UNIVERSITY OF CALIFORNIA, SAN DIEGO SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

CalCOFI Cruise 8508
9 – 22 August 1985

CalCOFI Cruise 8511
1 – 14 November 1985

SIO Reference 86-6
17 March 1986

UNIVERSITY OF CALIFORNIA

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Approved for distribution:

W. A. Nierenberg, Director

CONTENTS

INTRODUCTION

The data in this report were collected during Cruises 8508* and 8511 of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the RV *New Horizon* of the Scripps Institution of Oceanography. The data were collected and processed by personnel of the Marine Life Research Group (MLRG), the Southwest Fisheries Center, National Marine Fisheries Service (NMFS). and the Physical and Chemical Oceanographic Data Facility (PACODF). Volunteers also assisted in the collection of data at sea.

STANDARD PROCEDURES

Hydrographic Cast Data

The Hydrographic casts consisted of 20 or fewer Nansen bottles lowered to a maximum sampling depth of 600 meters, bottom depth permitting. Temperature, salinity, oxygen and nutrients were determined for all depths sampled. Chlorophyll-a and phaeopigments were usually determined from the top 12 depths.

At selected stations, 10-meter bottles were cast with samples being taken for temperature, salinity, oxygen, nutrients, chlorophyll-a, and phaeopigments.

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.

Salinity samples were analyzed at sea using inductive-type salinometers. Salinometers were standardized with sub-standard seawater. Periodic checks on the concentration of the substandard were made by comparison with Wormley Standard Seawater batch P-96. The salinity values are reported to three decimal places."

Dissolved oxygen was determined by the Winkler method as modified by Carpenter (1965), using the equipment and procedure outlined by Anderson (1971). Percent oxygen saturation was calculated from the equations of Weiss (1970).

Silicate, phosphate, nitrate and nitrite nutrients were determined at sea using an automated analyzer. The procedures used are similar to those described in Atlas *et al.* (1971).

Chlorophyll was measured with a fluorometric technique (Yentsch and Menzel, 1963; Holm-Hansen *et al.,* 1965) from subsamples filtered onto GF/C filters. The pigments were extracted with a cold extraction technique in 90% acetone (Venrick and Hayward, 1984) and the fluorescence determined before and afier audification with a Turner fluorometer.

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 comparisons with adjacent observations.

Primary Productivity Casts

Primary production was estimated from C uptake using a simulated *in situ* technique. Light penetration was estimated from the Secchi depth (assuming that the 1% light level is three times the Secchi depth). Six depths, corresponding to predetermined levels of light penetration, were sampled with 5 1 Niskin bottles. Temperature, salinity, oxygen, nutrients, chlorophyll-a, and phaeopigments were determined for all depths sampled. Triplicate samples (two light and one dark control) were drawn from each depth into 250 ml polycarbonate incubation bottles which were innoculated with 10 uci of C as $NaHCO$. These were then incubated approximately from local apparent noon to civil twilight in seawater-cooled incubators with neutral-density screens which simulate the *in situ* light levels. At the end of the incubation, the samples were filtered onto HA milipore filters and placed in

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

scintillation vials. One-half ml of 10% HCl was added to each sample. The sample was then allowed to sit, without a cap, at room temperature for 12 hours (after Lean and Burnison, 1979). Following this, 10 ml of scintillation fluor were added to each sample and the samples were returned to S.l.O. where the radioactivity was determined with a scintillation counter.

Macrozooplankton Net Tows

Macrozooplankton was sampled with a 71 cm mouth diameter paired net (bongo net) equipped with 0.505 mm plankton mesh. Bottom depth permitting, the nets were towed obliquely from 210 m to the surface. The tow time for a standard tow was 21.5 minutes. Volumes filtered were determined from flowmeter readings and the mouth area of the net. Only one sample of each pair was retained and preserved. The biomass, as wet displacement volume, after removal of large (> 5 ml) organisms, was determined in the laboratory ashore. These procedures are summarized in greater detail in Kramer *et al.* (1972).

TABULATED DATA

The reported hydrographic cast time is the Greenwich Mean Time (GMT) of the messenger release. Bottom depths, determined acoustically, have been corrected using Matthews (1939) tables and are reported in meters. Weather conditions have been coded using WMO code 4051.

Data tabulations are presented in the following forms:

Hydrographic Cast Data

Observed and interpolated standard depth data from hydrographic casts have been interspersed and are presented together sequentially by depth. Interpolated or extrapolated standard level data are noted by the footnote "ISL" printed after the depth. Density-related parameters have been calculated from the International Equation of State of Seawater 1980 (EOS80, UNESCO, 1981). Some of the differences between EOS80 and the older equations-of-state are discussed in the introduction to SIO Ref. 84-18. Computed values of potential temperature, sigma-theta, specific volume anomaly (SVA), dynamic height or geopotential anomaly, and pressure are included with both observed and interpolated standard depth levels.

10-Meter Data

The 10-meter data are reported in the same format as the hydrographic data. The few 10-meter stations taken on Cruise 8508 are included in the hydrographic data section for that cruise.

Freon Casts

Special 10-bottle casts for freon measurements were taken in nine basins in the Southern California Bight on Cruise 8508. Freon data are not included in this report, but the observed hydrographic data for these casts are given in a separate section.

Primary Productivity Casts

In addition to the normal hydrographic data, the tabulated data include: the light levels at which the samples were incubated, the uptake from each of the replicate light bottles (uptake 1 and uptake 2) which have been corrected for dark uptake by subtracting the dark value, the mean of the two uptake values, the dark uptake, chlorophyll and phaeophytin. The uptake values shown are the total for the incubation period. The times of local apparent noon (LAN), civil twilight, and the vertically integrated value of the mean uptake from the surface to the deepest sample depth (assuming that the shallowest measured value extends to the surface and that negative values are zero) are also shown for each experiment. The uptake data have been presented to two significant digits (values < 1.00) or one decimal (values > 1.00). The higher production values may not warrant all of the significant digits presented. Incubation time, LAN, and civil twilight are given in local Pacific Standard Time (PST); to

convert to GMT, add eight hours to the PST time.

Seechi Disk Observations

Secchi disk observations were made on most daylight stations. The times are given in local PST (+8) time. Weather codes and cloud observations are also presented.

Macrozooplankton Data

Macrozooplankton biomass volumes are tabulated as total biomass volume (cm/1000 in strained) and as the total volume minus the volume of larger organisms under the heading "Small".

FOOTNOTES

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

ISL: After depth values indicates interpolated or extrapolated standard level.

P. After depth values indicates the Nansen bottle posttripped.

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

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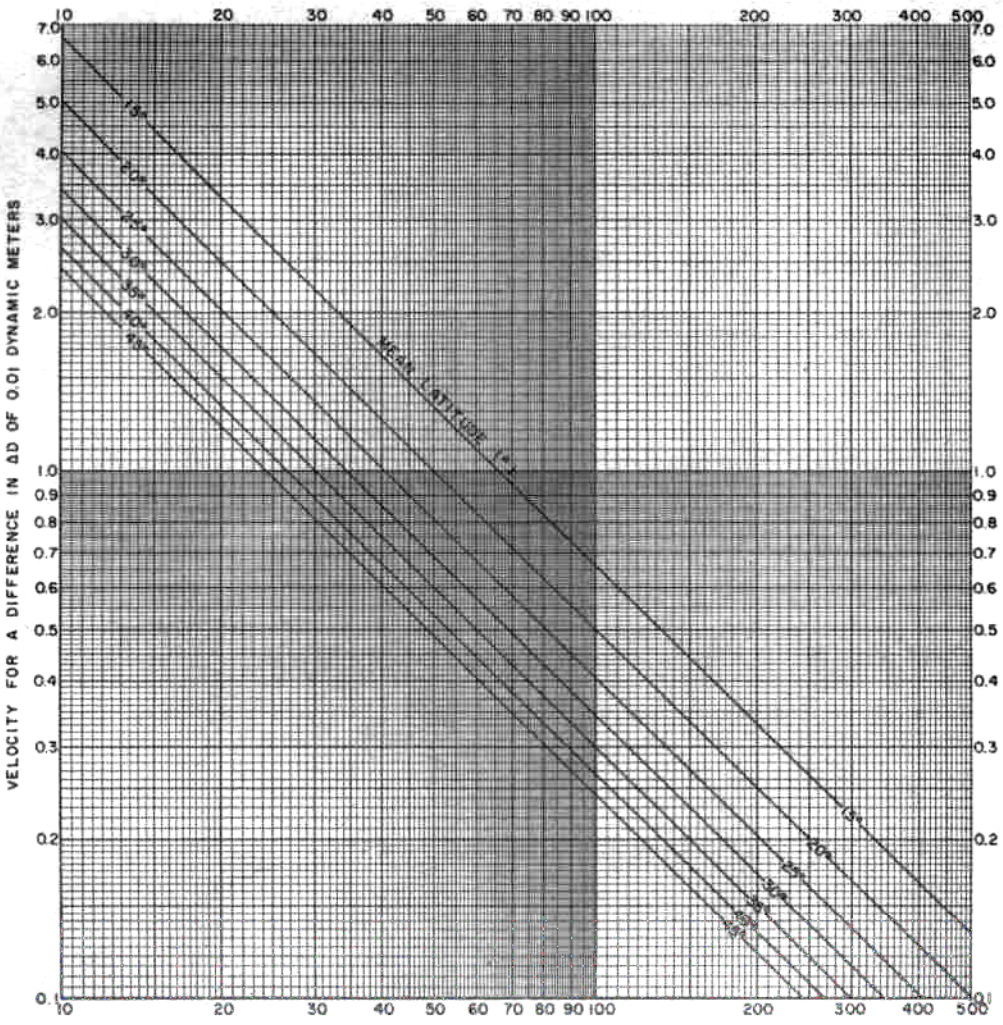


VELOCITY OF GEOSTROPHIC FLOW
(NAUTICAL MILES PER DAY)

cm/sec	0	1	2	3	4	5	6	7	8	9
0	KNOTS / KM/DAY	0.02 / 0.47	0.04 / 0.93	0.06 / 1.40	0.08 / 1.86	0.10 / 2.33	0.12 / 2.80	0.14 / 3.26	0.16 / 3.73	0.17 / 4.20
10	0.19 / 4.66	0.21 / 5.13	0.23 / 5.59	0.25 / 6.06	0.27 / 6.53	0.29 / 6.99	0.31 / 7.46	0.33 / 7.93	0.35 / 8.39	0.37 / 8.86
20	0.39 / 9.32	0.41 / 9.79	0.43 / 10.25	0.45 / 10.72	0.47 / 11.19	0.49 / 11.66	0.51 / 12.12	0.52 / 12.59	0.54 / 13.05	0.56 / 13.52
30	0.58 / 13.99	0.60 / 14.45	0.62 / 14.92	0.64 / 15.38	0.66 / 15.85	0.68 / 16.32	0.70 / 16.78	0.72 / 17.25	0.74 / 17.72	0.76 / 18.18
40	0.78 / 18.65	0.80 / 19.11	0.82 / 19.58	0.84 / 20.05	0.85 / 20.51	0.87 / 20.98	0.89 / 21.45	0.91 / 21.91	0.93 / 22.38	0.95 / 22.84
50	0.97 / 23.31	0.99 / 23.78	1.01 / 24.24	1.03 / 24.71	1.05 / 25.17	1.07 / 25.64	1.09 / 26.11	1.11 / 26.57	1.13 / 27.04	1.15 / 27.51
60	1.17 / 27.98	1.18 / 28.44	1.20 / 28.90	1.22 / 29.37	1.24 / 29.84	1.26 / 30.30	1.28 / 30.77	1.30 / 31.24	1.32 / 31.70	1.34 / 32.17
70	1.36 / 32.63	1.38 / 33.10	1.40 / 33.57	1.42 / 34.03	1.44 / 34.50	1.46 / 34.96	1.48 / 35.43	1.50 / 35.90	1.52 / 36.36	1.53 / 36.83
80	1.55 / 37.30	1.57 / 37.76	1.59 / 38.23	1.61 / 38.69	1.63 / 39.16	1.65 / 39.63	1.67 / 40.09	1.69 / 40.56	1.71 / 41.03	1.73 / 41.49
90	1.75 / 41.96	1.77 / 42.42	1.79 / 42.89	1.81 / 43.36	1.83 / 43.82	1.85 / 44.29	1.86 / 44.76	1.88 / 45.22	1.90 / 45.69	1.92 / 46.15
100	1.94 / 46.62	1.96 / 47.09	1.98 / 47.55	2.00 / 48.02	2.02 / 48.48	2.04 / 48.95	2.06 / 49.42	2.08 / 49.88	2.10 / 50.35	2.12 / 50.82

CONVERSION TABLE
(CENTIMETERS / SECOND – KNOTS – NAUTICAL MILES / DAY)

1 cm/sec = 0.019 kts = 0.466 NAUTICAL MILES / DAY
1 kt = 24 NAUTICAL MILES / DAY = 51.48 cm/sec
1 NAUTICAL MILE / DAY = 0.042 kts = 2.14 cm/sec

FIGURES

Cruise 8508

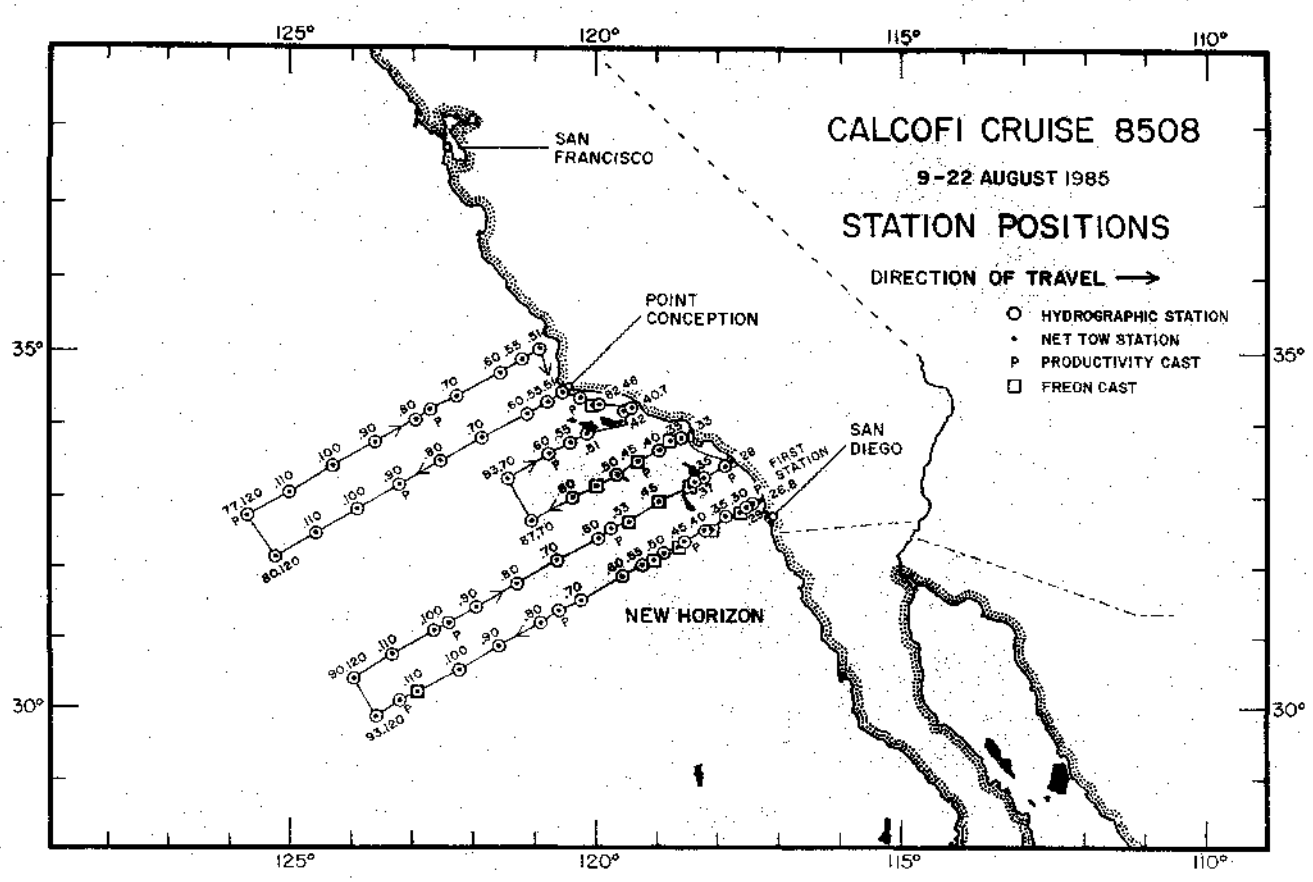
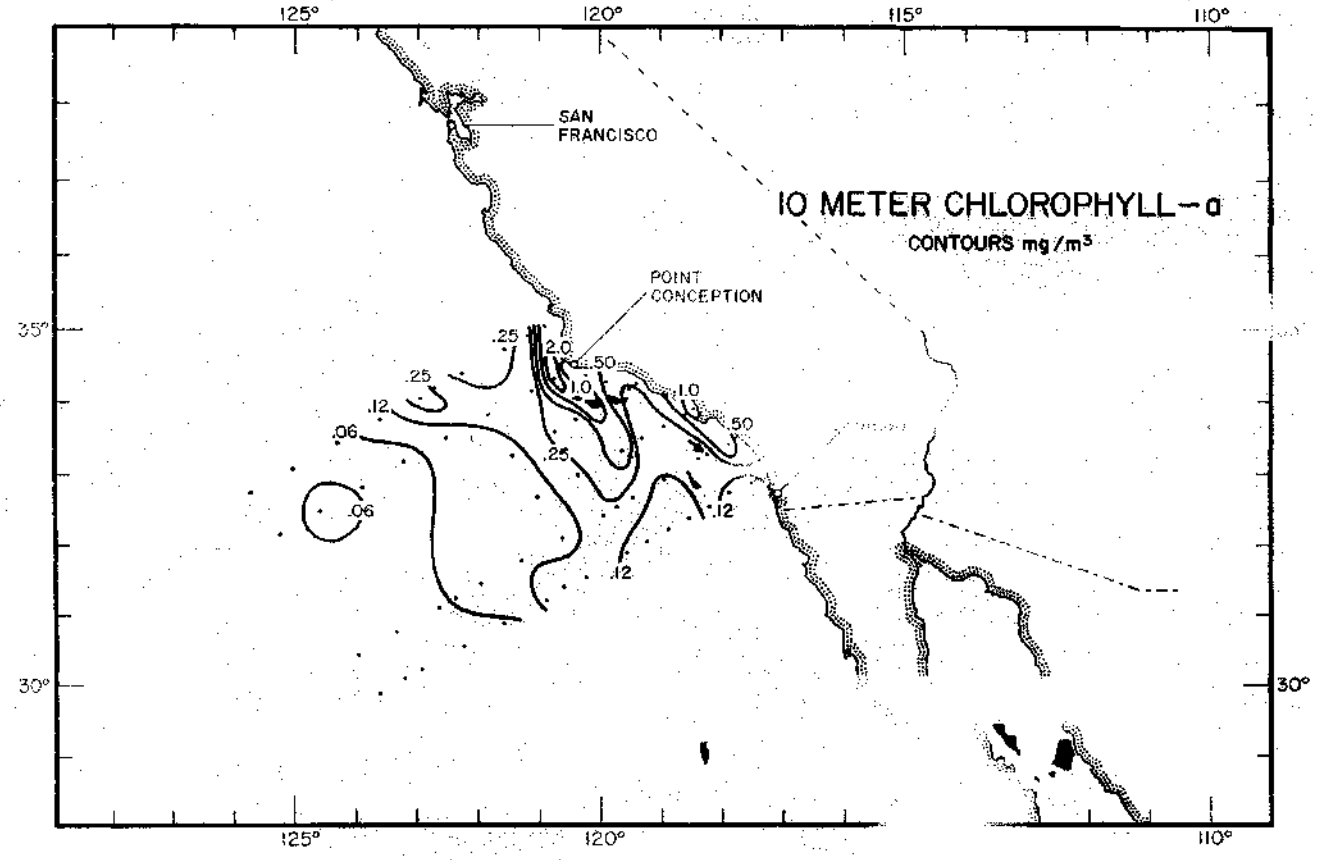


FIGURE 1



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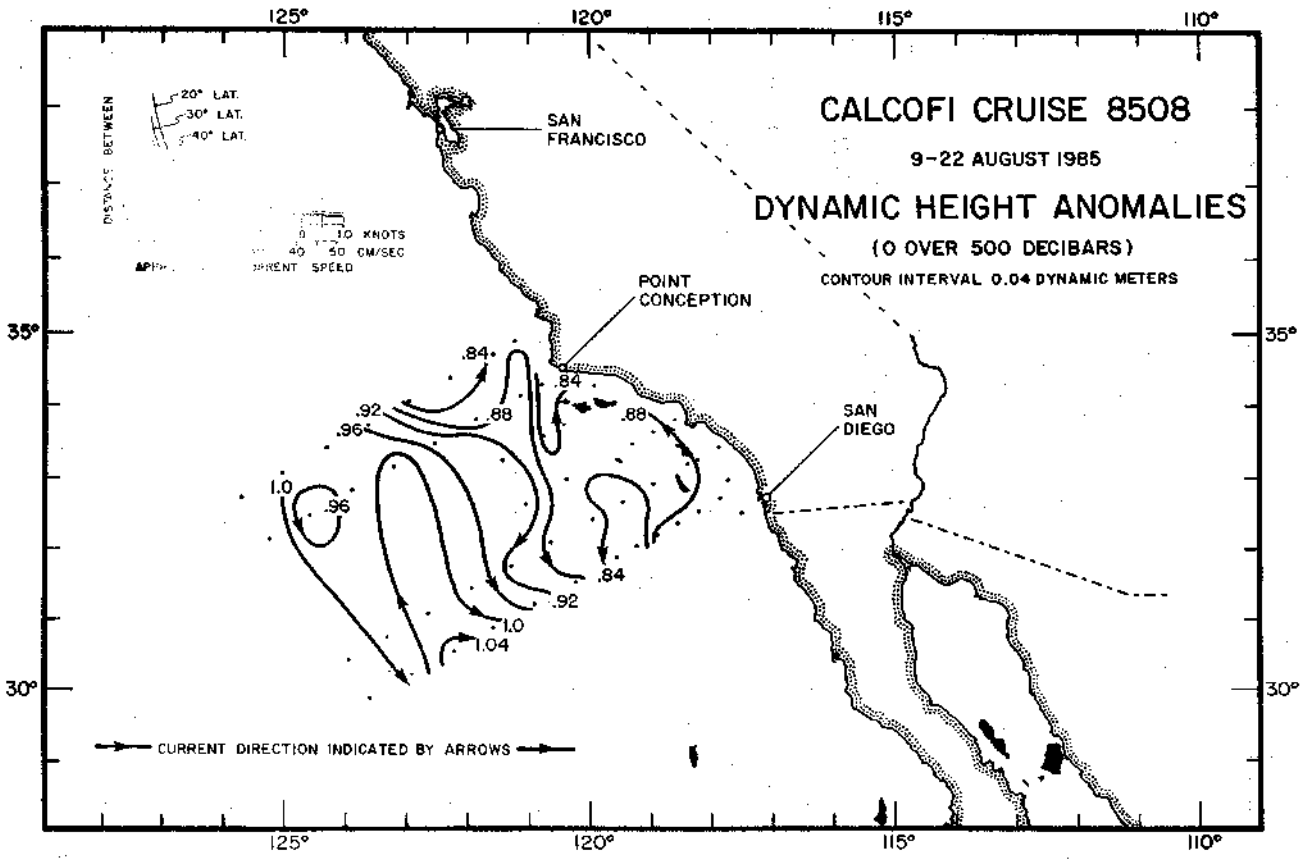

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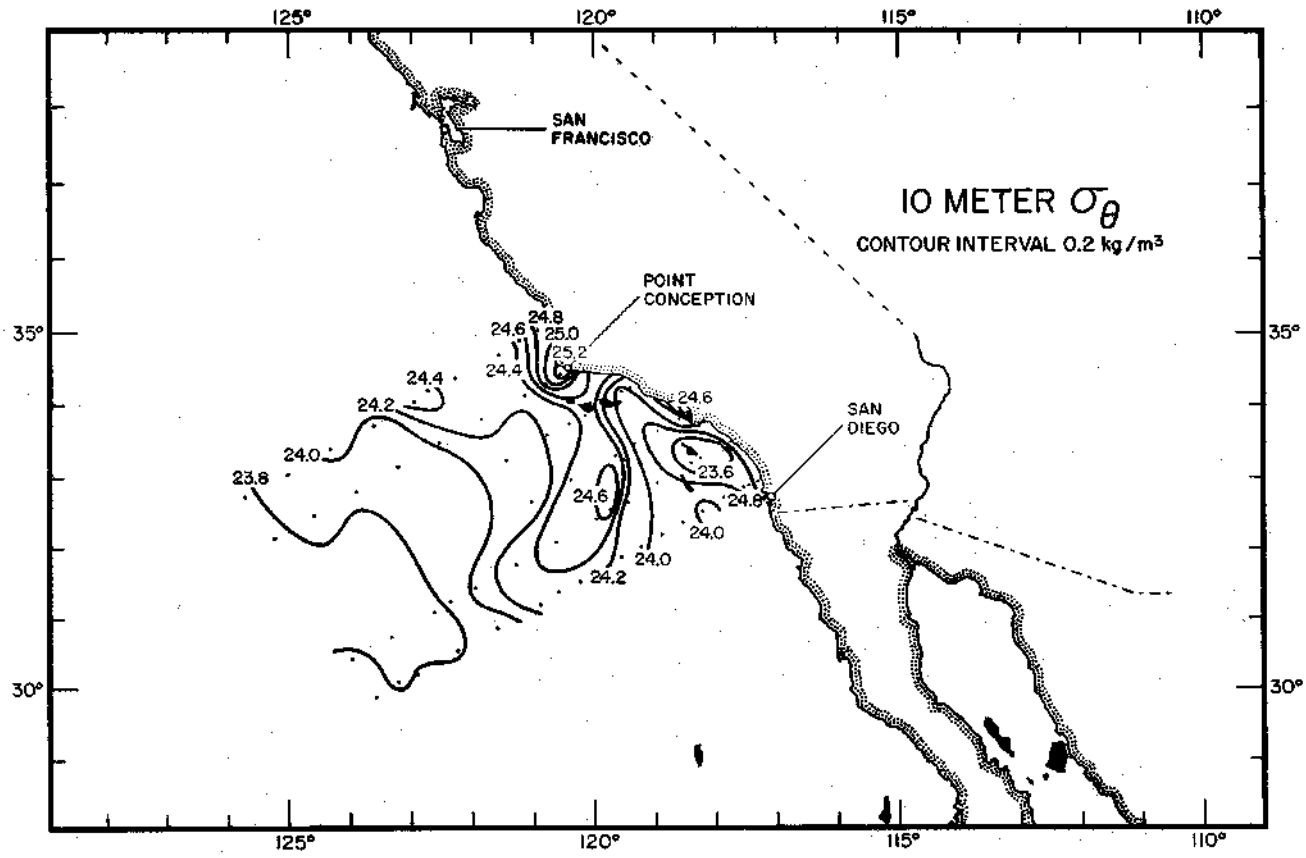

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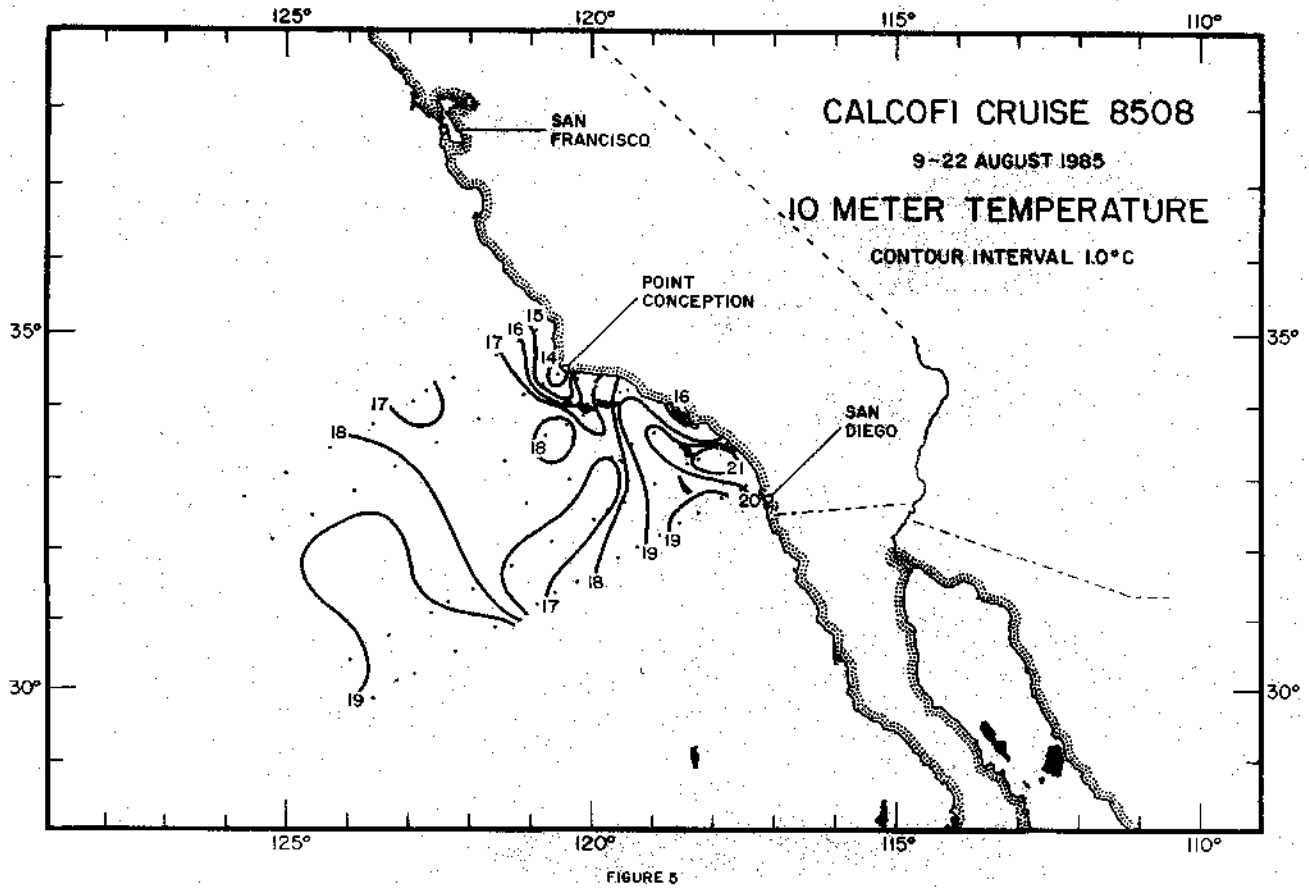

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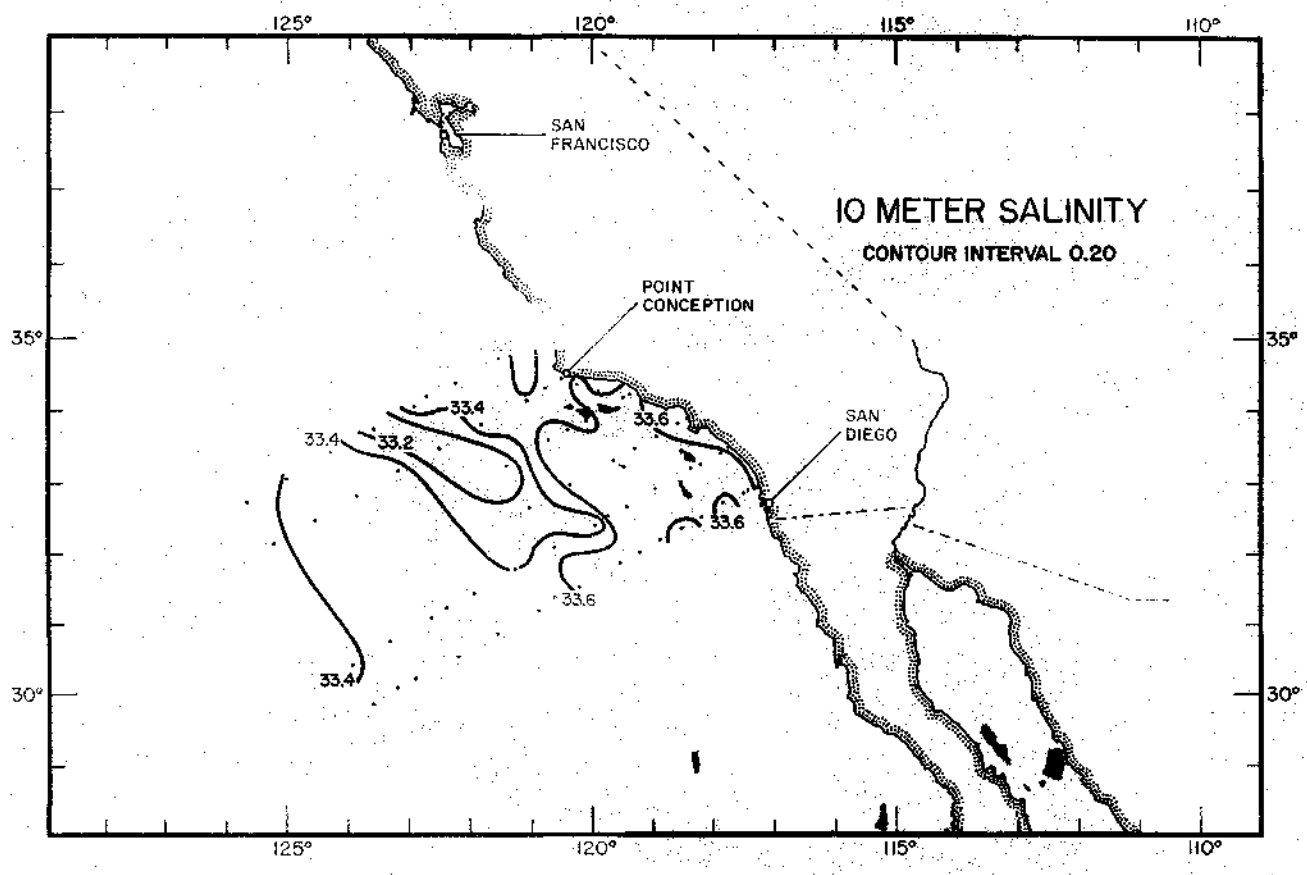

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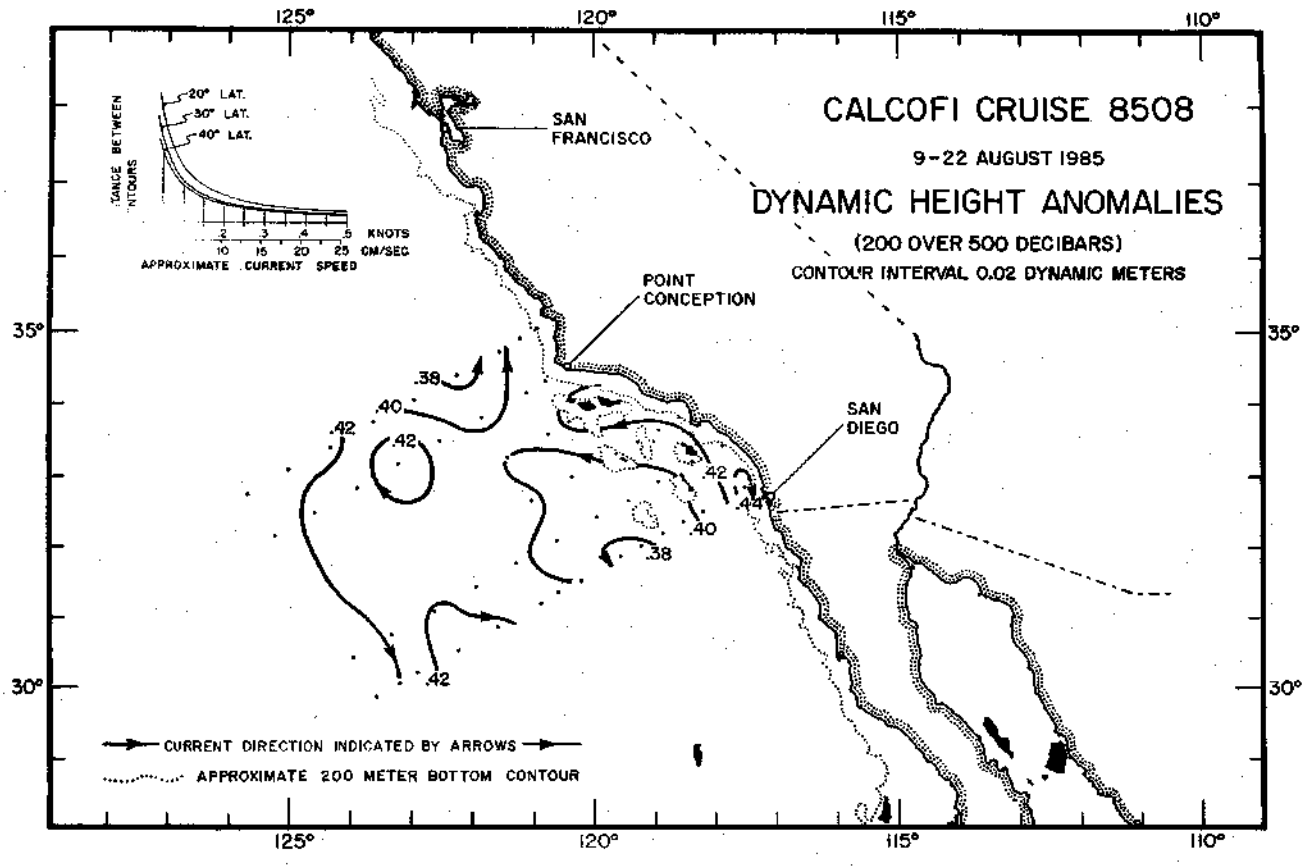

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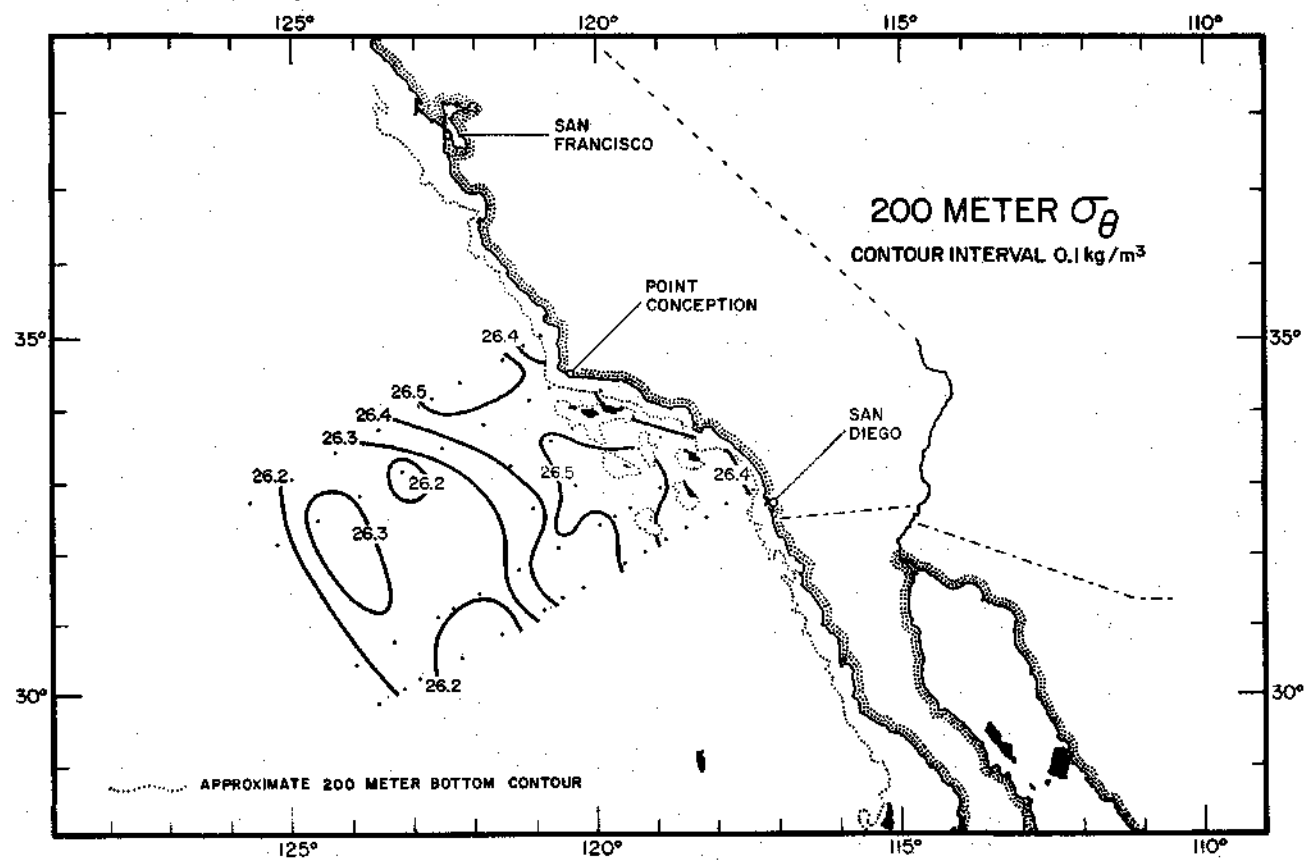

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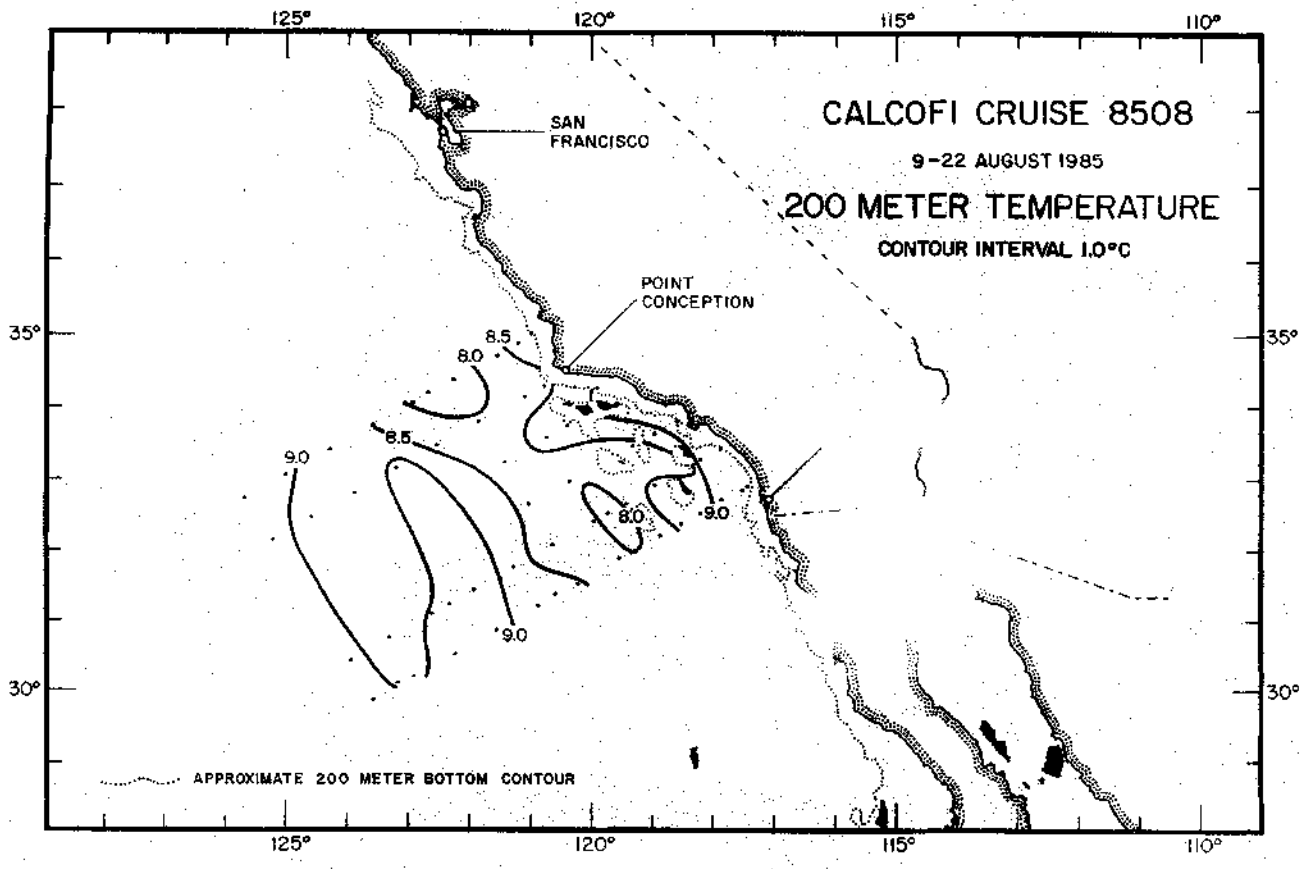

FIGURE 9

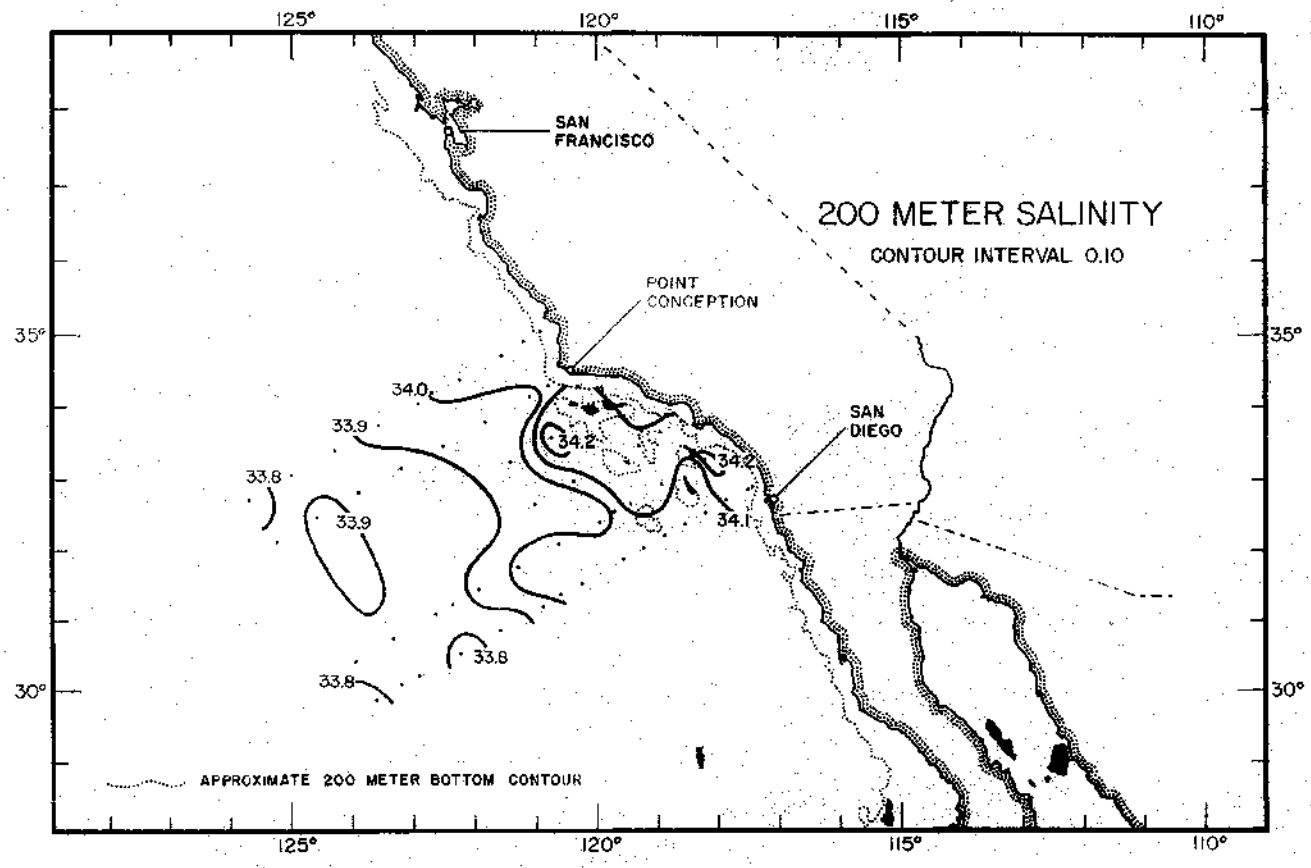

FIGURE 10

PERSONNEL

Cruise 8508

SHIP'S CAPTAIN

Phillip L. Munsch, RV *New Horizon*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

Venrick, Elizabeth L. (in charge)	Associate Research Oceanographer, SIO
Abramenkoff, Dimitry N.	Biological Technician, NMFS
Anderson, George C.	Staff Research Associate, SIO
Bryan, Walter R.	Marine Technician, SIO
Bullister, John	Postdoctoral Investigator, SIO
Hana, Beverly M.	Student, UCSB
Horak, Lenka	Student, UCSB
Meger, Cindy A.	Computer Programmer, NMFS
Muzzy, Moris C.	Student, Mesa College
Schmitt, Walter R.	Staff Research Associate, SIO
Watts, Kimberly J.	Student, Humboldt State Univ.
Weaver, Lisa	Student, UCSB

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AM.T	TYPE
55 01.2 N	120 55.2 W	22/08/85	1204 GMT	246 M	310	12 KT			1018.4 MB	14.8 C	.13.5 C		

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SI6MA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0 ISL	14.75	14.75	33.435	24.819	312.2	.000	6.20	107.4							0
1	1	14.75	14.75	33.435	24.819	312.0	.003	6.20	107.4	2.9	.35	1.0	.07	1.03	.19	1
	10 ISL	14.69	14.69	33.446	24.842	310.1	.031	6.25	108.1							10
1	11	14.68	14.68	33.447	24.844	309.9	.034	6.25	108.1	3.0	.36	1.2	.08	1.51	.16	11
	20 ISL	13.60	13.60	33.396	25.031	292.4	.061	5.97	101.0							20
	30 ISL	12.28	12.28	33.355	25.259	270.9	.089	5.57	91.7							30
1	32	12.03	12.02	33.350	25.304	266.6	.094	5.49	89.8	6.6	.82	6.8	.28	.39	.17	32
1	47	11.54	11.54	33.384	25.420	255.9	.133	5.'18	83.9	3.8	1.01	9.8	.36	.37	.26	47
	50 ISL	11.39	11.39	33.427	25.481	250.2	.142	4.99	80.6							50
1	59	11.01	11.00	33.544	25.642	235.1	.163	4.51	72.3	13.5	1.31	15.2	.06	.22	, 1	59
1	74	10.74	10.73	33.602	25.735	226.6	.197	4.35	69.3	15.9	1.46	17.4	.04	.23	.12	74
	75 ISL	10.72	10.71	33.612	25.746	225.6	.200	4.29	68.3							76
1	89	10.55	10.54	73.712	25.854	215.5	.230	3.59	57.0	19.5	1.63	19.8	.02	.13	.12	89
	100 ISL	10.24	10.23	33.77?	25.959	205.?	.254	3.22	50.9							101
1	109	9.9?	9.96	33.822	26.039	198.4	.273	3.02	47.4	24.8	1.86	23.0	.01	.06	.10	110
	125 ISL.	9.70	9.68	33.874	26.126	190.4	.304	2.61	43.8							126
1	135	9.55	9.53	33.901	26.172	186.3	.323	2.70	42.0	29.2	2.01	25.1	.02	.02	.13	136
	150 ISL	9.33	9.31	33.941	26.240	18.0.1	.350	2.45	38.0							151
1	157	9.24	9.22	33.959	26.269	177.4	.363	2.34	36.2	33.7	2.19	26.8	.16	.01	.15	158
1	186	8.99	8.97	34.026	26.360	169.3	,413	2.16	33.2	36.5	2.30	2l<.0	.10	.01	.13	187
	200 ISL	8.93	8.91	34.042	26.383	167.3	.437	2.08	31.9							202
1	210	8.90	8.88	34.047	26.391	166.7	.453	2.02	31.0	38.0	2.36	29.0	.08	.01	.18	211

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 55

LATITUDE	LONGITUDE	DAY/MO/YR	MFSSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHFR	BAROMETER	DRY	WET	CLOUD	AMTTYPF
34 53.4 N	121 12.6 W	22/08/85	C 11 GMT	577 M	330	13	KT		1017.9 MB	15.7 C	14.2 C		

CAST	DEPTH ∴	TEMF DEG C	POT TEMP DEC, C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SI03 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS O.BAR
1	0	16.02	16.02	33.266	24.411	350.9	.000	5.95	105.6	1.8	.39.	.1	.00	.1?	.05	
1	10	16.03	lh.0.5	33.267	24.408	351.4	.035	5.97	106.0	1.8	.39	.1	.00	. i'-!	.0?	10
1	20	15.7:	15.78	33.252	24.453	347.5	.070	6.03	106.5	1.8	.3c.	.1	.00	.25	.06	20
	30 ISL	13.71	13.71	33.392	25.006	295.1	.102	5.98	101.5							3 '
1	31	13.51	13.51	33.411	25.061	289.9	.105	5.98	101.0	3.6	.57	2.2	.13	.53	.26	31
1	41	12.36	12.36	33.^69	25.410	256.8	.13?	4.99	82.3	9.1	.98	8.8	.42	.21	.17	4>
	50 ISL	12.01	12.00	33.590	25.494	248.9	.155	4.74	77.6							50
1	51	11.99	11.9?	33.592	25.500	243.5	.157	4.73	77.4	10.8	1.09	11.0	.42	.16	.16	51
1	61	11.0⊙	11.08	33.631	25.695	230.2	.181	4.34	69.7	15.1	1.37	16.3	.13	.09	.13	61
1	72	10.84	10.83	33.644	25.7^0	22^.1	.206	4.16	66.5	16.7	1.45	17.6	.07	.09	.12	72
	75 ISL	10.77	10.76	33.651	25.768	223.5	.213	4.09	65.3							76
1	87	10.58	10.57	33.674	25.819	21^.9	.239	3.88	61.7	18.5	1.53	15.9	.04	.08	.13	87
	100 ISL	10.50	10.49	33.681	25.840	217.2	.268	3.83	60.7							101
1	101	10.40	10.48	33.6P3	25.843	217.0	.271	3.82	60.6	19.2	1.56	19.3	.03	.06	.09	102
1	121	10.18	10.17	33.774	25.966	205.6	.313	3.28	51.7	23.3	1.72	21.5	.02	.04	.11	122
	125 ISL	10.15	10.14	3.3.787	25.982	204.3	.321	3.22	50.7							126
1	147	9.89	9.87	33.847	26.073	195.9	.365	2.96	46.4	27.1	1.87	23.6	.03	.02	.10	148
	150 ISL	9.81	9.79	33.853	26.091	194.3	.371	2.95	46.1							151
1	177	9.06	9.04	33.924	26.270	177.6	.421	?.81	4<.2	32.2	2.00	26.1	.02			178
	200 ISL	8.84	8.82	34.026	26.385	167.1	.461	2.41	36.9							202
1	207	8.79	8.77	34.052	26.412	164.6	.472	2.30	35.2	37.7	2.20	28.3	.02			208
1	237	8.21	P.19	34.052	26.502	156.5	.520	2.37	35.8	41.4	2.24	29.6	.01			233
	250 ISL	8.11	P.0?	34.070	26.531	153.9	.540	2.25	33.8							252
1	276	S.00	7.97	34.115	26.583	149.4	.580	1.88	28.3	46.7	2.43	31.4	.01			27
	300 ISL	7.84	7.31	34.150	26.634	144.9	.615	1.52	22.8							302
1	335	7.58	7.54	34.191	26.706	138.6	.665	1.06	15.8	57.9	2.77	34.3	.01			33?
	400 ISL	7.03	6.99	34.212	26.800	130.3	.752	.82	12.0							403
1	40?	6.96	6.92	34.213	26.810	129.4	.763	.81	11.9	66.0	2.91	36.5	.00			411
1	4*1	6.46	6.41	34.247	26.905	121.1	.854	„54	7.8	75.9	3.09	37.7	.02			484
	500 ISL	6.30	6.26	34.257	26.933	113.6	.877	.49	7.1							504
1	552	5.84	5.80	34.286	27.014	111.0	.936	.41	5.9	86.1	3.20	39.5	.04			556

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLCUD AMI	TYPE
34 43.6 N	121 33.5 W	22/08/8.5.	0432 GMT	925 M	330	18 KT			1017.1 MB	16.1 C	14.7 C		

CAST	DEPTH M	TEF<P DEG C	POT TEMP ' DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0 ISL	17.10	17.10	33.471	24.318	359.8	.000	5.82	105.7							0
1	1	17.10	17.10	33.471	24.318	359.8	.004	5.82	105.7	2.1	.40	.2	.00	.26	.04	1
	10 ISL	17.08	17.08'	33.470	24.322	359.7	.036	5.86	106.3							10
1	11	17.0?	17.08	33.470	24.323	359.7	.039	5.86	106.4	2.0	.39	.2	.01	.26	.05	11
	SO ISL	17.08	17.08	33.469	24.323	360.0	.072	5.84	105.9							20
1	*12*	17.08	17.08	33.469	24.323	360.0	.079	5.83	105.8	2.0	.39	.2.	.00	.27	.05	22
	30 ISL	14.89	14.88	33.334	24.714	322.9	.106	6.26	108.8							30
1	32	14.30	14.29	33.310	24.821	312.7	.112	6.35	108.9	2.3	.48	1.2	.04	.37	.08	32
1	42	12.48	12.47	33.323	25.198	277.0	.142	6.02	99.4	4.6	.74	5.3	.16	.43	.11	42
	50 ISL	11.89	11.89	33.302	25.292	268.2	.164	5.91	96.4							50
1	53	11.77	11.76	3.3.298	25.313	266.3	.171	5.84	95.0	5.9	.87	7.1	.23	.36	.15	53
1	63	10.93	10.93	33.390	25.535	245.3	.197	5.00	79.9	10.6	1.13	11.8.	.16	.30	.14	63
1	7?	10.74	10.73	33.516	25.668	232.9	.221	4.55	7?.5	13.9	1.32	15.2	.07	.18	.13	73
	75 ISL	10.65	10.64	33.542	25.704	229.6	.226	4.45	70.8							76
1	88	10.14	10.13	33.668	25.891	212.0	.254	3.92	61.7	19.9	1.62	20.3	.02	.10	.06	88
	100 ISL	9.73	9.72 ▪	33.778	26.044	197.6	.279	3.33	51.9							101
1	103	9.65	9.63	33.805	26.080	194.3	.286	3.17	49.4	25.6	1.85	23.5	.00	.06	.06	104
1	123	9.41	9.39	33.923	26.212	18?.2	.324	2.61	40.5	30.1	2.03	25.7	.00	.02	.08	124
	125 ISL	9.39	9.38	33.931	26.221	131.3	.327	2.58	40.0							126
1	149	9.07	9.06	34.018	26.340	170.4	.369	2.30	35.4	34.4	2.19	27.5	.00	.02	.08	150
	150 ISL	9.06	9.04	34.019	26.344	170.1	.370	2.30	35.4							151
1	180	8.53	8.51	34.040	26.444	161.0	.420	2.35	35.8	37.6	2.23	28.5	.01			181
	200 ISL	$.36	8.33	34.087	26.507	155.3	.452	2.05	31.0							202
1	210	8.29	8.26	34.111	26.536	152.7	.467	1.87	28.3	42.7	2.43	30.5	.01			211
1	241	7.91	7.89	34.145	26.619	145.4	.513	1.55	23.3	47.9	2.56	32.3	.01			242
	250 ISL	7.83	7.80	34.154	26.638	143.6	.526	1.47	22.0							252
1	281	7.58	7.55	34.179	26.695	138.7	.570	1.25	18.6	53.3	2.72	34.0	.01			253
	300 ISL	7.43	7.40	34.186	26.722	136.4	.596	1.16	17.2							302
1	342	7.11	'7.08	34.196	26.774	131.8	.652	1.00	14.7	60.0	2.85	35.7	.00			344
	400 ISL	6.67	6.63	34.219	26.854	124.9	.727	.75	10.9							403
1	417	6.55	6.52	34.226	26.875	123.1	.748	.68	9.9	70.4	3.04	37.7	.00			420
1	493	6.34	6.29	34.255	26.927	119.1	.839	.54	7.8	74.4	3.10	38.6	.00			496
	500 ISL	6.30	6.25	34.258	26.934	118.5	.848	.53	7.6							504
1	56?	5.81	5.76	34.279	27.013	111.3	.926	.39	5.6	82.2	3.19	40.1	.00		.	572

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
34 23.3 N	122 15.6 W	21/08/85	2304 GMT	3918 M	350	15 KT	020 08 07	1	1018.0 MB	17.2 C	15.3 C	5/8	CU

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A US/L	PHAEO UG/L	PRESS D.BAR
1	0	17.25	17.25	33.526	24.325	359.1	.000	5.79	105.5	2.0	.41	.3	.00	.25	.04	0
1	10	17.23	17.23	33.523	24.328	359.2	.036	5.81	105.8	1.9	.39	.3	.00	.2?	.04	10
1	20	17.19	17.18	33.521	24.338	358.5	.072	5.83	106.1	1.8	.38	.3	.01	.27	.05	20
1	30	17.13	17.13	33.517	24.347	358.0	.107	5.81	105.6	1.8	.39	.3	.01	.28	.05	30
1	40	16.42	16.41	33.492	24.494	344.2	.142	5.94	106.4	2.0	.40	.4	.01	.33	.07	40
1	50	12.23	12.22	33.533	25.408	257.2	.172	5.80	95.4	6.3	.94	9.0	.31	.55	.19	50
1	59	11.24	11.23	33.654	25.687	230.9	.194	4.69	75.6	13.4	1.37	15.7	.68	.46	.21	59
1	74	10.07	10.06	33.806	26.010	200.4	.226	3.25	51.1	22.9	1.83	23.4	.07	.18	.11	74
	75 ISL	9.99	9.98	33.809	26.026	198.9	.229	3.23	50.8							76
1	90	9.28	9.27	33.820	26.151	187.1	.257	3.07	47.5	26.6	1.93	25.2	.01	.02	.07	90
	100 ISL	9.07	9.06	33.878	26.231	179.8	.276	2.84	43.6							101
1	109	8.98	8.96	33.931	26.287	174.6	.293	2.64	40.6	31.3	2.10	27.3	.01	.01	.08	110
	125 ISL	«.«1	8.80	33.954	26.331	170.8	.320	2.63	40.2							126
1	134	8.71	8.70	33.958	26.350	169.1	.335	2.62	40.0	33.0	2.11	27.8	.00	.01	.06	135
	150 ISL	8.42	8.40	33.998	26.426	162.1	.361	2.52	38.2							151
1	164	8.14	8.12	34.029	26.493	155.9	.384	2.44	36.8	38.3	2.28	29.6	.01	.01	.05	165
1	194	7.7(1	7.68	34.025	26.556	150.4	.429	2.55	38.1	41.3	2.29	30.1	.01			195
	200 ISL	7.60	7.58	34.025	26.570	149.1	.439	2.53	37.7							202
1	225	7.22	7.20	34.026	26.624	144.2	.475	2.46	36.3	46.2	2.38	31.3	.02			226
	250 ISL	6.90	6.88	34.040	26.679	139.2	.511	2.0<?	30.7							252
1	264	6.75	6.72	34.049	26.707	136.6	.531	1.86	27.2	54.8	2.64	34.2	.01			266
1	294	6.51	6.49	34.062	26.749	133.0	.571	1.61	23.4	58.5	2.75	35.6	.01			296
	300 ISL	6.49	6.46	34.070	26.758	132.2	.578	1.54	22.4							302
1	325	6.42	6.39	34.107	26.797	128.8	.611	1.23	17.8	63.0	2.93	37.0	.00			327
1	399	5.89	5.86	34.169	26.914	11*.5	.703	.64	9.2	74.6	3.17	39.6	.00			402
	400 ISL	5.89	5.86	34.170	26.915	118.4	.704	.64	9.1							403
1	475	5.55	5.51	34.211	26.990	111.9	.790	.49	7.0	82.3	3.30	40.4	.00			478
	500 ISL	5.42	5.37	34.228	27.020	109.3	.818	.43	6.1							504
1	550	5.13	5.09	34.266	27.083	103.5	.871	.31	4.4	92.1	3.42	41.5	.00			554

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	MIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
35 01.2 N	120 55.2 W	22/08/85	1204 GMT	246 M	310	12 KT			1018.4 MB	14.8 C	13.5 C		

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0 ISL	14.75	14.75	33.435	24.819	312.2	.000	6.20	107.4							0
1	1	14.75	14.75	33.435	24.819	312.0	.003	6.20	107.4	2.9	.35	1.0	.07	1.03	.19	1
	10 ISL	14.69	14.69	33.446	24.842	310.1	.031	6.25	108.1							10
1	11	14.68	14.68	33.447	24.844	309.9	.034	6.25	108.1	3.0	.36	1.2	.08	1.51	.16	11
	20 ISL	13.60	13.60	33.396	25.031	292.4	' .061	5.97	101.0							20
	30 ISL	12.28	12.28	33.355	25.259	270.9	.089	5.57	91.7							30
1	32	12.03	12.02	33.350	25.304	266.6	.094	5.49	89.8	6.6	.82	6.8	.28	.39	.17	32
1	47	11.54	11.54	33.384	25.420	255.9	.133	5.18	83.9	8.8	1.01	9.8	.36	.37	.26	47
	50 ISL	11.39	11.39	33.427	25.481	250.2	.142	4.99	80.6							50
1	59	11.01	11.00	33.544	25.642	235.1	.163	4.51	72.3	13.5	1.31	15.2	.06	.22	.15	*9
1	74	10.74	10.73	33.602	25.735	226.6	.197	4.35	69.3	15.9	1.46	17.4	.04	.23	.1?	74
	75 ISL	10.72	10.71	33.612	25.746	225.6	.200	4.29	68.3							76
1	89	10.55	10.54	33.712	25.854	215.5	.230	3.59	57.0	19.5	1.63	19.8	.02	.18	.12	£9
	1G0 ISL	10.24	10.23	33.778	25.050	205.8	.254	3.22	50.9							101
1	109	9.9?	9.96	33.822	26.039	198.4	.273	3.02	47.4	24.8	1.86	23.0	.01	.06	.10	110
	2 5 ISL	9.70	9.68	33.874	26.126	190.4	.304	2.81	43.8							126
1	135	9.55	9.53	33.901	26.172	186.3	.323	2.70	42.0	29.2	2.01	25.1	.02	.02	.13	136
	150 ISL	9.33	'0.31	33.941	26.240	180.1	.350	2.45	38.0							151
1	157	9.24	9.22	33.959	26.269	177.4	.363	2.34	36.2	33.7	2.19	26.8	.16	.01	.15	158
1	186	8.09	8.97	34.026	26.360	169.3	.413	2.16	33.2	36.5	2.30	28.0	.10	.01	.13	187
	200 ISL	8.93	8.91	34.042	26.383	167.3	.437	2.08	31.9							202
1	210	8.90	8.88	34.047	26.391	166.7	.453	2.02	31.0	38.0	2.36	2° .0	.08	.01	.18	211

RV NEW HORIZON CALCOFI CRUISE 8508 - STATION 77 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPF
34 53.4 N	121 12.6 W	22/08/85	C81 1 GMT	577 M	330	13	KT		1017.9 MB	15.7 C	14.2 C		

CAST	DEPTH K	TEPP DEC C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0	16.02	16.02	33.266	24.411	350.9	.000	' 5.05	105.6	1.8	.39.	.1	.00	.19	.05	C
1	10	16.03	16.03	33.267	24.408	351.4	.035	5.97	106.0	1.8	.39	.1	.00	.1S	.09	10
1	20	15.75	15.78	33.252	24.453	347.5	.070	6.03	106.5	1.8	.38	.1	.00	.25	.06	20
	30 ISL	13.71	13.71	33.392	25.006	295.1	.102	5.98	101.5							3^
1	31	13.51	13.51	33.411	25.061	289.9	.105	5.98	101.0	3.6	.57	2.2	.13	.53	.26	31
1	41	12.36	12.36	33.569	25.410	256.8	.132	4.99	82.3	9.1	.98	8.8	.42	.21	.17	41
	50 ISL	12.01	12.00	33.590	25.494	248.9	.155	4.74	77.6							50
1	51	11.9o	11.9?	33.592	25.500	248.5	.157	4.73	77.4	10.8	1.09	11.0	.42	.16	.16	51
1	61	11.00	11.0?	33.631	25.695	230.2	.181	4.34	69.7	15.1	1.37	16.3	.13	.09	.13	61
1	72	1D.84	10.83	33.644	25.750	225.1	.206	4.16	66.5	16.7	1.45	17.6	.07	.0?	.12	72
	75 ISL	10.77	10.76	33.651	25.768	223.5	.213	4.09	65.3							76
1	87	10.58	10.57	33.674	25.819	218.9	.239	3.88	61.7	18.5	1.53	18.9	.04	.0*	. 1	87
	100 ISL	1C.50	10.49	33.681	25.840	217.2	.268	3.83	60.7							101
1	101	10.40	10.48	33.6P3	25.843	217.0	.271	3.82	60.6	19.2	1.56	19.3	.03	.06	.09	102
1	121	10.1?	10.17	33.774	25.966	205.6	.313	3.23	51.7	23.3	1.72	21.5	.02	.04	.11	122
	125 ISL	10.15	10.14	33.787	25.982	204.3	.321	3.22	50.7							126
1	147	9.89	9.87	33.S47	26.073	195.9	.365	2.96	46.4	27.1	1.87	23.6	.03	.02	.10	148
	150	ISL9.81	9.79	33.853	26.091	194.3	.371	2.95	46.1							151
1	177	9.06	9.04	33.924	26.270	177.6	.421	2.81	43.2	32.2	2.0C	26.1	.02			178
	200 ISL	8.84	8.82	34.026	26.385	167.1	.461	2.41	36.9							202
1	207	8.79	8.77	34.052	26.412	164.6	.472	2.30	35.2	37.7	2.20	28.3	.02			208
1	237	8.21	8.10	34.052	26.502	156.5	.520	2.37	35.8	41.4	2.24	29.6	.01			233
	250 ISL	8.11	8.0P	34.070	26.531	153.9	.540	2.25	33.8							252
1	276	8.00	7.97	34.115	26.583	149.4	.580	1.88	28.3	46.7	2.43	31.4	.01			278
	300 ISL	7.84	7.31	34.150	26.634	144.9	.615	1.52	22.8							302
1	335	7.5S	7.54	34.191	26.706	138.6	.665	1.06	15.8	57.9	2.77	34.3	.01			337
	400 ISL	7.03	6.99	34.212	26.800	130.3	.752	.82	12.0							403
1	40?	6.96	6.92	34.213	26.810	129.4	.763	.81	11.9	66.0	2.91	36.5	.00			411
1	481	6.46	6.41	34.247	26.905	121.1	.854	.54	7.8	75.9	3.09	37.7	.02			484
	500 ISL	6.30	6.26	34.257	26.033	113.6	.877	.49	7.1							504
1	552	5.84	5.80	34.286	27.014	111.0	.936	.41	5.9	86.1	3.20	39.5	.04			556

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
34 43.6 N	121 33.5 W	22/08/85	0432 GMT	925 M	330	18 KT			1017.1 MB	16.1 C	14.7 C		

CAST	DEPTH M		TEMP DEC C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG-/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	17.10	17.10	33.471	24.318	359.8	.000	5.82	105.7							0
1	1		17.10	17.10	33.471	24.318	359.8	.004	5.82	105.7	2.1	.40	.2	.00	.26	.04	1
	10	ISL	17.08	17.08	33.470	24.322	359.7	.036	5.86	106.3							10
1	11		17.08	17.08	33.470	24.323	359.7	.039	5.86	106.4	2.0	.39	.2	.01	.26	.05	11
	20	ISL	17.08	17.08	33.469	24.323	360.0	.07Z	5.84	105.9							20
1	22		17.08	17.08	33.469	24.323	360.0	.079	5i83	105.8	2.0	.39	.2	.00	.27	.05	22
	30	ISL	14.89	14.88	33.334	24.714	322.9	.106	6.26	108.8							30
1	32		14.30	14.29	33.310	24.821	312.7	.112	6.35	108.9	2.3	.48	1.2	.04	.37	.08	32
1	42		12.48	12.47	33.323	25.198	277.0	.142	6.02	99.4	4.6	.74	5.3 ,	.16	.43	.11	42
	50	ISL	11.89	11.89	33.302	25.292	268.2	.164	5.91	96.4							50
1	53		11.77	11.76	33.298	25.313	266.3	.171	5.84	95.0	5.9	.87	7.1	.23	.36	.15	53
1	63		10.93	10.93	33.390	25.535	245.3	.197	5.00	79.9	10.6	1.13	11.8	.16	.30	.14	63
1	7?		10.74	10.73	33.516	25.668	232.9	.221	4.55	72.5	13.9	1.32	15.2	.07	.18	.13	73
	75	ISL	10.65	10.64	33.542	25.704	229.6	.226	4.45	70.8							76
1	88		10.14	10.13	33.668	25.891	212.0	.254	3.92	61.7	19.9	1.62	20.3	.02	.10	.06	88
	100	ISL	9.73	9.72	33.778	26.044	197.6	.279	3.33	51.9							101
1	103		9.65	9.63	33.805	26.080	194.3	.286	3.17	49.4	25.6	1.85	23.5	.00	.06	.06	104
1	123		9.41	9.39	33.923	26.212	18?.2	.324	2.61	40.5	30.1	2.03	25.7	.00	.02	.08	124
	125	ISL	9.39	9.38	33.931	26.221	131.3	.327	2.58	40.0							126
1	149		9.07	9.D6	34.018	26.340	170.4	.369	2.30	35.4	34.4	2.19	27.5	.00	.02	.08	150
	150	ISL	9.06	9.04	34.019	26.344	170.1	.370	2.30	35.4							151
1	180		8.53	8.51	34.040	26.444	161.0	.420	2.35	35.8	37.6	2.23	28.5	.01			181
	200	ISL	8.36	8.33	34.087	26.507	155.3	.452	2.05	31.0							202
1	210		8.29	8.26	34.111	26.536	152.7	.467	1.87	28.3	42.7	2.43	30.5	.01			211
1	241		7.91	7.89	34.145	26.619	145.4	.513	1.55	23.3	47.9	2.56	32.3	.01			242
	250	ISL	7.83	7.80	34.154	26.638	143.6	.526	1.47	22.0							252
1	281		7,55	7.55	34.179	26.695	138.7	.570	1.25	18.6	53.3	2.72	34.0	.01			283
	300	ISL	7.43	7.40	34.186	26.722	136.4	.596	1.16	17.2							3Q2
1	342		7.11	7.08	34.196	26.774	131.8	.652	1.00	14.7	60.0	2.85	35.7	.00			344
	400	ISL	6.67	6.63	34.219	26.854	124.9	.727	.75	10.9							403
1	417		6.55	6.52	34.226	26.875	123.1	.748	.68	9.9	70.4	3.04	37.7	.00			420
1	493		6.34	6.29.	34.255	26.927	119.1	.839	.54	7.8	74.4	3.10	38.6	.00			4?6
	500	ISL	6.30	6.25	34.258	26.934	118.5	.*48	.53	7.6							504
1	568		5.81	5.76	34.279	27.013	111.3	.926	.39	5.6	82.2	3.19	40.1	.00			572

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 70

LATITUDE	LONGITUDE	DAY/NO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
34 23.3 N	122 15.6 W	21/08/85	2304 GMT	3918 M	350	15 KT	020 08 07	1	1018.0 MB	17.2 C	15.3 C	5/8	CU

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UW/L	NO2 UM/L	CHL-A US/L	PHAF.O UG/L	PRESS D.BAR
1	0	17.25	17.25	33.526	24.325	359.1	.000	5.79	105.5	2.0	.41	.3	.00	.25	.04	0
1	10	17.23	17.23	33.523	24.328	359.2	.§36	5.81	105.8	1.9	.39	.3	.00	.28	.04	10
1	20	17.19	17.18	33.521	24.338	358.5	.072	5.83	106.1	1.8	.38	.3	.01	.27	.05	20
1	30	17.13	17.13	33.517	24.347	358.0	.107	5.81	105.6	1.8	.39	.3	.01	.28	.05	30
1	40	16.42	16.41	33.497	24.494	344.2	.142	5.94	106.4	2.0	.40	.4	.01	.33	.07	40
1	50	12.23	12.22	33.533	25.408	257.2	.172	5.80	95.4	6.3	.94	9.0	.31	.55	.19	50
1	59	11.24	11.23	33.654	25.687	230.9	.194	4.69	75.6	13.4	1.37	15.7	.68	.46	.21	59
1	74	10.07	10.06	33.806	26.010	200.4	.226	3.25	51.1	22.9	1.83	23.4	.07	.18	.11	74
	75 ISL	9.99	9.98	33.809	26.026	198.9	.229	3.23	50.8							76
1	90	9.28	9.27	33.820	26.151	187.1	.257	3.07	47.5	26.6	1.93	25.2	.01	.02	.07	90
	100 ISL	9.07	9.06	33.878	26.231	179.8	.276	2.84	43.6							101
1	109	8.98	8.96	33.931	26.287	174.6	.293	2.64	40.6	31.3	2.10	27.3	.01	.01	.08	110
	125 ISL	8.81	8.80	33.954	26.331	170.8	.320	2.63	40.2							126
1	134	8.71	8.70	33.958	26.350	169.1	.335	2.62	40.0	33.0	2.11	27.8	.00	.01	.06	135
	150 ISL	8.42	8.40	33.998	26.426	162.1	.361	2.52	38.2							151
1	164	8.14	8.12	34.029	26.493	155.9	.384	2.44	36.8	38.3	2.28	29.6	.01	.01	.05	165
1	194	7.70	7.68	34.025	26.556	150.4	.429	2.55	38.1	41.3	2.29	30.1	.01			195
	200 ISL	7.60	7.58	34.025	26.570	149.1	.439	2.53	37.7							202
1	225	7.22	7.20	34.026	26.624	144.2	.475	2.46	36.3	46.2	2.38	31.3	.02			226
	250 ISL	6.90	6.88	34.040	26.679	139.2	.511	2.09	30.7							252
1	264	6.75	6.72	34.049	26.707	136.6	.531	1.86	27.2	54.8	2.64	34.2	.01			266
1	294	6.51	6.49	34.062	26.749	133.0	.571	1.61	23.4	58.5	2.75	35.6	.01			296
	300 ISL	6.49	6.46	34.070	26.758	132.2	.578	1.54	22.4							302
1	325	6.42	6.39	34.107	26.797	178.8	.611	1.23	17.8	63.0	2.93	37.0	.00			327
1	399	5.89	5.86	34.169	26.914	118.5	.703	.64	9.2	74.6	3.17	39.6	.00			402
	400 ISL	5.89	5.86	34.170	26.915	118.4	.704	.64	9.1							403
1	475	5.55	5.51	34.211	26.990	111.9	.790	.49	7.0	82.3	3.30	40.4	.00			478
	500 ISL	5.42	5.37	34,228	27.020	109.3	.818	.43	6.1							504
1	550	5.13	5.09	34.266	27.083	103.5	.871	.31	4.4	92.1	3.42	41.5	.00			554

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 77

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	HEATHER	BAROMETER	DRY	WET	CLCUD AMT	TYPE
34 10.4 N	122 42.5 W	21/08/85	1929 GMT										

