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

(Issued September 1988)

RAITT EXPEDITION

LEG 2

R/V Washington

Acapulco, Mexico (11 February 1988) to Manzanillo, Mexico (13 March 1988)

Chief Scientist - R. Batiza
Northwestern University

Resident Marine Technician - R. Comer

Post-Cruise Processing and Report Preparation by Geological Data Center, Scripps Institution of Oceanography

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

NOTE: This is an index of underway geophysical data edited and processed after the completion of the cruise leg and is intended primarily for informal use within the institution. 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.# 237

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

Processed by the Geological Data Center Scripps Institution of Oceanography

### Contents:

Track Charts - annotated with dates and hour ticks.

Profiles - depth, magnetic anomaly and gravity free air anomaly vs. distance. Sections of track having subbottom profiles (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. Phone (619)534-2752.

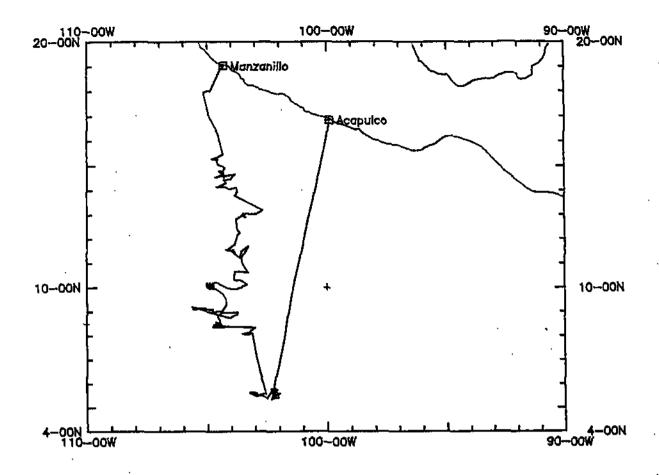
- Navigation listing with times and positions of course and speed changes, fixes and drift velocity.
- 2. Depth compilation plots compilation plots at the traditional scale of 4in/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2&2/3 degree beam width) depths retrieved at one minute intervals of ship time.
- 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.
- Microfilm or Xerox copies of:
  - a. Echosounder records 12 and 3.5 kHz frequency
  - b. Subbottom profiler records
  - c. Magnetometer records
  - d. Underway data log book

#### SIO Sea Beam Data

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

revised October 1986



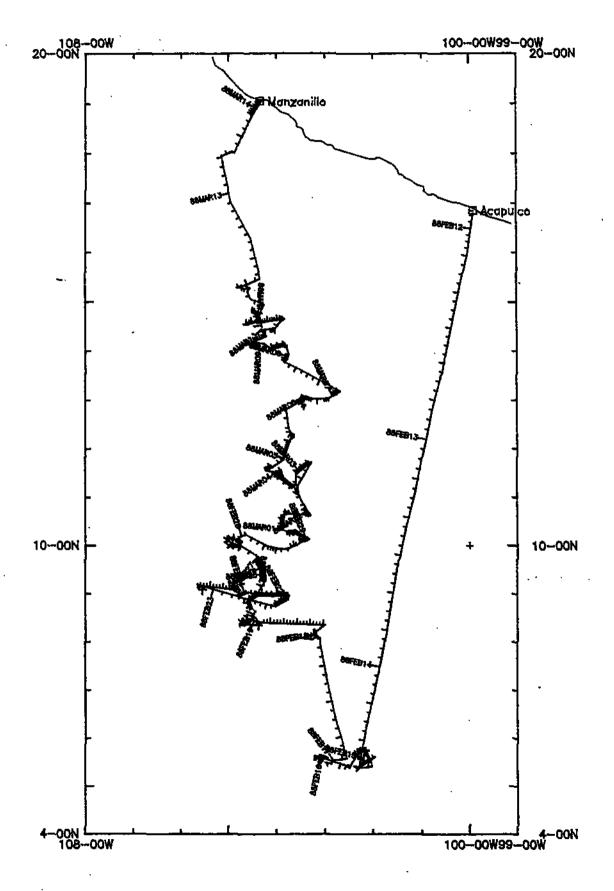
RAITT LEG 2 (RAITO2WT)

#### RAITT EXPEDITION LEG 2

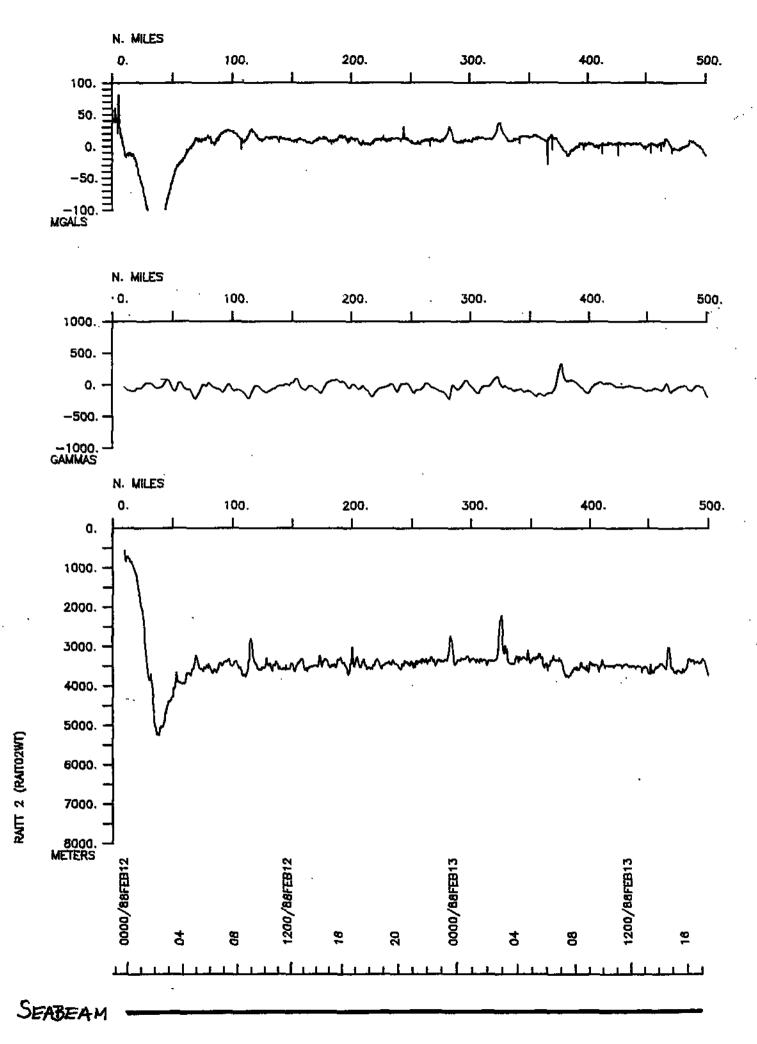
CHIEF SCIENTIST: R. Batiza (Northwestern University) PORTS: Acapulco - Manzanillo, Mexico DATES: 11 February - 13 March 1988 SHIP: R/V T. Washington

