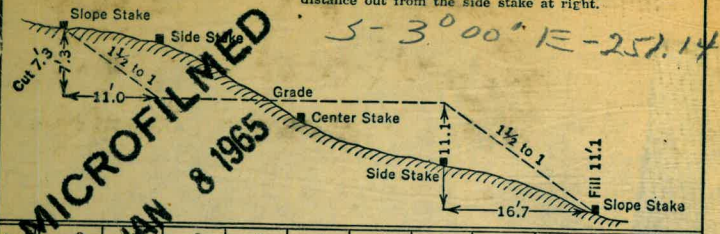
DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

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.



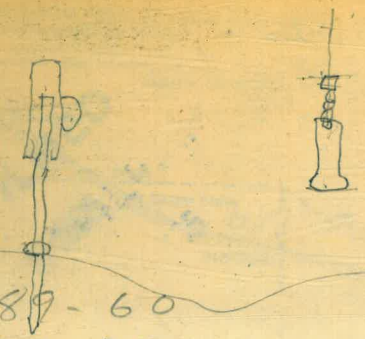
S-3°00' E-251.14

Cut or Fill	0	.2	.3	.4	.5	.6	.7	.8	.9	Cut or Fill
	Distance out from Side or Shoulder Stake									
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.

M. B. No 97

60
095
50,2



80 - 60
12 20
87-40-

N9200
N8200
N7500
~~N9500~~
N96
N94

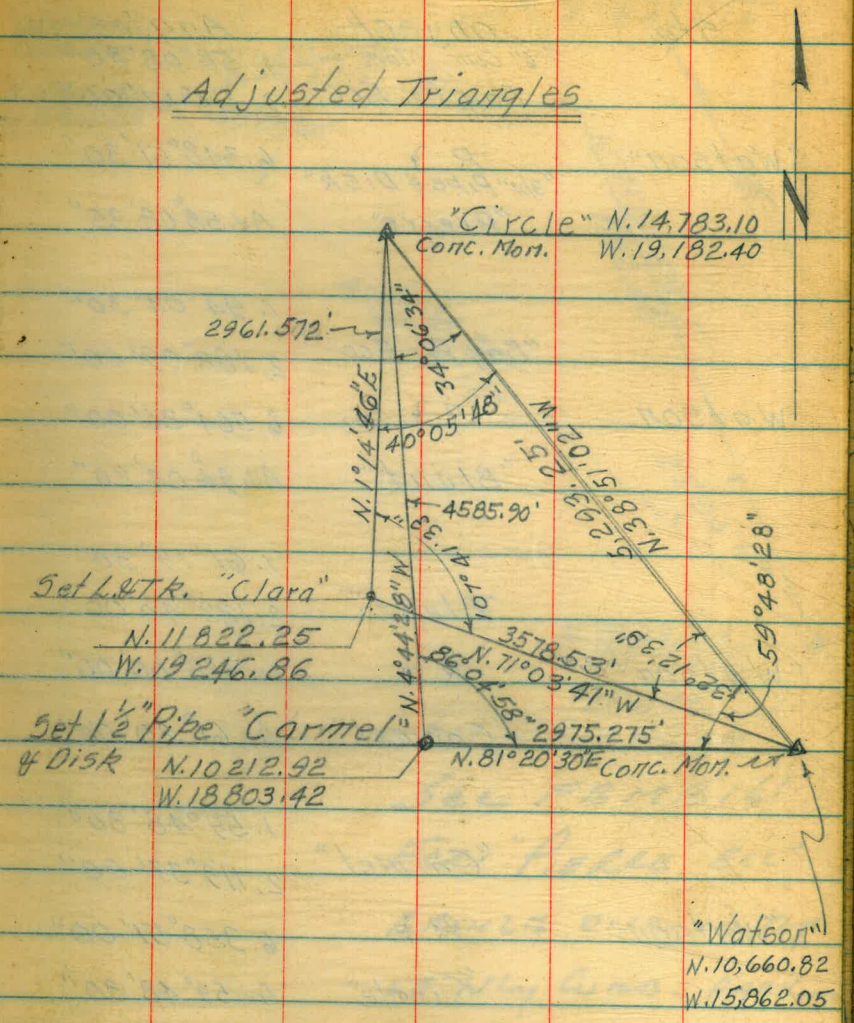
PAGES	INDEX	DATE
1-14	BASELINE LAYOUT & TRIANGULATION	12-13-56
15	AZIMUTH INTERSECTIONS FOR CONTROL PTS	1-18-57
16-19	MISCELANEOUS SEC'S; (FOR MARINE EXPERTS)	3-7-57
20-25	NWLY, AREA SHORELINE TRAVERSE	11-14-57
26	BASELINE FOR SOUNDINGS DANA BASIN & VICINITY	
55	ST Bridge ReSound area NWly of Wyngraham	5-11-59

BASELINE FOR SOUNDINGS OF N, WLY. PORTION OF MISSION BAY W.O. 64501

Sta	object	Angles
	"Clara"	1. 73°48'00"
"Blunt"	R	2. 147°36'30"
	6" Conc. Mon. "Watson"	6. 442°50'00"
		Av. 73°48'20"
	"Carmel"	1. 64°23'30"
		2. 128°47'15"
"Pierre"	R	6. 386°22'30"
	"Watson"	Av. 64°23'45"
	"Watson"	1. 34°06'30"
		2. 68°13'00"
"Circle"	R	6. 204°39'45"
	"Carmel"	Av. 34°06'37.5"
	"Watson"	1. 40°06'00"
		2. 80°11'45"
"Circle"	R	6. 240°35'00"
	"Clara"	Av. 40°05'50"

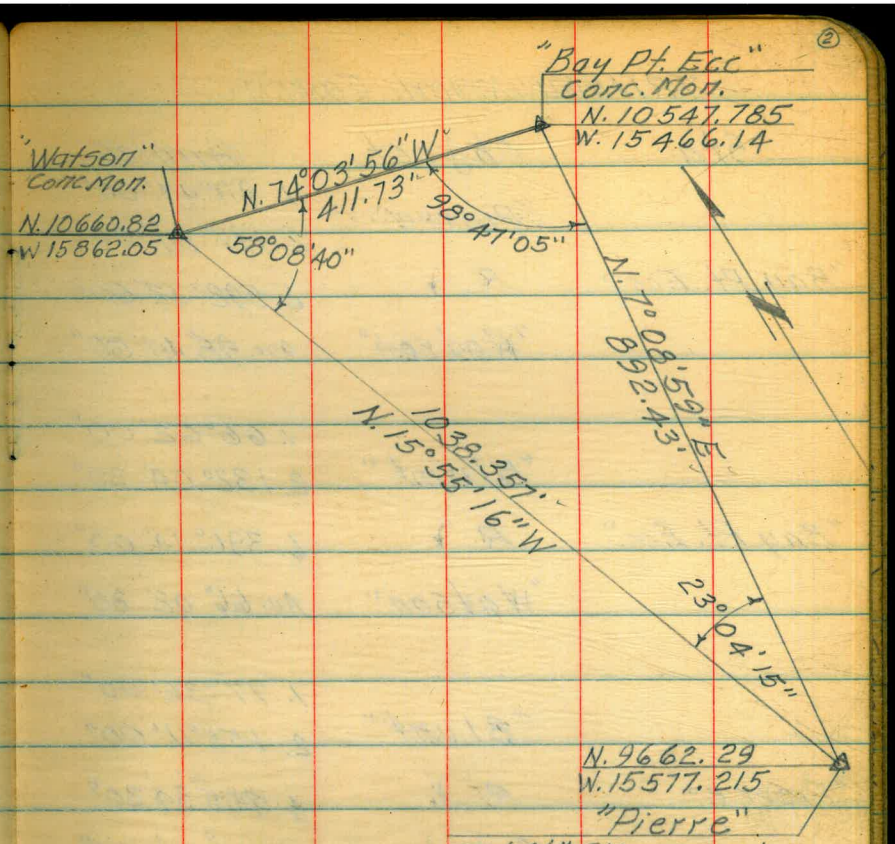
12-13-56 T. A. Stamper

Adjusted Triangles



TRIANGULATION CONT'D.

Sta.	Object	Angles
	6" Conc. Mon.	1. 58°08'30"
	Bay Pt. Ecc.	2. 116°17'00"
"Watson"	R ↴	6. 348°51'30"
	"3/4" Pipe & Disk"	
	"Pierre"	Av. 58°08'35"
		1. 94°04'30"
	"Bay Pt. Ecc"	2. 188°09'00"
Watson	R ↴	6. 564°26'00"
	"Blunt"	Av. 94°04'20"
		1. 61°19'30"
	"Blunt"	2. 122°40'00"
"Watson"	R ↴	6. 368°00'00"
	"Carmel"	Av. 61°20'00"
		1. 59°48'30"
	"Carmel"	2. 119°37'00"
"Watson"	R ↴	6. 358°51'00"
	"Circle"	Av. 59°48'30"
		1. 32°12'30"
	"Clara"	2. 64°25'00"
"Watson"	R ↴	6. 193°16'00"
	"Circle"	Av. 32°12'40"



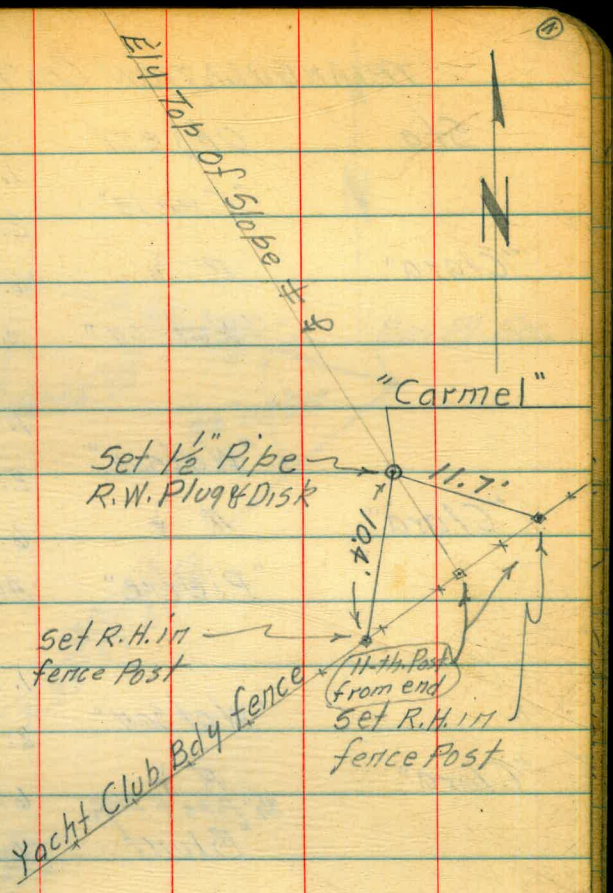
See FB 7 B 161
FOR "PIERRE ECC"
BRONZE DISK IN TOP
OF NLy CURB. PARKing
LOT NO. CAPE - W.
VACATION ISLE
7-6-72
Allen

TRIANGULATION CONT'D.

Sta.	Object	Angles
	"Pierre"	1. 98°47'00"
		2. 197°34'00"
"Bay Pt. Ecc."	R ↓	6. 592°42'00"
	"Watson"	Av. 98°47'00"
	"Blunt"	1. 66°02'00"
		2. 132°04'30"
"Bay Pt. Ecc."	R ↓	6. 396°14'00"
	"Watson"	Av. 66°02'20"
	"Blunt"	1. 77°36'00"
		2. 155°11'00"
"Pierre"	R ↓	6. 465°34'30"
	"Watson"	Av. 77°35'45"
	"Watson"	1. 23°04'00"
		2. 46°08'00"
"Pierre"	R ↓	6. 138°25'00"
(See Pg. 5)	"Bay Pt Ecc"	Av. 23°04'10"
	"Watson"	1. 19°53'30"
		2. 39°47'00"
"Blunt"	R ↓	6. 119°20'00"
	"Bay Pt. Ecc."	Av. 19°53'20"

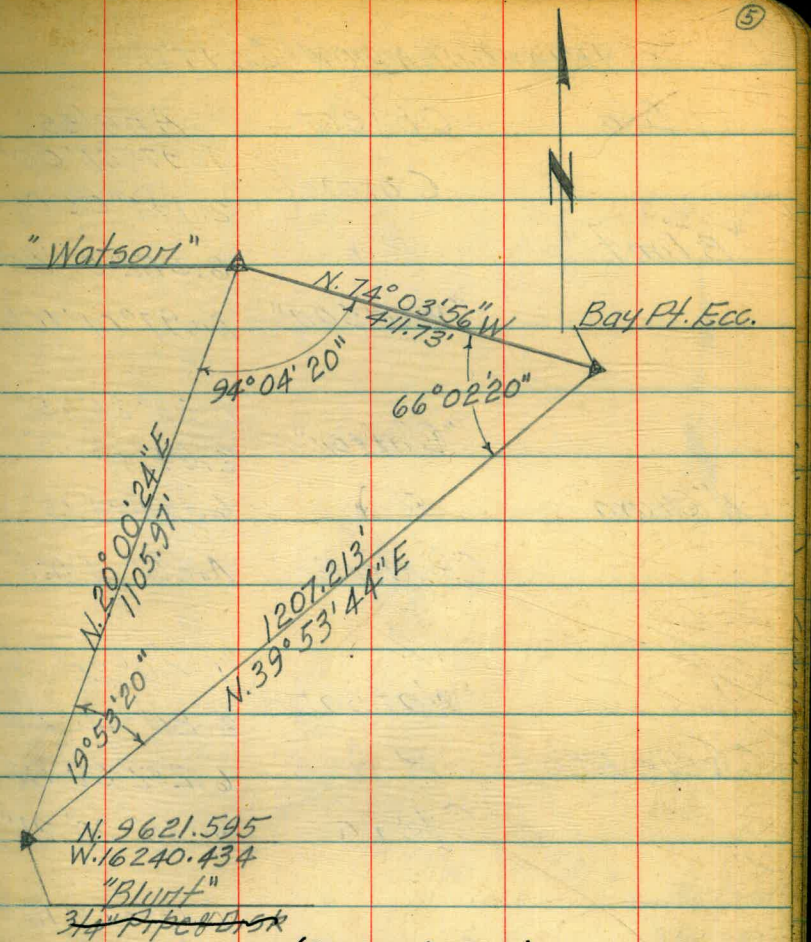
TRIANGULATION CONT'D

Sta.	Object	Angles
	"Bay Pt. Ecc"	1. 46°35'30"
		2. 93°11'00"
"Blunt"	R ↓	6. 279°33'00"
(see Pg. 6)	"Pierre"	Av. 46°35'30"
		1. 10°40'00"
	"Clara"	2. 21°20'00"
"Carmel"	R ↓	6. 63°59'30"
	"Circle"	Av. 10°39'55"
		1. 86°05'00"
	"Circle"	2. 172°10'00"
"Carmel"	R ↓	6. 516°30'00"
	"Watson"	Av. 86°05'00"
		1. 18°20'45"
	"Watson"	2. 36°41'30"
"Carmel"	R ↓	6. 110°03'30"
	"Pierre"	Av. 18°20'35"
		1. 21°39'00"
	"Watson"	2. 43°18'00"
"Carmel"	R ↓	6. 129°53'30"
	"Blunt"	Av. 21°38'55"



TRIANGULATION CONT'D.

Sta.	Object	Angles
	"Circle"	1. 107°41'30"
		2. 215°23'00"
"Clara"	R ↓	6. 646°09'30"
	"Watson"	Av. 107°41'35"
		1. 11°32'30"
	"Watson"	2. 23°05'00"
"Clara"	R ↓	6. 69°15'00"
	"Pierre"	Av. 11°32'30"
		1. 17°16'00"
	"Watson"	2. 34°32'00"
"Clara"	R ↓	6. 103°35'00"
	3/4" P. Pe & Disk "Blunt"	Av. 17°15'50"
		1. 55°39'30"
	Watson	2. 111°18'30"
"Clara"	R ↓	6. 333°56'00"
	"Carmel"	Av. 55°39'20"
		1. 43°36'00"
	"Clara"	2 87°12'00"
"Pierre"	R ↓	6. 261°36'00"
	"Watson"	Av. 43°36'00"



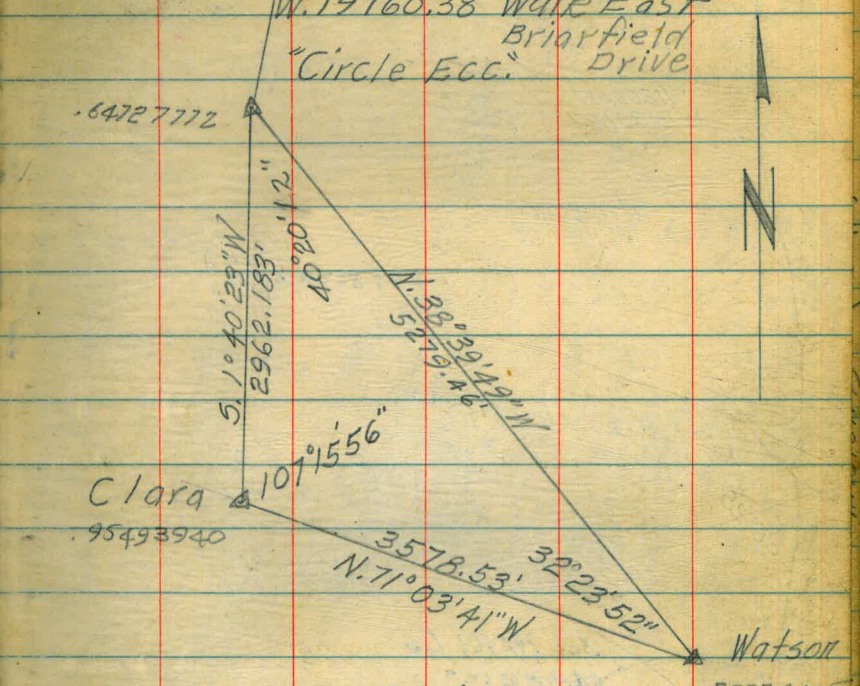
TRIANGULATION CONT'D.

Sta.	object	Angles
	Carmel	1. 97°01'00"
		2. 194°02'00"
"Blunt"	R ∢	6. 582°07'00"
	"Watson"	Av. 97°01'10"
		1. 32°24'15"
	"Clara"	2. 64°48'25"
Watson	R ∢	6. 194°24'15"
	Circle Ecc.	Av. 32°24'025"
		1. 40°20'30"
	Watson	2. 80°40'45"
Circle Ecc.	R ∢	6. 242°02'06"
	Clara	Av. 40°20'21"
		1. 107°16'10"
	Circle Ecc.	2. 214°32'05"
Clara	R ∢	6. 643°36'35"
	Watson	Av. 107°16'06"

