

INFORMAL REPORT AND INDEX OF
NAVIGATION AND DEPTH DATA
(ISSUED APRIL 1981)

VULCAN EXPEDITION

LEG 4
Valparaiso, Chile (10 November 1980)
to
Valparaiso, Chile (28 November 1980)
Chief Scientist - L. D. Kulm (OSU)
Resident Marine Tech - W. E. Keith

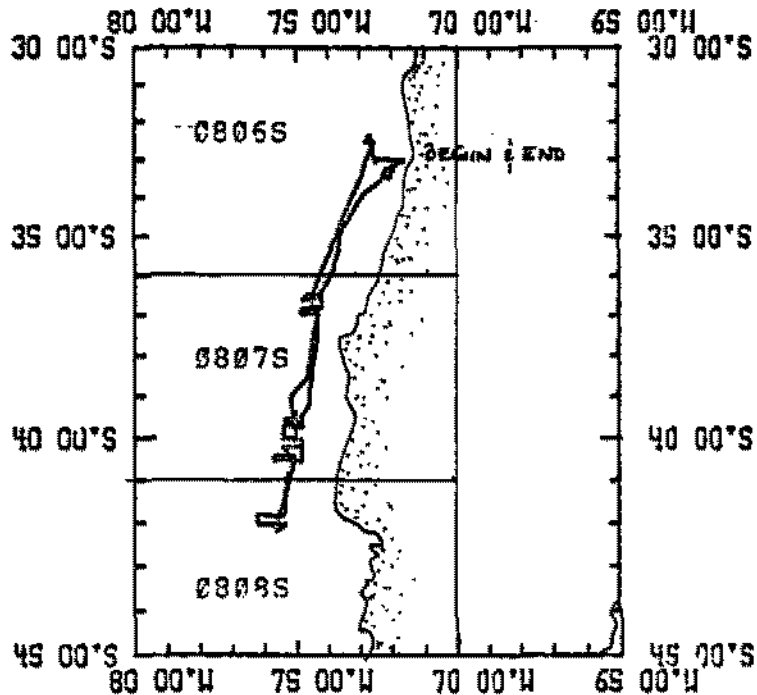
R/V Melville

Post-Cruise Processing and Report Preparation
by S.I.O. Geological Data Center

Data Collection Funded by NSF
Grant Number OCE77-23258
Data Processing Funded by SIA