CAST	DEPTH M		TEMP DEG C	POT TEMP DEC C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN WL/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	16.65	.16.65	33.430	24.393	352.7	.000	5.86	105.4							0
1	1	A	16.65	16.65	33.430	24.393	352.6	.004	5.86	105.4	1.5	.38	.1	.00	.22	.05	1
	10	ISL	16.61	16.61	33.431	24.402	352.1	.035	5.88	105.8							10
1	13	A	16.60	16.60	33.432	24.405	351.9	.046	5.89	105.9	1.4	.37	.1	.01	.21	.04	13
1	18	A	15.60	15.60	33.568	24.737	320.4	' .062	6.27	110.6	1.4	.38	.4	.03	.35	.11	18
	20	ISL	15.41	15.40	33.564	24.777	315.6	.069	6.23	109.4							20
-1	26	A	14.98	14.97	33.553	24.863	308.6	.08?	6.10	106.2	2.1	.47	1.6	.07	.60	.15	26
	50	ISL	14.32	14.31	33.553	25.005	295.2	.100	5.75	98.8							30
	42	A	12.24	12.24	33.576	25.43*	254.1	.132	4.68	77.0	10.5	1.11	10.7	.91	.67	.29	42
	50	ISL	11.30	11.29	33.553	25.596	239.3	.152	4.60	74.2							50
1	64	A	10.22	10.21	33.517	25.759	224.0	.184	4.47	70.4	16.9	1.47	17.6	.22	.11	.11	64
	75	ISL	9.70	9.70	33.559	25.878	212.9	.209	4.22	65.7							76
1	88		9.35	9.35	33.633	25.993	202.2	.235	3.90	60.3	23.7	1.74	22.4	.02	.02	.13	88
	100	ISL	9.01	9.00	33.715	26.112	191.1	.259	3.65	56.1							101
1	102		8.96	8.95	33.732	26.133	189.1	.264	3.60	55.2	25.9	1.79	23.3	.01	.01	.04	103
1	123		8.83	8.82	33.889	26.278	175.8 .	.302	2.91	44.5	31.0	2.CI	26.5	.00	.01	.03	124
	125	ISL	8.80	8.79	33.899	26.289	174.7	.305	2.88	44.1							126
1	14?		8.44	8.42	33.973	26.404	164.1	.336	2.71	41.1	34.8	2.12	27.9	.00	.00	.05	144
	150	ISL	8.31	8.29	33.986	26.434	161.3	.347	2.71	41.1							151
1	174		7.88	7.86	34.003	26.511	154.3	.385	2.72	40.8	39.4	2.13	28.9	.00	.00	.0?	175
	200	ISL	7.50	7.48	34.003	26.567	148.6	.424	2.53	37.6							202
1	205		7.44	7.42	34.012	26.582	147.9	.431	2.48	36.8	44.8	2.31	31.0	.00	.01	.02	206

A. PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THE FIRST SIX DEPTHS ON THIS CAST.

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CL^UD AMT	TYPE
34 03.2 N	122 56.3 W	21/08/85	1629 CMT	4110 M	350	15 KT	350 06 07	1	1018.4 MB	18.0 C	15.3 C	4/8	CU

CAST	DEPTH M	DEG	TEMP C	POT TEMP DEC C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRFSS D.BAR
0	ISL		16.67	16.67	33.580	24.502	342.3	.000	5.92	106.7							0
1	1		16.67	16.67	33.580	24.502	342.2	.003	5.92	106.7	1.6	.38	.3	.01	.27	.09	1
	10	ISL	16.65	16.65	33.573	24.506	342.1	.034	5.91	106.4							10
1	11		16.65	16.65	33.57?	24.507	342.1	.037	5.91	106.4	1.5	.37	.3	.01	.30	.07	11
	20	ISL	15.78	15.70	33.597	24.737	320.4	.067	6.17	109.1							20
1	23		15.39	15.39	33.606	24.814	313.2	.077	6.24	109.6	2.0	.45	1.4	.07	.57	.07	23
	30	ISL	15.26	15.26	33.610	24.844	310.2	.099	6.13	107.5							30
1	32		15.23	15.22	33.611	24.854	309.7	.105	6.08	106.5	2.2	.49	1.7	.07	.39	.13	32
1	43		13.95	13.95	33.52?»	25.062	290.1	.137	5.68	96.9	4.4	.69	3.8	.19	.34	.10	43
	50	ISL	13.15	13.15	33.506	25.207	276.5	.158	5.48	91.9							50
1	58		12.13	12.12	33.474	25.381	260.0	.179	5.25	86.2	8.7	.99	8.9	.44	.23	.11	58
1	69		10.07	10.06	33.378	25.676	232.0	.205	4.78	75.0	14.9	1.31	15.6	.12	.07	.06	69
	75	ISL	9.90	9.89	33.462	25.769	223.3	.220	4.56	71.3							7*
1	79		9.81	9.80	33.491	25.808	219.6	.228	4.43	69.1	19.1	1.52	18.9	.04	.03	.05	79
1	94		9.85	9.84	33.690	25.957	205.8	.260	3.72	58.2	23.1	1.73	22.2	.01	.04	."5	94
	100	ISL	9.72	9.71	33.735	26.014	200.5	.273	3.50	54.6							101
1	114		9.32	9.30	33.794	26.126	190.1	.301	3.18	49.2	27.9	1.90	25.0	.01	.01	.04	115
	125	ISL	9.07	9.06	33.827	26.191	184.1	.321	3.13	48.2							126
1	135		8.85	8.84	33.854	26.246	179.0	.339	3.09	47.3	30.7	1.94	25.8	.01	.02	.04	136
	150	ISL	8.57	8.55	33.900	26.327	171.6	.365	3.36	51.1							151
1	160		8.40	8.39	33.929	26.375	167.1	.382	3.59	54.4	31.8	1.87	24.9	.01	.01	.05	161
1	191		8.1c	8.08	33.993	26.472	158.4	.432	3.91	58.9	32.8	1.79	24.0	-01			192
	200	ISL	7.96	7.94	33.998	26.496	156.?	.447	3.65	54.9							202
1	222		7.62	7.60	34.004	26.550	151.3	.480	2.90	43.2	41.7	2.15	28.6	.01			223
	250	ISL	7.23	7.21	34.019	26.617	145.3	.522	2.46	36.4							252
1	257		7.14	7.12	34.022	26.632	143.8	.533	2.39	35.2	49.6	2.38	31.3	.00			259
	300	ISL	6.72	6.69	34.038	26.703	137.6	.593	1.95	28.5							302
1	308		6.65	6.63	34.042	26.715	136.5	.604	1.87	27.2	57.6	2.61	34.5	.00			310
1	364		6.29	6.26	34.118	26.823	126.9	.67?	1.08	15.6	67.8	2.92	37.6	.00			366
	400	ISL	6.11	6.07	34.166	26.884	121.5	.722	.78	11.2							403
1	451		5.85	5.81	34.218	26.958	115.0	.782	.54	7.7	80.1	3.20	39.8	.00			454
	500	ISL	5.51	5.47	34.239	27.017	109.7	.837	.44	6.3							504
1	538		5.26	5.21	34.253	27.058	105.9	.878	.40	5.6	90.8	3.33	41.7	.00			542
	600	ISL	5.0?	4.97	34.300	27.124	100.2	.942	.24	3.4							605
1	627		4.95	4.90	34.326	27.152	97.8	.969	.16	2.2		3.'*2	42.6	.00			632

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
33 43.5 N	123 38.3 W	21/08/85	1108 GMT	3730 M	350	13 KT			1018.8 MB	17.0 C	14.8 C		

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO? UK/L	CHL-A UG/L	PHAEO U6/L	PRESS D.BAR
	0 ISL	17.41	17.41	33.088	23.952	394.7	.000									0
1	2	17.41	17.41	33.088	23.952	394.7	.008	6.34U	115.5U	1.4	.33	.1	.00	.09	.01	2
	10 ISL	17.39	17.39	33.087	23.956	394.7	.039									10
1	12	17.39	17.39	33.087	23.956	394.6	.047	6.01U	109.5U	1.3	.31	.1	.00	.10	.00	12
	20 ISL	17.40	17.39	33.093	23.959	394.6	'.079									20
1	23	17.40	17.40	33.095	23.960	394.6	.090	5.88	107.1	1.2	.31	.0	.00	.09	.00	23
	30 ISL	17.55	17.55	33.222	24.021	389.0	.118	5.83	106.6							30
1	S3	17.61	17.61	33.308	24.073	384.3	.129	5.81	106.4	1.3	.32	.0	.00	.06	.01	33
1	44	15.61	15.61	33.253	24.493	344.4	.169	6.25	110.0	1.4	.33	.0	.00	.13	.03	44
	50 ISL	14.34	14.33	33.180	24.713	323.5	.190	6.36	109.0							50
1	59	12.90	12.89	33.123	24.960	300.1	.217	6.51	108.3	1.8	.38	.0	.00	.32	.16	59
1	69	12.56	12.55	33.203	25.090	288.0	.246	6.28	103.8	2.4	.45	.6	.05	.42	.35	69
	75 ISL	12.31	12.30	33.239	25.166	2*0.9	.264	6.06	99.7							76
1	79	12.16	12.15	33.256	25.207	277.0	.275	5.93	97.2	3.6	.60	3.2	.28	.27	.26	79
1	95	11.70	11.68	33.320	25.344	264.4	.318	5.56	90.3	5.8	.81	7.5	.04	.15	.20	95
	100 ISL	11.52	11.51	33.356	25.404	258.8	.332	5.44	88.1							101
1	114	11.06	11.05	33.458	25.566	243.6	.368	5.13	82.3	10.6	1.12	12.9	.01			115
	125 ISL	10.78	10.76	33.509	25.657	235.2	.393	4.89	78.0							126
1	135	10.47	10.46	33.560	25.750	226.5	.417	4.61	73.0	15.3	1.36	16.4	.01	.02	.03	136
	150 ISL	9.85	9.84	33.666	25.938	208.8	.449	4.03	62.9							51
1	160	9.42	9.40	33.743	26.070	196.4	.470	3.64	56.4	24.5	1.74	22.6	.00	.00	.02	161
1	190	8.63	8.61	33.889	26.310	173.9	.525	3.28	50.0	30.3	1.88	25.0	.01			191
	200 ISL	8.50	8.47	33.923	26.357	169.6	.542	3.45	52.4							201
1	220	8.29	8.27	33.968	26.424	163.6	.575	3.86	58.4	30.6	1.77	23.7	.01			221
	250 ISL	7.85	7.83	33.988	26.505	156.2	.623	3.85	57.7							252
1	257	7.74	7.72	33.988	26.521	154.8	.634	3.85	57.5	36.1	1.89	25.9	.01			258
	300 ISL	6.95	6.92	33.994	26.637	144.0	.699	3.04	44.6							302
1	305	6.86	6.83	33.994	26.650	14?.7	.706	2.9?	42.7	48.9	2.25	30.7	.01			307
1	360	6.22	6.19	34.020	26.755	133.2	.781	1.98	28.5	60.6	2.63	35.0	.00			362
	400 ISL	5.81	5.78	34.043	26.824	126.8	.834	1.43	20.4							403
1	447	5.44	5.40	34.078	26.898	120.1	.892	.97	13.7	77.7	3.04	39.3	.00			450
	500 ISL	5.21	5.17	34.142	26.976	113.2	.953	.80	11.3							504
1	533	5.11	5.07	34.184	27.021	109.2	.991	.75	10.5	90.5	3.27	41.9	.00			537
	600 ISL	4.88	4.83	34.247	27.097	102.5	1.061	.43	6.0							605
1	622	4.81	4.76	34.264	27.119	100.6	1.083	.30	4.2		3.40	42.5	.00			626

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
33 23.5 N	124 19.8 W	21/08/85	0535 GMT	4302 M	350	17 KT			1019.2 MB	17.5 C	15.1 C		

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SI6KA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A U6/L	PHAEO UG/L	PRESS D.BAR
	0 ISL	18.62	18.62	33.568	24.024	387.8	.000									0
1	1	18.62	18.62	33.568	24.024	387.8	.004			1.8	.33	.0	.00	.05	.00	1
	10 ISL	18.60	13.60	33.568	24.029	387.7	.039									10
1	11	18.60	18.60	33.568	24.029	387.7	.043			1.7	.33	.0	.00	.05	.00	11
	20 ISL	18.60	18.60	33.568	24.029	388.1	.078									20
1	22	18.60	18.60	33.568	24.028	388.1	.085	5.49	102.7	1.7	.32	.0	.00	.05	.00	22
	30 ISL	18.55	18.55	33.568	24.042	387.1	.116	5.50	102.8							30
1	32	18.53	18.52	33.565	24.045	386.9	.124	5.51	102.9	1.6	.30	.0	.00	.05	.00	32
1	42	18.34	18.33	33.576	24.101	381.9	.162	5.55	103.2	1.5	.31	.0	.01	..07	.01	42
	50 ISL	17.10	17.09	33.499	24.343	359.1	.192	5.96	108.2							50
1	57	15.90	15.89	33.433	24.568	337.7	.216	6.26	111.0	1.8	.33	.0	.00	.10	.01	57
1	68	14.85	14.84	33.374	24.753	320.3	.252	6.05	105.0	1.8	.34	.0	.00	.13	.03	68
	75 ISL	13.93	13.92	33.263	24.862	310.1	.275	6.13	104.4							76
1	78	13.62	13.61	33.226	24.898	306.7	.283	6.17	104.3	1.8	.36	.0	.00	.17	.06	78
1	93	12.98	12.96	33.248	25.044	293.1	.328	5.95	99.2	2.2	.40	.1	.04	.30	.21	93
	100 ISL	12.68	12.67	33.272	25.120	286.0	.349	5.81	96.3							101
1	114	12.10	12.09	33.345	25.287	270.3	.387	5.47	89.6	4.7	.67	4.7	.03	.15	.13	114
	125 ISL	11.48	11.46	33.454	25.489	251.3	.417	5.08	82.2							126
1	133	11.01	10.99	33.539	25.640	237.1	.437	4.78	76.6	10.4	1.03	11.4	.01	.06	.06	134
	150 ISL	10.23	10.21	33.650	25.863	216.1	.475	4.29	67.6							151
1	159	9.86	9.85	33.700	25.963	206.6	.494	4.05	63.4	19.6	1.51	19.3	.00	.01	.02	160
1	190	9.14	9.12	33.848	26.198	184.7	.555	3.41	52.5	26.5	1.79	23.4	.00			191
	200 ISL	8.93	8.91	33.884	26.259	179.1	.573	3.29	50.5							201
1	220	8.56	8.54	33.941	26.361	169.6	.607	3.13	47.6	31.5	1.94	25.8	.00			221
	250 ISL	8.10	8.08	33.999	26.477	159.0	.657	3.01	45.3							252
1	256	8.02	8.00	34.007	26.495	157.3	.666	2.98	44.8	37.6	2.09	27.5	.00			257
	300 ISL	7.41	7.38	34.047	26.615	146.4	.733	2.35	34.9							302
1	306	7.33	7.30	34.050	26.628	145.2	.742	2.26	33.5	47.6	2.40	31.8	.00			308
1	363	6.77	6.73	34.081	26.731	135.9	.822	1.97	28.8	59.1	2.69	35.2	.00			365
	400 ISL	6.38	6.35	34.094	26.793	130.3	.871	1.53	22.2							403
1	449	5.92	5.88	34.119	26.871	123.2	.934	.93	13.3	73.9	3.03	39.1	.00			452
	500 ISL	5.59	5.55	34.174	26.955	115.5	.994	.60	8.5							504
1	534	5.43	5.38	34.215	27.008	110.8	1.033	.46	6.5	86.7	3.27	40.9	.00			538
	600 ISL	5.20	5.15	34.275	27.083	104.3	1.104	.31	4.4							605
1	621	5.16	5.11	34.292	27.102	102.8	1.125	.30	4.2	94.3	3.39	42.1	.00			625

RV Nf.W HORIZON CALCOFI CRUISE 8508 STATION 77 110

LATITUDt	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPFED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD »« 1 TYPE	I
33 03.3 N	125 01.1 W	20/08/85	2352 GMT	4717 M	360	15 KT	330 05 06	2	1019.1 MB	18.0	15.0	C8/8 SC	I

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN KT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UW/L	NO3 U*/L	NO? UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0 ISL	18.42	18.42	33.411	23.953	394.5	.000	5.53	103.0							0
1	1	18.42	18.42	33.411	23.953	394.6	.004	5.53	103.0	1.9	.38	.0	.00	.05	.00	1
	10 ISL	16.41	18.41	33.407	23.953	394.9	.039	5.59	104.0							10
1	11	18.41	18.41	33.407	23.953	394.9	.043	5.59	104.0	1.9	.35	.0	.0c	.05	.00	11
	20 ISL	18.39	18.38	33.408	23.960	394.6	.079	5.57	103.6							20
1	27	18.37	18.36	33.408	23.965	394.3	.106	5.55	103.2	1.9	.34	.0	.00	.06	.00	27
	30 ISL	18.03	18.03	33.405	24.045	3?6.6	.118	5.64	104.2							30
1	43	16.?9	16.28	33.391	24.447	348.8	.166	6.06	108.2	2.0	.34	.0	.00	.12	.01	43
	50 ISL	15.36	15.36	33.326	24.605	334.0	.190	6.21	108.8							50
1	59	14.44	14.44	33.260	24.752	320.1	.219	6.29	108.2	2.0	.37	.0	.00	.16	.04	59
1	69	13.96	13.95	33.273	24.863	309.7	.250	6.23	106.1	2.1	.3?.'	.0	.c0	.21	.10	69
	75 ISL	13.94	13.93	33.323	24.906	305.8	.269	6.12	104.2							76
1	80	13.93	13.91	33.355	24.935	303.3	.284	6.04	102.8	2.4	.37	.0	.00	.22	.14	80
1	96	12.91	12.90	33.259	25.065	291.1	.331	6.02	100.3	2.8	.47	.«	.10	.3?	.26	96
	100 ISL	12.68	12.67	33.260	25.111	286.8	.344	5.94	98.5							101
1	111	12.20	12.1s	33.296	25.232	275.5	.373	5.68	93.2	4.4	.63	4.2	.10	.14	.16	111
	125 ISL	11.64	11.63	33.390	25.409	258.9	.412	5.22	84.8							126
1	126	11.59	11.57	33.401	25.425	257.2	.416	5.18	84.0	7.6	.86	8.7	.01	.03	.10	1?7
	150 ISL	10.31	10.29	33.558	25.777	224.2	.472	4.76	75.2							151
1	151	10.24	10.23	33.567	25.795	222.5	.475	4.74	74.7	13.0	1.13	13.4	.01	.02	.03	152
1	172	9.79	9.77	33.713	25.986	204.7	.520	4.06	63.4	19.8	1.46	18.5	.01	.02	.0?	173
1	192	9.24	9.22	33.821	26.160	188.4	.559	3.52	54.3	26.0	1.74	22.8	.01			193
	200 ISL	9.07	9.05	33.859	26.218	183.0	.574	3.50	53.9							201
1	213	8.82	*.80	33.912	26.298	175.6	.597	3.48	53.3	29.1	1.82	23.8	.01			214
1	244	3.28	8.25	33.979	26.435	162.9	.649	3.21	48.5	34.5	1.97	26.0	.00			245
	250 ISL	8.17	8.14	33.988	26.458	160.8	.659	3.18	47.9							252
1	283	7.63	7.61	34.017	26.560	151.5	.711	2.97	44.3	41.9	2.17		2* .7		.01	285
	300 ISL	7.40	7.38	34.026	26.600	147.8	.736	2.75	40.8							302
1	344	6.8?	6.85	34.045	26.688	139.8	.799	2.10	30.8	53.4	2.50	33.1	.00			546
	400 ISL	6.36	6.33	34.077	26.782	131.4	.875	1.47	21.2							403
1	420	6.20	6.16	34.089	26.813	128.6	.902	1.28	18.5	66.9	2.85	37.2	.00			423
1	497	5.53	5.53	34.134	26.926	118.2	.996	.80	11.4	79.7	3.10	39.6	.00			500
	500 ISL	5.56	5.51	34.137	26.931	117.8	1.000	.78	11.1							504
1	575	5.25	5.20	34.215	27.030	109.0	1.085	.45	6.3	89.3	3.22	41.3	.02			579

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 120

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
32 43.3 M	125 41.6 W	20/08/85	1754 GMT	4425 M	350	15 KT	010 04 05	2	1021.0 MB	18.3 C	15.5 C	8/8	CU

CAST	DEPTH M	TEMP DEG C	FOT TEMP DEG C	SALINITY	SI6MA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS ft.BAR
	0 ISL	18.80	18.80	33.311	23.781	410.9	.000	5.48	102.7							0
1	1	18.80	18.80	33.311	23.781	411.0	.004	5.48	102.7	1.5	.32	.0	.00	.05	.00	1
	10 ISL	18.80	18.80	33.312	23.783	411.1	.041	5.51	103.2							10
1	12	18.80	18.80	33.312	23.784	411.1	.049	5.51	103.3	1.5	.31	.0	.00	.05	.00	12
	20 ISL	18.S8	18.88	33.374	23.810	408.9	.082	5.50	103.3							2c
1	27	18.95	18.95	33.427	23.833	406.9	.110	5.49	103.2	1.5	.31	.0	.00	.06	.00	27
	30 ISL	18.64	18.63	33.424	23.911	399.6	.123	5.56	103.9							30
1	42	16.94	16.94	33.364	24.275	365.3	.168	5.90	106.7	1.6	.31	.0	.00	.07	.01	42
	50 ISL	15.64	15.63	33.270	24.501	343.9	.197	6.14	108.1							50
1	57	14.68	14.67	33.206	24.661	328.8	.220	6.28	108.5	1.7	.34	.0	.00	.09	.01	57
1	68	13.94	13.93	33.203	24.815	314.3	.255	6.26	106.5	1.8	.34	.0	.00	.10	.02	68
	75 ISL	13.58	13.57	33.208	24.890	307.3	.278	6.18	104.4							76
1	79	13.44	13.43	33.210	24.921	304.4	.2R9	6.14	103.4	1.9	.35	.0	.00	.13	.03	79
1	94	13.07	13.05	33.202	24.990	298.2	.334	6.06	101.2	1.9	.38	.0	.00	.16	.06	94
	100 ISL	12.81	12.79	33.178	25.023	295.2	.353	6.03	100.2							101
1	109	12.49	12.47	33.169	25.078	290.1	.378	5.96	98.3	2.4	.44	.3	.11	.26	.12	109
1	124	12.35	12.33	33.334	25.233	275.8	.423	5.58	91.9	4.0	.57	3.3	.06	.15	.10	125
	125 ISL	12.33	12.31	33.338	25.240	275.2	.424	5.56	91.6							126
1	150	11.09	11.08	33.469	25.570	244.1	.490	4.92	78.9	9.5	.95	10.2	.01	.05	.06	151
1	171	10.37	10.35	33.604	25.803	222.2	.539	4.69	74.1	12.9	1.11	13.5	.00	.02	.03	172
1	191	9.67	9.65	33.729	26.019	201.9	.581	3.93	61.2	21.0	1.50	19.3	.00			192
	200 ISL	9.38	9.36	33.785	26.110	193.4	.599	3.69	57.1							201
1	211	9.06	9.04	33.847	26.209	184.0	.619	3.45	53.1	27.3	1.76	23.6	.00			212
1	243	8.47	8.44	33.958	26.390	167.3	.675	3.09	46.9	33.9	1.95	26.5	.00			244
	250 ISL	8.34	8.31	33.972	26.420	164.5	.687	3.02	45.7							252
1	283	7.80	7.77	34.008	26.529	154.5	.741			40.3	2.10	28.4	.00			285
	300 ISL	7.57	7.54	34.022	26.573	150.4	.766	2.53	37.7							302
1	344	7.02	6.99	34.049	26.671	141.5	.830	2.11	31.0	52.9	2.49	33.0	.00			346
	400 ISL	6.43	6.39	34.078	26.774	132.2	.907	1.51	21.8							403
1	421	6.22	6.18	34.088	26.809	128.9	.935	1.29	18.6	66.9	2.83	37.4	.01			424
1	498	5.48	5.44	34.131	26.935	117.3	1.029	.80	11.3	80.7	3.10	40.5	.00			501
	500 ISL	5.47	5.42	34.133	26.939	117.0	1.031	.79	11.2							504
1	574	4.96	4.92	34.202	27.052	106.5	1.114	.46	6.4	93.1	3.29	42.4	.00			578

RV NEW HORIZON CALCOFI CRUISE 8508 STATION SO 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
34 26.8 N	120 31.7 W	18/08/85	2124 GMT	71 M	290	19 KT	260 03 05	1	1017.1 MB	16.8 C	14.9 C	2/8	SC

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0 ISL	14.19	14.19	33.576	25.047	293.5	.000	5.64	96.7							0
1	1	14.19	14.19	33.576	25.047	290.3	.003	5.64	96.7	6.1	.71	4.2	.19	.73	.19	1
	10 ISL	13.08	13.07	33.563	25.266	269.7	.028	5.37	89.9							10
1	11	13.00	13.00	33.563	25.280	26*.4	.031	5.34	89.3	8.1	.88	6.9	.30	.65	.25	11
	20 ISL	12.82	12.82	33.565	25.318	265.0	.055	5.13	85.5							20
1	22	12.78	12.78	33.565	25.326	264.3	.060	5.10	84.9	9.0	.95	7.7	.32	.61	.24	22
	30 ISL	12.56	12.56	33.551	25.359	261.5	.081	5.11	84.7							30
1	33	12.48	12.48	33.547	25.370	260.5	.089	5.12	84.7	9.0	.99	8.4	.45	.68	.31	33
	50 ISL	12.14	12.13	33.567	25.452	253.0	.133	4.86	79.7							50
1	53	12.09	12.09	33.575	25.467	251.7	.140	4.78	78.4	10.9	1.10	10.6	.36	.38	.25	53

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 80 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
34 18.6 N	120 48.5 W	19/08/85	0020 GMT	762 M	310	16 KT	270 04 06	1	1017.0 MB	17.9 C	15.8 C	3/8	SC

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0 ISL	15.33	15.33	33.458	24.713	323.8	.000	6.30	110.4							0
1	1	15.33	15.33	33.458	24.713	322.2	.003	6.30	110.4	2.0	.35	.4	.03	1.31	.00	1
	10 ISL	14.63	14.63	33.525	24.916	303.1	.031	6.41	110.8							10
i	11	14.51	14.51	33.525	24.942	300.6	.034	6.42	110.7	3.0	.40	1.1	.09	2.30	.05	11
	20 ISL	12.79	12.79	33.472	25.252	271.3	.060	5.47	91.1							20
1	22	12.46	12.46	33.463	25.309	266.0	.065	5.26	86.9	7.5	.87	6.7	.36	.44	.39	22
	30 ISL	12.34	12.33	33.491	25.355	261.2	.087	5.11	84.3							30
1	32	12.31	12.31	33.498	25.365	260.8	.091	5.10	84.0	8.8	.98	8.3	.42	.33	.20	32
1	42	11.81	11.81	33.566	25.512	247.1	.117	4.58	74.7	12.1	1.17	12.0	.48	.22	.21	42
	50 ISL	11.61	11.61	33.611	25.584	240.4	.137	4.27	69.3							50
1	53	11.56	11.55	33.624	25.604	238.6	.143	4.18	67.8	14.5	1.32	14.4	.34	.17	.22	53
1	63	11.23	11.22	33.659	25.693	230.4	.167	3.91	63.0	16.8	1.44	16.4	.12	.13	.19	63
1	73	10.68	10.67	33.707	25.827	217.8	.189	3.60	57.4	20.0	1.59	16.9	.04	.10	.16	73
	75 ISL	10.60	10.59	33.722	25.853	215.4	.194	3.53	56.1							76
1	89	10.22	10.21	33.780	25.965	205.1	.222	3.25	51.3	23.6	1.77	21.6	.02	.06	.13	89
	100 ISL	9.75	9.74	33.759	26.027	197.3	.246	3.32	51.8							101
1	103	9.61	9.60	33.751	26.043	197.8	.252	3.35	52.1	24.2	1.75	22.0	.03	.04	.09	104
1	124	9.15	9.14	33.815	26.168	186.2	.293	3.21	49.5	28.3	1.89	24.4	.01	.02	.07	125
	125 ISL	9.14	9.13	33.818	26.173	185.8	.294	3.21	49.4							126
1	149	8.74	8.73	33.902	26.301	174.0	.337	3.10	47.4	31.9	1.98	25.7	.01	.01	.08	150
	150 ISL	8.73	8.71	33.904	26.305	173.6	.339	3.10	47.3							151
1	180	8.22	8.20	33.967	26.433	162.0	.389	3.02	45.6	35.7	2.05	27.1	.00			181
	200 ISL	8.06	8.04	34.011	26.492	156.6	.421	2.93	44.1							202
1	210	8.01	7.99	34.029	26.514	154.7	.436	2.87	43.2	38.4	2.12	28.0	.00			211
1	241	7.87	7.84	34.052	26.553	151.5	.483	2.56	38.4	42.5	2.27	29.4	.00			242
	250 ISL	7.78	7.75	34.054	26.568	150.3	.497	2.47	36.9							252
1	281	7.44	7.41	34.057	26.618	145.8	.544	2.17	32.2	48.3	2.42	31.6	.00			283
	300 ISL	7.27	7.24	34.065	26.649	14T.1	.571	1.99	29.4							302
1	342	6.95	6.92	34.097	26.719	136.9	.629	1.57	23.0	57.1	2.68	34.2	.01			344
	400 ISL	6.69	6.66	34.185	26.823	127.8	.706	.94	13.7							403
1	417	6.63	6.60	34.210	26.851	125.3	.728	.78	11.4	68.0	2.99	37.2	.00			420
1	495	6.28	6.24	34.265	26.942	117.6	.822	.51	7.4	75.7	3.15	38.6	.00			498
	500 ISL	6.25	6.20	34.268	26.949	117.0	.828	.49	7.1							504
1	571	5.69	5.64	34.295	27.041	108.6	.908	.32	4.6	85.7	3.26	40.4	.00			575

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 80 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AHT	TYPE
34 09.0 N	121 09.3 W	19/08/85	0416 GMT	2312 M	310	16 KT			1016.1 MB	17.3 C	15.9 C		

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0	17.30	17.30	33.406	24.221	369.0	.000	5.76	104.9	2.1	.41	.2	.00	.22	.02	0
1	10	17.28	17.28	33.404	24.225	368.9	.037	5.83	106.2	1.9	.40	.1	.00	.23	.02	10
1	20	16.21	16.21	33.307	24.399	352.6	.073	6.11	108.9	1.8	.39	.1	.00	.23	.03	20
1	30	14.55	14.55	33.194	24.678	326.3	.107	6.41	110.4	1.8	.41	.1	.00	.34	.09	30
1	40	13.19	13.18	33.169	24.940	301.6	.138	6.57	110.0	2.1	.44	.1	.00	.39	.13	40
	50 ISL	11.96	11.95	33.022	25.063	290.0	.168	6.28	102.4							50
1	51	11.89	11.88	33.013	25.069	289.4	.170	6.25	101.7	2.8	.54	1.0	.09	.50	.17	51
1	61	11.65	11.64	33.098	25.180	279.2	.198	5.99	97.1	3.9	.67	3.2	.23	.35	.16	61
1	71	11.38	11.37	33.232	25.333	264.8	.225	5.56	89.7	6.3	.89	7.5	.14	.22	.14	71
	75 ISL	11.15	11.14	33.264	25.399	258.6	.237	5.43	87.2							76
1	86	10.56	10.55	33.332	25.556	243.8	.263	5.13	81.3	11.9	1.23	13.4	.07	.11	.07	86
	100 ISL	10.09	10.08	33.473	25.747	225.8	.297	4.50	70.7							101
1	102	10.06	10.04	33.490	25.766	224.1	.301	4.43	69.5	17.1	1.51	17.9	.01	.05	.05	102
1	121	9.91	9.89	33.702	25.957	206.4	.343	3.70	57.9	22.0	1.75	21.8	.01	.03	.05	122
	125 ISL	9.81	9.79	33.719	25.987	203.7	.351	3.68	57.6							126
1	147	9.13	9.11	33.778	26.144	189.0	.394	3.59	55.3	25.6	1.80	23,0	.02	.01	.04	148
	150 ISL	9.07	9.06	33.789	26.161	187.4	.400	3.57	54.9							151
1	177	8.61	8.59	33.893	26.315	173.1	.448	3.40	51.8	30.7	1.97	25.4	.01			178
	200 ISL	8.24	8.22	33.952	26.418	163.7	.487	3.30	49.9							202
1	208	8.12	8.10	33.967	26.448	160.9	.500	3.26	49.1	34.6	2.04	26.6	.00			209
1	239	7.66	7.63	34.006	26.547	152.0	.548	2.89	43.1	41.3	2.23	29.0	.01			240
	250 ISL	7.51	7.48	34.013	26.574	149.4	.565	2.71	40.3							252
1	279	7.18	7.16	34.027	26.631	144.4	.608	2.28	33.6	48.9	2.47	32.1	.01			281
	300 ISL	7.06	7.03	34.038	26.657	142.2	.638	2.12	31.2							302
1	341	6.87	6.84	34.059	26.700	138.6	.695	1.88	27.5	55.1	2.67	34.3	.01			343
	400 ISL	6.36	6.33	34.092	26.793	130.3	.775	1.33	19.3							403
1	415	6.23	6.19	34.101	26.818	128.0	.794	1.19	17.2	66.7	2.98	37.7	.01			418
1	491	5.79	5.75	34.162	26.922	118.8	.887	.74	10.6	76.9	3.19	39.6	.00			494
	500 ISL	5.74	5.70	34.172	26.936	117.6	.898	.70	10.0							504
1	563	5.45	5.41	34.253	27.036	108.7	.970	.56	7.9	86.0	3.36	40.9	.00			567

RV NFw HORIZON CALCOFI CRUISE 8508 STATION 80 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
33 48.9 N	1?1 50.8 W	19/08/85	095C GMT	3879 M	320	15 KT			1016.6 MB	17.4 C	16.1 C		

C	a	ST	DEPTH m	TEMP DEG C	POT TEMP DEC C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXV PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-.A UG/L	PHAEO UG/L	PRESS D.BAR
		P	ISL	17.21	17.21	33.515	24.326	359.0	.000	5.82	105.9							0
I		1		17.21	17.21	33.515	24.326	359.0	.00*	5.82	105.9	1.5	.40	.3	.01	.22	.05	1
		IO	ISL	17.22	17.22	33.514	24.323	359.6	.036	5.88	107.1							10
1		11		17.22	17.22	33.514	24.322	359.7	.039	5.89	107.2	1.6	.39	.3	.01	.22	.04	11
		20	ISL	16.89	16.88	33.486	24.381	354.4	.072	5.96	107.7							20
1		22		16.77	16.76	33.475	24.401	352.6	.078	5.98	107.9	1.5	.37	.1	.00	.20	.06	22
		30	ISL	16.11	16.11	33.404	24.496	343.8	.107	6.18	110.0							30
1		32		15.85	15.85	33.373	24.531	340.4	.113	6.24	110.5	1.8	.38	.1	.00	.32	.10	32
1		43		12.75	12.74	33.056	24.938	301.8	.148	6.61	109.6	2.2	.45	.3	.01	.60	.1?	43
		50	ISL	11.59	11.59	33.037	25.141	286.1	.169	6.47	104.7							50
1		58		11.01	11.01	33.016	25.230	274.2	.191	6.12	97.8	4.6	.72	4.7	.19	.52	.20	58
1		69		11.17	11.16	33.246	25.382	260.0	.220	5.52	88.6	8.1	1.00	9.2	.29	.31	.20	69
		75	ISL	11.39	11.33	33.431	25.486	250.4	.236	5.30	85.6							76
1		79		11.47	11.46	33.528	25.547	244.6	.245	5.1?	83.8	11.3	1.24	12.8	.44	.22	.19	79
1		95		10.5?	10.51	33.620	25.788	222.0	.282	4.23	67.9	17.7	1.54	19.0	.03	.11	.0?	95
		100	ISL	10.24	10.22	. 33.659	25.867	214.5	.294	3.96	62.5							101
1		114		9.60	9.59	33.752	26.046	197.8	.324	3.33	51.8	25.1	1.85	23.S	.01	.04	.07	115
		125	ISL	9.29	9.27	33.782	.26.121	190.7	.345	3.33	51.5							126
1		135		9.05	9.03	33.804	26.177	1»5.7	.364	3.33	51.2	27.5	1.87	24.5	.01	.01	.04	136
		150	ISL	8.78	8.76	33.858	26.261	177.8	.391	3.65	55.8							151
1		161		8.61	8.60	33.900	26.320	172.4	.410	3.91	59.6	27.9	1.74	23.1	.00	.01	.03	162
1		192		8.18	8.16	33.985	26.453	160.2	.461	4.02	60.7	31.1	1.76	23.4	.01			193
		200	ISL	8.08	8.06	33.986	26.470	158.4	.474	4.00	60.3							201
1		223		7.79	7.77	33.989	26.514	154.8	.510	3.86	57.7	35.1	1.86	24.6	.01			224
		250	ISL	7.42	7.39	33.984	26.564	150.4	.551	3.47	51.5							252
1		258		7.30	7.27	33.983	26.580	148.9	.564	3.32	49.1	42.4	2.09	27.9	.01			260
		300	ISL	6.75	6.73	34.000	26.669	1.40.9	.624	2.48	36.2							302
1		309		6.64	6.62	34.007	26.689	139.0	.637	2.29	33.4	54.6	2.48	73.2	.01			311
1		366		6.09	6.05	34.057	26.801	128.8	.713	1.42	20.4	66.3	2.84	37.4	.CO			368
		400	ISL	5.87	5.84	34.103	26.865	123.1	.756	1.05	15.1							403
1		452		5.64	5.60	34.17?	26.948	115.6	.818	.67	9.5	80.1	3.14	40.2	.00			455
		500	ISL	5.43	5.39	34.214	27.007	110.6	.872	.46	6.5							504
1		537		5.29	5.25	34.242	27.045	107.2	.913	.37	5.2	90.0	3.31	41.8	.00			541
		600	ISL	5.06	5.01	34.296	27.116	101.0	.978	.30	4.2							605
1		623		4.98	4.93	34.317	27.142	98.7	1.002	.27	3.8		3.38	42.0	.00			628

PV MEW HORIZON CALCOFI CRUISE 8508 STATION SO 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD ANT	TYPE
33 28.8 N	122 32.1 U	19/08/35	1523 GMT	4110 M	310	16 KT	350 03 04	1	1020.1 MB	17.9 C	16.2 C	5/8	CU

CAST	DEPTH M	TENP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0	17.22	17.22	33.098	24.003	389.7	.000	5.70	103.5	1.5	.36	.1	.00	.11	.03	0
1	ID	17.20	17.20	33.099	24.009	389.5	.039	5.73	104.0	1.5	.36	.1	.00	.12	.02	10
	20 ISL	17.04	17.04	33.097	24.046	386.3	.078	5.71	103.4							20
1	22	17.00	16.99	33.097	24.057	385.3	.085	5.71	103.2	1.4	.35	.1	.00	.14	.02	22
	30 ISL	16.76	16.75	33.104	24.118	379.8	.116	5.80	104.5							30
1	33	16.66	16.65	33.109	24.145	377.3	.127	5.85	105.1	1.4	.35	.1	.00	.15	.03	33
1	44	16.23	16.22	33.152	24.277	365.1	.168	6.01	107.1	1.5	.37	.1	.00	.21	.05	44
	50 ISL	14.17	14.16	33.055	24.652	329.3	.189	6.35	108.4							50
1	54	12.84	12.83	33.004	24.881	307.5	.201	6.54	108.6	1.8	.41	.1	.00	.38	.11	54
1	64	11.72	11.71	32.872	24.991	297.2	.231	6.54	106.0	2.2	.44	.1	.00	.46	.20	64
1	74	11.43	11.42	32.852	25.029	293.8	.261	6.49	104.5	2.2	.45	.1	.00	.51	.24	74
	75 ISL	11.38	11.37	32.852	25.038	293.2	.264	6.47	104.0							76
1	91	10.86	10.85	32.853	25.132	284.3	.310	6.07	96.5	3.1	.59	2.3	.22	.25	.25	91
	100 ISL	10.73	10.72	32.928	25.212	276.9	.336	5.83	92.6							101
	107	10.65	10.63	33.014	25.294	269.2	.354	5.62	89.1	6.1	.86	7.4	.04	.14	.09	107
1	125	10.00	9.98	33.442	25.739	227.2	.401	4.53	71.0	16.3	1.42	17.4	.02	.05	.04	126
	150 ISL	9.73	9.72	33.728	26.007	202.2	.453	3.42	53.4							151
1	152	9.71	9.70	33.744	26.022	200.8	.458	3.35	52.2	24.6	1.83	23.6	.01	.04	.07	153
1	183	8.75	8.73	33.878	26.282	176.4	.516	3.14	48.0	30.1	1.94	25.6	.01			184
	200 ISL	8.42	8.39	33.941	26.384	167.1	.545	3.61	54.8							201
1	214	8.19	8.17	33.978	26.446	161.3	.568	3.98	60.1	31.1	1.76	23.6	.01			215
1	245	7.67	7.65	33.991	26.533	153.3	.616	3.61	53.8	37.4	1.93	25.9	.01			246
	250 ISL	7.58	7.55	33.991	26.547	152.1	.624	3.53	52.6							252
1	284	7.02	6.99	33.989	26.624	145.0	.676	3.02	44.4	46.6	2.19	29.8	.01			286
	300 ISL	6.82	6.79	33.991	26.652	142.5	.698	2.79	40.9							302
1	345	6.37	6.34	34.008	26.726	135.8	.761	2.15	31.1	58.9	2.56	34.5	. 0 0 3 4 7			
	400 ISL	5.98	5.95	34.073	26.827	126.8	.833	1.31	18.8							403
1	421	5.86	5.82	34.101	26.865	123.4	.860	1.03	14.7	74.2	2.98	39.2	.00			424
1	497	5.34	5.30	34.161	26.975	113.3	.949	.61	8.6	86.5	3.19	41.4	.00			500
	500 ISL	5.32	5.28	34.164	26.980	112.9	.952	.60	8.4							504
1	574	4.96	4.91	34.244	27.086	103.3	1.032	.34	4.8		3.33	42.4	.00			578

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 80 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	MET	CLOUD AMI	TYPE
33 09.1 N	123 13.7 W	19/08/85	2056 GMT	4302 M	320	13 KT	340 03 06	1	1019.8 MB	19.5 C	16.8 C	3/8	CU

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UK/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0	18.60	18.60	33.429	23.923	397.4	.000	5.52	103.1	1.7	.35	.0	.00	.05	.00	0
1	10	18.57	18.56	33.427	23.930	397.1	.040	5.53	103.2	1.7	.35	.0	.00	.05	.00	10
1	20	18.38	18.38	33.422	23.972	393.4	.079	5.53	102.9	1.7	.35	.0	.00	.06	.00	20
1	30	18.24	18.23	33.407	23.997	391.4	.118	5.56	103.1	1.7	.34	.0	.00	.06	.01	30
1	40	18.14	18.13	33.421	24.032	388.4	.157	5.57	103.1	1.7	.34	.0	.00	.06	.01	40
1	50	16.06	16.05	33.330	24.454	348.4	.194	6.16	109.5	1.9	.34	.0	.00	.10	.02	50
1	60	14.78	14.77	33.235	24.662	328.7	.227	6.02.	104.2	1.7	.35	.0	.00	.12	.02	60
1	70	14.37	14.36	33.308	24.805	315.4	.259	6.20	106.5	1.9	.35	.0	.00	.15	.05	70
	75 ISL	14.03	14.02	33.309	24.877	308.1	.276	6.17	105.3							76
1	85	13.41	13.40	33.312	25.006	296.5	.305	6.03	101.5	2.1	.38	.0	.00	.24	.18	85
1	100	12.90	12.89	33.320	25.115	286.5	.349	5.82	97.0	2.7	.46	1.0	.14	.28	.18	100
1	119	12.??	1?.20	33.41c	25.317	267.7	.404	5.38	88.4	5.3	.73	6.1	.03	.1?	.16	120
	125 ISL	12.05	12.03	33.436	25.360	262.9	.418	5.26	S6.1							1?6
1	143	11.45	11.43	33.518	25.544	246.4	.465	4.85	78.4	9.7	1.01	11.1	.01	.07	.09	144
	150 ISL	11.16	11.14	33.544	25.618	239.6	.481	4.70	75.5							151
1	173	10.12	10.10	33.645	25.878	215.1	.534	4.14	65.1	17.5	1.42	17.7	.00			174
	200 ISL	9.20	9.18	33.815	26.163	188.3	.588	3.43	52.9							201
1	203	9.12	9.09	33.833	26.190	185.8	.594	3.36	51.7	27.2	1.84	24.0	.00			204
1	233	8.66	8.64	33.932	26.339	172.0	.647	3.08	47.0	31.9	2.00	26.2	.00			234
	250 ISL	8.38	8.36	33.980	26.419	164.6	.676	2.86	43.4							?52
1	273	8.03	8.00	34.028	26.510	156.2	.712	2.57	38.7	39.8	2.25	29.2	.00			274
	300 ISL	7.6^	7.65	34.054	26.582	149.7	.754	2.28	34.0							302
1	332	7.34	7.31	34.069	26.643	144.2	.801	1.96	29.0	49.9	2.55	32.9	.00			334
	400 ISL	6.77	6.74	34.139	26.776	132.3	.895	1.19	17.3							403
1	407	6.73	6.69	34.145	26.788	131.2	.904	1.12	16.4	62.7	2.91	36.8	.00			409
1	483	6.21	6.17	34.195	26.896	121.7	1.000	.79	11.4	72.7	3.13	38.9	.00			486
	500 ISL	6.09	6.05	34.206	26.919	119.5	1.021	.72	10.3							504
1	556	5.70	5.65	34.241	26.996	112.6	1.086	.48	6.8	82.1	3.29	40.8	.00			560

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 80 1 CO

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
32 49.2 N	123 54.8 W	20/08/85	0216 GMT	4345 M	320	10 <T	340 03 06	1	1016.2 MB	19.3 C	16.5 C	5/8	CU

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALIMITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 U»/L	NO2 UM/L	CHL-A US/L	PHAFO UG/L	PRESS D.BAR
1	0	19.02	19.02	33.456	23.837	405.6	.000	5.46	102.8	2.0	.36	.0	.01	.05	.00	0
1	10	18.99	18.99	33.457	23.846	405.1	.040	5.48	103.2	1.8	.35	.0	.00	.06	.00	10
	20 ISL	1*.fc2	13.82	33.475	23.902	400.1	.081	5.50	103.2							20
1	26	18.7?	18.72	33.485	23.935	397.2	.104	5.51	103.2	1.8	.34	.0	.00	.06	.00	26
	30 ISL	17.97	17.97	33.454	24.097	381.8	.120	5.69	105.1							30
1	41	15.36	15.86	33.402	24.552	338.8	.159	6.15	108.9	2.1	.33	.0	.00	.10	.01	41
	50 ISL	15.24	15.23	33.427	24.709	324.0	.190	6.09	106.5							50
1	5*	14.93	14.o?	33.441	24.788	316.8	.215	6.03	104.8	2.3	.35	.0	.00	.14	.05	58
1	67	14.23	14.22	33.413	24.916	304.7	.242	5.97	102.3	2.5	.36	.0	.00	.18	.14	67
	75 ISL	13.65	13.64	33.361	24.996	297.2	.267	6.03	102.1							76
1	77	13.54	13.53	33.352	25.011	295.8	.272	6.04	102.0	2.7	.42	.6	.03	.31	.28	77
1	93	12.72	12.71	33.360	25.181	280.0	.318	5.72	95.0	3.6	.56	2.8	.23	.18	.20	93
	100, ISL	12.28	12.27	33.373	25.275	271.2	.339	5.61	92.3							101
1	10?	11.86	11.85	33.396	25.372	262.0	.359	5.47	89.2	6.3	.76	6.6	.02	.10	.13	108
1	123	11.29	11.27	33.493	25.553	245.1	.399	4.94	79.6	9.3	.93	9.9	.01	.07	.11	124
	125 ISL	11.21	11.20	33.503	25.576	243.0	.403	4.88	78.5							126
1	143	10.04	10.02	33.658	25.901	212.4	.456	4.08	64.1	18.2	1.41	17.9	.00	.02	.02	149
	150 ISL	9.9«	9.96	33.667	25.917	210.8	.459	4.04	63.4							151
1	169	9.43	9.41	^3.756	26.079	195.8	.498	3.70	57.3	23.3	1.62	21.3	.00	.01	.02	170
1	190	8.95	8.93	33.844	26.225	182.1	.538	3.41	52.3	27.7	1.79	23.7	.01			191
	200 ISL	8.71	8.69	33.891	26.298	175.3	.556	3.32	50.6							201
1	211	8.48	8.46	33.937	26.370	16?.6	.574	3.24	49.2	31.9	1.90	25.1	.01			212
1	242	2.11	8.09	33.982	26.462	160.3	.625	3.10	46.7	35.8	2.00	26.8	.01			243
	250 ISL	8.00	7.97	33.993	26.487	157.9	.638	3.01	45.2							252
1	281	7.57	7.55	34.031	26.579	149.6	.687	2.58	38.4	44.2	2.22	29.8	.00			283
	300 ISL	7.33	7.30	34.044	26.624	145.5	.714	2.34	34.6							302
1	343	6.82	6.79	34.069	26.714	137.3	.775	1.80	26.3	56.7	2.57	34.0	.00			345
	400 ISL	6.35	6.31	34.123	26.820	127.7	.850	1.12	16.3							403
1	420	6.22	6.18	34.146	26.854	124.7	.876	.92	13.3	70.0	2.91	37.7	.05U			423
1	495	5.94	5.90	34.236	26.962	115.3	.965	.49	7.0	79.0	3.12	39.4	.00			498
	500 ISL	5.9?	5.87	34.242	26.969	114.7	.971	.47	6.7							504
1	571	5.49	5.44	34.289	27.060	106.5	1.050	.33	4.7		3.23	40.3	.00			575

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 80 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMFTER	DRY	WET	CLOUD AMT	TYPF
52 29.0 N	1 24 35.6 W	20/08/85	0736 GMT	4330 M	320	tO KT			1019.1 MB	13.5 C	15.8 C		

CAST	DEPTH M	TEMP DEC C	POT TEMP DEC C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	STO3 UM/L	PO4 UM/L	NO3 UN/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0 ISL	19.00	19.00	33.550	23.915	398.2	.000	5.45	102.7							0
1	1	19.00	19.00	33.550	23.915	398.2	.004	5.45	102.7	1.7	.36	.1	.00	.08	.00	1
	10 ISL	18.98	18.98	33.545	23.91?	39?.2	.040	5.51	103.7							10
1	11	18.98	16.98	33.548	23.918	39».2	.044	5.51	103.8	1.7	.36	.0	.00	.07	.00	11
	20 ISL	18.88	18.87	33.543	23.941	396.4	.080	5.51	103.5							20
1	22 '	18.85	18.85	37.54?	23.947	3<?5.9	.087	5.51	103.5	1.7	.34	.0	.00	.07	.01	22
	30 ISL	18.76	18.75	33.539	23.96A	394.2	.119	5.53	103.6							30
1	32	18.72	IS.71	33.537	23.976	393.5	.127	5.53	103.6	1.7	.34	.0	.00	.09	.01	32
1	42	18.29	18.29	33.517	24.067	3R5.1	.165	5.63	104.6	1.6	.34	.0	.00	.15	.04	42
	50 ISL	14.97	14.97	33.402	24.749	320.3	.194	6.51	113.2							50
1	52	14.22	14.21	33.393	24.902	305.6	.200	6.68	114.4	2.5	.39	.?	.01	.69	.24	52
1	62	13.56	13.55	33.387	2.5.031	?«3.6	.230	6.24	105.4	3.2	.50	1.9	.09	.65	.38	62
1	73	12.g*	12.27	33.413	25.190	278.7	.261	5.84	97.3	4.6	.6?	4.3	.23	.32	.38	73
	75 ISL	12.72	12.71	33.423	25.223	275.0	.267	5.74	95.4							76
1	88	11.92	11.91	33.492	25.436	255.5	.301	5.21	85.1	7.8	.97	9.8	.04	.12	. 18	88
	100 ISL	11.35	11.34	33.555	25.590	241.1	.331	'4.81	77.6							101
1	104	11.21	11.20	33.571	25.627	237.6	.340	4.71	75.8	11.8	1.1Q	13.6	.02	.07	.09	1C4
1	123	10.59	10.55?	33.640	25.792	222.3	.386	4.28	68.0	15.8	1.41	17.1	.01	.05	.05	124
	125 ISL	10.55	10.53	33.645	25.803	221.2	.389	4.24	67.4							126
1	149	9.86	9.84	33.737	25.993	203.6	.441	3.68	57.6	21.8	1.66	20.9	.01	.01	.02	150
	150 ISL	9.83	9.82	33.740	26.000	203.0	.442	3.66	57.3							151
1	181	8.89	8.87	33.892	26.271	177.5	.501	3.09	47.4	29.8	1.92	2.2	.00			182
	200 ISL	8.62	S.60	33.952	26.361	169.3	.534	2.84	43.2							201
1	212	8.50	P.48	33.978	26.400	165.8	.554	2.74	41.6	34.9	2.10	27.2	.00			217
1	243	8.03	8.01	34.00F	26.494	157.2	.604	2.S5	42.9	38.0	2.12	27.8	.01			244
	25C ISL	7.95	7.93	34.015	26.511	155.6	.615	2.80	42.0							252
1	284	7.59	7.56	34.043	26.587	14-3.9	.668	2.40	35.7	44.7	2.33	30.5	.00			236
	300 ISL	7.36	7.33	34.051	26.625	145.4	.691	2^20	32.6							302
1	346	6.72	6.69	34.070	26.729	135.8	.755	1.64	23.9	57.4	2.65	34.7	.00			348
	400 ISL	6.25	6.21	34.103	26.817	128.0	.826	1.15	16.6							403
1	422	6.09	6.05	34.116	26.848	125.2	.855	.99	14.2	69.2	2.93	37.5	.00			425
1	49!-;	5.45	5.41	34.160	26.961	114.8	.945	.61	8.6	81.7	3.14	40.5	.00			501
	500 ISL	5.44	5.40	34.161	26.964	114.5	.948	.60	8.5							504
1	571	5.04	5.00	34.214	27.052	106.5	1.026	.41	5.8		3.25	41.4	.00			575

RV NFiW HORIZON CALCOFI CRUISE 8508 STATION 30 120

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETFR	DRY	WET	CLCUD AMT	TYPF
32 08.8 N	125 16.2 W	20/08/85	1242 6MT	3918 M	350	10 KT			1019.1 KB	18.1 C	16.0 C		

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0 ISL	19.00	19.00	33.750	23.761	412.9	.000	5.45	102.5							0
1	1	19.00	19.00	33.350	23.761	412.9	.004	5.45	102.5	1.8	.36	.1	.00	.05	.00	1
	10 ISL	18.99	18.99	33.352	23.765	412.8	.041	5.49	103.2							10
1	11	18.99	18.99	33.352	23.766	412.8	.045	5.49	103.3	1.7	.34	.1	.00	.05	.00	11
	20 ISL	18.98	18.98	33.412	23.814	40".5	.082	5.49	103.2							20
1	27	18.98	18.97	33.478	23.866	403.8	.110	5.48	103.1	1.8	.33	.1	.cO	.05	.cO	27
	30 ISL	18.92	18.92	33.492	23.891	403.1	.123	5.49	103.2							30
1	41	18.73	18.72	33.541	23.977	393.7	.166	5.53	103.6	2.0	.31	.1	.00	.06	.00	41
	50 ISL	17.13	17.12	33.434	24.286	364.5	.201	5.86	106.4							50
1	57	15.83	15.82	33.356	24.524	341.9	.225	6.11	108.1	2.0	.34	.1	.00	.08	.02	57
1	67	14.97	14.96	33.314	24.681	327.2	.258	6.21	108.0	2.0	.34	.1	.00	.10	.02	67
	75 ISL	14.59	14.58	33.331	24.777	318.2	.285	6.16	106.4							76
1	78	14.50	14.48	33.340	24.804	315.7	.293	6.15	105.9	2.1	.34	.1	.00	.13	.05	73
1	94	13.89	13.87	33.351	24.940	303.1	.343	5.89	100.2	2.6	.40	.?.	.00	.23	.18	94
	100 ISL	13.56	13.54	33.384	25.033	294.4	.36Z	5.72	96.6							101
1	110	13.14	13.13	33.474	25.186	280.0	.389	5.45	91.3	4.7	.56	3.1	.21	.18	.18	110
1	123	13.02	13.01	33.706	25.390	261.1	.427	5.17	86.6	5.7	.65	5.6	.04	.11	.14	124
	125 ISL	12.91	12.89	33.702	25.410	259.2	.431	5.12	85.5							126
1	149	10.78	10.76	33.545	25.686	233.0	.491	4.32	68.9	13.4	1.18	14.7	.01	.07	.10	150
	150 ISL	10.75	10.73	33.546	25.692	232.4	.492	4.31	68.7							151
1	170	10.05	10.03	33.642	25.887	214.1	.537	4.05	63.6	18.1	1.42	17.4	.01	.03	.05	171
1	190	9.43	9.41	33.759	26.081	195.9	.578	3.68	57.0	23.6	1.65	20.7	.00			191
	200 ISL	9.16	9.14	33.815	26.169	187.7	.597	3.54	54.5							701
1	212	8.87	8.85	33.876	26.262	179.0	.619	3.39	51.9	28.7	1.83	23.4	.00			213
1	243	8.35	8.33	33.971	26.417	164.7	.672	3.13	47.4	34.5	1.97	25.4	.00			244
	250 ISL	8.25	8.23	33.981	26.440	162.5	.684	3.13	47.4							252
1	283	7.83	7.80	34.005	26.522	155.2	.737	3.15	47.2	39.0	2.04	26.8	.00			285
	300 ISL	7.62	7.59	34.016	26.561	151.7	.762	2.94	43.8							302
1	345	7.06	7.03	34.040	26.658	142.7	.829	2.19	32.2	51.3	2.45	32.1	.00			347
	400 ISL	6.41	6.37	34.066	26.767	132.8	.904	1.54	22.4							403
1	422	6.16	6.13	34.078	26.808	129.0	.934	1.33	19.2	66.6	2.85	36.8	.00			425
1	499	5.51	5.47	34.138	26.937	117.1	1.028	.76	10.8	79.9	3.13	40.0			.00	502
	500 ISL	5.50	5.46	34.140	26.939	117.0	1.029	.75	10.7							504
1	575	5.10	5.05	34.206	27.040	107.9	1.114	.45	6.3	90.0	3.30	41.6	.00			579

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 81 48.6

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AWT	TYPE
34 21.0 N	120 13.8 W	18/08/85	1932 GMT										

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG: C	SALINITY	SIGMA THETA	SVA	DYNHT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO U6/L	PRESS D.BAR
	0	ISL	17.79	17.79	33.581	24.237	371.7	.000	5.95	109.6							0
1	1	A	17.79	17.79	33.581	24.237	367.5	.004	5.95	109.6	1.5	.30	.0	.00	.24	.05	1
1	9	A	16.36	16.35	33.629	24.613	331.9	.032	6.16	110.3	1.8	.32	.0	.00	.50	.13	9
	10	ISL	16.12	16.12	33.629	24.667	326.8	.035	6.24	111.2							in
1	12	A	15.69	15.69	33.630	24.764	317.6	.041	6.37	112.6	1.6	.34	.0	.00	.64	.22	12
1	19	A	14.69	14.69	33.615	24.972	298.0	.063	6.25	108.3	2.9	.45	.6	.04	1.58	.41	19
	20	ISL	14.51	14.50	33.616	25.012	294.2	.066	6.13	105.8							20
1	30	A	12.88	12.87	33.643	25.367	260.6	.093	4.82	80.4	9.0	1.00	8.7	.56	.77	.40	30
1	46	A	11.12	11.11	33.694	25.740	225.6	.132	3.77	60.6	17.0	1.46	17.1	.20	.15	.22	46
	50	ISL	10.81	10.81	33.720	25.814	218.6	.141	3.57	57.1							50
1	62		10.23	10.22	33.795	25.974	203.6	.166	3.15	49.7	22.5	1.75	21.6	.05	.06	.15	62
1	72		9.94	9.93	33.848	26.064	195.2	.186	2.91	45.7	25.1	1.88	23.2	.05	.05	.13	72
	75	ISL	9.90	9.89	33.852	26.075	194.5	.192	2.89	45.3							76
1	88		9.82	9.81	33.869	26.102	192.0	.217	2.83	44.3	26.3	1.93	23.5	.07	.04	.17	88
	100	ISL	9.76	9.75	33.885	26.124	190.1	.240	2.76	43.1							101
1	102		9.75	9.74	33.889	26.129	189.6	.245	2.74	42.8	26.7	1.97	24.2	.05	.03	.16	103
1	123		9.53	9.52	33.965	26.225	181.0	.284	2.52	39.2	28.9	2.07	25.6	.02	.02	.13	124
	125	ISL	9.52	9.50	33.971	26.232	180.4	.287	2.50	38.0							126
. 1	143		9.3f	9.36	34.020	26.293	174.9	.319	2.34	36.3	31.0	2.16	26.6	.02	.02	.09	144
	150	ISL	9.36	9.34	34.032	26.305	173.9	.331	2.33	36.1							151
1	174		9.27	9.26	34.066	26.346	170.5	.372	2.26	35.0	32.8	2.20	27.0	.03			175
	200	ISL	8.95	8.93	34.119	26.440	162.0	.415	1.92	?9.5							202
1	205		8.87	8.84	34.130	26.462	159.9	.423	1.83	28.1	38.8	2.40	29.2	.02			206

A. PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THE FIRST SIX DEPTHS ON THIS CAST.

RV NFW HORIZON CALCOFI CRUISE 8508 STATION 82 46

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	4ET	CLOUD AMI	TYPE
34 16.2 N	119 56.3 W	18/08/85	1458 GMT	528 M	110	04 KT	240 02 04	1	1016.9 MB	18.0 C	16.6 C	4/3	SC

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	Nn3 UM/L	NO2 UM/L	CHL-A U6/L	PHAEO UG/L	PRESS D.BAR
1	0		17.99	17.99	33.592	24.198	371.2	.000	5.89	108.9	1.5	.30	.1	.00	.23	.05	0
1	10		17.04	17.03	33.592	24.427	349.7	.036	6.28	114.0	1.6	.30	.1	.00	.32	.07	10
	20	ISL	14.79	14.79	33.590	24.931	304.3	.069	5.75	99.7							20
	30	ISL	12.57	12.57	33.587	25.384	259.8	.097	4.92	81.5							30
1	32		12.16	12.16	33.587	25.463	251.6	.102	4.73	77.7	11.3	1.08	11.3	.28	.27	.23	32
1	48		11.09	11.08	33.642	25.704	228.9	.140	3.90	62.7	16.1	1.44	16.8	.04	.17	.19	48
	50	ISL	11.04	11.04	33.646	25.715	228.0	.145	3.86	61.9							50
1	58		10.96	10.95	33.656	25.738	226.0	.163	3.76	60.2	17.3	1.51	17.2	.04	.15	.16	58
1	75		10.63	10.62	33.694	25.826	217.9	.200	3.53	56.2	19.3	1.62	19.1	.03	.08	.15	75
1	91		10.35	10.34	33.748	25.917	209.7	.234	3.30	52.2	21.3	1.72	20.8	.01	.06	.12	91
	100	ISL	10.23	10.22	33.777	25.960	205.7	.254	3.18	50.2							101
1	104		10.17	10.16	33.790	25.980	203.9	.263	3.13	49.3	23.1	1.80	21.8	.01	.04	.09	105
	125	ISL	9.89	9.87	33.865	26.088	194.1	.304	2.86	44.8							126
1	130		9.82	9.80	33.884	26.114	191.7	.314	2.79	43.7	27.0	1.96	24.0	.00	.02	.07	131
	150	ISL	9.62	9.60	33.946	26.196	184.3	.351	2.59	40.4							151
1	151		9.61	9.59	33.949	26.200	183.9	.353	2.58	40.2	29.8	2.08	25.0	.02	.02	.08	152
1	182		9.24	9.22	34.050	26.339	171.3	.408	2.22	34.3	34.0	2.24	27.0	.01			183
	200	ISL	9.05	9.03	34.087	26.399	165.9	.438	2.03	31.2							202
1	213		8.93	5.91	34.106	26.434	162.8	.459			38.0	2.40	29.0	.00			214
1	248		8.68	8.66	34.136	26.496	157.5	.515	1.57	24.0	41.5	2.54	30.1	.01			249
	250	ISL	8.65	8.62	34.138	26.502	156.9	.519	1.55	23.6							252
	300	ISL	7.90	7.87	34.164	26.637	144.7	.594	1.10	16.6							302
1	303		7.85	7.82	34.164	26.645	143.9	.599	1.08	16.2	53.0	2.83	33.0	.00			305
1	361		7.18	7.15	34.168	26.743	135.1	.679	.80	11.8	63.8	3.04	34.8	.00			363
	400	ISL	6.80	6.77	34.185	26.809	129.3	.731	.58	8.5							403
1	423		6.61	6.57	34.199	26.846	125.9	.761	.44	6.4	79.6	3.26	34.4	.00			426

RV NEK HORIZON CALCOFI CRUISE 8508 STATION 83 40.7

LATITUDE	LONGITUOE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AHT	TYPE
34 12.6 N	119 24.7 W	18/08/85	1127 GMT	38 M	270	05 KT			1014.9 MB	18.2 C	16.2 C		

CAST	DEPTH M		TEMP DEC C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UH/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A U6/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	18.84	18.84	33.616	24.005	389.7	.000	5.76	108.2							0
1	1		18.84	18.84	33.616	24.005	389.6	.004	5.76	108.2	1.6	.29	.0	.01	.24	.08	1
	10	ISL	18.79	18.78	33.610	24.015	388.9	.039	5.80	108.8							10
1	11		18.78	18.78	33.610	24.016	388.9	.043	5.80	108.8	1.5	.29	.0	.01	.26	.08	11
	20	ISL	16.56	16.56	33.535	24.494	343.7	.076	6.31	113.5							20
1	22		15.94	15.94	33.524	24.628	331.0	.082	6.36	112.9	3.6	.36	.2	.02	1.03	.17	22
	30	ISL	13.44	13.44	33.524	25.163	281.0	.107	5.50	92.7							30
1	32		12.81	12.81	33.520	25.285	268.5	.112	5.14	85.6	9.7	.98	6.1	.43			32

RV NEW HORIZON CALCOFI CRUISE 8SO8 STATION 83 42

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
34 10.6 N	119 30.2 W	18/08/85	0948 GMT	135 M	250	07 KT			1014.9 MB	17.8 C	15.5 C		

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0	18.99	18.99	33.612	23.964	393.5	.000	5.91	111.4	1.7	.29	.0	.02	.21	.03	0
1	10	18.95	18.95	33.611	23.974	392.9	.039	5.85	110.1	1.6	.29	.0	.02	.23	.09	10
	20 ISL	17.90	17.89	33.582	24.214	370.4	.077	5.93	109.3							20
1	26	16.95	16.94	33.562	24.425	350.4	.099	5.97	108.1	2 ^:	'.8	.7	.05	.62	.24	26
	30 ISL	16.26	16.25	33.551	24.577	336.0	.113	6.28	112.?							30
1	36	15.11	15.11	33.538	24.822	312.8	.132	6.52	113.9	4.£	.,	2.3	.13	.72	.26	36
1	46	12.65	12.65	33.527	25.322	265.4	.161	5.37	89.1	6.6	.72	3.5	.28	.60	.30	46
	50 ISL	12.18	12.17	33.540	25.424	255.8	.172	5.02	82.5							50
1	62	11.5?	11.51	33.5.89	25.585	240.6	.201	4.26	69.1	13.1	1.30	13.5	.32	.28	.27	6?
	75 ISL	10.74	10.73	33.687	25.801	220.3	.231	3.56	56.8							76
1	77	10.66	10.65	33.700	25.826	218.0	.235	3.49	55.6	21.1	1.62	19.1	.04	.09	.19	77
	100 ISL	9.94	9.93	33.859	26.074	194.9	.283	2.87	45.1							101
1	102	9.91	o.90	33.874	26.091	193.3	.288	2.85	44.7	26.5	1.94	23.1	.05	.03	.09	103

RV NEW HORIZON CALCOFI CRUISE 85O8 STATION 83 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVFS	WEATHER	BAROMFTER	DRY	WET	CLCUD AMT	TYPE
33 52.7 N	120 08.4 W	18/08/85	0410 GMT	97 M	340	17 KT			1014.9 MB	16.9 C	15.2 C		

CAST	DEPTH "!	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UK/L	CHL-A UG/L	PHAEO UG/L	PRESS D.RAR
	? ISL	17.01	17.01	33.579	24.423	350.4	.000	5.80	105.2							{?
1	1	17.01	17.01	33.579	24.423	340.8	.003	5.80	105.2	2.8	.36	.3	.04	1.12	.25	1
	10 ISL	16.20	16.20	33.549	24.587	334.4	.034	6.30	112.5							10
1	11	16.07	16.07	33.547	24.615	331.7	.037	6.32	112.5	2.6	.36	.0	.03	1.30	.24	11
	20 ISL	14.33	14.33	33.547	24.997	295.7	.066	6.08	104.5							20
1	2?	13.93	13.9?	33.552	2.5.085	287.3	.071	6.03	102.8	5.3	.58	3.3	.11	.80	.22	2?
	30 ISL	12.54	12.54	33.561	25.370	259.8	.094	5.04	83.4							30
1	32	12.28	12.28				.098	4.30	79.1	12.3	1.10	10.9	.19	.43	.23	32
	50 ISL	11.74	11.74	33.616	25.564	242.4	.143	4.50	73.4							50
1	.53	11.66	11.65	33.622	25.584	240.5	.150	4.46	72.5	14.2	1.24	13.1	.19	.31	.19	53
	75 ISL	-10.62	10.61	33.750	25.872	213.6	.201	3.73	59.4							76
1	78	10.47	10.46	33.771	25.915	209.6	.206	3.62	57.4	22.0	1.66	19.5	.11	.13	.12	78

RV NEW HORIZON CALCOFI CRUISE 85O8 STATION 83 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLCUD AMT	TYPE
33 44.5 N	120 24.9 W	18/08/85	0040 GMT	950 M	340	15 KT	310 04 06	2	1015.4 MB	17.9 C	15.9 C	8/8	SC

CAST	DEPTH X	TEM.P DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UW/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0	18.04	18.04	33.608	24.198	371.2	.000	5.67	104.9	1.7	.31	.1	.00	.25	.05	0
1	10	18.02	18.02	33.605	24.201	371.2	.037	5.71	105.6	1.7	.30	.1	.00	.27	.04	
	20 ISL	14.73	14.73	33.596	24.949	300.6	.071	6.21	107.7							
1	21	14.41	14.41	33.595	25.017	293.8	.073	6.26	107.8	1.3	.33	.2	.01	.85	.18	
	30 ISL	13.71	13.70	33.561	25.137	2«?.5	.100	6.30	106.9							30
1	33	13.61	13.60	33.548	25.147	281.7	.108	6.31	106.9	3.6	.49	2.3	.07	.84	.30	33
1	42	12.24	12.23	33.595	25.454	252.6	.13?	4.97	81.8	9.3	.96	9.8	.34	.69	.62	4?
	50 ISL	11.56	11.55	33.607	25.592	239.7	.152	4.64	75.2							50
1	54	11.35	11.35	33.609	25.630	236.1	.161	4.58	74.0	12.4	1.17	13.0	.24	.40	.33	54
1	64	10.86	10.85	33.647	25.749	225.0	*184	3.98	63.6	16.0	1.38	16.6	.07	.21	..31	64
1	75	10.35	10.34	33.719	25.894	211.5	.207	3.55	56.2	20.0	1.57	19.8	.03	.10	.17	75
1	90	9.77	9.76	33.860	26.102	191.9	.238	3.03	47.4	25.7	1.82	22.9	.02	.03	.11	<c
	100 ISL	9.57	9.56	33.911	26.176	185.2	.257	2.84	44.3							101
1	105	9.50	9.49	33.928	26.200	182.9	.267	2.78	43.2	28.9	1.97	24.7	.02	.02	.06	106
	125 ISL	9.28	9.26	33.978	26.276	176.0	.302	2.56	39.7							126
1	126	9.26	9.25	33.981	26.281	175.7	.305	2.55	39.4	31.9	2.07	26.2	.02	.02	.10	127
	150 ISL	9.13	9.12	34.062	26.365	168.1	.345	2.21	34.1							151
1	152	9.13	9.11	34.069	26.372	167.5	.349	2.18	33.6	35.3	2.21	27.6	.01	.02	.13	153
1	182	9.01	9.00	34.098	26.413	164.2	.398	2.09	32.2	36.8	2.26	28.2	.01			183
	200 ISL	8.93	8.90	34.118	26.442	161.7	.428	2.02	31.1							201
1	212	8.85	8.83	34.129	26.463	160.0	.447	1.98	30.4	38.7	2.33	28.8	.01			213
1	243	8.62	8.59	34.144	26.512	155.8	.495	1.87	28.5	41.4	2.41	29.4	.01			244
	250 ISL	8.55	8.52	34.143	26.52?	154.9	.507	1.86	28.3							252
1	283	8.23	8.20	34.142	26.570	150.9	.558	1.76	26.6	44.9	2.48	30.9	.01			285
	300 ISL	8.17	8.14	34.170	26.602	148.2	.583	1.58	23.9							302
1	343	7.96	7.92	34.231	26.681	141.3	.645	1.15	17.3	52.2	2.74	32.9	.01			345
	400 ISL	6.98	6.94	34.148	26.756	134.4	.724	1.24	18.2							403
1	417	6.67	6.63	34.121	26.777	132.4	.747	1.28	18.7	62.2	2.81	36.1	.01			420
1	494	6.10	6.05	34.193	26.908	120.5	.843	.66	9.5	74.8	3.07	39.0	.01			497
	500 ISL	6.06	6.01	34.199	26.918	119.6	.851	.62	9."							504
1	571	5.68	5.64	34.261	27.014	111.1	.933	.41	5			40.4	.00			575

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 33 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPF
33 34.9 N	120 46.5 W	17/08/85	2026 GMT	1961 M	330	11 KT	300 04 08	2	1016.2 MB	18.2 C	16.0 C	8/8	SC

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRFSS D.BAR
	0 ISL	18.18	18.18	33.654	24.198	371.3	.000	5.68	105.4							0
1	1	18.18	18.18	33.654	24.198	371.3	.004	5.68	105.4	1.1	.27	.0	.00	.29	.05	1
	10 ISL	18.13	18.13	33.651	24.208	370.6	.037	5.72	106.0							10
1	11	18.13-	18.12	33.651	24.210	370.4	.041	5.72	106.0	1.0	.27	.0	.00	.30	.05	11
	20 ISL	18.05	18.05	33.652	24.230	368.9	.074	5.71	105.7							20
1	21	18.04	18.04	33.652	24.232	368.7	.077	5.71	105.7	1.0	.27	.0	.00	.40	.08	21
	30 ISL	17.2?	17.26	33.646	24.414	351.6	.110	5.99	109.2							30
1	32	16.97	16.97	33.643	24.481	345.3	.117	6.02	109.1	1.2	.31	.2	.01	1.08	.16	32
1	42	14.22	14.21	33.640	25.093	287.1	.148	5.47	93.9	5.2	.66	5.2	.22	1.49	.34	42
	50 ISL	12.13	12.13	33.629	25.501	24fi.6	.170	4.72	77.6							50
1	52	11.75	11.74	33.627	25.572	241.6	.174	4.55	74.1	12.7	1.16	13.2	.27	.45	.38	52
1	62	10.55	10.54	33.695	25.841	216.2	.197	3.83	60.8	18.9	1.51	18.8	.07	.18	.19	62
1	72	10.25	10.24	33.749	25.935	207.4	.218	3.48	54.9	21.7	1.64	20.6	.04	.12	.11	72
	75 ISL	10.09	10.08	33.780	25.987	202.6	.225	3.35	52.6							76
1	88	9.53	9.52	33.896	26.171	185.4	.249	2.90	45.1	28.0	1.92	24.3	.02	.02	.07	88
	100 ISL	9.33	9.32	33.942	26.240	179.1	.272	2.69	41.7							101
1	102	9.31	9.29	33.947	26.247	17K.4	.277	2.66	41.2	31.1	2.06	25.8	.01	.02	.06	103
1	123	9.07	9.06	34.031	26.351	16S.9	.313	2.32	35.7	34.5	2.17	27.3	.02	.01	.06	124
	125 ISL	9.06	9.04	34.037	26.358	168.2	.316	2.30	35.4							126
1	148	8.91	8.90	34.114	26.441	160.8	.354	2.01	30.9	37.6	2.32	28.4	.01	.01	.06	149
	150 ISL	8.91	8.89	34.110	26.446	160.4	.357	1.99	30.5							151
1	179	8.82	8.80	34.18?	26.510	154.9	.402	1.65	25.3	40.8	2.47	29.7	.01			180
	200 ISL	8.70	8.68	34.205	26.546	151.8	.435	1.52	23.3							201
1	210	8.64	8.62	34.211	26.561	150.6	.449	1.48	22.6	43.2	2.56	30.4	.01			211
1	241	8.45	8.42	34.229	26.605	147.0	.495	1.31	19.9	45.9	2.65	31.4	.00			?42
	250 ISL	8.38	8.35	34.235	26.620	145.6	.509	1.25	19.0							252
1	281	8.1.2	8.09	34.250	26.672	141.2	.554	1.08	16.3	50.3	2.76	32.7	.01			283
	300 ISL	7.97	7.94	34.249	26.692	139.4	.580	1.03	15.5							302
1	343	7.64	7.61	34.246	26.739	135.6	.639	.95	14.2	55.6	2.86	34.2	.c0			345
	400 ISL	7.15	7.11	34.257	26.819	128.6	.714	.73	10.8							403
1	419	6.98	6.94	34.261	26.845	126.3	.739	.66	9.7	64.9	3.03	36.5	.00			4?2
1	495	6.46	6.41	34.258	26.914	120.4	.832	.57	8.3	72.1	3.13	38.1	.00			49*5
	500 ISL	6.42	6.38	34.259	26.919	120.0	.838	.56	8.1							504
1	570	6.00	5.95	34.289	26.998	113.1	.920	.39	5.6	80.1	3.24	39.4	.00			574

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 83 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD ANT	TYPE
33 14.4 N	121 26.8 W	17/08/85	1443 GMT	3879 M	320	07 KT	320 03 05	1	1013.9 MR	16.9 C	14.8 C	7/8	SC

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0 ISL	17.39	17.39	33.165	24.014	388.7	.000	5.67	103.3							0
1	1	17.39	17.39	33.165	24.014	388.7	.004	5.67	103.3	1.5	.37	.2	.00	.10	.01	1
1	10	17.39	17.39	33.163	24.015	389.0	.039	5.66	103.2	1.4	.36	.1	.00	.11	.01	10
	20 ISL	17.31	17.31	33.161	24.031	387.8	.078	5.70	103.7							20
1	22	17.30	17.30	33.161	24.034	387.5	.085	5.71	103.9	1.4	.36	.1	.00	.12	.01	22
	30 ISL	16.98	16.98	33.207	24.145	377.2	.116	5.79	104.8							30
1	31	16.91	16.90	33.210	24.165	375.4	.119	5.81	104.9	1.4	.36	.1	.00	.16	.02	31
1	41	15.02	15.01	33.158	24.550	338.9	.155	6.21	108.0	1.6	.36	.1	.00	.20	.03	41
	50 ISL	13.70	13.69	33.153	24.825	313.0	.185	6.46	109.2							50
1	52	13.49	13.48	33.152	24.867	308.9	.190	6.48	109.2	1.7	.39	.1	.00	.22	.05	52
1	62	12.68	12.67	33.164	25.035	293.0	.220	6.38	105.7	2.0	.42	.1	.06	.32	.17	62
1	72	12.09	12.08	33.168	25.152	282.2	.249	6.18	101.1	2.7	.51	1.0	.02	.32	.21	72
	75 ISL	12.00	11.99	33.181	25.179	279.6	.258	6.06	99.0							76
1	88	11.74	11.73	33.254	25.284	269.9	.293	5.57	90.5	4.5	.65	4.6	.01	.17	.16	88
	100 ISL	11.31	11.29	33.343	25.433	255.9	.325	5.23	84.2							101
1	103	11.21	11.19	33.363	25.467	252.8	.332	5.16	83.0	7.8	.90	9.0	.01	.09	.11	103
1	124	10.36	10.34	33.549	25.761	225.2	.384	4.39	69.4	15.1	1.33	16.2	.01	.04	.05	125
	125 ISL	10.33	10.32	33.554	25.770	224.4	.386	4.38	69.2							126
1	1*9	9.31	9.29	33.743	26.088	194.4	.436	4.06	62.8	21.0	1.55	19.6	.00	.01	.02	150
	150 ISL	9.29	9.27	33.748	26.095	193.7	.438	4.04	62.5							151
1	180	8.62	8.60	33.904	26.323	172.5	.493	3.39	51.6	29.6	1.85	24.8	.00			181
	200 ISL	8.26	8.24	33.959	26.420	163.5	.526	3.12	47.2							201
1	210	8.11	8.09	33.975	26.456	160.2	.542	3.02	45.5	35.5	2.06	27.3	.00			211
1	242	7.64	7.62	33.998	26i.543	152.3	.592	2.76	41.1	40.9	2.20	29.3	.00			243
	250 ISL	7.53	7.50	34.007	26.567	150.2	.605	2.65	39.4							252
1	282	7.12	7.09	34.041	26.651	142.5	.652	2.18	32.1	49.6	2.45	32.4	.00			284
	300 ISL	6.87	6.85	34.048	26.690	138.9	.677	1.96	28.7							302
1	343	6.36	6.33	34.063	26.771	131.6	.735	1.49	21.6	61.5	2.76	36.0	.00			345
	400 ISL	6.04	6.01	34.119	26.856	124.0	.808	.98	14.1							403
1	419	5.97	5.94	34.141	26.882	121.8	.832	.84	12.0	72.3	3.04	38.7	.00			422
1	495	5.57	5.53	34.205	26.983	112.8	.920	.48	6.8	82.0	3.22	40.0	.00			498
	500 ISL	5.54	5.50	34.209	26.990	112.2	.926	.46	6.6							504
1	570	5.18	5.13	34.272	27.083	103.9	1.002	.33	4.6	91.4	3.32	41.7	.00			574