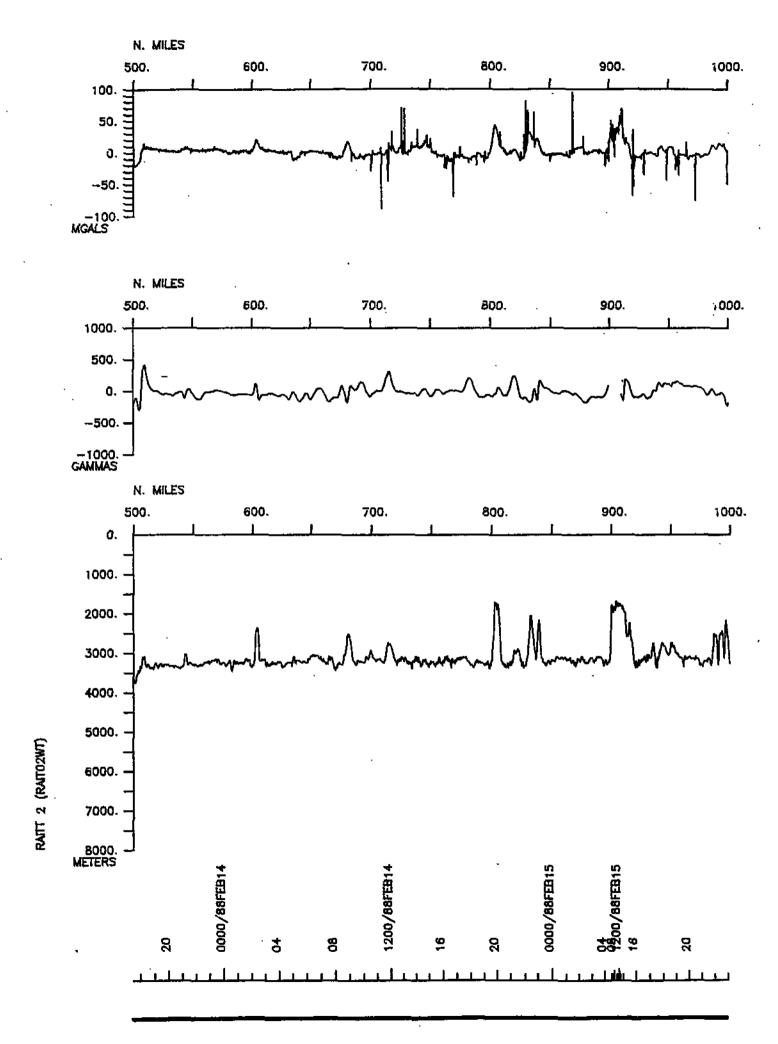
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

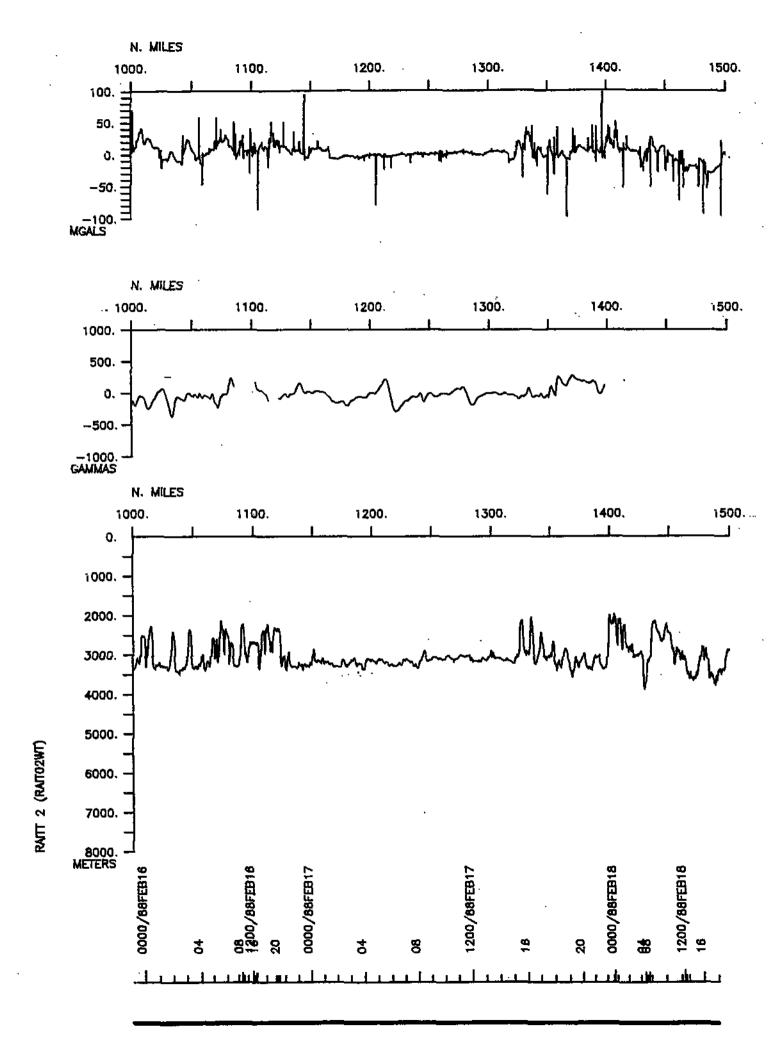
- 1) Cruise 4365 miles
- 2) Bathymetry 4350 miles 3) Magnetics 2475 miles
- 4) Seismic Reflection none collected
- 5) Gravity 4365 miles 6) Sea Beam 4350 miles

