist	Sound	Elev
(4.7)	13.5	8.8	(4.7)	13.3	8.6
<u>2:40</u>	13.3	8.6		13.1	8.4
<u>16+00</u>	13.0	8.3	<u>18+00</u>	13.2	8.5
	13.0	8.3		13.2	8.5
	12.5	7.8		13.3	8.6
	12.6	7.9		13.3	8.6
	12.7	8.0		13.4	8.7
50	12.7	8.0	50	13.3	8.6
	12.8	8.1	<u>2:43</u>	13.3	8.6
	12.5	7.8		13.4	8.7
	12.7	8.0		13.6	8.9
	12.7	8.0		13.4	8.7
<u>17+00</u>	12.8	8.1	<u>19+00</u>	13.5	8.8
	12.9	8.2		13.4	8.7
	12.8	8.1		13.5	8.8
	12.8	8.1		13.7	9.0
	12.9	8.2		13.7	9.0
50	13.1	8.4	50	13.8	9.1
	13.1	8.4		13.8	9.1
	13.3	8.6		13.8	9.1

STA. N. 124+00 - WEST			8-27-59		
Dist	Sound	Elev	Dist	Sound	Elev
(4.8)	13.8	9.0	(4.8)	13.0	8.2
<u>2:45</u>	13.3	8.5		13.1	8.3
20+00	13.3	8.5	22+00	13.3	8.5
	13.4	8.6		13.8	9.0
	13.3	8.5		14.0	9.2
	13.3	8.5		14.0	9.2
	13.3	8.5	<u>2:48</u>	14.0	9.2
50	13.4	8.6	50	13.9	9.1
	12.9	8.1		13.6	8.8
	12.8	8.0		14.0	9.2
	12.8	8.0		14.1	9.3
	12.7	7.9		14.2	9.4
21+00	12.7	}	23+00	14.3	9.5
	12.7			14.6	9.8
	12.7			14.7	9.9
	12.7			14.5	9.7
	12.6			13.5	8.7
50	12.5	7.7	50	13.6	8.8
	12.5	7.7		13.4	8.6
	12.8	8.0		13.7	8.9

STA. N. 124+00 - WEST			(66)		
Dist	Sound	Elev	Dist	Sound	Elev
(4.8)	13.5	8.7	(4.8)	5.1	0.3
<u>2:50</u>	13.0	8.2		4.9	0.1
24+00	12.9	8.1	26+00	4.9	0.1
	13.0	8.2			
	13.0	8.2			
	13.0	8.2			
	12.9	8.1			
50	13.0	8.2			
	13.0	8.2			
	12.9	8.1			
	12.9	8.1			
	13.5	8.7			
25+00	14.0	9.2			
	14.0	9.2			
	13.8	9.0			
	13.4	8.6			
	6.3	1.5			
50	4.9	0.1			
	5.0	0.2			
	5.0	0.2			

8-28-59

STA. N. 126+00; 0+00 = W/16500; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00			(3.6)	4.2	0.6
(3.6)			2+00	4.8	1.2
<u>11:18</u>	0.4	+3.2		7.8	4.2
	0.6	+3.0		9.1	5.5
	0.9	+2.7		9.5	5.9
50	1.0	+2.6		9.8	6.2
	1.2	+2.4	50	9.9	6.3
	1.4	+2.2		10.1	6.5
	1.5	+2.1		10.3	6.7
	1.9	+1.7		10.6	7.0
1+00	2.0	+1.6		10.7	7.1
<u>11:20</u>	2.3	+1.3	3+00	10.9	7.3
	2.5	+1.1		10.9	7.3
	2.8	+0.8		10.9	7.3
	3.0	+0.6		11.2	7.6
50	3.2	+0.4		11.2	7.6
	3.5	+0.1	50	11.2	7.6
	3.5	+0.1		11.0	7.4
	3.9	0.3		11.2	7.6

STA. N. 126+00 - WEST

(67)

