INFORMAL REPORT AND INDEX OF

NAVIGATION, DEPTH, MAGNETIC AND SUBBOTTOM PROFILER DATA

(Issued August 3, 1978)

INDOMED EXPEDITION

LEG 8

Pt. Louis, Mauritius (29 April 1978)
to
Pt. Louis, Mauritius (28 May 1978)

R/V Melville

Chief Scientist - R. L. Fisher (SIO)

Resident Marine Tech - R. Comer

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

Data Collection Funded by ONR
Grant Number N0014-75C-0152
Data Processing Funded by SIA, NSF, ONR

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 Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

GDC Cruise I.D.# - 169

Informal Report and Index of Navigation, Depth, Magnetic and Subbottom Profiler Data

Contents:

Index Chart - gives track of cruise leg and boundaries of depth compilation plots (see below).

Track Charts - annotated with dates (day/month) and hour ticks. The scale is .3"/deg. long.

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 solid black line along the bottom of the profile.

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 - in fathoms (assumed sound velocity of 800 fm./sec.) at approximately 1 mile spacing, plotted at 4"/degree with standard U. S. Navy Oceanographic Office BC series boundaries (see index chart).

3. Plots of magnetic anomaly profiles along track - map scale = 1.2"/degree; anomaly scale between 15°N and 15°S latitude = 500 gamm/inch; anomaly scale north of 15°N and south of 15°S = 1000 gamm/inch; from values retrieved at approximately 1 mile spacing and regional field removed using the 1975 IGRF.

4. Card decks of navigation, depth and magnetics (for specific formats, contact S. M. Smith, Geological Data Center).

5. S. I. O. 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.

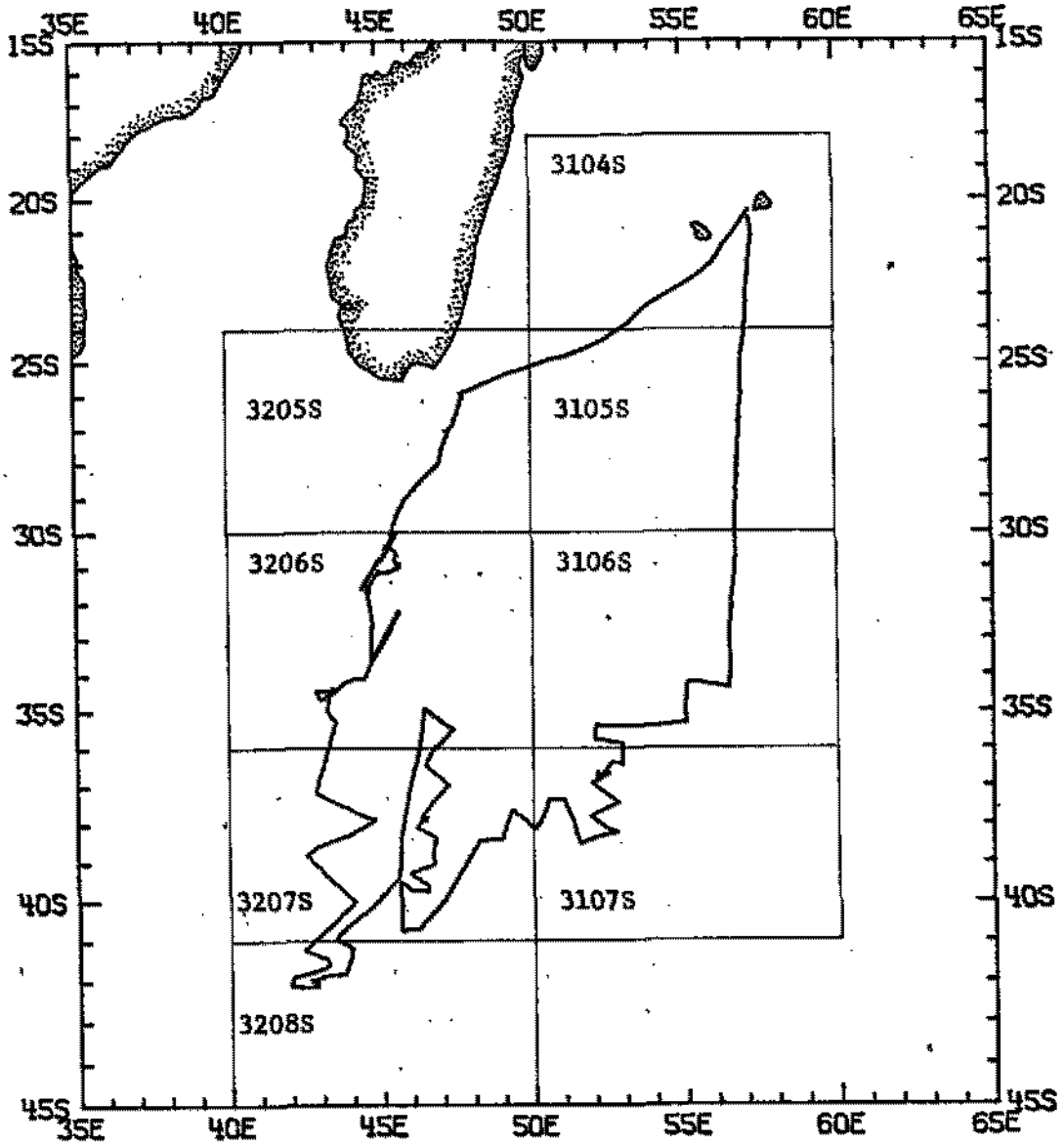
6. Microfilm or Xerox copies of:

   a. Echosounder records - 12 and 3.5 kHz frequency

   b. Subbottom profiler records (airgun)

   c. Magnetometer records

   d. Underway Data Log



INDOMED EXPEDITION
LEG 8

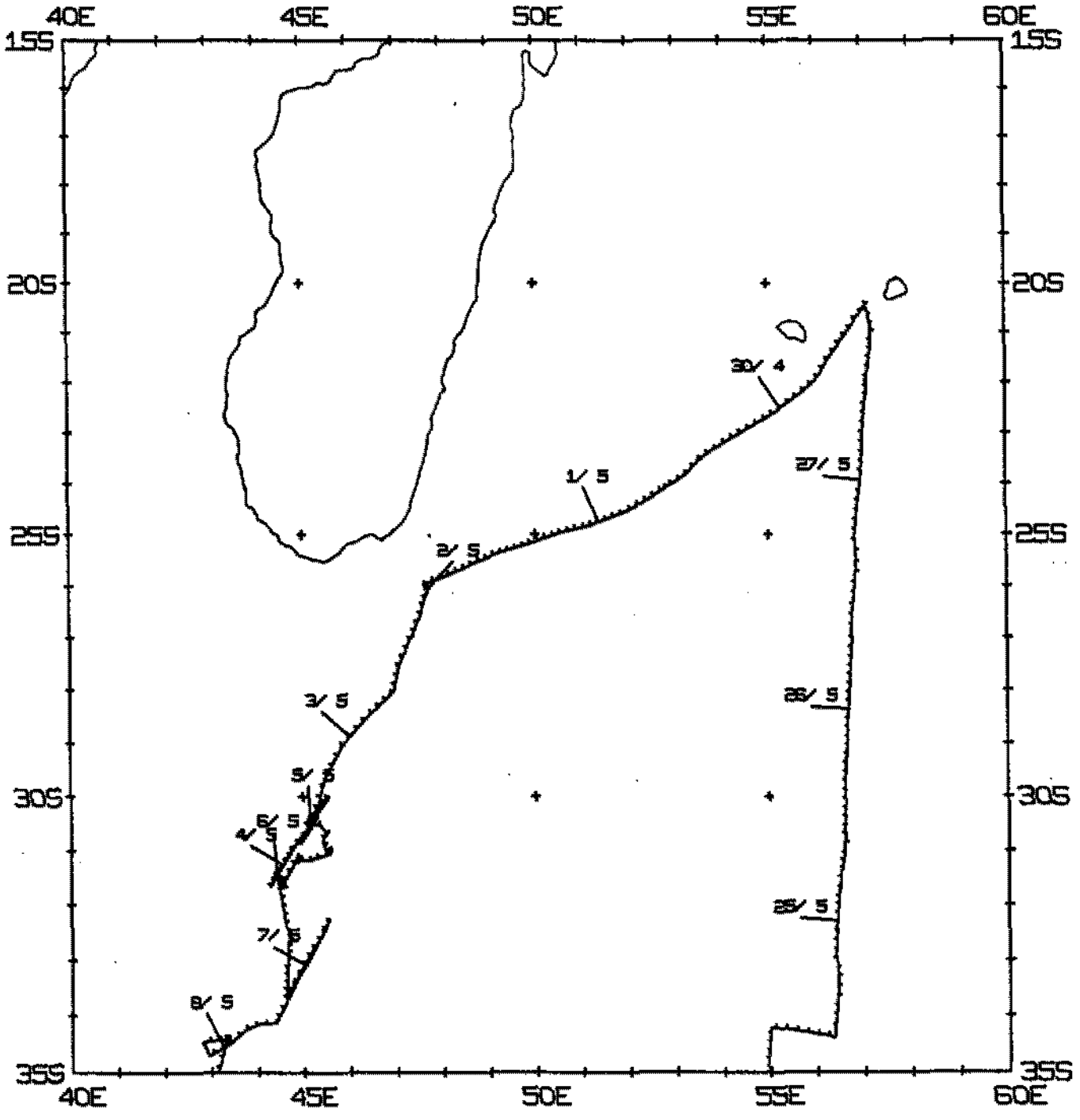
Chief Scientist - R. L. Fisher (SIO)
Ports: Pt. Louis, Mauritius - Pt. Louis, Mauritius
Dates: 29 April - 28 May, 1978
Ship: R/V Melville