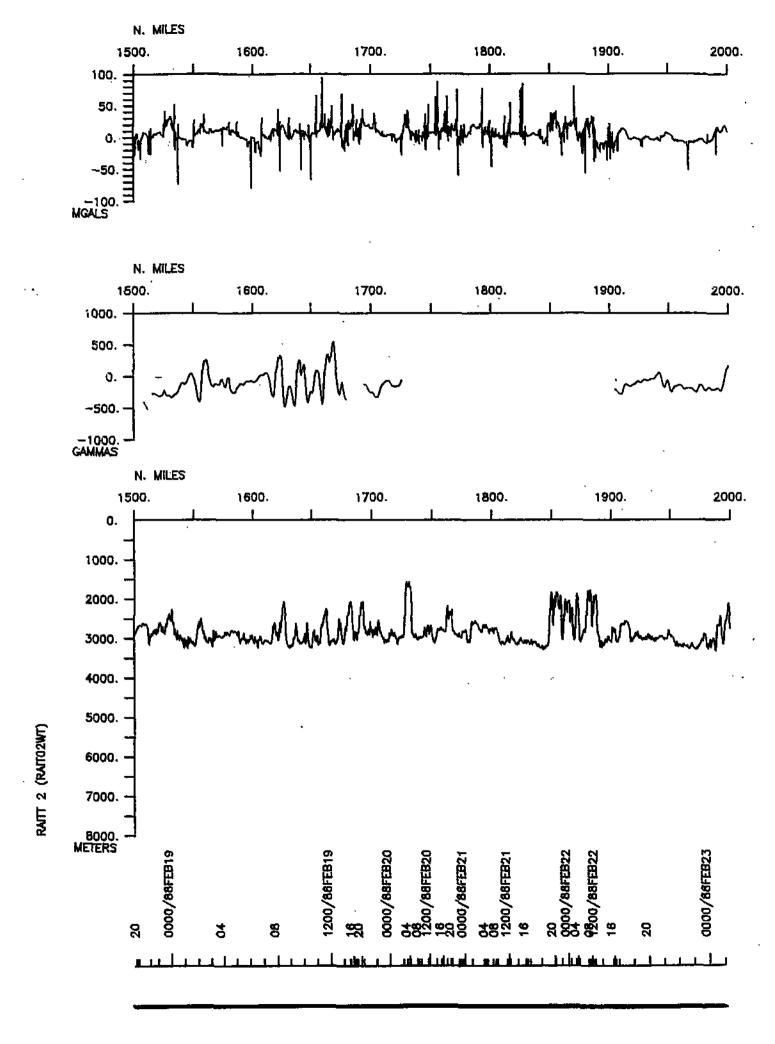


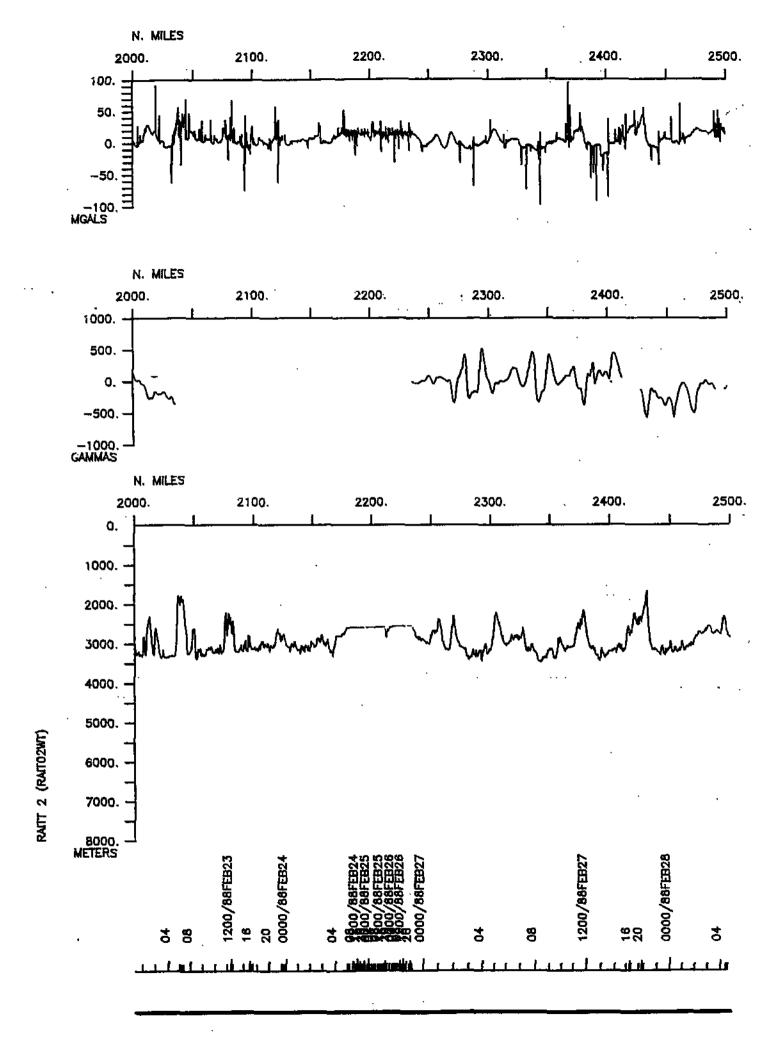
RAITT LEG 2 (RAITO2WT) Track at .45 in/deg

