

INFORMAL REPORT AND INDEX OF  
NAVIGATION, DEPTH, MAGNETIC AND SUBBOTTOM PROFILER DATA

VENTURE EXPEDITION

LEG 3

=====

R/V Thomas Washington

(Issued October 1990)

Manzanillo, Mexico (13 November 1989)  
to  
San Diego, California (15 December 1989)

Co-Chief Scientists:

Rachael Haymon (University of California Santa Barbara)

Dan Fornari (Lamont-Doherty Geological Observatory)

Resident Marine Technician - Gene Pillard

Post-Cruise Processing and Report Preparation by the  
Geological Data Center, Scripps Institution of Oceanography  
La Jolla, California 92093

Data Collection and Processing Funded by NSF  
Grant Number OCE87-02835

NOTE: This is an index of underway geophysical data edited  
and processed after the completion of the cruise leg and is  
intended primarily for informal use within the institution.  
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Geological Data Center, Scripps Institution of Oceanography,  
La Jolla, California 92093.

GDC Cruise I.D.# 245

**INFORMAL REPORT AND INDEX OF NAVIGATION  
AND UNDERWAY GEOPHYSICAL DATA**

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Processed by the Geological Data Center  
Scripps Institution of Oceanography

**Contents:**

**Index Chart** - gives track of cruise leg, dates, ports, and mileage of each type of data collected.

**Track Charts** - annotated with dates and hour ticks.

**Profiles** - depth, magnetic anomaly and gravity free air anomaly vs. distance. Sections of track having subbottom profile (airgun or watergun) records have a wide black line along the bottom of the profile. Sections having Sea Beam are indicated by a narrow black line.

**Sample Index** - list of beginning and end times and positions of all underway records as well as all other samples and measurements (geology, biology, physical oceanography, etc.) collected on the cruise leg.

NOTE: One or more of the underway data types may not be collected on a given cruise leg.

For information on the availability and reproduction costs of data in the following forms, contact S. M. Smith, Curator, Geological Data Center, Scripps Institution of Oceanography, La Jolla, CA 92093-0223. Phone (619)534-2752. Fax (619)534-5306.

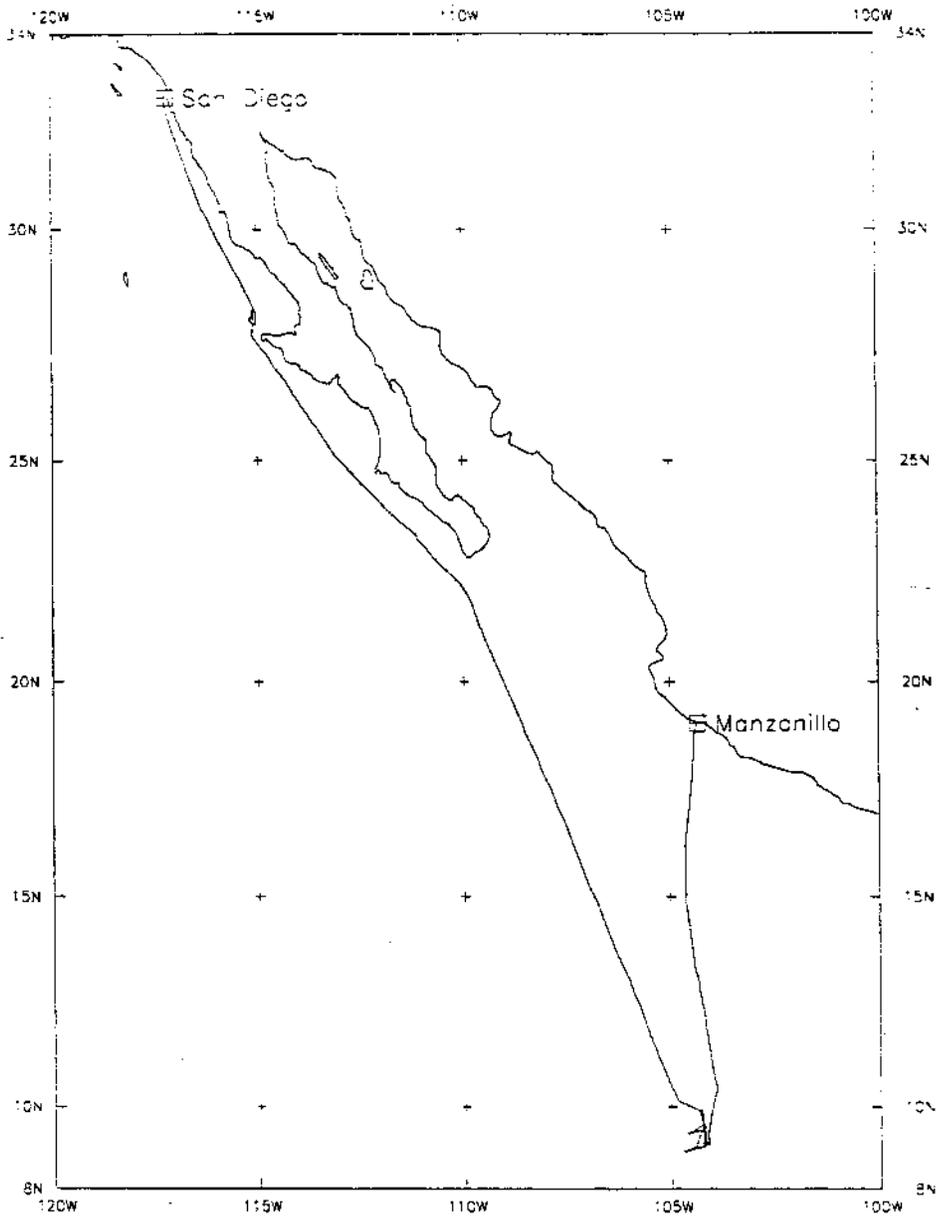
1. Navigation listing with times and positions of course and speed changes, fixes and drift velocity.
2. Depth compilation plots - compilation plots at the traditional scale of 4in/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2 $\frac{2}{3}$  degree beam width) depths retrieved at one minute intervals of ship time.
3. Plots of depths, magnetics or gravity profiles along track - custom plots at various map and profile scales on Mercator projection may be requested.
4. Separate time series files of navigation, depth, gravity and magnetics as well as these data merged in the MGD77 Exchange format on magnetic tape.
5. Microfilm or Xerox copies of:
  - a. Echosounder records - 12 and 3.5 kHz frequency
  - b. Subbottom profiler records
  - c. Magnetometer records
  - d. Underway data log book

## SIO Sea Beam Data Information

The following forms are available, subject to approval of the cruise leg chief scientist:

- 1) Archive copy of contour swath books generated in real time on board ship available for inspection at the data center.
- 2) Microfilm (35mm flowfilm) containing swath books plus, for some cruises, the Sea Beam monitor record and navigation list.
- 3) Sea Beam merged tapes - Sea Beam data merged with navigation. (Navigation is edited to the extent that DR courses and speeds are edited and poor fixes are removed after inspection of drift vectors between fix pairs. No editing is done on the basis of adjusting to overlapping Sea Beam swaths.)
- 4) Archive contour plots - 16"/degree chart scale, with contour interval nominally 50m, are generated for all transit lines. Some survey areas are plotted at appropriate scales as well. Available for inspection at data center; additional copies may be generated from plot files stored on tape.
- 5) Custom generated plots of Sea Beam swaths on Mercator projection in four colors at variable plot scales and contour intervals. There are provisions to adjust positions of individual track lines and to edit out beams (bad data or overlapping data on inside of turns).

