

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

REM EXPEDITION

LEG 1
=====

R/V Melville

(Issued January 1994)

San Diego, Calif. (10 August 1993)
to
Astoria, Oregon (7 September 1993)

Chief Scientist:

Fred Spiess (Scripps Institution)

Resident Marine Technician - Ron Comer

Computer Technician - Mike Moore

No Sea Beam/Underway Processor on board

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

Data Collection and Processing Funded by:
NSF Grant Number OCE91-00522

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

GDC Cruise I.D.# 261

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

*Processed by the Geological Data Center
Scripps Institution of Oceanography*

Contents:

Index Chart - gives track of cruise leg, dates, ports, and mileage of each type of data collected.

Track Charts - annotated with dates and hour ticks.

Profiles - depth, magnetic anomaly and gravity free air anomaly vs. distance. (Sections of track 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, CA 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 (35mm flowfilm) or Xerox 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.

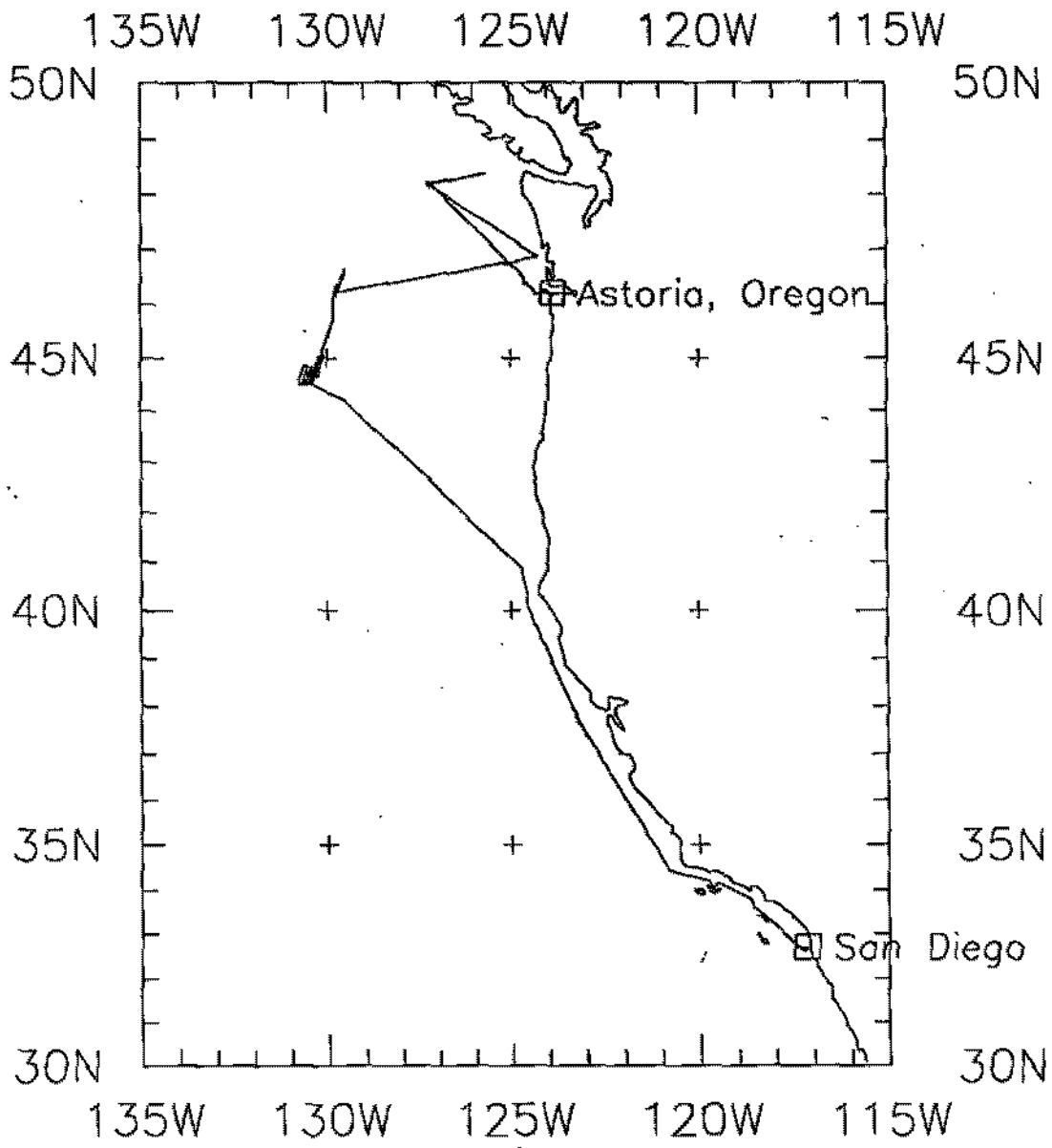
4. Plots:
 - a) Copies of archived 1.2"/degree scale trackplots.
 - b) Copies of archived 8"/degree scale SeaBeam depth plots.
 - c) Custom plots in Mercator projection:
 - 1) Track plots.
 - 2) SeaBeam depth contour plots.
 - 3) Depth, magnetic or gravity values printed or profiled along track.