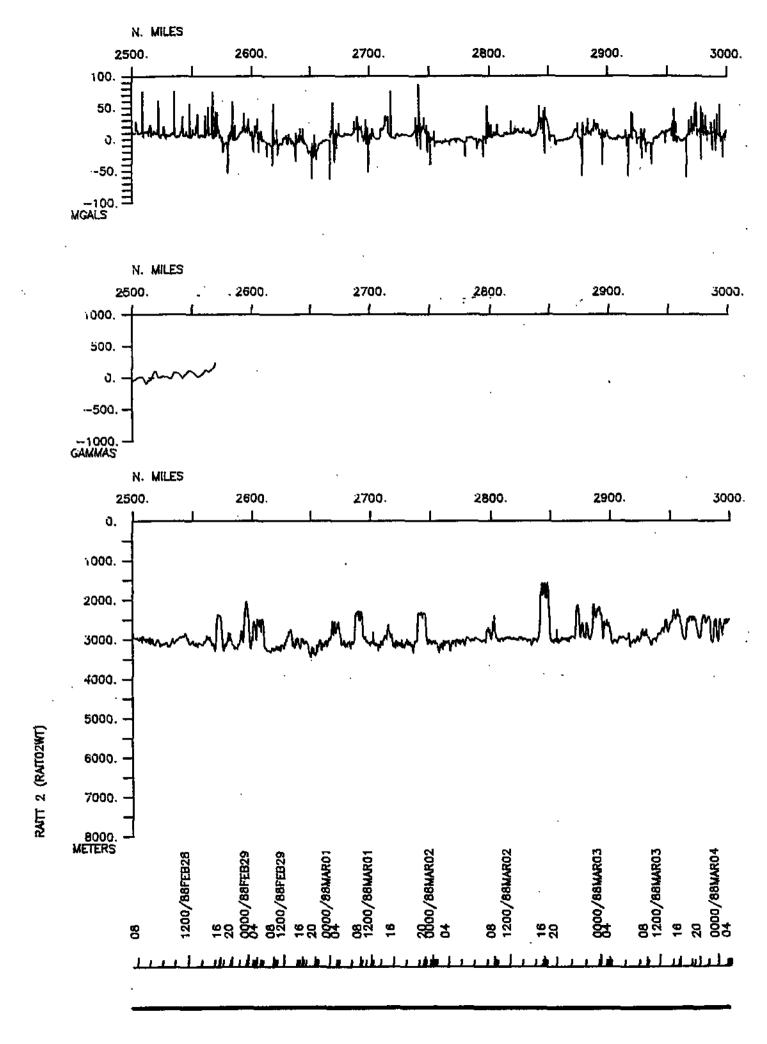


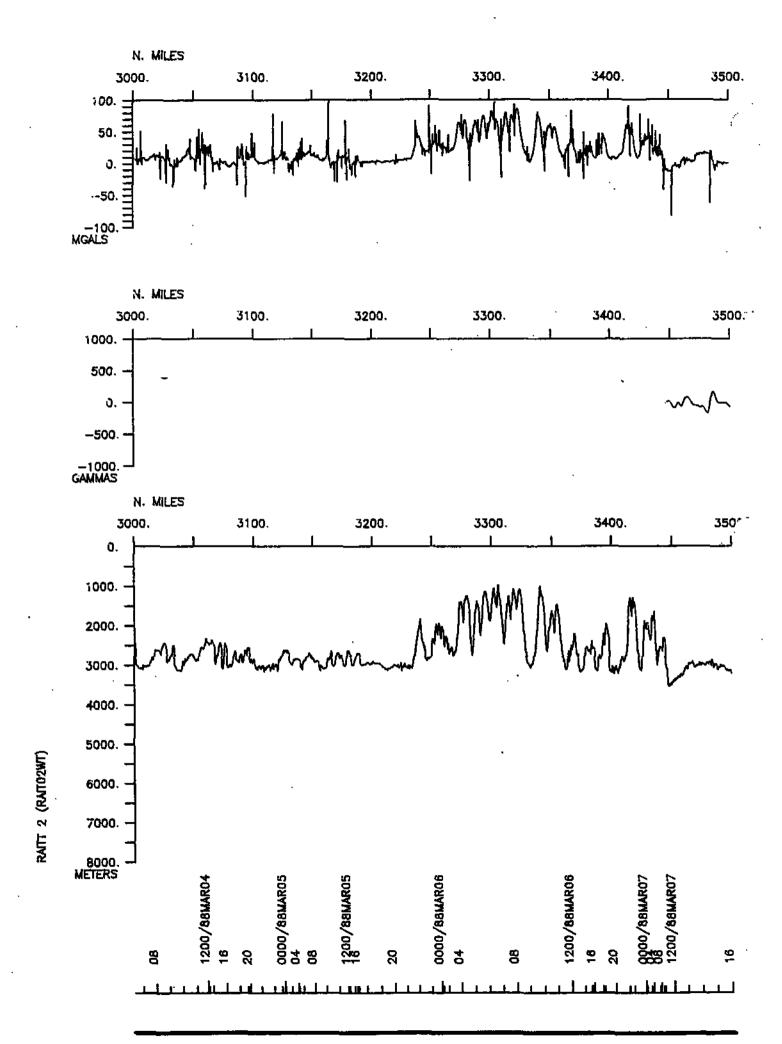


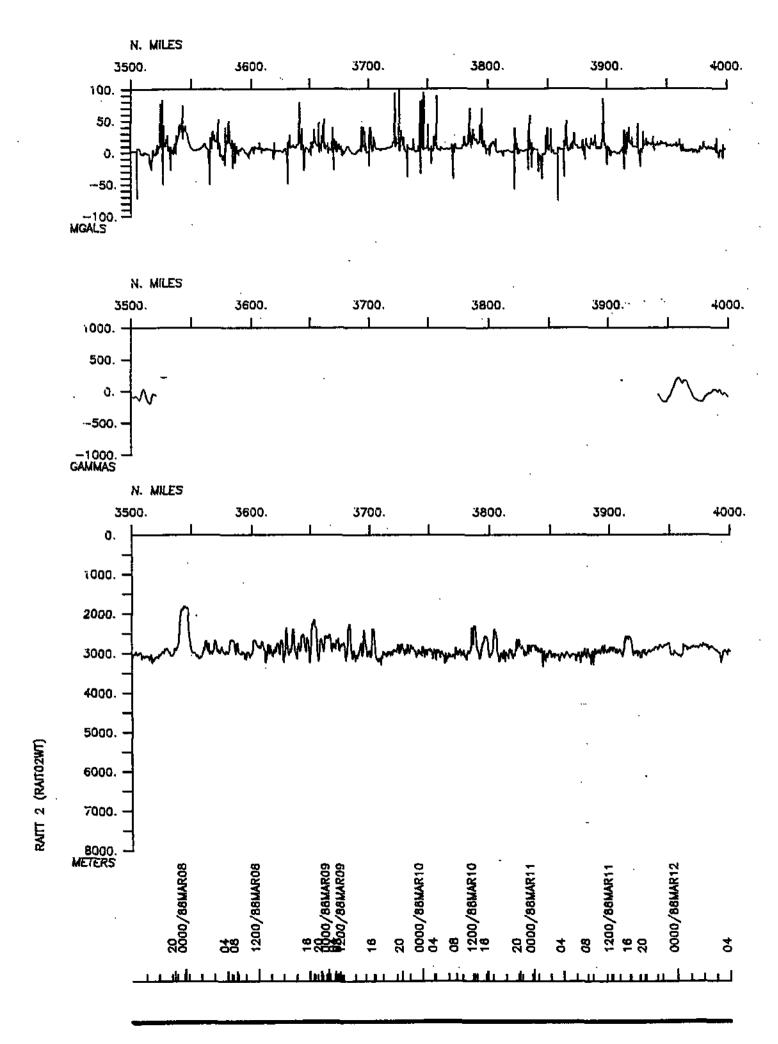


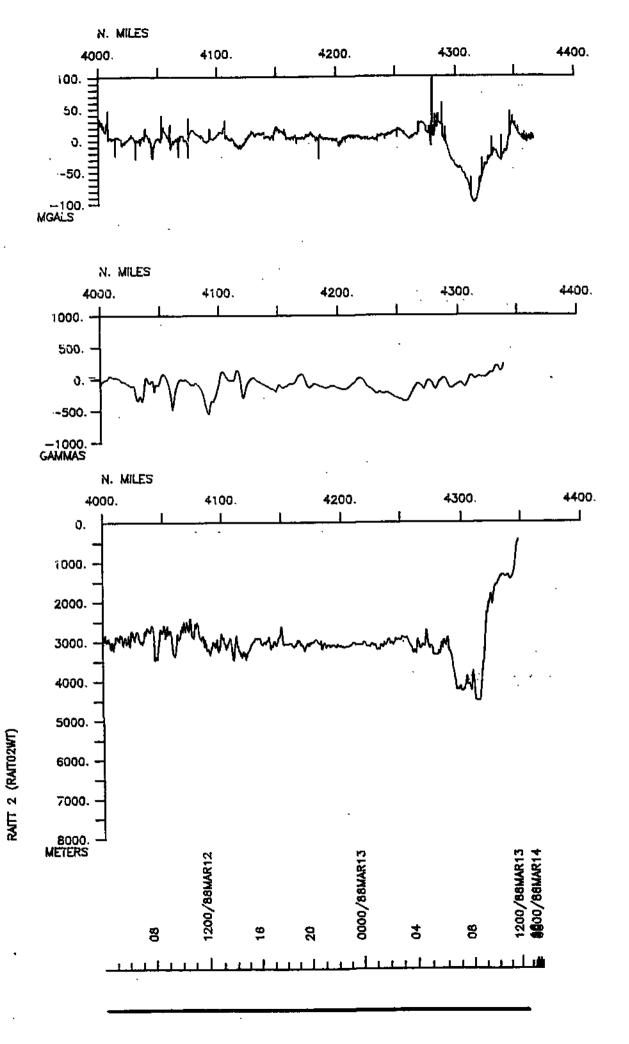












#### S.I.O. SAMPLE INDEX

(Issued September 1988)

RAITT EXPEDITION

Leg 2

R/V T. Washington

Acapulco, Mexico (11 February 1988) to Manzanillo, Mexico (13 March 1988)

Chief Scientist - R. Batiza
Northwestern University

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.# 237

#### Sep 13 09:18 1988 RAITT LEG 2 SAMPLE INDEX Page 1

LGPT B ACAPULCO, MEXICO

#### #\*\*\* PORTS \*\*\*

2251 110288

1200	13038	38 LG1	T E	MANZANILLO, MEXICO	19-03 N 104-20 W	fRAITO2WT
#***	PERSO	)NNEL *** ***NAME***		***TITLE***	***AFFILIATION***	**CRID**
PECS PERT PESP PESP PESP PEBE PESP PESP PEST PEST PEST	STS SIX SIX NWU STS STS SIX GSU SIX NWU NWU	BATIZA, DR.R. COMER, R.L. SACK, DR.R.O. VANKO, DR.D. KARSTEN, DR.J. MOORE, M. PHILLIPS, J. SMITH, W. GEE, L. MILBY, B. DEXTRAZE, B. CHEVERTON, S. MILLER, P. BRODHOLT, J.		CHIEF SCIENTIST RESIDENT TECH. PROFESSOR ASSIST. PROF. ASSIST. PROF. COMPUTER TECH. SEABEAM ENGINEER SEABEAM OPERATOR TEACH. ASSIST. TECHNICIAN RESEARCH ASSIST. UNDERGRAD STUD. GRAD. STUDENT	NORTHWESTERN UNIV. SCRIPPS INSTITUTION PURDUE UNIVERSITY GEORGIA STATE UNIV. NORTHWESTERN UNIV. SCRIPPS INSTITUTION SCRIPPS INSTITUTION SCRIPPS INSTITUTION PURDUE UNIVERSITY U.S.GEOLOGICAL SURVEY PURDUE UNIVERSITY UNIV. OF WISCONSIN NORTHWESTERN UNIV. NORTHWESTERN UNIV.	RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT RAITO2WT
PEVL PEST PEVL PEVL	UWN UWN	HUNT, I. JOHNSON, K. POTENZ, F.S. MCCRERY, T.		VOLUNTEER GRAD. STUDENT VOLUNTEER VOLUNTEER	NORTHWESTERN UNIV. NORTHWESTERN UNIV. NORTHWESTERN UNIV.	RAITO2W. RAITO2WT RAITO2WT

16-51 N 99-56 W fRAITO2WT

#### #\*\*\*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.

# Sep 13 09:18 1988 RAITT LEG 2 SAMPLE INDEX Page 2

#GMT DDMMYY LOC T #TIME DATE TIME Z	SAMP SAMPI CODE IDENTI	LE IFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP							
-	#***UNDERWAY DATA CURATOR - S. M. SMITH EXT. 42752												
#***LOG BOOKS***													
2251 110288 1158 130388	LBUW B UNDER	WAY WATCH LOG WAY WATCH LOG	GDC GDC	16-494N 18-555N	99-546W 104-249W	sRAITO2WT sRAITO2WT							
#*** MAGNETICS (EA	RTH TOTAL FIEL	D) ***											
2349 110288 1046 130388	MGRA B MAGNE MGRA E MAGNE	TICS R-01 TICS R-01	GDC GDC	16-434N 18-463N	99-545W 104-300W	sRAITO2WT sRAITO2WT							
#*** ECHO SOUNDER			•										
30 110288 0116 130288	MBRM B SEABE MBRM E SEABE	AM MONITOR R-C	01 GDC 01 GDC	16-474N 11-566N	99-537W 100-584W	sRAITO2WT sRAITO2WT							
0120 130288 1821 160288	MBRM B SEABE MBRM E SEABE	AM MONITOR R-C				sRAITO2WT sRAITO2WT							
1830 160288 1232 200288	MBRM B SEABE MBRM E SEABE	AM MONITOR R-C				sRAITO2WT sRAITO2WT							
1253 200288 1710 200288	MBRM B SEABE MBRM E SEABE	AM MONITOR R-C				sRAITO2WT sRAITO2WT							
1712 200288 0710 240288	,	AM MONITOR R-C				sRAITO2WT sRAITO2WT							
0720 240288 0122 280288	MBRM B SEABE MBRM E SEABE	AM MONITOR R-C	06 GDC 06 GDC	9-172N 10-165N	104-133W 104-375W	sRAITO2WT sRAITO2WT							
0127 280288 2320 020388	MBRM B SEABE MBRM E SEABE	AM MONITOR R-C	7 GDC	10-160N 11-312N	104-368W 103-339W	sRAITO2WT sRAITO2WT							
2326 020388 2234 060388	MBRM B SEABE MBRM E SEABE	AM MONITOR R-0	08 GDC	11-313N 13-016N	103-339W 102-570W	sRAITO2WT sRAITO2WT							
7742 060388 18 100388	MBRM B SEABE MBRM E SEABE	AM MONITOR R-C	D9 GDC	13-016N 14-369N	102-570W 104-058W	sRAITO2WT sRAITO2WT							
1824 100388 1158 130388	MBRM B SEABE MBRM E SEABE	AM MONITOR R-	10 GDC 10 GDC	14-369N 18-555N	104-069W 104-249W	sRAITO2WT sRAITO2WT							