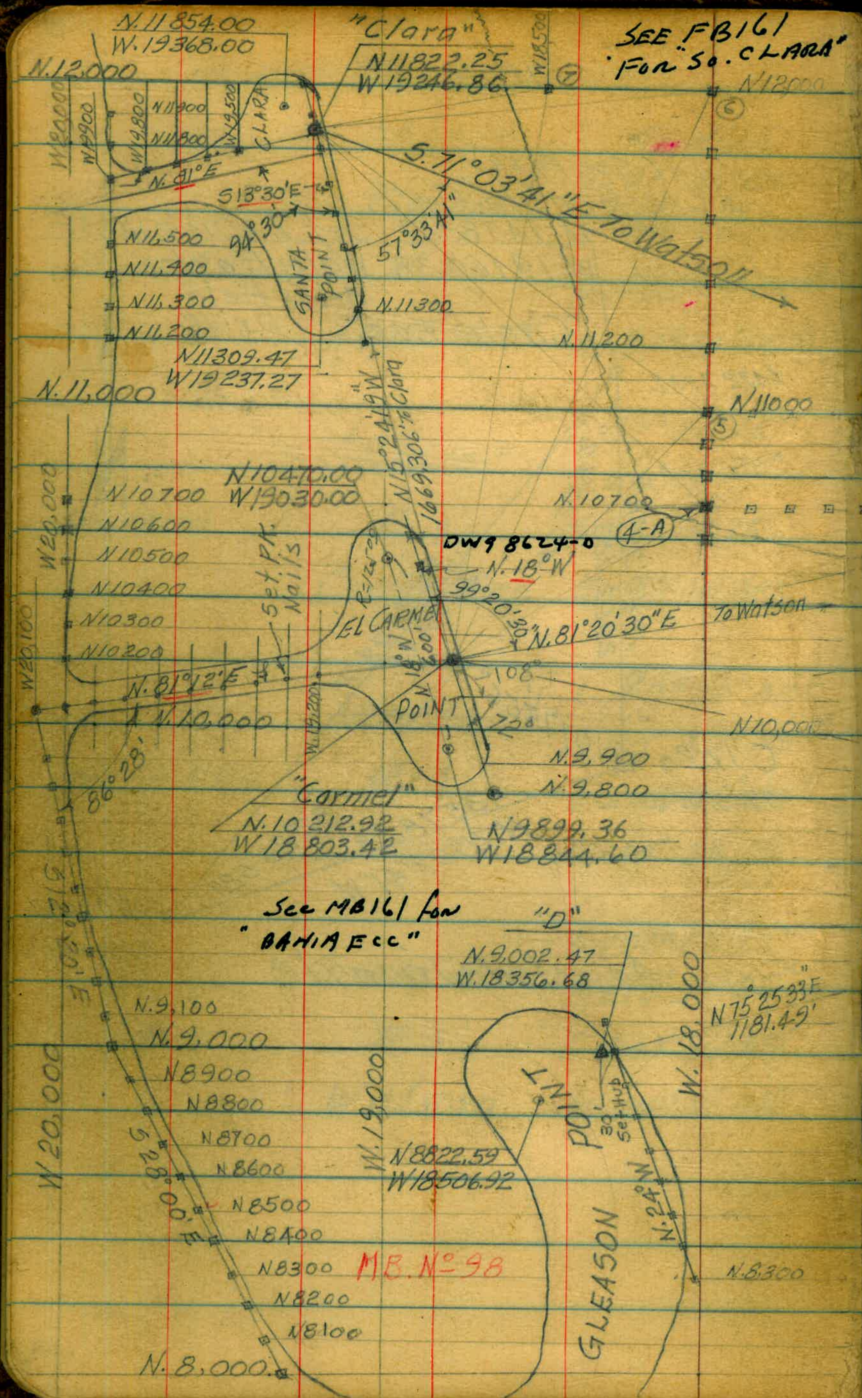
11-6-57

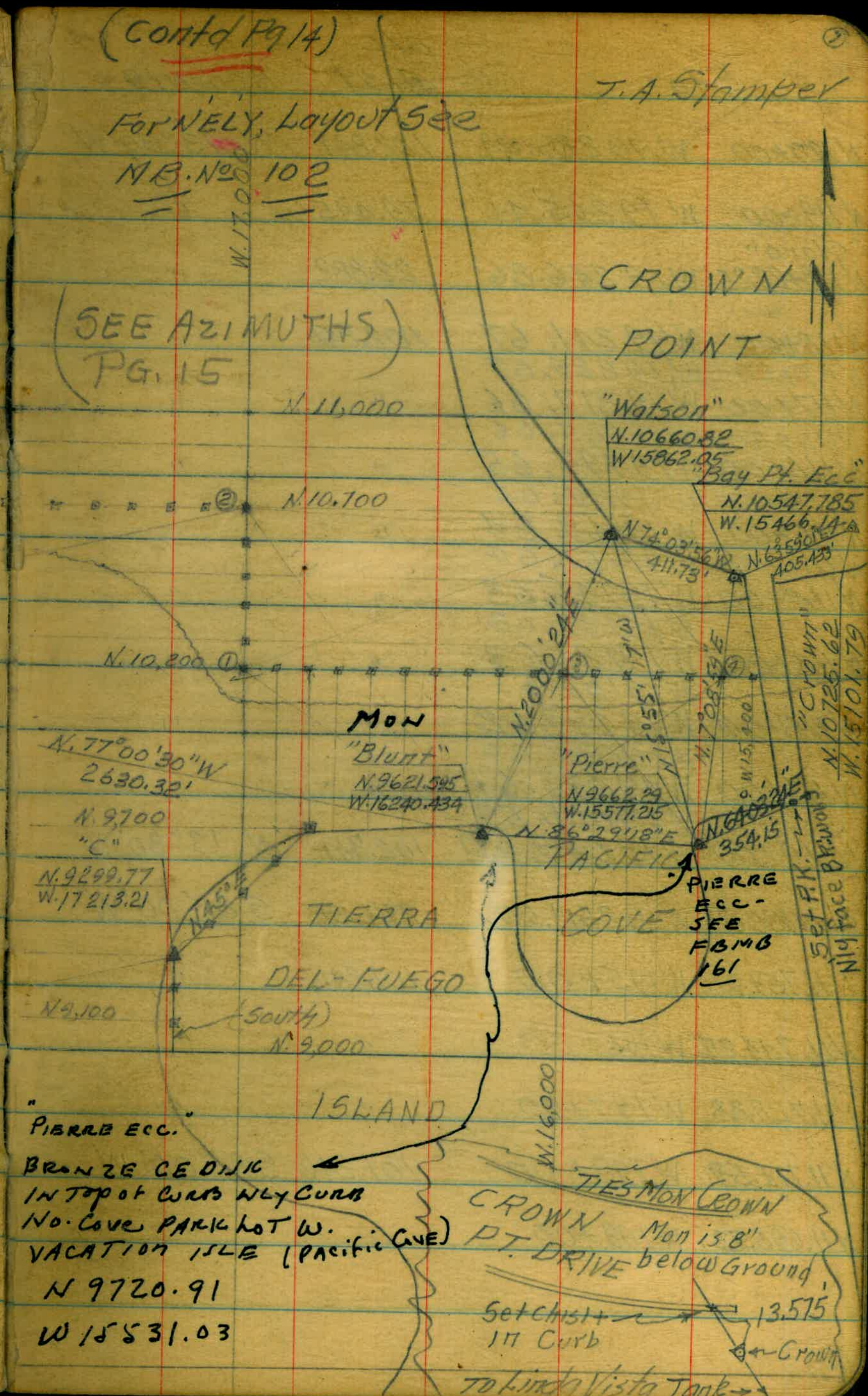
(see Pg. 22)

△ Check on Sta. "Circle Ecc."
N. 14783.17 Set L.&Disk West
W. 19160.38 Walk East
Briarfield Drive



Adjusted Triangle


N.11854.00
W.19368.00
"Clara"
N11822.25
W19246.86
SEE FB161
"For So. CLARA"
N.12,000
S.71°03'41"E To Watson
N.11,500
N.11,400
N.11,300
N.11,200
N11309.47
W19237.27
N.11,000
SANTA POINT
N10470.00
W19030.00
DWG 8624-D
N.18°W
N.81°20'30"E
To Watson
N.10700
N.10600
N.10500
N.10400
N.10300
N.10200
EL CARMEL POINT
N.81°12'E
N.10,000
"Carmel"
N.10 212.92
W 18 803.42
N9899.36
W18844.60
N.9,900
N.9,800
See MB161 for
"BAHIA ECC"
"D"
N.9,002.47
W.18356.68
N75°25'33"E
1181.49'
N.9,100
N.9,000
N8900
N8800
N8700
N8600
N8500
N8400
N8300
N8200
N8100
N.8,000
MB. № 98
W.20,000
W.19,000
W.18,000
N8822.59
W18506.92
GLEASON POINT
N.8300


(contd Pg14)
T. A. Stamper
For NELY, Layout See
N.B. № 102
(SEE AZIMUTHS
PG. 15)
CROWN POINT
N.11,000
"Watson"
N.10660.82
W15862.05
"Bay Pt. Ecc"
N.10547.785
W.15466.14
N.10,700
N.10,200
N.77°00'30"W
2630.32'
N.9,700
"C"
N.9299.77
W.17213.21
MON
"Blunt"
N.9621.595
W.16240.434
"Pierre"
N.9662.29
W.15571.25
N.86°29'18"E
"Crown"
N.10725.62
W.15101.79
TIERRA DEL FUEGO ISLAND
PACIFIC COVE
PIERRE ECC- SEE FBMB 161
N.9,100
N.9,000
W.16,000
"PIERRE ECC."
BRONZE CE DISK
IN TOP of CURB NLY CURB
No. COVE PARK LOT W.
VACATION ISLE (PACIFIC COVE)
N 9720.91
W 15531.03
CROWN PT. DRIVE
TIES MON CROWN
Mon is 8" below Ground
Set chisl+ in Curb
13.575
Crown
To Linda Vista Tank

Sta		B/L Dist	Bearing
N 120+00	W. 19289.41	102.841	N. 13°30'W
N 119+00	W 19265.41	79.445	"
"Clara" N 118+22.25	W 19246.86	22.882	"
N 118+00	W 19241.67	102.841	"
N 117+50	W. 19229.67		
N 117+00	W 19217.66	"	"
N 116+50	W. 19205.66		
N 116+00	W 19193.65	"	"
N 115+50	W. 19181.65		
N 115+00	W 19169.64	"	"
N 114+50	W. 19157.64		
N 114+00	W 19145.63	"	"
	W 19133.62		
N 113+00	W 19121.63	"	"
	W 19109.61		
N 112+00	W 19097.62	"	"
	W 19085.60		
N 111+00	W 19073.61	"	"
	W 19061.59		
N 110+00	W 19049.60	102.841	N. 13°30'W
N. 11,800	W 19241.67	261.55	S 81°00'W
N 11,759.08	W 195+00	101.246	"
N 11,743.25	W 196+00	"	"
N 11,727.41	W 197+00	"	"
N 11,711.57	W 198+00	101.246	S 81°00'W
N 11,695.73	W 199+00	"	"

Sta		B/L Dist	Bearing
N107+00	W18961.682	105.146	N.18°00'W
N106+00	W18929.19	"	"
N105+00	W18896.70	"	"
N104+00	W18864.21	105.146	"
N103+00	W18831.71	91.561	"
"Carmel" N102+12.92	W18803.42	13.585	"
N102+00	W18799.22	105.146	"
N101+00	W18766.73	"	"
N100+00	W18734.24	"	"
N99+00	W18701.75	"	"
N98+00	W18669.254	105.146	N.18°00'W
"Carmel" N.10212.92	W188+03.42	401.303	N.81°12'E
N10151.53	W192+00	101.191	"
N10136.04	W193+00	"	"
N.10120.55	W194+00	"	"
N.10105.06	W195+00	"	"
N10089.57	W196+00	"	"
N10074.09	W197+00	"	"
N10058.60	W198+00	"	"
N.10043.11	W199+00	101.191	N81°12'E

Sta.		B/L Dist.	Bearing
N10043.11	W199+00	101.191	N.81° 12" E
N10027.623	W200+00	"	"
N102+00	W20000.00	172.38	North
N103+00	W20000.00	100	"
N104+00	W.20000.00	"	"
N105+00	W20000.00	"	"
N106+00	W20000.00	"	"
N107+00	W20000.00	100	North
N100+12.135	W20100.00	114.784	N12° 20' W
N 99+00	W20075.48	102.362	"
N 98+00	W20053.62	"	"
N 97+00	W20031.75	"	"
N 96+00	W20009.89	"	"
N 95+00	W19988.03	"	"
N 94+00	W19966.16	"	"
N 93+00	W19944.30	"	"
N 92+00	W19922.43	"	"
N 91+00	W19900.57	"	"
P.I. N 90+00	W19878.706	102.362	N.12° 20' W

Stg		B/L Dist.	Bearing
N.90+00	W.19878.706	113.257	N.28°00'W
N.89+00	W.19825.53	"	"
N.88+00	W.19772.36	"	"
N.87+00	W.19719.19	"	"
N86+00	W.19666.02	"	"
N.85+00	W.19612.85	"	"
N.84+00	W.19559.68	"	"
N.83+00	W.19506.51	"	"
N.82+00	W.19453.34	"	"
N.81+00	W.19400.17	"	"
N.80+00	W19346.997	113.257	N.28°00'W
N.79+00	W19293.826	"	"
N.78+00	W19240.655	272.464 (272.39'M. Td.	N.20°50'43"W N.20°48'30"W)
△ Coaster N7545.37	W.19143.70		

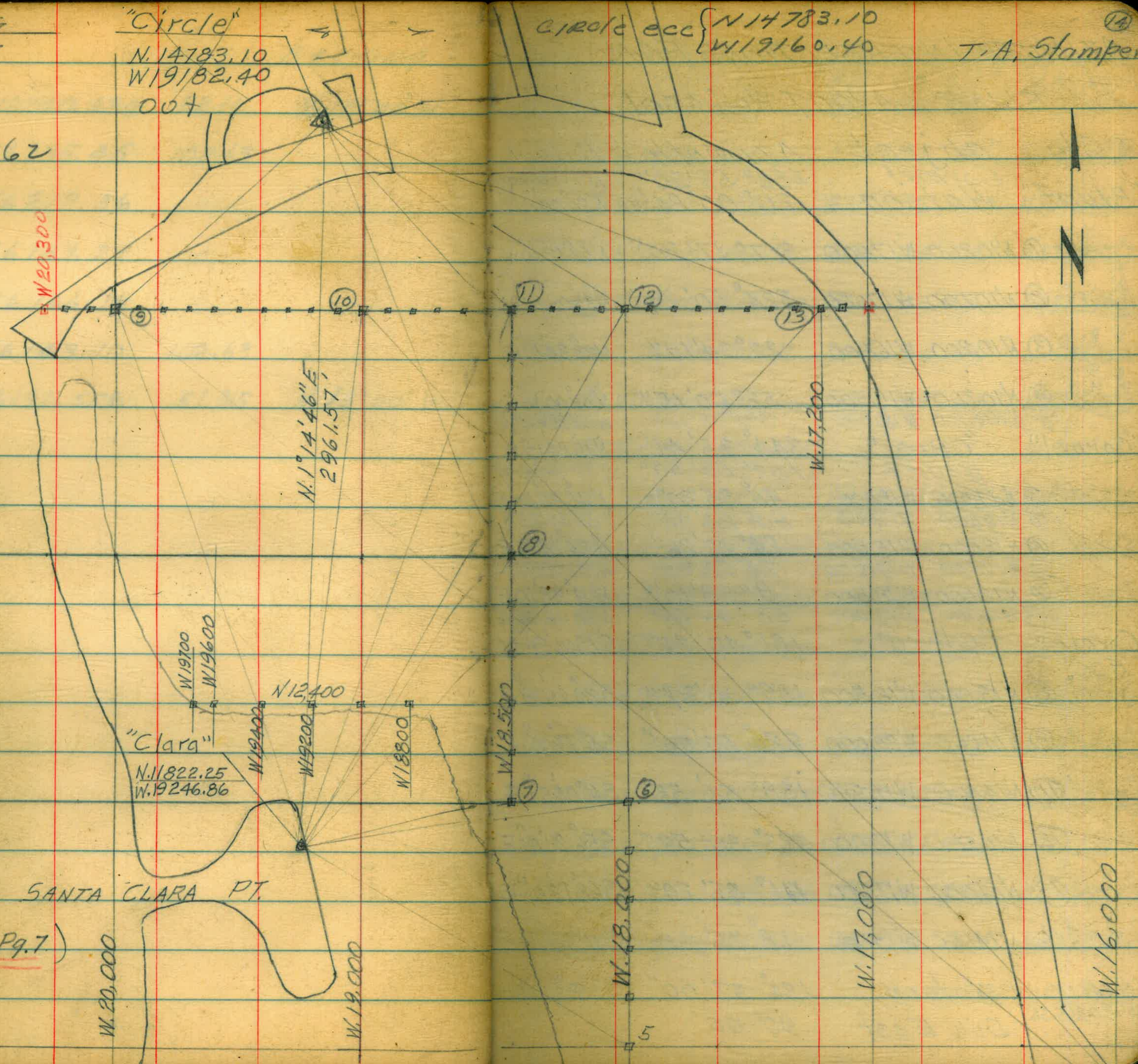
Sta.		B/L Dist.	Bearing
N91+00	W18367.413	98.50	N. 24°00'W
"D" Ecc" N90+002	W18327.645	10.968	"
N.90+00	W18323.22	109.463	"
N89+00	W18279.02	"	"
N88+00	W18234.83	"	"
N87+00	W18190.63	"	"
N86+00	W18146.44	"	"
N85+00	W18102.25	"	"
N84+00	W18058.05	"	"
N83+00	W18013.86	109.463	N. 24°00' W
N.97+00	W16647.204	141.42	N. 45°00' W
N.96+00	W.16788.62	"	"
N95+00	W16930.04	"	"
N94+00	W17071.46	141.42	"
Tie "A" N9299.77	W17213.21	141.746	N. 45°00' W

Sta		B/L Dist	Bearing
"Bluff"			
N.9621.595	W.16240.434	22.16	N. 13°00' W
N96+00	W16235.45	102.63	"
N95+00	W16212.36	"	"
N94+00	W16189.27	"	"
N93+00	W16166.19	"	"
N92+00	W16143.10	102.63	"
N91+50	W16131.558	51.315	N. 13°00' W

SOUNDING BASELINE

See Page 62

T. A. Stamper



(Cont'd. from Pg. 7)

AZIMUTH INTERSECTIONS FOR BASELINE LAYOUT W.O. 64501

Sta	Object		Azimuth	Bearing
"Blunt"	Carmel		282° 59' 30"	N 77° 00' 30" W
	Watson		20° 00' 24"	N 20° 00' 24" E
(See Sketch p9.7)	①	N 10,200 W 17,000	307° 17' 20"	N 52° 42' 40" W
	②	N 10,700 W 17,000	324° 50' 29"	N 35° 09' 31" W
	③	N 10,200 W 16,000	22° 34' 19"	N 22° 34' 19" E
	④	N 10,200 W 15,500	52° 00' 15"	N 52° 00' 15" E
	4-A	N 10,700 W 18,000	301° 30' 12"	N 58° 29' 48" W
"Carmel"	"Clara"		344° 35' 41"	N 15° 24' 19" W
	Blunt		102° 59' 30"	S 77° 00' 30" E
	⑤	N 11,000 W 18,000	45° 35' 20"	N 45° 35' 20" E
	①	N 10,200 W 17,000	90° 24' 35"	S 89° 35' 25" E
	⑥	N 12,000 W 18,000	24° 12' 26"	N 24° 12' 26" E
	②	N 10,700 W 17,000	74° 53' 09"	N 74° 53' 09" E
	⑦	N 12,000 W 18,500	9° 38' 10"	N 9° 38' 10" E
	4-A	N 10,700 W 18,000	58° 46' 24"	N 58° 46' 24" E
"Circle" ECC.	"Clara"		181° 40' 23"	S 1° 40' 23" W
	⑧	N 13,000 W 18,500	159° 40' 37"	S 20° 19' 23" E
	⑨	N 14,000 W 20,000	226° 59' 39"	S 46° 59' 39" W
	⑪	N 14,000 W 18,500	139° 51' 33"	S 40° 08' 27" E
	⑫	N 14,000 W 18,000	123° 55' 53"	S 56° 04' 07" E
	⑬	N 14,000 W 17,200	111° 46' 29"	S 68° 13' 31" E
	10	N 14,000 W 19,000	168° 25' 30"	S 11° 34' 30" E
N. 14,000. W. 20,355.56	Watson		126° 37' 00"	S. 53° 23' 00" E
	Due East		90° 00'	

(15)

Sta	Object		Azimuth	Bearing
	Circle		321° 08' 58"	N. 38° 51' 02" W.
"Watson"	Blunt		200° 00' 24"	S. 20° 00' 24" W.
	①	N. 10,200 W 17,000	247° 57' 15"	S 67° 57' 15" W
	②	N 10,700 W 17,000	271° 58' 19"	N. 88° 01' 41" W
	⑨	N 14,000 W 20,000	308° 54' 08"	N. 51° 05' 52" W
	⑩	N. 14,000 W 19,000	316° 46' 46"	N 43° 13' 14" W
"Pierre"	"Watson"		344° 04' 44"	N. 15° 55' 16" W
	③	N 10,200 W 16,000	321° 49' 23"	N 38° 10' 37" W
	④	N 10,200 W 15,500	8° 10' 19"	N. 8° 10' 19" E
"Clara"	"Carmel"		164° 35' 41"	S 15° 24' 19" E
	⑤	N 11,000 W. 18,000	123° 24' 10"	S 56° 35' 50" E
	⑥	N 12,000 W 18,000	81° 53' 12"	N 81° 53' 12" E
	⑦	N 12,000 W 18,500	76° 36' 46"	N 76° 36' 46" E
	⑧	N 13,000 W 18,500	32° 22' 50"	N 32° 22' 50" E
	⑨	N 14,000 W 20,000	340° 55' 22"	N 19° 04' 38" W
	⑩	N 14,000 W 19,000	6° 28' 02"	N 6° 28' 02" E
	⑪	N 14,000 W 18,500	18° 55' 46"	N 18° 55' 46" E
	⑫	N 14,000 W 18,000	29° 47' 35"	N 29° 47' 35" E
	⑬	N 14,000 W 17,200	43° 13' 31"	N 43° 13' 31" E

SOUNDINGS MISSION BAY Proj. No. 6401.0

Sta. N. 9,200; 0+00 = W. 17,213.21

Sta	+	H.I.	−	Elev
B.M.	0.10	14.55		14.45
0			2.2	12.3
W 26			3.7	10.8
W 54			8.4	6.1
W 100			12.1	2.4

N 83+00; 0+00 = W 16,400

B.M.				11.27
	7.28	18.55		
0			3.8	14.7
W 50			5.3	13.2
W 100			9.8	8.7
W 150			13.0	5.5

3-7-57

Stamper
Blunt
Kelley
Wentworth

Top S.E. Cor Top Elec Timing Pad
Tierra Del Fuego Island

Base Flagpole W. End Model Yacht Pool

NOTE: These Soundings & Sec's Pg 16-19 are for Marine Advisers Study Only

N.7500; 0400 = W16,400

Sta	+	H.I.	−	Elev	
B.M.				11.27	
	10.10	21.37			
TBM.			5.29	16.08	
	1.91	17.99			
0			1.9	16.1	
W72			2.8	15.2	
W100			4.3	13.7	
W150			10.6	7.4	
W165			12.6	5.4	
T.P.			2.28	15.71	
	5.23	20.94			
BM			9.69	11.25~	

N.96+00; 0+00 = W16,240.43

Sta	+	H.I.	−	Elev	
B.M.	8.26	22.71		14.45	(See P.16)
T.P.	3.86	19.78	6.79	15.92	
T.P.	5.63	20.03	5.38	14.40	N.9600 W16235.45 (OM Hub)
T.P.	6.53	22.46	4.10	15.93	
B.M.			8.01	14.45~	14.45
TBM.	1.04	15.44		1440	
0			1.0	14.4	
E25			1.8	13.6	
E60			4.7	10.7	
E100			7.8	7.6	
E135.45			9.5	5.9	W16,100 set stk

0+00 SOUNDING = W.16,100; SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
0+00				10.1	
				10.3	
(3.0)				10.4	
2:25				10.4	
	1.6	+1.4	1+00	10.5	
50	6.9	3.9		10.5	

N. 96+00 SOUND EAST

Dist	Sound	Elev	Dist	Sound	Elev
	10.4	7.4		10.1	7.1
	10.2	7.2		10.1	7.1
	9.8	6.8		10.0	7.0
50	9.6	6.6	50	9.8	6.8
	9.5	6.5		9.7	6.7
(3.0)	9.4	6.4			
2.27	9.7	6.7			
	10.0	7.0			
2+00	10.1	7.1			
	9.9	6.9			
	9.8	6.8			
	100	7.0			
	10.0	7.0			
50	10.3	7.3			
	10.3	7.3			
	10.2	7.2			
	10.2	7.			
	10.2	7.2			
3+00	10.2	7.2			
	10.2	7.2			

3-7-57

N. 94+00; 0+00 = W 15,577.2 SOUND WEST

M.B 83, P. 34 W. C.B. Midway (& Drain Ditch Produced)

Sta	+	H.I.	−	Elev
B.M.				12.58
	4.90	17.48		
0			5.6	11.9
W 25			7.8	9.7
W 26			10.7	6.8
W 55			14.4	3.1

0+00 = W 15,620; SOUND WEST

Dist	Sound	Elev	Dist	Sound	Elev
0+00				10.6	7.9
	0.5	+2.2		10.6	7.9
	1.6	+1.1		10.7	8.0
(2.7)	2.9	0.2		10.7	8.0
	8.0	5.3	50	10.8	8.1
50	10.4	7.7		10.8	8.1
	10.5	7.8		10.8	8.1
	10.6	7.9		10.7	8.0
	10.6	7.9		10.8	8.1
	10.7	8.0	2+00	10.9	8.2
1+00	10.7	8.0			

3-7-57

W.154+00; 0+00 = N, 9800.00

Stg	+	H.I.	−	Elev
B.M.	4.44	17.02		12.58
0			11.9	5.1
5 8			11.1	5.9
5 12			9.1	7.9
5 21			7.2	9.8
5 26			5.3	11.7
5 40			5.6	11.4
5 50			4.6	12.4
N 38			14.5	2.5

