

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

PLUME EXPEDITION

LEG 9

R/V Thomas Washington

(Issued August 1990)

Manzanillo, Mexico (11 July 1990)
to
San Diego, California (26 July 1990)

Chief Scientist:

Peter Lonsdale (Scripps Institution of Oceanography)

Resident Marine Technician - Geoff Hargreaves

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 OCE90-00048
ONR 1219
UC General Funds

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. This document is not to be reproduced or distributed outside Scripps without prior approval of the chief scientist or the Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

GDC Cruise I.D.# 246

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

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.

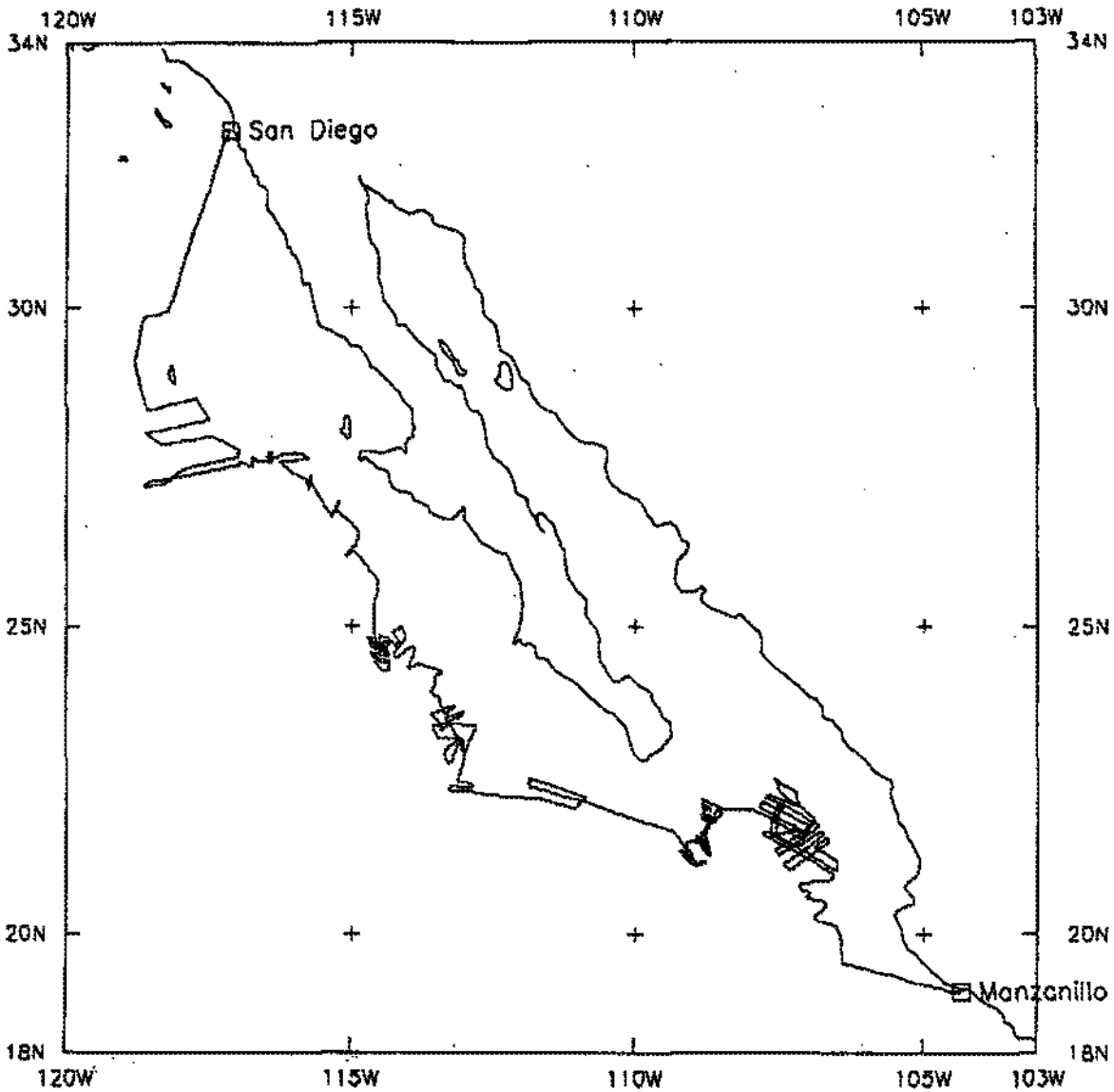
Profiles - depth, magnetic anomaly and gravity free air anomaly vs. distance. Sections of track having subbottom profile (airgun or watergun) records have a wide black line along the bottom of the profile. Sections having Sea Beam are indicated by a narrow black line.

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



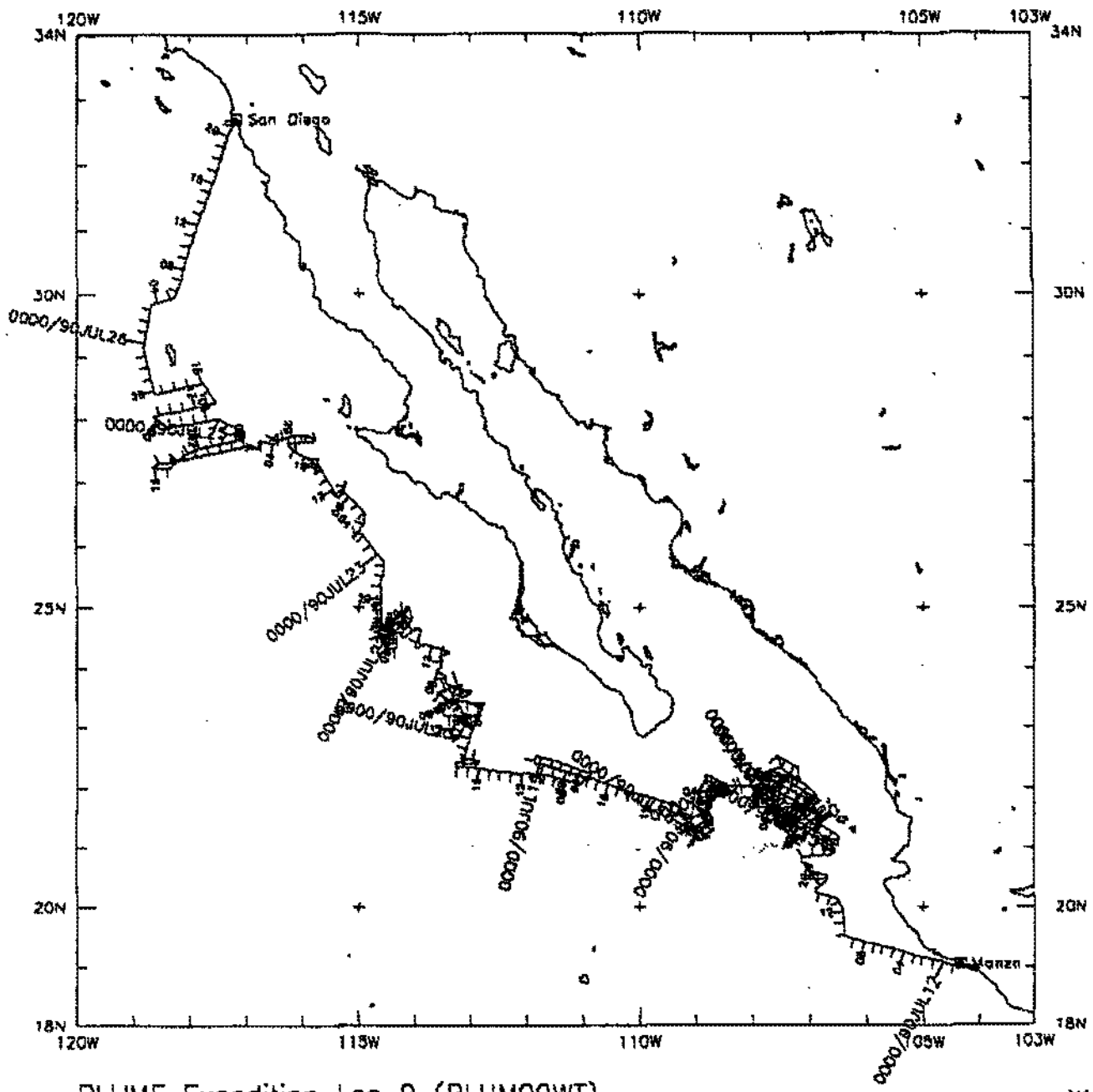
PLUME EXPEDITION LEG 9

CHIEF SCIENTIST:

Peter Lonsdale (SIO)
 PORTS: Manzanillo, Mexico - San Diego, Calif.
 DATES: 11 - 26 July 1990
 SHIP: R/V T. Washington