SeaBeam 2000 Data Collected in Ancillary Mode

In the absence of funding for SeaBeam operations on this leg, SeaBeam data were collected in "ancillary mode". In this mode of operation, no Hardware Technician or SB/Underway Processor were on board and the types of realtime records and post-processed data products are reduced from those available under the fully funded mode.

The SeaBeam data remain proprietary to the SIO Shipboard Technical Support Group, not the chief scientist.

May 1993



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REM EXPEDITION LEG 1

CHIEF SCIENTIST: Dr. Fred Spiess, SIO

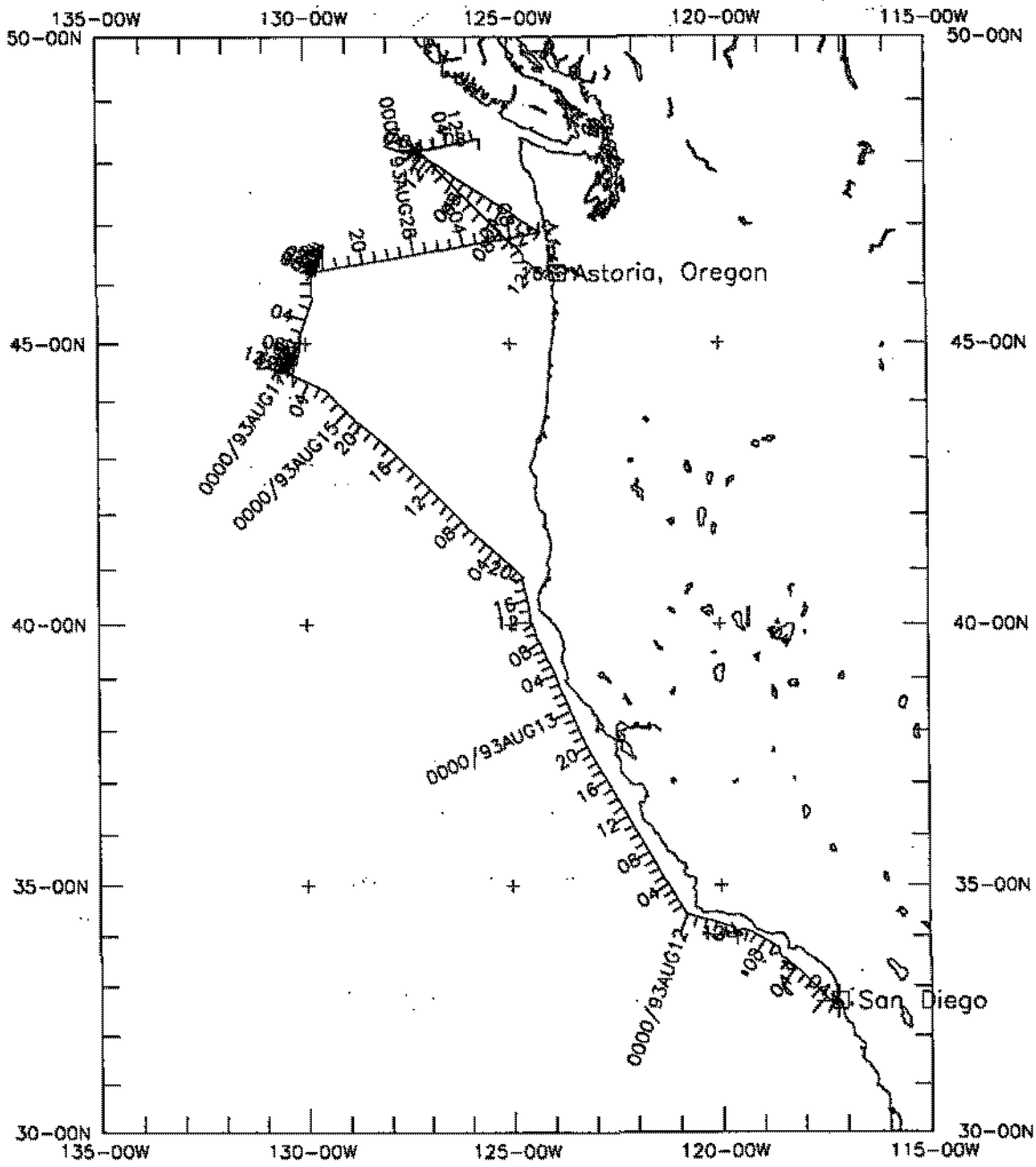
PORTS: San Diego, Calif. - Astoria, Oregon