RV MEM HORIZON CALCOFI CRUISE 8508 STATION 87 33

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD ANT	TYPE
33 53.4 N	118 29.4 W	16/08/85	0514 GMT	59 M	260	07 KT			1009.4 MB	18.3 C	17.0 C		

CAST	DEPTH M	TEMP DEG C	POT TEMP DE6 C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A U6/L	PHAEO U6/L	PRESS D.BAR
1	10	15.62	15.62	33.477	24.662	327.3		6.32	111.5	4.5	.66	.6	.06	1.08	.21	10

RV NEW HORIZON CALCOFI CRUISE 8508 " , STATION 8? 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WBATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
33 49.3 N	118 37.6 W	16/08/85	0740 GMT	650 M	260	05 KT			1009.9 MB	18.1 C	16.6 C		

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO? UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0 ISL	18.39	18.39	33.56.9	24.081	382.9	.000	6.04	112.5							0
1	1	18.39	18.39	33.569	24.081	382.4	.004	6.04	112.5	2.7	.30	.0	.00	.33	.04	1
	10 ISL	18.13	18.13	33.557	24.136	377.4	.038	6.21	115.1							in
1	11	18.10	13.10	33.555	24.142	376.9	.042	6.24	115.6	2.8	.29	.0	.00	.37	.06	11
	20 ISL	14.53	14.52	33.52?	24.936	302.6	.072	6.68	115.3							20
1	22	13.76	1.3.76	33.515	25.091	286.8	.078	6.74	114.5	2.9	.32	.0	.00	.35	.08	22
	30ISL	13.39	13.38	33.502	25.157	280.7	.101	6.39	107.6							30
1	32	13.30	13.29	33.50C	25.173	279.2	.106	6.25	105.1	5.7	.52	1.5	.17	1.01	.23	32
1	43	12.57	12.57	33.512	25.326	264.9	.136	5.44	90.1	7.7	.79	5.8	.43	.34	.38	43
	50 ISL	11.94	11.93	33.545	25.472	251.1	.154	4.70	76.8							50
1	53	11.70	11.70	33.561	25.529	245.8	.161	4.43	72.1	12.0	1.23	12.3	.83	.32	.21	53
1	63	11.17	'11.16	33.624	25.675	232.0	.185	3.93	63.2	15.3	1.39	16.1	.04	.09	.22	63
1	74	10.82	10.81	33.672	25.776	222.8	.210	3.65	58.3	18.2	1.51	17.9	.02	.08	.16	74
	75 ISL	10.80	10.79	33.676	25.783	222.1	.213	3.62	57.8							76
1	89	10.61	10.60	33.710	25.842	216.8	.243	3.36	53.4	20.4	1.62	19.5	.01	.05	.15	f.9
	100 ISL	10.41	10.39	'33.745	25.906	210.9	.267	3.27	51.9							101
1	104	10.33	10.32	33.759	25.930	208.7	.277	3.26	51.5	21.8	1.69	20.6	.02	.04	.09	105
1	125	10.14	10.13	33.799	25.993	203.1	.320	3.23	50.9	23.3	1.77	21.8	.01	.04	.03	126
1	150	9.77	9.76	33.960	26.181	185.8	.368	2.61	40.8	28.5	1.99	24.7	.00	.01	.06	151
1	182	9.50	9.48	34.052	26.298	175.2	.425	2.29	35.6	32.1	2.16	26.4	.00			183
	200 ISL	9.43	9.40	34.105	26.353	170.4	.456	2.11	32.8							201
1	2.13	9.36	9.34	34.136	26.388	167.4	.478	2.01	31.2	34.9	2.29	27.6	.00			214
1	244	9.(1?	9.00	34.159	26.461	160.9	.529	1.96	30.2	37.4	2.35	28.3	.01			245
	250 ISL	8.KB	8.85	34.151	26.477	159.4	.539	1.97	30.2							252
1	285	R.14	*.11	34.117	26.564	151.4	.594	2.00	30.2	43.0	2.42	30.2	.01			257
	300 ISL	8.17	8.14	34.162	26.595	148.8	.616	1.78	26.8							302
1	346	3.25	8.21	34.285	26.681	141.6	.682	.97	14.7	50.2	2.78	32.2	.00			348
	400 ISL	7.75	7.71	34.285	26.756	134.3	.757	.78	11.7							403
1	423	7.46	7.42	34.285	26.797	131.4	.788	.70	10.4	59.4	2.97	34.9	.00			426
1	'500	6.74	6.70	34.310	26.917	120.6	.884	.39	5.7	69.9	3.14	37.4	.00			503
1	577	6.07	6.02	34.320	27.013	111.8	.974	.30	4.3	80.0	3.26	39.0	.00			5S1

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 87 4C

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLCUD AMT	TYPE
33 39.3 N	118 5ft.4 W	16/08/35	1314 GMT	723 M	170	07 KT			1010.6 MB	18.0 C	15.7 C		

CAST	DEPTH M	TEMP DEC C	POT TEMP DEG C	SALTNTTY	SIGMA THETA	SVA	DYN HI	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0	20.17	20.17	33.631	23.675	421.0	.000	5.58	107.5	1.7	.28	.0	.00	.13	.02	0
1	1G	20.02	20.02	33.616	23.704	418.7	.042	5.65	108.5	1.7	.27	.0	.00	.14	.02	10
	20 ISL	18.59	18.59	33.559	24.024	388.5	.082	5.98	111.8							20
1	22	18.16	18.15	33.545	2.4.122	379.2	.090	6.08	112.7	1.8	.30	.0	.00	.23	.06	22
	30 ISL	15.50	15.50	33.507	24.713	323.1	.118	6.69	117.7							30
1	32	14.87	14.87	33.505	24.849	310.2	.124	6.78	117.8	1.8	.31	.0	.00	.27	.07	32
1	42	13.01	13.00	33.449	25.192	277.6	.153	6.07	101.5	3.8	.55	3.0	.06	1.06	.27	42
	50 ISL	12.5?	12.51	33.494	25.322	265.4	.175	5.59	92.5							50
1	54	12.42	12.42	33.522	25.363	261.7	.185	5.38	88.9	6.9	.79	7.0	.31	.60	.28	54
1	65	11.72	11.71	33.570	25.534	245.6	.213	4.70	76.5	10.6	1.06	11.6	.30	.31	.30	65
1	74	10.08	10.97	33.651	25.731	226.9	.234	3.97	63.6	15.9	1.36	16.4	.03	.13	.15	74
	75 ISL	10.90	10.9C	33.659	25.750	225.2	.237	3.91	62.6							76
1	91	10.30	10.29	33.738	25.918	209.5	.271	3.45	54.5	21.0	1.61	?n.2	.02	.06	.10	91
	100 ISL	9.94	9.92	33.823	26.046	197.5	.290	3.13	49.2							101
1	106	9.73	9.71	33.879	26.125	190.1	.303	2.95	46.1	26.8	1.86	23.5	.01	.01	.08	107
1	125	9.46	9.45	33.938	26.214	182.0	.338	2.78	43.2	29.3	1.95	24.8	.01	.01	.05	126
	150 ISL	9.19	9.18	34.019	26.322	172.2	.382	2.54	39.3							151
1	151	9.18	9.17	34.023	26.327	171.8	.384	2.53	39.1	32.8	2.09	26.4	.01	.00	.04	152
1	183	8.99	8.97	34.113	26.428	162.7	.437	2.15	33.1	37.0	2.25	27.9	.01			"84
	200 ISL	8.87	8.85	34.147	26.475	158.7	.464	1.97	30.2							201
1	213	8.79	8.77	34.171	26.506	156.0	.484	1.83	28.0	40.1	2.40	29.1	.01			214
1	244	8.73	8.70	34.234	26.565	150.9	.532	1.42	21.7	43.5	2.55	30.3	.01			245
	250 ISL	8.71	8.68	34.241	26.574	150.1	.541	1.37	20.9							252
1	284	8.53	8.50	34.263	26.620	146.4	.592	1.16	17.7	46.7	2.67	31.2	.00			286
	300 ISL	8.41	8.38	34.275	26.647	144.1	.615	1.05	16.0							302
1	3*6	7.99	7.96	34.297	26.729	136.9	.679	.79	11.9	54.0	2.84	33.2	.00			348
	400 ISL	7.31	7.27	34.281	26.815	12<>. 1	.751	.64	9.5							403
1	420	7.06	7.02	34.275	26.846	126.4	.777	.61	9.0	64.6	3.02	36.2	.00			423
1	497	6.48	6.44	34.298	26.942	117.8	.870	.45	6.5	74.9	3.15	37.9	.00			500
	500 ISL	6.46	6.41	34.299	26.946	117.5	.874	.44	6.4							504
1	574	5.97	5.91	34.323	27.029	110.2	.959	.34	4.9	82.7	3.26	39.4	.00			578

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 37 45

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
33 29.1 N	119 19.9 U	16/08/85	1801 GMT	1626 M	260	08 KT	270 03 07	2	1011.4 MB	18.3 C	15.7 C	8/8	SC

CAST	DEPTH M	TEKP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYNHT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.3AR
	0 ISL	19.29	19.29	33.653	23.920	397.7	.000	5.54	105.0							0
1	1	19.29	19.29	33.653	23.920	397.7	.004	5.54	105.0	1.5	.26	.0	.00	.21	.02	1
	10 ISL	19.26	19.26	33.649	23.924	397.7	.040	5.64	106.9							10
1	11	19.26	19.26	33.649	23.924	397.7	.044	5.66	107.2	1.4	.26	.0	.00	.22	.03	11
	20 ISL	18.31 *	18.31	33.637	24.154	376.0	.079	5.84	108.7							20
1	22	17.96	17.96	33.630	24.235	368.4	.086	5.90	109.0	1.5	.28	.0	.00	.33	.03	22
	30 ISL	15.50	15.50	33.574	24.764	318.2	.113	6.29	110.8							30
1	33	14.63	14.63	33.564	24.946	300.9	.122	6.40	110.7	1.8	.37	.5	.03	.84	.18	33
1	43	13.37	13.37	33.509	25.165	280.2	.151	6.20	104.5	3.9	.52	2.6	.06	1.07	.30	43
	50 ISL	12.53	12.52	33.510	25.333	264.4	.171	5.61	92.9							50
1	54	12.14	12.14	33.523	25.417	256.5	.181	5.24	86.0	7.8	.85	8.1	.24	.59	.27	54
1	64	11.46	11.45	33.592	25.598	239.5	.205	4.44	71.9	12.9	1.16	13.2	.20	.34	.13	64
1	75	10.84	10.83	33.654	25.758-	224.4	.231	3.91	62.5	17.0	1.42	17.0	.04	.17	.17	75
1	90	10.40	10.39	33.716	25.883	212.8	.263	3.62	57.3	20.4	1.58	19.5	.03	.10	.12	90
	100 ISL	10.12	10.11	33.783	25.984	203.4	.285	3.27	51.5							101
1	105	9.98	9.97	33.819	26.036	198.6	.296	3.10	48.7	24.8	1.80	22.4	.01	.04	.07	106
	125 ISL	9.57	9.55	33.899	26.167	186.5	.334	2.90	45.1							126
1	126	9.54	9.53	33.904	26.175	185.7	.336	2.89	45.0	28.5	1.92	24.2	.00	.01	.05	127
	150 ISL	9.11	9.09	33.995	26.317	172.7	.378	2.68	41.3							151
1	152	9.08	9.06	34.003	26.329	171.6	.382	2.66	41.0	33.3	2.09	26.2	.00	.01	.02	153
1	182	8.73	8.71	34.074	26.439	161.6	.432	2.40	36.7	37.8	2.23	27.8	.01			183
	200 ISL	8.4?	8.46	34.103	26.500	156.1	.460	2.21	33.6							201
1	214	8.32	8.30	34.120	26.538	152.7	.482	2.05	31.1	42.9	2.41	29.9	.02			215
1	244	8.24	8.21	34.160	26.583	149.0	.527	1.64	24.8	46.3	2.58	31.0	.01			245
	250 ISL	8.19	8.17	34.168	26.596	147.8	.536	1.56	23.6							252
1	284	7.94	7.91	34.210	26.667	141.6	.586	1.22	18.3	51.0	2.77	32.7	.02			286
	300 ISL	7.90	7.87	34.226	26.686	140.1	.608	1.12	16.8							302
1	745	7.80	7.77	34.258	26.726	137.0	.670	.93	13.9	54.8	2.90	33.6	.02			347
	400 ISL	7.55	7.51	34.282	26.781	132.6	.744	.73	10.9							403
1	423	7.41	7.37	34.287	26.806	130.5	.775	.66	9.8	61.0	3.06	35.3	.01			426
1	499	6.73	6.68	34.292	26.905	121.7	.870	.48	7.0	70.1	3.19	37.4	.00			502
	500 ISL	6.72	6.67	34.292	26.906	121.5	.872	.48	7.0							504
1	577	6.26	6.20	34.308	26.980	115.2	.963	.37	5.3	77.0	3.30	38.9	.00			581

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 87 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
33 19.7 N	119 40.0 W	16/08/85	2128 6MT	77 M	290	10 KT	300 03 08	2	1012.3 MB	18.0 C	15.8 C	8/8	SC

CAST	DEPTH n	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 U«/L	NO3 U*!/L	NO2 Uf«/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0	17.18	17.18	33.665	24.448	347.3	.000	5.89	107.2	1.2	.32	.0	.00	.55	.07	0
1	10	17.12	17.12	33.659	24.458	346.8	.035	5.94	108.0	1.2	.31	.0	.00	.57	.07	10
	20 ISL	16.98	16.97	33.649	24.485	344.5	.069	5.97	108.2							20
1	21	16.96	16.96	33.648	24.487	344.3	.072	5.97	108.2	1.4	.31	.0	.00	.80	.12	21
	30 ISL	16.20	16.20	33.603	24.629	331.1	.103	6.18	110.3							30
1	31	16.10	16.10	33.598	24.649	329.2	.106	6.19	110.3	2.6	.38	.6	.02	1.25	.17	31
	50 ISL	12.40	12.39	33.59»	25.427	255.8	.162	4.96	81.8							50
1	52	11.92	11.91	33.610	25.527	246.0	.166	4.73	77.3	11.6	1.05	11.5	.23	.47	.26	52

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 87 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
32 59.4 H	120 21.1 W	17/08/85	0357 GMT	730 M	300	09 KT			1011.7 MB	17.1 C	15.0 C		

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	C	17.20	17.20	33.649	24.431	349.0	.000	5.78	105.3	1.2	.35	.0	.00	.22	.05	0
1	10	17.18	17.18	33.645	24.433	349.1	.035	5.81	105.8	1.1	.34	.0	.00	.23	.06	10
	20 ISL	16.15	16.15	33.620	24.653	328.5	.069	5.99	106.9							20
1	21	16.04	16.04	33.617	24.676	326.4	.072	6.01	107.0	1.0	.36	.0	.00	.42	.07	21
	30 ISL	15.44	15.44	33.568	24.773	317.3	.101	6.04	106.1							30
1	31	15.40	15.39	33.565	24.781	316.6	.104	6.04	106.1	1.6	.42	.1	.01	.80	.19	31
1	42	14.90	14.89	33w617	24.929	302.8	.138	5.65	98.3	2.9	.57	1.8	.11	.77	.20	42
	50 ISL	13.62	13.62	33.549	25.146	282.4	.162	5.42	91.7							50
1	52	13.30	13.29	33.531	25.197	277.4	.167	5.36	90.2	6.6	.85	5.8	.42	.58	.30	52
1	62	11.82	11.81	33.504	25.463	252.3	.193	4.92	80.2	10.1	1.11	11.3	.39	.21	.20	62
1	73	11.26	11.26	33.664	25.690	230.9	.219	4.14	66.8	15.8	1.44	17.1	.03	.06	.12	73
	75 ISL	11.13	11.12	33.677	25.724	227.7	.225	4.06	65.2							76
1	89	10.39	10.38	33.707	25.879	213.2	.255	3.74	59.2	19.9	1.65	20.4	.02	.05	.11	89
	100 ISL	10.03	10.02	33.757	25.979	204.0	.278	3.41	53.6							101
1	104	9.91	9.90	33.776	26.013	200.7	.288	3.30	51.7	23.7	1.82	22.7	.03	.03	.15	105
1	123	9.26	9.24	33.847	26.177	185.4	.324	3.13	48.4	27.9	1.91	24.8	.02	.02	.10	124
	125 ISL	9.22	9.21	33.851	26.186	184.6	.327	3.12	48.2							126
1	150	8.78	8.77	33.906	26.298	174.3	.372	3.05	46.6	31.0	1.99	25.9	.03	.02	.07	151
1	181	8.29	8.27	34.007	26.453	160.0	.424	2.81	42.5	36.5	2.13	27.4	.03			182
	200 ISL	8.03	8.01	34.029	26.510	154.9	.454	2.68	40.3							201
1	212	7.89	7.87	34.036	26.537	152.5	.472	2.58	38.7	41.1	2.26	29.3	.03			213
1	2*2	7.62	7.60	34.067	26.600	146.9	.516	2.21	32.9	45.9	2.41	30.9	.02			243
	250 ISL	7.54	7.51	34.079	26.622	145.0	.529	2.08	30.9							252
1	282	7.24	7.21	34.131	26.705	137.5	.574	1.55	22.9	54.4	2.68	33.8	.01			284
	300 ISL	7.16	7.13	34.169	26.746	133.9	.598	1.28	18.8							302
1	344	7.01	6.98	34.250	26.831	126.5	.655	.74	10.9	63.3	2.99	35.7	.00			346
	400 ISL	6.65	6.61	34.267	26.894	120.5	.725	.60	8.8							403
1	421	6.50	6.46	34.273	26.919	118.9	.750	.55	8.0	71.9	3.15	37.8	.01			424
1	497	6.15	6.11	34.301	26.987	113.2	.838	.40	5.8	78.3	3.24	39.1	.01			500
	500 ISL	6.13	6.09	34.302	26.991	112.9	.841	.40	5.8							504
1	572	5.61	5.56	34.318	27.069	105.9	.920	.40	5.7	86.6	3.32	40.3	.00			576

RV NEK HORIZ ON CALCOFI CRtrlS E 8508 STATION 87 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AHT	TYPE
32 39.1	121 02.0 W	17/08/85	0901 GMT	3730 M	330 to	XT		1012.6 MB 18	.0 C 15.4 C			

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN NT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	US/L	UG/L	D.BAR
	0	IS	17.39	17.39	33.240	24.072	383.3	.000	5.69	103.8							0
1	1		17.39	17.39	33.240	24.072	383.2	.004	5.69	103.8	1.6	.36	.2	.00	.12	.02	1
	10	IS	17.37	17.37	'33.242	24.079	382.8	.038	5.70	103.9							10
1	11		17.37	17.37	33.242	24.080	382.8	.042	5.70	103.9	1.6	.36	.2	.00	.12	.02	11
	20	IS	16.73	16.72	33.308	24.282	363.9	.076	5.88	105.8							20
1	22		16.55	16.55	33.324	24.335	358.8	.083	5.92	106.2	1.6	.36	.2	.00	.13	.03	22
	30	IS	15.89	15.88	33.365	24.518	341.7	.111	6.04	107.1							30
1	32		15.71	15.70	33.365	24.558	337.9	.117	6.07	107.1	1.6	.37	.2	.00	.22	.08	32
1	42		14.48	14.47	33.244	24.733	321.4	.150	6.24	107.4	1.7	.38	.2	.00	.38	.15	42
	50	IS	13.49	13.48	33.182	24.889	306.8	.176	6.25	105.3							50
1	52		13.29	13.28	33.171	24.920	303.8	.181	6.25	104.9	1.8	.40	.2	.01	.51	.25	52
1	65		12.44	12.43	33.111	25.041	292.5	.214	6.19	102.0	2.3	.45	.4	.05	.40	.22	63
1	73		12.13	12.12	33.146	25.127	284.5	.243	5.94	97.3	2.7	.50	1.3	.19	.27	.20	73
	75	IS	12.07	12.06	33.156	25.146	282.7	.249	5.90	96.5							76
1	88		11 .75	11.74	33.230	25.263	271.9	.284	5.65	91.8	4.5	.67	4.9	.09	.15	.15	88
	100	IS	11.37	11.36	33.329	25.411	258.1	.317	5.28	85.2							101
1	104		11.23	'1.22	33.361	25.460	253.4	.326	5.16	83.0	8.0	.89	9.3	.03	.11	.12	104
1	123		10.05	10.03	33.562	25.824	219.0	.373	4.31	67.6	16.7	1.36	17.3	.02	.03	.05	124
	125	IS	10.00	9.98	33.576	25.843	217.3	.376	4.25	66.6							126
1	149		9.53	9.51	33.750	26.057	197.4	.427	3.50	54.4	24.4	1 .73	22.9	.00	.02	.02	150
	150	IS	9.51	9.50	33.754	26.064	196.8	.428	3.49	54.1							151
1	179		8.83	8.81	33.880	26.271	177.4	.483	3.09	47.3	30.5	1.92	25.7	.01			180
	200	IS	8.47	8.45	33.926	26.364	169.0	.519	2.99	45.4							201
1	210		8.31	8.29	33.940	26.398	165.8	.535	2.98	45.1	34.5	2.00	27.0	.01			211
1	241		7.80	7.77	33.986	26.511	155.4	.585	2.97	44.4	39.4	2.10	28.1	.00			242
	250	IS	7.68	7.65	33.994	26.534	153.3	.599	2.90	43.3							252
1	2*1		7.32	7.29	34.013	26.601	147.4	.646	2.57	38.0	46.7	2.28	30.9	.00			283
	300	IS	7.09	7.06	34.019	26.638	143.9	.674	2.35	34.6							302
1	342		6.62	6.59	34.044	26.721	136.5	.732	1.81	26.4	58.4	2.59	34.5	.01			344
	400	IS	6.29	6.26	34.136	26.837	126.1	.809	1.03	14.9							403
1	41?		6.22	6.18	34.168	26.872	123.0	.831	.82	11.8	71.8	2.98	38.4	.01			421
1	495		5.83	5.79	34.251	26.988	112.7	.921	.40	5.7	81.9	3.17	40.1	.00			498
	500	IS	5.80	5.76	34.256	26.995	112.1	.927	.39	5.6							504
1	571		5.40	5.35	34.293	27.074	105.1	1.005	.30	4.2	90.4	3.27	41.4	.00			575

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 90 28

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
33 29.0 N	117 46.2 W	15/08/85	2319 GMT	69 M	270 05	KT 220	02 07 1	1009.2 MB 21	.8 C 18.9 C		2/8	SC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HI	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
	»		DEG C	DEG C		THETA			ML/L	PCT	UM/L	U«/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0		22.01	22.01	33.559	23.121	474.0	.000	5.91	117.7	2.2	.39	.0	.00	.63	.09	0
	10	IS	19.10	19.09	33.530	23.875	402.3	.044	6.23	117.5							10
1	11		18.82	18.82	33.527	23.942	396.0	.048	6.25	117.3	1.7	.30	.0	.00	.47	.10	11
	20	IS	16.10	16.10	33.474	24.553	338.0	.081	6.38	113.6							20
1	30		13.75	13.74	33.458	25.049	290.9	.112	6.53	110.8	3.7	.38	.0	.00	.57	.23	30
1	41		12.76	12.76	33.487	25.269	270.3	.143	5.55	92.3	7.2	.77	4.4	.33	.80	.47	41
	50	IS	12.06	12.06	33.475	25.395	258.5	.167	5.43	89.0							50
1	56		11.68	11.67	33.450	25.447	253.6	.182	5.36	87.1	7.7	.96	9.1	.24	.47	.40	56

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 90 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLCUD AMI	TYPE
33 24.7	117 54.3 W	15/08/85	2022 GMT	604 M	230 06	KT 270	02 06 1	1011.5 MB 21	.2 C 18.2 C		1/8	SC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0		22.02	22.02	33.710	23.235	463.1	.000	5.54	110.4	2.2	.27	.1	.00	.41	i07	0
1	10		21 .20	21.20	33.694	23.448	443.1	.045	5.62	110.4	2.2	.26	.1	.00	.61	.08	10
	20	IS	16.42	16.42	33.574	24.557	338.5	.084	6.63	118.8							20
1	21		15.94	15.94	33.563	24.657	328.1	.087	6.72	119.3	1.8	.32	.1	.00	.61	.17	21
	30	IS	13.84	13.84	33.572	25.118	284.4	.115	6.67	113.6							30
1	31		13.72	13.71	33.573	25.144	281.9	.118	6.67	113.2	3.4	.41	.1	.00	.82	.24	31
1	42		12.5!!	12.58	33.571	25.370	260.7	.147	5.60	92.8	7.0	.75	5.1	.17	2.02	.80	42
	50	IS	11.43	11.43	33.512	25.540	244.6	.168	5.05	81.6							50
1	52		11.22	11.21	33.502	25.572	241.6	.172	4.95	79.7	10.6	1.14	12.2	.09	.43	.25	52
1	62		10.90	10.89	33.555	25.670	232.4	.196	4.56	72.9	13.2	1.31	14.3	.04	.23	.20	62
1	73		10.63	10.62	33.605	25.757	224.4	.221	4.24	67.4	15.8	1.42	16.3	.03	.14	.16	73
	75	IS	10.57	10.56	33.617	25.777	222.6	.226	4.19	66.5							76
1	88		10.28	10.27	33.679	25.876	213.5	.254	3.92	61.9	19.2	1.61	18.6	.01	.07	.08	88
	100	IS	10.03	10.01	33.726	25.955	206.2	.280	3.65	57.4							101
1	103		9.97	9.95	33.733	25.975	204.3	.287	3.58	56.2	22.3	1.73	20.8	.01	.04	.05	104
1	123		9.73	9.72	33.834	26.089	193.9	.326	3.15	49.2	25.7	1.87	22.9	.01	.02	.05	124
	125	IS	9.72	9.70	33.846	26.101	192.7	.330	3.10	48.4							126
1	149		9.51	9.49	34.018	26.270	177.2	.374	2.46	38.3	31.3	2.14	25.6	.00	.00	.04	150
	130	IS	9.50	9.48	34.021	26.274	176.9	.376	2.45	38.1							151
1	180		9.29	9.27	34.100	26.371	168.2	.428	2.17	33.6	34.6	2.29	27.1	.01			181
	200	IS	9.24	9.22	34.149	26.417	164.2	.461	1.96	30.3							201
1	211		9.23	9.21	34.174	26.438	162.4	.478	1.84	28.5	37.3	2.44	28.0	.00			212
1	242		9.19	9.16	34.236	26.494	157.8	.528	1.53	23.7	39.9	2.47	29.2	.01			243
	250	IS	9.20	9.18	34.254	26.506	156.8	.541	1.41	21.9							252
1	282		9.25	9.22	34.323	26.552	153.2	.591	1.05	16.3	42.7	2.62	30.2	.00			284
	300	IS	9.03	8.99	34.306	26.576	151.2	.618	1.10	17.0							302
1	345		8.31	8.27	34.236	26.633	146.2	.685	1.34	20.3	47.4	2.63	31.5	.01			347
	400	IS	7.95	7.91	34.264	26.709	139.7	.763	1.02	15.3							403
1	421		7.86	7.82	34.286	26.740	137.1	.793	.84	12.6	54.6	2.85	33.7	.00			424
1	498		7.23	7.18	34.329	26.866	125.9	.893	.47	6.9	64.4	3.07	36.1	~			501
	500	IS	7.20	7.15	34.330	26.871	125.5	.896	.46	6.8							504
1	574		5.94	5.89	34.340	27.045	108.6	.983	.28	4.0	83.3	3.29	39.3	.08			578

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
33 15.2	118 1S.3 U	15/08/85	1639 GMT	519 M	280 09 KT	280 03 0S	1	1013.4 MB K	.8 C	17.0 C	7/8	CU

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	KT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.8AR
	0	IS	21.02	21.02	33.697	23.497	438.1	.000	5.44	106.5							0
A	1		21.02	21.02	33.697	23.497	438.1	.004	5.44	106.5	1.3	.20	.0	.00	.15	.03	1
	10	I SI	21.02	21.02	33.697	23.499	438.2	.044	5.51	107.9							10
1	11		21.02.	21.01	33.697	23.500	438.2	.048	5.52	108.0	1.1	.19	.0	.00	.16	.02	11
	20	IS	18.67	18.67	33.576	24.019	389.0	.085	6.10	114.2							20
	30	IS	15.66	15.66	33.545	24.707	326.2	.121	6.59	116.3							30
1	34		14.38	14.38	33.514	24.961	299.5	.133	6.73	115.8	2.2	.30	.0	.00	.32	.10	34
1	49		12.61	12.60	33.533	25.335	264.2	.175	5.81	96.4	6.0	.61	3.5	.19	.82	.23	49
	50	IS	12.50	12.49	33.537	25.360	261.8	.179	5.67	93.9							50
1	60		11.71	11.71	33.578	25.540	244.9	.203	4.58	74.5	10.9	1.08	11.6	.39	.35	.33	60
	75	IS	10.96	10.95	33.646	25.731	227.0	.239	3.85	61.6							76
1	76		10.93	10.92	33.649	25.738	226.4	.241	3.83	61.3	15.7	1.41	16.8	.04	.20	.21	76
1	91		10.33	10.31	33.742	25.917	209.7	.273	3.36	53.1	20.9	1.66	20.3	.01	.09	.14	91
	100	IS	9.88	9.87	33.756	26.003	201.6	.293	3.44	53.9							101
1	105		9.64	9.63	33.761	26.046	197.5	.304	3.52	54.8	23.6	1.74	22.1	.00	.02	.05	106
	125	IS	9.27	9.25	33.837	26.168	186.3	.341	3.23	49.9							126
1	132		9.23	9.21	33.881	26.208	182.6	.355	3.04	46.9	28.5	1.94	24.4	.00	.00	.03	133
	150	IS	9.21	9.20	34.028	26.326	171.8	.386	2.60	40.2							151
1	152		9.21	9.19	34.045	26.340	170.6	.390	2.54	39.2	32.7	2.14	26.4	.00	.00	.03	153
1	182		9.42	9.40	34.205	26.431	162.6	.439	1.64	25.5	37.1	2.40	28.5	.00	.00	.04	183
	200	IS	9.20	9.1?	34.215	26.476	158.0	.468	1.60	24.8							201
1	213		8.98	8.96	34.222	26.516	155.1	.488	1.58	24.3	40.5	2.53	29.3	.00	.00	.03	214
1	249		8.64	8.61	34.232	26.578	149.7	.543	1.45	22.1	44.2	2.59	30.6	.00			250
	250	IS	8.63	8.60	34.233	26.580	149.5	.545	1.44	22.0							252
	300	IS	8.33	8.30	34.270	26.656	143.2	.618	1.10	16.7							302
1	304		8.31	8.28	34.273	26.661	142.8	.624	1.07	16.2	49.1	2.76	32.0	.00			306
1	362		8.14	8.10	34.310	26.718	138.4	.705	.81	12.2	52.7	2.88	32.8	.00			364
	400	IS	7.84	7.80	34.310	26.762	134.5	.757	.69	10.4							403
1	426		7.56	7.52	34.305	26.799	131.4	.792	.64	9.5	58.8	2.99	34.8	.00			429

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	LOUD	T
33 10.9	118 23.8 W	15/08/85	1409 GMT	1147 M	270 09 KT	290 02 0S	1	1013.3 MB	18 .8 C	16.5 C	7/8	SC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRFSS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	1	IS	20.86	20.86	33.686	23.533	434.6	.000	5.46	106.6							0
1	1		20.86	20.86	33.686	23.533	434.7	.004	5.46	106.6	1.2	.22	.2	.00	.16	.04	1
	10	IS	20.87	20.87	33.684	23.528	435.5	.044	5.51	107.5							10
1	12		20.88	20.87	33.683	23.527	435.6	.052	5.52	107.7	1.2	.20	.2	.00	.16	.03	12
	20	IS	20.04	20.04	33.638	23.715	418.0	.086	5.77	110.9							20
1	23		19.74	19.73	33.624	23.784	411.6	.099	5.92	113.1	1.1	.21	.2	.00	.21	.05	23
	30	IS	16.44	16.44	33.613	24.582	336.8	.125	6.54	117.4							30
1	32		15.49	15.48	33.610	24.795	315.3	.131	6.65	117.1	1.2	.33	.2	.00	.44	.12	32
1	44		12.42	12.41	33.664	25.473	250.9	.165	5.25	86.8	6.3	.89	7.1	.25	.84	.43	44
	50	IS	11.57	11.56	33.681	25.646	234.5	.180	4.33	70.2							50
1	53		11.3P	11.29	33.684	25.698	229.6	.186	3.96	63.9	13.2	1.34	15.0	.48	.46	.25	53
1	63		10.59	10.58	33.704	25.841	216.3	.209	3.56	56.6	18.3	1.54	19.2	.04	.20	.18	63
1	73		10.39	10.38	33.722	25.889	211.8	.230	3.51	55.6	19.9	1.60	20.0	.04	.13	.15	73
	75	IS	10.33	10.32	33.732	25.908	210.1	.235	3.48	55.1							76
1	89		9.98	9.97	33.796	26.018	199.9	.263	3.29	51.6	23.5	1.74	22.0	.02	.06	.08	89
	100	IS	9.86	9.85	33.826	26.061	196.1	.285	3.13	49.0							101
1	104		9.82	9.81	33.837	26.077	194.6	.294	3.07	48.0	25.2	1.82	23.2	.01	.03	.07	105
1	124		9.29	9.28	33.929	26.236	179.9	.331	2.89	44.7	29.6	1.96	25.2	.01	.01	.04	125
	125	IS	9.2?	9.26	33.930	26.239	179.6	.332	2.89	44.6							126
	150	IS	8.89	8.88	33.975	26.335	170.8	.376	2.73	41.8							151
1	151		8.88	8.86	33.976	26.338	170.6	.378	2.72	41.7	32.9	2.07	26.8	.01	.00	.02	152
1	182		8.52	8.50	34.030	26.437	161.7	.429	2.62	39.9	36.2	2.13	27.9	.01			183
	200	IS	8.39	8.37	34.067	26.486	157.4	.458	2.46	37.4							201
1	212		8.36	8.34	34.100	26.516	154.8	.476	2.28	34.6	40.2	2.31	29.3	.01			213
1	243		8.62	8.59	34.244	26.590	148.4	.523	1.35	20.6	44.7	2.56	30.9	.03			244
	250	IS	8.61	8.59	34.259	26.603	147.4	.534	1.25	19.1							252
1	282		8.47	8.44	34.287	26.648	143.7	.581	1.05	16.0	47.9	2.71	31.8	.01			284
	300	IS	8.40	8.37	34.303	26.671	141.8	.606	.92	14.0							302
1	345		8.13	8.10	34.324	26.729	137.0	.669	.67	10.1	53.5	2.86	33.4	.00			347
	400	IS	7.46	7.42	34.292	26.803	130.5	.743	.64	9.5							403
1	420		7.20	7.16	34.280	26.830	128.0	.769	.63	9.3	62.6	2.98	36.0	.00			423
1	498		6.62	6.57	34.320	26.941	118.1	.864	.36	5.2	72.6	3.14	38.0	.00			501
	500	IS	6.60	6.56	34.320	26.943	117.9	.867	.36	5.2							504
1	573		6.13	6.08	34.319	27.005	112.6	.951	.32	4.6	79.9	3.20	39.6	.00			577

RV NEW HORIZON CALCOFI CRUISE 8508

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
32 55.4	118 57.7 U	15/08/85	0736	6MT 1694 M	300 13	XT	0	1014.2 MB	18 .0 C	16.1 C	0/8	

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYSEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	N		DEC C	DE6 C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	US/L	UG/L	D.BAR
	0	ISL	19.33	19.33	33.668	23.920	397.9	.000	5.67	107.6							0
1	1		19.33	19.33	33.668	23.920	397.7	.004	5.67	107.6	1.8	.31	.0	.00	.12	.01	1
	10	ISL	19.26	19.26	33.671	23.942	396.0	.040	5.74	108.7							10
1	11		19.25	19.25	33.671	23.944	395.8	.044			1.7	.30	.0	.00	.12	.01	11
	20	ISL	18.70	18.70	33.690	24.098	381.5	.079	5.82	109.0							20
1	22		18.58	18.58	33.694	24.130	378.4	.086	s.83	109.1	1.8	.30	.0	.00	.12	.02	22
	30	ISL	15.95	15.95	33.601	24.684	325.8	.114	6.22	110.4							30
1	32		15.28	15.28	33.586	24.822	312.7	.120	6.29	110.2	2.6	.36	.0	.01	.40	.10	32
1	42		13.38	13.37	33.548	25.195	277.4	.150	6.01	101.3	5.0	.59	3.4	.09	.67	.16	42
	50	ISL	12.29	12.28	33.527	25.392	258.8	.172	5.S1	90.7							50
1	53		12.02	12.01	33.523	25.440	254.2	.179	5.32	87.1	8.3	.96	9.2	.33	.60	.26	53
1	63		11.52	11.51	33.555	25.559	243.2	.204	4.84	78.4	10.7	1.17	12.5	.16	.39	.22	63
1	73		10.65	10.65	33.634	25.775	222.7	.227	4.30	68.4	16.2	1.45	17.3	.05	.20	.12	73
	75	ISL	10.55	10.54	33.649	25.806	219.9	.232	4.23	67.2							76
1	89		10.19	10.18	33.718	25.922	209.1	.261	3.92	61.8	21.0	1.65	20.2	.02	.11	.08	89
	100	ISL	9.95	9.94	33.766	26.000	201.9	.284	3.45	54.1							101
1	104		9.88	9.86	33.781	26.023	199.7	.291	3.31	51.8	23.8	1.79	22.1	.02	.05	.06	104
1	124		9.25	9.24	33.906	26.224	181.0	.331	2.89	44.7	29.4	1 .99	24.9	.01	.01	.04	125
	125	ISL	9.24	9.23	33.910	26.229	180.5	.332	2.88	44.5							126
1	150		9.00	".98	34.060	26.385	166.2	.376	2.44	37.5	34.6	2.19	27.1	.01	.01	.03	151
1	181		s.81	8.79	34.118	26.461	159.5	.426	2.13	32.6	37.9	2.31	28.3	.01			182
	200	ISL	8.S8	8.S6	34.128	26.505	155.6	.456	2.06	31.4							201
1	212		8.43	8.41	34.135	26.533	153.1	.474	2.00	30.4	41.5	2.42	29.5	.01			213
1	242		8.21	8.18	34.196	26.616	145.8	.519	1.55	23.4	46.6	2.60	31.2	.01			243
	250	ISL	8.19	8.17	34.216	26.634	144.3	.531	1.44	21.8							252
1	283		8.14	8.11	34.284	26.695	139.0	.578	1.09	16.5	51.0	2.83	32.5	.02			285
	300	ISL	7.99	7.96	34.295	26.727	136.3	.601	.98	14.8							302
1	344		7.51	7.48	34.297	26.798	129.9	.660	.80	11.9	59.3	3.00	34.8	.01			346
	400	ISL	7.11	7.07	34.298	26.856	125.0	.731	.62	9.1							403
1	421		6.97	6.93	34.299	26.876	123.4	.758	.56	8.2	66.0	3.12	36.5	.00			424
1	493		6.28	6.24	34.310	26.978	114.3	.848	.37	5.4	76.0	3.24	38.7	.00			501
	500	ISL	6.26	6.22	34.311	26.981	114.0	.851	.37	5.3							504
1	574		5.79	5.74	34.353	27.074	105.7	.932	.27	3.9	84.3	3.33	40.1	.00			578

RV NEW HORI7ON CALCOFI CRUISE 8508 STATION 90 53

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
32 38.8	119 29.3 W	14/08/85	2132	GMT 1310 M	290 11	KT 320	03 07 0	1017.0	MB 18.4 C	16.1 C	0/8	

CAST	DEPTH		TE*P	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DEC C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	O.BAR
1	0		18.89	11.89	33.711	24.066	383.8	.000	5.57	104.8	1.9	.34	.0	.12	.16	.02	0
1	1?		18.74	18.73	33.705	24.100	38T.9	.038	5.61	105.2	1.9	.34	.1	.01	.15	.02	10
1	20		16.96	16.96	33.666	24.501	343.0	.074	6.06	109.9	3.3	.38	.1	.00	.45	.11	20
	30	IS	14.12	14.11	33.601	25.083	287.7	.106	5.80	99.3							30
1	31		13.88	13.87	33.599	25.132	283.1	.108	5.78	98.5	6.5	.70	5.0	.14	.67	.25	31
1	41		12.39	12.38	33.596	25.427	255.3	.135	5.12	84.6	9.9	1.02	9.9	.28	.64	.31	41
	50	IS	11.43	11.42	33.651	25.649	234.3	.158	4.33	70.1							50
1	51		11.37	11.37	33.656	25.663	232.9	.159	4.27	69.0	14.5	1.36	14.9	.20	.35	.22	51
1	61		11.14	11.13	33.670	25.716	228.2	.182	4.06	65.3	15.7	1.45	16.2	.14	.26	.19	61
1	71		10.42	10.41	33.733	25.893	211.5	.204	3.49	55.3	20.4	1.69	20.1	.03	.13	.13	71
	75	IS	10.33	10.33	33.739	25.912	209.7	.213	3.48	55.1							76
1	87		10.19	10.18	33.755	25 . 950	206.3	.237	3.46	54.5	22.0	1.74	21.0	.02	.04	.17	87
	100	IS	9.47	9.46	33.861	26.153	187.3	.264	3.03	47.1							101
1	102		9.39	9.3?	33.873	26.176	185.1	.267	2.98	46.2	28.6	1.99	24.7	.01	.02	.04	102
1	121		9.17	9.15	33.945	26.268	176.8	.303	2.68	41.4	31.7	2.09	26.2	.01	.01	.05	122
	125	IS	9.14	9.13	33.957	26.282	175.5	.309	2.65	40.8							126
1	146		8.97	8.95	34.020	26.359	168.6	.346	2.49	38.3	34.1	2.20	27.2	.04	.00	.04	147
	150	IS	8.93	8.91	34.031	26.374	167.2	.352	2.45	37.6							151
1	176		8.61	8.59	34.093	26.473	158.3	.394	2.18	33.2	38.7	2.34	28.9	.04			177
	200	IS	8.29	8.27	34.108	26.533	152.9	.432	2.03	30.7							201
1	206		8.23	8.20	34.109	26.544	151.9	.440	2.00	30.2	42.4	2.43	30.1	.05			207
1	236		8.04	8.01	34.113	26.576	149.3	.485	1.89	28.4	45.0	2.49	31.0	.08			237
	250	IS	7.81	7.79	34.120	26.614	145.9	.507	1.78	26.6							252
1	275		7.40	7.38	34.137	26.687	139.2	.543	1.54	22.8	52.6	2.68	33.4	.02			277
	300	IS	7.23	7.20	34.165	26.734	135.0	.576	1.30	19.2							302
1	334		7.09	7.06	34.203	26.783	130.8	.622	1.00	14.7	60.6	2.90	35.5	.00			336
	400	IS	6.71	6.67	34.238	26.864	124.0	.706	.68	9.9							403
1	408		6.65	6.62	34.241	26.873	123.2	.716	.65	9.5	68.2	3.06	37.3	.00			411
1	484		6.11	6.06	34.282	26.977	113.9	.806	.40	5.8	77.8	3.20	39.1	.00			487
	500	IS	5.98	5.94	34.282	26.994	112.2	.824	.39	5.7							504
1	560		5.49	5.44	34.277	27.051	107.2	.890	.37	5.2	87.1	3.20	40.9	.00			564

RV NEW HORIZON CALCOFI CRUISE 8508

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
32 31.9 N	119 43.2 W	14/08/85	1924	GMT								

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO?.	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	17.28	17.28	33.686	24.441	355.2	.000	5.77	105.3							0
1	2	A	17.28	17.28	.33.686	24.441	348.1	.007	5.77	105.3	1.2	.32	.1	.00	.31	.00	2
	10	ISL	16.19	16.19	33.638	24.659	327.6	.034	6.01	107.3							10
1	12	A	15.99 "	15.99	33.622	24.691	324.5	,040	6.07	107.9	i9	.35	.0	.00	.22	.05	12
1	16	A	15.67	15.67	33.583	24.734	320.6	.053	6.00	106.0	1.0	.39	.0	.00	.30	.07	16
	20	ISL	15.58	15.58	33.577	24.749	319.3	.066	5.96	105.1							20
1	23	A	15.48	15.47	33.575	24.771	317.4	.076	5.92	104.2	1.5	.43	.2	.01	.49	.11	23
	30	ISL	14.04	14.03	33.496	25.018	293.9	.097	5.59	95.4							30
1	38	A	12.25	12.25	33.434	25.326	264.7	.119	5.18	85.2	8.1	1.00	8.5	.47	.25	.36	38
	50	ISL	11.89	11.89	33.444	25.403	257.7	.151	5.05	82.5							50
1	58	A	11.66	11.66	33.451	25.451	253.3	.171	4.97	80.7	10.2	1.14	11.6	.47	.15	.29	58
1	63		11.54	11.53	33.461	25.482	250.5	.183	4.94	80.0	10.5	1.21	12.5	.37	.12	.19	63
1	73		10.97	10.96	33.532	25.640	235.6	.207	4.67	74.8	13.3	1.36	15.4	.06	.11	.11	73
	75	ISL	10.90	10.89	33.551	25.667	233.1	.213	4.59	73.4							76
1	89		10.56	10.55	33.645	25.800	220.7	.244	4.15	65.9	17.7	1.55	18.4	.02	.08	.19	89
	100	ISL	10.07	10.06	33.676	25.909	210.5	.268	3.90	61.3							101
1	103		9.91	9.90	33.684	25.942	207.4	.276	3.83	60.0	21.3	1.68	20.8	.01	.04	.10	104
1	124		9.17	9.16	33.820	26.169	186.1	.317	3.33	51.3	27.2	1.88	24.0	.01	.02	.09	125
	125	ISL	9.16	9.14	33.823	26.175	185.7	.318	3.32	51.2							126
1	1*5		8.79	8.78	33.909	26.299	174.1	.354	3.11	47.6	30.9	1.98	25.4	.01	.01	.06	146
	150	ISL	8.70	8.69	33.926	26.327	171.6	.362	3.08	47.0							<51
1	175		8.25	8.23	33.994	26.449	160.3	.404	2.91	44.0	36.3	2.10	27.2	.01			176
	200	ISL	7.91	7.89	34.024	26.524	153.5	.443	2.68	40.2							201
1	205		7.?6	7.84	34.026	26.533	152.7	.451	2.63	39.4	41.1	2.24	29.0	.01			206

A. PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THF FIRST SIX DEPTHS ON THIS CAST.

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 90

ATITIIDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
2 24.7	119 57.9 W	14/08/85	1625	GMT 830 M	270 08	KT 320	03 05	0 1017.0	MS 17.5 C	1*.O C	0/8	

AST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO 2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	16.50	16.50	33.335	24.353	356.9	.000	5.95	106.7							0
1	1		16.50	16.50	33.335	24.353	356.4	.004	5.95	106.7	1.7	.40	.1	.00	.15	.01	1
	10	ISL	16.22	16.22	33.338	24.421	350.2	.035	6.01	107.1							10
1	11		16.19	16.19	33.341	24.430	349.4	.039	6.01	107.1	1.3	.40	.1	.00	.15	.01	11
	20	ISL	15.94	15.94	33.402	24.534	339.8	.070	6.03	106.9							20
1	22		15.88	15.88	33.418	24.559	337.5	.076	6.03	106.9	1.2	.44	.0	.00	.14	.03	22
	30	ISL	15.60	15.60	33.466	24.659	328.1	.103	6.11	107.6							30
1	32		15.49	15.48	33.468	24.686	325.6	.109	6.12	107.6	1.0	.42	.1	.00	.20	.09	32
1	42		14.19	14.18	33.354	24.879	307.5	.141	6.08	104.1	1.8	.50	.4	.03	.63	.21	42
	50	ISL	13.35	13.34	33.311	25.017	294.5	.166	6.01	101.1							50
1	52		13.17	13.16	33.303	25.047	291.7	.171	5.99	100.4	2.9	.61	1.7	.09	.40	.22	52
1	62		12.01	12.01	33.246	25.226	274.8	.199	5.74	93.8	3.8	.68	3.8	.16	.33	.21	62
1	72		11.26	11.25	33.330	25.431	255.5	.225	5.26	84.6	7.4	.95	8.7	.13	.20	.18	72
	75	ISL	11.09	11.08	33.361	25.485	250.4	.234	5.14	82.5							76
1	88		10.66	10.65	33.488	25.661	234.0	.264	4.75	75.5	13.4	1.34	15.5	.05	.05	.06	88
	100	ISL	10.43	10.41	33.615	25.800	221.0	.292	4.31	68.2							101
1	103		10.38	10.37	33.639	25.827	218.4	.298	4.21	66.6	17.5	1.56	19.1	.02	.03	.04	103
1	122		9.66	9.64	33.798	26.074	195.3	.339	3.23	S0.3	24.7	1.81	23.7	.01	.01	.05	123
	125	ISL	9.57	9.56	33.807	26.095	193.3	.344	3.22	50.2							126
1	148		8.91	8.89	33.854	26.239	180.0	.388	3.18	48.7	28.5	1.91	25.3	.01	.00	.04	149
	150	ISL	8.86	8.85	33.858	26.249	179.1	.391	3.17	48.6							151
1	178		8.34	8.32	33.926	26.383	166.7	.439	3.06	46.3	32.9	2.02	27.0	.01			179
	200	ISL	8.12	8.10	33.970	26.451	160.6	.475	3.03	45.7							201
1	208		8.07	8.05	33.986	26.471	158.8	.488	3.02	45.5	36.0	2.06	27.6	.01			209
1	239		7.98	7.96	34.072	26.551	151.7	.535	2.20	33.1	42.4	2.37	30.4	.01			240
	250	ISL	7.96	7.94	34.103	26.579	149.3	.553	1.95	29.3							252
1	278		7.91	7.88	34.177	26.646	143.4	.594	1.45	21.8	48.1	2.54	32.4	.01			280
	300	ISL	7.64	7.61	34.181	26.688	139.0	.625	1.24	18.5							302
1	339		7.08	7.04	34.188	26.773	131.9	.677	1.02	15.0	58.7	2.76	35.7	.01			341
	400	ISL	6.63	6.60	34.212	26.8S3	124.9	.756	.74	10.7							403
1	414		6.56	6.52	34.221	26.870	123.4	.774	.68	9.9	67.5	2.93	37.9	.00			417
1	490		6.01	5.97	34.288	26.994	112.2	.863	.37	5.3	78.2	3.11	39.9	.00			493
	500	ISL	5.96	5.91	34.295	27.007	111.2	.874	.36	5.2							504
1	565		5.74	5.69	34.319	27.053	107.4	.945	.29	4.1	83.3	3.18		.00			569

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 90 70

.ATITUD		LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
2 05.2 N		120 39.5 H	14/08/85	1006 GMT	3769 M	280 08 XT		0	1017.4 MB 17	.7 C	16.0 C	0/8	
AST DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
M		DE6 C	DE6 C		THETA			ML/L	PCT	UH/L	UM/L	UM/L	UM/L	UG/t	UG/L	D.BAR
1 0		17.29	17.29	33.607	24.376	354.2	.000	5.73	104.5	1.7	.32	.1	.00	.11	.01	0
1 10		16.78	16.78	.33.588	24.484	344.3	.035	5.78	104.4	1.7	.3*	.0	.00	.09	.02	10
20	IS	16.57	16.57	33.576	24.522	340.9	.069	S.80	104.2							20
1 22		16.54	16.53	33.574	24.530	340.3	.076	5.80	104.2	1*7	.34	.0	.00	-1*	.05	22
30	IS	14.82	14.81	33.392	24.774	317.3	.102	6.07	105.3							30
1 31		14.61	14.61	33.373	24.803	314.5	.105	6.10	105.3	1.9	.39	.1	.01	.33	.14	31
1 41		13.28	13.27	33.282	25.008	295.1	.135	6.08.	102 .1.	2.8	.49	1.1	.07	.35	.12	41
SO	IS	12.50	12.49	33.278	25.159	281.2	.162	5.94	98.2							50
1 52		12.40	12.39	33.277	25.178	279.2	.167	5.91	97.4	4.0	.62	3.2	.19	.31	.14	52
1 62		12.16	12.15	33.296	25.237	273.8	.194	5.75	94.3	4.9	.71	4.6	.24	.36	.19	62
1 72		11.87	11.86	33.361	25.342	264.0	-22T	5.41	88.2	6.8	.83	7.1	.23			72
75	IS	11.79	11.78	33.367	25.362	262.1	.230	5.36	87.3							76
1 88		11 .43	11.42	33.392	25.448	254.2	.262	5.17	83.5	8.3	.93	9.0	.09	.17	.19	88
100	IS	10.94	10.93	33.492	25.615	238.7	.293	4.70	75.2							101
1 104		10.77	10.76	33.526	25.670	233.4	.301	4.54	72.4	13.3	1.21	14.1	.03	.08	.12	104
1 123		9.60	9.58	-33.725	26.026	199.8	.344	3.69	57.4	22.8	1.65	21.6	.01	.01	.04	124
125	IS	9.55	9.53	33.738	26.045	198.1	.347	3.65	56.7							126
1 149		9.04	9.03	33.883	26.240	179.9	.393	3.24	49.8	28.4	1 .84	24.2	.01	.00	.03	150
150	IS	9.03	9.01	33.886	26.245	179.5	.395	3.23	49.6							151
1 180		8.49	8.47	33.996	26.415	163.8	.446	2.74	41.6	35.2	2.08	27.1	.01			181
200	IS	8.08	8.06	34.020	26.496	156.3	.478	2.66	40.0							201
1 211		7.87	7.85	34.028	26.532	152.9	.495	2.61	39.1	40.7	2.19	29.0	.00			212
1 242		7.49	7.47	34.069	26.620	145.0	-S41	2.09	31.1	47.4	2.41	31.4	.01			243
250	IS	7.39	7.37	34.075	26.639	143.3	.553	1.98	29.3							252
1 282		7.07	7.04	34.102	26.706	137.3	.598	1.62	23.8	54.4	2.61	33.9	.00			284
300	IS	7.00	6.97	34.134	26.741	134.2	.622	1.47	21.7							302
1 345		6.88	6.85	34.218	26.823	127.1	.681			63.6	2.91	36.4	.00			347
400	IS	6.55	6.52	34.269	26.908	119.6	.749	.92	13.4							403
1 421		6.42	6.38	34.280	26.935	117.3	.774	.82	11.9	73.1	3.10	38.1	.00			424
1 497		6.09	6.04	34.302	26.996	112.3	.860	.35	5.0	79*4	3.18	39.3	.00			500
500	IS	6.07	6.03	34.304	26.999	112.1	.864	.35	5.0							504
1 575		5.75	5.70	34.322	27.054	107.5	.947	.31	4.4	84.6	3.22	40.2	.00			579

RV NEW HORIZON CALCOFI CRUISE 8508 STATIO N 90 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
31 44.9	1 21 18.7 W	14/08/85	0415 6HI	srfb n	330 03 KT		u	1016. 5 HB IB	.3 C !.».•: C		u/s	
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
«	DEG C	DEG C		THETA			ML/L	PCT	UH/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1 0	17.01	17.01	33.386	24.274	364.0	.000	5.77	104.5	1.6	.35	.0	.00	.09	.01	0
1 10	16.62	16.62	33.400	24.376	354.6	.036	5.85	105.2	1.5	.36	.0	.00	.12	.03	10
1 20	15.90	15.90	33.335	24.491	343.8	.071	6.00	106.3	1.5	.40	.0	.00	.16	.04	20
1 30	15.24	15.24	33.290	24.603	333.5	.104	6.11	106.8	1.6	.38	.0	.00	.20	.07	30
1 40	14.78	14.78	33.259	24.678	326.6	.137	6.14	106.3	1.6	.39	.0	.00	.33	.12	40
1 50	13.46	13.45	33.261	24.956	300.4	.168	6.11	103.0	2.4	.49	.9	.05	.33	.21	50
1 60	12.62	12.61	33.272	25.131	283.9	.197	5.92	98.0	3.5	.62	2*7	.13	.29	.23	60
1 71	12.21	12.20	33.312	25.240	273.7	.228	5.97	98.0	4.9	.74	4.9	.20	.24	.22	71
75 IS	12.13	12.12	33.349	25.284	269.6	.240	5.80	95.1							76
1 86	11 .94	11.93	33.444	25.394	259.5	.268	5.35	87.4	7.5	.95	8.8	-27	-1*	.15	86
100 IS	11.42	11.41	33.500	25.535	246.3	.304	5.32	86.0							101
1 101	11.40	11.38	33.502	25.541	245.8	.306	5.32	86.0	10.5	1.15	12.5	.05	.10	.11	101
1 121	10.51	10.49	33.641	25.807	220.8	.354	4.14	65.7	17.0	1.46	18.0	.02	.06	.08	122
125 IS	10.36	10.34	33.668	25.854	216.4	.362	3.99	63.2							126
1 146	9.61	9.60	33.814	26.094	193.9	.406	3.34	52.0	25.2	1 .80	23.0	.01	.01	.05	147
150 IS	9.54	9.53	33.832	26.119	191.6	.413	3.26	50.6							151
1 178	9.17	9.15	33.933	26.259	178.7	.465	2.82	43.5	29.9	1.99	25.5	.01			179
200 IS	8.80	8.78	34.003	26.373	168.3	.503	2.69	41.2							201
1 209	8.66	8.64	34.029	26.415	164.4	.518	2.64	40.3	34.9	2.13	27.3	.01			210
1 241	8.33	8.31	34.107	26.527	154.3	.568	2.16	32.7	41.0	2.35	29.6	.01			242
. 250 IS	8.23	8.20	34.115	26.549	152.3	.583	2.06	31.1							252
1 282	7.83	7.80	34.122	26.614	146.5	.631	1.77	26.5	46.7	2.49	31.6	.00			284
300 IS	7.56	7.53	34.123	26.654	142.8	.656	1.63	24.3							302
1 343	6.93	6.90	34.130	26.748	134.2	.716	1.33	19.5	57.7	2.73	34.9	.00			345
400 IS	6.52	6.48	34.173	26.837	126.3	.790	1.00	14.6							403
1 421	6.42	6.38	34.192	26.866	123.8	.817	.90	13.1	68.1	2.99	37.7	.00			424
1 499	5.90	5.86	34.243	26.972	114.3	.909			78.3	3.16		.00			502
500 IS	5.90	5.85	34.244	26.974	114.2	.911	.56	8.1							504
1 573	5.38	5.34	34.285	27.070	105.5	.991	.34	4.8	88.7	3.27		.00			577

RV NEW ORI ON CALC OFI iE 8508 " :ir< 90 SO
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ATITUDE	LONGITUDE	DAV/MO/YR	MESSENGER	BOTTOM	HIND SPEED	HAVES	HEATHER	BAROMETER	DRY	HET	CLOUD ANT TYPE
1 25.4 N	121 59.9 U	13/03/85	2236 GMT	3815 M	210 03 KT	340 0 5 08	2	1017.9 MB	20 .9 C	,18.3 t	8/8 sc

AST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DTN HT	OXYGEN	OXY	SIO3	P04	N03	N02	CHL^A	PNAEO	PRESS
	M		DEG C	DES t		THETA			NL/L	PCT	UN/L	UH/L	UM/L	UM/L	US/L	UC/L	D.BAR
1	0		18.52	18.52	33.440	23.951	394.8	.000	5.54	103.4	2.2	.33	.1	.00	.08	.00	0
1	10		18.20	18.20	33.421	24.016	388.9	.039	5.56	103.1	1.9	.33	.1	.00	.08	.01	10
	20	IS	18.18	18.17	33.430	24.029	387.9	.078	5.63	104.4							20
1	21		18.17 .	18.17	33.431	24.030	387.9	.082	5.64	104.5	1.8	.33	.0	.00	.09	.01	21
	30	IS	17.90	17.89	33.387	24.06S	384.9	.117	5.63	103.8							30
1	31		17.85	17.84	33.377	24.068	384.6	.120	5.63	103.6	1.7	.33	.0	.00	.13	.02	31
1	42		16.86	16.86	33.358	24.289	363.9	.161	5.90 .	106.5	1.7	.34	.0	.00	.19	.04	42
	50	IS	15.59	15.58	33.368	24.587	335.6	.190	6.07	107.0							50
1	52		15.32	15.31	33.372	24.650	329.7	.196	6.10	106.8	2.0	.35	.0	.00	.26	.10	52
1	63		14.69	14.68	33.354	24.773	318.3	.231	6.06	104.8	2.0	.36	.0	.00	.29	.16	63
1	73		14.01	14.00	33.320	24.890	307.3	.262	6.08	103.7	2.1	.38	.0	.00	.26	.17	73
	75	IS	13.88	13.87	33.324	24.920	304.5	.269	6.05	102.9							76
1	89		13.27	13.26	33.369	25.079	289.7	.310	5.82	97.8	3.3	.51	.8	.11	.19	.27	89
	100	IS	12.93	12.91	33.374	25.151	283.1	.342	5.67	94.5							101
1	105		12.79	12.77	33.377	25.181	280.3	.355	5.59	92.9	4.1	.56	2.8	.24	.16	.20	105
1	124		11.77	11.76	33.493	25.465	253.6	.408	4.97	80.9	8.4	.89	⬇ ▮	.03	.08	.12	125
	125	IS	11.75	11.73	33.495	25.471	253.0	.410	4.95	80.6							126
1	150		10.71	10.69	33.597	25.738	228.0	.471	4.22	67.2	14.6	1.25	15.6	.01	.03	.11	151
1	182		9.79	9.77	33.828	26.075	196.5	.538	3.22	50.3	24.2	1.69	22.7	.00			183
	200	IS	9.40	9.38	33.920	26.212	183.8	.572	2.95	45.8							201
1	213		9.15	9.12	33.970	26.292	176.3	.595	2.84	43.8	30.4	1.90	25.8	.00			214
1	244		8.53	8.50	34.040	26.444	162.2	.647	2.67	40.6	35.9	2.03	27.9	.00			245
	250	IS	8.43	8.40	34.048	26.467	160.2	.658	2.64	40.0							252
1	284		7.c9	7.86	34.077	26.570	150.7	.711	2.37	35.5	43.3	2.23	30.5	.00			286
	300	IS	7.62	7.59	34.090	26.620	146.1	.734	2.11	31.4							302
1	346		6.90	6.86	34.132	26.754	133.6	.799	1.34	19.6	58.9	2.63	3S.8	.00			348
	400	IS	6.43	6.40	34.192	26.864	123.7	.868	1.16	16.8							403
1	424		6.?8	6.24	34.217	26.904	120.2	.898	1.13	16.3	72.3	2.92	39.1	.00			427
1	499		5.69	5.64	34.263	27.015	110.1	.983	.39	5.6	83.4	3.07	41.4	.00			502
	500	IS	5.68	5.64	34.264	27.016	109.9	.985	.39	5.5							504
1	575		5.2!	5.24	34.307	27.099	102.6	1.065	.27	3.8		3.15	42.6	.00			579

RV NEW HORIZON CALCOFI CRUISE 8508

LATITUDE	LONGITUDE	DAY/HO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMY TYPE
31 12.2	122 22.9 W	13/08/85	1927 GMT								

CAS	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	P04	NO 3	NO 2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			NL/L	PCT	UM/L	UM/L	UM/L	UM/L	UC/L	UG/L	D.BAR
	n	IS	19.08	19.08	33.505	23.859	404.2	.000	5.44	102.6							0
1	2	A	19.08	19.08	33.505	23.859	403.6	.008	5.44	102.6	1.9	.33	.1	.00	.07	.00	2
	10	IS	18.92	18.92	33.490	23.888	401.0	.040	5.46	102.7							10
	20	IS	18.72	18.72	33.472	23.926	397.9	.080	5.49	102.8							20
1	28	A	18.56	18.56	33.458	23.954	395.4	.112	5.51	102.9	1.7	.33	.1	.00	.07	.00	28
	30	IS	18.42	18.41	33.452	23.986	392.5	.120	5.56	103.6							30
1	36	A	17.95	17.94	33.442	24.094	382.4	.143	5.72	105.5	1.7	.33	.1	.00			36
	50	IS	16.52	16.51	33.519	24.492	344.8	.194	5.99	107.6							50
1	54	A	16.13	16.12	33.543	24.601	334.5	.207	6.04	107.6	1.9	.31	.1	.00	.09	.01	54
	75	IS	14.65	14.64	33.413	24.827	313.4	.276	6.03	104.2							76
1	89	A	13.89	13.88	33.303	24.902	306.6	.318	6.02	102.4	1.9	.37	.1	.00	.21	.11	89
	10	IS	13.20	13.18	33.315	25.052	292.5	.352	5.74	96.2							101
1	12	A	11.84	11.82	33.423	25.399	259.9	.419	5.00	81.5	7.4	.82	8.3	.03	.12	.13	125
	12	IS	11.81	11.80	33.426	25.406	259.3	.421	4.99	81.3							126
1	14		10.97	10.95	33.526	25.637	237.5	.466	4.57	73.2	11.8	1.11	12.7	.02	.07	.09	144
	15	IS	10.71	10.69	33.558	25.708	230.9	.482	4.44	70.6							151
1	17		9.87	9.85	33.678	25.946	208.6	.535	3.98	62.3	19.3	1.46	18.5	.01	.02	.04	175
	20	IS	9.01	S.98	33.842	26.214	183.4	.586	3.50	53.8							201
1	20		8.84	8.82	33.877	26.267	178.4	.595	3.41	52.2	28.5	1.80	24.1	.01	.00	.01	206

PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THE FIRST SIX DEPTHS ON THIS CAST.

RV MEN HORIZON CALCOFI CRUISE 8S08 STATION 90 100

UOE LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
,iH 122 39.6 W	13/08/85	1630 GMT	4110 M	160 02 KT	350 05 08	2	1017.5 MB	18.9 C	16.8 C	8/8	SC

DEPTH M	TEMP DEG C	POT TEMP DEC t	SALINITY	SIGMA TMETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UN/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
0 ISL	19.40	19.40	33.523	23.791	410.1	.000	5.39	102 .3							0
1	19.40	19.40	33.523	23.791	410.0	.004	5.39	102. 3	2.0	.32	.1	.00	.05	.00	1
10 ISC	19.36	19.36	33.518	23.798	409.7	.041	5.42	102.7							10
12	19.36	19.35	33.518	23.800	409.6	.049	5.42	102.8	1.9	.32	.1	.00	.06	.00	12
20 ISL	19.33	19.33	33.520	23.807	409.2	.082	5.41	102.6							20
23	19.33	19.32	33.520	23.810	409.0	.094	5.41	102.5	1.9	.32	.1	.00	.06	.01	23
30 ISL	19.30	19.30	33.519	23.815	408.8	.123	5.61 .	106.2							30
33	19.29	19.29	33.518	23.817	408.8	.135			1.8	.32	.1	.00	.07	.00	33
43	16.72	16.71	33.583	24.495	344.2	.172	6.01	108.4	1.8	.29	.1	.00	.08	.01	43
50 ISL	16.42	16.41	33.606	24.582	336.2	.196	6.01	107.8							50
54	16.26	16.25	33.618	24.628	331.9	.209	6.01	107.4	2.0	.27	.1	.00	.09	.02	54
63	15.58	15.57	33.524	24.710	324.4	.239	6.01	105.9	1.9	.30	.1	.00	.10	.02	63
74	14.93	14.92	33.473	24.813	314.9	.274	6.00	104.3	2.0	.32	.1	.00	.14	.04	74
75 ISL	14.90	14.89	33.477	24.823	313.9	.278	5.99	104.1							76
90	14.50	14.49	33.513	24.937	303.4	.323	5.90	101.7	2.2	.33	.1	.00	.19	.14	90
100 ISL	13.86	13.84	33.424	25.003	297.4	.354	5.60	95.3							101
105	13.53	13.52	33.383	25.037	294.2	.368	5.46	92.2	2.5	.40	.3	.03	.28	.24	105
125	12.25	12.23	33.423	25.321	267.5	.426	5.17	85.0	6.0	.74	6.4	.05	.15	.15	126
14"	10.91	10.97	33.519	25.627	238.6	.487	4.57	73.2	11.4	1.09	12.6	.01	.07	.11	150
150 ISL	10.96	10.94	33.523	25.636	237.8	.488	4.55	72.8							151
181	9.56	9.54	33.728	26.035	200.1	.556	3.70	57.5	22.1	1.60	20.9	.00			182
200 ISL	9.05	9.03	33.835	26.202	184*5	.593	3.41	52.5							201
211	8.82	8.80	33.888	26.279	177.3	.612	3.31	50.6	28.7	1.82	24.4	.00			212
241	8.24	8.22	33.981	26.441	162.3	.663	3.23	48.8	34.1	1.91	26.1	.00			242
250 ISL	8.11	8.08	33.995	26.473	159.4	.678	3.12	47.0							252
283	7.68	7.65	34.021	26.556	151.9	.728	2.67	39.8	41.9	2.16	29.3	.00			284
300 ISL	7.41	7.38	34.026	26.599	147.9	.755	2.52	37.3							302
342	6.P0	6.77	34.038	26.692	139.3	.815	2.16	31.6	53.3	2.42	32.5	.00			344
400 ISL	6.24	6.20	34.088	26*806	128.9	.893	1.35	19.5							403
417	6.11	6.07	34.103	26.835	126.3	.914	1.13	16.3	68.2	2.84	38.0	.00			419
492	5.53	5.49	34.153	26.946	116.2	1 .005	.70	9.9	81.0	3.06	40.4	.00			495
500 ISL	5.48	5.44	34.162	26.959	115.1	1.015	.66	9.3							504
565	5.19	5.14	34.258	27.071	105.0	1.086	.34	4.8		3.23	41.3	.00			569

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 90 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
30 43.8 N	123 20.4 W	13/08/85	1042 GMT	3941 M	270 05 KT		2	1017.3 MB	18.9 C	16.0 C	8/8	

DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UH/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
0 ISL	19.65	19.65	33.534	23.737	416.0	.000	5.40	103.0							0
1	19.65	19.65	33.534	23.737	415.2	.004	5.40	103.0	1.8	.32	.1	.00	-05	.00	1
10 ISL	19.38	19.38	33.522	23.796	409.9	.041	5.42	102.8							10
11	19.37	19.37	33.521	23.800	409.6	.045	5.42	102.8	1.8	.32	.0	.00	.05	.00	11
20 ISL	19.34	19.34	33.522	23.808	409.2	.082	5.43	102.9							20
23	19.33	19.33	33.522	23.810	409.0	.094	5.43	102.9	1.8	.33	.0	.00	.05	.01	23
30 ISL	19.32	19.32	33.522	23.813	409.1	.123	5.42	102.7							30
32	19.32	19.31	33.522	23.813	409.1	.131	5.42	102.7	1.7	.33	.1	.00	.05	.01	32
4?	16.56	16.56	33.396	24.388	354.4	.169	6.07	109.0	1.8	.33	.1	.00	.08	.01	42
50 ISL	15.69	15.68	33.365	24.562	338.1	.197	6.12	108.0							50
53	15.55	15.54	33.361	24.590	335.4	.207	6.14	108.0	1.7	.33	.1	.00	.10	.02	53
63	14.98	14.97	33.386	24.735	321.9	.239	6.11	106.3	1.7	.34	.0	.00	.13	.04	63
74	14. 3K	14.36	33.328	24.820	314.1	.274	6.08	104.4	1.8	.36	.0	.00	.17	.06	74
75 ISL	14.30	14.29	33.323	24.831	313.0	.278	6.08	104.2							76
89	13.55	13.54	33.305	24.972	299.9	.320	5.95	100.5	2.4	.40	.0	.00	.25	.24	89
100 ISL	13.03	13.02	33.337	25*102	287.8	.353	5.65	94.4							101
105	12.83	12.81	33.356	25.157	282.6	.366	5.51	91.7	4.1	.59	3.0	.20	.24	.21	105
125	11.82	11.81	33.484	25.449	255.2	.423	4.96	80.9	7.9	.88	8.8	.02	• 11	.14	126
150 ISL	10.10	10.09	33.652	25.885	213.9	.480	4.17	65.6							151
151	10.01	9.99	33.661	25.908	211.8	.483	4.13	64.8	17.8	1.39	17.6	.01	.02	.03	152
181	9.11	9.10	33.818	26.178	186.4	.542	3.47	53.4	26.0	1.73	23.1	.00			182
200 ISL	8.76	8.73	33.893	26.294	175.7	.576	3.32	50.7							201
212	8.57	8.55	33.931	26.352	170.4	.597	3.27	49.8	31.1	1.87	25.2	.00			213
244	8.06	8.03	33.994	26.479	158.7	.649	3.06	46.0	36.7	2.02	27.2	.00			245
250 ISL	7.97	7.94	34.001	26.499	156.9	.659	2.99	44.9							252
283	7.51	7.48	34.030	26.588	148.7	.710	2.54	37.7	44.2	2.23	30.3	.00			285
300 ISL	7.29	7.26	34.044	26.630	145.0	.735	2.26	33,4							302
345	6.77	6.74	34.076	26.726	136.1	.798	1.53	22.4	57.2	2.59	34.9	.00			347
400 ISL	6.26	6.23	34.110	26.820	127.7	.870	1.10	15.9							403
421	6.09	6.05	34.121	26.852	124.7	.898	1.00	14.4	69.7	2.88	37.7	.00			424
498	5.42	5.38	34.164 .	26.968	114.1	.989	.64	9.1	82.5	3.07	39.8	.00			501
500 ISL	5.41	5.37	34.166	26.971	113.8	.991	.63	8.9							504
574	5.17	5.12	34.261	27.075	104.6	1.072	.33	4.6	91.2	3.17	42.2	.00			578

RV NEK HORIZON — CALCOFI CRUISE 8508 — STATION 90 120

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	TYPE
30 25.0 N	1 23 59.5 V	13/08/85	0507	4183 M	120 04 KT			1017.0 MB	18 .8 C	15.9 C		

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UH/L	PO 4 UM/L	UH/L	NO2 UH/L	CHL-A US/L	PHAEO UG/L	PRESS D.BAR
	n																
	0	IS	19.10	19.10	33.393	23.769	412.9	.000	5.47	103.1							0
1	1		19.10	19.10	33.393	23.769	412.1	.004	5.47	103.1	2.0	.37	.1	.00	.05	.00	1
	10	IS	18.86	18.86	33.387	23.825	407.2	.041	5.49	103 .0							10
1	11		18.85	18.85	33.386	23.828	406.8	.045	5.49	103.0	2.0	.37	.1	.01	.05	.00	11
	20	IS	18.81	18.80	33.386	23.838	406.2	.082	5.48	102.8							20
1	23		18.79	18.79	33.385	23.841	406.0	.094	5.48	102.7	2.0	.36	.1	.00	.06	.00	23
	30	IS	18.77	18.76	33.382	23.847	405.8	.122	5.50.	103.1							30
1	32		18.76	18.75	33.381	23.848	405.7	.130	5.51	103.2	2.0	.36	.1	.00	.06	.01	32
1	42		17.80	17.79	33.438	24.127	379.3	.169	5.72	105.2	1.9	.35	.1	.00	.08	.01	42
	50	IS	16.82	16.81	33.S64	24.458	348.1	.199	5.95	107.5							50
1	53		16.51	16.50	33.601	24.5S9	338.5	.208	6.02	108.1	2.2	.31	.1	.00	.09	.01	53
1	63		15.92	15.91	33.553	24.655	329.6	.242	6.06	107.5	2.1	.32	.1	.00	.09	.01	63
1	73		15.33	15.32	33.516	24*759	320.0	.274	6.03	105.7	2.1	.32	.1	.00	.11	.02	73
	75	IS	15.09	15.08	33.491	24.792	316.9	.281	6.03	105.3							76
1	88		13.93	13.92	33.398	24.966	300.5	.320	6.05	103.0	2.5	.36	.1	.00	.19	.11	88
	100	IS	14.03	14.02	33.517	25.038	294.1	.357	5.85	99.9							101
1	103		14.06	14.04	33.537	25.049	293.1	.365	5.80	99.1	2.7	.39	.5	.08	.28	.22	103
1	123		12.88	12.86	33.449	25.219	277.2	.421	5.68	94.7	3.4	.56	2.8	.06	.18	.16	123
	125	IS	12.76	12.74	33.452	25.245	275.3	.428	5.65	93.9							126
1	148		11.69	11.67	33.482	25.472	253.6	.490	5.17	84.0	7.0	.82	7.7	.01	.07	.08	149
	150	IS	11.60	11.58	33.490	25.495	251.3	.494	5.12	83.1							151
1	177		10.09	10.07	33.670	25.902	212.9	.557	4.29	67.4	16.8	1.32	16.4	.00			178
	200	IS	9.18	9.16	33.814	26.165	188.1	.603	3.62	55.8							201
1	206		s.99	8.97	33.847	26.220	182.9	.614	3.48	53.4	27.0	1.76	23.5	.00			207
1	234		8.43	9.41	33.946	26.385	167.5	.666	3.42	51.9	32.2	1.90	25.8	.00			237
	250	IS	8.22	8.19	33.972	26.439	162.7	.690	3.31	50.0							252
1	275		7.90	7.87	34.000	26.509	156.3	.729	3.05	45.7	38.2	2.04	27.7	.00			276
	300	IS	7.62	7.59	34.019	26.563	1S1.4	.768	2.76	41.2							302
1	333		7.30	7.26	34.037	26.624	146.0	.817	2.3S	34.8	47.6	2.31	31.3	.00			335
	400	IS	6.56	6.52	34.097	26.772	132.5	.911	1.39	20.2							403
1	407		6.49	6.45	34.103	26.786	131.2	.919	1.30	18.9	63.1	2.75	36.6	.00			409
1	482		5.88	5.84	34.168	26.916	119.4	1.014	.72	10.3	76.4	3.01	39.8	.00			485
	S00	IS	5.76	5.72	34.184	26.944	116.9	1.035	.62	8.9							504
1	560		5.44	5.39	34.238	27.026	109.5	1.103	.41	5.8	86.6	3.16	41.1	.00			564

RV NEM HORIZON — CALCOFI CRUISE 8508 — STATION 93 26.8

LATITUDE	LONGITUDE 1	DAY/MO/YR	MESSENGER	BOTTOM 1837	WIND SPEED	WAVES 05	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
32 56.8 N	17 18.5 W	09/08/85	GUT 68 M		240 KT 280 01 07		0	1015.1 MB	21.3 C	18.3 C	O/8	