Revised October 1986



VENTURE EXPEDITION LEG 3

CO-CHIEF SCIENTISTS:

R. Haymon - University of California Santa Barbara

D. Fornari - Lamont-Doherty Geological Observatory

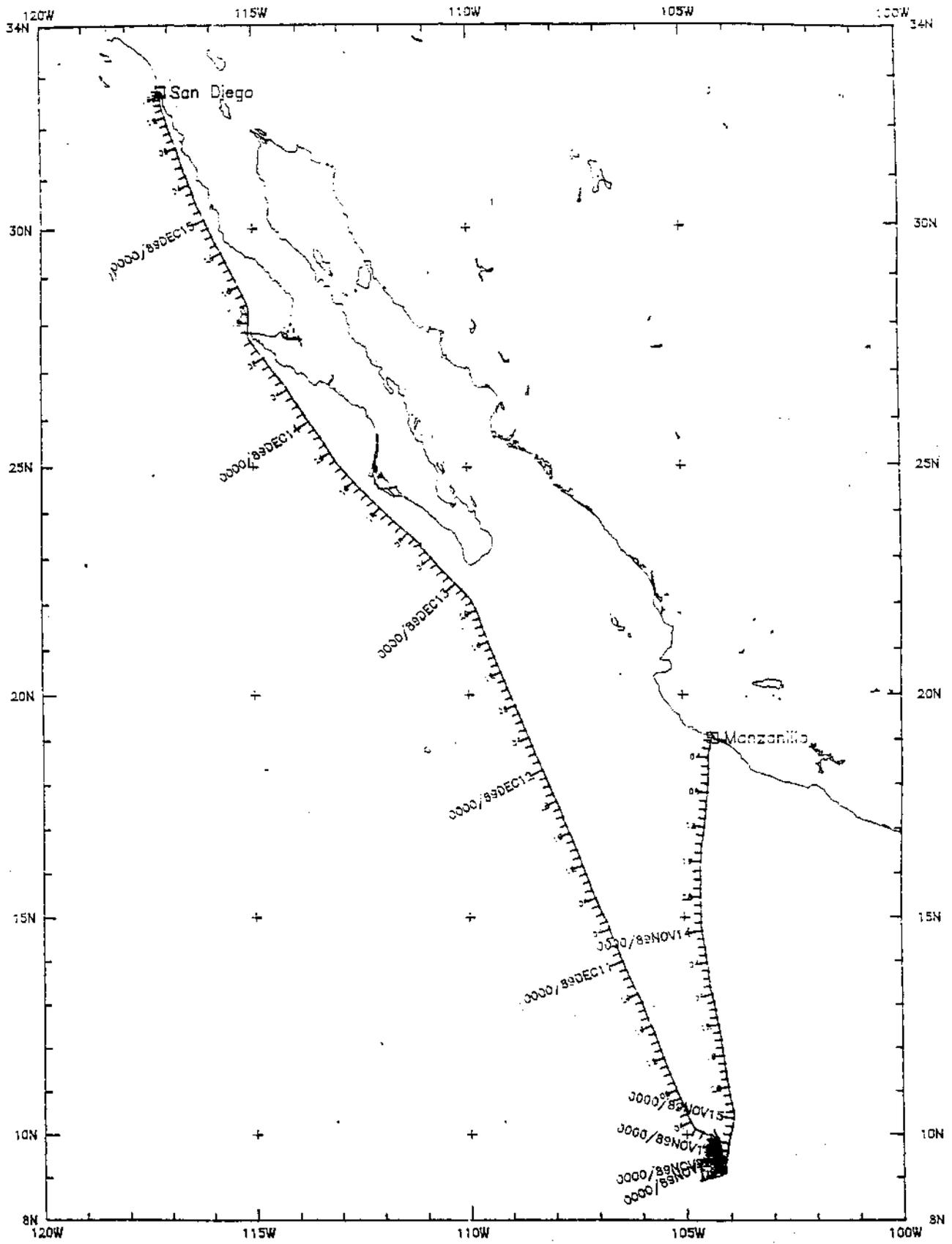
PORTS: Manzanillo, Mexico - San Diego, California

DATES: 12 November - 15 December 1989

SHIP: R/V T. Washington

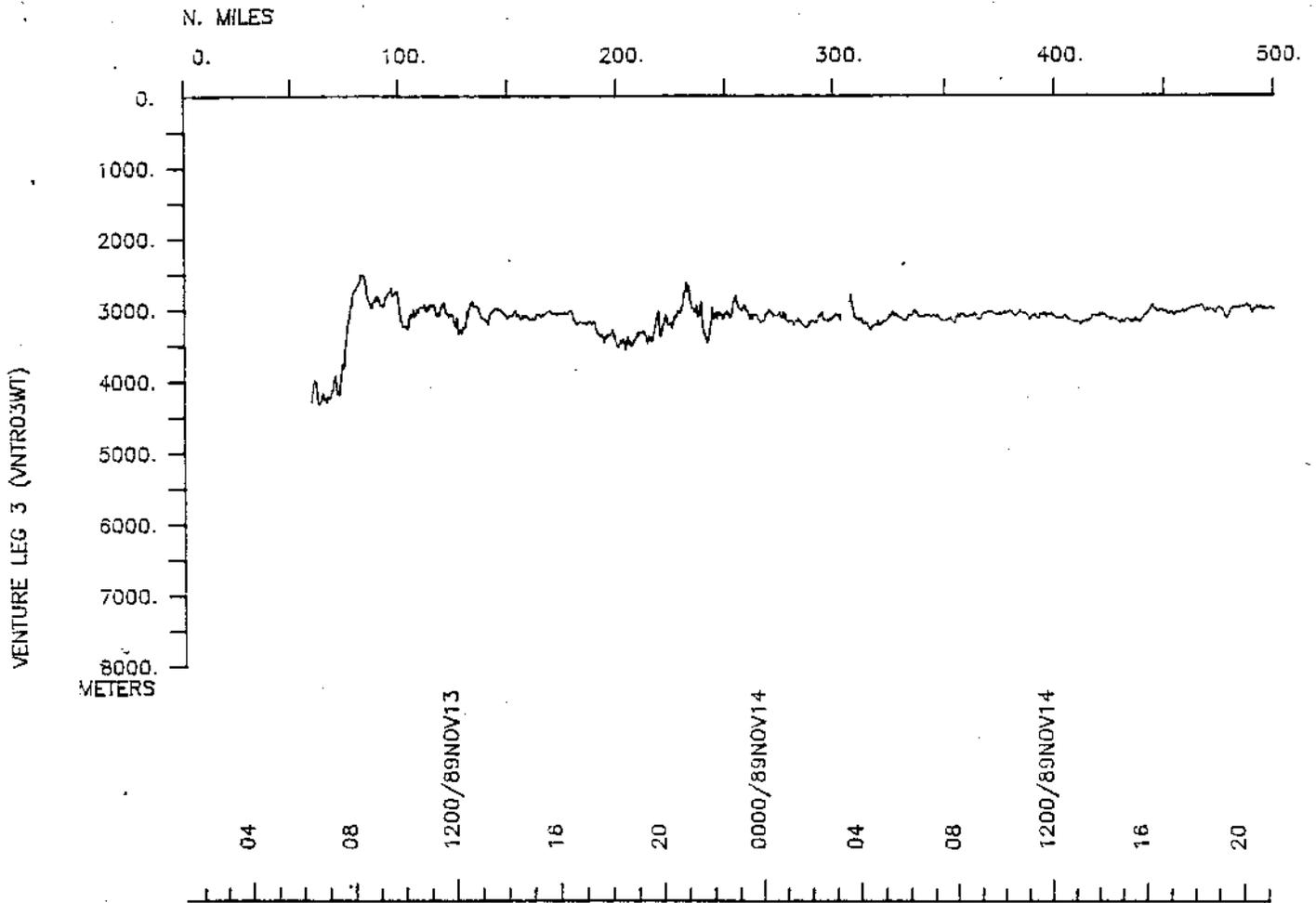
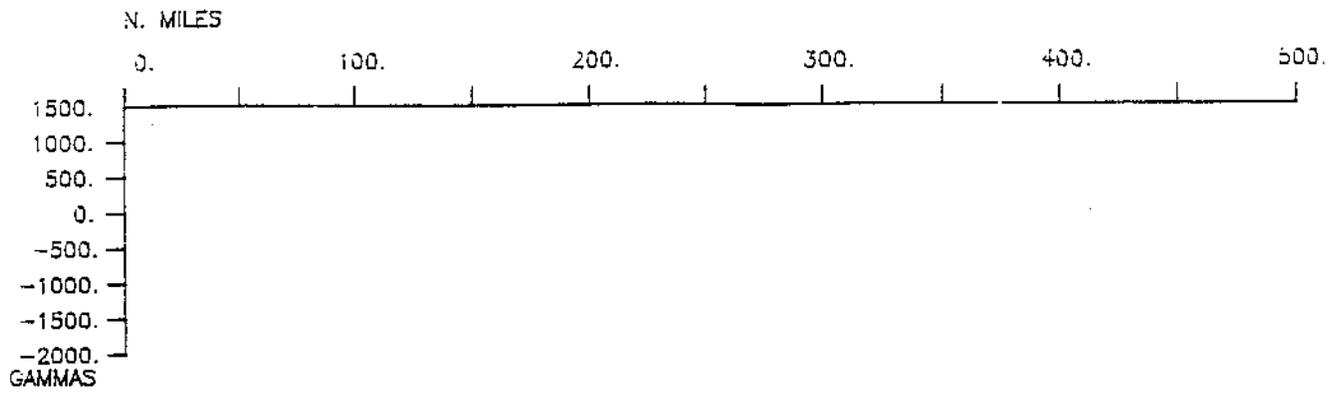
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

