UNIVERSITY OF CALIFORNIA, SAN DIEGO SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

CalCOFI Cruise 9202
28 January – 13 February 1992

CalCOFI Cruise 9204
13 – 30 April 1992

SIO Reference 92-20
31 July 1992

UNIVERSITY OF CALIFORNIA, SAN DIEGO

SCRIPPS INSTITUTION OF OCEANOGRAPHY

LA JOLLA, CALIFORNIA 92093-0227

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Approved for distribution:

Edward A. Frieman, Director

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INTRODUCTION

The data in this report were collected during Cruises 9202* and 9204 of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the N O A A ship RV *David Starr Jordan.* The CalCOFI program was organized in the late 1940s to study the causes of variations in population size of fishes of importance to the State of California. It is carried out by N O A A ' s National Marine Fisheries Service Southwest. Fisheries Science Center, the California Department of Fish and Game, and the Marine Life Research Group (M L R G) at Scripps Institution of Oceanography (SIO). M L R G contributes to this program by investigations of the physical, chemical and biological structure of the California Current. D a m from CalCOFI Cruises 9202 and 9204 were collected and processed by personnel of the Marine Life Research Group and the Southwest Fisheries Science Center. Volunteers and other S I O staff m e m b e r s also assisted in the collection of data and chemical analyses at sea.

STANDARD PROCEDURES

Hydrographic Cast Data

The Hydrographic casts usually consisted of 20 three-liter plastic (PVC) bottles lowered to a m a x i m u m sampling depth of 500 meters, bottom depth permitting. Temperature, salinity, oxygen and nutrients were determined at sea for all depths sampled. Chlorophyll-a and phaeopigments were determined at sea from the top 14 depths. Special near-bottom casts were done in the Santa Barbara and Santa Monica Basins.

Paired protected reversing thermometers read by two observers were used to determine temperatures which were then recorded to hundredths of a degree Celsius. The temperatures are reported relative to the International Practical Temperature Scale of 1968 (IPTS-68), The new International Temperature Scale of 1990 (ITS-90) differs from the IPTS-68 by less than 0.01° C over oceanic temperature ranges, so the distinction between the two scales is of marginal significance for temperatures listed to the nearest hundredth of a degree. Most sampling; bottles used below a depth of about 75 meters were equipped with unprotected thermometers for determination of the depth of sampling, using the Saunders (1981) pressure-to-depth conversion technique.

Salinity samples were analyzed at sea using inductive-type salinometers standardized with substandard seawater. Periodic checks on the concentration of the substandard were made by comparison with I A P S O Standard Seawater batch P-78. Salinity values have been calculated from the algorithms for the Practical Salinity Scale, 1978 (U N E S C O , 1981a) and were reported to three decimal places, provided that accepted standards were m e t If only one determination per sample was obtained, or there was doubt concerning the accuracy of the analytical results, the salinities were reported to two 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).

Samples for chlorophyll-a and phaeopigments were filtered onto GF/F filters. The pigments were extracted with a cold extraction technique in 90% acetone (Venrick and Hayward, 1984), and the fluorescence determined before and after acidification with a Turner Designs fiuorometer (Yentsch and Menzel, 1963; Holm-Hansen *et al,* 1965).

Evaluation of the data involved comparisons with adjacent stations and consideration of the variation of a property as a function of density or depth and the relationships with other properties (Klein, 1973). Estimates of precision of the standard techniques are given in SIO, 1991.

Primary Productivity Casts

Primary productivity casts were taken each day shortly before local apparent noon (LAN). 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). The depths with ambient light intensities

*The first two digits represent the year and the last digits the m o n t h of the cruise.

corresponding to light levels simulated by the on-deck incubators were identified and sampled with five-liter Niskin bottles. The Niskin bottles were equipped with epoxy-coated springs and silicone-rubber O-rings. On cruise 9202 the Niskin bottles were tripped on a rosette cast, on cruise 9204 the Niskins were attached to the hydrowire. Pressures and temperatures reported in the 9202 data were derived from the CTD at the time of the Niskin bottle trip. Temperatures reported in the 9204 data were determined from paired protected reversing thermometers. Triplicate samples (two light and one dark control) were drawn from each productivity sample depth into 250 ml polycarbonate incubation bottles. Samples were innoculated with 10 pCi of C as NaHCO (200 ul of 50 uCi/ml stock) prepared in a 0.3 g/liter solution of sodium carbonate (Fitzwater *et ai,* 1982). Samples were incubated from LAN to civil twilight in seawater-cooled incubators with neutral-density screens which simulate *in situ* light levels. At the end of the incubation, the samples were filtered onto Millipore HA filters and placed in scintillation vials. One half ml of 10% HC1 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 SIO where the radioactivity was determined with a scintillation counter. Salinity, oxygen, nutrients, chlorophyll-a, and phaeopigments were determined for all depths.

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

Hydrographic Cast Data

The reported hydrographic cast time is the Coordinated Universal Time (UTC) of the messenger release, Bottom depths, determined acoustically, have been corrected using British Admiralty Tables (Carter, 1980) and are reported in meters. Weather conditions have been coded using WMO code 4501. Secchi depths, taken on most daylight stations, are also reported.

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 (UNESCO, 1981, b). 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.

Primary Productivity Casts

In addition to the normal hydrographic data, the tabulated data include: the *in situ* light levels at which the samples were collected, 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-a and phaeopigments. The uptake values are totals for the incubation period. Also shown are the times of LAN, civil twilight, and the value of the mean uptake integrated from the surface to the deepest sample, assuming that the shallowest value continues to the surface and that negative values (when dark uptake exceeds light uptake) are zero. 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 digits presented. Incubation time, LAN, and civil twilight are given in local Pacific Standard Time (PST); to convert to UTC, add eight hours to the PST time. Incubation light intensities are listed in a footnote at the bottom of each page.

Macrozooplankton Data

Macrozooplankton biomass volumes are tabulated as total biomass volume ($cm^3/1000\ m^3$ strained) and as the total volume minus the volume of larger organisms under the heading "Small." Tow times are given in local PST (+8) time.

FOOTNOTES

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

ISL: After a depth value indicates that this is an interpolated or extrapolated standard level.

P: After a depth value indicates that the 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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PERSONNEL

CalCOFI Cruise 9202

SHIP'S CAPTAIN

Gary Michael Albertson, RV *David Starr Jordan*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

Griffith, David A. (In Charge)	Fishery Biologist, NMFS
Abramenkoff, Dimitry N.	Fishery Biologist, NMFS
Bos, David L.	Staff Research Associate, SIO
Brody, Eric A.	Programmer/Analyst, SIO
Dotson, Ronald C.	Fishery Biologist, NMFS
Gripp, Sherry L.	Staff Research Associate, SIO
Gruber, Dennis \V.	Marine Technician, SIO
Manion, Susan M.	Fishery Biologist, NMFS
Mullin, Michael M.	Director of MLRG, Professor, SIO
Pyle, Peter	Biologist, Pt. Reyes Bird Observatory
Renger, Edward H.	Staff Research Associate, SIO
Sosik, Heidi M.	Graduate Student, SIO
Wilkinson, James R.	Staff Research Associate, SIO

FIGURES

Cruise 9202

1. CalCOFI Cruise 9202, track and station positions.

2. Horizontal distribution of dynamic height anomaly (0 over 500 m). In areas shallower than 500 m, the dynamic heights were extrapolated on the basis of the offshore deeper steric height as described in Reid and Mantyla (1976).

3. Horizontal distributions at 10 meters: A) chlorophyll-a; B) potential density; C) temperature; and D) salinity.

4. Horizontal distributions at 200 meters: A) dynamic height anomaly (200 over 500 m); B) potential density; C) temperature; and D) salinity.

5. Sections along CalCOFI line 90 (vertical exaggeration, 1000): A) potential density; B) temperature; C) salinity; D) silicate; E) nitrate; F) phosphate; G) chlorophyll-a; H) oxygen saturation; I) oxygen; J) nitrite; and K) phaeopigments.

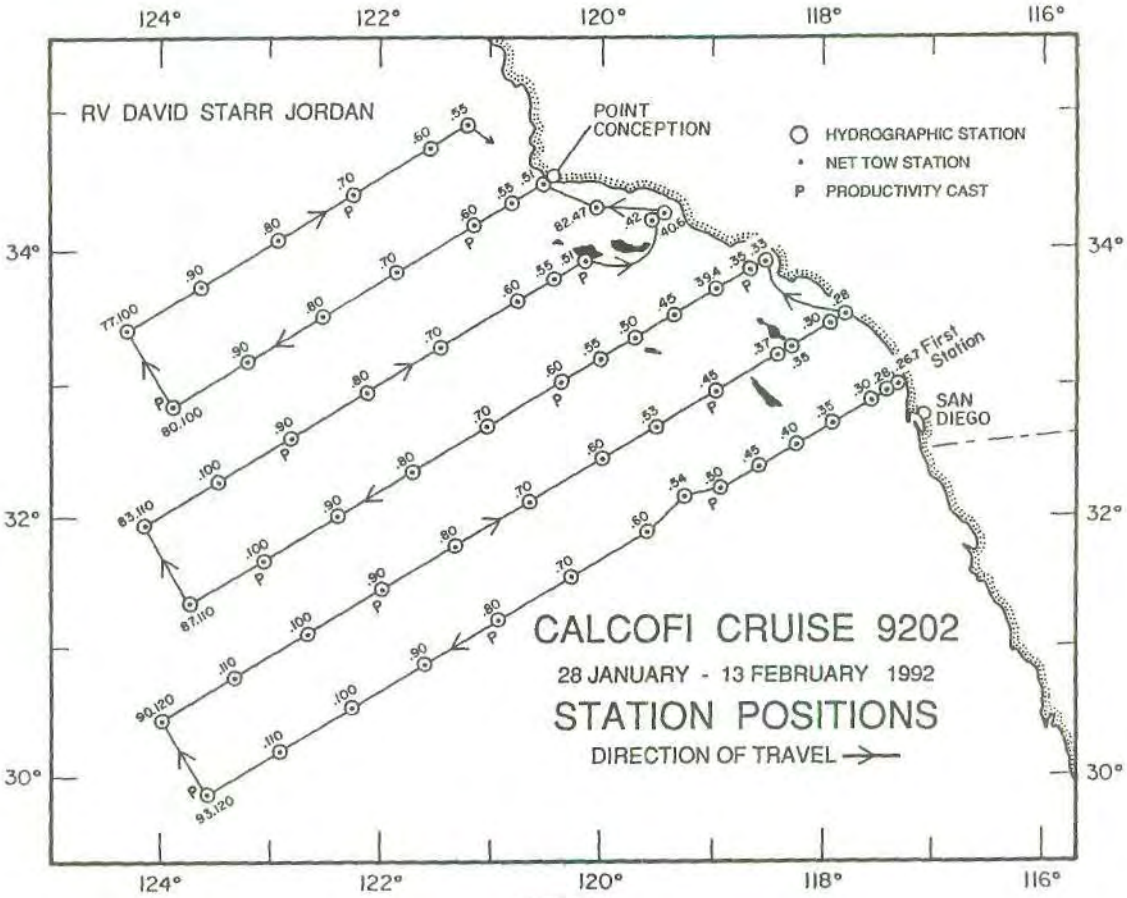

FIGURE 1

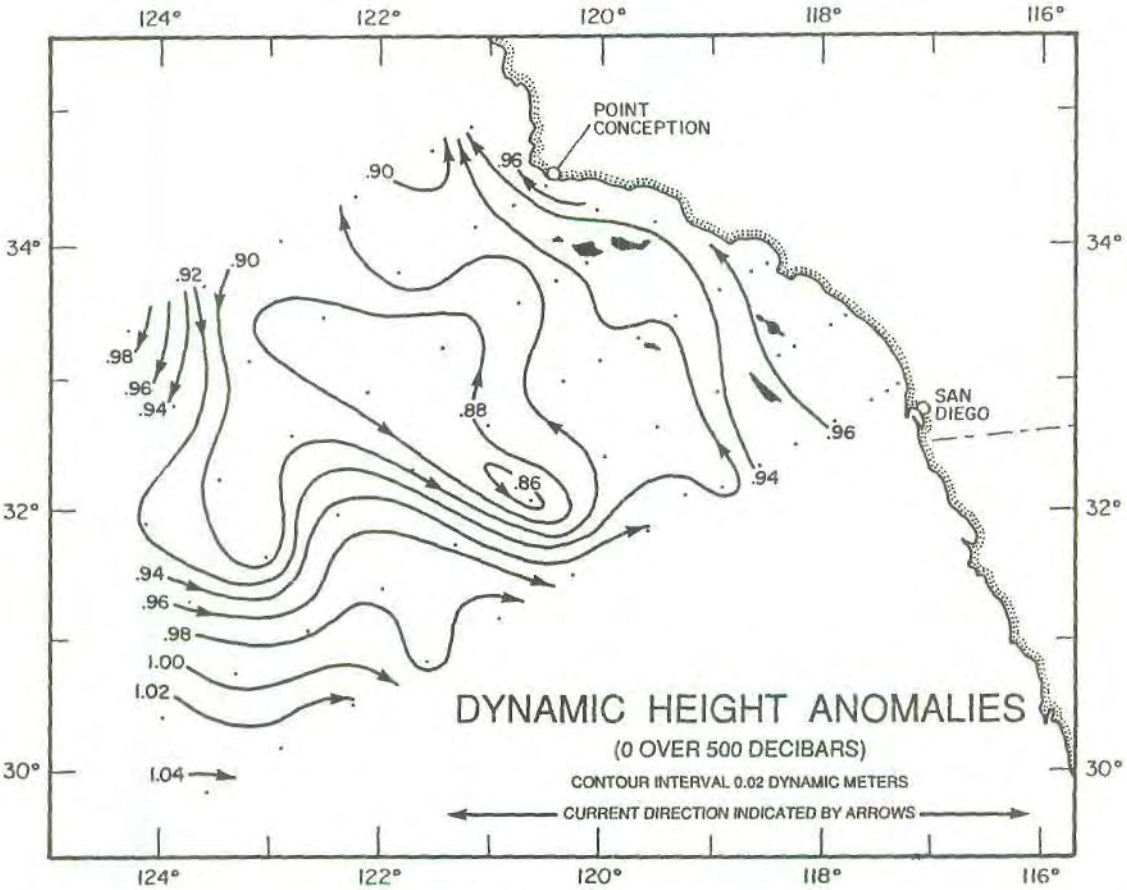

FIGURE 2

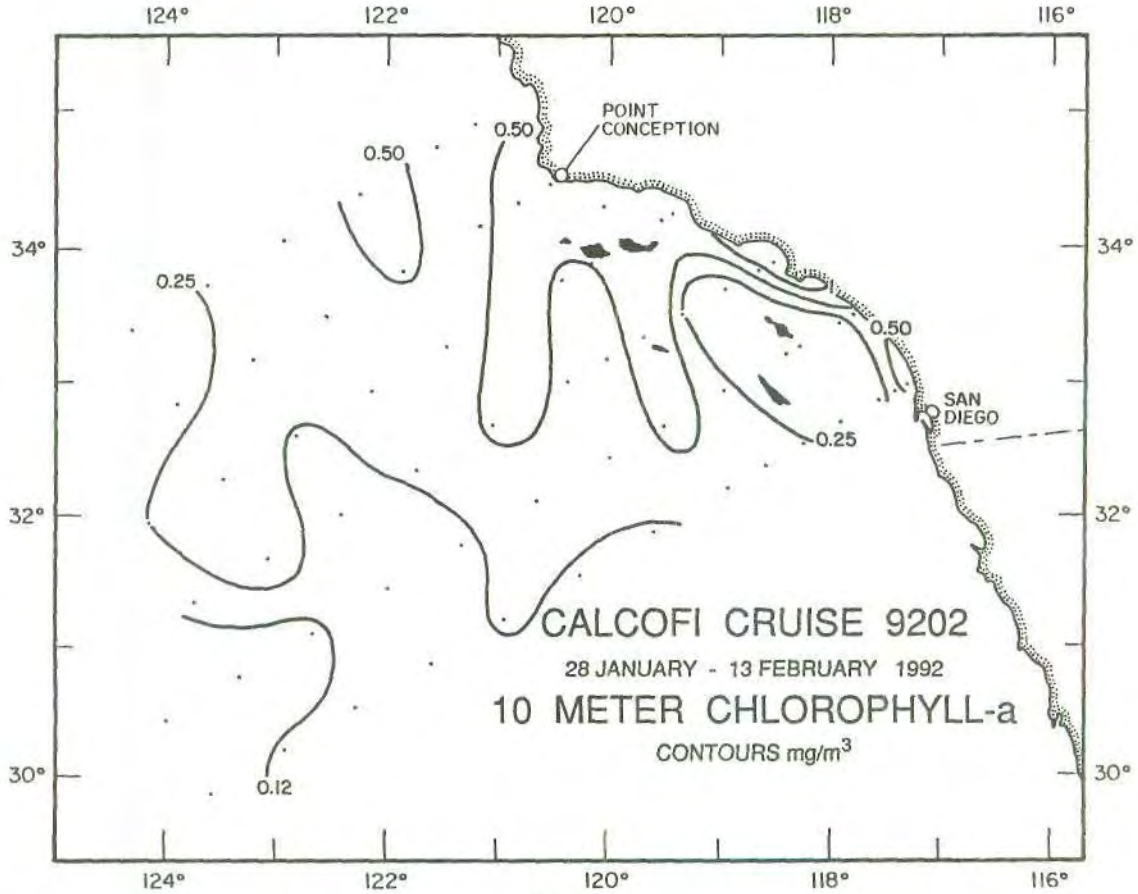

FIGURE 3A

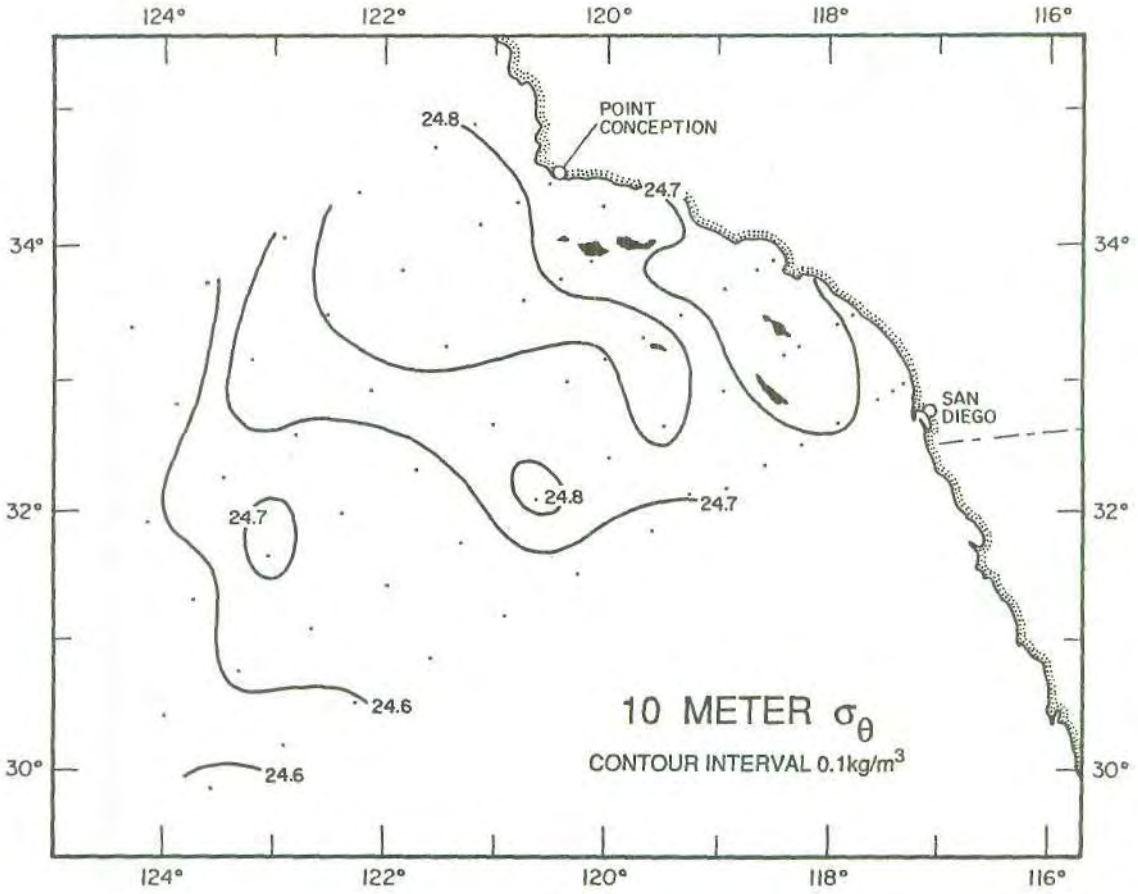

FIGURE 3B

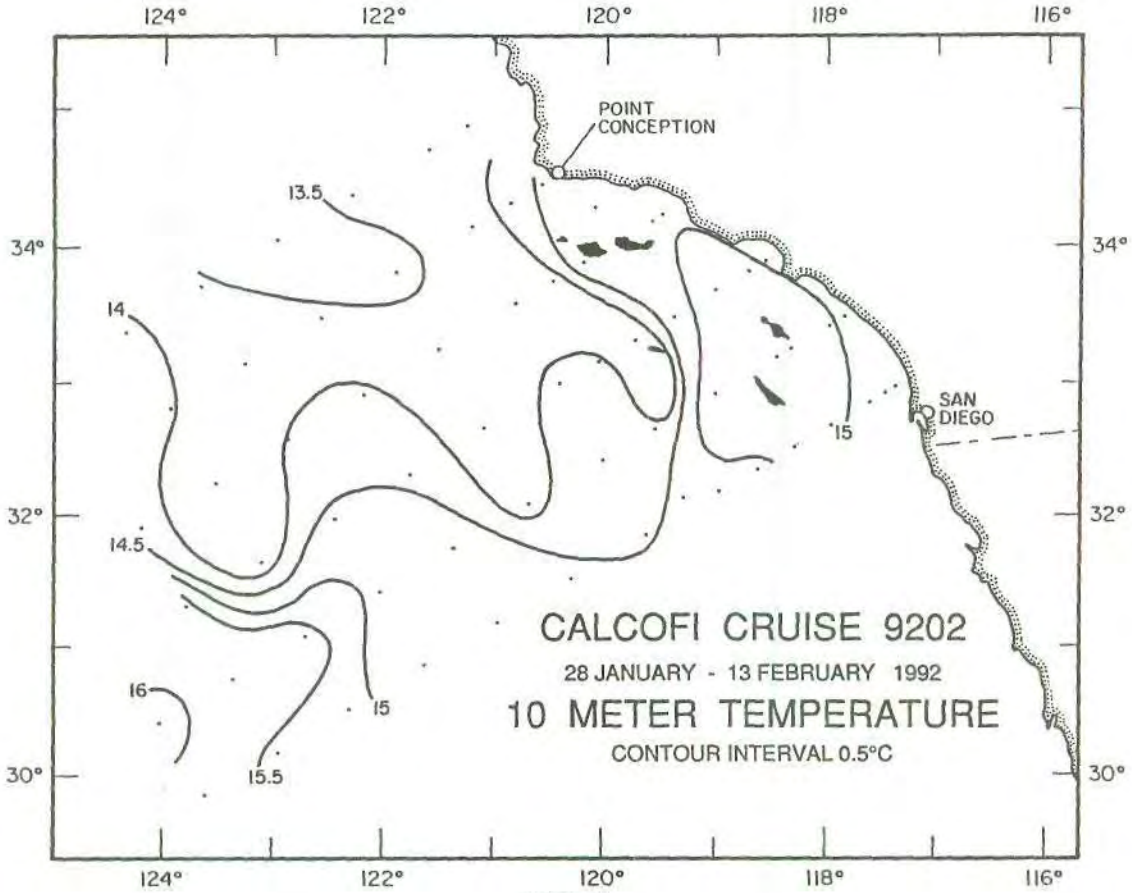

FIGURE 3C

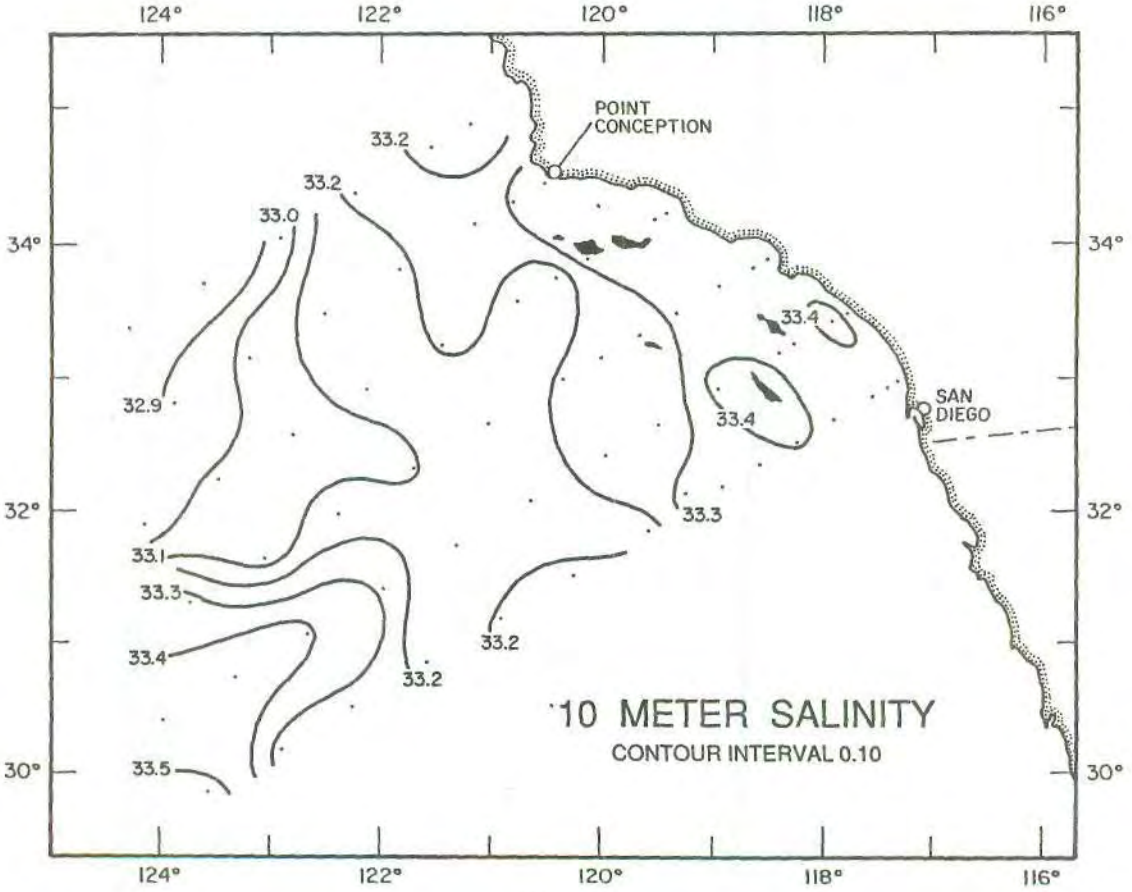

FIGURE 3D

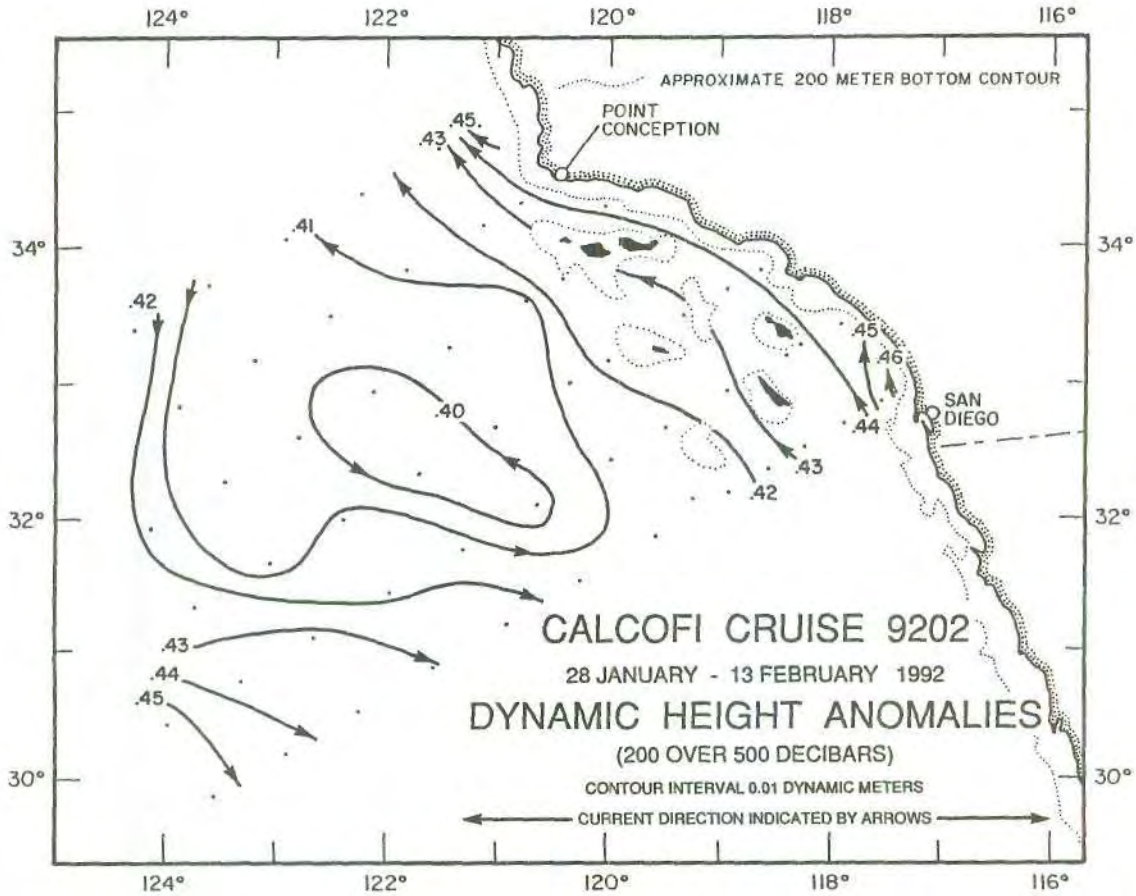

FIGURE 4A

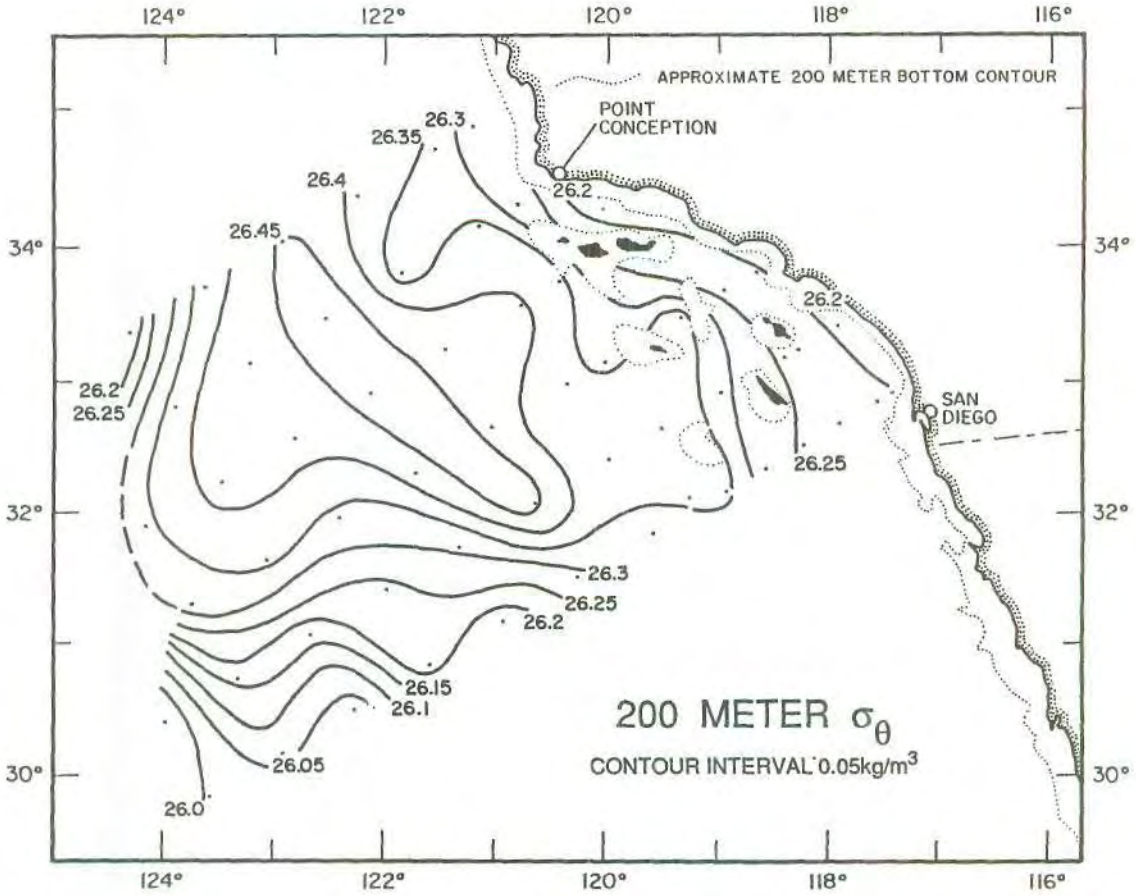

FIGURE 4B

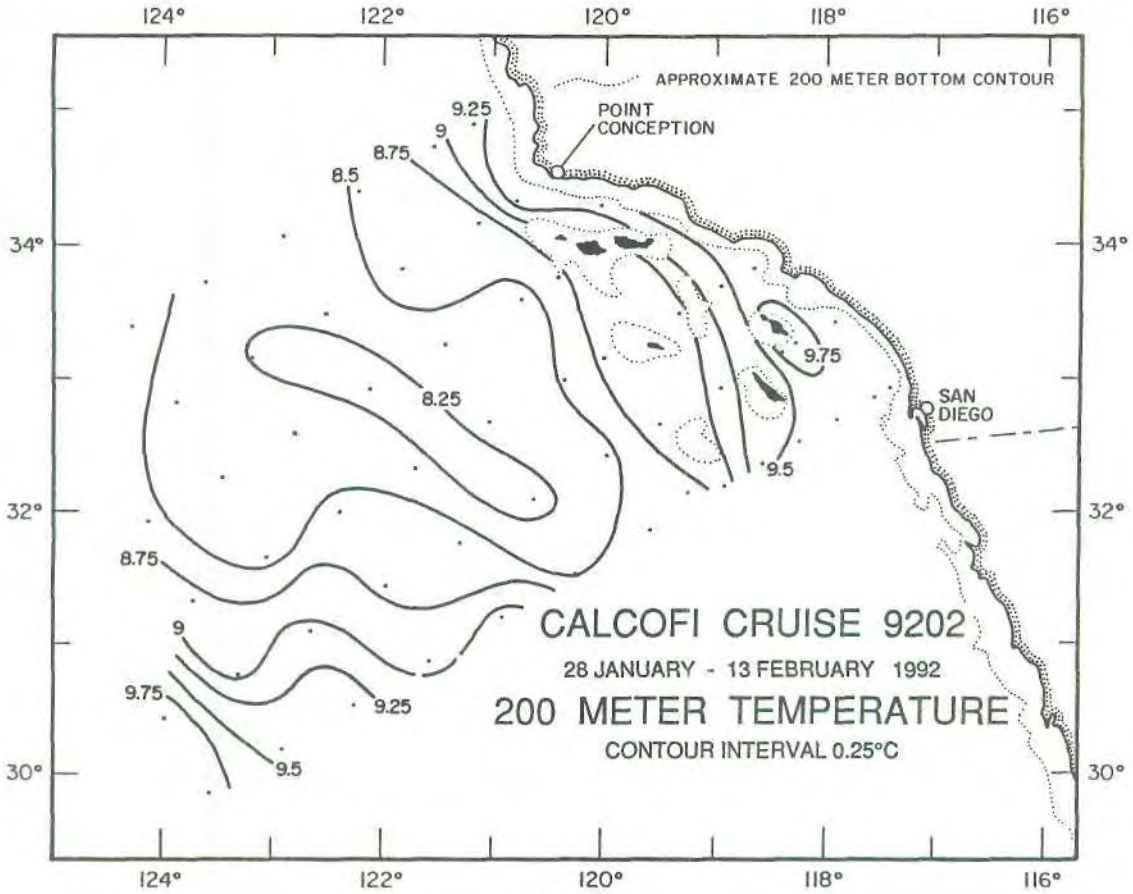

FIGURE 4C

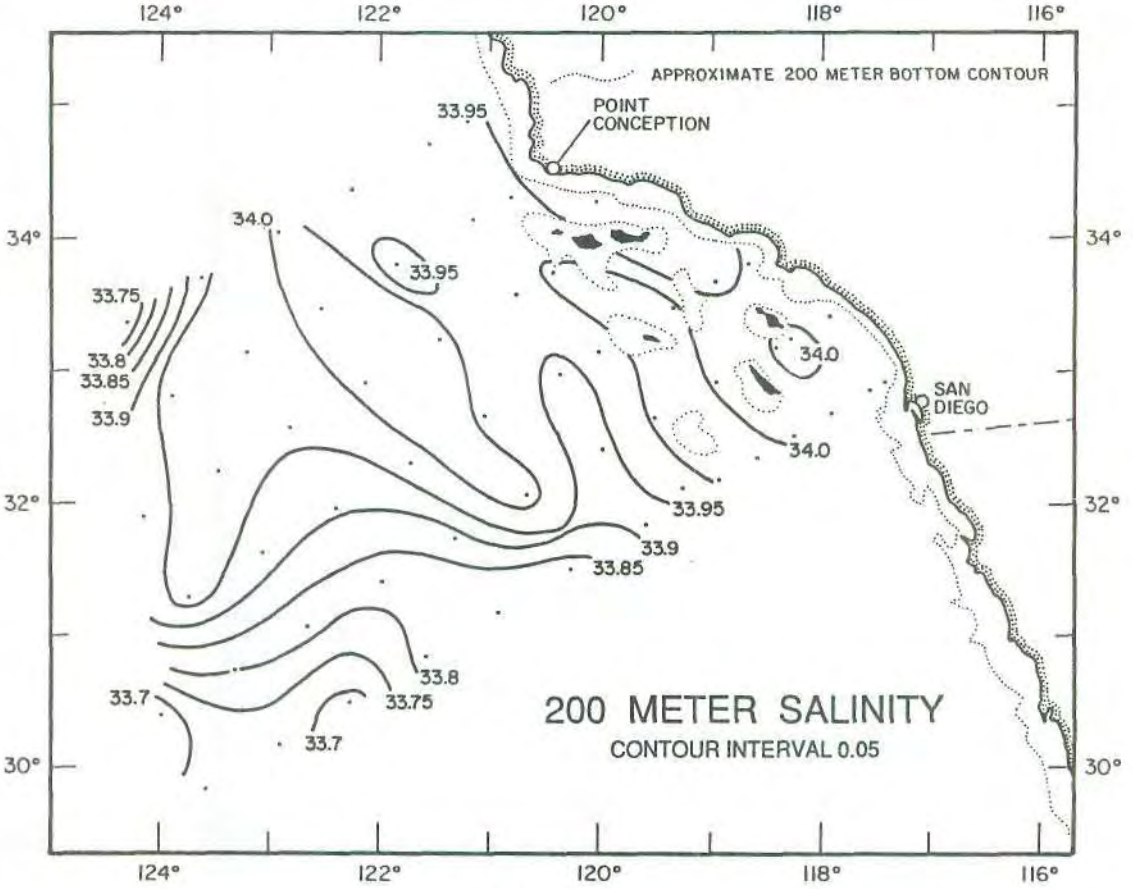

FIGURE 4D

CALCOFI CRUISE 9202

1 - 4 FEBRUARY 1992

POTENTIAL DENSITY (σ_θ) ALONG CALCOFI LINE 90

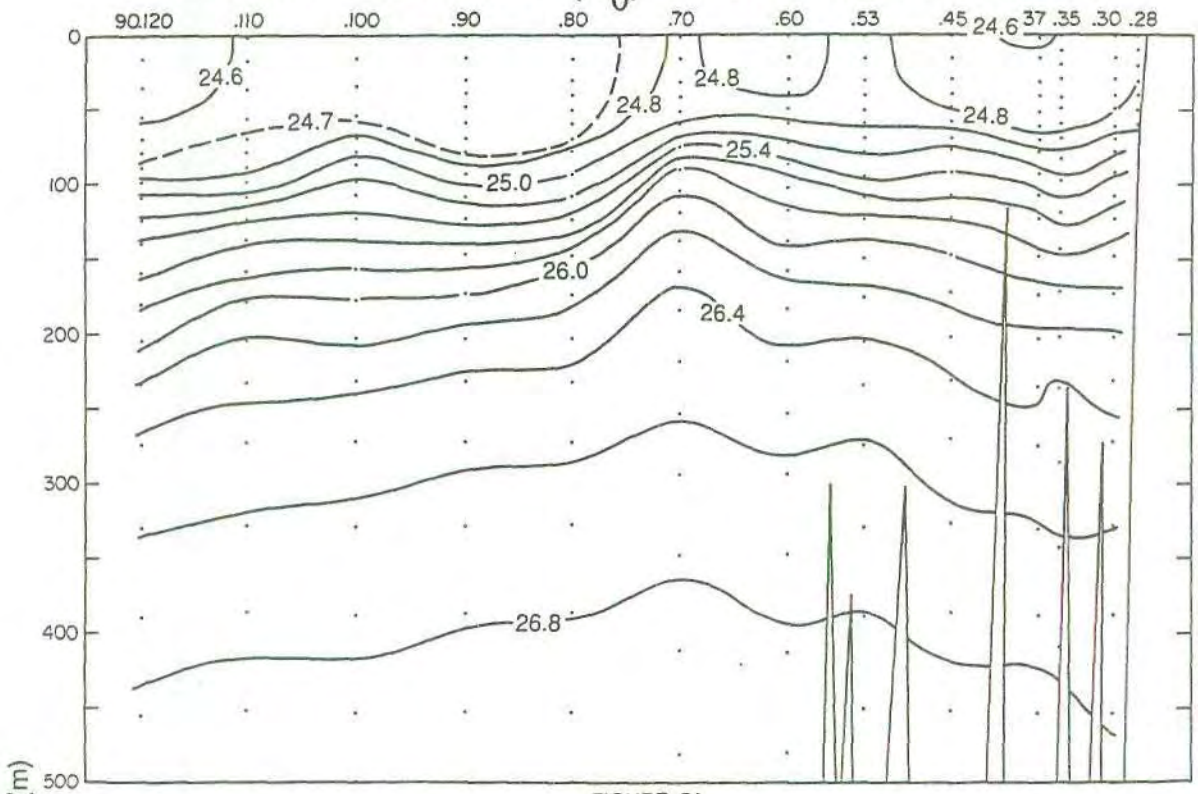

FIGURE 5A

TEMPERATURE (°C) ALONG CALCOFI LINE 90

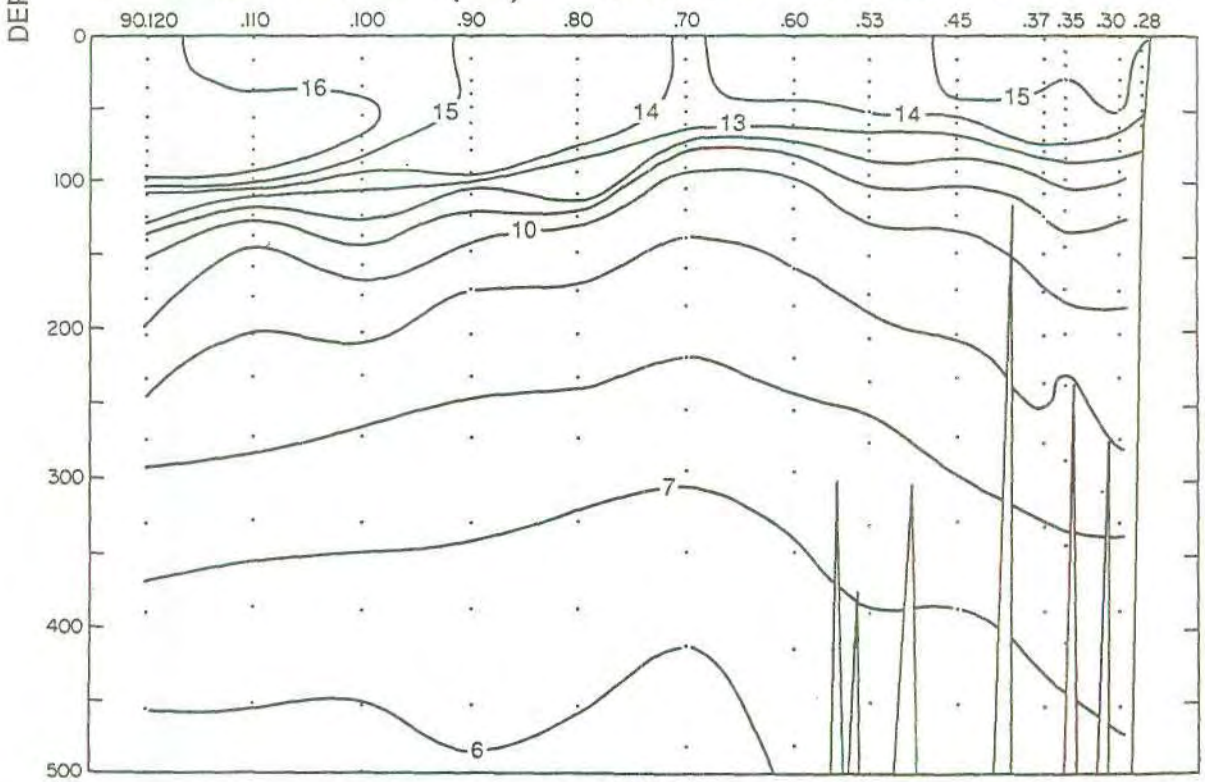

FIGURE 5B

CALCOFI CRUISE 9202

1 - 4 FEBRUARY 1992

SALINITY ALONG CALCOFI LINE 90

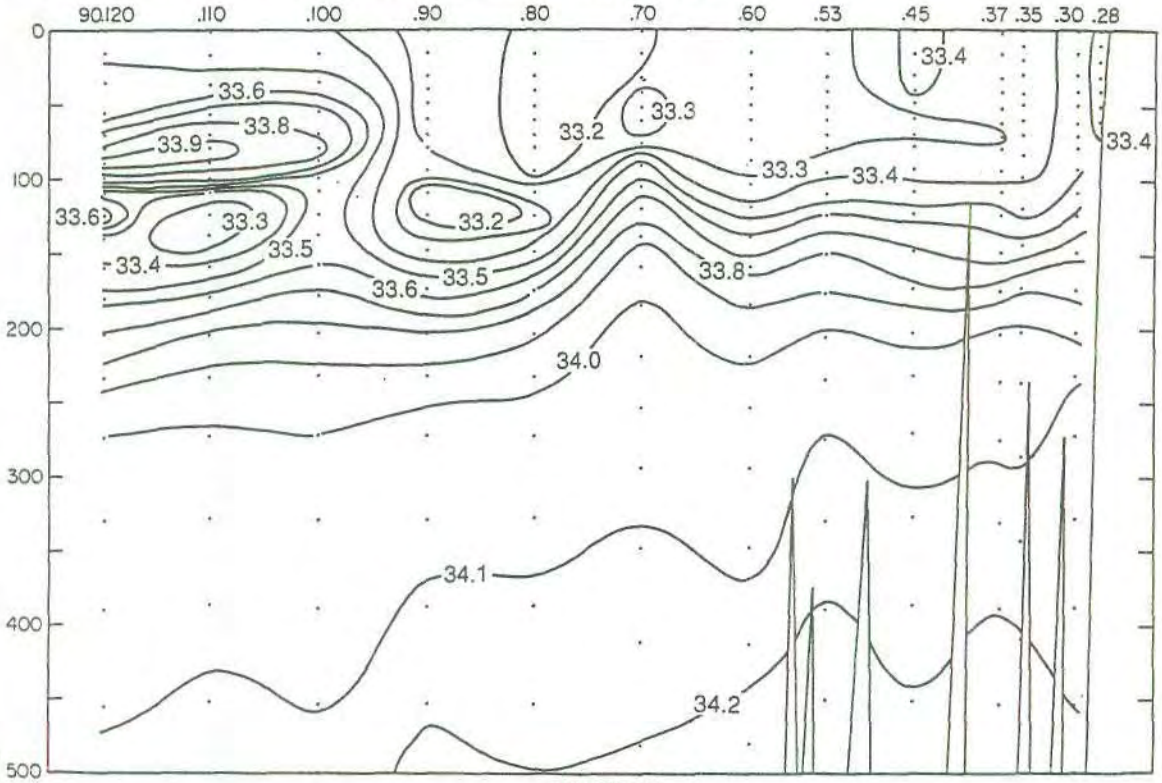

FIGURE 5C

SILICATE (μM/l) ALONG CALCOFI LINE 90

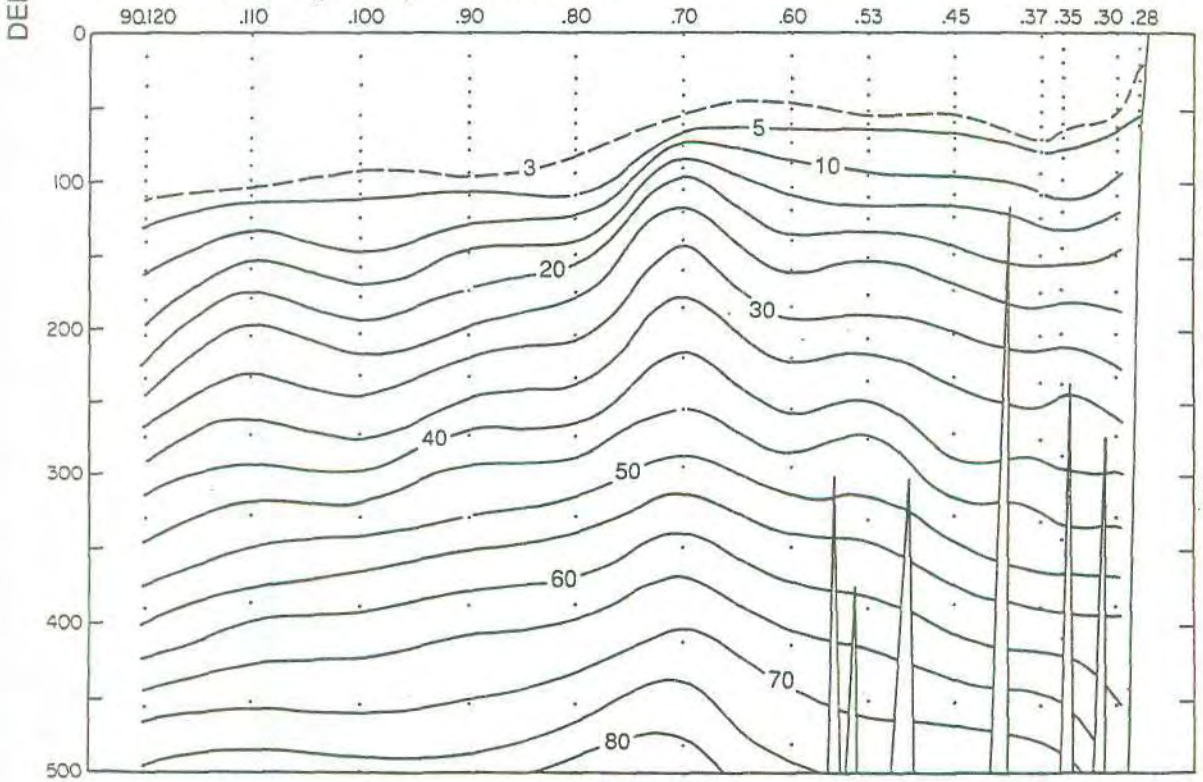

FIGURE 5D

CALCOFI CRUISE 9202

1 - 4 FEBRUARY 1992

NITRATE (µM/l) ALONG CALCOFI LINE 90

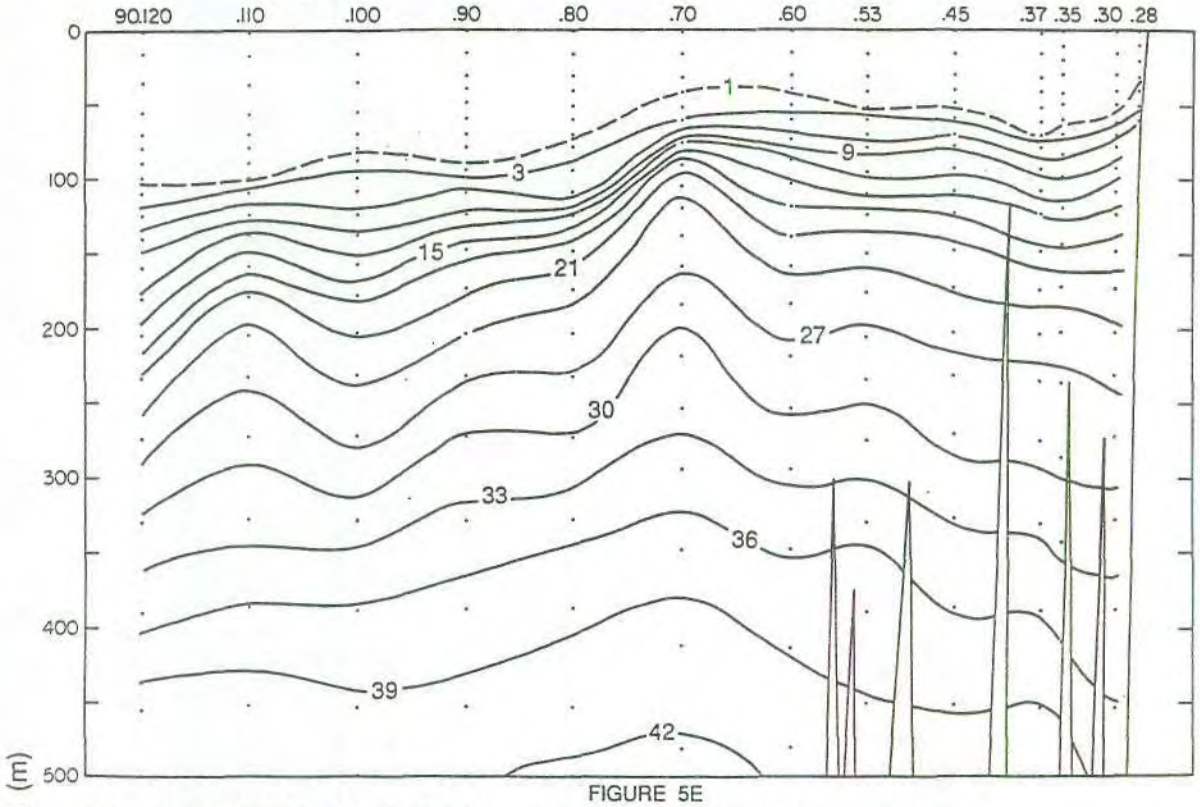

FIGURE 5E

PHOSPHATE (µM/l) ALONG CALCOFI LINE 90

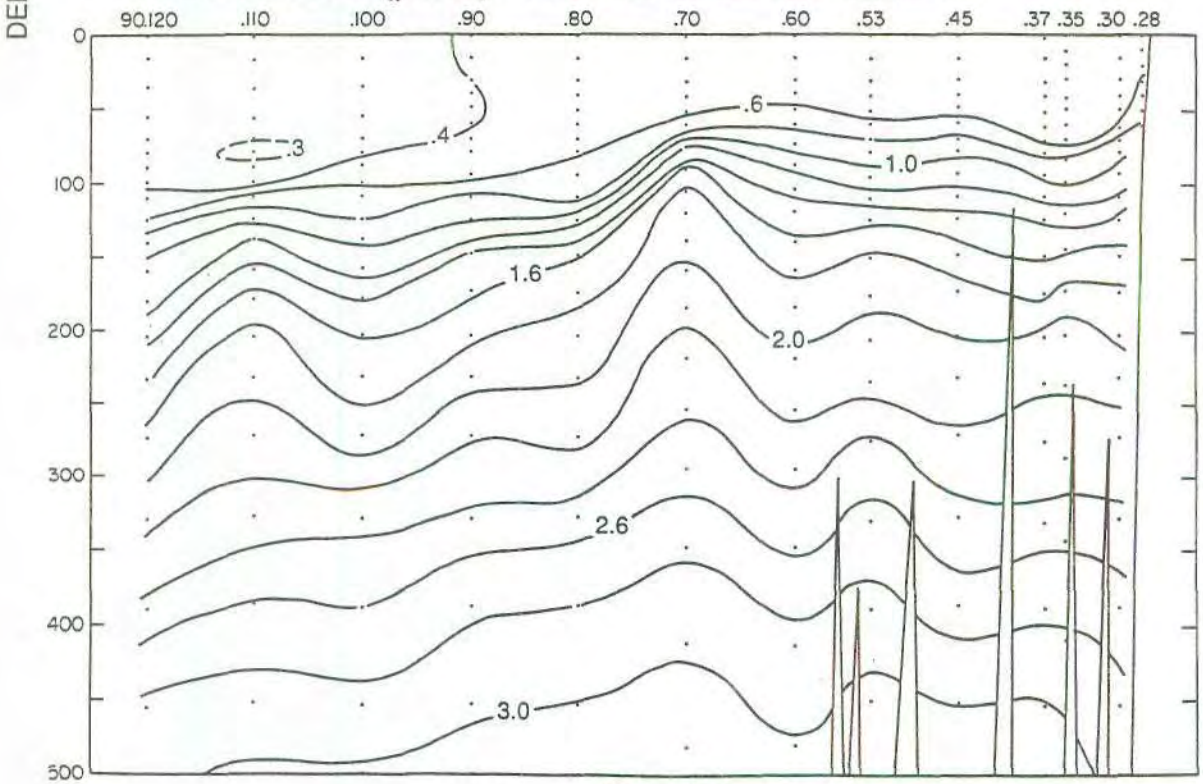

FIGURE 5F

CALCOFI CRUISE 9202

1 - 4 FEBRUARY 1992

CHLOROPHYLL-a (µg/l) ALONG CALCOFI LINE 90

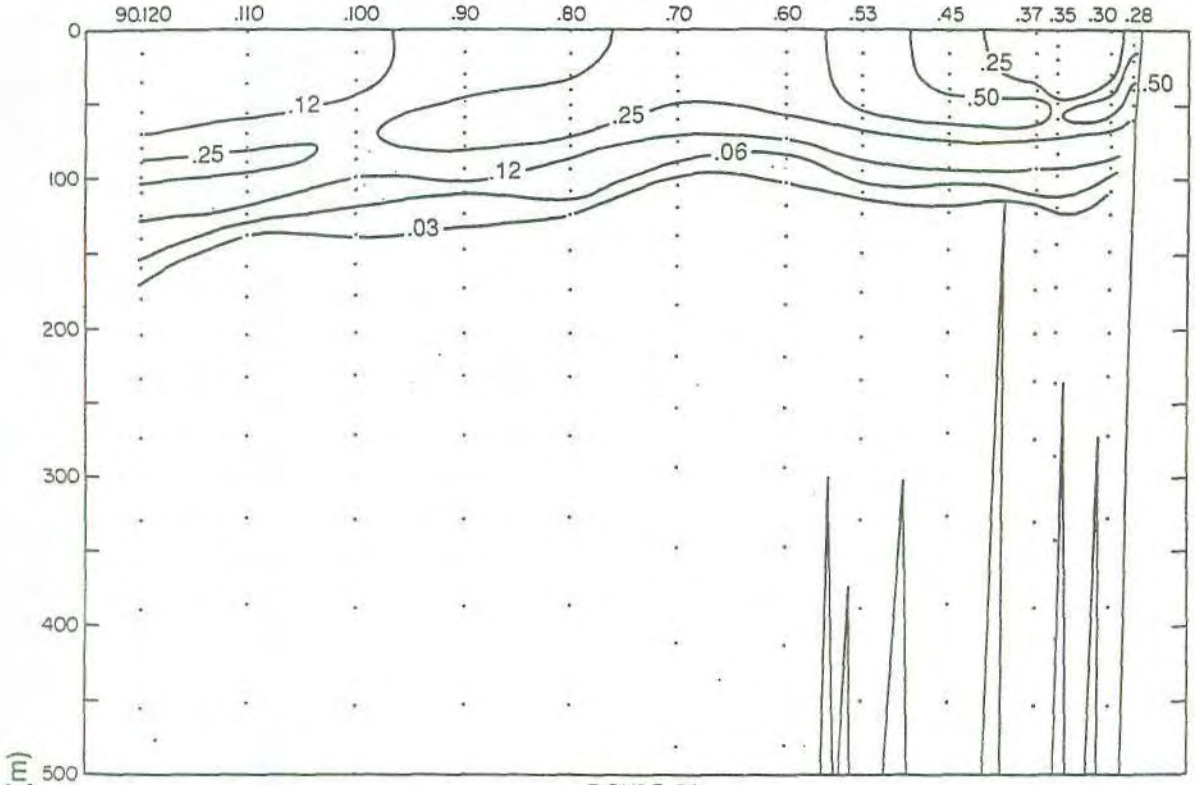

FIGURE 5G

OXYGEN SATURATION (%) ALONG CALCOFI LINE 90

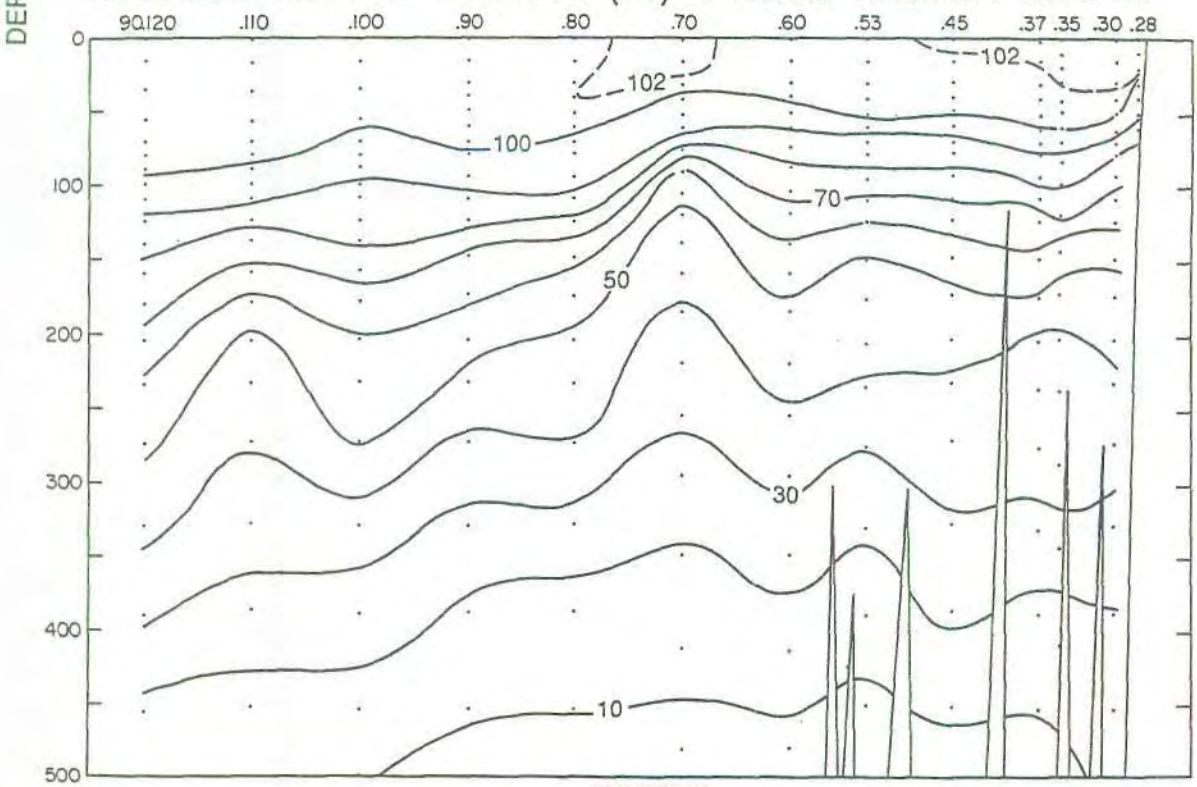

FIGURE 5H

CALCOFI CRUISE 9202

1 - 4 FEBRUARY 1992

OXYGEN (ml/l) ALONG CALCOFI LINE 90

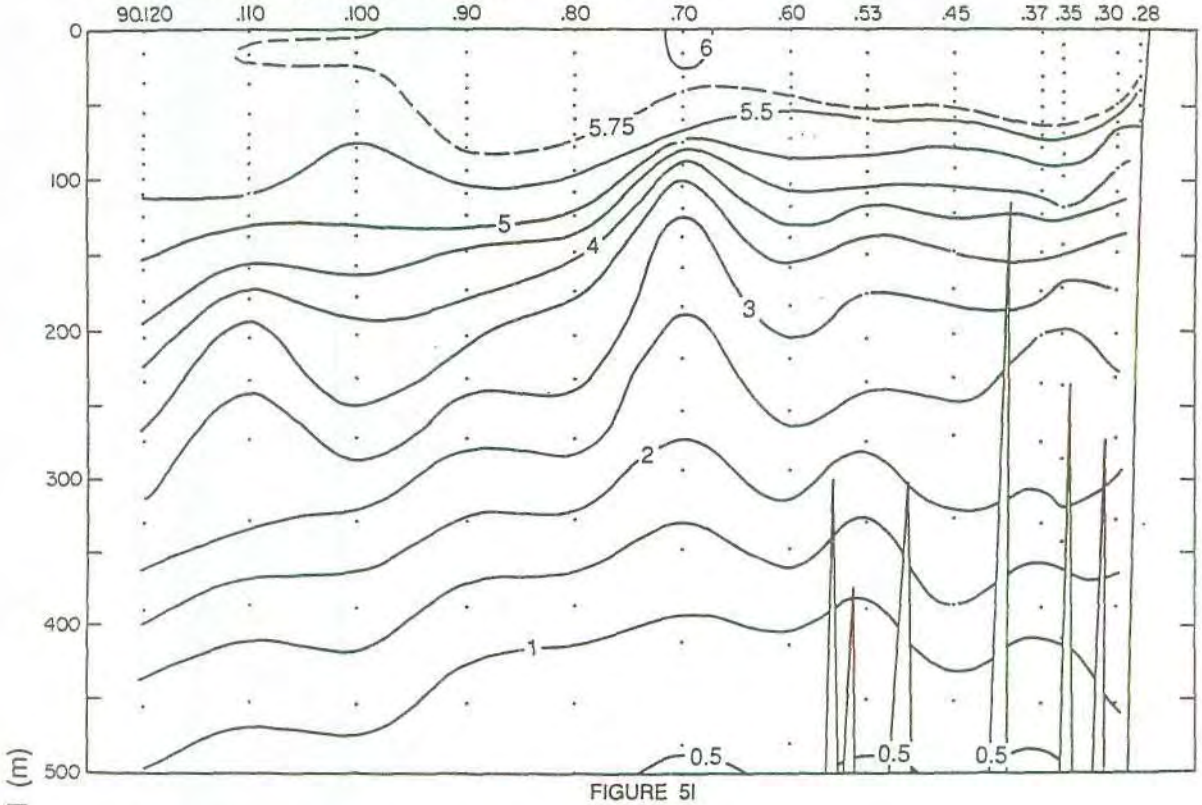

FIGURE 5I

NITRITE (µM/l) ALONG CALCOFI LINE 90

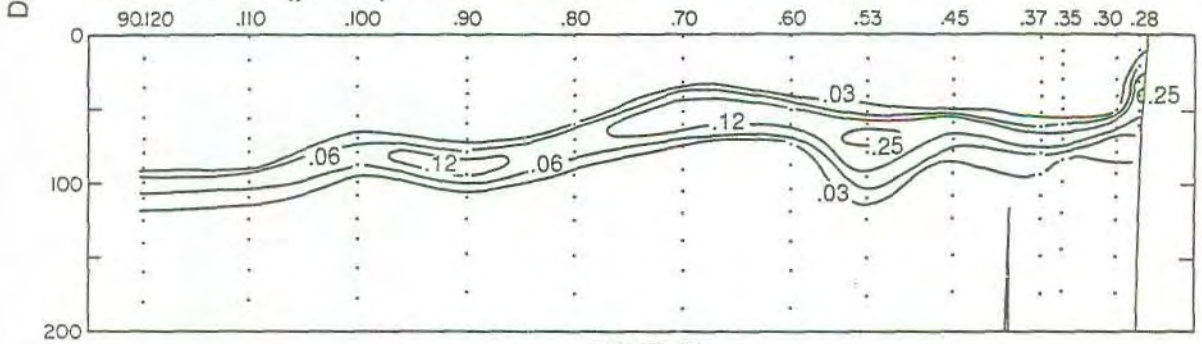

FIGURE 5J

PHAEOPIGMENTS (µg/l) ALONG CALCOFI LINE 90

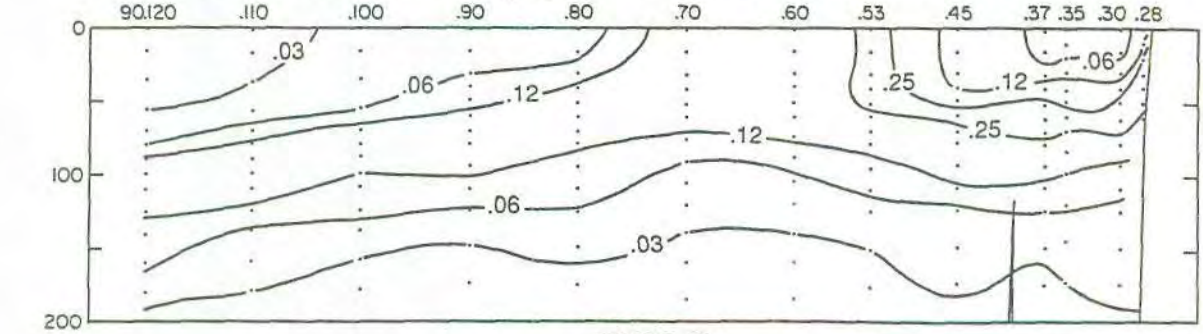

FIGURE 5K

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 77 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 53.3 N	121 11.8 W	12/02/92	0542 UTC	560 in	150 30 kn			1011.5 mb	14.8 C	14.5 C		

CAST	DEPTH Hi	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.82	13.82	33.145	24.792	314.6	0.000	5.96	101.1	3.0	0.49	0.6	0.03	0.41	0.16	0
1	1	13.82	13.82	33.145	24.792	314.6	0.003	5.96	101.1	3.0	0.49	0.6	0.03	0.41	0.16	1
	10 ISL	13.84	13.84	33.143	24.786	315.4	0.031	5.95	101.0	3.0	0.49	0.6	0.04	0.42	0.17	10
1	11	13.84	13.84	33.143	24.786	315.4	0.035	5.95	101.0	3.0	0.49	0.6	0.04	0.42	0.17	11
1	20	13.83	13.83	33.146	24.791	315.2	0.063	5.96	101.1	2.9	0.48	0.6	0.04	0.41	0.16	20
1	30	13.83	13.83	33.147	24.792	315.4	0.095	5.96	101.1	2.7	0.49	0.7	0.03	0.42	0.16	30
1	40	13.83	13.82	33.150	24.795	315.5	0.126	5.95	101.0	2.6	0.49	0.7	0.03	0.42	0.16	40
1	49	13.72	13.71	33.195	24.852	310.2	0.154	5.91	100.1	2.7	0.50	0.9	0.05	0.51	0.25	49
	50 ISL	13.66	13.65	33.203	24.871	308.5	0.157	5.87	99.3	2.9	0.52	1.2	0.06	0.50	0.25	50
1	59	13.03	13.02	33.277	25.055	291.2	0.184	5.47	91.4	4.8	0.73	4.7	0.17	0.35	0.23	59
1	69	12.49	12.48	33.333	25.204	277.2	0.213	5.12	84.6	6.7	0.90	7.6	0.13	0.27	0.24	69
	75 ISL	12.11	12.10	33.327	25.271	270.8	0.229	5.02	82.3	7.8	0.98	8.9	0.09	0.22	0.21	75
1	82	11.63	11.62	33.327	25.361	262.4	0.248	4.90	79.5	9.3	1.07	10.6	0.05	0.17	0.17	82
1	97	10.46	10.45	33.489	25.696	230.7	0.285	4.24	67.1	14.8	1.40	16.2	0.01	0.05	0.09	97
	100 ISL	10.33	10.32	33.523	25.745	226.1	0.292	4.11	64.9	15.9	1.45	17.1	0.01	0.04	0.09	100
1	117	9.89	9.88	33.688	25.949	207.1	0.329	3.48	54.5	21.3	1.70	20.8	0.01	0.01	0.08	118
	125 ISL	9.76	9.75	33.739	26.010	201.4	0.345	3.31	51.7	23.0	1.77	21.9	0.01	0.01	0.07	126
1	141	9.58	9.56	33.812	26.097	193.4	0.376	3.08	47.9	25.5	1.87	23.4	0.00	0.01	0.05	142
	150 ISL	9.51	9.49	33.838	26.129	190.6	0.394	2.99	46.4	26.4	1.90	23.9	0.00	0.01	0.05	151
1	175	9.36	9.34	33.892	26.196	184.7	0.441	2.81	43.5	28.3	1.97	24.9	0.00	0.01	0.06	176
	200 ISL	9.18	9.16	33.960	26.279	177.3	0.486	2.61	40.3	30.6	2.06	26.2	0.00	0.00	0.04	201
1	204	9.15	9.13	33.971	26.292	176.1	0.493	2.58	39.8	31.0	2.07	26.4	0.00	0.00	0.04	205
1	234	8.85	8.82	34.051	26.403	166.1	0.544	2.30	35.2	35.1	2.20	28.2	0.00			235
	250 ISL	8.78	8.75	34.069	26.428	164.0	0.571	2.23	34.1	36.1	2.23	28.7	0.00			251
1	274	8.70	8.67	34.081	26.450	162.3	0.610	2.16	33.0	37.2	2.26	29.1	0.00			276
	300 ISL	8.57	8.54	34.095	26.482	1!>9.7	0.652	2.10	32.0	38.8	2.30	29.5	0.00			302
1	330	8.38	8.35	34.111	26.524	1!56.2	0.699	2.02	30.6	41.1	2.35	30.1	0.00			332
1	389	7.85	7.81	34.150	26.634	146.4	0.788	1.64	24.6	48.0	2.54	32.4	0.00			392
	400 ISL	7.73	7.69	34.154	26.655	144.6	0.804	1.57	23.5	49.5	2.58	32.9	0.00			403
1	455	7.15	7.11	34.170	26.750	136.0	0.882	1.22	18.0	57.7	2.76	35.2	0.00			458
	500 ISL	6.78	6.73	34.190	26.817	130.0	0.941	0.95	13.9	64.4	2.90	36.8				503
1	524	6.58	6.53	34.202	26.854	126.7	0.972	0.80	11.6	67.9	2.97	37.6				528

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 77 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 43.3 N	121 32.9 W	12/02/92	0210 UTC	902 m	140 30 Kn	160 06 05	2	1011.1 mb	14.7 C	14.5 C		8/8 ST

CAST	DEPTH in	TEMP DEG C	POT TEMP DEG C	SALINITY' PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.63	13.63	33.163	24.844	309.6	0.000	6.01	101.6	2.7	0.50	0.8	0.06	0.37	0.16	0
1	3	13.63	13.63	33.163	24.844	309.6	0.009	6.01	101.6	2.7	0.50	0.8	0.06	0.37	0.16	3
	10 ISL	13.64	13.64	33.162	24.842	310.1	0.031	6.01	101.6	2.6	0.50	0.8	0.07	0.38	0.16	10
1	12	13.64	13.64	33.162	24.842	Itl0.l	0.037	6.01	101.6	2.6	0.50	0.8	0.07	0.38	0.16	12
	20 ISL	13.63	13.63	33.162	24.844	:I10.1	0.062	6.00	101.4	2.4	0.49	0.7	0.06	0.53	0.22	20
1	23	13.63	13.63	33.163	24.845	310.1	0.071	6.00	101.4	2.4	0.49	0.7	0.06	0.58	0.25	23
	30 ISL	13.62	13.62	33.164	24.848	310.0	0.093	6.03	101.9	2.4	0.49	0.8	0.07	0.59	0.27	30
1	32	13.62	13.62	33.164	24.848	310.1	0.099	6.04	102.1	2.4	0.49	0.8	0.07	0.59	0.27	32
1	42	13.59	13.58	33.166	24.856	309.6	0.130	6.00	101.3	2.5	0.49	0.7	0.07	0.57	0.29	42
	50 ISL	12.36	12.35	33.152	25.088	287.7	0.154	5.60	92.2	5.1	0.75	4.9	0.08	0.33	0.20	50
1	52	12.01	12.00	33.150	25.152	281.6	0.160	5.49	89.7	5.8	0.82	6.1	0.08	0.26	0.17	52
1	62	11.19	11.18	33.124	25.283	269.3	0.187	5.27	84.6	7.6	1.01	9.5	0.01	0.12	0.12	62
1	75	9.93	9.92	33.211	25.569	242.2	0.221	4.93	77.0	11.7	1.26	13.7	0.01	0.06	0.07	75
1	90	9.51	9.50	33.335	25.735	226.7	0.256	4.61	71.4	14.7	1.41	16.5	0.00	0.03	0.05	90
	100 ISL	9.41	9.40	33.387	25.792	221.5	0.278	4.51	69.7	15.4	1.45	17.2	0.00	0.02	0.05	101
1	110	9.37	9.36	33.428	25.831	218.0	0.300	4.43	68.4	16.0	1.47	17.7	0.00	0.02	0.05	111
	125 ISL	9.25	9.24	33.496	25.903	211.4	0.332	4.26	65.7	18.0	1.54	18.9	0.00	0.01	0.04	126
1	129	9.23	9.22	33.522	25.927	209.2	0.341	4.18	64.4	18.7	1.57	19.3	0.00	0.01	0.04	130
	150 ISL	9.41	9.39	33.799	26.115	191.9	0.383	3.23	50.1	24.9	1.83	22.9	0.00	0.01	0.04	151
1	154	9.45	9.43	33.852	26.150	188.6	0.390	3.05	47.3	26.1	1.88	23.6	0.00	0.01	0.04	155
1	183	9.20	9.18	33.938	26.258	178.9	0.444	2.78	42.9	29.6	2.01	25.4	0.00	0.01	0.05	1E;4
	200 ISL	8.91	8.89	33.990	26.345	170.9	0.473	2.59	39.7	32.6	2.10	26.8	0.00	0.01	0.05	201
1	217	8.63	8.61	34.038	26.427	163.4	0.502	2.40	36.6	35.7	2.19	28.1	0.00	0.00	0.04	218
	250 ISL	8.41	8.38	34.104	26.513	155.8	0.555	2.06	31.3	40.0	2.35	29.8	0.00			251
1	251	8.40	8.37	34.105	26.515	155.6	0.556	2.05	31.1	40.1	2.35	29.8	0.00			2'>2
1	291	7.95	7.92	34.125	26.599	148.1	0.617	1.86	27.9	45.6	2.46	31.4	0.00			293
	300 ISL	7.87	7.84	34.129	26.614	146.8	0.630	1.81	27.1	46.7	2.49	31.7	0.00			302
2	354	7.47	7.44	34.157	26.694	139.9	0.708	1.46	21.7	53.0	2.65	33.7	0.00			356
	400 ISL	7.14	7.10	34.189	26.766	133.6	0.770	1.12	16.5	59.3	2.81	35.2	0.00			403
2	419	7.00	6.96	34.199	26.793	131.2	0.796	1.00	14.7	61.9	2.87	35.8	0.00			422
2	487	6.36	6.32	34.192	26.874	124.0	0.882	0.82	11.9	69.9	2.99	38.1	0.00			430
	500 ISL	6.31	6.26	34.202	26.888	122.7	0.898	0.77	11.1	71.1	3.01	38.3				503
2	564	6.08	6.03	34.251	26.957	116.9	0.975	0.54	7.8	77.2	3.13	39.5				568

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 77 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 23.3 N	122 14.8 W	11/02/92	2014 UTC	4012 m	160 17 kn	180 09 06	1	1014.1 mb	15.4 C	15.0 C	19m 02	7/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.76	13.76	33.224	24.865	307.6	0.000	5.97	101.2	3.3	0.50	0.2	0.07	0.63	0.21	0
1	2	13.76	13.76	33.224	24.865	307.7	0.006	5.97	101.2	3.3	0.50	0.2	0.07	0.63	0.21	2
	10 ISL	13.75	13.75	33.223	24.867	307.7	0.031	5.99	101.5	3.1	0.50	0.2	0.07	0.59	0.20	10
1	12	13.74	13.74	33.223	24.869	307.6	0.037	5.99	101.5	3.1	0.50	0.2	0.07	0.58	0.20	12
	20 ISL	13.70	13.70	33.222	24.876	307.1	0.062	5.98	101.3	3.1	0.49	0.2	0.07	0.40	0.14	20
1	21	13.70	13.70	33.222	24.876	307.1	0.065	5.98	101.3	3.1	0.49	0.2	0.07	0.38	0.13	21
	30 ISL	13.69	13.69	33.221	24.878	307.2	0.092	6.00	101.6	2.9	0.49	0.2	0.07	0.40	0.13	30
1	32	13.69	13.69	33.221	24.878	307.3	0.098	6.00	101.6	2.9	0.49	0.2	0.07	0.41	0.13	32
1	42	13.71	13.70	33.221	24.874	307.9	0.129	5.98	101.3	2.9	0.49	0.2	0.07	0.39	0.12	42
	50 ISL	13.42	13.41	33.193	24.911	304.5	0.154	6.01	101.2	3.1	0.52	0.4	0.11	0.31	0.12	50
1	52	13.34	13.33	33.185	24.922	303.6	0.160	6.02	101.2	3.2	0.53	0.4	0.12	0.29	0.12	52
1	61	13.14	13.13	33.170	24.950	301.2	0.187	6.01	100.5	3.5	0.55	0.6	0.15	0.29	0.13	61
1	71	12.71	12.70	33.160	25.027	294.1	0.217	5.91	98.0	4.1	0.65	1.8	0.31	0.16	0.11	71
	75 ISL	12.16	12.15	33.144	25.120	285.2	0.228	5.68	93.1	5.7	0.80	4.4	0.25	0.13	0.11	75
1	85	10.74	10.73	33.149	25.382	260.3	0.256	5.03	79.9	10.2	1.19	11.4	0.04	0.09	0.10	85
1	100	10.13	10.12	33.316	25.618	238.2	0.293	4.58	71.9	13.8	1.39	15.4	0.03	0.05	0.08	100
1	120	9.47	9.46	33.581	25.934	208.4	0.338	3.86	59.8	20.1	1.66	20.4	0.02	0.01	0.05	121
	125 ISL	9.40	9.39	33.616	25.973	204.8	0.348	3.77	58.3	21.0	1.69	21.0	0.02	0.01	0.05	126
1	145	9.23	9.21	33.709	26.073	195.7	0.388	3.51	54.1	23.6	1.79	22.8	0.01	0.01	0.04	146
	150 ISL	9.18	9.16	33.731	26.099	193.3	0.398	3.43	52.9	24.4	1.82	23.3	0.01	0.01	0.04	151
1	175	8.90	8.88	33.842	26.230	181.3	0.445	3.06	46.9	28.7	1.97	25.9	0.01	0.00	0.03	176
	200 ISL	8.53	8.51	33.967	26.386	166.8	0.488	2.78	42.3	33.6	2.09	28.0	0.01	0.00	0.03	201
1	204	8.47	8.45	33.984	26.409	164.8	0.495	2.74	41.6	34.3	2.11	28.3	0.01	0.00	0.03	205
1	232	8.21	8.19	34.022	26.478	158.6	0.540	2.59	39.1	37.8	2.19	29.4	0.01			233
	250 ISL	8.05	8.02	34.046	26.521	154.8	0.568	2.44	36.7	40.3	2.26	30.4	0.01			251
1	273	7.84	7.81	34.075	26.575	149.9	0.603	2.22	33.3	43.7	2.36	31.7	0.00			275
	300 ISL	7.62	7.59	34.099	26.626	145.4	0.643	1.97	29.4	47.6	2.48	33.1	0.00			302
1	329	7.37	7.34	34.119	26.678	140.9	0.685	1.69	25.0	52.0	2.60	34.5	0.00			331
1	387	6.78	6.74	34.155	26.788	131.0	0.763	1.14	16.7	62.1	2.85	37.8	0.00			389
	400 ISL	6.70	6.66	34.167	26.808	129.2	0.780	1.04	15.2	63.9	2.90	38.3	0.00			403
1	453	6.41	6.37	34.215	26.885	122.4	0.847	0.69	10.0	70.7	3.05	39.8	0.00			456
	500 ISL	6.02	5.98	34.232	26.949	116.7	0.903	0.53	7.6	77.4	3.15	41.5				503
1	522	5.84	5.79	34.241	26.979	114.0	0.929	0.46	6.6	80.6	3.20	42.3				526

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 77 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 3.3 N	122 56.4 W	11/02/92	1420 UTC	4226 D	170 14 len			1012.2 mb	14.5 C	14.0 C			

CAST	DEPTH a	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.27	13.27	32.932	24.738	319.7	0.000	6.08	101.9	3.2	0.51	0.2	0.03	0.30	0.09	0
1	2	13.27	13.27	32.932	24.738	319.7	0.006	6.08	101.9	3.2	0.51	0.2	0.03	0.30	0.09	2
	10 ISL	13.29	13.29	32.931	24.734	320.4	0.032	6.07	101.7	3.0	0.52	0.2	0.05	0.31	0.10	10
1	12	13.29	13.29	32.931	24.734	320.4	0.038	6.07	101.7	2.9	0.52	0.2	0.05	0.31	0.10	12
	20 ISL	13.27	13.27	32.928	24.736	320.5	0.064	6.08	101.9	2.8	0.51	0.2	0.05	0.31	0.12	20
1	22	13.26	13.26	32.927	24.737	320.4	0.070	6.08	101.8	2.8	0.51	0.2	0.05	0.31	0.13	22
	30 ISL	12.87	12.87	32.953	24.834	311.3	0.096	6.11	101.5	3.1	0.55	0.3	0.10	0.35	0.17	30
1	33	12.71	12.71	32.965	24.875	307.5	0.105	6.11	101.2	3.2	0.57	0.4	0.12	0.37	0.18	33
1	43	12.47	12.46	32.988	24.939	301.6	0.135	6.05	99.7	3.8	0.63	0.9	0.17	0.37	0.17	43
	50 ISL	12.31	12.30	32.997	24.977	298.2	0.156	6.00	98.5	4.1	0.67	1.2	0.19	0.33	0.16	50
1	53	12.26	12.25	33.007	24.994	296.6	0.165	5.98	98.1	4.2	0.68	1.4	0.20	0.31	0.16	53
1	63	12.18	12.17	33.119	25.097	287.2	0.195	5.87	96.2	4.7	0.74	2.4	0.24	0.20	0.13	63
1	73	11.45	11.44	33.032	25.165	280.8	0.223	5.62	90.6	6.9	0.95	6.2	0.03	0.09	0.10	73
	75 ISL	11.20	11.19	33.027	25.206	276.9	0.229	5.57	89.3	7.4	0.99	7.0	0.03	0.08	0.10	75
1	88	9.73	9.72	33.093	25.510	248.1	0.263	5.19	80.7	11.1	1.23	11.5	0.00	0.05	0.07	88
	100 ISL	9.50	9.49	33.281	25.694	230.7	0.291	4.78	74.0	14.0	1.39	14.9	0.00	0.02	0.04	100
1	103	9.44	9.43	33.314	25.730	227.4	0.298	4.68	72.4	14.7	1.42	15.6	0.00	0.02	0.04	103
1	123	9.14	9.13	33.435	25.873	214.2	0.342	4.37	67.2	17.9	1.55	18.2	0.00	0.01	0.04	124
	125 ISL	9.09	9.08	33.454	25.896	212.0	0.347	4.31	66.2	18.5	1.57	18.7	0.00	0.01	0.04	126
1	150	8.60	8.58	33.713	26.175	185.9	0.396	3.49	53.1	26.4	1.88	24.6	0.00	0.00	0.03	151
1	179	8.56	8.54	33.968	26.382	166.9	0.448	2.64	40.2	33.5	2.12	28.6	0.00	0.00	0.03	180
	200 ISL	8.34	8.32	34.019	26.456	160.2	0.482	2.52	38.2	36.5	2.19	29.9	0.00	0.00	0.03	201
1	209	8.23	8.21	34.022	26.475	158.5	0.496	2.47	37.3	37.5	2.21	30.2	0.00	0.00	0.03	210
1	239	7.92	7.90	34.040	26.535	153.1	0.543	2.45	36.8	40.4	2.25	31.0	0.00			240
	250 ISL	7.84	7.82	34.053	26.558	151.2	0.560	2.34	35.0	42.0	2.30	31.6	0.00			251
1	280	7.62	7.59	34.089	26.618	145.9	0.604	1.97	29.4	46.6	2.46	33.3	0.00			282
	300 ISL	7.46	7.43	34.099	26.649	143.2	0.633	1.85	27.5	48.9	2.52	34.1	0.00			302
1	341	7.05	7.02	34.104	26.711	137.7	0.691	1.65	24.3	54.2	2.64	36.0	0.00			343
1	393	6.34	6.30	34.110	26.811	128.5	0.760	1.19	17.2	65.1	2.86	39.8	0.01			396
	400 ISL	6.28	6.24	34.113	26.821	127.6	0.769	1.14	16.5	66.2	2.88	40.1	0.01			403
1	456	5.88	5.84	34.146	26.898	120.7	0.839	0.80	11.4	74.0	3.04	42.3	0.00			459
	500 ISL	5.54	5.50	34.179	26.966	114.5	0.890	0.60	8.5	81.3	3.14	43.6				503
1	525	5.35	5.31	34.198	27.004	111.0	0.918	0.48	6.8	85.4	3.19	44.4				529

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 77 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 43.2 N	123 38.0 W	11/02/92	0844 UTC	4195 m	200 19 kn			1011.1 mb	14.7 C	14.1 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.55	13.55	32.814	24.591	333.7	0.000	6.00	101.0	2.8	0.49	0.1	0.01	0.27	0.08	0
1	1	13.55	13.55	32.814	24.591	333.7	0.003	6.00	101.0	2.8	0.49	0.1	0.01	0.27	0.08	1
	10 ISL	13.55	13.55	32.813	24.590	334.1	0.033	6.02	101.4	2.7	0.49	0.1	0.01	0.27	0.08	10
1	11	13.55	13.55	32.813	24.590	334.1	0.037	6.02	101.4	2.7	0.49	0.1	0.01	0.27	0.08	11
1	20	13.44	13.44	32.875	24.661	327.6	0.067	6.06	101.8	2.7	0.50	0.1	0.01	0.29	0.08	20
1	30	13.25	13.25	32.952	24.759	318.5	0.099	6.09	102.0	2.8	0.49	0.1	0.02	0.30	0.11	30
1	39	13.02	13.01	33.001	24.842	310.8	0.127	6.13	102.2	3.3	0.54	0.3	0.06	0.39	0.13	39
1	50	12.42	12.41	33.094	25.031	293.1	0.160	5.97	98.3	3.9	0.63	0.7	0.21	0.33	0.16	50
1	59	11.99	11.98	33.008	25.046	291.8	0.187	5.90	96.3	4.6	0.73	2.8	0.20	0.31	0.15	59
1	68	12.00	11.99	33.088	25.106	286.3	0.213	5.75	93.9	5.3	0.81	4.0	0.12	0.17	0.12	68
	75 ISL	11.70	11.69	33.102	25.173	280.1	0.233	5.64	91.5	6.0	0.90	5.0	0.06	0.13	0.12	75
1	82	11.20	11.19	33.096	25.260	272.0	0.252	5.52	88.6	7.3	1.01	6.7	0.02	0.12	0.13	82
1	97	9.73	9.72	33.096	25.512	248.0	0.291	5.10	79.3	12.8	1.35	14.4	0.01	0.04	0.08	97
	100 ISL	9.71	9.70	33.153	25.560	243.5	0.298	4.94	76.8	13.7	1.41	15.3	0.01	0.04	0.07	100
1	115	9.59	9.58	33.404	25.776	223.3	0.333	4.16	64.6	17.9	1.64	18.1	0.01	0.02	0.06	116
	125 ISL	9.42	9.41	33.500	25.879	213.7	0.355	3.88	60.0	20.1	1.74	19.8	0.01	0.01	0.07	126
1	141	9.13	9.11	33.607	26.010	201.6	0.388	3.58	55.1	23.2	1.85	22.1	0.00	0.01	0.08	142
	150 ISL	9.05	9.03	33.677	26.077	195.3	0.406	3.38	51.9	24.8	1.90	23.2	0.00	0.01	0.07	151
1	172	8.86	8.84	33.827	26.225	181.7	0.448	2.96	45.3	28.5	1.99	25.4	0.00	0.00	0.05	173
	200 ISL	8.45	8.43	33.949	26.384	167.0	0.496	2.74	41.6	33.3	2.10	27.4	0.00	0.01	0.04	201
1	202	8.42	8.40	33.956	26.394	166.1	0.500	2.73	41.4	33.6	2.11	27.5	0.00	0.01	0.04	203
1	232	8.05	8.03	34.022	26.502	156.2	0.548	2.55	38.4	38.1	2.20	30.5	0.00			233
	250 ISL	7.69	7.67	34.022	26.555	151.4	0.576	2.53	37.8	41.1	2.25	31.4	0.00			251
1	273	7.25	7.22	34.017	26.614	145.9	0.610	2.51	37.1	45.1	2.32	32.6	0.00			275
	300 ISL	7.03	7.00	34.053	26.673	140.6	0.649	2.10	30.9	50.6	2.49		0.00			302
1	329	6.91	6.88	34.101	26.727	135.9	0.689	1.57	23.0	56.3	2.69		0.01			331
1	389	6.59	6.55	34.162	26.819	127.9	0.768	1.01	14.7	64.4	2.91		0.01			391
	400 ISL	6.44	6.40	34.153	26.832	126.7	0.782	1.01	14.6	66.2	2.93		0.01			403
1	455	5.69	5.65	34.116	26.897	120.5	0.850	0.98	14.0	75.2	3.01		0.00			458
	500 ISL	5.56	5.52	34.181	26.965	114.6	0.903	0.66	9.4	80.6	3.15					503
1	523	5.50	5.46	34.214	26.999	111.7	0.929	0.49	7.0	83.3	3.22					527