CAST	DEPTH	TEKP DEG C	POT TEMP DEG C	SALINITY THETA	SIGMA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A US/L	PHAEO UG/L	PRES S D.BA
n																
1	10	19.01	19.01	33.584	23.938	396.3		5.78	108.9	2.5	.30	.1	-01	.18	.01	10

RV NEN HORIZON — CALCOFI CRUISE 8508 — STATION 93 29

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMY	TYPE
32 52.5	117 27.7 W	09/08/85	2141 GMT	656 M	220 06 KT 270	01 05	1	1014.6 MB 19	.9 C	17.8 C	1/8	SC

CAST	DEPTH		TEMP DES C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A US/L	PHAEO UG/L	PRESS D.BAR
	M																
	0	IS	20.98	20.98	33.691	23.505	438.8	.000	5.48	107.2							0
1	1		20.98	20.98	33.691	23.505	437.4	.004	5.48	107.2	1.8	.27	.0	.00	.11	.01	1
	10	IS	20 .1 2	20.12	33.670	23.717	417.4	.043	5.51	106.0							10
1	11		19.99	19.99	33.664	23.747	414.6	.047	5.51	105.8	1.7	.29	.0	.00	.12	.00	11
	20	IS	18.47	18.46	33.601	24.088	382.4	.083	5.85	109.0							20
1	22		17.94	17.94	33.569	24.193	372.4	.090	5.94	109.7	1.8	.31	.0	.00	.24	.01	22
	30	IS	13.89	13.89	33.323	24.915	303.7	.117	6.34	107.8							30
1	32		13.02	13.02	33.293	25.068	289.1	.123	6.40	106.9	3.2	.48	1.1	.05	.72	.21	32
1	42		12.59	12.59	33.308	25.163	280.3	.151	6.10	101.0	3.8	.60	3.1	.13	.74	.37	42
	50	IS	12.20	12.19	33.362	25.282	269.3	.174	5.82	95.7							50
1	53		12.05	12.04	33.382	25.325	265.1	.181	5.72	93.7	6.2	.82	6.8	.24	.67	.33	53
1	63		11.42	11.41	33.424	25.475	251.1	.207	5.28	85.3	9.2	1.04	10.8	.13	.48	.25	63
1	73		11.19	11.18	33.527	25.596	239.8	.231	4.76	76.6	11.9	1.16	13.0	.05	.28	.20	73
	75	IS	11.13	11.12	33.543	25.620	237.6	.237	4.67	75.0							76
1	89		10.73	10.72	33.620	25.751	225.4	.268	4.23	67.4	16.9	1.37	16.6	.03	.13	.13	89
	100	IS	10.36	10.35	33.673	25.857	215.6	.293	3.92	61.9							101
1	104		10.25	10.24	33.690	25.889	212.6	.301	3.82	60.3	20.0	1.55	19.5	.02	.08	.08	104
1	124		9.78	9.76	33.836	26.083	194.5	.343	3.10	48.5	26.0	1.77	23.0	.01	.03	.06	125
	125	IS	9.77	9.75	33.840	26.088	194.0	.348	3.08	48.2							126
1	150		9.53	9.51	34.002	26.254	178.7	.392	2.49	58.7	31.4	2.05	25.9	.00	.00	.05	151
1	180		9.41	9.39	34.098	26.350	170.3	.444	2.14	33.2	34.9	2.20	27.3	.00			181
	200	IS	9.32	9.30	34.139	26.397	166.2	.477	1.97	30.5							201
1	211		9.27	9.25	34.15?	26.418	164.4	.495	1.89	29.3	37.0	2.30	28.3	.00			212
1	242		9.20	9.17	34.203	26.467	160.4	.545	1.67	25.8	39.1	2.39	29.0	.00			243
	250	IS	9.20	9.17	34.212	26.474	159.9	.559	1.62	25.0							252
1	282		9.20	9.17	34.245	26.500	158.1	.610	1.45	22.4	40.7	2.47	29.5	.00			284
	300	IS	9.08	9.05	34.251	26.524	156.2	.638	1.40	21.5							302
1	343		8.67	8.63	34.259	26.596	149.9	.703	1.26	19.3	45.3	2.57	31.0	.00			345
	400	IS	8.07	8.03	34.300	26.720	138.8	.786	.87	13.1							403
1	419		7.85	7.80	34.313	26.764	134.8	.812	.73	10.9	56.4	2.87	34.1	.00			422
1	495		6.85	6.80	34.315	26.906	121.6	.909	.39	5.7	68.3	3.07	37.4	.00			498
	500	IS	6.79	6.74	34.316	26.915	120.8	.915	.38	5.6							504
1	570		6.16	6.11	34.333	27.012	112.0	.997	.30	4.3	78.3	3.19	39.5	.01			574

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 30

LATITUDE	LONEITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI TYPE
32 50.8	117 32.1 W	10/08/85	0107 GMT	854 M	250 07	XT 270	01 08 1	1012.9 MB	20.4 C	18.0 C	1/8 sc

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEC C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	U6/L	UG/L	D.BAR
	0	ISL	20.76	20.76	33.659	23.539	433.9	.008	5.56	108.3							0
1	1		20.76	20.76	33.659	23.539	434.0	.004	5.56	108.3	2.7	.31	.1	.00	.09	.00	1
	10	ISL	19.85	19.85	33.6*0	23.766	414.7	.043	5.60	107.2							10
1	11		19.75	19.75	33.638	23.790	410.5	.047	5.60	107.0	2.0	.31	.1	.00	.09	.00	11
	HO	ISL	16.52	16.52	33.483	24.463	346.6	.081	6.36	114.2							20
1	22		15.76	15.76	33.452	24.613	332.3	.087	6.53	115.5	2.5	.35	.1	.00	.19	.02	22
	30	ISL	13.63	13.63	33.281	24.937	301.7	.113	6.68	112.9							30
1	32		13.27	13.26	33.250	24.986	297.0	.118	6.71	112.6	2.7	.40	.1	.00	.29	.08	32
1	43		12.61	12.61	33.328	25.175	279.3	.150	6.17	102.2	4.1	.61	3.4	.11	.75	.41	43
	50	ISL	12.17	12.16	33.357	25.283	269.1	.170	6.13	100.7							50
1	53		12.01	12.00	33.370	25.323	265.3	.177	6.12	100.1	6.2	.80	6.5	.23	.60	.40	53
1	63		11.61	11.60	33.461	25.469	251.7	.203	5.27	85.5	9.0	1.01	10.5	.07	.40	.26	63
1	74		11.38	11.37	33.543	25.576	241.8	.230	4.97	80.3	11.3	1.13	12.8	.04	.24	.28	74
	75	ISL	11.32	11.31	33.551	25.593	240.2	.233	4.92	79.4							76
1	89		10.63	10.62	33.639	25.783	222.3	.264	4.31	6S.6	17.4	1.41	17.3	.03	.11	.10	89
	100	ISL	10.14	10.13	33.745	25.950	206.6	.289	3.65	57.4							101
1	105		9.99	9.97	33.786	26.009	201.1	.298	3.41	53.5	24.0	1.71	21.7	.01	.05	.04	105
1	124		9.67	9.65	33.884	26.139	189.2	.337	3.05	47.6	26.9	1.68	23.6	.01	.01	.03	125
	125	ISL	9.67	9.65	33.889	26.143	188.8	.338	3.03	47.2							126
1	150		9.67	9.65	34.067	26.283	176.1	.384	2.23	34.8	32.9	2.14	76.5	.00	.01	.04	151
1	181		9.41	9.39	34.098	26.350	170.3	.437	2.17	33.7	34.8	2.22	27.2	.00			1S2
	2 00	ISL	9.29	9.27	34.142	26.404	165.6	.469	1.96	30.4							201
1	213		9.25	9.22	34.175	26.437	162.7	.490	1.80	27.9	37.9	2.33	28.5	.01			214
1	244		9.29	9.27	34.227	26.470	160.2	.540	1.56	24.2	39.5	2.42	28.8	.01			245
	250	ISL	9.29	9.26	34.233	26.476	159.8	.550	1.53	23.7							?52
1	283		9.23	9.19	34.254	26.503	157.8	.603	1.40	21.7	41.1	2.48	29.4	.01			235
	300	ISL	9.16	9.13	34.269	26.525	156.1	.629	1.31	20.2							302
1	346		8.91	J.87	34.303	26.594	150.3	.700	1.09	16.7	45.1	2.62	30.9	.01			348
	400	ISL	8.54	R.50	34.323	26.667	144.2	.779	1.06	16.1							403
1	423		8.28	8.24	34.326	26.709	140.5	.813	1.04	15.8	52.0	2.80	32.9	.00			426
1	499		6.65	6.61	34.336	26.949	117.4	.910	.40	5.8	72.0	3.09	38.1	.00			502
	500	ISL	6.64	6.59	34.336	26.951	117.3	.911	.40	5.8							504
1	575		6.G9	6.04	34.341	27.027	110.5	.997	.33	4.8	79.7	3.18	39.8	.00			579

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CUD AMI TYPE
32 41.0 I	1 17 52.5 U	10/08/85	064 0 GMT	586 M	180 07	KT	0	1015.2	ME 18 .2 C	16.7 C	0/8

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UH/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	19.97	19.97	33.691	23.774	413.8	.000									0
1	1		19.97	19.97	33.691	23.774	411.7	.004			2.2	.28	.2	.00	.11	.02	1
	10	ISL	18.80	18.80	33.592	23.996	390.7	.040									10
1	11		18.6f	18.68	33.585	24.022	388.3	.044	5.61	105.1	2.1	.31	.2	.00	.09	.01	11
	20	ISL	17.59	17.59	33.559	24.269	365.1	.078	5.87	107.6							20
1	22		17.26	17.26	33.543	24.337	35!!.7	.085	5.94	108.2	2.2	.34	.2	.00	.16	.03	22
	30	ISL	14.54	14.53	33.347	24.799	314.8	.112	6.35	109.4							30
1	32		13.02	13.91	33.314	24.903	304.9	.118	6.44	109.6	2.7	.40	.2	.00	.32	.15	32
1	42		12.84	12.83	33.325	25.129	283.6	.147	6.68	111 .2	4.0	.58	2.9	.13	.50	.31	42
	50	ISL	12.23	12.23	33.380	25.288	268.6	.170	5.84	96.0							50
1	52		12.14	12.13	33.392	25.316	266.0	.175	5.64	92.5	6.4	.80	6.6	.26	.45	.40	52
1	62		11.91	11.90	33.425	25.385	259.7	.201	5.56	90.8	7.5	.91	8.6	.35	.33	.25	62
1	73		11 .61	11.60	33.434	25.448	253.9	.229	5.18	84.0	9.0	.99	10.1	.15	.27	.27	73
	75	ISL	11.53	11.52	33.449	25.474	251.5	.235	5.08	82.3							76
1	88		11 .01	1 1.00	33.550	25.647	235.3	.265	4.52	72.5	13.7	1.21	14.0	.04	.12	.17	88
	100	ISL	10.40	10.39	33.629	25.816	219.4	.294	4.08	64.5							101
1	104		10.24	10.23	33.651	25.861	215.2	.301	3.96	62.4	19.4	1 .48	18.4	.01	.04	.07	104
1	124		9.75	9.74	33.790	26.051	197.5	.344	3.30	51.5	25.3	1.72	22.3	.02	.01	.04	125
	125	ISL	9.75	9.73	33.794	26.055	197.1	.346	3.29	51.3							126
1	150		9.55	9.53	33.960	26.219	182.1	.393	2.82	43.9	30.1	1.95	24.8	.01	.00	.03	151
1	180		9.25	9.23	34.108	26.383	167.1	.445	2.20	34.0	36.5	2.20	27.4	.00			181
	2 00	ISL	9.32	9.30	34.163	26.415	164.5	.479	1.73	26.9							201
1	212		9.36	9.35				.498	1.50	23.3	40.6	2.43	29.1	.01			213
1	243		9.01	8.98	34.266	26.547	152.8	.547	1.29	19.9	44.3	2.54	30.2	.00			244
	2 50	ISL	8 .94	8.91	34.274	26.563	151.3	.558	1.25	19.2							252
1	284		8.64	8.61	34.287	26.621	146.4	.609	1.08	16.5	48.6	2.65	31.4	.01			286
	300	ISL	8.50	8.47	34.300	26.653	143.6	.632	.99	15.0							302
1	346		P.10	8.06	34.332	26.740	135.9	.696	.74	11.2	55.9	2.84	33.5	.00			348
	400	ISL	7.63	7.59	34.327	26.806	130.3	.768	.58	8.7							403
1	422		7.45	7.41	34.322	26.827	123.5	.797	.54	8.0	62.2	2.96	35.5	.00			425
1	4 99		6.96	6.91	34.333	26.905	121.9	.892	.38	5.6	68.1	3.05	37.0	.00			502
	500	ISL	6.95	6.90	34.333	26.907	121.7	.894	.38	5.5							504
1	574		6.14	6.08	34.360	27.036	109.7	.979	.25	3.6	80.4	3.18	39.7	.01			578

RV Nf.u HORIZON CALCOFI CRUISE 8508 STATION 93 40

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	HIND SPEED	HAVES	HEATHER	BAROMETER	DRY	HET	CLOUD AMI	TYPE
32 30.4 ..	118 12.5 M	10/0 8/85	1351 GMT	1605 M	150 04	KT 280	02 1	1016.5	MB 17 .6 C	15.0 C	7/8	SC

CAST		DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN H»	OXY6EN ML/L	OXY PCT	SI03 UM/L	P04 UM/L	N03 UM/L	N02 UH/L	CHL-A UC/L	PHAEO U6/L	PRESS D.BAR
1		0	18.87	18.87	33.671	24.041	386.2	.000	5.54	104.2	1.9	.29	.1	.00	.14	.01	0
1		10	18.87	18.86	33.671	24.041	386.5	.039	5.55	104.4	1.9	.30	.1	.00	.14	.01	10
		20 IS	18.39	18.39	33.637	24.13*	378.0	.077	5.64	105.2							20
1		22	18.27	18.26	33.629	24.159	375.7	.084	5.67	105.4	1.9	.30	.1	.00	.1*	.03	22
		30 IS	17.75-	17.75	33.606	24.267	365.7	.114	5.80	106.7							30
1		31	17.64	17.63	33.600	24.291	363.4	.117	5.82	106.8	2.0	.34	.1	.01	.22	.04	31
1		41	14.27	14.27	33.494	24.969	299.0	.150	6.21 .	106.6	3.7	.49	2.2	.09	.45	.20	41
		S0 IS	13.13	13.13	33.478	25.190	278.1	.177	6.03	101.0							50
1		52	13.03	13.03	33.476	25.208	276.4	.182	5.99	100.2	5.4	.66	4.6	.19	.42	.28	52
1		62	12.31	12.30	33.481	25.354	262.7	.208	5.60	92.2	7.3	.85	7.6	.31	.36	.37	62
1		72	11.87	11.86	33.515	25.462	252.6	.234	5.16	84.2	9.4	1.01	10.2	.39	.29	.30	72
		75 IS	11.65	11.64	33.530	25.515	247.7	.242	5.00	81.3							76
1		88	10.84	10.83	33.589	25.707	229.6	.272	4.47	71.4	14.9	1.31	15.8	.05	.13	.13	88
		100 IS	10.48	10.47	33.621	25.795	221.4	.300	4.20	66.5							101
1		103	10.42	10.41	33.628	25.811	220.0	.306	4.14	65.5	17.7	1.44	17.8	.03	.08	.08	103
1		123	9.54	9.53	33.776	. 26.075	195.1	.349	3.17	49.3	25.0	1 .70	22.2	.01	.01	.04	124
		125 IS	9.51	9.49	33.782	26.086	194.2	.352	3.17	49.2							126
1		150	9.14	9.13	33.855	26.202	183.6	.400	3.17	48.9	28.8	1.85	24.6	.01	.00	.03	151
1		179	8.74	8.72	33.982	26.365	168.5	.451	2.71	41.4	34.5	2.05	27.1	.01			180
		200 IS	8.52	8.50	34.035	26.440	161.7	.485	2.43	37.0							201
1		210	8.42	8.40	34.052	26.469	159.1	.501	2.32	35.2	39.4	2.22	29.0	.01			211
1		241	7.99	7.97	34.092	26.566	150.4	.549	2.01	30.2	45.0	2.37	30.6	.01			242
		250 IS	7.90	7.87	34.098	26.585	148.7	.563	1.94	29.1							252
1		281	7.61	7.59	34.110	26.635	144.3	.609	1.73	25.8	49.5	2.48	32.5	.00			283
		300 IS	7.43	7.40	34.120	26.670	141.2	.635	1.58	23.5							302
1		344	7.02	6.98	34.151	26.752	133.8	.696	1.22	17.9	58.9	2.73	35.0	.00			346
		400 IS	6.64	6.61	34.213	26.852	125.0	.768	.80	11.7							403
1		419	6.54	6.50	34.234	26.882	122.3	.792	.68	9.9	69.6	2.98	38.0	.00			422
1		496	6.20	6.16	34.296	26.976	114.3	.883	.37	5.3	77.5	3.12	39.4	.00			499
		500 IS	6.19	6.14	34.299	26.981	113.9	.888	.37	5.3							504
1		570	5.87	5.82	34.333	27.048	108.1	.965	.29	4.2	82.8	3.20	40.4	.00			574

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 45

LATITUOE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	HIND SPEED	HAVES	HEATHER	BAROMETER	DRY	HET	CLOUD ANT	TYPE
32 20.9 N	118 33.3 H	10/08/85	1805 GMT	1341 M	260 06	KT 310	03 05 2	1016.3	MB 17.7 C	14.6 C	8/8	SC

CUST		DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXY6EN ML/L	OXY PCT	SI03 UM/L	P04 UM/L	NO 3 UM/L	N02 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
		0 IS	18.85	18.85	33.584	23.977	392.3	.000	5.48	103.0							0
1		1	18.85	18.85	33.584	23.977	392.3	.004	5.48	103,0	2.2	.33	.1	.00	.09	.01	1
		10 IS	18.84	18.84	33.580	23.979	392.4	.039	5.49	103.1							10
1		11	18.84	18.83	33.579	23.979	392.5	.043	5.49	103.1	2.1	.33	.1	.00	.10	.02	11
		20 IS	18.70	18.70	33.563	24.001	390.6	.078	5.50	103.0							20
1		22	18.65	18.65	33.558	24.010	389.9	.086	5.50	102.9	2.1	.34	.1	.00	.10	.04	22
		30 IS	18.32	18.32	33.525	24.066	384.8	.117	5.58	103.8							30
1		32	18.25	18.24	33.518	24.079	383.6	.124	5.60	104.0	2.1	.34	.1	.00	.12	.02	32
1		43	15.05	15.04	33.364	24.702	324.5	.163	6.27	109.2	2.1	.34	.1	.00	.15	.0S	43
		S0 IS	13.74	13.74	33.289	24.920	303.8	.186	6.35	107.6							50
1		S3	13.38	13.37	33.270	24.979	298.2	.194	6.38	107.3	2.7	.45	.2	.02	.40	.18	53
1		63	12.66	12.65	33.319	25.159	281.2	.223	5.99	99.3	4.0	.62	3.0	.17	.43	.24	63
1		74	12.09	12.08	33.506	25.414	257.3	.252	5.28	86.6	8.0	.96	9.1	.34	.34	.22	74
		75 IS	12.00	11.99	33.518	25.440	254.8	.256	5.21	85.3							76
1		90	11.05	11.04	33.594	25.674	232.8	.291	4.58	73.5	13.8	1.29	15.1	.05	.17	.13	90
		100 IS	10.65	10.64	33.625	25.769	223.9	.315	4.28	68.0							101
1		106	10.49	10.47	33.645	25.814	219.8	.327	4.11	65.2	17.8	1.47	17.9	.02	.10	.08	106
		125 IS	9.8»	9.88	33.812	26.045	198.1	.368	3.16	49.4							126
1		126	9.86	9.84	33.825	26.061	196.6	.371	3.09	48.4	25.6	1.80	22.8	.01	.05	.06	127
		150 IS	9.44	9.42	33.953	26.230	181.0	.415	2.71	42.0							151
1		152	9.41	9.39	33.961	26.242	179.9	.419	2.69	41.7	30.6	2.01	25.5	.00	.01	.04	153
1		183	8.80	8.78	34.006	26.375	167.6	.473	2.19	33.5	35.2	2.13	27.5	.01			184
		200 IS	8.59	8.57	34.033	26.428	162.9	.501	2.26	34.4							201
1		213	8.46	8.44	34.052	26.464	159.7	.522	2.33	35.4	38.9	2.24	28.8	.00			214
1		246	8.06	8.03	34.092	26.557	151.4	.573	2.05	30.9	43.7	2.37	30.7	.01			247
		250 IS	7.98	7.95	34.093	26.569	150.3	.579	2.02	30.4							252
1		286	7.38	7.35	34.097	26.658	142.0	.632	1.78	26.4	51.3	2. 52	32^9	.00			288
		300 IS	7.26	7.23	34.112	26.688	139.4	.652	1.62	24.0							302
1		347	6.97	6.93	34.176	26.779	131.4	.715	1.06	15.6	60.8	2.81	35.8	.00			349
		400 IS	6.63	6.59	34.234	26.871	123.2	.783	.67	9.7							403
1		424	6.47	6.43	34.257	26.910	119.8	.812	.55	8.0	71.4	3.04	38.3	.00			427
		500 IS	5.94	5.89	34.30 5	27.017	110.2	.899	.41	5.9							504
1		501	5.93	s.89	34.305	27.018	110.1	.900	.41	5.9	81.1	3.18	40.2	.00			504
1		574	5.69	5.64	34.347	27.082	104.8	.979	.24	3.4	85.9	3.24	41.0	.00			578

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 SO

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI TYPE
32 10.8	1 18 53.7 U	11/08/85	0035 GMT	1479 M	280 07 KT 300	03 06	1	1014.7 MB	18.0 C	15.0 C	6/8 SC

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0		19.70	19.70	33.632	23.798	409.3	.000	5.47	104.5	1.9	.32	.2	.00	.08	.01	0
1	10		19.45	19.45	33.626	23.859	403.9	.041	5.48	104.1	1.9	.33	.2	.00	.09	.01	10
	20	ISL	18.55	18.54	33.618	24.081	383.0	.080	5.58	104.2							20
1	21		18.45	18.44	33.618	24.106	380.7	.084	5.59	104.2.	1.7	.32	.2	.00	.11	.01	21
	30	ISL	17.65	17.64	33.617	24.300	362.5	.117	5.74	105.3							30
1	31		17.53	17.52	33.612	24.325	360.1	.120	5.76	105.5	1.7	.32	.2	.00	.16	.02	31
1	42		14.40	14.39	33.436	24.897	305.8	.157	6.36	109.4	2.8	.45	1.2	.05	.45	.11	42
	50	ISL	12.97	12.97	33.334	25.110	285.7	.181	6.12	102.2							50
1	52		12.75	12.75	33.319	25.141	282.7	.186	6.03	100.2	3.8	.6.1	3.2	.14	.39	.18	52
1	62		12.08	12.08	33.357	25.300	267.8	.214	5.64	92.4	5.5	.81	6.7	.28	.45	.25	62
1	73		11.92	11.91	33.459	25.410	257.6	.242	5.29	86.4	7.7	.94	9.3	.31	.31	.22	73
	75	ISL	11.84	11.83	33.476	25.437	255.1	.248	5.20	84.8							76
1	88		11.29	11.28	33.557	25.602	239.7	.279	4.68	75.5	11.6	1.10	12.5	.04	.16	.17	88
	100	ISL	10.57	10.56	33.631	25.788	222.1	.308	4.23	67.2							101
1	104		10.36	10.35	33.652	25.841	217.2	.316	4.11	65.0	17.7	1.44	18.4	.01	.05	.06	104
1	124		9.54	".52	33.780	26.079	194.8	.3S9	3.49	54.2	24.3	1.69	22.4	.01	.01	.03	125
	125	ISL	9.52	9.50	33.784	26.085	194.3	.360	3.48	54.0							126
1	150		t .90	8.89	33.929	26.298	174.4	.407	2.97	45.5	31.3	1.93	26.0	.02	.00	.03	151
1	181		8.49	8.48				.458	2.71	41.2	35.7	2.06	27.7	.01			182
	200	ISL	8.23	8.21	34.046	26.493	156.6	.489	2.41	36.5							201
1	212		<!.09	8.07	34.071	26.534	152.9	.507	2.23	33.6	41.6	2.26	30.2	.00			213
1	243		7.91	7.88	34.100	26.584	148.6	.554	1.99	29.9	45.2	2.36	31.4	.01			244
	250	ISL	7.86	7.83	34.111	26.600	147.2	.564	1.89	28.3							252
1	284		7.59	7.57	34.159	26.677	140.4	.614	1.38	20.6	52.0	2.60	33.8	.01			286
	300	ISL	7.42	7.39	34.172	26.712	137.3	.636	1.23	18.3							302
1	345		6.96	6.92	34.199	26.799	129.5	.695	.93	13.7	61.8	2.81	36.3	.00			347
	400	ISL	6.69	6.66	34.239	26.866	123.8	.76S	.65	9.5							403
1	421		6.64	6.60	34.256	26.888	122.0	.791	.57	8.3	68.5	2.98	38.0	.01			424
1	49[7]		6.37	6.33	34.335	26.985	113.7	.880	.31	4.5	75.0	3.10	39.2	.00			500
	500	ISL	6.36	6.31	34.337	26.989	113.3	.884	.31	4.5							504
1	572		5.91	5.86	34.351	27.057	107.4	.965	.25	3.6	81.9	3.17	40.6	.00			577

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPE ED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI TYPE
32 00.8	119 14.4 W	11/08/85	0610 GMT	1572 M	330 07 KT		2	1006.0 MB	17 .4 C	15.7 C	8/8

CAST	DEPTH M		TEMP DFG C	POT TEMP DEG C	SALINITY	SI6MA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO 3 UM/L	NO 2 UM/L	CHL-A UG/L	PHAEO Ufi/L	PRESS D.BAR
	0	ISL	18.61	18.61	33.688	24 .117	378.9	.000	5.50	102.9							0
1	1		18.61	18.61	33.688	24.117	378.9	.004	5.50	102.9	1.5	.26	.1	.00	.09	.01	1
	10	ISL	18.60	18.60	33.684	24.118	370.2	.038	5.50	102.9							10
1	11		18.60	13.60	33.684	24.118	370.2	.042	5.50	102.9	1.4	.25	.1	.00	.10	.01	11
	20	ISL	18.06	18.06	33.681	24.249	366.R	.075	5.53	102.5							20
1	Zl		17.85	17.85	33.680	24.300	362.2	.082	5.54	102.2	1.3	.25	.1	.00	.12	.02	22
	3C	ISL	16.35	16.35	33.622	24.610	332.9	.110	6.01	107.6							30
1	32		15.90	15.89	33.605	24.700	324.4	.117	6.10	108.2	2.3	.32	.5	.02	.34	.09	32
1	42		13.00	12.09	33.528	25.254	271.7	.146	5.76	96.3	5.1	.66	5.2	.17	.55	.22	42
	50	ISL	12.14	12.13	33.553	25.441	254.1	.168	5.24	86.1							50
1	53		12.00	12.00	33.565	25.476	250.8	.175	5.05	82.7	9.2	.97	10.1	.32	.39	.23	53
1	63		11 .31	11.30	33.607	2S.637	235.6	.199	4.49	72.5	12.6	1.19	13.9	.26	.24	.17	63
1	73		10.91	10.90	33.648	25.741	226.0	.222	4.33	69.3	15.9	1.33	16.5	.14	.17	.11	73
	75	ISL	10.85	10.84	33.655	25.757	224.5	.227	4.26	68.1							76
1	89		10.42	10.41	33.703	25.869	214.1	.257	3.76	59.6	19.8	1.50	19.0	.04	.12	.12	89
	100	ISL	9.78	9.77	33.781	26.039	198.1	.280	3.35	52.3							101
1	105		9.52	9.51	33.814	26.107	191.7	.289	3.22	50.0	26.2	1.75	23.3	.01	.03	.04	105
1	125		8.94	B.93	33.903	26.271	176.4	.328	3.19	49.0	29.9	1.81	24.7	.01	.01	.02	126
1	150		8.45	8.44	33.973	26.402	164.3	.370	2.94	44.6	34.4	1.96	26.?	.01	.01	.02	151
1	181		8.13	8.11	34.018	26.486	156.9	.419	2.70	40.7	38.3	2.07	28.3	.00			182
	200	ISL	8.00	7.98	34.066	26.543	151.7	.449	2.29	34.4							201
1	212		7.91	7.88	34.095	26.581	148.4	.466	2.02	30.3	44.8	2.33	30.9	.00			213
1	243		7.45	7.43	34.129	26.674	130.9	.511	1.64	24.4	51.7	2.51	33.2	.00			244
	250	ISL	7.38	7.35	34.136	26.689	138.5	.521	1.55	23.0							252
1	283		7.14	7.11	34.165	26.745	133.6	.566	1.18	17.4	57.3	2.68	34.9	.00			285
	300	ISL	7.05	7.02	34.183	26.772	131.3	.588	1.04	15.3							302
1	346		6.84	6.81	34.228	26.837	125.7	.647	.75	11.0	64.3	2.86	36.7	.00			348
	400	ISL	6.56	6.52	34.279	26.916	118.9	.714	.50	7.3							403
1	422		6.44	6.40	34.295	26.945	116.4	.740	.43	6.2	72.5	3.03	38.4	.00			425
1	498		6.01	5.96	34.316	27.017	110.2	.825	.31	4.5	79.9	3.11	39.8	.00			501
	500	ISL	5.99	5.95	34.317	27.020	110.0	.828	.31	4.4							504
1	574		5.63	5.58	34.340	27.084	104.5	.907	.27	3.8	86.5	3.16	40.7	.00			578

RV NFU HORIZON CALCOFI CRUISE 8508 STATION 93 60

LATITUDE	LONGITUD	DAY/MO/VR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROME	TER	DRY	WET	CLOUD ANT	TYPE
31 50.9	19 U		GMT			OXY							
	T EHP	; 1 1 POT	0954	SIGMA 2690 M	260 OS KT		2	1015.5	MB 17	.0 C	14.2 C	8/8	

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY 33.68S	SIGMA THETA	SVA 379.7	DYN HT .000	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1			18.64	18.64	33.685	24.109	379.7	.004	5.48	102.6	1.5	.24	.1	.00	.08	.01	1
		IS. 64	18.64	18.64	33.684	24.108	380.1	.038	5.49	102.8	1.5	.23	.1	.00	.10	.02	10
	20	ISL	17.91	17.91	33.667	24.275	364.6	.075	5.79	106.9							20
1	21		17.77	17.77	33.663	24.306	361.6	.079	5.83	107.4	1.8	.26	.1	.00	.18	.04	21
	30	ISL	15.13	15.13	33.622	24.883	306.9	.109	6.32	110.S							30
1	31		14.85	14.85	33.621	24.943	301.1	.112	6.35	110.4	3.2	.37	.8	.02	.56	.17	31
1	42		12.68	12.68	33.559	25.341	263.4	.143	5.60	93.0	6.6	.70	6.3	.16	.41	.14	42
	SO	ISL	11.85	11.85	33.583	25.518	246.7	.163	4.97	81.2							50
1	52		11.73	11.72	33.592	25.548	244.0	.168	4.84	78.8	11.1	1.01	11.3	.34	.49	.24	52
1	62		11.13	11.12	33.630	25.688	230.8	.191	4.31	69.3	14.2	1.23	14.9	.18	.31	.21	62
1	73		10.35	10.34	33.678	25.863	214.3	.216	3.94	62.3	18.6	1.46	19.0	.02	.11	.06	73
	75	ISL	10.21	10.20	33.692	25.896	211.2	.221	3.86	60.8							76
1	88		9.68	9.67	33.760	26.040	197.8	.246	3.48	54.2	23.6	1.67	22.1	.01	.03	.04	88
	100	ISL	9.49	9.48	33.794	26.098	192.6	.271	3.34	51.9							101
1	104		9.46	9.45	33.801	26.108	191.6	.277	3.32	51.5	25.4	1.74	23.2	.01	.02	.03	104
1	124		9.04	9.03	33.879	26.236	179.8	.316	3.14	48.3	28.5	1.80	24.7	.01	.00	.03	125
	125	ISL	9.03	9.02	33.880	26.239	179.5	.317	3.14	48.2							126
1	149		8.69	8.67	33.942	26.342	170.2	.360	2.99	45.6	31.9	1.92	26.1	.01	.00	.03	150
	150	ISL	8.6?	8.66	33.944	26.345	169.9	.361	2.99	45.6							151
1	181		8.2?	8.26	34.009	26.457	159.8	.412	2.73	41.3	36.6	2.03	27.9	.01			182
	200	ISL	8.09	8.07	34.063	26.527	153.3	.442	2.31	34.8							201
1	212		7.96	7.94	34.092	26.570	149.4	.460	2.04	30.7	43.8	2.29	30.8	.01			213
1	244		7.41	7.38	34.112	26.666	140.6	.506	1.70	25.2	51.2	2.46	33.1	.01			245
	250	ISL	7.36	7.34	34.127	26.684	139.0	.515	1.59	23.6							252
1	2S3		7.22	7.19	34.204	26.766	131.8	.560	1.03	15.2	58.3	2.72	35.2	.01			285
	300	ISL	7.08	7.06	34.214	26.792	129.5	.582	.90	13.3							302
1	346		6.70	6.67	34.221	26.850	124.4	.640	.72	10.5	65.9	2.86	37.2	.00			348
	400	ISL	6.4?	6.39	34.279	26.932	117.3	.705	.46	6.6							403
1	422		6.33	6.30	34.302	26.963	114.6	.731	.37	5.4	74.5	3.05	38.8	.00			425
1	499		5.90	5.85	34.317	27.032	108.7	.816	.31	4.4	82.0	3.12	40.1	.00			502
	500	ISL	5.89	5.85	34.318	27.033	108.6	.818	.31	4.4							504
1	575		5.59	5.55	34.339	27.087	104.1	.898	.23	3.3	87.3	3.16	40.9	.00			579

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRV	MET	CLOUD AMI	TYPE
31 30.8	120 14.9 W	11/08/85	1525 GMT	5028 M	280 06 KT 320	05 06	2	1015.5 MB 17	.0 C	14.0 C	8/8	SC

CAST	DEPTH n		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT .000	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UH/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	17.56	17.56	33.693	24.378	354.1	.000	5.58	102.4							0
1	1		17.5*.	17.56	33.693	24.378	354.0	.004	5.58	102.4	.7	.18	.0	.00	.17	.04	1
	10	ISL	17.52	17.51	33.690	24.388	353.4	.035	5.61	102.8							10
1	11		17.51	17.51	33.689	24.389	353.4	.039	5.61	102.8	.5	.18	.0	.00	.17	.05	11
	20	ISL	17.42	17.42	33.679	24.402	352.4	.071	5.61	102.6							20
1	22		17.41	17.40	33.678	24.405	352.2	.077	5.61	102.6	.5	.17	.0	.00	.18	.07	22
	30	ISL	17.40	17.40	33.680	24.408	352.2	.106	5.64	103.0							30
1	32		17.40	17.40	33.681	24.408	352.2	.113	5.64	103.1	.4	.17	.0	.00	.19	.06	32
1	43		17.30	17.30	33.677	24.429	350.6	.151	5.62	102.6	.6	.18	.0	.00	.2?	.09	43
	50	ISL	14.57	14.56	33.465	24.883	307.4	.175	5.79	100.0							50
1	53		13.43	13.42	33.404	25.072	289.4	.183	5.85	98.6	4.0	.58	3.9	.15	.68	.22	53
1	65		12.15	12.14	33.361	25.290	268.8	.216	5.62	92.2	6.1	.80	6.9	.24	.40	.18	65
1	74		11.48	11.47	33.43 2	25.469	251.9	.240	5.23	84.6	9.1	.99	10.9	.27	.32	.18	74
	75	ISL	11.44	11.44	33.445	25.487	250.3	.243	5.18	83.8							76
1	91		11.15	11.14	33.597	25.659	234.3	.281	4.56	73.3	13.8	1.22	15.4	.06	.16	.11	91
	100	ISL	10.73	10.72	33.657	25.780	222.9	.302	4.09	65.2							101
1	106		10.47	10.46	33.687	25.849	216.4	.314	3.83	60.7	18.8	1.45	18.9	.04	.09	.13	106
	125	ISL	9.86	9.85	33.778	26.024	200.1	.355	3.34	52.3							126
1	126		9.83	9.81	33.784	26.034	199.2	.358	3.32	51.9	24.1	1.65	22.3	.02	.05	.06	127
	150	ISL	9.24	9.23	33.893	26.216	182.3	.403	2.88	44.4							151
1	152		9.20	9.18	33.903	26.231	180.9	.407	2.84	43.8	30.1	1.88	25.5	.01	.01	.03	153
1	183		8.78	8.76	34.002	26.375	167.7	.460	2.44	37.3	35.1	2.05	27.7	.02			184
	200	ISL	8.53	8.51	34.037	26.441	161.6	.488	2.34	35.6							201
1	213		8.35	8.33	34.056	26.483	157.8	.509	2.29	34.7	39.3	2.15	29.1	.01			214
1	244		8.07	8.04	34.079	26.544	152.4	.557	2.16	32.5	42.7	2.24	30.2	.01			245
	250	ISL	7.97	7.95	34.085	26.563	150.8	.566	2.09	31.4							252
1	284		7.46	7.43	34.119	26.665	141.4	.616	1.63	24.2	51.2	2.46	32.9	.01			286
	300	ISL	7.30	7.27	34.136	26.701	138.3	.638	1.45	21.4							302
1	345		6.94	6.91	34.176	26.782	131.0	.699	1 .01	14.8	60.8	2.71	35.8	.01			347
	400	ISL	6.50	6.46	34.203	26.863	123.8	.769	.74	10.7							403
1	421		6.36	6.32	34.213	26.890	121.5	.795	.67	9.7	70.6	2.92	38.2	.00			424
1	499		6.07	6.02	34.279	26.980	113.8	.886	.40	5.8	78.0	3.05	39.6	.00			502
	500	ISL	6.06	6.01	34.280	26.982	113.6	.888	.40	5.7							504
1	576		5.32	5.27	34.291	27.081	104.3	.970	.33	4.7	89.9	3.13	41.6	.00			580

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 76

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	HIND SPIED	WAVES	HEATHER	BAROMETER	DRY	WET	CLOUD ANT	TYPE
31 20.5 N	120 37.6 W	11/08/85	1918 GMT									

CAST	DEPTH M		TEMP DEC C	POT TEMP DEO C	SALINITY	SIGMA THETA	SVA	DYN Nf	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO 3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	17.48	17.48	33.S07	24.255	366.1	.000	5.65	103.4							0
1	1	A	17.48	17.48	33.507	24.255	365.8	.004	5.65	103.4	1.4	.28	.1	.00	.15	.01	1
	10	I5L	17.22	17.22	33.467	24.287	363.0	.036	5.72	104. 0							10
1	13	A	17.16	17.16	33.461	24.296	362.3	.047	5.73	104.2	1.5	.30	.1	.00	.20	.03	13
1	18	A	17.10	17.10	33.4S6	24.307	361.3	.065	5.74	104.2	1.S	.29	.1	.00	.24	.05	18
	20	ISL	17.04	17.04	33.452	24.319	360.3	.073	5.75	104.3							20
1	26	A	16.75	16.74	33.435	24.375	355.2	.094	5.80	104.6	1.5	.30	.1	.00	.32	.08	26
	30	ISL	16.40	16.40	33.423	24.445	348.6	.108	5.87	10S.2							30
1	12	A	15.13	15.13	33.385	24.701	324.5	.148	6.07	105.9	1.6	.34	.2	.01	.42	.15	42
	S0	ISL	13.87	13.87	33.354	24.944	306.6	.174	6.02	102.3							50
1	64	A	12.41	12.40	33.303	25.195	277.8	.214	5.93	97.8	4.2	.63	4.2	.19	.31	.25	64
2	68		12.43	12.43	33.404	25.270	270.9	.225	5.70	94.1	5.8	.73	6.3	.29	.28	.22	68
	75	ISL	12.14	12.13	33.483	25.387	259.9	.24*	5.36	87.9							76
2	79		11.92	11.91	33.498	25.440	254.9	.254	5.21	85.1	8.4	.89	9.7	.25	.13	.11	79
	100	ISL	10.83	10.82	33.565	25.691	231.4	.305	4.56	72.8							101
?	104		10.70	10.69	33.577	25.722	228.4	.314	4.47	71.2	14.1	1.16	15.0	.02	.05	.07	104
2	109		10.67	10.65	33.620	25.763	224.7	.325	4.33	68.9	14.7	1.19	15.5	.03	.05	.07	109
	125	ISL	10.10	10.09	33.695	25.918	210.2	.361	3.92	61.6							126
2	130		9.88	9.86	33.713	25.970	205.3	.372	3.78	59.2	21.2	1.55	21.1	.01	."2	.04	131
2	150		9.49	9.47	33.839	26.133	190.2	.411	3.13	48.6	26.7	1.75	23.9	.01	.01	.04	151
2	182		8.85	».83	33.974	26.342	170.8	.469	2.64	40.4	33.4	1.97	27.0	.01			183
	200	ISL	8.59	8.57	34.025	26.422	163.5	.499	2.43	37.1							201
2	215		8.44	8.42	34.052	26.467	159.4	.523	2.30	34.9	38.5	2.15	29.1	.01			216

A. PRIMARY PRODUCTIVITY SAMPLFS WERE TAKEN FROM CAST 1.

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 80

LATITUDE	LONGITUDE	DAV/MO/VR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AM	TYPE
31 10.7	120 54.9 W	11/08/85	2219 GMT	4033 M	210 03	KT 3S0	04 07	2	1016.0 MB 19	.3 C	17.0 C	8/8 SC

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXY6EN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	N0 3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRES D.BAR
1	Q		17.89	17.89	33.343	24.032	387.0	.000	5.73	105.6	1.4	.25	.2	.00	.09	.01	0
1	10		16.93	16.93	33.409	24.312	360.7	.037	5.77	104.4	1.3	.25	.2	.00	.13	.02	10
	20	ISL	16.77	16.76	33.412	24.353	357.1	.073	5.79	104.4							20
1	21		16.75	16.75	33.413	24.356	356.8	.077	5.79	104.4	1.2	.25	.2	.00	.17	.02	21
	30	ISL	16.70	16.69	33.410	24.367	356.1	.109	5.80	104.4							30
1	31		16.69	16.69	33.410	24.368	356.0	.112	5.80	104.4	1.2	.25	.2	.00	.21	.04	31
1	41		16.53	16.53	33.395	24.394	353.9	.147	5.82	104.4	1.1	.26	.2	.00	.30	.06	41
	50	ISL	14.9?	14.92	33.248	24.639	330.7	.179	6.20	107.6							50
1	51		14.78	14.7/	33.236	24.662	328.4	.181	6.23	107.9	1.4	.25	.2	.00	.29	.07	51
1	62		14.12	14.11	33.227	24.795	316.1	.217	6.25	106.7	1.5	.25	.2	.00	.26	.08	62
1	72		13.40	13.39	33.195	24.918	304.6	.248	6.23	104.8	1.5	.25	.2	.00	.29	.14	72
	75	ISL	13.32	13.31	33.212	24.947	301.9	.258	6.19	104.0							76
1	84		13.14	13.13	33.320	25.067	290.8	.295	5.91	99.0	2.6	.35	1.2	.09	.27	.26	88
	100	ISL	12.59	12.58	33.433	25.262	272.5	.330	5.46	90.5							101
1	104		12.41	12.39	33.461	25.320	267.0	.339	5.33	88.0	5.7	.66	7.0	.05	.13	.16	104
1	124		11.37	11.35	33.507	25.550	245.5	.393	4.94	79.8	9.8	.93	11.4	.01	.07	.10	125
	125	ISL	11 .3'	11.33	33.510	25.556	244.9	.394	4.92	79.5							126
1	149		10.44	10.42	33.63?	25.817	720.4	.451	4.17	66.0	15.8	1.21	16.7	.01	.03	.05	150
	150	ISL	10.40	10.38	33.642	25.827	219.5	.452	4.15	65.7							151
1	180		8.97	8.95	33.840	26.21?	182.6	.513	3.42	52.5	26.6	1.65	23.5	.01			181
	200	ISL	8.55	8.53	33.923	26.349	170.4	.548	3.23	49.2							201
1	211		8.41	8.39	33.956	26.396	166.1	.566	3.17	48.1	32.0	1.79	26.0	.01			212
1	242		7.9S	7.95	34.015	26.508	155.9	.616	2.88	43.3	38.2	1.93	28.1	.00			243
	250	ISL	7.»7	7.85	34.024	26.530	153.8	.629	2.78	41.6							252
1	282		7.47	7.45	34.046	26.605	147.0	.678	2.34	34.8	45.6	2.15	30.9				284
	300	ISL	7.28	7.25	34.062	26.645	143.5	.703	2.11	31.2							302
1	344		6.83	6.79	34.095	26.734	135.4	.764	1.60	23.4	56.8	2.47	34.8	.00			346
	400	ISL	6.26	6.22	34.122	26.831	126.7	.838	1.13	16.3							403
1	421		6.06	6.03	34.133	26.864	123.6	.865	.98	14.1	70.1	2.74	38.3	.00			424
1	497		5.59	5.55	34.215	26.989	112.4	.954	.53	7.5	81.8	2.95	40.5	.00			500
	500	ISL	5.57	5.53	34.219	26.994	112.0	.957	.52	7.3							504
1	572		5.1?	5.13	34.291	27.098	102.5	1.035	.33	4.6	91.1	3.04	41.9	.00			576

RV NEW HORIZON — CALCOFI CRUISE 8508 — STATION 93 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT TYPE
30 50.7	121 35.6 W	12/08/85	0409 GMT	4110 M	320 08 KT		2	1015.2 MB 18	.1 C 1S.6 C		8/8

CAST	DEPTH		TEMP	POT TEHP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO*	NO3	NO2	CHL^A	PHAEO	PRESS
M			DES C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	IS	19.19	19.19	33.496	23.826	406.7	.000									0
1	1		19.19	19.19	33.496	23.826	406.7	.004			2.6	.36	.1	.00	.06	.01	1
	10	IS	19.17	19.17	33.492	23.827	406.9	.041									10
1	11		19.17	19.17	33.492	23.827	406.9'	.045			2.3	.33	.0	.00	.06	.01	11
	20	IS	19.10	19.09	33.493	23.847	405.4	.081									20
1	22		19.08	19.08	33.493	23.851	405.1	.089	5.72	107.9	2.2	:32	.0	.00	.06	.00	22
	30	IS	19.08	19.08	33.492	23.851	405.3	.122	5.73	108.0							30
1	33		19.08	19.07	33.492	23.852	405.4	.134	5.73	108.1	2.3	.33	.0	.00	_07	.01	33
1	44		16.95	16.94	33.664	24.503	343.6	.175	5.79	104.9	2.4	.27	.0	.00	.08	.01	44
	50	IS	16.44	16.43	33.586	24.563	338.1	.196	5.96	106.9							50
1	55		16.16	'16.15	33.564	24.609	333.8	.212			2.3	.28	.0	.00	.10	.01	55
1	65		15.27	15.26	33.435	24.709	324.4	.245	6.33	110.8	2.3	.29	.0	.00	.11	.02	65
	75	IS	14.76	14.75	33.361	24.763	319.6	.277	6.16	106.7							76
1	76		14.74	14.72	33.358	24.766	319.3	.280	6.14	106.3	2.2	.31	.0	.00	.13	.03	76
1	92		14.13	14.12	33.363	24.899	307.0	.330	5.99	102.4	2.8	.32	.0	.00	.19	.17	92
	100	IS	13.79	13.77	33.359	24.967	301.1	.355	5.97	101.3							101
1	107		13.51	13.49	33.355	25.021	295.8	.375	5.92	99.9	2.8	.39	.5	.11	.25	.22	107
	125	IS	12;75	12.74	33.463	25.255	273.9	.427	5.35	88.9							126
1	127		12.64	12.62	33.480	25.291	270.5	.434	5.26	87.2	5.7	.64	5.4	.02	.12	· 12	128
	150	IS	11.14	11.12	33i535	25.614	239.9	.491	4.78	76.8							151
1	154		10.85	10.83	33.547	25.674	234.2	.502	4.69	74.9	12.9	1.08	13.4	.00	.04	.06	155
1	134		9.86	9.84	33.740	25.996	204.1	.567	3.86	60.4	20.8	1.45	19.5	.00			185
	200	IS	9.38	9.35	33.820	26.138	190.7	.598	3.49	54.1							201
1	214		9.00	8 .98	33^880	26.245	180.7	.624	3.26	50.1	28.8	1.74	24.3	.00			215
1	245		8.44	8.42	33.986	26.415	165.0	.677	3.24	49.2	32.3	1^,77	24.8	.00			246
	250	IS	8.34	8.32	33.992	26.436	163.0	.686	3.23	48.9							252
1	286		7.67	7.64	34.010	26.549	152.5	.742	3.03	45.2	40.1	1.95	27.7	.00			287
	300	IS	7.46	7.43	34.025	26.591	148.8	.764	2.82	41.9							302
1	346		6.93	6:90	34.077	26.706	138.2	.830	2.02	29.6	55.5	2.46	34.0	.00			348
	400	IS	6.48	6.44	34.150	26.824	127.5	.902	1.16	16.8							403
1	421		6.35	6.31	34.176	26.862	124.1	.927	.89	12.9	69.5	2.83	38.1	.00			423
1	497		5.98	5.94	34.24 6	26.965	115.1	1.019	.51	7.3	78.0	2.99	39.7	.00			500
	500	IS	5.97	5.92	34.249	26.969	114.8	1.022	.50	7.2							504
1	576		5.51	5.46	34.303	27.069	105.8	1.106	.33	4.7	87.7	3.10	41.2	.00			580

M «« HORIZON — CALCOFI CRUISE:8508 — STATION 93 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT TYPE
30 30.7	122 15.5 W	12/08/85	0945 GMT	4188 M	330 06 KT		2	1016.3 MB 17.9 C	14.7 C		8/8

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	IS	19.33	19.33	33.507	23.797	409.5	.000	5.40	102.3							0
1	1		19.33	19.33	33i507	23.797	409.5	.004	5.40	102.3	2.1	.16	_0	.00	.05	.01	1
	10	IS	19.33	19.33	33.507	23.799	409.6	.041	5.40	102.3							10
1	11		19.33	19.53	33.507	23.799	409.6	.045	5.40	102.3	2.0	.17	.0	.00	.05	.01	11
	20	IS	19.28	19.28	33.495	23.802	409.7	.082	5.42	102.6							20
1	27		19.25	19.24				.110	5.43	102.7	2.0	.18	.0	.00	06	.01	27
	30	IS	19.17	19.16	33.483	23.822	408.2	.123	5.49	103.7							30
1	43		18.38	18.37	33.463	24.004	391.2	.174	5.78	107.5	2.3	.17	.0	.01	.08	.02	43
	50	IS	17.31	17.30	33.429	24.239	369.0	.201	5.93	108.1							50
1	59		16.00	15.99	33.414	24.530	341.4	.233	6.06	107.6	2.0	.17	.0	.00	.08	.02	59
1	69		15.34	15.33	33.44 7	24.704	325.1	.266	6.04	105.9	2.1	.17	.0	.01	.09	.03	69
	75	IS	15.01	15.00	33.425	24.759	320.1	.286	6.03	104.9							76
1	80		14.80	14.79	33.398	24.784	317.7	.301	6.01	104.2	2.0	.18	.0	.01	.11	.03	80
1	95		14.26	14.25	33.342	24.855	311.3	.348	5.92	101.5	2.2	.21	.0	.01	.17	.09	95
	100	IS	14.26	14.24	33.402	24.903	307.0	.365	5.84	100.2							101
1	111		14.25	14.24	33.537	25.008	297.3	.397	5.67	97.3	3.1	.24	.5	.08	.23	.22	111
	125	IS	13.20	13.18	33.442	25.150	284.0	.438	5.49	92.1							126
1	126		13.15	13.14	33.436	25.155	283.5	.440	5.48	91 .8	4.2	.41	3.3	.07	.14	.20	126
	150	IS	11.93	11.91	33.506	25.446	256.2	.504	4.95	80.9							151
1	151		11.88	11.86	33.513	25.462	254.6	.509	4.92	80.3	8.2	.72	E.7	.02	.07	.09	152
1	172		10.83	10.81	33.591	25.712	231.1	.560	4.55	72.7	12.6	.97	13.1	.01	.03	.04	173
1	193		9.99	9.96	33.771	25.999	204.0	.60S	3.98	62.5	19.6	1.30	18.4	.01			194
	200	IS	9.70	9.68	33.791	26.062	198.1	.619	3.81	59.3							201
1	213		9.21	9.19	33.815	26.161	188.8	.645	3.54	54.6	25.3	1.55	22.6	.01			214
1	244		8.53	8.50	33.953	26.376	168.6	.700	3.46	52.6	31.0	1.67	24.7	.01			245
	250	IS	8.41	8.38	33.967	26.406	165.9	.710	3.39	51.4							252
1	286		7.80	7.77	34.010	26.531	154.4	.767	2.92	43.7	39.7	1.94	28.4	.00			287
	300	IS	7.59	7.56	34.018	26.567	151.0	.789	2.78	41.4							302
1	346		7.00	6.97	34.032	26.661	142.5	.857	2.34	34.4	51.0	2.20	32.0	.00			348
	400	IS	6.39	6.35	34.068	26.771	132.4	.931	1.60	23.2							403
1	423		6.18	6.14	34.087	26.814	128.5	.960	1.30	18.7	66.4	2.63	37.3	.00			425
1	499		5.70	5.66	34.164	26.935	117.6	1.054	.67	9.5	78.4	2.89	40.1	' ^00			502
	5 00	IS	5.69	5.65	34.165	26.937	117.4	1.055	.66	9.5							504
1	575		5.30	5.25	34.228	27.034	108.7	1.140	.41	5.8	87.6	3.02	41.4	.00			579

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	HAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	Tf PE
30 11.7 N	122 55.5 W	12/08/85	1606 GMT	3978 H	360 03	K! 330 08	2	1017.7 MB	18.8 C	15.4 C	8/8	SC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN NT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRE S S
	M		DE6 C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0		19.37	19.37	33.531	23.807	408.5	.000	5.60	106.2	2.2	.17	.1	.00	.06	.01	0
1	10		19.37	19.37	33.528	23.804	409.1	.041	5.55	105.3	2.1	.17	.1	.00	.06	-01 ,	10
	20	ISL	19.36	19.36	'33.529	23.806	409.3	.082	5.55	105.2							20
1	26		19.36	19.36	33.529	23.808	409.4	.10*	5.55	105.2	2.1	.18	.1	.00	.06	.01	26
	30	ISL	18.60	18.59	33.495	23.974	393.6	.122	5.68	106.1							30
1	42		16.30	16.29	33.450	24.490	S44.7	.166	6.07	108.5	2.1	.16	.1	.00	.09	.01	42
	50	ISL	16.07	16.06	33.536	24.608	333.7	.19*	6.11	108.8							50
1	58		15.85	15.84	33.536	24.658	329.2	.220	6.15	109.0	2.1	.15	.1	.00	.10	.03	58
1	68		15.28	15.27	33.509	24.763	319.4	.252	6.14	107.6	2.1	.17	.1	.00	.13	.04	68
	75	ISL	14.64	14.62	33.417	24.834	312.8	.275	6.15	106.3							76
1	80		14.22	14.21	33.362	24.879	308.7	.289	6.16	105.5	2.2	.23	.1	.00	.19	.09	80
1	95		13.60	13.58	33.389	25.029	294.7	.335	5.89	99.6	2.9	.29	.6	.06	.31	.18	95
	100	ISL	13.24	13.22	33.374	25.089	289.0	.350	5.78	97.1							101
1	111		12.50	12.48	33.354	25.220	276.7	.380	5.53	91.4	5.1	.52	4.3	.18	.25	.19	111
1	124		11.75	11.73	33.428	25.419	258.0	.417	5.06	82.3	8.2	.75	8.9	.02	.13	.15	125
	125	ISL	11.72	11.70	33.431	25.427	257.3	.419	5.04	82.0							126
	150	ISL	10.46	10.44	33.578	25.767	225.2	.479	4.30	68.1							151
1	151		10.40	10.38	33.587	25.784	223.6	.482	4.26	67.4	15.4	1.13	15.8	.00	.04	.06	152
1	'72		9.50	9.48	33.749	26.062	197.4	.526	3.68	57.1	22.9	1.48	21.2	.00	.01	.02	173
1	192		8.98	8.96	33.859	26.232	181.5	.564	3.36	51.6	28.0	1.65	23.7	.00			193
	200	ISL	8.83	8.81	33.886	26.276	177.4	.578	3.31	50.7							201
1	213		8.61	8.59	33.919	26.336	171.9	.600	3.26	49.7	31.0	1.75	25.2	.00			214
1	243		8.11	8.09	33.992	26.470	159.5	.650	3.06	46.1	36.5	1.88	27.1	.00			244
	250	ISL	7.99	7.97	34.003	26.495	157.2	.661	2.98	44.7							252
1	284		7.44	7.44	34.031	26.595	148.0	.712	2.53	37.6	45.1	2.12	30.5	.00			285
	300	ISL	7.20	7.18	34.038	26.637	144.2	.736	2.33	34.4							302
1	345		6.59	6.56	34.053	26.732	135.4	.799	1.81	26.3	57.9	2.46	34.6	.00			347
	400	ISL	6.19	6.15	34.109	26.829	126.7	.871	1.18	17.0							403
1	420		6.07	6.04	34.131	26.861	123.8	.897	.98	14.1	70.9	2.80	38.2	.00			423
1	496		5.51	5.47	34.186	26.975	113.6	.987	.58	8.2	82.7	2.98	40.6	.00			499
	500	ISL	5.49	5.45	34.190	26.981	113.0	.991	.56	8.0							504
1	572		5.11	5.06	34.268	27.088	103.4	1.069	.35	4.9	93.0	3.12	42.3	.00			576

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 114

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	HIND SPEED	WAVES	WEATHER	BAROMETER	DRV	WET	CLOUD ANT TYPE
30 05.6	123 10.7 W	12/08/85	1937 GMT								

CAS -	DEPTH		TE"P	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	2	ISL	19.68	19.68	33.547	23.739	415.4	.000	5.37	102.5							0
1	2	A	19.68	19.68	33.547	23.739	415.1	.008	5.37	102.5	2.5	.17	.1	.00	.06	.00	2
	10	ISL	19.6?	19.62	33.547	23.754	413.9	.041	5.37	102.4							10
	20	ISL	19.55	19.54	33.544	23.771	412.6	.083	5.38	102.3							20
1	26	A	19.51	19.50	33.540	23.779	412.1	.107	5.38	102.3	2.3	.17	.1	.00	.07	.01	26
	30	ISL	19.48	19.47	33.537	23.784	411.8	.124	5.39	102.3							30
1	34	A	19.45	19.44	33.533	23.788	411.5	.140	5.39	102.4	2.2	.16	.1	.00	.08	.02	34
1	50	A	15."5	15.85	33.376	24.534	340.7	.200	5.99	106.0	2.3	.16	.1	.00	.11	.01	50
	75	ISL	13.81	13.80	33.312	24.924	304.2	.281	5.99	101.7							76
1	82	A	13.64	13.63	33.303	24.953	301.6	.301	5.99	101.3	2.7	.23	.0	.00	.22	.15	82
	100	ISL	12. 5S	12.56	33.348	25.199	278.4	.354	5.53	91.5							101
1	125	A	11.27	11.26	33.470	25.538	246.6	.421	4.70	75.7	10.6	.85	11.3	.02	.12	.12	126
1	145		10.36	10.34	33.584	25.789	223.0	.468	4.20	66.4	16.1	1.16	16.3	.01	.05	.07	146
	150	ISL	10.20	10.18	33.610	25.836	218.6	.478	4.10	64.6							151
1	176		9.48	9.46	33.752	26.068	196.9	.533	3.62	56.2	23.5	1.47	21.5	.01	.01	.03	177
	200	ISL	8.87	8.85	33.876	26.262	178.7	.577	3.30	50.6							201
1	706		8.73	8.71	33.907	26.309	174.4	.588	3.24	49.5	30.6	1.70	25.1	.01			207

A. PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THE FIRST SIX DEPTHS ON THIS CAST.

RV NEW HORIZON CALCOFI CRUISE 8508 - STATION 93 120

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SP	f.l>	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
29 50.7 N	1 23 3 5.8 U	12/08/85	2307 GMT	4014 M	020 06	KT 330	08 07	1	1016.4	MB 19 .6 C	16.0 C	7/8	SC

MSI	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DES C		TMETA			ML/L	PCT	UH/L	UM/L	UM/L	UM/L	U6/L	UG/L	D.BAR
1	0		20.25	20.25	33.497	23.551	432.9	.000	5.41	104.3	2.5	.33		.00	.04	.00	0
1	10		19.22	19.22	33.493	23.816	408.0	.042	5.45	103.1	2.4	.31	.1	.00	.05	.01	10
	20	ISL	19.17	19.17	33.493	23.828	407.2	.083	5.42	102.4							20
1	21		19.17	19.16	33.493	23.829	407.1	.087	5.42	102.4	2.3	.31	.1	.00	.05	.01	21
	30	ISL	19.11	19.11	33.616	23.938	397.0	.123	5.48	103.4							30
1	32		19.10	19.09	33.661	23.976	393.5	.131	5.49	103.7	2.3	.29	. 1	.00	.06	.01	32
1	42		18.11	18.10	33.744	24.286	364.3	.168	5.75	106.6	2.5	.27	.1	.00	.07	.01	42
	50	ISL	17.06	17.05	33.703	24.509	343.3	.197	5.94	107.8							50
1	53		16.7?	16.72	33.681	24.570	337.5	.207	5.98	107.9	2.6	.26	„ 1	.00	.08	.02	53
1	64		16.18	16.17	33.639	24.662	329.0	.243	5.95	106.2	2.4	.27	.1	.00	.09	.02	64
1	74		15.95	15.94	33.708	24.768	319.3	.276	5.88	104.5	2.4	.27	.1	.00	.11	.04	74
	75	ISL	15.87	15.86	33.700	24.780	318.1	.280	5.88	104.3							76
1	89		15.06	15.05	33.619	24.898	307.2	.322	5.85	102.1	2.5	.29	.1	.00	.13	.11	89
	100	ISL	15.07	15.06	33.731	24.981	299.6	.357	5.78	101.0							101
1	105		15.08	15.07	33.776	2s.015	296.6	.370	5.74	100.3	2.8	.29	.1	.00	.20	.19	105
	125	ISL	14.32	14.30	33.792	25.191	280.1	.429	5.44	93.6							126
1	126		14.28	14.27	33.792	25.198	279.6	.431	5.43	93.4	4.0	.47	1.8	.11	.15	.21	126
1	150		11.91	11.89	33.696	25.597	241.8	.495	4.87	79.6	8.9	.84	8.9	.01	.06	.07	151
1	181		10.06	10.04	33.713	25.940	209.3	.565	4.12	64.7	18.0	1.35	17.1	.01			182
	200	ISL	9.32	9.29	33.795	26.127	191.7	.603	3.72	57.5							201
1	212		8.96	8.93	33.855	26.232	181.8	.625	3.50	53.7	27.5	1.75	23.2	.01			213
1	2*3		8.32	8.30	33.975	26.424	163.9	.678	3.12	47.2	34.5	1.96	26.6	.01			244
	250	ISL	8.20	8.18	33.988	26.453	161.4	.690	3.07	46.3							252
1	284		7.71	7.68	34.015	26.547	152.7	.743	2.81	42.0	41.2	2.13	29.0	.00			285
	3 00	ISL	7.47	7.44	34.030	26.593	148.5	.767	2.56	37.9							302
1	344		6.90	6^87	34.066	26.701	138.6	.831	1.82	26.7	54.7	2.53	33.7	.00			346
	400	ISL	6.34	6.30	34.100	26.803	129.3	.90s	1.22	17.7							403
1	421		6.17	6.13	34.113	26.835	126.4	.932	1.06	15.3	68.4	2.86	37.6	.00			423
1	497		5.67	5.63	34.185	26.955	115.7	1.024	.60	8.5	80.1	3.10	40.1	.00			500
	500	ISL	5.65	5.61	34.188	26.959	115.3	1.028	.59	8.4							504
1	573		4.98	4.93	34.216	27.062	105.7	1.109	.43	6.0	93.2	3.19	42.4	.00			577

RV MEM HORIZON CALCOFI CRUISE 8508 STATION 82 47

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIN SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT TYPE
34 13.7 N	120 01.8 W	18/08/85	1720 GMT	581 M							

CAST	DEPTH	TEW	POT TEMP	SALINITY	SI6MA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO?	CHI-A	PHAEO	PRES
	H	DEC C	BEG C		THETA			NL/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	17.87	17.87	33.571	24.211	370.0		5.95	109.7	1.5	.31	.0	.00			1
1	27	13.15	13.15	33.517	25.215	275.0		5. 85	98.1	5.6	.64	4.1	.15			27
1	53	11.07	11.06	33.671	25.730	226.6		3.86	62.0	16.7	1.40	16.7	.08			53
1	103	10.01	10.00	33.833	26.041	198.1		3.02	47.4	24.7	1.80	22.6	.03			104
1	206	9.13	9.10	34.103	26.400	166.0		2.03	31.3	35.7	2.25	27.9	.01			207
1	309	7.73	7.70	34.166	26.663	142.2		1.04	15.5	55.2	2.78	33.6	.01			311
1	411	6.97	6.93	34.180	26.783	1.52.0		.73	10.7	66.8	3.00	35.3	.01			414
1	489	6.45	6.41	34.208	26.874	124.1		.30	4.4	82.1	3.22	34.5	.01			492
1	534	6.28	6.23	34.215	26.903	121.9		.12	1.7	89.6	3.33	32.7	.00			538
1	555	6.26	6.21	34.217	26.908	121.6		.07	1.0		3.48	30.0	.oo			559

SPECIAL FREON CAST TAKEN IN SANTA BARBARA BASIN.

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 87 37

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIN SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT
33 46.3 N	118 48.6 W	16/08/85	1045 GMT	895 M							

CAST	DEPTH	TEMP	POT TEMP	SALINITY	SI6MA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO 2	CHL-A	PHAEO	PRESS
	n	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	19.14	19.14	33.578	23.901	399.6		6.09	115.0	2.8	.30	.0	.00			1
1	52	11 .96	11.95	33.537	25.463	252.0		5.02	82.1	8.3	.91	8.5	.54			52
1	103	10.06	10.05	33.803	26.009	201.1		3.12	49.1	23.2	1.72	21.8	.02			103
1	310	8.24	8.20	34.230	26.639	144.9		1.3S	20.4	46.6	2.59	31.2	.01			312
1	516	6.39	6.34	34.312	26.965	115.8		.35	5.1	73.3	3.14	38.3	.00			520
1	523	6.37	6.32	34.314	26.970	115.5		.34	4.9	74.2	3.20	38.4	.01			527
1	670	5.47	5.41	34.350	27.112	102.9		.24	3.4	92.8	3.32	39.7	.01			675
1	769	5.19	5.12	34.378	27.168	98.3		.15	2.1	103.4	3.42	38.8	.00			775

SPECIAL FREON CAST TAKEN IN SANTA MONICA BASIN.

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 37 45

1	818	5.10	5.03	34.390	27.188	96.9		.15	2.1	107.5	3.48	37.0	.01			824
t	846	5.06	4.99	34.396	27.198	96.3		.10	1.4	111.5		35.1	.00			853

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT
33 29.2 N	119 19.5 W	16/08/85	1650 GMT	1626 M							

CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PNAEO	PRES
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	19.22	19.22	33.650	23.936	396.2		5.56	105.2	1.3	.30	.0	.00			1
t	53	11.66	11.65	33.567	25.542	244.5		4.65	75.6	10.9	1.02	11.7	.26			53
1	104	9.74	9.72	33.867	26.114	191.1		3.02	47.2	25.4	1.79	23.0	.01			105
1	311	7.77	7.74	34.242	26.717	137.2		.99	14.8	52.5	2.72	33.4	.02			313
1	517	6.64	6.59	34.293	26.917	120.6		.46	6.7	69.4	3.06	37.3	.01			521
1	826	4.93	4.86	34.400	27.216	94.0		.23	3.2	108.8	3.35	40.5	.00			832
1	1132	4.22	4.13	34.461	27.344	83.7		.29	4.0	127.6	3.42	41.0	.00			1142
1	1336	4.17	4.06	34.468	27.356	84.4		.29	4.0	134.7	3.44	41.1	.00			1348

SPECIAL FREON CAST TAKEN IN SANTA CRUZ BASIN.

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 87 55

1	1539	4.16	4.04	34.468	27.359	86.0		.26	3.6	130.4	3.46	40.7	.00			1554
1	1640	4.18	4.04	34.470	27.360	87.0		.25	3.4	132.9	3.49	40.1	.02			1656

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIN SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT TYPE
33 09.7 N	120 00.2 W	17/08/85	0057 GMT	1184 M							

CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	U6/L	D.BAR
1	2	17.69	17.69	33.674	24.332	358.4		5.81	106.8	.8	.28	.0	.00			2
1	54	11.29	11.29	33.668	25.687	230.7		4.20	67.8	15.9	1.33	16.5	.21			54
1	105	9.48	9.46	33.853	26.146	188.1		3.09	48.0	27.2	1.85	23.9	.02			106
1	313	7.50	7.47	34.269	26.777	131.4		.85	12.6	57.3	2.84	34.3	.01			315
1	5t8	5.82	5.78	34.273	27.006	111.3		.42	6.0	80.2	3.19	39.7	.01			522
1	621	5.47	5.42	34.321	27.088	104.5		.32	4.5	87.7	3.29	41.1	.01			626
1	723	5.14	5.08	34.377	27.172	97.3		.40	5.6	100.8	3.36	41.3	.01			729
1	925	4.34	4.26	34.453	27.323	83.8		.44	6.1	118.6	3.40	42.6	.00			933
1	1026	4.03	3.95	34.474	27.373	79.5		.49	6.7	126.9	3.41	42.9	.00			1035
1	1127	3.89	3.80	34.484	27.396	77.8		.53	7.2	130.9	3.41	42.5	.00			1137

SPECIAL FREON CAST TAKEN IN TANNER BASIN.

RV NEW HORIZON — CALCOFI CRUISE 8508 — STATION 90 38

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	:LOUP AMI TYPE
33 08.0 N	118 28.4 W	15/08/85	1216 GMT	1242 M							

CAST	DEPTH M	TEMP DEG C	POT TEMP DE6 C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCX	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	1	20.36	20.36	33.639	23.630	425.4		5.63	108.8	1.6	.32	.1	.00			1
1	52	12.06	12.06	,33.591	25.485	250.0		4.94	81.0	9.0	.99	9.0	.42			52
1	104	9.88	9.87	33.776	26.019	200.1		3.34	52.3	23.3	1.73	21.9	.02			104
1	308	8.26 .	8.23	34.313	26.701	139.0		.79	12.0	51.5	2.80	32.8	.00			310
1	514	6.47	6.42	34.298	26.944	117.9		.38	5.5	73.1	3.16	38.0	.00			518
1	721	5.24	5.18	34.374	27.158	98.8		.21	3.0	97.7	3.39	41.0	.00			726
1	925	4.46	4 .39	34.442	27.302	86.1		.30	4.2	1U.2	3.42	42.4	.00			933
1	1026	4.24	4.16	34.461	27.341	83.0		.34	4.7	121.2	3.46	42.5	.00			1035

SPECIAL FREON CAST TAKEN IN CATALINA BASIN*

RV NEW HORIZON — CALCOFI CRUISE 8508 — STATION 90 45

1	1101	4.10	4.02	34.472	27.365	81.2		.36	4.9	125.0		42*1	.00			1111
1	1176	4.04	3.95	34.478	27.376	80.5		.36	4.9	128.5		41.5	.00			1186

LATITUDE,	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT
32 55.1 N	118 56.8 W	15/08/85	0614 GMT	1694 M							

CAST	DEPTH M	TEMP DEG C	POT TENP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	1	19.34	19.34	33.668	23.918	397.9		5.51	104. S	1.6	.31	.1	.00			1
1	103	9.72	9.71	33.780	26.049	197.3		3.28	51.2	24.4	1.72	22.4	.01			103
1	407	7.07	7.03	34.308	26.870	123.8		.55	8.1	6S.6	3.03	36.3	.00			410
T	612	5.73	5.68	34.361	27.088	104.8		.38	5.4	87.1	3.30	40.6	.00			616
1	816	4.91	4.84	34.405	27.221	93.4		.33	4.6	104.6	3.39	42.0	.00			822
1	1122	3.98	3.89	34.479	27.383	79.3		.43	5.9	127.2	3.40	42.6	.00			1132
1	1224	3.85	3.76	34.491	27.406	77.7		.69	9.4	126.0	3.43	43.3	.00			1235
1	1430	3.75	3.64	34.501	27.427	77.3		.57	7.8	135.0	3.44	42.4	.00			1443

SPECIAL FREON CAST TAKEN IN SAN NICHOLAS BASIN.

RV NEW HORIZON — CALCOFI CRUISE 8508 — STATION 90 53

1	1532	3.71	3.59	34.504	27.433	77.5		.54	7.3	137.3	3.46	41.7	.00			1547
1	1635	3.71	3.58	34.506	27.436	78.1		.45	6.1		3.49	40.8	.00			1651

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIN SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT
32 39.3 N	119 28.5 W	14/08/85	2312 GMT	1310 M							

CAST	DEPTH M-,.\.	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SI 03 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0	18.93	18.93	33*711	24.056	384.8		5.50	103.6	1.8	.28	.1	.00			0
1	51	11.39	11.38	33.650	25.656	233.6		4.36	70.5	14.2	1.24	14.8	.17			51
1	101	9.42	9.41	33.871	26.168	185.8		2.96	45.9	28.3	1.91	24.4	.01			101
1	203	8.22	8.20	34.104	26.541	152.1		2.00	30.2	42.3	2.36	30.1	.05			204
1	406	6.68	6.65	34.242	26.870	123.5		.85	12.4	67.4	3.02	36.9	.01			409
1.	609	5.32	5.27	34.293	27.083	104.6		.30	4.2	90.2	3.28	41.4	.00			613
1	811	4.71	4.64	34.418	27.254	89.8		.36	5.0	108.4	3.38	42.6	.00			817
1	1013	4.06	3.98	34.470	27.366	80.0		.54	7.4	125.6	3.39	42.9	.00			1021

SPECIAL FREON CAST TAKEN IN TANNER BASIN.

RV NEW HORIZON — CALCOFI CRUISE 8508 — STATION 94 32

1	1113	3.98	3.90	34.475	27.379	79.6		.49	6.7	128.2	3.40	42.5	.01			1123
1	1214	3.97	3.87	34.481	27.386	79.8		.53	7.2	128.0	3.40	42.7	.00			1225

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	HIN SPEED	HAVES	HEATHER	BAROMETER	DRY	HET	:LOUD AMI TYPE
32 44.9 N	117 39.1 W	10/08/85	0408 GMT	1067 M							

CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SV A	DYN HT	OXYGEN ML/L	OXY PCJ	SIO3 UM/L	PO4 UM/L	NO3 UM/L	MO2 UM/L	CHL-A UG/L	PHAEO U«/L	PRESS D.BAR
1	1	20.31	20.31	33.643	23.646	423.9		5.42	104.7	1.9	.33	.1	.00			1
1	SO	12.46	12.48	33.338	25.208	276.3		5.96	98.5	4.5	.67	4.1	.19			50
1	99	10.51	10.50	33.649	25.812	219.8		4.01	63.6	17.3	1.43	17.8	.03			99
1	196	9.32	9.30	34.114	26.376	168.1		2.08	32.2	35.1	2.19	27.4	.01			197
1	293	8.72	8.69	34.282	26.605	148.1		1.21	18.5	45.0	2.57	31.1	.00			295
1	391	8.20	8.16	34.346	26.736	137.2		.63	9.5	53.8	2.84	33.4	.00			393
1	489	7.18	7.14	34.322	26.866	125.7		.47	6.9	64.0	2.99	36.6	.00			492
1	682	5.45	5.39	34.375	27.134	100.9		.25	3.5	89.6	3.26	41 i9	.00			687
1	877	4.48	4.42	34.447	27*302	85.6		.33	4.6	112.4	3.33	43.3	.00			884
1	973	4.14	4.07	34.476	27.363	80.2		.41	5.6	119.4	3.35	43.6	.00			981

SPECIAL FREON CAST TAKEN IN SAN DIEGO TROUGH.

RV NEW HORIZON CALCOFI CRUISE 850a STATION 93 39

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIN SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD ANT TYPE
32 31.0 N	118 07.2 U	10/08/85	111* GNT	2037 N							

CAST	DEPTH	TEMP	POT TEKP	SALINITY	SIGMA	SVA	DYN NT	OXYGEN	OXY	SIO3	PO*	NO3	NO2	CNL-A	PHAEO	PRESS
	M	DE6 C	DEG C		THETA			M./L	PCT	IMJ/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	18.64	18.64	33.624	24.061	384.3		5.55	103.9	1.8	.34	.0	.00			1
1	104	10.25	10.23	.33.446	25.856	215.7		4.11	64.8	17.9	1.49	18.4	.01			104
1	206	8.51	8.49	34.042	26.448	161.2		2.36	35.9	36.6	2.19	28.7	.01			207
1	411	6.72	6.68	34.204	26.836	126.8		.88	1Zi9	62.4	2.90	37.1	.01			414
1	515	6.03	5.98	34.295	26.998	112.3		.38	5.5	76.2	3.15	40.0	.00			518
1	771P	4.81	4.75	34.427	27.250	90.0		.30	4.2	105.5	3.31	43.5	.00			777
1	1062P	3.95	3.87	34.490	27.394	77.6		.49	6.7	124.0	3.32	43.3	.00			1071

SPECIAL FREON CAST TAKEN IN SAN CLEMENTE BASIN.

RV NEW HORIZON CALCOFI CRWISE 8508 STATION 93 46

1	1540P	2.74	2.63	34.578	27.582	60.0		1.17	15.5	149.9	3.19	42.7	.00			1555
1	1667P	2.66	2.55	34.586	27.595	59.3		1.24	16.4	152.7	3.16	42.5	.00			1684

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIN SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AM 7
32 16.7 N	118 38.0 W	10/08/85	2134 GMT	1664 M							

CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	n	DEG C	DEG C		TNETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	2	19.74	19.74	33.628	23.786	410.6		5.41	103.4	1.6	.14	.1	.00			2
1	54	12.69	12.68	33.327	25.161	280.9		5.92	98.2	3.6	.44	3.1	.17			54
1	106	10.30	10.29	33.662	25.859	215.5		4.07	64.3	17.7	1.27	17.8	.01			106
1	208	8.67	8.65	34.062	26.438	162.1		2.35	35.9	37.1	2.00	28.1	.01			209
1	414	6.67	6.64	34.235	26.866	124.0		.68	9.9	67.5	2.77	37.3	.02			417
1	621	5.44	5.39	34.366	27.127	100.7		.24	3.4	90.6	3.06	41.6	.00			625
1	826	4.65	4.58	34.429	27.270	88.4		.30	4.2	105.7	3.11	43.8	.00			832
1	1030	4.11	4.03	34.476	27.366	80.3		.84	11.5	120.1	3.12	44.0	.00			1039

SPECIAL FREON CAST TAKEN IN EAST CORTES BASIN.