VLCN04MV

TRACK PLOT AT .1632IN/DEGREE



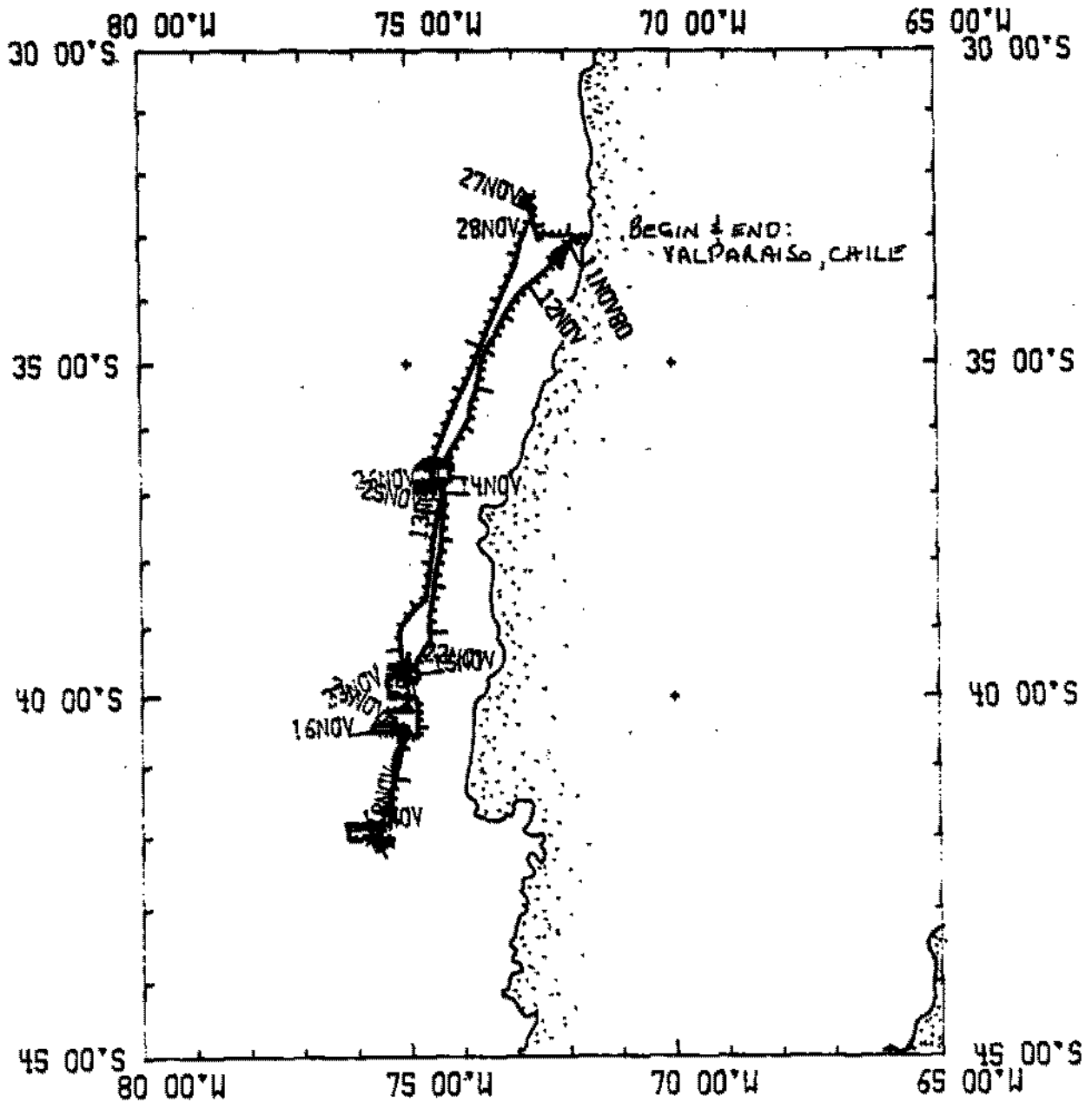
VULCAN EXPEDITION
LEG 4

Chief Scientist: L. D. Kulm (OSU)
Ports: Valparaiso to Valparaiso, Chile
Dates: 10-28 November 1980
Ship: R/V Melville

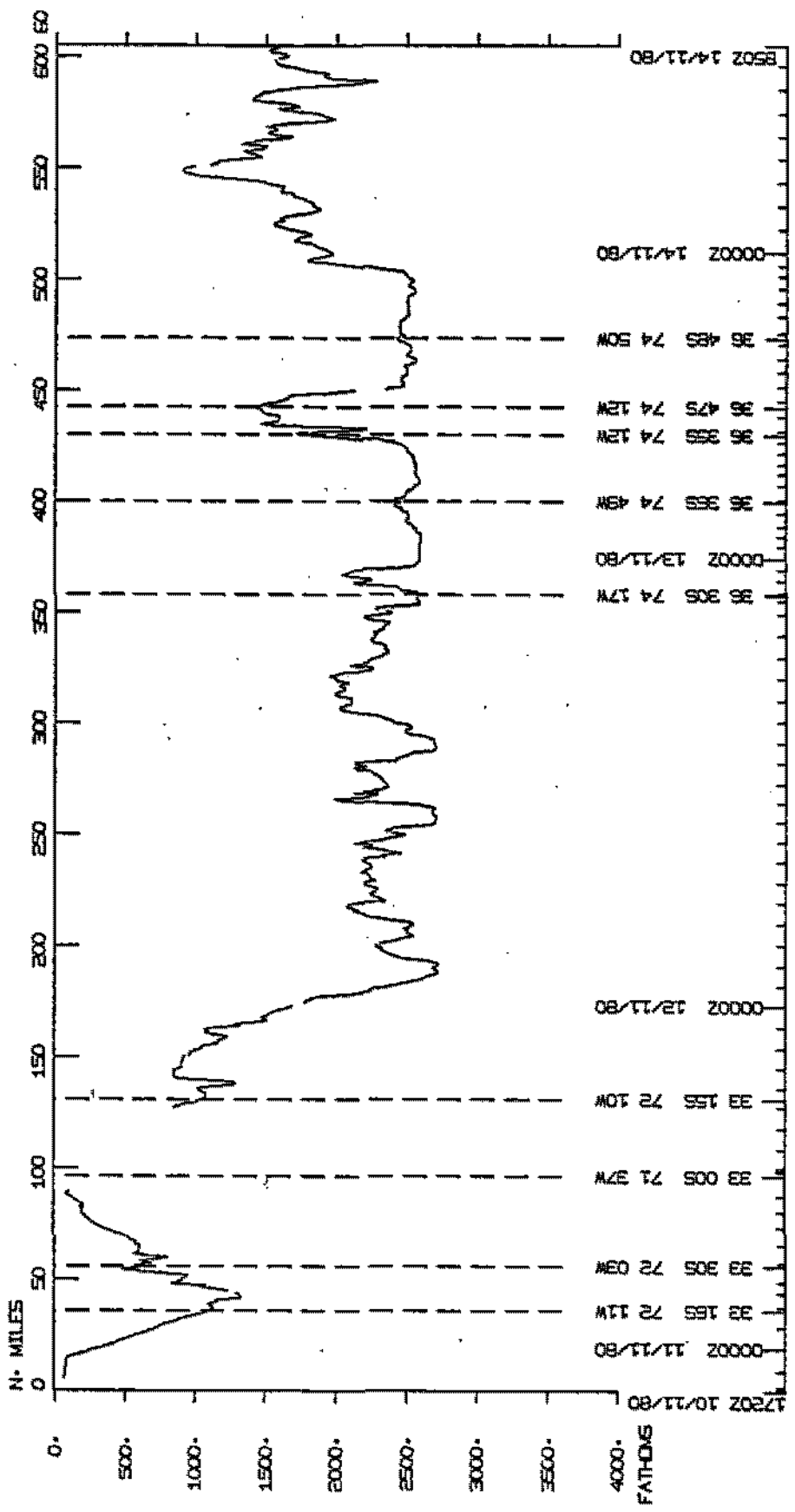
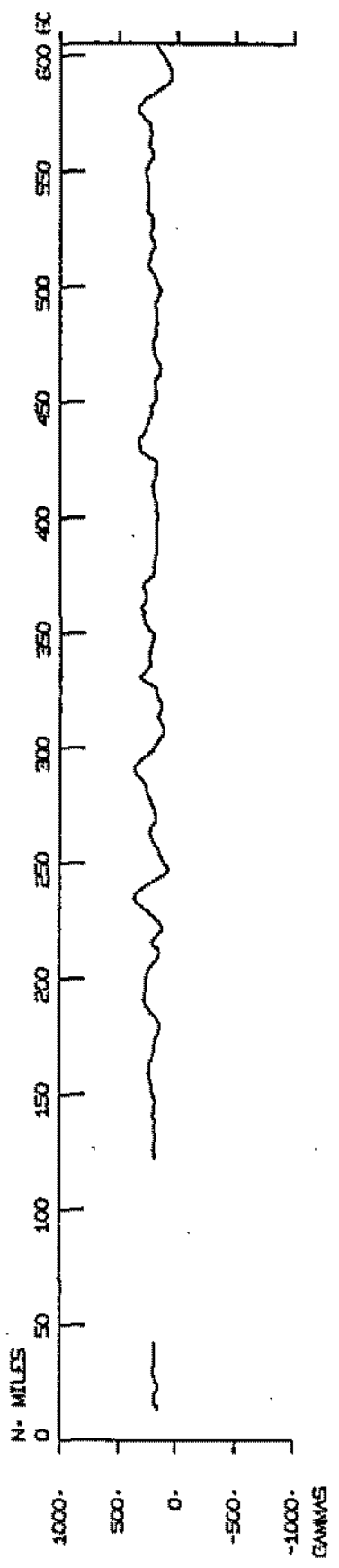
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