Soundings For Marine Advisers Only

0+00 = N, 9800 SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+40	0.0	+2.5		10.8	8.3
50	0.5	+2.0		11.2	8.7
3:20	1.1	+1.4		11.4	8.9
(2.5)	1.8	+0.7	50	11.9	9.4
	3.4	0.9		12.3	9.8
	8.2	5.7		12.5	10.0
1+00	10.3	7.8		12.4	9.9
	10.4	7.9		13.0	10.5
			2+00	13.2	10.7

W.154+00 CONTD NORTH (19)

Dist	Sound	Elev
	13.2	10.7
	13.1	10.6
	13.6	11.1
	13.5	11.0
50	13.4	11.9
	12.9	10.4
	13.4	10.9
(2.5)	13.8	11.3
	13.5	11.0
3+00	13.0	10.5
	13.7	11.2
	13.5	11.0
	12.9	10.4
	11.9	9.4
50	10.6	8.1
	8.6	6.1
	6.3	3.8
	3.6	1.1
	3.0	0.5
4+00	2.7	0.2

BASELINE FOR X-SEC'S & SOUNDINGS

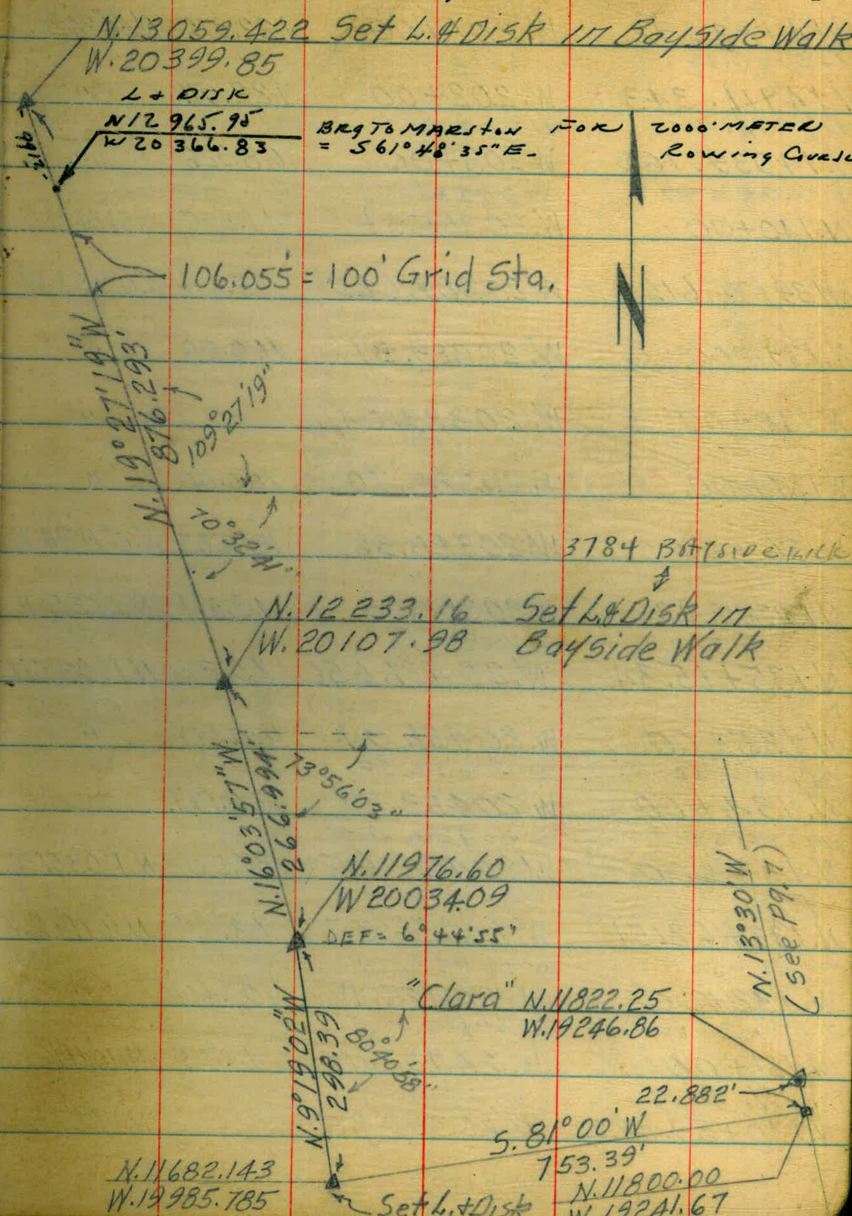
N.WLY AREA MISSION BAY W.O. 64501

N.	W.	B/L Dist.	Bearing
P.I. N.130+59.42	W 20399.85	63.02	N.19°27'19"W
N130+50	W20396.52		
N.130+00	W20378.86	106.055	"
N 129+50	W20361.20		
N.129+00	W20343.53	"	"
N.128+50	W.20325.87		
N128+00	W20308.21	"	"
N.127+50	W.20290.55		
N.127+00	W20272.89	"	"
N.126+50	W.20255.22		
N.126+00	W20237.56	"	"
N.125+50	W20219.90		
N.125+00	W20202.24	"	"
N.124+50	W.20184.58		
N.124+00	W20166.915	106.055	"
N.123+50	W20149.25		
N.123+00	W20131.59	70.885	N.19°27'19"W
P.I. N122+50	W.20113.93		
N122+33.16	W.20107.982	34.551'	N.16°03'57"W
N.122+00	W20098.43	104.064'	"
N.121+50	W.20084.03		
N.121+00	W20069.63	104.064'	"
N.120+50	W.20055.23		
N.120+00	W20040.83	24.355'	N.16°03'57"W
P.I. N.119+76.60	W20034.094	77.621'	N.9°19'02"W
N.119+50	W20029.73		
N.119+00	W20021.527	101.337'	"
N.118+50	W20013.32		
N.118+00	W20005.12	101.337'	"
N.117+50	W.19996.92		
N.117+00	W19988.714	18.095'	"
P.I. N.116+82.14	W19985.785		N.9°19'02"W

11-14-57 J.A. Stamper.

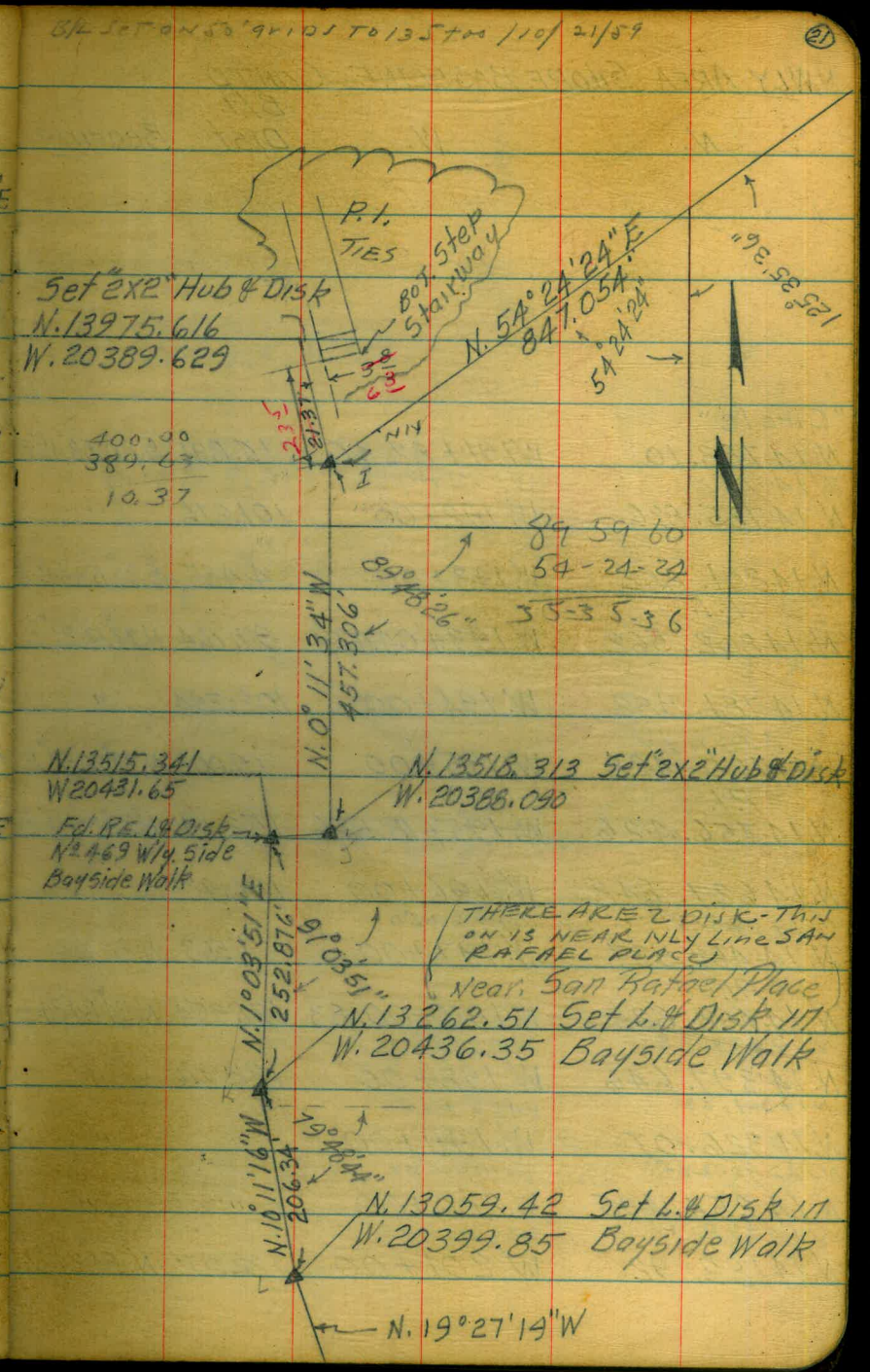
3874 1/2 B SWLK

DISK IS GONE BUT NAIL REMAINS - 5-69



N.WLY AREA SHORE BASELINE CONT'D.

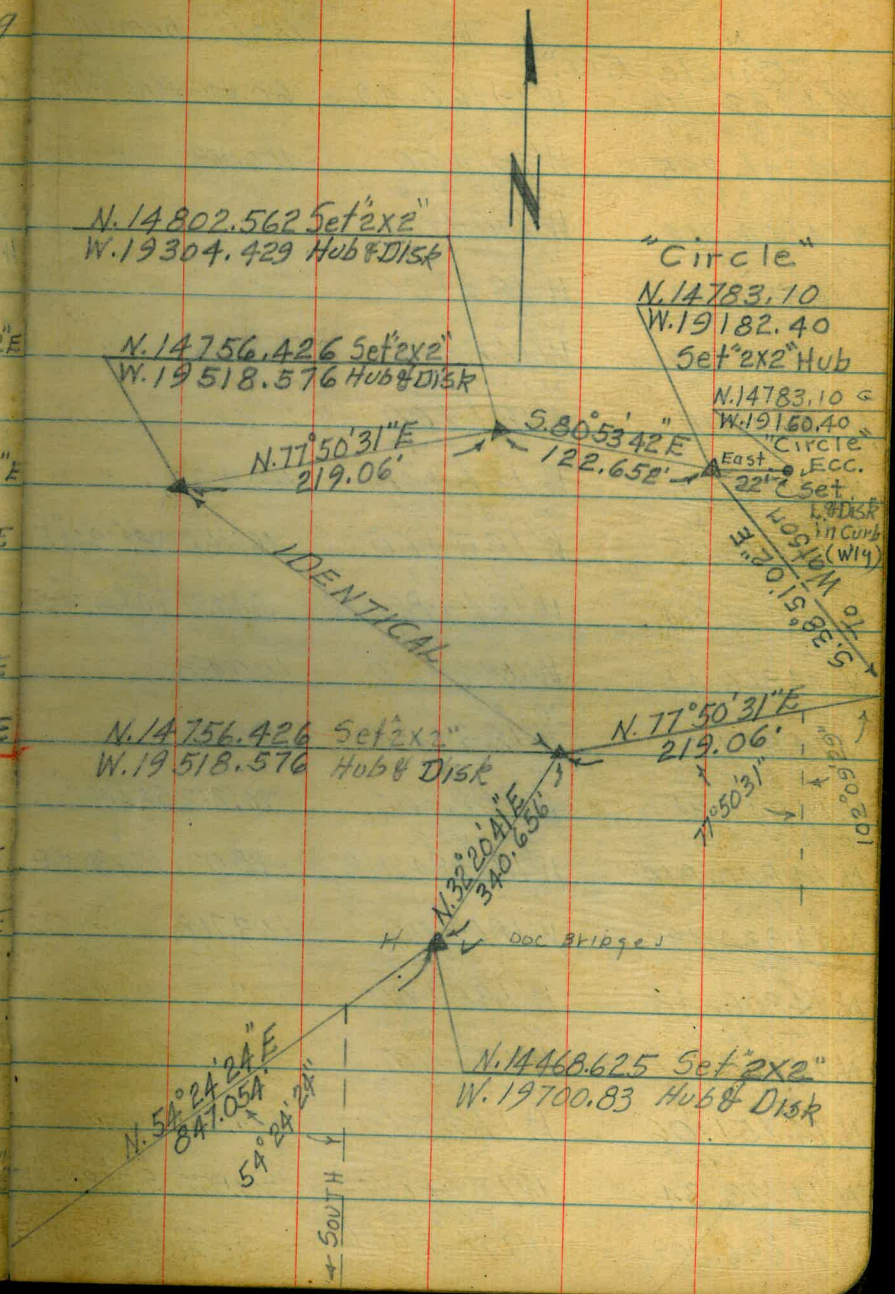
N.	W.	B/L Dist	Bearing
N14182.92	W.201+00	122.976	N54°24'24"E
N14147.13	W201+50		
N14111.343	W.202+00	122.976	"
N14075.55	W202+50		
N.14039.768	W203+00	68.326	"
N14003.99	W203+50		
N.140+00	W.20355.56	41.895	N.54°24'24"E
N.139+75.616	W.20389.629	75.616	N.0°11'34"W
N.139+00	W.20389.37	100.00	"
N.138+00	W.20,389.04	"	"
N.137+00	W.20388.70	100.00	"
N.136+00	W.20388.36	81.687	N.0°11'34"W
N.135+18313	W.20388.09	43.661	N86°05'51"E
N.135+15.34	W.20431.65	15.343	N.1°03'51"E
N.135+00	W.20431.94	100.017	"
N134+50	W20432.86		
N.134+00	W.20433.79	100.017	"
N133+50-SET HUB	W20434.72-		
N.133+00	W.20435.65	37.50'	N.1°03'51"E
P.I.			
N.132+62.51	W.20436.35	63.51'	N.10°11'16"W
N132+50	W20430.73		
N.132+00	W.20425.11	101.602	"
N131+50-SET HUB	W 20416.124		
N.131+00	W.20407.14	41.23'	N.10°11'16"W
P.I.			
N.130+59.422	W.20399.85		N.19°27'19"W



N.WLY AREA SHORE BASELINE CONTD

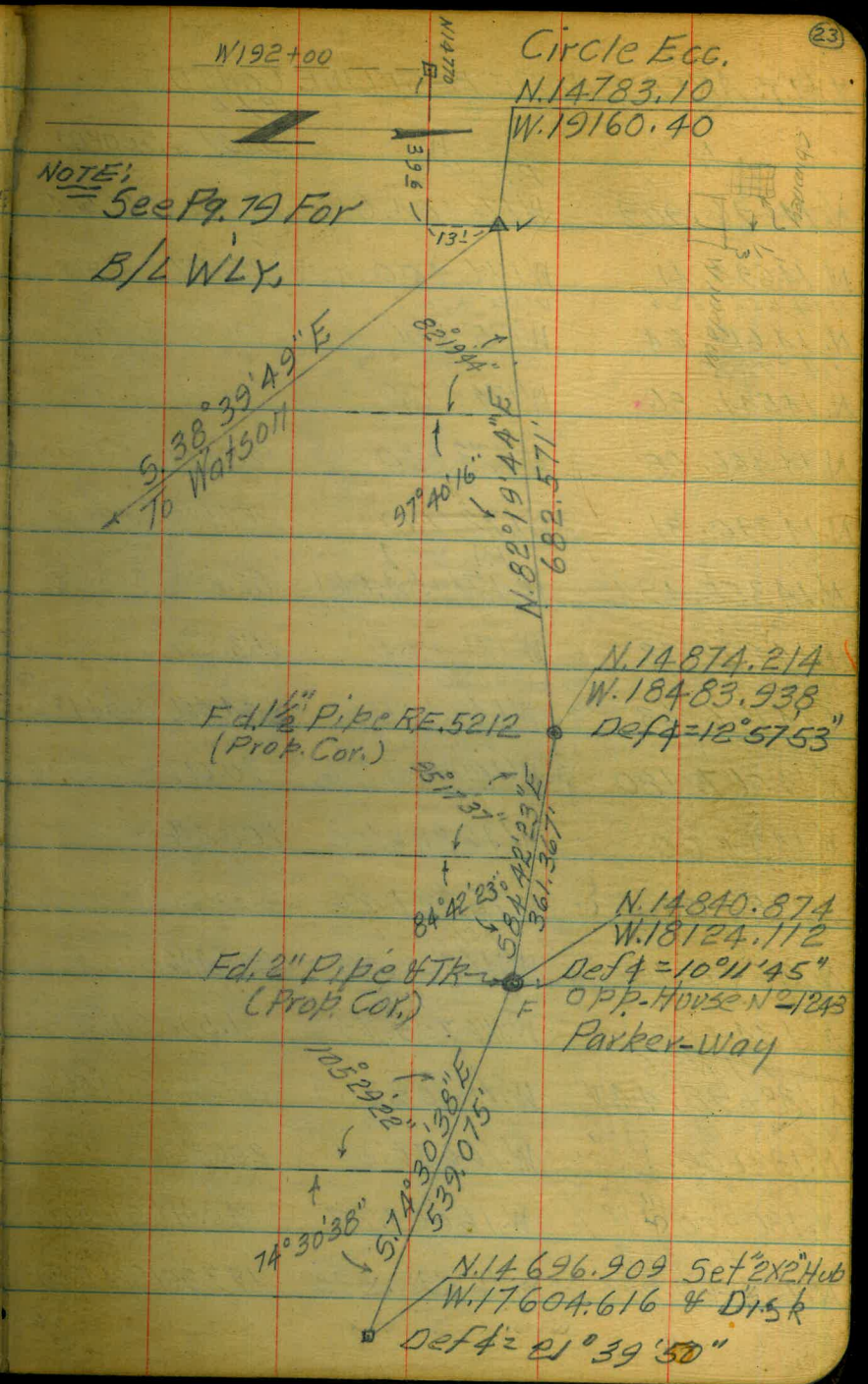
	N.	W.	B/L Dist	Bearing
"Circle"	N.14783.10	W191+82.40	16.891	S80°53'42"E
	N14770	W192+00		
	N.14785.826	W.192+00	101.276	"
P.I.	N.14801.852	W.193+00	4.485	S80°53'42"E
	N.14802.562	W.193+04.429	97.764	N.77°50'31"E
	N.14781.982	W.194+00	102.294	"
	N14747.17			
P.I.	N.14760.428	W.195+00	13.002	N.77°50'31"E
	N.14756.426	W.195+18.576	152.191	N32°20'41"E
	N.14627.848	W.196+00	186.912	"
	N 14548.89	W196+50		
P.I.	N.14469.937	W.197+00	1.553	N.32°20'41"E
	N.14468.625	W.197+00.83	121.954	N.54°24'24"E
	N 14433.43	W197+50		
	N.14397.646	W.198+00	122.976	"
	N14361.86	W198+50		
	N.14326.07	W.199+00	"	"
	N14290.285	W199+50		
	N.14254.495	W.200+00	"	"
	N14218.71	W200+50		
	N.14182.92	W 201+00	122.976	N.54°24'24"E

REVISED (See Pg. 79)



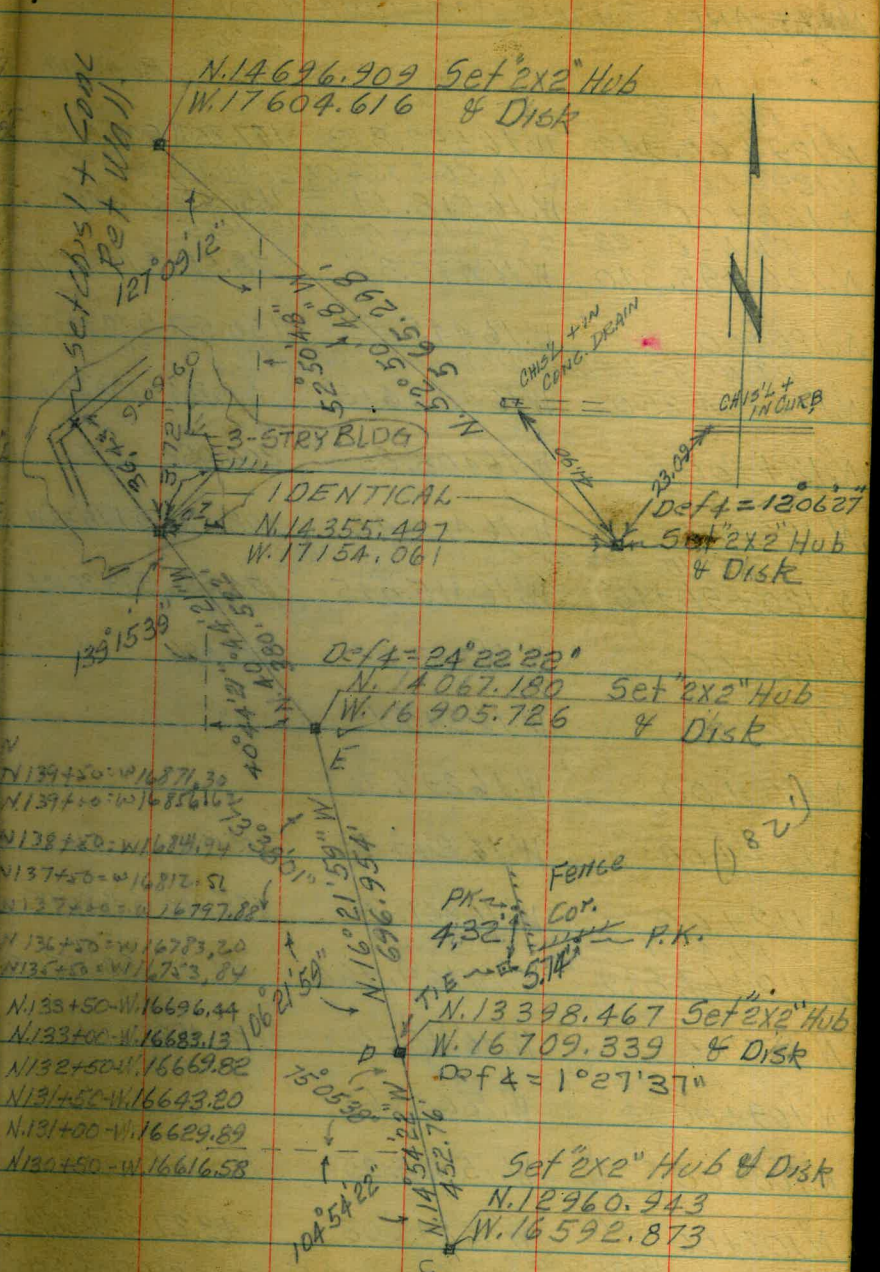
NWLY AREA SHORE BASELINE CONTD

N.	W.	B/L Dist	bearing
"Circle Ecc."			
N 14783.10	W 19160.40	60.945	N 82°19'44" E
N 14784.51	W 191+50		
N.14791.235	W191+00	100.903	"
N 14797.97	W 190+50		
N.14804.704	W190+00	"	"
N 14811.43	W 189+50		
N.14818.173	W189+00	"	"
N 14824.90	W 188+50		
N.14831.642	W188+00	"	"
N 14838.37	W 187+50		
N.14845.111	W187+00	"	"
N 14851.84	W 186+50		
N.14858.58	W186+00	100.903	"
N 14865.31	W 185+50		
N.14872.05	W185+00	16.161	N 82°19'44" E
	P.I. No 1		
N.14874.214	W184+83.938	84.297	S 84°42'23" E
N 14871.07	W 184+50		
N.14866.44	W.184+00	100.428	"
N 14861.80	W 183+50		
N.14857.17	W183+00	100.428	"
N 14852.54	W 182+50		
N.14847.91	W182+00	76.213	S 84°42'23" E
N 14843.28	P.I. No 2		
N.14840.874	W181+24.112	25.02	S 74°30'38" E
N.14834.192	W181+00	103.768	"
N 14820.34	W 180+50		
N.14806.48	W180+00	"	"
N 14792.63	W 179+50		
N.14778.77	W179+00	"	"
N 14764.92	W 178+50		
N.14751.06	W178+00	103.768	"
N 14737.20	W 177+50		
N.14723.34	W177+00	98.978	S 74°30'38" E
N 14709.48	P.I. No 3		
N.14696.909	W176+04.616	5.791	S 52°50'48" E



