

*REPORT AND INDEX OF
UNDERWAY MARINE GEOPHYSICAL DATA
WESTWARD EXPEDITION*

LEG 9

(WEST09MV)

R/V MELVILLE

(Issued April 1995)

Ports:

Fremantle, Australia 10 December 1994)
to
Fremantle, Australia (22 January 1995)

Co-Chief Scientists:

James Cochran (Lamont-Doherty Earth Observatory)
Jean Christophe Sempere (University of Washington)
Computer Technician -Todd Porteous

Post-Cruise Processing and Report Preparation by the
Geological Data Center, Scripps Institution of Oceanography
La Jolla, California 92093-0223

Data Collection and Processing Funded by:
NSF OCE94-00707

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 92093-0223*

GDC Cruise I.D.# 266

**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 and gravity free air anomaly vs. distance. (Sections of track with seismic reflection data have a wide black line along the bottom of the profile.)

Sample Index - list of begin/end times and positions of all underway records as well as samples and measurements from other disciplines if 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, California 92093-0223.

Phone: (619)534-2752, FAX: (619)534-5306, Internet email: ssmith@ucsd.edu

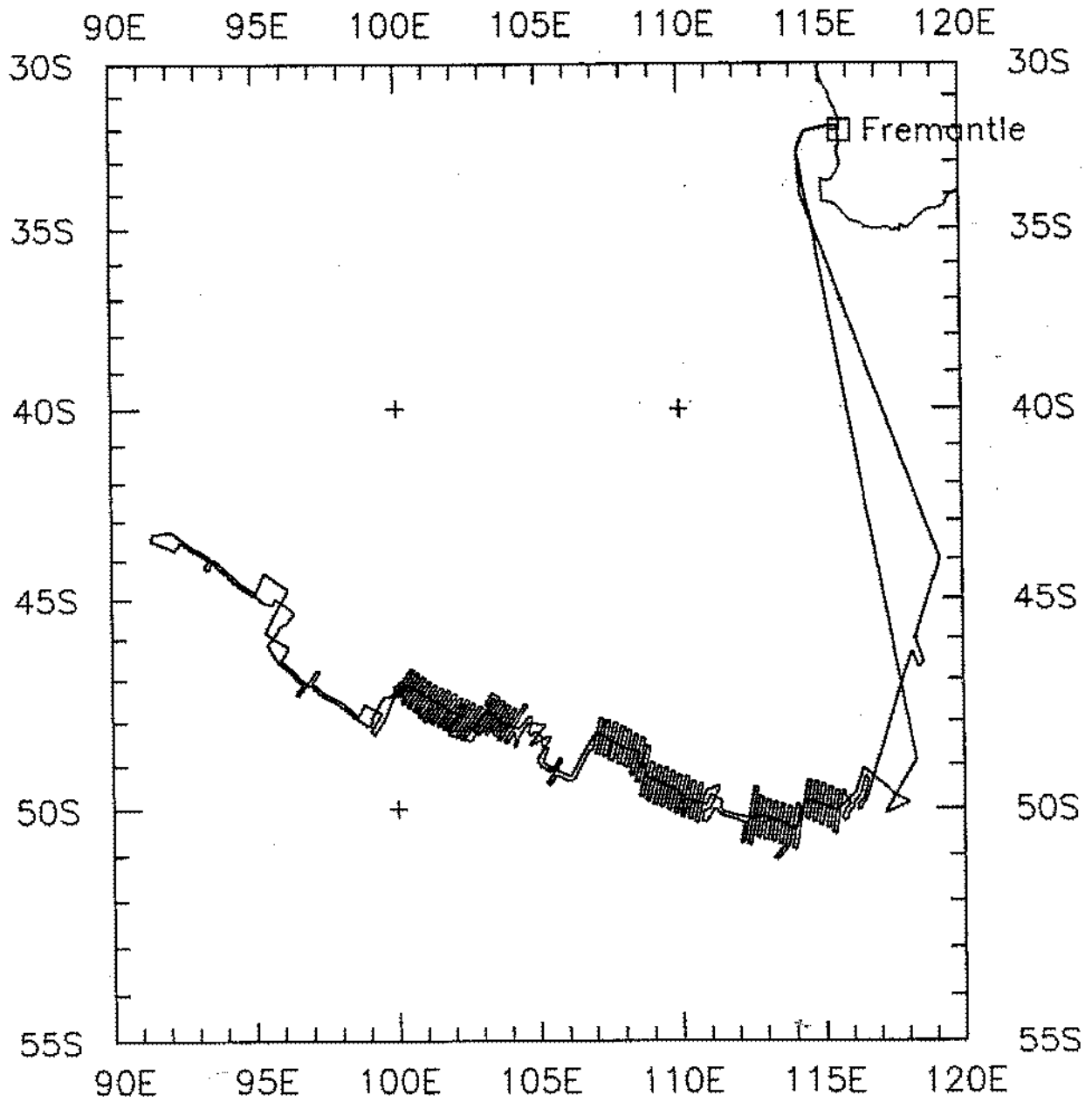
1. Files on Exabyte, DAT or 1/2 inch magnetic tape:
 - a) Separate time series ASCII files of navigation, single beam depth, gravity and magnetics.
 - b) These same data in a merged ASCII file in the MGD77 Exchange Format.
 - c) SeaBeam depth data (binary, Sun byte order) in SIO Swath Bathymetry Format (not available on 1/2" tape).
 - d) SeaBeam Sidescan data (not available on 1/2" tape).
2. Microfilm (35 mm flowfilm) or hard copies of:
 - a) Underway watch log book
 - b) SeaBeam vertical beam profile/Sidescan records.
 - c) Echosounder records - 3.5 kHz frequency.
 - d) Magnetometer records.
 - e) Seismic reflection profiler records.
3. Navigation listing with times and positions of fixes and course and speed changes.
4. Plots:
 - a) Copies of archived track plots.
 - b) Copies of archived SeaBeam contour plots.
 - c) Custom plots in Mercator projection:
 - 1) Track plots.
 - 2) SeaBeam depth contour plots.
 - 3) Depth, magnetic or gravity values printed or profiled along track.

SIO SEABEAM 2000 DATA INFORMATION

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

- 1) Hardcopy of realtime contour swath records and records with vertical beam and sidescan grayscale display are available for inspection at the data center.
- 2) Microfilm (35 mm flowfilm) of vertical beam/sidescan records.
- 3) *SeaBeam merged tapes - SeaBeam data merged with GPS-based navigation.*
(Navigation is edited to the extent that DR courses and speeds are edited and poor fixes are removed after inspection of speeds and drift vectors between fix pairs. No editing is done on the basis of adjusting to overlapping SeaBeam swaths.)
- 4) Archive contour plots - 8 inches/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 SeaBeam 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 February 1994



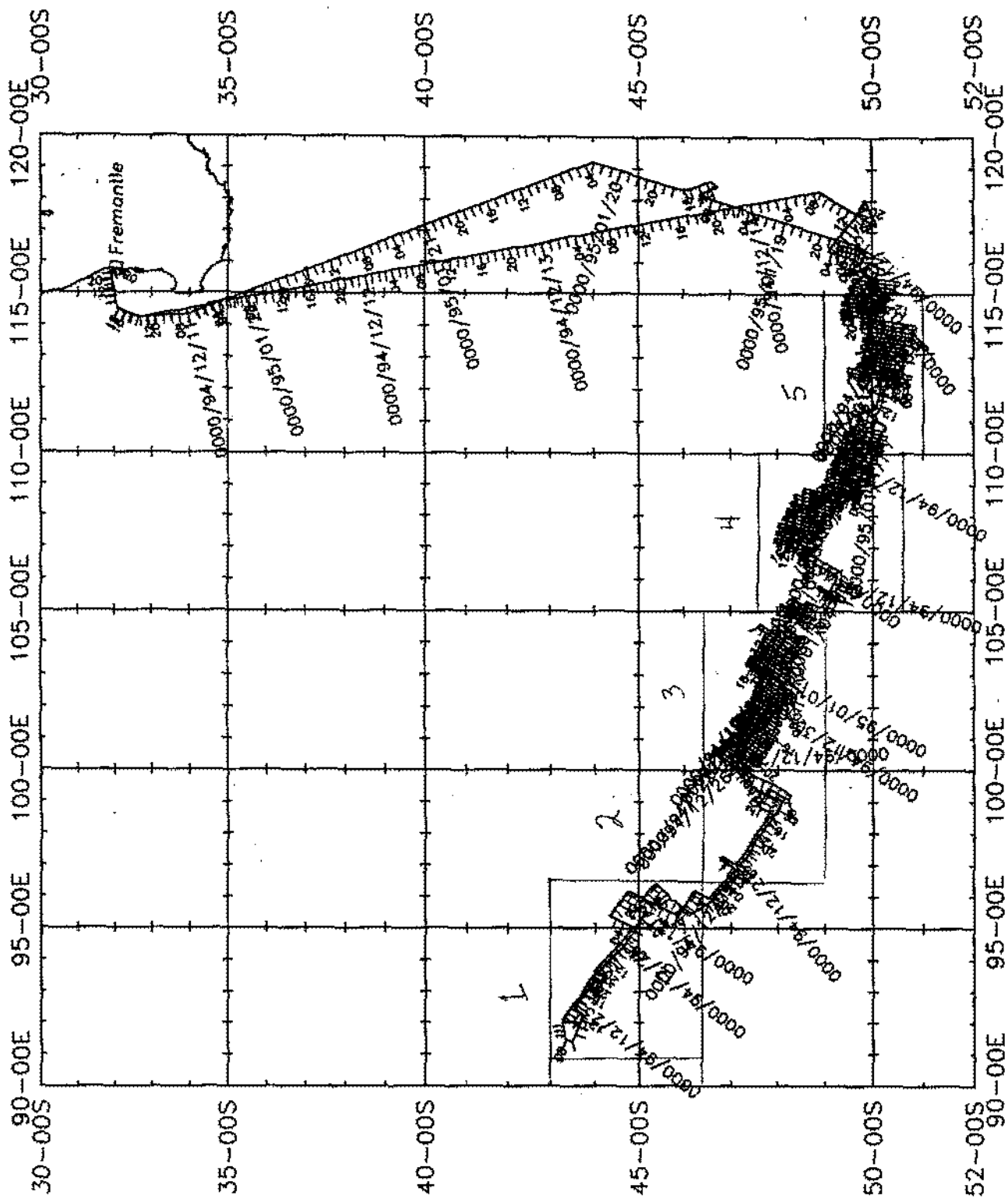
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WESTWARD EXPEDITION LEG 9
 =====

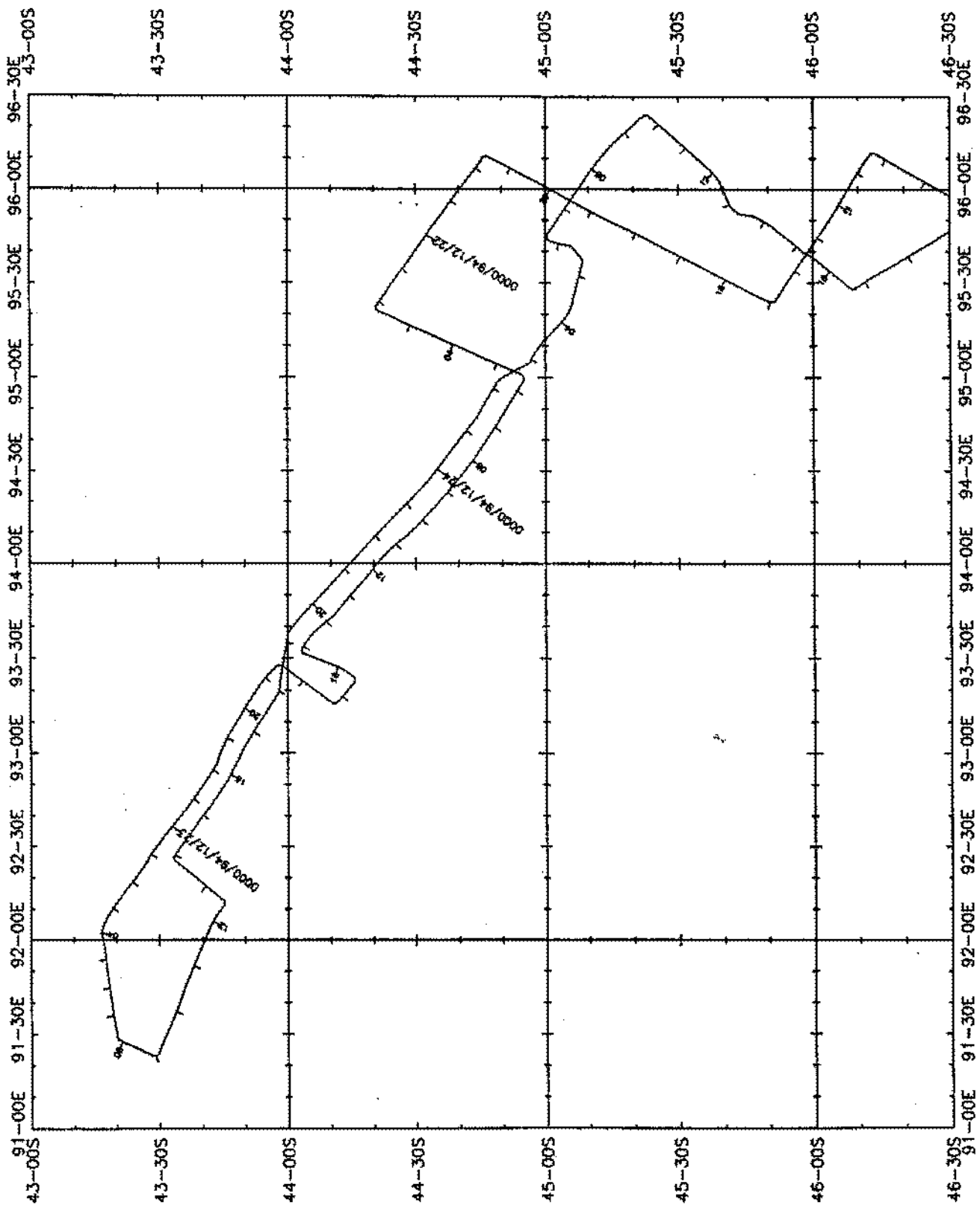
CHIEF SCIENTIST: James Cochran, Lamont-Doherty Earth Observatory
 CO-CHIEF SCIENTIST: Jean Christophe Sempere, Univ. of Washington
 PORTS: Fremantle - Fremantle, Australia
 DATES: 10 December 1994- 22 January 1995
 SHIP: R/V Melville

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 11157 miles	Magnetics - 10967 miles
Bathymetry - 11052 miles	Seismic Reflection - none collected
Sea Beam - 11052 miles	Gravity - 11145 miles

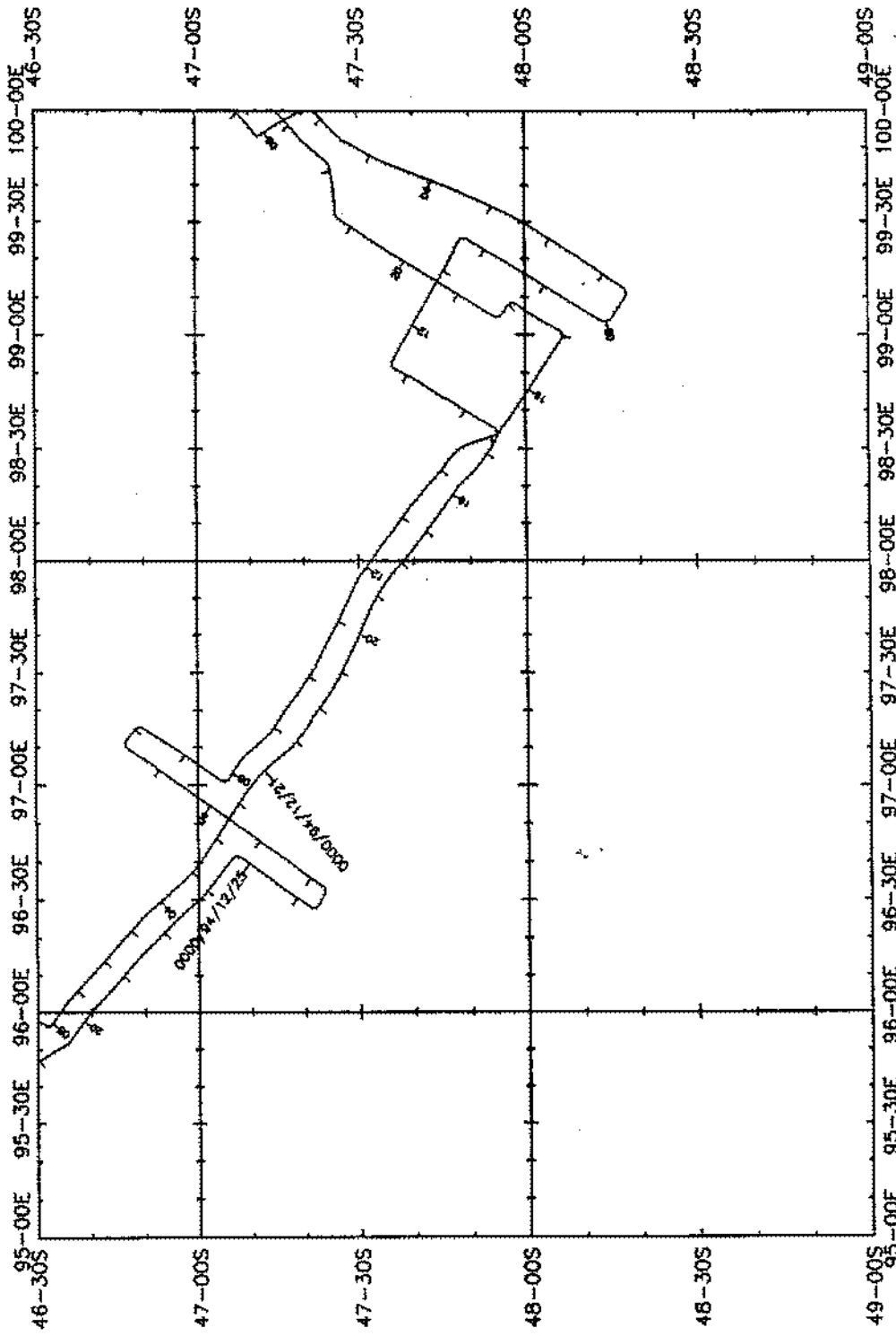


WESTWARD, Leg 9 (WEST09MV)