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 77 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 23.2 N	124 19.4 W	11/02/92	0253 UTC	4491 m	190 23 kn			1008.5 mb	15.1 C	14.5 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.03	14.03	32.840	24.513	341.2	0.000	5.95	101.2	2.3	0.47	0.2	0.03	0.20	0.07	0
1	1	14.03	14.03	32.840	24.513	341.2	0.003	5.95	101.2	2.3	0.47	0.2	0.03	0.20	0.07	1
	10 ISL	14.04	14.04	32.840	24.511	341.6	0.034	5.95	101.2	2.3	0.47	0.2	0.03	0.20	0.07	10
1	11	14.04	14.04	32.840	24.511	341.6	0.038	5.95	101.2	2.3	0.47	0.2	0.03	0.20	0.07	11
	20 ISL	14.03	14.03	32.840	24.513	341.7	0.068	5.95	101.2	2.3	0.47	0.2	0.03	0.20	0.07	20
1	21	14.03	14.03	32.840	24.513	341.7	0.072	5.95	101.2	2.3	0.47	0.2	0.03	0.20	0.07	21
	30 ISL	14.03	14.03	32.839	24.513	342.0	0.102	5.96	101.4	2.3	0.46	0.2	0.02	0.21	0.07	30
1	32	14.03	14.03	32.839	24.513	342.0	0.109	5.96	101.4	2.3	0.46	0.2	0.02	0.21	0.07	32
1	42	14.04	14.03	32.843	24.514	342.2	0.144	5.97	101.6	2.3	0.47	0.2	0.02	0.22	0.07	42
	50 ISL	14.01	14.00	32.847	24.524	341.5	0.171	5.95	101.2	2.3	0.47	0.2	0.02	0.24	0.09	50
1	52	14.00	13.99	32.848	24.527	341.3	0.178	5.95	101.1	2.3	0.47	0.2	0.02	0.24	0.09	52
1	62	13.99	13.98	32.852	24.532	341.0	0.212	5.96	101.3	2.3	0.47	0.1	0.02	0.23	0.09	62
	75 ISL	13.02	13.01	32.789	24.679	327.3	0.255	5.99	99.7	2.5	0.56	0.8	0.18	0.18	0.11	75
1	76	12.93	12.92	32.785	24.694	325.9	0.259	5.99	99.5	2.5	0.57	0.9	0.19	0.18	0.11	76
1	92	12.20	12.19	32.841	24.878	308.7	0.309	5.87	96.1	3.8	0.69	3.6	0.12	0.07	0.10	92
	100 ISL	11.81	11.80	32.866	24.970	300.0	0.334	5.84	94.8	4.4	0.75	4.6	0.11	0.06	0.09	100
1	113	11.08	11.07	32.909	25.136	284.4	0.372	5.75	91.9	6.1	0.88	6.7	0.09	0.05	0.07	113
	125 ISL	10.20	10.19	32.957	25.326	266.4	0.405	5.51	86.4	9.0	1.08	10.3	0.05	0.03	0.06	126
1	133	9.62	9.61	33.006	25.461	253.6	0.425	5.31	82.3	11.3	1.23	13.0	0.02	0.02	0.05	134
	150 ISL	8.64	8.62	33.184	25.755	225.7	0.466	4.88	74.0	17.2	1.52	17.9	0.02	0.01	0.04	151
1	159	8.30	8.28	33.293	25.892	212.8	0.486	4.64	69.9	20.1	1.65	20.1	0.02	0.01	0.03	160
1	190	8.51	8.49	33.635	26.129	191.0	0.549	3.76	57.0	25.0	1.83	23.5	0.01	0.00	0.03	191
	200 ISL	8.56	8.54	33.728	26.194	185.0	0.567	3.43	52.1	27.0	1.91	24.7	0.01	0.00	0.03	201
1	225	8.68	8.66	33.928	26.333	172.4	0.612	2.73	41.6	32.0	2.09	27.3	0.01	0.00	0.04	226
	250 ISL	8.39	8.36	33.993	26.429	163.7	0.654	2.55	38.7	35.6	2.18	28.8	0.01			251
1	259	8.24	8.21	34.001	26.458	161.0	0.669	2.53	38.2	36.9	2.20	29.2	0.01			260
1	299	7.68	7.65	34.068	26.593	148.6	0.731	2.19	32.7	44.3	2.38	31.2	0.00			301
	300 ISL	7.67	7.64	34.068	26.595	148.5	0.732	2.18	32.5	44.5	2.38	31.3	0.00			302
1	355	6.97	6.94	34.071	26.696	139.3	0.811	1.81	26.6	53.3	2.59	34.1	0.00			357
	400 ISL	6.53	6.49	34.104	26.781	131.6	0.872	1.32	19.2	62.3	2.81	36.7	0.00			402
1	420	6.37	6.33	34.124	26.818	128.2	0.898	1.10	15.9	66.1	2.91	37.7	0.00			423
1	489	6.06	6.02	34.201	26.919	119.3	0.984	0.63	9.1	74.7	3.11	39.5	0.00			492
	500 ISL	5.89	5.85	34.193	26.934	117.9	0.997	0.62	8.9	77.1	3.13	39.9				503
1	567	4.86	4.82	34.157	27.028	108.6	1.072	0.56	7.8	91.7	3.22	42.4				571

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 80 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 27.0 N	120 31.4 W	09/02/92	1049 UTC	72 m	160 18 kn			1012.6 mb	14.5 C	13.1 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.54	14.54	33.322	24.778	315.9	0.000	5.88	101.4	3.3	0.48	0.2	0.04	0.81	0.23	0
1	1	14.54	14.54	33.322	24.778	315.9	0.003	5.88	101.4	3.3	0.48	0.2	0.04	0.81	0.23	1
	10 ISL	14.54	14.54	33.322	24.778	316.2	0.032	5.89	101.5	3.0	0.48	0.2	0.04	0.83	0.25	10
1	11	14.54	14.54	33.322	24.778	316.2	0.035	5.89	101.5	3.0	0.48	0.2	0.04	0.83	0.25	11
	20 ISL	14.53	14.53	33.324	24.782	316.1	0.063	5.89	101.5	3.0	0.48	0.3	0.04	0.79	0.25	20
1	21	14.53	14.53	33.324	24.782	316.1	0.066	5.89	101.5	3.0	0.48	0.3	0.04	0.78	0.25	21
	30 ISL	14.52	14.52	33.323	24.784	316.2	0.095	5.88	101.3	3.1	0.49	0.3	0.05	0.68	0.26	30
1	31	14.52	14.52	33.323	24.784	316.2	0.098	5.88	101.3	3.1	0.49	0.3	0.05	0.67	0.26	31
1	41	14.39	14.38	33.323	24.812	313.9	0.130	5.81	99.8	3.2	0.51	0.7	0.07	0.56	0.28	41
	50 ISL	14.10	14.09	33.324	24.874	308.2	0.157	5.73	97.9	3.4	0.56	1.2	0.09	0.42	0.31	50
1	51	14.05	14.04	33.325	24.885	307.2	0.161	5.71	97.4	3.4	0.57	1.2	0.09	0.41	0.31	51
1	61	13.27	13.26	33.373	25.081	288.7	0.190	5.32	89.4	6.2	0.77	4.7	0.12	0.34	0.31	61

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 80 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 19.0 N	120 48.1 W	09/02/92	1352 UTC	776 m	120 21 kn			1011.0 mb	14.0 C	13.1 C		

CAST	DEPTH in	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	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 db
	0 ISL	14.28	14.28	33.327	24.837	310.3	0.000	5.76	98.8	2.8	0.51	0.9	0.07	0.65	0.30	0
1	1	14.28	14.28	33.327	24.837	310.3	0.003	5.76	98.8	2.8	0.51	0.9	0.07	0.65	0.30	1
	10 ISL	14.29	14.29	33.326	24.834	310.8	0.031	5.77	99.0	2.8	0.50	0.9	0.07	0.71	0.29	10
1	16	14.29	14.29	33.326	24.834	311.0	0.050	5.77	99.0	2.9	0.50	0.9	0.07	0.72	0.29	16
	20 ISL	14.21	14.21	33.327	24.852	309.4	0.062	5.76	98.6	2.9	0.52	1.1	0.08	0.64	0.27	20
	30 ISL	14.03	14.03	33.329	24.891	306.0	0.093	5.72	97.6	3.1	0.55	1.4	0.10	0.44	0.24	30
1	32	14.00	14.00	33.330	24.898	305.3	0.099	5.71	97.4	3.1	0.56	1.5	0.10	0.40	0.23	32
1	41	14.00	13.99	33.330	24.899	305.6	0.126	5.70	97.2	3.2	0.56	1.5	0.10	0.41	0.23	41
1	50	14.00	13.99	33.330	24.899	305.8	0.154	5.69	97.0	3.2	0.57	1.6	0.11	0.41	0.22	50
1	60	13.83	13.82	33.339	24.941	302.1	0.184	5.57	94.6	3.7	0.62	2.5	0.15	0.34	0.23	60
1	71	13.24	13.23	33.354	25.073	289.8	0.217	5.37	90.1	5.4	0.75	4.6	0.18	0.30	0.21	71
	75 ISL	12.99	12.98	33.375	25.139	283.6	0.228	5.19	86.7	6.2	0.83	6.0	0.16	0.25	0.21	75
1	80	12.67	12.66	33.399	25.220	275.9	0.242	4.96	82.3	7.1	0.93	7.8	0.12	0.19	0.20	80
1	94	11.88	11.87	33.365	25.345	264.3	0.280	4.84	78.9	8.9	1.06	10.1	0.07	0.16	0.18	94
	100 ISL	11.61	11.60	33.389	25.413	257.9	0.296	4.69	76.1	10.1	1.14	11.4	0.05	0.13	0.17	100
1	109	11.21	11.20	33.456	25.538	246.1	0.319	4.38	70.5	12.4	1.28	13.7	0.03	0.08	0.15	110
1	124	10.36	10.35	33.633	25.826	219.0	0.353	3.70	58.5	18.3	1.59	18.6	0.02	0.02	0.10	125
	125 ISL	10.32	10.31	33.644	25.842	217.5	0.356	3.66	57.8	18.7	1.61	18.9	0.02	0.02	0.10	126
1	149	9.60	9.58	33.856	26.129	190.6	0.405	2.96	46.1	26.0	1.90	23.8	0.02	0.01	0.06	150
	150 ISL	9.59	9.57	33.860	26.133	190.2	0.407	2.95	45.9	26.1	1.90	23.8	0.02	0.01	0.06	151
1	174	9.43	9.41	33.905	26.195	184.8	0.452	2.82	43.7	28.0	1.97	24.7	0.02	0.00	0.05	175
	200 ISL	9.28	9.26	33.972	26.272	178.0	0.499	2.59	40.1	30.4	2.06	26.0	0.01	0.00	0.04	201
1	203	9.26	9.24	33.981	26.282	177.0	0.504	2.56	39.6	30.7	2.07	26.2	0.01	0.00	0.04	204
1	232	9.00	8.97	34.069	26.393	167.0	0.554	2.27	34.9	34.6	2.21	27.9	0.01			233
	250 ISL	8.81	8.78	34.101	26.449	162.1	0.584	2.15	32.9	36.9	2.27	28.7	0.01			251
1	272	8.55	8.52	34.125	26.508	156.7	0.619	2.02	30.8	39.9	2.34	29.7	0.01			274
	300 ISL	8.19	8.16	34.140	26.575	150.7	0.662	1.86	28.1	44.2	2.44	31.0	0.01			302
1	327	7.85	7.82	34.147	26.631	145.7	0.702	1.70	25.5	48.3	2.53	32.2	0.01			329
1	386	7.32	7.28	34.172	26.728	137.1	0.785	1.31	19.4	56.0	2.73	34.6	0.00			388
	400 ISL	7.27	7.23	34.180	26.741	136.0	0.804	1.24	18.3	57.0	2.76	34.9	0.00			403
1	450	7.11	7.07	34.204	26.783	132.8	0.871	1.04	15.3	60.3	2.86	35.8	0.00			453
	500 ISL	6.70	6.65	34.203	26.838	127.9	0.937	0.88	12.8	66.3	2.96	37.4	0.00			503
1	518	6.55	6.50	34.203	26.858	126.1	0.959	0.82	11.9	68.4	3.00	38.0	0.00			522

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 80 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 9.0 N	121 9.0 W	09/02/92	1744 UTC	2177 m	120 27 kn	130 08 04	2	1009.4 mb	14.7 C	14.0 C	18m 03	8/8 SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	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 db
	0 ISL	13.77	13.77	33.214	24.855	308.5	0.000	6.04	102.4	2.7	0.48	0.6	0.06	0.50	0.17	0
1	2	13.77	13.77	33.214	24.855	308.6	0.006	6.04	102.4	2.7	0.48	0.6	0.06	0.50	0.17	2
	10 ISL	13.78	13.78	33.214	24.853	309.0	0.031	6.04	102.4	2.7	0.48	0.6	0.05	0.48	0.17	10
1	17	13.78	13.78	33.215	24.854	309.1	0.053	6.03	102.3	2.7	0.48	0.6	0.05	0.46	0.17	17
	20 ISL	13.77	13.77	33.217	24.858	308.8	0.062	6.03	102.3	2.7	0.48	0.6	0.05	0.47	0.18	20
	30 ISL	13.71	13.71	33.224	24.876	307.4	0.093	6.03	102.1	2.8	0.48	0.6	0.06	0.51	0.21	30
1	32	13.70	13.70	33.226	24.880	307.1	0.099	6.03	102.1	2.8	0.48	0.6	0.06	0.52	0.22	32
1	41	13.67	13.66	33.231	24.890	306.4	0.126	6.01	101.7	2.9	0.49	0.8	0.07	0.49	0.27	41
1	50	13.65	13.64	33.232	24.895	306.1	0.154	5.98	101.2	2.9	0.50	0.9	0.08	0.45	0.25	50
1	60	13.52	13.51	33.233	24.922	303.8	0.184	5.97	100.7	3.0	0.52	1.1	0.10	0.40	0.26	60
1	71	11.65	11.64	33.298	25.335	264.7	0.216	4.91	79.7	9.3	1.09	10.8	0.06	0.16	0.17	71
	75 ISL	11.25	11.24	33.303	25.412	257.4	0.226	4.76	76.6	10.4	1.19	12.4	0.06	0.11	0.15	75
1	80	10.90	10.89	33.303	25.474	251.5	0.239	4.68	74.7	11.3	1.26	13.6	0.06	0.07	0.13	80
1	93	10.53	10.52	33.329	25.559	243.6	0.271	4.57	72.4	12.8	1.34	14.9	0.03	0.05	0.10	93
	100 ISL	10.35	10.34	33.360	25.615	238.5	0.288	4.47	70.5	13.8	1.39	15.9	0.03	0.04	0.10	100
1	109	10.10	10.09	33.417	25.702	230.4	0.309	4.29	67.3	15.5	1.47	17.3	0.02	0.03	0.10	110
1	124	9.62	9.61	33.555	25.890	212.8	0.342	3.91	60.8	19.3	1.64	20.1	0.02	0.02	0.07	125
	125 ISL	9.60	9.59	33.562	25.898	211.9	0.344	3.89	60.5	19.5	1.65	20.2	0.02	0.02	0.07	126
1	149	9.28	9.26	33.720	26.074	195.7	0.393	3.45	53.3	23.6	1.80	22.9	0.01	0.01	0.04	150
	150 ISL	9.26	9.24	33.727	26.083	194.9	0.395	3.43	53.0	23.8	1.81	23.0	0.01	0.01	0.04	151
1	174	8.85	8.83	33.885	26.272	177.3	0.440	3.05	46.7	28.8	1.95	25.6	0.01	0.01	0.05	175
	200 ISL	8.71	8.69	33.979	26.368	168.7	0.485	2.72	41.5	33.0	2.08	27.2	0.01	0.01	0.06	201
1	204	8.70	8.68	33.989	26.377	167.9	0.492	2.68	40.9	33.5	2.10	27.4	0.01	0.01	0.06	205
1	233	8.56	8.54	34.047	26.445	162.0	0.539	2.41	36.7	36.5	2.21	28.4	0.01			234
	250 ISL	8.43	8.40	34.058	26.474	159.5	0.567	2.37	36.0	37.8	2.24	28.9	0.01			251
1	272	8.21	8.18	34.064	26.512	156.2	0.601	2.33	35.2	39.9	2.27	29.6	0.01			274
	300 ISL	7.79	7.76	34.079	26.586	149.4	0.644	2.11	31.6	44.9	2.39	31.3	0.01			302
1	329	7.36	7.33	34.102	26.666	142.0	0.686	1.80	26.7	50.9	2.55	33.2	0.00			331
1	387	6.90	6.86	34.172	26.785	131.3	0.766	1.15	16.9	61.2	2.83	36.0	0.00			389
	400 ISL	6.80	6.76	34.181	26.806	129.5	0.783	1.06	15.5	63.1	2.87	36.5	0.00			403
1	452	6.40	6.36	34.209	26.882	122.7	0.848	0.78	11.3	70.3	3.01	38.4	0.00			455
	500 ISL	6.08	6.04	34.244	26.951	116.6	0.906	0.56	8.1	76.8	3.12	39.8	0.00			503
1	520	5.94	5.89	34.259	26.980	113.9	0.929	0.47	6.7	79.5	3.17	40.4	0.00			524

RV DAVID STARR JORDAN CAIXOFI CRUISE 9202 STATION 80 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 49.0 N	121 50.5 W	10/02/92	0108 UTC	3609 IB	120 05 kn	180 04 04	6	1002.9 mb	12.5 C	12.6 C		8/8	ST

CAST	DEPTH D	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVi>.	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.36	13.36	33.085	24.839	310.1	0.000	6.05	101.6	3.0	0.51	0.5	0.08	0.52	0.14	0
1	2	13.36	13.36	33.085	24.839	310.2	0.006	6.05	101.6	3.0	0.51	0.5	0.08	0.52	0.14	2
	10 ISL	13.38	13.38	33.114	24.857	308.6	0.031	6.06	101.9	3.0	0.50	0.5	0.08	0.52	0.14	10
1	17	13.39	13.39	33.146	24.880	306.6	0.052	6.06	101.9	3.0	0.50	0.5	0.08	0.52	0.15	17
	20 ISL	13.39	13.39	33.149	24.883	306.5	0.062	6.04	101.6	3.0	0.50	0.5	0.08	0.53	0.15	20
	30 ISL	13.37	13.37	33.155	24.892	305.9	0.092	5.98	100.5	3.0	0.51	0.5	0.08	0.55	0.15	30
1	32	13.37	13.37	33.156	24.892	305.9	0.098	5.97	100.4	3.0	0.51	0.5	0.08	0.55	0.15	32
1	42	13.35	13.34	33.176	24.912	304.3	0.129	6.06	101.8	2.9	0.51	0.6	0.11	0.55	0.20	42
	50 ISL	13.33	13.32	33.191	24.928	303.0	0.153	6.04	101.5	2.9	0.53	0.7	0.12	0.54	0.23	50
1	51	13.33	13.32	33.193	24.930	302.B	0.156	6.03	101.3	2.9	0.53	0.7	0.12	0.54	0.23	51
1	61	13.30	13.29	33.206	24.946	301.6	0.186	6.03	101.2	2.9	0.51	0.7	0.12	0.41	0.21	61
1	75	12.53	12.52	33.156	25.059	291.L	0.228	5.76	95.1	4.6	0.72	4.2	0.16	0.16	0.14	75
1	88	11.33	11.32	33.167	25.292	269.1	0.264	5.15	82.9	8.5	1.06	10.2	0.05	0.09	0.08	88
	100 ISL	10.45	10.44	33.241	25.505	249.0	0.295	4.81	76.0	11.6	1.27	13.8	0.04	0.06	0.08	100
1	104	10.21	10.20	33.272	25.570	242.3	0.305	4.72	74.2	12.6	1.33	14.7	0.03	0.06	0.08	104
1	119	9.63	9.62	33.380	25.751	225.U	0.340	4.34	67.4	16.4	1.53	18.0	0.02	0.03	0.06	120
	125 ISL	9.49	9.48	33.463	25.839	217.5	0.354	4.11	63.7	18.3	1.61	19.4	0.02	0.02	0.05	126
1	138	9.30	9.28	33.645	26.012	201..I	0.381	3.62	55.9	22.4	1.76	22.0	0.02	0.01	0.04	139
	150 ISL	9.17	9.15	33.741	26.108	192.'I	0.405	3.35	51.6	24.9	1.85	23.5	0.02	0.01	0.04	151
1	158	9.10	9.08	33.786	26.155	188.;!	0.420	3.22	49.5	26.2	1.89	24.2	0.02	0.01	0.04	159
1	182	8.89	8.87	33.885	26.266	178.0	0.464	2.99	45.8	29.1	1.97	25.6	0.01	0.00	0.03	183
	200 ISL	8.73	8.71	33.942	26.336	171.7	0.495	2.86	43.7	31.1	2.02	26.5	0.01	0.00	0.03	201
1	218	8.53	8.51	33.988	26.403	165.6	0.526	2.75	41.8	33.5	2.08	27.3	0.01	0.00	0.03	219
	250 ISL	8.03	8.00	34.045	26.523	154.fi	0.577	2.54	38.2	39.6	2.21	29.1	0.01			251
1	253	7.98	7.95	34.049	26.534	153.4	0.581	2.52	37.9	40.2	2.22	29.3	0.01			254
1	294	7.70	7.67	34.085	26.604	147.J	0.643	2.15	32.1	45.1	2.39	31.2	0.00			296
	300 ISL	7.65	7.62	34.093	26.617	146.3	0.652	2.06	30.7	46.2	2.43	31.6	0.00			302
1	349	7.24	7.21	34.155	26.725	136.7	0.721	1.35	20.0	55.6	2.72	34.7	0.00			351
	400 ISL	6.82	6.78	34.202	26.820	128.2	0.789	0.89	13.0	64.0	2.93	37.0	0.00			403
1	415	6.70	6.66	34.213	26.845	126.0	0.808	0.80	11.7	66.2	2.98	37.6	0.00			418
1	484	6.22	6.18	34.256	26.942	117.3	0.892	0.50	7.2	75.1	3.15	39.6	0.00			487
	500 ISL	6.11	6.07	34.262	26.961	115.6	0.910	0.46	6.6	76.9	3.17	40.0				503
1	563	5.69	5.64	34.288	27.035	109.1	0.981	0.32	4.6	83.8	3.26	41.5				S67

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 80 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SiPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 29.0 N	122 31.9 W	10/02/92	0726 UTC	3970 *m*	180 2) kn			1004.5 mb	14.3 C	13.7 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.76	13.76	33.150	24.808	313.1	0.000	5.98	101.3	3.2	0.51	0.3	0.05	0.42	0.13	0
1	2	13.76	13.76	33.150	24.808	313.1	0.006	5.98	101.3	3.2	0.51	0.3	0.05	0.42	0.13	2
	10 ISL	13.76	13.76	33.153	24.810	313.1	0.031	5.98	101.3	3.2	0.50	0.3	0.05	0.41	0.13	10
1	18	13.76	13.76	33.156	24.813	313.1	0.056	5.99	101.5	3.1	0.50	0.3	0.05	0.41	0.13	18
	20 ISL	13.75	13.75	33.162	24.820	312.5	0.063	5.99	101.5	3.1	0.50	0.3	0.05	0.41	0.14	20
	30 ISL	13.66	13.66	33.196	24.865	308.5	0.094	6.01	101.7	2.9	0.51	0.3	0.06	0.43	0.17	30
1	33	13.63	13.63	33.207	24.879	307.2	0.103	6.01	101.6	2.9	0.51	0.3	0.06	0.43	0.18	33
1	41	13.57	13.56	33.228	24.908	304.7	0.127	6.00	101.3	2.9	0.50	0.3	0.06	0.38	0.21	41
	50 ISL	13.57	13.56	33.234	24.913	304.4	0.155	6.00	101.3	2.7	0.51	0.3	0.07	0.33	0.18	50
1	51	13.57	13.56	33.235	24.914	304.4	0.158	6.00	101.3	2.7	0.51	0.3	0.07	0.32	0.18	51
1	60	12.78	12.77	33.135	24.994	296.9	0.185	5.77	95.8	4.0	0.68	3.2	0.14	0.24	0.21	60
1	75	11.05	11.04	33.071	25.267	271.1	0.227	5.44	87.0	7.9	1.05	9.7	0.03	0.11	0.12	75
1	88	10.39	10.38	33.332	25.586	241.0	0.261	4.51	71.2	13.5	1.42	15.9	0.04	0.05	0.08	88
	100 ISL	9.86	9.85	33.495	25.803	220.6	0.288	4.07	63.6	17.7	1.60	19.1	0.03	0.02	0.06	100
1	104	9.73	9.72	33.531	25.852	215.9	0.297	3.99	62.2	18.7	1.63	19.7	0.02	0.02	0.06	105
1	118	9.55	9.54	33.583	25.923	209.5	0.327	3.82	59.3	20.1	1.71	20.9	0.02	0.01	0.06	119
	125 ISL	9.45	9.44	33.639	25.983	203.9	0.341	3.66	56.7	21.7	1.77	21.9	0.02	0.01	0.05	126
1	138	9.25	9.23	33.755	26.106	192.4	0.367	3.32	51.3	25.1	1.88	23.8	0.02	0.01	0.04	139
	150 ISL	9.09	9.07	33.836	26.195	184.2	0.390	3.08	47.4	27.5	1.97	25.3	0.02	0.00	0.03	151
1	157	8.99	8.97	33.877	26.243	179.7	0.403	2.96	45.5	28.8	2.01	26.0	0.02	0.00	0.03	158
1	181	8.58	8.56	33.994	26.399	165.2	0.444	2.67	40.7	34.0	2.14	27.9	0.01	0.00	0.03	182
	200 ISL	8.42	8.40	34.039	26.459	159.9	0.475	2.46	37.3	36.8	2.22	29.1	0.02	0.00	0.03	201
1	215	8.31	8.29	34.057	26.490	157.2	0.499	2.32	35.1	38.7	2.28	29.8	0.03	0.00	0.03	216
1	249	7.86	7.84	34.080	26.576	149.5	0.551	2.19	32.8	43.7	2.39	31.1	0.01			250
	250 ISL	7.85	7.83	34.081	26.578	149.3	0.552	2.18	32.7	43.9	2.39	31.2	0.01			251
1	288	7.56	7.53	34.135	26.663	141.7	0.607	1.65	24.6	50.4	2.59	33.4	0.01			290
	300 ISL	7.47	7.44	34.148	26.686	139.7	0.624	1.52	22.6	52.3	2.65	34.0	0.01			302
1	343	7.14	7.11	34.180	26.758	133.4	0.683	1.14	16.8	58.9	2.83	35.8	0.01			345
	400 ISL	6.61	6.57	34.201	26.847	125.4	0.757	0.83	12.1	67.4	3.00	38.1	0.00			403
1	406	6.56	6.52	34.203	26.855	124.7	0.764	0.81	11.8	68.2	3.02	38.3	0.00			409
1	474	6.19	6.15	34.261	26.950	116.4	0.846	0.49	7.1	76.2	3.18	40.1	0.00			477
	500 ISL	6.03	5.99	34.271	26.979	113.9	0.876	0.44	6.3	79.1	3.21	40.6				503
1	551	5.72	5.67	34.293	27.035	108.9	0.933	0.34	4.9	84.9	3.28	41.7				555

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 80 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 9.0 N	123 13.2 W	10/02/92	1337 UTC	4231 m	220 19 Icn			1005.6 mb	14.0 C	11.9 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.77	13.77	33.051	24.729	320.5	0.000	6.03	102.2	2.8	0.46	0.0	0.02	0.36	0.13	0
1	3	13.77	13.77	33.051	24.729	320.6	0.010	6.03	102.2	2.8	0.46	0.0	0.02	0.36	0.13	3
	10 ISL	13.78	13.78	33.050	24.727	321.1	0.032	6.02	102.0	2.8	0.46	0.0	0.02	0.36	0.13	10
1	18	13.78	13.78	33.049	24.726	321.3	0.058	6.01	101.8	2.7	0.46	0.0	0.02	0.36	0.13	18
	20 ISL	13.78	13.78	33.050	24.727	321.3	0.064	6.01	101.8	2.7	0.46	0.0	0.02	0.37	0.13	20
	30 ISL	13.75	13.75	33.054	24.736	320.7	0.096	6.02	101.9	2.8	0.46	0.0	0.02	0.42	0.15	30
1	32	13.75	13.75	33.055	24.737	320.6	0.103	6.02	101.9	2.8	0.46	0.0	0.02	0.42	0.16	32
1	42	12.78	12.77	33.136	24.994	296.4	0.134	5.69	94.5	4.2	0.70	3.8	0.10	0.33	0.21	42
	50 ISL	12.52	12.51	33.143	25.050	291.3	0.157	5.60	92.5	4.8	0.76	4.8	0.06	0.26	0.19	50
1	52	12.48	12.47	33.140	25.055	290.8	0.163	5.59	92.2	4.9	0.77	5.0	0.05	0.25	0.18	52
1	61	12.06	12.05	33.126	25.125	284.4	0.189	5.52	90.3	5.7	0.87	6.7	0.04	0.22	0.18	61
1	75	10.80	10.79	33.131	25.358	262.4	0.227	5.25	83.5	9.0	1.12	11.0	0.03	0.14	0.12	75
1	90	9.69	9.68	33.229	25.623	237.4	0.265	4.68	72.7	14.5	1.44	16.6	0.02	0.04	0.05	90
	100 ISL	9.56	9.55	33.371	25.755	225.0	0.288	4.31	66.8	17.1	1.58	18.8	0.02	0.01	0.04	100
1	105	9.50	9.49	33.423	25.806	220.3	0.299	4.16	64.4	18.1	1.62	19.6	0.02	0.01	0.04	106
1	120	9.26	9.25	33.488	25.896	212.0	0.331	4.01	61.8	20.0	1.67	20.8	0.02	0.01	0.03	121
	125 ISL	9.11	9.10	33.518	25.943	207.6	0.342	3.93	60.4	21.2	1.71	21.5	0.02	0.01	0.03	126
1	140	8.70	8.69	33.626	26.092	193.6	0.372	3.61	55.0	25.0	1.85	24.0	0.01	0.00	0.02	141
	150 ISL	8.61	8.59	33.719	26.179	185.6	0.391	3.33	50.7	27.3	1.93	25.4	0.01	0.00	0.02	151
1	160	8.57	8.55	33.808	26.255	178.5	0.409	3.08	46.8	29.3	2.00	26.6	0.01	0.00	0.02	161
1	186	8.38	8.36	33.928	26.378	167.3	0.454	2.83	42.9	32.8	2.08	27.9	0.01	0.00	0.02	187
	200 ISL	8.19	8.17	33.960	26.432	162.3	0.477	2.78	42.0	34.8	2.11	28.5	0.01	0.00	0.02	201
1	221	7.89	7.87	33.989	26.500	156.2	0.510	2.75	41.2	37.8	2.16	29.4	0.01	0.00	0.02	222
	250 ISL	7.62	7.60	34.023	26.566	150.3	0.555	2.65	39.5	41.5	2.23	30.2	0.01			251
1	257	7.56	7.53	34.029	26.579	149.1	0.565	2.61	38.8	42.4	2.25	30.4	0.01			258
1	298	7.08	7.05	34.048	26.662	141.7	0.625	2.15	31.6	50.0	2.47	33.0	0.01			300
	300 ISL	7.06	7.03	34.049	26.666	141.3	0.628	2.13	31.3	50.4	2.48	33.1	0.01			302
1	353	6.45	6.42	34.064	26.760	132.8	0.700	1.66	24.1	60.1	2.70	36.3	0.00			355
	400 ISL	5.96	5.93	34.079	26.834	126.0	0.761	1.30	18.6	68.5	2.87	38.7	0.00			403
1	419	5.81	5.77	34.090	26.862	123.5	0.785	1.16	16.6	71.6	2.93	39.5	0.00			422
1	489	5.65	5.61	34.177	26.951	115.9	0.869	0.61	8.7	79.4	3.12	41.3	0.00			492
	500 ISL	5.59	5.55	34.187	26.966	114.5	0.881	0.57	8.1	80.9	3.14	41.5				503
1	567	5.21	5.16	34.252	27.063	105.7	0.955	0.34	4.8	89.8	3.27	43.0				571

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 80 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 49.0 N	123 54.3 W	10/02/92	2043 UTC	4404 m	190 18 kn	210 10 08	2	1009.0 mb	15.2 C	14.6 C	23m 03	8/8	ST

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.03	14.03	32.912	24.568	335.9	0.000	5.96	101.4	2.2	0.45	0.0	0.01	0.21	0.06	0
1	3	14.03	14.03	32.912	24.568	335.9	0.010	5.96	101.4	2.2	0.45	0.0	0.01	0.21	0.06	3
	10 ISL	14.03	14.03	32.913	24.569	336.0	0.034	5.96	101.4	2.1	0.45	0.0	0.01	0.21	0.06	10
1	18	14.02	14.02	32.913	24.572	336.0	0.060	5.96	101.4	2.0	0.45	0.0	0.01	0.22	0.07	18
	20 ISL	13.96	13.96	32.908	24.580	335.3	0.067	5.96	101.3	2.0	0.45	0.0	0.01	0.22	0.07	20
	30 ISL	13.59	13.59	32.885	24.638	330.0	0.100	6.00	101.2	2.0	0.46	0.1	0.03	0.25	0.09	30
1	32	13.50	13.50	32.880	24.653	328.7	0.107	6.01	101.1	2.0	0.47	0.1	0.03	0.26	0.09	32
1	42	13.12	13.11	32.876	24.726	322.0	0.140	6.07	101.3	2.4	0.52	0.6	0.11	0.30	0.14	42
	50 ISL	13.07	13.06	32.948	24.792	315.9	0.165	5.95	99.3	2.5	0.53	1.0	0.13	0.26	0.13	50
1	52	13.06	13.05	32.969	24.810	314.2	0.171	5.91	98.6	2.6	0.54	1.2	0.13	0.24	0.13	52
1	61	12.46	12.45	32.949	24.911	304.7	0.199	5.86	96.5	3.5	0.65	2.8	0.17	0.14	0.08	61
	75 ISL	11.49	11.48	32.933	25.080	288.9	0.241	5.77	93.1	5.3	0.83	6.0	0.03	0.06	0.07	75
1	76	11.42	11.41	32.934	25.094	287.6	0.244	5.76	92.8	5.4	0.84	6.2	0.02	0.06	0.07	76
1	90	10.72	10.71	33.022	25.287	269.5	0.283	5.42	86.0	7.3	0.99	9.0	0.01	0.05	0.06	90
	100 ISL	10.34	10.33	33.110	25.421	256.8	0.309	5.25	82.7	8.6	1.07	10.7	0.01	0.04	0.05	100
1	106	10.11	10.10	33.162	25.501	249.4	0.324	5.16	80.9	9.6	1.13	11.8	0.01	0.03	0.04	106
1	120	9.42	9.41	33.244	25.679	232.6	0.358	4.93	76.2	13.3	1.33	15.3	0.00	0.01	0.04	121
	125 ISL	9.22	9.21	33.286	25.744	226.5	0.369	4.83	74.3	14.6	1.39	16.3	0.00	0.01	0.04	126
1	142	8.81	8.80	33.449	25.936	208.5	0.406	4.38	66.8	19.1	1.58	19.7	0.00	0.01	0.03	143
	150 ISL	8.84	8.82	33.527	25.993	203.3	0.423	4.04	61.7	21.3	1.69	21.4	0.00	0.01	0.03	151
1	161	8.92	8.90	33.636	26.066	196.6	0.445	3.55	54.4	24.3	1.84	23.7	0.00	0.00	0.04	162
1	186	8.63	8.61	33.893	26.313	173.6	0.491	2.84	43.3	31.0	2.03	27.1	0.00	0.00	0.03	187
	200 ISL	8.46	8.44	33.956	26.388	166.6	0.515	2.89	43.9	32.6	2.03	27.3	0.00	0.00	0.03	201
1	222	8.20	8.18	33.998	26.461	160.0	0.551	2.96	44.7	34.7	2.04	27.5	0.00	0.00	0.02	223
	250 ISL	7.85	7.83	34.037	26.544	152.5	0.595	2.56	38.3	40.3	2.21	29.8	0.00			251
1	257	7.77	7.74	34.044	26.561	151.0	0.605	2.43	36.3	41.8	2.27	30.5	0.00			258
1	298	7.52	7.49	34.099	26.641	144.0	0.666	1.75	26.0	49.1	2.55	33.3	0.00			300
	300 ISL	7.50	7.47	34.100	26.644	143.7	0.669	1.73	25.7	49.4	2.56	33.4	0.00			302
1	355	6.90	6.87	34.117	26.742	134.9	0.745	1.37	20.1	58.3	2.74	36.0	0.00			357
	400 ISL	6.33	6.29	34.121	26.821	127.6	0.804	1.12	16.2	66.7	2.87	38.2	0.00			403
1	420	6.09	6.05	34.126	26.855	124.4	0.829	1.01	14.5	70.4	2.93	39.1	0.00			423
1	486	5.63	5.59	34.181	26.957	115.3	0.909	0.61	8.7	80.1	3.12	41.4	0.00			489
	500 ISL	5.55	5.51	34.193	26.976	113.6	0.925	0.56	8.0	82.0	3.14	41.7				503
1	561	5.21	5.16	34.245	27.058	106.2	0.992	0.36	5.1	90.2	3.25	42.8				565

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 82 47

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 16.5 N	120 1.5 W	09/02/92	0614 UTC	577 m	100 07 kn			1014.5 mb	15.4 C	14.0 C		

CAST	DEPTH IB	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.78	14.78	33.360	24.756	318.0	0.000	5.83	101.0	2.6	0.44	0.2	0.05	0.62	0.22	0
1	1A	14.78	14.78	33.360	24.756	318.0	0.003	5.83	101.0	2.6	0.44	0.2	0.05	0.62	0.22	1
1	10	14.79	14.79	33.360	24.754	318.5	0.032	5.83	101.0	2.6	0.44	0.2	0.05	0.64	0.20	10
1	20	14.73	14.73	33.352	24.761	318.1	0.064	5.82	100.7	2.5	0.44	0.2	0.05	0.81	0.26	20
1	30	14.63	14.63	33.343	24.776	317.0	0.095	5.80	100.2	2.5	0.46	0.2	0.05	0.81	0.32	30
1	40	14.60	14.59	33.344	24.783	316 6	0.127	5.79	99.9	2.5	0.45	0.2	0.06	0.42	0.23	40
1	50	14.64	14.63	33.343	24.774	317 7	0.159	5.77	99.7	2.5	0.46	0.3	0.07	0.33	0.19	50
1	60	14.05	14.04	33.326	24.886	307 4	0.190	5.84	99.7	2.5	0.51	0.7	0.07	0.41	0.24	60
1	70	13.14	13.13	33.352	25.091	288 0	0.220	5.23	87.6	5.6	0.79	5.6	0.22	0.22	0.31	70
	75 ISL	12.88	12.87	33.354	25.144	283.0	0.234	5.11	85.1	6.4	0.86	6.7	0.18	0.21	0.30	75
1	84	12.45	12.44	33.361	25.233	274.7	0.259	4.97	82.0	7.9	0.96	8.4	0.07	0.20	0.24	84
1	99	11.19	11.18	33.451	25.538	245.9	0.298	4.36	70.1	13.2	1.29	13.9	0.04	0.07	0.17	99
	100 ISL	11.16	11.15	33.455	25.547	245.1	0.301	4.34	69.7	13.3	1.30	14.1	0.04	0.07	0.17	100
1	118	10.83	10.82	33.523	25.659	234.9	0.344	4.10	65.4	15.0	1.40	15.8	0.02	0.04	0.10	119
	125 ISL	10.64	10.63	33.567	25.726	228.5	0.360	3.93	62.5	16.5	1.47	17.0	0.02	0.03	0.09	126
1	138	10.29	10.27	33.651	25.852	216.8	0.389	3.60	56.8	19.3	1.61	19.2	0.02	0.02	0.08	139
	150 ISL	10.12	10.10	33.697	25.918	210.8	0.415	3.43	54.0	20.7	1.68	20.3	0.02	0.01	0.07	151
1	168	9.95	9.93	33.754	25.991	204.2	0.452	3.24	50.8	22.5	1.77	21.5	0.02	0.01	0.07	169
1	198	9.53	9.51	33.891	26.168	187.9	0.511	2.80	43.5	27.2	1.95	24.4	0.02	0.01	0.07	199
	200 ISL	9.50	9.48	33.901	26.181	186.7	0.515	2.76	42.9	27.6	1.97	24.6	0.02			201
1	227	9.06	9.04	34.023	26.348	171.3	0.563	2.26	34.8	33.7	2.16	27.6	0.03			228
	250 ISL	8.81	8.78	34.064	26.420	164.8	0.602	1.99	30.5	37.6	2.27	29.0	0.02			251
1	268	8.64	8.61	34.076	26.456	161.6	0.631	1.85	28.2	40.1	2.34	29.8	0.01			270
	300 ISL	8.32	8.29	34.105	26.528	155.2	0.682	1.68	25.4	43.9	2.45	31.0	0.00			302
1	317	8.16	8.13	34.118	26.562	152.2	0.708	1.60	24.1	45.9	2.50	31.6	0.00			319
1	375	7.72	7.68	34.168	26.667	143.0	0.793	1.11	16.6	54.6	2.73	33.7	0.00			377
	400 ISL	7.43	7.39	34.184	26.722	138.0	0.829	0.89	13.2	60.4	2.86	34.5	0.00			403
1	436	7.02	6.98	34.205	26.796	131.3	0.877	0.59	8.7	69.9	3.05	35.1	0.00			439
	500 ISL	6.61	6.56	34.233	26.874	124.5	0.959	0.20	2.9	87.0	3.34	32.5	0.00			503
1	505	6.59	6.54	34.234	26.877	124.2	0.965	0.18	2.6	88.5	3.36	32.3	0.00			508
1	524	6.56	6.51	34.238	26.885	123.7	0.989	0.09	1.3	94.5	3.43	30.3	0.00			528
1	545	6.50	6.45	34.242	26.896	122.)	1.014	0.01	0.1	105.3	3.56	25.3	0.00			549
1	555	6.48	6.43	34.243	26.899	122.7	1.027	0.01	0.1	111.2	3.64	21.1	0.00			559
1	564	6.48	6.43	34.244	26.900	122.8	1.038	0.01	0.1	114.7	3.73	18.7	0.00			568
1	570	6.48	6.43	34.245	26.901	122.1!	1.045	0.01	0.1	116.0	3.75	17.8	0.00			574
1	574	6.48	6.43	34.248	26.904	122.fj	1.050	0.01	0.1	115.5	3.79	17.6				578

A) SANTA BARBARA BASIN STATION.

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 83 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 13.5 N	119 24.6 W	09/02/92	0157 UTC	32 m	160 08 kn		2	1014.7 mb	16.9 C	13.1 C		8/8 SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY' PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.03	15.03	33.344	24.690	324.3	0.000	5.95	103.6	2.1	0.39	0.0	0.00	0.56	0.17	0
1	1	15.03	15.03	33.344	24.690	324.3	0.003	5.95	103.6	2.1	0.39	0.0	0.00	0.56	0.17	1
	10 ISL	14.98	14.98	33.343	24.700	323.6	0.032	5.97	103.8	2.0	0.39	0.0	0.00	0.69	0.19	10
1	11	14.97	14.97	33.343	24.702	323.4	0.036	5.97	103.8	2.0	0.39	0.0	0.00	0.70	0.19	11
	20 ISL	14.85	14.85	33.341	24.727	321.4	0.065	5.94	103.1	2.0	0.41	0.0	0.00	1.22	0.25	20
1	21	14.84	14.84	33.341	24.729	321.2	0.068	5.94	103.0	2.0	0.41	0.0	0.00	1.26	0.25	21
	30 ISL	14.85	14.85	33.341	24.727	321.6	0.097	5.94	103.0	2.0	0.41	0.0	0.00	0.78	0.21	30
1	31	14.85	14.85	33.341	24.727	321.7	0.100	5.94	103.0	2.0	0.41	0.0	0.00	0.73	0.21	31

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 83 42

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 10.7 N	119 30.5 W	08/02/92	2353 UTC	164 m	170 0E kn	260 01 07	1	1014.9 mb	16.0 C	14.4 C	17m 03	7/8 SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.96	14.96	33.351	24.710	322.4	0.000	5.83	101.4	2.5	0.39	0.3	0.01	0.56	0.21	0
1	1	14.96	14.96	33.351	24.710	322.4	0.003	5.83	101.4	2.5	0.39	0.3	0.01	0.56	0.21	1
	10 ISL	14.87	14.87	33.349	24.729	320.9	0.032	5.85	101.5	2.4	0.39	0.2	0.01	0.58	0.24	10
1	11	14.86	14.86	33.349	24.731	320.7	0.035	5.85	101.5	2.4	0.39	0.2	0.01	0.59	0.24	11
	20 ISL	14.74	14.74	33.350	24.758	318.4	0.064	5.82	100.8	2.6	0.41	0.4	0.03	0.67	0.28	20
1	21	14.72	14.72	33.350	24.762	318.1	0.067	5.82	100.7	2.6	0.41	0.5	0.03	0.68	0.28	21
	30 ISL	14.55	14.55	33.356	24.803	314.4	0.096	5.67	97.8	3.0	0.46	1.2	0.08	0.56	0.28	30
1	31	14.52	14.52	33.357	24.810	313.7	0.099	5.65	97.4	3.1	0.47	1.3	0.08	0.54	0.28	31
1	42	13.92	13.91	33.369	24.945	301.2	0.133	5.35	91.1	4.4	0.62	3.6	0.09	0.39	0.27	42
	50 ISL	13.54	13.53	33.382	25.033	293.0	0.157	5.24	88.5	5.6	0.69	5.0	0.09	0.32	0.23	50
1	52	13.43	13.42	33.384	25.057	290.8	0.162	5.21	87.8	5.9	0.71	5.4	0.09	0.30	0.22	52
1	62	12.49	12.48	33.382	25.241	273.4	0.191	4.94	81.6	7.1	0.88	8.4	0.02	0.16	0.18	62
1	72	11.83	11.82	33.462	25.429	255.8	0.217	4.48	73.0	10.3	1.10	11.8	0.00	0.06	0.09	72
	75 ISL	11.75	11.74	33.473	25.452	253.6	0.225	4.47	72.8	10.6	1.11	12.0	0.00	0.06	0.09	75
1	87	11.57	11.56	33.497	25.505	248.9	0.255	4.41	71.5	11.2	1.16	12.7	0.01	0.05	0.08	87
	100 ISL	11.19	11.18	33.535	25.603	239.8	0.287	4.23	68.1	12.9	1.26	14.4	0.00	0.03	0.07	100
1	106	11.00	10.99	33.556	25.654	235.1	0.301	4.12	66.0	13.9	1.31	15.3	0.00	0.02	0.06	107
	125 ISL	10.44	10.43	33.651	25.827	219.0	0.344	3.74	59.2	17.6	1.48	18.2	0.00	0.02	0.05	126
1	131	10.29	10.27	33.681	25.876	214.4	0.357	3.63	57.3	18.8	1.54	19.1	0.00	0.02	0.05	132
	150 ISL	10.07	10.05	33.736	25.957	207.1	0.397	3.43	53.9					0.01	0.05	151
1	154	10.02	10.00	33.748	25.974	205.5	0.405	3.39	53.2					0.01	0.05	155

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 83 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 52.7 N	120 7.9 W	08/02/92	1730 UTC	95 ro	100 09 kn	200 03 05	2	1016.2 mb	15.2 C	14.5 C	22m 03	8/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO Ug/1	PRESS db
	0 ISL	14.85	14.85	33.301	24.695	323.8	0.000	5.88	102.0	2.3	0.43	0.1	0.02	0.51	0.19	0
1	1	14.85	14.85	33.301	24.695	323.8	0.003	5.88	102.0	2.3	0.43	0.1	0.02	0.51	0.19	1
	10 ISL	14.81	14.81	33.304	24.707	323.0	0.032	5.88	101.9	2.1	0.43	0.1	0.02	0.55	0.22	10
1	11	14.80	14.80	33.304	24.709	322.8	0.036	5.88	101.9	2.1	0.43	0.1	0.02	0.56	0.22	11
1	20	14.76	14.76	33.305	24.719	322.2	0.065	5.86	101.5	2.1	0.43	0.2	0.02	0.57	0.24	20
	30 ISL	14.69	14.69	33.310	24.738	320.6	0.097	5.77	99.8	2.6	0.49	0.6	0.03	0.51	0.25	30
1	31	14.68	14.68	33.311	24.741	320.4	0.100	5.76	99.6	2.6	0.50	0.6	0.03	0.50	0.25	31
1	41	13.51	13.50	33.367	25.028	293.3	0.131	5.20	87.8	5.3	0.77	5.2	0.08	0.31	0.22	41
	50 ISL	12.43	12.42	33.407	25.272	270.2	0.156	4.82	79.6	8.1	1.00	9.0	0.06	0.20	0.21	50
1	51	12.32	12.31	33.411	25.296	267.9	0.159	4.79	78.9	8.4	1.02	9.4	0.06	0.19	0.21	51
1	61	11.66	11.65	33.449	25.450	253.5	0.185	4.54	73.7	10.7	1.18	12.0	0.05	0.11	0.14	61
	75 ISL	11.51	11.50	33.458	25.485	250.5	0.220	4.47	72.4	11.3	1.22	12.7	0.04	0.10	0.12	75
1	76	11.50	11.49	33.459	25.487	250.2	0.223	4.46	72.2	11.3	1.22	12.7	0.04	0.10	0.12	76

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 83 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 44.7 N	120 24.5 W	08/02/92	1417 UTC	970 m	110 07 kn			1014.8 mb	14.7 C	14.1 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.93	13.93	33.137	24.763	317.3	0.000	5.93	100.8	2.7	0.51	0.5	0.02	0.22	0.07	0
1	1	13.93	13.93	33.137	24.763	317.4	0.003	5.93	100.8	2.7	0.51	0.5	0.02	0.22	0.07	1
	10 ISL	13.86	13.86	33.149	24.787	315.3	0.032	5.94	100.9	2.7	0.51	0.5	0.02	0.26	0.08	10
1	16	13.79	13.79	33.159	24.809	313.4	0.051	5.94	100.7	2.7	0.51	0.5	0.02	0.29	0.10	16
	20 ISL	13.78	13.78	33.160	24.812	313.2	0.063	5.94	100.7	2.7	0.51	0.5	0.02	0.31	0.11	20
1	30	13.75	13.75	33.166	24.823	312.4	0.094	5.93	100.5	2.6	0.51	0.6	0.03	0.34	0.13	30
1	41	13.69	13.68	33.190	24.854	309.8	0.129	5.93	100.4	2.8	0.52	0.8	0.04	0.32	0.15	41
1	50	13.56	13.55	33.226	24.909	304.8	0.156	5.85	98.8	3.0	0.55	1.5	0.07	0.33	0.18	50
1	60	12.94	12.93	33.188	25.003	296.0	0.186	5.70	95.0	4.0	0.66	3.3	0.10	0.25	0.15	60
1	70	11.51	11.50	33.156	25.250	272.6	0.215	5.28	85.3	7.2	0.97	8.6	0.04	0.14	0.13	70
	75 ISL	10.96	10.95	33.154	25.347	263.4	0.228	5.16	82.4	8.8	1.08	10.5	0.02	0.10	0.10	75
1	80	10.53	10.52	33.159	25.427	256.0	0.241	5.07	80.2	10.1	1.17	12.0	0.01	0.08	0.08	80
1	95	10.03	10.02	33.220	25.559	243.6	0.279	4.90	76.7	12.0	1.27	13.8	0.00	0.06	0.07	95
	100 ISL	9.87	9.86	33.248	25.608	239.0	0.291	4.83	75.4	12.8	1.31	14.6	0.00	0.05	0.06	100
1	110	9.61	9.60	33.322	25.709	229.6	0.314	4.65	72.2	14.4	1.40	16.1	0.00	0.03	0.05	111
	125 ISL	9.53	9.52	33.489	25.853	216.2	0.347	4.27	66.2	16.9	1.52	18.2	0.00	0.01	0.03	126
1	126	9.52	9.51	33.499	25.862	215.4	0.350	4.24	65.7	17.1	1.53	18.3	0.00	0.01	0.03	127
	150 ISL	9.52	9.50	33.725	26.039	199.1	0.399	3.49	54.2	22.8	1.76	21.7	0.00	0.01	0.05	151
1	151	9.52	9.50	33.734	26.046	198.4	0.401	3.46	53.7	23.1	1.77	21.8	0.00	0.01	0.05	152
1	176	9.08	9.06	33.911	26.256	178.9	0.449	2.89	44.5	29.7	2.01	25.6	0.00	0.00	0.04	177
	200 ISL	8.74	8.72	34.008	26.386	167.0	0.490	2.55	39.0	34.2	2.15	27.7	0.00	0.00	0.03	201
1	206	8,67	8.65	34.024	26.409	164.8	0.500	2.48	37.8	35.2	2.18	28.0	0.00	0.00	0.03	207
1	235	8.37	8.35	34.086	26.504	156.3	0.547	2.20	33.4	39.5	2.28	28.6	0.00			236
	250 ISL	8.22	8.19	34.108	26.545	152.7	0.570	2.05	31.0	41.8	2.36	29.7	0.00			251
1	275	8.00	7.97	34.134	26.598	148.0	0.607	1.81	27.2	45.5	2.50	31.6	0.00			277
	300 ISL	7.83	7.80	34.153	26.638	144.5	0.644	1.62	24.3	48.6	2.59	32.7	0.00			302
1	330	7.65	7.62	34.169	26.677	141.2	0.687	1.44	21.5	52.0	2.67	33.6	0.00			332
1	389	7.24	7.20	34.194	26.756	134.4	0.768	1.14	16.9	58.3	2.83	35.3	0.00			391
	400 ISL	7.18	7.14	34.196	26.766	133.6	0.783	1.11	16.4	59.1	2.85	35.5	0.00			403
1	454	6.90	6.86	34.201	26.809	130.1	0.854	0.99	14.5	63.0	2.92	36.7	0.00			457
	500 ISL	6.63	6.58	34.217	26.858	125.9	0.913	0.82	11.9	67.7	3.00	37.9				503
1	523	6.49	6.44	34.225	26.883	123.7	0.942	0.74	10.7	70.0	3.04	38.5				527

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 83 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 34.7 N	120 45.3 W	08/02/92	1047 UTC	1388 m	170 08 kn			1014.3 mb	14.8 C	14.1 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.78	13.78	33.173	24.821	311.8	0.000	6.05	102.6	2.5	0.47	0.3	0.03	0.55	0.22	0
1	1	13.78	13.78	33.173	24.821	311.8	0.003	6.05	102.6	2.5	0.47	0.3	0.03	0.55	0.22	1
	10 ISL	13.71	13.71	33.165	24.830	311.2	0.031	6.06	102.6	2.5	0.47	0.3	0.03	0.59	0.24	10
1	16	13.65	13.65	33.160	24.838	310.6	0.050	6.07	102.6	2.5	0.47	0.3	0.03	0.62	0.26	16
	20 ISL	13.65	13.65	33.161	24.839	310.6	0.062	6.08	102.8	2.5	0.47	0.3	0.03	0.62	0.26	20
	30 ISL	13.64	13.64	33.164	24.844	310.4	0.093	6.09	103.0	2.4	0.47	0.3	0.03	0.61	0.27	30
1	31	13.64	13.64	33.164	24.844	310.5	0.096	6.09	103.0	2.4	0.47	0.3	0.03	0.61	0.27	31
1	41	13.60	13.59	33.167	24.855	309.7	0.127	6.04	102.0	2.5	0.48	0.5	0.04	0.66	0.31	41
1	50	13.39	13.38	33.217	24.936	302.2	0.155	5.93	99.8	3.1	0.55	1.5	0.11	0.56	0.31	50
1	60	12.43	12.42	33.314	25.200	277.3	0.184	5.39	88.9	6.9	0.86	6.7	0.33	0.31	0.30	60
1	70	11.30	11.29	33.216	25.335	264.6	0.211	5.04	81.1	8.8	1.09	10.5	0.04	0.15	0.18	70
	75 ISL	10.94	10.93	33.223	25.405	258.0	0.224	4.92	78.6	9.8	1.17	11.9	0.03	0.11	0.15	75
1	78	10.78	10.77	33.242	25.448	253.9	0.232	4.84	77.0	10.4	1.21	12.7	0.02	0.10	0.14	78
1	94	10.65	10.64	33.487	25.661	234.0	0.271	4.16	66.1	14.8	1.43	16.2	0.01	0.09	0.14	94
	100 ISL	10.49	10.48	33.529	25.722	228.3	0.285	4.01	63.5	16.2	1.49	17.3	0.01	0.07	0.13	100
1	109	10.19	10.18	33.566	25.803	220.0	0.305	3.87	60.9	17.9	1.57	18.6	0.00	0.04	0.10	110
1	124	9.73	9.72	33.618	25.921	209.9	0.337	3.75	58.5	19.9	1.66	20.2	0.00	0.02	0.07	125
	125 ISL	9.71	9.70	33.627	25.931	208.9	0.339	3.72	58.0	20.2	1.67	20.4	0.00	0.02	0.07	126
1	148	9.32	9.30	33.829	26.153	188.2	0.385	3.11	48.1	26.1	1.90	24.0	0.00	0.01	0.05	149
	150 ISL	9.28	9.26	33.837	26.166	187.0	0.389	3.12	48.2	26.3	1.90	24.0	0.00	0.01	0.05	151
1	173	8.78	8.76	33.896	26.291	175.4	0.430	3.29	50.3	28.3	1.88	24.6	0.00	0.00	0.03	174
	200 ISL	8.43	8.41	33.968	26.402	165.3	0.476	3.07	46.6	32.1	1.99	26.4	0.00	0.00	0.02	201
1	203	8.40	8.38	33.975	26.412	164.4	0.481	3.03	45.9	32.6	2.01	26.6	0.00	0.00	0.02	204
1	232	7.99	7.97	34.026	26.514	155.1	0.528	2.59	38.9	39.0	2.20	29.2	0.00			233
	250 ISL	7.81	7.79	34.038	26.550	151.9	0.555	2.47	37.0	41.4	2.26	30.1	0.00			251
1	272	7.64	7.61	34.051	26.585	148.9	0.588	2.33	34.7	44.0	2.33	30.9	0.00			274
	300 ISL	7.48	7.45	34.094	26.642	143.8	0.629	1.93	28.7	48.6	2.49	32.5	0.00			302
1	326	7.34	7.31	34.138	26.697	139.0	0.666	1.53	22.7	53.2	2.64	34.1	0.00			328
1	385	6.86	6.82	34.201	26.814	128.6	0.745	0.95	13.9	63.0	2.90	36.7	0.00			387
	400 ISL	6.70	6.66	34.203	26.837	126.5	0.764	0.88	12.8	65.4	2.94	37.4	0.00			403
1	451	6.19	6.15	34.206	26.906	120.2	0.827	0.73	10.5	73.0	3.06	39.3	0.00			454
	500 ISL	5.92	5.88	34.241	26.969	114.7	0.885	0.54	7.7	78.6	3.18	40.4				503
1	520	5.81	5.77	34.256	26.994	112.4	0.907	0.46	6.6	80.9	3.23	40.9				524

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 83 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 14.7 N	121 26.5 W	08/02/92	0505 UTC	3796 m	220 05 kn			1012.9 mb	14.1 C	14.0 C			

CAST	DEPTH B	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.84	13.84	33.224	24.849	309.2	0.000	6.04	102.6	2.9	0.50	1.1	0.04	0.29	0.09	0
1	1	13.84	13.84	33.224	24.849	309.2	0.003	6.04	102.6	2.9	0.50	1.1	0.04	0.29	0.09	1
	10 ISL	13.73	13.73	33.219	24.868	307 6	0.031	6.02	102.0	2.8	0.50	1.0	0.04	0.32	0.11	10
1	16	13.62	13.62	33.218	24.889	305 7	0.049	6.01	101.6	2.7	0.51	1.0	0.05	0.34	0.13	16
	20 ISL	13.58	13.58	33.223	24.901	304 7	0.061	6.02	101.7	2.6	0.51	1.1	0.05	0.39	0.17	20
	30 ISL	13.47	13.47	33.244	24.940	3013	0.092	6.04	101.8	2.5	0.52	1.2	0.07	0.49	0.25	30
1	31	13.46	13.46	33.246	24.944	301 0	0.095	6.04	101.8	2.5	0.52	1.2	0.07	0.50	0.26	31
1	42	13.30	13.29	33.272	24.996	296.3	0.128	6.01	101.0	3.2	0.55	1.8	0.09	0.47	0.28	42
	50 ISL	13.18	13.17	33.285	25.031	293.2	0.151	5.97	100.0	3.6	0.59	2.3	0.13	0.42	0.31	50
1	51	13.17	13.16	33.291	25.037	292.6	0.154	5.96	99.9	3.7	0.60	2.4	0.13	0.41	0.31	51
1	62	11.54	11.53	33.170	25.255	272.0	0.185	5.32	86.0	7.3	0.97	8.8	0.13	0.18	0.22	62
1	72	10.23	10.22	33.221	25.526	246.3	0.211	4.94	77.7	10.9	1.23	13.4	0.02	0.08	0.12	72
	75 ISL	10.16	10.15	33.248	25.559	243.2	0.218	4.88	76.6	11.5	1.26	13.9	0.01	0.07	0.12	75
1	80	10.05	10.04	33.272	25.596	239.7	0.231	4.79	75.0	12.5	1.30	14.6	0.00	0.06	0.11	80
1	95	9.74	9.73	33.470	25.803	220.4	0.265	4.17	65.0	16.8	1.54	18.4	0.00	0.03	0.17	95
	100 ISL	9.77	9.76	33.520	25.837	217.3	0.276	4.02	62.7	17.7	1.58	19.1	0.00	0.03	0.15	100
1	112	9.89	9.88	33.619	25.895	212.1	0.302	3.71	58.0	19.7	1.66	20.2	0.00	0.02	0.08	113
	125 ISL	9.76	9.75	33.701	25.981	204.2	0.329	3.44	53.7	22.1	1.76	21.7	0.00	0.01	0.07	126
1	126	9.75	9.74	33.707	25.987	203.6	0.331	3.42	53.4	22.3	1.77	21.8	0.00	0.01	0.07	127
	150 ISL	9.50	9.48	33.817	26.114	192.0	0.378	3.10	48.1	25.6	1.89	23.8	0.00	0.01	0.07	151
1	153	9.45	9.43	33.828	26.131	190.4	0.384	3.08	47.8	26.0	1.90	24.0	0.00	0.01	0.07	154
1	177	8.76	8.74	33.916	26.310	173.7	0.428	3.00	45.9	29.9	1.99	26.2	0.00	0.00	0.04	178
	200 ISL	8.44	8.42	34.012	26.435	162.2	0.466	2.72	41.3	34.8	2.11	27.9	0.00	0.00	0.03	201
1	208	8.36	8.34	34.038	26.468	159.2	0.479	2.61	39.6	36.5	2.15	28.4	0.00	0.00	0.03	209
1	239	7.84	7.82	34.046	26.552	151.5	0.527	2.44	36.5	41.2	2.26	30.3	0.00			240
	250 ISL	7.71	7.69	34.051	26.575	149.5	0.544	2.36	35.2	43.0	2.30	30.9	0.00			251
1	280	7.40	7.37	34.068	26.633	144.3	0.588	2.09	31.0	48.0	2.43	32.4	0.00			282
	300 ISL	7.19	7.16	34.079	26.671	140.9	0.616	1.89	27.9	51.4	2.52	33.6	0.00			302
1	337	6.83	6.80	34.104	26.741	134.7	0.667	1.51	22.1	57.5	2.68	35.6	0.00			339
1	397	6.43	6.39	34.158	26.837	126.2	0.746	1.02	14.8	66.4	2.92	37.9	0.00			400
	400 ISL	6.42	6.38	34.161	26.841	125.i	0.750	1.00	14.5	66.8	2.93	38.0	0.00			403
1	463	6.13	6.09	34.219	26.924	118.'5	0.827	0.67	9.7	73.9	3.06	39.5	0.00			466
	500 ISL	5.89	5.85	34.230	26.964	115.1	0.870	0.57	8.2	77.7	3.13	40.4				503
1	532	5.68	5.63	34.241	26.998	112.0	0.906	0.49	7.0	81.0	3.19	41.1				536

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 83 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND JiPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 54.7 N	122 7.7 W	07/02/92	2340 UTC	4180 m	220 07 kn	230 04 05	1	1009.8 mb	16.1 C	15.5 C	18m 03	1/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.24	14.24	33.115	24.682	325.1	0.000	6.02	103.0	2.5	0.42	0.8	0.00	0.36	0.10	0
1	1	14.24	14.24	33.115	24.682	325.1	0.003	6.02	103.0	2.5	0.42	0.8	0.00	0.36	0.10	1
	10 ISL	14.03	14.03	33.131	24.738	320.0	0.032	6.03	102.8	2.5	0.42	0.8	0.00	0.45	0.15	10
1	16	13.86	13.86	33.147	24.785	315.6	0.051	6.04	102.6	2.5	0.42	0.8	0.00	0.54	0.20	16
	20 ISL	13.87	13.87	33.151	24.787	315.6	0.064	6.03	102.4	2.5	0.42	0.8	0.00	0.56	0.22	20
	30 ISL	13.88	13.88	33.160	24.792	315.4	0.096	6.00	101.9	2.4	0.42	0.8	0.00	0.62	0.25	30
1	31	13.88	13.88	33.161	24.792	315.4	0.099	6.00	101.9	2.4	0.42	0.8	0.00	0.63	0.25	31
1	41	13.88	13.87	33.176	24.804	314.5	0.130	5.99	101.8	2.6	0.42	0.9	0.01	0.49	0.21	41
1	50	13.85	13.84	33.251	24.869	308.7	0.158	5.80	98.5	2.7	0.48	1.8	0.10	0.26	0.16	50
1	61	13.71	13.70	33.355	24.978	298.5	0.192	5.63	95.4	3.2	0.58	3.3	0.20	0.18	0.15	61
1	71	11.92	11.91	33.279	25.270	270.9	0.220	5.14	83.9	7.7	0.97	10.2	0.04	0.10	0.10	71
	75 ISL	11.30	11.29	33.237	25.351	263.1	0.231	5.05	81.3	9.1	1.07	11.9	0.03	0.08	0.10	75
1	80	10.65	10.64	33.201	25.438	254.8	0.244	4.95	78.5	10.6	1.18	13.7	0.01	0.07	0.10	80
1	94	9.76	9.75	33.331	25.691	231.0	0.278	4.46	69.5	15.3	1.44	18.2	0.00	0.03	0.06	94
	100 ISL	9.63	9.62	33.419	25.781	222.5	0.291	4.23	65.7	17.1	1.52	19.7	0.00	0.02	0.05	100
1	109	9.55	9.54	33.547	25.894	212.0	0.311	3.90	60.5	19.6	1.62	21.5	0.00	0.02	0.05	110
1	124	9.41	9.40	33.665	26.010	201.3	0.342	3.49	54.0	22.6	1.74	23.5	0.00	0.01	0.04	125
	125 ISL	9.39	9.38	33.672	26.018	200.5	0.344	3.47	53.7	22.8	1.75	23.6	0.00	0.01	0.04	126
1	149	8.98	8.96	33.829	26.207	183.0	0.390	3.06	47.0	27.6	1.91	26.2	0.00	0.00	0.03	150
	150 ISL	8.96	8.94	33.835	26.215	182.2	0.392	3.05	46.8	27.8	1.92	26.3	0.00	0.00	0.03	151
1	174	8.59	8.57	33.950	26.363	168.6	0.434	2.80	42.6	32.1	2.05	28.4	0.00	0.01	0.03	175
	200 ISL	8.25	8.23	34.008	26.461	159.7	0.477	2.65	40.1	36.1	2.11	29.6	0.00	0.00	0.03	201
1	203	8.21	8.19	34.011	26.469	158.9	0.481	2.64	39.9	36.6	2.12	29.7	0.00	0.00	0.03	204
1	233	7.72	7.70	34.032	26.558	150.8	0.528	2.53	37.8	41.4	2.20	31.0	0.00			234
	250 ISL	7.50	7.48	34.042	26.598	147.2	0.553	2.36	35.1	44.7	2.29	32.2	0.00			251
1	273	7.25	7.22	34.058	26.646	142.9	0.586	2.07	30.6	49.3	2.43	33.8	0.00			275
	300 ISL	7.06	7.03	34.089	26.697	138.4	0.624	1.71	25.2	54.0	2.57	35.4	0.00			302
1	328	6.91	6.88	34.121	26.743	134.4	0.663	1.37	20.1	58.2	2.70	36.7	0.00			330
1	386	6.60	6.56	34.158	26.814	128.3	0.739	1.05	15.3	64.5	2.86	38.4	0.00			388
	400 ISL	6.52	6.48	34.172	26.836	126.4	0.757	0.95	13.8	66.5	2.91	38.9	0.00			403
1	452	6.21	6.17	34.229	26.922	118.8	0.820	0.59	8.5	73.9	3.08	40.6	0.00			455
	500 ISL	5.97	5.93	34.269	26.984	113.3	0.876	0.41	5.9	79.2	3.16	41.6				503
1	522	5.86	5.81	34.288	27.013	110.7	0.901	0.33	4.7	81.6	3.20	42.0				526

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 83 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 34.7 N	122 48.7 W	07/02/92	1732 UTC	4266 m	210 10 kn	230 04 05	2	1008.5 mb	15.6 C	15.0 C	25m 02	8/8	ST

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.05	14.05	33.056	24.676	325.7	0.000	6.01	102.4	1.9	0.42	0.8	0.00	0.23	0.06	0
1	1	14.05	14.05	33.056	24.676	325.7	0.003	6.01	102.4	1.9	0.42	0.8	0.00	0.23	0.06	1
	10 ISL	14.01	14.01	33.054	24.682	325.3	0.033	6.00	102.1	1.9	0.43	0.8	0.00	0.24	0.07	10
1	16	13.97	13.97	33.055	24.692	324.6	0.052	6.00	102.1	1.9	0.43	0.8	0.00	0.25	0.08	16
	20 ISL	13.94	13.94	33.062	24.703	323.6	0.065	6.01	102.2	1.9	0.43	0.8	0.00	0.27	0.08	20
	30 ISL	13.87	13.87	33.078	24.731	321.3	0.097	6.04	102.5	1.8	0.43	0.8	0.01	0.33	0.11	30
1	31	13.86	13.86	33.080	24.734	321.0	0.100	6.04	102.5	1.8	0.43	0.8	0.01	0.33	0.11	31
1	41	13.25	13.24	33.122	24.890	306.3	0.132	6.02	100.9	2.6	0.49	1.6	0.12	0.31	0.16	41
1	50	13.57	13.56	33.256	24.930	302.8	0.159	5.89	99.5	2.5	0.51	2.0	0.13	0.35	0.20	50
1	61	13.81	13.80	33.371	24.970	299.3	0.192	5.84	99.2	2.2	0.50	2.0	0.11	0.32	0.21	61
1	71	12.98	12.97	33.288	25.073	289.7	0.222	5.64	94.1	3.9	0.67	5.0	0.17	0.18	0.13	71
	75 ISL	12.58	12.57	33.247	25.120	285.3	0.233	5.56	92.0	4.7	0.74	6.4	0.13	0.15	0.13	75
1	80	12.04	12.03	33.198	25.185	279.2	0.247	5.46	89.3	5.8	0.84	8.1	0.07	0.13	0.12	80
1	95	10.37	10.36	33.113	25.418	257.0	0.288	5.16	81.3	10.0	1.16	13.4	0.01	0.07	0.09	95
	100 ISL	9.90	9.89	33.156	25.531	246.3	0.300	4.98	77.7	12.1	1.27	15.3	0.01	0.05	0.07	100
1	109	9.24	9.23	33.266	25.725	228.0	0.322	4.67	71.9	15.6	1.44	18.3	0.01	0.02	0.04	110
1	124	8.95	8.94	33.394	25.871	214.3	0.355	4.47	68.4	17.6	1.51	19.8	0.01	0.01	0.03	125
	125 ISL	8.94	8.93	33.407	25.883	213.2	0.357	4.43	67.8	17.9	1.52	20.0	0.01	0.01	0.03	126
1	148	8.87	8.85	33.699	26.123	190.9	0.403	3.49	53.4	25.0	1.81	24.9	0.01	0.00	0.02	149
	150 ISL	8.85	8.83	33.717	26.140	189.3	0.407	3.44	52.6	25.5	1.83	25.2	0.01	0.00	0.02	151
1	174	8.53	8.51	33.873	26.312	173.4	0.451	3.02	45.9	30.4	1.97	27.6	0.01	0.00	0.02	175
	200 ISL	8.37	8.35	33.978	26.419	163.7	0.494	2.82	42.7	33.8	2.04	28.7	0.00	0.00	0.02	201
1	203	8.35	8.33	33.986	26.429	162.8	0.499	2.80	42.4	34.2	2.05	28.8	0.00	0.00	0.02	204
1	232	7.95	7.93	34.053	26.541	152.5	0.545	2.29	34.4	40.8	2.26	31.3	0.00			233
	250 ISL	7.78	7.76	34.074	26.583	148.8	0.572	2.09	31.3	43.8	2.35	32.4	0.00			251
1	274	7.58	7.55	34.089	26.624	145.2	0.607	1.89	28.1	47.4	2.44	33.6	0.00			276
	300 ISL	7.28	7.25	34.107	26.681	140.1	0.645	1.62	24.0	52.1	2.56	35.1	0.00			302
1	329	6.93	6.90	34.122	26.741	134.6	0.684	1.35	19.8	57.5	2.69	36.6	0.00			331
1	387	6.36	6.33	34.133	26.826	127.0	0.760	1.00	14.5	66.8	2.87	39.2	0.00			389
	400 ISL	6.24	6.20	34.139	26.846	125.1	0.777	0.94	13.6	69.0	2.91	39.7	0.00			403
1	452	5.81	5.77	34.171	26.926	117.9	0.840	0.72	10.3	77.2	3.05	41.6	0.00			455
	500 ISL	5.51	5.47	34.206	26.991	112.1	0.895	0.53	7.5	83.4	3.13	42.6				503
1	520	5.38	5.34	34.221	27.019	109.6	0.917	0.45	6.4	86.0	3.16	43.0				524

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 83 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 14.7 N	123 29.4 W	07/02/92	1158 UTC	4144 m	210 13 kn			1005.7 mb	14.5 C	14.1 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.95	13.95	33.032	24.678	325.5	0.000	6.03	102.5	2.9	0.43	0.7	0.00	0.29	0.09	0
1	1	13.95	13.95	33.032	24.678	325.5	0.003	6.03	102.5	2.9	0.43	0.7	0.00	0.29	0.09	1
	10 ISL	13.92	13.92	33.032	24.684	325.1	0.033	6.03	102.5	2.7	0.42	0.7	0.00	0.31	0.10	10
1	11	13.92	13.92	33.032	24.684	325.1	0.036	6.03	102.5	2.7	0.42	0.7	0.00	0.31	0.10	11
	20 ISL	13.89	13.89	33.035	24.693	324.6	0.065	6.05	102.7	2.7	0.42	0.7	0.00	0.33	0.11	20
1	21	13.89	13.89	33.036	24.694	324.5	0.068	6.05	102.7	2.7	0.42	0.7	0.00	0.33	0.11	21
	30 ISL	13.86	13.86	33.041	24.704	323.8	0.097	6.05	102.7	2.8	0.42	0.7	0.00	0.36	0.12	30
1	31	13.86	13.86	33.041	24.704	323.8	0.101	6.05	102.7	2.8	0.42	0.7	0.00	0.36	0.12	31
1	41	13.59	13.58	33.079	24.789	316.0	0.133	6.10	103.0	2.9	0.44	0.9	0.03	0.53	0.21	41
	50 ISL	13.27	13.26	33.160	24.916	304.1	0.161	5.94	99.6	3.1	0.51	1.9	0.14	0.47	0.25	50
1	51	13.25	13.24	33.170	24.928	303.0	0.164	5.92	99.3	3.1	0.52	2.0	0.15	0.46	0.25	51
1	61	13.43	13.42	33.271	24.970	299.3	0.194	5.85	98.5	3.2	0.54	2.5	0.15	0.44	0.24	61
1	71	12.65	12.64	33.141	25.024	294.3	0.223	5.75	95.2	4.1	0.65	4.4	0.16	0.31	0.18	71
	75 ISL	12.05	12.04	33.077	25.089	288.2	0.235	5.72	93.5	4.7	0.71	5.4	0.12	0.24	0.15	75
1	84	10.73	10.72	33.004	25.271	270.8	0.260	5.54	88.0	6.9	0.88	8.5	0.03	0.11	0.10	84
1	99	9.95	9.94	33.240	25.589	240.9	0.299	4.71	73.6	14.0	1.35	16.8	0.01	0.04	0.07	99
	100 ISL	9.91	9.90	33.250	25.603	239.5	0.301	4.68	73.1	14.3	1.37	17.1	0.01	0.04	0.07	100
1	120	9.27	9.26	33.422	25.842	217.1	0.347	4.14	63.8	19.2	1.61	21.2	0.01	0.01	0.04	121
	125 ISL	9.15	9.14	33.472	25.900	211.6	0.357	4.00	61.5	20.6	1.66	22.1	0.01	0.01	0.04	126
1	143	8.83	8.81	33.648	26.089	194.0	0.394	3.50	53.5	25.2	1.81	25.0	0.01	0.00	0.04	144
	150 ISL	8.80	8.78	33.711	26.143	189.0	0.407	3.32	50.7	26.5	1.86	25.8	0.01	0.00	0.04	151
1	174	8.75	8.73	33.887	26.289	175.6	0.451	2.85	43.5	30.5	1.99	27.8	0.01	0.00	0.04	175
	200 ISL	8.39	8.37	33.988	26.424	163.2	0.495	2.64	40.0	34.9	2.09	29.3	0.01	0.01	0.05	201
1	203	8.34	8.32	33.995	26.437	162.0	0.500	2.62	39.7	35.4	2.10	29.5	0.01	0.01	0.05	204
1	231	7.92	7.90	34.046	26.540	152.6	0.544	2.31	34.7	41.2	2.25	31.6	0.01			232
	250 ISL	7.72	7.70	34.063	26.583	148.8	0.573	2.16	32.3	44.0	2.32	32.5	0.01			251
1	271	7.51	7.48	34.068	26.617	145.7	0.604	2.05	30.5	46.7	2.39	33.2	0.00			273
	300 ISL	7.05	7.02	34.053	26.670	140.9	0.645	2.01	29.6	51.3	2.45	34.3	0.00			302
1	327	6.63	6.60	34.043	26.719	136.4	0.683	1.92	28.0	56.0	2.52	35.5	0.00			329
1	385	6.22	6.19	34.117	26.831	126.3	0.759	1.08	15.6	67.5	2.87	39.4	0.00			387
	400 ISL	6.14	6.10	34.126	26.849	124.8	0.778	0.98	14.1	69.5	2.91	39.9	0.00			403
1	450	5.88	5.84	34.155	26.905	119.9	0.839	0.76	10.9	75.7	3.01	41.0	0.00			453
	500 ISL	5.59	5.55	34.211	26.985	112.7	0.897	0.50	7.1	83.3	3.14	42.4				503
1	518	5.48	5.44	34.231	27.015	110.1	0.917	0.40	5.7	86.0	3.18	42.9				522

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 83 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
31 54.7 N	124 10.2 W	07/02/92	0604 UTC	4211 in	210 11 kn			1006.1 mb	14.7 C	14.0 C		

CAST	DEPTH D	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.17	14.17	32.966	24.581	334.7	0.000	5.96	101.7	2.4	0.42	0.7	0.02	0.24	0.07	0
1	2	14.17	14.17	32.966	24.581	334.7	0.007	5.96	101.7	2.4	0.42	0.7	0.02	0.24	0.07	2
	10 ISL	14.08	14.08	32.955	24.592	333.9	0.033	5.96	101.6	2.4	0.42	0.7	0.02	0.25	0.08	10
1	12	14.03	14.03	32.950	24.598	333.4	0.040	5.96	101.4	2.4	0.42	0.7	0.02	0.26	0.08	12
	20 ISL	13.68	13.68	32.914	24.642	329.4	0.067	6.02	101.7	2.5	0.45	0.8	0.03	0.28	0.09	20
1	21	13.64	13.64	32.910	24.647	328.9	0.070	6.03	101.8	2.5	0.45	0.8	0.03	0.28	0.09	21
	30 ISL	13.55	13.55	32.914	24.669	327.1	0.099	6.03	101.6	2.5	0.45	0.9	0.06	0.29	0.10	30
1	31	13.54	13.54	32.916	24.672	326.8	0.103	6.03	101.6	2.5	0.45	0.9	0.06	0.29	0.10	31
1	42	12.83	12.82	32.933	24.827	312.3	0.138	6.42	106.6	2.8	0.50	1.6	0.12	0.29	0.14	42
	50 ISL	12.74	12.73	32.960	24.866	308.8	0.163	6.12	101.4	3.2	0.53	1.9	0.10	0.23	0.10	50
1	51	12.73	12.72	32.963	24.870	308.5	0.166	6.07	100.6	3.3	0.53	2.0	0.10	0.22	0.10	51
1	61	12.15	12.14	32.957	24.977	298.5	0.196	5.92	96.9	4.0	0.64	3.9	0.17	0.19	0.11	61
1	72	12.02	12.01	33.019	25.049	2S1.8	0.229	5.78	94.4	4.6	0.70	5.2	0.12	0.14	0.09	72
	75 ISL	11.76	11.75	33.026	25.103	286.8	0.237	5.71	92.7	5.2	0.75	6.1	0.10	0.13	0.09	75
1	85	10.74	10.73	33.066	25.318	266.4	0.265	5.39	85.6	7.9	0.96	10.0	0.02	0.08	0.09	85
1	99	9.91	9.90	33.219	25.579	241.8	0.301	4.78	74.6	13.5	1.34	16.4	0.01	0.04	0.07	99
	100 ISL	9.87	9.86	33.230	25.594	240.4	0.303	4.74	73.9	13.8	1.36	16.7	0.01	0.04	0.07	100
1	119	9.32	9.31	33.426	25.837	217.5	0.346	4.13	63.7	19.1	1.61	21.2	0.01	0.01	0.05	120
	125 ISL	9.23	9.22	33.484	25.897	212.0	0.359	3.96	61.0	20.5	1.67	22.2	0.01	0.01	0.05	126
1	144	9.05	9.03	33.643	26.051	197.7	0.398	3.49	53.6	24.0	1.80	24.5	0.01	0.01	0.05	145
	150 ISL	9.02	9.00	33.679	26.083	194.7	0.410	3.38	51.9	24.8	1.83	25.0	0.01	0.01	0.05	151
1	174	8.89	8.87	33.797	26.197	184.4	0.456	3.03	46.4	27.9	1.94	26.8	0.01	0.01	0.04	175
	200 ISL	8.53	8.51	33.919	26.349	170.4	0.502	2.82	42.9	32.0	2.02	28.5	0.01	0.01	0.04	201
1	204	8.47	8.45	33.937	26.372	168.3	0.508	2.78	42.2	32.7	2.03	28.7	0.01	0.01	0.04	205
1	233	8.27	8.25	34.064	26.502	156.4	0.555	2.24	33.9	38.6	2.22	30.8	0.01			234
	250 ISL	8.09	8.06	34.086	26.547	152.4	0.582	2.11	31.8	41.1	2.29	31.6	0.01			251
1	272	7.82	7.79	34.090	26.590	143.5	0.615	2.02	30.2	44.2	2.36	32.4	0.01			274
	300 ISL	7.45	7.42	34.101	26.652	142.9	0.656	1.79	26.6	49.2	2.48	34.0	0.01			302
1	328	7.11	7.08	34.109	26.706	138.0	0.695	1.55	22.8	54.1	2.59	35.6	0.01			330
1	387	6.64	6.60	34.124	26.782	131.4	0.774	1.22	17.8	61.3	2.77	37.8	0.01			389
	400 ISL	6.55	6.51	34.132	26.801	129.7	0.791	1.13	16.4	63.1	2.81	38.3	0.01			403
1	452	6.17	6.13	34.163	26.875	123.L	0.857	0.82	11.8	70.5	2.97	40.1	0.01			455
	500 ISL	5.77	5.73	34.177	26.937	117.5	0.915	0.65	9.3	77.5	3.07	41.5				503
1	521	5.60	5.56	34.184	26.963	115.1	0.939	0.58	8.2	80.6	3.11	42.1				525

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 87 33

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
33 53.4 N	118 29.4 W	04/02/92	1547 UTC	56 m	040 11 kn	010 01 06	0	1016.0 mb	15.9 C	11.3 C	12m 05	0/8

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.90	14.90	33.298	24.682	325.0	0.000	6.81	118.2	1.3	0.32	0.1	0.01	1.97	0.38	0
1	1	14.90	14.90	33.298	24.682	325.0	0.003	6.81	118.2	1.3	0.32	0.1	0.01	1.97	0.38	1
	10 ISL	14.88	14.88	33.300	24.689	324.7	0.032	6.79	117.8	1.3	0.32	0.1	0.01	1.81	0.39	10
1	11	14.88	14.88	33.300	24.689	324.7	0.036	6.79	117.8	1.3	0.32	0.1	0.01	1.78	0.39	11
	20 ISL	14.83	14.83	33.308	24.706	323.4	0.065	6.23	108.0	1.7	0.40	0.1	0.02	1.39	0.33	20
1	22	14.82	14.82	33.313	24.712	322.9	0.071	6.07	105.2	1.9	0.43	0.1	0.02	1.26	0.31	22
	30 ISL	14.63	14.63	33.314	24.754	319.1	0.097	5.58	96.4	2.7	0.57	0.4	0.11	0.49	0.23	30
1	31	14.60	14.60	33.314	24.760	318.5	0.100	5.53	95.4	2.8	0.59	0.5	0.12	0.40	0.22	31
1	41	14.35	14.34	33.331	24.826	312.5	0.132	5.35	91.9	3.7	0.70	1.9	0.29	0.19	0.24	41
	50 ISL	14.05	14.04	33.343	24.899	305.8	0.160	5.14	87.7	5.0	0.80	3.1	0.29	0.19	0.35	50
1	52	13.98	13.97	33.345	24.915	304.4	0.166	5.09	86.7	5.3	0.82	3.4	0.29	0.19	0.38	52

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 87 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
33 49.4 N	118 37.7 W	04/02/92	1748 UTC	659 m	060 12 len	010 02 07	0	1015.9 mb	17.8 C	13.9 C	16m 04	0/8

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.05	15.05	33.332	24.676	325.6	0.000	6.42	111.8	1.6	0.38	0.0	0.01	0.81	0.26	0
1	1	15.05	15.05	33.332	24.676	325. 6	0.003	6.42	111.8	1.6	0.38	0.0	0.01	0.81	0.26	1
	10 ISL	15.04	15.04	33.333	24.680	325..6	0.033	6.41	111.6	1.6	0.37	0.0	0.00	0.82	0.28	10
1	16	15.02	15.02	33.330	24.682	325..5	0.052	6.40	111.4	1.6	0.37	0.0	0.00	0.83	0.29	16
	20 ISL	15.00	15.00	33.340	24.694	324.5	0.065	6.22	108.2	1.8	0.38	0.0	0.00	0.74	0.29	20
1	30	14.94	14.94	33.375	24.734	321.0	0.097	5.79	100.7	2.4	0.42	0.0	0.01	0.55	0.30	30
1	40	14.63	14.62	33.339	24.773	317.5	0.129	5.80	100.2	2.6	0.44	0.0	0.05	0.62	0.39	40
1	48	14.33	14.32	33.379	24.868	308.7	0.154	5.36	92.0	4.0	0.62	2.5	0.09	0.43	0.31	48
	50 ISL	14.22	14.21	33.382	24.893	306.4	0.160	5.30	90.8	4.3	0.65	3.0	0.08	0.40	0.31	50
1	58	13.78	13.77	33.383	24.985	297.8	0.185	5.14	87.3	5.2	0.75	4.6	0.05	0.33	0.30	58
1	68	13.39	13.38	33.393	25.073	289.7	0.214	5.04	84.9	6.0	0.83	5.8	0.04	0.23	0.24	68
	75 ISL	12.58	12.57	33.398	25.237	274.2	0.234	4.84	80.1	7.6	0.97	8.3	0.02	0.11	0.14	75
1	77	12.35	12.34	33.401	25.283	269.8	0.239	4.78	78.8	8.1	1.01	9.1	0.02	0.08	0.11	77
1	91	11.88	11.87	33.441	25.404	258.6	0.276	4.60	75.1	9.7	1.11	10.9	0.03	0.05	0.09	91
	100 ISL	11.66	11.65	33.459	25.459	253.6	0.299	4.53	73.6	10.5	1.16	11.8	0.02	0.05	0.08	100
1	105	11.55	11.54	33.469	25.487	251.0	0.312	4.49	72.8	11.0	1.19	12.2	0.02	0.05	0.07	105
1	121	11.21	11.20	33.507	25.578	242.6	0.351	4.31	69.4	12.6	1.28	13.7	0.02	0.03	0.07	122
	125 ISL	11.02	11.00	33.529	25.630	237.8	0.361	4.22	67.6	13.6	1.33	14.6	0.02	0.03	0.07	126
1	145	10.14	10.12	33,663	25.888	213.6	0.406	3.69	58.1	18.9	1.60	19.2	0.01	0.01	0.04	146
	150 ISL	10.12	10.10	33.697	25.918	210.8	0.417	3.59	56.5	19.7	1.64	19.9	0.01	0.01	0.04	151
1	169	10.03	10.01	33.787	26.003	203.1	0.456	3.22	50.6	22.5	1.77	22.2	0.01	0.00	0.04	170
1	199	9.65	9.63	33.974	26.213	183.7	0.514	2.59	40.4	28.5	2.02	25.4	0.01	0.00	0.04	200
	200 ISL	9.64	9.62	33.978	26.218	183.2	0.516	2.58	40.2	28.6	2.02	25.5	0.01			201
1	227	9.35	9.32	34.059	26.329	173.2	0.564	2.40	37.2	31.6	2.12	26.8	0.01			228
	250 ISL	9.03	9.00	34.101	26.414	165.5	0.603	2.22	34.2	34.9	2.22	28.1	0.01			251
1	267	8.80	8.77	34.123	26.468	160.6	0.631	2.09	32.0	37.4	2.29	29.0	0.01			269
	300 ISL	8.51	8.48	34.153	26.537	154.5	0.683	1.86	28.3	41.1	2.41	30.4	0.01			302
1	321	8.35	8.32	34.164	26.570	151.7	0.715	1.74	26.4	43.3	2.47	31.1	0.01			323
1	379	7.81	7.77	34.171	26.657	144.1	0.801	1.55	23.2	49.4	2.61	33.0	0.01			381
	400 ISL	7.62	7.58	34.182	26.693	140.9	0.831	1.39	20.7	52.3	2.68	33.9	0.01			403
1	443	7.28	7.24	34.208	26.762	134.8	0.890	1.04	15.4	58.2	2.83	35.7	0.01			446
	500 ISL	7.04	6.99	34.238	26.820	130.0	0.965	0.80	11.8	63.1	2.96	36.9				503
1	511	6.99	6.94	34.244	26.832	129.1	0.980	0.75	11.0	64.0	2.98	37.1				514

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 87 39.4

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 41.0 N	118 56.0 W	04/02/92	2255 UTC	895 m	080 08 kn	270 02 08	1	1015.5 mb	18.5 C	14.7 C	23m 03	2/8	CI

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.50	15.50	33.367	24.604	332.4	0.000	5.86	103.0	2.6	0.42	0.1	0.00	0.19	0.05	0
1	1A	15.50	15.50	33.367	24.604	332.4	0.003	5.86	103.0	2.6	0.42	0.1	0.00	0.19	0.05	1
1	7	15.27	15.27	33.363	24.652	328.1	0.023	5.87	102.7	2.6	0.41	0.1	0.00	0.20	0.05	7
	10 ISL	15.16	15.16	33.357	24.672	326.3	0.033	5.89	102.8	2.5	0.41	0.1	0.00	0.21	0.06	10
1	15	15.02	15.02	33.346	24.694	324.4	0.049	5.93	103.2	2.3	0.41	0.1	0.00	0.24	0.07	15
	20 ISL	14.99	14.99	33.345	24.700	323.9	0.065	5.93	103.2	2.3	0.41	0.1	0.00	0.26	0.08	20
1	26	14.96	14.96	33.344	24.706	323.5	0.085	5.92	102.9	2.2	0.41	0.1	0.00	0.33	0.10	26
	30 ISL	14.87	14.87	33.337	24.720	322.3	0.098	5.92	102.7	2.3	0.41	0.1	0.01	0.45	0.19	30
1	36	14.67	14.66	33.323	24.752	319.4	0.117	5.91	102.1	2.6	0.42	0.0	0.02	0.64	0.34	36
1	45	14.26	14.25	33.298	24.820	313.2	0.145	5.69	97.5	3.2	0.52	1.2	0.19	0.77	0.44	45
	50 ISL	14.12	14.11	33.313	24.861	309.4	0.161	5.55	94.8	3.6	0.58	2.1	0.16	0.68	0.42	50
1	56	13.85	13.84	33.335	24.934	302.6	0.179	5.37	91.3	4.3	0.66	3.4	0.09	0.50	0.39	56
1	66	12.79	12.78	33.341	25.151	282.1	0.209	5.12	85.1	6.3	0.85	6.8	0.04	0.25	0.26	66
	75 ISL	12.31	12.30	33.351	25.252	272.7	0.234	5.01	82.5	7.2	0.93	8.4	0.03	0.17	0.21	75
1	80	12.14	12.13	33.360	25.292	269.0	0.247	4.96	81.3	7.7	0.97	9.1	0.03	0.15	0.19	80
1	95	11.52	11.51	33.420	25.454	253.9	0.286	4.65	75.3	10.3	1.14	11.8	0.02	0.08	0.10	95
	100 ISL	11.38	11.37	33.439	25.495	250.1	0.299	4.56	73.6	10.9	1.18	12.5	0.02	0.06	0.08	100
1	114	11.00	10.99	33.496	25.607	239.7	0.333	4.31	69.0	12.9	1.28	14.4	0.02	0.03	0.06	115
	125 ISL	10.59	10.58	33.559	25.729	228.3	0.359	4.08	64.8	15.3	1.41	16.4	0.01	0.02	0.05	126
1	134	10.27	10.25	33.615	25.828	219.0	0.379	3.89	61.4	17.3	1.51	18.0	0.01	0.01	0.04	135
	150 ISL	9.97	9.95	33.712	25.955	207.3	0.413	3.58	56.1	20.2	1.64	20.1	0.01	0.01	0.03	151
1	164	9.81	9.79	33.789	26.042	199.2	0.442	3.34	52.2	22.4	1.73	21.7	0.01	0.01	0.03	165
1	196	9.48	9.46	33.918	26.197	185.0	0.503	2.86	44.4	27.2	1.94	24.9	0.01	0.00	0.03	197
	200 ISL	9.44	9.42	33.937	26.219	183.1	0.511	2.79	43.3	27.9	1.97	25.3	0.01			201
1	225	9.20	9.18	34.043	26.341	171.9	0.555	2.41	37.2	32.2	2.12	27.2	0.01			226
	250 ISL	8.97	8.94	34.102	26.424	164.4	0.597	2.19	33.7	35.3	2.22	28.5	0.01			251
1	265	8.82	8.79	34.123	26.465	160.8	0.621	2.09	32.0	37.1	2.28	29.2	0.01			267
	300 ISL	8.31	8.28	34.151	26.566	151.7	0.676	1.82	27.6	42.8	2.44	31.1	0.01			302
1	314	8.11	8.08	34.157	26.601	148.5	0.697	1.72	25.9	45.2	2.50	31.9	0.01			316
1	371	7.59	7.55	34.182	26.697	140.0	0.779	1.33	19.8	52.9	2.69	34.3	0.00			373
	400 ISL	7.37	7.33	34.200	26.743	136.0	0.819	1.11	16.5	56.7	2.79	35.5	0.00			403
1	436	7.11	7.07	34.232	26.805	130.5	0.867	0.84	12.4	61.7	2.91	36.9	0.00			439
	500 ISL	6.59	6.54	34.339	26.960	116.3	0.946	0.42	6.1	73.0	3.14	39.3	0.00			503
1	507	6.53	6.48	34,350	26.977	114.8	0.954	0.38	5.5	74.2	3.16	39.5	0.00			510
	600 ISL	5.93	5.88	34.368	27.069	106.7	1.057	0.25	3.6	85.5	3.29	40.4	0.01			604
1	645	5.70	5.64	34.354	27.087	105.3	1.105	0.18	2.6	90.0	3.32	40.8	0.01			650
	700 ISL	5.50	5.44	34.366	27.121	102.5	1.162	0.13	1.8	95.3	3.35	38.8	0.01			705
	800 ISL	5.26	5.19	34.386	27.166	99.1	1.263	0.07	1.0	105.8	3.45	35.1	0.00			806
1	840	5.21	5.14	34.393	27.178	98.3	1.302	0.05	0.7	110.3	3.50	33.6	0.00			847
1	877	5.17	5.10	34.395	27.185	98.1	1.339	0.03	0.4	115.4	3.58	29.1	0.00			884
1	887	5.17	5.10	34.395	27.185	98.2	1.349	0.02	0.3	116.8	3.61	27.9	0.02			894
1	892	5.18	5.10	34.395	27.184	98.4	1.353	0.02	0.3	117.3	3.62	27.6	0.03			899
1	897	5.18	5.10	34.397	27.185	98.3	1.358	0.02	0.3	116.9	3.61	27.5				904

A) SANTA MONICA BASIN STATION.

