

MISS. SOUND
SEPT. 1989, GEOPULSE 105J

CRUISE LOG

120K 68
327466
274305

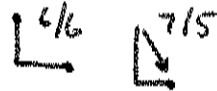
5-7
9-11
13-15
17-19

Loran check points

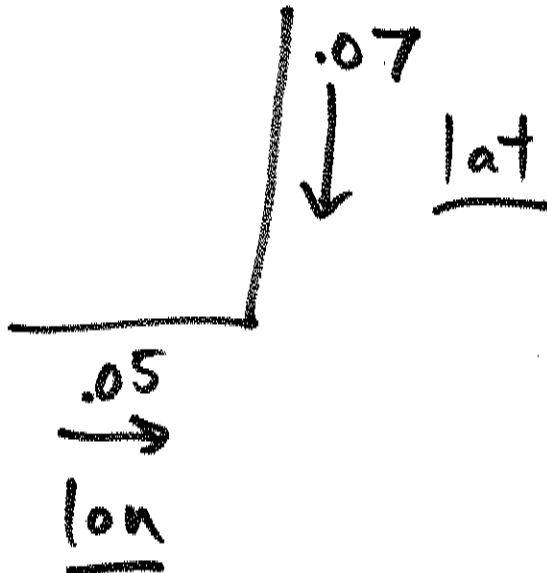
	A	B	C	D	E	F	G
1		Receiver		Map location			
2	ID	lat	lon	la	lo	Δla	Δlo
3	green marker @ Bayou Cas	14.36	25.525	14.28	25.47	-.077	+.058
4	red @ eol 38	14.44	25.07	14.36	25.00	-.082	+.070
5	red 12P on 46 sol	14.27	15.74	14.20	15.73	-.070	+.010
6	red 2 49-50	16.43	19.03	16.38	18.99	-.050	+.040
7		16.43	19.03	16.383	18.975	-.047	+.055
8							
9	CORRECTION TO USE FOR ALL NAV DATA =====				average	-.07	+.05
10						LAT	LON
11							
12							
13	not used						
14	green 3 on line 1	14.22	24.74	14.18	24.75	-.037	.010
15	green 13P on 45	13.95	16.13	13.77	16.10	-.180	+.030
16	green 15P on 46	13.83	17.07	13.97	17.05	.140	+.020

1752 m/min

$.01'' = 18.5 m$



LORAN accuracy $\approx 40 m (\sim .02'')$



MISS. SOUND LINE INVENTORY

LINE	DAY	TIME	millisec	(KHz)	LINE	DAY	TIME	millisec	(KHz)
<i>Sw</i> A	13	1648-1654	80	.5-3	33	18	1031-1102	60	1-5
<i>each</i> B	13	1654-1824	80	.5-3	34	18	1105-1138	60	1-5
<i>ridge</i> C	13	1824-1850	80	.5-3	35	18	1140-1202	60	1-5
D	15	1613-1631	60	1-5	36	18	1204-1226	60	1-5
E	15	1631-1651	60	1-5	37	18	1229-1305	60	1-5 <i>to Gulfport</i>
1	15	1543-1608	60	1-5	38	14	1127-1248	60	.7-3
2	15	1656-1725	60	1-5	39	14	0943-1122	80	.5-3/.7-3
3	16	1119-1142	60	1-5	40	14	1532-1645	60	.7-3
4	16	1144-1207	60	1-5	41	15	0850-1030	60	.7-3/1-5
5	16	1209-1235	60	1-5	42	15	1050-1217	60	1-5
6	16	1237- 1343 1318	60	1-5	43	15	1219-1350	60	1-5
7	16	1320-1343	60	1-5	44	15	1401-1527	60	1-5
8	16	1346-1409	60	1-5	45	18	1305-1358	60, 100	1-5/.7-5 N-S
9	16	1412-1451	60	1-5	46	18	1442-1628	80	.7-5 <i>R₂ offshore</i>
10	16	1550-1616	60	1-5	47	18	1635-1702	80	.7-5 IN
11	16	1617-1640	60	1-5	48	18	1702-1718	80	.7-5 30g
12	16	1642-1702	60	1-5	49	18	1718-1738	80	.7-5 IN
13	16	1704-1725	60	1-5	50	19	1119-1235	60	1-5/.7-5 N-S
14	16	1727-1749	60	1-5	51	19	1235-1335	60	.7-5
15	17	0926-0950	60	1-5	52	19	1335-1347	60	.7-5
16	17	0953-1015	60	1-5	53	19	1347-1414	60	.7-5
17	17	1017-1045	60	1-5	54	19	1414-1440	60	.7-5
18	17	1051-1115	60	1-5	55	19	1440-1503	60	.7-5
19	17	1117-1150	60	1-5	56	19	1503-1526	60	.7-5
20	17	1153-1227	60	1-5	57	19	1526-1623	60	.7-5
21	17	1229-1300	60	1-5					
22	17	1304-1336	60	1-5					
23	17	1337-1405	60	1-5					
24	17	1407-1435	60	1-5					
25	17	1437-1502	60	1-5					
26	17	1505-1528	60	1-5					
27	17	1529-1557	60	1-5					
28	17	1615-1638	60	1-5					
29	17	1640-1702	60	1-5					
30	17	1705-1725	60	1-5					
31	18	0947-1006	60	1-5					
32	18	1009-1029	60	1-5					

to Gulfport
Shore
N-S
R₂ offshore
IN
30g
IN
N-S
St. Louis Bay

80ms SWEEP
 80ms SWEEP
 80ms SWEEP
 80ms SWEEP
 80ms SWEEP

Hancock County Project, NOS Chart 11371, (1:50,000) (BOLD ARE INPUTS)

	calc'd 1:x	new 1:x	"/MIN
IN/MIN LAT (Y)	0.9114	*****	10,000 6.1
IN/MIN LON (X)	0.76344		(CALC OR INPUT RATIO)

ratio to select GRIDZO Y-scale RATIO Y/X **1.1938054** (X*RATIO=Y)

enter x,y data	DEGREE	MIN	Sec. MINUTES
X1		-26	-26.00000
Y1		13	13.00000
X2		-17	-17.00000
Y2		19	19.00000
X-axis ticks min X		-26	-26.00000
X tick interval XINC		1	1.00000
Y-axis ticks min Y		13	13.00000
Y tick interval YINC		1	1.00000
tic lgth (+ out) Y-axis	-0.5	in	-0.08187
tic lgth (- in) X-axis	-0.5	in	-0.06858
PLOT SCALE IN/MIN LON	6.1075	in	
(or in/unit) IN/MIN LAT			7.29117 in

CROSS-MARKS	
1	interval in min.
0.2	tic length (in) XL&YL
0	minX* (1st loc)
0	minY* (1st loc)
0.03275	length of XL [MIN/*]
0.02743	length of YL [MIN/*]
AXIS-LABEL (values in inches)	
0.2	right side, rt.shift
0.1	right side, drop.shift
0.3	bot shift left
0.3	bot shift down
0.15	label size

*adjust plot scale for X-axis	----- PLOT SIZE	54.9675	X-AXIS [IN]
*adjust ratio for Y-axis	----->	43.747	Y-AXIS [IN]
	GRIDZO	0.163733	X [MIN/IN]
	unit/in	0.137152	Y [MIN/IN]

:FRAME BORDER	X	Y	X	Y
LINE:	-26.00000	13.00000	-17.00000	13.00000
LINE:	-17.00000	13.00000	-17.00000	19.00000
LINE:	-17.00000	19.00000	-26.00000	19.00000
LINE:	-26.00000	19.00000	-26.00000	13.00000

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

BOR 10K
 CRV * F
 Time Samp + F
 Core Samp + F

Sample file scales:
 labels .1" = .017 units
 .15 = .0246

10K
 ONE FILE

BOR
 N/erv
 N/lab
 Coreo

5-6
 10-12
 15-18

SuppSta 015
 Lab X-off .011

Hancock County Project, NOS Chart 11371, (1:80,000)

(BOLD ARE INPUTS)

IN/MIN LAT (Y) **0.9114** ***** **24,000** "/MIN
 IN/MIN LON (X) **0.76344** (CALC OR INPUT RATIO)

ratio to select GRIDZO Y-scale RATIO Y/X **1.19360543** (X*RATIO=Y)

enter x,y data		DEGREE	MIN	Dec. MINUTES
X1			-26	-26.00000
Y1			13	13.00000
X2			-17	-17.00000
Y2			19	19.00000
X-axis ticks	min X		-26	-26.00000
X tick interval	XINC		1	1.00000
Y-axis ticks	min Y		13	13.00000
Y tick interval	YINC		1	1.00000
tic lgth (+ out)	Y-axis	-0.5	in	-0.19648
tic lgth (- in)	X-axis	-0.5	in	-0.16458
PLOT SCALE	IN/MIN L	2.54479	in	
(or in/unit)	IN/MIN LAT			3.03799 in

CROSS-MARKS	
1	Interval in min.
0.2	tic length (in) XL&YL
-89.4167	minX° (1st loc)
30.23333	minY° (1st loc)
0.07859	length of XL (MIN/°)
0.06583	length of YL (MIN/°)
AXIS-LABEL:(values in inches)	
0.2	right side, rt.shift
0.2	right side, drop.shift
0.3	bott shift left
0.3	bott shift down
0.15	label size

*adjust plot scale for X-axis — PLOT SIZE **22.9031** X-AXIS (IN)
 *adjust ratio for Y-axis —————→ **18.2279** Y-AXIS (IN)
 GRIDZO **0.392959** X (MIN/IN)
 unit/in **0.329165** Y (MIN/IN)

:FRAME BORDER	X	Y	X	Y
LINE:	-26.00000	13.00000	-17.00000	13.00000
LINE:	-17.00000	13.00000	-17.00000	19.00000
LINE:	-17.00000	19.00000	-26.00000	19.00000
LINE:	-26.00000	19.00000	-26.00000	13.00000

:BOTTOM	X	Y	X	Y
LINE:	-26.00000	13.00000	-26.00000	13.16458
LINE:	-25.00000	13.00000	-25.00000	13.16458
LINE:	-24.00000	13.00000	-24.00000	13.16458
LINE:	-23.00000	13.00000	-23.00000	13.16458
LINE:	-22.00000	13.00000	-22.00000	13.16458
LINE:	-21.00000	13.00000	-21.00000	13.16458
LINE:	-20.00000	13.00000	-20.00000	13.16458
LINE:	-19.00000	13.00000	-19.00000	13.16458
LINE:	-18.00000	13.00000	-18.00000	13.16458

24K scale

1:24,000

*11" = .036 u (x)
 .08" = .03 (x)
 100m = .054 min (H)
 .0645 (y)*

Hancock County Project, NOS Chart 11371, (1:80,000)