- 1) Cruise - 3169 miles
- 2) Bathymetry - 2804 miles
- 3) Magnetics - 810 miles
- 4) Seismic Reflection - none collected
- 5) Gravity - collected but not processed
- 6) Sea Beam - 2804 miles

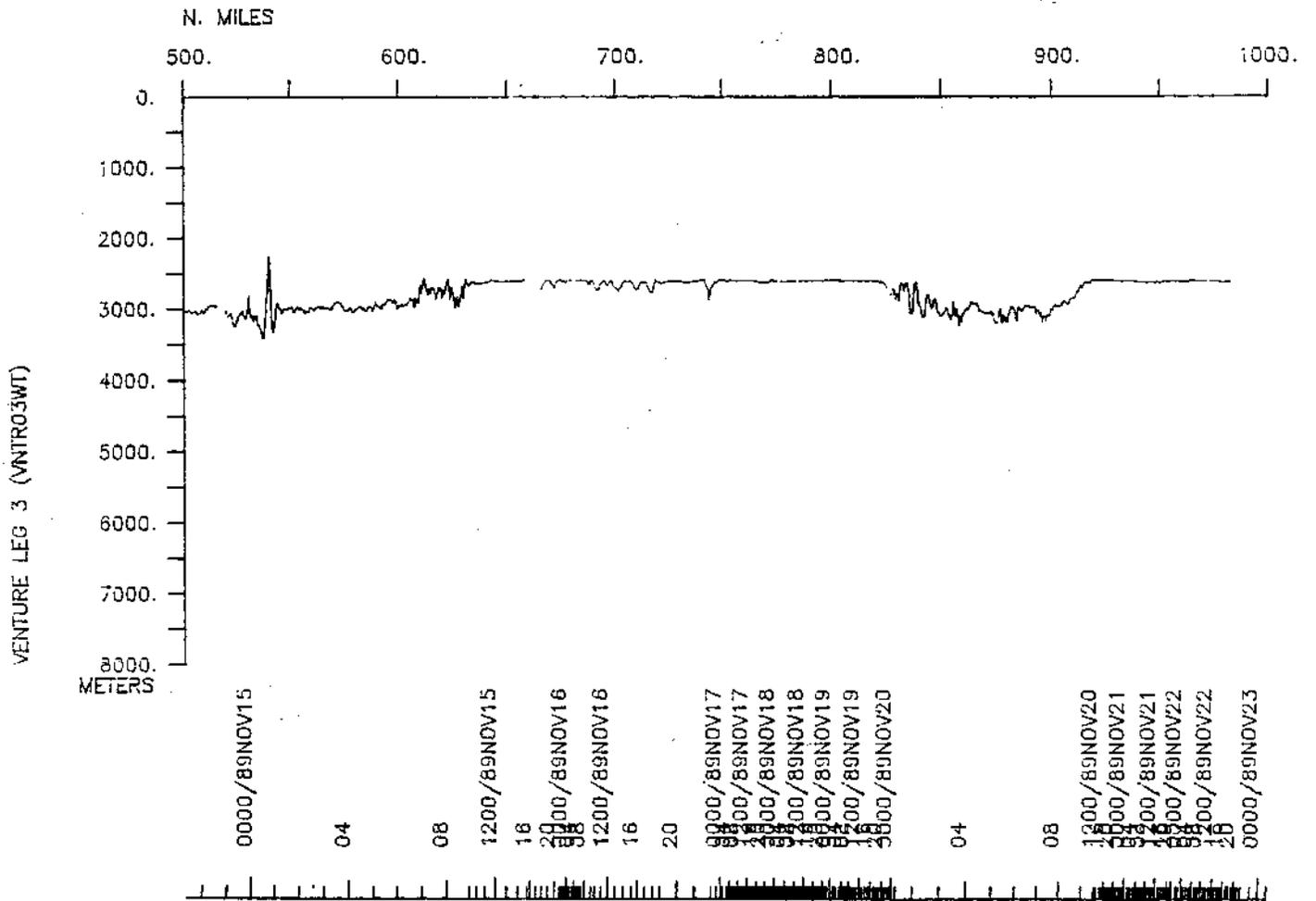
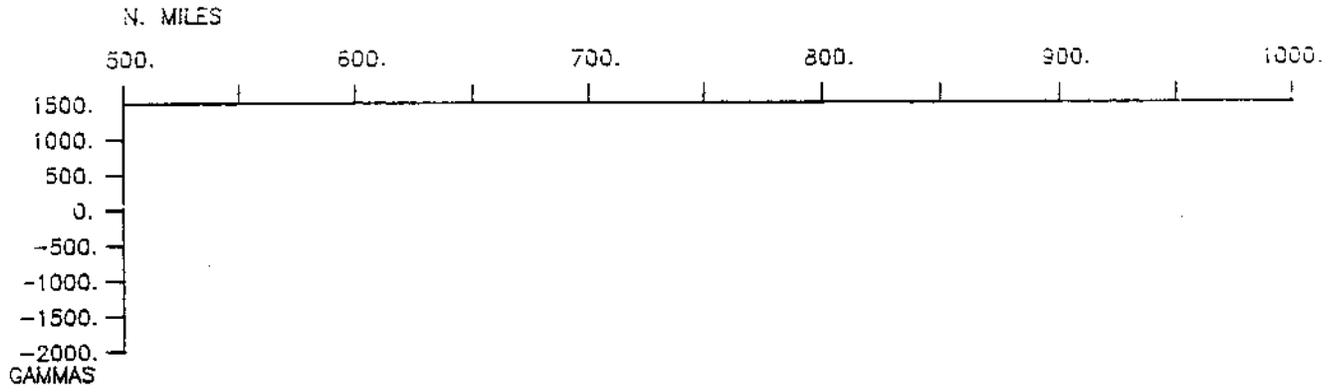


