UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

GULF CRUISE 7404
8 April – 5 May 1974

GULF CRUISE 7410
2 October – 3 November 1974

SIO Reference 88-6
15 March 1988

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SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

GULF CRUISE 7404
8 April – 5 May 1974

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Sponsored by

Marine Research Committee

SIO Reference 88-6
15 March 1988

Approved for distribution:

Edward A. Frieman, Director

CONTENTS

INTRODUCTION

The data in this report were collected during Cruises 7404* and 7410 in the Gulf of California by the RV *Alexander Agassiz*, of the Scripps Institution of Oceanography, University of California, San Diego. These cruises were a continuation of the cooperative investigation of the biological, chemical, physical and bathymetric parameters in the Gulf of California by the Instituto de Investigaciones Oceanologicas and the Escuela Superior de Ciencias Marinas of the Universidad Autonoma de Baja California (Mexico)**; the Instituto Nacional de Pesca (Mexico); and the Scripps Institution of Oceanography, University of California, San Diego (United States).

These data were collected and processed by personnel of the Data Collection and Processing Group (DCPG***, MLRG), Scripps Institution of Oceanography, the Escuela Superior de Ciencias Marinas and Instituto National de Investigaciones Oceanologicos, Universidad Autonoma de Baja California and the Instituto Nacional de Pesca (Mazatlan).

STANDARD PROCEDURES

The hydrographic casts consisted of 20 or fewer Nansen bottles lowered to varying sampling levels determined mainly by the bottom depths. Multiple lowerings of more than 20 bottles were made on several stations. Temperature, salinity, oxygen and nutrients were determined for all depths sampled.

Paired protected reversing thermometers were used to determine temperatures which are recorded to hundredths of a degree Celsius. Sampling bottles used below a depth of 100 meters were equipped with unprotected thermometers for determination of the depth of sampling. On Cruise 7404 the STD was lowered to 1500 meters, depth permitting, on approximately half the stations. The STD was also used on a few stations on Cruise 7410, but after several malfunctions, its use was discontinued.

Salinity samples from the hydrographic casts were analyzed at sea using inductive-type salinometers. The salinity values are reported to three decimal places. The salinity values tabulated for the STD data for Cruise 7404 are reported in hundredths.

Dissolved oxygen was determined by the Winkler method as modified by Carpenter (1965), using the equipment and procedure outlined by Anderson (1971).

Silicate, phosphate, nitrate and nitrite were determined using a standard Beckman Model DU spectrophotometer . Reactive phosphate was analyzed using the method of Murphy and Riley (1962) with the specific procedure outlined by Anderson (1971), reactive silicate by the method of Strickland and Parsons (1968), nitrate by the method of Wood *et al.* (1967), and nitrite by the method of Bendschneider and Robinson (1952). Nutrient samples for several stations from 7404 were frozen and sent to the Escuela de Ciencias Marinas, Universidad Autonoma de Baja California for analysis.

The observed data have been evaluated using the methodology described by Klein (1973). This involves consideration of their variation as functions of density or depth and their relations to each other, and comparison with adjacent observations.

The STD used on Cruise 7404 operated well. The temperature compared to the hydrographic data required no correction and the salinity values were in good agreement after an offset correction of 0.23‰.

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* The first two digits represent the year and the second two digits the month of the cruise.

** Now the Facultad de Ciencias Marinas.

*** Now the Oceanographic Data Facility (ODF).

TABULATED DATA

The time reported is Greenwich Mean Time. For STD lowerings it is the "start down" time and for bottle casts it is the time of messenger release. When more than one cast was lowered on a station, the messenger times for the first and last casts are given. Multiple casts, excluding the surface cast, are indicated by a footnote letter following the observed depth.

Bottom depths, determined acoustically, have been corrected using Matthews (1939) tables and are reported in meters. The weather and dominant waves have been coded using the National Oceanographic Data Center (NODC) method.

Data for all cruises presented in this report were obtained by bottle casts and by the STD, and appear in two forms:

1) Data from the sample bottles appears with the observed levels of depth on the left of a page. Temperature, salinity and oxygen are interpolated from the observations at standard levels of depth on the right of the page. Computed values of thermosteric anomaly (DT) are included with the observed levels and computed values of sigma-t (SIGT), thermosteric anomaly (DT) and geopotential anomaly (DD) are included with the interpolated levels.

2) Data at standard levels of depth from the STD lowerings appear on the right of a page with computed values of sigma-t, thermosteric anomaly and geopotential anomaly included.

The parameters tabulated in this report are the same as those tabulated in CalCOFI reports. The column headings are to be interpreted as follows:

Z	Depth	Meters
T	Temperature	°C
S	Salinity	‰
O2	Dissolved Oxygen	ml/L
PO4	"Reactive" inorganic phosphate-phosphorous	µg at/L
SiO3	"Reactive" inorganic silicate-silicon	µg at/L
NO2	"Reactive" nitrite-nitrogen	µg at/L
NO3	"Reactive" nitrate-nitrogen	µg at/L
DT	δ_T Thermosteric anomaly	cl/ton
SIGT	$\sigma_t = (\rho_{s,t,0} - 1)\ 10^3$ where $\rho_{s,t,0}$ is the density the parcel of sea water would have if moved isothermally to the sea surface.	g/L
DD	Geopotential anomaly, referred to the sea surface.	dyn. meters

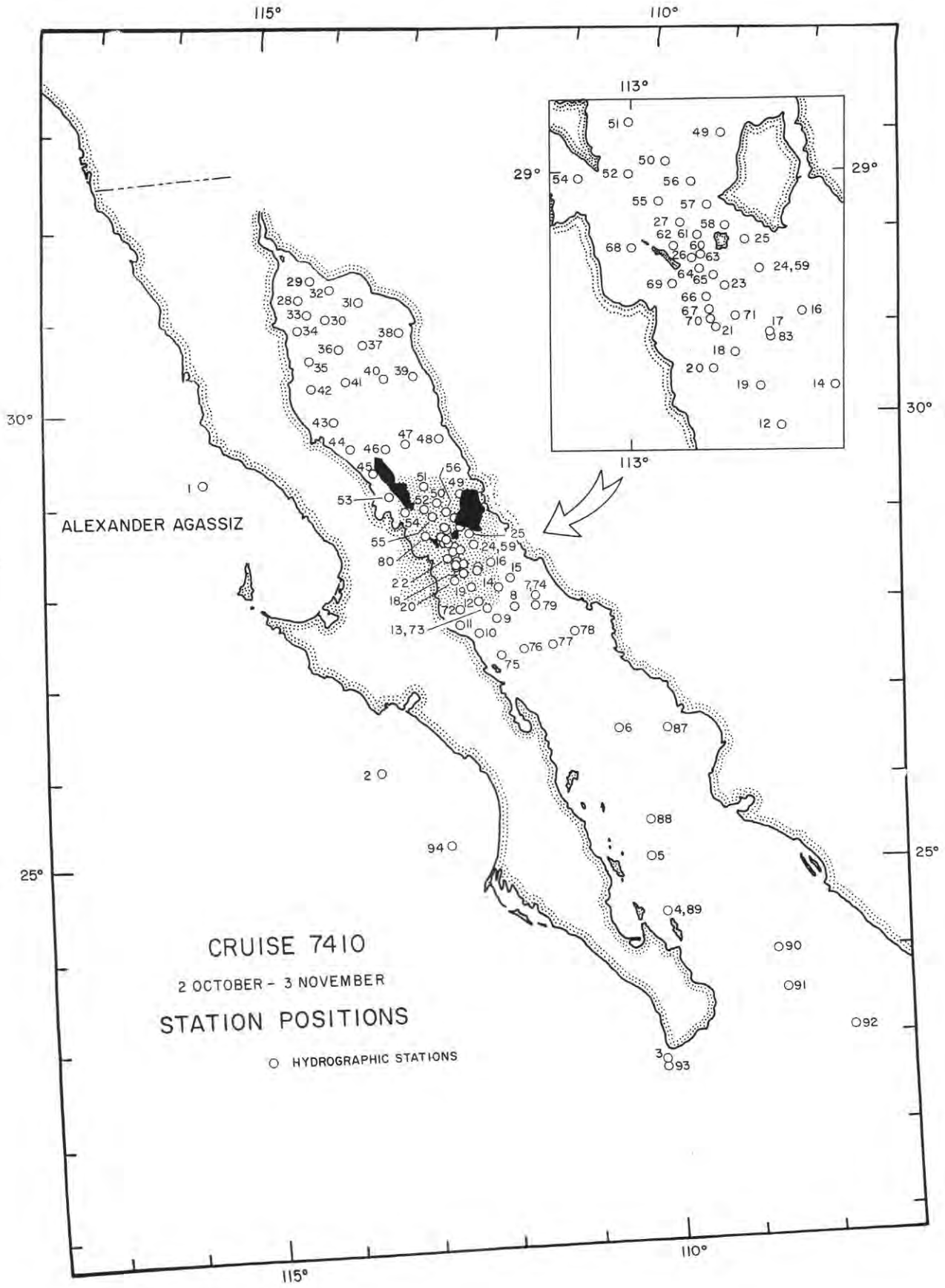
FOOTNOTES

In addition to footnotes, special notations are used without footnotes because the meaning is always the same.

P: After depth value indicates the Nansen bottles posttripped.

U: Uncertain value. Values which are not used in interpolation because they seeem to be in error without apparent reason.

V: Because of time differences, overlapping casts show some differences. Values not used in interpolation.


115°
110°
113°
29°
30°
25°
ALEXANDER AGASSIZ
CRUISE 7410
2 OCTOBER - 3 NOVEMBER
STATION POSITIONS
HYDROGRAPHIC STATIONS

PERSONNEL

GULF CRUISE 7410

Schwartzlose, Richard A. (Chief Scientist)	Academic Administrator	SIO
Anderson, George C.	Staff Research Associate	SIO
Baumgartner, Tim	Professor, Marine Geology	UCM, UABC
Crill, Peter A.	Assistant Programmer	SIO
De Master, Dave	Graduate Student	YU
Espinoza, Julio	Student	UCM, UABC
Ferreira, Vincenti P.	Student	UCM, UABC
Garcia, Victor M.	Student	UCM, UABC
Gonzalez, Miguel A.	Technician	INP
Green, Kenneth E.	Graduate Student	WHOI
Hernandez, Rosa M.	Student	UCM, UABC
Kellogg, Durrant	Marine Technician	SIO
Landin, Miguel	Student	UCM, UABC
Lara, Talpa D.	Student	UCM, UABC
Lawver, Lawrence A.	Engineering Aid	SIO
Macias, Vinicio	Student	UCM, UABC
Mead, Richard V.	Marine Technician	SIO
Montaño, Yovani	Student	INP
Moreno, Lorenzo	Student	UCM, UABC
McGoodwin, Jay V.	Student	UO
Ralston, Philip A.	Student	UO
Rosales, Fernando L.	Student	UCM, UABC
Rowe, Raymond A.	Marine Technician	SIO
Saucedo, Marco A.	Student	UCM, UABC
Schmitt, James A.	Electronics Technician	SIO
Taylor, Elliott	Student	UCM, UABC
Velazco, Alfredo	Student	UCM, UABC
Víveros, Enrique A.	Student	UCM, UABC
Williams, David L.	Ph.D.	USGS
Yates, Robert E.	Marine Technician	SIO
Zuck, Richard A.	Technician	WHOI

ABBREVIATIONS USED:

INP	Instituto Nacional de Pesca, Mexico, D. F., Mexico
SIO	Scripps Institution of Oceanography, La Jolla, California, USA
UABC	Universidad Autonoma de Baja California,
UCM	Unidad de Ciencias Marinas, Ensenada, Baja California, Mexico
UO	University of Oregon, Charleston, Oregon, USA
USGS	United States Geological Survey
WHOI	Woods Hole Oceanographic Institution, Woods Hole, Massachusetts, USA
YU	Yale University, New Haven, Connecticut, USA

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 1

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 15.5 N	115 48.0 W	10/02/74	1822 GMT	1856 M	340	14 KT	2	340 04 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	18.56	33.555	5.52	0.26	1.8	0.00	0.0	387.2	0	18.56	33.555	5.52	24.050	387.2	0.000
10	18.55	33.547	5.52	0.24	1.7	0.00	0.0	387.5	10	18.55	33.547	5.52	24.046	387.5	0.039
30	18.47	33.546	5.53	0.18	1.3	0.00	0.0	385.7	20	18.51	33.547	5.52	24.056	386.6	0.078
40	17.72	33.538	5.55	0.25	1.7	0.00	0.0	368.8	30	18.47	33.546	5.53	24.065	385.7	0.116
50	15.50	33.507	5.97	0.27	1.2	0.00	0.0	322.0	50	15.50	33.507	5.97	24.733	322.0	0.187
65	13.91	33.562	5.59	0.59	2.9	0.06	1.0	285.6	75	13.37	33.536	5.49	25.206	277.1	0.263
80	13.17	33.521	5.44	0.57	3.8	0.09	1.2	274.3	100	12.10	33.616	4.97	25.517	247.5	0.329
100	12.10	33.616	4.97	0.90	7.0	0.00	4.7	247.5	125	10.84	33.660	4.48	25.782	222.3	0.388
125	10.84	33.660	4.48	1.40	12.6	0.00	10.0	222.3	150	9.61	33.901	3.51	26.180	184.5	0.440
130A	10.36	33.676	4.38	1.46	13.2	0.00	12.0	213.1							
139	10.02	33.767	3.97	1.73	17.6	0.00	12.2	200.8							
152	9.54	33.925	3.43	2.05	23.4	0.00	19.4	181.5							

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 2

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
26 3.0 N	113 36.0 W	10/03/74	1656 GMT	1092 M	320	10 KT	2	320 04 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	24.00	34.269	4.94	0.47	2.7	0.02	0.1	476.9	0	24.00	34.269	4.94	23.110	476.9	0.000
10	23.97	34.269	4.95	0.41	2.5	0.01	0.2	476.0	10	23.97	34.269	4.95	23.119	476.0	0.048
30	16.10	33.665	5.55	0.57	4.2	0.02	0.1	323.3	20	20.30	33.888	5.25	23.856	405.7	0.092
40	14.48	33.706	4.49	1.07	6.9	0.12	5.3	286.4	30	16.10	33.665	5.55	24.720	323.3	0.128
50	14.09	33.800	3.89	1.34	9.6	0.05	9.4	271.7	50	14.09	33.800	3.89	25.262	271.7	0.188
65	13.55	33.923	3.25	1.79	13.3	0.03	14.2	252.1	75	13.31	33.982	2.97	25.562	243.2	0.253
80	13.14	33.994	2.91	2.03	15.7	0.02	14.6	239.0	100	11.51	33.902	3.37	25.849	215.9	0.311
99	11.50	33.886	3.44	1.82	16.5	0.02	14.8	216.9	125	12.26	34.364	1.34	26.066	195.3	0.363
124	12.26	34.356	1.37	2.89	26.4	0.04	22.1	196.0	150	11.94	34.470	0.89	26.208	181.9	0.411
144	12.00	34.447	0.98	3.20	30.0	0.01	25.4	184.5	200	11.12	34.525	0.64	26.403	163.3	0.499
173	11.69	34.528	0.67	3.28	32.6	0.01	24.5	173.0	250	10.80	34.603	0.32	26.520	152.2	0.581
203	11.07	34.525	0.64	3.41	35.1	0.01	27.4	162.4	300	9.74	34.500	0.38	26.626	142.2	0.657
232	11.16	34.633	0.25	3.60	37.4	0.01	25.6	156.0	400	8.39	34.495	0.20	26.838	122.0	0.796
271	10.26	34.537	0.40	3.50	40.1	0.00	28.1	147.8	500	7.12	34.459	0.12	26.997	106.9	0.918
329	9.30	34.483	0.37	3.71	45.6	0.01	30.0	136.5							
402	8.37	34.495	0.19	3.93	55.8	0.01	30.3	121.6							
475	7.42	34.462	0.12	4.09	65.4	0.01	35.1	110.7							
552	6.5 B	34.456	0.12	4.08	75.8	0.04	32.9	99.1							

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 3

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 40.5 N	110 9.0 W	10/04/74	2004 0110 GMT	2388 M	320	18 KT	1	320 05 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0C	29.50	34.592	4.50	0.23	1.6	0.03	0.0	620.3	0	29.50	34.592	4.50	21.611	620.3	0.000
10C	29.49	34.591	4.52	0.30	2.0	0.01	0.1	620.0	10	29.49	34.591	4.52	21.614	620.0	0.062
30C	27.20	34.727	4.72	0.37	3.1	0.02	0.1	538.1	20	28.68	34.679	4.60	21.951	587.7	0.122
59C	19.78	34.247	5.15	0.42	3.3	0.04	0.5	366.6	30	27.20	34.727	4.72	22.470	538.1	0.179
70C	16.36	34.129	4.62	0.68	4.8	0.16	1.9	295.2	50	22.47	34.409	5.02	23.659	424.5	0.275
81C	15.56	34.105	3.60	1.10	12.0	0.54	8.3	279.7	75	15.82	34.107	4.20	25.123	285.0	0.365
94C	14.99	34.279	2.19	1.68	14.4	0.13	15.5	255.0	100	14.58	34.406	1.51	25.625	237.2	0.431
109C	13.97	34.584	0.66	2.32	24.0	0.08	22.8	211.9	125	13.39	34.653	0.51	26.065	195.4	0.485
132C	13.22 G	34.639G	0.44	2.52	27.7	0.14	24.5	193.2	150	12.77	34.640	0.41	26.179	184.6	0.534
336D	9.71 G	34.561G	0.09	3.01	50.4	0.01	29.0	137.2	200	11.85	34.680	0.32	26.388	164.7	0.623
448D	8.30	34.525	0.06	3.07	61.7	0.03	33.2	118.4	250	11.01	34.651	0.24	26.522	152.0	0.705
511D	7.25	34.510		3.22	69.2	0.02	36.3	104.9	300	10.23	34.606	0.15	26.624	142.3	0.782
807D	4.68	34.512	0.21	3.41	100.1	0.02	42.3	73.8	400	8.92	34.538	0.07	26.789	126.6	0.924
972D	4.00	34.532	0.42	3.42	114.2	0.01	43.9	65.3	500	7.43	34.512	0.08	26.994	107.2	1.049
1042E	3.79	34.539	0.56	3.19	118.6	1.07	33.9	62.8	600	6.18	34.503	0.12	27.159	91.6	1.156
1188D	3.47 V	34.561V	0.71V	3.33	124.1	0.06	41.7		700	5.28	34.508	0.17	27.274	80.7	1.251
1192E	3.52	34.560	0.68	3.32	122.1	0.77	39.8	58.6	800	4.71	34.512	0.21	27.344	74.1	1.337
1340E	3.21	34.571	0.87	3.21	130.7	0.37	39.9	55.0	1000	3.91	34.535	0.48	27.448	64.2	1.493
1467E	2.92	34.586	1.09	3.15	136.7	0.79	39.1	51.3	1200	3.50	34.561	0.69	27.509	58.4	1.634
1576E	2.72	34.599	1.27	3.17	140.4	0.11	41.9	48.6	1500	2.86	34.591	1.15	27.593	50.5	1.826
1690E	2.53	34.614	1.44	2.96	145.0	0.52	38.3	45.9	2000	2.16	34.629	1.83	27.683	41.9	2.106
1929F	2.29	34.622	1.68	3.05	149.4	0.76	36.8	43.4	2250	1.89	34.652	2.23	27.723	38.2	2.229
2076F	2.03	34.636	1.98	2.92	154.0	0.48	36.0	40.4							
2173F	1.96	34.643	2.11	2.90	157.5	0.79	34.9	39.3							
2222F	1.90	34.645	2.22	2.89	157.8	0.24	38.0	38.7							
2271F	1.88	34.656	2.23	2.89	157.6	0.25	38.0	37.8							

A) A POSTTRIP STARTED WITH THIS BOTTLE CAUSING THE FOLLOWING DEPTHS TO BE SLIGHTLY UNCERTAIN.
B) TEMPERATURE INFERRED FROM PRESSURE THERMOMETER AND WIRE DEPTH.
C) CAST III.THE LAST 5 BOTTLES OF THIS CAST POSTTRIPPED.
D) CAST IV.THE FIRST 3 BOTTLES OF THIS CAST PRETRIPPED.
E) CAST I.THE LAST 3 BOTTLES OF THIS CAST POSTTRIPPED.
F) CAST II.
G) THE VALUES OF TEMPERATURE AND SALINITY AT STANDARD DEPTHS BETWEEN THESE OBSERVATIONS WERE DETERMINED BY COMPARISON WITH STATION 93.