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 87 45

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 29.4 N	119 19.1 W	05/02/92	0343 UTC	1631 m	140 08 kn			1014.8 mb	15.7 C	15.1 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.76	14.76	33.313	24.724	321.0	0.000	5.91	102.3	2.1	0.43	0.1	0.01	0.22	0.08	0
1	1	14.76	14.76	33.313	24.724	321.1	0.003	5.91	102.3	2.1	0.43	0.1	0.01	0.22	0.08	1
1	10	14.78	14.78	33.315	24.722	321.6	0.032	5.91	102.4	2.1	0.43	0.1	0.01	0.25	0.08	10
1	20	14.75	14.75	33.323	24.735	320.6	0.064	5.92	102.5	2.1	0.42	0.1	0.00	0.31	0.10	20
	30 ISL	14.76	14.76	33.340	24.746	319.9	0.096	5.92	102.5	2.1	0.42	0.1	0.01	0.41	0.14	30
1	31	14.76	14.76	33.341	24.747	319.8	0.099	5.92	102.5	2.1	0.42	0.1	0.01	0.42	0.15	31
1	40	14.76	14.75	33.348	24.752	319.5	0.128	5.91	102.3	2.2	0.41	0.1	0.01	0.58	0.25	40
1	50	14.43	14.42	33.326	24.806	314.7	0.160	5.79	99.6	2.4	0.47	0.7	0.04	0.65	0.27	50
1	60	12.70	12.69	33.298	25.135	283.4	0.190	5.21	86.4	6.0	0.83	6.5	0.06	0.30	0.23	60
1	70	12.39	12.38	33.364	25.247	273.1	0.218	4.96	81.8	7.2	0.94	8.3	0.03	0.24	0.23	70
	75 ISL	12.06	12.05	33.381	25.323	265.9	0.231	4.84	79.3	8.3	1.01	9.6	0.03	0.18	0.20	75
1	85	11.40	11.39	33.400	25.460	253.1	0.257	4.64	74.9	10.4	1.15	12.0	0.02	0.08	0.12	85
1	100	11.03	11.02	33.413	25.537	246.0	0.295	4.55	72.9	11.8	1.23	13.3	0.01	0.05	0.08	100
1	119	10.51	10.50	33.542	25.729	228.1	0.340	4.06	64.4	15.5	1.44	16.7	0.01	0.02	0.05	120
	125 ISL	10.31	10.30	33.587	25.799	221.6	0.353	3.90	61.6	17.1	1.51	17.9	0.01	0.02	0.04	126
1	145	9.69	9.67	33.739	26.022	200.7	0.395	3.41	53.2	22.5	1.74	21.7	0.00	0.01	0.03	146
	150 ISL	9.58	9.56	33.774	26.068	196.4	0.405	3.31	51.5	23.7	1.78	22.4	0.00	0.01	0.03	151
1	173	9.21	9.19	33.917	26.240	180.4	0.449	2.91	44.9	28.5	1.93	25.1	0.01	0.00	0.03	174
	200 ISL	8.98	8.96	34.029	26.365	169.1	0.496	2.55	39.2	32.4	2.09	27.1	0.01	0.00	0.03	201
1	203	8.96	8.94	34.038	26.375	168.2	0.501	2.52	38.7	32.8	2.11	27.3	0.01	0.00	0.03	204
1	234	8.60	8.58	34.087	26.470	159.6	0.552	2.22	33.8	37.7	2.25	29.2	0.00			235
	250 ISL	8.48	8.45	34.106	26.504	156.7	0.577	2.08	31.6	39.6	2.31	30.0	0.00			251
1	275	8.30	8.27	34.129	26.549	152.7	0.616	1.89	28.6	42.4	2.40	31.0	0.00			277
	300 ISL	8.07	8.04	34.145	26.597	148.6	0.653	1.72	25.9	45.5	2.49	32.0	0.00			302
1	328	7.81	7.78	34.163	26.650	143.9	0.694	1.54	23.1	49.1	2.58	33.1	0.00			330
1	388	7.40	7.36	34.216	26.751	135.1	0.778	1.04	15.4	57.2	2.80	35.5	0.00			390
	400 ISL	7.33	7.29	34.226	26.769	133.5	0.794	0.96	14.2	58.6	2.84	35.9	0.00			403
1	455	7.01	6.97	34.262	26.842	127.2	0.866	0.66	9.7	64.9	2.99	37.5	0.00			458
	500 ISL	6.72	6.67	34.281	26.897	122.4	0.922	0.51	7.5	69.9	3.08	38.6				503
1	523	6.57	6.52	34.291	26.925	119.9	0.950	0.43	6.3	72.5	3.12	39.1				527

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 87 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
33 19.4 N	119 39.8 W	05/02/92	0731 UTC	75 m	070 10 len			1015.0 mb	14.7 C	12.1 C		

CAST	DEPTH n		TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0	ISL	13.92	13.92	33.270	24.868	307.4	0.000	6.05	102.9	2.7	0.49	0.8	0.05	0.90	0.24	0
1	1		13.92	13.92	33.270	24.868	307.4	0.003	6.05	102.9	2.7	0.49	0.8	0.05	0.90	0.24	1
	10	ISL	13.79	13.79	33.271	24.895	305.0	0.031	6.02	102.2	2.8	0.50	0.8	0.05	0.91	0.29	10
1	11		13.77	13.77	33.271	24.900	304.6	0.034	6.02	102.1	2.8	0.50	0.8	0.05	0.91	0.30	11
	20	ISL	13.56	13.56	33.270	24.942	300.9	0.061	5.90	99.6	3.5	0.55	1.7	0.08	0.88	0.34	20
1	21		13.52	13.52	33.271	24.951	300.0	0.064	5.87	99.1	3.6	0.55	1.8	0.08	0.88	0.34	21
	30	ISL	12.98	12.98	33.326	25.102	285.9	0.090	5.33	89.0	6.0	0.79	5.5	0.15	0.41	0.29	30
1	31		12.92	12.92	33.333	25.119	284.3	0.093	5.27	87.9	6.3	0.82	5.9	0.16	0.36	0.28	31
1	41		12.45	12.44	33.352	25.225	274.4	0.121	5.15	85.0	7.5	0.90	7.3	0.13	0.26	0.28	41
	50	ISL	12.26	12.25	33.363	25.270	270.3	0.146	4.90	80.6	9.0	1.02	9.2	0.12	0.19	0.25	50
1	51				33.376			0.148	4.87	80.1	9.1	1.03	9.4	0.12	0.19	0.25	51
1	61		12.02	12.01	33.377	25.327	265.2	0.175	4.84	79.2	9.4	1.05	9.6	0.13	0.18	0.23	61

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 87 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	HIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
33 9.4 N	120 0.4 W	05/02/92	1052 UTC	1203 *m*	130 13 kn			1013.6 mb	13.2 C	12.8 C		

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0	ISL	14.17	14.17	33.218	24.776	316.1	0.000	5.95	101.7	2.7	0.48	0.3	0.03	0.28	0.09	0
1	1		14.17	14.17	33.218	24.776	316.2	0.003	5.95	101.7	2.7	0.48	0.3	0.03	0.28	0.09	1
	10	ISL	14.07	14.07	33.216	24.795	314.5	0.032	5.96	101.7	2.6	0.47	0.3	0.03	0.33	0.11	10
1	16		13.99	13.99	33.215	24.811	313.2	0.050	5.97	101.7	2.5	0.47	0.3	0.03	0.37	0.13	16
	20	ISL	13.99	13.99	33.215	24.811	313.3	0.063	5.97	101.7	2.5	0.47	0.3	0.04	0.38	0.15	20
1	30		13.96	13.96	33.217	24.819	312.8	0.094	5.94	101.1	2.7	0.48	0.4	0.05	0.43	0.19	30
1	40		13.79	13.78	33.221	24.858	309.4	0.125	5.89	99.9	3.0	0.51	0.9	0.06	0.53	0.23	40
1	49		13.69	13.68	33.221	24.878	307.7	0.153	5.89	99.7	3.2	0.52	1.2	0.06	0.46	0.21	49
	50	ISL	13.69	13.68	33.222	24.879	307.7	0.156	5.89	99.7	3.2	0.52	1.2	0.06	0.46	0.21	50
1	60		13.62	13.61	33.223	24.895	306.5	0.187	5.83	98.5	3.4	0.55	1.5	0.08	0.47	0.22	60
1	69		13.42	13.41	33.271	24.972	299.3	0.214	5.71	96.1	3.4	0.62	2.5	0.20	0.25	0.17	69
	75	ISL	12.40	12.39	33.226	25.138	283.6	0.232	5.44	89.6	5.6	0.80	5.9	0.10	0.17	0.16	75
1	78		11.83	11.82	33.203	25.228	275.0	0.240	5.30	86.3	6.9	0.89	7.7	0.03	0.14	0.15	78
1	92		10.78	10.77	33.216	25.428	256.2	0.277	5.05	80.4	9.4	1.09	11.0	0.01	0.08	0.09	92
	100	ISL	10.27	10.26	33.268	25.556	244.0	0.297	4.88	76.8	11.2	1.20	13.0	0.00	0.05	0.07	100
1	108		9.86	9.85	33.351	25.690	231.4	0.316	4.65	72.6	13.5	1.32	15.2	0.00	0.03	0.05	109
1	123		9.46	9.45	33.591	25.944	207.6	0.349	4.00	62.0	19.4	1.57	19.7	0.00	0.01	0.03	124
	125	ISL	9.42	9.41	33.615	25.969	205.2	0.353	3.93	60.8	20.0	1.60	20.1	0.00	0.01	0.03	126
1	147		9.07	9.05	33.794	26.166	186.9	0.396	3.40	52.3	25.1	1.80	23.4	0.00	0.00	0.03	148
	150	ISL	9.05	9.03	33.805	26.177	185.8	0.402	3.38	52.0	25.4	1.81	23.6	0.00	0.00	0.03	151
1	173		8.95	8.93	33.865	26.241	180.3	0.444	3.24	49.7	27.6	1.87	24.6	0.00	0.00	0.02	174
	200	ISL	8.93	8.91	33.978	26.333	172.1	0.492	2.72	41.7	32.0	2.04	26.5	0.00	0.00	0.03	101
1	203		8.92	8.90	33.991	26.344	171.0	0.497	2.65	40.7	32.6	2.06	26.7	0.00	0.00	0.03	104
1	232		8.67	8.65	34.077	26.451	161.4	0.545	2.21	33.7	37.6	2.25	29.0	0.01			233
	250	ISL	8.55	8.52	34.108	26.495	157.6	0.574	2.04	31.1	39.6	2.32	29.8	0.01			251
1	273		8.40	8.37	34.132	26.537	154.0	0.610	1.90	28.8	41.8	2.39	30.5	0.01			275
	300	ISL	8.15	8.12	34.145	26.585	149.7	0.651	1.78	26.9	44.7	2.46	31.5	0.01			302
1	328		7.86	7.83	34.153	26.635	145.4	0.692	1.66	24.9	48.1	2.53	32.6	0.01			330
1	388		7.29	7.25	34.190	26.746	135.4	0.776	1.19	17.6	57.3	2.78	35.5	0.01			390
	400	ISL	7.21	7.17	34.200	26.765	133.7	0.792	1.11	16.4	58.9	2.82	35.9	0.01			403
1	453		6.83	6.79	34.231	26.842	126.9	0.861	0.80	11.7	65.6	2.96	37.7	0.01			456
	500	ISL	6.37	6.32	34.229	26.902	121.5	0.920	0.65	9.4	72.1	3.06	39.5				503
1	521		6.16	6.11	34.230	26.930	118.9	0.945	0.58	8.4	75.0	3.10	40.3				525

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 87 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 59.3 N	120 21.0 W	05/02/92	1446 UTC	730 m	110 12 kn			1012.1 mb	14.5 C	13.3 C		

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS 3b
	0	ISL	14.37	14.37	33.221	24.736	319.9	0.000	5.93	101.8	' 2.4	0.45	0.1	0.00	0.44	0.15	0
1	1		14.37	14.37	33.221	24.736	319.9	0.003	5.93	101.8	2.4	0.45	0.1	0.00	0.44	0.15	1
	10	ISL	14.35	14.35	33.219	24.739	319.9	0.032	5.92	101.6	2.4	0.44	0.1	0.01	0.47	0.17	10
1	16		14.33	14.33	33.216	24.741	319.9	0.051	5.92	101.5	2.4	0.43	0.1	0.01	0.50	0.19	16
	20	ISL	14.33	14.33	33.216	24.741	320.0	0.064	5.92	101.5	2.3	0.44	0.1	0.01	0.50	0.19	20
1	30		14.32	14.32	33.216	24.744	320.0	0.096	5.92	101.5	2.2	0.45	0.1	0.01	0.49	0.19	30
1	40		14.32	14.31	33.217	24.745	320.2	0.128	5.89	101.0	2.2	0.45	0.2	0.02	0.45	0.18	40
	50	ISL	14.32	14.31	33.216	24.744	320.6	0.160	5.91	101.3	2.2	0.45	0.2	0.02	0.40	0.17	50
1	51		14.32	14.31	33.216	24.744	320.6	0.163	5.91	101.3	2.2	0.45	0.2	0.02	0.40	0.17	51
1	59		13.47	13.46	33.161	24.877	308.1	0.188	5.80	97.7	3.1	0.59	2.0	0.14	0.22	0.15	59
1	69		12.55	12.54	33.128	25.033	293.4	0.218	5.63	93.0	4.4	0.74	4.7	0.04	0.13	0.12	69
	75	ISL	12.27	12.26	33.108	25.071	289.9	0.236	5.55	91.1	5.0	0.80	5.8	0.02	0.11	0.11	75
1	77		12.18	12.17	33.102	25.084	288.7	0.242	5.52	90.5	5.2	0.82	6.1	0.02	0.10	0.11	77
1	93		10.92	10.91	33.135	25.340	264.5	0.286	5.20	83.0	8.4	1.05	10.4	0.02	0.06	0.07	93
	100	ISL	10.53	10.52	33.179	25.443	254.9	0.304	5.08	80.4	9.5	1.12	11.7	0.01	0.04	0.06	100
1	108		10.13	10.12	33.242	25.560	243.8	0.324	4.94	77.5	10.9	1.21	13.2	0.00	0.03	0.05	109
1	123		9.31	9.30	33.378	25.801	221.0	0.359	4.57	70.5	15.5	1.43	17.2	0.00	0.01	0.03	124
	125	ISL	9.29	9.28	33.415	25.833	218.0	0.363	4.48	69.1	16.3	1.46	17.8	0.00	0.01	0.03	126
1	147		9.04	9.02	33.744	26.131	190.1	0.408	3.51	53.9	24.3	1.77	23.2	0.01	0.00	0.02	148
	150	ISL	9.01	8.99	33.764	26.152	188.3	0.414	3.45	53.0	24.8	1.79	23.5	0.01	0.00	0.02	151
1	173		8.83	8.81	33.849	26.247	179.6	0.456	3.25	49.7	27.6	1.88	25.0	0.00	0.00	0.02	174
	200	ISL	8.56	8.54	33.935	26.356	169.7	0.503	3.09	47.0	30.9	1.96	26.3	0.00	0.00	0.02	201
1	203		8.53	8.51	33.943	26.367	168.7	0.508	3.07	46.7	31.3	1.97	26.4	0.00	0.00	0.02	204
1	231		8.20	8.18	33.997	26.460	160.3	0.555	2.84	42.9	35.7	2.09	28.1	0.00			232
	250	ISL	8.00	7.97	34.017	26.506	156.2	0.585	2.73	41.0	38.2	2.15	29.0	0.00			251
1	273		7.75	7.72	34.034	26.556	151.7	0.620	2.57	38.4	41.6	2.24	30.2	0.00			275
	300	ISL	7.41	7.38	34.063	26.628	145.2	0.660	2.17	32.2	47.5	2.41	32.3	0.00			302
1	326		7.11	7.08	34.092	26.693	139.2	0.697	1.75	25.8	53.3	2.58	34.4	0.00			328
1	386		6.70	6.66	34.148	26.793	130.4	0.778	1.10	16.1	62.9	2.84	37.4	0.00			388
	400	ISL	6.59	6.55	34.159	26.817	128.3	0.796	1.00	14.6	65.0	2.89	38.0	0.00			403
1	450		6.20	6.16	34.194	26.896	121.2	0.858	0.73	10.5	72.0	3.03	39.8	0.00			453
	500	ISL	5.94	5.90	34.222	26.951	116.4	0.918	0.56	8.0	77.4	3.13	40.9	0.00			503
1	518		5.85	5.81	34.232	26.970	114.7	0.939	0.50	"7.2	79.4	3.16	41.3	0.00			522

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 87 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 39.5 N	121 2.0 W	05/02/92	2332 UTC	3772 m	110 24 kn	110 05 03	2	1007.9 mb	15.0 C	14.6 C	13m 03	8/8	NS

CAST	DEPTH D	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.84	13.84	33.116	24.765	317.1	0.000	6.03	102.3	3.2	0.48	0.2	0.01	0.54	0.18	0
1	3	13.84	13.84	33.116	24.765	317.2	0.010	6.03	102.3	3.2	0.48	0.2	0.01	0.54	0.18	3
	10 ISL	13.84	13.84	33.116	24.765	317.4	0.032	6.03	102.3	3.1	0.48	0.2	0.01	0.55	0.18	10
	20 ISL	13.83	13.83	33.118	24.769	317.3	0.063	6.02	102.1	2.9	0.47	0.1	0.01	0.56	0.19	20
1	22	13.83	13.83	33.118	24.769	317.3	0.070	6.02	102.1	2.9	0.47	0.1	0.01	0.56	0.19	22
	30 ISL	13.82	13.82	33.123	24.775	317.0	0.095	6.01	102.0	2.9	0.47	0.1	0.01	0.55	0.20	30
1	43	13.80	13.79	33.130	24.785	316.4	0.136	5.99	101.6	2.9	0.47	0.2	0.02	0.54	0.20	43
	50 ISL	13.70	13.69	33.151	24.822	313.1	0.158	5.94	100.5	3.0	0.51	0.7	0.08	0.46	0.20	50
1	62	13.54	13.53	33.234	24.919	304.2	0.195	5.81	98.1	3.2	0.57	1.5	0.15	0.30	0.19	62
	75 ISL	12.51	12.50	33.170	25.073	289.7	0.234	5.57	92.0	5.4	0.81	5.8	0.04	0.15	0.14	75
1	76	12.39	12.38	33.163	25.091	288.0	0.237	5.54	91.2	5.7	0.84	6.3	0.03	0.14	0.13	76
1	86	10.53	10.52	33.122	25.398	258.8	0.264	5.10	80.7	10.7	1.21	12.6	0.01	0.06	0.07	86
1	96	9.82	9.81	33.189	25.570	242.5	0.289	4.81	74.9	13.4	1.37	15.4	0.01	0.04	0.06	96
	100 ISL	9.71	9.70	33.234	25.623	237.5	0.299	4.68	72.8	14.4	1.43	16.4	0.01	0.03	0.06	100
1	106	9.60	9.59	33.309	25.700	230.3	0.313	4.49	69.7	15.9	1.51	17.8	0.01	0.02	0.05	106
1	115	9.35	9.34	33.408	25.818	219.3	0.333	4.26	65.8	18.2	1.60	19.3	0.01	0.01	0.04	116
	125 ISL	9.21	9.20	33.497	25.911	210.7	0.355	4.12	63.4	19.7	1.64	20.2	0.01	0.01	0.03	126
1	129	9.18	9.17	33.532	25.943	207.7	0.363	4.05	62.3	20.3	1.65	20.5	0.01	0.01	0.03	130
1	150	9.16	9.14	33.780	26.140	189.4	0.405	3.07	47.3	26.3	1.93	25.0	0.01	0.01	0.03	151
1	169	8.85	8.83	33.884	26.271	177.3	0.440	2.99	45.8	29.2	1.98	26.0	0.01	0.00	0.03	170
1	193	8.47	8.45	33.959	26.389	166.4	0.481	3.01	45.7	32.0	2.00	26.7	0.01	0.00	0.02	194
	200 ISL	8.36	8.34	33.972	26.416	163.9	0.492	3.05	46.2	32.7	2.00	26.7	0.01	0.00	0.02	201
1	217	8.10	8.08	33.993	26.472	158.9	0.520	3.11	46.8	34.8	2.01	27.0	0.01	0.00	0.02	218
	250 ISL	7.55	7.53	34.012	26.567	150.1	0.571	2.87	42.7	41.2	2.17	29.4	0.01			251
1	251	7.54	7.52	34.012	26.569	150.0	0.572	2.86	42.5	41.4	2.18	29.5	0.01			252
1	290	7.25	7.22	34.052	26.641	143.6	0.630	2.22	32.8	47.8	2.41	32.3	0.01			292
	300 ISL	7.15	7.12	34.059	26.661	141.9	0.644	2.09	30.8	49.9	2.46	33.0	0.01			302
1	344	6.67	6.64	34.084	26.746	134.1	0.705	1.61	23.5	59.6	2.67	35.8	0.01			346
	400 ISL	6.16	6.12	34.123	26.844	125.3	0.777	1.05	15.1	70.0	2.93	38.9	0.01			403
1	406	6.12	6.08	34.128	26.853	124.5	0.785	1.00	14.4	70.9	2.95	39.2	0.01			409
1	474	5.96	5.92	34.213	26.941	117.0	0.867	0.56	8.0	78.0	3.12	40.8	0.00			477
	500 ISL	5.86	5.82	34.239	26.974	114.1	0.897	0.47	6.7	80.4	3.16					503
1	553	5.66	5.61	34.292	27.042	108.2	0.956	0.30	4.3	85.4	3.25					557

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 87 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 19.4 N	121 42.9 W	06/02/92	0535 UTC	3968 m	150 10 kn			1006.0 mb	14.6 C	14.4 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.24	14.24	33.099	24.669	326.3	0.000	5.92	101.3	1.9	0.45	0.2	0.00	0.26	0.09	0
1	2	14.24	14.24	33.099	24.669	326.3	0.007	5.92	101.3	1.9	0.45	0.2	0.00	0.26	0.09	2
	10 ISL	14.25	14.25	33.099	24.667	326.7	0.033	5.92	101.3	1.9	0.45	0.2	0.00	0.26	0.09	10
1	18	14.25	14.25	33.099	24.668	326.9	0.059	5.92	101.3	1.9	0.45	0.2	0.00	0.26	0.09	18
	20 ISL	14.21	14.21	33.096	24.674	326.4	0.065	5.93	101.4	1.9	0.45	0.2	0.00	0.28	0.10	20
	30 ISL	13.99	13.99	33.083	24.710	323.3	0.098	5.97	101.6	2.0	0.46	0.2	0.00	0.37	0.14	30
1	36	13.84	13.83	33.078	24.737	320.8	0.117	6.00	101.8	2.0	0.46	0.2	0.00	0.43	0.18	36
1	46	13.70	13.69	33.088	24.773	317.6	0.149	6.01	101.7	2.2	0.46	0.2	0.00	0.46	0.23	46
	50 ISL	13.56	13.55	33.114	24.822	313.1	0.162	5.97	100.7	2.3	0.50	0.6	0.07	0.45	0.24	50
1	56	13.28	13.27	33.147	24.904	305.4	0.180	5.86	98.3	2.7	0.57	1.6	0.17	0.43	0.26	56
1	65	12.68	12.67	33.126	25.006	295.8	0.207	5.64	93.4	3.8	0.69	3.8	0.08	0.26	0.18	65
	75 ISL	11.61	11.60	33.063	25.160	281.4	0.236	5.49	88.9	6.1	0.90	7.4	0.03	0.14	0.12	75
1	82	10.86	10.85	33.051	25.285	269.5	0.255	5.35	85.2	8.2	1.06	10.2	0.01	0.09	0.09	82
1	96	10.08	10.07	33.228	25.557	243.8	0.291	4.73	74.1	13.2	1.37	15.7	0.00	0.04	0.06	96
	100 ISL	9.87	9.86	33.265	25.621	237.8	0.301	4.61	71.9	14.4	1.44	16.8	0.00	0.03	0.05	100
1	112	9.41	9.40	33.380	25.787	222.2	0.329	4.29	66.3	17.6	1.59	19.5	0.00	0.01	0.04	113
1	125	9.31	9.30	33.555	25.940	207.9	0.357	3.83	59.1	20.6	1.70	21.4	0.00	0.01	0.03	126
1	146	9.11	9.09	33.723	26.104	192.8	0.399	3.29	50.6	25.2	1.87	24.3	0.00	0.00	0.02	147
	150 ISL	9.04	9.02	33.754	26.139	189.5	0.406	3.23	49.6	26.1	1.89	24.7	0.00	0.00	0.02	151
1	166	8.73	8.71	33.866	26.276	176.8	0.436	3.07	46.9	29.2	1.96	26.1	0.00	0.00	0.02	167
1	191	8.41	8.39	33.961	26.400	165.4	0.478	3.07	46.6	31.9	1.99	26.8	0.00	0.00	0.02	192
	200 ISL	8.28	8.26	33.980	26.434	162.2	0.493	3.06	46.3	33.2	2.01	27.2	0.00	0.00	0.02	201
1	224	7.93	7.91	34.009	26.510	155.3	0.531	2.99	44.9	37.1	2.07	28.3	0.00	0.00	0.01	225
	250 ISL	7.54	7.52	34.016	26.572	149.7	0.571	2.84	42.2	41.8	2.17	29.8	0.00			251
1	260	7.39	7.36	34.017	26.594	147.7	0.586	2.74	40.6	43.8	2.22	30.5	0.00			261
1	300	6.87	6.84	34.051	26.693	138.6	0.643	1.96	28.7	53.6	2.53	34.3	0.01			302
1	354	6.59	6.56	34.132	26.795	129.6	0.715	1.17	17.0	63.5	2.85	37.5	0.00			356
	400 ISL	6.36	6.32	34.188	26.870	123.1	0.774	0.78	11.3	69.5	3.01	39.1	0.00			403
1	418	6.28	6.24	34.207	26.895	120.8	0.795	0.68	9.8	71.5	3.05	39.6	0.00			421
1	486	5.99	5.95	34.269	26.982	113.4	0.875	0.39	5.6	78.9	3.18	41.0	0.00			489
	500 ISL	5.91	5.87	34.278	26.999	111.8	0.891	0.37	5.3	80.4	3.20	41.3				503
1	562	5.58	5.53	34.319	27.073	105.3	0.958	0.26	3.7	87.3	3.27	42.5				566

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 87 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	KIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 59.4 N	122 23.5 W	06/02/92	1145 UTC	4057 ID	150	08 kn			1004.2 mb	15.2 C	14.9 C			

CAST	DEPTH U		TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS d!0
	0	ISL	14.71	14.71	33.157	24.614	331.5	0.000	5.84	100.9	2.0	0.44	0.2	0.00	0.19	0.06	0
1	1		14.71	14.71	33.157	24.615	331.5	0.003	5.84	100.9	2.0	0.44	0.2	0.00	0.19	0.06	1
	10	ISL	14.72	14.72	33.158	24.614	331.8	0.033	5.87	101.5	1.8	0.44	0.2	0.00	0.18	0.06	10
1	11		14.72	14.72	33.158	24.614	331.9	0.036	5.87	101.5	1.8	0.44	0.2	0.00	0.18	0.06	11
	20	ISL	14.71	14.71	33.159	24.617	331.8	0.066	5.84	100.9	1.7	0.43	0.2	0.00	0.18	0.06	20
1	21		14.71	14.71	33.159	24.617	331.9	0.070	5.84	100.9	1.7	0.43	0.2	0.00	0.18	0.06	21
	30	ISL	14.72	14.72	33.160	24.616	332.2	0.100	5.84	100.9	1.7	0.43	0.2	0.00	0.18	0.06	30
1	31		14.72	14.72	33.160	24.616	332.3	0.103	5.84	100.9	1.7	0.43	0.2	0.00	0.18	0.06	31
1	41		14.72	14.71	33.160	24.616	332.5	0.136	5.84	100.9	1.6	0.44	0.2	0.00	0.18	0.06	41
1	50		14.74	14.73	33.179	24.627	331.8	0.166	5.85	101.2	1.6	0.43	0.2	0.00	0.19	0.07	50
1	61		14.09	14.08	33.066	24.677	327.3	0.202	5.93	101.1	1.8	0.46	0.3	0.02	0.27	0.12	61
1	71		13.60	13.59	33.033	24.752	320.3	0.235	5.93	100.1	2.0	0.50	0.7	0.08	0.27	0.13	71
	75	ISL	13.31	13.30	33.058	24.830	313.0	0.247	5.90	99.0	2.3	0.54	1.3	0.12	0.24	0.13	75
1	84		12.60	12.59	33.135	25.029	294.2	0.275	5.76	95.3	3.3	0.65	3.2	0.17	0.15	0.11	84
1	99		11.58	11.57	33.201	25.273	271.2	0.317	5.32	86.1	6.1	0.89	7.7	0.02	0.11	0.10	99
	100	ISL	11.49	11.48	33.205	25.292	269.3	0.320	5.28	85.3	6.5	0.92	8.1	0.02	0.11	0.10	100
1	119		9.84	9.83	33.298	25.652	235.2	0.368	4.64	72.4	13.7	1.39	16.1	0.01	0.03	0.05	120
	125	ISL	9.51	9.50	33.332	25.733	227.6	0.382	4.52	70.0	15.4	1.47	17.6	0.01	0.03	0.04	126
1	144		8.92	8.90	33.459	25.927	209.4	0.423	4.23	64.7	19.6	1.63	20.5	0.01	0.01	0.03	145
	150	ISL	8.94	8.92	33.522	25.973	205.1	0.435	4.12	63.1	20.3	1.65	21.0	0.01	0.01	0.03	151
1	173		9.02	9.00	33.729	26.123	191.4	0.481	3.71	57.0	22.7	1.70	22.3	0.01	0.01	0.02	174
	200	ISL	8.67	8.65	33.901	26.313	173.8	0.530	3.38	51.5	28.0	1.83	24.8	0.01	0.00	0.02	201
1	204		8.60	8.58	33.919	26.338	171.5	0.537	3.34	50.9	28.8	1.85	25.2	0.01	0.00	0.02	205
1	232		8.24	8.22	33.988	26.447	161.5	0.584	3.14	47.4	33.1	1.96	27.0	0.01			233
	250	ISL	7.97	7.94	34.021	26.513	155.5	0.612	2.80	42.1	37.4	2.11	28.9	0.01			251
1	273		7.62	7.59	34.050	26.587	148.7	0.647	2.34	34.9	43.3	2.30	31.5	0.00			275
	300	ISL	7.18	7.15	34.052	26.651	142.8	0.687	2.09	30.8	48.8	2.43	33.4	0.00			302
1	328		6.79	6.76	34.049	26.703	138.1	0.726	1.91	27.9	53.8	2.53	34.9	0.00			330
1	387		6.48	6.45	34.104	26.787	130.7	0.805	1.34	19.4	62.3	2.77	37.4	0.00			389
	400	ISL	6.36	6.32	34.113	26.810	128.6	0.822	1.23	17.8	64.6	2.82	38.1	0.00			402
1	452		5.88	5.84	34.148	26.899	120.5	0.887	0.83	11.9	73.9	3.00	40.7	0.00			455
	500	ISL	5.62	5.58	34.190	26.965	114.7	0.944	0.59	8.4	80.3	3.11	41.8				503
1	521		5.50	5.46	34.208	26.994	112.1	0.967	0.49	7.0	83.1	3.16	42.3				524

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 87 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 39.3 N	123 4.2 W	06/02/92	1709 UTC	4128 in	360	04 kn	200 04 06	1	1004.4 mb	15.5 C	15.0 C	22m 03	7/8	AS

CAST	DEPTH n		TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0	ISL	13.88	13.88	33.067	24.719	321.5	0.000	6.05	102.7	2.5	0.47	0.5	0.01	0.34	0.11	0
1	1		13.88	13.88	33.067	24.719	321.5	0.003	6.05	102.7	2.5	0.47	0.5	0.01	0.34	0.11	1
	10	ISL	13.87	13.87	33.067	24.721	321.6	0.032	6.05	102.7	2.4	0.46	0.5	0.00	0.34	0.12	10
1	16		13.86	13.86	33.066	24.723	321.6	0.051	6.05	102.7	2.3	0.46	0.5	0.00	0.35	0.13	16
	20	ISL	13.86	13.86	33.073	24.728	321.2	0.064	6.05	102.7	2.3	0.46	0.5	0.00	0.36	0.13	20
	30	ISL	13.86	13.86	33.090	24.742	320.2	0.096	6.06	102.9	2.3	0.46	0.5	0.01	0.37	0.14	30
1	31		13.86	13.86	33.092	24.743	320.1	0.100	6.06	102.9	2.3	0.46	0.5	0.01	0.37	0.14	31
1	40		13.77	13.76	33.313	24.933	302.3	0.128	6.00	101.8	2.4	0.49	0.9	0.05	0.48	0.27	40
	50	ISL	13.66	13.65	33.316	24.958	300.2	0.158	5.87	99.4	2.7	0.54	1.5	0.11	0.37	0.23	50
1	51		13.65	13.64	33.318	24.962	299.8	0.161	5.86	99.2	2.7	0.54	1.5	0.12	0.35	0.23	51
1	61		13.76	13.75	33.370	24.980	298.4	0.191	5.80	98.4	2.7	0.55	1.5	0.13	0.31	0.18	61
1	70		13.73	13.72	33.389	25.001	296.7	0.217	5.70	96.7	2.9	0.60	2.1	0.19	0.18	0.13	70
	75	ISL	13.28	13.27	33.349	25.061	291.0	0.232	5.57	93.6	3.9	0.69	3.8	0.17	0.15	0.13	75
1	79		12.77	12.76	33.313	25.134	284.1	0.244	5.42	90.1	5.2	0.80	5.7	0.16	0.14	0.14	79
1	94		10.38	10.37	33.327	25.583	241.3	0.283	4.51	71.2	13.3	1.40	16.0	0.01	0.07	0.10	94
	100	ISL	10.29	10.28	33.397	25.654	234.8	0.297	4.33	68.3	14.6	1.48	17.5	0.01	0.06	0.09	100
1	109		10.15	10.14	33.456	25.724	228.3	0.318	4.12	64.8	16.0	1.54	18.7	0.01	0.05	0.07	110
1	124		9.60	9.59	33.606	25.933	208.7	0.351	3.69	57.4	20.6	1.71	21.8	0.01	0.02	0.04	125
	125	ISL	9.58	9.57	33.616	25.944	207.6	0.353	3.65	56.7	20.9	1.72	22.0	0.01	0.02	0.04	126
1	149		9.23	9.21	33.804	26.148	188.7	0.401	2.97	45.8	26.7	1.96	26.0	0.01	0.01	0.04	150
	150	ISL	9.21	9.19	33.809	26.155	188.0	0.402	2.97	45.8	26.8	1.96	26.0	0.01	0.01	0.04	151
1	174		8.82	8.80	33.884	26.276	176.9	0.446	2.98	45.6	29.3	1.97	26.7	0.01	0.01	0.03	175
	200	ISL	8.45	8.43	33.940	26.377	167.7	0.491	3.17	48.1	31.0	1.95	26.7	0.01	0.00	0.03	201
1	203		8.40	8.38	33.945	26.389	166.6	0.496	3.19	48.4	31.2	1.95	26.7	0.01	0.00	0.03	204
1	233		7.81	7.79	33.981	26.505	155.8	0.544	3.31	49.5	35.7	1.97	27.6	0.01			234
	250	ISL	7.53	7.51	33.997	26.558	151.0	0.570	3.04	45.2	40.0	2.10	29.4	0.01			251
1	272		7.22	7.19	34.016	26.617	145.6	0.603	2.55	37.6	46.0	2.30	32.2	0.01			274
	300	ISL	6.92	6.89	34.045	26.681	139.8	0.643	2.01	29.5	52.4	2.51	34.8	0.01			302
1	327		6.69	6.66	34.072	26.734	135.0	0.680	1.56	22.8	57.8	2.69	36.9	0.00			329
1	387		6.25	6.22	34.123	26.832	126.3	0.759	1.01	14.6	67.9	2.92	39.8	0.00			389
	400	ISL	6.14	6.10	34.129	26.851	124.6	0.775	0.94	13.5	70.0	2.96	40.3	0.00			403
1	452		5.72	5.68	34.152	26.922	118.2	0.838	0.72	10.3	77.7	3.09	42.1	0.00			455
	500	ISL	5.41	5.37	34.186	26.987	112.3	0.893	0.55	7.8	84.1	3.18	43.3				503
1	521		5.27	5.23	34.202	27.016	109.6	0.917	0.47	6.6	86.9	3.22	43.8				525

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 87 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 19.4 N	123 44.6 W	07/02/92	0003 UTC	4054 m	320 08 kn	200 05 07	1	1004.7 mb	18.1 C	15.8 C	41m 01	7/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.90	15.90	33.326	24.484	343.9	0.000	5.74	101.7	1.8	0.39	0.7	0.00	0.12	0.03	0
1	1	15.90	15.90	33.326	24.484	343.9	0.003	5.74	101.7	1.8	0.39	0.7	0.00	0.12	0.03	1
	10 ISL	15.56	15.56	33.309	24.547	338.2	0.034	5.77	101.5	1.7	0.39	0.7	0.00	0.13	0.04	10
1	15	15.32	15.32	33.298	24.592	334.1	0.051	5.80	101.6	1.7	0.39	0.7	0.00	0.14	0.05	15
	20 ISL	15.31	15.31	33.297	24.593	334.1	0.068	5.80	101.5	1.7	0.39	0.7	0.00	0.14	0.05	20
	30 ISL	15.28	15.28	33.294	24.598	334.0	0.101	5.80	101.5	1.7	0.39	0.7	0.00	0.15	0.06	30
1	35	15.26	15.25	33.293	24.601	333.8	0.118	5.80	101.4	1.7	0.39	0.7	0.00	0.16	0.06	35
	50 ISL	15.20	15.19	33.281	24.606	333.8	0.168	5.80	101.3	1.7	0.40	0.7	0.00	0.20	0.07	50
1	54	15.18	15.17	33.278	24.608	333.7	0.181	5.80	101.2	1.7	0.40	0.7	0.00	0.21	0.07	54
1	69	13.27	13.26	32.963	24.764	319.1	0.230	6.04	101.2	2.5	0.49	1.1	0.09	0.29	0.15	69
	75 ISL	12.95	12.94	33.037	24.885	307.7	0.249	5.92	98.6	2.9	0.56	2.1	0.12	0.21	0.14	75
1	78	12.84	12.83	33.081	24.941	302.4	0.258	5.85	97.2	3.1	0.59	2.6	0.14	0.16	0.14	78
1	88	12.35	12.34	33.061	25.020	295.1	0.288	5.79	95.2	3.9	0.65	3.7	0.17	0.12	0.09	88
1	98	11.81	11.80	33.243	25.263	272.1	0.316	5.65	91.9	5.0	0.74	5.6	0.08	0.09	0.08	98
	100 ISL	11.77	11.76	33.249	25.275	271.0	0.322	5.59	90.9	5.2	0.76	6.0	0.07	0.09	0.08	100
1	108	11.57	11.56	33.242	25.307	268.2	0.343	5.32	86.1	6.4	0.85	8.0	0.03	0.08	0.08	108
1	123	10.20	10.19	33.318	25.608	239.6	0.381	4.88	76.7	11.2	1.18	13.8	0.01	0.04	0.05	124
	125 ISL	10.09	10.08	33.342	25.645	236.1	0.386	4.80	75.3	11.9	1.22	14.5	0.01	0.04	0.05	126
1	138	9.63	9.61	33.510	25.853	216.5	0.416	4.27	66.4	16.7	1.46	18.8	0.01	0.01	0.03	139
	150 ISL	9.33	9.31	33.618	25.986	204.0	0.441	3.86	59.6	20.7	1.63	21.8	0.01	0.00	0.03	151
1	158	9.20	9.18	33.679	26.055	197.6	0.457	3.62	55.8	23.0	1.73	23.4	0.01	0.00	0.03	159
1	179	9.01	8.99	33.848	26.218	182.6	0.497	3.07	47.2	27.6	1.92	26.3	0.01	0.00	0.02	180
	200 ISL	8.90	8.88	33.962	26.325	172.8	0.534	2.65	40.6	31.5	2.05	28.2	0.00	0.00	0.03	201
1	204	8.88	8.86	33.977	26.340	171.5	0.541	2.59	39.7	32.1	2.07	28.5	0.00	0.00	0.03	205
1	234	8.57	8.55	34.026	26.427	163.7	0.591	2.49	37.9	35.1	2.15	29.7	0.00			235
	250 ISL	8.39	8.36	34.054	26.477	159.2	0.617	2.37	35.9	37.5	2.21	30.5	0.00			251
1	273	8.14	8.11	34.090	26.543	153.2	0.653	2.16	32.6	41.3	2.31	31.7	0.00			275
	300 ISL	7.86	7.83	34.113	26.603	147.9	0.694	1.93	28.9	45.4	2.42	33.1	0.00			302
1	329	7.57	7.54	34.127	26.656	143.1	0.736	1.69	25.2	49.8	2.54	34.6	0.00			331
1	389	6.96	6.92	34.149	26.759	133.9	0.819	1.24	18.2	59.0	2.76	37.5	0.00			391
	400 ISL	6.87	6.83	34.156	26.777	132.3	0.834	1.16	17.0	60.7	2.80	38.0	0.00			402
1	453	6.44	6.40	34.186	26.858	125.0	0.902	0.81	11.8	68.7	2.97	40.1	0.00			456
	500 ISL	6.01	5.97	34.200	26.925	118.9	0.959	0.64	9.2	75.5	3.06	41.7				503
1	519	5.84	5.80	34.206	26.951	116.5	0.981	0.57	8.2	78.3	3.10	42.3				522

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 90 28

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 29.1 N	117 46.0 W	04/02/92	0942 UTC	60 m	020 07 kn			1013.7 mb	16.5 C	11.2 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.07	15.07	33.362	24.695	323.8	0.000	5.88	102.5	3.0	0.42	0.1	0.01	0.31	0.10	0
1	1	15.07	15.07	33.362	24.695	323.8	0.003	5.88	102.5	3.0	0.42	0.1	0.01	0.31	0.10	1
1	10	14.98	14.98	33.362	24.715	322.2	0.032	5.90	102.6	2.8	0.42	0.0	0.01	0.33	0.12	10
	20 ISL	14.78	14.78	33.348	24.747	319.4	0.064	5.93	102.7	2.9	0.46	0.1	0.04	0.87	0.38	20
1	21	14.76	14.76	33.346	24.750	319.2	0.068	5.93	102.7	2.9	0.47	0.1	0.05	0.92	0.40	21
	30 ISL	14.64	14.64	33.330	24.764	318.1	0.096	5.80	100.2	3.4	0.60	0.6	0.16	0.75	0.38	30
1	31	14.63	14.63	33.329	24.765	318.0	0.099	5.78	99.8	3.5	0.61	0.7	0.17	0.71	0.38	31
1	41	14.44	14.43	33.340	24.814	313.6	0.131	5.47	94.1	4.6	0.69	1.6	0.27	0.44	0.38	41
	50 ISL	14.14	14.13	33.341	24.878	307.8	0.159	5.40	92.3	4.5	0.66	2.5	0.15	0.44	0.33	50
1	51	14.10	14.09	33.341	24.887	307.0	0.162	5.40	92.3	4.5	0.66	2.6	0.13	0.44	0.32	51
1	61	13.62	13.61	33.343	24.987	297.7	0.192	5.18	87.6	5.8	0.83	4.7	0.10	0.22	0.24	61

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 90 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 25.0 N	117 54.3 W	04/02/92	0710 UTC	608 m	130 10 kn			1013.0 mb	16.5 C	15.2 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.44	15.44	33.448	24.680	325.2	0.000	5.83	102.4	2.3	0.41	0.0	0.00	0.17	0.04	0
1	1	15.44	15.44	33.448	24.680	325.3	0.003	5.83	102.4	2.3	0.41	0.0	0.00	0.17	0.04	1
	10 ISL	15.33	15.33	33.425	24.687	324.9	0.033	5.87	102.9	2.2	0.40	0.0	0.00	0.18	0.04	10
1	16	15.24	15.24	33.412	24.697	324.1	0.052	5.89	103.0	2.2	0.40	0.0	0.00	0.18	0.05	16
	20 ISL	15.25	15.25	33.423	24.703	323.6	0.065	5.88	102.9	2.2	0.40	0.0	0.00	0.19	0.06	20
1	30	15.28	15.28	33.459	24.725	321.9	0.097	5.85	102.4	2.3	0.40	0.0	0.00	0.23	0.07	30
1	41	15.22	15.21	33.481	24.755	319.3	0.132	5.81	101.6	2.6	0.41	0.0	0.00	0.35	0.15	41
1	50	15.01	15.00	33.442	24.771	318.1	0.161	5.84	101.7	2.6	0.43	0.0	0.00	0.62	0.28	50
1	62	14.39	14.38	33.455	24.914	304.7	0.199	5.27	90.6	4.2	0.63	2.6	0.15	0.49	0.31	62
1	71	13.63	13.62	33.479	25.091	288.1	0.225	4.92	83.3	6.0	0.83	5.8	0.05	0.23	0.27	71
	75 ISL	13.41	13.40	33.480	25.136	283.9	0.237	4.86	81.9	6.5	0.87	6.5	0.05	0.19	0.24	75
1	79	13.20	13.19	33.480	25.178	279.9	0.248	4.81	80.7	6.9	0.90	7.0	0.04	0.17	0.21	79
1	93	12.27	12.26	33.494	25.371	261.9	0.286	4.50	74.1	9.5	1.09	10.5	0.02	0.08	0.11	93
	100 ISL	11.94	11.93	33.517	25.452	254.3	0.304	4.35	71.1	10.7	1.17	11.9	0.02	0.05	0.09	100
1	109	11.59	11.58	33.555	25.546	245.5	0.326	4.17	67.7	12.3	1.27	13.5	0.02	0.03	0.07	110
1	124	11.13	11.11	33.623	25.683	232.7	0.362	3.85	61.9	15.1	1.44	15.9	0.01	0.02	0.05	125
	125 ISL	11.11	11.09	33.629	25.692	232.0	0.365	3.82	61.4	15.3	1.45	16.1	0.01	0.02	0.05	126
1	149	10.62	10.60	33.768	25.887	213.8	0.418	3.26	51.9	20.1	1.69	19.8	0.01	0.01	0.04	150
	150 ISL	10.60	10.58	33.773	25.894	213.2	0.420	3.25	51.7	20.2	1.70	19.9	0.01	0.01	0.04	151
1	174	10.23	10.21	33.867	26.032	200.5	0.470	3.00	47.4	23.0	1.82	22.0	0.01	0.00	0.03	175
	200 ISL	9.69	9.67	33.960	26.196	185 4	0.520	2.84	44.3	26.6	1.93	24.2	0.01	0.00	0.03	201
1	204	9.62	9.60	33.975	26.219	183.2	0.527	2.81	43.8	27.2	1.95	24.5	0.01	0.00	0.03	205
1	232	9.44	9.41	34.089	26.338	172.5	0.577	2.43	37.7	31.3	2.11	26.5	0.01			233
	250 ISL	9.29	9.26	34.133	26.397	167.2	0.608	2.24	34.7	33.6	2.20	27.5	0.01			251
1	273	9.03	9.00	34.162	26.462	161.4	0.646	2.06	31.7	36.5	2.29	28.5	0.01			275
	300 ISL	8.58	8.55	34.159	26.531	155.1	0.688	1.99	30.3	40.2	2.36	29.7	0.01			302
1	328	8.10	8.07	34.146	26.594	149.4	0.731	1.92	28.9	44.3	2.44	31.0	0.01			330
1	388	7.44	7.40	34.178	26.715	138.5	0.817	1.34	19.9	54.0	2.70	34.4	0.01			390
	400 ISL	7.35	7.31	34.180	26.730	137.2	0.834	1.28	19.0	55.3	2.73	34.8	0.01			403
1	453	7.07	7.03	34.195	26.781	132.9	0.905	1.06	15.6	60.1	2.84	36.2	0.01			456
	500 ISL	6.90	6.85	34.238	26.839	128.1	0.967	0.77	11.3	64.5	2.96	- 37.4				503
1	523	6.82	6.77	34.259	26.866	125.7	0.996	0.63	9.2	66.7	3.02	38.0				527

RV DAVID STARR JORDAN CALCOFI CRUISE 9202

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
33 15.0 N	118 15.0 W	04/02/92	0334 UTC	431 m	240 10 kn			1012.1 mb	16.2 C	15.1 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
1	0	15.29	15.29	33.336	24.627	330.3	0.000	5.87	102.7	2.4	0.42	0.0		0.17	0.05	0
	10 1SL	15.24	15.24	33.336	24.638	329.5	0.033	5.85	102.3	2.4	0.42	0.0		0.16	0.05	10
1	11	15.24	15.24	33.336	24.638	329.5	0.036	5.85	102.3	2.4	0.42	0.0		0.16	0.05	11
1	20	15.01	15.01	33.332	24.685	325.3	0.066	5.87	102.2	2.6	0.42	0.0	0.01	0.17	0.06	20
1	30	15.00	15.00	33.332	24.688	325.4	0.098	5.87	102.1	2.6	0.41	0.0	0.01	0.20	0.08	30
1	42	14.97	14.96	33.329	24.693	325.3	0.137	5.86	101.9	2.4	0.42	0.0	0.00	0.19	0.20	42
1	50	14.92	14.91	33.331	24.705	324.3	0.163	5.86	101.8	2.4	0.42	0.0	0.00	0.28	0.16	50
1	60	14.75	14.74	33.314	24.729	322.4	0.196	5.80	100.4	2.6	0.43	0.0	0.06	0.48	0.29	60
1	70	14.23	14.22	33.316	24.841	311.9	0.227	5.54	94.9	3.4	0.57	1,9	0.14	0.26	0.25	70
	75 ISL	13.88	13.87	33.326	24.921	304.4	0.243	5.39	91.7	4.2	0.66	3.2	0.11	0.21	0.24	75
1	84	13.23	13.22	33.351	25.073	290.1	0.270	5.15	86.4	5.9	0.82	5.7	0.03	0.16	0.22	84
1	99	12.43	12.42	33.381	25.253	273.2	0.312	4.90	80.9	7.8	0.99	8.6	0.02	0.11	0.12	99
	100 ISL	12.37	12.36	33.382	25.265	272.1	0.315	4.89	80.6	7.9	1.00	8.8	0.02	0.11	0.12	100
1	120	11.35	11.34	33.436	25.498	250.3	0.367	4.50	72.6	11.3	1.23	12.7	0.01	0.04	0.07	121
	125 ISL	11.21	11.19	33.477	25.555	244 9	0.379	4.32	69.5	12.5	1.31	13.8	0.01	0.03	0.06	126
1	144	10.82	10.80	33.659	25.767	225.2	0.424	3.61	57.7	17.4	1.59	17.9	0.00	0.01	0.04	145
	150 ISL	10.67	10.65	33.713	25.835	218.8	0.437	3.44	54.8	18.9	1.66	19.0	0.00	0.01	0.04	151
1	173	10.16	10.14	33.893	26.064	197.4	0.485	2.91	45.9	24.2	1.90	22.7	0.00	0.00	0.03	174
	200 ISL	9.82	9.80	34.025	26.225	182.7	0.536	2.52	39.5	28.5	2.08	25.4	0.00	0.00	0.03	201
1	203	9.78	9.76	34.034	26.239	181.4	0.542	2.49	39.0	28.9	2.09	25.6	0.00	0.00	0.03	204
1	237	8.90	8.87	34.072	26.412	165.3	0.601	2.47	37.9	34.3	2.19	27.7	0.00			238
	250 ISL	8.72	8.69	34.079	26.445	162.3	0.622	2.44	37.3	35.5	2.21	28.1	0.00			251
1	287	8.40	8.37	34.093	26.506	157.1	0.681	2.34	35.5	38.7	2.28	29.2	0.00			289
	300 ISL	8.29	8.26	34.106	26.533	154.7	0.701	2.21	33.4	40.5	2.34	29.8	0.00			302
1	344	7.91	7.88	34.156	26.630	146.2	0.768	1.69	25.4-	47.3	2.57	32.3	0.00			346
	400 ISL	7.34	7.30	34.199	26.746	135.7	0.846	1.12	16.6	56.8	2.83	35.4	0.00			402
1	409	7.25	7.21	34.207	26.765	133.9	0.859	1.03	15.2	58.3	2.87	35.9	0.00			412

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 90 37

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
33 11.1 N	118 23.2 W	04/02/92	0036 UTC	1171 m	240 09 Kn	270 01 07	1	1011.1 mb	18.2 C	15.0 C	24m 02	1/8 CI

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYK HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.74	15.74	33.366	24.550	337.6	0.000	5.84	103.2	2.6	0.44	0.2	0.00	0.17	0.05	0
1	2	15.74	15.74	33.366	24.550	337.6	0.007	5.84	103.2	2.6	0.44	0.2	0.00	0 17	0 05	2
	10 ISL	15.47	15.47	33.367	24.611	332.1	0.034	5.84	102.6	2.5	0.43	0.2	0.00	0 17	0 05	10
1	16	15.21	15.21	33.368	24.670	326.7	0.053	5.84	102.1	2.4	0.43	0.2	0.00	0.17	0 05	16
	20 ISL	15.18	15.18	33.365	24.674	326.4	0.066	5.84	102.0	2.4	0.43	0.2	0.00	0.18	0 06	20
	30 ISL	15.14	15.14	33.369	24.686	325.6	0.099	5.84	101.9	2.4	0.43	0.2	0.00	0.21	0 07	30
1	32	15.14	15.14	33.371	24.688	325.5	0.105	5.84	101.9	2.4	0.43	0.2	0.00	0.21	0 07	"2
1	41	14.97	14.96	33.357	24.714	323.2	0.135	5.83	101.4	2.4	0.43	0.2	0.00	0.29	0.14	41
	50 ISL	14.87	14.86	33.348	24.729	322.0	0.164	5.82	101.0	2.4	0.44	0.2	0.01	0.57	0 28	50
1	52	14.85	14.84	33.345	24.731	321.9	0.170	5.82	101.0	2.4	0.44	0.2	0.01	0.62	0 31	52
1	62	14.61	14.60	33.317	24.761	319.3	0.202	5.77	99.6	2.5	0.46	0.2	0.06	0.53	0.29	62
1	71	14.31	14.30	33.296	24.809	315.0	0.231	5.72	98.1	2.7	0.50	0.5	0.14	0.35	0.26	71
	75 ISL	13.90	13.89	33.332	24.922	304.3	0.243	5.49	93.4	3.8	0.62	2.1	0.11	0.27	0 25	75
1	79	13.43	13.42	33.373	25.050	292.2	0.255	5.23	88.1	5.0	0.75	4.0	0.06	0.20	0 24	79
1	94	12.15	12.14	33.368	25.296	269.0	0.297	4.93	80.9	7.6	0.97	7.9	0.03	0.12	0 17	94
	100 ISL	11.87	11.86	33.393	25.368	262.2	0.313	4.77	77.8	8.7	1.05	9.4	0.02	0.09	0 14	100
1	109	11.54	11.53	33.444	25.469	252.8	0.336	4.52	73.2	10.5	1.18	11.5	0.02	0.06	0.09	109
1	124	10.93	10.91	33.540	25.654	235.4	0.373	4.08	65.3	14.2	1.39	15.0	0.01	0.02	0 06	125
	125 ISL	10.90	10.88	33.544	25.663	234.6	0.375	4.06	64.9	14.4	1.40	15.2	0.01	0.02	0.06	126
1	149	10.43	10.41	33.658	25.834	218.8	0.430	3.66	58.0	17.9	1.57	18.2	0.01	0.01	0.04	150
	150 ISL	10.41	10.39	33.665	25.843	218.0	0.432	3.64	57.6	18.1	1.58	18.4	0.01	0.01	0 04	151
1	1"25	9.95	9.93	33.855	26.070	196.9	0.484	3.15	49.4	23.4	1.79	22.2	0.01	0.00	0.02	176
	200 ISL	9.84	9.82	34.003	26.205	184.6	0.531	2.58	40.4	27.7	2.01	25.1	0.01	0.00	0.02	201
1	204	9.83	9.81	34.022	26.221	183.1	0.539	2.50	39.2	28.3	2.04	25.5	0.01	0.00	0.02	205
1	236	9*2	9.39	34.117	26.364	170.1	0.595	2.19	34.0	32.8	2.19	27.6	0.01			237
	250 ISL	9.11	9.08	34.112	26.410	165.9	0.619	2.24	34.5	34.5	2.20	28.2	0.01			251
1	275	8.54	8.51	34.088	26.481	159.4	0.659	2.36	35.9	37.5	2.22	29.2	0.01			277
	300 ISL	8.21	8.18	34.103	26.543	153.8	0.699	2.19	33.1	41.0	2.32	30.6	0 01			302
1	331	"7-94	7.91	34.136	26.609	147.8	0.745	1.83	27.5	45.8	2.48	32.4	0.01			333
1	388	7.48	7.44	34.198	26.725	137.5	0.827	1.17	17.4	55.0	2.75	35.6	0.01			390
	400 ISL	7.35	7.31	34.207	26.751	135.2	0.843	1.07	15.9	57.2	2.80	36.3	0.01			402
1	453	6.78	6.74	34.244	26.859	125.3	0.912	0.69	10.1	66.7	3.01	39.0	0 01			456
	500 ISL	6.48	6.43	34.284	26.931	118.9	0.969	0.44	6.4	72.9	3.12	40.3				503
1	520	6.35	6.30	34.302	26.962	116.1	0.993	0.34	4.9	75.6	3.17	40.9				523

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 90 45

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 55.1 N	118 56.0 W	03/02/92	1930 UTC	1690 m	330 08 kn	300 02 05	0	1013.1 Bib	17.8 C	15.9 C	25m 03	0/8

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.33	15.33	33.411	24.676	325.6	0.000	5.83	102.2	2.3	0.43	0.1	0.01	0.28	0.09	0
1	1	15.33	15.33	33.411	24.676	325.7	0.003	5.83	102.2	2.3	0.43	0.1	0.01	0.28	0.09	1
	10 ISL	15.19	15.19	33.409	24.705	323.1	0.032	5.84	102.1	2.3	0.42	0.1	0.00	0.29	0.09	10
1	16	15.07	15.07	33.408	24.731	320.9	0.052	5.84	101.8	2.3	0.41	0.1	0.00	0.30	0.10	16
	20 ISL	15.07	15.07	33.408	24.731	321.0	0.065	5.84	101.8	2.3	0.41	0.1	0.00	0.30	0.10	20
1	30	15.06	15.06	33.407	24.733	321.1	0.097	5.84	101.8	2.4	0.42	0.1	0.01	0.31	0.11	30
1	40	15.07	15.06	33.406	24.730	321.7	0.129	5.84	101.8	2.3	0.42	0.1	0.00	0.32	0.11	40
1	49	14.85	14.84	33.374	24.753	319.7	0.158	5.84	101.3	2.3	0.43	0.1	0.01	0.52	0.18	49
	50 ISL	14,73	14.72	33.363	24.771	318.1	0.161	5.81	100.6	2.4	0.45	0.3	0.03	0.52	0.20	50
1	59	13.57	13.56	33.284	24.952	301.0	0.189	5.51	93.1	3.9	0.64	2.9	0.21	0.54	0.37	59
1	70	12.86	12.85	33.296	25.103	286.8	0.221	5.25	87.4	5.8	0.81	5.9	0.11	0.30	0.24	70
	75 ISL	12.48	12.47	33.316	25.193	278.4	0.235	5.11	84.4	6.8	0.89	7.4	0.06	0.25	0.21	75
1	78	12.26	12.25	33.329	25.245	273.4	0.243	5.03	82.7	7.4	0.94	8.2	0.04	0.23	0.19	78
1	93	11.54	11.53	33.360	25.404	258.6	0.283	4.79	77.6	9.5	1.10	11.0	0.02	0.13	0.16	93
	100 ISL	11.19	11.18	33.387	25.488	250.7	0.301	4.65	74.7	10.9	1.18	12.5	0.02	0.09	0.13	100
1	108	10.80	10.79	33.429	25.590	241.1	0.321	4.47	71.3	12.7	1.28	14.2	0.02	0.05	0.10	109
1	123	10.22	10.21	33.540	25.777	223.5	0.356	4.07	64.1	16.3	1.47	17.5	0.01	0.02	0.05	124
	125 ISL	10.17	10.16	33.555	25.798	221.6	0.360	4.02	63.3	16.8	1.49	17.9	0.01	0.02	0.05	126
1	148	9.73	9.71	33.719	26.000	202.8	0.409	3.50	54.6	21.7	1.70	21.2	0.01	0.01	0.04	149
	150 ISL	9.71	9.69	33.732	26.013	201.6	0.413	3.46	54.0	22.0	1.71	21.4	0.01	0.01	0.04	151
1	173	9.49	9.47	33.858	26.149	189.2	0.458	3.12	48.5	25.6	1.85	23.6	0.01	0.00	0.03	174
	200 ISL	9.08	9.06	33.969	26.302	175.1	0.507	2.87	44.2	29.7	1.98	25.8	0.01	0.00	0.03	201
1	203	9.03	9.01	33.979	26.318	173.6	0.512	2.85	43.8	30.1	1.99	26.0	0.01	0.00	0.03	204
1	232	8.69	8.67	34.041	26.420	164.3	0.561	2.59	39.5	34.6	2.12	27.9	0.01			233
	250 ISL	8.56	8.53	34.062	26.457	161.2	0.591	2.50	38.1	36.1	2.17	28.4	0.01			251
1	271	8.41	8.38	34.077	26.492	158.1	0.624	2.40	36.4	37.9	2.22	29.0	0.01			273
	300 ISL	8.03	8.00	34.096	26.564	151.6	0.669	2.18	32.8	42.5	2.34	30.7	0.01			302
1	327	7.65	7.62	34.110	26.631	145.5	0.709	1.96	29.2	47.5	2.46	32.4	0.01			329
1	386	7.00	6.96	34.129	26.738	135.9	0.792	1.50	22.0	57.1	2.69	35.5	0.01			388
	400 ISL	6.91	6.87	34.146	26.764	133.6	0.811	1.34	19.7	59.5	2.76	36.3	0.01			403
1	451	6.63	6.59	34.217	26.858	125.2	0.877	0.79	11.5	67.6	2.99	38.7	0.00			454
	500 ISL	6.32	6.27	34.259	26.932	118.6	0.937	0.54	7.8	73.7	3.11	40.1				503
1	519	6.20	6.15	34.276	26.961	116.0	0.959	0.44	6.3	76.1	3.16	40.7				523

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 90 53

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 39.2 N	119 28.8 W	03/02/92	1345 UTC	1319 m	320 18 kn			1012.2 mb	14.7 C	13.6 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.03	14.03	33.255	24.833	310.6	0.000	5.97	101.8	2.5	0.46	0.3	0.02	0.71	0.27	0
1	1	14.03	14.03	33.255	24.833	310.7	0.003	5.97	101.8	2.5	0.46	0.3	0.02	0.71	0.27	1
	10 ISL	14.04	14.04	33.255	24.832	311.1	0.031	5.98	102.0	2.4	0.46	0.3	0.02	0.72	0.26	10
1	16	14.04	14.04	33.255	24.832	311.2	0.050	5.98	102.0	2.4	0.46	0.3	0.02	0.73	0.26	16
	20 ISL	14.04	14.04	33.255	24.832	311.3	0.062	5.97	101.8	2.4	0.46	0.3	0.02	0.73	0.26	20
	30 ISL	14.03	14.03	33.255	24.834	311.4	0.093	5.96	101.6	2.4	0.45	0.3	0.02	0.72	0.27	30
1	31	14.03	14.03	33.255	24.834	311.4	0.096	5.96	101.6	2.4	0.45	0.3	0.02	0.72	0.27	31
1	41	14.04	14.03	33.257	24.834	311.7	0.128	5.97	101.8	2.3	0.46	0.3	0.03	0.74	0.28	41
	50 ISL	14.02	14.01	33.254	24.836	311.8	0.156	5.94	101.3	2.5	0.46	0.4	0.03	0.70	0.26	50
1	51	14.02	14.01	33.254	24.836	311.8	0.159	5.94	101.3	2.5	0.46	0.4	0.03	0.70	0.26	51
1	60	13.33	13.32	33.268	24.988	297.6	0.186	5.50	92.4	4.4	0.66	3.2	0.23	0.33	0.17	60
1	70	12.88	12.87	33.279	25.086	288.5	0.216	5.28	87.9	5.8	0.79	5.3	0.26	0.23	0.16	70
	75 ISL	12.67	12.66	33.288	25.134	284.0	0.230	5.19	86.0	6.5	0.83	6.2	0.24	0.19	0.14	75
1	79	12.49	12.48	33.298	25.177	280.0	0.241	5.12	84.6	7.1	0.87	6.9	0.21	0.17	0.13	79
1	95	11.61	11.60	33.369	25.398	259.2	0.284	4.75	77.0	10.2	1.09	10.7	0.10	0.09	0.11	95
	100 ISL	11.32	11.31	33.389	25.466	252.8	0.297	4.64	74.8	11.2	1.16	12.1	0.08	0.07	0.10	100
1	110	10.76	10.75	33.447	25.611	239.1	0.322	4.38	69.8	13.4	1.31	14.9	0.04	0.04	0.07	111
1	124	10.17	10.16	33.614	25.844	217.2	0.354	3.82	60.1	17.9	1.55	18.6	0.01	0.01	0.04	125
	125 ISL	10.13	10.12	33.625	25.859	215.8	0.356	3.79	59.6	18.2	1.56	18.8	0.01	0.01	0.04	126
1	150	9.44	9.42	33.827	26.132	190.3	0.407	3.22	49.9	24.9	1.82	23.4	0.01	0.00	0.03	151
1	176	9.24	9.22	33.912	26.231	181.3	0.455	3.00	46.3	27.7	1.92	24.8	0.01	0.00	0.03	177
	200 ISL	8.82	8.80	34.011	26.376	168.0	0.497	2.73	41.8	32.4	2.07	27.1	0.01	0.00	0.04	201
1	206	8.70	8.68	34.032	26.411	164.7	0.507	2.67	40.8	33.7	2.10	27.6	0.01	0.00	0.04	207
1	235	8.26	8.24	34.054	26.496	157.0	0.553	2.63	39.8	37.9	2.16	28.7	0.01			236
	250 ISL	8.06	8.03	34.073	26.541	152.9	0.577	2.44	36.7	40.8	2.25	29.8	0.01			251
1	275	7.78	7.75	34.107	26.609	146.7	0.614	2.05	30.7	45.6	2.41	31.7	0.00			277
	300 ISL	7.62	7.59	34.132	26.652	143.0	0.650	1.78	26.5	48.8	2.53	33.0	0.00			302
1	330	7.47	7.44	34.157	26.694	139.5	0.693	1.49	22.1	52.4	2.65	34.4	0.00			332
1	389	6.98	6.94	34.205	26.801	130.0	0.772	0.95	14.0	61.9	2.89	37.4				391
	400 ISL	6.92	6.88	34.214	26.816	128.7	0.786	0.87	12.8	63.2	2.92	37.8	0.00			403
1	450	6.66	6.62	34.252	26.881	123.0	0.849	0.60	8.8	68.5	3.05	39.2	0.00			453
	500 ISL	6.36	6.31	34.276	26.940	117.9	0.910	0.47	6.8	74.0	3.13	40.3				503
1	511	6.30	6.25	34.281	26.952	116.9	0.922	0.44	6.4	75.2	3.15	40.6				514

RV DAVID STARR JORDAN "CALCOFI CRUISE 9202 STATION 90 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 25.1 N	119 57.6 W	03/02/92	0845 UTC	840 m	320 23 kn			1015.2 mb	14.6 C	12.9 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.28	14.28	33.232	24.763	317.3	0.000	5.90	101.1	2.3	0.45	0.2	0.00	0.32	0.13	0
1	1	14.28	14.28	33.232	24.763	317.3	0.003	5.90	101.1	2.3	0.45	0.2	0.00	0.32	0.13	1
	10 ISL	14.28	14.28	33.235	24.766	317.3	0.032	5.90	101.1	2.3	0.45	0.2	0.01	0.31	0.12	10
1	16	14.28	14.28	33.236	24.767	317.4	0.051	5.90	101.1	2.3	0.44	0.2	0.01	0.31	0.12	16
	20 ISL	14.28	14.28	33.235	24.766	317.6	0.063	5.90	101.1	2.3	0.44	0.2	0.01	0.31	0.12	20
	30 ISL	14.27	14.27	33.231	24.766	317.9	0.095	5.90	101.1	2.3	0.43	0.2	0.00	0.31	0.12	30
1	31	14.27	14.27	33.231	24.766	318.0	0.098	5.90	101.1	2.3	0.43	0.2	0.00	0.31	0.12	31
1	40	14.28	14.27	33.233	24.765	318.3	0.127	5.91	101.3	2.3	0.43	0.2	0.01	0.31	0.12	40
	50 ISL	13.69	13.68	33.251	24.902	305.5	0.158	5.60	94.8	3.5	0.59	2.3	0.20	0.31	0.20	50
1	51	13.62	13.61	33.253	24.917	304.0	0.161	5.56	94.0	3.7	0.61	2.6	0.22	0.31	0.21	51
1	60	13.20	13.19	33.260	25.008	295.7	0.188	5.44	91.2	4.7	0.72	4.1	0.13	0.23	0.19	60
1	74	11.94	11.93	33.231	25.229	274.8	0.228	5.23	85.3	6.6	0.89	7.5	0.02	0.12	0.14	74
	75 ISL	11.82	11.81	33.229	25.250	272.9	0.231	5.21	84.8	6.9	0.91	7.9	0.02	0.11	0.14	75
1	88	10.38	10.37	33.233	25.510	248.2	0.265	4.97	78.4	10.5	1.14	12.4	0.01	0.05	0.08	88
	100 ISL	9.81	9.80	33.302	25.660	234.1	0.294	4.72	73.6	13.2	1.30	15.2	0.00	0.03	0.05	100
1	104	9.72	9.71	33.331	25.698	230.6	0.303	4.63	72.0	14.0	1.34	15.9	0.00	0.03	0.05	104
1	119	9.53	9.52	33.439	25.813	219.8	0.337	4.32	67.0	16.7	1.47	18.0	0.00	0.01	0.04	120
	125 ISL	9.46	9.45	33.486	25.862	215.4	0.350	4.19	64.9	17.8	1.52	18.9	0.00	0.01	0.04	126
1	139	9.29	9.27	33.602	25.980	204.4	0.379	3.88	59.9	20.6	1.62	21.0	0.00	0.01	0.03	140
	150 ISL	9.13	9.11	33.699	26.082	194.9	0.401	3.64	56.0	23.0	1.70	22.6	0.00	0.00	0.02	151
1	159	8.99	8.97	33.772	26.161	187.5	0.418	3.47	53.3	24.9	1.76	23.7	0.00	0.00	0.02	160
1	184	8.69	8.67	33.897	26.306	174.1	0.464	3.17	48.4	29.1	1.88	25.8	0.00	0.00	0.02	185
	200 ISL	8.50	8.48	33.948	26.376	167.8	0.491	3.05	46.3	31.7	1.95	26.8	0.00	0.00	0.02	201
1	219	8.28	8.26	33.989	26.442	161.8	0.522	2.93	44.3	34.6	2.02	27.9	0.00	0.00	0.02	220
	250 ISL	7.95	7.92	34.025	26.519	154.9	0.571	2.64	39.6	39.2	2.13	29.4	0.00			251
1	254	7.91	7.88	34.028	26.528	154.1	0.578	2.60	39.0	39.8	2.15	29.6	0.00			255
1	294	7.44	7.41	34.057	26.619	145.9	0.638	2.20	32.6	46.5	2.33	32.5	0.00			296
	300 ISL	7.37	7.34	34.059	26.630	144.9	0.646	2.15	31.9	47.6	2.36	32.9	0.00			302
1	348	6.87	6.84	34.082	26.718	137.0	0.714	1.70	24.9	56.3	2.57	35.7	0.01			350
	400 ISL	6.55	6.51	34.149	26.814	128.5	0.783	1.09	15.9	64.7	2.80	38.2	0.01			403
1	413	6.49	6.45	34.168	26.837	126.4	0.800	0.95	13.8	66.6	2.85	38.7				416
1	480	6.23	6.19	34.237	26.926	118.8	0.882	0.58	8.4	73.7	3.02	40.5	0.00			483
	500 ISL	6.12	6.08	34.244	26.946	117.1	0.905	0.53	7.6	75.7	3.05	41.0				503
1	559	5.79	5.74	34.265	27.004	112.0	0.973	0.39	5.6	81.5	3.13	42.3				563

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 90 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 5.1 N	120 38.3 W	02/02/92	0602 UTC	3814 m	310 24 kn			1018.1 mb	13.7 C	12.0 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.92	13.92	33.197	24.811	312.7	0.000	6.02	102.4	2.6	0.45	0.1	0.01	0.45	0.18	0
1	2	13.92	13.92	33.197	24.811	312.8	0.006	6.02	102.4	2.6	0.45	0.1	0.01	0.45	0.18	2
	10 ISL	13.93	13.93	33.195	24.808	313.3	0.031	6.03	102.6	2.6	0.45	0.1	0.01	0.45	0.17	10
1	17	13.94	13.94	33.196	24.807	313.6	0.053	6.03	102.6	2.6	0.45	0.1	0.01	0.44	0.17	17
	20 ISL	13.94	13.94	33.200	24.810	313.4	0.063	6.02	102.4	2.6	0.45	0.1	0.01	0.44	0.17	20
	30 ISL	13.94	13.94	33.215	24.822	312.6	0.094	6.00	102.1	2.6	0.46	0.2	0.02	0.42	0.18	30
1	32	13.94	13.94	33.218	24.824	312.4	0.100	5.99	101.9	2.6	0.46	0.2	0.02	0.42	0.18	32
1	42	13.96	13.95	33.344	24.918	303.8	0.131	5.75	98.0	2.8	0.53	1.0	0.11	0.30	0.20	42
	50 ISL	13.91	13.90	33.354	24.936	302.3	0.155	5.73	97.5	3.0	0.55	1.2	0.14	0.25	0.19	50
1	52	13.90	13.89	33.357	24.941	301.9	0.161	5.73	97.5	3.0	0.56	1.3	0.15	0.24	0.18	52
1	61	13.43	13.42	33.345	25.027	293.8	0.188	5.60	94.4	4.0	0.65	3.1	0.21	0.16	0.15	61
	75 ISL	11.34	11.33	33.297	25.391	259.4	0.227	4.86	78.3	10.3	1.17	12.0	0.04	0.10	0.10	75
1	76	11.18	11.17	33.299	25.421	256.5	0.229	4.79	76.9	10.9	1.21	12.7	0.02	0.10	0.10	76
1	91	10.03	10.02	33.537	25.807	220.C	0.265	3.81	59.8	19.0	1.65	20.3	0.01	0.04	0.06	91
	100 ISL	9.68	9.67	33.633	25.940	207.5	0.284	3.50	54.5	21.8	1.77	22.4	0.01	0.02	0.05	100
1	105	9.56	9.55	33.673	25.991	202.7	0.295	3.38	52.5	23.0	1.81	23.1	0.01	0.02	0.04	106
1	120	9.35	9.34	33.761	26.094	193.2	0.324	3.10	48.0	25.9	1.89	24.8	0.01	0.01	0.04	121
	125 ISL	9.26	9.25	33.795	26.136	189.4	0.334	3.00	46.3	27.0	1.93	25.4	0.01	0.01	0.04	126
1	139	9.00	8.99	33.880	26.244	179.3	0.360	2.81	43.2	29.6	2.01	26.6	0.01	0.01	0.03	140
	150 ISL	8.77	8.75	33.920	26.311	173.0	0.379	2.88	44.0	30.7	2.01	26.7	0.01	0.00	0.02	151
1	159	8.60	8.58	33.945	26.358	168.8	0.394	2.95	44.9	31.5	2.00	26.8	0.01	0.00	0.02	160
1	185	8.32	8.30	34.011	26.452	160.:	0.437	2.54	38.5	36.3	2.16	29.3	0.00	0.00	0.02	186
	200 ISL	8.18	8.16	34.031	26.489	156.S'	0.461	2.41	36.4	38.4	2.22	30.1	0.00	0.00	0.02	201
1	219	8.00	7.98	34.047	26.529	153.4	0.490	2.31	34.7	40.7	2.28	30.9	0.01	0.00	0.02	220
	250 ISL	7.72	7.70	34.065	26.584	148.t.	0.537	2.16	32.3	44.5	2.36	32.1	0.00			251
1	254	7.68	7.65	34.067	26.592	148.(1	0.543	2.14	31.9	45.0	2.37	32.2	0.00			255
1	294	7.17	7.14	34.079	26.674	140.5	0.601	1.85	27.3	51.8	2.52	34.1	0.00			296
	300 ISL	7.11	7.08	34.082	26.685	139.(1	0.609	1.79	26.4	52.9	2.55	34.5	0.00			302
1	348	6.63	6.60	34.111	26.773	131.6	0.674	1.31	19.1	61.7	2.76	37.6	0.00			350
	400 ISL	6.11	6.07	34.129	26.855	124.:!	0.741	0.96	13.8	70.5	2.94	40.0	0.00			403
1	412	6.00	5.96	34.134	26.873	122.6	0.756	0.89	12.8	72.4	2.97	40.5				415
1	481	5.65	5.61	34.204	26.972	113.11	0.837	0.51	7.3	81.8	3.13	42.5	0.00			484
	500 ISL	5.55	5.51	34.216	26.994	Ul.'l	0.859	0.47	6.7	83.7	3.16	42.9	0.00			503
1	562	5.24	5.19	34.256	27.063	105.7	0.926	0.34	4.8	90.0	3.25	44.0	0.00			566

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 90 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 45.0 N	121 18.9 W	01/02/92	2351 UTC	3610 m	330 19 kn	330 05 05	1	1017.0 mb	15.3 C	13.8 C	25ro 02	3/8	SC

CAST	DEPTH B	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	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 db
	0 ISL	14.80	14.80	33.185	24.617	331.2	0.000	5.88	101.8	2.3	0.41	0.1	0.00	0.18	0.05	0
1	1	14.80	14.80	33.185	24.617	331.3	0.003	5.88	101.8	2.3	0.41	0.1	0.00	0.18	0.05	1
	10 ISL	14.80	14.80	33.185	24.617	331.5	0.033	5.88	101.8	2.2	0.40	0.1	0.00	0.17	0.05	10
1	17	14.80	14.80	33.184	24.617	331.8	0.056	5.88	101.8	2.2	0.40	0.1	0.00	0.17	0.05	17
	20 ISL	14.77	14.77	33.181	24.621	331.5	0.066	5.88	101.7	2.2	0.40	0.1	0.00	0.18	0.05	20
	30 ISL	14.64	14.64	33.157	24.630	330.8	0.099	5.91	102.0	2.2	0.42	0.1	0.00	0.21	0.08	30
1	31	14.62	14.62	33.153	24.632	330.8	0.103	5.91	101.9	2.2	0.42	0.1	0.00	0.21	0.08	31
1	41	14.40	14.39	33.101	24.638	330.4	0.136	5.94	102.0	2.2	0.42	0.1	0.00	0.34	0.15	41
	50 ISL	14.61	14.60	33.180	24.655	329.1	0.165	5.85	100.9	2.1	0.41	0.0	0.01	0.37	0.16	50
1	51	14.64	14.63	33.190	24.656	329.0	0.169	5.84	100.8	2.1	0.41	0.0	0.01	0.37	0.16	51
1	60	14.59	14.58	33.193	24.670	328.0	0.198	5.83	100.5	2.1	0.42	0.1	0.03	0.35	0.18	60
1	70	14.51	14.50	33.193	24.687	326.6	0.231	5.80	99.8	2.2	0.43	0.3	0.08	0.28	0.16	70
	75 ISL	14.01	14.00	33.150	24.759	319.9	0.247	5.75	97.9	2.5	0.49	1.0	0.07	0.21	0.14	75
1	79	13.56	13.55	33.116	24.824	313.7	0.260	5.71	96.3	2.9	0.55	1.7	0.06	0.15	0.13	79
1	94	12.69	12.68	33.134	25.011	296.1	0.306	5.57	92.3	4.2	0.68	3.7	0.01	0.09	0.10	94
	100 ISL	12.65	12.64	33.214	25.081	289.6	0.323	5.49	90.9	4.6	0.69	3.9	0.01	0.09	0.10	100
1	109	12.58	12.57	33.356	25.205	278.1	0.349	5.34	88.4	5.2	0.71	5.0	0.02	0.08	0.09	109
1	125	10.17	10.16	33.208	25.527	247.3	0.391	4.98	78.2	11.1	1.18	12.8	0.01	0.03	0.05	126
1	149	9.36	9.34	33.489	25.881	214.0	0.446	4.05	62.6	19.3	1.60	20.1	0.00	0.01	0.04	150
	150 ISL	9.34	9.32	33.500	25.892	212.9	0.448	4.02	62.1	19.6	1.61	20.3	0.00	0.01	0.04	151
1	175	8.90	8.88	33.740	26.151	188.8	0.498	3.55	54.4	24.8	1.76	23.4	0.00	0.00	0.02	176
	200 ISL	8.64	8.62	33.881	26.302	174.9	0.544	3.26	49.7	28.9	1.87	25.3	0.00	0.00	0.01	201
1	204	8.60	8.58	33.897	26.321	173.2	0.551	3.23	49.2	29.5	1.88	25.5	0.00	0.00	0.01	205
1	233	8.13	8.11	33.985	26.461	160.2	0.599	3.17	47.8	34.3	1.96	27.1	0.00			234
	250 ISL	7.92	7.89	34.010	26.512	155.6	0.626	2.98	44.7	37.2	2.04	28.3	0.00			251
1	273	7.65	7.62	34.027	26.565	150.8	0.661	2.66	39.7	41.5	2.17	30.1	0.00			275
	300 ISL	7.27	7.24	34.042	26.631	144.8	0.701	2.31	34.1	47.4	2.33	32.4	0.00			302
1	328	6.90	6.87	34.057	26.694	139.0	0.741	1.94	28.4	53.6	2.49	34.7	0.00			330
1	387	6.51	6.47	34.121	26.797	129.9	0.820	1.19	17.3	63.7	2.80	38.1	0.00			389
	400 ISL	6.42	6.38	34.134	26.819	127.9	0.837	1.07	15.5	65.8	2.85	38.7	0.00			402
1	453	6.04	6.00	34.179	26.904	120.3	0.903	0.70	10.1	73.9	3.01	40.7	0.00			456
	500 ISL	5.64	5.60	34.202	26.972	114.0	0.958	0.55	7.8	81.2	3.11	42.3	0.00			503
1	522	5.45	5.41	34.213	27.004	111.1	0.983	0.48	6.8	84.6	3.15	43.0	0.00			525

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 90 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 25.2 N	121 59.3 W	01/02/92	1627 UTC	3870 m	280 18 kn	330 06 08	1	1017.5 mb	15.5 C	14.4 C	21m 03	3/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	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 db
	0 ISL	14.93	14.93	33.263	24.649	328.2	0.000	5.83	101.3	2.0	0.40	0.1	0.00	0.18	0.06	0
1	1	14.93	14.93	33.263	24.649	328.2	0.003	5.83	101.3	2.0	0.40	0.1	0.00	0.18	0.06	1
	10 ISL	14.94	14.94	33.264	24.648	328.6	0.033	5.84	101.5	2.0	0.41	0.1	0.00	0.17	0.06	10
1	16	14.94	14.94	33.265	24.649	328.7	0.053	5.84	101.5	2.0	0.41	0.1	0.00	0.17	0.06	16
	20 ISL	14.94	14.94	33.265	24.649	328.8	0.066	5.84	101.5	1.9	0.41	0.1	0.00	0.17	0.06	20
	30 ISL	14.94	14.94	33.266	24.650	329.0	0.099	5.83	101.3	1.8	0.40	0.1	0.00	0.18	0.06	30
1	31	14.94	14.94	33.266	24.650	329.0	0.102	5.83	101.3	1.8	0.40	0.1	0.00	0.18	0.06	31
1	40	14.98	14.97	33.291	24.661	328.2	0.131	5.82	101.2	1.8	0.39	0.1	0.00	0.21	0.08	40
1	49	14.97	14.96	33.288	24.661	328.5	0.161	5.82	101.2	1.8	0.39	0.1	0.00	0.26	0.10	49
	50 ISL	14.96	14.95	33.287	24.662	328.4	0.164	5.82	101.2	1.8	0.39	0.1	0.00	0.27	0.10	50
1	60	14.89	14.88	33.273	24.667	328.2	0.197	5.81	100.8	1.9	0.40	0.1	0.00	0.31	0.14	60
1	70	14.82	14.81	33.262	24.674	327.9	0.230	5.80	100.5	1.9	0.41	0.1	0.02	0.29	0.15	70
	75 ISL	14.78	14.77	33.254	24.677	327.8	0.246	5.79	100.2	1.9	0.42	0.2	0.04	0.27	0.16	75
1	79	14.72	14.71	33.243	24.681	327.5	0.259	5.78	99.9	1.9	0.43	0.2	0.06	0.26	0.16	79
1	94	14.25	14.24	33.351	24.864	310.4	0.307	5.62	96.3	2.5	0.49	1.1	0.15	0.18	0.16	94
	100 ISL	13.28	13.27	33.247	24.983	299.1	0.326	5.56	93.3	3.6	0.62	3.1	0.10	0.13	0.12	100
1	109	11.78	11.77	33.102	25.159	282.3	0.352	5.46	88.7	5.6	0.83	6.3	0.01	0.06	0.06	109
1	124	10.95	10.94	33.157	25.353	264.0	0.393	5.25	83.8	8.0	0.98	9.3	0.01	0.04	0.06	125
	125 ISL	10.89	10.87	33.163	25.368	262.6	0.395	5.22	83.2	8.3	1.00	9.6	0.01	0.04	0.06	126
1	148	9.69	9.67	33.348	25.717	229.6	0.452	4.48	69.7	15.4	1.42	17.0	0.00	0.01	0.03	149
	150 ISL	9.62	9.60	33.365	25.742	227.3	0.457	4.44	68.9	15.8	1.44	17.4	0.00	0.01	0.03	151
1	174	9.00	8.98	33.569	26.001	203.0	0.508	4.06	62.2	20.3	1.59	20.5	0.00	0.00	0.02	175
	200 ISL	8.69	8.67	33.805	26.235	181.3	0.558	3.59	54.7	25.7	1.76	23.6	0.00	0.00	0.01	201
1	204	8.65	8.63	33.837	26.266	178.4	0.565	3.52	53.6	26.6	1.78	24.0	0.00	0.00	0.01	205
1	232	8.25	8.23	33.984	26.442	162.0	0.613	3.15	47.6	33.3	1.94	26.8	0.00			233
	250 ISL	8.01	7.98	34.019	26.506	156.2	0.642	2.90	43.6	37.1	2.05	28.4	0.00			251
1	273	7.72	7.69	34.033	26.560	151.3	0.677	2.59	38.7	41.4	2.19	30.2	0.00			274
	300 ISL	7.45	7.42	34.054	26.615	146.4	0.717	2.28	33.8	45.9	2.32	32.0	0.00			302
1	329	7.17	7.14	34.072	26.669	141.6	0.759	1.97	29.1	50.6	2.46	33.8	0.00			331
1	388	6.54	6.50	34.115	26.788	130.7	0.839	1.28	18.6	62.3	2.77	37.8	0.00			390
	400 ISL	6.48	6.44	34.128	26.807	129.1	0.855	1.17	17.0	64.0	2.81	38.3	0.00			402
1	453	6.25	6.21	34.185	26.882	122.6	0.922	0.77	11.1	70.5	2.97	40.1	0.00			456
	500 ISL	5.90	5.86	34.220	26.954	116.0	0.978	0.54	7.7	77.3	3.08	41.7	0.00			503
1	521	5.75	5.71	34.236	26.986	113.1	1.002	0.44	6.3	80.3	3.13	42.4	0.00			524

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 90 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 5.1 N	122 39.7 W	01/02/92	1111 UTC	4001 m	250 12 *Kn*			1016.5 mb	14.7 C	14.7 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.57	15.57	33.406	24.619	331.1	0.000	5.74	101.1	1.3	0.38	0.0	0.00	0.10	0.03	0
1	1	15.57	15.57	33.406	24.619	331.1	0.003	5.74	101.1	1.3	0.38	0.0	0.00	0.10	0.03	1
	10 ISL	15.58	15.58	33.406	24.617	331.5	0.033	5.77	101.6	1.3	0.38	0.0	0.00	0.10	0.03	10
1	16	15.58	15.58	33.406	24.617	331.7	0.053	5.78	101.8	1.3	0.38	0.0	0.00	0.10	0.03	16
	20 ISL	15.62	15.62	33.428	24.625	331.0	0.066	5.77	101.7	1.3	0.38	0.0	0.00	0.10	0.03	20
	30 ISL	15.76	15.76	33.502	24.651	328.9	0.099	5.72	101.2	1.3	0.36	0.0	0.00	0.10	0.03	30
1	35	15.85	15.84	33.549	24.668	327.5	0.116	5.69	100.8	1.3	0.35	0.0	0.00	0.10	0.03	35
	50 ISL	16.26	16.25	33.692	24.685	326.4	0.165	5.64	100.8	1.3	0.32	0.0	0.00	0.12	0.05	50
1	55	16.34	16.33	33.731	24.697	325.4	0.181	5.62	100.7	1.3	0.32	0.0	0.00	0.14	0.06	55
1	70	15.91	15.90	33.747	24.808	315.3	0.229	5.58	99.1	1.5	0.35	0.2	0.04	0.24	0.18	70
	75 ISL	15.65	15.64	33.784	24.895	307.2	0.245	5.50	97.2	1.8	0.36	0.5	0.08	0.23	0.19	75
1	79	15.40	15.39	33.807	24.968	300.3	0.257	5.44	95.7	2.1	0.38	0.8	0.11	0.23	0.19	79
1	88	14.76	14.75	33.767	25.077	290.1	0.283	5.39	93.6	2.6	0.45	1.8	0.06	0.19	0.21	88
1	99	13.45	13.44	33.573	25.201	278.4	0.315	5.30	89.5	3.7	0.59	3.5	0.02	0.12	0.12	99
	100 ISL	13.37	13.36	33.564	25.210	277.6	0.317	5.30	89.3	3.8	0.60	3.6	0.02	0.11	0.12	100
1	109	12.84	12.83	33.519	25.281	271.0	0.342	5.26	87.6	4.7	0.68	4.9	0.02	0.07	0.09	109
1	124	12.13	12.11	33.561	25.451	255.1	0.382	5.13	84.2	7.2	0.76	6.7	0.01	0.05	0.07	125
	125 ISL	12.07	12.05	33.561	25.462	254.0	0.384	5.12	83.9	7.2	0.77	6.9	0.01	0.05	0.07	126
1	138	11.31	11.29	33.557	25.600	241.0	0.416	4.98	80.3	7.9	0.91	9.1	0.00	0.03	0.04	139
	150 ISL	10.71	10.69	33.577	25.722	229.5	0.445	4.77	76.0	10.1	1.05	11.4	0.00	0.02	0.03	151
1	158	10.37	10.35	33.603	25.802	222.0	0.463	4.61	72.9	12.0	1.14	13.1	0.00	0.02	0.03	159
1	178	9.69	9.67	33.717	2:6.005	202.9	0.505	4.20	65.5	17.3	1.39	17.6	0.00	0.00	0.02	179
	200 ISL	9.17	9.15	33.822	26.172	187.3	0.548	3.92	60.4	21.7	1.55	20.5	0.00	0.00	0.03	201
1	203	9.11	9.09	33.835	26.192	185.5	0.554	3.89	59.9	22.2	1.57	20.8	0.00	0.00	0.03	204
1	232	8.60	8.58	33.949	26.362	169.8	0.605	3.68	56.0	27.6	1.70	23.4	0.00			233
	250 ISL	8.30	8.27	33.981	26.433	163.3	0.635	3.56	53.9	30.7	1.78	24.8	0.00			251
1	272	7.95	7.92	34.001	26.501	157.0	0.670	3.37	50.6	34.6	1.90	26.5	0.00			273
	300 ISL	7.57	7.54	34.031	26.580	149.8	0.713	2.91	43.3	41.0	2.12	29.2	0.00			302
1	329	7.22	7.19	34.053	26.647	143.7	0.756	2.40	35.4	47.8	2.35	32.0	0.00			331
1	388	6.51	6.47	34.061	26.750	134.3	0.838	1.77	25.7	59.0	2.60	36.2	0.00			390
	400 ISL	6.39	6.35	34.065	26.769	132.6	0.854	1.66	24.0	61.0	2.65	36.9	0.00			402
1	454	5.98	5.94	34.098	26.848	125.5	0.924	1.20	17.2	69.5	2.86	39.7				457
	500 ISL	5.79	5.75	34.158	26.919	119.2	0.980	0.80	11.4	76.0	3.02	41.4	0.00			503
1	525	5.68	5.64	34.191	26.959	115.6	1.009	0.58	8.3	79.6	3.10	42.4	0.00			528

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 90 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 44.9 N	123 20.1 *V*	01/02/92	0552 UTC	4006 m	210 11 kn			1017.5 mb	16.0 C	14.2 C			

CAST	DEPTH in	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	D ISL	15.69	15.69	33.440	24.618	331.1	0.000	5.74	101.3	2.0	0.38	0.1	0.00	0.09	0.03	0
1	2	15.69	15.69	33.440	24.618	331.2	0.007	5.74	101.3	2.0	0.38	0.1	0.00	0.09	0.03	2
	10 ISL	15.68	15.68	33.437	24.619	331.4	0.033	5.75	101.5	2.0	0.38	0.1	0.00	0.09	0.03	1C
1	17	15.68	15.68	33.435	24.617	331.7	0.056	5.76	101.7	2.0	0.38	0.1	0.00	0.09	0.03	17
	20 ISL	15.71	15.71	33.450	24.622	331.4	0.066	5.75	101.6	2.0	0.38	0.1	0.00	0.09	0.03	2C
	30 ISL	15.85	15.85	33.516	24.642	329.8	0.099	5.72	101.4	1.8	0.37	0.1	0.00	0.10	0.03	3C
1	36	15.97	15.96	33.569	24.656	328.7	0.119	5.70	101.3	1.7	0.36	0.1	0.00	0.10	0.03	36
	50 ISL	16.32	16.31	33.689	24.669	327.9	0.165	5.64	101.0	1.5	0.34	0.1	0.00	0.11	0.04	50
1	56	16.47	16.46	33.745	24.678	327.3	0.185	5.62	100.9	1.4	0.33	0.1	0.00	0.11	0.04	56
1	70	16.74	16.73	33.879	24.719	323.9	0.230	5.57	100.6	1.5	0.31	0.1	0.00	0.17	0.08	70
	75 ISL	16.83	16.82	33.927	24.735	322.6	0.246	5.56	100.7	1.5	0.30	0.1	0.00	0.20	0.11	75
1	79	16.86	16.85	33.951	24.746	321.6	0.259	5.56	100.7	1.5	0.29	0.1	0.00	0.22	0.13	79
1	89	16.66	16.65	33.899	24.753	321.2	0.291	5.53	99.8	1.6	0.31	0.1	0.01	0.26	0.17	89
1	99	15.66	15.64	33.726	24.849	312.3	0.323	5.53	97.7	2.1	0.39	0.6	0.07	0.24	0.19	99
	100 ISL	15.41	15.39	33.681	24.869	310.3	0.326	5.53	97.2	2.2	0.41	0.8	0.07	0.24	0.19	100
1	109	13.09	13.08	33.316	25.074	290.7	0.353	5.50	92.0	3.7	0.63	3.1	0.04	0.20	0.20	109
1	124	11.24	11.22	33.237	25.363	263.1	0.395	5.15	82.8	7.9	0.97	8.9	0.01	0.07	0.10	125
	125 ISL	11.14	11.12	33.237	25.381	261.4	0.397	5.13	82.3	8.2	0.99	9.2	0.01	0.07	0.10	126
1	138	10.18	10.16	33.277	25.579	242.6	0.430	4.88	76.7	11.7	1.20	13.1	0.01	0.03	0.05	139
	150 ISL	9.76	9.74	33.342	25.701	231.3	0.459	4.65	72.4	14.1	1.34	15.5	0.01	0.02	0.04	151
1	159	9.59	9.57	33.411	25.782	223.6	0.479	4.44	68.9	15.9	1.44	17.1	0.01	0.01	0.04	160
1	179	9.18	9.16	33.646	26.033	200.2	0.522	3.74	57.6	22.1	1.69	21.8	0.00	0.00	0.03	180
	200 ISL	9.00	8.98	33.800	26.182	186.3	0.562	3.27	50.2	26.3	1.85	24.6	0.00	0.00	0.02	201
1	204	8.97	8.95	33.821	26.203	184.4	0.570	3.21	49.3	26.9	1.87	24.9	0.00	0.00	0.02	205
1	233	8.62	8.60	33.927	26.342	171.7	0.621	3.06	46.6	30.2	1.93	26.2	0.00			234
	250 ISL	8.41	8.38	33.974	26.411	165.4	0.650	2.91	44.1	32.9	2.00	27.4	0.00			251
1	273	8.12	8.09	34.019	26.490	158.2	0.687	2.71	40.8	37.0	2.11	29.1	0.00			274
	300 ISL	7.73	7.70	34.035	26.560	151.8	0.729	2.63	39.3	41.4	2.19	30.4	0.00			302
1	328	7.32	7.29	34.038	26.621	146.2	0.771	2.52	37.3	46.1	2.28	31.7	0.00			330
1	387	6.61	6.57	34.072	26.745	134.8	0.853	1.74	25.3	58.1	2.61	36.2	0.00			389
	400 ISL	6.48	6.44	34.079	26.768	132.8	0.871	1.60	23.2	60.4	2.67	37.0	0.00			402
1	452	6.02	5.98	34.114	26.855	124.8	0.938	1.12	16.1	69.4	2.88	40.0				455
	500 ISL	5.62	5.58	34.159	26.940	117.0	0.996	0.76	10.8	78.4	3.03	42.3	0.00			503
1	520	5.46	5.42	34.178	26.975	113.8	1.019	0.61	8.6	82.1	3.09	43.3	0.00			523

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 MBUU..--

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 25.0 N	123 59.9 W	01/02/92	001"? UTC	4210 m	140 26 kn	270 04 06	1	1017.1 mb	17.0 C	14.0 C	40m 02	5/8	CU