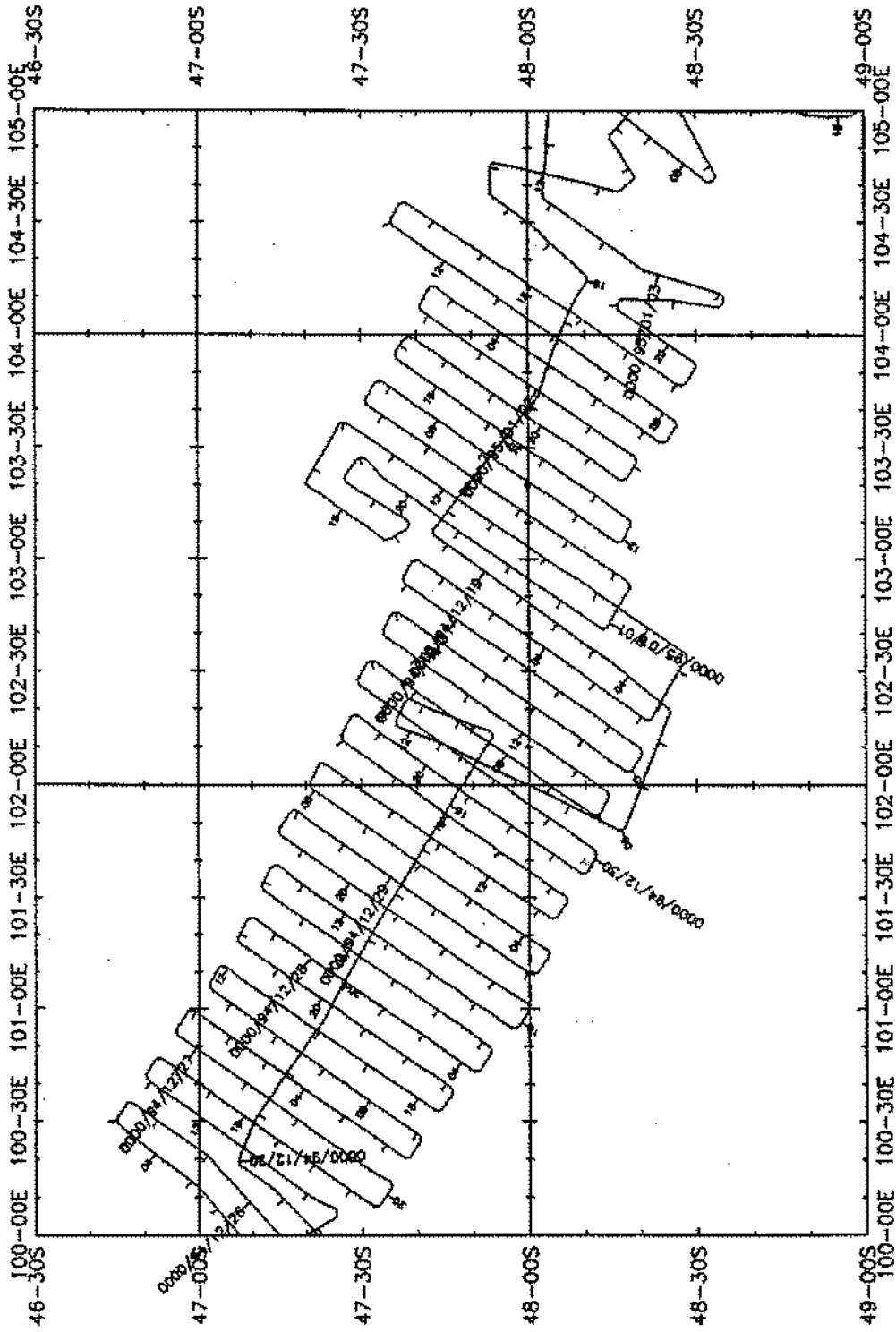
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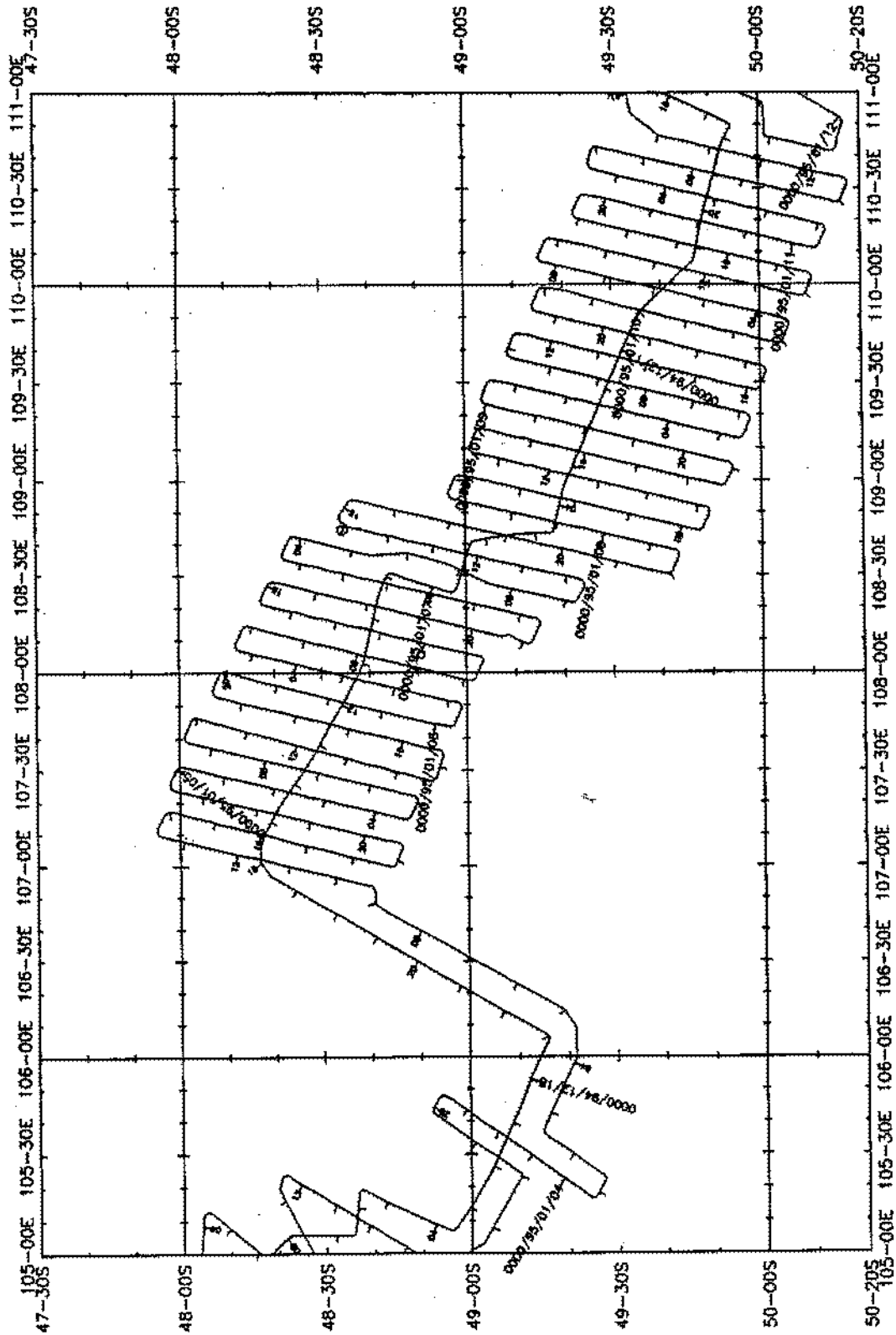
WESTWARD, Leg 9 (WEST09MV) area 2

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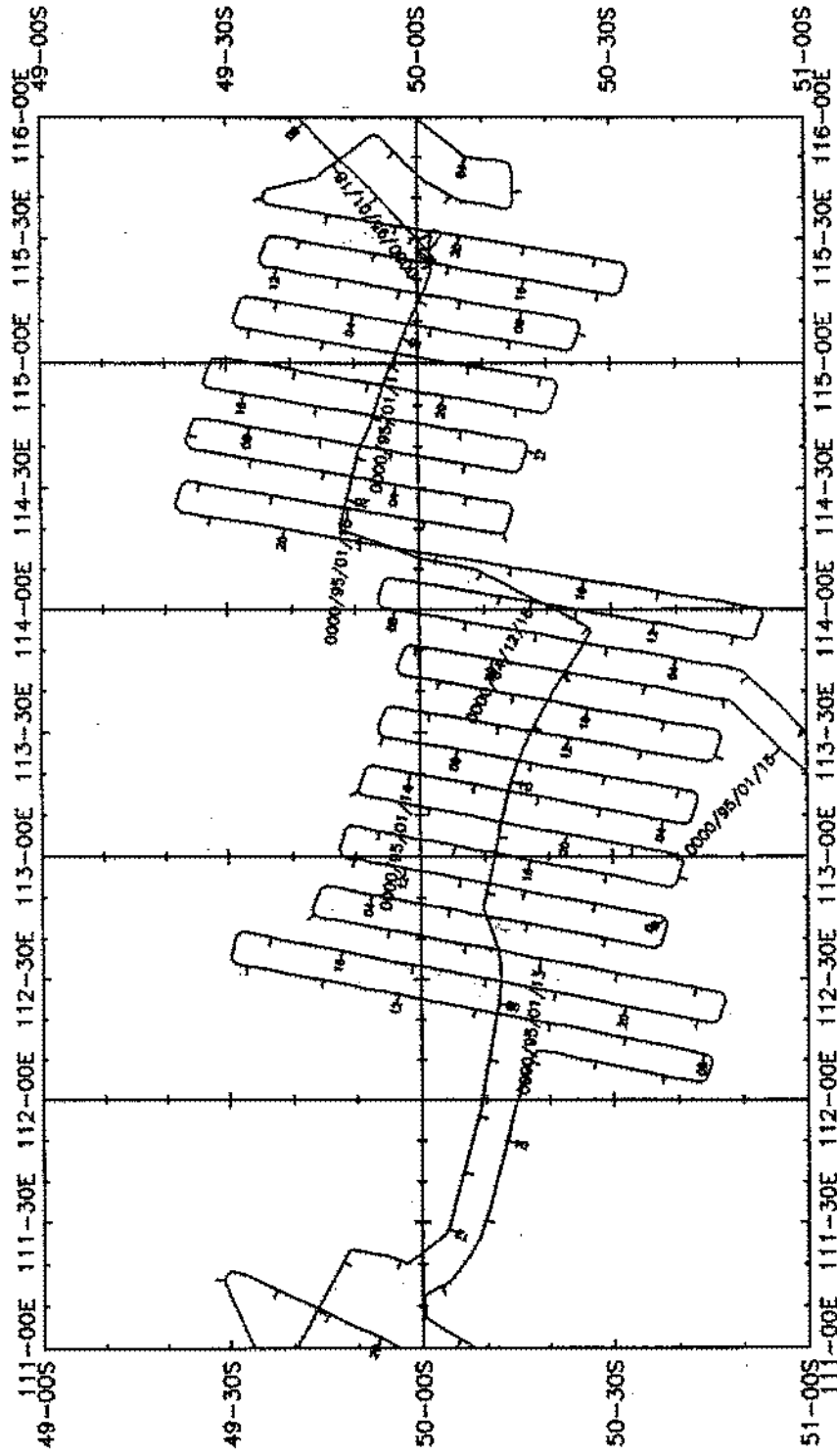
WESTWARD, Leg 9 (WEST09MV) area 3

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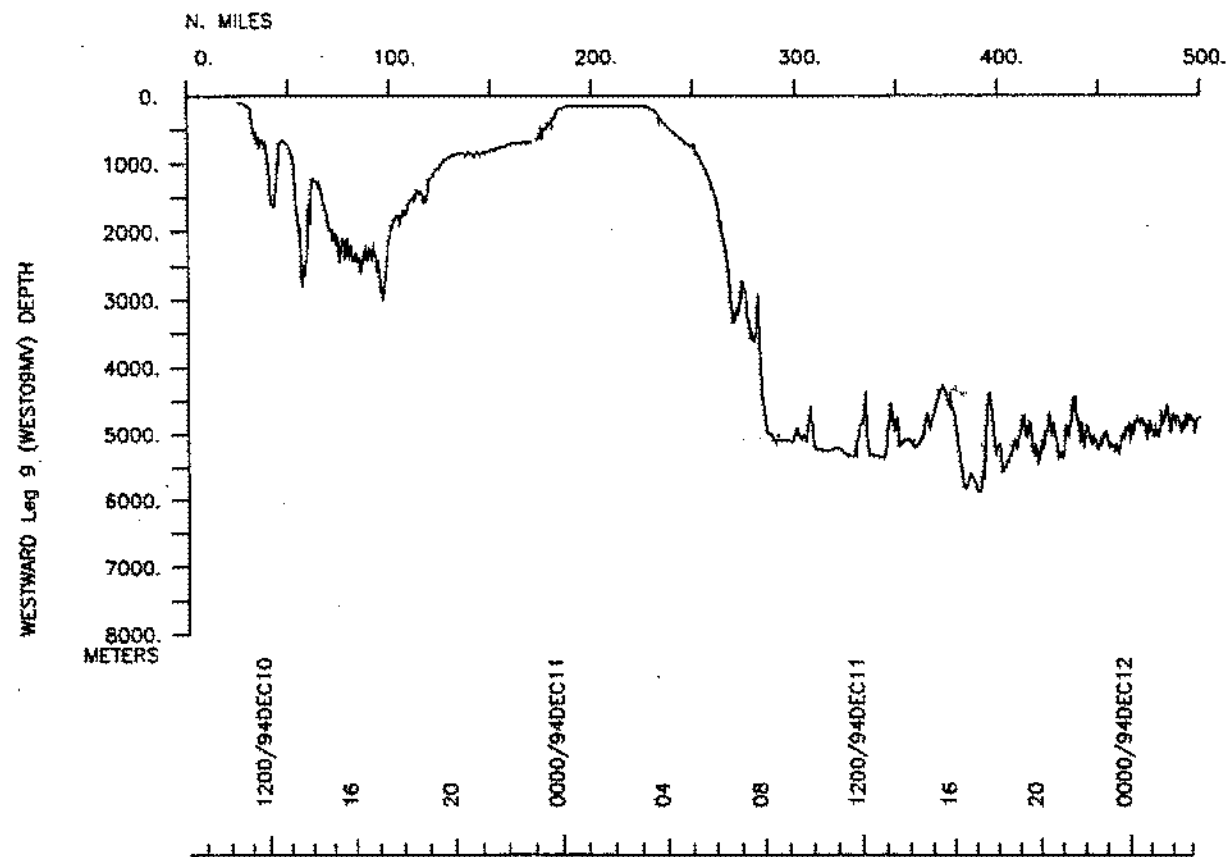
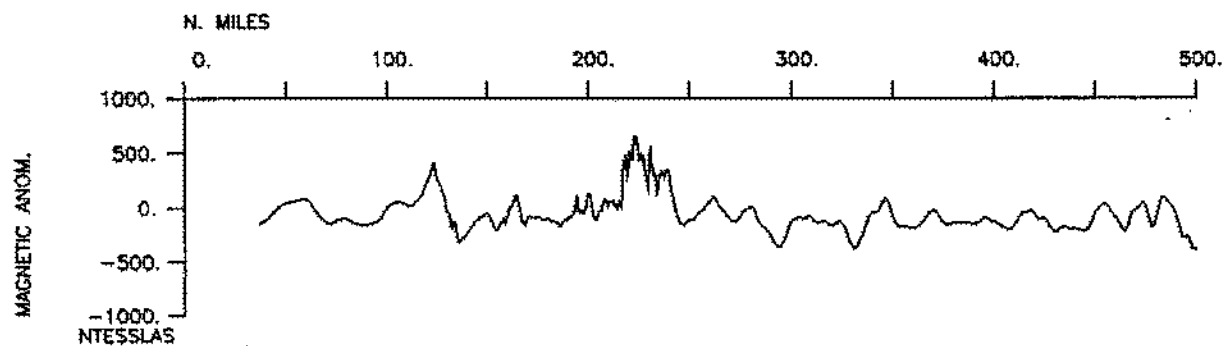
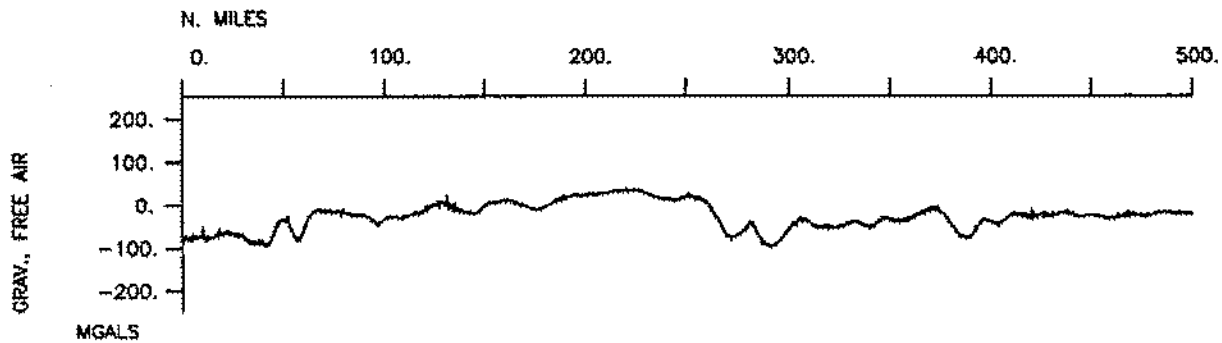
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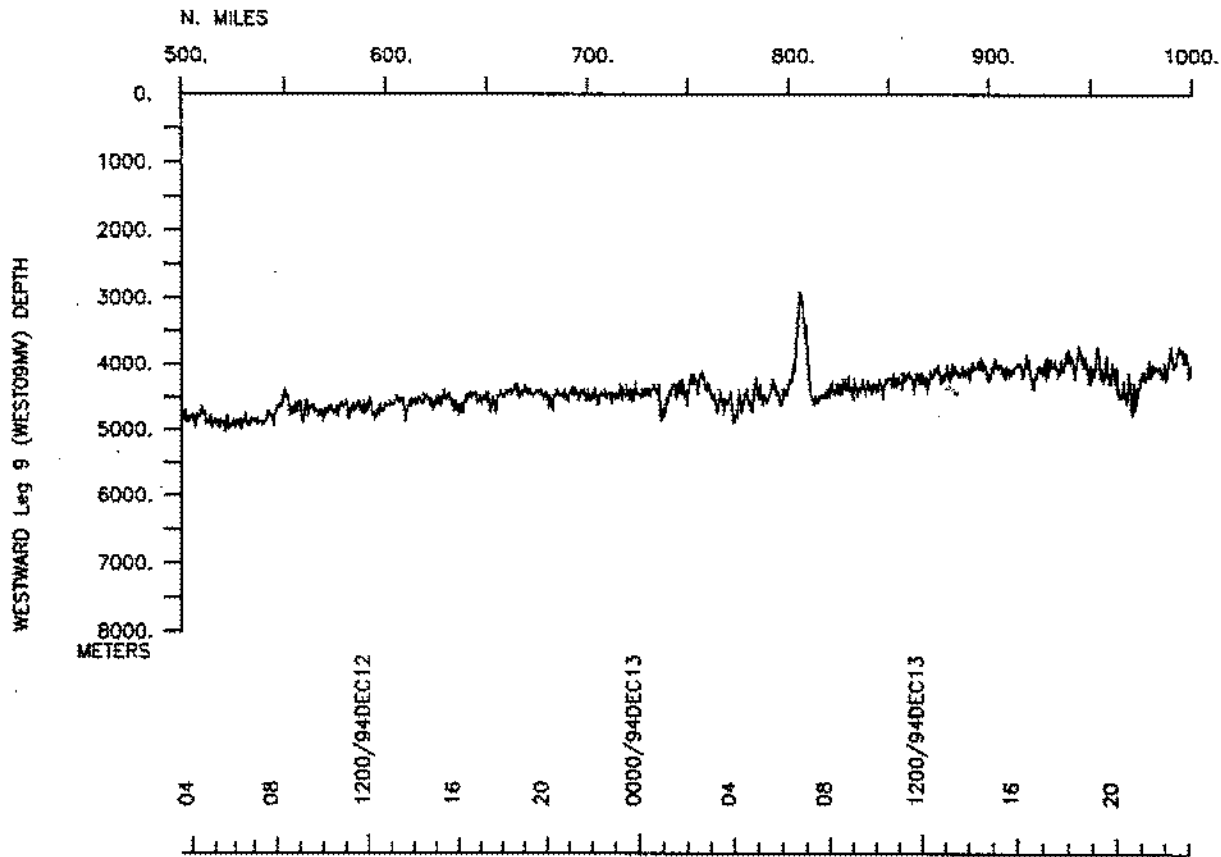
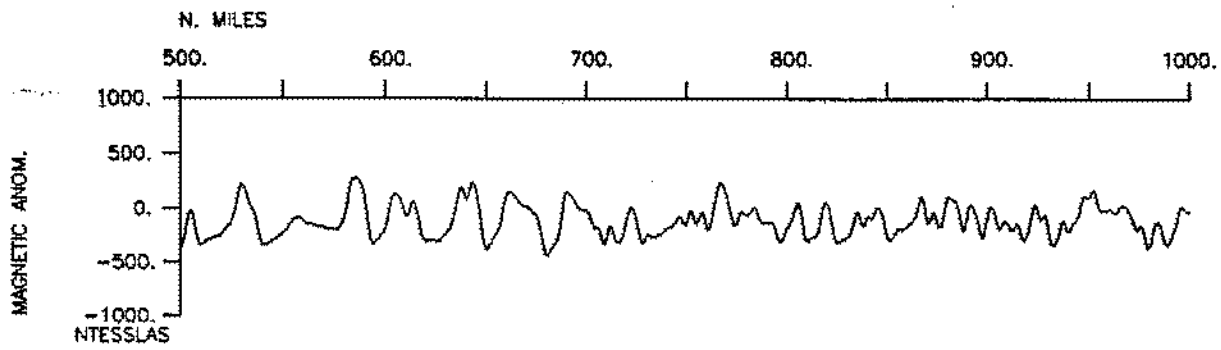
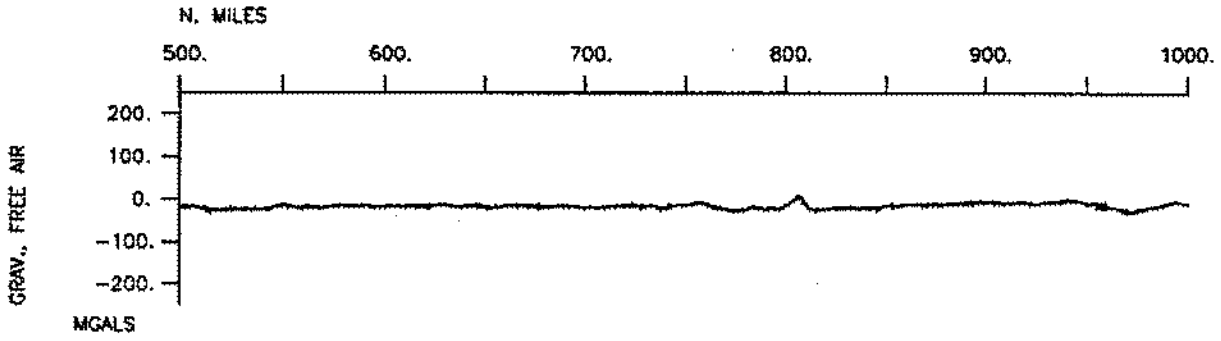
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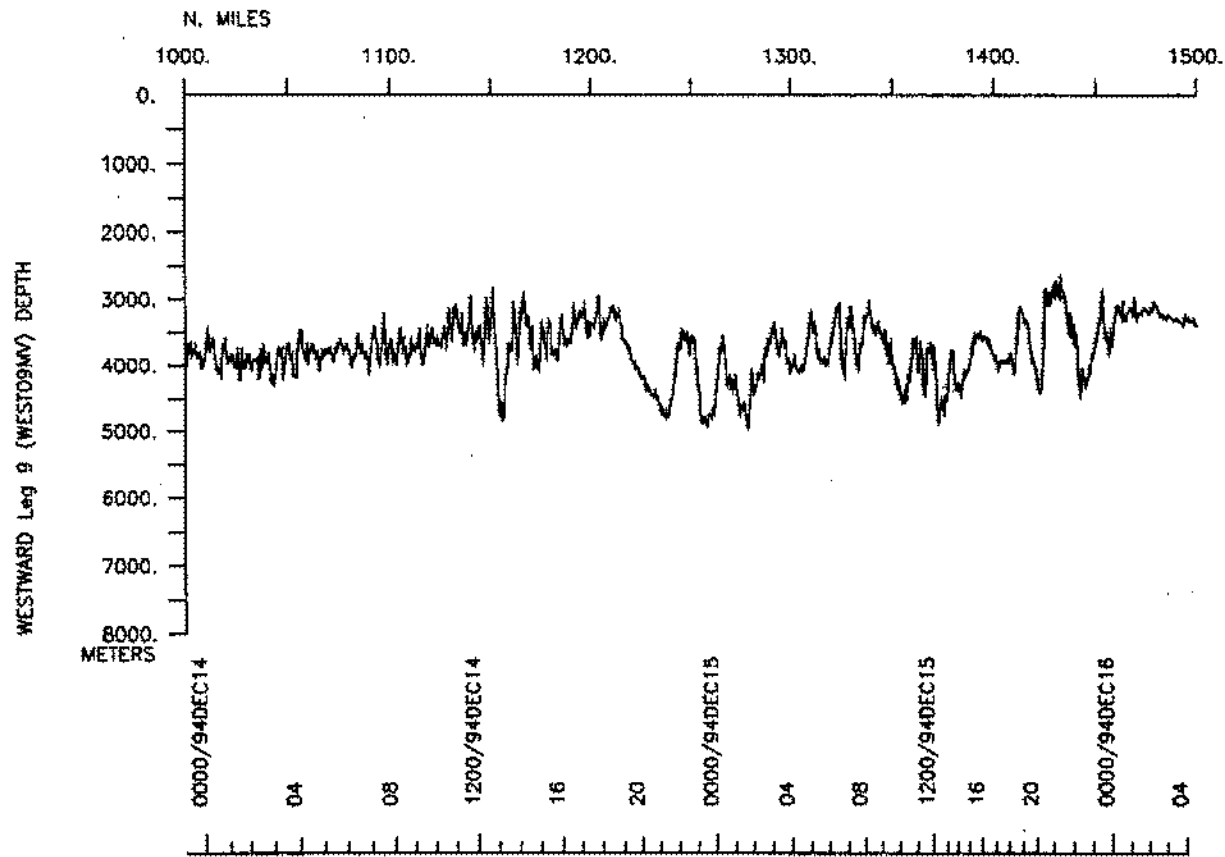
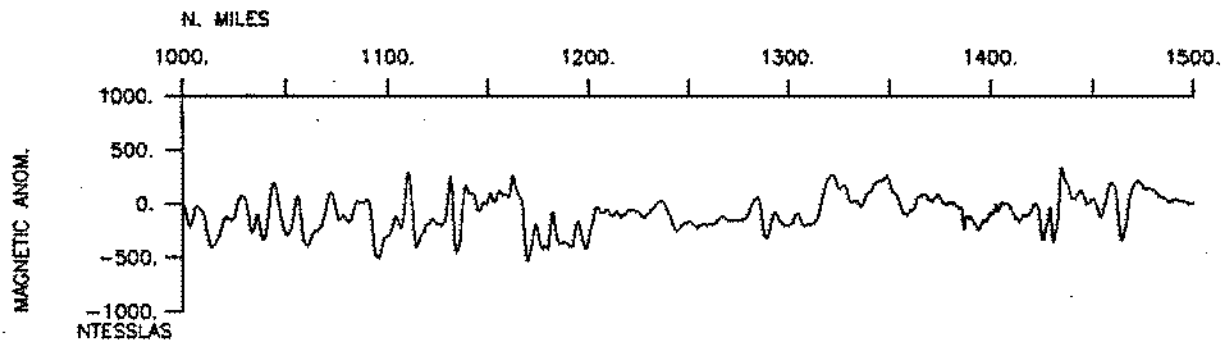
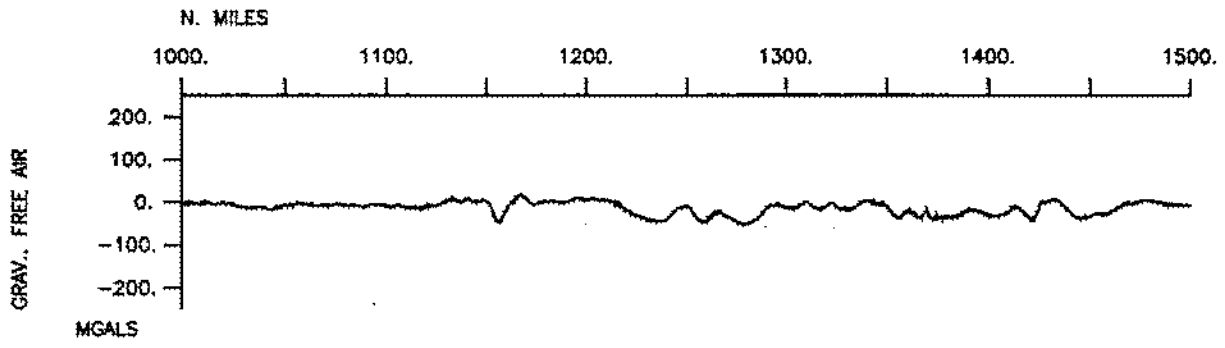