(BOLD ARE INPUTS)

	calc'd 1:x	new 1:x	"/°
IN/° LAT (Y)	54.6838	80,000.37	24,000 153
IN/° LON (X)	45.8083		(CALC OR INPUT RATIO)

ratio to select GRIDZO Y-scale RATIO Y/X 1.12380543 (X*RATIO=Y)

enter x,y data		DEGREE	MIN	Dec.Degree
X1		-89	26	-89.43333
Y1		30	13	30.21667
X2		-89	17	-89.28333
Y2		30	19	30.31667
X-axis ticks	min X	-89	26	-89.43333
X tick interval	XINC	0	1	0.016667
Y-axis ticks	min Y	30	13	30.21667
Y tick interval	YINC	0	1	0.016667
tie lgth (+ out)	Y-axis	-0.5	in	-0.00327
tie lgth (- in)	X-axis	-0.5	in	-0.00274
PLOT SCALE	IN/° LON	152.688		
(or in/unit)	IN/° LAT			182.27917 in

CROSS-MARKS	
1	interval in min.
0.2	tie length (in) XL&YL
-89.4167	minX° (1st loc)
30.23333	minY° (1st loc)
0.00131	length of XL [°/"]
0.00110	length of YL [°/"]
AXIS-LABEL:(values in inches)	
0.2	right side, rt.shift
0.2	right side, drop.shift
0.3	bot shift left
0.3	bot shift down
0.15	label size

*adjust plot scale for X-axis	PLOT SIZE	22.9031	X-AXIS (IN)
*adjust ratio for Y-axis		16.2279	Y-AXIS (IN)
	GRIDZO	0.006549	X [°/IN]
	unit/in	0.005486	Y [°/IN]

:FRAME BORDER	X	Y	X	Y
LINE:	-89.43333	30.21667	-89.28333	30.21667
LINE:	-89.28333	30.21667	-89.28333	30.31667
LINE:	-89.28333	30.31667	-89.43333	30.31667
LINE:	-89.43333	30.31667	-89.43333	30.21667

:BOTTOM	X	Y	X	Y
LINE:	-89.43333	30.21667	-89.43333	30.21941
LINE:	-89.41667	30.21667	-89.41667	30.21941
LINE:	-89.40000	30.21667	-89.40000	30.21941
LINE:	-89.38333	30.21667	-89.38333	30.21941
LINE:	-89.36667	30.21667	-89.36667	30.21941
LINE:	-89.35000	30.21667	-89.35000	30.21941
LINE:	-89.33333	30.21667	-89.33333	30.21941
LINE:	-89.31667	30.21667	-89.31667	30.21941
LINE:	-89.30000	30.21667	-89.30000	30.21941



(see diagram)

(20 Output Scales)

1:80,000 (pos chart)

.021831 x .018287
(7 x 5.5")

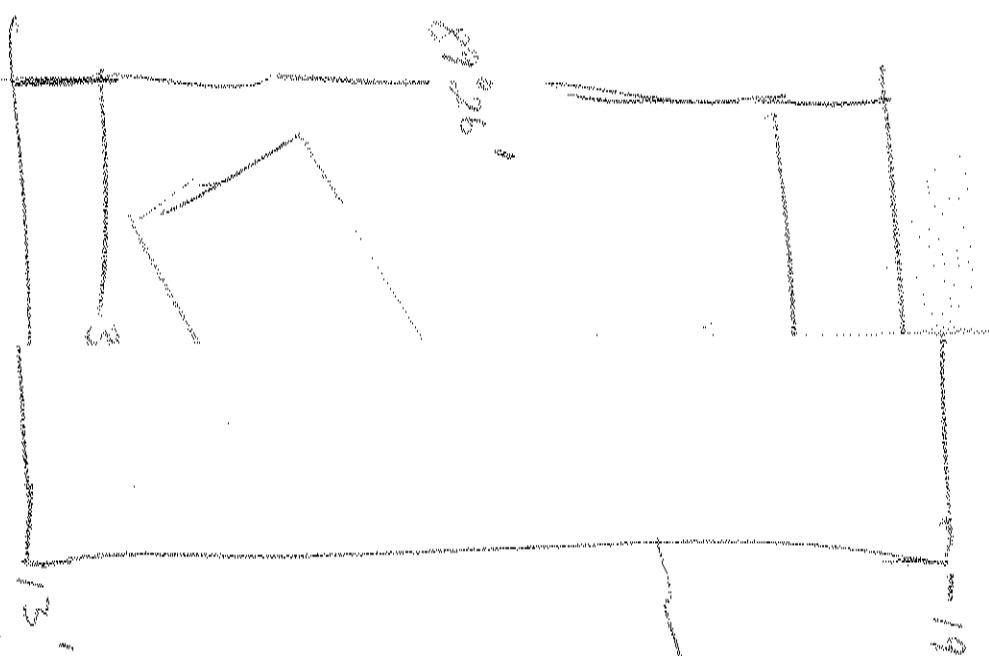
1:40,000
.010916 x .009143
(14 x 11")

1:24,000
.006549 x .005486
(23 x 18")

1:20,000
.005458 x .004572
(33 x 23") (3x3p)

1:10,000
.002729 x .002286

dis cont to 20'



Base Map



1:24,000 ?

89' 17"

SCALE PATTERNS
20 min lon = 15 1/16
12 min lon = 10 1/16

NOS 11371

1:40k map of bearings
10 min lon = 15 1/16

.66
.54

MISS. SOUND
LINE



LINE-
MISS. SOUND
SEPT 1989
GEOPULSE 105J

CRUISE LOG

~~Anchor~~
Boat at

Bordages Marina
on Bayou Caddy

~~Handwritten scribbles~~

(30/wk = covered dip)
(gas 132/gal)

UNIVERSITY OF SOUTH FLORIDA AT ST. PETERSBURG
DEPARTMENT OF MARINE SCIENCE
140 SEVENTH AVEUNE SOUTH
ST. PETERSBURG, FLORIDA 33701-5016
813: 893-9130

Hancock County Project

Sand ridges - Hancock Trench
on Buckman

Boat
Personnel

Stoa Reiland

Steve Anderson

Randy McBride

Paul Conners

Tim Leary

Robert Seal

Stan Locker

Boat = ECOLI 24'

Louisiana University Marine Consortium

(LUMCON)

MISS. SOUND CRUISE REVIEW

Low miles in study area
= 163km = 101 miles
Total study = 2000 km
= 1243 miles

11 Mon - Travel to Waukegan - arrive ~ 9pm

12 Tues - went to marina to look for boat
↳ boat delayed - arrived - 5pm

13 Wed - mobilized boat / load gear
~ 10 AM went out with

1. Steve Penland
2. Robert (Bob) Seal
3. S. Lacker

- set up not ok - put generator
up top, EPC trigger not on
- return to dock; get supplies
from hardware - Fixed Setup

(In Afternoon PC & Randy arrived.)

4 PM go back out with

1. Randy McBride
2. Paul Connor
3. S. Lacker

↳ Bayla Glisnie - stop @ 1850 (6:50 pm)
return to dock ~ 9:30 pm

14 TH exit B. Caddy ~ 9:20 AM - return 1715

crew (PC & Randy)

(Tim arrives PM)
w/ Steve Seal

15. Fr crew Steve Andersen + Tim

(AM - 1800/6pm)

16 Sat (S. Locker + Steve) only
(went to Airport AM to drop Tim)

17 Sun (Stan, Sha, Steve)
(rough in morning, spec plotted)

18 Mon (Stan + Steve) only
(Tim returned AM) (finished main directives by noon)

19 Tues (Stan, Tim, Sha)

met w/ Bill Mitchell in AM to
show data.

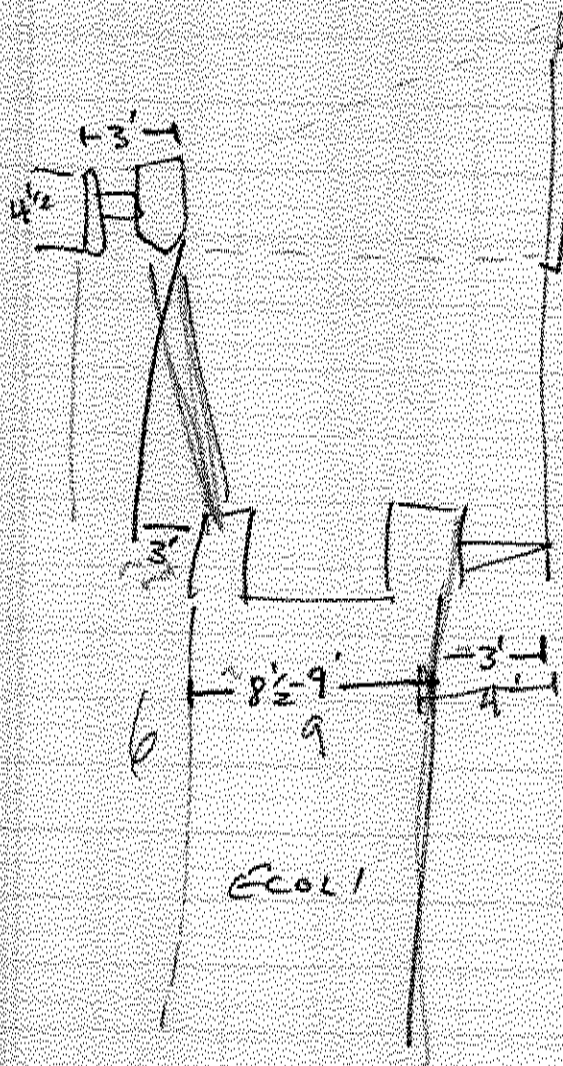
went out 11 AM - spent most
day in ~~the~~ St. Louis Bay

return to dock ~ 1700.

demob/load car

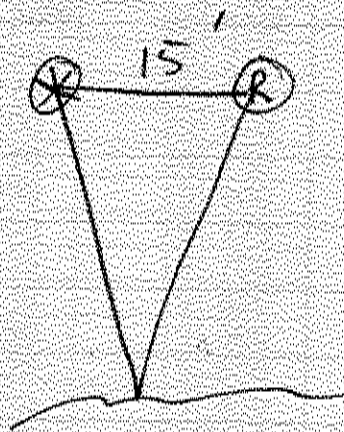
20 Leave to St. Pete w/ Tim.

TOWING CONFIG.