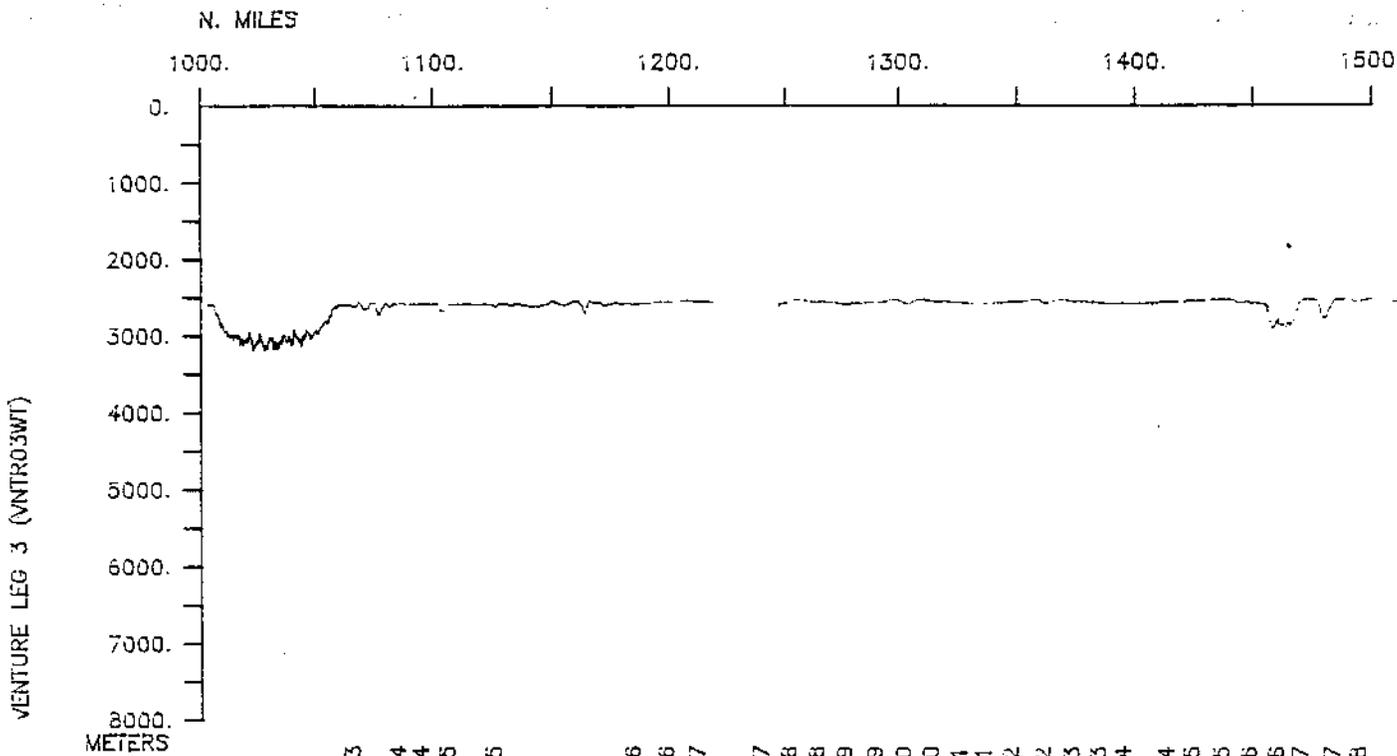
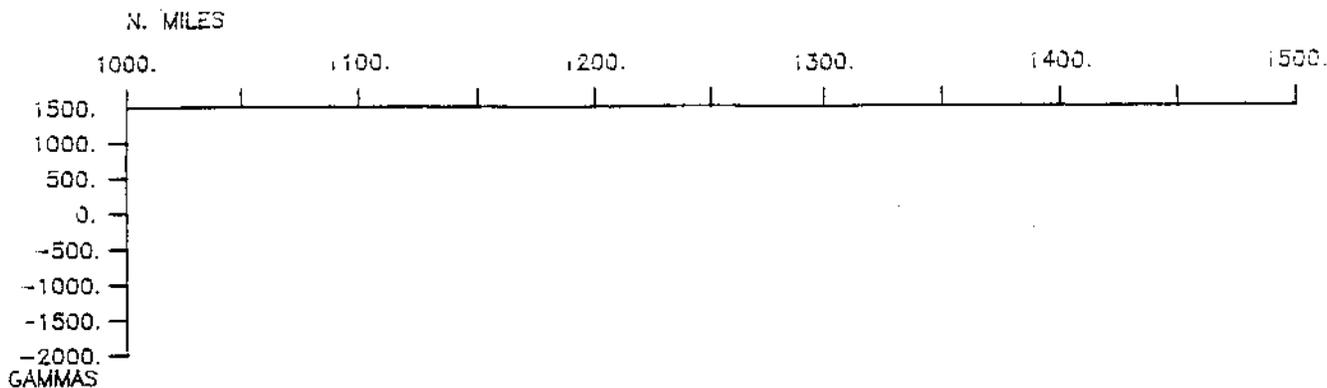
VENTURE Expedition Leg 3 (VNTR03WT)

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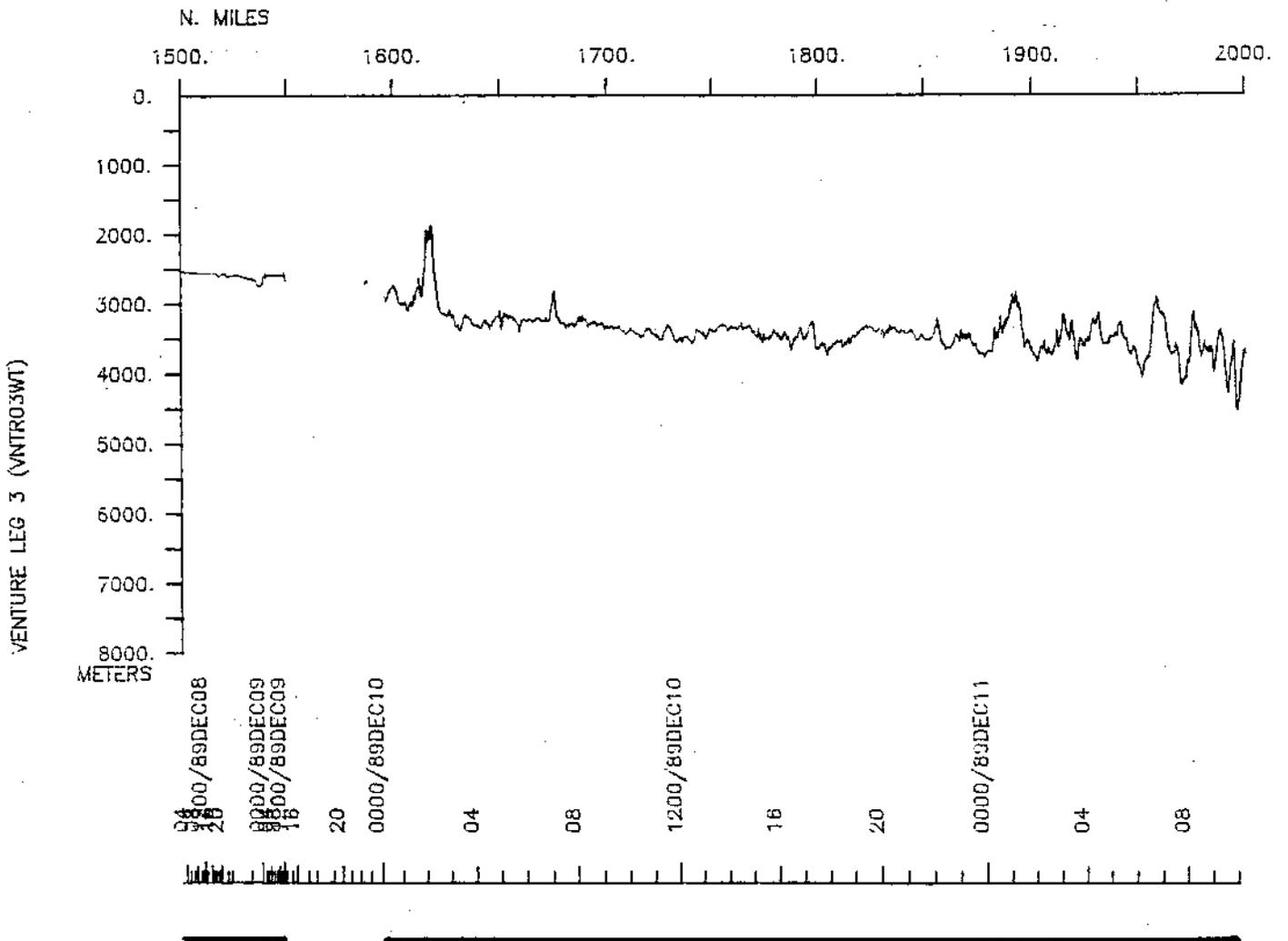
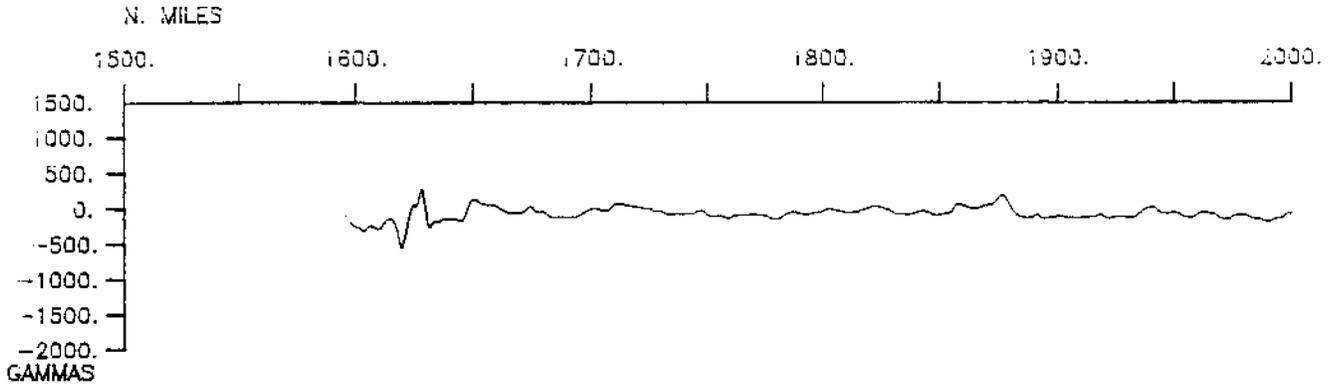
SEABEAM