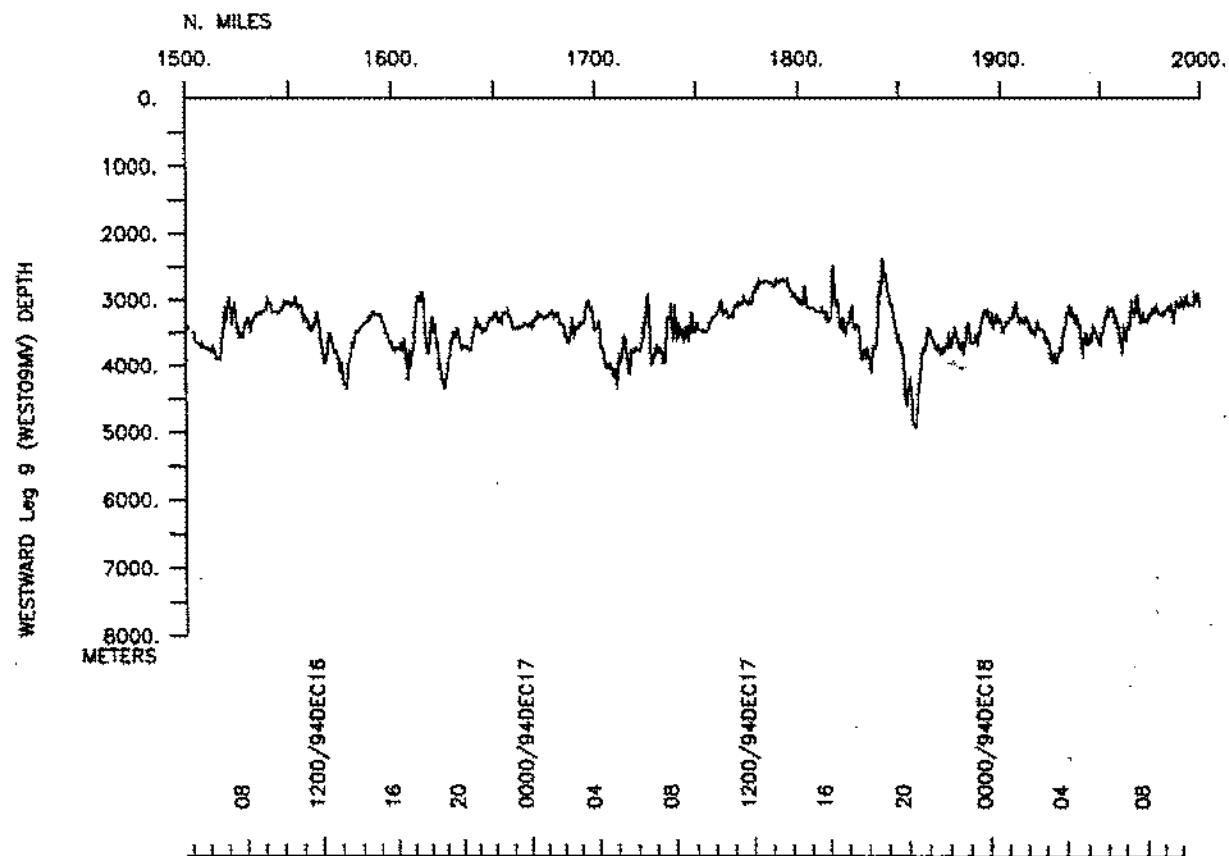
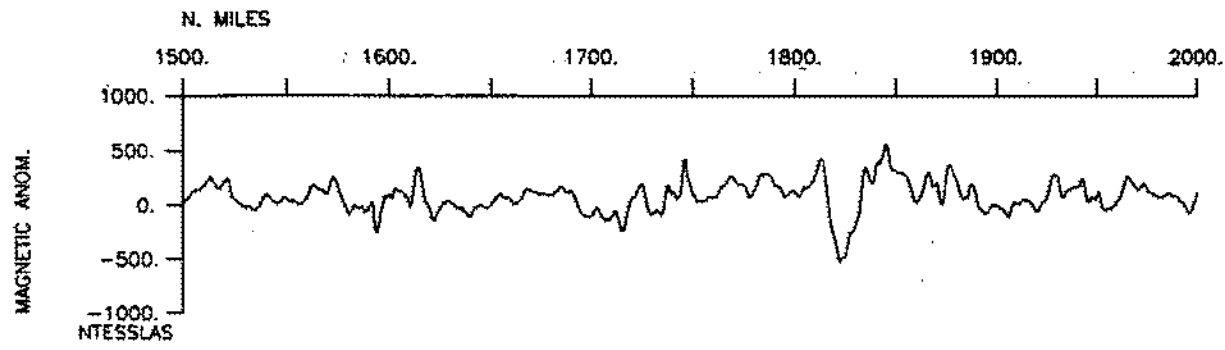
WESTWARD, Leg 9 (WEST09MV) area 5

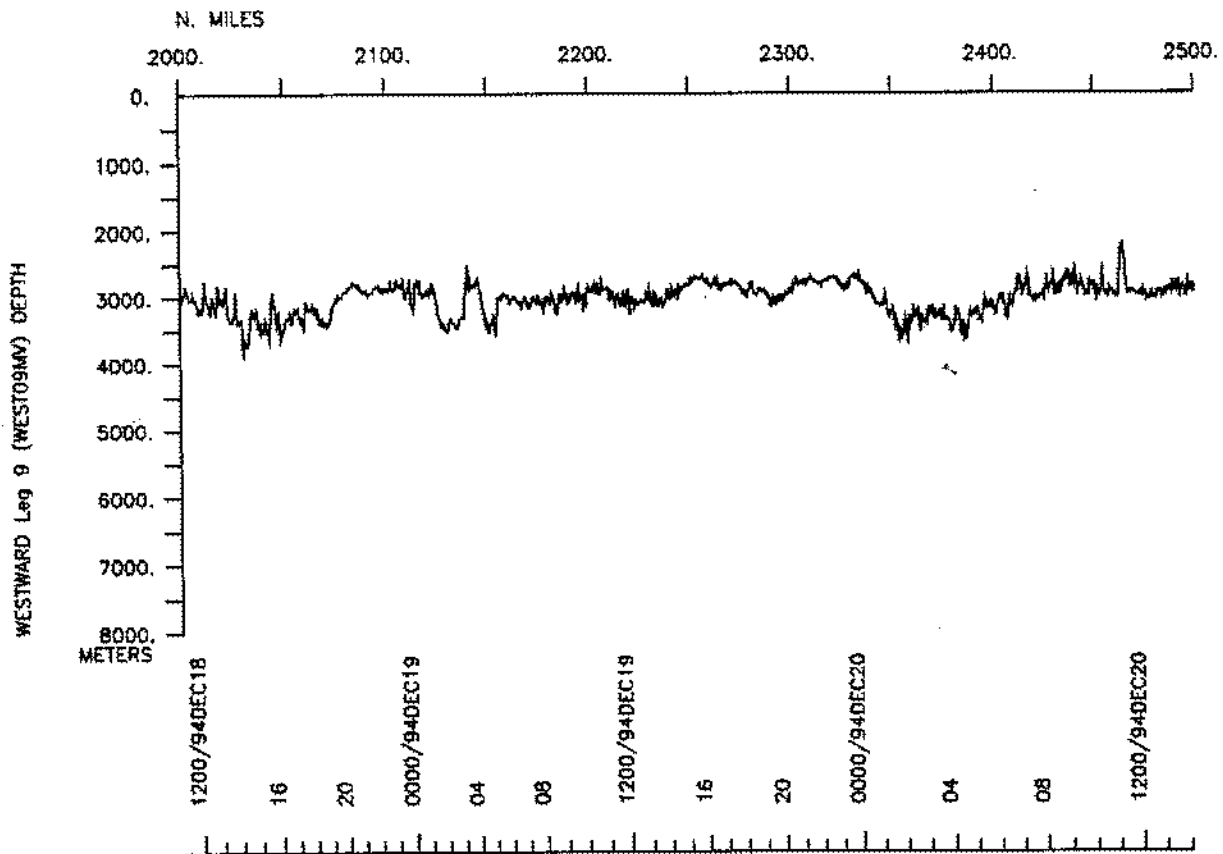
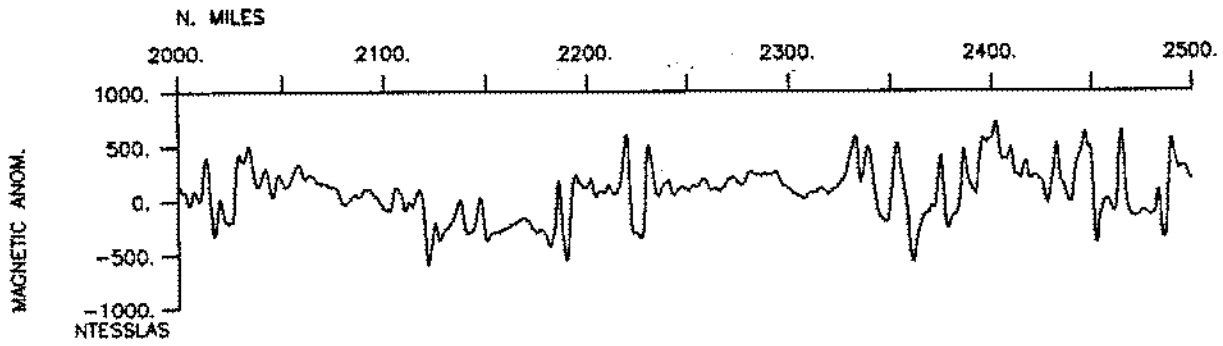
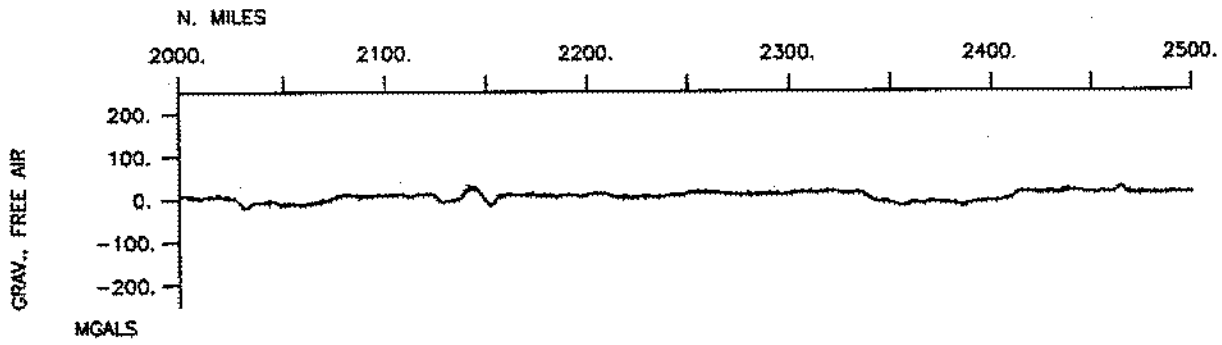
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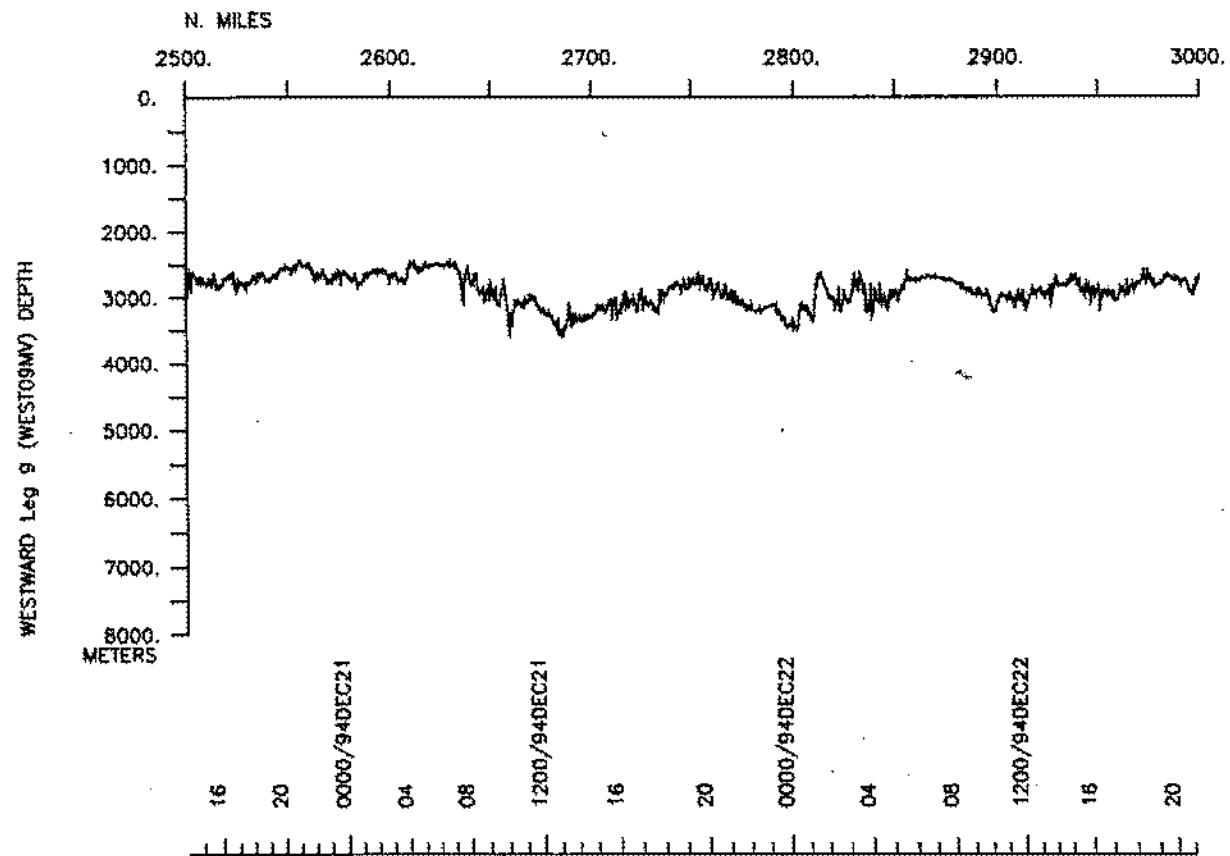
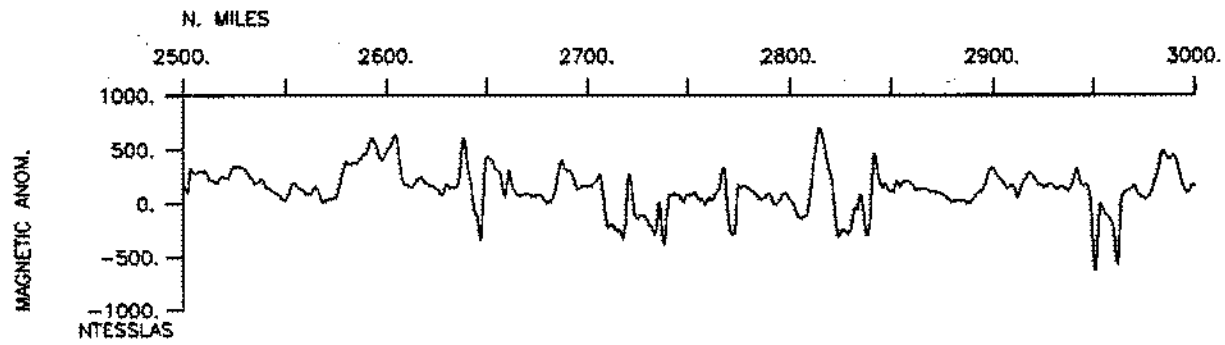
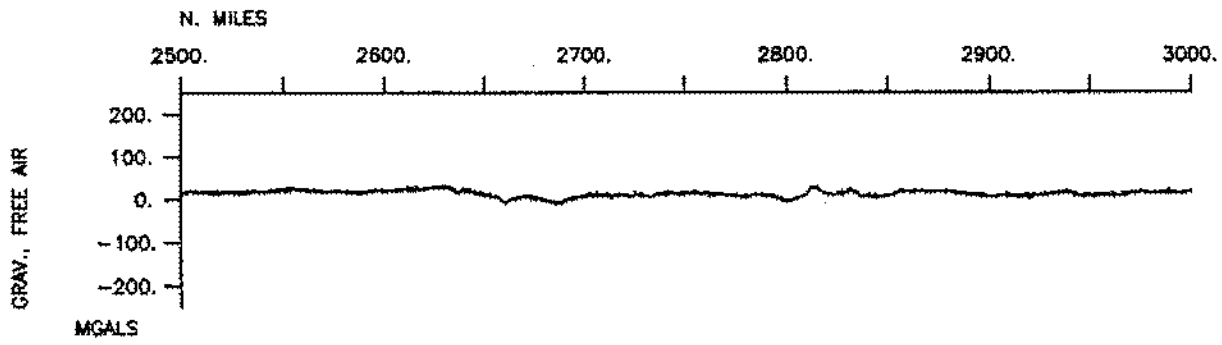