DATES: 10 August - 7 September 1993

SHIP: R/V Melville

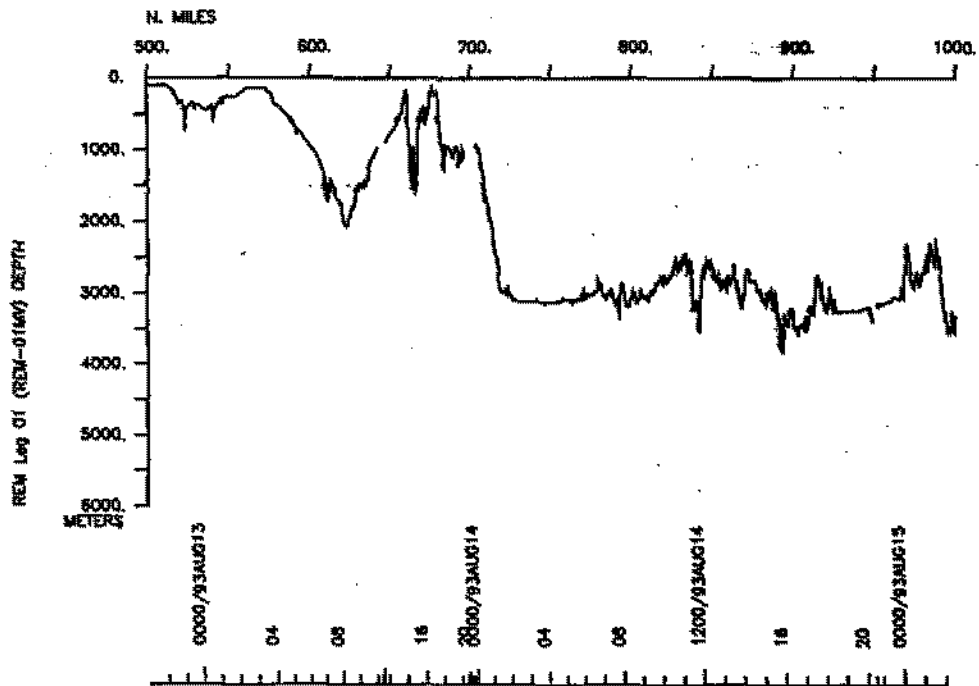
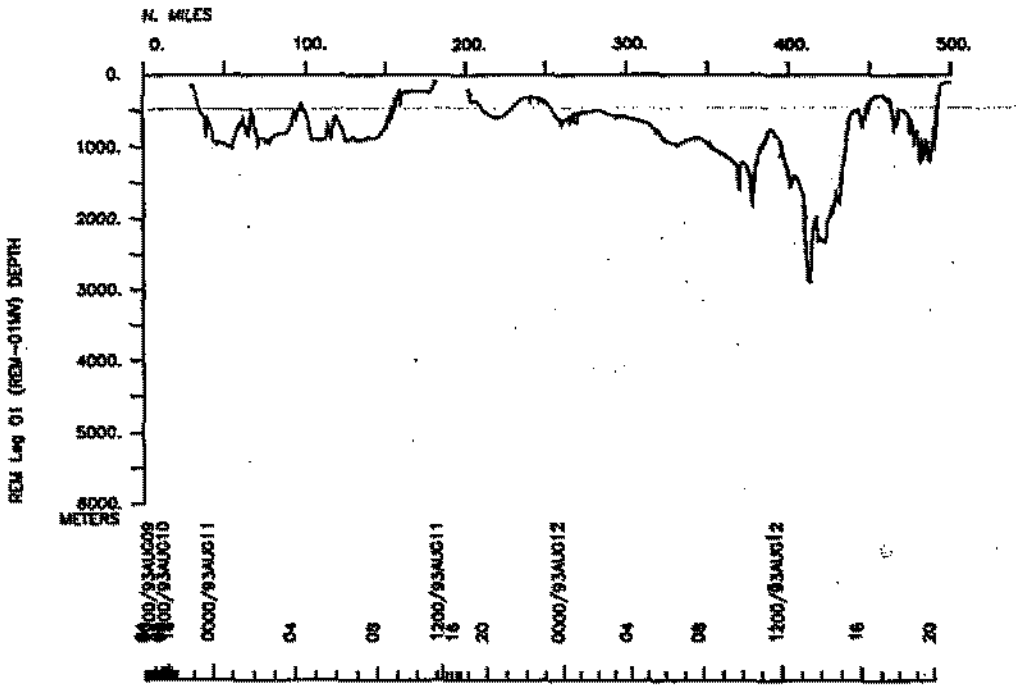
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