~~Shower~~
~~not seen~~

~15' spread



Core Loc used in field work from grid overlay

HC boring loc listing

HANCOCK COUNTY PROJECT					
Boring	Latitude	Longitude	Boring	Latitude	Longitude
1	15.000	24.670	51	16.600	21.410
2	15.125	24.380	52	16.330	21.160
3	16.690	21.940	53	16.690	21.240
4	16.880	21.650	54	16.423	21.010
5	14.410	24.960	55	16.790	21.075
6	14.150	24.760	56	16.510	20.850
7	14.520	24.790	57	16.890	20.930
8	14.250	24.600	58	16.595	20.710
9	14.630	24.625	59	17.000	20.780
10	14.350	24.440	60	16.710	20.530
11	14.730	24.460	61	17.080	20.615
12	14.450	24.260	62	16.790	20.380
13	14.805	24.330	63	17.120	20.460
14	14.530	24.130	64	16.890	20.210
15	14.910	24.165	65	17.270	20.290
16	14.650	23.960	66	17.000	20.070
17	15.000	24.000	67	17.370	20.130
18	14.750	23.810	68	17.095	19.900
19	15.090	23.860	69	17.460	19.970
20	14.820	23.630	70	17.185	19.750
21	15.190	23.710	71	17.540	19.830
22	14.910	23.490	72	17.280	19.600
23	15.280	23.550	73	17.635	19.680
24	15.010	23.350	74	17.380	19.430
25	15.370	23.400	75	17.750	19.510
26	15.110	23.170	76	17.480	19.260
27	15.470	23.240	77	17.840	19.340
28	15.210	23.020	78	17.570	19.120
29	15.580	23.080			
30	15.300	22.850			
31	15.660	22.930			
32	15.395	22.690			
33	15.760	22.790			
34	15.470	22.565			
35	15.855	22.630			
36	15.570	22.430			
37	15.940	22.500			
38	15.660	22.270			
39	16.040	22.335			
40	15.760	22.110			
41	16.130	22.180			
42	15.850	21.960			
43	16.230	22.005			
44	15.960	21.775			
45	16.330	21.850			
46	16.050	21.630			
47	16.420	21.710			
48	16.140	21.470			
49	16.510	21.560			
50	16.230	21.310			

17, 174, 20, 462

CRUISE LOG

CRUISE: MISSISSIPPI SOUND

DATE: 9-13-89 Page 1

TIME	LAT	LON	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...
1044				Large Mar.
1045	30 14	89		
1606	30 14 36	89 25 15		Test - Strakeby Family M. Birds, Paul Green
1614	30 14 30	89 24 89		"
1619	30 14 12	89 24 93		Turned course - 195°
1624	30 14 07	89 25 13		heading towards east 275°
1644	30 14 12	89 25 12	SOL A	Equip. down for awhile
1646	30 14 23	89 25 20		SOL A
1647	14 29	25 23		
1648	14 36	25 26		
1649	14 44	25 29		
1650	14 50	25 32		
1650	30 14 52	89 25 37		
1653	14 70	25 41		
1654	14 76	25 43		Turned course: 45° SOL B
1655				
1656	14 87	25 31		heading 47°
1657	14 91	25 24		
1659	15 02	25 11		
1700	15 06	25 03		heading 54°
1701	15 10	24 97		
1702	15 15	24 90		
1703	30 15 21	89 24 83		
1705	15 28	24 67		
1706	15 32	24 62		marked record
1707	15 40	24 54		
1708	30 15 47	89 24 59		
1711	30 15 52	24 54		Turned: heading 120°
1712	15 50	24 48		
1713	15 52	24 41		

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: _____

TIME	LAT	Lon	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(s) STATUS, ETC..
1715	15.52	23.98		
1717	15.51	23.83		
1725	15.57	23.50	B	
1723	15.59	23.34		
1726	15.70	23.11		
1730	15.88	22.81		
1734	16.06	22.50		
1735	16.08	22.42		
1740	16.29	22.03		
1741	16.36	21.95		TURN to head near shore
1744	16.56	21.94		
1746	16.75	21.97		Turn head 55° Core #13
1748	16.87	21.86		
1750	38° 16.90	89° 21.69		Core #4
1752	16.93	21.52		
1755	16.96	21.27		
1759	38° 16.99	89° 21.10	B	Mark on record
1758.2	17.01	20.98		Turn
1803	17.22	20.59		
1804	17.29	20.57		
1806	17.36	20.35		
1810	17.55	20.04		
1812				Turn
1813.5	17.77	19.83		
1815	17.89	19.76		
1817	18.01	19.65		
1818.30	18.12	19.60		Straight at fishing pier road.
1820	18.23	19.54		
1822	18.39	19.46		
1824	18.50	19.40		
1824.30	18.57	19.39	C	Turn at Bridge SOL C
1825	18.59	19.36		Turn recalled to Bridge

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE:

DATE: 9-13

TIME	LAT	LONG	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...
1828	18.56	179.10		along bridge
1830	18.55	18.94		
1837	18.17	18.51		
1838	18.13	18.45		
1839	18.09	18.38		
1840	18.00	18.31		
1842	17.90	18.17		
1845	17.73	17.96		
1848	17.58	17.71		
1850	17.50	17.54		STOP for day
0930	(-08)	(-06)		SEPT 14, 1989
0932	14.37	25.53		under way
0942	14.37	25.53		Green #5 by Terry's Seabed
0943	14.25	25.20	39	LORAN FIX (0942 - SEIS ON)
0944	14.33	25.19		
0945	14.39	25.12		
0946	14.42	25.06		
947	14.44	24.96		
948	14.45	24.87		
949	14.49	24.79		14.41 24.73
950	14.51	24.70		
951	14.53	24.61		
952	14.58	24.54		14.50 24.48
953	14.60	24.46		14.52 24.40
954	14.64	24.38		14.56 24.32
955	14.68	24.31		14.60 24.25
0956	14.73	24.25		14.65 24.19
0957	14.77	24.18	39	14.69 24.12
0958	14.85	24.12		14.77 24.06

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: -

DATE: 9/14/89

TIME	LAT ⁽⁰⁸⁾	LON ⁽⁰⁶⁾	LINE #	COMMENTS / EVENTS	
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(s) STATUS, ETC...
0959	30° 14.90	79° 24.06	39	14.82	24.00 <u>80ms</u>
1000	14.92	24.00		14.84	23.94
1002	14.02	23.85			
1004	15.11	23.72		15.03	23.66
1005	15.15	23.65		15.07	23.59
1007	15.24	23.52		15.16	23.46
1009	15.33	23.38		15.25	23.22
1010	15.38	23.31		15.30	23.25
1012	30 15.47	89 23.16		15.39	23.10
1017	15.67	22.99		15.59	22.73
1020	30 15.76	89 22.85			
1022	15.81	22.39		15.73	22.33
1024	15.87	22.24		15.79	22.17
1025	15.92	22.19		15.94	22.12
1027	16.05	22.08			
1029	16.17	21.94			
1030	16.21	21.87			
1032	16.28	21.75		16.20	21.69
1036	16.50	21.47		16	
1037	16.51	21.41		16.32	21.35
1040	16.66	21.20		16.58	21.14
1042	16.73	21.07	39	16.65	21.01
1045	16.84	20.83			Mark on record
1047	16.91	20.67			
1050	16.99	20.47			
1052	17.08	20.29			
1052	17.10	20.22			
1055	17.21	20.09			
1057	17.31	19.96			
1100	17.45	19.75			
1102	17.56	19.62			
1105	17.68	19.39	39		

500-3000 Hz
FILTER
TO NOW

500-3000 Hz

← Δ to 700-3000 Hz

700-3000 Hz

Top back calibrated: 7000 / side 1

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

2019

CRUISE: _____

DATE: 9/14/89 Page 5

TIME	LAT ^(N)	LONG ^(W)	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...
1109	30° 17.85	89° 19.09	39	
1111				Tape 1: End Side 1 Begin Side 2
1114				
1115	18.09	18.64	39	80 ms Sweep
1118	18.24	18.44		18.16 - 18.28
1120	17.33	18.30		18.24 - 18.24
1122	18.43	18.17	39	EOL 39
1126	18.56	18.39		
1127	18.53	18.46	38	SOL 38
1129	18.46	18.64		
1130	18.73	18.73		
1132	18.38	18.87		60 ms Sweep
1134	18.28	19.07		
1135	18.25	19.13		
1137	18.11	19.28	38	
1138	30 18.02	89 19.31		
1139	17.96	19.37		
1140	17.86	19.42		
1142	17.75	19.54		.67 .48
1143	17.68	19.62		.60 .56
1144	17.65	19.72		.57 .66
1145	17.62	19.82		.54 .76
1146	17.60	19.91		.52 .85
1147	17.55	20.01		.47 .95
1149	17.46	20.18		.38 .12
1150	17.41	20.28		.38 .28
1152	17.33	20.48		.25 .42
1153	17.28	20.57		.20 .51
1154	17.19	20.63		.11 .57
1155	17.14	20.71	38	17.05 .65
1157	17.05	20.88	38	16.97 .82

Change To 60 ms Sweep

SEISMIC INFO:

- Sweep rate
- Delay
- Shot rate
- Program
- Source power level
- Gain
- Filter

CRUISE LOG

CRUISE: _____

DATE: 9/14

TIME	LAT ⁰⁸	LON ⁰⁶	LINE #	COMMENTS / EVENTS	
				BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S)	STATUS, ETC...
58	16.96	20.96	38	.88 .90	60 ms SWP
1159	16.91	21.02		End Tape 1, begin Tape 2	
1200	16.84	21.13		.76 .07	
1202	16.75	21.29		.67 .23	
1203	16.71	21.39		.63 .33	
1205	16.61	21.58		.53 .52	
1207	16.54	21.75		.46 .69	
1209	16.43	21.92		.35 .86	
1211	16.32	22.09		.24 .03	
1213	16.19	22.25		.09 .19	
1215	16.07	22.40		15.99 22.34	
1217	15.96	22.60		.18 .51	
1219	15.87	22.76		.79 .70	
1220	15.82	22.85		.74 .79	
1222	15.73	23.04		15.65 22.98	
1224	15.62	23.21	38		
1225	15.58	23.29		.50 .23	
1227	15.45	23.45		.37 .39	
1229	15.35	23.60		.27 .54	
1230	15.21	23.67		.23 .61	
1232	15.20	23.80		.12 .74	wide sound shiner
1233	15.13	23.86		.08 .80	wide sound tapes
1234	15.09	23.96			
1235	15.03	24.03		14.95 23.97	
1237	14.98	24.20			
1238	14.92	24.28		.74 .22	
1240	14.85	24.45		.77 .39	
1241	14.81	24.54		.73 .49	
1243	14.70	24.70		.62 .64	
1245	14.61	24.86		.53 .80	
1247	14.51	25.01		.40 .95	
1248	14.44	25.07	38	EOL 38	Red Marker FIX also

SEISMIC INFO:

Sweep rate
 Delay
 Shot rate
 Program

Source power level
 Gain
 Filter

CRUISE LOG

CRUISE: _____

DATE: 9-14

TIME	LAT	LON	LINE #	COMMENTS / EVENTS	
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(s) STATUS, ETC...
1250	14.32	25.12			Transit to line 40
1251	14.24	25.11		.16	.05 60 ms SWP
1252	14.16	25.11		.08	.05
1253	14.06	25.10			TURN
1254	14.05	25.03	X		SOL 40
1255	14.10	24.95			OFF
					DOWN - Power Supply Failed
					(BLOWN FUSE)
1521					Head in to FIX PS. Underway
1523	14.37	25.52	SOL 40		RESTART LINE 40
1532	14.09	25.12	40	.01	.05 SEIS ON, BOL 40
33	14.11	25.05		.02	24.99 700-3000 Hz
1534	14.16	24.97		.08	.91
1535	14.22	24.87	40	.14	.81
1536	14.26	24.79		.18	.73
1537	14.32	24.70		.24	.64
1538	.39	.62		.31	.56 START TAPE 2, side B
1539	.41	.52			
1540	.47	.45		.39	.39
1542	.54	.27		.46	.21 700-3000 Hz
44	.64	.12		.56	.06
45	14.71	24.04		14.63	23.98
47	14.80	23.88		.72	.82
1549	14.90	23.72	40	.82	.66
1550	14.94	23.64		.86	.58
1552	15.03	23.47		14.95	23.41
54	15.14	23.32		.06	.26
1555	15.19	23.24		.11	.17
57	15.30	23.06		.22	.02
58	15.35	23.00		.27	22.94
1559	15.39	22.91		.31	.85

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: MISS. SOUND

DATE: 9-14-89 Page 8

TIME	LAT	LON	LINE #	COMMENTS / EVENTS
1600	30° 15.42	89° 22.83	40	BOL .34 EOL .77 ← correcte last of last ...
1602	.53	.66		.45 .60
1604	15.63	22.49		.55 .42
1605	.66	.40		
1607	.75	.23		.67 .17
1609	15.86	22.08		.78 .02
1610	15.90	22.00		.82 21.94
1612	16.01	21.83		15.93 21.77
1614	16.11	21.68		.03 .60
1615	.17	.60		.09 .54
1617	.28	.44		.20 .33
1619	16.40	21.30		.35 .24
1620	.44	.21		.36 .15
1622	.54	21.04		16.46 20.98 ?
1623	16.58	20.95		.50 .89
1625	16.65	20.77		.57 .71
1627	16.75	20.61		.69 .55
1629	16.84	20.44		.76 .38
1630	16.91	20.36		16.83 20.30 (corrected)
1632	17.00	20.19		16.92 20.13
1635	17.15	19.95		.07 .89
1638	17.32	19.72		.24 .66
1639	.36	.63		.28 .57
1640	17.39	19.56		.21 .50
1642	17.60	19.34		.52 .28
1645	17.65	19.17	40	.57 .11
1646				EOL 40 SHUT DOWN Squall Hits.