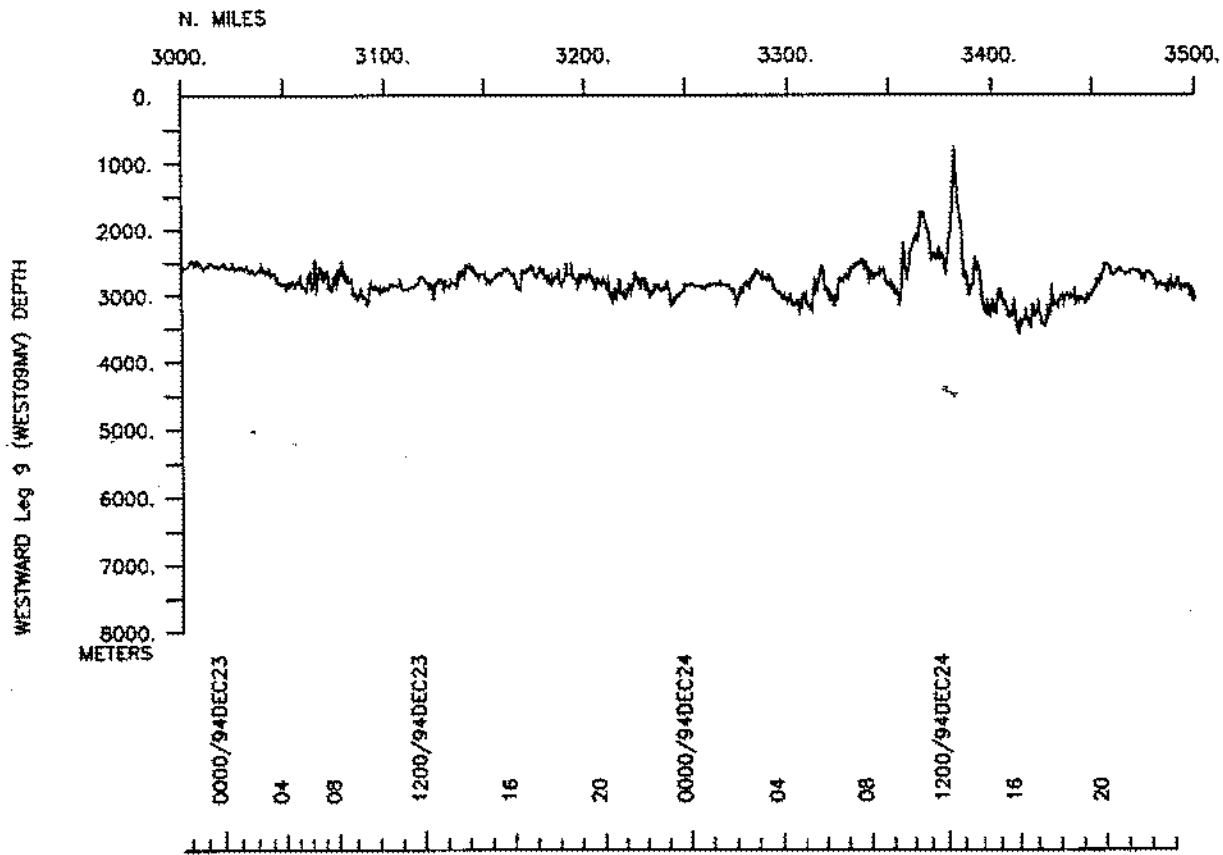
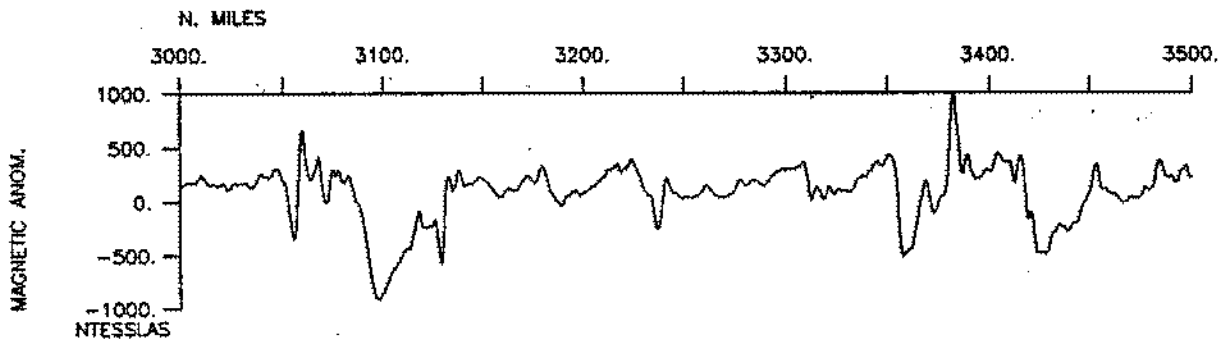
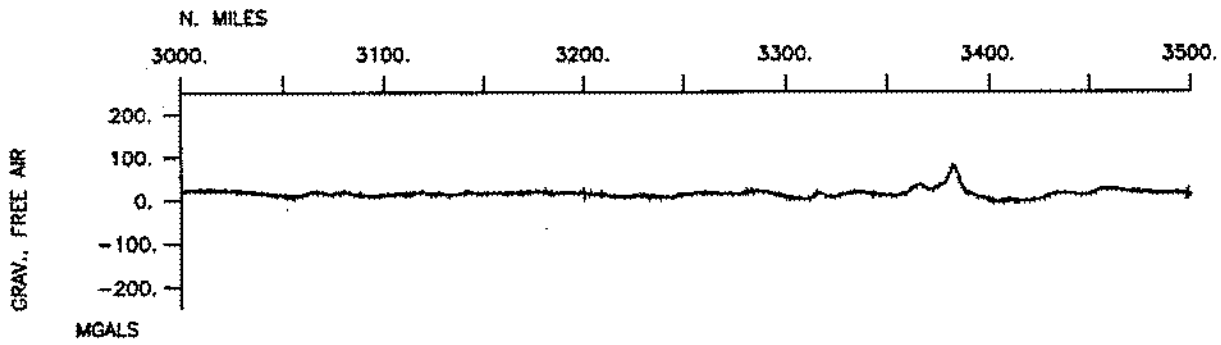


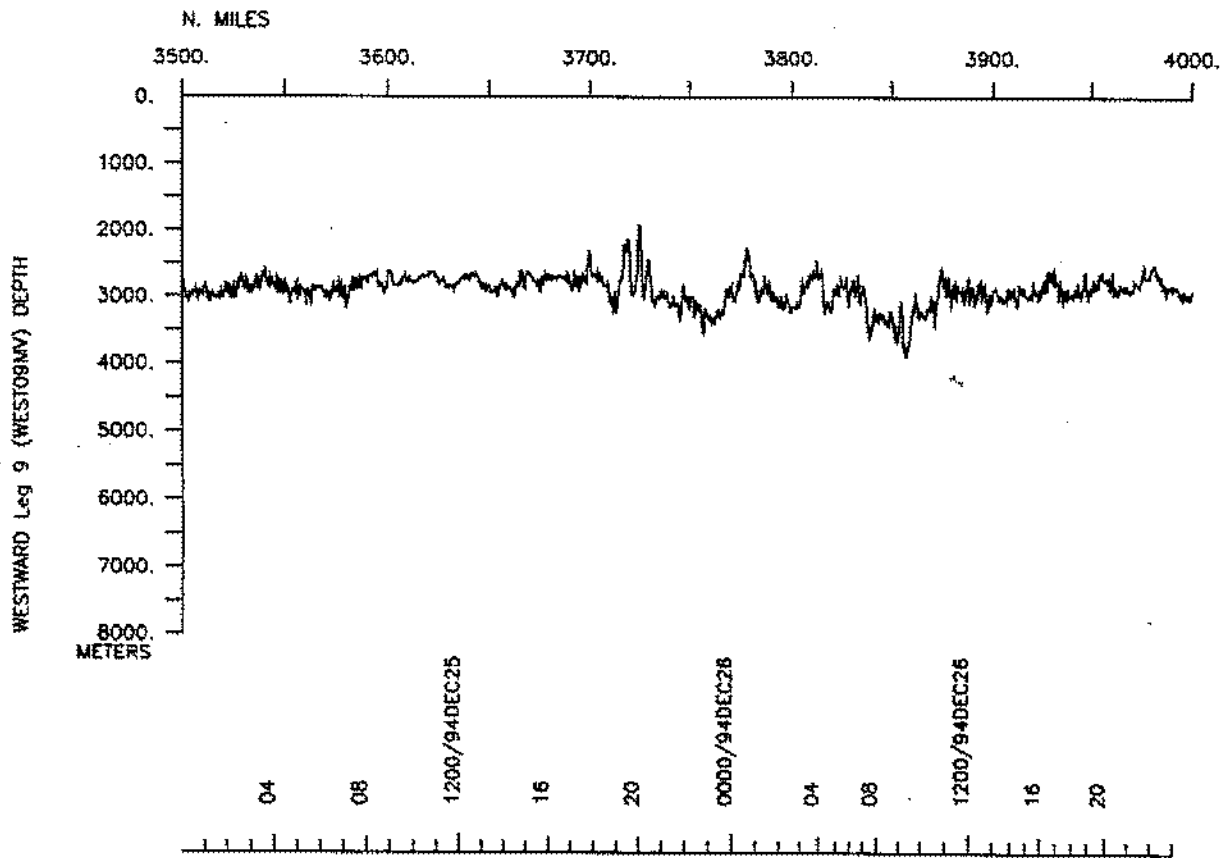
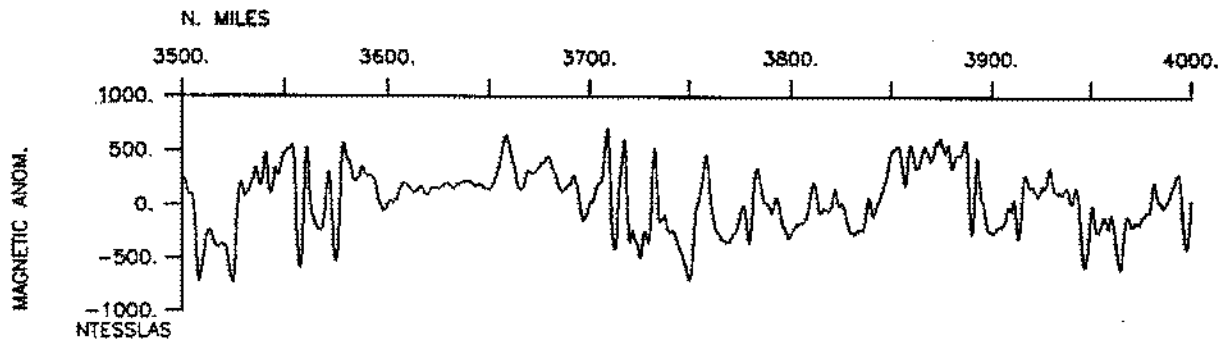


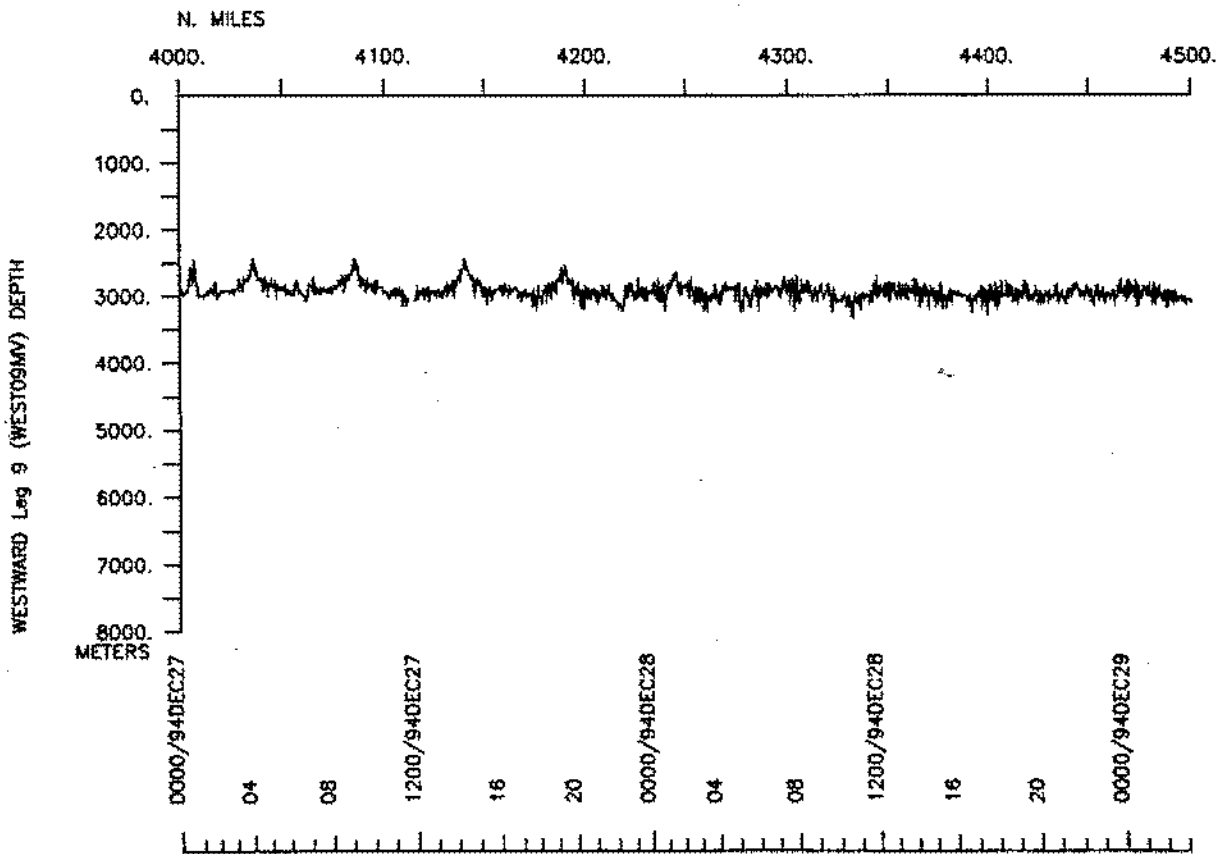
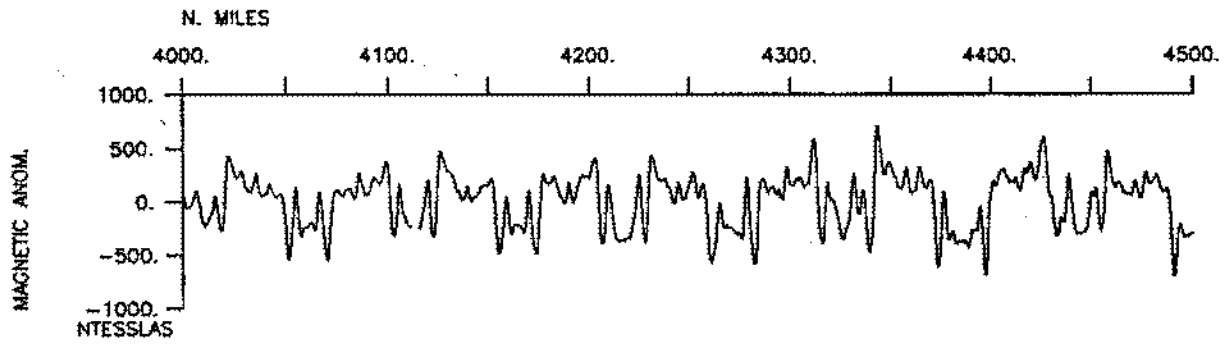
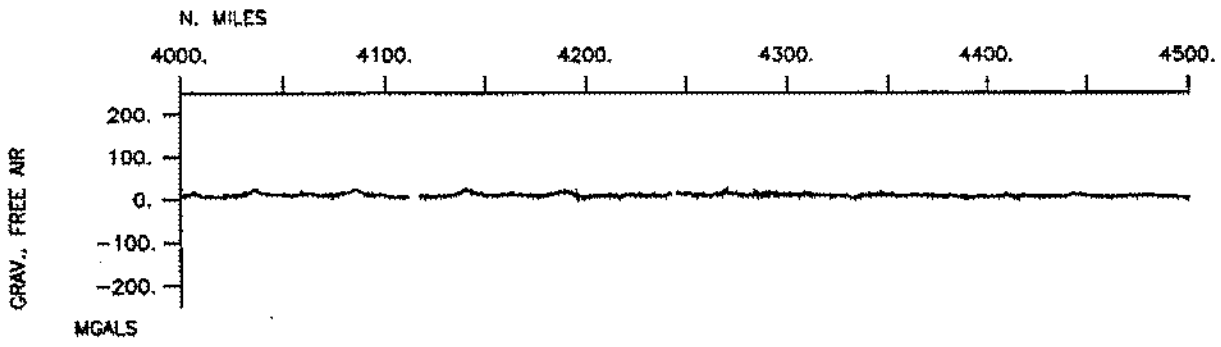


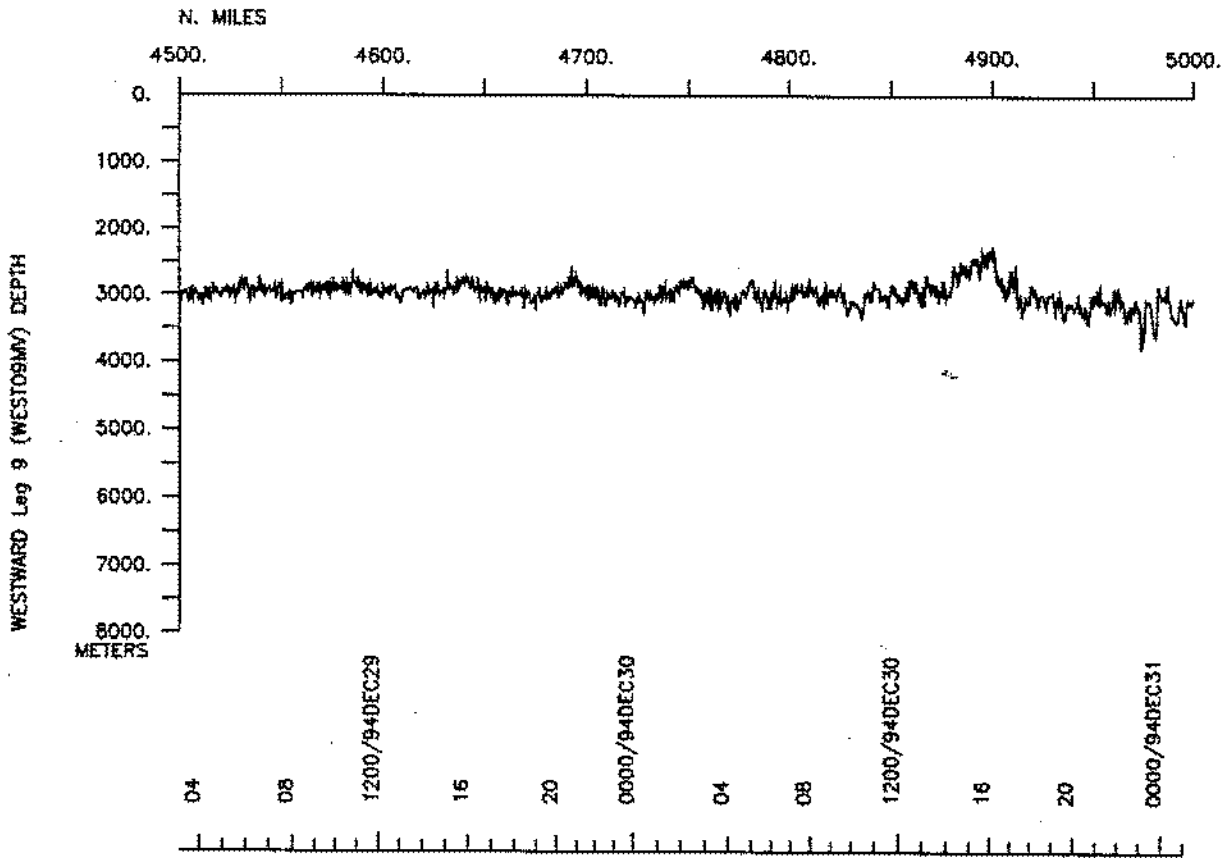
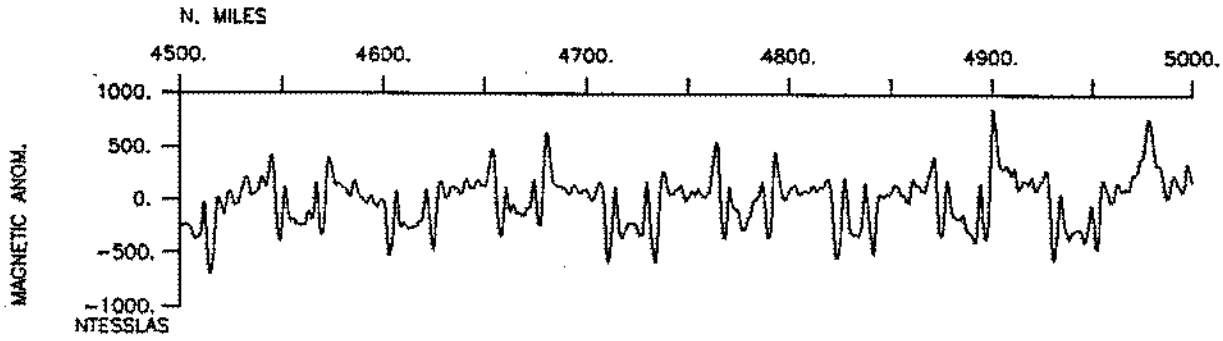
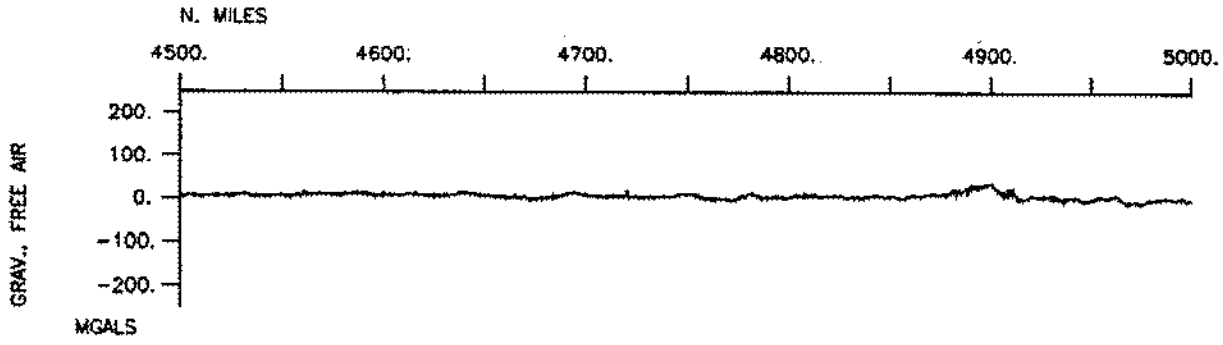