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
24 25.5 N	110 2.5 W	10/05/74	1709 1750 GMT	742 M	250	09 KT	1	250 02 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	29.53	34.821	4.46	0.28	1.7	0.01	0.1	604.8	0	29.53	34.821	4.46	21.772	604.8	0.000
25	28.52	34.964	4.59	0.42	1.7	0.02	0.0	562.2	10	29.13	34.876	4.51	21.951	587.8	0.060
45	23.33	34.920	3.49	1.14	6.8	0.27	4.4	411.2	20	28.72	34.935	4.56	22.129	570.7	0.118
70	19.10	34.956	2.22	1.95	21.2	0.05	15.1	298.5	30	27.33	34.940	4.36	22.588	526.8	0.173
83	17.91	34.918	1.94	2.14	21.2	0.04	17.6	272.9	50	22.28	34.928	3.19	24.105	381.9	0.264
97	16.69	34.938	1.73	2.37	25.5	0.04	20.7	243.6	75	18.60	34.942	2.09	25.097	287.4	0.348
112	15.99	34.915	1.51	2.44	27.3	0.04	21.4	229.8	100	16.52	34.934	1.68	25.594	240.1	0.415
136	14.89	34.924	1.36	2.57	32.8	0.03	22.9	205.8	125	15.40	34.918	1.43	25.839	216.9	0.473
161	13.57	34.884	1.00	2.72	37.4	0.02	25.3	182.1	150	14.16	34.905	1.17	26.098	192.3	0.525
174A	12.87	34.855	0.80	2.81	39.8	0.02	26.9	170.7	200	12.24	34.834	0.68	26.433	160.5	0.615
197A	12.30	34.838	0.70	2.83	42.5	0.02	26.6	161.3	250	11.36	34.761	0.38	26.544	149.9	0.696
241A	11.53	34.775	0.42	2.92	43.9	0.01	27.4	152.0	300	10.43	34.700	0.22	26.662	138.7	0.771
281A	10.77	34.722	0.27	2.98	46.5	0.01	27.7	142.7	400	8.79	34.608	0.09	26.865	119.5	0.907
361A	9.42	34.641	0.11	3.00	46.5	0.01	28.4	126.7	500	7.36	34.547	0.05	27.033	103.5	1.027
513B	7.19	34.542	0.04	3.30	51.5	0.00	35.3	101.7	600	6.28	34.526	0.07	27.163	91.2	1.133
611B	6.19	34.525	0.07	3.39	72.2	0.01	37.7	90.1	700	5.64	34.524	0.09	27.243	83.6	1.229
729B	5.46	34.524	0.10	3.46	83.8	0.00	39.6	81.5							
738B	5.23	34.526	0.15	3.46	93.9	0.04	39.4	78.8							

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
25 3.5 N	110 44.5 W	10/06/74	0245 GMT	307 M	240	02 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	30.02	35.061	5.09	0.32		0.02	0.1	603.6	0	30.02	35.061	5.09	21.785	603.6	0.000
9	29.70	35.053	5.00	0.32	1.1	0.01	0.1	593.7	10	29.64	35.054	4.99	21.909	591.7	0.060
31	26.66	34.972	4.31	0.63	3.2	0.42	0.4	504.0	20	28.64	35.032	4.78	22.231	561.0	0.117
46	22.25	34.870	3.09	1.31	9.9	0.26	7.7	385.3	30	26.88	34.977	4.36	22.761	510.2	0.171
62	19.94	34.850	2.22	1.77	15.0	0.05	13.8	326.9	50	21.50	34.860	2.82	24.270	366.2	0.259
77	18.81	34.894	2.03	2.00	19.3	0.03	16.6	296.0	75	18.94	34.887	2.04	24.970	299.5	0.343
92	17.52	34.931	1.89	2.19	24.6	0.05	19.1	262.9	100	16.93	34.937	1.79	25.500	249.1	0.412
111	16.23	34.937	1.65	2.36	28.5	0.04	21.3	233.4	125	15.52	34.935	1.47	25.826	218.1	0.471
136	15.05	34.930	1.35	2.56	33.7	0.04	24.0	208.7	150	14.53	34.922	1.26	26.033	198.4	0.525
164	14.06	34.911	1.18	2.69	38.6	0.02	25.9	189.8	200	12.87	34.854	0.79	26.324	170.8	0.619
198	12.92	34.857	0.80	2.79	43.3	0.02	26.7	171.5	250	11.87	34.788	0.51	26.467	157.2	0.704
232	12.24	34.812	0.62	2.83	45.2	0.02	27.6	162.1	300	10.67	34.708	0.24	26.627	142.1	0.782
266	11.53	34.765	0.42	2.93	47.7	0.02	28.0	152.7							
307	10.49	34.697	0.20	2.93	51.5	0.04	28.6	139.9							

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
26 31.5 N	110 36.5 W	10/06/74	1612 GMT	1317 M	080	04 KT	1	080 01 01

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	29.86	35.273		0.46	1.7	0.01	12.9	583.2	0	29.86	35.273		21.999	583.2	0.000
18	29.17	35.213	4.56	0.51	2.6	0.01	12.9	565.1	10	29.86	35.273		21.999	583.2	0.058
63	19.37	35.098	2.42	2.01	30.9	0.05	15.7	294.8	20	28.86	35.201	4.46	22.282	556.1	0.115
95	15.37	35.034	1.94	2.48	39.9	0.04	22.2	207.8	30	27.10	35.143	3.99	22.813	505.3	0.169
109	14.70	35.011	1.82	2.56	40.8	0.03	23.4	195.5	50	22.47	35.100	3.04	24.181	374.7	0.257
128	13.81	34.962	1.52	2.70	39.7	0.03	24.6	181.1	75	17.37	35.084	2.17	25.509	248.2	0.335
150	13.24	34.917	1.39	2.76	43.6	0.03	25.7	173.2	100	15.09	35.027	1.90	25.991	202.4	0.392
177	12.57	34.870	0.94	2.79	46.0	0.02	25.9	163.9	125	13.94	34.970	1.57	26.195	183.0	0.441
194	12.10	34.865	0.99	2.89	49.5	0.01	26.9	155.6	150	13.24	34.917	1.39	26.299	173.2	0.487
197C	12.07	34.866	0.90	2.84	46.1	0.01	27.4	155.0	200	12.03	34.862	0.88	26.496	154.5	0.571
229	11.47	34.808	0.70	2.92	50.5	0.01	27.6	148.5	250	10.92	34.765	0.53	26.627	142.1	0.648
286	9.99	34.703	0.27	2.96	49.5	0.01	28.4	131.2	300	9.79	34.689	0.25	26.764	129.0	0.719
371	9.02	34.632	0.14	3.08	57.4	0.00	30.5	121.2	400	8.55	34.606	0.12	26.900	116.1	0.848
460	7.60	34.562	0.09	3.20	68.8	0.00	33.4	105.7	500	7.19	34.550	0.09	27.059	101.1	0.965
560	6.70	34.540	0.09	3.31	78.5	0.01	36.3	95.4	600	6.38	34.533	0.10	27.156	91.9	1.069
677	5.81	34.525	0.11	3.37	89.3	0.00	39.1	85.5	700	5.64	34.525	0.11	27.244	83.6	1.166
803	4.95	34.532	0.14	3.44	104.6	0.00	40.9	75.2	800	4.97	34.532	0.14	27.330	75.4	1.254
962	4.15	34.555	0.29	3.47	124.5	0.00	41.4	65.1							

A) THE LAST FIVE BOTTLES ON THE FIRST CAST POSTTRIPPED CAUSING THESE DEPTHS TO BE SLIGHTLY UNCERTAIN.
B) CAST II.
C) A POSTTRIP STARTED WITH THIS BOTTLE CAUSING THE FOLLOWING DEPTHS TO BE SLIGHTLY UNCERTAIN.

RV ALEXANDER AGASSIZ GULF CRUISE 7410 7

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 1.5 N	111 37.5 W	10/07/74	0605 0643 GMT	510 M	320	13 KT	1	320 02 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	26.62	35.312	5.13					478.4	0	26.62	35.312	5.13	23.094	478.4	0.000
10	26.09	35.305	4.84					462.9	10	26.09	35.305	4.84	23.256	462.9	0.047
30	25.61	35.287	4.32					450.0	20	25.80	35.296	4.58	23.341	454.8	0.093
41	25.37	35.275	4.00					443.8	30	25.61	35.287	4.32	23.391	450.0	0.138
51	23.71	35.227	3.42					399.7	50	23.93	35.233	3.49	23.860	405.3	0.224
66	19.71	35.120	2.45					301.6	75	18.79	35.104	2.27	25.172	280.3	0.310
82	18.39	35.087	2.23					271.9	100	16.69	35.046	1.99	25.641	235.6	0.376
102	16.51	35.042	1.97					232.0	125	15.24	35.001	1.71	25.938	207.5	0.432
127	15.17	34.998	1.69					206.2	150	14.52	34.968	1.55	26.071	194.8	0.483
146	14.68	34.976	1.58					197.6	200	12.42	34.852	0.93	26.413	162.4	0.575
173	13.48	34.920	1.30					177.7	250	11.40	34.777	0.57	26.548	149.5	0.656
205A	12.25	34.841	0.86					160.1	300	10.54	34.713	0.35	26.654	139.5	0.731
235A	11.59	34.793	0.65					151.7	400	8.54	34.610	0.13	26.904	115.7	0.866
265A	11.23	34.762	0.50					147.7	500	7.09	34.555	0.07	27.077	99.4	0.981
360A	9.22	34.639	0.16					123.7							
460A	7.65	34.575	0.08					105.5							
510A	6.95	34.550	0.07					97.9							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 8

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 53.5 N	111 51.5 W	10/07/74	0939 GMT	397 M	310	14 KT	1	310 03 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.68	35.197	4.56	0.61	3.6	0.02	0.0	519.1	0	27.68	35.197	4.56	22.668	519.1	0.000
10	27.38	35.163	4.56	0.66	4.0	0.02	0.1	512.3	10	27.38	35.163	4.56	22.739	512.3	0.052
30	25.90	35.100	4.15	0.88	6.2	0.24	0.9	472.0	20	26.96	35.140	4.35	22.857	501.1	0.102
40	23.65	35.172	3.22	1.40	19.1	0.33	8.2	401.9	30	25.90	35.100	4.15	23.161	472.0	0.151
51	21.78	35.151	2.74	1.77	28.3	0.16	12.8	352.5	50	21.93	35.155	2.77	24.376	356.1	0.234
66	19.98	35.113	2.47	1.94	32.4	0.06	15.2	308.9	75	19.08	35.096	2.35	25.094	287.7	0.315
81	18.53	35.086	2.28	2.14	36.2	0.11	17.4	275.3	100	17.01	35.056	2.05	25.573	242.1	0.382
101	16.94	35.055	2.04	2.33	40.0	0.22	19.3	240.6	125	15.57	35.014	1.83	25.873	213.6	0.440
121	15.78	35.022	1.87	2.47	41.8	0.17	22.0	217.5	150	14.70	34.982	1.62	26.041	197.7	0.492
141	14.89	34.987	1.66	2.63	44.2	0.07	24.2	201.2	200	13.29	34.910	1.20	26.284	174.6	0.588
171	14.34	34.967	1.53	2.70	46.2	0.11	24.9	191.4	250	11.71	34.811	0.76	26.517	152.5	0.673
201	13.25	34.909	1.19	2.81	48.2	0.15	26.6	174.0	300	10.87	34.748	0.48	26.622	142.5	0.750
231	12.07	34.834	0.89	2.87	54.9	0.11	27.8	157.4							
270	11.44	34.792	0.64	2.92	56.1	0.12	28.6	149.2							
324	10.38	34.713	0.37	3.02	59.3	0.11	29.6	136.9							
354	9.75	34.679	0.27	3.04	61.1	0.10	30.5	129.1							
388	8.96	34.627	0.17	3.17	65.2	0.07	32.0	120.6							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 9

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 45.0 N	112 6.0 W	10/07/74	1216 GMT	711 M	310	14 KT	1	310 03 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.84	35.253	4.54	0.56	2.9	0.02	0.1	551.6	0	28.84	35.253	4.54	22.328	551.6	0.000
10	28.81	35.256	4.57	0.53	2.9	0.01	0.0	550.5	10	28.81	35.256	4.57	22.340	550.5	0.055
50	21.73	35.102	2.76	1.74	24.3	0.08	12.5	354.7	20	27.40	35.193	4.21	22.755	510.9	0.108
85	18.31	35.077	2.14	2.22	39.7	0.04	19.0	270.7	30	25.75	35.138	3.78	23.235	465.1	0.157
105	16.71	35.047	2.00	2.41	41.8	0.04	21.2	236.1	50	21.73	35.102	2.76	24.390	354.7	0.239
110	16.14	35.033	1.91	2.54	42.0	0.04	22.2	224.5	75	19.11	35.090	2.25	25.080	289.1	0.320
140	14.58	34.980	1.58	2.68	43.6	0.03	25.1	195.3	100	17.15	35.058	2.04	25.541	245.2	0.388
159	14.04	34.957	1.44	2.79	46.8	0.02	27.9	186.0	125	15.11	35.004	1.71	25.970	204.5	0.445
169	13.74	34.934	1.35	2.76	47.9	0.03	27.7	181.7	150	14.28	34.969	1.51	26.123	189.9	0.495
209	12.60	34.860	0.92	2.89	49.6	0.02	27.9	165.2	200	12.84	34.874	1.01	26.346	168.7	0.587
238	11.94	34.816	0.75	2.92	53.0	0.02	28.5	156.3	250	11.52	34.780	0.61	26.528	151.4	0.670
262	11.12	34.748	0.48	3.00	52.5	0.02	29.1	146.8	300	10.58	34.717	0.37	26.649	140.0	0.746
297	10.65	34.721	0.38	3.08	55.0	0.02	29.7	140.8	400	8.19	34.591	0.11	26.944	112.0	0.879
341	9.56	34.654	0.18	3.13	60.1	0.01	30.9	127.9	500	6.92	34.551	0.08	27.098	97.4	0.992
395	8.29	34.594	0.11	3.26	71.2	0.01	33.6	113.1	600	6.35	34.536	0.08	27.162	91.3	1.094
478	7.05	34.556	0.08	3.38	82.9	0.02	36.5	98.8							
566	6.64	34.540	0.09	3.38	87.4	0.01	37.5	94.6							
667	5.77	34.531	0.07	3.46	99.7	0.01	39.8	84.6							

A) CAST II.

RV ALEXANDER AGASSIZ GULF CRUISE 7410 10

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 36.5 N	112 20.0 W	10/07/74	1514 1611 GMT	630 M	320	10 KT	1	320 02 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.17	35.224	4.53					532.5	0	28.17	35.224	4.53	22.528	532.5	0.000
10	25.28	35.182	3.92					447.9	10	25.28	35.182	3.92	23.414	447.9	0.049
20	24.58	35.187	3.33					427.2	20	24.58	35.187	3.33	23.630	427.2	0.093
30	23.13	35.119	2.99					391.3	30	23.13	35.119	2.99	24.006	391.3	0.134
50	21.59	35.184	2.78					345.1	50	21.59	35.184	2.78	24.491	345.1	0.208
75	19.62	35.130	2.40					298.6	75	19.62	35.130	2.40	24.979	298.6	0.289
85A	18.78	35.096	2.24					280.6	100	17.53	35.063	2.06	25.453	253.5	0.359
100	17.53	35.063	2.06					253.5	125	15.68	34.998	1.73	25.838	217.0	0.418
170A	13.21	34.912	1.19					173.0	150	14.17	34.950	1.42	26.131	189.1	0.470
250A	11.82	34.809	0.68					154.7	200	12.52	34.881	0.97	26.415	162.2	0.561
300A	10.48	34.722	0.38					137.9	250	11.82	34.809	0.68	26.494	154.7	0.644
340A	9.40	34.658	0.21					125.1	300	10.48	34.722	0.38	26.671	137.9	0.721
375A	8.92	34.638	0.18					119.2	400	8.43	34.629	0.21	26.938	112.6	0.853
400A	8.43	34.629	0.21					112.6	500	7.32	34.591	0.17	27.072	99.8	0.967
425A	7.96	34.614	0.22					106.9	600	6.31	34.559	0.11	27.185	89.1	1.070
454A	7.59	34.601	0.17					102.7							
474A	7.43	34.589	0.15					101.4							
494A	7.36	34.587	0.15					100.6							
509A	7.24	34.594	0.20					98.5							
523A	7.03	34.583	0.16					96.5							
543A	6.95	34.581	0.15					95.6							
572A	6.56	34.570	0.14					91.4							
605A	6.29	34.558	0.11					88.9							
615A	6.28	34.560	0.13					88.6							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 11

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 51.5 N	112 34.0 W	10/07/74	1838 1958 GMT	510 M	340	21 KT	1	340 04 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.30	35.256	4.77	0.66	3.0	0.00	0.0	503.1	0	27.30		4.77			
10	26.91	35.257	4.86	0.72	2.3	0.00	0.1	491.1	10	26.91		4.86			
30	25.18	35.248	4.05	1.10	11.8	0.56	3.4	440.2	20	26.10		4.51			
45B	24.12	35.259	3.70	1.31	18.2	0.93	5.7	408.9	30	25.18		4.05			
60B	22.16	35.200	2.89	1.67	27.4	0.36	11.4	359.1	50	23.54		3.44			
84B	18.02		2.16	2.18	40.7	0.07	18.9		75	19.58		2.39			
104B	15.38		1.63	2.50	49.0	0.03	23.4		100	15.81		1.72			
134B	14.66		1.52	2.57	51.6	0.02	24.2		125	14.88		1.55			
163B	13.39		1.28	2.77	56.2	0.04	26.3		150	13.95		1.39			
193B	12.87		1.14	2.77	56.5	0.02	27.2		200	12.66		1.08			
232B	11.67		0.79	2.85	58.9	0.03	28.7		250	11.35		0.72			
290B	10.67		0.62	2.95	62.7	0.03	30.3		300	10.36		0.57			
344B	9.01		0.36	3.09	72.7	0.01	32.9		400	8.07		0.27			
394B	8.17		0.28	3.18	77.9	0.01	34.6								
444B	7.34		0.22	3.25	86.3	0.04	36.3								

RV ALEXANDER AGASSIZ GULF CRUISE 7410 12

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 58.5 N	112 19.5 W	10/08/74	0339 GMT	1033 M	320	18 KT	1	330 04 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.09	35.221	4.70	0.64	3.5	0.03	0.0	499.2	0	27.09	35.221	4.70	22.876	499.2	0.000
11	27.06	35.225	4.69	0.67	3.5	0.01	0.0	498.0	10	27.06	35.224	4.69	22.888	498.1	0.050
31	24.59	35.133	3.57	1.19	12.4	0.53	5.0	431.4	20	26.14	35.184	4.25	23.151	473.0	0.099
56	21.63	35.103	2.71	1.70	25.0	0.08	12.6	352.0	30	24.75	35.137	3.64	23.541	435.7	0.144
71	20.05	35.090	2.47	1.96	29.9	0.06	15.4	312.3	50	22.32	35.105	2.86	24.229	370.1	0.225
85	18.15	35.061	2.21	2.13	35.0	0.04	18.2	268.1	75	19.48	35.080	2.39	24.977	298.9	0.309
100	17.09	35.039	2.00	2.27	40.9	0.05	20.0	245.2	100	17.09	35.039	2.00	25.541	245.2	0.378
130	15.36	34.990	1.67	2.48	48.6	0.04	22.7	210.8	125	15.59	34.997	1.71	25.857	215.1	0.436
155	14.89	34.972	1.57	2.56	49.8	0.05	23.6	202.3	150	14.95	34.975	1.58	25.983	203.2	0.490
180	14.47	34.956	1.48	2.61	51.2	0.02	24.7	194.8	200	13.40	34.901	1.25	26.254	177.4	0.587
215	12.50	34.863	1.06	2.80	55.4	0.02	27.3	163.1	250	11.35	34.799	0.78	26.575	147.0	0.671
279	10.70	34.752	0.61	2.97	62.1	0.02	29.8	139.3	300	10.19	34.722	0.51	26.721	133.1	0.744
378	8.66	34.640	0.27	3.13	72.3	0.01	33.3	115.1	400	8.38	34.627	0.25	26.944	112.0	0.874
527	7.16	34.570	0.13	3.22	84.6	0.01	36.0	99.2	500	7.36	34.580	0.16	27.058	101.1	0.988
676	5.75	34.541	0.11	3.35	100.3	0.02	39.5	83.6	600	6.44	34.551	0.12	27.163	91.2	1.093
824	4.77	34.540	0.19	3.42	116.4	0.01	41.4	72.7	700	5.56	34.539	0.12	27.266	81.5	1.188
972	4.33	34.551	0.26	3.42	127.4	0.01	41.6	67.2	800	4.90	34.539	0.17	27.344	74.1	1.275
1022	4.17	34.556	0.32	3.44	132.9	0.04	41.3	65.2	1000	4.24	34.554	0.29	27.428	66.1	1.434

A) CAST I.
B) CAST II.

RV ALEXANDER AGASSIZ GULF CRUISE 7410 13

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 52.0 N	112 13.0 W	10/08/74	0128 GMT	1260 M	330	22 KT	1	340 04 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.31	35.229	4.58					536.6	0	28.31	35.229	4.58	22.486	536.6	0.000
11	28.29	35.232	4.57					535.7	10	28.29	35.232	4.57	22.494	535.8	0.054
37	23.83	35.079	3.35					413.7	20	27.01	35.168	4.22	22.861	500.7	0.106
71	20.23	35.101	2.49					316.0	30	25.26	35.106	3.74	23.362	452.8	0.153
85	18.85	35.081	2.33					283.3	50	22.28	35.085	2.93	24.223	370.7	0.236
105	16.94	35.045	2.04					241.4	75	19.83	35.096	2.44	24.899	306.3	0.321
129	15.72	35.013	1.84					216.8	100	17.38	35.053	2.11	25.483	250.7	0.392
159	13.77	34.929	1.34					182.7	125	15.89	35.020	1.87	25.806	220.0	0.451
177	13.27	34.911	1.24					174.2	150	14.31	34.951	1.48	26.103	191.8	0.504
201	12.72	34.879	1.12					166.1	200	12.74	34.880	1.13	26.371	166.4	0.596
302	10.39	34.722	0.42					136.4	250	11.56	34.800	0.77	26.536	150.7	0.678
448	7.88	34.592	0.15					107.4	300	10.43	34.725	0.43	26.681	136.9	0.753
									400	8.71	34.626	0.24	26.892	116.9	0.887

RV ALEXANDER AGASSIZ GULF CRUISE 7410 14

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 7.0 N	112 4.5 W	10/08/74	0614 0846 GMT	550 M	320	15 KT	1	330 04 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	26.71	35.307	5.08	0.70	3.7	0.01	0.1	481.5	0	26.71	35.307	5.08	23.062	481.5	0.000
11	26.24	35.294	4.77	0.80	4.5	0.17	0.3	468.2	10	26.28	35.295	4.80	23.188	469.4	0.048
31	25.52	35.285	3.95	1.09	11.6	0.75	3.5	447.5	20	25.97	35.301	4.42	23.290	459.7	0.094
41	24.75	35.210	3.57	1.22	14.8	0.59	5.4	430.4	30	25.57	35.287	3.99	23.405	448.7	0.140
51	22.70	35.175	2.93	1.62	26.1	0.11	11.4	375.5	50	22.95	35.178	3.00	24.104	382.1	0.223
61A	20.00	35.089	2.45	1.98	30.5	0.04	15.8	311.1	75	18.64	35.069	2.27	25.184	279.1	0.306
76A	18.60	35.068	2.27	2.14	33.8	0.04	18.0	278.3	100	16.92	35.043	2.03	25.586	241.0	0.372
96A	17.33	35.058	2.10	2.31	39.8	0.04	20.2	249.3	125	14.99	34.985	1.65	25.982	203.3	0.428
116A	15.36	34.995	1.73	2.53	44.4	0.02	23.3	210.5	150	13.95	34.933	1.40	26.163	186.1	0.478
140A	14.55	34.965	1.54	2.63	48.3	0.02	24.7	195.8	200	12.14	34.841	0.98	26.457	158.2	0.566
169A	12.86	34.879	1.15	2.80	54.9	0.01	26.8	168.7	250	10.85	34.744	0.48	26.621	142.6	0.644
199B	12.18	34.844	0.99	2.86	57.2	0.00	28.0	158.6	300	9.84	34.680	0.31	26.750	130.4	0.716
229B	11.15	34.768	0.62	3.15	57.1	0.00	29.4	145.9	400	8.37	34.605	0.14	26.927	113.6	0.844
269B	10.65	34.725	0.40	2.98	56.7	0.01	29.5	140.5	500	7.49	34.572	0.09	27.032	103.6	0.961
328B	9.11	34.648	0.26	3.13	69.4	0.00	32.4	121.4							
382B	8.62	34.617	0.17	3.17	69.6	0.00	33.0	116.3							
441B	7.83	34.580	0.09	3.24	75.5	0.00	34.5	107.6							
530B	7.32	34.567	0.09	3.28	81.6	0.00	35.8	101.6							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 15

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 12.5 N	111 55.0 W	10/08/74	1045 GMT	205 M	320	14 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.28	35.308	4.61	0.56	3.2	0.01	0.0	529.9	0	28.28	35.308	4.61	22.555	529.9	0.000
11	28.31	35.309	4.64	0.57	3.1	0.00	0.0	530.8	10	28.31	35.308	4.64	22.547	530.7	0.053
32	24.87	35.235	3.80	1.18	12.7	0.70	4.5	432.1	20	27.01	35.269	4.34	22.938	493.3	0.104
46	23.53	35.209	3.34	1.42	19.6	0.68	7.8	395.9	30	25.26	35.238	3.90	23.463	443.2	0.151
56	21.66	35.155	2.82	1.79	27.4	0.34	12.4	349.0	50	22.81	35.186	3.13	24.148	377.8	0.234
86	17.34	35.054	1.99	2.27	43.3	0.04	19.3	249.8	75	18.72	35.086	2.21	25.177	279.8	0.316
105	15.43	35.000	1.67	2.53	45.2	0.04	22.8	211.6	100	15.88	35.015	1.74	25.805	220.1	0.380
130	13.59	34.926	1.30	2.73	50.4	0.03	25.7	179.4	125	13.88	34.940	1.37	26.185	184.0	0.431
149	13.01	34.890	1.12	2.79	51.2	0.03	26.8	170.8	150	12.98	34.887	1.11	26.329	170.3	0.476
179	12.11	34.834	0.83	2.91	54.1	0.07	28.0	158.1	200	11.63	34.799	0.65	26.522	152.0	0.559
204	11.54	34.793	0.61	2.98	56.0	0.10	28.6	150.9							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 16

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 25.0 N	112 12.0 W	10/08/74	1314 GMT	246 M	320	09 KT	1	290 03 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	26.12	35.290	4.84					464.9	0	26.12	35.290	4.84	23.235	464.9	0.000
10	26.10	35.287	4.87					464.5	10	26.10	35.287	4.87	23.239	464.5	0.046
29	24.13	35.241	3.72					410.5	20	25.19	35.261	4.32	23.503	439.4	0.092
44	22.98	35.215	3.35					380.3	30	24.04	35.239	3.68	23.831	408.0	0.134
54	22.59	35.199	3.26					370.8	50	22.79	35.208	3.30	24.171	375.6	0.213
69	20.02	35.128	2.66					308.8	75	19.06	35.100	2.43	25.101	287.0	0.296
84	17.79	35.065	2.12					259.4	100	16.34	35.013	1.79	25.698	230.3	0.362
105	16.01	34.997	1.72					224.3	125	14.83	34.951	1.45	25.990	202.5	0.417
130	14.59	34.942	1.41					198.3	150	13.77	34.926	1.40	26.196	182.9	0.466
150	13.77	34.926	1.40					182.9	200	12.16	34.835	0.88	26.449	158.9	0.554
180	12.52	34.858	0.99					163.9							
205	12.10	34.831	0.86					158.1							
229	11.68	34.800	0.75					152.8							

A) CAST II.
B) CAST III.