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE: MISS. SOUND

CRUISE LOG

DATE: 9-15-79 Page 9

TIME	LAT	LONG	LINE #	COMMENTS / EVENTS
0850	30 14.35	89 25.53	41	Green #5 beam deck
0906	13.81	24.90	30L 41	(0904 Begin Seismic)
0908	13.85	24.92		
0909	14.02	24.84		
0910	14.08	24.76		
0911	12	67		
0913	.22	.53		
14	.27	44		
0915	.31	.36		
16	.37	.28		
17	14.40	19		
0919	30 14.42	89 24.03		
0921	30 14.57	89 23.94		
22	.61	23.76		
24	.70	59		
0924				sub type 3A start type 30
0926	.80	45		
28	30 14.96	19		
0930	30 15.02	89 23.09		
0932	30 15.11	89 22.95		
33	.16	22.87		
35	.29	72	41	
37	.39	87		
38	.45	46		
40	.52	32		
0939				Reset Tape Deck - Reset Gain
0943	.71	22.10		
44	.75	22.02		
45	.80	89 21.93		
47	.89	21.78		
48	.98	21.60	41	
0950	15 99	21 50		change Filter to 1000-5000 Hz

Begin
MIN/
NEW
Row 243

700-3000 Hz

SEISMIC INFO:

- Sweep rate
- Delay
- Shot rate
- Program
- Source power level
- Gain
- Filter

CRUISE LOG

CRUISE: MISS. SOUND

DATE: 9/15 Page 10

TIME	LAT	LON	LINE #	COMMENTS / EVENTS	
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC..
0952	30 16.10	89 21.38	41	.04	.27
54	17	16		.31	10
55	21	21.09		.15	.01
56	26	89 20.98		.20	.92
57	30	91		.24	.84
58	37	83		.31	.79
59	42	76		.34	.70
1000	11 48	68		.42	.62
1002	58	20 52		.52	.46
1003	62	44		.56	.38
1005	71	30		.63	.24
1007	82	14		.77	.08
08	87	20 05		.81	.19
10	16 96	19 99		.90	.53
12	17 08	75		.02	.69
14	17	57		.11	.51
1015	24	49		.18	.41
1017	31	34		.23	.32
1020	50	19 03		.46	.97
22	17 57	18 35		.51	.89
23	04	88		.53	.82
1025	76	73		.80	.67
26	80	65		.94	.59
28	17 90	48	41	.84	.92
1030	18.00	18.74		.96	.28
1050					
1051	18.02	17.99		17.96	17.93
1052	18.01	18.03		.95	.97
1054	17 86	18 09		.80	.03
1055	17.77	18.15		.71	.09

EOL 41

Restart TAPE 4 - Resene

SEISMIC INFO:

Sweep rate
 Delay
 Shot rate
 Program
 Source power level
 Gain
 Filter

CRUISE LOG

CRUISE: _____

DATE: 9/15

TIME	LAT	LON	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC..	
1056	30° 17.72	89° 18.23	42	.66	.17
1058	30 17.62	18.41		.56	.35
1059	17.60	18.50		.54	.44
1100	17.52	18.58		.46	.52
1102	.48	18.76		.39	.70
1103	.42	18.86		.36	.80
1105	.33	19.04		.27	.98
1107	.21	19.20		.15	.14
1108	.19	19.27		.13	.21
1110	17.05	.42		.99	.36
1112	16.91	.57		.85	.51
1113	16.89	.65		.83	.59
1115	.76	.81		.70	.75
1116	.71	.90		.65	.84
17	.65	19.98		.59	.92
18	.60	20.07		.54	.91
20	.54	20.26		.49	.20
21	.49	.34		.42	.28
23	.43	.52		.37	.40
25	.30	.70	42	.24	.64
27	.23	.87		.17	.81
28	.16	20.95		.10	.89
30	16.07	21.13		.01	.07
32	15.98	21.31		.92	.25
34	15.87	.47		.81	.41
35	.80	.55		.74	.49
37	.71	.73		.65	.67
38	.65	.81		.59	.75
40	.55	21.99		.49	.93
42	.44	22.16		.38	.10
43	.40	22.24		.34	.18
45	15.24	22.44		.23	.35

Starting
tape 1 4B - END * 4A

1000 - 5000 Hertz

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-15-89

TIME	LAT ⁻⁰⁶	LON ⁻⁰⁶	LINE #	COMMENTS / EVENTS	
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(s) STATUS, ETC...
1147	30° 15.16	89 21.57	42	.10	.51
48	15.13	22.66		07	.60
50	15.01	22.83		95	77
52	14.92	22.99		96	93
53	14.86	23.07		90	01
55	14.75	23.22		69	17
57	14.66	23.39		65	33
58	14.60	23.48		64	42
1200	14.51	23.62		45	59
02	14.39	23.81		33	75
03	14.34	23.89		28	83
05	14.26	24.07		20	01
07	14.19	24.25		13	19
08	14.15	24.35		09	29
10	14.04	24.51		98	45
12	13.92	24.67		86	61
13	13.86	24.76		80	70
14	13.79	24.84		73	71
1215	13.75	24.94	42		
	13.71	25.01			
1216:30	13.67	25.06		TURN	EOL 42 (0217)
1218:30	13.53	25.03		47	97
1219				TURN	for 43
1220					
1221					
				ON COURSE	
1220	13.42	24.92	43	.36	.86
1221	13.46	24.84		90	78
1222:30	13.53	24.72		47	66
1224	.63	.61		57	55
1225	.67	.54		61	48
					SPD ~ 4.8
1227	.82	.41		74	35
					increase speed to ~
1229	13.92	24.26		86	20

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-15-89

TIME	LAT	LON	LINE #	COMMENTS / EVENTS	
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(s) STATUS, ETC..
1230:45	13.96	24.18	43	90	12
1232	14.07	24.01		74.06	23.95
1235	14.24	23.78		18	72
1237	14.32	23.62		26	56
1239	14.43	23.45		37	39
1240	14.49	23.37		43	31
1243	14.63	23.12		57	00
1244	30° 14.69	89° 23.03			
1245	14.73	22.95		67	84
1246	14.78	22.87			
1247:30	14.84	22.75			
49	14.93	22.62			
1250	14.99	22.54	43		
1252	15.07	22.39			
1255	15.20	22.15		14	09
1257	15.31	22.00		25	21.94
59	15.42	21.84		36	72
1300	15.47	21.76		41	70
02	15.55	21.62		49	56
03	15.60	21.54		54	49
05	15.71	21.39		65	33
07	15.78	21.22		72	16
08	15.84	21.14		78	08
10	15.92	20.99		86	93
12	16.02	20.93		96	77
13	16.07	20.75	43	01	69
15	16.14	20.59		08	53
17	16.25	20.47		19	37
18	16.26	20.35		26	29
20	16.37	20.19		31	13
22	16.49	20.00		43	94
23:23	16.51	19.96		45	90

This part of line 42 not plotted in right direction (NB is to left)

Change print direction (NB to left) adjust paper, speed (15.1)

TAPE: 5A and stand 5B

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-15-89

TIME	LAT	LON	LINE #	COMMENTS / EVENTS		
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...	
1325	30° 16.60	89° 19.80	43	54	74	
27	16.70	19.66		64	59	
28	16.76	19.58		70	52	
30	16.85	19.41		79	35	
32	16.92	19.26		86	20	
33	17.00	19.18		90	12	
35	17.10	19.05		04	91	
13 37	17.22	18.90	43	16	84	
38	17.29	18.83		23	77	
40	17.36	18.67		30	61	
42	17.48	18.53		42	47	
43	17.53	18.45		47	39	
46	17.67	18.21		61	15	
47	17.70	18.12		64	06	Start Tapes 6A
48	17.72	18.03		66	97	
13 50	17.82	17.87		76	81	EOL 43
			44			
						Charge Paper
1400	17.71	17.78	44			START POWER TO SEIS SOL 44
	17.71	17.84		65	78	
1405	17.62	17.98		56	92	
1408	17.93	18.16		37	10	
1410	17.34	18.34		28	28	SFD = 5.2 K+S
1412	17.24	18.53		19	37	TURN ON TAPE 6A (seismic)
1414	17.15	18.70		9	64	
1415	17.10	18.79	44	4	73	
17	16.98	18.95		92	89	
18	16.91	19.04		85	91	
20	16.78	19.17		72	11	
22	16.68	19.37		52	31	
23	16.61	19.44		55	33	
14 25	16.51	19.62		48	56	

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9/15 Page 15

TIME	LAT	LON	LINE #	COMMENTS / EVENTS	
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC..
1427	30° 16.48	89° 19.80	44	34	74
28	16.27	89 19.39		31	83
30	16.23	20.08		22	92
32	16.16	20.26		10	20
33	16.12	20.36		66	30
35	16.03	20.54		97	48
37	30° 15.91	89 20.71		85	65
38	15.87	20.79		81	78
40	15.76	20.96		70	90
42	15.63	21.5		56	09
43	15.57	21.24		51	15
45	15.46	21.57		40	31
47	15.35	21.55		27	49
48	15.24	21.63	44	23	57
50	15.18	21.72		12	73
52	15.07	21.97		01	91
53	15.00	22.06		94	00
55	14.89	22.23		83	17
57	14.81	22.41		75	35
14 58	14.77	22.51		71	46
1500	14.66	22.61		60	63
02	14.57	22.87		51	81
03	14.51	22.98		48	92
05	14.42	23.15		36	09
07	14.35	.33		27	27
08	14.29	.43		23	37
10	14.15	.60		12	54
12	14.08	.77		02	71
13	14.03	.88		97	82
14	13.99	23.95		93	89
15	13.89	24.01		83	95
1518	30° 13.74	89° 24.26	44	68	20

END

end -
go to
bottom of pg.

