

UNIVERSITY OF CALIFORNIA, SAN DIEGO SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

**CalCOFI Cruise 1108
27 July – 12 August 2011**

**CC Reference 12-04
2 November 2012**

UNIVERSITY OF CALIFORNIA, SAN DIEGO
SCRIPPS INSTITUTION OF OCEANOGRAPHY
LA JOLLA, CALIFORNIA 92093-0227

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

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INTRODUCTION

The data presented in this report were collected during cruise 1108* of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the RV *New Horizon* of Scripps Institution of Oceanography, University of California, San Diego. The CalCOFI program was organized in the late 1940's to study the causes of variations in population size of fishes of importance to the State of California. It is carried out by NOAA's National Marine Fisheries Service Southwest Fisheries Science Center, the California Department of Fish and Game, and the Integrative Oceanography Division (IOD) at Scripps Institution of Oceanography (SIO). IOD contributes to this program by investigations of the physical, chemical and biological structure of the California Current. Data from the cruises were collected and processed by personnel of the Integrative Oceanography Division and the Southwest Fisheries Science Center. SIO staff members from the Ocean Data Facility participate in the chemical analysis of nutrient samples at sea. CalCOFI data presented in this report and collected on previous cruises can be accessed at <http://www.calcofi.org>.

STANDARD PROCEDURES

CTD/Rosette Cast Data

A Sea-Bird Electronics, Inc., Conductivity-Temperature-Depth (CTD) instrument (Seabird 911, Serial number 1049) with a rosette was deployed at each station on these cruises. The rosette was equipped with 24 ten-liter plastic (PVC) bottles equipped with epoxy-coated springs and Viton O-rings. Each CTD/rosette cast usually sampled 20 depths to a maximum sampling depth of 525 meters, bottom depth permitting. Occasional stations have multiple bottles tripped at the same depth to provide more water for ancillary programs. The sample spacing was designed to sample depth intervals as close as 10 meters around the sharp upper thermocline features such as the chlorophyll, oxygen, nitrite maxima and the shallow salinity minimum. Salinity, oxygen and nutrients were determined at sea for all depths sampled. Chlorophyll-*a* and phaeopigments were determined at sea on samples from the top 200 meters, bottom depth permitting.

Pressures and temperatures assigned to the water sample data were derived from the CTD signals recorded just prior to the bottle trip. Pressures have been converted to depths by the Saunders (1981) pressure-to-depth conversion technique. CTD temperatures reported with the bottle data have been rounded to the nearest hundredth of a degree Celsius.

Salinity samples were collected from all rosette bottles and analyzed at sea using a Guildline model 8410 Portasal salinometer. Salinity samples were drawn into 200 ml Kimax high-alumina borosilicate bottles that were rinsed three times with sample prior to filling. The results were compared with the CTD salinity to verify that the rosette bottle did not mis-trip or leak. The salinometer was standardized before and after each group of samples with standardized seawater. Periodic checks on the conductivity of the standardized seawater were made by comparison with IAPSO Standard Seawater batch P149. Salinity values were calculated using the algorithms for the Practical Salinity Scale, 1978 (UNESCO, 1981a) and are reported to three decimal places, provided that accepted standards were met.

Dissolved oxygen analyses were performed with an Ocean Data Facility of Scripps Institution of Oceanography designed automated oxygen titrator using photometric end-point detection based on the absorption of 365nm wavelength ultra-violet light. A computer using PC software controlled the titration of the samples and the data logging. The method used a modified-Winkler titration following the technique of Carpenter (1965) with modifications by Culberson (1991), but with higher concentrations of thiosulfate solution (50 g/l). Standard KIO3

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

solutions prepared ashore were run at the beginning of each run. Reagent and sea water blanks were determined to account for presence of oxidizing or reducing materials.

Nutrient samples were analyzed at sea by the Scripps Ocean Data Facility for dissolved silicate, phosphate, nitrate, nitrite, and ammonium using procedures similar to those described in Gordon et al. (1993) and Koroleff (1969, 1970). Samples were collected in 45 ml high-density polypropylene screw-capped tubes which were acid washed and rinsed with sample three times prior to filling. Daily standardizations and drift corrections were accomplished by running freshly prepared mid-range standards at the beginning and end of each group of samples. Samples not analyzed immediately after collection were refrigerated and run the following day. In addition to daily standardizations, periodic full calibrations were performed with sets of six different concentration standards.

Samples for chlorophyll-*a* and phaeopigments were collected in calibrated 138 ml polyethylene bottles and filtered onto Whatman GF/F filters. The pigments were extracted in cold 90% acetone (Venrick and Hayward, 1984) for a minimum of 24 hours. Chlorophyll *a* and phaeopigment concentrations were determined from fluorescence readings before and after acidification with a Turner Designs Fluorometer Model 10-AU-005-CE (Yentsch and Menzel, 1963; Holm-Hansen *et al.*, 1965).

Evaluation of the water sample data involved comparisons with the CTD data, 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). Precision estimates for routine analyses were made on CalCOFI cruise 9003 and are reported in SIO Ref. 91-4.

Primary Productivity Sampling

Primary productivity samples were taken each day shortly before local apparent noon (LAN). Primary production was estimated from ^{14}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 corresponding to light levels simulated by the on-deck incubators were identified and sampled on the rosette up-cast. Occasionally an extra bottle or two were tripped in addition to the usual 20 levels sampled in the combined rosette-productivity cast in order to maintain the normal sampling depth resolution. Triplicate samples (two light and one dark control) were drawn from each productivity sample depth into 250 ml polycarbonate incubation bottles. Samples were inoculated with 13.78 μCi of ^{14}C as NaHCO_3 (40 μl of stock solution) prepared in a 0.3 g/liter solution of sodium carbonate (Fitzwater *et al.*, 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% HCl was added to each sample. The sample was then allowed to sit, without a cap, at room temperature for 12 hours (after Lean and Burnison, 1979). Following this, 10 ml of scintillation cocktail 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 from all rosette productivity bottles.

Macrozooplankton Net Tows

Macrozooplankton was sampled with a 71 cm mouth diameter paired net (bongo net) equipped with 0.505mm plankton mesh. Bottom depth permitting, the nets were towed obliquely from 210 meters 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).

Avifauna Observations (Farallon Institute of Advanced Ecosystem Research)

Sea birds were counted within a 300-meter wide strip off to one side of the ship. Counts were made while underway between stations during periods of daylight. These counts were summed over 20 nautical mile (nm) intervals, or the distance between consecutive stations, whichever was less.

Ancillary Programs

Several ancillary programs produced data on these cruises that are not presented in this report. These programs include:

- 1) *Underway Data:* Continuous near surface measurements of temperature, salinity and *in vivo* chlorophyll fluorescence were recorded from seawater pumped through the ship's uncontaminated seawater system. Water was drawn from a depth of approximately 3 meters. The data were logged in one-minute averages using a Sea-Bird Electronics, Inc., SBE 45 MicroTSG Thermosalinograph and a Wetlabs Wetstar fluorometer.
- 2) *ADCP.* Continuous profiles of ocean currents and acoustic backscatter between 20 and 500 meters deep were measured along the shiptrack from a hull-mounted 150 kHz Acoustic Doppler Current Profiler (ADCP). The ADCP data were averaged over 3-minute intervals. Sixty 8-meter depth bins were recorded. (T. Chereskin, SIO)
- 3) *California Current Ecosystem Long Term Ecological Research Program:* The CCE-LTER program augments standard CalCOFI measurements to further characterize the lower trophic levels as well as the carbon system. These additional samples, taken at all CalCOFI stations, are for measurements of particulate organic carbon and nitrogen, dissolved organic carbon and nitrogen, taxon-specific phytoplankton pigments, flow-cytometric counts of bacteria and picoautotrophs, microscopic counts of nano- microplankton, determination of mesozooplankton size structure using a Laser Optical Plankton Counter, and mesozooplankton community structure. (M. Ohman, SIO)
- 4) *SCCOOS Nearshore Observations:* The objective of these observations is to extend CalCOFI time series to the nearshore. Nearshore observations consist of 9 stations at the ends and interspersed with current CalCOFI lines on the 20 m isobath with a standard set of CalCOFI observations. (R. Goericke, SIO)
- 5) *Inorganic Carbon System:* The CalCOFI group collected samples for the characterization of the inorganic carbon system at selected locations along the cruise track. Total inorganic carbon and alkalinity will be measured which will allow the calculation of pH and pCO₂. The objectives of these measurements are first the long-term characterization of the inorganic carbon system and its response to changing ocean climate and second measurements of pH in the coastal zone in order to monitor the impact of 'corrosive' waters on benthic ecosystems in the Southern California Bight. (R. Goericke, SIO)
- 6) *Marine mammal observations.* During daylight transits, visual line-transect surveys were conducted by marine mammal observers focusing on cetaceans. Acoustic line-transect surveys were performed using a towed hydrophone array which consists of multiple hydrophone elements that sample sounds up to 100 kHz allowing for localization of calling animals. Acoustic monitoring also takes place on individual stations using sonobuoys. (J. Hildebrand, SIO)
- 7) *Nitrate isotope:* Seawater samples are acquired using the CTD-rosette and shipped frozen to Princeton University. The nitrogen and oxygen isotopic composition of nitrate is measured using strains of denitrifying bacteria that reduce nitrate to N₂O. (P. Rafter, Princeton University).
- 8) *Micronekton trawling:* A Matsuda-Oozeki-Hu trawl (MOHT) with 5 m² mouth opening and 1.77 mm mesh is used to sample the micronekton (krill, small pelagic fishes, squids, etc) within the epipelagic (upper 200 m) and

mesopelagic (200 - 500 m) depth horizons. The samples provide size- and species composition data on the pelagic community, which is combined with Ek-60 multi-frequency acoustic data to estimate the distribution and abundance of the micronekton. (T. Koslow, SIO)

9) *ALF (Advanced Laser Fluorometer).* Continuous underway analysis of phytoplankton pigment groups and variable fluorescence (F_v/F_m). ALF, developed by A. Chekalyuk at Lamont-Doherty Earth Observatory, uses laser stimulated emission at 405 and 532 nm together with spectral deconvolution analysis to distinguish fluorescence from three types of phycoerythrin, chlorophyll-*a*, and chromophoric dissolved organic matter (CDOM). The ALF is useful for differentiating the contribution of cyanobacteria and cryptophytes from other phytoplankton taxa present in natural phytoplankton assemblages, as well as for assessing phytoplankton photophysiological status.

TABULATED DATA

CTD/Rosette Cast Data

The time reported is the Coordinated Universal Time (UTC) of the first rosette bottle trip on the up cast. The rosette bottles tripped on the up cast are reported as cast 2, where cast 1 is considered to be the down CTD profile. The sample number reported is the cast number followed by a two-digit rosette bottle number. 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 are reported for most daylight stations.

Data values from discrete sampled CTD rosette were interpolated and are reported for standard depths. Interpolated or extrapolated standard level data are noted by the footnote "ISL" printed after the depth. Multiple bottles tripped at the same depth to provide water for ancillary programs are not used in the calculation of standard depth data. Density-related parameters have been calculated from the International Equation of State of Seawater 1980 (UNESCO, 1981b). Computed values of potential temperature, sigma-theta, specific volume anomaly (SVA), and dynamic height or geopotential anomaly are included with both observed and interpolated standard depth levels.

On stations where primary productivity samples were drawn a footnote appears after each productivity depth sampled. The corresponding primary productivity data are reported in a separate section following the tabulated rosette cast data.

Primary Productivity Data

In addition to the normal hydrographic data that are reported in the rosette cast data section, 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 and the dark uptake. 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 the shallowest value continues to the surface and that negative values (when dark uptake exceeds light uptake) are zero. The uptake data are reported to two significant digits (values <1.00) or one decimal (values >1.00). 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 ($\text{cm}^3/1000\text{m}^3$ 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:

D: CTD salinity value listed in place of normal shipboard salinity analysis.

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

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

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FIGURES

Cruise 1108

1. CalCOFI Cruise 1108 track and station positions.
2. Horizontal distribution of dynamic height anomaly (0 over 500m). 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.

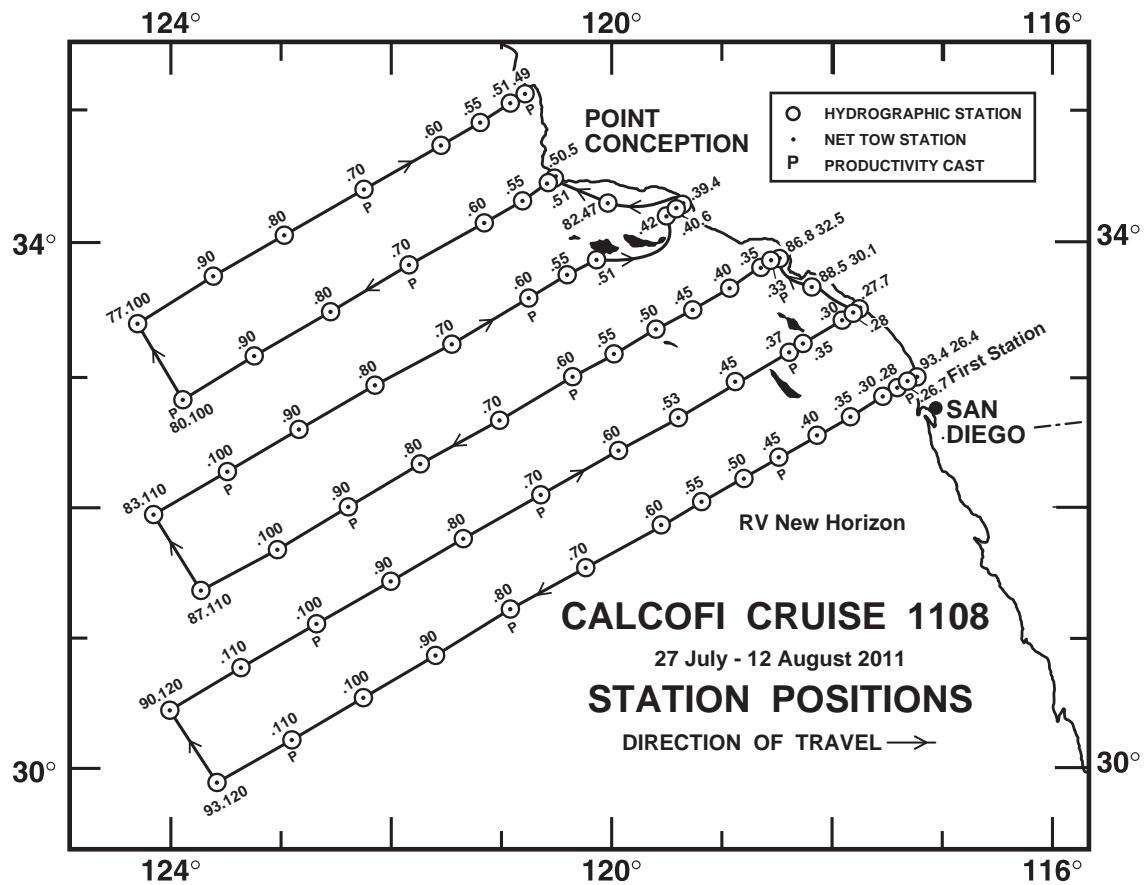


FIGURE 1

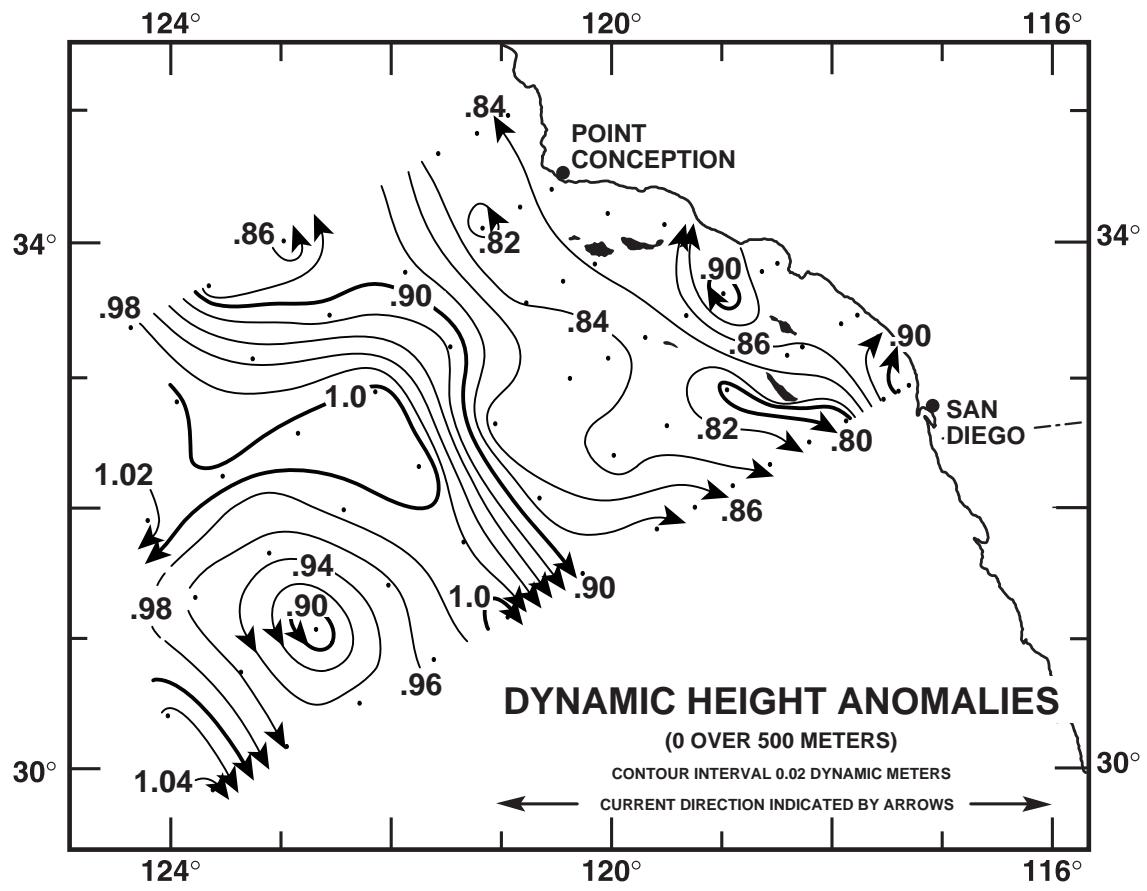


FIGURE 2

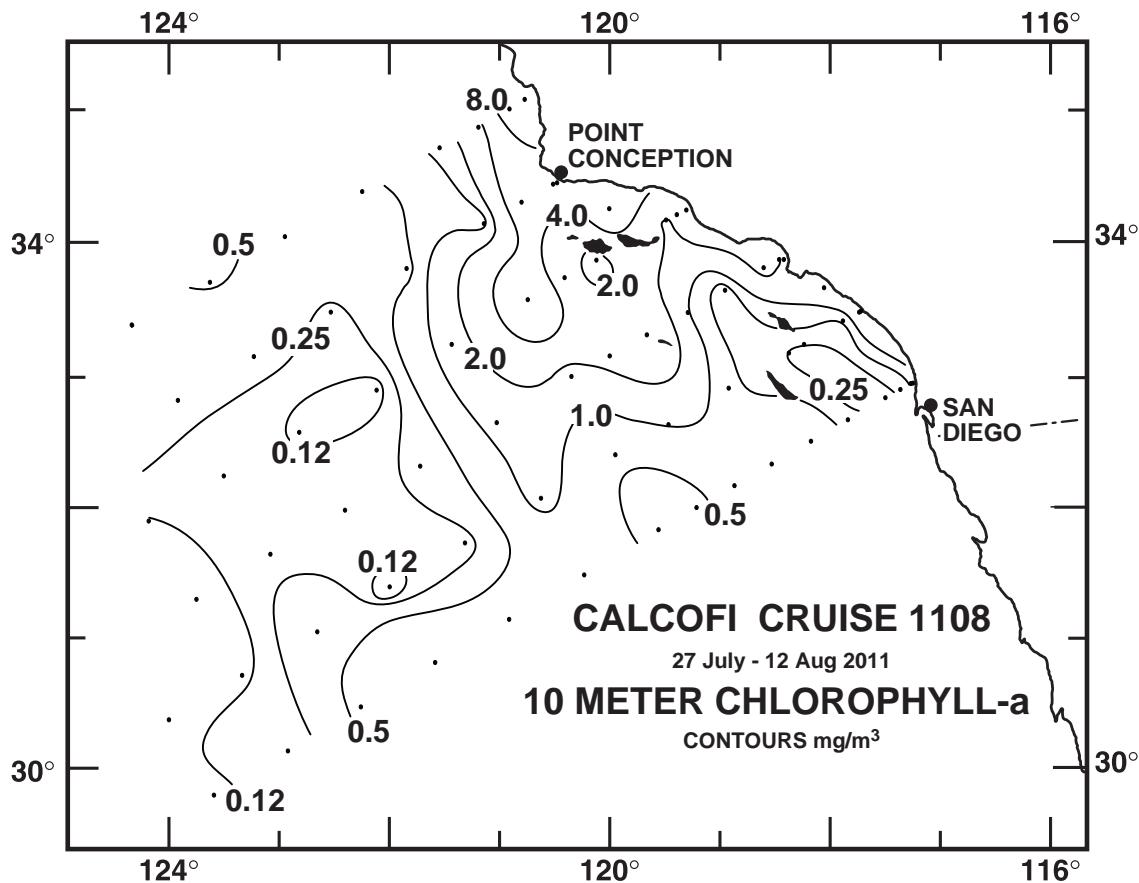


FIGURE 3A

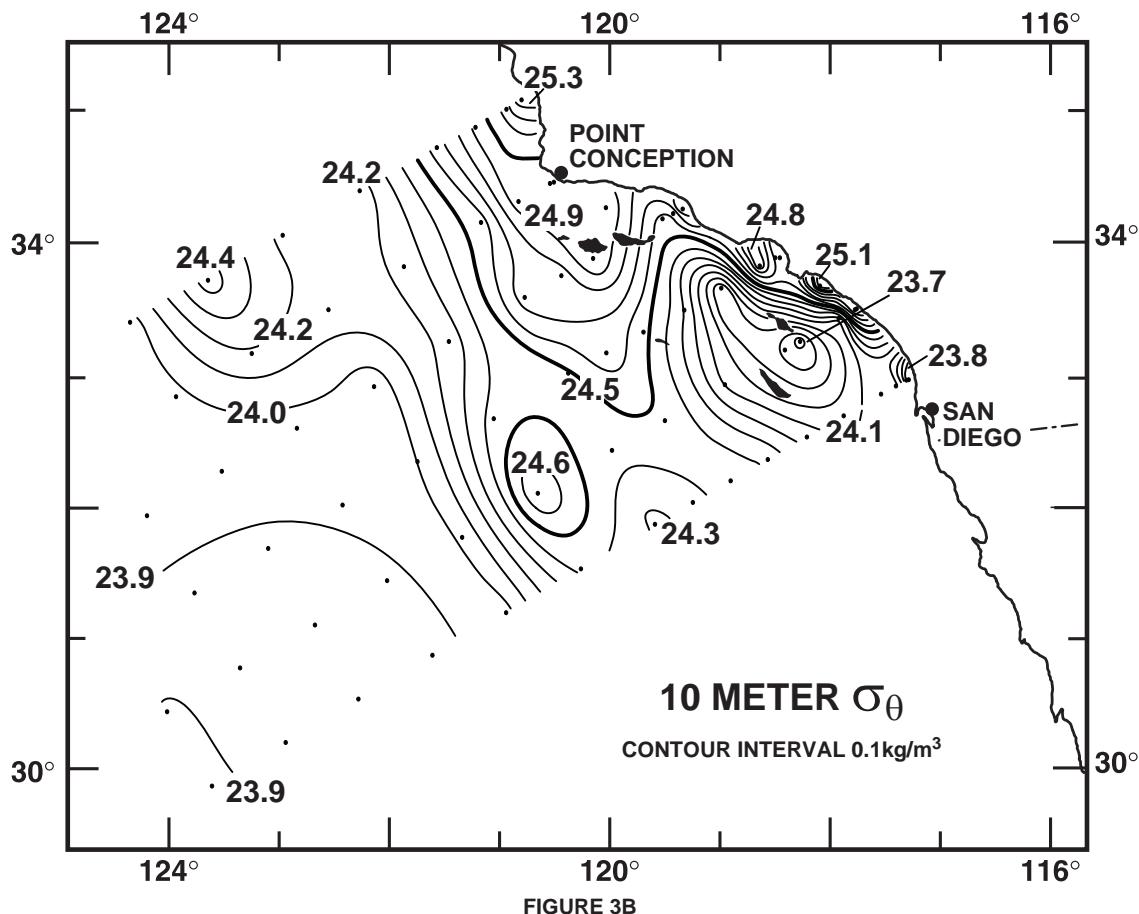


FIGURE 3B

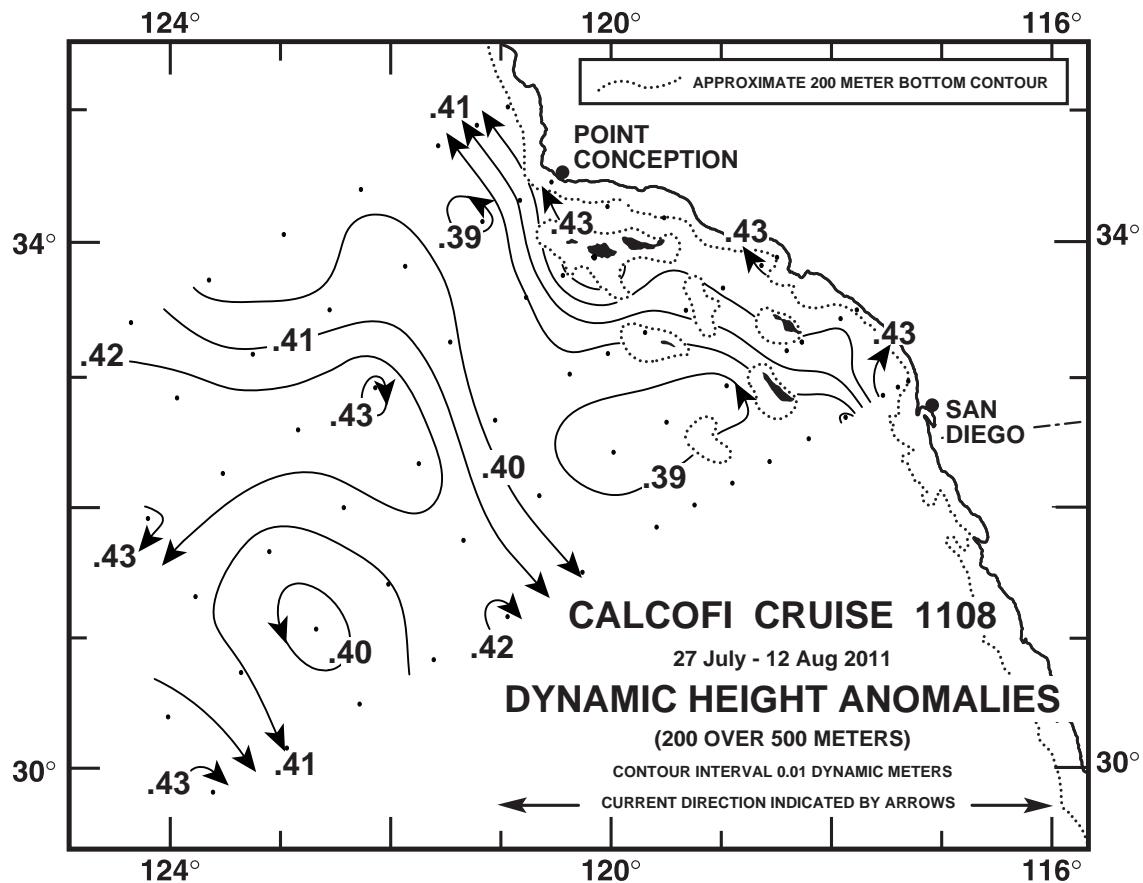


FIGURE 4A

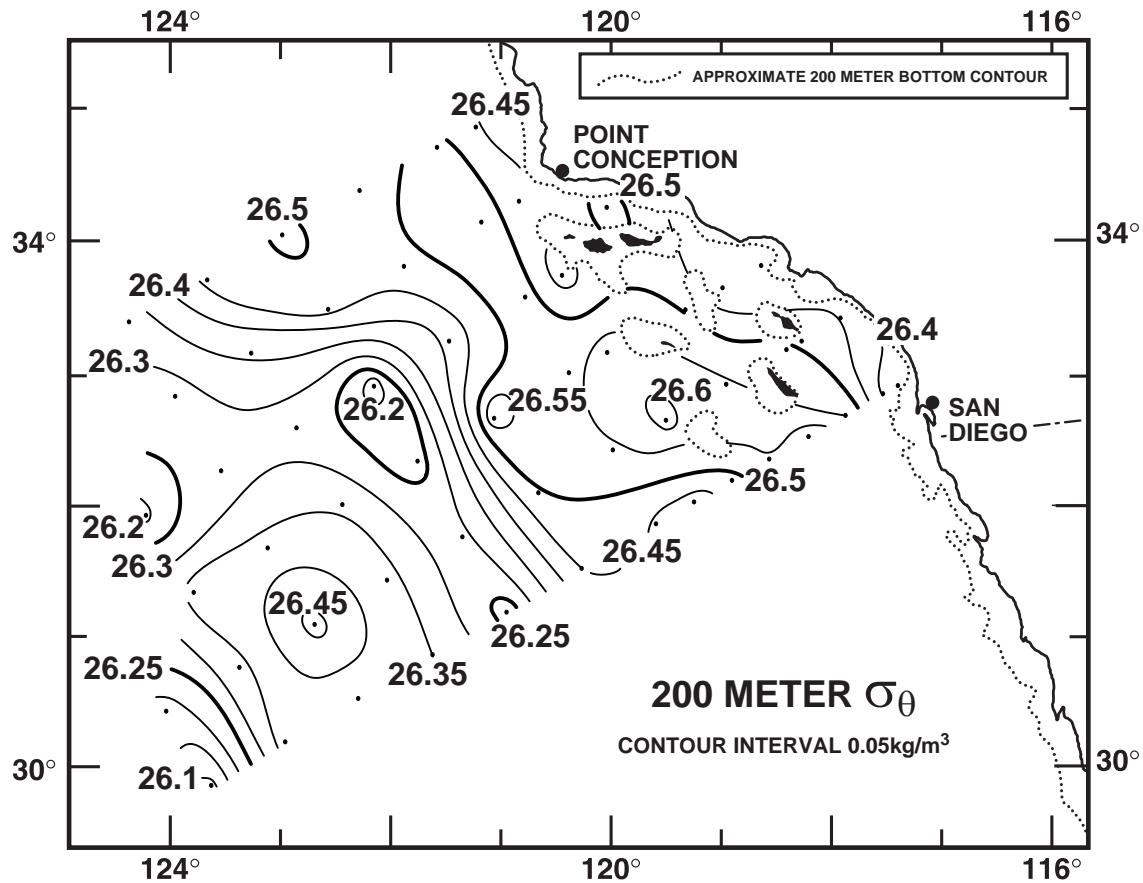


FIGURE 4B

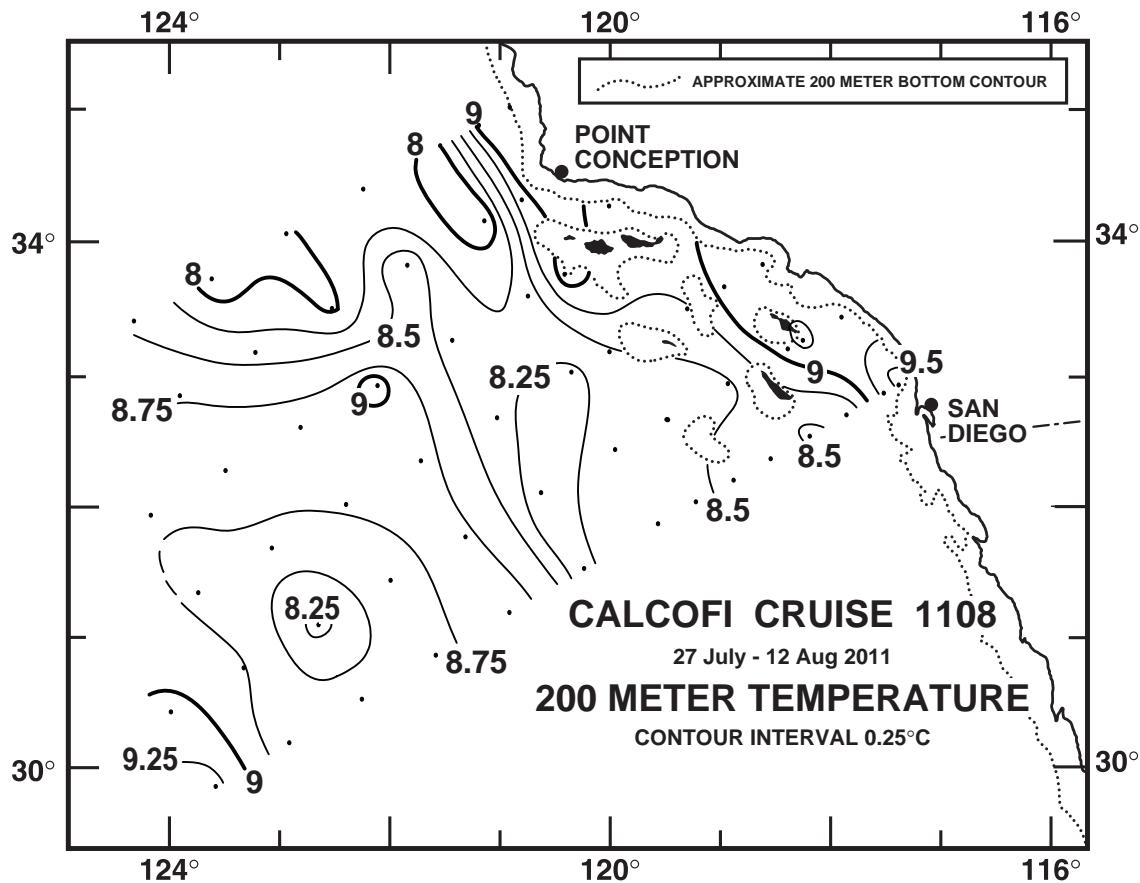


FIGURE 4C

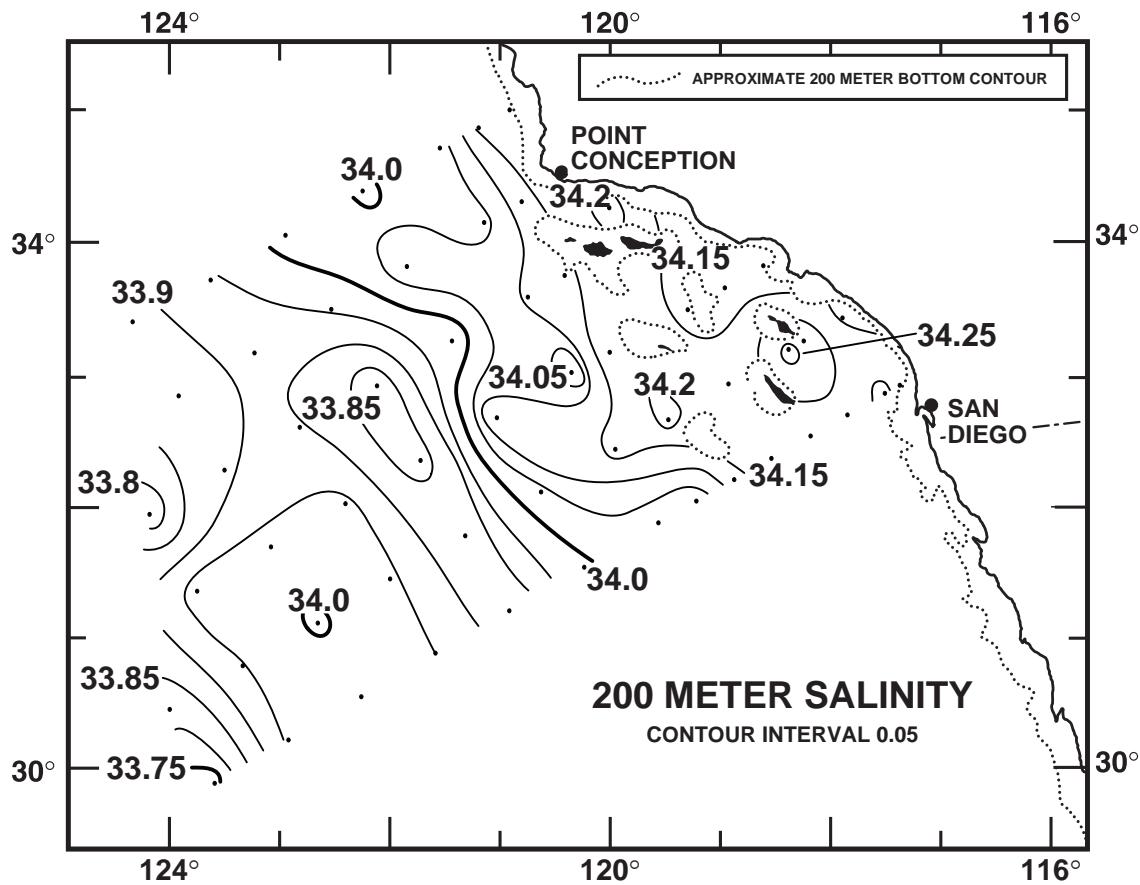
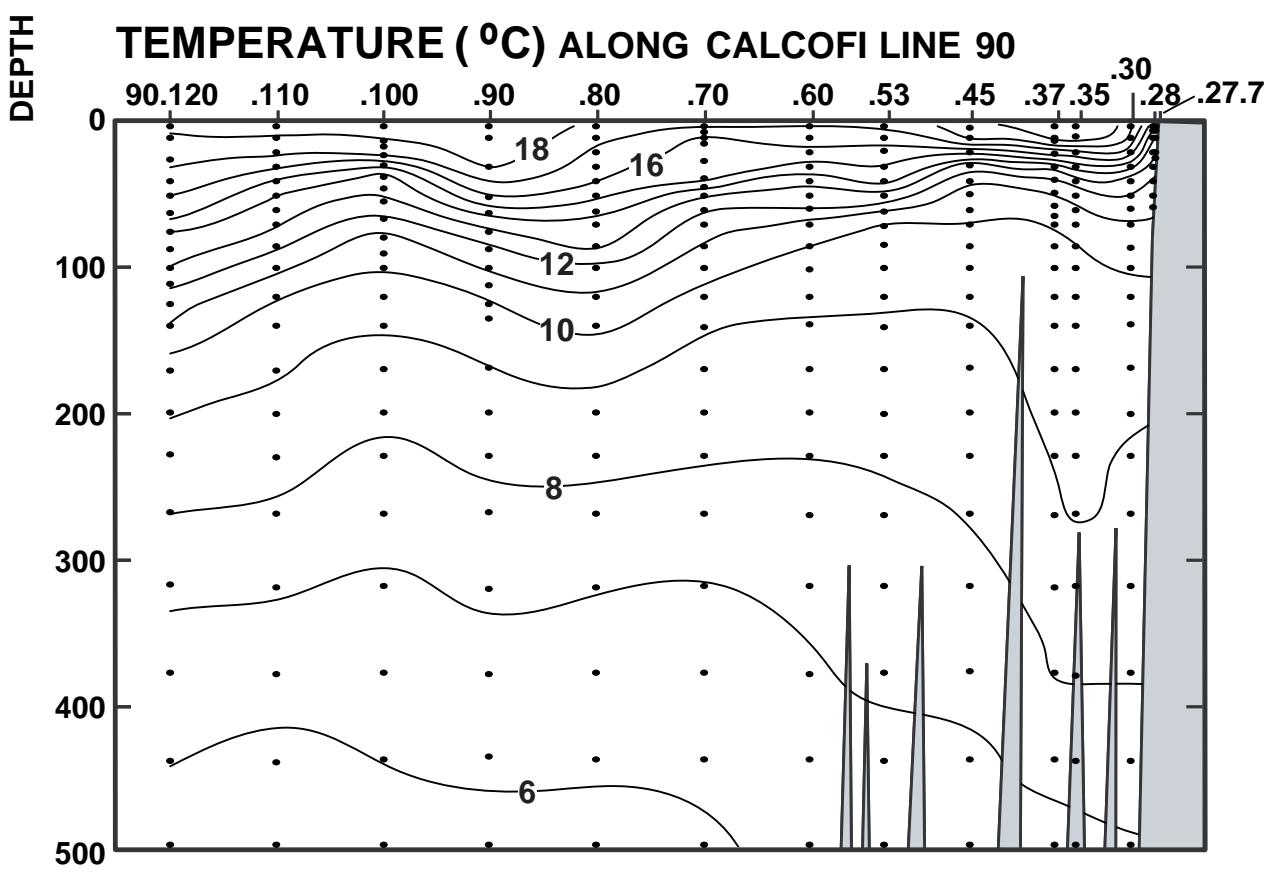
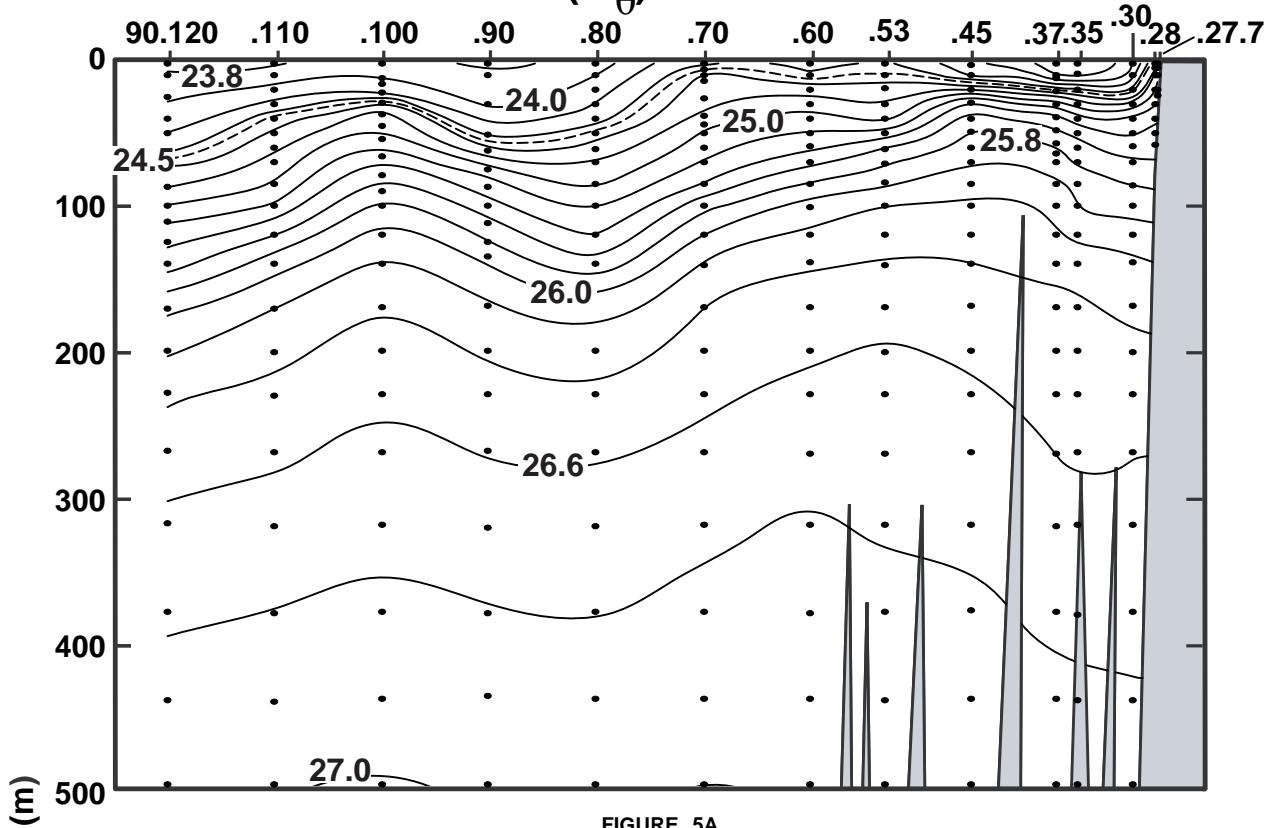