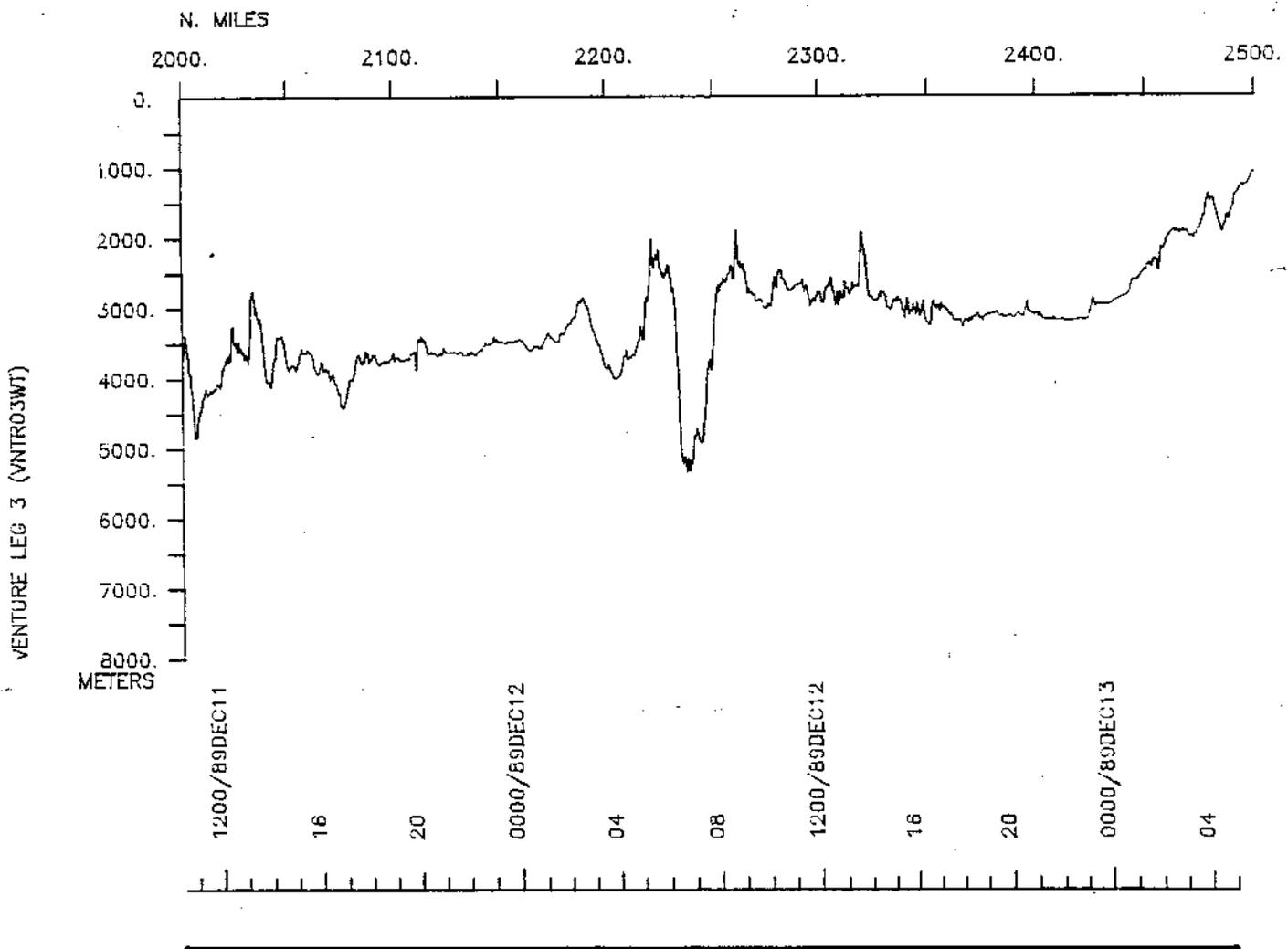
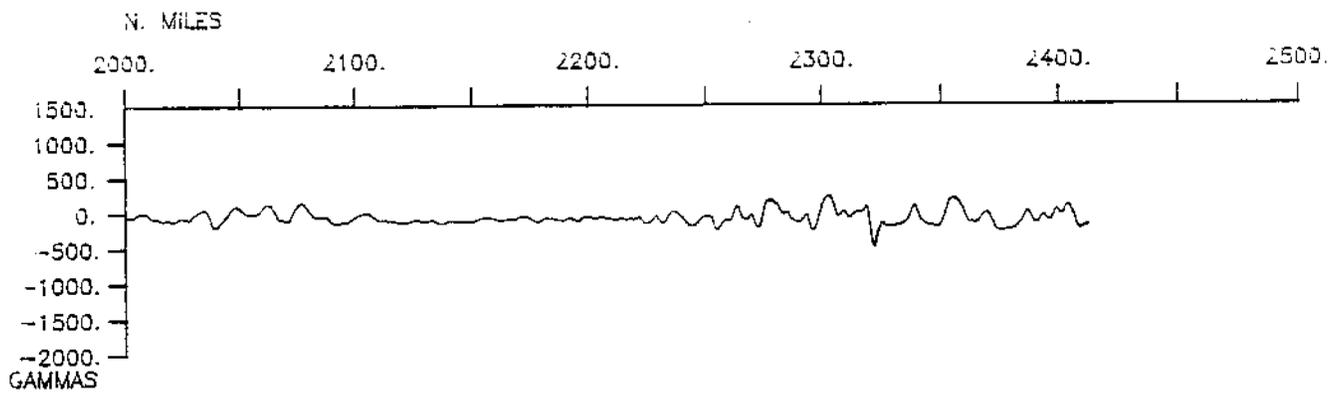