SEISMIC INFO:
 Sweep rate
 Delay
 Shot rate
 Program
 Source power level
 Gain
 Filter

CRUISE LOG

CRUISE: _____

DATE: 9/15

Page 16

TIME	LAT	LON	LINE #	COMMENTS / EVENTS	
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(s) STATUS, ETC..
1520	30° 13.63	24° 24.41	44	57	35
22	13.51	24.58		45	52
23	13.45	24.57		39	61
25	13.34	24.84		28	78
1527	13.24	25.06	44 EOL	18	80
35	13.06	24.73		00	67
37	13.06	24.55		00	49
39	13.06	24.34		00	28
40	13.06	24.24		00	18
41	13.11	24.14		05	03
42	13.15	24.06		09	00
1543	13.19	23.99	1 SOL	18	93
44	13.25	24.01		19	95
45	13.27	24.12		21	06
46	13.27	24.22		21	16
47	13.31	24.31		25	25
1548	13.39	24.36		33	30
49	13.47	24.41		41	35
50	13.53	24.42	f	47	36
51	13.53	24.43		57	37
52	13.69	24.45		63	39
53	13.77	24.47		71	41
55	13.96	24.53		90	47
56	14.04	24.57		99	51
57					
1558	14.20	24.70		14	64
1558/45	14.22	24.74		Green #3	16 68
				105	102
16030	14.48	24.99		13	25.01
	14.65	25.24.16		59	10
	14.71	25.27.21		65	15
1609	14.86	25.24.33		80	27

EOL 44
SHUT DOWN
START SEISMIC
Transit to Line 1

SOL 1

and tape 7A.

Should be
1417 24.76
24.83 74
~~24.85~~ ~~73~~

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: MISS SOUND

DATE: 9/15

TIME	LAT	LON	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...
1609	30 14.5	89 25.2		
1613	30 14.71	89 25.17	D _{sol}	Begin line D
14	14.77	25.07		71 01
15	14.79	24.97		72 01
16	14.84	24.89		73 03
17	14.90	24.82		74 06
1617.00	14.92	24.78		75 07
18	14.98	24.75		76 09
18:30	30 32 15.01	89 25.70		77 11
19	05	25.67		78 13
20	09	25.60		79 15
21	14	25.50		80 17
22	15.18	24.41		81 19
23	24	24.31		82 21
24	25	24.24		83 23
25	33	24.15		84 25
26	39	24.07		85 27
27	44	23.98		86 29
28	49	23.89		87 31
29	58	23.82		88 33
30	62	23.74		89 35
31	15.56	23.69	E _{sol}	Begin line E
32	47	23.72		90 37
33	37	23.80		91 39
34	30	23.83		92 41
35	24	23.89		93 43
36	17	23.97		94 45
37	15	24.06		95 47
38	15.11	24.15		96 49
39	04	24.24		97 51
40	15.02	24.34		98 53
42	14.93	24.53		99 55

SEISMIC INFO:

Sweep rate _____
 Delay _____
 Shot rate _____
 Program _____
 Source power level _____
 Gain _____
 Filter _____

CRUISE LOG

CRUISE: _____

DATE: 9/15

TIME	LAT	LON	LINE #	COMMENTS / EVENTS	
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(s) STATUS, ETC..
1643	30° 14.89	89° 24.62	E	83	86
45	80	80		79	74
47	71	97		65	91
48	67	25.05		61	97
50	52	20		46	14
50:30	14.50	25.26	E		EOL 'E'
52	50	31	EOL	50	26
53	64	34		58	28
54	76	33		70	27
55	85	30	2 SOL	79	24
56	93	24	2	87	18
57	14.93	15		87	09
58	86	25.11		80	05
59	75	07		69	01
1700	67	25.02		61	96
1701	59	24.96		53	90
1703	47	1.81		41	75
1705	37	66		31	60
1707	21	51		15	45
1708	13	24.44		07	38
10	14.01	09		95	25
12	13.84	15		78	09
13	78	08		72	02
14	70	04		64	98
15	62	24.00	2	56	94
17	44	23.90		38	84
18	13.36	23.87		30	81
20	19	78		13	72
22	01	67		95	61
23	12.95	62		89	56
1725	30° 12.79	89° 23.49		73	43

Root #2 to STBD.
 HE 14.13, 24.42
 070

SEISMIC INFO:

Sweep rate	Source power level
Delay	Gain
Shot rate	Filter
Program	

-110° out
-230° 14'

CRUISE LOG

CRUISE: MISS. SOUND

DATE: 9-16-89

TIME	LAT ⁻⁰⁶	LON ⁻⁰⁶	LINE #	COMMENTS / EVENTS	
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(s) STATUS, ETC..
1115	14.91	25.06		.85	00 under way
16	14.98	25.05			
17	15.08	08			
1118	15.16	25.09		.10	.03
1119	15.15	25.03	3201	.07	24.97 BOL 3
20	15.07	24.97		.01	71
22	14.90	24.89		84	83 START TAPE 8A
24	74	80		68	74
1125	14.68	24.76		62	70
26	60	72		54	66
1128	45	60		39	54
1129	37	54		31	48
1130	31	47		25	41
32	17	32		11	26
33	13	26		7	80
1135	14.01	24.13		13.95	24.07
1136.30	13.89	24.04		.83	23.98
38.30	72	92		66	86
1140	13.60	23.86		51	80
41	54	81		48	75
42	44	76		38	76
1144.25	54	58	4300		EOL 3 BOL 4
1145	58	59		52	57
46.30	68	66			
47	73	70		67	64
48	79	77		73	71
49	87	84		81	78
1150	13.91	23.91		85	85
51	13.99	98		93	92
52.30	14.09	24.07		03	01
53.30	11	13		11	03

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-16

TIME	LAT		LON		LINE #	COMMENTS / EVENTS		
	BOL	EOL	TURN	C/C		TAPE #	SYSTEM(S)	STATUS, ETC..
1155	30°	14.29	29°	24.17	4	.23	11	
56		37		22		31	16	
57		46		27		40	21	
58		54		33		52	27	
1200		70		44		64	38	
1202	14.84		24.56			78	50	
04	14.99		67			93	61	
1205	15.07		24.73			.01	.67	
1206:30	15.17		24.81					
07	19		84		4	EOL	TURN	EOL 4
08	25		71					
1209	28		69		5	BOL	TURN, BOL 5	
1210	22		63			16	57	
10:30	18		61					
11	15.14		59			05	53	
12	15.08		54			02	48	(8A in/out)
1213	97		49					START TAPE 8B
14	14.91		24.43			35	37	
1215	85		37			32	31	
1216	75		32			69	36	
17	69		28			63	32	
18	62		21			56	15	
19	54		16			48	10	
1220	46		11			40	05	
21	40		24.04			34	09	
22	32		23.99			26	02	
24	14.18		86			12	80	
1225	10		83			08	78	
1227	13.95		23.68			89	62	
28:30	83		58					
1229	13.81		23.56			75	50	
1230	73		50			67	44	
31	69		44					
32	61		37			52	31	
33	53		32					
34	45		27			39	21	
1235	37		23					EOL 5
37	47		12					
37:30	51		10		6	TURN	BOL 6	
38	13.55		23.10			49	04	

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-16

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TIME	LAT	LON	LINE #	COMMENTS / EVENTS	
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC..
1239	13.61	23.16		55	10
1240	.69	.22		63	16
1241					
1252	13.46	23.22		40	15
	53	17		47	11
1253/30	57	13			
1254	61	13		55	07
1256	73	25		67	17
1258	13.88	38		82	32
1300	14.04	23.50		13.98	23.44
1302	14.20				
1303	26	68			
1305	42	79		36	73
1306	14.51	23.84		45	78
1307	57	89			
1308	63	23.95			
1309	71	24.01		65	23.95
1311	85	24.12		79	96
1312	14.95	18			
1313	15.02	24.24		14.96	24.18
1314	08	29			
1315	16	35		10	29
1316	24	41		18	35
1317	32	48		26	42
1318	38	54			
1319	43	49			
1320	45	40	7		
1321	41	32		35	26
1322	15.33	24.27			
1323	17	18			
1325	11	11			
1327:30	14.94	23.95			

DOWN

TAPE OF

Resume TAPE 8B

Tape 8 → 7
same place here.

TURN BOL 6

TURN BOL 7

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE:

DATE: 9-16

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TIME	LAT	LON	LINE #	BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S)	COMMENTS / EVENTS STATUS, ETC...
28:30	84	88	7	78 42	
29	82	85			CRAB POT OUT
29:30	78	81	7		
1330	76	78			
31	68	74			
32	57	69			
33	51	65	7	45 59	
1335	83	56		27 50	
36	14.25	23.50		19 44	
37	17	45		11 39	
39	14.02	23.32		13.76 26	
41	13.90	23.19			
42	89	23.13		78 07	
1343	76	23.07			TURN EOL 7
44	13.76	22.99			
45	89	22.94			
45:30	86	91			
1346	90	87	8	84 31	TURN BOL 8
47	13.98	22.90		92 24	
1349	14.09	23.06			
1350	14.17	23.13		11 07	
1351	14.23	23.19		17 13	
1352:30	14.33	23.29	8	27 23	
1354	14.45	23.39		39 33	
1355:30	57	46		51 46	
1357					
1358:30	76	62		70 56	
1359	82	65		76 59	
1400	14.90	23.70		84 64	
01	99	75		93 69	
02:35	03	79			
03	15.07	81		04 75	

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: MISS. SOUND

DATE: 9-16

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TIME	LAT	LON	LINE #	COMMENTS / EVENTS	
				BOL	EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...
1403	15.13	23.88	8	07	82
1404	15.21	23.95			
1405	15.27	24.00		21	23.94
1406:20	37	08		31	02
1408	15.50	24.18			
1408:20	53	13	8	TURN EOL 8	
10	53	13		Pickup MVO	
1408:30	57	11			
1411	52	09		46	03 gains out
11:30	31	04		TURN along shore	
12	52	24.00		46	21 94
1412:30	52	23.95	9	TURN BOL 9	
13	15.51	23.92		45	86
14	.41	.86		35	80
1430	38	84		32	78
1415:00	34	82		28	76
15:30	30	80		24	74
1416	24	78		18	72
1417	15.18	23.72	9	12	66
1419	15.02	23.60		14.96	54
1420	14.95	55		89	49
1421:30	14.83	23.47		77	41
23	73	37		67	31
1425	14.56	23.23		60	17
1427	14.42	23.12		56	06
1428:30	14.30	23.05		24	2.99
1429	26	23.02		20	96
1430	14.17	22.96		11	90
1431	14.09	89		03	83
32	14.03	22.82		13.77	22.76
1434	13.89	22.69		83	63
35	81	63		75	57

(speed = 5.4 kts)

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-16

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TIME	LAT	LON	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC..
1437	13.69	22.49	9	63 42
38	13.61	22.41		55 35
1439	13.52	22.36		46 30
1440	44	31		
1442	30	19		24 13
1443	13.22	22.13		16 07
1445	13.07	22.01		13.06 21.95
46	12.99	21.97		
47	12.89	21.93		83 87
48	83	88		
1450:30	12.67	21.73		EOL 9 END Tape 9B down for line maintenance REST STOP
1536	12.64	22.13		58 07 RESUME - TURN ON
1541	13.05	22.18		TURN ON TAPE 10A
1544	13.27	22.30		21 24
1547	50	26		44 20
1550	75	20	10	69 14 BOL 10
1552	13.89	22.31		83 25
53	93	38		
55	14.06	22.57		14.05 51
56	10	65		
56:30	6	68		
57	18	70		
1558	14.26	22.76		
1600:30	14.44	22.90		
1602	57	22.99		
3	14.63	23.07		
1605	14.77	23.16		
1606	85	22		

