UNIVERSITY OF CALIFORNIA, SAN DIEGO SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

CalCOFI Cruise 1202
27 January – 12 February 2012

CC Reference 14 -01
22 May 2014

UNIVERSITY OF CALIFORNIA, SAN DIEGO

SCRIPPS INSTITUTION OF OCEANOGRAPHY

LA JOLLA, CALIFORNIA 92093-0227

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

CalCOFI Cruise 1202
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CONTENTS

INTRODUCTION

The data presented in this report were collected during cruise 1202* 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 3161-936) 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 using a AA3 continuous flow analyzer (SEAL Analytical) 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 12.36 µCi of ^{14}C as $NaHCO_3$ (40µl 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 with a Planktonic Rate Processes in Oligotrophic Ocean Systems (PRPOOS) net. (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 pCO_2. 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) M*icronekton Trawling*: A Matsuda-Oozeki-Hu trawl (MOHT) with 5 m^2 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 discreet 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 ($cm^3/1000m^3$ 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 1202

1. CalCOFI Cruise 1202 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.

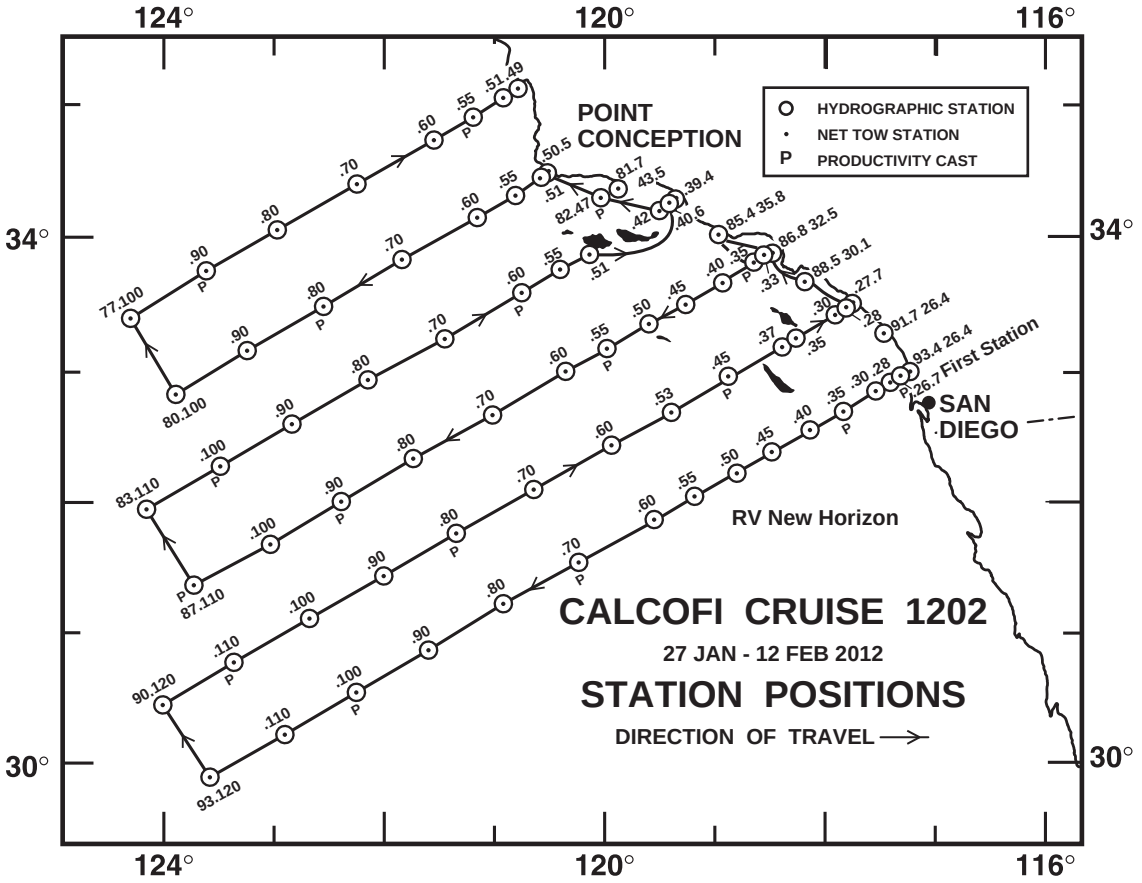

FIGURE 1

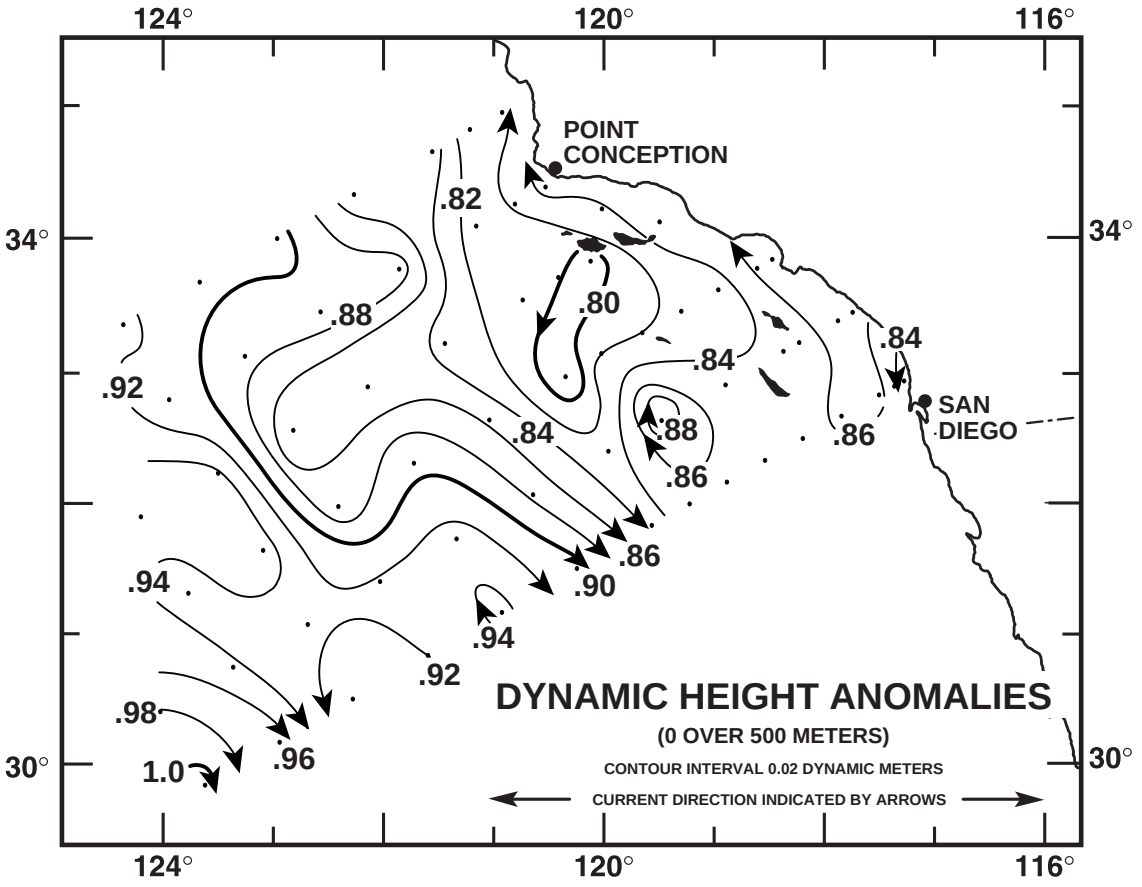

FIGURE 2

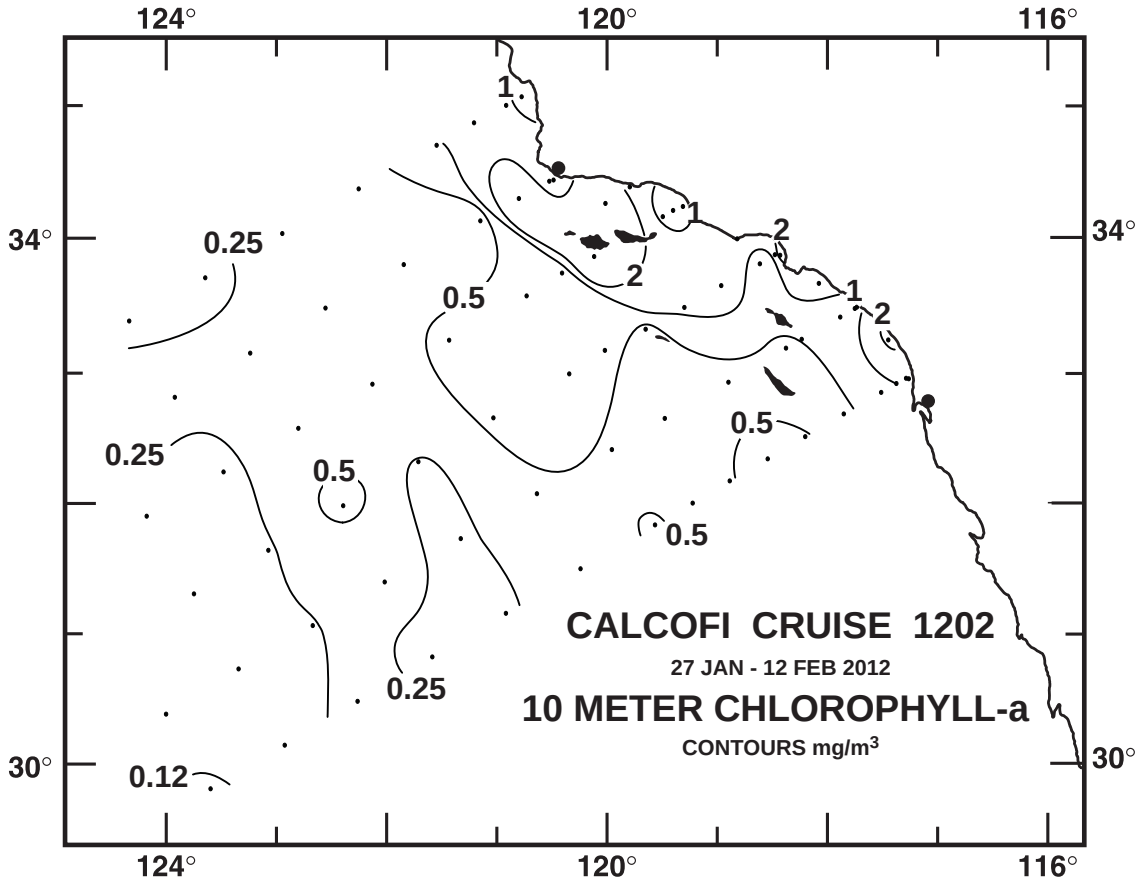

FIGURE 3A

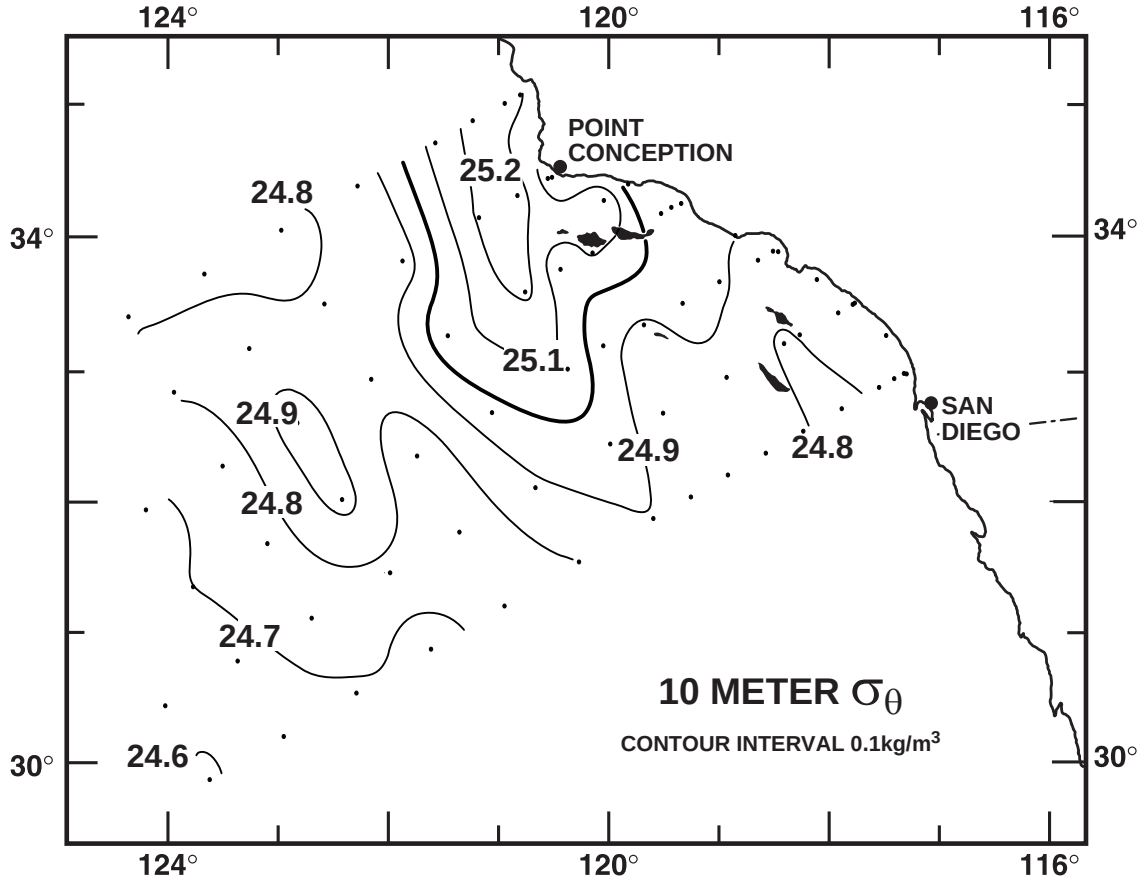

FIGURE 3B

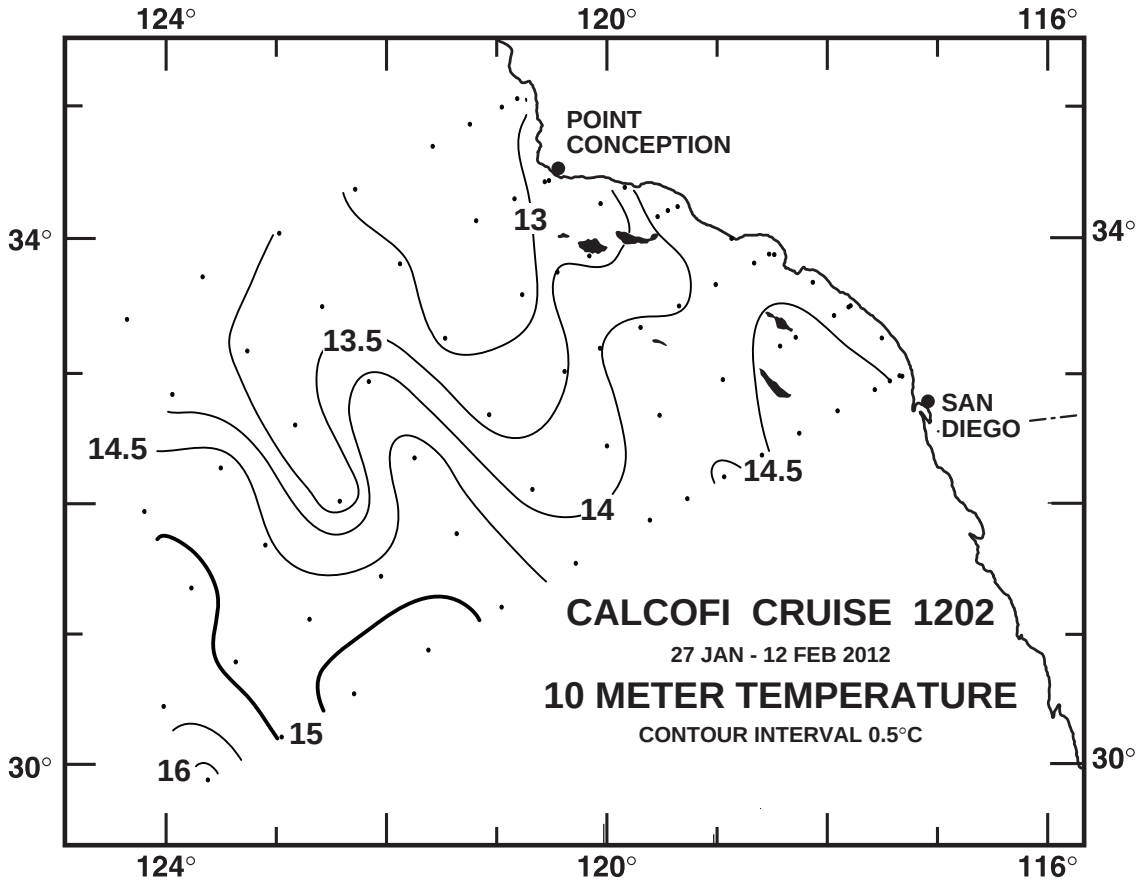

FIGURE 3C

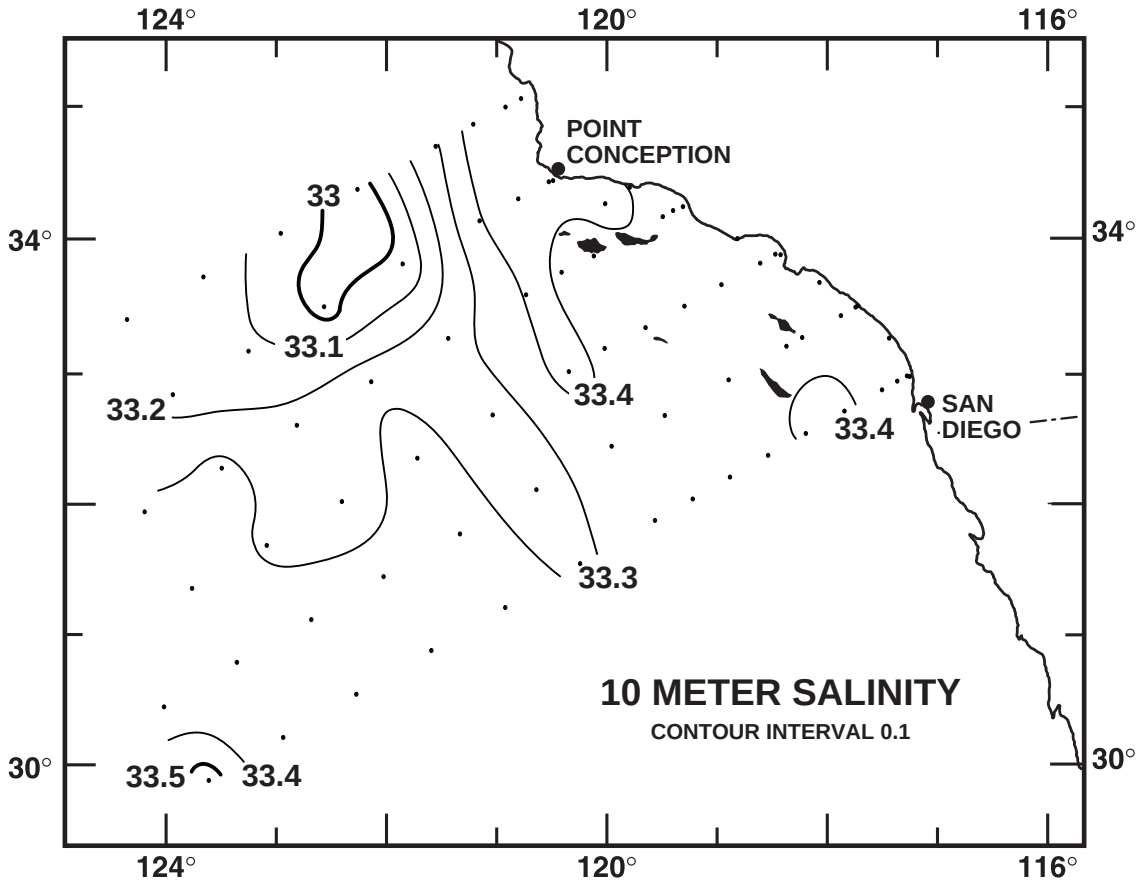

FIGURE 3D

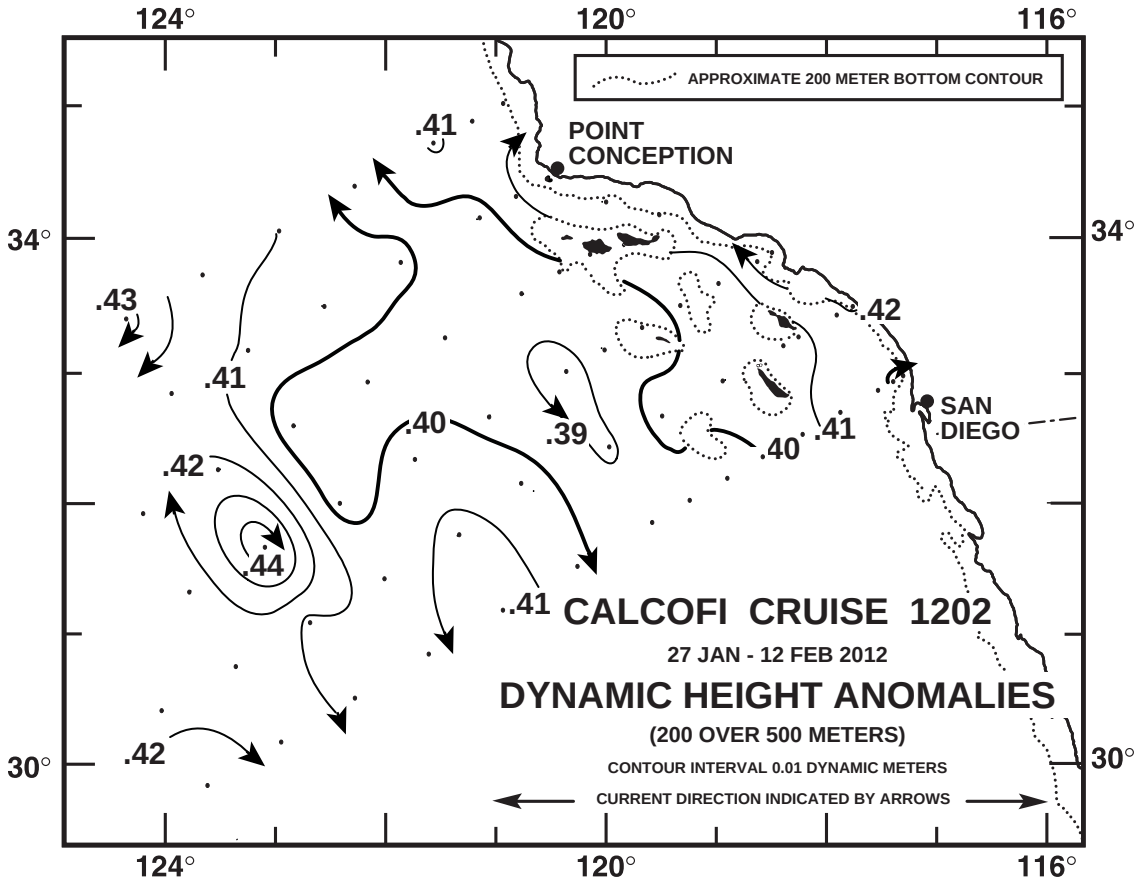

FIGURE 4A

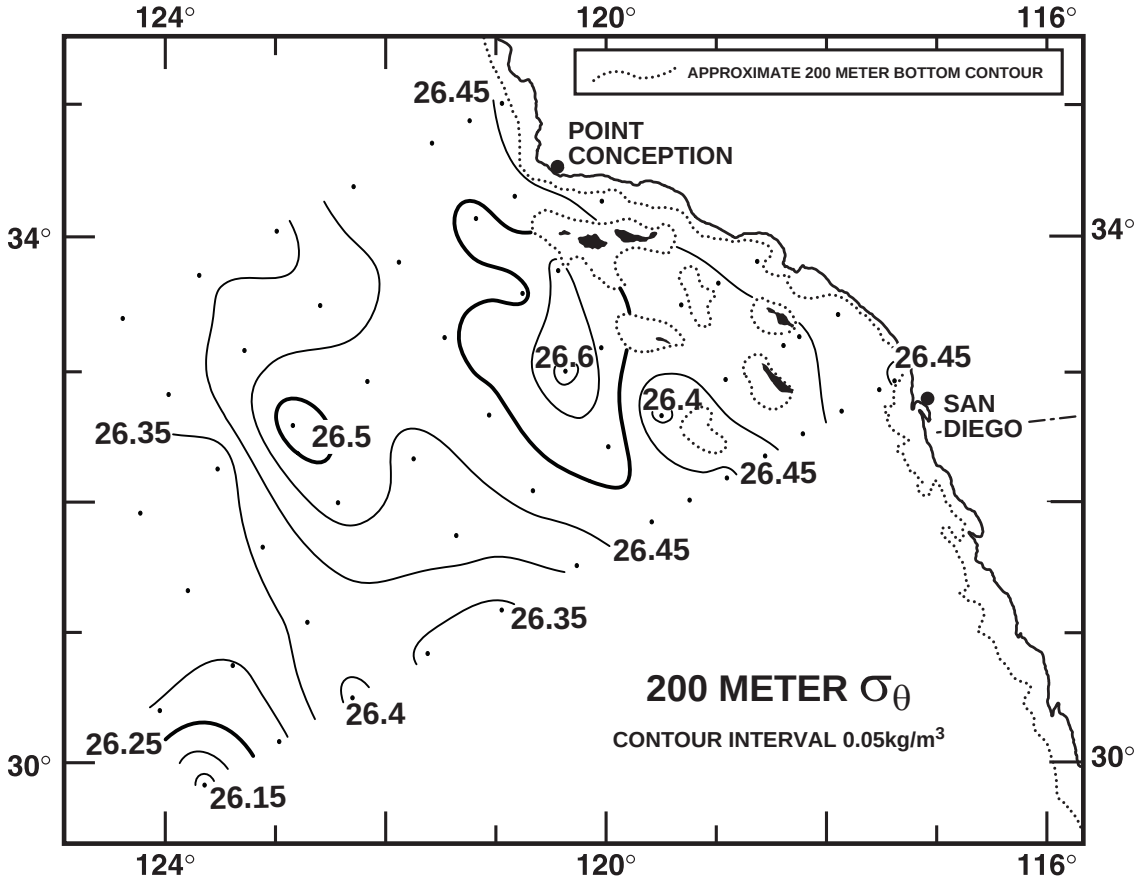

FIGURE 4B

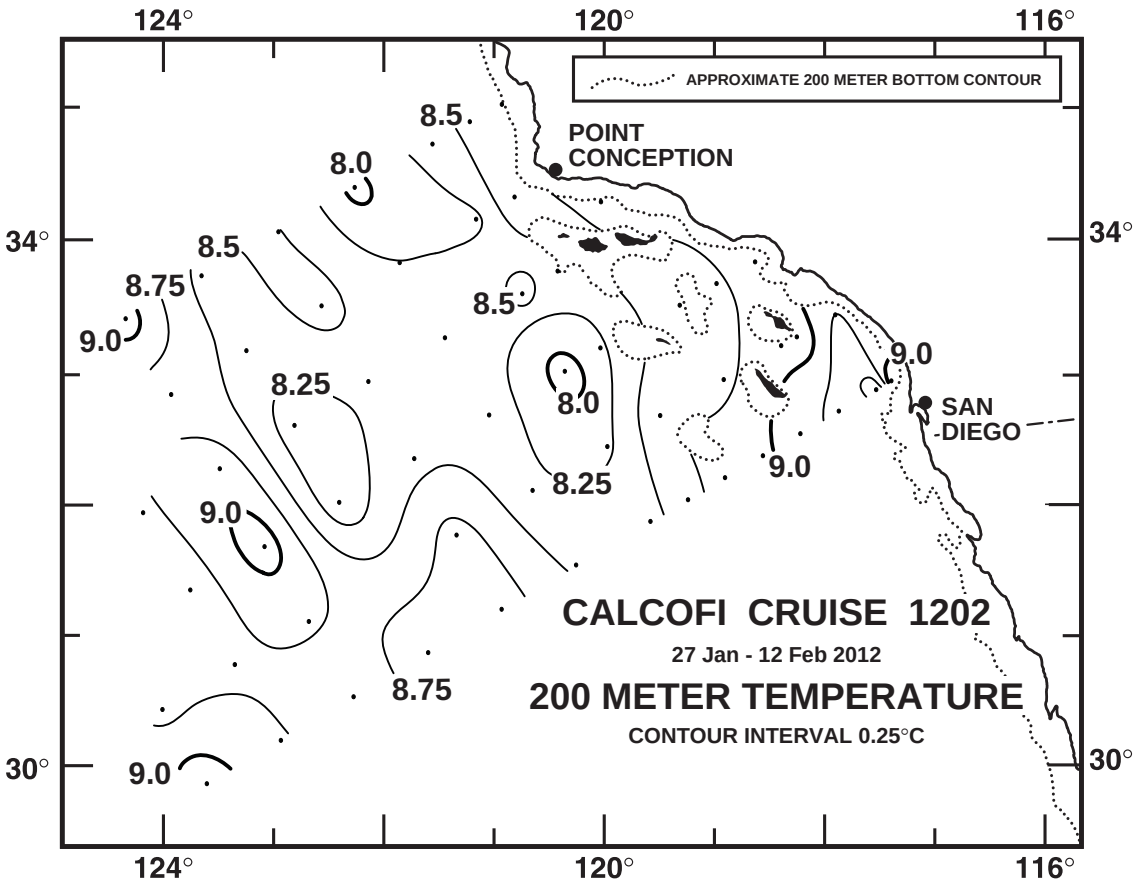

FIGURE 4C

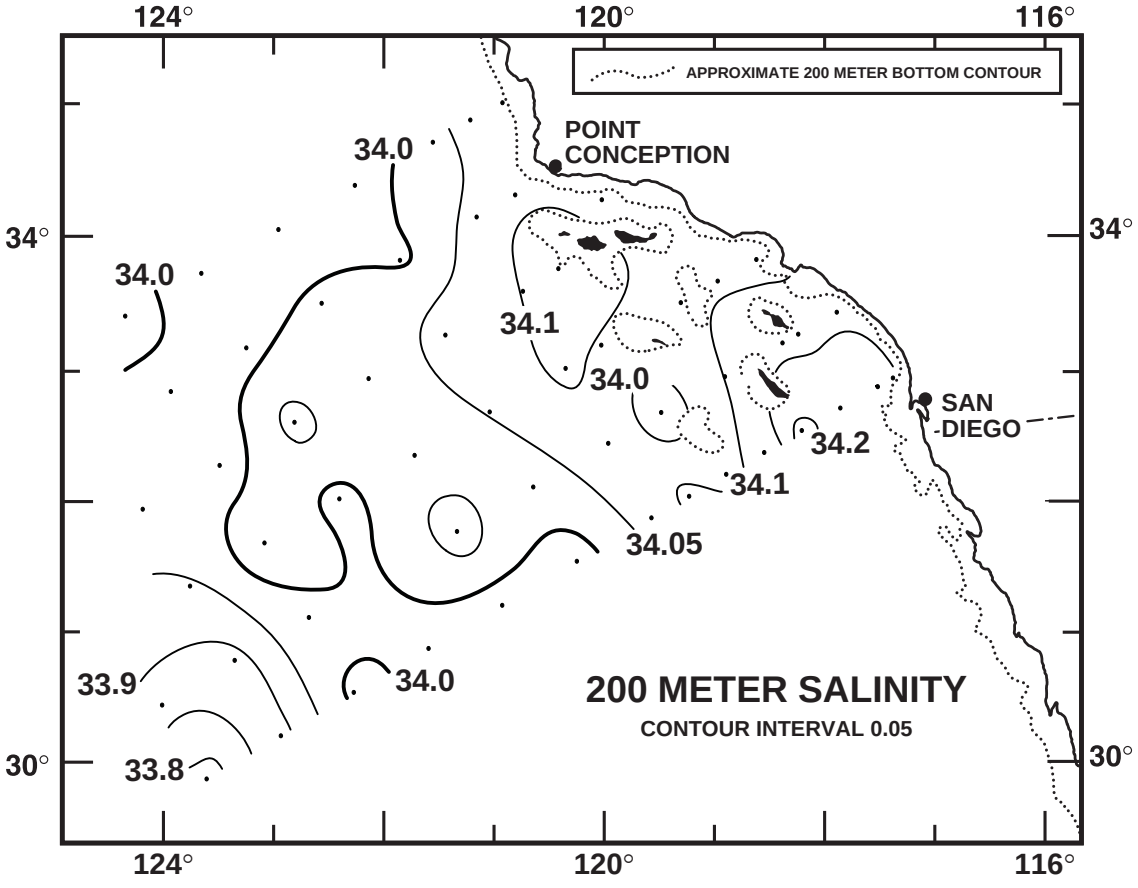

FIGURE 4D

CALCOFI CRUISE 1202

27 JAN - 12 FEB 2012

POTENTIAL DENSITY (σ_θ) ALONG CALCOFI LINE 90

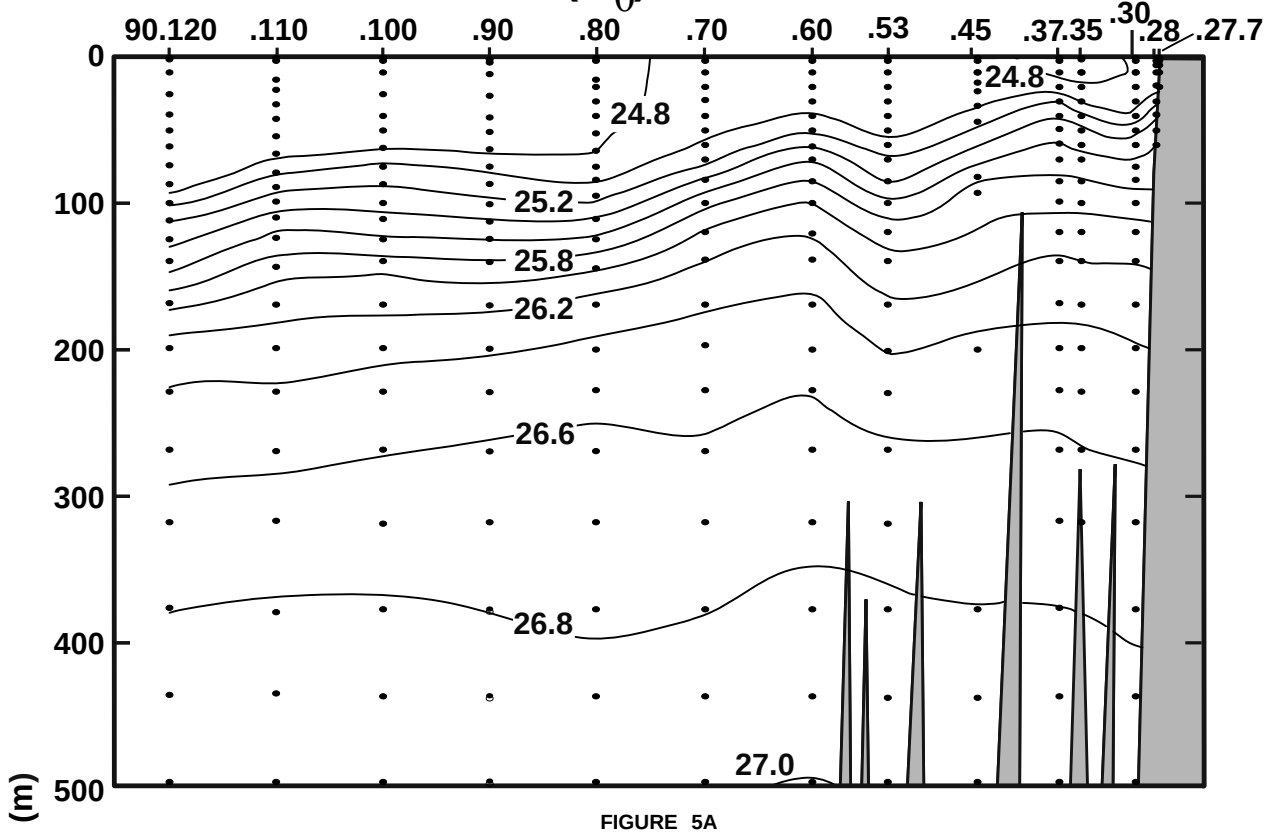

FIGURE 5A

TEMPERATURE (°C) ALONG CALCOFI LINE 90

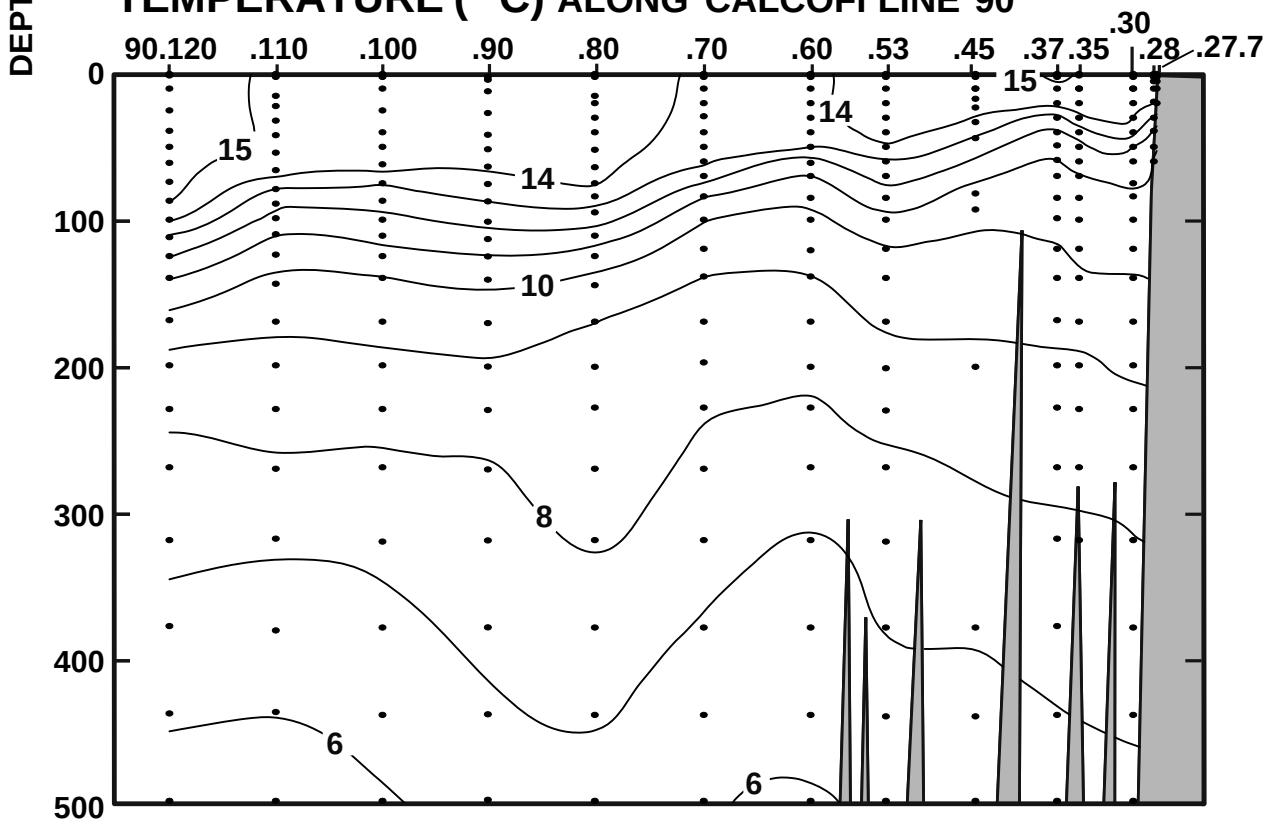

FIGURE 5B

CALCOFI CRUISE 1202

27 Jan - 12 Feb 2012

SALINITY ALONG CALCOFI LINE 90

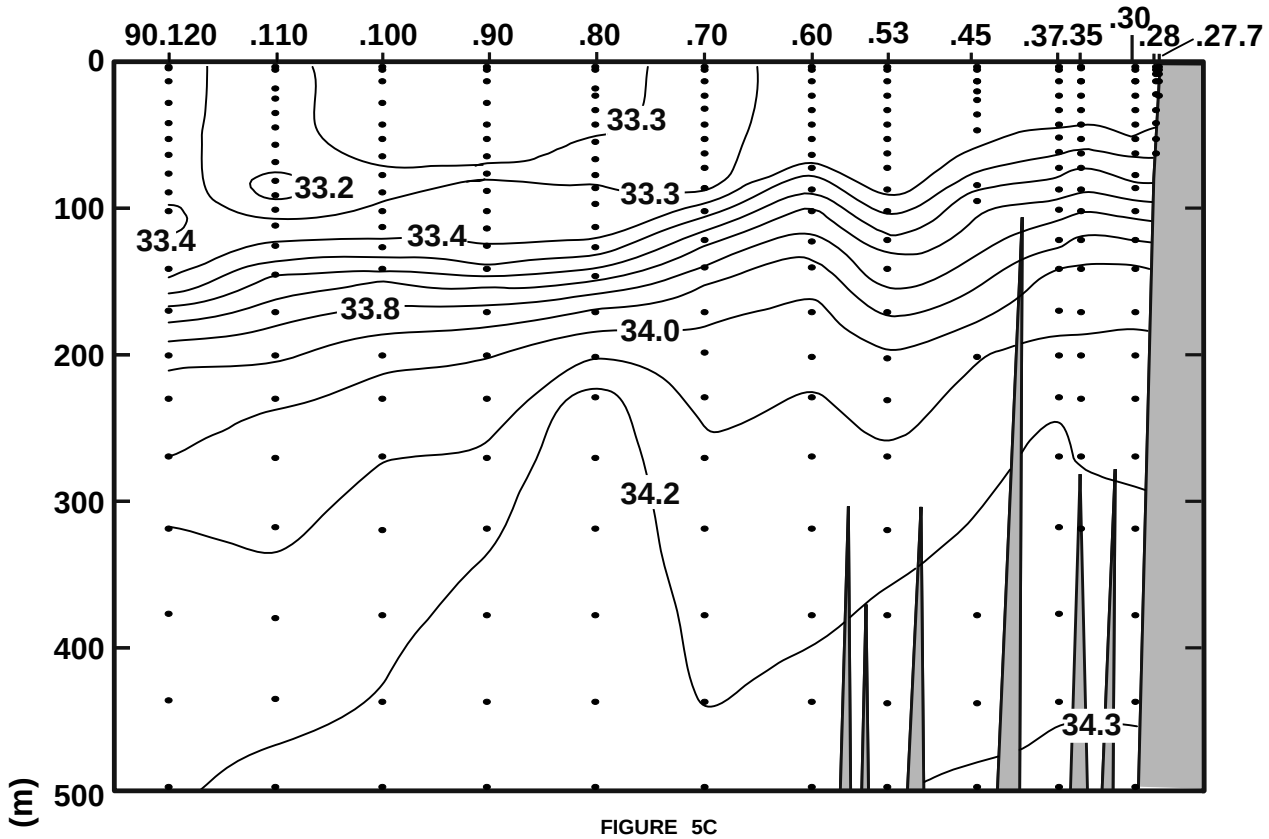

FIGURE 5C

SILICATE (μM/L) ALONG CALCOFI LINE 90

DEPTH

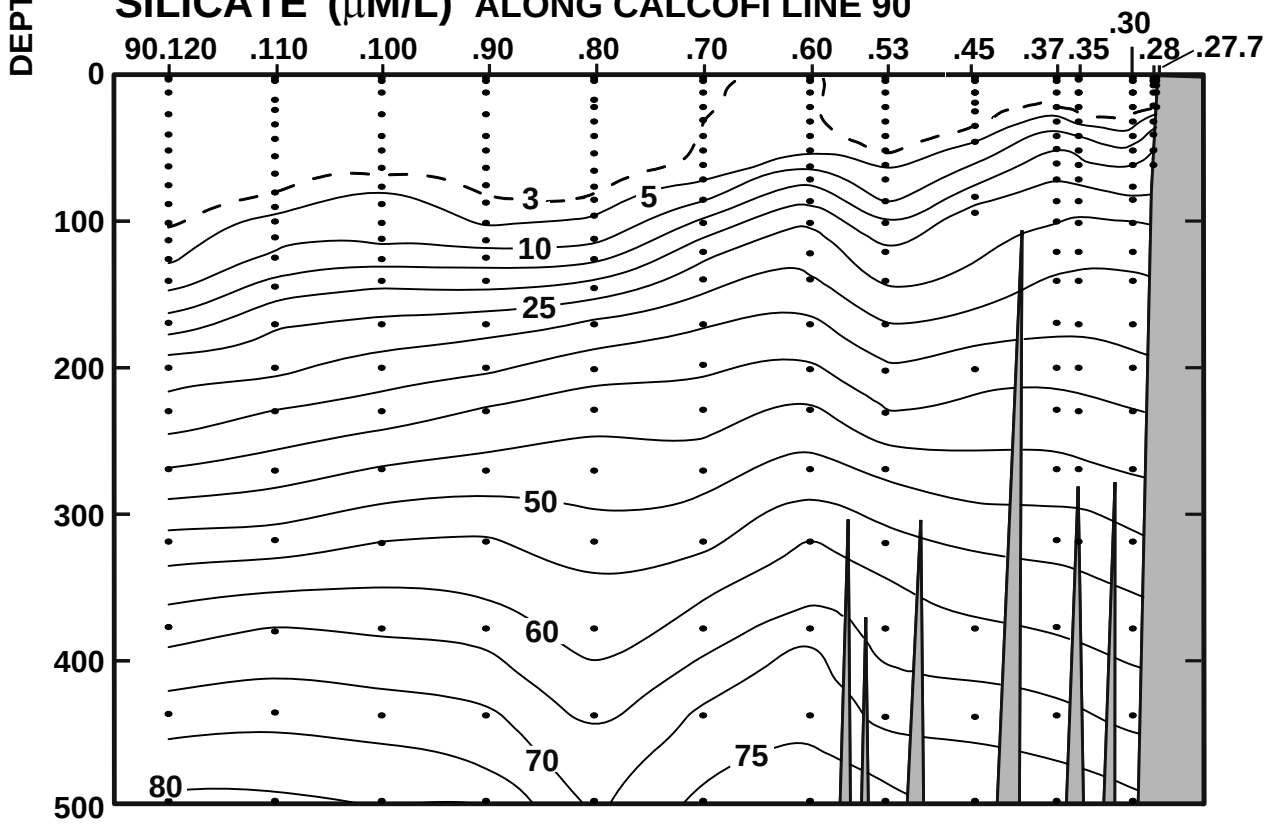

FIGURE 5D

CALCOFI CRUISE 1202

27 JAN - 12 FEB 2012

NITRATE (μM/L) ALONG CALCOFI LINE 90

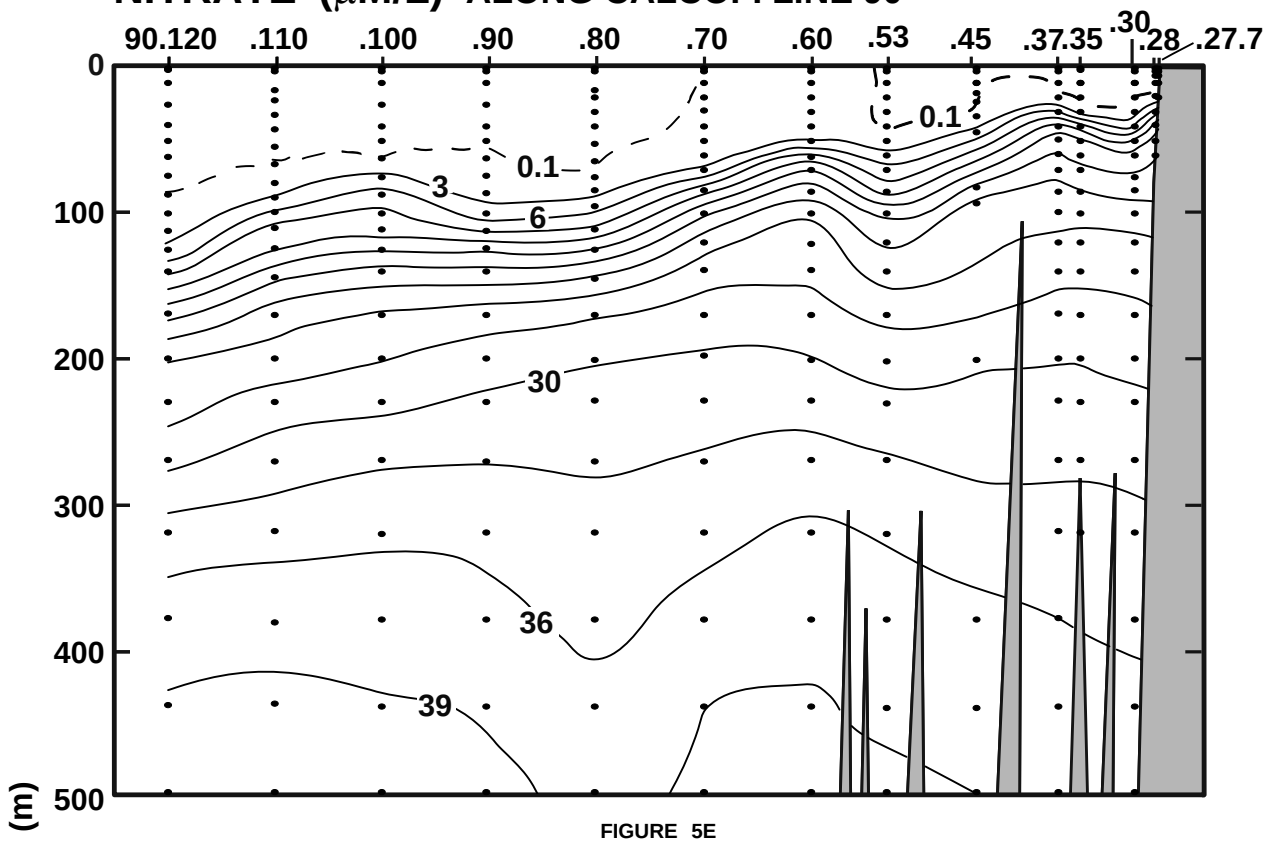

FIGURE 5E

PHOSPHATE (μM/L) ALONG CALCOFI LINE 90

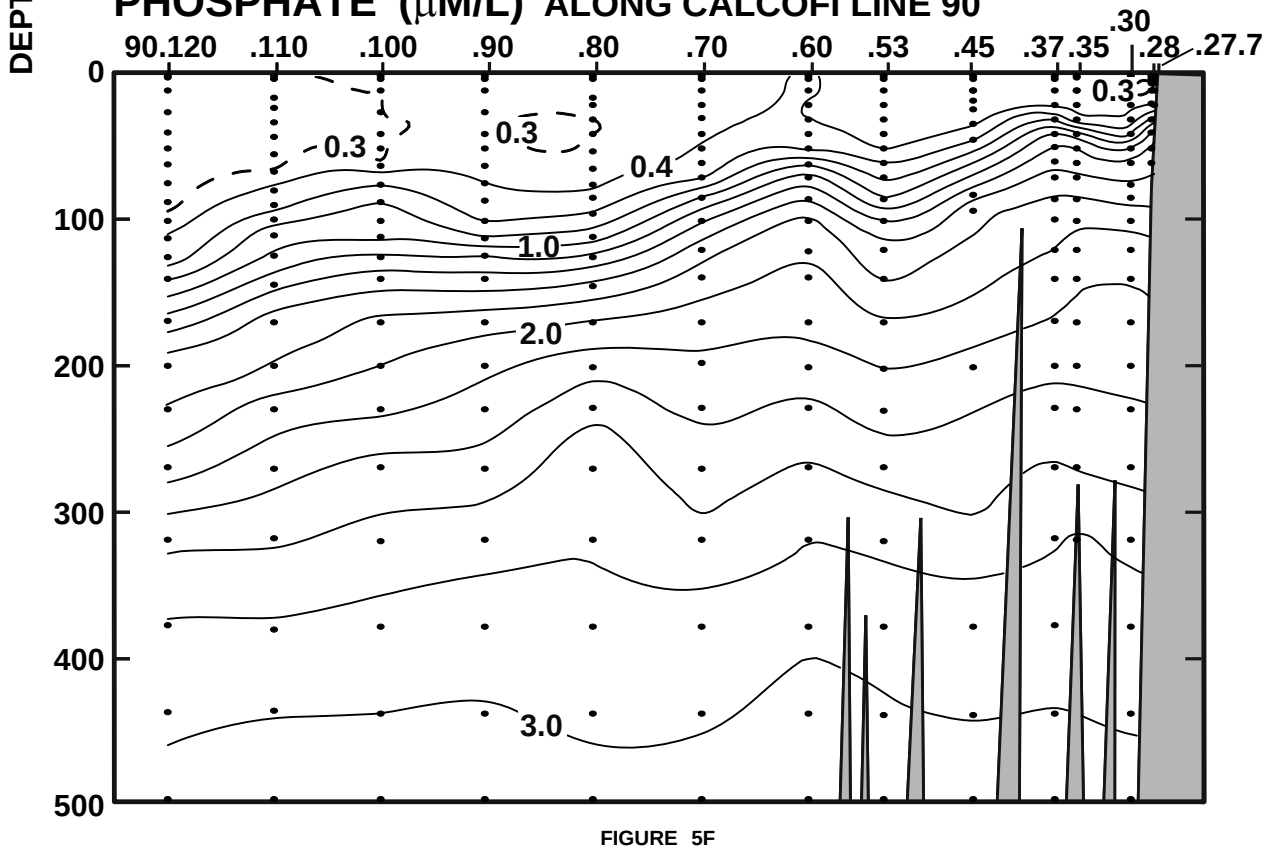

FIGURE 5F

CALCOFI CRUISE 1202

27 Jan - 12 Feb 2012

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

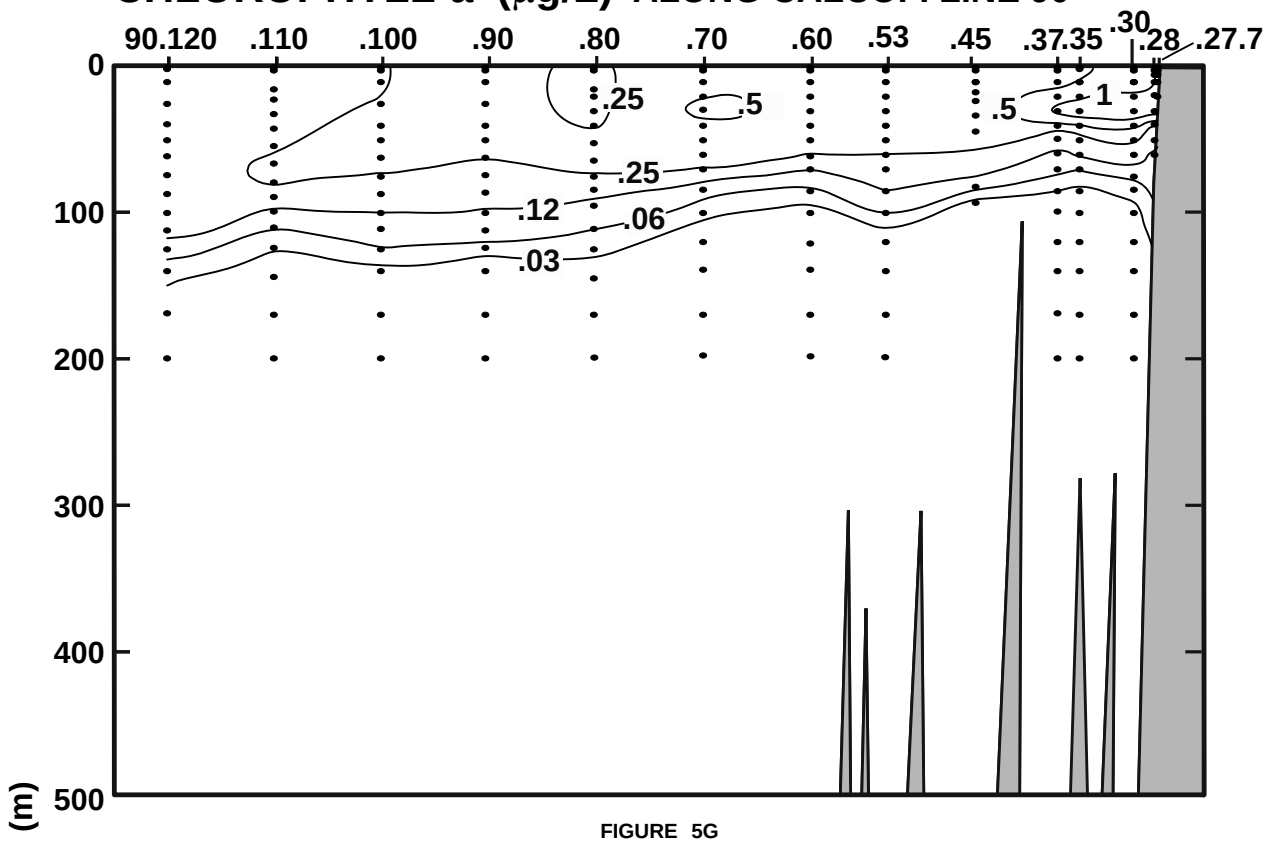

FIGURE 5G

OXYGEN SATURATION (%) ALONG CALCOFI LINE 90

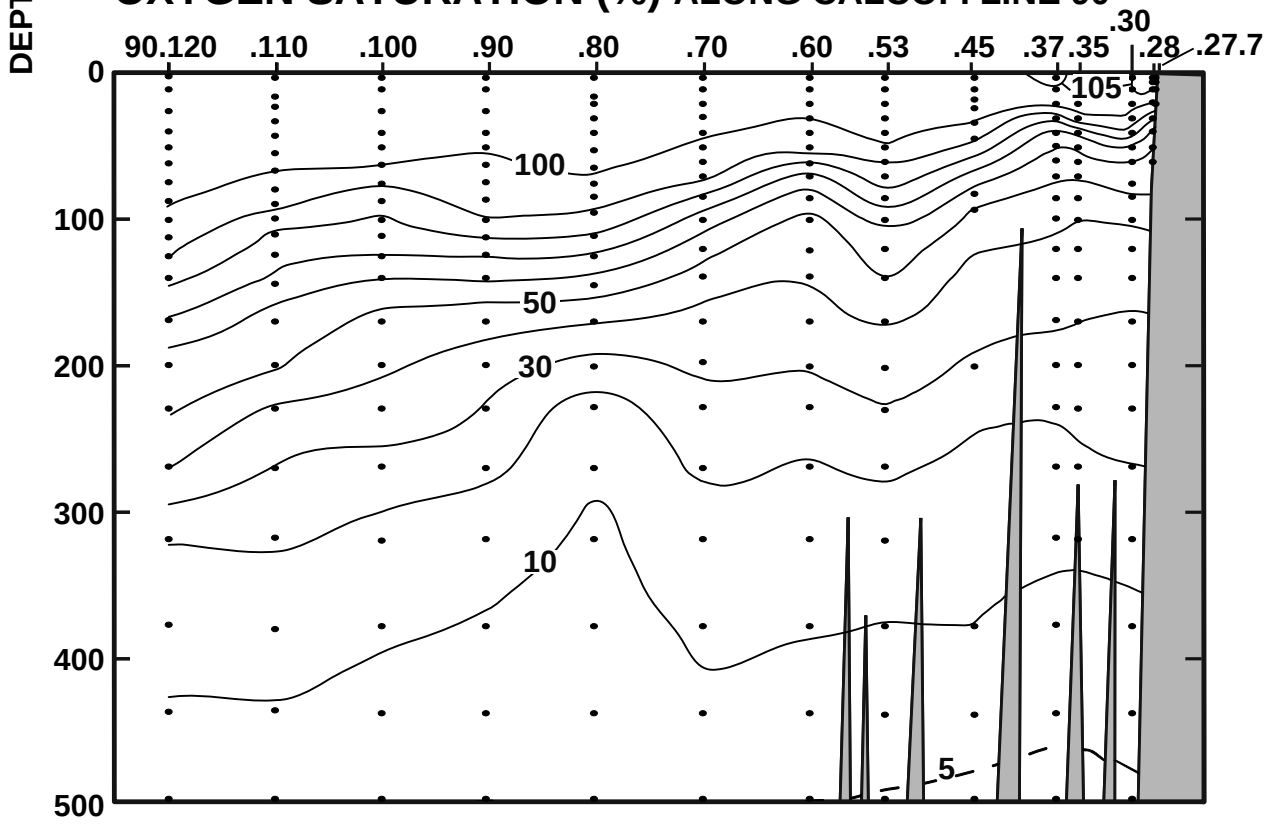

FIGURE 5H

CALCOFI CRUISE 2012

27 Jan - 12 Feb 2012

OXYGEN (mL/L) ALONG CALCOFI LINE 90

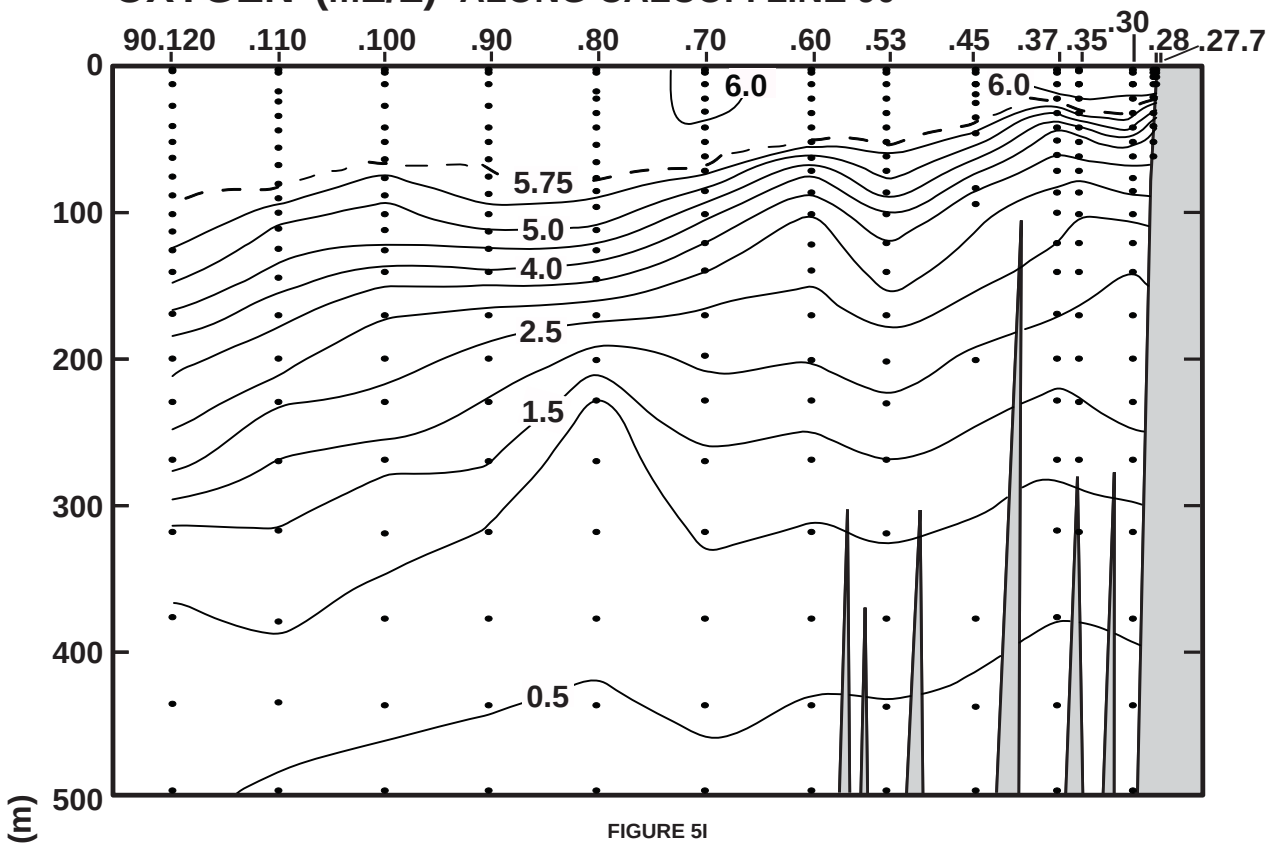

FIGURE 5I

NITRITE (μM/L) ALONG CALCOFI LINE 90

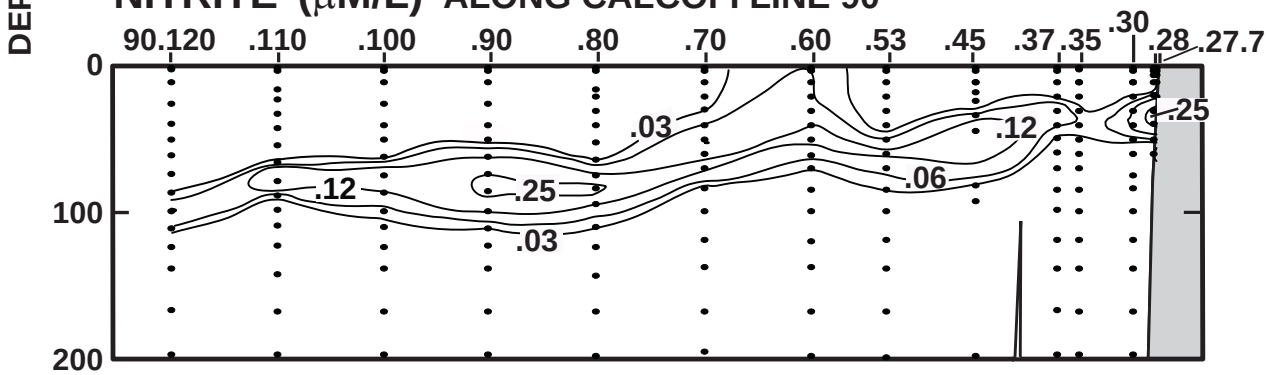

FIGURE 5J

PHAEOPIGMENTS (μg/L) ALONG CALCOFI LINE 90

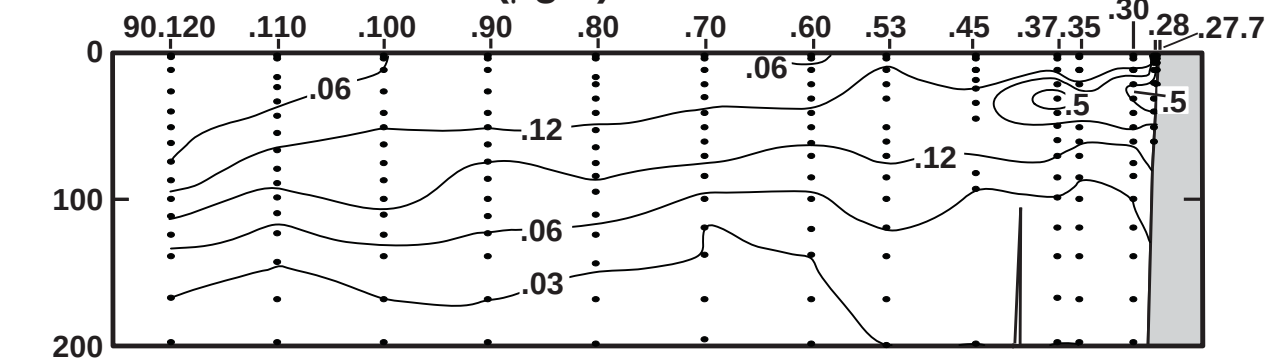

FIGURE 5K

PERSONNEL

CalCOFI Cruise 1202

SHIP'S CAPTAIN

Richard Vullo, RV New Horizon

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

Wolgast, David M. (Chief Scientist)	Staff Research Associate, SIO
Baran, Melody	Marine Mammal Observer, MPL
Becker, Susan	Staff Research Associate, SIO
Brady, George	Volunteer
Breese, Dawn	Bird Observer, FIAER
Davison, Peter	Post-Doc, SIO
Dovel, Shonna	Staff Research Associate, SIO
Faber, David	Staff Research Associate, SIO
Griffith, David	Fishery Biologist, NMFS
Hays, Amy	Fishery Biologist, NMFS
Hennes, Lindsay	Volunteer
Manion, Susan	Fishery Biologist, NMFS
Roadman, Megan	Staff Research Associate, SIO
Roche, Lauren	Staff Research Associate, SIO
Rodgers-Wolgast, Jennifer	Staff Research Associate, SIO
Whitaker, Katherine	Marine Mammal Observer, MPL
Wilkinson, James A.	Programmer Analyst, SIO

San Diego to San Diego, California, 27 January -12 February, 2012

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 76.7 49.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
35 5.2 N	120 46.8 W	12/02/2012	0359 UTC	71 m	310 24 kn			1015.9 mb	12.5 C	11.0 C				075

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		12.85		12.85		33.438	25.213	274.6	0.000	5.61		93.5		4.7	0.72	4.4	0.13	0.68	0.64	0.28	0	
2		12.85		12.85		33.438	25.213	274.6	0.006	5.61		93.5		4.7	0.72	4.4	0.13	0.68	0.64	0.28	2	09
5		12.85		12.85		33.436	25.211	274.8	0.014	5.63		93.8		4.6	0.69	4.3	0.13	0.68	0.67	0.26	5	08
9		12.86		12.86		33.439	25.212	274.8	0.026												9	07
10		12.86		12.86		33.439	25.213	274.8	0.027	5.63		93.8		4.6	0.69	4.3	0.13	0.67	0.64	0.26	10	06
20	ISL	12.52	D	12.51		33.453	D 25.291	267.7	0.055	5.13	D	84.9		6.7	0.84	6.5	0.16	0.69	0.55	0.35	20	
21		12.25		12.25		33.454	25.342	262.8	0.057	5.20		85.6		6.9	0.85	6.7	0.16	0.69	0.54	0.36	21	05
30		11.75		11.75		33.508	25.478	250.1	0.080	4.06		66.2		14.0	1.30	13.9	0.25	0.34	0.38	0.51	30	04
40		11.47		11.47		33.524	25.543	244.2	0.105	3.93		63.7		15.3	1.36	14.9	0.26	0.31	0.40	0.54	40	03
50		11.10		11.10		33.561	25.639	235.3	0.129	3.77		60.5		17.8	1.48	16.1	0.29	0.39	0.37	0.57	50	02
61		10.96		10.96		33.613	25.705	229.3	0.154	3.47		55.6		21.7	1.64	18.2	0.28	0.52	0.41	1.09	62	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 76.7 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
35 1.3 N	120 55.2 W	12/02/2012	0912 UTC	244 m	320 23 kn	300 05 05	1	1015.2 mb	13.0 C	11.1 C		6/8	SC	074

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		12.85		12.85		33.441	25.215	274.3	0.000	6.15		102.4		2.4	0.54	2.3	0.08	0.52	1.25	0.44	0	
2		12.85		12.85		33.441	25.215	274.3	0.006	6.15		102.4		2.4	0.54	2.3	0.08	0.52	1.25	0.44	2	16
10		12.86		12.85		33.441	25.214	274.7	0.027												10	15
10		12.86		12.85		33.439	25.213	274.8	0.028	6.15		102.4		2.2	0.56	2.3	0.08	0.58	1.16	0.68	10	14
20		12.84		12.84		33.438	25.216	274.8	0.055	6.16		102.6		2.4	0.54	2.4	0.08	0.52	1.18	0.34	20	13
30		12.55		12.55		33.444	25.277	269.2	0.082	6.08		100.6		2.4	0.56	2.7	0.08	0.63	0.92	0.41	30	12
40		12.32		12.31		33.469	25.342	263.4	0.109	5.62		92.6		4.7	0.75	5.3	0.10	0.71	1.01	0.90	40	11
50		11.77		11.77		33.499	25.469	251.6	0.135	4.74		77.2		10.0	1.09	10.5	0.15	0.62	0.95	0.57	50	10
60		10.99		10.98		33.516	25.625	236.9	0.159	4.11		65.8		13.7	1.34	14.6	0.19	0.51	0.64	0.56	60	09
70		10.28		10.27		33.586	25.803	220.1	0.182	3.41		53.8		19.7	1.65	20.5	0.12	0.00	0.60	0.64	71	08
75	ISL	10.09	D	10.09		33.701	D 25.925	208.6	0.194	2.91	D	45.8		21.9	1.74	21.9	0.09	0.00	0.57	0.64	76	
85		9.81		9.80		33.763	26.022	199.6	0.213	2.66		41.7		26.2	1.93	24.6	0.04	0.00	0.49	0.66	86	07
100		9.49		9.47		33.859	26.150	187.7	0.242	2.44		37.8		29.9	2.05	26.7	0.02	0.00	0.21	0.40	101	06
120		9.27		9.26		33.925	26.237	179.8	0.279	2.26		34.9		32.2	2.14	28.0	0.00	0.00	0.18	0.39	121	05