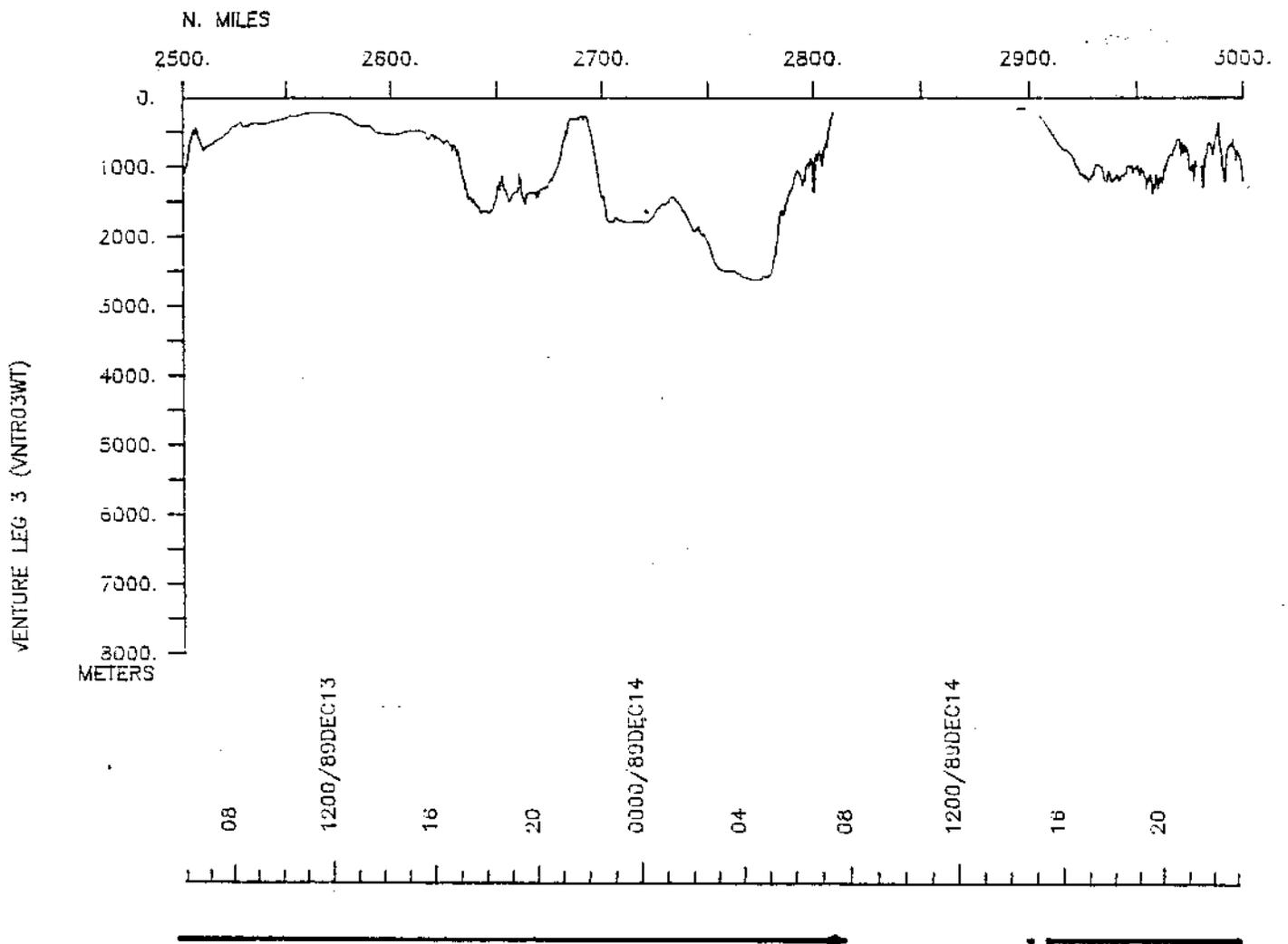
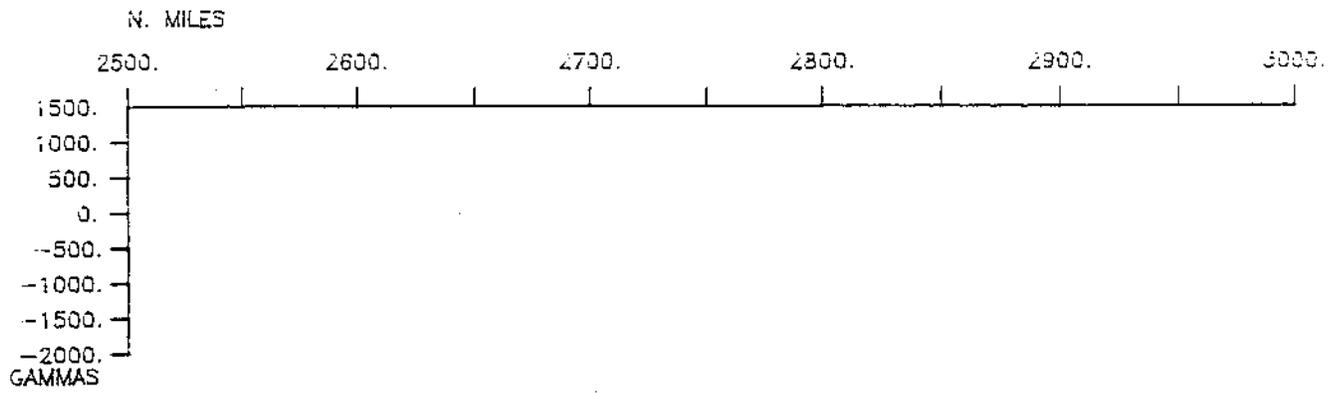


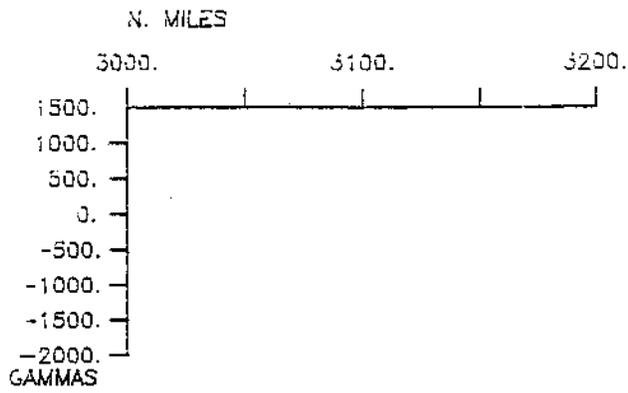
VENTURE LEG 3 (VNTR03WT)