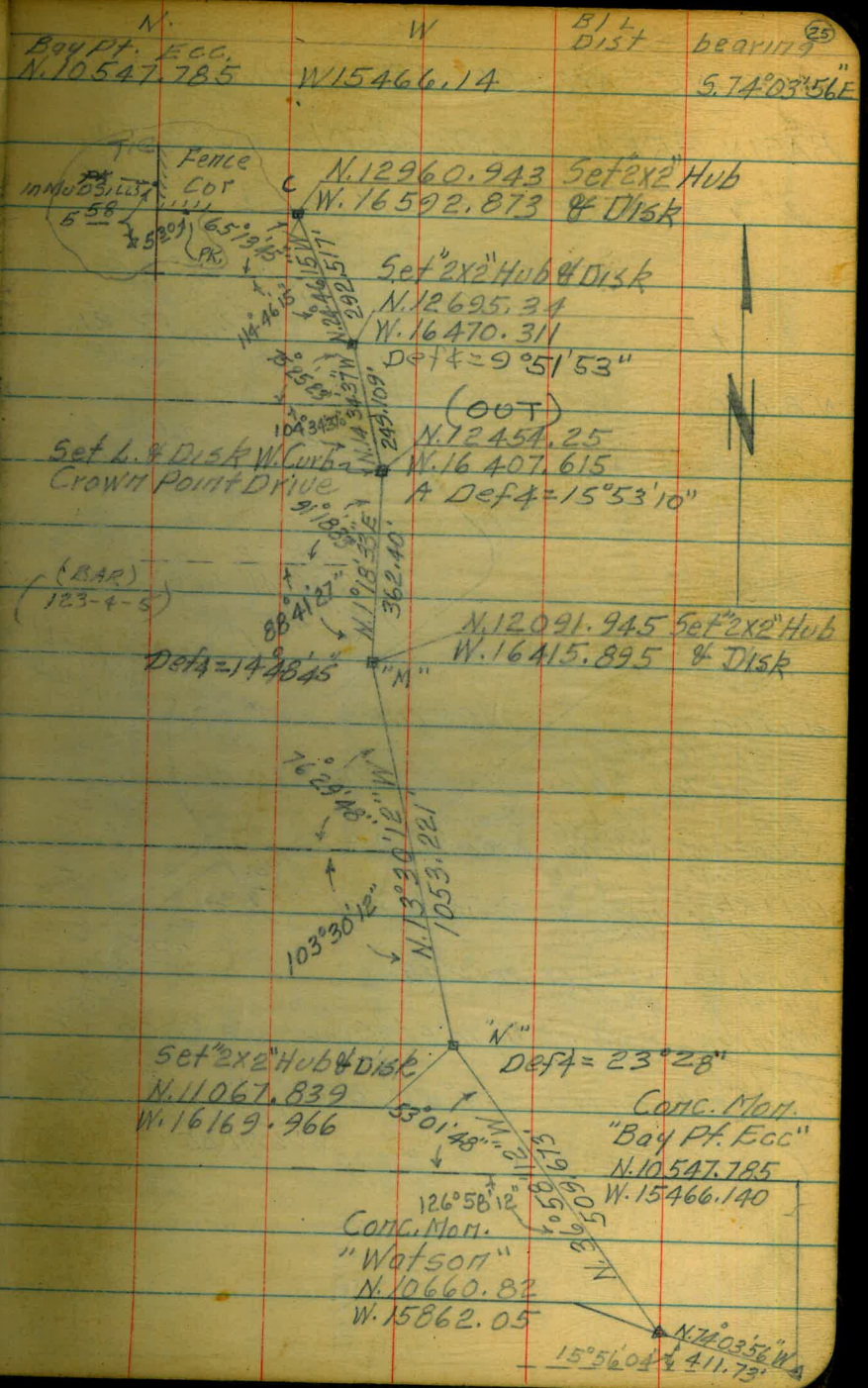
NWLY. AREA SHORE BASELINE CONT'D

	N.	W.	B/L Dist	Bearing
		P.I. Nº 3		
	N.14696.909	W176+04.616	5.791	S52°50'05"E
	N.14693.41	W176+00	125.467	"
	N14655.525	W175+50		
	N.14617.64	W175+00	"	"
	N14579.75	W174+50		
	N.14541.86	W174+00	"	"
	N.14466.08	W173+00	125.467	"
	N.14390.31	W172+00	57.638	S52°50'18"E
		P.I. Nº 4		
	N.14355.497	W.171+54.061	82.837	S40°44'21"E
	N.14292.73	W.171+00	153.229	"
	N142+00 175.30'	W17020.13		
	N.14176.63	W.170+00	144.455	S40°44'21"E
		P.I. Nº 5		
	N.14067.180	W.169+05.726	70.017	S.16°21'59"E
	N.140+00	W.16886.00	208.446	"
			104.223	
	N.138+00	W.16827.26	"	"
	N.136+00	W.16768.52	208.446	"
	N135+00	W16739.15		
	N.134+00	W.16709.79	1.598	S.16°21'59"E
	P.I. Nº 6			
	N.133+98.467	W.16709.339	205.378	S.14°54'22"E
	N.133+00	101.895		
	N.132+00	W.16656.51	206.964	103.482
	N131+00		103.482	
	N.130+00	W.16603.27	40.417	S.14°54'22"E
	P.I. Nº 7			
	N.129+60.943	W.16592.873	177.251	S.14°54'22"E



NWLY. AREA SHORE BASELINE CONTD.

	N.	W.	B/L Dist	Bearing
P.I. Nº 7				
	N.129+60.943	W.16592.873	177.251	S 21°46'15"E
	N.129+00	W.16564.75 (67.12 - 110.13 = 100)		
	N.128+00	W.16518.61	115.265	S.21°46'15"E
P.I. Nº 8 - 22½ Bk Cb + Line Lt. Pole Nº 4685				
	N.126+95.340	W.16470.311	98.511	S.14°34'37"E
	N.126+00	W.16445.52	150.597	S.14°34'37"E
P.I. Nº 9 - L.&Disk in W. Curb opp House Nº 3627 Riviera Dr.				
	N.124+54.250	W.16407.615	54.264	S.1°18'33"W
	N.124+00	W.16408.85	200.052	"
	N.122+00	W.16413.42	108.083	S.1°18'33"W
P.I. Nº 10 - 13½ Bk Cb. fce La Mancha & Riviera				
	N.120+91.945	W.16415.895	94.556	S.13°30'12"E
	N.120+00	W.16393.82	205.686	"
Ch. 31 + W Cb				
	N.118+00	W.16345.79	"	"
	N.116+00	W.16297.76	"	"
	N.114+00	W.16249.73	205.686	"
	N.112+00	W.16201.70	135.918	S.13°30'12"E
P.I. Nº 11 25½ Bk Cb. - House #3427				
	N.110+67.839	W.16169.966	84.91	S.36°58'12"E
19½ bk Cb. fce	N.110+00	W.16118.90	125.164	"
13½ Bk Cb fce	N.109+00	W.16043.63	"	"
6½ bk Cb.	N.108+00	W.15968.35	125.164	"
	N.107+00	W.15893.08	49.27	S.36°58'12"E
"Watson"	N.106+60.82	W15862.05	221.536	S.74°03'56"E
N.106+00		W15649.03	190.194	"

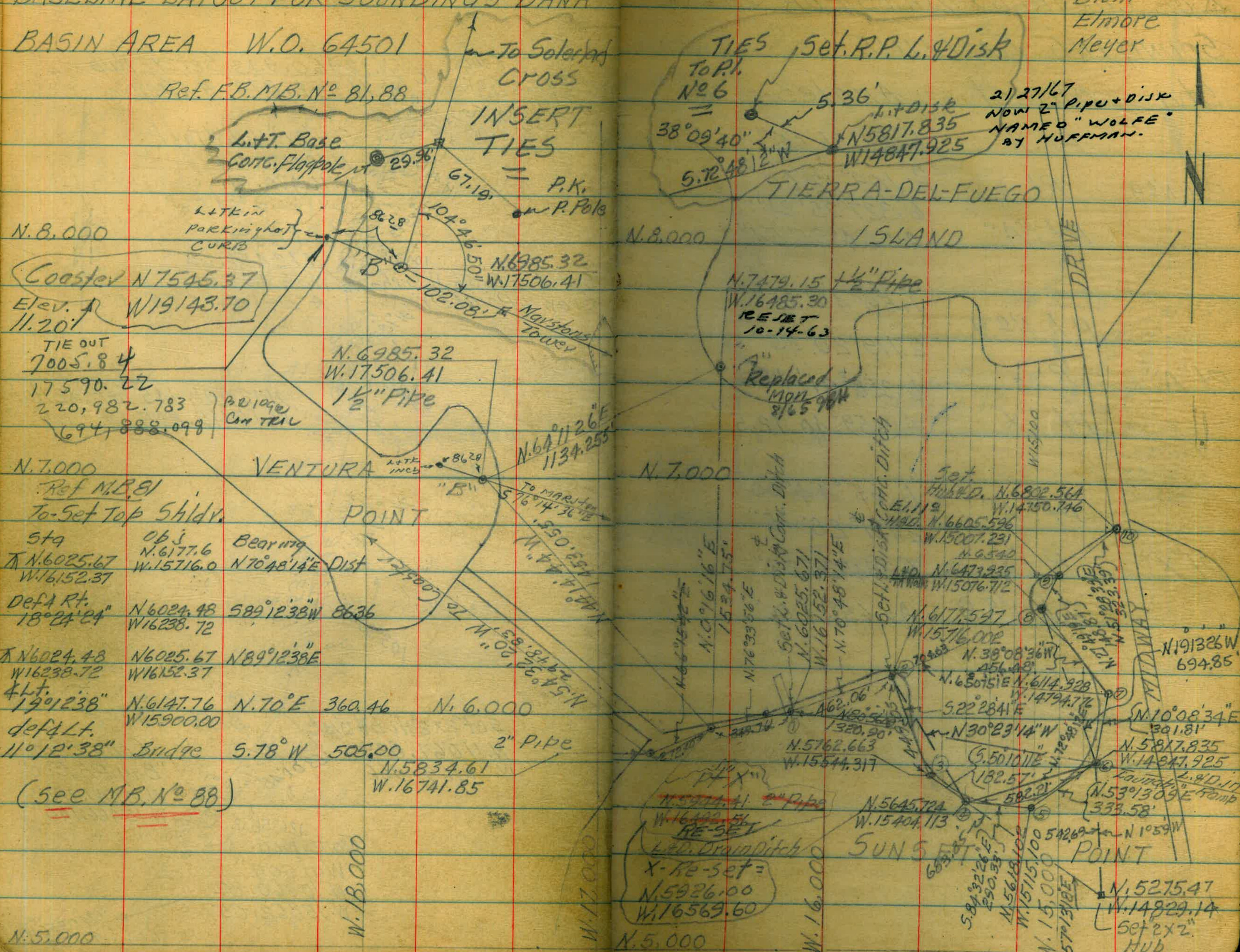


BASELINE LAYOUT FOR SOUNDINGS DANA BASIN AREA W.O. 64501

Ref. F.B. M.B. No 81, 88

11-19-57

Stamper
Blunt
Elmore
Meyer



To Solerind Cross
INSERT TIES
L.&T. Base Conc. Flagpole
29.96
67.19
P.K. P. Pole
104°46'50"
"B"
102.08'
N.6985.32 W.17506.41
Navstone Tower
N.8,000
Coaster N7545.37 W19143.70
Elev. 11.20'
TIE OUT
7005.84
17590.22
220,982.783
694,888.098
Bridge Con Trail
N.6985.32 W.17506.41 1½" Pipe
VENTURA POINT
N.64°11'26"E 1134.255'
N.7,000
Ref M.B.81
To-Set Top Shldr.
N.5834.61 W.16741.85
2" Pipe
N.6,000
(See M.B. No 88)
N.5,000
W.18,000
W.17,000
TIES Set R.P. L.&Disk
To P.I. No 6
5.36'
38°09'40"
N5817.835 W14847.925
S.72°48'12"W
2/27/67 NOW 2" Pipe + Disk NAMED "WOLFE" BY HUFFMAN.
TIERRA-DEL-FUEGO ISLAND
N.7479.15 1½" Pipe W.16485.30
RESET 10-14-63
Replaced Mon. 8/65
DRIVE
W.15,000
N.6802.564 W.14750.746
N.6605.596 W.15007.231
N.6473.935 W.15076.712
N.6177.537 W.15716.002
N.38°08'36"W 456.48'
N.6114.928 W.14794.776
S.22°28'41"E
N30°23'14"W
N.10°08'34"E 391.81'
N.5817.835 W.14847.925
N.53°13'09"E 333.58'
N.5762.663 W.15544.317
N.5645.724 W.15404.113
S.50°10'11"E 182.57'
X-Re-Set N.5926.00 W.16569.60
RE-SET
SUNSET POINT
MIDWAY
N.19°13'26"W 694.85'
N.5275.47 W.14829.14 Set 2x2" Hub
W.16,000

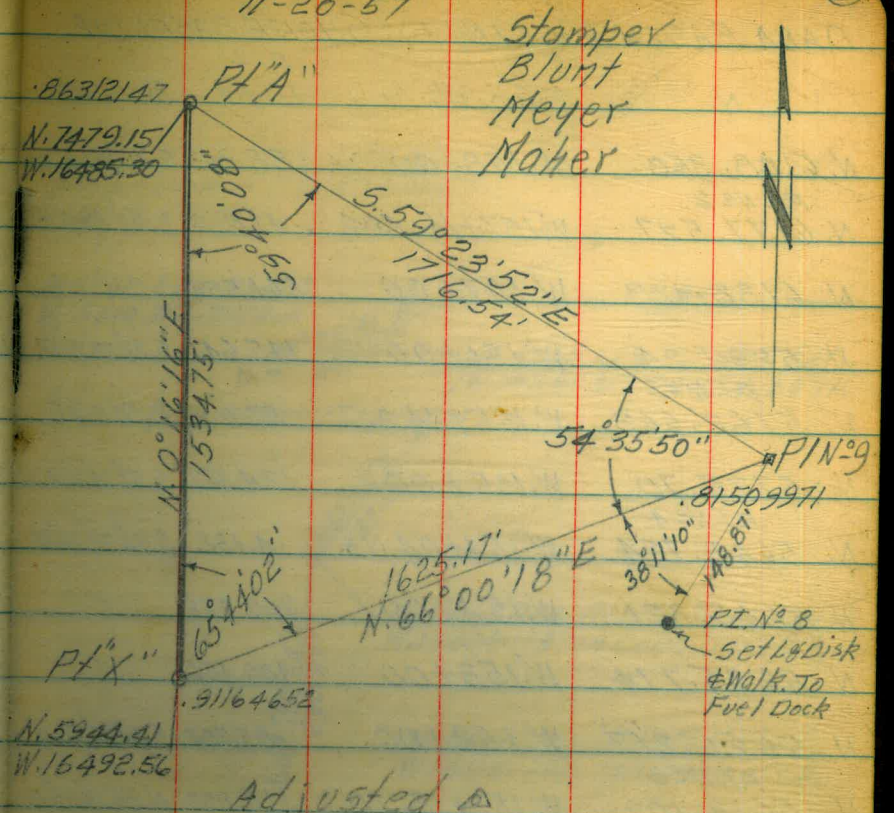
Sta	Obj	Bearing	Dist
⊼ N.6025.67 W16152.37	N.6177.6 W.15716.0	N70°48'14"E	
Def 4 Rt. 18°24'24"	N6024.48 W16238.72	S89°12'38"W	86.36
⊼ N6024.48 W16238.72	N6025.67 W16152.37	N89°12'38"E	
4 Lt. 19°12'38"	N.6147.76 W15900.00	N.70°E	360.46
def 4 Lt. 11°12'38"	Bridge	S.78°W	505.00

△ OF CONTROL POINTS FOR SHORE SOUNDING BASELINE

11-20-57

Stamper
Blunt
Meyer
Maher

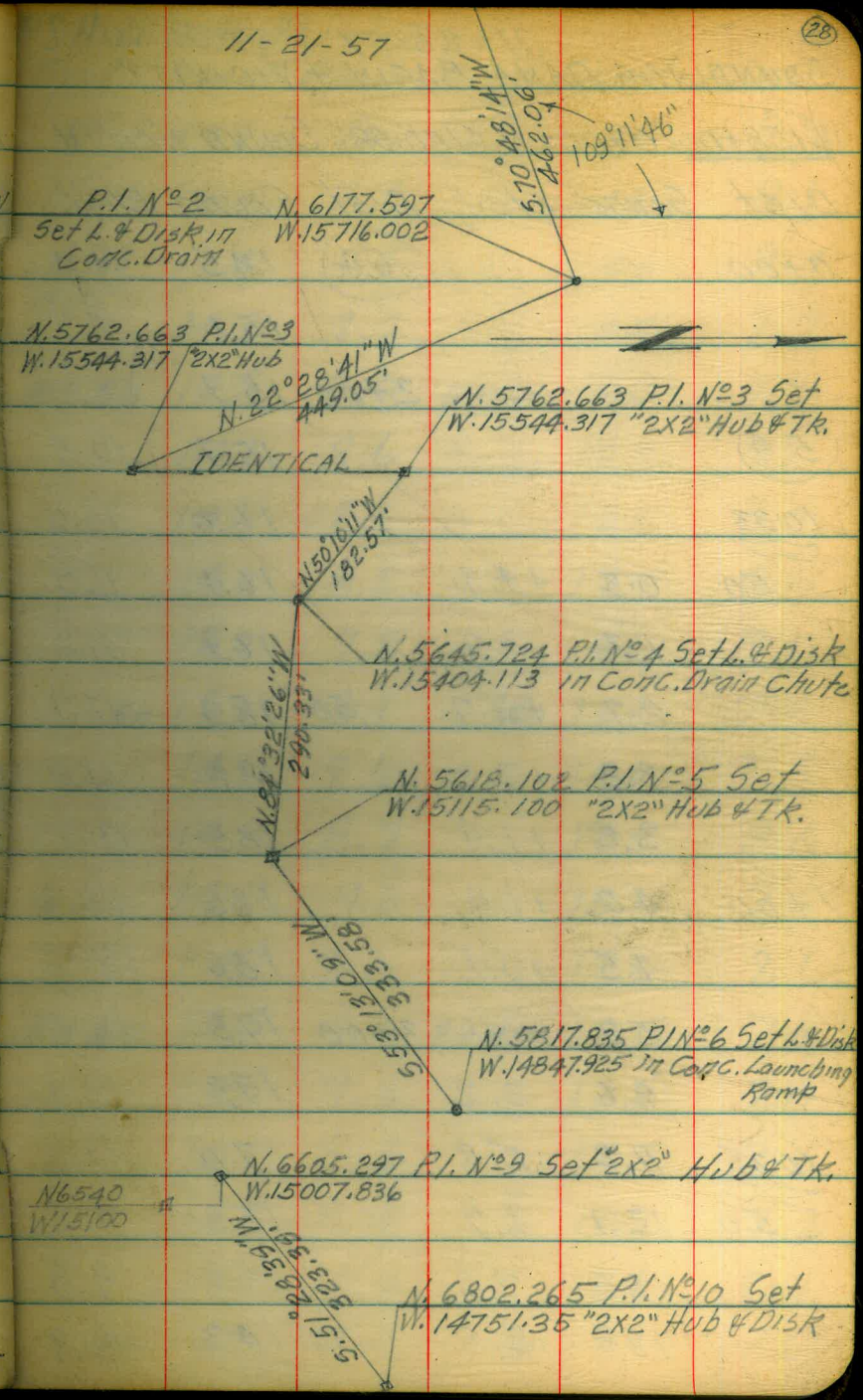
Sta	Object	Angles
	Pt "X"	1. 54°36'05"
P.I. №9	Rt ↗	2. 109°12'00"
	Pt. "A"	6. 327°35'24"
		Av. 54°35'54"
	P.I. №9	1. 59°40'25"
		2. 119°20'35"
Pt "A"	R ↗	6. 358°01'15"
	Pt. "X"	Av. 59°40'12.5"
	Pt. "A"	1. 65°44'00"
		2. 131°28'15"
Pt "X"	R ↗	6. 394°24'35"
	P.I. №9	Av. 65°44'06"



DANA BASIN & VICINITY SHORE BASELINE

	N.	W.	B/L Dist	Bearing
	N. 6148.350	W. 158+00	88.943'	S. 70°48'14"W
P.I. Nº 2	N. 6177.597	W. 157+16.002	41.854	S. 22°28'41"E
	N. 6138.923	W. 157+00	261.554	"
	N. 5897.24	W. 156+00	145.641	S. 22°28'41"E
P.I. Nº 3	N. 5762.663	W. 155+44.317	57.709	S. 50°10'11"E
	N. 5725.70	W. 155+00	124.862	S. 50°10'11"E
P.I. Nº 4	N. 5645.724	W. 154+04.113	4.132	S. 84°32'26"E
	N. 5645.331	W. 154+00	100.456	"
	N. 5635.774	W. 153+00	100.456	"
	N. 562:6.217	W. 152+00	85.287	S. 84°32'26"E
P.I. Nº 5	N. 5618.102	W. 151+15.10	18.853	N. 53°13'09"E
	N. 5629.39	W. 151+00	124.855	"
	N. 5704.148	W. 150+00	124.855	"
	N. 5778.906	W. 149+00	65.018	N 53°18'09"E
P.I. Nº 6	N. 5817.835	W. 148+47.925		
P.I. Nº 9	N. 6605.297	W. 150+07.836	9.88	N. 51°28'39"E.
	N 6611.315	W. 150+00	126.085	"
	N. 6688.11	W. 149+00	126.085	"
	N. 6764.905	W. 148+00	61.34	"
P.I. Nº 10	N. 6802.265	W. 147+51.35		N. 51°28'39"E

11-21-57



11-26-57 Plotted Roll 29

SOUNDINGS DANA BASIN & VICINITY.