RV ALEXANDER AGASSIZ GULF CRUISE 7410 17

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 19.5 N	112 20.5 W	10/08/74	1536 GMT	848 M	300	07 KT	1	290 02 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	25.19	35.267	4.70	0.96	6.4	0.15	0.6	439.1	0	25.19	35.267	4.70	23.505	439.1	0.000
11	24.99	35.269	4.53	1.03	6.9	0.24	1.5	433.2	10	25.01	35.268	4.55	23.562	433.7	0.044
26	24.30	35.257	3.78	1.32	14.3	0.60	5.4	414.2	20	24.62	35.264	4.09	23.675	422.9	0.087
41	23.30	35.217	3.38	1.55	20.2	0.64	8.0	389.0	30	24.12	35.252	3.67	23.817	409.4	0.128
66	18.44	35.082	2.20	2.18	38.1	0.20	18.0	273.5	50	21.63	35.150	2.95	24.454	348.7	0.204
90	16.18	35.007	1.75	2.45	45.0	0.07	21.8	227.3	75	17.42	35.054	1.98	25.474	251.6	0.280
140	13.43	34.919	1.27	2.78	49.0	0.03	26.2	176.8	100	15.46	34.984	1.62	25.876	213.3	0.339
190	12.27	34.850	0.91	2.88	52.2	0.03	27.7	159.8	125	14.03	34.943	1.38	26.154	186.9	0.390
240	11.20	34.773	0.56	2.99	53.8	0.01	29.2	146.4	150	13.13	34.905	1.19	26.312	171.9	0.435
289	9.84	34.690	0.35	3.09	62.1	0.01	31.4	129.7	200	12.07	34.835	0.83	26.468	157.1	0.520
339	9.17	34.657	0.27	3.17	65.8	0.01	32.1	121.6	250	10.91	34.753	0.51	26.620	142.8	0.598
389	8.92	34.655	0.29	3.14	66.9	0.02	32.4	117.9	300	9.64	34.680	0.32	26.782	127.4	0.668
438	8.40	34.640	0.25	3.16	70.7	0.02	33.1	111.3	400	8.80	34.653	0.29	26.898	116.3	0.797
488	8.18	34.609	0.17	3.24	74.7	0.01	34.3	110.4	500	7.99	34.600	0.16	26.981	108.5	0.918
587	6.56	34.552	0.09	3.35	89.8	0.00	38.0	92.7	600	6.51	34.552	0.09	27.153	92.2	1.027
686	6.21	34.55	0.08	3.39	92.8	0.00	39.0	88.5							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 18

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 14.5 N	112 31.0 W	10/08/74	1749 GMT	550 M	320	10 KT	1	300 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	25.33	35.319	5.18	0.94	3.2	0.05	0.3	439.5	0	25.33	35.319	5.18	23.502	439.5	0.000
11	24.91	35.326	4.89	1.01	2.9	0.10	0.7	426.7	10	24.95	35.325	4.92	23.623	427.9	0.043
31	23.23	35.265	3.51	1.51	19.6	0.55	7.5	383.6	20	24.14	35.300	4.23	23.847	406.5	0.085
41	22.92	35.243	3.44	1.57	20.5	0.57	7.8	376.6	30	23.31	35.268	3.57	24.067	385.6	0.125
51	21.78	35.202	3.00	1.77	26.3	0.53	11.2	348.8	50	21.90	35.205	3.05	24.421	351.8	0.199
66	20.86	35.158	2.72	1.94	30.8	0.25	14.3	328.0	75	19.31	35.104	2.38	25.040	292.8	0.280
80	18.42	35.085	2.19	2.27	38.7	0.07	18.7	272.8	100	17.04	35.053	1.99	25.564	243.1	0.348
100	17.04	35.053	1.99	2.39	41.4	0.03	20.8	243.1	125	15.89	35.016	1.89	25.802	220.4	0.407
120	16.10	35.023	1.85	2.52	44.0	0.03	22.4	224.3	150	14.94	34.984	1.83	25.990	202.5	0.461
140	15.31	34.995	1.97	2.58	45.9	0.02	23.7	209.4	200	12.65	34.870	1.10	26.380	165.5	0.555
170	14.16	34.953	1.44	2.71	47.0	0.02	25.6	188.7	250	10.43	34.732	0.51	26.688	136.3	0.633
199	12.71	34.874	1.11	2.87	52.4	0.02	27.5	166.3	300	9.36	34.665	0.30	26.817	124.0	0.701
229	11.14	34.779	0.71	2.98	58.0	0.01	29.6	144.9	400	7.81	34.616	0.27	27.021	104.7	0.822
289	9.56	34.672	0.30	3.14	62.6	0.01	31.9	126.6	500	6.76	34.576	0.18	27.139	93.5	0.928
353	8.58	34.645	0.30	3.22	73.5	0.01	34.2	113.6							
471	6.89	34.581	0.20	3.33	88.4	0.00	37.4	94.8							
545	6.55	34.567	0.15	3.39	92.1	0.01	38.2	91.5							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 19

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 6.5 N	112 24.5 W	10/08/74	2024 GMT	953 M	330	13 KT	1	310 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	26.63	35.281	4.95					480.9	0	26.63	35.281	4.95	23.068	480.9	0.000
16	24.85	35.310	4.67					426.1	10	25.52	35.295	4.77	23.426	446.7	0.046
31	24.06	35.279	4.73					405.8	20	24.63	35.306	4.69	23.705	420.1	0.090
46	22.59	35.241	3.33					367.7	30	24.11	35.282	4.73	23.843	407.0	0.131
75	18.39	35.083	2.22					272.2	50	21.99	35.212	3.09	24.401	353.7	0.208
105	16.64	35.038	1.89					235.2	75	18.39	35.083	2.22	25.257	272.2	0.286
145	14.89	34.979	1.59					201.8	100	16.83	35.045	1.91	25.608	238.8	0.351
244	11.18	34.777	0.67					145.7	125	15.71	35.010	1.73	25.838	216.9	0.409
343	9.62	34.691	0.38					126.1	150	14.67	34.966	1.54	26.037	198.1	0.462
443	7.97	34.611	0.20					107.3	200	12.64	34.859	1.06	26.374	166.0	0.555
591	6.70	34.563	0.14					93.7	250	11.06	34.771	0.64	26.606	144.0	0.635
737	5.26	34.541	0.12					78.0	300	10.17	34.727	0.46	26.729	132.3	0.708
881	4.61	34.544	0.18					70.7	400	8.64	34.642	0.26	26.914	114.9	0.838
929	4.55	34.549	0.19					69.7	500	7.41	34.589	0.18	27.058	101.2	0.954
									600	6.60	34.560	0.14	27.148	92.6	1.060
									700	5.60	34.543	0.13	27.264	81.7	1.156
									800	4.89	34.540	0.14	27.346	73.9	1.243

RV ALEXANDER AGASSIZ GULF CRUISE 7410 20

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 10.0 N	112 38.5 W	10/08/74	2245 GMT	233 M	330	12 KT	1	320 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	25.74	35.291	5.11					453.5	0	25.74	35.291	5.11	23.354	453.5	0.000
21	24.49 A	35.274	3.98					418.4	10	25.14	35.280	4.57	23.530	436.8	0.045
31	24.06	35.263	3.63					406.9	20	24.55	35.274	4.03	23.705	420.1	0.087
46	22.78	35.231	3.34					373.7	30	24.11	35.264	3.66	23.830	408.2	0.129
61	21.52	35.191	2.99					342.8	50	22.57	35.229	3.27	24.252	367.9	0.207
76	17.76	35.071	2.13					258.3	75	18.01	35.075	2.19	25.345	263.8	0.286
96	16.64	35.038	1.91					235.2	100	16.36	35.027	1.85	25.703	229.8	0.349
115	15.35	34.989	1.64					210.7	125	14.81	34.970	1.53	26.008	200.8	0.403
135	14.38	34.955	1.44					193.0	150	14.05	34.944	1.39	26.152	187.1	0.453
164	13.73	34.926	1.33					182.1	200	12.26	34.843	0.95	26.436	160.1	0.542
188	12.50	34.858	1.00					163.5							
213	12.00	34.829	0.90					156.5							

A) ALTERNATE VALUE 25.41 DEGREES.

RV ALEXANDER AGASSIZ GULF CRUISE 7410 21

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 21.0 N	112 36.0 W	10/09/74	0038 GMT	301 M	330	11 KT	1	320 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	25.33	35.294	5.74					441.3	0	25.33	35.294	5.74	23.483	441.3	0.000
11	25.11	35.291	5.61					435.1	10	25.13	35.291	5.62	23.542	435.6	0.044
21	24.55	35.290	4.46					419.0	20	24.63	35.291	4.59	23.693	421.2	0.087
31	23.22	35.240	3.44					385.1	30	23.36	35.245	3.53	24.035	388.6	0.127
51	22.10	35.203	3.06					357.3	50	22.12	35.204	3.08	24.357	357.9	0.202
66	21.69	35.189	2.93					347.4	75	19.73	35.122	2.54	24.944	302.0	0.285
81	18.31	35.098	2.26					269.2	100	16.66	35.066	1.95	25.663	233.6	0.353
101	16.63	35.064	1.94					233.0	125	15.94	35.030	1.79	25.802	220.3	0.411
125	15.94	35.030	1.79					220.3	150	14.00	34.940	1.43	26.160	186.4	0.463
155	13.62	34.928	1.36					179.8	200	12.99	34.903	1.18	26.338	169.4	0.554
189	13.24	34.920	1.25					173.0	250	11.04	34.779	0.70	26.616	143.1	0.635
223	12.28	34.855	0.99					159.7							
257	10.73	34.762	0.63					139.1							
297	10.03	34.718	0.48					130.7							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 22

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 26.5 N	112 41.5 W	10/09/74	0338 GMT	876 M	310	10 KT	0	310 01 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	26.13	35.292	5.53	0.73	1.9	0.04	0.0	465.1	0	26.13	35.292	5.53	23.234	465.1	0.000
11	25.15	35.278	5.13	0.86	2.3	0.04	0.0	437.2	10	25.24	35.278	5.17	23.499	439.7	0.045
31	23.76	35.253		1.22	12.2	0.33	3.9	399.2	20	24.51	35.268	4.75	23.713	419.3	0.088
56	21.64	35.197	3.12	1.66	26.4	0.49	10.3	345.5	30	23.83	35.254	4.32	23.905	401.0	0.129
71	19.21	35.149	2.46	2.09	38.4	0.33	16.2	287.2	50	22.28	35.215	3.40	24.323	361.2	0.206
87	17.53	35.117	2.11	2.29	46.7	0.15	18.8	249.6	75	18.70	35.138	2.35	25.220	275.7	0.286
102	16.76	35.116	1.96	2.39	50.2	0.07	20.3	232.2	100	16.85	35.117	1.98	25.658	234.1	0.351
127	14.83	35.012	1.60	2.55	56.2	0.07	22.9	198.1	125	14.97	35.020	1.63	26.012	200.4	0.406
151	14.39	34.985	1.56	2.63	56.9	0.06	24.0	191.0	150	14.39	34.982	1.56	26.108	191.3	0.456
176	14.08	34.954	1.46	2.66	57.6	0.05	25.0	187.1	200	13.62	34.942	1.39	26.240	178.8	0.551
211	13.41	34.939	1.36	2.76	61.3	0.04	25.7	174.9	250	12.99	34.901	1.21	26.337	169.6	0.641
250	12.99	34.901	1.21	2.72	60.0	0.10	26.4	169.6	300	12.74	34.881	1.15	26.372	166.2	0.728
299	12.74	34.882	1.15	2.78	59.3	0.05	27.0	166.2	400	11.98	34.833	0.95	26.483	155.7	0.898
348	12.56	34.872	1.13	2.81	59.4	0.05	27.3	163.6							
397	12.01	34.836	0.96	2.95	60.5	0.07	27.9	156.1							
411	11.87	34.824	0.93	2.84	60.6	0.04	28.4	154.5							
430	11.72	34.808	0.83	2.91	61.7	0.04	28.7	153.0							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 23

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 31.0 N	112 33.5 W	10/09/74	0526 GMT	632 M	320	11 KT	0	310 01 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	26.87	35.344	5.00	0.72	3.5	0.06	0.3	483.7	0	26.87	35.344	5.00	23.039	483.7	0.000
11	26.75	35.348	4.88	0.79	6.1	0.06	0.1	479.7	10	26.76	35.347	4.89	23.077	480.1	0.048
31	23.49	35.240	3.89	1.36	13.9	0.51	5.2	392.6	20	25.41	35.293	4.47	23.457	443.8	0.094
56	21.98	35.202	3.19	1.67	24.8	0.62	9.6	354.2	30	23.68	35.243	3.95	23.941	397.6	0.137
71	19.94	35.137	2.58	1.98	34.4	0.47	14.8	306.1	50	22.32	35.217	3.35	24.312	362.2	0.213
86	18.92	35.103	2.29	2.12	38.4	0.23	17.1	283.5	75	19.63	35.127	2.48	24.975	299.0	0.296
101	17.69	35.069	2.08	2.27	43.3	0.11	19.6	256.8	100	17.77	35.071	2.09	25.400	258.6	0.367
126	15.72	35.006	1.78	2.50	50.6	0.10	22.3	217.3	125	15.80	35.009	1.79	25.818	218.8	0.427
150	13.63	34.925	1.38	2.72	58.6	0.07	25.8	180.2	150	13.63	34.925	1.38	26.225	180.2	0.478
175	13.13	34.897	1.24	2.83	58.5	0.05	26.8	172.6	200	12.20	34.834	0.97	26.441	159.7	0.565
225	11.23	34.776	0.69	2.98	59.0	0.02	29.4	146.7	250	10.73	34.750	0.57	26.650	139.9	0.643
299	10.07	34.715	0.47	3.07	62.8	0.02	30.9	131.6	300	10.05	34.714	0.47	26.739	131.4	0.714
373	8.93	34.648	0.30	3.18	69.6	0.02	32.8	118.6	400	8.62	34.635	0.26	26.912	115.0	0.844
447	8.12	34.614	0.21	3.26	77.4	0.03	34.5	109.2	500	7.45	34.588	0.17	27.050	101.9	0.961
520	7.21	34.578	0.16	3.31	85.8	0.02	36.3	99.3	600	6.48	34.562	0.13	27.166	90.9	1.066
615	6.34	34.56	0.12	3.38	93.4	0.02	38.3	89.4							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 24

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 35.5 N	112 23.5 W	10/09/74	0720 0751 GMT	220 M	340	10 KT	1	320 01 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	26.34	35.340	4.63					467.9	0	26.34	35.340	4.63	23.204	467.9	0.000
11	26.33	35.340	4.58					467.6	10	26.33	35.340	4.58	23.207	467.6	0.047
21	25.00	35.263	3.56					433.9	20	25.16	35.271	3.66	23.517	438.0	0.092
31	23.60	35.214	3.39					397.5	30	23.75	35.218	3.41	23.901	401.4	0.134
41	21.97	35.184	3.28					355.2	50	20.97	35.166	3.05	24.649	330.1	0.208
56	20.43	35.153	2.87					317.3	75	18.81	35.097	2.43	25.162	281.2	0.285
71	19.11	35.105	2.50					287.9	100	17.28	35.062	2.10	25.514	247.8	0.351
91A	17.76	35.075	2.21					258.0	125	15.78	35.005	1.76	25.821	218.6	0.411
116A	16.41	35.031	1.90					230.6	150	14.37	34.950	1.46	26.088	193.2	0.463
136A	15.02	34.976	1.59					204.7	200	11.76	34.813	0.88	26.509	153.2	0.552
166A	13.70	34.916	1.32					182.3							
195A	12.04	34.830	0.95					157.1							
210A	11.19	34.782	0.75					145.5							

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RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 25

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 42.5 N	112 27.5 W	10/09/74	0958 GMT	380 M	340	11 KT	1	320 01 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	26.50	35.437	4.42	0.97	7.1	0.10	0.2	465.8
10	25.27	35.352	3.73	1.24	14.5	0.53	4.4	435.3
25	23.88	35.291	3.36	1.37	20.4	0.62	6.2	399.8
35	23.44	35.279	3.21	1.48	23.0	0.58	7.8	388.4
45	21.96	35.215	3.10	1.68	26.4	0.55	10.5	352.7
61	19.92	35.170	2.72	1.87	33.5	0.39	12.5	303.2
76	16.99	35.114	2.04	2.32	47.3	0.16	18.6	237.5
96	15.97	35.084	1.82	2.41	52.6	0.07	20.1	217.1
116	15.14	35.051	1.66	2.53	55.0	0.05	22.1	201.7
135	13.78	34.966	1.37	2.70	56.7	0.04	25.5	180.2
165	12.74	34.878	1.08	2.78	55.2	0.06	26.7	166.5
195	12.08	34.851	0.92	2.82	57.1	0.10	27.6	156.3
224	11.25	34.797	0.75	2.91	61.4	0.03	29.2	145.5
264	10.16	34.741	0.59	3.01	68.3	0.03	30.6	131.2
298	9.45	34.708	0.49	3.06	72.7	0.05	31.7	122.2
373	9.05	34.700	0.46	3.13	76.3	0.03	32.8	116.6

Z	T	S	O2	SIGT	DT	DD
0	26.50	35.437	4.42	23.227	465.8	0.000
10	25.27	35.352	3.73	23.545	435.3	0.045
20	24.26	35.304	3.43	23.813	409.8	0.087
30	23.70	35.288	3.28	23.968	395.0	0.128
50	21.36	35.201	3.01	24.567	337.9	0.201
75	17.17	35.116	2.08	25.580	241.5	0.274
100	15.82	35.080	1.79	25.868	214.1	0.332
125	14.50	35.011	1.53	26.108	191.3	0.383
150	13.15	34.915	1.20	26.316	171.6	0.430
200	11.94	34.842	0.89	26.496	154.4	0.514
250	10.52	34.757	0.64	26.692	135.9	0.589
300	9.44	34.708	0.49	26.838	122.1	0.656

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 26

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 38.0 N	112 41.5 W	10/09/74	1310 GMT	537 M	280	09 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	27.17	35.487	4.69	0.82	3.7	0.03	0.1	482.6
11	27.17	35.490	4.75	0.84	3.6	0.03	0.1	482.3
31	24.22	35.317	3.25	1.48	20.2	0.54	8.2	407.6
45	22.12	35.271	2.75	1.83	30.3	0.16	12.6	352.9
55	20.95	35.233	2.55	1.96	34.9	0.13	14.6	324.9
70	20.16	35.232	2.41	2.12	37.4	0.04	15.8	304.7
84	17.99	35.176	2.21	2.32	43.8	0.04	19.0	256.0
98	16.81	35.131	2.00	2.46	49.7	0.03	21.2	232.2
121	15.23	35.063	1.72	2.59	55.6	0.02	23.7	202.7
140	14.61	35.039	1.61	2.67	58.0	0.03	24.8	191.6
172	13.37	34.949	1.34	2.79	60.9	0.02	26.7	173.4
201	12.62	34.902	1.18	2.82	61.6	0.03	27.6	162.5
220	12.08	34.854	1.03	2.84	63.2	0.03	28.3	156.1
255	12.02	34.847	1.01	2.88	63.9	0.03	28.7	155.5
306	12.00	34.838U	0.99	2.89	63.3	0.03	28.8	
353	11.44	34.806	0.90	2.96	64.7	0.02	30.0	148.1
404	10.43	34.745	0.63	3.01	66.2	0.01	31.0	135.3
456	9.23	34.664	0.31	3.11	67.0	0.07	29.1	122.0

Z	T	S	O2	SIGT	DT	DD
0	27.17	35.487	4.69	23.051	482.6	0.000
10	27.17	35.489	4.74	23.053	482.4	0.048
20	26.08	35.413	4.15	23.340	454.9	0.095
30	24.41	35.325	3.34	23.784	412.5	0.139
50	21.49	35.250	2.64	24.570	337.6	0.214
75	19.41	35.210	2.34	25.096	287.6	0.293
100	16.65	35.123	1.97	25.711	229.0	0.358
125	15.08	35.058	1.69	26.018	199.9	0.412
150	14.21	35.011	1.53	26.169	185.5	0.462
200	12.64	34.903	1.19	26.408	162.8	0.551
250	12.03	34.847	1.01	26.484	155.6	0.634
300	12.00	34.870	0.99	26.507	153.4	0.714
400	10.52	34.750	0.66	26.686	136.5	0.868

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 27

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 47.0 N	112 45.5 W	10/09/74	1515 GMT	427 M	300	07 KT	1	040 01 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	27.45	35.499	4.45					490.3
11	27.43	35.501	4.47					489.6
32	24.04	35.308	2.77					403.1
47	21.88	35.265	2.48					346.9
57	20.90	35.243	2.36					322.8
72	18.97	35.192	2.20					278.2
87	18.03	35.176	2.03					257.0
102	17.04	35.146	2.00					236.3
127	15.17	35.064	1.74					201.4
146	14.84	35.048	1.66					195.7
176	14.07	35.006	1.52					183.0
205	12.87	34.917	1.26					166.1
239	11.53	34.826	0.94					148.3
293	10.35	34.744	0.67					134.1
349	8.59	34.645	0.32					113.7
409	7.97	34.623	0.27					106.4

Z	T	S	O2	SIGT	DT	DD
0	27.45	35.499	4.45	22.970	490.3	0.000
10	27.43	35.500	4.47	22.977	489.6	0.049
20	26.22	35.417	3.79	23.300	458.8	0.097
30	24.45	35.324	2.95	23.773	413.6	0.140
50	21.58	35.259	2.44	24.551	339.4	0.216
75	18.74	35.188	2.16	25.249	273.0	0.293
100	17.18	35.150	2.00	25.606	239.0	0.358
125	15.29	35.069	1.76	25.978	203.6	0.414
150	14.76	35.044	1.65	26.077	194.3	0.465
200	13.09	34.933	1.31	26.341	169.2	0.558
250	11.26	34.808	0.88	26.597	144.9	0.639
300	10.11	34.729	0.62	26.740	131.3	0.711
400	8.06	34.627	0.28	26.991	107.5	0.838

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 28

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
31 15.5 N	114 32.0 W	10/10/74	1854 GMT	24 M	340	09 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.47	36.139	4.65	0.96	6.3	0.01	0.0	476.3
10	28.42	36.176	4.54	1.00	6.7	0.02	0.1	472.1
15	28.43	36.189	3.96	0.99	6.9	0.04	0.0	471.4
20	28.62	36.396	4.04	1.46	10.9	0.51	0.1	462.6
25	28.66	36.421	3.99	1.54	11.7	0.61	0.2	462.1
28	28.70	36.442	3.87	1.92	13.1	0.57	0.2	461.9

Z	T	S	O2	SIGT	DT	DD
0	28.47	36.139	4.65	23.116	476.3	0.000
10	28.42	36.176	4.54	23.161	472.1	0.047
20	28.62	36.396	4.04	23.259	462.6	0.094