TOTAL MILEAGE

1) Cruise - 5976 miles
2) Bathymetry - 5891 miles
3) Magnetics - 5120 miles
4) Seismic Reflection - 3510 miles
5) Gravity - none collected

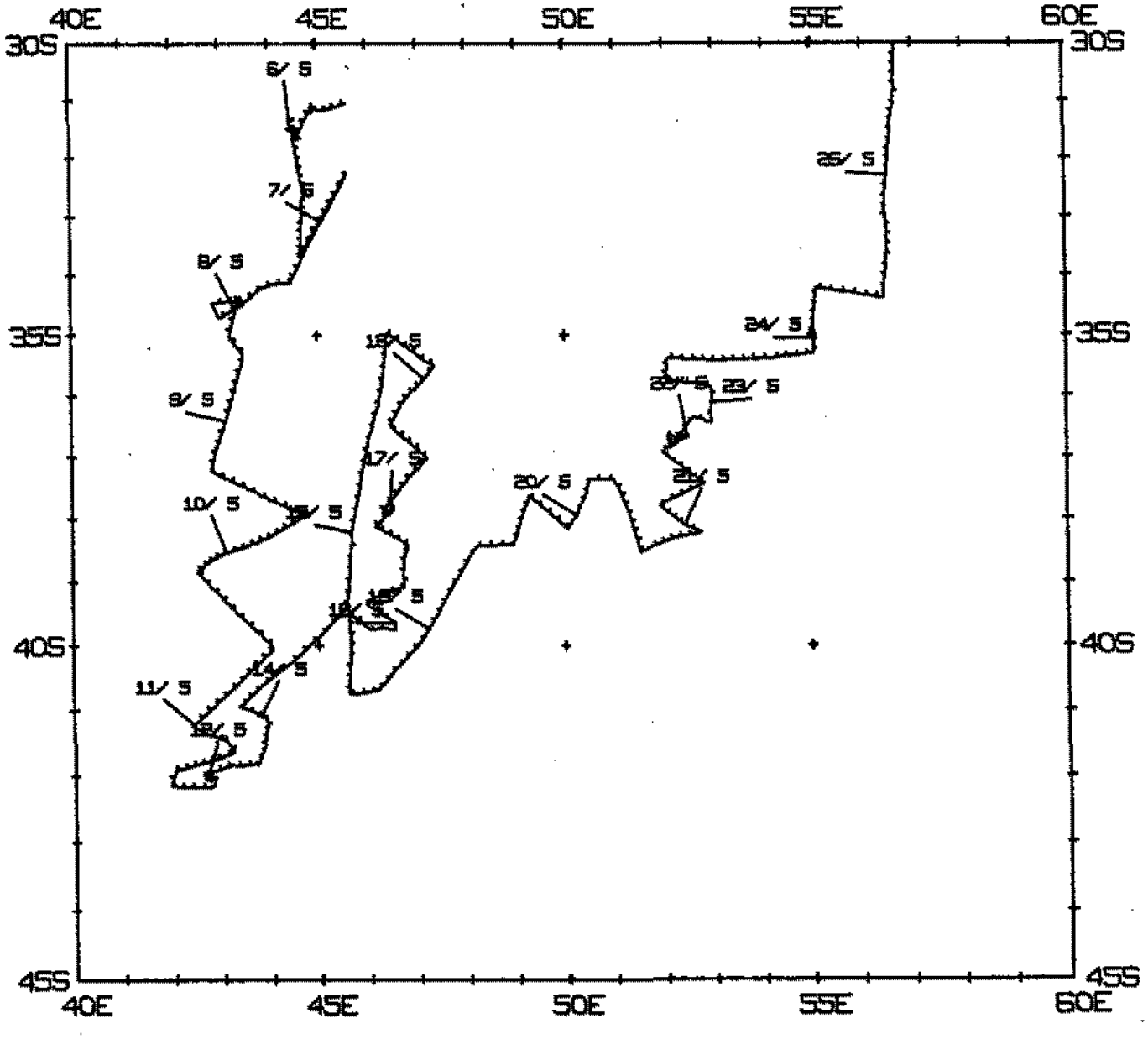
INMOOBMV TRACK PLOT (1 OF 2)

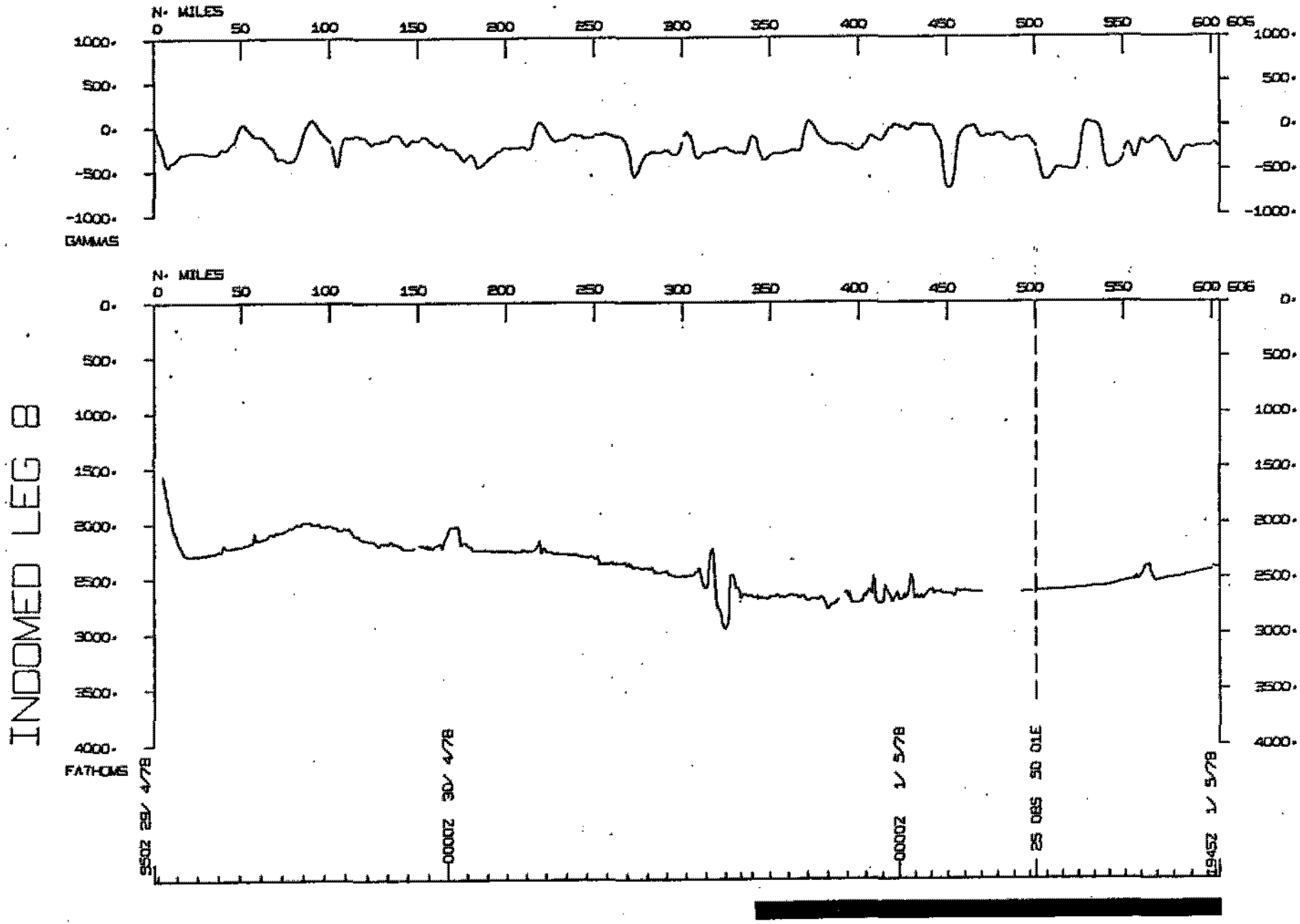
MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



