

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH, MAGNETIC AND SUBBOTTOM PROFILER DATA
(Issued January 1983)

CERES EXPEDITION

LEG 4

Balboa, Panama (16 September 1982)
to
San Diego, Calif (26 October 1982)

R/V T. Washington

Co-Chief Scientists - R. Hey & R. Tyce (SIO)

Resident Marine Tech - R. Gilchrist

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

Data Collection Funded by ONR
Grant Number ONR-0440
Data Processing funded by SIA and NSF

NOTE

This is an index of underway geophysical data edited and processed shortly 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.# - 201

INFORMAL REPORT AND INDEX OF NAVIGATION, DEPTH (SEA BEAM),
MAGNETIC AND SUBBOTTOM PROFILER DATA

Contents:

- Index Chart - gives track of cruise leg, dates, ports, and mileage of each type of data collected.
- Track Charts - annotated with dates (day/month) and hour ticks. The scale is .312 in/degree longitude.
- Profiles - depth and magnetic anomaly vs. distance. Dates (day/month) and positions of major course changes (greater than 30 degrees) are annotated. Sections of track having subbottom profiler (airgun) records have a wide black line along the bottom of the profile. Sections having Sea Beam are indicated by a narrow line.
- Sample Index - list of beginning and end times and positions of all underway records as well as all other samples (geology, biology, physical oceanography, etc.) collected on the 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, California 92093. Phone (714) 452-2752.

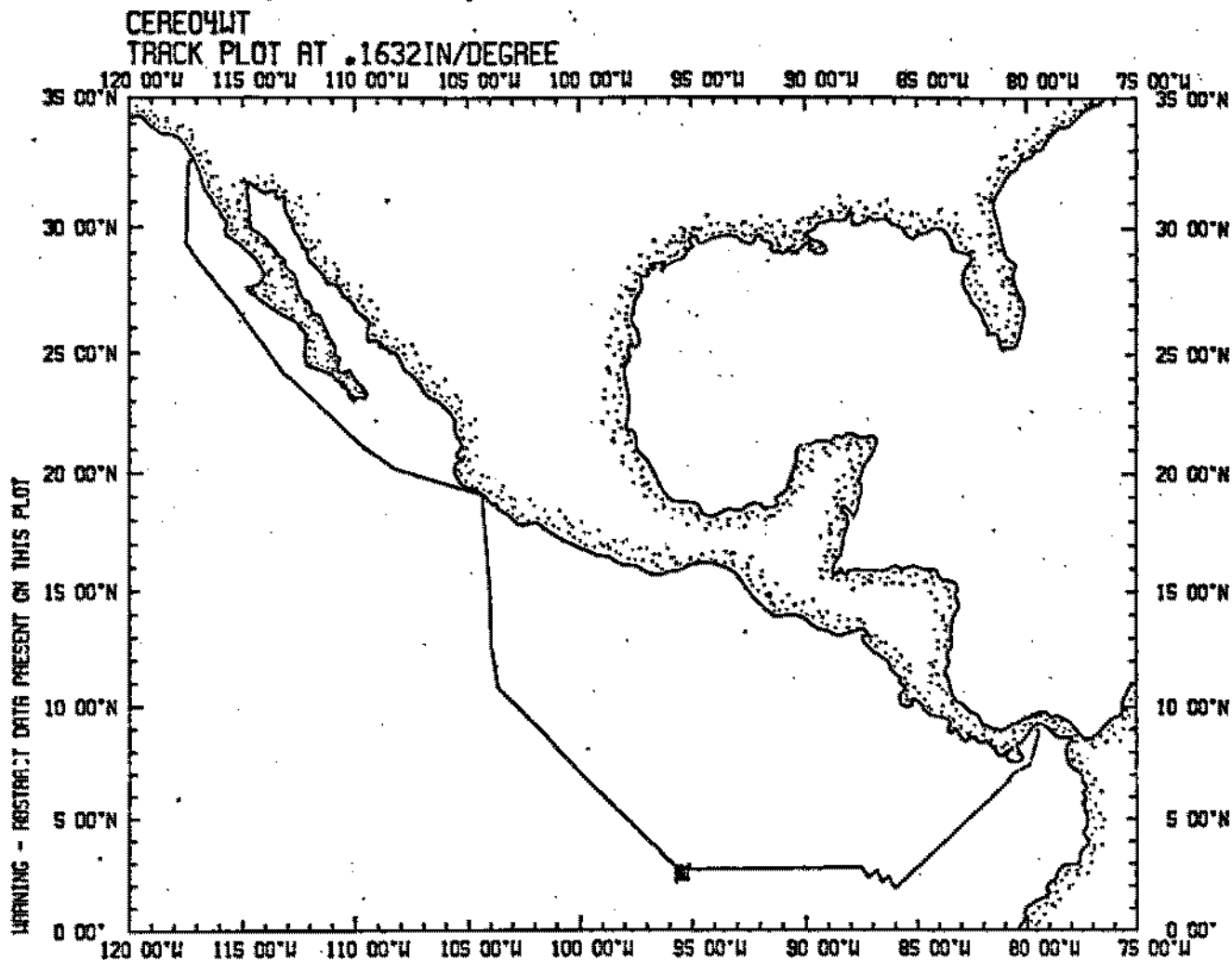
1. Navigation listing of times and positions of course and speed changes, fixes and drift velocity.
2. Depth Compilation Plots - Compilation plots at the traditional scale of 4"/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2 $\frac{2}{3}$ degree beam width) depths retrieved at one minute intervals of ship time.
3. Plots of magnetic anomaly profiles along track - map scale = 1.2inch/degree, anomaly scale between 15N and 15 S latitude = 500 gamma/inch, anomaly scale north of 15N and south of 15S = 1000 gamma/inch, from values retrieved at approximately 1 mile spacing and regional field removed using the 1980 IGRF.
4. Separate time series files of navigation, depth and magnetics of 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 (airgun)
 - c. Magnetometer records
 - d. Underway data log

S.I.O. Sea Beam Data

As of June 1982 the institution's procedures for handling Sea Beam data are still evolving. 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 UGR monitor record and navigation listings.
- 3) Sea Beam merged tapes - Sea Beam data merged with navigation (navigation is edited to the extent that 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) 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).

S. M. Smith June 1982



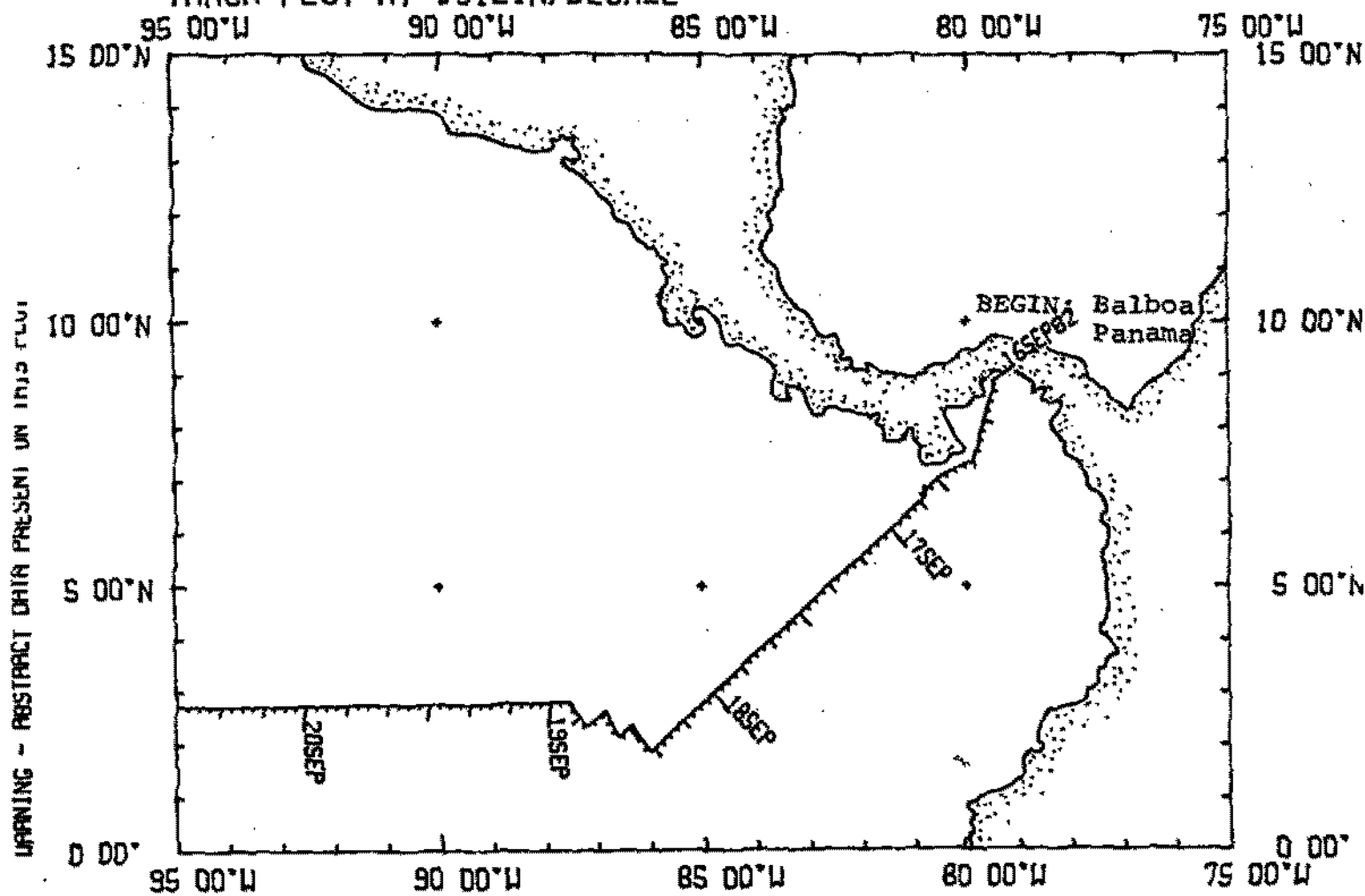
CERES EXPEDITION
LEG 4

Co-Chief Scientists: R. Hey and R. Tyce (SIO)
Ports: Balboa, Panama - San Diego, California
Dates: 16 September - 26 October, 1982
Ship: R/V T. Washington

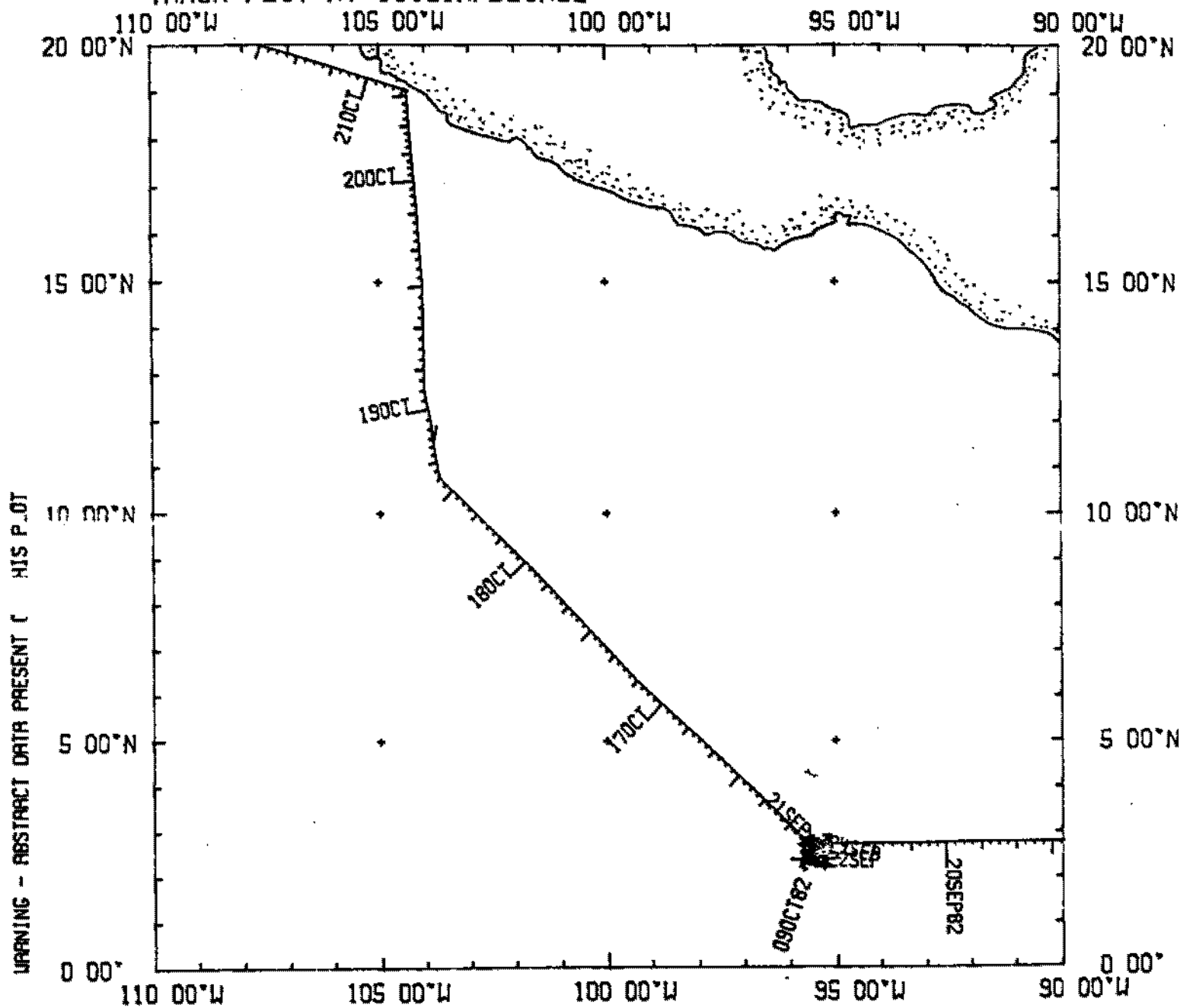
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