CAST	DEPTH in	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.20	16.20	33.495	24.546	338.0	0.000	5.68	101.3	1.8	0.37	0.3	0.00	0.07	0.02	0
1	1	16.20	16.20	33.495	24.546	338.1	0.003	5.68	101.3	1.8	0.37	0.3	0.00	0.07	0.02	1
	10 ISL	16.15	16.15	33.490	24.553	337.6	0.034	5.68	101.2	1.7	0.37	0.3	0.00	0.08	0.02	10
1	16	16.10	16.10	33.489	24.564	336.7	0.054	5.68	101.1	1.6	0.37	0.3	0.00	0.08	0.02	16
	20 ISL	16.10	16.10	33.496	24.570	336.4	0.067	5.68	101.1	1.6	0.37	0.3	0.00	0.08	0.02	20
	30 ISL	16.11	16.11	33.511	24.579	335.8	0.101	5.67	101.0	1.6	0.36	0.2	0.00	0.09	0.02	30
1	36	16.12	16.11	33.518	24.583	335.6	0.121	5.67	101.0	1.6	0.36	0.2	0.00	0.09	0.02	36
	50 ISL	16.19	16.18	33.547	24.590	335.5	0.168	5.68	101.3	1.5	0.36	0.2	0.00	0.10	0.03	50
1	56	16.22	16.21	33.559	24.592	335.4	0.188	5.68	101.4	1.5	0.36	0.2	0.00	0.10	0.03	56
1	71	16.68	16.67	33.769	24.648	330.6	0.238	5.62	101.4	1.5	0.32	0.2	0.00	0.12	0.04	71
	75 ISL	16.68	16.67	33.790	24.664	329.2	0.251	5.61	101.2	1.5	0.32	0.2	0.00	0.13	0.05	75
1	80	16.69	16.68	33.819	24.685	327.5	0.268	5.59	100.9	1.6	0.32	0.2	0.00	0.15	0.06	80
1	90	16.81	16.80	33.922	24.736	322.9	0.300	5.57	100.8	1.6	0.31	0.2	0.01	0.27	0.14	90
1	100	15.76	15.74	33.712	24.815	315.5	0.332	5.59	99.0	1.8	0.36	0.4	0.08	0.26	0.19	100
1	110	13.90	13.88	33.457	25.019	296.1	0.363	5.52	94.0	2.9	0.54	1.9	0.05	0.21	0.19	110
1	125	13.82	13.80	33.698	25.223	277.2	0.406	5.24	89.2	4.1	0.60	3.5	0.02	0.14	0.13	126
1	140	11.47	11.45	33.362	25.419	258.3	0.446	5.13	82.9	6.9	0.91	7.7	0.01	0.09	0.10	141
	150 ISL	11.11	11.09	33.390	25.506	250.1	0.471	5.02	80.5	8.4	1.03	9.6	0.00	0.06	0.08	151
1	160	10.74	10.72	33.407	25.585	242.8	0.496	4.91	78.2	9.6	1.09	11.0	0.00	0.04	0.07	161
1	180	10.36	10.34	33.572	25.780	224.6	0.543	4.75	75.1	11.1	1.12	12.2	0.00	0.02	0.04	181
	200 ISL	9.93	9.91	33.685	25.941	209.6	0.586	4.40	68.9	15.0	1.30	15.5	0.00	0.01	0.02	201
1	205	9.82	9.80	33.709	25.978	206.1	0.597	4.30	67.2	16.2	1.35	16.5	0.00	0.01	0.02	206
1	234	9.22	9.19	33.869	26.202	185.3	0.653	3.79	58.5	22.7	1.60	21.2	0.00			235
	250 ISL	8.88	8.85	33.936	26.308	175.4	0.682	3.62	55.5	26.3	1.71	23.1	0.00			251
1	274	8.39	8.36	34.005	26.438	163.3	0.723	3.42	51.9	31.5	1.85	25.4	0.00			275
	300 ISL	7.90	7.87	34.021	26.524	155.3	0.764	3.19	47.8	36.7	1.99	27.8	0.00			302
1	330	7.42	7.39	34.015	26.589	149.3	0.810	2.89	42.9	42.4	2.14	30.4	0.00			332
1	390	6.79	6.75	34.046	26.701	139.2	0.897	2.10	30.7	53.9	2.47	35.2	0.00			392
	400 ISL	6.66	6.62	34.052	26.723	137.2	0.910	1.96	28.6	56.2	2.53	36.1				402
1	456	6.00	5.96	34.088	26.837	126.5	0.984	1.29	18.5	68.7	2.85	40.6				459
	500 ISL	5.70	5.66	34.119	26.899	121.0	1.039	0.98	14.0	75.3	2.97	42.4				503
1	526	5.52	5.48	34.138	26.936	117.6	1.070	0.80	11.4	79.2	3.04	43.4				529

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPM
32 57.5 N	117 18.3 W	28/01/92	2031 UTC	48 D	310 07 k.n	310 02 07	2	1020.1 mb	14.6 C	13.8 C	20m 03	8/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.85	14.85	33.327	24.716	321.8	0.000	5.91	102.5	3.1	0.43	0.1	0.01	0.48	0.17	0
1	1	14.85	14.85	33.327	24.716	321.9	0.003	5.91	102.5	3.1	0.43	0.1	0.01	0.48	0.17	1
	10 ISL	14.80	14.80	33.326	24.726	321.2	0.032	5.90	102.2	3.1	0.41	0.1	0.01	0.51	0.17	10
1	11	14.79	14.79	33.326	24.728	321.0	0.035	5.90	102.2	3.1	0.41	0.1	0.01	0.51	0.17	11
	20 ISL	14.75	14.75	33.326	24.737	320.4	0.064	5.89	102.0	3.1	0.39	0.1	0.01	0.56	0.21	2 0
1	21	14.75	14.75	33.326	24.737	320.4	0.067	5.89	102.0	3.1	0.39	0.1	0.01	0.56	0.22	.1
1	30	14.48	14.48	33.334	24.801	314.6	0.096	5.62	96.8	4.1	0.51	1.0	0.23	0.86	0.39	30
1	41	14.25	14.24	33.345	24.858	309.4	0.130	5.41	92.7	5.0	0.63	2.3	0.43	0.35	0.28	U

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 28

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 54.8 N	117 23.6 W	28/01/92	2301 UTC	624 m	310 08 kn	270 02 07	2	1017.3 mb	15.6 C	14.7 C	21m 02	8/8	i,C

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS i;lb
	0 ISL	15.21	15.21	33.427	24.714	322.0	0.000	5.89	103.0	3.0	0.45	0.2	0.01	0.29	0.08	0
1	1	15.21	15.21	33.427	24.714	322.0	0.003	5.89	103.0	3.0	0.45	0.2	0.01	0.29	0.08	1
1	10	14.95	14.95	33.377	24.733	320.5	0.032	5.99	104.2	3.0	0.40	0.1	0.00	0.33	0.09	10
	20 ISL	14.89	14.89	33.378	24.747	319.5	0.064	5.99	104.0	3.0	0.40	0.1	0.01	0.38	0.13	20
1	21	14.89	14.89	33.379	24.748	319.4	0.067	5.99	104.0	3.0	0.40	0.1	0.01	0.39	0.13	21
	30 ISL	14.73	14.73	33.372	24.777	316.9	0.096	5.81	100.6	3.0	0.42	0.2	0.05	0.91	0.38	30
1	31	14.71	14.71	33.372	24.781	316.5	0.099	5.79	100.2	3.0	0.43	0.2	0.05	0.96	0.40	31
1	41	14.56	14.55	33.380	24.820	313.1	0.131	5.56	95.9	3.8	0.53	1.3	0.32	0.60	0.33	41
	50 ISL	14.31	14.30	33.398	24.887	307.0	0.159	5.32	91.3	4.9	0.64	2.9	0.20	0.38	0.26	50
1	51	14.26	14.25	33.398	24.897	306.0	0.162	5.30	90.9	5.0	0.65	3.1	0.18	0.36	0.25	51
1	61	13.37	13.36	33.337	25.033	293.3	0.192	5.20	87.5	6.1	0.78	5.6	0.09	0.21	0.22	61
1	71	12.89	12.88	33.381	25.163	281.2	0.220	4.96	82.7	7.8	0.90	7.5	0.04	0.16	0.18	71
	75 ISL	12.65	12.64	33.403	25.227	275.1	0.231	4.83	80.1	8.7	0.96	8.6	0.04	0.1.4	0.16	75
1	84	12.14	12.13	33.452	25.363	262.3	0.256	4.55	74.7	10.6	1.09	10.8	0.03	0.09	0.12	84
1	100	11.74	11.73	33.495	25.472	252.3	0.297	4.34	70.6	12.2	1.21	12.6	0.03	0.06	0.09	100
1	120	11.28	11.27	33.610	25.646	236.2	0.346	3.83	61.8	16.0	1.43	15.7	0.02	0.03	0.06	121
	125 ISL	11.10	11.08	33.639	25.701	231.1	0.357	3.72	59.8	17.1	1.49	16.7	0.02	0.02	0.06	126
1	144	10.42	10.40	33.747	25.905	211.9	0.399	3.32	52.6	21.4	1.68	20.1	0.02	0.01	0.05	145
	150 ISL	10.30	10.28	33.777	25.949	207.9	0.412	3.20	50.6	22.5	1.73	20.9	0.02	0 01	0 05	151
1	175	9.97	9.95	33.883	26.089	195.1	0.462	2.79	43.8	26.3	1.89	23.4	0.02	0.00	0.04	176
	200 ISL	9.63	9.61	33.956	26.203	184.7	0.510	2.61	40.7	29.2	1.99	25.0	0.02	0.00	0 05	201
1	205	9.57	9.55	33.969	26.223	182.9	0.519	2.59	40.3	29.7	2.01	25.2	0.02	0.00	0 05	206
1	234	9.35	9.32	34.052	26.324	173.8	0.571	2.38	36.9	32.8	2.09	26.5	0.01			235
	250 ISL	9.20	9.17	34.075	26.367	170.0	0.598	2.33	36.0	34.4	2.13	26.9	0.01			251
1	273	8.97	8.94	34.098	26.422	165.2	0.637	2.27	34.9	36.6	2.19	27.5	0.02			275
	300 ISL	8.76	8.73	34.135	26.484	159.7	0.681	2.09	32.0	39.6	2.29	28.5	0.02			302
1	329	8.53	8.50	34.166	26.544	154.4	0.726	1.88	28.6	42.9	2.39	29.8	0.02			331
1	389	7.97	7.93	34.170	26.633	146.7	0.817	1.61	24.2	49.3	2.54	32.6	0.01			391
	400 ISL	7.89	7.85	34.176	26.649	145.3	0.833	1.53	23.0	50.6	2.58	32 9				402
1	5	7.44	7.40	34.204	26.737	137.6	0.910	1.13	16.8	57.9	2.76	34.6				458
	500 ISL	6.90	6.85	34.211	26.818	130.1	0.971	0.89	13.1	66.1	2.90	36.7				503
1	525	6.60	6.55	34.216	26.862	125.9	1.003	0.75	10.9	70.7	2.97	37.9				529

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 50.8 N	117 31.9 W	29/01/92	0205 UTC	860 m	330 10 kn			1017.1 mb	15.0 C	14.5 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.97	14.97	33.318	24.706	322.8	0.000	5.87	102.1	2.7	0.43	0.1	0.00	0.25	0.09	0
1	1	14.97	14.97	33.348	24.706	322.8	0.003	5.87	102.1	2.7	0.43	0.1	0.00	0.25	0.09	1
	10 ISL	14.96	14.96	33.349	24.709	322.8	0.032	5.87	102.1	2.6	0.43	0.1	0.00	0.24	0.09	10
1	11	14.96	14.96	33.349	24.709	322.8	0.036	5.87	102.1	2.6	0.43	0.1	0.00	0.24	0.09	11
	20 ISL	14.96	14.96	33.350	24.710	322.9	0.065	5.88	102.2	2.6	0.42	0.1	0.00	0.27	0.11	20
1	21	14.96	14.96	33.350	24.710	323.0	0.068	5.88	102.2	2.6	0.42	0.1	0.00	0.27	0.11	21
	30 ISL	14.89	14.89	33.345	24.722	322.1	0.097	5.85	101.6	2.6	0.43	0.1	0.01	0.47	0.22	30
1	31	14.88	14.88	33.345	24.724	322.0	0.100	5.85	101.6	2.6	0.43	0.1	0.01	0.49	0.23	31
1	41	14.83	14.82	33.3^6	24.736	321.1	0.132	5.83	101.1	2.6	0.43	0.2	0.02	0.60	0.28	41
	50 ISL	14.81	14.80	33.386	24.771	318.0	0.161	5.79	100.4	2.7	0.45	0.2	0.05	0.56	0.25	50
1	51	14.81	14.80	33.395	24.778	317.4	0.164	5.79	100.4	2.7	0.45	0.2	0.05	0.56	0.25	51
1	60	14.50	14.49	33.479	24.909	305.2	0.192	5.27	90.8	4.4	0.64	2.8	0.12	0.43	0.31	60
1	70	13.79	13.78	33.488	25.065	290.6	0.222	4.94	83.9	6.3	0.82	5.7	0.07	0.33	0.28	70
	75 ISL	13.38	13.37	33.501	25.159	281.8	0.236	4.74	79.9	7.5	0.93	7.4	0.05	0.25	0.23	75
1	84	12.71	12.70	33.526	25.311	267.4	0.261	4.45	73.9	9.5	1.09	10.2	0.03	0.12	0.14	84
1	99	12.17	12.16	33.54^0	25.426	256.8	0.300	4.41	72.5	10.8	1.18	11.9	0.03	0.07	0.11	99
	100 ISL	12.14	12.13	33.54^5	25.436	255.9	0.303	4.38	71.9	11.0	1.19	12.1	0.03	0.07	0.11	100
1	119	11.62	11.60	33.662	25.624	238.3	0.350	3.66	59.5	15.3	1.45	15.9	0.02	0.02	0.06	120
	125 ISL	11.44	11.42	33.697	25.685	232.7	0.364	3.48	56.3	16.7	1.52	17.1	0.02	0.02	0.06	126
1	144	10.86	10.84	33.794	25.865	215.9	0.407	3.07	49.1	20.7	1.71	20.3	0.01	0.01	0.05	145
	150 ISL	10.66	10.64	33.816	25.917	211.0	0.419	3.05	48.6	21.6	1.75	21.0	0.01	0.01	0.05	151
1	174	9.98	9.96	33.894	26.095	194.4	0.468	2.98	46.8	24.5	1.85	22.9	0.01	0.00	0.03	175
	200 ISL	9.65	9.63	33.979	26.217	183.3	0.517	2.84	44.3	27.2	1.94	24.5	0.01	0.00	0.03	201
1	205	9.62	9.60	33.997	26.237	181.6	0.526	2.78	43.3	27.8	1.96	24.8	0.01	0.00	0.03	206
1	234	9.51	9.48	34.139	26.366	169.9	0.577	2.07	32.2	33.4	2.21	27.5	0.01			235
	250 ISL	9.30	9.27	34.158	26.415	165.5	0.604	2.07	32.1	35.2	2.25	28.2	0.01			251
1	274	8.95	8.92	34.158	26.472	160.5	0.643	2.08	32.0	37.3	2.28	28.8	0.01			276
	300 ISL	8.73	8.70	34.176	26.521	156.2	0.684	1.93	29.5	39.7	2.36	29.7	0.01			302
1	330	8.52	8.49	34.193	26.567	152.3	0.731	1.70	25.9	42.8	2.46	30.7	0.01			332
1	390	7.89	7.85	34.192	26.662	144.0	0.819	1.36	20.4	50.5	2.65	33.0	0.01			392
	400 ISL	7.82	7.78	34.199	26.677	142.6	0.834	1.29	19.3	51.6	2.68	33.4				402
1	456	7.40	7.36	34.235	26.767	134.7	0.911	0.94	13.9	58.1	2.85	35.5				459
	500 ISL	6.86	6.81	34.226	26.835	128.4	0.969	0.80	11.7	65.1	2.95	37.4				503
1	525	6.55	6.50	34.223	26.874	124.7	1.001	0.72	10.5	69.1	3.01	38.5				529

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 40.8 N	117 52.6 W	29/01/92	0621 UTC	530 m	280 10 kn			1017.1 mb	15.1 C	14.6 C		

CAST	DEPTH D	TEMP DEG C	POT TEMP DEG C	SALINIrY PSS 7B	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.04	15.04	33.359	24.699	323.4	0.000	5.85	101.9	2.8	0.46	0.0	0.00	0.20	0.07	0
1	1	15.04	15.04	33.35»	24.699	323.4	0.003	5.85	101.9	2.8	0.46	0.0	0.00	0.20	0.07	1
1	10	15.06	15.06	33.353	24.694	324.2	0.032	5.84	101.8	2.6	0.44	0.0	0.00	0.20	0.08	10
	20 ISL	15.00	15.00	33.355	24.705	323.4	0.065	5.84	101.6	2.6	0.46	0.0	0.01	0.20	0.09	20
1	21	14.99	14.99	33.355	24.708	323.2	0.068	5.84	101.6	2.6	0.46	0.0	0.01	0.20	0.09	21
1	30	14.97	14.97	33.34*i*	24.708	323.5	0.097	5.85	101.7	2.4	0.44	0.0	0.00	0.31	0.13	30
1	40	14.94	14.93	33.347	24.713	323.3	0.129	5.86	101.8	2.3	0.44	0.0	0.01	0.43	0.16	40
1	49	14.90	14.89	33.347	24.722	322.7	0.159	5.82	101.1	2.3	0.43	0.0	0.01	0.37	0.19	49
	50 ISL	14.90	14.89	33.347	24.722	322.7	0.162	5.82	101.1	2.3	0.43	0.0	0.01	0.37	0.19	50
1	60	14.89	14.88	33.347	24.724	322.8	0.194	5.81	100.9	2.0	0.44	0.0	0.01	0.38	0.20	60
1	69	14.50	14.49	33.370	24.826	313.4	0.223	5.57	96.0	2.7	0.55	1.4	0.12	0.32	0.23	69
	75 ISL	13.97	13.96	33.340	24.914	305.1	0.241	5.48	93.4	3.2	0.63	2.7	0.10	0.28	0.23	75
1	83	13.22	13.21	33.297	25.033	293.9	0.265	5.40	90.6	4.0	0.73	4.5	0.04	0.22	0.22	83
1	97	12.48	12.47	33.303	25.183	279.8	0.305	5.26	86.9	5.2	0.82	6.2	0.03	0.16	0.20	97
	100 ISL	12.25	12.24	33.31:!	25.234	275.0	0.314	5.18	85.1	5.8	0.87	7.1	0.03	0.14	0.18	100
1	117	11.02	11.01	33.40!!	25.531	247.0	0.358	4.63	74.1	10.1	1.20	12.6	0.01	0.06	0.09	118
	125 ISL	10.77	10.76	33.45'>	25.618	238.9	0.377	4.39	69.9	11.8	1.30	14.2	0.01	0.04	0.07	126
1	143	10.48	10.46	33.59].	25.773	224.5	0.419	3.88	61.5	15.7	1.50	17.2	0.01	0.02	0.05	144
	150 ISL	10.32	10.30	33.650	25.847	217.6	0.435	3.67	58.0	17.5	1.59	18.5	0.01	0.01	0.04	151
1	173	9.86	9.84	33.831	26.066	197.1	0.482	3.07	48.1	23.1	1.84	22.4	0.01	0.00	0.03	174
	200 ISL	9.54	9.52	33.979	26.235	181.6	0.533	2.67	41.5	27.5	2.00	24.9	0.01	0.00	0.03	201
1	203	9.51	9.49	33.991	26.250	180.3	0.539	2.64	41.0	27.9	2.01	25.1	0.01	0.00	0.03	204
1	232	9.13	9.10	34.078	26.380	168.4	0.589	2.41	37.2	32.6	2.14	26.9	0.01			233
	250 ISL	8.89	8.86	34.104^	26.438	163.1	0.619	2.28	35.0	35.2	2.22	27.9	0.01			251
1	271	8.60	8.57	34.120	26.497	157.8	0.653	2.15	32.8	38.1	2.30	28.9	0.01			273
	300 ISL	8.21	8.18	34.128	26.563	151.9	0.698	2.01	30.4	41.9	2.39	30.3	0.01			302
1	328	7.86	7.83	34.134	26.620	146.8	0.740	1.84	27.6	45.8	2.48	31.6	0.01			330
1	387	7.34	7.30	34.196	26.744	135.7	0.823	1.15	17.0	55.9	2.81	35.0	0.01			389
	400 ISL	7.23	7.19	34.205	26.766	133.6	0.840	1.04	15.4	57.9	2.86	35.6				402
1	452	6.77	6.73	34.235	26.857	125.5	0.908	0.70	10.2	66.0	3.02	37.6				455
	500 ISL	6.35	6.30	34.281	26.946	117.4	0.966	0.45	6.5	74.0	3.14	39.3				503
1	520	6.18	6.13	34.299	26.982	114.1	0.989	0.35	5.0	77.3	3.19	40.0				523

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 40

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 30.8 N	118 12.8 W	29/01/92	1030 UTC	1626 m	310 08 kn			1017.0 mb	15.0 C	14.8 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY' PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHABIO ug/1	PRESS db
	0 ISL	15.13	15.13	33.402	24.713	322.1	0.000	5.84	101.9	2.7	0.44	0.0	0.00	0.25	0.08	0
1	1	15.13	15.13	33.402	24.713	322.1	0.003	5.84	101.9	2.7	0.44	0.0	0.00	0.25	0.08	1
	10 ISL	15.11	15.11	33.401	24.717	322.0	0.032	5.85	102.1	2.5	0.43	0.0	0.00	0.26	0.08	10
1	11	15.11	15.11	33.401	24.717	322.1	0.035	5.85	102.1	2.5	0.43	0.0	0.00	0.26	0.08	11
	20 ISL	15.08	15.08	33.400	24.723	321.8	0.064	5.84	101.8	2.5	0.42	0.0	0.01	0.26	0.09	20
1	21	15.08	15.08	33.400	24.723	321.8	0.068	5.84	101.8	2.5	0.42	0.0	0.01	0.26	0.09	21
	30 ISL	15.08	15.08	33.398	24.722	322.2	0.097	5.84	101.8	2.5	0.42	0.0	0.00	0.28	0.09	30
1	31	15.08	15.08	33.398	24.722	322.2	0.100	5.84	101.8	2.5	0.42	0.0	0.00	0.29	0.09	31
1	41	15.02	15.01	33.394	24.732	321.5	0.132	5.83	101.5	2.6	0.43	0.0	0.01	0.41	0.16	41
1	50	14.70	14.69	33.378	24.789	316.4	0.161	5.73	99.1	2.8	0.49	0.4	0.05	0.85	0.42	50
1	60	14.41	14.40	33.366	24.841	311.6	0.192	5.58	95.9	3.4	0.57	1.6	0.10	0.76	0.47	60
1	71	13.20	13.19	33.351	25.078	289.2	0.225	5.07	85.0	5.7	0.85	6.1	0.06	0.38	0.37	71
	75 ISL	12.87	12.86	33.356	25.148	282.7	0.237	4.95	82.4	6.6	0.92	7.3	0.05	0.30	0.32	75
1	85	12.28	12.27	33.380	25.281	270.2	0.264	4.74	78.0	8.5	1.05	9.5	0.03	0.17	0.19	85
1	99	11.90	11.89	33.420	25.384	260.7	0.301	4.54	74.1	9.9	1.14	11.2	0.03	0.09	0.13	99
	100 ISL	11.86	11.85	33.424	25.394	259.7	0.304	4.52	73.7	10.0	1.15	11.4	0.03	0.09	0.13	100
1	120	11.08	11.07	33.526	25.617	238.9	0.354	4.09	65.6	13.2	1.35	14.8	0.01	0.03	0.07	121
	125 ISL	10.90	10.88	33.554	25.670	233.9	0.366	3.98	63.6	14.2	1.40	15.7	0.01	0.02	0.06	126
1	145	10.29	10.27	33.681	25.876	214.7	0.411	3.50	55.3	18.7	1.63	19.4	0.01	0.01	0.04	146
	150 ISL	10.19	10.17	33.722	25.925	210.1	0.421	3.35	52.8	20.0	1.69	20.4	0.01	0.01	0.04	151
1	175	9.84	9.82	33.910	26.131	191.0	0.471	2.71	42.4	26.0	1.96	24.2	0.01	0.00	0.03	176
	200 ISL	9.55	9.53	33.995	26.246	180.5	0.518	2.59	40.3	28.6	2.03	25.3	0.01	0.00	0.03	201
1	205	9.49	9.47	34.005	26.264	178.9	0.527	2.56	39.8	29.0	2.03	25.4	0.01	0.00	0.03	206
1	233	9.00	8.97	34.063	26.389	167.5	0.575	2.44	37.5	33.1	2.11	27.2	0.01			234
	250 ISL	8.67	8.64	34.072	26.448	162.1	0.603	2.39	36.5	35.6	2.16	28.2	0.01			251
1	274	8.24	8.21	34.075	26.516	155.8	0.641	2.30	34.8	39.1	2.23	29.4	0.01			276
	300 ISL	7.93	7.90	34.090	26.574	150.6	0.681	2.10	31.5	43.1	2.35	30.6	0.01			302
1	329	7.67	7.64	34.112	26.630	145.7	0.724	1.82	27.2	47.7	2.49	32.0	0.01			331
1	389	7.18	7.14	34.168	26.744	135.5	0.809	1.18	17.4	57.2	2.77	35.3	0.01			391
	400 ISL	7.11	7.07	34.178	26.762	134.0	0.823	1.09	16.1	58.7	2.80	35.7				402
1	455	6.80	6.76	34.224	26.841	127.1	0.895	0.71	10.4	65.6	2.95	37.6				458
	500 ISL	6.50	6.45	34.262	26.911	120.8	0.951	0.49	7.1	71.6	3.07	38.8				503
1	524	6.34	6.29	34.282	26.948	117.5	0.980	0.38	5.5	74.8	3.13	39.5				528

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 45

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 20.7 N	118 33.3 W	29/01/92	1422 UTC	1349 m	350 08 Kn			1016.3 mb	16.2 C	15.2 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY' PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.94	14.94	33.353	24.716	321.8	0.000	5.81	101.0	2.2	0.48	0.0	0.00	0.32	0.11	0
1	1	14.94	14.94	33.353	24.716	321.8	0.003	5.81	101.0	2.2	0.48	0.0	0.00	0.32	0.11	1
	10 ISL	14.96	14.96	33.352	24.711	322.5	0.032	5.83	101.4	1.9	0.46	0.0	0.00	0.33	0.11	10
1	11	14.96	14.96	33.352	24.712	322.5	0.035	5.83	101.4	1.9	0.46	0.0	0.00	0.33	0.11	11
1	20	14.92	14.92	33.348	24.717	322.3	0.064	5.84	101.5	1.9	0.45	0.0	0.00	0.45	0.16	;,10
1	29	14.89	14.89	33.347	24.723	322.0	0.093	5.83	101.2	1.7	0.50	0.0	0.01	0.54	0.21	L!9
	30 ISL	14.89	14.89	33.347	24.723	322.0	0.097	5.83	101.2	1.7	0.50	0.0	0.01	0.54	0.21	10
1	39	14.87	14.86	33.345	24.726	322.0	0.126	5.82	101.0	1.7	0.46	0.0	0.01	0.56	0.24	39
1	48	14.72	14.71	33.342	24.757	319.4	0.155	5.77	99.8	1.8	0.50	0.3	0.03	0.50	0.25	48
	50 ISL	14.68	14.67	33.341	24.764	318.7	0.161	5.76	99.6	1.9	0.50	0.4	0.03	0.48	0.25	50
1	59	14.52	14.51	33.335	24.794	316.1	0.189	5.73	98.7	2.1	0.50	0.7	0.05	0.40	0.23	59
1	69	13.60	13.59	33.327	24.979	298.7	0.220	5.43	91.8	3.6	0.67	3.7	0.07	0.28	0.24	69
	75 ISL	13.20	13.19	33.321	25.055	291.6	0.238	5.33	89.4	4.2	0.75	4.9	0.06	0.25	0.23	75
1	82	12.78	12.77	33.326	25.142	283.4	0.258	5.19	86.3	5.2	0.84	6.3	0.05	0.22	0.21	82
1	97	11.75	11.74	33.426	25.416	257.6	0.299	4.55	74.0	9.4	1.15	11.4	0.02	0.09	0.12	97
	100 ISL	11.61	11.60	33.439	25.452	254.2	0.306	4.48	72.7	10.0	1.19	12.0	0.02	0.08	0.11	100
1	116	11.03	11.02	33.504	25.608	239.6	0.346	4.19	67.2	13.0	1.36	14.6	0.02	0.03	0.07	117
	125 ISL	10.76	10.74	33.560	25.700	231.1	0.367	3.96	63.1	15.0	1.47	16.3	0.02	0.02	0.06	1.26
1	142	10.36	10.34	33.682	25.865	215.7	0.405	3.48	55.0	18.9	1.67	19.3	0.01	0.01	0.05	.43
	150 ISL	10.22	10.20	33.745	25.938	208.9	0.422	3.25	51.3	20.8	1.76	20.6	0.01	0.01	0.05	151
1	172	9.89	9.87	33.903	26.118	192.3	0.466	2.72	42.6	25.5	1.97	23.7	0.01	0.00	0.04	173
	200 ISL	9.50	9.48	34.027	26.280	177.4	0.518	2.46	38.2	29.6	2.10	25.7	0.01	0.00	0.03	201
1	202	9.47	9.45	34.033	26.289	176.5	0.521	2.45	38.1	29.8	2.10	25.8	0.01	0.00	0.03	203
1	231	8.95	8.93	34.052	26.388	167.5	0.571	2.49	38.2	33.0	2.14	26.9	0.01			232
	250 ISL	8.65	8.62	34.085	26.461	160.8	0.602	2.30	35.1	36.5	2.25	28.3	0.01			251
1	272	8.34	8.31	34.124	26.539	153.6	0.637	2.01	30.5	41.0	2.39	30.0	0.01			274
	300 ISL	8.00	7.97	34.145	26.607	147.5	0.679	1.74	26.2	45.5	2.52	31.6	0.01			302
1	328	7.70	7.67	34.158	26.661	142.7	0.720	1.49	22.3	49.7	2.63	32.9	0.01			330
1	387	7.21	7.17	34.204	26.768	133.3	0.801	0.99	14.6	58.5	2.87	35.5	0.00			389
	400 ISL	7.12	7.08	34.209	26.785	131.8	0.81.8	0.92	13.6	59.9	2.90	35.9	0.00			402
1	451	6.78	6.74	34.223	26.843	126.8	0.884	0.71	10.4	65.4	3.00	37.4				454
	500 ISL	6.36	6.31	34.242	26.914	120.4	0.945	0.53	7.7	72.4	3.11	38.8	0.00			503
1	517	6.21	6.16	34.249	26.939	118.1	0.965	0.47	6.8	74.8	3.15	39.3	0.00			520

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 10.8 N	118 53.6 W	29/01/92	1950 UTC	1443 m	340 09 kn	310 04 05	1	1019.0 Bib	16.6 C	15.6 C	28m 03	1/8	ST

CAST	DEPTH ID	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.03	15.03	33.315	24.667	326.4	0.000	5.86	102.0	2.7	0.47	0.1	0.00	0.32	0.12	0
1	1	15.03	15.03	33.315	24.667	326.4	0.003	5.86	102.0	2.7	0.47	0.1	0.00	0.32	0.12	1
1	10	14.72	14.72	33.312	24.732	320.6	0.032	5.92	102.4	2.3	0.45	0.1	0.00	0.36	0.13	10
	20 ISL	14.68	14.68	33.311	24.740	320.1	0.064	5.89	101.8	2.2	0.45	0.1	0.00	0.36	0.15	20
1	21	14.68	14.68	33.311	24.740	320.1	0.068	5.89	101.8	2.2	0.45	0.1	0.00	0.36	0.15	21
1	30	14.67	14.67	33,310	24.742	320.2	0.096	5.90	102.0	2.1	0.45	0.1	0.00	0.36	0.14	30
1	41	14.61	14.60	33.300	24.747	320.0	0.132	5.87	101.3	2.1	0.46	0.1	0.01	0.44	0.20	41
	50 ISL	14.41	14.40	33.280	24.775	317.7	0.160	5.85	100.5	2.2	0.49	0.0	0.04	0.42	0.22	50
1	51	14.38	14.37	33.278	24.779	317.2	0.164	5.85	100.5	2.2	0.49	0.0	0.05	0.42	0.22	51
1	61	14.01	14.00	33.278	24.857	310.1	0.195	5.69	97.0	2.7	0.56	1.4	0.18	0.39	0.28	61
1	70	13.03	13.02	33.300	25.073	289.7	0.222	5.29	88.4	5.0	0.79	5.6	0.06	0.20	0.23	70
	75 ISL	12.51	12.50	33.311	25.183	279.3	0.236	5.17	85.4	6.0	0.87	7.1	0.05	0.15	0.19	75
1	85	11.62	11.61	33.339	25.372	261.4	0.263	5.02	81.4	7.8	1.00	9.4	0.03	0.10	0.12	85
1	99	10.90	10.89	33.391	25.543	245.4	0.299	4.74	75.7	10.3	1.17	12.3	0.03	0.06	0.08	99
	100 ISL	10.87	10.86	33.391	25.548	244.9	0.301	4.73	75.5	10.3	1.17	12.3	0.03	0.06	0.08	100
1	120	10.49	10.48	33.426	25.642	236.3	0.349	4.62	73.2	11.7	1.26	13.5	0.02	0.04	0.06	121
	125 ISL	10.35	10.34	33.477	25.706	230.3	0.361	4.40	69.5	13.4	1.35	14.9	0.02	0.03	0.05	126
1	143	9.83	9.81	33.699	25.968	205.8	0.400	3.51	54.9	20.5	1.71	20.5	0.01	0.01	0.03	144
	150 ISL	9.70	9.68	33.775	26.049	198.2	0.414	3.26	50.8	22.7	1.81	21.9	0.01	0.01	0.03	151
1	174	9.33	9.31	33.968	26.260	178.6	0.459	2.74	42.4	28.4	2.02	25.2	0.01	0.00	0.02	175
	200 ISL	8.89	8.87	34.005	26.360	169.5	0.505	2.77	42.5	31.6	2.08	26.5	0.01	0.00	0.03	201
1	204	8.83	8.81	34.004	26.369	168.7	0.511	2.77	42.4	32.0	2.08	26.6	0.01	0.00	0.03	205
1	233	8.43	8.41	34.047	26.465	160.0	0.559	2.62	39.8	35.9	2.17	27.8	0.01			234
	250 ISL	8.19	8.16	34.069	26.518	155.1	0.586	2.43	36.7	39.2	2.26	28.9	0.01			251
1	273	7.88	7.85	34.093	26.583	149.2	0.621	2.14	32.1	43.9	2.40	30.5	0.01			275
	300 ISL	7.57	7.54	34.107	26.640	144.2	0.661	1.88	28.0	48.4	2.53	32.1	0.01			302
1	328	7.30	7.27	34.120	26.688	139.8	0.700	1.62	24.0	52.6	2.65	33.7	0.01			330
1	388	6.94	6.90	34.188	26.792	130.7	0.781	0.97	14.2	61.6	2.91	36.5	0.01			390
	400 ISL	6.86	6.82	34.201	26.814	128.8	0.797	0.87	12.7	63.4	2.95	37.0				403
1	452	6.53	6.49	34.248	26.896	121.6	0.862	0.54	7.9	70.5	3.11	38.7				455
	500 ISL	6.29	6.24	34.272	26.946	117.3	0.919	0.42	6.1	75.2	3.18	39.6				503
1	522	6.18	6.13	34.283	26.969	115.3	0.945	0.36	5.2	77.3	3.21	40.0				526

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 8.0 N	119 14.0 W	30/01/92	0006 UTC	1448 m	330 10 kn	280 08 07	1	1017.0 mb	15.9 C	15.0 C	21m 02	1/8	ST

CAST	DEPTH n	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.08	15.08	33.352	24.685	324.7	0.000	5.85	102.0	2.2	0.40	0.0	0.01	0.31	0.11	0
1	1	15.08	15.08	33.352	24.685	324.8	0.003	5.85	102.0	2.2	0.40	0.0	0.01	0.31	0.11	1
	10 ISL	14.97	14.97	33.349	24.707	323.0	0.032	5.86	101.9	2.2	0.40	0.0	0.01	0.32	0.14	10
1	16	14.88	14.88	33.347	24.725	321.4	0.052	5.87	101.9	2.2	0.40	0.0	0.01	0.34	0.16	16
	20 ISL	14.87	14.87	33.346	24.726	321.4	0.065	5.86	101.7	2.2	0.40	0.0	0.01	0.35	0.17	20
	30 ISL	14.83	14.83	33.344	24.734	321.0	0.097	5.84	101.3	2.3	0.40	0.0	0.01	0.40	0.18	30
1	31	14.83	14.83	33.344	24.734	321.0	0.100	5.84	101.3	2.3	0.40	0.0	0.01	0.40	0.18	31
1	40	14.83	14.82	33.343	24.734	321.3	0.129	5.83	101.1	2.3	0.40	0.1	0.01	0.45	0.18	40
1	50	14.82	14.81	33.341	24.734	321.5	0.161	5.82	100.9	2.3	0.40	0.1	0.01	0.43	0.18	50
1	61	14.43	14.42	33.331	24.810	314.6	0.196	5.70	98.0	2.5	0.46	0.7	0.11	0.35	0.22	61
1	71	13.30	13.29	33.343	25.052	291.7	0.226	5.23	87.9	5.2	0.73	5.1	0.08	0.25	0.24	71
	75 ISL	13.06	13.05	33.340	25.098	287.5	0.238	5.18	86.6	5.6	0.77	5.8	0.07	0.23	0.24	75
1	80	12.82	12.81	33.338	25.144	283.2	0.252	5.15	85.7	6.0	0.80	6.5	0.05	0.20	0.25	80
1	95	11.78	11.77	33.400	25.390	260.0	0.293	4.73	77.0	9.5	1.06	10.7	0.03	0.10	0.12	95
	100 ISL	11.49	11.48	33.422	25.461	253.3	0.306	4.60	74.4	10.5	1.13	11.9	0.03	0.08	0.10	100
1	110	10.95	10.94	33.474	25.599	240.3	0.330	4.35	69.6	12.7	1.26	14.3	0.02	0.04	0.07	111
1	125	10.20	10.19	33.582	25.814	220.1	0.365	3.93	61.9	17.1	1.47	18.0	0.01	0.01	0.04	126
1	150	9.72	9.70	33.770	26.042	198.9	0.417	3.36	52.4	22.6	1.73	21.8	0.01	0.00	0.03	151
1	176	9.11	9.09	33.915	26.254	179.1	0.466	3.04	46.8	27.9	1.88	24.7	0.01	0.00	0.03	177
	200 ISL	8.70	8.68	33.980	26.370	168.4	0.508	2.99	45.7	31.3	1.95	25.9	0.01	0.00	0.02	201
1	206	8.62	8.60	33.990	26.391	166.6	0.518	2.99	45.6	32.0	1.96	26.1	0.01	0.00	0.02	207
1	235	8.27	8.25	34.033	26.478	158.7	0.565	2.74	41.4	36.3	2.08	27.9	0.01			236
	250 ISL	8.11	8.08	34.057	26.521	154.8	0.589	2.53	38.1	39.1	2.17	29.0	0.01			251
1	275	7.85	7.82	34.091	26.586	148.9	0.627	2.17	32.5	43.7	2.33	30.9	0.01			277
	300 ISL	7.61	7.58	34.107	26.634	144.7	0.664	1.94	28.9	47.4	2.44	32.2	0.01			302
1	331	7.33	7.30	34.121	26.685	140.2	0.708	1.69	25.0	51.7	2.55	33.6	0.01			333
1	391	6.87	6.83	34.177	26.793	130.6	0.789	1.06	15.5	61.2	2.81	36.5	0.01			393
	400 ISL	6.80	6.76	34.179	26.805	129.6	0.801	1.01	14.8	62.3	2.84	36.8				403
1	457	6.38	6.34	34.194	26.873	123.6	0.873	0.77	11.2	69.0	2.97	38.7				460
	500 ISL	6.07	6.03	34.229	26.940	117.5	0.925	0.56	8.1	75.2	3.07	40.2				503
1	527	5.87	5.82	34.251	26.983	113.7	0.956	0.43	6.2	79.1	3.14	41.1				531

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
31 50.8 N	119 34.3 W	30/01/92	0436 UTC	1775 m	330 10 kn			1019.5 mb	15.0 C	14.3 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
1	0	14.35	14.35	33.101	24.648	328.3	0.000	5.96	102.2	2.0	0.41	0.0	0.00	0.24	0.08	0
	10 ISL	14.32	14.32	33.108	24.660	327.5	0.033	5.96	102.1	2.0	0.40	0.0	0.00	0.23	0.09	10
1	16	14.30	14.30	33.112	24.667	326.9	0.052	5.96	102.1	2.0	0.40	0.0	0.00	0.23	0.09	16
	20 ISL	14.29	14.29	33.113	24.670	326.8	0.065	5.95	101.9	2.0	0.40	0.0	0.00	0.24	0.09	20
	30 ISL	14.28	14.28	33.114	24.673	326.7	0.098	5.94	101.7	2.0	0.40	0.0	0.00	0.26	0.10	30
1	31	14.28	14.28	33.114	24.673	326.8	0.101	5.94	101.7	2.0	0.40	0.0	0.00	0.26	0.10	31
1	41	14.26	14.25	33.113	24.677	326.7	0.134	5.95	101.8	2.0	0.40	0.0	0.00	0.29	0.11	41
1	50	14.17	14.16	33.097	24.684	326.3	0.163	5.96	101.8	2.1	0.40	0.0	0.00	0.37	0.16	50
1	61	13.56	13.55	33.061	24.781	317.2	0.199	5.85	98.7	2.4	0.49	0.8	0.17	0.40	0.25	61
1	69	13.62	13.61	33.290	24.947	301.8	0.224	5.80	98.1	2.8	0.53	1.7	0.17	0.20	0.14	69
	75 ISL	13.18	13.17	33.265	25.016	295.3	0.242	5.70	95.5	3.6	0.62	3.3	0.09	0.12	0.12	75
1	80	12.67	12.66	33.200	25.066	290.6	0.256	5.60	92.8	4.4	0.70	4.8	0.02	0.09	0.11	80
1	95	11.25	11.24	33.181	25.317	266.8	0.298	5.30	85.2	7.0	0.90	8.5	0.01	0.06	0.08	95
	100 ISL	10.91	10.90	33.188	25.383	260.6	0.311	5.21	83.1	8.0	0.99	9.8	0.01	0.05	0.07	100
1	109	10.38	10.37	33.213	25.495	250.1	0.334	5.04	79.5	10.1	1.14	12.2	0.01	0.04	0.05	109
1	125	9.54	9.53	33.287	25.693	231.4	0.373	4.73	73.3	14.4	1.35	16.0	0.01	0.02	0.04	126
1	150	8.94	8.92	33.434	25.904	211.7	0.428	4.47	68.4	17.7	1.48	18.5	0.01	0.01	0.03	151
1	175	8.82	8.80	33.743	26.165	187.4	0.478	3.90	59.6	23.0	1.64	21.6	0.01	0.01	0.02	176
	200 ISL	8.62	8.60	33.910	26.328	172.4	0.523	3.24	49.4	29.1	1.87	25.0	0.01	0.00	0.02	201
1	205	8.57	8.55	33.930	26.351	170.3	0.531	3.13	47.6	30.3	1.91	25.6	0.01	0.00	0.02	206
1	233	8.24	8.22	33.989	26.448	161.5	0.578	2.95	44.6	34.5	2.01	27.2	0.01			234
	250 ISL	8.04	8.01	34.012	26.496	157.1	0.605	2.80	42.1	37.2	2.09	28.2	0.01			251
1	274	7.75	7.72	34.037	26.558	151.5	0.642	2.56	38.3	41.4	2.21	29.8	0.00			276
	300 ISL	7.43	7.40	34.061	26.624	145.6	0.681	2.24	33.2	46.5	2.36	31.6	0.00			302
1	327	7.13	7.10	34.082	26.682	140.3	0.719	1.90	28.0	51.8	2.52	33.5	0.00			329
1	389	6.61	6.57	34.111	26.776	132.0	0.804	1.30	18.9	62.6	2.78	37.1	0.00			391
	400 ISL	6.50	6.46	34.118	26,796	130.1	0.818	1.20	17.4	64.5	2.82	37.6	0.00			402
1	455	5.98	5.94	34.160	26.896	120.9	0.887	0.79	11.3	73.1	3.01	39.9				45(1
	500 ISL	5.75	5.71	34.203	26.959	115.3	0.940	0.57	8.1	78.8	3.12	41.0	0.00			502
1	525	5.62	5.58	34.228	26.995	112.1	0.969	0.45	6.4	82.0	3.18	41.6	0.00			529

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
31 30.8 N	120 14.8 W	30/01/92	1042 UTC	3931 n	330 12 kn			1019.8 rob	14.8 C	14.2 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS dl:>
	0 ISL	14.74	14.74	33.217	24.654	327.7	0.000	5.87	101.5	2.1	0.41	0.0	0.00	0.24	0.08	0
1	1	14.74	14.74	33.217	24.654	327.7	0.003	5.87	101.5	2.1	0.41	0.0	0.00	0.24	0.08	1
	10 ISL	14.74	14.74	33.217	24.655	327.9	0.033	5.87	101.5	2.1	0.41	0.0	0.00	0.24	0.08	10
1	16	14.74	14.74	33.217	24.655	328.1	0.052	5.86	101.4	2.1	0.41	0.0	0.00	0.24	0.08	16
	20 ISL	14.74	14.74	33.217	24.655	328.2	0.066	5.86	101.4	2.1	0.41	0.0	0.00	0.24	0.08	20
	30 ISL	14.72	14.72	33.216	24.659	328.1	0.098	5.85	101.1	2.0	0.40	0.0	0.00	0.24	0.08	30
1	31	14.72	14.72	33.216	24.659	328.2	0.102	5.85	101.1	2.0	0.40	0.0	0.00	0.24	0.08	31
1	40	14.71	14.70	33.211	24.657	328.6	0.131	5.85	101.1	2.1	0.40	0.0	0.00	0.25	0.09	40
1	49	14.65	14.64	33.196	24.659	328.7	0.161	5.87	101.3	2.1	0.40	0.0	0.01	0.27	0.11	49
	50 ISL	14.64	14.63	33.196	24.661	328.5	0.164	5.87	101.3	2.1	0.40	0.0	0.01	0.27	0.11	50
1	59	14.55	14.54	33.197	24.681	326.8	0.194	5.84	100.6	1.8	0.41	0.1	0.03	0.28	0.13	59
1	70	13.72	13.71	33.150	24.818	314.0	0.229	5.69	96.3	2.7	0.54	2.0	0.08	0.17	0.13	70
	75 ISL	13.31	13.30	33.145	24.897	306.6	0.244	5.66	95.0	3.2	0.58	2.8	0.06	0.13	0.14	75
1	79	13.00	12.99	33.151	24.963	300.3	0.256	5.64	94.1	3.6	0.62	3.4	0.04	0.11	0.14	79
1	94	12.26	12.25	33.267	25.197	278.4	0.300	5.37	88.2	5.4	0.79	6.2	0.03	0.10	0.12	94
	100 ISL	11.47	11.46	33.237	25.321	266.6	0.316	5.26	85.0	7.2	0.91	8.4	0.03	0.07	0.09	100
1	107	10.56	10.55	33.205	25.458	253.6	0.334	5.13	81.2	9.4	1.06	11.1	0.02	0.04	0.05	107
1	123	9.89	9.88	33.286	25.635	237.0	0.374	4.76	74.3	13.0	1.29	14.9	0.01	0.02	0.04	124
	125 ISL	9.82	9.81	33.301	25.658	234.8	0.378	4.71	73.4	13.5	1.32	15.4	0.01	0.02	0.04	126
1	148	9.13	9.11	33.482	25.912	211.0	0.430	4.22	64.9	18.6	1.55	19.5	0.01	0.01	0.03	149
	150 ISL	9.08	9.06	33.495	25.930	209.3	0.434	4.21	64.6	18.9	1.56	19.7	0.01	0.01	0.03	151
1	173	8.64	8.62	33.647	26.118	191.7	0.480	4.10	62.4	22.0	1.61	21.0	0.01	0.00	0.02	174
	200 ISL	8.49	8.47	33.845	26.297	175.3	0.530	3.75	56.9	26.5	1.71	23.0	0.01	0.00	0.02	201
1	203	8.48	8.46	33.865	26.314	173.7	0.535	3.70	56.2	27.0	1.73	23.3	0.01	0.00	0.02	204
1	231	8.24	8.22	33.978	26.439	162.3	0.582	3.23	48.8	32.6	1.92	26.0	0.00			232
	250 ISL	7.96	7.93	34.010	26.506	156.1	0.612	2.94	44.1	36.8	2.05	27.8	0.00			251
1	271	7.63	7.60	34.028	26.569	150.4	0.644	2.63	39.2	41.5	2.19	29.7	0.00			272
	300 ISL	7.33	7.30	34.056	26.634	144.6	0.687	2.20	32.6	47.1	2.37	31.9	0.00			302
1	326	7.11	7.08	34.079	26.683	140.2	0.724	1.83	27.0	51.9	2.52	33.7	0.00			328
1	385	6.63	6.59	34.149	26.803	129.3	0.804	1.05	15.3	63.3	2.83	37.1	0.00			387
	400 ISL	6.49	6.45	34.154	26.826	127.3	0.823	0.96	13.9	65.6	2.88	37.7	0.00			402
1	451	6.03	5.99	34.167	26.896	121.0	0.886	0.78	11.2	72.5	3.00	39.3				454
	500 ISL	5.72	5.68	34.205	26.965	114.8	0.944	0.56	8.0	79.0	3.09	40.8	0.00			503
1	521	5.59	5.55	34.222	26.994	112.2	0.968	0.47	6.7	81.8	3.13	41.4	0.00			524

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
31 10.8 N	120 55.2 W	30/01/92	1629 UTC	3819 ID	030 06 Jen	340 07 07	1	1020.9 mb	15.6 C	14.6 C	25m 02	3/8 ST

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.73	14.73	33.203	24.646	328.5	0.000	5.86	101.3	1.7	0.41		0.01	0.25	0.09	0
1	1	14.73	14.73	33.203	24.646	328.5	0.003	5.86	101.3	1.7	0.41		0.01	0.25	0.09	1
	10 ISL	14.73	14.73	33.204	24.647	328.7	0.033	5.86	101.3	1.7	0.41		0.01	0.26	0.10	10
1	16	14.72	14.72	33.204	24.649	328.6	0.053	5.85	101.1	1.7	0.41		0.01	0.26	0.10	16
	20 ISL	14.71	14.71	33.204	24.651	328.5	0.066	5.85	101.1	1.7	0.41		0.01	0.26	0.10	20
1	30	14.70	14.70	33.203	24.653	328.7	0.099	5.84	100.9	1.7	0.41		0.01	0.25	0.10	30
1	41	14.71	14.70	33.203	24.651	329.2	0.135	5.84	100.9	1.7	0.41		0.01	0.27	0.08	41
1	50	14.71	14.70	33.203	24.651	329.4	0.164	5.85	101.1	1.9	0.41		0.01	0.25	0.10	50
1	60	14.69	1.4.68	33.203	24.656	329.3	0.197	5.85	101.1	1.9	0.40		0.01	0.25	0.09	60
1	70	14.71	14.70	33.203	24.652	330.0	0.230	5.85	101.1	2.0	0.40		0.01	0.25	0.09	70
	75 ISL	14.70	14.69	33.203	24.654	329.9	0.247	5.84	100.9	1.9	0.40		0.02	0.26	0.10	75
1	79	14.70	14.69	33.203	24.655	330.0	0.260	5.83	100.7	1.9	0.40		0.02	0.26	0.11	79
1	94	14.21	14.20	33.326	24.854	311.4	0.308	5.61	96.0	2.5	0.50		0.19	0.13	0.12	94
	100 ISL	13.50	13.49	33.267	24.954	301.9	0.327	5.55	93.6	3.2	0.59		0.13	0.11	0.11	100
1	109	12.46	12.45	33.198	25.106	287.5	0.353	5.45	89.9	4.5	0.72		0.02	0.09	0.09	109
1	124	12.14	12.12	33.390	25.316	267.8	0.395	5.20	85.3	6.2	0.82		0.02	0.06	0.07	125
	125 ISL	12.07	12.05	33.393	25.331	266.4	0.397	5.18	84.8	6.4	0.83		0.02	0.06	0.07	126
1	149	10.33	10.31	33.394	25.646	236.6	0.458	4.81	75.9	11.2	1.19		0.01	0.03	0.04	150
	150 ISL	10.28	10.26	33.396	25.656	235.7	0.460	4.80	75.6	11.4	1.20		0.01	0.03	0.04	151
1	173	9.40	9.38	33.500	25.883	214.3	0.512	4.43	68.5	16.5	1.41		0.01	0.01	0.03	174
	200 ISL	9.03	9.01	33.806	26.182	186.4	0.566	3.80	58.4	21.6	1.62		0.01	0.00	0.02	201
1	203	9.01	8.99	33.840	26.212	183.6	0.571	3.73	57.3	22.2	1.64		0.01	0.00	0.02	204
1	231	8.61	8.59	33.958	26.367	169.3	0.621	3.46	52.7	28.5	1.78		0.01			232
	250 ISL	8.27	8.24	33.994	26.448	161.8	0.652	3.28	49.6	32.4	1.89		0.01			251
1	273	7.86	7.83	34.014	26.524	154.8	0.689	3.06	45.8	36.9	2.01		0.00			274
	300 ISL	7.49	7.46	34.028	26.589	148.9	0.730	2.76	41.0	41.9	2.12		0.00			302
1	328	7.17	7.14	34.036	26.640	144.3	0.771	2.42	35.7	46.9	2.24		0.00			330
1	388	6.57	6.53	34.072	26.751	134.3	0.854	1.67	24.3	58.2	2.59		0.00			390
	400 ISL	6.45	6.41	34.081	26.774	132.2	0.870	1.53	22.2	60.6	2.65		0.00			402
1	454	5.97	5.93	34.132	26.876	122.9	0.939	0.96	13.8	71.0	2.89		0.00			457
	500 ISL	5.71	5.67	34.190	26.954	115.8	0.994	0.64	9.1	77.8	3.03					503
1	524	5.57	5.53	34.220	26.995	112.1	1.021	0.47	6.7	81.4	3.10					527

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
30 50.8 N	121 35.4 W	30/01/92	2311 UTC	4083 m	330 06 kn	330 06 07	1	1019.5 mb	16.4 C	15.4 C	30m 02	3/8 ST

CAST	DEPTH o	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.72	14.72	33.136	24.596	333.2	0.000	5.89	101.8	2.0	0.47	0.2	0.00	0.18	0.06	0
1	1	14.72	14.72	33.136	24.596	333.2	0.003	5.89	101.8	2.0	0.47	0.2	0.00	0.18	0.06	1
	10 ISL	14.65	14.65	33.137	24.612	332.0	0.033	5.90	101.8	1.9	0.47	0.1	0.00	0.18	0.07	10
1	16	14.60	14.60	33.137	24.623	331.1	0.053	5.90	101.7	1.9	0.46	0.1	0.00	0.19	0.07	16
	20 ISL	14.60	14.60	33.137	24.623	331.2	0.066	5.90	101.7	1.9	0.46	0.1	0.00	0.19	0.07	20
	30 ISL	14.59	14.59	33.138	24.626	331.2	0.100	5.90	101.7	1.9	0.45	0.1	0.00	0.20	0.07	30
1	31	14.59	14.59	33.138	24.626	331.2	0.103	5.90	101.7	1.9	0.45	0.1	0.00	0.20	0.07	31
1	40	14.61	14.60	33.144	24.627	331.4	0.133	5.89	101.6	2.0	0.45	0.1	0.00	0.22	0.08	40
1	50	14.66	14.65	33.164	24.632	331.2	0.166	5.88	101.5	1.9	0.44	0.1	0.00	0.25	0.10	50
1	61	14.71	14.70	33.204	24.653	329.6	0.202	5.85	101.1	1.8	0.43	0.1	0.00	0.31	0.13	61
1	71	14.45	14.44	33.260	24.751	320.5	0.235	5.71	98.2	2.1	0.49	0.5	0.14	0.29	0.16	71
	75 ISL	14.21	14.20	33.271	24.810	315.0	0.247	5.66	96.9	2.4	0.52	0.9	0.10	0.25	0.16	75
1	80	13.86	13.85	33.278	24.889	307.6	0.263	5.60	95.2	2.8	0.57	1.5	0.04	0.20	0.15	80
1	94	12.94	12.93	33.276	25.073	290.4	0.305	5.47	91.2	3.9	0.68	3.2	0.02	0.13	0.13	94
	100 ISL	12.70	12.69	33.328	25.160	282.2	0.322	5.39	89.4	4.4	0.72	3.8	0.02	0.11	0.11	100
1	109	12.26	12.25	33.382	25.287	270.3	0.347	5.28	86.8	5.4	0.79	5.1	0.02	0.08	0.08	109
1	124	10.76	10.75	33.232	25.444	255.3	0.386	5.15	81.9	8.3	1.02	8.8	0.01	0.04	0.06	125
	125 ISL	10.69	10.68	33.237	25.460	253.8	0.389	5.13	81.5	8.6	1.04	9.1	0.01	0.04	0.06	126
1	149	9.66	9.64	33.476	25.822	219.7	0.446	4.46	69.4	15.0	1.36	15.4	0.00	0.01	0.03	150
	150 ISL	9.64	9.62	33.483	25.830	218.9	0.448	4.44	69.0	15.2	1.37	15.5	0.00	0.01	0.03	151
I	174	9.35	9.33	33.631	25.994	203.8	0.499	4.07	62.9	18.9	1.52	18.0	0.00	0.01	0.02	175
	200 ISL	8.93	8.91	33.836	26.221	182.6	0.549	3.67	56.3	24.4	1.70	21.5	0.00	0.00	0.02	201
1	204	8.86	8.84	33.865	26.255	179.5	0.556	3.62	55.4	25.3	1.72	22.0	0.00	0.00	0.02	205
1	232	8.49	8.47	33.960	26.387	167.3	0.605	3.39	51.5	30.0	1.84	24.2	0.00			233
	250 ISL	8.27	8.24	33.988	26.443	162.3	0.634	3.27	49.4	32.7	1.91	25.3	0.00			251
1	274	7.98	7.95	34.007	26.501	157.1	0.673	3.08	46.3	36.2	2.00	26.7	0.00			275
	300 ISL	7.69	7.66	34.025	26.558	152.0	0.713	2.77	41.3	40.5	2.14	28.7	0.00			302
1	329	7.36	7.33	34.040	26.617	146.6	0.756	2.39	35.4	45.8	2.31	31.1	0.00			331
1	388	6.64	6.60	34.078	26.746	134.8	0.839	1.65	24.0	58.3	2.64	35.0	0.00			390
	400 ISL	6.52	6.48	34.088	26.770	132.6	0.855	1.51	21.9	60.6	2.70	35.8	0.00			402
1	455	6.04	6.00	34.137	26.871	123.4	0.925	0.95	13.6	70.7	2.92	39.2	0.00			458
	500 ISL	5.68	5.64	34.170	26.942	116.9	0.980	0.71	10.1	78.0	3.05	41.3	0.00			503
1	525	5.48	5.44	34.189	26.981	113.3	1.008	0.57	8.1	82.1	3.12	42.4	0.00			528

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
30 30.8 N	122 15.5 W	31/01/92	0439 UTC	4159 m	010 06 k.n			1021.0 mb	15.2 C	14.8 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.23	15.23	33.277	24.594	333.4	0.000	5.79	101.2	1.7	0.41		0.00	0.14	0.05	0
1	1	15.23	15.23	33.277	24.594	333.4	0.003	5.79	101.2	1.7	0.41		0.00	0.14	0.05	1
	10 ISL	15.25	15.25	33.290	24.600	333.1	0.033	5.79	101.2	1.7	0.41		0.00	0.16	0.06	10
1	17	15.27	15.27	33.305	24.608	332.6	0.057	5.79	101.3	1.7	0.41		0.00	0.19	0.07	17
	20 ISL	15.31	15.31	33.324	24.614	332.1	0.067	5.78	101.2	1.7	0.40		0.00	0.19	0.07	20
1	30	15.50	15.50	33.398	24.629	331.0	0.100	5.73	100.8	1.6	0.38		0.00	0.20	0.09	30
1	42	15.72	15.71	33.474	24.639	330.4	0.139	5.69	100.5	1.5	0.37		0.00	0.21	0.10	42
	50 ISL	15.76	15.75	33.505	24.654	329.2	0.166	5.71	101.0	1.5	0.16		0.00	0.18	0.07	50
1	51	15.76	15.75	33.509	24.658	329.0	0.169	5.71	101.0	1.5	0.36		0.00	0.18	0.07	51
1	61	15.70	15.69	33.500	24.664	328.6	0.202	5.72	101.0	1.5	0.35		0.00	0.13	0.04	61
1	71	15.75	15.74	33.518	24.667	328.7	0.235	5.71	101.0	1.5	0.35		0.00	0.15	0.04	71
	75 ISL	15.77	15.76	33.527	24.670	328.6	0.248	5.70	100.8	1.5	0.34		0.00	0.16	0.05	75
1	80	15.80	15.79	33.540	24.673	328.4	0.264	5.69	100.7	1.5	0.34		0.01	0.17	0.06	80
1	95	15.06	15.05	33.376	24.711	325.2	0.313	5.68	99.0	1.8	0.40		0.15	0.17	0.09	95
	100 ISL	15.25	15.23	33.546	24.801	316.8	0.329	5.58	97.7	1.9	0.39		0.14	0.16	0.12	100
1	109	15.59	15.57	33.874	24.978	300.3	0.357	5.39	95.2	2.2	0.37		0.10	0.14	0.18	109
1	124	14.79	14.77	33.842	25.130	286.2	0.401	5.27	91.6	3.0	0.45		0.04	0.14	0.18	125
	125 ISL	14.71	14.69	33.837	25.143	285.0	0.404	5.26	91.2	3.1	0.46		0.04	0.14	0.18	126
1	149	12.48	12.46	33.693	25.487	252.4	0.469	4.96	82.1	6.2	0.75		0.01	0.06	0.07	150
	150 ISL	12.38	12.36	33.683	25.498	251.3	0.471	4.95	81.7	6.4	0.77		0.01	0.06	0.07	151
1	174	10.25	10.23	33.536	25.770	225.3	0.528	4.62	72.8	12.3	1.17		0.00	0.02	0.04	175
	200 ISL	9.41	9.39	33.680	26.023	201.6	0.584	4.23	65.5	17.9	1.39		0.00	0.00	0.02	201
1	204	9.36	9.34	33.714	26.058	198.4	0.592	4.17	64.5	18.7	1.42		0.00	0.00	0.02	205
1	233	8.93	8.90	33.909	26.279	177.8	0.646	3.68	56.4	25.1	1.67		0.00			234
	250 ISL	8.66	8.63	33.960	26.362	170.2	0.676	3.53	53.8	27.9	1.75		0.00			251
1	271	8.31	8.28	33.989	26.438	163.2	0.711	3.37	51.0	31.6	1.84		0.00			272
	300 ISL	7.72	7.69	34.019	26.549	152.8	0.757	2.91	43.5	39.6	2.06		0.00			302
1	327	7.21	7.18	34.038	26.637	144.7	0.797	2.43	35.9	47.3	2.28		0.00			32$
1	387	6.69	6.65	34.092	26.750	134.4	0.881	1.54	22.5	58.7	2.63		0.00			38<L
	400 ISL	6.54	6.50	34.098	26.775	132.1	0.898	1.41	20.5	61.3	2.69		0.00			40;
1	452	5.98	5.94	34.123	26.867	123.6	0.964	1.01	14.5	71.3	2.90					45!:i
	500 ISL	5.68	5.64	34.169	26.941	117.0	1.022	0.72	10.3	78.4	3.04		0.00			50!:i
1	522	5.54	5.50	34.190	26.975	113.9	1.048	0.59	8.4	81.7	3.10		0.00			52:»

RV DAVID STARR JORDAN CALCOFI CRUISE 9202 STATION 93 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
30 10.8 N	122 55.4 W	31/01/92	0957 UTC	3631 m	320 03 k.n			1020.1 mb	14.5 C	14.0 C		

CAST	DEPTH D	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS dti
	0 ISL	15.44	15.44	33.292	24.560	336.6	0.000	5.76	101.1	1.9	0.44		0.00	0.14	0.04	0
1	1	15.44	15.44	33.292	24.560'	336.7	0.003	5.76	101.1	1.9	0.44		0.00	0.14	0.04	1
	10 ISL	15.40	15.40	33.288	24.566	336.4	0.034	5.77	101.2	1.9	0.43		0.00	0.14	0.04	j0
1	16	15.36	15.36	33.286	24.573	335.9	0.054	5.77	101.1	1.9	0.43		0.00	0.14	0.05	16
	20 ISL	15.36	15.36	33.289	24.576	335.8	0.067	5.77	101.1	1.9	0.43		0.00	0.14	0.05	:i!0
	30 ISL	15.35	15.35	33.294	24.582	335.4	0.101	5.77	101.1	1.8	0.44		0.00	0.15	0.06	\0
1	35	15.34	15.33	33.296	24.586	335.2	0.118	5.77	101.1	1.7	0.44		0.00	0.16	0.06	15
	50 ISL	15.39	15.38	33.310	24.586	335.7	0.168	5.76	101.0	1.7	0.43		0.00	0.20	0.09	:>0
1	55	15.41	15.40	33.318	24.589	335.6	0.185	5.75	100.9	1.7	0.43		0.00	0.22	0.10	!>5
1	70	15.50	15.49	33.322	24.572	337.7	0.235	5.70	100.2	1.7	0.41		0.01	0.27	0.15	70
	75 ISL	15.25	15.24	33.291	24.603	334.8	0.252	5.73	100.2	1.8	0.42		0.02	0.26	0.15	75
1	78	15.16	15.15	33.294	24.625	332.8	0.262	5.74	100.2	1.8	0.43		0.02	0.25	0.14	78
1	88	16.04	16.03	33.621	24.682	327.9	0.295	5.64	100.4	1.6	0.37		0.02	0.22	0.12	88
1	98	15.64	15.62	33.587	24.746	322.0	0.328	5.61	99.0	1.7	0.40		0.11	0.23	0.17	98
	100 ISL	15.46	15.44	33.582	24.782	318.6	0.334	5.59	98.3	1.8	0.41		0.11	0.22	0.17	100
1	108	14.65	14.63	33.560	24.942	303.6	0.359	5.51	95.3	2.3	0.47		0.10	0.15	0.19	108
1	123	13.37	13.35	33.475	25.142	284.7	0.403	5.33	89.8	4.2	0.67		0.02	0.10	0.12	124
	125 ISL	13.22	13.20	33.465	25.164	282.6	0.409	5.31	89.1	4.4	0.69		0.02	0.09	0.11	126
1	138	12.23	12.21	33.411	25.316	268.3	0.444	5.18	85.1	6.1	0.83		0.01	0.06	0.09	139
	150 ISL	11.23	11.21	33.369	25.468	253.8	0.476	4.96	79.8	8.8	1.03		0.00	0.04	0.07	151
1	158	10.64	10.62	33.372	25.575	243.6	0.496	4.79	76.1	10.8	1.16		0.00	0.03	0.06	159
1	177	9.95	9.93	33.558	25.838	218.9	0.540	4.43	69.4	14.6	1.32		0.00	0.01	0.03	178
	200 ISL	9.43	9.41	33.735	26.063	197.9	0.588	4.06	62.9	19.3	1.50		0.00	0.00	0.02	2 01
1	203	9.38	9.36	33.754	26.086	195.7	0.593	4.02	62.2	19.9	1.52		0.00	0.00	0.02	:i!04
1	232	8.85	8.83	33.882	26.271	178.6	0.648	3.65	55.9	25.3	1.72		0.00			:i!33
	250 ISL	8.51	8.48	33.938	26.367	169.6	0.679	3.48	52.9	29.2	1.82		0.00			251
1	273	8.10	8.07	33.988	26.469	160.2	0.717	3.26	49.1	34.4	1.95		0.00			;!74
	300 ISL	7.70	7.67	34.012	26.546	153.0	0.759	2.93	43.7	40.0	2.11		0.00			102
1	329	7.33	7.30	34.023	26.608	147.5	0.803	2.53	37.4	46.0	2.30		0.00			331
1	388	6.65	6.61	34.068	26.737	135.7	0.886	1.60	23.3	59.3	2.69		0.00			190
	400 ISL	6.54	6.50	34.078	26.759	133.6	0.902	1.46	21.2	61.6	2.75		0.00			402
1	454	6.12	6.08	34.125	26.851	125.3	0.972	0.96	13.8	70.5	2.97					457
	500 ISL	5.85	5.81	34.167	26.919	119.3	1.029	0.70	10.0	76.4	3.08		0.00			503
1	523	5.72	5.68	34.188	26.952	116.3	1.056	0.57	8.1	79.3	3.14		0.00			526

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
29 50.7 N	123 35.2 W	31/01/92	1509 UTC	4011 m	140 03 kn	300 08 10	1	1019.3 mb	14,8 C	13.8 C	43m 01	5/8	CC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.65	15.65	33.423	24.614	331.5	0.000	5.73	101.1	1.8	0.38	0.0	0.00	0.10	0.02	0
1	1	15.65	15.65	33.423	24.614	331.5	0.003	5.73	101.1	1.8	0.38	0.0	0.00	0.10	0.02	1
	10 ISL	15.84	15.84	33.502	24.633	330.0	0.033	5.71	101.2	1.8	0.37	0.0	0.00	0.09	0.02	10
1	16	16.02	16.02	33.574	24.648	328.8	0.053	5.69	101.2	1.8	0.36	0.0	0.00	0.09	0.02	16
	20 ISL	16.05	16.05	33.590	24.653	328.4	0.066	5.69	101.3	1.8	0.36	0.0	0.00	0.09	0.02	20
	30 ISL	16.13	16.13	33.625	24.663	327.9	0.099	5.68	101.3	1.7	0.35	0.0	0.00	0.09	0.02	30
1	36	16.17	16.16	33.641	24.666	327.7	0.118	5.68	101.4	1.6	0.35	0.0	0.00	0.09	0.02	36
	50 ISL	16.50	16.49	33.744	24.670	327.8	0.164	5.62	101.0	1.5	0.34	0.0	0.00	0.10	0.03	50
1	55	16.62	16.61	33.782	24.672	327.9	0.181	5.60	100.9	1.5	0.33	0.0	0.00	0.11	0.04	55
1	70	16.78	16.77	33.874	24.705	325.2	0.230	5.57	100.7	1.5	0.31	0.0	0.00	0.13	0.06	70
	75 ISL	16.80	16.79	33.894	24.716	324.3	0.246	5.56	100.6	1.5	0.30	0.0	0.00	0.14	0.07	75
1	78	16.81	16.80	33.902	24.720	324.0	0.256	5.55	100.4	1.5	0.30	0.0	0.00	0.15	0.07	78
1	89	16.75	16.74	33.887	24.723	324.1	0.291	5.57	100.7	1.5	0.30	0.1	0.00	0.18	0.08	89
1	100	16.80	16.78	33.926	24.742	322.7	0.327	5.51	99.7	1.5	0.29	0.0	0.01	0.23	0.14	100
1	109	15.79	15.77	33.730	24.823	315.1	0.356	5.55	98.3	2.0	0.38	0.3	0.09	0.22	0.18	109
1	124	14.67	14.65	33.652	25.009	297.7	0.402	5.46	94.5	2.7	0.46	1.1	0.09	0.19	0.18	125
	125 ISL	14.66	14.64	33.673	25.027	295.9	0.405	5.44	94.2	2.7	0.46	1.1	0.09	0.18	0.18	126
1	139	14.32	14.30	33.916	25.287	271.6	0.444	5.15	88.7	3.7	0.51	2.5	0.03	0.10	0.12	140
	150 ISL	12.71	12.69	33.671	25.425	258.3	0.473	5.04	83.8	6.1	0.74	5.6	0.02	0.07	0.08	151
1	159	11.28	11.26	33.447	25.520	249.1	0.496	4.96	79.9	8.4	0.96	8.6	0.01	0.05	0.05	160
1	179	10.17	10.15	33.498	25.754	226.9	0.544	4.59	72.2	13.0	1.23	13.6	0.01	0.01	0.04	180
	200 ISL	9.85	9.83	33.744	26.001	203.9	0.589	4.30	67.3	16.5	1.33	16.2	0.00	0.00	0.02	201
1	203	9.83	9.81	33.781	26.033	200.9	0.595	4.26	66.6	17.0	1.34	16.5	0.00	0.00	0.02	204
1	232	9.25	9.22	33.902	26.223	183.3	0.651	3.87	59.8	22.5	1.55	20.6	0.00			233
	250 ISL	8.95	8.92	33.937	26.298	176.4	0.683	3.67	56.3	25.4	1.66	22.7	0.00			251
1	272	8.59	8.56	33.961	26.374	169.5	0.721	3.41	51.9	29.3	1.79	25.2	0.00			273
	300 ISL	8.06	8.03	34.004	26.488	158.9	0.767	2.99	45.0	36.2	2.00	28.7	0.01			302
1	327	7.58	7.55	34.041	26.587	149.6	0.809	2.57	38.3	43.1	2.20	31.9	0.01			329
1	387	6.89	6.85	34.074	26.709	138.5	0.895	1.82	26.7	54.4	2.53	36.9	0.00			389
	400 ISL	6.74	6.70	34.083	26.737	135.9	0.913	1.66	24.2	57.2	2.60	37.9	0.00			402
1	452	6.20	6.16	34.127	26.843	126.2	0.981	1.08	15.6	68.0	2.85	41.4				455
	500 ISL	5.91	5.87	34.171	26.914	119.8	1.040	0.76	10.9	74.7	2.99	43.5	0.00			503
1	522	5.77	5.73	34.191	26.948	116.8	1.066	0.61	8.7	77.7	3.06	44.4	0.00			525

PRIMARY PRODUCTIVITY CASTS

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 77 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 23.3 N	122 14.8 W	11/ 2/92	1925 UTC	19 m	02	1217 - 1810 PST	1223 PST	1809 PST	180.7 rag C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 uM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
3	13.75	33.227	24.869	6.00	101.7	2.9	0.50	0.3	0.09	0.38	0.13	78. A	5.6	5.7	5.7	0.03
14	13.74	33.224	24.870	5.98	101.3	2.8	0.49	0.3	0.08	0.40	0.13	32.	5.9	5.0	5.4	0.03
24	13.73	33.223	24.871	6.00	101.7	2.8	0.50	0.2	0.08	0.40	0.12	14.	4.0	3.9	4.0	0.03
38	13.72	33.221	24.872	5.97	101.1	2.7	0.49	0.3	0.07	0.39	0.12	4.6	1.2	1.2	1.2	0.03
46	13.69	33.211	24.870	5.99	101.4	2.7	0.50	0.3	0.08	0.36	0.13	2.4	0.64	0.62	0.63	0.02
62	13.06	33.166	24.963	5.97	99.7	3.7	0.60	0.9	0.21	0.21	0.13					
83	10.48	33.222	25.484	4.81	76.1	11.5	1.29	13.3	0.05	0.07	0.09	0.12	0.01	0.01	0.01	0.02
211	8.27	34.016	26.464	2.64	39.9	36.9	2.16	29.2	0.04	0.00	0.03					

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 80 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 9.0 N	121 9.0 W	9/ 2/92	1845 UTC	18 m	03	1220 - 1805 PST	1219 PST	1808 PST	200.1 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 uM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
4	13.80	33.213	24.848	6.05	102.7	2.9	0.47	0.5	0.06	0.52	0.18	71. A	8.2	8.0	8.1	0.05
15	13.78	33.216	24.855	6.08	103.1	2.9	0.47	0.5	0.06	0.52	0.18	28.	5.6	5.1	5.4	0.05
25	13.76	33.215	24.859	6.06	102.7	2.9	0.47	0.6	0.06	0.53	0.18	12.	3.7	3.6	3.7	0.05
40	13.67	33.230	24.889	6.00	101.5	3.1	0.49	0.8	0.08	0.48	0.27	3.3	1.3	1.2	1.3	0.04
45	13.66	33.234	24.894	5.98	101.2	3.1	0.50	1.0	0.09	0.45	0.27	2.2	0.35	0.35	0.35	0.02
58	11.75	33.295	25.314	4.98	81.0	8.7	1.04	10.1	0.09	0.18	0.17					
80	10.48	33.376	25.604	4.43	70.1	13.5	1.38	15.9	0.03	0.05	0.09	0.11	0.00	0.01	0.01	0.01
206	8.76	34.020	26.392	2.51	38.4	34.2	2.14	27.4	0.02	0.01	0.04					

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 80 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 49.0 N	123 54.3 W	10/ 2/92	1952 UTC	23 m	03	1234 - 1812 PST	1230 PST	1812 PST	129.8 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.05	32.914	24.566	5.97	101.6	2.3	0.48	0.1	0.00	0.21	0.06	88. A	3.1	3.2	3.1	0.03
16	14.03	32.914	24.570	5.97	101.6	2.3	0.46	0.0	0.00	0.21	0.07	34.	3.4	3.0	3.2	0.04
28	13.58	32.893	24.646	5.99	101.0	2.3	0.48	0.1	0.03	0.23	0.08	15.	2.4	2.5	2.4	0.02
50	13.37	33.009	24.779	5.84	98.1	2.6	0.57	1.3	0.13	0.24	0.16	3.6	0.79	0.76	0.77	0.03
57	13.08	33.020	24.846	5.82	97.2	3.0	0.62	1.6	0.13	0.20	0.14	2.2	0.34	0.36	0.35	0.02
75	11.89	32.923	24.999	5.86	95.3	4.4	0.75	4.4	0.10	0.08	0.06					
99	10.78	33.085	25.326	5.37	85.4	7.4	0.98	9.1	0.02	0.05	0.06	0.14	-0.01	-0.01	-0.01	0.02
216	8.34	33.973	26.420	2.92	44.2	33.2	2.03	27.5	0.01	0.00	0.02					

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 83 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 52.7 N	120 7.9 W	8/ 2/92	1855 UTC	22 m	03	1216 - 1759 PST	1215 PST	1758 PST	423.4 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 UM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
3	14.88	33.290	24.681	5.88	102.0	2.2	0.43	0.1	0.02	0.51	0.19	81. A	12.7	13.0	12.9	0.08
18	14.77	33.307	24.718	5.85	101.3	2.2	0.44	0.3	0.04	0.60	0.24	28.	10.5	10.7	10.6	0.06
29	14.74	33.312	24.729	5.76	99.7	2.6	0.48	0.6	0.04	0.55	0.25	13.	8.0	8.3	8.1	0.0S
50	12.68	33.397	25.216	4.92	81.6	7.5	0.96	8.2	0.05	0.23	0.21	3.1	0.78	0.77	0.78	0.03
57	12.10	33.428	25.351	4.68	76.7	9.5	1.09	10.4	0.06	0.17	0.18	1.9	0.39	0.36	0.37	0.02
76	11.46	33.471	25.504	4.42	71.5	11.9	1.25	13.1	0.04	0.09	0.13					
101	11.00	33.517	25.623	4.19	67.1	14.5	1.38	15.2	0.04	0.06	0.10	0.09	0.01	0.01	0.01	0.01

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 83 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 34.7 N	122 48.7 W	7/ 2/92	1837 UTC	25 m	02	1220 - 1815 PST	1225 PST	1809 PST	199.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.13	33.058	24.660	5.98	102.1	2.0	0.41	0.7	0.00	0.24	0.06	88. A	2.1	2.3	2.2	0.03
19	14.03	33.057	24.681	6.00	102.2	2.0	0.41	0.8	0.00	0.24	0.07	31.	3.7	3.9	3.8	0.04
33	13.99	33.062	24.693	6.02	102.4	2.0	0.41	0.8	0.00	0.29	0.09	13.	3.1	3.1	3.1	0.13
53	13.62	33.236	24.904	5.96	100.8	2.4	0.48	1.6	0.09	0.37	0.21	3.9	2.0	1.8	1.9	0.03
62	13.79	33.325	24.939	5.89	100.0	2.4	0.49	1.8	0.10	0.37	0.20	2.2	1.2	1.3	1.3	0.01
87	11.56	33.150	25.237	5.39	87.2	6.8	0.93	9.4	0.04	0.11	0.10					
110	9.24	33.260	25.720	4.72	72.6	15.0	1.41	17.9	0.00	0.02	0.04	0.12	0.00	0.00	0.00	0.01
201	8.31	33.984	26.433	2.78	42.1	34.1	2.04	28.8	0.00	0.00	0.02					

A) INCUBATION LIGHT INTENSITIES WERE 95, 36, 16, 4.5, 2.5 AND 0.14 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 87 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 49.4 N	118 37.7 W	4/ 2/92	1831 UTC	16 m	04	1206 - 1757 PST	1209 PST	1757 PST	259.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 UM/1	NO2 UM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/n>3) 1	2	MEAN	DARK
4	15.19	33.371	24.676	6.14	107.3	2.0	0.39	0.1	0.00	0.37	0.11	68. A	6.0	5.8	5.9	0.08
14	15.15	33.366	24.681	6.12	106.8	2.0	0.39	0.1	0.00	0.39	0.12	26.	7.1	7.8	7.4	0.10
22	15.09	33.367	24.695	6.09	106.2	2.1	0.39	0.1	0.00	0.46	0.13	12.	6.6	6.9	6.8	0.08
35	14.78	33.341	24.743	5.88	101.9	2.3	0.42	0.0	0.00	0.42	0.20	3.5	2.8	2.5	2.6	0.03
41	14.68	33.337	24.761	5.84	101.0	2.7	0.42	0.0	0.00	0.60	0.33	2.0	2.4	2.4	2.4	0.05
49	14.57	33.334	24.782	5.73	98.8	2.8	0.46	0.3	0.13	0.72	0.45					
70	13.60	33.404	25.039	5.04	85.3	5.9	0.79	5.4	0.05	0.26	0.25	0.12	0.10	0.10	0.10	0.01
199	9.66	33.965	26.205	2.62	40.9	28.0	1.97	25.2	0.01	0.01	0.03					

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 87 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 59.3 N	120 21.0 W	5/ 2/92	1833 UTC	15 m	03	1208 - 1802 PST	1215 PST	1804 PST	146.8 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
4	14.41	33.236	24.739	5.93	101.9	2.6	0.46	0.1	0.01	0.46	0.15	66. A	6.3	6.8	6.5	0.05
13	14.40	33.237	24.742	5.92	101.7	2.5	0.45	0.1	0.01	0.46	0.15	26.	5.4	5.4	5.4	0.04
21	14.40	33.237	24.743	5.92	101.7	2.4	0.45	0.1	0.01	0.46	0.16	12.	3.3	3.5	3.4	0.04
33	14.38	33.233	24.744	5.93	101.8	2.3	0.45	0.1	0.00	0.48	0.18	3.4	0.88	0.74	0.81	0.04
38	14.36	33.231	24.747	5.92	101.6	2.3	0.45	0.1	0.01	0.54	0.21	2.0	0.29	0.27	0.28	0.03
53	14.34	33.229	24.750	5.91	101.4	2.3	0.45	0.2	0.01	0.55	0.20					
66	14.33	33.228	24.752	5.89	101.0	2.3	0.45	0.2	0.02	0.40	0.18	0.12	0.01	0.02	0.01	0.02
201	8.54	33.951	26.372	3.07	46.7	31.3	1.93	26.4	0.01	0.00	0.02					

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 87 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 39.3 N	123 4.2 W	6/ 2/92	1855 UTC	22 m	03	1220 - 1819 PST	1226 PST	1820 PST	245.2 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
5	13.92	33.051	24.698	6.05	102.8	2.6	0.46	0.5	0.01	0.31	0.08	71. A	3.5	3.2	3.3	0.02
18	13.86	33.054	24.714	6.06	102.8	2.4	0.46	0.5	0.01	0.33	0.11	28.	5.5	5.6	5.6	0.05
29	13.86	33.063	24.721	6.06	102.9	2.4	0.46	0.5	0.01	0.36	0.11	13.	5.0	4.7	4.8	0 04
46	13.79	33.330	24.942	5.97	101.3	2.5	0.51	1.2	0.07	0.49	0.28	4.0	3.1	3.1	3.1	0.03
51	13.89	33.374	24.956	5.88	100.0	2.6	0.52	1.4	0.09	0.45	0.29	2.8	1.5	1.5	1.5	0.03
71	13.82	33.397	24.988	5.71	97.0	3.0	0.59	2.3	0.18	0.24	0.17					
97	10.14	33.298	25.602	4.56	71.6	13.6	1.41	16.7	0.01	0.07	0.08	0.11	0.02	0.02	0.02	0.01
196	8.24	33.970	26.432	3.30	49.9	32.2	1.92	27.2	0.01	0.00	0.02					

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 90 45

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 55.1 N	118 56.0 W	3/ 2/92	1851 UTC	25 m	03	1210 - 1755 PST	1210 PST	1753 PST	274.6 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
4	15.14	33.407	24.714	5.84	102.0	2.3	0.42	0.1	0.00	0.29	0.10	78. A	3.2	2.9	3.0	0.06
20	15.08	33.407	24.728	5.86	102.2	2.3	0.41	0.1	0.00	0.30	0.10	29.	5.3	5.4	5.3	0.08
32	15.08	33.408	24.729	5.84	101.8	2.3	0.41	0.1	0.00	0.32	0.11	14.	5.7	5.4	5.5	0.07
52	13.68	33.287	24.932	5.53	93.6	3.8	0.63	2.8	0.21	0.54	0.33	4.1	2.9	2.6	2.8	0.02
62	12.82	33.286	25.103	5.34	88.8	5.3	0.75	4.8	0.17	0.34	0.22	2.2	1.3	1.1	1.2	0 02
82	11.91	33.341	25.320	4.93	80.5	8.3	1.02	9.4	0.03	0.17	0.20					
109	10.65	33.452	25.635	4.38	69.6	13.3	1.33	15.0	0.01	0.04	0.06	0.12	0.01	0.01	0.01	0.01
201	9.11	33.982	26.307	2.80	43.1	30.0	1.99	26.0	0.01	0.00	0.03					

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 90 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 25.2 N	121 59.3 W	1/ 2/92	1829 UTC	21 m	03	1219 - 1806 PST	1222 PST	1804 PST	94.5 mg C/m2

DEPTH ffl	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 UM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
3	14.99	33.275	24.645	5.85	101.7	1.6	0.40	0.1	0.00	0.18	0.06	80. A	0.71	0.82	0.76	0.04
16	14.98	33.279	24.651	5.83	101.4	1.6	0.40	0.1	0.00	0.18	0.06	31.	2.2	2.2	2.2	0.04
26	14.98	33.278	24.651	5.84	101.5	1.5	0.39	0.1	0.00	0.18	0.06	15.	1.9	2.1	2.0	0.03
44	15.00	33.297	24.661	5.82	101.2	1.5	0.39	0.1	0.00	0.24	0.09	4.0	1.2	1.2	1.2	0.03
51	15.00	33.296	24.661	5.81	101.1	1.5	0.39	0.1	0.00	0.27	0.11	2.4	0.79	0.80	0.80	0.02
69	14.94	33.281	24.663	5.79	100.6	1.5	0.39	0.0	0.00	0.31	0.14					
89	14.88	33.281	24.677	5.75	99.8	1.6	0.40	0.1	0.06	0.24	0.14	0.15	0.05	0.06	0.05	0.01
200	8.85	33.777	26.188	3.63	55.5	24.8	1.72	23.0	0.00	0.00	0.02					

A) INCUBATION LIGHT INTENSITIES WERE 95, 36, 16, 4.5, 2.5 AND 0.14 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 10.8 N	118 53.6 W	29/ 1/92	1906 UTC	28 ID	03	1207 - 1758 PST	1209 PST	1754 PST	438.1 mg C/o2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.73	33.312	24.730	5.87	101.6	1.4	0.47	0.1	0.00	0.40	0.15	90. A	4.9	4.4	4.6	0.09
20	14.70	33.311	24.736	5.88	101.7	1.4	0.46	0.1	0.00	0.40	0.17	33.	8.0	8.9	8.4	0.09
35	14.64	33.304	24.744	5.85	101.0	1.4	0.47	0.1	0.01	0.43	0.19	15.	8.9	9.5	9.2	0.05
58	14.05	33.281	24.851	5.69	97.1	2.5	0.56	1.4	0.17	0.43	0.27	4.2	2.3	2.4	2.3	0.04
66	13.66	33.295	24.942	5.50	93.1	3.4	0.65	3.0	0.16	0.29	0.25	2.7	1.2	1.2	1.2	0.03
100	10.90	33.390	25.542	4.74	75.7	10.0	1.18	12.3	0.02	0.06	0.08					
122	10.12	33.528	25.785	4.11	64.6	15.6	1.48	17.3	0.01	0.02	0.04	0.12	0.00	0.01	0.00	0.01
198	9.10	34.000	26.323	2.69	41.4	30.3	2.06	26.1	0.01							

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 93 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 10.8 N	120 55.2 W	30/ 1/92	1829 UTC	27 m	02	1217 - 1804 PST	1217 PST	1805 PST	192.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
4	14.64	33.164	24.635	5.86	101.1	1.7	0.40	0.2	0.01	0.25	0.09	80. A	1.5	1.2	1.3	0.04
21	14.64	33.170	24.640	5.87	101.3	1.7	0.40	0.2	0.01	0.26	0.09	30.	3.1	3.4	3.3	0.04
34	14.65	33.174	24.641	5.87	101.3	1.6	0.40	0.2	0.01	0.26	0.10	14.	3.7	4.0	3.8	0.04
57	14.67	33.186	24.647	5.86	101.2	1.6	0.40	0.2	0.01	0.29	0.10	3.9	1.5	1.6	1.6	0.02
69	14.71	33.198	24.648	5.84	100.9	1.6	0.40	0.2	0.01	0.29	0.11	2.0	0.92	0.97	0.94	0.02
99	14.36	33.325	24.821	5.62	96.5	2.1	0.48	0.4	0.21	0.14	0.12					
120	12.31	33.387	25.281	5.24	86.3	5.7	0.76	4.3	0.02	0.06	0.08	0.11	0.03	0.03	0.03	0.00
204	8.92	33.879	26.257	3.66	56.1	24.8	1.65	23.2	0.01	0.00	0.01					

RV DAVID STARR JORDAN — CALCOFI CRUISE 9202 — STATION 93 120

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
29 50.7 N	123 35.2 W	31/ 1/92	1853 UTC	43 m	01	1223 - 1817 PST	1223 PST	1818 PST	143.4 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
5	15.66	33.400	24.594	5.74	101.3	1.7	0.43		0.00	0.11	0.03	84. A	1.1	0.98	1.0	0.03
32	16.15	33.619	24.653	5.67	101.1	1.6	0.38		0.00	0.09	0.03	32.	1.2	1.2	1.2	0.05
53	16.26	33.672	24.670	5.65	101.0	1.6	0.36		0.00	0.11	0.03	15.	1.1	1.2	1.2	0.05
89	16.98	33.960	24.725	5.52	100.3	1.4	0.32		0.00	0.22	0.14	4.2	1.0	0.98	0.99	0.01
105	16.57	33.918	24.789	5.50	99.1	1.7	0.33		0.04	0.21	0.16	2.4	0.72	0.74	0.73	0.01
152	12.50	33.994 U	25.716 U	5.09	84.4	6.1	0.75		0.02	0.06	0.07					
188	10.07	33.552	25.814	4.53	71.1	13.2	1.22		0.01	0.01	0.03	0.12	0.00	0.00	0.00	0.00
204	9.63	33.687	25.992	4.35	67.7	16.4	1.36		0.01	0.01	0.02					

A) INCUBATION LIGHT INTENSITIES WERE 95, 36, 16, 4.5, 2.5 AND 0.14 PERCENT RESPECTIVELY.

CalCOFI Cruise 9202

MACROZOOPLANKTON BIOMASS
Net Mesh Size: 0.505 mm

Line	Sta.	Position		Date Mo/Day	Time (PST) Start	End	Water Volume Strained (m^3)	Max. Tow Depth (m)	Volume per 1000 m Strained Total (cm)	Small (cm)
77	70	34 23.3N	122 14.8W	2/11	1305	1327	457	198	28	28
77	80	34 03.3N	122 56.4W	2/11	0659	0721	447	212	40	40
77	90	33 43.2N	123 38.0W	2/11	0129	0151	475	200	59	59
77	100	33 23.2N	124 19.4W	2/10	1940	2002	451	210	22	22
80	51	34 27.0N	120 31.4W	2/09	0321	0327	108	47	93	93
80	55	34 19.0N	120 48.1W	2/09	0639	0701	436	203	48	48
80	60	34 09.0N	121 09.0W	2/09	1111	1134	446	218	157	40
80	70	33 49.0N	121 50.5W	2/09	1801	1823	453	209	90	60
80	80	33 29.0N	122 31.9W	2/10	0016	0038	454	209	1721	1160
80	90	33 09.0N	123 13.2W	2/10	0622	0644	460	220	59	59
80	100	32 49.0N	123 54.3W	2/10	1330	1352	494	207	55	28
82	47	34 16.5N	120 01.5 W	2/08	2314	2336	404	209	47	47
83	40.6	34 13.5N	119 24.6W	2/08	1829	1834	74	27	54	54
83	42	34 10.7N	119 30.5 W	2/08	1631	1649	318	179	22	22
83	51	33 52.7N	120 07.9W	2/08	1007	1015	143	69	63	63
83	55	33 44.7N	120 24.5 W	2/08	0713	0735	424	212	153	31
83	60	33 34.7N	120 45.3W	2/08	0331	0353	419	213	122	122
83	70	33 14.7N	121 26.5W	2/07	2157	2219	411	208	146	146
83	80	32 54.7N	122 07.7W	2/07	1620	1642	404	214	35	35
83	90	32 34.7N	122 48.7W	2/07	1100	1122	415	213	154	39
83	100	32 14.7N	123 29.4W	2/07	0439	0501	431	209	373	95
83	110	31 54.7N	124 10.2W	2/06	2252	2314	465	202	60	60
87	33	33 53.4N	118 29.4W	2/04	0824	0829	85	40	59	59
87	35	33 49.4N	118 37.7W	2/04	1118	1140	405	211	30	30
87	39.4	33 41.0N	118 56.0W	2/04	1602	1624	431	210	28	28
87	45	33 29.4N	119 19.1W	2/04	2030	2052	418	209	62	45
87	50	33 19.4N	119 39.8W	2/05	0013	0021	135	65	30	30
87	55	33 09.4N	120 00.4 W	2/05	0338	0400	418	214	98	72
87	60	32 59.3N	120 21.0W	2/05	0809	0831	402	218	27	10
87	70	32 39.5N	121 02.0W	2/05	1610	1632	467	196	62	43
87	80	32 19.4N	121 42.9W	2/05	2222	2244	433	233	60	46
87	90	31 59.4N	122 23.5W	2/06	0426	0448	427	218	70	42
87	100	31 39.3N	123 04.2W	2/06	0955	1017	447	205	49	34
87	110	31 19.4N	123 44.6W	2/06	1647	1709	421	213	43	19
90	28	33 29.1N	117 46.0W	2/04	0216	0224	152	69	79	79
90	30	33 25.0N	117 54.3 W	2/03	2355	0017	415	209	65	31
90	35	33 15.0N	118 15.0W	2/03	2021	2043	422	207	88	88
90	37	33 11.1N	118 23.2W	2/03	1722	1743	427	211	33	33
90	45	32 55.1N	118 56.0W	2/03	1217	1239	428	214	49	49
90	53	32 39.2N	119 28.8W	2/03	0630	0652	428	212	30	30
90	60	32 25.1N	119 57.6W	2/03	0132	0154	439	220	48	48
90	70	32 05.1N	120 38.3W	2/01	2304	2326	448	208	65	65
90	80	31 45.0N	121 18.9W	2/01	1707	1729	434	210	41	41
90	90	31 25.2N	121 59.3W	2/01	0909	0932	444	228	38	38
90	100	31 05.1N	122 39.7W	2/01	0350	0412	433	216	30	30
90	110	30 44.9N	123 20.1W	1/31	2234	2256	443	211	27	27
90	120	30 25.0N	123 59.9W	1/31	1656	1718	441	218	20	20
93	26.7	32 57.5N	117 18.3W	1/28	1325	1330	90	34	22	22
93	28	32 54.8N	117 23.6W	1/28	1600	1622	418	214	19	19
93	30	32 50.8N	117 31.9W	1/28	1903	1925	423	211	38	38
93	35	32 40.8N	117 52.6W	1/28	2335	2357	430	210	56	56
93	40	32 30.8N	118 12.8W	1/29	0317	0339	414	214	63	63
93	45	32 20.7N	118 33.3W	1/29	0712	0734	423	210	33	33
93	50	32 10.8N	118 53.6W	1/29	1245	1307	420	216	31	31
93	54	32 08.0N	119 14.0W	1/29	1705	1727	424	219	52	52
93	60	31 50.8N	119 34.3W	1/29	2135	2157	429	212	58	44
93	70	31 30.8N	120 14.8W	1/30	0332	0354	421	216	52	52
93	80	31 10.8N	120 55.2W	1/30	0914	0936	421	212	33	33
93	90	30 50.8N	121 35.4W	1/30	1555	1617	409	212	81	24
93	100	30 30.8N	122 15.5W	1/30	2124	2146	410	213	41	41
93	110	30 10.8N	122 55.4W	1/31	0237	0259	427	213	33	33
93	120	29 50.7N	123 35.2W	1/31	0753	0815	430	209	16	16

FIGURES

Cruise 9204

1. CalCOFI Cruise 9204, track and station positions.

2. Horizontal distribution of dynamic height anomaly (0 over 500 m). In areas shallower than 500 m, the dynamic heights were extrapolated on the basis of the offshore deeper steric height as described in Reid and Mantyla (1976).