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 29

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
31 28.0 N	114 25.5 W	10/10/74	2200 GMT	21 M	200	08 KT	1	300 01 01

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	29.07	36.072	4.92	0.85	5.4	0.09	0.0	500.2
4	28.75	36.040	5.06	0.87	4.9	0.05	0.0	492.3
8	28.65	36.052	4.74	0.92	5.4	0.08	0.0	488.3
13	28.74	36.246	4.31	1.22	6.6	0.22	0.0	477.2
18	28.78	36.342	4.09	1.66	8.2	0.31	0.0	471.6

Z	T	S	O2	SIGT	DT	DD
0	29.07	36.072	4.92	22.866	500.2	0.000
10	28.67	36.123	4.56	23.036	483.9	0.049

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 30

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
31 3.0 N	114 12.0 W	10/11/74	0806 GMT	209 M	160	09 KT	0	200 02 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.08	35.900	4.59	0.73	5.3	0.02	0.1	481.2
10	28.10	35.896	4.60	0.75	5.0	0.02	0.1	482.1
30	26.96	35.764	3.16	1.40	17.1	0.85	4.1	456.2
40	26.13	35.605	2.75	1.61	22.6	0.25	7.3	442.6
51	24.79	35.488	2.30	1.88	28.5	0.11	10.8	411.6
66	20.47	35.319	1.77	2.31	44.1	0.09	16.8	306.3
82	17.96	35.204	1.59	2.54	52.3	0.10	19.1	253.3
102	16.57	35.172	1.51	2.68	57.9	0.07	21.0	223.8
128	15.43	35.139	1.48	2.80	63.9	0.10	22.1	201.4
148	15.02	35.124	1.50	2.84	65.1	0.06	22.8	193.9
177	14.84	35.122	1.50	2.86	65.9	0.11	24.0	190.3
191	14.73	35.122	1.62	2.82	66.3	0.13	24.0	188.0
200	14.64	35.112	1.68	2.85	65.6	0.10	24.2	186.9

Z	T	S	O2	SIGT	DT	DD
0	28.08	35.900	4.59	23.065	481.2	0.000
10	28.10	35.896	4.60	23.056	482.1	0.048
20	27.67	35.855	3.95	23.166	471.6	0.096
30	26.96	35.764	3.16	23.326	456.2	0.142
50	24.95	35.498	2.34	23.752	415.6	0.230
75	18.85	35.249	1.64	25.269	271.1	0.316
100	16.66	35.173	1.51	25.747	225.6	0.379
125	15.52	35.142	1.48	25.983	203.2	0.434
150	15.00	35.123	1.50	26.085	193.5	0.484
200	14.64	35.112	1.68	26.155	186.9	0.582

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 31

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
31 13.0 N	113 49.5 W	10/11/74	1100 GMT	26 M	320	04 KT	1	300 01 01

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.29	35.905	4.52	0.89	5.2	0.06	0.3	487.4
11	28.31	35.904	4.57	0.90	5.3	0.05	0.2	488.1
21	27.97	35.824	3.92	1.19	10.1	0.35	1.1	483.2

Z	T	S	O2	SIGT	DT	DD

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 32

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
31 21.0 N	114 10.5 W	10/11/74	1315 GMT	34 M	130	09 KT	0	300 01 01

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.52		4.61	0.70	3.9	0.06	0.1	
10	28.51	36.031	4.65	0.62	3.9	0.04	0.2	485.3
20	28.54		4.67	0.62	3.9	0.04	0.1	
30	28.53		4.63	0.64	4.5	0.06	0.1	
35	28.53		4.50	0.78	5.6	0.09	0.1	

Z	T	S	O2	SIGT	DT	DD
0	28.52		4.61			
10	28.51		4.65			
20	28.54		4.67			
30	28.53		4.63			

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 33

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
31 7.0 N	114 28.5 W	10/11/74	1621 GMT	65 M	360	05 KT	0	170 01 01

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.41	36.157	4.48	0.93	6.1	0.12	0.2	473.1
10	28.42	36.136	4.46	0.90	6.0	0.11	0.1	474.9
20	28.42	36.180	4.34	1.05	7.1	0.15	0.1	471.8
30	28.44	36.295	3.90	1.51	12.0	0.68	0.5	464.2
40	28.44	36.356	3.87	1.61	12.8	0.69	0.5	459.8
50	28.42	36.356	3.84	1.70	12.8	0.66	0.5	459.1
60	28.4 A	36.365	3.86	1.69	12.9	0.65	0.5	457.9

Z	T	S	O2	SIGT	DT	DD
0	28.41	36.157	4.48	23.150	473.1	0.000
10	28.42	36.136	4.46	23.130	474.9	0.047
20	28.42	36.180	4.34	23.164	471.8	0.095
30	28.44	36.295	3.90	23.243	464.2	0.142
50	28.42	36.356	3.84	23.296	459.1	0.234

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 34

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 55.5 N	114 33.0 W	10/11/74	1756 GMT	28 M	340	11 KT	0	340 02 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.37	35.866	4.48	0.92	8.3	0.04	0.0	492.7
7	28.35	35.861	4.47	0.94	8.3	0.05	0.0	492.5
13	28.31	35.862	4.42	0.97	8.4	0.05	0.0	491.1
18	28.23	35.853	3.99	1.22	12.3	0.62	0.4	489.2
23	28.24	35.857	3.89	1.38	13.5	0.79	1.1	489.3

Z	T	S	O2	SIGT	DT	DD
0	28.37	35.866	4.48	22.944	492.7	0.000
10	28.34	35.861	4.44	22.953	491.9	0.049
20	28.23	35.854	3.95	22.981	489.2	0.098

A) TEMPERATURE INFERRED FROM PRESSURE THERMOMETER AND WIRE DEPTH.

RV ALEXANDER AGASSIZ GULF CRUISE 7410 35

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 37.5 N	114 26.5 W	10/11/74	2009 GMT	41 M	040	03 KT	0	310 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.91	35.658	4.50	0.84	10.9	0.02	0.2	493.2	0	27.91	35.658	4.50	22.939	493.2	0.000
11	27.59	35.644	4.48	0.92	11.0	0.02	0.0	484.3	10	27.62	35.645	4.48	23.024	485.1	0.049
21	27.59	35.656	4.36	0.92	11.1	0.12	0.2	483.4	20	27.59	35.654	4.37	23.041	483.5	0.097
31	27.19	35.607	3.52	1.35	18.8	1.08	2.8	474.5	30	27.23	35.611	3.65	23.125	475.4	0.145
36	25.86	35.471	2.52	1.89	29.9	1.65	7.3	444.2							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 36

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 44.0 N	114 4.5 W	10/11/74	2231 GMT	205 M	220	04 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.31	35.625	4.55	0.88	4.9	0.02	0.0	508.1	0	28.31	35.625	4.55	22.783	508.1	0.000
11	27.70	35.607	4.58	0.84	4.8	0.01	0.0	490.3	10	27.76	35.608	4.58	22.953	491.9	0.050
31	27.15	35.556	4.04	1.07	9.4	0.36	1.4	477.0	20	27.59	35.605	4.47	23.004	487.0	0.099
41	25.78	35.428	3.27	1.36	19.0	0.40	6.0	444.9	30	27.20	35.562	4.09	23.097	478.2	0.147
57	23.06	35.307	2.60	1.94	30.1	0.11	11.8	375.8	50	24.30	35.348	2.82	23.837	407.5	0.236
72	20.38	35.251	2.44	2.11	36.6	0.05	15.6	308.9	75	20.07	35.247	2.40	24.950	301.5	0.325
87	19.03	35.226	2.21	2.31	42.3	0.05	17.9	277.2	100	17.43	35.187	1.85	25.573	242.1	0.394
107	16.58	35.172	1.67	2.70	59.0	0.06	21.8	224.1	125	15.23	35.139	1.65	26.047	197.1	0.450
142	14.45	35.112	1.63	2.76	65.6	0.05	24.7	183.0	150	14.33	35.106	1.62	26.217	181.0	0.498
191	13.73	35.079	1.58	2.81	68.7	0.05	25.5	170.9	200	13.65	35.070	1.56	26.332	170.0	0.589

RV ALEXANDER AGASSIZ GULF CRUISE 7410 37

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 47.0 N	113 44.5 W	10/12/74	0043 GMT	62 M	180	07 KT	1	180 03 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.81	35.640	4.42	0.92	9.3	0.08	0.1	491.4	0	27.81	35.640	4.42	22.959	491.4	0.000
10	27.80	35.639	4.43	0.90	9.4	0.13	0.1	491.1	10	27.80	35.639	4.43	22.961	491.1	0.049
20	27.82	35.648	4.41	0.90	9.5	0.15	0.1	491.1	20	27.82	35.648	4.41	22.961	491.1	0.098
33	27.18	35.667	3.53	1.25	15.1	0.85	3.3	469.9	30	27.38	35.668	3.76	23.121	475.8	0.147
43	26.47	35.576	3.14	1.42	18.3	0.67	5.6	454.9	50	24.59	35.388	2.90	23.780	412.9	0.236
53	23.62	35.319	2.75	1.74	25.4	0.13	10.8	390.5							
63	20.78	35.280	1.82	2.33	43.7	0.19	16.9	317.1							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 38

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 54.5 N	113 18.0 W	10/12/74	0337 GMT	30 M	210	12 KT	1	210 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.22	35.781	4.45	0.94	7.0	0.11	0.2	494.1	0	28.22	35.781	4.45	22.930	494.1	0.000
9	28.23	35.779	4.45	0.90	7.2	0.10	0.1	494.5	10	28.23	35.780	4.40	22.928	494.3	0.049
19	28.19	35.798	3.95	1.20	10.0	0.40	0.7	491.9	20	28.19	35.800	3.95	22.953	491.9	0.099
29	28.23	35.825	3.92	1.22	10.0	0.37	0.6	491.2	30	28.23	35.835	3.92	22.967	490.5	0.148

RV ALEXANDER AGASSIZ GULF CRUISE 7410 39

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 26.0 N	113 8.5 W	10/12/74	0700 GMT	47 M	190	07 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.11	35.715	4.45	0.87	6.6	0.09	0.0	495.4	0	28.11	35.715	4.45	22.917	495.4	0.000
5	28.13	35.684	4.44	0.86	6.8	0.09	0.0	498.2	10	28.12	35.683	4.44	22.890	497.9	0.050
15	28.11	35.683	4.44	0.88	7.0	0.09	0.0	497.7	20	27.72	35.622	4.01	22.976	489.7	0.099
25	27.10	35.543	3.49	1.22	14.4	0.47	3.7	476.4	30	26.00	35.461	3.18	23.400	449.2	0.146
45	22.72	35.291	2.26	2.14	38.0	0.33	12.9	367.7							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 40

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 24.0 N	113 30.0 W	10/12/74	0924 GMT	140 M	250	09 KT	1	250 02 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.03	35.634	4.42	0.86	9.9	0.02	0.0	498.7	0	28.03	35.634	4.42	22.882	498.7	0.000
10	28.02	35.633	4.41	0.86	10.4	0.00	0.1	498.4	10	28.02	35.633	4.41	22.884	498.4	0.050
35	26.17	35.403	2.81	1.52	22.7	0.21	7.0	458.3	20	27.28	35.536	3.87	23.053	482.4	0.099
50	22.55	35.305	2.14	2.06	38.3	0.05	13.6	362.1	30	26.54	35.446	3.20	23.221	466.3	0.147
65	20.66	35.255	2.34	2.13	38.2	0.05	15.5	315.8	50	22.55	35.305	2.14	24.313	362.1	0.230
80	18.63	35.215	2.15	2.33	43.6	0.08	17.9	268.4	75	19.29	35.227	2.24	25.138	283.5	0.311
100	16.56	35.152	1.88	2.54	52.2	0.03	21.5	225.1	100	16.56	35.152	1.88	25.753	225.1	0.375
120	15.44	35.132	1.53	2.77	63.1	0.05	23.6	202.2	125	15.13	35.126	1.47	26.058	196.1	0.429
130	14.89	35.122	1.43	2.85	69.4	0.06	24.3	191.3							
141	14.86	35.124	1.42	2.91	69.5	0.05	24.5	190.5							

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 41

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 21.5 N	113 58.0 W	10/12/74	1231 GMT	286 M	180	08 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.7	35.566	4.40	0.93	8.0	0.04	0.3	493.2	0	27.70	35.566	4.40	22.939	493.2	0.000
10	27.67	35.562	4.41	0.89	7.8	0.03	0.2	492.6	10	27.67	35.562	4.41	22.945	492.6	0.049
30	27.64	35.564	4.40	0.88	7.7	0.05	0.2	491.5	20	27.65	35.562	4.40	22.951	492.1	0.099
40	27.17	35.504	3.88	1.09	12.1	0.34	2.7	481.3	30	27.64	35.564	4.40	22.957	491.5	0.148
50	24.21	35.332A	2.80	1.68	24.5	0.14	10.2	406.2	50	24.21	35.332	2.80	23.850	406.2	0.238
65	22.23	35.288A	2.52	1.95	31.4	0.05	13.4	354.6	75	20.82	35.259	2.35	24.759	319.6	0.329
80	20.14	35.247	2.28	2.20	32.0	0.04	16.4	303.2	100	18.09	35.203	2.09	25.423	256.4	0.402
110	17.34	35.183	2.02	2.42	47.9	0.02	20.6	240.4	125	16.57	35.165	1.92	25.761	224.3	0.463
141	15.96	35.144	1.84	2.63	53.6	0.01	23.0	212.5	150	15.55	35.130	1.81	25.968	204.6	0.518
171	14.71	35.105	1.77	2.70	58.6	0.07	24.1	188.8	200	14.08	35.097	1.73	26.262	176.7	0.616
201	14.07	35.097	1.73	2.79	61.3	0.01	25.3	176.4	250	13.50	35.074	1.60	26.366	166.8	0.705
231	13.67	35.083	1.64	2.85	64.4	0.04	25.6	169.5							
260	13.42	35.068	1.57	2.87	68.0	0.02	26.0	165.7							
289	13.07	35.036	1.41	2.93	72.1	0.04	25.3	161.2							

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 42

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 19.0 N	114 24.5 W	10/12/74	1541 GMT	54 M	140	05 KT	0	270 02 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.28	35.670	4.57	0.91	6.1	0.00	0.2	472.8	0	27.28	35.670	4.57	23.153	472.8	0.000
10	27.25	35.669	4.58	0.90	6.0	0.00	0.2	471.9	10	27.25	35.669	4.58	23.162	471.9	0.047
20	27.26	35.666	4.57	0.89	5.9	0.01	0.1	472.5	20	27.26	35.666	4.57	23.156	472.5	0.095
30	25.88	35.512	4.28	1.16	5.9	0.22	2.2	441.8	30	25.88	35.512	4.28	23.477	441.8	0.140
50	21.62	35.288	2.83	2.30	9.8	0.33	12.3	338.4	50	21.62	35.288	2.83	24.562	338.4	0.219

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 43

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 57.0 N	114 8.0 W	10/12/74	1901 GMT	338 M	340	02 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.58	35.714	4.62					478.9	0	27.58	35.714	4.62	23.089	478.9	0.000
10	27.36	35.710	4.63					472.4	10	27.36	35.710	4.63	23.157	472.4	0.048
30	24.95	35.455	4.43					418.6	20	26.50	35.606	4.53	23.355	453.5	0.094
45	21.28	35.275	2.70					330.4	30	24.95	35.455	4.43	23.720	418.6	0.138
60	19.74	35.237	2.33					293.9	50	20.68	35.263	2.58	24.800	315.7	0.211
75	17.62	35.123	2.10					251.2	75	17.62	35.123	2.10	25.478	251.2	0.283
90	16.14	35.064	1.86					222.2	100	15.24	35.032	1.71	25.962	205.2	0.341
109	14.63	35.019	1.62					193.5	125	14.45	35.062	1.62	26.158	186.5	0.390
129	14.40	35.056	1.62					186.0	150	14.01	35.027	1.55	26.225	180.2	0.437
159	13.86	35.013	1.52					178.3	200	13.82	35.076	1.64	26.302	172.9	0.528
194	13.89	35.077	1.65					174.3	250	13.05	35.017	1.45	26.414	162.3	0.615
229	13.37	35.048	1.55					166.1	300	12.65	34.972	1.31	26.459	158.0	0.699
269	12.81	34.990	1.37					159.7							
308	12.62	34.968	1.29					157.7							
328	12.45	34.948	1.21					156.0							

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 44

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 38.0 N	113 54.5 W	10/12/74	2230 GMT	918 M	010	02 KT	0	300 01 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.41	35.664	4.63	0.88	6.7	0.01	0.1	477.2	0	27.41	35.664	4.63	23.106	477.2	0.000
20	25.31	35.451	4.82	0.94	4.2	0.13	0.3	429.4	10	26.36	35.551	4.72	23.357	453.3	0.047
45	23.59	35.312	3.36	1.47	21.3	0.90	7.6	390.2	20	25.31	35.451	4.82	23.608	429.4	0.091
61	19.79	35.180	2.56	2.00	37.6	0.80	14.7	299.3	30	24.87	35.405	4.33	23.707	419.9	0.133
76	17.11	35.083	2.01	2.37	49.2	0.04	20.5	242.5	50	22.46	35.261	3.09	24.305	362.8	0.212
91	15.86	35.041	1.82	2.45	53.6	0.03	21.7	217.8	75	17.25	35.088	2.04	25.540	245.3	0.288
116	14.89	35.007	1.63	2.61	58.0	0.02	23.5	199.7	100	15.42	35.027	1.74	25.918	209.3	0.346
141	14.17	34.977	1.53	2.69	60.5	0.02	24.8	187.2	125	14.60	34.995	1.59	26.073	194.6	0.397
166	13.74	34.967	1.49	2.73	62.6	0.02	25.4	179.3	150	13.99	34.971	1.51	26.186	184.0	0.446
201	13.45	34.986	1.52	2.79	65.5	0.01	26.1	172.2	200	13.45	34.985	1.52	26.307	172.4	0.537
265	13.21	35.022	1.52	2.83	67.7	0.02	26.6	164.9	250	13.25	35.016	1.52	26.373	166.2	0.625
359	12.78	34.981	1.37	2.89	70.1	0.01	27.1	159.8	300	13.05	35.012	1.47	26.410	162.6	0.711
458	12.39	34.95	1.29	2.93	70.5	0.00	27.9	154.7	400	12.63	34.969	1.34	26.462	157.7	0.880
571	11.68	34.874	1.10	2.96	72.2	0.00	29.1	147.4	500	12.13	34.921	1.22	26.523	151.9	1.047
734	11.14	34.825	0.88	3.05	74.0	0.05	30.0	141.5	600	11.55	34.861	1.05	26.585	146.0	1.209
833	10.98	34.809	0.83	3.08	75.2	0.10	30.1	139.9	700	11.21	34.831	0.92	26.624	142.3	1.369
918	10.94	34.807	0.81	3.12	75.6	0.10	30.1	139.4	800	11.02	34.812	0.84	26.646	140.3	1.528

A) THE SALINITY BOTTLE ORDER DIFFERS ON THE ORIGINAL DATA AND SALINITY DETERMINATION SHEETS.
THEY ARE ASSUMED TO NOW BE IN CORRECT ORDER.

RV ALEXANDER AGASSIZ GULF CRUISE 7410 45

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 22.5 N	113 37.5 W	10/13/74	0310 GMT	159 M	320	09 KT	0	300 01 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	24.94	35.405	4.11	1.23	12.8	0.60	4.0	421.9	0	24.94	35.405	4.11	23.686	421.9	0.000
11	24.87	35.421	4.33	1.11	9.7	0.39	3.0	418.7	10	24.88	35.419	4.31	23.716	419.0	0.042
30	24.36	35.392	4.05	1.25	13.4	0.39	4.7	406.2	20	24.62	35.395	4.25	23.776	413.3	0.084
39	24.35	35.384U	3.90	1.29	14.8	0.40	5.3		30	24.36	35.392	4.05	23.851	406.2	0.125
51	23.84	35.365	3.75	1.38	17.7	0.36	6.6	393.4	50	23.91	35.383	3.76	23.979	394.0	0.205
63	22.60	35.318	3.49	1.55	23.0	0.28	8.9	362.5	75	19.87	35.219	2.90	24.982	298.4	0.292
75	19.87	35.219	2.90	1.90	33.9	0.21	13.7	298.4	100	16.20	35.068	1.93	25.772	223.2	0.358
91	17.06	35.095	2.12	2.35	48.7	0.12	19.8	240.4	125	14.97	35.018	1.69	26.010	200.7	0.412
114	15.40	35.039	1.79	2.54	54.7	0.07	22.5	208.1							
139	14.43	34.994	1.56	2.68	58.9	0.05	24.4	191.2							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 46

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 38.5 N	113 29.0 W	10/13/74	0623 GMT	227 M	240	11 KT	1	270 02 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.08	35.521	4.73					477.3	0	27.08	35.521	4.73	23.105	477.3	0.000
10	26.98	35.504	4.84					475.5	10	26.98	35.504	4.84	23.124	475.5	0.048
30	22.81	35.287	2.77					370.4	20	25.15	35.386	3.89	23.608	429.3	0.093
50	19.88	35.219	2.35					298.7	30	22.81	35.287	2.77	24.226	370.4	0.133
85	18.18	35.168	2.16					261.1	50	19.88	35.219	2.35	24.979	298.7	0.200
120	16.30	35.095	1.91					223.5	75	18.45	35.187	2.18	25.321	266.1	0.271
140	15.86	35.068	1.82					215.8	100	17.30	35.134	2.05	25.563	243.1	0.336
160	14.99	35.035	1.66					199.8	125	16.19	35.088	1.89	25.790	221.5	0.395
180	13.87	34.996	1.44					179.8	150	15.47	35.052	1.75	25.926	208.6	0.450
209	13.21	34.994	1.41					167.0	200	13.31	34.990	1.42	26.341	169.1	0.547
219	13.18	35.000	1.38					166.0							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 47

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 41.5 N	113 13.0 W	10/13/74	0832 GMT	240 M	300	09 KT	0	330 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.22	35.519	4.58	0.70	6.7	0.02	0.0	481.8	0	27.22	35.519	4.58	23.059	481.8	0.000
10	27.21	35.511	4.60	0.77	6.5	0.01	0.0	482.1	10	27.21	35.511	4.60	23.056	482.1	0.048
30	24.00	35.337	3.61	1.21	16.1	1.58	5.2	399.9	20	25.77	35.420	4.16	23.443	445.1	0.095
40	23.00	35.293	3.28	1.40	23.4	0.82	8.5	375.2	30	24.00	35.337	3.61	23.917	399.9	0.137
50	22.36	35.265	3.10	1.56	26.4	0.45	10.5	359.8	50	22.36	35.265	3.10	24.337	359.8	0.213
65	20.29	35.196	2.58	1.82	36.7	0.06	14.4	310.6	75	19.17	35.154	2.35	25.115	285.7	0.295
80	18.68	35.136	2.26	2.03	42.4	0.06	17.5	275.3	100	17.23	35.091	2.02	25.547	244.6	0.362
100	17.23	35.091	2.02	2.20	48.6	0.05	20.0	244.6	125	15.28	35.070	1.76	25.982	203.3	0.418
120	15.58	35.075	1.80	2.45	55.8	0.03	22.4	209.3	150	14.21	35.044	1.60	26.194	183.1	0.468
139	14.60	35.055	1.67	2.58	60.5	0.02	24.2	190.2	200	12.35	34.917	1.17	26.476	156.4	0.555
169	13.61	35.013	1.47	2.73	64.0	0.02	26.0	173.4							
199	12.38	34.920	1.18	2.83	67.4	0.03	27.9	156.7							
238	11.36	34.838	0.90	2.92	71.4	0.04	29.4	144.4							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 48