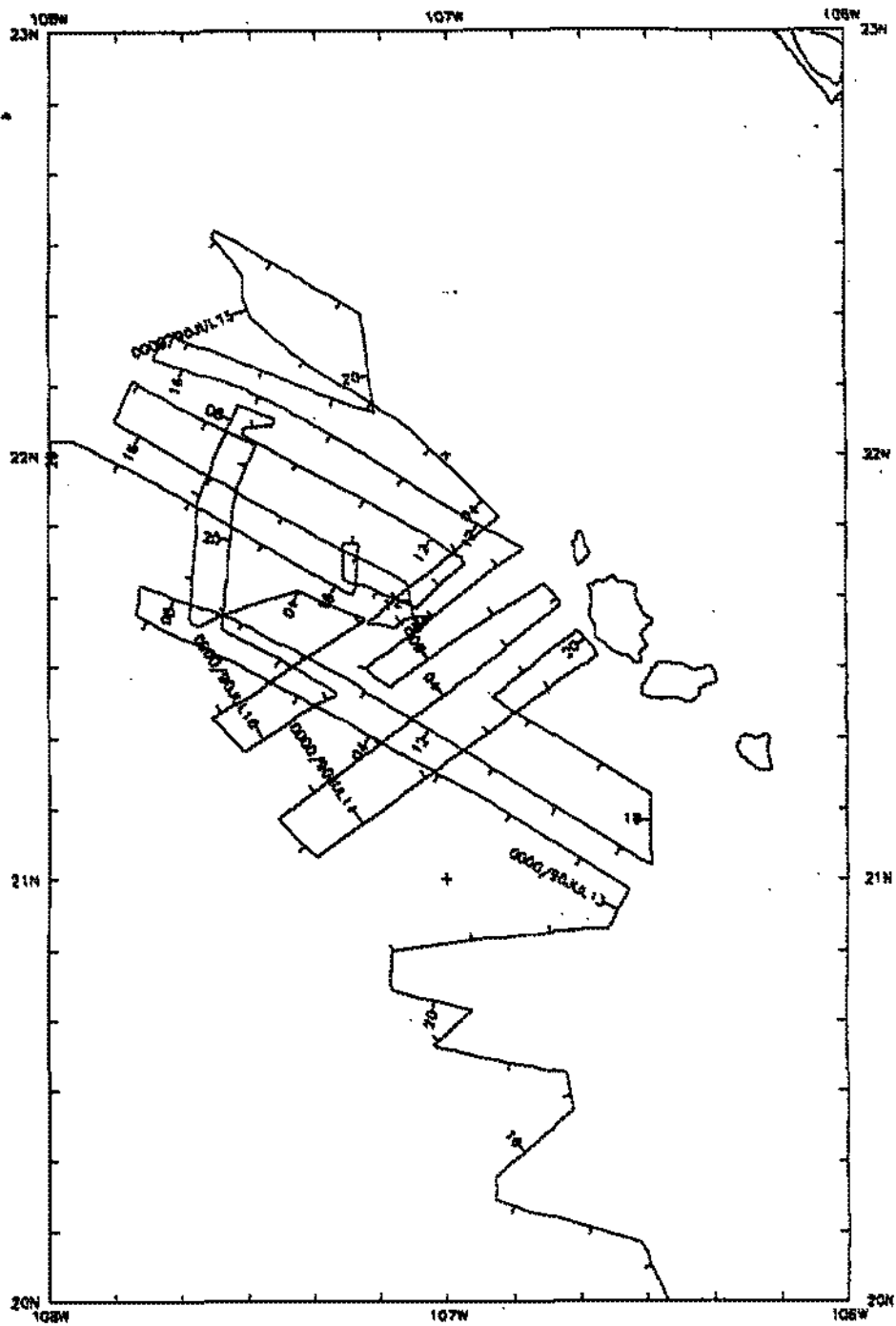
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

- 1) Cruise - 4005 miles
- 2) Bathymetry - 3960 miles
- 3) Magnetics - 3890 miles
- 4) Seismic Reflection - 3325 miles
- 5) Gravity - collected but not processed
- 6) Sea Beam - 3960 miles



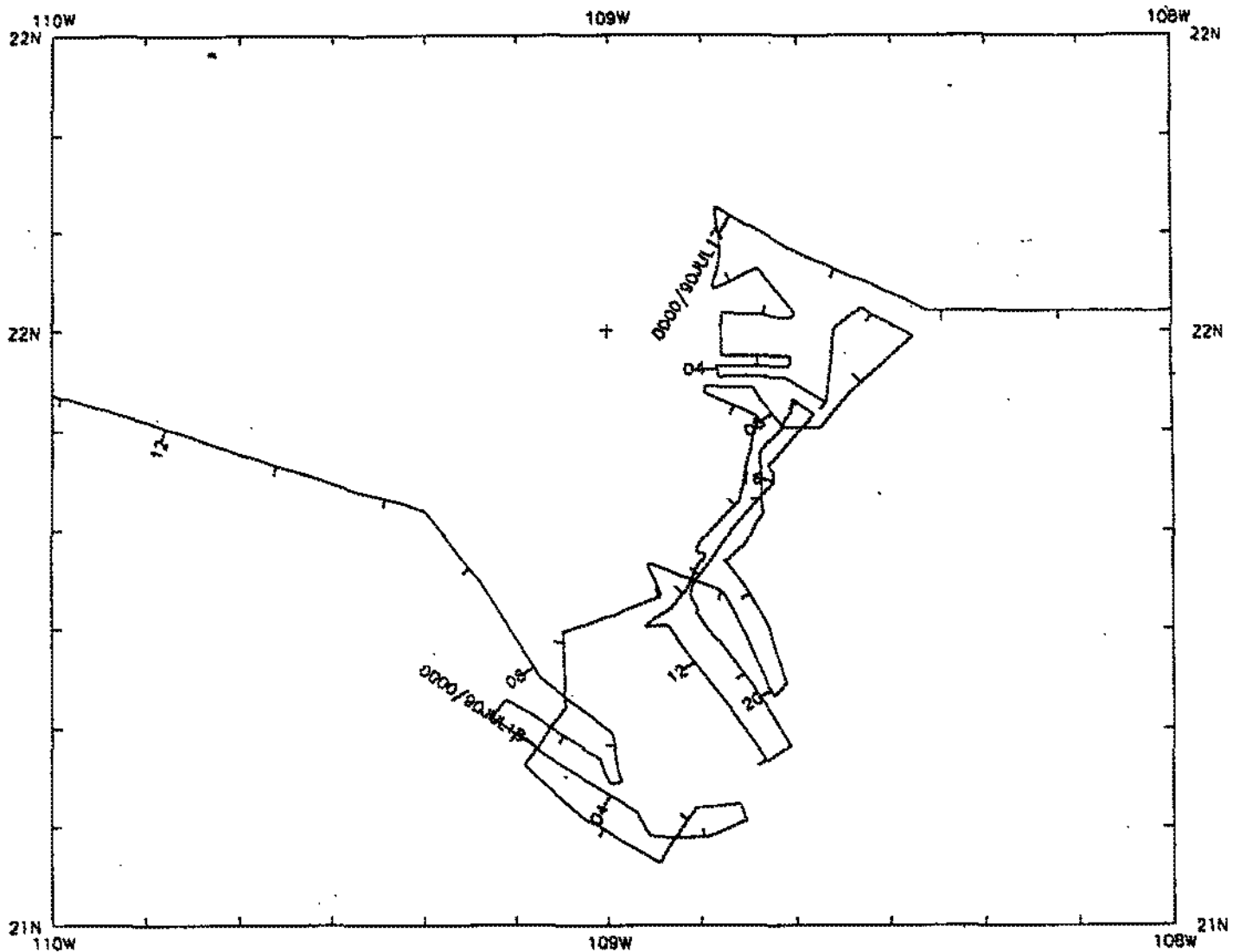
PLUME Expedition Leg 9 (PLUM09WT)

*



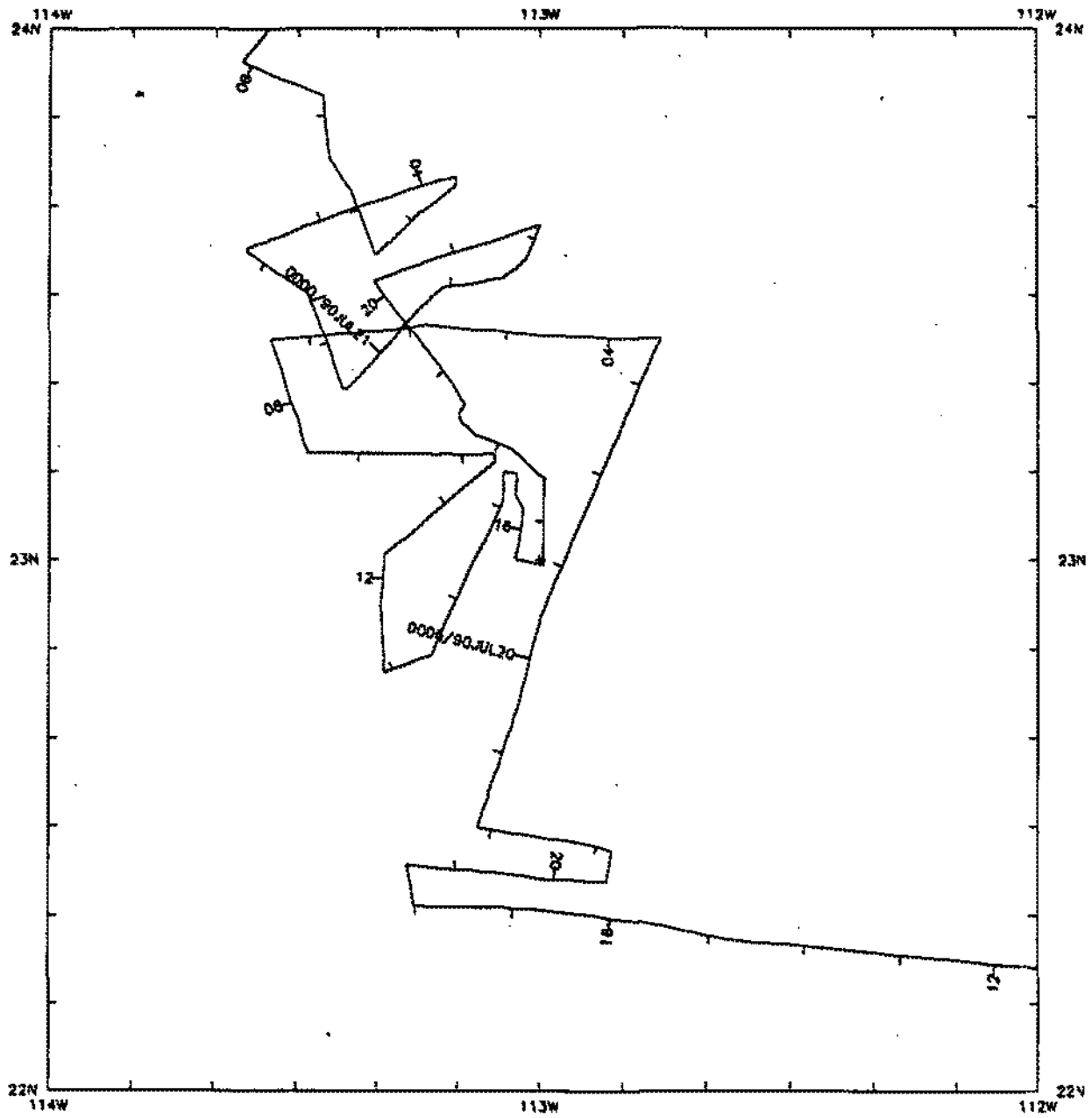
PLUME Expedition Leg 9 (PLUM09WT)
 Tres Marias Islands Sea Beam Survey