W.158+00; 0+00 = N.6150.98; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+00	.	.	54	14.5	9.1
				15.1	9.7
			2+00	15.7	10.3
54				15.7	10.3
10:33				16.0	10.6
50	0.5	+4.9		16.4	11.0
	1.7	+3.7		16.9	11.5
	2.7	+2.7	50	18.3	12.9
	3.2	+2.2		18.4	13.0
	3.5	+1.9		18.5	13.1
1+00	4.0	+1.4		18.6	13.2
	4.5	+0.9		18.6	13.2
	5.3	+0.1	3+00	17.5	12.1
	8.6	3.2		17.3	11.9
10:35	11.2	5.8		17.0	11.6
50	12.1	6.7		15.2	9.8
	13.0	7.6		15.2	9.8
	13.9	8.5	50	14.3	8.9

W.158+00; NORTH (29)

Dist	Sound	Elev	Dist	Sound	Elev
55	13.6	8.1	55	14.4	8.9
	13.0	7.5		14.6	9.1
10:40	13.8	8.3		14.6	9.1
	14.2	8.7		13.2	7.7
4+00	14.3	8.8	6+00	13.2	7.7
	14.1	8.6		13.2	7.7
	14.1	8.6		13.5	8.0
	14.0	8.5		13.5	8.0
	13.0	7.5		13.6	8.1
50	13.6	8.1	50	13.0	7.5
	14.1	8.6		14.0	8.5
	14.2	8.7		13.5	8.0
	14.7	9.2		13.1	7.6
	14.7	9.2		12.6	7.1
5+00	14.5	9.0	7+00	12.5	7.0
	14.5	9.0		12.5	7.0
	14.1	8.6		12.7	7.2
	14.3	8.8		12.7	7.2
	14.4	8.9		13.6	8.1
50	14.3	8.8	50	13.1	7.6

W. 158+00 CONTD. NORTH 11-26-57

Dist	Sound	Elev	Dist	Sound	Elev
55	14.1	8.6	53	14.6	9.1
	14.4	8.9		15.0	9.5
	14.6	9.1		15.5	10.0
	14.6	9.1		14.8	9.3
8+00	14.2	8.7	10+00	14.7	9.2
	14.5	9.0		14.3	8.8
	14.5	9.0		13.8	8.3
10:45	14.6	9.1		13.0	7.5
	14.6	9.1		12.6	7.1
50	15.1	9.6	50	12.7	7.2
	14.8	9.3		11.9	6.4
	14.4	8.9		11.4	5.9
	14.2	8.7		10.9	5.4
	12.8	7.3		10.4	4.9
9+00	12.5	7.0	11+00	10.5	5.0
	12.3	6.8		10.9	5.4
	12.3	6.8		10.4	4.9
	12.3	6.8		9.3	3.8
	13.4	7.9		9.0	3.5
50	13.6	8.1	50	9.8	4.3

W. 158+00 NORTH

Dist	Sound	Elev.	Dist	Sound	Elev
55	9.4	3.9			
10:50	8.7	3.2			
	7.0	1.5			
	6.3	0.8			
12+00	5.6	0.1	14+00		
	4.7	+0.8			
	4.3	+1.2			
	3.6	+1.9			
	2.7	+2.8			
50	0.8	+4.7	50		
13+00			15+00		
50			50		

11-26-57

W.157+00; 0+00 = N. 6138.92; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+50			(56)	16.7	11.1
(55)			50	16.9	11.3
11:02	0+0	+5.5	11:05	17.6	12.0
	0.9	+4.6		18.6	13.0
	2.6	+2.9		19.4	13.8
1+00	3.3	+2.2		19.6	14.0
	3.6	+1.9	3+00	19.7	14.1
	4.2	+1.3		19.7	14.1
	4.7	+0.8		19.6	14.0
	5.5	0.0		19.4	13.8
50	8.1	2.6		19.2	13.6
	13.0	7.5	50	18.8	13.2
	13.5	8.0		18.0	12.4
	14.0	8.5		17.3	11.7
	14.2	8.7		16.7	11.1
2+00	14.7	9.2		15.7	10.1
	14.8	9.3	4+00	15.3	9.7
	15.3	9.8		15.0	9.4
	16.3	10.8		14.3	8.7

W. 157+00 NORTH

Dist	Sound	Elev	Dist	Sound	Elev
(56)	13.7	8.1	(56)	12.8	7.2
	13.7	8.1		12.2	6.6
50	13.3	7.7	50	12.2	6.6
	13.8	8.2		12.7	7.1
	13.4	7.8		13.4	7.8
	12.9	7.3		13.7	8.1
	12.7	7.1		13.9	8.3
5+00	13.2	7.6	7+00	14.1	8.5
11:10	13.9	8.3		14.1	8.5
	14.0	8.4		14.5	8.9
	14.3	8.7		14.2	8.6
	14.6	9.0		14.5	8.9
50	14.1	8.5	50	14.7	9.1
	14.2	8.6		14.7	9.1
	14.1	8.5		14.9	9.3
	14.1	8.5		14.9	9.3
	14.2	8.6		13.3	7.7
6+00	13.6	8.0	8+00	13.8	8.2
	13.6	8.0		13.3	7.7
	13.2	7.6		13.3	7.7

W. 157+00 CONTD NORTH 11-26-57

Dist	Sound	Elev	Dist	Sound	Elev
56	13.5	7.9	36	13.7	8.1
	13.6	8.0		13.3	7.7
50	13.6	8.0	50	13.7	8.1
	13.7	8.1		13.5	7.9
	13.5	7.9		13.5	7.9
	13.7	8.1		14.3	8.7
	13.5	7.9		14.0	8.4
9+00	13.5	7.9	11+00	14.3	8.7
11:15	14.0	8.4		14.4	8.8
	14.0	8.4		15.2	9.6
	14.0	8.4		15.0	9.4
	14.0	8.4		14.8	9.2
50	13.0	7.4	50	15.0	9.4
	13.0	7.4		15.2	9.6
	13.2	7.6		15.4	9.8
	14.3	8.7		15.3	9.7
	14.4	8.8		14.6	9.0
10+00	14.4	8.8	12+00	14.7	9.1
	14.7	9.1		14.3	8.7
	14.3	8.7		14.8	9.2

W. 157+00 NORTH

Dist	Sound	Elev	Dist	Sound	Elev
56	15.0	9.4	36	14.4	8.8
	15.7	10.1		14.4	8.8
50	15.3	9.7	50	14.4	8.8
	14.3	8.3		14.0	8.4
	13.2	7.6		14.0	8.4
	13.2	7.6		14.0	8.4
11:20	13.4	7.8		13.9	8.3
13+00	13.7	8.1	15+00	13.3	7.7
	14.3	8.3		13.1	7.5
	15.2	9.6	11:25	12.7	7.1
	15.3	9.7		11.2	5.6
	15.1	9.5		9.8	4.2
50	15.1	9.5	50	6.2	0.6
	15.3	9.7		5.2	+0.4
	15.2	9.6		4.6	+1.0
	14.6	9.0		3.5	+2.1
	14.1	8.5		1.5	+4.1
14+00	14.1	8.5	16+00		
	14.4	8.8			
	14.4	8.8			

11-26-57

W 156+00 : 0+00 = N 5897.24 ; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
(56)					
2+90	0.9	+4.7	(56)	14.5	8.9
3+00	2.0	+3.6		15.0	9.4
	3.0	+2.6	5+00	15.0	9.4
11+45	3.5	+2.1		15.8	10.2
	4.1	+1.5		16.2	10.6
	4.9	+0.7		17.0	11.4
50	5.9	0.3		17.0	11.4
	8.5	2.9	50	17.5	11.9
	11.9	6.3		18.0	12.4
	13.3	7.7		18.1	12.5
	13.5	7.9		18.0	12.4
4+00	14.0	8.4		17.8	12.2
	13.8	8.2	6+00	17.3	11.7
	13.5	7.9	11+50	17.1	11.5
	13.8	8.2		17.0	11.4
	13.9	8.3		16.6	11.0
50	14.0	8.4		16.5	10.9
	14.1	8.5	50	16.6	11.0
	14.2	8.6		16.5	10.9

W 156+00 NORTH

Dist	Sound	Elev	Dist	Sound	Elev
(56)	16.4	10.8	(56)	13.3	7.7
	15.9	10.3	11+55	12.2	6.6
	15.0	9.4		12.7	7.1
7+00	14.0	8.4	9+00	12.5	6.9
	14.1	8.5		12.2	6.6
	13.9	8.3		12.1	6.5
	13.5	7.9		12.3	6.7
	13.0	7.4		13.3	7.7
50	12.0	6.4	50	14.0	8.4
	13.1	7.5		14.9	9.3
	13.9	8.3		14.3	8.7
	14.1	8.5		14.2	8.6
	14.5	8.9		13.3	8.7
8+00	14.9	9.3	10+00	13.0	8.4
	14.9	9.3		12.3	6.7
	15.0	9.4		13.4	7.8
	15.1	9.5		13.8	8.2
	15.1	9.5		14.2	8.6
50	14.8	9.2	50	14.3	8.7
	13.5	7.9		13.8	8.2

W.156+00 CONTD NORTH 11-26-57

Dist	Sound	Elev
(36)	13.5	7.9
	13.0	7.4
12+00	13.1	7.5
11+00	12.6	7.0
	13.8	8.2
	14.0	8.4
	13.8	8.2
	14.1	8.5
50	14.3	8.7
	14.0	8.4
	13.7	8.1
	13.8	8.2
	13.7	8.1
12+00	13.8	8.2
	13.8	8.2
	13.8	8.2
	13.4	7.8
	13.3	7.7
50	13.2	7.6
	13.0	7.4

Dist	Sound	Elev
(36)	13.2	7.6
	13.1	7.5
	14.1	8.5
13+00	14.3	8.7
	14.3	8.7
	14.1	8.5
	14.2	8.6
	14.4	8.8
50	14.6	9.0
	14.9	9.3
	15.0	9.4
	15.0	9.4
	15.1	9.5
14+00	15.0	9.4
	15.2	9.6
	15.4	9.8
	15.6	10.0
	15.2	9.6
50	15.1	9.5
	14.9	9.3

W.156+00 NORTH

Dist	Sound	Elev
(36)	15.0	9.4
	14.7	9.1
12+05	14.4	8.8
15+00	14.7	9.1
	13.7	8.1
	13.0	7.4
	13.2	7.6
	13.3	7.7
50	15.0	8.4
	14.0	8.4
	14.3	8.7
	14.7	9.1
	15.0	9.4
16+00	15.2	9.6
	14.8	9.2
	14.3	8.7
	14.6	9.0
	14.8	9.2
50	15.0	9.4
	15.0	9.4

Dist	Sound	Elev
(36)	14.7	9.1
	13.9	8.3
	14.0	8.4
17+00	14.2	8.6
	14.2	8.6
	14.5	8.9
	14.2	8.6
	14.2	8.6
50	14.0	8.4
12+10	13.7	8.1
	13.5	7.9
	13.0	7.4
	12.3	6.7
18+00	11.0	5.4
	8.0	2.4
	5.7	0.1
	4.4	+1.2
	3.4	+2.2
50	1.8	+3.8

11-26-57

W.155+00: 0+00 = N5725.70; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+50	0.0	+5.2	(52)	11.9	6.7
(52)	1.4	+3.8	50	11.9	6.7
1:20	2.5	+2.7		12.1	6.9
	3.3	+1.9		12.1	6.9
	4.1	+1.1		12.1	6.9
1+00	5.4	0.2		12.0	6.8
	6.5	1.3	3+00	12.3	7.1
	6.6	1.4		12.3	7.1
	7.0	1.8		12.0	6.8
	8.2	3.0		12.1	6.9
50	9.0	3.8		12.2	7.0
	9.8	4.6	50	12.4	7.2
	10.6	5.4		12.4	7.2
	11.2	6.0		12.4	7.2
	11.5	6.3		12.4	7.2
2+00	11.7	6.5		12.7	7.5
	11.8	6.6	4+00	12.5	7.3
	11.8	6.6		12.5	7.3
	12.0	6.8		12.5	7.3

W.155+00 NORTH

Dist	Sound	Elev	Dist	Sound	Elev
(51)	12.5	7.4	(51)	13.1	8.0
1:25	12.7	7.6		13.2	8.1
50	12.7	7.6	50	13.4	8.3
	12.7	7.6		13.3	8.2
	12.7	7.6		12.8	7.7
	12.8	7.7		13.0	7.9
	12.8	7.7		13.0	7.9
5+00	12.7	7.6	7+00	13.5	8.4
	12.7	7.6		14.0	8.9
	12.7	7.6		13.7	8.6
	13.0	7.9		14.3	9.2
	13.0	7.9		14.3	9.2
50	13.2	8.1	50	15.1	10.0
	13.2	8.1	1:30	14.5	9.4
	13.2	8.1		14.6	9.5
	12.8	7.7		14.4	9.3
	12.8	7.7		14.7	9.6
6+00	13.0	7.9	8+00	15.2	10.1
	13.1	8.0		15.5	10.4
	13.1	8.0		15.6	10.5

W. 155+00 CONTD NORTH 11-26-57

Dist	Sound	Elev	Dist	Sound	Elev
(5.1)	15.8	10.7	(5.0)	13.6	8.6
	15.8	10.7		13.3	8.3
50	15.2	10.1	50	13.5	8.5
	14.7	9.6		13.5	8.5
	14.5	9.4	11:35	13.3	8.3
	14.3	9.2		13.4	8.4
	14.3	9.2		13.8	8.8
9+00	14.6	9.5	11+00	13.5	8.5
	14.5	9.4		13.4	8.4
	14.5	9.4		13.3	8.3
	14.8	9.7		13.1	8.1
	14.4	9.3		13.2	8.2
50	14.4	9.3	50	12.7	7.7
	14.6	9.5		12.8	7.8
	14.4	9.3		12.4	7.4
	14.3	9.2		11.0	6.0
	14.1	9.0		11.1	6.1
10+00	13.8	8.7	12+00	11.0	6.0
	13.3	8.2		11.6	6.6
	13.8	8.7		13.0	8.0

W. 155+00 NORTH

Dist	Sound	Elev	Dist	Sound	Elev
(50)	13.3	8.3	(50)	12.7	7.7
	14.2	9.2		12.5	7.5
50	14.3	9.3	50	12.2	7.2
	14.4	9.4		12.3	7.3
	14.6	9.6		12.5	7.5
	13.3	8.3		13.5	8.5
	13.3	8.3		13.4	8.4
13+00	13.6	8.6	15+00	13.4	8.4
	13.7	8.7		13.5	8.5
11:40	14.0	9.0		13.6	8.6
	13.8	8.8		13.5	8.5
	13.7	8.7		13.5	8.5
50	12.6	7.6	50	13.2	8.2
	12.6	7.6		13.3	8.3
	12.4	7.4		13.5	8.5
	13.2	8.2		13.9	8.9
	13.0	8.0		13.7	8.7
14+00	12.3	7.3	16+00	13.5	8.5
	12.6	7.6		13.2	8.2
	12.6	7.8		13.5	8.5

W.155+00 CONTD NORTH 11-26-57

Dist	Sound	Elev	Dist	Sound	Elev
50	13.5	8.5	50	14.0	9.0
1;25	14.1	9.1		13.8	8.8
50	14.5	9.5	50	13.5	8.5
	14.5	9.5		13.6	8.6
	14.6	9.6		14.3	9.3
	14.3	9.3		14.1	9.1
	14.4	9.4		13.2	8.2
17+00	14.3	9.3	19+00	12.8	7.8
	14.1	9.1		13.0	8.0
	13.0	8.0		12.8	7.8
	12.8	7.8		12.2	7.2
	13.3	8.3		11.2	6.2
50	14.2	9.2	50	10.3	5.3
	14.7	9.7		9.1	4.1
	14.5	9.5		7.0	2.0
	14.0	9.0		5.7	0.7
	13.4	8.4		5.0	0.0
18+00	13.3	8.3	20+00	3.9	+1.1
	13.6	8.6			
	14.0	9.0			

W.154+00;0+00=N5695.33; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+00	0.0	+4.5	45	13.0	8.5
2;15	1.8	+2.7	2+00	13.0	8.5
45	3.1	+1.4		13.2	8.7
	4.8	0.3		13.3	8.8
	6.7	2.2		13.3	8.8
50	8.1	3.6		13.3	8.8
	8.1	3.6	50	13.3	8.8
	8.2	3.7		13.7	9.2
	9.2	4.7		13.2	8.7
	11.1	6.6		13.0	8.5
1+00	11.6	7.1		13.0	8.5
	11.9	7.4	3+00	13.1	8.6
	12.1	7.6		13.2	8.7
	12.1	7.6		13.3	8.8
	12.2	7.7		13.0	8.5
50	12.3	7.8		13.1	8.6
	12.8	8.3	50	13.2	8.7
	12.9	8.4		13.2	8.7
	12.9	8.4		13.2	8.7

W154+00 CONTD NORTH 11-26-37

Dist	Sound	Elev	Dist	Sound	Elev
45	13.2	8.7	45	13.2	8.7
	13.1	8.6		12.9	8.4
4+00	13.1	8.6	6+00	12.8	8.3
	13.3	8.8	2:20	12.7	8.2
	13.3	8.8		12.4	7.9
	13.2	8.7		12.3	7.8
	13.1	8.6		12.0	7.5
50	13.3	8.8	50	12.0	7.5
	13.2	8.7		11.8	7.3
	13.0	8.5		11.6	7.1
	12.9	8.4		11.1	6.6
	12.9	8.4		10.6	6.1
5+00	12.8	8.3	7+00	10.6	6.1
	13.0	8.5		11.1	6.6
	13.3	8.8		12.0	7.5
	13.3	8.8		12.7	8.2
	13.4	8.9		13.0	8.5
50	13.4	8.9	50	13.1	8.6
	13.3	8.8		13.1	8.6
	13.3	8.8		13.1	8.6

W154+00; NORTH

Dist	Sound	Elev	Dist	Sound	Elev
44	13.1	8.7	44	14.7	10.3
	13.7	9.3		14.0	9.6
8+00	13.6	9.2	10+00	13.8	9.4
2:23	13.5	9.1		13.3	8.9
	13.8	9.4		13.2	8.8
	14.0	9.6		13.1	8.7
	14.3	9.7		13.1	8.7
50	15.1	10.7	50	13.1	8.7
	15.2	10.8		12.8	8.4
	15.8	11.4		12.6	8.2
	15.8	11.4		12.7	8.3
	15.6	11.2		12.8	8.4
9+00	15.2	10.8	11+00	12.9	8.5
	14.8	10.4		12.9	8.5
	15.1	10.7		12.9	8.5
	15.3	10.9		12.9	8.5
	15.6	11.2		13.1	8.7
50	15.7	11.3	50	13.4	9.0
	15.5	11.1		13.4	9.0
	15.2	10.8		13.4	9.0

W154+00 CONTD NORTH 11-26-57

Dist	Sound	Elev	Dist	Sound	Elev
43	13.5	9.2	43	12.9	8.6
	13.3	9.0		12.2	7.9
12+00	12.3	8.0	14+00	12.2	7.9
2:27	12.4	8.1		12.0	7.7
	12.9	8.6		12.1	7.8
	13.0	8.7		12.0	7.7
	13.2	8.9		12.1	7.8
50	13.2	8.9	50	11.9	7.6
	12.9	8.6		12.3	8.0
	12.3	8.0		12.8	8.5
	13.0	8.7		12.6	8.3
	13.3	8.0		12.3	8.0
13+00	13.7	9.4	15+00	12.0	7.7
	13.4	9.1	2:29	12.0	7.7
	12.9	8.6		11.9	7.6
	12.9	8.6		11.6	7.3
	12.7	8.4		11.7	7.4
50	12.8	8.5	50	12.3	8.0
	13.2	8.9		13.1	8.8
	13.8	9.5		13.2	8.9

W154+00 NORTH

Dist	Sound	Elev	Dist	Sound	Elev
43	13.3	9.0	43	10.4	6.1
	13.2	8.9		11.1	6.8
16+00	12.9	8.6	18+00	11.6	7.3
2:31	12.4	8.1	2:33	13.0	8.7
	11.9	7.6		13.8	9.5
	11.7	7.4		13.7	9.4
	11.9	7.6		12.0	7.7
50	12.1	7.8	50	10.8	6.5
	12.1	7.8		9.5	5.2
	12.0	7.7		7.8	3.5
	11.9	7.6		6.8	2.5
	11.8	7.5		6.0	1.7
17+00	11.5	7.2	19+00	5.9	1.6
	11.6	7.3		5.2	0.9
	11.3	7.0		4.0	+0.3
	11.2	6.9		3.5	+0.8
	10.8	6.5		3.3	+1.0
50	10.1	5.8	50	2.6	+1.7
	10.1	5.8		2.0	+2.3
	10.1	5.8		1.4	+2.9