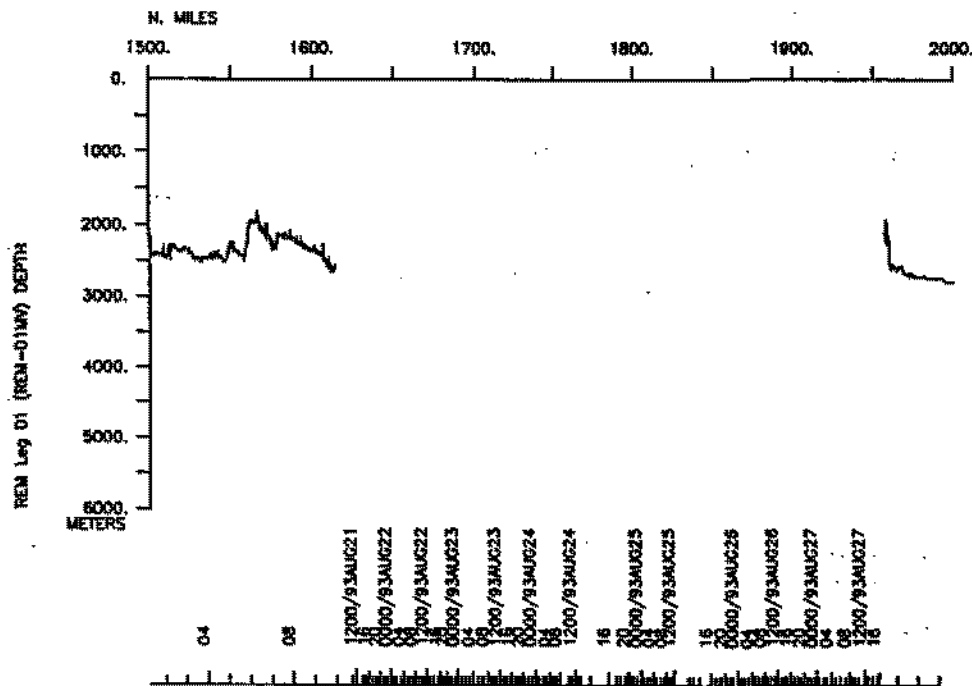
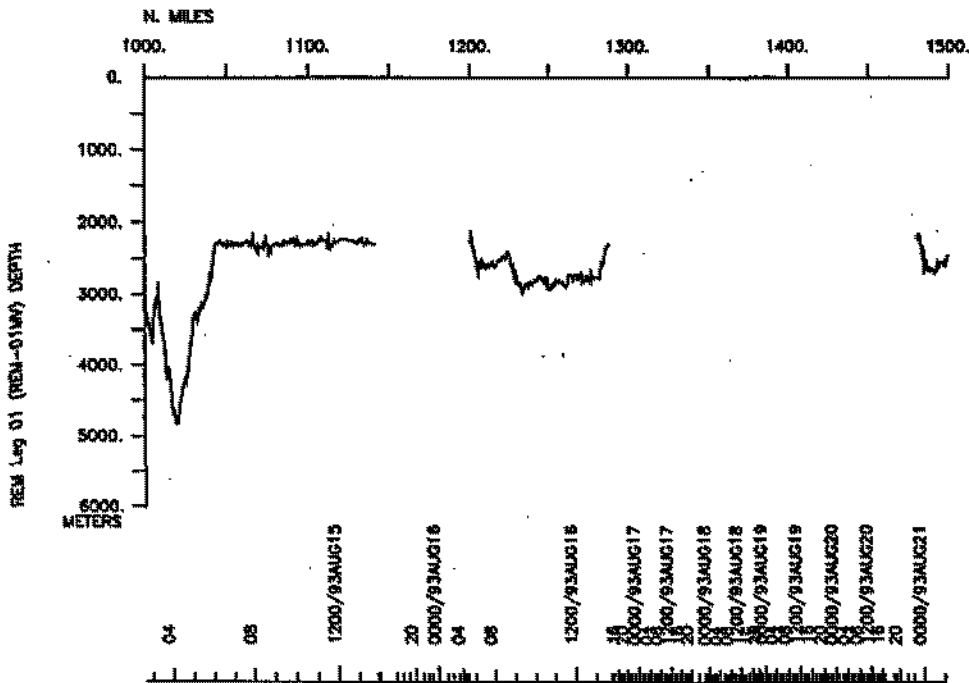
Cruise - 2871 miles	Magnetics - none collected
Bathymetry - 1866 miles	Seismic Reflection - none collected
Sea Beam - 1866 miles	Gravity - bottom gravity only