FIGURE 4D

CALCOFI CRUISE 1108

30 July - 3 August 2011

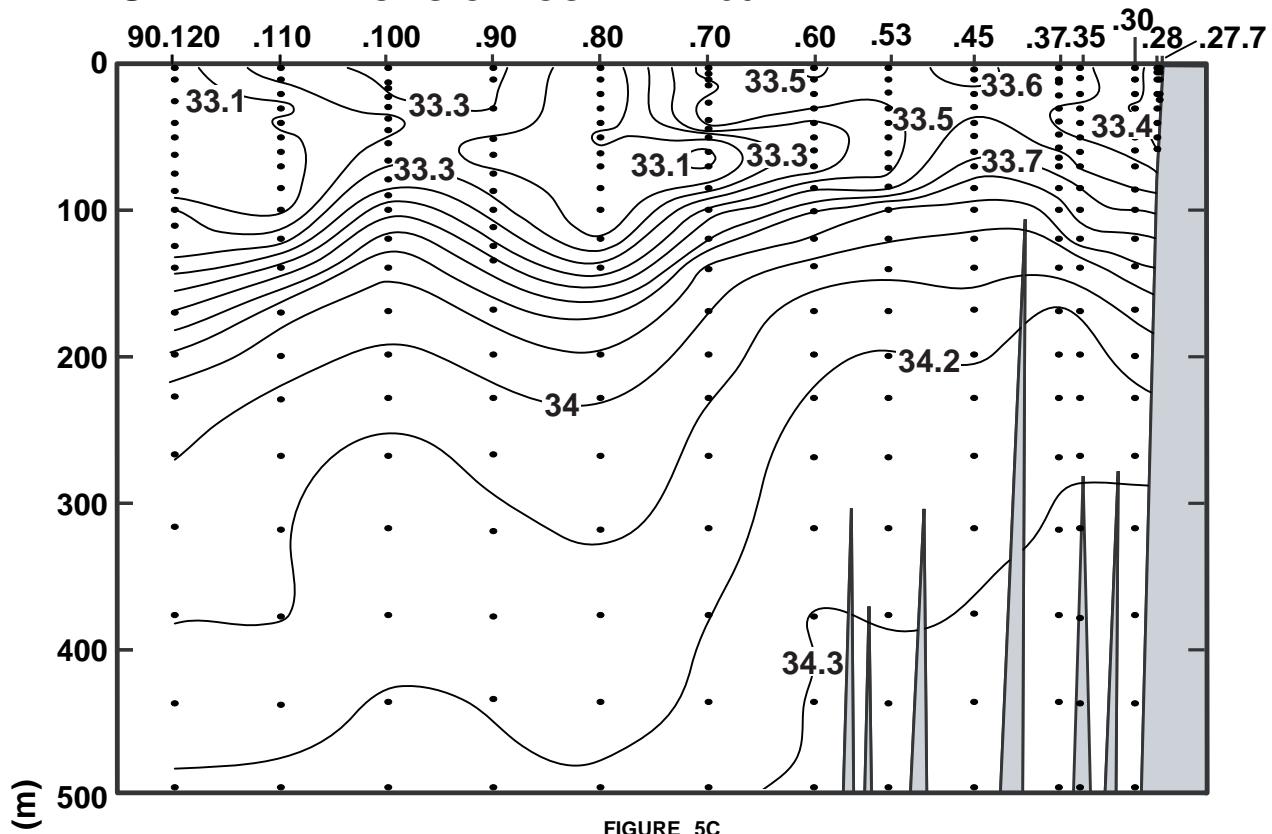
POTENTIAL DENSITY (σ_0) ALONG CALCOFI LINE 90



CALCOFI CRUISE 1108

30 July - 3 August 2011

SALINITY ALONG CALCOFI LINE 90



CALCOFI CRUISE 1108

30 July - 3 August 2011

NITRATE ($\mu\text{M/L}$) ALONG CALCOFI LINE 90

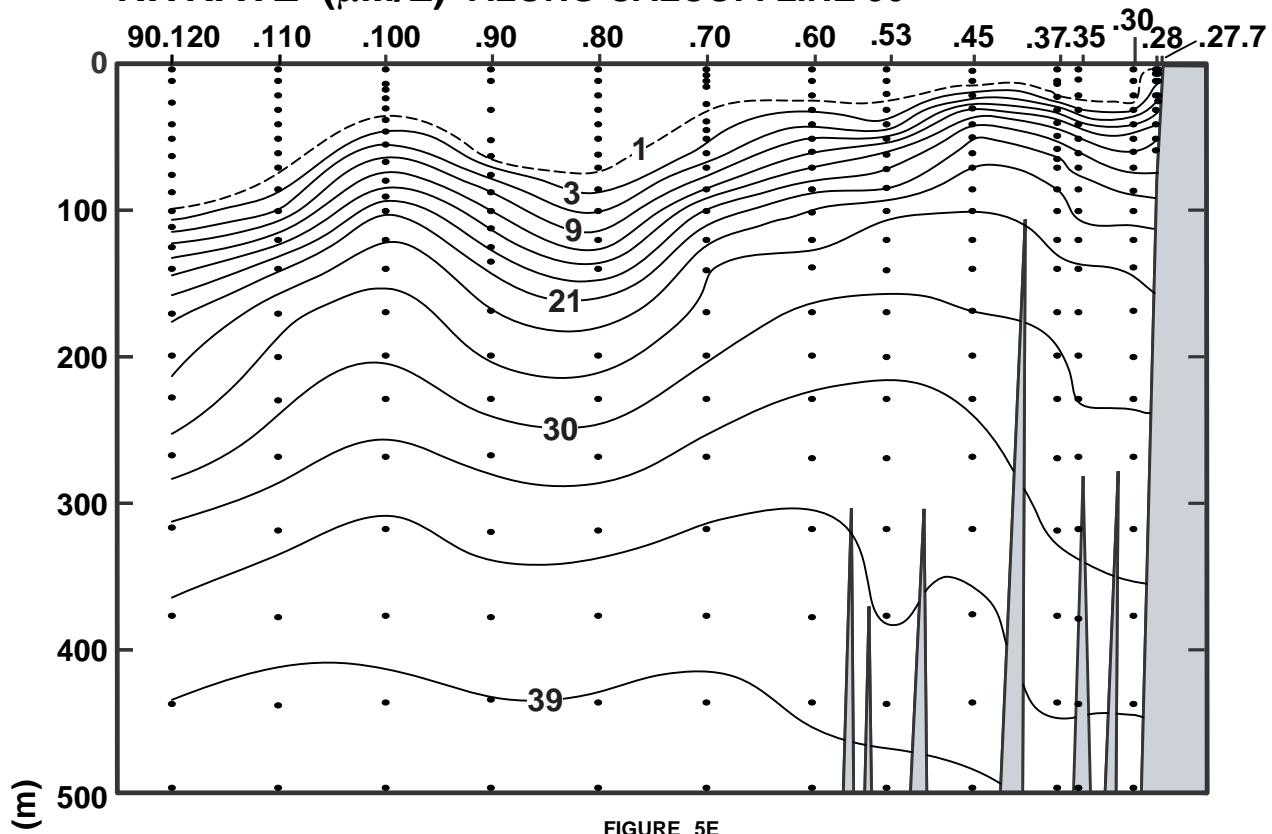


FIGURE 5E

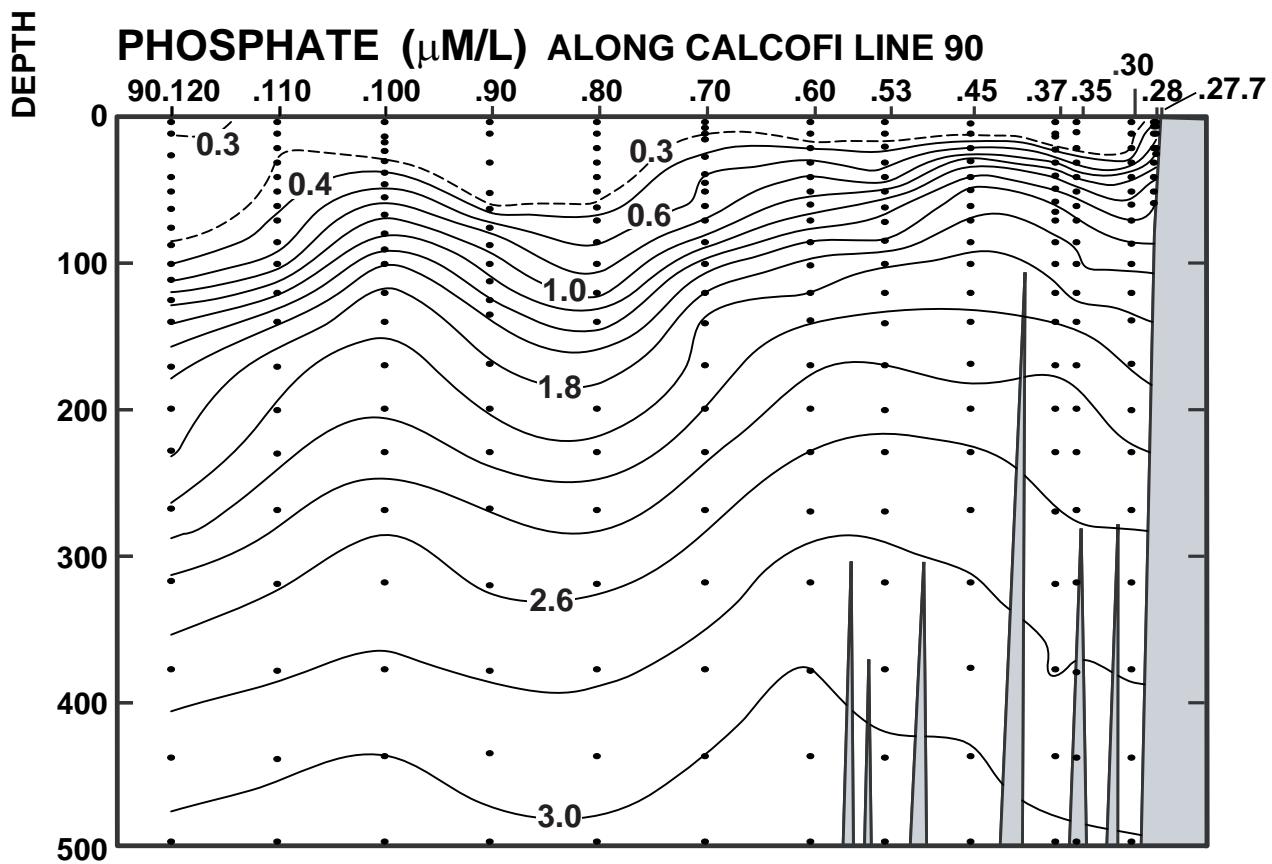


FIGURE 5F

CALCOFI CRUISE 1108

30 July - 3 August 2011

CHLOROPHYLL-a ($\mu\text{g/L}$) ALONG CALCOFI LINE 90

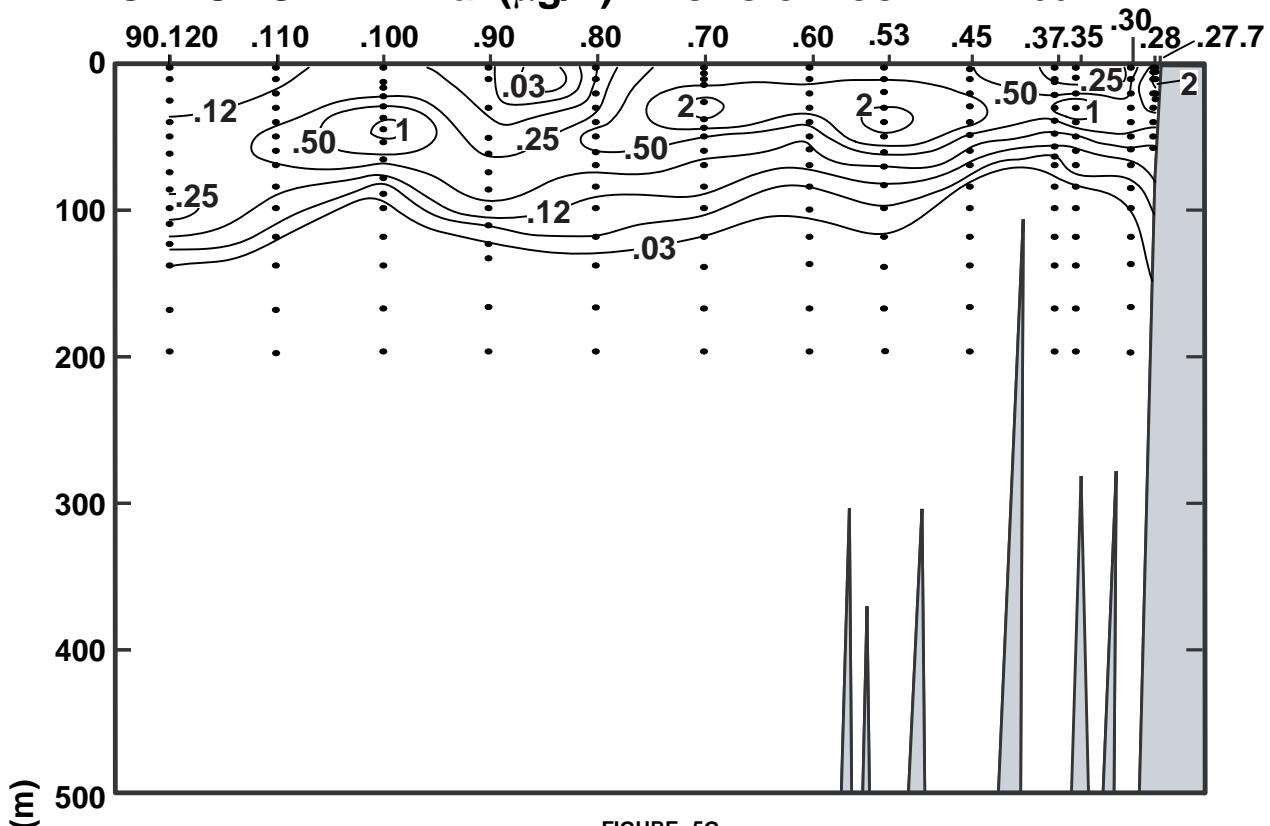


FIGURE 5G

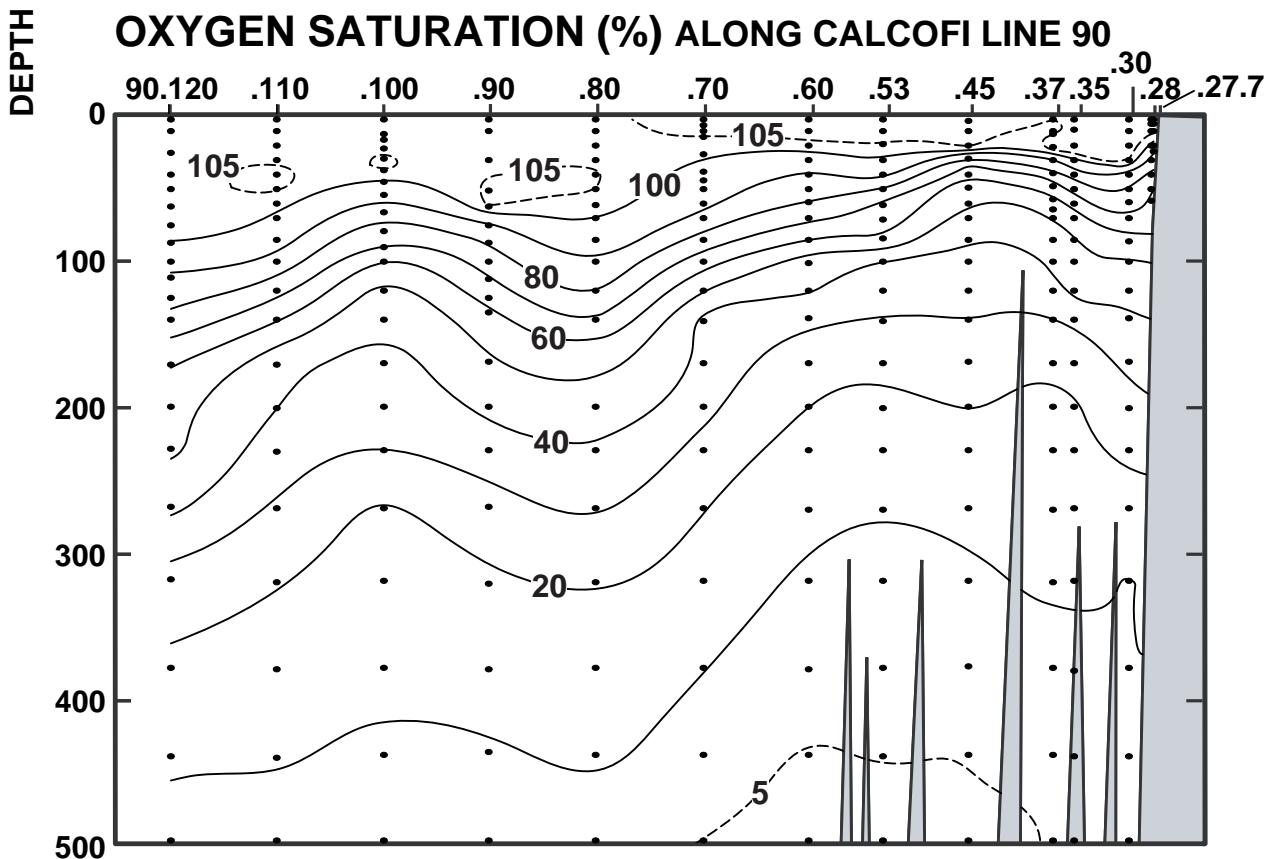
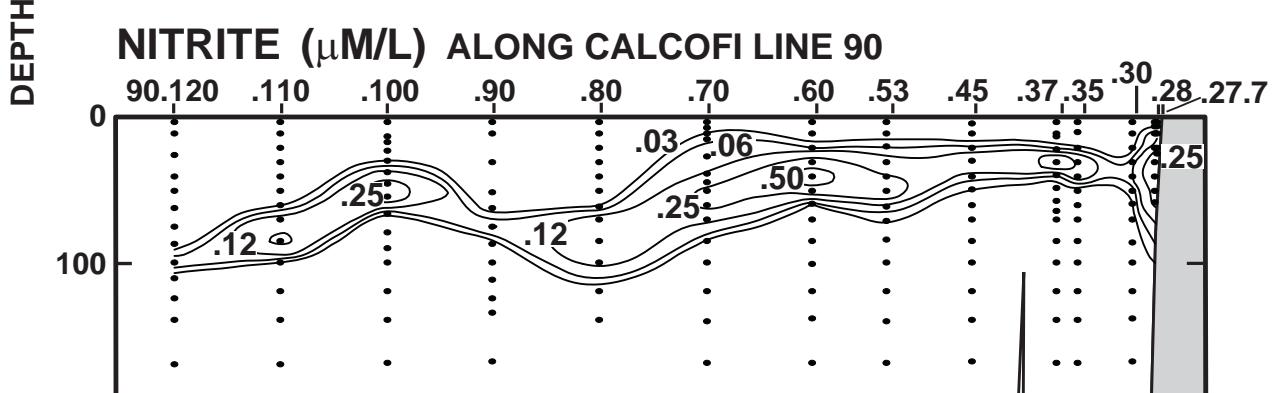
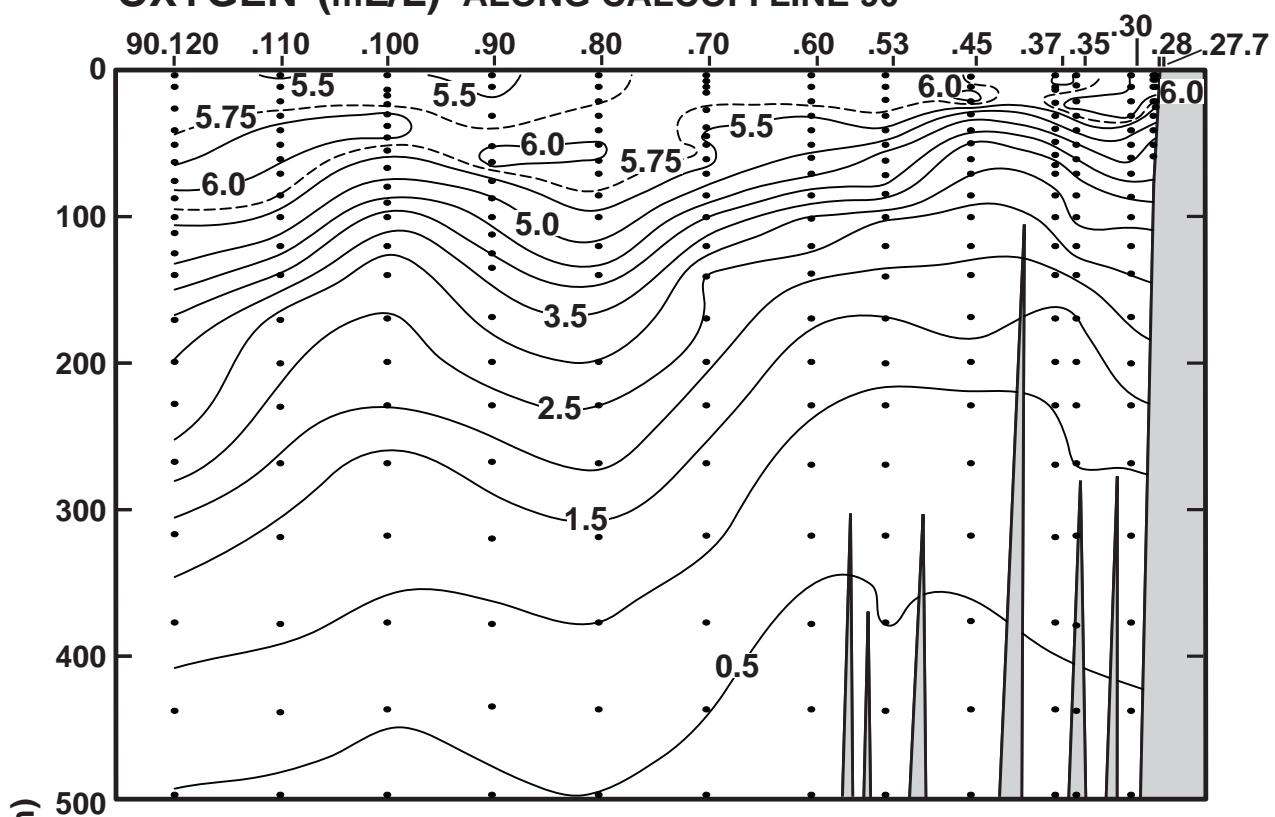


FIGURE 5H

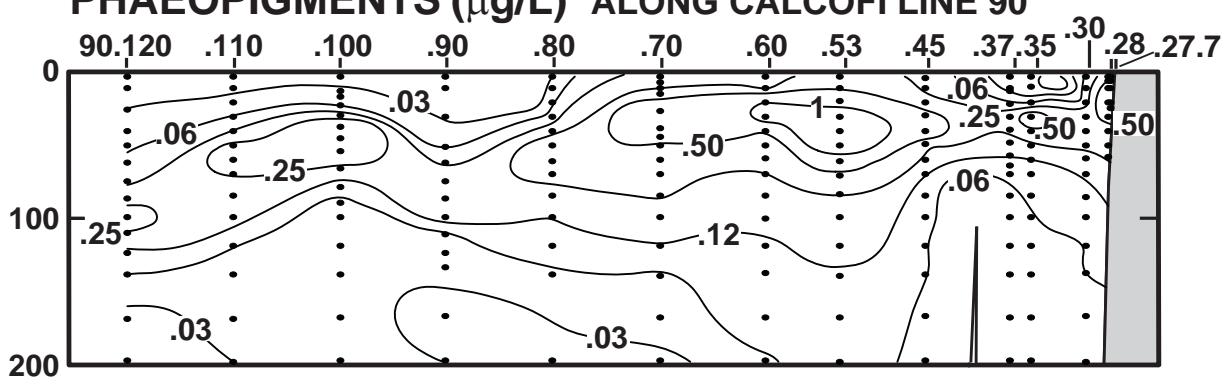
CALCOFI CRUISE 1108

30 July - 3 August 2011

OXYGEN (mL/L) ALONG CALCOFI LINE 90



PHAEOPIGMENTS (μg/L) ALONG CALCOFI LINE 90



PERSONNEL

CalCOFI Cruise 1108

SHIP'S CAPTAIN

Murray Stein, R/V *New Horizon*

Staff Research Associate, SIO

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

		Participating (Leg)
Wolgast, David (Chief Scientist)	Staff Research Associate, SIO	1
Blinkow, Kayla	Volunteer, SIO	1
Breese, Dawn	Bird Observer, FIAER	1
Dovel, Shonna	Staff Research Associate, SIO	1
Hays, Amy	Fishery Biologist, NMFS	1
Liu, Jian	Staff Research Associate, SIO	1
Manion, Susan	Fishery Biologist, NMFS	1
Pryor, Rachel	Volunteer, SIO	1
Roadman, Megan	Staff Research Associate, SIO	1
Rodgers-Wolgast, Jennifer	Staff Research Associate, SIO	1
Schuller, Danial	Staff Research Associate, SIO	1
Shiosaka, Lauren	Volunteer, SIO	1
Simonas, Anne	Marine Mammal Acoustician, MPL	1
Susner, Michael	Staff Research Associate, SIO	1
Wilkinson, James	Programmer Analyst, SIO	1
Whitaker, Katherine	Marine Mammal Observer, MPL	1
Wylie, Dominique	Marine Mammal Observer, MPL	1

San Diego to San Diego, California, 27 Jul. – 13 Aug., 2011

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 76.7 49.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
35 5.5 N	120 47.1 W	13/08/11	0155	UTC	74 m	280	05 kn	350	02 05	2	1014.8 mb	14.1 C	13.5 C	5m	8/8	SC
0 ISL	13.01	13.01	33.576	25.288	267.3	0.000	7.17	120.0	2.0	0.32	0.8	0.04	0.07	15.61	1.63	0
2 A	13.01	13.01	33.576	25.288	267.4	0.005	7.17	120.0	2.0	0.32	0.8	0.04	0.07	15.61	1.63	2 211
3 A	12.83	12.83	33.578	25.326	263.9	0.008	6.24	104.0	4.7	0.55	5.0	0.09	0.17	16.78	1.70	3 210
4 A	12.85	12.85	33.576	25.320	264.4	0.011	6.65	110.9	3.4	0.45	3.0	0.13	0.09	16.34	1.99	4 209
7 A	12.58	12.58	33.577	25.374	259.4	0.019	6.17	102.3	4.8	0.68	5.2	0.16	0.17	17.78	1.58	7 208
10	12.47	12.47	33.578	25.396	257.4	0.026	5.75	95.1	6.3	0.79	7.3	0.19	0.45	15.02	1.54	10 207
13 A	12.53	12.53	33.578	25.384	258.5	0.034	5.79	95.9	6.2	0.85	7.0	0.18	0.40	15.66	1.69	13 206
19 A	12.44	12.44	33.580	25.403	256.9	0.049	5.66	93.6	6.9	0.84	7.7	0.24	0.49	14.67	1.62	19 205
20 ISL	12.45	12.45	33.579	25.401	257.2	0.052	5.64 D	93.3	6.9	0.84	7.8	0.24	0.51	14.40	1.60	20
30	12.13	12.13	33.581	25.464	251.4	0.077	5.18	85.1	9.4	1.02	10.2	0.27	0.68	9.85	1.30	30 204
40	10.98	10.98	33.593	25.685	230.6	0.102	3.76	60.2	18.3	1.57	18.3	0.30	0.52	1.75	0.83	40 203
50	10.69	10.68	33.626	25.762	223.5	0.124	3.38	53.8	21.9	1.72	20.2	0.20	0.62	0.64	0.62	50 202
60	10.67	10.66	33.660	25.792	220.8	0.146	3.19	50.8	24.6	1.80	20.2	0.21	1.13	0.70	0.84	60 201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 76.7 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
35 1.2 N	120 55.3 W	12/08/11	2007	UTC	249 m	320	11 kn	0	1013.3 mb	14.5 C	13.1 C	5m	0/8	CI		
0 ISL	13.68	13.68	33.511	25.103	285.0	0.000	6.27	106.3	1.6	0.45	2.4	0.15	0.06	12.00	1.94	0
2	13.68	13.68	33.511	25.103	285.0	0.006	6.27	106.3	1.6	0.45	2.4	0.15	0.06	12.00	1.94	2 216
10 ISL	13.44	13.44	33.502	D 25.145	281.2	0.028	5.56 D	93.8	1.6	0.45	2.4	0.15	0.06	12.00	1.94	10
10	13.44	13.44	33.502	25.145	281.2	0.028										215
11	13.32	13.32	33.503	25.170	278.9	0.031	5.96	100.3	2.7	0.57	4.1	0.19	0.18	10.54	1.91	11 214
20	11.61	11.61	33.435	25.447	252.7	0.055	4.70	76.3	9.8	1.14	12.2	0.32	0.50	0.63	0.60	20 213
30	10.54	10.54	33.438	25.641	234.5	0.079	4.19	66.4	15.0	1.40	17.0	0.18	0.09	0.22	0.23	30 212
40	10.37	10.37	33.437	25.670	231.9	0.103	4.16	65.7	15.4	1.43	17.4	0.16	0.07	0.22	0.26	40 211
50 ISL	10.12	D 10.11	33.456	D 25.728	226.7	0.126	4.03 D	63.3	16.0	1.46	18.2	0.10	0.02	0.14	0.22	50
51	10.09	10.08	33.438	25.719	227.5	0.128	4.11	64.5	16.1	1.47	18.3	0.09	0.01	0.13	0.21	51 210
60	9.98	9.97	33.511	25.794	220.5	0.148	3.81	59.7	18.4	1.58	19.9	0.11	0.00	0.09	0.16	60 209
70	9.84	9.83	33.577	25.869	213.6	0.170	3.55	55.5	20.7	1.68	21.2	0.12	0.01	0.06	0.14	70 208
75 ISL	9.84	D 9.83	33.605	D 25.891	211.6	0.180	3.39 D	53.0	21.8	1.74	21.9	0.12	0.03	0.05	0.13	75
85	9.81	9.80	33.698	25.969	204.4	0.201	3.03	47.4	23.9	1.85	23.4	0.12	0.06	0.04	0.12	85 207
100	9.79	9.78	33.798	26.051	197.0	0.231	2.62	40.9	26.4	1.98	25.1	0.10	0.08	0.04	0.14	101 206
120	9.73	9.72	33.901	26.142	188.8	0.270	2.20	34.4	29.0	2.12	26.7	0.09	0.03	0.03	0.13	121 205
125 ISL	9.73	D 9.72	33.920	D 26.157	187.5	0.279	2.08 D	32.5	29.5	2.14	27.0	0.09	0.08	0.03	0.13	126
140	9.66	9.64	33.957	26.197	183.9	0.307	1.98	30.9	30.9	2.19	27.7	0.09	0.06	0.03	0.12	141 204
150 ISL	9.60	D 9.58	33.991	D 26.234	180.7	0.325	1.93 D	30.1	32.0	2.23	28.1	0.08	0.05	0.03	0.13	151
170	9.44	9.42	34.064	26.318	173.1	0.361	1.66	25.8	34.6	2.31	28.9	0.06	0.04	0.02	0.14	171 203
200	9.26	9.24	34.142	26.408	165.1	0.412	1.30	20.1	38.8	2.47	29.9	0.10	0.13	0.03	0.20	201 202
230	8.98	8.96	34.175	26.480	158.8	0.460	0.99	15.2	45.4	2.65	30.3	0.12	0.86			231 201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 76.7 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
34 52.9 N	121 12.1 W	12/08/11	1623	UTC	569 m	340	17 kn	0	1014.0 mb	14.9 C	13.8 C	5m	0/8	CI		
0 ISL	14.88	14.88	33.520	24.858	308.3	0.000	6.17	107.2	1.4	0.30	1.4	0.01	0.04	2.73	0.80	0
2	14.88	14.88	33.520	24.858	308.4	0.006	6.17	107.2	1.4	0.30	1.4	0.01	0.04	2.73	0.80	2 221
10	14.53	14.53	33.514	24.928	301.9	0.031	6.14	105.9	1.4	0.35	1.7	0.02	0.05	3.01	0.85	10 219
10	14.53	14.53	33.513	24.928	301.9	0.031										220
20	12.93	12.93	33.451	25.208	275.5	0.059	5.42	90.5	5.8	0.78	7.3	0.17	0.82	4.14	1.26	20 218
30	12.93	12.93	33.473	25.225	274.1	0.087	5.51	92.0	5.6	0.72	7.0	0.16	0.94	6.40	2.27	30 217
40	12.13	12.12	33.398	25.322	265.1	0.114	5.34	87.6	6.4	0.93	7.9	0.19	0.73	5.91	1.40	40 216
49	10.51	10.50	33.272	25.517	246.6	0.137	4.69	74.7	11.3	1.16	13.2	0.10	0.06	0.99	0.49	49 215
50 ISL	10.30	D 10.29	33.302	D 25.577	241.0	0.139	4.63 D	73.0	11.8	1.18	13.6	0.09	0.06	0.95	0.49	50
60	10.02	10.01	33.380	25.685	230.9	0.163	4.25	66.6	15.5	1.39	17.1	0.03	0.01	0.57	0.54	60 214
70	9.71	9.70	33.447	25.789	221.2	0.186	4.11	64.0	18.0	1.48	19.1	0.00	0.00	0.43	0.36	70 213
75 ISL	10.05	D 10.04	33.672	D 25.908	210.0	0.196	3.44 D	54.0	20.4	1.60	20.9	0.00	0.00	0.35	0.37	75
85	9.75	9.74	33.770	26.035	198.1	0.217	2.97	46.4	25.3	1.86	24.4	0.00	0.00	0.20	0.38	85 212
100	9.45	9.44	33.874	26.166	186.0	0.246	2.60	40.4	28.9	1.99	26.2	0.00	0.00	0.13	0.30	101 211
120	9.23	9.22	33.955	26.266	176.9	0.282	2.33	36.0	31.5	2.09	27.6	0.00	0.00	0.17	0.40	121 210
125 ISL	9.21	D 9.20	33.963	D 26.275	176.1	0.291	2.29 D	35.4	32.5	2.16	28.0	0.00	0.00	0.16	0.38	126
140	9.40	9.38	34.095	26.348	169.6	0.317	1.57	24.4	35.4	2.35	29.2	0.00	0.00	0.13	0.28	141 209
150 ISL	9.30	D 9.28	34.125	D 26.388	166.0	0.333	1.47 D	22.8	36.5							

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 76.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	15.71	15.71	33.496	24.657	327.4	0.000	5.99	105.8	0.0	0.28	0.6	0.03	0.05	1.26	0.37	0	
2	15.71	15.71	33.496	24.657	327.5	0.007	5.99	105.8	0.0	0.28	0.6	0.03	0.05	1.26	0.37	2 220	
9	15.70	15.70	33.492	24.656	327.8	0.029	5.99	105.8	0.0	0.27	0.6	0.03	0.04	1.16	0.35	9 219	
10 ISL	15.70	15.70	33.492	24.656	327.8	0.033	5.93	104.7	0.0	0.27	0.6	0.03	0.04	1.17	0.36	10	
20	15.48	15.48	33.481	24.697	324.2	0.065	5.95	104.6	0.0	0.29	0.7	0.03	0.07	1.20	0.44	20 218	
30	15.36	15.36	33.470	24.716	322.8	0.098	5.89	103.3	0.0	0.33	1.0	0.05	0.17	0.89	0.40	30 217	
39	13.27	13.26	33.206	24.951	300.5	0.126	5.74	96.3	2.3	0.60	4.0	0.37	0.66	0.40	0.37	39 216	
50	13.34	13.33	33.536	25.193	277.8	0.158	5.23	88.1	2.9	0.84	6.0	0.51	2.45	0.20	0.26	50 215	
60	12.06	12.05	33.512	25.424	255.9	0.184	4.73	77.5	7.1	1.16	11.3	0.76	1.33	0.12	0.22	60 214	
70	10.51	10.50	33.580	25.758	224.3	0.208	3.91	62.0	15.6	1.57	19.9	0.08	0.02	0.07	0.16	70 213	
75 ISL	9.58	9.57	33.499	25.851	215.4	0.219	3.84	59.6	18.4	1.61	20.8	0.05	0.03	0.05	0.13	75	
85	9.27	9.26	33.575	25.961	205.1	0.240	3.63	56.0	22.1	1.69	22.5	0.00	0.04	0.03	0.09	85 212	
100	9.31	9.30	33.722	26.070	195.1	0.270	3.05	47.1	25.2	1.88	25.1	0.00	0.00	0.02	0.09	101 211	
120	8.86	8.85	33.787	26.193	183.8	0.308	3.17	48.5	27.4	1.88	25.3	0.00	0.00	0.01	0.07	121 210	
125 ISL	8.73	8.73	33.854	26.266	176.9	0.317	3.26	49.8	27.8	1.86	25.2	0.00	0.00	0.01	0.07	126	
139	8.60	8.59	33.899	26.321	171.9	0.342	3.35	51.0	29.1	1.81	25.1	0.00	0.00	0.01	0.07	140 209	
150 ISL	8.40	8.38	33.934	26.379	166.5	0.360	3.22	48.8	30.8	1.86	25.8	0.00	0.00	0.01	0.07	151	
170	8.29	8.27	33.968	26.423	162.7	0.393	2.78	42.1	34.5	2.01	27.9	0.00	0.00	0.01	0.06	171 208	
200	7.96	7.94	34.026	26.518	154.1	0.441	2.10	31.5	40.6	2.26	31.0	0.00	0.00	0.01	0.04	201 207	
230	7.35	7.33	34.032	26.611	145.6	0.486	1.95	28.9	45.6	2.37	32.7	0.00	0.00		231	206	
250 ISL	7.25	7.23	34.051	26.640	143.1	0.514	1.80	26.6	48.6	2.43	33.6	0.00	0.00		252		
270	7.15	7.12	34.059	26.661	141.4	0.543	1.68	24.8	51.3	2.49	34.3	0.00	0.00		272	205	
300 ISL	7.55	7.55	34.200	26.716	137.0	0.585	0.90	13.4	54.7	2.62	35.3	0.00	0.00		302		
320	7.08	7.05	34.156	26.747	134.0	0.612	1.02	15.0	56.8	2.71	35.9	0.00	0.00		322	204	
379	6.76	6.72	34.192	26.820	127.8	0.689	0.74	10.8	63.8	2.86	37.4	0.00	0.00		382	203	
400 ISL	6.85	6.81	34.249	26.853	125.1	0.716	0.55	8.1	65.9	2.91	37.8	0.00	0.00		403		
440	6.56	6.52	34.273	26.911	120.0	0.765	0.44	6.4	69.8	2.99	38.4	0.00	0.00		443	202	
500 ISL	6.22	6.18	34.301	26.978	114.2	0.835	0.33	4.8	75.5	3.08	39.3	0.00	0.00		504		
516	6.18	6.13	34.307	26.988	113.4	0.853	0.30	4.3	77.0	3.10	39.6	0.00	0.00		520	201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 76.7 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.66	16.66	33.118	24.150	375.7	0.000	5.75	103.3	1.3	0.29	0.1	0.00	0.06	0.39	0.07	0	
2 A	16.66	16.66	33.118	24.151	375.8	0.008	5.75	103.3	1.3	0.29	0.1	0.00	0.06	0.39	0.07	2 223	
8 A	16.66	16.66	33.111	24.145	376.5	0.030	5.73	102.9	1.2	0.30	0.1	0.00	0.12	0.31	0.08	8 222	
10 A	16.65	16.65	33.110	24.147	376.4	0.038	5.74	103.1	1.1	0.29	0.1	0.00	0.00	0.35	0.05	10 220	
10 A	16.59	16.59	33.140	24.184	373.1	0.071	5.74	103.0	1.2	0.28	0.1	0.00	0.00	0.37	0.03	19 219	
20 ISL	16.59	16.59	33.142	24.186	373.0	0.075	5.69	102.1	1.2	0.28	0.1	0.00	0.00	0.36	0.04	20	
28	16.55	16.55	33.146	24.198	372.0	0.105	5.75	103.1	1.1	0.29	0.2	0.00	0.05	0.32	0.12	28 218	
30 ISL	16.38	16.38	33.155	24.244	367.7	0.112	5.73	102.4	1.1	0.33	0.7	0.01	0.08	0.38	0.14	30	
36 A	14.80	14.79	33.213	24.640	330.2	0.133	6.06	104.9	1.3	0.46	2.5	0.05	0.21	0.54	0.17	36 217	
44	14.54	14.53	33.346	24.798	315.3	0.159	5.95	102.6	1.5	0.60	4.6	0.17	0.49	0.48	0.09	44 216	
50 ISL	13.93	13.92	33.271	24.868	308.8	0.178	5.89	100.2	2.0	0.65	4.9	0.28	0.52	0.47	0.19	50 215	
53 A	13.77	13.76	33.268	24.898	305.9	0.187	5.88	99.7	2.4	0.66	5.1	0.35	0.54	0.46	0.24	53 215	
62	11.65	11.64	33.054	25.145	282.5	0.213	5.81	94.1	4.2	0.66	5.0	0.59	0.13	0.35	0.19	62 214	
70	11.10	11.09	33.048	25.240	273.6	0.236	5.56	89.0	4.9	0.69	6.1	0.04	0.01	0.26	0.12	70 213	
75 ISL	10.84	10.83	33.089	25.318	266.2	0.249	5.32	84.7	6.6	0.81	8.1	0.03	0.01	0.22	0.11	75	
85	10.46	10.45	33.188	25.461	252.8	0.275	4.98	78.7	10.8	1.10	12.9	0.00	0.01	0.16	0.09	85 212	
100	9.72	9.71	33.366	25.725	227.9	0.311	4.43	68.9	16.0	1.37	17.6	0.00	0.00	0.06	0.08	100 211	
120	9.20	9.19	33.613	26.003	201.8	0.354	3.74	57.6	22.1	1.65	22.3	0.00	0.00	0.01	0.04	121 210	
125 ISL	8.96	8.95	33.675	26.089	193.7	0.364	3.64	55.8	23.5	1.71	23.2	0.00	0.00	0.01	0.04	126	
140	8.79	8.78	33.754	26.178	185.5	0.392	3.25	49.7	27.3	1.85	25.4	0.00	0.00	0.01	0.04	141 209	
150 ISL	8.72	8.70	33.852	26.266	177.3	0.411	2.82	43.0	28.9	1.88	26.0	0.00	0.00	0.01	0.04	151	
170	8.35	8.33	33.886	26.349	169.7	0.445	3.09	46.8	31.7	1.92	27.0	0.00	0.00	0.00	0.04	171 208	
200	8.04	8.02	33.996	26.483	157.5	0.494	2.29	34.4	38.6	2.18	30.6	0.00	0.00	0.00	0.03	201 207	
230	7.77	7.75	34.023	26.544	152.1	0.541	2.00	29.9	42.1	2.29	32.0	0.00	0.00		231	206	
250 ISL	7.62	7.60	34.064	26.598	147.3	0.571	1.63	24.3	45.6	2.40	33.3	0.00	0.00		251		
270	7.45	7.42	34.081	26.636	143.9	0.600	1.45	21.5	49.4	2.51	34.5	0.00	0.00		272	205	
300 ISL	7.10	7.07	34.089	26.692	138.9	0.642	1.28	18.9	54.2	2.62	35.9	0.00	0.00		302		
320	6.92	6.89	34.095	26.721	136.3	0.670	1.17	17.2	57.2	2.68	36.6	0.00					