✱



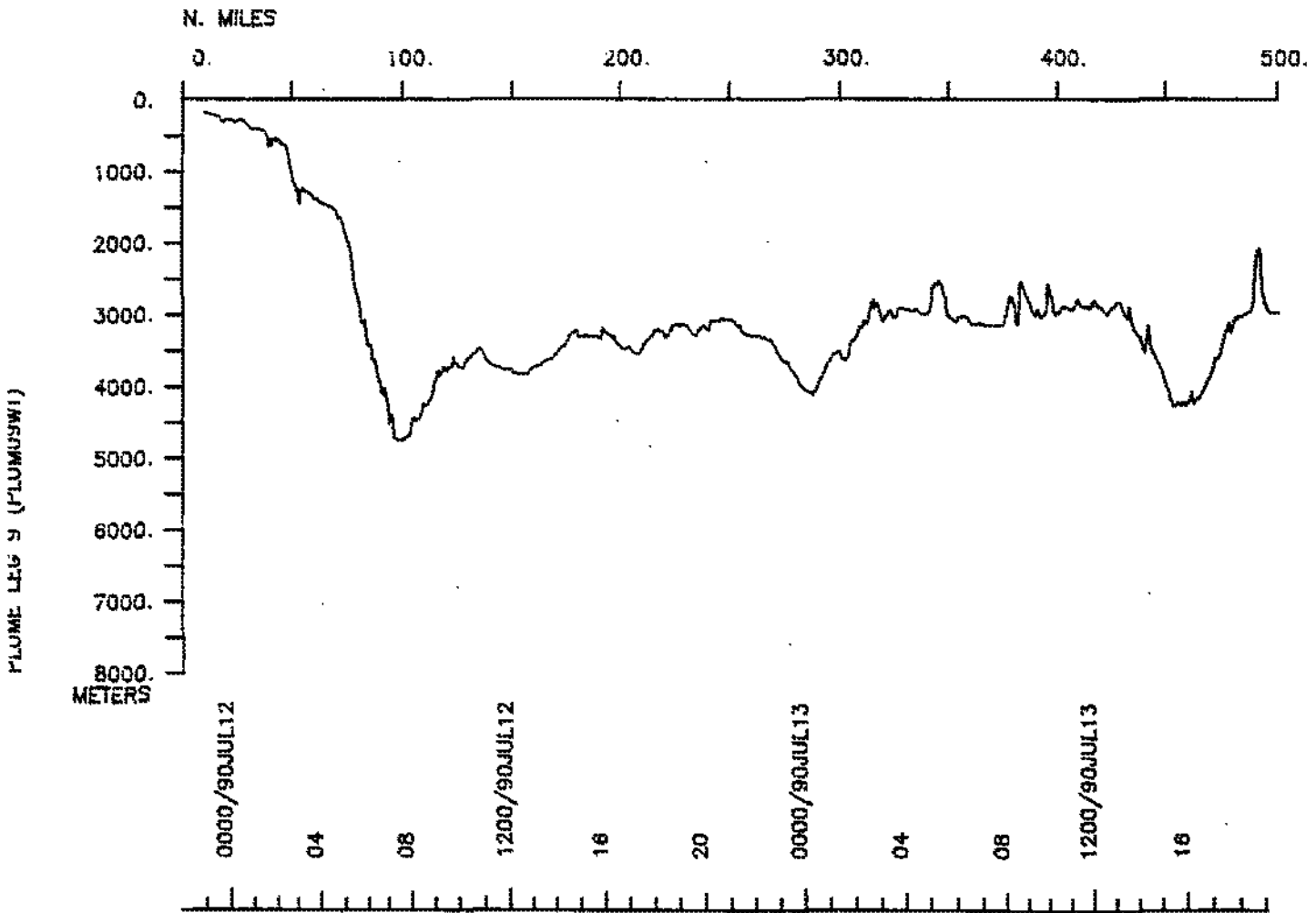
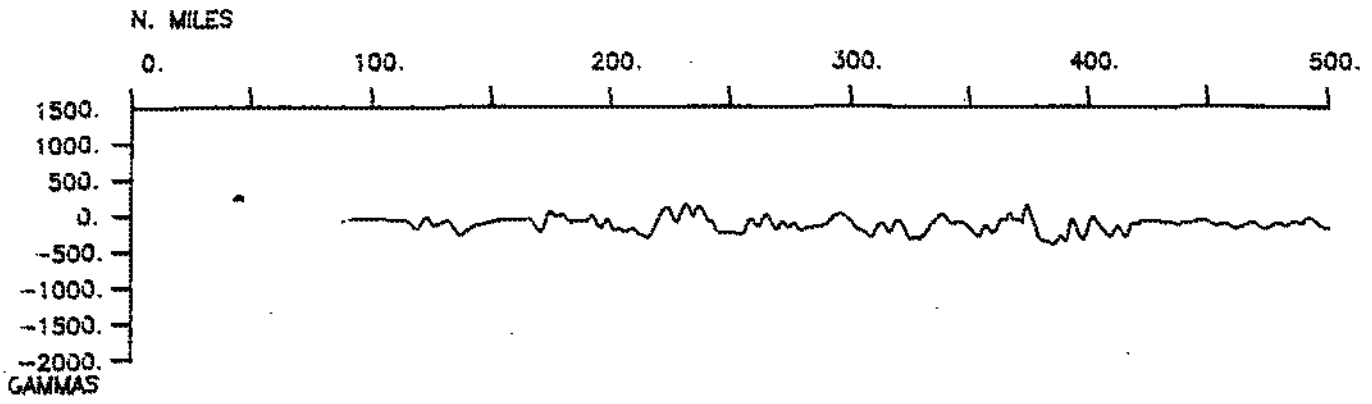
PLUME Expedition Leg 9 (PLUM09WT)
 East Pacific Rise Offsets Sea Beam Survey