125	ISL	9.27	D	9.26		33.925	D 26.238	179.9	0.289	2.26	D	35.0		32.9	2.16	28.2	0.00	0.00	0.16	0.39	126	
140		9.11		9.09		33.979	26.307	173.6	0.314	2.03		31.3		35.0	2.22	28.9	0.00	0.00	0.13	0.39	141	04
150	ISL	9.02	D	9.00		34.000	D 26.338	170.8	0.333	2.02	D	31.0		35.7	2.25	29.3	0.00	0.00	0.12	0.37	151	
169		8.82		8.80		34.037	26.399	165.4	0.363	1.91		29.3		37.1	2.30	30.2	0.00	0.00	0.10	0.32	170	03
200	ISL	8.64	D	8.62		34.051	D 26.438	162.3	0.417	1.79	D	27.3		39.9	2.34	31.0	0.05	0.00	0.11	0.41	202	
201		8.64		8.62		34.053	26.441	162.1	0.416	1.78		27.2		40.0	2.34	31.0	0.05	0.00	0.11	0.41	203	02
231		8.41		8.39		34.075	26.492	157.7	0.464	1.63		24.7		43.2	2.44	31.8	0.07	0.06			233	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 76.7 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 53.4 N	121 12.6 W	12/02/2012	0318 UTC	571 m	310 20 kn	310 04 06	1	1018.2 mb	13.2 C	11.2 C	15 m	4/8	SC	073

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		12.79		12.79		33.439	25.225	273.5	0.000	6.05		100.6		2.6	0.58	2.5	0.10	0.71	1.08	0.52	0	
3	A	12.79		12.79		33.439	25.225	273.5	0.008	6.05		100.6		2.6	0.58	2.5	0.10	0.71	1.08	0.52	3	23
10		12.76		12.76		33.438	25.232	273.0	0.027												10	22
10	A	12.76		12.76		33.440	25.233	272.9	0.027	6.11		101.6		2.4	0.55	2.5	0.10	0.64	1.02	0.64	10	21
14	A	12.70		12.69		33.440	25.245	271.8	0.038	6.05		100.4		2.5	0.57	2.5	0.10	0.61	1.16	0.73	14	20
20	ISL	12.22	D	12.22		33.453	D 25.347	262.3	0.055	5.30	D	87.1		5.2	0.73	5.1	0.14	0.58	0.93	0.70	20	
27	A	12.08		12.08		33.451	25.372	260.1	0.073	5.18		84.9		8.4	0.92	8.1	0.19	0.55	0.66	0.67	27	19
30	ISL	12.08	D	12.07		33.449	D 25.372	260.2	0.081	5.15	D	84.3		8.9	0.95	8.6	0.19	0.52	0.63	0.63	30	
38		11.56		11.56		33.464	25.481	250.1	0.101	4.94		80.1		10.3	1.02	9.8	0.20	0.44	0.52	0.52	38	18
50	A	11.24		11.24		33.539	25.597	239.3	0.130	3.97		63.9		15.3	1.39	15.8	0.19	0.29	0.62	0.67	50	17
58	A	11.07		11.06		33.536	25.627	236.7	0.149	3.84		61.6		15.1	1.44	16.6	0.17	0.37	0.86	0.90	58	16
66		10.16		10.15		33.530	25.781	222.1	0.167	3.68		57.9		17.5	1.57	19.4	0.12	0.12	1.22	0.94	67	15
75		9.91		9.90		33.637	25.907	210.3	0.187	3.30		51.6		22.0	1.74	22.6	0.07	0.01	0.76	0.80	76	14
85		9.77		9.76		33.704	25.983	203.3	0.208	3.08		48.1		24.1	1.83	23.9	0.06	0.00	0.39	0.60	86	13
95		9.71		9.70		33.746	26.026	199.4	0.228	2.88		44.9		25.5	1.90	24.5	0.05	0.00	0.38	0.54	96	12
100	ISL	9.68	D	9.67		33.776	D 26.054	196.9	0.239	2.78	D	43.4		26.5	1.93	25.1	0.04	0.00	0.35	0.58	101	
110		9.48		9.47		33.831	26.130	189.8	0.257	2.63		40.8		28.4	2.00	26.2	0.03	0.00	0.29	0.65	111	11
125		9.30		9.28		33.916	26.227	181.0	0.285	2.38		36.7		31.1	2.11	27.6	0.02	0.00	0.25	0.73	126	10
144		9.18		9.16		33.950	26.273	177.0	0.319	2.26		34.9		32.4	2.16	28.2	0.02	0.00	0.14	0.32	145	09
150	ISL	9.09	D	9.07		33.980	D 26.312	173.4	0.331	2.18	D	33.5		33.6	2.20	28.8	0.02	0.00	0.13	0.29	151	
171		8.71		8.69		34.056	26.430	162.5	0.365	1.88		28.7		37.9	2.32	30.7	0.00	0.00	0.07	0.19	172	08
200		8.57		8.55		34.106	26.492	157.2	0.411	1.67		25.5		40.1	2.40	31.5	0.00	0.00	0.05	0.19	202	07
230		8.33		8.31		34.118	26.539	153.2	0.458	1.55		23.4		42.7	2.46	32.4	0.00	0.00			232	06
250	ISL	8.10	D	8.07		34.151	D 26.600	147.7	0.491	1.30	D	19.6		45.9	2.55	33.4	0.00	0.00			252	
270		7.92		7.90		34.172	26.643	144.0	0.517	1.17		17.5		49.0	2.63	34.4	0.00	0.00			272	05
300	ISL	7.79	D	7.76		34.190	D 26.678	141.1	0.563	1.00	D	15.0		52.4	2.72	35.5	0.00	0.00			302	
321		7.51		7.48		34.208	26.732	136.2	0.589	0.86		12.8		54.8	2.79	36.2	0.00	0.00			324	04
381		7.05		7.01		34.214	26.804	130.1	0.669	0.70		10.4		61.8	2.89	37.8	0.00	0.00			384	03
400	ISL	6.73	D	6.69		34.196	D 26.832	127.4	0.698	0.70	D	10.2		64.7	2.92	38.4	0.00	0.00			403	
442		6.38		6.34		34.205	26.886	122.7	0.746	0.59		8.6		71.0	3.00	39.8	0.00	0.00			446	02
500	ISL	6.12	D	6.07		34.209	D 26.924	119.6	0.822	0.51	D	7.3		77.4	3.09	40.8	0.00	0.00			504	
518		5.98		5.94		34.235	26.962	116.2	0.837	0.42		6.1		79.4	3.12	41.1	0.00	0.00			522	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 76.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 43.2 N	121 32.9 W	11/02/2012	2359 UTC	941 m	310 15 kn	310 03 06	1	1018.0 mb	12.2 C	11.1 C		7/8	SC	072

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	12.63	12.63	33.288	25.139	281.5	0.000	6.13	101.6	5.0	0.47	1.8	0.14	0.07	0.90	0.33	0	
1	12.63	12.63	33.288	25.139	281.5	0.003	6.13	101.6	5.0	0.47	1.8	0.14	0.07	0.90	0.33	1	20
10	12.64	12.63	33.287	25.138	281.9	0.028	6.14	101.7	5.0	0.47	1.8	0.14	0.07	0.92	0.29	10	19
20	12.64	12.64	33.287	25.138	282.2	0.056	6.14	101.8	4.9	0.47	1.7	0.14	0.06	0.92	0.30	20	18
30	12.60	12.60	33.286	25.145	281.9	0.085	6.09	100.8	5.0	0.49	2.1	0.17	0.10	0.83	0.34	30	17
40	12.26	12.25	33.305	25.226	274.4	0.112	5.65	92.9	6.6	0.68	5.2	0.20	0.12	0.34	0.21	40	16
50	11.92	11.91	33.388	25.355	262.3	0.139	5.40	88.2	10.1	0.88	8.1	0.42	0.17	0.39	0.28	50	15
60	11.69	11.68	33.403	25.410	257.4	0.165	5.06	82.3	11.2	1.00	10.2	0.40	0.08	0.31	0.30	60	14
70	11.09	11.08	33.410	25.526	246.6	0.190	4.72	75.8	12.5	1.14	12.7	0.27	0.00	0.22	0.28	71	13
75 ISL	10.85 D	10.84	33.425 D	25.580	241.4	0.204	4.42 D	70.5	13.7	1.24	14.3	0.20	0.00	0.19	0.27	76	
85	10.48	10.47	33.456	25.669	233.2	0.226	4.12	65.2	16.0	1.43	17.6	0.06	0.00	0.14	0.25	86	12
100	9.76	9.74	33.670	25.959	205.9	0.259	3.16	49.3	23.6	1.81	23.5	0.05	0.00	0.22	0.50	101	11
120	9.18	9.16	33.778	26.138	189.3	0.299	3.00	46.2	27.5	1.95	26.2	0.00	0.00	0.02	0.21	121	10
125 ISL	9.14 D	9.13	33.788 D	26.151	188.0	0.310	2.96 D	45.6	28.1	1.97	26.5	0.00	0.00	0.02	0.20	126	
141	8.95	8.93	33.852	26.232	180.7	0.338	2.77	42.4	29.8	2.03	27.5	0.00	0.00	0.02	0.18	142	09
150 ISL	8.89 D	8.87	33.878 D	26.262	178.0	0.356	2.70 D	41.4	31.2	2.07	28.1	0.00	0.00	0.01	0.15	151	
170	8.65	8.64	33.965	26.368	168.4	0.388	2.37	36.2	34.3	2.16	29.4	0.00	0.00	0.01	0.09	171	08
200	8.35	8.33	33.999	26.442	161.8	0.438	2.29	34.7	37.1	2.22	30.4	0.00	0.00	0.00	0.06	202	07
231	8.17	8.14	34.023	26.489	157.8	0.487	2.13	32.1	39.6	2.28	31.4	0.00	0.00			233	06
250 ISL	7.87 D	7.85	34.070 D	26.570	150.4	0.520	1.76 D	26.3	42.7	2.37	32.3	0.00	0.00			252	
270	7.82	7.79	34.090	26.594	148.5	0.547	1.65	24.7	45.9	2.46	33.3	0.00	0.00			272	05
300 ISL	7.74 D	7.71	34.168 D	26.668	142.0	0.594	1.13 D	16.9	50.9	2.62	34.9	0.00	0.00			302	
320	7.44	7.40	34.158	26.703	138.8	0.618	1.04	15.5	54.2	2.72	36.0	0.00	0.00			323	04
380	7.14	7.11	34.195	26.775	132.9	0.700	0.79	11.7	59.5	2.84	37.3	0.00	0.00			383	03
400 ISL	7.09 D	7.05	34.202 D	26.789	131.8	0.731	0.75 D	11.0	62.1	2.88	37.9	0.00	0.00			403	
441	6.59	6.55	34.205	26.859	125.5	0.779	0.65	9.5	67.3	2.96	39.0	0.00	0.00			445	02
500 ISL	6.00 D	5.95	34.264 D	26.983	114.0	0.856	0.39 D	5.5	76.7	3.09	40.7	0.00	0.00			504	
516	5.98	5.93	34.269	26.989	113.6	0.868	0.38	5.4	79.3	3.12	41.2	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 76.7 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 23.4 N	122 15.1 W	11/02/2012	1652 UTC	4026 m	310 13 kn			1019.8 mb	13.1 C	11.7 C				071