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 76.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.75	16.75	33.174	24.172	373.6	0.000	5.70	102.6	1.1	0.32	0.3	0.00	0.00	0.25	0.08	0	
2	16.75	16.75	33.174	24.173	373.7	0.007	5.70	102.6	1.1	0.32	0.3	0.00	0.00	0.25	0.08	2	
10	16.75	16.75	33.175	24.174	373.8	0.037	5.71	102.8	1.1	0.31	0.3	0.00	0.00	0.25	0.08	10	
20	16.76	16.76	33.176	24.172	374.3	0.075	5.72	103.0	1.0	0.32	0.4	0.00	0.00	0.27	0.07	20	
30	14.63	14.63	33.192	24.659	328.1	0.110	6.07	104.7	1.7	0.44	2.2	0.05	0.11	0.68	0.28	30	
40	13.59	13.58	33.121	24.821	312.9	0.142	6.00	101.3	2.3	0.57	3.3	0.23	0.45	0.75	0.49	40	
50 ISL	13.29	D 13.28	33.456	D 25.141	282.7	0.172	5.40	D 90.8	3.5	0.85	7.2	0.35	1.08	0.43	0.35	50	
51	13.00	12.99	33.443	25.189	278.2	0.175	5.61	93.7	3.7	0.88	7.7	0.36	1.11	0.39	0.33	51	
60	12.12	12.11	33.441	D 25.358	262.3	0.199	5.32	87.3	6.7	1.05	10.7	0.48	0.35	0.23	0.21	60	
70	10.43	10.42	33.326	25.574	241.8	0.224	4.59	72.5	13.0	1.34	16.2	0.00	0.02	0.14	0.16	70	
75 ISL	10.05	D 10.04	33.346	D 25.654	234.2	0.236	4.46	D 69.9	14.4	1.39	17.1	0.00	0.01	0.12	0.14	75	
85	9.59	9.58	33.415	25.784	221.9	0.259	4.29	66.6	16.5	1.44	18.1	0.00	0.00	0.08	0.09	85	
100	9.13	9.12	33.593	25.998	201.9	0.291	3.73	57.4	22.3	1.67	22.3	0.00	0.00	0.02	0.04	100	
119	8.98	8.97	33.748	26.143	188.4	0.328	3.02	46.3	27.3	1.93	26.2	0.00	0.00	0.01	0.04	120	
125 ISL	8.91	D 8.90	33.790	D 26.187	184.4	0.339	2.92	D 44.7	28.5	1.98	26.9	0.00	0.00	0.01	0.04	126	
141	8.73	8.72	33.887	26.292	174.7	0.368	2.59	39.6	31.3	2.06	28.2	0.00	0.00	0.01	0.04	142	
150 ISL	8.65	D 8.63	33.935	D 26.342	170.1	0.383	2.40	D 36.6	32.9	2.10	28.9	0.00	0.00	0.01	0.04	151	
170	8.40	8.38	33.991	26.424	162.6	0.416	2.21	33.5	36.3	2.19	30.1	0.00	0.00	0.00	0.03	171	
200	7.97	7.95	34.024	26.515	154.4	0.464	1.98	29.7	40.2	2.30	31.6	0.00	0.00	0.00	0.03	201	
230	7.61	7.59	34.057	26.594	147.3	0.509	1.74	25.9	45.8	2.42	33.1	0.00	0.00		231	206	
250 ISL	7.47	D 7.45	34.067	D 26.622	144.9	0.538	1.51	D 22.4	48.6	2.49	33.9	0.00	0.00			251	
270	7.31	7.28	34.089	26.662	141.4	0.567	1.44	21.3	51.3	2.56	34.6	0.00	0.00		272	205	
300 ISL	6.97	D 6.94	34.103	D 26.720	136.1	0.609	1.23	D 18.1	56.1	2.65	35.8	0.00	0.00			302	
320	6.78	6.75	34.099	26.743	134.2	0.636	1.18	17.2	59.4	2.71	36.6	0.00	0.00			322	
380	6.26	6.23	34.143	26.847	124.8	0.713	0.76	11.0	69.1	2.91	39.3	0.00	0.00			382	
400 ISL	6.16	D 6.12	34.164	D 26.876	122.3	0.738	0.65	D 9.4	72.0	2.95	39.8	0.00	0.00			403	
440	5.76	5.72	34.170	26.932	117.2	0.786	0.61	8.7	77.4	3.02	40.6	0.00	0.00			443	
500 ISL	5.55	D 5.51	34.241	D 27.014	110.0	0.854	0.36	D 5.1	85.6	3.12	41.6	0.00	0.00			503	
515	5.37	5.33	34.230	27.027	108.8	0.871	0.40	5.7	87.6	3.14	41.9	0.00	0.00			519	
																201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 76.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	15.63	15.63	33.223	24.465	345.7	0.000	5.99	105.5	1.7	0.39	1.6	0.01	0.04	0.62	0.22	0	
2	15.63	15.63	33.223	24.465	345.8	0.007	5.99	105.5	1.7	0.39	1.6	0.01	0.04	0.62	0.22	2	
10	15.61	15.61	33.212	24.461	346.4	0.035	5.95	104.7	1.7	0.39	1.6	0.01	0.05	0.51	0.22	10	
20	15.50	15.50	33.204	D 24.480	344.9	0.069	5.94	104.3	1.5	0.39	1.7	0.01	0.06	0.50	0.22	20	
30	15.15	15.15	33.125	24.496	343.7	0.104	5.99	104.4	1.5	0.38	1.2	0.00	0.06	0.61	0.27	30	
40	13.45	13.44	32.943	24.712	323.3	0.137	6.13	103.1	1.6	0.39	0.8	0.04	0.17	0.53	0.34	40	
50	12.49	12.48	32.948	24.905	305.1	0.168	5.98	98.6	2.7	0.50	2.3	0.47	0.08	0.51	0.37	50	
60	11.73	11.72	33.035	25.115	285.3	0.198	5.84	94.8	3.8	0.66	4.7	0.20	0.46	0.31	0.24	60	
70	11.21	11.20	33.051	25.223	275.2	0.226	5.59	89.7	5.4	0.71	6.4	0.01	0.00	0.21	0.16	70	
75 ISL	11.10	D 11.09	33.155	D 25.323	265.8	0.239	5.34	D 85.5	7.4	0.84	8.7	0.01	0.00	0.17	0.13	75	
85	10.52	10.51	33.258	25.505	248.6	0.265	4.90	77.6	12.3	1.19	14.3	0.00	0.00	0.10	0.10	213	
100	10.45	10.44	33.661	25.832	217.9	0.300	3.93	62.3	18.4	1.73	22.2	0.00	0.00	0.08	0.08	100	
120	10.01	10.00	33.762	25.986	203.6	0.342	2.80	44.0	24.1	1.94	25.0	0.13	0.06	0.03	0.07	121	
125 ISL	9.67	D 9.66	33.810	D 26.081	194.7	0.352	2.62	D 40.8	25.4	1.94	25.5	0.10	0.05	0.02	0.07	126	
140	8.90	8.89	33.814	26.208	182.7	0.381	3.00	46.0	28.7	1.93	26.4	0.00	0.01	0.01	0.06	141	
150 ISL	8.48	D 8.46	33.838	D 26.292	174.8	0.398	3.44	D 52.2	30.0	1.91	26.4	0.00	0.00	0.05	0.15	151	
170	8.23	8.21	33.891	26.371	167.5	0.433	3.29	49.7	31.8	1.88	26.3	0.00	0.00	0.03	0.17	209	
200	7.80	7.78	33.944	26.477	157.9	0.481	3.15	47.1	35.5	1.95	27.6	0.00	0.00	0.00	0.02	201	
230	7.45	7.43	33.984	26.559	150.5	0.528	2.45	36.4	42.4	2.20	31.2	0.00	0.00		231	207	
250 ISL	7.37	D 7.35	34.030	D 26.607	146.3	0.557	1.94	D 28.7	46.5	2.34	32.9	0.00	0.00			251	
270	7.15	7.12	34.033	26.640	143.3	0.586	1.75	25.8	50.3	2.46	34.3	0.00	0.00		272	206	
300 ISL	7.01	D 6.98	34.078	D 26.695	138.5	0.629	1.35	D 19.8	55.2	2.62	36.1	0.00	0.00			302	
319	6.91	6.88	34.109	26.733	135.2	0.655	1.08	15.8	58.2	2.71	37.0	0.00	0.00			321	
380	6.25	6.22	34.150	26.854	124.2	0.734	0.73	10.5	69.2	2.90	39.4	0.00	0.00			382	
394	6.18	6.15	34.161	D 26.871	122.7	0.751	0.68	D 9.8								397	
400 ISL	6.13	D 6.09	34.163	D 26.879	121.9	0.758	0.67	D 9.6	71.6	2.94	39.8	0.00	0.00			403	
440	5.89	5.85	34.183	26.926	117.9	0.806	0.55	7.9	76.0	3.01	40.4	0.00	0.00			443	
500 ISL	5.51	D 5.47	34.215	D 26.998	111.4	0.875	0.44	D 6.2	84.1	3.10	41.6	0.00	0.00			503	
516	5.43	5.39	34.227	27.017	1												

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 76.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	17.10	17.10	32.983	23.944	395.4	0.000	5.64	102.1	1.7	0.29	0.0	0.00	0.00	0.12	0.03	0	
3	17.10	17.10	32.983	23.944	395.5	0.012	5.64	102.1	1.7	0.29	0.0	0.00	0.00	0.12	0.03	3	220
10	17.07	17.07	32.982	23.951	395.1	0.040	5.65	102.2	1.6	0.30	0.0	0.00	0.00	0.11	0.03	10	219
20 ISL	16.97	16.97	32.991	D 23.982	392.5	0.079	5.60	D 101.1	1.4	0.29	0.0	0.00	0.00	0.12	0.04	20	
25	16.94	16.94	32.991	23.989	391.9	0.099	5.66	102.1	1.3	0.28	0.0	0.00	0.00	0.12	0.04	25	218
30 ISL	16.93	16.93	32.989	D 23.990	392.0	0.118	5.60	D 101.0	1.3	0.28	0.0	0.00	0.00	0.12	0.04	30	
40	16.91	16.90	32.989	23.995	391.8	0.157	5.66	102.1	1.4	0.28	0.0	0.00	0.00	0.14	0.04	40	217
50	15.68	15.67	32.964	24.256	367.2	0.195	5.88	103.5	1.8	0.27	0.0	0.00	0.00	0.18	0.06	50	216
62	13.69	13.68	32.980	24.693	325.8	0.237	6.18	104.5	1.6	0.34	0.4	0.00	0.00	0.43	0.26	62	215
73	12.95	12.94	33.059	24.902	306.0	0.272	6.13	102.1	1.9	0.27	0.0	0.00	0.00	0.31	0.22	73	214
75 ISL	12.70	D 12.69	33.044	D 24.939	302.5	0.278	6.09	D 100.9	1.9	0.27	0.0	0.00	0.01	0.31	0.22	75	
88	12.48	12.47	33.032	24.973	299.6	0.317	6.00	98.9	2.2	0.33	0.1	0.01	0.05	0.32	0.21	88	213
100	12.35	12.34	33.258	25.173	280.9	0.352	5.63	92.7	3.1	0.41	1.8	0.10	0.04	0.21	0.16	100	212
112	11.33	11.32	33.225	25.337	265.3	0.384	5.39	86.8	4.9	0.60	5.3	0.01	0.01	0.14	0.12	112	211
125	10.52	10.51	33.213	25.471	252.7	0.418	5.14	81.3	8.0	0.86	9.4	0.00	0.00	0.10	0.09	126	210
141	9.64	9.62	33.341	25.719	229.3	0.457	4.68	72.7	14.2	1.20	15.1	0.00	0.00	0.03	0.04	142	209
150 ISL	9.41	D 9.39	33.466	D 25.854	216.6	0.477	4.45	D 68.8	16.2	1.30	16.8	0.00	0.00	0.02	0.03	151	
170	9.07	9.05	33.635	26.042	199.1	0.518	4.25	65.3	20.2	1.45	19.6	0.00	0.00	0.00	0.02	171	208
200	8.44	8.42	33.870	26.324	172.7	0.574	3.29	49.9	30.2	1.83	25.7	0.00	0.00	0.00	0.01	201	207
230	8.19	8.17	33.991	26.457	160.6	0.624	2.34	35.3	37.3	2.15	29.9	0.00	0.00			231	206
250 ISL	7.89	D 7.86	34.024	D 26.527	154.1	0.656	2.03	D 30.4	41.0	2.27	31.5	0.00	0.00			251	
269	7.72	7.69	34.042	26.567	150.6	0.684	1.87	27.9	44.2	2.34	32.5	0.00	0.00			270	205
300 ISL	7.26	D 7.23	34.058	D 26.645	143.5	0.730	1.62	D 23.9	49.9	2.47	34.3	0.00	0.00			302	
319	7.08	7.05	34.064	26.675	140.8	0.757	1.46	21.5	53.2	2.54	35.3	0.00	0.00			321	204
380	6.68	6.65	34.107	26.764	133.1	0.841	1.03	15.0	61.1	2.74	37.5	0.00	0.00			382	203
400 ISL	6.62	D 6.58	34.154	D 26.809	129.1	0.867	0.79	D 11.5	63.7	2.81	38.0	0.00	0.00			402	
440	6.43	6.39	34.196	26.867	123.9	0.917	0.60	8.7	68.8	2.94	38.9	0.00	0.00			443	202
500 ISL	6.10	D 6.06	34.235	D 26.941	117.5	0.990	0.44	D 6.3	75.4	3.03	39.8	0.00	0.00			503	
515	6.07	6.02	34.254	26.960	115.9	1.007	0.38	5.5	77.1	3.05	40.0	0.00	0.00			518	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 80.0 50.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	15.62	15.62	33.505	24.684	324.9	0.000	6.43	113.4	3.8	0.37	1.2	0.03	0.06	3.65	0.95	0	
2	15.62	15.62	33.505	24.684	324.9	0.006	6.43	113.4	3.8	0.37	1.2	0.03	0.06	3.65	0.95	2	206
5	15.62	15.62	33.508	24.687	324.8	0.016	6.42	113.2	3.9	0.39	1.1	0.03	0.07	3.88	0.92	5	205
10	15.73	15.73	33.506	24.661	327.4	0.033	6.37	112.6	4.3	0.40	1.4	0.03	0.07	3.85	1.02	10	203
10	15.73	15.73	33.507	24.661	327.3	0.033	6.37	112.6								10	204
20	12.60	12.60	33.489	25.302	266.6	0.062	4.75	78.7	11.1	1.02	9.8	0.18	0.23	2.54	1.17	20	202
24	12.39	12.39	33.491	25.344	262.6	0.073	4.64	76.6	11.2	1.12	11.4	0.18	0.18	2.56	1.23	24	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 80.0 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	14.09	14.09	33.439	24.963	298.3	0.000	6.12	104.6	0.1	0.47	1.2	0.04	0.21	6.61	1.09	0	
2	14.09	14.09	33.439	24.963	298.4	0.006	6.12	104.6	0.1	0.47	1.2	0.04	0.21	6.61	1.09	2	223
10	14.12	14.12	33.449	24.965	298.4	0.030	6.07	103.8	0.0	0.49	1.4	0.05	0.25	6.05	0.96	10	222
10	14.12	14.12	33.450	24.965	298.3	0.030	6.11	104.5	0.0	0.52	1.4	0.05	0.30	7.06	1.12	10	221
20	14.13	14.13	33.453	24.966	298.6	0.060	6.08	104.0	0.2	0.49	1.5	0.05	0.26	7.05	0.97	20	220
30	13.21	13.21	33.372	25.092	286.9	0.089	5.80	97.3	1.8	0.56	3.2	0.10	0.52	5.18	0.94	30	219
40	12.93	12.92	33.519	25.261	271.0	0.117	5.04	84.1	6.8	1.01	9.0	0.15	0.53	3.07	0.84	40	218
50 ISL	11.54	D 11.53	33.431	D 25.458	252.4	0.143	4.61	D 74.7	10.0	1.23	12.5	0.13	0.25	2.05	0.76	50	
51	11.30	11.29	33.432	25.502	248.2	0.146	4.67	75.3	10.4	1.25	12.8	0.13	0.22	1.96	0.74	51	217
60	10.53	10.52	33.463	25.663	233.1	0.167	4.06	64.4	15.9	1.48	17.9	0.06	0.03	0.36	0.43	60	216
70	10.04	10.03	33.692	25.926	208.3	0.189	3.30	51.8	21.8	1.79	22.4	0.02	0.01	0.30	0.39	70	215
75 ISL	9.96	D 9.95	33.739	D 25.976	203.6	0.200	3.12	D 48.9	23.0	1.83	22.9	0.01	0.00	0.30	0.39	75	
84	9.90	9.89	33.750	25.995	202.0	0.218	3.06	47.9	24.0	1.90	23.8	0.00	0.00	0.29	0.39	84	213
84	9.90	9.89	33.749	25.994	202.1	0.218	3.08	48.2	23.8	1.87	23.9	0.00	0.00	0.25	0.32	84	214
99	9.72	9.71	33.786	26.053	196.7	0.248	2.93	45.7	25.5	1.92	24.6	0.00	0.00	0.17	0.23	100	212
100 ISL	9.71	D 9.70	33.796	D 26.063	195.9	0.250	2.88	D 44.9	25.7	1.93	24.7	0.00	0.00	0.17	0.23	101	
120	9.28	9.27	33.928	26.236	179.7	0.287	2.43	37.6	30.3	2.09	27.0	0.00	0.00	0.14	0.25	121	211
125 ISL	9.26	D 9.25	33.952	D 26.258	177.7	0.296	2.34	D 36.2	30.7	2.10	27.2	0.00	0.00	0.12	0.25	126	
139	9.18	9.16	33.972	26.287	175.3	0.321	2.28	35.2	31.6	2.12	27.6	0.00	0.00	0.07	0.23	140	210
150 ISL	9.14	D 9.12	33.993	D 26.310	173.3	0.340	2.22	D 34.2	33.0	2.17	28.1	0.00	0.00	0.05	0.19	151	
169	8.98	8.96	34.067	26.394	165.7	0.372	1.96	30.1	35.5	2.27	28.9	0.00	0.00	0.03	0.12	170	208
169	8.98	8.96	34.065	26.392	165.9	0.372	1.95	30.0	35.3	2.25	28.9	0.00	0.00	0.03	0.10	170	209
199	8.94	8.92	34.126	26.447	161.3	0.421	1.69	26.0	37.7	2.35	29.8	0.00	0.00	0.03	0.12	200	207
200 ISL	8.91	D 8.89	34.131	D 26.456	160.5	0.423	1.66	D 25.5	37.8	2.35	29.8	0.00	0.00			201	
229	8.76	8.74	34.179	26.517	155.1	0.469	1.35	20.7	40.9	2.46	31.0	0.00	0.00			230	206
250 ISL	8.15	D 8.12	34.125	D 26.568	150.4	0.501	1.64	D 24.7	44.2	2.49	32.1	0.00	0.00			252	
270	7.80	7.77	34.124	26.620	145.7	0.530	1.47	22.0	47.3	2.52	33.2	0.00	0.00			272	205
300 ISL	7.76	D 7.73	34.172	D 26.663	142.1	0.574	1.16	D 17.4	50.5	2.61	34.2	0.00	0.00			302	
320	7.61	7.58	34.174	26.687	140.1	0.602	1.08	16.1	52.4	2.68	34.8	0.00	0.00			322	204
380	7.16	7.12	34.214	26.783	131.7	0.683	0.77	11.4	59.3	2.81	36.4	0.00	0.00			383	203
400 ISL	6.74	D 6.70	34.174	D 26.809	129.2	0.709	0.84	D 12.3	61.6	2.84	37.0	0.00	0.00			403	
440	6.64	6.60	34.201	26.844	126.4	0.761	0.68	9.9	66.3	2.91	38.1	0.00	0.00			443	202
500 ISL	6.30	D 6.25	34.270	D 26.943	117.5	0.834	0.42	D 6.1	74.3	3.05	39.4	0.00	0.00			504	
515	6.18	6.13	34.288	26.973	114.8	0.851	0.35	5.0	76.3	3.09	39.7	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 80.0 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.16	16.16	33.482	24.545	338.1	0.000	5.75	102.5	0.6	0.30	1.0	0.02	0.23	0.60	0.29	0	
2	16.16	16.16	33.482	24.545	338.2	0.007	5.75	102.5	0.6	0.30	1.0	0.02	0.23	0.60	0.29	2	221
10	16.16	16.16	33.482	24.545	338.4	0.034	5.76	102.7	0.4	0.29	1.0	0.01	0.16	0.55	0.30	10	220
20	16.16	16.16	33.482	24.545	338.7	0.068	5.75	102.5	0.4	0.27	1.0	0.02	0.18	0.55	0.31	20	218
29	16.13	16.13	33.492	24.560	337.6	0.098	5.73	102.1	0.5	0.31	1.2	0.03	0.30	0.58	0.28	29	217
30 ISL	16.09	D 16.09	33.502	D 24.577	336.0	0.101	5.60	D 99.7	0.8	0.36	1.7	0.07	0.50	0.57	0.29	30	
40	12.86	12.85	33.566	25.311	266.2	0.132	4.84	80.7	4.8	0.99	8.2	0.53	2.23	0.40	0.34	40	216
50	11.75	11.74	33.608	25.557	243.1	0.157	4.24	69.1	9.2	1.31	13.6	0.72	1.37	0.23	0.24	50	215
60	10.77	10.76	33.686	25.795	220.6	0.180	3.42	54.6	18.2	1.75	22.8	0.07	0.03	0.09	0.17	60	214
70	10.35	10.34	33.720	25.895	211.3	0.202	3.32	52.5	20.8	1.84	24.0	0.13	0.02	0.09	0.17	70	213
75 ISL	10.19	D 10.18	33.760	D 25.953	205.8	0.212	3.27	D 51.6	22.6	1.88	24.8	0.10	0.01	0.07	0.17	75	
86	9.49	9.48	33.786	26.091	192.9	0.234	2.90	45.0	26.4	1.93	26.4	0.00	0.00	0.03	0.15	86	212
100 ISL	8.86	D 8.85	33.805	D 26.206	182.1	0.260	2.96	D 45.3	28.7	1.90	26.5	0.00	0.00	0.01	0.09	101	
101	8.85	8.84	33.803	26.206	182.1	0.262	2.98	45.6	28.8	1.90	26.5	0.00	0.00	0.01	0.09	102	211
120	8.63	8.62	33.895	26.313	172.3	0.296	3.43	52.3	28.5	1.75	24.8	0.00	0.00	0.01	0.05	121	210
125 ISL	8.63	D 8.62	33.893	D 26.312	172.5	0.305	3.43	D 52.3	29.1	1.78	25.1	0.00	0.00	0.01	0.04	126	
140	8.47	8.46	33.935	26.369	167.3	0.330	3.02	45.9	31.7	1.91	26.8	0.00	0.00	0.00	0.03	141	209
150 ISL	8.30	D 8.28	33.958	D 26.413	163.3	0.347	3.00	D 45.4	33.4	1.98	27.8	0.00	0.00	0.00	0.03	151	
170	8.03	8.01	33.984	26.474	157.7	0.379	2.52	37.9	37.0	2.09	29.5	0.00	0.00	0.00	0.03	171	208
200	7.75	7.73	34.033	26.554	150.6	0.425	2.13	31.8	42.3	2.24	31.5	0.00	0.00	0.00	0.02	201	207
230	7.37	7.35	34.027	26.604	146.2	0.469	1.95	28.9	46.9	2.34	33.1	0.00	0.00			231	206

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 80.0 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.53	16.53	33.199	24.243	366.9	0.000	5.73	102.7	1.0	0.30	0.3	0.00	0.05	0.30	0.12	0	
3 A	16.53	16.53	33.199	24.243	367.0	0.011	5.73	102.7	1.0	0.30	0.3	0.00	0.05	0.30	0.12	3 222	
8 A	16.53	16.53	33.191	24.237	367.7	0.029	5.72	102.5	1.0	0.31	0.3	0.00	0.06	0.31	0.13	8 221	
10 ISL	16.52	16.52	33.192	D 24.240	367.5	0.037	5.71	D102.3	1.0	0.30	0.3	0.00	0.07	0.32	0.13	10	
11 A	16.52	16.52	33.191	24.239	367.6	0.040	5.73	102.7	1.0	0.30	0.3	0.00	0.07	0.33	0.13	11 220	
18 A	16.51	16.51	33.196	24.246	367.2	0.066	5.73	102.7	0.8	0.30	0.3	0.00	0.05	0.30	0.12	18 219	
20 ISL	16.48	D 16.48	33.200	D 24.256	366.3	0.073	5.72	D102.4	0.8	0.30	0.3	0.00	0.05	0.31	0.13	20	
26	16.43	16.43	33.203	24.270	365.2	0.095	5.75	102.9	1.0	0.33	0.4	0.00	0.05	0.32	0.15	26 218	
30 ISL	15.06	D 15.06	33.113	D 24.506	342.7	0.110	5.82	D101.3	1.1	0.36	0.6	0.01	0.07	0.39	0.24	30	
34 A	14.01	14.01	33.070	24.696	324.7	0.123	6.10	103.9	1.3	0.39	0.9	0.02	0.10	0.45	0.34	34 217	
42	12.86	12.85	33.027	D 24.894	306.0	0.148	6.05	100.5	1.8	0.46	1.7	0.13	0.13	0.41	0.38	42 216	
49 A	12.71	12.70	33.023	D 24.920	303.6	0.169	5.95	D 98.6	2.6	0.57	3.5	0.33	0.17	0.35	0.42	49 215	
50 ISL	12.63	D 12.62	33.011	D 24.927	303.1	0.173	5.93	D 98.1	2.6	0.57	3.5	0.34	0.17	0.35	0.41	50	
60	12.32	12.31	33.067	25.030	293.5	0.202	5.75	94.5	3.3	0.63	4.1	0.39	0.10	0.31	0.32	60 214	
70	11.02	11.01	33.137	25.323	265.6	0.230	5.30	84.7	5.9	0.86	8.3	0.14	0.03	0.22	0.26	70 213	
75 ISL	10.74	D 10.73	33.234	D 25.448	253.8	0.243	4.80	D 76.3	9.6	1.09	12.1	0.07	0.02	0.17	0.21	75	
85	9.88	9.87	33.414	25.736	226.6	0.267	3.95	61.7	17.3	1.52	19.4	0.00	0.09	0.11	85	212	
100	9.48	9.47	33.537	25.898	211.5	0.300	3.55	55.0	21.3	1.70	22.4	0.00	0.00	0.05	0.07	100 211	
120	9.04	9.03	33.810	26.182	184.8	0.340	2.77	42.6	29.0	2.01	27.0	0.00	0.00	0.01	0.04	121 210	
125 ISL	9.03	D 9.02	33.841	D 26.208	182.4	0.349	2.64	D 40.6	30.0	2.05	27.5	0.00	0.00	0.01	0.04	126	
140	8.91	8.90	33.909	26.281	175.8	0.376	2.38	36.5	32.1	2.12	28.4	0.00	0.00	0.01	0.06	141 209	
150 ISL	8.89	D 8.87	33.971	D 26.333	171.1	0.393	2.15	D 33.0	33.7	2.17	29.1	0.00	0.00	0.01	0.06	151	
171	8.77	8.75	34.050	26.414	163.8	0.428	1.78	27.2	37.0	2.28	30.4	0.00	0.00	0.01	0.07	172 208	
200 ISL	8.54	D 8.52	34.105	D 26.493	156.8	0.475	1.49	D 22.7	40.9	2.40	31.5	0.00	0.00	0.01	0.08	201	
201	8.51	8.49	34.109	26.501	156.1	0.476	1.50	22.8	41.0	2.40	31.5	0.00	0.00	0.01	0.08	202 207	
230	8.33	8.31	34.146	26.557	151.1	0.521	1.27	19.2	44.4	2.50	32.5	0.00	0.00		231	206	
250 ISL	8.14	D 8.11	34.148	D 26.588	148.5	0.551	1.23	D 18.6	46.8	2.56	33.1	0.00	0.00		251		
270	7.96	7.93	34.178	26.639	144.0	0.580	1.08	16.2	49.0	2.62	33.6	0.00	0.00		272	205	
300 ISL	7.76	D 7.73	34.188	D 26.676	140.9	0.623	0.95	D 14.2	51.3	2.71	34.1	0.00	0.00		302		
321	7.82	7.79	34.246	26.713	137.8	0.652	0.79	11.8	52.9	2.76	34.4	0.00	0.00		323	204	
380	7.18	7.14	34.221	26.786	131.5	0.732	0.66	9.7	61.0	2.85	36.5	0.00	0.00		382	203	
400 ISL	7.07	D 7.03	34.232	D 26.810	129.4	0.758	0.61	D 9.0	63.0	2.87	36.9	0.00	0.00		403		
440	6.80	6.76	34.239	26.852	125.8	0.809	0.53	7.8	66.7	2.92	37.5	0.00	0.00		443	202	
500 ISL	6.40	D 6.35	34.264	D 26.926	119.3	0.882	0.41	D 5.9	73.2	3.00	38.9	0.00	0.00		503		
515	6.29	6.24	34.274	26.948	117.3	0.900	0.40	D 5.8	74.8	3.02	39.2	0.00	0.00		519	201	

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 80.0 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.88	16.88	33.207	24.168	374.1	0.000	5.75	103.8	0.8	0.31	0.4	0.00	0.00	0.23	0.09	0	
2	16.88	16.88	33.207	24.168	374.1	0.007	5.75	103.8	0.8	0.31	0.4	0.00	0.00	0.23	0.09	2 221	
10	16.88	16.88	33.203	24.165	374.6	0.037	5.73	103.4	0.8	0.32	0.4	0.00	0.00	0.24	0.09	10 220	
20	16.88	16.88	33.205	D 24.167	374.8	0.075	5.73	103.4	1.0	0.30	0.4	0.00	0.00	0.23	0.11	20 219	
29	16.10	16.10	33.206	24.347	357.9	0.108	5.93	105.4	0.7	0.34	1.0	0.01	0.00	0.43	0.19	29 218	
30 ISL	15.98	D 15.98	33.274	D 24.427	350.3	0.111	5.91	D104.8	0.8	0.35	1.3	0.01	0.01	0.45	0.20	30	
40	15.48	15.47	33.360	24.605	333.6	0.146	6.01	105.6	1.5	0.49	3.3	0.05	0.14	0.57	0.31	40 217	
49	13.71	13.70	33.031	D 24.727	322.1	0.175	6.15	104.0	1.5	0.49	2.1	0.10	0.13	0.51	0.37	49 216	
50 ISL	13.69	D 13.68	33.031	D 24.732	321.7	0.178	6.11	D103.3	1.6	0.50	2.2	0.14	0.13	0.50	0.37	50	
60	12.50	12.49	33.062	24.991	297.1	0.209	5.95	98.2	3.6	0.66	4.7	0.51	0.13	0.43	0.35	60 215	
71	11.48	11.47	33.083	25.199	277.6	0.241	5.53	89.3	5.7	0.81	7.4	0.23	0.05	0.26	0.26	71 214	
75 ISL	11.31	D 11.30	33.135	D 25.270	270.8	0.252	5.30	D 85.3	7.0	0.91	9.2	0.15	0.04	0.22	0.24	75	
85	10.71	10.70	33.236	25.455	253.4	0.278	4.87	77.4	10.3	1.17	13.7	0.00	0.02	0.16	0.21	85 213	
100	10.14	10.13	33.335	25.631	236.9	0.315	4.47	70.2	13.6	1.32	16.4	0.00	0.00	0.10	0.12	100 212	
120	9.44	9.43	33.594	25.949	207.0	0.359	3.68	57.0	21.6	1.69	22.2	0.00	0.00	0.03	0.07	121 211	
125 ISL	9.34	D 9.33	33.626	D 25.991	203.1	0.369	3.63	D 56.1	22.5	1.72	22.7	0.00	0.00	0.02	0.06	126	
140	8.90	8.89	33.680	26.103	192.7	0.399	3.58	54.8	24.4	1.76	23.6	0.00	0.00	0.01	0.04	141 210	
150 ISL	8.58	D 8.56	33.752	D 26.209	182.7	0.418	3.57	D 54.3	26.7	1.83	24.8	0.00	0.00	0.01	0.04	151	
169	8.46	8.44	33.875	26.324	172.1	0.452	2.93	44.5	31.4	1.98	27.1	0.00	0.00	0.01	0.03	170 209	
199	7.96	7.94	33.951	26.459	159.7	0.501	2.73	41.0	36.6	2.08	28.8	0.00	0.00	0.00	0.03	200 208	
200 ISL	7.92	D 7.90	33.960	D 26.472	158.5	0.503	2.65	D 39.7	36.8	2.09	28.9	0.00	0.00		201		

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 80.0 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.35	16.35	33.075	24.189	372.1	0.000	5.82	103.9	1.4	0.28	0.0	0.00	0.00	0.30	0.09	0	
3	16.35	16.35	33.075	24.189	372.1	0.011	5.82	103.9	1.4	0.28	0.0	0.00	0.00	0.30	0.09	3	220
10	16.35	16.35	33.075	24.189	372.3	0.037	5.82	103.9	1.3	0.28	0.0	0.00	0.00	0.30	0.09	10	219
20	16.35	16.35	33.073	24.188	372.8	0.074	5.82	103.9	1.1	0.27	0.0	0.00	0.00	0.29	0.12	20	218
30	16.35	16.35	33.074	24.189	373.0	0.112	5.83	104.0	1.2	0.27	0.0	0.00	0.00	0.31	0.10	30	217
40	16.15	16.14	33.065	24.228	369.6	0.149	5.83	103.6	1.3	0.27	0.0	0.00	0.00	0.29	0.10	40	216
50 ISL	14.48	D 14.47	32.976	D 24.525	341.4	0.184	6.11	D105.0	1.1	0.29	0.1	0.00	0.00	0.56	0.32	50	
51	14.45	14.44	32.976	24.532	340.8	0.188	6.13	105.2	1.1	0.29	0.1	0.00	0.00	0.59	0.34	51	215
59	14.09	14.08	32.975	24.606	333.9	0.215	6.13	104.5	1.2	0.32	0.4	0.02	0.05	0.56	0.38	59	214
70	13.07	13.06	33.026	24.853	310.7	0.250	6.00	100.1	2.1	0.35	0.8	0.13	0.11	0.39	0.40	70	213
75 ISL	12.48	D 12.47	33.024	D 24.966	299.9	0.266	5.98	D 98.6	2.3	0.36	0.8	0.16	0.09	0.31	0.36	75	
85	12.02	12.01	33.038	25.064	290.7	0.295	5.84	95.3	2.6	0.38	0.8	0.22	0.02	0.18	0.25	85	212
100	11.07	11.06	33.073	25.265	271.8	0.337	5.41	86.6	6.1	0.79	8.0	0.01	0.00	0.12	0.14	100	211
118	9.98	9.97	33.258	25.598	240.4	0.383	4.74	74.1	12.8	1.16	14.5	0.00	0.00	0.05	0.07	119	210
125 ISL	9.82	D 9.81	33.310	D 25.665	234.1	0.400	4.53	D 70.6	15.1	1.28	16.6	0.00	0.00	0.04	0.06	126	
139	9.51	9.49	33.488	25.855	216.3	0.432	4.09	63.4	19.4	1.50	20.1	0.00	0.00	0.02	0.04	140	209
150 ISL	9.31	D 9.29	33.656	D 26.019	200.9	0.454	3.41	D 52.7	22.6	1.64	22.4	0.00	0.00	0.02	0.04	151	
169	8.85	8.83	33.769	26.181	185.8	0.491	3.23	49.4	27.5	1.83	25.4	0.00	0.00	0.01	0.04	170	208
200	8.41	8.39	33.908	26.358	169.5	0.546	2.77	42.0	32.9	2.00	27.9	0.00	0.00			201	207
231	8.05	8.03	34.002	26.486	157.7	0.597	2.30	34.6	38.6	2.17	30.4	0.00	0.00			232	206
250 ISL	7.88	D 7.85	34.028	D 26.532	153.7	0.627	2.06	D 30.9	41.7	2.26	31.7	0.00	0.00			251	
271	7.74	7.71	34.050	26.570	150.4	0.658	1.76	26.3	44.8	2.36	32.9	0.00	0.00			273	205
300 ISL	7.38	D 7.35	34.078	D 26.644	143.6	0.701	1.42	D 21.0	48.9	2.49	34.3	0.00	0.00			302	
320	7.30	7.27	34.106	26.677	140.7	0.730	1.26	18.6	51.8	2.58	35.2	0.00	0.00			322	204
380	6.63	6.60	34.142	26.798	129.8	0.811	0.89	13.0	62.0	2.78	37.6	0.00	0.00			382	203
400 ISL	6.43	D 6.39	34.139	D 26.822	127.7	0.836	0.84	D 12.2	64.7	2.83	38.0	0.00	0.00			403	
440 CSL	6.20	6.16	34.185	D 26.888	121.7	0.886	0.62	D 8.9								443	202
500 ISL	5.87	5.83	34.234	D 26.969	114.6	0.957	0.43	D 6.2	78.1	3.06	40.3	0.00	0.00			503	
515	5.87	5.83	34.264	D 26.993	112.6	0.974	0.37	5.3	80.1	3.09	40.6	0.00	0.00			518	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 2° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 80.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.98	16.98	32.989	23.977	392.2	0.000	5.64	101.9	1.1	0.29	0.0	0.00	0.00	0.10	0.04	0	
2 A	16.98	16.98	32.989	23.977	392.3	0.008	5.64	101.9	1.1	0.29	0.0	0.00	0.00	0.10	0.04	2	222
10 ISL	16.99	D 16.99	32.990	D 23.976	392.7	0.039	5.60	D101.2	1.4	0.29	0.0	0.00	0.00	0.12	0.03	10	
14 A	16.96	16.96	32.990	23.983	392.1	0.055	5.66	102.2	1.5	0.29	0.0	0.00	0.00	0.13	0.02	14	221
18 A	16.96	16.96	32.990	23.983	392.3	0.071	5.64	101.8	1.4	0.30	0.0	0.00	0.00	0.14	0.01	18	220
20 ISL	16.96	D 16.96	32.989	D 23.982	392.4	0.078	5.60	D101.1	1.4	0.30	0.0	0.00	0.00	0.14	0.01	20	
30 ISL	16.96	D 16.96	32.989	D 23.983	392.7	0.118	5.60	D101.1	1.3	0.29	0.0	0.00	0.00	0.13	0.02	30	
33 A	16.93	16.92	32.996	23.995	391.6	0.129	5.64	101.8	1.3	0.29	0.0	0.00	0.00	0.13	0.02	33	219
43	16.02	16.01	32.965	24.181	374.2	0.168	5.83	103.3	1.1	0.28	0.0	0.00	0.00	0.30	0.09	43	218
50 ISL	15.46	D 15.45	32.941	D 24.287	364.2	0.194	5.83	D102.1	1.4	0.29	0.0	0.00	0.00	0.30	0.12	50	
53	15.34	15.33	32.939	24.312	361.9	0.205	5.88	102.8	1.5	0.29	0.0	0.00	0.00	0.30	0.13	53	217
62 A	13.67	13.66	32.916	24.647	330.1	0.236	6.12	103.4	1.8	0.30	0.0	0.00	0.00	0.47	0.03	62	216
72	12.96	12.95	32.873	24.756	319.9	0.268	6.16	102.5	1.4	0.33	0.0	0.00	0.00	0.41	0.10	72	215
75 ISL	12.80	D 12.79	32.858	D 24.776	318.1	0.278	6.17	D102.3	1.5	0.32	0.0	0.00	0.00	0.40	0.11	75	
82	12.83	12.82	32.959	24.848	311.4	0.300	6.17	102.4	1.8	0.31	0.0	0.00	0.00	0.39	0.12	82	214
91 A	12.52	12.51	32.969	24.916	305.1	0.327	6.12	100.9	2.0	0.33	0.0	0.00	0.00	0.34	0.08	91	213
100	11.92	11.91	32.997	25.052	292.3	0.354	5.86	95.4	2.9	0.47	1.6	0.21	0.10	0.35	0.04	100	212
112	11.18	11.17	33.022	25.206	277.7	0.389	5.48	87.9	4.8	0.69	5.5	0.07	0.05	0.28	0.09	112	211
125	10.31	10.30	33.203	25.499	250.0	0.423	5.03	79.2	9.5	0.99	10.9	0.00	0.00	0.13	0.08	126	210
140	9.72	9.70	33.307	25.680	233.0	0.459	4.64	72.2	13.6	1.25	15.2	0.00	0.00	0.08	0.04	141	209
150 ISL	9.33	D 9.31	33.451	D 25.856	216.4	0.482	4.32	D 66.7	17.7	1.47	18.8	0.00	0.00	0.05	0.03	151	
170	9.05	9.03	33.702	26.097	193.8	0.523	3.14	48.2	25.6	1.87	25.1	0.00	0.00	0.01	0.02	171	208
200	8.74	8.72	33.868	26.276	177.3	0.578	2.65	40.5	30.9	2.07	28.0	0.00	0.00		0.03	201	207
230	8.21	8.19	33.947	26.419	164.1	0.630	2.64	39.9	35.6	2.10	28.9	0.00	0.00		0.00	231	206
250 ISL	8.05	D 8.02	33.998	D 26.484	158.3	0.662	2.26	D 34.0	38.7	2.20	30.1	0.00	0.00			251	
270	7.74	7.71	34.004	D 26.534	153.7	0.693	2.18	32.6	41.8	2.31	31.4	0.00	0.00			271	205
300 ISL	7.47	D 7.44	34.025	D 26.589	148.8	0.738	2.01	D 29.8	46.1	2.4							

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 81.8 46.9

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE			
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP	
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db			
0 ISL	16.66	16.66	33.533	24.469	345.3	0.000	6.28	113.1	2.1	0.21	0.0	0.00	0.11	1.11	0.26	0			
2	16.66	16.66	33.533	24.469	345.4	0.007	6.28	113.1	2.1	0.21	0.0	0.00	0.11	1.11	0.26	2	224		
10	13.94	13.94	33.475	25.022	293.0	0.032	6.38	108.7	4.3	0.42	0.6	0.03	0.13	6.32	1.20	10	223		
20	12.74	12.74	33.510	25.291	267.6	0.060	4.68	77.8	8.9	0.98	9.3	0.48	0.47	1.29	0.52	20	222		
30	12.22	12.22	33.506	25.388	258.6	0.087	4.46	73.3	11.3	1.16	12.9	0.47	0.09	0.24	0.28	30	221		
40	11.13	11.13	33.581	25.649	234.0	0.111	3.81	61.2	16.8	1.47	17.8	0.09	0.17	0.11	0.23	40	220		
50	10.38	10.37	33.661	25.843	215.7	0.134	3.36	53.2	20.8	1.67	20.9	0.03	0.05	0.07	0.24	50	219		
60	9.65	9.64	33.852	26.115	190.0	0.154	2.58	40.2	27.8	1.96	25.1	0.02	0.05	0.04	0.14	60	218		
69	9.52	9.51	33.967	26.227	179.6	0.171	2.16	33.6	30.9	2.11	27.0	0.03	0.04	0.04	0.17	69	217		
75 ISL	9.48	D	9.47	34.010	D	26.267	175.9	0.181	2.04	D	31.7	32.3	2.17	27.7	0.03	0.04	0.04	75	
86	9.43	9.42	34.078	26.329	170.3	0.201	1.76	27.3	34.1	2.25	28.3	0.04	0.03	0.15	86	216			
100	9.41	9.40	34.130	26.373	166.4	0.224	1.50	23.3	36.1	2.34	29.1	0.04	0.03	0.02	0.12	101	215		
120	9.34	9.33	34.157	26.406	163.7	0.257	1.41	21.9	37.6	2.38	29.3	0.02	0.03	0.13	121	214			
125 ISL	9.32	D	9.31	34.170	D	26.419	162.5	0.265	1.32	D	20.5	38.1	2.40	29.5	0.02	0.03	0.24	126	
140	9.29	9.27	34.194	D	26.443	160.6	0.289	1.15	D	17.8							141	213	
150 ISL	9.26	D	9.24	34.204	D	26.456	159.5	0.305	1.12	D	17.3	40.6	2.50	30.4	0.00	0.03	0.99	0.45	151
170	9.14	9.12	34.218	26.487	157.0	0.337	0.85	13.1	42.6	2.58	31.3	0.00	0.03	0.03	0.15	171	212		
200	8.92	8.90	34.227	26.529	153.5	0.384	0.72	11.1	44.6	2.62	32.3	0.00	0.00	0.03	0.17	201	211		
229	8.63	8.61	34.225	26.573	149.8	0.428	0.65	9.9	48.4	2.68	33.2	0.00	0.00		230	210			
250 ISL	8.48	D	8.45	34.216	D	26.590	148.5	0.459	0.63	D	9.6	49.5	2.70	33.5	0.00	0.00		252	
270	8.39	8.36	34.214	26.602	147.7	0.489	0.63	9.6	50.4	2.72	33.7	0.00	0.00		272	209			
300 ISL	8.17	D	8.14	34.210	D	26.633	145.2	0.533	0.56	D	8.5	54.1	2.78	34.3	0.00		302		
320	7.92	7.89	34.215	26.674	141.5	0.561	0.51	7.7	57.2	2.83	34.6	0.00	0.00		322	208			
380	7.46	7.42	34.221	26.746	135.4	0.644	0.34	5.1	66.4	3.02	34.7	0.00	0.00		383	207			
400 ISL	7.42	D	7.38	34.221	D	26.752	135.2	0.671	0.31	D	4.6	70.2	3.08	34.5	0.00	0.00		403	
440	7.01	6.97	34.231	26.818	129.3	0.724	0.17	2.5	79.8	3.23	33.3	0.00	0.00		443	206			
480	6.68	6.64	34.245	26.874	124.3	0.775	0.04	0.6	92.7	3.46	30.1	0.00	0.00		483	205			
500 ISL	6.56	D	6.51	34.246	D	26.891	122.8	0.800	0.03	D	4	97.7	3.56	28.6	0.08	0.00		504	
516	6.52	6.47	34.248	26.898	122.4	0.819	0.02	0.3	102.8	3.70	26.2	0.14	0.00		520	204			
540	6.47	6.42	34.248	26.904	122.0	0.849	0.02	0.3	115.8	4.14	18.3	1.45	0.00		544	203			
566	6.45	6.40	34.252	26.911	121.8	0.880	0.02	0.3	120.2	4.33	14.1	2.77	0.00		570	202			
570	6.45	6.40	34.252	26.911	121.9	0.885	0.03	0.4	120.4	4.35	15.9	2.82	0.00		574	201			

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 39.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.40	16.40	33.533	24.529	339.6	0.000	6.33	113.4	0.7	0.15	0.0	0.00	0.04	2.00	0.47	0		
2	16.40	16.40	33.533	24.529	339.7	0.007	6.33	113.4	0.7	0.15	0.0	0.00	0.04	2.00	0.47	2	205	
5	15.33	15.33	33.526	24.765	317.4	0.017	6.40	112.2	0.6	0.15	0.1	0.00	0.04	2.81	0.61	5	204	
10	14.69	14.69	33.522	24.901	304.5	0.032	5.62	97.3	3.1	0.46	2.8	0.08	0.26	3.69	0.95	10	202	
10	14.69	14.69	33.522	24.901	304.5	0.032										10	203	
19	14.30	14.30	33.507	24.972	298.0	0.059	4.94	84.8	7.5	0.88	5.5	0.29	1.50	2.84	0.86	19	201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE			
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP	
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db			
0 ISL	16.64	16.64	33.501	24.449	347.3	0.000	5.99	107.8	1.5	0.31	0.2	0.00	0.04	2.27	0.72	0			
2	16.64	16.64	33.501	24.449	347.3	0.007	5.99	107.8	1.5	0.31	0.2	0.00	0.04	2.27	0.72	2	206		
5	16.43	16.43	33.500	24.497	342.8	0.017	6.00	107.5	1.2	0.28	0.2	0.00	0.03	2.57	0.73	5	205		
10	15.85	15.85	33.493	24.624	330.9	0.034	5.94	105.2	1.3	0.32	0.6	0.00	0.12	3.28	0.86	10	203		
10	15.85	15.85	33.494	24.624	330.9	0.034	5.94	105.2								10	204		
20	15.21	15.21	33.510	24.779	316.4	0.067	6.19	108.3	0.8	0.27	0.2	0.00	0.06	5.64	1.09	20	202		
30 ISL	14.20	D	14.20	33.518	D	25.002	295.5	0.097	5.19	D	89.0	5.5	0.70	4.3	0.15	0.70	2.44	0.80	30
31	14.22	14.22	33.520	24.999	295.8	0.100	5.26	90.2	6.0	0.74	4.7	0.16	0.76	2.12	0.77	31	201		