✱



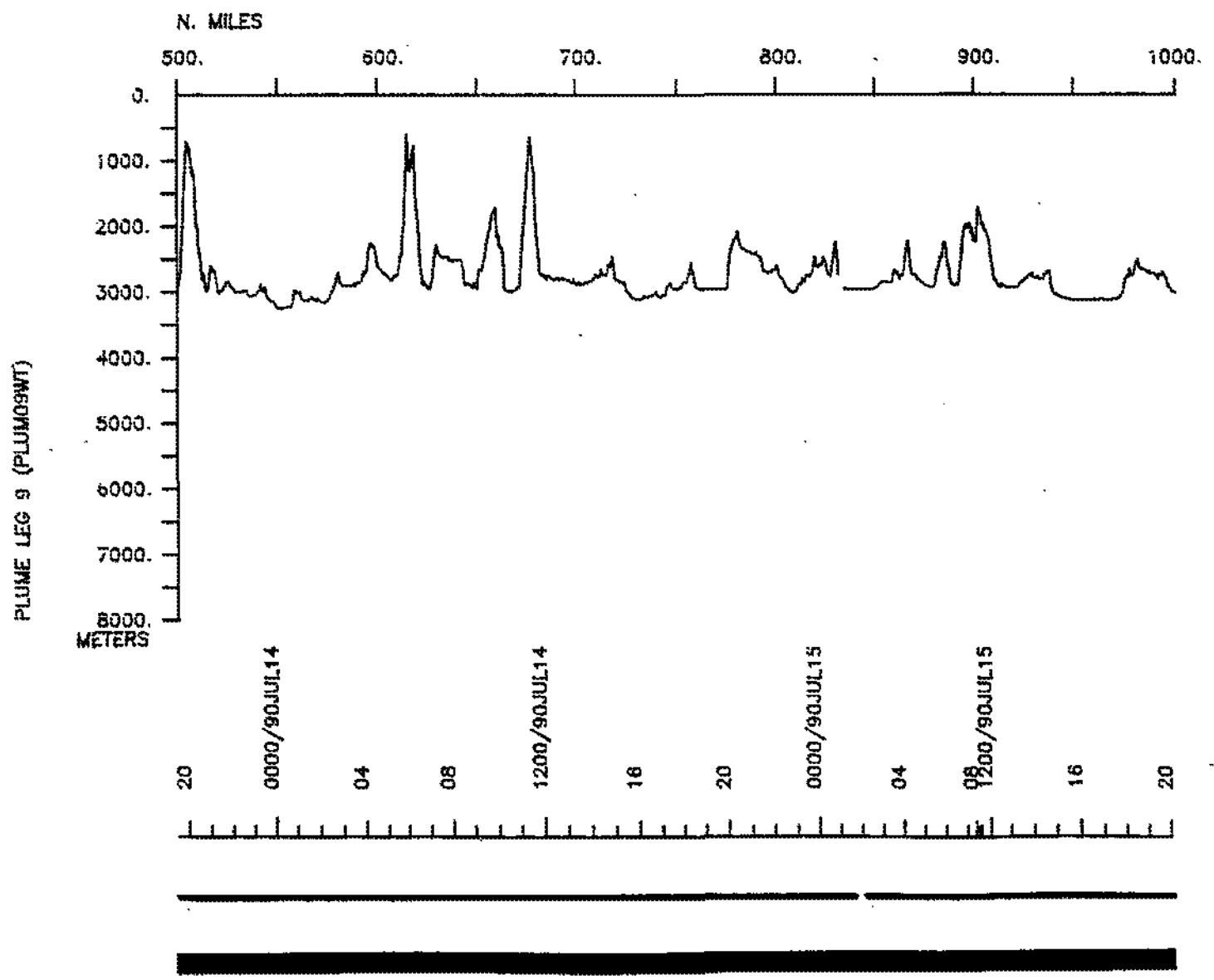
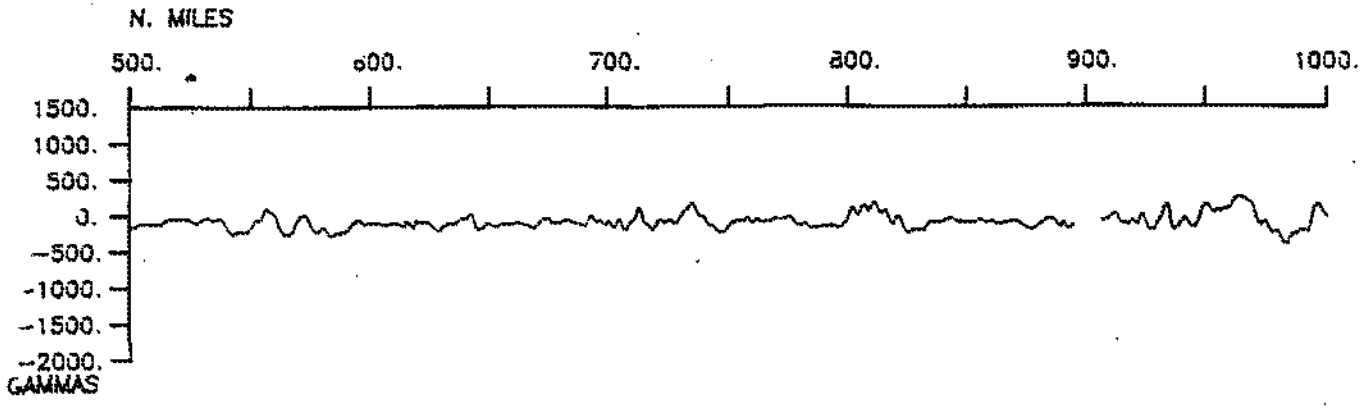
PLUME Expedition Leg 9 (PLUM09WT)
 Magdalena Sea Beam Survey

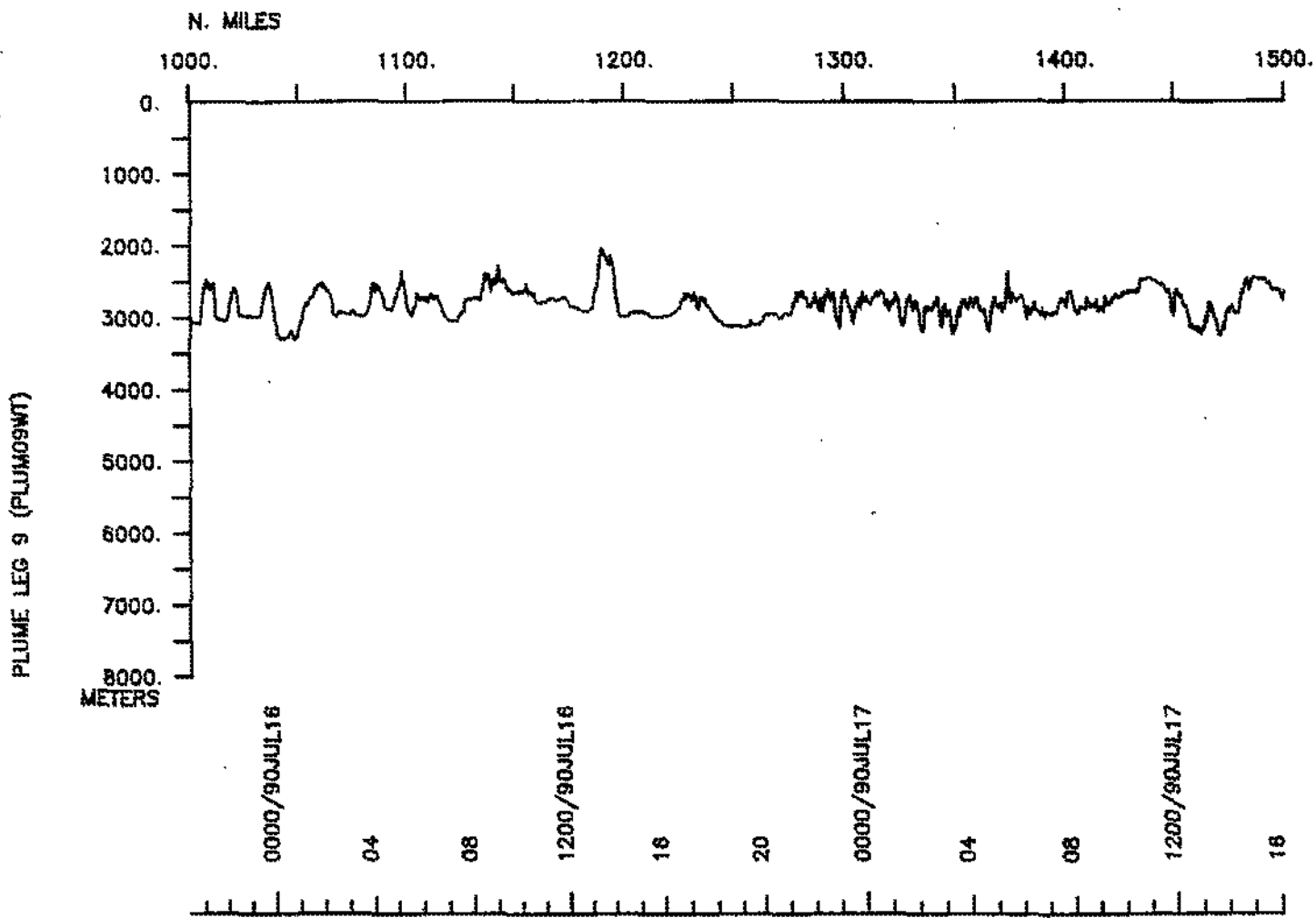
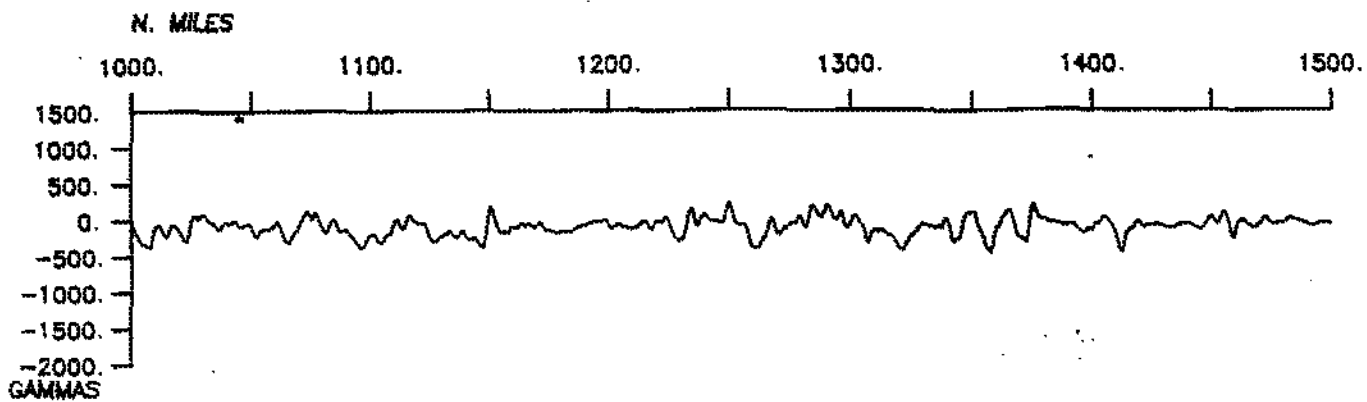
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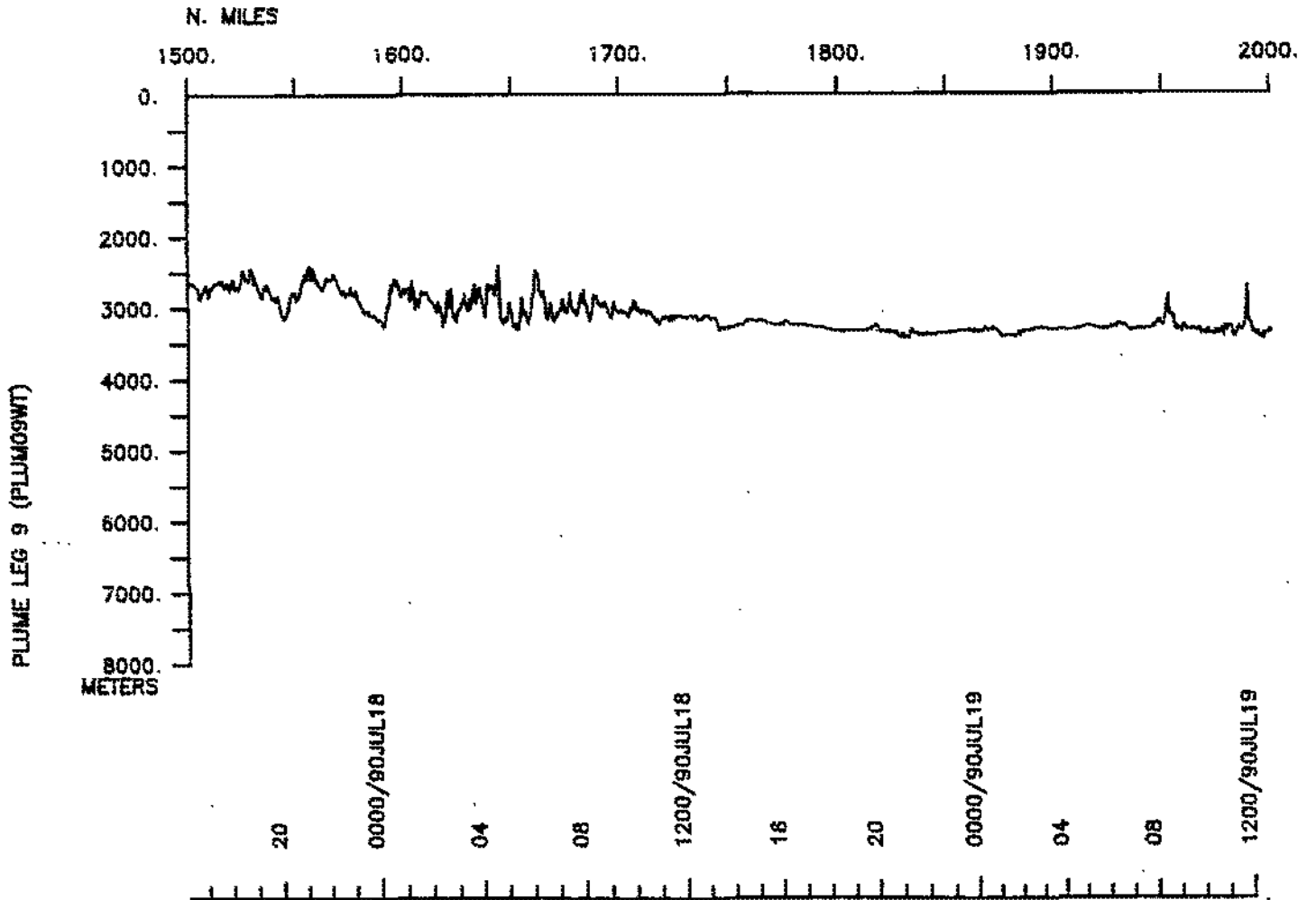
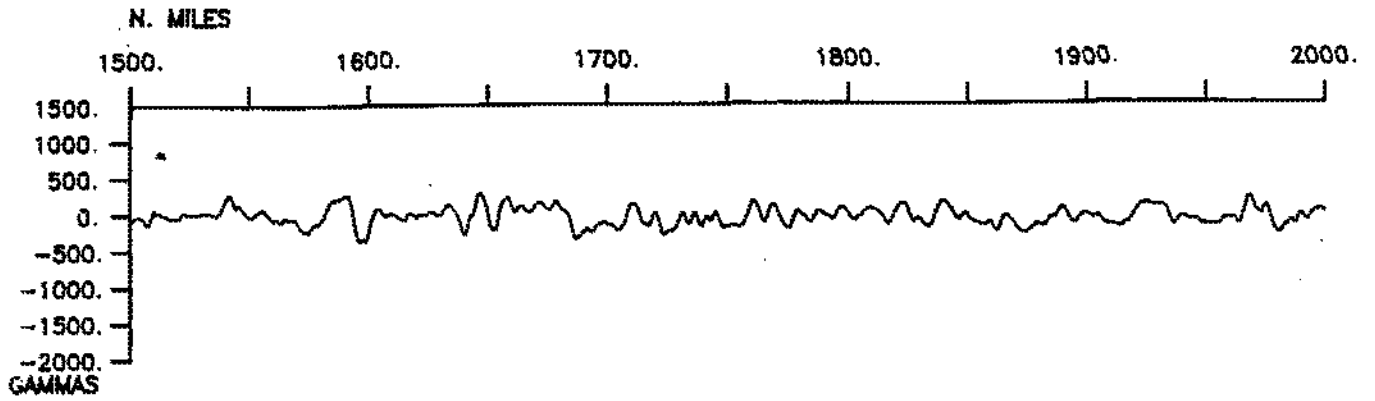