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-16

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TIME	LAT	Lon	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(s) STATUS, ETC...
1607	30° 14.93	23.29	10	
1608	15.00	23.35		100-5000 Hz
1609	15.08	24.1		60 ms sweep
1610	15.14	23.47		0 delay
1611	24	53		105 J
1613	28	57		
1612	32	59		
13	39	67		
16130	43	70		
14	49	74		
14:30	50	77		
1615				TURN EOL 10
1616:30	62	77		
1617	63	72		
161742	65	64	11	TURN BOL 11
1618	63	62		57 56
1619	54	56		
1620	48	49		
21	40	43		34 37
1622	34	37		
23	28	31		
23:30	23	28		
24	21	24		
01:30	17	21		
1625	15.13	23.18		
1626	15.23	23.29		
1627	14.98	23.06		
1628				1626:30 = 1623, 23:09
1628:30	14.98	22.96		
1629	84	93		
1630	78	88		
3:00	68	86		10A runout
1632	14.62	22.78		START TAP 10 B

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-16

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TIME	LAT	LON	LINE #	COMMENTS / EVENTS
BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...				
1633	20° 14.53	89° 22.73	11	
34	45	68	11	
1635	14.37	22.62		
1636	31	56		Speed = 5.1 kts
1637	22	51		
1638	14.16	22.45		
1639	14.08	22.39		
1640	13.98	22.33	11	TURN EOL 11
1641	14.02	27		
1642	14.08	21		
1642.50	14.14	22.20	12	BOL 12, TURN
1643	14.17	22.20	12	1643:30 = 12 (21 24)
1644	23	27		
1645:30	14.33	22.37		
1646	37	40		
1647	45	46		
1648	60	57		
1651	14.76	22.69		Corrected
52	84	76		78 70
53	14.92	22.81	12	86 75
54	14.98	22.87		
1655	15.07	22.93		
1656	15.15	22.99		
1657	15.21	23.04		
1658	15.29	23.09		
1658:40	35	12		
59	40	15		39 07
1700	15.45	23.21		
1701:30	48	25		
1701	52	28		
1702	60	36		TURN EOL 12
1703	65	35		

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-16-89

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TIME	LAT ⁻⁰⁶	LON ⁻⁰⁶	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...
1704	15 68	23 25	Trans-	
1704:20	68	20	13	TURN, BOL 13
1705:20	64	15		
1706	57	11		
1707	49	23.05		
1707:30	47	23.02		
1708	43	22.99		37 92
1709	15.37	22.92		
1710	29	85		
1712	17	71		
1714	15.00	22.59		
1715	14.93	22.54	13	
1717	14.79	22.45		
1718				END Tape 10B, Start 11A
1719	14.61	22.35		
1720	14.54	27		48 21
1721:20	44	22.20		38 14
1725	14.15	22.00		09 24 TURN EOL 13
26	14.19	21.93		
27	14.25	21.86		
27:25	30	83	14	TURN, BOL 14
1729	14.32	21.84		
1729	40	90		34 84
1730	48	21.96		
1731	14.54	22.02		
1733	14.69	22.15		63 09
34	77	22		
1735	14.85	22.28		
1737:20	15.03	22.44		
1738	08	48		(1739 LL = 15.14 22.54)
1740	15.20	22.60		
40:20	26	63		

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-16

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TIME	LAT	LON	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...
1741	15.28	22.66	14	
1742	15.36	22.71	14	
1742.30	.39	.74		
1743	.45	.77		
1744	.51	.83		45 77
1745	15.59	22.89		
1746	.68	.94	14	
1747	.76	23.00		
1748	.82	.07		
1748.50	.88	13	14	EOL 14
1749	.90	13		
1750	.90	.07		DOWN/OFF
				(rewind tape to set up 11B)
1807	(37) (35) 35	(51) (52) 52		Green Marker #5 = 29 47 36 52 .07 52 -07 -06
				SEPT. 1933. 22 PULSE 100J
				1.5 KHZ 60ms 0 Delay

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program
Source power level
Gain
Filter

CRUISE LOG

CRUISE: MISSISSIPPI SOUND

DATE: 9-17

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TIME	LAT	LON	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...
0918	15.07	24.28		Stream
0921	15.70	23.17		
0923	15.93	22.99		215 OK
0924	89	97		
0925	87	97		
0926	98	95		
0928	15.86	22.77		SOL 15
0929	79	72	15	
0930	66	75		
0931	64	75		
0932	56	69		
0933	49	62		
0934	45	53		SEPT. 1989, GE PULSE 105J
0935	15.38	22.45		
0936	32	87		1.5 KHz 60ms 0 Delay
0938	15.17	22.31		
39	15.06	34		
0940	14.99	22.30		
0941	14.93	22.21		
0943	14.82	22.04		
0944	14.76	21.95		
0945	70	88		
0946 ³⁰	14.60	21.79		
48	49	71		
0950	14.31	21.60		EOL 15 TURN
0951	33	53		
0952	29	46		
0953	45	41	16	SOL 16 TURN
0955	60	52		
56	66	58		

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-17

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TIME	LAT	LON	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...
0958	73	75	16	
59	82	83		
1000	14 88	21 89		
1003	15 09	20 07		
1004	17	13		
1005	29	23		
1007	30 15 40	22 22 83		
1008	15 34	22 45		1008 START TAPE 11B
1010	60	49		
1012	30 15 73	22 22 61		
1014	15 85	22 77		
15	15 95	22 89		EOL # 16
1017	16 10	22 66		SOL # 17
1020	30 16 22	22 22 56		
1022	15 87	22 40		
1024	15 77	22 26		
1025	15 69	22 16		SEPT. 1989, GEOPULSE 105 J
1027	15 60	22 05		1-5 KHz 60ms 0 Delay
1028	15 59	21 98		
1029	15 43	21 98		
1030	15 35	21 99		
1033	15 21	21 89		
1034	15 02	21 75		
1035	15 02	21 67		
1037	14 90	21 52		
1038	14 84	21 45		
1040	14 62	21 33		
1042	14 51	21 25		
1045	14 26	21 06		EOL 17

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-17

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TIME	LAT	LON	LINE #	COMMENTS / EVENTS
				BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...
1049	30 14 35	29 2092		Turning
1051	18 57	21 04	18	SOL 18
1053	19 71	21 16		
1055	14 85	21 28		
1057	14 98	29 214		SE 17. 9 JJ, SE 18 L E JJ
1059	15 15	21 50		
1100	15 26	21 56		1-5 KHz 60ms 0 Delay
1102	15 39	21 62		
1104	15 52	21 72		
1105	15 65	21 78		
1108	15 88	21 91		
9	15 93	21 99		
1110	16 00	22 07		94 01 (11B from next)
11	16 06	14		
1112	16	20		START TAPE 12A
14	31	32		
1115	39	37	18	EOL 18 TURN
1117	16 45	22 23		
1118				SOL 19 TURN
1118	16 43	22 13	19	
19	55	22 06		
1120	29	22 00		
1122	15	21 87		
1123	16 08	21 79		
24	16 02	74		96 02
1125	15 91	21 72		
1126	82	72		
27	76	71		
28130	15 64	21 62		
1130	54	51		
32	43	36		

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

CRUISE LOG

CRUISE: _____

DATE: 9-17

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TIME	LAT	LONG	LINE #	COMMENTS / EVENTS BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC...
1133	30° 15.35	89° 21.28	19	
34	29	21		
1135	23	14		
1137	15.10	21.01		
1139	14.92	20.91		
1140	83	85		
1143:00	14.61	20.64		
46	40	51		
1147	34	45		
1150	11	25	19	EOL 19, TURN
1152	22	11		
1153	28	03	20	SOL 20, TURN
54	14.31	20.05		
55	14.40	20.12		
58	56	36		
59	14.60	20.45		
1200	68	52		(QA ran out)
1201				START TAPE 12B
1202	81	65		
1204	14.97	20.78	20	
1205	15.03	20.84		
1207	15.18	20.95		
1209	33	21.07		1-5 KHz 60ms 0 Delay
1210	41	13		
1211	47	19		
1212	15.53	21.25		
1213	.62	.31		
1215	79	43		
1216:30	15.89	21.51		
1217	93	54		
1218	15.99	60		
1219	16.05	66		

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

Wm

CRUISE LOG

CRUISE: MISS. SOUND

DATE: 9-17

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TIME	LAT	LON	LINE #	COMMENTS / EVENTS
				BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC..
1220	30° 16.16	89° 21.72	20	
21	22	77		
22	30	83		
23	16.37	21.82		
24	16.45	21.95		
1225	16.51	22.01		
26	58	22.07		
1227	66	15		TURN, EOL 20
1228	73	22 12		
29	78	22 04		
29:30	81	21 96		So
1230	81	95		SOL 21 1229:30
31	16.74	21 88		
32	63	87		
32:30	59	86		
33	55	83		
1237:30	53	79		
34	51	77		
1255	41	70		1-5 KHz 60ms 0 Delay
1237:30	16.24	21.56		
1238	16.20	21.51		
39	11	44		
1240	16.05	21.39		
41	15.97	21.33		
43	15.82	21.27		
45	15.67	21.17		
47	15.46	21.05		
49	15.32	20.94		
52	15.26	20.87		
51	15.20	20.80		
52	15.13	20.70		
53	15.06	20.66		

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

(28 runout)

1250 Start Tape 13A

CRUISE LOG

CRUISE: _____

DATE: 9-17

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TIME	LAT	LON	LINE #	COMMENTS / EVENTS
				BOL, EOL, TURN, C/C, TAPE #, SYSTEM(S) STATUS, ETC..
1255	301496	29 2051	21	
56	1491	2042		1000-5000 HZ
58	1469	2033		
1300	1453	2025		EOL #21
1303	1466	2072		turn
1304	1470	2008	22	JOL #22
1305	1480	2010		
1306	1481	2078		
1307	1481	2030		
1308	1490	2035		
1309	1496	2044		
1310	1507	2055		
1312	1515	2061		
1314	1532	2072		
1315	1540	2078		
1317	1552	2089		1-5 KHz 60ms 0 Delay
1319	1569	2097		
1320	1580	2102		
1322	1596	2110		
1324	1607	2124		
1325	1619	2133		
1327	1631	2142		
1328	1656	2161		
1332	1666	2172		
1334	301684	292196		
1336	1701	2197	22	BOL #22
1337	1705	2186	23	BOL #23
1338	1700	2182		
1340	1691	2171		
1342	1676	2156		
1344	1660	2138		
1345	1651	2132		

SEISMIC INFO:

Sweep rate
Delay
Shot rate
Program

Source power level
Gain
Filter

Date

9-17

35

TIME	LAT	LONG	LINE	NOTES
1347	301640	202122	23	
1349	1626	2109		Start Tape 13B
1352	1619	2109		
1352	1602	2093		
1353	1577	2079		
1357	1556	2067		
1400	1540	2046		
1403	1517	2026		
1405	1506	2016	23	EOC 23
1407	1516	2000	24	EOC 24
1409	1529	2013		
1411	1541	2026		
1413	1556	2044		
1415	1562	2053		
1418	1576	2073		1.5 KHz 60ms 0 Delay
1420	1608	2082		
1422	1621	2092		
1424	1635	2105		
1425	1644	2107		
1426	1654	2113		
1428	67	28		
1429	1673	2123		
1430	80	37		
1431	1690	40		
1433	1707	47		
34	18	50		
35	1724	2154		EOC 24

Date 9-17

36

TIME	LAT	LONG	Line	NOTES
1426:10	30	53		near launch
1437	30	44	25	TURN, SOL 25
38	17.23	21.37		
1439	13	31		
1440:20	17.04	21.27		
1441	16.98	25		MISS. SOUND
42	90	21		SEPT. 1989, GEOPULSE 105 J
43	81	21.17		1-5 KHz 60ms 0 Delay
44:30	69	21.09		
45	61	21.05		
46	58	20.99		
47	56	90		
48	53	80		
49	51	71		
50	16.42	66		TURN to get a line
51:20	28	67		
1452	16.23	20.69		(BB run out)
53	18	57	25	Start Tape 14A
1454	16.08	50		
1455	16.02	20.47		
56	15.93	42		
1458	79	31		
1459	70	26		
1500	64	21		
1501	56	16		A Sleep dirr
1502	47	11		TURN, SOL 25
03	15.57	20.05		
04	56	19.98		
05	65	91		TURN, SOL 26

TIME	LAT	LONG	LINE	NOTES
1510	16.00	20.15	26	
1511	18	32		
1513.10	20	40		
1514	26	46		
1515	33	52		
16	39	59		
17	47	65		
18	56	71		
19	62	76		
1520	71	81		
1521	79	87		
22				
23	14.94	20.98		
24	17.92	21.02		
25	11	09		
26	19	14	26	
1527	30	20		
1528	34	23	26	TURN, EOL 26
1529	35	15	27	BOL 27
1530	17.30	21.03		
1532	17.19	20.92		
33	17.11	85		
34	17.04	20.81		
35	16.96	20.76		
36.20	87	68	27	
38.30	16.67	20.57		
1540	57	48		Change Tape: end 14A start 11B
40.30	47	32		
1541	28	25		
1545	16.20	20.20		
1546	16.13	20.13		
1547	16.07	20.06	27	

Time	LAT	LONG	Line	NOTES
1548	30° 16.01	77° 20.00	27	
1549:30	15.93	19.90		
50:30	84	83		
1551	15.82	19.80		
1553	70	68		
54	62	61		
55	53	55		
1556	97	49		
1557	41	43	27	EOL 27 (Blow Fine) <u>DOWN</u>
1611				^{off} Resume tape 14B
1612	15.59	19.70		transit to 28
1614	15.72	19.60		
1615	15.81	19.54	28	SOL 28 TURN
1616	15.86	19.55		
17	15.93	19.63		
18	16.01	68		
1620	16.15	82		
1622	16.30	19.76		
1623	16.39	20.04		
1624	16.45	20.11	28	
1626:30	62	31		
27	63	34		
28	70	41		
29	16.79	20.46		
30	16.87	20.48		
32	17.10	20.65		
34	17.19	20.72		
1635	28	78		
1637	17.42	20.90		
37:30	47	92		
28				TURN EOL 28
39	49	83		
1640	50	75	29	BOL 29

9-17

39

Time	LAT	LONG	
1641	58 17.45	89° 20.69	29
42:20	37	61	29
43:20	29	55	
44	25	51	
45	16	45	
47	17 05	20 34	
49	16 39	22	
51:20	72	20.10	
52:30	1663	2404	
16 54	53	19 76	
55	16 47	18.79	
56	20	83	
58	24	73	29
59	17	23	
1700	16 09	60	
1702	15 96	50	
1703:20	15 49	19 42	
1704	16 03	19 38	
1705	10	25	30
6			
1708:30	34	46	
1710:30	49	57	
1712	16 59	19 71	
13	66	80	
14:50	78	91	
15:20	82	96	
16	89	16 99	
16:20	16 91	20 01	
17:7	16 46	20 05	
17:30	17 02	20 08	
18	17 04	20 11	
19	17 13	20 19	
1721	17 27	20 33	
22	17 39	20 40	
23	17 42	20 45	
24	48	50	
1725	17 57	20 56	
26	57	52	

TURN SOL 29

SOL 30 TURN

EOL 30 TURN

END TERE 15A

LORAN CHECK

14.37 25.51, 52

OFF
GREEN #5 marker

9-18-89

40

MISS SOUND

TIME	LAT	LONG	Line
0907	30° 14.35 ²⁷	79° 25.53 ⁵²	
0925	16.16	28.39	
0939	17.26	20.61	
	37	66	
42	31	64	
43	35	56	5
44:40	42	45	
45	46	42	
46	17 51	20 35	
0947			
0947	17 54	27 31	31
47:30	17 50	20 24	
48:00	45	21	
0950	17 33	20 08	
51	36	20 00	
52	17 18	19 44	
53:20	17 07	19 37	
55	16 47	19 25	
56	48	61	
57	38	62	
58	73	59	
59	65	55	
1000:30	51	43	
1001	47	45	
02:30	16 38	19 35	
1005	21	15	
1006	15	08	
1007	15 17	19 00	
1008	15 04	18 52	
1009	27	18 25	
1010	34	19 03	32
1011	40	09	
1012:30	46	21	
1014	59	32	
1016	70	44	
1017	72	64	
1018:40	16 41	19 57	
1020	17 02	19 44	
1022	14	76	

Green #5 LORAN CHECK
steer to 31

SOLS ON TAPE
1500N

TRAINING - HIT BUT

TRAINING

Heading NE

(EPC TIME) TIC'S GOOD

Reverse Record

~~31~~
SOL 31 TURN

60 ms sweep
1000-5000 Hz

EOL 31 . TURN
SOL 32 (LORAN
can be used)

9-10

41

Time	LAT	LAN	L
1023	30° 17 23	29° 19 21	32
24	31	27	
25	36	20	
26:30	46	19 49	
27:30	17 56	20 05	
1029	67	14	
1030	72	10	
1031	81	20 05	33
31:30	17 77	20 00	
32	73	19 98	
33	64	93	
34	58	86	
1035	51	79	
36	17 43	19 74	
36:40	39	70	
37:20	32	66	
1038	28	63	
1039	20	57	
1040	17.11	19.49	
41:30	17 03	19 39	
1042	16 96	22	
1043	90	30	
44	81	24	33
1045	73	18	
46:30	64	10	
47	58	19 06	
48	16 52	18 99	
49	43	93	
1050	35	88	29 21
51	28	83	
52	21	78	
53	14	73	
54	16 05	18 67	33
1055	15 97	18 61	
56:30	15 89	18 51	
57:30	15 83	18 45	
58	76	42	
59	70	39	
1100	15 61	18 33	
1102	44	24	
1103:10	49	17	
04	55	13	
04:30	62	12	
1105:30	68	10	34
06	72	09	

(15B UNIT)

EOL 32 TURN

START TAP 16 A

SOL 33 TURN

29 21

EOL 33 TURN

START TAP

SOL 34

TURN

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42

1107 1579 1809 34

1108 90 09

CORSE CORRECT

09 15 98 14

10 16 05 19

11 13 27

12:30 24 35

1114 16 34 18 44

TAPE 16B Start

15:10 41 54

16 42 61

17 44 71

18 53 78

19 50 84

20 65 89

21 74 95

23 16 89 19 07

24 95 13

25:08 17 01 19 19

26 10 24

27 18 30 34

28 17 25 19 35

1130 17 40 19 46

31 46 51

32 54 53

1133:10 17 64 19 64 34

34 74 76

35 78 80

36 80 83

37 88 89

1137:30 93 93

EOL 34 TURN

1138:20 99 89

1139 17 02 84

1140 09 77 35

SOL 35 TURN

40:20 09 73

40:40 18 07 71

1141 05 70

1142 17 94 69

42:30 92 67

43 85 64

43:30 83 61

44 79 58

1145 72 50

46 66 44

47 60 36

48 54 30

49 55 24 35

1150 59 19

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43

Time	LAT	LOD	Line
1152	36° 17.29	29° 19.08	35
1153:30	17.11	18.98	
54	17.07	94	
55	17.00	18.88	
56	16.92	83	
57	85	78	
58	77	71	
1 59	71	66	
1200	16 62	18 60	
1201	56	54	
1202	49	50	35
03	49	44	
03:30	54	37	
04	58	35	
04:30	61	32	36
1206	16 72	18 40	66 34
1206	78	47	
08	74	53	
09	93	58	
1210	17 01	64	
1211:30	10	73	
1212	14	76	
1213	20	82	36
14	29	90	
15	35	95	
16	17 44	19.01	
17	50	08	
18	56	13	
19	63	19	
20	69	24	63 12
21	80	30	
21:30	82	32	
1202	17 86	19 34	
23:30	91	38	
23	95	41	
12 24	16 01	49	
12 25	08	56	
12 26	14	62	
27:10	25	60	
28	32	65	
12 29	36	49	
12 30 30	28	39	37

1000-5000 Hz
 60 ms Sweep
 Gagnon
 105 Jatae
 0 delay
 Program = 8
 XXXXXX

EOL 35 TURN

SOL 36 TURN
 (160 r/min)

SOL Type 17A

EOL 36 1226 TURN

SOL 37

9-17

44

1231	18.26	19.36	37
1234	<u>30° 17.05</u>	19.18	
1236	17.90	19.08	
1237	17.81	<u>19.01</u>	37
39.30	17.80	18.75	
1240	78	68	
41	79	59	
42	79	48	
44	84	28	
1246	17 87	<u>18 08</u>	
47	90	98	
48	93	88	
49	98	77	
50			
51	18.05	17.60	
52	08	49	
2:40 52	11	44	
1253	11	40	37
1253:25	18.11	17.36	
54	09	38	
56	10	11	
1257	18.04	17.07	
1257:30	<u>00</u>	<u>04</u>	
58	17.99	17.00	
1300	18.05	16.80	37
02	18.06	16.59	
1304.30	18.12	16.33	
1305	18.12	31	45
1306	<u>18.01</u>	31	
1308.30	17.81	16 32	
1310	67	32	
1312	51	32	
1315	25	30	45
1317	<u>17.07</u>	29	
1318	16 48	29	
1320	16 30	28	
21	69	26	
22	63	27	
1329	45	25	
1328	16 36	26	
13 29 29	16 03	26	
13 30	<u>15.99</u>	25	

TURN -60 EAST

e/c ^{to go} along beach.

straight off pier

e/c/ turn out

START Tape 17B

e/c to along beach

SOL 37 TURN

SOL 45

crossing Handkerchief Shoal

Speed 5.3 kts.