Dist	Sound	Elev	Dist	Sound	Elev
(3.6)	11.2	7.6	(3.6)	13.4	9.8
<u>11:25</u>	11.0	7.4		13.4	9.8
4+00	11.3	7.7	6+00	13.1	9.5
	12.9	9.3	<u>11:28</u>	12.8	9.2
	13.1	9.5		12.6	9.0
	14.5	10.9		12.8	9.2
	14.5	10.9		12.2	8.6
50	14.5	10.9	50	12.8	9.2
	14.5	10.9		12.5	8.9
	14.3	10.7		12.6	9.0
	14.2	10.6		12.9	9.3
	14.0	10.4		12.2	8.6
5+00	14.0	10.4	7+00	12.0	8.4
	13.9	10.3		11.1	7.5
	13.8	10.2		11.1	7.5
	13.8	10.2		11.0	7.4
	13.6	10.0		11.0	7.4
50	13.5	9.9	50	11.0	7.4
	13.5	9.9		10.9	7.3
	13.4	9.8		10.9	7.3

STA. N. 126+00 CONTD WEST 8-28-59

Dist	Sound	Elev	Dist	Sound	Elev
(36)	11.0	7.4	(36)	11.4	7.8
	11.1	7.5	1133	11.2	7.6
8+00	11.2	7.6	10+00	11.0	7.4
11:32	11.4	7.8		11.1	7.5
	11.4	7.8		11.0	7.4
	11.1	7.5		11.1	7.5
	11.2	7.6		11.3	7.7
50	10.9	7.3	50	11.4	7.8
	10.8	7.2		11.3	7.7
	10.7	7.1		11.5	7.9
	10.7	7.1		11.6	8.0
	10.5	6.9		11.5	7.9
9+00	10.6	7.0	11+00	11.5	7.9
	10.8	7.2		11.7	8.1
	10.8	7.2		11.7	8.1
	10.8	7.2		11.8	8.2
	10.9	7.3		11.9	8.3
50	11.1	7.5	50	11.9	8.3
	11.7	8.1		11.9	8.3
	11.5	7.9		11.9	8.3

STA. N. 126+00 - WEST

Dist	Sound	Elev	Dist	Sound	Elev
(36)	11.9	8.3	(3.5)	10.6	7.1
11:40	11.0	7.4		10.9	7.4
12+00	11.4	7.8	14+00	10.3	6.8
	11.2	7.6	11:43	10.9	7.4
	11.3	7.7		10.8	7.3
	11.5	7.9		10.9	7.4
	11.3	7.7		11.0	7.5
50	11.0	7.4	50	11.0	7.5
	11.4	7.8		11.7	8.2
	11.4	7.8		11.0	7.5
	11.1	7.5		11.3	7.8
	11.2	7.6		11.3	7.8
13+00	10.9	7.3	15+00	11.3	7.8
	11.0	7.4		11.2	7.7
	10.9	7.3		11.3	7.8
	11.0	7.4		11.4	7.9
	11.0	7.4		12.0	8.5
50	11.1	7.5	50	12.2	8.7
	11.1	7.5		12.0	8.5
	10.8	7.2		12.0	8.5

(68)

STA. N. 126+00 CONTO WEST 8-28-59

Dist Sound Elev Dist Sound Elev

35 11.9 8.4 35 12.1 8.61145 11.9 8.4 55 12.0 8.5

16+00 11.7 8.2 18+00 11.8 8.3

15 11.8 8.3 15 12.0 8.555 12.0 8.5 55 12.0 8.545 11.3 7.8 45 12.0 8.525 12.0 8.5 1147 11.7 8.250 12.0 8.5 50 11.9 8.458 12.1 8.6 25 12.0 8.525 12.1 8.6 25 12.1 8.625 12.6 9.1 25 12.2 8.725 12.5 9.0 25 12.6 9.1