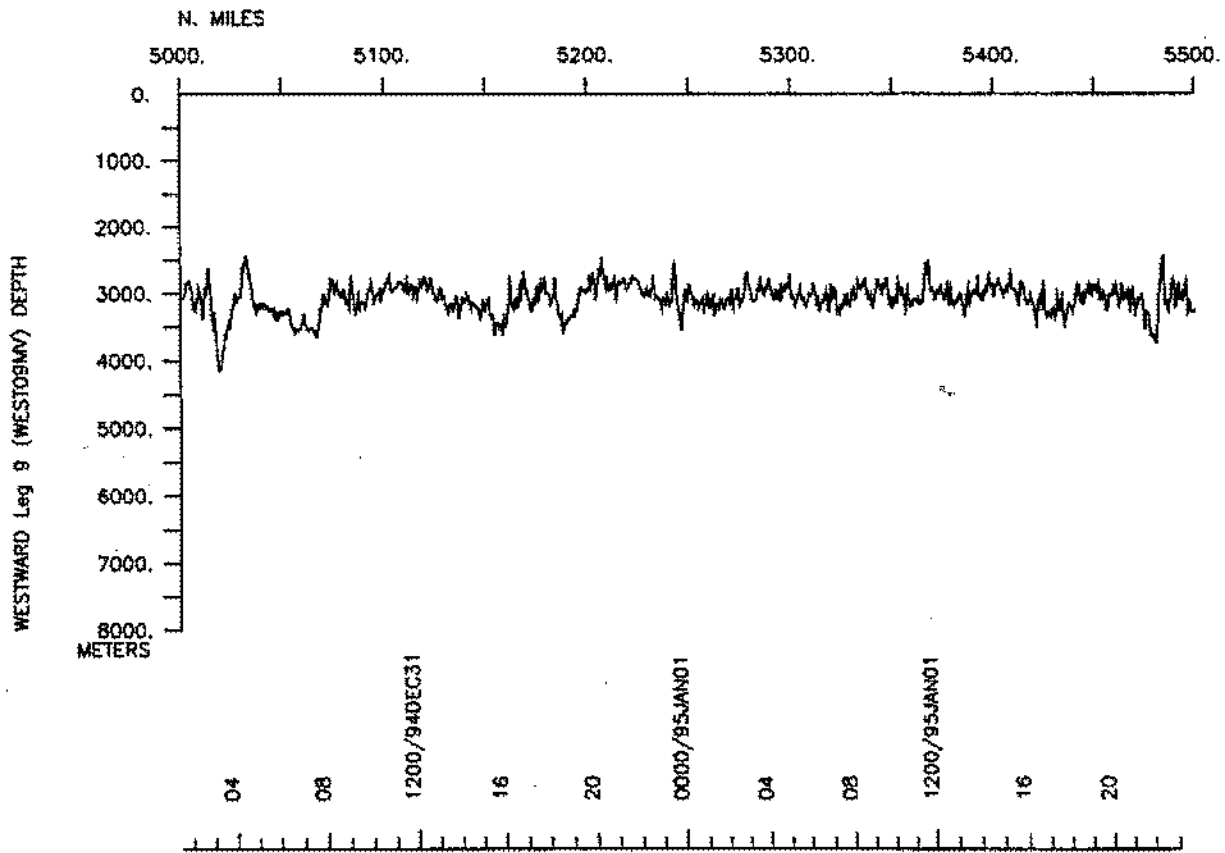
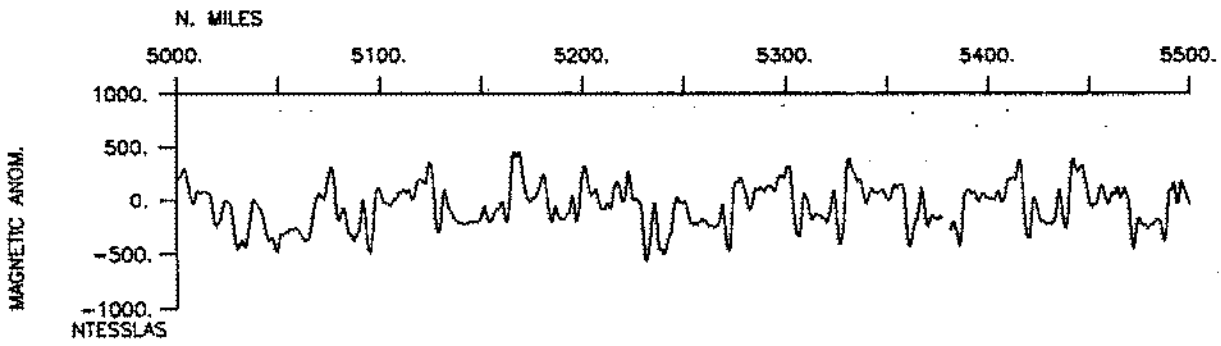
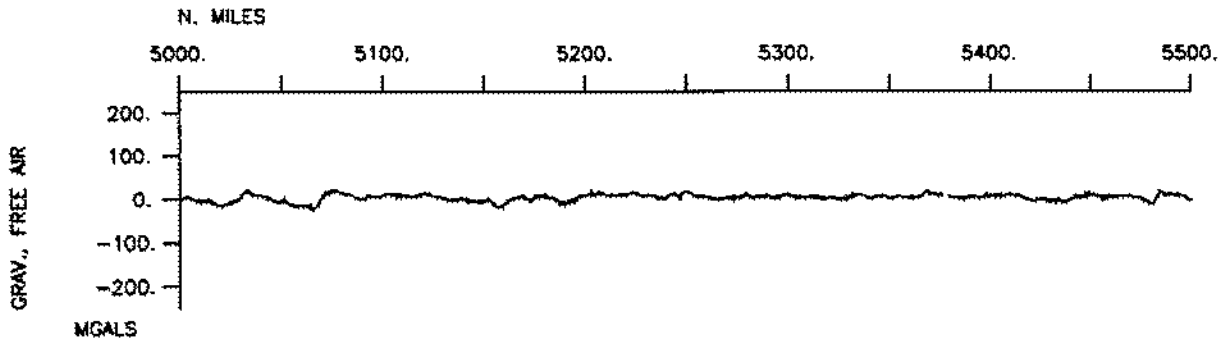


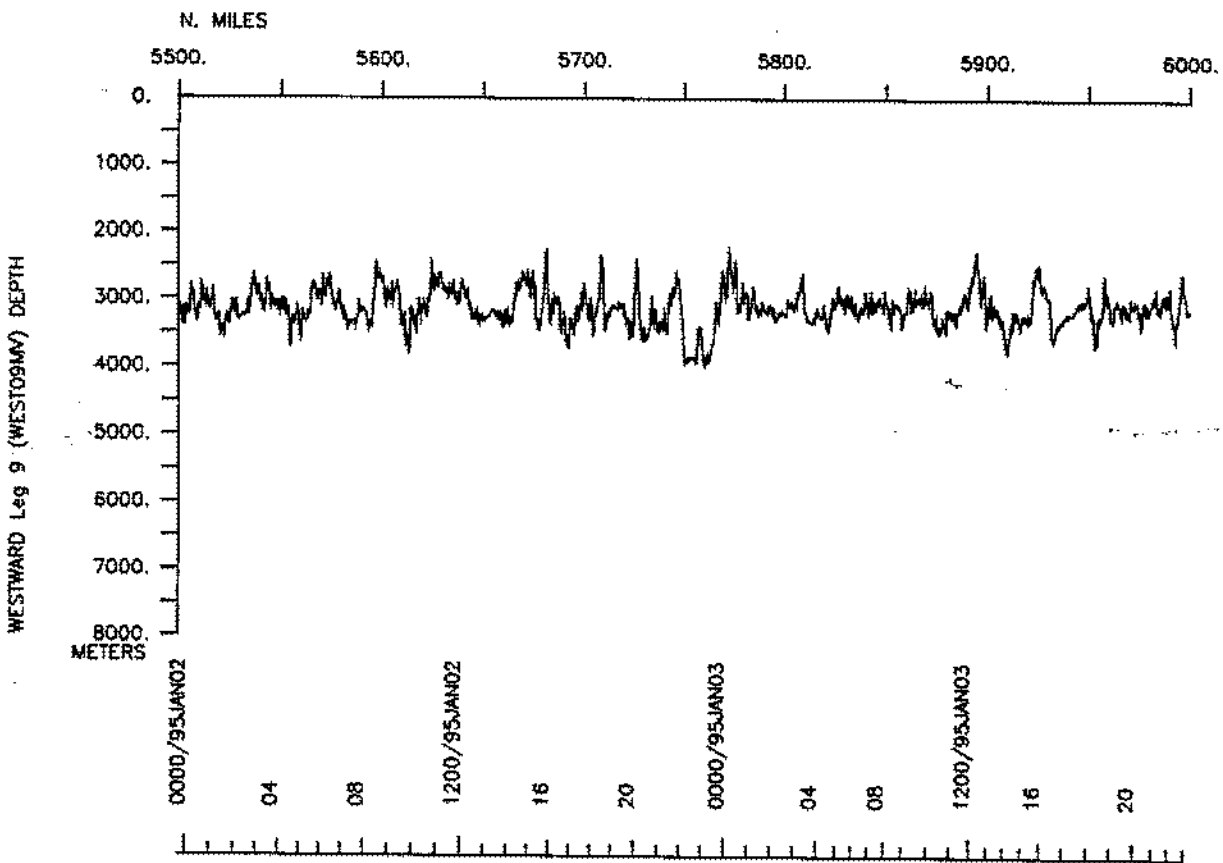
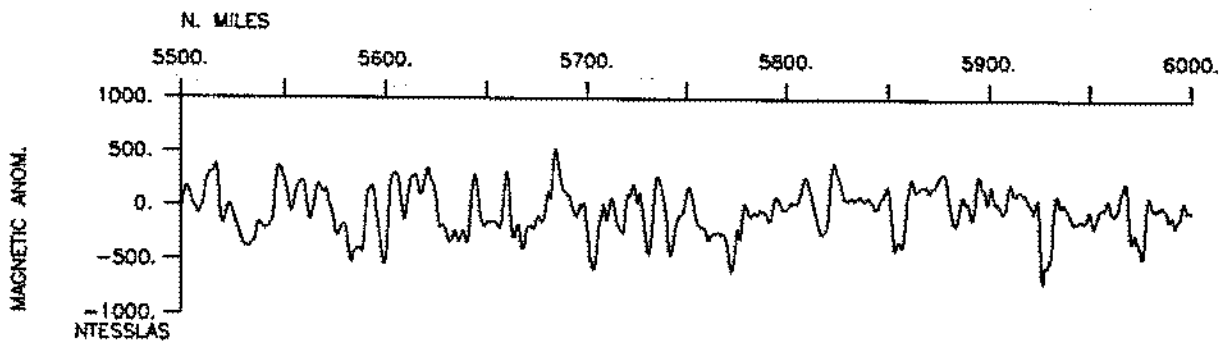
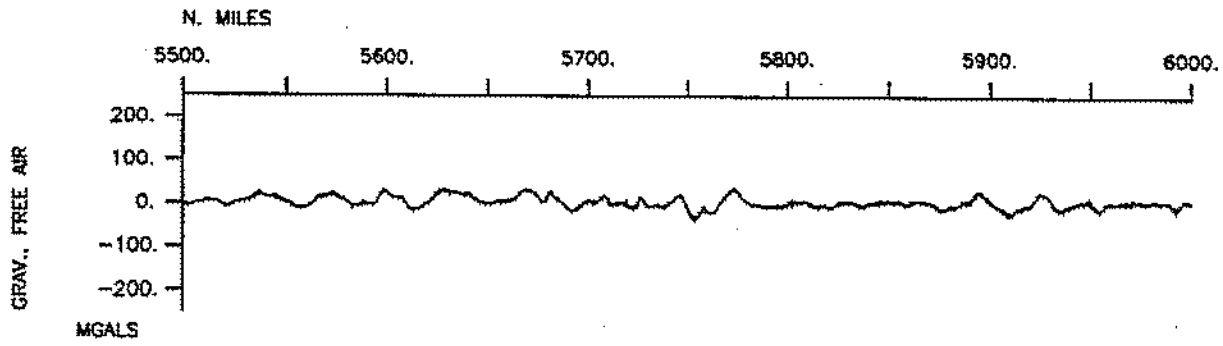


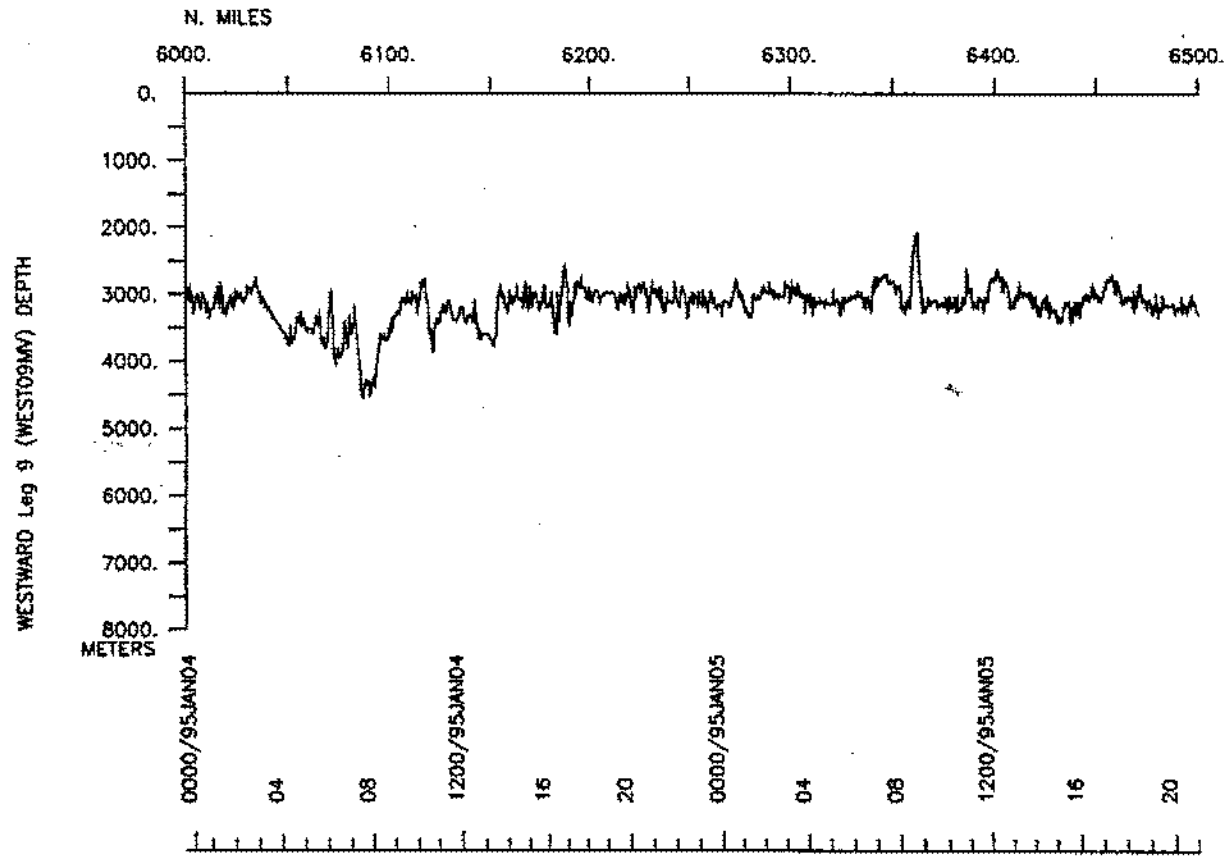
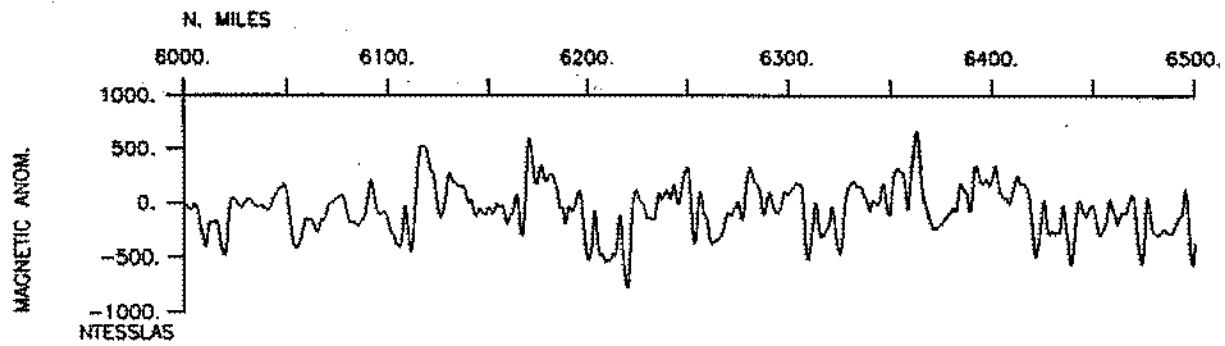
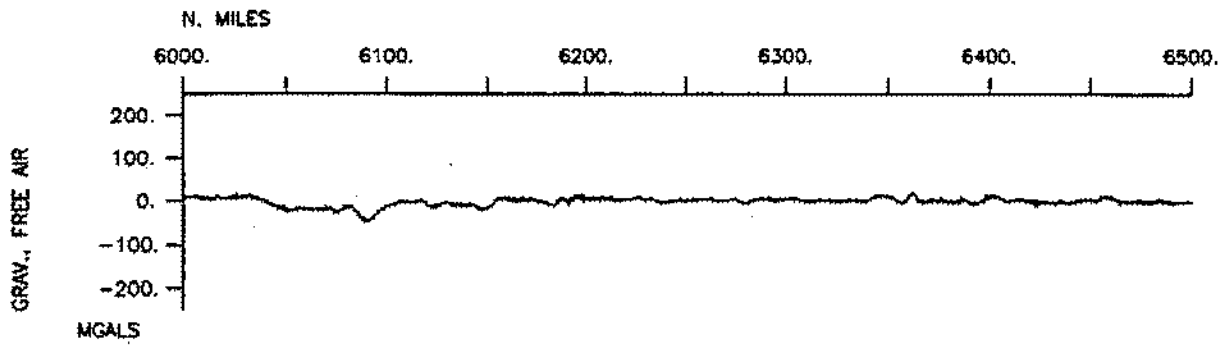