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
m	DEG C	DEG C	THETA	mL/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	14.10	14.10	33.464	24.980	296.7	0.000	5.40	92.3	6.7	0.75	6.5	0.14	0.14	1.34	0.52	0		
2	14.10	14.10	33.464	24.980	296.7	0.006	5.40	92.3	6.7	0.75	6.5	0.14	0.14	1.34	0.52	2	211	
10	13.91	13.91	33.461	25.018	293.4	0.030	5.36	91.3	6.8	0.81	6.9	0.15	0.15	1.21	0.70	10	209	
10	13.91	13.91	33.461	25.018	293.4	0.030										10	210	
20	10.94	10.94	33.530	25.642	234.1	0.056	4.02	64.3	15.5	1.43	16.9	0.11	0.05	0.43	0.28	20	208	
30	10.62	10.62	33.533	25.701	228.7	0.079	3.78	60.1	16.9	1.54	18.9	0.03	0.05	0.17	0.20	30	207	
40	10.59	10.59	33.539	25.711	228.0	0.102	3.76	59.7	17.2	1.55	19.0	0.03	0.04	0.20	0.17	40	206	
50	10.31	10.30	33.575	25.788	220.9	0.124	3.61	57.0	18.7	1.59	20.1	0.01	0.03	0.12	0.15	50	205	
60	10.07	10.06	33.653	25.890	211.4	0.146	3.32	52.2	21.8	1.71	21.7	0.02	0.04	0.10	0.15	60	204	
75	10.00	9.99	33.714	25.950	206.1	0.177	3.10	48.7	24.1	1.80	22.7	0.04	0.05	0.08	0.20	75	203	
85	9.79	9.78	33.790	26.044	197.3	0.197	2.83	44.2	26.3	1.90	24.1	0.05	0.03	0.06	0.17	85	202	
95	9.67	9.66	33.841	26.104	191.8	0.217	2.68	41.8	27.9	1.96	25.0	0.04	0.03	0.05	0.14	96	201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
m	DEG C	DEG C	THETA	mL/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	15.43	15.43	33.483	24.709	322.5	0.000	5.73	100.7	4.8	0.53	3.3	0.04	0.10	2.48	0.99	0		
2	15.43	15.43	33.483	24.709	322.5	0.006	5.73	100.7	4.8	0.53	3.3	0.04	0.10	2.48	0.99	2	221	
10	15.29	15.29	33.483	24.740	319.8	0.032	5.74	100.6	4.7	0.54	3.2	0.04	0.08	2.50	0.76	10	219	
10	15.29	15.29	33.483	24.740	319.8	0.032										10	220	
20 ISL	13.78	13.78	33.506	25.079	287.8	0.063	5.03	85.5	7.5	0.76	6.8	0.06	0.08	1.84	0.80	20		
21	13.73	13.73	33.495	25.081	287.7	0.065	5.15	87.4	8.0	0.80	7.4	0.06	0.08	1.75	0.80	21	218	
30	11.39	11.39	33.522	25.555	242.7	0.089	4.14	66.9	14.8	1.38	15.8	0.09	0.06	0.93	0.46	30	217	
40	10.36	10.36	33.572	25.777	221.8	0.112	3.68	58.2	18.2	1.54	19.4	0.03	0.05	0.26	0.21	40	216	
50	9.98	9.97	33.624	25.882	211.9	0.134	3.48	54.6	20.7	1.62	21.2	0.00	0.03	0.07	0.12	50	215	
61	9.85	9.84	33.660	25.932	207.4	0.157	3.34	52.2	22.0	1.72	22.1	0.00	0.00	0.06	0.12	61	214	
69	9.64	9.63	33.738	26.028	198.5	0.173	3.10	48.3	23.9	1.83	23.6	0.00	0.03	0.10	0.69	69	213	
75 ISL	9.58	9.57	33.857	D 26.116	190.3	0.185	2.78	D 43.3	25.9	1.93	24.8	0.00	0.00	0.03	0.10	75		
83	9.56	9.55	33.902	D 26.170	185.3	0.200	2.48	38.6	28.5	2.04	26.2	0.00	0.00	0.02	0.11	83	212	
100 ISL	9.40	D 9.39	33.965	D 26.245	178.5	0.231	2.30	D 35.7	30.8	2.11	27.1	0.00	0.00	0.01	0.09	101		
101	9.39	9.38	33.964	D 26.246	178.4	0.233	2.29	35.5	30.9	2.11	27.1	0.00	0.00	0.01	0.09	102	211	
117	9.32	9.31	34.004	D 26.289	174.7	0.261	2.16	33.5	32.3	2.16	27.5	0.00	0.00	0.01	0.08	118	210	
125 ISL	9.21	D 9.20	34.005	D 26.308	173.0	0.275	2.20	D 34.0	32.8	2.18	27.8	0.00	0.00	0.01	0.08	126		
140	9.21	9.19	34.037	D 26.333	170.9	0.301	2.05	31.7	33.5	2.22	28.3	0.00	0.00	0.01	0.09	141	209	
150 ISL	9.21	D 9.19	34.059	D 26.351	169.5	0.318	1.99	D 30.8	33.9	2.23	28.4	0.00	0.00	0.01	0.09	151		
170	9.12	9.10	34.063	D 26.369	168.2	0.352	1.96	30.2	34.7	2.26	28.6	0.00	0.00	0.01	0.08	171	208	
200	9.14	9.12	34.134	D 26.422	163.8	0.401	1.66	25.6	37.0	2.37	29.5	0.00	0.00	0.01	0.07	201	207	
232	8.97	8.94	34.216	D 26.513	155.7	0.453	1.22	18.8	40.7	2.51	30.9	0.00	0.00		233	206		
250 ISL	8.90	D 8.87	34.237	D 26.541	153.4	0.480	1.12	D 17.2	41.6	2.56	31.2	0.00	0.00		252			
270	8.88	8.85	34.245	D 26.551	152.9	0.511	1.06	16.3	42.6	2.60	31.5	0.00	0.00		272	205		
300 ISL	8.59	D 8.56	34.279	D 26.623	146.4	0.556	0.82	D 12.5	46.3	2.70	32.6	0.00	0.00		302			
320	8.46	8.43	34.293	D 26.655	143.8	0.585	0.71	10.8	48.9	2.76	33.3	0.00	0.00		322	204		
381	8.16	8.12	34.293	D 26.701	140.3	0.672	0.67	10.1	51.6	2.80	33.9	0.00	0.00		384	203		
400 ISL	8.02	D 7.98	34.288	D 26.718	139.0	0.698	0.67	D 10.1	52.8	2.85	34.3	0.00	0.00		403			
441	7.61	7.57	34.286	D 26.777	133.7	0.754	0.57	8.5	57.0	2.91	35.5	0.00	0.00		444	202		
500 ISL	6.68	D 6.63	34.300	D 26.917	120.5	0.829	0.40	D 5.8	70.2	3.06	38.5	0.00	0.00		503			
515	6.50	6.45	34.304	D 26.944	117.9	0.847	0.35	5.1	73.5	3.10	39.2	0.00	0.00		519	201		

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
m	DEG C	DEG C	THETA	mL/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	15.25	15.25	33.467	24.737	319.9	0.000	6.16	107.8	1.3	0.30	0.1	0.02	0.11	7.32	1.64	0		
2 A	15.25	15.25	33.467	24.737	319.9	0.006	6.16	107.8	1.3	0.30	0.1	0.02	0.11	7.32	1.64	2	221	
5 A	15.26	15.26	33.480	24.745	319.3	0.016	6.15	107.7	0.6	0.29	0.0	0.00	0.14	7.38	1.77	5	223	
6 A	15.26	15.26	33.491	24.753	318.5	0.019	6.11	107.0	1.0	0.30	0.0	0.02	0.09	7.33	1.75	6	222	
10 A	15.23	15.23	33.495	24.763	317.7	0.032	6.12	107.1	1.0	0.37	0.3	0.03	0.12	7.37	1.68	10</		

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.66	16.66	33.230	24.236	367.5	0.000	5.80	104.3	1.4	0.29	0.0	0.00	0.06	0.32	0.11	0	
1	16.66	16.66	33.230	24.236	367.5	0.004	5.80	104.3	1.4	0.29	0.0	0.00	0.06	0.32	0.11	1	221
9	16.66	16.66	33.230	24.237	367.8	0.033	5.75	103.4	1.3	0.29	0.0	0.00	0.06	0.30	0.11	9	219
10 ISL	16.66	16.66	33.229	D 24.236	367.9	0.037	5.69	D102.3	1.3	0.29	0.0	0.00	0.06	0.30	0.11	10	
10	16.66	16.66	33.230	24.237	367.8	0.037	5.75	103.4								10	220
20	16.67	16.67	33.230	24.235	368.3	0.074	5.77	103.7	1.0	0.29	0.0	0.00	0.06	0.32	0.11	20	218
30	16.66	16.66	33.241	24.246	367.6	0.110	5.81	104.4	1.3	0.36	1.0	0.00	0.10	0.30	0.12	30	217
40	15.29	15.28	33.268	24.576	336.4	0.146	5.89	103.0	1.6	0.46	2.3	0.03	0.20	0.27	0.15	40	216
50	13.14	13.13	32.955	24.783	316.7	0.178	6.16	102.9	1.7	0.34	0.1	0.00	0.14	0.30	0.27	50	215
59	12.89	12.88	32.955	24.833	312.3	0.207	6.11	101.6	1.8	0.37	0.3	0.02	0.19	0.29	0.26	59	214
70	12.20	12.19	32.961	24.970	299.3	0.240	5.99	98.1	2.6	0.41	0.7	0.15	0.15	0.24	0.26	70	213
75 ISL	11.77	D 11.76	32.988	D 25.072	289.8	0.255	5.87	D 95.3	3.4	0.51	2.3	0.11	0.09	0.20	0.24	75	
84	11.27	11.26	33.001	25.173	280.2	0.281	5.45	87.5	5.3	0.72	6.0	0.00	0.00	0.14	0.20	84	212
100	10.23	10.22	33.220	25.526	246.9	0.323	4.97	78.1	10.3	1.01	11.3	0.00	0.00	0.07	0.12	100	211
120	9.42	9.41	33.438	25.831	218.2	0.369	4.40	68.0	16.8	1.35	17.2	0.00	0.00	0.02	0.02	121	210
125 ISL	9.39	D 9.38	33.471	D 25.861	215.4	0.380	4.27	D 66.0	18.1	1.41	18.2	0.00	0.00	0.02	0.02	126	
140	9.15	9.13	33.580	25.985	203.9	0.412	4.02	61.9	21.3	1.55	20.5	0.00	0.00	0.01	0.01	141	209
150 ISL	9.01	D 8.99	33.681	D 26.087	194.4	0.431	3.75	D 57.6	23.1	1.60	21.5	0.00	0.00	0.01	0.01	151	
170	8.87	8.85	33.871	26.258	178.6	0.469	3.58	54.8	26.4	1.69	23.1	0.00	0.00	0.01	0.01	171	208
200	8.39	8.37	33.954	26.397	165.7	0.520	3.10	47.0	32.1	1.88	26.2	0.00	0.00	0.00	0.01	201	207
230	8.14	8.12	34.008	26.478	158.6	0.569	2.47	37.2	39.3	2.13	29.6	0.00	0.00			231	206
250 ISL	7.59	D 7.57	34.013	D 26.562	150.6	0.600	2.23	D 33.2	44.2	2.25	31.5	0.00	0.00			251	
270	7.20	7.17	34.028	26.629	144.4	0.629	2.02	29.8	48.7	2.36	33.0	0.00	0.00			272	205
300 ISL	7.63	D 7.60	34.197	D 26.702	138.3	0.672	1.15	D 17.2	53.6	2.63	34.6	0.00	0.00			302	
320	7.58	7.55	34.257	26.756	133.5	0.699	0.65	9.7	56.2	2.80	35.3	0.00	0.00			322	204
379	7.10	7.06	34.288	26.849	125.4	0.775	0.47	6.9	63.6	2.92	36.9	0.00	0.00			381	203
400 ISL	7.03	D 6.99	34.293	D 26.863	124.3	0.802	0.44	D 6.5	65.4	2.95	37.2	0.00	0.00			403	
441	6.79	6.75	34.301	26.903	121.0	0.852	0.39	5.7	68.6	3.00	37.8	0.00	0.00			444	202
500 ISL	6.36	D 6.31	34.319	D 26.974	114.7	0.921	0.30	D 4.3	74.8	3.08	39.2	0.00	0.00			503	
515	6.29	6.24	34.326	26.989	113.5	0.939	0.27	3.9	76.4	3.10	39.5	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO3	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	17.37	17.37	33.050	23.932	396.6	0.000	5.62	102.3	1.4	0.29	0.0	0.00	0.06	0.10	0.03	0	
2	17.37	17.37	33.050	23.932	396.6	0.008	5.62	102.3	1.4	0.29	0.0	0.00	0.06	0.10	0.03	2	221
9	17.37	17.37	33.048	23.931	397.0	0.036										9	220
10	17.37	17.37	33.049	23.931	396.9	0.040	5.61	102.1	1.3	0.28	0.0	0.00	0.06	0.10	0.03	10	219
20 ISL	17.37	D 17.37	33.049	D 23.932	397.2	0.079	5.53	D100.7	1.6	0.27	0.0	0.00	0.02	0.11	0.03	20	
25	17.37	17.37	33.052	23.934	397.2	0.099	5.59	101.8	1.8	0.27	0.0	0.00	0.00	0.11	0.04	25	218
30 ISL	17.19	D 17.19	33.058	D 23.982	392.8	0.119	5.55	D100.7	1.8	0.27	0.0	0.00	0.02	0.13	0.04	30	
39	16.94	16.93	33.033	24.022	389.3	0.154	5.70	102.9	1.7	0.28	0.0	0.00	0.06	0.19	0.07	39	217
50	15.18	15.17	33.081	24.456	348.1	0.195	6.13	106.9	1.1	0.28	0.0	0.00	0.05	0.30	0.16	50	216
61	14.36	14.35	33.030	24.593	353.5	0.232	6.12	104.9	1.6	0.30	0.0	0.00	0.07	0.38	0.27	61	215
75	13.75	13.74	33.117	24.786	317.2	0.278	5.96	100.9	1.8	0.42	0.9	0.06	0.38	0.34	0.35	75	214
88	12.56	12.55	33.006	24.937	303.0	0.318	5.86	96.8	2.5	0.42	0.8	0.37	0.11	0.22	0.20	88	213
100	11.93	11.92	33.096	25.127	285.2	0.354	5.47	89.2	4.5	0.66	5.3	0.00	0.06	0.12	0.18	100	212
112	11.36	11.35	33.113	25.245	274.1	0.387	5.31	85.5	6.1	0.74	6.8	0.00	0.00	0.08	0.10	112	211
125 ISL	10.86	D 10.84	33.204	D 25.405	259.1	0.422	5.01	D 79.9	8.3	0.89	9.4	0.00	0.00	0.05	0.07	126	
126	10.83	10.81	33.198	25.406	259.0	0.424	5.06	80.6	8.5	0.91	9.7	0.00	0.00	0.05	0.07	127	210
140	10.08	10.06	33.300	25.614	239.3	0.459	4.64	72.7	13.1	1.17	14.2	0.00	0.00	0.02	0.05	141	209
150 ISL	9.78	D 9.76	33.400	D 25.743	227.3	0.483	4.42	D 68.9	15.8	1.32	16.6	0.00	0.00	0.01	0.04	151	
170	9.42	9.40	33.549	25.918	210.9	0.526	3.96	61.3	20.3	1.54	20.1	0.00	0.00	0.00	0.02	171	208
200 ISL	9.03	D 9.01	33.806	D 26.182	186.4	0.586	3.43	D 52.7	25.8	1.73	23.6	0.00	0.00	0.00	0.02	201	
201	9.01	8.99	33.800	26.181	186.5	0.588	3.42	52.5	26.0	1.73	23.7	0.00	0.00	0.00	0.02	202	207
229	8.75	8.73	33.921	26.317	174.1	0.638	2.81	42.9	31.2	1.94	26.9	0.00	0.00			230	206
250 ISL	8.52	D 8.49	33.998	D 26.413	165.3	0.674	2.65	D 40.3	34.5	2.05	28.4	0.00	0.00			251	
270	8.11	8.08	34.013	26.487	158.4	0.706	2.40	36.2	37.6	2.13	29.6	0.00	0.00			271	205
300 ISL	7.87	D 7.84	34.062	D 26.561	151.8	0.753	1.99	D 29.8	42.7	2.27	31.5	0.00	0.00			302	
320	7.47	7.44	34.044	26.605	147.7	0.783	1.92	28.5	46.4	2.36	32.8						

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	17.45	17.45	33.047	23.910	398.6	0.000	5.62	102.5	1.9	0.28	0.0	0.00	0.00	0.10	0.03	0	
2	17.45	17.45	33.047	23.910	398.7	0.008	5.62	102.5	1.9	0.28	0.0	0.00	0.00	0.10	0.03	2	221
10	17.42	17.42	33.044	23.916	398.4	0.040	5.59	101.9	2.0	0.27	0.0	0.00	0.00	0.10	0.03	10	219
10	17.42	17.42	33.048	23.919	398.1	0.040										10	220
20 ISL	17.38	D 17.38	33.042 D	23.924	398.0	0.080	5.54	D100.9	1.8	0.27	0.0	0.00	0.00	0.11	0.04	20	
25	16.99	16.99	33.039	24.014	389.5	0.099	5.66	102.3	1.7	0.27	0.0	0.00	0.00	0.11	0.04	25	218
30 ISL	16.49	D 16.49	33.032 D	24.125	379.1	0.119	5.72	D102.3	1.6	0.27	0.0	0.00	0.00	0.15	0.07	30	
40	15.65	15.64	33.105	24.371	355.9	0.155	6.06	106.7	1.5	0.27	0.0	0.00	0.00	0.22	0.11	40	217
50	14.79	14.78	32.999	24.477	346.0	0.190	6.05	104.6	1.9	0.28	0.0	0.00	0.00	0.21	0.09	50	216
62	14.13	14.12	32.995	24.614	333.3	0.231	6.08	103.7	2.1	0.27	0.0	0.00	0.00	0.22	0.10	62	215
75	13.38	13.37	32.976	24.752	320.4	0.274	6.02	101.1	2.3	0.32	0.2	0.01	0.00	0.36	0.27	75	214
86	13.01	13.00	33.018	24.859	310.5	0.308	5.85	97.5	3.0	0.43	1.5	0.19	0.00	0.38	0.29	86	213
100	12.56	12.55	33.104	25.013	296.1	0.351	5.59	92.3	4.2	0.59	4.7	0.00	0.00	0.28	0.23	100	212
112	11.86	11.85	33.139	25.173	281.0	0.385	5.41	88.1	5.5	0.73	6.8	0.00	0.00	0.14	0.16	112	211
125	11.11	11.09	33.202	25.359	263.5	0.421	5.10	81.7	8.4	0.93	10.0	0.00	0.00	0.06	0.09	126	210
140	10.18	10.16	33.336	25.626	238.3	0.458	4.60	72.3	13.9	1.23	14.8	0.00	0.00	0.02	0.04	141	209
150 ISL	10.04	D 10.02	33.384 D	25.687	232.7	0.482	4.41	D 69.1	17.9	1.43	18.2	0.00	0.00	0.01	0.04	151	
170	9.24	9.22	33.688	26.056	197.8	0.525	3.34	51.5	25.0	1.77	23.9	0.00	0.00	0.00	0.03	171	208
200	8.95	8.93	33.902	26.270	178.0	0.581	2.66	40.8	30.4	1.99	27.1	0.00	0.00	0.01	0.03	201	207
230	8.58	8.56	33.996	26.402	166.0	0.633	2.37	36.1	35.0	2.11	29.0	0.00	0.00		231	206	
250 ISL	8.44	D 8.41	34.041 D	26.459	160.9	0.666	2.12	D 32.2	37.7	2.18	30.1	0.00	0.00		251		
270	8.17	8.14	34.052	26.508	156.4	0.697	2.02	30.5	40.5	2.26	31.2	0.00	0.00		271	205	
300 ISL	7.95	D 7.92	34.103 D	26.581	149.9	0.743	1.69	D 25.4	45.2	2.43	32.9	0.00	0.00		302		
320	7.82	7.79	34.154	26.641	144.6	0.773	1.29	19.3	48.4	2.54	33.9	0.00	0.00		322	204	
380	7.09	7.05	34.172	26.759	133.8	0.856	0.95	14.0	57.5	2.74	36.5	0.00	0.00		382	203	
400 ISL	6.81	D 6.77	34.185 D	26.808	129.3	0.883	0.79	D 11.6	60.7	2.81	37.3	0.00	0.00		402		
440	6.57	6.53	34.219	26.867	124.1	0.933	0.60	8.7	66.9	2.93	38.6	0.00	0.00		443	202	
500 ISL	6.15	D 6.11	34.264 D	26.958	116.0	1.005	0.40	D 5.8	74.2	3.04	39.9	0.00	0.00		503		
516	6.12	6.07	34.274	26.970	115.1	1.024	0.37	5.3	76.2	3.07	40.3	0.00	0.00		519	201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	17.90	17.90	33.192	23.913	398.3	0.000	5.55	102.2	1.6	0.27	0.0	0.00	0.00	0.15	0.01	0	
2 A	17.90	17.90	33.192	23.913	398.4	0.008	5.55	102.2	1.6	0.27	0.0	0.00	0.00	0.15	0.01	2	224
10	17.90	17.90	33.192	23.914	398.6	0.040	5.60	103.1	1.7	0.27	0.0	0.00	0.00	0.16	0.01	10	223
10	17.90	17.90	33.192	23.914	398.6	0.040										10	
14 A	17.89	17.89	33.191	23.915	398.6	0.056	5.54	102.0	2.3	0.26	0.0	0.00	0.00	0.14	0.02	14	221
18 A	17.88	17.88	33.192	23.919	398.4	0.072	5.53	101.8	2.5	0.26	0.0	0.00	0.00	0.15	0.02	18	220
20 ISL	17.88	D 17.88	33.191 D	23.918	398.6	0.080	5.48	D100.8	2.5	0.26	0.0	0.00	0.00	0.15	0.02	20	
30 ISL	17.84	D 17.83	33.187 D	23.925	398.2	0.120	5.48	D100.8	2.5	0.25	0.0	0.00	0.00	0.17	0.04	30	
33 A	17.48	17.47	33.184	24.010	390.3	0.131	5.56	101.5	2.5	0.25	0.0	0.00	0.00	0.17	0.04	33	219
43	16.08	16.07	33.142	24.303	362.5	0.169	5.91	105.0	2.9	0.26	0.0	0.00	0.00	0.28	0.10	43	218
50 ISL	14.88	D 14.87	33.155 D	24.578	336.4	0.193	6.13	D 106.3	3.3	0.27	0.0	0.00	0.00	0.43	0.15	50	
53	14.67	14.66	33.152	24.621	332.4	0.204	6.13	105.8	3.5	0.28	0.0	0.00	0.00	0.49	0.19	53	217
62 A	13.74	13.73	33.102	24.777	317.8	0.233	6.01	101.8	3.7	0.35	0.7	0.05	0.14	0.56	0.46	62	216
72	13.35	13.34	33.107	24.860	310.1	0.264	5.84	98.1	4.5	0.45	1.5	0.29	0.24	0.39	0.30	72	215
75 ISL	13.33	D 13.32	33.117 D	24.871	309.0	0.273	5.78	D 97.0	4.6	0.47	1.7	0.30	0.29	0.33	0.25	75	
82	13.12	13.11	33.157	24.944	302.3	0.295	5.74	96.0	5.0	0.51	2.4	0.32	0.37	0.19	0.15	82	214
91 A	12.77	12.76	33.156	D 25.013	295.9	0.322	5.60	D 93.0							91	213	
100	12.13	12.12	33.160	25.139	284.1	0.348	5.53	90.6	6.8	0.66	5.7	0.05	0.00	0.10	0.11	100	212
111	11.27	11.26	33.152	25.291	269.7	0.378	5.26	84.6	9.1	0.79	8.1	0.00	0.00	0.07	0.08	111	211
125	11.15	11.13	33.362	25.477	252.4	0.415	4.82	77.4	12.9	1.13	13.1	0.00	0.00	0.04	0.06	126	210
140	10.39	10.37	33.435	25.667	234.4	0.451	4.34	68.6	17.7	1.32	16.5	0.00	0.00	0.03	0.05	141	209
150 ISL	10.01	D 9.99	33.567 D	25.835	218.6	0.474	3.78	D 59.3	21.3	1.49	19.3	0.00	0.00	0.02	0.04	151	
170	9.41	9.39	33.733	26.064	197.1	0.516	3.21	49.7	27.4	1.79	24.0	0.00	0.00	0.01	0.03	171	208
200	8.97	8.95	33.889	26.257	179.3	0.572	3.02	46.4	31.2	1.87	25.6	0.00	0.00	0.00	0.03	201	207
230	8.65	8.63	34.011	26.403	165.9	0.624	2.30	35.1	37.1	2.13	28.8	0.00	0.00		231	206	
250 ISL	8.40	D 8.37	34.054 D	26.475	159.3	0.656	2.07	D 31.4	41.0	2.26	30.3	0.00	0.00		251		
270	8.19	8.16	34.088	26.534	154.1	0.688	1.76	26.6	44.6	2.35	31.5	0.00	0.00		271	205	
300 ISL	7.9																

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN	OXY PCT	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP	
31 54.8 N	124 10.5 W	06/08/11	1831	UTC	3910 m	340	16 kn		0	1017.5 mb	17.5 C	15.5 C						
0 ISL	17.52	17.52	33.082	23.920	397.6	0.000	5.56	101.5	1.8	0.26	0.1	0.00	0.00	0.08	0.02	0		
1	17.52	17.52	33.082	23.921	397.7	0.004	5.56	101.5	1.8	0.26	0.1	0.00	0.00	0.08	0.02	1	221	
10	17.53	17.53	33.085	23.921	397.9	0.040	5.58	101.9	1.6	0.25	0.1	0.00	0.00	0.08	0.01	10	219	
10	17.53	17.53	33.082	23.918	398.2	0.040											10	220
20 ISL	17.53	17.53	33.084	D 23.920	398.3	0.080	5.50	D100.5	1.7	0.25	0.0	0.00	0.00	0.08	0.02	20		
24	17.47	17.47	33.087	23.937	396.8	0.096	5.58	101.8	1.8	0.25	0.0	0.00	0.00	0.08	0.02	24	218	
30 ISL	17.12	D 17.12	33.110	D 24.038	387.4	0.119	5.59	D101.3	1.8	0.24	0.0	0.00	0.00	0.08	0.02	30		
41	16.25	16.24	33.098	24.231	369.4	0.161	5.76	102.6	1.9	0.23	0.0	0.00	0.00	0.10	0.03	41	217	
50 ISL	15.61	D 15.60	33.140	D 24.407	352.8	0.193	5.84	D102.7	1.7	0.23	0.0	0.00	0.00	0.12	0.04	50		
51	15.53	15.52	33.158	D 24.439	349.8	0.197	5.89	103.5	1.7	0.23	0.0	0.00	0.00	0.12	0.04	51	216	
62	14.55	14.54	33.180	24.668	328.2	0.234	6.04	104.0	1.9	0.22	0.0	0.00	0.00	0.14	0.05	62	215	
75	13.90	13.89	33.169	24.796	316.3	0.276	6.00	102.0	2.0	0.23	0.0	0.00	0.00	0.16	0.10	75	214	
88	13.90	13.89	33.267	24.872	309.4	0.317	5.91	100.5	2.1	0.22	0.0	0.00	0.00	0.18	0.18	88	213	
99	13.19	13.18	33.259	25.010	296.5	0.350	5.66	94.8	2.5	0.31	0.5	0.12	0.00	0.24	0.21	99	212	
100 ISL	13.16	D 13.15	33.255	D 25.013	296.3	0.353	5.60	D 93.8	2.6	0.32	0.6	0.12	0.00	0.24	0.21	100		
113	12.95	12.93	33.357	25.134	285.1	0.391	5.45	90.9	3.7	0.41	2.5	0.04	0.00	0.17	0.18	113	211	
125	12.21	12.19	33.288	25.224	276.7	0.424	5.40	88.6	4.5	0.51	4.2	0.00	0.00	0.12	0.15	126	210	
141	10.81	10.79	33.217	25.424	257.6	0.467	5.20	82.8	7.2	0.77	8.2	0.00	0.00	0.09	0.16	142	209	
150 ISL	10.63	D 10.61	33.306	D 25.525	248.2	0.490	4.97	D 78.9	10.1	0.96	11.2	0.00	0.00	0.06	0.13	151		
171	9.39	9.37	33.446	25.843	218.1	0.539	4.36	67.4	17.6	1.37	17.8	0.00	0.00	0.01	0.03	172	208	
200 ISL	8.77	D 8.75	33.758	D 26.185	186.0	0.597	3.69	D 56.3	25.7	1.66	23.0	0.00	0.00	0.00	0.01	201		
201	8.76	8.74	33.757	26.186	185.9	0.599	3.72	56.8	25.9	1.67	23.1	0.00	0.00	0.00	0.01	202	207	
230	8.54	8.52	33.940	26.364	169.6	0.651	2.98	45.3	31.8	1.91	26.6	0.00	0.00		231	206		
250 ISL	8.18	D 8.15	33.983	D 26.452	161.4	0.684	2.79	D 42.1	35.3	2.03	28.4	0.00	0.00		251			
270	8.00	7.97	34.003	26.495	157.6	0.716	2.47	37.1	38.6	2.12	29.8	0.00	0.00		271	205		
300 ISL	7.54	D 7.51	34.017	D 26.573	150.4	0.762	2.29	D 34.1	44.0	2.26	31.7	0.00	0.00		302			
320	7.35	7.32	34.038	26.617	146.5	0.792	1.99	29.5	47.7	2.35	32.8	0.00	0.00		322	204		
381	6.77	6.73	34.099	26.745	134.9	0.877	1.17	17.1	59.4	2.68	36.7	0.00	0.00		383	203		
400 ISL	6.67	D 6.63	34.119	D 26.775	132.3	0.903	1.01	D 14.7	62.2	2.75	37.5	0.00	0.00		402			
441	6.34	6.30	34.152	26.844	126.0	0.956	0.77	11.1	67.8	2.87	38.8	0.00	0.00		444	202		
500 ISL	5.80	D 5.76	34.166	D 26.924	118.7	1.028	0.64	D 9.1	75.9	3.00	40.2	0.00	0.00		503			
515	5.83	5.79	34.205	26.951	116.4	1.046	0.49	7.0	77.9	3.03	40.5	0.00	0.00		518	201		

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 33.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN	OXY PCT	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
33 53.1 N	118 29.4 W	04/08/11	0101	UTC	61 m	220	03 kn	230 02 06	4	1010.9 mb	15.3 C	15.3 C	9m				8/8 ST
0 ISL	16.44	16.44	33.422	24.435	348.6	0.000	6.29	112.7	2.9	0.30	0.1	0.00	0.00	1.03	0.12	0	
2 A	16.44	16.44	33.422	24.435	348.7	0.007	6.29	112.7	2.9	0.30	0.1	0.00	0.00	1.03	0.12	2	209
5 A	16.16	16.16	33.419	24.496	342.9	0.017	6.30	112.3	2.8	0.29	0.0	0.00	0.00	1.30	0.12	5	208
7 A	15.93	15.93	33.410	24.542	338.6	0.024	6.38	113.2	3.0	0.32	0.1	0.00	0.00	1.69	0.14	7	207
10	15.30	15.30	33.404	24.677	325.8	0.034	6.46	113.1	3.2	0.32	0.0	0.00	0.00	2.11	0.01	10	206
12 A	15.46	15.46	33.402	24.641	329.4	0.041	6.51	114.4	3.1	0.32	0.0	0.00	0.00	2.08	0.27	12	205
20 ISL	13.33	D 13.33	33.335	D 25.039	291.6	0.066	6.05	D 101.7	4.6	0.53	2.9	0.17	0.21	1.72	0.25	20	
23 A	13.33	13.33	33.329	25.034	292.2	0.074	5.74	96.5	5.1	0.66	4.7	0.29	0.29	1.51	0.24	23	204
30 ISL	12.49	D 12.49	33.361	D 25.224	274.2	0.094	4.98	D 82.3	8.7	1.03	9.5	0.72	2.52	0.92	0.27	30	
34 A	12.19	12.19	33.387	25.302	266.9	0.105	4.51	74.1	11.1	1.23	12.2	0.89	3.37	0.60	0.30	34	203
42	11.61	11.60	33.443	25.454	252.6	0.126	3.93	63.8	15.6	1.41	15.9	0.66	0.91	0.27	0.42	42	202
50	10.78	10.77	33.519	25.663	232.9	0.145	3.41	54.4	18.6	1.62	20.5	0.22	0.04	0.09	0.20	50	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN	OXY PCT	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
33 49.4 N	118 37.8 W	04/08/11	0322	UTC	664 m	280	14 kn	290 03 06	0	1011.2 mb	19.0 C	17.0 C	9m				0/8 CI
0 ISL	16.00	16.00	33.424	24.536	338.9	0.000	6.11	108.5	4.2	0.41	1.2	0.09	0.06	2.38	0.57	0	
2	16.00	16.00	33.424	24.536	339.0	0.007	6.11	108.5	4.2	0.41	1.2	0.09	0.06	2.38	0.57	2	221
10	13.79	13.79	33.365	24.968	298.1	0.032	5.94	100.9	4.6	0.60	3.8	0.17	0.06	2.31	0.97	10	219
10	13.79	13.79	33.364	24.967	298.2	0.032										10	220
20	13.08	13.08	33.361	25.109	285.0	0.061	5.68	95.0	5.3	0.72	5.6	0.24	0.05	1.76	0.81	20	218
30	11.97	11.97	33.359	25.322	264.9	0.089	4.92	80.4	8.4	1.02	10.8	0.60	0.04	0.73			

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 40.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
m	DEG C	DEG C	THETA	SVA	DYN	ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db	
0 ISL	19.40	19.40	33.497	23.772	411.8	0.000	5.34	101.3	1.8	0.23	0.0	0.00	0.07	0.21	0.06	0
1	19.40	19.40	33.497	23.772	411.8	0.004	5.34	101.3	1.8	0.23	0.0	0.00	0.07	0.21	0.06	1 224
10	19.27	19.27	33.493	23.803	409.2	0.041	5.75	108.8	2.0	0.22	0.0	0.00	0.08	0.20	0.08	10 223
20	18.24	18.24	33.458	24.034	387.5	0.081	5.95	110.4	2.0	0.23	0.0	0.00	0.07	0.21	0.07	20
30 ISL	15.32 D	15.32	33.308	D 24.600	333.8	0.117	6.53	D 114.3	2.0	0.29	0.0	0.00	0.07	0.66	0.24	30
31	14.73	14.73	33.322	24.738	320.6	0.120	6.57	113.7	2.0	0.30	0.0	0.00	0.07	0.71	0.26	31 221
40	13.76	13.75	33.376	24.984	297.5	0.148	5.92	100.5	3.6	0.58	3.4	0.21	0.28	0.82	0.34	40 220
50	13.43	13.42	33.376	25.051	291.3	0.177	5.65	95.2	4.5	0.70	5.2	0.30	0.27	0.71	0.20	50 219
60	12.85	12.84	33.379	25.169	280.3	0.206	5.36	89.2	5.7	0.84	7.7	0.37	0.14	0.53	0.31	60 218
70	12.48	12.47	33.393	25.252	272.6	0.234	5.16	85.3	7.0	0.94	9.4	0.32	0.08	0.44	0.23	70 217
75 ISL	11.84 D	11.85	33.439	D 25.405	258.1	0.247	4.77	D 77.8	9.1	1.06	11.4	0.23	0.06	0.35	0.20	75
85	11.07	11.06	33.467	25.572	242.4	0.272	4.35	69.8	13.5	1.30	15.5	0.04	0.03	0.18	0.15	85 216
100	10.63	10.62	33.512	25.685	231.9	0.308	4.03	64.0	16.0	1.42	17.6	0.01	0.03	0.12	0.13	100 215
120	9.85	9.84	33.729	25.987	203.5	0.351	3.08	48.2	23.7	1.79	22.9	0.00	0.00	0.04	0.12	121 214
125 ISL	9.75 D	9.74	33.785	D 26.048	197.8	0.361	2.90	D 49.3	24.8	1.84	23.5	0.00	0.00	0.04	0.12	126
142	9.61	9.59	33.864	26.133	190.1	0.394	2.63	41.0	27.6	1.95	24.9	0.00	0.00	0.02	0.11	143 213
150 ISL	9.56 D	9.54	33.904	D 26.173	186.5	0.409	2.52	D 39.2	29.0	2.01	25.6	0.00	0.00	0.02	0.10	151
169	9.45	9.43	34.023	26.284	176.3	0.444	2.13	33.1	31.8	2.13	26.9	0.00	0.00	0.01	0.09	170 212
200	9.16	9.14	34.118	26.406	165.3	0.497	1.86	28.7	34.8	2.22	28.1	0.00	0.00	0.01	0.06	201 211
230	8.99	8.97	34.183	26.484	158.4	0.545	1.52	23.4	38.3	2.36	29.5	0.00	0.00		231 210	
250 ISL	8.94 D	8.91	34.209	D 26.513	156.1	0.577	1.40	D 21.5	40.7	2.41	30.2	0.00	0.00		251	
270	8.46	8.43	34.200	26.581	149.8	0.607	1.39	21.1	43.0	2.45	30.8	0.00	0.00		272 209	
300 ISL	8.44 D	8.41	34.244	D 26.619	146.8	0.652	1.11	D 16.9	46.5	2.61	31.6	0.00	0.00		302	
320	8.52	8.49	34.318	26.665	142.8	0.681	0.69	10.5	48.8	2.71	32.1	0.00	0.00		322 208	
380	7.89	7.85	34.307	26.752	135.3	0.764	0.58	8.7	54.9	2.81	33.9	0.00	0.00		382 207	
400 ISL	7.76 D	7.72	34.316	D 26.778	133.0	0.791	0.52	D 7.8	57.4	2.85	34.7	0.00	0.00		403	
439	7.31	7.27	34.306	26.835	127.9	0.842	0.46	6.8	62.2	2.91	36.0	0.00	0.00		442 206	
500 ISL	6.96 D	6.91	34.306	D 26.884	123.9	0.919	0.40	D 5.9	66.9	2.97	36.9	0.00	0.00		503	
516	6.87	6.82	34.306	26.897	122.9	0.938	0.37	5.4	68.1	2.99	37.1	0.00	0.00		520 205	
575	6.39	6.34	34.320	26.972	116.1	1.009	0.29	4.2	75.7	3.08	38.5	0.00	0.00		579 204	
600 ISL	6.20 D	6.15	34.325	D 27.001	113.5	1.037	0.27	D 3.9	78.9	3.11	38.9	0.00	0.00		604	
631	6.07	6.01	34.331	27.022	111.7	1.072	0.23	3.3	82.5	3.15	39.3	0.00	0.00		636 203	
695	5.80	5.74	34.349	27.071	107.6	1.143	0.17	2.4	88.2	3.19	39.4	0.00	0.00		700 202	
700	5.76	5.70	34.353	27.079	106.8	1.148	0.17	2.4	90.5	3.21	39.2	0.00	0.00		705 201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
m	DEG C	DEG C	THETA	SVA	DYN	ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db	
0 ISL	17.34	17.34	33.441	24.239	367.3	0.000	5.90	107.6	1.5	0.29	0.0	0.00	0.83	0.35	0	
2	17.34	17.34	33.441	24.239	367.4	0.007	5.90	107.6	1.5	0.29	0.0	0.00	0.83	0.35	0.221	
10	17.08	17.08	33.446	24.304	361.4	0.036	5.94	107.8	1.2	0.33	0.0	0.00	0.97	0.43	10	219
10	17.08	17.08	33.447	24.305	361.3	0.036										10 220
20	15.97	15.97	33.403	24.528	340.4	0.072	6.07	107.7	2.0	0.37	0.7	0.00	0.08	1.50	0.65	20 218
30	12.56	12.56	33.380	25.225	274.1	0.102	5.62	93.0	5.0	0.77	6.4	0.20	0.14	2.31	0.96	30 217
40	12.05	12.04	33.400	25.339	263.6	0.129	5.05	82.7	7.8	0.99	9.7	0.36	0.11	1.59	0.83	40 216
49	11.50	11.49	33.429	25.464	251.9	0.152	4.43	71.7	11.7	1.22	14.0	0.18	0.02	0.60	0.52	49 215
50 ISL	11.46 D	11.45	33.432	D 25.473	251.0	0.155	4.37	D 70.7	11.9	1.23	14.2	0.17	0.02	0.59	0.51	
60	11.21	11.20	33.445	25.529	245.9	0.180	4.24	68.2	13.1	1.30	15.3	0.07	0.00	0.45	0.42	60 214
70	10.58	10.57	33.507	25.689	230.8	0.204	3.94	62.5	16.3	1.45	17.9	0.00	0.00	0.17	0.28	70 213
75 ISL	10.31 D	10.30	33.567	D 25.782	222.0	0.215	3.71	D 58.6	17.7	1.53	19.0	0.00	0.00	0.14	0.23	75
86	9.98	9.97	33.644	25.899	211.2	0.239	3.46	54.3	20.8	1.71	21.3	0.00	0.00	0.08	0.15	86 212
100	9.57	9.56	33.797	26.086	193.6	0.267	3.00	46.7	25.4	1.94	24.2	0.00	0.00	0.03	0.13	101 211
119	9.28	9.27	33.915	26.226	180.7	0.303	2.66	41.1	29.0	2.00	25.9	0.00	0.00	0.01	0.09	120 210
125 ISL	9.22 D	9.21	33.949	D 26.262	177.3	0.313	2.58	D 39.9	30.2	2.05	26.5	0.00	0.00	0.01	0.08	126
140	9.27	9.25	34.050	26.334	170.9	0.339	2.05	31.7	32.9	2.19	27.7	0.00	0.00	0.01	0.07	141 209
150 ISL	9.09 D	9.07	34.065	D 26.375	167.2	0.356	2.04	D 31.4	34.2	2.24	28.2	0.00	0.00	0.01	0.06	151
170	8.98	8.96	34.129	26.443	161.1	0.389	1.82	28.0	36.2	2.31	29.0	0.00	0.00	0.01	0.04	171 208
200	8.68	8.66	34.132	26.492	156.9	0.437	1.72	26.3	39.1	2.37	30.1	0.00	0.00	0.01	0.04	201 207
230	8.92	8.90	34.215	26.520	155.0	0.484	1.25	19.2	41.0	2.51	30.7	0.00	0.00		231 206	
250 ISL	8.74 D	8.71	34.239	D 26.568	150.8	0.514	1.11	D 17.0	43.6	2.62	31.5	0.00	0.00		251	
270	8.50	8.47	34.261	26.622	145.9	0.544	0.92	14.0	46.5	2.72	32.3	0.00	0.00		272 205	
300 ISL	8.28 D	8.25	34.275	D 26.667	142.0	0.587	0.78	D 11.8	49.4	2.79</td						