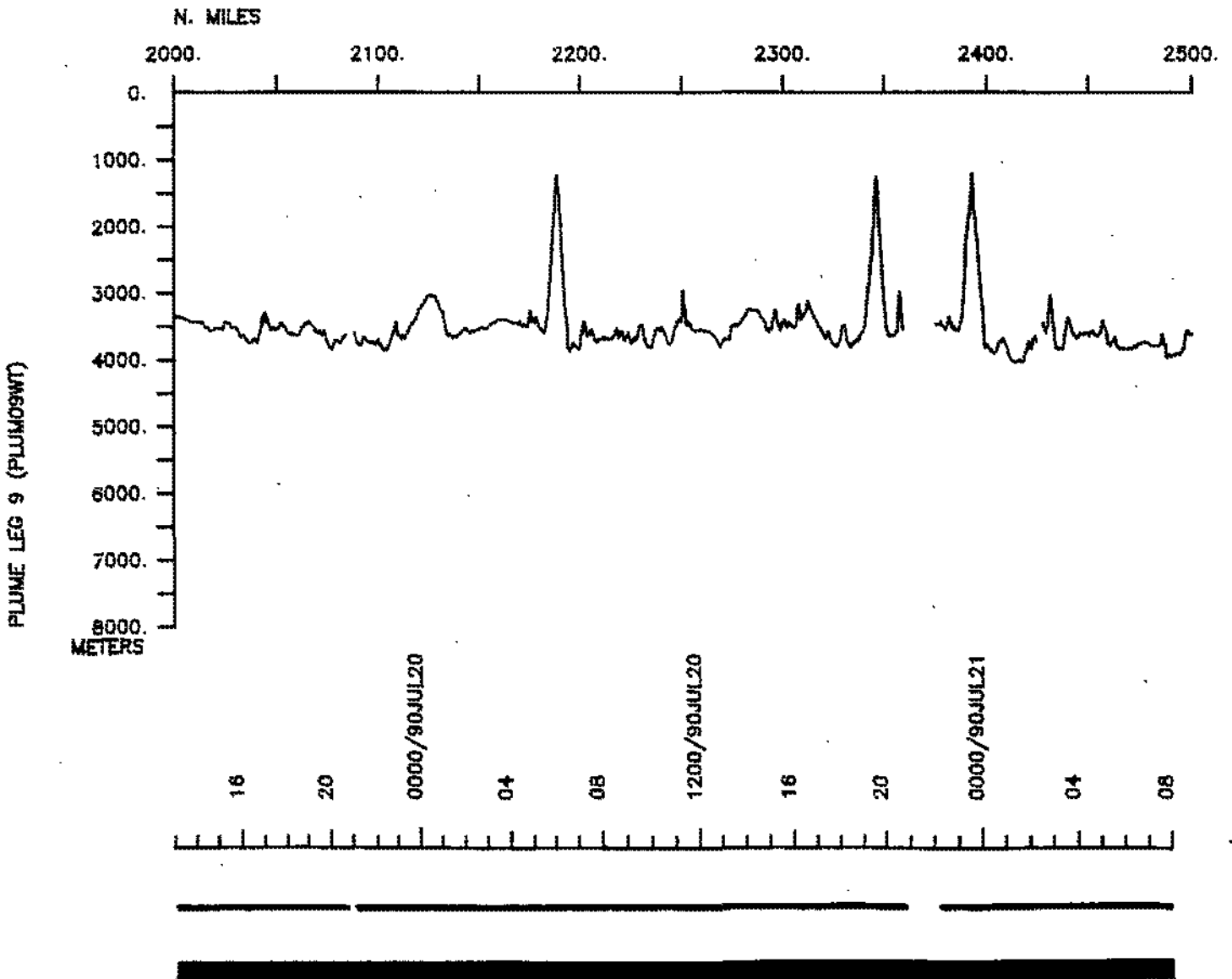
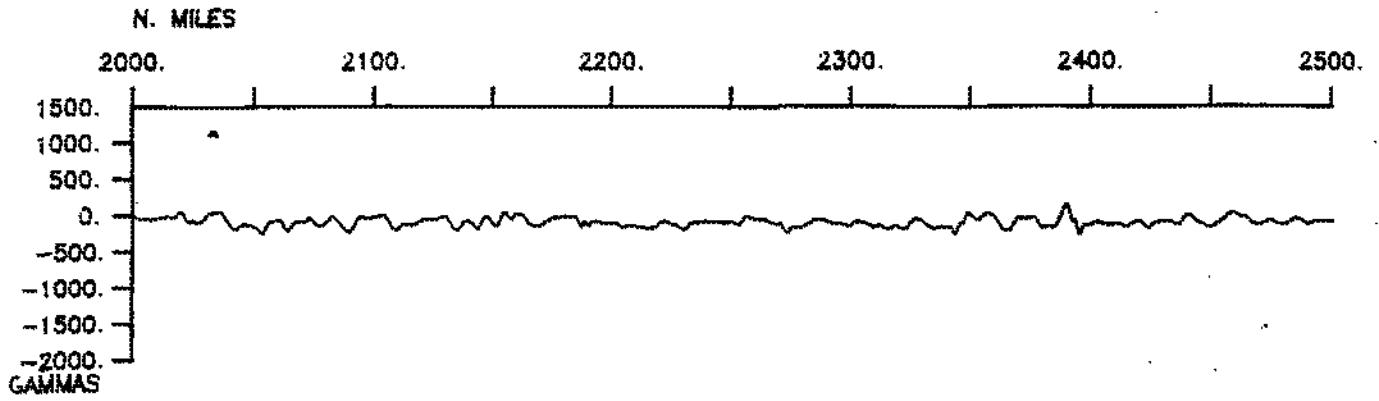
SABEAM