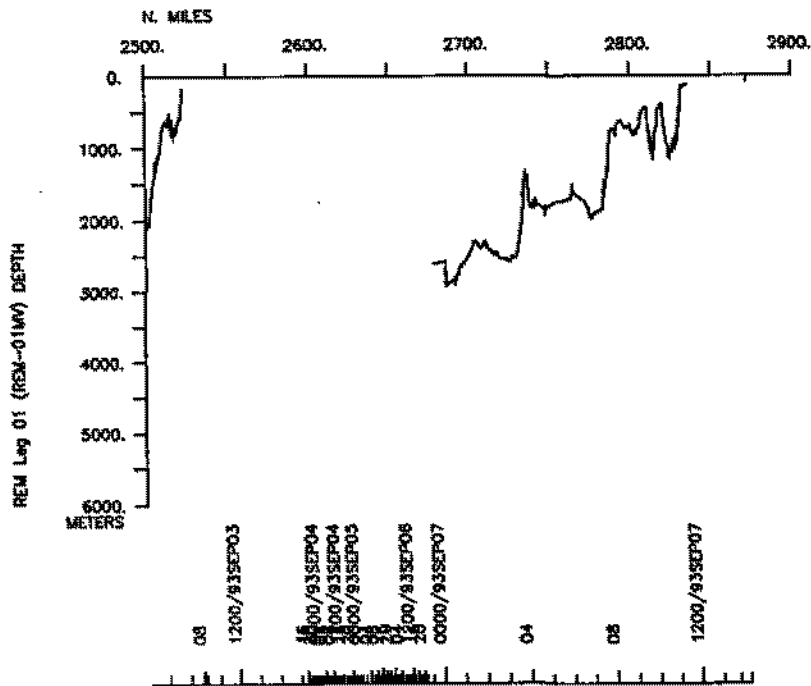
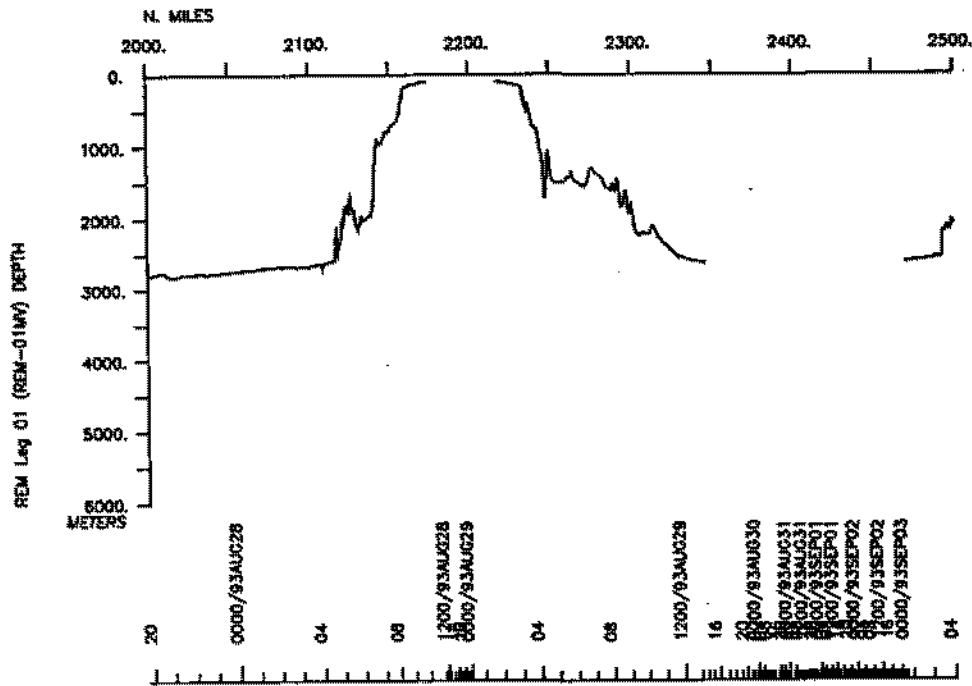