17+00 12.5 9.0 19+00 12.0 8.5

55 12.8 9.3 45 13.5 10.045 12.3 8.8 25 13.0 9.545 12.2 8.7 45 12.8 9.325 12.2 8.7 45 12.7 9.250 12.2 8.7 50 12.9 9.425 12.1 8.6 25 12.6 9.125 12.1 8.6 25 13.0 9.5

STA. N. 126+00 - WEST

Dist Sound Elev Dist Sound Elev

35 13.4 9.9 35 13.1 9.61150 13.0 9.5 1152 13.1 9.6

20+00 13.0 9.5 22+00 13.0 9.5

25 12.9 9.4 25 13.4 9.925 12.2 8.7 25 13.6 10.125 12.9 9.4 25 13.7 10.225 12.5 9.0 25 13.3 9.850 12.5 9.0 50 13.7 10.225 12.5 9.0 25 13.5 10.025 13.2 9.7 25 13.0 9.525 13.0 9.5 25 13.2 9.725 12.9 9.4 25 13.0 9.5

21+00 12.0 8.5 23+00 13.0 9.5

25 11.5 8.0 25 11.9 8.425 11.9 8.4 25 11.9 8.425 11.5 8.0 25 11.5 8.025 12.1 8.6 25 11.7 8.250 12.6 9.1 50 11.9 8.425 12.5 9.0 25 11.6 8.125 13.4 9.9 25 10.9 7.4

(69)

STA. N. 126+00 CONTD - WEST 8-28-59

Dist Sound Elev Dist Sound Elev

35	10.9	7.4			
11.55	10.1	6.6			
24+00	3.9	0.4	26+00		
	3.8	0.3			
	3.9	0.4			
	4.1	0.6			
	4.5	1.0			
50	4.1	0.6			
	4.0	0.5			
	4.0	0.5			
	4.0	0.5			
	3.9	0.4			
25+00	4.0	0.5			
50					

8-28-59

(70)

STA. N. 127+00; 0+00 = W. 16520; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00			3.7	4.6	0.9
3.7			2+00	4.9	1.2
0.2	+3.5		1.41	5.1	1.4
1.38	0.5	+3.2		8.9	5.2
	0.7	+3.0		9.6	5.9
50	0.9	+2.8		10.0	6.3
	1.0	+2.7	50	10.1	6.4
	1.1	+2.6		10.1	6.4
	1.2	+2.5		10.1	6.4
	1.4	+2.3		10.2	6.5
1+00	1.7	+2.0		10.4	6.7
	1.9	+1.8	3+00	10.4	
	2.0	+1.7		10.4	
	2.0	+1.7		10.5	6.8
	2.1	+1.6		10.9	7.2
50	2.3	+1.4		10.9	
	3.1	+0.6	50	10.9	
	4.2	0.5		10.8	7.3
	4.1	0.4		10.7	7.0

STA. N. 127+00 CONTO-WEST			8-28-59		
Dist	Sound	Elev	Dist	Sound	Elev
(37)	10.9	7.2	(37)	12.0	
	10.7	7.0		12.0	
4+00	10.6	6.9	6+00	12.0	
<u>1:44</u>	10.6			12.0	
	10.6			12.0	
	12.5			12.0	
	12.0			12.0	
50	12.0		50	12.0	
	12.3			12.0	
	12.3			11.3	7.6
	12.3		<u>1:46</u>	11.2	7.5
	12.2			11.1	7.4
5+00	12.2		7+00	11.1	7.4
	12.0			11.1	7.4
	11.9			11.2	7.5
	11.9			11.2	7.5
	11.9			11.1	7.4
50	11.9		50	11.2	7.5
	12.0			11.1	7.4
	12.0			11.0	7.3