- 1) Cruise - 6316 miles
- 2) Bathymetry - 6111 miles
- 3) Magnetics - 5871 miles
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected
- 6) Seabeam - 6306 miles

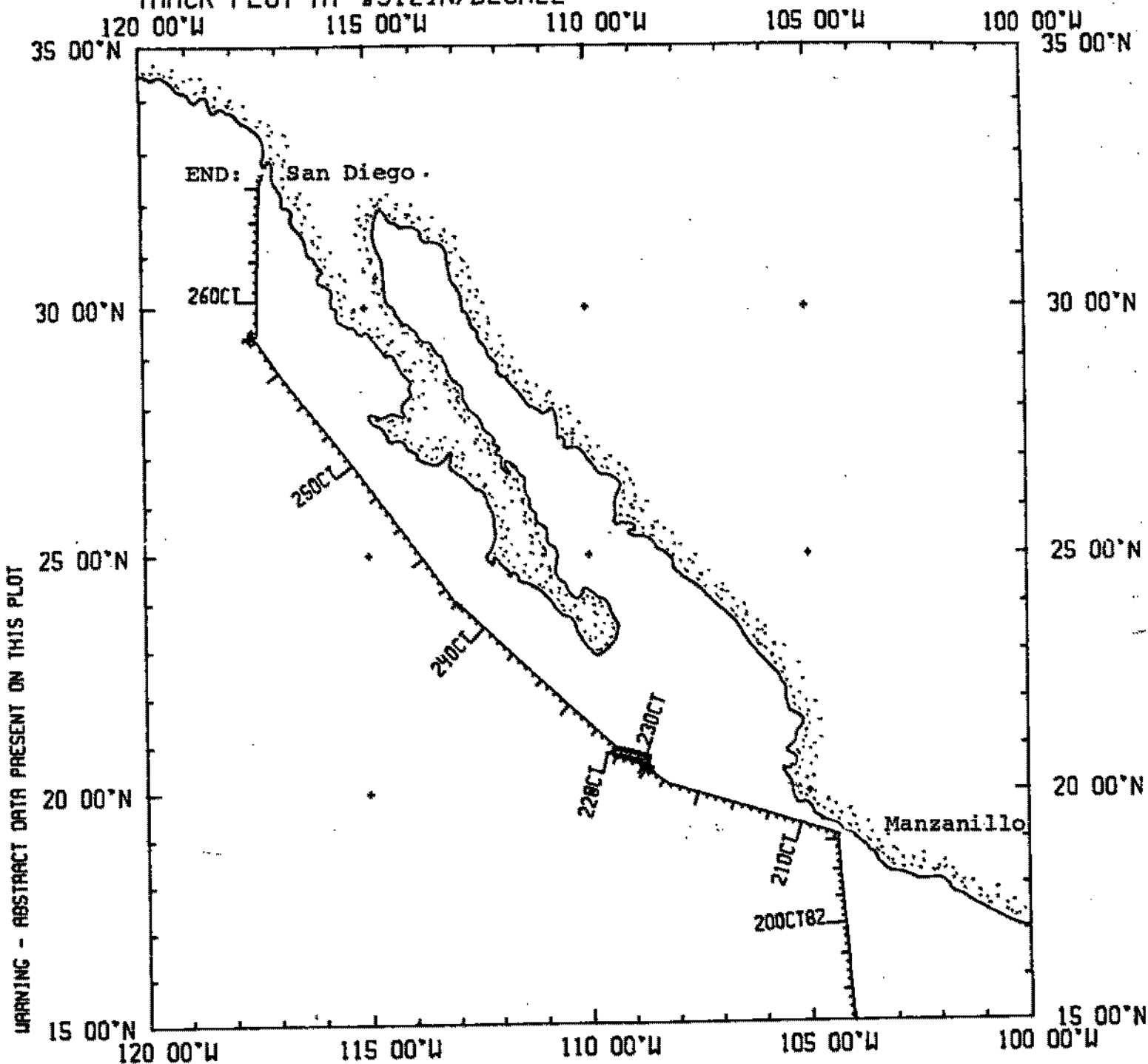
CERE04WT (PLOT 1 OF 3)
 TRACK PLOT AT .312IN/DEGREE



CERE04WT (PLOT 2 OF 3)
 TRACK PLOT AT .312IN/DEGREE

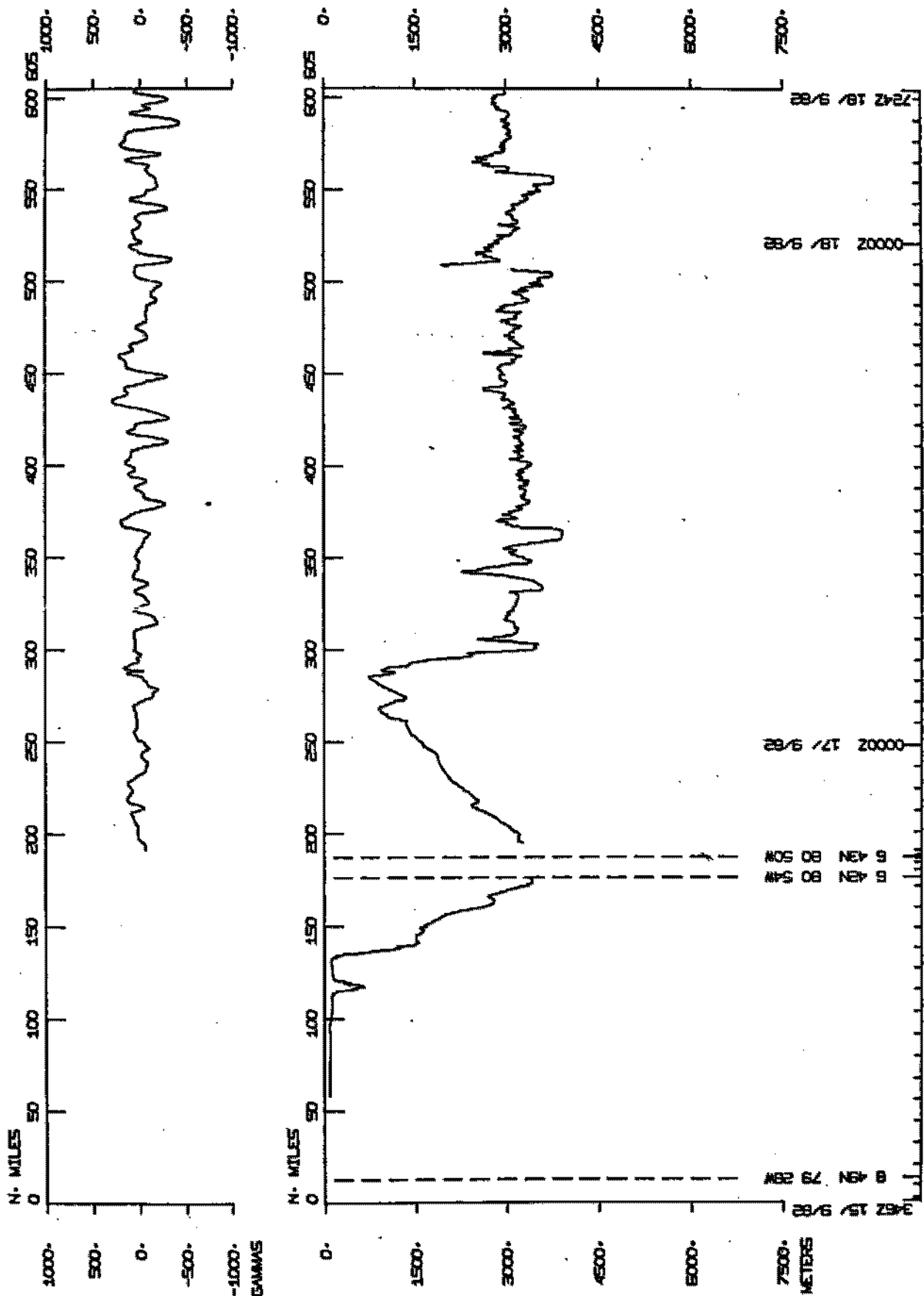


CERE04WT (PLOT 3 OF 3)
TRACK PLOT AT .312IN/DEGREE

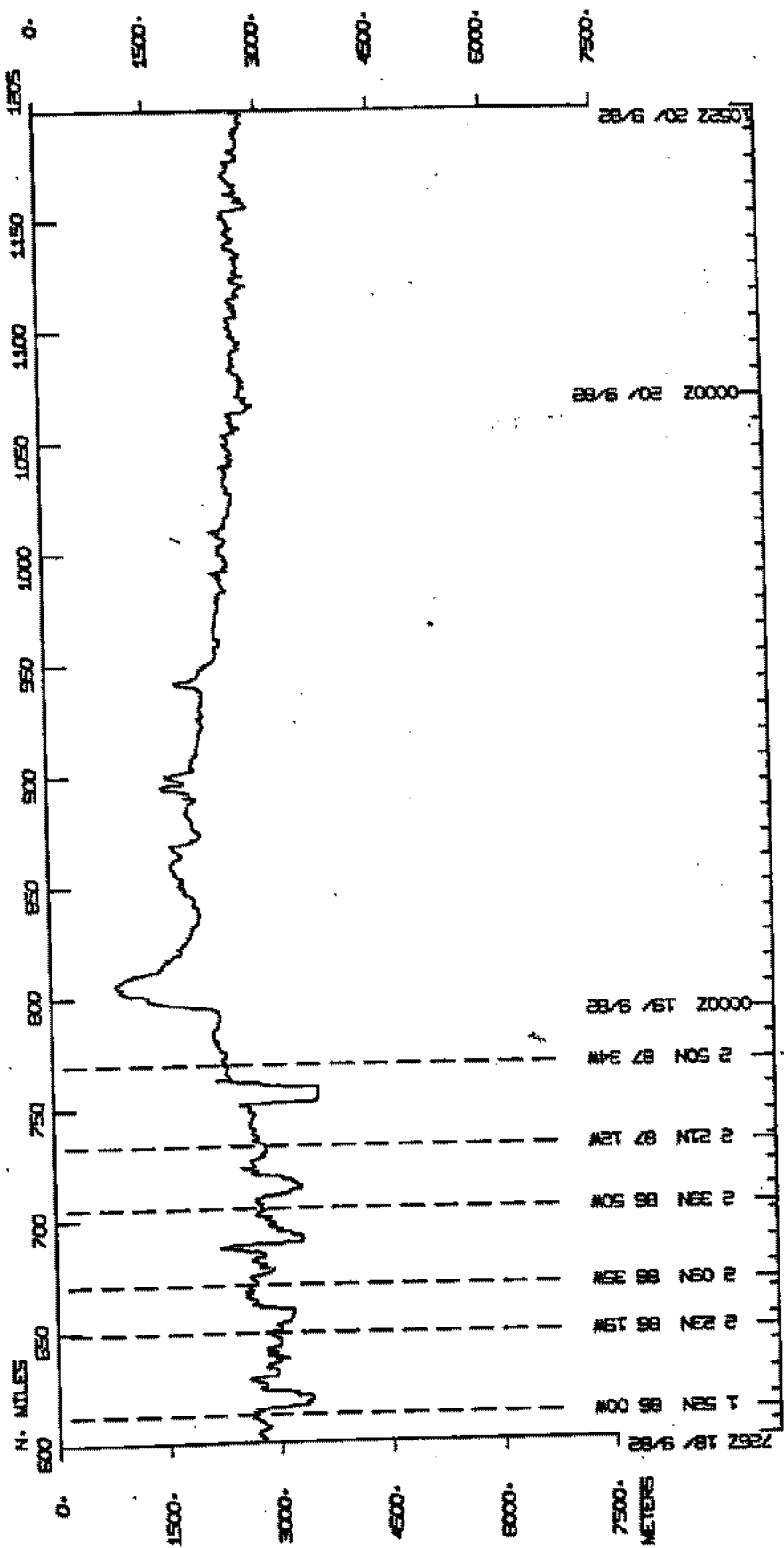
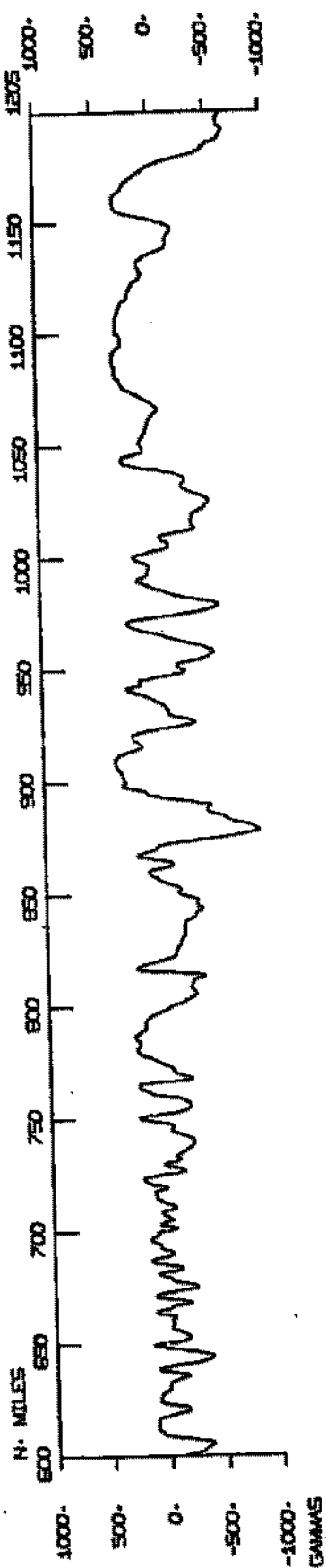