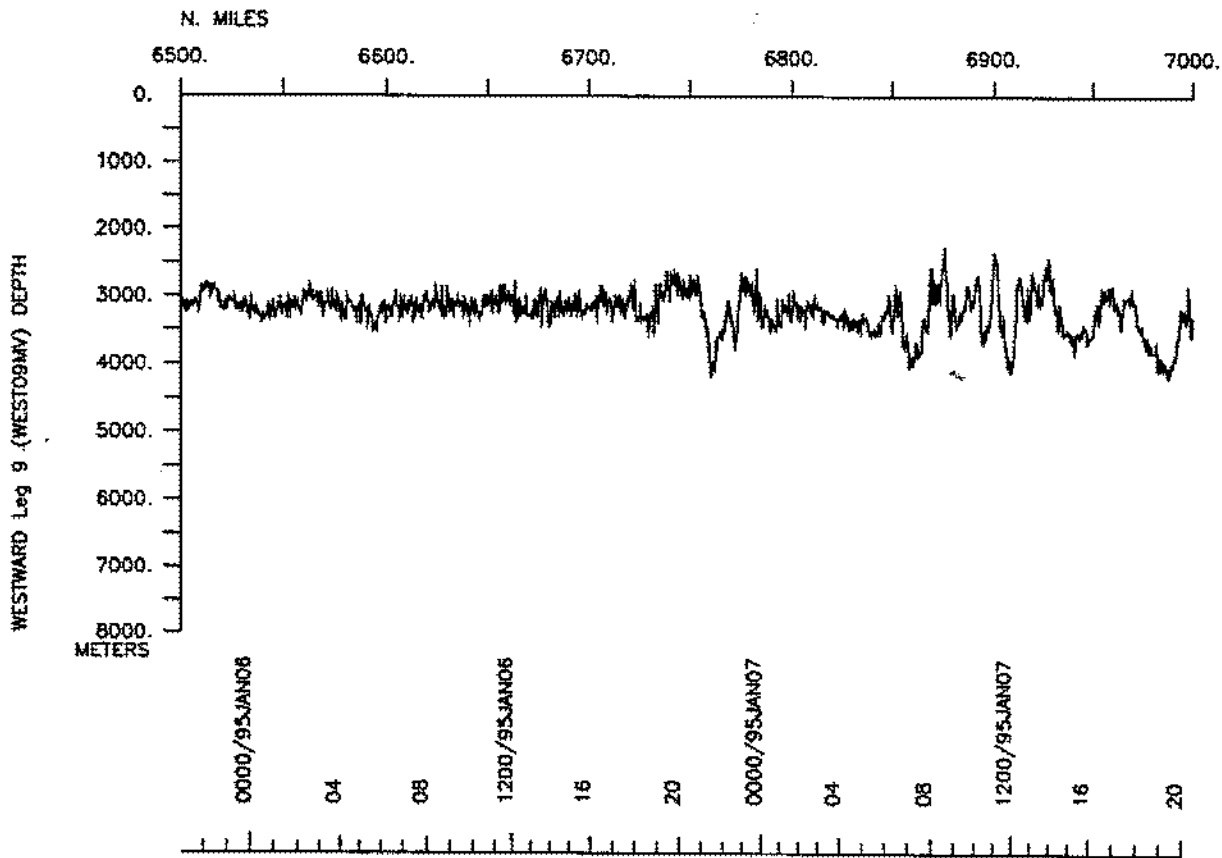
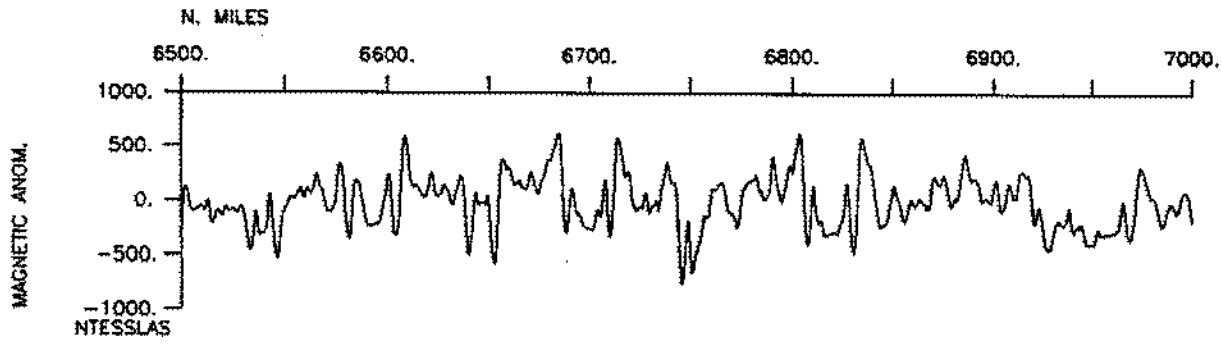
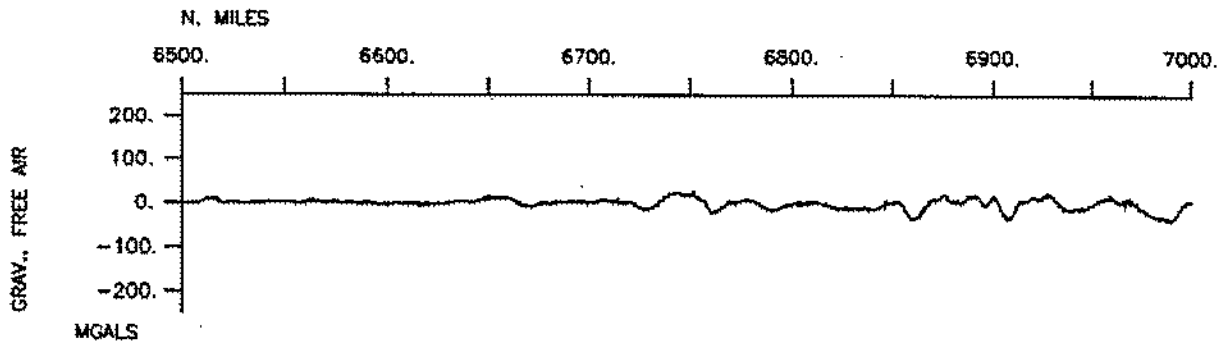


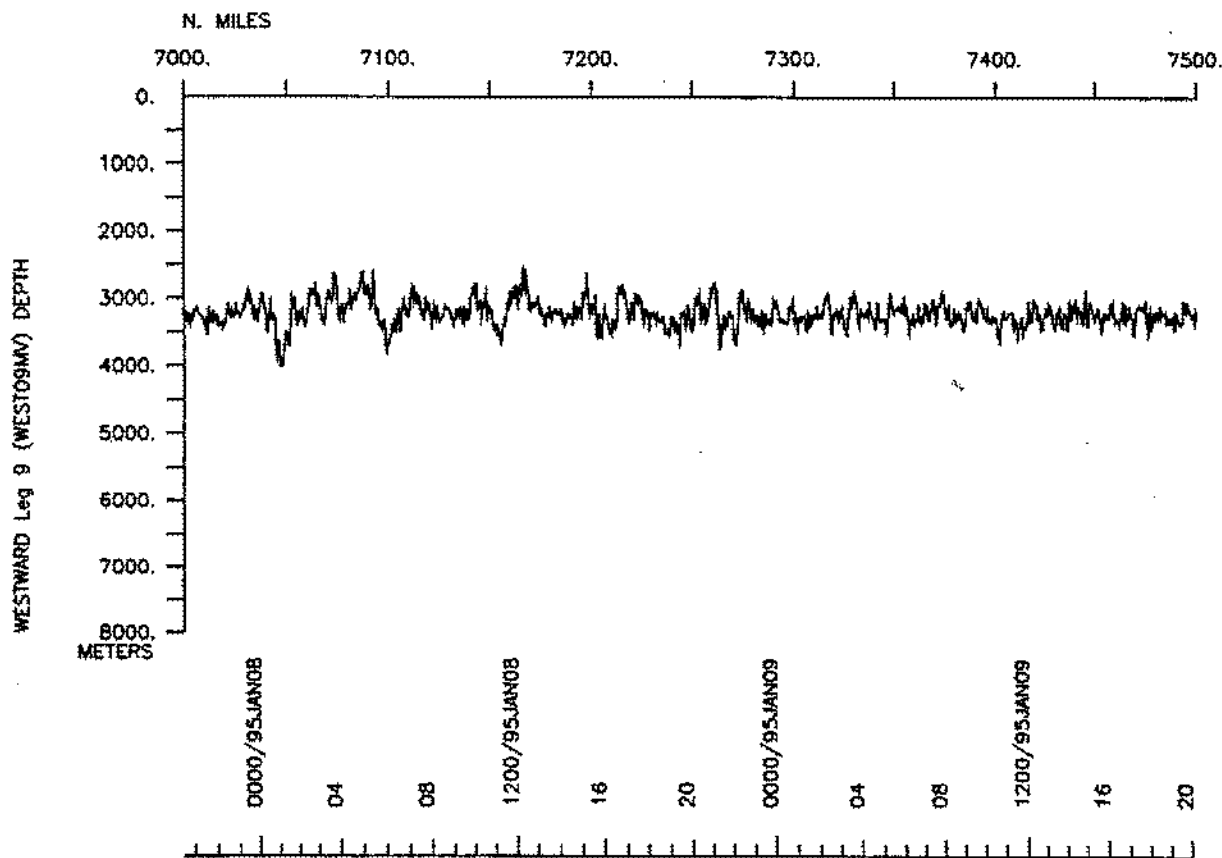
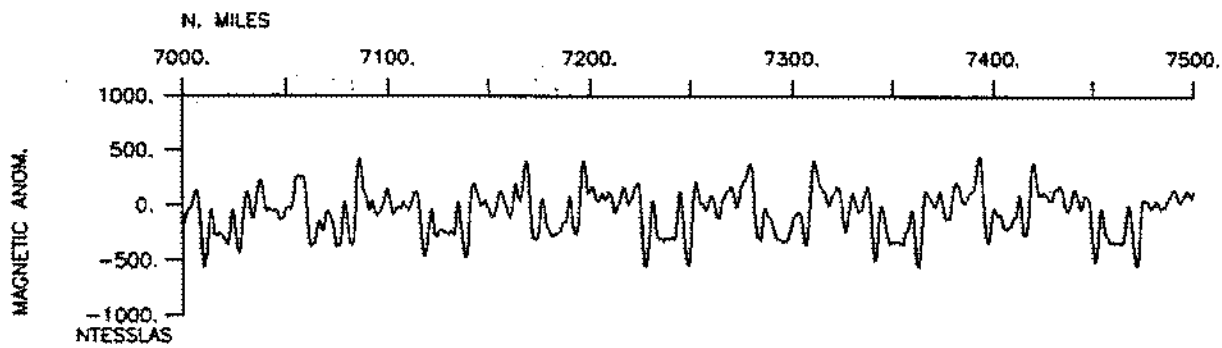
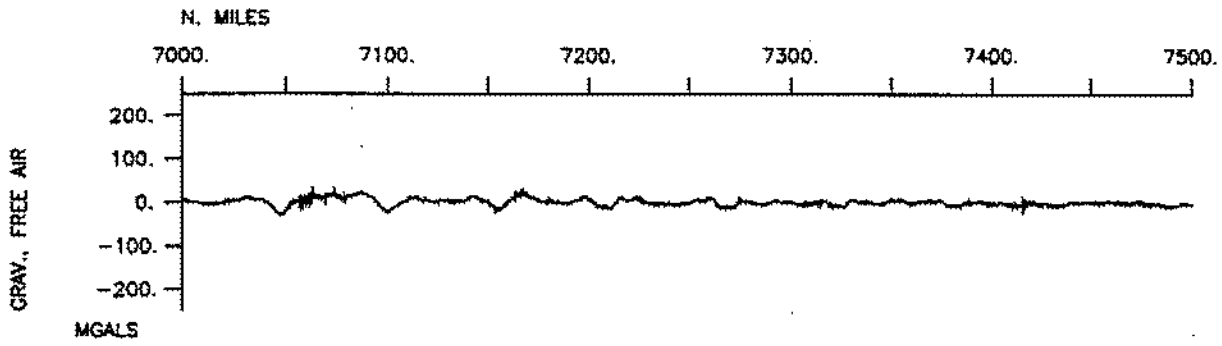


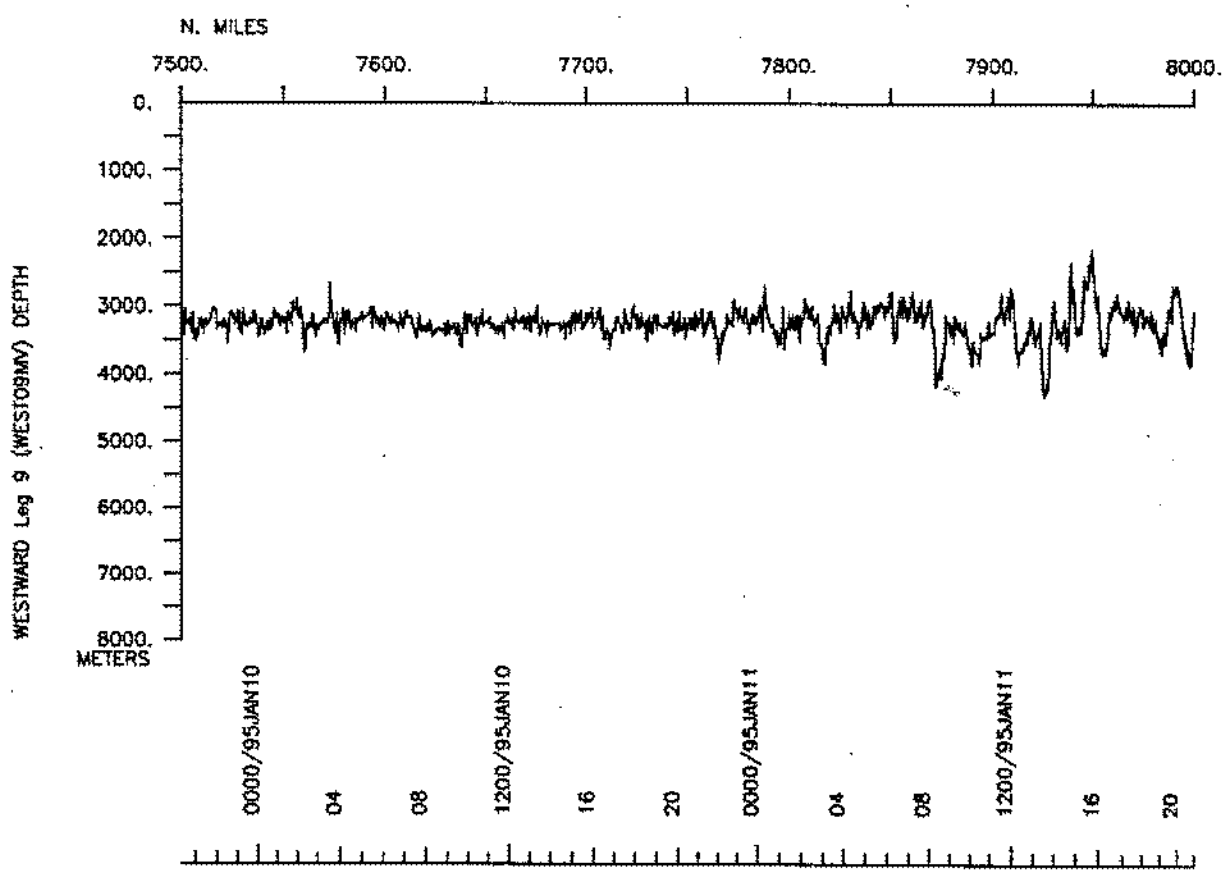
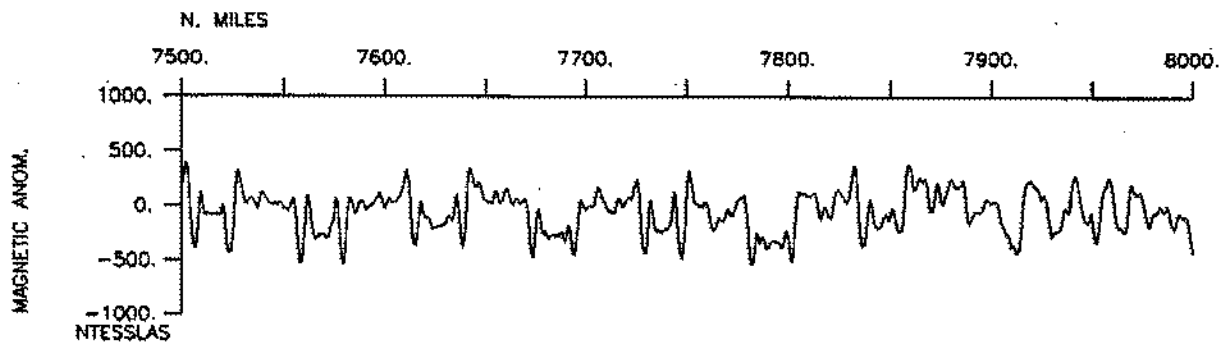
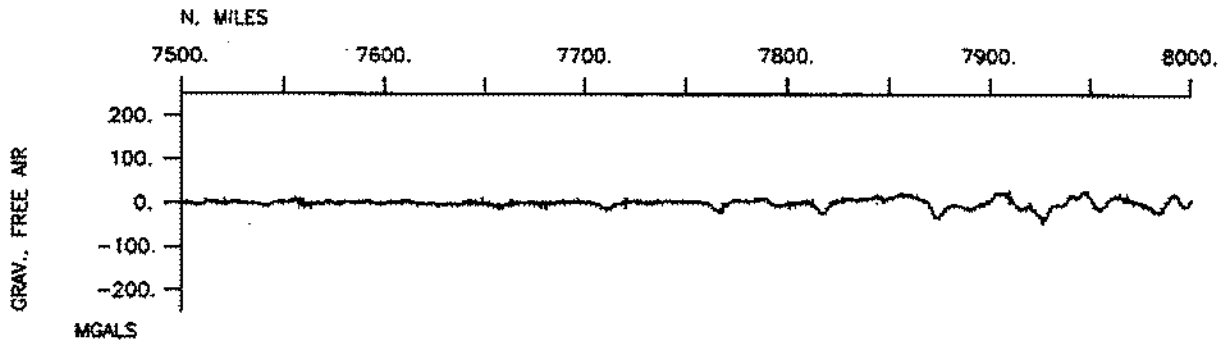


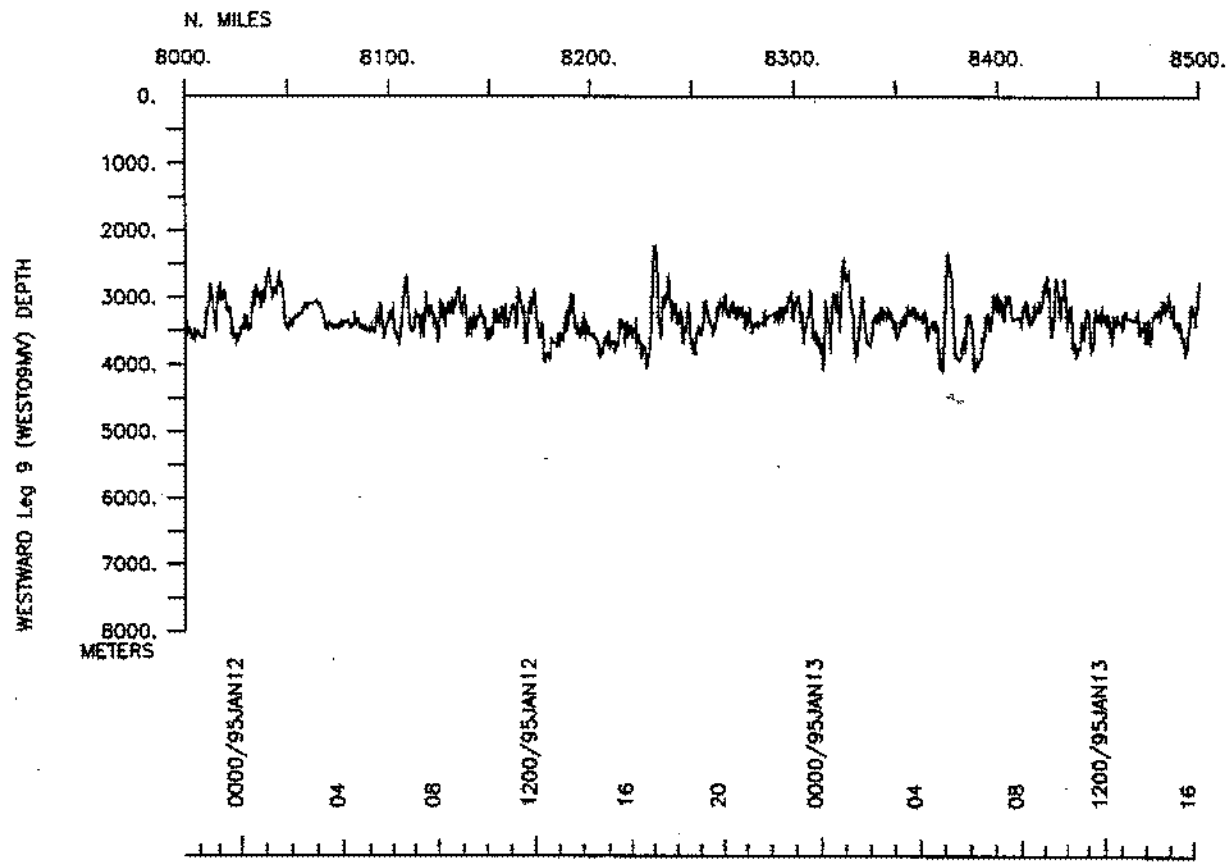
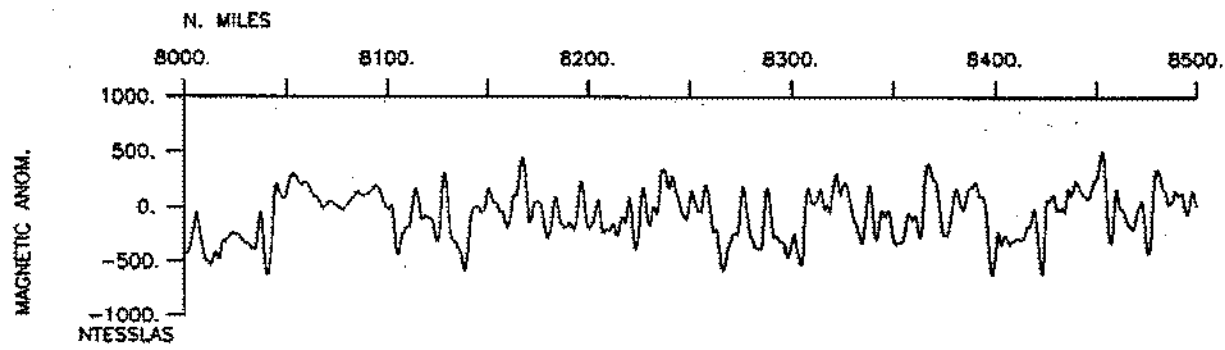
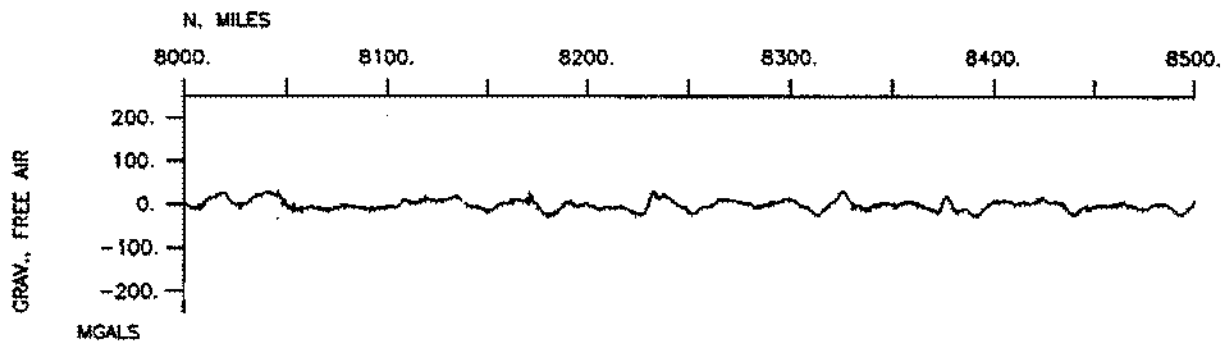