STA. N. 127+00 - WEST					
Dist	Sound	Elev	Dist	Sound	Elev
(37)	11.0	7.3	(37)	11.3	7.6
	11.1	7.4		11.2	7.5
8+00	11.1	7.4	10+00	11.1	7.4
<u>1:48</u>	11.1	7.4		11.1	7.4
	11.1	7.4	<u>1:50</u>	11.2	7.5
	11.0	7.3		11.2	
	11.0			11.2	
50	11.0		50	11.3	7.6
	10.8	7.1		11.3	
	10.5	6.8		11.3	
	10.7	7.0		11.3	
	10.8	7.1		11.4	7.7
9+00	11.0	7.3	11+00	11.3	7.6
	11.0			11.5	7.8
	11.0			11.7	8.0
	11.1	7.4		11.7	8.0
	11.2	7.5		11.8	8.1
50	11.2		50	11.8	8.1
	11.2			11.9	8.2
	11.2			11.0	7.3

STA. N. 127+00			CONTO WEST 8-28-59		
Dist	Sound	Elev	Dist	Sound	Elev
(37)	11.6	7.9	(38)	11.2	7.4
1:52	11.7	8.0		11.1	7.3
12+00	11.5	7.8	14+00	11.0	7.2
	11.5	7.8	1:53	11.1	7.3
	11.3	7.8		11.0	7.2
	11.6	7.9		11.0	7.2
	11.7	8.0		11.1	7.3
50	11.6	7.9	50	11.1	7.3
	11.5	7.8		11.3	7.5
	11.4	7.7		11.3	7.5
	11.5	7.8		11.4	7.6
	11.5	7.8		11.6	7.8
13+00	11.6	7.9	15+00	11.4	7.6
	11.5	7.8		11.4	
	11.5	7.8		11.4	
	11.3	7.6		11.3	7.5
	11.3	7.6		11.5	7.7
50	11.2	7.5	50	11.7	7.9
	11.1	7.4		11.8	8.0
	11.1	7.4		11.8	8.0

STA. N. 127+00 - WEST			(72)		
Dist	Sound	Elev	Dist	Sound	Elev
(38)	11.7	7.9	(38)	12.0	
1:55	11.7	7.9		12.1	
16+00	12.1		18+00	12.1	
	11.8	8.0		11.5	7.7
	11.9			11.8	8.0
	11.9			11.4	7.6
	11.9		1:58	11.7	7.9
50	12.2		50	11.8	8.0
	12.2			11.8	8.0
	12.3			12.2	
	12.1			12.3	
	12.2			12.7	
17+00	12.1		19+00	12.9	
	12.1			12.8	
	11.7			12.8	
	11.8	8.0		13.0	
	11.8	8.0		13.6	
50	11.9		50	13.6	
	11.9			13.5	
	12.0			13.8	

STA. N. 127+00 CONTD WEST 8-28-59

Dist	Sound	Elev	Dist	Sound	Elev
(38)	13.7		(38)	13.1	
<u>2:00</u>	13.0		<u>2:02</u>	13.1	
20+00	13.0		22+00	13.3	
	13.0			13.4	
	13.0			14.2	
	13.0			13.5	
	13.0			14.0	
50	12.5		50	13.8	
	12.2			13.3	
	13.0			13.3	
	12.4			13.3	
	11.5	7.7		13.3	
27+00	12.2		23+00	11.9	8.1
	11.7	7.9		12.0	8.2
	12.0			12.0	8.2
	12.1			12.0	8.2
	12.0			12.1	8.3
	12.1		50	11.2	7.4
	12.0			11.5	7.7
	12.0		<u>2:05</u>	11.2	7.4
	12.0			4.2	0.4
50	12.0			4.1	0.3
	12.1		20+00	4.2	0.4
	13.2			4.3	0.5
				4.4	0.6
				4.3	0.5
				4.3	0.5
			50	4.3	0.5

8-28-59

STA. N. 130+00; 0+00 = W. 16610; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00			(42)	9.0	
(4.2)			2+00	10.8	
			<u>2:42</u>	10.3	
<u>2:40</u>	0.1			10.9	
	0.5			11.8	
50	0.9			12.1	
	1.2		50	12.2	
	1.5			12.8	
	1.7			13.1	
	1.9			13.7	
14 00	2.2			13.8	
	3.0		3+00	14.0	
	3.7			13.9	
	4.8			14.1	
	4.5			14.0	
50	5.7			13.7	
	5.9		50	13.8	
	5.5			14.0	
	4.9			14.0	