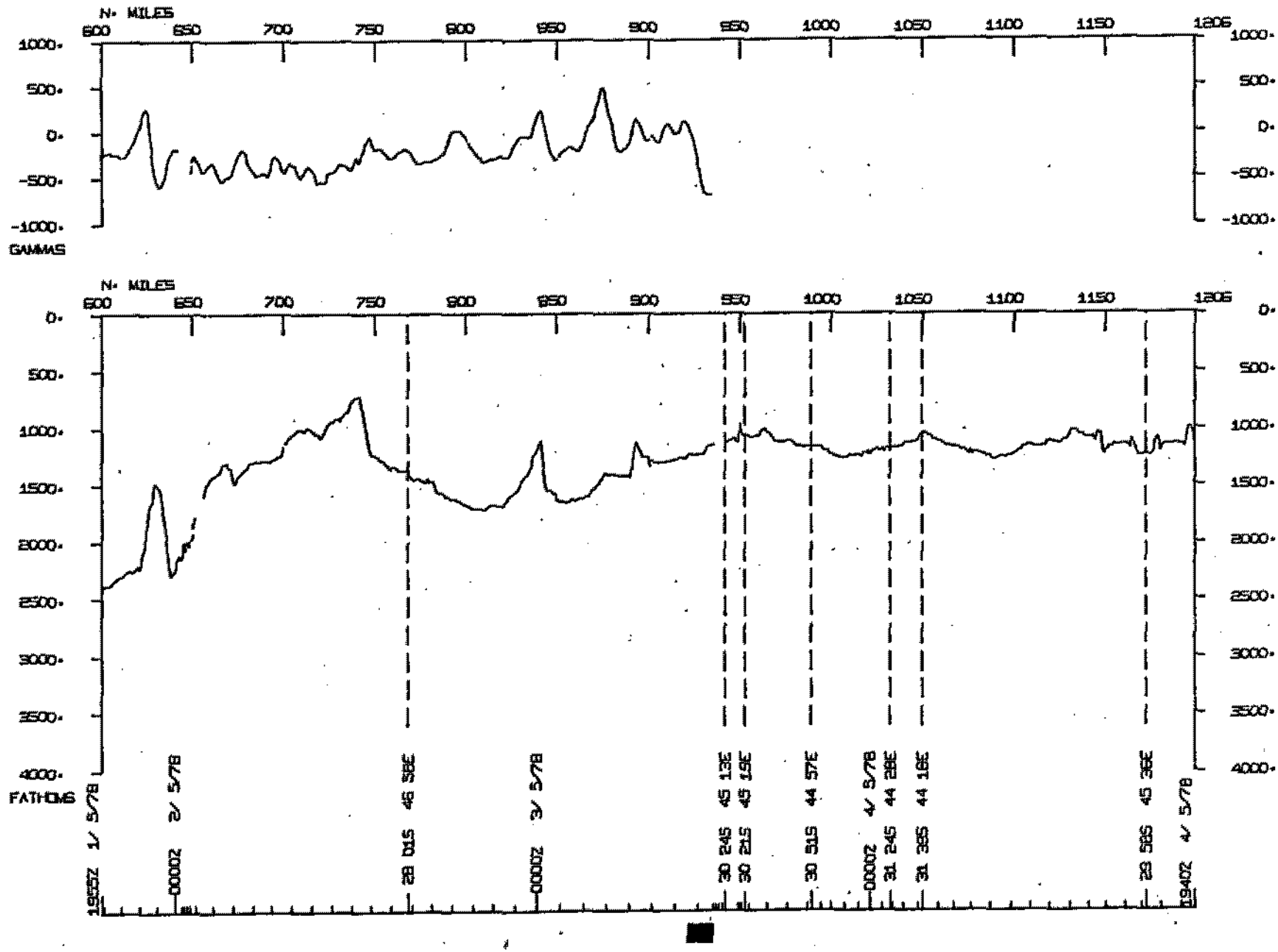
INMOOBMV TRACK PLOT (2 OF 2)

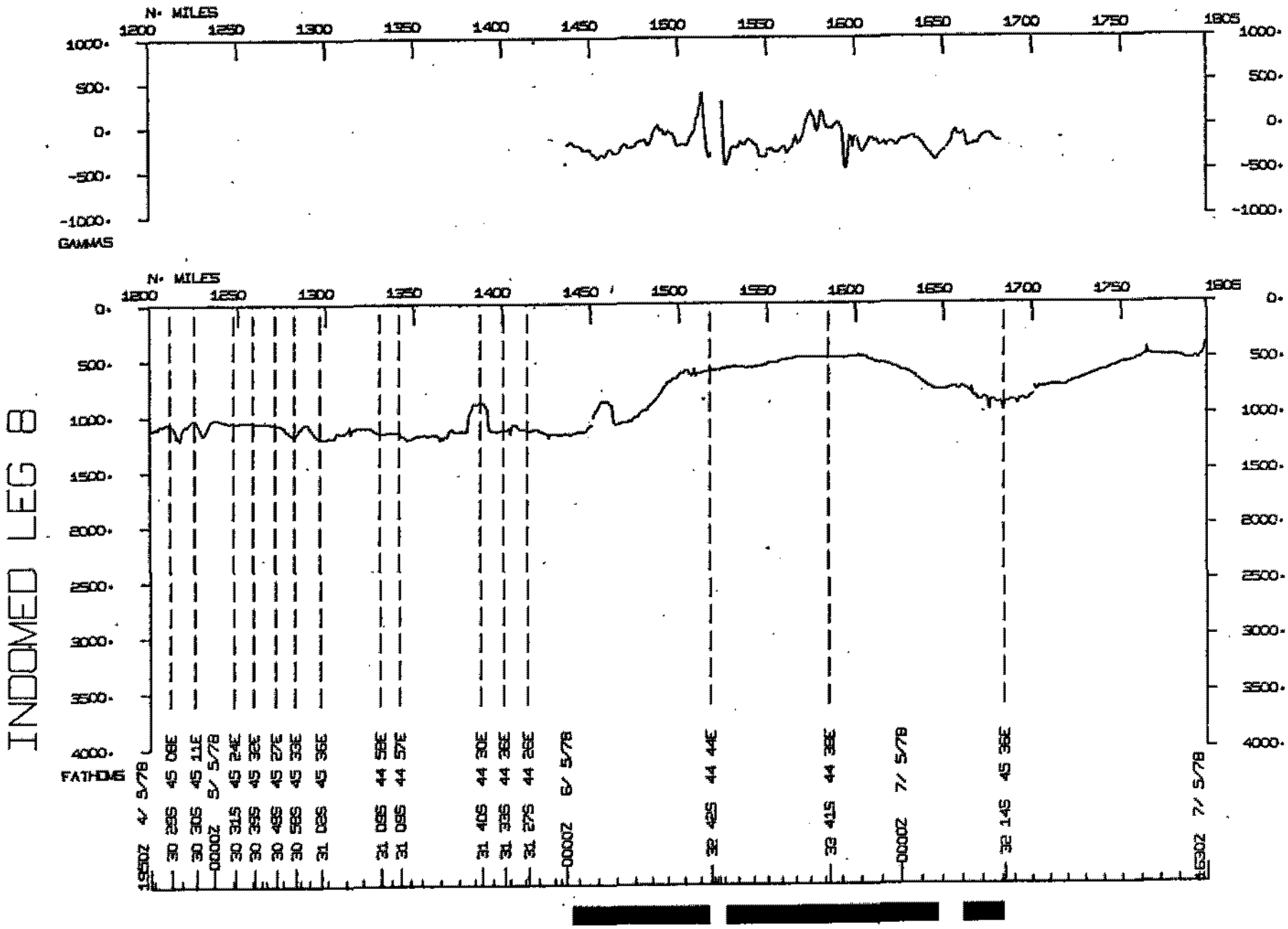
MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE




INDOMED LEG 8
N. MILES
0 50 100 150 200 250 300 350 400 450 500 550 600 606
1000. 500. 0. -500. -1000.
GAMMAS
N. MILES
0 50 100 150 200 250 300 350 400 450 500 550 600 606
0. 500. 1000. 1500. 2000. 2500. 3000. 3500. 4000.
FATHOMS
29/ 4/78
30/ 4/78
1/ 5/78
1/ 5/78