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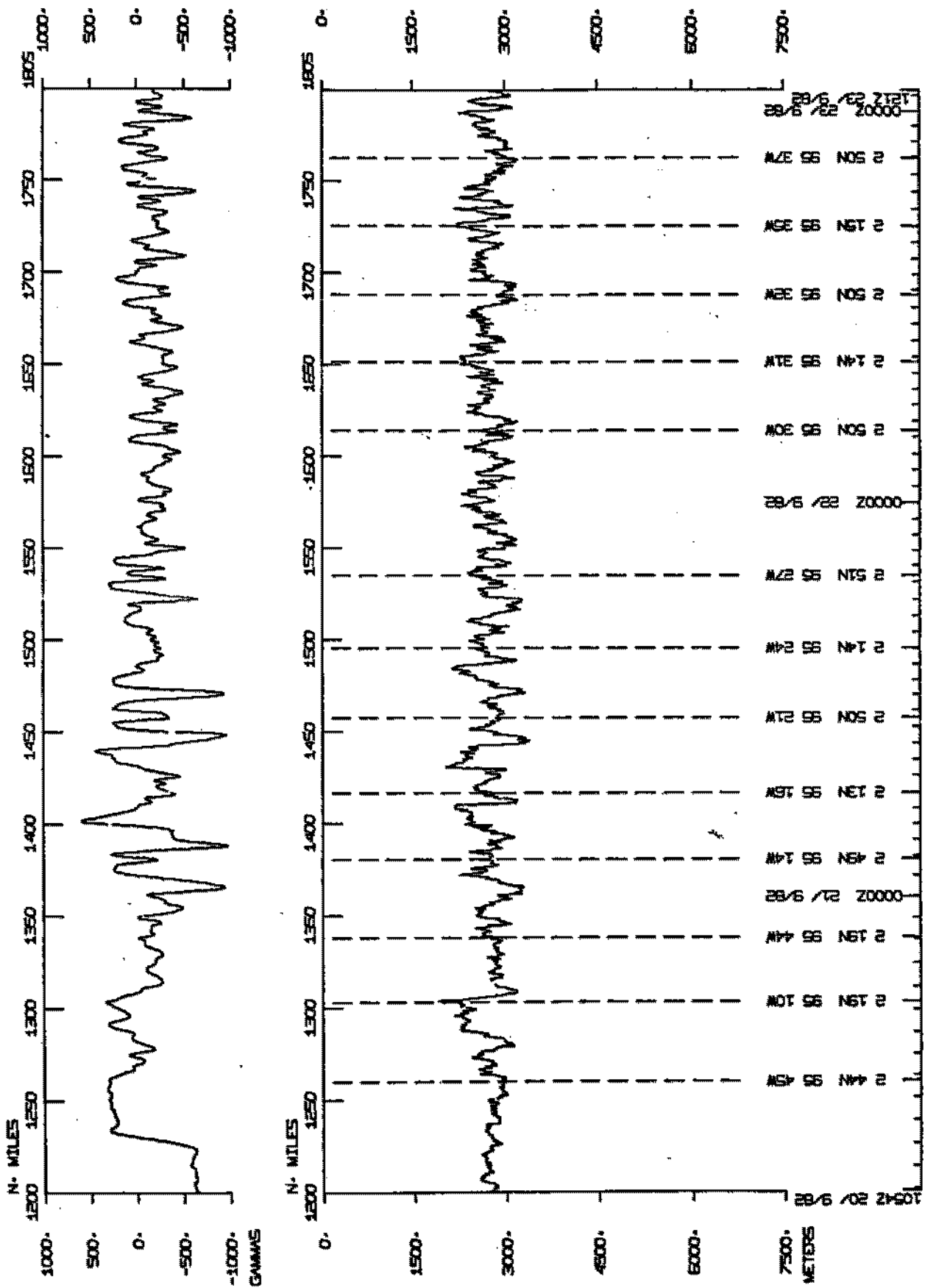
SEA BEAM



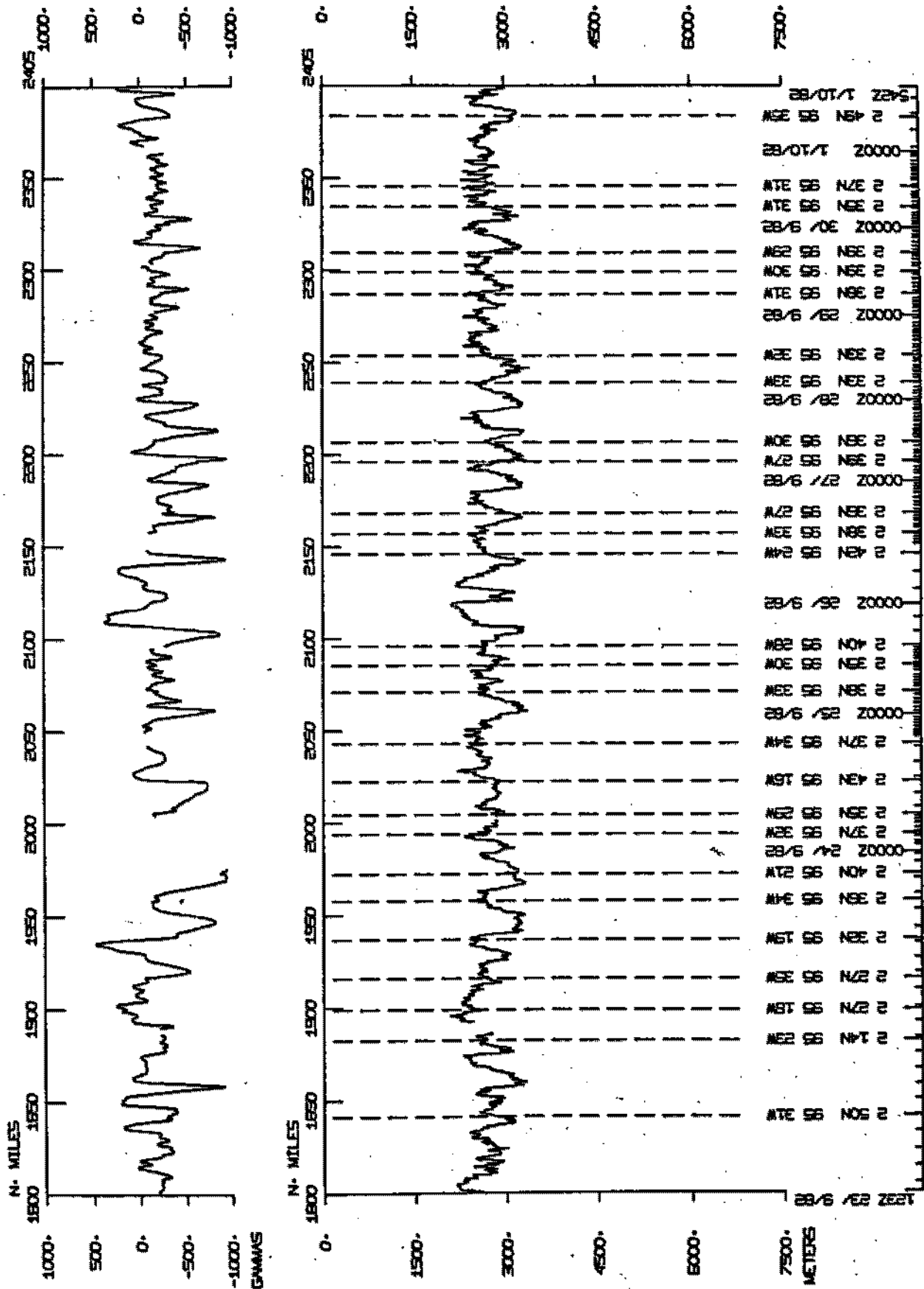
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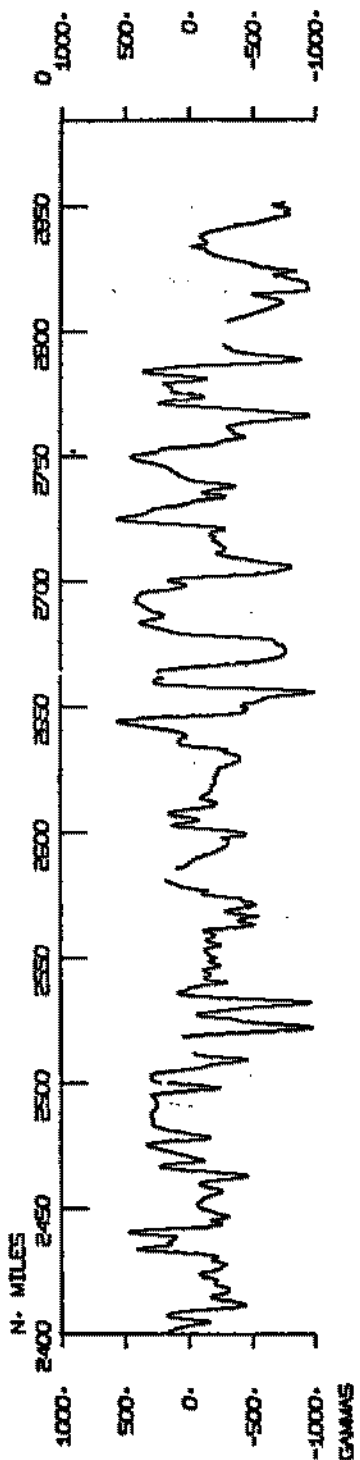
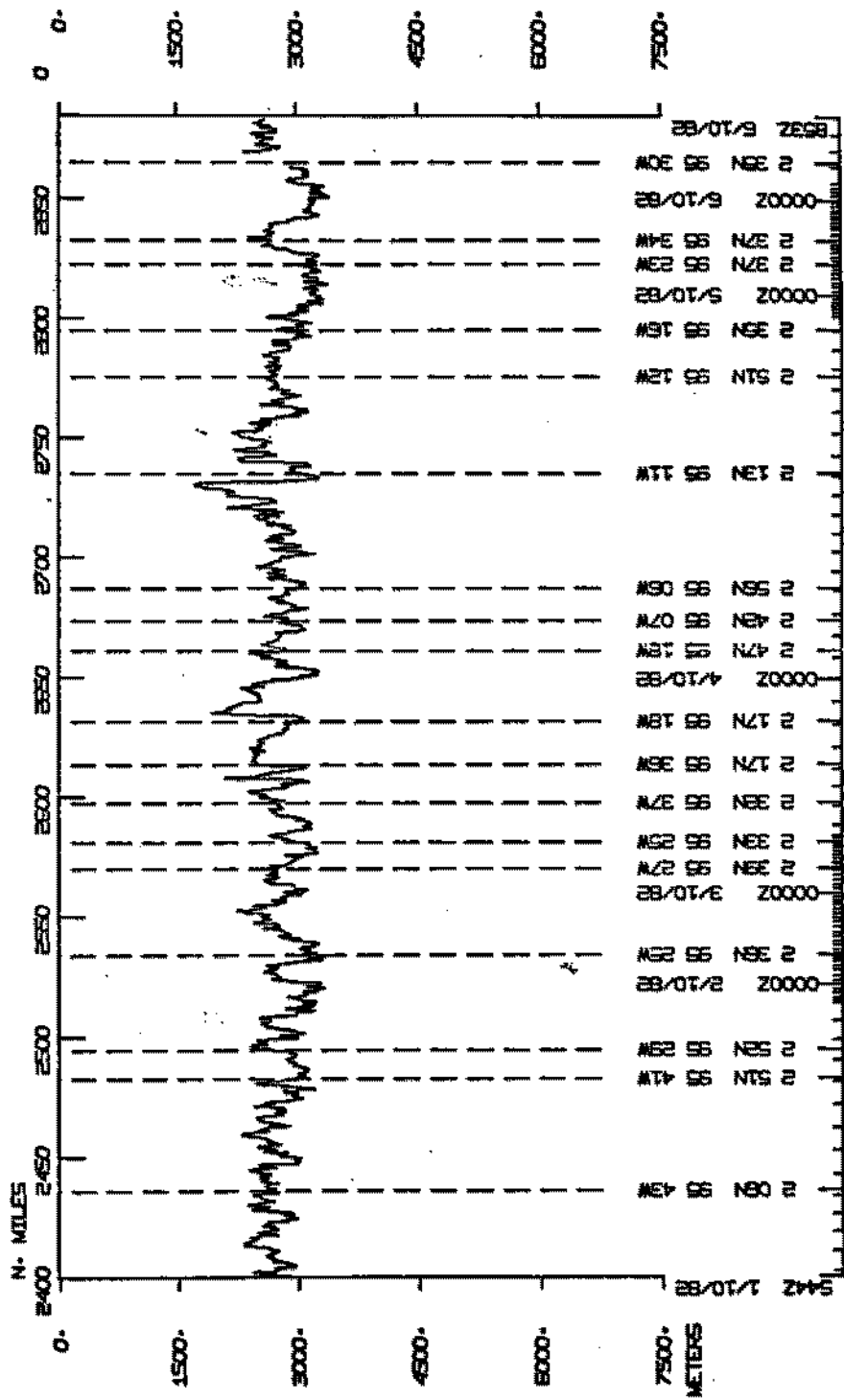
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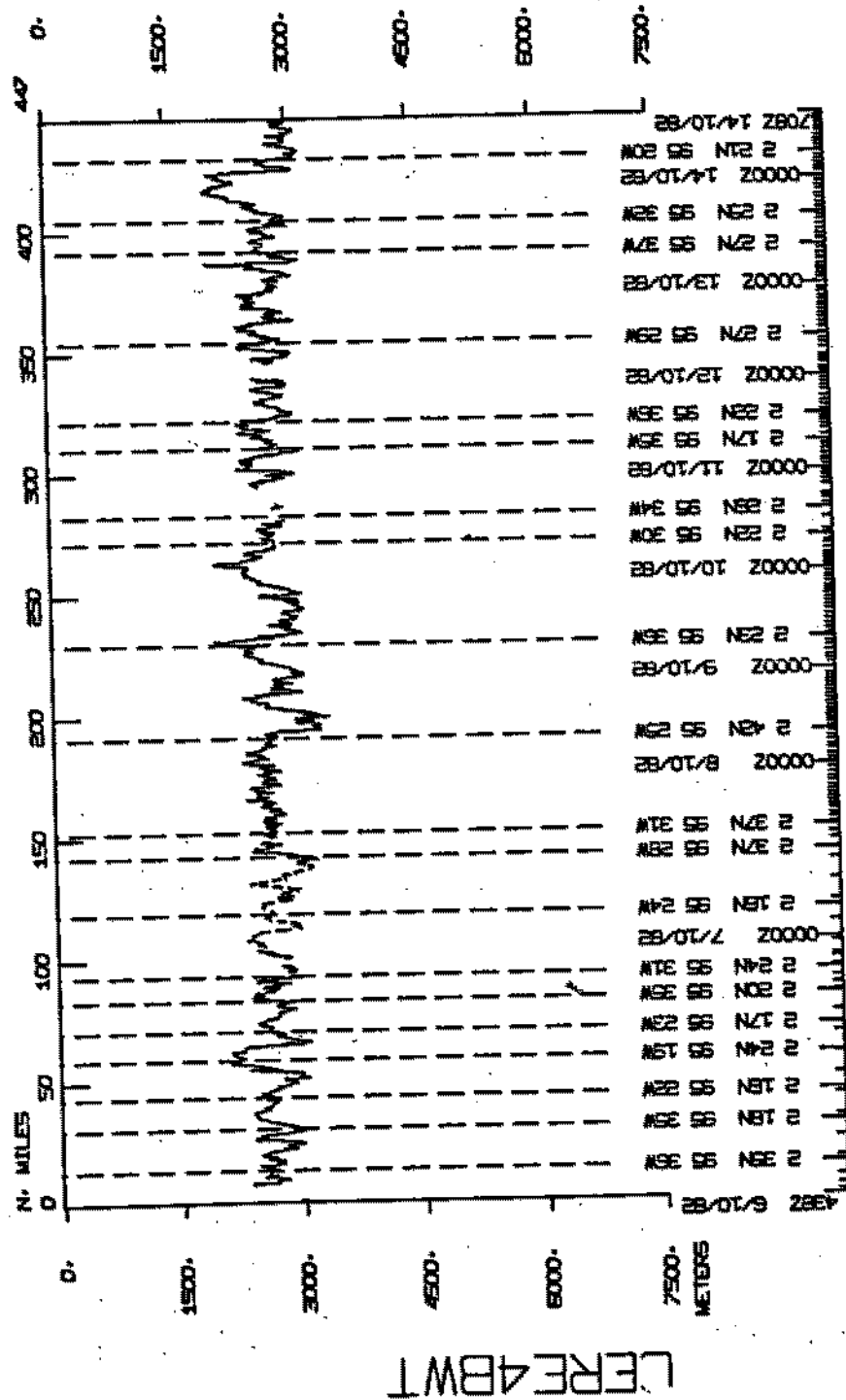