STA. N. 130+00 CONTO-WEST 8-28-59

DIST	Sound	Elev	DIST	Sound	Elev
(43)	13.8		(43)	12.7	
<u>2:45</u>	13.1			12.4	
4+00	13.0		6+00	13.0	
	13.1		<u>2:48</u>	13.1	
	13.7			13.1	
	13.6			13.1	
	13.5			13.1	
50	12.9		50	13.2	
	12.7			13.0	
	12.6			12.4	
	12.9			11.9	
	12.9			12.0	
5+00	12.7		7+00	11.2	
	12.6			11.2	
	12.3			11.0	
	12.1			11.0	
	12.2			11.3	
50	12.3		50	11.5	
	12.3			11.8	
	12.6			11.8	

STA. N. 130+00 - WEST (74)

DIST	Sound	Elev	DIST	Sound	Elev
(43)	11.9		(43)	12.0	
<u>2:50</u>	11.9			12.0	
8+00	11.9		10+00	11.5	
	11.9			11.5	
	11.7			11.4	
	11.7			11.4	
	11.7			11.3	
50	11.6		50	11.3	
	12.0			11.7	
	11.2			11.6	
	11.5			11.5	
	11.5		<u>2:53</u>	11.6	
9+00	11.1		11+00	11.5	
	11.3			11.5	
	11.6			11.7	
	11.3			11.6	
	11.8			12.0	
50	11.8		50	12.1	
	11.7			11.5	
	11.7			11.4	

STA. N. 130+00 CONTO-WEST 8-28-59

Dist Sound Elev Dist Sound Elev

(4.3)	11.5	(49)	12.0
<u>2:55</u>	11.8		11.9
12+00	12.0	14+00	12.0
	12.0		12.3
	12.2	<u>2:58</u>	12.4
	13.0		12.5
	13.0		12.7
50	12.8	50	12.5
	12.7		12.3
	12.1		12.0
	11.8		12.0
	11.5		12.0
13+00	11.6	15+00	12.1
	11.2		12.1
	11.1		12.1
	11.4		12.2
	11.5		12.6
50	11.8	50	12.5
	11.7		12.2
	11.8		12.5

STA. N. 130+00 - WEST

Dist Sound Elev Dist Sound Elev

(44)	13.0	(4.5)	13.4
	13.4		13.1
16+00	13.4	18+00	13.3
<u>3:00</u>	13.4		13.0
	13.2		13.3
	13.5		13.3
	13.5		13.8
50	12.9	50	13.8
	13.0		13.9
	13.0		14.2
	12.9		14.6
	12.8		14.0
17+00	13.0	19+00	14.4
	12.9	<u>3:03</u>	14.4
	13.0		14.2
	13.2		14.0
	13.1		13.7
50	13.1	50	13.9
	13.0		13.9
	13.0		13.5

STA. N. 130+00 CONTO-WEST 8-28-59

Dist	Sound	Elev	Dist	Sound	Elev
(4.5)	13.5		(4.5)	14.7	
<u>3:04</u>	13.2		<u>3:07</u>	14.3	
20+00	13.3		22+00	14.1	
	13.8			14.0	
	13.4			13.7	
	12.9			13.6	
	12.8			12.7	
50	12.3		50	12.8	
	12.5			12.7	
	13.0			12.7	
	12.5			14.0	
	13.1			12.0	
21+00	14.3		23+00	11.4	
	14.1			9.5	
	13.9			4.9	
	14.0			4.8	
	14.3			4.8	
50	14.0		50	5.0	
	14.4				
	14.3				