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 52

1	1337	3.28	3.18	34.536	27.498	68.2		.78	10.5	140.0	3.06	43.8	.00			1349
1	1586	3.16	3.04	34.547	27.520	67.7		.85	11.4	144.5	3.05	43.3	.01			1602

LATITUDE	LONG I TUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	:LOUD AMI TYPE
32 05.9 N	1 19 03.2 W	11/08/85	034 0 GMT	1572 M							

CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRES
	n	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	2			33.659				5.52		1.2	.15	.1	.00			2
1	54	13.18	13.17	33.526	25.218	275.5		5.68	95.3	5.2	.51	4.9	.01			54
1	104	9.82	9.81	33.730	25.992	202.7		3.89	60.8	21.7	1.45	20.9	.01			105
1	207	8.18	8.16	34.052	26.505	155.5		2.87	43.3	40.1	2.02	29.0	.00			208
1	412	6.52	6.49	34.258	26.904	120.2		.81	11.8	70.1	2.81	37.9	.00			415
1	719	5.05	4.99	34.380	27.185	95.9		.35	4.9	97.6	3.06	42.0	.00			725
1	1027	4.C5	3.97	34.477	27.373	79.4		.55	7.5	119.6	3.08	44.1	.00			1036
1	1233	3.49	3.39	34.522	27.467	71.0		.76	10.3	133.4	3.07	43.9	.00			1244
1	1438	3.23	3.13	34.539	27.506	68.2		1.01	13.6	140.0	3.05	43.5	.00			1452
1	1540A	3.22	3.11	34.539	27.507	68.8		.78	10.5	142.0	3.06	43.2	.00			1555

SPECIAL FREON CAST TAKEN IN EAST CORTES BASIN.

A. THE PRESSURE THERMOMETER MALFUNCTIONED ON THE DEEPEST BOTTLE, THE DEPTH SHOWN IS THE WIRE LENGTH. DATA FROM THIS LEVEL SHOULD BE USED WITH CAUTION.

RV NEW HORIZOH CALCOFI CRUISE 8508 STATION 77 77

LATITUDE	LONGITiJD	MO/DAY/Y	MESSENGER	SEOCHI	DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED
34° 10.4 N '	122° 42.5' W	08/21/85	1929 GMT	18	at	1218 – 1922 PST	1215 PST	1918 PST	224.5 Dg C/m2

	SALINITY	SIGMA	DISS O2	OZY	8103	PO4	NO3	H02	CHL	PHAEO	LIGHT		UPTAK E	(mgC/m3)	
BEG C		!V»*:TA	nl/L	PCT	um/1	um/1	um/1	um/1	ug/1	Ug/1	%	1	2	MEAN	DARK
1 16.65	33.430	24.393	5.86	105.4	1.5	0.38	0.1	0.00	0.22	0.05	91	0.49	0.56	0.33	0.22
13 16,60	33.432	24.405	3.89	105.4	1.4	0.37	0.1	0.01	0.21	0.04	34	3.6	3.5	3.6	0.18
18 13.60	33.568	24.737	6.27	110.6	1.4	0.38	0.4	0.03	0.35	0.12	24	7.0	6.7	6.8	0.28
26 14.98	33,553	24.863	6.10	106.2	2.1	0.47	1.6	0.07	0.60	0.15	12	7.4	6.9	7.1	0.21
42 12.24	33.576	25.438	4.68	77.0	10.5	1.11	10.7	0.91	0.67	0.29	3.1	3.4	2.9	3.2	0.33
6* 10.22	33.517	25.739	4.47	70.4	16.9	1.47	17.6	0.22	0.11	0.11	0.5	0*	0	0	0.21

* Dark uptake exceeded light uptake.

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 77 120

LATITUDE	LONGITUDE	.«./	MESSENGER	SEGCE	DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED
32044.2"N	1 L25° 42.3'W	08/20/85	1912 GMT	31	m	1208 – 1919 PST	1226 PST	1918 PST	74.2 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OXY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT		UPTAK E	(mgC/m3 >	
m	DEG C		THETA	ml/L	PCT	um/1	um/1	um/1	um/1	ug/1	ug/1	%	1	2	MEAN	DARK
2	18.84	33.351	23.802	5.65	106.0	1.5	0.35	0.0	0.00	0.05	0.00	91	1.1	0.88	0.99	0.18
23 •	18.87	33.393	23.828	5.57	104.6	1.5	0.33	0.0	0.00	0.06	0.00	34	0.88	0.99	0.93	0.18
30	19.60	33.781	23.938	5.49	104.7	1.7	0.32	0.0	0.00	0.06	0.00	24	0.55	0.75	0.65	0.18
44	16.79	33.457	24.381	6.07	109.5	1.7	0.32	0.0	0.00	0.08	0.01	12	1.0	1.1	1.1	0.20
72	13.90	33.205	24.824	6.31	107.3	1.7	0.35	0.0	0.00	0.12	0.02	3.1	0.50	0.46	0.48	0.17
IIO	12.83	33.289	25.104	5.85;	97.3	2.5	0.45	0.6	0.14	0.25	0.10	0.50	0.17	0.16	0.16	0.12

RV NED HORIZON CALCOFI CRUISE 8508 STATION 80 90

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI	DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED
33008.9' N	123° 13.5'W	08/19/85	2022 GMT	27	m	1237 – 1923 PST	1216 PST	1923 PST	94.1 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OZY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT		UPTAK E	(mgC/m3)	
m	DEG C		THETA	ml/L	PCT	um/1	um/1	um/1	um/1	ug/1	ug/1	%	1	2	MEAN	DARK
1	18.58	33.427	23.926	5.53	103.3	1.7	0.37	0.0	0.00	0.05	0.01	91	1.0	1.0	1.0	0.18
18	18.40	33.422	23.967	5.55	103.3	1.7	0.37	0.0	0.00	0.06	0.00	34	1.8	1.8	1.8	0.19
24	18.32	33.419	23.986	5.53	102.7	1.7	0.36	0.0	0.00	0.06	0.01	24	1.4	1.3	1.3	0.23
36	18.07	33.402	24.035	5.58	103.2	1.7	0.36	0.0	0.00	0.07	0.01	12	1.4	1.6	1.5	0.26
61	14.45	33.272	24.761	6.26	107.7	1.9	0.36	0.0	0.00	0.14	0.03	3.1	0.73	0.76	0.74	0.27
94	12.91	33.299	25.095	5.93	98.8	2.6	0.45	0.6	0.11	0.31	0.22	0.50	0.17	0.19	0.18	0.13

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 81 48.6

! A': V.\D..	LONGITUDE	MO/DAY/YR	MESSENGER	SECCH T	DEPTH	INCUBATION TIME	LAM	CIVIL TWILIGHT	INTEGRATED VALUE
34021 ,0' 'N	120013.8'W	08/18/85	1932 GMT	13	m'	1208 – 1905 PST	1205 PST	1912 PST	501.8 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OXY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT	UPTAKE (mgC/m3)			
m	DEG C		THETA	ml/L	. PCT	um/1	um/1	um/1	um/1	ug/1	ug/1	SI	1	2	MEAN	DARK
1	17.79	33.581	24.237	5.95	109.6	1.5	0.30	0.0	0.00	0.24	0.05	91	2.6	2.3	2.5	0.27
9	16.36	33.629	24.613	6.16	110.3	1.8	0.32	0.0	0.00	0.50	0.13	34	8.6	11.4	10.0	0.38
12	15.69	33.630	24.764	6.37	112.6	1.6	0.34	0.0	0.00	0.64	0.22	24	14.2	15.3	14.8	0.48
19	14.69	33.615	24.972	6.25	108.3	2.9	0.45	0.6	0.04	1.58	0.41	12	28.4	31.9	30.2	0.49
30	12.88	33.643	25.367	4.82	80.4	9.0	1.0	8.7	0.56	0.77	0.40	3.1	6.5	6.5	6.5	0.26
46	11.12	33.694	25.740	3.77	60.6	17.0	1.46	17.1	0.20	0.15	0,22	0.50	0.09	0.10	0.09	0.22

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 83 60

LATITUDE	L0NGITUDE	MO/DAY/YR	MESSENGER	SECCHI	DB#ff	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED
33033 6'N .	120045.2'W	08/17/85	1949 GMT	14	m	1208 – 1913 PST	1207 PST	1912 PST	552.7 mg C/m2

DEPT H	TEMP	SALINITY	SIGMA	DISS O2	OXY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT	UPTAKE (mgC/m3)			
m	DEG C		THETA	'ml/L	PCT	: um/1	um/1	um/1	um/1	ug/1	ug/1	*	1	2	MEAN	DARK
1	18.12	33.656	24.215		–	1.1	0.29	0.1	0.00	0.30	0.05	91	10.7	11.0	10.8	0.39
10	18.06	33.656	24.229	5.70	105.5	1.1	0.29	0.0	0.00	0.35	0.06	34	14.8	16.0	15.4	0.41
13	18.04	33.654	24.233	5.68	105.1	1.0	0.28	0.0	0.00	0.35	0.07	24	12.0	11.7	11.9	0.38
20	17.39	33.654	24.390	5.84	106.8	1.0	0.28	0.0	0.00	0.54	0.12	12	16.3	14.5	15.4	0.38
33	14.51	35.643	25.032	5.68	98.0	4.0	0.57	3.9	0.16	1.53	0.36	3.1	13.3	11.2	12.3	0.30
50	11.50	33.631	25.620	4.52	73.3	12.9	1.16	13.2	0.27	0.42	0.35	0.50	0.26	0.43	0.34	0.19

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 87 45

LATITUDE		LONGITUDE	MO/DAY/Y	MESSENGER	SECCH	DEPTH	INCUBATION TIME		LAN	CIVIL TWILIGHT	INTEGRAT	I
33° 28.7	m	119020.5^	08/16/85	1918 GMT	20	m	1157 - 1913	PST	1201 PST	1907 PST	452.2 mg	C7m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OR	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT	UPTAKE		INTEGRATED (mgC/m3)	
a	DEG		THETA	ml/L	PCT	um/1	um/1	um/1	um/1	ug/1	ug/1	X	1	2	MEAN	DARK
1	19.2	33.647	23.926'	5.53	104.7	1.6	0.29	0.0	0.00	0.22	0.04	91	8.2	8.0	8.1	0.28
14	19.2	33.646	23.924	5.55	105.1	1.5	0.29	0.0	0.00	0.26	0.04	34	5.8	5.1	5.4	0.26
20	18.6	33.640	24.062	5.72	107.2	1.4	0.28	0.0	0.00	0.31	0.06	24	5.1	3.8	4.5	0.26
29	16.3	33.665	24.650	5.98	107.1	1.6	0.33	0.0	0.00	0.98	0.17	12	13.3	14.4	13.9	0.32
46	13.0	33.569	25.277	5.43	90.9	6.8	0.74	6.3	0.17	0.72	0.41	3.1	6.0	5.8	5.9	0.24
71	11.07	33.674	25.732	3.97	63.8	16.9	1.36	16.6	0.21	0.18	0.17	0.50	0.17	0.11	0.14	0.20

RV NEW HORIZON CALCOFI CRUISE 8S08 STATION 9O 30

LATITUDE	LONGITUDE	MO/DAY/Y	MESSENGER	SECCH	DEPTH	INCUBATION TIME		LAN	CIVIL TWILIGHT	INTEGRATED
33025.0 '«	117<>54.3* W	08/15/85	1939 GMT	18	m	121 O 803. - 1910	PST	1156 PS1	1900 PST	321.6 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OXY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT	UPTAKE		INTEGRATED (mgC/m3)	
m	DEG C		THETA	ml/L	PCT	um/1	um/1	um/1	um/1	ug/1	ug/1	%	1	2	MEAN	DARK
1	21.32	33.696	23.417	5.54	109.0	1.8	0.23	0.0	0.00	0.18	0.03	91	9.3	8.2	8.7	0.33
13	21.16	33.692	23.457	5.58	109.5	1.8	0.22	0.0	0.00	0.22	0.04	34	10.8	11.9	11.4	0.40
18	17.76	33.581	24.245	6.39	117.6	1.2	0.27	0.0	0.00	0.22	0.03	24	3.4	2.7	3.1	0.32
26	14.74	33.554	24.916	6.72	116.5	2.1	0.34	0.0	0.00	0.24	0.06	12	5.4	6.2	5.8	0.27
42	12.61	33.558	25.354	5.77	95.7	6.5	0.72	4.8	0.17	0.91	0.25	3.1	3.5	4.2	3.8	0.24
64	10.96	33.548	25.655	4.59	73.5	12.4	1.24	14.2	0.04	0.26	0.23	0.50	0.07	0.10	0.08	0.14

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 9O 56

LATITUDE	LONGITUDE	MO/DAY/Y	MESSENGER	SECCH	DEPTH	INCUBATION TIME		LAN	CIVI TWILIGHT	INTEGRATED
32° 31.3	9'N 119° 43.2'W	08/14/85	1924 GMT	16	m	1213 - 1915	PST	1214 PST	1917 PST	146.1 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OXY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT	UPTAKE		INTEGRATED (CmgC/m3)	
m	DEG C		THETA	ml/L	PCT	um/1	um/1	um/1	um/1	ug/1	ug/1	X.'%	1	2	MEAN	DARK
2	17.28	33.686	24.441	5.77	105.3	1.2	0.32	0.1	0.00	0.31	0.00	91	2.5	2.5	2.5	0.32
12	15.99	33.622	24.691	6.07	107.9	0.9	0.35	0.0	0.00	0.22	0.05	34	3.3	3.4	3.3	0.19
16	15.67	33.383	24.734	6.00	106.0	1.0	0.39	0.0	0.00	0.30	0.07	24	4.1	4.0	4.1	0.21
23	15.48	33.575	24.771	5.92	104.2	1.5	0.43	0.2	0.01	0.49	0.10	12	4.0	4.7	4.4	0.20
38	12.26	33.434	25.326	5.18	85.2	8.1	1.00	8.5	0.47	0.25	0.36	3.1	2.0	1.7	1.9	0.19
58	11.66	33.451	25.451	4.97	80.7	10.2	1.16	11.6	0.47	0.15	0.29	0.50	0.07		0.13	0.15

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 9O 96

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI	DEPTH	INCUBATION TIME		LAN	CIVIL TWILIGHT	INTEGRATED
31° 12.2'N	122022.9'W	08/13/85	1927 GMT	38	m	1209 - 1917	PST	1214 PST	1920 PST	33.4 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OXY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT	UPTAKE		INTEGRATED (mgC/m3)	
m	DBG C		THETA	ml/L	PCT	um/1	um/1	um/1	um/1	ug/1	ug/1	X	1	2	MEAN	DARK
2	19.08	33.505	23.859	5.44	102.6	1.9	0.33	0.1	0.00	0.07	0.00	91	0.16	0.13	0.15	0.17
28	18.57	33.458	23.954	5.51	102.9	1.7	0.33	0.1	0.00	0.07	0.00	34	0.07	0.15	0.11	0.18
36	17.95	33.442	24.094	5.72	105.5	1.7	0.33	0.1	0.00	-	-	24	0.26	0.24	0.25	0.14
54	16.13	33.343	24.601	6.04	107.6	1.9	0.31	0.1	0.00	0.09	0.01	12	0.33	0.50	0.42	0.13
89	13.89	33.303	24.902	6.02	102.4	1.9	0.37	0.1	0.00	0.21	0.11	3.1	0.41	0.40	0.40	0.13
124	11.84	33.423	25.399	5.00	81.5	7.4	0.82	8.3	0.03	0.12	0.13	0.50	0.04	0.06	0.05	0.11

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93.3 26.7

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCH	DEPTH	INCUBATION		LAN	CIVIL TWILIGHT	INTEGRA VALU
32056.6' N	117oi9.4'W	08/09/85	1935 GMT	21	m	1214 -	1937 PST	1156 PST	1912 PST	118.6 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OXY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT	UPTAKI		INTEGRATED (mgC/m3	
A	DEG C		THETA	ml/L	PCT	um/1	um/1	um/1	um/1	ug/1	ug/1	X	1	2	MEAN	DARK
1	22.54	33.744	23.115	5.25	105.6	1.9	0.24	0.1	0.00	0.20	0.02	91	1.2	1.7	1.4	0.23
15	17.00	33.495	24.360	6.20	112.4	2.1	0.34	0.1	0.00	0.17	0.02	34	1.7	1.9	1.8	0.19
21	14.76	33.421	24.809	6.62	114.7	2.9	0.38	0.0	0.00	0.32	0.06	24	3.0	3.2	3.1	0.28
30	12.96	33.387	25.152	6.27	104.7	4.4	0.60	3.1	0.13	0.38	0.13	12	4.0	3.2	3.6	0.27
50	11.73	33.488	25.468	5.17	84.1	9.2	1.00	10.2	0.20	0.53	0.30	3.1	1.4	1.4	1.4	0.26

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 45

LA : IDE	LONGITUDE	MO/DAY/YR	MESSENGER	SKCCHJ DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED
32° 2 3'N 1.	118034.6^	08/10/85	1948 GMT	30 B	1219 - 1917 I T l	: 1203 PST	1918 PST	153.0 mg C/m2

DEPTH m	TEMP DE6 C	SALINITY	SIGMA THETA	DISS O2 ml/L	OXT per	SIO3 um/1	PO4 um/1	NO3 um/1	NO2 um/1	CHL ug/1	PBABO ug/1	LIGHT t	1	UPTAKE (mgC/m3) 2	MEAN	DARK
2	19.22	33.618	23.912	5.44	102.9	2.4	0.29	0.2	0.00	0.10	0.01	91	1.5	1.4	1.4	0.24
22	18.96	33.592	23.957	5.50	103.6	2.2	0.31	0.2	0.00	0.11	0.02	34	2.1	1.7	1.9	0.17
29	17.93	33.551	24.181	5.73	105.8	2.1	0;31	0.1	0.00	0.13	0.02	24	2.1	2.3	2.2	0.22
42	14.32	33.283	24.796	6.38	109.5	2.3	0.37	0.1	0.00	0.17	0.06	12	2.0	2.1	2.1	0.19
70	12.14	33.369	2S.298	5.68	93.2	6.0	0.80	6.5	0.29	0.38	0.22	3.1	1.4	1.4	1.4	0.15
XO7	10.32	33.623	25.791	4.25	67.*	16.2	1.41	17.2	0.03	0.10	0.09	0.50	0*	0*	0	0.31

* Dark uptake exceeded light uptake.

RV NEW HORIZON CALCOFI CRUISE 8508 STATION 93 76

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI	DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31° 20.5 N '	120° 37.6'W	08/11/85	1918 GMT	18	m	1204 - 1920 PST	1207 PST	1913 PST	178.6 mg C/m2

DEPTH -	TEMP DEG C	SALINITY	SIGMA THETA	DISS O2 ml/L	OXY PCT	SIO3 um/1	PO4 um/1	NO3 um/1	NO2 um/1	CHL ug/1	P8AEO ug/1	LIGHT t	1	UPTAKE 2	CmgC/m3) MEAN	DARK
1	17.48	33.507	24.255	5.65	103.4	1.4	0.28	0.1	0.00	0.15	0.01	91	1.8	1.9	1.8	0.20
13	17.16	33.461	24.296	5.73	104.2	1.5	0.30	0.1	0.00	0.20	0.03	34	2.2	2.2	2.2	0.18
18	17.10	33.456	24.307	5.74	104.2	1.5	0.29	0.1	0.00	0.24	0.05	24	5.2	5.0	5.1	0.19
26	16.75	33.435	24.375	5.80	104.6	1.5	0.30	0.1	0.00	0.32	0.08	12	5.6	5.6	5.6	0.18
42	15.13	33.383	24.701	6.07	105.9	1.6	0.34	0.2	0.01	0.42	0.15	3.1	2.3	2.2	2.3	0.19
64	12.41	33.303	25.195	5.93	97.8	4.2	0.63	4.2	0.19	0.31	0.25	0.50	0.25	0.35	0.30	0.14

RV NEW HORIZON CALCOFI CRUISE"8508 STATION 93 114

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI	DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
30° 05.6'N	123° 10.7'W	08/12/85	1937 GMT	35	-	1218 - 1930 PST	1217 PST	1924 PST	71.9 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA ram	DISS O2 ml/L	OXY PCT	SIO3 um/1	PO4 um/1	NO3 um/1	NO2 um/1	CHL ug/1	PBABO ug/1	LIGHT %	1	UPTAKE 2	(mgC/m3) MEAN	DARK
2	19.68	33.547	23.739	5.37	102.5	2.5	0.17	0.1	0.00	0.06	0.00	91	0.37	0.31	0.34	0.14
26	19.50	33.540	23.779	5.38	102.3	2.3	0.17	0.1	0.00	0.07	0.01	34	0.40	0.42	0.41	0.14
34	19.45	33.533	23.788	5.39	102.4	2.2	0.16	0.1	0.00	0.08	0.02	24	0.61	0.48	0.55	0.12
50	15.85	33.376	24.534	5.99	106.0	2.3	0.16	0.1	0.00	0.11	0.01	12	1.4	1.2	1.3	0.14
82	13.64	33.303	24.953	5.99	101.3	2.7	0.23	0.0	0.00	0.22	0.15	3.1	0.48	0.68	0.58	0.12
125	11.28	33.470	25.538	4.70	75.7	10.6	0.85	11.3	0.02	0.12	0.12	0.50	0.05	0.04	0.05	0.10

Secchi Disk Observations

CalCOFI Cruise 8508

Line	Sta.	Day	Mo	Local Time (+8: PST)	Depth (m)	Weather	Clouds Type	Clouds Amt
77	70	21	8	1418	15	1	CU	5/8
77	77	21	8	1129	18	–	–	–
77	80	21	8	0805	17	1	CU	4/8
77	110	20	8	1506	31	2	sc	8/8
77	120	20	8	1112	31	2	CU	8/8
80	51	18	8	1312	9	1	sc	2/8
80	55	18	8	1542	11	1	sc	3/8
80	80	19	8	0650	18	1	CU	5/8
80	90	19	8	1222	27	1	CU	3/8
80	100	19	8	1738	25	1	CU	5/8
81	48.6	18	8	1132	13	–	–	–.
82	46	18	8	0810	15	1	sc	4/8
83	55	17	8	1600	15	2	sc	8/8
83	60	17	8	1149	14	2	sc	8/8
83	70	17	8	0620	22	1	sc	7/8
87	45	16	8	1118	20	2	sc	8/8
87	50	16	8	1310	11	2	sc	8/8
87	55	16	8	1606	14	–	–	–
90	28	15	8	1457	11	1	sc	2/8
90	30	15	8	1139	18	1	sc	1/8
90	35	15	8	0825	20	1	CU	7/8
90	37	15	8	0555	21	1	sc	7/8
90	53	14	8	1300	16	0	–	0
90	56	14	8	1124	16	–		
90	60	14	8	0705	22	0	.	0
90	90	13	8	1355	32	2	sc	8/8
90	96	13	8	1127	38	–	–	–
90	100	13	8	0820	47	2	sc	8/8
93	27	9	8	1135	21	0	–	0
93	45	10	8	1148	30	2	sc	8/8
93	50	10	8	1355	27	1	sc	6/8
93	76	11	8	1918	18	2	sc	8/8
93	80	11	8	1335	22	2	sc	8/8
93	110	12	8	0750	40	2	sc	8/8
93	114	12	8	1137	35	–	–	–
93	120	12	8	1415	36	1	sc	7/8

CalCOFI Cruise 8508

MACROZOOPLANKTON BIOMASS
Net Mesh Size: 0.505 mm

Line	Sta.	Position	Date Mo/Day	Time (GMT) Start	Time (GMT) End	Water Volume Strained (m^3)	Max. Tow Depth (m)	Volume per 1000 m^3 Strained Total (cm^3)	Volume per 1000 m^3 Strained Small (cm^3)
77	51	35 01.2N 120 55.2W	8/22	1220	1242	416	211	183	183
77	55	34 53.4N 121 12.6W	8/22	0838	0900	407	212	177	177
77	60	34 43.6N 121 33.5W	8/22	0500	0522	451	199	217	206
77	70	34 23.3N 122 15.6W	8/21	2335	2357	455	212	99	99
77	80	34 03.2N 122 56.3W	8/21	1705	1727	420	210	152	152
77	90	33 43.5N 123 38.3W	8/21	1143	1205	431	211	58	58
77	100	33 23.5N 124 19.8W	8/21	0602	0624	443	215	41	41
77	110	33 03.4N 125 01.1W	8/21	0025	0047	452	212	22	22
77	120	32 43.3N 125 41.6W	8/20	1815	1837	424	214	61	38
80	51	34 26.8N 120 31.7W	8/18	2134	2141	120	56	600	600
80	55	34 18.6N 120 48.5W	8/19	0049	0111	426	208	129	129
80	60	34 09.0N 121 09.3W	8/19	0444	0506	436	206	135	101
80	70	33 48.9N 121 50.8W	8/19	1020	1042	441	209	250	250
80	80	33 28.8N 122 32.1W	8/19	1555	1617	446	206	56	56
80	90	33 09. IN 123 13.7W	8/19	2122	2144	426	215	31	31
80	100	32 49.2N 123 54.8W	8/20	0315	1337	422	213	59	59
80	110	32 29.0N 124 35.6W	8/20	0803	0825	424	211	71	59
80	120	32 08.8N 125 16.2W	8/20	0310	1332	415	210	41	41
82	46	34 16.2N 119 56.3W	8/18	1525	1547	418	206	141	141
83	40.7	34 12.6N 119 24.7W	8/18	1140	1144	65	26	643	643
83	42	34 10.6N 119 30.2W	8/18	1005	1017	215	116	210	210
83	51	33 52.7N 120 08.4W	8/18	0422	0432	191	86	89	89
83	55	33 44.5N 120 24.9W	8/18	0137	1059	420	208	110	110
83	60	33 34.9N 120 46.5W	8/17	2055	2117	402	215	134	134
83	70	33 14.4N 121 26.8W	8/17	1520	1542	401	211	45	45
87	33	33 53.4N 118 29.4W	8/16	0522	0528	103	52	897	897
87	35	33 49.3N 118 3T.6W	8/16	0815	0837	436	205	241	241
87	40	33 39.3N 118 58.4W	8/16	1345	1407	422	210	114	114
87	45	33 29.1N 119 19.9W	8/16	1830	1852	373	211	123	123
87	50	33 19.7N 119 40.0W	8/16	2142	2149	128	65	273	273
87	60	32 59.4N 120 21.1W	8/17	0421	0443	411	215	380	380
87	70	32 39.1N 121 02.0W	8/17	0930	0952	406	216	222	222
90	28	33 29.0N U7 46.2W	8/15	2345	2351	125	56	255	255
90	30	33 24.7N 117 54.3W	8/15	2053	2115	413	211	70	70
90	35	33 15.2N 118 15.3W	8/15	1700	1722	391	215	166	125
90	37	33 10.9N 118 23.8W	8/15	1445	1507	403	212	697	697
90	45	32 55.4N 118 57.7W	8/15	0805	0827	457	210	131	131
90	53	32 38.8N 119 29.3W	8/14	2357	0019	419	210	60	60
90	60	32 24.7N 119 57.9W	8/14	1655	1717	410	211	273	273
90	70	32 05.2N 120 39.5W	8/14	1040	1102	406	204	239	239
90	80	31 44.9N 121 18.7W	8/14	0441	0503	431	207	125	125
90	90	31 25.4N 121 59.9W	8/13	2307	2329	437	207	50	50
90	100	31 05.6N 122 39.6W	8/13	1705	1727	434	211	23	23
90	110	30 43.8N 123 20.4W	8/13	1120	1142	431	217	42	42
90	120	30 25.0N 123 59.5W	8/13	0536	0558	431	218	46	46
93	26.8	32 56.8N 117 18.5W	8/9	1857	1904	121	59	124	124
93	29	32 52.5N 117 27.7W	8/9	2244	2306	437	207	46	46
93	30	32 50.8N U7 32.1W	8/10	0141	0203	426	209	61	61
93	35	32 41.0N 117 52.5W	8/10	0710	0732	408	210	122	122
93	40	32 30.4N 118 12.5W	8/10	1428	1450	426	211	167	167
93	45	32 20.9N 118 33.3W	8/10	1835	1857	412	212	95	95
93	50	32 10.8N 118 53.7W	8/11	0137	0159	431	206	95	95
93	55	32 00.8N 119 14.4W	8/11	0640	0702	424	208	118	118
93	60	31 50.9N 119 34.3W	8/11	1025	1047	414	214	174	174
93	70	31 30.8N 120 14.9W	8/11	1600	1622	414	216	452	133
93	80	31 10.7N 120 54.9W	8/11	2253	2315	447	211	63	63
93	90	30 50.7N 121 35.6W	8/12	0439	0501	434	213	67	67
93	100	30 30.7N 122 15.5W	8/12	1020	1042	445	210	47	47
93	U0	30 11.7N 122 55.5W	8/12	1640	1702	443	216	36	36
93	120	29 50.8N 123 35.8W	8/12	2343	0005	438	207	30	30

FIGURES

Cruise 8511

1. CalCOFI Cruise 8511, station positions.
2. Horizontal distribution of chlorophyll-a at 10 meters.
3. Horizontal distribution of dynamic height anomaly (0 over 500 m).
4. Horizontal distribution of sigma-theta at 10 meters.
5. Horizontal distribution of temperature at 10 meters.
6. Horizontal distribution of salinity at 10 meters.
7. Horizontal distribution of dynamic height anomaly (200 over 500 m).
8. Horizontal distribution of sigma-theta at 200 meters.
9. Horizontal distribution of temperature at 200 meters.
10. Horizontal distribution of salinity at 200 meters.

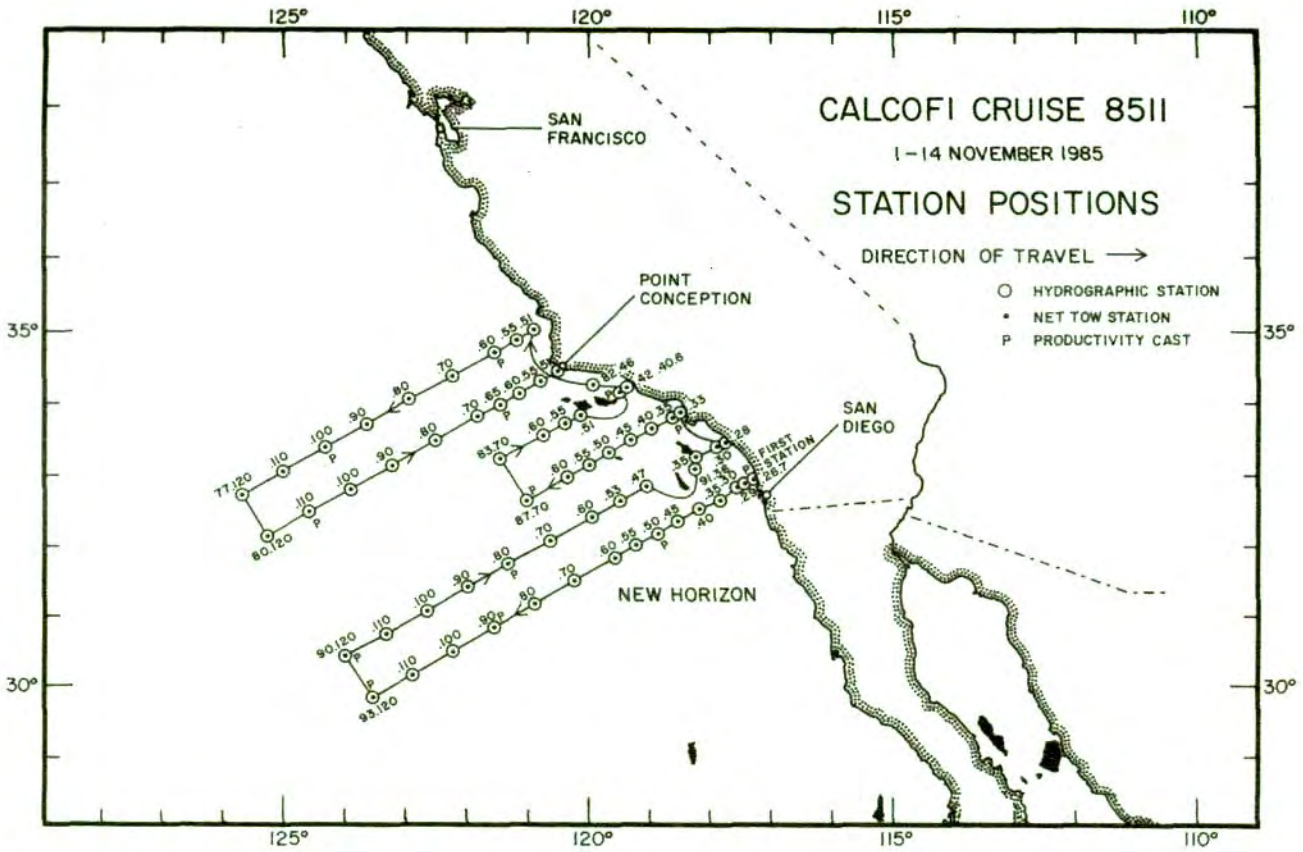

FIGURE 1

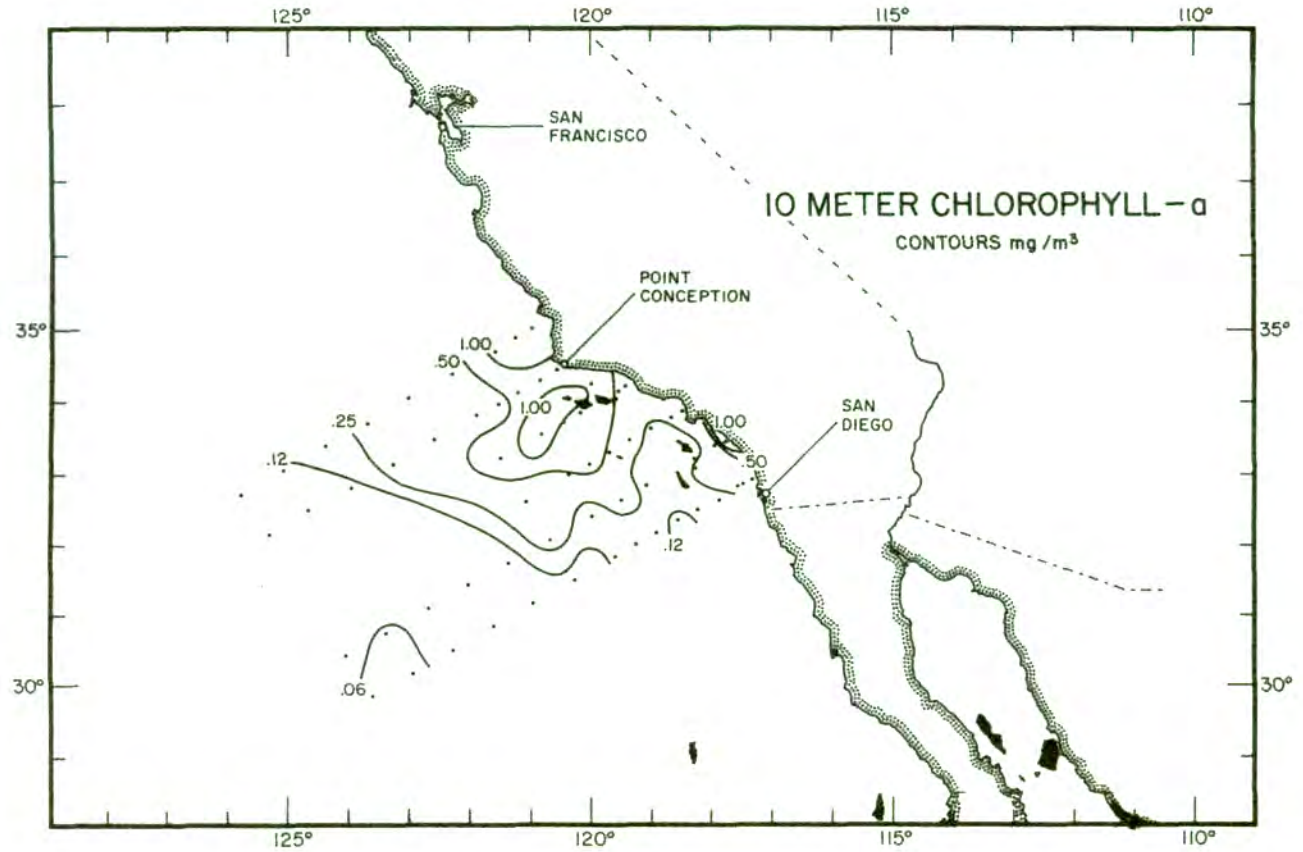

FIGURE 2

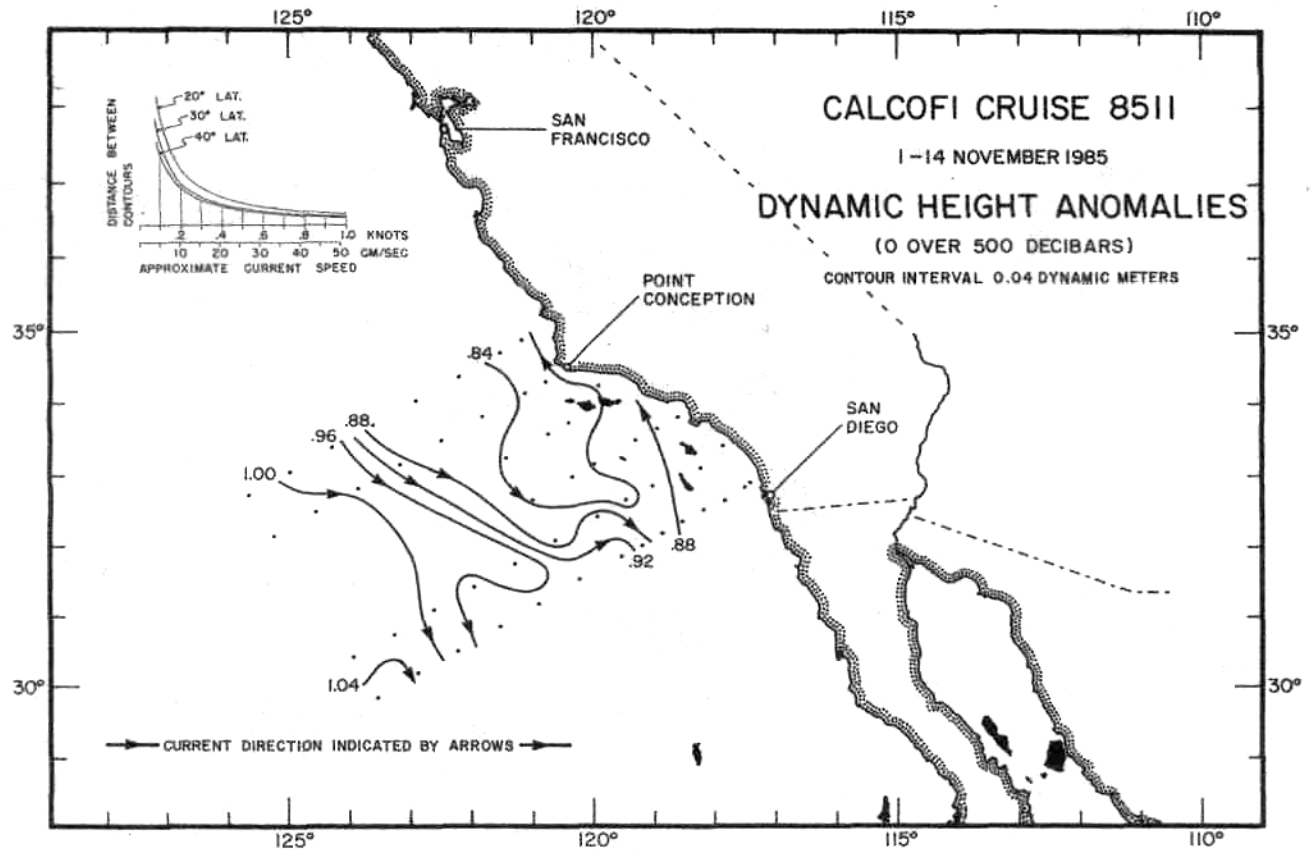

FIGURE 3

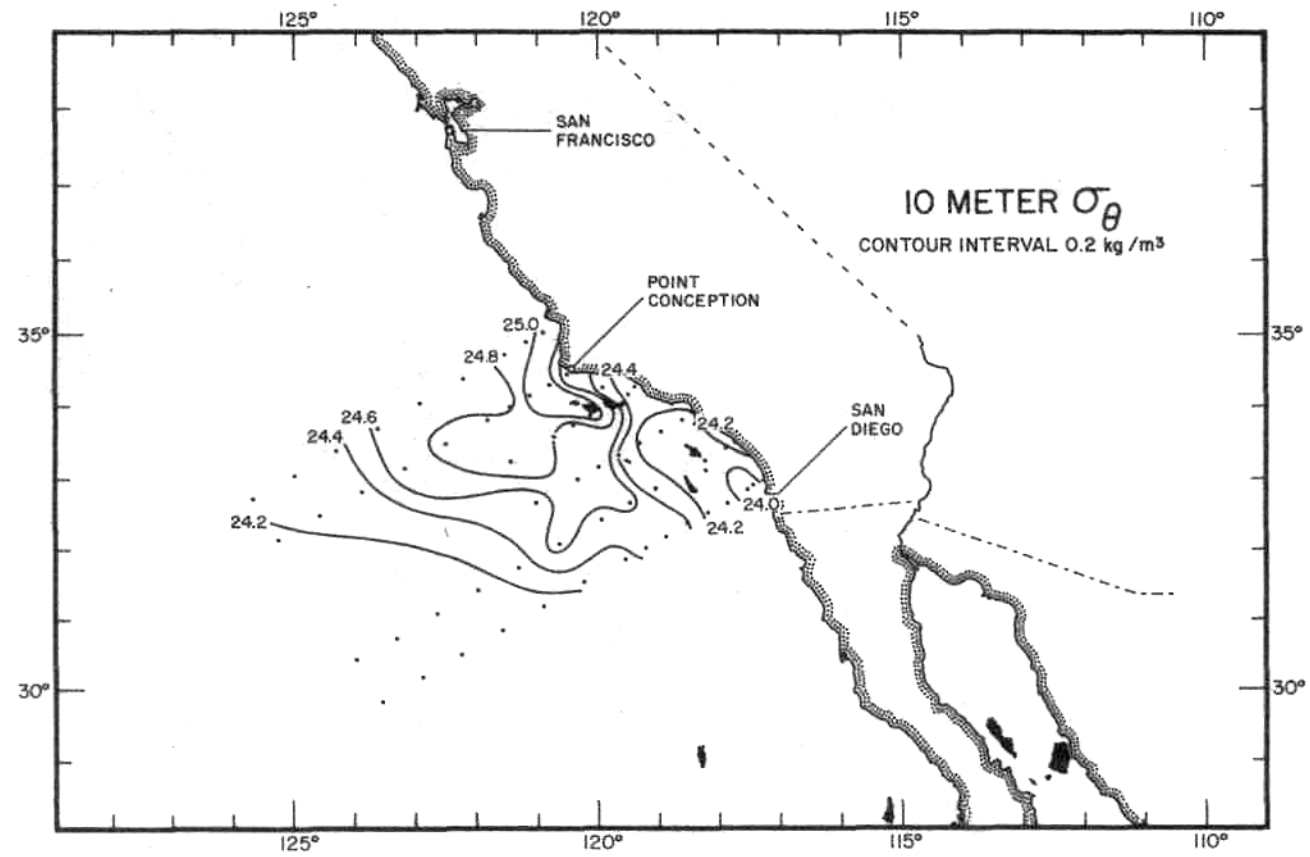

FIGURE 4

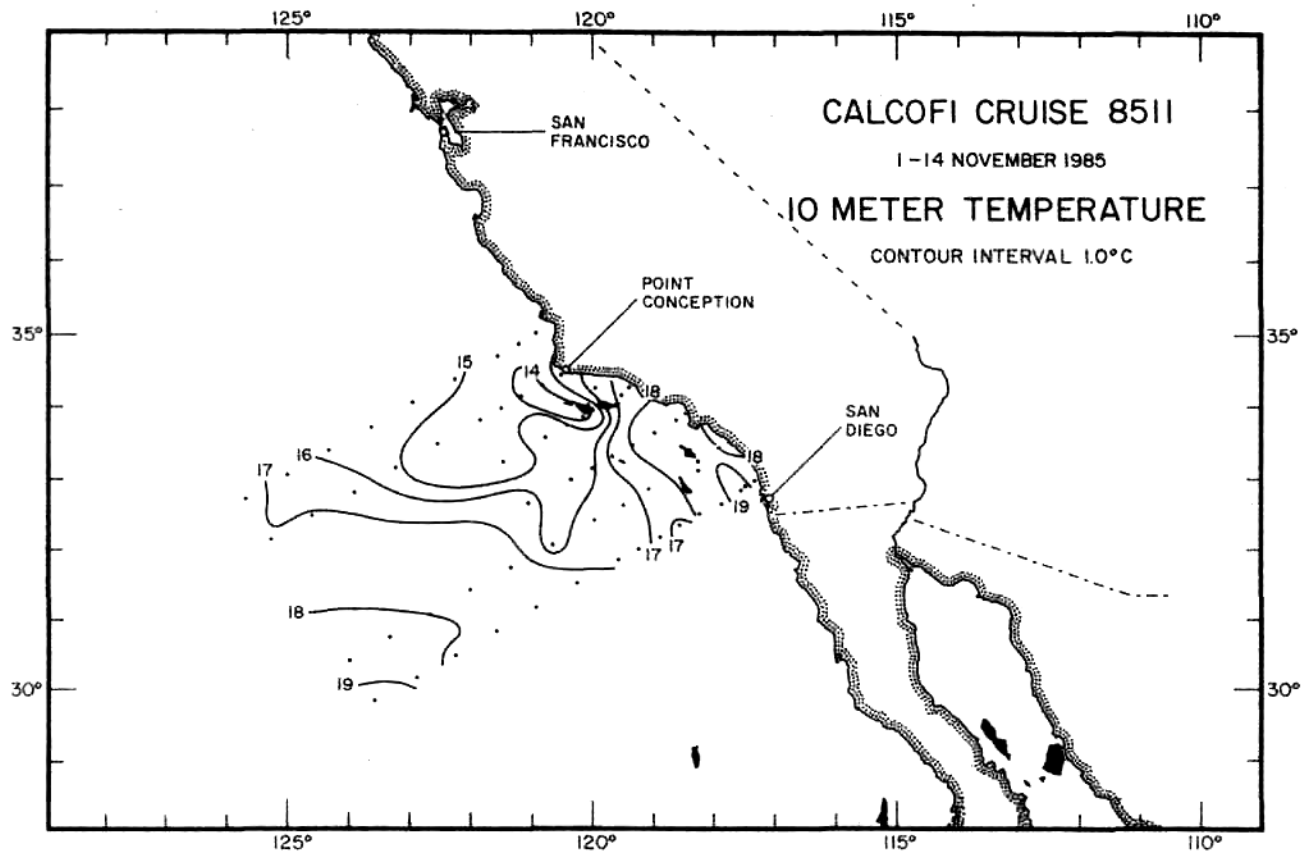

FIGURE 5

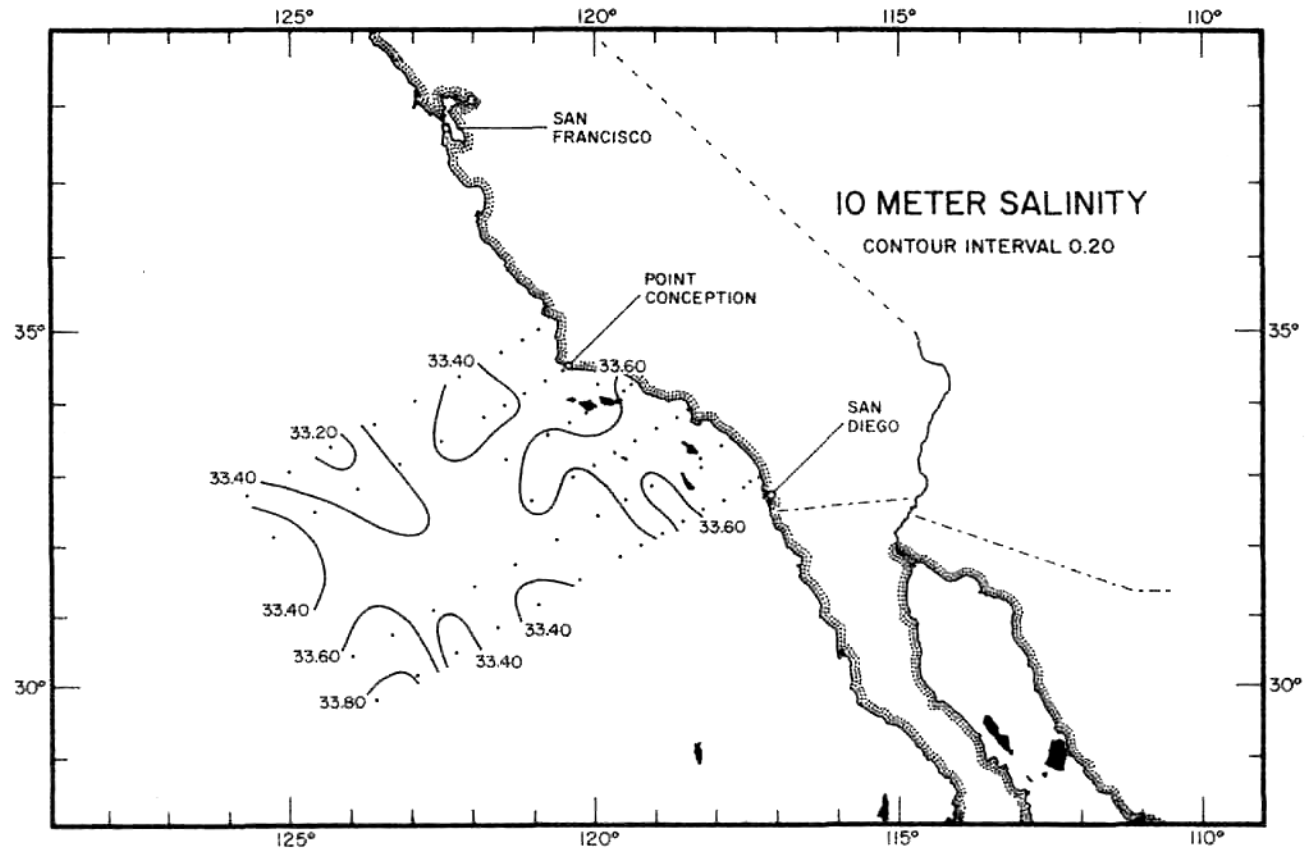

FIGURE 6

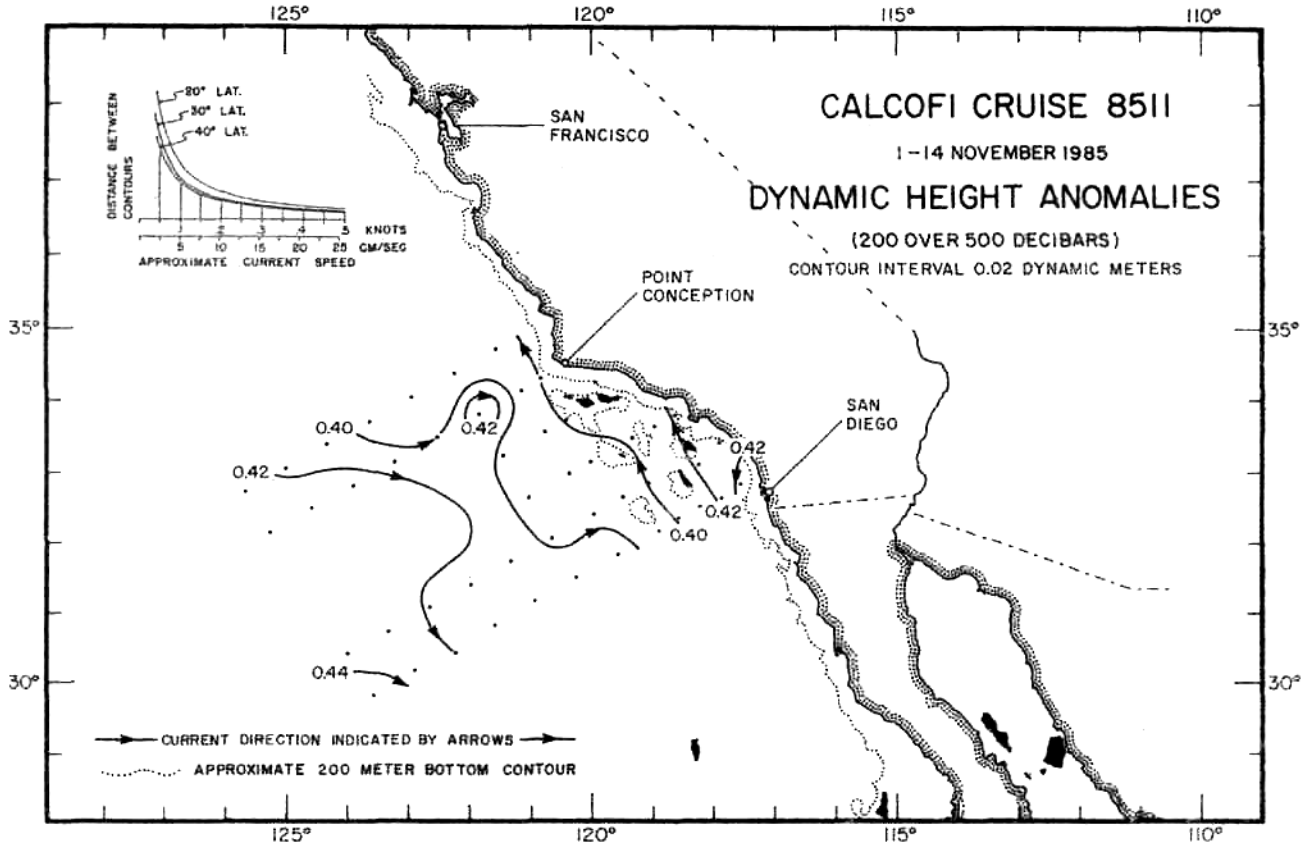

FIGURE 7

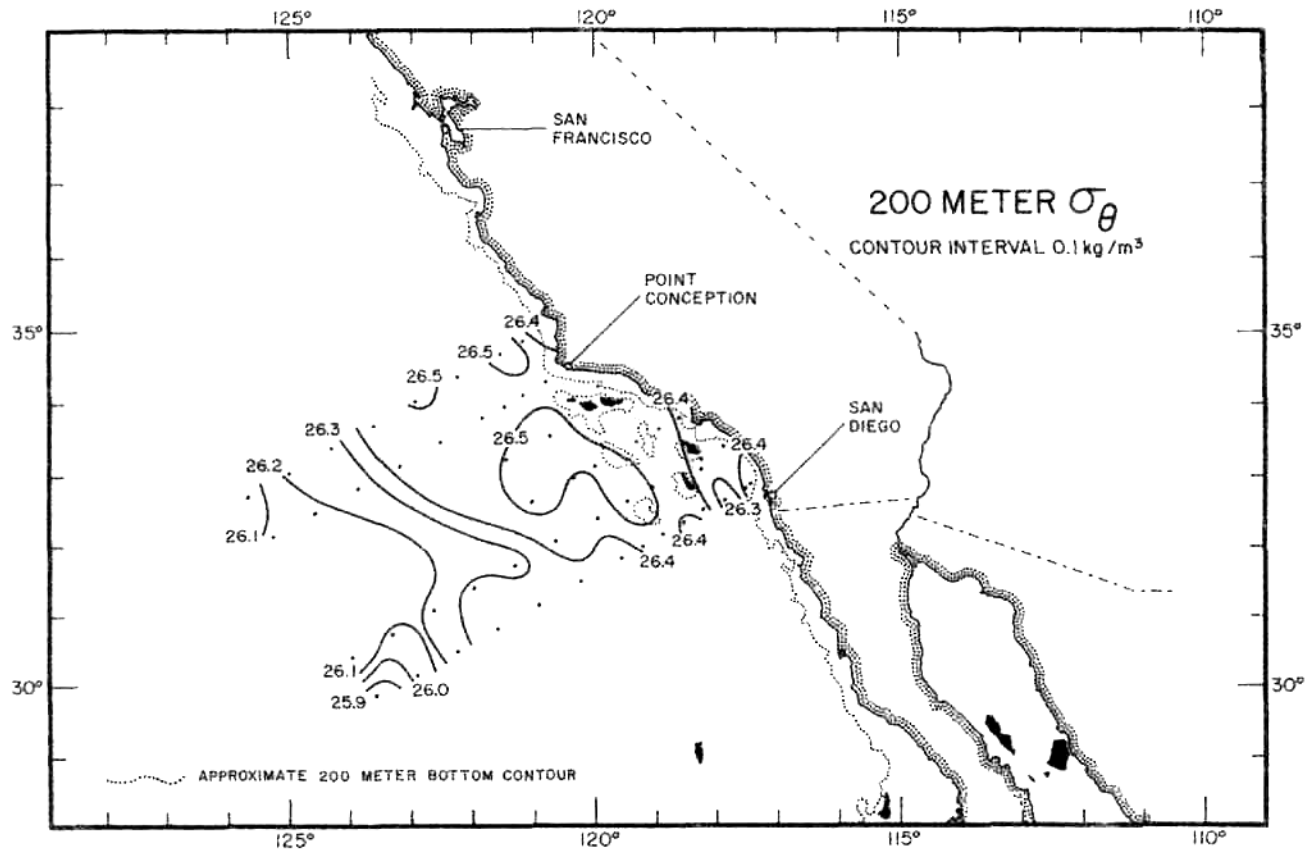

FIGURE 8

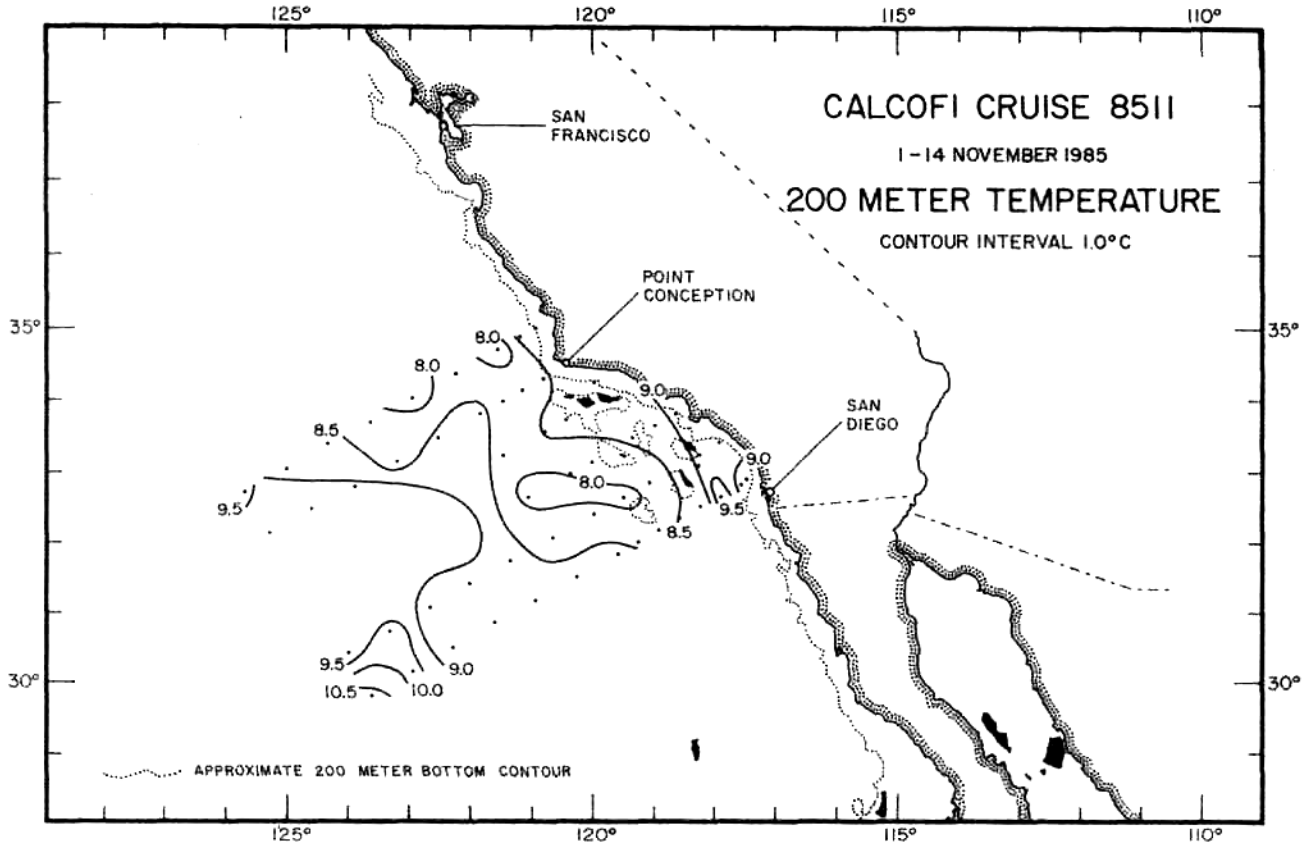

FIGURE 9

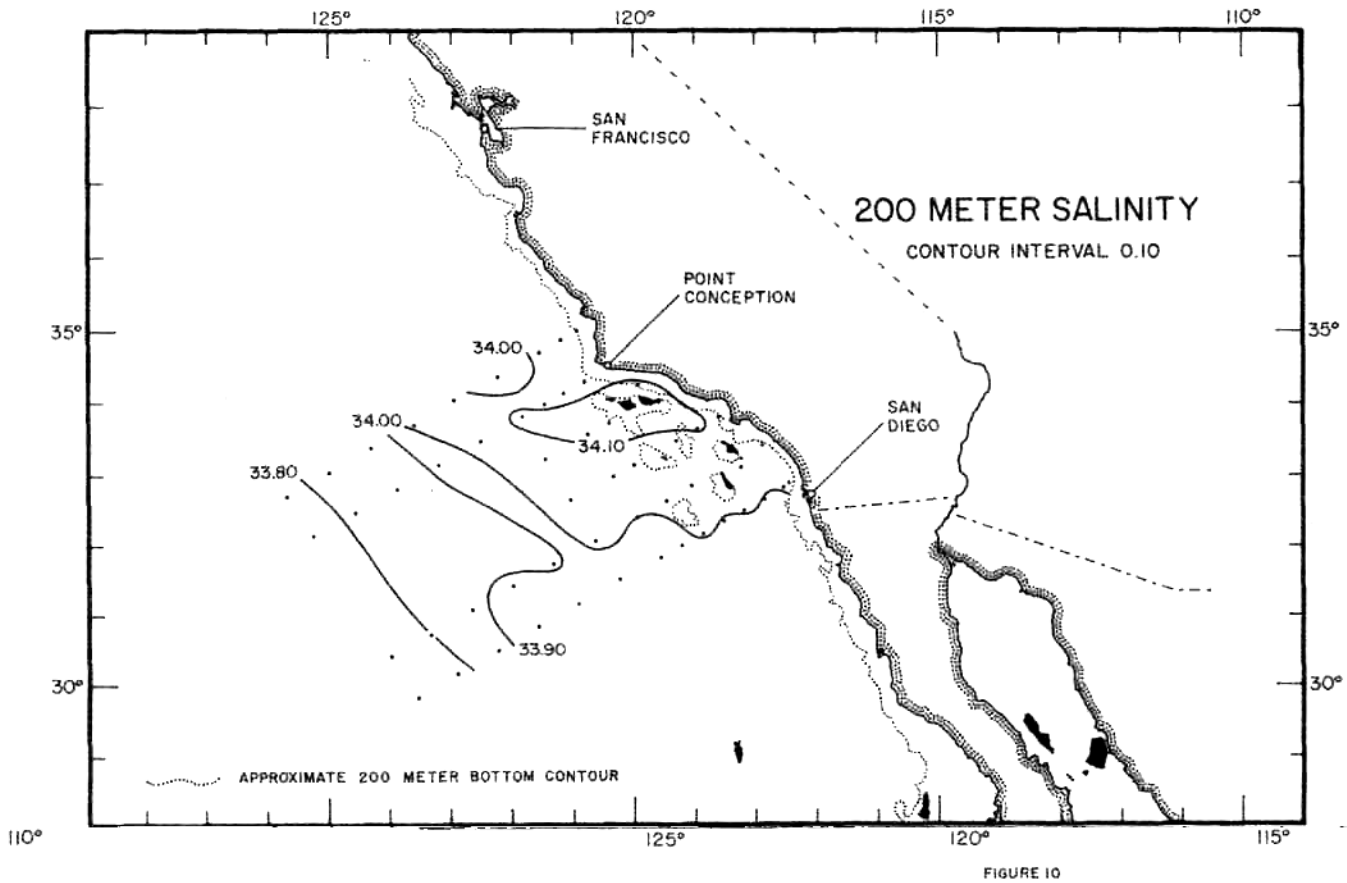

FIGURE 10

PERSONNEL

Cruise 8511

SHIP'S CAPTAIN

Phillip L. Munsch, RV *New Horizon*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

Anderson, George C. (in charge)	Staff Research Associate,	SIO
Abramenkoff, Dimitry N.	Fishery Biologist, NMFS	
Bryan, Walter R.	Marine Technician, SIO	
Cohenour, Bernard C.	Oceanographer, U.S. Navy, PMTC	
Cummings, Sherry L.	Staff Research Associate,	SIO
Fabricius, Josephine M.	Volunteer	
Flerx, William C.	Fishery Biologist, NMFS	
Paniagua, Carmen	Biologist, CICESE	
Radilla-Camacho, Rufino	Biologist, UABC	
Ramirez-Siqueiros, Olga E.	Oceanographer, CICESE	
Schmitt, Walter, R.	Staff Research Associate,	SIO
Villalobos-Fierro, David	Oceanographer, CICESE	

CALCOFI CRUISE 8511 ' STATION 77 51

OM	WINS SPEED	WAVES	WEATHER	BAROMETER	DRV	WET	CLOUD AH1 TYPE
249 M	230 06 KT			1015.0	HB 13.3 C	10.5 C	

SVA	DYN HT	OXYGEN	OXT	8103	PO4	NO3	NO?	CML-A	PHAEO	PRESS
		ML/L	PCT	UH/L	UH/L	UH/L	UH/L	UG/L	UG/L	D.BAR
29-2.3	.000	5.81	99.6							0
292.4	.003	5.81	99.6	S.5	.54	2.0	.09	1.29	.43	1
292.8	.02*	S.76	98.8							10
292.9	.032	5.76	98.8	5.7	.56	2.1	.09	1.34	.40	11
277.1	.058	5.32	89.6							20
256.1	.084	4.74	78.0							30
251.8	.089	4.62	75.7	11.3	1.08	10.8	.10	.51	.39	32
237.5	.126	4.15	67.1	14.4	1.33	14.8	.02	.18	.24	47
235.2	.133	4.08	65.8							50
230.3	.151	3.94	63.3	16.1	1.41	16.3	.02	.10	.22	58
222.1	.165	3.73	59.5	18.1	1.50	18.1	.02	.06	.16	73
220.8	.190	3.70	58.9							76
214.5	.220	3.51	55.7	20.2	1.64	19.7	.00	.03	.12	89
210.5	.244	3.38	53. S							101
208.0	.262	3.29	52.0	22.6	1.72	21.2	.00	.03	.11	109
202.3	.296	3.11	48.9							126
199.1	.314	3.01	47.3	25.6	1.86	23.1	.00	.02	.09	135
194.1	.345	2.86	44.8							151
192.2	.355	2.82	44.1	27.7	1.94	24.5	.00	.02	.09	156
174.8	.410	2.57	39.6	33.8	2.14	27.2	.06	.02	.0S	186
168.2	.436	2.30	3S.3							202
164.7	.452	2.07	31.7	39.9	2.36	29.3	.19	.02	.15	211

CALCOFI CRUISE 8511 STATION 77 55

Oft	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AHT TYPE
565 H	230 14 XT			1013.1	MB 14.1 C	11.0 C	

SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
		ML/L	PCT	UH/L	UH/L	UM/L	UM/L	UG/L	UG/L	D.8AR
296.0	.000	5.76	99.1							0
296.1	.003	5.76	99.1	4.9	.55	1.9	.09	1.14	.36	1
296.4	.030	5.78	99.4							10
296.4	.032	5.78	99.4	5.1	.52	1.8	.08	1.18	.39	11
295.2	.05*	5.76	98 .8							20
294.9	.065	5.75	98.7	5.4	.57	2.2	.09	1.33	.36	22
271.3	.088	5.13	85.7							30

RV MEM HORIZON CALCOFI CRUISE 8S11 STATION 77 60

LATITUDE	LONGITUDE	OAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
34 43.0	121 33.2 W	10/11/85	1751 GM1	962 M	220 16 KT	260 05 04	1	1013.9 MB	14.8 C	12.1 C	3/S	SC

CAST	DEPTH		TEMP	POT TEKP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO 2	CNL-A	PHAEO	PRFSS
	n		DES C	DEG C		THETA			.. ML/L	PCT	UM/L	UM/L	UM/L	UH/L	U6/L	UG/L	D.BAR
	0	ISL	14.55	14.55	33.545	24.947	299.9	.000	5.87	101.4							0
1	1		14.55	14.55	33.545	24.947	299.9	.003	5.87	101.4	3.4	.45	.9	.09	1.08	.48	1
	10	ISL	14.54	14.54	33.544	24.949	299.9	.030	5.93	102.4							10
1	11		14.54	14.54	33.544	24.949	299.9	.033	5.94	102.5	3.4	.46	.9	.09	1.08	.46	11
	20	ISL	14.55	14.55	33.543	24.948	300.4	.060	5.86	101.2							20
1	22		14.55	14.55	33.543	24.947	300.5	.066	5.84	100.8	3.3	.46	.8	.08	1.07	.47	22
	30	ISL	14.51	14.51	33.537	24.9S1	300.3	.090	5.84	100.7							30
1	32		14.50	14.49	33.S36	24.953	300.2	.096	5.84	100.7	3.5	.48	1.0	.11	.99	.38	32
1	42		14.43	14.43	33.533	24.964	299.4	.125	5.82	100.2	3.7	.49	1.2	.11	.83	.38	42
	50	ISL	12.89	12.88	33.509	25.262	271.7	.149	4.96	82.8							50
1	52		12.51	12.50	33.504	25.333	264.5	.154	4.75	78.6	9.5	1.00	10.1	.13	.20	.29	52
1	62		11.33	11.32	33.596	25.625	236.8	.178	4.10	66.2	15.0	1.35	16.1	.02	.08	.23	62
1	73		10.73	10.72	33.635	25.763	223.9	.204	3.87	61.7	17.8	1.49	18.4	.00	.05	.19	73
	75	ISL	10.61	10.60	33.649	25.795	220.9	.209	3.81	60.6							76
1	88		10.02	10.01	33.719	25.950	206.3	.236	3.52	55.3	22.2	1.69	21.7	.01	.03	.15	88
	100	ISL	9.52	9.51	33.756	26.063	195.8	.261	3.40	52.8							101
1	102		9.43	9.42	33.763	26.083	193.9	.266	3.38	52.4	25.8	1.80	23.7	.02	.01	.0S	103
1	123		8.93	8.92	33.899	26.269	176.6	.304	3.05	46.8	30.3	1.93	25.9	.02	.01	.01	124
	125	ISL	8.90	8.88	33.907	26.281	175.5	.307	3.04	46.7							126
1	14E		8.47	8.45	33.986	26.410	163.6	.346	2.96	45.0	34.7	2.03	27.3	.01	.00	.07	149
	150	ISL	8.44	8.42	33.989	26.417	163.0	.349	2.96	45.0							151
1	179		8.03	8.01	34.007	26.493	156.1	.396	3.01	45.3	38.3	2.06	28.0	.02			180
	200	ISL	7.79	7.77	34.046	26.558	150.3	.428	2.62	39.2							202
1	210		7.72	7.70	34.066	26.585	147.8	.442	2.38	35.6	44.9	2.31	30.7	.02			211
1	241		7.67	7.64	34.132	26.645	142.8	.487	1.68	25.1	50.2	2.54	33.1	.00			242
	2S0	ISL	7.59	7.56	34.130	26.655	141.7	.501	1.64	24.4							252
1	281		7.26	7.24	34.124	26.696	138.3	.544	1.51	22.3	55.2	2.64	34.8	.00			283
	300	ISL	7.10	7.07	34.136	26.729	135.5	.570	1.40	20.7							302
1	342		▪ 6.78	6.75	34.174	26.803	128.9	.625	1.14	16.7	64.6	2.82	37.3	.00			344
	400	ISL	6.35	6.32	34.208	26.886	121.5	.698	.74	10.7							403
1	419		6.22	6.18	34.217	26.912	119.3	.721	.62	8.9	74.7	3.07	39.8	.00			422
1	498		5.66	5.61	34.254	27.011	110.3	.811	.42	6.0	86.4	3.17	41.8	.00			501
	500	ISL	5.64	5.60	34.256	27.014	110.1	.814	.42	6.0							504
1	576		5.35	5.30	34.297	27.083	104.2	.893	.41	5.8	93.0	3.27	42.6	.00			S80

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 77 ?O

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
34 22.9	122 14.6 U	10/11/85	2339 GMT	4063 H	210 19 KT	290 07 04	1	1018.1 MB	15 .7 C	13.7 C	7/8	SC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO 2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UN/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	15.14	15.13	33.361	24.680	325.3	.000	5.97	104.2							0
1	1		15.14	15.13	33.361	24.680	325.3	.003	5.97	104.2	2.8	.40	.2	.00	.31	.12	1
	10	ISL	15.12	15.12	33.359	24.682	325.4	.033	5.85	102.0							10
1	11		15.12	15.12	33.359	24.682	325.4	.036	5.84	101.9	2.8	.40	.2	.00	.30	.15	11
	2D	ISL	15.13	15.12	33.358	24.680	325.8	.065	5.86	102.3							20
1	22		15.13	15.12	33.358	24.680	325.9	.071	5.87	102.4	2.7	.39	.2	.00	.27	.12	22
	30	ISL	15.12	15.12	33.357	24.680	326.1	.098	5.86	102.2							30
1	32		15.12	15.12	33.357	24.681	326.2	.104	5.85	102.1	2.6	.39	.2	.00	.31	.11	32
1	42		15.10	15.10				.136	5.82	101.5	2.5	.40	.2	.00	.33	.19	42
	50	ISL	14.90	14.89	33.340	24.717	323.2	.163	5.86	101.7							S0
1	52		14.85	14.84	33.338	24.726	322.5	.169	5.86	101.7	2.9	.40	.3	.02	.37	.18	52
1	63		11.73	11.72	33.123	25.184	278.8	.202	5.75	93.4	4.4	.73	4.8	.03	.24	.25	63
1	73		11.18	11.17	33.162	25.314	266.6	.229	5.61	90.0	6.0	.89	7.9	.02	.14	.16	73
	75	ISL	11.11	11.10	33.191	25.350	263.3	.235	5.51	88.3							76
1	88		10.75	10.74	33.368	25.551	244.4	.267	4.85	77.2	10.9	1.19	13.2	.01	.06	.08	88
	100	ISL	10.23	10.22	33.490	25.736	227.0	.296	4.36	68.7							101
1	103		10.12	10.11	33.511	25 . 772	223.6	.302	4.28	67.3	17.0	1.48	18.2	.01	.03	.04	103
1	123		9.17	9.16	33.66S	26.048	197.6	.346	3.93	60.5	23.9	1.70	22.4	.00	.01	.02	124
	125	ISL	9.15	9.13	33.681	26.065	196.0	.349	3.85	59.3							126
1	148		8.94	8.92	33 .883	26.256	178.3	.392	2.85	43.7	31.4	2.02	27.0	.00	.00	.03	149
	150	ISL	8.91	8.90	33.890			.395	2.86	43.9							151
1	179		8.49	8.47	33.949			.445	3.05	46.3	33.9	2.02	27.1	.00			180
	200	ISL	8.23	8.21	33.983			.480	3.06	46.2							202
1	210		8.10	8.08	33.995	26.473	158.6	.496	3.06	46.1	37.7	2.08	27.8	.01			211
1	240		7.61	7.59	34.022	26.566	150.1	.542	2.66	39.6	44.1	2.27	30.3	.01			241
	250	ISL	7.45	7.43	34.028	26. 593	147.6	.557	2.56	38.0							252
1	280		7.04	7.01	34.040			.601	2.28	33.5	52.9	2.50	33.S	.00			282
	380	ISL	6.81	6.79	34.049			.628	2.03	29.7							302
1	3*1		6.42	6.39	34.070			.683	1.51	21.9	63.0	2.78	37.0	.01			343
	400	ISL	5.96	S.92	34.112	26.860	123*6	.759	1.03	14.7							403
1	417		5.86	5.82	34.127	26.885	121.3	.780	.92	13.2	75.9	3.09	40.3	.00			420
1	493		5.69	5.65	34.232	26.990	112.4	.868	.50	7.1	84.2	3.29	41.6	.01			496
	500	ISL	5.65	5.61	34.239		111.4	.876	.47	6.7							504
1	5«9		5.10	5.05	34.286		101.9	.950	.33	4.6	97.7	3.39	43.5	.00			573

RV HEM HORIZON CALCOFI CRUISE 8511 STATION 77 50

LATITUDE	LONGITUDE	OAY/WO/YR	SSENSER		BOTTO	WIND SPEED	WAVES	WEATHFR				WET	CLOUD	TYPE
3 4 03.A N	122 5 6.9	11/1 1/85	0545	SHI	4233 M	330 17 KT			1010.2	MR 11	.5 C	10,2 C		
CAST DFPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA 329.9	DYN HT .000	OXYGEN HL/L	OXY PCT	SIO3 UM/L	PO4 UH/L	NO 3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRES D.PA
0 ISL	15.78	15.78	33.482	24^631	329.9	.003	5.76	101.9	2.2	.36	.3	.00	.32	.10	1
1 1	15.78	15.78	33.482	24.632	330.1	.033	5.78	102.2							10
1 11	15.78	15.78	33.482	24.632	330.2	.036	5.78	102.3	2.2	.37	.3	.00	.30	.11	11
20 I SL	15.79	15.79	33.482	24.629	330.7	.066	5.77	102.1							20
1 22	15.79	15.79	33.482	24.629	330.8	.072	5.77	102.1	2.3	.37	.2	.00	.31	.10	22
30 ISL	15.78	15.78	33.482	24.631	330.9	.099	5.77	102.1							39
1 32	15.76	15.78	33.482	24.632	330.9	.105	5.77	102.1	2.2	.36	.2	.00	.30	.12	32
1 42	15.78	15.78	33.482	24.631	331.2	.138	5.77	102.1	2.2	.36	.3	.00	.30	.12	42
SO ISL	14.31	14.30	33.402	24.889	306.8	.164	5.71	98.0							SO
1 58	12.57	12.56	33.355	25.205	276.8	.187	5.65	93.5	6.1	.82	7.5	.17	.60	.45	58
1 68	11.14	11.13	33.393	25.502	248.6	.213	4.92	79.0	10.2	1.18	13.3	.02	.35	.32	68
75 ISL	10.87	10.86	33.466	25.606	238.8	.231	4.62	73.7							76
1 79	10.83	10.82	33.507	25.645	235.2	.240	4.49	71.7	13.8	1.40	16.7	.00	.18	.22	79
1 94	10.13	10.12	33.670	25.893	211.9	.273	3.74	58.9	20.3	1.70	21.8	.00	.05	.06	94
100 ISL	9.92	9.91	33.707	25.958	205.9	.286	3.55	55.6							101
1 114	9.52	9.51	33.764	26.06S	195.6	.315	3.27	50.8	25.4	1.83	24.6	.00	.02	.03	115
125 ISL	9.20	9.18	33.817	26.163	186.8	.336	3.08	47.6							126
1 134	8.93	8.92	33.861	26.240	179.4	.353	2.95	45.3	30.4	1.99	26.8	.00	.01	.03	135
150 ISL	8.66	8.64	33.921	26.329	171.4	.380	2.80	42.7							151
1 160	8.53	8.51	33.950	26.373	167.4	.397	2.74	41.7	34.6	2.09	28.4	.00	.01	.03	161
1 192	6.07	8.0S	34.000	26.481	157.6	.449	2.64	39.7	39.1	2.21	30.0	.00			193
200 ISL	7.96	7.94	34.010	26.50S	155.4	.462	2.57	38.6							202
1 221	7.69	7.67	34.031	26.562	150.3	.493	2.36	35.2	44.4	2.34	31.5	.00			222
250 ISL	7.40	7.37	34.053	26.622	144.9	.536	2.06	30.6							252
1 256	7.34	7.31	34.057	26.633	143.9	.546	2.00	29.6	50.4	2.54	33.4	.00			258
300 ISL	6.83	6.81	34.069	26.712	136.8	.607	1.69	24.8							302
1 307	6.75	6.72	34.070	26.724	135.8	.617	1.65	24.1	58.7	2.66	35.7	.00			309
1 364	6.27	6.24	34.093	26.805	128.5	.691	1.30	18.8	67.5	2.89	38.3	.00			366
400 ISL	5.99	5.95	34.105	26.852	124.4	.737	1.08	15.5							403
1 451	5.65	5.61	34.129	26.913	119.0	.799	.80	11.4	79.9	3.11	41.0	.00			454
500 ISL	5.42	5.38	34.160	26.966	114.4	.857	.60	8.5							504
1 539	5.34	5.30	34.206	27.011	110.5	.90)	.46	6.5	89.5	3.26	42.4	.00			543
600 ISL	5.49	5.44	34.342	27.102	103.0	.965	.25	3.5							605
1 627	5.66	5.60	34.427	27.150	99.1	.993	.16	2.3	92.5	3.42	41.7	.00			632