3. Horizontal distributions at 10 meters: A) chlorophyll-a; B) potential density; C) temperature; and D) salinity.

4. Horizontal distributions at 200 meters: A) dynamic height anomaly (200 over 500 m); B) potential density; C) temperature; and D) salinity.

5. Sections along CalCOFI line 90 (vertical exaggeration, 1000): A) potential density; B) temperature; C) salinity; D) silicate; E) nitrate; F) phosphate; G) chlorophyll-a; H) oxygen saturation; I) oxygen; J) nitrite; and K) phaeopigments.

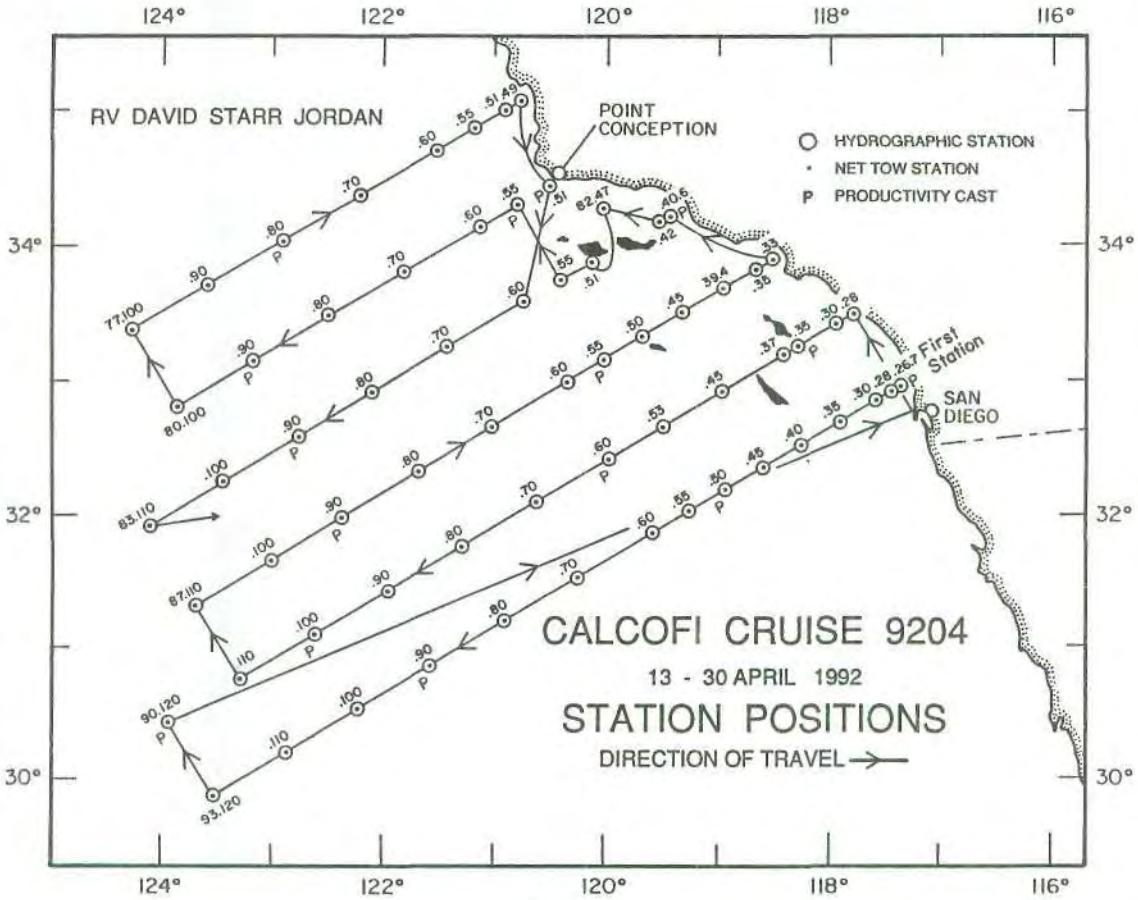

FIGURE 1

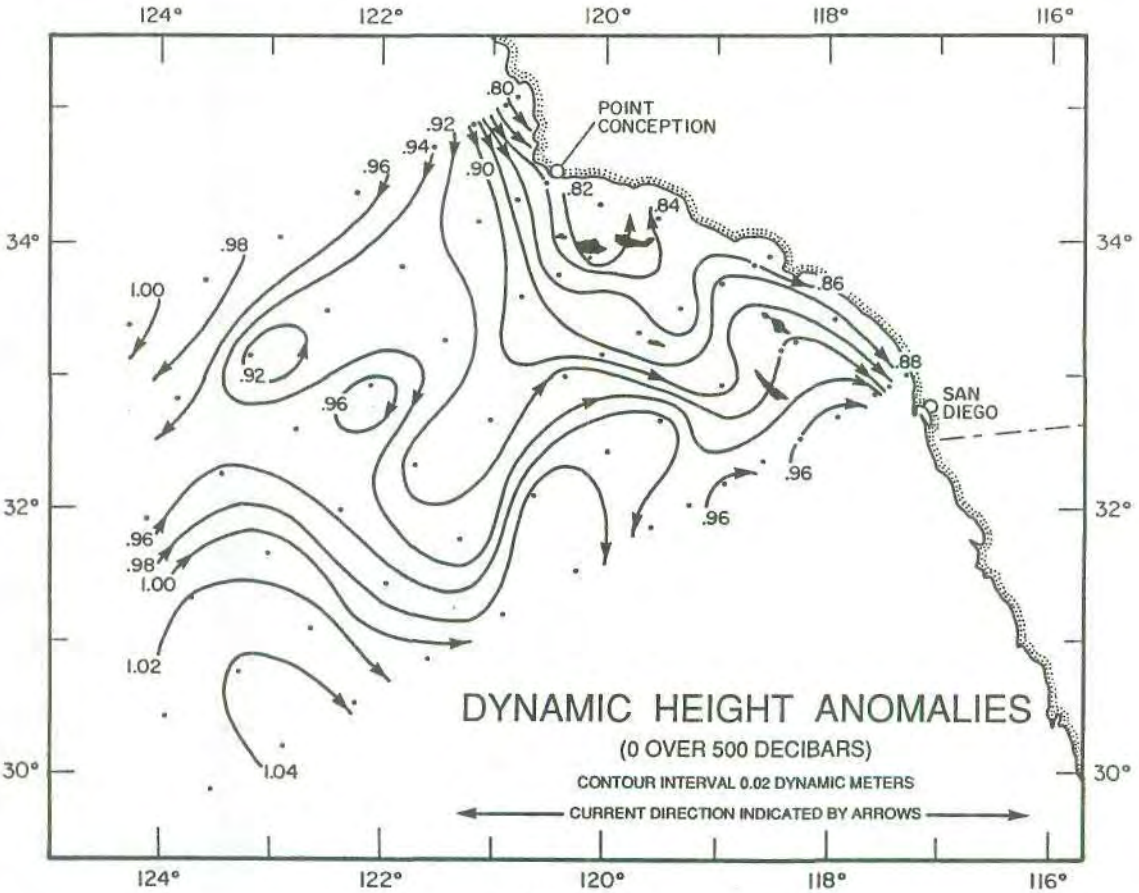

FIGURE 2

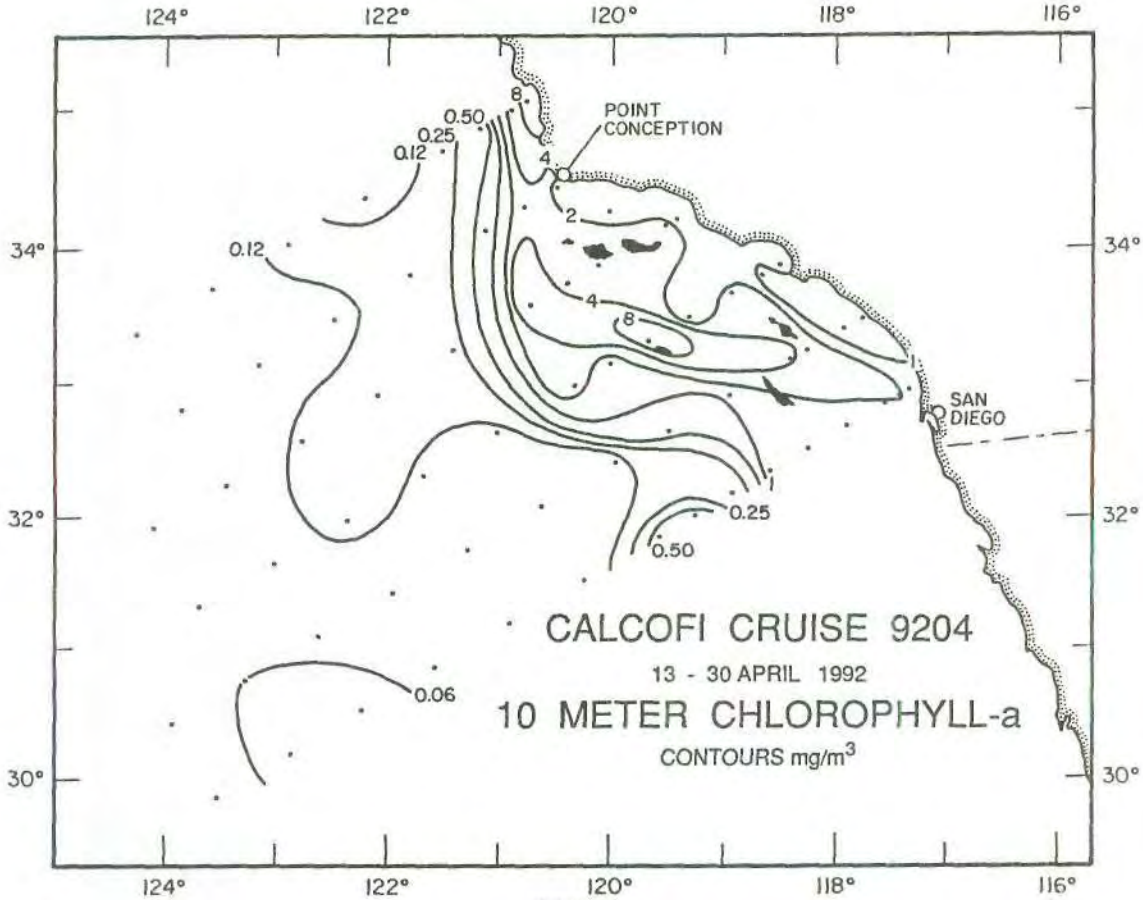

FIGURE 3A

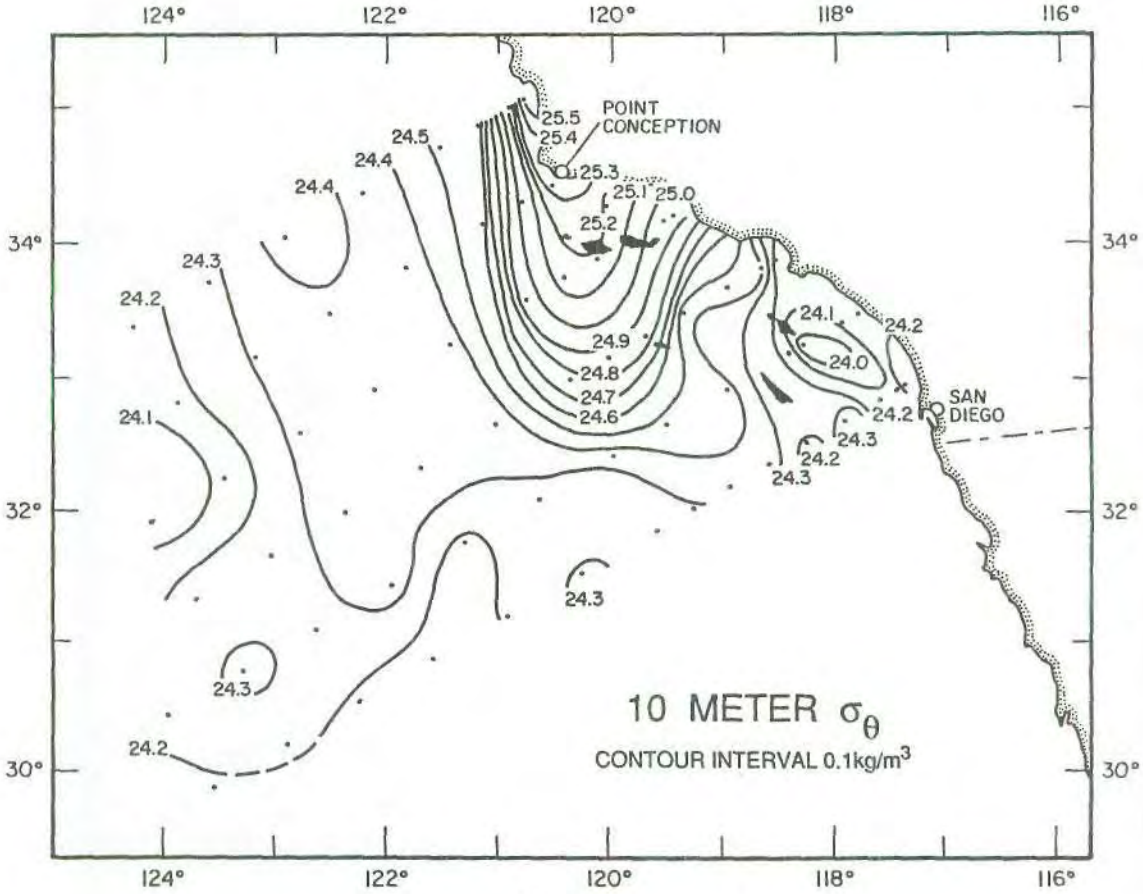

FIGURE 3B

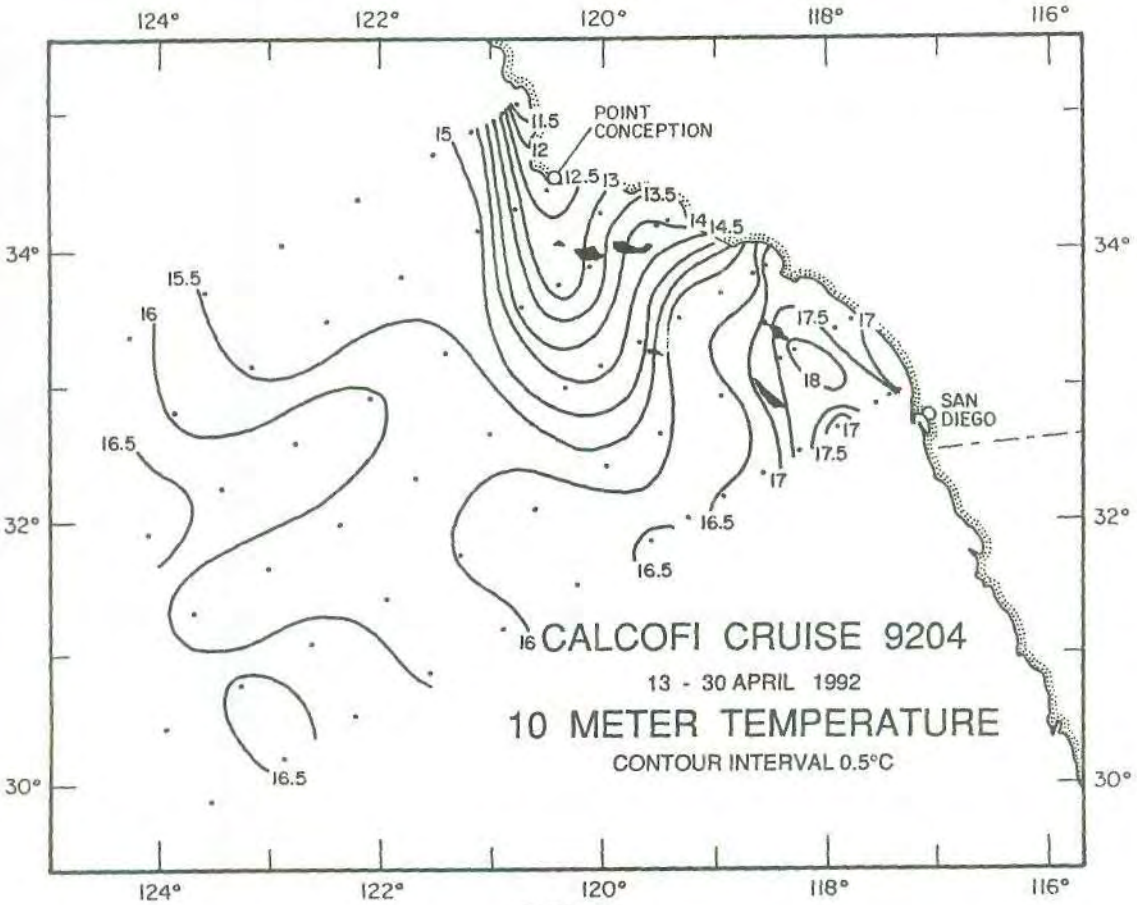

FIGURE 3C

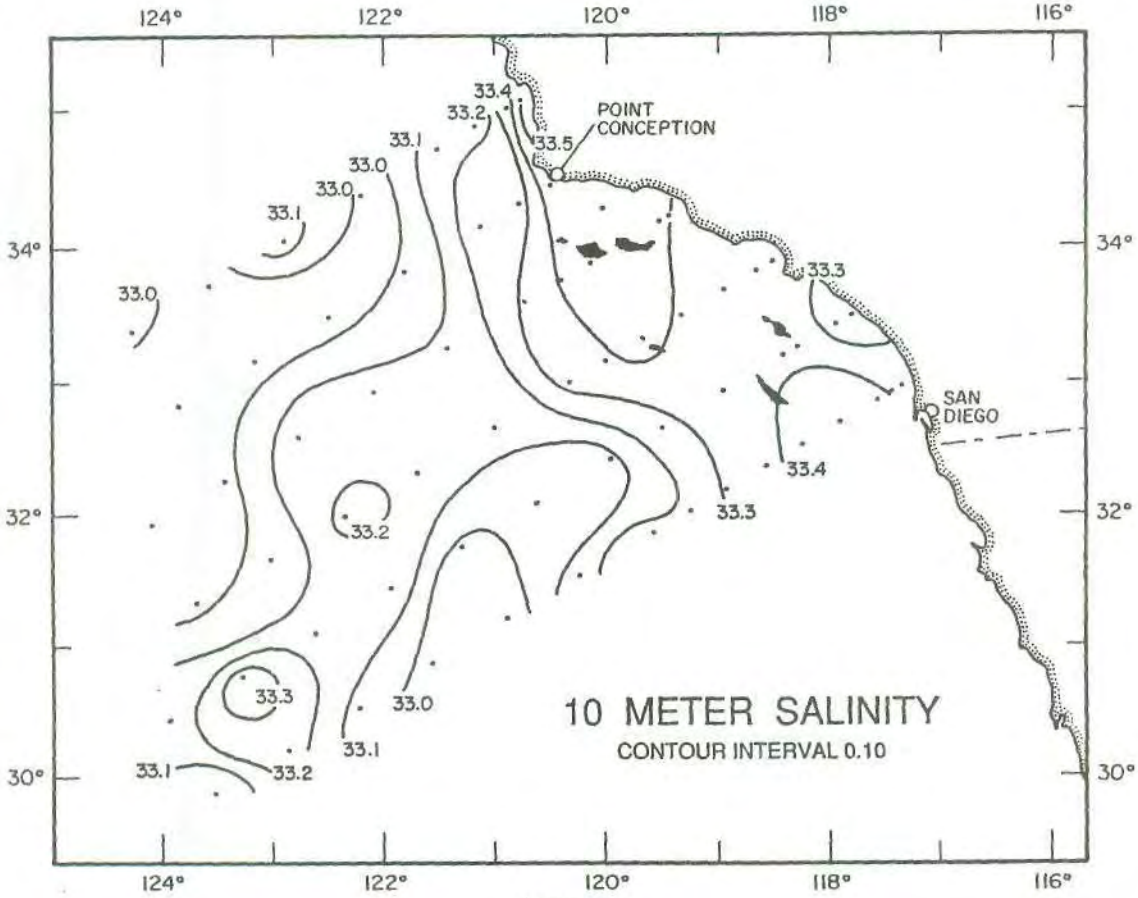

FIGURE 3D.

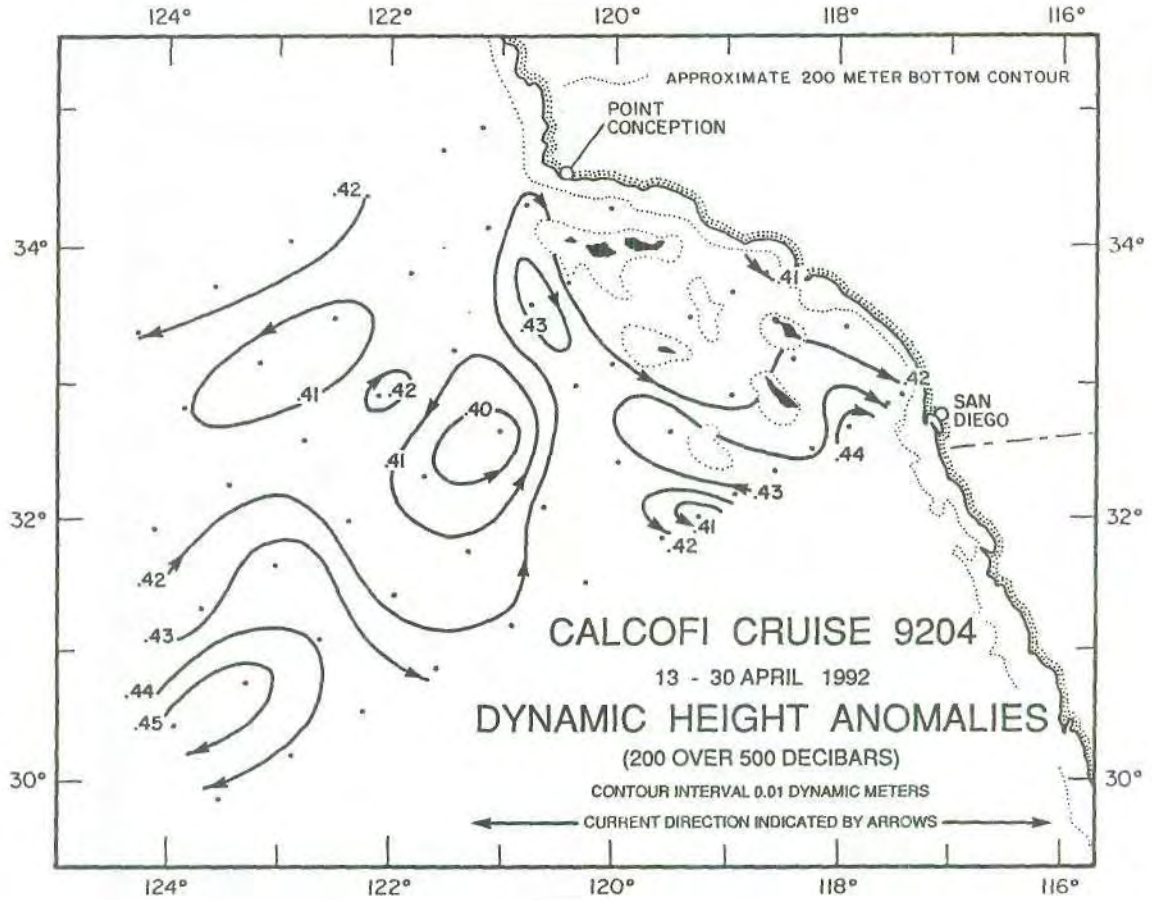

FIGURE 4A

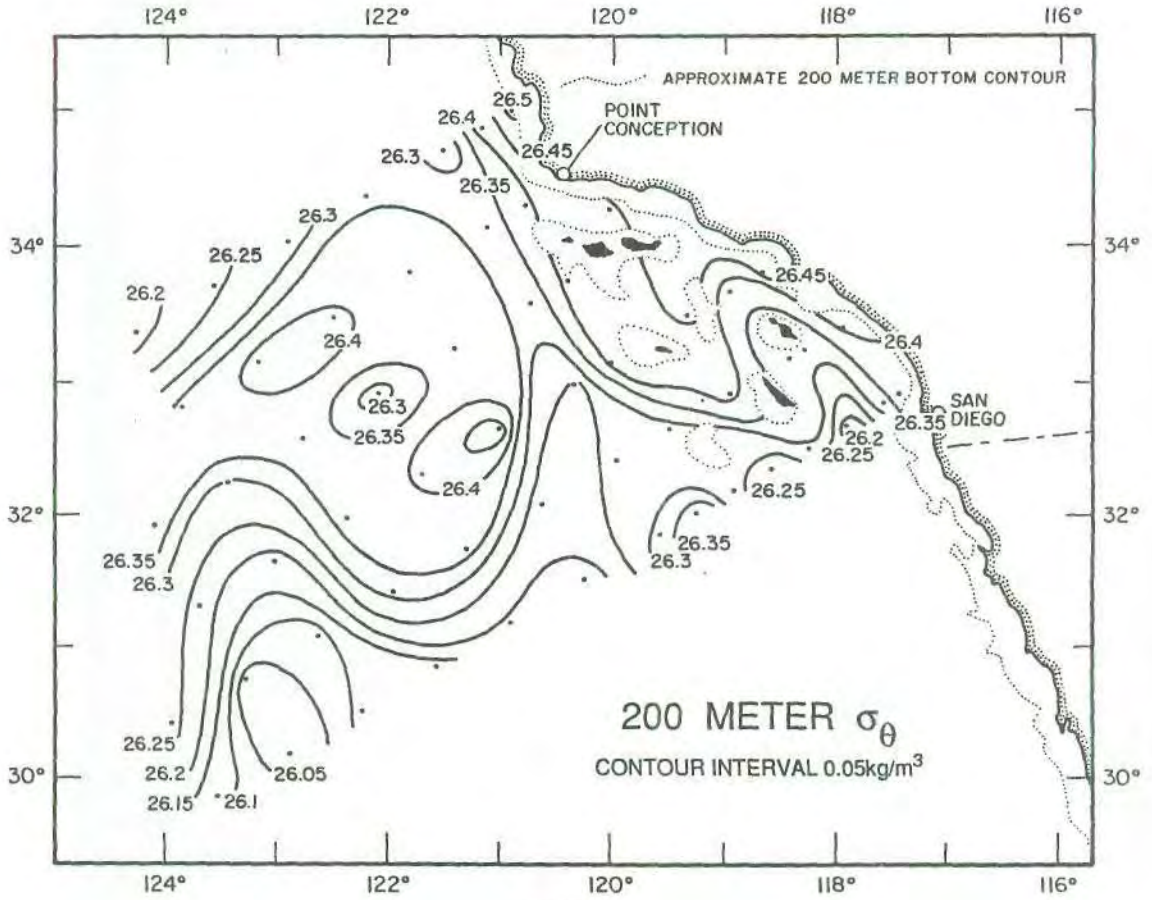

FIGURE 4B

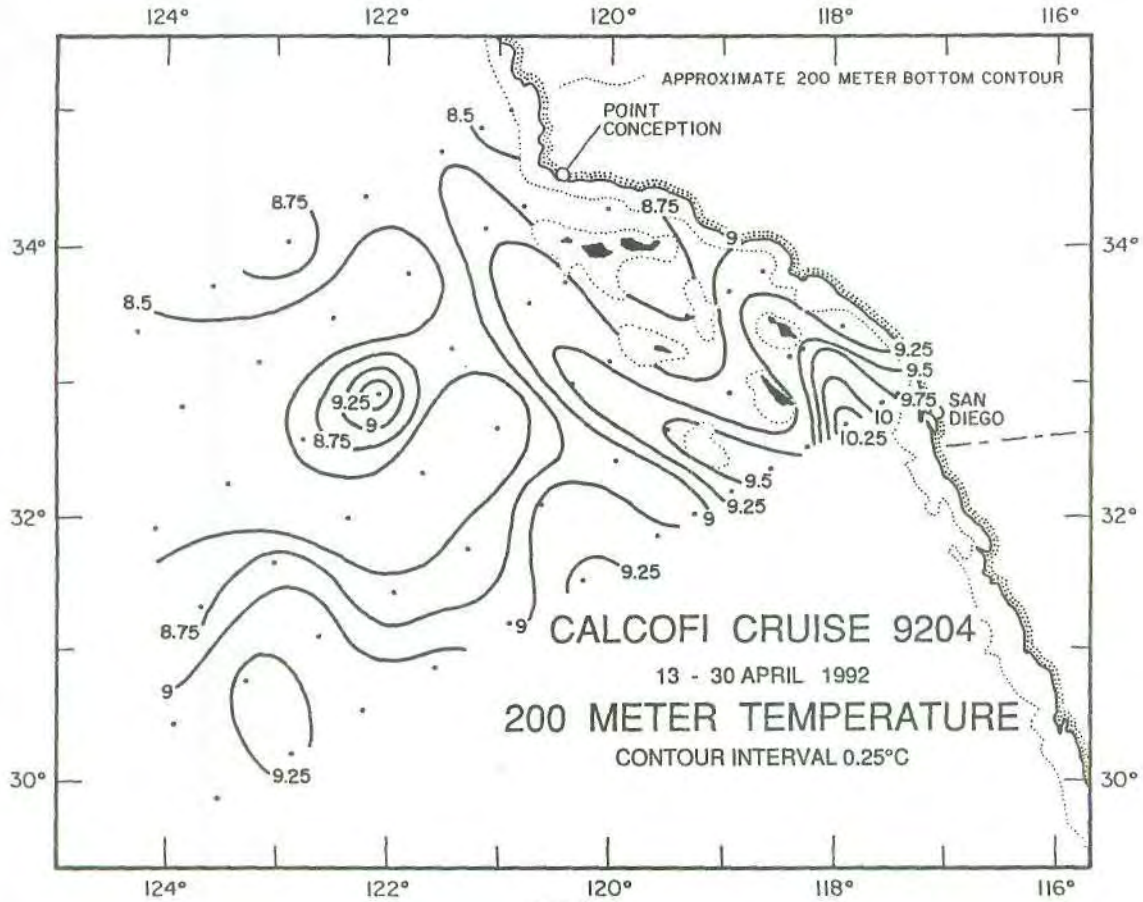

FIGURE 4C

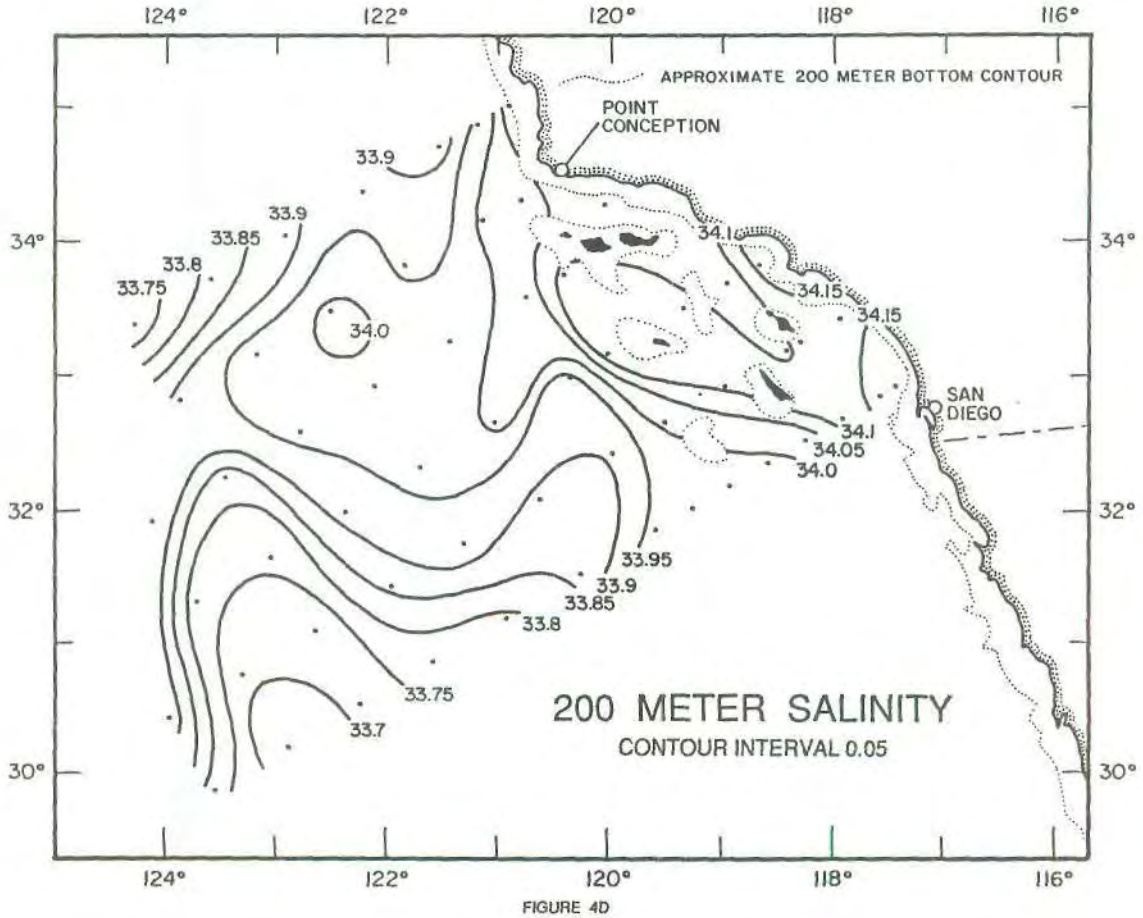

FIGURE 4D

CALCOFI CRUISE 9204

16 - 18 APRIL 1992

POTENTIAL DENSITY (σ_θ) ALONG CALCOFI LINE 90

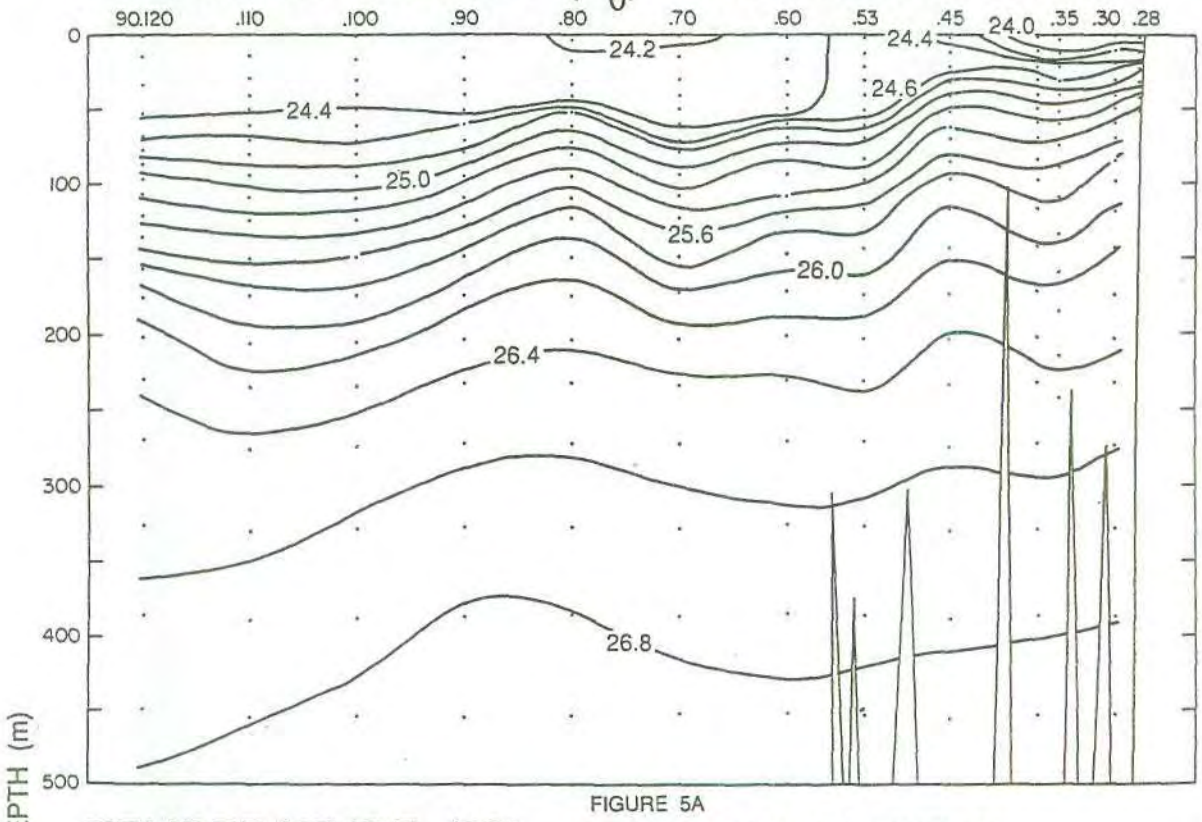

FIGURE 5A

TEMPERATURE (°C) ALONG CALCOFI LINE 90

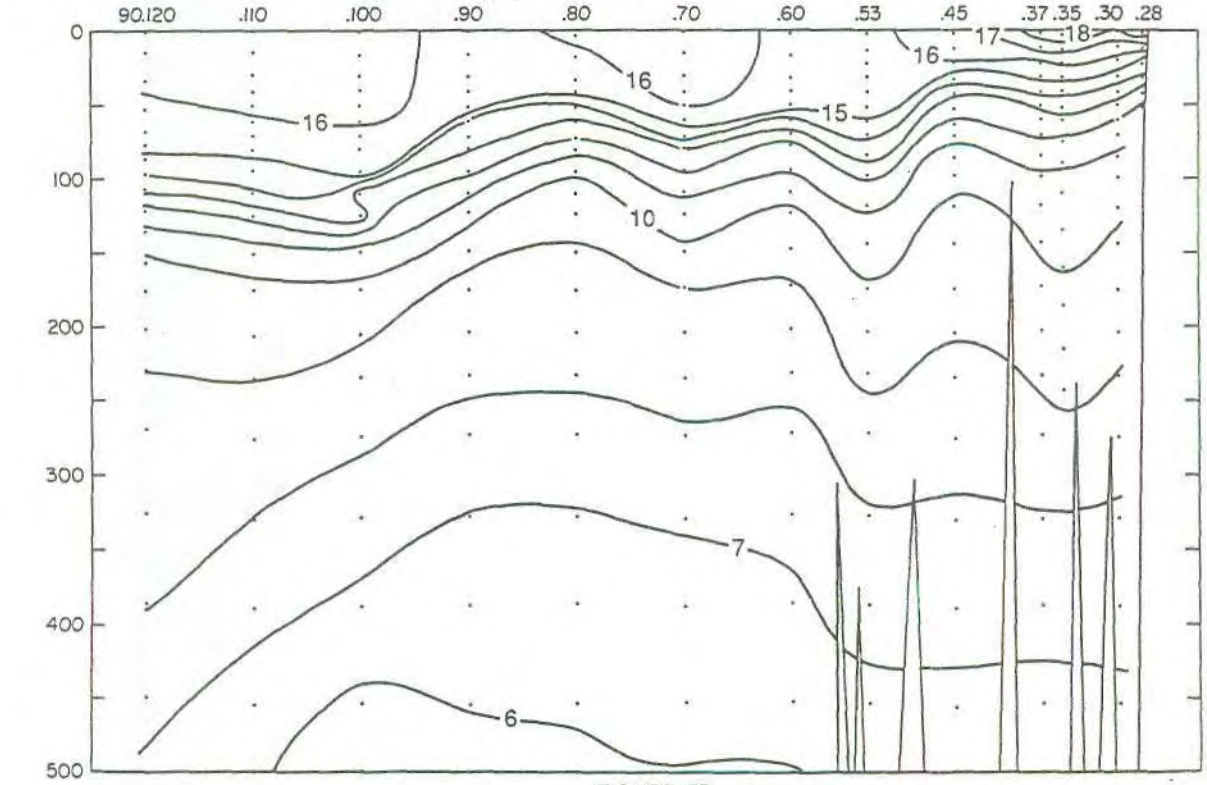

FIGURE 5B

CALCOFI CRUISE 9204

16 - 18 APRIL 1992

SALINITY ALONG CALCOFI LINE 90

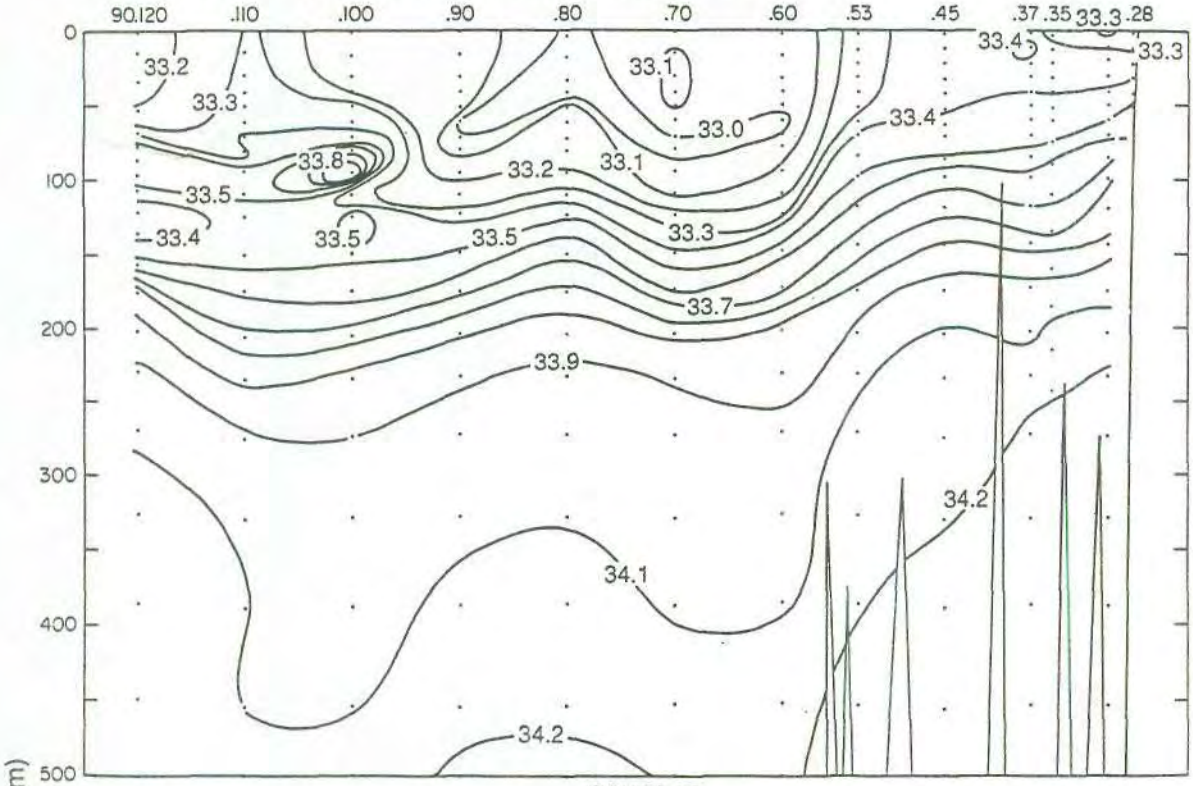

FIGURE 5C

SILICATE (μM/l) ALONG CALCOFI LINE 90

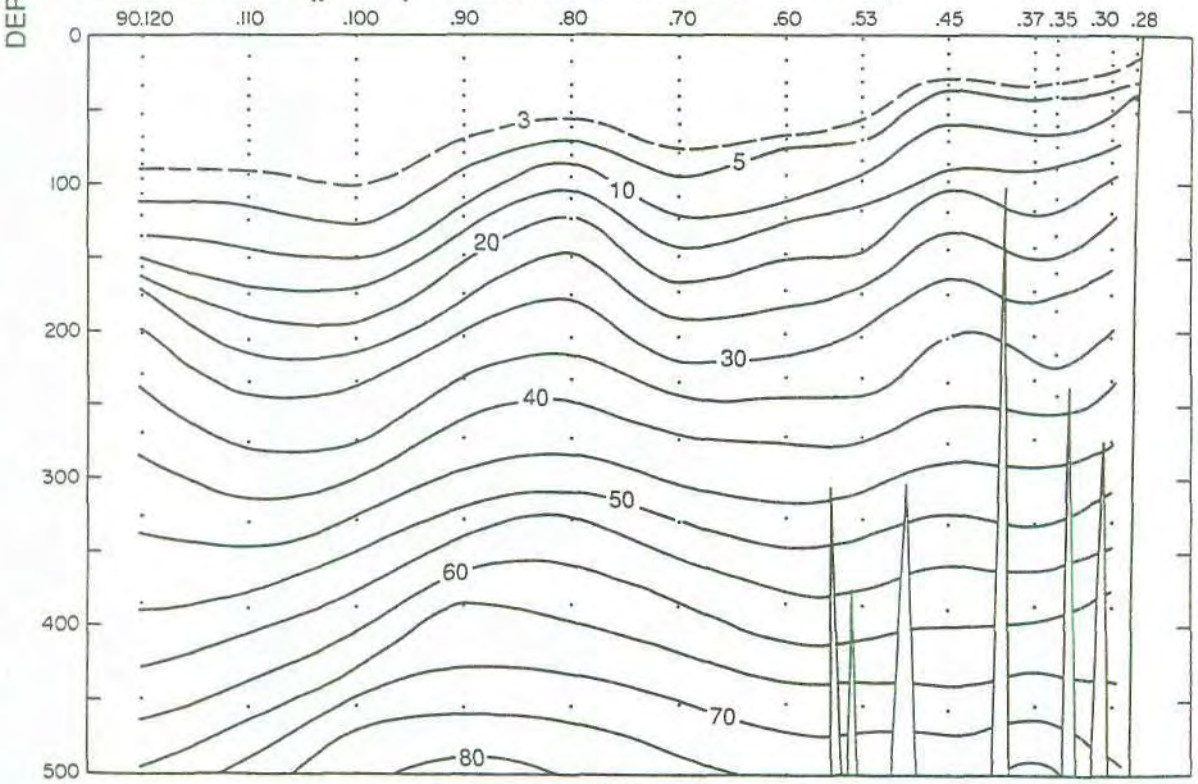

FIGURE 5D

CALCOFI CRUISE 9204

16 - 18 APRIL 1992

NITRATE (µM/l) ALONG CALCOFI LINE 90

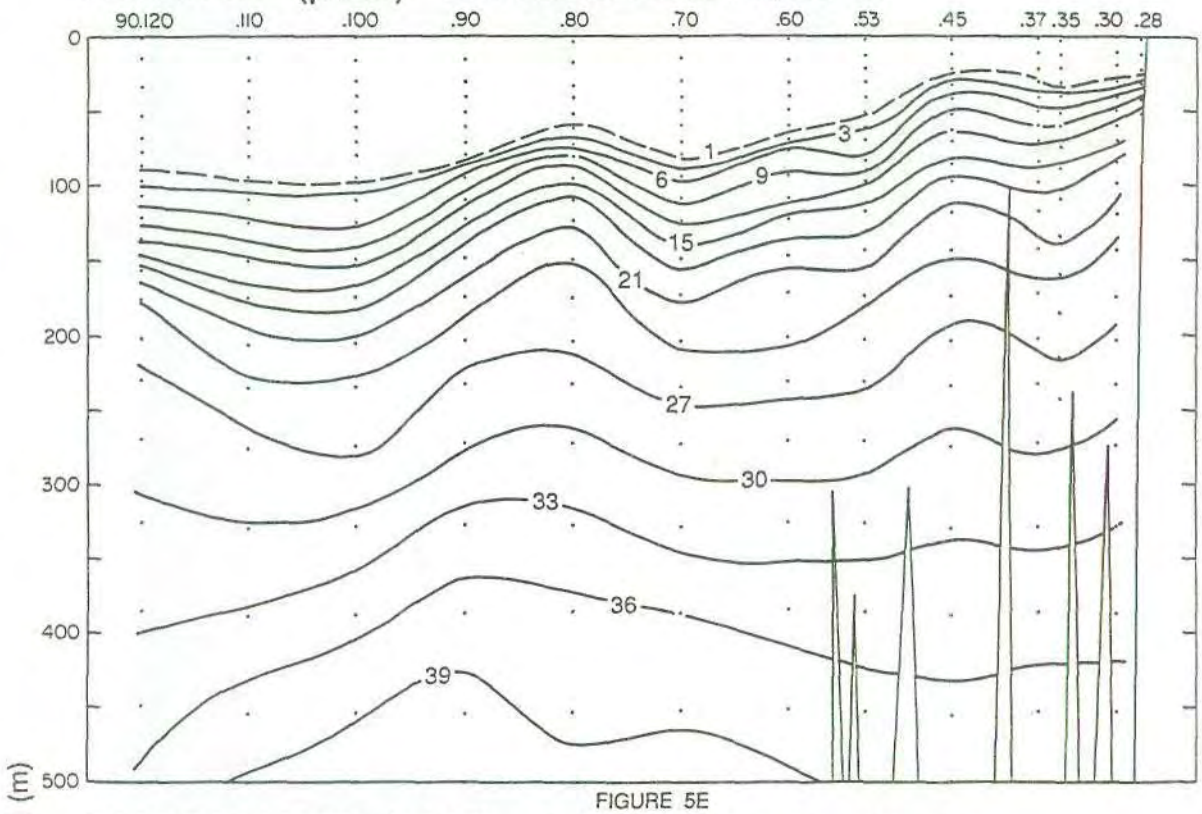

FIGURE 5E

PHOSPHATE (µM/l) ALONG CALCOFI LINE 90

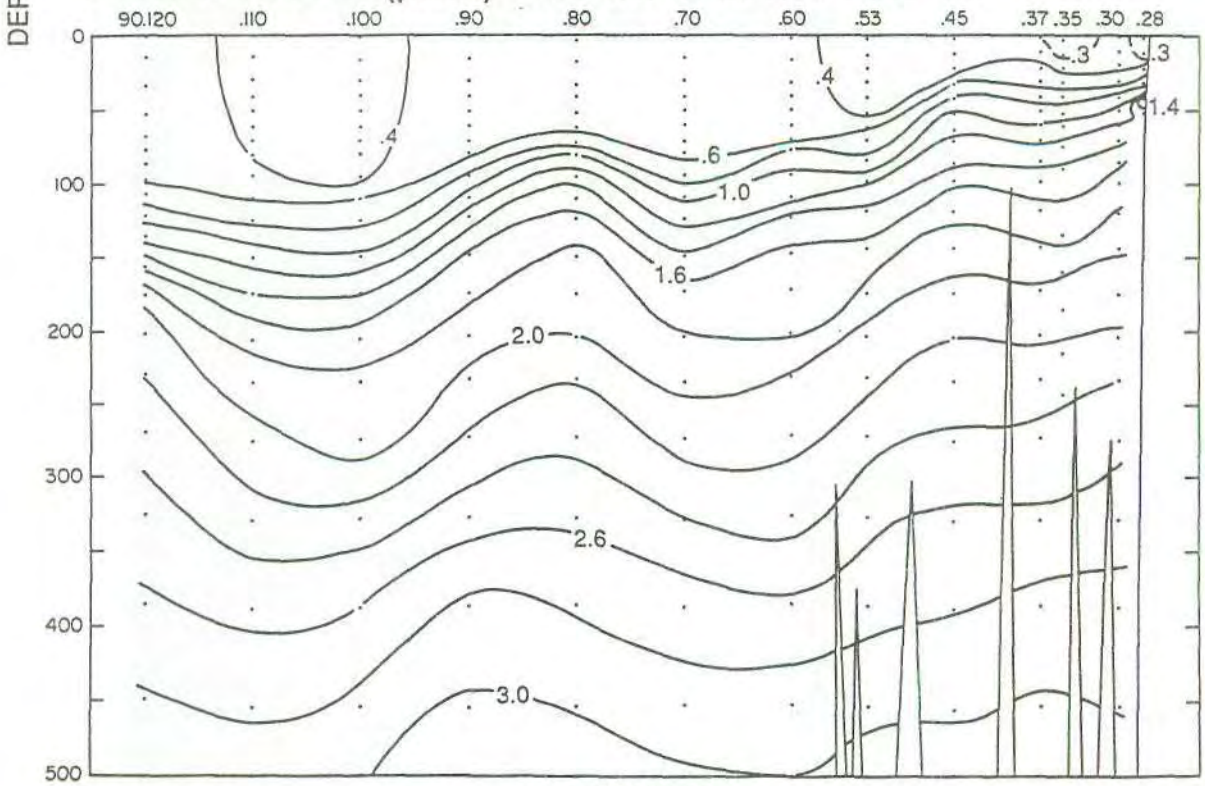

FIGURE 5F

CALCOFI CRUISE 9204

16 - 18 APRIL 1992

CHLOROPHYLL-a (µg/l) ALONG CALCOFI LINE 90

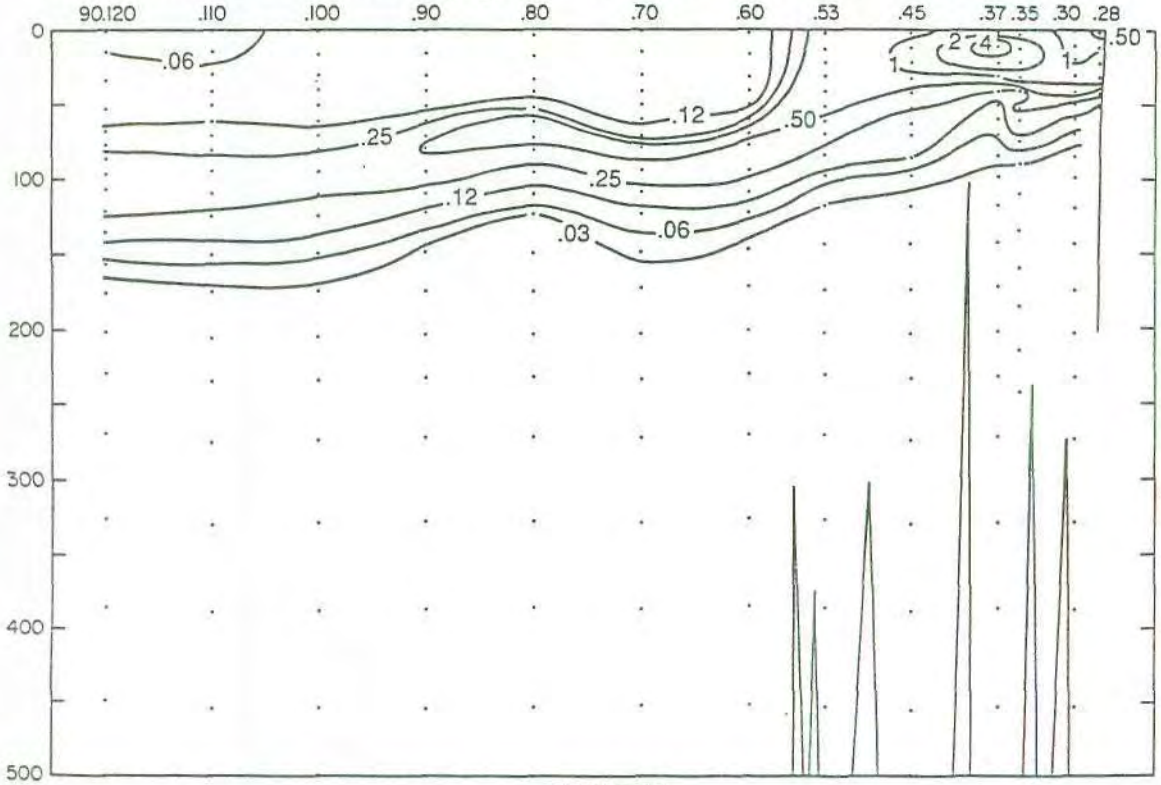

FIGURE 5G

OXYGEN SATURATION (%) ALONG CALCOFI LINE 90

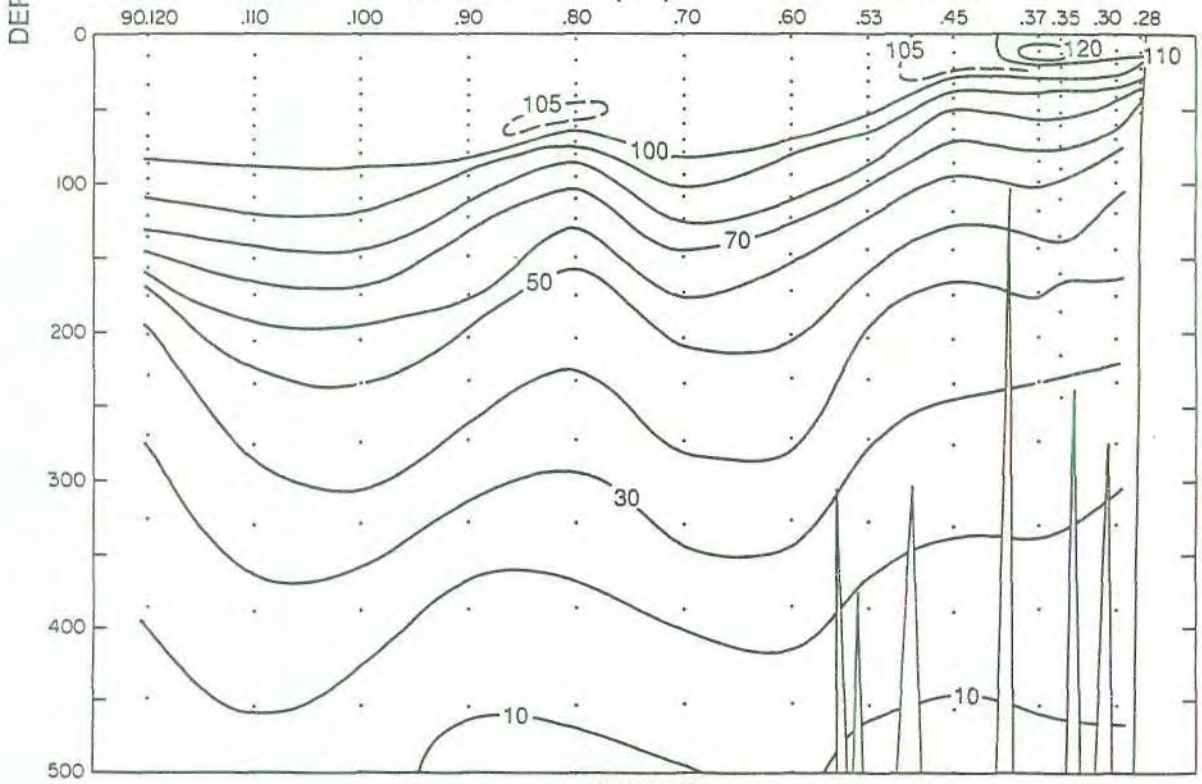

FIGURE 5H

CALCOFI CRUISE 9204

16 - 18 APRIL 1992

OXYGEN (ml/l) ALONG CALCOFI LINE 90

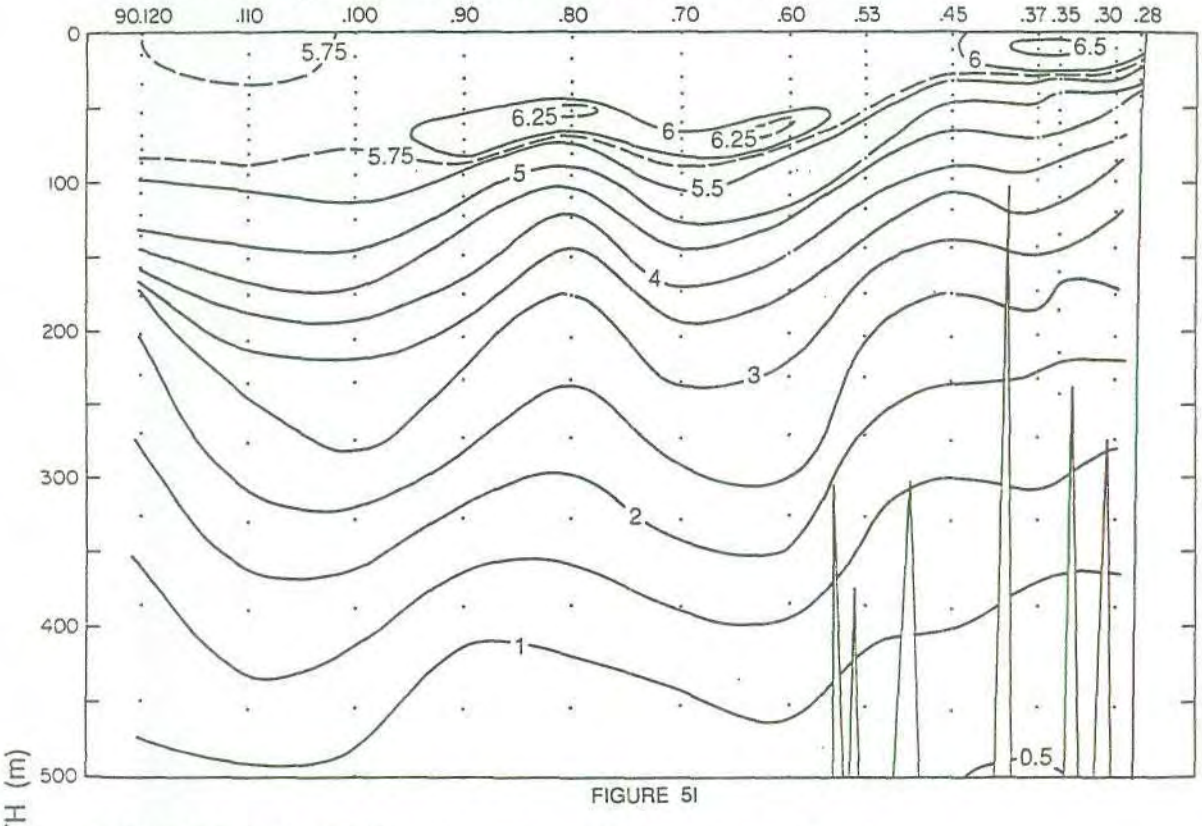

FIGURE 5I

NITRITE (µM/l) ALONG CALCOFI LINE 90

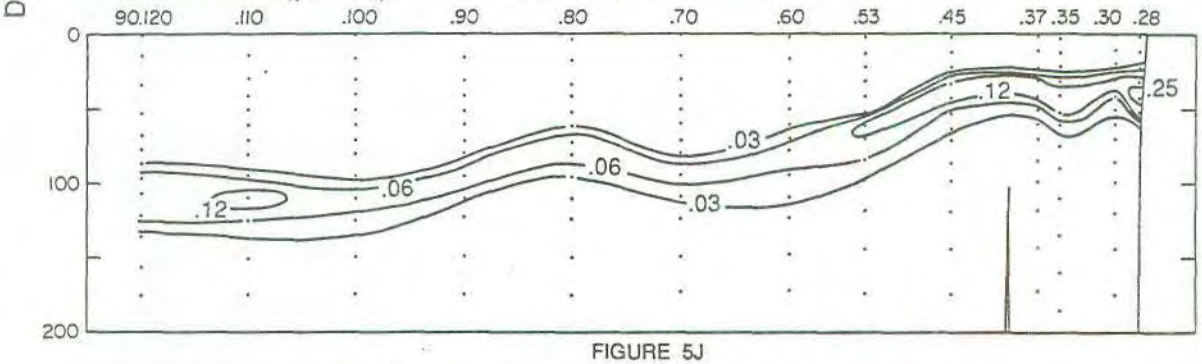

FIGURE 5J

PHAEOPIGMENTS (µg/l) ALONG CALCOFI LINE 90

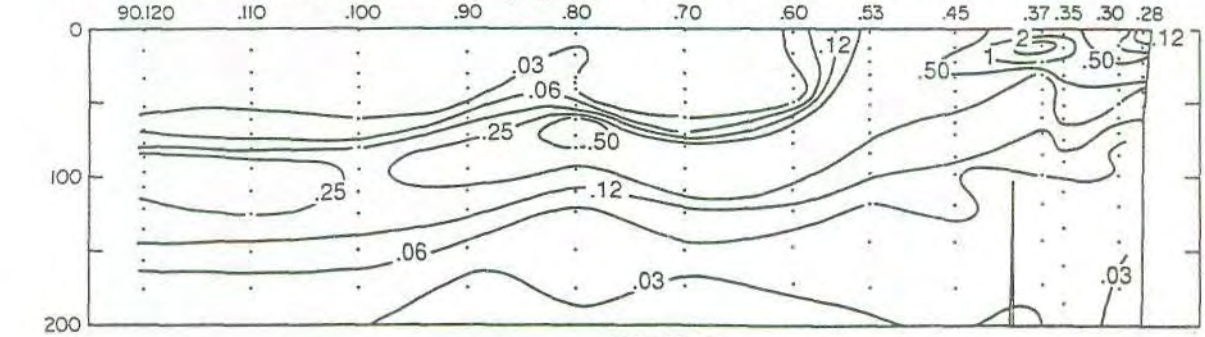

FIGURE 5K

PERSONNEL

CalCOFI Cruise 9204

SHIP'S CAPTAIN

Gary Michael Albertson, RV *David Starr Jordan*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

Dotson, Ronald C. (In Charge)	Fishery Biologist, NMFS
Abramenkoff, Dimitry N.	Fishery Biologist, NMFS
Alexander, Charles, J.	Biologist, Point Reyes Bird Observatory
Bos, David L.	Staff Research Associate, SIO
Costello, James P.	Staff Research Associate, SIO
Gruber, Dennis W.	Marine Technician, SIO
Manion, Susan M.	Fishery Biologist, NMFS
Meyer, Cindy A.	Computer Programmer, NMFS
Mullin, Michael M.	Director of MLRG, Professor, SIO
Renger, Edward H.	Staff Research Associate, SIO
South, Andrew B.	Student, UCSD
Wilkinson, James R.	Staff Research Associate, SIO
Wright, Pamela	Student, College of the Redwoods

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 77 49

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
35 5.3 N	120.46.5 W	27/04/92	1507 UTC	63 *m*	310 07 kn	290 03 09	4	1019.5 mb	12.8 C	13.2 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	11.84	11.84	33.539	25.485	248.6	0.000	6.29	102.6	5.2	0.75	4.5	0.07	14.20	4.73	0
1	2	11.84	11.84	33.539	25.485	248.7	0.005	6.29	102.6	5.2	0.75	4.5	0.07	14.20	4.73	2
	10 ISL	11.42	11.42	33.514	25.543	243 3	0.025	5.66	91.5	8.0	0.99	8.5	0.09	10.80	3.17	10
1	12	11.29	11.29	33.507	25.562	241.6	0.030	5.47	88.2	8.8	1.06	9.7	0.10	9.77	2.73	12
	20 ISL	11.24	11.24	33.502	25.567	241.3	0.049	5.41	87.1	8.8	1.08	10.0	0.10	9.23	2.97	20
1	22	11.23	11.23	33.501	25.568	241.3	0.054	5.40	86.9	8.8	1.09	10.1	0.10	9.09	3.03	22
	30 ISL	11.17	11.17	33.500	25.578	240.5	0.073	5.28	84.9	9.3	1.11	10.6	0.10	8.60	2.84	30
1	32	11.15	11.15	33.501	25.583	240.1	0.078	5.25	84.4	9.5	1.12	10.8	0.10	8.42	2.76	32
1	42	11.03	11.02	33.507	25.609	237.8	0.102	5.08	81.4	10.3	1.20	11.7	0.09	6.51	2.44	42
	50 ISL	10.75	10.74	33.566	25.705	228.9	0.120	4.58	73.0	12.6	1.37	14.3	0.09	5.09	1.78	50
1	52	10.68	10.67	33.581	25.729	226.7	0.125	4.46	71.0	13.2	1.41	15.0	0.09	4.73	1.62	52

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 77 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
35 1.3 N	120 55.0 W	27/04/92	1238 UTC	238 m	320 20 kn			1018.9 mb	13.0 C	13.1 C		

CAST	DEPTH a	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO Ug/1	PRESS db
	0 ISL	13.10	13.10	33.367	25.109	284.4	0.000	6.96	116.5	0.8	0.42	0.0	0.00	6.65	1.67	0
1	1	13.10	13.10	33.367	25.109	284.4	0.003	6.96	116.5	0.8	0.42	0.0	0.00	6.65	1.67	1
	10 ISL	12.88	12.88	33.373	25.157	280.1	0.028	6.99	116.5	0.4	0.43	0.2	0.00	6.95	2.37	10
1	11	12.86	12.86	33.374	25.162	279.7	0.031	6.99	116.4	0.4	0.43	0.2	0.00	6.98	2.47	11
1	20	11.71	11.71	33.407	25.407	256.5	0.055	6.21	101.0	3.6	0.84	6.2	0.09	9.24	2.59	20
	30 ISL	11.10	11.10	33.440	25.544	243.7	0.080	5.29	84.9	10.5	1.16	11.6	0.10	5.26	1.24	30
1	31	11.07	11.07	33.443	25.552	243.0	0.083	5.22	83.7	11.1	1.18	12.0	0.10	4.75	1.09	31
1	42	11.00	10.99	33.482	25.595	239.2	0.109	5.03	80.6	12.8	1.24	13.0	0.11	3.30	0.95	42
	50 ISL	10.54	10.53	33.479	25.674	231.8	0.128	4.50	71.4	14.8	1.38	15.4	0.08	1.62	0.59	50
1	51	10.47	10.46	33.478	25.685	230.7	0.130	4.43	70.1	15.1	1.40	15.7	0.08	1.41	0.55	51
1	62	10.03	10.02	33.512	25.787	221.3	0.155	4.03	63.2	17.0	1.52	18.1	0.02	0.12	0.39	62
1	72	10.04	10.03	33.664	25.904	210.4	0.177	3.53	55.4	20.2	1.65	20.0	0.00	0.04	0.28	72
	75 ISL	10.03	10.02	33.686	25.923	208.7	0.183	3.45	54.2	20.8	1.68	20.3	0.00	0.04	0.28	75
1	86	9.95	9.94	33.730	25.971	204.3	0.206	3.27	51.3	22.3	1.75	21.2	0.02	0.03	0.29	86
	100 ISL	9.82	9.81	33.782	26.033	198.7	0.234	3.02	47.2	24.4	1.83	22.4	0.05	0.04	0.41	101
1	106	9.75	9.74	33.806	26.064	195.9	0.246	2.91	45.4	25.5	1.87	22.9	0.07	0.04	0.45	107
	125 ISL	9.37	9.36	33.912	26.209	182.4	0.282	2.55	39.5	30.0	2.01	25.2	0.18	0.03	0.32	126
1	126	9.35	9.34	33.918	26.217	181.7	0.284	2.53	39.2	30.2	2.02	25.3	0.18	0.03	0.31	127
1	146	9.01	8.99	34.010	26.344	170.0	0.319	2.40	36.9	33.1	2.11	26.9	0.00	0.02	0.19	147
	150 ISL	8.93	8.91	34.023	26.367	167.8	0.325	2.36	36.2	34.0	2.13	27.2	0.01	0.02	0.19	151
1	176	8.48	8.46	34.074	26.477	157.7	0.368	2.15	32.7	39.1	2.25	28.7	0.04	0.01	0.21	177
	200 ISL	8.34	8.32	34.080	26.504	155.6	0.405	2.10	31.8	40.6	2.27	29.3	0.05	0.01	0.19	201
1	206	8.31	8.29	34.082	26.510	155.2	0.415	2.09	31.7	41.0	2.28	29.4	0.05	0.01	0.19	207

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 77 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 53.3 N	121 11.9 W	27/04/92	0910 UTC	558 m	330 13 *Kn*			1019.5 mb	14.8 C	14.5 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.84	14.84	33.175	24.600	332.8	0.000	6.01	104.1	3.1	0.44	0.3	0.00	0.30	0.14	0
1	1	14.84	14.84	33.175	24.600	332.8	0.003	6.01	104.1	3.1	0.44	0.3	0.00	0.30	0.14	1
	10 ISL	14.86	14.86	33.177	24.598	333.3	0.033	6.01	104.2	3.0	0.43	0.3	0.00	0.30	0.13	10
1	11	14.86	14.86	33.177	24.598	333.4	0.037	6.01	104.2	3.0	0.43	0.3	0.00	0.30	0.13	11
	20 ISL	14.79	14.79	33.177	24.6X3	332.2	0.067	6.04	104.6	3.1	0.43	0.3	0.00	0.32	0.18	20
1	21	14.78	14.78	33.177	24.615	332.0	0.070	6.04	104.5	3.1	0.43	0.3	0.00	0.32	0.19	21
1	30	14.63	14.63	33.190	24.658	328.2	0.100	5.99	103.4	3.3	0.45	0.3	0.02	0.60	0.41	30
1	41	14.36	14.35	33.182	24.709	323.6	0.135	5.93	101.8	3.6	0.51	0.7	0.07	0.68	0.40	41
1	49	13.25	13.24	33.227	24.972	298.8	0.160	5.57	93.4	5.7	0.74	4.2	0.36	0.27	0.31	49
	50 ISL	13.21	13.20	33.232	24.984	297.7	0.163	5.55	93.0	5.8	0.75	4.4	0.36	0.26	0.30	50
1	60	12.78	12.77	33.241	25.076	289.1	0.193	5.37	89.2	6.6	0.84	6.1	0.37	0.21	0.24	60
1	69	11.47	11.46	33.202	25.293	268.5	0.218	5.06	81.7	9.3	1.11	10.9	0.08	0.16	0.19	69
	75 ISL	11.01	11.00	33.268	25.427	255.8	0.234	4.80	76.8	11.0	1.22	13.0	0.05	0.12	0.16	75
1	82	10.70	10.69	33.366	25.558	243.5	0.251	4.52	71.9	12.8	1.31	14.6	0.02	0.08	0.14	82
1	98	10.25	10.24	33.446	25.698	230.5	0.289	4.24	66.8	15.5	1.46	16.8	0.01	0.05	0.10	98
	100 ISL	10.21	10.20	33.457	25.714	229.0	0.294	4.20	66.1	15.8	1.48	17.1	0.01	0.05	0.09	100
1	117	9.90	9.89	33.558	25.845	216.9	0.331	3.86	60.4	18.8	1.61	19.2	0.01	0.02	0.06	118
	125 ISL	9.72	9.71	33.620	25.924	209.6	0.348	3.68	57.4	20.6	1.67	20.4	0.01	0.02	0.06	126
1	143	9.32	9.30	33.759	26.098	193.3	0.385	3.30	51.0	24.6	1.81	23.0	0.01	0.01	0.06	144
	150 ISL	9.21	9.19	33.800	26.148	188.7	0.398	3.19	49.2	25.9	1.85	23.7	0.01	0.01	0.06	151
1	171	8.91	8.89	33.897	26.272	177.3	0.437	2.95	45.2	29.4	1.96	25.3	0.02	0.01	0.06	172
	200 ISL	8.39	8.37	33.977	26.415	164.0	0.486	2.79	42.3	34.2	2.06	27.3	0.00	0.01	0.05	201
1	202	8.36	8.34	33.981	26.423	163.3	0.489	2.78	42.1	34.5	2.07	27.4	0.00	0.01	0.05	203
1	231	8.11	8.09	34.026	26.496	156.8	0.536	2.59	39.0	38.0	2.15	28.5	0.01			232
	250 ISL	8.04	8.01	34.066	26.538	153.1	0.565	2.30	34.6	41.0	2.26	29.5	0.01			251
1	272	7.96	7.93	34.108	26.583	149.2	0.598	1.94	29.1	44.8	2.39	30.7	0.01			274
	300 ISL	7.72	7.69	34.132	26.638	144.4	0.640	1.67	25.0	49.4	2.52	32.0	0.01			302
1	327	7.44	7.41	34.143	26.687	140.1	0.678	1.49	22.1	53.7	2.63	33.1	0.00			329
1	386	6.85	6.81	34.162	26.784	131.4	0.758	1.16	17.0	61.7	2.78	35.5	0.00			389
	400 ISL	6.72	6.68	34.171	26.809	129.1	0.776	1.07	15.6	63.9	2.84	36.1	0.00			403
1	452	6.28	6.24	34.206	26.895	121.4	0.841	0.75	10.8	72.5	3.05	37.9	0.01			455
	500 ISL	5.96	5.92	34.235	26.959	115.7	0.898	0.56	8.0	80.0	3.13	38.7	0.04			503
1	520	5.83	5.78	34.247	26.985	113.3	0.921	0.48	6.9	83.1	3.16	39.1	0.05			524

RV DAVID STARR JORDAN " CALCOFI CRUISE 9204 STATION 77 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 43.2 N	121 33.1 W	27/04/92	0456 UTC	944 m	300 18 kn			1019.7 mb	15.5 C	15.0 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.16	15.16	33.188	24.541	338.5	0.000	5.97	104.1	3.1	0.43	0.4	0.00	0.22	0.08	0
1	2	15.16	15.16	33.188	24.541	338.5	0.007	5.97	104.1	3.1	0.43	0.4	0.00	0.22	0.08	2
	10 ISL	15.16	15.16	33.190	24.543	338.6	0.034	5.97	104.1	3.0	0.43	0.4	0.00	0.23	0.08	10
1	16	15.16	15.16	33.191	24.544	338.6	0.054	5.97	104.1	2.9	0.43	0.4	0.00	0.23	0.08	16
	20 ISL	15.10	15.10	33.194	24.560	337.3	0.068	5.98	104.2	2.9	0.43	0.4	0.00	0.24	0.11	20
	30 ISL	14.89	14.89	33.198	24.609	332.9	0.101	6.00	104.1	2.9	0.43	0.4	0.00	0.39	0.17	30
1	31	14.86	14.86	33.198	24.615	332.3	0.105	6.00	104.0	2.9	0.43	0.4	0.00	0.41	0.18	31
1	41	14.62	14.61	33.181	24.653	329.0	0.138	5.97	103.0	3.0	0.45	0.5	0.02	0.81	0.43	41
	50 ISL	14.45	14.44	33.187	24.694	325.3	0.167	5.89	101.3	3.3	0.49	0.9	0.09	0.62	0.35	50
1	51	14.43	14.42	33.188	24.699	324.9	0.170	5.88	101.0	3.3	0.49	0.9	0.10	0.59	0.33	51
1	61	14.27	14.26	33.197	24.740	321.2	0.203	5.82	99.7	3.8	0.53	1.3	0.15	0.47	0.30	61
1	70	13.23	13.22	33.207	24.961	300.4	0.231	5.60	93.9	5.2	0.71	4.1	0.30	0.37	0.32	70
	75 ISL	12.63	12.62	33.211	25.082	288.9	0.245	5.45	90.2	6.2	0.81	6.0	0.25	0.30	0.30	75
1	79	12.20	12.19	33.217	25.169	280.6	0.257	5.33	87.4	7.1	0.89	7.4	0.19	0.26	0.29	79
1	94	11.51	11.50	33.282	25.348	263.9	0.298	4.94	79.9	10.2	1.11	11.1	0.13	0.28	0.30	94
	100 ISL	11.38	11.37	33.302	25.388	260.3	0.313	4.85	78.2	10.7	1.16	11.8	0.10	0.23	0.29	100
1	108	11.15	11.14	33.338	25.457	253.8	0.334	4.71	75.6	11.8	1.23	13.0	0.07	0.15	0.27	109
1	124	9.83	9.82	33.496	25.809	220.5	0.372	4.07	63.5	18.1	1.56	18.8	0.02	0.04	0.13	125
	125 ISL	9.81	9.80	33.510	25.823	219.1	0.374	4.04	63.1	18.4	1.57	19.0	0.02	0.04	0.13	126
1	148	9.38	9.36	33.702	26.044	198.5	0.422	3.45	53.4	23.3	1.79	22.4	0.01	0.01	0.10	149
	150 ISL	9.35	9.33	33.714	26.058	197.2	0.426	3.41	52.7	23.7	1.80	22.6	0.01	0.01	0.10	151
1	172	9.05	9.03	33.818	26.188	185.3	0.468	3.11	47.8	27.1	1.93	24.7	0.01	0.01	0.06	173
	200 ISL	8.73	8.71	33.891	26.296	175.5	0.519	2.97	45.4	30.1	2.00	26.1	0.00	0.01	0.06	201
1	202	8.70	8.68	33.895	26.304	174.8	0.522	2.97	45.3	30.3	2.00	26.2	0.00	0.01	0.06	203
1	230	8.21	8.19	33.989	26.452	161.0	0.569	2.92	44.1	34.9	2.06	27.4	0.00			231
	250 ISL	7.95	7.92	34.010	26.508	156.0	0.601	2.89	43.4	37.3	2.10	28.0	0.00			251
1	270	7.73	7.70	34.018	26.546	152.5	0.632	2.85	42.6	39.8	2.16	28.7	0.00			272
	300 ISL	7.43	7.40	34.055	26.619	146.0	0.676	2.36	35.0	45.9	2.35	30.8	0.00			302
1	325	7.21	7.18	34.084	26.673	141.2	0.712	1.89	27.9	51.3	2.51	32.7	0.00			327
1	384	6.72	6.68	34.110	26.761	133.4	0.793	1.42	20.7	60.1	2.71	35.2	0.01			386
	400 ISL	6.58	6.54	34.130	26.795	130.3	0.814	1.24	18.0	63.3	2.79	36.0	0.01			403
1	448	6.20	6.16	34.190	26.892	121.4	0.875	0.76	11.0	72.3	3.01	38.2	0.00			451
	500 ISL	5.94	5.90	34.220	26.949	116.5	0.937	0.59	8.5	77.7	3.09	39.2	0.02			503
1	517	5.85	5.81	34.230	26.969	114.8	0.956	0.53	7.6	79.5	3.12	39.5	0.02			521

RV DAVID STARR JORDAN CALCOFJ CRUISE 9204 STATION 77 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 23.2 N	122 14.9 W	26/04/92	2301 UTC	4012 *m*	330 09 kn	320 03 05	1	1019.0 mb	17.9 C	17.0 C	34m 02	3/8	CI

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.49	15.49	32.953	24.288	362.6	0.000	5.93	104.0	3.5	0.46	0.3	0.00	0.08	0.02	0
1	1	15.49	15.49	32.953	24.288	362.6	0.004	5.93	104.0	3.5	0.46	0.3	0.00	0.08	0.02	1
	10 ISL	15.23	15.23	32.957	24.349	357.1	0.036	5.95	103.8	3.5	0.45	0.3	0.00	0.09	0.02	10
1	16	15.00	15.00	32.958	24.399	352.4	0.057	5.96	103.5	3.4	0.44	0.3	0.00	0.10	0.02	16
	20 ISL	14.92	14.92	32.953	24.413	351.3	0.071	5.97	103.5	3.4	0.44	0.3	0.00	0.10	0.02	20
	30 ISL	14.79	14.79	32.937	24.429	350.0	0.106	5.98	103.4	3.3	0.44	0.2	0.00	0.11	0.03	30
1	31	14.78	14.78	32.935	24.429	350.0	0.110	5.98	103.3	3.3	0.44	0.2	0.00	0.11	0.03	31
1	41	14.67	14.66	32.926	24.446	348.7	0.145	6.00	103.4	3.2	0.45	0.2	0.00	0.19	0.05	41
	50 ISL	15.00	14.99	33.064	24.482	345.6	0.176	5.98	103.9	3.1	0.43	0.2	0.00	0.23	0.06	50
1	51	15.04	15.03	33.079	24.485	345.3	0.180	5.98	104.0	3.1	0.43	0.2	0.00	0.23	0.06	51
1	62	14.81	14.80	33.066	24.525	341.8	0.217	6.00	103.8	3.1	0.44	0.2	0.00	0.32	0.11	62
1	72	12.74	12.73	32.931	24.844	311.5	0.250	6.30	104.4	3.5	0.52	0.7	0.02	0.95	0.40	72
	75 ISL	12.30	12.29	32.938	24.934	302.9	0.259	6.20	101.8	4.2	0.60	2.2	0.05	0.92	0.45	75
1	80	11.75	11.74	32.972	25.063	290.7	0.274	5.96	96.7	5.5	0.75	4.9	0.10	0.78	0.49	80
1	96	11.59	11.58	33.100	25.193	278.8	0.320	5.55	89.8	7.1	0.90	7.7	0.15	0.65	0.45	96
	100 ISL	11.33	11.32	33.125	25.259	272.5	0.331	5.39	86.8	8.2	0.99	9.2	0.12	0.56	0.41	100
1	110	10.62	10.61	33.187	25.433	256.0	0.357	4.99	79.1	11.1	1.22	13.0	0.05	0.32	0.29	110
	125 ISL	10.04	10.03	33.290	25.613	239.1	0.394	4.61	72.2	14.3	1.41	16.2	0.02	0.17	0.17	126
1	126	10.01	10.00	33.298	25.624	238.1	0.397	4.59	71.9	14.5	1.42	16.4	0.02	0.16	0.16	127
1	150	9.38	9.36	33.589	25.956	207.0	0.450	3.73	57.7	21.3	1.74	21.5	0.02	0.01	0.04	151
1	175	9.04	9.02	33.825	26.195	184.7	0.499	3.10	47.6	27.5	1.92	24.8	0.01	0.01	0.04	176
	200 ISL	8.68	8.66	33.948	26.348	170.5	0.543	2.83	43.2	32.3	2.05	26.8	0.01	0.00	0.03	201
1	206	8.59	8.57	33.966	26.376	167.9	0.554	2.80	42.6	33.3	2.08	27.1	0.01	0.00	0.03	207
1	236	8.22	8.20	34.027	26.481	158.4	0.602	2.57	38.8	37.5	2.21	28.6	0.01			237
	250 ISL	8.06	8.03	34.040	26.515	155.4	0.624	2.51	37.8	39.3	2.25	29.2	0.01			251
1	276	7.78	7.75	34.056	26.569	150.6	0.664	2.37	35.4	42.9	2.32	30.2	0.01			278
	300 ISL	7.55	7.52	34.079	26.621	145.9	0.700	2.09	31.1	46.9	2.44	31.5	0.01			302
1	331	7.28	7.25	34.109	26.683	140.4	0.744	1.70	25.1	52.3	2.61	33.3	0.02			333
1	390	6.80	6.76	34.155	26.785	131.3	0.824	1.18	17.3	62.3	2.87	35.7	0.02			392
	400 ISL	6.73	6.69	34.156	26.796	130.4	0.837	1.12	16.4	63.7	2.90	36.0	0.02			403
1	455	6.33	6.29	34.155	26.848	125.9	0.908	0.84	12.2	70.8	3.00	37.8	0.02			458
	500 ISL	5.89	5.85	34.171	26.917	119.5	0.963	0.70	10.0	76.9	3.09	39.4	0.03			503
1	524	5.66	5.62	34.181	26.953	116.1	0.991	0.63	9.0	80.2	3.14	40.2	0.03			528

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 77 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 3.4 N	122 56.5 W	26/04/92	1545 UTC	4228 D	340 10 kn	350 03 08	1	1017.2 mb	17.0 C	16.1 C	32m O2	1/8	AC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
1	0	15.52	15.52	33.165	24.445	347.7	0.000	5.88	103.3	3.1	0.43	0.2	0.00	0.14	0.03	0
	10 ISL	15.40	15.40	33.163	24.470	345.5	0.035	5.90	103.4	3.0	0.42	0.2	0.00	0.13	0.04	10
1	16	15.32	15.32	33.162	24.487	344.1	0.055	5.91	103.4	3.0	0.42	0.2	0.00	0.13	0.04	16
	20 ISL	15.26	15.26	33.158	24.497	343.3	0.069	5.93	103.6	3.1	0.42	0.2	0.00	0.13	0.04	20
	30 ISL	15.12	15.12	33.149	24.521	341.3	0.103	5.96	103.8	3.2	0.42	0.2	0.00	0.14	0.04	30
1	31	15.11	15.11	33.148	24.522	341.2	0.107	5.96	103.8	3.2	0.42	0.2	0.00	0.14	0.04	31
1	41	15.08	15.07	33.149	24.530	340 8	0.141	5.95	103.6	3.1	0.42	0.2	0.01	0.18	0.05	41
	50 ISL	15.08	15.07	33.149	24.530	341.0	0.172	5.95	103.6	3.0	0.42	0.2	0.00	0.21	0.06	50
1	51	15.08	15.07	33.149	24.530	341.0	0.175	5.95	103.6	3.0	0.42	0.2	0.00	0.21	0.06	51
1	60	15.01	15.00	33.153	24.549	339.5	0.206	5.94	103.3	2.9	0.42	0.2	0.01	0.31	0.10	60
1	70	13.75	13.74	33.183	24.837	312.2	0.238	6.06	102.7	3.8	0.47	0.5	0.03	0.87	0.53	70
	75 ISL	13.03	13.02	33.181	24.981	298.6	0.253	5.81	97.0	4.8	0.62	3.0	0.10	0.82	0.49	75
1	80	12.38	12.37	33.177	25.104	286.9	0.268	5.51	90.7	5.8	0.79	5.9	0.17	0.68	0.45	80
1	95	11.57	11.56	33.176	25.255	272.8	0.310	5.20	84.2	8.1	1.02	9.7	0.09	0.42	0.34	95
	100 ISL	11.15	11.14	33.185	25.338	264.9	0.323	5.07	81.3	9.5	1.12	11.3	0.06	0.35	0.30	100
1	109	10.44	10.43	33.205	25.478	251.6	0.347	4.82	76.1	12.1	1.28	14.2	0.03	0.23	0.23	109
1	124	9.86	9.85	33.206	25.577	242.4	0.384	4.39	68.5	15.7	1.46	17.4	0.02	0.07	0.08	125
	125 ISL	9.84	9.83	33.209	25.583	241.9	0.386	4.37	68.1	15.8	1.47	17.5	0.02	0.07	0.08	126
1	149	9.53	9.51	33.366	25.757	225.8	0.442	4.04	62.6	18.8	1.59	19.7	0.02	0.02	0.05	150
	150 ISL	9.51	9.49	33.381	25.772	224.4	0.445	4.01	62.1	19.0	1.60	19.8	0.02	0.02	0.05	151
1	175	9.12	9.10	33.749	26.123	191.5	0.497	3.34	51.4	25.0	1.84	23.5	0.02	0.01	0.04	176
	200 ISL	8.84	8.82	33.898	26.284	176.6	0.543	2.95	45.2	29.6	1.96	25.6	0.02	0.00	0.04	201
1	205	8.79	8.77	33.912	26.303	174.9	0.551	2.89	44.2	30.4	1.98	25.9	0.02	0.00	0.04	206
1	232	8.47	8.45	34.003	26.424	163.8	0.597	2.63	39.9	34.9	2.11	27.7	0.01			233
	250 ISL	8.27	8.24	34.032	26.477	159.0	0.626	2.53	38.3	37.5	2.17	28.6	0.01			251
1	272	8.01	7.98	34.049	26.530	154.3	0.661	2.43	36.5	40.5	2.23	29.5	0.01			274
	300 ISL	7.65	7.62	34.061	26.592	148.7	0.703	2.25	33.6	44.7	2.33	30.9	0.01			302
1	326	7.31	7.28	34.066	26.645	144.0	0.741	2.05	30.3	48.9	2.43	32.3	0.01			328
1	387	6.58	6.54	34.091	26.764	133.0	0.826	1.44	20.9	60.6	2.69	35.6	0.01			389
	400 ISL	6.46	6.42	34.099	26.786	131.0	0.843	1.32	19.1	63.1	2.76	36.3	0.01			403
1	450	6.04	6.00	34.133	26.868	123.6	0.906	0.92	13.2	71.9	2.98	38.6	0.00			453
	500 ISL	5.68	5.64	34.165	26.938	117.3	0.967	0.69	9.8	79.1	3.08	39.9	0.01			503
1	518	5.55	5.51	34.177	26.963	115.0	0.988	0.61	8.7	81.7	3.12	40.3	0.02			522

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 77 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 43.3 N	123 38.0 W	26/04/92	0941 UTC	4205 m	330 13 kn			1016.9 mb	15.5 C	15.1 C			

CAST	DEPTH n	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.68	15.68	32.941	24.237	367.5	0.000	5.88	103.5	2.9	0.45	0.3	0.00	0.06	0.01	0
1	2	15.68	15.68	32.941	24.237	367.5	0.007	5.88	103.5	2.9	0.45	0.3	0.00	0.06	0.01	2
	10 ISL	15.46	15.46	32.938	24.283	363.3	0.037	5.90	103.4	2.9	0.45	0.3	0.00	0.06	0.01	10
1	18	15.17	15.17	32.933	24.343	357.8	0.065	5.92	103.1	2.8	0.44	0.2	0.00	0.07	0.02	18
	20 ISL	15.14	15.14	32.931	24.348	357.4	0.073	5.92	103.0	2.8	0.44	0.2	0.00	0.07	0.02	20
	30 ISL	15.06	15.06	32.924	24.361	356.5	0.108	5.93	103.0	2.7	0.43	0.2	0.00	0.07	0.02	30
1	31	15.06	15.06	32.923	24.360	356.6	0.112	5.93	103.0	2.7	0.43	0.2	0.00	0.07	0.02	31
1	41	15.01	15.00	32.923	24.371	355.9	0.147	5.94	103.1	2.6	0.44	0.2	0.00	0.09	0.02	41
	50 ISL	14.92	14.91	32.918	24.387	354.6	0.179	5.95	103.1	2.6	0.44	0.2	0.00	0.11	0.03	50
1	51	14.91	14.90	32.918	24.389	354.4	0.183	5.95	103.1	2.6		0.2	0.00	0.11	0.03	51
1	62	14.84	14.83	32.919	24.405	353.2	0.222	5.95	102.9	2.4	0.44	0.1	0.00	0.12	0.03	62
1	71	13.86	13.85	32.901	24.597	335.1	0.253	6.10	103.4	2.6	0.46	0.1	0.00	0.21	0.07	71
	75 ISL	13.33	13.32	32.905	24.707	324.6	0.266	6.08	102.0	2.8	0.50	0.6	0.02	0.37	0.16	75
I	80	12.72	12.71	32.923	24.842	311.9	0.282	6.06	100.3	3.2	0.57	1.4	0.05	0.55	0.28	80
1	94	12.06	12.05	33.020	25.043	293.0	0.324	5.80	94.8	4.5	0.71	4.0	0.08	0.43	0.29	94
	100 ISL	11.60	11.59	33.003	25.115	286.2	0.342	5.73	92.7	5.4	0.79	5.5	0.07	0.43	0.30	100
1	110	10.81	10.80	32.984	25.242	274.2	0.370	5.56	88.4	7.6	0.96	8.5	0.06	0.41	0.31	110
1	125	10.00	9.99	33.131	25.495	250.3	0.409	5.01	78.3	12.4	1.30	14.3	0.02	0.23	0.20	126
1	149	9.73	9.71	33.460	25.798	222.0	0.466	4.17	64.9	17.3	1.56	18.8	0.01	0.07	0.08	150
	150 ISL	9.71	9.69	33.472	25.810	220.8	0.468	4.14	64.5	17.5	1.57	19.0	0.01	0.07	0.08	151
1	174	9.23	9.21	33.693	26.062	197.4	0.518	3.52	54.3	23.3	1.79	22.7	0.01	0.01	0.05	175
	200 ISL	8.70	8.68	33.809	26.236	181.1	0.567	3.30	50.3	27.8	1.91	24.8	0.01	0.01	0.04	201
1	205	8.61	8.59	33.825	26.263	178.7	0.576	3.29	50.1	28.5	1.92	25.1	0.01	0.01	0.04	206
1	234	8.30	8.28	33.966	26.421	164.1	0.626	3.12	47.2	33.0	1.98	26.6	0.01			235
	250 ISL	8.11	8.08	34.006	26.481	158.6	0.652	2.90	43.7	36.1	2.07	27.7	0.01			251
1	275	7.82	7.79	34.040	26.551	152.3	0.691	2.51	37.6	41.1	2.24	29.6	0.00			277
	300 ISL	7.55	7.52	34.063	26.608	147.1	0.728	2.22	33.0	45.5	2.36	31.1	0.00			302
1	330	7.22	7.19	34.078	26.667	141.9	0.771	1.93	28.5	50.7	2.49	32.7	0.00			332
1	389	6.50	6.46	34.098	26.780	131.5	0.852	1.43	20.8	61.9	2.74	35.8	0.01			391
	400 ISL	6.41	6.37	34.103	26.796	130.1	0.867	1.35	19.6	63.6	2.78	36.3	0.01			402
1	455	6.01	5.97	34.132	26.871	123.4	0.936	0.97	13.9	71.7	2.96	38.5	0.00			458
	500 ISL	5.69	5.65	34.166	26.938	117.3	0.990	0.73	10.4	78.5	3.07	39.8	0.01			503
1	523	5.53	5.49	34.183	26.971	114.3	1.017	0.61	8.7	82.0	3.12	40.5	0.01			527