# Sep 13 09:18 1988 RAITT LEG 2 SAMPLE INDEX Page 3

#GMT DDMMYY LOC T	SAMP SAMPLE	DISP	CRUISE
#TIME DATE TIME Z	CODE IDENTIFIER	CODE LAT.	LONG. LEG-SHIP
#*** SEA BEAM SWATH	BOOKS ***		
0030 120288	MBSB B SEABEAM SWATH BK-01		99-560W sRAITO2WT
1319 120288	MBSB E SEABEAM SWATH BK-01		100-268W sRAITO2WT
1319 120288	MBSB B SEABEAM SWATH BK-02		100-268W sRAITO2WT
1440 130288	MBSB E SEABEAM SWATH BK-02		101-334W sRAITO2WT
1440 130288	MBSB B SEABEAM SWATH BK-03	· · · - · -	101-334W sRAIT02WT
1540 140288	MBSB E SEABEAM SWATH BK-03		101-591W sRAIT02WT
1540 140288	MBSB B SEABEAM SWATH BK-04		101-591W sRAIT02WT
2351 150288	MBSB E SEABEAM SWATH BK-04		103-073W sRAIT02WT
2351 150288	MBSB B SEABEAM SWATH BK-05		103-073W sRAIT02WT
0955 170288	MBSB E SEABEAM SWATH BK-05		102-575W sRAIT02WT
0956 170288	MBSB B SEABEAM SWATH BK-06	* · · · · · · · · · ·	102-575W sRAITO2V
2150 180288	MBSB E SEABEAM SWATH BK-06		104-139W sRAITO2W1
2150 180288	MBSB B SEABEAM SWATH BK-07	·	104-139W sRAIT02WT
0945 200288	MBSB E SEABEAM SWATH BK-07		104-336W sRAIT02WT
0945 200288	MBSB B SEABEAM SWATH BK-08	GDC 8-548N	104-336W sRAITO2WT
0622 220288	MBSB E SEABEAM SWATH BK-08	GDC 8-488N	103-541W sRAITO2WT
0622-220288	MBSB B SEABEAM SWATH BK-09	GDC 8-488N	103-541W sRAITO2WT
1504-230288	MBSB E SEABEAM SWATH BK-09	GDC 9-039N	104-530W sRAITO2WT
1504 230288	MBSB B SEABEAM SWATH BK-10		104-530W sRAIT02WT
0500 250288	MBSB E SEABEAM SWATH BK-10		104-139W sRAIT02WT
0500 250288	MBSB B SEABEAM SWATH BK-11		104-139W sRAITO2WT
1947 260288	MBSB E SEABEAM SWATH BK-11		104-154W sRAITO2WT

Sep 23 08:23 1988 RAITT LEG 2 SAMPLE INDEX Page 4

#GMT DDMMYY LOC T #TIME DATE TIME Z #	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1947 260288 0051 280288	MBSB B S	SEABEAM SWATH : SEABEAM SWATH :	BK-12 GDC BK-12 GDC	9-401N 10-122N	104-154W 104-393W	sRAITO2WT sRAITO2WT
0051 280288 1715 290288	MBSB B S	SEABEAM SWATH : SEABEAM SWATH :	BK-13 GDC BK-13 GDC			sRAITO2WT sRAITO2WT
1715 290288 1155 020388	MBSB B S	SEABEAM SWATH : SEABEAM SWATH :	BK-14 GDC BK-14 GDC			sRAITO2WT sRAITO2WT
1155 020388 0331 040388	MBSB B S	SEABEAM SWATH : SEABEAM SWATH :	BK-15 GDC BK-15 GDC			sRAITO2WT sRAITO2WT
0331 040388 1548 050388	MBSB B S	SEABEAM SWATH	BK-16 GDC BK-16 GDC			sRAITO2WT sRAITO2WT
1548 050388 32 060388	MBSB B S	SEABEAM SWATH	BK-17 GDC BK-17 GDC			sRAITO2WT sRAITO2WT
2132 060388 1316 080388						sRAITO2WT sRAITO2WT
1316 080388 0753 100388	MBSB B S	SEABEAM SWATH	BK-19 GDC BK-19 GDC			sRAITO2WT sRAITO2WT
0753 100388 0133 120388	MBSB B S	SEABEAM SWATH	BK-20 GDC BK-20 GDC			sRAITO2WT sRAITO2WT
0133 120388 0235 130388	MBSB B S	SEABEAM SWATH SEABEAM SWATH	BK-21 GDC BK-21 GDC			sRAITO2WT sRAITO2WT
0235 130388 1158 130388	MBSB B S	SEABEAM SWATH	BK-22 GDC BK-22 GDC	17-393N 18-555N	105-061W 104-249W	sRAITO2WT sRAITO2WT
#*** GRAVIMETER - C						
2251 110288 1200 130388	GVSV B (	GRAVITY METER GRAVITY METER	GDC GDC	16-494N 18-558N	99-546W 104-247W	sRAITO2WT sraito2WT

### Sep 13 11:11 1988 RAITT LEG 2 SAMPLE INDEX Page 5

#GMT DI #TIME I	DMMYY LOC T DATE TIME Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE LAT.	CRUISE LONG. LEG-SHIP
	HERMOGRAPH REC		**	• •	
2110 11 1405 13	10288 30388	TGRC B	THERMOGRAPHS 1-29 THERMOGRAPHS 1-29	GDC 16-509N GDC 19-042N	99-541W sRAITO2WT 104-186W sRAITO2WT
#*** R(	OCK DREDGES **	*			
0632 15 0748 15	50288 50288	DRRO B DRRO E	ROCK DREDGE 01 1938M ROCK DREDGE 01 1834M	GCR 5-466N GCR 5-467N	102-110W sRAIT02WT 102-107W sRAIT02WT
0959 15	50288	DRRO B	ROCK DREDGE 02 1777M	GCR 5-467N	102-127W sRAIT02WT
1209 15 1302 15			ROCK DREDGE 03 1788M ROCK DREDGE 03 1770M		102-127W sRAIT02WT 102-128W sRAIT02WT
			ROCK DREDGE 04 2320M ROCK DREDGE 04 2263M		103-011W sRAIT02WT 103-010W sRAIT02V
1244 16 1449 16			ROCK DREDGE 05 2720M ROCK DREDGE 05 2700M		103-040W sRAIT02WT 103-037W sRAIT02WT
1923 16 2350 16			ROCK DREDGE 06 2360M ROCK DREDGE 06 2360M		103-110W sRAITO2WT 102-504W sRAITO2WT
2337 17 0012 18	70288 80288	DRRO B DRRO E	ROCK DREDGE 07 2087M ROCK DREDGE 07 2020M	GCR 8-087N GCR 8-085N	103-107W sRAIT02WT 103-114W sRAIT02WT
0442 18 0742 18			ROCK DREDGE 08 3857M ROCK DREDGE 08 3180M		103-014W sRAIT02WT 103-036W sRAIT02WT
1219 18 1328 18			ROCK DREDGE 09 3130M ROCK DREDGE 09 M		103-315W sRAIT02WT 103-311W sRAIT02WT
1906 18 2000 18	80288 80288	DRRO B DRRO E	ROCK DREDGE 10 2830M ROCK DREDGE 10 2741M	GCR 8-209N GCR 8-211N	104-063W sRAIT02WT 104-065W sRAIT02WT
1432 19	90288	DRRO X	ROCK DREDGE 11 2110M	GCR 8-236N	104-405W sRAITO2WT