INDOMED LEG 8

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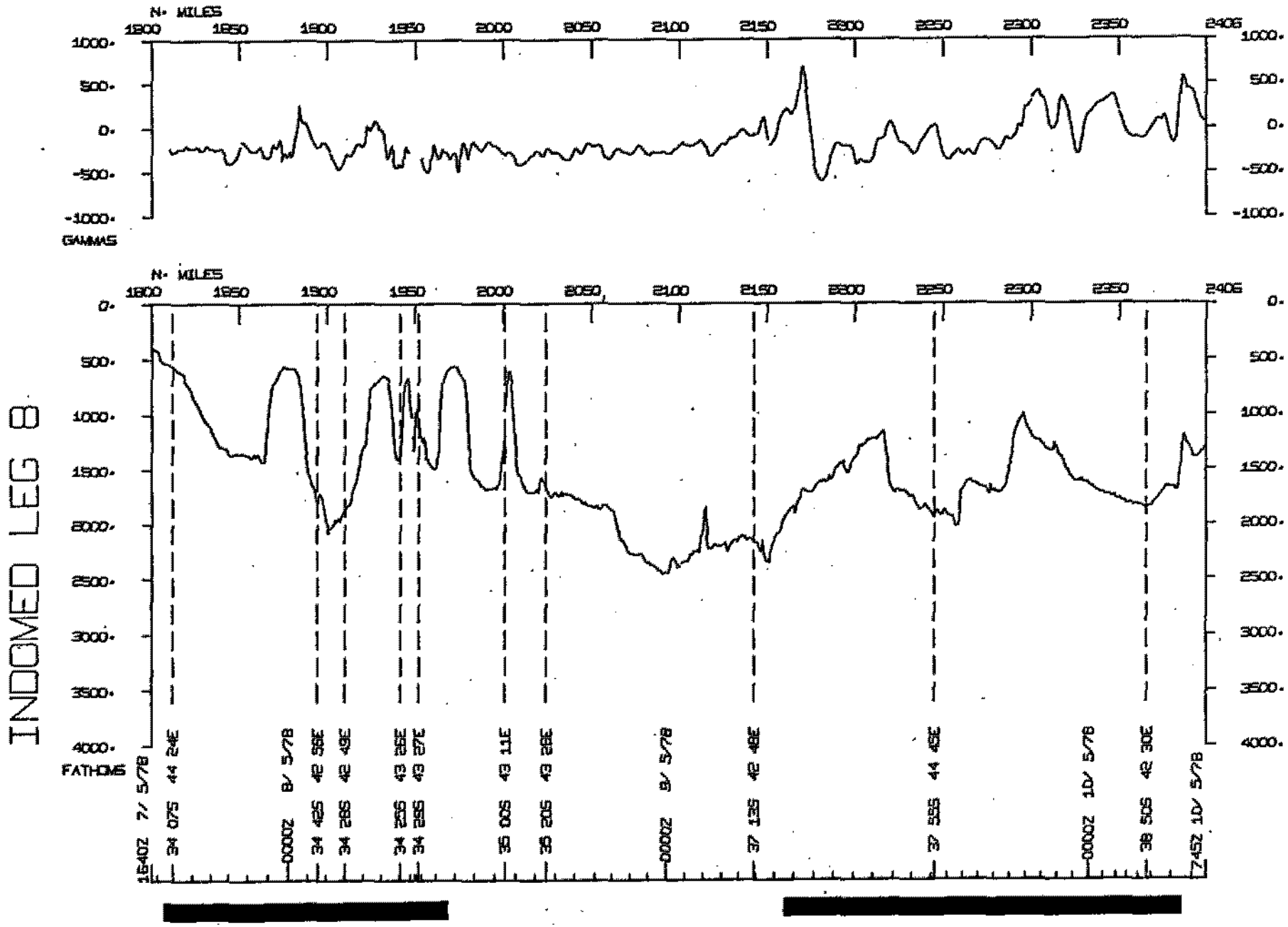
1250
1300
1350
1400
1450
1500
1550
1600
1650
1700
1750
1805
GAMMAS
1000.
500.
0.
-500.
-1000.
FATHOMS
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.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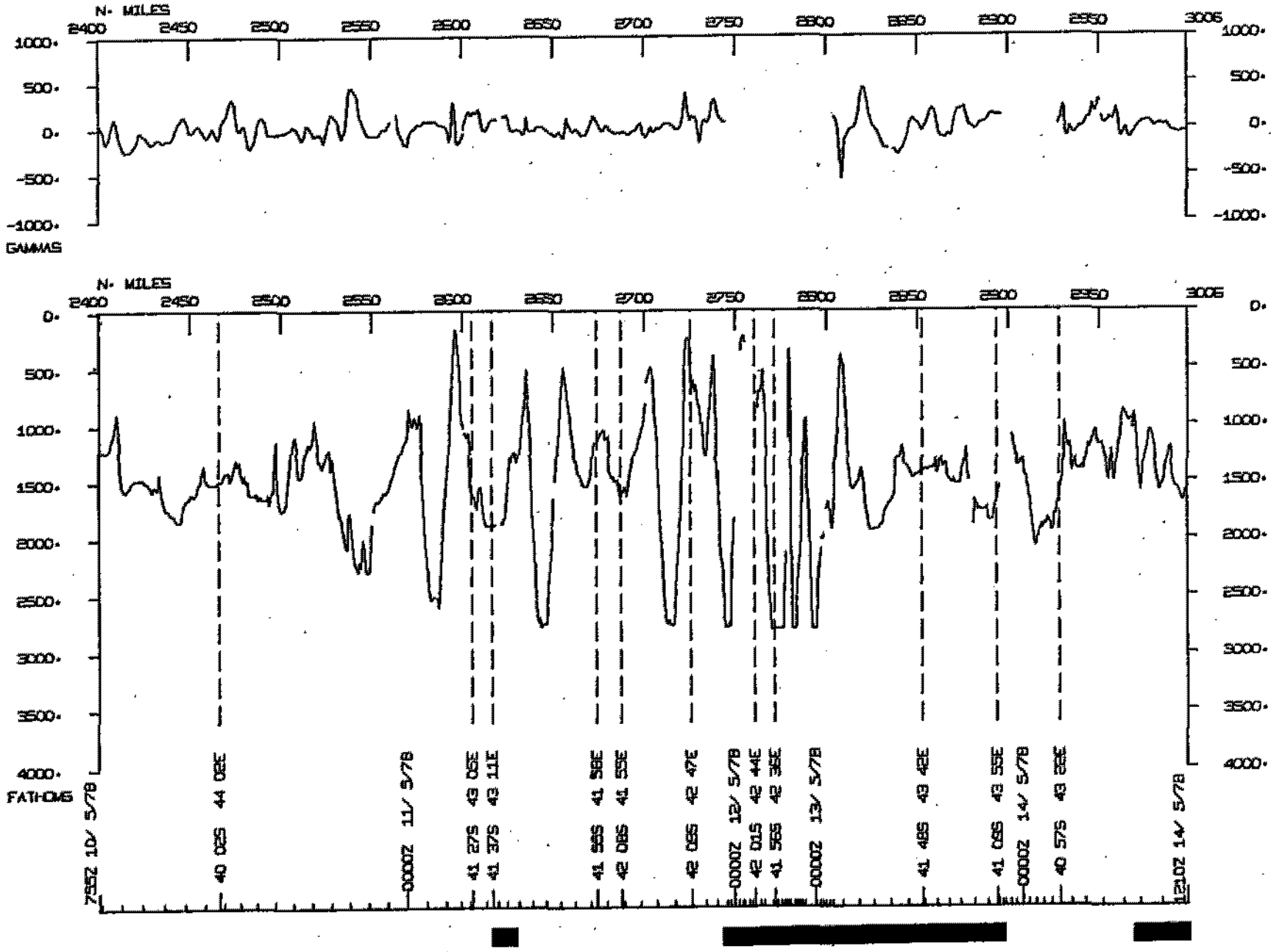
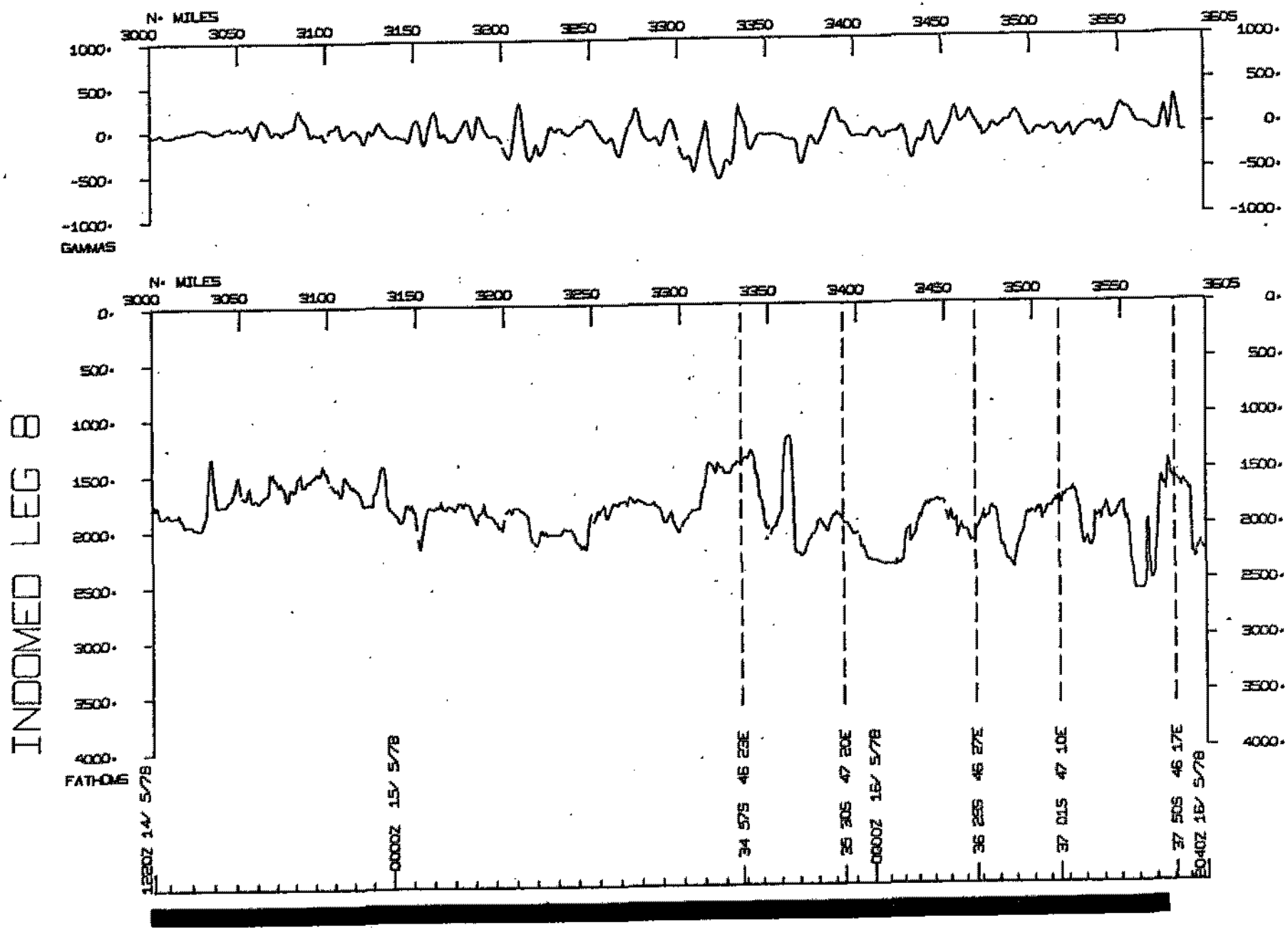
GAMMAS
1000. 500. 0. -500. -1000.
FATHOMS
0. 500. 1000. 1500. 2000. 2500. 3000. 3500. 4000.
15407 7/ 5/78
34 07S 44 24E
00002 8/ 5/78
34 42S 42 58E
34 28S 42 49E
34 25S 43 25E
34 28S 43 27E
35 00S 43 11E
35 20S 43 28E
00002 8/ 5/78
37 13S 42 48E
37 55S 44 45E
00002 10/ 5/78
38 50S 42 30E
7452 10/ 5/78