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 77 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
33 23.3 N	124 19.5 W	26/04/92	0415 UTC	3966 m	330 04 kn			1017.1 mb	16.5 C	15.6 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.73	16.73	33.011	24.052	385.1	0.000	5.79	104.1	2.7	0.45	0.0	0.00	0.06	0.01	0
1	1	16.73	16.73	33.011	24.052	385.1	0.004	5.79	104.1	2.7	0.45	0.0	0.00	0.06	0.01	1
	10 ISL	16.24	16.24	33.007	24.162	374.9	0.038	5.82	103.6	2.7	0.44	0.0	0.00	0.07	0.02	10
1	15	15.89	15.89	33.006	24.240	367.6	0.057	5.84	103.2	2.7	0.44	0.0	0.00	0.07	0.02	15
	20 ISL	15.85	15.85	33.005	24.249	367.0	0.075	5.85	103.3	2.7	0.44	0.0	0.00	0.07	0.02	20
1	30	15.77	15.77	33.004	24.266	365.6	0.112	5.86	103.3	2.7	0.43	0.0	0.00	0.07	0.01	30
1	41	15.76	15.75	33.001	24.266	365.9	0.152	5.85	103.1	2.6	0.43	0.0	0.00	0.07	0.02	41
1	50	15.74	15.73	32.999	24.270	365.9	0.185	5.86	103.3	2.4	0.43	0.0	0.00	0.09	0.02	50
1	61	15.53	15.52	33.010	24.325	360.9	0.225	5.89	103.4	2.4	0.43	0.0	0.00	0.12	0.03	61
1	71	14.76	14.75	33.033	24.510	343.5	0.260	6.00	103.7	2.4	0.44	0.0	0.01	0.14	0.05	71
	75 ISL	14.62	14.61	33.098	24.591	336.0	0.274	5.97	102.9	2.4	0.45	0.0	0.01	0.18	0.08	75
1	78	14.52	14.51	33.145	24.648	330.5	0.284	5.94	102.2	2.5	0.46	0.0	0.01	0.22	0.11	78
1	93	13.16	13.15	33.082	24.879	308.8	0.331	5.87	98.2	3.3	0.56	1.3	0.06	0.42	0.33	93
	100 ISL	12.79	12.78	33.105	24.970	300.3	0.353	5.79	96.1	3.8	0.62	2.5	0.06	0.38	0.33	100
1	108	12.33	12.32	33.129	25.077	290.2	0.376	5.67	93.2	4.8	0.71	4.4	0.06	0.34	0.33	108
1	123	10.74	10.73	33.085	25.333	265.8	0.418	5.41	85.9	8.2	1.01	9.3	0.02	0.17	0.20	124
	125 ISL	10.57	10.56	33.090	25.367	262.6	0.423	5.37	85.0	8.8	1.05	9.9	0.02	0.15	0.18	126
1	149	9.13	9.11	33.241	25.723	228.9	0.482	4.89	75.0	15.4	1.42	16.4	0.01	0.03	0.05	150
	150 ISL	9.10	9.08	33.249	25.734	227.8	0.485	4.86	74.5	15.6	1.43	16.6	0.01	0.03	0.05	151
1	174	8.70	8.68	33.456	25.959	206.8	0.537	4.29	65.3	20.7	1.64	20.4	0.01	0.01	0.03	175
	200 ISL	8.49	8.47	33.704	26.186	185.8	0.588	4.10	62.2	23.7	1.69	21.5	0.01	0.00	0.02	201
1	204	8.46	8.44	33.741	26.220	182.6	0.595	4.09	62.0	24.2	1.69	21.6	0.01	0.00	0.02	205
1	234	8.08	8.06	33.953	26.443	161.8	0.647	3.78	56.9	31.3	1.82	24.0	0.01			235
	250 ISL	7.89	7.86	33.984	26.496	157.0	0.672	3.62	54.3	34.0	1.89	25.1	0.01			251
1	273	7.61	7.58	33.987	26.539	153.2	0.708	3.37	50.2	37.8	2.01	26.8	0.00			274
	300 ISL	7.21	7.18	33.997	26.604	147.3	0.749	2.97	43.8	43.7	2.18	29.2	0.00			302
1	328	6.82	6.79	34.011	26.668	141.4	0.789	2.49	36.4	50.3	2.38	31.8	0.00			330
1	388	6.36	6.33	34.088	26.791	130.3	0.871	1.41	20.4	63.5	2.80	36.2	0.00			390
	400 ISL	6.27	6.23	34.099	26.811	128.5	0.886	1.28	18.5	65.7	2.86	36.8	0.00			402
1	453	5.90	5.86	34.142	26.892	121.2	0.952	0.88	12.6	74.2	3.04	38.7	0.00			456
	500 ISL	5.67	5.63	34.184	26.954	115.8	1.008	0.64	9.1	80.2	3.16	39.8	0.01			503
1	521	5.56	5.52	34.203	26.983	113.2	1.032	0.53	7.5	82.9	3.21	40.3	0.02			524

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 80 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 27.1 N	120 31.4 W	27/04/92	2007 UTC	67 m	310 22 kn	300 03 05	0	1018.9 mb	17.1 C	15.3 C	08m 05	0/8

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
1	0	12.73	12.73	33.461	25.254	270.6	0.000	5.07	84.3	10.1	0.98	8.5	0.18	3.11	0.99	0
	10 ISL	12.22	12.22	33.471	25.361	260.7	0.027	4.52	74.3	12.9	1.14	11.0	0.18	1.89	0.77	10
1	11	12.17	12.17	33.472	25.371	259.7	0.029	4.46	73.3	13.2	1.16	11.2	0.18	1.77	0.75	11
1	20	11.68	11.68	33.497	25.483	249.3	0.052	4.29	69.7	13.4	1.29	13.3	0.14	0.95	0.50	20
	30 ISL	11.38	11.38	33.515	25.552	243.0	0.077	4.02	64.9	14.1	1.36	14.6	0.09	0.50	0.40	30
1	31	11.36	11.36	33.517	25.557	242.5	0.079	4.00	64.6	14.2	1.37	14.7	0.09	0.48	0.40	31
1	40	11.08	11.08	33.540	25.626	236.2	0.101	3.91	62.8	14.5	1.43	15.7	0.07	0.37	0.33	40
	50 ISL	10.91	10.90	33.538	25.655	233.7	0.124	3.90	62.4	14.6	1.46	16.1	0.05	0.31	0.30	50
1	51	10.89	10.88	33.540	25.660	233.2	0.126	3.90	62.3	14.6	1.46	16.2	0.05	0.31	0.30	51
1	61	10.56	10.55	33.633	25.790	221.0	0.149	3.58	56.9	17.4	1.62	18.5	0.05	0.22	0.20	61

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 80 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 19.0 N	120 48.1 W	24/04/92	1837 UTC	816 m	320 15 kn	330 02 08	1	1016.6 mb	17.0 C	16.3 C	13m 04	4/8 AS

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYW HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.64	13.64	33.225	24.890	305.2	0.000	6.09	103.0	3.4	0.54	1.6	0.09	2.13	0.79	0
1	1	13.64	13.64	33.225	24.890	305.2	0.003	6.09	103.0	3.4	0.54	1.6	0.09	2.13	0.79	1
	10 ISL	13.22	13.22	33.247	24.992	295.8	0.030	6.11	102.5	3.8	0.61	2.6	0.13	3.19	1.28	10
1	11	13.16	13.16	33.250	25.007	294.4	0.033	6.11	102.3	3.9	0.62	2.7	0.13	3.33	1.34	11
1	20	13.09	13.09	33.259	25.028	292.7	0.059	6.09	101.9	4.0	0.62	2.9	0.13	3.18	1.25	20
1	30	12.65	12.65	33.252	25.109	285.2	0.088	5.35	88.6	6.6	0.84	6.5	0.19	0.65	0.57	30
1	41	12.37	12.36	33,263	25.172	279.5	0.119	5.20	85.7	7.6	0.92	7.8	0.19	0.48	0.45	41
1	50	11.84	11.83	33.366	25.352	262.5	0.144	4.82	78.6	10.5	1.12	10.9	0.29	0.39	0.41	50
1	59	11.47	11.46	33.443	25.480	250.5	0.167	4.61	74.6	12.4	1.23	12.7	0.19	0.98	0.61	59
1	69	10.79	10.78	33.479	25.630	236.4	0.191	4.22	67.3	14.9	1.40	15.7	0.11	0.25	0.35	69
	75 ISL	10.64	10.63	33.486	25.662	233.5	0.205	4.15	66.0	15.3	1.43	16.3	0.09	0.19	0.32	75
1	84	10.53	10.52	33.504	25.696	230.5	0.226	4.10	65.0	15.7	1.46	16.7	0.08	0.10	0.28	84
1	99	10.14	10.13	33.615	25.849	216.2	0.260	3.76	59.2	19.0	1.61	19.3	0.04	0.05	0.19	100
	100 ISL	10.13	10.12	33.620	25.855	215.7	0.262	3.74	58.8	19.1	1.62	19.4	0.04	0.05	0.19	101
1	119	9.91	9.90	33.695	25.951	206.9	0.302	3.49	54.7	21.6	1.70	20.9	0.03	0.03	0.16	120
	125 ISL	9.69	9.68	33.707	25.997	202.6	0.314	3.45	53.8	22.5	1.74	21.7	0.03	0.02	0.16	126
1	143	9.06	9.04	33.753	26.135	189.7	0.350	3.32	51.0	25.4	1.86	24.0	0.03	0.01	0.15	144
	150 ISL	9.05	9.03	33.802	26.175	186.0	0.363	3.22	49.5	26.3	1.89	24.4	0.03	0.01	0.15	151
1	173	9.02	9.00	33.930	26.280	176.5	0.404	2.89	44.4	29.3	1.98	25.4	0.02	0.01	0.16	174
	200 ISL	8.72	8.70	34.000	26.383	167.3	0.451	2.72	41.6	33.2	2.06	27.0	0.01	0.01	0.19	201
1	202	8.70	8.68	34.003	26.388	166.8	0.454	2.71	41.4	33.5	2.07	27.1	0.01	0.01	0.19	203
1	231	8.60	8.58	34.057	26.446	161.8	0.502	2.38	36.3	36.6	2.20	28.3	0.01			232
	250 ISL	8.43	8.40	34.079	26.490	157.9	0.532	2.26	34.3	38.7	2.27	29.0	0.01			251
1	272	8.20	8.17	34.100	26.542	153.3	0.566	2.13	32.2	41.4	2.34	29.9	0.01			274
	300 ISL	7.96	7.93	34.134	26.604	147.8	0.609	1.83	27.5	45.9	2.47	31.2	0.01			302
1	327	7.69	7.66	34.158	26.663	142.5	0.648	1.53	22.8	50.7	2.60	32.6	0.00			329
1	386	6.80	6.76	34.147	26.779	131.8	0.729	1.21	17.7	61.2	2.77	35.8	0.00			389
	400 ISL	6.72	6.68	34.152	26.794	130.6	0.747	1.15	16.8	62.6	2.80	36.2	0.00			403
1	453	6.51	6.47	34.186	26.849	125.9	0.815	0.92	13.4	67.6	2.93	37.3	0.00			456
	500 ISL	6.15	6.11	34.229	26.930	118.6	0.873	0.66	9.5	75.0	3.05	38.8	0.00			503
1	524	5.97	5.92	34.252	26.971	114.8	0.901	0.53	7.6	78.8	3.11	39.6	0.00			528

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 80 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 9.0 N	121 9.0 W	24/04/92	2247 UTC	2237 m	320 21 kn	320 03 05	1	1016.1 mb	17.8 C	16.0 C	12m 02	4/8	CC

CAST	DEPTH D		TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0	ISL	15.37	15.37	33.273	24.561	336.6	0.000	6.03	105.7	2.2	0.37	0.2	0.00	0.71	0.25	0
1	2		15.37	15.37	33.273	24.561	336.6	0.007	6.03	105.7	2.2	0.37	0.2	0.00	0.71	0.25	2
	10	ISL	15.29	15.29	33.267	24.574	335.6	0.034	6.04	105.7	2.0	0.37	0.2	0.00	0.68	0.24	10
1	12		15.26	15.26	33.265	24.579	335.2	0.040	6.05	105.8	1.9	0.37	0.2	0.00	0.67	0.24	12
	20	ISL	15.13	15.13	33.262	24.605	332 9	0.067	6.08	106.0	1.8	0.37	0.1	0.00	0.67	0.29	20
1	22		15.10	15.10	33.262	24.612	332.4	0.074	6.09	106.1	1.8	0.37	0.1	0.00	0.67	0.31	22
	30	ISL	15.01	15.01	33.261	24.631	330.8	0.100	6.05	105.2	1.6	0.36	0.1	0.00	0.75	0.42	30
1	32		14.99	14.99	33.261	24.636	330.4	0.107	6.04	105.0	1.6	0.36	0.1	0.00	0.78	0.45	32
1	43		14.97	14.96	33.266	24.644	329.9	0.143	6.04	105.0	1.3	0.36	0.1	0.01	1.04	0.57	43
	50	ISL	14.89	14.88	33.263	24.659	328.7	0.166	6.01	104.3	1.5	0.39	0.1	0.01	1.46	0.68	50
1	52		14.87	14.86	33.262	24.663	328.4	0.173	6.00	104.1	1.5	0.40	0.1	0.01	1.53	0.69	52
1	63		12.28	12.27	33.042	25.018	294.7	0.207	5.84	95.9	4.2	0.70	3.6	0.16	0.54	0.43	63
1	72		10.93	10.92	33.019	25.247	272.8	0.233	5.48	87.4	7.7	0.99	9.0	0.12	0.26	0.39	72
	75	ISL	10.89	10.88	33.089	25.309	267.1	0.241	5.31	84.6	8.7	1.06	10.3	0.10	0.22	0.35	75
1	85		10.75	10.74	33.276	25.480	251.1	0.267	4.75	75.6	11.6	1.25	13.6	0.03	0.15	0.21	85
1	100		10.01	10.00	33.347	25.662	233.9	0.303			14.7	1.44	16.7	0.02	0.08	0.12	100
1	120		9.93	9.92	33.611	25.882	213.5	0.348	3.82	59.8	19.2	1.60	19.4	0.01	0.02	0.08	121
	125	ISL	9.86	9.85	33.650	25.924	209.6	0.358	3.72	58.2	20.2	1.64	20.0	0.01	0.02	0.07	126
1	145		9.54	9.52	33.761	26.064	196.7	0.399	3.36	52.2	23.8	1.78	22.2	0.01	0.01	0.06	146
	150	ISL	9.50	9.48	33.792	26.095	193.8	0.409	3.26	50.6	24.7	1.82	22.7	0.01	0.01	0.06	151
1	175		9.33	9.31	33.926	26.228	181.7	0.456	2.84	44.0	29.0	1.98	24.9	0.01	0.01	0.05	176
	200	ISL	8.97	8.95	34.001	26.344	171.0	0.500	2.61	40.1	32.6	2.10	26.6	0.01	0.01	0.06	201
1	205		8.90	8.88	34.013	26.365	169.1	0.508	2.57	39.4	33.3	2.12	26.9	0.01	0.01	0.06	206
1	234		8.65	8.63	34.100	26.473	159.4	0.556	2.15	32.8	38.5	2.28	28.7	0.00			235
	250	ISL	8.45	8.42	34.122	26.521	155.0	0.581	2.01	30.5	41.2	2.36	29.6	0.00			251
1	275		8.10	8.07	34.140	26.588	149.0	0.619	1.84	27.7	45.2	2.47	30.9	0.00			277
	300	ISL	7.79	7.76	34.156	26.646	143.7	0.656	1.63	24.4	49.3	2.57	32.1	0.00			302
1	329		7.47	7.44	34.168	26.702	138.7	0.697	1.40	20.8	54.1	2.68	33.4	0.00			331
1	390		6.91	6.87	34.182	26.792	130.8	0.779	1.04	15.3	64.1	2.86	35.4	0.00			393
	400	ISL	6.82	6.78	34.185	26.807	129.5	0.792	0.99	14.5	65.2	2.88	35.8	0.00			403
1	454		6.34	6.30	34.198	26.881	122.8	0.860	0.76	11.0	70.6	3.00	38.1	0.00			457
	500	ISL	5.98	5.94	34.202	26.930	118.4	0.915	0.66	9.5	76.6	3.08	39.4	0.00			503
1	525		5.79	5.74	34.205	26.957	116.0	0.945	0.60	8.6	79.8	3.12	40.1	0.00			529

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 80 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 49.1 N	121 50.6 W	25/04/92	0441 UTC	3627 m	330 17 kn			1017.2 mb	17.0 C	15.9 C			

CAST	DEPTH D		TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0	ISL	15.31	15.31	33.012	24.373	354.5	0.000	5.89	102.9	2.8	0.44	0.3	0.00	0.13	0.04	0
1	2		15.31	15.31	33.012	24.373	354.5	0.007	5.89	102.9	2.8	0.44	0.3	0.00	0.13	0.04	2
	10	ISL	15.33	15.33	33.013	24.370	355.1	0.035	5.90	103.1	2.7	0.45	0.2	0.00	0.13	0.05	10
1	11		15.33	15.33	33.013	24.370	355.1	0.039	5.90	103.1	2.7	0.45	0.2	0.00	0.13	0.05	11
	20	ISL	15.28	15.28	33.016	24.383	354.1	0.071	5.91	103.2	2.7	0.44	0.2	0.00	0.12	0.04	20
1	21		15.27	15.27	33.016	24.385	353.9	0.074	5.91	103.2	2.7	0.44	0.2	0.00	0.12	0.04	21
1	30		15.21	15.21	33.019	24.401	352.7	0.106	5.92	103.2	2.6	0.44	0.2	0.00	0.16	0.06	30
1	40		15.14	15.13	33.010	24.410	352.2	0.142	5.93	103.3	2.6	0.44	0.1	0.00	0.17	0.05	40
1	50		15.08	15.07	33.009	24.422	351.3	0.177	5.93	103.1	2.7	0.44	0.1	0.00	0.19	0.06	50
1	60		12.50	12.49	32.895	24.862	309.4	0.210	6.19	102.0	3.7	0.58	1.7	0.07	0.59	0.28	60
1	70		11.66	11.65	32.944	25.058	290.9	0.240	5.96	96.5	5.5	0.76	5.0	0.10	0.68	0.35	70
	75	ISL	11.22	11.21	32.995	25.177	279.6	0.254	5.71	91.6	7.0	0.90	7.4	0.10	0.58	0.31	75
1	84		10.51	10.50	33.102	25.386	259.9	0.278	5.22	82.5	10.2	1.15	11.7	0.10	0.34	0.20	84
1	98		9.82	9.81	33.245	25.614	238.4	0.313	4.70	73.3	14.6	1.40	16.0	0.06	0.20	0.13	98
	100	ISL	9.79	9.78	33.269	25.638	236.2	0.318	4.63	72.1	15.1	1.43	16.5	0.05	0.19	0.12	100
1	118		9.57	9.56	33.458	25.822	219.0	0.359	4.08	63.3	18.9	1.63	19.8	0.02	0.10	0.08	119
	125	ISL	9.25	9.24	33.496	25.903	211.4	0.374	4.00	61.7	20.7	1.69	20.9	0.02	0.08	0.08	126
1	143		8.46	8.45	33.582	26.094	193.4	0.410	3.84	58.2	25.2	1.83	23.3	0.01	0.04	0.07	144
	150	ISL	8.46	8.44	33.649	26.147	188.5	0.424	3.65	55.3	26.7	1.88	24.2	0.01	0.03	0.06	151
1	174		8.45	8.43	33.822	26.284	175.9	0.467	3.04	46.1	30.9	2.02	26.6	0.01	0.01	0.05	175
	200	ISL	8.33	8.31	33.930	26.387	166.6	0.512	3.02	45.7	33.0	2.03	26.8	0.01	0.02	0.05	201
1	204		8.30	8.28	33.941	26.401	165.5	0.519	3.02	45.7	33.3	2.03	26.8	0.01	0.02	0.05	205
1	233		8.12	8.10	34.009	26.482	158.2	0.566	2.81	42.3	37.0	2.10	28.0	0.01			234
	250	ISL	8.00	7.97	34.032	26.518	155.1	0.592	2.61	39.2	39.4	2.18	28.9	0.01			251
1	274		7.82	7.79	34.056	26.563	151.1	0.629	2.30	34.4	43.2	2.31	30.3	0.00			276
	300	ISL	7.60	7.57	34.088	26.620	146.0	0.668	2.01	29.9	47.8	2.45	31.7	0.00			302
1	329		7.34	7.31	34.122	26.684	140.2	0 709	1.70	25.2	53.0	2.60	33.1	0.00			331
1	389		6.85	6.81	34.172	26.792	130.7	0.790	1.10	16.1	62.9	2.85	35.6	0.00			391
	400	ISL	6.76	6.72	34.179	26.810	129.1	0.805	1.02	14.9	64.5	2.89	36.0	0.00			403
1	454		6.34	6.30	34.210	26.890	121.9	0.872	0.73	10.6	72.2	3.03	37.8	0.00			457
	500	ISL	5.97	5.93	34.232	26.955	116.0	0.927	0.56	8.0	78.8	3.12	39.2	0.01			503
1	523		5.78	5.73	34.244	26.989	113.0	0.953	0.48	6.9	82.1	3.16	39.9	0.02			527

FV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 80 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 29.0 N	122 32.0 W	25/04/92	1047 UTC	3997 m	310 16Jen			1016.0 mb	15.8 C	14.5 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.13	15.13	32.919	24.341	357.6	0.000	5.93	103.2	3.0	0.42	0.3	0.00	0.10	0.02	0
1	2	15.13	15.13	32.919	24.341	357.6	0.007	5.93	103.2	3.0	0.42	0.3	0.00	0.10	0.02	2
	10 ISL	15.09	15.09	32.919	24.350	357.0	0.036	5.93	103.1	2.9	0.42	0.2	0.00	0.11	0.02	10
1	16	15.06	15.06	32.919	24.356	356.5	0.057	5.93	103.1	2.8	0.42	0.2	0.00	0.11	0.02	16
	20 ISL	15.06	15.06	32.919	24.356	356.7	0.071	5.93	103.1	2.8	0.42	0.2	0.00	0.11	0.02	20
	30 ISL	15.05	15.05	32.926	24.364	356.2	0.107	5.94	103.2	2.7	0.42	0.2	0.00	0.11	0.02	30
1	31	15.05	15.05	32.927	24.365	356.1	0.111	5.94	103.2	2.7	0.42	0.2	0.00	0.11	0.02	31
1	42	15.14	15.13	32.992	24.396	353.6	0.150	5.93	103.3	2.9	0.42	0.2	0.00	0.14	0.03	42
1	50	13.82	13.81	32.983	24.668	327.8	0.177	6.20	105.1	3.0	0.43	0.1	0.00	0.24	0.09	50
1	60	12.77	12.76	32.990	24.883	307.4	0.209	6.17	102.3	3.6	0.52	1.2	0.04	0.68	0.33	60
1	71	12.21	12.20	32.989	24.990	297.5	0.242	5.96	97.7	4.6	0.66	3.4	0.09	0.58	0.39	71
	75 ISL	11.79	11.78	33.000	25.077	289.2	0.254	5.80	94.2	5.8	0.76	5.3	0.10	0.52	0.39	75
1	79	11.35	11.34	33.012	25.167	280.7	0.265	5.64	90.8	7.0	0.87	7.3	0.10	0.45	0.39	79
1	94	10.28	10.27	33.014	25.357	262.9	0.306	5.37	84.4	9.8	1.10	11.2	0.04	0.28	0.32	94
	100 ISL	10.02	10.01	33.024	25.408	258.0	0.321	5.29	82.7	10.7	1.16	12.3	0.03	0.24	0.28	100
1	109	9.74	9.73	33.080	25.498	249.6	0.344	5.11	79.4	12.5	1.26	14.1	0.02	0.19	0.22	109
1	124	9.32	9.31	33.354	25.781	223.0	0.380	4.41	68.0	17.7	1.53	18.7	0.01	0.07	0.07	125
	125 ISL	9.30	9.29	33.367	25.794	221.7	0.382	4.37	67.4	18.0	1.54	18.9	0.01	0.07	0.07	126
1	149	8.89	8.87	33.625	26.062	196.7	0.432	3.69	56.5	24.1	1.76	23.0	0.01	0.01	0.04	150
	150 ISL	8.89	8.87	33.637	26.071	195.9	0.434	3.66	56.0	24.3	1.77	23.1	0.01	0.01	0.04	151
1	174	8.84	8.82	33.878	26.268	177.7	0.479	3.06	46.8	29.1	1.92	25.4	0.00	0.01	0.04	175
	200 ISL	8.48	8.46	34.007	26.425	163.1	0.523	2.60	39.5	35.2	2.10	28.0	0.00	0.00	0.04	201
1	204	8.42	8.40	34.017	26.442	161.6	0.530	2.55	38.7	36.1	2.12	28.3	0.00	0.00	0.04	205
1	233	8.10	8.08	34.049	26.516	155.0	0.576	2.41	36.3	39.7	2.19	29.3	0.00			234
	250 ISL	7.93	7.90	34.067	26.555	151.5	0.602	2.25	33.8	42.3	2.26	30.1	0.00			251
1	274	7.71	7.68	34.090	26.606	147.0	0.638	2.01	30.0	46.1	2.38	31.3	0.00			276
	300 ISL	7.49	7.46	34.106	26.650	143.1	0.675	1.81	26.9	49.6	2.48	32.3	0.01			302
1	330	7.23	7.20	34.121	26.699	138.8	0.718	1.58	23.3	53.8	2.59	33.5	0.01			332
1	389	6.65	6.61	34.163	26.812	128.6	0.796	1.05	15.3	64.5	2.83	36.4	0.00			391
	400 ISL	6.57	6.53	34.171	26.829	127.1	0.810	0.97	14.1	66.0	2.86	36.8	0.00			403
1	455	6.25	6.21	34.208	26.900	120.9	0.879	0.68	9.8	72.5	3.00	38.2	0.00			458
	500 ISL	5.96	5.92	34.230	26.955	116.0	0.932	0.54	7.7	78.0	3.07	39.2	0.00			503
1	524	5.81	5.76	34.243	26.984	113.4	0.960	0.47	6.7	80.9	3.10	39.8	0.00			528

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 80 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 9.1 N	123 13.3 W	25/04/92	1620 UTC	4227 n	330 11 kn	350 01 05	1	1017.1 mb	17.9 C	16.2 C	33m 01	3/8	AS

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
1	0	15.49	15.49	32.976	24.306	360.9	0.000	5.87	102.9	2.8	0.41	0.2	0.01	0.10	0.02	0
	10 ISL	15.48	15.48	32.976	24.308	360.9	0.036	5.88	103.1	2.8	0.41	0.2	0.00	0.09	0.02	10
1	15	15.48	15.48	32.976	24.308	361.1	0.054	5.88	103.1	2.8	0.41	0.2	0.00	0.09	0.02	15
	20 ISL	15.42	15.42	32.974	24.320	360.1	0.072	5.89	103.1	2.8	0.41	0.2	0.00	0.09	0.02	20
	30 ISL	15.29	15.29	32.970	24.346	357.9	0.108	5.90	103.0	2.7	0.41	0.2	0.00	0.11	0.03	30
1	31	15.28	15.28	32.970	24.348	357.8	0.112	5.90	103.0	2.7	0.41	0.2	0.00	0.11	0.03	31
1	39	15.27	15.26	32.973	24.353	357.6	0.140	5.91	103.2	2.6	0.41	0.2	0.01	0.13	0.04	39
1	50	14.55	14.54	33.165	24.656	329.0	0.178	6.07	104.5	2.8	0.40	0.2	0.01	0.22	0.07	50
1	60	12.32	12.31	33.220	25.148	282.2	0.209	5.56	91.5	6.1	0.77	5.9	0.11	0.92	0.52	60
1	70	11.58	11.57	33.252	25.312	266.8	0.236	5.07	82.1	8.9	1.01	10.2	0.13	0.87	0.52	70
	75 ISL	11.02	11.01	33.286	25.439	254.7	0.249	4.77	76.3	11.1	1.17	12.9	0.08	0.60	0.43	75
1	79	10.59	10.58	33.316	25.538	245.3	0.259	4.56	72.3	12.8	1.29	14.9	0.03	0.36	0.34	79
1	93	9.99	9.98	33.381	25.692	231.0	0.292	4.33	67.8	15.4	1.43	17.3	0.02	0.17	0.18	93
	100 ISL	9.74	9.73	33.417	25.761	224.4	c.308	4.25	66.2	16.8	1.49	18.3	0.01	0.10	0.11	100
1	107	9.49	9.48	33.447	25.826	218.4	0.324	4.21	65.2	18.1	1.53	19.1	0.01	0.05	0.06	107
1	123	8.76	8.75	33.472	25.962	205.7	0.358	4.28	65.2	20.3	1.59	20.3	0.01	0.01	0.04	124
	125 ISL	8.75	8.74	33.495	25.981	203.9	0.362	4.22	64.3	20.8	1.61	20.6	0.01	0.01	0.04	126
1	147	8.68	8.66	33.726	26.173	186.0	0.405	3.52	53.6	26.3	1.81	23.9	0.01	0.01	0.03	148
	150 ISL	8.66	8.64	33.749	26.194	184.1	0.410	3.49	53.2	26.7	1.82	24.0	0.01	0.01	0.03	151
1	172	8.49	8.47	33.876	26.320	172.5	0.450	3.38	51.3	29.0	1.85	24.6	0.01	0.01	0.03	173
	200 ISL	8.33	8.31	33.973	26.421	163.4	0.497	3.02	45.7	33.3	1.98	26.5	0.01	0.01	0.03	201
1	203	8.31	8.29	33.980	26.430	162.7	0.501	2.98	45.1	33.8	1.99	26.7	0.01	0.01	0.03	204
1	231	8.02	8.00	34.022	26.506	155.8	0.546	2.75	41.4	38.0	2.08	28.2	0.01			232
	250 ISL	7.81	7.79	34.044	26.555	151.4	0.575	2.51	37.6	41.4	2.18	29.4	0.01			251
1	271	7.58	7.55	34.064	26.604	147.0	0.607	2.22	33.1	45.4	2.31	30.8	0.01			273
	300 ISL	7.25	7.22	34.082	26.665	141.5	0.648	1.90	28.1	50.8	2.45	32.5	0.01			302
1	326	6.98	6.95	34.099	26.716	136.9	0.685	1.63	23.9	55.6	2.57	33.9	0.01			328
1	385	6.60	6.56	34.172	26.826	127.2	0.763	0.99	14.4	65.5	2.83	36.4	0.00			387
	400 ISL	6.53	6.49	34.187	26.847	125.4	0.781	0.88	12.8	67.3	2.88	36.8	0.00			403
1	447	6.35	6.31	34.227	26.902	120.7	0 839	0.65	9.4	72.2	2.99	37.8	0.00			450
	500 ISL	6.11	6.07	34.255	26.956	116.1	0 902	0.51	7.3	77.0	3.08	38.7	0.00			503
1	515	6.04	5.99	34.263	26.971	114.8	0.919	0.47	6.8	78.4	3.10	39.0	0.00			519

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 80 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 49.0 N	123 54.6 W	25/04/92	2251 UTC	4211 *m*	330 09 kn	350 01 04	1	1016.9 mb	17.6 C	16.4 C	44m 01	1/8	

CAST	DEPTH 19	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.44	16.44	32.971	24.088	381.6	0.000	5.84	104.4	3.5	0.42	0.2	0.01	0.07	0.01	0
1	1	16.44	16.44	32.971	24.088	381.6	0.004	5.84	104.4	3.5	0.42	0.2	0.01	0.07	0.01	1
	10 ISL	15.94	15.94	32.956	24.191	372.2	0.038	5.87	103.8	3.4	0.42	0.2	0.01	0.07	0.02	10
1	15	15.59	15.59	32.948	24.263	365.5	0.056	5.89	103.5	3.3	0.42	0.2	0.01	0.07	0.02	15
	20 ISL	15.57	15.57	32.949	24.268	365.1	0.074	5.90	103.6	3.3	0.42	0.2	0.01	0.07	0.02	20
1	30	15.52	15.52	32.951	24.281	364 2	0.111	5.92	103.8	3.2	0.41	0.2	0.01	0.08	0.02	30
1	41	15.53	15.52	32.954	24.281	364.5	0.151	5.91	103.7	3.1	0.41	0.1	0.01	0.10	0.02	41
1	50	15.48	15.47	32.950	24.290	363.9	0.184	5.92	103.8	3.1	0.41	0.2	0.01	0.12	0.04	50
1	61	14.51	14.50	32.963	24.509	343.2	0.223	6.05	104.0	3.0	0.41	0.1	0.00	0.19	0.07	61
1	71	13.50	13.49	32.927	24.690	326.2	0.256	6.20	104.3	3.3	0.44	0.1	0.00	0.38	0.18	71
	75 ISL	13.26	13.25	32.950	24.756	320.0	0.269	6.15	103.0	3.4	0.47	0.4	0.01	0.47	0.25	75
1	81	12.95	12.94	32.987	24.846	311.5	0.288	6.02	100.2	3.6	0.52	1.1	0.04	0.57	0.34	81
1	95	11.98	11.97	32.966	25.016	295.5	0.330	5.83	95.1	4.7	0.68	3.9	0.10	0.47	0.31	95
	100 ISL	11.55	11.54	32.962	25.093	288.3	0.345	5.74	92.7	5.5	0.76	5.3	0.10	0.41	0.31	100
1	110	10.72	10.71	32.979	25.254	273.0	0.373	5.54	87.9	7.7	0.94	8.6	0.07	0.29	0.31	I10
1	125	9.86	9.85	33.100	25.495	250.3	0.412	5.13	79.9	12.2	1.24	13.8	0.03	0.15	0.18	126
1	133 P	9.33	9.32	33.277	25.719	229.0	0.432	4.62	71.2	16.8	1.48	17.9	0.02	0.06	0.07	134
	150 ISL	9.11	9.09	33.571	25.985	204.1	0.468	3.91	60.1	21.4	1.63	21.4	0.00	0.03	0.06	151
1	158 P	9.00	8.98	33.637	26.054	197.7	0.484	3.71	56.9	22.5	1.70	21.9	0.00	0.01	0.05	159
1	181 P	8.76	8.74	33.816	26.232	181.2	0.528	3.36	51.3	26.9	1.82	24.0	0.00			182
	200 ISL	8.49	8.47	33.928	26.362	169.1	0.561	3.01	45.7	31.0	1.95	26.0	0.01			201
1	213 P	8.28	8.26	33.983	26.437	162.2	0.583	2.81	42.5	33.8	2.04	27.3	0.01			214
	250 ISL	7.67	7.65	34.030	26.564	150.5	0.641	2.71	40.4	40.3	2.13	28.9	0.00			251
1	258 P	7.55	7.52	34.030	26.581	148.9	0.653	2.71	40.3	41.6	2.15	29.2	0.00			259
	300 ISL	7.09	7.06	34.058	26.668	141.1	0.714	2.19	32.2	49.3	2.39	32.0	0.01			302
1	309 P	7.01	6.98	34.062	26.683	139.9	0.726	2.07	30.4	50.9	2.44	32.6	0.01			311
1	367 P	6.61	6.58	34.082	26.753	133.8	0.806	1.65	24.0	58.6	2.64	34.8	0.00			369
	400 ISL	6.33	6.29	34.107	26.810	128.7	0.849	1.33	19.2	64.5	2.78	36.4	0.01			402
1	433 P	6.05	6.01	34.134	26.867	123.5	0.890	1.01	14.5	70.3	2.91	37.9	0.02			436

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 82 47

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 16.6 N	120 1.7 W	24/04/92	0201 UTC	575 m	280 17 kn	270 02 07	1	1014.3 mb	18.0 C	15.3 C	09m 05	1/8	AC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
1	0 A	13.91	13.91	33.478	25.030	291.9	0.000	5.88	100.2	9.8	0.85	6.5	0.09	1.68	0.54	0
1	10	13.22	13.22	33.477	25.170	278.8	0.029	5.77	96.9	10.3	0.89	7.1	0.09	1.82	0.54	10
1	20	10.96	10.96	33.536	25.644	234.0	0.054	4.14	66.3	16.5	1.40	15.8	0.08	1.32	0.36	20
1	30	10.29	10.29	33.568	25.786	220.7	0.077	3.84	60.6	18.5	1.56	18.3	0.06	0.23	0.14	30
1	41	10.00	10.00	33.631	25.884	211.6	0.101	3.67	57.6	20.5	1.64	19.8	0.04	0.08	0.10	41
	50 ISL	10.08	10.07	33.690	25.917	208.7	0.120	3.46	54.4	21.9	1.69	20.7	0.04	0.03	0.09	50
1	51	10.09	10.08	33.696	25.920	208.4	0.122	3.44	54.1	22.0	1.70	20.8	0.04	0.03	0.09	51
1	61	9.85	9.84	33.754	26.006	200.4	0.142	3.29	51.5	23.3	1.78	21.7	0.05	0.03	0.08	61
1	70	9.75	9.74	33.801	26.059	195.5	0.160	3.13	48.9	24.8	1.83	22.6	0.04	0.02	0.06	70
	75 ISL	9.72	9.71	33.827	26.085	193.2	0.170	3.00	46.8	25.7	1.87	23.1	0.04	0.02	0.06	75
1	84	9.69	9.68	33.868	26.122	189.9	0.187	2.79	43.5	27.2	1.95	23.9	0.03	0.01	0.07	84
1	99	9.57	9.56	33.910	26.175	185.2	0.215	2.65	41.2	28.4	2.01	24.7	0.03	0.01	0.07	100
	100 ISL	9.56	9.55	33.912	26.178	184.9	0.217	2.64	41.1	28.5	2.01	24.7	0.03	0.01	0.07	101
1	119	9.46	9.45	33.951	26.225	180.8	0.252	2.49	38.7	30.2	2.07	25.5	0.02	0.01	0.07	120
	125 ISL	9.41	9.40	33.966	26.245	179.0	0.262	2.44	37.9	30.9	2.10	26.0	0.02	0.01	0.06	126
1	138	9.29	9.27	33.998	26.290	175.0	0.285	2.33	36.1	32.5	2.15	27.2	0.01	0.01	0.05	139
	150 ISL	9.19	9.17	34.021	26.324	172.0	0.306	2.27	35.1	33.6	2.18	27.5	0.00	0.01	0.05	151
1	168	9.04	9.02	34.048	26.369	168.0	0.337	2.18	33.6	35.3	2.22	27.7	0.00	0.01	0.05	169
1	197	8.75	8.73	34.070	26.433	162.5	0.385	1.96	30.0	38.9	2.30	29.0	0.00	0.01	0.05	198
	200 ISL	8.72	8.70	34.072	26.439	161.9	0.390	1.94	29.7	39.2	2.31	29.1	0.00			201
1	227	8.50	8.48	34.093	26.490	157.5	0.433	1.78	27.1	42.1	2.39	30.1	0.00			228
	250 ISL	8.29	8.26	34.110	26.536	153.5	0.469	1.69	25.6	44.9	2.45	30.8	0.00			252
1	266	8.14	8.11	34.122	26.568	150.7	0.493	1.62	24.4	47.0	2.50	31.3	0.00			268
	300 ISL	7.90	7.87	34.147	26.623	145.9	0.543	1.35	20.3	51.5	2.63	32.4	0.00			302
1	314	7.81	7.78	34.156	26.644	144.2	0.564	1.23	18.4	53.5	2.69	32.8	0.00			316
1	373	7.29	7.25	34.182	26.739	135.8	0.646	0.94	13.9	63.1	2.86	33.8	0.00			375
	400 ISL	7.00	6.96	34.198	26.792	131.0	0.682	0.72	10.6	70.5	3.00	33.6	0.00			403
1	432	6.71	6.67	34.217	26.847	126.0	0.723	0.46	6.7	80.3	3.18	33.4	0.00			435
	500 ISL	6.55	6.50	34.238	26.886	123.3	0.808	0.09	1.3	99.6	3.46	27.4	0.00			504
1	502	6.55	6.50	34.237	26.885	123.4	0.811	0.08	1.2	100.1	3.47	27.2	0.00			506
1	522	6.53	6.48	34.240	26.890	123.2	0.835	0.05	0.7	104.4	3.51	24.9	0.00			526
1	543	6.51	6.46	34.242	26.895	123.0	0.861	0.04	0.6	115.6	3.78	17.4	0.00			547
1	553	6.51	6.46	34.241	26.894	123.2	0.873	0.04	0.6	116.0	3.75	16.5	0.00			557
1	565	6.51	6.46	34.241	26.894	123.4	0.888	0.04	0.6	116.8	3.79	16.3	0.00			569
1	569	6.52	6.47	34.241	26.893	123.6	0.893	0.04	0.6	116.9	3.78	16.2	0.00			573
1	574	6.51	6.46	34.243	26.896	123.4	0.899	0.04	0.6	117.6	3.82	15.7	0.02			578

A) SANTA BARBARA BASIN STATION.

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 83 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 13.4 N	119 24.6 W	23/04/92	1953 UTC	34 m	310 09 kn	280 02 08	1	1016.2 mb	17.1 C	16.5 C	09m 05	1/8	AC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.91	15.91	33.402	24.540	338.6	0.000	6.36	112.8	2.0	0.29	0.2	0.00	1.47	0.65	0
1	1	15.91	15.91	33.402	24.540	338.6	0.003	6.36	112.8	2.0	0.29	0.2	0.00	1.47	0.65	1
1	10	13.93	13.93	33.398	24.965	298.4	0.032	5.90	100.5	6.0	0.61	2.8	0.11	1.78	0.78	10
	20 ISL	12.81	12.81	33.461	25.239	272.5	0.061	4.80	79.9	10.3	1.00	9.1	0.18	0.82	0.58	20
1	21	12.74	12.74	33.468	25.258	270.7	0.063	4.69	78.0	10.7	1.03	9.7	0.18	0.71	0.55	21
	30 ISL	12.26	12.26	33.493	25.371	260.2	0.087	4.41	72.6	12.7	1.22	11.6	0.15	0.57	0.45	30
1	31	12.21	12.21	33.496	25.383	259.1	0.090	4.38	72.0	12.9	1.24	11.8	0.15	0.55	0.44	31

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 83 42

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 10.7 N	119 30.6 W	23/04/92	2128 UTC	120 n	260 11 kn	270 02 07	1	1016.2 mb	17.7 C	16.0 C	09m 06	1/8	AC

CAST	DEPTH in	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.39	15.39	33.413	24.664	326.7	0.000	6.45	113.2	4.1	0.40	0.1	0.02	2.68	0.91	0
1	1	15.39	15.39	33.413	24.664	326.8	0.003	6.45	113.2	4.1	0.40	0.1	0.02	2.68	0.91	1
1	10	14.17	14.17	33.431	24.940	300.7	0.032	6.37	109.1	7.8	0.61	2.4	0.08	3.16	1.12	10
1	20	12.81	12.81	33.452	25.232	273.2	0.060	5.38	89.6	10.8	1.00	8.6	0.14	1.94	0.85	20
1	30	11.93	11.93	33.477	25.421	255.5	0.087	4.65	76.0	12.7	1.21	12.2	0.19	0.99	0.52	30
1	42	11.43	11.42	33.517	25.545	244.0	0.117	4.17	67.4	14.8	1.33	14.4	0.11	0.46	0.28	42
	50 ISL	11.09	11.08	33.554	25.635	235.5	0.136	3.97	63.7	16.0	1.43	16.0	0.03	0.11	0.17	50
1	51	11.05	11.04	33.559	25.646	234.5	0.138	3.95	63.4	16.1	1.44	16.2	0.02	0.08	0.16	51
1	62	10.83	10.82	33.589	25.709	228.8	0.164	3.80	60.7	17.4	1.52	17.3	0.01	0.06	0.13	62
1	72	10.75	10.74	33.608	25.738	226.3	0.186	3.73	59.5	18.0	1.55	17.8	0.01	0.05	0.15	72
	75 ISL	10.65	10.64	33.632	25.774	222.8	0.193	3.65	58.1	18.6	1.58	18.3	0.01	0.05	0.14	75
1	86	10.24	10.23	33.736	25.926	208.6	0.217	3.30	52.1	21.5	1.73	20.7	0.01	0.03	0.10	86
	100 ISL	9.93	9.92	33.815	26.041	198.0	0.245	3.01	47.2	24.8	1.86	22.7	0.00	0.02	0.12	101
1	102	9.88	9.87	33.826	26.058	196.4	0.249	2.97	46.5	25.3	1.88	23.0	0.00	0.02	0.12	103

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 83 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 52.8 N	120 8.0 W	24/04/92	0704 UTC	95 m	300 16 Jen			1015.2 mb	16.2 C	13.2 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.24	13.24	33.464	25.156	279.9	0.000	5.76	96.8	9.0	0.85	6.9	0.13	3.16	0.79	0
1	2	13.24	13.24	33.464	25.156	280.0	0.006	5.76	96.8	9.0	0.85	6.9	0.13	3.16	0.79	2
	10 ISL	13.04	13.04	33.467	25.198	276.1	0.028	5.54	92.7	9.5	0.91	7.7	0.12	2.66	0.77	10
1	12	12.98	12.98	33.468	25.211	275.0	0.033	5.47	91.4	9.7	0.93	8.0	0.12	2.49	0.77	12
	20 ISL	12.92	12.92	33.472	25.226	273.8	0.055	5.37	89.6	10.1	0.95	8.5	0.12	2.22	0.78	20
1	22	12.90	12.90	33.474	25.232	273.3	0.061	5.34	89.1	10.3	0.96	8.6	0.12	2.16	0.78	22
	30 ISL	12.65	12.65	33.501	25.302	266.8	0.082	5.07	84.1	11.6	1.04	9.9	0.12	1.85	0.66	30
1	32	12.56	12.56	33.510	25.326	264.6	0.088	4.99	82.7	12.0	1.07	10.3	0.12	1.75	0.63	32
1	42	12.00	11.99	33.553	25.467	251.4	0.113	4.53	74.2	14.0	1.22	12.8	0.10	1.09	0.52	42
	50 ISL	11.82	11.81	33.553	25.501	248.4	0.133	4.39	71.6	14.2	1.25	13.4	0.08	0.79	0.41	50
1	52	11.79	11.78	33.553	25.506	247.9	0.138	4.37	71.2	14.2	1.25	13.5	0.08	0.75	0.39	52
1	62	11.52	11.51	33.608	25.599	239.3	0.163	4.13	67.0	16.1	1.36	15.0	0.07	0.71	0.43	62
	75 ISL	11.07	11.06	33.659	25.721	228.0	0.193	3.77	60.5	18.0	1.54	17.1	0.05	0.42	0.27	75
1	77	11.00	10.99	33.667	25.740	226.2	0 198	3.72	59.7	18.3	1.57	17.4	0.05	0.38	0.24	77

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 83 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 44.6 N	120 24.7 W	24/04/92	1010 UTC	964 m	310 20 Jen			1015.0 mb	14.2 C	13.9 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	12.93	12.93	33.402	25.170	278.6	0.000	5.88	98.1	7.5	0.82	6.6	0.14	3.04	0.79	0
1	1	12.93	12.93	33.402	25.170	278 7	0.003	5.88	98.1	7.5	0.82	6.6	0.14	3.04	0.79	1
	10 ISL	12.89	12.89	33.403	25.178	278.0	0.028	5.87	97.9	7.6	0.82	6.6	0.14	3.22	0.87	10
1	11	12.89	12.89	33.403	25.178	278.1	0.031	5.87	97.9	7.6	0.82	6.6	0.14	3.25	0.88	11
	20 ISL	12.90	12.90	33.405	25.178	278.3	0.056	5.86	97.7	7.6	0.82	6.6	0.14	3.54	0.90	20
1	21	12.90	12.90	33.405	25.178	278.4	0.058	5.86	97.7	7.6	0.82	6.6	0.14	3.56	0.90	21
	30 ISL	12.90	12.90	33.404	25.178	278.6	0.084	5.87	97.9	7.6	0.82	6.6	0.14	3.37	0.95	30
1	31	12.90	12.90	33.404	25.178	278.7	0.086	5.87	97.9	7.6	0.82	6.6	0.14	3.35	0.96	31
1	40	12.28	12.27	33.424	25.314	265.9	0.111	5.20	85.6	9.3	1.00	9.6	0.16	2.44	0.68	40
1	50	11.72	11.71	33.474	25.458	252.4	0.137	4.53	73.7	12.5	1.22	12.7	0.18	0.63	0.34	50
1	59	10.48	10.47	33.453	25.664	233.0	0.159	4.24	67.1	15.0	1.41	16.3	0.04	0.18	0.18	59
1	69	10.27	10.26	33.509	25.744	225.5	0.181	4.04	63.7	16.7	1.49	17.6	0.03	0.09	0.13	69
	75 ISL	10.23	10.22	33.571	25.799	220.4	0.195	3.86	60.8	17.8	1.55	18.4	0.03	0.06	0.11	75
1	83	10.17	10.16	33.650	25.871	213.7	0.212	3.64	57.3	19.3	1.62	19.5	0.03	0.03	0.10	83
1	98	9.73	9.72	33.690	25.976	204.0	0.244	3.56	55.5	21.4	1.68	21.0	0.02	0.02	0.07	99
	100 ISL	9.73	9.72	33.711	25.993	202.5	0.248	3.50	54.6	21.9	1.70	21.3	0.02	0.02	0.07	101
1	118	9.75	9.74	33.899	26.137	189.2	0.283	2.87	44.8	26.4	1.88	23.7	0.01	0.01	0.06	119
	125 ISL	9.67	9.66	33.945	26.186	184.7	0.296	2.72	42.4	27.8	1.94	24.5	0.01	0.01	0.06	126
1	143	9.41	9.39	34.024	26.291	175.1	0.328	2.45	38.0	30.9	2.07	26.1	0.00	0.01	0.06	144
	150 ISL	9.34	9.32	34.043	26.317	172.7	0.341	2.38	36.9	31.8	2.10	26.5	0.00	0.01	0.06	151
1	172	9.18	9.16	34.080	26.372	167.9	0.378	2.24	34.6	34.0	2.18	27.4	0.01	0.02	0.07	173
	200 ISL	9.01	8.99	34.110	26.423	163.5	0.424	2.11	32.5	36.1	2.24	28.1	0.01	0.01	0.06	201
1	202	9.00	8.98	34.112	26.427	163.3	0.428	2.10	32.3	36.2	2.24	28.1	0.01	0.01	0.06	203
1	233	8.74	8.72	34.146	26.495	157.3	0.477	1.94	29.7	39.2	2.33	29.2	0.00			234
	250 ISL	8.61	8.58	34.156	26.523	154.9	0.504	1.87	28.5	40.9	2.38	29.6	0.00			252
1	272	8.43	8.40	34.163	26.556	152.1	0.538	1.78	27.0	43.2	2.44	30.2	0.00			274
	300 ISL	8.15	8.12	34.166	26.601	148.2	0.580	1.67	25.2	46.1	2.51	31.1	0.01			302
1	327	7.84	7.81	34.169	26.650	143.9	0.619	1.54	23.1	49.4	2.58	32.2	0.01			329
1	386	7.12	7.08	34.204	26.780	132.0	0.700	1.08	15.9	60.1	2.82	35.3	0.00			389
	400 ISL	7.00	6.96	34.209	26.801	130.1	0.719	1.01	14.8	61.9	2.85	35.8	0.00			403
1	452	6.59	6.55	34.225	26.869	124.1	0.785	0.80	11.6	68.1	2.94	37.3	0.00			455
	500 ISL	6.19	6.15	34.240	26.934	118.3	0.843	0.61	8.8	74.5	3.03	38.9	0.00			503
1	519	6.03	5.98	34.247	26.960	115.9	0.865	0.53	7.6	77.1	3.06	39.5	0.00			523

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 83 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
33 34.5 N	120 45.4 W	28/04/92	0236 UTC	1403 m	310 21 kn	300 03 05	0	1019.3 mb	16.5 C	15.2 C	07m 05	0/8

CAST	DEPTH D	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	13.69	13.69	33.285	24.926	301.8	0.000	6.34	107.4	4.1	0.59	2.1	0.13	3.28	1.06	0
1	1	13.69	13.69	33.285	24.927	301.8	0.003	6.34	107.4	4.1	0.59	2.1	0.13	3.28	1.06	1
1	10	13.60	13.60	33.319	24.971	297.8	0.030	6.50	109.9	3.9	0.56	2.0	0.12	5.44	1.53	10
1	20	13.17	13.17	33.370	25.098	286.0	0.059	6.63	111.1	3.3	0.56	1.9	0.12	9.17	3.14	20
1	30	12.89	12.89	33.336	25.127	283.5	0.088	6.06	101.0	4.9	0.70	4.0	0.18	5.87	1.94	30
1	41	12.14	12.13	33.299	25.243	272.6	0.118	5.07	83.1	8.9	1.01	9.0	0.28	0.62	0.56	41
	50 ISL	11.88	11.87	33.318	25.307	266.8	0.143	4.91	80.1	9.8	1.08	10.3	0.27	0.40	0.58	50
1	51	11.85	11.84	33.322	25.316	266.0	0.145	4.91	80.0	9.9	1.08	10.4	0.27	0.37	0.58	51
1	60	11.38	11.37	33.350	25.424	255.9	0.169	4.66	75.2	11.2	1.20	12.5	0.15	0.22	0.31	60
1	70	11.03	11.02	33.395	25.522	246 7	0.194	4.46	71.4	12.6	1.29	14.0	0.08	0.16	0.28	70
	75 ISL	10.86	10.85	33.413	25.567	242.6	0.206	4.40	70.2	13.2	1.33	14.6	0.06	0.13	0.24	75
1	84	10.61	10.60	33.453	25.642	235.6	0.228	4.28	68.0	14.5	1.39	15.7	0.05	0.08	0.17	84
1	99	10.54	10.53	33.566	25.742	226.4	0.262	3.87	61.4	17.3	1.51	17.7	0.04	0.06	0.18	99
	100 ISL	10.52	10.51	33.576	25.754	225.3	0.264	3.84	60.9	17.6	1.52	17.9	0.04	0.06	0.18	101
1	118	10.11	10.10	33.744	25.955	206.5	0.303	3.31	52.1	22.0	1.72	21.0	0.03	0.02	0.10	119
	125 ISL	10.00	9.99	33.776	25.999	202.5	0.318	3.21	50.4	23.1	1.77	21.6	0.03	*0.02*	0.09	126
1	143	9.79	9.77	33.827	26.074	195.7	0.353	3.04	47.5	25.1	1.85	22.8	0.02	0.01	0.08	144
	150 ISL	9.73	9.71	33.852	26.104	193.0	0.367	2.96	46.2	25.8	1.88	23.3	0.02	0.01	0.09	151
1	172	9.55	9.53	33.931	26.196	184.7	0.409	2.71	42.2	28.2	1.99	24.9	0.02	0.01	0.10	173
	200 ISL	9.23	9.21	34.033	26.328	172.7	0.459	2.37	36.6	32.4	2.14	26.7	0.02	0.01	0.06	201
1	203	9.19	9.17	34.042	26.342	171.4	0.464	2.34	36.1	32.8	2.15	26.9	0.02	0.01	0.06	204
1	231	8.95	8.93	34.087	26.415	164.9	0.511	2.20	33.8	35.8	2.24	27.8	0.02			232
	250 ISL	8.77	8.74	34.109	26.461	160.9	0.542	2.10	32.1	37.8	2.29	28.5	0.02			251
1	271	8.56	8.53	34.126	26.507	156.8	0.575	1.98	30.2	40.2	2.35	29.4	0.01			273
	300 ISL	8.20	8.17	34.138	26.572	151.0	0.620	1.83	27.6	44.2	2.44	30.6	0.00			302
1	326	7.87	7.84	34.145	26.627	146.1	0.658	1.69	25.3	48.0	2.53	31.7	0.00			328
1	385	7.29	7.25	34.172	26.732	136.7	0.742	1.26	18.6	56.8	2.75	34.0	0.01			387
	400 ISL	7.18	7.14	34.185	26.757	134.4	0.762	1.16	17.1	58.8	2.80	34.5	0.01			403
1	450	6.82	6.78	34.221	26.836	127.5	0.828	0.87	12.7	65.0	2.93	36.1	0.00			453
	500 ISL	6.34	6.29	34.210	26.891	122.5	0.890	0.74	10.7	71.4	3.02	37.7	0.03			503
1	519	6.16	6.11	34.207	26.912	120.6	0.913	0.69	9.9	73.9	3.06	38.3	0.04			523

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 83 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
33 14.7 N	121 26.5 W	28/04/92	0810 UTC	3789 m	320 23 Icn			1020.2 mb	16.0 C	15.5. C		

CAST	DEPTH ffl	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.61	15.61	33.104	24.378	354.0	0.000	5.91	104.0	3.2	0.42	0.1	0.00	0.19	0.06	0
1	3	15.61	15.61	33.104	24.378	354.1	0.011	5.91	104.0	3.2	0.42	0.1	0.00	0.19	0.06	3
	10 ISL	15.62	15.62	33.105	24.377	354.4	0.035	5.91	104.0	3.1	0.42	0.1	0.00	0.20	0.06	10
1	17	15.63	15.63	33.105	24.375	354.8	0.060	5.92	104.2	3.0	0.42	0.1	0.00	0.21	0.06	17
	20 ISL	15.61	15.61	33.126	24.395	353.0	0.071	5.93	104.3	2.9	0.42	0.1	0.00	0.23	0.07	20
	30 ISL	15.52	15.52	33.199	24.472	346.0	0.106	5.95	104.5	2.6	0.40	0.1	0.00	0.28	0.11	30
1	31	15.51	15.51	33.207	24.480	345.2	0.109	5.95	104.5	2.6	0.40	0.1	0.00	0.28	0.11	31
1	42	15.50	15.49	33.223	24.495	344.2	0.147	5.94	104.3	2.5	0.40	0.1	0.00	0.27	0.10	42
	50 ISL	15.30	15.29	33.226	24.542	339.9	0.175	5.95	104.1	2.2	0.40	0.1	0.00	0.39	0.17	50
1	51	15.28	15.27	33.233	24.551	339.0	0.178	5.95	104.0	2.2	0.40	0.1	0.00	0.41	0.18	51
1	62	13.75	13.74	33.178	24.833	312.4	0.214	5.96	101.0	3.1	0.55	1.2	0.05	0.89	0.61	62
1	71	12.91	12.90	33.194	25.014	295.3	0.241	5.74	95.6	4.1	0.68	3.2	0.16	0.61	0.58	71
	75 ISL	12.46	12.45	33.166	25.080	289.1	0.253	5.63	92.9	4.8	0.77	4.8	0.14	0.53	0.52	75
1	81	11.79	11.78	33.125	25.175	280.1	0.270	5.46	88.8	6.1	0.92	7.4	0.12	0.44	0.42	81
1	94	10.70	10.69	33.171	25.407	258.2	0.305	5.05	80.2	9.5	1.19	12.1	0.04	0.21	0.28	94
	100 ISL	10.24	10.23	33.148	25.468	252.4	0.320	5.02	78.9	10.6	1.27	13.4	0.04	0.17	0.21	100
1	109	9.72	9.71	33.141	25.549	244.7	0.343	4.98	77.4	12.2	1.37	14.9	0.03	0.14	0.13	109
1	125	9.52	9.51	33.407	25.790	222.2	0.380	4.38	67.9	16.2	1.56	18.4	0.01	0.03	0.06	126
1	149	9.37	9.35	33.665	26.017	201.1	0.431	3.73	57.7	20.4	1.70	21.1	0.00	0.01	0.05	150
	150 ISL	9.36	9.34	33.674	26.025	200.4	0.433	3.71	57.4	20.6	1.71	21.2	0.00	0.01	0.05	151
1	174	8.96	8.94	33.861	26.236	180.8	0.478	3.25	49.9	25.6	1.88	24.1	0.00	0.02	0.05	175
	200 ISL	8.60	8.58	33.979	26.385	167.0	0.524	2.81	42.8	31.3	2.07	26.9	0.00	0.01	0.04	201
1	203	8.56	8.54	33.989	26.399	165.7	0.529	2.77	42.2	31.9	2.09	27.2	0.00	0.01	0.04	204
1	233	8.23	8.21	34.068	26.511	155.5	0.577	2.42	36.6	37.6	2.26	29.0	0.00			234
	250 ISL	8.04	8.01	34.083	26.552	151.9	0.603	2.29	34.5	40.1	2.33	29.8	0.00			251
1	272	7.79	7.76	34.089	26.593	148.2	0.636	2.14	32.0	43.1	2.41	30.7	0.00			274
	300 ISL	7.52	7.49	34.105	26.645	143.6	0.677	1.91	28.4	47.1	2.55	32.0	0.00			302
1	327	7.27	7.24	34.121	26.693	139.3	0.715	1.68	24.8	51.2	2.69	33.3	0.00			329
1	387	6.69	6.65	34.165	26.808	129.0	0.795	1.12	16.3	61.7	2.90	36.4	0.00			389
	400 ISL	6.60	6.56	34.174	26.827	127.3	0.812	1.02	14.9	63.5	2.94	36.9	0.00			403
1	453	6.31	6.27	34.210	26.894	121.5	0.878	0.70	10.1	69.8	3.07	38.4	0.00			456
	500 ISL	6.10	6.06	34.248	26.952	116.5	0.934	0.54	7.8	74.4	3.15	39.3	0.00			503
1	523	6.00	5.95	34.266	26.979	114.2	0.961	0.46	6.6	76.6	3.19	39.7	0.00			527

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 83 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 54.7 N	122 7.8 W	28/04/92	1404 UTC	4166 m	320 22 kn	340 05 07	2	1019.3 mb	16.1 C	16.1 C	24m 02	8/8	SC

CAST	DEPTH D	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.15	16.15	33.198	24.329	358.7	0.000	5.80	103.2	4.7	0.44	0.1	0.02	0.11	0.03	0
1	2	16.15	16.15	33.198	24.329	358.7	0.007	5.80	103.2	4.7	0.44	0.1	0.02	0.11	0.03	2
	10 ISL	16.16	16.16	33.199	24.328	359.1	0.036	5.79	103.0	4.7	0.44	0.1	0.02	0.13	0.04	10
1	17	16.17	16.17	33.200	24.326	359.5	0.061	5.79	103.1	4.7	0.44	0.1	0.01	0.14	0.05	17
	20 ISL	16.12	16.12	33.198	24.336	358.6	0.072	5.80	103.1	4.6	0.44	0.1	0.01	0.13	0.05	20
	30 ISL	15.93	15.93	33.189	24.373	355.4	0.108	5.82	103.1	4.3	0.44	0.0	0.01	0.11	0.03	30
1	31	15.91	15.91	33.188	24.376	355.1	0.111	5.82	103.0	4.3	0.44	0.0	0.01	0.11	0.03	31
1	40	15.82	15.81	33.185	24.395	353.7	0.143	5.83	103.0	3.9	0.44	0.0	0.01	0.12	0.03	40
1	49	15.79	15.78	33.184	24.401	353.4	0.175	5.85	103.3	3.7	0.44	0.1	0.01	0.15	0.05	49
	50 ISL	15.78	15.77	33.185	24.404	353.1	0.178	5.85	103.3	3.7	0.44	0.1	0.01	0.15	0.05	50
1	59	15.71	15.70	33.189	24.423	351.6	0.210	5.85	103.1	3.5	0.43	0.1	0.01	0.17	0.05	59
1	69	14.46	14.45	33.170	24.680	327.3	0.244	6.04	103.8	3.2	0.46	0.0	0.01	0.32	0.15	69
	75 ISL	13.78	13.77	33.196	24.841	312.0	0.263	5.99	101.6	3.7	0.51	0.5	0.04	0.76	0.49	75
1	77	13.58	13.57	33.208	24.892	307.2	0.269	5.95	100.5	3.9	0.53	0.8	0.05	0.90	0.60	77
1	93	12.68	12.67	33.270	25.119	285.9	0.317	5.46	90.5	5.8	0.77	5.3	0.12	0.41	0.41	93
	100 ISL	12.19	12.18	33.278	25.219	276.4	0.336	5.32	87.3	6.6	0.86	6.8	0.10	0.31	0.37	100
1	107	11.73	11.72	33.295	25.318	267.1	0.355	5.18	84.2	7.6	0.95	8.2	0.07	0.24	0.34	107
1	121	11.22	11.21	33.411	25.502	249.9	0.392	4.75	76.4	10.4	1.13	11.8	0.03	0.10	0.22	122
	125 ISL	10.98	10.96	33.435	25.564	244.1	0.402	4.63	74.1	11.6	1.20	13.0	0.03	0.08	0.18	126
1	147	9.84	9.82	33.584	25.876	214.6	0.452	3.93	61.4	18.4	1.59	19.0	0.01	0.02	0.04	148
	150 ISL	9.83	9.81	33.622	25.908	211.6	0.458	3.82	59.7	19.2	1.63	19.6	0.01	0.02	0.04	151
1	171	9.74	9.72	33.841	26.094	194.4	0.501	3.15	49.2	23.9	1.84	22.6	0.01	0.00	0.06	172
1	200	9.29	9.27	33.994	26.288	176.5	0.555	2.73	42.2	29.0	2.02	25.2	0.01	0.01	0.03	201
1	231	8.83	8.81	34.034	26.393	167.0	0.608	2.62	40.1	32.4	2.10	26.8	0.01			232
	250 ISL	8.32	8.29	34.031	26.469	159.9	0.639	2.61	39.5	36.0	2.15	28.0	0.01			251
1	270	7.78	7.75	34.030	26.548	152.4	0.670	2.60	38.9	40.3	2.22	29.4	0.01			271
	300 ISL	7.38	7.35	34.067	26.635	144.4	0.715	2.20	32.6	46.7	2.41	31.4	0.01			302
1	324	7.21	7.18	34.104	26.688	139.7	0.749	1.80	26.6	51.5	2.57	32.9	0.01			326
1	385	6.94	6.90	34.177	26.784	131.5	0.832	1.15	16.9	59.7	2.83	35.3	0.00			387
	400 ISL	6.87	6.83	34.190	26.804	129.8	0.851	1.04	15.2	61.4	2.88	35.8	0.00			402
1	450	6.56	6.52	34.218	26.868	124.2	0.915	0.78	11.3	67.7	3.00	37.3	0.00			453
	500 ISL	5.99	5.95	34.218	26.942	117.3	0.975	0.60	8.6	76.2	3.10	39.3	0.01			503
1	518	5.79	5.75	34.219	26.967	114.9	0.996	0.53	7.6	79.3	3.13	40.0	0.01			521

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 83 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 34.7 N	122 48.7 W	28/04/92	1947 UTC	4266 m	310 17 kn	330 05 05	2	1020.8 mb	17.1 C	17.1 C	20m 01	8/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DTO HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.38	16.38	33.194	24.273	364.0	0.000	5.80	103.7	0.5	0.43	0.3	0.01	0.17	0.03	0
1	1	16.38	16.38	33.194	24.273	364.0	0.004	5.80	103.7	0.5	0.43	0.3	0.01	0.17	0.03	1
	10 ISL	16.22	16.22	33.194	24.310	360.8	0.036	5.83	103.9	0.2	0.42	0.4	0.01	0.18	0.03	10
1	15	16.07	16.07	33.194	24.344	357.7	0.054	5.85	103.9	0.0	0.42	0.4	0.01	0.18	0.03	15
	20 ISL	15.91	15.91	33.194	24.381	354.4	0.072	5.87	103.9	0.0	0.42	0.4	0.01	0.18	0.03	20
	30 ISL	15.66	15.66	33.196	24.438	349.2	0.107	5.90	103.9	0.0	0.43	0.4	0.00	0.17	0.05	30
1	31	15.64	15.64	33.196	24.443	348.8	0.111	5.90	103.9	0.0	0.43	0.4	0.00	0.17	0.05	31
1	40	15.61	15.60	33.200	24.453	348.1	0.142	5.89	103.7	0.0	0.43	0.3	0.00	0.22	0.07	40
1	50	15.58	15.57	33.202	24.461	347.6	0.177	5.90	103.8	0.0	0.42	0.3	0.00	0.31	0.10	50
1	59	15.45	15.44	33.207	24.494	344.7	0.208	5.90	103.5	0.0	0.42	0.2	0.00	0.41	0.16	59
1	70	14.05	14.04	33.242	24.821	313.8	0.244	5.79	98.8	0.0	0.42	0.2	0.00	0.70	0.58	70
	75 ISL	13.42	13.41	33.238	24.947	301.9	0.260	5.61	94.4	0.0	0.50	0.6	0.07	0.60	0.53	75
1	79	12.98	12.97	33.232	25.030	294.0	0.272	5.47	91.2	0.0	0.57	1.1	0.13	0.49	0.44	79
1	93	12.18	12.17	33.207	25.166	281.3	0.312	5.33	87.4	1.8	0.78	4.7	0.31	0.31	0.32	93
	100 ISL	11.45	11.44	33.219	25.311	267.6	0.331	5.10	82.3	2.3	0.83	5.8	0.27	0.24	0.30	100
1	108	10.61	10.60	33.256	25.489	250.7	0.352	4.78	75.8	3.3	0.91	7.3	0.18	0.17	0.28	108
1	124	9.63	9.62				0 390	4.19	65.1	8.5	1.31	14.0	0.04	0.06	0.10	125
	125 ISL	9.62	9.61	33.400	25.768	224.3	0 392	4.16	64.6	8.8	1.33	14.3	0.04	0.06	0.10	126
1	149	9.32	9.30	33.641	26.006	202.1	0 443	3.65	56.4	14.5	1.59	19.1	0.01	0.03	0.06	150
	150 ISL	9.30	9.28	33.651	26.017	201.1	0.445	3.63	56.1	14.7	1.60	19.3	0.01	0.03	0.06	151
1	173	8.81	8.79	33.856	26.255	178.8	0.489	3.21	49.1	19.0	1.78	22.3	0.01	0.01	0.04	174
	200 ISL	8.71	8.69	33.969	26.360	169.4	0.536	2.96	45.2	24.7	1.92	25.4	0.01	0.00	0.03	201
1	202	8.71	8.69	33.973	26.363	169.2	0.539	2.95	45.0	25.1	1.93	25.6	0.01	0.00	0.03	203
1	231	8.19	8.17	34.006	26.469	159.4	0.587	2.81	42.4	28.4	2.02	26.3	0.00			232
	250 ISL	7.95	7.92	34.026	26.520	154.8	0.617	2.66	39.9	33.7	2.14	28.0	0.00			251
1	272	7.71	7.68	34.047	26.572	150.1	0.650	2.44	36.4	40.4	2.30	30.2	0.00			274
	300 ISL	7.40	7.37	34.073	26.637	144.3	0.692	2.10	31.1	46.0	2.47	32.1	0.00			302
1	326	7.13	7.10	34.097	26.694	139.2	0.728	1.77	26.1	50.4	2.60	33.6	0.00			328
1	386	6.68	6.64	34.144	26.793	130.4	0.809	1.20	17.5	60.8	2.84	36.4	0.00			388
	400 ISL	6.57	6.53	34.155	26.816	128.3	0.827	1.09	15.9	63.1	2.89	36.9	0.00			402
1	451	6.20	6.16	34.195	26.896	121.1	0.891	0.77	11.1	70.8	3.05	38.6	0.00			454
	500 ISL	5.97	5.93	34.235	26.958	115.8	0.949	0.56	8.0	76.8	3.14	39.7	0.01			503
1	520	5.87	5.82	34.252	26.984	113.5	0.972	0.47	6.7	79.3	3.17	40.1	0.02			523

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 83 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 14.7 N	123 29.7 W	29/04/92	0109 UTC	4134 m	330 10 Jen	340 02 06	1	1017.9 mb	16.5 C	15.5 C	36m 01	3/8	AS

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.84	16.84	32.982	24.004	389.6	0.000	5.77	103.9	2.7	0.45	0.3	0.00	0.06	0.02	0
1	1	16.84	16.84	32.982	24.004	389 7	0.004	5.77	103.9	2.7	0.45	0.3	0.00	0.06	0.02	1
	10 ISL	16.44	16.44	32.988	24.102	380.7	0.039	5.81	103.8	2.7	0.46	0.3	0.00	0.06	0.02	10
1	16	16.07	16.07	32.994	24.191	372.3	0.061	5.85	103.8	2.7	0.46	0.3	0.00	0.07	0.02	16
	20 ISL	16.04	16.04	32.999	24.201	371.5	0.076	5.86	103.9	2.7	0.46	0.3	0.00	0.07	0.02	20
	30 ISL	15.80	15.80	32.992	24.250	367.1	0.113	5.89	103.9	2.5	0.45	0.2	0.00	0.08	0.03	30
1	31	15.76	15.76	32.990	24.258	366.4	0.117	5.89	103.8	2.5	0.45	0.2	0.00	0.08	0.03	31
1	40	14.85	14.84	32.944	24.422	351.0	0.149	6.02	104.2	2.4	0.45	0.2	0.00	0.09	0.02	40
1	50	14.71	14.70	32.954	24.460	347.7	0.184	6.00	103.5	2.0	0.44	0.2	0.00	0.11	0.03	50
1	60	14.26	14.25	32.970	24.567	337.7	0.218	6.03	103.1	1.9	0.45	0.2	0.00	0.17	0.08	60
1	70	13.04	13.03	32.969	24.814	314.3	0.251	6.13	102.2	2.2	0.52	0.5	0.02	0.41	0.20	70
	75 ISL	12.55	12.54	32.954	24.898	306.4	0.266	6.01	99.2	2.8	0.60	1.8	0.05	0.40	0.25	75
1	78	12.28	12.27	32.945	24.943	302.1	0.275	5.92	97.1	3.2	0.66	2.8	0.07	0.39	0.27	78
1	94	10.93	10.92	32.983	25.220	275.9	0.322	5.59	89.1	6.0	0.94	7.7	0.05	0.36	0.28	94
	100 ISL	10.62	10.61	33.049	25.326	266.0	0.338	5.40	85.5	7.4	1.05	9.7	0.04	0.30	0.26	100
1	108	10.28	10.27	33.148	25.461	253.2	0.359	5.12	80.6	9.5	1.19	12.4	0.03	0.20	0.21	108
1	123	9.67	9.66	33.279	25.666	234.0	0.395	4.62	71.8	13.6	1.44	16.6	0.02	0.09	0.11	124
	125 ISL	9.62	9.61	33.301	25.691	231.6	0.400	4.55	70.6	14.2	1.47	17.1	0.02	0.08	0.10	126
1	148	9.18	9.16	33.553	25.959	206.5	0.450	3.85	59.3	20.2	1.74	21.6	0.01	0.01	0.05	149
	150 ISL	9.15	9.13	33.572	25.979	204.6	0.454	3.79	58.3	20.7	1.76	22.0	0.01	0.01	0.05	151
1	171	8.85	8.83	33.732	26.152	188.6	0.496	3.33	50.9	24.9	1.91	24.6	0.01	0.00	0.04	172
	200 ISL	8.35	8.33	33.818	26.297	175.2	0.548	3.76	56.9	26.1	1.80	23.7	0.01	0.00	0.03	201
1	201	8.33	8.31	33.820	26.301	174.8	0.550	3.78	57.2	26.1	1.80	23.6	0.01	0.00	0.03	202
1	231	8.17	8.15	33.979	26.451	161.2	0.600	3.37	50.8	31.6	1.92	25.7	0.01			232
	250 ISL	7.91	7.88	34.008	26.512	155.6	0.631	3.13	46.9	35.4	2.02	27.2	0.01			251
1	270	7.60	7.57	34.015	26.563	150.9	0.661	2.88	42.9	39.5	2.14	28.8	0.01			271
	300 ISL	7.30	7.27	34.045	26.629	145.0	0.706	2.40	35.5	45.2	2.33	31.2	0.01			302
1	325	7.08	7.05	34.066	26.676	140.7	0.741	2.01	29.6	50.0	2.49	33.0	0.01			327
1	382	6.43	6.40	34.092	26.785	130.9	0.819	1.42	20.6	61.5	2.78	36.2	0.00			384
	400 ISL	6.28	6.24	34.099	26.810	128.6	0.842	1.29	18.6	64.2	2.84	36.9	0.00			402
1	448	5.93	5.89	34.119	26.870	123.3	0.903	1.02	14.6	70.6	2.96	38.5	0.00			451
	500 ISL	5.59	5.55	34.152	26.939	117.1	0.965	0.76	10.8	78.2	3.10	40.0	0.01			503
1	516	5.48	5.44	34.163	26.961	115.1	0.984	0.68	9.6	80.6	3.14	40.5	0.01			519

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 83 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 54.7 N	124 10.2 W	29/04/92	0614 UTC	4205 m	310 11 kn			1019.3 ml)	18.5 C	16.2 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
1	0	17.99	17.99	33.015	23.756	413.3	0.000	5.70	105.0	3.8	0.46	0.2	0.00	0.10	0.01	0
	10 ISL	16.74	16.74	32.991	24.035	387.0	0.040	5.81	104.4	3.5	0.46	0.2	0.00	0.08	0.02	10
1	15	16.11	16.11	32.986	24.175	373.8	0.059	5.86	104.0	3.4	0.46	0.2	0.00	0.07	0.02	15
	20 ISL	16.04	16.04	32.986	24.191	372.4	0.078	5.87	104.1	3.3	0.46	0.2	0.00	0.07	0.02	20
1	30	15.90	15.90	32.985	24.223	369.7	0.115	5.88	104.0	3.1	0.45	0.2	0.00	0.08	0.02	30
1	39	15.86	15.85	32.984	24.231	369.2	0.148	5.89	104.0	2.7	0.45	0.2	0.00	0.09	0.02	39
1	49	15.34	15.33	32.984	24.347	358.5	0.184	5.98	104.5	2.3	0.45	0.2	0.00	0.13	0.04	49
	50 ISL	15.25	15.24	32.986	24.368	356.5	0.188	6.01	104.9	2.4	0.45	0.2	0.00	0.13	0.04	50
1	59	14.35	14.34	33.022	24.589	335.6	0.219	6.25	107.1	3.7	0.46	0.2	0.01	0.18	0.06	59
1	69	13.25	13.24	33.121	24.890	307.1	0.251	6.41	107.5	4.2	0.49	0.2	0.00	0.41	0.22	69
	75 ISL	12.92	12.91	33.151	24.979	298.7	0.269	6.17	102.7	4.2	0.58	1.5	0.05	0.64	0.44	75
1	79	12.73	12.72	33.160	25.023	294.6	0.281	5.96	98.8	4.2	0.65	2.7	0.09	0.77	0.57	79
1	94	11.49	11.48	33.142	25.243	273.8	0.324	5.41	87.4	6.9	0.98	8.3	0.17	0.52	0.45	94
	100 ISL	10.91	10.90	33.147	25.351	263.6	0.340	5.19	82.8	8.9	1.14	11.0	0.11	0.37	0.36	100
1	108	10.20	10.19	33.182	25.501	249.4	0.361	4.88	76.7	11.8	1.35	14.6	0.03	0.19	0.24	108
1	123	9.41	9.40	33.372	25.781	223.0	0.396	4.29	66.3	16.7	1.61	19.3	0.02	0.07	0.08	124
	125 ISL	9.34	9.33	33.397	25.811	220.1	0.400	4.22	65.1	17.3	1.64	19.8	0.02	0.07	0.08	126
1	149	8.81	8.79	33.657	26.099	193.1	0.450	3.59	54.8	23.3	1.86	23.6	0.01	0.01	0.04	150
	150 ISL	8.81	8.79	33.666	26.106	192.5	0.452	3.57	54.5	23.5	1.86	23.7	0.01	0.01	0.04	151
1	174	8.82	8.80	33.829	26.233	181.0	0.497	3.26	49.9	26.6	1.93	25.0	0.01	0.01	0.04	175
	200 ISL	8.43	8.41	33.945	26.384	167.0	0.542	3.08	46.7	30.4	2.00	26.4	0.01	0.01	0.04	201
1	203	8.38	8.36	33.954	26.399	165.6	0.547	3.06	46.4	30.8	2.01	26.6	0.01	0.01	0.04	204
1	234	8.01	7.99	34.000	26.491	157.3	0.597	2.89	43.4	35.0	2.12	28.2	0.01			235
	250 ISL	7.80	7.78	34.011	26.530	153.8	0 622	2.80	41.9	37.4	2.18	29.0	0.01			251
1	273	7.51	7.48	34.021	26.580	149.3	0.657	2.66	39.5	41.0	2.26	30.1	0.00			275
	300 ISL	7.25	7.22	34.033	26.627	145.1	0.697	2.42	35.8	44.9	2.37	31.4	0.00			302
1	330	6.99	6.96	34.050	26.676	140.8	0.739	2.08	30.5	49.7	2.52	33.1	0.00			332
1	389	6.43	6.39	34.117	26.804	129.1	0.819	1.16	16.8	62.8	2.89	37.3	0.00			391
	400 ISL	6.32	6.28	34.121	26.822	127.5	0.833	1.08	15.6	64.7	2.93	37.8	0.00			402
1	454	5.80	5.76	34.137	26.901	120.3	0.900	0.85	12.1	73.2	3.05	39.7	0.00			457
	500 ISL	5.53	5.49	34.178	26.966	114.4	0.954	0.63	8.9	79.7	3.15	40.8	0.01			503
1	521	5.41	5.37	34.197	26.996	111.8	0.978	0.53	7.5	82.7	3.19	41.3	0.01			524

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 87 33

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 53.4 N	118 29.4 W	23/04/92	1330 UTC	54 m	070 06 kn	280 02 07	1	1014.8 mb	17.0 C	16.7 C	10m 04	4/8	AC

CAST	DEPTH 0	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	18.25	18.25	33.328	23.932	396.6	0.000	5.97	110.7	3.4	0.30	0.2	0.00	0.66	0.18	0
1	1	18.25	18.25	33.328	23.932	396.6	0.004	5.97	110.7	3.4	0.30	0.2	0.00	0.66	0.18	1
	10 ISL	17.30	17.30	33.340	24.171	374.1	0.039	6.18	112.6	3.1	0.32	0.2	0.00	1.56	0.40	10
1	11	17.11	17.11	33.342	24.218	369.7	0.042	6.19	112.3	3.1	0.32	0.2	0.00	1.71	0.45	11
	20 ISL	14.85	14.85	33.375	24.753	318.9	0.073	5.69	98.7	4.9	0.53	1.1	0.09	2.77	0.99	20
1	21	14.62	14.62	33.381	24.807	313.7	0.077	5.62	97.1	5.1	0.56	1.2	0.10	2.83	1.03	21
	30 ISL	14.26	14.26	33.380	24.883	306.8	0.104	5.16	88.5	6.2	0.67	2.5	0.22	1.71	0.67	30
1	31	14.26	14.26	33.389	24.890	306.2	0.107	5.11	87.6	6.4	0.69	2.8	0.23	1.53	0.61	31
1	41	13.17	13.16	33.425	25.141	282.5	0.137	4.39	73.6	10.2	1.07	8.8	0.34	0.44	0.32	41
	50 ISL	12.34	12.33	33.374	25.264	271.0	0.162	3.95	65.1	15.2	1.68	12.0	0.25	0.21	0.23	50
1	51	12.25	12.24	33.369	25.277	269.7	0.165	3.90	64.1	15.8	1.75	12.4	0.24	0.18	0.22	51

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 87 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 49.4 N	118 37.6 W	23/04/92	1053 UTC	644 ffl	070 07 kn			1014.3 mb	16.8 C	16.4 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.35	16.35	33.365	24.411	350.8	0.000	6.11	109.2	3.2	0.35	0.3	0.01	0.93	0.31	0
1	2	16.35	16.35	33.365	24.412	350.9	0.007	6.11	109.2	3.2	0.35	0.3	0.01	0.93	0.31	2
	10 ISL	16.20	16.20	33.364	24.445	347.9	0.035	6.16	109.8	3.1	0.35	0.2	0.01	0.89	0.34	10
1	11	16.18	16.18	33.364	24.450	347.5	0.038	6.16	109.8	3.1	0.35	0.2	0.01	0.89	0.34	11
	20 ISL	15.26	15.26	33.368	24.659	327.9	0.069	6.00	105.0	3.8	0.41	0.2	0.00	1.21	0.58	20
1	22	14.97	14.97	33.372	24.725	321.6	0.075	5.96	103.7	3.9	0.42	0.2	0.00	1.26	0.63	22
	30 ISL	13.56	13.56	33.418	25.057	290.2	0.100	5.00	84.5	7.8	0.83	6.2	0.18	1.02	0.59	30
1	31	13.39	13.39	33.426	25.097	286.4	0.103	4.88	82.2	8.3	0.88	7.0	0.20	0.97	0.58	31
1	42	12.52	12.51	33.479	25.310	266.3	0.133	4.51	74.6	10.9	1.10	10.7	0.05	0.32	0.26	42
	50 ISL	11.95	11.94	33.498	25.434	254.7	0.154	4.34	71.0	12.4	1.20	12.5	0.01	0.13	0.16	50
1	51	11.89	11.88	33.500	25.447	253.5	0.156	4.32	70.5	12.5	1.21	12.7	0.01	0.12	0.16	51
1	60	11.62	11.61	33.515	25.509	247.9	0.179	4.24	68.8	13.4	1.27	13.7	0.01	0.08	0.17	60
1	70	11.12	11.11	33.561	25.636	236.0	0.203	4.01	64.4	15.4	1.39	15.8	0.01	0.05	0.11	70
	75 ISL	10.96	10.95	33.584	25.682	231.6	0.215	3.92	62.8	16.2	1.44	16.5	0.01	0.04	0.09	75
1	85	10.70	10.69	33.636	25.769	223.6	0.238	3.73	59.4	18.0	1.53	17.8	0.00	0.02	0.07	85
1	99	10.31	10.30	33.736	25.915	210.0	0.268	3.39	53.6	21.5	1.68	20.3	0.00	0.01	0.06	99
	100 ISL	10.29	10.28	33.747	25.927	208.9	0.270	3.35	52.9	21.8	1.69	20.5	0.00	0.01	0.06	101
1	119	9.92	9.91	33.939	26.140	189.0	0.308	2.70	42.4	27.6	1.96	23.9	0.01	0.01	0.05	120
	125 ISL	9.84	9.83	33.976	26.182	185.1	0.319	2.59	40.6	28.7	2.01	24.5	0.01	0.01	0.05	126
1	144	9.66	9.64	34.057	26.276	176.6	0.354	2.37	37.0	31.4	2.13	25.9	0.01	0.01	0.05	145
	150 ISL	9.63	9.61	34.080	26.299	174.5	0.364	2.29	35.7	32.2	2.16	26.2	0.01	0.01	0.05	151
1	174	9.52	9.50	34.152	26.374	167.9	0.405	2.02	31.4	35.0	2.27	27.4	0.01	0.01	0.05	175
	200 ISL	9.22	9.20	34.194	26.456	160.6	0.448	1.81	28.0	38.3	2.38	28.6	0.01	0.01	0.04	201
1	204	9.17	9.15	34.199	26.468	159.5	0.454	1.78	27.5	38.8	2.40	28.8	0.01	0.01	0.04	205
1	233	8.82	8.79	34.233	26.550	152.1	0.499	1.55	23.8	42.9	2.52	30.2	0.00			234
	250 ISL	8.61	8.58	34.226	26.578	149.7	0.525	1.55	23.7	44.4	2.54	30.6	0.00			251
1	274	8.32	8.29	34.208	26.608	147.2	0.561	1.54	23.3	46.4	2.56	31.2	0.00			276
	300 ISL	8.02	7.99	34.213	26.658	142.8	0.598	1.38	20.8	49.9	2.65	32.3	0.00			302
1	329	7.72	7.69	34.225	26.711	138.0	0.639	1.17	17.5	54.1	2.76	33.6	0.00			331
1	389	7.26	7.22	34.232	26.783	131.9	0.720	0.95	14.1	60.3	2.88	35.4	0.00			392
	400 ISL	7.16	7.12	34.236	26.800	130.4	0.735	0.89	13.1	61.8	2.91	35.8	0.00			403
1	454	6.67	6.63	34.263	26.889	122.4	0.803	0.60	8.8	69.8	3.05	37.9	0.00			457
	500 ISL	6.39	6.34	34.294	26.951	117.0	0.858	0.45	6.5	75.9	3.14	38.8	0.01			503
1	523	6.25	6.20	34.310	26.982	114.2	0.884	0.37	5.3	79.0	3.18	39.2	0.01			527

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 87 39.4

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 41.0 N	118 56.1 W	23/04/92	0626 UTC	893 D	290 18 kll			1015.2 mb	19.0 C	16.0 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
1	0 A	17.63	17.63	33.404	24.141	376.6	0.000	6.23	114.2	1.8	0.32	0.1	0.00	2.92	0.85	0
1	10	16.24	16.24	33.389	24.455	346.9	0.036	6.14	109.6	2.0	0.36	0.1	0.01	2.35	1.12	10
1	20	15.10	15.10	33.361	24.688	325.1	0.070	5.80	101.1	3.3	0.47	0.9	0.13	1.49	0.59	20
1	30	13.89	13.89	33.328	24.919	303.3	0.101	5.47	93.0	5.3	0.65	3.1	0.31	0.34	0.35	30
1	40	13.27	13.26	33.372	25.080	288.3	0.131	5.11	85.8	7.1	0.81	6.2	0.20	0.26	0.28	40
1	50	12.56	12.55	33.441	25.273	270.1	0.159	4.66	77.2	10.0	1.04	10.0	0.03	0.12	0.20	50
1	61	12.32	12.31	33.466	25.339	264.1	0.188	4.56	75.1	10.8	1.09	10.8	0.02	0.10	0.15	61
1	71	11.70	11.69	33.524	25.501	248.9	0.214	4.28	69.6	13.2	1.25	13.2	0.01	0.07	0.12	71
	75 ISL	11.55	11.54	33.541	25.542	245.0	0.224	4.19	67.9	13.9	1.30	13.9	0.01	0.06	0.11	75
1	85	11.23	11.22	33.586	25.635	236.3	0.248	3.97	63.9	15.6	1.40	15.7	0.01	0.05	0.09	85
1	100	10.61	10.60	33.705	25.839	217.3	0.282	3.61	57.4	19.8	1.60	18.9	0.00	0.03	0.05	100
1	119	10.25	10.24	33.799	25.974	204.8	0.322	3.20	50.5	22.8	1.75	21.2	0.00	0.02	0.04	120
	125 ISL	10.17	10.16	33.844	26.023	200.3	0 334	3.06	48.2	24.1	1.81	22.0	0.00	0.02	0.04	126
1	139	9.98	9.96	33.944	26.134	190.0	0 361	2.76	43.4	27.0	1.94	23.8	0.00	0.02	0.04	140
	150 ISL	9.76	9.74	33.985	26.203	183.7	0 382	2.64	41.3	28.9	2.01	24.8	0.00	0.02	0.04	151
1	168	9.42	9.40	34.023	26.289	175.8	0.414	2.54	39.4	31.3	2.07	26.0	0.00	0.02	0.04	169
1	198	9.25	9.23	34.057	26.344	171.2	0.466	2.41	37.3	33.3	2.10	26.7	0.00	0.02	0.03	199
	200 ISL	9.24	9.22	34.064	26.351	170.5	0.470	2.38	36.8	33.6	2.11	26.8	0.00			201
1	227	9.07	9.05	34.166	26.458	160.8	0.514	1.99	30.7	37.6	2.30	28.3	0.00			228
	250 ISL	8.94	8.91	34.207	26.511	156.2	0.551	1.75	26.9	40.3	2.39	29.2	0.00			251
1	266	8.82	8.79	34.219	26.540	153.8	0.576	1.63	25.0	42.1	2.43	29.8	0.00			268
	300 ISL	8.28	8.25	34.218	26.623	146.3	0.627	1.47	22.3	47.1	2.55	31.3	0.00			302
1	314	8.03	8.00	34.214	26.657	143.1	0.647	1.41	21.2	49.4	2.60	32.0	0.00			316
1	373	7.29	7.25	34.231	26.778	132.1	0.728	0.98	14.5	60.1	2.84	35.2	0.00			375
	400 ISL	7.03	6.99	34.242	26.823	128.1	0.763	0.83	12.2	64.1	2.92	36.2	0.00			403
1	432	6.78	6.74	34.258	26.870	123.9	0.804	0.68	9.9	68.3	3.00	37.2	0.00			435
1	499	6.45	6.40	34.295	26.944	117.7	0.884	0.46	6.7	75.4	3.12	38.3	0.00			502
	500 ISL	6.44	6.39	34.296	26.946	117.5	0.386	0.46	6.7	75.5	3.12	38.3	0.00			503
	600 ISL	5.86	5.81	34.342	27.057	107.7	0.998	0.27	3.9	88.2	3.25	39.4	0.00			604
1	639	5.65	5.59	34.358	27.096	104.3	1.040	0.22	3.1	93.1	3.29	39.6	0.00			644
	700 ISL	5:47	5.41	34.373	27.130	101.5	1.102	0.16	2.3	97.1	3.32	39.1	0.00			705
	800 ISL	5.27	5.20	34.390	27.168	98.9	1.203	0.09	1.3	105.9	3.40	38.4	0.00			806
1	842	5.23	5.16	34.393	27.176	98.6	1.244	0.07	1.0	110.5	3.45	38.1	0.00			849
1	875	5.18	5.11	34.397	27.185	98.0	1.276	0.05	0.7	116.5	3.52	37.2	0.00			882
1	885	5.19	5.12	34.395	27.182	98.4	1.286	0.05	0.7	117.1	3.53	36.6	0.02			892
1	890	5.19	5.11	34.395	27.182	98.5	1.291	0.05	0.7	116.8	3.51	36.5	0.02			897
1	895	5.19	5.11	34.395	27.182	98.5	1.296	0.06	0.8	116.8	3.50	36.6	0.03			902

A) SANTA MONICA BASIN STATION.