- 1) Cruise - 2311 miles
- 2) Bathymetry - 1931 miles (processed by GDC, SIO)
- 3) Magnetics - 1556 miles
- 4) Seismic Reflection - 595 miles
- 5) Gravity - none collected

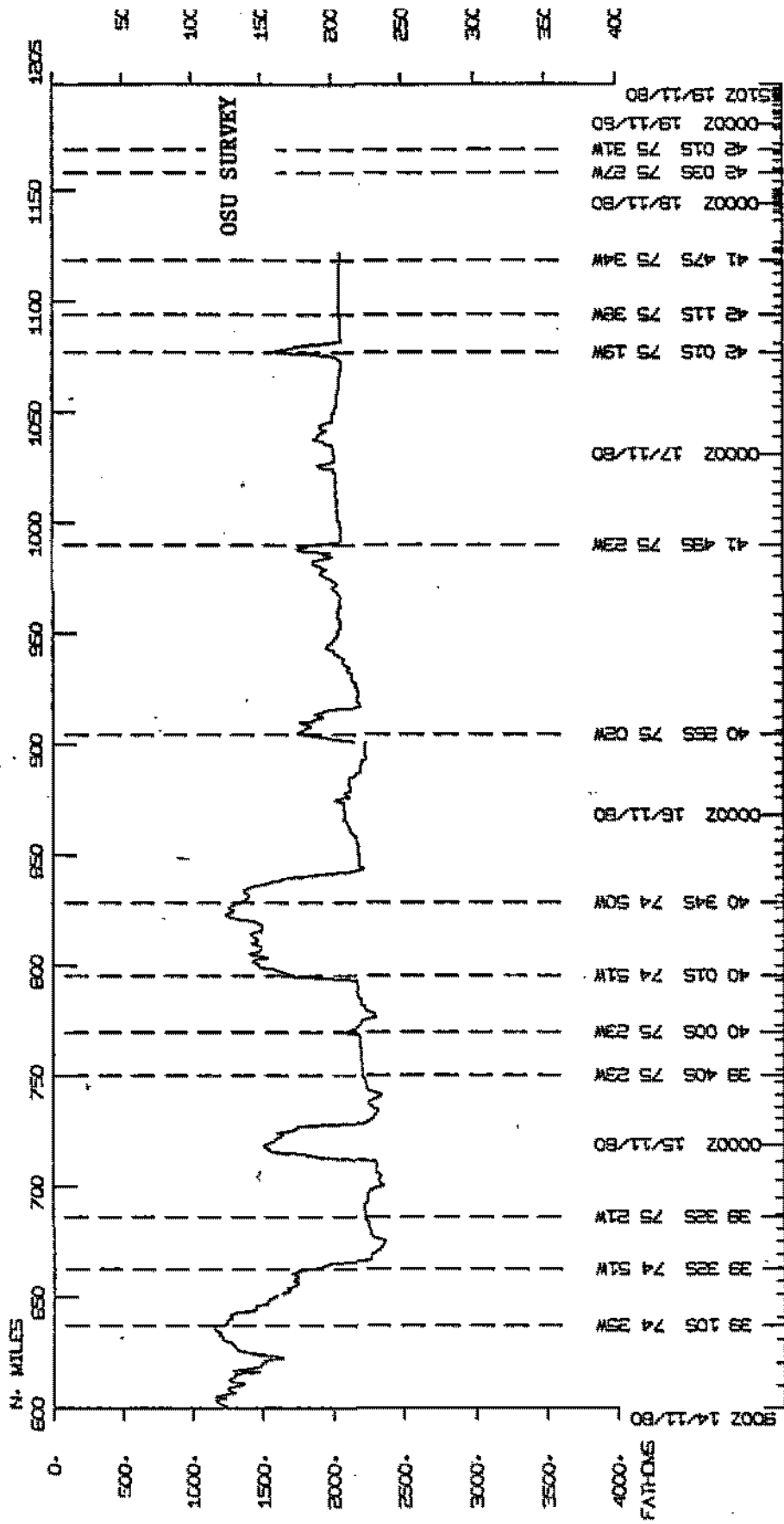
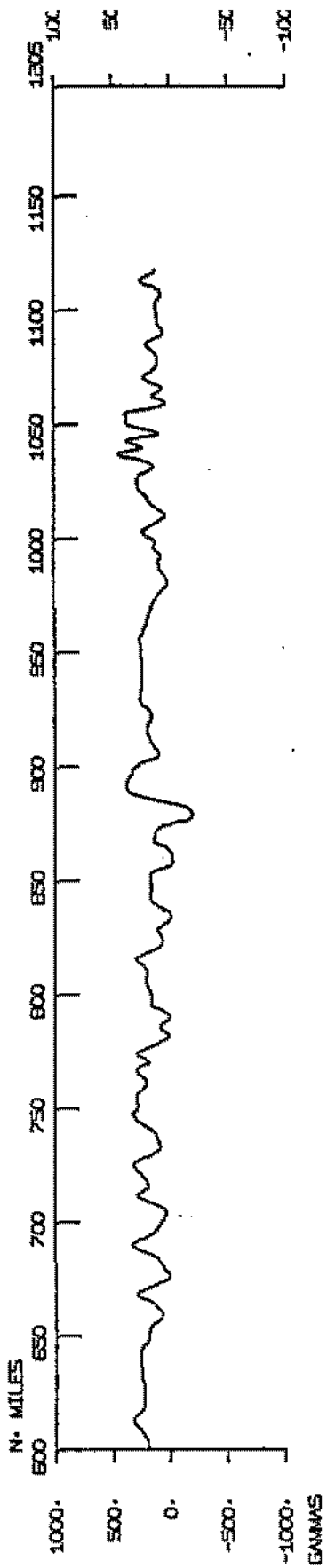
VLCNO4MV
TRACK PLOT AT .312IN/DEGREE