Rem Expedition Leg 1 (REM-01MV)

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S.I.O. SAMPLE INDEX

(Issued January 1994)

REM EXPEDITION

Leg 1

R/V Melville

San Diego, Calif. (10 August 1993)
to
Astoria, Oregon (7 September 1993)

Chief Scientist:

Fred Spiess (Scripps Institution)

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.# 261

**** Ports ****

2143	100893	0	LGPT B	San Diego, California	32-43.00N	117-11.00W	f	REM-01MV
1500	070993	0	LGPT E	Astoria, Oregon	46-12.00N	123-50.00W	f	REM-01MV

**** Personnel ****

#	*****NAME*****	*****TITLE*****	*****AFFILIATION*****	**CRID**
PECS MPL	Spiess, Dr. F.	Chief Scientist	Scripps Institution	REM-01MV
PESP GRD	Ransom, B.	Post Doc.	Scripps Institution	REM-01MV
PESP MPL	Hildebrand, J.	Professor	Scripps Institution	REM-01MV
PESP MPL	Lowenstein, C.	Specialist	Scripps Institution	REM-01MV
PERT STS	Comer, R.L.	Resident Tech.	Scripps Institution	REM-01MV
PECT STS	Moore, M.	Computer Tech.	Scripps Institution	REM-01MV
PESP MPL	Austin, G.	Dev. Tech.	Scripps Institution	REM-01MV
PESP MPL	Boegeman, T.	Prin. Dev. Eng.	Scripps Institution	REM-01MV
PESP MPL	Lawhead, R.	Prog. Analy.	Scripps Institution	REM-01MV
PEST MPL	Crawford, W.	Grad. Stud.	Scripps Institution	REM-01MV
PEST MPL	Sternlicht, D.	Grad. Stud.	Scripps Institution	REM-01MV
PESP MPL	Dover, A.	Eng. Aid	Scripps Institution	REM-01MV
PEST MPL	Jabson, D.	Grad. Stud.	Scripps Institution	REM-01MV
PEXN SIX	Jewesbury, G.	Geophy. Tech.	Canadian Government	REM-01MV
PESP MPL	Keehan, M.	Elect. Tech.	Scripps Institution	REM-01MV
PEST MPL	Prawirodirdjo, L.	Grad. Stud.	Scripps Institution	REM-01MV
PESP JPL	Young, L.	GPS Specialist	Jet Propulsion Lab	REM-01MV
PESP MPL	Zimmerman, R.	Dev. Eng.	Scripps Institution	REM-01MV