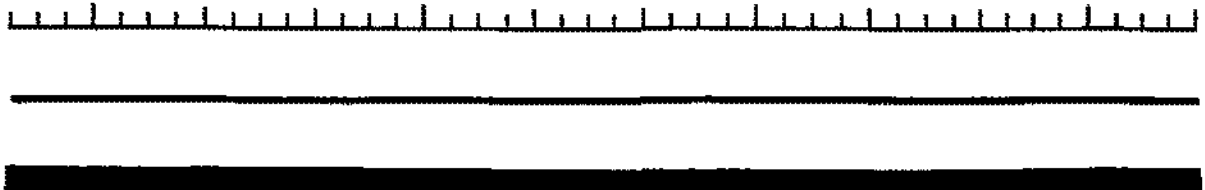
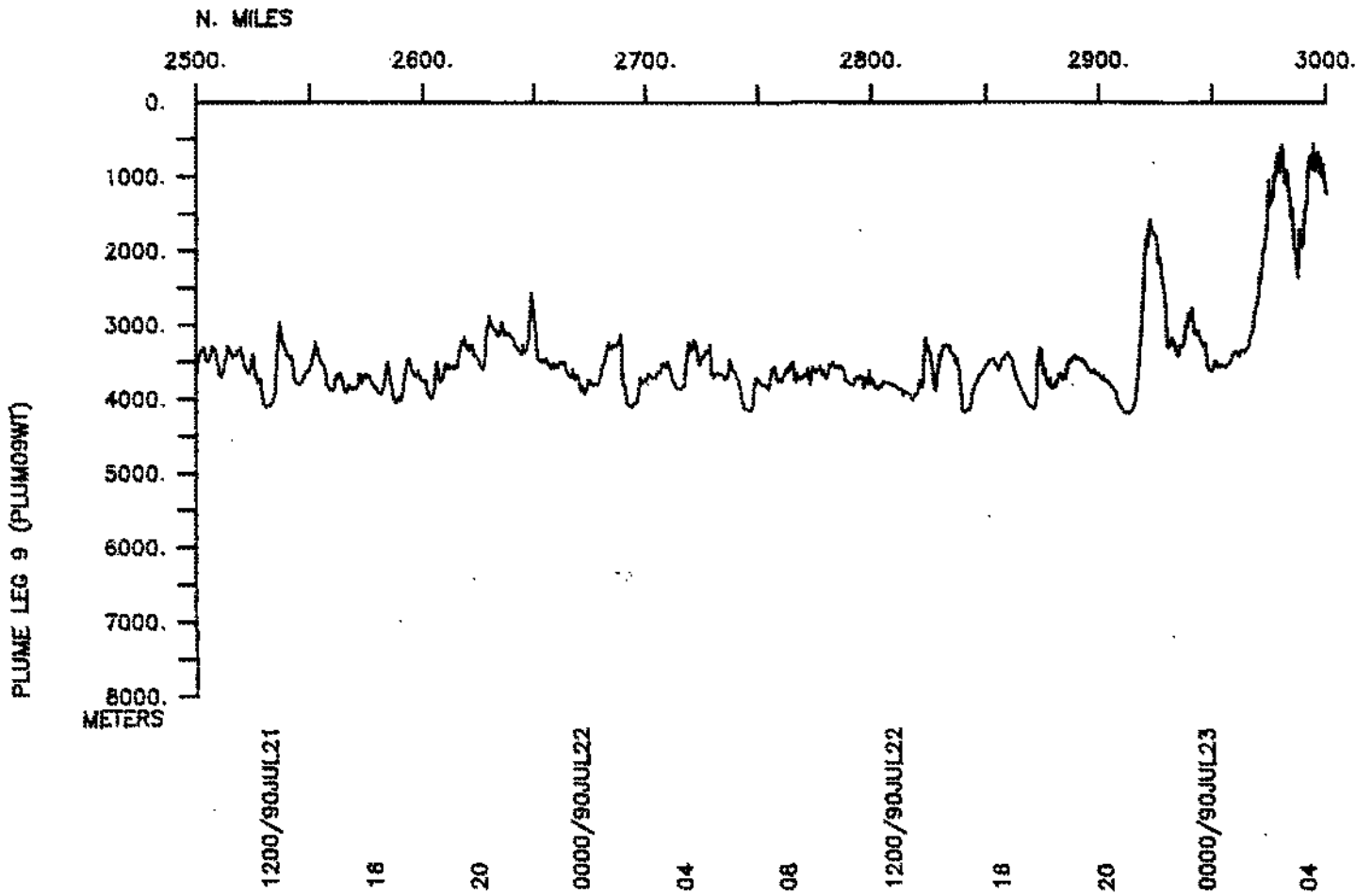
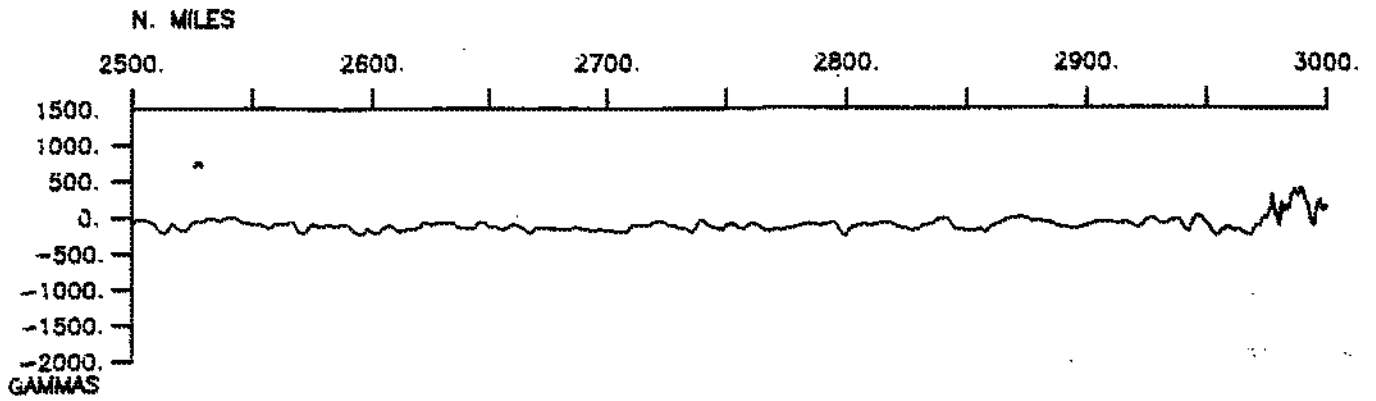