8-31-59 (76)
STA. N. 130+00; 0+00=W. 16610; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00			(2.8)	3.2	0.4
			2+00	7.9	5.1
			(2.8)	9.4	6.6
				9.6	6.8
				9.7	6.9
50			9.8	7.0	
50			50	9.4	6.6
<u>2:10</u>			<u>2:13</u>	9.7	6.9
	0.2	+2.6		9.8	7.0
	0.4	+2.4		9.9	7.1
1+00	0.6	+2.2		9.9	7.1
	1.4	+1.4	3+00	10.1	7.3
	2.5	+0.3		10.0	7.2
	3.0	0.2		10.2	7.4
	3.5	0.7		9.9	7.1
50	4.1	1.3		10.0	7.2
	4.2	1.4	50	10.0	7.2
	3.9	1.1		10.2	7.4
	3.8	1.0		10.9	8.1

STA. N. 130+00 CONTD WEST 8-31-59						STA. N. 130+00 - WEST ⁽⁷⁾					
DIST	SOUND	ELEV	DIST	SOUND	ELEV	DIST	SOUND	ELEV	DIST	SOUND	ELEV
(28)	11.0	8.2	(25)	10.8	8.3	(25)	9.7	7.2	(25)	10.0	7.5
<u>2:15</u>	11.1	8.3		11.0	8.5		9.8	7.3		9.6	7.1
4+00	11.2	8.4	6+00	10.5	8.0	8+00	9.9	7.4	10+00	9.8	7.3
	11.8	9.0		10.5	8.0		9.9	7.4		9.9	7.4
	12.2	9.4		10.5	8.0		10.0	7.5		10.2	7.7
	12.2	9.4		10.6	8.1		9.2	6.7		10.0	7.5
	12.1	9.3		10.5	8.0		9.2	6.7		9.8	7.3
50	9.8	7.0	50	10.5	8.0	50	9.0	6.5	2:30 50	9.5	7.0
		9-01-59									
Wait for Tugboat	9.7	7.2		10.5	8.0		9.2	6.7		9.4	6.9
2:25	9.7	7.2		10.0	7.5		9.5	7.0		9.5	7.0
(25)	9.8	7.3		9.8	7.3		9.0	6.5		9.9	7.4
	9.8	7.3		9.2	6.7		9.0	6.5		10.0	7.5
5+00	9.8	7.3	7+00	9.2	6.7	9+00	9.2	6.7	11+00	9.8	7.3
	10.0	7.5		9.3	6.8		9.2	6.7		10.5	8.0
	10.0	7.5		9.5	7.0		9.2	6.7		10.2	7.7
	10.1	7.6		9.5	7.0		9.2	6.7		10.2	7.7
	10.1	7.6		9.6	7.1		9.0	6.5		10.1	7.6
50	10.0	7.5	50	9.6	7.1	50	10.0	7.5	50	10.5	8.0
	10.5	8.0		9.6	7.1		10.0	7.5		11.1	8.6
	10.8	8.3		9.7	7.2		10.0	7.5		11.2	8.7

STA. N. 130+00 CONTD WEST 8-31-59.

DIST	Sound	Elev	DIST	Sound	Elev
(25)	11.0	8.5	(25)	11.0	8.5
	11.5	9.0		10.8	8.3
12+00	11.8	9.3	14+00	10.8	8.3
	12.0	9.5		10.5	8.0
	12.0	9.5		10.0	7.5
	12.0	9.5		10.0	7.5
	11.5	9.0		10.0	7.5
50	11.0	8.5	50	10.1	7.6
	11.2	8.7		10.2	7.7
	11.2	8.7		10.4	7.9
	11.0	8.5		10.2	7.7
	11.0	8.5		10.2	7.7
13+00	11.0	8.5	15+00	10.3	7.8
	11.5	9.0		10.5	8.0
	11.8	9.3		10.6	8.1
	11.0	8.5		10.5	8.0
	12.0	9.5		10.5	8.0
2:35 50	11.2	8.7	50	10.6	8.1
	11.2	8.7		10.5	8.0
	11.0	8.5		10.6	8.1

STA. N. 130+00 - WEST (78)