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 45.0 N	112 49.5 W	10/13/74	1120 GMT	99 M	300	04 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.32	35.561	4.71	0.73	4.4	0.01	0.2	481.9	0	27.32	35.561	4.71	23.058	481.9	0.000
8	27.32	35.553	4.73	0.70	4.6	0.01	0.4	482.4	10	27.15	35.530	4.66	23.090	478.8	0.048
23	25.69	35.397	3.92	1.09	8.7	0.79	2.9	444.4	20	26.08	35.425	4.14	23.350	454.0	0.095
33	24.88	35.404	3.22	1.40	21.6	0.36	7.2	420.2	30	25.17	35.403	3.42	23.614	428.7	0.139
43	22.92	35.313	2.84	1.68	26.6	0.15	11.1	371.6	50	22.38	35.286	2.84	24.349	358.7	0.218
58	21.81	35.258	2.84	1.66	30.1	0.16	12.4	345.6	75	18.83	35.205	2.10	25.240	273.8	0.298
73	18.91	35.208	2.13	2.18	47.7	0.13	17.7	275.6							
98	17.89	35.183	1.73	2.63	60.0	0.11	20.1	253.2							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 49

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 9.0 N	112 34.5 W	10/13/74	2139 GMT	199 M	310	12 KT	1	300 02 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.57	35.545	4.66					490.7	0	27.57	35.545	4.66	22.965	490.7	0.000
10	27.25	35.515	4.66					483.0	10	27.25	35.515	4.66	23.046	483.0	0.049
30	23.40	35.325	2.89					384.0	20	25.59	35.417	3.85	23.496	440.0	0.095
40	21.49	35.261	2.44					336.9	30	23.40	35.325	2.89	24.084	384.0	0.136
55	17.71	35.158	1.90					250.8	50	18.96	35.185	2.06	25.190	278.6	0.203
70	15.14	35.074	1.61					200.0	75	15.04	35.068	1.59	26.032	198.5	0.263
90	14.76	35.050	1.55					193.9	100	14.45	35.036	1.52	26.137	188.6	0.312
110	14.12	35.021	1.49					183.0	125	13.66	34.988	1.40	26.267	176.3	0.358
130	13.52	34.977	1.37					174.3	150	13.07	34.947	1.27	26.357	167.7	0.402
159	12.84	34.931	1.22					164.5							
178	12.13	34.878	1.03					155.2							
188	11.62	34.838	0.92					149.0							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 50

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 2.5 N	112 50.0 W	10/13/74	2356 GMT	427 M	320	10 KT	0	340 03 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.58	35.538	4.71	0.77	2.7	0.02	0.1	491.5	0	27.58	35.538	4.71	22.957	491.5	0.000
11	27.57	35.539	4.72	0.82	3.0	0.01	0.1	491.2	10	27.57	35.538	4.72	22.960	491.2	0.049
21	27.44	35.558	4.68	0.92	3.7	0.01	0.1	485.8	20	27.45	35.555	4.68	23.011	486.3	0.098
35	27.39	35.562	4.66	0.90	3.9	0.03	0.5	483.9	30	27.41	35.560	4.67	23.029	484.6	0.147
50	26.19	35.453	3.95	1.14	7.5	0.97	1.8	455.3	50	26.19	35.453	3.95	23.336	455.3	0.241
70	21.92	35.265	2.41	1.94	34.7	0.07	13.5	348.0	75	21.19	35.250	2.27	24.652	329.8	0.340
90	19.03	35.194	2.05	2.37	45.6	0.03	18.6	279.5	100	16.91	35.118	1.81	25.645	235.3	0.411
110	14.96	35.076	1.59	2.73	60.3	0.03	24.4	196.1	125	14.27	35.044	1.47	26.183	184.2	0.464
139	13.62	35.020	1.41	2.89	66.4	0.02	26.3	173.1	150	13.15	34.972	1.30	26.359	167.4	0.509
169	12.38	34.886	1.11	2.94	64.4	0.03	28.2	159.2	200	11.23	34.807	0.85	26.602	144.4	0.590
199	11.26	34.809	0.86	3.00	66.6	0.03	29.6	144.7	250	10.23	34.744	0.61	26.732	132.1	0.661
239	10.38	34.752	0.62	3.09	67.6	0.03	30.9	134.0	300	9.75	34.719	0.56	26.795	126.1	0.729
293	9.80	34.721	0.57	3.15	71.7	0.03	32.0	126.8	400	8.90	34.674	0.41	26.898	116.3	0.857
367	9.25	34.695	0.48	3.21	76.4	0.06	32.6	120.1							
415	8.74	34.664	0.38	3.34	80.2	0.06	33.6	114.6							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 51

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 12.5 N	113 0.5 W	10/14/74	0216 GMT	427 M	340	17 KT	0	340 02 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.56	35.562	4.72	0.86	4.4	0.02	0.3	489.2	0	27.56	35.562	4.72	22.981	489.2	0.000
10	27.54	35.555	4.70	0.82	4.4	0.02	0.1	489.1	10	27.54	35.555	4.70	22.982	489.1	0.049
31	27.29	35.530	4.67	0.82	4.6	0.02	0.1	483.2	20	27.42	35.543	4.69	23.012	486.3	0.098
41	26.17	35.448	3.91	1.11	9.2	1.01	2.2	455.0	30	27.30	35.531	4.67	23.041	483.4	0.146
51	24.75	35.343	3.06	1.51	20.7	0.13	8.7	420.9	50	24.91	35.353	3.14	23.656	424.8	0.238
66	21.66	35.273	2.59	1.94	32.9	0.07	13.5	340.5	75	20.49	35.245	2.44	24.837	312.2	0.330
81	19.87	35.225	2.37	2.14	39.0	0.05	16.2	298.0	100	18.00	35.161	2.16	25.413	257.3	0.402
101	17.91	35.158	2.15	2.33	46.2	0.05	19.3	255.4	125	15.82	35.131	1.88	25.907	210.4	0.462
120	16.11	35.136	1.92	2.59	53.0	0.04	22.1	216.3	150	14.32	35.058	1.62	26.183	184.2	0.512
140	15.06	35.100	1.76	2.70	57.9	0.03	24.0	196.5	200	11.96	34.860	1.03	26.507	153.4	0.599
168	13.04	34.979	1.34	2.84	66.4	0.04	27.1	164.8	250	11.19	34.812	0.87	26.615	143.2	0.676
197	12.02	34.866	1.04	2.91	69.6	0.07	28.2	154.1	300	10.31	34.758	0.68	26.730	132.2	0.748
225	11.61	34.836	0.96	2.93	70.5	0.22	27.2	148.9	400	9.22	34.695	0.49	26.864	119.5	0.881
263	10.96	34.801	0.82	3.00	72.7	0.03	30.1	140.2							
315	10.07	34.744	0.63	3.09	77.4	0.03	31.5	129.5							
378	9.48	34.712	0.53	3.17	80.2	0.04	32.4	122.4							
408	9.12	34.689	0.48	3.19	81.4	0.04	32.9	118.5							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 52

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 59.0 N	113 0.5 W	10/14/74	0500 GMT	297 M	350	14 KT	0	340 02 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.44	35.570	4.57					484.9	0	27.44	35.570	4.57	23.026	484.9	0.000
10	27.38	35.563	4.58					483.6	10	27.38	35.563	4.58	23.040	483.6	0.048
29	26.15	35.478	4.41					452.3	20	26.78	35.520	4.52	23.199	468.3	0.096
43	25.67	35.443	4.09					440.5	30	26.12	35.475	4.39	23.374	451.6	0.142
57	24.49	35.419	3.90					407.9	50	25.24	35.438	4.03	23.618	428.3	0.231
71	21.38	35.305	3.03					330.9	75	20.72	35.272	2.81	24.797	316.0	0.324
85	19.35	35.200	2.37					286.9	100	17.77	35.153	2.08	25.463	252.6	0.396
104	17.45	35.146	2.05					245.6	125	16.35	35.105	1.86	25.765	223.9	0.456
127	16.28	35.101	1.85					222.6	150	15.45	35.079	1.71	25.952	206.1	0.511
156	15.26	35.074	1.68					202.6	200	13.63	34.986	1.40	26.271	175.9	0.609
187	14.30	35.029	1.52					186.0	250	11.38	34.834	0.93	26.595	145.1	0.692
220	12.57	34.918	1.20					160.4							
255	11.24	34.824	0.89					143.3							
286	10.87	34.806	0.79					138.2							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 53

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 7.5 N	113 25.0 W	10/14/74	0852 GMT	722 M	310	09 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	25.81	35.485	4.61	0.92	4.4	0.08	0.2	441.7	0	25.81	35.485	4.61	23.479	441.7	0.000
10	25.31	35.443	4.35	1.03	8.8	0.18	1.9	429.9	10	25.31	35.443	4.35	23.602	429.9	0.044
50	23.27	35.332	3.37	1.50	22.3	0.32	8.2	379.8	20	25.05	35.434	4.13	23.673	423.1	0.086
85	17.08	35.107	1.98	2.33	48.4	0.08	20.1	240.0	30	24.63	35.410	3.89	23.784	412.5	0.128
104	16.33	35.072	1.85	2.42	51.4	0.05	21.6	225.8	50	23.27	35.332	3.37	24.127	379.8	0.208
109	15.68	35.047	1.75	2.41	54.1	0.05	20.8	213.5	75	18.74	35.132	2.33	25.207	277.0	0.290
139	14.54	35.000	1.55	2.57	58.8	0.03	23.8	193.0	100	16.52	35.085	1.88	25.710	229.1	0.354
159	13.91	34.983	1.47	2.66	60.8	0.03	25.2	181.5	125	15.07	35.020	1.59	25.990	202.6	0.409
178	13.32	34.961	1.38	2.74	63.3	0.03	26.0	171.5	150	14.19	34.990	1.50	26.159	186.5	0.459
208	13.21	34.956	1.37	2.73	64.1	0.02	26.2	169.8	200	13.24	34.957	1.37	26.330	170.2	0.550
237	12.83	34.931	1.28	2.78	64.3	0.02	26.7	164.4	250	12.84	34.932	1.28	26.392	164.4	0.637
262	12.84	34.933	1.28	2.81	65.2	0.03	26.7	164.4	300	12.52	34.913	1.20	26.441	159.7	0.722
296	12.54	34.915	1.21	2.82	65.2	0.02	27.5	160.1	400	12.10	34.890	1.14	26.504	153.7	0.887
340	12.32	34.905	1.17	2.83	66.6	0.02	27.7	156.7	500	11.80	34.869	1.06	26.545	149.8	1.050
394	12.12	34.892	1.14	2.87	66.5	0.02	28.0	154.0	600	11.51	34.841	0.92	26.577	146.8	1.212
477	11.86	34.875	1.08	2.85	66.9	0.02	28.5	150.5	700	11.16	34.806	0.81	26.615	143.2	1.372
565	11.63	34.854	0.98	2.89	67.5	0.03	28.9	148.0							
699	11.17	34.806	0.81	2.91	67.4	0.04	29.4	143.4							

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 54

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 58.0 N	113 14.5 W	10/14/74	1207 GMT	1191 M	300	11 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	25.66	35.451	4.43	1.02	7.3	0.15	1.4	439.7	0	25.66	35.451	4.43	23.500	439.7	0.000
10	25.66	35.451	4.42	1.01	7.3	0.15	1.7	439.7	10	25.66	35.451	4.42	23.500	439.7	0.044
30	25.29	35.418	4.15	1.11	10.6	0.21	3.2	431.2	20	25.47	35.434	4.33	23.544	435.4	0.088
60	22.55	35.301	3.08	1.64	27.4	0.21	10.6	362.3	30	25.29	35.418	4.15	23.589	431.2	0.131
75	21.62	35.260	2.84	1.79	31.9	0.17	12.7	340.4	50	23.54	35.336	3.44	24.050	387.2	0.213
90	20.76	35.236	2.62	1.92	35.5	0.14	14.5	319.8	75	21.62	35.260	2.84	24.541	340.4	0.305
110	18.54	35.150	2.22	2.17	43.5	0.08	18.2	270.9	100	19.73	35.193	2.42	25.000	296.7	0.385
135	15.78	35.068	1.80	2.46	52.5	0.04	22.4	214.1	125	16.79	35.094	1.95	25.655	234.4	0.453
164	14.58	35.006	1.59	2.59	58.0	0.03	24.5	193.4	150	14.99	35.034	1.66	26.020	199.7	0.508
189	14.06	34.990	1.53	2.68	59.0	0.02	25.5	184.0	200	13.84	34.981	1.49	26.225	180.2	0.606
229	13.33	34.960	1.40	2.74	64.1	0.03	26.4	171.8	250	13.10	34.949	1.36	26.351	168.2	0.696
293	12.80	34.932	1.30	2.81	64.9	0.03	27.0	163.7	300	12.76	34.930	1.29	26.405	163.1	0.782
406	12.28	34.904	1.21	2.80	66.2	0.03	26.4	156.1	400	12.30	34.905	1.21	26.476	156.3	0.951
504	11.83	34.863	1.06	2.88	67.1	0.02	28.5	150.9	500	11.85	34.864	1.07	26.532	151.1	1.116
558	11.66	34.849	0.99	2.91	67.2	0.02	28.9	148.9	600	11.55	34.838	0.95	26.567	147.7	1.279
807	11.15	34.797	0.80	2.94	66.1	0.02	29.9	143.7	700	11.33	34.816	0.86	26.591	145.4	1.441
968	10.92	34.776	0.72	2.96	66.1	0.03	30.4	141.3	800	11.16	34.798	0.80	26.608	143.8	1.604
1160	10.89	34.770	0.69	2.98	67.2	0.06	29.4	141.2	1000	10.91	34.775	0.71	26.635	141.3	1.931

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 55

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 52.5 N	112 52.5 W	10/14/74	1502 GMT	419 M	260	06 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.34	35.560	4.58					482.5	0	27.34	35.560	4.58	23.051	482.5	0.000
10	27.33	35.554	4.61					482.7	10	27.33	35.554	4.61	23.049	482.7	0.048
30	26.45	35.437	3.88					464.2	20	26.89	35.494	4.35	23.146	473.5	0.096
44	23.76	35.326	3.02					393.9	30	26.45	35.437	3.88	23.242	464.2	0.143
54	22.95	35.303	2.89					373.1	50	23.24	35.312	2.92	24.120	380.5	0.228
69	21.03	35.240	2.49					326.4	75	20.50	35.231	2.41	24.825	313.3	0.315
83	19.82	35.219	2.33					297.2	100	17.99	35.162	2.09	25.418	256.9	0.387
98	18.16	35.166	2.12					260.7	125	15.41	35.079	1.63	25.959	205.5	0.446
117	16.46	35.122	1.78					225.0	150	13.70	35.000	1.36	26.268	176.1	0.495
137	13.99	35.028	1.45					179.8	200	12.89	34.940	1.25	26.386	164.9	0.582
166	13.34	34.967	1.32					171.5	250	11.21	34.804	0.86	26.603	144.3	0.662
196	13.00	34.949	1.28					166.3	300	9.70	34.711	0.54	26.796	126.0	0.733
230	11.94	34.859	1.02					153.2	400	8.18	34.637	0.31	26.981	108.5	0.857
328	9.05	34.679	0.42					118.1							
362	8.78	34.668	0.40					114.9							
391	8.26	34.640	0.33					109.3							
411	8.09	34.632	0.29					107.4							

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 56

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 57.0 N	112 43.0 W	10/14/74	1715 GMT	475 M	360	11 KT	0	350 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.28	35.540	4.67					482.1	0	27.28	35.540	4.67	23.055	482.1	0.000
10	27.20	35.545	4.67					479.3	10	27.20	35.545	4.67	23.085	479.3	0.048
30	27.02	35.522	4.46					475.5	20	27.11	35.533	4.56	23.105	477.4	0.096
40	24.66	35.356	3.28					417.4	30	27.02	35.522	4.46	23.125	475.5	0.144
50	22.62	35.294	2.62					364.8	50	22.62	35.294	2.62	24.285	364.8	0.228
65	20.54	35.239	2.28					313.9	75	18.43	35.173	2.01	25.316	266.6	0.308
81	17.16	35.144	1.85					239.2	100	14.62	35.062	1.53	26.121	190.1	0.365
101	14.53	35.058	1.52					188.6	125	13.52	35.003	1.36	26.307	172.5	0.411
121	13.67	35.017	1.39					174.3	150	12.70	34.914	1.17	26.405	163.1	0.454
141	12.99	34.943	1.25					166.5	200	11.31	34.808	0.73	26.588	145.8	0.534
170	12.10	34.863	0.98					155.8	250	10.45	34.762	0.68	26.708	134.3	0.606
198	10.66 U	34.778	0.73						300	10.11	34.746	0.61	26.754	130.0	0.675
230	10.71	34.775	0.72					137.8	400	9.12	34.688	0.47	26.874	118.6	0.807
269	10.27	34.755	0.64					131.9							
323	10.00	34.738	0.60					128.8							
396	9.13	34.688	0.48					118.7							
468	8.95	34.676	0.38					116.8							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 57

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 51.5 N	112 38.5 W	10/14/74	1900 GMT	650 M	340	13 KT	1	350 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	25.62	35.453	4.20	1.10	12.5	0.19	2.2	438.3
10	24.59	35.395	3.90	1.25	17.4	0.20	5.0	412.5
30	23.12	35.321	3.36	1.51	24.1	0.27	8.6	376.5
40	21.79	35.260	2.80	1.79	31.3	0.24	12.4	344.9
50	21.29	35.247	2.69	1.81	33.0	0.21	13.5	332.7
64	21.07	35.235	2.86	1.87	31.8	0.25	12.0	327.8
79	19.74	35.186	1.11	1.99	35.9	0.22	14.6	297.6
99	19.68	35.183	2.61	1.98	36.6	0.22	15.1	296.3
119	18.65	35.142	2.33	2.11	40.5	0.19	17.0	274.1
138	16.98	35.076	2.02	2.29	46.3	0.15	20.0	240.0
168	14.64	35.008	1.54	2.66	56.8	0.05	24.6	194.5
197	13.64	34.968	1.38	2.75	59.9	0.03	25.9	177.3
247	12.46	34.879	1.09	2.82	61.4	0.03	27.7	161.2
321	10.80	34.785	0.71	2.99	67.0	0.02	30.2	138.6
394	10.47	34.756	0.66	3.02	68.0	0.03	30.5	135.2
493	9.68	34.718	0.54	3.07	70.1	0.02	32.0	125.1
591	8.85	34.668	0.37	3.18	74.8	0.03	33.5	115.9
640	8.82	34.668	0.37	3.18	75.0	0.03	33.4	115.5

Z	T	S	O2	SIGT	DT	DD
0	25.62	35.453	4.20	23.514	438.3	0.000
10	24.59	35.395	3.90	23.784	412.5	0.043
20	23.90	35.361	3.67	23.963	395.5	0.083
30	23.12	35.321	3.36	24.162	376.5	0.122
50	21.29	35.247	2.69	24.621	332.7	0.193
75	20.10	35.197	1.55	24.905	305.7	0.273
100	19.65	35.182	2.60	25.011	295.6	0.349
125	18.15	35.120	2.23	25.345	263.8	0.420
150	15.94	35.042	1.81	25.811	219.5	0.482
200	13.56	34.963	1.36	26.268	176.1	0.583
250	12.38	34.873	1.07	26.437	160.1	0.670
300	11.20	34.805	0.80	26.607	144.0	0.750
400	10.43	34.753	0.65	26.705	134.6	0.897
500	9.60	34.713	0.52	26.815	124.2	1.036
600	8.84	34.668	0.37	26.903	115.9	1.167

RV ALEXANDER AGASSIZ GULF CRUISE 7410 58

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 46.5 N	112 33.0 W	10/14/74	2133 GMT	297 M	320	13 KT	1	320 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	24.66	35.363	4.23	1.23	13.7	0.33	3.8	416.8
6	24.21	35.350	4.05	1.31	15.4	0.39	4.9	404.9
11	23.64	35.314	3.66	1.46	20.0	0.42	7.1	391.4
15	21.64	35.254	3.07	1.75	28.8	0.38	11.2	341.4
20	21.31	35.245	3.02	1.81	29.9	0.36	11.8	333.4
25	21.12	35.237	2.97	1.80	30.7	0.34	12.2	329.0
30	21.03	35.234	2.97	1.83	32.1	0.33	12.1	326.9
39	20.27	35.209	2.81	1.92	33.8	0.28	13.8	309.2
48	20.12	35.184	2.66	2.00	36.9	0.26	14.7	307.2
72	17.66	35.100	2.16	2.28	45.0	0.18	19.0	253.8
96	17.66	35.105	2.14	2.29	44.8	0.19	18.9	253.5
121	17.4 A	35.096	2.11	2.27	45.0	0.18	18.8	248.1
145	17.1 A	35.080	2.04	2.26	45.9	0.18	18.1	242.4
170	16.44 B	35.047	1.87	2.44	49.4	0.14	21.2	230.1
195	14.11	34.949	1.44	2.67	55.8	0.09	24.7	188.0
235	10.42	34.749	0.63	3.06	68.0	0.04	30.6	134.9

Z	T	S	O2	SIGT	DT	DD
0	24.66	35.363	4.23	23.739	416.8	0.000
10	23.84	35.330	3.82	23.958	395.9	0.041
20	21.31	35.245	3.02	24.615	333.4	0.077
30	21.03	35.234	2.97	24.683	326.9	0.110
50	19.93	35.173	2.61	24.932	303.1	0.174
75	17.66	35.100	2.16	25.451	253.8	0.244
100	17.63	35.104	2.14	25.461	252.8	0.308
125	17.36	35.094	2.10	25.518	247.4	0.371
150	17.05	35.078	2.02	25.581	241.4	0.433
200	13.65	34.913	1.34	26.213	181.4	0.542

RV ALEXANDER AGASSIZ GULF CRUISE 7410 59

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 35.0 N	112 23.5 W	10/15/74	0014 GMT	205 M	320	15 KT	1	320 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	25.04	35.343	4.47					429.3
10	24.92	35.333	4.26					426.5
30	23.93	35.300	3.63					400.6
46	23.88	35.300	3.63					399.2
56	23.66	35.289	3.50					393.8
71	22.17	35.248	3.01					355.9
86	21.91	35.236	2.91					349.8
106	17.62	35.108	1.99					252.3
130	15.01	34.978	1.45					204.3
149	14.78	34.972	1.40					200.0
178	12.44	34.858	0.92					162.4
202	11.93	34.828	0.80					155.3

Z	T	S	O2	SIGT	DT	DD
0	25.04	35.343	4.47	23.609	429.3	0.000
10	24.92	35.333	4.26	23.638	426.5	0.043
20	24.42	35.314	3.92	23.773	413.6	0.085
30	23.93	35.300	3.63	23.909	400.6	0.126
50	23.84	35.297	3.59	23.934	398.2	0.206
75	22.10	35.244	2.99	24.395	354.3	0.301
100	19.04	35.134	2.29	25.131	284.2	0.381
125	15.33	35.003	1.52	25.919	209.3	0.444
150	14.70	34.967	1.38	26.030	198.7	0.496
200	11.97	34.830	0.81	26.481	155.9	0.587

RV ALEXANDER AGASSIZ GULF CRUISE 7410 60

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 40.0 N	112 40.0 W	10/15/74	0246 GMT	464 M	360	16 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	22.43		3.54					
11	22.23		3.42					
29	21.83		3.34					
44	21.37		3.17					
58	21.17		3.12					
72	20.91		3.04					
86	20.68		2.98					
105	20.69		2.98					
124	20.02		2.74					
163	14.02		1.40					
211	12.51		1.10					
260	12.38		1.07					
308	11.65		0.89					
358	11.38		0.82					

Z	T	S	O2	SIGT	DT	DD
0	22.43		3.54			
10	22.25		3.43			
20	22.05		3.38			
30	21.80		3.33			
50	21.27		3.14			
75	20.85		3.02			
100	20.69		2.98			
125	19.88		2.71			
150	16.13		1.86			
200	12.86		1.17			
250	12.41		1.08			
300	11.78		0.92			

A) TEMPERATURE INFERRED FROM PRESSURE THERMOMETER AND WIRE DEPTH.
B) THE PROTECTED THERMOMETER READING WAS SLIGHTLY OFF-SCALE. THE LISTED VALUE SHOULD BE ACCURATE TO 0.1 DEGREE.