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
33 9.5 N	120 1.1 W	04/08/11	2034	UTC	1184 m	320	26 kn		0	1010.9 mb	16.1 C	14.9 C		0/8	CI	
0 ISL	15.86	15.86	33.566	24.677	325.5	0.000	5.70	101.1	0.8	0.44	1.2	0.03	0.22	2.42	0.59	0
2	15.86	15.86	33.566	24.677	325.6	0.007	5.70	101.1	0.8	0.44	1.2	0.03	0.22	2.42	0.59	2 222
10 ISL	15.87	15.87	33.567	D 24.676	325.9	0.033	5.65	D 100.2	0.8	0.44	1.2	0.03	0.22	2.42	0.59	10
10	15.87	15.87	33.567	24.676	325.9	0.033										10 221
11	15.87	15.87	33.566	24.675	326.0	0.036	5.70	101.1	0.5	0.42	1.2	0.06	0.20	2.49	0.60	11 220
20	15.87	15.87	33.566	24.676	326.3	0.065	5.71	101.2	0.6	0.39	1.1	0.08	0.20	2.49	0.55	20 219
30	15.88	15.88	33.566	24.674	326.8	0.098	5.69	100.9	0.6	0.43	1.2	0.07	0.23	2.46	0.57	30 217
40	15.76	15.75	33.564	24.699	324.6	0.130	5.67	100.3	0.8	0.41	1.4	0.08	0.25	2.40	0.61	40 216
50 ISL	15.66	D 15.65	33.559	D 24.718	323.2	0.163	5.59	D 98.7	0.7	0.47	1.6	0.09	0.32	2.25	0.60	50
51	15.68	15.67	33.561	24.715	323.5	0.166	5.66	100.0	0.7	0.48	1.6	0.09	0.33	2.23	0.60	51 215
59	13.70	13.69	33.472	25.071	289.7	0.191	5.39	91.4	3.3	0.73	4.4	0.32	0.88	1.30	0.70	59 214
70	11.57	11.56	33.572	25.562	243.0	0.220	4.14	67.2	14.0	1.38	15.3	0.22	0.22	0.73	0.54	70 213
75 ISL	11.47	D 11.46	33.616	D 25.615	238.1	0.232	3.80	D 61.5	16.5	1.52	17.7	0.18	0.16	0.66	0.53	75
85	10.37	10.36	33.676	25.857	215.2	0.255	3.40	53.8	19.9	1.68	20.5	0.11	0.04	0.59	0.52	85 212
100	9.59	9.58	33.838	26.115	190.9	0.285	2.70	42.0	26.6	1.95	25.1	0.01	0.03	0.17	0.32	100 211
119	9.43	9.42	33.926	26.210	182.2	0.320	2.42	37.6	29.6	2.06	26.4	0.01	0.03	0.12	0.55	120 210
125 ISL	9.29	D 9.28	33.966	D 26.265	177.2	0.331	2.32	D 35.9	30.8	2.09	26.9	0.01	0.02	0.11	0.48	126
140	9.08	9.06	34.031	26.349	169.4	0.357	2.07	31.9	33.8	2.16	28.1	0.00	0.00	0.08	0.23	141 209
150 ISL	8.89	D 8.87	34.074	D 26.413	163.5	0.374	2.01	D 30.8	34.8	2.19	28.7	0.00	0.00	0.06	0.16	151
170	8.71	8.69	34.092	26.456	159.8	0.406	1.85	28.3	36.7	2.27	29.6	0.00	0.00	0.02	0.09	171 208
199	8.50	8.48	34.198	26.572	149.3	0.451	1.30	19.8	43.0	2.48	31.2	0.00	0.00	0.02	0.08	200 207
200 ISL	8.48	D 8.46	34.200	D 26.577	148.8	0.452	1.29	D 19.6	43.1	2.48	31.2	0.00	0.00			201
229	8.32	8.30	34.215	26.613	145.8	0.495	1.11	16.8	45.9	2.57	32.3	0.00	0.00			230 206
250 ISL	8.20	D 8.17	34.244	D 26.654	142.3	0.525	0.95	D 14.4	48.3	2.63	33.1	0.00	0.00			251
270	7.97	7.94	34.243	26.688	139.3	0.554	0.94	14.1	50.5	2.68	33.7	0.00	0.00			272 205
300 ISL	7.77	D 7.74	34.257	D 26.729	135.9	0.595	0.75	D 11.2	53.0	2.72	34.4	0.00	0.00			302
320	7.62	7.59	34.241	26.738	135.3	0.622	0.77	11.5	54.5	2.75	34.8	0.00	0.00			322 204
380	7.35	7.31	34.290	26.816	128.8	0.701	0.50	7.4	59.8	2.89	35.9	0.00	0.00			382 203
400 ISL	7.07	D 7.03	34.279	D 26.847	125.9	0.727	0.50	D 7.4	61.8	2.92	36.5	0.00	0.00			403
440	6.87	6.83	34.291	26.884	122.9	0.776	0.44	6.5	65.9	2.96	37.6	0.00	0.00			443 202
500 ISL	6.37	D 6.32	34.321	D 26.975	114.7	0.848	0.31	D 4.5	72.8	3.06	38.8	0.00	0.00			503
515	6.34	6.29	34.319	26.977	114.6	0.865	0.30	4.3	74.5	3.08	39.1	0.00	0.00			519 201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
33 0.2 N	120 21.8 W	05/08/11	0137	UTC	662 m	320	21 kn	340 06 06	2	1013.9 mb	17.1 C	15.9 C	9m	8/8	SC	
0 ISL	16.55	16.55	33.513	24.479	344.4	0.000	5.82	104.6	0.8	0.33	0.0	0.00	0.09	1.41	0.21	0
2 A	16.55	16.55	33.513	24.479	344.4	0.007	5.82	104.6	0.8	0.33	0.0	0.00	0.09	1.41	0.21	2 223
5 A	16.55	16.55	33.512	24.479	344.6	0.017	5.82	104.6	0.7	0.28	0.0	0.00	0.08	1.26	0.33	5 222
7 A	16.55	16.55	33.511	24.478	344.7	0.024	5.85	105.1	0.7	0.32	0.0	0.00	0.10	1.24	0.34	7 221
10 ISL	16.54	D 16.54	33.512	D 24.481	344.5	0.034	5.77	D 103.6	0.8	0.30	0.0	0.00	0.10	1.20	0.34	10
12 A	16.54	16.54	33.510	24.480	344.7	0.041	5.83	104.7	0.8	0.29	0.0	0.00	0.10	1.18	0.34	12 219
12	16.54	16.54	33.526	24.492	343.6	0.041	5.82	104.6								12 220
20 ISL	16.53	D 16.53	33.510	D 24.482	344.7	0.069	5.78	D 103.8	0.8	0.30	0.0	0.00	0.09	1.11	0.42	20
23 A	16.50	16.50	33.508	24.488	344.3	0.079	5.81	104.3	0.8	0.31	0.0	0.00	0.09	1.10	0.45	23 218
30 ISL	16.47	D 16.47	33.503	D 24.491	344.2	0.103	5.76	D 103.3	0.6	0.32	0.0	0.00	0.11	1.18	0.38	30
34 A	16.41	16.40	33.502	24.504	343.1	0.117	5.80	103.9	0.6	0.33	0.1	0.00	0.12	1.23	0.33	34 217
42	16.22	16.21	33.494	24.542	339.8	0.144	5.75	102.6	1.0	0.35	0.3	0.01	0.25	1.21	0.37	42 216
50	14.71	14.70	33.499	24.880	307.7	0.170	5.36	92.8	3.1	0.71	3.3	0.35	1.90	0.89	0.51	50 215
60	12.15	12.14	33.371	25.298	268.0	0.199	5.13	84.2	5.2	0.98	9.0	0.68	0.13	0.24	0.25	60 214
70	10.87	10.86	33.488	25.623	237.1	0.224	4.32	69.0	13.6	1.43	16.9	0.00	0.00	0.11	0.13	70 213
75 ISL	10.81	D 10.80	33.505	D 25.647	234.9	0.236	4.21	D 67.2	15.3	1.51	18.3	0.00	0.00	0.10	0.13	75
84	10.44	10.43	33.560	25.755	224.9	0.257	3.89	61.6	17.3	1.58	19.5	0.00	0.00	0.08	0.12	84 212
100	9.46	9.45	33.681	26.014	200.5	0.291	3.21	49.8	24.0	1.83	23.8	0.00	0.00	0.04	0.10	100 211
120	9.24	9.23	33.854	D 26.185	184.6	0.329	2.57	D 39.7								121 210
125 ISL	9.20	D 9.19	33.881	D 26.213	182.1	0.339	2.52	D 38.9	29.7	2.05	27.1	0.00	0.00	0.02	0.10	126
140	9.00	8.98	33.915	26.271	176.8	0.365	2.38	36.6	31.7	2.12	27.9	0.00	0.00	0.01	0.10	141 209
150 ISL	8.87	D 8.85	33.966	D 26.332	171.2	0.383	2.31	D 35.4	33.0	2.15	28.3	0.00	0.00	0.01	0.09	151
170	8.64	8.62	34.021	26.411	164.0	0.416	2.15	32.8	36.2	2.22	29.3	0.00	0.00	0.01	0.07	171 208
200	8.09	8.07	34.035	26.506	155.3	0.464	2.27	34.2	39.8	2.21	29.9	0.00	0.00	0.01	0.04	201 207
230	7.78	7.76	34.021	26.541	152.4	0.510	2.34	35.0	41.5	2.23	30.5	0.00	0.00			231 206
250 ISL	7.48	D 7.46	34.023	D 26.586	148.4	0.540	2.18	D 32.4	44.4	2.31	31.6	0.00	0.00			251
270	7.34	7.31	34.049	26.626	144.8	0.570	1.87	27.7	48.3	2.41	33.1	0.00	0.00			272 205
300 ISL	6.93	D 6.90	34.084	D 26.711	137.0											

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.87	16.87	33.562	24.442	347.9	0.000	5.80	104.9	1.3	0.29	0.0	0.00	0.09	1.14	0.41	0	
2	16.87	16.87	33.562	24.442	347.9	0.007	5.80	104.9	1.3	0.29	0.0	0.00	0.09	1.14	0.41	2	221
9	16.87	16.87	33.566	24.446	347.9	0.031	5.81	105.1	1.3	0.28	0.0	0.00	0.07	1.14	0.40	9	219
10 ISL	16.87	16.87	33.563 D	24.443	348.1	0.035	5.76	104.2	1.3	0.28	0.0	0.00	0.07	1.14	0.40	10	
10	16.87	16.87	33.565	24.445	348.0	0.035										10	220
20	16.84	16.84	33.564	24.452	347.7	0.070	5.79	104.6	1.2	0.31	0.1	0.00	0.16	1.17	0.44	20	218
30	15.86	15.86	33.554	24.669	327.2	0.103	5.60	99.3	2.2	0.49	1.4	0.05	0.82	1.03	0.58	30	217
39	14.36	14.35	33.535	24.982	297.7	0.131	5.33	91.7	4.2	0.76	4.5	0.54	1.37	0.73	0.47	39	216
50	12.90	12.89	33.535	25.280	269.5	0.163	4.99	83.3	7.0	1.04	10.6	0.46	0.03	0.22	0.25	50	215
60	11.93	11.92	33.588	25.508	248.0	0.189	4.50	73.6	10.9	1.29	15.0	0.00	0.04	0.09	0.18	60	214
72	11.15	11.14	33.586	25.650	234.7	0.217	4.14	66.6	14.1	1.45	17.7	0.00	0.00	0.07	0.15	72	213
75 ISL	10.90 D	10.89	33.606 D	25.710	229.0	0.224	3.98	63.7	15.2	1.50	18.5	0.00	0.00	0.06	0.14	75	
85	10.36	10.35	33.663	25.849	216.0	0.247	3.53	55.8	19.4	1.68	21.2	0.00	0.00	0.05	0.13	85	212
99	9.73	9.72	33.797	26.060	196.1	0.276	2.75	42.9	25.9	1.93	25.2	0.00	0.00	0.04	0.12	99	211
100 ISL	9.58 D	9.57	33.827 D	26.108	191.5	0.277	2.68	41.7	26.2	1.94	25.3	0.00	0.00	0.04	0.12	100	
119	9.32	9.31	33.898	26.206	182.6	0.313	2.41	37.3	30.1	2.06	27.1	0.00	0.00	0.01	0.10	120	210
125 ISL	9.14 D	9.13	33.944 D	26.271	176.5	0.324	2.27	35.0	31.8	2.11	27.8	0.00	0.00	0.01	0.09	126	
139	8.94	8.93	34.039	26.378	166.6	0.348	1.94	29.8	35.8	2.22	29.2	0.00	0.00	0.00	0.08	140	209
150 ISL	8.82 D	8.80	34.083 D	26.431	161.7	0.366	1.67	25.6	38.1	2.28	30.0	0.00	0.00	0.00	0.07	151	
170	8.50	8.48	34.117	26.508	154.8	0.397	1.59	24.2	41.1	2.37	31.0	0.00	0.00	0.00	0.06	171	208
199	8.31	8.29	34.153	26.566	149.8	0.442	1.44	21.8	43.8	2.47	32.1	0.00	0.00	0.00	0.06	200	207
200 ISL	8.31 D	8.29	34.152 D	26.565	149.9	0.443	1.33	20.2	43.9	2.47	32.1	0.00	0.00			201	
230	7.95	7.93	34.140	26.609	146.0	0.488	1.36	20.4	46.7	2.51	33.0	0.00	0.00			231	206
250 ISL	7.62 D	7.60	34.137 D	26.655	141.8	0.516	1.26	18.8	49.3	2.54	33.8	0.00	0.00			251	
270	7.44	7.41	34.126	26.673	140.4	0.545	1.27	18.9	52.2	2.59	34.7	0.00	0.00			272	205
300 ISL	7.17 D	7.14	34.145 D	26.726	135.7	0.586	1.07	15.8	56.1	2.71	35.6	0.00	0.00			302	
320	7.23	7.20	34.200	26.761	132.8	0.613	0.83	12.3	58.6	2.78	36.2	0.00	0.00			322	204
378	6.58	6.55	34.165	26.823	127.4	0.688	0.81	11.8	64.8	2.84	38.1	0.00	0.00			380	203
400 ISL	6.42 D	6.38	34.166 D	26.845	125.5	0.716	0.79	11.5	67.1	2.88	38.6	0.00	0.00			403	
440	6.13	6.09	34.178	26.892	121.3	0.765	0.66	9.5	71.9	2.95	39.4	0.00	0.00			443	202
500 ISL	5.63 D	5.59	34.193 D	26.966	114.6	0.836	0.52	7.4	81.5	3.06	41.0	0.00	0.00			503	
517	5.53	5.49	34.221	27.001	111.4	0.855	0.42	6.0	84.2	3.09	41.4	0.00	0.00			521	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	17.13	33.045	23.985	391.5	0.000	5.67	102.7	1.6	0.25	0.1	0.00	0.00	0.08	0.03	0		
2	17.13	17.13	33.045	23.985	391.6	0.008	5.67	102.7	1.6	0.25	0.1	0.00	0.08	0.03	2	221	
9	17.13	17.13	33.045	23.985	391.8	0.035	5.63	102.0	1.7	0.25	0.1	0.00	0.08	0.03	9	219	
10 ISL	17.13 D	17.13	33.045 D	23.985	391.8	0.039	5.57	100.9	1.7	0.25	0.1	0.00	0.08	0.03	10	220	
20 ISL	17.13 D	17.13	33.045 D	23.985	392.1	0.078	5.55	100.6	1.6	0.24	0.0	0.00	0.08	0.03	20		
25	17.13	17.13	33.047	23.987	392.1	0.098	5.63	102.0	1.6	0.24	0.0	0.00	0.08	0.03	25	218	
30 ISL	17.06 D	17.06	33.043 D	24.001	391.0	0.118	5.56	100.6	1.6	0.27	0.0	0.00	0.10	0.04	30		
40	16.20	16.19	33.024	24.185	373.7	0.156	5.79	103.0	1.5	0.32	0.0	0.00	0.14	0.06	40	217	
50	15.73	15.72	33.040	24.303	362.7	0.193	5.89	103.8	1.2	0.25	0.0	0.00	0.16	0.07	50	216	
62	14.66	14.65	33.065	24.556	338.8	0.235	6.04	104.2	1.8	0.24	0.0	0.00	0.17	0.08	62	215	
75	13.67	13.66	33.027	24.733	322.3	0.278	6.10	103.1	1.8	0.25	0.0	0.00	0.38	0.23	75	214	
88	12.97	12.96	33.044	24.887	307.9	0.319	5.91	98.4	2.0	0.33	0.4	0.03	0.00	0.42	0.39	88	213
100	12.60	12.59	33.145	25.037	293.8	0.355	5.59	92.4	3.4	0.49	3.1	0.01	0.00	0.28	0.34	100	212
112	12.12	12.11	33.155	25.137	284.5	0.389	5.44	89.1	4.8	0.65	5.7	0.00	0.00	0.18	0.19	112	211
124	11.54	11.52	33.247	25.317	267.7	0.423	5.24	84.8	6.0	0.70	7.0	0.00	0.00	0.14	0.16	125	210
125 ISL	11.38 D	11.36	33.263 D	25.358	263.7	0.425	5.13	82.7	6.3	0.72	7.3	0.00	0.00	0.13	0.15	126	
140	10.31	10.29	33.333	25.601	240.7	0.463	4.78	75.3	11.6	1.07	12.9	0.00	0.00	0.05	0.06	141	209
150 ISL	9.97 D	9.95	33.383 D	25.698	231.6	0.487	4.61	72.1	14.8	1.24	15.8	0.00	0.00	0.03	0.05	151	
170	9.38	9.36	33.629	25.987	204.4	0.530	4.02	62.2	20.2	1.48	20.0	0.00	0.00	0.02	0.02	171	208
200 ISL	8.83 D	8.81	33.818 D	26.223	182.4	0.588	3.59	54.9	26.0	1.68	23.3	0.00	0.00	0.00	0.01	201	
201	8.79	8.77	33.815	26.227	182.1	0.590	3.60	55.0	26.2	1.69	23.4	0.00	0.00	0.00	0.01	202	207
231	8.49	8.47	33.943	26.374	168.6	0.643	2.81	42.7	33.0	1.98	27.5	0.00	0.00			232	206
250 ISL	8.22 D	8.19	33.983 D	26.446	161.9	0.674	2.55	38.5	36.1	2.05	28.7	0.00	0.00			251	
270	7.88	7.85	33.995	26.506	156.4	0.706	2.55	38.2	39.2	2.11	29.6	0.00	0.00			271	205
30																	

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	17.27	17.27	33.086	23.983	391.7	0.000	5.60	101.8	1.3	0.29	0.1	0.00	0.00	0.12	0.02	0	
2 A	17.27	17.27	33.086	23.982	391.7	0.008	5.60	101.8	1.3	0.29	0.1	0.00	0.00	0.12	0.02	2 221	
10 A	17.27	17.27	33.084	23.982	392.1	0.039	5.61	102.0	1.6	0.28	0.0	0.00	0.00	0.12	0.03	10 219	
10	17.27	17.27	33.085	23.983	392.0	0.039										10 220	
14 A	17.28	17.28	33.087	23.982	392.2	0.055	5.60	101.8	1.6	0.27	0.0	0.00	0.00	0.18	0.03	14 218	
20 ISL	17.26	17.26	33.088	D 23.988	391.9	0.078	5.55	D100.8	1.5	0.28	0.0	0.00	0.00	0.20	0.04	20	
25 A	16.55	16.55	33.118	24.177	374.0	0.098	5.79	103.8	1.3	0.29	0.0	0.00	0.00	0.22	0.06	25 217	
30 ISL	16.39	D 16.39	33.124	D 24.218	370.2	0.116	5.77	D103.1	1.3	0.29	0.0	0.00	0.00	0.24	0.07	30	
38	16.07	16.06	33.129	24.295	363.1	0.145	5.88	104.4	1.2	0.28	0.0	0.00	0.00	0.27	0.09	38 216	
50 A	15.71	15.70	33.144	24.388	354.6	0.189	5.93	104.5	1.3	0.30	0.1	0.00	0.00	0.55	0.26	50 215	
60	14.48	14.47	33.039	24.574	337.1	0.223	6.03	103.6	1.6	0.28	0.0	0.00	0.00	0.42	0.27	60 214	
72 A	13.60	13.59	33.000	24.727	322.8	0.263	6.06	102.2	2.0	0.28	0.0	0.00	0.00	0.32	0.28	72 213	
75 ISL	13.48	D 13.47	32.996	D 24.748	320.8	0.272	5.96	D100.3	2.0	0.29	0.2	0.05	0.00	0.31	0.30	75	
85	13.19	13.18	33.000	24.809	315.2	0.304	5.91	98.9	2.4	0.37	0.7	0.19	0.00	0.28	0.35	85 212	
100	12.20	12.19	33.155	25.122	285.7	0.349	5.47	89.7	4.5	0.63	5.2	0.00	0.00	0.12	0.21	100 211	
120	11.05	11.04	33.262	25.416	257.9	0.404	5.02	80.4	9.1	0.98	10.9	0.00	0.00	0.04	0.07	121 210	
125 ISL	10.83	D 10.81	33.282	D 25.471	252.8	0.416	4.95	D 78.9	9.9	1.02	11.6	0.00	0.00	0.04	0.07	126	
140	10.09	10.07	33.331	25.637	237.2	0.453	4.70	73.7	12.7	1.14	13.8	0.00	0.00	0.03	0.06	141 209	
150 ISL	9.81	D 9.79	33.400	D 25.738	227.8	0.476	4.49	D 70.0	16.9	1.35	17.1	0.00	0.00	0.02	0.05	151	
170	9.16	9.14	33.738	26.108	192.9	0.518	3.29	50.7	25.8	1.78	23.8	0.00	0.00	0.01	0.02	171 208	
200 ISL	8.78	D 8.76	33.965	D 26.346	170.8	0.573	2.49	D 38.1	32.6	2.04	27.5	0.00	0.00	0.00	0.03	201	
201	8.76	8.74	33.963	26.348	170.6	0.575	2.53	38.7	32.7	2.04	27.5	0.00	0.00	0.00	0.03	202 207	
231	8.45	8.43	34.000	26.425	163.8	0.625	2.48	D 37.7	35.1	2.02	28.0	0.00	0.00		232	206	
250 ISL	8.36	D 8.33	34.057	D 26.483	158.5	0.655	2.00	D 30.3	39.0	2.17	29.8	0.00	0.00		251		
271	8.07	8.04	34.094	26.556	151.9	0.688	1.71	25.8	43.9	2.37	32.0	0.00	0.00		272	205	
300 ISL	7.56	D 7.53	34.103	D 26.638	144.3	0.731	1.59	D 23.7	49.6	2.50	33.9	0.00	0.00		302		
321	7.28	7.25	34.112	26.685	140.0	0.761	1.35	20.0	53.3	2.57	34.9	0.00	0.00		323	204	
380	6.76	6.72	34.150	26.787	131.0	0.841	0.98	14.3	61.4	2.75	37.1	0.00	0.00		382	203	
400 ISL	6.71	D 6.67	34.171	D 26.810	129.0	0.867	0.83	D 12.1	64.0	2.82	37.7	0.00	0.00		402		
440	6.42	6.38	34.203	26.874	123.3	0.917	0.63	9.1	68.9	2.93	38.7	0.00	0.00		443	202	
500 ISL	5.99	D 5.95	34.217	D 26.941	117.4	0.989	0.52	D 7.5	75.9	3.01	40.1	0.00	0.00		503		
515	5.93	5.89	34.226	26.956	116.1	1.007	0.48	6.9	77.7	3.03	40.4	0.00	0.00		518	201	

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	18.36	18.36	33.294	23.879	401.6	0.000	5.56	103.3	1.5	0.27	0.1	0.00	0.00	0.11	0.02	0	
2	18.36	18.36	33.294	23.879	401.7	0.008	5.56	103.3	1.5	0.27	0.1	0.00	0.00	0.11	0.02	2 222	
10 A	18.34	18.34	33.295	23.885	401.4	0.040	5.49	102.0	1.2	0.27	0.0	0.00	0.00	0.13	0.01	10 221	
10	18.34	18.34	33.294	23.884	401.5	0.040											
20 ISL	18.34	D 18.34	33.296	D 23.886	401.6	0.080	5.44	D101.0	1.3	0.27	0.0	0.00	0.00	0.13	0.02	20	
25	18.32	D 18.32	33.296	D 23.891	401.3	0.100	5.50	102.1	1.3	0.27	0.0	0.00	0.00	0.13	0.02	25 219	
30 ISL	18.32	D 18.31	33.297	D 23.892	401.4	0.120	5.44	D101.0	1.3	0.27	0.0	0.00	0.00	0.14	0.02	30	
40	17.43	17.42	33.292	24.104	381.5	0.160	5.52	100.7	1.4	0.27	0.0	0.00	0.00	0.17	0.02	40 218	
50	14.79	14.78	33.203	24.634	331.1	0.195	6.41	111.0	1.4	0.26	0.0	0.00	0.00	0.51	0.05	50 217	
62	13.49	13.48	33.144	24.860	309.8	0.234	6.09	102.6	2.0	0.41	1.6	0.18	0.00	0.89	0.30	62 216	
75	12.62	12.61	33.228	25.097	287.5	0.272	5.53	91.5	4.2	0.71	6.5	0.21	0.00	0.54	0.36	75 215	
87	11.64	11.63	33.210	25.269	271.3	0.306	5.22	84.6	6.5	0.84	8.9	0.00	0.00	0.24	0.17	87 214	
100	10.69	10.68	33.286	25.498	249.6	0.340	4.80	76.3	11.2	1.10	13.3	0.00	0.00	0.06	0.08	100 213	
112	10.59	10.58	33.445	25.640	236.5	0.369	4.48	71.1	13.2	1.29	16.1	0.00	0.00	0.04	0.06	112 212	
125	10.11	10.10	33.544	25.799	221.5	0.399	3.88	61.0	18.1	1.54	19.9	0.00	0.00	0.02	0.04	126 210	
140	9.66	9.64	33.620	25.934	208.9	0.431	3.55	55.3	21.1	1.67	22.0	0.00	0.00	0.01	0.05	141 209	
150 ISL	9.43	D 9.41	33.760	D 26.081	195.1	0.451	2.99	D 46.3	24.2	1.78	23.8	0.00	0.00	0.01	0.05	151	
170	8.88	8.86	33.898	26.277	176.7	0.488	2.68	41.1	30.2	1.98	27.1	0.00	0.00	0.00	0.04	171 208	
200	8.64	8.62	33.965	26.368	168.7	0.540	2.47	37.7	33.3	2.06	28.4	0.00	0.00	0.00	0.04	201 207	
230	8.25	8.23	34.017	26.468	159.5	0.590	2.36	35.7	37.1	2.13	29.4	0.00	0.00		231	206	
250 ISL	8.10	D 8.07	34.068	D 26.531	153.9	0.621	1.99	D 30.0	41.1	2.25	30.9	0.00	0.00		251		
270	7.70	7.67	34.076	26.596	147.8	0.651	1.78	26.6	45.4	2.38	32.6	0.00	0.00		271	205	
300 ISL	7.40	D 7.37	34.103	D 26.661	142.1	0.695	1.41	D 20.9	50.6	2.54	34.4	0.00	0.00		302		
320	7.19	7.16	34.129	26.711	137.5	0.722	1.19	17.6	54.0	2.63	35.4	0.00	0.00		322	204	
380	6.29	6.26	34.126	26.829	126.5	0.802	0.90	13.0	66.5	2.84	38.6						

RV NEW HORIZON CALCOFI CRUISE 1108 STATION 86.7 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	18.29	18.29	33.284	23.888	400.7	0.000	5.51	102.2	1.3	0.26	0.1	0.00	0.00	0.09	0.03	0.29	0	
3	18.29	18.29	33.284	23.888	400.8	0.012	5.51	102.2	1.3	0.26	0.1	0.00	0.00	0.09	0.03	0.29	221	
10	18.29	18.29	33.286	23.890	400.9	0.040	5.49	101.9	1.2	0.26	0.0	0.00	0.00	0.08	0.03	10	219	
10	18.29	18.29	33.281	23.886	401.2	0.040											10	220
20 ISL	18.29	D 18.29	33.281	D 23.887	401.6	0.080	5.43	D 100.8	1.2	0.26	0.0	0.00	0.00	0.09	0.03	0.25	20	
25	18.29	18.28	33.279	23.888	401.6	0.100	5.48	101.7	1.2	0.26	0.0	0.00	0.00	0.10	0.03	0.25	218	
30 ISL	18.29	D 18.28	33.281	D 23.887	401.9	0.120	5.42	D 100.6	1.1	0.26	0.0	0.00	0.00	0.11	0.04	0.30		
40	16.65	16.64	33.245	24.252	367.4	0.159	5.63	101.2	1.0	0.25	0.0	0.00	0.00	0.13	0.05	40	217	
50	14.31	14.30	33.191	24.727	322.2	0.193	6.14	105.3	1.3	0.36	1.0	0.00	0.00	0.64	0.40	50	216	
62	13.46	13.45	33.163	24.881	307.9	0.231	5.86	98.7	1.9	0.51	2.3	0.24	0.40	0.47	0.38	62	215	
75	12.48	12.47	33.164	25.075	289.6	0.270	5.63	92.9	3.1	0.63	4.3	0.42	0.17	0.13	0.13	75	214	
86	11.39	11.38	33.133	25.254	272.6	0.301	5.31	85.6	5.8	0.72	6.7	0.00	0.00	0.10	0.12	86	213	
99	10.34	10.33	33.209	25.499	249.5	0.335	4.90	77.2	10.2	1.03	11.8	0.00	0.00	0.04	0.07	99	212	
100 ISL	10.33	D 10.32	33.214	D 25.504	249.0	0.337	4.87	D 76.7	10.6	1.06	12.2	0.00	0.00	0.04	0.07	100		
111	10.29	10.28	33.437	25.685	232.0	0.364	4.33	68.3	15.0	1.35	16.8	0.00	0.00	0.01	0.05	111	211	
123	9.97	9.96	33.535	25.816	219.8	0.391	3.89	60.9	18.5	1.55	19.8	0.00	0.00	0.01	0.05	124	210	
125 ISL	9.86	D 9.85	33.564	D 25.857	215.9	0.395	3.79	D 59.2	19.2	1.58	20.3	0.00	0.00	0.01	0.05	126		
140	9.48	9.46	33.698	26.024	200.3	0.426	3.21	49.8	23.9	1.81	23.9	0.00	0.00	0.00	0.05	141	209	
150 ISL	9.28	D 9.26	33.766	D 26.110	192.3	0.446	3.03	D 46.8	26.0	1.89	25.1	0.00	0.00	0.00	0.05	151		
169	9.08	9.06	33.851	26.209	183.3	0.482	2.77	42.6	29.1	1.97	26.5	0.00	0.00	0.00	0.04	170	208	
200	8.69	8.67	33.981	26.372	168.2	0.536	2.42	36.9	33.8	2.10	28.6	0.00	0.00	0.00	0.04	201	207	
229	8.24	8.22	34.050	26.496	156.9	0.583	2.02	30.5	39.2	2.22	30.8	0.00	0.00			230	206	
250 ISL	8.08	D 8.05	34.052	D 26.521	154.8	0.616	2.02	D 30.4	42.1	2.30	31.7	0.00	0.00			251		
270	7.98	7.95	34.101	26.575	150.0	0.647	1.63	24.5	44.7	2.38	32.5	0.00	0.00			271	205	
300 ISL	7.38	D 7.35	34.085	D 26.649	143.1	0.691	1.51	D 22.4	50.0	2.51	34.2	0.00	0.00			302		
322	7.09	7.06	34.113	26.712	137.4	0.721	1.28	18.8	53.9	2.59	35.5	0.00	0.00			324	204	
380	6.70	6.67	34.124	26.774	132.1	0.800	1.04	15.2	61.7	2.73	37.5	0.00	0.00			382	203	
400 ISL	6.75	D 6.71	34.187	D 26.818	128.4	0.826	0.77	D 11.3	64.4	2.80	38.1	0.00	0.00			402		
440	6.33	6.29	34.197	26.881	122.6	0.876	0.62	9.0	69.9	2.93	39.2	0.00	0.00			443	202	
500 ISL	5.95	D 5.91	34.242	D 26.966	115.0	0.947	0.44	D 6.3	77.9	3.04	40.4	0.00	0.00			503		
514	5.86	5.82	34.251	26.984	113.4	0.963	0.40	5.7	79.8	3.07	40.7	0.00	0.00			517	201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON CALCOFI CRUISE 1108 STATION 86.8 32.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.49	16.49	33.413	24.416	350.4	0.000	6.26	112.3	2.6	0.29	0.1	0.00	0.00	0.84	0.21	0.21	0	
2	16.49	16.49	33.413	24.416	350.4	0.007	6.26	112.3	2.6	0.29	0.1	0.00	0.00	0.84	0.21	2	206	
5	16.44	16.44	33.412	24.427	349.5	0.018	6.30	112.9	2.5	0.28	0.0	0.00	0.00	0.83	0.23	5	205	
10	16.18	16.18	33.411	24.486	344.0	0.035	6.31	112.5	2.7	0.28	0.0	0.00	0.00	1.03	0.26	10	204	
15	13.84	13.84	33.388	24.976	297.5	0.051	6.32	107.4	4.0	0.38	0.4	0.02	0.03	2.18	0.36	15	203	
20	12.62	12.62	33.385	25.218	274.6	0.065	4.84	80.2	10.1	1.03	9.1	0.60	1.48	0.77	0.12	20	202	
25	12.18	12.18	33.401	25.314	265.5	0.079	4.39	72.1	12.3	1.21	12.8	0.77	1.34	0.44	0.15	25	201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON CALCOFI CRUISE 1108 STATION 88.5 30.1

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	14.65	14.65	33.285	24.726	320.9	0.000	6.57	113.5	0.7	0.25	0.2	0.00	0.00	6.14	0.00	0		
2	14.65	14.65	33.285	24.726	320.9	0.006	6.57	113.5	0.7	0.25	0.2	0.00	0.00	6.14	A 0.00 A	2	204	
5	14.26	14.26	33.283	24.807	313.3	0.016	6.27	107.4	2.2	0.38	1.8	0.09	0.09	7.09	A 0.00 A	5	203	
10	12.49	12.49	33.289	25.168	279.0	0.031	5.15	85.1	8.5	0.91	8.7	0.35	1.88	1.60	A 0.00 A	10	202	
17	12.12	12.12	33.279	25.231	273.2	0.050	4.79	78.5	10.6	1.09	10.6	0.49	3.15	2.12	0.34	17	201	

A) SECOND FLUOROMETER READING RECALCULATED BECAUSE ACID RATIO > TAU OF PURE CHL-A

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON CALCOFI CRUISE 1108 STATION 90.0 27.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT
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RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 28.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	15.59	15.59	33.375	24.591	333.8	0.000	6.54	115.2	3.7	0.34	0.0	0.00	0.00	1.01	0.40	0	
2	15.59	15.59	33.375	24.591	333.8	0.007	6.54	115.2	3.7	0.34	0.0	0.00	0.00	1.01	0.40	2	208
5	15.20	15.20	33.381	24.681	325.3	0.017	6.50	113.6	3.1	0.37	0.3	0.01	0.00	1.35	0.43	5	207
10	13.65	13.65	33.329	24.969	298.0	0.032	6.15	104.1	4.9	0.56	3.2	0.14	0.00	1.91	0.77	10	206
20	13.33	13.33	33.333	25.037	291.8	0.062	6.00	100.9	5.7	0.60	3.7	0.11	0.06	2.11	0.85	20	205
30	12.46	12.46	33.326	25.203	276.2	0.090	5.24	86.5	7.5	0.92	8.5	0.32	0.26	1.18	0.59	30	204
40	11.88	11.87	33.368	25.346	262.9	0.117	4.73	77.2	10.2	1.15	11.8	0.52	0.18	0.61	0.39	40	203
50	11.22	11.21	33.378	25.475	250.8	0.143	4.34	69.8	13.3	1.38	15.2	0.30	0.88	0.25	0.31	50	202
58	11.16	11.15	33.390	25.495	249.0	0.163	4.26	68.4	14.1	1.40	15.8	0.31	0.89	0.24	0.28	58	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 30.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP	
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db			
0 ISL	18.33	18.33	33.415	23.979	392.1	0.000	5.99	111.3	0.5	0.24	0.0	0.00	0.00	0.33	0.13	0		
2	18.33	18.33	33.415	23.979	392.2	0.008	5.99	111.3	0.5	0.24	0.0	0.00	0.00	0.33	0.13	2	221	
10	17.98	17.98	33.414	24.064	384.3	0.039	5.99	110.6	0.6	0.24	0.0	0.00	0.00	0.34	0.11	10	219	
10	17.98	17.98	33.413	24.063	384.4	0.039											10	220
20	16.72	16.72	33.464	24.403	352.3	0.076	6.03	108.7	1.2	0.28	0.0	0.00	0.03	0.34	0.12	20	218	
30	14.36	14.36	33.377	24.859	309.0	0.109	6.26	107.5	1.9	0.41	1.6	0.06	0.05	0.82	0.40	30	217	
40	12.47	12.46	33.432	25.283	268.8	0.138	5.08	83.9	7.1	0.98	10.5	0.07	0.04	0.69	0.40	40	216	
50	12.08	12.07	33.441	25.365	261.3	0.164	4.91	80.5	8.1	1.08	12.2	0.01	0.01	0.46	0.30	50	215	
59	11.69	11.68	33.488	25.475	251.1	0.187	4.64	75.4	10.6	1.25	14.8	0.00	0.00	0.23	0.17	59	214	
70	10.86	10.85	33.499	25.634	236.1	0.214	4.26	68.0	14.3	1.39	17.1	0.00	0.00	0.09	0.13	70	213	
75 ISL	10.68	D 10.67	33.543	D 25.700	230.0	0.226	3.96	D 63.0	15.8	1.46	18.2	0.00	0.00	0.08	0.11	75		
86	10.38	10.37	33.606	25.801	220.5	0.250	3.57	56.5	19.0	1.61	20.5	0.00	0.00	0.05	0.09	86	212	
100	10.12	10.11	33.707	25.924	209.1	0.281	3.10	48.8	22.6	1.77	22.9	0.00	0.00	0.03	0.09	100	211	
120	9.64	9.63	33.827	26.099	192.9	0.321	2.70	42.1	26.9	1.94	25.3	0.00	0.00	0.01	0.06	121	210	
125 ISL	9.54	D 9.53	33.848	D 26.132	189.8	0.330	2.66	D 41.4	27.9	1.96	25.8	0.00	0.00	0.01	0.06	126		
139	9.23	9.21	33.914	26.234	180.3	0.356	2.52	38.9	30.2	2.02	26.8	0.00	0.00	0.01	0.06	140	209	
150 ISL	9.28	D 9.26	33.979	D 26.277	176.5	0.376	2.48	D 38.4	31.4	2.07	27.2	0.00	0.00	0.01	0.05	151		
169	9.25	9.23	34.066	26.350	170.0	0.409	2.12	32.8	33.0	2.16	27.6	0.00	0.00	0.00	0.03	170	208	
200 ISL	9.03	D 9.01	34.155	D 26.455	160.5	0.460	1.77	D 27.3	36.7	2.28	28.7	0.00	0.00	0.00	0.03	201		
201	9.03	9.01	34.154	26.455	160.6	0.462	1.79	27.6	36.8	2.28	28.7	0.00	0.00	0.00	0.03	202	207	
230	8.88	8.86	34.218	26.529	154.1	0.507	1.42	21.8	40.5	2.42	29.9	0.00	0.00		231	206		
250 ISL	8.70	D 8.67	34.213	D 26.554	152.1	0.538	1.42	D 21.7	42.5	2.50	30.6	0.00	0.00		251			
270	8.75	8.72	34.283	26.601	148.1	0.568	1.02	15.6	44.4	2.57	31.2	0.00	0.00		272	205		
300 ISL	8.10	D 8.07	34.216	D 26.648	143.8	0.612	1.10	D 16.6	47.6	2.68	32.0	0.00	0.00		302			
320	8.46	8.43	34.340	26.691	140.3	0.640	0.64	9.7	49.5	2.74	32.4	0.00	0.00		322	204		
380	8.05	8.01	34.312	26.732	137.3	0.723	0.65	9.8	52.8	2.78	33.7	0.00	0.00		382	203		
400 ISL	7.80	D 7.76	34.283	D 26.746	136.1	0.751	0.70	D 10.5	54.8	2.82	34.4	0.00	0.00		403			
441	7.43	7.39	34.312	26.823	129.2	0.805	0.46	6.8	59.8	2.90	35.8	0.00	0.00		444	202		
500 ISL	6.91	D 6.86	34.315	D 26.898	122.5	0.879	0.36	D 5.3	67.4	3.01	37.4	0.00	0.00		503			
516	6.77	6.72	34.320	26.921	120.5	0.899	0.32	4.7	69.5	3.04	37.8	0.00	0.00		516	201		

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	19.99	19.99	33.521	23.638	424.6	0.000	5.51	105.7	1.5	0.24	0.0	0.00	0.00	0.19	0.04	0	
2	19.99	19.99	33.521	23.638	424.7	0.008	5.51	105.7	1.5	0.24	0.0	0.00	0.00	0.19	0.04	2	221
9	19.91	19.91	33.520	23.658	423.0	0.038	5.53	105.9	1.6	0.23	0.0	0.00	0.00	0.20	0.04	9	219
10 ISL	19.92	19.92	33.535	D 23.667	422.2	0.042	5.50	D 105.4	1.6	0.23	0.0	0.00	0.00	0.20	0.04	10	
10	19.92	19.92	33.522	23.657	423.1	0.042	5.58	D 106.9								10	220
20	16.59	16.59	33.535	24.487	344.2	0.081	6.11	109.9	1.5	0.26	0.0	0.00	0.00	0.43	0.10	20	218
30	14.60	14.60	33.471	24.881	307.0	0.113	5.79	100.0	2.4	0.51	2.6	0.25	0.10	1.56	0.72	30	217
40	12.47	12.46	33.423	25.276	269.5	0.142	5.15	85.1	6.7	0.96	9.8	0.19	0.00	0.74	0.45	40	216
50	11.36	11.35	33.501	25.545	244.1	0.168	4.50	72.7	12.1	1.31	15.5	0.00	0.00	0.22	0.20	50	215
60	10.81	10.80	33.551	25.683	231.2	0.192	3.98	63.5	16.1	1.50	18.3						

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 37.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	19.81	19.81	33.536	23.696	419.0	0.000	5.49	105.0	1.3	0.23	0.0	0.00	0.00	0.21	0.04	0	
2 A	19.81	19.81	33.536	23.696	419.1	0.008	5.49	105.0	1.3	0.23	0.0	0.00	0.00	0.21	0.04	2 222	
10 A	19.50	19.50	33.529	23.771	412.2	0.042	5.49	104.4	1.4	0.23	0.0	0.00	0.00	0.22	0.04	10 221	
12 A	18.95	18.95	33.520	23.905	399.6	0.050	5.53	104.1	1.3	0.23	0.0	0.00	0.00	0.25	0.06	12 220	
20 ISL	16.59 D	16.59	33.571 D	24.515	341.6	0.079	6.07	D109.2	1.4	0.27	0.0	0.00	0.00	0.41	0.12	20	
21 A	16.42	16.42	33.570	24.554	338.0	0.083	6.10	109.3	1.4	0.27	0.0	0.00	0.00	0.44	0.13	21 219	
30	13.38	13.38	33.479	25.140	282.3	0.111	5.21	87.8	6.0	0.85	8.2	0.50	0.00	1.04	0.39	30 218	
39 A	11.80	11.80	33.484	25.451	252.9	0.135	4.70	76.6	9.7	1.17	13.7	0.01	0.00	0.41	0.27	39 217	
48	11.15	11.14	33.520	25.598	239.1	0.157	4.05	65.1	15.1	1.39	17.1	0.00	0.00	0.21	0.18	48 216	
50 ISL	11.05 D	11.04	33.528 D	25.622	236.8	0.162	3.96 D	63.5	15.7	1.42	17.6	0.00	0.00	0.18	0.17	50	
57 A	10.51	10.50	33.561	25.743	225.4	0.178	3.71	58.8	17.4	1.52	19.2	0.00	0.00	0.12	0.14	57 215	
64	10.26	10.25	33.643	25.850	215.4	0.193	3.30	52.1	20.7	1.67	21.5	0.00	0.00	0.06	0.08	64 214	
70	10.10	10.09	33.664	25.894	211.3	0.206	3.24	50.9	21.6	1.71	22.0	0.00	0.00	0.05	0.07	70 213	
75 ISL	10.02 D	10.01	33.701 D	25.936	207.4	0.217	3.20 D	50.2	22.6	1.75	22.6	0.00	0.00	0.04	0.06	75	
85	9.79	9.78	33.765	26.025	199.2	0.237	2.95	46.1	24.8	1.83	24.0	0.00	0.00	0.02	0.05	85 212	
100	9.48	9.47	33.875	26.162	186.4	0.266	2.67	41.5	27.8	1.94	25.5	0.00	0.00	0.01	0.05	100 211	
120	9.55	9.54	34.002	26.250	178.5	0.302	2.19	34.1	30.6	2.09	26.6	0.00	0.00	0.01	0.06	121 210	
125 ISL	9.56 D	9.55	34.016 D	26.260	177.7	0.311	2.14 D	33.3	31.1	2.11	26.8	0.00	0.00	0.01	0.06	126	
140	9.53	9.51	34.074	26.310	173.2	0.338	1.91	29.7	32.6	2.18	27.5	0.00	0.00	0.01	0.05	141 209	
150 ISL	9.45 D	9.43	34.126 D	26.364	168.3	0.355	1.75 D	27.2	34.4	2.25	28.2	0.00	0.00	0.01	0.05	151	
170	9.27	9.25	34.215	26.463	159.3	0.387	1.34	20.8	38.1	2.39	29.6	0.00	0.00	0.01	0.04	171 208	
200	9.14	9.12	34.261	26.521	154.4	0.434	1.11	17.1	40.6	2.48	30.3	0.00	0.00	0.01	0.04	201 207	
230	9.07	9.04	34.278	26.546	152.6	0.480	1.01	15.6	41.9	2.53	30.5	0.00	0.00		231	206	
250 ISL	8.91 D	8.88	34.298 D	26.587	149.0	0.511	0.92 D	14.1	43.4	2.57	30.9	0.00	0.00		251		
271	8.79	8.76	34.299	26.607	147.5	0.542	0.85	13.0	45.1	2.62	31.4	0.00	0.00		273	205	
300 ISL	8.48 D	8.45	34.301 D	26.657	143.1	0.584	0.78 D	11.9	47.3	2.66	32.1	0.00	0.00		302		
321	8.43	8.40	34.303	26.667	142.6	0.614	0.74	11.2	48.9	2.69	32.5	0.00	0.00		323	204	
380	8.10	8.06	34.323	26.733	137.2	0.696	0.60	9.1	52.6	2.78	33.5	0.00	0.00		382	203	
400 ISL	8.00 D	7.96	34.328 D	26.752	135.7	0.724	0.54 D	8.1	53.8	2.81	33.8	0.00	0.00		403		
440	7.71	7.67	34.329	26.796	132.0	0.777	0.46	6.9	57.1	2.87	34.7	0.00	0.00		443	202	
500 ISL	6.85 D	6.80	34.312 D	26.904	121.9	0.853	0.38 D	5.6	67.8	2.99	37.8	0.00	0.00		503		
514	6.64	6.59	34.304	26.926	119.8	0.870	0.36	5.3	70.3	3.02	38.5	0.00	0.00		518	201	

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	18.56	18.56	33.623	24.081	382.4	0.000	5.70	106.5	0.6	0.23	0.0	0.00	0.05	0.53	0.21	0	
3	18.56	18.56	33.623	24.081	382.5	0.011	5.70	106.5	0.6	0.23	0.0	0.00	0.05	0.53	0.21	3 221	
10	18.55	18.55	33.625	24.085	382.3	0.038	5.71	106.7	0.5	0.22	0.0	0.00	0.05	0.54	0.21	10 219	
10	18.55	18.55	33.626	24.086	382.2	0.038											
20	15.29	15.29	33.574	24.811	313.4	0.073	6.38	111.8	3.3	0.45	1.4	0.04	0.15	0.91	0.33	20 218	
29	12.33	12.33	33.590	25.433	254.4	0.099	4.63	76.4	11.9	1.18	13.4	0.25	0.08	1.23	0.60	29 217	
30 ISL	12.04 D	12.04	33.597 D	25.493	248.6	0.101	4.47 D	73.3	12.4	1.22	14.0	0.24	0.08	1.23	0.62	30	
40	11.14	11.14	33.609	25.669	232.1	0.125	3.96	63.7	15.8	1.44	17.7	0.08	0.05	1.25	0.84	40 216	
49	10.58	10.57	33.654	25.803	219.5	0.145	3.43	54.5	20.1	1.66	21.0	0.02	0.02	0.36	0.28	49 215	
50 ISL	10.58 D	10.57	33.655 D	25.804	219.5	0.148	3.41 D	54.2	20.3	1.67	21.1	0.02	0.02	0.35	0.27	50	
60	10.31	10.30	33.672	25.864	214.0	0.169	3.23	51.0	21.5	1.72	22.1	0.01	0.03	0.22	0.21	60 214	
70	9.97	9.96	33.739	25.974	203.7	0.190	2.94	46.1	24.4	1.85	24.2	0.00	0.16	0.09	0.11	70 213	
75 ISL	9.82 D	9.81	33.788 D	26.038	197.8	0.200	2.83 D	44.3	25.6	1.89	24.8	0.00	0.13	0.06	0.10	75	
85	9.62	9.61	33.842	26.113	190.8	0.220	2.61	40.7	27.6	1.96	25.7	0.00	0.02	0.02	0.08	85 212	
100	9.36	9.35	33.935	26.229	180.1	0.247	2.36	36.6	30.2	2.05	27.1	0.00	0.00	0.01	0.07	101 211	
120	9.18	9.17	34.013	26.319	171.9	0.283	2.12	32.7	33.2	2.14	28.2	0.00	0.00	0.01	0.06	121 210	
125 ISL	9.09 D	9.08	34.031 D	26.348	169.2	0.291	2.09 D	32.2	34.0	2.16	28.4	0.00	0.00	0.01	0.06	126	
140	8.89	8.88	34.065	26.406	163.9	0.316	1.97	30.2	36.1	2.23	29.1	0.00	0.00	0.01	0.06	141 209	
150 ISL	8.78 D	8.76	34.084 D	26.438	161.0	0.332	1.91 D	29.9	36.8	2.25	29.4	0.00	0.00	0.01	0.06	151	
169	8.70	8.68	34.108	26.470	158.4	0.363	1.79	27.4	38.2	2.29	29.9	0.00	0.00	0.00	0.05	170 208	
200	8.45	8.43	34.179	26.565	149.9	0.411	1.35	20.5	43.4	2.48	31.7	0.00	0.00	0.01	0.04	201 207	
230	8.46	8.44	34.256	26.624	144.9	0.455	0.88	13.4	46.8	2.62	32.8	0.00	0.00		231	206	
250 ISL	8.24 D	8.21	34.261 D	26.662	141.6	0.483	0.83 D	12.6	49.0	2.67	33.4	0.00	0.00		252		
270	8.04	8.01	34.265	26.695	138.7	0.511	0.76	11.5	51.2	2.71	34.0	0.00	0.00		272	205	
300 ISL	7.74 D	7.71	34.276 D	26.748	1												