INDOMED LEG 8

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N. MILES
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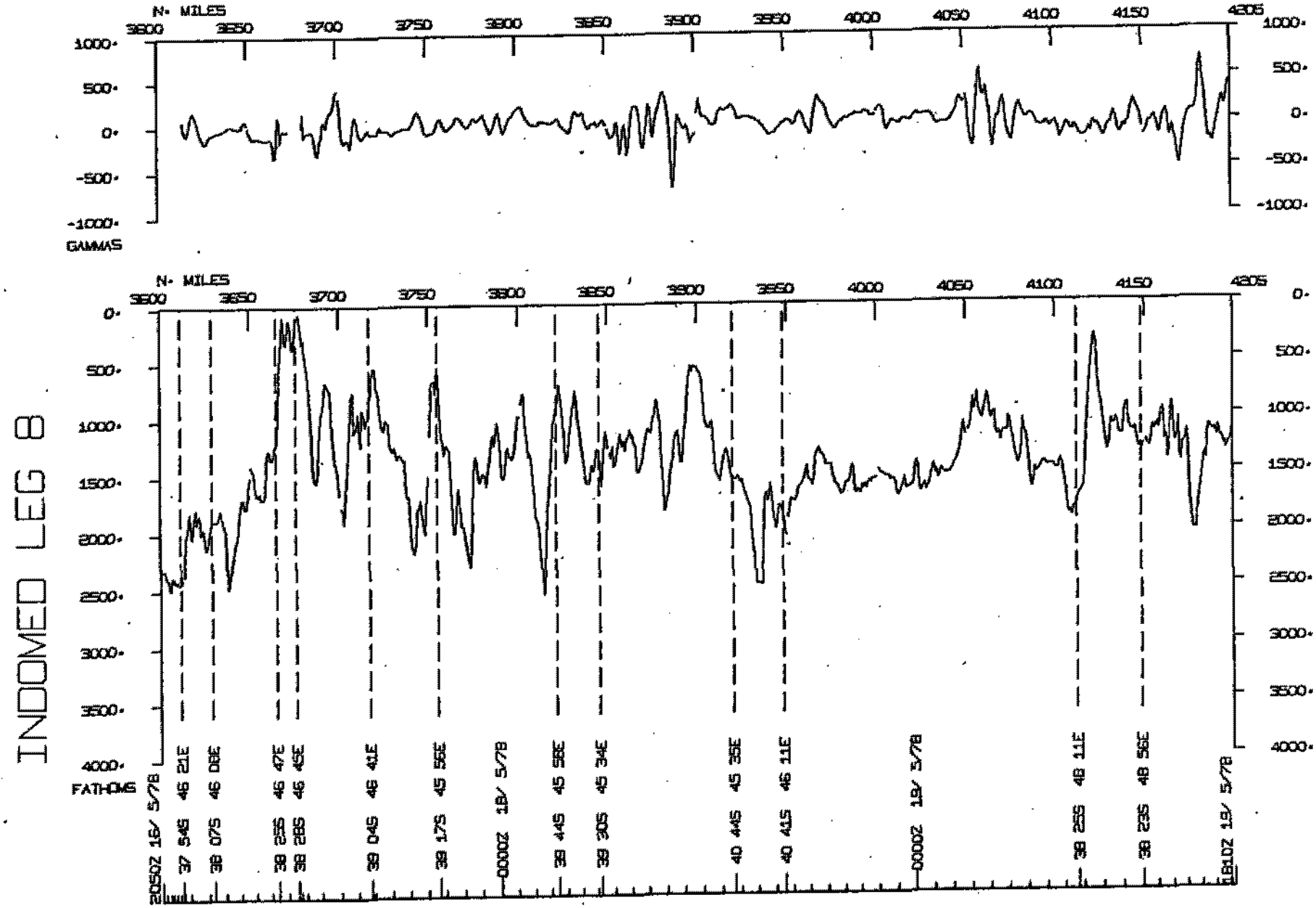
3050
3100
3150
3200
3250
3300
3350
3400
3450
3500
3550
3605
1000.
500.
0.
-500.
-1000.
GAMMAS
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
FATHOMS
1220Z 14/ 5/78
0000Z 15/ 5/78
34 57S 46 23E
35 30S 47 20E
0800Z 16/ 5/78
36 25S 46 27E
37 01S 47 10E
37 50S 46 17E
0400Z 16/ 5/78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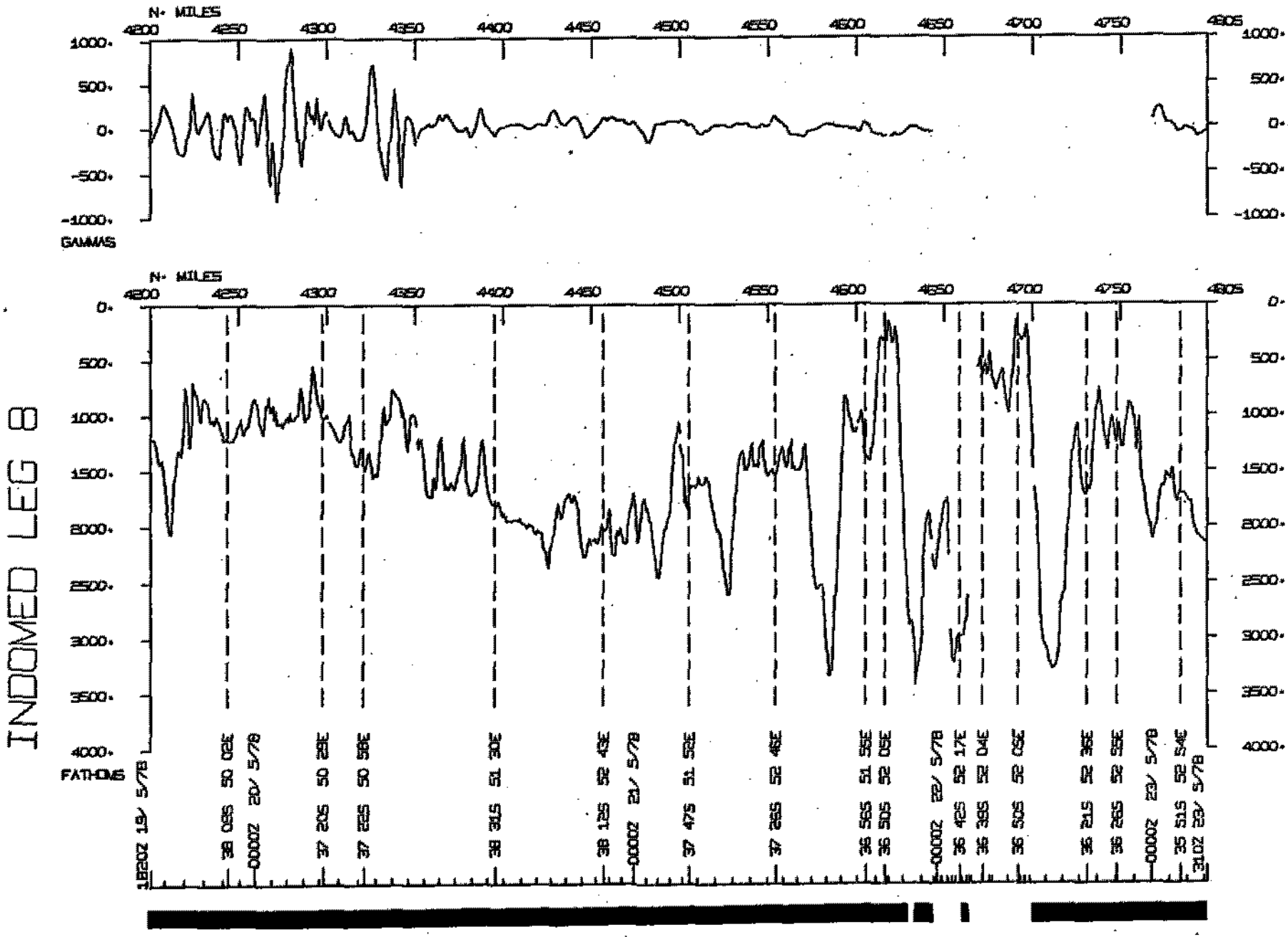
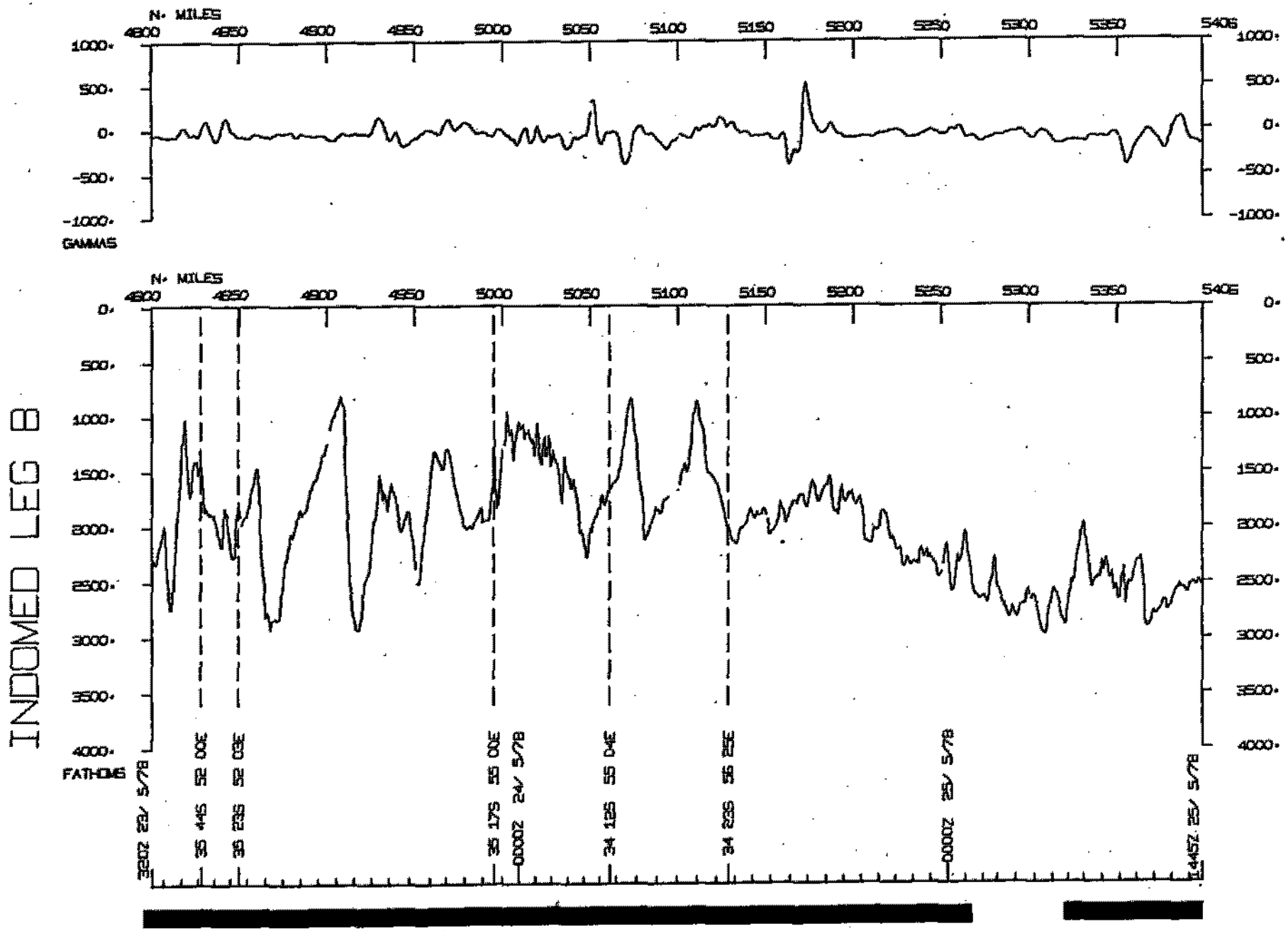
3600 3650 3700 3750 3800 3850 3900 3950 4000 4050 4100 4150 4205
1000 500 0 -500 -1000
GAMMAS
0 500 1000 1500 2000 2500 3000 3500 4000
FATHOMS
20502 16/ 5/78
37 54S 46 21E
38 07S 46 08E
38 23S 46 47E
38 28S 46 45E
39 04S 46 41E
39 17S 45 56E
00002 18/ 5/78
39 44S 45 58E
39 30S 45 34E
40 44S 45 35E
40 41S 46 11E
00002 19/ 5/78
38 25S 48 11E
38 23S 48 56E
18102 19/ 5/78