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 61

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 44.0 N	112 41.0 W	10/15/74	0349 GMT	465 M	360	14 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3
0	24.80	35.414	4.15				
11	24.78	35.407	4.09				
35	24.21	35.373	3.67				
44	23.14	35.328	3.29				
59	22.20	35.280	2.91				
73	21.77	35.267	2.81				
88	20.91	35.242	2.56				
107	20.80	35.236	2.47				
142	19.44	35.200	2.20				
176	15.23	35.065	1.72				
226	12.53	34.863	1.07				
275	11.39	34.810	0.83				
325	9.81	34.717	0.55				
374	9.66	34.709	0.51				
423	9.11	34.678	0.43				

DT	Z	T	S	O2	SIGT	DT	DD
417.2	0	24.80	35.414	4.15	23.735	417.2	0.000
417.1	10	24.78	35.407	4.10	23.736	417.1	0.042
403.3	20	24.57	35.394	4.01	23.790	411.9	0.083
376.5	30	24.33	35.379	3.81	23.851	406.2	0.124
354.4	50	22.67	35.305	3.10	24.279	365.3	0.202
343.9	75	21.65	35.263	2.78	24.535	340.9	0.291
323.2	100	20.84	35.238	2.49	24.737	321.7	0.374
320.8	125	20.38	35.232	2.35	24.856	310.3	0.454
289.1	150	18.49	35.159	2.10	25.290	269.1	0.528
202.6	200	13.58	34.968	1.38	26.269	176.0	0.642
163.7	250	11.90	34.833	0.93	26.497	154.3	0.727
147.0	300	10.54	34.757	0.68	26.689	136.1	0.803
127.2	400	9.37	34.692	0.47	26.837	122.1	0.940
125.4							
119.1							

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 62

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 41.5 N	112 47.5 W	10/15/74	0502 GMT	467 M	330	15 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3
0	26.86	35.530	4.62				
11	26.84	35.522	4.64				
21	25.76	35.445	3.89				
35	24.30	35.361	3.23				
65	20.00	35.223	2.21				
114	17.25	35.141	1.94				
164	14.15	35.025	1.52				
212	13.83	34.993	1.47				
261	11.43	34.827	0.96				
310	9.93	34.734	0.59				
359	9.19	34.683	0.45				
407	8.90	34.671	0.41				
455	8.59	34.657	0.34				

DT	Z	T	S	O2	SIGT	DT	DD
470.0	0	26.86	35.530	4.62	23.182	470.0	0.000
470.0	10	26.84	35.522	4.64	23.182	470.0	0.047
443.1	20	25.89	35.453	3.98	23.430	446.3	0.093
406.7	30	24.84	35.389	3.43	23.705	420.1	0.136
301.4	50	22.13	35.270	2.65	24.407	353.1	0.214
241.4	75	19.24	35.209	2.15	25.139	283.4	0.294
183.3	100	17.78	35.172	2.02	25.476	251.3	0.362
179.2	125	16.46	35.107	1.84	25.742	226.1	0.422
146.4	150	14.89	35.049	1.63	26.052	196.6	0.476
127.9	200	13.88	34.993	1.49	26.225	180.2	0.573
120.0	250	12.02	34.861	1.09	26.497	154.4	0.660
116.5	300	10.17	34.750	0.65	26.747	130.7	0.734
112.9	400	8.93	34.672	0.41	26.893	116.8	0.865

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 63

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 38.0 N	112 42.0 W	10/15/74	0655 GMT	390 M	330	16 KT	0	310 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3
0	18.78	35.159	2.33				
20	18.29	35.142	2.22				
39	16.99	35.087	1.97				
57	16.78	35.080	1.94				
86	16.22	35.048	1.80				
110	16.07	35.043	1.79				
150	15.65	35.016	1.69				
189	14.31	34.956	1.44				
227	13.64	34.908	1.23				
265	12.11	34.840	0.94				
306	11.14	34.787	0.71				
332	11.12	34.779	0.70				

DT	Z	T	S	O2	SIGT	DT	DD
276.0	0	18.78	35.159	2.33	25.217	276.0	0.000
265.6	10	18.53	35.150	2.27	25.272	270.8	0.027
239.4	20	18.29	35.142	2.22	25.327	265.6	0.054
235.2	30	17.59	35.110	2.08	25.476	251.4	0.080
225.2	50	16.86	35.082	1.95	25.629	236.9	0.129
222.2	75	16.42	35.059	1.85	25.714	228.8	0.188
215.1	100	16.12	35.044	1.79	25.772	223.2	0.245
191.5	125	15.98	35.037	1.77	25.798	220.7	0.302
181.7	150	15.65	35.016	1.69	25.857	215.1	0.357
157.6	200	14.13	34.944	1.38	26.135	188.7	0.461
144.3	250	12.73	34.864	1.05	26.361	167.3	0.553
144.5	300	11.22	34.792	0.73	26.592	145.3	0.634

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 64

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 35.5 N	112 40.0 W	10/15/74	1013 GMT	556 M	340	11 KT	0	320 03 03

Z	T	S	O2	PO4	SIO3	NO2	NO3
0	23.96	35.325	4.11				
11	22.50	35.265	3.62				
31	20.79	35.212U	3.10				
41	20.81	35.208	3.06				
51	20.78	35.208	3.06				
66	19.94	35.185	2.79				
81	19.36	35.163	2.57				
101	18.13	35.121	2.28				
121	16.98	35.070	2.01				
151	13.93	34.928	1.37				
200	12.69	34.871	1.15				
250	11.63	34.812	0.87				
299	11.23	34.779	0.72				
348	10.68	34.746	0.55				
397	9.85	34.716	0.56				
446	9.17	34.677	0.43				
495	8.67	34.640	0.32				
545	7.98	34.616	0.26				

DT	Z	T	S	O2	SIGT	DT	DD
399.6	0	23.96	35.325	4.11	23.919	399.6	0.000
363.6	10	22.63	35.269	3.66	24.263	366.9	0.038
	20	21.53	35.226	3.31	24.539	340.6	0.074
323.1	30	20.83	35.190	3.11	24.704	324.9	0.107
322.3	50	20.78	35.208	3.06	24.730	322.4	0.172
302.6	75	19.59	35.172	2.65	25.018	294.9	0.250
289.8	100	18.20	35.123	2.29	25.336	264.7	0.321
263.3	125	16.57	35.046	1.92	25.670	233.0	0.384
240.5	150	14.03	34.931	1.39	26.146	187.7	0.437
186.0	200	12.69	34.871	1.15	26.373	166.1	0.528
166.1	250	11.63	34.812	0.87	26.532	151.1	0.610
151.1	300	11.22	34.778	0.72	26.582	146.3	0.688
146.4	400	9.80	34.714	0.55	26.781	127.4	0.833
139.4	500	8.61	34.638	0.31	26.917	114.6	0.963
128.0							
120.1							
115.3							
107.0							

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 65

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 33.5 N	112 36.0 W	10/15/74	1145 GMT	501 M	350	08 KT	0	330 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3
0	24.73	35.341	4.37				
10	24.27	35.322	4.12				
30	22.71	35.275	3.55				
40	21.92	35.257	3.34				
49	21.12	35.232	3.17				
64	19.86	35.191	2.79				
79	19.14	35.162	2.59				
99	18.45	35.133	2.31				
129	16.62	35.065	1.90				
160	14.58	34.964	1.53				
200	13.71	34.920	1.31				
250	12.83	34.875	1.09				
300	11.45	34.802	0.74				
350	10.34	34.735	0.54				
399	9.72	34.701	0.40				
446	9.34	34.681	0.33				
495	7.61	34.610	0.22				

DT	Z	T	S	O2	SIGT	DT	DD
420.5	0	24.73	35.341	4.37	23.701	420.5	0.000
408.6	10	24.27	35.322	4.12	23.825	408.6	0.041
368.6	20	23.54	35.297	3.83	24.021	390.0	0.081
348.6	30	22.71	35.275	3.55	24.245	368.6	0.119
329.3	50	21.03	35.229	3.14	24.680	327.1	0.189
300.2	75	19.30	35.169	2.63	25.093	287.8	0.267
284.5	100	18.40	35.131	2.30	25.292	268.9	0.337
270.0	125	16.90	35.075	1.95	25.615	238.2	0.401
232.7	150	15.18	34.993	1.64	25.945	206.8	0.458
196.5	200	13.71	34.920	1.31	26.204	182.2	0.558
182.2	250	12.83	34.875	1.09	26.349	168.5	0.649
168.5	300	11.45	34.802	0.74	26.558	148.6	0.731
148.6	400	9.72	34.701	0.40	26.786	127.0	0.877
134.6							
127.0							
122.5							
102.3							

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 66

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 29.0 N	112 38.5 W	10/15/74	1330 GMT	288 M	320	08 KT	0	320 02 05

Z	T	S	O2	PO4	SIO3	NO2	NO3
0	24.01	35.338	4.11				
11	24.04	35.336	4.07				
31	23.51	35.328	3.85				
46	22.44	35.284	3.46				
56	21.10	35.233	2.94				
67	19.32	35.169	2.51				
77A	18.70	35.138	2.32				
89	16.72	35.064	1.93				
110	14.81	34.973	1.49				
126	14.55	34.967	1.48				
155	14.41	34.963	1.44				
180	14.29	34.960	1.43				
238	11.66	34.838	0.89				

DT	Z	T	S	O2	SIGT	DT	DD
400.1	0	24.01	35.338	4.11	23.914	400.1	0.000
401.1	10	24.04	35.336	4.07	23.905	401.0	0.040
386.8	20	23.91	35.337	4.00	23.943	397.4	0.080
360.6	30	23.56	35.329	3.87	24.041	388.0	0.119
328.7	50	21.95	35.264	3.26	24.452	348.8	0.193
288.4	75	18.82	35.145	2.36	25.196	278.0	0.272
275.6	100	15.49	35.009	1.65	25.889	212.1	0.334
235.1	125	14.57	34.967	1.48	26.059	195.9	0.386
200.5	150	14.42	34.963	1.45	26.088	193.2	0.436
195.6	200	13.38	34.907	1.24	26.263	176.6	0.531
193.0							
190.8							
149.7							

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 67

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 25.5 N	112 37.0 W	10/15/74	1445 GMT	297 M	340	09 KT	1	330 02 05

Z	T	S	O2	PO4	SIO3	NO2	NO3
0	24.36	35.346	4.28				
11	23.39	35.330	3.81				
30	21.11	35.238	3.04				
45	19.75	35.176	2.62				
60	18.17	35.115	2.23				
75	17.33	35.080	2.03				
90	16.14	35.032	1.79				
110	14.21	34.952	1.41				
135	13.91	34.941	1.37				
164	13.44	34.924	1.32				
199	12.20	34.872	1.08				
232	11.81	34.852	0.99				
265	11.52	34.817	0.88				
292	11.45	34.817	0.85				

DT	Z	T	S	O2	SIGT	DT	DD
409.5	0	24.36	35.346	4.28	23.816	409.5	0.000
383.3	10	23.48	35.331	3.85	24.065	385.7	0.040
328.7	20	22.32	35.288	3.43	24.366	357.0	0.077
298.5	30	21.11	35.238	3.04	24.664	328.7	0.111
264.7	50	19.19	35.153	2.48	25.107	286.5	0.173
247.7	75	17.33	35.080	2.03	25.515	247.7	0.240
224.6	100	15.11	34.986	1.58	25.956	205.8	0.298
189.8	125	14.03	34.945	1.39	26.157	186.7	0.348
184.6	150	13.71	34.934	1.35	26.216	181.1	0.395
176.6	200	12.18	34.871	1.08	26.473	156.7	0.481
156.9	250	11.63	34.831	0.93	26.547	149.7	0.561
151.3							
148.7							
147.5							

A) A POSTTRIP MAY HAVE STARTED WITH THIS NANSEN BOTTLE CAUSING THE FOLLOWING DEPTHS TO BE SLIGHTLY UNCERTAIN.

RV ALEXANDER AGASSIZ GULF CRUISE 7410 68

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 40.5 N	112 59.5 W	10/15/74	2349 0227 GMT	1390 M	340	16 KT	1	320 03 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0A	24.55	35.394	4.02	1.23	14.7	0.49	3.6	411.5	0	24.55	35.394	4.02	23.795	411.5	0.000
10A	24.54	35.381	4.04	1.25		0.33	4.6	412.1	10	24.54	35.381	4.04	23.789	412.1	0.041
30A	24.11	35.354	3.83	1.32	16.4	0.42	5.5	401.8	20	24.41	35.370	3.98	23.819	409.2	0.082
55A	22.42	35.279	3.07	1.66	27.2	0.62	10.1	360.4	30	24.11	35.354	3.83	23.897	401.8	0.123
70A	20.44	35.206	2.60	1.98	36.1	0.26	14.8	313.7	50	22.89	35.298	3.25	24.212	371.8	0.201
86A	18.95	35.157	2.27	2.14	42.4	0.16	17.0	280.3	75	19.99	35.193	2.49	24.931	303.2	0.286
100A	16.92	35.088	1.93	2.34	48.7	0.14	20.0	237.8	100	16.92	35.088	1.93	25.619	237.8	0.354
130A	14.85	35.016	1.60	2.57	56.9	0.16	23.1	198.2	125	15.05	35.026	1.63	26.000	201.5	0.410
154A	14.05	34.986	1.45	2.71	61.0	0.12	24.8	184.1	150	14.15	34.990	1.47	26.166	185.8	0.459
174A	13.51	34.969	1.40	2.76	62.9	0.05	25.7	174.7	200	13.03	34.955	1.37	26.371	166.4	0.550
190A	13.18	34.961	1.39	2.76	64.7	0.06	25.6	168.8	250	12.45	34.926	1.28	26.464	157.5	0.635
294B	12.20	34.903	1.19	2.86	66.9	0.10	27.4	154.7	300	12.17	34.900	1.18	26.499	154.2	0.717
391B	11.86	34.874	1.08	2.91	67.3	0.03	28.2	150.6	400	11.85	34.872	1.07	26.538	150.5	0.878
488B	11.73	34.855	1.01	2.93	66.6	0.04	28.8	149.7	500	11.70	34.851	1.00	26.550	149.4	1.039
585B	11.48	34.827	0.90	2.96	65.5	0.03	29.3	147.3	600	11.46	34.824	0.89	26.574	147.1	1.201
682B	11.37	34.815	0.83	2.96	64.9	0.04	29.2	146.2	700	11.35	34.812	0.82	26.586	146.0	1.363
779B	11.24	34.805	0.79	2.98	65.2	0.03	29.8	144.7	800	11.21	34.802	0.78	26.602	144.4	1.526
841C	11.36 U	34.811U	0.83U	2.99	64.3	0.05	29.6		1000	11.03	34.783	0.72	26.621	142.7	1.855
875B	11.13	34.795	0.75	3.18	64.1	0.03	29.6	143.5	1200	10.91	34.773	0.67	26.634	141.4	2.189
939C	11.20 U	34.796U	0.76U	2.98	64.8	0.05	29.8								
1038C	11.01	34.781	0.71	2.99	65.0	0.11	29.6	142.5							
1118C	10.97	34.776	0.70	2.98	66.2	0.12	29.6	142.2							
1235C	10.88	34.771	0.66	3.00	65.9	0.03	30.3	141.0							
1332C	10.80	34.759	0.64	3.02	65.4	0.05	30.2	140.5							
1382C	10.74	34.759	0.64	3.04	67.1	0.06	30.1	139.5							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 69

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 31.5 N	112 48.0 W	10/16/74	0452 GMT	772 M	320	19 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	23.53	35.345	3.81	1.46	17.8	0.37	6.9	386.1	0	23.53	35.345	3.81	24.061	386.1	0.000
10	23.16	35.312	3.47	1.50	21.5	0.52	8.2	378.3	10	23.16	35.312	3.47	24.144	378.3	0.038
30	20.67	35.223	2.73	1.92	34.6	0.24	14.2	318.4	20	22.03	35.264	3.09	24.430	351.0	0.075
56	18.16	35.117	2.24	2.25	44.1	0.14	18.8	264.3	30	20.67	35.223	2.73	24.772	318.4	0.108
71	15.42	34.993	1.65	2.54	53.8	0.09	23.2	211.9	50	18.83	35.153	2.36	25.200	277.6	0.168
86	14.82	34.977	1.53	2.62	55.6	0.08	23.9	200.5	75	15.26	34.988	1.62	25.924	208.8	0.230
101	14.67	34.978	1.53	2.63	56.2	0.07	24.4	197.3	100	14.67	34.978	1.53	26.044	197.3	0.281
126	14.49	34.974	1.50	2.65	57.2	0.07	24.4	193.9	125	14.50	34.974	1.50	26.080	194.0	0.331
151	14.12	34.953	1.44	2.70	59.0	0.05	25.3	187.9	150	14.13	34.953	1.44	26.141	188.2	0.379
176	13.98	34.953	1.41	2.72	58.7	0.05	25.5	185.1	200	13.66	34.931	1.35	26.223	180.4	0.474
211	13.50	34.921	1.32	2.77	60.3	0.06	26.2	178.0	250	13.10	34.924	1.30	26.334	169.9	0.565
261	13.00	34.929	1.30	2.79	64.1	0.11	25.5	167.7	300	12.61	34.913	1.25	26.422	161.5	0.651
360	12.13	34.884	1.15	2.91	66.2	0.02	28.3	154.8	400	11.97	34.873	1.11	26.516	152.6	0.817
458	11.84	34.861	1.06	2.94	66.6	0.02	28.7	151.2	500	11.76	34.850	1.01	26.537	150.6	0.981
556	11.68	34.838	0.96	2.94	65.4	0.03	29.0	150.0	600	11.64	34.833	0.95	26.547	149.6	1.144
655	11.57	34.828	0.93	2.94	65.9	0.02	29.2	148.8	700	11.46	34.819	0.87	26.570	147.5	1.308
704	11.45	34.819	0.86	2.96	63.7	0.04	28.3	147.4							
754	11.37	34.808	0.82	2.98	64.7	0.03	29.7	146.8							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 70

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 23.5 N	112 37.5 W	10/16/74	0804 GMT	296 M	300	11 KT	0	320 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	23.34	35.325	3.89					382.3	10	21.38	35.235	3.08	24.589	335.8	0.036
11	21.16	35.228	2.99					330.7	20	20.66	35.219	2.89	24.773	318.3	0.069
31	20.30	35.204	2.76					310.3	30	20.32	35.205	2.77	24.852	310.7	0.100
41	18.83	35.144	2.45					278.3	50	17.82	35.101	2.21	25.411	257.5	0.157
51	17.72	35.097	2.18					255.5	75	15.53	35.008	1.66	25.878	213.2	0.217
66	15.99	35.022	1.78					222.0	100	15.05	34.981	1.56	25.965	204.9	0.270
81	15.37	35.003	1.61					210.1	125	13.75	34.916	1.29	26.193	183.3	0.319
101	15.03	34.980	1.56					204.6	150	12.87	34.882	1.11	26.347	168.6	0.364
131	13.41	34.903	1.21					177.5	200	12.45	34.860	1.04	26.413	162.3	0.449
171	12.56	34.870	1.06					163.8	250	11.78	34.820	0.90	26.510	153.1	0.531
209	12.42	34.857	1.03					162.1							
247	11.81	34.825	0.92					153.3							

A) CAST II.
B) CAST III.
C) CAST I.

RV ALEXANDER AGASSIZ GULF CRUISE 7410 71

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 23.5 N	112 30.5 W	10/16/74	1007 GMT	846 M	340	11 KT	0	320 03 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	24.54	35.327	4.35					416.0	0	24.54	35.327	4.35	23.748	416.0	0.000
26	19.77	35.143	2.51					301.4	10	22.71	35.227	3.64	24.210	371.9	0.039
41	19.14	35.123	2.36					287.3	20	20.87	35.163	2.93	24.672	327.9	0.074
70	14.87	34.970	1.50					202.0	30	19.58	35.141	2.45	24.998	296.8	0.106
119	13.56	34.912	1.24					179.8	50	17.89	35.060	2.11	25.364	262.1	0.162
167	11.85	34.823	0.84					154.2	75	14.74	34.963	1.47	26.019	199.7	0.220
215	10.83	34.761	0.62					140.9	100	14.07	34.932	1.34	26.139	188.4	0.269
263	10.36	34.729	0.53					135.3	125	13.34	34.899	1.19	26.265	176.4	0.316
311	9.76	34.703	0.44					127.5	150	12.44	34.852	0.98	26.409	162.8	0.359
359	8.85	34.652	0.28					117.1	200	11.08	34.778	0.67	26.607	144.0	0.438
407	8.29	34.618	0.18					111.4	250	10.47	34.737	0.55	26.685	136.6	0.511
473	7.60	34.586	0.13					104.0	300	9.92	34.710	0.46	26.759	129.5	0.580
569	7.16	34.581	0.11					98.4	400	8.36	34.623	0.19	26.943	112.0	0.708
665	6.51	34.56	0.12					91.5	500	7.45	34.584	0.12	27.048	102.1	0.823
762	6.02	34.555	0.09					85.8	600	6.95	34.575	0.11	27.111	96.2	0.931
811	5.95	34.555	0.11					84.9	700	6.30	34.557	0.11	27.186	89.1	1.033
									800	5.97	34.555	0.11	27.227	85.1	1.131

RV ALEXANDER AGASSIZ GULF CRUISE 7410 72

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 51.0 N	112 34.5 W	10/16/74	1427 GMT	440 M	270	07 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	24.83	35.351	4.37	0.93	9.1	0.45	0.8	422.6	0	24.83	35.351	4.37	23.678	422.6	0.000
10	24.83	35.340	4.37	1.01	10.1	0.40	1.4	423.4	10	24.83	35.340	4.37	23.670	423.4	0.042
32	24.67	35.315	4.18	1.11	11.2	0.68	2.3	420.6	20	24.76	35.328	4.33	23.683	422.1	0.085
48	24.14	35.294	3.77	1.29	13.9	1.20	4.4	407.0	30	24.68	35.317	4.21	23.697	420.9	0.127
58	21.72	35.235	2.90	1.78	27.2	0.91	11.3	344.9	50	23.67	35.278	3.59	23.970	394.8	0.209
74	20.55	35.179	2.60	1.93	32.7	0.51	13.8	318.5	75	20.50	35.177	2.59	24.783	317.3	0.298
89	19.77	35.15	2.41	2.01	35.1	0.32	15.2	300.9	100	19.04	35.135	2.30	25.133	284.0	0.374
104	18.71	35.127	2.25	2.10	38.5	0.26	16.9	276.7	125	16.03	35.032	1.76	25.782	222.2	0.439
129	15.56	35.019	1.67	2.51	49.0	0.08	22.4	213.0	150	14.73	34.967	1.49	26.024	199.3	0.492
148	14.90	34.978	1.53	2.63	49.4	0.05	23.9	202.0	200	12.18	34.843	0.90	26.451	158.7	0.584
177	12.49	34.860	1.00	2.86	54.6	0.04	27.3	163.2	250	11.09	34.781	0.68	26.609	143.8	0.662
206	12.10	34.839	0.90	2.87	55.6	0.04	27.9	157.5	300	9.95	34.717	0.46	26.759	129.5	0.734
239	11.32	34.795	0.74	2.94	57.7	0.03	29.2	146.8	400	8.08	34.629	0.22	26.991	107.5	0.859
292	10.17	34.728	0.49	3.10	62.9	0.05	30.6	132.3							
346	8.75	34.663	0.31	3.21	72.5	0.05	33.3	114.8							
421	7.82	34.617	0.19	3.24	79.4	0.03	35.1	104.7							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 73

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 52.0 N	112 13.0 W	10/16/74	1749 GMT	1321 M	340	09 KT	0	320 03 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	24.51	35.305	4.37					416.7	0	24.51	35.305	4.37	23.740	416.7	0.000
10	24.32	35.300	4.40					411.7	10	24.32	35.300	4.40	23.793	411.7	0.041
50	23.53	35.263	3.61					392.1	20	24.12	35.290	4.20	23.845	406.8	0.082
65	20.74	35.148	2.61					325.6	30	23.92	35.280	4.00	23.896	401.9	0.123
80	19.71	35.087	2.38					304.0	50	23.53	35.263	3.61	23.999	392.1	0.203
105	16.91	35.058	2.08					239.7	75	19.98	35.106	2.41	24.866	309.4	0.291
129	14.42	34.975	2.37U					192.4	100	17.52	35.060	2.14	25.455	253.4	0.362
219	11.80	34.818	0.74					153.7	125	14.80	34.988	1.82	26.024	199.3	0.419
367	8.63	34.623	0.15					116.0	150	13.81	34.929	1.50	26.192	183.4	0.468
515	7.17	34.566	0.10					99.6	200	12.35	34.843	0.93	26.418	161.8	0.557
663	6.19	34.547	0.10					88.5	250	11.01	34.766	0.54	26.611	143.5	0.636
811	5.11	34.548	0.15					75.8	300	9.87	34.697	0.30	26.757	129.7	0.707
958	4.62	34.553	0.20					70.1	400	8.21	34.605	0.14	26.952	111.2	0.835
1105	4.08	34.567	0.31					63.5	500	7.27	34.571	0.11	27.063	100.7	0.948
1251	3.44	34.591	0.48					55.6	600	6.58	34.552	0.10	27.144	93.0	1.054
1300	3.43	34.597	0.51					55.0	700	5.90	34.545	0.11	27.228	85.0	1.152
									800	5.18	34.547	0.15	27.317	76.6	1.242
									1000	4.47	34.556	0.23	27.405	68.3	1.407
									1200	3.62	34.583	0.42	27.515	57.9	1.553

RV ALEXANDER AGASSIZ GULF CRUISE 7410 73

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 52.0 N	112 13.0 W	10/16/74	1905 GMT	1321 M	340	09 KT	0	320 03 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0A	24.66		4.46												
72	19.62		2.36												
132	14.48		1.54												
227	11.90		0.75												
548	6.76		0.08												
699	5.99														

A) A SPECIAL CAST FOR OXYGEN DETERMINATION.