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 53.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.94	16.94	33.578	24.438	348.3	0.000	5.95	107.8	0.5	0.25	0.0	0.00	0.07	0.93	0.36	0	
2	16.94	16.94	33.578	24.438	348.3	0.007	5.95	107.8	0.5	0.25	0.0	0.00	0.07	0.93	0.36	2 222	
10	16.71	16.71	33.581	24.495	343.2	0.035	6.00	108.2	0.3	0.26	0.0	0.00	0.05	0.88	0.37	10 221	
19	15.48	15.48	33.520	24.727	321.3	0.065	5.97	105.0	0.1	0.32	0.4	0.05	0.27	1.67	0.88	19 220	
20 ISL	15.32 D	15.32	33.518 D	24.761	318.1	0.068	6.00	D105.2	0.2	0.34	0.5	0.06	0.41	1.70	0.91	20	
30	15.00	15.00	33.492	24.811	313.7	0.099	5.67	98.8	1.2	0.58	1.7	0.15	1.66	1.97	1.21	30 219	
40	14.46	14.45	33.465	24.906	304.8	0.130	5.48	94.4	2.6	0.62	2.9	0.23	1.18	2.77	1.79	40 218	
50	12.45	12.44	33.452	25.303	267.2	0.159	4.77	78.8	8.7	1.07	10.2	0.44	0.47	1.76	1.38	50 217	
61	10.95	10.94	33.515	25.630	236.3	0.187	4.15	66.4	15.1	1.39	16.8	0.06	0.02	0.50	0.73	61 216	
71	9.82	9.81	33.468	25.788	221.4	0.209	4.20	65.6	16.6	1.42	17.6	0.03	0.02	0.24	0.43	71 215	
75 ISL	9.57 D	9.56	33.458 D	25.821	218.2	0.218	4.19	D 65.0	17.6	1.46	18.3	0.03	0.02	0.19	0.35	75	
84	9.46	9.45	33.556	25.916	209.4	0.237	3.84	59.5	20.7	1.59	20.6	0.02	0.02	0.12	0.25	84 214	
100	9.12	9.11	33.897	26.237	179.2	0.269	2.53	39.0	29.9	2.02	26.6	0.00	0.00	0.06	0.22	100 213	
120	9.19	9.18	33.987	26.297	173.9	0.304	2.20	34.0	32.6	2.11	27.5	0.00	0.00	0.03	0.19	121 211	
125 ISL	9.14 D	9.13	34.002 D	26.317	172.2	0.313	2.18	D 33.6	33.4	2.13	27.8	0.00	0.00	0.02	0.17	126	
141	8.85	8.83	34.078	26.422	162.4	0.339	1.92	29.4	36.3	2.22	29.0	0.00	0.00	0.01	0.10	142 210	
150 ISL	8.71 D	8.69	34.117 D	26.475	157.5	0.354	1.77	D 27.1	37.9	2.28	29.6	0.00	0.00	0.01	0.10	151	
170	8.53	8.51	34.155	26.533	152.4	0.385	1.47	22.4	41.2	2.41	30.7	0.00	0.00	0.01	0.11	171 209	
200 ISL	8.24 D	8.22	34.211 D	26.622	144.5	0.429	1.09	D 16.5	45.9	2.55	32.4	0.00	0.00	0.01	0.10	201	
201	8.23	8.21	34.207	26.620	144.6	0.431	1.10	16.6	46.0	2.55	32.4	0.00	0.00	0.01	0.10	202 208	
230	8.10	8.08	34.241	26.667	140.7	0.472	0.92	13.9	49.3	2.64	33.5	0.00	0.00			231 207	
250 ISL	7.92 D	7.89	34.260 D	26.708	137.0	0.500	0.77	D 11.6	51.8	2.71	34.0	0.00	0.00			251	
271	7.77	7.74	34.272	26.740	134.3	0.528	0.69	10.3	54.0	2.77	34.4	0.00	0.00			273 205	
300 ISL	7.69 D	7.66	34.281 D	26.759	133.0	0.567	0.64	D 9.6	55.5	2.80	34.8	0.00	0.00			302	
320	7.64	7.61	34.285	26.770	132.3	0.594	0.61	9.1	56.1	2.81	35.0	0.00	0.00			322 204	
380	7.43	7.39	34.292	26.806	129.7	0.672	0.52	7.7	59.0	2.87	35.6	0.00	0.00			382 203	
400 ISL	7.32 D	7.28	34.297 D	26.826	128.1	0.698	0.50	D 7.4	62.2	2.91	36.4	0.00	0.00			403	
441	6.67	6.63	34.305	26.922	119.1	0.749	0.36	5.3	69.4	3.01	38.1	0.00	0.00			444 202	
500 ISL	6.38 D	6.33	34.312 D	26.966	115.5	0.818	0.32	D 4.6	75.5	3.08	39.3	0.00	0.00			503	
517	6.19	6.14	34.334	27.008	111.6	0.837	0.25	3.6	77.3	3.10	39.6	0.00	0.00			521 201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.99	16.99	33.481	24.352	356.5	0.000	5.93	107.4	0.6	0.22	0.0	0.00	0.00	0.47	0.15	0	
2	16.99	16.99	33.481	24.352	356.6	0.007	5.93	107.4	0.6	0.22	0.0	0.00	0.00	0.47	0.15	2 220	
10	16.76	16.76	33.498	24.419	350.4	0.035	5.97	107.7	0.7	0.22	0.0	0.00	0.00	0.51	0.17	10 219	
20	15.57	15.57	33.552	24.732	320.9	0.069	5.89	103.8	1.2	0.37	0.5	0.03	0.37	1.74	1.03	20 218	
30	14.67	14.67	33.505	24.892	305.9	0.100	5.44	94.1	3.9	0.65	2.6	0.30	1.83	1.46	1.20	30 217	
40	13.15	13.14	33.383	25.112	285.2	0.130	5.32	89.1	5.7	0.82	5.8	0.77	0.84	0.43	0.49	40 216	
50	12.47	12.46	33.335	25.208	276.2	0.158	5.14	84.9	7.0	0.93	9.2	0.34	0.02	0.28	0.41	50 215	
59	11.97	11.96	33.376	25.335	264.3	0.182	4.88	79.8	9.8	1.11	12.2	0.02	0.02	0.21	0.38	59 214	
70	10.58	10.57	33.330	25.551	243.9	0.210	4.55	72.2	14.5	1.27	15.0	0.01	0.00	0.14	0.24	70 213	
75 ISL	10.48 D	10.47	33.479 D	25.684	231.3	0.222	4.13	D 65.4	16.5	1.38	16.8	0.01	0.00	0.11	0.19	75	
85	10.20	10.19	33.582	25.813	219.3	0.245	3.75	59.1	20.7	1.62	20.4	0.00	0.00	0.06	0.14	85 212	
100 ISL	9.42 D	9.41	33.822 D	26.130	189.4	0.275	2.87	D 44.5	27.8	1.89	24.7	0.00	0.00	0.04	0.17	100	
101	9.41	9.40	33.806	26.120	190.4	0.277	2.92	45.3	28.2	1.90	24.9	0.00	0.00	0.04	0.17	101 211	
120	9.23	9.22	33.889	26.214	181.8	0.313	2.67	41.2	31.0	1.98	26.0	0.00	0.00	0.02	0.09	121 210	
125 ISL	9.23 D	9.22	33.893 D	26.217	181.6	0.322	2.66	D 41.1	32.2	2.03	26.6	0.00	0.00	0.02	0.08	126	
139	8.97	8.96	34.026	26.363	168.0	0.346	2.10	32.3	35.6	2.18	28.3	0.00	0.00	0.01	0.07	140 209	
150 ISL	8.84 D	8.82	34.079 D	26.425	162.3	0.364	1.96	D 30.0	38.0	2.27	29.2	0.00	0.00	0.01	0.08	151	
170	8.69	8.67	34.140	26.497	155.9	0.396	1.56	23.8	41.5	2.38	30.3	0.00	0.00	0.01	0.10	171 208	
200	8.51	8.49	34.178	26.555	150.9	0.442	1.33	20.2	44.2	2.48	31.3	0.00	0.00	0.01	0.05	201 207	
230	8.01	7.99	34.206	26.652	142.0	0.486	1.05	15.8	50.3	2.63	33.4	0.00	0.00			231 206	
250 ISL	7.93 D	7.90	34.233 D	26.686	139.2	0.514	0.89	D 13.4	52.4	2.69	34.0	0.00	0.00			251	
271	7.73	7.70	34.244	26.724	135.8	0.543	0.79	11.8	54.2	2.75	34.5	0.00	0.00			273 205	
300 ISL	7.47 D	7.44	34.269 D	26.781	130.7	0.582	0.61	D 9.1	58.9	2.85	35.8	0.00	0.00			302	
320	7.21	7.18	34.279	26.826	126.6	0.607	0.51	7.5	62.2	2.91	36.6	0.00	0.00			322 204	
381	6.78	6.74	34.306	26.907	119.7	0.683	0.37	5.4	69.0	3.01	37.8	0.00	0.00			383 203	
400 ISL	6.67 D	6.63	34.301 D	26.918	118.8	0.705	0.37	D 5.4	70.4	3.03	38.1	0.00	0.00			403	
440	6.52	6.48	34.312	26.947	116.6	0.752	0.33	4.8	72.8	3.05							

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
32 5.1 N	120 38.3 W	02/08/11	0128	UTC	3817 m	320	09 kn	340	03 07	1	1016.3 mb	18.0 C	16.1 C	10m	6/8	SC
0 ISL	17.18	17.18	33.547	24.358	355.9	0.000	5.96	108.4	0.3	0.26	0.0	0.00	0.00	0.67	0.13	0
2 A	17.18	17.18	33.547	24.358	356.0	0.007	5.96	108.4	0.3	0.26	0.0	0.00	0.00	0.67	0.13	2 222
6 A	16.84	16.84	33.546	24.437	348.6	0.021	5.97	107.9	0.3	0.25	0.0	0.00	0.00	0.68	0.14	6 221
10 A	15.54	15.54	33.524	24.717	322.0	0.035	6.08	107.1	0.3	0.30	0.2	0.03	0.07	1.10	0.25	10 220
14 A	15.44	15.44	33.441	24.675	326.1	0.048	5.93	104.2	0.6	0.36	1.0	0.06	0.39	0.77	0.28	14 219
20 ISL	15.57	D 15.57	33.565	D 24.742	320.0	0.067	5.87	D 103.5	0.8	0.38	0.9	0.07	0.82	1.48	0.61	20
26 A	15.53	15.53	33.566	24.752	319.2	0.086	5.73	100.9	0.9	0.40	0.8	0.08	1.19	2.44	0.97	26 218
30 ISL	15.42	D 15.42	33.552	D 24.766	318.0	0.099	5.72	D 100.5	1.1	0.46	1.0	0.09	1.38	2.33	0.96	30
38 A	15.29	15.28	33.572	24.810	314.0	0.124	5.57	97.6	1.5	0.60	1.3	0.11	1.77	2.11	0.93	38 217
44	14.53	14.52	33.530	24.942	301.6	0.143	5.39	93.0	3.5	0.70	2.6	0.21	2.18	0.88	0.62	44 216
50	12.68	12.67	33.155	25.028	293.4	0.160	5.75	95.3	3.0	0.63	2.7	0.28	0.81	0.46	0.44	50 215
60	12.10	12.09	33.084	25.084	288.2	0.190	5.71	93.4	3.4	0.64	3.6	0.30	0.45	0.37	0.39	60 214
70	11.37	11.36	33.088	25.223	275.2	0.218	5.32	85.7	6.0	0.81	7.1	0.14	0.03	0.17	0.28	70 213
75 ISL	11.31	D 11.30	33.110	D 25.251	272.7	0.231	5.28	D 84.9	7.3	0.89	8.6	0.09	0.03	0.16	0.28	75
85	10.98	10.97	33.234	25.406	258.1	0.258	4.83	77.2	10.1	1.09	12.0	0.02	0.04	0.15	0.27	85 212
100	10.55	10.54	33.567	25.741	226.5	0.294	3.94	62.5	16.0	1.53	18.9	0.00	0.00	0.07	0.16	100 211
120	9.51	9.50	33.692	26.015	200.8	0.337	3.23	50.1	24.4	1.81	23.6	0.00	0.00	0.12	0.12	121 210
125 ISL	9.43	D 9.42	33.857	D 26.141	188.9	0.347	2.76	D 42.8	26.1	1.88	24.6	0.00	0.00	0.02	0.10	126
141	9.07	9.05	33.920	26.264	177.5	0.376	2.43	37.4	30.4	2.05	27.0	0.00	0.00	0.01	0.05	142 209
150 ISL	8.81	D 8.79	33.890	D 26.282	175.9	0.392	2.82	D 43.1	31.9	2.06	27.5	0.00	0.00	0.01	0.05	151
170	8.59	8.57	33.998	26.401	164.9	0.426	2.48	37.8	34.3	2.07	27.9	0.00	0.00	0.01	0.05	171 208
200	8.17	8.15	34.040	26.498	156.1	0.474	2.25	34.0	38.8	2.19	29.8	0.00	0.00	0.01	0.02	201 207
230	8.08	8.06	34.096	26.556	151.2	0.520	1.69	25.5	43.1	2.37	31.8	0.00	0.00		231	206
250 ISL	7.88	D 7.85	34.112	D 26.598	147.4	0.550	1.60	D 24.0	46.6	2.47	32.9	0.00	0.00		251	
270	7.58	7.55	34.133	26.658	141.9	0.579	1.34	20.0	50.2	2.55	33.9	0.00	0.00		272	205
300 ISL	7.34	D 7.31	34.148	D 26.705	137.9	0.621	1.23	D 18.2	55.0	2.64	35.4	0.00	0.00		302	
320	6.94	6.91	34.138	26.752	133.4	0.648	1.12	16.4	57.9	2.69	36.2	0.00	0.00		322	204
380	6.60	6.57	34.199	26.847	125.1	0.726	0.71	10.3	64.5	2.87	37.7	0.00	0.00		382	203
400 ISL	6.31	D 6.27	34.175	D 26.866	123.4	0.751	0.74	D 10.7	67.9	2.92	38.5	0.00	0.00		403	
440	6.10	6.06	34.221	26.930	117.8	0.799	0.50	7.2	74.8	3.01	39.9	0.00	0.00		443	202
500 ISL	5.81	D 5.77	34.279	D 27.012	110.5	0.867	0.33	D 4.7	81.0	3.11	40.9	0.00	0.00		503	
515	5.79	5.75	34.296	27.028	109.1	0.884	0.29	4.1	82.5	3.13	41.2	0.00	0.00		519	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
31 44.9 N	121 19.4 W	01/08/11	1723	UTC	3738 m	290	12 kn	0	1015.2 mb	18.1 C	15.5 C	10m	0/8	CI		
0 ISL	17.73	17.73	33.120	23.899	399.7	0.000	5.63	103.3	1.6	0.28	0.0	0.00	0.11	0.03	0	
2	17.73	17.73	33.120	23.899	399.7	0.008	5.63	103.3	1.6	0.28	0.0	0.00	0.11	0.03	2	
10	17.28	17.28	33.120	24.007	389.7	0.040	5.65	102.7	1.5	0.27	0.0	0.00	0.11	0.04	10 219	
20	16.75	16.75	33.118	24.130	378.3	0.078	5.74	103.3	1.3	0.27	0.0	0.00	0.14	0.05	20 218	
30	16.53	16.53	33.143	24.201	371.9	0.115	5.82	104.3	1.4	0.25	0.0	0.00	0.19	0.07	30 217	
40	16.14	16.13	33.164	24.306	362.1	0.152	5.92	105.3	1.4	0.24	0.0	0.00	0.34	0.17	40 216	
50	15.21	15.20	33.227	24.562	338.0	0.187	6.02	105.1	1.2	0.28	0.1	0.00	0.05	0.66	0.38	50 215
61	14.27	14.26	33.120	24.681	326.9	0.224	6.00	102.7	1.8	0.31	0.1	0.00	0.17	0.49	0.42	61 214
70	13.62	13.61	33.132	24.824	313.4	0.253	5.90	99.7	2.1	0.47	0.8	0.18	0.48	0.30	0.32	70 213
75 ISL	13.41	D 13.40	33.122	D 24.859	310.2	0.268	5.85	D 98.4	2.2	0.52	1.2	0.20	0.58	0.23	0.26	75
85	13.28	13.27	33.219	24.961	300.8	0.299	5.74	96.3	2.4	0.58	2.4	0.23	0.78	0.15	0.17	85 212
100	11.71	11.70	33.131	25.195	278.7	0.342	5.41	87.8	4.8	0.71	5.6	0.14	0.00	0.08	0.12	100 211
120	10.92	10.91	33.197	25.389	260.5	0.396	5.04	80.4	8.6	0.94	9.7	0.00	0.00	0.06	0.10	121 210
125 ISL	10.78	D 10.77	33.213	D 25.426	257.1	0.409	4.98	D 79.2	10.0	1.03	11.1	0.00	0.00	0.05	0.09	126
140	10.29	10.27	33.418	25.671	234.0	0.446	4.39	69.2	14.5	1.29	15.5	0.00	0.00	0.02	0.05	141 209
150 ISL	9.90	D 9.88	33.538	D 25.830	219.0	0.469	3.85	D 60.2	17.3	1.42	17.8	0.00	0.00	0.02	0.05	151
170	9.40	9.38	33.730	D 26.063	197.2	0.510	3.47	D 53.7								171 208
200	8.80	8.78	33.900	26.292	175.9	0.566	3.02	46.2	29.4	1.87	25.6	0.00	0.00	0.00	0.03	201 207
230	8.31	8.29	33.990	26.438	162.4	0.617	2.57	38.9	35.5	2.05	28.4	0.00	0.00		231	206
250 ISL	8.01	D 7.98	34.028	D 26.513	155.5	0.649	2.26	D 34.0	39.7	2.17	30.0	0.00	0.00		251	
270	7.62	7.59	34.032	26.573	150.0	0.679	2.10	31.3	43.8	2.28	31.4	0.00	0.00		271	205
300 ISL	7.27	D 7.24	34.064	D 26.648	143.1	0.723	1.71	D 25.3	49.7	2.46	33.7	0.00	0.00		302	
321	7.04	7.01	34.088	26.699	138.5	0.753	1.42	20.9	53.5	2.57	35.1	0.00	0.00		323	204
380	6.54	6.51	34.120	26.792	130.2	0.832	1.01	14.7	62.7	2.76	37.5	0.00	0.00		382	203
400 ISL	6.36	D 6.32	34.128	D 26.822	127.5	0.858	0.92	D 13.3	65.2	2.81	38.1	0.00	0.00		402	
440	6.12	6.08	34.145	26.867	123.7	0.908	0.78	11.2	69.9	2.89	39.1	0.00	0.00		443	202
500 ISL	5.73	D 5.69	34.194	D 26.955	115.8	0.980	0.54	D 7.7	77.4	3.00	40.4	0.00	0.00		503	
516	5.67	5.63	34.204	26.												

RV NEW HORIZON CALCOFI CRUISE 1108 STATION 90.0 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
31 25.0 N	122 0.1 W	01/08/11	0859	UTC	3836 m	280	09 kn	280 03 08	1	1015.0 mb	21.0 C	17.2 C	7/8			SC		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAEO	PRES	SAMP
m	DEG C	DEG C	THETA	m/l	PCT	um/l	um/l	um/l	um/l	um/l	um/l	um/l	um/l	ug/l	ug/l	db		
0 ISL	18.95	18.95	33.327	23.757	413.3	0.000	5.46	102.6	1.3	0.30	0.0	0.00	0.00	0.07	0.02	0.02	0	
2 A	18.95	18.95	33.327	23.757	413.3	0.008	5.46	102.6	1.3	0.30	0.0	0.00	0.00	0.07	0.02	0.02	2 222	
10 ISL	18.50	18.50	33.316	23.861	403.6	0.041	5.47	101.9	1.5	0.30	0.0	0.00	0.00	0.07	0.02	0.02	10 223	
20 ISL	18.27	D 18.27	33.307	D 23.912	399.2	0.081	5.47	D101.5	1.4	0.28	0.0	0.00	0.00	0.08	0.02	0.02	20	
30	18.16	18.15	33.308	23.940	396.8	0.121	5.52	102.2	1.2	0.26	0.0	0.00	0.00	0.08	0.02	0.02	30 222	
50 ISL	16.06	D 16.05	33.201	D 24.353	358.0	0.196	5.95	D105.7	1.4	0.28	0.0	0.00	0.00	0.13	0.05	0.05	50	
51	15.94	15.93	33.195	24.376	355.8	0.200	5.99	106.1	1.4	0.28	0.0	0.00	0.00	0.13	0.05	0.05	51 221	
62	14.25	14.24	33.088	24.660	328.9	0.238	6.18	105.7	1.5	0.31	0.0	0.00	0.00	0.21	0.10	0.10	62 220	
75	12.58	12.57	33.239	25.114	285.9	0.278	5.36	88.7	4.7	0.74	5.3	0.13	0.00	0.41	0.23	0.23	75 219	
87	11.69	11.68	33.292	25.323	266.2	0.311	4.94	80.2	7.5	0.96	9.4	0.01	0.00	0.33	0.22	0.22	87 218	
100	11.16	11.15	33.333	25.452	254.2	0.345	4.63	74.3	10.0	1.10	12.1	0.00	0.00	0.21	0.15	0.15	100 217	
112	10.30	10.29	33.432	25.679	232.6	0.374	4.36	68.8	14.2	1.24	14.9	0.00	0.00	0.04	0.05	0.05	112 216	
125	9.90	9.89	33.524	25.819	219.6	0.403	4.11	64.3	17.0	1.39	17.4	0.00	0.00	0.03	0.04	0.04	126 214	
135	9.58	9.56	33.620	25.947	207.5	0.424	3.70	57.5	20.2	1.58	20.1	0.00	0.00	0.01	0.04	0.04	136 213	
150 ISL	9.24	D 9.22	33.788	D 26.134	190.0	0.454	3.14	D 48.5	23.8	1.72	22.4	0.00	0.00	0.01	0.03	0.03	151	
169	8.98	8.96	33.856	26.229	181.3	0.490	3.18	48.8	27.4	1.81	24.1	0.00	0.00	0.02	0.02	0.02	170 212	
200	8.60	8.58	33.963	26.372	168.2	0.544	2.76	42.0	32.3	1.97	26.5	0.00	0.00	0.03	0.03	0.03	201 211	
230	8.24	8.22	34.024	26.475	158.8	0.593	2.33	35.2	36.4	2.13	28.9	0.00	0.00	0.00	0.00	0.00	231 210	
250 ISL	8.12	D 8.09	34.060	D 26.522	154.8	0.624	2.05	D 30.9	40.4	2.27	30.6	0.00	0.00	0.00	0.00	0.00	251	
269	7.77	7.74	34.072	26.583	149.1	0.653	1.75	26.2	44.3	2.39	32.0	0.00	0.00	0.00	0.00	0.00	270 209	
300 ISL	7.40	D 7.37	34.092	D 26.652	142.9	0.698	1.47	D 21.8	49.2	2.51	33.7	0.00	0.00	0.00	0.00	0.00	302	
322	7.33	7.30	34.124	26.687	139.9	0.729	1.25	18.5	52.6	2.57	34.7	0.00	0.00	0.00	0.00	0.00	324 208	
381	6.53	6.50	34.141	26.810	128.5	0.809	0.91	13.2	63.6	2.77	37.6	0.00	0.00	0.00	0.00	0.00	383 207	
400 ISL	6.58	D 6.54	34.189	D 26.842	125.9	0.833	0.76	D 11.1	66.1	2.82	38.1	0.00	0.00	0.00	0.00	0.00	402	
438	6.22	6.18	34.192	26.891	121.4	0.880	0.64	9.2	70.7	2.91	39.0	0.00	0.00	0.00	0.00	0.00	441 206	
500 ISL	5.87	D 5.83	34.242	D 26.976	114.0	0.953	0.44	D 6.3	79.1	3.02	40.5	0.00	0.00	0.00	0.00	0.00	503	
518	5.65	5.61	34.231	26.994	112.2	0.973	0.41	5.8	81.5	3.05	40.9	0.00	0.00	0.00	0.00	0.00	521 205	
600 ISL	5.18	D 5.13	34.285	D 27.093	103.3	1.061	0.29	D 4.1	91.5	3.15	42.4	0.00	0.00	0.00	0.00	0.00	604	
632	5.04	4.99	34.317	27.135	99.5	1.094	0.23	3.2	95.2	3.18	42.9	0.00	0.00	0.00	0.00	0.00	636 204	
700 CSL	4.69	4.63	34.363	27.212	92.6	1.159	0.26	3.6	96.0	3.19	43.8	0.00	0.00	0.00	0.00	0.00	705 200	
800 CSL	4.36	4.30	34.417	27.291	85.6	1.248	0.34	4.7	97.2	3.20	44.7	0.00	0.00	0.00	0.00	0.00	806 200	
900 CSL	4.08	4.01	34.454	27.351	80.4	1.331	0.45	6.2	98.4	3.21	45.6	0.00	0.00	0.00	0.00	0.00	907 200	
1000 CSL	3.84	3.76	34.482	27.398	76.3	1.410	0.56	7.6	99.6	3.22	46.5	0.00	0.00	0.00	0.00	0.00	1008 200	
1100 CSL	3.60	3.52	34.503	27.439	72.8	1.484	0.67	9.1	101.1	3.23	47.4	0.00	0.00	0.00	0.00	0.00	1109 200	
1200 CSL	3.38	3.29	34.520	27.475	69.7	1.555	0.78	10.5	102.6	3.24	48.3	0.00	0.00	0.00	0.00	0.00	1211 200	
1300 CSL	3.17	3.08	34.536	27.508	66.7	1.624	0.88	11.8	104.1	3.25	49.2	0.00	0.00	0.00	0.00	0.00	1312 200	
1400 CSL	2.97	2.87	34.552	27.539	63.8	1.689	1.00	13.3	105.6	3.26	50.1	0.00	0.00	0.00	0.00	0.00	1413 200	
1500 CSL	2.77	2.66	34.565	27.568	61.1	1.751	1.12	14.9	107.1	3.27	51.0	0.00	0.00	0.00	0.00	0.00	1514 200	
1600 CSL	2.58	2.47	34.578	27.595	58.5	1.811	1.26	16.6	108.6	3.28	51.9	0.00	0.00	0.00	0.00	0.00	1616 200	
1800 CSL	2.28	2.15	34.606	27.644	53.8	1.923	1.58	20.7	110.1	3.29	52.8	0.00	0.00	0.00	0.00	0.00	1819 200	
2000 CSL	2.08	1.94	34.624	27.675	51.0	2.028	1.84	24.0	111.6	3.30	53.7	0.00	0.00	0.00	0.00	0.00	2022 200	
2200 CSL	1.94	1.79	34.637	27.698	49.1	2.128	2.07	26.9	113.1	3.31	54.6	0.00	0.00	0.00	0.00	0.00	2225 200	
2400 CSL	1.84	1.67	34.648	27.715	47.8	2.225	2.25	29.1	114.6	3.32	55.5	0.00	0.00	0.00	0.00	0.00	2429 200	
2600 CSL	1.75	1.56	34.656	27.730	46.8	2.320	2.43	31.4	116.1	3.33	56.4	0.00	0.00	0.00	0.00	0.00	2632 200	
2800 CSL	1.69	1.48	34.661	27.739	46.3	2.413	2.54	32.7	117.6	3.34	57.3	0.00	0.00	0.00	0.00	0.00	2836 200	
3000 CSL	1.64	1.42	34.665	27.747	45.9	2.505	2.66	34.2	119.1	3.35	58.2	0.00	0.00	0.00	0.00	0.00	3040 200	
3200 CSL	1.60	1.36	34.669	27.755	45.7	2.597	2.75	35.3	120.6	3.36	59.1	0.00	0.00	0.00	0.00	0.00	3244 200	
3400 CSL	1.56	1.30	34.672	27.761	45.5	2.688	2.85	36.6	122.1	3.37	59.9	0.00	0.00	0.00	0.00	0.00	3449 200	
3498	1.55	1.28	34.678	27.768	45.2	2.733	2.89	37.1	171.8	2.63	38.6	0.00	0.00	0.00	0.00	0.00	3549 201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02' ;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
31 4.7 N	122 39.3 W	01/08/11	0136	UTC	4079 m	270	07 kn	260 03 06	1	1015.7 mb	18.9 C	16.8 C	21m	7/8		ST		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAEO	PRES	SAMP
m	DEG C	DEG C	THETA	m/l	PCT	um/l	um/l	um/l	um/l	um/l	um/l	um/l	um/l	ug/l	ug/l	db		
0 ISL	18.38	18.38	33.323	23.896	400.0	0.000	5.52	102.6	0.8	0.28	0.0	0.00	0.18	0.16	0.02	0.02	0.02	0
2 A	18.38	18.38	33.323	23.896	400.0	0.008	5.52	102.6	0.8	0.28	0.0	0.00	0.18	0.16	0.02	0.02	0.02	2 222
10 ISL	17.93	D 17.93	33.304	D 23.992	391.1	0.040	5.54	D 102.1	0.9	0.27	0.0	0.00	0.04	0.15	0.04	0.04	0.04	10 223
12 A	17.86	17.86	33.303	24.008	389.7	0.047	5.57	102.5	0.9	0.27	0.0	0.00	0.00	0.15	0.04	0.04	12 221	
16 A	17.77	17.77	33.300	24.028	387.9	0.063	5.60	102.9	0.6	0.26	0.0	0.00	0.00	0.19	0.03	0.03	16 220	
20 ISL	17.73	D 17.73	33.302	D 24.039	387.0	0.079	5.56	D 102.1	0.7	0.26	0.0	0.00	0.00	0.20	0.02	0.02	20 219	
22	17.71	17.71	33.302	24.044	386.6	0.086	5.59	102.6	0.8	0.26	0.0	0.00	0.00	0.21	0.02	0.02	21 219	
29 A	15.11	15.11	33.276	24.621	337.1	0.111	6.09	106.2	1.1	0.28	0.1	0.00	0.06	0.38	0.13	0.13	29 218	
30 ISL	14.80	D 14.80	33.235	D 24.656	328.4	0.115	6.52	D 112.9	1.3	0.30								

RV NEW HORIZON CALCOFI CRUISE 1108 STATION 90.0 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
30 45.0 N	123 20.0 W	31/07/11	1708	UTC	4020 m	250	07 kn		0	1014.6 mb	19.1 C	16.0 C		0/8	0/8	Ci	
0	ISL	18.83	18.83	33.296	23.763	412.6	0.000	5.47	102.6	1.4	0.27	0.0	0.00	0.10	0.02	0	
2		18.83	18.83	33.296	23.763	412.7	0.008	5.47	102.6	1.4	0.27	0.0	0.00	0.10	0.02	2	
10		17.72	17.72	33.207	23.969	393.4	0.040	5.56	102.0	1.5	0.27	0.0	0.00	0.08	0.02	10	
20		17.29	17.29	33.154	24.031	387.7	0.080	5.62	102.2	1.4	0.30	0.0	0.00	0.14	0.04	20	
30		16.19	16.19	33.049	24.206	371.3	0.118	5.82	103.5	1.5	0.30	0.0	0.00	0.18	0.06	30	
40		14.85	14.84	33.136	24.570	336.9	0.153	6.17	106.9	1.7	0.31	0.0	0.00	0.18	0.09	40	
50		14.11	14.10	33.074	24.678	326.8	0.186	6.19	105.6	1.7	0.33	0.0	0.00	0.34	0.29	50	
60		13.33	13.32	33.012	24.790	316.4	0.218	6.02	101.0	2.0	0.36	0.4	0.00	0.13	0.31	60	
70		13.14	13.13	33.066	24.870	309.0	0.250	5.93	99.1	1.9	0.44	1.0	0.16	0.28	0.24	70	
75	ISL	12.74	D	12.73	33.047	D	24.934	303.0	0.265	5.88	D	97.5	2.0	0.46	1.2	0.24	0.23
85		12.17	12.16	33.018	25.021	294.9	0.295	5.76	94.3	2.8	0.50	2.1	0.31	0.07	0.14	85	
100		11.30	11.29	33.071	25.223	275.9	0.338	5.42	87.1	5.5	0.71	6.2	0.00	0.09	0.15	100	
120		9.97	9.96	33.246	25.590	241.2	0.389	4.76	74.4	12.4	1.16	13.7	0.00	0.03	0.06	121	
125	ISL	9.83	D	9.82	33.378	D	25.717	229.2	0.401	4.37	D	68.2	14.3	1.27	15.6	0.00	0.02
140		9.40	9.38	33.533	25.908	211.2	0.434	3.96	61.3	19.9	1.57	20.6	0.00	0.01	0.04	141	
150	ISL	9.34	D	9.32	33.709	D	26.056	197.5	0.454	3.60	D	55.7	23.2	1.73	22.9	0.00	0.01
171		9.12	9.10	33.855	26.206	183.6	0.495	2.80	43.1	28.6	1.95	26.1	0.00	0.01	0.04	172	
200	ISL	8.78	D	8.76	33.947	D	26.332	172.1	0.546	2.60	D	39.8	31.8	2.02	27.5	0.00	0.01
201		8.77	8.75	33.946	26.333	172.0	0.548	2.62	40.1	31.9	2.02	27.5	0.00	0.01	0.03	201	
231		8.33	8.31	34.013	26.453	161.0	0.598	2.31	35.0	36.2	2.17	29.5	0.00	0.00	232	206	
250	ISL	8.20	D	8.17	34.050	D	26.502	156.7	0.628	2.07	D	31.3	39.1	2.25	30.6	0.00	0.00
270		7.92	7.89	34.058	26.550	152.3	0.659	1.92	28.8	42.4	2.33	31.7	0.00	0.00	271	205	
300	ISL	7.51	D	7.48	34.111	D	26.651	143.0	0.703	1.45	D	21.6	48.8	2.48	33.7	0.00	0.00
321		7.17	7.14	34.098	26.689	139.6	0.733	1.39	20.5	53.5	2.58	35.0	0.00	0.00	323	204	
381		6.33	6.30	34.096	26.801	129.3	0.813	1.11	16.1	64.4	2.77	37.8	0.00	0.00	383	203	
400	ISL	6.14	D	6.10	34.115	D	26.840	125.6	0.838	0.94	D	13.5	67.8	2.83	38.5	0.00	0.00
442		5.77	5.73	34.136	26.903	119.9	0.889	0.77	11.0	74.6	2.95	39.9	0.00	0.00	445	202	
500	ISL	5.63	D	5.59	34.213	D	26.982	113.1	0.957	0.46	D	6.5	81.4	3.05	40.9	0.00	0.00
516		5.51	5.47	34.219	27.001	111.3	0.975	0.42	6.0	83.3	3.08	41.2	0.00	0.00	519	201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON CALCOFI CRUISE 1108 STATION 90.0 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
30 24.9 N	123 59.6 W	31/07/11	1050	UTC	4222 m	260	04 kn	230	04	08	1	1014.0 mb	20.0 C	17.7 C		1/8	1/8	SC
0	ISL	18.60	18.60	33.058	23.639	424.5	0.000	5.55	103.5	1.9	0.39	0.1	0.00	0.30	0.09	0.03	0	
2		18.60	18.60	33.058	23.639	424.6	0.008	5.55	103.5	1.9	0.39	0.1	0.00	0.30	0.09	0.03	2	
10		17.63	17.63	33.060	23.878	402.1	0.042	5.60	102.5	1.7	0.29	0.0	0.00	0.08	0.03	10		
20	ISL	17.28	D	17.28	33.057	D	23.959	394.6	0.081	5.60	D	101.8	1.5	0.30	0.0	0.09	0.03	
25		17.21	17.21	33.055	23.974	393.3	0.101	5.63	102.2	1.5	0.30	0.0	0.00	0.09	0.03	25		
30	ISL	17.19	D	17.19	33.055	D	23.979	393.0	0.121	5.61	D	101.8	1.5	0.30	0.0	0.11	0.04	
40		16.65	16.64	33.030	24.087	383.1	0.160	5.71	102.5	1.7	0.28	0.0	0.00	0.13	0.05	40		
50		15.99	15.98	32.986	24.204	372.2	0.197	5.83	103.2	2.0	0.26	0.0	0.00	0.12	0.05	50		
62		15.51	15.50	33.060	24.368	356.9	0.241	5.98	104.9	1.9	0.25	0.0	0.00	0.16	0.07	62		
75		14.00	13.99	33.026	24.665	328.8	0.286	6.08	103.5	2.2	0.27	0.0	0.00	0.21	0.10	75		
87		13.45	13.44	33.041	24.789	317.2	0.324	5.92	99.6	2.6	0.31	0.0	0.00	0.21	0.19	87		
100		12.99	12.98	32.208	25.010	296.5	0.364	5.62	93.7	2.9	0.39	0.9	0.09	0.37	0.35	100		
111		12.23	12.22	33.243	25.185	280.0	0.396	5.38	88.3	4.8	0.58	4.7	0.00	0.21	0.24	111		
125		11.23	11.21	33.232	25.361	263.4	0.434	5.16	82.9	7.9	0.94	10.0	0.00	0.07	0.09	125		
140		10.99	10.97	33.363	25.506	249.9	0.473	4.83	77.3	11.6	1.18	13.9	0.00	0.03	0.06	141		
150	ISL	10.74	D	10.72	33.485	D	25.646	236.8	0.497	4.54	D	72.3	14.5	1.32	16.3	0.00	0.02	
171		9.45	9.43	33.609	25.960	207.0	0.543	3.92	60.7	20.3	1.54	20.3	0.00	0.01	0.02	172		
200		9.08	9.06	33.803	26.172	187.4	0.601	3.48	53.5	25.4	1.71	23.2	0.00	0.00	0.02	201		
229		8.49	8.47	33.940	26.372	168.8	0.652	3.43	52.1	29.8	1.77	24.6	0.00	0.00	230	206		
250	ISL	8.28	D	8.25	33.974	D	26.430	163.5	0.687	3.10	D	46.9	33.3	1.88	26.3	0.00	0.00	
269		8.02	7.99	33.995	26.486	158.4	0.718	2.80	42.1	37.0	2.02	28.2	0.00	0.00	270	205		
300	ISL	7.50	D	7.47	34.033	D	26.591	148.7	0.765	2.20	D	32.7	45.4	2.28	31.5	0.00	0.00	
319		7.18	7.15	34.054	26.653	142.9	0.793	1.80	26.6	50.6	2.43	33.4	0.00	0.00	321	204		
380		6.58	6.55	34.097	26.769	132.5	0.877	1.21	17.6	61.0	2.70	36.6	0.00	0.00	382	203		
400	ISL	6.32	D	6.28	34.115	D	26.817	128.0	0.903	1.03	D	14.9	64.8	2.78	37.5	0.00	0.00	
441		6.03	5.99	34.153	26.885	121.9	0.954	0.77	11.1	72.2	2.91	39.1	0.00	0.00	444	202		
500	ISL	5.73	D	5.69	34.213	D	26.970	114.4	1.024	0.49	D	7.0	80.2	3.05	40.4	0.00	0.00	
516		5.64	5.60	34.240	27.002	111.4	1.042	0.38	5.4	82.4	3.09	40.8	0.00	0.00	519	201		

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON CALCOFI CRUISE 1108 STATION 93.3 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE		
32 57.0 N	117 18.2 W	28/07/11	0218	UTC	66 m	190	05 kn	200	01	05	2	1012.3 mb	19.1 C	17.2 C		20m	8/8	SC
0	ISL	20.91	20.91	33.578	23.437	443.7	0.000	5.61	109.5	3.9	0.24	0.0	0.00	0.36	0.32	0.14	0	
2	A	20.91	20.91	33.578	23.437	443.8	0.009	5.61	109.5	3.9	0.24	0.0	0.00	0.36	0.32	0.14	2	
5		20.88	20.88	33.583	23.449	442.8	0.022	5.61	109.5	4.1	0.23	0.0	0.00	0.29	0.31	0.13	5	
10	ISL	19.28	D	19.28	33.520	D	23.821	407.5	0.043	6.09	D	115.3	4.5	0.26	0.0	0.32	0.34	
12	A	18.39	18.39	33.505	24.033	387.3	0.051	6.20	115.4	4.6	0.26	0.0	0.00	0.33	0.35	0.15	12	
14	A	17.11	17.11	33.475	24.320	360.0	0.059	6.43	116.8	3.0	0.24	0.0	0.00	0.68	0.46	0.21	14	
20	ISL	14.10	D	14.10	33.345	D	24.889	305.9	0.079	6.19	D	105.8	3.2	0.47	2.7	0.15	0.55	
22		13.67	13.67	33.333	24.968	298.4												