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	12.88	12.88	32.930	24.813	312.6	0.000	6.17	102.6	3.7	0.37	0.5	0.03	0.00	0.41	0.07	0	
2	12.88	12.88	32.930	24.813	312.6	0.006	6.17	102.6	3.7	0.37	0.5	0.03	0.00	0.41	0.07	2	20
10	12.86	12.85	32.929	24.819	312.3	0.031	6.18	102.6	3.6	0.36	0.5	0.03	0.00	0.43	0.04	10	19
20	12.45	12.45	32.951	24.913	303.6	0.062	6.21	102.4	4.1	0.33	1.1	0.06	0.00	0.41	0.11	20	18
30	12.13	12.12	33.005	25.018	293.9	0.092	6.16	100.7	5.0	0.45	1.9	0.09	0.05	0.52	0.07	30	17
40	11.12	11.11	33.043	25.234	273.5	0.120	5.73	91.7	6.5	0.74	5.6	0.05	0.07	0.33	0.10	40	16
50	10.65	10.65	33.061	25.330	264.6	0.147	5.59	88.6	7.7	0.87	7.9	0.03	0.00	0.21	0.10	50	15
60	10.41	10.41	33.176	25.460	252.4	0.173	5.29	83.5	8.6	0.97	9.6	0.03	0.00	0.11	0.08	60	14
70	9.90	9.89	33.190	25.559	243.2	0.198	5.05	78.9	11.5	1.13	12.5	0.02	0.00	0.05	0.08	71	13
75 ISL	9.80 D	9.79	33.274 D	25.641	235.5	0.211	4.84 D	75.4	12.7	1.14	13.6	0.01	0.00	0.05	0.07	76	
85	9.76	9.75	33.300	25.668	233.2	0.233	4.66	72.5	15.1	1.16	15.9	0.00	0.00	0.04	0.05	86	12
100	9.37	9.36	33.487	25.879	213.4	0.267	3.98	61.6	20.8	1.63	21.1	0.00	0.00	0.03	0.05	101	11
119	8.96	8.94	33.611	26.042	198.2	0.306	3.69	56.5	24.6	1.75	23.7	0.00	0.00	0.01	0.05	120	10
125 ISL	8.93 D	8.92	33.692 D	26.109	192.0	0.319	3.54 D	54.2	25.5	1.76	23.9	0.00	0.00	0.01	0.04	126	
140	8.68	8.66	33.805	26.238	180.0	0.346	3.58	54.5	27.6	1.77	24.5	0.00	0.00	0.00	0.03	141	09
150 ISL	8.61 D	8.61	33.826 D	26.262	177.9	0.365	3.60 D	54.8	29.1	1.81	25.2	0.00	0.00	0.00	0.03	151	
170	8.34	8.32	33.918	26.379	167.2	0.398	3.27	49.5	32.0	1.89	26.6	0.00	0.00	0.00	0.03	171	08
200	7.89	7.87	33.989	26.502	155.9	0.447	2.38	35.6	40.0	2.20	31.0	0.00	0.00	0.00	0.02	202	07
230	7.55	7.53	33.998	26.559	150.9	0.493	2.29	34.1	44.3	2.29	32.1	0.00	0.00			232	06
250 ISL	7.30 D	7.28	34.028 D	26.619	145.4	0.525	1.97 D	29.1	48.1	2.43	33.7	0.00	0.00			252	
270	7.27	7.24	34.067	26.654	142.4	0.551	1.52	22.5	51.9	2.56	35.3	0.00	0.00			272	05
300 ISL	6.95 D	6.92	34.070 D	26.701	138.3	0.597	1.37 D	20.1	56.1	2.68	36.5	0.00	0.00			302	
320	7.02	6.99	34.137	26.745	134.5	0.620	1.01	14.9	58.9	2.76	37.3	0.00	0.00			323	04
380	6.55	6.51	34.180	26.843	125.9	0.698	0.71	10.3	66.1	2.95	39.2	0.00	0.00			383	03
400 ISL	6.44 D	6.40	34.199 D	26.873	123.2	0.728	0.61 D	8.8	68.6	2.99	39.6	0.00	0.00			403	
440	6.18	6.14	34.226	26.928	118.5	0.772	0.49	7.1	73.5	3.07	40.5	0.00	0.00			444	02
500 ISL	5.83 D	5.78	34.239 D	26.985	113.6	0.847	0.40 D	5.7	79.5	3.13	41.5	0.00	0.00			504	
518	5.72	5.68	34.242	27.000	112.3	0.862	0.39	5.5	81.3	3.15	41.8	0.00	0.00			522	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 76.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 3.1 N	122 56.5 W	11/02/2012	0929 UTC	4236 m	290 10 kn	270 04 07	1	1020.8 mb	15.0 C	13.4 C		4/8	SC	070

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	13.75	13.75	33.091	24.764	317.3	0.000	6.05	102.4	2.8	0.33	0.0	0.00	0.00	0.29	0.07	0	
2	13.75	13.75	33.091	24.764	317.3	0.006	6.05	102.4	2.8	0.33	0.0	0.00	0.00	0.29	0.07	2	20
10	13.48	13.48	33.051	24.789	315.2	0.032	6.09	102.6	2.8	0.32	0.0	0.00	0.00	0.29	0.09	10	19
20	13.43	13.43	33.049	24.798	314.6	0.063	6.09	102.5	2.8	0.32	0.0	0.00	0.00	0.34	0.10	20	18
30	13.41	13.41	33.045	24.799	314.8	0.095	6.08	102.2	2.8	0.32	0.0	0.00	0.00	0.39	0.11	30	17
40	13.43	13.42	33.052	24.802	314.8	0.126	6.06	101.9	2.8	0.31	0.0	0.00	0.00	0.42	0.12	40	16
50	13.36	13.35	33.044	24.810	314.4	0.158	6.03	101.3	2.8	0.33	0.0	0.01	0.05	0.39	0.15	50	15
60	13.32	13.31	33.117	24.874	308.5	0.189	5.93	99.6	3.0	0.37	0.4	0.09	0.17	0.24	0.12	60	14
70	12.41	12.40	33.111	25.049	292.0	0.219	5.76	94.9	4.1	0.54	2.9	0.23	0.00	0.11	0.10	71	13
75 ISL	11.71 D	11.69	33.045 D	25.131	284.3	0.235	5.81 D	94.2	4.8	0.61	4.1	0.16	0.00	0.09	0.09	76	
86	11.08	11.07	33.107	25.291	269.2	0.264	5.54	88.6	6.4	0.76	6.6	0.02	0.00	0.06	0.07	87	12
100	10.20	10.18	33.256	25.562	243.6	0.300	4.91	77.2	11.2	1.09	12.5	0.01	0.00	0.03	0.05	101	11
120	9.64	9.62	33.439	25.798	221.5	0.346	4.25	66.1	17.3	1.45	18.6	0.01	0.00	0.02	0.03	121	10
125 ISL	9.55 D	9.54	33.503 D	25.863	215.5	0.359	4.04 D	62.8	18.5	1.50	19.4	0.01	0.00	0.02	0.03	126	
140	9.21	9.19	33.608	26.000	202.7	0.388	3.87	59.6	21.9	1.65	21.9	0.00	0.00	0.01	0.03	141	09
150 ISL	8.96 D	8.94	33.722 D	26.129	190.6	0.410	3.67 D	56.3	24.4	1.75	23.5	0.00	0.00	0.01	0.03	151	
170	8.84	8.82	33.828	26.232	181.3	0.445	3.00	46.0	29.3	1.96	26.7	0.00	0.00	0.00	0.03	171	08
200	8.51	8.49	33.952	26.380	167.7	0.498	2.60	39.5	33.9	2.10	28.8	0.00	0.00	0.00	0.02	202	07
230	8.23	8.20	34.021	26.479	158.9	0.547	2.10	31.7	39.2	2.29	31.3	0.00	0.00			232	06
250 ISL	8.07 D	8.04	34.054 D	26.529	154.4	0.582	1.86 D	28.1	42.5	2.38	32.4	0.00	0.00			252	
270	7.78	7.76	34.081	26.592	148.6	0.608	1.67	25.0	45.8	2.47	33.5	0.00	0.00			272	05
300 ISL	7.45 D	7.41	34.116 D	26.669	141.7	0.656	1.28 D	19.0	51.0	2.61	35.1	0.00	0.00			302	
320	7.31	7.28	34.134	26.702	138.8	0.680	1.12	16.5	54.5	2.71	36.2	0.00	0.00			323	04
379	6.85	6.81	34.167	26.793	130.9	0.760	0.82	12.0	62.6	2.87	38.1	0.00	0.00			382	03
400 ISL	6.68 D	6.64	34.179 D	26.826	128.0	0.792	0.74 D	10.8	65.6	2.91	38.8	0.00	0.00			403	
440	6.25	6.21	34.181	26.884	122.7	0.837	0.64	9.3	71.3	2.99	40.0	0.00	0.00			444	02
500 ISL	5.89 D	5.85	34.220 D	26.961	115.9	0.915	0.46 D	6.6	78.4	3.11	41.1	0.00	0.00			504	
515	5.88	5.83	34.242	26.981	114.3	0.926	0.41	5.9	80.2	3.14	41.4	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 76.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 43.0 N	123 38.3 W	11/02/2012	0326 UTC	4138 m	240 09 kn	250 03 08	2	1024.1 mb	15.1 C	14.9 C	19 m	8/8	ST	069

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	13.93	13.93	33.156	24.778	316.0	0.000	6.00	102.1	2.6	0.33	0.0	0.00	0.00	0.23	0.06	0	
2 A	13.93	13.93	33.156	24.778	316.0	0.006	6.00	102.1	2.6	0.33	0.0	0.00	0.00	0.23	0.06	2	21
10 ISL	13.87 D	13.86	33.159 D	24.794	314.7	0.032	6.00 D	102.0	2.6	0.33	0.0	0.00	0.00	0.25	0.06	10	
13 A	13.86	13.86	33.159	24.795	314.7	0.041	5.99	101.6	2.6	0.33	0.0	0.00	0.00	0.25	0.06	13	20
18 A	13.79	13.79	33.154	24.805	313.9	0.057	6.01	101.9	2.6	0.33	0.0	0.00	0.00	0.29	0.08	18	19
20 ISL	13.78 D	13.78	33.156 D	24.810	313.5	0.063	6.02 D	102.0	2.6	0.33	0.0	0.00	0.00	0.31	0.09	20	
26	13.71	13.71	33.143	24.814	313.3	0.082	6.01	101.7	2.6	0.33	0.0	0.00	0.00	0.37	0.13	26	18
30 ISL	13.68 D	13.68	33.137 D	24.815	313.3	0.095	6.01 D	101.6	2.6	0.33	0.0	0.00	0.00	0.40	0.14	30	
35 A	13.71	13.70	33.135	24.809	314.1	0.110	5.99	101.4	2.6	0.33	0.0	0.00	0.00	0.44	0.16	35	17
46	13.63	13.63	33.169	24.851	310.3	0.144	5.96	100.7	2.6	0.35	0.1	0.03	0.12	0.33	0.14	46	16
50 ISL	13.53 D	13.53	33.173 D	24.874	308.3	0.158	5.97 D	100.8	2.8	0.38	0.4	0.08	0.18	0.28	0.13	50	
54	13.31	13.30	33.165	24.914	304.5	0.169	5.90	99.1	3.0	0.40	0.7	0.13	0.23	0.23	0.12	54	15
65 A	12.23	12.22	33.092	25.067	290.2	0.202	5.83	95.7	3.9	0.51	2.2	0.30	0.09	0.13	0.10	66	14
75 A	11.83	11.82	33.124	25.169	280.7	0.230	5.60	91.0	4.9	0.64	4.6	0.06	0.00	0.10	0.10	76	13
86	10.86	10.85	33.251	25.443	254.8	0.260	4.99	79.6	9.2	0.99	10.6	0.01	0.00	0.06	0.07	87	12
100	9.88	9.87	33.314	25.660	234.3	0.294	4.82	75.3	12.2	1.13	13.3	0.01	0.00	0.03	0.04	101	11
121	9.58	9.57	33.451	25.817	219.8	0.342	4.17	64.7	18.0	1.49	19.1	0.00	0.00	0.02	0.03	122	10
125 ISL	9.53 D	9.51	33.506 D	25.869	214.9	0.352	4.08 D	63.3	18.8	1.52	19.6	0.00	0.00	0.02	0.03	126	
139	9.25	9.23	33.654 D	26.029	199.9	0.379	3.85	59.4	21.4	1.64	21.5	0.00	0.00	0.01	0.03	140	09
150 ISL	9.06 D	9.04	33.764 D	26.147	189.0	0.403	3.09 D	47.6	24.8	1.79	23.9	0.00	0.00	0.01	0.03	151	
170	8.72	8.70	33.864	26.279	176.7	0.437	2.69	41.0	31.0	2.06	28.2	0.00	0.00	0.00	0.03	171	08
200	8.42	8.40	33.955	26.397	166.1	0.489	2.66	40.3	34.5	2.09	28.5	0.00	0.00	0.00	0.03	202	07
228	8.09	8.07	33.989	26.474	159.2	0.534	2.57	38.6	38.0	2.14	29.9	0.00	0.00			230	06
250 ISL	7.62 D	7.60	33.980 D	26.535	153.5	0.572	2.86 D	42.6	41.2	2.18	30.7	0.00	0.00			252	
271	7.38	7.35	33.990	26.578	149.7	0.600	2.54	37.6	44.2	2.22	31.4	0.00	0.00			273	05
300 ISL	7.27 D	7.24	34.029 D	26.624	145.8	0.647	2.06 D	30.4	49.0	2.45	33.8	0.00	0.00			302	
321	7.29	7.26	34.099	26.677	141.2	0.673	1.37	20.2	52.4	2.61	35.6	0.00	0.00			324	04
381	6.81	6.78	34.142	26.778	132.3	0.755	0.94	13.8	61.7	2.81	38.0	0.00	0.00			384	03
400 ISL	6.64 D	6.60	34.159 D	26.815	129.0	0.785	0.83 D	12.1	64.4	2.86	38.5	0.00	0.00			403	
440	6.29	6.25	34.176	26.874	123.6	0.831	0.69	10.0	70.0	2.96	39.7	0.00	0.00			444	02
500 ISL	5.78 D	5.74	34.206 D	26.963	115.5	0.908	0.51 D	7.2	80.2	3.08	41.6	0.00	0.00			504	
515	5.57	5.53	34.197	26.982	113.7	0.919	0.49	6.9	82.8	3.11	42.1	0.00	0.00			519	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 76.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 23.4 N	124 19.5 W	10/02/2012	2118 UTC	4389 m	230 04 kn			1022.5 mb	14.2 C	14.0 C				068

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.90		13.90		33.170	24.795	314.4	0.000	6.01		102.1		2.6	0.33	0.0	0.00	0.00	0.25	0.06	0	
2		13.90		13.90		33.170	24.795	314.4	0.006	6.01		102.1		2.6	0.33	0.0	0.00	0.00	0.25	0.06	2	20
10		13.89		13.89		33.169	24.796	314.5	0.032	6.01		102.2		2.5	0.32	0.0	0.00	0.00	0.25	0.06	10	19
20		13.78		13.77		33.162	24.815	313.0	0.063	6.02		102.1		2.6	0.33	0.0	0.00	0.00	0.27	0.09	20	18
29		13.76		13.75		33.165	24.822	312.6	0.091	6.02		101.9		2.5	0.32	0.0	0.00	0.00	0.30	0.10	29	17
30	ISL	13.76	D	13.75		33.168	D 24.825	312.4	0.095	6.01	D	101.9		2.5	0.32	0.0	0.00	0.00	0.31	0.10	30	
40		13.74		13.73		33.165	24.826	312.6	0.125	6.02		101.9		2.5	0.33	0.0	0.00	0.00	0.37	0.11	40	16
50		13.52		13.52		33.158	24.866	309.1	0.157	6.00		101.2		2.7	0.34	0.1	0.02	0.00	0.52	0.17	50	15
60		13.37		13.36		33.152	24.893	306.8	0.187	6.01		101.0		2.9	0.36	0.3	0.05	0.06	0.44	0.17	60	14
70		12.77		12.76		33.137	24.999	296.8	0.218	5.84		96.9		3.8	0.48	2.0	0.22	0.03	0.35	0.18	71	13
75	ISL	12.30	D	12.23		33.139	D 25.103	287.0	0.234	5.88	D	96.6		4.8	0.59	3.8	0.16	0.02	0.28	0.15	76	
86		11.36		11.35		33.197	25.311	267.4	0.263	5.34		86.1		6.9	0.82	7.7	0.02	0.00	0.11	0.10	87	12
100		10.82		10.80		33.298	25.488	250.9	0.299	4.71		75.1		10.9	1.11	12.5	0.01	0.00	0.10	0.09	101	11
121		9.80		9.78		33.642	25.931	209.0	0.347	3.00		46.9		23.6	1.91	25.1	0.00	0.00	0.04	0.05	122	10
125	ISL	9.74	D	9.73		33.726	D 26.006	202.0	0.357	2.62	D	41.0		24.8	1.97	25.9	0.00	0.00	0.04	0.05	126	
140		9.71		9.69		33.821	26.085	194.8	0.385	2.12		33.1		29.1	2.20	29.0	0.00	0.00	0.01	0.05	141	09
150	ISL	9.57	D	9.55		33.886	D 26.160	187.9	0.406	1.91	D	29.7		30.7	2.25	29.6	0.00	0.00	0.01	0.05	151	
171		9.37		9.35		33.963	26.254	179.4	0.443	1.64		25.4		34.1	2.35	31.0	0.00	0.00	0.00	0.05	172	08
200		9.16		9.13		34.041	26.350	170.9	0.494	1.36		21.0		37.3	2.45	32.2	0.00	0.00	0.00	0.04	202	07
230		8.94		8.92		34.090	26.423	164.5	0.544	1.23		18.9		39.5	2.50	32.9	0.00	0.00			232	06
250	ISL	8.83	D	8.81		34.112	D 26.458	161.6	0.580	1.19	D	18.2		41.2	2.53	33.2	0.00	0.00			252	
270		8.62		8.59		34.134	26.509	157.1	0.609	1.10		16.7		42.9	2.56	33.5	0.00	0.00			272	05
300	ISL	8.35	D	8.32		34.159	D 26.570	151.7	0.658	1.04	D	15.8		46.3	2.63	34.3	0.00	0.00			302	
320		8.15		8.12		34.166	26.606	148.6	0.685	0.98		14.7		48.5	2.67	34.8	0.00	0.00			323	04
380		7.52		7.48		34.162	26.697	140.6	0.772	0.92		13.6		54.2	2.76	36.5	0.00	0.00			383	03
400	ISL	7.34	D	7.31		34.179	D 26.735	137.2	0.804	0.83	D	12.2		57.3	2.81	37.1	0.00	0.00			403	
439		6.96		6.92		34.199	26.805	130.9	0.852	0.67		9.9		63.3	2.91	38.3	0.00	0.00			443	02
500	ISL	6.38	D	6.33		34.211	D 26.892	123.0	0.935	0.54	D	7.8		72.2	3.02	40.1	0.00	0.00			504	
515		6.16		6.11		34.195	26.908	121.4	0.948	0.54		7.8		74.4	3.05	40.5	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 80.0 50.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 27.4 N	120 29.5 W	09/02/2012	0506 UTC	32 m	280 09 kn	270 06 06	0	1017.5 mb	17.0 C	14.4 C		0/8		060

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.66		13.65		33.389	25.014	293.5	0.000	6.23		105.6		2.6	0.57	1.4	0.10	0.63	1.10	0.78	0	
2		13.66		13.65		33.389	25.014	293.5	0.006	6.23		105.6		2.6	0.57	1.4	0.10	0.63	1.10	0.78	2	06
5		13.64		13.64		33.390	25.019	293.1	0.015	6.26		106.0		2.6	0.59	1.5	0.11	0.67	1.04	0.80	5	05
10	ISL	13.57	D	13.57		33.390	D 25.032	292.1	0.030	6.12	D	103.4		2.4	0.53	1.4	0.09	0.55	1.13	0.74	10	
10		13.57		13.57		33.388	25.030	292.2	0.030												10	04
11		13.56		13.55		33.388	25.035	291.8	0.032	6.11		103.3		2.4	0.52	1.4	0.08	0.53	1.15	0.73	11	03
14		13.55		13.55		33.390	25.037	291.7	0.041	6.09		103.0		2.5	0.55	1.6	0.08	0.54	1.20	0.75	14	02
20	ISL	13.51	D	13.51		33.392	D 25.047	290.9	0.059	6.03	D	101.8		2.5	0.55	1.7	0.07	0.52	1.25	0.79	20	
21		13.50		13.49		33.392	25.050	290.6	0.061	6.04		102.0		2.5	0.55	1.7	0.07	0.52	1.26	0.79	21	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 80.0 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 26.9 N	120 31.8 W	09/02/2012	0607 UTC	79 m	310 19 kn	280 04 05	0	1017.2 mb	16.3 C	13.3 C	09 m	0/8		061

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.73		13.73		33.385	24.996	295.3	0.000	6.19		105.0		0.8	0.37	0.3	0.05	0.24	1.26	0.32	0	
2		13.73		13.73		33.385	24.996	295.3	0.006	6.19		105.0		0.8	0.37	0.3	0.05	0.24	1.26	0.32	2	10
5		13.74		13.74		33.386	24.995	295.4	0.015	6.18		104.8		0.8	0.38	0.3	0.02	0.24	1.27	0.34	5	09
9		13.66		13.66		33.387	25.012	293.9	0.027	6.20		104.9		0.9	0.40	0.4	0.02	0.25	1.17	0.33	9	07
9		13.66		13.66		33.387	25.012	293.9	0.028												9	08
10	ISL	13.50	D	13.54		33.398	D 25.044	290.9	0.030	6.09	D	103.0		1.8	0.47	1.4	0.04	0.26	1.13	0.35	10	
20		12.14		12.14		33.428	25.343	262.7	0.057	4.32		70.8		11.0	1.13	11.2	0.23	0.39	0.82	0.55	20	06
30		11.99		11.98		33.429	25.374	260.1	0.083	4.13		67.5		12.1	1.22	12.4	0.28	0.31	0.83	0.60	30	05
41		11.52		11.52		33.431	25.462	251.9	0.111	4.02		65.1		12.2	1.29	13.8	0.20	0.19	0.85	0.54	41	04
50	ISL	11.39	D	11.39		33.458	D 25.507	247.9	0.135	3.68	D	59.4		14.5	1.42	16.5	0.14	0.06	1.01	0.74	50	
51		11.28		11.28		33.483	25.546	244.1	0.136	3.70		59.7		14.8	1.43	16.8	0.13	0.05	1.03	0.76	51	03
62		10.24		10.23		33.681	25.884	212.2	0.162	2.95		46.5		23.0	1.79	22.0	0.10	0.00	0.53	0.54	63	02
73		10.06		10.05		33.760	25.978	203.6	0.184	2.68		42.1		26.0	1.92	24.0	0.06	0.00	0.54	0.56	74	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 80.0 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 19.0 N	120 48.3 W	09/02/2012	0921 UTC	768 m	340 17 kn	320 04 07	0	1018.0 mb	14.3 C	12.2 C		0/8		062

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	12.64	12.64	33.433	25.251	270.9	0.000	6.43	106.6	1.7	0.47	2.2	0.09	0.29	3.90	0.53	0	
1	12.64	12.64	33.433	25.251	270.9	0.003	6.43	106.6	1.7	0.47	2.2	0.09	0.29	3.90	0.53	1	21
10	12.63	12.63	33.430	25.250	271.3	0.027										10	20
10	12.63	12.63	33.430	25.250	271.3	0.027	6.43	106.7	1.6	0.50	2.2	0.09	0.30	3.86	0.79	10	19
20	12.52	12.52	33.431	25.273	269.4	0.054	6.39	105.7	1.7	0.52	2.4	0.09	0.32	3.87	0.79	20	18
30	12.49	12.49	33.436	25.283	268.7	0.081	6.29	103.9	1.7	0.56	2.4	0.09	0.50	4.04	0.79	30	17
40	12.26	12.25	33.454	25.343	263.3	0.108	5.73	94.2	4.8	0.82	5.2	0.12	0.82	4.29	1.20	40	16
50	11.01	11.00	33.540	25.641	235.1	0.133	4.18	67.0	14.7	1.41	15.5	0.19	0.32	3.06	1.27	50	15
60	10.64	10.63	33.575	25.733	226.6	0.156	3.79	60.3	17.7	1.56	18.2	0.15	0.06	1.99	0.93	60	14
70	10.41	10.40	33.605	25.797	220.7	0.178	3.56	56.3	19.4	1.63	19.9	0.10	0.00	1.20	0.80	71	13
75 ISL	10.14 D	10.13 D	33.631 D	25.863	214.5	0.190	3.39 D	53.3	20.6	1.70	21.0	0.08	0.00	0.97	0.74	76	
85	9.95	9.94	33.677	25.931	208.3	0.210	3.20	50.1	23.0	1.83	23.1	0.04	0.00	0.51	0.60	86	12
100	9.68	9.66	33.753	26.036	198.6	0.241	2.95	45.9	25.6	1.90	24.4	0.03	0.00	0.28	0.38	101	11
120	9.42	9.41	33.816	26.128	190.2	0.279	2.81	43.6	27.6	2.00	25.7	0.02	0.00	0.23	0.40	121	10
125 ISL	9.40 D	9.38	33.825 D	26.139	189.3	0.291	2.79 D	43.2	28.1	2.02	26.0	0.02	0.00	0.20	0.37	126	
140	9.20	9.18	33.895	26.227	181.2	0.317	2.65	41.0	29.7	2.07	26.8	0.01	0.00	0.11	0.26	141	09
150 ISL	9.14 D	9.13	33.966 D	26.291	175.3	0.337	2.22 D	34.3	31.7	2.14	27.7	0.01	0.00	0.09	0.22	151	
170	8.82	8.81	34.007	26.374	167.8	0.369	2.09	32.0	35.6	2.28	29.6	0.01	0.00	0.04	0.15	171	08
200	8.73	8.71	34.086	26.452	161.0	0.418	1.76	26.9	38.5	2.35	30.6	0.00	0.00	0.03	0.16	202	07
231	8.23	8.21	34.120	26.556	151.6	0.467	1.52	23.0	43.3	2.49	32.5	0.00	0.00			233	06
250 ISL	8.14 D	8.12	34.137 D	26.583	149.4	0.499	1.39 D	21.0	45.4	2.55	33.1	0.00	0.00			252	
270	8.05	8.02	34.168	26.622	146.0	0.525	1.23	18.5	47.5	2.61	33.8	0.00	0.00			272	05
300 ISL	7.69 D	7.67	34.175 D	26.680	140.9	0.572	1.10 D	16.5	51.2	2.68	34.7	0.00	0.00			302	
320	7.59	7.56	34.184	26.702	139.1	0.596	1.03	15.3	53.6	2.72	35.3	0.00	0.00			323	04
380	7.18	7.14	34.210	26.782	132.2	0.677	0.79	11.6	59.4	2.82	37.1	0.00	0.00			383	03
400 ISL	7.08 D	7.04	34.228 D	26.810	129.9	0.709	0.67 D	9.9	61.8	2.87	37.6	0.00	0.00			403	
440	6.76	6.72	34.247	26.869	124.6	0.754	0.54	7.9	66.6	2.98	38.5	0.00	0.00			444	02
500 ISL	6.36 D	6.31	34.275 D	26.945	118.0	0.834	0.39 D	5.7	72.8	3.07	39.8	0.00	0.00			504	
515	6.31	6.27	34.278	26.954	117.3	0.845	0.39	5.6	74.4	3.09	40.1	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 80.0 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 8.9 N	121 9.2 W	09/02/2012	1422 UTC	2186 m	350 08 kn			1020.8 mb	13.8 C	12.3 C				063

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	12.73	12.73	33.407	25.214	274.5	0.000	6.16	102.4	1.9	0.60	2.1	0.10	1.05	0.22	0.16	0	
3	12.73	12.73	33.407	25.214	274.5	0.008	6.16	102.4	1.9	0.60	2.1	0.10	1.05	0.22	0.16	3	21
9	12.73	12.73	33.407	25.213	274.7	0.026										9	20
10	12.72	12.72	33.407	25.214	274.7	0.027	6.16	102.3	1.9	0.61	2.1	0.10	1.21	0.23	0.23	10	19
20 ISL	12.69 D	12.69	33.406 D	25.220	274.4	0.055	6.20 D	102.9	1.7	0.58	2.0	0.09	1.07	0.40	0.44	20	
25	12.65	12.64	33.407	25.230	273.6	0.069	6.24	103.4	1.6	0.56	2.0	0.09	1.00	0.48	0.55	25	18
30 ISL	12.64 D	12.63	33.407 D	25.232	273.5	0.083	6.20 D	102.8	2.8	0.66	3.1	0.12	1.16	0.51	0.58	30	
40	12.44	12.44	33.432	25.290	268.3	0.109	5.72	94.4	5.2	0.85	5.3	0.18	1.49	0.56	0.64	40	17
50	11.89	11.88	33.448	25.407	257.4	0.136	5.16	84.2	8.3	1.05	8.4	0.24	1.34	0.42	1.06	50	16
62	10.59	10.58	33.580	25.745	225.5	0.165	3.73	59.2	17.2	1.53	17.7	0.29	0.47	0.61	1.53	63	15
74	9.79	9.78	33.692	25.968	204.4	0.190	3.10	48.5	23.3	1.82	23.3	0.07	0.00	0.61	0.70	75	14
75 ISL	9.75 D	9.74	33.729 D	26.004	201.0	0.194	3.02 D	47.2	23.6	1.83	23.4	0.07	0.00	0.60	0.69	76	
87	9.54	9.53	33.787	26.084	193.6	0.216	2.86	44.4	26.5	1.96	25.1	0.05	0.00	0.46	0.61	88	13
100	9.28	9.27	33.876	26.197	183.2	0.241	2.77	42.8	28.5	2.00	26.3	0.03	0.00	0.29	0.64	101	12
112	9.24	9.22	33.894	26.218	181.4	0.263	2.73	42.1	28.9	2.01	26.5	0.03	0.00	0.31	0.46	113	11
125	9.04	9.02	33.951	26.296	174.3	0.286	2.60	39.9	31.0	2.07	27.6	0.02	0.00	0.28	0.76	126	10
140	8.93	8.92	33.968	26.325	171.8	0.312	2.51	38.5	32.2	2.11	28.1	0.02	0.00	0.15	0.32	141	09
150 ISL	8.87 D	8.85	33.999 D	26.360	168.7	0.330	2.42 D	37.2	33.4	2.15	28.6	0.01	0.00	0.14	0.34	151	
171	8.66	8.64	34.043	26.429	162.6	0.363	2.21	33.7	36.0	2.23	29.6	0.00	0.00	0.14	0.36	172	08
200	8.19	8.17	34.071	26.523	154.1	0.409	1.89	28.6	41.5	2.37	31.4	0.00	0.00	0.09	0.26	202	07
230	7.86	7.84	34.104	26.598	147.4	0.455	1.58	23.7	46.2	2.51	33.5	0.00	0.00			232	06
250 ISL	7.71 D	7.67	34.127 D	26.640	143.7	0.487	1.34 D	20.0	49.4	2.60	34.5	0.00	0.00			252	
270	7.45	7.43	34.138	26.684	139.7	0.512	1.21	18.0	52.5	2.68	35.5	0.00	0.00			272	05
300 ISL	7.13 D	7.10	34.149 D	26.739	134.9	0.557	1.04 D	15.3	56.6	2.76	36.7	0.00	0.00			302	
320	6.97	6.94	34.150	26.761	133.0	0.580	0.97	14.3	59.4	2.81	37.5	0.00	0.00			323	04
380	6.50	6.46	34.167	26.839	126.2	0.658	0.78	11.3	65.9	2.93	39.1	0.00	0.00			383	03
400 ISL	6.40 D	6.35	34.171 D	26.858	124.7	0.688	0.74 D	10.7	68.2	2.97	39.5	0.00	0.00			403	
441	6.20	6.16	34.209	26.913	119.9	0.733	0.55	7.9	72.8	3.06	40.4	0.00	0.00			445	02
500 ISL	6.17 D	6.13	34.278 D	26.972	115.3	0.808	0.37 D	5.3	77.1	3.12	41.0	0.00	0.00			504	
515	6.02	5.98	34.267	26.982	114.3	0.820	0.37	5.3	78.2	3.14	41.1	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 80.0 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 49.0 N	121 50.7 W	09/02/2012	2035 UTC	3633 m	340 08 kn			1021.5 mb	13.0 C	12.5 C				064

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.05		13.05	33.007	24.841	310.0	0.000	6.11		101.9		3.2	0.35	0.2	0.02	0.00	0.32	0.08	0	
2		13.05		13.05	33.007	24.841	310.0	0.006	6.11		101.9		3.2	0.35	0.2	0.02	0.00	0.32	0.08	2	20
10		13.05		13.05	33.006	24.839	310.4	0.031	6.11		101.9		3.1	0.35	0.1	0.02	0.05	0.33	0.13	10	19
19		13.01		13.01	33.042	24.876	307.2	0.059	6.10		101.8		3.2	0.36	0.4	0.04	0.13	0.29	0.09	19	18
20	ISL	13.01	D	13.01	33.046	D 24.879	306.9	0.062	6.10	D	101.7		3.2	0.36	0.4	0.04	0.13	0.31	0.10	20	
30		13.15		13.15	33.109	24.900	305.1	0.093	6.07		101.6		3.2	0.37	0.3	0.05	0.11	0.45	0.15	30	17
40		13.17		13.16	33.121	24.907	304.8	0.123	6.06		101.4		3.1	0.37	0.4	0.05	0.16	0.29	0.16	40	16
50	ISL	12.87	D	12.87	33.111	D 24.958	300.2	0.154	5.98	D	99.4		3.4	0.42	0.9	0.11	0.25	0.20	0.14	50	
51		12.73		12.73	33.119	24.991	297.0	0.156	6.01		99.6		3.4	0.42	0.9	0.12	0.26	0.19	0.14	51	15
60		12.25		12.24	33.079	25.053	291.3	0.183	5.96		97.8		4.2	0.52	2.2	0.27	0.29	0.19	0.14	60	14
70		12.09		12.08	33.146	25.137	283.6	0.211	5.89		96.4		4.7	0.59	3.4	0.37	0.00	0.12	0.13	71	13
75	ISL	12.03	D	12.01	33.176	D 25.174	280.3	0.227	5.93	D	96.8		4.9	0.61	3.7	0.38	0.00	0.11	0.12	76	
86		11.84		11.83	33.223	25.244	273.9	0.256	5.83		95.0		5.3	0.65	4.3	0.40	0.00	0.09	0.10	87	12
100	ISL	10.75	D	10.70	33.213	D 25.440	255.4	0.295	5.31	D	84.4		8.4	0.90	9.0	0.03	0.00	0.06	0.08	101	
101		10.68		10.66	33.208	25.442	255.2	0.296	5.26		83.5		8.6	0.92	9.3	0.00	0.00	0.06	0.08	102	11
121		9.67		9.66	33.363	25.734	227.7	0.344	4.44		69.0		16.4	1.41	17.5	0.00	0.00	0.03	0.05	122	10
125	ISL	9.46	D	9.42	33.453	D 25.842	217.5	0.355	4.31	D	66.8		17.5	1.46	18.4	0.00	0.00	0.03	0.05	126	
140		9.19		9.18	33.589	25.988	203.9	0.385	3.85		59.3		21.4	1.64	21.6	0.00	0.00	0.01	0.04	141	09
150	ISL	8.90	D	8.89	33.763	D 26.170	186.7	0.406	3.59	D	54.9		24.0	1.73	23.1	0.00	0.00	0.01	0.04	151	
170		8.68		8.67	33.836	26.262	178.3	0.441	3.16		48.2		29.2	1.91	26.1	0.00	0.00	0.00	0.03	171	08
200		8.26		8.24	33.993	26.451	160.9	0.491	2.34		35.4		37.0	2.21	30.3	0.00	0.00	0.00	0.03	202	07
230		7.94		7.92	34.045	26.540	152.9	0.539	1.92		28.8		42.7	2.37	32.4	0.00	0.00			232	06
250	ISL	7.74	D	7.71	34.074	D 26.593	148.2	0.571	1.64	D	24.6		45.8	2.46	33.4	0.00	0.00			252	
270		7.59		7.57	34.091	26.627	145.2	0.598	1.48		22.1		48.8	2.55	34.4	0.00	0.00			272	05
300	ISL	7.33	D	7.30	34.114	D 26.683	140.3	0.644	1.29	D	19.0		52.8	2.65	35.1	0.00	0.00			302	
320		7.19		7.16	34.126	26.713	137.7	0.669	1.13		16.7		55.5	2.72	35.6	0.00	0.00			323	04
380		6.65		6.62	34.171	26.823	127.9	0.748	0.75		10.9		65.4	2.91	37.9	0.00	0.00			383	03
400	ISL	6.49	D	6.46	34.183	D 26.853	125.2	0.778	0.67	D	9.8		68.1	2.96	38.4	0.00	0.00			403	
440		6.18		6.14	34.210	26.916	119.6	0.823	0.52		7.5		73.4	3.05	39.4	0.00	0.00			444	02
500	ISL	5.80	D	5.75	34.231	D 26.981	113.9	0.898	0.41	D	5.8		80.6	3.13	40.7	0.00	0.00			504	
515		5.71		5.66	34.238	26.997	112.4	0.910	0.38		5.4		82.4	3.15	41.0	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 80.0 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 29.3 N	122 33.1 W	10/02/2012	0258 UTC	3984 m	350 07 kn	350 04 07	2	1023.6 mb	11.9 C	11.5 C	15 m	8/8	SC	065

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.01		13.00	32.944	24.800	313.9	0.000	6.16		102.7		3.1	0.34	0.1	0.02	0.00	0.34	0.08	0	
3	A	13.01		13.00	32.944	24.800	313.9	0.009	6.16		102.7		3.1	0.34	0.1	0.02	0.00	0.34	0.08	3	22
10	A	12.98		12.98	32.940	24.803	313.8	0.031	6.14		102.3		3.0	0.34	0.1	0.02	0.00	0.36	0.10	10	21
14	A	12.97		12.97	32.942	24.806	313.6	0.044	6.15		102.3		3.1	0.34	0.1	0.02	0.06	0.35	0.09	14	20
20		12.96		12.96	32.940	24.807	313.7	0.063	6.14		102.2		3.0	0.33	0.1	0.02	0.00	0.36	0.08	20	19
27	A	12.88		12.88	32.935	24.819	312.8	0.085	6.14		102.0		3.2	0.34	0.1	0.02	0.00	0.44	0.09	27	18
30	ISL	12.79	D	12.78	32.947	D 24.847	310.2	0.095	6.17	D	102.4		3.3	0.35	0.2	0.03	0.00	0.45	0.10	30	
39		12.74		12.73	32.973	24.876	307.6	0.122	6.15		102.0		3.5	0.36	0.5	0.05	0.00	0.48	0.13	39	17
50	ISL	12.77	D	12.77	33.062	D 24.939	302.0	0.156	6.12	D	101.6		3.6	0.39	0.8	0.06	0.05	0.46	0.14	50	
52	A	12.73		12.73	33.059	24.945	301.5	0.161	6.13		101.6		3.6	0.39	0.8	0.06	0.06	0.46	0.14	52	16
57	A	12.51		12.50	33.065	24.994	296.9	0.176	6.09		100.5		3.8	0.42	1.2	0.11	0.12	0.38	0.15	57	15
64		12.33		12.33	33.077	25.037	293.1	0.197	5.95		97.7		4.2	0.49	2.2	0.22	0.09	0.25	0.14	65	14
70		12.29		12.28	33.200	25.140	283.4	0.214	5.62		92.4		5.1	0.63	4.5	0.17	0.00	0.14	0.11	71	13
75	ISL	11.88	D	11.87	33.188	D 25.210	276.9	0.229	5.65	D	92.1		5.9	0.70	5.7	0.13	0.00	0.13	0.11	76	
86		11.20		11.19	33.203	25.344	264.2	0.258	5.34		85.7		7.5	0.85	8.2	0.05	0.00	0.10	0.11	87	12
100		10.35		10.34	33.396	25.645	235.8	0.293	4.20		66.3		15.0	1.38	17.0	0.03	0.00	0.08	0.12	101	11
120		9.91		9.90	33.566	25.852	216.6	0.338	3.60		56.4		20.1	1.63	21.3	0.00	0.00	0.03	0.10	121	10
125	ISL	9.84	D	9.82	33.635	D 25.919	210.3	0.351	3.46	D	54.0		21.7	1.69	22.3	0.00	0.00	0.03	0.10	126	
141		9.37		9.35	33.785	26.114	192.1	0.381	2.96		45.8		26.8	1.90	25.5	0.00	0.00	0.01	0.07	142	09
150	ISL	9.32	D	9.30	33.867	D 26.186	185.4	0.401	2.73	D	42.2		28.5	1.96	26.3	0.00	0.00	0.01	0.07	151	
171		9.04		9.03	33.954	26.298	175.1	0.436	2.38		36.6		32.5	2.10	28.1	0.00	0.00	0.01	0.06	172	08
200		8.62		8.60	34.018	26.416	164.4	0.485	2.18		33.2		36.6	2.20	29.9	0.00	0.00	0.00	0.07	202	07
232		8.38		8.36	34.093	26.512	155.9	0.536	1.70		25.8		41.6	2.37	31.7	0.00	0.00			234	06
250	ISL	8.14	D	8.11	34.108	D 26.562	151.4	0.568	1.64	D	24.7		45.0	2.45	32.7	0.00	0.00			252	
270		7.84		7.81	34.138	26.629	145.2	0.594	1.37		20.5		48.7	2.54	33.9	0.00	0.00			272	05
300	ISL	7.70	D	7.67	34.178	D 26.682	140.7	0.641	1.05	D	15.8		52.5	2.66	35.1	0.00	0.00			302	
321		7.52		7.49	34.195	26.721	137.3	0.666	0.88		13.1		55.1	2.74	35.9	0.00	0.00			324	04
383		6.88		6.85	34.192	26.808	129.5	0.749	0.74		10.9		63.3	2.89	38.0	0.00	0.00			386	03
400	ISL	6.65	D	6.61	34.183	D 26.833	127.3	0.776	0.74	D	10.8		65.5	2.91	38.5	0.00	0.00			403	
440		6.40		6.36	34.205	26.884	122.9	0.820	0.61		8.8		70.6	2.97	39.6	0.00	0.00			444	02
500	ISL	5.95	D	5.91	34.222	D 26.955	116.5	0.899	0.50	D	7.1		76.8	3.08	40.8	0.00	0.00			504	
514		5.90		5.85	34.232	26.970	115.3	0.908	0.45		6.4		78.3	3.10	41.1	0.00	0.00			518	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 80.0 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 8.8 N	123 13.9 W	10/02/2012	0904 UTC	4231 m	320 11 kn	300 06 08	1	1022.7 mb	12.0 C	11.2 C		7/8	SC	066