04  
08  
1200/89NOV23  
1600/89NOV24  
1800/89NOV24  
2000/89NOV24  
2200/89NOV24  
2400/89NOV24  
2600/89NOV24  
2800/89NOV24  
3000/89NOV24  
3200/89NOV24  
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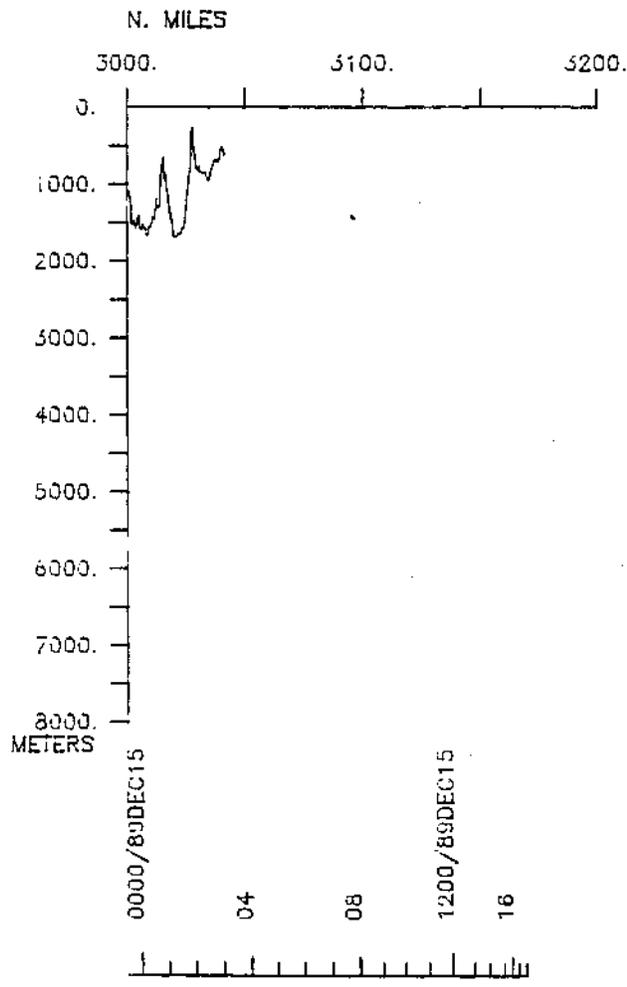








VENTURE LEG 3 (VNTRO3WT)



S.I.O. SAMPLE INDEX

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(Issued October 1990)

VENTURE EXPEDITION

Leg 3

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R/V T. Washington

Manzanillo, Mexico (13 November 1989)  
to  
San Diego, California (15 December 1989)

Co-Chief Scientists:

Rachael Haymon (University of California, Santa Barbara)

Dan Fornari (Lamont-Doherty Geological Observatory)

The Sample Index is a first level interdisciplinary listing of time, position, sample identification and disposition of all samples, records and measurements collected on this cruise leg. The index data are encoded at sea by the resident marine technician and processed on shore by the S.I.O. Geological Data Center shortly after the completion of the cruise leg.

Positions are interpolated on the basis of sample time by comparison to a single, edited navigation file. Samples beginning at one time and position and ending at another are entered on two consecutive lines. Disposition and sample type are represented by three and four character codes to permit further computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GDC Cruise I.D.# 245

\*\*\*\*PORTS\*\*\*\*

2300 131189	LGPT B MANZANILLO, MEXICO	19-03 N 104-20 W	FVNTRO3WT
1817 151289	LGPT E SAN DIEGO, CALIF.	32-43 N 117-11 W	FVNTRO3WT

\*\*\*\*PERSONNEL\*\*\*\*

	***NAME***	***TITLE***	***AFFILIATION***	**CRID**
PECS UCS	HAYMON, R.	CHIEF SCIENTIST	U.C. SANTA BARBARA	VNTRO3WT
PECS LDO	FORNARI, D.	CHIEF SCIENTIST	LAMONT-DOHERTY	VNTRO3WT
PESP WHO	AGEE, C.	FIELD ENGINEER	WOODS HOLE	VNTRO3WT
PEST LDO	BARTH, G.	GRAD STUDENT	LAMONT-DOHERTY	VNTRO3WT
PEST UCS	BEEDLE, N.	GRAD STUDENT	U.C. SANTA BARBARA	VNTRO3WT
PECT STS	BOUCHARD, G.	COMPUTER TECH	SCRIPPS INSTITUTION	VNTRO3WT
PESP UCS	CARBOTTE, S.	RESEARCH ASSIST.	U.C. SANTA BARBARA	VNTRO3WT
PEST WHO	CROOK, T.	RESEARCH ASSIST.	WOODS HOLE	VNTRO3WT
PEST LDO	EDWARDS, M.	GRAD STUDENT	LAMONT-DOHERTY	VNTRO3WT
PESP WHO	GEGG, S.	RESEARCH ASSIST.	WOODS HOLE	VNTRO3WT
PESP WHO	GLEASON, D.	RESEARCH ENGR.	WOODS HOLE	VNTRO3WT
PEVL UCS	HITZ, R.	VOLUNTEER	U.C. SANTA BARBARA	VNTRO3WT
PEVL UCS	IVEY, T.	VOLUNTEER	U.C. SANTA BARBARA	VNTRO3WT
PESP UCS	MACDONALD, K.	PROFESSOR	U.C. SANTA BARBARA	VNTRO3
PESP WHO	MARTIN, D.	RESEARCH ASSIST.	WOODS HOLE	VNTRO3WT
PESP GSU	O'BRIEN, T.	PROJECT CHIEF	GEOLOGICAL SURVEY	VNTRO3WT
PERT STS	PILLARD, E.	RESIDENT TECH.	SCRIPPS INSTITUTION	VNTRO3WT
PESP SIX	SAINT, J.	CONTRACTOR	COLMEC CORPORATION	VNTRO3WT
PEST UCS	SCHEIRER, D.	GRAD STUDENT	U.C. SANTA BARBARA	VNTRO3WT
PESP WHO	TUPPER, G.	RESEARCH ASSIST.	WOODS HOLE	VNTRO3WT
PEST UCS	WEILAND, C.	GRAD STUDENT	U.C. SANTA BARBARA	VNTRO3WT

\*\*\*\*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 A PARTICULAR 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. POSITIONS ARE IN TENTHS  
 #OF MINUTES.

#GMT	DDMMYY	LOC	T	SAMP	SAMPLE	DISP			CRUISE
#TIME	DATE	TIME	Z	CODE	IDENTIFIER	CODE	LAT.	LONG.	LEG-SHIP

\*\*\*UNDERWAY DATA CURATOR - S. M. SMITH EXT. 42752

\*\*\*LOG BOOKS\*\*\*

0300	101289			LBUW	B UNDERWAY WATCH LOG	GDC	10-078N	104-493W	sVNTR03WT
2200	121289			LBUW	E UNDERWAY WATCH LOG	GDC	22-120N	110-026W	sVNTR03WT

\*\*\* ECHO SOUNDER RECORDS - 12 KHZ \*\*\*

2300	121189			MBMR	B SB MONITOR R-01	GDC	19-035N	104-191W	sVNTR03WT
0912	151189			MBMR	E SB MONITOR R-01	GDC	9-082N	104-128W	sVNTR03WT
0912	151189			MBMR	B SB MONITOR R-02	GDC	9-082N	104-128W	sVNTR03WT
1651	171189			MBMR	E SB MONITOR R-02	GDC	9-161N	104-130W	sVNTR03WT
1651	171189			MBMR	B SB MONITOR R-03	GDC	9-161N	104-130W	sVNTR03WT
0234	081289			MBMR	E SB MONITOR R-03	GDC	9-476N	104-153W	sVNTR03WT
0234	081289			MBMR	B SB MONITOR R-04	GDC	9-476N	104-153W	sVNTR03WT
0355	131289			MBMR	E SB MONITOR R-04	GDC	23-004N	110-514W	sVNTR03WT
0400	131289			MBMR	B SB MONITOR R-05	GDC	23-012N	110-520W	sVNTR03WT
0300	151289			MBMR	E SB MONITOR R-05	GDC	30-420N	116-262W	sVNTR03WT