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 77 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
33 42.7	123 38.3 W	11/11/85	1118	6MT 4110 M	310 15 KT			1009.8	MB 13.8 C	9.8 C		
CAST DEPTH M	TEMP DE6 C	POT TEMP OE6 C	SALINITY	SIGMA THETA	SVA	OYN HT	OXY6EN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO U6/L	PRESS D.BAR
0 ISL	15.45	15.45	33.441	24.671	325.9	.000	5.79	101.7							0
1 2	15.45	15.45	33.441	24.671	326.1	.006	5.79	101.7	1 .9	.36	.2	.01	.33	.16	2
10 ISL	15.46	15.46	33.437	24.667	326.8	.033	5.84	102.6							10
1 12	15.46	15.46	33.437	24.667	326.9	.039	5.85	102.8	2.0	.34	.2	.01	.35	.15	12
20 ISL	15.45	15.47	33.436	24.664	327.4	.065	s.92	104.0							20
1 23	15.48	15.47	33.436	24.663	327.6	.075	5.93	104.2	2.1	.36	.2	.01	.36	.13	23
30 ISL	1S.46	15.46	33.434	24.665	327.6	.098	5.86	102.9							30
1 33	15.46	15.45	33.434	24.666	327.6	.107	5.83	102.4	2.1	.38	.2	.01	.35	.14	33
1 43	14.91	14.90	33.361	24.731	321.7	.140	5.91	102.7	2.5	.42	.5	.03	.43	.21	43
50 ISL	13.46	13.45	33.369	25.039	294.7	.162	5.67	95.5							SO
1 59	11.70	11.69	33.378	25.388	259.3	.186	5.21	84.7	7.8	1.01	11.0	.09	.36	.42	59
1 69	11.14	11.13	33.451	25.547	244.4	.211	4.71	75.7	11.5	1.22	14.7	.02	.19	.23	69
75 ISL	10.95	10.94	33.499	25.618	237.8	.226	4.46	71.3							76
1 80	10.82	10.81	33.534	25.668	233.1	.237	4.29	68.5	14.8	1.44	17.3	.02	.12	.13	80
1 95	10.04	10.03	33.642	25.887	212.5	.271	3.80	59.7	20.3	1.65	21.3	.01	.05	.06	95
100 ISL	9.87.	9.86	33.667	25.936	207.9	.282	3.69	57.7							101
1 115	9.51	9.50	33.732	26.046	197.8	.313	3.43	53.3	24.6	1.78	23.8	.01	.01	.04	116
125 ISL	9.30	9.28	33.791	26.127	190.2	.332	3.23	50.0							126
1 135	9.08	9.07	33.852	26.209	182.6	.351	3.04	46.8	29.0	1.93	26.0	.01	.01	.03	136
150 ISL	8.82	8.80	33.908	26.295	174.6	.377	2.89	44.3							151
1 161	8.64	8.62	33.940	26.348	169.8	.397	2.82	43.0	33.8	2.08	27.9	.00	.00	.03	162
1 191	8.23	8.21	34.010	26.465	159.1	.446	2.63	39.7	38. 5	2.19	29.2	.00			192
200 ISL	8.06	8.04	34.009	26.490	156.6	.460	2.66	40.0							201
1 222	7.65	7.62	34.007	26.549	151.4	.493	2.75	41.0	42.7	2.22	30.0	.00			223
250 ISL	7.17	7.15	34.008	26.617	145.2	.535	2.68	39.6							252
1 256	7.07	7.05	34.009	26.631	143.9	.545	2.67	39.3	49.1	2.38	31.8	.00			258
300 ISL	6.49	6.47	34.020	26.719	136.0	.606	2.12	30.7							302
1 307	6.42	6.39	34.024	26.732	134.8	.615	2.00	29.0	59.3	2.64	35.5	.00			309
1 363	6.13	6.10	34.106	26.833	125.7	.688	1.15	16.6	70.0	2.92	38.9	.00			365
400 ISL	5.90	5.87	34.138	26.888	120.9	.734	.86	12.2							403
1 449	5.60	5.S6	34.168	26.949	115.5	.791	.65	9.2	83.1	3.17	41.5	.00			452
500 ISL	5.37	5.33	34.205	27.006	110.5	.849	.50	7.0							504
1 537	5.22	5.17	34.230	27.045	107.1	.890	.43	6.1	92.8	3.29	43.0	.00			541
600 ISL	4.90	4.86	34.262	27.107	101.6	.955	.34	4.8							605
1 627	4.76	4.71	34.273	27.132	99.3	.983	.32	4.5		3.38	44.2	.00			632

LATITUDE	LO	UCI TUBE	DAY/MO/Y.R	MESSE	NGER	BOTTOM	WIND SPEgD	W	WES	WEATHER	BAROMETER	DRY	WET	CLOUD AW	TYPE
3 5 23.9	12		11/11/85	1636	GMT	4606 M	310 16	KT 320	09 05	1	1011.5	MB 12 .9 C	3.9 C	3 / ?	SC

CAST DE	H	T E M P	POT TEMP	SALINITY	SIGMA	SVA	DYN Hf	OXYGEN	OXY	S103	PO4	NO3	NO2	CHL-A	PHAEO	PRES
M		DEG C	DE6 C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.SA
0	ISL	IS.81	15.81	33.149	24.369	354.9	.000	5.76	101.8							Q
1 2		15.81	15.81	33.149	24.369	355.0	.00?	5.76	101.8	2.1	.36	.2	.00	.09	.03	2
10	ISL	15.81	5.80	33.147	24.368	355.3	.036	s.89	104.0							10
1 12		15.81	15.80	33.147	24.367	355.4	.042	5.90	104.2	2.0	.36	.2	.00	.13	.04	12
20	ISL	15.71	15.71	33.142	24.386	353.9	.071	5.86	103.4							20
1 23		15.65	15.64	33.140	24.398	352.9	.081	5.84	102.8	2.1	.36	.2	.00	.14	.05	23
30	ISL	15.41	15.41	33.135	24.447	348.4	.106	5.85	102.5							30
1 33		15.32	15.32	33.134	24.465	346.8	.116	5.85	102.3	2.1	.36	.2	.00	.18	.07	33
1 44		15.31	15.30	33.136	24.470	346.5	.154	5.85	102.3	2.1	.35	.2	.00	.16	.05	44
50	ISL	5.22	15.21	33.125	24.481	345.7	.175	5.95	103.8							50
1 55		15.15	15.14	33.117	24.490	345.0	.192	6.07	105.8	2.1	.37	.2	.00	.18	.10	55
1 64		13.64	13.63	33.144	24.830	312.7	.221	6.43	108.7	2.0	.39	.2	.00	.21	.20	64
1 75		13.01	13.00	33.124	24.941	302.4	.255	6.38	106.4	2.1	.41	.2	.00	.28	.22	75
1 90		12.33	12.32	33.198	25.129	284.8	.299	5.95	97.9	2.9	.56	2.0	.24	.16	.19	90
100	ISL	12.14	12.12	33.278	25.229	275.5	.328	5.66	92.8							101
1 106		12.02	12.01	33.318	25.282	270.5	.343	5.51	90.1	4.9	.74	6.3	.05	.08	.14	106
1 125		10.88	10.86	33.394	25.550	245.4	.394	4.90	78.2	9.6	1.04	12.0	.02	.05	.10	126
150	ISL	9.90	9.89	33.554	25.842	217.9	.451	4.27	66.8							151
1 151		9.86	9.85	33.563	25.856	216.6	.454	4.24	66.3	17.7	1.47	19.1	.00	.01	.04	152
1 182		9.25	9.23	33.764	26.115	192.6	.517	3.45	53.3	25.3	1.75	23.9	.00			133
200	ISL	8.86	8.84	33.863	26.253	179.6	.551	3.14	48.1							201
1 212		8.62	8.59	33.917	26.334	172.1	.571	3.02	46.0	32.1	1.96	27.0	.00			213
1 243		8.08	8.05	33.985	26.469	159.6	.622	3.08	46.4	36.2	2.03	28.0	.00			244
250	ISL	7.94	7.92	33.994	26.497	157.1	.634	3.04	45.6							252
1 283		7.37	7.34	34.020	26.599	147.5	.685	2.71	40.1	45.6	2.26	31.2	.00			?85
300	ISL	7.15	7.12	34.028	26.637	144.1	.709	2.51	36.9							302
1 344		6.67	6.64	34.046	26.716	137.0	.77t	1.93	28.1	57.1	2.58	35.3	.00			346
400	ISL	6.19	6.15	34.085	26.811	128.5	.845	1.27	18.3							403
1 420		6.05	6.01	34.102	26.842	125.7	.871	1.07	15.4	70.6	2.93	39.4	.00			423
1 500		5.71	5.67	34.185	26.950	116.2	.967	.60	8.6	81.5	3.15	41.4	.00			503
1 578		5.35	5.30	34.268	27.060	106.4	1.054	.36	5.1	91.7	3.31	42.7	.00			582

RV NEW HORIZON

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	TYPE
33 03.1 N	125 01.2 W	11/11/85	2304 GMT	4675 M	330 21 KT	330 09 05	1	1012.8 MB 15	.0 C	11.0 C	5/8	CU

CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BA
1 0	16.54	16.54	33.309	24.324	359.1	.000			1.9	.39		.00	.12	.05	0
1 10	16.55	16.55	33.308	24.322	359.7	.036	5.38	96.5	1.9	.39	.1	.00	.12	.04	10
20 ISL	16.55	16.55	33.307	24.321	360.1	.072	5.40	96.9							20
1 26	16.56	16.55	33.306	24.320	360.4	.093	5.41	97.1	1.8	.39	.1	.00	.12	.04	26
30 ISL	16.56	16.55	33.306	24.320	360.6	.108	5.42	97.3							30
1 42	16.56	16.55	33.306	24.319	361.0	.151	5.45	97.8	1.8	.39	.1	.00	.12	.05	42
50 ISL	16.55	16.54	33.304	24.321	361.1	.180	5.54	99.5							50
1 57	16.54	16.53	33.302	24.322	361.2	.205	5.69	102.1	1.7	.38	.1	.00	.13	.05	57
1 72	12.87	12.86	33.098	24.947	301.7	.254	6.34	105.4	2.1	.44	.1	.00	.25	.21	72
75 ISL	12.74	12.73	33.104	24.978	297.3	.264	6.31	104.6							76
1 83	12.42	12.41	33.117	25.050	292.1	.287	6.13	101.0	2.1	.47	.2	.05	.21	.22	83
1 98	12.35	12.34	33.255	25.170	281.1	.329	5.76	94.8	2.8	.55	1.8	.11	.15	.20	98
100 ISL	12.31	12.29	33.271	25.192	279.1	.336	5.70	93.8							101
1 118	11.67	11.66	33.369	25.387	260.8	.386	5.23	84.9	5.9	.82	7.4	.02	.08	.13	119
125 ISL	11.29	11.27	33.399	25.480	252.1	.403	5.02	80.9							126
1 138	10.48	10.46	33.471	25.680	233.2	.435	4.60	72.8	12.3	1.20	14.4	.01	.03	.06	139
150 ISL	9.96	9.95	33.560	25.837	218.4	.461	4.29	67.2							151
1 159	9.64	9.63	33.639	25.952	207.6	.481	4.07	63.3	18.6	1.50	19.3	.00	.01	.02	160
1 1?9	9.19	9.17	33.808	26.158	188.3	.520	3.71	57.2	24.1	1.69	22.4	.00	.00	.02	180
1 200	8.83	8.81	33.880	26.271	177.9	.559	3.47	53.1	28.0	1.83	24.4	.00			201
1 220	8.51	8.49	33.951	26.376	168.1	.593	3.08	46.8	32.3	2.00	26.7	.00			221
250 ISL	8.02	7.99	34.003	26.492	157.5	.64 2	2.91	43.8							252
1 256	7.93	7.90	34.007	26.509	155.9	.651	2.90	43.5	38.4	2.12	28.6	.00			257
300 ISL	7.29	7.27	34.036	26.623	145.5	.718	2.37	35.0							302
1 305	7.23	7.20	34.038	26.634	144.5	.725	2.29	33.8	48.8	2.42	32.4	.00			307
1 361	6.49	6.46	34.069	26.758	133.2	.803	1.54	22.4	61.0	2.74	36.8	.00			363
400 ISL	6.11	6.08	34.096	26.829	126.7	.853	1.15	16.6							403
1 445	5.77	5.73	34.128	26.897	120.5	.909	.83	11.8	76.3	3.06	40.6	.00			448
500 ISL	5.43	5.39	34.158	26.963	114.7	.97*	.62	8.8							504
1 528	5.28	5.23	34.175	26.994	111.9	1.006	.56	7.9	87.8	3.21	42.4	.01			532
600 ISL	4.90	4.85	34.238	27.088	103.3	1.083	.37	5.2							605
1 611	4.85	4.80	34.250	27.104	102.0	1.096	.35	4.9	100.2	3.36	43.8	.00			615

RV NFW HORIZON CALCOFI CRUISE 8511 STATION 77 120

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTO!"	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	OUD	T
52 43.3 N	25 42. 1	12/1 1/85	0444	SHI 4577 M	320 19 KT			1015.2 MB	14.9 C	11.1 C		

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L.	UM/L	U6/L	UG/L	D.BAR
	0	ISL	17.51	17.51	33.475	24.224	368.7	.000	5.55	101.6							o
1	1		17.51	17*51	33.475	24.224	368.7	.004	5.55	101.6	2.4	.26	.1	.00	.10	.04	1
	10	ISL	17.50	17.50	33.474	24.226	368.8	.037	5.56	101.7							10
1	11		17.50	17.50	33.474	24.226	368.8	.040	5.56	101.7	2.3	.25	.1	.00	.11	.04	11
	20	ISL	17.51	17.50	33.472	24.223	369.4	.07*	5.57	101.8							20
1	27		17.51	17.51	33.472	24.222	369.8	.099	5.57	101.9	2.5	.24	.1	.00	.11	.04	27
	30	ISL	17.52	17.51	33.478	24.225	369.6	.111	5.57	101.9							30
1	43		17.60	17.60	33.521	24.238	368.8	.158	5.54	101.6	2.3	.24	.1	.00	.11	.04	43
	50	ISL	17.74	17.74	33.592	24.259	367.1	.185	5.53	101.7							50
1	58		17.90	17.89	33.668	24.281	365.3	.213	5.52	101.9	2.4	.21	.1	.00	.11	.05	58
1	69		15.16	15.15	33.350	24.668	328.4	.251	6.20	108.2	2.4	.23	.1	.00	.20	.11	69
	75	ISL	14.19	14.18	33.291	24.829	313.2	.271	6.18	105.8							76
1	79		13.79	13.78	33.280	24.904	306.2	.283	6.17	104.7	2.5	.26	.1	.00	.19	.18	79
1	95		13.23	13.22	33.329	25.055	292.1	.330	5.95	99.8	2.6	.28	.1	.08	.20	.22	95
	100	ISL	13.13	13.11	33.345	25.089	289.0	.346	5.89	98.6							101
1	110		12.98	12.96	33.384	25.149	283.5	.373	5.77	96.3	3.0	.33	1.0	.11	.15	.19	110
1	125		12.66	12.65	33.508	25.307	268.9	.417	5.49	91.1	4.3	.42	3.3	.02	.08	.17	126
	150	ISL	11.62	11.60	33.572	25.554	245.8	.480	4.98	80.8							151
1	151		11.56	11.54	33.573	25.568	244.5	.483	4.95	80.3	8.9	.73	9.1	.01	.05	.08	152
1	172		10.59	10.57	33.647	25.799	222.8	.532	4.62	73.4	13.3	.99	13.5	.00	.02	.04	173
1	192		9.79	9.77	33.749	26.015	202.4	.575	4.17	65.1	19.2	1.28	18.1	.00			193
	200	ISL	9.53	9.50	33.774	26.078	196.5	.590	3*97	61.7							201
1	213		9.17	9.15	33.813	26.166	188.2	.615	3.70	57.0	25.0	1.57	22.3	.00			214
1	244		8.6J*	8.65	33.951	26.352	171.0	.671	3.69	56.3	29.5	1.81	23.8	.00			245
	250	ISL	8.56	8.53	33.964	26.380	168.4	.681	3.66	55.8							252
1	284		7.93	7.90	33.996	26.501	157.2	.737	3.40	51.0	37.1	1.88	26.8	.00			286
	300	ISL	7.68	7.65	34.004	26.543	153.4	.761	3.19	47.6							302
1	346		7.02	6.99	34.018	26.647	143.8	.830	2.46	36.1	50.1	2.31	32^3	.00			348
	400	ISL	6.31	6.28	34.047	26.765	132.9	.904	1.68	24.2							403
1	422		6.06	6.02	34.062	26.809	128.8	.934	1.39	20.0	68.3	2.80	38.5	.00			425
1	499		5.48	5.44	34.130	26.934	117.4	1.028	.74	10.5	82.2	3.15	41.9	.00			502
	500	ISL	5.48	5.43	34.132	26.936	117.2	1.029	.73	10.4							504
1	574		5.02	4.98	34.198	27.042	107.6	1.113	.43	6.0	94.6	3.33	43.5	.00			578

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 80 51

LATITUDE	LONGITUDE	DAY/NO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
34 27.2	120 31.3 W	14/11/85	0416	GMT 69 M	010 08 KT			1023.6 MB	14.2 C	9.8 C		

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
	M		DE6 C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.8AR
	0	ISL	15.53	15.53	33.557	24.744	319.1	.000	5.95	104.8							0
1	1		15.53	15.53	33.557	24.744	319.2	.003	5.95	104.8	3.8	.47	.3	.01	.72	.27	1
	10	ISL	15.52	15.52	33.S56	24.746	319.3	.032	6.04	106.4							10
1	11		15.52	15.52	33.556	24.746	319.3	.035	6.05	106.5	3.9	.47	.3	.02	.80	.23	11
	20	ISL	15.38	15.37	33.552	24.775	316.8	.064	5.92	103.9							20
1	22		15.34	15.34	33.551	24.781	316.3	.070	5.87	103.0	4.4	.51	.6	.05	.80	.27	22
	30	ISL	14.3V	14.38	33.519	24.963	299.1	.095	5.67	97.6							30
1	32		14.15	14.15	33.513	25.008	294.9	.100	5.63	96.4	6.1	.66	3.1	.18	.88	.36	32
	50	ISL	13.76	13.76	33.504	25.083	288.3	.153	5.54	94.1							50
1	53		13.70	13.70	33.503	25.094	287.3	.161	5.53	93.8	7.1	.79	4.8	.21	.79	.40	53

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 80 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
34 19.0	120 48.9 W	14/11/85	0103	GMT 768 M	320 11	KT 320	03 06 0	1022.9	MB 15 .2 C	11.2 C	0/8	

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO*	NO3	NO 2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	14.58	14.58	33.562	2*.955	299.8	.000	5.93	102.5							0
1	1		14.58	14.58	33.562	2*.955	299.1	.003	5.93	102.5	2.2	.49	.6	.0*	.81	.3*	1
	10	ISL	14.27	14.26	33.544	25.008	294.3	.030	5.93	101.8							10
1	11		14.24	14.24	33.543	25.011	294.0	.032	5.93	101.7	2.1	.49	.7	.06	.82	.*2	11
	20	ISL	14.16	14.15	33.54*	25.031	292.4	.059	5.89	100.9							20
1	21		14.15	14.1S	33.5*5	25.033	292.3	.062	5.88	100.7	2.6	.53	1.3	.09	.80	.60	21
	30	ISL	13.85	13.85	33.531	25.08*	287.7	.088	5.7*	97.6							30
1	31		13.83	13.82	33.530	25.089	287.2	.091	5.71	97.1	3.5	.61	2.4	.12	.57	.52	31
1	41		11.61	11.60	33.373	25.400	257.7	.118	5.05	81.9	8.*	1.05	9.7	.11	.23	.62	*1
1	50		10.99	10.98	33.405	25.537	244.8	.140	*.75	76.0	11.0	1.22	12.7	.0*	.13	.37	50
1	61		10.80	10.80	33.561	25.692	230.4	.166	4.12	65.7	15.2	1.46	16.9	.01	.08	.35	61
1	70		10.67	10.66	33.578	25.729	227.1	.187	4.06	64.6	16.*	1.52	17.8	.02	.07	.28	70
	75	ISL	10.44	10.43	33.588	25.776	222.7	.199	4.02	63.6							76
1	84		10.01	10.00	33.617	25.872	213.7	.217	3.91	61.3	19.2	1.68	20.2	.02	.0*	.25	8*
1	98		9.48	9.47	33.739	26.056	196.4	.2*8	3.56	55.2	23.4	1.82	23.1	.01	.0*	.2*	99
	100	ISL	9.44	9.43	33.753	26.072	194.9	.251	3.51	54.5							101
1	117		9.16	9.15	33.878	26.216	181.5	.28*	3.02	46.6	28.7	2.05	26.1	.01	.01	.09	118
	125	ISL	9.07	9.06	33.893	26.242	179.2	.297	2.96	45.5							126
1	1*1		8.96	8.9*	33.905	26.270	176.8	.326	2.89	4*.*	30.6	2.10	27.0	.00	.01	.10	1*2
	160	ISL	8.97	8.95	33.936	26.293	174.9	.3*2	2.74	42.1							151
1	1C9		8.99	8.97	34.016	26.352	169.7	.37*	2.41	37.1	3*.*	2.29	28.5	.00			170
1	198		8.43	8.41	34.077	26.488	157.2	.*22	2.22	33.7	39.7	2.42	30.4	.00			199
	200	ISL	8.42	8.39	34.081	26.493	156.7	.425	2.19	33.3							202
1	226		8.33	8.31	34.117	26.534	153.2	.465	1.91	28.9	42.4	2.55	31.7	.00			227
	250	ISL	8.12	8.10	34.130	26.576	149.6	.502	1.82	27.*							252
1	263		7.98	7.95	34.133	26.601	147.5	.521	1.78	26.8	46.*	2.66	33.1	.00			265
	300	ISL	7.53	7.50	34.152	26.680	140.3	.57*	1.*9	22.2							302
1	320		7.31	7.28	34.163	26.721	136.6	.602	1.32	19.5	55.*	2.92	35.9	.00			322
1	393		6.96	6.93	34.205	26.803	129.8	.700	.90	13.2	62.8	3.07	38.1	.00			396
	400	ISL	6.92	6.88	3*.209	26.812	129.0	.708	.87	12.7							*03
1	469		6.46	6.42	3*.2*7	26.904	121.0	.79*	.57	8.3	72.*	3.29	40.4	.00			*72
	500	ISL	6.28	6.23	3*.261	26.939	117.9	.831	.48	7.0							50*
			6.03	5.98	3*.278	26.985	114.0	.888	.40	5.7	80.0	3.38	41.9	.00			553

1 549

RV NEW HORIZON | CALCOFI CRUISE 8511 | STATION 30 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
34 09.2 N	1 21 09.2 U	13/11/85	2123 GMT	2192 M	030 09 KT	350 03 07	0	1023.7 MB 14	.4 C	11.0 C		e/a

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRES
	n		DEC C	DE6 C		THETA			ML/L	PCT	UM/L	im/L	UM/L	UM/L	UG/L	UG/L	D.BA
1	0		13.83	13.83	33.406	24.992	295.6	.000	6.08	103.4	3.5	.52	.9	.07	.83	23	0
	10	ISL	13.79	13.79	33.437	25.024	292.8	.029	6.11	103.8							10
1	11		13.79	13.78	33.440	25.027	292.5	.032	6.11	103.8	3.7	.52	1.0	.08	.77	.35	11
	20	ISL	13.86	13.86	33.499	25.057	290.0	.059	6.10	103.8							20
1	21		13.87	13.87	33.504	25.059	289.8	.061	6.10	103.8	4.0	.52	1.1	.10	1.13	.49	21
	30	ISL	13.86	13.85	33.504	25.063	289.7	.088	6.00	102.2							30
1	31		13.85	13.85	33.504	25.063	289.7	.090	5.99	101.9	4.1	.53	1.2	.10	1.04	.50	31
1	42		12.56	12.55	33.312	25.173	279.4	.121	5.71	94.5	4.5	.70	3.8	.12	.37	.37	42
	50	ISL	11.55	11.54	33.242	25.310	266.5	.144	5.48	88.7							50
1	53		11.29	11.28	33.236	25.352	262.5	.151	5.41	87.1	6.2	.88	7.5	.03	.17	.28	53
1	63		11.26	11.25	33.309	25.414	256.8	.177	5.25	84.5	7.4	.94	8.5	.01	.15	.23	63
1	73		10.77	10.76	33.429	25.595	239.8	.201	4.68	74.6	11.9	1.24	14.0	.01	.08	.12	73
	75	ISL	10.70	10.69	33.460	25.632	236.4	.207	4.57	72.6							76
1	89		10.37	10.36	33.610	25.805	220.2	.238	4.10	64.8	16.4	1.46	17.7	.00	.04	.10	89
	100	ISL	10.06	10.04	33.663	25.901	211.3	.263	4.01	63.0							101
1	103		9.97	9.95	33.674	25.925	209.1	.270	4.00	62.7	18.7	1.54	19.0	.00	.02	.06	104
1	124		9.65	9.64	33.770	26.052	197.4	.312	3.51	54.7	22.8	1.71	22.1	.02	.02	.06	125
	125	ISL	9.64	9.63	33.773	26.056	197.0	.314	3.50	s4.5							126
1	150		9.23	9.21	33.890	26.216	182.3	.361	3.06	47.3	28.6	1.96	25.6	.00	.01	.07	151
1	181		8.65	8.63	33.999	26.393	165.9	.415	2.64	40.3	34.2	2.12	28.2	.01			182
	200	ISL	8.45	8.42	34.038	26.455	160.4	.446	2.53	38.5							202
1	212		8.32	8.30	34.051	26.485	157.7	.465	2.49	37.7	38.5	2.29	29.6	.01			213
1	243		7.73	7.71	34.053	26.573	149.5	.512	2.32	34.7	44.1	2.37	31.4	.00			244
	250	ISL	7.61	7.59	34.054	26.591	147.9	.523	2.27	33.8							252
1	283		7.16	7.14	34.066	26.665	141.3	.571	1.98	29.2	50.9	2.54	33.6	.01			285
	300	ISL	6.98	6.95	34.083	26.704	137.7	.595	1.77	25.9							302
1	344		6.56	6.53	34.135	26.801	128.8	.653	1.21	17.6	63.5	2.89	37.9	.00			346
	400	ISL	6.10	6.07	34.181	26.897	120.2	.723	.82	11.8							403
1	421		5.94	5.91	34.195	26.928	117.4	.748	.73	10.5	75.9	3.12	40.8	.00			424
1	499		5.39	5.35	34.247	27.038	107.5	.835	.53	7.5	88.1	3.29	42.7	.00			502
	500	ISL	5.39	5.35	34.250	27.040	107.3	.837	.53	7.5							504
1	576		5.24	5.19	34.334	27.125	100.1	.915	.38	5.4		3.37	43.2	.00			580

RV NEW HORIZON | CALCOFI CRUISE 8511 | STATION 80 65

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
33 59.8 N	121 28.5 W	13/11/85	1844 GMT	3333 M	030 08 KT	030 03 07	0	1024.5 MB 16	.1 C	11.7 C	0/8	

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DE6 C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	14.82	14.82	33.360	24.748	319.0	.000	5.87	101.8							0
1	1	A	14. ?2	14.82	33.360	24.748	318.9	.003	5.87	101.8	2.7	.43	.2	.00	.37	.15	1
	10	ISL	14.78	14.78	33.359	24.756	318.3	.032	5.90	102.3							10
1	15	A	14.76	14.76	33.359	24.759	318.2	.048	5.92	102.5	2.6	.43	.2	.00	.37	.18	15
	20	ISL	14.76	14.75	33.358	24.760	318.2	.064	5.94	102.8							20
1	21	A	14.76	14.75	33.358	24.760	318.2	.067	5.94	102.9	2.6	.43	.2	.00	.38	.19	21
1	28	A	14.77	14.76	33.358	24.758	318.7	.089	6.01	104.1	2.6	.43	.1	.00	.39	.18	28
	30	ISL	14.47	14.47	33.318	24.790	315.7	.095	6.00	103.4							30
1	49	A	11.32	11.31	33.044	25.197	277.2	.151	5.96	95.9	4.2	.77	4.3	.04	.27	.33	49
	50	ISL	11.29	11.28	33.064	25.219	275.1	.155	5.91	95.1							50
1	72	A	10.70	10.69	33.375	25.565	242.6	.211	4.87	77.5	10.6	1.21	12.8	.01	.07	.10	72
	75	ISL	10.58	10.57	33.414	25.616	237.8	.219	4.72	74.9							76
1	78		10.48	10.47	33.442	25.656	234.1	.225	4.61	73.0	13.2	1.36	15.2	.01	.04	.10	78
1	88		10.07	10.05	33.530	25.795	221.0	.247	4.28	67.2	17.0	1.55	18.2	.00	.02	.05	88
	100	ISL	9.61	9.60	33.606	25.931	208.4	.274	4.09	63.6							101
1	103		9.50	9.49	33.624	25.963	205.3	.281	4.05	62.8	20.7	1.69	20.7	.00	.01	.04	104
1	123		9.07	9.05	33.743	26.126	190.2	.321	3.62	55.7	25.1	1.86	23.5	.00	.01	.03	124
	125	ISL	9.04	9.03	33.755	26.138	189.0	.324	3.57	54.9							126
1	144		8.87	8.85	33.889	26.272	176.8	.359	3.07	47.0	29.9	2.04	26.3	.00	.00	.03	145
	150	ISL	8.83	8.81	33.921	26.303	173.9	.369	2.96	45.4							151
1	174		8.64	8.62	34.018	26.408	164.3	.410	2.67	40.7	34.9	2.22	27.8	.00	.00	.04	175
	200	ISL	8.33	8.31	34.018	26.457	157.2	.451	2.59	39.3							201
1	205		8.25	8.23	34.055	26.497	156.3	.459	2.58	39.0	39.1	2.32	29.2	.00			206

A. PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THE FIRST SIX DEPTHS ON THIS CAST.

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 80 70

LATITUDE	ON6I TUDF	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	JET	CLCUD AMI	TYPE
33 49.3	1 ?1 5C.S	13/11/85	1516 GMT	3624 M	040 08 KT	020 04 07	1	1023.2 MB	12 .? C	*.8 C	1/*	CU

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN	OXY	SI O3	PO4	NO3	NO2	CHL-A	PHAEO	PRES
	M		DE6 C						fLL/L	PCT	uM/L	UM/L	UM/L	UM/L	U6/L	UG/L	D.BA
	0	ISL	14 . 56	14.56	33.376	24.815	312.3	.000	5.86	101.1							0
1	1			14.56	33.376	24.815	312.4	.003	5.86	101.1	3.1	.46	.4	.01	.42	.29	1
	to	ISL	14.57	14.57	33.374	24.812	313.0	.031	5.90	101.8							10
1	11		14.58	14.57	33.374	24.811	313.1	.034	5.90	101.8	3.2	.45	.5	.00	.45	.23	11
	20	IS	14.58	14.58	33.374	24.810	313.5	.063	5.90	101.8							20
1	22		14.58	14.58	33.374	24.810	313.5	.069	5.90	101.8	3.2	.45	.4	.01	.47	.26	22
	30	IS	14.57	14.57	33.374	24.813	313.5	.094	5.85	101.0							30
1	32		14.57	14.56	33.375	24.813	313.5	.100	5.84	100.8	3.3	.45	.5	.01	.46	.25	32
1	42		12.89	12.89	33.383	25.163	280.3	.129	5.28	88.0	7.0	.83	6.4	.21	.43	.44	42
	50	IS	11.52	11.51	33.527	25.536	245.0	.151	4.45	72.0							50
1	52		11.28	11.27	33.560	25.605	238.4	.155	4.28	69.0	14.0	1.32	15.4	.02	.16	.32	52
1	62		10.89	10.88	33.607	25.712	228.5	.178	4.04	64.6	16.2	1.49	17.6	.01	.10	.18	62
1	73		10.20	10.19	33.754	25.948	206.3	.202	3.32	52.4	22.4	1.80	22.2	.00	.06	.11	73
	75	IS	10.13	10.12	33.771	25.972	204.0	.207	3.24	51.0							76
1	88		9.91	9.90	33.835	26.060	195.9	.232	2.96	46.4	25.9	1 .95	24.3	.00	.04	.09	88
	100	IS	9.57	9.56	33.918	26.182	184.6	.256	2.67	41.6							101
1	102		9.50	9.49	33.934	26.205	182.4	.260	2.62	40.7	30.1	2.13	26.6	.00	.01	.06	103
1	124		9.18	9.16	34.024	26.328	171.1	.299	2.30	35.5	34.4	2.28	28.4	.00	.01	.04	125
	125	IS	9.17	9.16	34.026	26.330	170.9	.300	2.29	35.4							126
1	149		9.07	9.05	34.069	26.381	166.5	.341	2.14	33.0	36.2	2.40	29.2	.00	.00	.04	150
	150	IS	9.06	9.05	34.071	26.383	166.4	.342	2.13	32.9							151
1	179		8.91	8.89	34.126	26.451	160.5	.390	1.90	29.2	38.8	2.49	30.3	.00			180
	200	IS	8.84	8.82	34.147	26.479	158.2	.423	1.80	27.6							201
1	210		8.81	8.79	34.154	26.489	157.4	.438	1.76	27.0	40.5	2.55	30.9	.00			211
1	241		8.68	8.65	34.178	26.529	154.2	.486	1.59	24.3	42.5	2.63	31.7	.00			242
	250	IS	8.65	8.62	34.185	26.540	153.4	.501	1.54	23.6							252
1	281		8.54	8.51	34.208	26.575	150.6	.548	1.40	21.3	44.9	2.72	32.4	.00			283
	300	IS	8.45	8.42	34.222	26.600	148.6	.57?	1.30	19.8							302
1	343		8.18	8.14	34.244	26.659	143.6	.639	1.09	16.5	50.3	2.87	33.9	.00			345
	400	IS	7.68	7.64	34.244	26.733	137.0	.719	.91	13.6							403
1	420		7.49	7.45	34.244	26.760	134.8	.747	.86	12.8	58.2	3.02	36.4	.00			423
1	497		6.91	6.86	34.243	26.842	127.8	.847	.69	10.1	65.9	3.16	38.3	.00			500
	500	IS	6.88	6.83	34.243	26.846	127.4	.851	.68	10.0							504
1	574		6.24	6.18	34.267	26.950	117.9	.942	.48	6.9	76.7	3.34	40.7	.00			578

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 80 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
33 29.2 N	122 31.9 W	13/11/85	0954 GMT	3997 M	350 03 KT			1021.4 MB	13 .0 C	9.5 C		

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SI6HA THETA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO 2	CHL-A	PHAEO	PRESS
	K		DE6 C	DE6 C					NL/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	14.24	14.23	33.368	24.878	306.4	.000	5.95	102.0							0
1	1		14.24	14.23	33.368	24.878	306.4	.003	5.95	102.0	3.0	.45	.3	.01	.43	.25	1
	10	ISL	14.24	14.24	33.367	24.876	306.8	.031	5.99	102.6							10
1	11		14.24	14.24	33.367	24.876	306.9	.034	5.99	102.7	2.9	.44	.3	.01	.45	.27	11
	20	ISL	14.25	14.24	33.366	24.875	307.3	.061	5.99	102.7							20
1	22		14.25	14.25	33.366	24.874	307.4	.067	5.99	102.7	3.0	.44	.2	.01	.44	.23	22
	30	ISL	13.79	13.79	33.289	24.910	304.2	.092	6.03	102.3							30
1	32		13.61	13.61	33.252	24.918	303.5	.098	6.04	102.1	2.7	.44	.2	.01	.40	.26	32
1	42		12.05	12.05	33.146	25.141	282.4	.127	6.08	99.4	2.6	.47	.2	.11	.39	.30	42
	50	ISL	11.89	11.89	33.170	25.190	277.2	.150	5.97	97.3							50
1	53		11.84	11.83	33.178	25.206	276.4	.157	5.91	96.2	3.4	.57	2.2	.03	.28	.26	53
1	63		11.55	11.54	33.212	25.286	269.1	.184	5.64	91.3	4.6	.70	4.7	.00	.15	.15	63
1	73		11.26	11.25	33.243	25.363	261.9	.21t	5.46	87.8	6.0	.82	6.9	.00	.10	.10	73
	75	ISL	11.15	11.14	33.258	25.395	259.0	.217	5.39	86.5							76
1	89		10.45	10.44	33.369	25.604	239.3	.251	4.89	77.3	11.6	1.17	13.2	.00	.04	.05	89
	100	ISL	9.99	9.98	33.484	25.773	223.5	.277	4.46	69.9							101
1	103		9.88	9.87	33.521	25.820	219.0	.285	4.33	67.7	17.4	1.45	18.2	.00	.01	.05	104
1	124		9.75	9.73	33.740	26.013	201.1	.329	3.63	56.7	23.2	1.68	22.0	.00	.01	.04	125
	125	ISL	9.73	9.71	33.744	26.019	200.5	.330	3.62	56.5							126
1	150		8.93	8.91	33.869	26.246	179.3	.378	3.43	52.6	28.5	1.86	24.9	.00	.01	.02	151
1	181		8.79	8.77	34.021	26.387	166.5	.431	2.58	39.5	36.2	2.19	28.8	.00			182
	200	ISL	8.55	8.53	34.061	26.456	160.2	.462	2.36	36.0							201
1	212		8.39	8.36	34.074	26.493	157.0	.481	2.28	34.6	40.2	2.32	30.3	.00			213
1	243		8.06	8.04	34.110	26.569	150.1	.528	1.96	29.5	45.2	2.46	31.9	.00			244
	250	ISL	8.00	7.97	34.117	26.585	148.7	.539	1.89	28.4							252
1	283		7.67	7.65	34.142	26.652	142.8	.588	1.58	23.6	51.9	2.64	34.2	.00			285
	300	ISL	7.44	7.41	34.143	26.686	139.7	.611	1.46	21.7							302
1	344		6.84	6.81	34.145	26.771	131.9	.67T	1.19	17.4	61.6	2.87	37.4	.00			346
	400	ISL	6.42	6.38	34.186	26.861	124.0	.743	.84	12.2							403
1	419		6.31	6.27	34.200	26.887	121.7	.766	.74	10.7	71.3	3.09	40.1	.00			422
1	498		5.66	5.62	34.200	26.969	114.4	.859	.58	8.3	81.7	3.21	42.4	.00			501
	500	ISL	5.64	s.60	34.202	26.972	114.1	.862	.57	8.2							504
1	574		5.33	5.29	34.280	27.071	105.3	.943	.34	4.8	90.6	3.35	43.9	.00			578

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 80 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	W	AVES	WEATHER	BAROMETER	DRY	WET	CLOUD	TY*
$3 0 9.0	I 1 23 12 .9	13/11/85	0435 GMT	4227 M	300 04 KT				1018.4 MB 15	.3 C 11.2 C			

CAST DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN MT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CML-A	PHAEO	PRFS
M		OE6 C	DE6 C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	O.BA
0	ISL	15.07	15.07	33.425	24.744	319.2	.000	5.88	102.5							0
1 1		15.07	15.07	33.425	24.744	319.2	.003	5.88	102.5	2.6	.47	.4	.03	.36	.15	1
10	ISL	15.06	15.06	33.424	24.744	319.4	.032	5.96	103.8							10
i 11		15.06	15.06	33.424	24.744	319.4	.035	5.96	103.9	2.7	.48	.3	.05	.38	.17 '	11
20	ISL	15.07	15.07	33.425	24.744	319.8	.064	5.93	103.5							20
1 27		15.08	15.07	33.426	24.744	320.0	.086	5.89	102.7	2.7	.45	.3	.01	.35	.19	27
30	ISL	15.07	15.07	33.425	24.744	320.0	.096	5.88	102.5							30
1 42		15.06	15.05	33.423	24.747	320.2	.134	5.85	102,0	2.6	.45	.3	.02	.39	.14	42
50	ISL	13.45	13.45	33.242	24.943	301.7	.159	5.99	101.0							50
1 58		11.98	11.97	33.127	25.141	282.8	.182	6.07	99.1	2.8	.54	.8	.12	.24	.23	58
1 68		11.8 2	11.81	33.217	25.241	273.5	.209	5.83	94.9	3.9	.66	3.5	.03	.14	.17	68
75	ISL	11.64	11.63	33.245	25.295	268.5	.229	5.70	92.4							76
1 79		11.54	11.53	33.258	25.325	265.8	.239	5.62	90.9	5.1	.77	5.6	.01	.10	.12	79
1 94		11.02	11.01	33.402	25.529	246.6	.277	5.00	80.1	9.3	1.05	11.0	.00	.06	.10	94
100	ISL	10.54	10.53	33.433	25.638	236.3	.293	4.85	76.8							101
1 108		9.95	9.93	33.473	25.771	223.8	.312	4.67	73.1	15.4	1.37	16.5	.00	.02	.06	109
1 124		9.75	9.73	33.609	25.911	210.8	.347	4.20	65.5	19.2	1.55	19.5	.00	.01	.03	125
125	ISL	9.73	9.72	33.614	25.917	210.2	.348	4.18	65.1							126
1 150		9.07	9.06	33.784	26.157	187.7	.398	3.34	51 .4	26.8	1.83	24.4	.00	.00	.02	151
1 170		8.73	8.71	33.870	26.279	176.5	.435	3.15	48.1	30.4	1 .96	26.1	.co	.01	.03	171
1 191		8.31	8.29	33.953	26.409	164.4	.470	3.24	49.0	33.8	2.03	27.1	.00			192
200	ISL	8.25	8.23	33.963	26.426	163.0	.485	3.20	48.3							201
1 212		8.18	8.16	33.967	26.439	161.9	.504	3.12	47.1	34.8	2.05	27.5	.00			213
1 242		7.60	7.58	34.001	26.551	151.5	.551	3.02	45.0	41.3 >	2.16	29.3	.00			243
250	ISL	7.47	7.45	34.006	26.573	149.5	.563	2.91	43.3							252
1 ?83		7.08	7.05	34.024	26.643	143.2	.612	2.38	35.0	49.9	2.41	32.6	.00			285
300	ISL	6.95	6.92	34.040	26.673	140.6	.636	2.11	31.0							302
1 344		6.69	6.66	34.082	26.742	134.6	.696	1.49	21.7	59.9	2.74	36.4	.00			346
400	ISL	6.29	6.26	34.129	26.832	126.6	.769	1.07	15,5							403
1 420		6.16	6.12	34.146	26.863	123.8	.795	.97	14.0	71.7	3.02	39.5	.00			423
1 497		5.76	5.71	34.222	26.974	114.0	.886	.49	7.0	82.3	3.20	41.3	.00			500
500	ISL	5.74	5.70	34.225	26.978	113.6	.889	.48	6.9							504
1 573		5.42	5.37	34.279	27.060	106.4	.970	.34	4.8	90.3	3.32	42.4	.00			577

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 80 1CO

L ATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	T
3 i 48.9	123 54.2 W	12/11/85	2328 GMT	4370 M	320 15 KT	360 08 06	1	1015.7 MB	14.9 C	13.2 C	6/8	SC

C IST DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
M		DEG C	DEG C		THETA			ML/L	PCT	UN/L	UM/L	UM/L	UM/L	U6/L	UG/L	D.BAR
0	ISL	16.79	16.79	33.333	24.285	362.9	.000	5.75	103.7							0
1		16.79	16.79	33.333	24.285	362.9	.004	5.75	103.7	2.0	.40	.1	.00	.11	.03	1
10	ISL	16.78	16.78	33.331	24.286	363.1	.036	5.70	102.8							10
1 11		16.76	16.78	33.331	24.286	363.1	.040	5.70	102.8	1.9	.41	.1	.00	.11	.04	11
20	ISL	16.78	16.78	33.331	24.286	363.4	.073	5.71	102.9							20
1 27		16.78	16.78	33.331	24.287	363.6	.098	5.71	102.9	1.9	.40	.1	.00	.10	.05	27
30	ISL	16.78	16.78	33.331	24.287	363.7	.109	5.70	102.8							30
1		16.77	16.76	33.329	24.289	363.9	.152	5.67	102.2	1.9	.40	.1	.00	.11	.06	42
50	ISL	16.75	16.74	33.328	24.294	363.7	.182	5.65	101.9							50
1 58		16.72	16.72	33.327	24.298	363.5	.210	5.64	101.5	1.9	.39	.1	.00	.13	.06	58
1 68		13.72	13.71	33.154	24.822	313.7	.244	6.41	108.5	2.0	.43	.1	.00	.16	.13	68
75	ISL	12.95	12.94	33.124	24.953	301.2	.266	6.32	105.2							76
1 79		12.81	12.80	33.121	24.978	299.0	.277	6.27	104.1	2.3	.44	.1	.00	.17	.21	79
1		12.36	12.35	33.134	25.075	290.0	.321	6.03	99.2	2.6	.49	.2	.12	.24	.24	94
100	ISL	12.21	12.20	33.171	25.133	284.7	.339	5.90	96.7							101
1		12.05	12.03	33.235	25.213	277.2	.363	5.71	93.4	3.8	.64	3.0	.04	.13	.20	109
»		11.87	11.85	33.361	25.344	265.1	.407	5.41	88.2	5.4	.73	5.6	.02	.08	.15	125
125	ISL	11.85	11.83	33.365	25.351	264.5	.408	5.39	87.9							126
1		10.68	10.66	33.568	25.720	229.7	.471	4.49	71.5	13.2	1.22	14.5	.01	.03	.07	151
»		9.89	9.87	33.728	25.981	205.2	.514	3.73	58.4	21.4	1.70	21.7	.00	.01	.02	171
1 191		9.23	9.21	33.829	26.168	187.6	.555	3.33	51.4	26.3	1.91	24.8	.00			192
200	ISL	9.02	9.00	33.866	26.231	181.8	.571	3.36	51.6							201
I		8.78	8.75	33.909	26.303	175.1	.593	3.39	51.8	29.2	1.95	25.8	.00			213
1		8.22	8.19	33.987	26.450	161.5	.646	3.53	53.3	33.2	1.96	26.3	.00			245
250	ISL	8.13	8.10	33.992	26.468	159.9	.656	3.50	52.8							252
1		7.70	7.68	34.004	26.539	153.4	.709	3.18	47.5	39.0	2.16	28.7	.00			285
300	ISL	7.49	7.46	34.017	26.581	149.7	.734	2.90	43.1							302
1		6.91	6.88	34.052	26.688	139.8	.799	2.09	30.6	53.5	2.63	35.3	.00			347
400	ISL	6.29	6.26	34.083	26.795	130.0	.873	1.40	20.2							403
1		6.07	6.03	34.094	26.833	126.6	.902	1.19	17.1	68.8	3.04	40.1	.00			425
1		5.54	5.50	34.143	26.938	117.1	.994	.75	10.6	80.9	3.26	42.8	.00			501
500	ISL	5.53	5.49	34.146	26.941	116.8	.996	.74	10.5							504
1 576		5.23	5.19	34.233	27.046	107.6	1.082	.43	6.1	89.8	3.43	44.3	.00			580

RV N^'W HORIZON CALCOFI. CRUISE 8511 STATION «O 110

LATITUD	L ONGITUDF	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	OUD	T TYPE
3 2 29.3 N	24 36 il U	12/1 1/85	-;; G GMT	4341 M	310 15 KT	3 50	0 7 08 1	1015.5 MB	14.? C 1	0.6 C	7/8	sc

CA^T	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DEC c	DE6 C		THETA			ML/L	PCT	UM/L	un/L	UH/L	UM/L	UG/L	U3/L	D.BAR
	0	I SL	17.93	17.03	33.436	24.307	360.8	.000	5.63	102.1							0
1	1		17.03	17.03	33.436	24.307	360.8	.004	5.63	102.1	1.7	.24	.1	.00	.12	.06	1
	10	ISL	17.04	17.04	33.435	24.306	361.2	.036	5.63	102.1							10
1	11		17.04	17.04	33.435	24.305	361.3	.040	5.63	102.1	1.8	.24	.1	.00	.11	.06	11
	20	ISL	17.05	17.05	33.435	24.304	361.8	.072	5.71	103.6							20
1	27		17.05	17.05	33.435	24.303	362.1	.097	5.76	104.5	1-⁹	.24	.1	.00	.12	.05	27
	30	ISL	17.05	17.05	33.436	24.304	362.1	.108	5.73	103.9							30
1	42		17.05	17.04	33.439	24.308	362.1	.151	5.62	101.9	1.9	.24	.1	.00	.12	.05	42
	50	ISL	17.04	17.04	33.437	24.308	362.4	.181	5.68	102.9							50
1	58		17.04	17.03	33.435	24.307	362.7	.209	5.73	103.9	1.8	.24	.1	.00	.12	.05	58
1	68		15.45	15.44	33.339	24.595	335.4	.244	6.19	108.7	2.2	.24	.1	.00	.19	.15	68
	75	ISL	14.55	14.54	33.296	24.759	320.0	.268	6.18	106.4							76
1	78		14.27	14.26	33.285	24.808	315.3	.276	6.17	105.7	2.1	.27	.1	.00	.18	.13	78
1	94		13.41	13.40	33.244	24.954	301.7	.325	6.05	101.8	2.5	.32	.1	.04	.16	.22	94
	100	ISL	13.08	13.07	33.260	25.032	294.4	.344	5.93	99.1							101
1	109		12.67	12.66	33.295	25.140	284.3	.369	5.74	95.2	3.4	.40	1.7	.15	.11	.21	109
1	123		12.10	12.08	33.363	▪ 25.303	269.1	.410	5.45	89.3	5.4	.59	5.6	.02	.08	.16	124
	125	ISL	12.03	12.01	33.371	25.322	267.3	.414	5.41	88.5							126
1	149		10.96	10.94	33.501	25.620	239.3	.476	4.73	75.7	11.2	.97	12.6	.01	.03	.08	150
	150	ISL	10.93	10.92	33.505	25.627	238.7	.478	4.72	75.4							151
1	170		10.25	10.24	33.616	25.832	219.4	.524	4.26	67.2	16.3	1.26	17.3	.00	.02	.04	171
1	190		9.39	9.37	33.754	26.084	195.6	.565	3.50	54.2	21.8	1.52	21.0	.00			191
	200	ISL	9.10	9.07	33.816	26.180	186.6	.584	3.71	57.0							201
1	211		8.84	8.82	33.876	26.266	178.5	.604	3.98	60.9	27.4	1.71	24.2	.00			212
1	242		8.40	8.37	33.968	26.408	165.5	.657	2.92	44.3	30.3	1.77	24.7	.00			243
	250	ISL	8.26	8.23	33.980	26.438	162.8	.671	2.68	40.5							252
1	282		7.73	7.70	34.006	26.537	153.7	.722	1.92	28.7	38.8	2.08	28.6	.02			264
	300	ISL	7.51	7.48	34.021	26.581	149.7	.749	1.69	25.1							302
1	343		7.04	7.00	34.054	26.673	141.3	.811	1.34	19.7	51.7	2.53	33.9	.00			345
	400	ISL	6.46	6.42	34.086	26.777	131.9	.889	.93	13.5							403
1	419		6.29	6.25	34.099	26.809	129.1	.914	.83	12.0	65.4	2.93	38.2	.00			4 22
1	497		5.83	5.79	34.183	26.933	117.9	1.010	.65	9.3	77.8	3.27	41.2	.01			500
	500	ISL	5.82	5.77	34.187	26.938	117.5	1.014	.64	9.2							504
1	573		5.52	5.48	34.256	27.030	109.4	1.097	.42	6.0	86.2	3.44	42.5	.00			577

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 80 120

LAITITU	LON6ITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
32 08.9	125 16.8 W	12/11/85	1015 6MT	4397 M	300 20 KT			1015.8 MB	15 .0 C	10.7 C		

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SI6MA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
	M		. DE6 C	DE6 C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	16.99	16.99	33.277	24.194	371.4	.000	5.74	103.9							0
	2		16.99	16.99	33.277	24.194	371.6	.007	5.74	103.9	1.8	.30	.1	.00	.04	.01	2
	10	ISL	17.01	17.01	33.276	24.191	372.1	.037	5.66	102.5							10
	12		17.01	17.01	33.276	24.191	372.2	.044	5.65	102.3	1.8	.28	,1	.00	.12	.04	12
	20	ISL	17.01	17.01	33.276	24.191	372.5	.074	5.64	102.1							20
	27		17.01	17.00	33.276	24.192	372.7	.100	5.63	101.9	1.7	.28	.1	.00	.13	.03	27
	30	ISL	17.01	17.00	33.276	24.191	372.8	.112	5.63	101.9							30
	43		17.02	17.01	33.275	24.189	373.4	.160	5.63	101.9	1.8	.27	.1	.00	.12	.05	43
	50	ISL	17.02	17.01	33.276	24.189	373.7	.186	5.63	101.8							50
	58		17.03	17.02	33.276	24.188	374.1	.215	5.62	101.8	1.6	.27	.1	.00	.12	.04	58
	73		14.51	14.50	33.406	24.851	311.1	.267	6.08	104.8	2.1	.27	.1	.00	.19	.19	73
	75	ISL	14.64	14.63	33.487	24.887	307.8	.274	6.03	104.2							76
	83		15.16	15.15	33.720	24.954	301.8	.297	5.80	101.5	2.4	.24	.1	.01	.18	.20	83
	99		13.29	13.27	33.412	25.109	287.2	.344	5.85	98.3	2.6	.31	.4	.13	.15	.18	99
	100	ISL	13.24	13.22	33.419	25.124	286.2	.348	5.84	98.0							101
	119		12.90	12.88	33.510	25.262	273.0	.400	5.56	92.7	3.9	.43	2.8	.03	.08	.13	119
	125	ISL	12.56	12.54	33.525	25.342	265.6	.417	5.40	89.4							126
138			11.71	11.70	33.545	25.517	249.1	.452	5.07	82.5	7.5	.68	8.0	.01	.05	.09	139
	150	ISL	11.02	11.00	33.550	25.647	236.8	.480	4.95	79.3							151
	158		10.56	10.55	33.561	25.736	228.4	.499	4.85	77.0	11.7	1.03	12.7	.00	.02	.04	159
	178		9.81	9.79	33.669	25.948	208.4	.543	4.30	67.2	17.5	1.27	17.6	.00	.01	.03	179
	198		9.28	9.26	33.784	26.125	191.8	.582	3.74	57.8	24.0	1.58	22.0	.00			199
	200	ISL	9.24	9.22	33.792	26.137	190.7	.586	3.74	57.8							201
	218		8.97	8.94	33.860	26.235	181.7	.619	3.76	57.7	25.9	1.64	22.8	▪00			219
	250	ISL	8.36	8.33	33.964	26.411	165.4	.675	3.25	49.3							252
	253		8.30	8.28	33.971	26.425	164.1	.680	3.20	48.4	33.8	1.93	26.9	.00			254
	300	ISL	7.48	7.45	34.013	26.579	149.7	.754	2.78	41.2							302
	302		7.44	7.41	34.015	26.586	149.2	.757	2.76	40.9	43.7	2.18	30.4	.00			304
	358		6.80	6.77	34.039	26.693	139.5	.838	2.08	30.4	54.1	2.54	34.4	.00			360
	400	ISL	6.38	6.35	34.067	26.771	132.4	.895	1.61	23.3							403
	443		5.99	5.95	34.098	26.846	125.5	.950	1.19	17.1	70.9	3.02	39.8	.00			446
	500	ISL	5.54	5.50	34.136	26.932	117.7	1.020	.78	11.1							504
	531		5.34	5.30	34.158	26.974	113.9	1.055	.62	8.8	85.1	3.33	42.4	.00			534
	600	ISL	4.99	4.94	34.226	27.068	105.4	1.131	.41	5.8							605
	621		4.92	4.87	34.249	27.095	103.0	1.153	.39	5.5	98.3	3.44	44.1	.00			625

RV MEM HORIZON CALCOFI CRUISE 8511 STATION 82 46

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CUD	TYPE
34 16.1 N	119 57.2 W	10/11/85	0144 GMT	536 M	280 22 KT	280 05 04		1012.0 MB	16 .0 C	12.5 C		

CAST	DEPTH M		TEMP DE G C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRES D.BA
	0	ISL	16.82	16.82	33.598	24.481	344.5	.000	5.88	106.3							0
1	1		16.82	16.82	33.598	24.481	344.3	.003	5.88	106.3	2.6	.36	.3	.01	.91	.29	1
	10	ISL	16.67	16.67	33.584	24.506	342.1	.034	5.87	105.8							10
1	11		16.66	16.65	33.583	24.509	341.9	.038	5.87	105.7	2.8	.38	.5	.02	.96	.39	11
	20	ISL	15.26	15.26	33.529	24.783	316.1	.067	5.62	98.4							20
	30	ISL	13.42	13.42	33.510	25.156	281.4	.097	5.20	87.8							3n
1	32		13.05	13.04	33.503	25.225	274.2	.102	5:11	85.5	8.4	.86	7.8	.20	.56	.37	32
1	46		11.61	11.61	33.548	25.535	245.0	.139	4.46	72.4	13.0	1.18	13.2	.08	.24	.24	46
	50	ISL	11.45	11.45	33.577	25.587	240.1	.149	4.31	69.8							50
1	57		11.25	11.25	33.629	25.664	233.0	.165	4.08	65.8	15.5	1.35	16.0	.06	.13	.19	57
1	72		10.35	10.34	33.754	25.921	208.8	.198	3.46	54.7	21.5	1 .66	20.7	.02	.05	.11	72
	75	ISL	10.21	10.20	33.780	25.965	204.7	.205	3.34	52.7							76
1	87		9.88	9.87	33.844	26.071	194.8	.228	3.02	47.3	25.8	1.84	23.4	.01	.02	.08	87
	100	ISL	9.78	9.77	33.868	26.107	191.7	.254	2.92	45.6							101
1	101		9.78	9.77	33.870	26.109	191.5	.256	2.91	45.5	27.3	1.90	24.2	.01	.01	.09	102
	125	ISL	9.42	9.41	33.984	26.257	178.0	.300	2.43	37.7							126
1	127		9.39	9.37	33.995	26.272	176.6	.304	2.38	36.9	32.4	2.12	27.0	.01	.04	.04	128
1	147		9.22	9.21	34.039	26.333	171.1	.339	2.27	35.1	34.3	2.21	27.8	.01	.00	.06	148
	150	ISL	9.20	9.19	34.045	26.341	170.5	.343	2.25	34.8							151
1	178		9.04	9,02	34.091	26.404	165.0	.390	2.05	31.6	37.2	2.29	28.9	.01	.01	.06	179
	200	ISL	8.94	8.92	34.118	26.441	161.9	.426	1.78	27.3							202
1	208		8.89	8.87	34.126	26.455	160.7	.439	1.67	25.6	41.1	2.43	30.4	.01	.01	.07	209
1	239		8.54	8.51	34.150	26.529	154.1	.487	1.32	20.1	46.2	2.61	32.3	.00			240
	250	ISL	8.39	8.36	34.155	26.556	151.7	.505	1.23	18.6							252
1	278		8.02	8.00	34.163	26.617	146.2	.547	1.05	15.8	52.9	2.75	34.3	.00			280
	300	ISL	7.78	7.75	34.166	26.655	142.9	.571	.95	14.2							302
1	339		7.40	7.37	34.169	26.712	137.9	.633	.82	12.2	62.9	2.95	35.6	.00			341
1	394		6.97	6.93	34.184	26.786	131.5	.708	.67	9.8	71.1	3.08	36.3	.00			397
	400	ISL	6.91	6.87	34.187	26.796	130.5	.715	.62	9.1							403
1	456		6.38	6.34	34.209	26.885	122.5	.786	.16	2.3	89.9	3.39	34.5	.00			459
	500	ISL	6.30	6.25	34.212	26.898	121.8	.840	.10	1.5							504
1	517		6.27	6.22	34.212	26.902	121.6	.861	.08	1.2		3.73	26.8	.03			521

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 83 40.6

LATITUDE	LONGITUDE 1	DAY/HO/VR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
34 13.6 N	19 24.7 W	09/11/85	2144 GMT	31 M	260 06 KT	240 04 05	1	1014.4 MB	!7.0 C	12.3 C	1/8	sc

CAST	DEPTH M		TEMH DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT ML/L	OXYGEN PCT	OXY	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRES S D.BA
1	0	1	17.93	17.93	33.633	24.243	366.9	.000	5.70	105.3	2.3	.35	.1	.00	.31	.08	0
10			17.88	17.88	33.629	24.252	366.3	.037	5.72	105.5	2.1	.33	.1	.00	.32	.09	10
	20	I	SL 16.26	16.26	33.512	24.545	338.7	.072	5.93	105.9	3.4	.43	.2	.06	.91	.36	20
1	21		16.11	16.11	33.503	24.572	336.2	.075	5.95	106.0							21

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 83 42

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
34 10.4 I	119 30.9 W	09/11/85	1945 GMT	133 M	240 07 KT	280 03 04	1	1015.1 MB	17.9 C	13.7 C	1/8	ST

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SI6MA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0		17.49	17.49	33.615	24.336	358.0	.000	5.72	104.7	2.3	.34	.2	.00	.44	.15	0
1	10		17.44	17.44	33.612	24.345	357.5	.036	5.78	105.7	2.4	.33	.1	.00	.49	.12	10
	20	ISL	16.84	16.83	33.567	24.4 54	347.4	.071	5.84	105.6							20
1	26		16.48	16.48	33.542	24.519	341.5	.091	5.90	105.9	2.6	.35	.2	.00	.54	.28	26
	30	ISL	15.33	15.32	33.459	24.715	322.9	.105	5.97	104.6							30
1	36		13.69	13.69	33.382	25.002	295.6	.123	6.06	102.7	3.9	.50	1.0	.08	1.16	.55	36
1	46		12.64	12.63	33.437	25.256	271.7	.151	5.38	89.2	7.0	.80	6.2	.19	.64	.41	46
	50	ISL	12.34	12.33	33.461	25.331	264.6	.163	5.19	85.6							SO
1	62		11.77	11.76	33.527	25.490	249.7	.193	4.80	78.2	1Q.2	1.10	11.5	.04	.22	.23	62
	75	ISL	11.31	11.30	33.595	25.627	237.0	.225	4.35	70.2							76
1	76		11.29	11.28	33.597	25.632	236.4	.227	4.33	69.9	13.6	1.32	14.7	.02	.10	.17	76
	100	ISL	10.56	10.55	33.701	25.844	216.8	.282	3.67	58.4							101
1	102		10.52	10.50	33.706	25.856	215.7	.285	3.64	57.8	19.5	1.62	19.5	.01	.04	-1°	102

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 83 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
33 .5 N	120 08.2 W	09/11/85	1255 GMT	102 M	310 21 KT			1015.7 MB	13.2 C	11.1 C		

CAST	DEPTH N		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN Hf	OXYGEN ML/L	OXY PCT	SI O3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO U6/L	PRESS D.BAR
	0	ISL	13.73	13.73	33.495	25.081	287.1	.000	5.47	92.8							0
1	1		13.73	13.73	33.495	25.081	287.1	.003	5.47	92.8	6.4	.73	5.1	.09	.70	.34	1
	10	ISL	13.73	13.72	33.495	25.082	287.3	.029	5.48	93.0							10
1	11		13.73	13.72	33.495	25.082	287.3	.031	5.48	93.0	6.6	.73	5.2	.09	.69	.36	11
	20	ISL	13.23	13.23	33.468	25.161	279.9	.057	5.40	90.7							20
1	22		13.08	13.08	33.463	25.188	277.5	.062	5.38	90.1	7.2	.81	6.3	.10	.67	.37	22
	30	ISL	12.27	12.27	33.462	25.344	263.0	.084	5.09	83.9							30
1	32		12.09	12.08	33.462	25.379	259.5	.089	5.02	82.3	9.3	1.02	9.7	.09	.49	.35	32
	50	ISL	11.28	11.27	33.539	25.590	239.9			72.4							50
1	53		11.21	11.20	33.556	25.615	237.5			71.0	13.5	1.30	14.6	.03	.20	.27	53
	75	ISL	10.36	10.35	33.734	25.905	210.4	.191		55.7							76
1	78		10.26	10.25	33.760	25.941	207.0	.196	3.40	53.7	22.3	1.68	21.0	.03	.03	.11	78

RV NFW HORIZON CALCOFI CRUISE 8511 ' STATION S3 55

LATITUDE	.	DAY/MO/YR	MESSENGER	BOTTOP	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	TYPE
33 44.5	R 20 14 1 H	09/1 1/85	0957 GMT	1081 M	SOB 12 KT			1017.3 MB 13		.6 C 11.2 C		

CAST	DEPTH		TEMP	POT TEMP	SALZMJ n	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI 03	PO4	NO 3	NO2	CHL-A	PHAEO	PR^SS
	M		DEG C	DEG C		THET			ML/L	PCT	W-Ul	UM/L	UM/L	UM/L	UG/L	U6/L	D.BAR
1	0		!j 93	1 5.93	13.591	24 .684	52*. t	OOfl	S , 91	104.9	2.3	.38	.4	.00	.84	.37	0
1	9		15.86	15.86	33.599	24.703	323.3		5.85	103.7	2.2	.37	.4	.01	.87	.35	9
	10	IS	15.74	15.74	3 3.595	24 72a	[illegible]	v	5.82	103.0							10
1	18		14.55	14.55	33.568	24.966	298.6	05 J	5.55	9 ; -	3.5	.55	2.2	.14	.44	.66	18
	2 0	:-	14.27	14.26	33.568	25.026	293.1	.	5.48	94.1							20
1	27		13.30	13.30	33.570	25.227	273.9	.083	5.16	86.8	6.4	.77	5.8	.28	.34	.60	27
	3 0	IS	12.77	12.76	3 3.57 6	25.337	263.4	.091	4.89	81 .4							30
1	36		11.85	11.84	33.602	25.533	245.0	V.	4.39 .	71.7	12.7	1 .19	13.3	.18	.21	.41	36
1	49		10.95	10.95	3 3.66 2	25.743	22 5.3	.136	3.91	62.6	16.8	1 .44	17.4	.05	.12	.29	49
	50	IS	10.94	10.94	33.663	25.747	225.0	.139	3.89	62.3							50
1	58		10.87	10.87	33.671	25.765	223.4	.156	3.84	61.4	17.4	1 .47	17.9	.03	.12	.27	58
1	66		10.77	10.76	33.680	25.791	221.1	.174	3.82	61 .0	18.0	1 .53	18.4	.03	.11	.27	66
	75	IS	10.28	10.27	33.751	25.932	[illegible]	.194	3.45	54.4							76
1	80		10.00	9.99	33.79 5	26.012	200.3	.203	3.23	50.7	23.6	1.79	22.4	.01	.04	.18	8 0
1	97		9.64	9.62	33.884	26.144	188.1	.	2.92	45.5	26.9	1.95	24.6	.01	.02	.14	97
	100	IS	9.58	9.57	33.893	26.159	186.7	.243	2.87	44.7							101
1	114		9.42	9.41	33.925	26.211	182.1	.269	2.76	42.8	29.0	2.01	25.5	.00	.02	.11	115
	125	IS	9.32	9.31	33 ,967	26.261	177.6	2.00	2.84	44.0							126
1	135		9.22	9.21	34.008	26.308	173.2	.306	2.89	44.7	32.5	2.16	27.3	.00	.01	.09	136
	150	IS	9.07	9.05	34.050	26.366	168.0	.331	2.5 3	38.9							151
1	162		8.95	8.93	34.074	26.404	164.6	.352	2.19	[illegible]	36.1	2.29	28.6	.00			163
1	188		8.80	8.78	34.101	26.450	160.7	.394	2.09	32.0	38.2	2.35	29.4	.00			189
	200	IS	8.71	8.69	34.114	26.473	158.7	.413	2.00	30.6							2 01
1	218		8.59	8.57	34.132	26.506	155.9	.441	1 .87	28.5	41.1	2.43	30.4	.00			219
	250	IS	8.40	8.37	34.157	26.556	151.7	.490	1.71	26.0							25 2
1	261		8.31	8.28	34.163	26.575	150.1	.508	1 .66	25.1	45.1	2.56	31.7	.00			2 63
	300	IS	7.75	7.72	34.173	26.667	141.8	.564	1.45	21.7							3C2
1	308		7.63	7.60	34.176	26.686	140.0	.575	1.40	20.9	52.5	2.71	33.9	.00			310
1	383		7.13	7.09	34.24 6	26.813	128.9	.675	.83	12.2	62.7	2.98	36.8	.00			385
	4 00	IS	6.98	6.95	34.25 5	26.840	126.5	.698	.75	11.0							403
1	458		6.52	6.47	34.273	26.917	119.6	.769	.57	8.3	72.2	3.14	39.0	.00			461
	500	IS	6.22	6.17	34.285	26.966	115.3	.818	.47	6.8							504
1	536		5.98	5.94	34.294	27.003	112.1	.860	.41	5.9	82.0	3.26	40.9	.00			540

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 83 60

LATITUDE	LONGITUDE	DAY/MC/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
33 34.6	120 45.9 U	09/11/85	0546 GMT	1382 M	310 20 KT			1016.3 MB 15		.8 C 12.2 C		

CAST	DEPTH		TEMP	POT TEHP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO 2	CHL-A	PHAEO	PRESS
	M		DE6 C	DEC C		THETA			NL/L	PCT	UM/L	y*/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	15.47	15.42	33.605 .	24.805	313.4	.000	6.07	106.7							0
1	1		15.42	15.42	33.605	24.805	313.4	.003	6.07	106.7	1.2	.36	.4	.00	1.28	.45	1
	10	ISL	15.42	15.42	33.605	24.806	313.5	.031	6.06	106.5							10
1	11		15.42	15.42	33.605	24.806	313.6	.034	6.06	106.5	1.2	.36	.6	.01	1.34	.48	11
	20	ISL	15.37	15.37	33.606	24.818	312.8	.063	6.07	106.6							20
1	22		15.36	15.36	33.606	24.820	312.6	.069	6.07	106.6	1.0	.35	.6	.01	1.33	.53	22
	30	ISL	14.15	14.15	33.581	25.060	289.9	.093	5.43	93.0							30
1	32		13.80	13.79	33.578	25.132	283.2	.098	5.25	89.3	5.3	.73	5.8	.18	2.16	1.26	32
1	42		11.98	11.98	33.589	25.498	248.5	.125	4.47	73.2	12.0	1.14	12.4	.16	.75	.70	42
	50	ISL	11.24	11.23	33.623	25.662	233.0	.145	4.11	66.2							50
1	58		10.82	10.81	33.669	25.773	222.6	.162	3.84	61.3	17.7	1.48	18.0	.02	.14	.30	58
1	68		10.15	10.15	33.762	25.961	204.9	.183	3.38	53.2	22.2	1.71	21.6	.00	.06	.18	68
	75	ISL	9.94	9.93	33.803	26.030	198.5	.198	3.19	50.1							76
1	79		9.87	9.86	33.819	26.053	196.3	.205	3.13	49.0	25.4	1.93	23.2	.00	.03	.15	79
1	94		9.55	9.54	33.889	26.161	186.4	.234	2.92	45.4	28.4	1.95	25.0	.00	.01	.10	94
	100	ISL	9.47	9.45	33.914	26.195	183.3	.246	2.84	44.1							101
1	114		9.32	9.31	33.961	26.256	177.8	.272	2.66	41.2	31.1	2.07	26.4	.00	.02	.08	115
	125	ISL	9.22	9.20	33.998	26.301	173.6	.290	2.51	38.7							126
1	135		9.13	9.12	34.030	26.341	170.1	.308	2.37	36.6	34.3	2.17	27.8	.00	.01	.08	136
	150	ISL	9.06	9.04	34.055	26.372	167.4	.333	2.27	35.0							151
1	161		9.00	8.98	34.069	26.393	165.7	.351	2.22	34.1	36.6	2.27	28.6	.00	.01	.06	162
1	192		8.65	8.63	34.121	26.489	157.1	.401	1.97	30.1	40.7	2.37	30.1	.00			193
	200	ISL	8.56	8. 54	34.132	26.510	155.1	.41A	1.92	29.3							201
1	223		8.30	8.28	34.151	26.566	150.2	.448	1.82	27.6	44.4	2.47	31.2	.00			224
	250	ISL	7.89	7.87	34.140	26.618	145.5	.489	1.72	25.8							252
1	258		7.78	7.75	34.138	26.634	144.2	.501	1.67	25.0	49.6	2.58	33.1	.00			260
	300	ISL	7.58	7.55	34.216	26.72 5	136.2	.559	1.09	16.2							302
1	309		7.55	7.52	34.235	26.743	134.6	.572	.96	14.3	57.5	2.85	35.5	.00			311
1	366		6.97	6.94	34.216	26.810	128.7	.646	.87	12.8	63.5	3.00	37.2	.00			368
	400	ISL	6.73	6.69	34.239	26.862	124.2	.689	.70	10.3							403
1	451		6.41	6.37	34.277	26.934	117.8	.751	.46	6.7	74.3	3.17	39.8	.00			454
	500	ISL	6.04	6.00	34.267	26.974	114.4	.808	.43	6.2							504
1	517		5.76	5.72	34.259	27.003	111.8	.850	.41	5.9	84.3	3.25	41.7	.00			541
	600	SSL	5.35	5.30	34.296	27.083	104.6	.918	.30	4.3							605
1	622		5.21	5.16	34.319	27.117	101.4	.941	.25	3.5	96.3	3.36	43.3	.00			627

RV. NEW. HORIZON CALCOFI CRUISE 8511 " STATION 83 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSEN6ER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	TYPE
33 14.4 N	1 21 2 7.5 W	08/1 1/85	2301 GMT	3730 M	330 19 KT 350	08 07	1	1016.9 KB	14.7 C	12.6 C	7/8	SC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SI6MA	SVA	DVN HI	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
	M		DE6 C	DEG C		THETA			NL/L	PCT	UH/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0		14.81	14.81	33.541	24.889	305.3	.000	6.05	105.0	3.0	.44	.1	.00	.82	.39	0
	10	ISL	14.82	14.82	33.536	24.884	306.2	.031	6.10	106.0							10
1	11		14.82	14.82	33.536	24.883	306.2	.033	6.11	106.1	2.7	.43	.1	.01	.81	.38	11
1	ao		14.71	14.71	33.527	24.901	304.8	.061	6.06	105.0	3.1	.42	.1	.01	.74	.41	20
1	30		14.21	14.21	33.478	24.969	298.6	.091	6.04	103.5	3.4	.47	.2	.05	.75	.59	30
1	39		13.34	13.34	33.357	25.054	290.7	.117	5.89	99.1	4.0	.56	1.3	.15	.64	.53	39
1	49		11.79	11.78	33.196	25.229	274.2	.14 5	5.65	91.9	5.4	.72	4.1	.08	.31	.42	49
	50	ISL	11.71	11.71	33.203	25.249	272.4	.149	5.60	90.9							50
1	58		11.41	11.40	33.290	25.372	260.8	.169	5.23	84.4	7.6	.92	8.2	.01	.16	.2?	58
1	68		10.94	10.94	33.401	25.542	244.8	.195	4.74	75.8	11.6	1.18	12.8	.00	.10	.18	68
	75	ISL	10.50	10.49	33.471	25.675	232.3	.212	4.53	71.8							76
1	82		10.14	10.13	33.540	25.790	221.4	.227	4.32	67.9	16.6	1.42	17.1	.00	.04	.13	82
1	96		9.94	9.93	33.753	25.990	202.7	.256	3.40	53.3	23.0	1.72	21.8	.00	.03	.16	96
	100	ISL	9.8 2	9.81	33.786	26.036	198.4	.265	3.27	51.1							101
1	114		9.42	9.41	33.848	26.151	187.7	.293	3.05	47.3	28.2	1.89	24.5	.00	.01	.07	115
	125	ISL	9.23	9.22	33.899	26.221	181.2	.313	2.89	44.7							126
1	137		9.07	9.05	33.951	26.289	175.1	.335	2.75	42.3	32.1	2.04	26.6	.00	.01	.05	138
	150	ISL	8.89	8.87	33.984	26.343	170.1	.357	2.66	40.8							151
1	164		8*70	8.68	34.013	26.395	165.4	.380	2.56	39.1	36.0	2.18	27.9	.00			165
1	192		8.36	8.35	34.080	26.500	155.9	.425	2.17	32.9	40.6	2.33	30.0	.00			193
	200	ISL	8.22	8.20	34.079	26.521	153.8	.437	2.16	32.7							201
1	219		7.89	7.87	34.076	26.567	149.8	.466	2.14	32.1	44.6	2.41	31.3	.00			220
	250	ISL	7.55	7.52	34.087	26.626	144.5	.512	1.90	28.3							2S2
1	255		7.50	7.48	34.091	26.636	143.7	.520	1.85	27.5	50.6	2.54	33.2	.00			257
	300	ISL	7.08	7.05	34.121	26.720	136.2	.582	1.44	21.2							302
1	312		6.99	6.96	34.132	26.741	134.4	.598	1.33	19.5	59.4	2.78	36.0	.00			314
1	383		6.89	6.85	34.215	26.821	127.9	.691	.82	12.0	65.4	2.96	37.5	.00			385
	400	ISL	6.75	6.72	34.228	26.850	125.4	.713	.72	10.6							403
1	458		6.22	6.18	34.257	26.942	116.9	.783	.49	7.1	76.7	3.19	39.9	.00			461
	500	ISL	5.93	5.88	34.267	26.989	112.9	.832	.44	6.3							504
1	537		5.71	5.66	34.268	27.016	110.5	.873	.39	5.6	85.1	3.27	41.6	.00			541

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 87 33

LATITUDE	LON6ITUDE	DAV/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRV	WET	C LOUD	TYPE
33 .4	118 29.4 W	07/11/85	1441 GMT	55 M	110 03 KT 310	02 08	2	1018.8 MB	17.1 C	15.8 C	8/8	ST

CAST	DEPTH		TENP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRES
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	18.16	18.16	33.633	24.187	372.2	.000	5.71	105.9							0
1	1		18.16	18.16	33.633	24.187	372.3	.004	5.71	105.9	1.8	.34	.1	.00	.29	.07	1
	10	ISL	18.15	18.15	33.630	24.188	372.4	.037	5.73	106.2							10
1	11		18.15	18.15	33.630	24.188	372.5	.041	5.73	106.3	1.8	.32	.1	.00	.31	.07	11
	20	ISL	16.86	16.86	33.532	24.422	350.5	.073	5.93	107.2							20
1	22		16.44	16.43	33.498	24.495	343.6	.080	5.97	107.0	2.2	.42	.2	.01	.43	▪18	22
	30	ISL	13.95	13.95	33.288	24.875	307.5	.106	4.81	82.0							30
1	32		13.39	13.39	33.253	24.963	299.2	.112	4.52	76.1	8.9		4.4	.29	.35	▪38	32
	50	ISL	12.53	12.52	33.416	25.260	271.4	.164	4.79	79.3							50
1	52		12.44	12.44	33.432	25.289	268.7	.169	4.82	79.6	8.5	1.15	7.8	.66	.11	.16	52

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 87 35

LATITUDE	LONGITUDE	DAV/MO/YR	Messenger	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
33 49.3 N	118 37.7 W	07/11/85	1647 GMT	647 M	190 04 KT 280	02 08	1	1018.9 MB	17 .7 C	15.8 C	7/8	ST