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 87 45

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 29.5 N	119 19.0 W	23/04/92	0142 UTC	1633 m	290 24 kn	290 06 06	1	1014.9 *tab*	16.5 C	16.0 C	06m 04	2/8	AS

CAST	DEPTH ID	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.31	16.31	33.349	24.408	351.1	0.000	6.03	107.7	1.4	0.36	0.2	0.00	1.16	0.42	0
1	1	16.31	16.31	33.349	24.408	351.1	0.004	6.03	107.7	1.4	0.36	0.2	0.00	1.16	0.42	1
1	10	16.33	16.33	33.349	24.404	351.B	0.035	6.03	107.8	1.3	0.35	0.1	0.01	1.20	0.48	10
1	20	15.49	15.49	33.348	24.593	334.1	0.069	6.00	105.4	1.6	0.41	0.4	0.02	2.22	0.79	20
	30 ISL	12.49	12.49	33.387	25.245	272.3	0.100	4.94	81.6	8.6	0.96	8.7	0.21	1.15	0.64	30
1	31	12.20	12.20	33.397	25.308	266.3	0.102	4.82	79.2	9.4	1.02	9.6	0.22	1.00	0.62	31
1	40	11.63	11.62	33.446	25.453	252.7	0.126	4.43	71.9	12.2	1.20	12.7	0.09	0.35	0.36	40
1	50	11.00	10.99	33.530	25.632	235.8	0.150	4.09	65.5	15.4	1.39	15.6	0.03	0.13	0.24	50
1	60	10.77	10.76	33.573	25.707	228.9	0.173	3.93	62.7	16.8	1.46	16.9	0.01	0.06	0.11	60
1	70	10.67	10.66	33.598	25.744	225.6	0.196	3.84	61.1	17.7	1.50	17.5	0.01	0.05	0.11	70
	75 ISL	10.55	10.54	33.621	25.783	222.0	0.207	3.76	59.7	18.5	1.54	18.1	0.01	0.04	0.10	75
1	84	10.30	10.29	33.671	25.865	214.4	0.227	3.59	56.7	20.1	1.62	19.4	0.01	0.02	0.08	84
1	99	10.02	10.01	33.755	25.979	203.9	0.258	3.34	52.5	22.8	1.74	21.1	0.00	0.01	0.07	100
	100 ISL	10.00	9.99	33.760	25.986	203.2	0.260	3.32	52.1	23.0	1.75	21.2	0.00	0.01	0.07	101
1	119	9.71	9.70	33.848	26.104	192.4	0.298	3.04	47.4	25.8	1.87	23.1	0.00	0.01	0.06	120
	125 ISL	9.66	9.65	33.880	26.137	189.3	0.309	2.95	46.0	26.7	1.91	23.6	0.00	0.01	0.06	126
1	144	9.52	9.50	33.977	26.236	180.3	0.345	2.66	41.4	29.6	2.03	25.1	0.00	0.01	0.06	145
	150 ISL	9.46	9.44	34.006	26.269	177.3	0.355	2.56	39.8	30.6	2.07	25.6	0.00	0.01	0.06	151
1	174	9.17	9.15	34.097	26.387	166.5	0.397	2.23	34.4	34.7	2.21	27.3	0.00	0.00	0.05	175
	200 ISL	8.74	8.72	34.124	26.477	158.4	0.439	2.06	31.5	38.9	2.32	29.1	0.00	0.00	0.04	201
1	204	8.68	8.66	34.125	26.487	157.5	0.445	2.04	31.2	39.5	2.33	29.3	0.00	0.00	0.04	205
1	234	8.54	8.52	34.156	26.533	153.6	0.492	1.85	28.2	42.3	2.39	30.2	0.00			235
	250 ISL	8.42	8.39	34.170	26.563	151.0	0.516	1.75	26.6	44.0	2.44	30.7	0.00			251
1	274	8.22	8.19	34.187	26.607	147.2	0.552	1.60	24.2	46.6	2.52	31.5	0.01			276
	300 ISL	7.99	7.96	34.197	26.649	143.5	0.590	1.44	21.7	49.6	2.61	32.4	0.01			302
1	329	7.73	7.70	34.205	26.694	139.6	0.631	1.28	19.1	53.1	2.70	33.4	0.00			331
1	388	7.22	7.18	34.220	26.779	132.2	0.711	0.99	14.6	60.5	2.83	35.5	0.00			391
	400 ISL	7.15	7.11	34.226	26.794	131.0	0.727	0.93	13.7	61.7	2.86	35.8	0.00			403
1	453	6.86	6.82	34.259	26.860	125.3	0.795	0.68	10.0	67.2	3.00	37.2	0.00			456
	500 ISL	6.53	6.48	34.287	26.927	119.4	0.852	0.51	7.4	73.6	3.10	38.4	0.01			503
1	522	6.38	6.33	34.301	26.958	116.6	0.878	0.43	6.2	76.6	3.15	38.9	0.01			526

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 87 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 19.4 N	119 39.8 W	22/04/92	2220 UTC	77 m	310 24 kn	300 08 07	0	1016.1 mb	16.0 C	15.8 C	05m 06	0/8	

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.66	14.66	33.438	24.842	309.8	0.000	6.30	109.0	2.3	0.45	0.3	0.01	9.62	1.74	0
1	2	14.66	14.66	33.438	24.842	309.9	0.006	6.30	108.9	2.3	0.45	0.3	0.01	9.62	1.74	2
	10 ISL	14.57	14.57	33.439	24.862	308.2	0.031	6.30	108.7	2.2	0.46	0.4	0.00	9.36	2.26	10
1	11	14.56	14.56	33.439	24.864	308.0	0.034	6.30	108.7	2.2	0.46	0.4	0.00	9.32	2.33	11
	20 ISL	14.54	14.54	33.434	24.865	308.2	0.062	6.28	108.3	2.1	0.50	0.3	0.00	9.38	2.26	20
1	21	14.54	14.54	33.434	24.865	308.2	0.065	6.28	108.3	2.1	0.50	0.3	0.00	9.39	2.25	21
	30 ISL	13.70	13.70	33.445	25.049	291.0	0.092	5.40	91.6	6.0	0.76	5.1	0.08	3.91	1.18	30
1	31	13.59	13.59	33.447	25.073	288.7	0.095	5.29	89.5	6.5	0.79	5.7	0.09	3.25	1.05	31
1	42	12.68	12.67	33.476	25.277	269.5	0.125	4.75	78.9	9.7	1.04	9.6	0.12	1.11	0.52	42
	50 ISL	11.86	11.85	33.529	25.475	250.8	0.146	4.30	70.2	12.8	1.24	13.1	0.09	0.46	0.32	50
1	51	11.76	11.75	33.537	25.500	248.5	0.149	4.24	69.1	13.2	1.26	13.5	0.08	0.42	0.30	51
1	62	11.04	11.03	33.629	25.703	229.4	0.175	3.79	60.8	17.1	1.49	17.0	0.05	0.09	0.16	62

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 87 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 9.4 N	120 0.5 W	22/04/92	1705 UTC	1197 m	310 27 Jen	300 09 07	1	1016.1 mb	15.4 C	14.5 C	11m 04	3/8	CS

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN' HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.31	14.31	33.343	24.843	309.7	0.000	5.87	100.7	3.4	0.54	1.8	0.09	1.56	0.67	0
1	2	14.31	14.31	33.343	24.843	309.8	0.006	5.87	100.7	3.4	0.54	1.8	0.09	1.56	0.67	2
	10 ISL	14.32	14.32	33.343	24.841	310.2	0.031	5.87	100.8	3.5	0.54	1.8	0.09	1.59	0.73	10
2	17	14.318	14.316	33.342	24.841	310.4	0.053	5.87	100.7	3.6	0.54	1.8	0.09	1.62	0.78	17
	20 ISL	14.314	14.311	33.342	24.842	310.4	0.062	5.87	100.7	3.6	0.54	1.8	0.09	1.61	0.76	20
	30 ISL	14.302	14.298	33.342	24.845	310.4	0.093	5.87	100.7	3.5	0.54	1.8	0.09	1.55	0.68	30
1	32	14.30	14.30	33.342	24.845	310.4	0.099	5.87	100.7	3.5	0.54	1.8	0.09	1.54	0.66	32
1	40	14.27	14.26	33.342	24.852	310.0	0.124	5.84	100.1	3.4	0.55	1.9	0.09	1.54	0.64	40
1	50	14.15	14.14	33.357	24.889	306.8	0.155	5.77	98.7	4.0	0.60	2.7	0.10	1.54	0.78	50
1	60	13.71	13.70	33.392	25.007	295.8	0.185	5.46	92.6	5.5	0.75	4.5	0.14	1.15	0.59	60
1	71	11.49	11.48	33.551	25.561	243.2	0.215	4.08	66.1	13.2	1.35	14.8	0.06	0.13	0.20	71
	75 ISL	11.41	11.40	33.557	25.580	241.4	0.224	4.05	65.5	13.6	1.36	15.1	0.06	0.12	0.22	75
1	80	11.31	11.30	33.565	25.605	239.2	0.236	4.01	64.7	14.0	1.38	15.4	0.05	0.11	0.28	80
1	95	10.78	10.77	33.649	25.765	224.2	0.271	3.69	58.9	17.0	1.54	18.1	0.04	0.07	0.14	95
	100 ISL	10.57	10.56	33.689	25.833	217.8	0.282	3.56	56.6	18.6	1.61	19.2	0.04	0.05	0.11	100
1	110	10.20	10.19	33.771	25.961	205.8	0.303	3.29	51.9	21.8	1.75	21.3	0.03	0.02	0.08	111
1	125	9.97	9.96	33.868	26.076	195.2	0.333	2.96	46.5	24.6	1.86	23.2	0.02	0.01	0.07	126
1	150	9.65	9.63	33.962	26.203	183.6	0.381	2.70	42.1	28.2	2.00	24.8	0.02	0.01	0.07	151
1	175	9.25	9.23	34.044	26.333	171.7	0.425	2.42	37.4	32.6	2.13	26.8	0.02	0.01	0.05	176
	200 ISL	9.05	9.03	34.109	26.416	164.2	0.467	2.16	33.3	35.8	2.23	28.2	0.01	0.01	0.06	201
1	204	9.01	8.99	34.116	26.428	163.2	0.474	2.13	32.8	36.3	2.25	28.4	0.01	0.01	0.06	205
1	234	8.41	8.39	34.120	26.525	154.3	0.521	2.00	30.4	41.9	2.37	30.1	0.00			235
	250 ISL	8.24	8.21	34.134	26.562	151.0	0.546	1.89	28.6	44.2	2.42	30.8	0.00			251
1	275	8.05	8.02	34.158	26.609	146.9	0.583	1.71	25.8	47.3	2.50	31.8	0.00			277
	300 ISL	7.83	7.80	34.173	26.654	143.0	0.619	1.54	23.1	50.8	2.59	32.6	0.00			302
1	330	7.60	7.57	34.187	26.699	139.1	0.662	1.37	20.4	54.4	2.69	33.5	0.00			332
1	390	7.36	7.32	34.204	26.747	135.4	0.744	1.19	17.6	58.2	2.81	35.1	0.00			393
	400 ISL	7.31	7.27	34.207	26.757	134.6	0.757	1.15	17.0	59.2	2.83	35.4	0.00			403
1	454	7.00	6.96	34.226	26.815	129.7	0.829	0.95	14.0	64.7	2.92	36.7	0.00			457
	500 ISL	6.77	6.72	34.238	26.856	126.3	0.888	0.83	12.1	68.6	2.99	37.5	0.00			503
1	520	6.67	6.62	34.244	26.875	124.7	0.913	0.78	11.4	70.3	3.02	37.9	0.00			524

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 87 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 59.4 N	120 21.0 W	22/04/92	1301 UTC	730 *m*	310 28 kn			1014.9 mb	14.2 C	13.0 C		

CAST	DEPTH D	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	14.52	14.52	33.337	24.794	314.4	0 000	5.98	103.1	3.6	0.50	0.8	0.06	2.07	1.02	0
1	1	14.52	14.52	33.337	24.794	314.4	0 003	5.98	103.1	3.6	0.50	0.8	0.06	2.07	1.02	1
1	10	14.52	14.52	33.336	24.793	314.7	0.031	5.98	103.1	3.3	0.47	0.8	0.05	2.13	0.92	10
1	20	14.51	14.51	33.337	24.797	314.7	0.063	5.98	103.0	3.4	0.47	0.8	0.06	2.06	0.86	20
1	30	14.53	14.53	33.340	24.795	315.2	0.094	5.98	103.1	3.2	0.48	0.8	0.05	2.10	0.91	30
1	40	14.52	14.51	33.338	24.796	315.4	0.126	5.98	103.0	3.3	0.49	1.0	0.06	2.01	0.91	40
1	49	14.46	14.45	33.340	24.810	314.2	0.154	5.97	102.7	3.4	0.50	1.1	0.07	1.82	0.98	49
	50 ISL	14.41	14.40	33.334	24.816	313.7	0.157	5.95	102.3	3.4	0.51	1.2	0.08	1.73	0.95	50
1	61	13.54	13.53	33.277	24.953	301.0	0.191	5.61	94.7	4.6	0.69	3.9	0.15	0.62	0.51	61
1	75	12.04	12.03	33.337	25.293	268.8	0.231	4.92	80.5	8.5	1.01	9.7	0.13	0.24	0.28	75
1	88	11.55	11.54	33.442	25.465	252.6	0.265	4.49	72.8	11.3	1.22	12.6	0.07	0.13	0.24	88
	100 ISL	11.18	11.17	33.552	25.619	238.3	0.294	4.07	65.5	14.0	1.38	15.3	0.03	0.08	0.20	100
1	108	10.90	10.89	33.601	25.707	230.1	0.313	3.88	62.1	15.6	1.47	16.9	0.02	0.07	0.17	109
	125 ISL	9.94	9.93	33.540	25.825	219.0	0.351	4.06	63.6	17.7	1.56	18.7	0.01	0.03	0.08	126
1	128	9.77	9.76	33.528	25.844	217.2	0.358	4.10	63.9	18.0	1.57	19.0	0.01	0.03	0.07	129
	150 ISL	9.25	9.23	33.653	26.026	200.2	0.404	3.70	57.1	22.3	1.74	22.1	0.00	0.01	0.04	151
1	153	9.22	9.20	33.677	26.050	198.0	0.410	3.63	56.0	22.9	1.76	22.5	0.00	0.01	0.04	154
1	183	9.28	9.26	33.846	26.173	187.0	0.468	3.24	50.1	25.7	1.82	23.8	0.00	0.01	0.04	184
	200 ISL	9.26	9.24	33.929	26.242	180.9	0.'199	2.99	46.2	27.8	1.92	24.8	0.00	0.01	0.04	201
1	218	9.19	9.17	34.006	26.314	174.4	0.531	2.73	42.1	30.4	2.05	26.0	0.00	0.01	0.04	219
	250 ISL	9.00	8.97	34.118	26.432	163.7	0.!>85	2.27	34.9	35.6	2.22	28.0	0.00			251
1	254	8.96	8.93	34.127	26.446	162.5	0.591	2.23	34.3	36.3	2.24	28.3	0.00			255
1	294	7.98	7.95	34.109	26.582	149.8	0.654	2.21	33.2	43.2	2.34	30.6	0.00			296
	300 ISL	7.95	7.92	34.117	26.592	148.9	0.663	2.14	32.1	44.1	2.37	30.9	0.00			302
1	348	7.75	7.72	34.195	26.684	141.0	0.732	1.44	21.5	51.4	2.64	33.4	0.00			350
	400 ISL	7.21	7.17	34.212	26.775	132.8	0.804	1.08	16.0	59.1	2.80	35.9	0.00			403
1	414	7.04	7.00	34.213	26.799	130.6	0.822	1.02	15.0	61.3	2.83	36.5	0.00			417
1	482	6.37	6.33	34.262	26.928	118.8	0.907	0.61	8.8	73.0	3.08	39.5	0.00			485
	500 ISL	6.27	6.23	34.266	26.944	117.4	0.928	0.58	8.4	74.7	3.10	39.9	0.00			503
1	560	5.92	5.87	34.279	26.999	112.7	0.997	0.46	6.6	80.2	3.18	41.1	0.01			564

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 87 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 39.4 N	121 2.1 W	22/04/92	0609 UTC	3683 m	310 22 kn			1016.1 mb	14.2 C	13.8 C		

CAST	DEPTH n	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.90	15.90	33.133	24.335	358.1	0.000	5.82	103.0	3.1	0.43	0.1	0.00	0.09	0.03	0
1	1	15.90	15.90	33.133	24.335	358.1	0.004	5.82	103.0	3.1	0.43	0.1	0.00	0.09	0.03	1
	10 ISL	15.91	15.91	33.132	24.333	358.6	0.036	5.83	103.2	3.1	0.43	0.1	0.00	0.10	0.03	10
1	17	15.91	15.91	33.131	24.332	358.9	0.061	5.83	103.2	3.1	0.43	0.1	0.00	0.10	0.03	17
	20 ISL	15.91	15.91	33.132	24.333	358.9	0.072	5.83	103.2	3.1	0.43	0.1	0.00	0.10	0.03	20
	30 ISL	15.89	15.89	33.131	24.337	358.8	0.10B	5.82	103.0	3.1	0.43	0.1	0.00	0.10	0.02	30
1	31	15.89	15.89	33.131	24.337	358.9	0.111	5.82	103.0	3.1	0.43	0.1	0.00	0.10	0.02	31
1	41	15.84	15.83	33.136	24.352	357.7	0.147	5.85	103.4	3.1	0.43	0.1	0.00	0.11	0.03	41
	50 ISL	15.02	15.01	33.158	24.550	339.1	0.178	6.10	106.1	3.1	0.45	0.1	0.00	0.27	0.12	50
1	51	14.89	14.88	33.161	24.581	336.2	0.182	6.12	106.1	3.1	0.45	0.1	0.00	0.29	0.14	51
1	62	13.14	13.13	33.183	24.960	300.2	0.217	6.02	100.7	4.4	0.58	2.0	0.05	0.59	0.40	62
	75 ISL	12.35	12.34	33.205	25.131	284.2	0.255	5.55	91.3	6.3	0.82	6.1	0.14	0.62	0.51	75
1	76	12.31	12.30	33.207	25.141	283.3	0.258	5.51	90.6	6.5	0.84	6.5	0.14	0.62	0.52	76
1	91	11.00	10.99	33.277	25.436	255.4	0.298	4.89	78.2	10.8	1.18	12.4	0.04	0.31	0.35	91
	100 ISL	10.35	10.34	33.333	25.594	240.5	0.320	4.61	72.7	13.7	1.36	15.4	0.03	0.21	0.26	100
1	106	10.00	9.99	33.372	25.683	232.0	0.334	4.46	69.8	15.5	1.45	17.0	0.02	0.17	0.20	106
1	121	9.59	9.58	33.458	25.819	219.4	0.368	4.21	65.4	18.1	1.56	19.1	0.01	0.08	0.09	122
	125 ISL	9.46	9.45	33.507	25.878	213.8	0.377	4.07	63.0	19.5	1.61	20.0	0.01	0.06	0.07	126
1	141	9.02	9.00	33.715	26.111	191.9	0.409	3.50	53.7	25.2	1.82	23.7	0.00	0.01	0.03	142
	150 ISL	8.89	8.87	33.795	26.195	184.2	0.426	3.29	50.4	27.2	1.89	24.9	0.00	0.01	0.03	151
1	162	8.76	8.74	33.876	26.279	176.4	0.448	3.09	47.2	29.4	1.95	25.9	0.00	0.01	0.04	163
1	186	8.38	8.36	33.980	26.419	163.4	0.489	2.96	44.9	34.0	2.03	27.4	0.00	0.01	0.03	187
	200 ISL	8.21	8.19	34.006	26.465	159.2	0.511	2.89	43.6	35.9	2.08	28.1	0.00	0.01	0.03	201
1	219	8.00	7.98	34.021	26.508	155.4	0.541	2.78	41.8	38.2	2.14	28.9	0.00	0.01	0.03	220
	250 ISL	7.59	7.57	34.039	26.583	148.7	0.588	2.58	38.4	42.7	2.24	30.4	0.00			251
1	253	7.55	7.53	34.040	26.589	148.1	0.593	2.56	38.1	43.2	2.25	30.6	0.00			254
1	292	7.11	7.08	34.067	26.673	140.6	0.649	2.01	29.6	51.4	2.47	33.5	0.00			294
	300 ISL	7.03	7.00	34.075	26.690	139.0	0.660	1.90	27.9	53.0	2.52	34.1	0.00			302
1	346	6.62	6.59	34.122	26.783	130.7	0.722	1.32	19.2	61.5	2.75	37.1	0.00			348
	400 ISL	6.24	6.20	34.152	26.857	124.2	0.791	0.96	13.9	68.8	2.92	39.3	0.00			403
1	410	6.18	6.14	34.157	26.869	123.1	0.804	0.91	13.1	70.0	2.94	39.6	0.00			413
1	479	5.76	5.72	34.219	26.971	114.0	0.885	0.55	7.9	79.7	3.15	41.5	0.00			482
	500 ISL	5.65	5.61	34.232	26.995	111.9	0.909	0.51	7.3	82.1	3.18	41.9	0.00			503
1	560	5.32	5.27	34.269	27.064	105.7	0.974	0.40	5.7	88.9	3.26	43.2	0.00			564

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 87 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	NEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 19.4 N	121 42.9 W	22/04/92	0007 UTC	3946 in	330 25 *kn*	350 08 05	0	1015.2 mb	16.4 C	15.2 C	29m 01	0/8	

CAST	DEPTH n	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.95	15.95	33.161	24.345	357.1	0.000	5.81	102.9	3.0	0.43	0.2	0.00	0.09	0.03	0
1	1	15.95	15.95	33.161	24.346	357.1	0.004	5.81	102.9	3.0	0.43	0.2	0.00	0.09	0.03	1
	10 ISL	15.97	15.97	33.161	24.341	357.8	0.036	5.82	103.2	3.0	0.42	0.2	0.00	0.09	0.03	10
1	15	15.98	15.98	33.161	24.339	358.1	0.054	5.82	103.2	3.0	0.42	0.2	0.00	0.09	0.03	15
	20 ISL	15.98	15.98	33.161	24.339	358.3	0.072	5.82	103.2	2.9	0.42	0.2	0.00	0.09	0.03	20
1	30	15.96	15.96	33.160	24.344	358.2	0.107	5.82	103.1	2.8	0.43	0.2	0.00	0.09	0.02	30
1	40	15.95	15.94	33.160	24.346	358.3	0.143	5.83	103.3	2.8	0.43	0.2	0.00	0.10	0.02	40
1	49	15.75	15.74	33.165	24.395	353.9	0.175	5.87	103.6	2.7	0.42	0.2	0.00	0.13	0.03	49
	50 ISL	15.60	15.59	33.168	24.431	350.5	0.179	5.90	103.8	2.8	0.42	0.3	0.00	0.19	0.06	50
1	59	13.98	13.97	33.204	24.806	314.9	0.209	6.03	102.7	3.7	0.51	0.9	0.03	0.67	0.34	55'
1	70	12.50	12.49	33.187	25.089	288.2	0.242	5.60	92.4	5.8	0.79	5.5	0.16	0.54	0.45	70
	75 ISL	12.04	12.03	33.182	25.172	280.2	0.256	5.44	88.9	6.8	0.89	7.3	0.14	0.52	0.44	75
1	78	11.79	11.78	33.183	25.220	275.7	0.264	5.34	86.8	7.5	0.95	8.3	0.11	0.50	0.43	78
1	93	10.39	10.38	33.296	25.558	243.8	0.303	4.75	75.0	12.9	1.30	14.7	0.02	0.22	0.24	93
	100 ISL	10.06	10.05	33.351	25.657	234.4	0.320	4.57	71.7	14.6	1.39	16.4	0.02	0.16	0.18	100
1	108	9.81	9.80	33.412	25.746	226.1	0.339	4.39	68.5	16.3	1.47	17.8	0.01	0.11	0.12	108
1	123	9.38	9.37	33.519	25.900	211.7	0.371	4.04	62.5	19.9	1.61	20.6	0.01	0.04	0.06	124
	125 ISL	9.34	9.33	33.535	25.919	209.9	0.376	3.99	61.6	20.4	1.63	20.9	0.01	0.03	0.06	126
1	148	9.02	9.00	33.713	26.110	192.2	0.422	3.50	53.7	25.1	1.81	23.9	0.01	0.00	0.03	149
	150 ISL	8.99	8.97	33.728	26.127	190.6	0.426	3.47	53.2	25.5	1.82	24.1	0.01	0.00	0.03	151
1	174	8.66	8.64	33.880	26.297	174.8	0.470	3.25	49.5	29.4	1.89	25.8	0.01	0.00	0.04	175
	200 ISL	8.36	8.34	33.960	26.407	164.8	0.514	3.12	47.3	32.8	1.98	27.1	0.01	0.00	0.03	201
1	204	8.32	8.30	33.967	26.418	163.8	0.520	3.10	46.9	33.3	1.99	27.3	0.01	0.00	0.03	205
1	233	7.95	7.93	34.009	26.507	155.8	0.567	2.91	43.7	37.8	2.10	29.0	0.01			234
	250 ISL	7.73	7.71	34.031	26.556	151.3	0.593	2.67	39.9	41.3	2.20	30.5	0.01			251
1	273	7.44	7.41	34.056	26.618	145.7	0.627	2.29	34.0	46.4	2.35	32.7	0.00			275
	300 ISL	7.13	7.10	34.076	26.677	140.3	0.665	1.93	28.4	52.0	2.50	34.8	0.00			302
1	329	6.82	6.79	34.095	26.735	135.1	0.705	1.59	23.3	57.9	2.65	36.7	0.00			331
1	388	6.29	6.26	34.147	26.846	125.0	0.782	1.00	14.5	68.9	2.93	40.1	0.00			390
	400 ISL	6.24	6.20	34.165	26.867	123.2	0.797	0.89	12.8	70.6	2.98	40.6	0.00			403
1	452	6.08	6.04	34.240	26.947	116.2	0.859	0.53	7.6	76.7	3.13	42.1	0.00			455
	500 ISL	5.85	5.81	34.271	27.001	111.6	0.914	0.42	6.0	81.5	3.20	43.0	0.00			503
1	520	5.76	5.72	34.284	27.023	109.7	0.936	0.37	5.3	83.5	3.23	43.4	0.00			524

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 87 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 59.4 N	122 23.8 W	21/04/92	1702 UTC	4150 *m*	350 23 kD	350 08 05	1	1016.9 mb	17.0 C	15.9 C	20m 02	2/8	CS

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.94	15.94	33.210	24.385	353.3	0.000	5.81	102.9	2.6	0.42	0.2	0.00	0.14	0.03	0
1	1	15.94	15.94	33.210	24.385	353.3	0.004	5.81	102.9	2.6	0.42	0.2	0.00	0.14	0.03	1
	10 ISL	15.95	15.95	33.209	24.383	353.9	0.035	5.81	103.0	2.6	0.41	0.2	0.00	0.14	0.03	10
1	17	15.95	15.95	33.209	24.383	354.1	0.060	5.81	103.0	2.6	0.41	0.2	0.00	0.14	0.03	17
	20 ISL	15.92	15.92	33.208	24.389	353.6	0.071	5.82	103.1	2.6	0.41	0.2	0.00	0.14	0.03	20
1	30	15.80	15.80	33.205	24.414	351.5	0.106	5.85	103.4	2.6	0.41	0.2	0.00	0.15	0.04	30
1	40	15.64	15.63	33.204	24.449	348.4	0.141	5.85	103.0	2.6	0.41	0.2	0.00	0.18	0.04	40
	50 ISL	15.54	15.53	33.199	24.468	347.0	0.176	5.88	103.3	2.5	0.41	0.2	0.00	0.24	0.08	50
1	51	15.53	15.52	33.199	24.470	346.8	0.179	5.88	103.3	2.5	0.41	0.2	0.00	0.25	0.08	51
1	61	14.10	14.09	33.173	24.757	319.6	0.213	6.09	103.9	2.8	0.45	0.2	0.00	0.49	0.29	61
1	70	13.06	13.05	33.124	24.931	303.3	0.241	6.02	100.5	3.5	0.56	1.3	0.05	0.80	0.66	70
	75 ISL	12.65	12.64	33.152	25.032	293.6	0.256	5.73	94.9	4.5	0.69	3.6	0.10	0.65	0.59	75
1	79	12.37	12.36	33.182	25.110	286.3	0.267	5.48	90.2	5.4	0.80	5.6	0.13	0.48	0.54	79
1	94	11.42	11.41	33.224	25.320	266.6	0.309	5.14	82.9	8.1	1.01	9.5	0.05	0.29	0.32	94
	100 ISL	11.18	11.17	33.239	25.375	261.4	0.324	5.04	80.9	9.0	1.07	10.6	0.03	0.23	0.28	100
1	109	10.84	10.83	33.262	25.453	254.1	0.348	4.91	78.3	10.4	1.16	12.1	0.02	0.17	0.23	109
1	124	10.05	10.04	33.322	25.636	236.9	0.384	4.65	72.9	13.7	1.36	15.6	0.01	0.10	0.13	125
	125 ISL	10.01	10.00	33.334	25.652	235.4	0.387	4.61	72.2	14.0	1.37	15.9	0.01	0.10	0.12	126
1	148	9.34	9.32	33.648	26.008	201.9	0.437	3.75	58.0	21.6	1.68	21.4	0.01	0.01	0.03	149
	150 ISL	9.29	9.27	33.667	26.031	199.8	0.441	3.70	57.1	22.2	1.70	21.8	0.01	0.01	0.03	151
1	174	8.74	8.72	33.842	26.255	178.8	0.487	3.31	50.5	27.9	1.85	25.0	0.00	0.00	0.05	175
	200 ISL	8.37	8.35	33.939	26.389	166.6	0.531	3.29	49.8	31.4	1.91	26.2	0.00	0.00	0.02	201
1	204	8.33	8.31	33.949	26.402	165.3	0.538	3.29	49.8	31.9	1.92	26.3	0.00	0.00	0.02	205
1	232	8.02	8.00	34.018	26.503	156.1	0.583	2.77	41.7	38.0	2.11	29.1	0.00			233
	250 ISL	7.85	7.83	34.038	26.544	152.5	0.611	2.57	38.5	40.9	2.20	30.3	0.00			251
1	273	7.64	7.61	34.050	26.584	148.9	0.646	2.38	35.5	44.2	2.30	31.5	0.00			275
	300 ISL	7.38	7.35	34.065	26.634	144.6	0.685	2.12	31.4	48.3	2.40	33.0	0.00			302
1	328	7.11	7.08	34.081	26.684	140.1	0.725	1.85	27.2	52.6	2.50	34.5	0.00			330
1	389	6.61	6.57	34.127	26.789	130.8	0.808	1.24	18.1	62.9	2.81	37.8	0.00			391
	400 ISL	6.49	6.45	34.129	26.806	129.2	0.822	1.17	17.0	64.8	2.84	38.4	0.00			402
1	454	5.96	5.92	34.142	26.885	122.0	0.890	0.89	12.8	73.5	2.97	40.8	0.00			457
	500 ISL	5.72	5.68	34.193	26.955	115.7	0.944	0.63	9.0	79.7	3.09	42.2	0.00			503
1	522	5.61	5.57	34.218	26.989	112.7	0.970	0.50	7.1	82.7	3.15	42.9	0.00			525

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 87 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
31 39.4 N	123 4.3 W	21/04/92	1100 UTC	4119 n	340 23 kn			1016.4 mb	15.0 C	14.8 C		

CAST	DEPTH n	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.98	15.98	33.034	24.241	367.0	0.000	5.80	102.7	2.7	0.42	0.1	0.00	0.07	0.01	0
1	3	15.98	15.98	33.034	24.241	367.1	0.011	5.80	102.7	2.7	0.42	0.1	0.00	0.07	0.01	3
	10 ISL	15.99	15.99	33.036	24.241	367.4	0.037	5.80	102.8	2.6	0.42	0.1	0.00	0.07	0.01	10
1	17	16.00	16.00	33.036	24.239	367.8	0.062	5.80	102.8	2.5	0.42	0.1	0.00	0.07	0.01	17
	20 ISL	15.99	15.99	33.038	24.243	367.5	0.073	5.80	102.8	2.5	0.42	0.1	0.00	0.07	0.01	20
	30 ISL	15.94	15.94	33.045	24.260	366.2	0.110	5.80	102.7	2.4	0.41	0.1	0.00	0.07	0.01	30
1	31	15.93	15.93	33.046	24.263	366.0	0.114	5.80	102.6	2.4	0.41	0.1	0.00	0.07	0.01	31
1	40	16.11	16.10	33.352	24.458	347.7	0.146	5.78	102.8	2.1	0.38	0.1	0.00	0.08	0.02	40
1	50	16.36	16.35	33.447	24.474	346.5	0.181	5.77	103.2	2.1	0.37	0.1	0.00	0.10	0.02	50
1	59	16.20	16.19	33.457	24.519	342.5	0 212	5.79	103.3	1.9	0.37	0.1	0.00	0.11	0.03	59
1	70	16.19	16.18	33.556	24.597	335.4	0 249	5.78	103.1	2.0	0.36	0.1	0.01	0.12	0.04	70
	75 ISL	16.13	16.12	33.606	24.650	330.5	0 266	5.76	102.7	2.0	0.36	0.1	0.00	0.15	0.08	75
1	78	16.10	16.09	33.640	24.683	327.5	0.275	5.75	102.4	2.0	0.36	0.1	0.00	0.18	0.11	78
1	92	14.56	14.55	33.429	24.859	310.9	0.320	5.71	98.5	2.6	0.47	0.9	0.06	0.38	0.29	92
	100 ISL	14.60	14.59	33.582	24.969	300.7	0.345	5.58	96.4	2.8	0.47	1.5	0.09	0.35	0.26	100
1	107	14.67	14.65	33.727	25.066	291.7	0.365	5.45	94.4	3.1	0.47	2.2	0.10	0.29	0.24	107
1	123	13.12	13.10	33.592	25.282	271.3	0.410	5.30	88.9	5.0	0.68	5.4	0.04	0.19	0.20	124
	125 ISL	12.93	12.91	33.580	25.311	268.6	0.416	5.27	88.0	5.3	0.71	5.8	0.04	0.18	0.19	126
1	147	10.86	10.84	33.496	25.633	238.0	0.472	4.99	79.7	9.6	1.02	11.0	0.01	0.07	0.10	148
	150 ISL	10.54	10.52	33.481	25.677	233.7	0.479	4.98	79.0	10.4	1.07	11.7	0.01	0.06	0.09	151
1	171	8.79	8.77	33.458	25.947	208.0	0.525	4.88	74.4	16.1	1.37	16.6	0.01	0.00	0.03	172
	200 ISL	8.95	8.93	33.774	26.170	187.5	0.582	3.73	57.2	24.2	1.71	22.0	0.00	0.00	0.02	201
1	203	8.97	8.95	33.800	26.187	185.9	0.588	3.60	55.2	25.0	1.74	22.5	0.00	0.00	0.02	204
1	232	8.48	8.46	33.955	26.385	167.6	0.539	3.07	46.6	32.1	1.96	26.2	0.00			233
	250 ISL	8.29	8.26	33.989	26.441	162.5	0.6569	3.03	45.8	34.1	2.01	26.9	0.00			251
1	273	8.08	8.05	34.001	26.482	158.9	0.706	2.98	44.9	36.1	2.06	27.2	0.00			274
	300 ISL	7.73	7.70	34.020	26.548	152.9	0.748	2.78	41.5	40.7	2.20	28.7	0.00			302
1	329	7.32	7.29	34.037	26.620	146.3	0.791	2.47	36.5	46.7	2.38	30.7	0.00			331
1	389	6.53	6.49	34.069	26.754	134.0	0.875	1.69	24.6	59.9	2.67	35.2	0.00			391
	400 ISL	6.40	6.36	34.072	26.773	132.2	0.890	1.60	23.2	62.1	2.71	35.8	0.00			402
1	454	5.89	5.85	34.097	26.858	124.4	0.959	1.19	17.0	71.9	2.91	38.2	0.00			457
	500 ISL	5.67	5.63	34.161	26.936	117.5	1.015	0.78	11.1	78.8	3.06	39.6	0.00			503
1	521	5.57	5.53	34.191	26.972	114.2	1.039	0.60	8.5	82.0	3.13	40.3	0.00			524

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 87 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
31 19.4 N	123 44.5 W	21/04/92	0514 UTC	3839 0	350 16 kn			1017.9 mb	15.6 C	15.2 C		

CAST	DEPTH •	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO Ug/1	PRESS db
	0 ISL	15.82	15.82	32.979	24.235	367.7	0.000	5.83	102.9	2.1	0.42	0.2	0.00	0.06	0.01	0
1	1	15.82	15.82	32.979	24.235	367.7	0.004	5.83	102.9	2.1	0.42	0.2	0.00	0.06	0.01	1
	10 ISL	15.81	15.81	32.979	24.237	367.7	0.037	5.83	102.9	2.1	0.42	0.2	0.00	0.06	0.01	10
1	15	15.81	15.81	32.979	24.238	367.9	0.055	5.83	102.9	2.1	0.42	0.2	0.00	0.06	0.01	15
	20 ISL	15.80	15.80	32.979	24.240	367.8	0.074	5.83	102.9	2.1	0.42	0.2	0.00	0.06	0.01	20
1	30	15.77	15.77	32.979	24.247	367.4	0.110	5.84	103.0	2.2	0.42	0.1	0.00	0.06	0.01	30
1	40	15.72	15.71	32.980	24.259	366.6	0.147	5.86	103.2	2.2	0.42	0.1	0.00	0.06	0.01	40
1	49	15.22	15.21	32.971	24.363	356.9	0.180	5.91	103.1	2.2	0.41	0.1	0.00	0.07	0.02	49
	50 ISL	15.19	15.18	32.970	24.369	356.4	0.183	5.91	103.0	2.2	0.41	0.1	0.00	0.07	0.02	50
1	60	15.02	15.01	32.967	24.403	353.4	0.219	5.92	102.8	2.3	0.42	0.1	0.00	0.07	0.02	60
1	69	15.00	14.99	32.969	24.410	353.1	0.250	5.91	102.6	2.3	0.42	0.1	0.00	0.10	0.03	69
	75 ISL	14.90	14.89	32.986	24.444	349.9	0.272	5.92	102.6	2.3	0.42	0.1	0.00	0.13	0.04	75
1	79	14.75	14.74	32.995	24.484	346.3	0.285	5.94	102.6	2.3	0.42	0.1	0.00	0.16	0.06	79
1	93	13.33	13.32	32.960	24.750	321.0	0.332	6.00	100.6	2.8	0.49	0.4	0.03	0.32	0.21	93
	100 ISL	12.76	12.75	32.968	24.869	309.8	0.354	5.92	98.1	3.3	0.57	1.8	0.05	0.31	0.22	100
1	108	12.22	12.21	33.002	24.999	297.5	0.379	5.77	94.6	4.2	0.67	3.8	0.07	0.29	0.23	108
1	124	11.47	11.45	33.159	25.261	272.9	0.424	5.46	88.2	6.6	0.84	7.2	0.03	0.20	0.18	125
	125 ISL	11.41	11.39	33.165	25.276	271.4	0.427	5.43	87.6	6.9	0.86	7.5	0.03	0.19	0.18	126
1	149	9.95	9.93	33.298	25.635	237.5	0.488	4.67	73.0	13.9	1.36	15.5	0.01	0.07	0.09	150
	150 ISL	9.89	9.87	33.305	25.650	236.1	0.490	4.66	72.8	14.2	1.37	15.7	0.01	0.07	0.09	151
1	172	8.77	8.75	33.485	25.971	205.7	0.539	4.40	67.1	19.7	1.56	19.3	0.01	0.01	0.03	173
	200 ISL	8.64	8.62	33.766	26.212	183.4	0.593	3.36	51.2	27.8	1.89	24.5	0.00	0.00	0.03	201
1	202	8.63	8.61	33.779	26.223	182.3	0.597	3.28	49.9	28.3	1.91	24.8	0.00	0.00	0.03	203
1	233	8.54	8.52	33.940	26.364	169.6	0.652	2.74	41.7	33.0	2.07	27.1	0.00			234
	250 ISL	8.33	8.30	33.983	26.430	163.5	0.680	2.80	42.4	35.0	2.08	27.4	0.00			251
1	273	7.95	7.92	34.008	26.506	156.5	0.717	2.89	43.4	37.7	2.10	27.6	0.00			274
	300 ISL	7.42	7.39	34.000	26.577	150.0	0.758	2.91	43.1	41.7	2.15	28.3	0.00			302
1	328	6.90	6.87	33.987	26.639	144.2	0.799	2.94	43.1	46.9	2.20	29.7	0.00			330
1	389	6.34	6.31	34.065	26.775	131.8	0.883	1.58	22.9	62.8	2.71	35.7	0.00			391
	400 ISL	6.26	6.22	34.075	26.793	130.2	0.898	1.45	20.9	64.8	2.77	36.3	0.00			402
1	452	5.90	5.86	34.116	26.872	123.1	0.964	1.03	14.7	72.8	2.96	38.4	0.00			455
	500 ISL	5.63	5.59	34.159	26.939	117.1	1.021	0.75	10.7	79.7	3.07	39.7	0.00			503
1	521	5.51	5.47	34.178	26.969	114.4	1.046	0.63	8.9	82.7	3.12	40.3	0.00			524

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 90 28

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 29.1 N	117 44.2 W	18/04/92	1317 UTC	61 in	100 06 kn	230 03 07	1	1010.0 mb	18.2 C	17.6 C	15m 02	7/8	SC

CAST	DEPTH ID	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	18.12	18.12	33.285	23.931	396.6	0.000	6.01	111.2	2.7	0.25	0.1	0.00	0.42	0.08	0
1	2	18.12	18.12	33.285	23.931	396.7	0.008	6.01	111.2	2.7	0.25	0.1	0.00	0.42	0.08	2
	10 ISL	17.28	17.28	33.291	24.138	377.2	0.039	6.22	113.2	2.6	0.27	0.1	0.00	0.58	0.15	10
1	12	16.92	16.92	33.297	24.228	368.7	0.046	6.25	113.0	2.6	0.28	0.1	0.00	0.66	0.17	12
	20 ISL	15.11	15.11	33.352	24.679	325.9	0.074	5.81	101.3	3.9	0.44	0.3	0.03	1.20	0.60	20
1	22	14.68	14.68	33.371	24.787	315.7	0.081	5.67	98.0	4.3	0.49	0.4	0.05	1.34	0.70	22
	30 ISL	14.06	14.06	33.402	24.941	301.2	0.105	5.33	91.0	5.3	0.66	2.7	0.15	1.63	0.75	30
1	32	13.95	13.95	33.404	24.966	298.9	0.111	5.22	88.9	5.5	0.73	3.6	0.18	1.70	0.76	32
1	42	12.57	12.56	33.421	25.256	271.5	0.140	4.26	70.5	12.0	1.49	10.8	0.35	0.22	0.12	42
	50 ISL	12.09	12.08	33.511	25.417	256.3	0.161	4.16	68.2	13.0	1.33	12.8	0.23	0.13	0.15	50
1	52	11.97	11.96	33.534	25.458	252.5	0.166	4.14	67.7	13.2	1.29	13.3	0.20	0.11	0.16	52

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 90 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 25.0 N	117 54.2 W	18/04/92	1555 UTC	614 *m*	130 06 kn	270 02 06	1	1010.2 nb	18.6 C	18.1 C	11m 04	2/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN jal/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	17.92	17.92	33.309	23.998	390.2	0.000	6.09	112.2	1.7	0.32	0.1	0.00	0.77	0.33	0
1	1	17.92	17.92	33.309	23.998	390.3	0.004	6.09	112.2	1.7	0.32	0.1	0.00	0.77	0.33	1
	10 ISL	17.09	17.09	33.287	24.180	373.2	0.038	6.14	111.3	2.2	0.32	0.1	0.00	0.69	0.26	10
1	11	16.94	16.94	33.286	24.215	369.9	0.042	6.15	111.2	2.3	0.32	0.1	0.00	0.69	0.25	11
1	20	15.68	15.68	33.336	24.541	339.1	0.074	6.16	108.7	2.4	0.38	0.1	0.00	0.99	0.37	20
	30 ISL	14.85	14.85	33.375	24.754	319.1	0.107	5.60	97.2	3.5	0.53	1.3	0.18	1.48	0.65	30
1	31	14.77	14.77	33.378	24.773	317.3	0.110	5.53	95.8	3.7	0.55	1.4	0.19	1.50	0.67	31
1	41	13.53	13.52	33.413	25.059	290.3	0.140	4.84	81.8	7.4	0.88	6.8	0.06	0.55	0.40	41
1	50	12.62	12.61	33.487	25.297	267.8	0.165	4.50	74.6	9.8	1.09	10.4	0.04	0.22	0.28	50
1	60	11.85	11.84	33.496	25.451	253.3	0.192	4.33	70.6	11.9	1.23	12.6	0.02	0.09	0.15	60
1	70	11.48	11.47	33.570	25.577	241.6	0.216	4.06	65.7	13.9	1.34	14.6	0.01	0.05	0.09	70
	75 ISL	11.23	11.22	33.612	25.656	234.2	0.228	3.91	63.0	15.4	1.41	15.8	0.01	0.03	0.07	75
1	85	10.76	10.75	33.692	25.802	220.5	0.251	3.61	57.6	18.3	1.56	18.1	0.01	0.01	0.05	85
1	99	10.50	10.49	33.773	25.911	210.4	0.281	3.30	52.4	20.9	1.70	20.1	0.00	0.01	0.06	99
	100 ISL	10.49	10.48	33.778	25.916	209.9	0.283	3.28	52.1	21.0	1.71	20.2	0.00	0.01	0.06	100
1	120	10.30	10.29	33.873	26.024	200.2	0.324	3.02	47.8	23.6	1.81	21.9	0.00	0.00	0.04	121
	125 ISL	10.17	10.16	33.892	26.061	196.7	0.334	2.96	46.7	24.5	1.84	22.5	0.00	0.00	0.04	126
1	144	9.67	9.65	33.959	26.197	184.0	0.370	2.75	42.9	28.0	1.97	24.5	0.00	0.00	0.03	145
	150 ISL	9.59	9.57	33.983	26.229	181.1	0.381	2.69	41.9	28.8	2.00	24.9	0.00	0.00	0.03	151
1	175	9.39	9.37	34.075	26.335	171.6	0.425	2.48	38.5	31.9	2.11	26.2	0.00	0.00	0.03	176
	200 ISL	9.14	9.12	34.127	26.416	164.3	0.467	2.28	35.2	35.1	2.20	27.3	0.00	0.00	0.02	201
1	204	9.10	9.08	34.134	26.428	163.2	0.474	2.24	34.5	35.6	2.22	27.5	0.00	0.00	0.02	205
1	233	8.94	8.91	34.211	26.514	155.6	0.520	1.79	27.5	39.9	2.40	29.1	0.00			234
	250 ISL	8.77	8.74	34.225	26.552	152 3	0.546	1.66	25.4	42.0	2.46	29.8	0.00			251
1	274	8.48	8.45	34.227	26.599	148.1	0.582	1.54	23.4	44.9	2.53	30.6	0.00			276
	300 ISL	8.17	8.14	34.235	26.652	143.4	0.620	1.36	20.5	48.6	2.62	31.7	0.00			302
1	329	7.83	7.80	34.241	26.708	138.4	0.661	1.17	17.5	52.9	2.72	33.0	0.00			331
1	388	7.20	7.16	34.236	26.795	130.8	0.740	0.93	13.7	60.8	2.87	35.3	0.00			391
	400 ISL	7.13	7.09	34.238	26.806	129.8	0.756	0.89	13.1	61.8	2.89	35.6	0.00			403
1	453	6.88	6.84	34.253	26.853	126.0	0.824	0.74	10.9	66.1	2.99	36.8	0.00			456
	500 ISL	6.54	6.49	34.271	26.913	120.7	0.882	0.57	8.3	71.8	3.09	38.2	0.00			503
1	522	6.38	6.33	34.281	26.942	118.1	0.908	0.49	7.1	74.5	3.13	38.8	0.00			526

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 90 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 15.3 N	118 15.3 W	18/04/92	2023 UTC		310 03 kn	270 04 06	1	1011.0 mb	20.0 C	18.7 C	12m 04	1/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	18.67	18.67	33.298	23.805	408.6	0.000	6.34	118.5	1.4	0.25	0.1	0.00	1.80	0.67	0
1	3	18.67	18.67	33.298	23.805	408.7	0.012	6.34	118.5	1.4	0.25	0.1	0.00	1.80	0.67	3
	10 ISL	18.14	18.14	33.319	23.952	394.9	0.040	6.54	121.0	1.1	0.26	0.1	0.01	2.60	0.96	10
1	12	17.89	17.89	33.329	24.021	388.5	0.048	6.58	121.2	1.0	0.26	0.1	0.01	2.87	1.05	12
	20 ISL	16.58	16.58	33.377	24.369	355.6	0.078	6.22	111.7	1.2	0.35	0.1	0.01	3.06	0.93	20
1	22	16.26	16.26	33.388	24.451	347.8	0.085	6.08	108.5	1.3	0.37	0.1	0.01	3.11	0.90	22
	30 ISL	15.61	15.61	33.370	24.583	335.4	0.112	5.55	97.8	2.6	0.43	0.3	0.06	2.09	0.59	30
1	32	15.46	15.46	33.363	24.611	332.8	0.119	5.42	95.2	3.0	0.45	0.3	0.08	1.74	0.51	32
1	41	14.17	14.16	33.400	24.917	303.8	0.148	4.98	85.2	5.0	0.74	3.6	0.17	0.24	0.27	41
	50 ISL	13.50	13.49	33.422	25.072	289.3	0.174	4.92	83.1	6.3	0.84	5.9	0.16	0.27	0.32	50
1	52	13.40	13.39	33.425	25.095	287.2	0.180	4.92	82.9	6.6	0.86	6.4	0.16	0.28	0.33	52
1	61	12.86	12.85	33.447	25.220	275.5	0.205	4.65	77.5	8.5	1.02	9.0	0.05	0.21	0.29	61
1	75	11.81	11.80	33.503	25.464	252.4	0.242	4.31	70.3	11.8	1.24	12.7	0.02	0.09	0.15	75
1	90	11.27	11.26	33.604	25.642	235.8	0.279	3.91	63.0	15.5	1.43	15.7	0.01	0.03	0.07	90
	100 ISL	10.97	10.96	33.645	25.728	227.8	0.302	3.73	59.8	17.1	1.51	17.1	0.00	0.02	0.06	100
1	110	10.73	10.72	33.676	25.795	221.7	0.325	3.59	57.2	18.3	1.58	18.2	0.00	0.01	0.05	111
	125 ISL	10.47	10.46	33.719	25.874	214.4	0.357	3.43	54.4	20.0	1.66	19.5	0.00	0.01	0.04	126
1	135	10.34	10.32	33.761	25.930	209.4	0.379	3.30	52.2	21.4	1.72	20.4	0.00	0.01	0.04	136
	150 ISL	10.17	10.15	33.893	26.062	197.1	0.409	2.88	45.4	24.8	1.89	22.5	0.00	0.00	0.04	151
1	160	10.07	10.05	33.982	26.149	189.1	0.428	2.60	40.9	27.2	2.00	23.9	0.00	0.00	0.04	161
1	185	9.77	9.75	34.083	26.278	177.3	0.474	2.27	35.5	31.1	2.14	25.9	0.00	0.00	0.03	186
	200 ISL	9.70	9.68	34.117	26.317	173.9	0.501	2.16	33.8	32.3	2.19	26.5	0.00	0.00	0.04	201
1	215	9.62	9.60	34.143	26.351	171.0	0.526	2.06	32.!	33.5	2.24	26.9	0.01	0.00	0.04	216
1	243	9.25	9.22	34.198	26.455	161.6	0.573	1.82	28 ;:	37.3	2.36	28.4	0.01			244

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 90 37

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 11.0 N	118 23.3 W	18/04/92	2310 UTC	1171 m	270	14 kn	270 04 06	0	1009.5 mb	21.0 C	19.0 C	09m 05	0/8	

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	18.59	18.59	33.322	23.843	405.0	0.000	6.27	117.0	1.3	0.30	0.1	0.00	1.80	0.82	0
1	2	18.59	18.59	33.322	23.843	405.1	0.008	6.27	117.0	1.3	0.30	0.1	0.00	1.80	0.82	2
	10 ISL	17.63	17.63	33.392	24.132	377.8	0.039	6.68	122.5	0.9	0.33	0.1	0.00	4.03	1.92	10
1	11	17.45	17.45	33.402	24.183	373.0	0.043	6.73	123.0	0.9	0.34	0.1	0.00	4.35	2.06	11
	20 ISL	16.16	16.16	33.383	24.469	345.9	0.076	6.29	112.1	1.3	0.46	0.1	0.01	3.73	1.20	20
1	22	15.90	15.90	33.375	24.522	341.0	0.082	6.13	108.6	1.4	0.48	0.1	0.01	3.59	0 90	22
	30 ISL	15.22	15.22	33.387	24.682	325.9	0.109	5.68	99.3	2.7	0.49	0.9	0.17	1.01	0.38	30
1	31	15.14	15.14	33.389	24.702	324.1	0.112	5.63	98.3	2.9	0.49	1.1	0.19	0.70	0.34	31
1	41	14.02	14.01	33.408	24.955	300.3	0.144	5.25	89.6	4.9	0.70	4.1	0.13	0.20	0 23	41
1	50	13.26	13.25	33.427	25.125	284.3	0.170	4.88	82.0	7.3	0.90	7.5	0.03	0.11	0.17	50
1	50	12.73	12.72	33.447	25.245	273.0	0.198	4.75	78.9	8.6	1.00	9.0	0.02	0.10	0.15	60
1	70	12.03	12.02	33.471	25.398	258.6	0.224	4.53	74.2	10.7	1.14	11.4	0.02	0.06	0.11	70
	75 ISL	11.80	11.79	33.487	25.454	253.5	0.237	4.42	72.0	11.6	1.20	12.4	0.02	0.05	0.10	75
1	IJ5	11.44	11.43	33.532	25.555	244.0	0.262	4.17	67.4	13.4	1.32	14.2	0.01	0.04	0.08	85
1 98		10.92	10.91	33.626	25.722	228.4	0.293	3.80	60.8	16.8	1.50	17.0	0.01	0.01	0.06	98
	100 ISL	10.87	10.86	33.635	25.738	226.9	0.297	3.77	60.3	17.1	1.52	17.3	0.01	0.01	0.06	100
1	118	10.51	10.50	33.700	25.853	216.4	0.337	3.53	56.0	19.7	1.64	19.1	0.00	0.01	0.04	119
	125 ISL	10.39	10.38	33.736	25.901	211.9	0.352	3.41	54.0	20.8	1.69	19.9	0.00	0.01	0.04	126
1	143	10.13	10.11	33.837	26.025	200.5	0.389	3.10	48.8	23.8	1.82	21.9	0.00	0.01	0.03	144
	150 ISL	10.04	10.02	13.883	26.076	L95.7	0.403	2.97	46.7	25.0	1.87	22.7	0.00	0.01	0.03	151
1	173	9.76	9.74	34.015	26.227	181.9	0.447	2.60	40.7	28.8	2.03	24.8	0.00	0.00	0.03	174
	200 ISL	9.38	9.36	34.073	26.335	172.1	0.494	2.42	37.5	32.1	2.12	26.3	0.00	0.01	0.03	201
]	203	9.34	9.32	34.078	26.345	171.1	0.499	2.40	37.2	32.5	2.13	26.4	0.00	0.01	0.03	204
1	233	9.14	9.11	34.189	26.465	160.3	0.549	1.94	30.0	37.5	2.32	28.5	0.00			234
	250 ISL	8.98	8.95	34.207	26.505	156.8	0.576	1.82	28.0	39.5	2.38	29.1	0.00			251
]	273	8.72	8.69	34.207	26.546	153.3	0.612	1.72	26.3	41.9	2.45	29.7	0.00			275
	300 ISL	8.34	8.31	34.206	26.604	148.1	0.652	1.58	24.0	45.6	2.53	30.9	0.00			302
1	329	7.94	7.91	34.208	26.666	142.5	0.695	1.41	21.2	49.9	2.63	32.2	0.00			331
1	387	7.37	7.33	34.248	26.780	132.2	0.774	0.91	13.5	59.1	2.87	34.7	0.00			389
	400 ISL	7.24	7.20	34.248	26.799	130.6	0.791	0.86	12.7	61.0	2.90	35.3	0.00			403
1	453	6.72	6.68	34.252	26.873	L23.9	0.859	0.69	10.1	68.5	3.02	37.3	0.00			456
	500 ISL	6.34	6.29	34.289	26.953	116.7	0.915	0.48	7.0	75.8	3.13	38.5	0.00			503
1	521	6.17	6.12	34.307	26.989	113.4	0.939	0.38	5.5	79.1	3.18	39.1	0.00			525

RV DAVID STARR JORDAM CALCOFI CRUISE 9204 STATION 90 45

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE:
32 55.1 N	118 56.0 W	19/04/92	0420 UTC	1700 m	310	14 kn			1010.0 mb	18.0 C	17.0 C			

CAST	DEPTH [O	TEMP DEG C	POT TEMP DEG C	SALINITY' PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/i	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.38	16 38	33.337	24.383	353.5	0.000	5.94	106.3	1.2	0.37	0.1	0.00	0.76	0.32	0
1	2	16.38	16.38	33.337	24.383	353.6	0.007	5.94	106.3	1.2	0.37	0.1	0.00	0.76	0.32	2
	10 ISL	16.22	16.22	33.336	24.419	350.4	0.035	5.98	106.6	1.1	0.38	0.1	0.00	1.02	0.42	10
1	12	16.16	16.16	33.336	24.433	349.1	0.042	5.99	106.7	1.1	0.38	0.1	0.00	1.13	0.46	12
	20 ISL	16.02	16.02	33.337	24.466	346.3	0.070	5.98	106.2	1.1	0.37	0.1	0.00	1.71	0.65	20
1	22	15.98	15.98	33.337	24.475	345.5	0.077	5.98	106.1	1.1	0.37	0.1	0.00	1.80	0.68	22
	30 ISL	14.53	14.53	33.317	24.777	316.9	0.103	5.61	96.7	3.7	0.58	2.6	0.14	1.18	0.52	30
1	32	14.13	14.13	33.317	24.861	308.9	0.110	5.50	94.0	4.5	0.64	3.4	0.17	0.97	0.46	32
1	42	13.08	13.07	33.352	25.102	286.2	0.139	5.12	85.7	7.1	0.84	6.9	0.16	0.47	0.34	42
	50 ISL	12.47	12.46	33.382	25.245	272.8	0.162	4.87	80.4	8.6	0.98	9.2	0.07	0.29	0.29	50
1	52	12.34	12.33	33.389	25.275	269 9	0.167	4.82	79.4	8.9	1.01	9.7	0.05	0.27	0.28	52
1	63	11.72	11.71	33.433	25.427	255.8	0.196	4.55	74.0	10.9	1.17	12.0	0.03	0.19	0.20	63
1	71	11.26	11.25	33.466	25.537	245.4	0.216	4.37	70.4	12.8	1.27	13.9	0.02	0.15	0.18	71
	75 ISL	11.09	11.08	33.471	25.571	242.2	0.226	4.34	69.6	13.3	1.30	14.4	0.02	0.14	0.17	75
1	86	10.71	10.70	33.510	25.669	233.1	0.252	4.20	66.9	14.9	1.38	15.9	0.02	0.12	0.14	86
1	98	10.30	10.29	33.673	25.867	214.5	0.279	3.63	57.3	19.4	1.59	19.2	0.01	0.04	0.06	98
	100 ISL	10.24	10.23	33.688	25.889	212.4	0.283	3.58	56.5	19.9	1.61	19.5	0.01	0.04	0.06	L00
1	118	9.32	9.81	33.778	26.031	199.3	0.320	3.35	52.4	22.8	1.74	21.5	0.01	0.02	0.08	L19
	125 ISL	9.75	9.74	33.815	26.071	195.6	0.334	3.24	50.6	23.9	1.79	22.1	0.01	0.02	0.07	L26
1	144	9.62	9.60	33.907	26.165	187.1	0.370	2.95	46.0	26.7	1.90	23.7	0.01	0.02	0.04	L45
	150 ISL	9.56	9.54	33.934	26.196	184.2	0.382	2.85	44.4	27.8	1.94	24.2	0.01	0.02	0.04	151
1	174	9.31	9.29	34.027	26.310	173.9	0.425	2.50	38.7	31.8	2.08	26.2	0.01	0.01	0.04	175
	200 IsL	9.10	9.08	34.102	26.103	165.5	0.469	2.26	34.8	34.6	2.19	27.4	0.00	0.01	0.03	201
1	204	9.07	9.05	34.111	26.115	164.5	0.475	2.23	34.4	35.0	2.20	27.6	0.00	0.01	0.03	205
1	234	8.76	8.74	34.149	26.194	157.4	0.524	2.03	31.1	38.9	2.28	29.0	0.01			235
	250 ISL	8.62	8.59	34.166	26.529	154.*	0.549	1.91	29.1	40.9	2.34	29.6	0.01			251
1	275	8 40	8.37	34.187	26.580	149.9	0.587	1.72	26.1	43.9	.2.44	30.4	0.00			27
	300 ISL	8.14	8.11	34.195	26.626	145.9	0.624	1.56	23.5	47.1	2,54	31.5	0.00			302
L	330	7,82	7.79	34.198	26.676	141.5	0.667	1.39	20.8	51.0	2.64	32.8	0.00			332
I	389	7.25	7.21	34.210	26.767	133.4	0.748	1.06	15.7	58.9	2.79	34.9	0.00			391
	400 ISL	7.18	7.14	34.219	26.784	131.9'	0.762	0.99	14.6	60.4	2.82	35.2	0.00			403
1	455	6.84	6.80	34.263	26.866	124.7	0.833	0.66	9.7	67.9	2.98	36.7	0.00			458
	500 ISL	6.49	6.44	34.279	26.926	119.4	0.888	0.51	7.4	73.4	3.07	37.9	0.00			503
1	521	6.32	6.27	34.287	26.955	116.8	0.913	0.44	6.4	75.9	3.11	38.5	0.00			S25

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LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 39.0 N	119 28.9 W	19/04/92	1003 UTC	1134 *m*	330 13 kn			1011.2 mb	16.3 C	15.2 C			

CAST	DEPTH D	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.80	15.80	33.293	24.481	344.2	0.000	5.88	104.0	1.8	0.38	0.2	0.00	0.77	0.27	0
1	2	15.80	15.80	33.293	24.481	344.3	0.007	5.88	103.9	1.8	0.38	0.2	0.00	0.77	0.27	2
	10 ISL	15.82	15.82	33.293	24.477	344.9	0.034	5.88	104.0	1.8	0.38	0.2	0.00	0.76	0.29	10
1	13	15.83	15.83	33.293	24.474	345.2	0.045	5.88	104.0	1.8	0.38	0.2	0.00	0.75	0.29	13
	20 ISL	15.82	15.82	33.292	24.476	345.3	0.069	5.88	104.0	1.6	0.37	0.2	0.00	0.74	0.27	20
1	22	15.82	15.82	33.292	24.476	345.3	0.076	5.88	104.0	1.5	0.37	0.2	0.00	0.74	0.27	22
	30 ISL	15.83	15.83	33.292	24.474	345.8	0.104	5.88	104.0	1.5	0.37	0.2	0.00	0.75	0.29	30
1	31	15.83	15.83	33.292	24.474	345.8	0.107	5.88	104.0	1.5	0.37	0.2	0.00	0.75	0.29	31
1	41	15.84	15.83	33.289	24.470	346.5	0.142	5.88	104.0	1.4	0.37	0.2	0.00	0.76	0.27	41
	50 ISL	15.77	15.76	33.279	24.478	346.0	0.173	5.86	103.5	1.5	0.38	0.2	0.01	0.81	0.29	50
1	51	15.76	15.75	33.278	24.480	345.9	0.176	5.86	103.5	1.5	0.38	0.2	0.01	0.82	0.29	51
1	61	14.93	14.92	33.370	24.733	322.0	0.210	5.46	94.9	3.6	0.57	2.4	0.13	0.46	0.26	61
1	70	14.19	14.18	33.413	24.924	304.0	0.238	5.21	89.2	5.0	0.69	4.3	0.11	0.28	0.28	70
	75 ISL	13.98	13.97	33.423	24.976	299.2	0.253	5.14	87.6	5.4	0.73	4.8	0.09	0.23	0.26	75
1	84	13.59	13.58	33.435	25.065	290.9	0.279	5.00	84.6	6.4	0.81	6.1	0.06	0.18	0.21	84
1	98	12.23	12.22	33.502	25.385	260.6	0.318	4.41	72.5	10.9	1.14	11.6	0.02	0.07	0.13	98
	100 ISL	12.10	12.09	33.514	25.419	257.4	0.323	4.34	71.2	11.4	1.18	12.1	0.02	0.06	0.12	100
1	118	11.32	11.31	33.615	25.642	236.5	0.368	3.87	62.5	15.4	1.42	15.8	0.01	0.03	0.06	119
	125 ISL	11.09	11.07	33.647	25.709	230.3	0.384	3.74	60.1	16.6	1.49	16.9	0.01	0.02	0.05	126
1	144	10.59	10.57	33.735	25.866	215.7	0.426	3.42	54.4	19.6	1.64	19.4	0.01	0.01	0.04	145
	150 ISL	10.45	10.43	33.771	25.919	210.8	0.439	3.30	52.3	20.8	1.70	20.2	0.01	0.01	0.04	151
1	174	9.95	9.93	33.913	26.115	192.5	0.488	2.84	44.6	25.7	1.90	23.2	0.01	0.00	0.03	175
	200 ISL	9.51	9.49	34.018	26.271	178.2	0.536	2.56	39.8	30.0	2.04	25.2	0.00	0.00	0.03	201
1	203	9.47	9.45	34.027	26.285	177.0	0.541	2.54	39.5	30.4	2.05	25.4	0.00	0.00	0.03	204
1	231	9.24	9.21	34.084	26.367	169.6	0.590	2.37	36.6	33.2	2.14	26.6	0.00			232
	250 ISL	9.00	8.97	34.120	26.434	163.6	0.621	2.20	33.8	36.1	2.23	27.6	0.00			251
1	271	8.70	8.67	34.152	26.506	157.0	0.655	1.99	30.4	39.7	2.33	28.8	0.00			273
	300 ISL	8.29	8.26	34.172	26.585	149.8	0.699	1.75	26.5	44.5	2.45	30.5	0.00			302
1	327	7.94	7.91	34.181	26.645	144.4	0.739	1.56	23.4	48.8	2.55	31.9	0.00			329
1	386	7.40	7.36	34.197	26.736	136.4	0.822	1.20	17.8	56.5	2.74	34.2	0.00			388
	400 ISL	7.25	7.21	34.206	26.764	133.8	0.841	1.09	16.1	58.9	2.79	34.9	0.00			402
1	453	6.71	6.67	34.243	26.868	124.4	0.909	0.72	10.5	67.8	2.97	37.3	0.00			456
	500 ISL	6.36	6.31	34.264	26.931	118.8	0.967	0.56	8.1	73.8	3.06	38.4	0.00			503
1	522	6.19	6.14	34.275	26.962	116.0	0.992	0.49	7.1	76.6	3.10	38.9	0.00			525

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 90 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 25.1 N	119 57.7 W	19/04/92	1445 UTC	822 n	350 08 kn	320 05 08	0	1013.1 mb	17.2 C	17.0 C	35m 02	0/8	

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.72	15.72	33.058	24.318	359.7	0.000	5.83	102.8	2.4	0.41	0.1	0.00	0.09	0.03	0
1	2	15.72	15.72	33.058	24.318	359.8	0.007	5.83	102.8	2.4	0.41	0.1	0.00	0.09	0.03	2
	10 ISL	15.73	15.73	33.059	24.317	360.1	0.036	5.83	102.8	2.4	0.41	0.1	0.00	0.09	0.03	10
1	17	15.73	15.73	33.059	24.317	360.3	0.061	5.83	102.8	2.3	0.42	0.1	0.00	0.09	0.03	17
	20 ISL	15.72	15.72	33.059	24.319	360.2	0.072	5.83	102.7	2.3	0.42	0.1	0.00	0.09	0.03	20
	30 ISL	15.71	15.71	33.058	24.321	360.4	0.108	5.83	102.7	2.1	0.42	0.1	0.01	0.10	0.03	30
1	32	15.71	15.71	33.058	24.321	360.4	0.115	5.83	102.7	2.1	0.42	0.1	0.01	0.10	0.03	32
1	41	15.73	15.72	33.058	24.317	361.1	0.148	5.84	102.9	2.1	0.42	0.1	0.00	0.09	0.02	41
1	50	15.51	15.50	33.054	24.363	356.9	0.180	5.85	102.7	2.2	0.42	0.1	0.00	0.10	0.03	50
1	60	13.38	13.37	32.989	24.762	319.1	0.214	6.28	105.5	2.6	0.45	0.1	0.00	0.26	0.15	60
1	70	12.66	12.65	33.020	24.928	303.4	0.245	6.08	100.6	3.2	0.57	1.6	0.05	0.56	0.35	70
	75 ISL	12.07	12.06	33.053	25.066	290.3	0.260	5.77	94.3	4.7	0.73	4.4	0.08	0.45	0.33	75
1	78	11.73	11.72	33.074	25.146	282.7	0.268	5.58	90.6	5.7	0.83	6.1	0.09	0.36	0.32	78
1	94	11.05	11.04	33.111	25.298	268.5	0.312	5.33	85.3	7.8	1.01	9.1	0.05	0.28	0.31	94
	100 ISL	10.93	10.92	33.124	25.330	265.6	0.329	5.26	83.9	8.3	1.05	9.7	0.05	0.26	0.29	100
1	109	10.67	10.66	33.158	25.402	258.9	0.352	5.11	81.1	9.6	1.14	11.2	0.04	0.22	0.24	109
1	123	9.66	9.65	33.298	25.682	232.4	0.387	4.55	70.7	14.9	1.44	16.7	0.01	0.07	0.08	124
	125 ISL	9.63	9.62	33.328	25.710	229.8	0.391	4.49	69.7	15.4	1.46	17.1	0.01	0.07	0.08	126
1	148	9.29	9.27	33.555	25.943	208.0	0.441	4.00	61.7	19.6	1.62	20.0	0.01	0.01	0.04	149
	150 ISL	9.26	9.24	33.566	25.957	206.8	0.446	3.96	61.1	20.0	1.64	20.3	0.01	0.01	0.04	151
1	172	8.99	8.97	33.675	26.085	195.0	0.490	3.58	54.9	23.7	1.78	22.8	0.00	0.00	0.03	173
	200 ISL	8.98	8.96	33.914	26.275	177.6	0.542	3.39	52.1	26.6	1.80	23.3	0.00	0.00	0.03	201
1	202	8.98	8.96	33.930	26.287	176.5	0.546	3.38	51.9	26.8	1.80	23.3	0.00	0.00	0.03	203
1	231	8.37	8.35	33.970	26.413	164.8	0.595	2.94	44.5	32.9	2.02	26.5	0.00			232
	250 ISL	8.05	8.02	33.995	26.481	158.5	0.626	2.85	42.9	36.3	2.08	27.8	0.00			251
1	271	7.76	7.73	34.019	26.543	152.9	0.658	2.80	41.9	39.6	2.13	28.8	0.00			273
	300 ISL	7.53	7.50	34.037	26.590	148.8	0.702	2.58	38.4	43.1	2.23	30.1	0.00			302
1	326	7.37	7.34	34.048	26.622	146.1	0.741	2.32	34.4	46.2	2.34	31.3	0.00			328
I	385	6.79	6.75	34.087	26.733	136.1	0.824	1.63	23.8	56.8	2.63	35.2	0.00			387
	400 ISL	6.67	6.63	34.096	26.756	134.0	0.844	1.49	21.7	59.3	2.69	35.9	0.00			402
1	451	6.31	6.27	34.129	26.830	127.5	0.911	1.08	15.6	67.1	2.88	37.9	0.00			454
	500 ISL	5.97	5.93	34.164	26.902	121.1	0.972	0.82	11.8	74.0	3.00	39.5	0.00			503
1	522	5.82	5.77	34.181	26.934	118.1	0.998	0.71	10.1	77.1	3.06	40.2	0.00			525

RV DAVID STARR JORDAN " CALCOFI CRUISE 9204 STATION 90 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 5.2 N	120 38.4 W	19/04/92	2255 UTC	3814 m	350 07 kn	310 07 09	0	1016.1 mb	18.2 C	17.8 C	41m 01	0/8	

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.58	16.58	33.099	24.154	375.3	0.000	5.78	103.6	2.6	0.42	0.0	0.00	0.06	0.02	0
1	1	16.58	16.58	33.099	24.154	375.3	0.004	5.78	103.6	2.6	0.42	0.0	0.00	0.06	0.02	1
	10 ISL	16.26	16.26	33.099	24.228	368.6	0.037	5.78	103.0	2.6	0.42	0.0	0.00	0.07	0.02	10
1	15	16.04	16.04	33.101	24.280	363.8	0.056	5.79	102.7	2.6	0.42	0.0	0.00	0.08	0.02	15
	20 ISL	16.03	16.03	33.102	24.283	363.7	0.074	5.80	102.9	2.6	0.42	0.0	0.00	0.08	0.02	20
1	30	16.01	16.01	33.105	24.290	363.3	0.110	5.81	103.0	2.5	0.41	0.0	0.00	0.07	0.02	30
1	41	16.02	16.01	33.111	24.293	363.4	0.150	5.80	102.9	2.4	0.41	0.0	0.00	0.08	0.02	41
1	50	16.03	16.02	33.112	24.292	363.8	0.183	5.82	103.2	2.4	0.41	0.0	0.00	0.09	0.02	50
1	60	15.59	15.58	33.055	24.347	358.9	0.219	5.87	103.2	2.4	0.41	0.0	0.00	0.10	0.03	60
1	71	14.27	14.26	33.003	24.591	335.8	0.257	6.05	103.5	2.6	0.44	0.0	0.00	0.15	0.06	71
	75 ISL	13.65	13.64	32.978	24.699	325.4	0.270	6.15	103.9	2.8	0.46	0.0	0.01	0.33	0.17	75
1	79	13.07	13.06	32.964	24.805	315.4	0.283	6.21	103.6	3.1	0.49	0.0	0.02	0.51	0.29	79
1	94	12.15	12.14	33.059	25.057	291.7	0.329	5.67	92.8	4.7	0.71	3.8	0.06	0.36	0.32	94
	100 ISL	11.79	11.78	33.063	25.127	285.1	0.346	5.59	90.8	5.6	0.80	5.3	0.06	0.29	0.30	100
1	109	11.26	11.25	33.077	25.235	275.0	0.371	5.49	88.2	7.1	0.93	7.5	0.04	0.20	0.28	109
1	124	10.46	10.45	33.232	25.496	250.3	0.411	5.07	80.1	10.4	1.12	11.5	0.01	0.08	0.08	125
	125 ISL	10.43	10.42	33.240	25.508	249.2	0.413	5.04	79.6	10.6	1.13	11.7	0.01	0.08	0.08	126
1	149	9.83	9.81	33.416	25.747	226.9	0.470	4.44	69.3	15.9	1.42	16.5	0.01	0.04	0.05	150
	150 ISL	9.79	9.77	33.423	25.759	225.7	0.472	4.42	68.9	16.1	1.43	16.7	0.01	0.04	0.05	151
1	173	9.02	9.00	33.594	26.017	201.4	0.522	3.98	61.1	21.2	1.63	20.4	0.00	0.01	0.02	174
	200 ISL	9.01	8.99	33.861	26.228	182.0	0.573	3.40	52.2	26.2	1.79	23.3	0.00	0.00	0.02	201
1	204	9.01	8.99	33.893	26.254	179.7	0.581	3.32	51.0	26.9	1.81	23.6	0.00	0.00	0.02	205
1	234	8.44	8.42	33.993	26.421	164.2	0.632	3.06	46.4	33.0	1.94	26.0	0.01			235
	250 ISL	8.19	8.16	34.018	26.478	158.9	0.658	2.92	44.1	36.0	2.01	27.0	0.01			251
1	273	7.87	7.84	34.036	26.540	153.3	0.694	2.72	40.8	40.1	2.11	28.4	0.00			274
	300 ISL	7.51	7.48	34.048	26.602	147.7	0.735	2.45	36.4	44.9	2.25	30.2	0.00			302
1	329	7.15	7.12	34.057	26.660	142.4	0.777	2.15	31.7	50.1	2.40	32.1	0.00			331
1	387	6.57	6.53	34.091	26.766	132.9	0.856	1.51	22.0	60.5	2.67	36.0	0.00			389
	400 ISL	6.49	6.45	34.104	26.786	131.0	0.874	1.38	20.0	62.6	2.72	36.6	0.00			402
1	452	6.25	6.21	34.160	26.862	124.4	0.940	0.93	13.4	70.1	2.91	38.6	0.00			455
	500 ISL	5.99	5.95	34.199	26.927	118.7	0.998	0.68	9.8	76.1	3.01	39.8	0.00			503
1	522	5.87	5.82	34.217	26.956	116.1	1.024	0.56	8.0	78.8	3.06	40.4	0.00			525

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 90 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 45.2 N	121 18.9 W	20/04/92	0430 UTC	3906 m	350 13 kn			1016.9 mb	16.8 C	16.5 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.10	16.10	32.982	24.174	373.4	0.000	5.81	103.1	2.9	0.43	0.1	0.00	0.08	0.02	0
1	3	16.10	16.10	32.982	24.174	373.5	0.011	5.81	103.1	2.9	0.43	0.1	0.00	0.08	0.02	3
	10 ISL	16.01	16.01	32.982	24.195	371.8	0.037	5.81	102.9	2.9	0.43	0.1	0.00	0.08	0.03	10
1	18	15.88	15.88	32.982	24.224	369.2	0.067	5.82	102.9	2.9	0.42	0.1	0.00	0.09	0.04	18
	20 ISL	15.87	15.87	32.982	24.227	369.1	0.074	5.82	102.8	2.8	0.42	0.1	0.00	0.09	0.04	20
	30 ISL	15.85	15.85	32.980	24.230	369.1	0.111	5.82	102.8	2.4	0.42	0.1	0.00	0.08	0.03	30
1	33	15.84	15.83	32.980	24.232	368.9	0.122	5.82	102.8	2.3	0.42	0.1	0.00	0.08	0.03	33
1	41	15.50	15.49	32.982	24.310	361.8	0.152	5.85	102.6	2.4	0.42	0.1	0.00	0.09	0.03	41
	50 ISL	13.95	13.94	33.077	24.714	323.4	0.182	6.23	105.9	2.8	0.44	0.2	0.00	0.18	0.10	50
1	52	13.59	13.58	33.103	24.807	314.5	0.189	6.30	106.4	2.9	0.45	0.2	0.00	0.20	0.11	52
1	61	12.99	12.98	33.128	24.947	301.4	0.216	6.16	102.7	3.2	0.52	1.2	0.03	0.80	0.54	61
1	72	12.14	12.13	33.154	25.131	284.1	0.249	5.62	92.1	5.3	0.78	5.8	0.12	0.69	0.60	72
	75 ISL	11.83	11.82	33.153	25.189	278.6	0.257	5.49	89.3	6.2	0.86	7.2	0.11	0.59	0.56	75
1	81	11.21	11.20	33.153	25.302	267.9	0.273	5.24	84.1	8.3	1.03	10.0	0.08	0.38	0.44	81
1	96	10.07	10.06	33.215	25.549	244.6	0.312	4.78	74.9	13.0	1.33	14.9	0.03	0.16	0.21	96
	100 ISL	9.88	9.87	33.257	25.613	238.5	0.322	4.64	72.4	14.2	1.39	16.0	0.02	0.13	0.17	100
1	110	9.56	9.55	33.374	25.758	225.0	0.345	4.32	67.0	16.9	1.52	18.3	0.01	0.09	0.09	110
1	124	9.32	9.31	33.495	25.891	212.5	0.375	3.97	61.3	20.1	1.65	20.7	0.01	0.03	0.05	125
	125 ISL	9.30	9.29	33.503	25.901	211.6	0.377	3.94	60.8	20.3	1.66	20.9	0.01	0.03	0.05	126
1	150	8.93	8.91	33.695	26.110	192.2	0.428	3.38	51.8	25.7	1.86	24.0	0.00	0.01	0.04	151
1	175	8.72	8.70	33.856	26.270	177.5	0.474	3.00	45.8	29.7	1.97	25.8	0.00	0.00	0.03	176
	200 ISL	8.53	8.51	33.938	26.364	169.0	0.517	2.96	45.0	31.9	1.99	26.3	0.00	0.00	0.03	201
1	204	8.50	8.48	33.947	26.375	168.0	0.524	2.95	44.8	32.3	2.00	26.4	0.00	0.00	0.03	205
1	233	8.13	8.11	34.023	26.491	157.3	0.571	2.52	38.0	38.3	2.19	28.8	0.00			234
	250 ISL	7.95	7.92	34.044	26.534	153.5	0.598	2.38	35.7	40.9	2.26	29.7	0.00			251
1	273	7.71	7.68	34.059	26.581	149.3	0.633	2.23	33.3	44.2	2.34	30.6	0.00			275
	300 ISL	7.33	7.30	34.078	26.651	142.9	0.672	2.01	29.8	49.8	2.46	32.0	0.00			302
1	328	6.95	6.92	34.095	26.717	136.8	0.711	1.77	26.0	55.6	2.59	33.5	0.00			330
1	386	6.50	6.47	34.127	26.803	129.2	0.788	1.26	18.3	64.2	2.79	36.3	0.00			388
	400 ISL	6.42	6.38	34.135	26.820	127.8	0.806	1.15	16.7	66.1	2.83	36.8	0.00			402
1	453	6.12	6.08	34.174	26.890	121.7	0.873	0.78	11.2	73.1	2.99	38.4	0.00			456
	500 ISL	5.84	5.80	34.233	26.972	114.3	0.928	0.52	7.4	79.8	3.10	39.6	0.00			503
1	522	5.71	5.67	34.261	27.011	110.8	0.953	0.40	5.7	82.9	3.15	40.1	0.00			525

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 90 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 25.1 N	121 59.4 W	20/04/92	1010 UTC	3849 n	350 15	fkd		1016.8 mb	15.5 C	15.4 C			

CAST	DEPTH in	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.85	15.85	33.135	24.348	356.9	0.000	5.82	102.9	2.5	0.48	0.1	0.00	0.09	0.02	0
1	1	15.85	15.85	33.135	24.348	356.9	0.004	5.82	102.9	2.5	0.48	0.1	0.00	0.09	0.02	1
	10 ISL	15.83	15.83	33.134	24.352	356.8	0.036	5.82	102.8	2.4	0.46	0.1	0.00	0.09	0.02	10
1	16	15.82	15.82	33.134	24.355	356.7	0.057	5.82	102.8	2.4	0.44	0.1	0.00	0.09	0.02	16
	20 ISL	15.79	15.79	33.133	24.361	356.3	0.071	5.82	102.8	2.4	0.44	0.1	0.00	0.09	0.02	20
	30 ISL	15.72	15.72	33.130	24.374	355.3	0.107	5.83	102.8	2.4	0.43	0.1	0.00	0.09	0.02	30
1	31	15.71	15.71	33.13C	24.376	355.1	0.110	5.83	102.8	2.4	0.43	0.1	0.00	0.09	0.02	31
1	41	15.71	15.70	33.129	24.376	355.5	0.146	5.86	103.3	2.4	0.43	0.1	0.00	0.09	0.02	41
	50 ISL	15.62	15.61	33.120	24.390	354.5	0.178	5.85	102.9	2.5	0.43	0.1	0.00	0.10	0.03	50
1	51	15.61	15.60	33.119	24.391	354.3	0.181	5.85	102.9	2.5	0.43	0.1	0.00	0.10	0.03	51
1	61	13.80	13.79	32.944	24.642	330.5	0.216	6.11	103.5	2.7	0.46	0.1	0.00	0.22	0.10	61
1	72	13.67	13.66	33.080	24.774	318.3	0.251	6.18	104.5	3.1	0.47	0.1	0.00	0.38	0.20	72
	75 ISL	13.49	13.48	33.058	24.794	316.4	0.261	6.17	103.9	3.2	0.48	0.2	0.01	0.45	0.24	75
1	80	13.14	13.13	33.019	24.834	312.7	0.277	6.16	103.0	3.3	0.52	0.7	0.03	0.55	0.30	80
1	95	12.20	12.19	33.198	25.155	282.4	0.321	5.36	87.9	6.2	0.86	6.9	0.09	0.41	0.37	95
	100 ISL	11.79	11.78	33.206	25.238	274.6	0.335	5.23	85.1	7.3	0.95	8.4	0.07	0.35	0.34	100
1	110	11.04	11.03	33.219	25.385	260.7	0.362	5.03	80.5	9.5	1.10	11.1	0.03	0.22	0.24	110
1	123	10.51	10.50	33.343	25.574	242.9	0.395	4.65	73.6	12.4	1.27	14.2	0.01	0.11	0.14	124
	125 ISL	10.41	10.40	33.358	25.603	240.1	0.400	4.59	72.5	13.0	1.30	14.7	0.01	0.10	0.13	126
1	149	9.34	9.32	33.507	25.898	212.4	0.454	4.07	62.9	19.4	1.62	20.1	0.00	0.01	0.04	150
	150 ISL	9.30	9.28	33.512	25.908	211.4	0.456	4.07	62.8	19.6	1.62	20.2	0.00	0.01	0.04	151
1	175	8.64	8.62	33.648	26.119	191.7	0.506	3.97	60.4	23.3	1.70	21.9	0.00	0.00	0.02	176
	200 ISL	8.56	8.54	33.866	26.302	174.8	0.552	3.26	49.6	29.4	1.91	25.4	0.00	0.00	0.02	201
1	204	8.55	8.53	33.895	26.327	172.6	0.559	3.14	47.8	30.4	1.94	25.9	0.00	0.00	0.02	205
1	233	8.24	8.22	33.992	26.450	161.3	0.608	2.93	44.3	35.1	2.04	27.5	0.00			234
	250 ISL	7.98	7.95	34.018	26.510	155.8	0.634	2.82	42.4	38.3	2.11	28.5	0.00			251
1	273	7.61	7.58	34.037	26.578	149.5	0.670	2.64	39.3	42.8	2.21	29.9	0.00			274
	300 ISL	7.27	7.24	34.054	26.640	143.9	0.709	2.32	34.3	48.2	2.37	31.9	0.00			302
1	328	6.96	6.93	34.070	26.696	138.8	0.749	1.93	28.3	53.9	2.54	34.0	0.00			330
1	387	6.41	6.38	34.125	26.813	128.2	0.828	1.15	16.7	65.7	2.84	38.0	0.00			389
	400 ISL	6.32	6.28	34.134	26.832	126.6	0.844	1.05	15.2	67.4	2.88	38.5	0.00			402
1	454	6.01	5.97	34.172	26.902	120.4	0.911	0.76	10.9	74.0	3.02	40.1	0.00			457
	500 ISL	5.70	5.66	34.218	26.977	113.6	0.965	0.54	7.7	81.0	3.13	41.2	0.00			503
1	523	5.55	5.51	34.241	27.014	110.3	0.990	0.43	6.1	84.5	3.19	41.7	0.00			526

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 90 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 5.1 N	122 39.8 W	20/04/92	1536 UTC	3982 m	350 15 kn	350 04 06	1	1018.0 mb	16.2 C	16.0 C	34m 01	2/8	CU

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.17	16.17	33.112	24.258	365.4	0.000	5.77	102.6	2.2	0.39	0.1	0.00	0.07	0.01	0
1	1	16.17	16.17	33.112	24.258	365.4	0.004	5.77	102.6	2.2	0.39	0.1	0.00	0.07	0.01	1
	10 ISL	16.17	16.17	33.112	24.259	365.7	0.037	5.76	102.5	2.1	0.39	0.1	0.00	0.07	0.01	10
1	16	16.17	16.17	33.112	24.259	365.9	0.059	5.76	102.5	2.1	0.39	0.1	0.00	0.07	0.01	16
	20 ISL	16.17	16.17	33.115	24.261	365.8	0.073	5.76	102.5	2.1	0.39	0.1	0.00	0.07	0.01	20
1	30	16.16	16.16	33.127	24.273	365.0	0.110	5.77	102.6	2.1	0.39	0.1	0.00	0.07	0.01	30
1	40	16.20	16.19	33.164	24.293	363.4	0.146	5.76	102.5	1.8	0.39	0.1	0.00	0.07	0.01	40
1	50	16.24	16.23	33.370	24.442	349.5	0.182	5.78	103.1	1.8	0.35	0.1	0.00	0.09	0.02	50
1.	61	16.05	16.04	33.387	24.499	344.4	0.220	5.78	102.7	1.8	0.35	0.1	0.00	0.11	0.03	61
1 71		15.89	15.88	33.457	24.589	336.2	0.254	5.80	102.8	2.0	0.35	0.1	0.00	0.13	0.05	71
	75 ISL	15.89	15.88	33.524	24.641	331.4	0.267	5.78	102.5	2.0	0.35	0.1	0.00	0.15	0.08	75
1	80	15.89	15.88	33.613	24.709	325.0	0.284	5.74	101.8	2.0	0.34	0.1	0.00	0.19	0.12	80
1	95	15.78	15.77	33.806	24.883	308.9	0.331	5.59	99.1	2.1	0.34	0.2	0.02	0.34	0.23	95
	100 ISL	14.84	14.83	33.626	24.951	302.4	0.347	5.60	97.3	2.7	0.42	1.2	0.04	0.32	0.23	100
1	110	12.99	12.98	33.314	25.093	288.9	0.376	5.61	93.6	3.9	0.60	3.5	0.06	0.29	0.23	110
1	125	13.15	13.13	33.598	25.281	271.5	0.418	5.29	88.7	4.8	0.64	5.2	0.05	0.18	0.19	126
1	150	10.94	10.92	33.498	25.620	239.2	0.482	4.94	79.0	9.6	1.01	11.2	0.01	0.07	0.08	151
1	175	9.63	9.61	33.521	25.862	216.4	0.539	4.43	68.9	15.8	1.37	16.9	0.01	0.02	0.04	176
	200 ISL	9.17	9.15	33.715	26.089	195.3	0.590	3.82	58.8	21.9	1.62	21.2	0.00	0.00	0.03	201
1	205	9.12	9.10	33.760	26.132	191.3	0.600	3.71	57.1	23.1	1.66	21.9	0.00	0.00	0.03	206
1	234	8.62	8.60	33.927	26.342	171.8	0.653	3.29	50.1	29.7	1.84	25.0	0.00			235
	250 ISL	8.42	8.39	33.968	26.405	166.0	0.680	3.24	49.1	31.8	1.88	25.7	0.00			251
1	274	8.15	8.12	33.998	26.469	160.2	0.719	3.19	48.1	34.6	1.94	26.5	0.00			275
	300 ISL	7.78	7.75	34.026	26.546	153.1	0.760	2.87	42.9	39.8	2.09	28.6	0.00			302
1	329	7.39	7.36	34.048	26.619	146.4	0.803	2.42	35.9	46.2	2.28	31.1	0.00			331
1	388	6.84	6.80	34.089	26.728	136.7	0.887	1.70	24.9	56.9	2.60	34.8	0.00			390
	400 ISL	6.66	6.62	34.089	26.752	134.4	0.903	1.60	23.3	59.6	2.65	35.6	0.00			402
1	453	5.91	5.87	34.097	26.855	124.7	0.971	1.22	17.5	71.2	2.83	38.8	0.00			456
	500 ISL	5.56	5.52	34.139	26.932	117.7	1.028	0.89	12.6	79.2	2.97	40.8	0.00			503
1	522	5.40	5.36	34.159	26.967	114.5	1.054	0.73	10.3	83.0	3.04	41.7	0.00			525

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 90 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WE	A	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPi:
30 45.1 N	123 20.0 W	20/04/92	2255 UTC	3991 m	350	15 kn	350 04 06	0		1017.1 mb	18.9 C	18.0 C	42m 01	0/8

CAST	DEPTH i m	D	TEMP E G C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS: db
1	0		16.79	16.79	33.304	24.263	365.0	0.000	5.71	102.9	2.3	0.39	0.2	0.00	0.05	0.01	0
	10	ISL	16.65	16.65	33.311	24.301	361.6	0.036	5.73	103.0	2.3	0.39	0.2	0.00	0.06	0.02	10
1	15		16.58	16.58	33.314	24.320	360.0	0.054	5.74	103.1	2.3	0.39	0.2	0.00	0.06	0.02	15
	20	ISL	16.55	16.55	33.315	24.328	359.4	0.072	5.74	103.0	2.3	0.39	0.2	0.00	0.06	0.02	20
1	30		16.50	16.50	33.315	24.340	358.6	0.108	5.74	102.9	2.3	0.39	0.2	0.00	0.06	0.01	30
1	41		16.44	16.43	33.316	24.355	357.6	0.148	5.76	103.1	2.3	0.40	0.1	0.00	0.07	0.01	41
1	50		16.42	16.41	33.316	24.360	357.4	0.180	5.77	103.3	2.3	0.39	0.1	0.00	0.09	0.02	50
1	61		15.79	15.78	33.337	24.519	342.5	0.218	5.86	103.6	2.3	0.39	0.1	0.00	0.12	0.04	61
1	71		15.62	15.61	33.417	24.619	333.3	0.252	5.86	103.3	2.2	0.38	0.1	0.00	0.13	0.05	71
	75	ISL	15.48	15.47	33.409	24.644	331.0	0.265	5.86	103.0	2.3	0.39	0.1	0.00	0.14	0.06	75
1	80		15.27	15.26	33.398	24.682	327.5	0.282	5.86	102.5	2.4	0.40	0.1	0.00	0.18	0.10	80
1	94		14.70	14.69	33.516	24.896	307.4	0.326	5.70	98.7	3.1	0.45	0.8	0.04	0.47	0.38	94
	100	ISL	14.43	14.42	33.541	24.973	300.3	0.345	5.61	96.6	3.5	0.50	1.7	0.08	0.42	0.35	100
1	110		13.86	13.84	33.543	25.094	289.0	0.374	5.46	92.9	4.3	0.60	3.5	0.13	0.49U	-0.03 U	110
1	125		12.62	12.60	33.448	25.269	272.4	0.416	5.30	87.8	6.0	0.79	6.6	0.06	0.20	0.25	126
1	150		10.79	10.77	33.429	25.593	241.8	0.480	4.90	78.1	10.6	1.11	12.1	0.01	0.09	0.09	151
1	175		9.74	9.72	33.580	25.890	213.8	0.537	4.37	68.1	16.3	1.40	17.1	0.00	0.02	0.03	176
	200	ISL	9.39	9.37	33.707	26.047	199.3	0.589	3.77	58.4	21.6	1.66	21.1	0.00	0.00	0.03	201
1	206		9.35	9.33	33.735	26.076	196.7	0.601	3.63	56.1	22.8	1.71	21.9	0.00	0.00	0.03	207
1	235		9.01	8.98	33.882	26.245	181.1	0.656	3.08	47.3	28.3	1.91	25.2	0.00			236
	250	ISL	8.82	8.79	33.937	26.319	174.3	0.682	2.94	45.0	30.7	1.97	26.3	0.00			251
1	276		8.50	8.47	34.008	26.424	164.7	0.726	2.77	42.1	34.6	2.06	27.6	0.00			277
	300	ISL	8.26	8.23	34.047	26.491	158.6	0.765	2.58	39.0	37.8	2.15	28.7	0.00			302
1	330		7.97	7.94	34.074	26.556	152.9	0.812	2.34	35.2	42.0	2.27	30.1	0.00			332
1	389		7.26	7.22	34.101	26.680	141.6	0.899	1.82	26.9	52.4	2.54	33.3	0.00			391
	400	ISL	7.10	7.06	34.099	26.701	139.7	0.914	1.75	25.8	54.4	2.58	33.9	0.00			402
1	454		6.38	6.34	34.099	26.797	130.7	0.987	1 40	20.3	64.3	2.76	36.9	0.00			457
	500	ISL	6.06	6.02	34.158	26.885	122.7	1.045	0.93	13.4	72.8	2.96	39.1	0.00			503
1	523		5.90	5.85	34.188	26.929	118.7	1.073	0.69	9.9	77.1	3.06	40.2	0.00			526

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 90 120

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 25.2 N	123 59.9 W	16/04/92	1748 UTC	4203 m	290	13 kn	310 04 06	2	1023.0 mb	18.0 C	17.6 C	36m 01	8/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0	ISL	16.40	16.40	33.194	24.269	364.4	0.000	5.75	102.8	2.7	0.43	0.0	0.00	0.06	0.01	0
1	1		16.40	16.40	33.194	24.269	364.4	0.004	5.75	102.8	2.7	0.43	0.0	0.00	0.06	0.01	1
	10	ISL	16.39	16.39	33.195	24.272	364.4	0.036	5.75	102.8	2.6	0.43	0.0	0.00	0.06	0.01	10
1	15		16.38	16.38	33.195	24.275	364.3	0.055	5.75	102.8	2.6	0.43	0.0	0.00	0.06	0.01	15
	20	ISL	16.31	16.31	33.195	24.291	363.0	0.073	5.77	103.0	2.6	0.43	0.0	0.00	0.06	0.01	20
	30	ISL	16.15	16.15	33.197	24.329	359.6	0.109	5.80	103.2	2.6	0.42	0.0	0.00	0.07	0.01	30
1	34		16.08	16.07	33.198	24.346	358.2	0.123	5.81	103.2	2.6	0.42	0.0	0.00	0.07	0.01	34
	50	ISL	15.96	15.95	33.209	24.382	355.2	0.180	5.81	103.0	2.4	0.42	0.0	0.00	0.09	0.02	50
1	53		15.93	15.92	33.209	24.389	354.6	0.191	5.81	102.9	2.4	0.42	0.0	0.00	0.09	0.02	53
1	68		15.62	15.61	33.367	24.580	336.9	0.243	5.85	103.1	2.6	0.41	0.0	0.00	0.13	0.05	68
	75	ISL	15.56	15.55	33.482	24.682	327.4	0.266	5.82	102.5	2.4	0.40	0.0	0.00	0.16	0.09	75
1	78		15.54	15.53	33.535	24.727	323.1	0.276	5.80	102.1	2.4	0.40	0.0	0.00	0.17	0.10	78
1	87		14.81	14.80	33.522	24.877	309.1	0.304	5.73	99.4	2.8	0.45	0.4	0.03	0.46	0.31	87
1	97		14.03	14.02	33.520	25.041	293.7	0.334	5.54	94.6	3.3	0.57	2.2	0.10	0.33	0.31	97
	100	ISL	13.83	13.82	33.518	25.081	289.9	0.343	5.49	93.4	3.6	0.60	2.8	0.10	0.32	0.30	100
1	107		13.34	13.33	33.497	25.164	282.1	0.363	5.39	90.7	4.4	0.68	4.4	0.08	0.31	0.28	107
1	122		11.93	11.91	33.323	25.303	268.9	0.405	5.25	85.7	6.6	0.90	7.6	0.08	0.29	0.24	123
	125	ISL	11.70	11.68	33.326	25.349	264.7	0.413	5.19	84.3	7.2	0.95	8.4	0.07	0.27	0.23	126
1	136		10.94	10.92	33.388	25.534	247.1	0.441	4.89	78.2	10.0	1.14	11.7	0.02	0.17	0.18	137
	150	ISL	10.17	10.15	33.476	25.737	228.0	0.474	4.36	68.6	14.9	1.43	16.4	0.01	0.08	0.10	151
1	157		9.88	9.86	33.539	25.835	218.7	0.490	4.03	63.0	17.8	1.58	18.8	0.01	0.05	0.07	158
1	176		9.51	9.49	33.812	26.109	193.0	0.529	2.93	45.5	26.0	1.95	24.3	0.00	0.01	0.04	177
	200	ISL	9.22	9.20	33.946	26.261	178.9	0.573	2.55	39.4	30.4	2.10	26.4	0.00	0.00	0.03	201
1	202		9.20	9.18	33.951	26.269	178.3	0.577	2.55	39.4	30.6	2.10	26.4	0.00	0.00	0.03	203
1	230		9.01	8.99	34.024	26.357	170.5	0.626	2.31	35.5	33.8	2.19	27.5	0.00			231
	250	ISL	8.87	8.84	34.064	26.410	165.7	0.659	2.17	33.3	36.1	2.26	28.2	0.00			251
1	270		8.73	8.70	34.096	26.458	161.6	0.692	2.05	31.3	38.3	2.32	28.9	0.00			271
	300	ISL	8.56	8.53	34.133	26.513	156.8	0.740	1.85	28.2	41.3	2.41	29.8	0.00			302
1	326		8.42	8.39	34.156	26.553	153.4	0.780	1.69	25.7	43.8	2.48	30.6	0.00			328
1	386		8.05	8.01	34.192	26.638	146.2	0.870	1.39	20.9	49.1	2.63	32.2	0.00			388
	400	ISL	7.93	7.89	34.195	26.658	144.5	0.890	1.32	19.8	50.8	2.67	32.7	0.00			402
1	449		7.43	7.39	34.199	26.734	137.7	0.960	1.11	16.5	57.6	2.82	34.5	0.00			452
	500	ISL	6.80	6.75	34.193	26.817	130.0	1.028	0.91	13.3	65.7	2.94	36.7	0.00			503
1	515		6.62	6.57	34.193	26.841	127.8	1.047	0.85	12.4	68.1	2.98	37.4	0.00			518