\*\*\* ECHO SOUNDER RECORDS - 3.5 KHZ \*\*\*

0300	101289			DPR3	B 3.5 KHZ R-01	GDC	10-078N	104-493W	sVNTR03WT
0054	121289			DPR3	E 3.5 KHZ R-01	GDC	18-299N	108-215W	sVNTR03WT
0056	121289			DPR3	B 3.5 KHZ R-02	GDC	18-303N	108-217W	sVNTR03WT
2200	121289			DPR3	E 3.5 KHZ R-02	GDC	22-120N	110-026W	sVNTR03WT

\*\*\* MAGNETIC (EARTH TOTAL FIELD) RECORDS \*\*\*

0300	101289			MGRA	B MAGNETICS R-01	GDC	10-078N	104-493W	sVNTR03WT
1543	121289			MGRA	E MAGNETICS R-01	GDC	21-079N	109-319W	sVNTR03WT
1545	121289			MGRA	B MAGNETICS R-02	GDC	21-082N	109-320W	sVNTR03WT
2200	121289			MGRA	E MAGNETICS R-02	GDC	22-120N	110-026W	sVNTR03WT

\*\*\* GRAVITY - CONTINUOUS COMPUTER LOG \*\*\*

0300	101289			GVCR	B GRAVITY	GDC	10-078N	104-493W	sVNTR03WT
2200	121289			GVCR	B GRAVITY	GDC	22-120N	110-026W	sVNTR03WT

#GMT #TIME #	DDMMYY DATE	LOC TIME	T Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
**** CAMERA - TOWED BOTTOM ****									
0145	161189			CATB B	ARGO 35MM,VIDEO,CTD	UCS	9-287N	104-134W	sVNTR03WT
0603	161189			CATB E	SS SONAR,LINES 00	LDO	9-318N	104-151W	sVNTR03WT
0222	171189			CATB B	ARGO 35MM,VIDEO,CTD	UCS	9-309N	104-149W	sVNTR03WT
2258	191189			CATB E	SS SONAR,LINES 1-3	LDO	9-093N	104-135W	sVNTR03WT
1454	201189			CATB B	ARGO 35MM,VIDEO,CTD	UCS	9-320N	104-150W	sVNTR03WT
1945	221189			CATB E	SS SONAR,LINES 4-6	LDO	9-100N	104-122W	sVNTR03WT
1945	231189			CATB B	ARGO 35MM,VIDEO,CTD	UCS	9-314N	104-145W	sVNTR03WT
0856	251189			CATB E	SS SONAR,LINES 7-13	LDO	9-256N	104-135W	sVNTR03WT
2338	251189			CATB B	ARGO 35MM,VIDEO,CTD	UCS	9-297N	104-146W	sVNTR03WT
0524	271189			CATB E	SS SONAR,LINES 14-15	LDO	9-372N	104-155W	sVNTR03WT
1756	271189			CATB B	ARGO 35MM,VIDEO,CTD	UCS	9-545N	104-177W	sVNTRC F
0325	011289			CATB E	SS SONAR,LINES 16-18	LDO	9-297N	104-147W	sVNTR03WT
1035	011289			CATB B	ARGO 35MM,VIDEO,CTD	UCS	9-306N	104-146W	sVNTR03WT
0743	041289			CATB E	SS SONAR,LINES 19-21	LDO	9-337N	104-148W	sVNTR03WT
1810	041289			CATB B	ARGO 35MM,VIDEO,CTD	UCS	9-448N	104-163W	sVNTR03WT
0621	071289			CATB E	SS SONAR,LINES 22-28	LDO	9-472N	104-198W	sVNTR03WT
**** DREDGES ****									
1255	071289			DRRO B	DREDGE 33 2530M	UCS	9-504N	104-175W	sVNTR03WT
1414	071289			DRRO E	X-PONDER NAVIGATED	LDO	9-502N	104-173W	sVNTR03WT
1825	071289			DRRO B	DREDGE 34 2530M	UCS	9-504N	104-175W	sVNTR03WT
2000	071289			DRRO E	X-PONDER NAVIGATED	LDO	9-504N	104-173W	sVNTR03WT
0244	081289			DRRO B	DREDGE 35 2542M	UCS	9-477N	104-155W	sVNTR03WT
0400	081289			DRRO E	X-PONDER NAVIGATED	LDO	9-472N	104-168W	sVNTR03WT
0758	081289			DRRO B	DREDGE 36 2558M	UCS	9-447N	104-163W	sVNTR03WT
1710	081289			DRRO X	X-PONDER NAVIGATED	LDO	9-450N	104-167W	sVNTR03WT

#GMT #TIME #	DDMMYY DATE	LOC TIME	T Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
0248	091289			DRRO B	DREDGE 37	UCS	9-298N	104-152W	sVNTR03WT
0415	091289			DRRO E	X-PONDER NAVIGATED	LDO	9-290N	104-147W	sVNTR03WT
0744	091289			DRRO B	DREDGE 38	UCS	9-313N	104-146W	sVNTR03WT
0834	091289			DRRO E	X-PONDER NAVIGATED	LDO	9-318N	104-148W	sVNTR03WT
1130	091289			DRRO B	DREDGE 39	UCS	9-313N	104-147W	sVNTR03WT
1214	091289			DRRO E	X-PONDER NAVIGATED	LDO	9-307N	104-146W	sVNTR03WT

\*\*\* THERMOGRAPH RECORDS \*\*\*

2300	121189			TCRC B	THERMOGRAPHS 1-5	GDC	19-035N	104-191W	sVNTR03WT
1830	151289			TCRC E	THERMOGRAPH 1-5	GDC	32-422N	117-139W	sVNTR03WT

\*\*\* EXPENDABLE BATHYTHERMOGRAPHS \*\*\*

1642	131189			BTXP	XBT 0003 PROBE T-4	GDC	16-067N	104-393W	sVNTR03WT
1349	141189			BTXP	XBT 0004 PROBE T-4	GDC	12-135N	104-127W	sVNTR03WT
1904	151189			BTXP	XBT 0005 PROBE T-4	GDC	9-281N	104-150W	sVNTR03WT
2144	161189			BTXP	XBT 0006 PROBE T-4	GDC	9-304N	104-146W	sVNTR03WT
0234	201189			BTXP	XBT 0009 PROBE T-4	GDC	9-015N	104-206W	sVNTR03WT
0243	201189			BTXP	XBT 0010 PROBE T-4	GDC	9-010N	104-224W	sVNTR03WT
1525	251189			BTXP	XBT 0011 PROBE T-4	GDC	9-482N	104-179W	sVNTR03WT
1604	271189			BTXP	XBT 0012 PROBE T-4	GDC	9-551N	104-172W	sVNTR03WT
1611	271189			BTXP	XBT 0013 PROBE T-4	GDC	9-550N	104-171W	sVNTR03WT
0814	011289			BTXP	XBT 0014 PROBE T-4	GDC	9-296N	104-145W	sVNTR03WT
2208	091289			BTXP	XBT 0015 PROBE T-4	GDC	9-470N	104-186W	sVNTR03WT
2101	101289			BTXP	XBT 0016 PROBE T-4	GDC	13-263N	106-125W	sVNTR03WT
1559	111289			BTXP	XBT 0017 PROBE T-4	GDC	16-544N	107-393W	sVNTR03WT
1610	111289			BTXP	XBT 0018 PROBE T-4	GDC	16-564N	107-402W	sVNTR03WT
2059	121289			BTXP	XBT 0019 PROBE T-4	GDC	22-024N	109-553W	sVNTR03WT
1606	131289			BTXP	XBT 0020 PROBE T-4	GDC	24-418N	112-409W	sVNTR03WT
1634	131289			BTXP	XBT 0021 PROBE T-4	GDC	24-459N	112-451W	sVNTR03WT
2016	141289			BTXP	XBT 0022 PROBE T-4	GDC	29-327N	115-480W	sVNTR03WT

\*\*\* END SAMPLE INDEX