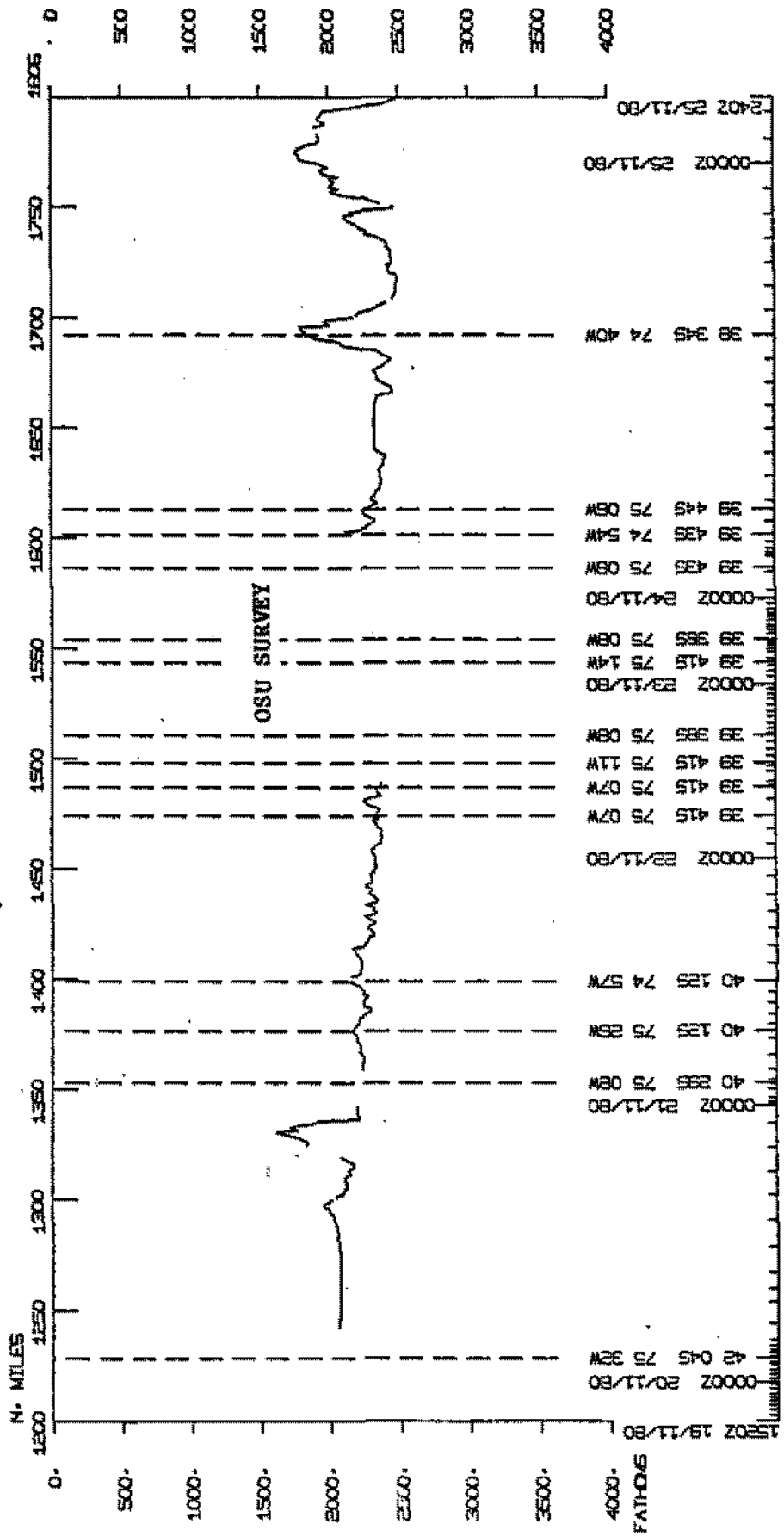
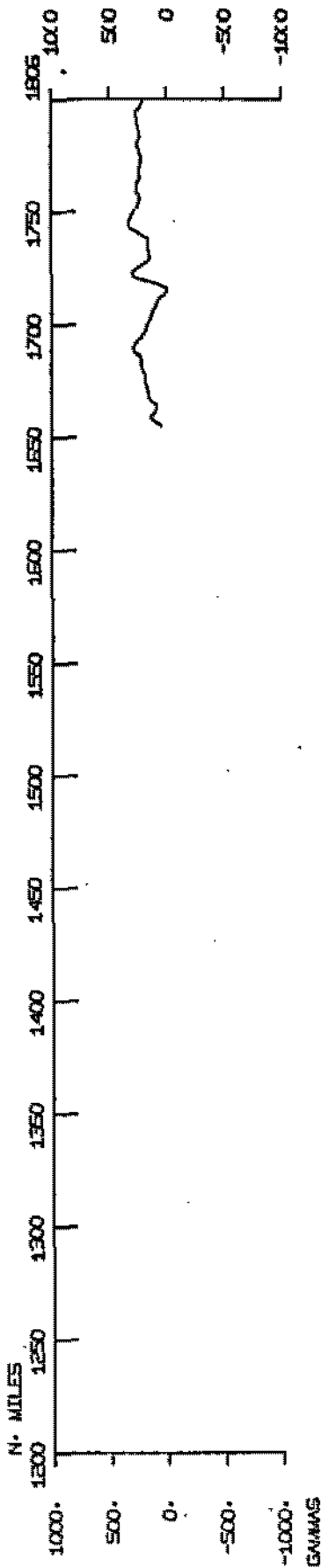
VLCNO4MV