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	MO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0		18.59	18.59	33.655	24.098	380.7	.000	5.64	105.5	2.1	.38	.2	.00	.26	.07	0
1	10		18.56	18.55	33.653	24.105	380.4	.038	5.66	105.8	2.0	.35	.1	.00	.27	.07	10
	20	ISL	18.23	18.23	33.621	24.161	375.4	.076	5.72	106.3							20
1	21		18.20	18.20	33.618	24 .166	375.0	.079	5.73	106.4	2.1	.35	.1	.00	.35	.14	21
	30	ISL	15.19	15.19	33.387	24.689	325.3	.111	6.34	110.7							30
1	31		14.87	14.87	33.369	24.744	320.0	.114	6.39	110.9	2.7	.43	.1	.00	.34	.20	31
1	41		13.24	13.24	33.311	25.038	292.3	.144	6.28	105.4	3.4	.50	.2	.02	.48	.38	41
	50	ISL	12.41	12.41	33.332	25.217	275.4	.170	5.71	94.3							50
1	51		12.37	12.36	33.336	25.229	274.3	.173	5.66	93.3	5.2	.73	4.3	.22	.50	.55	51
1	62		12.24	12.23	33.438	2S.334	264*6	.202	5.25	86.3	6.9	.88	7.2	.11	.32	.40	62
1	72		11.73	11.72	33.496	25.474	251.5	.228	4.75	77.3	9.8	1.10	11.3	.03	-15	.35	72
	?5	ISL	11.59	11.58	33.518	25.517	247.4	.236	4.61	74.9							76
1	87		11.14	11.13	33.595	25.658	234.2	.264	4.21	67.7	13.8	1.33	15.4	.02	.08	.21	87
	100	ISL	10.65	10.64	33.664	25.799	221.1	.294	3.84	61.0							101
1	103		10.57	10.55	33.676	25.823	218.8	.300	3.77	59.9	18.1	1.54	18.8	.01	.04	.13	103
1	123		9.95	9.94	33.807	26.031	199.4	.344	3.18	49.9	23.8	1.80	22.7	.01	.01	.06	124
	125	ISL	9.92	9.91	33.813	26.041	198.5	.347	3.16	49.5							126
1	148		9.59	9.57	33.876	26.146	189.0	.392	2.95	45.9	27.2	1.94	24.S	.00	.01	.05	149
	150	ISL	9.57	9.55	33.884	26.155	188.2	.395	2.93	45.5							151
1	180		9.27	9.26	34.007	26.300	174.9	.450	2.50	38.7	32.3	2.14	27.0	.01			181
	200	ISL	9.04	9.02	34.070	26.387	167.0	.484	2.27	35.0							201
1	2t1		8.92	8.89	34.095	26.427	163.4	.502	2.18	33.5	37.2	2.31	28.8	.00			212
1	242		8.62	8.60	34.119	26.492	157.7	.551	2.06	31.4	40.0	2.40	29.8	.01			243
	250	ISL	8.58	8.55	34.126	26.505	156.6	.564	2.01	30.7							252
1	283		8.42	8.39	34.159	26.556	152.4	.616	1.78	27.0	43.3	2.52	31.1	.00			285
	300	ISL	8.29	8.26	34.181	26.591	149.2	.641	1.61	24.4							302
1	345		7.92	7.89	34.235	26.690	140.5	.706	1.14	17.1	51.9	2.81	34.0	.02			347
	400	ISL	7.47	7.44	34.270	26.783	132.3	.781	.77	11.4							403
1	422		7.28	7.24	34.278	26.817	129.3	.810	.66	9.8	62.3	3.04	36.8	.00			425
1	499		6,50	6.46	34.301	26.941	118.0	.905	.42	6.1	74.8	3.23	39.3	.00			502
	500	ISL	6.49	6.45	34.301	26.943	117.8	.906	.42	6.1							504
1	574		5.96	5.91	34.325	27.031	109.9	.991	.33	4.7	85.9	3.38	40.2	.01			

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 87 40

LATITUD	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AM	T
-33 39.4 N	18 5 8.3 W	07/11/85	2058 GMT	695 M	350 04 KT	300 04 04	1	1 O J1. KB 19	.9 C	17.2 C	1/6	CC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	n		DEG C	DEG C		THETA			WL/L	PCT	UM/L	UM/L	UM/L	UM/L	U6/L	O O /1	D.BAR
	0	ISL	18.50	18.50	33.642	24.111	379.8	.000	5.64	105.3							0
1	1		18.50	18.50	33.642	24.111	379.5	.004	5.64	105.3	2.0	.53	.2	.00	.18 .05		1
	10	ISL	18.50	18.41	33.641	24.131	377.9	.038	5.70	106.2							10
1	11		18.41	18.40	33.641	24.133	377.7	.042	5.70	106.2	2.0	.33	.2	,00	.21	.08	11
	2 0	ISL	18.34	18.34	33.640	24.148	376.7	.076	5.71	106.3							20
1	22		18.33	18.33	33.640	24.151	376.4	.083	5 .71	106.3	1.9	.32	.2	.00	,23	.07	22
	3 0	ISL	16.65	16.64	33.516	24.459	347.3	.112	6.06	109.0							30
1	32		16 .11	16.11	33.481	24.556	338.1	.119	6. 1 2	109.0	2.3	.35	.2	.00	.35	.16	32
1	42		12.88	12.88	33.314	25.112	285.3	.150	5.75	95.8	4.6	.64	3.5	.19	.70	.43	42
	50	ISL	12.40	12.40	33.389	25.263	269.7	.172	5.38	88.7							50
1	52		12.30	12.29	33.405	25.296	268.0	.177	5.29	87.1	6.7	.83	6.8	.19	.35	.36	52
1	63		11.93	11.92	33.530	25.462	252.4	.205	4.80	78.5	9.5	1.01	10.4	.05	.18	.31	63
1	73		11.67	11.66	33.553	25.529	246.3	.230	4.57	74.3	10.9	1.13	12.1	.03	.16	.26	73
	75	ISL	11.57	11.56	33.563	25.556	243.8	.236	4.49	72.8							76
1	88		11.00	10.99	33.630	25.711	229.3	.266	4.03	64.6	15.1	1.38	16.4	.02	• 0S	.22	38
	100	ISL	10.62	10.61	33.686	25.822	218.9	.294	3.68	58.6							101
1	104		10.52	10.51	33.701	25.851	216.2	.301	3.60	57.1	18.8	1.56	19.4	.01	.05	.16	104
1	123		9.86	9.85	33.798	26.039	198.7	.342	3.22	50.4	23.6	1.73	22.6	.01	.02	.09	124
	125	ISL	9.83	9.81	33.806	26.052	197.5	.346	3.20	5 0.0							126
1	149		9*40	9.38	33.921	26.213	182.6	.392	2.85	44.2	28.8	1.95	25.3	.00	.01	.04	150
	150	ISL	9.39	9.37	33.926	26.218	182.2	.393	2.83	43.9							151
1	179		9.20	9.18	34.074	26.365	168.8	.444	2.23	34.5	34.4	2.20	27.9	.00			180
	200	ISL	8.92	8.90	34.122	26.447	161.3	.479	1.99	30.6							. 201
1	210		8.79	8.77	34.136	26.479	158.4	.494	1.91	29.3	39.5	2 .35	29.7	.01			211
1	241		8.61	8.58	34.185	26.546	152.6	.542	1.63	24.9	43.1	2.48	30.9	.00			242
	250	ISL	8.54	8.52	34.200	26.568	150.7	.556	1.53	23.3							252
1	280		8.32	8.29	34.239	26.633	144.9	.601	1.22	18.5	48.0	2.66	32.5	.01			2 82
	300	ISL	8.15	8.12	34.249	26.667	142.1	.629	1.09	16.5							302
1	342		7.77	7.74	34.257	26.729	136.6	.688	.90	13.5	55.6	2 .83	34.7	.00			344
	400	ISL	7.24	7.20	34.277	26.821	128.5	.765	.66	9.7							403
1	419		7.08	7.04	34.283	26.849	126.0	.789	.59	8.7	65.4	3.02	37.2	.01			422
1	496		6.64	6.59	34.306	26.927	119.4	.883	.41	6.0	72.6	3.14	38.9	.01			499
	500	ISL	6.60	6.56	34.307	26.933	118.9	.888	.40	5.9							504
1	575		5.90	5.85	34.329	27.042	108.9	.974	.32	4.6	85.9	3.26	40.6	.01			579

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 87 45

LATITUDE	LONGITUDE	DAV/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
33 29.7	119 19.7 W	08/11/85	0055 CMT	1635 M	240 10 KT	270 05 08	1	1015.0 MB	19.7 C	17.5 C	2/8	CC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	STGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DE6 C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	18.59	18.59	33.648	24.092	381.7	.000	5.65	105.7							0
1	1		18.59	18.59	33.648	24.092	381.3	.004	5.65	105.7	2.4	.34	.1	.00	.27	.05	1
	10	ISL	18.38	18.38	33.634	24.133	377.7	.038	5.69	106.1							10
1	11		18.36	18.36	33.633	24.138	377.3	.042	5.70	106.1	2.3	.30	.1	.00	.31	.07	11
	20	ISL	17.54	17.54	33.574	24.293	362.7	.075	5.79	106.0							20
1	22		17.27	17.26	33.552	24.342	358.2	.082	5.82	106.1	2.4	.33	.1	.00	.38	.13	22
	30	ISL	15.53	15.53	33.382	24.610	332.9	.110	6.11	107.4							30
1	32		15.10	15.09	33.353	24.683	326.0	.116	6.14	107.1	2.7	.40	.0	.01	.60	.30	32
1	42		13.35	13.34	33.424	25.105	286.0	.147	5.58	93.9	5.6	.68	3.1	.19	.77	.60	42
	50	ISL	12.39	12.38	33.463	25.324	265.2	.169	5.13	84.6							50
1	52		12.23	12.23	33.471	25.359	261.9	.174	5.04	82.9	8.5	.94	8.1	.04	.28	.43	52
1	63		11.75	11.74	33.542	25.505	248.3	.202	4.66	75.9	11.3	1.12	11.6	.02	.18	.31	63
1	73		11.32	11.31	33.535	25.579	241.4	.226	4.49	72.4	12.7	1.24	13.2	.01	.14	.25	73
	75	ISL	11.23	11.22	33.543	25.603	239.3	.232	4.43	71.3							76
1	88		10.72	10.71	33.611	25.746	225.9	.261	4.07	64.9	16.6	1.42	16.8	.01	.06	.13	88
	100	ISL	10.18	10.17	33.692	25.902	211.2	.288	3.73	58.7							101
1	104		10.04	10.03	33.715	25.944	207.3	.295	3.64	57.2	21.3	1.63	20.3	.01	.02	.06	104
1	124		9.53	9.52	33.793	26.090	193.8	.337	3.37	52.4	25.0	1.73	22.6	.00	.01	.04	125
	125	ISL	9.52	9.51	33.796	26.093	193.4	.338	3.36	52.2							126
1	149		9.14	9.13	33.907	26.243	179.7	.384	2.92	4S.0	30.1	1.93	25.6	.00	.01	.03	150
	150	ISL	9.12	9.11	33.908	26.247	179.3	.385	2.92	45.0							151
1	180		8.49	8.47	33.978	26.400	165.1	.437	2.82	42.9	35.5	2.06	27.7	.00			181
	200	ISL	8.51	8.49	34.092	26.487	157.3	.469	2.26	34.3							201
1	211		8.52	8.50	34.143	26.525	153.9	.486	1 .93	29.4	41.7	2.35	30.2	.00			212
1	262		8.35	8.32	34.187	26.587	148.6	.532	1.59	24.1	45.3	2.51	31.7	.00			243
	250	ISL	8.26	8.23	34.192	26.604	147.1	.545	1.52	23.0							252
1	283		7.90	7.87	34.205	26.669	141.3	.593	1.29	19.4	51.6	2.66	33.5	.01			285
	300	ISL	7.76	7.73	34.219	26.699	138.7	.616	1.16	17.4							302
1	345		7.47	7.44	34.254	26.771	132.6	.677	.86	12.8	59.3	2.87	35.7	.01			347
	480	ISL	7.16	7.12	34.277	26.832	127.4	.749	.65	9.6							403
1	422		7.04	7.00	34.283	26.854	125.6	.777	.59	8.7	67.0	3.01	37.7	.01			425
1	500		6.57	6.52	34.308	26.939	118.3	.871	.40	5.8	73.8	3.13	39.6	.00			503
1	578		5.96	5.91	34.331	27.036	109.5	.960	.31	4.4	83.9	3.21	41.4	.01			582

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 87 5O

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD ANT	TYPE
33 19.3 N	119 40.0 W	08/11/85	0419 GMT	77 N	270 08 KT			1016.0 MB	16.8 C	14.9 C		

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN Hf	OXYGEN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	U6/L	D.BAR
1	0		17.52	17.52	33.666	24.367	355.0	.000	5.65	103.5	2.4	.40	.2	.00	.21	.08	0
1	10		17.47	17.47	33.664	24.378	354.3	.035	5.67	103.8	2.3	.37	.2	.00	.26	.09	10
	20	ISL	17.20	17.20	33.648	24.431	349.6	.07t	5.76	104.9							20
1	21		17.16	17.15	33.646	24.440	348.8	.074	5.77	105.0	2.1	.36	.2	.00	• 79	.27	21
	30	ISL	16.36	16.35	33.623	24.609	333.0	.105	5.75	103.0							30
1	31		16.26	16.25	33.621	24.631	330.9	.108	5.75	102.8	2.3	.43	1.0	.04	2.28	.70	31
	50	ISL	12.64	12.64	33.621	25.397	260.6	.164	4.69	77.8							50
1	52		12.18	12.17	33.597	25.467	251.6	.169	4.52	74.3	11.7	1.11	12.1	.20	.34	.38	52

RV MEM HORIZON CALCOFI CRUISE 8511 STATION 87 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT TYPE
33 09.3 N	120 00.4 W	08/11/85	0721 GMT	1183 M	290 11 KT			1016.9 MB	15.8 C	14.2 C	

CAST	DEPTH M		TEMP DE6 C	POT TEMP DE6 C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCI	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UG/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	15.91	15.91	33.616	24.705	322.9	.000	5.91	104.9							0
1	1		15.91	15.91	33.616	24.705	323.0	.003	5.91	104.9	3.0	.44	.1	.00	.49	,19	1
	10	ISL	15.91	15.91	33.616	24.705	323.2	.032	5.92	105.1							10
1	11		15.91	15.91	33.616	24.705	323.2	.035	5.92	105.1	2,7	.38	o1	.00	.51	.20	11
	0 0	ISL	15.85	15.85	33.625	24.726	321.5	.065	5.95	105.6							2 0
1	22		15.83	15.82	33.627	24.733	320.9	.071	5.96	105.6	2.7	.36	.1	.00	.61	,24	22
	30	ISL	15.68	15.68	33.630	24.768	317.5	.097	5.94	104.9							30
1	32		15.61	15.61	33.631	24.784	316.3	.102	5.93	104.6	2o8	.37	„1	,02	.81	.41	32
1	A3		14.66	14.65	33.535	24.919	303.8	.136	5.59	96.7	4.3	.54	1.8	„1S	.67	.40	43
	60	ISL	13.48	13.47	33.442	25.092	287.5	.158	5.43	91.7							50
1	53		12.98	12.97	33.416	25.173	279.7	.165	5.35	89.3	5o8	.73	4.9	.17	.39	.40	53
1	63		11.38	11.37	33.465	25.514	247.3	.192	4.70	75.9	10.9	1.07	11.4	.04	.18	,26	63
1	74		11 .01	11.00	33.561	25.656	234.1	.218	4.29	68.8	14.3	1.25	14.7	.02	.12	,23	76
	75	ISL	10.95	10.94	33.577	25.679	232.0	.221	4.22	67.6							66
1	89		10.36	10.35	33.725	25.896	211.5	.251	3.57	56.5	20.6	1.57	19.7	.,02	.06	,15	89
	100	ISL	10.06	10.05	33.780	25.992	202.7	.275	3.33	52.4							101
1	104		9.96	9.95	33.792	26.018	200.3	.284	3.28	51.5	23.9	1.71	21.9	.01	.03	,13	105
1	124		9.52	9.51	33.853	26.138	189.2	.323	3.09	48.0	27.2	1.83	24.0	ooi	.02	,0?	125
	125	ISL	9.51	9.50	33.855	26.142	188.8	.324	3.08	47.9							126
1	150		9.05	9.04	33.940	26.283	175.9	.370	2.82	43.4	31.3	1 .99	26.0	,00	.01	.06	151
1	181		8.44	s.42	34.036	26.454	160.0	.422	2.44	37.1	38.3	2.18	28.7	,01			162
	2 0C	ISL	8.2*	8.25	34.072	26.507	155.3	.452	2.23	33.7							501
1	212		8.20	8.18	34.089	26.532	153.1	.470	2.09	31.6	42.8	2.33	30.4	.01			213
1	243		7.86	7.83	34.139	26.622	145.0	.516	1.69	25.3	48.6	2.54	32.5	.00			244
	2 50	ISL	7.79	7.77	34.14*	26.639	143.5	.526	1.62	24.2							252
1	284		7.56	7.53	34.182	26.701	138.1	.575	1.32	19.7	54.2	2.68	34.2	„00			286
	300	ISL	7.49	7.46	34.202	26.725	136.1	.596	1.18	17.6							302
1	34*		7.33	7.30	34.250	26.787	130.9	.657	.04	12.4	60.7	2.90	36.0	,00			540
	4 00	ISL	7.01	6.97	34.272	26.850	125.6	.727	,64	9,4							4 03
1	422		6.85	6.81	34.275	26.874	123.5	.754	,50	0.6	68.1	3.04	38.0	„QQ			4 25
	500	ISL	6.22	6.17	34.28 4	26.965	115.4	.847	,42	6.1							504
1	501		6.22	6.17	34.284	26.965	115.4	.848	,4 2	6,1	78.4	3.17	40.2	.00			5 04
1	57*		5.6£	5.63	34.314	27.056	107.2	.934	,33	4.7	88.1	3.28	41.7	,00			532

RV NfcW HORIZON CALCOFI CRUISE 8511 STATION 87 60

LATITUDE	LONGITIDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT TYPE
32 59.4	120 21 .3 U	08/11/85	1054 0 0) 5	720 M	310 14	EC 0		1017.1 MB U	.4 C	12.7 C	

CAST	DEPTH f-		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SO A	DYN HT	OXYGEN ML/L	OO O	SIO3 UM/L	OO4 UM/L	!O 3 UM/L	WOO UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0	I	15 .50	15.50	33.572	24.761	317.6	.000	5.84	102.8							0
1	1		15.50	15.50	33.572	24.761	317.6	.003	5.84	102.8	1 .0	.39		,00	.42	.26	I
	10	ISL	15.49	15.49	33.572	24.764	317.6	.032	5.84	102.8							10
1	11		15.49	15.49	33.572	24.764	317.6	.035	5.84	102.8	1,3	.30	.1	.00	. 4 6	.26	11
	20	ISL	15.50	15.49	33.571	24.763	318.0	.064	5.84	102.8							00
1	21		15.50	15.49	33.571	24.763	318.0	.066	5.84	102.8	1.3	.38	.1	.00	.46	.26	21
	30	ISL	15.44	15.43	33.576	24.780	316.7	.095	5.86	103.0							50
1	32		15.43	15.42	33.580	24.786	316.2	.101	5.86	103.0	1.6	.40	.1	.06	,56	,30	0 0
1	42		15.18	15.17	33.568	24.832	312.1	.132	5.77	100.9	2.1	.43	.4	,0 5	.57	,51	40
	50	ISL	12.49	12.48	33.386	25.245	272.8	.156	5.27	87.1							50
1	52		11.88	11.87	33.360	25.341	263.7	.161	5.15	84.0	7.4	,02	8.5	.05	.30	.51	50
1	62		11 .06	11.05	33.407	25.527	246.1	.186	4.84	77.6	10.2	1.15	12.2	.02	.17	.31	00
1	72		10.76	10.75	33.545	25.688	231.0	.210	4.39	70.0	14.1	1.34	15.8	.01	,00	.17	50
	75	ISL	10.67	10.66	33.573	25.726	227.5	.218	4.25	67.6							05
1	87		10.34	10.33	33.645	25.838	217.1	.244	3.88	61.3	18.2	1.53	19.1	.51	.05	.13	87
	100	ISL	9.89	9.87	33.713	25.968	204.9	.272	3.84	60.1							101
1	103		9.80	9.79	33.724	25.992	202.7	.277	3.83	59.8	20.7	1.58	20.0	,01	.02	.05	103
1	122		9.18	9.16	33.835	26.180	185.1	.316	3.41	52.6	26.3	1.78	23.5	.00	,01	.03	123
	125	ISL	9.12	9.11	33.846	26.197	183.5	.320	3.38	52.1							126
1	147		8.76	8.75	33.916	26.310	173.2	.360	3.24	49.5	30.6	1 .90	25.4	.00	.01	.0 3	140
	150	ISL	8.73	8.71	33.923	26.321	172.2	.365	3.24	49.4							151
1	178		8.38	8.36	33.981	26.419	163.2	.412	3.21	48.7	33.8	1.95	26.3	,00			179
	2G0	ISL	8.01	7.99	34.011	26.499	155.9	.447	2.84	42.7							201
1	208		7.39	7.87	34.023	26.526	153.4	.459	2.66	39.9	40.2	2.19	29.4	,00			209
1	239		7.79	7.76	34.117	26.615	145.6	.505	1 .86	27.8	47.1	2.48	32.2	,00			240
	0 50	ISL	7.69	7.67	34.135	26.644	143.0	.521	1.68	25.1							252
1	278		7.43	7.40	34.164	26.705	137.6	.561	1.36	20.2	54.0	2.67	34.4	.00			280
	;	ISL	7.29	7.26	34.187	26.743	134.3	.591	1 .16	17.2							302
1	339		7.07	7.03	34.221	26.801	129.3	.64 2	.90	13.3	62.0	2.91	36.5	,00			341
	6 00	ISL	6.69	6.66	34.257	26.880	122.4	.719	.62	0,0							403
1	414		6.61	6.58	34.264	26.897	121.0	.736	,07	0 05	70.8	3.07	38.6	,00			417
1	491		6.2 8	6.24	34.300	26.969	115.0	.826	.4	0.1	77.5	3.19	39.9	.00			494
	5 4,	ISL	6.24	6.20	34.303	26.977	114.4	.837	,41	5,0							504
1	566		5.94	5.89	34.308	27.020	110.8	.911	,06	5.3	83.0	3.24	41 .0	.00			570

RV fJFW HORIZON CALCOFI CRUISE 8511 . STATION 37 ?0

LATITUDE	LONG I HIDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
32 39.4 *J	11 02.2	08/11/85	1619 GMT	3759 M	33 0 14 KT 340	05 06	1	1019.0 MB	15.2 C	13.3 C	6/8	SC

CAST	DEPTH M		TEMP DEG	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO 3 . UM/L	NO 2 UM / L	CHL-A U6/L	PHAEO UG/L	PRESS D.BA
	0	ISL	16.62	16.62	33.622	24.546	338.0	.000	5.65	101 .7							0
1	1		16.6?	16.62	33.622	24.546	338.1	.003	5.65	101 .7	2.7	.38	.1	.00	.31	.15	1
	10	ISL	16.62	16.62	33.620	24.546	338.3	.034	5.6 7	102.0							10
1	11		16.62	16.62	33.620	24.546	338.3	.037	5.67	102.1	2.5	▪ 35	.1	.00	.30	.15	11
	20	ISL	16.56	16 .56	33.617	24.557	337.6	.068	5.72	102.8							20
1	22		16.55	16.54	33.616	24.560	337.4	.074	5.73	103.0	2.2	.36	.1	.00	.33	.18	22
	30	ISL	15.73	15.73	33.561	24.703	324.0	.101	5.84	103.3							30
1	33		15.41	15.41	33.541	24.759	318.7	.110	5.86	102.9	1.6	.36	.1	.00	.43	.31	33
1	43		14.89	14.88	33.509	24.849	310.4	.141	5.64	98.0	2.5	.47	.8	.11	.64	.62	43
	50	ISL	13.25	13.24	33.437	25.135	283.4	.163	5.30	88.9							50
1	54		12.32	12.31	33.427	25.309	266.7	.173	5.05	83.2	7.6	.90	8.4	.08	.40	.55	54
1	65		11.05	11.04	33.603	25.681	231.5	.200	4.08	65.5	14.7	1.37	16.5	.02	.08	.26	65
1	75		10.75	10.74	33.655	25.774	222.9	.223	3.81	60.8	16.9	1.51	18.4	.02	.07	.19	75
1	91		10.00	9.99	33.733	25.965	205.0	.257	3.52	55.3	21 .2	1.69	21.4	.01	.04	.14	91
	100	ISL	9.73	9.72	33.793	26.058	196.4	.276	3.2 8	51.1							101
1	105		9.59	9.58	33.825	26 .104	192.0	.287	3.16	49.2	25.1	1 .84	23.6	.01	.02	.12	106
	125	ISL	8.99	8.98	33.869	26.236	179.7	.323	3.29	50.5							126
1	126		8*95	8.94	33.871	26.244	179.0	.325	3.30	50.6	27.8	1.89	24.8	.00	.02	.10	127
	150	ISL	8.47	8.45	33.935	26.370	167.4	361	3.38	51.3							151
1	152		8.43	8.42	33.941	26.380	166.5	'.::	3.38	51.3	31.0	1.90	25.6	.00	.01	.05	153
1	183		8.08	8.06	33.993	26.475	157.9	.420	3.30	49.7	35.8	1.97	26.7	.00			184
	200	ISL	7.90	7.88	34.027	26.529	153.1	.446	2.77	41.5							201
1	213		7.77	7.75	34.052	26.566	149.7	.466	2.33	34.9	43.7	2.29	30.9	.00			214
1	244		7.54	7.51	34.088	26.629	144.2	.511	1.91	28.4	48.7	2.47	32.8	,00			245
	250	ISL	7.43	7.40	34.087	26.644	142.9	.520	1.87	27.7							252
1	284		6.84	6.81	34.079	26.719	135.9	.568	1.66	24.3	57.5	2.62	35.4	.00			'▪28
	300	ISL	6.80	6.77	34.109	26.748	133.4	.5 89	1.47	21.6							302
1	345		6.68	6.65	34.179	26.820	127.2	.647	.93	13.6	65.8	2.90	37.7	.00			347
	400	ISL	6.49	6.45	34.248	26.900	120.3	.716	.57	8.3							403
1	422		6.39	6.35	34.270	26.931	117.7	.742	.49	7.1	74.2	3.10	39.3	.00			4 25
	500	ISL	5.89	5.84	34.311	27.028	109.1	.830	.36	5.2							5 04
1	501		5.88	5.84	34.311	27.029	109.0	.831	.36	5.2	84.4	3.22	41.1	.01			504
1	581		5.46	5.41	34.333	27.098	103.0	.916	.29	4.1	91.9	3.31	42.4	.00			585

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 90 28

LATITUDE	LONGITUDE	DAV/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
33 29.0 N	117 46.1	07/11785	0912 GMT	62 N	120 05 KT			1018.6 MB	17.0 C	15.8 C		

CAST	DEPTH M		T|MP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRES D.BA
1	0		18.11	18.11	33.312	24.107	379.8	.000	6.58	121,8	2.6	.46	.1	.00	.85	.24	0
1	10		17.58	17.58	33.530	24.250	366.6	.037	6.66	I2K1	2.6	.31	.1	.00	1.13	.19	10
	20	ISL	14.95	14.95	33.406	24.754	318.8	.072	6.42	111.7							20
1	21		14.71	14.70	33.398	24.802	314.3	.074	6.39	110.6	2.8	.45	.1	.00	1.91	.36	21
	30	ISL	13.89	13.89	33.396	24.972	298.4	.102	6.10	103.8							30
1	31		13.85	13.85	33.396	24.980	297.5	.105	6.07	103.2	4.0	.56	.3	.15	1.43	.42	31
	50	ISL	12.41	12.40	33.457	25.315	266.1	.159	5.14	84.8							50
1	52		12.29	12.28	33.467	25.345	263.2	.164	5.03	82.8	7.6	.97	8.1	.15	▪31	.43	52

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 90 30

LATITUOE	LONGITUDE	DAY/MO/VR	MESSEN6ER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRV	WET	CLOUD AMI	TYPE
33 25.4 N	117 54.4 W	07/11/85	0703 GMT	625 M	100 05 KT			1017.3 MB	19 .5 C	17.2 C		

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN NT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO 3 UM/L	NO2 UN/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	18.75	18.75	33.633	24.040	386.3	.000	5.95	111.6							0
1	1		18.75	18.75	33.633	24.040	386.3	.004	5.95	111.6	2.1	.36	.1	.00	.34	.06	1
	10	ISL	18.71	18.71	33.630	24.049	385.8	.039	6.00	112.5							10
1	11		18.71	18.71	33.630	24.049	385.7	.042	6.01	112.6	2.1	.31	.1	.00	.32	.06	11
	20	ISL	16.30	16.30	33.466	24.502	342.9	.075	6.38	114.0							20
1	22		15.70	15.70	33.437	24.614	332.2	.062	6.45	113.9	2.6	.39	.1	.00	.49	.17	22
	30	ISL	14.28	14.27	33.391	24.887	306.3	.108	6.42	110.1							30
1	12		14.02	14.01	33.389	24.941	301.3	.113	6.41	109.4	3.2	.45	.1	.00	.45	.23	32
1	43		12.74	12.74	33.439	25.236	273.5	.145	5.55	92.2	5.3	.74	4.0	▪?3	.60	.60	43
	50	ISL	12.25	12.24	33.485	25.367	261.1	.164	5.05	83.1							so
1	53		12.10	12.09	33.503	25.409	257.2	.171	4.88	80.0	8.4	1 .02	9.4	.03	.21	.32	53
1	63		11.61	11.61	33.564	25.548	244.2	.196	4.44	72.1	11.2	1.21	12.8	.02	.11	.30	63
1	73		11.31	11.30	33.599	25.630	236.6	.220	4.17	67.3	13.6	1.35	14.6	.01	.06	.21	73
	75	ISL	11.26	11.25	33.607	25.646	235.2	.225	4.12	66.5							76
1	89		11.00	10.99	33.650	25.726	227.8	.257	3.89	62.4	15.8	1.50	16.7	.01	.05	.15	89
	100	ISL	10.77	10.75	33.684	25.795	221.4	.282	3.69	58.9							101
1	104		10.69	10.68	33.696	25.818	219.4	.290	3.63	57.8	18.2	1.61	18.7	.01	.03	.10	104
1	124		10.20	10.19	33.778	25.966	205.7	.335	3.24	51.1	22.2	1.81	21.5	.01	.02	.07	125
	125	ISL	10.19	10.18	33.779	25.969	205.5	.336	3.23	51.0							126
1	150		9.88	9.87	33.847	26.075	195.8	.386	2.97	46.5	25.5	1.97	23.5	.00	.01	.05	151
1	181		9.44	9.42	33.976	26.249	179.9	.444	2.57	39.9	30.5	2.19	26.2	.01			182
	200	ISL	9.26	9.24	34.028	26.318	173.6	.478	2.42	37.5							201
1	212		9.18	9.15	34.054	26.353	170.5	.498	2.34	36.1	33.7	2.32	27.7	.01			213
1	243		8.97	8.95	34.122	26.439	162.9	.550	2.03	31.2	37.2	2.48	28.9	.01			244
	250	ISL	8.93	8.90	34.139	26.460	161.1	.562	1.94	29.9							252
1	284		8.69	8.66	34.205	26.550	153.1	.615	1.58	24.1	43.0	2.70	31.0	.00			286
	300	ISL	8.50	8.47	34.212	26.584	150.0	.639	1.48	22.5							302
1	346		7.94	7.90	34.217	26.674	142.0	.706	1.25	18.8	50.7	2.90	33.4	.00			348
	400	ISL	7.60	7.56	34.271	26.765	134.1	.781	.88	13.2							403
1	423		7.47	7.43	34.294	26.803	130.8	.812	.73	10.9	60.4	3.21	36.1	.00			426
	500	ISL	6.58	6.54	34.316	26.942	118.0	.907	.38	5.6							504
1	501		6.58	6.53	34.316	26.943	117.9	.908	.38	5.5	73.8	3.44	39.2	.00			504
			5.84	5.79	34.344	27.061	107.0	.996	.25	3.6	86.5	3.57	41.0	.00			583
1	579																

RV NEW HORIZON CALCOFI CRUISE 8511 " STATION 90 35

LATITUDE	ON TUDF	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLCUD AM	TYPE
33 15.0 N	"IE 15.1 W	07/11/85	0325 c Ml	611 N	240 09 KT			1017.1 MB 1<	.9 C	17.8 C		

CAST	DEPTH *		TEMP DEG C	POT TEMP DE6 C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY_ PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.6AR
	0	ISL	18.88	18.82	33.678	24.057	38 4.6	.000	5.6 5	106.2							Q
1	1		18,82	18.82	.33.673	24.0 57	384.6	.004	5.65	106.2	[illegible]	.39	-2	.00	.20	,07	1
	10	ISL	18.82	18.82	33.674	24.0 54	385.2	.038	5.67	106.5							10
1	11		18.83	18.82	33.674	24.054	.385.3	,042	5.67	106.5	2.1	.33	.2	.00	.20	.06	11
	20	ISL	17.47	17.47	33.561	24.300	362.1	.076	5.98	109.3							2.0
	30	ISL	15.55	15.55	33.44 7	24.656	32 8.5	.111	6.25	110.1							30
1	32		15.14	15.14	33.429	24.732	321.3	.117	6.30	110.0	2.8	.42	,1	.00	.30	.21	32
1	49		13.00	13.00	33;407	25.161	280.8	.168	5.8 2	97.2	4.9	.62	2.5	,29	.60	.40	49
	50	ISL	12.91	12.91	33.412	25.182	27 8.9	.171	5.76	96.1							50
1	63		12.18	12.17	33.477	25.374	260.8.	.205	5.06	83.1	8.0	.92	8.6	.05	.33	.44	63
	75	ISL	11 .50	11.49	33.569	25.573	24 2.1	.236	4.39	71.2							76
1	79		11 .34	11.33	33.595	25.623	2 3 7.4	.245	4.23	68.3	13.2	1.25	14.3	. .01	.10	.22	79
1	94		11 .00	11 .05	33.636	25.705	229.9	.280	3.98	63.9	15.4	1.36	16.1	.01	.07	.16	94
	100	ISL	10 ,88	10.87	33.666	25.760	224.9	.294	3.82	61 .1							101
1	115		10 .43	10.42	33.741	25.897	212.1	.328	3.44	54.5	20.6	1 .62	20.5	.01	.03	,10	116
	125	ISL	10 .20	10.19	33.774	25.963	20 5.9	.348	3.32	52.3							126
1	140		9 .87	9.86	33.826	26.060	197.0	.379	3.16	49.5	24.9	1.81	22.9	.01	.01	.07	141
	150	ISL	9 .68	9.67	33.874	26.129	19 0.6	.398	2.99	46.6							151
1	171		9 .37	9.35	33.971	26.256	178.9	.437	2.64	40.9	30.7	2.04	26.0	.01	.00	.05	172
	200	ISL	9 .22	9.20	34.018	26.317	173.7	.488	2.50	38.6							201
1	207		9 .21	9.19	34.024	26.324	173.1	.5 00	2.48	38.3	33.1	2.13	26.7	.01	.00	.05	208
1	243		9 .01	8.98	34.107	26.422	16 4.5	.56 0	2.16	33.2	37.2	2.30	28.6	.01	.00	.04	244
	250	ISL	S .93	8.91	34.12 3	26.446	162.3	.572	2.07	31.8							252
1	284		8 .58	8.5 5	34.185	26.551	152.9	.626	1.64	25.0	43.7	2.49	30; 8	.00			286
	300	ISL	8 .46	8.43	34.20 2	26.583	150.1	.650	1 .46	22.2							302
1	330		g .24	8.22				.694	1.17	17.7	49.8	2.74	32.8	.00			332
1	3 71		7 .86	7.83	34.264	26.722	137.9	.752	.94	14.1	55.4	2.89	34.3	.00			373

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 91 36

LATITUDE	LONGITUDE	DAY/MG/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	W ET	OUD	T
33 06.8	118 15.2 w	07/11/85	0045 GMT	1110 M	280 14 KT	300 02 04	0	1015.7 MB 19	.0 C	.5 C	o/a	

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO 2 UG/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	18.88	18.88	33.666	24.033	387.0	.000	5.66	106.5							o
1	1		18.88	18.88	33.666	24.033	386.9	.004	5.66	106.5	2.0	.39	.2	.00	,23	.05	1
	10	ISL	18.83	18.83	33.663	24.043	386.3	.039	5.67	106.6							10
\1	12		18.82	18.82	33.662	24.046	386.1	.046	5.68	106.7	1.9	.36	.1	.00	.26	.09	12
	20	ISL	18.64	18.64	33.649	24.082	383.0	.077	5.71	106.9							20
1	23		18.55	18.57	33.645	24.094	381.9	.088	5.72	106.9	1.8	.35	.1	.00	.29	.08	23
	3Q	ISL	15.94	15.94	33.456	24.575	336.2	.114	6.23	110.6							30
1	32		15.18	15.18	33.418	24.715	322.9	.120	6.36	111.1	2.7	.42	.1	.00	.33	.14	32
1	43		13.42	13.41	33.393	25.066	289.7	.153	6.19	104.3	3.9	.60	.4	.10	.97	.60	43
	50	ISL	12.60	12.59	33.463	25.282	269.2	.174	5.37	89.0							50
1	53		12.36	12.35	33.493	25.353	262.6	.181	5.04	83.1	7.5	.87	7.9	.14	.39	.51	53
1	64		11.88	11.87	33.531	25.473	251.4	.209	4.68	76.4	10.1	1.07	11.1	.03	.23	.33	64
1	74		11.53	11.53	33.573	25.570	242.4	.234	4.37	70.9	12.3	1.22	12.9	.02	.13	.27	74
	75	ISL	11.50	11.49	33.578	25.579	241.5	.237	4.34	70.3							76
1	91		11.14	11.13	33.634	25.690	231.4	.274	3.97	63.8	15.3	1.39	16.0	.01	.08	.16	91
	100	ISL	10.85	10.83	33.686	25.782	222.8	.295	3.68	58.9							101
1	105		10.70	10.69	33.711	25.828	218.4	.305	3.55	56.6	19.0	1.59	19.0	.01	.03	.10	105
1	125		10.03	10.01	33.803	26.016	201.0	.349	3.15	49.5	24.0	1.81	22.5	.01	.01	.06	126
1	150		9.69	9.67	33.893	26.143	189.3	.397	2.82	44.0	27.9	1 .98	24.6	.01	.00	.05	151
1	181		9.40	9.37	33.983	26.262	178.6	.454	2.56	39.7	31.3	2.13	26.3	.01			182
	200	ISL	9.05	9.03	34.025	26.3 50	170.5	.487	2.54	39.0							201
1	213		8.83	8.80	34.051	26.406	165.3	.509	2.52	38.6	35.6	2.23	28.0	.01			214
1	243		8; 59	8.57	34.119	26.496	157.3	.557	2.12	32.3	40.1	2.39	29.5	.01			244
	250	ISL	8.53	8.51	34.132	26.516	155.6	.568	2.02	30.8							252
1	282		8.26	8.23	34.174	26.591	148.9	.617	1.64	24.8	45.9	2.59	31.6	.01			284
	300	ISL	8.10	8.07	34.184	26.624	146.1	.643	1.51	22.8							302
1	344		7.71	7.67	34.201	26.694	139.9	.706	1.25	18.7	53.4	2.80	34.0	.01			346
	400	ISL	7.31	7.27	34.251	26.792	131.4	.782	.81	12.0							403
1	419		7.19	7.15	34.268	26.822	128.6	.807	.68	10.0	63.2	3.09	36.8	.00			422
1	497		6.71	6.66	34.305	26.917	120.4	.904	.48	7.0	71.5	3.25	38.7	.00			500
	500	ISL	6.69	6.64	34.306	26.921	120.1	.908	.47	6.9							504
1	575		6.14	6.09	34.332	27.014	111.8	.995	.30	4.3	80.7	3.37	40.5	.00			579

H\J NEW HOK1ZON CALCOFI CRUISE 8511 STATION 90 47

LATITUDE		L ONGI	DAY/MO/YR	MESSENGER			WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CUD AMI	TYPF
32 5T.4	M	I 15 04 O	06/11/85	1434	GMT	1552 M	120 03	K1 270	03 05 1	1018.3	16.0	14.5 c	1/8	SC

CAST	DEP	H	T E M p	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	₩	PO4	NO3	NO?	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C					ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	IS	17.17	17.17	33.583	24.387	353.2	.000	5.64	102.6							0
1	1		17.17	17.17	33.583	24.387	353.2	.004	5.64	102.6	2.3	.43	.1	▪00	*14	.06	1
	10	ISL	17.17	17.17	33.584	24 .388	3 5 3.4	.035	5.64	102.6							10
1	11		17.17	17.17	33.584	24.388	353.4	,039	5.64	102.6	2.1	.40	.1	.00	.15	.06	11
	20	IS	17.17	17.17	33.581	24.387	353.9	.071	5.65	102.8							20
				17.17	33.580	24.386	354.0	.077	5.65	102.8	2.2	.37	.1	*oo	.15	.06	22
	JO	IS	16.93	16.93	33.573	24.437	349.4	.106	5.70	103.3							30
1	33		16.85	16.84	33.571	24.455	347.8	.116	5*73	103.6	2.1	.38	.1	.00	.32	.18	33
1	42		13.92	13.91	33*369	24.946	301.1	.14 5	5.81	98.9	4.0	.56	1.9	.23	.82	.52	42
	50	IS	13.61	13.60	33.443	25.066	290.0	.169	5.61	95.0							50
1	53		13.51	13.50	33.445	25.089	287.8	.177	5.49	92.7	5.8	.72	4.8	.21	.41	.45	53
1	63		12.13	12.12	33.526	25.422	256.2	.204	4.85	79.6	9.9	1 .02	0 .8	.03	.13	.30	63
1	73		11.46	11.45	33.569	25.580	241.4	.229	4.48	72.5	12.9	1.23	14.1	.02	.08	▪22	73
	75	IS	11.32	11.31	33.571	25.607	238.9	.235	4.43	71.5							76
1	8V		10.63	10.62	33.594	25.748	225.7	.266	4.16	66.2	16.0	1 .40	17.3	.01	.04	.10	89
	100	IS	10.26	10.25	33.682	25.881	213.3	.291	3.79	59.8							101
1	104		10.17	10.15	33.710	25.919	209.7	.299	3.68	58.0	20.4	1.61	20.5	.01	▪ 03	,07	104
1	124		9.64	9.63	33.772	26.0 56	197.0	.341	3.51	54.7	23.9	1.70	22.3	.00	.01	.05	125
	125	IS	9.62	9.61	33.775	26.061	196.5	.342	3.50	54.5							126
1	150		8.86	8.84	33.892	26.276	176.5	.389	3.19	48.9	29.6	1 .89	25.4	.00	·'-'0	,03	151
1	181		8.33	8.32	33.980	26.426	162.6	.442	2.81	42.6	35.6	2.05	28.1	.00			1=2
	200	IS	8.13	8.11	34.011	26.481	157.7	.472	2.70	40.7							2 01
1	212		8.03	8.01	34.025	26.507	155.4	.490	2.64	39.7	39.6	2.17	29.3	.00			213
1	243		7.75	7.73	34.049	26.568	150.1	.537	2.40	35.9	43.7	2.27	30.6	.00			244
	25C	IS	7.71	7.68	34.060	26.582	148.8	.548	2.29	34.2							252
1	283		7.51	7.49	34.110	26.650	142.9	.597	1.78	26.5	50.6	2*49	33.1	.00			28 5
	300	IS	7.33	7.30	34.117	26.681	140.1	.621	1.63	24.1							30 2
1	345		6.86	6.83	34.135	26 . 760	133.0	.682	1.31	19.2	60.1	2.73	36.2	.00			347
	400	IS	6.75	6.71	34.230	26.852	125.2	.753	.79	11.5							403
1	422		6.74	6.70	34.269	26.885	122.4	.781	.60	8.8	69.0	2.98	38.1	.00			425
1	500		6.35	6.30	34.310	26.969	115.2	.873	.38	5.5	76.9	3.11	39.7	.00			50 3
1	577		5.78	5.73	34.342	27.067	106.4	.958	.32	4.6	87.4	3.20	41.4	.00			581

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 90 53

LATITUDE	LONGITUDE	DAY/NOAYR	MESSENGER	BOTTOM		WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AHT	TYPE
32 39.2	119 29.0 W	06/11/85	1007	GMT	1313 M	350 06	KT		1018.5	MB 1«	.3 C	13.4 C	

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0		16.41	16.41	33.627	24.598	333.1	.000	5.86	105.1	2.8	.46	.2	.00	.31	.21	0
1	10		16.38	16.38	33.627	24.606	332.6	.033	5.90	105.7	2.8	.41	.2	.00	.34	.20	10
	20	ISL	15.82	15.82	33.611	24.722	321.9	.066	5.91	104.7							20
1	21		15.76	15.75	33.610	24.735	320.7	.069	5.91	104.6	3.2	.45	.3	.02	.97	.56	21
	30	ISL	15.30	15.29	33.593	24.825	312.4	.098	5.76	101.0							30
1	31		15.24	15.24	33.592	24.836	311.4	.100	5.74	100.5	3.7	.52	1.4	.10	1.22	.75	31
1	43		13.97	13.96	33.543	25.070	289.4	.136	5.45	93.0	5.9	.70	4.4	.26	.64	.50	43
	50	ISL	13.18	13.18	33.541	25.228	274.6	.157	5.19	87.0							50
1	52		13.01	13.00	33.540	25.262	271.3	.161	5.12	85.6	8.4	.90	7.9	.22	.30	.33	52
1	63		12.44	12.43	33.563	25.392	259.1	.190	4.85	80.2	10.0	1.03	10.1	.14	.22	.28	63
1	73		11.11	11.11	33.622	25.684	231.4	.215	4.15	66.7	15.2	1.35	16.0	.03	.11	.21	73
	75	ISL	10.94	10.93	33.638	25.728	227.3	.220	4.04	64.7							76
1	89		10.34	10.33	33.723	25.898	211.3	.250	3.60	56.9	20.3	1.61	20.1	.02	.05	.13	89
	100	ISL	10.03	10.01	33.772	25.991	202.8	.274	3.41	53.6							101
1	103		9.95	9.94	33.784	26.014	200.6	.281	3.37	52.9	23.3	1.75	22.1	.01	.03	.08	104
1	124		9.43	9.42	33.884	26.178	185.4	.321	2.99	46.4	28.1	1.90	24.8	.01	.02	A .09	A 125
	125	ISL	9.42	9.40	33.886	26.181	185.1	.322	2.98	46.2							126
	150	ISL	8.99	8.97	33.956	26.305	173.7	.367	2.75	42.2							151
1	151		8.97	8.95	33.959	26.311	173.2	.369	2.74	42.1	32.4	2.07	26.7	.01	.00	.05	152
1	182		8.35	8.34	34.019	26.454	160.1	.420	2.59	39.2	37.7	2.18	28.8	.01			183
	200	ISL	7.99	7.97	34.039	26.523	153.7	.449	2.45	36.9							201
1	212		7.79	7.77	34.049	26.562	150.1	.467	2.34	35.0	43.4	2.33	30.8	.01			213
1	243		7.49	7.46	34.081	26.630	144.0	.512	1.97	29.3	49.1	2.49	32.6	.00			244
	250	ISL	7.41	7.39	34.087	26.646	142.7	.522	1.89	28.1							252
1	283		7.11	7.09	34.117	26.711	136.8	.569	1.55	22.8	56.0	2.68	34.8	.00			285
	300	ISL	7.01	6.98	34.144	26.747	133.6	.592	1.34	19.7							302
1	344		6.84	6.81	34.218	26.829	126.5	.649	.84	12.3	64.6	2.95	37.2	.00			346
	400	ISL	6.76	6.73	34.274	26.884	122.1	.718	.57	8.4							403
1	421		6.72	6.68	34.287	26.900	120.9	.744	.53	7.7	70.0	3.10	38.1	.00			424
1	499		6.16	6.11	34.305	26.989	113.0	.835	.40	5.8	79.5	3.21	40.1	.00			502
	500	ISL	6.15	6.10	34.306	26.991	112.9	.836	.40	5.7							504
1	577		5.64	5.59	34.339	27.082	104.7	.920	.32	4.6	88.4	3.32	41.6	.00			581

A. SECOND FLOURONETER READING NOT RECORDED, CHLOROPHYLL AND PHAEOPHYTIN
CALCULATED WITH ASSUMED ACID RATIO INTERPOLATED FROM ADJACENT LEVELS.

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 90 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
32 25.3 N	119 5 7.6 U	06/11/85	0535 GMT	850 M	310 12 KY			1017.5 MB	16.8 C	14.5 C		

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	QiLV P£¥	SIO3 UM/L	PO4 UM/L	NO3 UM/L	MO 2 UM/L	CHL-A UG/L	PHAEO U6/L	PRESS D.BAR
	r		DE6 C	DEC C													
	0	ISL	16.51	16.51	33.472	24.458	346.4	.000	5.72	102.7							0
i	1		16.51	16.51	33.472	24.458	346.4	.003	5.72	102.7	2.1	.46	.2	.00	.13	.06	1
	10	ISL	16.50	16.50	33.470	24.458	346.7	.035	5.72	102.6							
1	11		16.50	16.50	33.470	24.459	346.7	„038	5.72	102.6	2.1	.39	.2	.00	.13	.06	11
	20	I	16.52	16.51	33.476	24.4 59	346.9	.069	5.73	102.8							20
1	22		16.52	16.52	33.478	24.4 59	347.0	.076	5.73	102.9	2.0	o3?	J	.00	.13	A .06 A	22
	30	ISL	16.54	16.54	33.512	24.482	345.1	.104	5.74	103.1							3 2
1	32		16.5 5	16.54	33.525	24.490	344.4	.110	5.74	103.1	1.9	.33	J	.00	.21	.10	32
1	4		15.90	15.90	33.447	24.578	336.3	.148	5.88	104.2	1.9	.35	.1	,00	.24	.15	33
	20	ISL	14.33	14.33	33.292	24.800	315.3	.171	6.11	104.8							50
1	53		13.72	13.71	33.242	24.889	306.8	.180	6.18	104.7	2,0	.39	.1	.00	.24	.25	23
1	67		13.03	13.02	33.224	25.014	295.1	.210	6.06	101.2	2.1	.45	.2	.03	.32	.27	33
1	74		12.58	12.57	33.257	25.127	28 4.6	.241	5.83	96.5	2.9	.52	1.5	.17	.21	.27	73
	75	ISL	12.57	12.56	33.270	25.140	283.4	.245	5.80	95.9							73
1	89		12.32	12.30	33.404	25.292	269.2	.283	5.41	89.1	5,0	.75	6.4	,03	.14	.19	39
	100	ISL	11 .56	11.54	33.426	25.452	254.2	.313	5.06	82.0							101
1	105		11.21	11.19	33.436	25.523	247.4	.324	4.90	78.8	9.3	1.07	11.3	.01	.07	A .13	A 105
1	124		10.0S	10.06	33.654	25.891	212.7	.370	3.90	61.3	19.1	1.51	20.0	.09	.02	,03	'123
	125	ISL	10.05	10.04	33.658	25.898	212.0	.371	3.89	61.0							126
1	1		9 .25	9.24	33.808	26.147	188.7	.422	3.53	54.5	25.3	1.75	23.0	.01	.01	.02	151
1	1*1		8.59	8.58	33.967	26.376	167.5	.476	2.96	45.1	33.3	1 .98	26.9	o00			132
	200	ISL	8.3 5	8.33	33.999	26.438	161.8	.508	2.95	44.7							2 01
1	212		8.25	8.22	34.007	26.461	159.9	.527	2.94	44.4	36.1	2.07	27.7	.01			213
1	243		8.07	8.05	34.046	26.518	155.0	.575	2.51	37.8	40.3	2.23	29.5	,00			242
	25.'3	ISL	7.93	7.91	34.050	26.542	152.7	.586	2.41	36.1							2 32
1	284		7.22	7.20	34.075	26.663	141.4	.637	1.91	28.2	51.7	2.51	33.6	= 01			236
	300	ISL	7.06	7.03	34.102	26.708	137.4	.659	1.64	24.1							30
1	346		6.78	6.75	34.186	26.813	128.0	.720	o0i	13.6	64.0	2.91	37.3	.01			33^
	4 00	ISL	6.54	6.51	34.244	26.890	121.4	.787	,53	8.5							A 03
1	423		6.46	6.42	34.261	26.915	110.3	.815	,52	?o6	72.8	3.11	39.1	o0Q			3 23
	son	ISL	6.04	5.99	34.299	27.000	111.9	.904	,36	5.2							503
1	501		6.03	5.99	34.299	27.000	111.9	.905	,36	5,2	81.0	3.23	40.7	.00			3 33
1	578		5.69	5.64	34.330	27.069	106.1	.989	,29	3,1	88.0	3.31	41.8	,30			332

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 90 70

LATITUDE	LONGI TUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	TYPE
32 05.0	1 20 38.5 W	06/1 1/85	0018 3 Li 3	3787 M	330 19 KT 340	07 05	1	1017.7 MB	17 .O C	14.7 C	3;R	SC

CAST	DEPTH		TE"!P	POT TEMP	SALINITY	SIGMA THETA	sva	DYN HT	OXYGEN ML/L	OH 7 PC?	SI03 UM/L	P8 3 UM/L	333 UK/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRES D.BA
	i*		DEG C	DEG C													
	0	ISL	15.91	15.91	33.546	24.652	328.0	.000	5.82	103.3							0
1	1		15.91	15.91	33.546	24.652	328.0	.003	5.82	103.3	2.4	.44	.0	,00	.33	.15	1
	1r:	ISL	15.90	15.90	33.548	24.655	327.9	.033	5.83	103.4							10
1	11		15.90	15.89	33.548	24.656	327.9	.036	5.83	103.4	2.2	,33	.1	.00	.33	.13	13
	2 0	I	15.77	15.76	33.548	24.685	325.4	.065	5.81	102.7							2 3
1	27		15.61	15.60	33.545	24.719	322.5	.088	5.77	101.8	2.1	.43	,1	.05	.96	,33	37
	30	ISL	15.51	15.51	33.541	24.736	320.8	.098	5.75	101.2							30
1	42		15.15	15.15	33.527	24.805	314.6	.135	5.64	98.6	2.7	.39	.9	.13	. 70	,33	33
	50	I	13.54	13.54	33.369	25.023	294.0	.160	5.54	93.7							12
1	57		12.23	12.23	33.282	25.213	276.0	.179	5.42	89.0	5o0	.79	3.8	, I 2	,26	.32	3 7
1	68		11.78	11 .77	33.363	25.361	262.1	.209	5.06	82.4	8₀1	.97	9,0	023	o17	,26	33
	75	ISL	11 .41	11.40	33.441	25.490	250.0	.228	4.76	76.8							73
1	78		11 .28	11.27	33.470	25.536	245.6	.234	4.65	74.9	11.5	1.16	12.9	,02	JO	,19	73
1	93		10.75	10.74	33.560	25.701	230.2	.270	4.32	68.9	14.7	1.34	15.9	.01	.05	.13	93
	100	ISL	10.52	10.51	33.613	25.782	222.6	.287	4.11	65.3							101
1	108		10.26	10.25	33.672	25.874	214.1	.305	3.86	60.9	19.5	1.59	20.0	.01	o03	,10	109
1	123		9.73	9.72	33.762	26.033	199.1	.336	3.41	53.2	23.6	1.75	22.4	,00	,02	,06	122
	1 2 3	ISL	9.69	9.67	33.770	26.047	197.9	.339	3.38	52.6							123
1	149		9.15	9.13	33.875	26.217	182.1	.385	3.03	46.7	29.1	1.92	25.4	= 00	.00	.03	130
	150	133	9.13	9.11	33.880	26.223	181.6	.386	3.02	46.6							151
1	170		8.74	8.72	33.982	26.365	168.3	.422	2.86	43.7	33.2	2.05	26.9	,00	,00	,03	171
1	190		8.45	8.43	34.009	26.431	162.4	.455	2.89	43.9	35.1	2.09	27.3	,00			121
	200	I	8.37	8.35	34.032	26.461	159.8	.471	2.67	40.5							231
1	210		8.31	8.29	34.052	26.487	157.4	.486	2.42	36.6	38.9	2.24	29.3	,00			211
1	242		7.94	7.91	34.075	26.560	150.9	.535	2.17	32.6	43.6	2.39	30.9	,01			233
	250	ISL	7.78	7.75	34.071	26.580	140.0	.548	2.16	32.4							232
1	282		7.15	7.12	34.054	26.657	141.9	.595	2.12	31.3	51.0	2.50	33.1	o0l			233
	300	ISL	6.90	6.87	34.062	26.697	13 3.3	.620	1 .91	28.1							303
1	345		6.49	6.46	34.109	26.790	129.9	.680	1.26	18.3	63.7	2.83	37.5	,00			337
	300	SSL	6.47	6.43	34.225	26.885	121.7	.749	.67	9.8							3 0S
1	421		6.45	6.42	34.264	26.917	119.0	.775	,51	7 .3	72.4	3.10	39.1	a 00			3 33
1	499		5.92	5.87	34.305	27.020	109.9	.863	o33	3,7	82.8	3.28	41 .0	.00			033
	500	ISL	5.91	5.86	34.306	27.022	109.7	.865	.33	3₀7							303
1	578		5.53	5.48	34.345	27.099	103.0	.948	.26	3o7	91 .8	3.33	42.0	,00			502

A. SECOND FLOUROMETER READING NOT RECORDED, CHLOROPHYLL AND PHAEOPHYTIN CALCULATED WITH ASSUMED ACID RATIO INTERPOLATED FROM ADJACENT LEVELS.

RV Urw HORIZON — CALCOFI CRUISE 8511 — STATION 90 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTO*	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
31 44.9 si	121 19.5	05/1 1/85	1751 GMT	3695 M	340 13 KT	3 50	D3 04 t	1021.0 MB	16 .3 C	13.5 C	7/S	sc

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY THETA	SIGMA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	S1 o 3 UM / L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAK
	D	ISi	17.14	17.14	33.44?	24 if Al	362.7	.000	5.60	101.7							0
1	1		17.14	17.14	! 3 ..««	24.288	36 2.7	.004	5.60	101 .7	1.7	.32		.00	.10	.04	1
	10	ISL	17.13	17.13	3 3.441	24.289	362.8	.036	5.64	102.5							10
1	12		17.13	17.13	33.441	24.290	362.9	.043	5.65	102.6	1.7	.33	.2	.00	.10	.05	12
	20	ISL	17.13	17.12	33.439	24.289	363.2	.073	5.64	102.5							20
1	27		17.12	17.12	33.438	24.289	363.4	.098	5.64	102.4	1.7	.33	.1	.00	.10	.04	27
	30	ISL	17.12	17.11	33.438	24.290	363.4	.109	5.63	102.3							30
1	37		17.10	17.09	33.436	24.293	363.3	.134	5.62	102.0	1.7	.34	.1	.00	.10	.04	37
1	48		17.05	17.05	33*4216	24.297	363.4	.174	5.61	101.7	i.7		.1	.00	.12	.06	48
	50	ISL	17.01	17.00	33.422	24.304	362.8	.182	5.62	101 .8							50
1	58		16.86	16.85	33.408	24.329	360.6	.210	5.66	102.2	1.9	.31	.1	.00	.15	.08	58
1	73		14.94	14.93	33.316	24.689	326.5	.261	6.17	107.2	2.0	.34	.1	.00	.19	.18	73
	75	ISL	14.61	14.60	33.282	24.736	322.2	.268	6.17	106.4							76
1	89		12.97	12.96	33.158	24.974	299.6	.311	6.15	102.5	2.4	.40	.4	.06	.32	.37	89
	too	ISL	12.69	12.67	33.291	25.134	284.7	.344	5.72	94.9							101
1	104		12.66	12.64	33.345	25.182	280.2	.35*	5.56	92.2	4.0	.55	3.2	.17	.15	.27	104
1	.124		11.38	11.36	33.452	25.505	249.7	.409	4.83	78.0	9.0	.92	10.9	.03	.08	.15	125
	125	I	11.35	11.34	33.457	25.514	248.9	.411	4.81	77.7							126
1	149		10.33	10.32	33.651	25.845	217.7	.468	4.17	65.9	16.2	1 .22	16.8	.01	.03	.06	150
	15C	ISL	10.31	10.29	33.655	25.853	217.1	.469	4.16	65.7							151
1	170		9.62	9.60	33.740	26.036	199.9	.511	3.79	59.0	21.5	1.51	20.5	.01	.01	.03	171
1	190		9.18	9.16	33.854	26.197	184.9	.549	3.15	48.6	27.9	1 .80	24.7	.01			191
	200	ISL	8.96	8.94	33.899	26.266	178.5	.567	3.05	46.8							201
1	211		8.74	8.72	33.939	26.332	172.3	.587	3.00	45.8	31.4	1.93	26.3	.01			212
1	241		8.32	8.29	34.009	26.452	161.3	.636	2.71	41.0	36.8	2.12	28.2	.01			242
	250	ISL	8.18	8.16	34.029	26.489	158.0	.651	2.56	38.6							252
1	281		7.76	7.73	34.089	26.599	147.9	.699	2.01	30.1	46.0	2.39	31 .8	.00			283
	300	ISL	7.58	7.55	34.115	26.645	143.7	.726	1.74	25.9							302
1	343		7.2 5	7.22	34.163	26.729	136.2	.786	1.23	18.2	56.1	2.75	35.0	.00			345
	400	ISL	6.88	6.85	34.222	26.827	127.6	.862	.79	11.5							403
1	418		6.77	6.74	34.237	26.854	125.3	.885	.69	10.1	66.5	3.03	37.5	.00			421
1	494		6.32	6.28	34.280	26.948	117.1	.976	.45	6.5	75.3	3.17	39.4	.00			497
	500	ISL	6.28	6.23	34.282	26.956	116.4	.983	.44	6.3							504
1	565		5.67	5.62	34.297	27.045	108.2	1.061	.36	5.1	85.8	3.33	41.3	.00			573

RV NEW HORIZON — CALCOFI CRUISE 8511 — STATION 90 90

LATITUDE	LON6ITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
31 25.3	121 59.9 W	05/11/85	1221 6MT	3975 M	330 11 KT			1019.5 MB	16 .1 C	13.7 C		

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY THETA	SIGMA	SVA	DYN HT	OXYGEN NL/L	OXY PCT	SI 03 0M/L	PO4 UM/L	NO3 UM/L	NO 2 UM/L	CHL-A UG/L	PHAEO U6/L	PRESS D.BAR
	0	ISL	17.53	17.53	33.418	24.177	373.2	.000	5.59	102.3							0
1	1		17.53	17.53	33.418	24.177	373.3	.004	5.59	102.3	1.9	.39	.1	.00	.08	.03	1
	10	ISL	17.55	17.55	33.423	24.174	373.8	.037	5.58	102.2							10
1	11		17.55	17.55	33.423	24.174	373.8	.041	5.58	102.2	1.6	.39	.1	.00	.08	.03	11
	20	ISL	17.55	17.55	33.420	24.174	374.2	.075	5.59	102.4							20
1	27		17.54	17.54	33.418	24.173	374.5	.101	5.60	102.5	1.7	.37	.1	.00	.09	.03	27
	30	ISL	17.47	17.47	33.416	24.189	373.1	.112	5.61	102.6							30
1	42		17.20	17.19	33.411	24.250	367.6	.156	5.67	103.1	1.6	.36	.1	.00	.15	.07	42
	50	ISL	15.32	15.31	33.268	24.569	337.4	.185	5.99	104.8							50
1	58		13.51	13.50	33.177	24.882	307.6	.210	6.22	104.9	1.6	.36	.1	.00	.32	.35	58
1	68		12.86	12.85	33.195	25.024	294.3	.240	6.02	100.2	2.6	.46	.7	.09	.28	.38	68
	75	ISL	12.18	12.17	33.195	25.156	282.0	.261	5.79	94.9							76
1	79		11.86	11.85	33.195	25.215	276.2	.271	5.67	92.4	3.7	.60	3.8	.05	.15	.26	79
1	94		11.55	11.53	33.254	25.320	266.6	.312	5.42	87.7	5.6	.75	6.5	.02	.10	.19	94
	100	ISL	11.40	11.39	33.301	25.383	260.8	.328	5.26	85.0							101
1	110		11.15	11.14	33.386	25.494	250.4	.353	4.99	80.1	8.6	.96	10.3	.01	.06	.14	110
1	124		10.58	10.56	33.538	25.715	229.6	.389	4.48	71.1	13.2	1.19	14.7	.01	.03	.07	125
	125	ISL	10.55	10.54	33.543	25.723	228.9	.390	4.46	70.8							126
1	150		9.65	9.63	33.740	26.030	200.0	.444	3.70	57.6	21.7	1.51	21.2	.01	.01	.03	151
1	171		9.27	9.25	33.822	26.157	188.3	.485	3.35	51.8	25.4	1.72	23.6	.01	.01	.02	172
1	192		8.86	8.84	33.908	26.289	176.1	.523	3.12	47.8	29.3	1.88	25.3	.00			193
	200	ISL	8.69	8.67	33.938	26.338	171.5	.536	3.07	46.8							201
1	213		8.43	8.41	33.979	26.410	164.8	.558	2.98	45.2	33.5	2.02	27.0	.00			214
1	244		8.08	8.05	34.036	26.510	155.7	.608	2.63	39.6	38.4	2.16	29.0	.00			245
	250	ISL	8.01	7.99	34.049	26.529	154.0	.617	2.51	37.8							252
1	284		7.70	7.67	34.110	26.623	145.6	.669	1.88	28.1		2.44	32.3	.00			286
	300	ISL	7.56	7.53	34.123	26.654	142.8	.691	1.77	26.4							302
1	347		7.14	7.11	34.152	26.736	135.5	.757	1.57	23.2	56.7	2.73	35.2	.01			349
	400	ISL	6.75	6.71	34.209	26.835	126.8	.826	.96	14.0							403
1	424		6.60	6.56	34.234	26.875	123.1	.857	.68	9.9	68.3	3.02	38.3	.01			427
	500	ISL	6.21	6.17	34.283	26.965	115.5	.947	.41	5.9							504
1	502		6.20	6.16	34.283	26.966	115.3	.949	.41	5.9	76.4	3.19	39.8	.01			505
1	579		5.70	5.65	34.316	27.056	107.3	1.035	.32	4.6	84.8	3.25	41.3	.01			583

PV NHW HORIZON CALCOFI CRUISE 8511 STATION 90 100

LATITUDE	L	ONGITUDF	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	OUD	TYPE
31 05.S	4	22 39.7 u	05/1 1/P5	0644 GMT	3569 M	340 12 KT			1019.0 MB 1fc	.5 C	15.2 C		

CAST	D	H	TEMP	POT TECP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO?	NO2	CHL-A	PHAEO	PRTS
	M		DE6 C	DE6 C		THETA			HL/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	U*/l	D.BA
	o	ISL	17.96	17.96	33.403	24.061	384.2	.000	5.52	101 .9							II
1	1		17.96	17.96	33.403	24.061	384.3	.004	5.52	101 .9	1.9	.38	.1	.00	.08	.03	1
	10	ISL	17.96	17.96	33.401	24.058	384.9	.038	5.55	1C2.4							10
1	11		17.97	17.96	33.401	24.058	384.9	.042	5.55	102.4	1 .8	.3*	.1	.00	.08	.02	11
	20	ISL	17.95	17.95	33.400	24.061	384.9	.077	5.56	102.5							20
1	27		17.94	17.93	33.400	24.065	384.8	.104	5.56	102.5	1.8	.36	.1	.00	.08	.03	27
	30	ISL	17.93	17.92	33.401	24.067	384.7	.115	5.56	102.4							30
1	42		17.90	17.89	33.401	24.074	384.4	.161	5.54	102.1	1.8	.35	.1	.00	.11	.05	4?
	50	ISL	16.41	16.40	33.338	24.379	35 5.5	.191	5.90	105.7							50
1	58		14.82	14.81	33.282	24.688	326.1	.218	6.24	108.1	2.0	.35	.1	.00	.16	.11	58
1	68		13.83	13.82	33.200	24.834	312.5	.250	6.25	106.1	2.1	.37	.1	.00	.19	.20	68
	75	ISL	13.36	13.35	33.260	24.976	299.1	.272	6.05	101.7							76
1	78		13.23	13.22	33.291	25.026	294.4	.280	5.96	100.0	2.6	.40	.3	.08	.22	.27	78
1	94		12.87	12.86	33.359	25.150	283.0	.326	5.67	94.4	3.2	.49	2.0	.15	.15	.24	94
	100	ISL	12.64	12.62	33.404	25.231	275.4	.343	5.53	91.6							101
1	109		12.28	12.26	33.464	25.347	264.6	.367			5.4	.66	6.2	.02	.10	.17	109
1	124		11.59	11.57	33.520	25.520	248.4	.407	4.89	79.3	8.3	.87	9.7	.02	.06	.15	125
	125	ISL	11.56	11.54	33.522	25.528	247.7	.409	4.87	79.0							126
1	150		10.08	10.06	33.646	25.884	213.9	.467	4.17	65.5	16.4	1.29	17.3	.01	.02	.03	151
1	170		9.51	9.49	33.753	26.064	197.1	.508	3.86	59.9	21.5	1.57	20.9	.01	.01	.02	171
1	191		9.09	9.07	33.839	26.198	184.7	.548	3.48	53.6	25.6	1.72	23.4	.00			192
	200	ISL	8.91	8.88	33.877	26^257	179.3	.564	3.38	51.9							201
1	212		8.67	8.65	33.920	26.328	172.7	.585	3.29	50.2	29.4	1 .86	25.2	.00			213
1	243		8.20	8.18	33.979	26.446	161.8	.637	3.11	46.9	33.9	1.98	27.0	.00			244
	250	ISL	8.09	8.06	33.989	26.471	159.6	.648	3.04	45.7							252
1	284		7.57	7.54	34.022	26.573	150.2	.702	2.61	38.8	42.4	2.25	30.3	.00			286
	300	ISL	7.34	7.31	34.033	26.614	146.5	.725	2.40	35.5							302
1	347		6.73	6.70	34.058	26.718	136.9	.791	1.77	25.8	55.3	2.61	35.0	.00			349
	400	ISL	6.22	6.18	34.092	26.812	128.4	.862	1.24	17.9							403
1	424		6.02	5.98	34.110	26.852	124.8	.892	1.04	14.9	69.3	2.96	39.2	.00			427
	500	ISL	5.45	5.41	34.188	26.984	112.7	.982	.58	8.2							504
1	502		5.44	5.40	34.189	26.986	112.4	.984	.57	8.1	82.9	3.14	41.8	.00			505
1	577		5.15	5.10	34.250	27.069	105.2	1.066	.38	5.3	91.0	3.28	42.8	.00			581

RV NFU HORIZON CALCOFI CRUISE 8511 STATION 90 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET CL	OUD	T
30 44.9	123 20.0 W	05/11/85	0108 GMT	4034 M	300 09 KT	310 04 04	2	1018.4 MB 17	.8 C	14.0 C	3/8	SC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DE6 C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0		18.66	18.66	33.664	24.088	381.7	.000	5.46	102.3	2.0	.37		.00	.07	.02	0
1	10		18.66	18.66	33.660	24.085	382.3	.038	5.51	103.2	1.9	.33		.00	.06	.02	10
	20	ISL	18.68	18.68	33.673	24.089	382.3	.076	5.49	102.9							20
1	26		18.70	18.70	33.681	24.091	382.3	.099	5.47	102.5	1.9	.32	.1	.00	.06	.01	26
	30	ISL	18.71	18.71	33.688	24.094	382.2	.115	5.47	102.5							30
1	41		18.74	18.73	33.706	24.101	381.9	.156	5.46	102.4	1 .8	.30		.00	.07	.02	41
	50	ISL	18.77	18.76	33.717	24 .102	382.2	.191	5.44	102.2							50
1	57		18.79	18.78	33.724	24.102	382.4	.217	5.43	102.0	1.8	.30	.1	.00	.09	.04	57
1	67		18.60	18.58	33.706	24.138	379.3	.255	5.51	103.1	1.8	.28	.1	.00	.11	.04	67
	75	ISL	15.75	15.74	33.431	24.600	335.2	.284	6.03	106.6							76
1	77		15.10	15.09	33.381	24.706	325.1	.290	6.14	107.1	1.9	.31	- 0	.00	.14	.10	77
1	93		13.63	13.62	33.290	24.945	302.6	.340	6.02	101.8	2.2	.35	.1	.01	.23	.20	93
	100	ISL	13.39	13.38	33.294	24.997	298.5	.362	5.98	100.6							101
1	108		13.25	13.24	33.299	25.029	295.0	.385	5.91	99.2	2.4	.38	.4	.08	.19	.19	108
1	124		12.76	12.74	33.398	25.203	278.7	.430	5.54	92.1	3.8	.51	2.8	.09	.15	.16	124
	125	ISL	12.70	12.69	33.413	25.226	276.6	.435	5.50	91.3							126
1	148		11.75	11.73	33.615	25.564	244.8	.496	4.87	79.3	8.1	.79	9.1	.01	.07	.10	149
	150	ISL	11.67	11.66	33.617	25.580	243.3	.499	4.84	78.8							151
1	170		10.75	10.72	33.635	25.762	226.2	.547	4.56	72.7	12.3	1.04	13.2	.01	.04	.08	171
1	191		9.89	9.87	33.770	26.014	202.5	.592	4.17	65.3	18.6	1.31	17.8	.00			192
	200	ISL	9.54	9.51	33.800	26.096	194.8	.609	3.90	60.7							201
1	210		9.16	9.14	33.827	26.178	187.1	.629	3.61	55.6	24.7	1.62	22.4	.00			211
1	242		8.33	8.31	33.961	26.412	165.1	.685	3.20	48.4	32.6	1 .87	26.3	.00			243
	250	ISL	8.18	8.16	33.979	26.449	161.7	.698	3.12	47.1							252
1	284		7.67	7.65	34.019	26.555	151.9	.750	2.79	41.6	40.9	2.12	29.3	.00			285
	300	ISL	7.44	7.41	34.031	26.598	148.0	.775	2.55	37.8							302
1	344		6.88	6.85	34.053	26.694	139.2	.838	1.87	27.4	53.5	2.51	34.2	.00			346
	400	ISL	6.32	6.28	34.093	26.800	129.6	.914	1.24	17.9							403
1	423		6.13	6.10	34.112	26.839	126.1	.942	1.04	15.0	67.1	2.85	38.6	.01			425
1	500		5.61	5.57	34.188	26.965	114.7	1.035	.57	8.1	79.9	3.10	41.1	.00			503
1	578		5.31	5.26	34.255	27.054	106.9	1.122	.35	4.9	89.2	3.25	42.3	.00			582

RV NEW HORIZON STATION 90 120

LATITUD	LONG I TUDF.	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT TYPE
30 2 i	24 00.0 W	04/11/85	1942 GMT G M T	4302 M	340 06 KT 3 40	04 04	2	1019.8 MB 18.8 C	15.2 C	8/8	SC

CAST	DEPTH		TEMP	r. V r.	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI 03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEC; C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D. BAR
	D	I SL	18 .70	1 8 .70	33.634	24.053	385.0	.000	5.45	102.1							G
1	1		18.70	18.70	33.634	24.053	385.0	.004	5.45	102.1	2.3	.43		.00	.07	.02	1
	10	ISL	18.70	18.69	33.631	24.053	385.3	.039	5.46	102.3							10
1	11		18.70	18.69	33.631	24.053	385.4	.042	5.46	102.3	2.1	.40	.1	.00	.07	.02	11
	2 0	ISL	18.70	18.69	33.631	24.053	385.7	.077	5.46	102.3							20
1	27		18.70	18.69	33.631	24.054	385.9	.104			2.0	.38	.1	.00	.07	-02	27
	30	ISL	18.70	18.69	33.631	24.054	38 5.9	.116	5.46	102.3							30
1	42		18.69	18.68	33.631	24.057	386.1	.161	5.46	102.3	1.9	.37	.1	.00	.06	.03	4?
	50	ISL	18.62	18.61	33,618	24.063	385.8	.193	5.49	102.7							50
1	58		18.56	18.55	33.605	24.070	385.5	.223	5.52	103.1'	2.0	.37	▪ 1	.00	.12	.03	58
1	68		16.01	15.99	33.455	24.562	338.7	.259	6.14	109.1	2.1	.36	.1	.00	.12	.06	68.
	75	ISL	15.05	15.04	33.430	24.755	320.4	.283	6.11	106.4							76
1	79		14.73	14.72	33.426	24.820	314.3	.295	6.09	105.4	2.1	.38	.1	.00	.14	.11	7°
1	94		13.80	13.79	33.408	25.002	297.3	.340	5.92	, 100.6	2.4	.41	.2	.01	.19	.19	94
	100	ISL	13.61	13.60	33.427	25.055	292.4	.359	5.82	98.5							101
1	110		13.31	13.29	33.456	25.139	284.5	.387	5.65	95.0	3.3	.51	1.5	.17	.16	.19	110
1	125		12.25	12.23	33.455	25.347	265.0	.428	5.32	87.5	5.3	.70	5.4	.0?	.10	.13	125
1	.150		11.19	11.18	33.677	25.714	230.4	.49 2	4.71	75.8	10.6	.99	11.4	.01	.04	.06	151
1	171		10.41	10.39	33.727	25.892	213.9	.538	4.39	69.5	15.0	1 .24	15.2	.01	.02	.04	172
1	191		9.65	9.63	33.759	26.045	199.4	.579	4.00	62.3	20.6	1.52	19.5	.00			192
	200	ISL	9.36	9,34	33.798	26.124	192.T	.597	3.81	59.0							201
1	212		9.02	9.00	33.857	26.223	182.7	.619	3.59	55.2	26.3	1.74	22.9	.01			213
1	243		8.46	8.44	33.963	26.394	166.9	.673	3.44	52.2	31.1	1.89	25.0	.01			244
	250	ISL	8.35	8.32	331975	26.420	164.5	.685	3.42	51.8							252
1	2 84		7.84	7.82	34.003	26.518	155.5	.738	3.23	48.4	37.7	2.05	27.2	.00			285
	300	ISL	7.57	7.54	34.015	26.568	150.9	.764	2.94	43.8							302
1	345		6.88	6.84	34.046	26.689	139.7	.829	2.04	29.9	53.9	2.49	33.6	.00			347
	400	ISL	6.41	6.37	34.089	26.786	131.0	.904	1.33	19.3							403
1	422		6.26	6.23	34.106	26.818	128.2	.931	1.13	16.3	66.9	2.87	38.1	.00			424
1	498		5.55	5.51	34.162	26.952	115.8	1.025	.66	9.4	81.7	3.11	41.1	.00			501
	500	ISL	5.53	5.49	34.164	26,955	115.5	1 .027	.65	9.2							504
1	574		5.01	4.96	34.217	27.059	105.9	1.109	.46	6.4	94.3	3.27	42.7	.00			578

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRV	WET	CLOUO	TYPE
32 57.1 N	117 18.3 W	01/11/85	1943 GMT	55 M	280 06 KT 280	03 05	4	1013.0 MB 19.0 C	15.4 C			

CAST	DEPTH		TE"P	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXV6EN	OXY	SIO3	PO4	NO 3	NO2	CHL-A	PHAEO	PRES
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UN/L	UG/L	UG/L	DBAR
1	0		19.11	19.11	33.652	23.964	393.5	.000	5.52	104.3	1.4	.29	.0	.00	.23	.05	0
1	10		18.50	18.50	33.628	24.099	380.9	.039	5.70	106.4	1.5	.29	.0	.00	.28	.09	10
	20	ISL	15.19	15.19	33.420	24.714	322.6	.074	6.26	109.3							20
1	21		14.86	14.86	33.407	24.775	316.8	.077	6.28	109.0	2.8	.41	.0	.03	.82	.36	21
	30	ISL	13.37	13.36	33.400	25.082	288.1	.104	5.44	91.5							30
1	31		13.28	13.28	33.399	25.098	286.3	.107	5.34	89.7	6.0	.81	.3	.63	.50	.45	31
1	41		12.83	12.83	33.443	25.221	274.8	.135	5.18	86.3	6.8	.85	2.0	.60	.29	.44	41