Sep 13 09:18 1988 RAITT LEG 2 SAMPLE INDEX Page 6

#GMT #TIME #	DDMMYY LOC T DATE TIME Z	SAMP CODE	SAMP IDENT	LE TFIER	- <del></del>		DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1720 1807	190288. 190288	DRRO B	ROCK ROCK	DREDGE DREDGE	12 12	2865M 3020M	GCR GCR	8-218N 8-220N	104-383W 104-391W	sRAITO2WT sRAITO2WT
2033 2101	190288 190288	DRRO B	ROCK	DREDGE DREDGE	13 13	2180M 2140M	GCR GCR			sRAITO2WT sRAITO2WT
0156 0230	200288 200288 -	DRRO B	ROCK ROCK	DREDGE DREDGE	14 14	1560M 1690M	GCR GCR			sRAITO2WT sRAITO2WT
	200288 200288			DREDGE DREDGE						sRAITO2WT sRAITO2WT
	200288 200288	DRRO B	ROCK	DREDGE DREDGE	16 16	2985M M	GCR GCR	8-506N 8-503N	104-336W 104-340W	sRAITO2WT sraito2Wt
1048 25	200288 200288	DRRO E	ROCK ROCK	DREDGE DREDGE	17 17	2720M 2715M	GCR GCR	8-547N 8-544N	104-339W 104-340W	sRAITO2WT sRAITO2WT
1425 1520	200288 200288	DRRO B	ROCK ROCK	DREDGE DREDGE	18 18	2720M M	GCR GCR			sRAITO2WT sraito2WT
1828 1924	200288 200288	DRRO E	ROCK ROCK	DREDGE DREDGE	19 19	2375M 2267M	GCR GCR			sRAITO2WT sraito2WT
2213 2318	200288 200288	DRRO E	ROCK ROCK	DREDGE DREDGE	20 20	2985M 2837M	GCR GCR			sRAITO2WT sRAITO2WT
0314 0407	210288 210288	DRRO E	ROCK ROCK	DREDGE DREDGE	21 21	2711M 2657M	GCR GCR			sRAITO2WT sRAITO2WT
0721 0816	210288 210288	DRRO E	ROCK ROCK	DREDGE DREDGE	22 22	2761M 2749M	GCR GCR			sRAITO2WT sRAITO2WT
1110 1212	210288 210288	DRRO E	ROCK ROCK	DREDGE DREDGE	23 23	3025M M	GCR GCR			sRAITO2WT sRAITO2WT

#GMT DDMMYY LOC T #TIME DATE TIME Z #	SAMP SAME CODE IDENT	PLE CIFIER	DISP CODE LAT.	CRUI	ISE HIP
1552 210288 1623 210288	DRRO E ROCK	DREDGE 24 30	54M GCR 8-579N	103-525W sRAITO 103-522W sRAITO	2WT 2WT
2047 210288	DRRO B ROCK	DREDGE 25 222	20M GCR 8-529N	103-473W sRAITO	
2142 210288	DRRO E ROCK	DREDGE 25 198	30M GCR 8-530N	103-473W sRAITO	
0026 220288	DRRO B ROCK	DREDGE 26 210	)5M GCR 8-520N	103-512W sRAITO	
0129 220288	DRRO E ROCK	DREDGE 26	M GCR 8-526N	103-515W sRAITO	
0354 220288	DRRO B ROCK	DREDGE 27 20:	51M GCR 8-524N	103-463W SRAITO	
0428 220288	DRRO X ROCK	DREDGE 27 19:	60M GCR 8-519N	103-464W SRAITO	
0658 220288	DRRO B ROCK	DREDGE 28 20	76M GCR 8-487N	103-541W sRAITO	
0935 220288	DRRO E ROCK	DREDGE 28 19	84M GCR 8-487N	103-540W sRAITO	
1635 220288		DREDGE 29	M GCR 8-418N	104-043W sRAITO 104-047W sRAITO	
0556 230288	DRRO B ROCK	DREDGE 30 18	63M GCR 9-101N	105-357W sRAITO	
0637 230288	DRRO E ROCK	DREDGE 30	M GCR 9-107N	105-362W sRAITO	
1225 230288	DRRO B ROCK	DREDGE 31 24	54M GCR 9-052N	105-012W sRAITO	
1302 230288	DRRO E ROCK	DREDGE 31 23	66M GCR 9-053N	105-011W sRAITO	
1642 230288 1732 230288		DREDGE 32 30 DREDGE 32	<del>-</del> -	104-544W sRAITO 104-554W sRAITO	
2212 230288	DRRO B ROCK	DREDGE 33 28	80M GCR 8-565N	104-482W sRAITO	
2255 230288	DRRO E ROCK	DREDGE 33 28	10M GCR 8-560N	104-489W sRAITO	
0614 240288 0653 240288		DREDGE 34 26 DREDGE 34	<del>-</del>	104-134W sRAITO 104-133W sRAITO	
0855 240288	DRRO B ROCK	DREDGE 35 25	11M GCR 9-187M	104-132W sRAITO	
0911 240288	DRRO E ROCK	DREDGE 35 25	93M GCR 9-193M	104-134W sRAITO	
1057 240288	DRRO B ROCK	DREDGE 36 25	94M GCR 9-1981	104-131W sRAIT0	
1131 240288	DRRO E ROCK	DREDGE 36 25	95M GCR 9-1971	104-134W sRAIT0	

### p 13 09:18 1988 RAITT LEG 2 SAMPLE INDEX Page 8

#GMT #TIME #	DDMMYY LOC T DATE TIME Z	SAMP CODE	SAM IDEN	PLE TIFIER			DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1313 1350	240288 240288	DRRO E	ROCK ROCK	DREDGE DREDGE	37 37	2600M M	GCR GCR	9-200N 9-202N	104-129W 104-127W	sRAITO2WT sRAITO2WT
1543 1620	240288 240288	DRRO E	ROCK ROCK	DREDGE DREDGE	38 38	2597M M	GCR GCR			sRAITO2WT sRAITO2WT
1835 1925	240288 240288	DRRO I	ROCK	DREDGE DREDGE	39 39	2586M 2589M	GCR GCR			sRAITO2WT sRAITO2WT
2130 2205	240288 240288			DREDGE DREDGE						sRAITO2WT sRAITO2WT
0000 0031	250288 250288	DRRO I	ROCK ROCK	DREDGE DREDGE	41 41	2598M M	GCR GCR	9-244N 9-241N	104-129W 104-130W	sRAITO2WT sRAITO2WT
0223 0313	250288 250288	DRRO I	ROCK	DREDGE DREDGE	42 42	2588M 2584M	GCR GCR			sRAITO2WT sRAITO2WT
	250288 250288	DRRO I	ROCK	DREDGE DREDGE	43 43	2590M 2584M	GCR GCR			sRAITO2WT sRAITO2WT
0731 0800	250288 250288	DRRO I	ROCK	DREDGE DREDGE	44 44	2583M 2580M	GCR GCR			sRAITO2WT sRAITO2WT
0959 1022	250288 250288	DRRO I		DREDGE DREDGE						sRAITO2WT sRAITO2WT
1206 1238	250288 250288	DRRÒ I DRRO I	ROCK	DREDGE DREDGE	46 46	2581M 2580M	GCR GCR			sRAITO2WT sRAITO2WT
1433 1506	250288 250288	DRRO I	ROCK	DREDGE DREDGE	47 47	2577M 2579M	GCR GCR			sRAITO2WT sRAITO2WT
1705 1741	250288 250288	DRRO 1 DRRO 1	ROCK	DREDGE DREDGE	48 48	2583M 2573M	GCR GCR			sRAITO2WT sRAITO2WT
2012 2036	250288 250288	DRRO I	ROCK	DREDGE DREDGE	49 49	2751M 2699M	GCR GCR			sRAITO2WT sRAITO2WT