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	13.31	13.31	33.097	24.857	308.5	0.000	6.13	102.9	3.1	0.36	0.3	0.03	0.00	0.32	0.08	0	
2	13.31	13.31	33.097	24.857	308.5	0.006	6.13	102.9	3.1	0.36	0.3	0.03	0.00	0.32	0.08	2	24
10	13.31	13.30	33.097	24.859	308.5	0.031	6.16	103.3	3.1	0.35	0.2	0.03	0.00	0.32	0.07	10	23
20	13.20	13.19	33.109	24.891	305.7	0.062	6.15	103.0	3.1	0.36	0.3	0.03	0.00	0.39	0.09	20	22
30	13.16	13.15	33.125	24.911	304.1	0.092	6.18	103.5	3.2	0.33	0.2	0.03	0.00	0.53	0.12	30	21
40	13.11	13.11	33.131	24.926	303.0	0.123	6.15	102.8	3.2	0.34	0.3	0.04	0.00	0.56	0.14	40	20
50	13.11	13.10	33.135	24.930	302.9	0.153	6.12	102.4	3.2	0.34	0.3	0.04	0.00	0.61	0.16	50	19
60	13.08	13.07	33.155	24.952	301.1	0.183	6.08	101.6	3.2	0.36	0.5	0.06	0.07	0.45	0.16	60	18
70	12.46	12.45	33.170	25.084	288.7	0.213	5.77	95.2	4.6	0.56	3.4	0.30	0.00	0.20	0.13	71	17
75 ISL	12.18 D	12.13	33.335 D	25.274	270.7	0.227	5.25 D	86.0	6.7	0.74	6.5	0.21	0.00	0.16	0.13	76	
85	11.16	11.15	33.345	25.463	252.9	0.253	4.64	74.6	10.8	1.11	12.6	0.04	0.00	0.07	0.12	86	16
100	10.14	10.13	33.477	25.744	226.4	0.289	3.89	61.1	17.4	1.51	19.2	0.02	0.00	0.04	0.11	101	15
121	9.71	9.70	33.694	25.985	203.9	0.334	3.14	48.9	23.8	1.80	23.6	0.01	0.00	0.02	0.10	122	14
125 ISL	9.67 D	9.66	33.731 D	26.022	200.5	0.343	3.01 D	46.9	24.6	1.83	24.0	0.01	0.00	0.02	0.09	126	
141	9.42	9.40	33.822	26.134	190.1	0.373	2.74 D	42.5	27.8	1.96	25.8	0.01	0.00	0.01	0.07	142	13
150 ISL	9.31 D	9.28	33.863 D	26.186	185.4	0.392	2.63 D	40.6	29.0	2.00	26.5	0.01	0.00	0.01	0.07	151	
170	9.02	9.01	33.923	26.277	177.1	0.426	2.47	37.9	31.7	2.08	27.9	0.01	0.00	0.01	0.07	171	12
200	8.40	8.38	33.976	26.416	164.3	0.478	2.46	37.3	35.5	2.15	29.5	0.00	0.00	0.00	0.04	202	11
231	7.84	7.81	33.993	26.514	155.3	0.527	2.50	37.5	39.4	2.18	30.4	0.00	0.00			233	10
250 ISL	7.62 D	7.60	34.011 D	26.559	151.2	0.559	2.31 D	34.4	42.3	2.27	31.5	0.00	0.00			252	
270	7.53	7.50	34.025	26.584	149.2	0.586	2.10	31.2	45.3	2.36	32.6	0.00	0.00			272	08
300 ISL	7.42 D	7.39	34.080 D	26.644	144.1	0.634	1.60 D	23.7	50.0	2.54	34.5	0.00	0.00			302	
320	7.34	7.31	34.115	26.683	140.7	0.659	1.25	18.4	53.2	2.66	35.7	0.00	0.00			323	07
380	6.63	6.60	34.121	26.786	131.4	0.740	1.00	14.5	62.6	2.81	38.1	0.00	0.00			383	06
400 ISL	6.49 D	6.45	34.154 D	26.831	127.3	0.771	0.76 D	11.0	65.4	2.87	38.7	0.00	0.00			403	
441	6.24	6.20	34.185	26.889	122.2	0.817	0.64	9.2	71.2	2.99	39.9	0.00	0.00			445	05
500 ISL	5.87 D	5.83	34.237 D	26.977	114.3	0.893	0.40 D	5.8	80.1	3.12	41.3	0.00	0.00			504	
515	5.71	5.66	34.231	26.993	112.9	0.904	0.39	5.6	82.3	3.15	41.7	0.00	0.00			519	04
600 ISL	5.24 D	5.19	34.291 D	27.097	103.6	1.003	0.23 D	3.3	90.4	3.21	42.7	0.00	0.00			605	
700 ISL	4.92 D	4.87	34.354 D	27.184	96.1	1.104	0.21 D	2.9	99.8	3.28	43.9	0.00	0.00			706	
725	4.83	4.77	34.369	27.208	94.1	1.120	0.22	3.0	102.2	3.30	44.2	0.00	0.00			731	03
800 ISL	4.54 D	4.48	34.406 D	27.270	88.6	1.197	0.27 D	3.7	108.3	3.31	44.7	0.00	0.00			807	
851	4.35	4.28	34.433	27.312	84.8	1.233	0.33	4.5	112.5	3.31	45.0	0.00	0.00			859	02
900 ISL	4.20 D	4.13	34.448 D	27.341	82.3	1.283	0.37 D	5.1	116.1	3.31	45.1	0.00	0.00			908	
1000	3.87	3.80	34.467	27.391	77.9	1.354	0.45	6.2	123.3	3.30	45.3	0.00	0.00			1010	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 80.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 48.8 N	123 54.8 W	10/02/2012	1508 UTC	4346 m	300 10 kn			1023.7 mb	13.8 C	12.9 C				067

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	13.60	13.60	33.106	24.806	313.3	0.000	6.08	102.7	2.8	0.33	0.0	0.00	0.00	0.35	0.02	0	
2	13.60	13.60	33.106	24.806	313.3	0.006	6.08	102.7	2.8	0.33	0.0	0.00	0.00	0.35	0.02	2	20
10	13.68	13.68	33.131	24.809	313.2	0.031	6.06	102.6	2.7	0.33	0.0	0.00	0.00	0.31	0.03	10	19
20	13.60	13.60	33.134	24.830	311.6	0.063	6.07	102.4	2.7	0.33	0.0	0.00	0.00	0.31	0.09	20	18
30	13.60	13.59	33.149	24.842	310.7	0.094	6.06	102.3	2.7	0.33	0.0	0.00	0.00	0.37	0.11	30	17
40	13.57	13.56	33.154	24.852	310.1	0.125	6.05	102.1	2.6	0.33	0.0	0.01	0.00	0.47	0.14	40	16
50	13.49	13.48	33.162	24.875	308.2	0.156	6.04	101.8	2.8	0.35	0.1	0.04	0.03	0.41	0.15	50	15
60	12.66	12.66	33.133	25.016	295.0	0.186	5.88	97.4	3.6	0.47	1.7	0.23	0.10	0.26	0.15	60	14
70	11.97	11.96	33.130	25.147	282.7	0.215	5.67	92.6	4.8	0.61	4.1	0.14	0.00	0.16	0.13	71	13
75 ISL	11.75 D	11.73	33.151 D	25.206	277.1	0.230	5.65 D	91.8	5.4	0.67	5.2	0.10	0.00	0.14	0.12	76	
85	11.17	11.16	33.168	25.323	266.2	0.256	5.45	87.5	6.6	0.80	7.4	0.01	0.00	0.10	0.10	86	12
100	10.49	10.48	33.229	25.490	250.6	0.295	5.04	79.7	9.6	1.01	11.1	0.01	0.00	0.05	0.07	101	11
120	9.86	9.85	33.466	25.782	223.2	0.342	4.17	65.1	16.8	1.43	18.3	0.01	0.00	0.03	0.04	121	10
125 ISL	9.80 D	9.78	33.523 D	25.837	218.0	0.355	3.94 D	61.5	18.7	1.52	19.8	0.01	0.00	0.02	0.04	126	
140	9.28	9.27	33.704	26.064	196.7	0.384	3.36	51.9	24.4	1.79	24.1	0.00	0.00	0.01	0.03	141	09
150 ISL	9.14 D	9.12	33.765 D	26.134	190.2	0.406	3.33 D	51.3	25.7	1.82	24.7	0.00	0.00	0.01	0.03	151	
170	8.86	8.84	33.844	26.241	180.4	0.441	3.22	49.2	28.4	1.88	25.8	0.00	0.00	0.00	0.03	171	08
200	8.54	8.52	33.963	26.385	167.2	0.493	2.55	38.8	34.3	2.10	28.9	0.00	0.00	0.00	0.03	202	07
230	8.22	8.19	34.036	26.491	157.7	0.541	2.02	30.4	39.7	2.31	31.5	0.00	0.00			232	06
250 ISL	7.95 D	7.93	34.064 D	26.553	152.0	0.576	1.73 D	26.0	43.2	2.43	32.8	0.00	0.00			252	
270	8.00	7.98	34.125	26.594	148.6	0.603	1.27	19.0	46.7	2.55	34.0	0.00	0.00			272	05
300 ISL	7.68 D	7.65	34.137 D	26.652	143.5	0.650	1.13 D	16.9	50.8	2.63	35.3	0.00	0.00			302	
320	7.34	7.30	34.116	26.685	140.5	0.675	1.20	17.8	53.6	2.68	36.1	0.00	0.00			323	04
380	6.62	6.59	34.130	26.794	130.5	0.756	0.88	12.9	63.8	2.87	38.9	0.00	0.00			383	03
400 ISL	6.56 D	6.52	34.158 D	26.825	127.9	0.787	0.78 D	11.3	66.1	2.91	39.3	0.00	0.00			403	
441	6.25	6.21	34.176	26.879	123.1	0.833	0.63	9.0	70.7	3.00	40.2	0.00	0.00			445	02
500 ISL	5.83 D	5.79	34.215 D	26.965	115.5	0.910	0.45 D	6.5	78.7	3.11	41.5	0.00	0.00			504	
516	5.83	5.78	34.231	26.978	114.5	0.922	0.39	5.6	80.8	3.14	41.8	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 81.7 43.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 24.3 N	119 48.2 W	08/02/2012	2129 UTC	19 m	010 02 kn			1016.6 mb	11.1 C	9.9 C				058

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	13.96	13.95	33.377	24.943	300.2	0.000	6.12	104.2	1.0	0.36	0.2	0.04	0.34	1.44	0.39	0	
1	13.96	13.95	33.377	24.943	300.2	0.003	6.12	104.2	1.0	0.36	0.2	0.04	0.34	1.44	0.39	1	03
5	13.97	13.97	33.380	24.942	300.5	0.015	6.11	104.1	1.1	0.34	0.2	0.04	0.35	1.44	0.40	5	02
10	13.96	13.96	33.386	24.949	299.9	0.030	6.13	104.5	0.9	0.33	0.2	0.04	0.34	1.64	0.26	10	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 81.8 46.9

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 16.8 N	120 1.4 W	09/02/2012	0128 UTC	585 m	200 05 kn	190 01 07	0	1018.3 mb	14.1 C	13.2 C	12 m	0/8		059

DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.03	13.03	33.430	25.171	278.5	0.000	6.06	101.3	2.8	0.54	2.4	0.08	0.49	2.97	0.68	0	
1	A	13.03	13.03	33.430	25.171	278.5	0.003	6.06	101.3	2.8	0.54	2.4	0.08	0.49	2.97	0.68	1	24
8	A	12.85	12.85	33.430	25.208	275.2	0.022	6.07	101.1	2.8	0.55	2.4	0.09	0.49	3.90	1.07	8	23
10	ISL	12.84 D	12.84	33.432 D	25.211	275.0	0.028	6.02 D	100.2	2.7	0.58	2.4	0.08	0.53	3.69	0.99	10	
11	A	12.84	12.84	33.430	25.209	275.2	0.031	6.04	100.5	2.7	0.59	2.4	0.08	0.55	3.59	0.95	11	22
20	ISL	12.80 D	12.79	33.436 D	25.223	274.1	0.056	5.98 D	99.6	2.7	0.58	2.6	0.08	0.57	3.87	1.00	20	
22	A	12.79	12.79	33.438	25.226	273.9	0.061	6.01	100.1	2.7	0.58	2.6	0.08	0.57	3.93	1.01	22	21
30	ISL	12.78 D	12.78	33.439 D	25.229	273.8	0.083	5.99 D	99.6	2.7	0.60	2.7	0.08	0.64	3.89	0.92	30	
31		12.77	12.76	33.442	25.234	273.5	0.085	6.01	100.0	2.7	0.60	2.7	0.08	0.65	3.88	0.91	31	20
41	A	12.21	12.20	33.474	25.368	260.9	0.112	5.57	91.5	5.3	0.78	5.4	0.12	1.00	3.04	1.30	41	19
48	A	11.95	11.95	33.506	25.441	254.2	0.130	4.83	79.0	10.0	1.06	9.5	0.16	1.05	1.58	1.01	48	18
50	ISL	11.86 D	11.85	33.519 D	25.468	251.7	0.136	4.78 D	78.0	10.8	1.12	10.4	0.17	0.99	1.57	1.00	50	
58		11.31	11.30	33.547	25.592	240.0	0.155	4.21	68.0	14.0	1.34	14.0	0.22	0.74	1.54	0.98	58	17
70		10.65	10.64	33.607	25.756	224.6	0.183	3.26	51.8	19.0	1.65	20.2	0.07	0.03	1.44	0.80	71	16
75	ISL	10.51 D	10.50	33.666 D	25.827	218.0	0.195	3.15 D	50.0	21.4	1.74	21.5	0.06	0.02	1.09	0.70	76	
85		10.06	10.05	33.763	25.981	203.6	0.215	2.67	42.0	26.2	1.91	24.0	0.04	0.00	0.38	0.52	86	15
100		9.79	9.77	33.876	26.114	191.2	0.245	2.34	36.6	29.3	2.10	26.1	0.02	0.00	0.19	0.29	101	14
119		9.66	9.65	33.939	26.185	184.9	0.280	2.19	34.2	30.7	2.12	26.9	0.02	0.00	0.15	0.37	120	13
125	ISL	9.52 D	9.50	33.941 D	26.211	182.5	0.293	2.18 D	33.8	31.3	2.13	27.2	0.02	0.00	0.14	0.33	126	
140		9.37	9.36	33.968	26.255	178.6	0.318	2.10	32.6	32.9	2.17	28.0	0.02	0.00	0.12	0.25	141	12
150	ISL	9.33 D	9.31	33.970 D	26.265	177.9	0.338	2.07 D	32.0						0.10	0.23	151	
170		9.14	9.12	34.034	26.345	170.7	0.371	1.89	29.2						0.07	0.18	171	11
200	ISL	8.92 D	8.90	34.085 D	26.421	164.1	0.424	1.65 D	25.4						0.05	0.15	202	
201		8.94	8.92	34.087	26.420	164.2	0.423	1.70	26.1	38.4	2.34	30.1	0.01	0.00	0.05	0.15	203	10
229		8.68	8.65	34.128	26.494	157.6	0.468	1.28	19.6	45.3	2.48	31.4	0.01	0.00			231	09
250	ISL	8.49 D	8.46	34.150 D	26.541	153.6	0.504	0.97 D	14.8	48.6	2.60	32.5	0.01	0.00			252	
270		8.35	8.32	34.189	26.593	149.0	0.531	0.79	12.0	51.7	2.72	33.6	0.01	0.00			272	08
300	ISL	8.13 D	8.10	34.192 D	26.630	145.9	0.580	0.59 D	8.9	52.5	2.70	34.3	0.00	0.00			302	
319		7.77	7.74	34.158	26.655	143.6	0.603	1.01	15.2	53.0	2.68	34.7	0.00	0.00			322	07
375		7.28	7.24	34.213	26.771	133.3	0.680	0.31	4.6	70.9	3.08	34.8	0.00	0.00			378	06
400	ISL	7.04 D	7.00	34.224 D	26.814	129.5	0.719	0.19 D	2.8	76.6	3.18	34.1	0.00	0.00			403	
440		6.72	6.68	34.231	26.862	125.3	0.764	0.14	2.0	85.7	3.35	33.0	0.00	0.00			444	05
480		6.55	6.50	34.242	26.895	122.7	0.814	0.07	1.0	96.4	3.54	29.5	0.00	0.00			484	04
500	ISL	6.51 D	6.47	34.245 D	26.902	122.2	0.845	0.06 D	0.8	100.7	3.65	27.3	0.00	0.00			504	
515		6.50	6.46	34.256	26.912	121.5	0.856	0.02	0.4	103.9	3.74	25.7	0.00	0.00			519	03
566		6.49	6.43	34.250	26.911	122.5	0.919	0.04	0.6	125.3	4.42	3.8	6.82	0.00			571	02
570		6.49	6.43	34.250	26.911	122.5	0.924	0.04	0.6	125.1	4.42	3.7	6.82	0.00			575	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
B) SANTA BARBARA BASIN STATION.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 83.3 39.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 15.4 N	119 19.4 W	08/02/2012	1829 UTC	17 m	160 04 kn			1016.1 mb	13.1 C	10.1 C				057

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	13.74	13.74	33.392	24.998	295.0	0.000	6.10	103.5	1.0	0.45	0.0	0.05	0.51	0.78	0.24	0	
2	13.74	13.74	33.392	24.998	295.0	0.006	6.10	103.5	1.0	0.45	0.0	0.05	0.51	0.78	0.24	2	04
4	13.75	13.75	33.391	24.995	295.3	0.012	6.11	103.6	1.0	0.44	0.1	0.05	0.48	0.77	0.29	4	03
9	13.76	13.76	33.395	24.997	295.3	0.027										9	02
10	13.76	13.76	33.392	24.996	295.5	0.030	6.08	103.1	0.9	0.45	0.1	0.05	0.61	0.84	0.26	10	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 83.3 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 13.6 N	119 24.7 W	08/02/2012	1659 UTC	33 m	130 09 kn			1015.5 mb	14.1 C	12.2 C				056

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.21	14.21	33.387	24.897	304.6	0.000	5.91	101.3	2.2	0.42	0.2	0.02	0.10	0.70	0.20	0	
1	14.21	14.21	33.387	24.897	304.6	0.003	5.91	101.3	2.2	0.42	0.2	0.02	0.10	0.70	0.20	1	06
5	14.22	14.22	33.386	24.896	304.8	0.015	5.92	101.4	2.3	0.38	0.1	0.02	0.02	0.74	0.14	5	05
9	14.21	14.21	33.387	24.898	304.8	0.027										9	04
10	14.21	14.20	33.386	24.899	304.8	0.030	5.93	101.6	2.1	0.38	0.2	0.02	0.07	0.73	0.23	10	03
20	14.10	14.09	33.393	24.927	302.3	0.061	5.96	101.9	1.8	0.37	0.1	0.02	0.11	1.15	0.38	20	02
25	14.10	14.09	33.393	24.928	302.5	0.076	5.97	102.0	1.8	0.39	0.2	0.02	0.00	1.11	0.33	25	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 83.3 42.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 10.8 N	119 30.3 W	08/02/2012	1503 UTC	121 m	110 17 kn			1014.3 mb	14.9 C	11.9 C				055

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.16	14.16	33.384	24.905	303.8	0.000	6.04	103.3	2.8	0.39	0.2	0.02	0.10	1.12	0.02	0	
2	14.16	14.16	33.384	24.905	303.8	0.006	6.04	103.3	2.8	0.39	0.2	0.02	0.10	1.12	0.02	2	11
10	14.16	14.16	33.383	24.905	304.2	0.030										10	10
10	14.16	14.16	33.383	24.905	304.2	0.030	6.01	102.8	2.7	0.41	0.2	0.02	0.10	0.85	0.15	10	09
20	14.13	14.12	33.382	24.913	303.7	0.061	5.96	102.0	2.9	0.40	0.4	0.03	0.09	0.93	0.04	20	08
30	13.18	13.18	33.369 D	25.095	286.7	0.091	5.06	84.8	6.4	0.80	6.0	0.26	0.05	0.82	0.31	30	07
41	12.33	12.33	33.369	25.262	271.0	0.121	4.54	74.8	9.2	1.05	10.3	0.17	0.07	0.61	0.32	41	06
50	11.60	11.59	33.388	25.415	256.6	0.145	4.10	66.5	12.3	1.27	14.1	0.05	0.00	0.33	0.19	50	05
60	10.92	10.91	33.472	25.603	238.9	0.170	3.69	59.0	16.0	1.50	17.5	0.03	0.00	0.14	0.16	60	04
70	10.67	10.66	33.554	25.712	228.8	0.193	3.36	53.4	19.2	1.66	19.8	0.02	0.00	0.08	0.14	71	03
75 ISL	10.45 D	10.47	33.627 D	25.802	220.3	0.205	3.11 D	49.3	20.5	1.72	20.7	0.02	0.00	0.06	0.12	76	
85	10.28	10.27	33.674	25.874	213.8	0.226	2.94	46.4	23.2	1.85	22.6	0.01	0.00	0.03	0.09	86	02
100	10.02	10.01	33.761	25.985	203.5	0.257	2.73	42.9	25.8	1.97	24.3	0.02	0.00	0.03	0.11	101	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 83.3 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 52.7 N	120 7.5 W	08/02/2012	0918 UTC	100 m	090 13 kn	090 07 06	6	1010.8 mb	13.8 C	12.7 C		8/8	NS	054

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.31		13.31		33.361	25.062	289.0	0.000	6.35		106.7	0.5	0.32	0.1	0.01	0.05	4.60	0.64	0	
2		13.31		13.31		33.361	25.062	289.0	0.006	6.35		106.7	0.5	0.32	0.1	0.01	0.05	4.60	0.64	2	11
10		13.10		13.10		33.369	25.110	284.6	0.029	6.26		104.9	0.9	0.35	0.5	0.02	0.06	3.52	1.79	10	09
10		13.10		13.10		33.371	25.112	284.4	0.029											10	10
20		12.74		12.74		33.420	25.222	274.2	0.057	5.57		92.6	5.1	0.64	4.5	0.09	0.32	3.30	0.22	20	08
30		12.10		12.09		33.464	25.380	259.4	0.083	4.74		77.8	10.3	1.01	9.9	0.13	0.38	1.73	0.58	30	07
40		11.52		11.52		33.539	25.545	244.0	0.109	4.37		70.9	13.6	1.19	12.4	0.12	0.42	1.42	0.61	40	06
49		10.12		10.12		33.739	25.949	205.7	0.129	2.88		45.3	25.2	1.83	23.0	0.09	0.06	0.24	0.34	49	05
50	ISL	10.10	D	10.08		33.746	D 25.960	204.7	0.132	2.87	D	45.2	25.6	1.85	23.3	0.09	0.05	0.23	0.33	50	
60		9.68		9.67		33.858	26.117	190.0	0.151	2.48		38.7	29.1	2.02	25.8	0.05	0.00	0.11	0.20	60	04
70		9.60		9.59		33.870	26.140	188.0	0.170	2.45		38.2	29.9	2.03	26.1	0.06	0.00	0.12	0.20	71	03
75	ISL	9.55	D	9.53		33.886	D 26.162	186.1	0.180	2.43	D	37.8	30.3	2.05	26.4	0.06	0.00	0.10	0.19	76	
80		9.52		9.51		33.893	26.171	185.3	0.188	2.38		37.1	30.7	2.06	26.6	0.05	0.00	0.07	0.18	81	02
89		9.50		9.49		33.895	26.176	185.0	0.205	2.38		37.0	30.7	2.06	26.7	0.05	0.00	0.07	0.16	90	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 83.3 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 45.2 N	120 24.9 W	08/02/2012	0557 UTC	1010 m	080 28 kn	080 08 06	6	1008.0 mb	13.6 C	12.6 C		8/8	NS	053

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.56		13.56		33.386	25.031	291.9	0.000	6.02		101.8	3.8	0.42	1.1	0.05	0.13	0.90	0.23	0	
2		13.56		13.56		33.386	25.031	291.9	0.006	6.02		101.8	3.8	0.42	1.1	0.05	0.13	0.90	0.23	2	21
10		13.56		13.56		33.389	25.034	291.9	0.028											10	20
10		13.56		13.56		33.391	25.036	291.7	0.029	6.02		101.7	3.8	0.41	1.1	0.05	0.11	0.92	0.22	10	19
20	ISL	13.55	D	13.54		33.401	D 25.046	291.0	0.059	5.99	D	101.3	3.6	0.40	1.1	0.05	0.13	0.93	0.25	20	
21		13.55		13.55		33.395	25.041	291.5	0.061	6.02		101.7	3.6	0.40	1.1	0.05	0.13	0.93	0.25	21	18
29		13.08		13.08		33.443	25.173	279.1	0.084	5.54		92.7	5.5	0.62	4.2	0.18	0.35	0.45	0.22	29	17
30	ISL	13.26	D	13.19		33.443	D 25.151	281.3	0.087	5.31	D	89.1	6.0	0.66	4.9	0.18	0.32	0.43	0.21	30	
40		11.47		11.47		33.493	25.519	246.5	0.113	4.52		73.1	11.3	1.08	12.2	0.15	0.00	0.25	0.16	40	16
50		10.96		10.95		33.547	25.655	233.8	0.137	3.90		62.5	15.9	1.40	17.3	0.05	0.00	0.15	0.11	50	15
60		10.39		10.38		33.630	25.819	218.3	0.160	3.34		52.8	20.5	1.65	21.4	0.02	0.00	0.07	0.08	60	14
70		10.00		9.99		33.709	25.947	206.4	0.181	2.95		46.3	24.1	1.83	24.2	0.02	0.00	0.04	0.07	71	13
75	ISL	9.79	D	9.79		33.731	D 25.999	201.6	0.193	2.89	D	45.1	25.0	1.87	24.8	0.02	0.00	0.03	0.07	76	
85		9.46		9.45		33.780	26.092	192.8	0.211	2.73		42.4	26.9	1.95	26.0	0.01	0.00	0.02	0.06	86	12
100	ISL	9.12	D	9.11		33.887	D 26.231	179.9	0.240	2.59	D	39.9	30.0	2.02	27.3	0.01	0.00	0.01	0.05	101	
101		9.12		9.11		33.879	26.225	180.5	0.241	2.60		40.0	30.2	2.02	27.4	0.01	0.00	0.01	0.05	102	11
122		8.92		8.90		33.961	26.322	171.7	0.278	2.51		38.6	32.8	2.09	28.2	0.00	0.00	0.01	0.04	123	10
125	ISL	8.87	D	8.85		33.964	D 26.332	170.8	0.285	2.50	D	38.4	33.2	2.11	28.4	0.00	0.00	0.01	0.04	126	
140		8.79		8.78		34.005	26.377	166.9	0.308	2.28		34.8	34.9	2.18	29.2	0.00	0.00	0.00	0.04	141	09
150	ISL	8.74	D	8.72		34.013	D 26.392	165.7	0.327	2.24	D	34.2	36.2	2.23	29.6	0.00	0.00	0.00	0.04	151	
169		8.59		8.58		34.056	26.448	160.7	0.356	1.91		29.2	38.8	2.32	30.5	0.00	0.00	0.00	0.04	170	08
200	ISL	8.29	D	8.27		34.152	D 26.570	149.6	0.407	1.34	D	20.3	44.6	2.51	32.8	0.00	0.00	0.00	0.03	202	
201		8.29		8.27		34.148	26.568	149.9	0.406	1.35		20.4	44.8	2.52	32.9	0.00	0.00	0.00	0.03	203	07
229		8.13		8.11		34.161	26.602	147.1	0.447	1.27		19.2	46.7	2.57	33.5	0.00	0.00			231	06
250	ISL	7.95	D	7.92		34.169	D 26.637	144.2	0.481	1.21	D	18.1	49.0	2.62	34.1	0.00	0.00			252	
272		7.79		7.76		34.184	26.672	141.1	0.509	1.06		15.9	51.4	2.67	34.8	0.00	0.00			274	05
300	ISL	7.50	D	7.47		34.166	D 26.700	138.8	0.552	1.08	D	16.0	53.9	2.68	35.7	0.00	0.00			302	
314		7.30		7.27		34.148	26.714	137.6	0.568	1.11		16.4	55.1	2.69	36.1	0.00	0.00			317	04
381		7.09		7.06		34.247	26.823	128.4	0.657	0.59		8.7	62.6	2.90	37.7	0.00	0.00			384	03
400	ISL	6.99	D	6.96		34.251	D 26.840	127.0	0.686	0.56	D	8.2	64.9	2.99	38.2	0.00	0.00			403	
444		6.64		6.60		34.265	26.900	121.7	0.736	0.44		6.5	70.2	3.19	39.2	0.00	0.00			448	02
500	ISL	6.22	D	6.18		34.290	D 26.975	115.0	0.808	0.35	D	5.1	75.7	3.21	40.3	0.00	0.00			504	
525		6.15		6.10		34.297	26.991	113.8	0.831	0.31		4.5	78.1	3.22	40.8	0.00	0.00			529	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 83.3 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 34.8 N	120 44.1 W	08/02/2012	0259 UTC	1334 m	120 27 kn	130 08 05	2	1007.4 mb	13.4 C	12.9 C	11 m	8/8	NS	052

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		12.66		12.66		33.413	25.231	272.8	0.000	6.18		102.6	3.2	0.61	3.3	0.12	0.64	0.71	0.50	0	
1	A	12.66		12.66		33.413	25.231	272.8	0.003	6.18		102.6	3.2	0.61	3.3	0.12	0.64	0.71	0.50	1	23
8	A	12.66		12.66		33.409	25.227	273.4	0.022	6.17		102.3	3.1	0.60	3.3	0.12	0.63	0.72	0.48	8	22
10	ISL	12.66	D	12.66		33.410	D 25.228	273.4	0.028	6.14	D	101.8	3.2	0.60	3.3	0.12	0.63	0.74	0.44	10	
10		12.66		12.66		33.412	25.230	273.2	0.028											10	21
11	A	12.66		12.66		33.410	25.229	273.3	0.030	6.16		102.2	3.2	0.60	3.3	0.12	0.63	0.76	0.42	11	20
20	A	12.66		12.65		33.413	25.233	273.2	0.055	6.14		101.9	3.2	0.60	3.4	0.12	0.64	0.71	0.38	20	19
30		12.63		12.63		33.416	25.241	272.8	0.082	6.12		101.5	3.3	0.60	3.4	0.13	0.66	0.74	0.45	30	18
39	A	12.58		12.57		33.419	25.254	271.7	0.106	6.09		100.8	3.6	0.62	3.7	0.13	0.71	0.73	0.54	39	17
44	A	12.51		12.51		33.430	25.275	269.8	0.120	5.91		97.7	5.1	0.70	4.7	0.16	0.82	0.62	0.59	44	16
50		11.93		11.92		33.457	25.407	257.4	0.136	5.20		85.0	9.3	0.96	9.2	0.20	0.63	0.71	0.87	50	15
58		11.05		11.04		33.503	25.605	238.7	0.156	4.31		69.1	14.3	1.27	14.9	0.18	0.19	0.71	0.78	58	14
70		10.32		10.31		33.616	25.821	218.4	0.183	3.57		56.3	20.2	1.59	20.3	0.07	0.00	0.27	0.52	71	13
75	ISL	9.97	D	9.96		33.695	D 25.941	207.0	0.195	3.23	D	50.6	21.9	1.67	21.5	0.06	0.00	0.23	0.46	76	
85		9.78		9.77		33.746	26.013	200.5	0.214	2.96		46.2	25.2	1.84	24.0	0.03	0.00	0.13	0.35	86	12
100		9.38		9.37		33.893	26.195	183.5	0.243	2.44		37.9	30.4	2.05	27.0	0.02	0.00	0.06	0.27	101	11
120		9.20		9.18		33.967	26.282	175.6	0.279	2.18		33.6	33.2	2.16	28.3	0.01	0.00	0.04	0.19	121	10
125	ISL	9.16	D	9.15		33.971	D 26.291	174.8	0.289	2.18	D	33.6	33.4	2.16	28.5	0.01	0.00	0.04	0.17	126	
140		8.97		8.96		33.978	26.327	171.6	0.313	2.20		33.8	33.9	2.17	28.9	0.01	0.00	0.02	0.13	141	09
150	ISL	8.93	D	8.91		33.997	D 26.350	169.7	0.333	2.15	D	32.9	34.9	2.20	29.3	0.01	0.00	0.02	0.14	151	
171		8.82		8.80		34.046	26.405	164.9	0.366	1.94		29.7	37.0	2.26	30.0	0.01	0.00	0.03	0.16	172	08
200	ISL	8.58	D	8.55		34.100	D 26.487	157.7	0.415	1.66	D	25.3	40.1	2.37	31.2	0.01	0.00	0.02	0.11	202	
202		8.55		8.53		34.098	26.489	157.5	0.416	1.67		25.5	40.3	2.38	31.3	0.01	0.00	0.02	0.10	204	07
228		8.05		8.03		34.111	26.575	149.6	0.456	1.59		23.9	44.5	2.46	32.8	0.00	0.00			230	06
250	ISL	7.82	D	7.80		34.124	D 26.620	145.7	0.491	1.44	D	21.6	48.0	2.54	33.9	0.00	0.00			252	
287		7.46		7.44		34.157	26.698	138.7	0.541	1.10		16.3	53.8	2.68	35.7	0.00	0.00			289	05
300	ISL	7.29	D	7.26		34.164	D 26.728	136.0	0.563	1.01	D	14.9	55.7	2.73	36.2	0.00	0.00			302	
318		7.14		7.11		34.174	26.758	133.4	0.583	0.91		13.4	58.2	2.79	36.9	0.00	0.00			321	04
380		6.60		6.56		34.209	26.859	124.4	0.663	0.66		9.6	66.7	2.93	39.0	0.00	0.00			383	03
400	ISL	6.48	D	6.44		34.217	D 26.881	122.6	0.693	0.58	D	8.4	68.6	2.97	39.3	0.00	0.00			403	
439		6.36		6.32		34.250	26.925	119.0	0.734	0.45		6.5	72.4	3.05	39.9	0.00	0.00			443	02
500	ISL	6.17	D	6.13		34.278	D 26.972	115.2	0.812	0.38	D	5.4	77.2	3.11	40.7	0.00	0.00			504	
518		6.08		6.03		34.280	26.986	114.1	0.826	0.34		4.9	78.6	3.13	41.0	0.00	0.00			522	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 83.3 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 14.7 N	121 26.1 W	07/02/2012	2027 UTC	3802 m	140 22 kn			1006.0 mb	13.1 C	13.1 C				051

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	12.85	12.85	33.266	25.081	287.2	0.000	6.21	103.4	2.6	0.48	1.6	0.10	0.34	0.62	0.17	0	
2	12.85	12.85	33.266	25.081	287.2	0.006	6.21	103.4	2.6	0.48	1.6	0.10	0.34	0.62	0.17	2	21
10	12.85	12.85	33.285	25.094	286.1	0.029	6.19	103.1	2.5	0.48	1.6	0.10	0.34	0.62	0.19	10	19
20	12.65	12.65	33.368	25.199	276.4	0.057	6.14	101.8	2.8	0.57	2.5	0.13	0.67	0.79	0.29	20	18
30	12.66	12.66	33.417	25.235	273.3	0.084	6.10	101.2	3.3	0.62	2.9	0.14	1.13	0.41	0.31	30	17
40	12.31	12.31	33.411	25.298	267.5	0.111	6.03	99.3	3.7	0.65	3.2	0.15	1.14	0.43	0.39	40	16
50 ISL	11.44 D	11.39	33.286 D	25.373	260.6	0.139	5.14 D	83.0	7.7	0.91	8.7	0.12	0.43	0.30	0.48	50	
51	11.31	11.31	33.285	25.387	259.3	0.140	5.14	82.8	8.1	0.94	9.2	0.12	0.36	0.28	0.49	51	15
60	10.73	10.73	33.258	25.469	251.6	0.163	4.89	77.7	10.4	1.07	11.9	0.06	0.00	0.25	0.56	60	14
70	10.29	10.28	33.369	25.632	236.3	0.188	4.31	67.9	14.5	1.37	16.7	0.03	0.00	0.18	0.41	71	13
75 ISL	10.12 D	10.10	33.402 D	25.690	230.9	0.201	4.24 D	66.5	15.9	1.44	18.0	0.03	0.00	0.17	0.44	76	
86	9.86	9.85	33.498	25.806	220.1	0.224	3.78	59.0	18.9	1.60	20.8	0.03	0.00	0.16	0.51	87	12
100	9.50	9.49	33.688	26.014	200.6	0.254	3.22	50.0	24.5	1.83	24.3	0.03	0.00	0.14	0.38	101	11
120	9.28	9.26	33.860	26.186	184.7	0.292	2.81	43.4	28.5	1.97	26.2	0.02	0.00	0.09	0.34	121	10
125 ISL	9.24 D	9.22	33.868 D	26.199	183.6	0.303	2.80 D	43.2	29.3	2.00	26.7	0.02	0.00	0.09	0.37	126	
140	9.01	8.99	33.931	26.285	175.7	0.328	2.47	38.0	31.8	2.08	28.0	0.01	0.00	0.08	0.47	141	09
150 ISL	8.92 D	8.90	33.972 D	26.331	171.5	0.348	2.43 D	37.3	33.3	2.13	28.6	0.01	0.00	0.07	0.38	151	
171	8.68	8.66	34.020	26.407	164.7	0.381	2.15	32.8	36.4	2.22	29.8	0.01	0.00	0.04	0.21	172	08
200 ISL	8.36 D	8.34	34.080 D	26.503	156.0	0.430	1.85 D	28.0	40.6	2.35	31.3	0.01	0.00	0.04	0.16	202	
201	8.36	8.34	34.077	26.502	156.2	0.429	1.85	28.0	40.7	2.35	31.4	0.01	0.00	0.04	0.16	203	07
230	8.08	8.05	34.102	26.564	150.7	0.474	1.68	25.2	44.1	2.43	32.6	0.01	0.00			232	06
250 ISL	7.85 D	7.83	34.123 D	26.614	146.2	0.507	1.50 D	22.5	47.3	2.51	33.6	0.01	0.00			252	
271	7.65	7.62	34.140	26.658	142.4	0.534	1.29	19.3	50.6	2.60	34.6	0.01	0.00			273	05
300 ISL	7.44 D	7.41	34.158 D	26.703	138.5	0.578	1.12 D	16.7	54.5	2.70	35.8	0.00	0.00			302	
320	7.23	7.20	34.172	26.743	135.0	0.602	0.96	14.2	57.1	2.77	36.7	0.00	0.00			323	04
380	6.61	6.58	34.205	26.855	124.8	0.680	0.65	9.5	67.2	2.95	39.1	0.00	0.00			383	03
400 ISL	6.56 D	6.52	34.242 D	26.891	121.7	0.709	0.54 D	7.8	68.7	2.99	39.3	0.00	0.00			403	
440	6.46	6.42	34.269	26.926	119.0	0.752	0.42	6.1	71.8	3.06	39.7	0.00	0.00			444	02
500 ISL	5.98 D	5.93	34.289 D	27.005	111.9	0.828	0.33 D	4.7	79.4	3.14	41.1	0.00	0.00			504	
512	5.94	5.90	34.291	27.010	111.5	0.835	0.31	4.4	80.9	3.16	41.4	0.00	0.00			516	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 83.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 54.7 N	122 7.7 W	07/02/2012	1441 UTC	4166 m	150 30 kn			1007.5 mb	14.0 C	13.1 C				050

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.23	14.23	33.291	24.818	312.1	0.000	5.93	101.6	2.4	0.32	0.1	0.00	0.00	0.27	0.08	0	
2	14.23	14.23	33.291	24.818	312.1	0.006	5.93	101.6	2.4	0.32	0.1	0.00	0.00	0.27	0.08	2	21
10	14.22	14.22	33.292	24.822	312.0	0.031										10	20
10	14.22	14.22	33.292	24.822	312.0	0.031	5.92	101.4	2.3	0.31	0.0	0.01	0.00	0.27	0.07	10	19
20	14.13	14.13	33.288	24.839	310.7	0.062	5.94	101.5	2.4	0.31	0.0	0.01	0.00	0.31	0.06	20	18
30	13.50	13.49	33.239	24.931	302.2	0.093	6.03	101.6	2.9	0.34	0.3	0.04	0.00	0.36	0.11	30	17
40	13.39	13.39	33.228	24.945	301.3	0.123	6.01	101.2	2.9	0.36	0.5	0.07	0.06	0.36	0.14	40	16
50	13.07	13.06	33.224	25.007	295.5	0.153	5.97	99.8	3.2	0.37	0.8	0.10	0.13	0.34	0.12	50	15
61	12.03	12.02	33.174	25.169	280.4	0.185	5.64	92.2	5.0	0.62	4.7	0.17	0.02	0.21	0.15	61	14
70	11.26	11.25	33.237	25.361	262.3	0.209	5.16	82.9	7.3	0.83	8.5	0.02	0.00	0.12	0.10	71	13
75 ISL	11.09 D	11.06	33.254 D	25.407	257.9	0.224	5.04 D	80.7	8.3	0.90	9.7	0.02	0.00	0.11	0.09	76	
85	10.60	10.59	33.296	25.523	247.1	0.247	4.79	76.0	10.3	1.05	12.0	0.01	0.00	0.08	0.08	86	12
100	9.98	9.97	33.453	25.751	225.7	0.283	4.11	64.4	16.7	1.42	18.4	0.01	0.00	0.04	0.05	101	11
122	9.30	9.28	33.673	26.036	198.9	0.330	3.55	54.9	23.1	1.70	23.1	0.00	0.00	0.01	0.05	123	10
125 ISL	9.28 D	9.26	33.726 D	26.081	194.7	0.337	3.38 D	52.2	23.8	1.73	23.5	0.00	0.00	0.01	0.04	126	
140	9.08	9.07	33.813	26.181	185.5	0.364	3.15	48.5	27.2	1.85	25.4	0.00	0.00	0.00	0.03	141	09
150 ISL	8.82 D	8.80	33.915 D	26.302	174.2	0.384	2.51 D	38.4	29.8	1.95	26.8	0.00	0.00	0.00	0.03	151	
170	8.66	8.64	33.972	26.373	167.8	0.416	2.29	34.9	34.9	2.15	29.6	0.00	0.00	0.00	0.04	171	08
200	8.27	8.25	34.027	26.476	158.6	0.465	2.05	31.0	38.9	2.28	31.1	0.00	0.00	0.00	0.04	202	07
231	7.74	7.72	34.073	26.591	148.0	0.513	1.74	25.9	46.0	2.43	33.3	0.00	0.00			233	06
250 ISL	7.63 D	7.61	34.091 D	26.621	145.4	0.543	1.58 D	23.6	48.3	2.51	33.7	0.00	0.00			252	
270	7.87	7.84	34.182	26.659	142.4	0.569	1.00	15.0	50.7	2.60	34.1	0.00	0.00			272	05
300 ISL	7.55 D	7.52	34.189 D	26.711	137.9	0.614	0.90 D	13.5	54.2	2.71	35.5	0.00	0.00			302	
321	7.37	7.34	34.194	26.742	135.2	0.640	0.81	12.1	56.7	2.79	36.5	0.00	0.00			324	04
381	6.63	6.59	34.203	26.851	125.2	0.718	0.62	9.0	67.1	2.94	39.0	0.00	0.00			384	03
400 ISL	6.56 D	6.52	34.226 D	26.879	122.9	0.746	0.54 D	7.9	69.3	2.97	39.4	0.00	0.00			403	
440	6.18	6.14	34.222	26.925	118.7	0.790	0.49	7.0	73.8	3.04	40.2	0.00	0.00			444	02
500 ISL	5.67 D	5.63	34.236 D	27.001	111.9	0.864	0.39 D	5.6	81.2	3.13	41.6	0.00	0.00			504	
516	5.66	5.61	34.257	27.019	110.4	0.877	0.35	4.9	83.2	3.15	42.0	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 34.7 N	122 47.8 W	07/02/2012	0741 UTC	4272 m	150 20 kn	140 04 06	2	1009.4 mb	14.7 C	13.2 C	10 m	8/8	SC	049