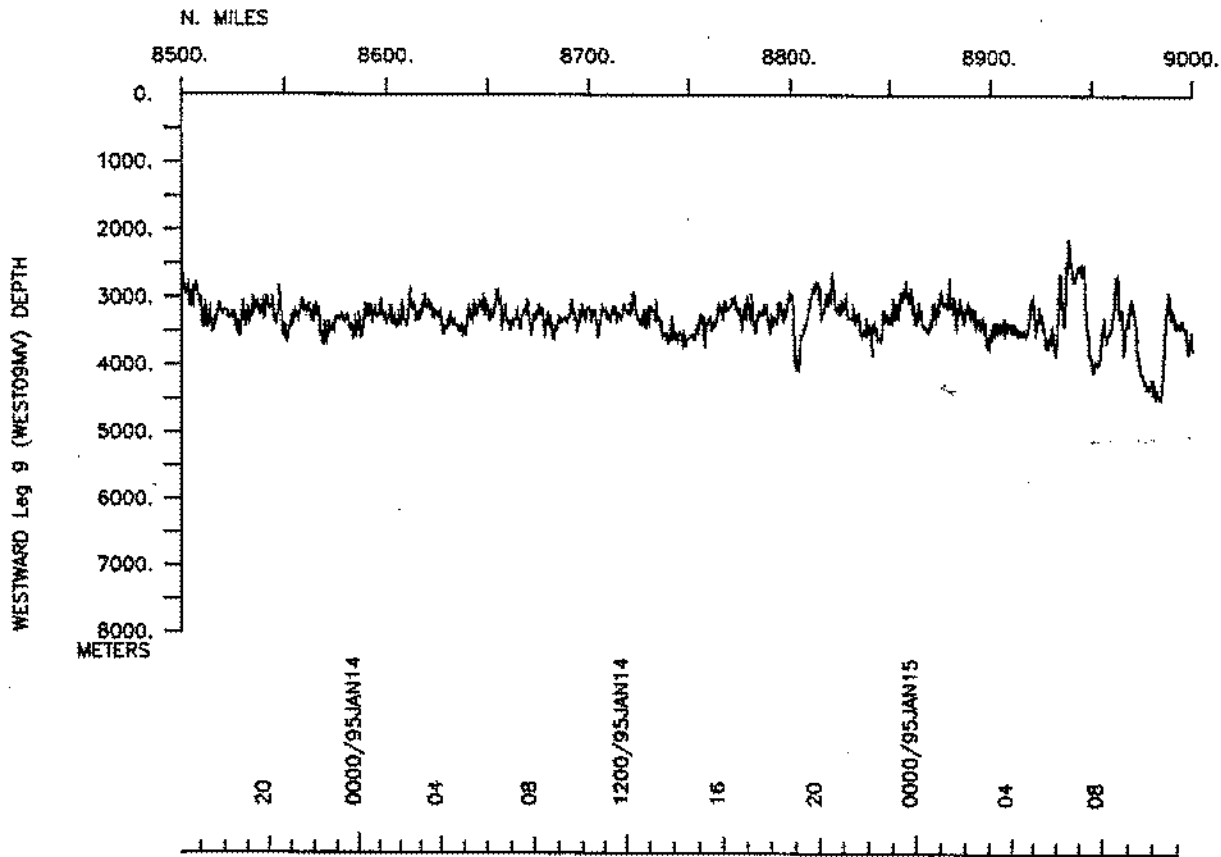
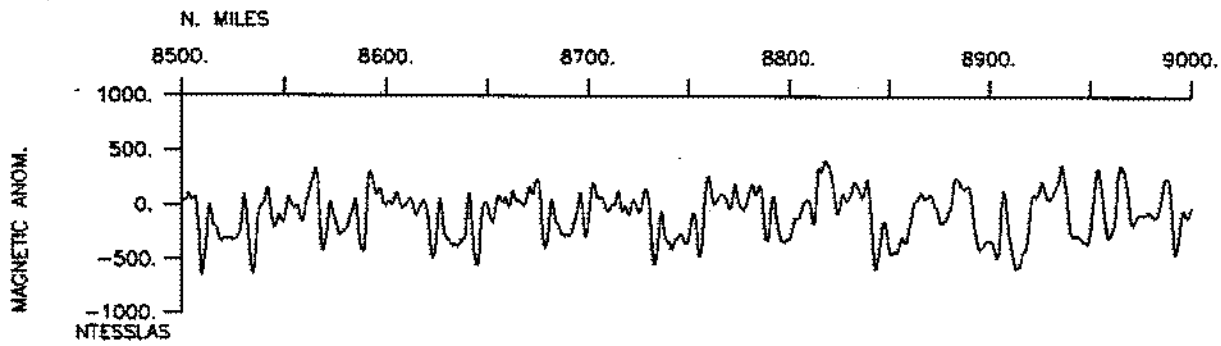
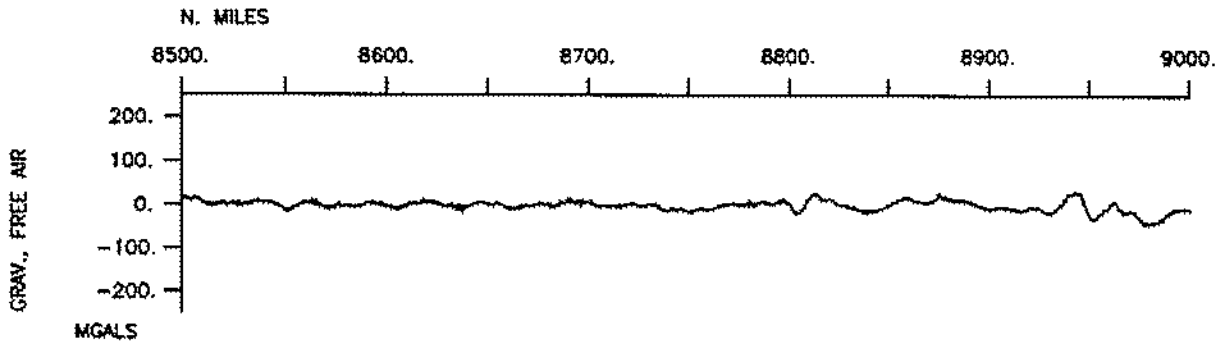


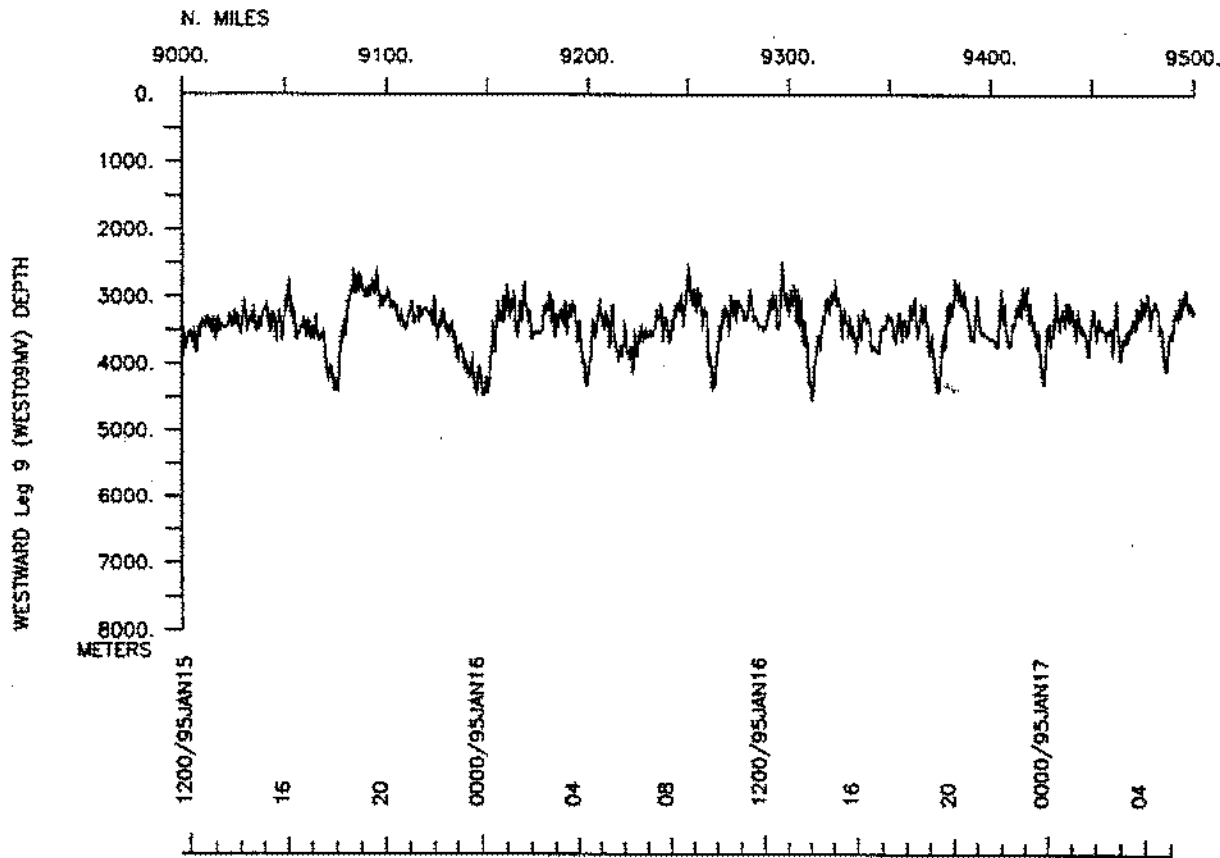
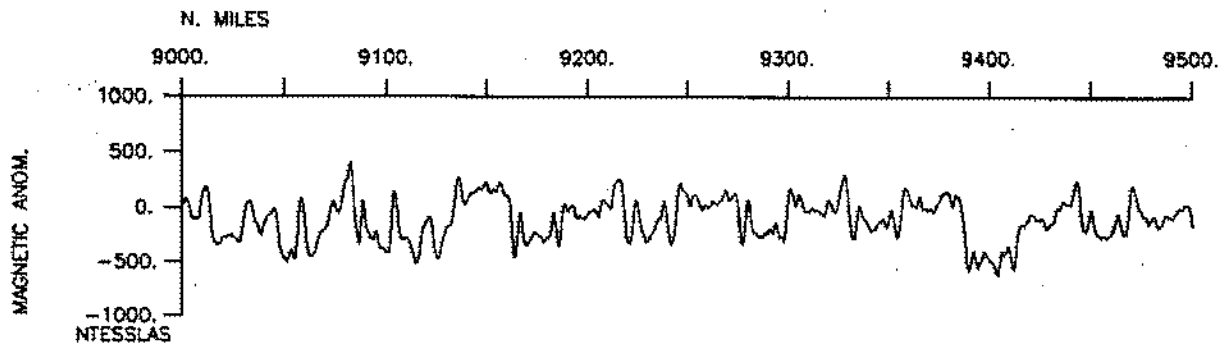
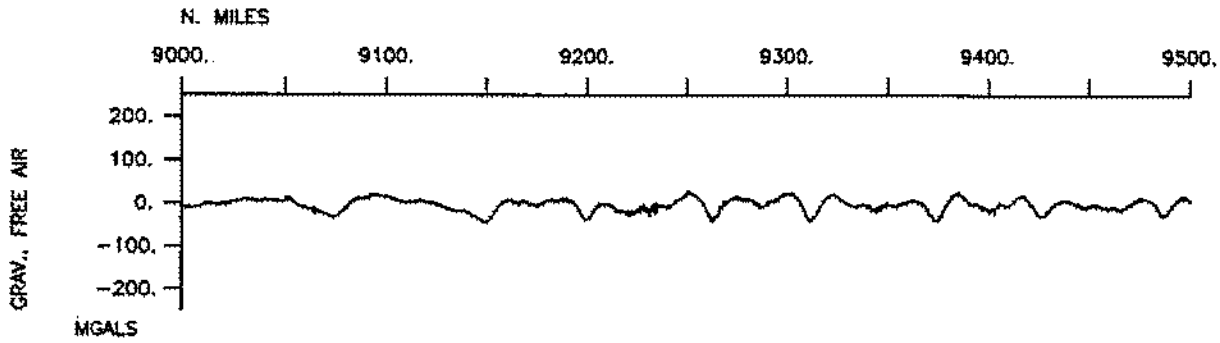


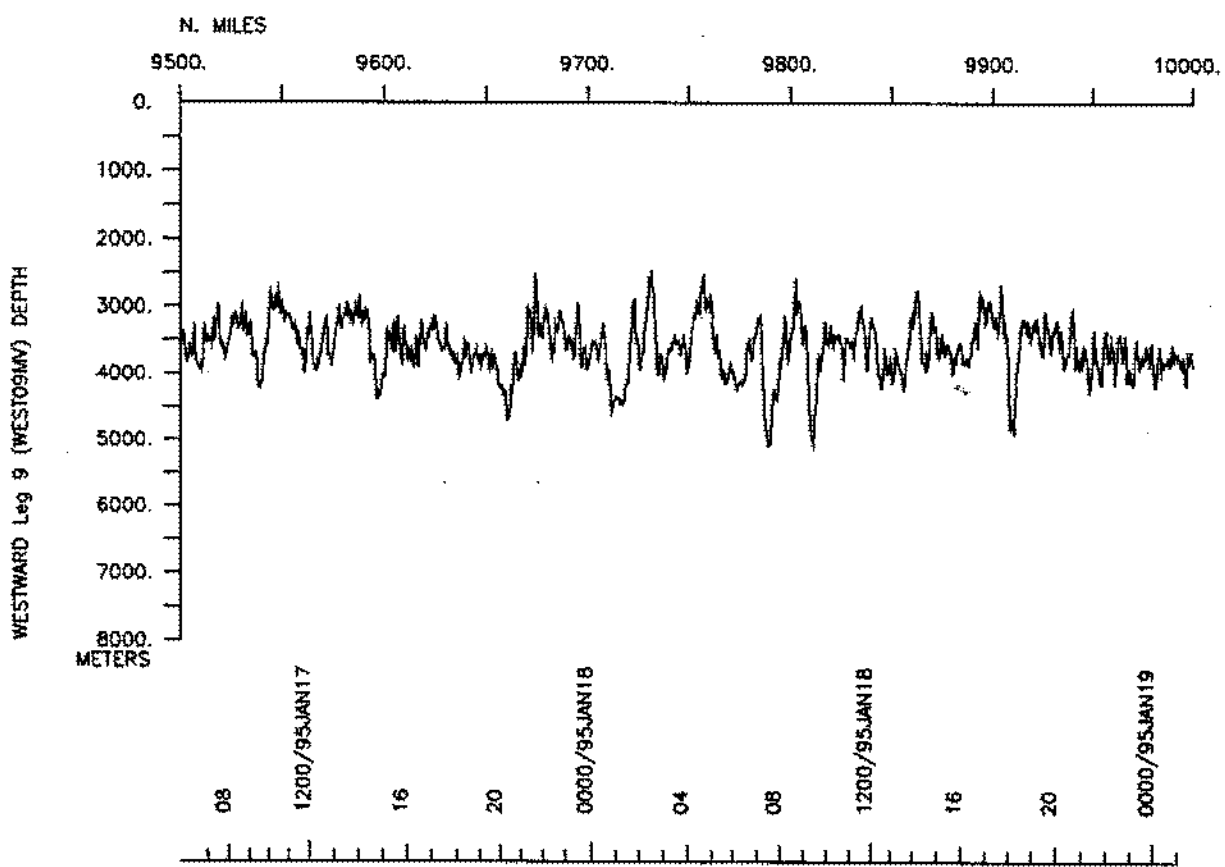
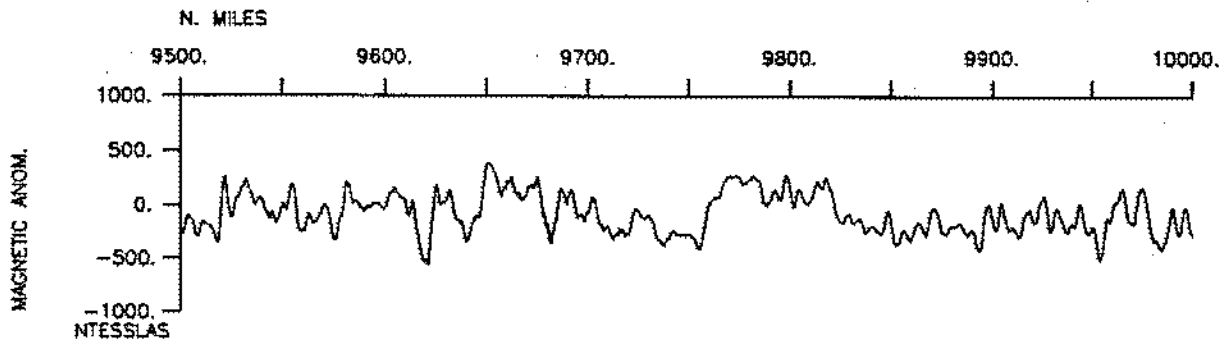
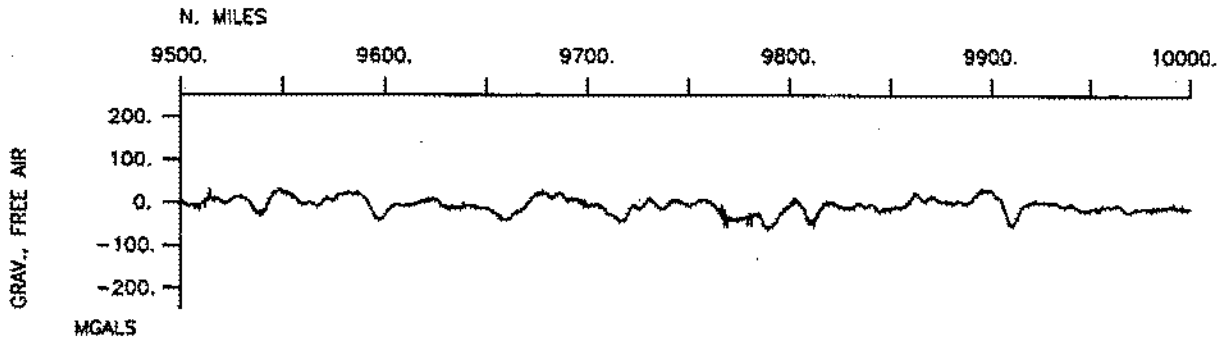