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 28.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	20.48	20.48	33.554	23.534	434.5	0.000	5.52	106.9	2.5	0.24	0.0	0.00	0.03	0.29	0.09	0	
2	20.48	20.48	33.554	23.534	434.6	0.009	5.52	106.9	2.5	0.24	0.0	0.00	0.03	0.29	0.09	2	220
10	17.90	17.90	33.536	24.177	373.5	0.041	5.82	107.4	3.4	0.25	0.0	0.00	0.02	0.29	0.09	10	219
20	14.37	14.37	33.319	24.812	313.2	0.075	6.43	110.5	2.5	0.36	0.6	0.06	0.16	0.87	0.14	20	218
30	13.69	13.69	33.385	25.005	295.2	0.106	6.23	105.6	5.0	0.48	2.0	0.12	0.34	0.78	0.27	30	217
40	12.90	12.89	33.359	25.143	282.2	0.135	5.77	96.2	5.5	0.65	4.7	0.33	0.35	0.84	0.22	40	216
50	11.74	11.73	33.293	25.314	266.2	0.162	5.12	83.2	7.3	0.90	9.4	0.02	0.04	0.30	0.21	50	215
60	11.14	11.13	33.348	25.466	251.9	0.188	4.71	75.6	10.9	1.08	12.5	0.00	0.00	0.18	0.19	60	214
70	10.85	10.84	33.389	25.550	244.1	0.213	4.45	71.0	12.9	1.20	14.3	0.00	0.00	0.13	0.07	70	213
75 ISL	10.61 D	10.60	33.461	25.648	234.9	0.225	4.32	68.6	15.3	1.34	16.3	0.00	0.04	0.10	0.07	75	
85	10.16	10.15	33.617	25.847	216.1	0.247	3.53	55.6	20.1	1.62	20.2	0.00	0.11	0.05	0.06	85	212
100	9.87	9.86	33.687	25.951	206.5	0.279	3.32	51.9	22.7	1.71	21.9	0.00	0.02	0.02	0.07	100	211
120	9.93	9.92	33.839	26.060	196.6	0.319	2.69	42.2	26.4	1.92	24.0	0.00	0.02	0.02	0.07	121	210
125 ISL	9.86 D	9.85	33.878	26.102	192.7	0.329	2.61	40.9	27.2	1.94	24.4	0.00	0.07	0.02	0.07	126	
140	9.58	9.56	33.933	26.192	184.5	0.357	2.51	39.1	29.3	2.00	25.5	0.00	0.19	0.01	0.06	141	209
150 ISL	9.46 D	9.44	33.944	26.220	181.9	0.376	2.49	38.7	30.6	2.07	26.2	0.00	0.14	0.01	0.08	151	
170	9.62	9.60	34.085	26.305	174.4	0.411	1.83	28.5	33.0	2.21	27.5	0.00	0.01	0.01	0.13	171	208
200	9.61	9.59	34.202	26.398	166.2	0.462	1.37	21.4	36.0	2.39	28.7	0.00	0.11	0.00	0.10	201	207
230	9.49	9.46	34.272	26.473	159.7	0.511	1.07	16.7	38.9	2.50	29.6	0.00	0.15			231	206
250 ISL	9.30 D	9.27	34.274	26.506	156.9	0.543	1.06	16.4	40.7	2.55	30.0	0.00	0.08			251	
270	9.22	9.19	34.312	26.549	153.2	0.574	0.88	13.6	42.3	2.59	30.4	0.00	0.00			272	205
300 ISL	8.90 D	8.87	34.314	26.602	148.6	0.619	0.79	12.1	44.4	2.63	31.0	0.00	0.02			302	
320	8.77	8.76	34.308	26.615	147.7	0.649	0.83	12.7	45.6	2.65	31.3	0.00	0.03			322	204
380	8.51	8.47	34.325	26.673	143.2	0.736	0.68	10.4	49.4	2.73	32.2	0.00	0.04			382	203
400 ISL	8.26 D	8.22	34.308	26.698	141.0	0.765	0.70	10.6	51.5	2.78	32.8	0.00	0.03			403	
440	7.91	7.87	34.331	26.769	134.8	0.820	0.49	7.4	56.1	2.87	34.2	0.00	0.01			443	202
500 ISL	7.36 D	7.31	34.327	26.845	128.0	0.899	0.40	5.9	62.5	2.95	36.0	0.00	0.00			503	
517	7.18	7.13	34.325	26.869	125.9	0.920	0.38	5.6	64.3	2.98	36.5	0.00	0.00			521	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 30.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	18.54	18.54	33.441	23.946	395.2	0.000	5.60	104.5	0.8	0.28	0.0	0.00	0.02	0.18	0.05	0	
2	18.54	18.54	33.441	23.947	395.2	0.008	5.60	104.5	0.8	0.28	0.0	0.00	0.02	0.18	0.05	2	220
10	17.25	17.25	33.369	24.205	370.8	0.039	5.70	103.7	1.0	0.27	0.0	0.00	0.00	0.15	0.05	10	219
20	14.56	14.56	33.289	24.749	319.3	0.073	6.28	108.3	1.4	0.36	0.6	0.04	0.10	0.57	0.18	20	218
30 ISL	13.32 D	13.32	33.287	25.004	295.2	0.104	5.82	97.8	2.4	0.60	4.2	0.55	0.01	0.77	0.35	30	
31	13.26	13.26	33.286	25.015	294.2	0.107	5.85	98.2	2.6	0.63	4.7	0.58	0.00	0.77	0.36	31	217
40	12.66	12.65	33.357	25.188	277.9	0.132	5.34	88.6	5.2	0.90	9.1	0.12	0.00	0.66	0.36	40	216
50 ISL	12.02 D	12.01	33.368	25.320	265.6	0.160	5.11	83.6	7.3	1.02	11.1	0.01	0.01	0.40	0.25	50	
51	12.00	11.99	33.371	25.326	265.0	0.162	5.11	83.6	7.5	1.03	11.2	0.00	0.01	0.37	0.24	51	215
60	11.41	11.40	33.396	25.455	253.0	0.186	4.78	77.2	10.6	1.20	13.5	0.00	0.05	0.20	0.16	60	214
73	10.74	10.73	33.511	25.664	233.3	0.217	4.15	66.1							73	213	
75 ISL	10.62 D	10.61	33.539	25.707	229.3	0.222	3.94	62.6	15.9	1.44	17.7	0.00	0.03	0.06	0.08	75	
84	9.96	9.95	33.588	25.858	215.0	0.242	3.68	57.7	19.3	1.58	20.1	0.00	0.00	0.03	0.07	84	212
100	9.77	9.76	33.825	26.075	194.7	0.275	2.94	45.9	26.1	1.89	23.0	0.00	0.00	0.03	0.09	100	211
122	9.55	9.54	34.010	26.257	177.9	0.316	2.28	35.5	30.4	2.07	26.1	0.00	0.00	0.05	0.00	123	210
125 ISL	9.54 D	9.53	34.033	26.276	176.1	0.321	2.20	34.2	30.8	2.08	26.3	0.00	0.00	0.04	0.01	126	
140	9.43	9.41	34.052	26.309	173.3	0.347	2.08	32.3	32.1	2.14	27.1	0.00	0.00	0.01	0.06	141	209
150 ISL	9.41 D	9.39	34.053	26.314	173.1	0.364	2.10	32.6	32.8	2.17	27.4	0.00	0.00	0.01	0.05	151	
171	9.40	9.38	34.117	26.366	168.6	0.400	1.86	28.9	33.8	2.22	27.8	0.00	0.00	0.01	0.04	172	208
198	9.36	9.34	34.135	26.387	167.1	0.446	1.74	27.0	34.9	2.26	28.1	0.00	0.00	0.01	0.05	199	207
200 ISL	9.35 D	9.33	34.135	26.388	167.0	0.449	1.75	27.1	35.1	2.27	28.2	0.00	0.00			201	
229	9.11	9.08	34.232	26.504	156.6	0.496	1.35	20.8	39.0	2.42	29.7	0.00	0.00			230	206
250 ISL	8.92 D	8.89	34.227	26.530	154.4	0.529	1.38	21.2	40.6	2.46	30.2	0.00	0.00			251	
270	8.80	8.77	34.238	26.558	152.1	0.559	1.25	19.2	41.5	2.47	30.5	0.00	0.00			272	205
300 ISL	8.83 D	8.80	34.243	26.558	152.8	0.605	1.23	18.9	42.3	2.50	30.7	0.00	0.00	0.13		302	
320	8.76	8.73	34.255	26.578	151.2	0.635	1.13	17.3	43.2	2.53	30.9	0.00	0.00	0.22		322	204
378	8.07	8.03	34.274	26.699	140.3	0.720	0.82	12.4	50.9	2.70	33.2	0.00	0.26			380	203
400 ISL	8.15 D	8.11	34.295	26.704	140.4	0.751	0.74	11.2	52.2	2.75							

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE			
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP		
m	DEG C	DEG C	THETA			m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db				
0 ISL	19.75	19.75	33.696	23.834	405.9	0.000	5.45	104.2	2.1	0.22	0.0	0.00	0.01	0.31	0.10	0			
3	19.75	19.75	33.696	23.834	406.0	0.012	5.45	104.2	2.1	0.22	0.0	0.00	0.01	0.31	0.10	3	220		
10	18.85	18.85	33.692	24.061	384.6	0.040	5.47	102.8	2.2	0.22	0.0	0.00	0.01	0.32	0.11	10	219		
20	13.97	13.97	33.600	25.113	284.6	0.073	5.97	101.9	6.4	0.59	4.3	0.09	0.02	0.89	0.37	20	218		
30	12.04	12.04	33.628	25.517	246.3	0.100	4.30	70.5	14.3	1.30	15.3	0.17	0.01	1.07	0.53	30	217		
39	11.48	11.48	33.647	25.636	235.2	0.122	3.90	63.2	16.9	1.48	18.3	0.08	0.00	0.79	0.45	39	216		
49	10.93	10.92	33.681	25.762	223.4	0.144	3.48	55.7	20.0	1.65	21.0	0.02	0.00	0.57	0.36	49	215		
50 ISL	10.69	D	10.68	33.697	D	25.817	218.2	0.147	3.48	D	55.4	20.4	1.67	21.3	0.02	0.00	0.54	0.34	50
60	10.12	10.11	33.757	25.963	204.6	0.168	2.86	45.0	23.8	1.85	23.8	0.01	0.00	0.26	0.17	60	214		
71	9.57	9.56	33.800	26.088	192.8	0.190	2.74	42.6	25.3	1.91	25.1	0.00	0.00	0.10	0.12	71	213		
75 ISL	9.43	D	9.42	33.844	D	26.146	187.4	0.197	2.73	D	42.3	26.0	1.92	25.4	0.00	0.00	0.07	0.11	75
86	9.34	9.33	33.851	26.166	185.7	0.218	2.75	42.6	28.1	1.95	26.0	0.00	0.00	0.02	0.09	86	212		
100	9.25	9.24	33.936	26.247	178.3	0.243	2.48	38.3	30.3	2.04	27.0	0.00	0.00	0.01	0.08	101	211		
120	9.09	9.08	34.000	26.323	171.4	0.278	2.30	35.4	32.2	2.09	27.8	0.00	0.00	0.01	0.08	121	210		
125 ISL	9.07	D	9.06	34.023	D	26.344	169.5	0.287	2.25	D	34.7	33.0	2.12	28.1	0.00	0.00	0.01	0.09	126
140	8.82	8.81	34.072	26.423	162.4	0.312	2.05	31.4	35.7	2.20	28.9	0.00	0.00	0.00	0.10	141	209		
150 ISL	8.80	D	8.78	34.105	D	26.452	159.8	0.328	1.83	D	28.0	37.1	2.25	29.5	0.00	0.00	0.09	0.151	151
171	8.63	8.61	34.133	26.500	155.5	0.361	1.66	25.3	39.6	2.35	30.5	0.00	0.00	0.00	0.06	172	208		
200	8.48	8.46	34.180	26.561	150.3	0.405	1.35	20.5	43.1	2.47	31.5	0.00	0.00	0.00	0.06	201	207		
230	8.22	8.20	34.209	26.624	144.8	0.449	1.12	16.9	46.9	2.58	32.8	0.00	0.00			231	206		
250 ISL	7.86	D	7.83	34.191	D	26.663	141.3	0.478	1.13	D	16.9	49.6	2.64	33.7	0.00	0.00		252	
270	7.77	7.74	34.215	26.695	138.5	0.506	0.96	14.4	52.1	2.69	34.5	0.00	0.00			272	205		
300 ISL	7.68	D	7.65	34.256	D	26.741	134.7	0.547	0.74	D	11.1	55.0	2.77	35.2	0.00	0.00		302	
320	7.54	7.51	34.262	26.766	132.6	0.574	0.69	10.3	56.7	2.82	35.5	0.00	0.00			322	204		
381	7.30	7.26	34.319	26.846	125.9	0.653	0.38	5.6	62.2	2.98	36.3	0.00	0.00			384	203		
400 ISL	7.17	D	7.13	34.353	D	26.891	121.8	0.676	0.32	D	4.7	63.9	3.00	36.7	0.00	0.00		403	
441	6.84	6.80	34.341	26.927	118.8	0.725	0.30	4.4	67.6	3.04	37.8	0.00	0.00			444	202		
500 ISL	6.38	D	6.33	34.328	D	26.979	114.3	0.794	0.28	D	4.1	73.2	3.10	39.1	0.00	0.00		503	
516	6.40	6.35	34.337	26.984	114.1	0.813	0.25	3.6	74.7	3.12	39.4	0.00	0.00			520	201		

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 40.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE			
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP		
m	DEG C	DEG C	THETA			m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db				
0 ISL	18.60	18.60	33.611	24.062	384.2	0.000	5.74	107.4	0.1	0.22	0.0	0.00	0.00	0.80	0.26	0			
2	18.60	18.60	33.611	24.062	384.2	0.008	5.74	107.4	0.1	0.22	0.0	0.00	0.00	0.80	0.26	2	221		
10	18.19	18.19	33.610	24.163	374.9	0.038	5.83	108.2	0.3	0.22	0.0	0.00	0.00	0.99	0.29	10	220		
10	18.19	18.19	33.614	24.166	374.6	0.038													
20	15.85	15.85	33.582	24.693	324.7	0.073	5.93	105.1	2.3	0.39	1.4	0.07	0.10	2.46	1.34	20	218		
30	12.69	12.69	33.501	25.294	267.6	0.103	5.21	86.5	9.6	0.97	10.2	0.12	0.12	1.92	0.94	30	217		
40	11.88	11.87	33.512	25.458	252.3	0.129	4.53	74.0	12.1	1.22	14.3	0.09	0.02	1.33	0.65	40	216		
50	10.82	10.81	33.562	25.689	230.4	0.153	3.93	62.7	16.2	1.44	17.8	0.04	0.00	0.60	0.49	50	215		
60	10.61	10.60	33.682	25.820	218.2	0.175	3.31	52.6	20.9	1.69	21.5	0.00	0.00	0.29	0.26	60	214		
70	10.08	10.07	33.765	D	25.976	203.5	0.196	2.83	D	44.5						70	213		
75 ISL	9.92	D	9.91	33.797	D	26.028	198.7	0.206	2.75	D	43.1	26.0	1.94	25.0	0.00	0.00	0.14	0.17	75
85	9.57	9.56	33.866	26.140	188.2	0.226	2.46	38.3	28.3	2.02	26.2	0.00	0.00	0.04	0.11	85	212		
100	9.35	9.34	33.935	26.230	179.9	0.253	2.38	36.9	30.2	2.04	26.9	0.00	0.00	0.01	0.10	101	211		
120	9.13	9.12	34.005	26.321	171.7	0.288	2.21	34.1	32.5	2.12	27.7	0.00	0.00	0.01	0.08	121	210		
125 ISL	9.13	D	9.12	34.008	D	26.323	171.6	0.297	2.20	D	33.9	33.1	2.14	27.9	0.00	0.01	0.01	0.08	126
141	8.90	8.88	34.068	26.407	163.9	0.324	2.00	30.7	35.0	2.20	28.7	0.00	0.03	0.00	0.08	142	209		
150 ISL	8.84	D	8.82	34.094	D	26.437	161.2	0.338	1.88	D	28.8	36.5	2.25	29.2	0.00	0.02	0.00	0.07	151
169	8.71	8.69	34.141	26.494	156.1	0.369	1.60	24.5	39.6	2.35	30.1	0.00	0.00	0.00	0.06	170	208		
200 ISL	8.47	D	8.45	34.162	D	26.548	151.5	0.416	1.46	D	22.2	42.0	2.43	31.1	0.00	0.00	0.00	0.06	201
201	8.46	8.44	34.161	26.549	151.4	0.418	1.45	22.0	42.1	2.43	31.1	0.00	0.00	0.00	0.06	202	207		
230	8.24	8.22	34.211	26.622	145.0	0.461	1.12	16.9	46.4	2.57	32.5	0.00	0.03			231	206		
250 ISL	8.15	D	8.12	34.224	D	26.646	143.0	0.490	1.03	D	15.6	48.2	2.62	33.0	0.00	0.02		252	
270	8.06	8.03	34.240	26.672	140.9	0.518	0.89	13.4	49.8	2.66	33.4	0.00	0.00			272	205		
300 ISL	7.74	D	7.71	34.269	D	26.743	134.6	0.559	0.67	D	10.0	53.9	2.77	34.5	0.00	0.00		302	
320	7.61	7.58	34.286	26.775	131.8	0.586	0.55	8.2	56.8	2.84	35.2	0.00	0.00			322	204		
380	7.09	7.05	34.284	26.848	125.5	0.663	0.50	7.4	62.7	2.93	36.6	0.00	0.00			382	203		
400 ISL	6.87	D																	

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA		ml/l	PCT	uM/l		uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	17.39	17.39	33.595	24.345	357.2	0.000	5.76	105.3	1.5	0.23	0.0	0.00	0.60	0.15	0		
2 A	17.39	17.39	33.595	24.345	357.3	0.007	5.76	105.2	1.5	0.23	0.0	0.00	0.60	0.15	2	224	
7 A	17.31	17.31	33.594	24.363	355.7	0.025	5.77	105.3	1.6	0.23	0.0	0.00	0.63	0.18	7	223	
10 A	17.20	17.20	33.594	24.389	353.3	0.036	5.77	105.0	1.6	0.22	0.0	0.00	0.62	0.18	10	221	
10 A	17.20	17.20	33.599	24.393	352.9	0.036									10	222	
15 A	17.07	17.07	33.595	24.421	350.4	0.053	5.75	104.4	1.6	0.23	0.0	0.00	0.65	0.21	15	220	
20 ISL	16.44	16.44	33.593	24.567	336.7	0.070	5.76	D103.3	1.3	0.28	0.2	0.00	0.19	1.17	0.43	20	
22	15.94	15.94	33.590	24.678	326.1	0.077	5.85	103.9	1.2	0.31	0.3	0.00	0.25	1.37	0.52	22	219
28 A	15.40	15.40	33.550	24.768	317.7	0.096	5.59	98.0	2.6	0.49	2.0	0.13	0.96	1.28	0.56	28	218
30 ISL	15.16	15.16	33.546	D 24.818	313.0	0.103	5.52	D 96.5	2.9	0.52	2.3	0.15	1.15	1.25	0.57	30	
35	14.78	14.77	33.510	24.873	307.9	0.118	5.48	95.0	3.6	0.60	3.3	0.22	1.36	1.17	0.60	35	217
42 A	12.98	12.97	33.460	25.206	276.3	0.139	5.24	87.5	5.0	0.82	7.1	0.57	0.68	0.54	0.39	42	216
50 ISL	12.07	D 12.06	33.370	D 25.312	266.4	0.160	5.02	D 82.2	7.1	1.01	11.1	0.17	0.05	0.26	0.29	50	
51	11.99	11.98	33.360	25.319	265.7	0.163	5.03	82.2	7.4	1.03	11.5	0.10	0.00	0.25	0.28	51	215
60	11.38	11.37	33.380	25.448	253.6	0.186	4.92	79.4	9.1	1.12	12.8	0.01	0.00	0.16	0.21	60	214
70	10.78	10.77	33.644	25.761	224.1	0.210	3.76	60.0	16.9	1.55	19.6	0.00	0.00	0.10	0.12	70	213
75 ISL	10.24	D 10.23	33.610	D 25.828	217.7	0.221	3.67	D 57.9	18.8	1.59	20.3	0.00	0.00	0.07	0.09	75	
85	9.73	9.72	33.635	25.933	207.8	0.243	3.54	55.2	21.3	1.67	21.8	0.00	0.00	0.03	0.06	85	212
100	9.51	9.50	33.807	26.104	191.9	0.273	2.87	44.6	26.4	1.87	24.8	0.00	0.00	0.02	0.06	100	211
120	9.24	9.23	33.890	26.213	181.9	0.310	2.65	40.9	29.2	1.96	26.2	0.00	0.00	0.02	0.05	121	210
125 ISL	9.17	D 9.16	33.940	D 26.263	177.2	0.319	2.55	D 39.3	30.3	2.00	26.7	0.00	0.00	0.02	0.05	126	
140	9.02	9.00	34.009	26.342	170.1	0.345	2.16	33.2	33.5	2.13	28.2	0.00	0.00	0.01	0.05	141	209
150 ISL	8.96	D 8.94	34.065	D 26.395	165.2	0.362	1.97	D 30.3	35.1	2.19	28.8	0.00	0.00	0.01	0.05	151	
170	8.79	8.77	34.122	26.467	158.7	0.394	1.78	27.3	38.0	2.28	29.7	0.00	0.00	0.00	0.04	171	208
200	8.67	8.65	34.204	26.550	151.4	0.441	1.29	19.7	42.6	2.46	31.2	0.00	0.00	0.00	0.04	201	207
230	8.44	8.42	34.246	26.619	145.4	0.485	0.96	D 14.6	46.0	2.60	32.3	0.00	0.00		231	206	
250 ISL	8.36	D 8.33	34.267	D 26.648	143.0	0.514	0.97	D 14.7	48.0	2.65	32.7	0.00	0.00		251		
270	8.24	8.21	34.276	26.674	140.9	0.542	0.79	12.0	49.9	2.68	33.1	0.00	0.00		272	205	
300 ISL	7.92	D 7.89	34.271	D 26.718	137.0	0.584	0.73	D 11.0	53.0	2.75	33.9	0.00	0.00		302		
320	7.84	7.81	34.304	26.756	133.8	0.611	0.61	9.1	55.1	2.79	34.4	0.00	0.00		322	204	
380	7.31	7.27	34.290	26.822	128.2	0.690	0.51	7.6	61.0	2.89	36.1	0.00	0.00		382	203	
400 ISL	7.14	D 7.10	34.294	D 26.849	125.8	0.715	0.47	D 6.9	63.6	2.93	36.7	0.00	0.00		403		
440	6.76	6.72	34.303	26.908	120.5	0.764	0.38	5.6	68.9	3.01	38.0	0.00	0.00		443	202	
500 ISL	6.35	D 6.30	34.317	D 26.974	114.7	0.835	0.31	D 4.5	75.2	3.08	39.4	0.00	0.00		503		
515	6.28	6.23	34.325	26.990	113.4	0.852	0.27	3.9	76.8	3.10	39.7	0.00	0.00		519	201	

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 50.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA		ml/l	PCT	uM/l		uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	17.25	17.25	33.593	24.376	354.2	0.000	5.85	106.6	1.3	0.24	0.0	0.00	0.64	0.16	0		
2	17.25	17.25	33.593	24.376	354.2	0.007	5.85	106.6	1.3	0.24	0.0	0.00	0.64	0.16	2	220	
10	16.76	16.76	33.583	24.484	344.2	0.035	5.90	106.5	0.9	0.22	0.0	0.00	0.76	0.22	10	219	
20	15.65	15.65	33.483	D 24.661	327.7	0.069	5.79	D 102.2								20	218
30	13.24	13.24	33.277	D 25.012	294.4	0.100	5.75	96.5	2.6	0.57	2.7	0.26	0.80	0.85	0.43	30	217
40	12.28	12.27	33.265	25.190	277.7	0.128	5.57	91.6	3.3	0.78	5.4	0.69	0.72	0.20	0.24	40	216
50	11.90	11.89	33.295	25.286	268.8	0.156	5.18	84.5	6.0	0.98	10.2	0.06	0.00	0.12	0.16	50	215
60	10.94	10.93	33.315	25.476	250.9	0.182	5.02	80.2	8.3	1.09	12.3	0.05	0.01	0.09	0.13	60	214
70	10.45	10.44	33.348	25.587	240.5	0.206	4.53	71.6	13.2	1.29	15.6	0.00	0.02	0.06	0.09	70	213
75 ISL	10.21	D 10.20	33.441	D 25.701	229.7	0.218	4.15	D 65.3	14.9	1.37	17.0	0.00	0.02	0.04	0.07	75	
85	10.28	10.27	33.530	25.759	224.5	0.241	3.90	61.5	18.0	1.53	19.5	0.00	0.01	0.02	0.05	85	212
100	9.69	9.68	33.675	25.971	204.5	0.273	3.29	51.3	23.2	1.76	23.0	0.00	0.00	0.01	0.05	100	211
120	9.19	9.18	33.791	26.144	188.5	0.312	3.04	46.9	26.9	1.86	24.8	0.00	0.00	0.01	0.04	121	210
125 ISL	9.11	D 9.10	33.859	D 26.210	182.3	0.321	3.06	D 47.1	27.7	1.87	25.1	0.00	0.00	0.01	0.04	126	
140	8.93	8.92	33.915	26.282	175.7	0.348	2.81	43.1	30.1	1.93	26.0	0.00	0.00	0.01	0.03	141	209
150 ISL	8.91	D 8.89	33.969	D 26.328	171.5	0.366	2.68	D 41.1	32.1	2.02	27.0	0.00	0.00	0.01	0.03	151	
170	8.92	8.90	34.077	26.411	164.1	0.399	1.88	28.9	35.8	2.22	28.9	0.00	0.00	0.01	0.04	171	208
200	8.73	8.71	34.130	26.483	157.8	0.447	1.67	25.5	39.4	2.32	29.8	0.00	0.00	0.01	0.04	201	207
230	8.40	8.38	34.172	26.567	150.3	0.494	1.37	20.8	43.5	2.47	31.4	0.00	0.00		231	206	
250 ISL	8.31	D 8.28	34.240	D 26.635	144.2	0.523	1.12	D 17.0	46.0	2.56	32.1	0.00	0.00		251		
270	8.26	8.23	34.250	26.650	143.1	0.552	0.91	13.8	48.5	2.64	32.7	0.00	0.01		272	205	
300 ISL	8.06	D 8.															

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEO	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	17.04	17.04	33.451	24.317	359.8	0.000	5.76	104.4	0.7	0.26	0.0	0.00	0.02	0.35	0.13	0	
3	17.04	17.04	33.451	24.317	359.9	0.011	5.76	104.4	0.7	0.26	0.0	0.00	0.02	0.35	0.13	3 221	
9	16.96	16.96	33.448	24.334	358.5	0.032										9 220	
10	16.89	16.89	33.449	24.351	356.9	0.036	5.76	104.1	0.8	0.26	0.0	0.00	0.03	0.33	0.13	10 219	
20	16.84	16.84	33.445	24.360	356.4	0.072	5.75	103.8	0.8	0.25	0.0	0.00	0.05	0.42	0.18	20 218	
30 ISL	16.23 D	16.23	33.403 D	24.469	346.3	0.107	5.78	D 103.1	0.5	0.30	0.4	0.02	0.22	0.56	0.29	30	
31	16.00	16.00	33.402	24.521	341.4	0.110	5.81	103.2	0.5	0.31	0.4	0.02	0.25	0.57	0.30	31 217	
39	14.29	14.28	33.276	24.796	315.3	0.136	5.83	100.0	2.0	0.51	2.4	0.23	0.76	0.50	0.35	39 216	
49	13.25	13.24	33.240	24.982	297.8	0.167	5.71	95.8	2.8	0.62	3.8	0.43	0.71	0.29	0.26	49 215	
50 ISL	13.12 D	13.11	33.246 D	25.012	294.9	0.170	5.60 D	93.7	3.0	0.63	4.1	0.40	0.65	0.27	0.25	50	
60	12.17	12.16	33.261	25.209	276.4	0.199	5.31	87.1	5.2	0.79	7.7	0.00	0.09	0.14	0.19	60 214	
70	11.50	11.49	33.350	25.403	258.2	0.225	5.02	81.2	8.6	1.06	12.0	0.00	0.00	0.06	0.09	70 213	
75 ISL	11.19 D	11.18	33.368 D	25.473	251.6	0.238	4.87 D	78.3	10.3	1.16	13.6	0.00	0.00	0.04	0.08	75	
85	10.92	10.91	33.475	25.605	239.2	0.263	4.45	71.2	13.7	1.33	16.4	0.00	0.00	0.02	0.06	85 212	
99	10.31	10.30	33.569	25.784	222.4	0.295	3.79	59.8	18.3	1.56	20.0	0.00	0.00	0.01	0.06	99 211	
100 ISL	10.25 D	10.24	33.576 D	25.800	220.9	0.297	3.75 D	59.1	18.7	1.58	20.3	0.00	0.00	0.01	0.06	100	
119	9.50	9.49	33.734	26.049	197.5	0.337	3.13	48.6	24.6	1.80	24.1	0.00	0.03	0.01	0.05	120 210	
125 ISL	9.31 D	9.30	33.790 D	26.124	190.5	0.349	3.10 D	47.9	25.6	1.83	24.6	0.00	0.02	0.01	0.05	126	
140	9.13	9.11	33.828	26.182	185.2	0.377	2.92	45.0	27.3	1.87	25.4	0.00	0.01	0.00	0.04	141 209	
150 ISL	9.01 D	8.99	33.875 D	26.239	180.0	0.395	2.87 D	44.1	28.7	1.91	26.0	0.00	0.18	0.00	0.04	151	
170	8.77	8.75	33.935	26.323	172.3	0.430	2.67	40.8	31.6	1.99	27.0	0.00	0.49	0.00	0.04	171 208	
200	8.33	8.31	34.004	26.446	161.1	0.480	2.54	38.5	35.1	2.05	28.2	0.00	0.16	0.00	0.03	201 207	
230	8.24	8.22	34.135	26.563	150.6	0.527	1.68	25.4	42.3	2.35	30.9	0.00	0.00			231 206	
250 ISL	8.11 D	8.08	34.158 D	26.600	147.3	0.557	1.45 D	21.9	44.2	2.41	31.6	0.00	0.00			251	
271	7.98	7.95	34.163	26.624	145.4	0.588	1.39	20.9	45.8	2.45	32.1	0.00	0.00			273 205	
300 ISL	7.61 D	7.58	34.202 D	26.709	137.7	0.629	1.04 D	15.5	51.7	2.60	33.9	0.00	0.00			302	
320	7.33	7.30	34.213	26.757	133.2	0.656	0.87	12.9	56.3	2.71	35.2	0.00	0.00			322 204	
381	6.45	6.42	34.181	26.852	124.5	0.734	0.71	10.3	66.4	2.85	38.2	0.00	0.00			383 203	
400 ISL	6.45 D	6.41	34.216 D	26.880	122.2	0.758	0.62 D	9.0	67.8	2.88	38.3	0.00	0.00			403	
439	6.39	6.35	34.244	26.911	119.8	0.805	0.51	7.4	69.9	2.95	38.5	0.00	0.00			442 202	
500 ISL	6.08 D	6.04	34.300 D	26.995	112.4	0.876	0.32 D	4.6	75.9	3.06	39.3	0.00	0.00			503	
514	6.16	6.11	34.336	27.014	111.0	0.891	0.26	3.8	77.3	3.08	39.5	0.00	0.00			517 201	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEO	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
0 ISL	16.72	16.72	33.303	24.278	363.5	0.000	5.80	104.4	0.6	0.27	0.0	0.00	0.00	0.29	0.11	0	
3	16.72	16.72	33.303	24.279	363.6	0.011	5.80	104.4	0.6	0.27	0.0	0.00	0.00	0.29	0.11	3 220	
10	16.72	16.72	33.313	24.286	363.1	0.036	5.80	104.4	0.8	0.26	0.0	0.00	0.00	0.27	0.10	10 219	
20	15.68	15.68	33.322	24.531	340.1	0.071	6.05	106.7	0.6	0.30	0.2	0.00	0.10	0.56	0.26	20 218	
29	14.33	14.33	33.162	24.700	324.2	0.101	6.00	102.9	1.5	0.41	1.1	0.09	0.39	0.69	0.46	29 217	
30 ISL	14.07 D	14.07	33.155 D	24.749	319.6	0.105	6.01 D	102.5	1.5	0.42	1.2	0.09	0.48	0.68	0.46	30	
40	13.81	13.80	33.260	24.884	307.0	0.136	5.87	99.6	1.7	0.53	2.5	0.13	1.26	0.48	0.32	40 216	
49	13.54	13.53	33.285	24.958	300.1	0.163	5.78	97.6	2.3	0.64	4.0	0.27	0.98	0.29	0.23	49 215	
50 ISL	13.49 D	13.48	33.279 D	24.964	299.6	0.166	5.76 D	97.1	2.3	0.64	4.0	0.28	0.96	0.28	0.22	50	
60	12.66	12.65	33.206	25.072	289.5	0.196	5.60	92.8	3.2	0.65	4.3	0.34	0.72	0.18	0.18	60 214	
70	12.13	12.12	33.242	25.202	277.3	0.224	5.34	87.5	6.0	0.96	9.5	0.02	2.70	0.13	0.16	70 213	
75 ISL	12.01 D	12.00	33.291 D	25.262	271.7	0.238	5.22 D	85.3	7.1	1.06	10.8	0.01	2.43	0.11	0.14	75	
86	11.13	11.12	33.336	25.459	253.1	0.267	4.96	79.6	9.8	1.22	12.8	0.00	1.83	0.06	0.10	86 212	
100 ISL	10.36 D	10.35	33.470 D	25.699	230.6	0.300	4.28 D	67.6	15.3	1.45	17.5	0.00	0.48	0.02	0.07	100	
102	10.14	10.13	33.479	25.743	226.3	0.305	4.16	65.4	16.1	1.48	18.1	0.00	0.31	0.02	0.07	102 211	
119	9.54	9.53	33.632	25.963	205.7	0.342	3.76	58.4	20.8	1.56	20.8	0.00	0.06	0.01	0.04	120 210	
125 ISL	9.42 D	9.41	33.695 D	26.032	199.3	0.354	3.61 D	55.9	22.5	1.63	22.0	0.00	0.04	0.01	0.04	126	
140	9.16	9.14	33.807	26.161	187.2	0.383	3.07	47.3	26.6	1.83	24.9	0.00	0.00	0.00	0.04	141 209	
150 ISL	9.08 D	9.06	33.846 D	26.205	183.3	0.401	2.97 D	45.7	28.9	1.94	26.2	0.00	0.00	0.00	0.04	151	
171	8.95	8.93	33.973	26.325	172.2	0.439	2.29	35.2	32.9	2.09	28.0	0.00	0.01	0.00	0.05	172 208	
199	8.33	8.31	34.014	26.453	160.4	0.485	2.37	35.9	36.2	2.11	28.9	0.00	0.00	0.00	0.03	200 207	
200 ISL	8.33 D	8.31	34.011 D	26.451	160.6	0.487	2.37 D	35.9	36.4	2.11	29.0	0.00	0.00			201	
230	7.89	7.87	34.037	26.537	152.8	0.534	2.12	31.8	41.4	2.24	31.0	0.00	0.00			231 206	
250 ISL	7.65 D	7.63	34.039 D	26.574	149.6	0.564	2.06 D	30.7	44.2	2.31	32.0	0.00	0.00			251	
270	7.36	7.33	34.050	26.624	145.0	0.594	1.84	27.3	47.1	2.38							

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
31 30.4 N	120 14.9 W	29/07/11	1917	UTC	3940 m	290	07 kn		0	1013.7 mb	16.9 C	14.1 C		0/8	C1		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	N02	NH4	chl-a	phaeo	pres	samp
m	DEG C	DEG C	THETA		ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	ug/l	db	
0 ISL	16.71	16.71	33.456	24.398	352.1	0.000	5.86	105.6	0.6	0.27	0.1	0.00	0.02	0.67	0.17	0	
2 A	16.71	16.71	33.456	24.398	352.2	0.007	5.86	105.6	0.6	0.27	0.1	0.00	0.02	0.67	0.17	2	220
10 A	16.71	16.71	33.456	24.399	352.4	0.035	5.88	105.9	0.6	0.26	0.1	0.00	0.03	0.69	0.15	10	219
20 A	16.18	16.18	33.474	24.535	339.7	0.070	5.96	106.3	0.2	0.24	0.0	0.00	0.04	1.21	0.44	20	218
30 A	15.57	15.57	33.394	24.611	332.8	0.103	5.98	105.3	0.4	0.29	0.3	0.00	0.30	1.67	0.55	30	217
40 A	15.59	15.58	33.547	24.724	322.3	0.136	5.74	101.2	2.7	0.48	2.1	0.07	0.96	0.79	0.57	40	216
50 A	15.07	15.06	33.519	24.818	313.7	0.168	5.60	97.7	4.0	0.59	3.1	0.15	1.35	0.47	0.34	50	215
60 A	12.71	12.70	33.142	25.013	295.1	0.198	5.68	94.2	3.3	0.53	3.0	0.21	0.22	0.29	0.29	60	214
70 A	11.88	11.87	33.169	25.192	278.2	0.227	5.40	88.0	4.7	0.74	6.5	0.30	0.03	0.20	0.24	70	213
75 ISL	11.71 D	11.70	33.198	25.246	273.2	0.241	5.32	86.4	5.9	0.82	8.0	0.22	0.02	0.16	0.21	75	
85 A	10.87	10.86	33.225	25.419	256.9	0.267	5.00	79.7	9.0	0.99	11.0	0.02	0.00	0.11	0.16	85	212
100 A	10.29	10.28	33.392	25.650	235.2	0.304	4.33	68.2	14.8	1.37	17.1	0.00	0.01	0.06	0.10	100	211
119 A	9.97	9.96	33.704	25.948	207.2	0.346	3.28	51.4	22.6	1.76	23.0	0.00	0.02	0.02	0.08	120	210
125 ISL	9.93 D	9.92	33.725	25.971	205.2	0.359	3.18	49.8	24.0	1.82	23.9	0.00	0.01	0.02	0.08	126	
140 A	9.52	9.50	33.808	26.104	192.8	0.389	2.86	44.4	26.5	1.90	25.2	0.00	0.00	0.01	0.09	141	209
150 ISL	9.14 D	9.12	33.886	26.226	181.2	0.407	2.84	43.8	28.6	1.96	26.2	0.00	0.00	0.01	0.08	151	
171 A	8.79	8.77	33.964	26.343	170.5	0.444	2.42	37.0	32.5	2.06	27.9	0.00	0.01	0.00	0.05	172	208
200 A	8.25	8.23	33.997	26.452	160.5	0.492	2.49	37.6	35.9	2.10	29.0	0.00	0.01	0.01	0.04	201	207
231 A	7.81	7.79	34.036	26.548	151.8	0.541	2.10	31.4	41.8	2.27	31.2	0.00	0.00			232	206
250 ISL	7.58 D	7.56	34.049	26.592	147.8	0.569	1.92	28.6	45.1	2.36	32.4	0.00	0.00			251	
270 A	7.42	7.39	34.065	26.628	144.7	0.598	1.72	25.5	48.4	2.45	33.5	0.00	0.01			272	205
300 ISL	7.17 D	7.14	34.110	26.698	138.3	0.641	1.31	19.3	53.7	2.59	35.2	0.00	0.02			302	
320 A	6.96	6.93	34.115	26.731	135.4	0.668	1.17	17.2	57.1	2.67	36.2	0.00	0.02			322	204
380 A	6.55	6.52	34.168	26.829	126.8	0.747	0.78	11.3	65.0	2.86	38.0	0.00	0.02			382	203
400 ISL	6.38 D	6.34	34.170	26.853	124.7	0.772	0.74	10.7	67.5	2.91	38.5	0.00	0.02			403	
444 A	6.15	6.11	34.207	26.912	119.5	0.826	0.57	8.2	72.5	2.99	39.5	0.00	0.01			447	202
500 ISL	5.90 D	5.86	34.260	26.986	113.0	0.891	0.38	5.4	78.1	3.08	40.3	0.00	0.02			503	
516 A	5.85	5.81	34.267	26.998	112.1	0.909	0.36	5.2	79.7	3.10	40.5	0.00	0.02			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
31 10.3 N	120 55.5 W	30/07/11	0217	UTC	3840 m	260	11 kn	270	03	07	2	1015.1 mb	19.9 C	15.2 C	25m	7/8	SC
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	N02	NH4	chl-a	phaeo	pres	samp
m	DEG C	DEG C	THETA		ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	ug/l	db	
0 ISL	18.07	18.07	33.281	23.940	395.8	0.000	5.49	101.4	1.8	0.25	0.0	0.00	0.01	0.09	0.02	0	
2 A	18.07	18.07	33.281	23.940	395.8	0.008	5.49	101.4	1.8	0.25	0.0	0.00	0.01	0.09	0.02	2	222
10 ISL	18.01 D	18.01	33.290	23.962	394.0	0.040	5.47	101.0	1.8	0.24	0.0	0.00	0.03	0.10	0.03	10	
15 A	18.01	18.01	33.301	23.970	393.4	0.059	5.58	103.0	1.8	0.24	0.0	0.00	0.03	0.10	0.03	15	221
19 A	18.05	18.05	33.308	23.966	393.9	0.075	5.49	101.4	1.6	0.23	0.0	0.00	0.02	0.10	0.03	19	220
20 ISL	18.00 D	18.06	33.332	23.982	392.4	0.079	5.47	101.1	1.6	0.23	0.0	0.00	0.02	0.10	0.03	20	
30 ISL	17.96 D	17.95	33.314	23.993	391.7	0.118	5.49	101.2	1.7	0.23	0.0	0.00	0.01	0.11	0.03	30	
34 A	17.83	17.82	33.318	24.028	388.6	0.134	5.52	101.5	1.7	0.23	0.0	0.00	0.01	0.12	0.03	34	219
44 A	15.63	15.62	33.042	24.327	360.2	0.171	5.99	105.4	1.5	0.23	0.0	0.00	0.04	0.13	0.05	44	218
50 ISL	14.89 D	14.88	33.059	24.502	343.7	0.192	6.05	104.9	1.6	0.23	0.0	0.00	0.03	0.15	0.07	50	
55 A	14.59	14.58	33.064	24.570	337.3	0.209	6.05	104.2	1.7	0.24	0.0	0.00	0.02	0.16	0.08	55	217
65 A	14.34	14.33	33.088	24.642	330.8	0.243	6.03	103.4	1.8	0.27	0.0	0.00	0.01	0.28	0.21	65	216
75 A	14.16	14.15	33.176	24.748	321.0	0.275	5.87	100.3	2.2	0.26	0.1	0.02	0.00	0.39	0.34	75	215
85 A	13.76	13.75	33.281	24.911	305.6	0.307	5.64	95.6	2.9	0.33	1.0	0.27	0.01	0.32	0.32	85	214
95 A	13.26	13.25	33.263	24.999	297.5	0.337	5.53	92.8	3.3	0.42	2.5	0.13	0.07	0.27	0.31	95	213
100 A	12.82	12.81	33.255	25.080	289.8	0.351	5.47	90.9	3.7	0.47	3.5	0.05	0.01	0.24	0.25	100	212
112 A	12.04	12.03	33.272	25.243	274.5	0.385	5.21	85.2	6.1	0.75	8.1	0.00	0.05	0.14	0.14	112	211
125 A	11.91	11.89	33.476	25.426	257.4	0.420	5.07	82.8	6.8	0.66	7.5	0.00	0.01	0.07	0.12	126	210
140 A	10.45	10.43	33.421	25.646	236.5	0.457	4.49	71.0	13.1	1.14	14.7	0.00	0.00	0.03	0.05	141	209
150 ISL	10.17 D	10.15	33.509	25.762	225.5	0.480	4.17	65.6	16.2	1.32	17.5	0.00	0.00	0.02	0.04	151	
170 A	9.49	9.47	33.658	25.992	204.0	0.523	3.75	58.2	21.1	1.52	21.0	0.00	0.00	0.01	0.01	171	208
200 A	8.97	8.95	33.851	26.227	182.1	0.581	3.15	48.3	27.5	1.78	25.2	0.00	0.00	0.00	0.01	201	207
230 A	8.46	8.44	33.991	26.416	164.6	0.633	2.53	38.4	34.6	2.01	28.6	0.00	0.00			231	206
250 ISL	8.26 D	8.23	34.013	26.464	160.3	0.665	2.34	35.4	38.2	2.14	30.0	0.00	0.00			251	
270 A	8.21	8.18	34.090	26.532	154.2	0.697	1.83	27.6	41.3	2.25	31.0	0.00	0.00			271	205
300 ISL	7.65 D	7.62	34.071	26.600	148.0	0.742	1.73	25.8	45.8	2.36	32.8	0.00	0.00			302	
320 A	7.44	7.41															

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
30	50.8 N	121 35.5 W	30/07/11	0912 UTC	4126 m	290	07 kn	310	04 08	1	1014.0 mb	20.3	C 16.3	C	21m	2/8	ST
0	ISL	18.63	18.63	33.281	23.802	409.0	0.000	5.50	102.7	1.2	0.28	0.0	0.00	0.08	0.11	0.04	0
2		18.63	18.63	33.281	23.802	409.0	0.008	5.50	102.7	1.2	0.28	0.0	0.00	0.08	0.11	0.04	2 220
10	ISL	18.34	D 18.34	33.286	D 23.878	402.0	0.041	5.47	D101.6	1.2	0.27	0.0	0.00	0.11	0.12	0.03	10
11		18.33	18.33	33.286	23.880	401.8	0.045	5.50	102.1	1.2	0.27	0.0	0.00	0.11	0.12	0.03	11 219
20	ISL	18.17	D 18.17	33.301	D 23.932	397.3	0.081	5.49	D101.6	1.1	0.26	0.0	0.00	0.09	0.12	0.04	20
25		17.85	17.85	33.266	23.983	392.5	0.100	5.57	102.5	1.0	0.26	0.0	0.00	0.07	0.12	0.05	25 218
30	ISL	17.69	D 17.68	33.259	D 24.016	389.5	0.120	5.59	D102.5	0.9	0.26	0.0	0.00	0.04	0.18	0.08	30
39		16.51	16.50	33.221	24.266	366.0	0.154	5.96	106.8	0.8	0.26	0.0	0.00	0.00	0.30	0.14	39 217
50		14.89	14.88	33.164	24.583	336.0	0.193	6.22	107.9	1.2	0.28	0.0	0.00	0.04	0.31	0.19	50 216
60		13.57	13.56	33.015	24.744	320.8	0.225	6.12	103.2	1.9	0.31	0.1	0.00	0.04	0.59	0.45	60 215
74		13.03	13.02	33.058	24.885	307.6	0.269	5.84	97.4	2.5	0.47	2.1	0.42	0.19	0.47	0.45	74 214
75	ISL	13.01	D 13.00	33.054	D 24.886	307.6	0.272	5.83	D 97.2	2.6	0.49	2.4	0.41	0.19	0.46	0.44	75
86		12.65	12.64	33.197	25.068	290.6	0.305	5.49	90.9	4.3	0.71	5.9	0.18	0.15	0.36	0.30	86 213
100	ISL	11.54	D 11.53	33.304	D 25.360	262.9	0.344	4.82	D 78.0	7.8	0.95	10.5	0.01	0.04	0.24	0.24	100
102		11.48	11.47	33.303	25.370	262.0	0.349	4.84	78.2	8.4	0.99	11.2	0.00	0.03	0.22	0.23	102 212
111		11.08	11.07	33.355	25.483	251.4	0.372	4.48	71.8	11.8	1.18	14.3	0.00	0.06	0.12	0.14	111 211
124		10.29	10.28	33.402	25.658	234.9	0.404	4.60	72.5	12.8	1.15	14.1	0.00	0.10	0.03	0.05	125 210
125	ISL	10.26	D 10.25	33.435	D 25.689	232.0	0.406	4.45	D 70.1	13.2	1.17	14.4	0.00	0.10	0.03	0.05	126
139		9.84	9.82	33.571	25.866	215.4	0.438	3.79	59.2	19.5	1.54	20.0	0.00	0.03	0.01	0.04	140 209
150	ISL	9.62	D 9.60	33.645	D 25.960	206.6	0.461	3.49	D 54.3	22.4	1.63	22.2	0.00	0.03	0.01	0.04	151
170		9.12	9.10	33.780	26.147	189.2	0.500	3.25	50.0	25.7	1.78	24.0	0.00	0.04	0.00	0.04	171 208
200	ISL	8.68	D 8.66	33.950	D 26.350	170.4	0.554	3.12	D 47.6	29.5	1.81	24.9	0.00	0.00	0.02	0.02	201
201		8.65	8.63	33.946	26.351	170.2	0.556	3.22	49.1	29.6	1.81	24.9	0.00	0.00	0.00	0.02	202 207
230		8.34	8.32	34.005	26.445	161.7	0.604	2.71	41.0	35.0	2.01	27.8	0.00	0.00			231 206
250	ISL	7.99	D 7.96	34.026	D 26.514	155.4	0.636	2.33	D 35.0	39.6	2.17	29.9	0.00	0.00			251
270		7.74	7.71	34.064	26.581	149.3	0.666	1.89	28.2	44.1	2.32	31.8	0.00	0.00			271 205
300	ISL	7.46	D 7.43	34.073	D 26.629	145.1	0.711	1.65	D 24.5	48.8	2.46	33.6	0.00	0.00			302
321		7.32	7.29	34.098	26.668	141.7	0.741	1.38	20.4	51.7	2.53	34.5	0.00	0.00			323 204
381		6.79	6.75	34.150	26.783	131.4	0.823	0.89	13.0	61.7	2.77	37.3	0.00	0.02			383 203
400	ISL	6.72	D 6.68	34.198	D 26.830	127.1	0.847	0.75	D 11.0	65.0	2.82	38.0	0.00	0.01			402
439		6.07	6.03	34.150	26.877	122.6	0.896	0.75	10.8	71.3	2.89	39.2	0.00	0.00			442 202
500	ISL	5.94	D 5.90	34.233	D 26.960	115.6	0.968	0.46	D 6.6	78.1	3.01	40.2	0.00	0.00			503
516		5.84	5.80	34.254	26.989	112.9	0.987	0.38	5.4	79.9	3.04	40.4	0.00	0.00			519 201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02;