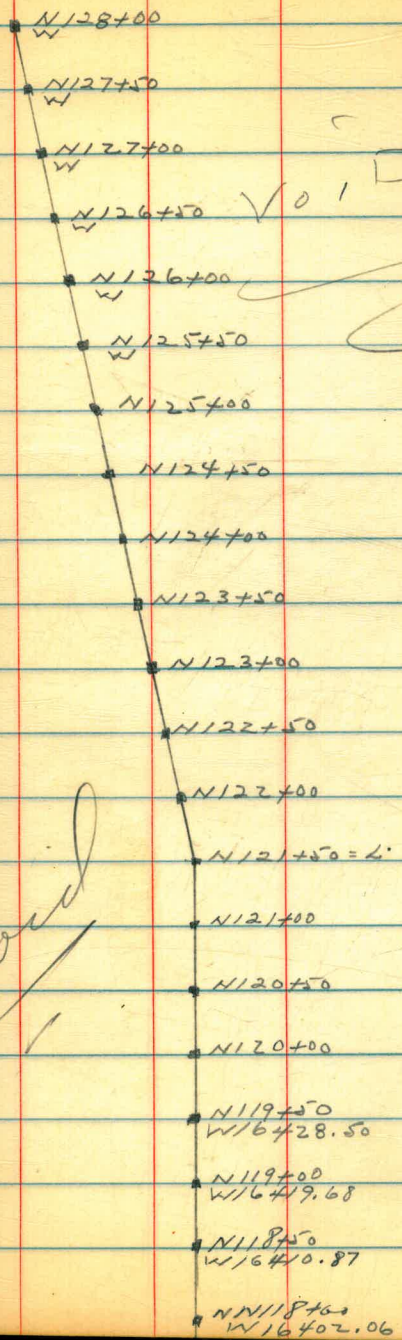
DIST	Sound	Elev	DIST	Sound	Elev
(25)	10.2	7.7	(25)	10.3	7.8
	10.2	7.7		10.5	8.0
16+00	10.2	7.7	18+00	10.5	8.0
	10.0	7.5		10.4	7.9
	10.0	7.5		10.5	8.0
	10.3	7.8		10.5	8.0
	10.2	7.7		10.6	8.1
50	10.3	7.8	50	10.8	8.3
	10.3	7.8		10.8	8.3
	10.3	7.8		10.5	8.0
	10.5	8.0		10.2	7.7
2:40	10.6	8.1		10.2	7.7
17+00	10.5	8.0	19+00	10.2	7.7
	10.0	7.5		10.8	8.3
	9.9	7.4		11.5	9.0
	10.8	8.3		11.0	8.5
	10.5	8.0		11.2	8.7
2:45 50	10.6	8.1	50	11.5	9.0
	10.3	7.8		11.5	9.0
	10.3	7.8		11.5	9.0

STA. N. 130+00 CONTD - WEST 8-31-59

Dist	Sound	Elev	Dist	Sound	Elev
(25)	11.7	9.2	(25)	10.5	8.0
	11.7	9.2		10.5	8.0
20+00	11.8	9.3	22+00	10.0	7.5
	11.8	9.3		10.5	8.0
	11.7	9.2		11.5	9.0
	11.5	9.0	21.50	11.0	8.5
	11.5	9.0	21.55	8.5	6.0
50	11.2	8.7	50	4.5	2.0
	11.0	8.5		3.6	1.1
	11.0	8.5		3.6	1.1
	11.2	8.7		3.6	1.1
	11.4	8.9		3.5	1.0
21+00	11.5	9.0	23+00	3.3	0.8
	11.0	8.5	CONTD MB117		
	11.0	8.5			
	11.0	8.5			
	11.0	8.5			
50	10.5	8.0	50		
	10.8	8.3			
	10.5	8.0			

These shots appear to be on edge of cut

100' of sound along N. T. Very red hole



VOID

VOID

See FB MB117 page 51

The image shows an open notebook with two facing pages. Both pages are cream-colored and feature blue horizontal ruling lines. Each page is also divided into columns by red vertical lines, creating a grid-like structure. The left page has a red margin line on the left side, while the right page has red margin lines on both the left and right sides. The right page has a small, circled number '80' in the top right corner. The notebook is bound in the center, and the pages appear slightly aged or off-white. There is no text or other markings on the pages.