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.39		13.39		33.241	24.953	299.3	0.000	6.09		102.4		3.3	0.38	0.6	0.06	0.00	0.48	0.10	0	
2		13.39		13.39		33.241	24.953	299.3	0.006	6.09		102.4		3.3	0.38	0.6	0.06	0.00	0.48	0.10	2	21
10		13.39		13.39		33.235	24.949	299.9	0.030												10	20
10		13.39		13.39		33.238	24.952	299.6	0.030	6.08		102.3		3.3	0.37	0.6	0.06	0.00	0.50	0.10	10	19
20		13.38		13.38		33.238	24.953	299.8	0.060	6.09		102.4		3.3	0.37	0.6	0.06	0.00	0.51	0.10	20	18
30		13.36		13.36		33.238	24.958	299.7	0.090	6.08		102.3		3.3	0.37	0.7	0.06	0.00	0.54	0.12	30	17
40		13.29		13.28		33.236	24.972	298.6	0.120	6.04		101.5		3.2	0.38	0.7	0.08	0.04	0.50	0.13	40	16
50		13.26		13.25		33.236	24.979	298.3	0.150	6.01		100.8		3.3	0.39	0.9	0.10	0.10	0.36	0.13	50	15
60		13.00		12.99		33.226	25.023	294.4	0.179	5.86		97.7		3.8	0.47	2.0	0.19	0.12	0.26	0.12	60	14
70		11.25		11.24		33.240	25.364	261.9	0.207	5.01		80.6		8.3	0.95	10.2	0.02	0.00	0.18	0.15	71	13
75	ISL	10.79	D	10.77	D	33.308	25.501	249.0	0.221	4.66	D	74.2		10.5	1.09	12.5	0.02	0.00	0.14	0.12	76	
86		10.12		10.11		33.412	25.696	230.6	0.246	4.20		66.0		15.4	1.39	17.6	0.01	0.00	0.06	0.07	87	12
100		9.37		9.35		33.642	26.000	201.9	0.277	3.61		55.8		22.5	1.68	22.7	0.00	0.00	0.02	0.04	101	11
120		8.99		8.98		33.801	26.185	184.7	0.315	3.05		46.8		28.0	1.90	26.2	0.00	0.00	0.01	0.03	121	10
125	ISL	8.87	D	8.85	D	33.856	26.249	178.7	0.326	2.97	D	45.4		29.1	1.94	26.7	0.00	0.00	0.01	0.03	126	
141		8.66		8.65		33.934	26.342	170.2	0.352	2.64		40.3		32.7	2.05	28.3	0.00	0.00	0.00	0.03	142	09
150	ISL	8.54	D	8.51	D	33.984	26.401	164.7	0.370	2.30	D	34.9		34.2	2.09	28.9	0.00	0.00	0.00	0.03	151	
170		8.33		8.31		34.006	26.450	160.4	0.400	2.29		34.7		37.5	2.19	30.3	0.00	0.00	0.00	0.03	171	08
200		8.08		8.06		34.076	26.543	152.1	0.447	1.74		26.2		42.9	2.39	32.5	0.00	0.00	0.00	0.02	202	07
231		7.76		7.74		34.104	26.612	146.0	0.493	1.47		22.1		48.5	2.51	34.2	0.00	0.00			233	06
250	ISL	7.76	D	7.74	D	34.136	26.638	144.0	0.524	1.25	D	18.8		49.0	2.53	34.2	0.00	0.00			252	
270		7.47		7.45		34.116	26.664	141.7	0.549	1.41		21.0		49.6	2.55	34.2	0.00	0.00			272	05
300	ISL	7.58	D	7.55	D	34.200	26.715	137.5	0.595	0.85	D	12.7		54.3	2.70	35.6	0.00	0.00			302	
319		7.43		7.40		34.210	26.746	134.8	0.617	0.76		11.3		57.2	2.80	36.5	0.00	0.00			322	04
382		6.77		6.73		34.217	26.843	126.1	0.699	0.62		9.0		65.9	2.93	38.6	0.00	0.00			385	03
400	ISL	6.47	D	6.43	D	34.213	26.880	122.7	0.727	0.57	D	8.3		68.7	2.96	39.1	0.00	0.00			403	
442		6.18		6.14		34.236	26.936	117.8	0.772	0.44		6.4		75.2	3.04	40.4	0.00	0.00			446	02
500	ISL	5.76	D	5.71	D	34.247	26.999	112.2	0.845	0.37	D	5.3		82.4	3.13	41.7	0.00	0.00			504	
515		5.66		5.62		34.254	27.016	110.7	0.855	0.34		4.8		84.2	3.15	42.0	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 14.9 N	123 28.4 W	07/02/2012	0129 UTC	4205 m	150 19 kn	240 02 04	2	1011.6 mb	15.5 C	14.0 C	21 m	8/8	SC	048

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.91		14.91		33.336	24.709	322.5	0.000	5.82		101.1		2.1	0.30	0.0	0.00	0.00	0.15	0.04	0	
2	A	14.91		14.91		33.336	24.709	322.5	0.007	5.82		101.1		2.1	0.30	0.0	0.00	0.00	0.15	0.04	2	23
10		14.91		14.91		33.337	24.710	322.7	0.032												10	22
10	ISL	14.91	D	14.91		33.338	24.711	322.6	0.033	5.82	D	101.2		2.0	0.29	0.0	0.00	0.00	0.15	0.05	10	
15	A	14.92		14.91		33.336	24.709	322.9	0.048	5.86		101.8		2.0	0.29	0.0	0.00	0.00	0.15	0.05	15	21
20	A	14.92		14.91		33.336	24.709	323.1	0.065	5.82		101.1		2.0	0.29	0.0	0.00	0.00	0.15	0.04	20	20
29		14.92		14.91		33.335	24.708	323.5	0.094	5.82		101.1		2.0	0.28	0.0	0.00	0.00	0.15	0.05	29	19
30	ISL	14.92	D	14.91		33.338	24.712	323.2	0.097	5.82	D	101.1		2.0	0.28	0.0	0.00	0.00	0.15	0.05	30	
37	A	14.91		14.90		33.336	24.712	323.4	0.120	5.82		101.1		2.0	0.29	0.0	0.00	0.00	0.16	0.04	37	18
50		14.89		14.88		33.334	24.716	323.5	0.162	5.82		101.0		2.0	0.29	0.0	0.00	0.00	0.22	0.06	50	17
61		14.49		14.48		33.317	24.789	316.8	0.197	5.83		100.4		2.1	0.29	0.0	0.01	0.00	0.29	0.11	61	16
72	A	13.54		13.53		33.239	24.925	304.1	0.231	5.69		96.1		3.1	0.43	1.5	0.19	0.00	0.32	0.16	73	15
75	ISL	13.23	D	13.19		33.234	24.990	297.9	0.241	5.67	D	95.0		3.4	0.47	2.1	0.18	0.00	0.30	0.16	76	
81	A	12.88		12.87		33.242	25.060	291.4	0.258	5.50		91.6		4.1	0.54	3.4	0.17	0.00	0.26B	0.16B	82	14
88		12.39		12.38		33.272	25.178	280.3	0.278	5.21		85.8		5.6	0.71	6.3	0.06	0.00	0.19	0.15	89	13
96		11.83		11.82		33.301	25.307	268.2	0.300	4.84		78.8		8.0	0.92	9.9	0.04	0.00	0.12	0.14	97	12
100	ISL	11.61	D	11.59	D	33.320	25.364	262.8	0.312	4.77	D	77.3		9.0	0.97	10.8	0.03	0.00	0.11	0.12	101	
110		10.95		10.94		33.371	25.521	248.0	0.336	4.55		72.7		11.4	1.10	13.2	0.01	0.00	0.08	0.07	111	11
125		10.40		10.38		33.445	25.676	233.5	0.372	4.31		68.1		14.6	1.28	16.2	0.00	0.00	0.04	0.05	126	10
140		10.03		10.01		33.577	25.842	218.0	0.406	3.70		58.0		19.2	1.56	20.4	0.00	0.00	0.02	0.04	141	09
150	ISL	9.81	D	9.79	D	33.676	25.957	207.2	0.429	3.41	D	53.2		21.3	1.65	21.8	0.00	0.00	0.01	0.04	151	
172		9.45		9.43		33.807	26.118	192.3	0.471	2.99		46.4		25.9	1.84	24.8	0.00	0.00	0.00	0.03	173	08
200	ISL	8.97	D	8.95	D	33.959	26.315	174.2	0.525	2.63	D	40.4		31.3	2.00	27.4	0.00	0.00	0.00	0.03	202	
203		8.94		8.92		33.964	26.324	173.3	0.527	2.60		39.9		31.9	2.02	27.7	0.00	0.00	0.00	0.03	205	07
232		8.42		8.39		34.025	26.453	161.4	0.576	2.36		35.8		36.3	2.13	29.5	0.00	0.00			234	06
250	ISL	8.36	D	8.33	D	34.072	26.500	157.3	0.608	2.11	D	32.0		38.7	2.22	30.4	0.00	0.00			252	
270		8.20		8.17		34.083	26.532	154.6	0.636	1.90		28.6		41.4	2.32	31.5	0.00	0.00			272	05
300	ISL	7.97	D	7.93	D	34.147	26.619	146.9	0.685	1.45	D	21.8		46.7	2.48	33.2	0.00	0.00			302	
320		7.76		7.73		34.167	26.665	142.7	0.710	1.21		18.1		50.3	2.59	34.4	0.00	0.00			323	04
383		7.21		7.18		34.190	26.762	134.3	0.797	0.87		12.9		57.9	2.77	36.8	0.00	0.00			386	03
400	ISL	7.17	D	7.13	D	34.202	26.778	133.0	0.825	0.81	D	12.0		60.6	2.81	37.5	0.00	0.00			403	
440		6.56		6.52		34.186	26.847	126.5	0.872	0.68		9.9		67.0	2.90	39.1	0.00	0.00			444	02
500	ISL	6.14	D	6.09	D	34.240	26.946	117.6	0.951	0.44	D	6.4		75.2	3.04	40.6	0.00	0.00			504	
515		6.04		5.99		34.244	26.962	116.2	0.963	0.41		5.9		77.3	3.08	41.0	0.00	0.00			519	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
B) PRODUCTIVITY REPLICATES POOR, UNCERTAIN VALUE ELIMINATED
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 83.3 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
31 54.8 N	124 10.0 W	06/02/2012	1934 UTC	4212 m	160 16 kn			1011.3 mb	15.1 C	13.0 C				047

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.96		14.96	33.305	24.675	325.8	0.000	5.81		101.0	2.1	0.28	0.0	0.00	0.00	0.19	0.06	0	
2		14.96		14.96	33.305	24.675	325.8	0.007	5.81		101.0	2.1	0.28	0.0	0.00	0.00	0.19	0.06	2	21
10		14.96		14.96	33.306	24.676	326.0	0.031											10	20
10		14.96		14.96	33.310	24.679	325.7	0.033	5.81		101.0	2.0	0.28	0.0	0.00	0.00	0.19	0.06	10	19
20	ISL	14.97	D	14.97	33.307	D 24.676	326.3	0.066	5.82	D	101.1	2.0	0.28	0.0	0.00	0.00	0.20	0.06	20	
25		14.97		14.97	33.314	24.681	326.0	0.082	5.83		101.4	2.0	0.28	0.0	0.00	0.00	0.20	0.07	25	18
30	ISL	14.97	D	14.97	33.308	D 24.676	326.6	0.098	5.81	D	101.0	2.0	0.28	0.0	0.00	0.00	0.20	0.06	30	
40		14.97		14.97	33.306	24.676	327.0	0.131	5.83		101.3	2.0	0.28	0.0	0.00	0.00	0.19	0.06	40	17
50	ISL	14.97	D	14.97	33.307	D 24.677	327.2	0.164	5.80	D	100.9	2.0	0.28	0.0	0.00	0.00	0.22	0.06	50	
51		14.98		14.97	33.305	24.675	327.4	0.167	5.82		101.1	2.0	0.28	0.0	0.00	0.00	0.22	0.06	51	16
62		14.97		14.96	33.304	24.676	327.7	0.203	5.82		101.3	2.0	0.27	0.0	0.00	0.00	0.25	0.09	62	15
75		14.45		14.44	33.289	24.776	318.5	0.245	5.80		99.7	2.1	0.29	0.0	0.00	0.00	0.37	0.18	76	14
87		12.85		12.84	33.185	25.022	295.2	0.281	5.76		95.8	3.0	0.42	1.0	0.55	0.00	0.35	0.30	88	13
100		11.77		11.76	33.188	25.230	275.6	0.318	5.48		89.0	4.9	0.60	4.8	0.04	0.00	0.14	0.13	101	12
112		11.30		11.29	33.257	25.370	262.5	0.351	5.10		82.1	7.3	0.80	8.4	0.03	0.00	0.10	0.09	113	11
124		10.30		10.28	33.401	25.658	235.1	0.381	4.58		72.1	12.8	1.13	14.7	0.00	0.00	0.04	0.05	125	10
125	ISL	10.27	D	10.24	33.392	D 25.658	235.1	0.386	4.82	D	75.9	12.9	1.13	14.8	0.00	0.00	0.04	0.05	126	
140		9.81		9.80	33.541	25.850	217.2	0.417	4.58		71.5	15.1	1.18	16.2	0.00	0.00	0.01	0.03	141	09
150	ISL	9.57	D	9.55	33.675	D 25.995	203.6	0.441	4.41	D	68.5	18.3	1.33	18.5	0.00	0.00	0.02	0.03	151	
170		9.08		9.06	33.803	D 26.174	186.8	0.477	3.21	D	49.4								171	08
200		8.71		8.69	33.968	26.363	169.5	0.530	2.35		35.8	34.3	2.06	29.8	0.00	0.00	0.00	0.03	202	07
231		8.25		8.23	34.021	26.475	159.3	0.581	2.17		32.7	38.8	2.15	31.5	0.00	0.00			233	06
250	ISL	7.89	D	7.85	34.038	D 26.544	152.9	0.615	2.06	D	30.9	41.5	2.18	32.2	0.00	0.00			252	
271		7.69		7.66	34.036	26.571	150.6	0.643	2.05		30.5	44.5	2.22	32.9	0.00	0.00			273	05
300	ISL	7.46	D	7.43	34.069	D 26.629	145.5	0.690	1.71	D	25.5	49.1	2.36	34.7	0.00	0.00			302	
320		7.26		7.23	34.081	26.667	142.1	0.715	1.47		21.7	52.2	2.46	36.0	0.00	0.00			323	04
380		6.88		6.84	34.146	26.773	132.8	0.797	0.95		13.9	61.3	2.68	38.5	0.00	0.00			383	03
400	ISL	6.35	D	6.31	34.132	D 26.832	127.0	0.828	0.91	D	13.2	64.6	2.73	39.2	0.00	0.00			403	
441		6.15		6.12	34.165	26.884	122.6	0.874	0.71		10.2	71.4	2.83	40.7	0.00	0.00			445	02
500	ISL	5.78	D	5.73	34.201	D 26.960	115.8	0.951	0.52	D	7.5	79.1	2.92	42.1	0.00	0.00			504	
516		5.70		5.65	34.217	26.983	113.8	0.963	0.46		6.6	81.2	2.94	42.5	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 85.4 35.8

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
34 0.7 N	118 50.0 W	04/02/2012	0432 UTC	26 m	050 04 kn	190 01 08	1	1014.5 mb	21.2 C	11.8 C		1/8	CS	035

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.35		14.35	33.368	24.853	308.8	0.000	6.46		111.0	0.2	0.25	0.0	0.00	0.00	1.87	0.19	0	
1		14.35		14.35	33.368	24.853	308.8	0.003	6.46		111.0	0.2	0.25	0.0	0.00	0.00	1.87	0.19	1	05
5		14.23		14.23	33.371	24.882	306.2	0.015	6.45		110.5	0.1	0.24	0.0	0.00	0.00	1.88	0.20	5	04
10		14.09		14.08	33.359	24.903	304.4	0.031	6.44		110.0	0.2	0.25	0.0	0.00	0.00	1.84	0.28	10	03
15		14.05		14.05	33.362	24.912	303.6	0.046	6.39		109.1	0.2	0.25	0.0	0.00	0.00	2.14	0.27	15	02
20		14.03		14.03	33.361	24.916	303.4	0.061	6.28		107.2	0.4	0.28	0.1	0.02	0.08	2.70	0.34	20	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 33.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 53.5 N	118 29.5 W	04/02/2012	0124 UTC	59 m	070 02 kn	280 01 06	0	1015.9 mb	15.5 C	10.5 C	11 m	0/8		034

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.35		14.35	33.372	24.856	308.5	0.000	6.10		104.8	2.1	0.31	0.0	0.00	0.00	0.90	0.25	0	
2	A	14.35		14.35	33.372	24.856	308.5	0.006	6.10		104.8	2.1	0.31	0.0	0.00	0.00	0.90	0.25	2	09
8	A	14.33		14.32	33.370	24.861	308.3	0.025	6.09		104.6	2.1	0.31	0.0	0.00	0.00	0.99	0.28	8	08
10	ISL	14.32	D	14.32	33.371	D 24.863	308.1	0.031	6.07	D	104.2	2.1	0.31	0.0	0.00	0.00	1.00	0.28	10	
11		14.32		14.31	33.371	24.864	308.1	0.034											11	07
11	A	14.32		14.31	33.371	24.864	308.1	0.034	6.09		104.5	2.1	0.31	0.0	0.00	0.00	1.01	0.28	11	06
20	A	14.19		14.19	33.369	24.889	306.0	0.062	6.04		103.3	2.2	0.34	0.1	0.03	0.00	1.10	0.30	20	05
29		12.76		12.76	33.346	25.161	280.2	0.088	4.50		74.8	8.7	1.01	10.2	0.48	0.53	0.73	0.48	29	04
30	ISL	12.74	D	12.74	33.351	D 25.168	279.7	0.091	4.39	D	73.0	9.1	1.04	10.6	0.49	0.59	0.69	0.47	30	
38	A	12.11		12.11	33.380	25.313	266.1	0.113	3.95		64.7	12.2	1.27	13.7	0.53	1.03	0.42	0.38	38	03
43	A	11.60		11.59	33.409	25.430	255.0	0.126	3.60		58.4	15.8	1.46	16.7	0.47	3.93	0.28	0.29	43	02
49		11.28		11.28	33.453	25.523	246.3	0.141	3.41		55.0	18.0	1.57	18.0	0.44	3.74	0.22	0.29	49	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 49.4 N	118 37.7 W	04/02/2012	0652 UTC	656 m	220 08 kn	230 01 06	1	1013.8 mb	19.2 C	13.8 C	14 m	2/8	CS	036

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.94		14.94	33.363	24.725	321.0	0.000	6.36		110.5	0.7	0.23	0.0	0.00	0.00	0.51	0.09	0	
2		14.94		14.94	33.363	24.725	321.0	0.006	6.36		110.5	0.7	0.23	0.0	0.00	0.00	0.51	0.09	2	21
10		14.42		14.42	33.367	24.838	310.5	0.030											10	20
10		14.42		14.42	33.367	24.838	310.5	0.032	6.36		109.3	0.8	0.25	0.0	0.00	0.00	0.50	0.10	10	19
19		14.34		14.34	33.367	24.856	309.1	0.060	6.25		107.4	1.1	0.27	0.0	0.00	0.00	0.50	0.14	19	18
20	ISL	14.37	D	14.36	33.370 D	24.854	309.4	0.063	6.18	D	106.2	1.5	0.30	0.4	0.02	0.00	0.57	0.18	20	
30		13.45		13.44	33.346	25.024	293.4	0.093	5.28		89.0	4.9	0.65	4.3	0.23	0.05	1.34	0.57	30	17
40		12.54		12.54	33.343	25.201	276.8	0.121	4.41		73.0	8.4	1.02	11.0	0.22	0.12	0.94	0.73	40	16
50		11.49		11.48	33.427	25.466	251.8	0.148	3.69		59.8	14.6	1.40	16.5	0.44	0.90	0.54	0.43	50	15
60		11.01		11.01	33.489	25.600	239.3	0.172	3.45		55.2	17.4	1.56	18.3	0.28	0.68	0.27	0.35	60	14
69		10.55		10.55	33.557	25.734	226.7	0.193	3.38		53.6	19.2	1.65	19.8	0.04	0.00	0.23	0.26	70	13
75	ISL	10.38	D	10.36	33.582 D	25.785	222.0	0.208	3.31	D	52.3	20.2	1.69	20.6	0.03	0.00	0.21	0.26	76	
85		10.06		10.05	33.639	25.883	212.8	0.229	3.20		50.3	21.9	1.76	21.9	0.02	0.00	0.18	0.26	86	12
100		9.86		9.85	33.713	25.975	204.4	0.260	2.98		46.6	24.1	1.86	23.3	0.01	0.00	0.10	0.17	101	11
120		9.69		9.68	33.865	26.122	190.9	0.299	2.50		39.0	28.1	2.13	25.3	0.00	0.00	0.06	0.13	121	10
125	ISL	9.56	D	9.54	33.879 D	26.156	187.8	0.311	2.48	D	38.5	28.6	2.12	25.6	0.00	0.00	0.06	0.14	126	
139		9.41		9.40	33.912	26.205	183.3	0.335	2.43		37.7	29.8	2.08	26.4	0.00	0.00	0.06	0.16	140	09
150	ISL	9.33	D	9.31	33.965 D	26.260	178.3	0.357	2.27	D	35.1	30.9	2.12	26.9	0.00	0.00	0.05	0.15	151	
170		9.21		9.19	34.011	26.316	173.4	0.390	2.12		32.8	32.8	2.19	27.7	0.00	0.00	0.05	0.13	171	08
200		8.97		8.94	34.087	26.416	164.6	0.441	1.82		28.0	36.4	2.30	29.1	0.00	0.00	0.06	0.14	202	07
229		8.74		8.72	34.127	26.483	158.8	0.488	1.61		24.6	39.2	2.39	30.1	0.00	0.00			231	06
250	ISL	8.58	D	8.55	34.139 D	26.519	155.7	0.524	1.52	D	23.2	41.2	2.45	30.8	0.00	0.00			252	
270		8.46		8.43	34.158	26.551	153.0	0.551	1.39		21.1	43.0	2.50	31.4	0.00	0.00			272	05
300	ISL	8.27	D	8.24	34.182 D	26.600	148.9	0.601	1.19	D	18.0	45.9	2.59	32.3	0.00	0.00			302	
319		8.15		8.12	34.204	26.636	145.7	0.625	1.04		15.7	47.7	2.64	32.9	0.00	0.00			322	04
380		7.71		7.67	34.265	26.750	135.8	0.711	0.61		9.1	55.2	2.84	34.9	0.00	0.00			383	03
400	ISL	7.56	D	7.52	34.274 D	26.779	133.3	0.743	0.54	D	8.1	57.8	2.88	35.4	0.00	0.00			403	
439		7.21		7.17	34.296	26.847	127.2	0.788	0.41		6.1	63.0	2.97	36.4	0.00	0.00			443	02
500	ISL	6.78	D	6.73	34.305 D	26.915	121.4	0.871	0.34	D	5.0	70.2	3.06	37.8	0.00	0.00			504	
515		6.60		6.55	34.310	26.942	118.9	0.882	0.31		4.5	72.0	3.08	38.1	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 40.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 39.5 N	118 58.6 W	04/02/2012	1115 UTC	763 m	350 05 kn			1013.9 mb	14.5 C	12.7 C				037

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.40		14.40	33.385	24.857	308.4	0.000	6.26		107.7	1.0	0.31	0.0	0.00	0.00	0.85	0.25	0	
2		14.40		14.40	33.385	24.857	308.4	0.006	6.26		107.7	1.0	0.31	0.0	0.00	0.00	0.85	0.25	2	24
10		14.08		14.08	33.382	24.922	302.5	0.031	6.35		108.5	2.3	0.34	0.0	0.00	0.05	1.47	0.25	10	23
20		13.19		13.19	33.378	25.101	285.8	0.060	5.40		90.6	5.9	0.69	4.5	0.20	0.47	1.74	0.85	20	22
30		12.56		12.55	33.399	25.241	272.7	0.088	4.82		79.8	8.9	0.94	8.8	0.22	0.00	0.57	0.21	30	21
40		11.90		11.90	33.430	25.391	258.7	0.115	4.31		70.4	11.9	1.17	12.5	0.10	0.00	0.24	0.15	40	20
50		11.30		11.29	33.475	25.538	244.9	0.140	3.88		62.5	15.0	1.39	15.8	0.04	0.00	0.13	0.10	50	19
60		10.91		10.91	33.513	25.636	235.8	0.164	3.62		57.8	17.0	1.53	17.8	0.03	0.00	0.10	0.10	60	18
70		10.57		10.56	33.605	25.769	223.4	0.187	3.26		51.8	20.4	1.69	20.2	0.02	0.00	0.07	0.11	71	17
75	ISL	10.48	D	10.47	33.633 D	25.807	219.8	0.199	3.18	D	50.5	21.5	1.74	20.9	0.02	0.02	0.06	0.10	76	
85		10.11		10.10	33.705	25.925	208.8	0.219	2.94		46.3	23.6	1.84	22.4	0.02	0.06	0.04	0.08	86	16
100		9.81		9.79	33.794	26.047	197.6	0.250	2.68		42.0	26.5	1.96	24.3	0.01	0.00	0.03	0.08	101	15
120		9.56		9.55	33.858	26.138	189.3	0.288	2.52		39.2	28.8	2.04	25.5	0.01	0.00	0.02	0.09	121	14
125	ISL	9.46	D	9.45	33.903 D	26.190	184.5	0.299	2.42	D	37.5	29.7	2.07	26.0	0.01	0.00	0.02	0.08	126	
140		9.25		9.23	33.960	26.269	177.3	0.325	2.25		34.8	32.4	2.16	27.3	0.01	0.00	0.02	0.06	141	13
150	ISL	9.19	D	9.17	33.976 D	26.292	175.3	0.344	2.18	D	33.7	33.0	2.18	27.6	0.01	0.00	0.01	0.06	151	
170		9.07		9.05	34.017	26.343	170.8	0.377	2.07		31.9	34.2	2.23	28.3	0.01	0.00	0.01	0.05	171	12
200		8.70		8.68	34.088	26.458	160.5	0.427	1.80		27.5	38.4	2.36	29.7	0.01	0.00	0.01	0.05	202	11
230		8.21		8.19	34.149	26.581	149.2	0.473	1.32		20.0	46.2	2.55	32.3	0.02	0.00			232	10
250	ISL	8.12	D	8.09	34.168 D	26.610	146.8	0.506	1.21	D	18.3	47.5	2.60	32.9	0.01	0.00			252	
270		8.04		8.02	34.192	26.641	144.2	0.532	1.06		16.0	48.7	2.65	33.4	0.00	0.00			272	09
300	ISL	7.90	D	7.87	34.216 D	26.682	140.9	0.578	0.91	D	13.6	52.7	2.76	34.5	0.00	0.00			302	
320		7.64		7.61	34.249	26.746	135.0	0.602	0.70		10.4	55.4	2.83	35.2	0.00	0.00			323	08
380		7.23		7.19	34.281	26.831	127.7	0.681	0.48		7.1	61.4	2.97	36.4	0.00	0.00			383	07
400	ISL	7.03	D	7.00	34.293 D	26.868	124.4	0.711	0.40	D	5.9	63.2	2.99	36.8	0.00	0.00			403	
440		6.92		6.88	34.299	26.889	123.0	0.756	0.38		5.5	66.9	3.03	37.6	0.00	0.00			444	06
500	ISL	6.52	D	6.48	34.315 D	26.956	117.2	0.834	0.29	D	4.2	73.5	3.06	38.6	0.00	0.00			504	
515		6.44		6.40	34.320	26.971	115.9	0.845	0.28		4.1	75.1	3.07	38.8	0.00	0.00			519	05
600		5.77		5.72	34.355	27.085	105.6	0.940	0.18		2.6	88.1	3.26	39.7	0.00	0.00			605	04
690		5.40		5.34	34.382	27.153	99.8	1.032	0.10		1.4	100.4	3.35	38.5	0.00	0.00			696	03
700	ISL	5.37	D	5.31	34.384 D	27.158	99.5	1.050	0.10	D	1.4	100.9	3.35	38.4	0.00	0.00			706	
753		5.30		5.24	34.392	27.173	98.6	1.094	0.09		1.3	103.8	3.37	37.6	0.00	0.00			760	02
758		5.30		5.24	34.393	27.174	98.6	1.099	0.09		1.3	104.1	3.38	37.6	0.00	0.00			765	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 29.6 N	119 18.6 W	04/02/2012	1613 UTC	1657 m	300 07 kn			1014.7 mb	14.4 C	12.4 C				038

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.11		14.11		33.384	24.916	302.8	0.000	6.24		106.7		2.2	0.33	0.0	0.01	0.00	0.84	0.23	0	
2		14.11		14.11		33.384	24.916	302.8	0.006	6.24		106.7		2.2	0.33	0.0	0.01	0.00	0.84	0.23	2	21
9		13.96		13.96		33.382	24.946	300.2	0.028												9	20
10		13.96		13.96		33.379	24.944	300.4	0.030	6.23		106.2		2.5	0.35	0.0	0.01	0.00	1.12	0.45	10	19
20		13.45		13.45		33.385	25.054	290.3	0.060	5.96		100.5		4.2	0.48	1.4	0.07	0.27	1.75	0.58	20	18
30		13.07		13.07		33.389	25.133	283.0	0.088	5.93		99.2		4.7	0.53	2.5	0.09	0.10	0.89	0.40	30	17
40		12.24		12.23		33.426	25.325	265.0	0.116	5.14		84.6		7.4	0.84	7.4	0.21	0.00	0.40	0.23	40	16
50		11.23		11.23		33.457	25.535	245.2	0.141	3.95		63.5		14.4	1.35	15.1	0.05	0.00	0.21	0.16	50	15
60		10.63		10.62		33.580	25.738	226.0	0.165	3.28		52.1		19.8	1.68	19.8	0.02	0.00	0.09	0.10	60	14
70		10.37		10.37		33.663	25.848	215.9	0.187	2.99		47.3		22.6	1.81	21.6	0.02	0.00	0.05	0.08	71	13
75	ISL	10.28	D	10.29	D	33.723	25.908	210.2	0.199	2.80	D	44.2		23.4	1.83	22.1	0.02	0.00	0.04	0.08	76	
85		9.92		9.91		33.749	25.993	202.4	0.218	2.89		45.3		25.1	1.87	23.0	0.01	0.00	0.02	0.07	86	12
100		9.73		9.72		33.876	26.123	190.3	0.248	2.47		38.6		28.4	2.05	25.2	0.01	0.00	0.01	0.07	101	11
120		9.52		9.51		33.910	26.185	184.8	0.285	2.42		37.7		29.7	2.08	26.0	0.01	0.00	0.01	0.05	121	10
125	ISL	9.50	D	9.48		33.925	26.201	183.5	0.296	2.39	D	37.1		30.7	2.11	26.5	0.01	0.00	0.01	0.05	126	
140		9.08		9.06		34.003	26.331	171.3	0.321	2.16		33.2		33.6	2.20	27.8	0.00	0.00	0.01	0.05	141	09
150	ISL	8.92	D	8.90		34.037	26.383	166.6	0.340	2.01	D	30.9		34.5	2.23	28.2	0.00	0.00	0.01	0.04	151	
170		8.86		8.84		34.050	26.403	165.1	0.371	1.97		30.2		36.4	2.28	29.1	0.00	0.00	0.01	0.04	171	08
200		8.58		8.56		34.109	26.493	157.1	0.419	1.68		25.7		40.2	2.40	30.5	0.00	0.00	0.00	0.04	202	07
230		8.27		8.24		34.162	26.583	149.0	0.465	1.29		19.5		45.4	2.57	32.3	0.00	0.00			232	06
250	ISL	8.22	D	8.19		34.175	26.601	147.7	0.498	1.19	D	18.0		46.9	2.60	32.7	0.00	0.00			252	
270		7.96		7.93		34.180	26.644	143.9	0.524	1.15		17.3		48.4	2.63	33.1	0.00	0.00			272	05
300	ISL	7.76	D	7.73		34.229	26.713	137.8	0.570	0.81	D	12.1		52.5	2.74	34.2	0.00	0.00			302	
320		7.65		7.62		34.236	26.734	136.1	0.594	0.75		11.1		55.2	2.82	35.0	0.00	0.00			323	04
380		7.26		7.23		34.281	26.826	128.2	0.673	0.48		7.1		62.4	2.97	36.5	0.00	0.00			383	03
400	ISL	7.15	D	7.12		34.289	26.848	126.4	0.703	0.43	D	6.4		63.8	2.99	36.8	0.00	0.00			403	
440		6.95		6.91		34.296	26.883	123.6	0.749	0.38		5.6		66.7	3.04	37.3	0.00	0.00			444	02
500	ISL	6.60	D	6.55		34.313	26.945	118.4	0.827	0.31	D	4.5		73.5	3.14	38.7	0.00	0.00			504	
515		6.41		6.36		34.318	26.974	115.6	0.839	0.28		4.1		75.2	3.16	39.0	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 50.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 19.7 N	119 39.6 W	04/02/2012	2016 UTC	80 m	090 06 kn			1014.5 mb	14.0 C	13.0 C				039

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.09		14.09		33.343	24.889	305.4	0.000	5.92		101.1		2.6	0.38	0.2	0.02	0.07	0.30	0.09	0	
2		14.09		14.09		33.343	24.889	305.4	0.006	5.92		101.1		2.6	0.38	0.2	0.02	0.07	0.30	0.09	2	10
4		14.10		14.10		33.344	24.888	305.6	0.012	5.93		101.3		2.7	0.37	0.1	0.02	0.08	0.30	0.10	4	09
9		14.12		14.12		33.343	24.884	306.1	0.028												9	08
10		14.12		14.12		33.345	24.884	306.2	0.031	5.93		101.4		2.6	0.36	0.1	0.01	0.09	0.28	0.09	10	07
20		14.10		14.10		33.343	24.888	306.1	0.061	5.93		101.3		2.5	0.36	0.1	0.02	0.09	0.31	0.09	20	06
30		14.00		14.00		33.343	24.909	304.4	0.092	5.88		100.3		2.8	0.37	0.4	0.04	0.07	0.36	0.12	30	05
40		13.06		13.05		33.343	25.101	286.3	0.121	5.35		89.5		5.1	0.65	4.3	0.19	0.10	0.29	0.16	40	04
50		12.58		12.57		33.355	25.205	276.7	0.149	5.14		85.1		6.7	0.79	6.6	0.16	0.07	0.27	0.17	50	03
60		11.48		11.48		33.402	25.447	253.8	0.176	4.58		74.0		10.6	1.08	11.1	0.11	0.09	0.13	0.14	60	02
69		11.01		11.00		33.455	25.575	241.8	0.198	4.13		66.2		14.0	1.32	15.0	0.07	0.08	0.06	0.10	70	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 10.1 N	120 1.7 W	05/02/2012	0144 UTC	1161 m	080 06 kn	030 01 05 0		1016.4 mb	14.8 C	13.2 C	11 m	0/8		040

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.10		14.10		33.371	24.907	303.6	0.000	5.97		102.0		3.0	0.37	0.4	0.03	0.00	0.62	0.07	0	
1	A	14.10		14.10		33.371	24.907	303.6	0.003	5.97		102.0		3.0	0.37	0.4	0.03	0.00	0.62	0.07	1	23
10	ISL	14.02	D	14.02		33.370	24.926	302.2	0.031	5.91	D	100.9		3.0	0.37	0.4	0.03	0.00	0.58	0.17	10	
12		14.01		14.01		33.370	24.927	302.1	0.036												12	22
12	A	14.01		14.01		33.370	24.927	302.1	0.036	5.95		101.4		3.0	0.37	0.4	0.03	0.00	0.57	0.19	12	21
16	A	14.01		14.00		33.370	24.929	302.1	0.048	5.95		101.5		3.0	0.37	0.4	0.03	0.00	0.55	0.14	16	20
20	ISL	14.00	D	14.00		33.370	24.930	302.1	0.061	5.91	D	100.8		3.0	0.37	0.4	0.04	0.00	0.59	0.12	20	
24		14.00		14.00		33.376	24.934	301.8	0.073	5.94		101.3		3.0	0.37	0.4	0.04	0.00	0.63	0.09	24	19
30	ISL	13.98	D	13.98		33.369	24.934	302.0	0.091	5.89	D	100.3		3.0	0.37	0.4	0.04	0.03	0.64	0.08	30	
31	A	13.98		13.97		33.373	24.937	301.8	0.094	5.94		101.2		3.0	0.37	0.4	0.04	0.03	0.65	0.08	31	18
40		13.77		13.76		33.367	24.976	298.3	0.121	5.79		98.2		3.5	0.44	1.3	0.11	0.08	0.48	0.16	40	17
48		12.70		12.69		33.352	25.179	279.1	0.144	5.27		87.4		5.9	0.72	5.7	0.30	0.00	0.36	0.14	48	16
50	ISL	12.41	D	12.38		33.350	25.237	273.6	0.151	5.14	D	84.7		7.0	0.81	7.1	0.25	0.00	0.32	0.13	50	
58	A	10.95		10.95		33.397	25.538	245.0	0.170	4.49		71.8		11.5	1.15	12.9	0.03	0.00	0.16	0.09	58	15
66	A	10.28		10.27		33.506	25.742	225.8	0.189	3.87		61.1		16.6	1.45	17.6	0.02	0.00	0.07	0.07	67	14
75	ISL	10.02	D	10.02		33.619	25.873	213.5	0.210	3.57	D	56.1		19.6	1.60	19.9	0.01	0.00	0.03	0.05	76	
76		10.07		10.06		33.600	25.851	215.6	0.211	3.58		56.3		19.9	1.62	20.2	0.01	0.00	0.03	0.05	77	13
85		9.72		9.71		33.718	26.001	201.6	0.230	3.16		49.3		23.9	1.82	23.0	0.01	0.00	0.02	0.04	86	12
100	ISL	9.36	D	9.35		33.802	26.126	189.9	0.260	2.75	D	42.5		27.1	1.94	25.2	0.01	0.00	0.01	0.05	101	
101		9.26		9.25		33.795	26.137	189.0	0.261	2.81		43.4		27.3	1.95	25.3	0.01	0.00	0.01	0.05	102	11
120		8.95		8.94		33.950	26.309	173.0	0.295	2.69		41.2		31.3	2.02	26.6	0.00	0.00	0.00	0.03	121	10
125	ISL	8.86	D	8.85		33.964	26.333	170.8	0.305	2.64	D	40.5		31.7	2.04	26.8	0.00	0.00	0.00	0.03	126	
140		8.80		8.79		33.974	26.350	169.4	0.329	2.56		39.2		32.8	2.08	27.4	0.00	0.00	0.00	0.03	141	09
150	ISL	8.66	D	8.64		34.005	26.397	165.1	0.348	2.47	D	37.7		34.6	2.14	28.2	0.00	0.00	0.00	0.03	151	
170		8.46		8.44		34.043	26.459	159.6	0.379	2.07		31.4		38.2	2.26	29.9	0.00	0.00	0.00	0.03	171	08
200		8.18		8.16		34.095	26.542	152.3	0.425	1.92		28.9		41.9	2.34	30.6	0.00	0.00	0.00	0.03	202	07
230		8.02		8.00		34.141	26.603	147.0	0.470	1.48		22.2		45.9	2.51	32.3	0.00	0.00			232	06
250	ISL	7.93	D	7.91		34.157	26.629	144.8	0.502	1.31	D	19.6		48.0	2.57	33.0	0.00	0.00			252	
270		7.78		7.76		34.165	26.658	142.5	0.528	1.19		17.9		50.0	2.62	33.7	0.00	0.00			272	05
300	ISL	7.58	D	7.55		34.168	26.691	139.8	0.574	1.13	D	16.8		54.0	2.70	34.8	0.00	0.00			302	
320		7.21		7.18		34.165	26.741	135.1	0.598	1.02		15.1		56.7	2.75	35.5	0.00	0.00			323	04
381		6.76		6.72		34.192	26.825	127.8	0.678	0.77		11.2		64.0	2.89	37.3	0.00	0.00			384	03
400	ISL	6.67	D	6.64		34.194	26.838	126.8	0.707	0.73	D	10.6		66.5	2.94	37.8	0.00	0.00			403	
440		6.34		6.30		34.227	26.909	120.4	0.752	0.52		7.5		71.6	3.03	39.0	0.00	0.00			444	02
500	ISL	6.00	D	5.96		34.273	26.989	113.4	0.827	0.36	D	5.1		79.6	3.12	40.4	0.00	0.00			504	
517		5.83		5.79		34.283	27.019	110.6	0.841	0.32		4.5		81.9	3.15	40.8	0.00	0.00			521	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 59.4 N	120 21.0 W	05/02/2012	0452 UTC	721 m	040 02 kn	320 02 05	1	1014.9 mb	15.1 C	14.0 C	13 m	2/8	CS	041