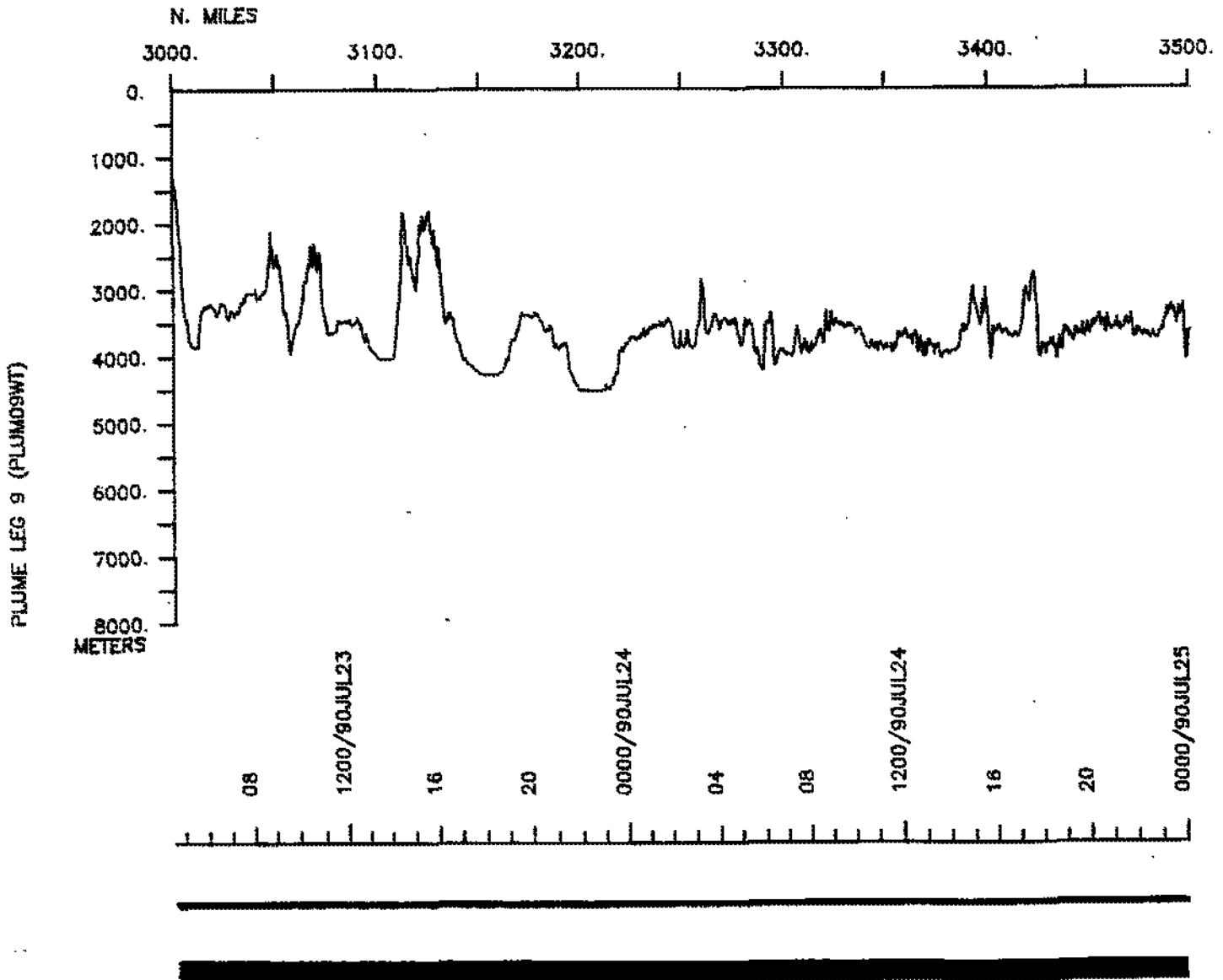
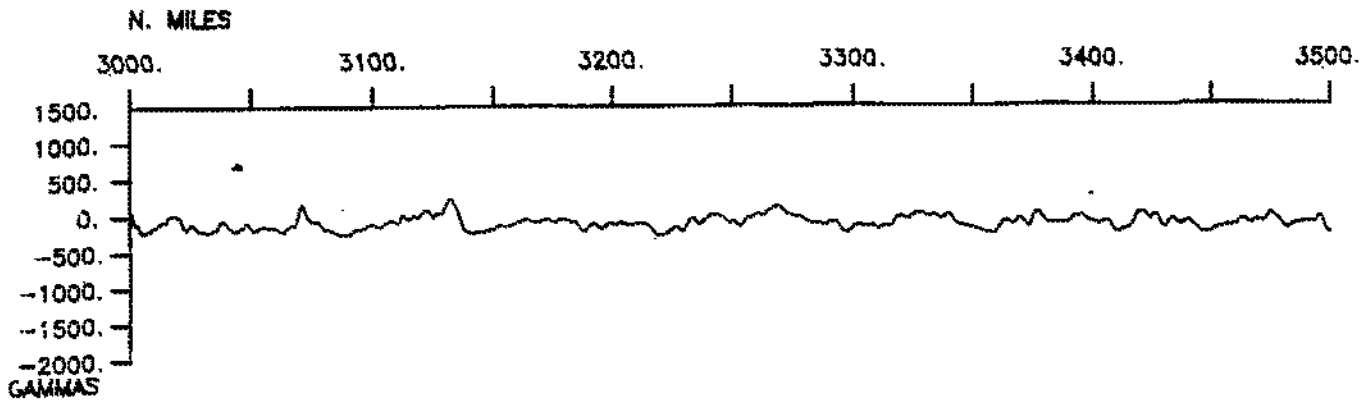


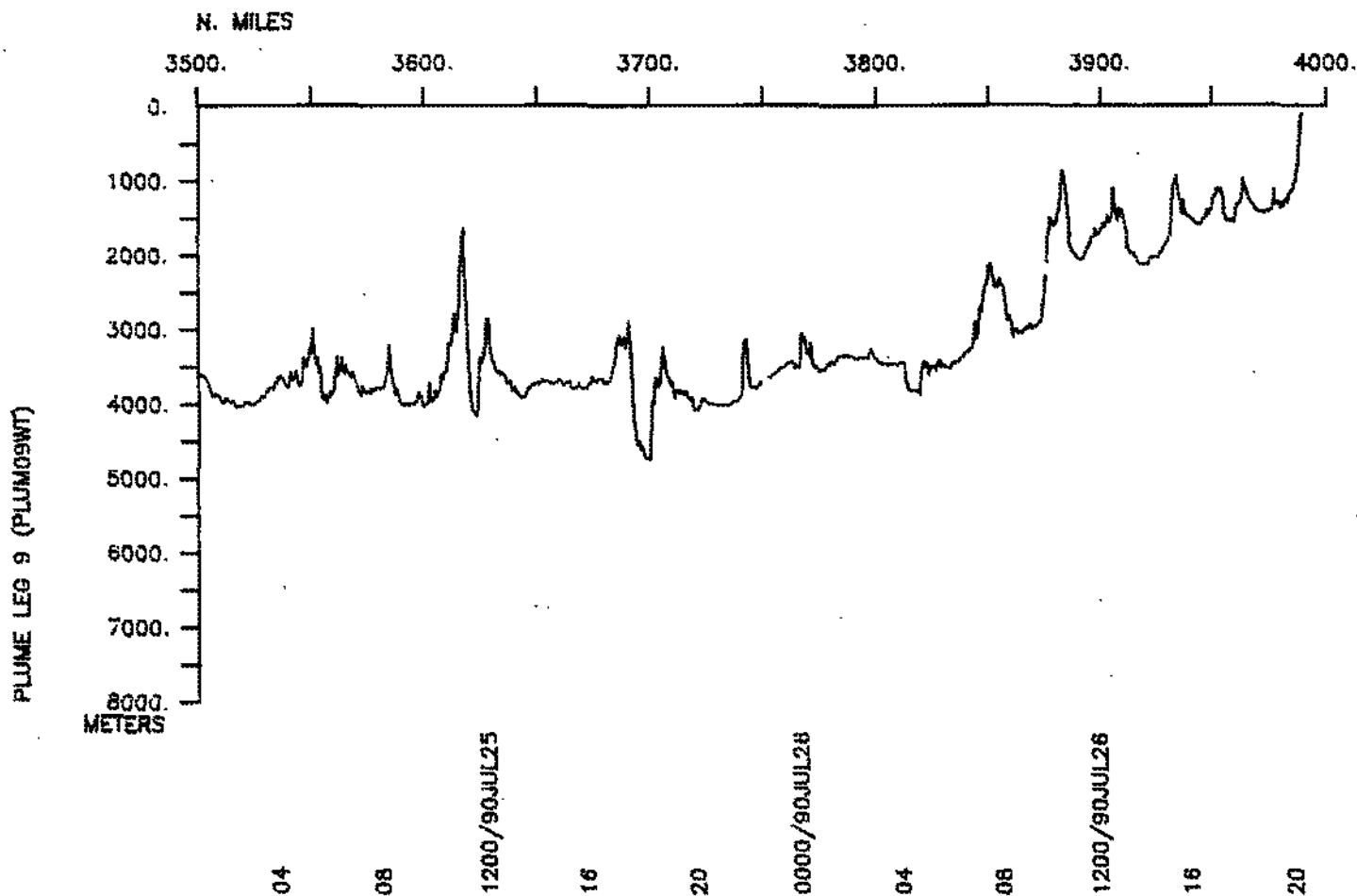
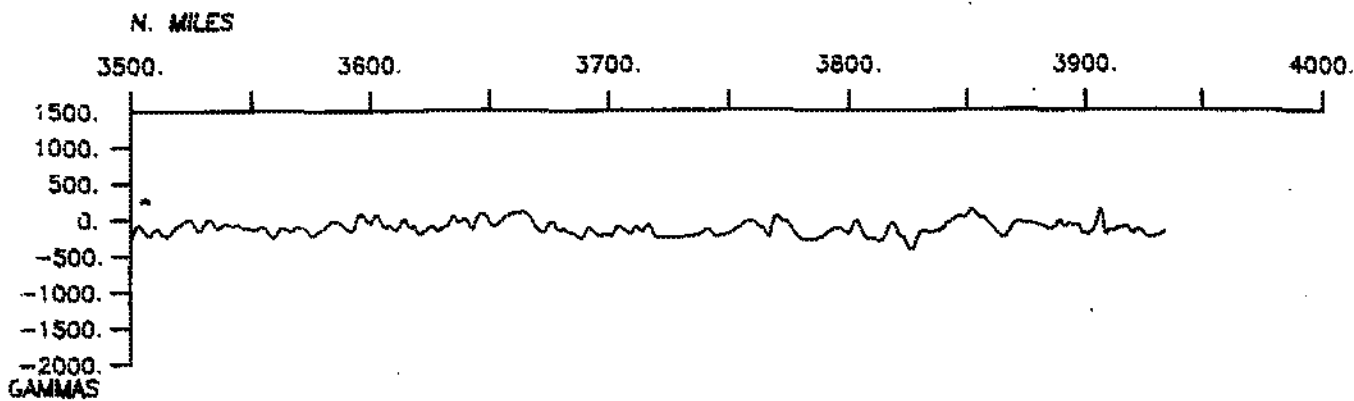












S.I.O. SAMPLE INDEX

(Issued August 1990)

PLUME EXPEDITION

Leg 9

R/V T. Washington

Manzanillo, Mexico (11 July 1990)
to
San Diego, California (26 July 1990)

Chief Scientist:

Peter Lonsdale (Scripps Institution of Oceanography)

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.# 246

**** PORTS ***

2150	110790	LGPT B MANZANILLO, MEXICO	19 03 N 104 21 W	fPLUM09WT
2210	260790	LGPT E SAN DIEGO, CALIF.	32 43 N 117 11 W	fPLUM09WT