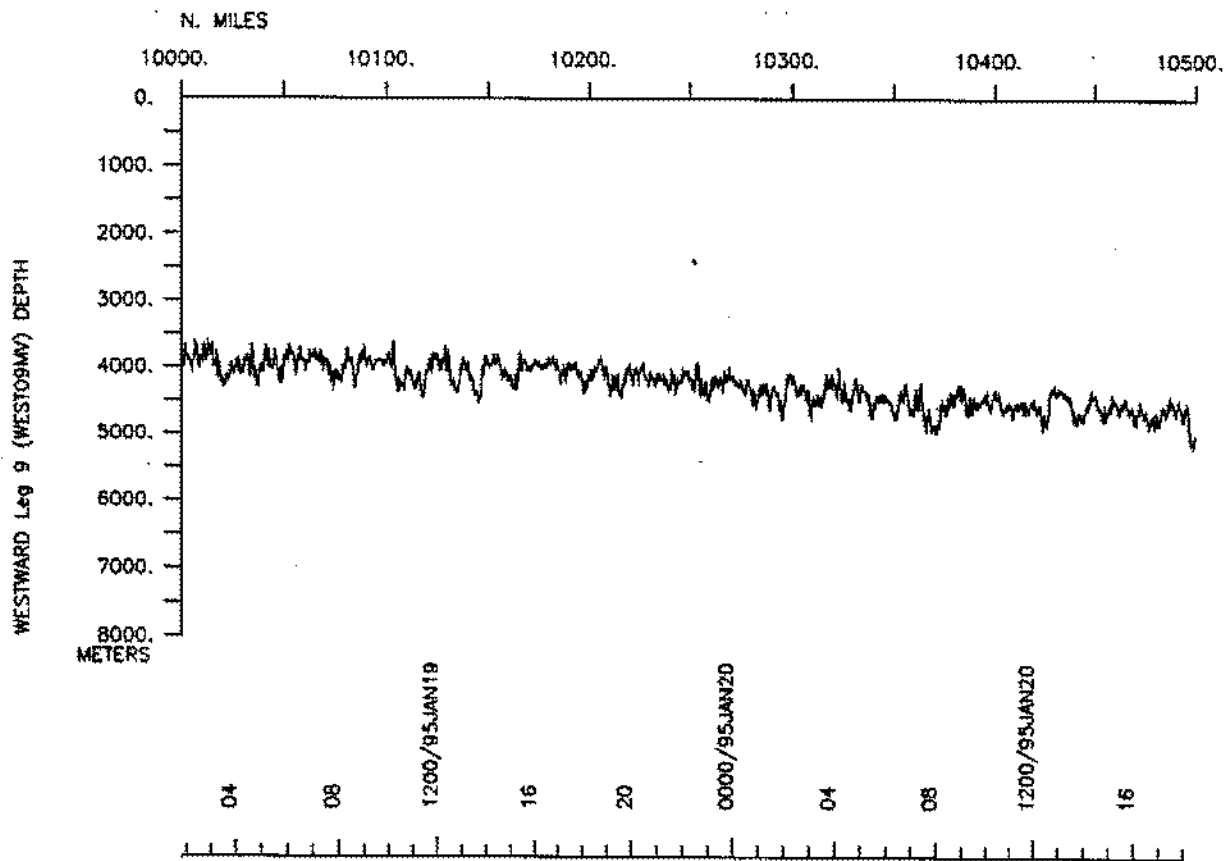
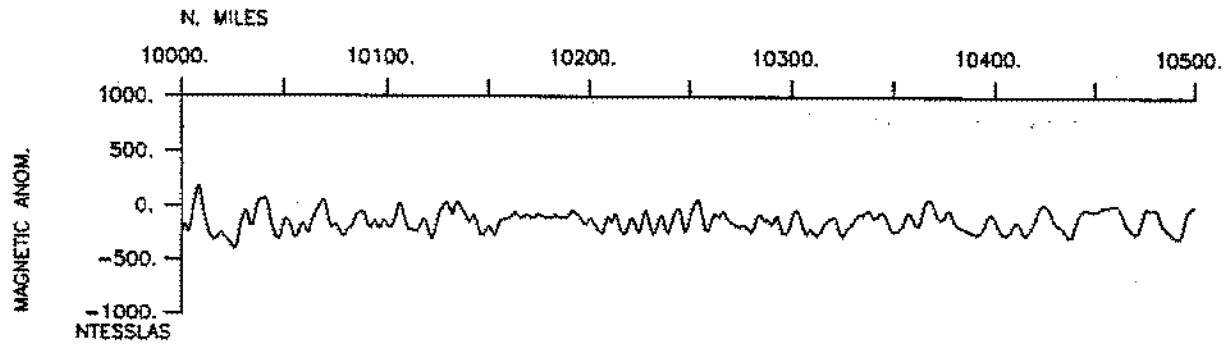
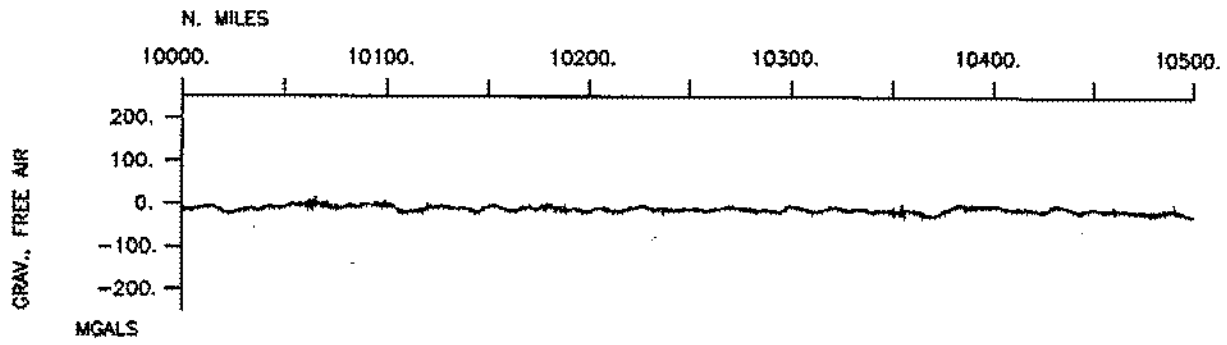


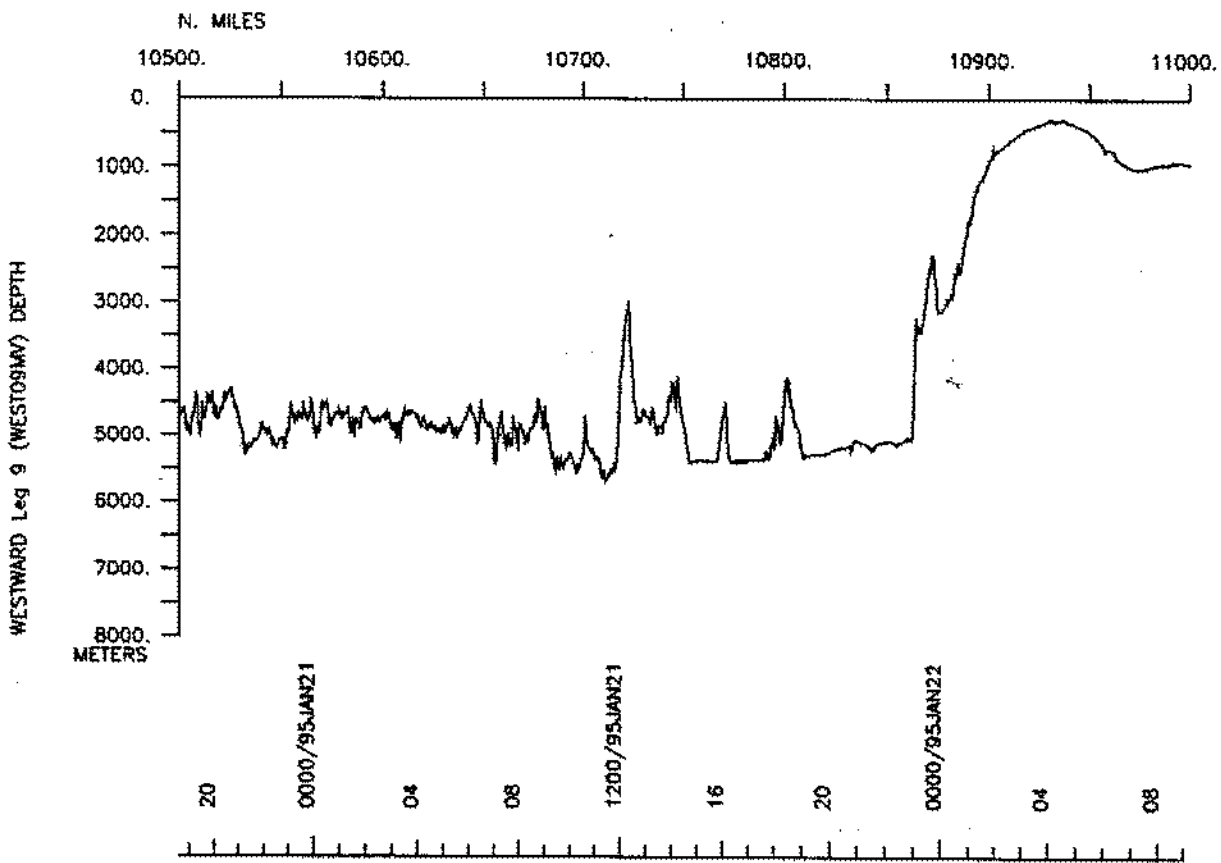
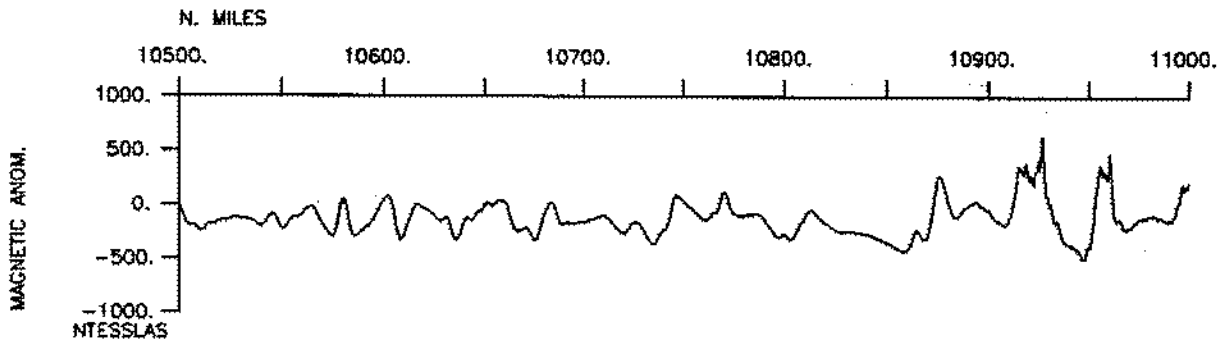
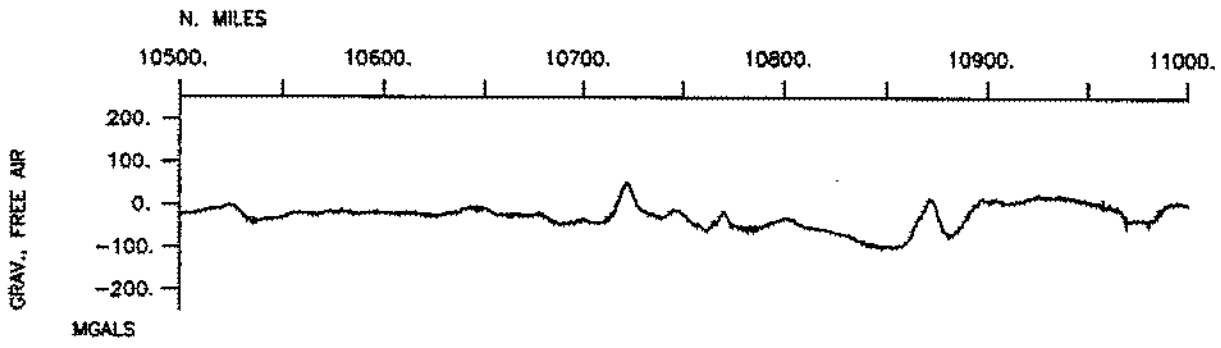


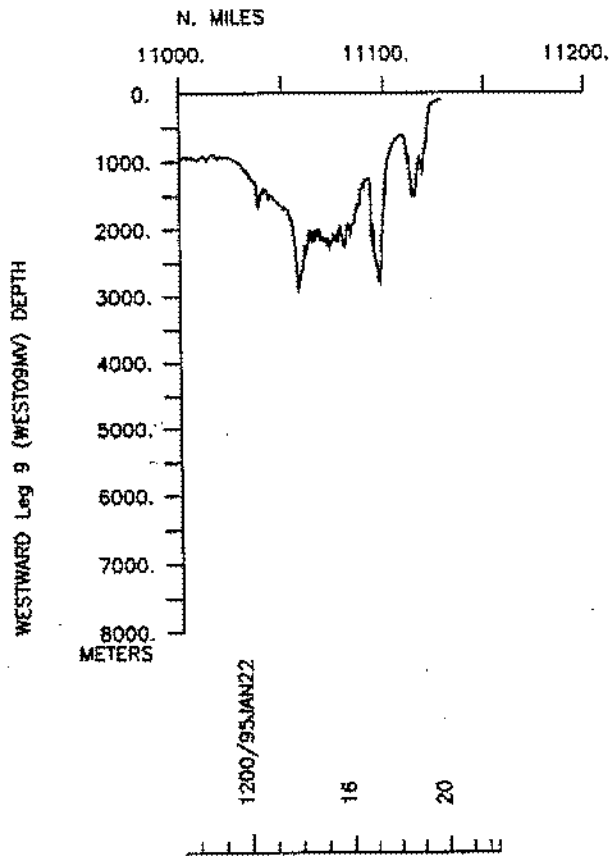
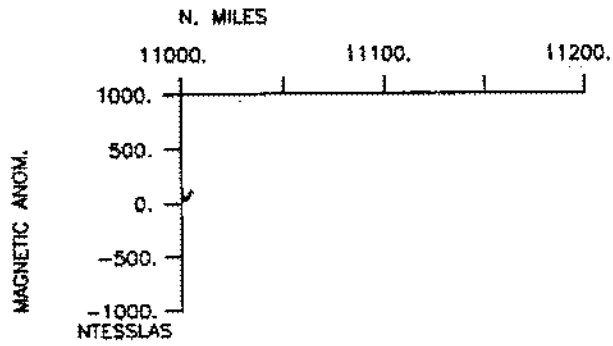
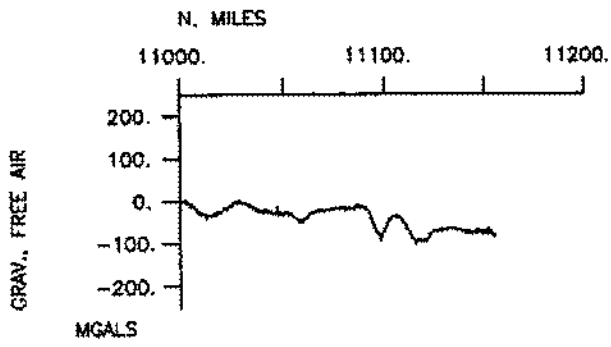












S.I.O. SAMPLE INDEX

(Issued April 1995)

WESTWARD EXPEDITION

Leg 9

(WEST09MV)

R/V Melville

Fremantle, Australia (10 December 1994)

to

Fremantle, Australia (22 January 1995)

Co-Chief Scientists:

James Cochran (Lamont-Doherty Earth Observatory)

Jean Christophe Sempere (University of Washington)

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 future computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GDC Cruise I.D.# 266

**** Ports ***

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 2255 220195 0 LGPT E Fremantle, Australia 32-03.00S 115-52.00E f WEST09MV

**** Personnel ***

*****NAME***** *****TITLE***** *****AFFILIATION***** **CRID**
 #-----

PECS LDEO Cochran, J.R.	Chief Scientist	Lamont-Doherty	WEST09MV
PECS UWA Sempere, J.C.	Co-chief Scientist	Univ. of Washington	WEST09MV
PEST BRNU Eberle, M.A.	Student	Brown Univ.	WEST09MV
PESP UWA Geli, L.B.	Scientist	Univ. of Washington	WEST09MV
PESP UTAN Goff, J.A.	Scientist	Univ. Texas, Austin	WEST09MV
PEST UTK Kimura, Hisanori	Student	Univ. of Tokyo	WEST09MV
PEST LDEO Ma, Liagqiao	Student	Lamont-Doherty	WEST09MV
PECT STS Porteous, T.	Computer Engnr	Scripps Institution	WEST09MV
PEST LDEO Shah, Anjana K.	Student	Lamont-Doherty	WEST09MV
PEBE STS Skinner, J.	Hrdwr Engnr	Scripps Institution	WEST09MV
PESP LDEO Small, C.	Scientist	Lamont-Doherty	WEST09MV
PEBO STS Smith, S.M.	SeaBeam Processor	Scripps Institution	WEST09MV
PEST OSU Sylvander, B.A.	Student	Oregon State Univ.	WEST09MV
PEST LDEO Zhang, W.	Student	Lamont-Doherty	WEST09MV

**** 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	SAMP	B	SAMPLE	DISP				p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE		c	LEG-SHIP

*** Underway data curator - S. M. Smith 534-2752

*** Log books***

0805	101294	0	LBUW	B Underway Watch Log	GDC	32-02.84S	115-44.85E	g	WEST09MV
2255	220195	0	LBUW	E Underway Watch Log	GDC	32-02.78S	115-44.88E	g	WEST09MV

*** Magnetics (Earth Total Field) Records ***

1132	101294	0	MGRA	B Magnetics r-01	GDC	31-58.94S	115-09.72E	g	WEST09MV
0320	171294	0	MGRA	E Magnetics r-01	GDC	49-20.61S	109-00.45E	g	WEST09MV
0330	171294	0	MGRA	B Magnetics r-02	GDC	49-20.08S	108-58.35E	g	WEST09MV
0409	291294	0	MGRA	E Magnetics r-02	GDC	47-57.58S	101-21.28E	g	WEST09MV
0433	291294	0	MGRA	B Magnetics r-03	GDC	47-53.89S	101-25.15E	g	WEST09MV
0016	100195	0	MGRA	E Magnetics r-03	GDC	49-38.34S	109-51.11E	g	WEST09MV
0027	100195	0	MGRA	B Magnetics r-04	GDC	49-40.06S	109-50.42E	g	WEST09MV
0850	220195	0	MGRA	E Magnetics r-04	GDC	33-34.89S	114-17.77E	g	WEST09MV
# mag logged without record until 1000Z 220195									WEST09MV

*** Continuous Recorded Gravity ***

0805	101294	0	GVCR	B Computer logged	GDC	32-02.84S	115-44.85E	g	WEST09MV
2255	220195	0	GVCR	E gravity data	GDC	32-02.78S	115-44.88E	g	WEST09MV

*** Echosounder Records ***

0935	101294	0	DPR3	B 3.5Khz r-01	GDC	31-55.74S	115-31.66E	g	WEST09MV
0005	121294	0	DPR3	E 3.5Khz r-01	GDC	38-32.04S	115-33.42E	g	WEST09MV

*** Sea Beam Records (vertical beam and side scan) ***

0935	101294	0	MBSR	B v.beam&sidescan r-01	GDC	31-55.74S	115-31.66E	g	WEST09MV
2219	220195	0	MBSR	E v.beam&sidescan r-01	GDC	32-02.62S	115-41.93E	g	WEST09MV

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP		P	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE	c LEG-SHIP
*** Expendable Bathythermographs ***								
1058	101294	0	BTXP	XBT #01	GDC	31-58.41S	115-13.79E	g WEST09MV
2340	101294	0	BTXP	XBT #02	GDC	33-52.36S	114-27.45E	g WEST09MV
0028	121294	0	BTXP	XBT #03	GDC	38-36.12S	115-34.53E	g WEST09MV
0257	131294	0	BTXP	XBT #04	GDC	43-22.18S	116-46.19E	g WEST09MV
0117	141294	0	BTXP	XBT #05	GDC	47-40.89S	117-55.79E	g WEST09MV
0126	151294	0	BTXP	XBT #06	GDC	49-17.43S	116-46.91E	g WEST09MV
0149	161294	0	BTXP	XBT #07	GDC	50-23.31S	113-45.75E	g WEST09MV
0755	171294	0	BTXP	XBT #08	GDC	48-53.95S	108-25.99E	g WEST09MV
0816	181294	0	BTXP	XBT #09	GDC	48-20.01S	105-02.34E	g WEST09MV
0830	191294	0	BTXP	XBT #10	GDC	48-12.09S	101-51.03E	g WEST09MV
0857	211294	0	BTXP	XBT #11	GDC	46-24.92S	96-02.15E	g WEST09MV
0752	221294	0	BTXP	XBT #12	GDC	44-43.80S	94-34.55E	g WEST09MV
0450	251294	0	BTXP	XBT #13	GDC	46-54.40S	97-02.47E	g WEST09MV
0827	271294	0	BTXP	X XBT #14	GDC	47-27.63S	100-39.22E	g WEST09MV
0833	271294	0	BTXP	XBT #15	GDC	47-27.09S	100-39.87E	g WEST09MV
0540	301294	0	BTXP	XBT #16	GDC	47-37.11S	102-27.44E	g WEST09MV
1050	040195	0	BTXP	X XBT #17	GDC	48-24.65S	106-59.24E	g WEST09MV
1057	040195	0	BTXP	XBT #18	GDC	48-23.57S	106-59.68E	g WEST09MV
0619	090195	0	BTXP	XBT #19	GDC	49-53.19S	109-21.90E	g WEST09MV
0430	150195	0	BTXP	XBT #20	GDC	50-34.99S	113-49.44E	g WEST09MV
0435	150195	0	BTXP	XBT #21	GDC	50-34.03S	113-49.64E	g WEST09MV
0510	150195	0	BTXP	XBT #22	GDC	50-27.44S	113-51.24E	g WEST09MV
0517	150195	0	BTXP	XBT #23	GDC	50-26.15S	113-51.61E	g WEST09MV
0641	190195	0	BTXP	XBT #24	GDC	46-53.55S	117-53.42E	g WEST09MV
0637	200195	0	BTXP	XBT #25	GDC	43-19.28S	118-50.91E	g WEST09MV
0654	200195	0	BTXP	XBT #26	GDC	43-15.93S	118-49.10E	g WEST09MV
0558	210195	0	BTXP	XBT #27	GDC	38-49.46S	116-35.37E	g WEST09MV
0140	220195	0	BTXP	XBT #28 (too shallow)	GDC	35-06.11S	114-50.21E	g WEST09MV
0150	220195	0	BTXP	XBT #29	GDC	35-04.03S	114-49.17E	g WEST09MV

End Sample Index

WEST09MV