INDOMED LEG 8
N. MILES
GAMMAS
FATHOMS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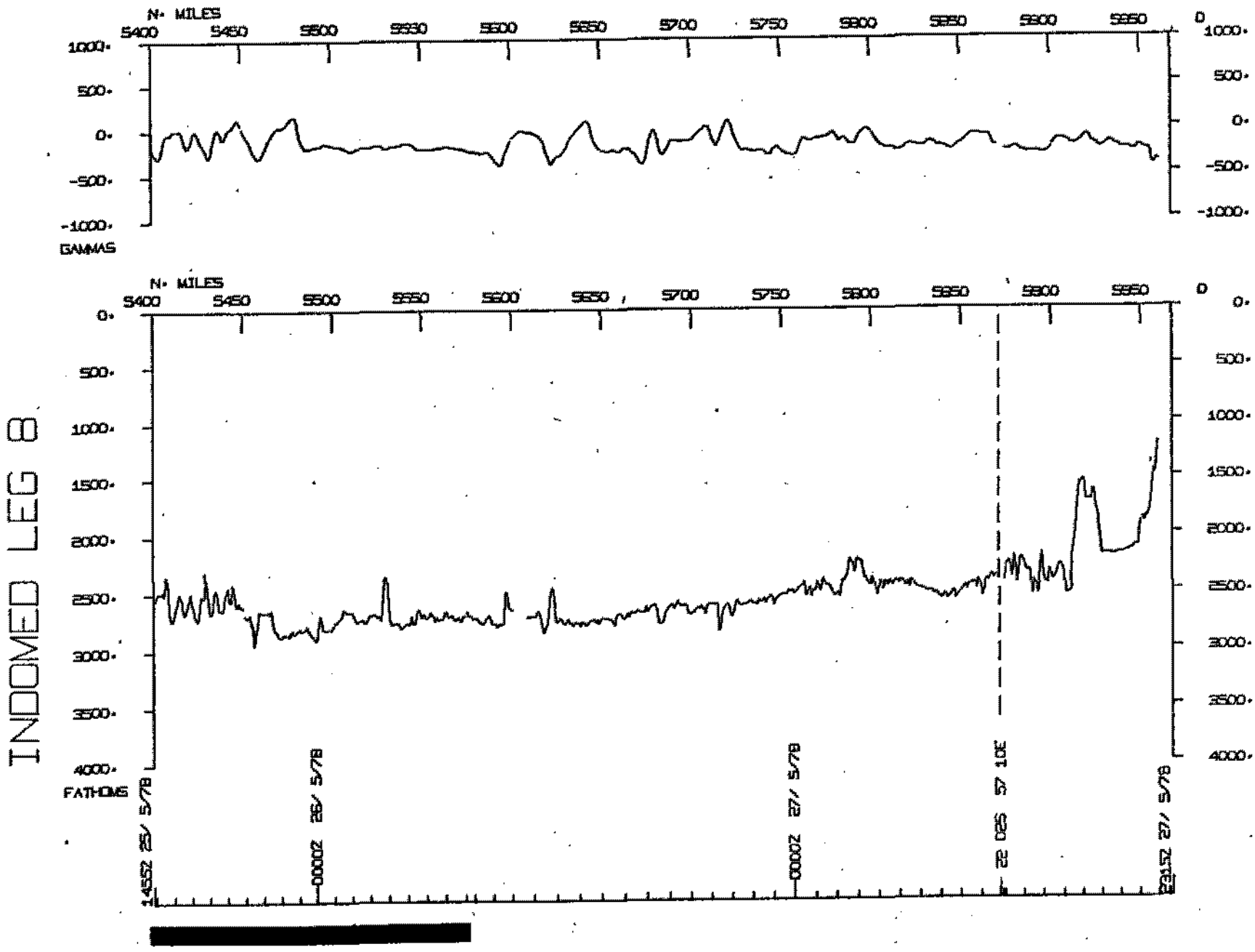
1000 500 0 -500 -1000
GAMMAS
0 500 1000 1500 2000 2500 3000 3500 4000
FATHOMS
3202 23/ 5/78
35 445 52 00E
36 235 52 03E
35 175 55 00E
00002 24/ 5/78
34 125 55 04E
34 235 55 25E
00002 25/ 5/78
14452 25/ 5/78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N. MILES
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5450
5500
5550
5600
5650
5700
5750
5800
5850
5900
5950
1000.
500.
0.
-500.
-1000.
GAMMAS
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
FATHOMS
1452 25/ 5/78
0000Z 26/ 5/78
0000Z 27/ 5/78
22 026 57 10E
2352 27/ 5/78

S.I.O. SAMPLE INDEX

(Issued August 3, 1978)

INDOMED EXPEDITION

LEG 8

Pt. Louis, Mauritius (29 April 1978)
to
Pt. Louis, Mauritius (28 May 1978)

R/V Melville

Chief Scientist - R. L. Fisher (SIO)

Resident Marine Tech - R. Comer

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

Index Encoding Funded by NSF
Grant Number OCE76-80618
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.)