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
30	30.7 N	122 15.7 W	30/07/11	1612 UTC	3775 m	270	09 kn	0	1015.1 mb	18.9	C 15.7	C	0.00	0.09	0.03	0	
0	ISL	18.05	18.05	33.170	23.860	403.4	0.000	5.54	102.3	1.4	0.26	0.0	0.00	0.09	0.03	0	
2		18.05	18.05	33.170	23.860	403.5	0.008	5.54	102.3	1.4	0.26	0.0	0.00	0.09	0.03	2 220	
10	ISL	17.88	D 17.88	33.173	D 23.904	399.6	0.040	5.55	D102.1	1.4	0.25	0.0	0.00	0.09	0.03	10	
11		17.86	17.86	33.178	23.913	398.8	0.044	5.56	102.3	1.4	0.25	0.0	0.00	0.09	0.03	11 219	
20	ISL	17.68	D 17.68	33.142	D 23.929	397.5	0.080	5.56	D101.9	1.4	0.24	0.0	0.00	0.09	0.04	20	
25		17.61	17.61	33.154	23.955	395.2	0.100	5.59	102.3	1.4	0.24	0.0	0.00	0.11	0.04	25 218	
30	ISL	17.41	D 17.41	33.152	D 24.002	390.9	0.119	5.62	D102.4	1.4	0.25	0.0	0.00	0.13	0.06	30	
41		15.16	15.15	33.049	24.436	349.8	0.160	5.97	104.0	1.3	0.26	0.0	0.00	0.17	0.09	41 217	
50		14.32	14.31	33.035	24.604	333.9	0.191	6.06	103.8	1.8	0.25	0.0	0.00	0.05	0.18	50 216	
61		13.74	13.73	33.105	24.779	317.5	0.227	5.91	100.1	2.3	0.28	0.0	0.00	0.03	0.19	61 215	
75	ISL	13.09	D 13.08	33.275	D 25.042	292.8	0.270	5.46	D 91.3	3.2	0.38	1.5	0.14	0.03	0.30	0.25	75
76		13.07	13.06	33.271	25.042	292.8	0.272	5.53	92.4	3.3	0.39	1.7	0.15	0.03	0.30	0.25	76 214
86		12.41	12.40	33.265	25.167	281.1	0.301	5.37	88.5	4.7	0.55	4.7	0.02	0.02	0.20	0.19	86 213
100		10.88	10.87	33.212	25.407	258.3	0.339	5.01	79.9	9.1	0.96	10.9	0.00	0.01	0.06	0.09	100 212
113		10.56	10.55	33.260	25.501	249.7	0.372	4.82	76.4	11.1	1.07	12.8	0.00	0.04	0.07	113 211	
125		9.99	9.98	33.388	25.698	231.1	0.401	4.45	69.7	15.0	1.27	16.2	0.00	0.02	0.05	126 210	
140		9.78	9.76	33.581	25.884	213.7	0.434	3.66	57.1	20.4	1.58	21.0	0.00	0.01	0.04	141 209	
150	ISL	9.55	D 9.53	33.666	D 25.988	203.9	0.455	3.42	D 53.1	22.5	1.66	22.4	0.00	0.01	0.04	151	
170		9.12	9.10	33.810	26.171	186.9	0.494	3.36	51.7	25.6	1.73	23.7	0.00	0.00	0.03	171 208	
200	ISL	8.66	D 8.64	33.955	D 26.357	169.7	0.548	2.84	D 43.3	31.1	1.91	26.5	0.00	0.00	0.02	0.02	201
202		8.64	8.62	33.948	26.354	170.0	0.551	2.87	43.8	31.5							

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
30 10.8 N	122 55.2 W	30/07/11	2322	UTC	3822 m	260	08 kn	290	02 07	2	1015.6 mb	18.1 C	16.4 C	19m	8/8		SC
0 ISL	18.04	18.04	33.186	23.875	402.0	0.000	5.55	102.4	1.1	0.29	0.0	0.00	0.00	0.20	0.02	0	
2 A	18.04	18.04	33.186	23.875	402.1	0.008	5.55	102.4	1.1	0.29	0.0	0.00	0.00	0.20	0.02	2	222
10 A	17.54	17.54	33.151	23.969	393.3	0.040	5.56	101.6	1.1	0.30	0.0	0.00	0.13	0.21	0.05	10	221
14 A	17.45	17.45	33.150	23.990	391.5	0.056	5.53	100.9	1.2	0.30	0.0	0.00	0.33	0.23	0.06	14	220
20 ISL	17.36 D	17.36	33.146 D	24.008	389.9	0.079	5.60	D102.0	1.2	0.29	0.0	0.00	0.23	0.20	0.06	20	
25 A	17.31	17.31	33.147	24.021	388.8	0.098	5.64	102.6	1.2	0.27	0.0	0.00	0.03	0.18	0.06	25	219
30 ISL	16.80 D	16.80	33.142 D	24.137	377.9	0.118	5.65	D101.8	1.2	0.25	0.0	0.00	0.02	0.23	0.08	30	
39	15.15	15.14	33.072	24.455	347.8	0.150	6.13	106.8	1.1	0.24	0.0	0.00	0.00	0.35	0.14	39	218
50 A	14.35	14.34	33.034	24.597	334.5	0.188	6.16	105.6	1.1	0.27	0.0	0.00	0.00	0.39	0.20	50	217
60	14.03	14.02	33.065	24.688	326.1	0.221	6.16	104.9	1.4	0.27	0.2	0.00	0.00	0.83	0.27	60	216
72 A	13.26	13.25	33.090	24.865	309.6	0.259	5.89	98.7	2.1	0.45	1.7	0.31	0.23	0.44	0.38	72	215
75 ISL	12.98 D	12.97	33.098 D	24.926	303.8	0.268	5.84	D 97.3	2.2	0.49	2.3	0.47	0.17	0.38	0.29	75	
78	12.79	12.78	33.095	24.961	300.5	0.277	5.73	95.1	2.4	0.54	3.0	0.58	0.09	0.33	0.20	78	214
85	12.49	12.48	33.127	25.044	292.7	0.298	5.59	92.2	3.6	0.65	5.3	0.20	0.00	0.25	0.16	85	213
95	12.43	12.42	33.269	25.166	281.4	0.327	5.39	88.9	5.3	0.85	8.6	0.00	0.00	0.16	0.12	95	212
100 ISL	12.03 D	12.02	33.326 D	25.286	270.0	0.341	5.28	D 86.4	6.8	0.94	10.1	0.00	0.00	0.11	0.09	100	
110	11.11	11.10	33.348	25.472	252.4	0.367	4.91	78.8	10.1	1.06	12.6	0.00	0.00	0.04	0.05	110	211
125	10.20	10.19	33.392	25.666	234.2	0.403	4.61	72.5	13.3	1.10	14.5	0.00	0.00	0.03	0.05	126	210
145	9.42	9.40	33.643	25.991	203.5	0.447	3.86	59.8	20.8	1.54	20.7	0.00	0.00	0.01	0.02	146	209
150 ISL	9.36 D	9.34	33.678 D	26.028	200.1	0.457	3.79	D 58.6	22.4	1.63	22.0	0.00	0.00	0.01	0.02	151	
170	9.09	9.07	33.841	26.200	184.2	0.495	2.96	45.6	27.8	1.87	25.8	0.00	0.00	0.00	0.02	171	208
200	8.53	8.51	33.959	26.380	167.5	0.548	3.00	45.6	31.7	1.89	26.5	0.00	0.00	0.00	0.02	201	207
229	8.21	8.19	34.017	26.474	158.9	0.595	2.31	34.9	37.9	2.14	29.8	0.00	0.00		230	206	
250 ISL	7.92 D	7.89	34.051 D	26.544	152.5	0.628	2.09	D 31.4	41.5	2.27	31.3	0.00	0.00		251		
270	7.76	7.73	34.067	26.581	149.4	0.658	1.83	27.4	44.7	2.36	32.4	0.00	0.00		271	205	
300 ISL	7.35 D	7.32	34.077 D	26.647	143.3	0.702	1.59	D 23.5	49.9	2.49	34.2	0.00	0.00		302		
320	7.17	7.14	34.109	26.698	138.7	0.730	1.27	18.7	53.5	2.57	35.3	0.00	0.00		322	204	
380	6.47	6.44	34.136	26.814	128.1	0.811	0.88	12.8	64.7	2.77	38.2	0.00	0.00		382	203	
400 ISL	6.41 D	6.37	34.150 D	26.833	126.6	0.836	0.81	D 11.7	66.3	2.81	38.5	0.00	0.00		402		
440	6.31	6.27	34.192 D	26.880	122.7	0.886	0.64	D 9.3							443	202	
500 ISL	5.84 D	5.80	34.227 D	26.967	114.7	0.957	0.48	D 6.9	74.5	2.98	40.0	0.00	0.00		503		
515	5.69	5.65	34.224 D	26.984	113.2	0.974	0.44	D 6.3	75.7	3.01	40.2	0.00	0.00		518	201	

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° 02';

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAEAO	PRES	SAMP
m	DEG C	DEG C	THETA		m/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db		
29 50.8 N	123 35.2 W	31/07/11	0433	UTC	4080 m	280	04 kn	270	03 07	1	1015.8 mb	22.0 C	17.9 C	35m	2/8		SC
0 ISL	18.75	18.75	33.212	23.719	416.8	0.000	5.49	102.7	1.7	0.24	0.0	0.00	0.09	0.02	0		
2	18.75	18.75	33.212	23.719	416.9	0.008	5.49	102.7	1.7	0.24	0.0	0.00	0.09	0.02	2	220	
10	18.96	18.96	33.471	23.865	403.3	0.041	5.45	102.5	1.9	0.21	0.0	0.00	0.08	0.03	10	219	
20 ISL	19.01 D	19.01	33.585 D	23.940	396.5	0.081	5.38	D101.4	1.7	0.20	0.0	0.00	0.09	0.03	20		
25	18.92	18.92	33.587	23.964	394.4	0.101	5.60	105.3	1.6	0.19	0.0	0.00	0.09	0.03	25	218	
30 ISL	18.49 D	18.48	33.489 D	23.997	391.4	0.121	5.46	D101.8	1.5	0.20	0.0	0.00	0.09	0.03	30		
40	16.44	16.43	33.162	24.236	368.8	0.159	5.80	103.7	1.5	0.23	0.0	0.00	0.09	0.02	40	217	
49	16.24	16.23	33.095	24.231	369.6	0.192	5.93	105.6	1.5	0.23	0.0	0.00	0.10	0.02	49	216	
50 ISL	16.26 D	16.25	33.166 D	24.281	364.9	0.195	5.88	D104.8	1.5	0.23	0.0	0.00	0.10	0.02	50		
62	15.35	15.34	33.189	24.503	344.0	0.238	5.99	104.9	1.5	0.23	0.0	0.00	0.16	0.05	62	215	
73	14.58	14.57	33.094	24.596	335.4	0.275	6.01	103.5	1.7	0.25	0.0	0.00	0.27	0.13	73	214	
75 ISL	14.38 D	14.37	33.085 D	24.631	332.1	0.282	5.98	D102.6	1.7	0.26	0.1	0.04	0.00	0.31	0.15	75	
87	13.59	13.58	33.111	24.815	314.8	0.321	5.84	98.6	2.2	0.37	0.6	0.25	0.00	0.48	0.25	87	213
100	13.02	13.01	33.135	24.948	302.4	0.361	5.63	93.9	3.1	0.50	3.3	0.03	0.00	0.34	0.24	100	212
112	12.76	12.74	33.323	25.145	284.0	0.396	5.41	89.9	4.0	0.55	4.7	0.00	0.00	0.19	0.14	112	211
125	12.85	12.83	33.475	25.245	274.8	0.432	5.34	89.0	4.3	0.47	4.1	0.00	0.00	0.19	0.12	125	210
140	12.50	12.48	33.624	25.429	257.6	0.472	5.20	86.1	5.3	0.50	5.3	0.00	0.00	0.12	0.11	141	209
150 ISL	11.30 D	11.28	33.481 D	25.543	246.7	0.498	5.05	D 81.4	7.7	0.69	8.1	0.00	0.00	0.08	0.08	151	
170	10.17	10.15	33.527	25.777	224.6	0.545	4.53	71.3	14.2	1.17	15.0	0.00	0.00	0.03	0.03	171	208
200	9.33	9.31	33.738	26.081	196.1	0.608	3.58	55.4	23.3	1.65	22.3	0.00	0.00	0.00	0.01	201	207
231	8.79	8.77	33.925	26.314	174.5	0.665	3.07	46.9	29.7	1.86	25.7	0.00	0.00		232	206	
250 ISL	8.51 D	8.48	33.960 D	26.385	168.0	0.698	3.33	D 50.6	32.0	1.87</td							

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 76.7 49.0

LATITUDE LONGITUDE			DAY/MO/YR	CAST TIME	SECCHI			INCUBATION TIME			LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
35	5.5 N	120 47.1 W	13/08/11	0155 UTC	5 m			1208 - 1920 PST	1208 PST	1919 PST		3019.9 mg C/m ²				
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	S103	P04	N03	N02	chl-a	phaeo	light	uptake	(mg C/m ³)		
m	deg c	theta	ml/l	pct	um/l	um/l	um/l	um/l	um/l	ug/l	ug/l	pct	1	2	mean	dark
2	13.01	33.576	25.288	7.17	120.0	2.0	0.32	0.8	0.04	15.61	1.63	54. A	409.8	411.0	410.4	0.91
3	12.83	33.578	25.326	6.24	104.0	4.7	0.55	5.0	0.09	16.78	1.70	40.	365.8	314.8	340.3	0.97
4	12.85	33.576	25.320	6.65	110.9	3.4	0.45	3.0	0.13	16.34	1.99	29.	387.7	386.3	387.0	0.65
7	12.58	33.577	25.374	6.17	102.3	4.8	0.68	5.2	0.16	17.78	1.58	12.	162.8	178.8	170.8	0.64
10	12.47	33.578	25.396	5.75	95.1	6.3	0.79	7.3	0.19	15.02	1.54					
13	12.53	33.578	25.384	5.79	95.9	6.2	0.85	7.0	0.18	15.66	1.69	1.8	15.4	16.3	15.9	0.45
19	12.44	33.580	25.403	5.66	93.6	6.9	0.84	7.7	0.24	14.67	1.62	0.29	5.7	4.6	5.2	0.44

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 76.7 70.0

LATITUDE LONGITUDE			DAY/MO/YR	CAST TIME	SECCHI			INCUBATION TIME			LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
34	23.8 N	122 15.0 W	12/08/11	0308 UTC	14 m			1221 - 1926 PST	1214 PST	1926 PST		229.6 mg C/m ²				
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	S103	P04	N03	N02	chl-a	phaeo	light	uptake	(mg C/m ³)		
m	deg c	theta	ml/l	pct	um/l	um/l	um/l	um/l	um/l	ug/l	ug/l	pct	1	2	mean	dark
2	16.66	33.118	24.151	5.75	103.3	1.3	0.29	0.1	0.00	0.39	0.07	80. A	11.0	10.4	10.7	0.09
8	16.66	33.111	24.145	5.73	102.9	1.2	0.30	0.1	0.00	0.31	0.08	42.	10.1	9.6	9.8	0.09
10	16.65	33.110	24.147	5.74	103.1	1.1	0.29	0.1	0.00	0.35	0.05	33.	8.9	8.6	8.8	0.10
19	16.59	33.140	24.184	5.74	103.0	1.2	0.28	0.1	0.00	0.37	0.03	12.	5.6	5.5	5.5	0.08
28	16.55	33.146	24.198	5.75	103.1	1.1	0.29	0.2	0.00	0.32	0.12					
36	14.80	33.213	24.640	6.06	104.9	1.3	0.46	2.5	0.05	0.54	0.17	1.9	0.70	0.90	0.80	0.09
44	14.54	33.346	24.798	5.95	102.6	1.5	0.60	4.6	0.17	0.48	0.09					
53	13.77	33.268	24.898	5.88	99.7	2.4	0.66	5.1	0.35	0.46	0.24	0.30	0.40	0.40	0.40	0.01

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 80.0 70.0

LATITUDE LONGITUDE			DAY/MO/YR	CAST TIME	SECCHI			INCUBATION TIME			LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
33	49.0 N	121 51.0 W	10/08/11	0303 UTC	13 m			1215 - 1940 PST	1213 PST	1923 PST		289.3 mg C/m ²				
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	S103	P04	N03	N02	chl-a	phaeo	light	uptake	(mg C/m ³)		
m	deg c	theta	ml/l	pct	um/l	um/l	um/l	um/l	um/l	ug/l	ug/l	pct	1	2	mean	dark
3	16.53	33.199	24.243	5.73	102.7	1.0	0.30	0.3	0.00	0.30	0.12	70. A	12.5	11.4	11.9	0.08
8	16.53	33.191	24.237	5.72	102.5	1.0	0.31	0.3	0.00	0.31	0.13	39.	11.0	10.9	11.0	0.08
11	16.52	33.191	24.239	5.73	102.7	1.0	0.30	0.3	0.00	0.33	0.13	27.	10.6	10.5	10.5	0.12
18	16.51	33.196	24.246	5.73	102.7	0.8	0.30	0.3	0.00	0.30	0.12	12.	6.5	6.4	6.5	0.10
26	16.43	33.203	24.270	5.75	102.9	1.0	0.33	0.4	0.00	0.32	0.15					
34 B	14.01	33.070	24.696	6.10	103.9	1.3	0.39	0.9	0.02	0.45	0.34	1.8	1.4	1.4	3.2	0.07
42	12.86	33.027D	24.894	6.05	100.5	1.8	0.46	1.7	0.13	0.41	0.38					
49	12.71	33.023D	24.920	5.95	98.6	2.6	0.57	3.5	0.33	0.35	0.42	0.31	0.40	0.50	0.40	0.03

B) PRODUCTIVITY REPLICATES POOR, UNCERTAIN VALUE ELIMINATED

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 80.0 100.0

LATITUDE LONGITUDE			DAY/MO/YR	CAST TIME	SECCHI			INCUBATION TIME			LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
32	49.4 N	123 54.7 W	11/08/11	0225 UTC	24 m			1221 - 1930 PST	1221 PST	1933 PST		936.3 mg C/m ²				
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	S103	P04	N03	N02	chl-a	phaeo	light	uptake	(mg C/m ³)		
m	deg c	theta	ml/l	pct	um/l	um/l	um/l	um/l	um/l	ug/l	ug/l	pct	1	2	mean	dark
2	16.98	32.989	23.977	5.64	101.9	1.1	0.29	0.0	0.00	0.10	0.04	88. A	17.8	15.4	16.6	0.10
14	16.96	32.990	23.983	5.66	102.2	1.5	0.29	0.0	0.00	0.13	0.02	41.	18.1	18.6	18.4	0.10
18	16.96	32.990	23.983	5.64	101.8	1.4	0.30	0.0	0.00	0.14	0.01	32.	25.6	17.1	21.3	0.12
33	16.93	32.996	23.995	5.64	101.8	1.3	0.29	0.0	0.00	0.13	0.02	12.	17.4	18.6	18.0	0.07
43	16.02	32.965	24.181	5.83	103.3	1.1	0.28	0.0	0.00	0.30	0.09					
53	15.34	32.939	24.312	5.88	102.8	1.5	0.29	0.0	0.00	0.30	0.13					
62	13.67	32.916	24.647	6.12	103.4	1.8	0.30	0.0	0.00	0.47	0.03	1.9	1.6	1.7	1.6	0.04
72	12.96	32.873	24.756	6.16	102.5	1.4	0.33	0.0	0.00	0.41	0.10					
82	12.83	32.959	24.848	6.17	102.4	1.8	0.31	0.0	0.00	0.39	0.12					
91	12.52	32.969	24.916	6.12	100.9	2.0	0.33	0.0	0.00	0.34	0.08	0.30	0.80	0.80	0.80	0.11

A) INCUBATION LIGHT INTENSITIES WERE 60, 40, 31.7, 12.1, 1.9, 0.3 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 34.9 N	120 45.4 W	08/08/11	0248 UTC	8 m	1215 - 1940 PST	1209 PST	1923 PST	2209.0 mg C/m ²

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/l	PHAE0 ug/l	LIGHT PCT	1	2	MEAN	DARK	UPTAKE (mg C/m ³)
2	15.25	33.467	24.737	6.16	107.8	1.3	0.30	0.1	0.02	7.32	1.64	68. A	218.2	210.7	214.4	0.85	
5	15.26	33.480	24.745	6.15	107.7	0.6	0.29	0.0	0.00	7.38	1.77	38.	196.1	145.9	171.0	0.42	
6	15.26	33.491	24.753	6.11	107.0	1.0	0.30	0.0	0.02	7.33	1.75	32.	148.0	146.9	147.5	0.42	
10	15.23	33.495	24.763	6.12	107.1	1.0	0.37	0.3	0.03	7.37	1.68	15.	100.8	86.7	93.7	0.42	
20	15.05	33.448	24.766	6.03	105.1					6.74	1.43	2.2	8.2	8.5	8.4	0.28	
30	14.00	33.255	24.840	6.03	102.8	0.9	0.37	0.6	0.10	3.62	0.94	0.32	1.6	1.6	1.6	0.21	

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 83.3 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 15.2 N	123 29.9 W	07/08/11	0156 UTC	24 m	1220 - 1935 PST	1220 PST	1929 PST	936.3 mg C/m ²

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/l	PHAE0 ug/l	LIGHT PCT	1	2	MEAN	DARK	UPTAKE (mg C/m ³)
2	17.90	33.192	23.913	5.55	102.2	1.6	0.27	0.0	0.00	0.15	0.01	88. A	17.8	15.4	16.6	0.10	
10	17.90	33.192	23.914	5.60	103.1	1.7	0.27	0.0	0.00	0.16	0.01						
14	17.89	33.191	23.915	5.54	102.0	2.3	0.26	0.0	0.00	0.14	0.02	41.	18.1	18.6	18.4	0.11	
18	17.88	33.192	23.919	5.53	101.8	2.5	0.26	0.0	0.00	0.15	0.02	32.	25.6	17.1	21.3	0.12	
33	17.48	33.184	24.010	5.56	101.5	2.5	0.25	0.0	0.00	0.17	0.04	12.	17.4	18.6	18.0	0.08	
43	16.08	33.142	24.303	5.91	105.0	2.9	0.26	0.0	0.00	0.28	0.10						
53	14.67	33.152	24.621	6.13	105.8	3.5	0.28	0.0	0.00	0.49	0.19						
62	13.74	33.102	24.777	6.01	101.8	3.7	0.35	0.7	0.05	0.56	0.46	1.9	1.6	1.7	1.6	0.04	
72	13.35	33.107	24.860	5.84	98.1	4.5	0.45	1.5	0.29	0.39	0.30						
82	13.12	33.157	24.944	5.74	96.0	5.0	0.51	2.4	0.32	0.19	0.15						
91	12.77	33.156 D	25.013	5.60	93.0							0.30	0.90	0.80	0.80	0.11	

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 33.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 53.1 N	118 29.4 W	04/08/11	0101 UTC	9 m	1210 - 1925 PST	1200 PST	1922 PST	947.8 mg C/m ²

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/l	PHAE0 ug/l	LIGHT PCT	1	2	MEAN	DARK	UPTAKE (mg C/m ³)
2	16.44	33.422	24.435	6.29	112.7	2.9	0.30	0.1	0.00	1.03	0.12	71. A	35.3	33.8	34.6	5.0	
5	16.16	33.419	24.496	6.30	112.3	2.8	0.29	0.0	0.00	1.30	0.12	43.	47.5	47.1	47.3	0.32	
7	15.93	33.410	24.542	6.38	113.2	3.0	0.32	0.1	0.00	1.69	0.14	30.	55.4	55.9	55.6	0.31	
10	15.30	33.404	24.677	6.46	113.1	3.2	0.32	0.0	0.00	2.11	0.01						
12	15.46	33.402	24.641	6.51	114.4	3.1	0.32	0.0	0.00	2.08	0.27	13.	50.1	49.9	50.0	1.1	
23	13.33	33.329	25.034	5.74	96.5	5.1	0.66	4.7	0.29	1.51	0.24	2.0	10.8	8.2	9.5	0.14	
34	12.19	33.387	25.302	4.51	74.1	11.1	1.23	12.2	0.89	0.60	0.30	0.30	1.7	1.7	1.7	0.14	

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 0.2 N	120 21.8 W	05/08/11	0137 UTC	9 m	1210 - 1930 PST	1208 PST	1927 PST	504.3 mg C/m ²

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/l	PHAE0 ug/l	LIGHT PCT	1	2	MEAN	DARK	UPTAKE (mg C/m ³)
2	16.55	33.513	24.479	5.82	104.6	0.8	0.33	0.0	0.00	1.41	0.21	71. A	35.3	34.4	34.9	0.20	
5	16.55	33.512	24.479	5.82	104.6	0.7	0.28	0.0	0.00	1.26	0.33	43.	31.7	30.6	31.1	1.1	
7	16.55	33.511	24.478	5.85	105.1	0.7	0.32	0.0	0.00	1.24	0.34	30.	31.9	31.8	31.9	0.18	
12	16.54	33.510	24.480	5.83	104.7	0.8	0.29	0.0	0.00	1.18	0.34	13.	22.0	21.7	21.9	0.21	
23 B	16.50	33.508	24.488	5.81	104.3	0.8	0.31	0.0	0.00	1.10	0.45	2.0	2.2	2.2	1.1	0.18	
34	16.41	33.502	24.504	5.80	103.9	0.6	0.33	0.1	0.00	1.23	0.33	0.30	1.3	0.70	1.0	0.15	

B) PRODUCTIVITY REPLICATES POOR, UNCERTAIN VALUE ELIMINATED

A) INCUBATION LIGHT INTENSITIES WERE 60, 40, 31.7, 12.1, 1.9, 0.3 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 86.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 59.7 N	122 24.3 W	06/08/11	0007 UTC	19 m	1220 - 1937 PST	1216 PST	1934 PST	180.1 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE			
m	DEG C	THETA	ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	PCT	1	2	MEAN	DARK
2	17.27	33.086	23.983	5.60	101.8	1.3	0.29	0.1	0.00	0.12	0.02	85. A	3.5	3.2	3.4	0.07
10	17.27	33.084	23.982	5.61	102.0	1.6	0.28	0.0	0.00	0.12	0.03	45.	3.3	3.3	3.3	0.04
14 B	17.28	33.087	23.982	5.60	101.8	1.6	0.27	0.0	0.00	0.18	0.03	32.	3.3	3.3	5.6	0.05
25	16.55	33.118	24.177	5.79	103.8	1.3	0.29	0.0	0.00	0.22	0.06	13.	3.3	3.3	3.3	0.05
38	16.07	33.129	24.295	5.88	104.4	1.2	0.28	0.0	0.00	0.27	0.09					
50	15.71	33.144	24.388	5.93	104.5	1.3	0.30	0.1	0.00	0.55	0.26	1.8	1.7	1.4	1.5	0.06
60	14.48	33.039	24.574	6.03	103.6	1.6	0.28	0.0	0.00	0.42	0.27					
72	13.60	33.000	24.727	6.06	102.2	2.0	0.28	0.0	0.00	0.32	0.28	0.30	0.20	0.40	0.30	0.36

B) PRODUCTIVITY REPLICATES POOR, UNCERTAIN VALUE ELIMINATED

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 37.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 10.8 N	118 24.1 W	03/08/11	0320 UTC	15 m	1219 - 1920 PST	1200 PST	1918 PST	318.0 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE			
m	DEG C	THETA	ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	PCT	1	2	MEAN	DARK
2	19.81	33.536	23.696	5.49	105.0	1.3	0.23	0.0	0.00	0.21	0.04	81. A	10.1	8.7	9.4	0.12
10	19.50	33.529	23.771	5.49	104.4	1.4	0.23	0.0	0.00	0.22	0.04	36.	8.6	9.1	8.8	0.14
12	18.95	33.520	23.905	5.53	104.1	1.3	0.23	0.0	0.00	0.25	0.06	29.	9.2	9.5	9.3	0.15
21	16.42	33.570	24.554	6.10	109.3	1.4	0.27	0.0	0.00	0.44	0.13	12.	10.0	9.2	9.6	0.23
30	13.38	33.479	25.140	5.21	87.8	6.0	0.85	8.2	0.50	1.04	0.39					
39	11.80	33.484	25.451	4.70	76.6	9.7	1.17	13.7	0.01	0.41	0.27	1.8	2.0	1.7	1.9	0.05
48	11.15	33.520	25.598	4.05	65.1	15.1	1.39	17.1	0.00	0.21	0.18					
57	10.51	33.561	25.743	3.71	58.8	17.4	1.52	19.2	0.00	0.12	0.14	0.29	0.30	0.30	0.30	0.02

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 5.1 N	120 38.3 W	02/08/11	0128 UTC	10 m	1209 - 1928 PST	1209 PST	1924 PST	623.0 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE			
m	DEG C	THETA	ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	PCT	1	2	MEAN	DARK
2	17.18	33.547	24.358	5.96	108.4	0.3	0.26	0.0	0.00	0.67	0.13	74. A	25.3	25.2	25.3	0.20
6	16.84	33.546	24.437	5.97	107.9	0.3	0.25	0.0	0.00	0.68	0.14	40.	23.7	24.9	24.3	0.21
10	15.54	33.524	24.717	6.08	107.1	0.3	0.30	0.2	0.03	1.10	0.25	22.	29.5	28.4	29.0	0.98
14	15.44	33.441	24.675	5.93	104.2	0.6	0.36	1.0	0.06	0.77	0.28	12.	19.7	22.0	20.8	0.16
26	15.53	33.566	24.752	5.73	100.9	0.9	0.40	0.8	0.08	2.44	0.97	1.8	10.9	9.1	10.0	0.18
38	15.29	33.572	24.810	5.57	97.6	1.5	0.60	1.3	0.11	2.11	0.93	0.29	3.7	3.8	3.7	0.15

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 90.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 4.7 N	122 39.3 W	01/08/11	0136 UTC	21 m	1217 - 1938 PST	1217 PST	1931 PST	320.4 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE			
m	DEG C	THETA	ml/l	PCT	uM/l	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	PCT	1	2	MEAN	DARK
2	18.38	33.323	23.896	5.52	102.6	0.8	0.28	0.0	0.00	0.16	0.02	86. A	4.0	4.1	4.0	0.06
12	17.86	33.303	24.008	5.57	102.5	0.9	0.27	0.0	0.00	0.15	0.04	42.	3.4	4.2	3.8	0.84
16	17.77	33.300	24.028	5.60	102.9	0.6	0.26	0.0	0.00	0.19	0.03	31.	4.3	3.9	4.1	0.08
22	17.71	33.302	24.044	5.59	102.6	0.8	0.26	0.0	0.00	0.21	0.02					
29	15.11	33.276	24.621	6.09	106.2	1.1	0.28	0.0	0.00	0.38	0.13	12.	6.2	6.5	6.3	0.11
37	13.46	33.156	24.874	6.24	105.1	2.4	0.43	1.2	0.11	0.96	0.50					
45	13.19	33.176	24.944	6.00	100.5	2.9	0.54	2.9	0.31	1.10	0.42					
54	12.91	33.247	25.055	5.62	93.6	4.3	0.74	6.1	0.39	0.89	0.47	1.9	3.8	4.0	3.9	0.89
66	11.83	33.288	25.293	5.18	84.4	7.2	0.97	10.3	0.00	0.30	0.20					
79 B	10.67	33.351	25.552	4.76	75.6	11.8	1.19	14.0	0.00	0.06	0.07	0.31	1.1	1.1	1.1	0.01

B) PRODUCTIVITY REPLICATES POOR, UNCERTAIN VALUE ELIMINATED

A) INCUBATION LIGHT INTENSITIES WERE 60, 40, 31.7, 12.1, 1.9, 0.3 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 57.0 N	117 18.2 W	28/07/11	0218 UTC	20 m	1200 - 1920 PST	1156 PST	1919 PST	765.4 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	chl-a	phaeo	light	uptake	(mg C/m ³)		
m	deg c	theta	ml/l	pct	um/l	um/l	um/l	um/l	um/l	ug/l	ug/l	pct	1	2	mean	dark
2	20.91	33.578	23.437	5.61	109.5	3.9	0.24	0.0	0.00	0.32	0.14	86. A	17.8	15.4	16.6	0.10
5	20.88	33.583	23.449	5.61	109.5	4.1	0.23	0.0	0.00	0.31	0.13					
12	18.39	33.505	24.033	6.20	115.4	4.6	0.26	0.0	0.00	0.35	0.15	40.	18.1	18.6	18.4	0.11
14	17.11	33.475	24.320	6.43	116.8	3.0	0.24	0.0	0.00	0.46	0.21	34.	25.6	17.1	21.3	0.12
22	13.67	33.333	24.968	6.07	102.8	3.3	0.57	3.8	0.21	0.67	0.13					
28	13.36	33.366	25.057	6.00	101.0	3.9	0.61	4.5	0.23	0.75	0.29	12.	17.4	18.6	18.0	0.08
40	12.18	33.345	25.271	5.15	84.5	7.7	0.95	9.6	0.20	0.65	0.31					
52	11.63	33.363	25.388	4.88	79.2	9.6	1.09	12.1	0.16	0.33	0.24	1.8	1.6	1.7	1.6	0.04
58	11.43	33.410	25.462	4.42	71.4	13.0	1.26	14.4	0.33	0.33	0.44	1.2	0.90	0.80	0.80	0.11

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 20.6 N	118 33.4 W	29/07/11	0124 UTC	11 m	1210 - 1920 PST	1201 PST	1920 PST	468.3 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	chl-a	phaeo	light	uptake	(mg C/m ³)		
m	deg c	theta	ml/l	pct	um/l	um/l	um/l	um/l	um/l	ug/l	ug/l	pct	1	2	mean	dark
2	17.39	33.595	24.345	5.76	105.2	1.5	0.23	0.0	0.00	0.60	0.15	76. A	19.6	20.7	20.2	0.18
7	17.31	33.594	24.363	5.77	105.3	1.6	0.23	0.0	0.00	0.63	0.18	38.	21.4	21.9	21.7	0.23
10	17.20	33.594	24.389	5.77	105.0	1.6	0.22	0.0	0.00	0.62	0.18	25.	19.4	19.0	19.2	0.22
15	17.07	33.595	24.421	5.75	104.4	1.6	0.23	0.0	0.00	0.65	0.21	12.	14.5	15.7	15.1	0.17
22	15.94	33.590	24.678	5.85	103.9	1.2	0.31	0.3	0.00	1.37	0.52					
28	15.40	33.550	24.768	5.59	98.2	2.6	0.49	2.0	0.13	1.28	0.56	2.0	6.1	4.5	5.3	0.13
35	14.78	33.510	24.873	5.48	95.0	3.6	0.60	3.3	0.22	1.17	0.60					
42	12.98	33.460	25.206	5.24	87.5	5.0	0.82	7.1	0.57	0.54	0.39	0.28	0.90	0.90	0.90	0.06

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 10.3 N	120 55.5 W	30/07/11	0217 UTC	25 m	1215 - 1920 PST	1210 PST	1920 PST	192.9 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	chl-a	phaeo	light	uptake	(mg C/m ³)		
m	deg c	theta	ml/l	pct	um/l	um/l	um/l	um/l	um/l	ug/l	ug/l	pct	1	2	mean	dark
2	18.07	33.281	23.940	5.49	101.4	1.8	0.25	0.0	0.00	0.09	0.02	88. A	2.1	2.1	2.1	1.3
15	18.01	33.301	23.970	5.58	103.0	1.8	0.24	0.0	0.00	0.10	0.03	40.	3.9	3.0	3.5	0.06
19	18.05	33.308	23.966	5.49	101.4	1.6	0.23	0.0	0.00	0.10	0.03	31.	2.8	2.7	2.7	0.06
34	17.83	33.318	24.028	5.52	101.5	1.7	0.23	0.0	0.00	0.12	0.03	12.	1.4	1.6	1.5	0.04
44	15.63	33.042	24.327	5.99	105.4	1.5	0.23	0.0	0.00	0.13	0.05					
55	14.59	33.064	24.570	6.05	104.2	1.7	0.24	0.0	0.00	0.16	0.08					
65	14.34	33.088	24.642	6.03	103.4	1.8	0.27	0.0	0.00	0.28	0.21	1.8	2.3	2.5	2.4	0.05
75	14.16	33.176	24.748	5.87	100.3	2.2	0.26	0.1	0.02	0.39	0.34					
85	13.76	33.281	24.911	5.64	95.6	2.9	0.33	1.0	0.27	0.32	0.32					
95	13.26	33.263	24.999	5.53	92.8	3.3	0.42	2.5	0.13	0.27	0.31	0.29	0.70	0.80	0.80	0.01

RV NEW HORIZON

CALCOFI CRUISE 1108

STATION 93.3 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
30 10.8 N	122 55.2 W	30/07/11	2322 UTC	19 m	1220 - 1938 PST	1218 PST	1938 PST	236.8 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	chl-a	phaeo	light	uptake	(mg C/m ³)		
m	deg c	theta	ml/l	pct	um/l	um/l	um/l	um/l	um/l	ug/l	ug/l	pct	1	2	mean	dark
2	18.04	33.186	23.875	5.55	102.4	1.1	0.29	0.0	0.00	0.20	0.02	85. A	2.7	2.2	2.5	1.6
10	17.54	33.151	23.969	5.56	101.6	1.1	0.30	0.0	0.00	0.21	0.05	45.	5.3	5.8	5.6	1.5
14	17.45	33.150	23.990	5.53	100.9	1.2	0.30	0.0	0.00	0.23	0.06	32.	5.6	6.1	5.9	0.08
25	17.31	33.147	24.021	5.64	102.6	1.2	0.27	0.0	0.00	0.18	0.06	13.	3.9	4.0	4.0	0.32
39	15.15	33.072	24.455	6.13	106.8	1.1	0.24	0.0	0.00	0.35	0.14					
50	14.35	33.034	24.597	6.16	105.6	1.1	0.27	0.0	0.00	0.39	0.20	1.8	1.9	3.1	2.5	1.5
60	14.03	33.065	24.688	6.16	104.9	1.4	0.27	0.2	0.00	0.83	0.27					
72	13.26	33.090	24.865	5.89	98.7	2.1	0.45	1.7	0.31	0.44	0.38	0.30	1.3	1.0	1.2	0.01

A) INCUBATION LIGHT INTENSITIES WERE 60, 40, 31.7, 12.1, 1.9, 0.3 PERCENT RESPECTIVELY.

CalCOFI Cruise 1108

MACROZOOPLANKTON BIOMASS
Net Mesh Size: 0.505mm

Line	Sta.	Latitude N	Longitude W	Mo/Day	Date	Time (PST)	Water Volume	Max. Tow Depth (m)	Volume per 1000 m ³ Strained	
					Start	End	Strained (m ³)		Total (cm ³)	Small (cm ³)
76.7	49.0	35 05.3	120 46.6	08/12	1045	1052	110	56	437	437
76.7	51.0	35 01.3	120 55.2	08/12	0502	0523	415	207	284	188
76.7	55.0	34 52.8	121 11.8	08/12	0126	0149	454	213	59	59
76.7	60.0	34 43.4	121 33.0	08/11	1900	1921	417	212	137	137
76.7	70.0	34 23.4	122 14.8	08/11	1218	1241	448	212	33	33
76.7	80.0	34 03.2	122 56.5	08/11	0608	0629	456	210	29	29
76.7	90.0	33 42.8	123 37.5	08/11	0015	0039	428	210	84	84
76.7	100.0	33 23.4	124 19.4	08/10	1652	1714	468	213	15	15
80.0	50.5	34 27.5	120 29.5	08/08	1842	1844	43	15	23	23
80.0	51.0	34 27.2	120 31.5	08/08	2018	2025	149	58	40	40
80.0	55.0	34 18.7	120 48.6	08/09	0121	0144	428	211	131	117
80.0	60.0	34 09.2	121 09.0	08/09	0557	0618	433	213	42	42
80.0	70.0	33 49.0	121 50.5	08/09	1241	1304	452	207	53	53
80.0	80.0	33 29.2	122 31.9	08/09	2128	2151	443	216	47	47
80.0	90.0	33 09.0	123 13.4	08/10	0402	0423	435	212	39	39
80.0	100.0	32 49.1	123 54.5	08/10	0920	0942	456	195	24	24
81.8	46.9	34 16.5	120 01.5	08/08	1455	1517	423	212	144	123
83.3	39.4	34 15.4	119 19.5	08/08	0738	0740	45	12	360	360
83.3	40.6	34 13.3	119 24.7	08/08	0623	0625	57	20	192	192
83.3	42.0	34 10.8	119 30.6	08/08	0435	0443	182	79	165	165
83.3	51.0	33 52.8	120 08.2	08/07	2227	2235	163	61	43	43
83.3	55.0	33 44.9	120 25.0	08/07	1720	1741	429	211	40	40
83.3	60.0	33 34.6	120 45.3	08/07	1220	1242	434	212	94	60
83.3	70.0	33 14.7	121 26.7	08/07	0542	0603	424	213	24	24
83.3	80.0	32 53.9	122 07.1	08/06	2319	2342	446	212	88	88
83.3	90.0	32 34.8	122 48.9	08/06	1618	1639	423	211	43	43
83.3	100.0	32 14.8	123 29.5	08/06	0841	0903	440	212	43	43
83.3	110.0	31 54.7	124 10.2	08/06	0328	0351	461	212	35	35
86.7	33.0	33 53.4	118 29.4	08/03	1001	1007	136	55	1293	242
86.7	35.0	33 49.4	118 37.7	08/03	1247	1309	397	212	81	81
86.7	40.0	33 39.4	118 58.5	08/03	1715	1737	415	207	106	106
86.7	45.0	33 29.2	119 18.5	08/03	2208	2230	432	204	171	171
86.7	50.0	33 19.1	119 40.8	08/04	0200	0207	141	53	114	114
86.7	55.0	33 09.5	120 01.0	08/04	0609	0631	419	211	105	105
86.7	60.0	32 59.8	120 21.3	08/04	1119	1141	440	214	46	46
86.7	70.0	32 39.6	121 02.1	08/04	2016	2039	440	215	525	66
86.7	80.0	32 19.6	121 43.1	08/05	0202	0225	483	210	19	19
86.7	90.0	31 59.6	122 23.9	08/05	0641	0702	428	215	21	21
86.7	100.0	31 39.6	123 04.3	08/05	1451	1514	468	209	53	53
86.7	110.0	31 19.4	123 44.5	08/05	2032	2055	448	210	60	60
86.8	32.5	33 53.2	118 26.9	08/03	0807	0810	67	21	373	373
88.5	30.1	33 40.3	118 05.1	08/03	0408	0410	45	12	178	178
90.0	27.7	33 29.9	117 45.1	08/03	0116	0118	45	13	494	494
90.0	28.0	33 29.1	117 46.1	08/03	0020	0026	117	48	188	188
90.0	30.0	33 25.2	117 54.6	08/02	2132	2153	390	209	126	126
90.0	35.0	33 15.0	118 15.4	08/02	1639	1700	412	212	274	274
90.0	37.0	33 11.0	118 23.4	08/02	1247	1309	430	213	60	60
90.0	45.0	32 55.0	118 56.5	08/02	0414	0436	423	206	272	85
90.0	53.0	32 38.7	119 29.1	08/01	2208	2231	418	217	340	117
90.0	60.0	32 25.1	119 57.8	08/01	1631	1653	410	214	73	73
90.0	70.0	32 05.1	120 38.2	08/01	0816	0838	417	214	53	53
90.0	80.0	31 45.0	121 19.1	08/01	0244	0308	479	212	67	67
90.0	90.0	31 25.1	121 59.6	07/31	1927	1948	391	215	54	54
90.0	100.0	31 04.9	122 39.7	07/31	1107	1130	456	204	64	64
90.0	110.0	30 45.2	123 19.9	07/31	0234	0256	446	212	40	40
90.0	120.0	30 25.0	123 59.7	07/30	2015	2037	423	214	71	38
93.3	26.7	32 57.4	117 18.3	07/27	1126	1133	142	65	176	176
93.3	28.0	32 54.8	117 23.6	07/27	1559	1621	423	212	475	87
93.3	30.0	32 50.6	117 31.9	07/27	1902	1924	439	214	305	305
93.3	35.0	32 40.8	117 52.4	07/28	0019	0040	415	212	371	183
93.3	40.0	32 30.8	118 12.6	07/28	0445	0506	403	216	144	144
93.3	45.0	32 20.8	118 33.3	07/28	0906	0928	415	211	84	84
93.3	50.0	32 10.8	118 53.6	07/28	1411	1433	401	213	67	67
93.3	55.0	32 00.9	119 14.0	07/28	1824	1845	404	216	404	67
93.3	60.0	31 50.8	119 34.5	07/28	2242	2304	436	209	128	128
93.3	70.0	31 30.8	120 14.7	07/29	0429	0450	408	209	169	137
93.3	80.0	31 10.7	120 55.2	07/29	0903	0924	421	213	50	50
93.3	90.0	30 50.8	121 35.4	07/29	1827	1848	426	209	136	47
93.3	100.0	30 30.7	122 15.5	07/30	0128	0151	450	208	42	42
93.3	110.0	30 10.8	122 55.3	07/30	0620	0641	452	209	51	51
93.3	120.0	29 50.9	123 35.2	07/30	1347	1409	439	211	16	16
93.4	26.4	32 57.1	117 16.8	07/27	1258	1300	44	11	23	23