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 29

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AHT	TYPE
32 52.5 N	117 28.1 W	01/11785	2216 GMT	651 M	350 04 KT 270	03 06	4	1011.0 MB 19	.9 C	17.5 C		

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DE6 C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	19.57	19.57	33.668	23.859	404.3	.000	5.61	106.9							0
1	1		19.57	19.57	33.668	23.859	403.6	.004	5.61	106.9	2.3	.48	.0	.00	▪25	.07	1
	10	ISL	19.31	19.31	33.662	23.922	397.9	.040	5.63	106.7							10
1	11		19.28	19.28	33.661	23.928	397.3	.044	5.63	106.7	2.2	.44	.0	.00	.27	.08	11
	20	ISL	19.01	19.00	33.641	23.983	392.3	.080	5.73	108.0							20
1	21		18.98	18.97	33.639	23.989	391.8	.083	5.74	108.1	2.1	.42	.0	.00	.31	.09	21
	30	ISL	14.61	14.61	33.410	24.831	311.7	.115	6.38	110.2							30
1	51		14.16	14.16	33.400	24.919	303.4	.118	6.43	110.0	3.1	.53	.0	.00	.32	.23	31
1	42		13.01	13.00	33.426	25.174	279.4	.150	5.80	96.9	4.6	.67	1.4	.33	.61	.60	42
	50	ISL	12.56	12.55	33.460	25.289	268.6	.172	5.34	88.5							50
1	52		12.48	12.47	33.468	25.310	266.7	.177	5.25	86.8	7.1	.88	6.3	.16	.26	.48	52
1	62		11.99	11.98	33.520	25.444	254.1	.203	4.80	78.6	9.5	1.02	9.7	.03	.18	.33	62
1	72		11.58	11.57	33.561	25.552	244.0	.228	4.45	72.2	11.7	1.19	12.2	.02	.10	.26	72
	75	ISL	11.43	11.42	33.577	25.592	240.2	.236	4.33	70.1							76
1	87		10.97	10.96	33.634	25.719	228.4	.263	3.97	63.6	15.3	1.40	16.3	.02	.06	.26	87
	100	ISL	10.74	10.73	33.675	25.792	221.7	.293	3.74	59.6							101
1	103		10.70	10.69	33.682	25.804	220.6	.299	3.70	59.0	18.1	1.49	18.0	.02	.03	.13	103
1	123		9.97	9.95	33.776	26.005	201.9	.343	3.24	50.8	23.5	1.69	22.1	.01	.01	.06	124
	125	ISL	9.93	9.91	33.784	26.017	200.8	.346	3.21	50.4							126
1	148		9.57	9.55	33.891	26.161	187.6	.391	2.89	45.0	27.6	1.89	24.6	.01	.00	.04	149
	150	ISL	9.56	9.54	33.900	26.169	186.8	.394	2.86	44.5							151
1	179		9.34	9.32	34.027	26.305	174.4	.447	2.43	37.7	32.5	2.12	26.9	.01			180
	200	ISL	8.95	8.93	34.069	26.401	165.7	.482	2.34	35.9							201
1	209		8.80	8.78	34.083	26.436	162.5	.497	2.30	35.2	36.9	2.22	28.6	.01			210
1	240		8.72	8.69	34.148	26.500	157.0	.546	1.88	28.7	40.3	2.37	30.0	.01			241
	250	ISL	8.64	8.61	34.163	26.524	154.9	.562	1.78	27.1							252
1	281		8.34	8.32	34.196	26.595	148.6	.610	1.51	22.9	45.4	2.56	32.1	.01			283
	300	ISL	8.14	8.11	34.207	26.635	145.1	.637	1.37	20.6							302
1	343		7.68	7.64	34.228	26.720	137.5	.698	1.06	15.8	54.2	2.81	34.8	.01			345
	400	ISL	7.22	7.18	34.281	26.828	127.9	.774	.63	9.3							403
1	420		7.07	7.03	34.299	26.862	124.8	.799	.50	7.4	65.9	3.07	37.9	.01			423
1	497		6.49	6.44	34.321	26.959	116.3	.891	.36	5.2	74.8	3.20	39.9	.01			500
	500	ISL	6.46	6.41	34.322	26.964	115.9	.895	.35	5.1							504
1	573		5.81	5.76	34.344	27.065	106. 5	.976	.24	5.4	86.8	3.34	41.7	.01			577

RV NfW HORIZON | CALCOH CRUISE 8511 | STATION 93 30

L. ATI T t j D F.	DAY/MO/YR	MESSENGER	BOTTOM	WIND SP EED	WAVES	WEATHER	BAROMFTER	DRY	WET	CLCUD AMI	TYP
32 50.4 N 1 17 3.3.2 W	0?/11/85	0104 GMT	858 M	020 05 KT 260	03 06	4	1010.0 MB 20.0 C 17.9 C				

CAST	DEPTH		TEMP	POT TEMP	SALINIT f	SI6MA	SVA	DYN HT	OXYGEN	OXV	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	^RF.) . B
	M		DEG C	DEG C		TMETA			ML/L	PC?	UM/L	UM/L	UM/L	UM/L	UG/L	UP/L	
	0	ISL	19.68	19.68	33.673	23.835	406.7	.000	5.58	106.5							0
			19.68	19.68	33.673	23.835	405.8	.004	5.58	106.5	1.9	.35	.1	-60	.28	.06	1
			19 37	19.36	33.673	23.91$	398.4	.040	5.66	107.5							10
1	11		19.33	19.33	33.673	23.924	397.7	w044	5.67	107.6	1.8	-30	.1	.00	.27	.08	11
	20	ISL		17.52	33.533	24.266	365.4	.079	6.12	112.1							20
1	21			17.27	33.516	24.312	361.0	.082	6.17	112.4	1 .8	.33	.0	.00	.-37	.13	21
	30	ISL	14.55	14.54	33,389	24.829	311.9	.112	6.42	110.7							30
1	31		14.30	14.29	33.384	24.879	387.2	.115	6.44	110.5	2.8	-*f	.0	*00	.33	.18	31
1	41		12 .94	12.94	33.421	25.183	278.4	.144	5.76	96.1	4.6	.61	2.1	.35	.72	.68	41
	50	ISL	12.34	12.33	33.466	25.335	264.2	.169	5.14	84.7							5(1
1	52		12*26	12.26	33.475	25.357	262.2	.174	5.03	82.8	7-5	.87	8.1	.07	-24	,,40	52
1	62		11.78	11.77	33.529	25.491	249.7	.199	4.61	75 -1	#.9	1.03	11.2	.02	.12	.26	62
1	72		11.43	11.43	33.571	25.586	240.8	.224	4.35	70.4	12-3	1.16	13.3	.02	▪0*	.20	72
	75	ISL	11.36	11.36	33.584	25.609	238*6	.232	4.26	68-*							76
1	88		11.15	11.14	33.631	25.685	231.8	.261	3.97	63.9	15.2	1.32	15.5	-0f	*05	.16	88
	100	ISL	10.90	10.89	33.666	25.757	225.2	.290	3.78	60.5							101
1	104		10.82	10.80	33.675	25.77?	223.1	.298	3-7*	59.6	T7.4	1 .44	17.6	.01	.03	.11	104
1	123		10.14	10.12	33.748	25.954	206.8	.340	3.38	53.2	21.5	1.61	21.0	.01	-02	.09	124
	125	ISL	10.10	10.08	33.756	25.967	205.6	.344	3.35	52.7							126
1	149		9.63	9.61	33.871	26.136	189.9	.392	2.96	46.1	26.6	1 .85	24.2	-01	.01	.04	150
	15 0	ISL	9.61	9.59	33.875	26.141	189.5	.395	2.95	45.9							151
1	180		9.14	9.12	34.001	26.317	173.3	.448	2.57	39.6	32.3	2.05	26.7	.01			181
	200	ISL	8.89	8.87	34.064	26.406	165.1	.481	2.35	36.0							201
1	211		8.78	8.76	34.093	26.4 46	161.5	.499	2.23	34.1	37.0	2V2f-	28-6	-00			212
1	242		8.59	8.56	34.155	26.526	154.5	-548	1.85	28.2	41.5	2V59	30.3	.00			243
	25C	ISL	8.54	8.51	34.170	26.545	152.8	.560	f-74	26.6							252
1	281		8.32	8.29	34.219	26.617	146.5	.607	1.37	2 0.8	4.7-fl	2.59	32.1	.00			283
	300	ISL	8.14	8.11	34.239	26.661	142.6	.634	1.17	17.7							302
1	343		7.69	7.65	34.270	26.752	134.4	.694	-82	12.3	56.4	2.86	35.0	.00			345
	400	ISL	7.23	7.19	34.282	26.826	128.0	.769	.63	9-3?							403
1	421		7.07	7.03	34.284	26.850	125.9	.796	.59	8.7	65.2	3.0 3	37.2	.0 0			424
1	499		6.44	6.39	34.321	26.966	115.6	.889	.35	5.1	75.7	3.19	39.6	.00			502
	500	ISL	6.43	6.38	34.322	26.968	115.4	-S9T	.35	5.0							504
1	574		5.92	5.87	34.340	27.048	108.3	.973	.26	3.7	84.7	3 .30	41.0	.01			578

RV NEW HORIZON | CALCOFI CRUISE 851f | STATION 93 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED *	AVES	WEATHER	BAROMETER	DRY	WET	CLOUD	T
32 39.0	117 52.4 W	02/11/85	0457 &MT	538 M	350 06 KT			1012-5 MB f9	.6 C 17.7 C			

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN H?	OXYGEN	OXY	SIO3	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	ISL	18.99	18.99	33.672	24.011	389.7	-000	5.55	104.6							0
1	1		18.99	18.99	33.672	24.011	389.1	.004	5.55	104.6	1.9	.32	.0	.00	.16	.05	1
	10	ISL	18.69	18.69	33.660	24.076	383.1	.039	5.62	105.3							10
1	11		18.66	18.66	33.659	24.083	38 2.5	.042	5.63	105.4	1.7	.30	.0	.00	.20	.07	11
	20	ISL	16.17	16.17	33.493	24.551	338.2	.075	5.93	105.8							20
	30	ISL	13.28	13.27	33.400	25.100	286.1	.106	6.07	102.0							30
1	31		13.01	13.01	33.398	25.151	281.3	.109	6.07	101 .4	4.4	.45	.3	.06	1.89	.89	31
1	46		12.35	12.34	33.458	25.327	264.8	.149	5.07	83.6	7. 4	-80	7.1	.11	.36	.41	46
	50	ISL	12.21	12.20	33.478	25.370	26 0.9	.160	4.91	80.8							50
1	57		12.01	12.00	33.509	25.431	255-3	.178	4.73	77.4	9.4	.96	9.7	.04	.13	.37	57
1	72		11.73	11.72	33.553	25.518	247.3	.215	4.47	72.8	11.4	1.08	11.7	.04	.08	- .21	72
	75	ISL	11.67	11.66	33.562	25.537	245.6	.22 4	4.41	71.7							76
1	88		11.40	11.39	33.603	25.618	238.1	.254	4.16	67.3	13.5	1 .20	13.9	.02	.05	.17	88
	100	ISL	11.02	11.00	33.665	25.736	227.2	.28 3	3.81	61.1							101
i	102		10.97	10.96	33.672	25.749	225.9	.286	3.77	60.4	16.9	1.41	16.8	.01	.03	.11	102
	125	ISL	10.71	10.69	33.723	25.836	218.2	.338	3.47	55.3							126
1	127		10.69	10.68	33.726	25.841	217.7	.344	3.45	55.0	19.3	1.52	18.7	.01	.02	.09	128
1	148		10.34	10.32	33.796	25.958	207.1	.388	3.14	49.7	22.8	1.68	21.1'	.01	.01	.07	149
	150	ISL	10.32	10.30	33.802	25.966	206.3	.392	3.11	49.2							151
1	179		9.97	9.94	33.905	26.107	193.5	.450	2.70	42.4	26.9	1.84	24.0	.00	.01	.05	180
	200	ISL	9.55	9.53	33.978	26.233	181.8	.489	2.55	39.7							201
1	210		9.36	9.34	34.008	26.287	176.7	.507	2.50	38.7	31.7	2.03	26.4	.00	.00	.04	211
1	242		9.08	9.05	34.074	26.385	168.0	.561	2.30	35 .4	35.2	2.11	27.8	.00			243
	250	ISL	9.02	8.99	34.102	26.417	165.2	.575	2.16	33.2							252
1	282		8.77	8.74	34.207	26.538	154.2	.627	1.54	23.6	4 2.4	2.45	30.7	.00			284
	300	ISL	8.57	8.54	34.237	26.594	149.2	.654	1.31	20-0							302
1	343		8.03	8.00	34.270	26.701	T39.5	-716	.93	T4.0	52.5	2.75	33.7	.00			345
1	399		7.49	7.45	34.275	26.785	132.1	.791	.74	11.0	59.1	2.89	35.7	.00			401
	400	ISL	7.47	7.43	34.276	26.788	131.8	.793	.73	10.9							403
1	458		6.94	6.89	34.301	26.883	123.3	.867	.47	6.9	67.4	3.02	37.7	.00			461
	500	ISL	6.69	6.64	34.311	26.925	119.8	.918	.41	6.0							504
1	516	A	6.63	6.58	34.313	26.935	119.0	.937	.39	5.7	73.1	3.26	39.2	.13			519

A. CAST TOUCHED BOTTOM, MUD IN WATER SAMPLES.

m

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 40

LATITUDE	LONG I TUOE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLCUD	TYPE
32 31.1	18 13.1 W	Bl/11/85	!' V 1 GMT	' -:>	350 03 KT			1013.0 MB 18	.3 C	17.3 C		

CAST	DEPTH		TEMP	'O1 Fl NF	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	PO4	NO3	NO2	CHL-A	PHAEO	FRES
	M		DEG C	OEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	U&/L	UG/L	D.BA
1	0		18.85	18.85	33.642	24.022	388.0	.000			1.6	.36	.1	.on	.18	.05	0
1	1Q		18.76	18.76	33.649	24.051	385.6	.039	5.64	105.8	1.5	.32	.1	.00	.20	.07	10
	20	IS|	16.88	16.88	33.473	24.372	355.2	.076	6.10	110.2							20
1	22		16.44	16.44	33.437	24.447	348.1	.082	6.16	110.4	2.0	.36	.1	.00	.38	.05	22
	30	ISL	15.08	15.08	33.346	24.681	326.1	.110	6.34	110.5							30
1	32		14.81	14.80	33.331	24.729	321.5	.116	6.36	110.2	2.1	.39	.1	.00	.37	.22	32
1	42		13.73	13.72	33.285	24.920	303.6	.147	6.28	106.4	2.4	.44	.1	.02	.79	.53	42
	50	ISL	12.84	12.83	33.257	25.077	288.7	.171	6.01	99.9							50
1	53		12.57	12.56	33.253	25.126	284.1	.179	5.89	97.4	3.7	.58	2.2	.18	.44	.49	53
1	63		12.01	12.00	33.273	25.249	272.7	.207	5.51	90.1	4.6	.68	4.9	.07	.27	.45	63
1	73		11.18	11.17	33.292	25.416	256.9	.233	5.20	83.5	7.6	**3	9.1	.02	.12	•2*	73
	75	ISL	11.16	11.15	33.321	25.443	254.4	.239	5.12	82.1							76
1	89		11.02	11.01	33.455	25.571	242.6	.273	4.64	74.3	11.5	1.16	13.4	.01	.08	.16	89
	100	ISL	10.77	10.76	33.535	25.677	232.6	.300	4.36	69.5							101
1	106		10.62	10.61	33.567	25.730	227.8	.313	4.24	67.4	15.1	1.33	16.6	.01	.04	.10	106
1	124		10.02	10.01	33.676	25.917	210.3	.354	3.84	60.3	19.1	1.51	19.5	.01	.02	.06	125
	125	ISL	10.01	9.99	33.678	25.922	209.9	.355	3.83	60.1							126
1	150		9.44	9.42	33.778	26.094	193.9	.406	3.53	54.7	23.6	1 .68	22.4	.00	.01	.04	151
1	181		8.80	8.78	33.931	26.315	173.3	.463	3.25	49.7	29.6	1.86	24.9	.00			182
	200	ISL	8.59	8.57	34.007	26.407	164.9	.495	2.84	43.3							201
1	212		8.50	8.48	34.045	26.452	160.9	.514	2.57	39.1	36.3	2.13	28.4	.00			213
1	243		8.25	8.22	34.106	26.539	153.1	.562	2.11	31.9	41.7	2.34	30.4	.00			244
	250	ISL	8.15	8.12	34.106	26.554	151.6	.574	2.06	31.1							252
1	284		7.67	7.64	34.108	26.626	145.3	.625	1.88	28.1	47.7	2.46	32.5	.00			286
	300	ISL	7.54	7.51	34.125	26.658	142.5	.647	1.70	25.3							3 02
1	346		7.30	7.26	34.190	26.744	134.9	.711	1.14	16.9	56.4	2.76	35.4	.00			348
	400	ISL	7.03	6.99	34.256	26.834	127.1	.782	.78	11.5							403
1	422		6.93	6.89	34.277	26.865	124.4	.810	.68	10. 0	66.1	3.02	37.7	.00			425
1	500		6.52	6.47	34.302	26.940	118.1	.903	.41	6.0	72.9	3.13	39.3	.00			503
1	576		5.94	5.89	34.338	27.043	108.8	.990	.30	4.3	83.4	3.26	41.2	.00			580

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 45

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE
32 21.3	118 33.1 w	O2/11/85	1328 GMT	1331 M	320 05 KT			1013.2 MB 16	.O C	15.3 C		

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	PO4	NO3	NO 2	CML-A	PHAEO	PRESS
	M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0		17.06	17.06	33.527	24.372	354.6	.000	5.60	101.6	1.9	.44	.2	.00	.11	.05	0
1	10		16.96	16.96	33.541	24.405	351.8	.035	5.62	101.8	1.8	.38	.0	.00	.12	.06	10
	20	ISL	16.90	16.90	33.586	24.454	347.5	.070	5.64	102.0							20
1	21		16.90	16.89	33.591	24.459	347.0	.073	5.64	102.1	1.8	.35	•0	.00	.15	.08	21
	30	ISL	16.53	16.53	33.567	24.527	340.8	.105	5.71	102.5							30
1	32		16.46	16.45	33.563	24.541	339.6	.111	5.72	102.6	1.6	.35	.0	.00	.22	.15	32
1	41		13.32	13.31	33.187	24.927	302.8	.140	6.15	103.3	2.2	.43	.1	.04	.54	.58	41
	50	ISL	12.81	12.80	33.221	25.054	289.8	.167	5.97	99.2							50
1	52		12.71	12.70	33.228	25.079	288.6	.172	5.90	97.9	2.9	.51	1.0	.12	.28	.37	52
1	62		11.71	11.70	33.182	25.234	274.1	.200	5.65	91.7	4.4	.66	4.3	.08	.31	.65	62
1	72		11.55	11.54	33.326	25.376	260.8	.227	5.13	83.1	7.5	.89	8.7	.02	.11	.21	72
	75	ISL	11.47	11.46	33.362	25.417	256.9	.235	5.03	81.4							76
1	88		11.02	11.01	33.485	25.594	240.4	.267	4.68	75.0	11.3	1.09	12.7	.01	.05	.12	88
	100	ISL	10.23	10.22	33.633	25.848	216.4	.295	4.00	63.1							101
1	103		10.07	10.06	33.661	25.897	211.7	.300	3.87	60.8	19.0	1.48	19.6	.01	.02	.06	103
1	123		9.52	9.51				.343	3.53	54.8	23.7	1.65	22.2	.01	.01	.04	124
	125	ISL	9.48	9.47	33.787	26.094	195.8	.346	3.52	54.6							126
1	149		9.03	9.01	33.856	26.221	181.7	.392	3.33	51.2	27.5	1.80	24.4	.01	.00	.04	150
	150	ISL	9.02	9.00	33.859	26.225	181.3	.393	3.31	50.9							151
1	181		8.75	8.73	33.977	26.359	169.1	.448	2.73	41.7	33.3	2.04	27.4	.00			182
	200	ISL	8.58	8.56	33.991	26.397	165.8	.479	2.72	41.5							201
1	212		8.45	8.43	33.993	26.419	163.9	.499	2.72	41.3	35.5	2.09	28.1	.00			213
1	243		7.99	7.96	34.044	26.529	153.9	.548	2.46	37.0	40.8	2.23	30.0	.01			244
	250	ISL	7.90	7.87	34.054	26.550	152.0	.559	2.37	35.5							252
1	284		7.52	7.49	34.092	26.635	144.3	.610	1.89	28.1	48.7	2.46	32.9	.01			286
	300	ISL	7.36	7.34	34.109	26.670	141.2	.632	1.69	25.1							302
1	346		6.94	6.91	34.151	26.762	132.9	.695	1.20	17.6	59.3	2.79	36.5	.01			348
	400	ISL	6.46	6.43	34.188	26.856	124.4	.765	.80	11.6							403
1	423		6.28	6.24	34.203	26.892	121.3	.794	.68	9.8	71.5	3.04	39.6	.00			426
1	500		5.86	5.82	34.256	26.988	112.9	.883	.42	6.0	81.2	3.17	41.3	.00			503
1	574		5.60	5.55	34.325	27.076	105.3	.964	.31	4.4	88.5	3.27	42.1	.00			578

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMI	TYPE	32	10.8
N 118 53.3 W		02/11/85	1730 GMT	1479 M	230 05 KT	300 03 05	0	1015.5 MB	16.8 C	16.1 C	0/8			

CAST	DEPTH W		TEMP OE6 C	POT TEMP DE6 C	SALINITY	SIGMA THETA	SVA	DYN HT	OXY6EN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO 2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.8AR
1	0		17.42	17.42	33.661	24.388	353.1	.000	5.58	102.1	2.2	.45	.1	.00	.19	.06	0
	10	ISL	17.35	17.35	33.661	24.405	351.7	.035	5.66	103.4							10
1	11		17.34	17.34	33.661	24.407	351.5	.039	5.66	103.4	2.1	.41	.1	.00	.18	.06	11
	20	ISL	17.1f	17.18	33.657	24.442	348.6	.070	5.61	102.2							20
1	21		17.17	17.16	33.656	24.446	348.3	.073	5.61	102.1	2.0	.38	.1	.00	.21	.09	21
	30	ISL	16.25	16.25	33.591	24.609	333.0	.104	5.72	102.3							30
1	31		16.12	16.12	33.580	24.630	331.0	.107	5.74	102.3	1.9	.40	.1	.00	.38	.19	31
1	41		13.92	13.91	33.328	24.914	304.1	.139	5.95	101.3	2.7	.48	.3	.08	.80	.53	41
	50	ISL	12.44	12.44	33.171	25.086	287.9	.166	5.87	96.7							50
1	52		12.27	12.26	33.164	25.114	285.2	.171	5.85	96.1	3.5	.59	1.9	.22	.42	.53	52
1	62		12.51	12.50	33.449	25.289	26S.9	.199	5.10	84.4	7.7	.86	7.7	.09	.22	.39	62
1	73		11.84	11.83	33.505	25.460	252.8	.227	4.76	77.6	10.5	1.07	11.1	.03	.11	.29	73
	75	ISL	11.68	11.67	33.515	25.498	249.3	.233	4.68	76.0							76
1	B8		10.*0	10.79	33.576	25.704	229.9	.263	4.22	67.3	15.1	1.37	16.2	.01	.07	.17	83
	100	ISL	10.05	10.04	33.677	25.912	210.2	.291	3.82	60.0							101
1	104		9.?0	9.87	33.705	25.962	205.5	.298	3.73	58.4	20.4	1.60	20.4	.00	.02	.06	104
1	124		9.56	9.55	33.763	26.062	196.5	.340	3.58	55.7	22.9	1.70	21.8	.00	.01	.05	125
	125	ISL	9.5 5	9.54	33.765	26.065	196.2	.341	3.57	55.5							126
1	149		9.11	9.09	33.853	26.205	183.2	.387	3.28	50.5	27.2		24.2	.00	.00	.03	150
	150	ISL	9.09	9.07	33.856	26.211	182.7	.388	3.27	50.3							151
1	180		S.35	8.34	33.971	26.416	163.6	.440	2.89	43.8	34.4	2.08	27.7	.00			181
	2 00	ISL	8.11	8.09	34.012	26.485	157.3	.472	2.69	40.5							201
1	211		8.00	7.98	34.027	26.513	154.9	.489	2.57	38.6	39.4	2.25	29.5	.00			212
1	242		7.59	7.57	34.072	26.608	146.2	.536	2.08	31.0	46.3	2.46	32.1	.00			243
	250	ISL	7.5 3	7.50	34.086	26.628	144.4	.548	1.98	29.5							252
1	282		7.34	7.31	34.133	26.693	13?.7	.594	1.67	24.7	53.4	2.66	34.3	.00			284
	300	ISL	7.22	7.19	34.148	26.721	136.2	.618	1.53	22.6							302
1	345		6.94	6.91	34.177	26.783	130.9	.678	1.22	17.9	60.8	2.89	36.7	.00			347
	400	ISL	6.70	6.66	34.231	26.860	124.3	.748	.91	13.3							403
1	422		6.60	6.57	34.252	26.888	121.9	.776	.81	11.8	69.8	3.08	38.7	.00			425
1	498		6.20	6.16	34.287	26.969	115.0	.865	.61	8.8	77.3	3.21	40.2	.00			501
	500	ISL	6.19	6.15	34.289	26.972	114.8	.868	.60	8.7							504
1	575		5.90	5.85	34.334	27.045	108.5	.951	.30	4.3	84.2	3.31	41.3	.00			579

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
32 00.8 N	119 13.9 W	02/11/85	2210 GMT	2973 M	100 05 KT	280 03 04	0	1012.3 MB	18.7 C	17.1 C	0/S	

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYNHT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0		17.26	17.26	33.482	24.289	362.5	.000	5.85	106.6	2.1	.47	.1	.00	.12	.04	0
1	10		16.49	16.48	33.512	24.493	343.3	.03 5	6.03	108.2	.1.8	.43	.0	.00	.18	.09	10
	20	ISL	16.27	16.27	33.541	24.566	336.7	.069	5.94	106.2							20
1	21		16.27	16.26	33.543	24.568	336.6	.072	5.93	106.0	1.5	.41	.1	.00			21
	30	ISL	16.25	16.25	33.552	24.579	335.8	.103	5.97	106.6							30
1	31		16.25	16.24	33.554	24.581	335.7	.106	5.97	106.6	1.3	.40	.1	.00	.32	.15	31
1	41		15.38	15.37	33.409	24.665	327.9	.139	6.15	107.9	1.6	-*[1]	.1	.00	.30	.22	41
	50	ISL	13.74	13.73	33.273	24.908	304.9	.168	6.10	103.4							50
1	52		13.44	13.43	33.258	24.958	300.2	.173	6.08	102.4	2.2	.47	.2	.04	.33	.35	52
1	62		13.01	13.01	33.313	25.085	288.3	.203	6.05	101.1	2.9	.54	1.3	.14	.25	.37	62
1	72		12.76	12.75	33.320	25.141	283.3	.231	5.87	97.5	3.5	.62	2.8	.13	.21	.36	72
	75	ISL	12.57	12.56	33.330	25.187	279.0	.240	5.76	95.3							76
1	88		11.67	11.66	33.403	25.412	257.7	.274	5.26	85.4	7.2	.90	9.0	.02	.11	.19	S8
	100	ISL	10.93	10.92	33.530	25.646	235.6	.305	4.76	76.2							101
1	103		10.79	10.78	33.557	25.691	231.4	.311	4.66	74.3	12.7	1.21	14.3	.01	.05	.12	103
1	123		10.04	10.03	33.683	25.919	210.1	.357	3.78	59.4	19.6	1.55	20.1	.01	.02	.06	124
	125	ISL	9.99	9.98	33.693	25.935	208.6	.360	3.75	58.9							126
1	149		9.33	9.31	33.823	26.147	188.7	.408	3.52	54.5	25.5	1 .87	23.4	.01	.01	.03	150
	150	ISL	9.31	9.29	33.827	26.153	188.3	.410	3.51	54.3							151
1	180		8.80	8.78	33.944	26.326	172.3	.464	3.14	48.0	31.2	2.07	26.2	.00			181
	200	ISL	8.39	8.37	33.991	26.426	163.0	.497	3.19	48.4							201
1	211		8.18	8.16	34.009	26.472	15 8.8	.515	3.22	48.6	35.8	2.15	27.3	.00			212
1	242		7.83	7.81	34.031	26.541	152.6	.563	2.87	43.0	40.9	2.25	29.3	.00			243
	250	ISL	7.72	7.70	34.034	26.560	150.9	.575	2.76	41 .2							252
1	283		7.25	7.23	34.044	26.635	144.1	.625	2.31	34.1	48.1	2.39	32.1	.00			285
	300	ISL	7.02	6.99	34.052	26.674	140.5	.648	2.11	31.0							302
1	346		6.48	6.44	34.088	26.775	131.2	.711	1.61	23.4	61.7	2.81	37.0	.00			348
	400	ISL	6.23	6.20	34.172	26.873	122.6	.779	1.08	15.5							403
1	422		6.19	6.16	34.210	26.909	119.6	.806	.89	12.8	73.1	3.09	39.6	.00			425
1	500		6.00	5.96	34.312	27.015	110.5	.895	.50	7.2	81.6	3.24	40.8	.00			503
1	578		5.67	5.62	34.339	27.078	105.1	.980	.46	6.6	87.5	3.30	41.7	.00			582

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSEN6ER	BOTTOM	WIND SPEED	WAVES	WEATHER BAROMETER	DRY	WET	CLOUD AMT TYPE
31 50.7 N	119 34.4 W	03/11/85	0216 GMT	2973 M	080 03 KT		1013.4 MB	18.3 C	17.1 C	

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	17.78	17.77	33.436	24.130	381.3	.000	5.65	103.9							0
1	1		17.78	17.77	33.436	24.130	377.7	.004	5.65	103.9	1.8	.51	.1	.00	.12	.07	1
1	10		16.80	16.79	33.440	24.366	355.5	.037	5.70	102.9	1.7	.46	.1	.00	.13	.08	10
	20	ISL	16.77	16.77	33.455	24.385	354.0	.072	5.71	103.0							20
1	21		16.77	16.76	33.457	24.387	353.9	.076	5.71	103.0	1.6	.44	.1	.00	.20	.10	21
	30	ISL	16.74	16.74	33.480	24.410	352.0	.108	5.68	102.4							30
1	31		16.74	16.74	33.483	24.413	351.7	.111	5.68	102.4	1.8	.43	.1	.00	.22	.11	31
1	41		16.5 5	16.54	33.470	24.448	348.7	.146	5.72	102.7	1.7	.44	.1	.00	.27	.14	41
	50	ISL	15.99	15.98	33.416	24.534	340.7	.177	5.86	104.1							50
1	51		15.92	15.91	33.409	24.546	339.7	.180	5.88	104.3	1.8	.44	.1	.00	.32	.23	51
1	62		14.23	14.22	33.265	24.801	315.5	.216	6.20	106.2	2.0	.46	.1	.01	.32	.29	62
1	72		13.41	13.40	33.217	24.934	303.1	.247	6.09	102.5	2.0	.49	.1	.04	.26	.32	72
	75	ISL	13.20	13.19	33.237	24.991	297.7	.256	5.99	100.4							76
1	87		12.57	12.56	33.334	25.189	279.1	.290	5.60	92.7	3.9	.68	3.9	.09	.17	.25	87
	100	ISL	11.86	11.85	33.356	25.341	264.9	.326	5.29	86.2							101
1	103		11.74	11.72	33.359	25.367	262.4	.333	5.23	85.0	6.5	.88	8.1	.03	.10	.19	103
1	123		10.83	10.81	33.524	25.660	234.9	.385	4.57	72.9	12.0	1.21	13.8	.01	.04	.10	124
	125	ISL	10.77	10.75	33.538	25.681	232.8	.389	4.50	71.7							126
1	149		9.92	9.90	33.734	25.980	204.8	.442	3.53	55.3	21.8	1.67	21.6	.01	.01	.06	150
	150	ISL	9.90	9.88	33.738	25.986	204.3	.443	3.53	55.2							151
1	180		9.18	9.16	33.845	26.188	185.5	.502	3.42	52.7	25.9	1.81	23.4	.01			181
	200	ISL	8.92	8.90	33.934	26.300	175.2	.538	2.90	44.5							201
1	211		8.78	8.76	33.975	26.354	170.2	.557	2.64	40.4	33.1	2.10	27.5	.01			212
1	242		8.08	8.05	34.004	26.484	158.1	.607	2.78	41.9	37.6	2.19	28.9	.00			243
	250	ISL	7.97	7.95	34.016	26.509	155.9	.620	2.70	40.6							252
1	283		7.66	7.63	34.059	26.589	148.7	.671	2.22	33.1	45.1	2.40	31.4	.00			285
	300	ISL	7.45	7.42	34.073	26.630	145.0	.695	2.02	30.0							302
1	344		6.89	6.86	34.097	26.727	136.2	.757	1.55	22.7	57.3	2.72	35.5	.00			346
	4 00	ISL	6.32	6.28	34.120	26.821	127.6	.831	1.13	16.4							403
1	422		6.13	6.09	34.130	26.854	124.6	.859	1.00	14.4	70.0	2.98	38.9	.00			425
1	499		5.60	5.56	34.198	26.974	113.8	.950	.57	8.1	82.7	3.19	41.5	.00			502
	500	ISL	5.59	5.55	34.199	26.976	113.6	.952	.56	8.0							504
1	576		5.38	5.33	34.297	27.079	104.6	1.035	.31	4.4	91.2	3.35	42.5	.00			580

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER BAROMETER	DRY	WET	CLOUD ANT TYPE
31 3.1.1 N	120 15.2 W	03/11/85	0739 GMT	2973 M	180 07 XT		1015.6 MB	17.1 C	16.4 C	

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SI6MA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A U6/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	17.39	17.39	33.408	24.201	371.3	.000	5.59	102.0							0
1	1		17.39	17.39	33.408	24.201	371.0	.004	5.59	102.0	2.0	.46	.1	.00	.07	.03	1
	10	ISL	17.29	17.28	33.405	24.225	369.0	.037	5.64	102.7							10
1	11		17.28	17.28	33.405	24.226	368.9	.041	5.64	102.7	1.9	.44	.1	.00	.09	.03	11
	20	ISL	17.29	17.28	33.409	24.227	369.1	.074	5.63	102.6							20
1	21		17.29	17.28	33.409	24.227	369.1	.077	5.63	102.5	1.8	.41	.1	.00	.09	.04	21
	30	ISL	17.26	17.26	33.410	24.234	368.8	.111	5.64	102.7							30
1	31		17.26	17.26	33.410	24.235	368.7	.114	5.64	102.7	1.8	.41	.1	.00	.10	.04	31
1	41		17.16	17.15	33.404	24.254	367.2	.151	5.68	103.2	1.8	.40	.1	.00	.14	.06	41
	50	ISL	15.54	15.53	33.294	24.542	340.0	.183	6.16	108.3							50
1	52		15.17	15.16	33.275	24.609	333.6	.189	6.25	109.1	1.9	.42	.1	.00	.22	.19	52
1	61		14.10	14.09	33.263	24.826	313.1	.218	6.26	106.9	2.0	.44	.1	.00	.36	.31	61
1	71		13.15	13.14	33.205	24.975	299.0	.249	6.12	102.4	2.5	.48	.3	.04	.32	.30	71
	75	ISL	12.94	12.93	33.211	25.021	294.7	.261	6.01	100.2							76
1	87		12.53	12.53				.295	5.66	93.6	4.0	.63	3.9	.15	.16	.26	87
	100	ISL	11.83	11.82	33.302	25.305	268.3	.332	5.22	85.0							101
1	102		11.75	11.73	33.308	25.325	266.3	.336	5.17	84.1	6.8	.89	8.7	.02	.10	.18	102
1	122		11.03	11.01	33.504	25.608	239.8	.389	4.69	75.2	11.4	1.14	13.1	.01	.05	.11	123
	125	ISL	10.93	10.91	33.524	25.643	236.6	.395	4.61	73.7							126
1	148		10.01	9.99	33.691	25.931	209.4	.447	3.84	60.3	19.8	1.54	20.2	.01	.01	.03	149
	150	ISL	9.95	9.94	33.704	25.951	207.6	.450	3.78	59.3							151
1	179		9.11	9.10	33.880	26.227	181.8	.507	3.03	46.7	29.1	1.88	25.4	.00			180
	200	ISL	8.71	8.69	33.941	26.337	171.6	.544	3.06	46.8							201
1	210		8.57	8.55	33.959	26.374	168.2	.56T	3.08	46.9	32.7	1.97	26.3	.00			211
1	242		8.28	8.25	34.029	26.474	159.2	.613	2.60	39.3	38.1	2.19	28.8	.00			243
	250	ISL	8.19	8.17	34.045	26.500	157.0	.626	2.48	37.5							252
1	283		7.83	7.80	34.096	26.594	148.3	.677	2.04	30.6	45.7	2.40	31.6	.00			285
	300	ISL	7.63	7.60	34.112	26.636	144.6	.701	1.84	27.4							302
1	345		7.07	7.04	34.138	26.734	135.6	.764	1.37	20.2	57.2	2.74	35.4	.00			347
	400	ISL	6.42	6.39	34.151	26.832	126.7	.837	1.01	14.6							403
1	422		6.20	6.16	34.158	26.867	123.5	.865	.89	12.8	70.8	2.97	39.0	.00			425
1	499		5.83	5.79	34.247	26.984	113.1	.955	.46	6.6	81.1	3.19	41.0	.00			502
	500	ISL	5.83	5.78	34.248	26.986	113.0	.956	.46	6.5							504
1	574		5.46	5.41	34.312	27.082	104.4	1.037	.27	3.8	90.1	3.32	42.4	.00			578

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AKT	TYPE
31 10.7 N	120 55.5 W	03/11/85	1331 GMT	3880 M	310 06 KT			1015.7 MB	16.2 C	14.9 C		

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN H.T	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A U6/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	17.36	17.36	33.331	24.149	375.8	.000	5.58	101.7							0
1	1		17*36	17.36	33.331	24.149	375.9	.004	5.58	101.7	2.0	.47	.2	.00	.08	.03	1
	10	ISL	17.37	17.37	33.330	24.147	376.3	.038	5.61	102.3							10
1	11		17.37	17.37	33.330	24.147	376.4	.041	5.61	102.3	1.8	.43	.2	.00	.08	.03	11
	20	ISL	17.31	17.31	33.324	24.156	375.9	.075	5.63	102.5							20
1	22		17.30	17.30	33.322	24.158	375.7	.082	5.63	102.5	1.8	.42	.1	.00	.08	.04	22
	30	ISL	17.2ft	17.28	33.321	24.162	375.7	.113	5.62	102.4							30
1	32		17.2S	17.28	33.321	24.162	375.7	.120	5.62	102.3	1.7	.41	.1	.00	.09	.04	32
1	42		17.29	17.28	33.325	24.163	375.9	.157	5.60	102.0	1.7	.40	.1	.00	.10	.04	42
	50	ISL	16.98	16.97	33.318	24.232	369.6	.188	5.67	102.5							50
1	53		16.87	16.86	33.315	24.255	367.5	.198	5.69	102.7	1.6	.40	.1	.00	.14	.06	53
1	63		14.29	14.28	33.245	24.774	318.1	.232	6.23	106.8	1.8	.42	.1	.0C	.25	.19	63
1	73		13.29	13.28	33.231	24.968	299.8	.263	6.10	102.4	2.2	.48	.4	.07	.39	.36	73
	75	ISL	13.17	13.16	33.252	25.008	296.1	.270	6.01	100.6							76
1	89		12.78	12.77	33.403	25.202	277.9	.309	5.41	90.0	4.4	.63	3.4	.19	.18	.21	39
	100	ISL	12.51	12.50	33.464	25.302	268.6	.340	5.20	86.1							101
1	104		12.39	12.38	33.479	25.336	265.4	.349	5.14	84.8	6.2	.77	6.5	.04	.13	.17	104
1	124		10.77	10.76	33.615	25.740	227.3	.401	4.20	67.0	13.0	1.14	13.9	.01	.05	.03	125
	125	ISL	10.75	10.73	33.617	25.747	226.7	.402	4.19	66.8							126
1	150		9.fc4	9.82	33.701	25.968	205.9	.457	3.96	61.9	19.2	1.45	19.0	.01	.02	.03	151
1	181		9.00	8.98	33.877	26.242	180.3	.516	3.10	47.6	29.2	1.88	25.5	.00			182
	2 00	ISL	8.65	8.62	33.964	26.366	168.9	.549	2.77	42.3							201
1	212		8.47	8.45	34.006	26.426	163.3	.569	2.61	39.7	36.0	2.12	28.4	.00			213
1	243		8.13	8.11	34.058	26.519	154.9	.618			41.0	2.30	30.2	.00			244
	250	ISL	8.05	8.03	34.071	26.540	153.0	.629	2.11	31.7							252
1	283		7.70	7.68	34.121	26.631	144.8	.679	1.72	25.7	49.1	2.54	32.9	.00			285
	300	ISL	7.55	7.52	34.140	26.669	141.4	.703	1.53	22.8							332
1	345		7.16	7.13	34.183	26.757	133.5	.765	1.07	15.8	59.0	2.82	36.0	.00			347
	400	ISL	6.75	6.71	34.232	26.854	125.0	.836	.67	9.8							403
1	422		6.59	6.55	34.249	26.888	121.9	.863	.56	8.2	70.0	3.08	38.7	.00			425
1	500		6.13	6.11				.955			78.5	3.19	40.0	.01			503
1	577		5.72	5.67	34.325	27.060	106.9	1.040	.28	4.0	87.0	3.31	41.6	.01			581

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
30 50.6 N	121 36.0 W	03/11/85	1930 GMT	4836 M		350 03 05	1	1016.8 MB	18.9 C	16.5 C	6/8	ST

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXY6EN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
	0	ISL	18.09	18.09	33.549	24.140	377.1	.000	5.53	102.4							0
1	1		18.09	18.09	33.549	24.140	376.8	.004	5.53	102.4	2.8	.44	.2	.00	.11	.04	1
	10	ISL	17.99	17.99	33.548	24.165	374.7	.038	5.57	102.9							10
1	11		17.98	17.98	33.548	24.166	374.6	.041	5.57	102.9	2.5	.42	.1	.00	.12	.04	11
	20	ISL	17.98	17.98	33.550	24.168	374.7	.075	5.56	102.7							20
1	27		17.98	17.97	33.550	24.169	374.8	.101	5.5 5	102.5	2.4	.40	.1	.00	.16	.06	27
	30	ISL	17.74	17.74	33.517	24.202	371.8	.112	5.69	104.7							30
1	42		16.21	16.20	33.337	24.424	351.0	.155	6.26	111.6	2.6	.42	.1	.00	.26	.20	42
	50	ISL	14.37	14.36	33.186	24.711	323.8	.183	6.30	108.1							50
1	56		12.75	12.74	33.100	24.972	298.9	.207	6.33	105.0	3.0	.50	.1	.01	.57	.43	58
1	68		12.00	11.99	33.101	25.117	285.3	.236	5.98	97.6	3.7	.62	2.0	.20	.35	.39	68
	75	ISL	11.83	11.82	33.193	25.220	275.7	.256	5.68	92.5							76
1	79		11.80	11.79	33.251	25.271	270.9	.267	5.53	90.0	6.0	.82	6.4	.03	.16	.28	79
1	94		11.39	11.37	33.407	25.468	252.5	.306	4.99	80.6	9.3	1.04	10.9	.01	.08	.22	94
	100	ISL	11.13	11.12	33.463	25.558	244.1	.321	4.77	76.6							101
1	110		10.71	10.70	33.542	25.694	231.3	.344	4.44	70.7	14.2	1.31	15.5	.01	.05	.09	110
1	124		10.04	10.02	33.665	25.906	211.4	.377	3.94	61.9	19.5	1.55	19.7	.01	.01	.04	125
	125	ISL	10.02	10.01	33.667	25.910	211.0	.378	3.93	61.7							126
1	150		9.58	9.56	33.746	26.047	198.4	.430	3.60	56.0	23.4	1.69	22.1	.00	.00	.03	151
1	171		9.10	9.08	33.873	26.223	181.9	.470	3.07	47.3	28.9	1.93	25.4	.00	.00	.03	172
1	192		8.83	8.81	33.965	26.338	171.4	.507	2.72	41.7	33.4	2.09	27.3	.01			193
	200	ISL	8.67	8.64	33.983	26.378	167.7	.520	2.71	41.4							201
1	212		8.42	8.39	34.002	26.431	162.8	.540	2.70	41.0	36.6	2.15	28.4	.00			213
1	243		8.05	8.02	34.050	26.524	154.3	.589	2.40	36.1	41.4	2.28	30.1	.00			?44
	250	ISL	7.94	7.91	34.058	26.548	152.2	.600	2.32	34.8							252
1	284		7.40	7.37	34.089	26.650	142.9	.651	1.91	28.3	50.6	2.51	33.0	.01			286
	3Q0	ISL	7.18	7.15	34.101	26.690	139.2	.673	1 .71	25.2							302
1	346		6.64	6.61	34.132	26.788	130.2	.735	1.19	17.3	63.0	2.82	37.2	.00			348
	400	ISL	6.24	6.21	34.159	26.862	123.6	.803	.88	12.7							403
1	423		6.10	6.06	34.169	26.888	121.4	.832	.80	11.5	74.0	3.03	39.8	.00			426
	500	ISL	5.50	5.46	34.195	26.983	112.9	.922	.58	8.3							504
1	502		5.49	5.45	34.195	26.985	112.7	.923	.58	8.2	85.2	3.16	41.9	.00			505
1	579		5.28	5.23	34.276	27.075	104.9	1.008	.35	4.9	92.0	3.26	42.9	.00			583

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 1CO

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD ANT TYPE
N 122 15.7 W		04/11/85	0132 GMT	3924 M	090 03 KT 090 04 05	1		1014.4 MB 17.8 C	15.7 C	2/8	ST 30 30.5

CAST	DEPTH M		TEMP DEG C	POT TfMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0		18.31	18.31	33.457	24.016	388.5	.000	5.55	103.1	2.4	.44	.2	.00	.06	.02	0
1	10		17.46	17.46	33.388	24.170	374.2	.038	5.65	103.2	2.2	.42	.2	.00	.10	.04	10
	20	ISL	17.38	17.38	33.383	24.185	373.2	.075	5.64	103.0							20
1	26		17.34	17.34	33.380	24.192	372.6	.098	5.64	102.8	2.0	.41	.2	.00	.13	.06	26
	30	ISL	17.34	17.34	33.381	24.194	372.6	.113	5.63	102.7							30
1	36		17.34	17.34	33.382	24.194	372.7	.135	5.63	102.6	1.9	.41	.2	.00	.15	.07	36
1	47		17.28	17.27	33.379	24.207	371.9	.175	5.65	102.9	1.8	.39	.2	.00	.21	.10	47
	50	ISL	16.80	16.79	33.383	24.323	361.0	.187	5.81	104.8							50
1	57		15.62	15.62	33.398	24.603	334.4	.211	6.15	108.4	2.2	.38	.2	.00	.15	.10	57
1	73		14.32	14.31	33.369	24.864	309.8	.262	6.04	103.7	2.4	.40	.2	.00	.17	.25	73
	75	ISL	14.14	14.13	33.354	24.890	307.5	.269	6.03	103.1							76
1	89		13.20	13.19	33.295	25.035	293.9	.310	5.89	98.7	2.6	.47	.5	.10	.14	.26	89
	100	ISL	12.71	12.70	33.374	25.194	279.0	.343	5.55	92.2							101
1	104		12.57	12.55	33.407	25.247	273.9	.353	5.43	89.9	4.6	.69	4.7	.04	.09	.19	104
1	124		11.40	11.39	33.511	25.547	245.8	.407	4.84	78.2	9.3	.98	10.5	.01	.05	•11	125
	125	ISL	11.37	11.36	33.513	25.554	245.1	.408	4.82	77.9							126
1	15Q		10.14	10.13	33.628	25.860	216.3	.467	4.17	65.6	16.9	1.36	17.3	.00	.02	.04	151
1	171		9.58	9.56	33.757	26.056	198.0	.510	3.87	60.2	21.6	1.55	20.2	.00	.01	.02	172
1	192		9.02	9.00	33.840	26.210	183.6	.550	3.50	53.8	27.0	1.78	23.7	.00			193
	200	ISL	8.84	8.82	33.871	26.263	178.6	.564	3.41	52.2							201
1	212		8.60	8.58	33.914	26.334	172.1	.585	3.31	50.4	31.0	1.91	25.5	.00			213
1	243		8.18	8.15	33.976	26.447	161.7	.636	3.14	47.4	35.7	2.02	27.2	.00			244
	250	ISL	8.05	8.03	33.986	26.473	159.3	.648	3.05	45.9							252
1	284		7.47	7.44	34.021	26.586	148.9	.701	2.54	37.7	44.8	2.27	30.8	.00			286
	300	ISL	7.27	7.24	34.033	26.624	145.4	.724	2.32	34.3							302
1	346		6.78	6.75	34.060	26.713	137.4	.789	1.73	25.3	56.8	2.62	35.3	.00			348
	400	ISL	6.33	6.29	34.088	26.796	130.0	.861	1.27	18.4							403
1	422		6.17	6.13	34.101	26.826	127.3	.890	1.12	16.1	68.3	2.90	38.7	.00			425
1	500		5.67	5.63	34.170	26.943	116.8	.984	.64	9.1	80.7	3.09	41.1	.00			503
1	574		5.18	5.13	34.240	27.057	106.4	1.067	.39	5.5	92.5	3.25	42.9	.00			578

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT TYPE
30 10.4	122 55.7 U	04/11/85	0727 GMT	4052 M	270 03 KT			1016.0 MB 17.9 C	14.8 C		

CAST	DEPTH n		TE"!P DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR
1	0		18.99	18.99	33,802	24.108	379.7	.000	5.42	102.2	2.0	.35	.2	.00	.05	.02	0
1	10		18.99	18.98	33.799	24.109	380.1	.038	5.42	102.2	1.9	.35	.2	.00	.05	.02	10
	20	ISL	18.99	18.99	33.803	24.111	380.3	.076	5.42	102.2							20
1	26		19.00	18.99	33.806	24.112	380.3	.098	5.42	102.2	1.9	.33	.2	.00	.05	.03	26
	30	ISL	19.00	18.99	33.808	24.113	380.3	.114	5.42	102.3							30
1	37		19.00	19.00	33.812	24.116	380.4	.140	5.43	102.4	1.9	.34	.2	.00	.05	.0?	37
1	47		19.01	19.01	33.813	24 .114	380.9	.178	5.42	102.3	2.0	.32	.2	.00	.05	.02	47
	50	ISL	19.01	19.00	33.814	24.117	380.8	.190	5.42	102.3							50
1	58		18.99	18.98	33.815	24.123	380.5	.220	5.43	102.4	2.0	.32	.2	.00	.06	.02	58
1	74		15.60	15.59	33.554	24.728	323.0	.276	6.03	106.3	2.0	.34	.2	.00	.10	.09	74
	75	ISL	15.39	15.38	33.527	24.754	320.5	.280	6.03	105.9							76
1	89		13.76	13.77	33.336	24.949	302.1	.323	6.03	102.3	2.1	*39	.2	.00	.15	.15	89
	100	ISL	13.85	13.83	33.497	25.062	291.8	.356	5.78	98.4							101
1	105		13.87	13.86	33.552	25.098	288.4	.370	5.66	96.4	2.9	.43	.8	.12	.14	.21	105
1	125		14.46	14.44	33.934	25.272	272.7	.428	5.28	91.2	3–9	.49	2.9	.04	.22	.08	126
	150	ISL	12.15	12.13	33.679	25.540	247.3	.492	4.95	81.3							151
1	151		11.99	11.97	33.662	25.555	245.8	.495	4.93	80.7	7.8	.83	8.4	.02	.05	.13	152
1	171		11.05	11.03	33.730	25.782	224.4	.542	4.67	75.0	11.8	1.04	12.4	.01	.02	.06	172
1	192		9.99	9.97	33.747	25.979	205.9	.587	4.18	65.6	18.1	1.36	17.5	.01			193
	200	ISL	9.74	9.72	33.780	26.047	199.5	.603	4.08	63.6							201
1	214		9.37	9.34	33.848	26.162	188.8	.630	3.92	60.7	23.1	1.56	20.7	.00			215
1	243		8.58	8.55	33.960	26.374	168.8	.682	3.44	52.4	31.6	1.84	25.2	.00			244
	250	iSL	8.44	8.41	33.975	26.407	165.7	.694	3.39	51.5							252
1	284		7.90	7.87	34.012	26.517	155.6	.747	3.21	48.1	38.3	2.02	27.3	.00			285
	300	ISL	7.62	7.59	34.022	26.566	151.2	.773	2.97	44.2							302
1	345		6.95	6.91	34.04 2	26.676	141.0	.839	2.19	32.1	52.6	2.42	33.3	.00			347
	400	ISL	6.36	6.33	34.088	26.791	130.5	.913	1.40	20.3							403
1	422		6.18	6.14	34.109	26.830	126.9	.941	1.15	16.6	68.5	2.84	38.5	.00			424
1	499		5.64	5.60	34.185	26.958	115.3	1.035	.61	8.7	81.8	3.09	41.4	.00			502
	500	ISL	5.64	5.59	34.187	26.960	115.1	1.036	.60	8.6							504
1	577		5.33	5.29	34.269	27.063	106.1	1.121	.36	5.1	91.3	3.23	42.6	.00			581

LATITUDE	LONGITUDE	OAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE
29 50.9 N	123 35.1 W	04/11/85	1322 GMT	4014 M	310 03 KT			1017.4 MB	18.0 C	15.5 C		

CAST	DEPTH M		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO US/L	PRESS D.BAR
1	0		19.21	19.21	33.852	24.091	381.4	.000	5.37	101.7	2.4	.36	.2	.00	.05	.02	0
1	10		19.20	19.20	33.847	24.091	381.8	.038	5.37	101.7	2.2	.34	.2	.00	.05	.02	10
	20	ISL	19.21	19.21	33.849	24.089	382.3	.076	5.39	102.2							20
1	27		19.22	19.22	33.850	24.088	382.6	.103	5.40	102.3	2.1	.34	.3	.00	.05	.02	27
	30	ISL	19.22	19.21	33.849	24.089	382.7	.115	5.39	102.1							30
1	36		19.21	19.20	33.847	24.090	382.8	.137	5.37	101.7	2.0	.32	.2	.00	.05	.02	36
1	47		19.21	19.20	33.843	24.088	383.4	.179	5.38	101.9	2.0	.32	.2	.00	.06	.02	47
	50	ISL	19.12	19.11	33.842	24.109	381.6	.191	5.40	102.1							50
1	57		18.94	18.93	33.840	24.153	377.5	.217	5.47	103.1	2.1	.31	.1	.00	.09	.03	57
1	73		16.63	16.62	33.767	24.658	329.8	.273	5.89	106.1	2.1	.29	.1	.00	.10	.09	73
	75	ISL	16.46	16.45	33.769	24.699	326.2	.281	5.88	105.6							76
1	89		15.85	15.84	33.779	24.847	312.2	.324	5.81	103.1	2.2	.30	.2	.00	.12	.13	89
	T00	ISL	15.62	15.60	33.846	24.951	302.7	.359	5.71	101.0							101
1	104		15.60	15.58	33.879	24.980	299.9	.370	5.68	100.3	2.4	.31	.1	.03	.16	.16	104
1	125		15.94	15.92	34.207	25.156	284.0	.431	5.47	97.5	2.7	.29	.3	.19	.14	.19	125
1	149		15.07	15.05	34.162	25.317	269.3	.500	5.20	91.0	4.2	.45	2.8	.02	.06	.11	150
	15C	ISL	15.00	14.98	34.152	25.324	268.6	.502	5.19	90.8							151
1	17G		12.55	12.53	33.830	25.580	244.1	.554	4.89	81.1	7.6	.73	7.8	.01	.04	.05	171
1	191		11 .00	10.98	33.730	25.791	224.1	.603	4.59	73.6	12.4	1.04	12.6	.01			192
	2 00	ISL	10.59	10.57	33.744	25.875	216.2	.622	4.54	72.2							201
1	211		10.17	10.15	33.784	25.978	206.5	.645	4.48	70.6	16.0	1.21	15.6	.00			212
1	242		9.10	9.07	33.922	26.263	179.6	.705	4.00	61.6	24.7	1.54	21.2	.00			243
	250	ISL	8.88	8.85	33.944	26.315	174.7	.719	3.93	60.2							752
1	2 84		8.12	8.09	34.001	26.477	159.6	.775	3.63	54.7	34.1	1.81	25.2	.00			285
	300	ISL	7.82	7.79	34.016	26.532	154.5	.801	3.34	49.9							302
1	345		7.13	7.10	34.034	26.644	144.2	.869	2.45	36.1	49.3	2.28	31.8	.00			347
	400	ISL	6.45	6.41	34.057	26.755	133.9	.945	1.71	24.8							403
1	422		6.24	6.20	34.071	26.793	130.4	.973	1.47	21.2	65.0	2.70	37.3	.00			424
1	500		5.52	5.78	34.182	26.934	117.8	1.071	.70	10.0	78.3	3.01	40.5	.00			503
1	577		5.43	5.38	34.245	27.033	109.0	1.158	.44	6.2	88.2	3.19	42.4	.00			581

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 77 60

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 42.8 N	121 33.3 W	11/10/85	1831 GMT	11 m	1134 - 1730 PST	1138 PST	1716 PST	353.7 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OXY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT		UPTAKE (MGC/M3)		
m	DBG C		THETA	ml/L	PCT	um/1	um/1	um/1	um/1	ug/1	Ug/1	X	1	2	MEAN	DARK
1	14.61	33.548	24.938	5.97	103.2	3.6	0.46	0.9	0.09	1.14	0.48	92	8.6	8.8	8.7	0.18
8	14.61	33.548	24.938	5.85	101.1	3.4	0.46	0.9	0.09	1.09	0.39	33	25.2	20.1	22.7	0.18
11	14.59	33.548	24.941	5.86	101.3	3.3	0.46	0.8	0.09	1.07	0.45	22	15.7	15.9	15.8	0.18
15	14.61	33.548	24.939	5.85	101.1	3.2	0.44	0.7	0.09	1.09	0.44	12.5	11.2	11.8	11.5	0.21
27	14.59	33.546	24.941	5.87	101.4	3.2	0.46	0.9	0.10	1.08	0.46	2.7	4.0	4.4	4.2	0.19
39	14.57	33.545	24.944	5.88	101.6	3.3	0.46	0.9	0.09	1.11	0.48	0.5	0.41	0.71	0,56	0.16

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 77 100

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 23.7 N	124 20.7 W	11/11/85	1832 GMT	15 m	1128 - 1750 PST	1127 PST	1719 PST	59.0 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OXY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT		UPTAKE (MGC/M3)		
m	DEG C		THETA	ml/L	PCT	um/1	um/1	um/1	um/1	ug/1	ug/1	%	1	2	MEAN	DARK
1	15.22	33.143	24.494	5.86	102.3	2.3	0.40	0.1	0.00	0.22	0.06	92	0.18	0.14	0.16	0.12
11	15.23	33.142	24.490	5.86	102.3	2.2	0.40	0.1	0.00	0.21	0.06	33	1.9	2.0	1.9	0.11
15	15.23	33.142	24.492	5.85	102.1	2.4	0.39	0.1	0.00	0.21	0.08	22	1.6	1.9	1.8	0.12
21	15.24	33.141	24.488	5.85	102.2	2.0	0.39	0.1	0.00	0.22	0.07	12.5	1.8	1.8	1.8	0.13
36	15.23	33.142	24.492	5.86	102.3	2.0	0.38	0.1	0.00	0.22	0.08	2.7	0.85	0.91	0.88	0.12
53	15.11	33.160	24.532	5.89	102.6	2.7	0.36	0.1	0.00	0.30	0.10	0.5	0.49	0.15	0.32	0.10

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 80 65

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 59.8 N	121 28.5 W	11/13/85	1844 GMT	20 m	1145 - 1730 PST	1149 PST	1727 PST	192.3 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OXY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT		UPTAKE (MGC/M3)		
m	DEG C		THETA	ml/L	PCT	um/1	um/1	um/1	um/1	ug/1	ug/1	%	1	2	MEAN	DARK
1	14.82	33.360	24.748	5.87	101.8	2.7	0.43	0.2	0.00	0.37	0.15	92	1.1	1.1	1.1	0.14
15	14.76	33.359	24.759	5.92	102.5	2.6	0.43	0.2	0.00	0.37	0.18	33	4.8	5.3	5.1	0.17
21	14.76	33.358	24.760	5.94	102.9	2.6	0.43	0.2	0.00	0.38	0.19	22	4.2	5.1	4.6	0.16
28	14.77	33.358	24.758	6.01	104.1	2.6	0.43	0.1	0.00	0.39	0.18	12.5	5.7	5.1	5.4	0.14
49	11.32	33.044	25.197	5.96	95.9	4.2	0.77	4.3	0.04	0.27	0.33	2.7	1.3	1.1	1.2	0.12
72	10.70	33.375	25.565	4.87	77.5	10.6	1.21	12.8	0.01	0.07	0.10	0.5	0.05	0.06	0.05	0.11

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 80 110

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 30.8 N	124 37.9 W	11/12/85	1855 GMT	30m	1135 - 1741 PST	1135 PST	1744 PST	88.6 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	DISS O2	OXY	SIO3	PO4	NO3	NO2	CHL	PHAEO	LIGHT		UPTAKE (MGC/M3)		
m	DEG C		THETA	ml/L	PCT	um/1	um/1	um/1	um/1	ug/1	ug/1	X	1	2	MEAN	DARK
1	17.03	33.431	24.303	5.80	105.1	1.5	0.28	0.2	0.00	0.13	0.04	92	0.1	0.22	0.16	0.11
22	17.03	33.430	24.304	5.66	102.6	1.8	0.26	0.1	0.00	0.12	0.04	33	1.1	1.1	1.1	0.10
30	17.02	33.430	24.307	5.65	102.4	1.9	0.26	0.1	0.00	0.12	0.04	22	1.4	1.6	1.5	0.13
41	17.04	33.429	24.302	5.65	102.4	1.8	0.25	0.1	0.00	0.12	0.05	12.5	1.1	1.1	1.1	0.13
72	14.75	33.291	24.712	6.22	107.6	2.2	0.26	0.1	0.00	0.22	0.18	2.7	0.95	0.97	0.96	0.12
106	12.61	33.276	25.137	5.77	95.5	3.4	0.42	1.7	0.14	0.13	0.17	0.5	0.12	0.13	0.13	0.08

RV NEW HORIZON CALCOFI CRUISE 8511 STATION- 83 42

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED. VMUE 34 10.5
N 119 30.7 W	11/09/85	1925 GMT	23 m	1155 - 1740 PST	1142 PST	1727 PST	330.1 mg C/m2	

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS O2 ml/L	OXY PCT	SIO3 um/1	PO4 um/1	NO3 um/1	NO2 um/1	CHL ug/1	PHAEO ug/1	LIGHT %	I	UPTAKE (MGC/M3) 2	MEAN	DARK
0	17.48	33.615	24.338	5.75	105.3	2.4	0.37	0.2	0.00	0.36	0.12	92	6.9	7.5	7.2	0.17
16	16.67	33.584	24.506	5.79	104.3	2.6	0.37	0.3	0.01	0.53	0.19	33	12.7	11,4	12.1	0.17
23	16.24	33.524	24.560	5.95	106.2	2.7	0.38	0.3	0.01	0.51	0.26	22	5.7	5.4	5,6	0.15
31	15.77	33.472	24.627	6.09	107.7	2.7	0.37	0.1	0.00	0.50	0.23	12.5	4.3	3.9	4.1	0.14
55	12.26	33.459	25.344	5.17	85.1	7.6	0.90	8.1	0.12	0.38	0.35	2.7	0.97	1.0	1.0	0.10
80	11.26	33.599	25.640	4.23	68.2	14.0	1.28	15.0	0.02	0.09	0.17	0.5	0.12	0.08	0.10	0.08

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 87 35

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE 33 49.2
N 118 37.9 W	11/07/85	1819 GMT	28 m	1135 - 1730 PST	1139 PST	1727 PST	191.4 mg C/m2	

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS O2 ml/L	OXY PCT	SIO3 um/1	PO4 um/1	NO3 um/1	NO2 um/1	CHL ug/1	PHAEO ug/1	LIGHT %	1	UPTAKE 2	MEAN	DARK
0	18.73	33.655	24.062	5.64	105.8	1.5	0.32	0.1	0.00	0.22	0.06	92	3.4	3.8	3.6	0.20
19	18.54	33.653	24.108	5.66	105.8	1.5	0.31	0.1	0.00	0.30	0.09	33	4.2	3.9	4.1	0.19
27	16.34	33.464	24.491	6.07	108.6	2.2	0.42	0.1	0.01	0.57	0.26	22	4.0	5.1	4.5	0.17
37	13.41	33.314	25.007	6.34	106.8	2.8	0.46	0.1	0.01	0.55	0.36	12.5	2.1	2.2	2.1	0.15
66	11.87	33.483	25.437	4.90	80.0	8.1	1.00	10.0.	0.03	0.22	0.37	2.7	0.57	0.64	0.61	0.10
98	10.65	33.667	25.802	3.81	60.6	16.4	1.46	18.0	0.01	0.06	0.11	0.5	0.13	0.09	0.11	0.09

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 87 70

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE 32 39.4
N 121 02.7 W	11/08/85	1812 GMT	17 m	1138 - 1736 PST	1140 PST	1736 PST	155.0 mg C/m2	

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS O2 ml/L	OXY PCT	SIO3 um/1	PO4 um/1	NO3 um/1	NO2 um/1	CHL ug/1	PHAEO ug/1	LIGHT %	1	UPTAKE 2	MEAN	DARK
1	16.65	33.625	24.543	5.66	102.0	3.0	0.39	0.0	0.00	0.33	0.12	92	1.3	1.3	1.3	0.19
12	16.65	33.623	24.540	5.68	102.3	2.5	0.37	0.0	0.00	0.32	0.14	33	4.4	5.5	4.9	0.19
18	16.63	33.622	24.545	5.67	102.1	2.8	0.36	0.0	0.00	0.32	0.15	22	4.0	4.3	4.2	0.18
24	16.64	33.622	24.543	5.67	102.1	2.2	0.35	0.0	0.00	0.33	0.13	12.5	3.1	3.2	3.1	0.17
41	15.45	33.550	24.757	5.85	102.9	2.2	0.38	0.0:	0.00	0.58	0.38	2.7	2.4	2.3	2.3	0.40
61	12.67	33.456	25.265	5.01	83.1	7.9	0.92	7.8	0.13	0.27	0.37	0.5	0.15	0.16	0.15	0.12

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 90 80

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 45.0 N	121 19.8 W	11/05/85	1842 GMT	26 m	1157 - 1738 PST	1149 PST	1736 PST	57.1 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS O2 ml/L	OXY PCT	SIO3 um/1	PO4 um/1	NO3 um/1	NO2 um/1	CHL ug/1	PHAEO ug/1	LIGHT %	1	UPTAK 2	(MGC/M MEAN	DARK
0	17.13	33.441	24.289	5.66	102.8	2.1	0.42	0.2	0.00	0.10	0.03	92	0.21	0.18	0.19	0.10
19	17.14	33.438	24.283	5.61	101.9	2.0	0.37	0.1	0.00	0.10	0.03	33	1.2	1.1	1.1	0.10
26	17.14	33.439	24.286	5.60	101.7	2.0	0.37	0.1	0.00	0.10	0.03	22	0.92	0.86	0.89	0.10
35	17.14	33.440	24.286	5.61	101.9	1.9	0.36	0.1	0.00	0.18	0.04	12.5	0.78	0.78	0.78	0.10
62	16.81	33.405	24.339	5.67	102.3	1.8	0.36	0.2	0.00	0.18	0.08	2.7	0.41	0.70	0.55	0.09
92	12.83	33.174	25.016	6.08	101.1	2.6	0.47	0.6	0.09	0.33	0.30	0.5	0.30	0.26	0.28	0.09

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 90 120

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
30 25.3 N	124 00.1 W	11/04/85	1856 GMT	50 m	1155 - 1753 PST	1200 PST	1750 PST	82.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS O2 ml/L	OXY PCT	SIO3 um/1	PO4 um/1	NO3 um/1	NO2 um/1	CHL ug/1	PHAEO ug/1	LIGHT %	1	UPTAKE 2	(MGC/M3) MEAN	DARK
0	18.69	33.627	24.051	5.45	102.1	2.1	0.40	0.2	0.00	0.07	0.03	92	0.80	0.78	0.79	0.11
34	18.71	33.627	24.047	5.45	102.1	2.0	0.37	0.2	0.00	0.08	0.02	33	0.86	0.95	0.90	0.09
47	18.69	33.630	24.054	5.43	101.7	2.0	0.37	0.2	0.00	0.07	0.02	22	0.86	0.92	0.89	0.11
67	16.18	33.450	24.519	6.14	109.4	2.0	0.35	0.2	0.00	0.11	0.06	12.5	0.54	0.58	0.56	0.16
119	12.99	33.464	25.209	5.53	92.4	3.9	0.55	2.7	0.11	,	0.20	2.7	0.23	0.25	0.24	0.10
174	10.48	33.734	25.885	4.61 ,	73.1	13.8	1.12	14.3	0.01	0.02	0.03	0.5	0*	0*	0*	0.08

* Dark uptake exceeded light uptake.

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 50

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 11.0 N	118 53.0 W	11/02/85	1925 GMT	24 m	1202 - 1734 PST	1139 PST	1734 PST	155.2 mg C/m2

DEPT m	TEMP DEG C	SALINIT	SIGMA THETA	DISS ml/L	OXY PCT	SIO3 um/1	PO4 um/1	NO3 um/1	NO2 um/1	CHL ug/1	PHAEO ug/1	LIGHT %	1	UPTAKE 2	(MGC/M MEAN	DARK
0	17.82	33.662	24.292	5.58	102.9	2.1	0.39	0.0	0.00	0.18	0.05	92	2.3	1.7	2.0	0.16
16	17.23	33.660	24.433	5.62	102.4	1.9	0.36	0.0	0.00	0.18	0.07	33	1.5	2.8	2.2	0.18
24	17.13	33.654	24.452	5.61	102.0	1.8	0.37	0.0	0.00	0.21	0.09	22	1.6	1.6	1.6	0.15
33	16.10	33.559	24.620	5.80	103.3	1.8	0.38	0.0	0.01	0.47	0.23	12.5	3.2	2.7	2.9	0.12
57	12.61	33.267	25.129	5.64	93.4	4.6	0.65	3.3	0.25	0.44	0.50	2.7	1.7	1.6	1.7	0.14
84	11.69	33.531	25.509	4.62	75.1	11.3	1.09	12.2	0.05	0.11	0.28	0.5	1.1	0.11	0.59	0.10

RV NEW HORIZON CALCOFI CRUISE 8511 STATION 93 90

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
30 50.6 N	121 35.7 W	11/03/85	1856 GMT	33 m	1150 - 1745 PST	1150 PST	1745 PST	113.0 mg C/m2

DEPT m	TEMP DEG C	SALINIT	SIGMA THETA	DISS ml/L	OXY PCT	SIO3 um/1	PO4 um/1	NO3 um/1	NO2 um/1	CHL ug/1	PHAEO ug/1	LIGHT %	1	UPTAK 2	(MGC/M MEAN	DARK
0	18.07	33.549	24.145	5.52	102.2	2.0	0.48	0.1	0.00	0.12	0.04	92	0.66	0.70	0.68	0.16
23	17.99	33.550	24.166	5.54	102.4	1.9	0.44	0.1	0.00	0.13	0.04	33	1.8	1.9	1.8	0.16
32	17.96	33.544	24.171	5.54	102.3	1.6	0.44	0.1	0.00	0.15	0.05	22	1.5	1.8	1.7	0.16
44	17.76	33.529	24.208	5.59	102.8	1.5	0.43	0.1	0.00	0.21	0.09	12.5	1.9	1.8	1.9	0.12
78	11.78	33.264	25.284	5.50	89.5	5.6	0.80	6.5	0.04	0.15	0.26	2.7	0.38	0.42	0.40	0.09
116	10.39	33.592	25.789	4.23	66.9	15.6	1.36	17.2	0.01	0.03	0.05	0.5	0.02	0.02	0.02	0.08

Secchi Disk Observations

CalCOFI Cruise 8511

Line	Sta.	Day	Mo	Local Time (+8: PST)	Depth (m)	Weather	Clouds Type	Clouds Amt
77	60	10	11	1026	11	1	SC	3/8
77	70	10	11	1505	15	1	sc	7/8
77	100	11	11	1027	15	1	SC	3/8
77	II0	11	11	1428	14	1	cu	5/8
80	55	13	11	1624	14	0	0	0
80	60	13	11	1248	14	0	0	0
80	65	13	11	1039	20	0	0	0
80	70	13	11	0640	16	1	cu	1/8
80	100	12	11	1452	30	1	sc	6/8
80	II0	12	11	1050	30	1	sc	7/8
82	46	9	11	1658	8	1	-	-
83	40.6	9	11	1330	14	1	sc	1/8
83	42	9	11	1120	23	1	ST	7/8
83	70	8	11	1426	11	1	sc	7/8
87	35	7	11	1014	28	1	ST	7/8
87	40	7	11	1217	32	1	cc	1/8
87	45	7.	11	1613	17	1	cc	2/8
87	70	8	11	1007	17	1	sc	6/8
90	47	6	11	0555	30	1	sc	1/8
90	70	5	11	1543	13	1	sc	6/8
90	80	5	11	1037	26	1	sc	7/8
90	II0	4	11	1632	34	2	sc	8/8
90	120	4	11	1051	50	2	sc	8/8
91	36	6	11	1606	18	0	0	0
93	26.7	1	11	1135	18	4	0	0
93	29	1	11	1343	19	4	0	0
93	30	1	11	1628	16	4	0	0
93	50	2	11	1120	24	0	0	0
93	55	2	11	1336	23	0	0	0
93	90	3	11	1051	33	1	ST	6/8
93	100	3	11	1659	33	1	ST	2/8
93.4	26.4	1	11	1100	9	-	-	-

CalCOFI Cruise 8511

MACROZOOPLANKTON BIOMASS
Net Mesh Size: 0.505 mm

Line	Sta.	Position		Date Mo/Day	Time (GMT) Start	End	Water Volume Strained (m^3)	Max. Tow Depth (m)	Volume per 1000 m^3 Strained Total (cm^3)	Small (cm^3)
77	51	35 01.7N	120 55.8W	11/10	1025	1047	429	215	91	91
77	55	34 53.2N	121 12.1W	11/10	1405	1427	415	209	58	58
77	60	34 42.5N	121 33.2W	11/10	1840	1902	437	209	69	69
77	70	34 22.6N	122 14.5W	11/11	0010	0032	467	205	34	34
77	80	34 03.8N	122 57.4W	11/11	0615	0637	455	209	571	571
77	90	33 42.6N	123 38.7W	11/11	1150	1212	445	20	238	238
77	100	33 23.5N	124 20.0W	11/11	1705	1727	453	20	499	499
77	110	33 03.2N	125 01.6W	11/11	2340	0004	537	21	15	15
77	120	32 43.5N	125 42.5W	11/12	0512	0534	419	21	45	45
80	51	34 27.4N	120 31.3W	11/14	0425	0431	123	58	146	146
80	55	34 19.3N	120 49.4W	11/14	0135	0157	423	209	182	182
80	60	34 09.3N	121 09.3W	11/13	2155	2217	411	218	832	501
80	70	33 49.6N	121 50.3 W	11/13	1545	1607	442	207	580	580
80	80	33 29.6N	122 32.0W	11/13	1025	1047	416	220	539	539
80	90	33 09.1N	123 13.0W	11/13	0507	0529	429	211	681	681
80	100	32 48.7N	123 54.5W	11/12	2358	0020	448	207	256	29
80	110	32 29.8N	124 36.9W	11/12	1750	1812	480	209	192	33
80	120	32 08.8N	125 17.8W	11/12	1050	1115	548	268	44	44
82	46	34 15.9N	119 57.7W	11/10	0213	0235	436	210	57	57
83	40.6	34 13.5N	11924.8W	11/9	2150	2153	51	23	40	40
83	42	34 10.9N	119 31.1W	11/9	2040	2052	230	106	30	30
83	51	33 52.5N	120 08.4W	11/9	1310	1320	221	85	27	27
83	60	33 34.7N	120 45.3W	11/9	0615	0637	468	212	64	53
83	70	33 14.5N	121 28.1W	11/8	2333	2355	354	220	1307	421
87	33	33 53.0N	118 29.9W	11/7	1450	1456	104	49	116	116
87	35	33 49.3N	118 38.0W	11/7	1710	1732	397	215	76	58
87	40	33 39JN	118 58.0W	11/7	2155	2217	409	214	142	142
87	45	33 29.6N	119 20.3W	11/8	0155	0217	417	211	221	221
87	50	33 19.3N	119 40.2W	11/8	0433	0441	138	64	145	145
87	55	33 09.3N	120.00.5W	11/8	0750	0812	403	226	159	159
87	60	32 59.4N	120 21.5W	11/8	1125	1147	412	214	189	148
87	70	32 39.7N	121 02.6W	11/8	1650	1712	430	212	172	121
90	28	33 29.0N	117 46.1W	11/7	0925	0931	108	47	130	130
90	30	33 25.5N	117 54.2W	11/7	0730	0752	391	214	135	135
90	35	33 14.7N	118 15.3W	11/7	0347	0409	411	206	92	92
90	47	32 51.6N	119 03.8W	11/6	1510	1532	424	207	2028	2028
90	53	32 39.6N	119 29.2W	11/6	1040	1102	397	221	166	166
90	60	32 25.6N	119 57.9W	11/6	0600	0622	408	208	191	179
90	70	32 04.9N	120 38.8W	11/6	0045	0107	408	210	191	191
90	80	31 45.0N	121 20.1W	11/5	1855	1917	421	215	394	394
90	90	31 25.6N	122 00.3W	11/5	1255	1317	415	210	101	101
90	100	31 05.5N	122 40.0W	11/5	0710	0732	412	211	134	53
90	110	30 45.2N	123 19.9W	11/5	0135	0157	395	210	33	33
90	120	30 26.0N	124 00.1W	11/4	2015	2037	398	214	38	38
91	36	33 06.7N	118 15.5W	11/7	0110	0132	403	210	55	55
93	26.7	32 56.9N	117 18.5W	11/1	2012	2018	100	49	120	120
93	29	32 52.3N	117 28.3W	11/1	2245	2307	385	209	140	140
93	30	32 50.4N	117 32.6W	11/2	0135	0157	392	206	148	148
93	35	32 38.4N	117 53.3W	11/2	0600	0622	400	209	198	185
93	40	32 31.2N	118 13.6W	11/2	0945	1007	392	216	128	128
93	45	32 21.2N	118 33.3W	11/2	1400	1422	394	212	548	548
93	50	32 10.9N	118 53.3W	11/2	1755	1817	407	212	59	59
93	55	32 00.7N	119 14.2W	11/2	2305	2327	399	216	55	55
93	60	31 50.7N	119 34.5W	11/3	0245	0307	425	208	162	139
93	70	31 31.2N	120 15.6W	11/3	0805	0827	420	210	179	179
93	80	31 10.8N	120 55.6W	11/3	1400	1422	418	208	249	60
93	90	30 51.0N	121 36.3W	11/3	2000	2022	405	215	44	44
93	100	30 30.5N	122 15.9W	11/4	0235	0257	407	210	258	258
93	110	30 10.7N	122 55.7W	11/4	0800	0822	398	217	38	38
93	120	29 50.9N	123 35.2W	11/4	1350	1412	406	209	32	32

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