W 153+00; 0+00 = N 5635.77 SOUND 11/26/57 NORTH

DIST	SOUND	ELEV	DIST	SOUND	ELEV
0+00			2+00	12.7	8.6
2:54			(41)	12.7	8.6
(41)				12.7	8.6
	1.3	+2.8		12.8	8.7
	2.7	+1.4		12.8	8.7
50	3.8	+0.3	50	12.9	8.8
	5.0	0.9		13.1	9.0
	6.1	2.0		13.2	9.1
	6.9	2.8		13.5	9.4
	9.2	5.1		13.5	9.4
1+00	10.3	6.2	3+00	13.7	9.6
	11.0	6.9		13.7	9.6
	11.2	7.1		13.6	9.5
	11.2	7.1		13.6	9.5
	11.6	7.5		13.2	9.1
50	11.8	7.7	50	12.2	8.1
	12.0	7.9		11.7	7.6
	11.7	7.6		11.8	7.7
	11.8	7.7		11.5	7.4
	12.3	8.2		11.0	6.9

W 153+00 NORTH

DIST	SOUND	ELEV	DIST	SOUND	ELEV
4+00	10.9	6.9	6+00	11.7	7.7
2:58	10.8	6.8	(40)	11.7	7.7
(40)	11.2	7.2		11.7	7.7
	11.5	7.5		11.8	7.8
	11.9	7.9		12.1	8.1
50	12.1	8.1	50	12.0	8.0
	12.2	8.2		11.9	7.9
	12.2	8.2		11.3	7.3
	12.0	8.0		11.9	7.9
	11.5	7.5		12.1	8.1
5+00	11.5	7.5	7+00	12.1	8.1
	11.3	7.3	3:01	12.1	8.1
	11.2	7.2		12.7	8.7
	11.1	7.1		13.8	9.8
	11.0	7.0		14.0	10.0
50	11.2	7.2	50	13.2	9.2
	11.2	7.2		12.0	8.0
	11.5	7.5		11.7	7.7
	11.6	7.6		11.2	7.2
	11.7	7.7		11.0	7.0

W153+00 CONTD NORTH 11-26-57

DIST	SOUND	ELEV	DIST	SOUND	ELEV
8+00	10.9	6.9	10+00	15.0	11.1
(4.0)	10.9	6.9	(3.9)	15.3	11.4
	10.9	6.9		15.5	11.6
	10.9	6.9		15.6	11.7
	11.1	7.1		15.5	11.6
50	11.3	7.3	50	15.2	11.3
	11.4	7.4		14.5	10.7
	11.8	7.8		14.0	10.1
	12.1	8.1		13.8	9.9
	12.4	8.4		13.3	9.4
9+00	12.8	8.8	11+00	13.0	9.1
	13.1	9.1	3:03	12.7	8.8
	13.2	9.2		12.2	8.3
	13.3	9.3		12.8	8.9
	13.3	9.3		12.2	8.3
50	13.9	9.9	50	12.3	8.4
	14.2	10.2		12.7	8.8
	14.3	10.3		12.5	8.6
	14.3	10.3		12.0	8.1
	14.8	10.8		12.2	8.3

W153+00 NORTH

DIST	SOUND	ELEV	DIST	SOUND	ELEV
12+00	11.9	8.0	14+00	13.0	9.1
(3.9)	12.2	8.3	3:06	12.8	8.9
	12.2	8.3	(3.9)	12.7	8.8
	12.0	8.1		12.6	8.7
	12.2	8.3		12.4	8.5
50	12.7	8.8	50	13.1	9.2
	12.8	8.9		13.1	9.2
	12.9	9.0		13.1	9.2
	13.4	9.5		13.3	9.4
	13.5	9.6		13.2	9.3
13+00	13.5	9.6	15+00	13.2	9.3
	13.2	9.3		13.0	9.1
	13.2	9.3		12.4	8.5
	13.4	9.5		12.1	8.2
	13.3	9.4		12.1	8.2
50	13.1	9.2	50	12.1	8.2
	13.2	9.3		12.0	8.1
	13.2	9.3		11.6	7.7
	13.0	9.1		10.9	7.0
	13.0	9.1		11.4	7.5

W153+00 CONT'D NORTH 11-26-57

DIST	SOUND	ELEV	DIST	SOUND	ELEV
16+00	11.3	7.5	18+00	11.3	7.5
3:08	11.3	7.5	3:11	10.8	7.0
(38)	11.3	7.5	(38)	9.9	6.1
	12.1	8.3		5.6	1.8
	12.5	8.7		4.3	0.5
50	12.0	8.2	50	3.5	+0.3
	11.4	7.6		3.0	+0.8
	11.0	7.2		2.4	+1.4
	10.9	7.1		2.0	+1.8
	10.7	6.9		1.8	+2.0
17+00	10.4	6.6	19+00	1.5	+2.3
	11.1	7.3		0.7	+3.1
	12.1	8.3			
	11.9	8.1			
	11.6	7.8			
50	12.0	8.2			
	11.8	8.0			
	11.3	7.5			
	11.3	7.5			
	11.3	7.5			

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W152+00; 0+00 = N5626.22; SOUND NORTH

DIST	Sound	Elev	DIST	Sound	Elev
0+00			(4.5)	12.0	7.5
(4.5)			2+00	11.8	7.3
0+22	0.0	+4.5	9:50	11.8	7.3
9:46	1.3	+3.2		12.0	7.5
	2.7	+1.8		12.0	.
50	3.9	+0.6		12.0	.
	5.3	0.8	50	12.0	.
	6.1	1.6		12.0	.
	7.6	3.1		12.0	.
	9.5	5.0		12.0	7.5
1+00	11.2	6.7		12.4	7.9
	12.0	7.5	3+00	12.2	7.7
	12.5	8.0		12.3	7.8
	12.9	8.4		12.9	8.4
	13.0	8.5		12.9	8.4
50	13.2	8.8		12.8	8.3
	13.4	8.9	50	13.0	8.5
	13.2	8.7		13.0	8.5
	12.8	8.3		13.0	8.5

W.152+00 CONTD NORTH 11-27-57

Dist	Sound	Elev	Dist	Sound	Elev
(4.5)	13.0	8.5	(4.6)	12.5	7.9
	12.7	8.2		12.6	8.0
4+00	12.1	7.6	6+00	12.8	8.2
	12.2	7.7		12.6	8.0
	12.5	8.0	10:10	12.2	7.6
	12.5	8.0		12.0	7.4
	12.9	8.4		12.0	7.4
50	13.0	8.5	50	12.0	7.4
	12.7	8.2		12.5	7.9
9:55	12.7	8.2	10:18	12.9	8.3
	12.7	8.2	(4.7)	12.8	8.2
	12.3	7.8		12.3	7.7
5+00	12.3	7.8	7+00	12.0	7.4
	12.2	7.7		12.2	7.6
	12.1	7.6		12.3	7.7
10:05	12.4	7.9		13.0	8.4
(4.6)	12.2	7.7		13.0	8.4
50	12.2	7.7	50	12.2	7.6
	12.5	8.0		11.8	7.2
	12.7	8.2		10.4	5.8

W.152+00 NORTH

Dist	Sound	Elev	Dist	Sound	Elev
	10.0	5.3		12.0	7.3
	10.0	5.3	(4.9)	12.2	7.5
8+00	9.4	4.7	10+00	12.5	7.8
10:20	9.1	4.4	10:25	13.0	8.3
(4.7)	8.4	3.7		13.3	8.5
	8.0	3.3		14.0	9.3
	7.3	2.6		14.0	9.3
50	7.2	2.5	50	14.5	9.8
	5.3	0.6		14.9	10.2
	5.4	0.7		15.2	10.5
	5.2	0.5		15.3	10.6
	5.2	0.5		15.9	11.2
9+00	5.0	0.3	11+00	15.6	10.9
	5.0	0.3		15.2	10.5
	5.0	0.3		15.0	10.3
	6.5	1.8		14.8	10.1
	8.9	4.2		14.8	10.1
50	10.0	5.3	50	14.9	10.2
	10.2	5.5		15.0	10.3
	10.9	6.2		14.7	10.0

W.152+00 CONTD NORTH 11-27-57

Dist	Sound	Elev	Dist	Sound	Elev
4.7	14.0	9.3	4.7	12.9	8.2
	13.4	8.7		13.0	8.3
42+00	12.4	7.7	14+00	13.5	8.8
	12.5	7.8		13.5	8.8
	12.5	7.8		14.0	9.3
	13.0	8.0		14.0	9.3
	13.0			14.3	9.6
50	13.0		50	15.0	10.3
	13.0			14.8	10.1
	12.7	8.0		14.6	9.9
	12.7	8.0		14.0	9.3
	12.8	8.1		15.0	10.3
13+00	12.6	7.9	15+00	14.8	10.1
	13.1	8.4		14.8	10.1
	13.3	8.6		14.7	10.0
	13.5	8.8		14.5	9.8
	13.7	9.0		14.9	10.2
50	13.5	8.8	50	14.9	
	13.8	9.1		14.9	
	13.2	8.5		14.9	10.2

W.152+00 NORTH

Dist	Sound	Elev	Dist	Sound	Elev
4.8	15.0	10.2	4.8	14.0	9.2
	15.0	10.2		13.1	8.3
16+00	15.0	10.2	18+00	10.7	5.9
10.30	15.2	10.4		7.4	2.6
	15.0	10.2		4.8	0.0
	15.0	10.2		4.1	+0.7
	14.8	10.0	10.33	3.5	+1.3
50	14.8	10.0	50	2.7	+2.1
	14.8	10.0		2.0	+2.8
	14.6	9.8		1.0	+3.8
	13.9	9.1			
	12.8	8.0			
17+00	12.2	7.4			
	11.9	7.1			
	12.0	7.2			
	13.2	8.4			
	14.2	9.4			
50	14.8	10.0			
	14.4	9.6			
	14.6	9.8			

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W.151+00: 0+00 = N5629.39; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+00			4.8	13.2	8.4
4.8			2+00	13.4	8.6
10:47				13.2	8.4
				13.2	8.4
0+42	0.0	+4.8		13.0	8.2
50	1.2	+3.6		12.8	8.0
	2.4	+2.4	50	12.6	7.8
	3.5	+1.3		12.8	8.0
	4.5	+0.3		12.5	7.7
	7.0	2.2		12.5	7.7
1+00	8.5	3.7		12.8	8.0
	10.3	5.5	3+00	13.6	8.8
	11.8	7.0		13.5	8.7
	12.7	7.9		13.2	8.4
	13.0	8.2		13.1	8.3
50	13.0	8.2		13.1	8.3
	13.0	8.2	50	13.1	8.3
	12.9	8.1		13.0	8.2
	13.0	8.2		13.0	8.2

W.151+00 NORTH

Dist	Sound	Elev	Dist	Sound	Elev
4.8	13.2	8.4	5.0	12.4	7.4
10:50	13.2	8.4		12.4	7.4
4+00	13.2	8.4	6+00	12.0	7.0
	13.0	8.2		12.3	7.3
	12.8	8.0		12.3	7.3
	12.8	8.0	11:20	12.1	7.1
	13.0	8.2		12.1	7.1
50	13.0	8.2	50	12.1	7.1
	12.8	8.0		12.0	7.0
	12.8	8.0		12.0	7.0
	12.4	7.6		11.8	6.8
4.9	12.3	7.4	5.0	10.1	5.1
5+00	12.2	7.3	7+00	8.5	3.5
10:55	12.1	7.2	11:25	6.0	1.0
	12.1	7.2		4.5	+0.5
	12.3	7.4		4.0	+1.0
	12.6	7.9		3.8	+1.2
50	12.8	7.9	50	3.1	+1.9
11:0	12.8	7.9		2.9 2.5	+2.1 +2.5
	12.4	7.5		2.0	+3.0

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W.150+00; 0+00 = N5704.15; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+00			5.0	12.9	7.9
5.0			2+00	12.9	
			11:40	12.9	
11:37	0.7	+4.3		12.9	
	1.3	+3.7		12.9	7.9
50	2.5	+2.5		13.2	8.2
	3.5	+1.5	50	13.2	8.2
	4.4	+0.6		13.0	8.0
	5.3	0.3		13.0	8.0
	8.8	3.8		13.0	8.0
1+00	10.5	5.5		13.1	8.1
	11.8	6.8	3+00	13.2	8.2
	12.2	7.2		13.2	8.2
	12.4	7.4		13.3	8.3
	13.0	8.0		13.3	8.3
50	13.1	8.1		13.2	8.2
	13.1	8.1	50	12.9	7.9
	13.1	8.1		12.9	7.9
	13.0	8.0		12.8	7.8

W.150+00 NORTH

Dist	Sound	Elev	Dist	Sound	Elev
5.0	12.6	7.6	5.1	2.7	+2.4
	12.5	7.5		2.4	+2.7
4+00	12.6	7.6	6+00	2.0	+3.1
	12.7	7.7		1.5	+3.6
	12.8	7.8		1.0	+4.1
	13.1	8.1		0.6	+4.5
	13.0	8.0			
50	12.8	7.8	50		
	12.4	7.4			
11:45	12.1	7.1			
	11.9	6.9			
	12.0	7.0			
5+00	11.2	6.2			
	11.6	6.6			
	11.2	6.2			
	9.6	4.6			
5.1	6.2	1.1			
50	3.6	+1.5			
11:55	2.8	+2.3			
	2.7	+2.4			

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W. 149+00; 0+00 = N5778.9; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+50			(5.1)	6.8	1.7
(5.1)			50	6.9	1.8
12.00	0.8	+4.3		7.2	2.1
	1.1	+4.0		7.4	2.3
	1.3	+3.8		7.4	2.3
1+00	1.8	+3.3		7.1	2.0
	1.9	+3.2	3+00	6.9	1.8
	2.5	+2.6		6.8	1.7
	3.1	+2.0		6.2	1.1
	3.6	+1.5		5.8	0.7
50	4.3	+0.8		5.5	0.4
	4.4	+0.7	50	4.9	+0.2
	4.5	+0.6		4.3	+0.8
	5.1	0.0		3.8	+1.3
	5.2	0.1		3.1	+2.0
2+00	5.6	0.5		2.7	+2.4
	6.1	1.0	4+00	2.1	+3.0
	6.3	1.2		1.5	+3.6
	6.2	1.1		0.6	+4.5
				0.3	+4.8

W. 151+00; 0+00 = N6540; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+00			(5.0)	13.5	8.5
(5.0)			2+00	13.7	8.7
1.30				14.2	9.2
				14.6	9.6
				14.9	9.9
50	0.0	+5.0		14.3	9.3
	2.5	+2.5	50	14.4	9.4
	3.0	+2.0		14.3	9.3
	3.6	+1.4		14.0	9.0
	4.3	+0.7		13.5	8.5
1+00	4.8	+0.2		13.2	8.3
	5.4	0.4	3+00	13.1	8.1
	7.3	2.3		13.8	8.8
	9.7	4.7		13.9	8.9
	10.3	5.3		14.0	9.0
50	10.6	5.6		14.3	9.3
	10.7	5.7	50	13.7	8.7
	11.2	6.2		13.4	8.4
	12.8	7.8		13.6	8.6

W. 151+00 CONTD NORTH 11-27-57

Dist	Sound	Elev	Dist	Sound	Elev
	13.0	8.0	(4.9)	12.8	7.9
(5.0)	12.7	7.7	1:35	13.9	9.0
4+00	12.7	7.7	6+00	14.3	9.4
	11.7	6.7		14.6	9.7
	12.2	7.2		14.3	9.4
	11.9	6.9		13.5	8.6
	12.7	7.7		14.0	9.1
50	11.9	6.9	50	14.2	9.3
	12.0	7.0		14.1	9.2
	12.0	7.0		14.2	9.3
	12.8	7.8		15.0	10.1
	13.0	8.0		15.2	10.3
5+00	13.2	8.2	7+00	15.3	10.4
	12.3	7.3		15.1	10.2
	11.0	6.0		15.4	10.5
	11.2	6.2		15.5	10.6
	12.6	7.6		15.3	10.4
50	14.1	9.1	50	14.9	10.0
	13.9	8.9		14.9	10.0
	12.7	7.7		14.7	9.8

W151+00 NORTH

Dist	Sound	Elev	Dist	Sound	Elev
(4.9)	14.5	9.6			
	14.2	9.3			
8+00	13.9	9.0	10+00		
	13.5	8.6			
	14.3	9.4			
	14.6	9.7			
	14.8	9.9			
50	14.8	9.9			
	14.2	9.3			
	14.0	9.1			
	13.4	8.5			
	10.8	5.9			
9+00	5.2	0.3			
	4.0	+0.9			
1:38	3.2	+1.7			
	2.6	+2.3			
	1.2	+3.7			
50					

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W. 150+00; 0+00 = N. 66 11.31; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+00			(4.8)	13.2	8.4
			2+00	13.1	8.3
				12.9	8.1
				12.9	8.1
				12.9	8.1
50				13.3	8.5
(4.8)			50	13.3	8.3
1:50	0.3	+4.5		13.3	8.5
	1.4	+3.4		13.4	8.6
	2.4	+2.4		13.4	8.6
1+00	2.7	+2.1		12.3	7.5
	3.0	+1.8	3+00	12.8	8.0
	3.4	+1.4		13.2	8.4
	4.2	+0.6		13.3	8.5
	6.8	2.0		13.3	8.5
50	4.8	5.0		13.9	9.1
	11.5	6.7	50	14.0	9.2
	12.0	7.2		13.7	8.9
	13.3	8.5		13.0	8.2

W. 150+00 NORTH

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Dist	Sound	Elev	Dist	Sound	Elev
	12.9	8.1		12.6	7.8
	12.9	8.1		13.0	8.2
4+00	12.4	7.6	6+00	12.5	7.7
(4.8)	12.5	7.7	(4.8)	10.7	5.9
	13.2	8.4		12.3	7.5
1:55	12.9	8.1		12.4	7.6
	13.2	8.4		13.1	8.3
50	13.0	8.2	50	13.2	8.4
	11.7	6.9		13.5	8.7
	11.4	6.6		13.6	8.8
	12.1	7.3		13.7	8.9
	12.8	8.0		13.7	8.9
5+00	14.7	9.9	7+00	13.4	8.6
	14.3	9.5		13.0	8.2
	13.6	8.8		13.1	8.3
	12.9	8.1		13.1	8.3
	12.1	7.9		13.5	8.7
50	12.6	7.8	50	14.3	9.5
	12.8	8.0		13.7	8.9
	12.3	7.5		13.7	8.9

W.150+00 CONTD NORTH 11-27-57

Dist	Sound	Elev
	14.0	9.3
(4.7)	14.2	9.5
8+00	14.0	9.3
	13.2	8.5
2:00	13.5	8.8
	12.8	8.1
	11.6	6.9
50	10.8	6.1
	9.9	5.2
	5.8	1.1
	3.1	+1.6
	2.0	+2.7
9+00	0.6	+4.1
50		

W149+00; 0+00 = N.6688.11; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+00				12.0	7.5
			2+00	12.5	8.0
(4.5)			2:30	13.2	8.7
2:28			(4.5)	14.0	9.5
	0.4	+4.1		14.0	9.5
50	1.0	+3.5		14.2	9.7
	1.4	+3.1	50	14.8	10.3
	1.8	+2.7		14.8	10.3
	1.8	+2.7		15.0	10.5
	2.2	+2.3		15.2	10.7
1+00	2.5	+2.0		14.8	10.3
	3.0	+1.5	3+00	14.5	10.0
	3.5	+1.0		14.5	10.0
	4.5	0.0		14.0	9.5
	9.2	4.7		14.0	9.5
50	11.3	6.8		14.0	9.5
	12.5	8.0	50	14.0	9.5
	12.5	8.0		13.2	8.7
	12.9	8.4		13.2	8.7

W. 149+00 CONTD NORTH 11-27-57

Dist	Sound	Elev	Dist	Sound	Elev
	13.0	8.5		15.0	10.5
(4.5)	12.7	8.2	2:35	14.7	10.2
4+00	12.1	7.6	6+00	13.9	9.4
	10.3	5.8	(4.5)	14.2	9.7
	10.5	6.0		15.0	10.5
	11.6	7.1		15.0	10.5
	10.5	6.0		14.4	9.9
50	12.7	8.2	50	14.2	9.7
	12.5	8.0		14.2	9.7
	12.3	7.8		13.8	9.3
	12.5	8.0		13.8	9.3
	12.0	7.5		14.5	10.0
5+00	12.1	7.6	7+00	14.0	9.5
	12.5	8.0		13.6	9.1
	12.7	8.2		13.6	9.1
	13.2	8.7		14.0 13.0	9.5 8.5
	14.1	9.6	50	13.0 11.3	8.5 6.8
50	14.0	9.5		10.9 10.9	6.7 6.7
	13.3	8.8	8+00	10.3 9.3	5.8 4.8
	14.2	9.7		6.1 2.9 1.3	+1.6 +1.6 +3.2

W. 148+00; 0+00 = N. 676490; SOUND NORTH

Dist	Sound	Elev	Dist	Sound	Elev
0+00				16.5	12.1
(4.5)			2+00	15.8	11.4
			(4.4)	15.3	10.9
2:47				16.9	12.5
	0.2	+4.3		16.9	12.5
50	1.0	+3.5		15.8	11.4
	1.7	+2.8	50	15.2	10.8
	2.6	+1.9	2:50	16.0	11.6
	3.0	+1.5		15.0	10.6
	3.8	+0.7		14.5	10.1
1+00	5.9	1.4		15.5	11.1
	9.0	4.5	3+00	16.5	12.1
	10.1	5.6		15.5	11.1
	12.8	8.3		14.8	10.4
	13.5	9.0		16.5	12.1
50	15.8	11.3		16.5	12.1
	15.5	11.0	50	15.5	11.1
	15.2	10.7		16.2	11.8
	16.3	11.8		17.2	12.8

W. 148+00 CONTD NORTH 11-17-57

Dist	Sound	Elev	Dist	Sound	Elev
4.4	17.0	12.6			
	15.5	11.1			
4+00	16.3	11.9			

BENCH LEVELS TO LAPATERA ISLANDS NELY MISSION BAY

3-24-59 Stampey Blunt Standley Brehm

Sta	+	H.I.	−	Elev		
TBM.				26.06		Top P.I. "2X2" Hub No 3; MB. 102, Pg. 11
	1.29	27.35				
TP.			13.23	14.12		
	0.33	14.45				
TP.			7.68	6.77		
	4.71	11.48	(4.68-0.12)			
TP.			4.56	6.92		Set "2x2" on Sly Island
TP.		11.48	4.71	6.77		2458 Curvature Corr. = 0.122
	7.92	14.69				
TP.			0.57	14.12		
	13.23	27.35				
TBM.			1.28	26.07	26.06	Starting
TP.				6.92		Stub
	7.01	13.93				
B.M.			1.72	12.21		Top Conc. Mon. & "SEAL"
	1.84	14.05				
TP.			7.13	6.92		Stub.