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l		PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.70		13.70		33.443		25.047	290.4	0.000	6.08		103.0		3.9		0.44	1.7	0.07	0.00	0.73	0.12	0	
2		13.70		13.70		33.443		25.047	290.4	0.006	6.08		103.0		3.9		0.44	1.7	0.07	0.00	0.73	0.12	2	21
9		13.50		13.50		33.442		25.086	286.8	0.027													9	20
10		13.47		13.47		33.443		25.094	286.1	0.029	6.04		101.9		3.8		0.43	1.6	0.07	0.00	0.86	0.13	10	19
20		13.38		13.38		33.447		25.116	284.4	0.057	5.98		100.8		4.0		0.46	2.0	0.08	0.06	0.93	0.19	20	18
30		13.33		13.32		33.453		25.132	283.2	0.086	5.91		99.4		4.1		0.48	2.3	0.09	0.22	0.74	0.18	30	17
40		12.11		12.11		33.519		25.420	255.9	0.113	4.84		79.4		9.2		0.94	9.3	0.21	0.13	0.32	0.15	40	16
50	ISL	10.64	D	10.64		33.664	D	25.801	219.9	0.137	3.36	D	53.5		17.0		1.47	17.6	0.06	0.01	0.15	0.09	50	
51		10.59		10.57		33.666	D	25.815	218.6	0.140	3.27	D	51.9		17.8		1.52	18.4	0.05	0.00	0.13	0.08	51	15
59		10.39		10.38		33.675		25.854	215.0	0.156	3.10		49.1		21.6		1.73	21.8	0.02	0.00	0.08	0.09	59	14
70		9.78		9.77		33.734		26.003	201.0	0.179	2.84		44.4		24.5		1.86	23.9	0.02	0.00	0.05	0.06	71	13
75	ISL	9.53	D	9.52		33.804	D	26.099	192.0	0.190	2.71	D	42.1		25.9		1.92	24.7	0.02	0.00	0.04	0.05	76	
85		9.36		9.35		33.840		26.156	186.8	0.208	2.54		39.4		28.8		2.03	26.4	0.02	0.00	0.02	0.04	86	12
100		9.06		9.05		33.906		26.256	177.5	0.235	2.52		38.8		30.8		2.07	27.0	0.01	0.00	0.01	0.03	101	11
120		8.93		8.91		33.999		26.350	169.1	0.270	2.42		37.1		32.9		2.11	27.4	0.00	0.00	0.00	0.03	121	10
125	ISL	8.78	D	8.76		34.022	D	26.392	165.2	0.279	2.36	D	36.2		34.0		2.15	27.9	0.00	0.00	0.00	0.03	126	
140		8.54		8.53		34.055		26.455	159.4	0.303	2.11		32.1		37.3		2.25	29.3	0.00	0.00	0.00	0.02	141	09
150	ISL	8.38	D	8.37		34.072	D	26.492	156.0	0.320	2.02	D	30.7		38.7		2.29	29.8	0.00	0.00	0.00	0.02	151	
170		8.24		8.22		34.086		26.526	153.2	0.349	1.85		27.9		41.5		2.36	30.7	0.00	0.00	0.00	0.02	171	08
199		7.82		7.80		34.114		26.611	145.6	0.393	1.53		22.9		46.5		2.51	32.6	0.00	0.00	0.00	0.02	201	07
200	ISL	7.83	D	7.82		34.115	D	26.609	145.8	0.396	1.55	D	23.3		46.6		2.51	32.6	0.00	0.00	0.00	0.02	202	
230		7.58		7.55		34.114		26.647	142.6	0.437	1.44		21.5		49.5		2.56	33.4	0.00	0.00			232	06
250	ISL	7.54	D	7.51		34.131	D	26.666	141.2	0.468	1.36	D	20.3		51.4		2.62	34.0	0.00	0.00			252	
270		7.43		7.40		34.152		26.699	138.4	0.494	1.14		16.9		53.2		2.67	34.6	0.00	0.00			272	05
300	ISL	7.25	D	7.22		34.161	D	26.731	135.7	0.538	1.06	D	15.7		56.8		2.76	35.6	0.00	0.00			302	
319		7.02		6.99		34.173		26.773	131.9	0.560	0.91		13.3		59.0		2.81	36.2	0.00	0.00			322	04
379		6.64		6.61		34.203		26.849	125.4	0.637	0.68		9.9		66.1		2.93	37.8	0.00	0.00			382	03
400	ISL	6.48	D	6.45		34.220	D	26.884	122.3	0.668	0.60	D	8.7		68.8		2.98	38.3	0.00	0.00			403	
440		6.20		6.16		34.247		26.943	117.1	0.711	0.46		6.6		74.0		3.07	39.3	0.00	0.00			444	02
500	ISL	5.81	D	5.76		34.282	D	27.020	110.2	0.785	0.35	D	5.0		80.7		3.15	40.4	0.00	0.00			504	
515		5.78		5.73		34.287		27.028	109.7	0.796	0.30		4.3		82.4		3.17	40.7	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 39.4 N	121 2.1 W	05/02/2012	1105 UTC	3682 m	360 01 kn			1015.6 mb	14.0 C	12.0 C				042

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l		PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.42		13.42		33.225		24.935	301.0	0.000	6.10		102.7		3.3		0.38	0.6	0.05	0.00	0.52	0.11	0	
2		13.42		13.42		33.225		24.935	301.0	0.006	6.10		102.7		3.3		0.38	0.6	0.05	0.00	0.52	0.11	2	21
10		13.32		13.31		33.233		24.962	298.7	0.030													10	20
10		13.32		13.31		33.235		24.964	298.5	0.030	6.12		102.8		3.3		0.37	0.6	0.05	0.00	0.55	0.03	10	19
20		13.29		13.29		33.235		24.970	298.2	0.060	6.12		102.7		3.4		0.37	0.6	0.05	0.00	0.59	0.10	20	18
30		13.21		13.21		33.257		25.003	295.4	0.090	6.06		101.6		3.6		0.40	1.0	0.07	0.06	0.61	0.13	30	17
40		13.17		13.17		33.269		25.021	294.0	0.119	6.04		101.2		3.6		0.41	1.1	0.08	0.11	0.53	0.17	40	16
50		12.98		12.97		33.286		25.073	289.3	0.148	5.91		98.7		4.3		0.49	2.2	0.14	0.24	0.56	0.09	50	15
60		12.90		12.89		33.360		25.145	282.7	0.177	5.97		99.5		5.2		0.55	3.0	0.11	0.30	0.61	0.18	60	14
71		12.65		12.64		33.348		25.187	279.0	0.208	5.81		96.3		5.5		0.61	4.0	0.15	0.26	0.45	0.15	72	13
75	ISL	11.94	D	11.96		33.309	D	25.285	269.7	0.220	5.32	D	86.9		6.7		0.72	5.9	0.13	0.19	0.37	0.14	76	
85		11.16		11.15		33.310		25.436	255.5	0.245	4.92		78.9		9.7		1.01	10.7	0.08	0.00	0.18	0.11	86	12
100		10.35		10.34		33.420		25.664	234.0	0.282	4.14		65.3		15.2		1.42	17.3	0.01	0.00	0.09	0.06	101	11
120		9.38		9.36		33.693		26.039	198.6	0.325	3.26		50.4		24.5		1.83	24.0	0.01	0.00	0.02	0.04	121	10
125	ISL	9.22	D	9.21		33.739	D	26.100	192.9	0.337	3.22	D	49.6		25.6		1.87	24.5	0.01	0.00	0.01	0.04	126	
140		9.06		9.04		33.841		26.207	183.1	0.363	2.90		44.6		28.8		1.98	25.9	0.01	0.00	0.01	0.03	141	09
150	ISL	9.05	D	9.03		33.882	D	26.240	180.2	0.383	2.70	D	41.5		30.2		2.02	26.5	0.01	0.00	0.01	0.03	151	
170		8.72		8.70		33.963		26.357	169.4	0.416	2.50		38.2		32.9		2.10	27.8	0.00	0.00	0.00	0.03	171	08
200		8.38		8.36		34.051		26.478	158.4	0.465	2.11		31.9		38.1		2.27	29.8	0.00	0.00	0.00	0.02	202	07
231		8.12		8.09		34.101		26.557	151.4	0.513	1.76		26.6		42.6		2.42	31.4	0.00	0.00			233	06
250	ISL	7.78	D	7.75		34.098	D	26.605	147.0	0.545	1.57	D	23.5		46.0		2.51	32.7	0.00	0.00			252	
270		7.62		7.59		34.112		26.640	144.0	0.571	1.36		20.2		49.6		2.60	34.1	0.00	0.00			272	05
300	ISL	7.34	D	7.31		34.149	D	26.709	137.8	0.617	1.06	D	15.8		54.5		2.73	35.4	0.00	0.00			302	
320		7.15		7.12		34.161		26.745	134.6	0.640	0.92		13.5		57.7		2.81	36.3	0.00	0.00			323	04
381		6.49		6.46		34.161		26.836	126.6	0.720	0.79		11.4		66.1		2.93	38.2	0.00	0.00			384	03
400	ISL	6.35	D	6.31		34.179	D	26.870	123.5	0.748	0.69	D	10.0		68.4		2.98	38.6	0.00	0.00			403	
440		6.18		6.14		34.229		26.931	118.2	0.792	0.50		7.1		73.1		3.07	39.4	0.00	0.00			444	02
500	ISL	5.80	D	5.76		34.271	D	27.013	110.9	0.866	0.34	D	4.8		80.5		3.17	40.7	0.00	0.00			504	
515		5.79		5.74		34.291		27.031	109.4	0.877	0.29		4.1		82.3		3.19	41.0	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD
32 19.5 N	121 42.8 W	05/02/2012	1759	UTC	3777 m	070	04 kn			1015.8 mb	13.2 C	12.5 C					043

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.86		14.86		33.367		24.716	321.9	0.000	5.83		101.1		2.1	0.31	0.0	0.00	0.00	0.26	0.05	0	
2		14.86		14.86		33.330	D	24.716	321.9	0.006	5.83		101.1		2.1	0.31	0.0	0.00	0.00	0.26	0.05	2	21
9		14.86		14.86		33.366		24.744	319.4	0.029												9	20
10		14.87		14.87		33.330	D	24.714	322.3	0.033	5.83		101.2		2.1	0.30	0.0	0.00	0.00	0.24	0.06	10	19
20	ISL	14.86	D	14.86		33.328	D	24.715	322.6	0.065	5.86	D	101.7		2.1	0.30	0.0	0.00	0.00	0.23	0.06	20	
25		14.87		14.86		33.331	D	24.716	322.6	0.081	5.83		101.1		2.1	0.30	0.0	0.00	0.00	0.23	0.06	25	18
30	ISL	14.87	D	14.86		33.331	D	24.717	322.7	0.097	5.87	D	101.9		2.1	0.30	0.0	0.00	0.00	0.27	0.08	30	
40		14.46		14.47		33.263	D	24.749	319.9	0.130	5.88		101.2		2.2	0.31	0.0	0.00	0.00	0.34	0.11	40	17
50		14.29		14.28		33.239	D	24.771	318.2	0.162	5.91		101.2		2.2	0.31	0.0	0.01	0.05	0.38	0.14	50	16
62		13.40		13.39		33.190	D	24.917	304.6	0.199	5.72		96.3		3.2	0.45	1.7	0.21	0.00	0.27	0.18	62	15
75		12.04		12.03		33.186	D	25.177	280.0	0.238	5.44		89.0		5.0	0.63	4.8	0.02	0.00	0.20	0.18	76	14
87		10.96		10.95		33.217		25.397	259.1	0.268	5.50		87.8		5.4	0.64	5.3	0.01	0.00	0.11	0.09	88	13
100		10.40		10.40		33.336	D	25.587	241.3	0.303	4.80		75.7		11.0	1.09	12.6	0.01	0.00	0.07	0.07	101	12
112		9.91		9.90		33.453		25.764	224.7	0.329	4.03		63.0		17.3	1.50	19.2	0.00	0.00	0.03	0.06	113	11
125		9.23		9.18		33.696	D	26.071	195.7	0.359	3.35		51.7		23.5	1.81	24.0	0.00	0.00	0.01	0.05	126	10
140		9.10		9.08		33.747		26.126	190.7	0.385	3.34		51.4		25.7	1.82	24.6	0.00	0.00	0.00	0.04	141	09
150	ISL	9.04	D	9.02		33.767	D	26.152	188.5	0.408	3.13	D	48.0		27.2	1.86	25.3	0.00	0.00	0.00	0.04	151	
170		8.75		8.74		33.883		26.288	175.9	0.441	3.01		46.0		30.3	1.95	26.8	0.00	0.00	0.00	0.04	171	08
200	ISL	8.42	D	8.42		33.996	D	26.426	163.4	0.495	2.19	D	33.2		37.0	2.24	30.2	0.00	0.00	0.00	0.03	202	
201		8.47		8.45		34.025		26.445	161.6	0.493	2.14		32.5		37.2	2.25	30.3	0.00	0.00	0.00	0.03	203	07
231		8.17		8.14		34.021	D	26.487	158.1	0.546	1.92		29.0		41.0	2.35	31.8	0.00	0.00			233	06
250	ISL	8.06	D	8.03		34.090	D	26.558	151.7	0.575	1.71	D	25.7		43.9	2.45	32.7	0.00	0.00			252	
270		7.93		7.90		34.124		26.604	147.6	0.600	1.38		20.7		47.0	2.55	33.7	0.00	0.00			272	05
300	ISL	7.64	D	7.61		34.148	D	26.666	142.1	0.649	1.18	D	17.6		51.4	2.68	35.1	0.00	0.00			302	
320		7.51		7.48		34.176		26.707	138.6	0.672	0.95		14.2		54.3	2.76	36.0	0.00	0.00			323	04
380		6.36		6.32		34.137		26.834	126.5	0.751	0.92		13.3		64.2	2.86	38.5	0.00	0.00			383	03
400	ISL	6.42	D	6.38		34.160	D	26.845	125.9	0.784	0.82	D	11.8		67.0	2.92	39.1	0.00	0.00			403	
440		6.17		6.13		34.189		26.901	121.0	0.826	0.58		8.3		72.6	3.03	40.2	0.00	0.00			444	02
500	ISL	5.75	D	5.71		34.232	D	26.988	113.2	0.904	0.43	D	6.1		80.6	3.14	41.6	0.00	0.00			504	
515		5.72		5.67		34.250		27.006	111.6	0.913	0.37		5.2		82.6	3.17	42.0	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD
31 59.5 N	122 23.5 W	06/02/2012	0108	UTC	4097 m	360	06 kn	340 03 10	2	1016.6 mb	13.1 C	11.2 C	14 m		8/8	SC	044

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.41		13.40		33.223		24.937	300.8	0.000	6.13		103.2		3.2	0.36	0.3	0.03	0.05	0.55	0.11	0	
1	A	13.41		13.40		33.223		24.937	300.8	0.003	6.13		103.2		3.2	0.36	0.3	0.03	0.05	0.55	0.11	1	23
10		13.40		13.40		33.224		24.939	300.9	0.029												10	22
10	A	13.40		13.40		33.229		24.942	300.6	0.030	6.11		102.9		3.2	0.34	0.3	0.04	0.04	0.52	0.11	10	21
13	A	13.40		13.40		33.223	D	24.938	301.0	0.039	6.17	D	103.9									13	20
20		13.39		13.39		33.223		24.940	301.1	0.060	6.11		102.7		3.2	0.34	0.4	0.03	0.06	0.51	0.13	20	19
25	A	13.38		13.37		33.223		24.943	301.0	0.075	6.10		102.5		3.2	0.35	0.4	0.04	0.04	0.58	0.13	25	18
30	ISL	13.35	D	13.34		33.221	D	24.948	300.7	0.091	6.10	D	102.6		3.2	0.35	0.5	0.05	0.06	0.53	0.13	30	
36		13.34		13.34		33.224		24.952	300.5	0.108	6.05		101.6		3.2	0.36	0.6	0.06	0.09	0.46	0.14	36	17
48	A	13.34		13.34		33.229		24.956	300.4	0.144	6.04		101.5		3.2	0.36	0.6	0.07	0.13	0.39	0.15	48	16
50	ISL	13.34	D	13.34		33.234	D	24.960	300.1	0.152	6.04	D	101.5		3.2	0.36	0.6	0.07	0.14	0.39	0.16	50	
54	A	13.33		13.32		33.240		24.968	299.4	0.162	6.01		101.0		3.2	0.37	0.6	0.08	0.15	0.40	0.17	54	15
62		12.92		12.91		33.259		25.063	290.6	0.186	5.87		97.7		3.7	0.43	1.5	0.18	0.22	0.31	0.19	62	14
70		12.28		12.27		33.314		25.230	274.8	0.209	5.56		91.4		6.0	0.68	5.3	0.30	0.13	0.17	0.16	71	13
75	ISL	11.21	D	11.18		33.249	D	25.382	260.3	0.223	5.02	D	80.7		7.3	0.80	7.5	0.21	0.09	0.15	0.15	76	
85		10.96		10.95		33.263		25.435	255.6	0.248	4.85		77.4		9.9	1.05	11.9	0.02	0.00	0.12	0.13	86	12
100		10.15		10.14		33.363		25.653	235.0	0.285	4.41		69.3		13.9	1.28	16.0	0.01	0.00	0.07	0.07	101	11
120		9.46		9.45		33.620		25.968	205.4	0.329	3.40		52.7		23.2	1.76	23.7	0.00	0.00	0.01	0.05	121	10
125	ISL	9.26	D	9.25		33.689	D	26.055	197.2	0.341	3.27	D	50.4		24.6	1.80	24.5	0.00	0.00	0.01	0.05	126	
140		8.89		8.87		33.808		26.207	183.0	0.367	3.02		46.3		28.8	1.92	26.7	0.00	0.00	0.00	0.05	141	09
150	ISL	8.82	D	8.80		33.859	D	26.258	178.4	0.387	2.83	D	43.3		30.4	1.97	27.5	0.00	0.00	0.00	0.04	151	
170		8.54		8.52		33.927		26.355	169.5	0.420	2.59		39.4		33.7	2.07	29.0	0.00	0.00	0.00	0.04	171	08
200		8.02		8.00		33.982		26.477	158.3	0.469	2.44		36.8		38.3	2.18	30.6	0.00	0.00	0.00	0.03	202	07
230		7.80		7.78		34.037		26.554	151.5	0.516	1.89		28.2		44.0	2.36	33.1	0.00	0.00			232	06
250	ISL	7.66	D	7.65		34.080	D	26.606	146.9	0.549	1.74	D	26.0		46.9	2.45	34.0	0.00	0.00			252	
270		7.51		7.49		34.096		26.642	143.7	0.575	1.46		21.7		49.8	2.54	34.9	0.00	0.00			272	05
300	ISL	7.23	D	7.20		34.126	D	26.707	138.0	0.620	1.17	D	17.3		54.8	2.66	36.4	0.00	0.00			302	
320		7.00		6.97		34.137		26.747	134.3	0.644	1.00		14.7		58.2	2.74	37.4	0.00	0.00			323	04
381		6.46		6.43		34.168		26.845	125.7	0.723	0.69		10.0		67.8	2.91	39.5	0.00	0.00			384	03
400	ISL	6.36	D	6.33		34.188	D	26.874	123.2	0.752	0.63	D	9.1		70.4	2.95	39.9	0.00	0.00			403	
441		6.02		5.98		34.209		26.935	117.6	0.796	0.50		7.2		75.9	3.04	40.9	0.00	0.00			445	02
500	ISL	5.84	D	5.80		34.271	D	27.008	111.5	0.870	0.35	D	5.0		82.1	3.12	41.8	0.00	0.00			504	
515		5.73		5.69		34.273		27.023	110.1	0.881	0.31		4.4		83.7	3.14	42.0	0.00	0.00			519	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
31 39.3 N	123 4.1 W	06/02/2012	0628 UTC	4154 m	240 06 kn	210 01 19	2	1014.8 mb	14.1 C	11.6 C	21 m	8/8	SC	045

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.53		14.53	33.284	24.750	318.7	0.000	5.90		101.6	2.2	0.31	0.0	0.00	0.00	0.24	0.08	0	
2		14.53		14.53	33.284	24.750	318.7	0.006	5.90		101.6	2.2	0.31	0.0	0.00	0.00	0.24	0.08	2	21
10		14.52		14.52	33.283	24.753	318.6	0.031											10	20
10		14.52		14.52	33.284	24.753	318.6	0.032	5.90		101.6	2.2	0.30	0.0	0.00	0.00	0.23	0.08	10	19
20	ISL	14.49	D	14.48	33.289	D 24.765	317.8	0.064	5.87	D	101.1	2.2	0.30	0.0	0.00	0.00	0.24	0.08	20	
25		14.47		14.47	33.287	24.768	317.7	0.080	5.90		101.5	2.2	0.30	0.0	0.00	0.00	0.25	0.09	25	18
30	ISL	14.46	D	14.46	33.288	D 24.770	317.6	0.096	5.87	D	101.1	2.2	0.30	0.0	0.00	0.00	0.27	0.10	30	
39		14.45		14.45	33.289	24.774	317.6	0.124	5.90		101.4	2.2	0.30	0.0	0.00	0.00	0.29	0.11	39	17
50		14.44		14.43	33.284	24.774	317.9	0.159	5.88		101.1	2.2	0.30	0.0	0.00	0.00	0.34	0.13	50	16
62		14.34		14.33	33.280	24.792	316.5	0.197	5.87		100.7	2.2	0.31	0.0	0.01	0.00	0.36	0.14	62	15
74		12.74		12.73	33.202	25.057	291.5	0.234	5.47		90.8	4.5	0.58	4.1	0.03	0.00	0.17	0.20	75	14
75	ISL	12.66	D	12.63	33.211	D 25.082	289.1	0.238	5.44	D	90.1	4.7	0.59	4.3	0.03	0.00	0.17	0.20	76	
87		11.60		11.59	33.237	25.299	268.6	0.270	5.20		84.2	6.5	0.75	7.2	0.01	0.00	0.13	0.12	88	13
100		10.84		10.82	33.321	25.502	249.5	0.304	4.68		74.6	11.0	1.08	12.6	0.01	0.00	0.08	0.08	101	12
112		10.18		10.17	33.489	25.747	226.4	0.332	3.88		61.0	17.4	1.49	19.3	0.00	0.00	0.04	0.05	113	11
124		9.92		9.91	33.655	25.920	210.2	0.359	3.08		48.2	23.0	1.82	24.0	0.00	0.00	0.01	0.04	125	10
125	ISL	9.88	D	9.87	33.678	D 25.945	207.8	0.363	3.15	D	49.3	23.3	1.83	24.2	0.00	0.00	0.01	0.04	126	
140		9.75		9.73	33.816	26.075	195.8	0.391	2.39		37.3	27.8	2.05	27.0	0.00	0.00	0.00	0.03	141	09
150	ISL	9.63	D	9.61	33.885	D 26.149	189.0	0.413	2.20	D	34.3	29.4	2.11	27.7	0.00	0.00	0.00	0.03	151	
169		9.45		9.43	33.975	26.250	179.8	0.445	1.93		29.9	32.4	2.21	29.0	0.00	0.00	0.00	0.03	170	08
200		9.17		9.15	34.056	26.359	170.1	0.499	1.84		28.4	34.9	2.28	29.8	0.00	0.00	0.00	0.03	202	07
229		9.10		9.08	34.116	26.418	165.1	0.548	1.58		24.4	37.3	2.36	30.8	0.00	0.00			231	06
250	ISL	9.04	D	9.01	34.147	D 26.453	162.2	0.586	1.43	D	22.1	38.2	2.40	30.9	0.00	0.00			252	
270		8.98		8.95	34.157	26.471	160.9	0.615	1.43		22.0	39.1	2.43	31.0	0.00	0.00			272	05
300	ISL	8.82	D	8.78	34.195	D 26.527	156.1	0.666	1.16	D	17.8	42.0	2.53	32.3	0.00	0.00			302	
320		8.70		8.66	34.214	26.561	153.3	0.693	1.03		15.8	44.0	2.59	33.1	0.00	0.00			323	04
380		8.39		8.35	34.234	26.626	148.2	0.784	0.85		12.9	48.1	2.68	34.1	0.00	0.00			383	03
400	ISL	8.29	D	8.25	34.237	D 26.644	146.8	0.819	0.81	D	12.2	50.0	2.71	34.6	0.00	0.00			403	
439		7.82		7.78	34.226	26.706	141.2	0.869	0.78		11.6	53.8	2.77	35.7	0.00	0.00			443	02
500	ISL	6.87	D	6.82	34.219	D 26.834	129.1	0.959	0.62	D	9.0	63.6	2.92	38.2	0.00	0.00			504	
515		6.82		6.77	34.220	26.843	128.5	0.971	0.60		8.8	66.0	2.96	38.8	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
31 19.5 N	123 44.4 W	06/02/2012	1259 UTC	4039 m	160 10 kn			1014.4 mb	15.1 C	12.5 C				046

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		15.17		15.17	33.397	24.701	323.3	0.000	5.80		101.3	1.9	0.32	0.0	0.00	0.00	0.22	0.03	0	
2		15.17		15.17	33.397	24.701	323.3	0.007	5.80		101.3	1.9	0.32	0.0	0.00	0.00	0.22	0.03	2	21
10		15.17		15.17	33.398	24.700	323.6	0.031											10	20
10		15.17		15.17	33.398	24.701	323.6	0.032	5.80		101.4	1.9	0.32	0.0	0.00	0.00	0.25	0.04	10	19
20	ISL	15.16	D	15.16	33.396	D 24.702	323.8	0.065	5.79	D	101.1	1.9	0.31	0.0	0.00	0.00	0.29	0.04	20	
25		15.16		15.16	33.396	24.703	323.9	0.081	5.79		101.2	1.9	0.31	0.0	0.00	0.00	0.30	0.04	25	18
30	ISL	15.16	D	15.15	33.395	D 24.703	324.1	0.098	5.76	D	100.5	1.9	0.32	0.0	0.00	0.00	0.34	0.03	30	
40		15.14		15.14	33.394	24.706	324.1	0.130	5.79		101.1	1.9	0.34	0.0	0.00	0.00	0.40	0.01	40	17
50		15.14		15.13	33.393	24.707	324.4	0.162	5.79		101.0	1.8	0.26	0.0	0.00	0.00	0.42	0.01	50	16
62		14.90		14.89	33.367	24.740	321.5	0.201	5.77		100.3	1.8	0.32	0.0	0.03	0.04	0.36	0.06	62	15
75		14.05		14.04	33.310	24.875	309.0	0.242	5.71		97.5	2.6	0.39	0.7	0.26	0.09	0.32	0.11	76	14
87		12.56		12.55	33.244	25.123	285.5	0.278	5.35		88.4	4.8	0.64	4.8	0.16	0.00	0.22	0.11	88	13
100		11.72		11.70	33.279	25.311	267.8	0.314	5.04		81.8	7.0	0.84	8.4	0.08	0.00	0.19	0.04	101	12
112		11.30		11.29	33.314	25.414	258.3	0.345	4.80		77.3	8.9	0.98	10.9	0.04	0.00	0.13	0.09	113	11
125		10.17		10.15	33.410	25.687	232.4	0.377	4.52		71.0	13.0	1.19	14.7	0.01	0.00	0.05	0.04	126	10
140		9.62		9.61	33.554	25.891	213.2	0.410	4.22		65.5	17.9	1.42	18.8	0.00	0.00	0.01	0.02	141	09
150	ISL	9.41	D	9.40	33.646	D 25.997	203.3	0.434	4.02	D	62.2	20.4	1.52	20.5	0.00	0.00	0.01	0.02	151	
170		9.02		9.00	33.794	26.177	186.5	0.470	3.59		55.2	25.5	1.72	24.0	0.00	0.00	0.00	0.02	171	08
200		8.55		8.53	33.946	26.370	168.7	0.524	2.84		43.2	32.4	2.01	28.0	0.00	0.00	0.00	0.02	202	07
230		8.26		8.24	34.003	26.460	160.7	0.573	2.39		36.2	37.6	2.18	30.5	0.00	0.00			232	06
250	ISL	8.02	D	8.00	34.025	D 26.512	156.0	0.609	2.27	D	34.1	40.4	2.23	31.3	0.00	0.00			252	
270		7.68		7.65	34.016	26.557	151.9	0.635	2.29		34.1	43.1	2.27	32.1	0.00	0.00			272	05
300	ISL	7.43	D	7.40	34.079	D 26.641	144.3	0.684	1.63	D	24.1	48.9	2.46	34.3	0.00	0.00			302	
320		7.13		7.10	34.074	26.679	140.8	0.708	1.55		22.9	52.7	2.58	35.8	0.00	0.00			323	04
380		6.59		6.56	34.127	26.795	130.4	0.790	0.99		14.5	63.3	2.82	39.0	0.00	0.00			383	03
400	ISL	6.38	D	6.35	34.133	D 26.828	127.4	0.821	0.89	D	12.9	66.5	2.88	39.7	0.00	0.00			403	
440		6.06		6.02	34.161	26.892	121.7	0.865	0.70		10.1	73.0	2.99	41.0	0.00	0.00			444	02
500	ISL	5.82	D	5.78	34.204	D 26.957	116.2	0.943	0.52	D	7.4	79.0	3.09	42.0	0.00	0.00			504	
517		5.72		5.68	34.220	26.982	113.9	0.956	0.47		6.7	80.7	3.12	42.3	0.00	0.00			521	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.8 32.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 53.3 N	118 26.7 W	04/02/2012	0027 UTC	29 m	060 03 kn	260 01 06	0	1015.5 mb	16.0 C	10.0 C		0/8		033

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.55		14.55	33.363	24.808	313.1	0.000	6.32		108.9	0.1	0.26	0.0	0.01	0.00	1.70	0.41	0	
2		14.55		14.55	33.363	24.808	313.1	0.006	6.32		108.9	0.1	0.26	0.0	0.01	0.00	1.70	0.41	2	05
5		14.44		14.44	33.363	24.831	311.1	0.016	6.30		108.4	0.2	0.27	0.0	0.01	0.11	1.92	0.40	5	04
10		14.32		14.32	33.364	24.858	308.6	0.031	6.19		106.3	0.5	0.28	0.0	0.03	0.09	2.70	0.52	10	03
15		14.19		14.19	33.364	24.884	306.3	0.047	6.03		103.2	0.7	0.36	0.2	0.04	0.48	3.25	0.79	15	02
19		14.05		14.05	33.364	24.914	303.6	0.059	5.41		92.4	2.0	0.59	1.9	0.15	1.77A	4.69	1.04	19	01

A) UNUSUAL HIGH NH4 CONCENTRATIONS MAY BE DUE TO THE PROXIMITY OF THIS STATION TO THE HYPERION WASTE-WATER OUTFALL
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 88.5 30.1

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 40.5 N	118 5.7 W	03/02/2012	2104 UTC	19 m	030 05 kn			1013.4 mb	13.5 C	9.6 C				032

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.34	14.33	33.324	24.823	311.7	0.000	6.39	109.8	0.1	0.20	0.0	0.00	0.00	1.58	0.30	0	
2	14.34	14.33	33.324	24.823	311.7	0.006	6.39	109.8	0.1	0.20	0.0	0.00	0.00	1.58	0.30	2	04
5	14.33	14.33	33.324	24.824	311.7	0.016	6.39	109.7	0.1	0.20	0.0	0.00	0.00	1.63	0.31	5	03
10	14.28	14.28	33.345	24.852	309.2	0.031	6.36	109.1	0.2	0.21	0.0	0.00	0.00	1.23	0.31	10	02
15	14.18	14.18	33.347	24.873	307.3	0.047	6.21	106.3	0.5	0.25	0.0	0.01	0.07	2.24	0.50	15	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 27.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 29.7 N	117 45.1 W	03/02/2012	1836 UTC	28 m	270 02 kn			1013.4 mb	12.9 C	10.4 C				031

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.27	14.27	33.353	24.859	308.3	0.000	6.18	106.0	1.8	0.31	0.1	0.02	0.00	1.40	0.62	0	
2	14.27	14.27	33.353	24.859	308.3	0.006	6.18	106.0	1.8	0.31	0.1	0.02	0.00	1.40	0.62	2	04
5	14.27	14.27	33.352	24.859	308.3	0.015	6.18	105.9	1.8	0.30	0.1	0.02	0.07	1.45	0.62	5	03
10	14.19	14.19	33.351	24.874	307.1	0.031	6.11	104.6	1.9	0.31	0.0	0.03	0.06	1.50	0.67	10	02
20	13.97	13.97	33.353	24.923	302.7	0.061	5.79	98.7	2.9	0.41	1.0	0.11	0.16	2.02	0.98	20	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 28.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 29.1 N	117 46.2 W	03/02/2012	1639 UTC	65 m	020 02 kn			1013.5 mb	13.2 C	11.2 C				030

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.54	14.54	33.357	24.805	313.4	0.000	6.17	106.3	1.4	0.28	0.0	0.00	0.00	0.46	0.19	0	
2	14.54	14.54	33.357	24.805	313.4	0.006	6.17	106.3	1.4	0.28	0.0	0.00	0.00	0.46	0.19	2	08
5	14.52	14.52	33.358	24.810	313.1	0.016	6.18	106.6	1.4	0.27	0.0	0.00	0.00	0.51	0.18	5	07
10	14.47	14.47	33.357	24.820	312.2	0.031	6.19	106.5	1.4	0.28	0.0	0.00	0.00	0.53	0.17	10	06
19	14.23	14.23	33.362	24.875	307.3	0.059	6.05	103.6	1.5	0.33	0.1	0.02	0.00	0.91	0.38	19	05
20 ISL	14.13 D	14.09	33.366 D	24.908	304.1	0.063	5.86	D100.1	2.0	0.38	0.8	0.05	0.01	0.94	0.42	20	
30	12.73	12.72	33.340	25.163	280.1	0.092	4.80	79.7	7.4	0.89	8.1	0.34	0.11	1.21	0.82	30	04
39	11.64	11.64	33.387	25.405	257.3	0.116	3.99	64.8	12.9	1.31	14.5	0.31	0.17	0.16	0.51	39	03
50	11.09	11.08	33.454	25.558	242.9	0.143	3.71	59.6	15.5	1.47	17.0	0.02	0.00	0.12	0.17	50	02
60	10.89	10.89	33.483	25.616	237.7	0.167	3.63	58.0	16.7	1.54	18.0	0.03	0.00	0.09	0.17	60	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 30.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 25.2 N	117 54.1 W	03/02/2012	1352 UTC	626 m	110 05 kn			1013.1 mb	14.8 C	13.0 C				029

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
2	14.58	14.58	33.390	24.822	311.8	0.003	6.04	104.4	2.8	0.36	0.0	0.01	0.11	0.76	0.17	2	21
10	14.39	14.38	33.388	24.862	308.2	0.027										10	20
10	14.39	14.38	33.388	24.862	308.2	0.028	6.07	104.5	2.6	0.34	0.0	0.01	0.00	0.78	0.26	10	19
20	14.26	14.25	33.387	24.889	306.0	0.059	5.89	101.1	3.0	0.40	0.3	0.04	0.09	1.45	0.58	20	18
30	14.19	14.18	33.378	24.897	305.5	0.089	5.76	98.8	3.3	0.43	0.9	0.09	0.07	1.52	0.47	30	17
40	13.59	13.58	33.384	25.025	293.6	0.119	5.16	87.3	6.0	0.72	5.0	0.14	0.06	0.62	0.41	40	16
50	12.09	12.07	33.391	25.327	265.0	0.147	4.17	68.3	11.2	1.20	12.4	0.04	0.03	0.30	0.29	50	15
60	11.62	11.61	33.484	25.486	250.1	0.173	3.69	59.9	14.8	1.44	15.6	0.02	0.04	0.20	0.13	60	14
75	11.12	11.11	33.565	25.640	235.7	0.209	3.30	53.0	18.6	1.62	18.4	0.01	0.00	0.07	0.10	76	13
84	10.93	10.92	33.624	25.720	228.3	0.230	3.09	49.5	20.5	1.72	19.7	0.01	0.00	0.04	0.08	85	12
100	10.47	10.45	33.760	25.908	210.8	0.265	2.60	41.4	25.3	1.94	22.5	0.00	0.00	0.02	0.06	101	11
120	10.20	10.18	33.894	26.061	196.8	0.306	2.26	35.8	28.3	2.08	24.6	0.01	0.05	0.01	0.05	121	10
125 ISL	10.13 D	10.11	33.937 D	26.106	192.0	0.932	2.16 D	34.2	28.9	2.11	25.0	0.01	0.04	0.01	0.05	126	
140	9.97	9.95	34.010	26.191	184.9	0.344	1.99	31.3	30.7	2.19	26.1	0.00	0.00	0.00	0.04	141	09
150 ISL	9.85 D	9.84	34.037 D	26.230	181.0	0.927	1.99 D	31.2	31.5	2.21	26.6	0.00	0.00	0.00	0.04	151	
170	9.60	9.58	34.076	26.305	174.6	0.398	1.86	29.1	33.3	2.25	27.5	0.00	0.00	0.00	0.04	171	08
200	9.28	9.26	34.142	26.409	165.4	0.449	1.68	26.0	35.9	2.33	28.7	0.00	0.00	0.00	0.04	202	07
230	8.64	8.62	34.130	26.501	156.9	0.498	1.60	24.5	40.2	2.42	30.7	0.00	0.00			232	06
250 ISL	8.58 D	8.55	34.145 D	26.524	155.0	0.915	1.50 D	22.9	42.3	2.48	31.4	0.00	0.00			252	
270	8.37	8.34	34.171	26.577	150.4	0.559	1.29	19.7	44.5	2.54	32.0	0.00	0.00			272	05
300 ISL	8.07 D	8.04	34.210 D	26.653	143.0	0.912	0.98 D	14.9	48.2	2.66	33.2	0.00	0.00			302	
320	7.99	7.95	34.227	26.679	141.5	0.632	0.86	13.0	50.8	2.74	34.0	0.00	0.00			323	04
380	7.61	7.57	34.274	26.772	133.6	0.715	0.55	8.3	57.4	2.88	35.5	0.00	0.00			383	03
400 ISL	7.54 D	7.50	34.284 D	26.791	132.0	0.903	0.49 D	7.3	59.3	2.91	35.9	0.00	0.00			403	
440	7.18	7.14	34.294	26.850	126.9	0.793	0.41	6.1	63.3	2.97	36.6	0.00	0.00			444	02
500 ISL	6.69 D	6.65	34.310 D	26.930	119.0	0.899	0.30 D	4.4	71.0	3.08	38.2	0.00	0.00			504	
516	6.57	6.52	34.313	26.949	118.1	0.886	0.28	4.2	73.1	3.11	38.6	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 15.1 N	118 15.0 W	03/02/2012	0955 UTC	352 m	330 06 kn	180 02 06		1012.1 mb	15.0 C	13.0 C				028

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP	
0		14.91		14.91		33.395	24.755	318.1	0.000	5.97		103.7	2.7	0.34	0.0	0.00	0.00	0.38	0.12	0		
1		14.91		14.91		33.395	24.755	318.1	0.003	5.97		103.7	2.7	0.34	0.0	0.00	0.00	0.38	0.12	1		18
10		14.66		14.66		33.392	24.807	313.4	0.030											10		17
10		14.66		14.66		33.392	24.807	313.5	0.032	6.01		103.8	2.7	0.33	0.0	0.00	0.00	0.55	0.10	10		16
20		14.59		14.59		33.392	24.822	312.4	0.063	6.00		103.6	2.8	0.35	0.0	0.00	0.00	0.86	0.10	20		15
30		13.89		13.89		33.378	24.958	299.7	0.094	5.77		98.2	3.5	0.43	1.0	0.03	0.04	1.40	0.36	30		14
40		12.50		12.49		33.392	25.248	272.3	0.122	4.36		72.0	10.1	1.10	10.8	0.06	0.00	0.40	0.38	40		13
50		11.70		11.70		33.480	25.467	251.7	0.148	3.72		60.5	14.6	1.42	15.4	0.02	0.00	0.19	0.15	50		12
60		11.55		11.55		33.516	25.523	246.6	0.173	3.58		58.0	15.5	1.48	16.3	0.02	0.00	0.13	0.13	60		11
70		10.99		10.98		33.593	25.685	231.4	0.197	3.25		52.1	19.1	1.64	19.0	0.00	0.00	0.06	0.08	71		10
75	ISL	10.88	D	10.87		33.652	D 25.751	225.3	0.210	3.01	D	48.1	20.3	1.70	19.7	0.00	0.00	0.05	0.07	76		
85		10.70		10.69		33.689	25.812	219.7	0.231	2.85		45.5	22.6	1.82	21.1	0.00	0.00	0.02	0.06	86		09
100		10.41		10.39		33.802	25.951	206.8	0.263	2.52		40.0	26.0	1.97	23.1	0.00	0.00	0.01	0.05	101		08
120		10.15		10.14		33.921	26.089	194.2	0.303	2.23		35.2	28.6	2.09	25.0	0.00	0.00	0.01	0.05	121		07
125	ISL	10.11	D	10.10		33.950	D 26.118	191.5	0.314	2.19	D	34.5	29.2	2.11	25.3	0.00	0.00	0.01	0.05	126		
140		9.95		9.94		34.012	26.194	184.6	0.341	2.00		31.4	30.9	2.18	26.3	0.00	0.00	0.00	0.05	141		06
150	ISL	9.63	D	9.61		34.012	D 26.248	179.6	0.361	2.08	D	32.4	32.0	2.20	26.9	0.00	0.00	0.00	0.04	151		
170		9.23		9.21		34.061	26.353	170.0	0.394	1.94		29.9	34.1	2.25	28.2	0.00	0.00	0.00	0.04	171		05
200		8.77		8.75		34.116	26.468	159.5	0.443	1.72		26.4	38.2	2.35	29.9	0.00	0.00	0.00	0.03	202		04
230		8.50		8.48		34.145	26.534	153.8	0.490	1.50		22.8	41.6	2.45	31.2	0.00	0.00			232		03
250	ISL	8.37	D	8.34		34.171	D 26.576	150.2	0.524	1.35	D	20.5	43.7	2.52	31.9	0.00	0.00			252		
270		8.26		8.23		34.182	26.602	148.1	0.551	1.20		18.2	45.8	2.59	32.5	0.00	0.00			272		02
300	ISL	8.00	D	7.97		34.224	D 26.674	141.7	0.598	0.94	D	14.1	50.6	2.73	33.9	0.00	0.00			302		
320		7.78		7.75		34.247	26.724	137.2	0.622	0.71		10.6	53.8	2.83	34.8	0.00	0.00			323		01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 37.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 11.1 N	118 23.5 W	03/02/2012	0631 UTC	1182 m	260 05 kn	270 03 07	1	1012.5 mb	16.1 C	13.5 C	16 m	3/8	CS	027