N128
N129
N130

N128+00
W16534.29

N127+50
W16525.47

N127+00
W16516.66

N126+50
W16507.83

N126+00
W16499.02

N125+50
W16490.20

N125+00
W16481.39

N124+50
W16472.57

N124+00
W16463.76

101.54'
S. 10° E
101.54'

Sec FB MB 117 - Page 51 -

N. 140° 54' 23" W

N130+00
W. 16603.27

P1. N. 129° 60.94
W. 16592.87

N129+50
W16588.89

N129+00
W16570.69
49.3

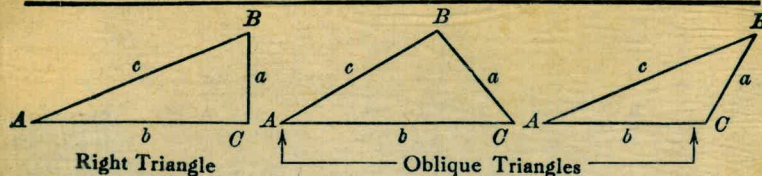
16520°
5.20° E
106.43
106.901

N128+50
W16552.49

N128+00
W16534.29
75.3

6100

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\operatorname{cosec} = \frac{c}{a}$

Given a, b

Required A, B, c

$\tan A = \frac{a}{b} = \cot B, c = \sqrt{a^2 + b^2} = a \sqrt{1 + \frac{b^2}{a^2}}$

Given a, c

Required A, B, b

$\sin A = \frac{a}{c} = \cos B, b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$

Given A, a

Required B, b, c

$B = 90^\circ - A, b = a \cot A, c = \frac{a}{\sin A}$

Given A, b

Required B, a, c

$B = 90^\circ - A, a = b \tan A, c = \frac{b}{\cos A}$

Given A, c

Required B, a, b

$B = 90^\circ - A, a = c \sin A, b = c \cos A$

Solution of Oblique Triangles

Given A, B, a

Required b, c, C

$b = \frac{a \sin B}{\sin A}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$

Given A, a, b

Required B, c, C

$\sin B = \frac{b \sin A}{a}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$

Given a, b, C

Required A, B, c

$A + B = 180^\circ - C, \tan \frac{1}{2}(A - B) = \frac{(a - b) \tan \frac{1}{2}(A + B)}{a + b}$

$c = \frac{a \sin C}{\sin A}$

Given a, b, c

Required A, B, C

$s = \frac{a + b + c}{2}, \sin \frac{1}{2}A = \sqrt{\frac{(s - b)(s - c)}{bc}}$

$\sin \frac{1}{2}B = \sqrt{\frac{(s - a)(s - c)}{ac}}, C = 180^\circ - (A + B)$

Given a, b, c

Required Area

$s = \frac{a + b + c}{2}, \text{area} = \sqrt{s(s - a)(s - b)(s - c)}$

Given A, b, c

Required Area

$\text{area} = \frac{bc \sin A}{2}$

Given A, B, C, a

Required Area

$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



Horizontal distance

Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = 5° 10'. From Table, Page IX, $\cos 5^\circ 10' = .9959$. Horizontal distance = 319.4 × .9959 = 318.09 ft.

Horizontal distance also = Slope distance minus slope distance times (1 - cosine of vertical angle). With the same figures as in the preceding example, the following result is obtained. $\cos 5^\circ 10' = .9959$. $1 - .9959 = .0041$. $319.4 \times .0041 = 1.31$. $319.4 - 1.31 = 318.09$ ft.

When the rise is known, the horizontal distance is approximately:—the slope distance less the square of the rise divided by twice the slope distance. Thus: rise = 14 ft., slope distance = 302.6 ft. Horizontal distance = $302.6 - \frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.