BENCH LEVELS. CONTD

Sta	+	H.I	-	Elev.	
B.M.				12.21	△ Seal Conc. Mon.
	0.76	12.97			
T.P.			7.76	5.21	
	4.71	9.92			
T.P.			5.60	4.32	
	8.04	12.36			
B.M.			3.51	8.85	△ Brant Conc. Mon.

SOUNDINGS ST BRIDGE NWLY OF NKY INGRAHAM 5-11-59

STA W160+00; 0+00 = N10200 - SOUND NORTH

DIST	SOUND	ELEV	DIST	SOUND	ELEV
1:25 0+00	6.0	2.2		5.0	1.2
(3.8)	5.2	1.4	2+00	5.0	1.2
	4.8	1.0		4.8	1.0
	4.8	1.0		4.2	0.4
	4.9	1.1		3.9	0.1
+50	5.0	1.2		3.2	+0.6
	5.1	1.3	+50	3.1	+0.7
	5.0	1.2		3.0	+0.8
	4.9	1.1		3.0	+0.8
	4.9	1.1		2.8	+1.0
1+00	5.0	1.2	(3.8) 1:30	2.8	+1.0
	5.2	1.4	3+00	2.8	+1.0
	5.3	1.5		2.8	+1.0
	5.2	1.4		2.8	+1.0
	5.2	1.4		2.7	+1.1
+50	5.3	1.5		2.8	+1.0
	5.3	1.5	+50	2.8	+1.0
	5.2	1.4		2.6	+1.2
	5.1	1.3		2.5	+1.3

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(35)

STA W159+00; 0+00 = N10,200 SOUND NORTH

DIST	SOUND	ELEV	DIST	SOUND	ELEV
1:35 0+00	4.2		(3.8) 1:40	3.6	
(3.8)	4.2		2+00	3.0	
	4.1			2.8	
	4.0			2.4	
	4.1			2.2	
+50	4.1			2.2	
	4.1		+50	3.0	
	4.0			3.1	
	4.2			3.0	
	4.0			3.0	
1+00	4.0			2.8	
	4.0		3+00	2.1	
	4.0			2.0	
	4.0			2.0	
	4.1			1.8	
+50	4.2			1.4	
	4.3		+50	1.2	
	4.2		(3.8)	1.0	
	4.0		1:43	0.7	

STA W 158+00; 0+00 = N 10200.0 — SOUND NORTH

DIST	SOUND	ELEV	DIST	SOUND	ELEV
1:50 0+00	3.7	+0.1		3.0	+0.8
(3.8)	3.2	+0.6	2+00	2.8	+1.0
	3.7	+0.1		2.8	+1.0
	3.6	+0.2		3.0	+0.8
	3.8	0.0		3.0	+0.8
+50	3.8	0.0		2.2	+1.6
	3.8	0.0	+50	1.6	+2.2
	3.8	0.0		1.4	+2.4
	3.6	+0.2		1.0	+2.8
	3.3	+0.5		0.7	+3.1
1+00	3.5	+0.3	(3.8) 1:55	0.5	+3.3
	3.8	0.0	3+00	0.2	+3.6
	4.3	0.5			
	4.3	0.5			
	4.9	1.1			
+50	5.0	1.2			
	4.8	1.0	+50		
	4.0	0.2			
	3.0	+0.8			

STA W 157+00; 0+00 = N 10200.0 — SOUND NORTH

DIST	SOUND	ELEV	DIST	SOUND	ELEV
2:00 0+00	4.2			2.8	
(3.8)	4.0		2+00	2.5	
	4.0			2.4	
	4.0			1.9	
	3.4			1.4	
+50	3.6		(3.8) 2:05	0.8	
	4.0		+50	0.1	
	4.0				
	3.8				
	3.8				
1+00	3.6				
	3.8		3+00		
	4.2				
	4.2				
	4.8				
+50	4.2				
	3.8		+50		
	3.2				
	2.9				

5-11-59

Sound North

STA W156+00; 0+00 = N10, 200.0

DIST	SOUND	ELEV	DIST	SOUND	ELEV
2:10					
0+00	4.0	0.3		2.1	+1.6
(3.7)	3.5	+0.2	2:15		
			2+00	2.0	+1.7
	3.5	+0.2	(3.7)	2.0	+1.7
	3.0	+0.7		1.7	+2.0
	2.8	+0.9		1.2	+2.5
+50	2.8	+0.9		0.5	+3.2
	2.9	+1.2	+50		
	2.8	+0.9			
	3.0	+0.7			
	3.1	+0.6			
1+00	3.0	+0.7			
	3.4	+0.3	3+00		
	4.0	0.3			
	4.2	0.5			
	4.2	0.5			
+50	3.1	+0.6			
	2.5	+1.2	+50		
	2.2	+1.5			
	2.0	+1.7			

Sound North

STA W155+00; 0+00 = N10 200.0

DIST	SOUND	ELEV	DIST	SOUND	ELEV
2:20					
0+00	2.6			2.0	
(3.7)	2.4		2+00	2.0	
	2.2			1.8	
	2.2			1.6	
	2.2		(3.7)	1.1	
+50	2.4		2:23	0.7	
	2.1		+50	0.3	
	2.3				
	2.3				
	3.0				
1+00	3.5				
	4.0		3+00		
	4.0				
	4.1				
	4.0				
+50	3.2				
	2.8				
	2.5				
	2.1				

STA W15 4+00, 0+00 = N10,200.0

DIST 2:30	SOUND	ELEV	DIST	SOUND	ELEV
0+00	3.6	+0.1		1.8	+1.9
(3.7)	3.1	+0.6	2+00	1.3	+2.4
	2.3	+1.4		1.2	+2.5
	2.1	+1.6	(3.6)	1.0	+2.7
	2.1	+1.6	2:33	0.5	+3.2
+50	2.3	+1.4			
	2.7	+1.0	+50		
	3.0	+0.7			
	3.0	+0.7			
	3.2	+0.5			
1+00	3.6	+0.1			
	4.3	0.6	3+00		
	4.8	1.1			
	5.0	1.3			
	4.3	0.6			
+50	4.0	0.3			
	3.0	+0.7			
	2.2	+1.5			
	2.0	+1.7			

SOUND NORTH

STA W15 4+00, 0+00 = 10,200.0

DIST 2:35	SOUND	ELEV	DIST	SOUND	ELEV
0+00	3.5	+0.1			
(3.6)	4.0	0.4			
	5.0	1.4			
	7.9	4.3			
	9.9	6.3			
+50	11.5	7.9			
	12.1	8.5			
	13.1	9.5			
	13.7	10.1			
	14.1	10.5			
1+00	13.4	9.8			
+50					

SOUND SOUTH

5-11-59

SOUND SOUTH

STA W155+00; 0+00 = N10200

-2;40-

DIST	SOUND	ELEV
0+00	3.6	0.0
(3.6)	2.5	+1.1
	3.1	+0.5
	4.1	0.5
	7.0	3.4
+50	10.3	6.7
	11.4	7.8
	11.3	7.7
	11.2	7.6
	11.5	7.9
1+00	12.0	8.4
	12.0	8.4
	11.7	8.1
	11.9	8.3
	12.0	8.4
+50	12,0	8.4

SOUND SOUTH

STA W156+00; 0+00 = N10200.0

2;50-

DIST	SOUND	ELEV
0+00	4.0	0.4
(3.6)	4.2	0.6
	4.8	1.2
	5.0	1.4
	5.1	1.5
+50	6.0	2.4
	7.5	3.9
	9.5	5.9
	10.2	6.6
	10.7	7.1
1+00	11.0	7.4
	11.2	7.6
	11.7	8.1
(3.5)	12.0	8.4
2;55	12.0	8.4

5-11-59.

Sound South

STAW 157+00; 0+00 = N 10 200

2:55

DIST	SOUND ELEV
0+00	4.0
(3.5)	4.0
	4.0
	3.9
	3.8
+50	3.9
	4.0
	5.1
	7.5
	9.0
1+00	10.8
	11.2
	11.9
(3.5)	12.0
3:00	12.5

Sound South

STAW 158+00; 0+00 = N 10 200.0

3:05

DIST	SOUND	ELEV
0+00	3.5	0.0
(3.5)	3.5	0.0
	3.5	0.0
	4.1	0.6
	4.2	0.7
+50	4.5	1.0
	5.0	1.5
	5.5	2.0
	7.5	4.0
	9.8	6.3
1+00	11.2	7.7
	12.0	8.5
	12.5	9.0
	12.5	9.0

SOUND
SOUTH

STA W 159+00; 0+00 = N 10200.0

DIST	SOUND	ELEV
3:N		
0+00	3.8	
(3.4)	3.7	
	4.0	
	4.7	
	5.0	
+50	5.5	
	6.2	
	6.3	
	7.2	
	8.0	
1+00	9.6	
	11.0	
	11.8	
	12.0	
	12.2	

SOUND
SOUTH

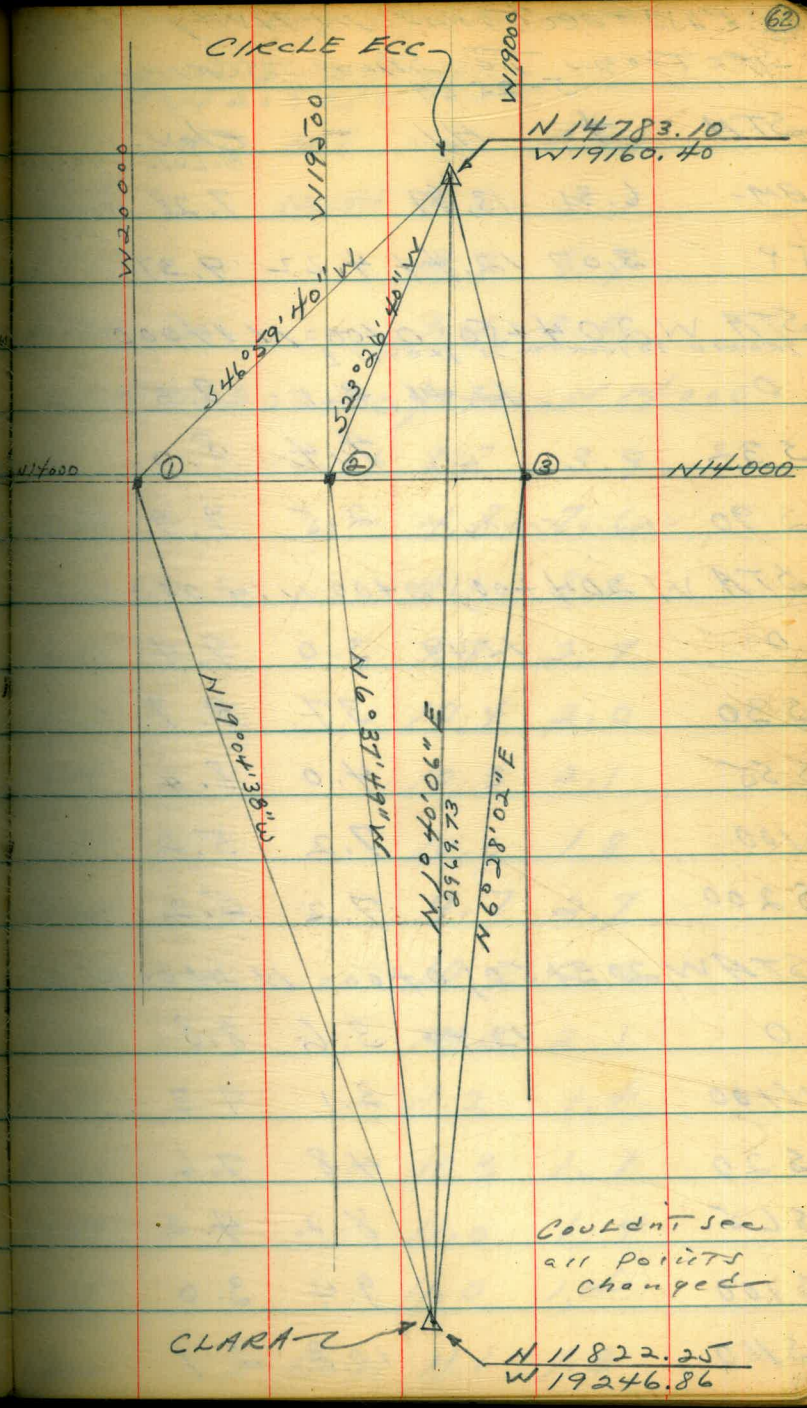
STA W 160+00; 0+00 = N 10200-

DIST	SOUND	ELEV
3:20		
0+00	6.0	2.6
(3.4)	7.7	4.3
	8.8	5.4
	8.8	5.4
	7.5	4.1
+50	6.7	3.3
	6.0	2.6
	5.0	1.6
	5.0	1.4
	6.9	3.5
1+00	9.0	5.6
	10.4	7.0
	11.2	7.8
	11.8	8.4
(3.3)	11.9	8.5
3:25	11.9	8.5

LOCATION OF B/L IN NWLY CRESENT BAY FOR X-SEC SCRIPPS LEASE - ALLEN

STA	OBJECT	AZI	Bearing
Circle ECC N14783.10 W19160.40	CLARA	181°40'06"	S1°40'06"W
①	N14000 W20000	226°59'40"	S46°59'40"W
②	N14000 W19500	203°26'40"	S23°26'40"W
③	N14000 W19000	168°25'28" - S11°34'32"E	

CLARA N11822.25 W19246.86	CIRCLE ECC	1°40'06" - N1°40'06"E
①	N14000 W20000	340°55'22" - N19°04'38"W
②	N14000 W19500	353°22'11" - N6°37'49"W
③	N14000 W19000	6°28'02" - N6°28'02"E



CROSS-SECTIONS IN NWLY CRESENT BAY AREA - ADD'L SECTIONS TO SHOW SCRIPPS Lease - 5-25-59

5-25-59

STA	+	H.I.	−	elev. MLLW-	
BM-	6.31	13.59		7.28	NBLY OF MISSION at PacRcL DR-
TP	3.07	12.44	4.22	9.37	
STA W204+50; 0+00=N 14000					
GROUND TO NORTH IS LEVEL ±					
0		12.44	3.1	9.3	
S32			4.4	8.0	
S90 against Fence			2.5	9.9	
STA W204+00; 0+00 N14000					
0		12.44	3.0	9.4	
S30			3.7	8.7	
S55			4.0	8.4	
S100			7.2	5.2	
S200			7.2	5.2	
STA W203+50; 0+00= N 14000					
0		12.44	3.6	8.8	
N100			3.1	9.3	
S20			4.8	7.6	
S65			8.2	4.2	
S100			9.4	3.0	
S110			10.3	2.1	

STA W203+50 CONT

STA	+	HI	−	elev
S120		12.44	9.3	3.1
S200			8.7	3.7
S300			9.4	3.0
STA W203+00; 0+00=N 14000-				
0		12.44	8.5	3.9
N50			4.8	7.6
N100			4.1	8.3
S25			9.7	2.7
S50			10.4	2.0
S75			10.3	2.1
S100			10.6	1.8
S125			9.7	2.7
S150			10.2	2.2
S175			10.3	2.1
S200			11.2	1.4
S225			11.3	1.1
S250			11.0	1.4
S275			11.0	1.4
S300		12.44	11.1	1.3

5-28-59

STA W 202+50; 0+00 = N 14000

STA	+	HI	−	elev
0		12.44	12.0	0.4
S 25			11.6	0.8
S 50			11.5	0.9
S 75			11.1	1.3
S 100			10.8	1.6
S 125			10.7	1.7
S 150			10.8	1.6
S 175			11.5	0.9
S 200			13.2	−0.8
N 25			9.8	2.6
N 50			8.0	4.4
N 82			5.6	6.8
N 100			4.0	8.4
N 200			3.3	9.1

STA W 202+00; 0+00 = N 14000

0		12.44	12.8	−0.4
S 25			12.2	0.2
S 50			11.8	0.6
S 75			11.8	0.6

STA W 202+00 cont (69)

STA	+	HI	−	elev
S 100		12.44	11.4	1.0
S 125		12.44	11.5	0.9
S 150			11.6	0.8
S 175			11.6	0.8
S 200			12.8	−0.4
N 25			13.0	−0.6
N 50			12.6	−0.2
N 75			10.2	2.2
N 100			7.5	4.4
N 130 FSB 10/6/59 N 30			4.3	8.1
N 160 FSB N 60 10/6/59			3.5	8.9
N 200 FSB N 100 10/8/59			3.0	9.4

STA W 201+50; 0+00 = N 14000

0		12.44	12.2	0.2
S 25			11.8	0.6
S 50			12.2	0.2
S 75			11.6	0.8
S 100			11.6	0.8
N 25			12.0	0.4
N 50			13.2	−0.8

STA W201+50 cont

STA	+	HI	−	elev	
N75		12.44	13.5	-1.1	
N100			12.6	-0.2	
N125			10.2	2.2	
N150			6.8	5.6	
N175			4.0	8.4	
N200			3.5	8.9	
TP		12.44	3.84	8.60	PK nail top no Piling
	1.44	10.04			

5-26-59

STA W 201+00; 0+00 = N 14000

0		10.04	9.4	0.6
S50			9.6	0.4
S100			9.8	0.2
N 50			9.2	0.8
N 70			9.3	0.7
N 90			10.8	-0.8
N100			11.3	-1.3
N130			9.4	0.6
N 190			3.1	6.9
N195			1.1	8.9
N250			1.1	8.9

STA W 200+50; 0+00 = N14000

STA	+	HI	−	elev
0		10.04	9.0	1.0
S50			9.2	0.8
S100			9.4	0.6
N50			9.4	0.6
N 90			9.6	0.4
N100			10.3	-0.3
N140			11.0	-1.0
N155			9.0	1.0
N200			5.4	4.6
N225			2.8	7.2
N230			1.7	8.3
N250			1.5	8.5

STA W 200+00; 0+00 = N14000

0.		10.04	9.8	0.2
S 50			10.0	0.0
N 50			9.8	0.2
N100			10.0	0.0
N150			11.7	-1.7
N200			7.4	2.6

STA W200+00 cont

STA	+	HI	−	elev
N235		10.04	3.3	6.7
N240			1.0	9.0
N250			0.7	9.3
Level checked To ∆ CLARA +				
To starting BM-				
BM-	2.00	10.60		8.60
STA W199+50; 0+00 = N14000				
0		10.60	10.5	0.1
N20		10.60	10.0	0.6
N40			9.8	0.8
N60			9.8	0.8
N80			9.5	1.1
N100			10.0	0.6
N120			12.0	−1.4
N140			13.0	−2.4
N160			13.3	−2.7
N180			13.0	−2.4
N200			11.4	−0.8
N220			8.8	1.8
N250		10.60	6.8	3.8

PK pole 65.

STA W199+50 cont

STA	+	HI	−	elev
N275		10.60	4.4	6.2
N285			1.0	9.6
N300			0.3	10.3
N350			0.1	10.5
STA W199+00; 0+00 = N14000				
0		10.60	10.8	−0.2
N20			10.5	0.1
N40			10.3	0.3
N60			10.0	0.6
N80			9.8	0.8
N100			9.8	0.8
N120			9.8	0.8
N140			11.0	−0.4
N160			12.6	−2.0
N180			13.0	−2.4
N200			13.0	−2.4
N220			11.8	−1.2
N240			9.6	1.0
N260			8.3	2.3
N280			7.8	2.8

STA W 199+00 cont.

STA	+	HI	−	elev
N300		10.60	4.7	5.9
N330			1.8	8.8
N370			0.8	9.8
STA W 198+50; 0+00 = N14000				
0		10.60	11.2	-0.6
N20			11.0	-0.4
N40			10.9	-0.3
N60			10.8	-0.2
N80			10.5	0.1
N100			10.3	0.3
N120			10.2	0.4
N140			10.0	0.6
N160			9.8	0.8
N180			10.0	0.6
N200			11.4	-0.8
N220			12.5	-1.9
N240			12.9	-2.3
N260			12.3	-1.7
N280			9.4	1.2
N300		10.60	8.0	2.6

STA W 198+50 Cont

STA	+	HI	−	elev
N330		10.60	6.0	4.6
N366	} wall		3.0	7.6
N367			1.2	9.4
N400			1.0	9.6
STA W 198+00; 0+00 = N14.000				
TP	2.65	10.95	2.30	8.30
0			13.0	-1.1
N20			11.6	-0.7
N40			11.5	-0.6
N60			11.6	-0.7
N80			11.2	-0.3
N100			11.0	-0.1
N120			10.9	0.0
N140			10.6	0.3
N160			10.6	0.3
N180			10.5	0.4
N200			10.3	0.6
N220			10.7	0.2
N240			12.8	-1.9
N260		10.95	13.2	-2.3

STA W 198+00 CONT

STA	+	HI	−	elev
N280		10.95	13.1	-2.2
N300			12.0	-1.1
N320			9.2	1.7
N340			8.5	2.4
N370			6.8	4.1
N400			3.6	7.3
N420			0.5	10.4
N450		10.95	0.5	10.4

STA W197+50; 0+00= N14000

STA	+	HI	−	elev
0		10.95	12.0	-1.1
N20			12.0	-1.1
N40			12.0	-1.1
N60			11.8	-0.9
N80			11.6	-0.7
N100			11.5	-0.6
N120			11.2	-0.3
N140			11.0	-0.1
N160			10.8	0.1
N180			10.5	0.4
N200		10.95	10.3	0.6

STA 197+50 Cont

STA	+	HI	−	elev
N220		10.95	10.0	-0.9
N240			10.0	-0.9
N260			10.0	-0.9
N280			12.0	-1.1
N300			12.8	-1.9
N320			12.8	-1.9
N340			12.2	-1.3
N360			9.6	1.3
N380			8.5	2.4
N420			6.5	4.4
N445	} wall into yard		4.5	6.4
N446			1.2	9.7
TP	2.70	10.10	3.55	7.40

STA W197+00; 0+00= N14000

STA	+	HI	−	elev
0		10.10	11.5	-1.4
N20			11.2	-1.1
N40			11.0	-0.9
N60			11.2	-1.1
N80			11.0	-0.9
N100			11.0	-0.9

STA W 197+00 C.T.