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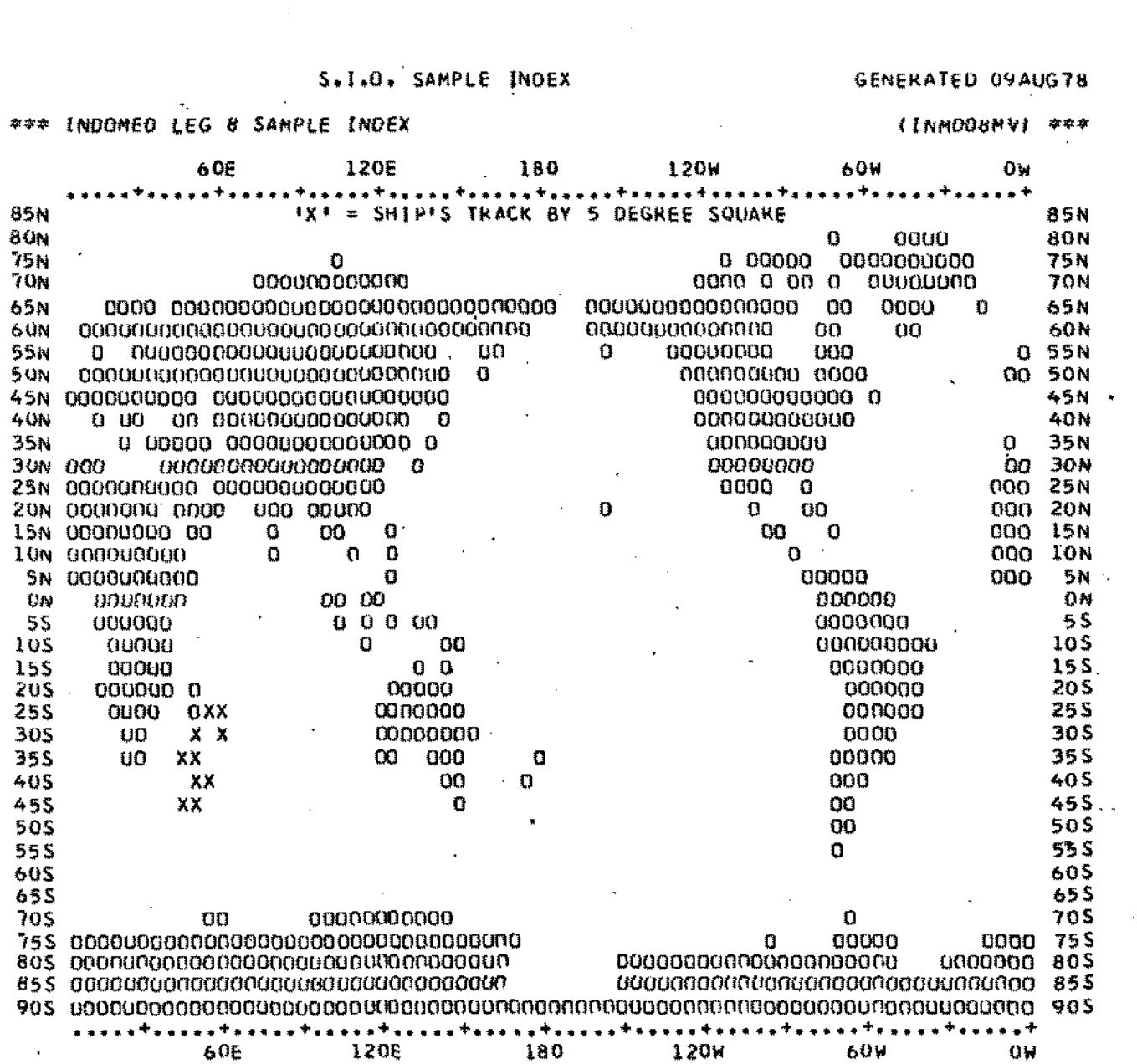
S.I.O. SAMPLE INDEX GENERATED 09AUG78

*** INDOMED LEG 8 SAMPLE INDEX (INMD08MV) ***



29APR78 - PT. LOUIS, MAURITIUS
TO
28MAY78 - PT. LOUIS, MAURITIUS

CHIEF SCIENTIST - FISHER, R. L. GRD

SHIP - R/V MELVILLE (SIO)

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

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

DISP	TYPE									TOTAL
	BT	DP	DR	LB	MG	PE	SN	SP	SR	
CBD						3			8	11
DCP	17									17
GCR			12							12
GDC		3		1	3	1				8
GRD						1				1
MIC							2			2
MIT						2				2
MTG						1				1
RLF								4		4
SCG						1				1
SGG						1				1
SIX						5				5
TOTAL	17	3	12	1	3	15	2	4	8	65

SAMPLE 'TYPE' CODES USED ABOVE

BT = BATHYTHERMOGRAM
DP = DEPTH
DR = DREDGE
LB = LOG BOOKS
MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
PE = PERSONNEL IN SCIENTIFIC PARTY
SN = SURFACE NET
SP = SEISMIC REFLECTION PROFILE AIRGUN
SR = SEISMIC STATION - SHOOTING RUN

SAMPLE 'DISP' CODES USED ABOVE

CBD = CAMBRIDGE UNIVERSITY, ENGLAND
DCP = DATA COLLECTION; PROCESSING GROUP -- F. WILKES (EXT. 3668)
GCR = GEOLOGICAL CURATING FACILITY -- W. RIEDEL, (EXT. 4386)
GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
GRD = GEOLOGICAL RESEARCH DIVISION (EXT. 3360)
MIC = MARINE INVERTEBRATE CURATOR - A.FLEMINGER, (EXT. 2071)
MIT = MASS. INST. TECHNOLOGY
MTG = MARINE TECHNOLOGY GROUP (EXT 4194)
RLF = ROBERT L. FISHER (EXT. 3597) SIO
SCG = SHIPBOARD COMPUTER GROUP (EXT. 4195)
SGG = SHIPBOARD GEOPHYSICAL GROUP--P. CRAMPTON (EXT.2079)
SIX = SCRIPPS INSTITUTION NON-EMPLOYEE -(CONTACT DORCAS UTTER EXT. 2356)

INDOMED LEG 8 SAMPLE INDEX INMD08MV

*** PORTS ***

1100 29 478	LGPT B PT. LOUIS, MAURITIUS	20	10	S	57	30	E	F	INMD08MV
830 28 578	LGPT E PT. LOUIS, MAURITIUS	20	10	S	57	30	E	F	INMD08MV

PERSONNEL

PECS	FISHER, R. L.	GRD	INMD08MV
PE	SCLATER, J. G.	MIT	INMD08MV
PE	PARSONS, R. E.	MIT	INMD08MV
PE	LOUDEN, K.	CBD	INMD08MV
PE	GOSLIN, J. P. (FR.)	SIX	INMD08MV
PE	DURAND, J. (FR.)	SIX	INMD08MV
PERT	COMER, R. L.	MTG	INMD08MV
PECT	CHARTERS, J. S.	SCG	INMD08MV
PEAT	HUBENKA, F.	SGG	INMD08MV
PEMT	NEWHOUSE, D.	GDC	INMD08MV
PE	MASON, M.	CBD	INMD08MV
PE	SINHA, M.	CBD	INMD08MV
PE	HUGHES, K.	SIX	INMD08MV
PE	MORETON, M.	SIX	INMD08MV
PE	VALE, P.	SIX	INMD08MV