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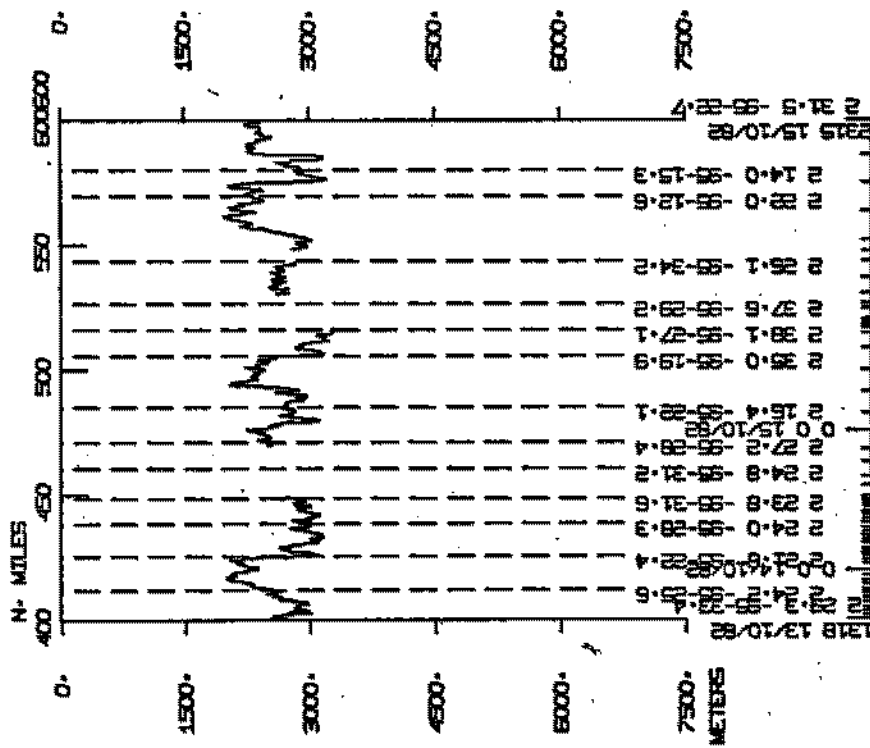
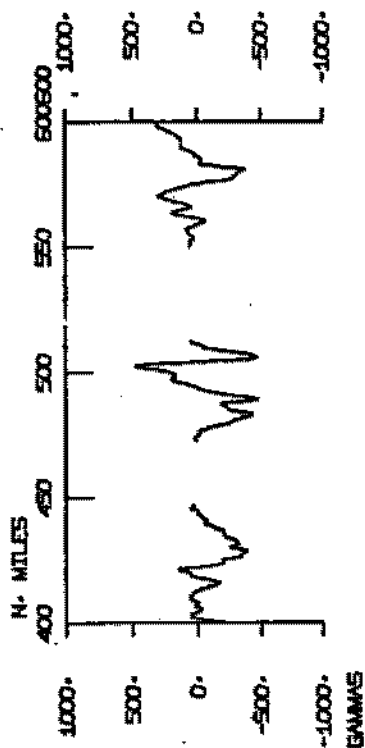


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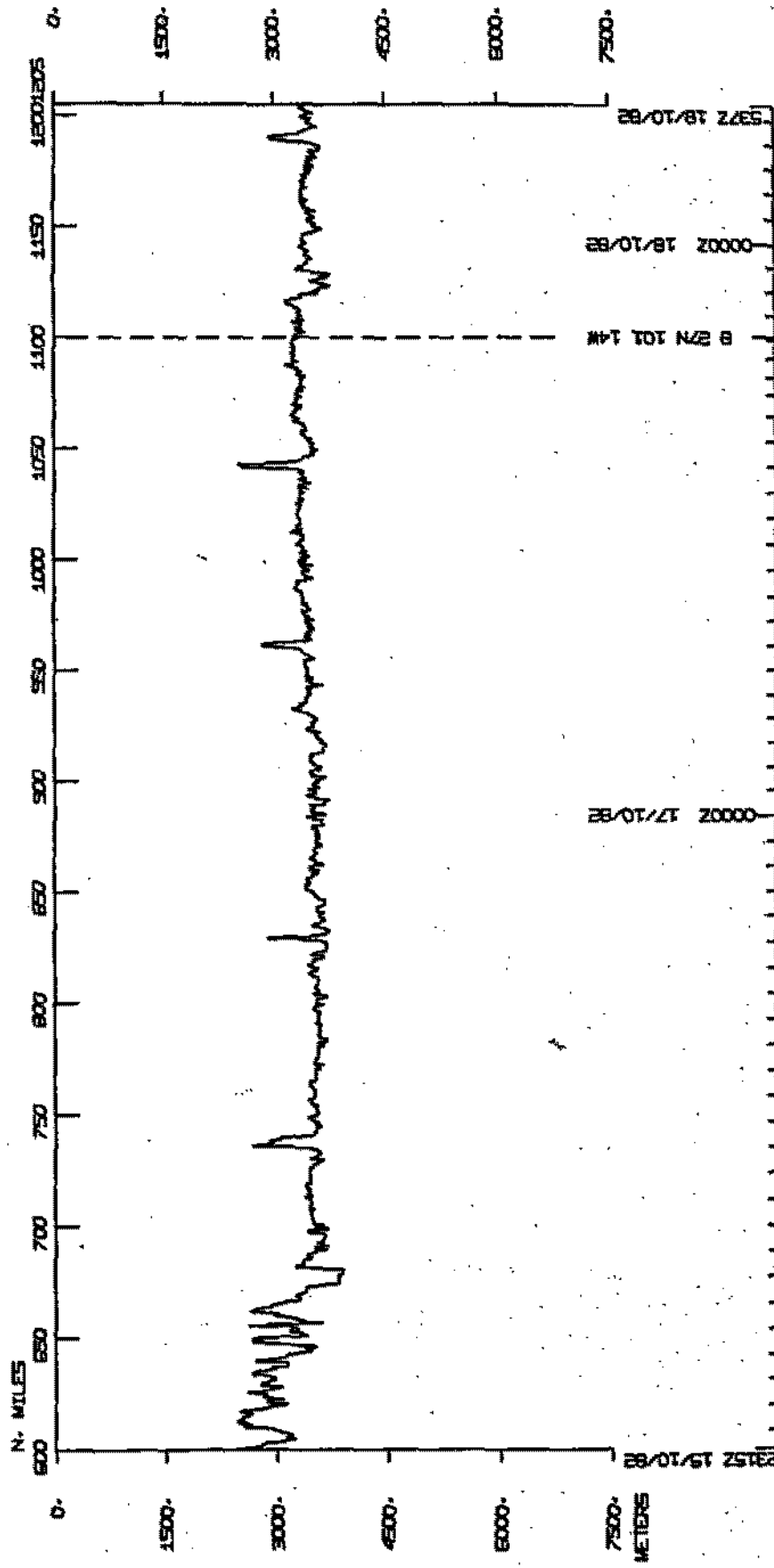
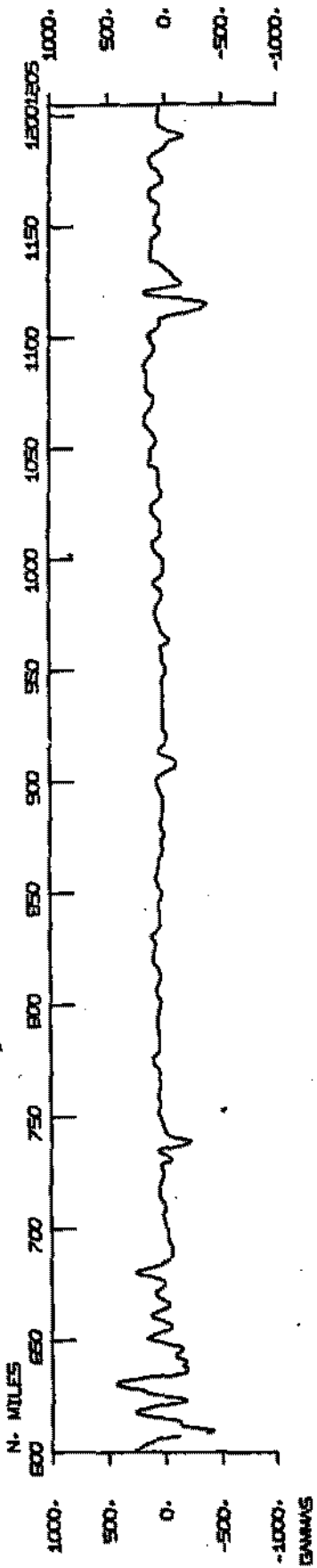
Add 2870 miles co mileage shown