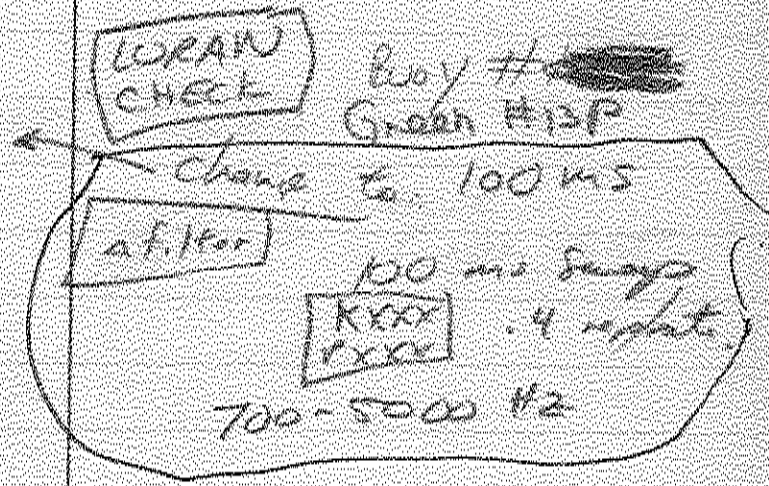
9-18-89

45

Time	LAT	LONG	Line
1332	15.77	26	45
1335 ⁰⁰	15.24	16.23	
1341	14.99	16.18	
1344	14.73	16.15	
1347 ²⁰	45	13	
1349	14.30	16.10	
1351	14.14	16.12	
1352	03	13	
1352 ¹⁰	14.01	16.13	
1354 ³⁰	13.95	15	
1356	13.72	16.09	
1358	13.53	.06	
1358			
1359	13.51	16.00	
1359 ³⁰	13.53	15.93	

Tape E 17B
S 18A

eye to get busy



TURN EOL 45

SEIS OFF for test

9-18-89

Time	LAT	Lon	Line
140	14.27	15.77	
141	14.29	15.67	
142:05	14.27	15.74	
444	14.23	15.93	
448	14.11	16.52	
450	14.06	16.52	
52	13.99	16.73	
452:30			46
156:08	13.83	17.07	
158	13.77	17.25	
500	13.68	17.42	
503	13.56	17.69	
507	13.39	18.04	
508	13.34	18.14	
509	13.30	18.23	
510 30°	13.28	18.33	39°
512	13.21	18.52	
515	13.11	18.79	
518:30	13.00	19.14	
520	12.97	19.28	
522:42			
524:20	12.84	19.78	
525	12.82	19.86	
526	12.78	19.97	
528	12.65	20.15	
529	12.61	20.21	
30	12.54	20.29	46
32	1.46	1.45	
34	1.48	1.50	

Comments
 Underway [CT]
 SOLIS ON
 40 m/s Surf
 700-500 Hz
 0 delay
 105 Jochen
 100 2 lin.

TURN
 Red SOL 46
 Red Light # 12P

46

17.87

46 Room Tape 18A ON

LOWAN CHECK
 15P Green Light

(80 m/s / 100 Hz / 700-500 Hz)

c/SPD - increase speed.
 Power Supply Blower (12A removed)
 Fuse - continued.

TAPE 18B start
 ~ 6 kts
 Slow some

Slow some - engine HOT.

46 48.23

TIME	LAT	LONG
38	30° 33	89 103
40	30° 12.28	89 21.20
42	22	40
44	10	57
46	07	21 76
48	12 01	21 95
53	11.84	22.37
55	11.80	22.57
58	11.62	23.01
602	11.60	23.20
605	11.50	23.48
610	11.33	23.92
612	11.25	24.07
615	11.11	24.32
620	10.94	24.74
23	10.79	24.98
24	77	24.67
625	10.71	25.15
628	30° 10.64	91° 25.24
629	56	25.92
630	49	25.41
635	10.97	24.89
36	10.54	24.89
37	10.64	24.91
38.46	78	91
39:50	87	96
640	10.87	24.97
643	11.11	25.13
44	11.21	25.19
45	11.29	24
46	11.37	30
47	11.45	25.35
650	11.64	25.53
54	11.94	25.78
656	12.14	25.91
658	12.23	26.06
700	16	20
701	62	24
702	12.62	26.30

46

46

47

47

End Tape 18B @ 1608
(Poor data so no new tape right now)

TURN go south EOL 46

TURN go east

TURN go NORTH BOL 47

C/C

blow FSE
RESUME - no time gap
can record.

(START TAPE 19A @ 1656)

~5° c/c - more north

c/c go due north EOL 47

9-18-89 49

30 mcs Sweep
700 - 3000 Hz

1703 30°	12.70	89° 26.25	49
1704	12.76	26.19	
1705	12.83	26.12	
1708:10	12.99	25.85	49
1710	13.07	25.68	
1713	13.19	25.40	
1714	13.23	25.29	
1715	13.28	25.20	
1716	13.32	25.10	
1717	13.36	25.00	
1717:30			
1718	13.42	24.93	49
1720	13.60	24.93	
21	73	94	
22	77	94	
24	13.97	24.95	
26	14.13	24.96	
27	14.26	24.96	
28	34	94	
1729	14.42	24.94	
1730	14.51	24.95	
1731:08	14.63	24.97	
32	14.69	25.02	
1733	14.77	25.08	
1734:20	14.87	25.16	
1735	14.91	25.18	
1736	15.00	25.19	
1737:05	15.10	25.20	49
30 1738	15.14	25.20	

1711 good data again

TURN EOL 48
POL 49

small dc 1720:30
the signal is on record

HIT mud
EOL 49
END Tpe 19A

WSP
-06 -06

9-19-89 41

~~16.40~~ 19.06

05 16.43 19.03

Red # 2 light
~~25.06~~

Actual Pos = 16.38 18.96

Time	Lat	Lon	SOL	Beam	Hz	Notes
119	30° 15.42	89° 11.20	50	30	19	Sonic
20	15.45	18.11		31	05	1000-5000 Hz
122	.60	.03		54	37	60 ms Sweep
123	.68	.01		62	95	
125	.84	17.96		78	90	Speech Sol
127	.94	.95		93	09	dpth 1.3 m Smb
28	16.08	.93		02	87	
30	.25	.92		17	26	
32	.41	.90		35	84	
33	.52	.89		46	83	
11 35	.65	.88		57	79	START Tape 19B
37	.82	.82		76	76	
38	.91	.80		85	74	
40	17.07	.77		01	71	
42	.23	.74		17	68	
43	.31	.73		25	67	
45	.45	.71		39	65	
47	.63	.70		51	65	
48	.84	.71		63	65	
50	.85	.72		75	65	
52	.98	.74		92	68	
60	18.05	.76		03	70	

TAPES

7/19 50

TAPES

LINE	LAT	LONG				
57	30° 18.36	89° 17.84	50	30	78	(1000-5000 Hz)
58		28		38	82	Sp 3.6 kHz
60		87		50	81	"Bridge"
62		86		70	80	
63		84		78	78	
65	19.01	80		95	74	"Bridge 205.5"
67		79		11	73	
68		78		23	72	
70		75		37	69	
72		73		55	67	
75		66		78	60	
79		54		91	48	C/Filter to 700-5000 Hz
18	20.07	40		01	34	
20		32		04	26	
<hr/>						
23	20.09	17.04				Change TAPE End 18B start 20A
25		16.85		06	79	
27		67		14	61	
28		60		17	59	
30		46		27	40	
32		45		43	39	
33		43	50	53	37	
2352		48	51			Base Portage let bottom turned west End Line 50 - blue frame
36		55	51	56	49	
1237.23		69		55	63	
38		83		63	77	
40	30 2.73	81 16.89		67	83	

via Otusov

9/19

51

Erwin Otusov

Hancock Bay
Cruise 105/100 M

Bogis Entry

WOLF RIVER

DAY	Lossy	bis
20	82	51
21	85	13
22	99	29
23	94	46
24	11	50
25	10	71
26	20	94
27	21	17.99
28	26	19.58
29	30	25
30	34	34
31	55	10.75
32	58	31
33	65	96
34	85	18.67
35	87	19.79
36	88	20.05
37	87	10
38	86	58
39	81	20.77
40	72	20.77
41	66	21.13
42	53	21.38
43	33	21.66
44	26	21.74
45	20	21.77
46	10	60
47	82	21.32
48	71	17
49	64	14
50	58	21.08
51	60	06
52		04

51

Start 20B tape

51
52

EOL 51
EOL 52

EOL 52
EOL 53

TAPES

	30°	89°	
49	20.68	20.96	53
53	20 70	20 57	
53.30	20 75	20 54	
55	20 73	20.39	53
57	84	27	
58	86	18	
59	20 94	10	
1400	21.01	20.05	
1402	21.11	19.91	
25.20	21 35	72	
07	21 43	19 60	
09	53	45	
11.20	57	23	
13	21 65	19 10	
414	21 65	19 00	
114.46	63	18.96	54
45	59	93	
416	52	89	
17	46	84	
20	26	71	
122.40	10	60	
23	21.08	19.55	
25	20.95	44	
27	20 82	33	
29	20.69	18.20	
30	20 64	17 13	
31	20 58	16.07	
2.30			
33	20 45	17.94	

c/c

EOL 53, BOL 54

Start Tape 21A

02 44
03 31

54 60 005

Reel # 2

9/19/53

TAPES

435	20.32	17.80
436	20.25	17.75
438	20.12	17.62
440	20.01	17.50
40:30	19.99	17.50
441	19.96	17.53
442	19.93	17.62
444	19.92	17.83
445	19.91	17.92
447	19.90	18.11
48	92	22
49	89	31
50:35	90	47
52	89	63
53:30	19.88	18.77
55	19.90	18.92
58	19.88	19.23
72	17.81	19.59
80	79	63
3	77	68
13:30	74	71
4	76	74
5	19.86	19.71
07	19.99	19.58
10:30	20.18	19.34
12	30	25
13	30° 30	17
15	30° 20.45	29° 19.06

Line 54

End 54 / Turn / Sol 55

55

(449:14 Green #1 to Starboard)

55

End 55 TURN / Sol 56

TAPES

	LAT	LONG	LWD
17	30° 20.57	89° 18.92	56
18	.29	.95	
20	81	76	
22	93	65	
23	20 99	58	
25	21.08	44	
526	21.14	37	BOE 57
28	21.02	38	
30	20.35	40	
32	69	44	
33	60	46	
35	47	47	
37	30	51	
38	20	52	
40	20.02	55	
42	19.86	55	
43	77	55	
45	58	56	
47	42	58	
49	33	58	
50	15	60	
52 50	06	64	
53	06	66	
56			
57	19.01	39	
58	18.95	59	
600	30° 18.82	89° 18.60	

700-5000 Hz
60 ms sweep
0 delay

←
End entry

Speed 53

1550.12 - under Bldg.
Tren brand
1555.55 - under bridge.

30-15 under Bridge

Beary snag } out to
 } police record

Under bridge

9/19

55

JUNE

Lat	Long	Wind	Notes
20° 18.66	89° 12.62	67	Speed 4.2
61	64		Under Bridge 1603.25 (50 sec)
48	67		
34	69		
27	69		
14	63		
08	65		
15.03	69		
17.98	73		
51	73		
77	18.95		
73	19.00		
61	11		
59	18		
52	25		
17.50	19.28		EOC ^{R.} 57 good Type

EOC 9

TAPES