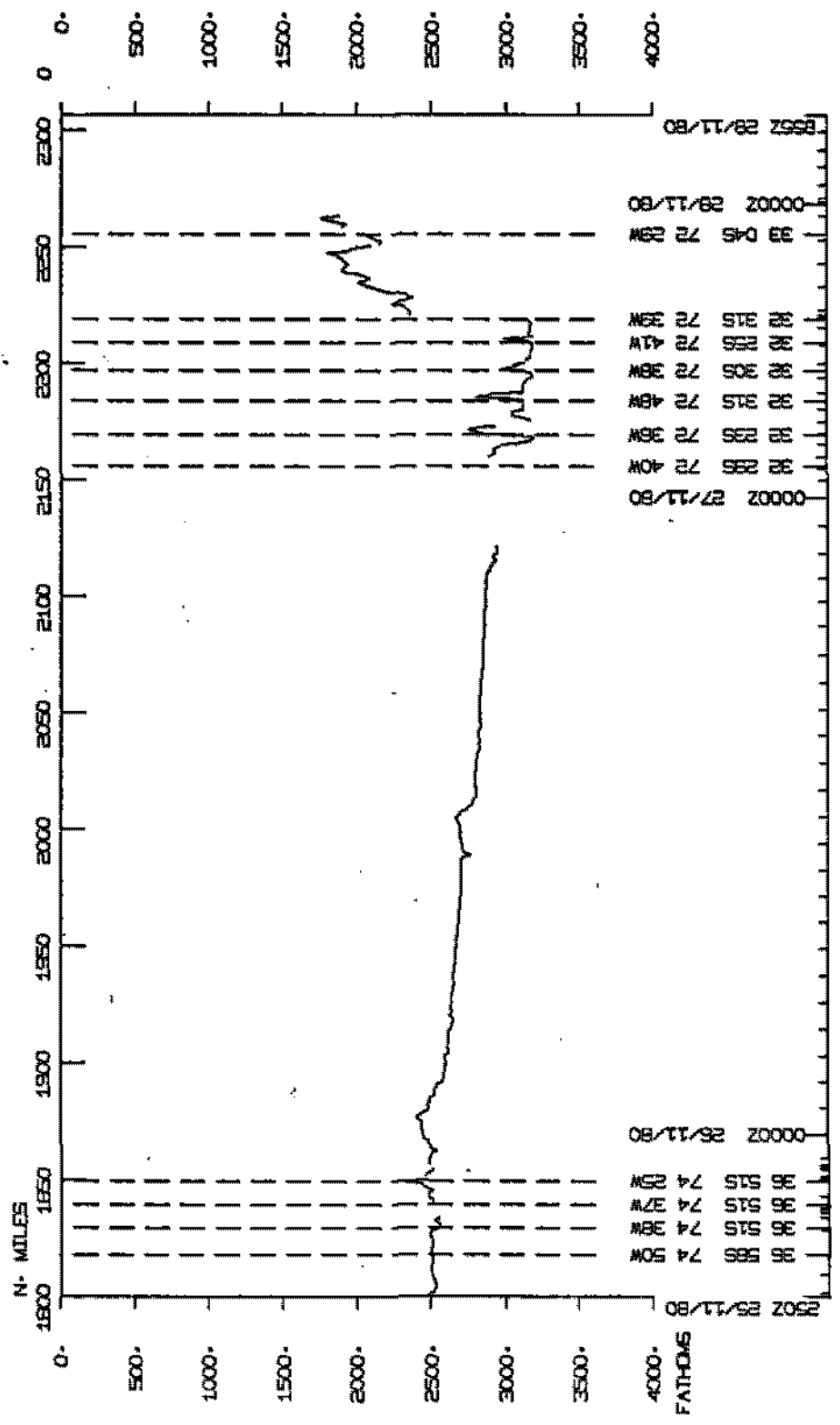
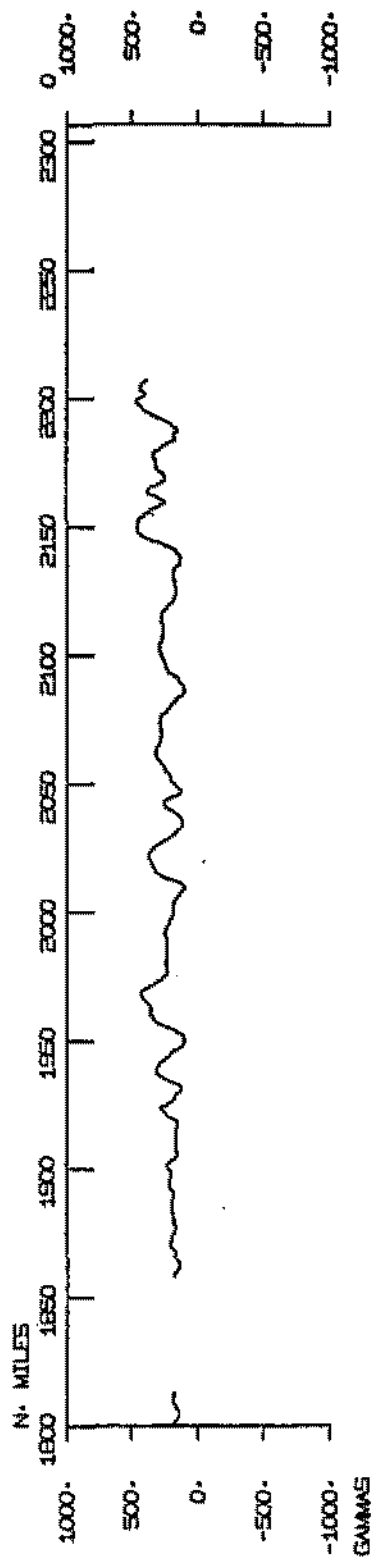
VLCNO4MV