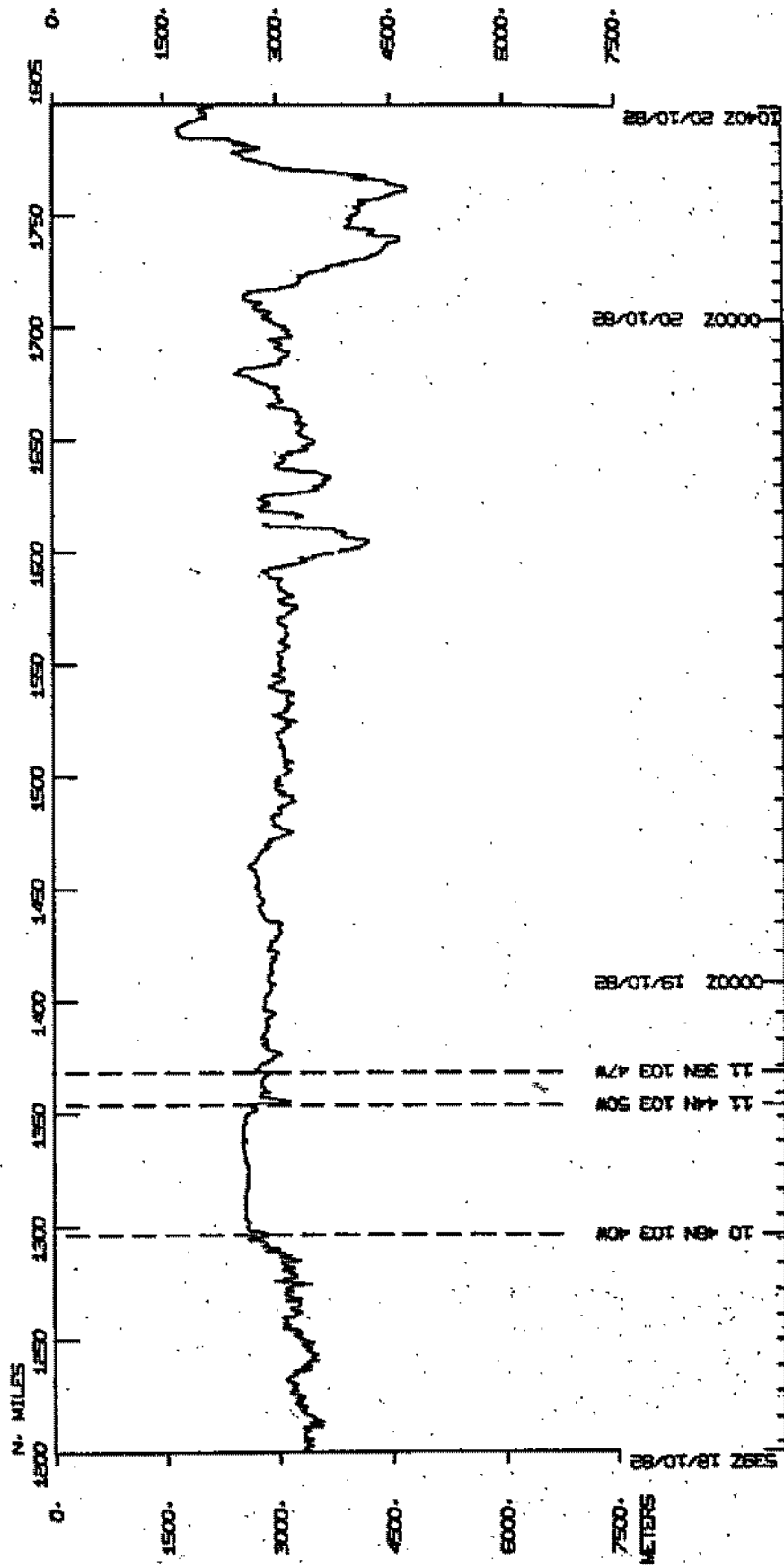
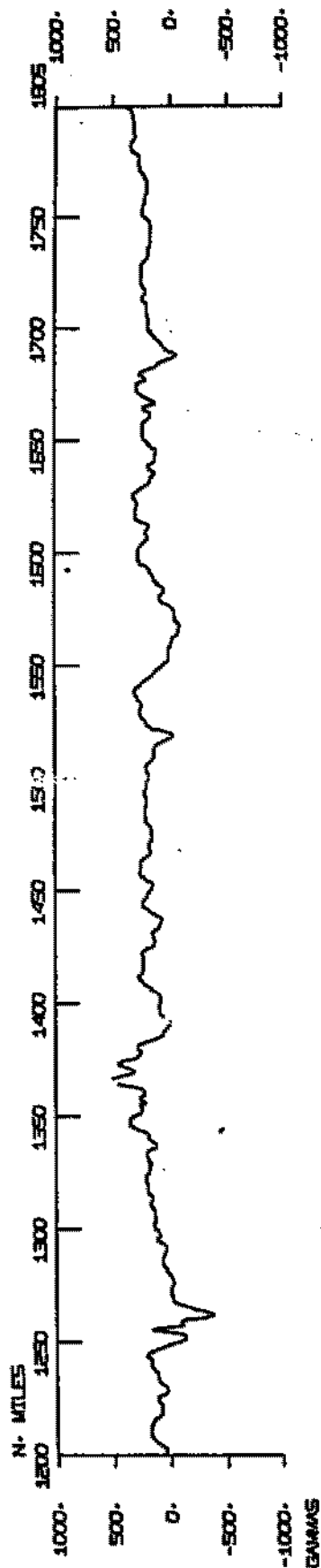
CERE4BWT

CERE4BWT

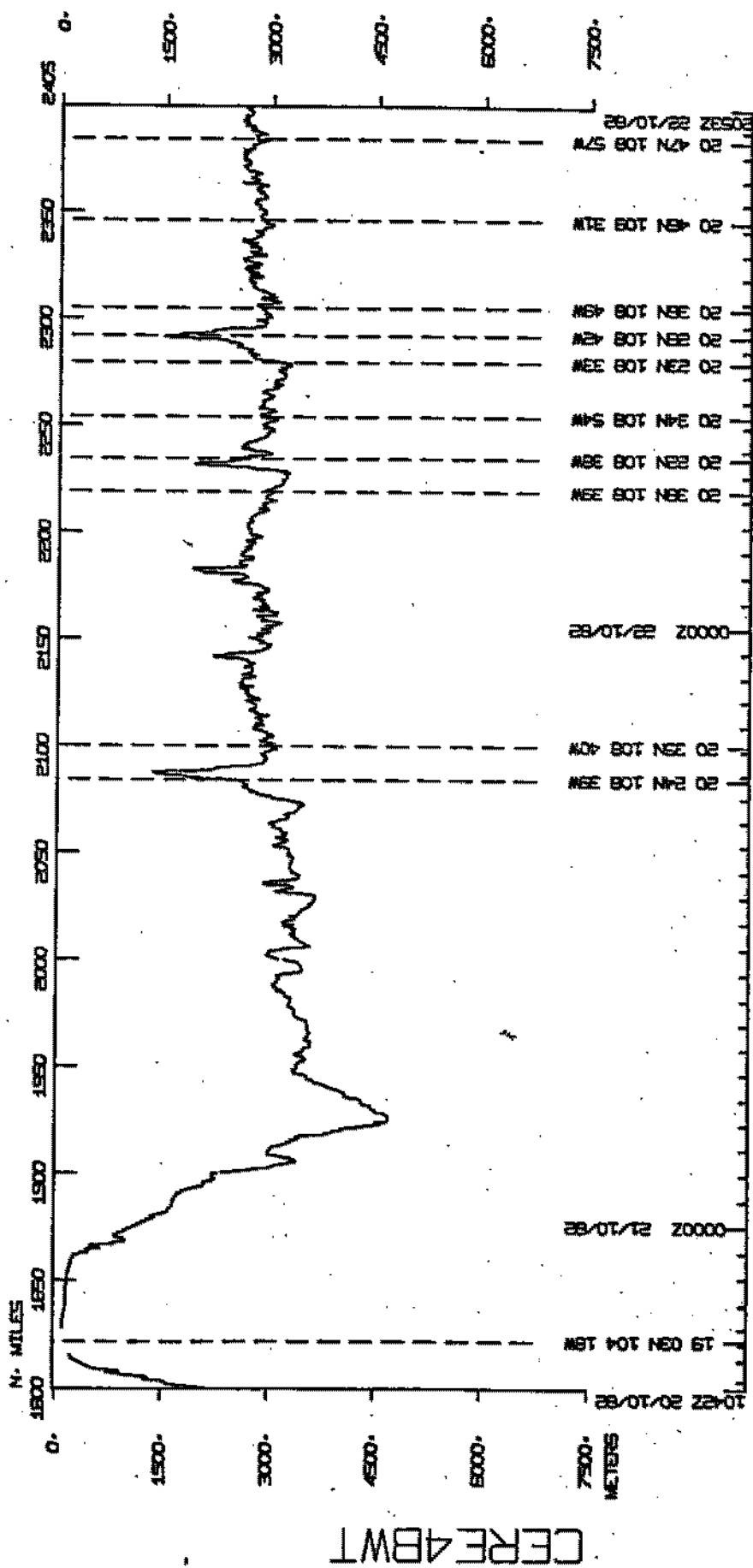
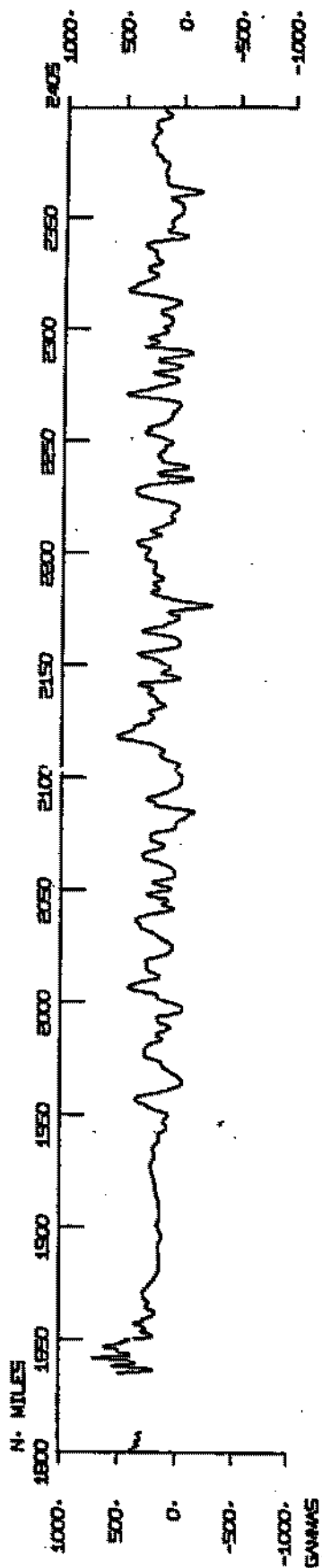
Add 2870 miles to mileage shown