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP	
0		15.20		15.20		33.390	24.687	324.6	0.000	6.07		106.0	2.5	0.34	0.0	0.00	0.00	0.32	0.10	0		
2		15.20		15.20		33.390	24.687	324.6	0.007	6.07		106.0	2.5	0.34	0.0	0.00	0.00	0.32	0.10	2		20
10		14.76		14.76		33.383	24.779	316.2	0.032	6.04		104.6	2.4	0.32	0.0	0.00	0.00	0.34	0.13	10		19
20		14.41		14.40		33.377	24.850	309.7	0.063	5.96		102.5	2.9	0.37	0.4	0.02	0.00	0.74	0.35	20		18
30		12.49		12.49		33.350	25.216	275.1	0.093	4.98		82.3	6.8	0.80	6.4	0.13	0.00	1.12	0.77	30		17
40		11.84		11.84		33.385	25.367	261.0	0.119	4.07		66.4	12.1	1.24	13.6	0.06	0.00	0.33	0.40	40		16
49		11.20		11.20		33.447	25.533	245.4	0.142	3.74		60.2	15.0	1.41	16.5	0.02	0.00	0.16	0.22	49		15
50	ISL	11.30	D	11.29		33.446	D 25.515	247.1	0.146	3.75	D	60.4	15.2	1.42	16.7	0.02	0.00	0.16	0.21	50		
59		10.94		10.93		33.485	25.609	238.3	0.167	3.50		56.0	17.1	1.53	18.2	0.00	0.00	0.11	0.19	59		14
70		10.70		10.69		33.566	25.716	228.5	0.192	3.18		50.7	19.9	1.68	20.2	0.00	0.00	0.07	0.12	71		13
75	ISL	10.61	D	10.60		33.588	D 25.748	225.5	0.204	3.17	D	50.3	20.8	1.73	20.8	0.00	0.02	0.06	0.11	76		
85		10.42		10.41		33.654	25.833	217.6	0.226	2.91		46.0	22.6	1.82	21.9	0.00	0.05	0.03	0.09	86		12
99		10.33		10.32		33.742	25.918	209.9	0.256	2.66		42.0	24.8	1.92	22.9	0.00	0.00	0.01	0.06	100		11
100	ISL	10.22	D	10.20		33.754	D 25.947	207.1	0.259	2.70	D	42.6	24.9	1.92	23.0	0.00	0.00	0.01	0.06	101		
120		9.94		9.93		33.870	26.085	194.5	0.298	2.53		39.6	27.1	2.00	24.4	0.00	0.00	0.01	0.05	121		10
125	ISL	9.88	D	9.87		33.897	D 26.116	191.7	0.309	2.48	D	38.9	28.0	2.04	24.9	0.00	0.00	0.01	0.05	126		
140		9.67		9.65		34.002	26.234	180.7	0.336	2.16		33.7	30.8	2.14	26.5	0.00	0.00	0.00	0.04	141		09
150	ISL	9.55	D	9.54		34.043	D 26.286	176.0	0.355	2.07	D	32.3	31.7	2.16	26.9	0.00	0.00	0.00	0.05	151		
169		9.31		9.29		34.060	26.339	171.4	0.386	2.04		31.6	33.4	2.21	27.7	0.00	0.00	0.00	0.07	170		08
200		8.90		8.87		34.142	26.470	159.4	0.438	1.64		25.2	38.6	2.37	29.8	0.00	0.00	0.00	0.03	202		07
229		8.71		8.69		34.186	26.534	153.9	0.483	1.39		21.2	41.4	2.47	30.7	0.00	0.00			231		06
250	ISL	8.50	D	8.47		34.213	D 26.589	149.0	0.518	1.19	D	18.1	44.1	2.55	31.5	0.00	0.00			252		
270		8.38		8.35		34.231	26.622	146.2	0.544	1.04		15.7	46.6	2.62	32.2	0.00	0.00			272		05
300	ISL	7.96	D	7.93		34.230	D 26.684	140.7	0.591	0.84	D	12.7	50.6	2.71	33.7	0.00	0.00			302		
319		7.82		7.79		34.241	26.714	138.2	0.614	0.73		11.0	53.1	2.77	34.6	0.00	0.00			322		04
379		7.41		7.37		34.276	26.802	130.6	0.694	0.51		7.5	59.4	2.91	36.0	0.00	0.00			382		03
400	ISL	7.26	D	7.22		34.294	D 26.838	127.4	0.726	0.42	D	6.2	61.9	2.94	36.3	0.00	0.00			403		
440		6.96		6.91		34.300	26.885	123.4	0.772	0.36		5.2	66.6	3.01	36.9	0.00	0.00			444		02
500	ISL	6.54	D	6.49		34.316	D 26.954	117.4	0.850	0.28	D	4.1	74.1	3.11	38.6	0.00	0.00			504		
516		6.37		6.32		34.319	26.980	115.0	0.863	0.24		3.5	76.1	3.14	39.0	0.00	0.00			520		01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 55.6 N	118 54.7 W	03/02/2012	0104 UTC	1697 m	040 03 kn	300 03 06	0	1015.6 mb	14.9 C	13.7 C	24 m	0/8		026

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP	
0		14.24		14.24		33.381	24.886	305.6	0.000	5.97		102.3	2.6	0.33	0.0	0.00	0.00	0.28	0.09	0		
2	A	14.24		14.24		33.381	24.886	305.6	0.006	5.97		102.3	2.6	0.33	0.0	0.00	0.00	0.28	0.09	2		13
10		14.22		14.22		33.381	24.891	305.5	0.029											10		12
10		14.22		14.22		33.381	24.891	305.5	0.031	5.96		102.2	2.6	0.31	0.0	0.00	0.04	0.28	0.11	10		11
17	A	14.22		14.22		33.381	24.892	305.6	0.052	5.97		102.4	2.6	0.34	0.0	0.00	0.19	0.28	0.09	17		10
20	ISL	14.21	D	14.21		33.385	D 24.896	305.3	0.061	5.99	D	102.6	2.6	0.33	0.0	0.00	0.12	0.29	0.10	20		
23	A	14.19		14.18		33.382	24.900	305.0	0.070	5.97		102.1	2.6	0.31	0.0	0.00	0.04	0.31	0.11	23		09
30	ISL	13.98	D	13.97		33.392	D 24.952	300.3	0.092	5.95	D	101.5	2.8	0.35	0.4	0.04	0.13	0.43	0.16	30		
33		13.82		13.81		33.380	24.977	298.0	0.101	5.89		100.0	2.9	0.37	0.6	0.06	0.17	0.48	0.18	33		08
44	A	12.89		12.89		33.359	25.146	282.2	0.132	5.48		91.3	4.8	0.58	4.0	0.29	0.08	0.37	0.18	44		07
50	ISL	12.48	D	12.55		33.363	D 25.216	275.7	0.150	5.28	D	87.4	6.9	0.73	6.4	0.25	0.07	0.32	0.16	50		
75	ISL	10.98	D	10.97		33.518	D 25.628	236.9	0.215	3.84	D	61.5	15.4	1.36	16.2	0.07	0.01	0.12	0.10	76		
82	A	10.47		10.46		33.559	25.751	225.3	0.229	3.58		56.7	17.8	1.53	18.9	0.02	0.00	0.07	0.08	83		06
93	A	10.15		10.14		33.688	25.907	210.7	0.253	3.12		49.1	22.1	1.74	21.8	0.01	0.00	0.02	0.06	94		05
100	ISL	10.03	D	10.01		33.741	D 25.969	205.0	0.270	3.04	D	47.7	23.2	1.77	22.3	0.01	0.00	0.02	0.06	101		
125	ISL	9.53	D	9.52		33.930	D 26.199	183.7	0.319	2.56	D	39.8	27.0	1.90	24.1	0.01	0.00	0.02	0.05	126		
150	ISL	9.12	D	9.11		34.015	D 26.333	171.4	0.363	2.20	D	33.9	30.8	2.02	26.0	0.00	0.00	0.01	0.05	151		
200	ISL	8.66	D	8.63		34.097	D 26.472	159.1	0.447	1.87	D	28.5	38.4	2.27	29.6	0.00	0.00	0.00	0.03	202		
201		8.65		8.63		34.093	26.470	159.3	0.445	1.86		28.4	38.5	2.27	29.7	0.00	0.00	0.00	0.03	203		04
250	ISL	8.30	D	8.27		34.177	D 26.591	148.7	0.524	1.30	D	19.7	44.6	2.42	31.6	0.00	0.00			252		
300	ISL	7.81	D	7.78		34.190	D 26.675	141.4	0.597	1.09	D	16.3	50.8	2.58	33.5	0.00	0.00			302		
380		7.12		7.08		34.226	26.804	130.2	0.702	0.68		10.0	60.8	2.83	36.5	0.00	0.00			383		03
400	ISL	6.95	D	6.91		34.255	D 26.849	126.0	0.733	0.56	D	8.2	63.2	2.88	37.0	0.00	0.00			403		
441		6.64		6.59		34.261	26.897	121.9	0.778	0.46		6.6	68.2	2.99	38.1	0.00	0.00			445		02
500	ISL	6.41	D	6.36		34.312	D 26.968	115.9	0.855	0.31	D	4.4	74.0	3.09	39.0	0.00	0.00			504		
516		6.31		6.27		34.312	26.981	114.8	0.867	0.28		4.0	75.6	3.12	39.2	0.00	0.00			520		01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 53.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 39.2 N	119 29.2 W	02/02/2012	1828 UTC	1320 m	320 15 kn			1017.2 mb	14.1 C	13.1 C				025

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.32		14.32	33.327	24.828	311.3	0.000	5.92		101.5	2.3	0.34	0.0	0.00	0.00	0.38	0.10	0	
2		14.32		14.32	33.327	24.828	311.3	0.006	5.92		101.5	2.3	0.34	0.0	0.00	0.00	0.38	0.10	2	20
10		14.33		14.32	33.326	24.827	311.5	0.031	5.91		101.4	2.4	0.33	0.0	0.00	0.00	0.36	0.13	10	19
20		14.33		14.32	33.327	24.828	311.8	0.062	5.91		101.4	2.4	0.33	0.0	0.00	0.00	0.37	0.13	20	18
30		14.33		14.32	33.328	24.829	312.0	0.094	5.91		101.5	2.3	0.34	0.0	0.00	0.00	0.37	0.12	30	17
40		14.33		14.32	33.326	24.829	312.4	0.125	5.91		101.4	2.3	0.33	0.0	0.00	0.00	0.36	0.12	40	16
50		13.95		13.94	33.320	24.904	305.5	0.156	5.85		99.6	2.6	0.37	0.5	0.06	0.06	0.36	0.14	50	15
60		12.81		12.81	33.294	25.112	285.9	0.185	5.40		89.8	4.6	0.62	4.3	0.14	0.00	0.23	0.14	60	14
70		12.27		12.26	33.303	25.224	275.4	0.213	5.14		84.5	6.5	0.77	7.0	0.07	0.00	0.16	0.13	71	13
75	ISL	12.08	D	11.99	33.314	D 25.285	269.7	0.228	5.04	D	82.4	7.5	0.85	8.2	0.06	0.00	0.15	0.12	76	
85		11.65		11.64	33.348	25.375	261.3	0.254	4.70		76.3	9.5	1.01	10.7	0.03	0.00	0.12	0.11	86	12
100		10.74		10.73	33.481	25.644	236.0	0.291	3.95		62.9	15.8	1.40	17.1	0.01	0.00	0.06	0.08	101	11
120		9.95		9.94	33.612	25.881	213.8	0.336	3.53		55.3	20.4	1.66	20.5	0.01	0.00	0.02	0.06	121	10
125	ISL	9.74	D	9.72	33.695	D 25.982	204.3	0.348	3.33	D	51.9	21.4	1.69	21.1	0.01	0.00	0.02	0.06	126	
140		9.65		9.63	33.713	26.011	201.8	0.377	3.23		50.2	24.4	1.79	22.7	0.01	0.00	0.01	0.05	141	09
150	ISL	9.46	D	9.45	33.779	D 26.093	194.2	0.399	3.09	D	47.9	26.3	1.87	23.8	0.01	0.00	0.01	0.05	151	
170		9.15		9.13	33.883	26.226	182.0	0.434	2.65		40.9	30.1	2.02	26.1	0.01	0.00	0.00	0.05	171	08
200	ISL	8.75	D	8.72	34.008	D 26.388	167.1	0.489	2.25	D	34.5	35.4	2.19	28.4	0.00	0.00	0.00	0.03	202	
202		8.73		8.71	34.006	26.388	167.1	0.490	2.27		34.7	35.7	2.20	28.5	0.00	0.00	0.00	0.03	204	07
231		8.32		8.30	34.062	26.497	157.2	0.537	1.96		29.7	40.2	2.31	30.6	0.00	0.00			233	06
250	ISL	8.10	D	8.07	34.083	D 26.548	152.7	0.570	1.81	D	27.2	44.3	2.41	31.9	0.00	0.00			252	
270		7.66		7.63	34.111	26.633	144.7	0.596	1.50		22.4	48.6	2.52	33.3	0.00	0.00			272	05
300	ISL	7.37	D	7.34	34.150	D 26.706	138.1	0.642	1.14	D	16.9	53.4	2.66	34.7	0.00	0.00			302	
321		7.20		7.17	34.153	26.733	135.8	0.667	1.06		15.6	56.8	2.76	35.7	0.00	0.00			324	04
380		7.07		7.03	34.233	26.816	129.0	0.745	0.66		9.8	62.3	2.91	36.8	0.00	0.00			383	03
400	ISL	6.92	D	6.88	34.234	D 26.837	127.1	0.776	0.61	D	9.0	64.2	2.95	37.2	0.00	0.00			403	
441		6.67		6.63	34.259	26.891	122.5	0.822	0.49		7.2	68.1	3.02	38.0	0.00	0.00			445	02
500	ISL	6.27	D	6.23	34.298	D 26.975	115.1	0.898	0.33	D	4.8	76.1	3.11	39.6	0.00	0.00			504	
516		6.08		6.04	34.289	26.992	113.5	0.911	0.34		4.8	78.3	3.13	40.0	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 25.0 N	119 57.9 W	02/02/2012	1317 UTC	903 m	320 23 kn			1019.7 mb	13.0 C	12.0 C				024

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.83		13.83	33.359	24.955	299.1	0.000	5.90		100.2	3.2	0.41	0.9	0.06	0.11	0.44	0.04	0	
2		13.83		13.83	33.359	24.955	299.1	0.006	5.90		100.2	3.2	0.41	0.9	0.06	0.11	0.44	0.04	2	20
10		13.83		13.83	33.359	24.955	299.4	0.030	5.93		100.8	3.1	0.41	0.9	0.06	0.12	0.41	0.08	10	19
20		13.84		13.83	33.359	24.955	299.7	0.060	5.91		100.5	3.1	0.40	0.9	0.06	0.09	0.40	0.08	20	18
30		13.82		13.82	33.357	24.956	299.9	0.090	5.90		100.2	3.2	0.40	1.0	0.07	0.10	0.45	0.07	30	17
40		13.53		13.52	33.356	25.017	294.4	0.120	5.81		98.1	3.6	0.46	1.8	0.13	0.15	0.46	0.14	40	16
50		13.03		13.02	33.411	25.159	281.1	0.148	5.81		97.2	4.1	0.54	2.4	0.15	0.51	0.49	0.19	50	15
61		11.43		11.42	33.325	25.397	258.6	0.178	4.82		77.8	9.1	0.99	10.6	0.07	0.00	0.20	0.13	61	14
70		11.02		11.01	33.447	25.566	242.7	0.201	4.20		67.4	13.6	1.28	15.1	0.03	0.00	0.12	0.07	71	13
75	ISL	10.70	D	10.68	33.504	D 25.669	233.0	0.214	3.90	D	62.1	15.5	1.38	16.7	0.02	0.00	0.10	0.08	76	
85		10.26		10.25	33.582	25.804	220.4	0.235	3.55		56.0	19.3	1.59	20.0	0.00	0.00	0.05	0.08	86	12
100		9.72		9.71	33.725	26.008	201.3	0.267	2.99		46.6	24.8	1.85	23.9	0.00	0.00	0.02	0.05	101	11
121		9.22		9.21	33.837	26.177	185.6	0.308	2.68		41.4	28.8	2.00	26.1	0.00	0.00	0.01	0.05	122	10
125	ISL	9.18	D	9.17	33.871	D 26.210	182.5	0.317	2.71	D	41.8	29.2	2.00	26.1	0.00	0.00	0.01	0.05	126	
139		8.98		8.96	33.926	26.286	175.6	0.340	2.78		42.7	30.4	1.98	26.2	0.00	0.00	0.01	0.03	140	09
150	ISL	8.76	D	8.74	33.989	D 26.369	167.8	0.361	2.44	D	37.3	32.5	2.04	27.0	0.00	0.00	0.01	0.03	151	
170		8.51		8.49	34.033	26.443	161.1	0.392	2.40		36.5	36.3	2.15	28.4	0.00	0.00	0.00	0.03	171	08
200	ISL	8.21	D	8.19	34.082	D 26.529	153.5	0.442	2.02	D	30.6	40.8	2.30	30.1	0.00	0.00	0.00	0.03	202	
201		8.19		8.17	34.084	26.533	153.1	0.441	2.01		30.4	40.9	2.31	30.2	0.00	0.00	0.00	0.03	203	07
229		7.88		7.85	34.108	26.598	147.3	0.483	1.71		25.6	45.9	2.44	32.0	0.00	0.00			231	06
250	ISL	7.77	D	7.74	34.132	D 26.634	144.3	0.516	1.50	D	22.5	49.0	2.53	33.0	0.00	0.00			252	
270		7.51		7.49	34.149	26.684	139.8	0.542	1.27		19.0	51.9	2.62	34.0	0.00	0.00			272	05
300	ISL	7.20	D	7.17	34.154	D 26.733	135.5	0.587	1.08	D	16.0	56.9	2.73	35.6	0.00	0.00			302	
320		6.92		6.89	34.161	26.777	131.4	0.610	0.95		13.9	60.3	2.80	36.6	0.00	0.00			323	04
380		6.30		6.27	34.168	26.865	123.6	0.686	0.76		11.0	69.1	2.95	38.6	0.00	0.00			383	03
400	ISL	6.26	D	6.23	34.202	D 26.898	120.8	0.715	0.60	D	8.6	70.9	3.00	38.9	0.00	0.00			403	
440		6.14		6.10	34.242	26.946	116.7	0.758	0.47		6.7	74.6	3.09	39.5	0.00	0.00			444	02
500	ISL	5.87	D	5.83	34.275	D 27.007	111.5	0.833	0.35	D	5.0	79.9	3.15	40.4	0.00	0.00			504	
515		5.83		5.79	34.284	27.020	110.5	0.843	0.33		4.7	81.2	3.16	40.6	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 5.0 N	120 38.5 W	02/02/2012	0639 UTC	3847 m	330 20 kn	300 05 05	1	1020.6 mb	14.2 C	12.4 C	14 m	1/8	CU	023

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		13.76		13.75		33.245	24.882	306.0	0.000	6.03		102.2		2.9	0.35	0.3	0.03	0.00	0.46	0.09	0	
2		13.76		13.75		33.245	24.882	306.0	0.006	6.03		102.2		2.9	0.35	0.3	0.03	0.00	0.46	0.09	2	20
10		13.76		13.76		33.246	24.883	306.2	0.031	6.04		102.3		2.9	0.34	0.3	0.03	0.00	0.46	0.09	10	19
20		13.73		13.73		33.247	24.891	305.8	0.061	6.05		102.4		2.9	0.34	0.3	0.03	0.00	0.48	0.10	20	18
29		13.69		13.69		33.258	24.907	304.5	0.089	6.03		102.2		3.0	0.34	0.3	0.03	0.00	0.59	0.11	29	17
30	ISL	13.67	D	13.66		33.260	D 24.913	304.0	0.092	6.02	D	101.9		3.0	0.34	0.3	0.03	0.01	0.57	0.12	30	
40		13.58		13.57		33.251	24.925	303.1	0.122	5.98		101.0		3.1	0.37	0.6	0.06	0.09	0.43	0.12	40	16
50		13.31		13.31		33.243	24.973	298.9	0.152	5.91		99.3		3.3	0.42	1.3	0.13	0.14	0.42	0.14	50	15
60		13.22		13.21		33.293	25.032	293.5	0.182	5.97		100.0		3.7	0.43	1.4	0.09	0.11	0.55	0.17	60	14
70		12.42		12.41		33.211	25.123	285.0	0.211	5.63		92.9		4.5	0.57	3.5	0.15	0.03	0.19	0.14	71	13
75	ISL	11.98	D	11.87		33.213	D 25.228	275.1	0.226	5.38	D	87.6		6.3	0.73	6.1	0.10	0.02	0.15	0.12	76	
84		11.04		11.03		33.280	25.434	255.6	0.249	4.89		78.3		9.6	1.02	10.9	0.01	0.00	0.08	0.09	85	12
100		10.06		10.05		33.458	25.742	226.5	0.287	4.14		64.9		16.3	1.38	17.5	0.01	0.00	0.04	0.05	101	11
120		9.32		9.31		33.663	26.025	200.0	0.330	3.50		54.0		23.4	1.71	22.7	0.01	0.00	0.01	0.03	121	10
125	ISL	9.28	D	9.26		33.710	D 26.068	196.0	0.341	3.32	D	51.3		24.6	1.76	23.4	0.01	0.00	0.01	0.03	126	
139		9.01		9.00		33.804	26.185	185.1	0.367	3.04		46.7		27.9	1.90	25.5	0.00	0.00	0.00	0.03	140	09
150	ISL	8.80	D	8.78		33.895	D 26.290	175.3	0.388	2.72	D	41.7		30.2	1.97	26.6	0.00	0.00	0.00	0.03	151	
170		8.60		8.59		33.969	26.378	167.3	0.421	2.44		37.1		34.5	2.10	28.5	0.00	0.00	0.00	0.03	171	08
198		8.28		8.26		34.029	26.476	158.5	0.466	2.13		32.2		38.9	2.23	30.2	0.00	0.00	0.00	0.03	200	07
200	ISL	8.27	D	8.24		34.029	D 26.479	158.3	0.472	2.13	D	32.2		39.1	2.24	30.3	0.00	0.00	0.00	0.02	202	
229		8.04		8.02		34.062	26.539	153.1	0.515	1.85		27.9		42.4	2.34	31.7	0.00	0.00			231	06
250	ISL	7.92	D	7.89		34.096	D 26.584	149.2	0.549	1.59	D	23.9		45.1	2.43	32.5	0.00	0.00			252	
271		7.76		7.73		34.104	26.614	146.6	0.578	1.47		21.9		47.8	2.51	33.3	0.00	0.00			273	05
300	ISL	7.49	D	7.46		34.131	D 26.675	141.2	0.623	1.24	D	18.4		51.2	2.59	34.3	0.00	0.00			302	
320		7.37		7.34		34.135	26.694	139.7	0.647	1.15		17.0		53.6	2.65	35.0	0.00	0.00			323	04
380		6.90		6.87		34.175	26.792	131.0	0.729	0.79		11.6		62.2	2.85	37.2	0.00	0.00			383	03
400	ISL	6.62	D	6.59		34.174	D 26.829	127.6	0.759	0.74	D	10.8		65.2	2.89	37.8	0.00	0.00			403	
440		6.25		6.21		34.186	26.888	122.3	0.804	0.62		9.0		71.2	2.96	39.0	0.00	0.00			444	02
500	ISL	6.08	D	6.03		34.264	D 26.973	115.0	0.881	0.39	D	5.6		76.4	3.08	39.7	0.00	0.00			504	
517		6.12		6.08		34.296	26.993	113.5	0.895	0.30		4.4		77.9	3.11	39.9	0.00	0.00			521	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
31 44.6 N	121 19.8 W	02/02/2012	0108 UTC	3762 m	350 03 kn	340 04 06	1	1022.4 mb	14.7 C	12.5 C	22 m	1/8	ST	022

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.86		14.86		33.355	24.735	320.0	0.000	5.83		101.2		1.9	0.32	0.0	0.00	0.00	0.21	0.07	0	
2	A	14.86		14.86		33.355	24.735	320.0	0.006	5.83		101.2		1.9	0.32	0.0	0.00	0.00	0.21	0.07	2	21
10	ISL	14.86	D	14.86		33.357	D 24.737	320.1	0.032	5.80	D	100.6		2.0	0.31	0.0	0.00	0.00	0.21	0.07	10	
15	A	14.86		14.85		33.357	24.738	320.2	0.048	5.82		101.0		2.0	0.31	0.0	0.00	0.00	0.21	0.07	15	20
20	A	14.86		14.86		33.354	24.736	320.6	0.064	5.83		101.2		2.0	0.31	0.0	0.00	0.00	0.21	0.07	20	19
30		14.85		14.85		33.353	24.738	320.8	0.096	5.84		101.3		2.0	0.30	0.0	0.00	0.00	0.22	0.07	30	18
40	A	14.83		14.83		33.350	24.740	320.9	0.128	5.83		101.1		2.1	0.30	0.0	0.00	0.00	0.23	0.08	40	17
50	ISL	14.39	D	14.38		33.285	D 24.784	316.9	0.161	5.90	D	101.4		2.2	0.31	0.0	0.00	0.03	0.33	0.13	50	
52		14.38		14.37		33.282	24.784	317.0	0.166	5.89		101.2		2.2	0.31	0.0	0.00	0.04	0.35	0.14	52	16
64		14.32		14.31		33.279	24.796	316.2	0.204	5.87		100.7		2.2	0.32	0.0	0.02	0.07	0.35	0.15	65	15
75	A	14.11		14.09		33.279	24.841	312.3	0.239	5.78		98.8		2.6	0.37	0.5	0.13	0.14	0.22	0.13	76	14
84	A	13.59		13.58		33.309	24.970	300.2	0.267	5.61		94.8		3.4	0.47	1.9	0.33	0.05	0.15	0.13	85	13
95		12.62		12.60		33.325	25.176	280.7	0.299	5.34		88.5		4.9	0.62	4.8	0.11	0.00	0.10	0.09	96	12
100	ISL	12.47	D	12.43		33.326	D 25.211	277.5	0.314	5.26	D	86.8		6.1	0.71	6.3	0.08	0.00	0.09	0.09	101	
111		11.41		11.40		33.352	25.424	257.3	0.342	4.88		78.7		8.8	0.91	9.7	0.02	0.00	0.06	0.07	112	11
125		10.61		10.59		33.440	25.636	237.3	0.377	4.30		68.3		14.1	1.26	15.2	0.01	0.00	0.04	0.05	126	10
145		9.59		9.57		33.659	25.978	205.0	0.421	3.54		55.0		22.2	1.66	21.6	0.01	0.00	0.01	0.04	146	09
150	ISL	9.45	D	9.42		33.727	D 26.057	197.7	0.433	3.38	D	52.3		24.0	1.73	22.6	0.01	0.00	0.01	0.03	151	
170		9.00		8.98		33.919	26.278	177.0	0.468	2.64		40.6		31.1	2.02	26.7	0.00	0.00	0.00	0.02	171	08
200	ISL	8.87	D	8.85		34.095	D 26.437	162.6	0.522	1.72	D	26.4		37.7	2.31	29.6	0.00	0.00	0.00	0.03	202	
201		8.87		8.85		34.094	26.437	162.5	0.521	1.73		26.6		37.9	2.32	29.7	0.00	0.00	0.00	0.03	203	07
229		8.84		8.82		34.235	26.552	152.3	0.565	0.99		15.2		43.0	2.58	31.5	0.00	0.00			231	06
250	ISL	8.70	D	8.67		34.264	D 26.598	148.3	0.600	0.83	D	12.7		45.3	2.64	32.1	0.00	0.00			252	
271		8.57		8.54		34.282	26.632	145.5	0.628	0.71		10.8		47.6	2.70	32.7	0.00	0.00			273	05
300	ISL	8.32	D	8.29		34.299	D 26.685	140.9	0.673	0.58	D	8.8		50.2	2.75	33.3	0.00	0.00			302	
320		8.17		8.14		34.293	26.704	139.4	0.697	0.58		8.7		52.0	2.79	33.7	0.00	0.00			323	04
380		7.67		7.63		34.287	26.774	133.5	0.779	0.53		7.9		57.6	2.87	35.2	0.00	0.00			383	03
400	ISL	7.50	D	7.46		34.289	D 26.799	131.3	0.810	0.50	D	7.4		59.6	2.90	35.6	0.00	0.00			403	
440		7.19		7.15		34.288	26.844	127.5	0.857	0.45		6.6		63.6	2.96	36.5	0.00	0.00			444	02
500	ISL	6.73	D	6.68		34.299	D 26.916	121.2	0.938	0.36	D	5.3		69.2	3.04	37.7	0.00	0.00			504	
514		6.70		6.65		34.298	26.920	121.1	0.949	0.36		5.3		70.5	3.06	38.0	0.00	0.00			518	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
31 24.9 N	122 1.0 W	01/02/2012	1450 UTC	3844 m	350 04 kn			1021.8 mb	13.1 C	10.7 C				021

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.74		14.74	33.338	24.748	318.8	0.000	5.85		101.3	2.0	0.32	0.0	0.00	0.17	0.33	0.12	0	
2		14.74		14.74	33.338	24.748	318.8	0.006	5.85		101.3	2.0	0.32	0.0	0.00	0.17	0.33	0.12	2	24
10		14.74		14.74	33.341	24.750	318.9	0.032	5.87		101.6	2.0	0.32	0.0	0.00	0.00	0.35	0.09	10	23
20	ISL	14.75	D	14.74	33.341	D 24.750	319.3	0.064	5.86	D	101.5	2.1	0.31	0.0	0.00	0.00	0.33	0.11	20	
25		14.75		14.74	33.339	24.748	319.6	0.080	5.87		101.6	2.1	0.30	0.0	0.00	0.00	0.32	0.12	25	22
30	ISL	14.75	D	14.74	33.341	D 24.750	319.5	0.096	5.85	D	101.3	2.0	0.30	0.0	0.00	0.00	0.33	0.11	30	
40		14.75		14.75	33.338	24.748	320.1	0.128	5.85		101.3	1.9	0.31	0.0	0.00	0.00	0.35	0.10	40	21
50		14.69		14.69	33.333	24.757	319.6	0.160	5.82		100.7	2.1	0.31	0.0	0.01	0.00	0.37	0.12	50	20
62		14.31		14.30	33.309	24.821	313.8	0.198	5.76		98.7	2.3	0.36	0.4	0.11	0.18	0.25	0.13	62	19
74		13.96		13.95	33.288	24.878	308.7	0.235	5.72		97.5	2.6	0.40	0.9	0.26	0.18	0.20	0.12	75	18
75	ISL	13.91	D	13.90	33.297	D 24.894	307.2	0.240	5.72	D	97.2	2.7	0.41	1.0	0.26	0.17	0.20	0.12	76	
86		13.35		13.34	33.313	25.022	295.3	0.271	5.60		94.1	3.3	0.47	2.1	0.29	0.04	0.16	0.10	87	17
100		12.82		12.81	33.337	25.146	283.8	0.312	5.38		89.4	4.5	0.59	4.2	0.12	0.00	0.11	0.09	101	16
112		11.65		11.64	33.392	25.412	258.6	0.344	4.95		80.4	7.7	0.82	8.6	0.02	0.00	0.10	0.08	113	15
124		10.58		10.56	33.385	25.598	240.9	0.374	4.46		70.7	12.8	1.21	14.4	0.01	0.00	0.04	0.06	125	14
125	ISL	10.46	D	10.43	33.418	D 25.647	236.3	0.379	4.42	D	69.9	13.1	1.23	14.7	0.01	0.00	0.04	0.05	126	
140		9.93		9.91	33.516	25.811	220.9	0.411	3.98		62.3	18.0	1.47	18.8	0.01	0.00	0.01	0.04	141	13
150	ISL	9.56	D	9.55	33.679	D 25.998	203.3	0.435	3.43	D	53.3	21.3	1.62	21.1	0.01	0.00	0.01	0.04	151	
170		9.24		9.22	33.834	26.172	187.1	0.471	2.86		44.1	27.8	1.92	25.6	0.00	0.00	0.00	0.03	171	12
200		8.78		8.76	33.991	26.370	168.8	0.525	2.33		35.6	34.0	2.14	28.2	0.00	0.00	0.00	0.03	202	11
230		8.25		8.23	34.066	26.510	155.9	0.573	1.95		29.6	40.6	2.29	30.6	0.00	0.00			232	10
250	ISL	7.99	D	7.96	34.079	D 26.561	151.4	0.608	1.80	D	27.1	43.7	2.38	31.7	0.00	0.00			252	
271		7.76		7.74	34.105	26.614	146.6	0.635	1.56		23.3	46.9	2.48	32.9	0.00	0.00			273	09
300	ISL	7.57	D	7.54	34.159	D 26.685	140.3	0.681	1.11	D	16.5	52.1	2.62	34.4	0.00	0.00			302	
320		7.37		7.34	34.172	26.725	136.8	0.705	0.98		14.5	55.6	2.72	35.5	0.00	0.00			323	08
380		6.98		6.94	34.233	26.827	127.8	0.784	0.64		9.4	63.1	2.90	37.0	0.00	0.00			383	07
400	ISL	6.78	D	6.74	34.233	D 26.856	125.3	0.814	0.59	D	8.6	65.8	2.94	37.6	0.00	0.00			403	
440		6.39		6.35	34.232	26.906	120.8	0.859	0.52		7.5	71.2	3.02	38.9	0.00	0.00			444	06
500	ISL	5.93	D	5.89	34.272	D 26.997	112.6	0.935	0.35	D	5.0	79.6	3.12	40.3	0.00	0.00			504	
515		5.87		5.83	34.286	27.016	110.9	0.945	0.32		4.6	81.7	3.14	40.6	0.00	0.00			519	05
600	ISL	5.50	D	5.45	34.328	D 27.096	104.1	1.044	0.23	D	3.3	88.4	3.16	41.2	0.00	0.00			605	
700	ISL	5.03	D	4.97	34.371	D 27.187	96.1	1.145	0.23	D	3.2	96.3	3.19	41.9	0.00	0.00			706	
800	ISL	4.65	D	4.59	34.414	D 27.264	89.3	1.238	0.28	D	3.9	104.2	3.22	42.7	0.00	0.00			807	
900	ISL	4.34	D	4.27	34.446	D 27.325	84.2	1.326	0.36	D	5.0	112.0	3.25	43.4	0.00	0.00			908	
1000		4.04		3.96	34.469	27.376	79.6	1.398	0.45		6.2	119.9	3.28	44.1	0.00	0.00			1009	04
1100	ISL	3.73	D	3.65	34.496	D 27.429	74.8	1.487	0.60	D	8.1								1111	
1200	ISL	3.50	D	3.42	34.515	D 27.468	71.5	1.561	0.71	D	9.5								1212	
1300	ISL	3.26	D	3.16	34.535	D 27.508	67.8	1.632	0.84	D	11.2								1313	
1400	ISL	3.05	D	2.95	34.550	D 27.539	65.0	1.699	0.95	D	12.8								1415	
1500	ISL	2.85	D	2.74	34.564	D 27.570	62.1	1.764	1.08	D	14.4								1516	
1600	ISL	2.69	D	2.58	34.575	D 27.593	60.0	1.826	1.20	D	15.9								1617	
1800	ISL	2.35	D	2.22	34.597	D 27.641	55.3	1.943	1.47	D	19.3								1820	
2000	ISL	2.11	D	1.97	34.619	D 27.680	51.7	2.051	1.77	D	23.1								2024	
2001		2.11		1.96	34.620	27.681	51.6	2.055	1.79		23.3	165.5	2.97	41.7	0.00	0.00			2025	03
2200	ISL	1.97	D	1.81	34.635	D 27.705	49.7	2.154	2.02	D	26.3								2227	
2400	ISL	1.85	D	1.67	34.645	D 27.725	48.1	2.254	2.20	D	28.5								2431	
2600	ISL	1.76	D	1.57	34.653	D 27.740	47.1	2.351	2.37	D	30.6								2635	
2800	ISL	1.69	D	1.48	34.659	D 27.753	46.4	2.446	2.51	D	32.3								2839	
3000	ISL	1.63	D	1.40	34.663	D 27.762	45.9	2.540	2.60	D	33.5								3043	
3200	ISL	1.58	D	1.34	34.668	D 27.772	45.5	2.634	2.73	D	35.1								3247	
3400	ISL	1.56	D	1.29	34.671	D 27.778	45.5	2.727	2.81	D	36.0								3452	
3500		1.55		1.28	34.677	27.785	45.3	2.781	2.90		37.2	172.9	2.68	38.5	0.00	0.00			3554	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
31 5.1 N	122 40.0 W	01/02/2012	0720 UTC	4026 m	350 12 kn	340 04 06	2	1020.0 mb	13.9 C	12.0 C	15 m	8/8	SC	020

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.76		14.75	33.337	24.744	319.2	0.000	5.86		101.6	2.0	0.31	0.0	0.00	0.00	0.24	0.06	0	
2		14.76		14.75	33.337	24.744	319.2	0.006	5.86		101.6	2.0	0.31	0.0	0.00	0.00	0.24	0.06	2	20
10		14.76		14.75	33.337	24.743	319.5	0.032	5.86		101.5	2.1	0.30	0.0	0.00	0.00	0.24	0.06	10	19
20	ISL	14.76	D	14.75	33.335	D 24.743	319.0	0.064	5.84	D	101.2	2.1	0.30	0.0	0.00	0.00	0.25	0.07	20	
25		14.74		14.73	33.335	24.747	319.7	0.080	5.85		101.3	2.1	0.30	0.0	0.00	0.00	0.26	0.07	25	18
30	ISL	14.74	D	14.73	33.334	D 24.747	319.0	0.097	5.84	D	101.2	2.1	0.30	0.0	0.00	0.00	0.28	0.07	30	
40		14.72		14.71	33.336	24.753	319.6	0.128	5.85		101.4	2.0	0.30	0.0	0.00	0.00	0.30	0.08	40	17
50		14.70		14.69	33.343	24.763	318.9	0.160	5.85		101.3	2.2	0.30	0.0	0.00	0.00	0.42	0.12	50	16
62		14.63		14.61	33.344	24.781	317.6	0.198	5.83		100.8	2.3	0.30	0.0	0.00	0.00	0.41	0.14	62	15
75		12.99		12.97	33.262	25.054	291.8	0.238	5.43		90.6	4.3	0.60	3.8	0.21	0.08	0.21	0.15	76	14
87		12.40		12.38	33.283	25.185	279.6	0.272	5.08		83.9	6.5	0.80	7.3	0.11	0.00	0.16	0.15	88	13
100		11.73		11.72	33.321	25.341	265.0	0.307	4.83		78.6	8.3	0.93	9.8	0.04	0.00	0.12	0.14	101	12
111		11.29		11.27	33.348	25.443	255.5	0.336	4.85		78.2	9.0	0.95	10.3	0.02	0.00	0.08	0.11	112	11
125		10.68		10.66	33.441	D 25.623	238.0	0.373	4.35		69.3	13.1	1.24	14.7	0.01	0.00	0.06	0.08	126	10
140		9.96		9.95	33.569	25.847	217.4	0.405	3.86		60.5	18.7	1.50	19.1	0.00	0.00	0.02	0.04	141	09
150	ISL	9.62	D	9.61	33.728	D 26.028	200.0	0.428	3.48	D	54.2	21.2	1.62	20.9	0.00	0.00	0.01	0.04	151	
170		9.37		9.35	33.816	26.139	190.3	0.465	3.02		46.9	26.3	1.85	24.4	0.00	0.00	0.00	0.03	171	08
200		8.78		8.76	33.973	26.355	170.2	0.519	2.73		41.8	32.1	2.00	26.8	0.00	0.00	0.00	0.02	202	07
230		8.40		8.38	34.030	26.460	160.7	0.568	2.34		35.5	37.4	2.16	29.1	0.00	0.00			232	06
250	ISL	8.04	D	8.01	34.044	D 26.525	154.0	0.604	2.18	D	32.8	41.4	2.32	30.9	0.00	0.00			252	
270		7.90		7.88	34.098	26.588	149.1	0.630	1.57		23.6	45.4	2.47	32.6	0.00	0.00			272	05
300	ISL	7.47	D	7.44	34.118	D 26.668	141.0	0.678	1.35	D	20.1	51.1	2.59	34.3	0.00	0.00			302	
321		7.20		7.17	34.126	26.712	137.8	0.703	1.16		17.1	55.2	2.68	35.5	0.00	0.00			324	04
380		6.69		6.65	34.171	26.818	128.3	0.782	0.79		11.5	64.2	2.86	37.6	0.00	0.00			383	03
400	ISL	6.51	D	6.46	34.193	D 26.861	124.0	0.813	0.66	D	9.7	66.8	2.91	38.1	0.00	0.00			403	
440		6.21		6.17	34.205	26.908	120.3	0.856	0.57		8.4	72.2	3.00	39.2	0.00	0.00			444	02
500	ISL	5.91	D	5.87	34.247	D 26.980	114.0	0.933	0.40	D	5.7	79.5	3.10	40.5	0.00	0.00			504	
515		5.81		5.77	34.262	27.004	111.9	0.943	0.35		5.0	81.4	3.13	40.8	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
30 45.4 N	123 20.2 W	01/02/2012	0055 UTC	4046 m	020 09 kn	020 03 05	2	1020.5 mb	13.9 C	13.3 C	23 m	8/8	SC	019

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.90		14.89	33.282	24.671	326.1	0.000	5.85		101.6	2.1	0.30	0.0	0.00	0.00	0.17	0.06	0	
2	A	14.90		14.89	33.282	24.671	326.1	0.007	5.85		101.6	2.1	0.30	0.0	0.00	0.00	0.17	0.06	2	21
10	ISL	14.89	D	14.89	33.283	D 24.673	326.3	0.033	5.91	D	102.6	2.0	0.29	0.0	0.00	0.00	0.18	0.06	10	
15	A	14.89		14.89	33.281	24.672	326.5	0.049	5.84		101.3	2.0	0.29	0.0	0.00	0.00	0.18	0.07	15	20
20	ISL	14.89	D	14.89	33.283	D 24.674	326.5	0.066	5.84	D	101.4	2.1	0.29	0.0	0.00	0.00	0.18	0.06	20	
22	A	14.89		14.89	33.280	24.671	326.8	0.072	5.83		101.2	2.1	0.29	0.0	0.00	0.00	0.17	0.06	22	19
30	ISL	14.89	D	14.89	33.283	D 24.674	326.8	0.099	5.86	D	101.8	2.1	0.29	0.0	0.00	0.00	0.18	0.06	30	
32		14.90		14.89	33.285	24.675	326.8	0.104	5.84		101.4	2.1	0.29	0.0	0.00	0.00	0.18	0.06	32	18
42	A	14.90		14.89	33.285	24.676	327.0	0.137	5.84		101.4	2.0	0.29	0.0	0.00	0.00	0.18	0.06	42	17
50	ISL	14.90	D	14.89	33.283	D 24.675	327.4	0.165	5.85	D	101.5	2.1	0.28	0.0	0.00	0.00	0.20	0.07	50	
54		14.88		14.87	33.284	24.680	327.1	0.176	5.85		101.4	2.1	0.28	0.0	0.00	0.00	0.21	0.07	54	16
66		14.57		14.56	33.276	24.741	321.6	0.215	5.82		100.3	2.1	0.30	0.0	0.01	0.04	0.29	0.13	67	15
75	ISL	13.46	D	13.44	33.179	D 24.897	306.8	0.245	5.84	D	98.3	2.7	0.40	1.0	0.20	0.01	0.28	0.19	76	
79	A	12.94		12.93	33.148	D 24.975	299.4	0.256	5.76		96.0	3.0	0.44	1.5	0.28	0.00	0.27	0.22	80	14
89	A	12.10		12.08	33.169	D 25.156	282.4	0.285	5.68		92.9	4.0	0.53	3.1	0.02	0.00	0.16	0.13	90	13
99		11.82		11.81	33.270	25.284	270.4	0.312	5.25		85.4	6.0	0.71	6.3	0.01	0.00	0.11	0.10	100	12
100	ISL	11.76	D	11.71	33.271	D 25.303	268.6	0.317	5.25	D	85.4	6.3	0.73	6.7	0.01	0.00	0.10	0.10	101	
110		11.04		11.02	33.325	25.470	252.9	0.341	4.88		78.2	9.1	0.96	10.4	0.01	0.00	0.06	0.07	111	11
124		10.34		10.35	33.427	D 25.668	234.2	0.375	4.84		76.3	10.6	1.02	11.6	0.01	0.00	0.04	0.05	125	10
125	ISL	10.58	D	10.57	33.396	D 25.605	240.3	0.380	4.60	D	72.9	10.9	1.04	11.9	0.01	0.00	0.03	0.05	126	
144		9.58		9.57	33.603	D 25.936	209.0	0.420	4.37		68.0	17.3	1.34	17.4	0.00	0.00	0.01	0.03	145	09
150	ISL	9.54	D	9.52	33.632	D 25.966	206.3	0.436	4.13	D	64.2	18.9	1.43	18.6	0.00	0.00	0.01	0.03	151	
170		9.18		9.16	33.754	26.120	192.1	0.473	3.56		54.8	24.4	1.71	22.8	0.00	0.00	0.00	0.02	171	08
200		8.72		8.70	33.880	26.292	176.2	0.528	3.38		51.6	28.6	1.80	24.7	0.00	0.00	0.00	0.02	202	07
230		8.42		8.40	33.980	26.417	164.8	0.579	2.55		38.6	35.2	2.10	28.5	0.00	0.00			232	06
250	ISL	8.15	D	8.13	34.028	D 26.496	157.6	0.616	2.21	D	33.3	38.8	2.21	30.0	0.00	0.00			252	
271		7.86		7.83	34.046	26.553	152.4	0.644	1.98		29.7	42.6	2.33	31.6	0.00	0.00			273	05
300	ISL	7.50	D	7.47	34.081	D 26.634	145.1	0.692	1.63	D	24.2	48.3	2.47	33.4	0.00	0.00			302	
319		7.19		7.16	34.081	26.676	141.1	0.714	1.49		22.1	52.1	2.56	34.6	0.00	0.00			322	04
382		6.26		6.23	34.104	26.820	127.8	0.799	1.06		15.4	65.6	2.82	38.0	0.00	0.00			385	03
400	ISL	6.19	D	6.15	34.124	D 26.846	125.6	0.828	0.95	D	13.7	68.1	2.87	38.5	0.00	0.00			403	
438		6.02		5.98	34.170	26.904	120.5	0.868	0.66		9.5	73.3	2.99	39.7	0.00	0.00			442	02
500	ISL	5.66	D	5.62	34.222	D 26.991	112.8	0.948	0.47	D	6.7	80.8	3.10	40.8	0.00	0.00			504	
515		5.61		5.57	34.230	27.003	111.8	0.958	0.40		5.7	82.6	3.13	41.1	0.00	0.00			519	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
30 24.9 N	123 59.5 W	31/01/2012	1844 UTC	4236 m	010 09 kn			1018.7 mb	14.0 C	13.1 C				018