VLCNO4MV



VLDNO4MV



S.I.O. SAMPLE INDEX

GENERATED 03MAR81

*** VULCAN LEG 04 SAMPLE INDEX

(VLCNO4MY) ***

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          60E      120E      180      120W      60W      0W
+-----+-----+-----+-----+-----+-----+
1X1 = SHIP'S TRACK BY 5 DEGREE SQUARE
85N                                             85N
80N                                             80N
75N      0                                             75N
70N      00000000000000000000000000000000 0000 0 00 0 00000000 70N
65N      0000 0000000000000000000000000000 0000000000000000 00 0000 0 65N
60N      00000000000000000000000000000000 0000000000000000 00 00 60N
55N      0 0000000000000000000000000000 0 00000000 000 00 55N
50N      000000000000000000000000000000 0 000000000 0000 00 50N
45N      0000000000 00000000000000000000 000000000000 0 45N
40N      0 00 00 0000000000000000 0 000000000000
35N      0 0000 00000000000000 0 00000000
30N      000 000 0000000000000000 0 00000000
25N      0000000000 000000000000
20N      00000000 0000 000 00000 0 0 0 00
15N      00000000 00 0 00 0 00 0 0
10N      00000000 0 0 0 0
5N      0000000000 0 00000
0N      0000000 00 00 000000
5S      000000 0 0 0 00 0000000
10S     00000 0 00000000
15S     00000 0 0 000000
20S     000000 0 00000
25S     0000 0 0000000
30S     00 00000000
35S     00 00 000 0
40S     0000000 00 0 X800
45S     0 0 X80
50S     00
55S     0
60S
65S
70S      00 0000000000 0
75S     00000000000000000000000000000000 0 00000 0000 75S
80S     00000000000000000000000000000000 0000000000000000000 0000000 80S
85S     00000000000000000000000000000000 0000000000000000000000000000 85S
90S     00000000000000000000000000000000 0000000000000000000000000000 90S
+-----+-----+-----+-----+-----+-----+
          60E      120E      180      120W      60W      0W

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10NOV80 - VALPARAISO, CHILE
 TO
 28NOV80 - VALPARAISO, CHILE

CHIEF SCIENTIST - KULM, L.D. OSU
 SHIP - R/V MELVILLE (SIO)

PRODUCED BY GEOLOGICAL DATA CENTER, SCRIPPS INSTITUTION
 OF OCEANOGRAPHY, LA JOLLA, CALIFORNIA 92093

NUMBER OF SAMPLES OF CLASS 'TYPE' GOING TO DESTINATION 'DISP'

DISP	TYPE					TOTAL	
	CO	DP	MG	PE	SP		
CHL	I			4	I	4	
MTG	I			2	I	2	
OSU	I	35	2	11	6 I	54	
SIO	I			2	I	2	
OSU	I			1	I	1	
TOTAL	I	35	2	2	18	6 I	63

SAMPLE 'TYPE' CODES USED ABOVE

CO = CORE
 DP = DEPTH
 MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
 PE = PERSONNEL IN SCIENTIFIC PARTY
 SP = SEISMIC REFLECTION PROFILE AIRGUN

SAMPLE 'DISP' CODES USED ABOVE

CHL = CHILE
 MTG = MARINE TECHNOLOGY GROUP (EXT 4194)
 OSU = OREGON STATE UNIVERSITY
 SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093