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#TIME	DMMYY LOC T DATE TIME Z	SAM	P E 	SAMI IDENI	LE LFIER			DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
2339 2 0011 2	50288 60288				DREDGE DREDGE				9-334N 9-335N	104-142W 104-142W	sRAITO2WT sRAITO2WT
0159 2 0233 2	60288 60288				DREDGE DREDGE			-,	•		sRAITO2WT sRAITO2WT
0420 2 0455 2	60288 60288				DREDGE DREDGE						sRAITO2WT sRAITO2WT
0632 2 0707 2					DREDGE DREDGE						sRAITO2WT sRAITO2WT
0845 2 0914 2		DRI	0 E	ROCK	DREDGE DREDGE	54	2562M	GCR	9-359N	104-150W	sRAITO2WT
1110 2 1139 2	60288	DRI	:O E	ROCK	DREDGE DREDGE	55	2565M	GCR	9-371N	104-153W	sRAITO2WT sRAITO2WT
1326 2 1351 2	60288	DRI	0 E	ROCK	DREDGE DREDGE	56	2558M	GCR	9-381N	104-151W	sRAITO2W sRAITO2WT
1623 2	260288 260288	DRI	0 E	ROCK	DREDGE DREDGE	57	2554M	GCR	9-379N	104-148W	SRAITO2WT SRAITO2WT
1839 2 1916 2	260288	DRI	0 E	ROCK	DREDGE DREDGE DREDGE	58	2550M	GCR	9-400N	104-153W	sRAITO2WT sRAITO2WT
2217 2	260288 260288	DRI	O E	ROCK	DREDGE DREDGE	59	2552M	GCR	9-407N	104-168W	sRAITO2WT sRAITO2WT
1620 2 1722 2	270288	DR!	O E	ROCK	DREDGE	60	2640M	GCR	10-001N	104-548W	sRAITO2WT
2009 2	270288 270288	DR.	10 E	ROCK	DREDGE DREDGE	.61	2364M	GCR			BRAITO2WT

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#GMT DDMMYY LOC T #TIME DATE TIME Z #		PLE FIFIER	DISP CODE LAT.	CRUISE LONG. LEG-SHIP	
0527 280288	DRRO B ROCK	DREDGE 62 24	40M GCR 10-012N	104-116W sRAIT02WT	ı
0627 280288	DRRO E ROCK	DREDGE 62 23	20M GCR 10-015N	104-113W sRAIT02WT	
1522 280288	DRRO B ROCK	DREDGE 63 23	80M GCR 10-052N	103-276W sRAIT02WT	
1611 280288	DRRO E ROCK	DREDGE 63 24	10M GCR 10-058N	103-278W sRAIT02WT	
1844 280288	DRRO B ROCK	DREDGE 64 30	29M GCR 10-019N	103-343W sRAIT02WT	
1914 280288 —	DRRO E ROCK	DREDGE 64 30	03M GCR 10-017N	103-340W sRAIT02WT	
2240 280288	DRRO B ROCK	DREDGE 65 21	80M GCR 10-072N	103-246W sRAIT02WT	
2344 280288	DRRO E ROCK	DREDGE 65 20	74M GCR 10-078N	103-244W sRAIT02WT	
0203 290288	DRRO B ROCK	DREDGE 66 26	20M GCR 10-077N	103-200W sRAIT02WT	
0258 290288	DRRO E ROCK	DREDGE 66 26	00M GCR 10-084N	103-204W sRAIT02WT	
0509 290288	DRRO B ROCK	DREDGE 67 26	44M GCR 10-087N	103-178W sRAIT02WT	•
^<04 290288	DRRO E ROCK	DREDGE 67 25	80M GCR 10-079N	103-181W sRAIT02WT	
0917 290288	DRRO B ROCK	DREDGE 68 32	20M GCR 10-114N	103-247W sRAIT02WT	1
1011 290288	DRRO E ROCK	DREDGE 68 31	77M GCR 10-122N	103-252W sRAIT02WT	
1409 290288	DRRO B ROCK	DREDGE 69 30	00M GCR 10-202N	103-383W sRAIT02WT	
1436 290288	DRRO E ROCK	DREDGE 69 29	85M GCR 10-196N	103-382W sRAIT02WT	
1705 290288	DRRO B ROCK	DREDGE 70 29	64M GCR 10-178N	103-371W sRAIT02WT	
1747 290288	DRRO E ROCK	DREDGE 70 29	64M GCR 10-175N	103-375W sRAIT02WT	
2147 290288	DRRO E ROCK	DREDGE 71 33 DREDGE 71 33	80M GCR 10~158N	103-440W sRAIT02WT 103-441W sRAIT02WT	
0138 010388	DRRO B ROCK	DREDGE 72 28	34M GCR 10-223N	103-556W #RAITO2WI	
0213 010388	DRRO E ROCK	DREDGE 72 27	48M GCR 10-227N	103-557W #RAITO2WI	
0409 010388	DRRO B ROCK	DREDGE 73 25	47M GCR 10-229N	103-554W sRAIT02WI	r
0509 010388	DRRO E ROCK	DREDGE 73	M GCR 10-226N	103-554W sRAIT02WI	r

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#GMT DDMMYY LOC T #TIME DATE TIME Z #	SAMP SAM CODE IDEN	PLE TIFIER	DISP CODE LAT.	LONG.	CRUISE LEG-SHIP
0858 010388 0945 010388	DRRO B ROCK DRRO E ROCK	DREDGE 74 2: DREDGE 74 2:	500M GCR 10-366N 320M GCR 10-371N	103-508W 103-506W	sRAITO2WT sRAITO2WT
1235 010388 1312 010388	DRRO B ROCK DRRO E ROCK	DREDGE 75 3: DREDGE 75	115M GCR 10-419N M GCR 10-414N		
1929 010388 2024 010388					
2300 010388 0151 020388	DRRO B ROCK DRRO E ROCK	DREDGE 77 30 DREDGE 77 30			
0830 020388 0959 020388	DRRO B ROCK DRRO E ROCK	DREDGE 78 2	700M GCR 11-130N 450M GCR 11-130N	103-354W 103-350W	sRAITO2WT sRAITO2WT
1523 020388 1603 020388	DRRO B ROCK DRRO E ROCK	DREDGE 79 10 DREDGE 79 10	600M GCR 11-478N 620M GCR 11-474N		
1810 020388 1846 020388			•	103-151W	sRAITO2WT
2350 020388 0027 030388	DRRO B ROCK DRRO E ROCK	DREDGE 81 2 DREDGE 81	174M GCR 11-315N M GCR 11-319N	103-337W 103-335W	sRAITO2WT sRAITO2WT
0259 030388 0400 030388		DREDGE 82 2 DREDGE 82 2	660M GCR 11-306N	103-363W	sRAITO2WT
1005 030388		DREDGE 83 2	900M GCR 11-141N	103-356W	sRAITO2WT
1426 030388 1507 030388					
1814 030388 1848 030388	DRRO B ROCK DRRO E ROCK	DREDGE 85 2 DREDGE 85 2	459M GCR 11-306N 424M GCR 11-303N	104-000W 104-002W	sRAITO2WT sRAITO2WT

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#TIME	DMMYY LOC T DATE TIME Z						CRUISE LEG-SHIP
2135 0 2216 0	30388 30388		DREDGE DREDGE				sRAITO2WT sRAITO2WT
0152 0 0238 0			DREDGE DREDGE				sRAITO2WT sRAITO2WT
0427 0 0523 0			DREDGE DREDGE				sRAITO2WT sRAITO2WT
1252 0 1344 0			DREDGE DREDGE				sRAITO2WT sRAITO2WT
1833 0 1904 0			DREDGE DREDGE				sRAITO2WT sRAITO2WT
0011 0 0107 0	· <del>-</del>	 	DREDGE DREDGE				sRAITO2WT sraito2WT
.04 0 0543 0			DREDGE DREDGE				sRAITO2WT sRAITO2WT
1202 0 1232 0			DREDGE DREDGE			103-387W 103-382W	sRAITO2WT sRAITO2WT
1526 0 1618 0			DREDGE DREDGE				sRAITO2WT sRAITO2WT
0048 0 0138 0	060388 060388		DREDGE DREDGE				sRAITO2WT sRAITO2WT
	060388 060388	 	DREDGE DREDGE	 	 		sRAITO2WT sRAITO2WT
1751 0 1816 0	_		DREDGE DREDGE			103-192W 103-189W	sRAITO2WT sRAITO2WT
2157 0 2231 0			DREDGE DREDGE				sRAITO2WT sRAITO2WT
0054 0 0158 0	070388 070388	 	DREDGE DREDGE				sRAITO2WT sRAITO2WT