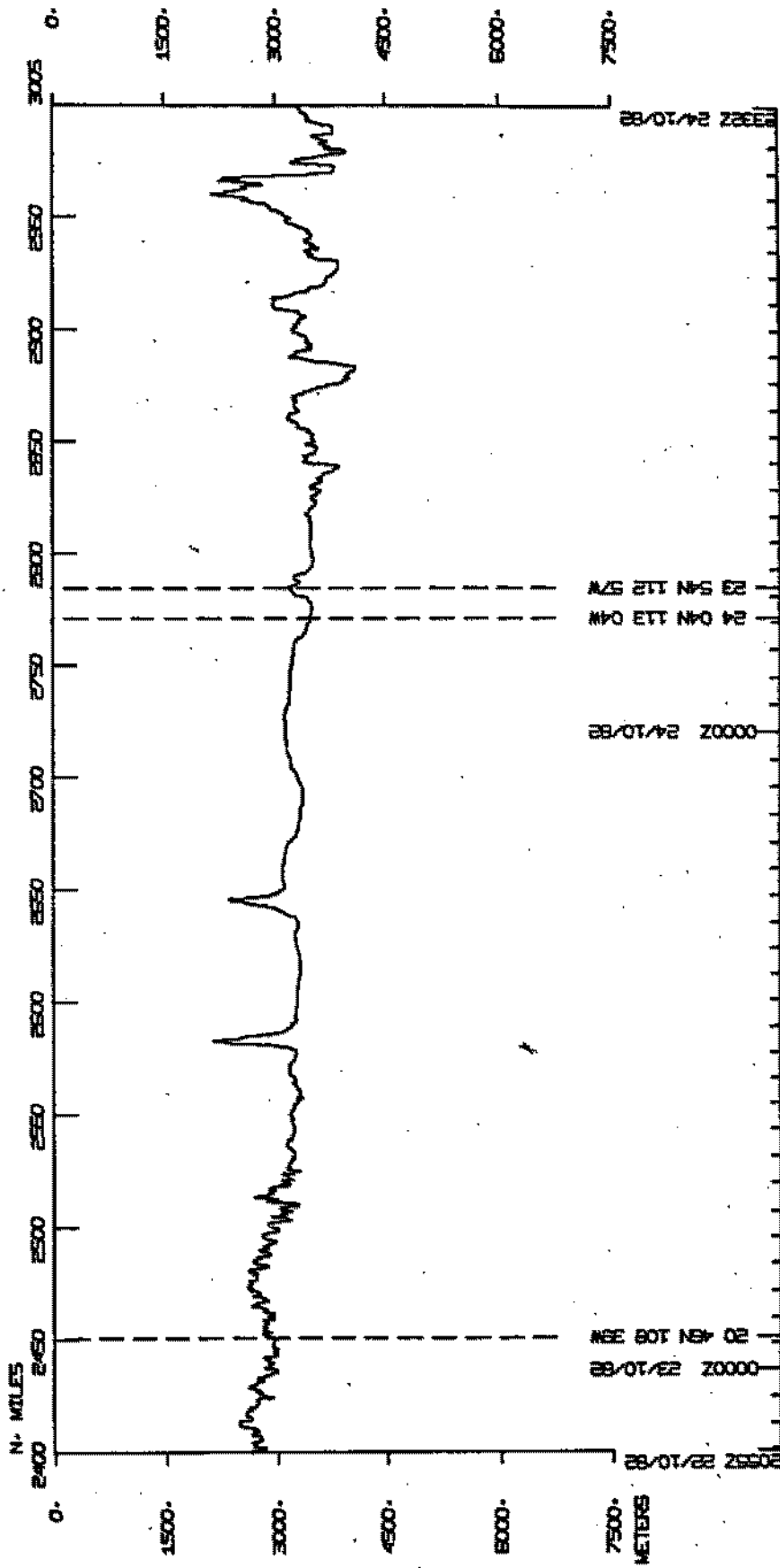
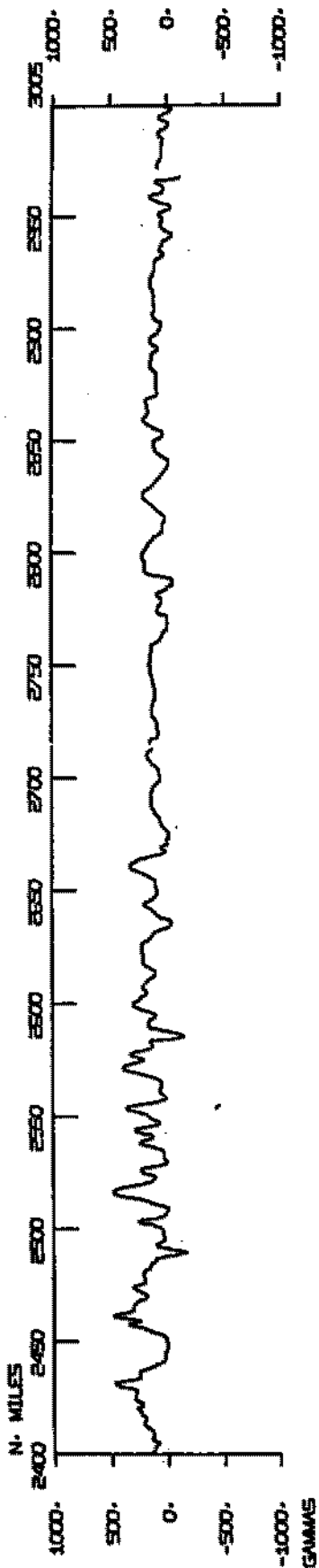
Add 2870 miles to mileage shown



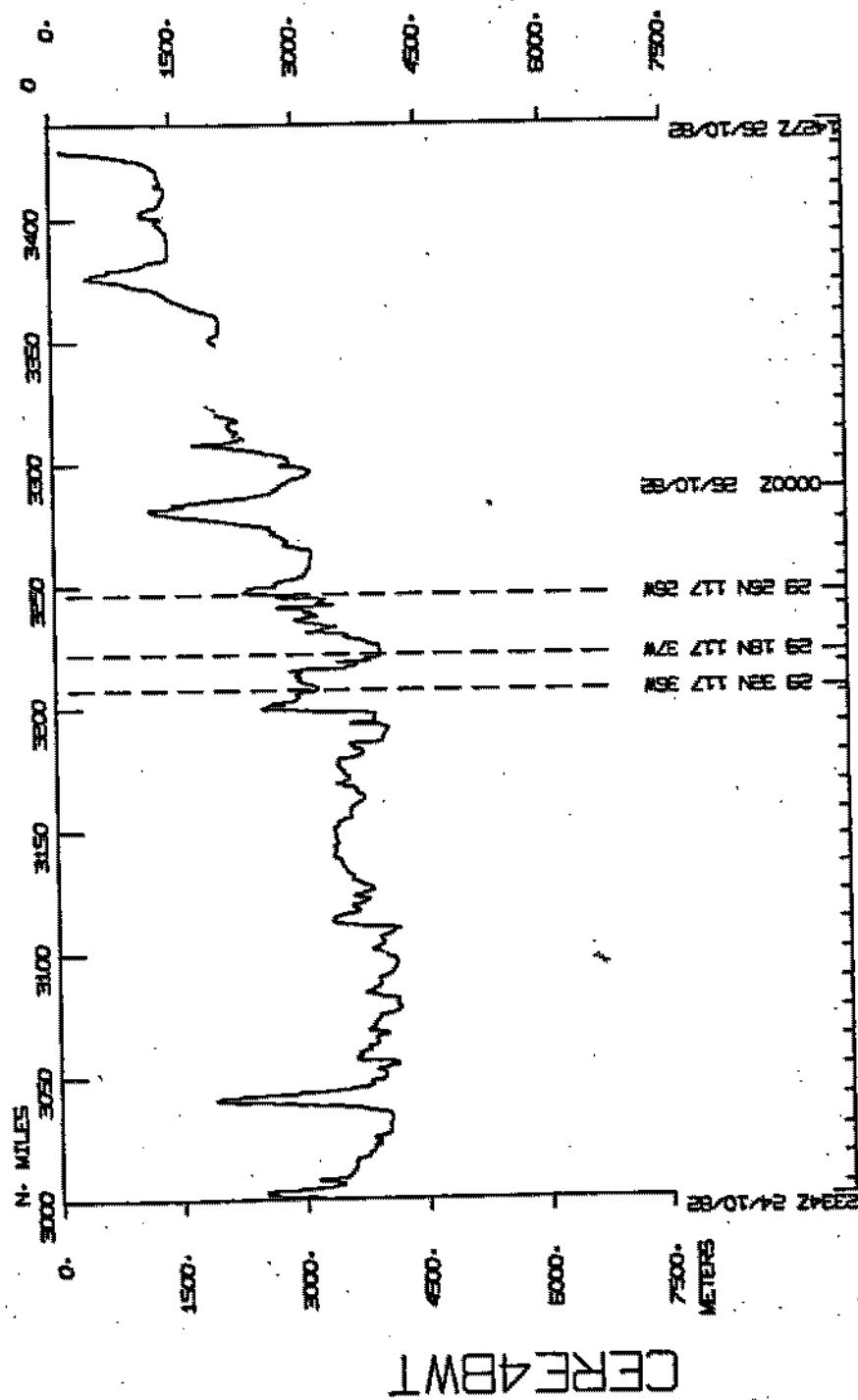
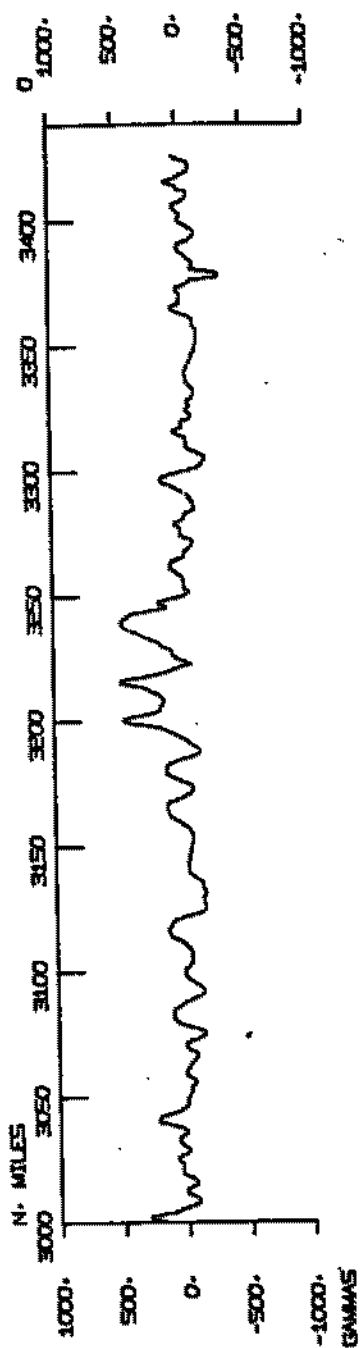
Add 2870 miles to mileage shown



Add 2870 miles to mileage shown



Add 2870 miles to mileage shown



S.I.O. Sample Index
(Issued January 1983)

CERES EXPEDITION

Leg 4

Balboa, Panama (16 September 1982)
to
San Diego, Calif (26 October 1982)

R/V T. Washington

Co-Chief Scientists - R. Hey & R. Tyce (SIO)

Resident Marine Tech - R. Gilchrist

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

Index Encoding Funded by NSF
Grant Number OCE80-22996
Index Processing and Report Preparation
funded in part by SIA

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 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 cards. Disposition and sample type are represented by three and four character codes to permit future computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GENERATED 05JAN83

(CERE04WT) ***

16SEP82 - RALBOA, PANAMA
TO
26OCT82 - SAN DIEGO, CAL.
CHIEF SCIENTISTS - HEY, R.
TYCE, R.