SMT D /M /Y TME DATE	LOC LOC TIME TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
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VULCAN LEG 04 SAMPLE INDEX

VLCN04MV

*** PORTS ***

234 10/11/80		LGPT B	VALPARAISO,CHILE		33 02. S	71 37. W	F VLCN04MV
000 28/11/80		LGPT E	VALPARAISO,CHILE		33 02. S	71 37. W	F VLCN04MV
952 11/11/80		LGUS B	VALPARAISO,CHILE		33 02. S	71 37. W	F VLCN04MV
550 11/11/80		LGUS E	VALPARAISO,CHILE		33 02. S	71 37. W	F VLCN04MV

PERSONNEL

** NAME **	** TITLE **	** AFFILIATION **
1 KULM,L.O.	PROFESSOR	OREGON STATE UNIVERSITY
2 KEITH,W.E.	RESIDENT TECH.	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
3 STUBER,D.V.	COMPUTER TECH.	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
4 BATTEY,R.	RESEARCH ASST.	OREGON STATE UNIVERSITY
5 CLAUSON,M.L.	RESEARCH ASST.	OREGON STATE UNIVERSITY
6 DEVRIES,T.J.	STUDENT	OREGON STATE UNIVERSITY
7 FLEISCHBEIN,J.H.	OCEAN TECH.	OREGON STATE UNIVERSITY
8 HONER,M.E.	OCEAN TECH.	OREGON STATE UNIVERSITY
9 JOHNSTON,S.A.	OCEAN TECH.	OREGON STATE UNIVERSITY
0 KALK,P.A.	RESEARCH ASST.	OREGON STATE UNIVERSITY
1 MOSBY,D.E.	RESEARCH ASST.	OREGON STATE UNIVERSITY
2 SEIFERT,E.J.	RESEARCH ASST.	OREGON STATE UNIVERSITY
3 SKORDAL,J.B.	OCEAN TECH.	OREGON STATE UNIVERSITY
4 THORNBERG,T.M.	STUDENT	OREGON STATE UNIVERSITY
5 DIAS,L.	STUDENT UNIV.CHL	CHILE
6 FUENSALIDA,R.	STUDENT UNIV.CHL	CHILE
7 VERGARA,H.C.	REP.HYDRO. OFFICE	CHILE
8 ZARATE,O.	STUDENT UNIV.CHL	CHILE

NOTES AN 'X' IN THE (B)EGIN/(E)ND COLUMN FOLLOWING THE SAMPLE CODE INDICATES NO SAMPLE OR DATA RECOVERED .
 A 'C' INDICATES CONTINUATION OF DATA COLLECTION FROM BEFORE THE BEGINNING OR AFTER THE END OF THIS LEG. (MOORED BOTTOM INSTRUMENTS, FOR EXAMPLE).
 THE NUMBER APPEARING IN THE COLUMNS BETWEEN THE SAMPLE IDENTIFIER AND THE DISPOSITION CODE, FOR MANY SAMPLE ENTRIES, IS THE WATER DEPTH IN CORRECTED METERS.

GMT D /M /Y TIME DATE	LOC LOC TIME TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
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*** FATHOGRAMS ***

2250 10/11/80		DPR3 B	PDR 3.5KHZ M-8011-02	OSU 33	01.8S	71 41.5W	S VLCN04MV
0300 22/11/80		DPR3 E	PDR 3.5KHZ M-8011-02	OSU 39	41.5S	75 07.2W	S VLCN04MV
0308 22/11/80		DPR3 B	PDR 3.5KHZ M-8011-03	OSU 39	41.2S	75 08.7W	S VLCN04MV
0042 27/11/80		DPR3 E	PDR 3.5KHZ M-8011-03	OSU 32	32.6S	72 33.0W	S VLCN04MV

*** MAGNETOMETER ***

2323 10/11/80		MGRA B	MAGNETICS R-01	SIO 33	04.5S	71 47.5W	S VLCN04MV
2015 26/11/80		MGRA E	MAGNETICS R-01	SIO 33	16.7S	72 52.6W	S VLCN04MV
2108 26/11/80		MGRA B	MAGNETICS R-02	SIO 33	08.3S	72 50.1W	S VLCN04MV
1057 27/11/80		MGRA E	MAGNETICS R-02	SIO 32	26.4S	72 41.8W	S VLCN04MV

*** SEISMIC REFLECTION PROFILES ***

2300 12/11/80		SPSV B	4SEC,8SECREP,2-40IN3	OSU 36	30.3S	74 15.3W	S VLCN04MV
2300 13/11/80		SPSV E	4SEC,8SECREP,2-40IN3	OSU 36	54.9S	74 21.8W	S VLCN04MV
1600 14/11/80		SPSV B	4SEC,8SECREP,2-40IN3	OSU 39	32.0S	74 51.9W	S VLCN04MV
1242 15/11/80		SPSV E	4SEC,8SECREP,2-40IN3	OSU 40	04.2S	74 51.1W	S VLCN04MV
1824 15/11/80		SPSV B	4SEC,8SECREP,2-40IN3	OSU 40	32.6S	74 58.3W	S VLCN04MV
0529 16/11/80		SPSV E	4SEC,8SECREP,2-40IN3	OSU 40	25.7S	75 03.2W	S VLCN04MV
1700 16/11/80		SPSV B	4SEC,8SECREP,2-40IN3	OSU 41	49.2S	75 23.7W	S VLCN04MV
0830 17/11/80		SPSV E	4SEC,8SECREP,2-40IN3	OSU 42	10.9S	75 38.4W	S VLCN04MV
0950 21/11/80		SPSV B	4SEC,8SECREP,2-40IN3	OSU 40	26.4S	75 10.9W	S VLCN04MV
0014 22/11/80		SPSV E	4SEC,8SECREP,2-40IN3	OSU 39	26.3S	75 01.0W	S VLCN04MV
0200 27/11/80		SPSV B	4SEC,8SECREP,2-40IN3	OSU 32	29.8S	72 40.0W	S VLCN04MV
1100 27/11/80		SPSV E	4SEC,8SECREP,2-40IN3	OSU 32	26.0S	72 42.0W	S VLCN04MV