#GMT DDMMYY LOC T #TIME DATE TIME Z #	SAMP CODE	SAMPLE IDENTIFIER		DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
0356 070388 0442 070388	DRRO B DRRO E	ROCK DRDGE ROCK DRDGE	100 1828M 100 1816M	GCR :			sRAITO2WT sRAITO2WT
0653 070388 0745 070388	DRRO B DRRO E	ROCK DRDGE	101 2547M 101 2565M	GCR :			sRAITO2WT sRAITO2WT
0943 070388 1026 070388 -	DRRO B	ROCK DRDGE	102 2350M 102 M				sRAITO2WT sRAITO2WT
2013 070388 2110 070388	DRRO B DRRO E	ROCK DRDGE					sRAITO2WT sRAITO2WT
2318 070388 2357 070388	DRRO B	ROCK DRDGE ROCK DRDGE	104 1839M 104 1851M	GCR :			sRAITO2WT sRAITO2WT
0513 080388 0624 080388	DRRO B DRRO E	ROCK DRDGE	105 2685M 105 2679M	GCR :			sRAITO2WT sRAITO2V
0835 080388 0920 080388	DRRO B	ROCK DRDGE ROCK DRDGE	106 2871M 106 2746M	GCR :			sRAITO2WT sRAITO2WT
,		ROCK DRDGE ROCK DRDGE		•			sRAITO2WT sRAITO2WT
2012 080388 2038 080388	DRRO B	ROCK DRDGE	108 2619M 108 2630M	GCR :			sRAITO2WT sRAITO2WT
2303 080388 2353 080388		ROCK DRDGE					sRAITO2WT sRAITO2WT
0241 090388 0328 090388	DRRO B	ROCK DRDGE	110 2840M 110 2760M	GCR :			sRAITO2WT sRAITO2WT
0532 090388 0633 090388	DRRO B	ROCK DRDGE	111 2740M	GCR			sRAITO2WT sRAITO2WT
0952 090388 1043 090388		ROCK DRDGE					sRAITO2WT sRAITO2WT
1554 090388 1626 090388		ROCK DRDGE					sRAITO2WT sraito2WT

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MT IME	DDMMYY L	OC T	SAMP CODE	·	SAMPLE IDENTIFIER				DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
55 29	090388 090388		DRRO DRRO	B E	ROCK ROCK	DRDGE DRDGE	114 114	2771M 2780M	GCR GCR	14-183N 14-184N	104-154W 104-153W	sRAITO2WT sRAITO2WT
23 03	100388 100388		DRRO DRRO	B E	ROCK ROCK	DRDGE DRDGE	115 115	2910M 2940M	GCR GCR			sRAITO2WT sRAITO2WT
37 35	100388 100388		DRRO DRRO	B E	ROCK ROCK	DRDGE DRDGE	116 116	3008M 2876M	GCR GCR			sRAITO2WT sRAITO2WT
	100388 100388					DRDGE DRDGE						sRAITO2WT sRAITO2WT
53 32	100388 100388		DRRO DRRO	B E	ROCK	DRDGE DRDGE	118 118	2594M 2594M	GCR GCR			sRAITO2WT sRAITO2WT
:03 :58	100388 100388		DRRO DRRO	B E	ROCK ROCK	DRDGE DRDGE	119 119	2657M 2680M	GCR GCR			sRAITO2WT sRAITO2WT
07 37	110388 110388	,	DRRO DRRO	B E	ROCK ROCK	DRDGE DRDGE	120 120	2797M 2795M	GCR GCR			sRAITO2WT sRAITO2WT
·59 `45	110388 110388		DRRO DRRO	B E	ROCK ROCK	DRDGE DRDGE	121 121	2995M 2879M	GCR GCR			sRAITO2WT sRAITO2WT
33 .11	110388 110388	•				DRDGE DRDGE						sRAITO2WT sRAITO2WT
	110388 110388					DRDGE DRDGE						sRAITO2WT - sRAITO2WT
123 )13	110388 110388		DRRO DRRO	B E	ROCK ROCK	DRDGE DRDGE	124 124	2930M 2964M	GCR GCR			aRAITO2WT aRAITO2WT
***	BIOLOGY	SAMPLE	FROM	RO	OCK DI	REDGES	***					
)00 )00	160288 100388		BLXX BLXX	B E	BIOLO	DGY SAN	MPLE:	S FROM	MAC WAC	5-365N 14-261N	103-055W 104-190W	sRAITO2WT sRAITO2WT

#GMT DDMMYY LOC #TIME DATE TIME #	Z	SAMP CODE	SAMPLE IDENTIFIER			DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP	
#*** EXPENDABLE	BAT	HYTHERM	IOGRA:			,	,			,
1419 120288		BTXP			Probe					sRAITO2WT
1955 120288		BTXP			Probe					sRAITO2WT
0243 130288		BTXP			Probe					sRAITO2WT
1515 130288	-	BTXP			Probe		GDC			sRAITO2WT
2045 130288		BTXP			Probe		GDC			sRAITO2WT
0324 140288		BTXP			Probe		GDC			sRAITO2WT
1436 140288		BTXP			Probe		GDC			sRAITO2WT
2117 140288 1323 150288		BTXP BTXP			Probe		GDC			sRAITO2WT
0145 160288		BTXP			Probe Probe		GDC GDC			sRAITO2WT
1359 170288		BTXP			Probe		GDC			sRAITO2WT sRAITO2WT
2142 170288		BTXP	-		Probe	_	GDC			sRAITO2WT sRAITO2WT
1506 180288		BTXP			Probe		GDC			sRAITO2WT
0337 190288		BTXP			Probe		GDC		104-270W	
1833 190288		BTXP			Probe		GDC			sRAITO2
1608 200288		BTXP			Probe		GDC			sRAITO2WT
0637 210288		BTXP			Probe		GDC			sRAITO2WT
0331 220288		BTXP			Probe		GDC			sRAITO2WT
2008 220288	,	BTXP			Probe		GDC			sRAITO2WT
0534 230288		BTXP			Probe		GDC			sRAITO2WT
1812 230288		BTXP			Probe		GDC		*	sRAITO2WT
0701 240288		BTXP			Probe		GDC			sRAIT02WT
0048 250288		BTXP	xbt	0023	Probe	T-4	GDC			SRAITO2WT
1632 250288		BTXP			Probe		GDC			sRAIT02WT
0418 260288		BTXP			Probe		GDC	9-336N	104-148W	sRAITO2WT
1803 260288		BTXP			Probe		GDÇ	9-397ห	104-151W	sRAITO2WT
1546 270288		BTXP			Probe		GDC			sRAIT02WT
0455 280288		BTXP			Probe		GDÇ		_	sRAITO2WT
1827 280288		BTXP			Probe					sRAITO2WT
0434 290288	•	BTXP			Probe					sRAITO2WT
1632 290288		BTXP			Probe					sRAITO2WT
0528 010388		BTXP			Probe					sRAITO2WT
1652 010388		BTXP			Probe					sRAITO2WT
0227 020388		BTXP			Probe					sRAITO2WT
1658 020388		BTXP			Probe					sRAITO2WT
0407 030388		BTXP			Probe					sRAITO2WT
0423 030388		BTXP			Probe					sRAITO2WT
1910 030388		BTXP	xbt	0038	Probe	T-4	GDC	11-304N	104-001W	sRAITO2WT