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	
	BT	DP	DR	DT	LB	MB	MG	NV	PE	TG		
GCR	1		1								1	1
GDC	1	9			1	50	4		1	1	1	66
MPL	1		3	1	9			10	12		1	35
MTG	1								2		1	2
SIO	1								1		1	1
UCS	1								2		1	2
TOTAL	1	9	3	2	9	1	50	4	10	18	1	107

SAMPLE 'TYPE' CODES USED ABOVE

BT = BATHYTHERMOGRAM
 DP = DEPTH
 DR = DREDGE
 DT = DEEP TOWED INSTRUMENT PACKAGE (MPL PROJECT)
 LB = LOG BOOKS
 MB = MULTI-BEAM (SEABEAM) ECHOSOUNDER
 MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
 NV = NAVIGATION
 PE = PERSONNEL IN SCIENTIFIC PARTY
 TG = THERMOGRAPH

SAMPLE 'DISP' CODES USED ABOVE

GCR = GEOLOGICAL CURATING FACILITY -- W. RIEDEL, (EXT. 4386)
 GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
 MPL = MARINE PHYSICAL LAB. (EXT 2305)
 MTG = MARINE TECHNOLOGY GROUP (EXT 4194)
 SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093
 UCS = UNIV. CALIF. SANTA BARBARA

GMT D / M / Y		LOC LOC	CODE	SAMPLE IDENT.	CODE	LAT.	LONG.	05JAN83 PAGE 1	LEG-SHIP
TIME	DATE	TIME TZ	SAMP		DISP				CRUISE
/ /	000		CERE04WT	SAMPLE INDEX		00 00.	00 00.		CERE04WT

*** PORTS ***

2323 16/ 9/82	LGPT B RALROA, PANAMA	08 57. N 79 34. W F	CERE04WT
0800 26/10/82	LGPT E SAN DIEGO, CAL.	32 43. N 117 11. W F	CERE04WT
1330 20/10/82	LGUS B MANZANILLO, MEXICO	19 03.1N 104 20. W F	CERE04WT
1920 20/10/82	LGUS E MANZANILLO, MEXICO	19 03.1N 104 20. W F	CERE04WT

PERSONNEL

*** NAME ***	*** TITLE ***	*** AFFILIATION ***
1 HEY, R.	CHIEF SCIENTIST	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
2 TYCE, R.	CHIEF SCIENTIST	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
3 GILCHRIST, R.	RESIDENT TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
4 MOE, R.	COMPUTER TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
5 SMITH, W.	SEABEAM OPERATOR	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
6 PAVLICEK, V.	SEABEAM ENGINEER	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
7 BOEGEMAN, D.	DEEP TOW ENGINEER	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
8 GLEWSON, D.	DEEP TOW ENGINEER	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
9 ELDER, R.	DEEP TOW ENGINEER	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
10 LAWHEAD, R.	DEEP TOW PROGRAMR	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
11 DEMOUSTIER, C.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
12 THEBERGE, A.	DEEP TOW	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
13 KLEINROCK, M.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
14 CAROLLO, G.	DEEP TOW	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
15 ATWATER, T.	SCIENTIST	UNIV. CALIF. SANTA BARBARA
16 MILLER, S.	SCIENTIST	UNIV. CALIF. SANTA BARBARA
17 SEARLE, R.	SCIENTIST	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
18 WEYDERT, M.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093

NOTES AN 'X' IN THE (BEGIN/(END 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. (MODDED 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	LOC LOC	CODE	SAMPLE IDENT.	CODE	LAT.	LONG.	LEG-SHIP
TIME DATE	TIME T2	SAMP		DISP			CRUISE

**** UNDERWAY DATA CURATOR - STUART M. SMITH EXT. 2752 ***

*** LOG BOOKS ***

2325 15/ 9/82	LRUW B UNDERWAY WATCH LOG	GDC 08 57.5N 79 33.9W S CERE04WT
1400 26/10/82	LRUW E UNDERWAY WATCH LOG	GDC 32 34.6N 117 16.5W S CERE04WT

SEABEAM MONITOR RECORD - VERTICAL RFAM

0100 16/ 9/82	MBMR B SB UGR MONITOR R-01	GDC 08 42.2N 79 30.5W S CERE04WT
0600 20/ 9/82	MBMR E SB UGR MONITOR R-01	GDC 02 45.2N 93 45.5W S CERE04WT
0615 20/ 9/82	MBMR B SB UGR MONITOR R-02	GDC 02 45.1N 93 48.6W S CERE04WT
1715 25/ 9/82	MBMR E SB UGR MONITOR R-02	GDC 02 38.7N 95 29.3W S CERE04WT
1715 25/ 9/82	MBMR B SB UGR MONITOR R-03	GDC 02 38.7N 95 29.3W S CERE04WT
1930 30/ 9/82	MBMR E SB UGR MONITOR R-03	GDC 02 38.9N 95 31.1W S CERE04WT
2030 30/ 9/82	MBMR B SB UGR MONITOR R-04	GDC 02 36.8N 95 31.2W S CERE04WT
0230 5/10/82	MBMR E SB UGR MONITOR R-04	GDC 02 37.5N 95 24.6W S CERE04WT
0310 5/10/82	MBMR B SB UGR MONITOR R-05	GDC 02 37.4N 95 25.6W S CERE04WT
2330 9/10/82	MBMR E SB UGR MONITOR R-05	GDC 02 22.5N 95 30.6W S CERE04WT
0014 10/10/82	MBMR B SB UGR MONITOR R-06	GDC 02 22.7N 95 31.4W S CERE04WT
0020 14/10/82	MBMR E SB UGR MONITOR R-06	GDC 02 25.4N 95 19.7W S CERE04WT
2300 14/10/82	MBMR B SB UGR MONITOR R-07	GDC 02 26.7N 95 31.3W S CERE04WT
1500 18/10/82	MBMR E SB UGR MONITOR R-07	GDC 10 56.8N 103 41.7W S CERE04WT
1515 18/10/82	MBMR B SB UGR MONITOR R-08	GDC 10 59.3N 103 42.5W S CERE04WT
1300 26/10/82	MBMR E SB UGR MONITOR R-08	GDC 32 28.4N 117 19.7W S CERE04WT

*** FATHOGRAMS ***

0100 16/ 9/82	DPR3 B 3.5 KHZ R-01	MPL 08 42.2N 79 30.5W S CERE04WT
1850 16/ 9/82	DPR3 E 3.5 KHZ R-01	MPL 06 43.2N 80 47.5W S CERE04WT
1925 16/ 9/82	DPR3 B 3.5 KHZ R-02	MPL 06 40.6N 80 49.2W S CERE04WT
1842 17/ 9/82	DPR3 E 3.5 KHZ R-02	MPL 03 37.7N 84 06.5W S CERE04WT
1415 19/ 9/82	DPR3 B 3.5 KHZ R-03	MPL 02 45.7N 90 41.0W S CERE04WT
1333 20/ 9/82	DPR3 E 3.5 KHZ R-03	MPL 02 44.6N 95 18.4W S CERE04WT

GMT D /M /Y	LDC LOC	CODE	SAMPLE IDENT.	CODE	05 JAN 83		PAGE	3
TIME DATE	TIME TZ	SAMP		DISP	LAT.	LONG.		LEG-SHIP
								CRUISE

*** MAGNETOMETER ***

1915 16/ 9/82		MGRA B	MAGNETICS R-01	GDC 06	42.1N	80 47.8W	S	CERE04WT
0305 26/ 9/82		MGRA E	MAGNETICS R 01	GDC 02	42.3N	95 24.6W	S	CERE04WT
0900 26/ 9/82		MGRA B	MAGNETICS R-02	GDC 02	38.1N	95 33.0W	S	CERE04WT
1800 8/10/82		MGRA E	MAGNETICS R-02	GDC 02	27.4N	95 26.6W	S	CERE04WT
1805 8/10/82		MGRA B	MAGNETICS R-03	GDC 02	27.3N	95 26.6W	S	CERE04WT
1130 20/10/82		MGRA E	MAGNETICS R-03	GDC 18	53.0N	104 23.6W	S	CERE04WT
2045 20/10/82		MGRA B	MAGNETICS R-04	GDC 19	05.4N	104 32.3W	S	CERE04WT
1225 26/10/82		MGRA E	MAGNETICS R-04	GDC 32	24.8N	117 20.8W	S	CERE04WT

SEABEAM MAG TAPE - RAW LOGGED DATA

0415 16/ 9/82		MBMT B	RAW LOGGED TAPE 01	GDC 08	06.1N	79 42.8W	S	CERE04WT
2025 19/ 9/82		MBMT E	RAW LOGGED TAPE 01	GDC 02	46.9N	91 52.6W	S	CERE04WT
2025 19/ 9/82		MBMT B	RAW LOGGED TAPE 02	GDC 02	46.9N	91 52.6W	S	CERE04WT
0345 24/ 9/82		MBMT E	RAW LOGGED TAPE 02	GDC 02	37.1N	95 32.3W	S	CERE04WT
0345 24/ 9/82		MBMT B	RAW LOGGED TAPE 03	GDC 02	37.1N	95 32.3W	S	CERE04WT
0533 28/ 9/82		MBMT E	RAW LOGGED TAPE 03	GDC 02	33.5N	95 32.6W	S	CERE04WT
0533 28/ 9/82		MBMT B	RAW LOGGED TAPE 04	GDC 02	33.5N	95 32.6W	S	CERE04WT
0447 2/10/82		MBMT E	RAW LOGGED TAPE 04	GDC 02	40.2N	95 25.3W	S	CERE04WT
0447 2/10/82		MBMT B	RAW LOGGED TAPE 05	GDC 02	40.2N	95 25.3W	S	CERE04WT
0849 6/10/82		MBMT E	RAW LOGGED TAPE 05	GDC 02	26.8N	95 35.7W	S	CERE04WT
0849 6/10/82		MBMT B	RAW LOGGED TAPE 06	GDC 02	26.8N	95 35.7W	S	CERE04WT
0603 11/10/82		MBMT E	RAW LOGGED TAPE 06	GDC 02	20.7N	95 36.0W	S	CERE04WT
0603 11/10/82		MBMT B	RAW LOGGED TAPE 07	GDC 02	20.7N	95 36.0W	S	CERE04WT
0618 16/10/82		MBMT E	RAW LOGGED TAPE 07	GDC 03	28.3N	96 20.2W	S	CERE04WT
0618 16/10/82		MBMT B	RAW LOGGED TAPE 08	GDC 03	28.3N	96 20.2W	S	CERE04WT
2231 20/10/82		MBMT E	RAW LOGGED TAPE 08	GDC 19	11.5N	104 54.2W	S	CERE04WT
2231 20/10/82		MBMT B	RAW LOGGED TAPE 09	GDC 19	11.5N	104 54.2W	S	CERE04WT
2045 25/10/82		MBMT E	RAW LOGGED TAPE 09	GDC 29	29.2N	117 26.5W	S	CERE04WT
2045 25/10/82		MBMT B	RAW LOGGED TAPE 10	GDC 29	29.2N	117 26.5W	S	CERE04WT
1417 26/10/82		MBMT E	RAW LOGGED TAPE 10	GDC 32	36.0N	117 15.9W	S	CERE04WT

GMT D / M / Y TIME DATE	LOC LOC TIME TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	05JAN83 LAT.	PAGE LONG.	4 LEG-SHIP CRUISE
SEABEAM SWATH BOOK - REALTIME CONTOUR SWATH							
0800 16/ 9/82		MRSB B SB	SWATH BOOK 01	GDC 07	22.6N	79 54.3W S	CERE04WT
1322 16/ 9/82		MRSB E SB	SWATH BOOK 01	GDC 06	51.1N	80 45.6W S	CERE04WT
1332 16/ 9/82		MRSB B SB	SWATH BOOK 02	GDC 06	49.8N	80 47.0W S	CERE04WT
1254 17/ 9/82		MRSB E SB	SWATH BOOK 02	GDC 04	21.2N	83 18.6W S	CERE04WT
1256 17/ 9/82		MRSB B SB	SWATH BOOK 03	GDC 04	20.9N	83 18.9W S	CERE04WT
1345 18/ 9/82		MRSB E SB	SWATH BOOK 03	GDC 02	12.9N	86 38.1W S	CERE04WT
1345 18/ 9/82		MRSB B SB	SWATH BOOK 04	GDC 02	12.9N	86 38.1W S	CERE04WT
1055 19/ 9/82		MRSB E SB	SWATH BOOK 04	GDC 02	46.4N	90 01.8W S	CERE04WT
1055 19/ 9/82		MRSB B SB	SWATH BOOK 05	GDC 02	46.4N	90 01.8W S	CERE04WT
0400 20/ 9/82		MRSB E SB	SWATH BOOK 05	GDC 02	45.4N	93 21.9W S	CERE04WT
0400 20/ 9/82		MRSB B SB	SWATH BOOK 06	GDC 02	45.4N	93 21.9W S	CERE04WT
2000 20/ 9/82		MRSB E SB	SWATH BOOK 06	GDC 02	19.6N	95 17.7W S	CERE04WT
2015 20/ 9/82		MRSB B SB	SWATH BOOK 07	GDC 02	19.5N	95 21.0W S	CERE04WT
1538 21/ 9/82		MRSB E SB	SWATH BOOK 07	GDC 02	17.2N	95 26.4W S	CERE04WT
1540 21/ 9/82		MRSB B SB	SWATH BOOK 08	GDC 02	17.5N	95 26.4W S	CERE04WT
1351 22/ 9/82		MRSB E SB	SWATH BOOK 08	GDC 02	42.8N	95 34.7W S	CERE04WT
1351 22/ 9/82		MRSB B SB	SWATH BOOK 09	GDC 02	42.8N	95 34.7W S	CERE04WT
1322 23/ 9/82		MRSB E SB	SWATH BOOK 09	GDC 02	27.2N	95 23.8W S	CERE04WT
1322 23/ 9/82		MRSB B SB	SWATH BOOK 10	GDC 02	27.2N	95 23.8W S	CERE04WT
2126 25/ 9/82		MRSB E SB	SWATH BOOK 10	GDC 02	41.1N	95 25.3W S	CERE04WT
2129 25/ 9/82		MRSB B SB	SWATH BOOK 11	GDC 02	41.2N	95 24.9W S	CERE04WT
1050 29/ 9/82		MRSB E SB	SWATH BOOK 11	GDC 02	38.1N	95 30.1W S	CERE04WT
1051 29/ 9/82		MRSB B SB	SWATH BOOK 12	GDC 02	38.2N	95 30.1W S	CERE04WT
1430 1/10/82		MRSB E SB	SWATH BOOK 12	GDC 02	45.3N	95 41.4W S	CERE04WT
1430 1/10/82		MRSB B SB	SWATH BOOK 13	GDC 02	45.3N	95 41.4W S	CERE04WT
0135 4/10/82		MRSB E SB	SWATH BOOK 13	GDC 02	46.6N	95 16.9W S	CERE04WT
0136 4/10/82		MRSB B SB	SWATH BOOK 14	GDC 02	46.5N	95 16.8W S	CERE04WT
0445 6/10/82		MRSB E SB	SWATH BOOK 14	GDC 02	37.4N	95 29.1W S	CERE04WT
0645 6/10/82		MRSB B SB	SWATH BOOK 15	GDC 02	38.6N	95 31.8W S	CERE04WT
0945 8/10/82		MRSB E SB	SWATH BOOK 15	GDC 02	39.1N	95 26.6W S	CERE04WT
0945 8/10/82		MRSB B SB	SWATH BOOK 16	GDC 02	39.1N	95 26.6W S	CERE04WT
1447 13/10/82		MRSB E SB	SWATH BOOK 16	GDC 02	27.1N	95 32.9W S	CERE04WT
1447 13/10/82		MRSB B SB	SWATH BOOK 17	GDC 02	27.1N	95 32.9W S	CERE04WT
0200 16/10/82		MRSB E SB	SWATH BOOK 17	GDC 02	54.0N	95 44.6W S	CERE04WT