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 74

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 2.0 N	111 37.0 W	10/16/74	2355 GMT	501 M	320	07 KT	0	320 01 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	27.61	35.311	4.67	0.55	1.6	0.01	0.1	508.8
10	27.25	35.297	4.68	0.67	1.5	0.01	0.2	498.7
30	25.15	35.173	3.84	1.18	9.4	0.33	4.9	444.7
40	22.13	35.094	2.74	1.71	21.2	0.17	12.0	366.0
50	20.82	35.092	2.51	1.90	25.9	0.10	14.6	331.7
65	19.91	35.091	2.40	2.02	28.5	0.07	15.9	308.7
80	18.07	35.075	2.16	2.25	36.1	0.06	19.0	265.2
100	16.16	35.030	1.87	2.49	39.5	0.03	22.1	225.1
120	14.86	34.991	1.65	2.63	42.8	0.03	24.5	200.3
140	14.30	34.970	1.53	2.70	43.6	0.02	25.4	190.3
170	13.38	34.929	1.25	2.82	46.7	0.02	26.9	175.0
199	12.77	34.890	1.04	2.84	49.1	0.04	27.4	166.2
229	12.49	34.861	0.92	2.85	49.3	0.23	26.3	163.1
269	10.84	34.741	0.40	3.00	52.2	0.02	29.3	142.5
323	9.72	34.669	0.19	3.08	57.8	0.02	30.8	129.3
396	8.58	34.606	0.09	3.18	65.0	0.01	32.7	116.5
470	8.29	34.594	0.09	3.19	68.8	0.02	33.4	113.1
494	8.20	34.595	0.08	3.21	69.4	0.03	32.3	111.8

Z	T	S	O2	SIGT	DT	DD
0	27.61	35.311	4.67	22.776	508.8	0.000
10	27.25	35.297	4.68	22.882	498.7	0.050
20	26.64	35.255	4.44	23.044	483.1	0.100
30	25.15	35.173	3.84	23.447	444.7	0.146
50	20.82	35.092	2.51	24.632	331.7	0.224
75	18.72	35.080	2.25	25.173	280.2	0.301
100	16.16	35.030	1.87	25.752	225.1	0.365
125	14.69	34.985	1.62	26.047	197.1	0.419
150	13.98	34.957	1.44	26.176	184.9	0.467
200	12.76	34.889	1.04	26.373	166.2	0.557
250	11.67	34.797	0.65	26.513	152.9	0.640
300	10.10	34.694	0.24	26.715	133.7	0.715
400	8.55	34.605	0.09	26.900	116.2	0.847
500	8.19	34.596	0.08	26.949	111.5	0.969

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 75

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 22.0 N	112 3.0 W	10/17/74	2119 GMT	1119 M	340	10 KT	1	340 02 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	27.52	35.296	4.63	0.53	2.8	0.01	0.5	507.1
11	27.36		4.61	0.58	2.8	0.01	0.4	
31	21.94	35.203	2.81	1.69	27.8	0.17	11.8	353.0
55	18.48	35.081	2.24	2.09	33.6	0.10	17.4	274.5
70	17.49	35.061	2.07	2.26	37.4	0.04	20.1	252.7
85	16.44	35.039	1.90	2.42	41.8	0.06	21.1	230.6
100	15.88	35.025	1.77	2.51	43.3	0.07	22.3	219.4
130	14.66	34.989	1.60	2.55	45.9	0.10	23.3	196.3
155	14.31	34.973	1.52	2.69	46.2	0.07	24.6	190.3
179	13.55	34.929	1.30	2.75	47.8	0.04	25.9	178.4
214	12.79	34.883	1.03A	2.81	49.4	0.05	27.1	167.1
278	11.52	34.793	0.58A	2.91	52.3	0.12	27.7	150.5
377	9.20	34.644	0.12	3.11	62.8	0.05	31.4	123.0
476	7.61	34.582	0.14	3.24	77.3	0.07	35.6	104.4
520	7.06	34.563	0.08	3.28	82.3	0.07	36.3	98.4
757	5.32	34.547	0.12	3.40	106.6	0.04	40.2	78.2
898	4.74	34.555	0.16	3.46	118.2	0.07	41.1	71.2
1062	4.03	34.571	0.36	3.44	134.0	0.23	40.1	62.7

Z	T	S	O2	SIGT	DT	DD
0	27.52	35.296	4.63	22.794	507.1	0.000
10	27.38	35.290	4.61	22.835	503.2	0.051
20	25.20	35.250	3.87	23.490	440.6	0.098
30	22.23	35.203	2.91	24.327	360.7	0.138
50	18.90	35.112	2.27	25.151	282.3	0.203
75	17.12	35.053	2.01	25.545	244.8	0.269
100	15.88	35.025	1.77	25.812	219.4	0.328
125	14.84	34.994	1.62	26.021	199.6	0.381
150	14.37	34.977	1.54	26.109	191.3	0.431
200	13.07	34.899	1.13	26.321	171.1	0.524
250	12.08	34.833	0.77	26.464	157.5	0.609
300	10.99	34.754	0.44	26.605	144.1	0.688
400	8.78	34.626	0.12	26.880	118.0	0.826
500	7.30	34.572	0.11	27.060	101.0	0.943
600	6.30	34.548	0.09	27.178	89.8	1.047
700	5.60	34.544	0.11	27.264	81.6	1.142
800	5.13	34.549	0.13	27.325	75.9	1.230
1000	4.30	34.564	0.28	27.430	65.9	1.391

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 76

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 25.0 N	111 46.0 W	10/18/74	0043 GMT	1535 M	300	10 KT	1	320 02 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.17	35.311	4.60	0.53	2.9	0.02	0.6	526.2
10	28.16	35.306	4.60	0.57	2.8	0.01	0.6	526.3
35	24.81	35.148	3.99	1.25	5.4	0.30	3.4	436.7
70	20.69	35.116	2.45	1.95	29.4	0.07	15.0	326.6
85	19.20	35.076	2.32	2.11	29.5	0.06	17.0	292.2
105	17.07	35.054	2.05	2.39	38.5	0.03	20.7	243.7
130	15.88	35.029	1.84	2.50	44.5	0.09	22.4	219.1
160	14.87	34.995	1.63	2.62	45.0	0.04	24.3	200.2
180	13.85	34.958	1.41	2.70	46.9	0.05	26.1	182.2
205	13.12	34.910	1.16	2.80	48.9	0.03	27.2	171.4
249	12.14	34.832	0.74	2.89	50.0	0.04	28.4	158.8
328	10.57	34.725	0.32	3.00	54.3	0.09	29.2	139.1
437	8.12	34.601	0.11	3.14	72.4	0.33	31.0	110.2
560	7.10	34.585	0.13	3.29	87.5	0.03	36.9	97.3
697	5.87	34.547	0.10	3.39	98.4	0.04	41.3	84.6
860	4.82	34.549	0.15	3.46	114.8	0.03	41.6	72.5
1037	4.23	34.565	0.27	3.48	128.1	0.02	42.8	65.2
1284	3.32	34.599	0.53	3.42	156.8	0.02	39.4	53.9
1524	2.97	34.617	0.73	3.37	168.5	0.07	40.5	49.4

Z	T	S	O2	SIGT	DT	DD
0	28.17	35.311	4.60	22.594	526.2	0.000
10	28.16	35.306	4.60	22.593	526.3	0.053
20	27.08	35.241	4.43	22.893	497.6	0.104
30	25.66	35.176	4.16	23.294	459.4	0.152
50	22.95	35.125	3.27	24.064	385.9	0.237
75	20.19	35.103	2.39	24.809	314.8	0.325
100	17.56	35.056	2.12	25.441	254.7	0.397
125	16.04	35.035	1.88	25.784	222.1	0.457
150	15.22	35.009	1.71	25.949	206.4	0.512
200	13.24	34.919	1.21	26.301	172.9	0.609
250	12.12	34.830	0.73	26.453	158.5	0.695
300	11.12	34.760	0.43	26.586	145.9	0.775
400	8.89	34.632	0.15	26.868	119.2	0.914
500	7.49	34.590	0.12	27.048	102.2	1.033
600	6.73	34.574	0.12	27.140	93.4	1.140
700	5.85	34.547	0.10	27.236	84.3	1.238
800	5.15	34.545	0.12	27.318	76.5	1.328
1000	4.33	34.561	0.24	27.424	66.5	1.490
1200	3.60	34.588	0.44	27.520	57.4	1.634
1500	3.00	34.616	0.71	27.599	49.9	1.825

A) THE OXYGEN SAMPLES AT 214 AND 278 METERS APPEAR TO HAVE BEEN REVERSED. THEY ARE ASSUMED TO NOW BE IN THE CORRECT ORDER.

RV ALEXANDER AGASSIZ GULF CRUISE 7410 77

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 29.5 N	111 23.0 W	10/18/74	2355 0149 GMT	1962 M	330	04 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0A	28.51	35.296	4.57	0.49	2.8	0.00	0.2	538.1	0	28.51	35.296	4.57	22.470	538.1	0.000
10	28.34	35.278	4.57	0.49	4.1	0.00	0.2	534.0	10	28.34	35.278	4.57	22.513	534.0	0.054
30	27.15	35.204	4.54	0.63	2.6	0.00	0.0	502.3	20	27.99	35.255	4.55	22.610	524.6	0.107
60	20.07	35.020	2.30	1.93	20.0	0.08	14.4	317.8	30	27.15	35.204	4.54	22.844	502.3	0.158
75	18.64	35.022	2.09	2.16	22.7	0.06	17.2	282.6	50	22.47	35.027	3.06	24.126	380.0	0.247
90	17.70	35.033	2.03	2.26	26.4	0.07	20.1	259.6	75	18.64	35.022	2.09	25.148	282.6	0.330
110	16.63	35.032	1.89	2.39	30.2	0.10	19.9	235.4	100	17.14	35.034	1.96	25.525	246.7	0.397
135	15.57	35.019	1.80	2.48	38.9	0.11	21.9	213.2	125	15.98	35.027	1.84	25.792	221.3	0.456
164	14.33	34.964	1.59	2.62	40.5	0.07	24.8	191.4	150	14.90	34.992	1.70	26.007	200.9	0.510
189	13.68	34.924	1.35	2.73	42.6	0.05	26.2	181.3	200	13.47	34.917	1.35	26.253	177.5	0.607
229	12.99	34.909	1.36	2.77	48.3	0.06	26.6	169.0	250	12.65	34.887	1.21	26.393	164.2	0.696
294	11.92	34.826	0.80	2.87	50.2	0.11	27.5	155.2	300	11.79	34.815	0.75	26.504	153.7	0.779
408	9.45	34.650	0.12	3.05	58.1	0.03	33.9	126.5	400	9.63	34.661	0.15	26.770	128.5	0.928
507	7.81	34.571	0.05	3.22	70.6	0.07	38.2	108.0	500	7.91	34.575	0.05	26.974	109.1	1.055
562	7.24	34.564	0.06	3.24	78.8	0.04	40.3	100.7	600	6.86	34.556	0.06	27.110	96.3	1.167
814	5.12	34.535	0.11	3.40	103.0	0.03	41.9	76.8	700	5.96	34.542	0.08	27.218	86.0	1.267
977	4.34	34.557	0.24	3.43	123.0	0.02	42.1	66.9	800	5.21	34.536	0.10	27.304	77.8	1.358
1189	3.63	34.582	0.46	3.46	144.0	0.07	41.1	58.0	1000	4.26	34.563	0.26	27.433	65.6	1.521
1198B	3.66	34.589	0.49	3.39	143.0	0.03	41.6	57.8	1200	3.66	34.591	0.49	27.517	57.7	1.664
1395B	3.12	34.607	0.64	3.48	160.8	0.05	40.4	51.5	1500	2.98	34.613	0.66	27.600	49.9	1.856
1594B	2.92	34.615	0.67	3.27	172.1	0.11	39.7	49.1							
1791B	2.88	34.616	0.75	3.31	174.9	0.06	39.5	48.7							
1939B	2.88	34.617	0.77	3.29	175.7	0.05	39.4	48.6							
1990B	2.85	34.621	0.82	3.33	173.2	0.08	39.9	48.1							

RV ALEXANDER AGASSIZ GULF CRUISE 7410 78

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 39.5 N	111 6.0 W	10/22/74	1137 GMT	800 M	110	24 KT	9	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	26.55	35.285	4.64	0.64	3.9	0.02	0.0	478.2	0	26.55	35.285	4.64	23.096	478.2	0.000
25	26.22	35.336	4.65	0.75	5.1	0.04	0.2	464.6	10	26.42	35.305	4.64	23.153	472.7	0.048
40	22.81	35.115	2.83	1.59	20.2	0.28	10.7	382.8	20	26.29	35.325	4.65	23.210	467.3	0.095
54	21.10	35.094	2.51	1.78	25.6	0.14	13.5	338.8	30	25.13	35.251	4.03	23.513	438.4	0.140
68	20.01	35.087	2.37	1.94	28.6	0.14	14.8	311.5	50	21.48	35.092	2.60	24.451	348.9	0.219
92	17.21	35.072	2.02	2.19	38.9	0.26	18.8	245.5	75	19.22	35.082	2.28	25.046	292.3	0.300
115	15.13	35.011	1.68	2.47	44.0	0.20	22.6	204.4	100	16.38	35.051	1.89	25.717	228.4	0.366
139	14.35	34.970	1.48	2.53	46.5	0.11	24.1	191.3	125	14.71	34.993	1.58	26.048	197.0	0.420
171	13.54	34.934	1.35	2.66	46.3	0.13	25.5	177.8	150	14.05	34.957	1.43	26.161	186.3	0.469
231	12.18	34.843	0.81	2.81	52.3	0.14	27.1	158.7	200	12.87	34.891	1.11	26.355	167.9	0.559
318	10.34	34.699	0.20	2.92	53.7	0.13	28.2	137.2	250	11.74	34.808	0.64	26.508	153.4	0.643
363	9.65	34.655	0.12	3.00	56.0	0.08	29.8	129.3	300	10.69	34.726	0.29	26.638	141.0	0.719
436	8.36	34.593	0.07	3.11	65.1	0.07	32.5	114.2	400	8.99	34.621	0.09	26.843	121.6	0.858
536	7.18	34.564	0.07	3.18	78.2	0.09	35.2	99.9	500	7.54	34.572	0.07	27.025	104.3	0.979
638	6.44	34.539	0.09	3.29	86.3	0.02	38.0	92.2	600	6.68	34.547	0.08	27.127	94.6	1.087
742	5.87	34.539	0.08	3.31	94.4	0.11	38.6	85.2	700	6.10	34.538	0.08	27.197	88.0	1.188

RV ALEXANDER AGASSIZ GULF CRUISE 7410 79

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 53.5 N	111 36.0 W	10/26/74	0116 GMT	683 M	310	12 KT	1	310 03 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	25.86	35.324	4.72	0.73	4.6	0.05	0.1	454.7	0	25.86	35.324	4.72	23.342	454.7	0.000
11	24.73	35.322	4.69	0.89	7.5	0.36	0.7	421.8	10	24.83	35.321	4.69	23.655	424.8	0.044
21	24.04	35.293	3.76	1.25	16.2	1.39	4.4	404.2	20	24.10	35.297	3.87	23.856	405.7	0.086
51	21.38	35.109	2.54	1.75	30.6	0.13	13.5	345.0	30	23.29	35.236	3.22	24.048	387.3	0.125
76	19.12	35.083	2.24	2.07	35.2	0.05	17.5	289.8	50	21.48	35.115	2.55	24.470	347.1	0.199
100	16.53	35.042	1.90	2.38	41.0	0.04	21.0	232.4	75	19.22	35.083	2.25	25.048	292.1	0.280
150	13.81	34.956	1.45	2.66	46.7	0.04	25.0	181.5	100	16.53	35.042	1.90	25.675	232.4	0.346
200	13.03	34.901	1.11	2.70	48.8	0.07	25.4	170.4	125	14.82	35.002	1.65	26.030	198.7	0.401
249	11.87	34.822	0.70	2.83	52.0	0.07	27.2	154.6	150	13.81	34.956	1.45	26.211	181.5	0.449
299	10.87	34.743	0.38	2.94	55.5	0.03	28.7	142.9	200	13.03	34.901	1.11	26.329	170.4	0.539
348	9.75	34.676	0.16	3.00	57.7	0.03	29.4	129.3	250	11.85	34.820	0.69	26.497	154.4	0.624
397	8.78	34.627	0.12	3.10	65.5	0.03	31.2	117.9	300	10.85	34.742	0.37	26.621	142.6	0.701
496	7.60	34.568	0.07	3.13	73.5	0.04	33.6	105.3	400	8.73	34.625	0.12	26.887	117.4	0.838
594	6.80	34.544	0.13U	3.24	83.0	0.02	36.0	96.4	500	7.56	34.566	0.07	27.019	104.9	0.958
653	6.56	34.543	0.08	3.28	87.4	0.03	36.7	93.4	600	6.77	34.543	0.08	27.112	96.1	1.067
662	6.53	34.546	0.07	3.30	87.7	0.07	36.3	92.8							
666	6.46	34.545	0.07	3.30	88.7	0.07	37.2	92.0							
670	6.37	34.544	0.14U	3.28	89.5	0.11	36.3	90.9							

A) THE SHIP DRIFTED WHILE ON STATION.
B) CAST I.

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 83

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 14.0 N	112 20.5 W	10/27/74	0413 GMT	837 M	280	10 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	25.31	35.323	4.73	0.70	6.4	0.04	0.1	438.6
11	25.02	35.290	4.34	0.80	8.6	0.33	1.7	432.5
30	23.61	35.258	3.53	1.33	17.0	1.19	6.2	394.6
50	20.94	35.185	2.74	1.84	30.9	0.26	13.3	328.1
75	19.63	35.147	2.41	1.98	34.9	0.13	16.3	297.7
99	17.13	35.057	1.98	2.27	40.6	0.10	20.3	244.8
149	15.71	35.018	1.75	2.48	44.8	0.05	22.9	216.2
198	13.34	34.919	1.22	2.74	51.3	0.09	25.7	175.0
247	11.85	34.817	0.68	2.82	53.4	0.09	27.8	154.6
296	10.87	34.744	0.36	2.95	54.7	0.04	28.6	142.8
395	9.03	34.628	0.11	3.06	64.1	0.04	30.9	121.6
493	8.30	34.610	0.12	3.15	73.5	0.06	32.8	112.1
591	7.19	34.586	0.14	3.29	87.0	0.04	35.8	98.4
690	6.65	34.572	0.12	3.28	93.0	0.04	36.9	92.4
798	6.03	34.554	0.08	3.33	100.0	0.03	38.4	86.0
808	6.01	34.553	0.10	3.36	99.6	0.03	38.4	85.8
813	6.02	34.556	0.12	3.35	99.6	0.02	38.8	85.7
818	6.01	34.554	0.11	3.33	99.5	0.04	38.7	85.8

Z	T	S	O2	SIGT	DT	DD
0	25.31	35.323	4.73	23.511	438.6	0.000
10	25.05	35.293	4.38	23.569	433.1	0.044
20	24.49	35.276	3.96	23.724	418.3	0.086
30	23.61	35.258	3.53	23.972	394.6	0.127
50	20.94	35.185	2.74	24.670	328.1	0.200
75	19.63	35.147	2.41	24.989	297.7	0.278
100	17.08	35.056	1.97	25.556	243.8	0.347
125	16.14	35.039	1.82	25.765	223.9	0.406
150	15.66	35.016	1.74	25.855	215.4	0.462
200	13.27	34.914	1.20	26.291	173.9	0.562
250	11.78	34.811	0.66	26.503	153.8	0.647
300	10.78	34.739	0.34	26.630	141.8	0.724
400	8.98	34.627	0.11	26.848	121.0	0.863
500	8.22	34.609	0.12	26.954	111.1	0.987
600	7.13	34.586	0.14	27.095	97.7	1.101
700	6.58	34.571	0.12	27.159	91.6	1.206
800	6.02	34.554	0.08	27.219	86.0	1.305

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 87

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
26 31.5 N	110 0.0 W	10/29/74	1515 GMT	515 M	220	15 KT	1	220 05 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	27.01	35.337	4.60	0.62	3.2	0.00	0.1	488.4
11	27.01	35.334	4.58	0.64	3.2	0.00	0.1	488.6
30	27.00	35.332	4.58	0.60	3.3	0.00	0.1	488.5
50	20.89	35.067	2.65	1.85	22.0	0.20	13.1	335.3
74	16.99	35.016	1.90	2.37	33.8	0.02	20.9	244.6
98	15.26	34.989	1.58	2.63	39.1	0.01	23.4	208.8
123	14.21	34.963	1.46	2.70	46.2	0.01	25.2	189.0
148	13.31	34.911	1.17	2.81	48.5	0.01	25.8	175.0
197	11.99	34.808	0.58	2.88	47.7	0.01	27.3	157.8
247	11.03	34.747	0.39	2.97	50.8	0.01	28.5	145.3
297	10.14	34.677	0.17	3.00	51.3	0.00	28.3	135.5
347	9.15	34.621	0.10	3.10	58.4	0.00	30.7	124.0
396	8.66	34.591	0.06	3.14	60.8	0.00	31.3	118.8
446	8.30	34.571	0.05	3.16	62.6	0.01	32.3	115.0
485	7.65	34.549	0.06	3.22	69.1	0.04	33.9	107.4
495	7.56	34.549	0.05	3.23	70.8	0.07	34.4	106.2
499	7.40	34.544	0.06	3.24	71.7	0.04	35.6	104.3
504	7.37	34.547	0.06	3.25	72.9	0.05	34.4	103.7