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 26.8

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 56.9 N	117 18.5 W	13/04/92	1923 UTC	63 D	280 04 kn	270 02 09	1	1017.8 mb	17.8 C	15.9 C	09m 04	1/8	CU

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
1	0	19.05	19.05	33.212	23.644	424.0	0.000	6.24	117.4	3.7	0.37	0.1	0.01	1.14	0.19	0
	10 ISL	16.80	16.80	33.339	24.288	362.9	0.039	6.10	110.0	3.5	0.44	0.1	0.01	1.39	0.47	10
1	11	16.58	16.58	33.355	24.351	356.9	0.043	6.09	109.4	3.5	0.45	0.1	0.01	1.41	0.50	11
	20 ISL	14.97	14.97	33.387	24.737	320.5	0.073	5.30	92.2	5.3	0.78	2.3	0.27	1.72	0.50	20
1	21	14.82	14.82	33.389	24.770	317.3	0.077	5.21	90.4	5.5	0.82	2.6	0.30	1.73	0.50	21
	30 ISL	13.86	13.86	33.437	25.010	294.7	0.104	4.97	84.5	6.5	0.90	5.2	0.34	0.92	0.46	30
1	31	13.77	13.77	33.443	25.033	292.5	0.107	4.95	84.1	6.7	0.91	5.6	0.34	0.81	0.46	31
1	41	12.50	12.49	33.509	25.337	263.7	0.135	4.36	72.1	11.0	1.18	11.2	0.07	0.19	0.22	41
	50 ISL	11.60	11.59	33.592	25.572	241.6	0.158	4.00	65.0	14.3	1.38	14.6	0.03	0.07	0.13	50
1	51	11.50	11.49	33.602	25.598	239.1	0.160	3.96	64.2	14.7	1.40	15.0	0.03	0.06	0.12	51

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 28

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 54.8 N	117 23.7 W	13/04/92	2123 UTC		260 08 kn	270 02 05	1	1016.1 mb	19.9 C	17.3 C	11m 05	1/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	18.98	18.98	33.277	23.711	417.6	0.000	6.29	118.3	2.0		0.1	0.02	1.50	0.52	0
1	1	18.98	18.98	33.277	23.711	417.6	0.004	6.29	118.3	2.0	0.59 U	0.1	0.02	1.50	0.52	1
	10 ISL	17.71	17.71	33.380	24.103	380.5	0.040	6.66	122.3	1.2		0.0	0.01	3.11	1.49	10
1	11	17.50	17.50	33.395	24.166	374.6	0.044	6.69	122.4	1.1	0.38	0.0	0.01	3.33	1.61	11
	20 ISL	16.23	16.23	33.412	24.476	345.3	0.076	6.15	109.7	1.1	0.42	0.0	0.02	3.37	1.18	20
1	21	16.11	16.11	33.411	24.502	342.8	0.080	6.07	108.0	1.1	0.42	0.0	0.02	3.37	1.09	21
1	30	15.60	15.60	33.399	24.608	333.0	0.110	5.79	102.0	2.0	0.45	0.0	0.06	2.18	0.66	30
1	40	14.68	14.67	33.452	24.850	310.3	0.142	5.47	94.6	3.3	0.56	1.0	0.30	0.32	0.27	40
1	50	13.54	13.53	33.472	25.103	286.4	0.172	4.84	81.8	6.4	0.90	6.8	0.10	0.27	0.34	50
1	59	12.96	12.95	33.480	25.226	274.9	0.197	4.65	77.7	8.4	1.06	9.1	0.05	0.17	0.27	59
1	69	12.55	12.54	33.493	25.316	266.5	0.224	4.49	74.3	9.7	1.10	10.6	0.04	0.13	0.21	69
	75 ISL	12.10	12.09	33.531	25.432	255.6	0.240	4.28	70.2	11.3	1.20	12.3	0.03	0.09	0.16	75
1	83	11.49	11.48	33.598	25.598	240.0	0.260	3.97	64.3	13.8	1.36	14.8	0.02	0.05	0.10	83
1	96	10.90	10.89	33.691	25.777	223.2	0.290	3.67	58.7	17.2	1.53	17.7	0.01	0.02	0.06	96
	100 ISL	10.82	10.81	33.719	25.813	219.8	0.299	3.56	56.9	18.1	1.58	18.3	0.01	0.02	0.05	100
1	117	10.62	10.61	33.819	25.926	209.4	0.335	3.18	50.6	21.3	1.74	20.2	0.01	0.01	0.04	118
	125 ISL	10.43	10.42	33.838	25.974	205.0	0.352	3.14	49.8	22.1	1.77	20.8	0.01	0.01	0.04	126
1	142	10.04	10.02	33.876	26.071	196.1	0.386	3.10	48.7	23.6	1.81	21.9	0.01	0.00	0.03	143
	150 ISL	9.95	9.93	33.919	26.120	191.6	0.402	2.97	46.6	24.9	1.86	22.7	0.01	0.00	0.03	151
1	171	9.81	9.79	34.041	26.239	180.7	0.441	2.55	39.9	28.8	2.03	24.8	0.01	0.01	0.03	172
1	200	9.61	9.59	34.165	26.369	168.9	0.491	2.10	32.8	33.3	2.24	26.8	0.01	0.00	0.04	201
1	228	9.32	9.29	34.197	26.442	162.5	0.538	1.90	29.5	36.3	2.33	27.8	0.01			229
	250 ISL	9.11	9.08	34.223	26.497	157.7	0.573	1.70	26.2	39.0	2.42	28.7	0.01			251
1	268	8.93	8.90	34.240	26.539	154.0	0.601	1.54	23.7	41.3	2.50	29.4	0.01			270
	300 ISL	8.53	8.50	34.254	26.613	147.4	0.649	1.35	20.6	45.8	2.60	30.8	0.01			302
1	322	8.23	8.20	34.257	26.661	143.0	0.681	1.24	18.8	49.1	2.67	31.8	0.01			324
1	380	7.51	7.47	34.250	26.762	134.0	0.761	0.96	14.3	57.6	2.86	34.1	0.01			382
	400 ISL	7.32	7.28	34.249	26.788	131.7	0.788	0.89	13.2	59.9	2.91	34.8	0.01			403
L	445	6.92	6.88	34.255	26.849	126.3	0.846	0.73	10.7	65.5	3.01	36.3	0.00			448
	500 ISL	6.30	6.25	34.290	26.959	116.0	0.913	0.48	6.9	75.7	3.15	38.4	0.00			503
1	513	6.15	6.10	34.299	26.986	113.6	0.928	0.42	6.1	78.1	3.18	38.9	0.00			516

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 50.6 N	117 32.0 W	14/04/92	0040 UTC	865 m	270 14 kn	270 02 04	1	1016.0 mb	19.2 C	17.2 C	7m 7	7/8	ST

CAST	DEPTH a	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	18.67	18.67	33.465	23.932	396.5	0.000	6.35	118.8	0.5	0.26	0.1	0.00	2.00	1.78	0
1	1	18.67	18.67	33.465	23.932	396.5	0.004	6.35	118.8	0.5	0.26	0.1	0.00	2.00	1.78	1
	10 ISL	17.72	17.72	33.444	24.150	376.1	0.039	6.18	113.5	0.4	0.30	0.0	0.00	1.45	1.09	10
1	11	17.56	17.56	33.442	24.187	372.6	0.042	6.15	112.6	0.4	0.31	0.0	0.00	1.38	0.98	11
	20 ISL	16.38	16.38	33.437	24.461	346.8	0.075	5.91	105.8	0.9	0.32	0.1	0.00	1.51	0.55	20
1	21	16.27	16.27	33.437	24.486	344.4	0.078	5.89	105.2	1.0	0.32	0.1	0.00	1.54	0.52	21
	30 ISL	16.06	16.06	33.441	24.537	339.8	0.109	5.78	102.8	1.6	0.34	0.1	0.02	1.40	0.31	30
1	31	16.04	16.04	33.441	24.542	339.4	0.112	5.77	102.6	1.7	0.34	0.1	0.02	1.38	0.30	31
1	41	15.74	15.73	33.414	24.589	335.2	0.146	5.70	100.7	1.9	0.36	0.2	0.11	1.35	0.28	41
	50 ISL	15.31	15.30	33.385	24.662	328.5	0.176	5.66	99.1	2.3	0.39	0.3	0.27	0.85	0.26	50
1	51	15.24	15.23	33.382	24.675	327.3	0.179	5.66	99.0	2.4	0.40	0.3	0.28	0.78	0.26	51
1	61	14.25	14.24	33.380	24.886	307.4	0.211	5.40	92.6	3.4	0.55	2.4	0.19	0.18	0.21	61
1	71	13.17	13.16	33.439	25.153	282.2	0.241	5.01	84.0	5.7	0.77	6.5	0.03	0.10	0.17	71
	75 ISL	12.85	12.84	33.447	25.222	275.6	0.252	4.88	81.3	6.6	0.85	7.8	0.02	0.09	0.17	75
1	85	12.26	12.25	33.470	25.354	263.2	0.279	4.56	75.0	9.0	1.02	10.5	0.01	0.07	0.16	85
1	99	11.75	11.74	33.575	25.532	246.6	0.314	4.03	65.6	12.6	1.25	13.9	0.01	0.05	0.11	99
	100 ISL	11.70	11.69	33.581	25.546	245.3	0.317	4.01	65.2	12.8	1.26	14.1	0.01	0.05	0.11	100
1	119	10.72	10.71	33.699	25.815	220.0	0.361	3.68	58.7	17.1	1.46	17.8	0.00	0.04	0.16	120
	125 ISL	10.55	10.54	33.744	25.880	214.0	0.374	3.52	55.9	18.6	1.54	18.9	0.00	0.03	0.13	126
1	144	10.26	10.24	33.888	26.043	198.9	0.413	2.98	47.1	23.3	1.77	22.0	0.01	0.01	0.03	145
	150 ISL	10.23	10.21	33.934	26.084	195.1	0.425	2.83	44.7	24.5	1.83	22.7	0.01	0.01	0.03	151
1	174	10.16	10.14	34.094	26.221	182.6	0.470	2.30	36.3	28.8	2.05	24.9	0.00	0.00	0.03	175
	200 ISL	9.85	9.83	34.188	26.348	171.1	0.516	1.91	30.0	33.3	2.22	26.7	0.00	0.00	0.02	201
1	205	9.77	9.75	34.199	26.370	169.1	0.525	1.86	29.1	34.1	2.24	27.0	0.00	0.00	0.02	206
1	234	9.33	9.30	34.226	26.464	160.6	0.573	1.70	26.4	37.9	2.35	28.3	0.00			235
	250 ISL	9.16	9.13	34.234	26.498	157.7	0.598	1.63	25.2	39.4	2.39	28.8	0.00			251
1	274	8.93	8.90	34.241	26.540	154.0	0.636	1.53	23.5	41.6	2.43	29.4	0.00			276
	300 ISL	8.66	8.63	34.251	26.590	149.6	0.675	1.38	21.1	44.4	2.50	30.2	0.00			302
1	329	8.32	8.29	34.256	26.647	144.6	0.718	1.22	18.5	48.0	2.59	31.2	0.00			331
1	387	7.50	7.46	34.235	26.752	135.0	0.799	1.01	15.0	56.8	2.76	33.6	0.00			389
	400 ISL	7.35	7.31	34.237	26.775	133.0	0.816	0.94	13.9	58.8	2.80	34.2	0.00			403
1	451	6.84	6.80	34.256	26.860	125.2	0.882	0.67	9.8	66.3	2.94	36.2	0.00			454
	500 ISL	6.50	6.45	34.273	26.920	120.0	0.942	0.52	7.6	72.0	3.04	37.4	0.00			503
1	518	6.37	6.32	34.280	26.942	118.0	0.964	0.47	6.8	74.1	3.07	37.8	0.00			521

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 40.6 N	117 52.4 W	14/04/92	0456 UTC	614 in	280 21 kn			1016.9 mb	17.3 C	15.8 C		

CAST	DEPTH a	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	18.19	18.19	33.503	24.080	382.4	0.000	6.43	119.2	0.9	0.30	0.1	0.01	3.09	2.09	[)
1	1	18.19	18.19	33.503	24.080	382.4	0.004	6.43	119.2	0.9	0.30	0.1	0.01	3.09	2.09	I.
1	10	16.92	16.92	33.426	24.327	359.2	0.037	6.08	110.0	1.0	0.31	0.1	0.01	1.50	0.86	10
1	19	16.50	16.50	33.411	24.413	351.3	0.069	5.94	106.5	1.1	0.34	0.1	0.01	1.29	0.63	IS'
	20 ISL	16.49	16.49	33.411	24.415	351.1	0.073	5.93	106.3	1.1	0.34	0.1	0.01	1.29	0.61	20
1	29	16.24	16.24	33.404	24.468	346.4	0.104	5.82	103.9	1.5	0.35	0.1	0.02	1.30	0.48	2<l
	30 ISL	16.16	16.16	33.400	24.483	345.0	0.108	5.81	103.5	1.6	0.35	0.1	0.03	1.22	0.46	3(1
1	38	15.35	15.34	33.364	24.636	330.5	0.135	5.76	100.9	2.4	0.39	0.1	0.12	0.51	0.30	3c<
1	47	14.41	14.40	33.336	24.818	313.5	0.164	5.66	97.3	3.3	0.48	1.0	0.22	0.25	0.27	47
	50 ISL	14.15	14.14	33.332	24.869	308.7	0.173	5.60	95.8	3.6	0.51	1.6	0.19	0.20	0.24	50
1	57	13.65	13.64	33.327	24.969	299.3	0.194	5.45	92.2	4.4	0.60	3.3	0.09	0.13	0.18	57
1	67	13.19	13.18	33.325	25.060	290.9	0.224	5.29	88.7	5.4	0.72	5.0	0.05	0.15	0.20	67
	75 ISL	12.56	12.55	33.366	25.216	276.2	0.246	5.05	83.6	7.0	0.85	7.4	0.03	0.13	0.19	75
1	81	12.10	12.09	33.408	25.336	264.8	0.263	4.86	79.7	8.3	0.94	9.2	0.02	0.10	0.17	81
1	94	11.73	11.72	33.477	25.459	253.4	0.296	4.64	75.5	9.9	1.07	11.3	0.02	0.08	0.13	94
	100 ISL	11.49	11.48	33.521	25.538	246.0	0.311	4.46	72.2	11.2	1.15	12.6	0.02	0.06	0.11	100
1	114	10.99	10.98	33.633	25.716	229.4	0.344	3.98	63.8	14.6	1.34	15.7	0.01	0.03	0.06	115
	125 ISL	10.93	10.91	33.723	25.797	221.9	0.369	3.64	58.3	17.0	1.47	17.5	0.01	0.03	0.06	126
1	139	10.85	10.83	33.809	25.878	214.5	0.400	3.24	51.8	20.0	1.62	19.4	0.01	0.02	0.06	140
	150 ISL	10.73	10.71	33.887	25.960	207.0	0.423	2.95	47.1	22.3	1.74	21.0	0.01	0.02	0.05	151
1	168	10.54	10.52	34.000	26.082	195.8	0.459	2.55	40.6	25.5	1.91	23.1	0.01	0.01	0.04	169
1	197	10.47	10.45	34.118	26.187	186.5	0.515	2.11	33.5	28.3	2.08	24.8	0.01	0.01	0.04	198
	200 ISL	10.45	10.43	34.124	26.195	185.8	0.520	2.10	33.4	28.5	2.09	24.9	0.01			201
1	228	10.13	10.10	34.159	26.278	178.4	0.571	2.03	32.0	30.6	2.13	25.7	0.01			229
	250 ISL	9.83	9.80	34.175	26.342	172.8	0.610	1.98	31.0	32.4	2.18	26.4	0.01			251
1	268	9.55	9.52	34.186	26.397	167.8	0.641	1.92	29.9	34.3	2.23	27.1	0.01			270
	300 ISL	8.94	8.91	34.217	26.520	156.4	0.692	1.63	25.1	40.1	2.40	29.0	0.00			302
1	322	8.52	8.49	34.237	26.601	148.9	0.726	1.41	21.5	44.6	2.52	30.4	0.00			324
1	383	7.68	7.64	34.245	26.734	136.9	0.813	1.03	15.4	54.6	2.74	33.2	0.00			385
	400 ISL	7.47	7.43	34.244	26.763	134.2	0.836	0.95	14.1	57.2	2.79	33.9	0.00			402
1	447	6.94	6.90	34.244	26.837	127.4	0.898	0.76	11.2	64.1	2.91	35.7	0.00			450
	500 ISL	6.53	6.48	34.266	26.910	120.9	0.963	0.57	8.3	70.8	3.02	37.2	0.00			503
1	516	6.40	6.35	34.273	26.933	118.9	0.983	0.51	7.4	72.8	3.05	37.7	0.00			519

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 40

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
32 30.8 N	118 12.7 W	14/04/92	0917 UTC	1660 n	300 21 kn			1016.9 mb	16.1 C	14.8 C		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	17.62	17.62	33.466	24.191	371.9	0.000	5.92	108.6	0.8	0.30	0.1	0.01	1.32	0.67	0
1	1	17.62	17.62	33.466	24.191	371.9	0.004	5.92	108.6	0.8	0.30	0.1	0.01	1.32	0.67	1
	10 ISL	17.62	17.62	33.466	24.191	372.2	0.037	5.92	108.6	0.8	0.29	0.1	0.01	1.35	0.72	10
1	11	17.62	17.62	33.466	24.191	372.2	0.041	5.92	108.6	0.8	0.29	0.1	0.01	1.35	0.73	11
	20 ISL	17.49	17.49	33.459	24.217	370.0	0.074	5.94	108.7	0.5	0.29	0.1	0.01	1.43	0.74	20
1	21	17.46	17.46	33.458	24.224	369.4	0.078	5.94	108.6	0.5	0.29	0.1	0.01	1.45	0.74	21
	30 ISL	17.03	17.03	33.444	24.315	361.0	0.111	5.97	108.2	0.8	0.32	0.0	0.21	1.68	0.74	30
1	31	16.94	16.93	33.441	24.334	359.2	0.114	5.97	108.0	0.8	0.33	0.0	0.24	1.71	0.74	31
1	40	15.42	15.41	33.385	24.637	330.5	0.146	5.73	100.6	2.0	0.39	0.3	0.33	0.83	0.40	40
1	50	14.84	14.83	33.382	24.762	319.0	0.178	5.51	95.6	3.3	0.50	1.9	0.16	0.23	0.28	50
1	60	14.37	14,36	33.370	24.853	310.5	0.209	5.50	94.5	3.7	0.53	2.3	0.04	0.10	0.20	60
1	70	13.43	13.42	33.372	25.048	292.1	0.240	5.19	87.5	5.6	0.74	5.5	0.02	0.10	0.16	70
	75 ISL	13.08	13.07	33.391	25.133	284.1	0.254	5.03	84.2	6.5	0.83	6.9	0.02	0.09	0.15	75
1	84	12.61	12.60	33.437	25.261	272.1	0.279	4.77	79.0	8.1	0.95	9.1	0.02	0.07	0.14	84
1	98	12.27	12.26	33.498	25.374	261.7	0.316	4.46	73.4	10.2	1.08	11.4	0.01	0.06	0.13	98
	100 ISL	12.17	12.16	33.505	25.399	259.4	0.322	4.41	72.4	10.6	1.11	11.8	0.01	0.06	0.13	100
1	118	11.24	11.23	33.576	25.627	238.0	0.366	4.01	64.6	14.3	1.34	15.4	0.01	0.02	0.08	119
	125 ISL	11.04	11.02	33.610	25.689	232.2	0.383	3.87	62.1	15.6	1.41	16.4	0.01	0.02	0.07	126
1	144	10.61	10.59	33.710	25.844	217.9	0.426	3.52	56.0	18.9	1.56	18.9	0.01	0.01	0.04	145
	150 ISL	10.43	10.41	33.746	25.903	212.3	0.438	3.42	54.2	20.0	1.61	19.7	0.01	0.01	0.04	151
1	173	9.78	9.76	33.883	26.120	192.0	0.485	3.09	48.3	24.5	1.80	22.7	0.00	0.00	0.03	174
	200 ISL	9.27	9.25	34.005	26.300	175.4	0.535	2.73	42.2	30.1	1.97	25.2	0.00	0.00	0.03	201
1	205	9.20	9.18	34.023	26.325	173.1	0.543	2.67	41.2	31.1	2.00	25.6	0.00	0.00	0.03	206
1	234	8.94	8.91	34.109	26.434	163.2	0.592	2.29	35.2	35.4	2.17	27.5	0.00			235
	250 ISL	8.86	8.83	34.154	26.482	158.9	0.618	2.06	31.6	37.6	2.26	28.3	0.00			251
1	274	8.74	8.71	34.206	26.542	153.7	0.655	1.76	26.9	40.9	2.38	29.4	0.00			276
	300 ISL	8.43	8.40	34.213	26.596	148.9	0.695	1.60	24.3	44.5	2.47	30.5	0.00			302
1	331	8.01	7.98	34.206	26.654	143.7	0.740	1.45	21.8	48.8	2.56	31.8	0.00			333
1	392	7.43	7.39	34.244	26.769	133.5	0.825	0.94	14.0	57.9	2.80	34.3	0.00			394
	400 ISL	7.33	7.29	34.244	26.783	132.2	0.835	0.90	13.3	59.2	2.82	34.7	0.00			402
1	456	6.68	6.64	34.244	26.873	124.0	0.907	0.70	10.2	68.1	2.97	37.0	0.00			459
	500 ISL	6.39	6.34	34.270	26.932	118.7	0.960	0.54	7.8	73.2	3.05	38.2	0.00			503
1	524	6.23	6.18	34.285	26.964	115.8	0.988	0.45	6.5	76.0	3.10	38.8	0.00			528

RV DAVID STARR JORDAN CALCOFI dRUISE 9204 STATION 93 45

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 20.8 N	118 33.3 W	14/04/92	1406 UTC	1344 si	290 17 kn	290 05 08	1	1017.2 mb	15.9 C	14.2 C	09m 04	6/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.55	16.55	33.394	24.388	353.1	0.000	5.95	106.8	0.5	0.32	0.0	0.00	1.22	0.57	0
1	2	16.55	16.55	33.394	24.388	353.1	0.007	5.95	106.8	0.5	0.32	0.0	0.00	1.22	0.57	2
	10 ISL	16.57	16.57	33.394	24.384	353.8	0.035	5.95	106.9	0.5	0.34	0.0	0.01	1.29	0.58	10
1	12	16.57	16.57	33.394	24.384	353.9	0.042	5.95	106.9	0.5	0.34	0.0	0.01	1.31	0.58	12
	20 ISL	16.53	16.53	33.396	24.395	353.1	0.071	5.97	107.1	0.5	0.33	0.0	0.01	1.25	0.56	20
1	21	16.52	16.52	33.396	24.397	352.9	0.074	5.97	107.1	0.5	0.33	0.0	0.01	1.24	0.56	21
1	30	15.90	15.90	33.359	24.510	342.4	0.106	5.94	105.3	0.8	0.33	0.0	0.00	1.21	0.52	30
1	40	15.37	15.36	33.394	24.655	328.8	0.139	5.69	99.8	2.2	0.41	0.7	0.11	1.14	0.66	40
	50 ISL	14.47	14.46	33.398	24.853	310.2	0.171	5.44	93.7	3.6	0.53	2.3	0.28	0.42	0.34	50
1	51	14.37	14.36	33.398	24.874	308.2	0.174	5.41	93.0	3.7	0.54	2.5	0.29	0.35	0.30	51
1	60	13.53	13.52	33.399	25.049	291.8	0.201	5.12	86.5	5.2	0.71	5.5	0.08	0.16	0.25	60
1	70	13.15	13.14	33.414	25.137	283.6	0.230	4.97	83.3	6.3	0.80	6.8	0.04	0.12	0.21	70
	75 ISL	12.87	12.86	33.438	25.211	276.7	0.244	4.81	80.2	7.4	0.88	8.2	0.03	0.10	0.19	75
1	84	12.37	12.36	33.485	25.345	264.1	0.268	4.52	74.6	9.5	1.02	10.7	0.02	0.07	0.15	84
1	98	11.87	11.86	33.523	25.469	252.6	0.304	4.31	70.4	11.5	1.16	12.5	0.02	0.04	0.11	98
	100 ISL	11.79	11.78	33.532	25.491	250.5	0.309	4.27	69.6	11.9	1.18	12.8	0.02	0.04	0.11	100
1	118	11.13	11.12	33.623	25.683	232.6	0.353	3.87	62.2	15.5	1.35	16.1	0.01	0.02	0.07	119
	125 ISL	10.90	10.88	33.664	25.756	225.8	0.369	3.71	59.4	17.0	1.43	17.3	0.01	0.02	0.06	126
1	143	10.40	10.38	33.766	25.924	210.2	0.408	3.34	52.9	20.5	1.61	19.9	0.01	0.01	0.05	144
	150 ISL	10.26	10.24	33.800	25.974	205.5	0.423	3.23	51.0	21.7	1.67	20.7	0.01	0.01	0.05	151
1	172	9.91	9.89	33.888	26.103	193.7	0.467	2.94	46.1	25.0	1.81	22.7	0.01	0.00	0.04	173
	200 ISL	9.60	9.58	33.964	26.214	183.6	0.519	2.69	41.9	28.3	1.91	24.4	0.01	0.01	0.06	201
1	202	9.58	9.56	33.969	26.221	183.0	0.523	2.67	41.6	28.5	1.92	24.5	0.01	0.01	0.06	203
1	230	9.24	9.21	34.085	26.368	169.5	0.573	2.31	35.7	32.9	2.09	26.7	0.01			231
	250 ISL	8.99	8.96	34.127	26.441	162.9	0.606	2.16	33.2	35.7	2.17	27.7	0.00			251
1	270	8.74	8.71	34.149	26.498	157.8	0.638	2.04	31.2	38.4	2.24	28.5	0.00			272
	300 ISL	8.32	8.29	34.164	26.574	150.8	0.684	1.84	27.9	42.9	2.35	30.0	0.01			302
1	324	8.00	7.97	34.170	26.627	146.1	0.720	1.68	25.3	46.5	2.44	31.1	0.01			326
1	383	7.48	7.44	34.203	26.729	137.1	0.803	1.22	18.1	54.4	2.65	33.3	0.00			385
	400 ISL	7.31	7.27	34.214	26.762	134.1	0.826	1.09	16.1	56.3	2.72	34.1	0.00			402
1	448	6.84	6.80	34.245	26.852	126.0	0.889	0.75	11.0	62.3	2.90	36.1	0.00			451
	500 ISL	6.40	6.35	34.269	26.930	119.0	0.952	0.54	7.8	71.8	3.03	37.7	0.00			503
1	517	6.26	6.21	34.278	26.955	116.7	0.972	0.47	6.8	74.9	3.07	38.2	0.00			520

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 10.9 N	118 53.5 W	14/04/92	1753 UTC	1458 m	300 21 kn	280 05 06	1	1018.9 mb	17.8 C	16.9 C	20m 01	6/8	AC

CAST	DEPTH IB	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.53	16.53	33.303	24.323	359.3	0.000	5.77	103.5	2.5	0.34	0.1	0.00	0.20	0.09	0
1	1	16.53	16.53	33.303	24.323	359.3	0.004	5.77	103.5	2.5	0.34	0.1	0.00	0.20	0.09	1
1	10	16.52	16.52	33.302	24.324	359.4	0.036	5.77	103.5	2.3	0.34	0.1	0.00	0.19	0.08	10
1	20	16.48	16.48	33.302	24.334	358.8	0.072	5.78	103.6	2.1	0.34	0.1	0.00	0.20	0.08	20
1	29	16.44	16.44	33.295	24.338	358.7	0.104	5.79	103.7	2.0	0.34	0.1	0.00	0.24	0.09	29
	30 ISL	16.40	16.40	33.291	24.344	358.2	0.108	5.81	103.9	2.0	0.34	0.1	0.00	0.25	0.10	30
1	40	15.80	15.79	33.246	24.446	348.8	0.143	5.97	105.5	1.9	0.34	0.1	0.00	0.38	0.17	40
1	50	15.17	15.16	33.221	24.566	337.6	0.177	5.96	104.0	2.3	0.36	0.1	0.00	0.40	0.23	50
1	60	14.80	14.79	33.245	24.665	328.5	0.211	5.90	102.2	2.5	0.37	0.1	0.01	0.37	0.31	60
1	74	13.91	13.90	33.389	24.964	300.3	0.255	5.55	94.5	3.7	0.52	2.6	0.16	0.31	0.30	74
	75 ISL	13.83	13.82	33.396	24.986	298.3	0.258	5.52	93.8	3.8	0.53	2.9	0.16	0.30	0.30	75
1	88	12.77	12.76	33.464	25.251	273.2	0.295	5.15	85.6	6.0	0.74	6.5	0.07	0.20	0.23	88
	100 ISL	12.04	12.03	33.480	25.404	258.9	0.327	4.85	79.4	8.2	0.92	9.5	0.03	0.13	0.17	100
1	108	11.59	11.58	33.488	25.494	250.4	0.347	4.65	75.4	10.0	1.04	11.5	0.02	0.10	0.13	108
	125 ISL	10.49	10.48	33.571	25.755	225.7	0.388	4.20	66.6	15.0	1.31	16.3	0.01	0.04	0.06	126
1	128	10.33	10.32	33.589	25.797	221.8	0.394	4.12	65.1	15.9	1.35	17.0	0.01	0.03	0.05	129
	150 ISL	10.05	10.03	33.713	25.942	208.5	0.442	3.72	58.4	19.4	1.51	19.4	0.00	0.01	0.04	151
1	153	10.01	9.99	33.721	25.955	207.3	0.448	3.67	57.6	19.8	1.53	19.6	0.00	0.01	0.04	154
1	183	9.60	9.58	33.901	26.164	188.0	0.507	3.03	47.2	25.7	1.79	23.3	0.00	0.00	0.03	184
	200 ISL	9.45	9.43	33.989	26.258	179.4	0.538	2.78	43.2	28.5	1.90	24.8	0.00	0.00	0.03	201
1	217	9.31	9.29	34.060	26.336	172.3	0.568	2.57	39.8	31.1	2.00	26.0	0.00	0.00	0.03	218
	250 ISL	8.85	8.82	34.130	26.465	160.5	0.623	2.23	34.2	36.6	2.17	27.8	0.00			251
1	252	8.82	8.79	34.133	26.472	159.9	0.626	2.21	33.9	36.9	2.18	27.9	0.00			253
1	293	8.29	8.26	34.176	26.588	149.4	0.690	1.78	27.0	43.8	2.39	30.4	0.00			295
	300 ISL	8.21	8.18	34.179	26.603	148.1	0.700	1.73	26.2	44.9	2.42	30.7	0.00			302
1	348	7.69	7.66	34.188	26.687	140.6	0.770	1.40	20.9	52.1	2.59	32.8	0.00			350
	400 ISL	7.20	7.16	34.213	26.777	132.6	0.841	1.04	15.4	59.1	2.75	34.6	0.00			402
1	413	7.09	7.05	34.221	26.798	130.7	0.858	0.96	14.1	60.8	2.79	35.0	0.00			416
1	481	6.61	6.57	34.267	26.900	121.7	0.943	0.60	8.7	70.2	2.97	37.3	0.00			484
	500 ISL	6.52	6.47	34.272	26.916	120.3	0.966	0.57	8.3	71.7	2.99	37.6	0.00			503
1	559	6.23	6.18	34.287	26.966	116.1	1.036	0.46	6.6	76.4	3.07	38.6	0.00			563

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 0.7 N	119 14.1 W	14/04/92	2211 UTC	1497 m	300 23 kn	290 05 06	1	1018.9 mb	17.0 C	15.9 C	17m 03	4/8	SC

CAST	DEPTH ID	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 uM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.31	16.31	33.202	24.296	361.9	0.000	5.89	105.1	2.0	0.36	0.0	0.01	0.49	0.12	0
1	1	16.31	16.31	33.202	24.296	361.9	0.004	5.89	105.1	2.0	0.36	0.0	0.01	0.49	0.12	1
1	9	16.30	16.30	33.202	24.298	361.9	0.033	5.89	105.1	1.9	0.36	0.0	0.01	0.51	0.14	9
	10 ISL	16.30	16.30	33.202	24.298	361.9	0.036	5.89	105.1	1.9	0.36	0.0	0.01	0.51	0.14	10
1	20	16.25	16.25	33.202	24.310	361.1	0.072	5.91	105.4	1.8	0.35	0.0	0.01	0.55	0.15	20
1	29	16.19	16.19	33.201	24.323	360.2	0.105	5.92	105.4	1.5	0.35	0.0	0.01	0.62	0.16	29
	30 ISL	16.19	16.19	33.209	24.329	359.6	0.108	5.93	105.6	1.5	0.35	0.0	0.01	0.63	0.17	30
1	41	16.22	16.21	33.328	24.414	351.9	0.148	5.97	106.4	1.3	0.34	0.0	0.01	0.86	0.31	41
1	50	15.97	15.96	33.350	24.488	345.1	0.179	5.91	104.9	1.3	0.33	0.0	0.01	1.11	0.34	50
1	60	15.07	15.06	33.338	24.678	327.2	0.213	5.72	99.7	2.6	0.40	0.4	0.23	0.39	0.29	60
1	71	13.44	13.43	33.241	24.945	302.0	0.247	5.55	93.5	4.3	0.59	3.2	0.23	0.20	0.21	71
	75 ISL	13.29	13.28	33.291	25.014	295.5	0.259	5.38	90.4	5.0	0.66	4.4	0.17	0.17	0.21	75
1	81	13.19	13.18	33.380	25.103	287.2	0.277	5.13	86.0	6.0	0.75	6.2	0.07	0.15	0.20	81
1	99	11.75	11.74	33.391	25.389	260.2	0.326	5.00	81.3	7.6	0.91	9.7	0.03	0.10	0.14	99
	100 ISL	11.68	11.67	33.396	25.406	258.6	0.328	4.97	80.7	7.9	0.93	10.0	0.03	0.10	0.14	100
1	119	10.67	10.66	33.512	25.678	233.0	0.375	4.21	67.0	14.2	1.30	15.9	0.01	0.05	0.09	120
	125 ISL	10.52	10.51	33.554	25.737	227.5	0.389	4.03	63.9	15.6	1.38	17.1	0.01	0.04	0.08	126
1	144	10.18	10.16	33.685	25.898	212.6	0.431	3.61	56.9	19.4	1.56	19.9	0.01	0.01	0.04	145
	150 ISL	10.01	9.99	33.726	25.959	206.9	0.443	3.55	55.7	20.5	1.59	20.5	0.01	0.01	0.03	151
1	175	9.29	9.27	33.879	26.197	184.5	0.492	3.39	52.4	25.1	1.70	22.7	0.01	0.00	0.02	176
	200 ISL	8.69	8.67	33.978	26.370	168.4	0.536	3.19	48.7	30.2	1.82	24.8	0.01	0.00	0.02	201
1	204	8.60	8.58	33.989	26.393	166.4	0.543	3.16	48.1	31.1	1.84	25.1	0.01	0.00	0.02	205
1	233	8.06	8.04	34.036	26.512	155.4	0.590	2.89	43.5	37.4	2.00	27.3	0.01			234
	250 ISL	7.95	7.92	34.079	26.562	150.9	0.616	2.54	38.1	40.9	2.14	28.6	0.01			251
1	273	7.89	7.86	34.136	26.616	146.1	0.650	2.03	30.5	45.3	2.34	30.2	0.00			275
	300 ISL	7.77	7.74	34.173	26.663	142.1	0.689	1.65	24.7	49.1	2.49	31.6	0.00			302
1	328	7.59	7.56	34.196	26.707	138.3	0.728	1.35	20.1	52.8	2.61	32.9	0.00			330
1	388	6.91	6.87	34.235	26.834	126.8	0.808	0.82	12.0	64.1	2.84	35.7	0.00			390
	400 ISL	6.79	6.75	34.239	26.853	125.0	0.823	0.76	11.1	66.0	2.87	36.2	0.00			402
1	453	6.34	6.30	34.250	26.922	118.9	0.887	0.61	8.8	72.7	2.99	37.8	0.00			456
	500 ISL	6.14	6.10	34.263	26.958	115.9	0.942	0.52	7.5	76.0	3.04	38.4	0.00			503
1	522	6.05	6.00	34.269	26.975	114.6	0.968	0.48	6.9	77.6	3.06	38.7	0.00			525

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 50.8 N	119 34.3 W	15/04/92	0215 UTC	2541 m	300 22 kn	290 06 08	1	1017.8 mb	17.0 C	15.0 C		4/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 UM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.53	16.53	33.253	24.284	363.0	0.000			2.3	0.44	0.0	0.00	0.59	0.10	0
1	1	16.53	16.53	33.253	24.284	363.0	0.004	6.07 U	108.8 U	2.3	0.44	0.0	0.00	0.59	0.10	1
	10 ISL	16.54	16.54	33.253	24.282	363.5	0.036			2.2	0.44	0.0	0.00	0.54	0.15	10
1	16	16.55	16.55	33.253	24.280	363.8	0.058	5.86	105.1	2.1	0.44	0.0	0.00	0.51	0.19	16
	20 ISL	16.51	16.51	33.246	24.284	363.6	0.073	5.88	105.4	2.1	0.44	0.0	0.00	0.55	0.20	20
1	30	16.36	16.36	33.265	24.333	359.2	0.109	5.93	106.0	2.0	0.44	0.0	0.00	0.64	0.24	30
1	39	16.21	16.20	33.373	24.451	348.3	0.141	5.98	106.6	1.3	0.42	0.0	0.00	1.33	0.48	39
1	48	15.79	15.78	33.361	24.537	340.4	0.172	5.87	103.8	1.7	0.44	0.0	0.01	1.61	0.49	48
	50 ISL	15.50	15.49	33.365	24.605	334.0	0.178	5.78	101.6	2.1	0.47	0.3	0.07	1.34	0.45	50
1	57	14.33	14.32	33.382	24.870	308.8	0.201	5.45	93.6	4.0	0.62	2.0	0.25	0.29	0.28	57
1	67	13.05	13.04	33.356	25.112	285.9	0.231	5.14	85.9	6.4	0.86	5.8	0.04	0.15	0.21	67
	75 ISL	12.57	12.56	33.362	25.211	276.7	0.253	5.01	82.9	7.6	0.95	7.4	0.03	0.15	0.23	75
1	77	12.48	12.47	33.364	25.230	274.9	0.259	4.98	82.3	7.8	0.97	7.7	0.03	0.15	0.24	77
1	90	11.56	11.55	33.375	25.412	257.8	0.293	4.79	77.6	9.9	1.13	10.8	0.02	0.14	0.20	90
	100 ISL	11.08	11.07	33.400	25.518	247.8	0.319	4.62	74.1	11.6	1.24	12.7	0.01	0.10	0.15	100
1	105	10.89	10.88	33.422	25.569	243.1	0.331	4.51	72.0	12.6	1.29	13.6	0.01	0.08	0.13	105
1	119	10.45	10.44	33.540	25.738	227.2	0.364	4.08	64.6	16.2	1.49	16.6	0.00	0.04	0.08	120
	125 ISL	10.30	10.29	33.579	25.794	222.0	0.377	4.01	63.3	17.1	1.52	17.3	0.00	0.03	0.06	126
1	143	9.88	9.86	33.690	25.952	207.3	0.416	3.88	60.7	19.3	1.58	18.7	0.00	0.01	0.03	144
	150 ISL	9.70	9.68	33.743	26.024	200.6	0.430	3.77	58.8	20.8	1.63	19.6	0.00	0.01	0.03	151
1	167	9.34	9.32	33.864	26.177	186.3	0.463	3.50	54.2	24.5	1.77	21.8	0.00	0.00	0.02	168
1	196	9.13	9.11	33.986	26.307	174.5	0.515	3.16	48.7	28.7	1.92	23.9	0.00	0.02	0.03	197
	200 ISL	9.08	9.06	33.995	26.322	173.2	0.522	3.13	48.2	29.2	1.94	24.1	0.00			201
1	223	8.73	8.71	34.027	26.403	165.8	0.561	3.01	46.0	32.2	2.02	25.2	0.00			224
	250 ISL	8.31	8.28	34.038	26.476	159.2	0.605	2.83	42.8	36.3	2.12	26.9	0.00			251
1	263	8.12	8.09	34.041	26.507	156.4	0.626	2.72	41.0	38.5	2.18	27.8	0.00			264
	300 ISL	7.65	7.62	34.090	26.615	146.5	0.682	2.15	32.1	46.4	2.43	30.6	0.00			302
1	318	7.47	7.44	34.119	26.664	142.1	0.708	1.85	27.5	50.2	2.56	31.8	0.00			320
1	376	7.24	7.20	34.194	26.756	134.2	0.788	1.15	17.0	58.7	2.83	34.3	0.00			378
	400 ISL	7.10	7.06	34.212	26.790	131.3	0.820	0.98	14.4	61.4	2.89	3s.0	0.00			402
1	442	6.75	6.71	34.225	26.848	126.1	0.874	0.79	11.5	66.6	2.97	36.2	0.00			445
	500 ISL	5.99	5.95	34.205	26.931	118.3	0.945	0.65	9.3	77.2	3.08	38.6	0.00			503
1	513	5;82	5.78	34.202	26.950	116.5	0.960	0.62	8.9	79.6	3.10	39.1	0.00			516

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 30.8 N	120 14.7 W	15/04/92	0747 UTC	3926 m	320 18 kn			1019.5 mb	15.5 C	13.8 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.18	16.18	33.182	24.310	360.5	0.000	5.75	102.4	2.8	0.42	0.0	0.00	0.06	0.02	0
1	1	16.18	16.18	33.182	24.310	360.5	0.004	5.75	102.4	2.8	0.42	0.0	0.00	0.06	0.02	1
	10 ISL	16.19	16.19	33.181	24.307	361.1	0.036	5.75	102.4	2.8	0.42	0.0	0.00	0.06	0.02	10
1	16	16.20	16.20	33.181	24.305	361.5	0.058	5.76	102.6	2.7	0.42	0.0	0.00	0.06	0.02	16
	20 ISL	16.17	16.17	33.202	24.328	359.4	0.072	5.77	102.7	2.6	0.41	0.0	0.00	0.06	0.02	20
	30 ISL	16.08	16.08	33.251	24.386	354.1	0.108	5.79	102.9	2.5	0.40	0.0	0.00	0.07	0.02	30
1	31	16.07	16.07	33.256	24.393	353.6	0.111	5.79	102.9	2.5	0.40	0.0	0.00	0.07	0.02	31
1	41	15.98	15.97	33.248	24.407	352.5	0.147	5.80	102.9	2.5	0.40	0.0	0.00	0.09	0.02	41
	50 ISL	15.96	15.95	33.248	24.412	352.4	0.178	5.81	103.0	2.5	0.40	0.0	0.00	0.09	0.02	50
1	51	15.96	15.95	33.248	24.412	352.4	0.182	5.81	103.0	2.5	0.40	0.0	0.00	0.09	0.02	51
1	60	15.63	15.62	33.311	24.535	341.0	0.213	5.83	102.7	2.6	0.40	0.0	0.00	0.13	0.05	60
1	70	15.46	15.45	33.324	24.583	336.7	0.247	5.83	102.4	2.2	0.41	0.0	0.00	0.15	0.07	70
	75 ISL	15.33	15.32	33.356	24.636	331.7	0.264	5.82	101.9	2.4	0.42	0.0	0.00	0.19	0.12	75
1	80	15.16	15.15	33.391	24.700	325.7	0.280	5.81	101.4	2.6	0.42	0.0	0.00	0.24	0.18	80
1	95	14.44	14.43	33.431	24.886	308.4	0.328	5.64	97.1	3.2	0.51	1.6	0.07	0.36	0.27	95
	100 ISL	13.94	13.93	33.450	25.005	297.1	0.343	5.51	93.9	3.9	0.59	3.0	0.06	0.31	0.26	100
1	109	13.0 A	13.0	33.480	25.219	276.9	0.369	5.27	88.1	5.5	0.74	5.7	0.05	0.20	0.24	109
1	125	11.88	11.86	33.456	25.416	258.3	0.412	5.06	82.6	8.2	0.92	9.1	0.02	0.14	0.17	126
1	149	10.17	10.15	33.563	25.805	221.5	0.469	4.41	69.4	15.2	1.33	15.8	0.01	0.03	0.05	150
	150 ISL	10.13	10.11	33.567	25.815	220.6	0.471	4.39	69.0	15.4	1.34	16.0	0.01	0.03	0.05	151
1	174	9.58	9.56	33.681	25.995	203.7	0.522	4.01	62.3	19.4	1.53	19.0	0.00	0.01	0.03	175
	200 ISL	9.32	9.30	33.865	26.182	186.5	0.573	3.45	53.4	25.0	1.74	22.0	0.00	0.00	0.02	201
1	203	9.30	9.28	33.886	26.202	184.7	0.579	3.39	52.4	25.6	1.76	22.3	0.00	0.00	0.02	204
1	233	8.95	8.92	34.010	26.355	170.6	0.632	3.03	46.5	30.7	1.94	24.8	0.00			234
	250 ISL	8.53	8.50	34.027	26.434	163.3	0.660	2.95	44.9	34.3	2.01	26.2	0.00			251
1	272	7.95	7.92	34.029	26.523	154.9	0.695	2.85	42.8	39.2	2.11	28.0	0.00			273
	300 ISL	7.51	7.48	34.047	26.601	147.8	0.738	2.51	37.3	45.1	2.28	30.1	0.00			302
1	327	7.23	7.20	34.069	26.658	142.6	0.777	2.10	31.0	50.5	2.45	31.9	0.00			329
1	386	6.78	6.74	34.146	26.781	131.6	0.858	1.27	18.6	61.5	2.77	35.2	0.00			388
	400 ISL	6.63	6.59	34.152	26.806	129.3	0.876	1.15	16.8	64.2	2.83	35.9	0.00			402
1	450	6.12	6.08	34.170	26.887	121.9	0.939	0.84	12.1	73.0	2.99	38.0	0.00			453
	500 ISL	5.89	5.85	34.216	26.953	116.2	0.998	0.60	8.6	78.8	3.10	39.1	0.00			503
1	518	5.81	5.77	34.233	26.976	114.1	1.019	0.51	7.3	80.9	3.14	39.5	0.00			521

A) TEMPERATURE INFERRED FROM PRESSURE THERMOMETER AND WIRE DEPTH.

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 10.8 N	120 55.2 W	15/04/92	1336 UTC	3825 m	320 19 kn	300 06 07	1	1019.2 mb	15.8 C	14.0 C	26m	5/8	SC
											01		

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	15.88	15.88	32.939	24.191	371.9	0.000	5.83	103.0	2.5	0.42	0.0	0.00	0.07	0.04	0
1	2	15.88	15.88	32.939	24.191	371.9	0.007	5.83	103.0	2.5	0.42	0.0	0.00	0.07	0.04	2
	10 ISL	15.82	15.82	32.938	24.204	370.9	0.037	5.84	103.1	2.4	0.42	0.0	0.00	0.07	0.03	10
1	17	15.69	15.69	32.937	24.232	368.4	0.063	5.85	103.0	2.3	0.42	0.0	0.00	0.08	0.02	17
	20 ISL	15.58	15.58	32.936	24.256	366.3	0.074	5.86	102.9	2.3	0.42	0.0	0.00	0.08	0.02	20
	30 ISL	15.24	15.24	32.932	24.328	359.7	0.110	5.91	103.1	2.5	0.42	0.0	0.00	0.08	0.02	30
1	31	15.21	15.21	32.932	24.334	359.1	0.114	5.91	103.0	2.5	0.42	0.0	0.00	0.08	0.02	31
1	41	15.11	15.10	32.928	24.353	357.6	0.150	5.92	103.0	2.5	0.42	0.0	0.00	0.10	0.03	41
	50 ISL	14.90	14.89	32.942	24.410	352.5	0.182	5.94	102.9	2.3	0.43	0.0	0.00	0.14	0.05	50
1	51	14.86	14.85	32.944	24.420	351.5	0.185	5.95	103.0	2.3	0.43	0.0	0.00	0.14	0.05	51
1	61	14.01	14.00	32.984	24.630	331.7	0.219	6.05	102.9	2.6	0.45	0.0	0.00	0.16	0.09	61
1	71	13.26	13.25	32.943	24.751	320.4	0.252	6.06	101.5	2.8	0.50	0.3	0.02	0.31	0.14	71
	75 ISL	12.97	12.96	32.937	24.804	315.4	0.265	6.02	100.2	3.1	0.54	0.9	0.05	0.31	0.14	75
1	81	12.55	12.54	32.936	24.885	307.8	0.283	5.93	97.8	3.6	0.60	2.0	0.10	0.30	0.14	81
1	96	11.64	11.63	32.960	25.075	290.0	0.328	5.69	92.1	5.2	0.78	5.3	0.08	0.31	0.18	96
	100 ISL	11.31	11.30	32.959	25.134	284.4	0.340	5.64	90.6	6.0	0.85	6.5	0.07	0.27	0.17	100
1	110	10.56	10.55	32.984	25.286	270.0	0.367	5.48	86.7	8.3	1.02	9.6	0.03	0.16	0.14	110
	125 ISL	10.09	10.08	33.163	25.505	249.3	0.406	5.08	79.6	11.2	1.21	12.9	0.01	0.07	0.08	126
1	126	10.07	10.06	33.177	25.520	248.0	0.409	5.05	79.1	11.4	1.22	13.1	0.01	0.07	0.08	127
	150 ISL	9.49	9.47	33.395	25.786	223.1	0.465	4.56	70.6	15.9	1.43	17.0	0.01	0.02	0.03	151
1	151	9.47	9.45	33.403	25.796	222.2	0.468	4.54	70.3	16.1	1.44	17.1	0.01	0.02	0.03	152
1	176	9.22	9.20	33.639	26.021	201.2	0.521	3.98	61.3	20.9	1.62	20.3	0.01	0.00	0.03	177
	200 ISL	8.88	8.86	33.798	26.199	184.6	0.567	3.49	53.4	25.8	1.80	23.3	0.00	0.00	0.03	201
1	206	8.79	8.77	33.831	26.240	181.0	0.578	3.37	51.5	27.2	1.85	24.0	0.00	0.00	0.03	207
1	234	8.36	8.34	33.981	26.423	163.9	0.626	2.69	40.8	35.1	2.13	27.8	0.00			235
	250 ISL	8.10	8.07	34.009	26.485	158.2	0.652	2.74	41.3	37.4	2.13	28.1	0.00			251
1	274	7.73	7.70	34.017	26.546	152.7	0.689	2.82	42.1	40.0	2.14	28.5	0.00			275
	300 ISL	7.35	7.32	34.027	26.608	147.0	0.728	2.66	39.4	44.8	2.24	29.9	0.00			302
1	329	6.98	6.95	34.037	26.667	141.6	0.770	2.34	34.4	50.7	2.40	31.9	0.00			331
1	389	6.46	6.42	34.092	26.781	131.4	0.852	1.47	21.3	62.7	2.76	35.8	0.00			391
	400 ISL	6.35	6.31	34.097	26.799	129.7	0.866	1.38	20.0	64.7	2.80	36.4	0.00			402
1	454	5.84	5.80	34.121	26.883	122.0	0.934	1.04	14.9	73.7	2.96	38.6	0.00			457
	500 ISL	5.62	5.58	34.171	26.950	116.1	0.989	0.74	10.5	80.3	3.09	39.9	0.00			503
1	522	5.51	5.47	34.195	26.982	113.2	1.014	0.60	8.5	83.4	3.15	40.5	0.00			525

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 50.9 N	121 35.7 W	15/04/92	2001 UTC	4014 m	310 17 kn	300 4 6	1	1021.9 mb	17.3 C	16.4 C	29m 01	7/8	AC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 uM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.00	16.00	32.941	24.165	374.3	0.000	5.83	103.3	2.9	0.42	0.0	0.00	0.07	0.02	0
1	2	16.00	16.00	32.941	24.165	374.3	0.007	5.83	103.3	2.9	0.42	0.0	0.00	0.07	0.02	2
	10 ISL	15.96	15.96	32.940	24.174	373.8	0.037	5.84	103.3	2.8	0.42	0.0	0.00	0.07	0.02	10
1	16	15.93	15.93	32.940	24.181	373.3	0.060	5.84	103.3	2.7	0.42	0.0	0.00	0.07	0.02	16
	20 ISL	15.80	15.80	32.937	24.208	370.9	0.075	5.86	103.4	2.7	0.42	0.0	0.00	0.07	0.02	20
	30 ISL	15.50	15.50	32.930	24.269	365.3	0.112	5.89	103.3	2.7	0.42	0.0	0.00	0.07	0.02	30
1	32	15.44	15.44	32.929	24.282	364.2	0.119	5.90	103.3	2.7	0.42	0.0	0.00	0.07	0.02	32
1	40	15.40	15.39	32.929	24.291	363.5	0.148	5.91	103.4	2.7	0.42	0.0	0.00	0.09	0.02	40
1	50	15.33	15.32	32.930	24.307	362.3	0.184	5.91	103.3	2.7	0.42	0.0	0.00	0.11	0.03	50
1	60	14.82	14.81	32.916	24.407	353.0	0.220	5.99	103.6	2.7	0.42	0.0	0.00	0.14	0.06	60
1	71	13.82	13.81	32.922	24.621	332.8	0.258	6.09	103.2	2.9	0.45	0.0	0.00	0.21	0.12	71
	75 ISL	13.54	13.53	32.954	24.703	325.1	0.271	6.04	101.8	3.1	0.48	0.3	0.03	0.36	0.25	75
1	79	13.28	13.27	32.986	24.780	317.8	0.284	5.98	100.2	3.3	0.51	0.8	0.06	0.51	0.38	79
1	95	12.14	12.13	32.985	25.001	297.0	0.333	5.76	94.2	4.6	0.69	4.0	0.08	0.35	0.36	95
	100 ISL	11.74	11.73	33.003	25.090	288.7	0.348	5.66	91.8	5.5	0.77	5.5	0.06	0.28	0.30	100
1	108	11.15	11.14	33.040	25.226	275.8	0.370	5.50	88.1	7.0	0.89	7.8	0.02	0.17	0.19	108
1	124	10.38	10.37	33.099	25.406	258.8	0.413	5.26	82.9	9.8	1.09	11.2	0.01	0.09	0.09	125
	125 ISL	10.33	10.32	33.107	25.421	257.4	0.415	5.24	82.5	10.0	1.10	11.4	0.01	0.09	0.09	126
1	149	9.49	9.47	33.335	25.739	227.5	0.474	4.73	73.2	14.7	1.36	16.0	0.01	0.02	0.04	150
	150 ISL	9.47	9.45	33.342	25.748	226.7	0.476	4.71	72.9	14.9	1.37	16.1	0.01	0.02	0.04	151
1	173	9.24	9.22	33.497	25.907	212.0	0.526	4.28	65.9	18.7	1.53	18.9	0.01	0.01	0.02	174
	200 ISL	9.13	9.11	33.777	26.144	190.1	0.581	3.87	59.6	22.9	1.62	20.9	0.01	0.00	0.02	201
1	203	9.12	9.10	33.808	26.170	187.7	0.586	3.83	59.0	23.4	1.63	21.1	0.01	0.00	0.02	204
1	233	8.68	8.66	33.995	26.386	167.6	0.640	3.43	52.3	30.2	1.82	24.0	0.01			234
	250 ISL	8.43	8.40	34.030	26.452	161.6	0.668	3.27	49.6	33.2	1.91	25.2	0.01			251
1	274	8.06	8.03	34.037	26.513	156.0	0.706	3.06	46.1	37.3	2.02	26.8	0.00			275
	300 ISL	7.60	7.57	34.036	26.580	149.9	0.745	2.79	41.6	42.5	2.16	28.8	0.00			302
1	328	7.12	7.09	34.030	26.643	144.0	0.787	2.49	36.7	48.4	2.31	31.0	0.00			330
1	388	6.38	6.35	34.049	26.757	133.5	0.870	1.81	26.2	60.9	2.62	35.0	0.00			390
	400 ISL	6.29	6.25	34.063	26.780	131.4	0.886	1.65	23.8	63.3	2.69	35.7	0.00			402
1	455	5.97	5.93	34.138	26.880	122.4	0.956	0.96	13.8	73.4	2.96	38.6	0.00			458
	500 ISL	5.71	5.67	34.192	26.956	115.7	1.009	0.66	9.4	80.3	3.09	40.1	0.00			503
1	525	5.57	5.53	34.222	26.997	112.0	1.038	0.50	7.1	84.2	3.16	40.9	0.00			528

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 30.8 N	122 15.6 W	16/04/92	0140 UTC	4159 m	300 18 kn	300 04 07	1	1021.2 mb	18.5 C	18.0 C	39m 01	4/8	AC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.44	16.44	33.096	24.184	372.5	0.000	5.76	103.0	3.0	0.43	0.1	0.00	0.05	0.01	0
1	1	16.44	16.44	33.096	24.184	372.5	0.004	5.76	103.0	3.0	0.43	0.1	0.00	0.05	0.01	1
	10 ISL	16.42	16.42	33.095	24.188	372.4	0.037	5.76	103.0	2.9	0.43	0.1	0.00	0.05	0.01	10
1	16	16.41	16.41	33.095	24.191	372.3	0.060	5.77	103.1	2.8	0.43	0.1	0.00	0.05	0.01	16
	20 ISL	16.28	16.28	33.100	24.225	369.3	0.074	5.78	103.0	2.8	0.43	0.1	0.00	0.05	0.01	20
	30 ISL	15.99	15.99	33.121	24.307	361.7	0.111	5.80	102.8	2.7	0.42	0.0	0.00	0.06	0.02	30
1	31	15.96	15.96	33.124	24.316	360.9	0.115	5.80	102.7	2.7	0.42	0.0	0.00	0.06	0.02	31
1	41	16.02	16.01	33.156	24.327	360.1	0.151	5.81	103.1	2.7	0.42	0.0	0.00	0.06	0.02	41
1	50	16.04	16.03	33.201	24.358	357.5	0.183	5.79	102.8	2.7	0.42	0.0	0.00	0.07	0.02	50
1	59	16.12	16.11	33.274	24.396	354.2	0.215	5.78	102.8	2.5	0.41	0.0	0.00	0.07	0.02	59
1	70	16.51	16.50	33.505	24.485	346.1	0.253	5.74	103.0	2.4	0.39	0.0	0.00	0.09	0.03	70
	75 ISL	16.49	16.48	33.589	24.554	339.7	0.271	5.72	102.7	2.3	0.38	0.0	0.00	0.10	0.03	75
1	79	16.48	16.47	33.661	24.612	334.3	0.284	5.71	102.5	2.3	0.38	0.0	0.00	0.10	0.03	79
1	94	16.80	16.78	33.979	24.782	318.7	0.333	5.61	101.5	2.2	0.34	0.0	0.00	0.25	0.16	94
	100 ISL	16.44	16.42	33.919	24.820	315.2	0.352	5.61	100.8	2.4	0.37	0.3	0.02	0.32	0.23	100
1	109	15.41	15.39	33.701	24.885	309.1	0.380	5.62	98.8	2.9	0.45	1.1	0.04	0.40	0.31	109
1	124	12.46	12.44	33.210	25.115	287.0	0.425	5.62	92.7	4.6	0.71	4.2	0.05	0.31	0.27	125
	125 ISL	12.33	12.31	33.196	25.129	285.6	0.428	5.61	92.3	4.8	0.73	4.5	0.05	0.30	0.26	126
1	149	10.20	10.18	33.147	25.475	252.8	0.492	5.24	82.3	9.7	1.14	11.5	0.01	0.08	0.07	150
	150 ISL	10.13	10.11	33.151	25.490	251.4	0.495	5.22	81.9	10.0	1.16	11.8	0.01	0.08	0.07	151
1	173	9.05	9.03	33.336	25.811	221.0	0.549	4.73	72.5	15.8	1.46	16.9	0.00	0.01	0.03	174
	200 ISL	9.06	9.04	33.721	26.111	193.1	0.605	3.98	61.2	21.7	1.65	20.5	0.00	0.00	0.02	201
1	203	9.06	9.04	33.756	26.138	190.6	0.611	3.90	59.9	22.3	1.67	20.8	0.00	0.00	0.02	204
1	231	8.82	8.80	33.916	26.302	175.6	0.662	3.40	52.0	27.7	1.87	23.6	0.00			232
	250 ISL	8.46	8.43	33.984	26.411	165.4	0.695	3.10	47.1	32.4	2.01	25.6	0.00			251
1	271	8.02	7.99	34.030	26.513	155.9	0.728	2.84	42.7	37.6	2.15	27.5	0.00			272
	300 ISL	7.59	7.56	34.044	26.587	149.1	0.772	2.67	39.8	42.6	2.26	29.0	0.00			302
1	326	7.27	7.24	34.038	26.628	145.5	0.811	2.54	37.5	46.7	2.34	30.2	0.00			328
1	386	6.60	6.56	34.067	26.743	135.0	0.895	1.78	25.9	58.3	2.66	34.5	0.00			388
	400 ISL	6.47	6.43	34.075	26.766	132.9	0.914	1.64	23.8	60.9	2.72	35.2	0.00			402
1	452	6.04	6.00	34.108	26.848	125.5	0.981	1.22	17.5	69.8	2.91	37.4	0.00			455
	500 ISL	5:75	5.71	34.141	26.910	120.0	1.040	0.93	13.3	76.1	3.03	38.9	0.00			503
1	521	5.63	5.59	34.156	26.937	117.6	1.065	0.80	11.4	78.9	3.08	39.6	0.00			524

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 110

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
30 10.9 N	122 55.4 W	16/04/92	0701 UTC	3682 n	310 36 kn			1022.8 mb	16.8 C	15.7 C		

CAST	DEPTH B	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT	OXYGEN ml/1	OXY PCT	SIO3 uM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.52	16.52	33.251	24.285	362.9	0.000	5.73	102.7	2.8	0.41	0.0	0.00	0.05	0.02	0
1	1	16.52	16.52	33.251	24.285	362.9	0.004	5.73	102.7	2.8	0.41	0.0	0.00	0.05	0.02	1
	10 ISL	16.53	16.53	33.254	24.285	363.2	0.036	5.73	102.7	2.7	0.41	0.0	0.00	0.05	0.02	10
1	15	16.54	16.54	33.255	24.284	363.5	0.054	5.73	102.8	2.7	0.41	0.0	0.00	0.05	0.02	15
	20 ISL	16.48	16.48	33.280	24.317	360.5	0.073	5.74	102.8	2.7	0.41	0.0	0.00	0.05	0.02	20
	30 ISL	16.37	16.37	33.338	24.387	354.1	0.108	5.75	102.8	2.6	0.40	0.0	0.00	0.06	0.02	30
1	35	16.32	16.31	33.372	24.425	350.7	0.126	5.75	102.7	2.6	0.39	0.0	0.00	0.07	0.02	35
	50 ISL	16.40	16.39	33.438	24.458	348.0	0.178	5.74	102.8	2.5	0.38	0.0	0.00	0.07	0.03	50
1	56	16.43	16.42	33.459	24.467	347.3	0.199	5.73	102.7	2.4	0.38	0.0	0.00	0.07	0.03	56
1	71	16.62	16.61	33.595	24.528	342.0	0.251	5.72	102.9	2.3	0.37	0.0	0.00	0.09	0.03	71
	75 ISL	16.73	16.72	33.713	24.594	336.0	0.264	5.69	102.7	2.3	0.35	0.0	0.00	0.09	0.03	75
1	79	16.83	16.82	33.826	24.657	330.0	0.278	5.66	102.4	2.3	0.34	0.0	0.00	0.10	0.04	79
1	88	16.87	16.86	33.902	24.707	325.7	0.307	5.61	101.6	2.3	0.34	0.0	0.00	0.12	0.05	88
1	100	16.65	16.63	33.924	24.775	319.5	0.346	5.57	100.5	2.3	0.35	0.0	0.00	0.18	0.20	100
1	109	16.08	16.06	33.890	24.880	309.7	0.374	5.52	98.5	2.5	0.38	0.2	0.04	0.24	0.16	109
1	124	14.46	14.44	33.672	25.069	291.9	0.419	5.46	94.1	3.5	0.53	1.9	0.09	0.26	0.17	125
	125 ISL	14.41	14.39	33.673	25.080	290.8	0.422	5.45	93.9	3.6	0.54	2.0	0.09	0.26	0.17	126
1	138	13.61	13.59	33.655	25.233	276.5	0.459	5.28	89.5	5.0	0.67	4.2	0.06	0.19	0.17	139
	150 ISL	11.50	11.48	33.353	25.407	259.7	0.491	5.25	84.9	8.0	0.95	8.3	0.03	0.11	0.11	151
1	158	10.11	10.09	33.188	25.522	248.5	0.512	5.22	81.8	10.2	1.15	11.2	0.01	0.06	0.06	159
1	178	9.40	9.38	33.340	25.758	226.2	0.559	4.80	74.1	14.5	1.38	15.2	0.00	0.02	0.04	179
	200 ISL	9.28	9.26	33.656	26.025	201.4	0.606	4.16	64.2	19.4	1.56	18.5	0.00	0.00	0.03	201
1	202	9.27	9.25	33.682	26.047	199.3	0.610	4.10	63.3	19.9	1.57	18.8	0.00	0.00	0.03	203
1	232	8.81	8.79	33.896	26.288	176.9	0.667	3.62	55.4	26.9	1.78	22.5	0.00			233
	250 ISL	8.49	8.46	33.960	26.388	167.6	0.698	3.41	51.8	30.8	1.88	24.3	0.00			251
1	271	8.12	8.09	34.000	26.475	159.6	0.732	3.20	48.2	35.1	1.99	26.1	0.00			272
	300 ISL	7.74	7.71	34.027	26.552	152.5	0.777	2.90	43.3	40.2	2.14	28.2	0.00			302
1	324	7.46	7.43	34.035	26.599	148.3	0.813	2.64	39.2	44.5	2.27	29.8	0.00			326
1	383	6.70	6.66	34.067	26.729	136.4	0.897	1.86	27.1	57.6	2.61	34.4	0.00			385
	400 ISL	6.52	6.48	34.077	26.761	133.4	0.920	1.66	24.1	61.0	2.69	35.6	0.00			402
1	446	6.11	6.07	34.111	26.841	126.1	0.980	1.19	17.1	69.4	2.89	38.2	0.01			449
	500 ISL	5.76	5.72	34.173	26.935	117.7	1.046	0.79	11.3	78.1	3.07	40.2	0.00			503
1	514	5.67	5.63	34.189	26.958	115.5	1.062	0.68	9.7	80.4	3.12	40.7	0.00			517

RV DAVID STARR JORDAN CALCOFI CRUISE 9204 STATION 93 120

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
29 50.8 N	123 35.3 W	16/04/92	1221 UTC	4046 m	310 15 kn			1021.8 mb	17.0 C	16.8 C		

CAST	DEPTH D	TEMP DEG C	POT TEMP DEG C	SALINITY PSS 78	SIGMA THETA	SVA	DYN HT ml/1	OXYGEN	OXY PCT	SIO3 UM/1	PO4 UM/1	NO3 UM/1	NO2 UM/1	CHL-A ug/1	PHAEO ug/1	PRESS db
	0 ISL	16.36	16.36	33.017	24.142	376.5	0.000	5.78	103.2	3.1	0.44	0.0	0.0fr	0.06	0.01	0
1	1	16.36	16.36	33.017	24.142	376.5	0.004	5.78	103.1	3.1	0.44	0.0	0.00	0.06	0.01	1
	10 ISL	16.40	16.40	33.039	24.150	376.1	0.038	5.77	103.1	2.9	0.44	0.0	0.00	0.07	0.01	10
1	15	16.43	16.43	33.055	24.156	375.7	0.056	5.76	103.0	2.8	0.44	0.0	0.00	0.07	0.01	15
	20 ISL	16.47	16.47	33.125	24.200	371.6	0.075	5.75	102.9	2.7	0.43	0.0	0.00	0.07	0.01	20
	30 ISL	16.55	16.55	33.267	24.291	363.2	0.112	5.74	103.0	2.6	0.41	0.0	0.00	0.08	0.02	30
1	35	16.58	16.57	33.339	24.340	358.8	0.130	5.73	102.9	2.6	0.40	0.0	0.00	0.08	0.02	35
	50 ISL	16.54	16.53	33.365	24.370	356.4	0.184	5.74	103.0	2.6	0.40	0.0	0.00	0.09	0.02	50
1	55	16.53	16.52	33.379	24.383	355.3	0.201	5.75	103.2	2.6	0.40	0.0	0.00	0.10	0.02	55
1	70	16.42	16.41	33.567	24.553	339.6	0.253	5.77	103.4	2.6	0.38	0.0	0.00	0.14	0.05	70
	75 ISL	16.27	16.26	33.607	24.618	333.6	0.270	5.77	103.1	2.6	0.39	0.0	0.00	0.21	0.09	75
1	79	15.96	15.95	33.583	24.671	328.6	0.284	5.77	102.5	2.6	0.40	0.0	0.01	0.27	0.14	79
1	89	13.77	13.76	33.132	24.794	316.8	0.316	5.87	99.5	2.9	0.53	0.6	0.05	0.39	0.28	89
1	98	14.11	14.10	33.374	24.911	306.0	0.344	5.65	96.6	3.4	0.56	1.8	0.06	0.29	0.25	98
	100 ISL	13.93	13.92	33.369	24.945	302.9	0.350	5.62	95.7	3.6	0.58	2.2	0.06	0.28	0.25	100
1	107	13.08	13.07	33.294	25.059	292.0	0.371	5.53	92.5	4.4	0.68	3.8	0.05	0.25	0.23	107
1	122	11.65	11.63	33.192	25.253	273.6	0.413	5.37	87.1	6.7	0.91	7.4	0.02	0.13	0.14	122
	125 ISL	11.67	11.65	33.245	25.291	270.1	0.421	5.31	86.1	6.9	0.92	7.7	0.02	0.12	0.13	126
1	137	11.85	11.83	33.484	25.444	256.0	0.453	5.05	82.4	7.8	0.95	8.8	0.02	0.08	0.11	138
	150 ISL	11.02	11.00	33.494	25.603	240.9	0.485	4.85	77.7	10.3	1.11	11.5	0.01	0.05	0.07	151
1	158	10.39	10.37	33.473	25.697	232.0	0.504	4.73	74.7	12.1	1.22	13.4	0.01	0.03	0.05	159
1	177	9.77	9.75	33.591	25.894	213.5	0.546	4.37	68.2	16.0	1.40	16.6	0.01	0.01	0.03	178
	200 ISL	9.18	9.16	33.779	26.137	190.7	0.593	3.75	57.8	23.0	1.69	21.1	0.00	0.00	0.02	201
1	202	9.14	9.12	33.795	26.156	188.9	0.597	3.70	57.0	23.6	1.71	21.5	0.00	0.00	0.02	203
1	230	8.71	8.69	33.930	26.330	172.9	0.647	3.40	51.9	28.6	1.86	23.8	0.00			231
	250 ISL	8.40	8.37	33.977	26.415	165.1	0.681	3.23	49.0	32.0	1.95	25.3	0.00			251
1	270	8.10	8.07	34.001	26.479	159.2	0.714	3.07	46.2	35.3	2.03	26.6	0.00			271
	300 ISL	7.77	7.74	34.024	26.546	153.2	0.760	2.84	42.5	39.7	2.15	28.2	0.00			302
1	324	7.52	7.49	34.033	26.589	149.3	0.797	2.63	39.1	43.6	2.25	29.5	0.00			326
1	382	6.71	6.67	34.061	26.723	136.9	0.880	1.89	27.6	56.7	2.58	33.9	0.00			384
	400 ISL	6.54	6.50	34.072	26.755	134.1	0.904	1.69	24.6	60.1	2.67	35.0	0.00			402
1	446	6.18	6.14	34.108	26.830	127.3	0.964	1.22	17.6	68.2	2.86	37.3	0.00			449
	500 ISL	5.84	5.80	34.171	26.923	118.9	1.031	0.76	10.9	77.0	3.06	39.4	0.00			503
1	514	5.75	5.71	34.188	26.948	116.6	1.047	0.64	9.1	79.3	3.11	39.9	0.00			517

PRIMARY PRODUCTIVITY CASTS

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 77 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 5.0 N	122 56.6 W	26/ 4/92	1825 UTC	32 m	02	1207 - 1913 PST	1210 PST	1913 PST	457.1 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	15.87	33.161	24.364	6.05	107.0	3.7	0.44	0.3	0.00	0.15	0.03	95. A	1.9	2.2	2.1	0.11
22	15.33	33.159	24.483	6.10	106.7	3.5	0.43	0.2	0.00	0.12	0.04	35.	3.5	3.5	3.5	0.13
39	15.08	33.142	24.525	6.15	107.1	3.3	0.42	0.3	0.00	0.18	0.05	15.	5.9	4.2	5.1	0.14
65	13.86	33.222	24.845	6.20	105.3	3.7	0.48	0.7	0.03	1.00	0.52	4.4	8.4	7.7	8.1	0.15
78	11.85	33.153	25.185	5.62	91.5	7.1	0.95	8.3	0.11	0.55	0.44	2.4	2.8	2.7	2.7	0.09
138	9.57	33.588	25.924	4.02	62.4	20.4	1.64	20.7	0.01	0.01	0.05	0.13	0.02	0.01	0.01	0.04

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 80 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 27.1 N	120 31.4 W	27/ 4/92	1954 UTC	8 m	05	1206 - 1909 PST	1156 PST	1910 PST	718.8 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 UM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	12.75	33.461	25.251	5.04	83.8	11.7	0.97	8.5	0.18	3.06	0.92	83. A	44.3	43.6	43.9	0.38
8	12.57	33.461	25.286	4.94	81.8	11.6	0.99	8.9	0.18	3.09	1.01	22.	61.6	57.7	59.6	0.37
11	12.31	33.468	25.341	4.64	76.4	12.4	1.09	10.4	0.18	2.02	0.69	12.	39.4	37.7	38.5	0.23
17	11.94	33.481	25.422	4.34	70.9	13.1	1.18	11.9	0.16	1.61	0.64	3.8	6.0	7.6	6.8	0.23
21	11.64	33.501	25.493	4.06	66.0	14.4	1.30	13.7	0.12	0.62	0.44	1.8	1.7	1.5	1.6	0.14
36	11.32	33.530	25.575	3.96	63.9	15.6	1.38	15.2	0.08	0.41	0.38	0.10	0.12	0.09	0.10	0.09

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 80 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 18.9 N	120 48.5 W	24/ 4/92	1937 UTC	13 m	04	1157 - 1910 PST	1201 PST	1912 PST	1182.4 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	13.43	33.257	24.958	5.94	100.1	5.2	0.69	3.9	0.14	0.87	1.42	89. A	31.6	32.1	31.8	0.26
9	13.27	33.254	24.988	6.11	102.6	4.5	0.64	3.1	0.13	2.54	0.84	35.	54.4	51.7	53.0	0.33
15	13.23	33.258	24.999	6.08	102.0	4.6	0.67	3.3	0.13	2.35	0.73	17.	45.7	46.3	46.0	0.31
26	12.87	33.269	25.079	5.87	97.7	5.5	0.72	4.5	0.14	2.21	0.72	4.6	15.7	13.6	14.7	0.19
32	12.81	33.274	25.095	5.85	97.3	5.6	0.74	4.8	0.14	2.44	0.79	2.3	10.0	8.1	9.0	0.21
56	12.08	33.313	25.266	4.95	81.1	9.5	1.04	9.9	0.19	0.40	0.35	0.13	0.13	0.11	0.12	0.07

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 80 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 10.1 N	123 14.6 W	25/ 4/92	1805 UTC	33 m	01	1208 - 1921 PST	1211 PST	1922 PST	408.0 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	15.59	32.979	24.286	5.88	103.3	3.3	0.42	0.3	0.00	0.10	0.03	95. A	1.6	1.7	1.6	0.09
23	15.31	32.969	24.341	5.90	103.1	3.1	0.41	0.3	0.00	0.10	0.03	34.	3.5	3.3	3.4	0.11
38	15.28	32.974	24.352	5.92	103.4	3.1	0.40	0.2	0.00	0.13	0.03	17.	5.2	3.3	4.2	0.11
66	12.65	33.215	25.081	5.78	95.7	5.7	0.68	4.3	0.08	0.95	0.49	4.6	6.3	7.3	6.8	0.13
82	10.82	33.291	25.479	4.69	74.7	12.2	1.24	14.0	0.05	0.48	0.38	2.2	2.3	2.2	2.3	0.10
141	8.81	33.585	26.042	4.02	61.4	23.2	1.68	21.8	0.01	0.01	0.04	0.14	-0.01	-0.02	-0.01	0.05

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 83 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 13.4 N	119 24.7 W	23/ 4/92	1941 UTC	9m	05	1155 - 1904 PST	1156 PST	1904 PST	707.9 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/1	OXY PCT	SIO3 uM/1	PO4 uM/1	NO3 uM/1	NO2 uM/1	CHL ug/1	PHAEO ug/1	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	14.84	33.398	24.772	6.23	108.1	3.7	0.44	0.8	0.05	2.03	0.69	84. A	46.9	48.2	47.5	0.67
6	14.10	33.400	24.931	6.01	102.7	5.2	0.57	2.1	0.09	2.11	0.82	36.	62.0	62.5	62.2	0.45
11	13.44	33.410	25.074	5.32	89.7	7.5	0.80	5.6	0.20	1.21	0.68	15.	27.2	29.5	28.3	0.31
19	12.91	33.453	25.214	4.83	80.6	9.8	0.98	8.7	0.19	0.74	0.59	3.9	5.5	5.8	5.7	0.18
23	12.38	33.488	25.344	4.50	74.3	11.8	1.12	11.1	0.16	0.54	0.41	2.0	2.4	1.7	2.0	0.15
31	12.35	33.494	25.354	4.34	71.6	12.8	1.24	11.8	0.15	0.57	0.43	0.51	0.15	0.12	0.13	0.12

A) INCUBATION LIGHT INTENSITIES WERE 93, 34, 16, 4.4, 2.2 AND 0.14 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 83 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 34.7 N	122 48.7 W	28/ 4/92	1923 UTC	20 m	01	1208 - 1919 PST	1208 PST	1919 PST	248.6 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/l	OXY PCT	SIO3 UM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
0	16.38	33.192	24.272	5.80	103.7	5.7	0.43	0.2	0.00	0.17	0.03	100. A	4.4	5.4	4.9	0.14
13	16.23	33.194	24.308	5.82	103.7	5.5	0.42	0.1	0.01	0.17	0.03	37.	6.9	8.7	7.8	0.17
23	15.78	33.195	24.411	5.87	103.7	5.6	0.42	0.1	0.01	0.14	0.03	17.	4.2	9.0	6.6	0.18
41	15.59	33.202	24.459	5.88	103.4	5.6	0.42	0.1	0.01	0.24	0.06	4.3	1.2	1.1	1.1	0.25
48	15.58	33.203	24.462	5.88	103.4	5.6	0.42	0.1	0.01	0.31	0.10	2.5	0.81	0.73	0.77	0.25
86	12.91	33.230	25.042	5.41	90.1	8.2	0.81	5.3	0.31	0.45	0.44	0.14	0.20	0.19	0.19	0.08

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 87 56

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 7.9 N	120 2.6 W	22/ 4/92	1924 UTC	11 m	04	1158 - 1857 PST	1158 PST	1900 PST	930.1 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.42	33.346	24.822	5.90	101.5	3.9	0.54	1.7	0.08	1.95	0.66	76. A	16.4	14.8	15.6	0.20
10	14.40	33.344	24.825	5.90	101.4	3.8	0.54	1.7	0.08	1.95	0.77	25.	44.2	44.3	44.2	0.21
15	14.41	33.344	24.823	5.90	101.5	3.7	0.54	1.6	0.09	1.92	0.71	12.	42.6	43.9	43.2	0.25
24	14.36	33.345	24.835	5.89	101.2	3.7	0.54	1.7	0.08	1.94	0.68	3.5	16.9	18.3	17.6	0.18
30	14.36	33.346	24.836	5.88	101.0	3.6	0.55	1.7	0.09	1.90	0.70	1.5	8.6	9.0	8.8	0.17
49	14.22	33.355	24.872	5.83	99.9	4.3	0.59	2.4	0.10	1.81	0.76	0.11	0.52	0.49	0.50	0.16

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 87 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 59.7 N	122 24.8 W	21/ 4/92	1844 UTC	20 m	02	1200 - 1904 PST	1159 PST	1906 PST	132.0 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/l	OXY PCT	SIO3 uM/l	PO4 UM/l	NO3 UM/l	NO2 UM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	15.91	33.211	24.393	5.80	102.7	2.7	0.41	0.3	0.00	0.13	0.03	93. A	1.4	1.5	1.5	0.14
14	15.90	33.212	24.396	5.83	103.2	2.7	0.41	0.3	0.00	0.13	0.03	34.	3.4	3.4	3.4	0.12
25	15.88	33.212	24.401	5.83	103.2	2.6	0.41	0.3	0.00	0.14	0.03	15.	3.2	3.1	3.2	0.10
40	15.82	33.209	24.413	5.83	103.0	2.6	0.41	0.3	0.00	0.14	0.03	4.6	1.2	1.1	1.2	0.12
48	15.67	33.202	24.441	5.86	103.3	2.6	0.41	0.2	0.00	0.19	0.05	2.5	0.79	0.78	0.78	0.15
85	12.56	33.191	25.080	5.49	90.7	5.6	0.80	5.5	0.14	0.54	0.50	0.15	0.37	0.38	0.38	0.06

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 90 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 15.1 N	118 15.1 W	18/ 4/92	1935 UTC	12 m	04	1154 - 1854 PST	1152 PST	1854 PST	1258.0 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 rol/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	19.06	33.273	23.688	6.23	117.3	1.9	0.24	0.1	0.00	1.03	0.22	88. A	28.4	28.9	28.6	0.34
9	18.25	33.310	23.918	6.41	118.9	1.5	0.25	0.1	0.00	2.29	0.41	32.	56.8	55.2	56.0	0.63
15	17.69	33.335	24.074	6.50	119.3	1.5	0.28	0.1	0.00	3.28	0.58	15.	68.5	68.2	68.3	0.68
25	16.48	33.394	24.405	6.18	110.8	1.5	0.38	0.1	0.00	2.61	0.65	4.1	12.6	13.8	13.2	0.37
31		33.365		5.34		3.5	0.46	0.3	0.07	1.62	0.39	1.9	5.5	4.7	5.1	0.34
52		33.425		4.90		6.9	0.88	6.8	0.15	0.29	0.35	0.13	0.21	0.19	0.20	0.05

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 90 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 25.2 N	119 57.9 W	19/ 4/92	1821 UTC	33 m	01	1158 - 1902 PST	1159 PST	1902 PST	238.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/l	OXY PCT	SIO3 UM/l	PO4 UM/l	NO3 UM/l	NO2 UM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
0	15.82	33.061	24.298	5.83	103.0	2.6	0.41	0.1	0.00	0.08	0.02	100. A	1.3	2.3	1.8	0.11
22	15.73	33.061	24.319	5.83	102.8	2.6	0.41	0.0	0.00	0.10	0.02	36.	2.3	2.4	2.4	0.11
38	15.73	33.058	24.317	5.83	102.8	2.5	0.41	0.0	0.01	0.09	0.02	17.	2.0	2.0	2.0	0.10
65	13.74	32.968	24.673	6.20	104.9	3.0	0.44	0.0	0.01	0.19	0.08	4.9	1.3	1.2	1.2	0.10
82	12.86	33.023	24.892	6.14	102.0	3.3	0.53	0.8	0.05	0.59	0.35	2.2	2.7	2.7	2.7	0.10
141	9.69	33.451	25.797	4.24	66.0	17.6	1.53	18.4	0.01	0.05	0.08	0.14	0.04	0.02	0.03	0.04

A) INCUBATION LIGHT INTENSITIES WERE 93, 34, 16, 4.4, 2.2 AND 0.14 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 90 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 5.1 N	122 39.7 W	20/ 4/92	1822 UTC	38 m	01	1207 - 1910 PST	1210 PST	1911 PST	198.4 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	16.31	33.116	24.229	5.77	102.9	2.2	0.40	0.0	0.00	0.06	0.01	96. A	0.99	1.0	1.0	0.07
25	16.18	33.120	24.263	5.77	102.7	2.2	0.40	0.0	0.00	0.07	0.02	36.	1.9	2.0	1.9	0.07
43	16.19	33.172	24.301	5.77	102.7	2.2	0.39	0.0	0.00	0.08	0.02	18.	1.8	1.8	1.8	0.08
74	14.69	33.170	24.631	5.92	102.3	2.6	0.41	0.1	0.00	0.17	0.09	5.0	0.95	1.1	1.0	0.09
90	14.95	33.542	24.863	5.71	99.4	2.7	0.41	0.6	0.03	0.35	0.25	2.6	1.9	1.7	1.8	0.06
159	11.15	33.538	25.614	4.91	78.9	10.0	1.00	11.2	0.01	0.06	0.09	0.16	0.05	0.03	0.04	0.02

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 90 120

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
30 25.7 N	124 1.6 W	16/ 4/92	1918 UTC	36 m	01	1214 - 1902 PST	1216 PST	1904 PST	138.2 Jig C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/l	OXY PCT	SIO3 uM/l	PO4 UM/l	NO3 uM/l	NO2 UM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	16.47	33.189	24.249	5.74	102.8	3.1	0.42	0.0	0.00	0.06	0.01	92. A	1.1	1.0	1.1	0.09
25	16.32	33.201	24.293	5.76	102.8	3.0	0.42	0.0	0.00	0.06	0.02	34.	1.6	1.6	1.6	0.09
43	15.92	33.185	24.372	5.80	102.7	2.8	0.42	0.0	0.00	0.08	0.02	16.	1.3	1.3	1.3	0.11
74	15.46	33.400	24.641	5.83	102.4	2.8	0.42	0.0	0.00	0.15	0.07	4.3	0.83	0.78	0.80	0.07
89	14.91	33.425	24.781	5.84	101.5	2.8	0.44	0.0	0.00	0.29	0.19	2.2	1.0	1.1	1.0	0.07
154	9.89	33.580	25.865	3.88	60.7	18.9	1.64	19.7	0.01	0.03	0.05	0.14	0.01	0.01	0.01	0.03

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 93 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 57.3 N	117 18.5 W	13/ 4/92	1906 UTC	9m	04	1152 - 1846 PST	1150 PST	1846 PST	1691.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/l	OXY PCT	SIO3 UM/l	PO4 UM/l	NO3 UM/l	NO2 UM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
0	18.44	33.203	23.789	6.28	116.8	3.1	0.33	0.0	0.01	0.61	0.17	100. A	17.1	18.9	18.0	0.37
6	17.57	33.281	24.061	6.70	122.6	2.9	0.33	0.0	0.01	4.75	0.55	36.	205.4	228.6	217.0	0.84
12	16.00	33.363	24.490	5.80	103.0	2.8	0.32	0.0	0.01	1.74	0.65	13.	36.3	36.1	36.2	0.38
19	15.20	33.384	24.684	5.39	94.2	2.7	0.36	0.1	0.01	1.49	0.55	3.9	9.4	8.9	9.1	0.24
23	14.76	33.406	24.797	5.22	90.4	4.8	0.82	2.7	0.29	1.41	0.51	2.0	4.6	4.9	4.7	0.34
40	12.61	33.511	25.318	4.31	71.5	10.7	1.17	11.3	0.06	0.18	0.23	0.11	0.08	0.06	0.07	0.07

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 10.7 N	118 54.0 W	14/ 4/92	1858 UTC	20 m	01	1158 - 1854 PST	1200 PST	1851 PST	170.1 mg C/m2

DEPTH m	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/l	OXY PCT	SIO3 uM/l	PO4 UM/l	NO3 uM/l	NO2 uM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	16.56	33.305	24.317	5.76	103.4	2.6	0.34	0.0	0.01	0.18	0.13	93. A	2.5	2.2	2.3	0.20
14	16.55	33.305	24.320	5.77	103.5	2.4	0.34	0.0	0.00	0.23	0.08	34.	3.7	3.6	3.7	0.13
25	16.51	33.303	24.328	5.77	103.4	2.5	0.34	0.0	0.00	0.25	0.05	15.	3.3	3.5	3.4	0.11
40	15.80	33.263	24.459	5.98	105.7	2.0	0.36	0.0	0.00	0.69	0.23	4.6	3.1	2.9	3.0	0.16
48	15.23	33.225	24.556	5.93	103.6	2.3	0.37	0.0	0.00	0.44	0.21	2.5	1.2	1.3	1.2	0.11
85	13.25	33.450	25.145	5.21	87.5	5.5	0.70	5.7	0.08	0.25	0.27	0.15	0.16	0.15	0.15	0.03

RV DAVID STARR JORDAN — CALCOFI CRUISE 9204 — STATION 93 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
30 50.9 N	121 35.5 W	15/ 4/92	1920 UTC	29 m	01	1159 - 1905 PST	1204 PST	1905 PST	99.3 mg C/m2

DEPTH U	TEMP DEG C	SALINITY PSS 78	SIGMA THETA	DISS O2 ml/l	OXY PCT	SIO3 UM/l	PO4 UM/l	NO3 uM/l	NO2 UM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	15.99	32.940	24.167	5.83	103.2	2.7	0.42	0.0	0.00	0.07	0.02	95. A	2.0	2.1	2.0	0.06
19	15.84	32.940	24.201	5.85	103.3	2.6	0.42	0.0	0.00	0.07	0.02	37.	2.0	2.0	2.0	0.09
34	15.46	32.934	24.281	5.89	103.2	2.5	0.42	0.0	0.00	0.08	0.02	17.	1.2	1.4	1.3	0.11
59	15.27	32.927	24.318	5.89	102.8	2.4	0.42	0.0	0.00	0.13	0.04	4.4	0.46	0.45	0.45	0.10
71	14.06	32.925	24.574	6.06	103.2	2.6	0.45	0.0	0.00	0.18	0.09	2.3	0.35	0.35	0.35	0.10
123	10.75	33.087	25.333	5.33	84.7	9.0	1.05	10.2	0.02	0.10	0.11	0.15	0.03	0.02	0.03	0.04

A) INCUBATION LIGHT INTENSITIES WERE 93, 34, 16, 4.4, 2.2 AND 0.14 PERCENT RESPECTIVELY.

MACROZOOPLANKTON BIOMASS
Net Mesh Size: 0.505 mm

Line	Sta.	Position		Date Mo/Day	Time (PST) Start	End	Water Volume Strained (m)	Max. Tow Depth (m)	Volume per 1000 m Total (cm)	Strained Small (cm)
77	49	35 05.4N	120 47.0W	4/27	0736	0742	104	48	125	125
77	51	35 01.3N	120 55.7W	4/27	0515	0537	434	206	154	154
77	55	34 52.9N	121 11.8W	4/27	0159	0221	415	219	70	'70
77	60	34 43.4N	121 04.0W	4/26	2148	2210	436	211	55	55
77	70	34 23.0N	122 05.4W	4/26	1546	1608	422	218	38	38
77	80	34 03.9N	122 56.5W	4/26	0833	0855	415	221	48	48
77	90	33 43.7N	123 38.7W	4/26	0221	0243	420	219	40	40
77	100	33 23.5N	124 20.4W	4/25	2055	2117	427	209	45	45
80	51	34 26.7N	120 32.3W	4/27	1253	1301	164	64	49	49
80	55	34 18.7N	120 48.5W	4/24	1145	1206	418	209	33	33
80	60	34 09.3N	121 09.3W	4/24	1535	1557	398	221	55	55
80	70	33 49.3N	121 50.5W	4/24	2138	2200	426	204	66	66
80	80	33 29.0N	122 32.8W	4/25	0331	0353	411	216	49	49
80	90	33 09.4N	123 13.9W	4/25	0903	0925	422	218	43	43
80	100	32 49.3N	123 55.8W	4/25	1535	1557	438	211	43	43
82	47	34 16.9N	120 02.2W	4/23	1903	1925	435	213	51	51
83	40.6	34 13.2N	119 25.1 W	4/23	1228	1232	64	28	109	109
83	42	34 10.5N	119 31.1W	4/23	1405	1422	322	170	59	59
83	51	33 53.1N	120 08.6W	4/23	2338	2346	155	83	123	123
83	55	33 44.9N	120 25.2W	4/24	0300	0322	432	214	74	74
83	60	33 33.6N	120 46.8W	4/27	1923	1945	465	201	69	69
83	70	33 14.6N	121 26.8W	4/28	0059	0121	424	212	59	59
83	80	32 54.4N	122 08.5W	4/28	0642	0704	445	208	27	27
83	90	32 34.4N	122 49.4W	4/28	1230	1252	404	215	32	32
83	100	32 15.0N	123 30.7W	4/28	1745	1807	427	213	30	30
83	110	31 55.4N	124 10.2W	4/28	2255	2317	431	214	70	70
87	33	33 53.7N	118 30.0W	4/23	0610	0615	96	43	73	73
87	35	33 50.3N	118 37.8W	4/23	0344	0406	436	209	55	55
87	39.4	33 40.3N	118 57.2W	4/22	2340	0002	427	212	42	42
87	45	33 29.3N	119 19.4W	4/22	1830	1852	430	215	35	35
87	50	33 19.1N	119 40.3W	4/22	1500	1507	156	69	64	64
87	55	33 08.6N	120 01.5W	4/22	1014	1038	500	205	36	36
87	60	32 59.6N	120 21.2W	4/22	0532	0555	490	215	41	41
87	70	32 39.7N	121 02.8W	4/21	2303	2325	480	201	37	37
87	80	32 19.6N	121 43.0W	4/21	1647	1709	443	216	18	18
87	90	31 59.6N	122 24.3W	4/21	1000	1022	460	213	22	22
87	100	31 39.6N	123 04.9W	4/21	0344	0406	466	208	26	26
87	110	31 19.9N	123 44.3W	4/20	2200	2222	420	220	26	26
90	28	33 28.7N	117 47.0W	4/18	0559	0621	433	213	30	30
90	30	33 25.5N	117 53.4W	4/18	0854	0916	414	212	29	29
90	35	33 15.5N	118 15.6W	4/18	1312	1334	443	213	29	29
90	37	33 10.6N	118 23.8W	4/18	1558	1620	450	214	18	18
90	45	32 55.3N	118 55.5W	4/18	2122	2144	440	210	73	73
90	53	32 38.9N	119 29.6W	4/19	0253	0315	444	212	36	36
90	60	32 25.1N	119 58.2W	4/19	0742	0804	441	215	48	48
90	70	32 05.9N	120 38.8W	4/19	1540	1602	456	215	358	127
90	80	31 45.5N	121 19.1W	4/19	2115	2137	442	215	61	61
90	90	31 24.9N	121 59.9W	4/20	0256	0318	435	209	41	41
90	100	31 04.5N	122 39.7W	4/20	0824	0847	447	218	13	13
90	110	30 45.2N	123 20.4W	4/20	1535	1557	451	212	16	16
90	120	30 25.2N	124 00.9W	4/16	1032	1054	421	215	33	33
93	26.8	32 55.9N	117 19.0W	4/13	1213	1222	179	86	33	33
93	28	32 53.7N	117 22.8 W	4/13	1421	1443	491	196	24	14
93	30	32 49.5N	117 32.2W	4/13	1735	1757	465	201	19	19
93	35	32 40.7N	117 53.0W	4/13	2154	2216	434	214	30	30
93	40	32 30.2N	118 14.0W	4/14	0253	0315	434	214	46	46
93	45	32 20.3N	118 33.6W	4/14	0655	0717	441	225	16	16
93	50	32 10.7N	118 54.1W	4/14	1110	1132	437	225	25	25
93	55	32 00.7N	119 14.7W	4/14	1501	1523	433	218	14	14
93	60	31 50. I N	119 05.0W	4/14	1905	1927	496	204	28	28
93	70	31 30.5N	120 15.3W	4/15	0037	0058	416	214	24	24
93	80	31 10.9N	120 55.2W	4/15	0622	0644	428	220	23	23
93	90	30 51.1N	121 36.4W	4/15	1243	1305	457	211	9	9
93	100	30 30.6N	122 16.1W	4/15	1818	1840	456	208	18	18
93	110	30 10.7N	122 56.7W	4/15	2345	0007	463	212	15	15
93	120	29 50.5N	123 36.7W	4/16	0500	0522	436	211	21	21