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GMT D / M / Y TIME DATE	LOC LOC TIME TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	5 LEG-SHIP CRUISE
0200 16/10/82		MBSB B	SB SWATH BOOK 18	GDC 02	54.0N	95 44.6W	S CERE04WT
0006 17/10/82		MBSB E	SB SWATH BOOK 18	GDC 05	52.1N	98 46.7W	S CERE04WT
0007 17/10/82		MBSB B	SB SWATH BOOK 19	GDC 05	52.2N	98 46.8W	S CERE04WT
0319 18/10/82		MBSB E	SB SWATH BOOK 19	GDC 09	23.7N	102 12.0W	S CERE04WT
0320 18/10/82		MBSB B	SB SWATH BOOK 20	GDC 09	23.8N	102 12.1W	S CERE04WT
0445 19/10/82		MBSB E	SB SWATH BOOK 20	GDC 13	18.2N	104 01.3W	S CERE04WT
0445 19/10/82		MBSB B	SB SWATH BOOK 21	GDC 13	18.2N	104 01.3W	S CERE04WT
0642 21/10/82		MBSB E	SB SWATH BOOK 21	GDC 19	41.7N	106 32.0W	S CERE04WT
0642 21/10/82		MBSB B	SB SWATH BOOK 22	GDC 19	41.7N	106 32.0W	S CERE04WT
1725 21/10/82		MBSB E	SB SWATH BOOK 22	GDC 20	22.8N	108 36.3W	S CERE04WT
1725 21/10/82		MBSB B	SB SWATH BOOK 23	GDC 20	22.8N	108 36.3W	S CERE04WT
1820 22/10/82		MBSB E	SB SWATH BOOK 23	GDC 20	51.1N	109 12.7W	S CERE04WT
1820 22/10/82		MBSB B	SB SWATH BOOK 24	GDC 20	51.1N	109 12.7W	S CERE04WT
2011 23/10/82		MBSB E	SB SWATH BOOK 24	GDC 23	00.1N	111 44.1W	S CERE04WT
2011 23/10/82		MBSB B	SB SWATH BOOK 25	GDC 23	00.1N	111 44.1W	S CERE04WT
2055 24/10/82		MBSB E	SB SWATH BOOK 25	GDC 26	20.0N	114 57.5W	S CERE04WT
2055 24/10/82		MBSB B	SB SWATH BOOK 26	GDC 26	20.0N	114 57.5W	S CERE04WT
2238 25/10/82		MBSB E	SB SWATH BOOK 26	GDC 29	51.6N	117 27.2W	S CERE04WT
2238 25/10/82		MBSB B	SB SWATH BOOK 27	GDC 29	51.6N	117 27.2W	S CERE04WT
1300 26/10/82		MBSB E	SB SWATH BOOK 27	GDC 32	28.4N	117 19.7W	S CERE04WT

SEABEAM SURVEY

0145 21/09/82		MBSV B	SEABEAM SURVEY	GDC 02	49.4N	95 15.2W	S CERE04WT
1900 15/10/82		MBSV E	SEABEAM SURVEY	GDC 02	25.7N	95 29.5W	S CERE04WT

SEABEAM SOUND VELOCITY PROFILE

2252 17/ 9/82		MBVP B	SOUND VFLOCITY 01	GDC 03	06.5N	84 39.8W	S CERE04WT
1550 20/ 9/82		MBVP E	SOUND VELOCITY 01	GDC 02	43.5N	95 44.9W	S CERE04WT
1550 20/ 9/82		MBVP B	SOUND VFLOCITY 02	GDC 02	43.5N	95 44.9W	S CERE04WT
0030 3/10/82		MBVP E	SOUND VFLOCITY 02	GDC 02	36.4N	95 28.9W	S CERE04WT
0030 3/10/82		MBVP B	SOUND VFLOCITY 03	GDC 02	36.4N	95 28.9W	S CERE04WT
1611 18/10/82		MBVP E	SOUND VFLOCITY 03	GDC 11	09.2N	103 45.0W	S CERE04WT
1611 18/10/82		MBVP B	SOUND VFLOCITY 04	GDC 11	09.2N	103 45.0W	S CERE04WT
0800 26/10/82		MBVP E	SOUND VELOCITY 04	GDC 31	43.4N	117 23.8W	S CERE04WT

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

*** BATHYTHERMOGRAPH ***

1330	17/ 9/82	BTXP	XBT 01	GDC 04	16.5N	83 23.7W	S CERE04WT
1320	20/ 9/82	BTXP	XBT 02	GDC 02	44.6N	95 15.7W	S CERE04WT
2022	28/ 9/82	BTXP	XBT 03	GDC 02	37.0N	95 30.2W	S CERE04WT
2030	28/ 9/82	BTXP	XBT 04	GDC 02	36.7N	95 30.2W	S CERE04WT
2055	2/10/82	BTXP	XBT 05	GDC 02	37.9N	95 31.1W	S CERE04WT
2146	6/10/82	BTXP	XBT 06	GDC 02	26.3N	95 34.0W	S CERE04WT
2154	9/10/82	BTXP	XBT 07	GDC 02	22.2N	95 28.4W	S CERE04WT
1225	12/10/82	BTXP	XBT 08	GDC 02	29.0N	95 28.2W	S CERE04WT
1405	18/10/82	BTXP	XBT 09	GDC 10	47.7N	103 40.4W	S CERE04WT

*** THERMOGRAPH ***

1543	15/ 9/82	TGRC B	THERMOGRAPH SHEET'S	GDC 08	57.6N	79 33.9W	S CERE04WT
1105	26/10/82	TGRC E	=1 THRU =23	GDC 32	12.7N	117 22.0W	S CERE04WT

**** DEEP TOW SURVEY **** CURATOR ROBERT LAWHEAD EXT. 4892

1540	24/ 9/82	DTWS B	DEEP TOW LOWERING 01	MPL 02	40.6N	95 31.7W	S CERE04WT
2030	25/ 9/82	DTWS E	DEEP TOW LOWERING 01	MPL 02	41.5N	95 27.9W	S CERE04
0418	26/ 9/82	DTWS B	DEEP TOW LOWERING 02	MPL 02	42.8N	95 29.4W	S CERE04WT
2318	30/ 9/82	DTWS E	DEEP TOW LOWERING 02	MPL 02	33.9N	95 31.7W	S CERE04WT
1942	1/10/82	DTWS B	DEEP TOW LOWERING 03	MPL 02	35.8N	95 25.8W	S CERE04WT
1628	3/10/82	DTWS E	DEEP TOW LOWERING 03	MPL 02	32.2N	95 24.3W	S CERE04WT
0830	5/10/82	DTWS B	DEEP TOW LOWERING 04	MPL 02	37.9N	95 26.1W	S CERE04WT
0336	6/10/82	DTWS E	DEEP TOW LOWERING 04	MPL 02	36.4N	95 22.3W	S CERE04WT
1245	7/10/82	DTWS B	DEEP TOW LOWERING 05	MPL 02	36.0N	95 31.6W	S CERE04WT
1630	10/10/82	DTWS E	DEEP TOW LOWERING 05	MPL 02	26.4N	95 34.6W	S CERE04WT
2213	10/10/82	DTWS B	DEEP TOW LOWERING 06	MPL 02	28.0N	95 36.0W	S CERE04WT
1750	14/10/82	DTWS E	DEEP TOW LOWERING 06	MPL 02	24.5N	95 32.7W	S CERE04WT
1300	20/09/82	DTWS B	SURVEY PROPAGATING	MPL 03	00.0N	095 00.0W	F CERE04WT
2330	15/10/82	DTWS E	RIFT SEABEAM LIMITS	MPL 02	10.0N	095 50.0W	F CERE04WT
1540	24/09/82	DTWS B	DEEP TOW AREA NORTH	MPL 02	40.0N	095 26.0W	F CERE04WT
0700	08/10/82	DTWS E	PROPAGATING RIFT TIP	MPL 02	32.3N	095 33.4W	F CERE04WT
0000	09/10/82	DTWS B	DEEP TOW AREA SOUTH	MPL 02	30.0N	095 25.0W	F CERE04WT
1630	14/10/82	DTWS E	FAILED/DYING RIFT	MPL 02	15.0N	095 40.0W	F CERE04WT

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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*** NAVIGATIONAL INSTRUMENT ***

2303 23/ 9/82		NVXX B	TRANSPONDER BLUE 01	MPL 02	39.4N	95 29.7W	S CERE04WT
0200 15/10/82		NVXX E	TRANSPONDER BLUE 01	MPL 02	20.3N	95 20.0W	S CERE04WT
0057 24/ 9/82		NVXX B	TRANSPONDER RED 01	MPL 02	37.3N	95 29.4W	S CERE04WT
1200 15/10/82		NVXX E	TRANSPONDER RED 01	MPL 02	37.7N	95 29.8W	S CERE04WT
0256 24/ 9/82		NVXX B	TRANSPONDER GREEN 01	MPL 02	38.3N	95 32.0W	S CERE04WT
0644 6/10/82		NVXX E	TRANSPONDER GREEN 01	MPL 02	38.6N	95 31.8W	S CERE04WT
0406 24/ 9/82		NVXX B	TRANSPONDER BLUE 02	MPL 02	36.6N	95 31.9W	S CERE04WT
1200 15/10/82		NVXX E	TRANSPONDER BLUE 02	MPL 02	37.7N	95 29.8W	S CERE04WT
1743 6/10/82		NVXX B	TRANSPONDER RED 02	MPL 02	20.7N	95 32.7W	S CERE04WT
2200 14/10/82		NVXX E	TRANSPONDER RED 02	MPL 02	26.1N	95 35.7W	S CERE04WT
0650 24/ 9/82		NVXX B	TRANSPONDER GREEN 02	MPL 02	35.4N	95 30.6W	S CERE04WT
0551 6/10/82		NVXX E	TRANSPONDER GREEN 02	MPL 02	35.5N	95 30.6W	S CERE04WT
1905 6/10/82		NVXX B	TRANSPONDER BLUE 03	MPL 02	24.3N	95 31.2W	S CERE04WT
1700 15/10/82		NVXX E	TRANSPONDER BLUE 03	MPL 02	26.1N	95 35.7W	S CERE04WT
2103 6/10/82		NVXX B	TRANSPONDER RED 03	MPL 02	26.2N	95 34.2W	S CERE04WT
1700 15/10/82		NVXX E	TRANSPONDER RED 03	MPL 02	26.1N	95 35.7W	S CERE04WT
1646 6/10/82		NVXX B	TRANSPONDER GREEN 03	MPL 02	22.7N	95 34.6W	S CERE04WT
2100 14/10/82		NVXX E	TRANSPONDER GREEN 03	MPL 02	26.1N	95 35.7W	S CERE04WT
2255 6/10/82		NVXX B	TRANSPONDER GREEN 04	MPL 02	26.1N	95 29.2W	S CERE04WT
1900 14/10/82		NVXX E	TRANSPONDER GREEN 04	MPL 02	26.1N	95 35.7W	S CERE04WT

*** DREDGES ***

0648 15/10/82		DRRO B	DREDGE 01	MPL 02	38.1N	95 27.4W	S CERE04WT
1145 15/10/82		DRRO E	DREDGE 01	MPL 02	37.6N	95 30.0W	S CERE04WT

DREDGE CURATOR WM. RIEDEL (EXT. 3360)

0834 15/10/82		DRRO B	ROCK DREDGE	23	GCR 02	38.0N	95 28.0W	S CERE04WT
1045 15/10/82		DRRO E	ROCK DREDGE	23	GCR 02	38.0N	95 29.3W	S CERE04WT