STA	+	H.I.	−	elev.
N120		10.10	10.8	−0.7
N140			10.6	−0.5
N160			10.4	−0.3
N180			10.1	0.0
N200			10.0	0.1
N220			10.0	0.1
N240			9.8	0.3
N260			9.3	0.8
N280			9.2	0.9
N300			9.2	0.9
N320			10.8	−0.7
N340			11.8	−1.7
N360			12.3	−2.2
N380			12.0	−1.9
N400			10.0	0.1
N420			8.0	2.1
N460			6.0	4.1
N470	walk yard		5.5	4.6
N470			0.4	0.7
N500	in yard	10.10	0.4	0.7

STA W 196+50; 0+00 = N14000

STA	+	H.I.	−	elev.
0		10.10	11.4	−1.3
N20			11.4	−1.3
N40			11.6	−1.5
N60			11.2	−1.1
N80			11.4	−1.3
N100			11.0	−0.9
N120			10.8	−0.7
N140			10.7	−0.6
N160			10.8	−0.7
N180			10.5	−0.4
N200			10.2	−0.1
N220			10.4	0.3
N240			10.0	−0.1
N260			9.7	0.#
N280			9.3	0.8
N300			9.0	1.1
N320			8.8	1.3
N340			10.0	0.1
N360		10.10	11.6	−1.5

STA N 196+50 Cont

STA	+	HI	−	elev
N380		10.10	12.3	-2.2
N400			12.2	-2.1
N420			11.6	-1.5
N440			11.2	-1.1
N460			9.7	0.4
N480			8.8	1.3
N500			7.9	2.2
N530			6.2	3.9
N550			5.8	4.3
N570	Wall - yo-yo to		4.4	5.7
N570	No VTR	10.10	0.5	9.6

STA W1 196+00; 0+00 = N14000

0		10.10	11.4	-1.3
N20			11.4	-1.3
N40			11.4	-1.3
N60			11.4	-1.3
N80			11.2	-1.1
N100			11.1	-1.0
N120			11.1	-1.0
N140			10.9	-0.8

STA N 196+00 Cont
5-26-59

STA	+	HI	−	elev
N160		10.10	10.8	-0.7
N180			10.5	-0.4
N200			10.5	-0.4
N220			10.2	-0.1
N240			10.0	0.1
N260			9.8	0.3
N280			9.5	0.6
N300			9.3	0.8
N320			9.1	1.0
N340			9.1	1.0
N360			10.8	-0.7
N380			11.7	-1.6
N400			12.0	-1.9
N420			11.7	-1.6
N440			11.4	-1.3
N460			11.0	-0.9
N480			10.5	-0.4
N500			9.0	1.1
N520			7.4	2.7
N540		10.10	6.9	3.2

STA W 196+00 Cont

STA	+	HI	−	elev	
N560		10.10	6.7	3.4	
N580			6.6	3.5	
N600			5.5	4.6	
N615	Wall at Sly end of West Briarfield Dr.		4.3	5.8	
N616			0.5	9.6	
TP	1.27	10.83	0.54	9.56	PK in Pile at Sly of cushion

5-27-59

STA W 195+50; 0+00 = N14000

STA	+	HI	−	elev
0		10.83	12.2	−1.4
N20			12.2	−1.4
N40			12.2	−1.4
N60			12.2	−1.4
N80			12.2	−1.4
N100			12.1	−1.3
N120			12.0	−1.2
N140			12.0	−1.2
N160			11.8	−1.0
N180			11.9	−1.1
N200			11.5	−0.7
N220		10.83	11.5	−0.7

STA W 195+50 Cont

STA	+	HI	−	elev
N240		10.83	11.3	−0.5
N260			11.2	−0.4
N280			11.5	−0.7
N300			13.2	−1.4
N320			14.8	−4.0
N340			15.0	−4.2
N360			15.2	−4.4
N380			15.2	−4.4
N400			15.0	−4.2
N420			13.6	−2.8
N440			12.8	−2.0
N460			12.4	−1.6
N480			12.2	−1.4
N500			12.2	−1.4
N520			11.1	−0.3
N540			9.8	1.0
N560			8.8	2.0
N580			8.9	1.9
N600			8.5	2.3
N620		10.83	7.5	3.3

STA W195+50 cont

STA	+	HI	-	elev
N632	Bulkhead	10.83	6.6	4.2
N632			0.5	10.3

STA W195+00, 0400 = N14000

0			12.3	-1.5
N20			12.2	-1.4
N40			12.2	-1.4
N60			12.2	-1.4
N80			12.2	-1.4
N100			12.2	-1.4
N120			12.3	-1.5
N140			12.3	-1.5
N160			12.6	-1.8
N180			12.6	-1.8
N200			12.5	-1.7
N220			12.7	-1.9
N240			12.2	-1.4
N260			12.5	-1.7
N280			12.3	-1.5
N300			12.5	-1.7
N320			11.5	-0.7

STA W195+00 cont (72)

STA	+	HI	-	elev.
N340		10.83	12.0	-1.2
N360			11.8	-1.0
N380			10.3	0.5
N400			10.2	0.6
N420			11.3	-0.5
N440			12.2	-1.4
N460			12.3	-1.5
N480			12.5	-1.7
N500			12.4	-1.6
N520			12.5	-1.7
N540			12.5	-1.7
N560			12.3	-1.5
N580			10.8	0.0
N600			10.8	0.0
N620			9.6	1.2
N640			8.8	2.0
N660			8.0	2.8
N680			7.5	3.3
N700			7.1	3.7
N725	Sand at Bulkhead		6.6	4.2

RESOUND along N11800 - 0400 = W19200 - FOR Checking BENDIX Portable (73)
Depth Device - 10-6-59.
STA N11800, 0400 = W19200. Sound EAST

DIST	Sound	ELEV	DIST	Sound	ELEV
0400				13.9	7.2
			19000 2400	14.0	7.3
				14.2	7.5
				14.2	7.5
				14.2	7.5
50				14.2	7.5
			50	14.2	7.5
				14.4	7.7
				15.1	8.4
				15.0	8.3
11:20 1400 W19100 (6.7)	6.5	+0.2		15.0	8.3
	9.1	2.4	W18900 3400	14.5	7.8
	10.9	4.2		14.9	8.2
	11.2	4.5		14.7	8.0
	12.8	6.1		14.9	8.2
50	13.1	6.4	(6.7) 11:25	14.4	7.7
	13.7	7.0	50	14.2	7.5
	13.9	7.2		14.1	7.4
	13.9	7.2		14.2	7.5

STA N11800 Cont EAST

DIST	Sound	ELEV	DIST	Sound	ELEV
	14.4	7.7		17.0	10.3
	13.8	7.1		19.2	12.5
18800 4400	14.0	7.3	18600 6400	18.7	12.0
	14.9	8.2		18.8	12.1
	14.9	8.2		18.9	12.1
	15.2	8.5		18.6	11.9
	15.4	8.7		17.5	10.8
50	15.7	9.0	50	19.6	12.9
	16.0	9.3		19.5	12.8
	15.8	9.1		19.0	12.3
	15.7	9.0		18.1	11.4
	15.9	9.2		17.6	10.9
W18700 5400	15.9	9.2	18500 7400	16.5	9.8
	15.7	9.0		16.7	10.0
	16.0	9.3		16.3	9.6
	15.6	8.9		16.0	9.3
	15.3	8.6		16.0	9.3
50	15.3	8.6	50	16.2	9.5
	15.3	8.6		16.1	9.4
	15.4	8.7		16.1	9.4

STA N11800 CONT EAST

DIST	SOUND	ELEV	DIST	SOUND	ELEV
(6.7)	15.8	9.1		16.1	9.4
11:30	15.9	9.2		15.9	9.2
8+00	15.7	9.0	10+00	16.0	9.3
18+00	15.7	9.0		16.0	9.3
	16.0	9.3		15.5	8.8
	16.0	9.3		15.4	8.9
	16.0	9.3		15.2	8.7
50	16.0	9.3	50	15.8	9.1
	16.1	9.4		15.9	9.2
	16.2	9.5		15.6	8.9
	16.1	9.4		15.3	8.6
	16.1	9.4		15.4	8.7
18+00 9+00	16.1	9.4	18+00 11+00	15.4	8.7
	16.2	9.5		15.3	8.6
	16.4	9.7		15.3	8.6
	16.5	9.8		15.1	8.4
	16.4	9.7		14.9	8.2
50	16.2	9.5	50	14.8	8.1
	16.3	9.6		15.0	8.3
	16.1	9.4		15.1	8.4

STA N11800 CONT EAST

DIST	SOUND	ELEV	DIST	SOUND	ELEV
	14.9	8.2		15.6	8.9
(6.7)	15.0	8.3		15.6	8.9
11:35	15.4	8.7	14+00	15.6	8.9
12+00 18000	15.5	8.8	17800	15.5	8.8
	15.2	8.5		15.5	8.8
	15.4	8.7		15.6	8.9
	15.4	8.7		15.6	
50	15.4	8.7	50	15.6	
	15.2	8.5		15.6	8.9
	15.1	8.4		15.5	8.8
	15.1	8.4		15.6	8.9
	15.1	8.4		15.6	8.9
13+00 17900	15.0	8.3	15+00 17700	15.5	8.8
	15.1	8.4		15.4	8.7
	15.0	8.3		15.4	
	15.1	8.4		15.4	
	15.2	8.5		15.4	8.7
50	15.3	8.6	50	15.5	8.8
	15.4	8.7		15.5	8.8
	15.5	8.8		15.4	8.7

STA N11800 CONT EAST

DIST	Sound	ELEV	DIST	Sound	ELEV
6.16	15.4	8.8		15.1	8.5
11:40	15.3	8.7		15.0	8.4
16+00 17600	15.2	8.6	18+00 17400	15.1	8.5
	15.1	8.5		15.2	8.6
	15.2	8.6		15.3	8.7
	151	8.5		15.1	8.5
	15.2	8.6		15.0	8.4
50	151	8.5	50	14.9	8.3
	15.0	8.4		15.0	8.4
	14.9	8.3		14.9	8.3
	14.9	8.3		14.9	8.3
	14.8	8.2		15.0	8.4
17+00 17500	14.6	8.0	19+00 17300	15.0	8.4
	14.6	8.0		15.1	8.5
	14.6	8.0		15.3	8.7
	14.8	8.2		15.4	8.8
	14.9	8.3		15.5	8.9
50	14.9	8.3	50	15.8	9.2
	15.0	8.4		15.7	9.1
	15.0	8.4		15.7	9.1

STA N11800 CONT EAST

DIST	Sound	elev	DIST	Sound	elev
	15.6	9.0			
	15.5	8.9			
20+00 17200	154	8.8	22+00		
	15.2	8.6			
	15.1	8.5			
	15.1				
	15.1				
50	15.1		50		
	15.1	8.5			
	15.2	8.6			
6.6	15.2	8.6			
11:45	15.1	8.5			
21+00 17000	15.1	8.5	23+00		
	15.0	8.4			
50			50		

STAN 11800 CONT EAST

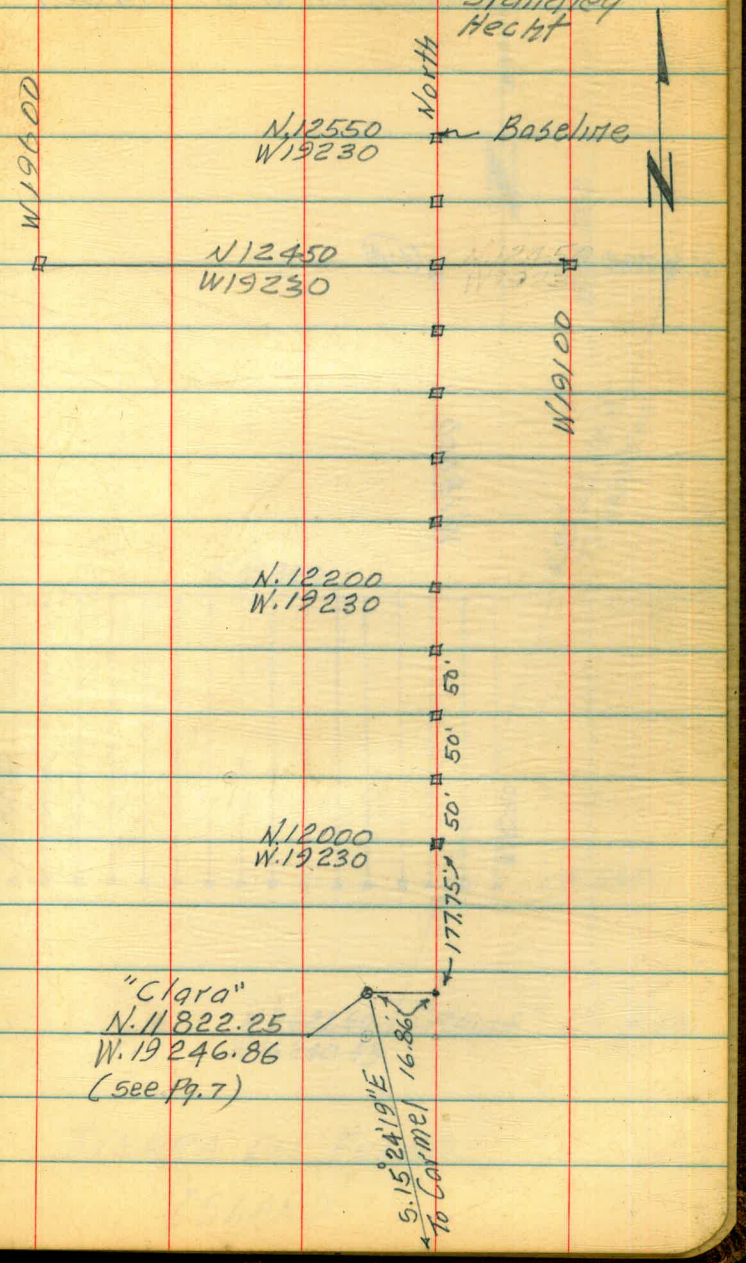
DIST	Sound ELEV	DIST	Sound elev
24+00		26+00	
"			
25+00			
"			

BASELINE LAYOUT FOR SOUNDINGS OF NLY. EXTENSION OF SANTA CLARA POINT

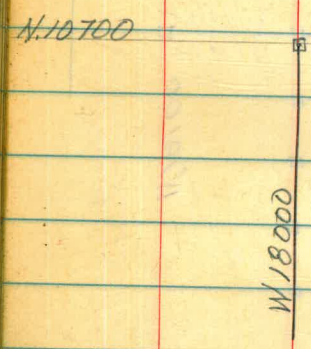
W.O. 64501

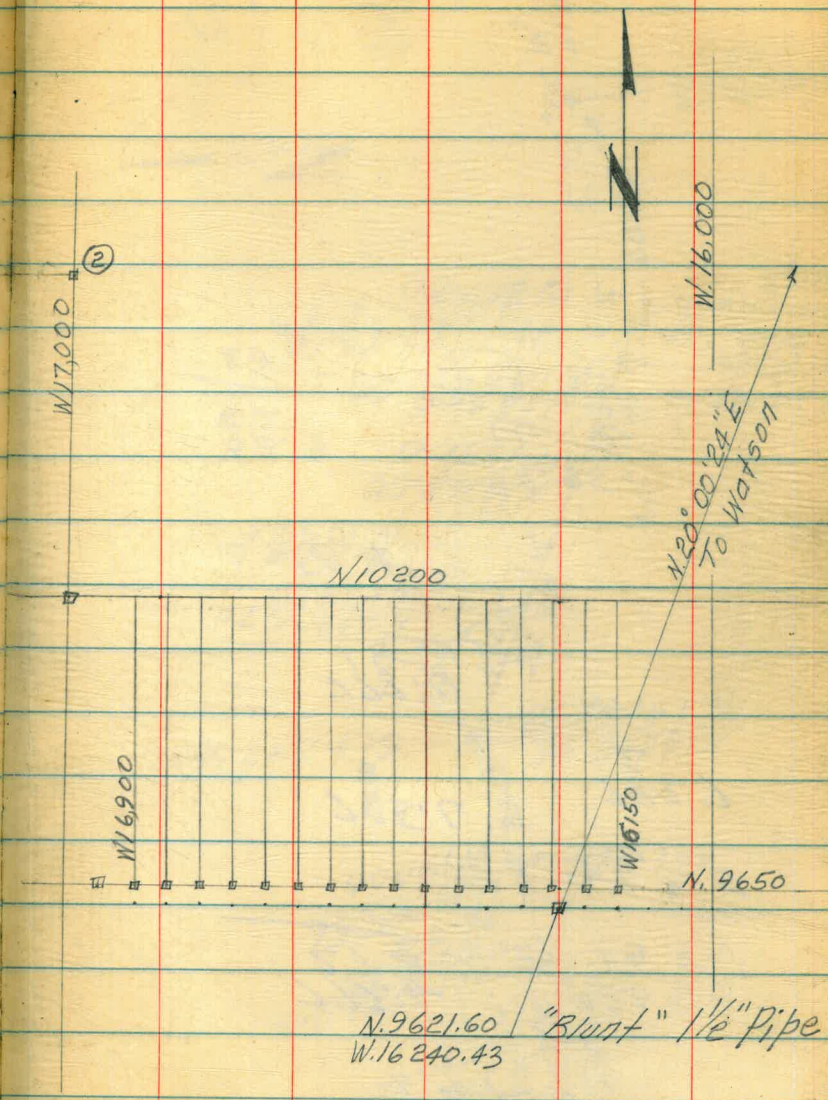
230
150
080

11-18-59 Stamper Blunt Standley Hecht

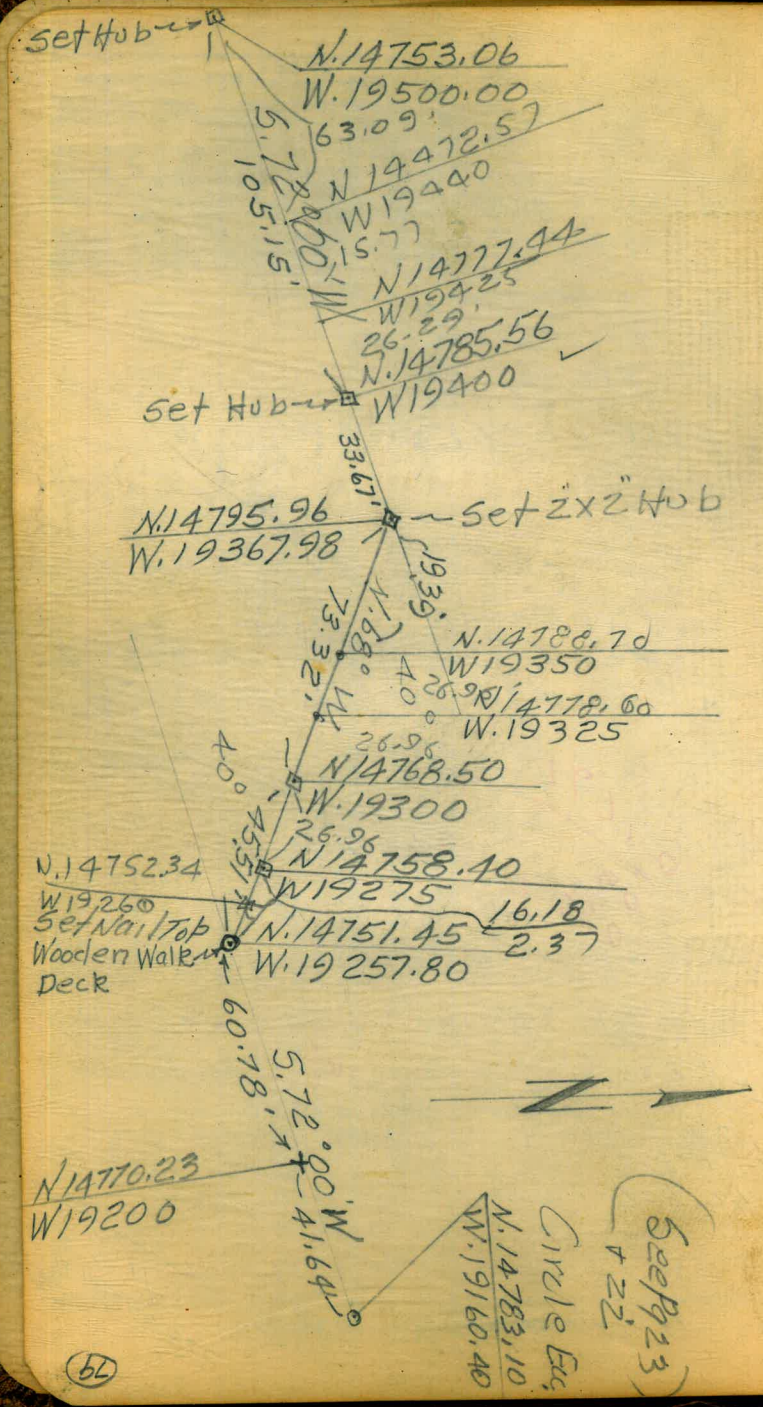


BASELINE LAYOUT FOR SOUNDINGS
MISSION BAY PROJ № 64501





TIERRA DEL FUEGO
ISLAND



(62)

14472.6
32
14440

777.4
274

2696
1939

46.35

785.6
3

788.7
2

778.6
18

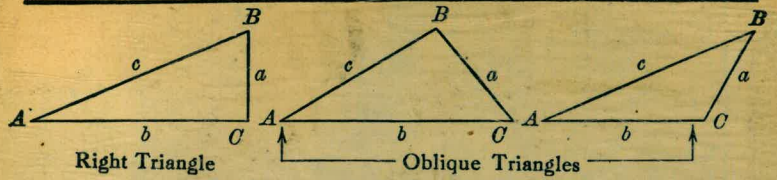
58.4

52.3
32
20

18.55
16.18
2.37

(63)

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

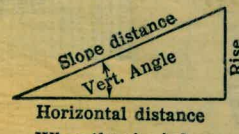
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\operatorname{cosec} = \frac{c}{a}$

Given	Required	
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B, c = \sqrt{a^2 + b^2} = a\sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B, b = \sqrt{(c+a)(c-a)} = c\sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90° - A, b = a \cot A, c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90° - A, a = b \tan A, c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90° - A, a = c \sin A, b = c \cos A$

Solution of Oblique Triangles

Given	Required	
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}, C = 180° - (A + B), c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}, C = 180° - (A + B), c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180° - C, \tan \frac{1}{2}(A - B) = \frac{(a-b)\tan \frac{1}{2}(A+B)}{a+b}, c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a+b+c}{2}, \sin \frac{1}{2}A = \sqrt{\frac{(s-b)(s-c)}{bc}}, \sin \frac{1}{2}B = \sqrt{\frac{(s-a)(s-c)}{ac}}, C = 180° - (A+B)$
a, b, c	Area	$s = \frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



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° 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. Cosine 5° 10′ = .9959. 1 − .9959 = .0041. 319.4 × .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.