**** 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.

GMT #TIME	DDMMYY DATE	SAMP TZ	B CODE	SAMPLE E IDENTIFIER	DISP CODE	LATITUDE	LONGITUDE	p c	CRUISE LEG-SHIP
#*** Underway Data Curator - S. M. Smith ext. 42752 ***									
#*** Log Books ***									
0740	100893	0	LBDT	B Deep Tow Log book	MPL	32-42.41N	117-14.19W	g	REM-01MV
2225	060993	0	LBDT	E Deep Tow Log book	MPL	48-12.04N	127-13.20W	g	REM-01MV
#*** Sea Beam Records (vertical beam and side scan) ***									
2315	100893	0	MBSR	B v.beam&sidescan r-01	GRD	32-41.20N	117-23.59W	g	REM-01MV
0102	150893	0	MBSR	E v.beam&sidescan r-01	GRD	43-58.54N	129-14.12W	g	REM-01MV
0108	150893	0	MBSR	B v.beam&sidescan r-02	GRD	43-59.43N	129-15.40W	g	REM-01MV
1120	070993	0	MBSR	E v.beam&sidescan r-02	GRD	46-23.35N	124-34.27W	g	REM-01MV
#*** Acoustical Studies ***									
1826	030993	0	ACXX	B Bottom data recorder	MPL	48-12.11N	127-09.86W	g	REM-01MV
0149	050993	0	ACXX	E Bottom data recorder	MPL	48-11.77N	127-09.85W	g	REM-01MV
0511	050993	0	ACXX	B Bottom data recorder	MPL	48-12.09N	127-13.28W	g	REM-01MV
2250	060993	0	ACXX	E Bottom data recorder	MPL	48-12.07N	127-13.27W	g	REM-01MV
#*** Bottom Gravity ***									
1955	150893	0	GVXX	B Bottom gravimeter	MPL	44-41.00N	130-21.15W	g	REM-01MV
2300	170893	0	GVXX	E Bottom gravimeter	MPL	44-41.07N	130-20.83W	g	REM-01MV
1552	180893	0	GVXX	B Bottom gravimeter	MPL	44-39.70N	130-21.98W	g	REM-01MV
2305	200893	0	GVXX	E Bottom gravimeter	MPL	44-39.66N	130-22.12W	g	REM-01MV
1256	210893	0	GVXX	B Bottom gravimeter	MPL	46-31.31N	129-33.49W	g	REM-01MV
1007	240893	0	GVXX	E Bottom gravimeter	MPL	46-30.99N	129-33.41W	g	REM-01MV
1849	240893	0	GVXX	B Bottom gravimeter	MPL	46-13.59N	129-43.86W	g	REM-01MV
1410	270893	0	GVXX	E Bottom gravimeter	MPL	46-13.51N	129-43.69W	g	REM-01MV