*** CORES ***

0655 18/11/80		COPS	M-8011-04PC	3891M	OSU 42	06.5S	75 35.4W	S VLCN04MV
0655 18/11/80		COPG	M-8011-04GC	3891M	OSU 42	06.5S	75 35.4W	S VLCN04MV
1241 18/11/80		COPS	M-8011-05PC	3910M	OSU 42	04.2S	75 26.9W	S VLCN04MV
1241 18/11/80		COPG	M-8011-05GC	3910M	OSU 42	04.2S	75 26.9W	S VLCN04MV
1746 18/11/80		COGV	M-8011-06GC	3925M	OSU 42	01.3S	75 29.9W	S VLCN04MV
2218 18/11/80		COPS	M-8011-07PC	3862M	OSU 42	03.7S	75 44.2W	S VLCN04MV
2218 18/11/80		COPG	M-8011-07GC	3892M	OSU 42	03.7S	75 44.2W	S VLCN04MV
0303 19/11/80		COPS	M-8011-08PC	3835M	OSU 42	02.4S	75 47.8W	S VLCN04MV
0303 19/11/80		COPG	M-8011-08GC	3835M	OSU 42	02.4S	75 47.8W	S VLCN04MV
1038 19/11/80		COPS	M-8011-09PC	3871M	OSU 41	58.6S	75 40.7W	S VLCN04MV
1038 19/11/80		COPG	M-8011-09GC	3871M	OSU 41	58.6S	75 40.7W	S VLCN04MV

GMT D / M / Y TIME DATE	LOC LOC TIME TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
0742	20/11/80	COPS	M-8011-10PC	3867M	OSU 42 04.9S	75 31.9W	S VLCN04MV
0742	20/11/80	COPG	M-8011-10GC	3867M	OSU 42 04.9S	75 31.9W	S VLCN04MV
0117	21/11/80	COPS	M-8011-11PC	4160M	OSU 40 29.0S	75 14.8W	S VLCN04MV
0117	21/11/80	COPG	M-8011-11GC	4160M	OSU 40 29.0S	75 14.8W	S VLCN04MV
0706	21/11/80	COPS	M-8011-12PC	4192M	OSU 40 29.7S	75 08.8W	S VLCN04MV
0706	21/11/80	COPG	M-8011-12GC	4192M	OSU 40 29.7S	75 08.8W	S VLCN04MV
0738	23/11/80	COPS	M-8011-13PC	4437M	OSU 39 39.3S	75 11.1W	S VLCN04MV
0738	23/11/80	COPG	M-8011-13GC	4437M	OSU 39 39.3S	75 11.1W	S VLCN04MV
1249	23/11/80	COPS	M-8011-14PC	4345M	OSU 39 39.6S	75 11.1W	S VLCN04MV
1249	23/11/80	COPG	M-8011-14GC	4345M	OSU 39 39.6S	75 11.1W	S VLCN04MV
1945	23/11/80	COPS	M-8011-15PC	4360M	OSU 39 39.7S	75 14.6W	S VLCN04MV
1945	23/11/80	COPG	M-8011-15GC	4360M	OSU 39 39.7S	75 14.6W	S VLCN04MV
0430	24/11/80	COPS	M-8011-16PC	4353M	OSU 39 44.7S	75 02.1W	S VLCN04MV
0430	24/11/80	COPG	M-8011-16GC	4353M	OSU 39 44.7S	75 02.1W	S VLCN04MV
0836	25/11/80	COPS	M-8011-17PC	4825M	OSU 36 54.1S	74 38.7W	S VLCN04MV
0836	25/11/80	COPG	M-8011-17GC	4825M	OSU 36 54.1S	74 38.7W	S VLCN04MV
1447	25/11/80	COPS	M-8011-18PC	4660M	OSU 36 51.2S	74 25.5W	S VLCN04MV
1447	25/11/80	COPG	M-8011-18GC	4660M	OSU 36 51.2S	74 25.5W	S VLCN04MV
1948	25/11/80	COPS	M-8011-19PC	4728M	OSU 36 51.8S	74 29.5W	S VLCN04MV
1948	25/11/80	COPG	M-8011-19GC	4728M	OSU 36 51.8S	74 29.5W	S VLCN04MV
1433	27/11/80	COPS	M-8011-20PC	6035M	OSU 32 31.2S	72 40.2W	S VLCN04MV
1433	27/11/80	COPG	M-8011-20GC	6035M	OSU 32 31.2S	72 40.2W	S VLCN04MV
2350	27/11/80	COPS	M-8011-21PC	4065M	OSU 33 00.4S	72 29.8W	S VLCN04MV
2350	27/11/80	COPG	M-8011-21GC	4065M	OSU 33 00.4S	72 29.8W	S VLCN04MV

9900

END SAMPLE INDEX

VLCN04MV