Z	T	S	O2	SIGT	DT	DD
0	27.01	35.337	4.60	22.989	488.4	0.000
10	27.01	35.334	4.58	22.987	488.6	0.049
20	27.01	35.333	4.58	22.988	488.6	0.098
30	27.00	35.332	4.58	22.989	488.5	0.147
50	20.89	35.067	2.65	24.594	335.3	0.229
75	16.89	35.015	1.88	25.570	242.4	0.302
100	15.16	34.987	1.57	25.945	206.8	0.359
125	14.13	34.959	1.44	26.146	187.7	0.409
150	13.25	34.905	1.14	26.289	174.1	0.455
200	11.93	34.803	0.56	26.470	157.0	0.540
250	10.98	34.743	0.38	26.599	144.7	0.619
300	10.08	34.673	0.16	26.704	134.8	0.691
400	8.64	34.590	0.06	26.874	118.6	0.825
500	7.39	34.545	0.06	27.026	104.2	0.945

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 88

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
25 30.5 N	110 14.0 W	10/30/74	0624 0830 GMT	2174 M	270	19 KT	1	270 05 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	27.18	35.321	4.58	0.53	3.0	0.02	0.0	494.8
27	27.18	35.320	4.57	0.52	3.0	0.00	0.0	494.9
60	18.88	34.914	1.79	2.05	20.5	0.13	17.4	296.2
75	18.15	34.965	1.92	2.18	23.5	0.06	18.6	275.1
94	17.48	34.987	1.93	2.31	26.2	0.04	19.8	257.9
119	15.93	34.987	1.79	2.48	31.4	0.05	23.1	223.3
148	14.75	34.970	1.61	2.63	38.4	0.02	25.8	199.5
167	14.18	34.941	1.36	2.72	41.1	0.04	25.9	190.0
191	13.66	34.911	1.14	2.76	43.6	0.04	26.8	181.8
234	12.87	34.866	0.87	2.80	46.2	0.02	27.8	169.9
311	11.68	34.765	0.38	2.85	44.5	0.02	27.8	155.4
417	9.95	34.650	0.10	2.96	50.9	0.02	28.7	134.5
536	7.80	34.556A	0.06	3.20	68.8	0.02	34.7	109.0
574	7.30	34.546	0.07	3.24	74.2	0.03	35.8	102.9
826	5.26	34.528	0.15	3.39	100.1	0.04	42.5	78.9
997	4.39	34.550	0.27	3.46	120.5	0.01	43.2	67.9
1199	3.70	34.578	0.47	3.43	142.1	0.02	42.5	59.0
1215	3.64	34.581	0.51	3.41	143.4	0.03	41.9	58.2
1262B	3.50	34.589	0.64	3.39	147.1	0.03	42.7	56.3
1462B	3.01	34.607	0.90	3.11	158.0	0.08	41.7	50.5
1661B	2.66	34.623	1.26	3.20	159.4	0.06	41.7	46.3
1858B	2.43	34.635	1.54	3.12	162.1	0.17	40.9	43.5
2053B	2.31	34.642	1.64	3.00	165.5	0.09	40.9	42.1
2150B	2.27	34.646	1.67	3.11	167.5	0.11	40.2	41.4
2158B	2.29	34.645	1.67	3.09	167.2	0.09	40.8	41.7
2164B	2.28	34.645	1.67	3.06	167.4	0.16	39.6	41.6
2169B	2.28	34.646	1.67	3.04	166.6	0.12	40.8	41.5

Z	T	S	O2	SIGT	DT	DD
0	27.18	35.321	4.58	22.923	494.8	0.000
10	27.18	35.320	4.58	22.922	494.8	0.050
20	27.18	35.320	4.57	22.922	494.8	0.099
30	26.42	35.249	4.29	23.109	477.0	0.148
50	21.39	34.950	2.57	24.369	356.9	0.231
75	18.15	34.965	1.92	25.227	275.1	0.311
100	17.12	34.988	1.90	25.495	249.6	0.377
125	15.64	34.985	1.76	25.836	217.2	0.437
150	14.68	34.967	1.58	26.034	198.4	0.489
200	13.48	34.901	1.08	26.237	179.1	0.586
250	12.61	34.845	0.76	26.369	166.5	0.676
300	11.84	34.780	0.44	26.467	157.2	0.760
400	10.24	34.667	0.12	26.671	137.9	0.916
500	8.42	34.577	0.07	26.899	116.3	1.052
600	7.02	34.540	0.08	27.076	99.5	1.169
700	6.08	34.529	0.10	27.191	88.5	1.273
800	5.40	34.528	0.14	27.276	80.5	1.367
1000	4.38	34.550	0.27	27.410	67.8	1.535
1200	3.70	34.579	0.47	27.504	58.9	1.682
1500	2.93	34.611	0.97	27.602	49.6	1.875
2000	2.33	34.641	1.62	27.678	42.4	2.156

A) AN ERROR OF 0.01 IN CONDUCTIVITY RATIO HAS BEEN ASSUMED.
B) CAST I. THE SHIP DRIFTED WHILE ON STATION.

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 89

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
24 25.0 N	110 2.5 W	10/30/74	2233 GMT	742 M	340	12 KT	1	340 03 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	27.31	35.265	4.59	0.45	3.2	0.01	0.1	502.8
11	27.31	35.263	4.60	0.47	3.1	0.01	0.1	503.0
31	27.26	35.262	4.57	0.51	3.0	0.01	0.1	501.5
51	21.54	35.014	2.61	1.72	19.4	0.15	12.7	356.1
76	18.86	34.987	2.06	2.13	26.4	0.05	18.0	290.4
100	16.81	34.968	1.70	2.39	30.4	0.03	21.4	244.0
125	15.23	34.964	1.49	2.60	37.4	0.02	24.5	210.0
150	13.60	34.912	1.04	2.76	44.4	0.02	26.5	180.6
200	12.43	34.830A	0.63	2.85	46.4	0.01	27.8	164.3
249	11.49	34.767A	0.36	2.91	47.7	0.01	28.5	151.9
299	10.75	34.712	0.21	2.98	51.1	0.01	28.6	143.1
398	9.22	34.625	0.06	3.09	59.2	0.01	31.1	124.8
497	7.84	34.559	0.05	3.20	68.3	0.01	34.8	109.3
595	6.68	34.537	0.05	3.30	83.6	0.01	37.4	95.4
714	5.83	34.528	0.07	3.39	94.1	0.01	40.4	85.5
724	5.79	34.529	0.08	3.35	95.0	0.01	40.4	85.0
729	5.80	34.531	0.07	3.36	94.8	0.02	40.3	84.9
734	5.78	34.531	0.08	3.37	96.8	0.03	39.9	84.7

Z	T	S	O2	SIGT	DT	DD
0	27.31	35.265	4.59	22.839	502.8	0.000
10	27.31	35.263	4.60	22.837	502.9	0.050
20	27.29	35.262	4.59	22.844	502.3	0.101
30	27.26	35.262	4.57	22.852	501.6	0.151
50	21.86	35.019	2.71	24.292	364.1	0.238
75	18.91	34.988	2.08	25.053	291.6	0.320
100	16.81	34.968	1.70	25.553	244.0	0.388
125	15.23	34.964	1.49	25.912	210.0	0.446
150	13.60	34.912	1.04	26.221	180.6	0.495
200	12.43	34.830	0.63	26.393	164.3	0.584
250	11.47	34.766	0.36	26.525	151.7	0.666
300	10.73	34.711	0.21	26.618	142.9	0.743
400	9.19	34.624	0.06	26.813	124.4	0.884
500	7.80	34.558	0.05	26.977	108.8	1.009
600	6.63	34.536	0.05	27.125	94.8	1.119
700	5.90	34.528	0.07	27.215	86.3	1.219

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 90

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
24 0.5 N	108 40.0 W	10/31/74	1036 1230 GMT	2678 M	340	10 KT	1	340 03 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.08	35.029	4.53	0.36	2.0	0.02	0.1	543.7
11	28.07	35.026	4.50	0.34	1.9	0.01	0.1	543.6
36	28.05	35.020	4.50	0.42	2.3	0.02	0.1	543.4
70	21.22	34.803	2.82	1.55	10.7	0.17	10.4	363.0
105	16.53	34.916	1.57	2.42	29.9	0.06	21.4	241.6
130	14.07	34.885B	1.05	2.73	38.9	0.07	25.5	191.9
159	12.61	34.828B	0.58	2.85	42.8	0.03	27.3	167.8
179	11.99	34.785	0.37	2.86	42.8	0.07	27.6	159.5
203	11.55	34.764	0.35	2.90	45.9	0.04	27.8	153.2
247	10.75	34.701	0.16	2.95	46.0	0.03	27.8	143.9
325	9.71	34.640	0.09	3.07	52.1	0.04	28.9	131.3
433	8.14	34.567	0.06	3.24	65.4	0.04	33.1	113.0
553	6.88	34.526	0.08	3.30	77.6	0.02	37.4	98.8
689	5.98	34.518	0.08	3.37	89.0	0.04	40.3	88.1
848	5.05	34.525	0.15	3.44	100.9	0.04	43.4	76.8
1022	4.35	34.546	0.28	3.50	115.4	0.01	45.3	67.8
1247	3.61	34.576	0.60	3.46	130.8	0.03	44.2	58.3
1290C	3.53	34.584	0.64	3.35	133.8	0.03	44.2	56.9
1465	3.12	34.599	0.99	3.30	141.2	0.03	43.7	52.1
1489C	3.04	34.606	1.04	3.33	142.7	0.02	44.0	50.8
1786C	2.50	34.631	1.54	3.08	153.7	0.04	42.1	44.4
2082C	2.11	34.651	1.97	2.98	162.4	0.06	40.8	39.9
2380C	1.89	34.664	2.26	2.91	168.6	0.04	39.5	37.2
2626C	1.87	34.676	2.30	2.90	169.6	0.04	39.5	36.2
2675C	1.88	34.670	2.33	2.91	167.9	0.07	39.4	36.7

Z	T	S	O2	SIGT	DT	DD
0	28.08	35.029	4.53	22.411	543.7	0.000
10	28.07	35.026	4.50	22.412	543.6	0.054
20	28.06	35.024	4.50	22.413	543.5	0.109
30	28.05	35.021	4.50	22.414	543.4	0.163
50	25.58	34.885	3.90	23.100	477.9	0.266
75	20.43	34.816	2.61	24.526	341.8	0.369
100	17.08	34.900	1.72	25.437	255.1	0.444
125	14.49	34.895	1.14	26.021	199.5	0.502
150	12.95	34.849	0.71	26.305	172.6	0.549
200	11.60	34.766	0.35	26.503	153.8	0.633
250	10.71	34.698	0.16	26.613	143.4	0.710
300	10.02	34.657	0.11	26.700	135.1	0.783
400	8.61	34.587	0.07	26.877	118.4	0.916
500	7.38	34.540	0.07	27.024	104.4	1.036
600	6.53	34.521	0.08	27.126	94.7	1.144
700	5.91	34.518	0.08	27.205	87.2	1.244
800	5.31	34.521	0.12	27.281	80.0	1.337
1000	4.43	34.543	0.26	27.399	68.8	1.506
1200	3.73	34.570	0.53	27.493	60.0	1.655
1500	3.01	34.609	1.06	27.593	50.4	1.851
2000	2.20	34.647	1.86	27.694	40.9	2.130
2250	1.96	34.659	2.16	27.723	38.1	2.253
2500	1.88	34.670	2.28	27.739	36.7	2.372

RV ALEXANDER AGASSIZ — GULF CRUISE 7410 — 91

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
23 31.5 N	107 33.0 W	10/31/74	2033 2251 GMT	1189 M	320	17 KT	1	320 07 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.14	35.093	4.55	0.40	2.6	0.05	0.3	541.0
25	26.22	34.867	4.45	0.63	3.5	0.05	0.3	498.3
50	19.74	34.719	2.56	1.66	12.3	0.08	12.9	331.4
100	14.30	34.787	0.70	2.68	31.2	0.04	25.4	203.7
150	12.59	34.721	0.21	2.72	32.9	0.04	27.0	175.2
199	11.77	34.734	0.10	2.79	35.7	0.04	26.6	159.3
299	10.59	34.693	0.10	3.00	47.0	0.03	27.9	141.8
398	8.87	34.582	0.07	3.08	54.5	0.03	30.5	122.6
498	7.72 U	34.533	0.06	3.23	65.0	0.04	34.3	
514D	7.26	34.528	0.05	3.27	68.0	0.04	34.2	103.7
700E	5.81	34.517	0.05	3.41	89.5	0.05	38.1	86.1
799E	5.38	34.521	0.19	3.44	96.5	0.03	42.6	80.8
898E	4.88	34.532	0.22	3.44	105.0	0.02	44.5	74.4
998E	4.54	34.543	0.35	3.45	111.8	0.03	44.6	70.0
1177E	3.79	34.570	0.65	3.44	127.0	0.04	42.0	60.4
1188E	3.76	34.569	0.69	3.44	127.5	0.02	44.6	60.2
1193E	3.77	34.573	0.59	3.43	127.5	0.03	44.9	60.0
1197E	3.76	34.573	0.55	4.37	130.1	0.27	44.7	59.9

Z	T	S	O2	SIGT	DT	DD
0	28.14	35.093	4.55	22.440	541.0	0.000
10	27.37	34.998	4.51	22.618	523.9	0.053
20	26.60	34.908	4.47	22.796	506.9	0.105
30	25.01	34.803	4.12	23.212	467.2	0.154
50	19.74	34.719	2.56	24.635	331.4	0.234
75	16.16	34.768	1.38	25.551	244.2	0.306
100	14.30	34.787	0.70	25.978	203.7	0.363
125	13.16	34.768	0.35	26.201	182.5	0.413
150	12.59	34.721	0.21	26.277	175.2	0.459
200	11.76	34.734	0.10	26.448	159.1	0.545
250	11.16	34.725	0.10	26.551	149.3	0.625
300	10.57	34.692	0.10	26.631	141.6	0.701
400	8.84	34.581	0.07	26.836	122.2	0.840
500	7.43	34.531	0.06	27.010	105.7	0.962
600	6.45	34.517	0.05	27.134	94.0	1.070
700	5.81	34.517	0.05	27.217	86.1	1.169
800	5.37	34.521	0.19	27.274	80.7	1.262
1000	4.53	34.543	0.35	27.388	69.9	1.433

A) THE SALINITY BOTTLE ORDER DIFFERS ON THE ORIGINAL DATA AND SALINITY DETERMINATION SHEETS. THEY ARE ASSUMED TO NOW BE IN CORRECT ORDER.
B) THE SALINITY BOTTLE ORDER DIFFERS ON THE ORIGINAL DATA AND SALINITY DETERMINATION SHEETS. THEY ARE ASSUMED TO NOW BE IN CORRECT ORDER.
C) CAST I.
D) THE LAST NANSEN BOTTLE OF CAST I POSTTRIPPED.
E) CAST II. THE LAST NANSEN BOTTLE OF THIS CAST CONTAINED MUD.

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
23 5.5 N	106 43.0 W	11/01/74	1033 GMT	409 M	320	16 KT	0	320 07 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.38	34.899	4.50	0.41	6.0	0.05	0.0	531.2	0	27.38	34.899	4.50	22.541	531.2	0.000
11	27.39	34.892	4.60	0.41	6.0	0.05	0.1	532.1	10	27.39	34.892	4.59	22.534	532.0	0.053
21	27.38	34.890	4.48	0.44	5.9	0.07	0.1	531.9	20	27.38	34.889	4.49	22.534	531.9	0.106
52	16.71	34.595	1.44	2.04	16.9	0.06	20.3	269.0	30	25.26	34.789	3.68	23.126	475.4	0.157
77	14.89	34.738	0.79	2.50	27.0	0.02	25.2	219.4	50	17.50	34.605	1.66	25.111	286.1	0.233
102	13.78	34.778	0.59	2.63	33.0	0.04	26.1	194.0	75	15.04	34.725	0.80	25.771	223.3	0.297
127	12.74	34.769	0.24	2.70	34.5	0.01	26.8	174.6	100	13.85	34.778	0.60	26.065	195.4	0.350
152	12.28	34.775	0.07	2.68	32.9	1.82	23.4	165.5	125	12.81	34.770	0.27	26.271	175.8	0.398
201	11.71	34.758	0.06	2.70	35.4	1.90	23.3	156.5	150	12.30	34.774	0.08	26.374	166.0	0.441
251	11.17	34.734	0.05	2.76	38.6	0.78	24.9	148.7	200	11.72	34.758	0.06	26.474	156.6	0.524
300	10.59	34.696	0.06	2.85	42.4	0.90	24.4	141.6	250	11.18	34.735	0.05	26.555	148.9	0.603
348	9.61	34.632	0.07	2.99	42.6	0.04	28.5	130.3	300	10.59	34.696	0.06	26.632	141.6	0.679
378	9.09	34.608	0.07	3.05	55.9	0.06	29.4	124.0	400	8.91	34.601	0.05	26.840	121.8	0.818
387	9.02	34.601	0.07	3.05	56.8	0.08	29.2	123.5							
392	8.99	34.601	0.06	3.07	56.9	0.08	29.4	123.0							
397	8.92	34.601	0.05	3.08	56.9	0.06	29.4	122.0							

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 40.5 N	110 8.0 W	11/02/74	0812 1006 GMT	2303 M	310	09 KT	1	310 04 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.49	34.842	4.56	0.28	2.3	0.00	0.0	538.7	0	27.49	34.842	4.56	22.463	538.7	0.000
11	27.49	34.839	4.62	0.31	2.0	0.00	0.1	538.9	10	27.49	34.839	4.61	22.461	538.9	0.054
31	27.45	34.837	4.55	0.36	1.8	0.00	0.1	537.9	20	27.47	34.838	4.59	22.466	538.5	0.108
61	17.83	34.399	3.08	1.34	10.3	0.09	11.0	308.7	30	27.45	34.837	4.55	22.472	537.9	0.162
76	15.90	34.349	2.36	1.72	14.8	0.04	16.3	269.1	50	21.58	34.463	3.71	23.948	397.0	0.256
91	14.28	34.341	1.70	2.03	19.8	0.04	21.2	235.9	75	15.99	34.353	2.41	25.271	270.9	0.340
110	13.56	34.559	0.57	2.50	27.2	0.02	26.5	205.7	100	13.84	34.438	1.14	25.806	220.0	0.402
135	12.83	34.643	0.29	2.65	30.7	0.02	27.2	185.5	125	13.09	34.626	0.40	26.103	191.7	0.454
165	12.29	34.694	0.16	2.73	33.3	0.02	27.3	171.7	150	12.53	34.674	0.21	26.252	177.7	0.501
190	11.90	34.721	0.10	2.72	34.4	0.01	27.5	162.6	200	11.76	34.725	0.08	26.440	159.8	0.587
229	11.39	34.721	0.05	2.83	36.9	0.01	26.9	153.5	250	11.15	34.708	0.05	26.540	150.3	0.668
294	10.64	34.669	0.05	2.87	40.6	0.04	26.9	144.4	300	10.56	34.664	0.05	26.612	143.4	0.744
407	8.97	34.578	0.07	3.07	53.6	0.00	30.4	124.4	400	9.08	34.584	0.07	26.799	125.7	0.886
506	7.44	34.516	0.10	3.20	67.7	0.00	35.7	107.0	500	7.52	34.518	0.10	26.987	107.9	1.011
560	6.95	34.508	0.09	3.26	73.4	0.02	37.4	101.0	600	6.54	34.506	0.09	27.114	95.9	1.122
808	4.81	34.530	0.19	3.44	107.4	0.00	43.9	73.8	700	5.62	34.512	0.12	27.236	84.3	1.220
971	4.40	34.544	0.32	3.50	116.1	0.01	44.6	68.5	800	4.86	34.528	0.18	27.339	74.5	1.309
1185	3.80	34.572	0.56	3.41	129.1	0.03	44.4	60.4	1000	4.28	34.546	0.35	27.417	67.1	1.469
1208A	3.81	34.578	0.50	3.41	128.3	0.00	44.6	60.0	1200	3.81	34.577	0.52	27.491	60.1	1.617
1405A	3.24	34.598	0.85	3.31	141.4	0.00	43.9	53.2	1500	3.03	34.609	1.03	27.591	50.6	1.814
1602A	2.84	34.617	1.22	3.17	148.2	0.00	43.2	48.3	2000	2.24	34.645	1.85	27.690	41.3	2.095
1799A	2.53	34.629	1.51	3.09	154.4	0.01	42.3	44.8	2250	1.91	34.662	2.24	27.729	37.6	2.218
1997A	2.24	34.644	1.84	2.98	159.5	0.05	41.2	41.4							
2243A	1.92	34.661	2.23	2.81	170.0	0.03	39.9	37.7							
2296A	1.88	34.665	2.29	2.89	166.8	0.02	40.2	37.1							

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
25 12.0 N	112 44.0 W	11/03/74	0904 GMT	539 M	330	13 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	22.15	34.295	5.11	0.30	3.2	0.00	0.0	424.2	0	22.15	34.295	5.11	23.662	424.2	0.000
11	22.16	34.293	5.14	0.32	2.9	0.00	0.0	424.6	10	22.16	34.293	5.14	23.658	424.6	0.042
31	22.12	34.278	5.13	0.32	2.8	0.00	0.1	424.6	20	22.14	34.286	5.14	23.657	424.6	0.085
41	17.96	33.743B	5.66	0.35	3.4	0.00	0.0	359.4	30	22.12	34.279	5.13	23.657	424.6	0.128
51	15.96	33.663B	5.54	0.44	4.0	0.08	0.6	320.5	50	16.09	33.662	5.55	24.720	323.4	0.203
66	14.90	33.670	5.06	0.59	5.4	0.09	3.0	297.6	75	14.13	33.719	4.59	25.191	278.5	0.278
81	13.70	33.778	4.19	0.99	9.5	0.02	9.0	265.6	100	13.59	34.148	2.42	25.634	236.3	0.343
101	13.58	34.164	2.33	1.77	19.4	0.01	18.8	235.0	125	11.90	34.166	2.24	25.981	203.4	0.399
140	11.32	34.168	2.19	1.98	26.1	0.00	22.7	193.0	150	11.34	34.263	1.88	26.161	186.3	0.448
199	11.43	34.613	0.33	2.72	38.9	0.00	25.9	162.2	200	11.43	34.616	0.33	26.417	161.9	0.538
248	11.21	34.649	0.09	2.89	42.5	0.00	25.3	155.7	250	11.19	34.649	0.09	26.486	155.4	0.620
297	10.80	34.629	0.09	2.96	44.8	0.01	24.5	150.1	300	10.78	34.628	0.09	26.545	149.8	0.699
346	10.50	34.608	0.06	2.99	46.9	0.01	24.2	146.6	400	10.35	34.599	0.10	26.598	144.8	0.854
396	10.36	34.599	0.10	3.05	48.3	0.00	23.2	144.9	500	10.13	34.585	0.06	26.624	142.3	1.008
446	10.21	34.588	0.07	3.09	51.0	0.00	21.4	143.3							
525	10.10	34.582	0.05	3.20	52.4	0.02	19.9	141.9							
530	10.11	34.582	0.06	3.18	53.1	0.01	19.4	142.1							
535	10.10	34.581	0.05	3.16	53.4	0.01	19.0	142.0							

A) CAST I.
B) THE SALINITY BOTTLE ORDER DIFFERS ON THE ORIGINAL DATA AND SALINITY DETERMINATION SHEETS.
THEY ARE ASSUMED TO NOW BE INTHE CORRECT ORDER.

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