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP				p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE		c	LEG-SHIP
#*** Deep Tow Instrument ***										
1725	160893	0	DTWS	B Deploy Deep Tow	MPL	44-32.77N	130-24.74W	g		REM-01MV
1915	170893	0	DTWS	E Recover Deep Tow	MPL	44-40.58N	130-32.64W	g		REM-01MV
2325	170893	0	DTWS	B Deploy Deep Tow	MPL	44-41.43N	130-20.94W	g		REM-01MV
1315	180893	0	DTWS	E Recover Deep Tow	MPL	44-37.21N	130-24.47W	g		REM-01MV
2305	180893	0	DTWS	B Deploy Deep Tow	MPL	44-39.38N	130-25.06W	g		REM-01MV
1640	200893	0	DTWS	E Recover Deep Tow	MPL	44-47.92N	130-13.50W	g		REM-01MV
1448	210893	0	DTWS	B Deploy Deep Tow	MPL	46-30.25N	129-34.81W	g		REM-01MV
1330	220893	0	DTWS	E Recover Deep Tow	MPL	46-28.34N	129-39.74W	g		REM-01MV
2000	220893	0	DTWS	B Deploy Deep Tow	MPL	46-30.89N	129-35.63W	g		REM-01MV
0740	240893	0	DTWS	E Recover Deep Tow	MPL	46-37.69N	129-33.97W	g		REM-01MV
2120	240893	0	DTWS	B Deploy Deep Tow	MPL	46-15.24N	129-42.71W	g		REM-01MV
0950	250893	0	DTWS	E Recover Deep Tow	MPL	46-19.65N	129-39.88W	g		REM-01MV
2020	250893	0	DTWS	B Deploy Deep Tow	MPL	46-18.84N	129-41.09W	g		REM-01MV
0941	270893	0	DTWS	E Recover Deep Tow	MPL	46-19.35N	129-44.97W	g		REM-01MV
#*** Conductivity, Temperature, Depth ***										
1750	300893	0	TDCT	B CTD 1	2616M	MPL	48-10.25N	127-11.03W	g	REM-01MV
2058	300893	0	TDCT	E Recover CTD 1		MPL	48-10.26N	127-11.02W	g	REM-01MV
1959	310893	0	TDCT	B CTD 2	500M	MPL	48-11.18N	127-11.56W	g	REM-01MV
2115	310893	0	TDCT	E Recover CTD 2		MPL	48-11.06N	127-11.43W	g	REM-01MV
2304	020993	0	TDCT	B CTD 3	1000M	MPL	48-11.08N	127-11.43W	g	REM-01MV
0025	030993	0	TDCT	E Recover CTD 3		MPL	48-11.07N	127-11.58W	g	REM-01MV
#*** Navigation Instrumentation ***										
0100	300893	0	NVXX	B GPS Buoy 1		MPL	48-11.04N	127-11.68W	g	REM-01MV
1415	300893	0	NVXX	E GPS Bouy 1		MPL	48-11.12N	127-11.32W	g	REM-01MV
2208	310893	0	NVXX	B GPS Buoy 2		MPL	48-10.94N	127-11.44W	g	REM-01MV
2220	020993	0	NVXX	E GPS Bouy 2		MPL	48-11.01N	127-11.42W	g	REM-01MV

GMT #TIME	DDMMYY DATE	SAMP TZ	B CODE	SAMPLE E IDENTIFIER	DISP CODE	LATITUDE	LONGITUDE	p c	CRUISE LEG-SHIP
*** Deep Tow Launch Thruster ***									
2038	030993	0	DTXX	B Launch Thruster	MPL	48-12.14N	127-09.86W	g	REM-01MV
0200	050993	0	DTXX	E Launch Thruster	MPL	48-12.24N	127-10.45W	g	REM-01MV
0610	050993	0	DTXX	B Launch Thruster	MPL	48-12.11N	127-13.23W	g	REM-01MV
0845	050993	0	DTXX	E Launch Thruster	MPL	48-12.08N	127-13.33W	g	REM-01MV
1015	050993	0	DTXX	B Launch Thruster	MPL	48-12.11N	127-13.32W	g	REM-01MV
1605	050993	0	DTXX	E Launch Thruster	MPL	48-12.01N	127-13.52W	g	REM-01MV
2107	050993	0	DTXX	B Launch Thruster	MPL	48-12.12N	127-13.22W	g	REM-01MV
2145	060993	0	DTXX	E Launch Thruster	MPL	48-09.53N	127-12.33W	g	REM-01MV
*** Hydrographic Casts ***									
0030	050993	0	HCNI	Cast 1 1Btl	2200M MPL	48-12.31N	127-10.00W	g	REM-01MV
#			HCNI	X Cast 2 failed	MPL				REM-01MV
1435	050993	0	HCNI	Cast 3 1Btl	2495M MPL	48-12.08N	127-13.27W	g	REM-01MV
2015	060993	0	HCNI	Cast 4 1Btl	2360M MPL	48-09.55N	127-12.50W	g	REM-01MV
*** Expendable Bathythermographs ***									
1517	140893	0	BTXP	B XBTs 1-15	MPL	42-55.99N	127-38.90W	g	REM-01MV
2353	060993	0	BTXP	E XBTs 1-15	MPL	48-08.74N	127-05.21W	g	REM-01MV
#				End Sample Index					REM-01MV