*** NOTE *** TIME ZONES AND MINUTES OF LATITUDE AND LONGITUDE ARE LISTED
IN TENTHS (E.G. 10.6 IS LISTED AS 106)

*** NOTE *** AN 'X' IN THE (B)EGIN/(F)IND COLUMN FOLLOWING THE SAMPLE
CODE INDICATES NO SAMPLE OR DATA RECOVERED

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
					UNDERWAY DATA CURATOR - STUART M. SMITH (EXT.2752)				
*** LOG BOOKS ***									
1000	29	478		LBUW	B UNDERWAY LOG BOOK	GDC	20 249S	57 99E	S INMD08MV
2216	27	578		LBUW	E UNDERWAY LOG BOOK	GDC	20 346S	57 113E	S INMD08MV
*** FATHOGRAMS ***									
1030	29	478		DPR3	B EDR 3.5KHZ ROLL-01	GDC	20 294S	57 64E	S INMD08MV
305	11	578		DPR3	E EDR 3.5KHZ ROLL-01	GDC	41 253S	42 577E	S INMD08MV
310	11	578		DPR3	B EDR 3.5KHZ ROLL-02	GDC	41 255S	42 582E	S INMD08MV
1906	21	578		DPR3	E EDR 3.5KHZ ROLL-02	GDC	36 502S	52 51E	S INMD08MV
1915	21	578		DPR3	B EDR 3.5KHZ ROLL-03	GDC	36 507S	52 56E	S INMD08MV
2216	27	578		DPR3	E EDR 3.5KHZ ROLL-03	GDC	20 346S	57 113E	S INMD08MV
*** MAGNETOMETER ***									
914	29	478		MGR	B MAGNETICS ROLL-01	GDC	20 232S	57 112E	S INMD08MV
656	6	578		MGR	E MAGNETICS ROLL-01	GDC	32 266S	44 411E	S INMD08MV
659	6	578		MGR	B MAGNETICS ROLL-02	GDC	32 271S	44 412E	S INMD08MV
1330	11	578		MGR	E MAGNETICS ROLL-02	GDC	41 566S	41 587E	S INMD08MV
1625	22	578		MGR	B MAGNETICS ROLL-03	GDC	36 490S	52 92E	S INMD08MV
2216	27	578		MGR	E MAGNETICS ROLL-03	GDC	20 346S	57 113E	S INMD08MV
*** SEISMIC REFLECTION PROFILES ***									
1600	30	478		SPRS	B AIR GUN 5 SEC. R-01	RLF	24 91S	52 449E	S INMD08MV
135	7	578		SPRS	E AIR GUN 5 SEC. R-01	RLF	32 504S	45 156E	S INMD08MV
142	7	578		SPRS	B AIR GUN 5 SEC. R-02	RLF	32 492S	45 164E	S INMD08MV
800	26	578		SPRS	E AIR GUN 5 SEC. R-02	RLF	26 588S	56 499E	S INMD08MV
1600	30	478		SPRF	B AIR GUN 2 SEC. R-01	RLF	24 91S	52 449E	S INMD08MV
1830	15	578		SPRF	E AIR GUN 2 SEC. R-01	RLF	35 67S	46 401E	S INMD08MV

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
2300	15 578			SPRF	B AIR GUN 2 SEC. R-02	RLF	35 355S	47 159E	S INMD08MV
800	26 578			SPRF	E AIR GUN 2 SEC. R-02	RLF	26 588S	56 499E	S INMD08MV
*** DREDGE ***									
342	2 578			DRR	B DREDGE-02	GCR	26 69S	47 435E	S INMD08MV
430	2 578			DRR	E DREDGE-02	GCR	26 74S	47 431E	S INMD08MV
836	8 578			DRR	B DREDGE-03	GCR	34 280S	43 263E	S INMD08MV
915	8 578			DRR	E DREDGE-03	GCR	34 289S	43 266E	S INMD08MV
100	12 578			DRR	X DREDGE-04	GCR	42 34S	42 431E	S INMD08MV
541	12 578			DRR	B DREDGE-05	GCR	42 10S	42 437E	S INMD08MV
711	12 578			DRR	E DREDGE-05	GCR	41 582S	42 441E	S INMD08MV
1321	12 578			DRR	B DREDGE-06	GCR	41 572S	42 393E	S INMD08MV
1515	12 578			DRR	E DREDGE-06	GCR	41 578S	42 413E	S INMD08MV
1945	12 578			DRR	B DREDGE-07	GCR	41 580S	42 380E	S INMD08MV
2120	12 578			DRR	E DREDGE-07	GCR	41 587S	42 404E	S INMD08MV
402	13 578			DRR	B DREDGE-08	GCR	42 6S	42 410E	S INMD08MV
503	13 578			DRR	E DREDGE-08	GCR	42 18S	42 415E	S INMD08MV
49	17 578			DRR	B DREDGE-09	GCR	37 525S	46 261E	S INMD08MV
200	17 578			DRR	E DREDGE-09	GCR	37 527S	46 249E	S INMD08MV
1152	17 578			DRR	B DREDGE-10	GCR	38 282S	46 461E	S INMD08MV
1215	17 578			DRR	E DREDGE-10	GCR	38 285S	46 450E	S INMD08MV
1700	21 578			DRR	X DREDGE-11	GCR	36 501S	52 40E	S INMD08MV
2355	21 578			DRR	B DREDGE-12	GCR	36 391S	52 248E	S INMD08MV
42	22 578			DRR	E DREDGE-12	GCR	36 392S	52 265E	S INMD08MV
741	22 578			DRR	B DREDGE-13	GCR	36 417S	52 130E	S INMD08MV
835	22 578			DRR	E DREDGE-13	GCR	36 420S	52 134E	S INMD08MV
1210	22 578			DRR	B DREDGE-14	GCR	36 387S	52 68E	S INMD08MV
1237	22 578			DRR	E DREDGE-14	GCR	36 389S	52 58E	S INMD08MV
1525	22 578			DRR	B DREDGE-15	GCR	36 508S	52 69E	S INMD08MV
1549	22 578			DRR	E DREDGE-15	GCR	36 501S	52 79E	S INMD08MV
*** SEISMIC REFRACTION MONITORING ***									
510	4 578			SRST	B SHOOTING RUN-01	CBD	31 386S	44 195E	S INMD08MV
1710	4 578			SRST	E SHOOTING RUN-01	CBD	29 586S	45 359E	S INMD08MV

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
530	7 578			SKST B	SHOOTING RUN-02	CBD	32 153S	45 361E	S INMD08MV
1710	7 578			SKST E	SHOOTING RUN-02	CBD	34 9S	44 292E	S INMD08MV
*** SONOBUOY DROP *** SEISMIC REFRACTION MONITORING									
1500	3 578			SKSB B	BUOY-01	CBD	30 195S	45 205E	S INMD08MV
340	5 578			SKSB E	BUOY-01	CBD	30 428S	45 297E	S INMD08MV
1534	3 578			SKSB B	BUOY-02	CBD	30 214S	45 200E	S INMD08MV
650	5 578			SKSB E	BUOY-02	CBD	30 559S	45 394E	S INMD08MV
1957	3 578			SKSB B	BUOY-03	CBD	30 519S	44 522E	S INMD08MV
1130	5 578			SKSB E	BUOY-03	CBD	31 98S	44 567E	S INMD08MV
2040	3 578			SKSB B	BUOY-04	CBD	30 557S	44 493E	S INMD08MV
1315	5 578			SKSB E	BUOY-04	CBD	31 67S	44 538E	S INMD08MV
147	4 578			SKSB B	BUOY-05	CBD	31 248S	44 286E	S INMD08MV
2305	5 578			SKSB E	BUOY-05	CBD	31 202S	44 301E	S INMD08MV
220	4 578			SKSB B	BUOY-06	CBD	31 268S	44 273E	S INMD08MV
2358	5 578			SKSB E	BUOY-06	CBD	31 216S	44 278E	S INMD08MV
*** SURFACE NET ***									
1850	16 578			SNNU B	H NO.-01	MIC	37 563S	46 196E	S INMD08MV
1900	16 578			SNNU E	H NO.-01	MIC	37 559S	46 206E	S INMD08MV
807	26 578			SNNU B	H NO.-02	MIC	26 585S	56 499E	S INMD08MV
822	26 578			SNNU E	H NO.-02	MIC	26 579S	56 500E	S INMD08MV
*** BATHYTHERMOGRAPH ***									
1020	3 578			BTX	SAMPLE NO. 1	DCP	30 215S	45 145E	S INMD08MV
1040	3 578			BTX	SAMPLE NO. 2	DCP	30 220S	45 142E	S INMD08MV
500	4 578			BTX	SAMPLE NO. 1	DCP	31 396S	44 187E	S INMD08MV
1225	7 578			BTX	SAMPLE NO. 1	DCP	33 165S	44 548E	S INMD08MV
1740	7 578			BTX	SAMPLE NO. 2	DCP	34 50S	44 267E	S INMD08MV
1050	12 578			BTX	SAMPLE NO. 1	DCP	41 569S	42 346E	S INMD08MV
452	14 578			BTX	SAMPLE NO. 1	DCP	40 573S	43 230E	S INMD08MV
1731	14 578			BTX	SAMPLE NO. 2	DCP	39 233S	45 329E	S INMD08MV
5	15 578			BTX	SAMPLE NO. 1	DCP	38 115S	45 398E	S INMD08MV
502	15 578			BTX	SAMPLE NO. 2	DCP	37 146S	45 532E	S INMD08MV
1105	15 578			BTX	SAMPLE NO. 3	DCP	36 52S	46 139E	S INMD08MV
1707	15 578			BTX	SAMPLE NO. 4	DCP	34 586S	46 265E	S INMD08MV
2310	15 578			BTX	SAMPLE NO. 5	DCP	35 371S	47 143E	S INMD08MV

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
200	16 578			BTX	X NO DATA	DCP	35 554S	46 529E	S INMD08MV
640	16 578			BTX	SAMPLE NO. 1	DCP	36 297S	46 272E	S INMD08MV
2150	16 578			BTX	SAMPLE NO. 2	DCP	37 505S	46 305E	S INMD08MV
1035	18 578			BTX	SAMPLE NO. 1	DCP	40 124S	45 369E	S INMD08MV
1311	18 578			BTX	SAMPLE NO. 2	DCP	40 398S	45 356E	S INMD08MV
9900					END SAMPLE INDEX				INMD08MV