****PERSONNEL****

	NAME	***TITLE***	***AFFILIATION***	**CRID**
PECS GDC	LONSDALE, P.	CHIEF SCIENTIST	SCRIPPS INSTITUTION	PLUM09WT
PEBO MPL	BOBBITT, A.	SEABEAM OPERATOR	SCRIPPS INSTITUTION	PLUM09WT
PESP CCS	FERNANDEZ, R.	SCIENTIST	CICESE, MEXICO	PLUM09WT
PEAT STS	CRAMPTON, P.	AIRGUN TECH	SCRIPPS INSTITUTION	PLUM09WT
PERT STS	HARGREAVES, G.	RESIDENT TECH	SCRIPPS INSTITUTION	PLUM09WT
PEST SIX	LEVITT, D.	VOLUNTEER	SCRIPPS NON-EMPLOYEE	PLUM09WT
PECT STS	MOORE, M.	COMPUTER TECH	SCRIPPS INSTITUTION	PLUM09WT
PEVL SIX	NAGARAJAN, N.	VOLUNTEER	SCRIPPS NON-EMPLOYEE	PLUM09WT
PESP CCS	RAMOS, R.	SCIENTIST	CICESE, MEXICO	PLUM09WT
PESP SIX	REBEOLLEDO, M.	SCIENTIST	U.AUTONOMA, BAJA CALIF.	PLUM09WT
PEST GDC	STEVENSON, M.	STUDENT	SCRIPPS INSTITUTION	PLUM09WT
PEBE STS	STUBER, D.	SEABEAM ENGINEER	SCRIPPS INSTITUTION	PLUM09WT
PESP SIX	VAZQUEZ, G.	STUDENT	U.AUTONOMA, BAJA CALIF.	PLUM09WT
PESP SIX	VAZQUEZ, S.	STUDENT	U.AUTONOMA, BAJA CALIF.	PLUM09WT

****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 ****

2148	110790			LBWU	B UNDERWAY WATCH LOG	GDC	19-036N	104-180W	sPLUM09WT
1900	260790			LBWU	E UNDERWAY WATCH LOG	GDC	32-424N	117-142W	sPLUM09WT

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

2300	110790			MBMR	B SEABEAM MONITOR R-01	GDC	19-010N	104-275W	sPLUM09WT
1412	170790			MBMR	E SEABEAM MONITOR R-01	GDC	21-274N	108-472W	sPLUM09WT
1419	170790			MBMR	B SEABEAM MONITOR R-02	GDC	21-285N	108-481W	sPLUM09WT
0101	230790			MBMR	E SEABEAM MONITOR R-02	GDC	26-000N	114-466W	sPLUM09WT
0104	230790			MBMR	B SEABEAM MONITOR R-03	GDC	26-005N	114-470W	sPLUM09WT
2008	260790			MBMR	E SEABEAM MONITOR R-03	GDC	32-289N	117-197W	sPLUM09WT

**** SEA BEAM ARCHIVE SWATH BOOKS ****

2300	110790			MBSB	B SB SWATH BK ARC 01	GDC	19-010N	104-275W	sPLUM09WT
2314	130790			MBSB	E SB SWATH BK ARC 01	GDC	21-128N	107-054W	sPLUM09WT
2314	130790			MBSB	B SB SWATH BK ARC 02	GDC	21-128N	107-054W	sPLUM09WT
0140	160790			MBSB	E SB SWATH BK ARC 02	GDC	21-277N	107-270W	sPLUM09WT
0140	160790			MBSB	B SB SWATH BK ARC 03	GDC	21-277N	107-270W	sPLUM09WT
0112	180790			MBSB	E SB SWATH BK ARC 03	GDC	21-086N	108-586W	sPLUM09WT
0112	180790			MBSB	B SB SWATH BK ARC 04	GDC	21-086N	108-586W	sPLUM09WT
1832	190790			MBSB	E SB SWATH BK ARC 04	GDC	22-256N	113-160W	sPLUM09WT
1832	190790			MBSB	B SB SWATH BK ARC 05	GDC	22-256N	113-160W	sPLUM09WT
1455	210790			MBSB	E SB SWATH BK ARC 05	GDC	24-349N	113-536W	sPLUM09WT

#GMT #TIME	DDMMYY DATE	LOC T TIME^Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1455	210790		MBSB B	SB SWATH BK ARC 06	GDC	24-349N	113-536W	sPLUM09WT
2036	220790		MBSB E	SB SWATH BK ARC 06	GDC	25-150N	114-363W	sPLUM09WT
2036	220790		MBSB B	SB SWATH BK ARC 07	GDC	25-150N	114-363W	sPLUM09WT
0328	240790		MBSB E	SB SWATH BK ARC 07	GDC	27-352N	116-263W	sPLUM09WT
0328	240790		MBSB B	SB SWATH BK ARC 08	GDC	27-352N	116-263W	sPLUM09WT
1138	250790		MBSB E	SB SWATH BK ARC 08	GDC	28-103N	117-580W	sPLUM09WT
1138	250790		MBSB B	SB SWATH BK ARC 09	GDC	28-103N	117-580W	sPLUM09WT
2008	260790		MBSB E	SB SWATH BK ARC 09	GDC	32-289N	117-197W	sPLUM09WT

*** SEA BEAM SURVEY SWATH BOOKS ***

2300	110790		MBSB B	SB SURV SWATH BK 01	MPL	19-010N	104-275W	sPLUM09WT
2314	130790		MBSB E	SB SURV SWATH BK 01	MPL	21-128N	107-054W	sPLUM09WT
2314	130790		MBSB B	SB SURV SWATH BK 02	MPL	21-128N	107-054W	sPLUM09WT
0140	160790		MBSB E	SB SURV SWATH BK 02	MPL	21-277N	107-270W	sPLUM09WT
0140	160790		MBSB B	SB SURV SWATH BK 03	MPL	21-277N	107-270W	sPLUM09WT
0112	180790		MBSB E	SB SURV SWATH BK 03	MPL	21-086N	108-586W	sPLUM09WT
0112	180790		MBSB B	SB SURV SWATH BK 04	MPL	21-086N	108-586W	sPLUM09WT
1832	190790		MBSB E	SB SURV SWATH BK 04	MPL	22-256N	113-160W	sPLUM09WT
1832	190790		MBSB B	SB SURV SWATH BK 05	MPL	22-256N	113-160W	sPLUM09WT
1456	210790		MBSB E	SB SURV SWATH BK 05	MPL	24-350N	113-535W	sPLUM09WT
1456	210790		MBSB B	SB SURV SWATH BK 06	MPL	24-350N	113-535W	sPLUM09WT
2037	220790		MBSB E	SB SURV SWATH BK 06	MPL	25-152N	114-363W	sPLUM09WT
2037	220790		MBSB B	SB SURV SWATH BK 07	MPL	25-152N	114-363W	sPLUM09WT
0328	240790		MBSB E	SB SURV SWATH BK 07	MPL	27-352N	116-263W	sPLUM09WT
0328	240790		MBSB B	SB SURV SWATH BK 08	MPL	27-352N	116-263W	sPLUM09WT
1138	250790		MBSB E	SB SURV SWATH BK 08	MPL	28-103N	117-580W	sPLUM09WT
1138	250790		MBSB B	SB SURV SWATH BK 09	MPL	28-103N	117-580W	sPLUM09WT
2008	260790		MBSB E	SB SURV SWATH BK 09	MPL	32-289N	117-197W	sPLUM09WT

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

*** SEISMIC REFLECTION RECORDS ***

0720	110790		SPRF	B AIRGUN FAST R-01	GDC	19-036N	104-180W	sPLUM09WT
1943	160790		SPRF	E AIRGUN FAST R-01	GDC	22-022N	107-574W	sPLUM09WT
1605	180790		SPRF	B AIRGUN FAST R-02	GDC	22-041N	110-334W	sPLUM09WT
1445	230790		SPRF	E AIRGUN FAST R-02	GDC	27-192N	115-446W	sPLUM09WT
1445	230790		SPRF	B AIRGUN FAST R-03	GDC	27-192N	115-446W	sPLUM09WT
1500	260790		SPRF	E AIRGUN FAST R-03	GDC	31-354N	117-388W	sPLUM09WT

0720	110790		SPRS	B AIRGUN SLOW R-01	GDC	19-036N	104-180W	sPLUM09WT
1943	160790		SPRS	E AIRGUN SLOW R-01	GDC	22-022N	107-574W	sPLUM09WT
1605	180790		SPRS	B AIRGUN SLOW R-02	GDC	22-041N	110-334W	sPLUM09WT
1445	230790		SPRS	E AIRGUN SLOW R-02	GDC	27-192N	115-446W	sPLUM09WT
1445	230790		SPRS	B AIRGUN SLOW R-03	GDC	27-192N	115-446W	sPLUM09WT
1500	260790		SPRS	E AIRGUN SLOW R-03	GDC	31-354N	117-388W	sPLUM09WT

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

0621	110790		MGRA	B MAGNETICS R-01	GDC	19-036N	104-180W	sPLUM09WT
2351	180790		MGRA	E MAGNETICS R-01	GDC	22-311N	111-459W	sPLUM09WT
2359	180790		MGRA	B MAGNETICS R-02	GDC	22-307N	111-444W	sPLUM09WT
1500	260790		MGRA	E MAGNETICS R-02	GDC	31-354N	117-388W	sPLUM09WT

*** THERMOGRAPH RECORDS ***

2300	110790		TCRG	B THERMOGRAPHS 1-13	GDC	19-010N	104-275W	sPLUM09WT
2300	260790		TCRG	E THERMOGRAPHS 1-13	GDC	32-424N	117-142W	sPLUM09WT

*** CONTINUOUS RECORDING GRAVIMETER ***

2300	110790		GVCR	B GRAVIMETER	GDC	19-010N	104-275W	sPLUM09WT
0000	270790		GVCR	E GRAVIMETER	GDC	32-424N	117-142W	sPLUM09WT

*** END SAMPLE INDEX ***