DEPTH m		TEMP DEG C		POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		15.28		15.28	33.317	24.615	331.5	0.000	5.80		101.5	2.2	0.28	0.0	0.00	0.00	0.15	0.05	0	
1		15.28		15.28	33.317	24.615	331.5	0.003	5.80		101.5	2.2	0.28	0.0	0.00	0.00	0.15	0.05	1	20
10		15.28		15.28	33.317	24.615	331.7	0.033	5.80		101.5	2.2	0.27	0.0	0.00	0.00	0.14	0.05	10	19
20	ISL	15.28	D	15.27	33.319	D 24.618	331.8	0.067	5.80	D	101.4	2.1	0.28	0.0	0.00	0.00	0.14	0.05	20	
25		15.28		15.28	33.317	24.616	332.2	0.083	5.79		101.3	2.1	0.28	0.0	0.00	0.00	0.15	0.06	25	18
30	ISL	15.28	D	15.28	33.318	D 24.617	332.3	0.100	5.78	D	101.1	2.1	0.28	0.0	0.00	0.00	0.15	0.05	30	
39		15.28		15.28	33.318	24.617	332.6	0.129	5.79		101.3	2.1	0.27	0.0	0.00	0.00	0.16	0.03	39	17
50		15.28		15.27	33.316	24.616	333.0	0.166	5.79		101.3	2.1	0.27	0.0	0.00	0.00	0.15	0.05	50	16
61		15.28		15.27	33.317	24.618	333.2	0.203	5.80		101.5	2.1	0.27	0.0	0.00	0.00	0.17	0.05	61	15
74		15.27		15.26	33.317	24.622	333.2	0.246	5.78		101.2	2.1	0.27	0.0	0.00	0.00	0.17	0.06	75	14
75	ISL	15.27	D	15.26	33.318	D 24.623	333.2	0.251	5.76	D	100.8	2.1	0.27	0.0	0.00	0.00	0.18	0.06	76	
87		15.11		15.10	33.306	24.649	331.1	0.289	5.78		100.8	2.2	0.27	0.0	0.00	0.04	0.23	0.08	88	13
100		14.13		14.11	33.450	24.970	300.9	0.330	5.69		97.2	2.8	0.33	0.9	0.14	0.00	0.24	0.15	101	12
112		12.83		12.82	33.408	25.199	279.1	0.365	5.57		92.7	3.6	0.42	2.3	0.03	0.00	0.15	0.13	113	11
125		12.05		12.04	33.390	25.336	266.3	0.401	5.51		90.3	4.3	0.47	3.3	0.01	0.00	0.08	0.08	126	10
140		11.04		11.02	33.374	25.509	249.9	0.439	5.12		82.0	7.9	0.79	8.4	0.01	0.00	0.04	0.05	141	09
150	ISL	10.58	D	10.51	33.417	D 25.632	238.3	0.466	4.97	D	78.7	11.0	0.96	11.3	0.01	0.00	0.03	0.04	151	
169		9.70		9.68	33.634	25.943	209.0	0.506	4.43		69.0	17.0	1.28	16.8	0.00	0.00	0.01	0.03	170	08
200		8.65		8.63	33.870	26.296	175.8	0.566	3.59		54.7	28.0	1.72	23.9	0.00	0.00	0.00	0.02	202	07
230		8.30		8.28	33.951	26.412	165.2	0.617	3.39		51.3	31.6	1.81	25.3	0.00	0.00			232	06
250	ISL	7.92	D	7.88	33.991	D 26.502	156.9	0.653	2.98	D	44.8	35.9	1.96	27.3	0.00	0.00			252	
270		7.73		7.70	33.996	26.534	154.1	0.680	2.71		40.4	40.2	2.10	29.2	0.00	0.00			272	05
300	ISL	7.43	D	7.40	34.048	D 26.618	146.5	0.730	1.94	D	28.8	47.2	2.38	32.3	0.00	0.00			302	
320		7.34		7.31	34.104	26.675	141.4	0.754	1.38		20.4	51.8	2.56	34.4	0.00	0.00			323	04
379		6.69		6.66	34.145	26.796	130.4	0.834	0.89		12.9	62.7	2.82	37.4	0.00	0.00			382	03
400	ISL	6.58	D	6.54	34.155	D 26.820	128.4	0.867	0.85	D	12.3	66.1	2.87	38.1	0.00	0.00			403	
439		6.12		6.08	34.178	26.898	121.2	0.910	0.63		9.1	72.5	2.96	39.3	0.00	0.00			443	02
500	ISL	5.57	D	5.53	34.190	D 26.975	114.1	0.988	0.57	D	8.0	81.0	3.06	40.8	0.00	0.00			504	
514		5.49		5.45	34.199	26.993	112.6	0.998	0.58		8.2	82.9	3.08	41.1	0.00	0.00			518	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 91.7 26.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
33 14.8 N	117 28.1 W	28/01/2012	1255 UTC	23 m	050 14 kn			1015.2 mb	20.0 C	12.0 C				003

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.25	14.25	33.361	24.870	307.2	0.000	6.03	103.4	2.0	0.34	0.1	0.02	0.00	2.50	0.37	0	
2	14.25	14.25	33.361	24.870	307.2	0.006	6.03	103.4	2.0	0.34	0.1	0.02	0.00	2.50	0.37	2	04
5	14.25	14.25	33.374	24.879	306.4	0.015	6.04	103.5	1.9	0.34	0.1	0.02	0.00	2.43	0.35	5	03
10	14.22	14.22	33.361	24.876	306.9	0.031	6.01	102.9	2.0	0.35	0.1	0.02	0.00	2.22	0.57	10	02
15	14.16	14.15	33.362	24.891	305.7	0.046	5.90	100.9	2.5	0.38	0.6	0.03	0.00	2.35	0.62	15	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 57.4 N	117 18.4 W	28/01/2012	0800 UTC	73 m	340 02 kn	300 02 06	1	1012.3 mb	16.0 C	14.9 C	08 m	3/8	CS	001

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.54	14.54	33.367	24.812	312.7	0.000	6.56	113.1	0.5	0.24	0.0	0.00	0.00	1.83	0.24	0	
2	14.54	14.54	33.367	24.812	312.7	0.006	6.56	113.1	0.5	0.24	0.0	0.00	0.00	1.83	0.24	2	08
5	14.34	14.34	33.368	24.857	308.6	0.016	6.60	113.3	0.5	0.24	0.0	0.00	0.00	1.58	0.30	5	07
10	14.02	14.02	33.369	24.924	302.3	0.031	6.69	114.1	0.4	0.23	0.0	0.00	0.18	1.93	0.43	10	06
20	13.02	13.02	33.348	25.112	284.8	0.060	5.01	83.8	6.3	0.80	6.6	0.19	0.21	2.31	0.74	20	05
30	12.24	12.24	33.361	25.273	269.6	0.088	4.32	71.0	10.1	1.12	11.4	0.07	0.09	0.46	0.35	30	04
40	11.63	11.63	33.441	25.449	253.1	0.114	3.69	59.9	14.7	1.41	15.5	0.16	0.07	0.39	0.35	40	03
50	11.36	11.35	33.527	25.566	242.2	0.139	3.18	51.4	18.3	1.61	18.3	0.13	0.00	0.55	0.49	50	02
59	11.13	11.12	33.577	25.647	234.7	0.160	3.00	48.3	20.2	1.71	19.7	0.13	0.00	0.60	0.53	59	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 28.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 55.0 N	117 23.7 W	28/01/2012	1549 UTC	645 m	230 12 kn			1016.8 mb	18.0 C	12.2 C				004

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.60	14.60	33.363	24.796	314.2	0.000	6.10	105.2	2.0	0.32	0.0	0.00	0.00	0.78	0.29	0	
2	14.60	14.60	33.363	24.796	314.2	0.006	6.10	105.2	2.0	0.32	0.0	0.00	0.00	0.78	0.29	2	20
10	14.58	14.58	33.362	24.801	314.0	0.031	6.08	104.9	2.0	0.32	0.0	0.00	0.00	0.86	0.34	10	19
20	14.03	14.03	33.361	24.916	303.4	0.062	5.82	99.3	2.9	0.40	0.7	0.08	0.00	1.89	0.62	20	18
30	12.60	12.59	33.346	25.193	277.2	0.091	4.65	77.0	8.0	0.95	8.7	0.12	0.00	0.51	0.46	30	17
40	11.96	11.96	33.392	25.350	262.6	0.118	4.01	65.5	12.2	1.27	13.5	0.04	0.00	0.24	0.29	40	16
49	11.34	11.34	33.447	25.507	247.8	0.141	3.79	61.2	14.4	1.40	15.8	0.03	0.00	0.13	0.16	49	15
50 ISL	11.27 D	11.26	33.495 D	25.558	243.0	0.145	3.63 D	58.5	14.8	1.42	16.1	0.03	0.00	0.12	0.15	50	
60	11.02	11.01	33.561	25.654	234.1	0.168	3.30	53.0	18.7	1.62	18.7	0.02	0.00	0.05	0.10	60	14
70	10.45	10.44	33.552	25.749	225.2	0.191	3.48	55.0	19.1	1.64	19.5	0.02	0.00	0.03	0.08	71	13
75 ISL	10.44 D	10.44	33.607 D	25.792	221.3	0.203	3.30 D	52.3	20.6	1.72	20.5	0.01	0.00	0.03	0.07	76	
84	10.27	10.26	33.693	25.889	212.3	0.221	2.94	46.4	23.2	1.85	22.3	0.00	0.00	0.01	0.06	85	12
100	9.95	9.94	33.757	25.994	202.6	0.255	2.83	44.4	24.9	1.92	23.9	0.00	0.00	0.01	0.05	101	11
120	9.77	9.76	33.924	26.155	187.8	0.294	2.31	36.2	29.0	2.11	25.7	0.00	0.14	0.00	0.05	121	10
125 ISL	9.74 D	9.73	33.920 D	26.157	187.7	0.305	2.35 D	36.8	29.6	2.13	26.0	0.00	0.11	0.00	0.05	126	
140	9.62	9.60	34.007	26.246	179.6	0.331	2.10	32.8	31.5	2.19	27.0	0.00	0.00	0.01	0.04	141	09
150 ISL	9.54 D	9.52	34.043 D	26.287	175.9	0.350	1.99 D	31.0	32.3	2.21	27.4	0.00	0.00	0.01	0.04	151	
170	9.28	9.26	34.062	26.345	170.7	0.383	1.98	30.6	34.0	2.26	28.3	0.00	0.00	0.00	0.04	171	08
200	8.99	8.97	34.159	26.468	159.6	0.433	1.57	24.1	38.2	2.42	29.8	0.00	0.00	0.00	0.04	202	07
231	8.52	8.49	34.179	26.559	151.5	0.481	1.37	20.9	42.9	2.53	31.6	0.00	0.00			233	06
250 ISL	8.45 D	8.42	34.196 D	26.583	149.6	0.513	1.27 D	19.3	44.4	2.57	32.0	0.00	0.00			252	
271	8.26	8.24	34.204	26.618	146.6	0.541	1.16 D	17.6	46.1	2.62	32.5	0.00	0.00			273	05
300 ISL	8.02 D	7.99	34.212 D	26.662	142.8	0.586	0.96 D	14.4	49.3	2.71	33.6	0.00	0.00			302	
320	7.92	7.88	34.232	26.693	140.2	0.611	0.87	13.1	51.5	2.77	34.3	0.00	0.00			323	04
380	7.54	7.50	34.287	26.792	131.7	0.692	0.53	7.9	58.2	2.92	35.8	0.00	0.00			383	03
400 ISL	7.40 D	7.36	34.287 D	26.812	130.0	0.724	0.47 D	7.0	60.7	2.96	36.3	0.00	0.00			403	
440	7.06	7.01	34.307	26.877	124.2	0.770	0.38	5.6	65.7	3.05	37.4	0.00	0.00			444	02
500 ISL	6.63 D	6.58	34.312 D	26.940	118.8	0.849	0.29 D	4.3	73.1	3.14	38.7	0.00	0.00			504	
517	6.42	6.37	34.312	26.967	116.3	0.862	0.26	3.8	75.2	3.17	39.1	0.00	0.00			521	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 30.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 51.0 N	117 31.9 W	28/01/2012	2045 UTC	847 m	040 14 kn			1017.7 mb	14.5 C	11.0 C				005

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.61	14.61	33.377	24.805	313.4	0.000	6.05	104.5	2.2	0.33	0.0	0.00	0.07	0.83	0.27	0	
2	14.61	14.61	33.377	24.805	313.4	0.006	6.05	104.5	2.2	0.33	0.0	0.00	0.07	0.83	0.27	2	20
10	14.62	14.61	33.378	24.806	313.6	0.031	6.05	104.4	2.2	0.33	0.0	0.00	0.00	0.79	0.29	10	19
20	14.41	14.40	33.371	24.845	310.1	0.063	5.94	102.1	2.8	0.36	0.0	0.02	0.00	1.67	0.64	20	18
30	13.84	13.83	33.366	24.960	299.5	0.093	5.52	93.8	3.8	0.52	2.1	0.11	0.00	1.26	0.55	30	17
40	12.11	12.10	33.372	25.308	266.6	0.121	4.20	68.8	10.9	1.16	11.9	0.03	0.00	0.33	0.38	40	16
50	11.74	11.73	33.445	25.433	254.9	0.148	3.75	61.0	14.2	1.37	15.0	0.02	0.00	0.17	0.22	50	15
61	11.27	11.26	33.528	25.585	240.7	0.175	3.19	51.4	18.3	1.63	18.5	0.00	0.27	0.07	0.11	61	14
70	10.97	10.97	33.617	25.707	229.4	0.196	2.84	45.5	21.4	1.78	20.4	0.00	0.00	0.02	0.07	71	13
75 ISL	10.95 D	10.94	33.637 D	25.728	227.5	0.208	2.75 D	44.0	21.8	1.79	20.8	0.00	0.00	0.02	0.08	76	
85	10.56	10.55	33.662	25.816	219.3	0.230	2.89 D	45.9	22.6	1.82	21.5	0.00	0.00	0.01	0.08	86	12
100	10.08	10.07	33.685	25.916	210.0	0.262	3.02	47.5	23.1	1.84	22.6	0.00	0.05	0.01	0.05	101	11
122	9.97	9.95	33.835	26.053	197.6	0.307	2.53	39.7	26.9	2.00	24.4	0.00	0.00	0.01	0.05	123	10
125 ISL	9.96 D	9.95	33.868 D	26.079	195.2	0.314	2.45 D	38.4	27.3	2.02	24.6	0.00	0.00	0.01	0.05	126	
140	9.82	9.80	33.934	26.156	188.1	0.341	2.26	35.3	29.4	2.11	25.8	0.00	0.00	0.00	0.05	141	09
150 ISL	9.72 D	9.71	33.998 D	26.222	182.1	0.362	2.10 D	32.8	30.4	2.14	26.3	0.00	0.00	0.00	0.05	151	
170	9.58	9.56	34.066	26.299	175.2	0.396	1.98	30.9	32.4	2.21	27.2	0.00	0.00	0.00	0.05	171	08
200 ISL	9.62 D	9.60	34.202 D	26.400	166.4	0.449	1.46 D	22.8	35.8	2.38	28.3	0.00	0.00	0.00	0.04	202	
201	9.62	9.60	34.202	26.401	166.4	0.448	1.47	22.9	35.9	2.39	28.3	0.00	0.00	0.00	0.04	203	07
232	8.90	8.87	34.188	26.507	156.7	0.499	1.47	22.6	39.9	2.44	30.1	0.00	0.00			234	06
250 ISL	8.74 D	8.71	34.205 D	26.545	153.3	0.530	1.33 D	20.4	42.1	2.51	30.8	0.00	0.00			252	
270	8.52	8.50	34.226	26.595	148.8	0.557	1.16 D	17.6	44.5	2.58	31.5	0.00	0.00			272	05
300 ISL	8.12 D	8.09	34.214 D	26.648	144.2	0.604	1.02 D	15.4	48.6	2.68	32.9	0.00	0.00			302	
320	7.97	7.94	34.241	26.692	140.3	0.629	0.85	12.7	51.3	2.75	33.8	0.00	0.00			323	04
381	7.58	7.54	34.255	26.761	134.6	0.713	0.67	9.9	56.5	2.85	35.2	0.00	0.00			384	03
400 ISL	7.51 D	7.47	34.259 D	26.776	133.6	0.743	0.63 D	9.4	58.4	2.89	35.6	0.00	0.00			403	
441	7.25	7.21	34.296	26.842	127.8	0.792	0.44	6.5	62.4	2.98	36.6	0.00	0.00			445	02
500 ISL	6.73 D	6.68	34.310 D	26.925	120.4	0.871	0.32 D	4.7	70.4	3.09	38.1	0.00	0.00			504	
514	6.59	6.54	34.313	26.946	118.4	0.882	0.28	4.1	72.3	3.12	38.4	0.00	0.00			518	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 41.2 N	117 52.2 W	29/01/2012	0101	UTC	641 m	070	11 kn	080 02 04	0	1020.3 mb	17.1 C	13.0 C	15 m	0/8		006

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.84		14.83		33.409		24.782	315.6	0.000	6.06		105.1		2.6	0.34	0.0	0.00	0.00	0.41	0.12	0	
2	A	14.84		14.83		33.409		24.782	315.6	0.006	6.06		105.1		2.6	0.34	0.0	0.00	0.00	0.41	0.12	2	22
10	A	14.82		14.82		33.411		24.787	315.4	0.032	5.98		103.7		2.7	0.35	0.0	0.00	0.04	0.43	0.12	10	21
14	A	14.77		14.77		33.410		24.797	314.6	0.044	5.93		102.8		2.7	0.34	0.0	0.00	0.05	0.43	0.13	14	20
20		14.57		14.57		33.394		24.828	311.8	0.063	5.94		102.5		2.6	0.35	0.0	0.00	0.04	0.55	0.19	20	19
27	A	14.54		14.54		33.393		24.834	311.5	0.085	5.92		102.1		2.9	0.34	0.0	0.00	0.11	0.58	0.24	27	18
30	ISL	14.46	D	14.46		33.387	D	24.846	310.4	0.095	5.83	D	100.3		4.2	0.48	2.0	0.02	0.11	0.57	0.32	30	
39		12.83		12.83		33.336		25.139	282.7	0.121	4.78		79.6		8.0	0.89	7.9	0.08	0.11	0.53	0.56	39	17
50	ISL	12.22	D	12.20		33.414	D	25.321	265.6	0.152	4.12	D	67.7		11.6	1.17	12.0	0.04	0.07	0.28	0.34	50	
52	A	12.00		11.99		33.421		25.366	261.4	0.156	4.09		67.0		12.3	1.22	12.7	0.03	0.06	0.24	0.30	52	16
57	A	11.78		11.77		33.498		25.468	251.8	0.169	3.61		58.7		15.9	1.44	15.8	0.00	0.00	0.14	0.18	57	15
64		11.23		11.22		33.509		25.577	241.6	0.186	3.50		56.3		17.4	1.51	17.1	0.00	0.00	0.11	0.16	65	14
70		10.99		10.99		33.553		25.653	234.4	0.201	3.42		54.8		18.8	1.59	18.4	0.00	0.00	0.05	0.09	71	13
75	ISL	10.99	D	10.95		33.580	D	25.680	232.0	0.214	3.31	D	52.9		20.7	1.69	19.5	0.00	0.00	0.04	0.08	76	
84		10.73		10.72		33.672		25.794	221.3	0.233	2.72		43.4		24.2	1.86	21.6	0.00	0.00	0.01	0.06	85	12
100		10.49		10.47		33.752		25.899	211.8	0.267	2.57		40.8		26.3	1.94	22.7	0.00	0.00	0.01	0.06	101	11
120		10.10		10.08		33.865		26.055	197.4	0.308	2.48		39.1		28.4	2.03	24.4	0.00	0.00	0.00	0.05	121	10
125	ISL	10.04	D	10.02		33.926	D	26.114	191.9	0.320	2.25	D	35.4		29.1	2.07	24.8	0.00	0.00	0.00	0.05	126	
139		9.98		9.96		34.007		26.186	185.3	0.344	2.05		32.3		31.2	2.18	25.9	0.00	0.00	0.00	0.05	140	09
150	ISL	9.80	D	9.78		34.030	D	26.234	181.0	0.367	2.02	D	31.5		32.4	2.21	26.5	0.00	0.00	0.00	0.05	151	
170		9.57		9.55		34.102		26.328	172.5	0.400	1.83		28.5		34.6	2.27	27.7	0.00	0.00	0.00	0.05	171	08
200		9.34		9.32		34.184		26.432	163.2	0.450	1.58		24.4		37.5	2.38	28.7	0.00	0.00	0.00	0.04	202	07
230		9.02		8.99		34.228		26.520	155.5	0.498	1.36		21.0		41.1	2.48	29.9	0.00	0.00			232	06
250	ISL	8.91	D	8.88		34.247	D	26.551	152.8	0.532	1.23	D	18.8		43.0	2.53	30.5	0.00	0.04			252	
270		8.68		8.65		34.241		26.583	150.1	0.559	1.17	D	17.9		44.8	2.58	31.1	0.00	0.08			272	05
300	ISL	8.39	D	8.36		34.255	D	26.641	145.1	0.607	0.99	D	15.0		47.5	2.65	32.1	0.00	0.03			302	
320		8.23		8.19		34.248		26.659	143.6	0.632	0.98		14.8		49.3	2.69	32.7	0.00	0.00			323	04
380		7.65		7.61		34.274		26.766	134.2	0.716	0.67		10.0		57.2	2.86	35.0	0.00	0.00			383	03
400	ISL	7.27	D	7.24		34.268	D	26.815	129.6	0.747	0.56	D	8.3		60.1	2.91	35.8	0.00	0.00			403	
439		6.91		6.87		34.259		26.859	125.8	0.792	0.55		8.0		65.8	3.00	37.4	0.00	0.00			443	02
500	ISL	6.39	D	6.34		34.289	D	26.954	117.2	0.872	0.35	D	5.1		73.4	3.11	39.1	0.00	0.00			504	
516		6.32		6.28		34.292		26.964	116.4	0.885	0.34		4.9		75.4	3.14	39.5	0.00	0.00			520	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 40.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 30.9 N	118 13.1 W	29/01/2012	0523	UTC	1628 m	070	09 kn	340 02 07	0	1019.5 mb	17.0 C	14.2 C	12 m	0/8		007

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.93		14.93		33.404		24.758	317.9	0.000	5.97		103.8		2.6	0.35	0.0	0.00	0.00	0.49	0.13	0	
2		14.93		14.93		33.404		24.758	317.9	0.006	5.97		103.8		2.6	0.35	0.0	0.00	0.00	0.49	0.13	2	21
9		14.85		14.84		33.403		24.776	316.4	0.028												9	20
10		14.74		14.74		33.409		24.803	313.9	0.032	5.99		103.7		2.7	0.35	0.0	0.00	0.00	0.52	0.14	10	19
20		14.62		14.62		33.409		24.829	311.7	0.063	5.99		103.4		2.6	0.36	0.0	0.00	0.00	0.82	0.22	20	18
29		14.27		14.26		33.395		24.894	305.8	0.091	5.82		99.9		3.3	0.41	0.6	0.03	0.00	1.41	0.47	29	17
30	ISL	14.22	D	14.24		33.394	D	24.898	305.5	0.095	5.58	D	95.7		3.7	0.46	1.3	0.04	0.00	1.33	0.46	30	
40		12.55		12.54		33.374		25.225	274.5	0.123	4.74		78.4		7.9	0.91	8.0	0.10	0.00	0.51	0.43	40	16
50		11.77		11.76		33.441		25.425	255.7	0.150	3.95		64.3		13.1	1.30	14.2	0.02	0.00	0.19	0.25	50	15
59		11.46		11.45		33.553		25.569	242.2	0.172	3.40		55.0		17.1	1.53	17.2	0.01	0.12	0.10	0.12	59	14
70		11.19		11.18		33.665		25.706	229.4	0.198	2.90		46.8		21.0	1.74	19.7	0.01	0.00	0.04	0.07	71	13
75	ISL	10.95	D	10.94		33.692	D	25.769	223.5	0.210	2.88	D	46.2		22.3	1.80	20.6	0.01	0.00	0.03	0.06	76	
84		10.83		10.82		33.806		25.880	213.2	0.229	2.51		40.1		24.5	1.92	22.1	0.00	0.00	0.01	0.05	85	12
100		10.50		10.49		33.873		25.990	203.1	0.262	2.38		37.8		25.9	1.99	23.3	0.00	0.10	0.01	0.04	101	11
120		10.02		10.01		33.946		26.131	190.2	0.301	2.33		36.7		28.3	2.06	24.9	0.00	0.09	0.00	0.04	121	10
125	ISL	9.95	D	9.93		33.971	D	26.163	187.2	0.313	2.31	D	36.2		28.9	2.08	25.2	0.00	0.07	0.00	0.04	126	
140		9.75		9.74		34.042		26.251	179.1	0.338	2.14		33.5		30.5	2.12	26.1	0.00	0.00	0.00	0.04	141	09
150	ISL	9.59	D	9.58		34.072	D	26.300	174.7	0.358	2.08	D	32.4		31.8	2.17	26.6	0.00	0.02	0.00	0.04	151	
169		9.51		9.50		34.124	D	26.355	169.8	0.389	1.84	D	28.6									170	08
200		9.21		9.19		34.210		26.473	159.3	0.440	1.39		21.4		38.5	2.41	29.2	0.00	0.14	0.00	0.04	202	07
231		8.86		8.84		34.231		26.546	152.9	0.488	1.32		20.2		41.2	2.47	30.2	0.00	0.07			233	06
250	ISL	8.75	D	8.73		34.246	D	26.575	150.5	0.521	1.15	D	17.6		43.7	2.53	31.1	0.00	0.09			252	
270		8.36		8.33		34.223		26.619	146.5	0.547	1.09	D	16.5		46.4	2.59	32.1	0.00	0.12			272	05
300	ISL	8.01	D	7.98		34.219	D	26.668	142.2	0.594	0.96	D	14.4		50.1	2.67	33.3	0.00	0.11			302	
319		7.84		7.81		34.230		26.702	139.2	0.617	0.84		12.6		52.5	2.72	34.0	0.00	0.10			322	04
380		7.29		7.25		34.254		26.801	130.6	0.699	0.60		8.9		60.1	2.88	36.0	0.00	0.10			383	03
400	ISL	7.08	D	7.04		34.255	D	26.832	127.8	0.730	0.57	D	8.4		62.8	2.93	36.6	0.00	0.07			403	
440		6.78		6.74		34.290		26.900	121.8	0.775	0.39		5.7		68.3	3.02	37.7	0.00	0.00			444	02
500	ISL	6.39	D	6.34		34.318	D	26.976	115.2	0.852	0.28	D	4.1		75.7	3.11	39.1	0.00	0.00			504	
516		6.20		6.15		34.326		27.006	112.3	0.864	0.26		3.8		77.7	3.14	39.5	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 20.8 N	118 33.4 W	29/01/2012	0929 UTC	1345 m	320 10 kn	310 04 07	1	1019.5 mb	16.1 C	12.8 C		1/8	CI	008

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.72	14.72	33.381	24.785	315.2	0.000	6.04	104.6	2.5	0.36	0.0	0.00	0.59	0.79	0.20	0	
1	14.72	14.72	33.381	24.785	315.2	0.003	6.04	104.6	2.5	0.36	0.0	0.00	0.59	0.79	0.20	1	21
10	14.47	14.46	33.379	24.838	310.5	0.031										10	20
10	14.47	14.46	33.381	24.840	310.3	0.031	6.03	103.8	2.5	0.35	0.0	0.00	0.16	0.74	0.20	10	19
20	14.36	14.36	33.376	24.859	308.8	0.062	6.04	103.8	2.4	0.35	0.1	0.00	4.12	0.89	0.23	20	18
30	14.34	14.34	33.376	24.863	308.8	0.093	6.03	103.5	2.4	0.36	0.0	0.00	0.12	0.99	0.26	30	17
40	14.27	14.26	33.371	24.876	307.9	0.124	6.01	103.1	2.3	0.35	0.0	0.00	0.14	1.14	0.32	40	16
50	12.00	12.00	33.324	25.290	268.5	0.153	4.74	77.6	8.1	0.95	9.3	0.03	0.33	0.19	0.25	50	15
60	11.37	11.37	33.378	25.449	253.7	0.179	4.34	70.0	11.4	1.18	13.0	0.02	0.08	0.13	0.18	60	14
71	10.93	10.92	33.419	25.560	243.3	0.206	4.23	67.7	13.0	1.26	14.8	0.01	0.00	0.08	0.10	72	13
75 ISL	10.68 D	10.66	33.494 D	25.665	233.4	0.217	3.97 D	63.1	14.3	1.34	15.9	0.01	0.00	0.07	0.09	76	
85	10.46	10.45	33.553	25.747	225.8	0.239	3.70	58.5	17.6	1.53	18.7	0.01	0.00	0.04	0.07	86	12
100	10.04	10.03	33.659	25.903	211.3	0.272	3.32	52.1	21.6	1.71	21.6	0.00	0.00	0.02	0.05	101	11
120	9.85	9.84	33.841	26.077	195.2	0.312	2.69	42.1	26.1	1.95	24.2	0.00	0.13	0.01	0.04	121	10
125 ISL	9.85 D	9.83	33.870 D	26.101	193.1	0.323	2.58 D	40.4	27.0	1.98	24.6	0.00	0.10	0.01	0.07	126	
140	9.71	9.69	33.967	26.200	183.9	0.350	2.32	36.2	29.5	2.08	25.9	0.00	0.00	0.01	0.14	141	09
150 ISL	9.60 D	9.58	34.022 D	26.262	178.3	0.370	2.20 D	34.3	30.7	2.12	26.4	0.00	0.00	0.01	0.10	151	
170	9.40	9.38	34.063	26.327	172.5	0.403	2.05	31.8	33.1	2.19	27.5	0.00	0.00	0.00	0.04	171	08
199	9.05	9.03	34.103	26.415	164.7	0.452	1.89	29.1	35.8	2.27	28.7	0.00	0.00	0.00	0.03	201	07
200 ISL	8.95 D	8.94	34.114 D	26.438	162.5	0.456	1.83 D	28.2	36.0	2.28	28.8	0.00	0.00	0.00	0.03	202	
230	8.65	8.62	34.163	26.526	154.6	0.501	1.49	22.8	41.3	2.44	30.7	0.00	0.00			232	06
250 ISL	8.40 D	8.37	34.184 D	26.582	149.6	0.535	1.32 D	20.1	44.5	2.51	31.8	0.00	0.00			252	
270	7.94	7.91	34.171	26.640	144.3	0.561	1.24	18.6	47.7	2.58	32.9	0.00	0.00			272	05
300 ISL	7.55 D	7.52	34.181 D	26.705	138.4	0.607	1.03 D	15.3	52.5	2.69	34.4	0.00	0.00			302	
320	7.42	7.38	34.191	26.733	136.0	0.631	0.91	13.5	55.7	2.77	35.4	0.00	0.00			323	04
380	6.87	6.84	34.229	26.839	126.6	0.710	0.61	9.0	64.5	2.94	37.3	0.00	0.00			383	03
400 ISL	6.67 D	6.63	34.228 D	26.866	124.2	0.739	0.58 D	8.4	66.6	2.98	37.8	0.00	0.00			403	
440	6.44	6.40	34.248	26.912	120.2	0.784	0.48	7.0	70.8	3.05	38.7	0.00	0.00			444	02
500 ISL	6.22 D	6.18	34.301 D	26.984	114.2	0.859	0.31 D	4.4	78.2	3.15	39.9	0.00	0.00			504	
515	6.05	6.01	34.315	27.016	111.1	0.871	0.26	3.8	80.0	3.17	40.2	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 50.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 10.8 N	118 54.0 W	29/01/2012	1336 UTC	1475 m	340 14 kn			1020.3 mb	15.9 C	12.8 C				009

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	14.56	14.56	33.394	24.830	311.0	0.000	5.95	102.7	2.4	0.35	0.0	0.00	0.00	0.50	0.11	0	
2	14.56	14.56	33.394	24.830	311.0	0.006	5.95	102.7	2.4	0.35	0.0	0.00	0.00	0.50	0.11	2	20
10	14.56	14.56	33.397	24.832	311.1	0.031	5.95	102.6	2.4	0.34	0.0	0.00	0.00	0.47	0.11	10	19
20	14.42	14.41	33.393	24.861	308.7	0.062	5.96	102.6	2.4	0.34	0.0	0.00	0.00	0.56	0.12	20	18
30	14.40	14.40	33.390	24.861	308.9	0.093	5.94	102.2	2.4	0.34	0.0	0.01	0.00	0.67	0.10	30	17
40	14.27	14.27	33.384	24.885	307.0	0.124	5.89	101.1	2.5	0.35	0.2	0.02	0.10	0.62	0.04	40	16
50	12.39	12.38	33.331	25.222	275.1	0.153	5.27	86.9	5.7	0.70	5.5	0.11	0.06	0.40	0.16	50	15
60	11.54	11.53	33.351	25.398	258.5	0.180	4.73	76.6	9.0	0.98	10.0	0.03	0.00	0.19	0.14	60	14
70	11.24	11.23	33.413	25.501	248.9	0.205	4.26	68.6	12.5	1.22	13.8	0.02	0.00	0.13	0.10	71	13
75 ISL	10.93 D	10.91	33.473 D	25.604	239.2	0.218	4.05 D	64.7	14.5	1.34	15.6	0.02	0.00	0.10	0.09	76	
85	10.43	10.42	33.545	25.746	225.9	0.241	3.57	56.5	18.4	1.57	19.1	0.01	0.00	0.04	0.07	86	12
100	9.95	9.94	33.664	25.920	209.6	0.273	3.21	50.3	21.7	1.74	21.4	0.01	0.00	0.02	0.04	101	11
120	9.63	9.62	33.779	26.064	196.3	0.314	2.93	45.6	25.9	1.89	24.1	0.01	0.00	0.00	0.04	121	10
125 ISL	9.58 D	9.57	33.859 D	26.136	189.6	0.325	2.71 D	42.2	27.0	1.93	24.6	0.01	0.00	0.00	0.04	126	
140	9.45	9.43	33.934	26.217	182.3	0.351	2.43	37.7	30.1	2.06	26.2	0.00	0.00	0.00	0.04	141	09
150 ISL	9.39 D	9.37	33.966 D	26.252	179.2	0.371	2.35 D	36.5	31.3	2.10	26.7	0.00	0.00	0.00	0.04	151	
171	9.08	9.06	34.032	26.354	169.9	0.406	2.14	32.9	33.8	2.19	27.9	0.00	0.00	0.00	0.04	172	08
200	8.78	8.76	34.100	26.456	160.7	0.454	1.85	28.3	38.2	2.31	29.5	0.00	0.00	0.00	0.03	202	07
230	8.43	8.40	34.147	26.548	152.4	0.501	1.50	22.7	42.9	2.47	31.2	0.00	0.00			232	06
250 ISL	8.09 D	8.06	34.160 D	26.609	146.9	0.534	1.34 D	20.2	46.4	2.55	32.3	0.00	0.00			252	
270	7.80	7.77	34.163	26.655	142.7	0.560	1.23	18.3	49.8	2.62	33.4	0.00	0.00			272	05
300 ISL	7.38 D	7.35	34.191 D	26.738	135.2	0.605	0.95 D	14.0	55.9	2.75	35.1	0.00	0.00			302	
320	7.11	7.08	34.193	26.776	131.7	0.628	0.83	12.3	59.9	2.83	36.3	0.00	0.00			323	04
380	6.65	6.61	34.241	26.878	122.7	0.705	0.53	7.8	68.1	2.99	37.9	0.00	0.00			383	03
400 ISL	6.53 D	6.48	34.262 D	26.912	119.7	0.733	0.45 D	6.5	69.8	3.02	38.2	0.00	0.00			403	
440	6.45	6.41	34.293	26.946	117.1	0.776	0.34	5.0	73.2	3.09	38.8	0.00	0.00			444	02
500 ISL	6.28 D	6.24	34.317 D	26.988	113.8	0.850	0.28 D	4.0	77.0	3.13	39.2	0.00	0.00			504	
517	6.18	6.13	34.312	26.999	113.0	0.865	0.28	4.0	78.1	3.14	39.3	0.00	0.00			521	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 0.7 N	119 14.1 W	29/01/2012	1725 UTC	1593 m	340 09 kn			1020.6 mb	14.3 C	13.0 C				010

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.36		14.36		33.391	24.870	307.2	0.000	5.98		102.7	2.4	0.33	0.0	0.00	0.00	0.39	0.14	0	
1		14.36		14.36		33.391	24.870	307.2	0.003	5.98		102.7	2.4	0.33	0.0	0.00	0.00	0.39	0.14	1	21
9		14.36		14.36		33.389	24.869	307.6	0.029											9	20
10		14.36		14.36		33.390	24.869	307.5	0.031	5.99		102.9	2.5	0.32	0.0	0.00	0.00	0.41	0.13	10	19
20		14.30		14.30		33.386	24.880	306.9	0.061	5.98		102.6	2.4	0.32	0.0	0.00	0.00	0.46	0.16	20	18
30		14.03		14.03		33.383	24.933	302.1	0.092	5.89		100.6	2.6	0.36	0.4	0.05	0.06	0.53	0.22	30	17
40		12.74		12.73		33.350	25.169	279.8	0.121	5.34		88.7	5.0	0.70	5.4	0.29	0.00	0.31	0.20	40	16
50		12.21		12.21		33.346	25.267	270.7	0.148	5.08		83.4	6.6	0.83	7.7	0.07	0.00	0.21	0.17	50	15
60		11.51		11.50		33.363	25.412	257.2	0.175	4.70		76.1	9.6	1.03	11.1	0.04	0.00	0.13	0.11	60	14
69		11.37		11.36		33.390	25.459	253.0	0.198	4.49		72.5	11.2	1.14	12.8	0.02	0.00	0.10	0.10	70	13
75	ISL	11.13	D	11.11		33.414	D 25.523	246.9	0.214	4.38	D	70.3	12.3	1.21	13.9	0.02	0.00	0.08	0.10	76	
85		10.64		10.63		33.447	25.633	236.6	0.237	4.17		66.2	14.2	1.32	15.6	0.02	0.00	0.06	0.09	86	12
100		10.04		10.02		33.575	25.838	217.5	0.271	3.68		57.7	19.4	1.59	19.9	0.02	0.00	0.02	0.05	101	11
120		9.57		9.55		33.783	26.079	195.0	0.312	3.04		47.3	25.5	1.87	24.0	0.00	0.00	0.00	0.04	121	10
125	ISL	9.44	D	9.39		33.795	D 26.115	191.6	0.324	3.00	D	46.5	26.5	1.91	24.6	0.00	0.00	0.00	0.04	126	
140		9.15		9.14		33.862	26.208	183.0	0.350	2.69		41.5	29.4	2.02	26.4	0.00	0.00	0.00	0.04	141	09
150	ISL	9.12	D	9.10		33.886	D 26.233	180.9	0.370	2.64	D	40.7	31.0	2.08	27.0	0.00	0.00	0.00	0.04	151	
170		8.98		8.96		34.033	26.371	168.2	0.403	2.17		33.4	34.2	2.19	28.2	0.00	0.00	0.00	0.04	171	08
200		8.72		8.70		34.114	26.475	158.8	0.452	1.86		28.5	38.3	2.32	29.5	0.00	0.00	0.00	0.03	202	07
230		8.42		8.40		34.154	26.553	151.9	0.499	1.53		23.2	42.5	2.47	31.0	0.00	0.00			232	06
250	ISL	8.27	D	8.25		34.182	D 26.598	148.0	0.532	1.33	D	20.2	45.1	2.56	31.8	0.00	0.00			252	
270		8.19		8.16		34.210	26.634	145.0	0.558	1.11		16.7	47.7	2.64	32.6	0.00	0.00			272	05
300	ISL	7.81	D	7.78		34.216	D 26.695	139.5	0.604	0.97	D	14.5	51.6	2.72	33.7	0.00	0.00			302	
320		7.67		7.63		34.233	26.730	136.5	0.629	0.84		12.6	54.2	2.78	34.5	0.00	0.00			323	04
380		6.98		6.95		34.240	26.833	127.3	0.708	0.62		9.0	62.3	2.94	36.7	0.00	0.00			383	03
400	ISL	6.84	D	6.81		34.264	D 26.871	123.9	0.737	0.50	D	7.4	64.8	2.98	37.3	0.00	0.00			403	
441		6.52		6.48		34.266	26.916	120.0	0.783	0.44		6.3	69.8	3.07	38.4	0.00	0.00			445	02
500	ISL	6.15	D	6.11		34.269	D 26.967	115.7	0.858	0.38	D	5.5	74.8	3.15	39.3	0.00	0.00			504	
516		6.22		6.17		34.298	26.982	114.6	0.871	0.31		4.4	76.1	3.17	39.5	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
31 50.8 N	119 34.5 W	29/01/2012	2135 UTC	1893 m	340 06 kn			1019.9 mb	14.1 C	13.0 C				011

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.20		14.20		33.386	24.899	304.4	0.000	5.90		101.0	2.6	0.39	0.6	0.05	0.04	0.53	0.14	0	
2		14.20		14.20		33.386	24.899	304.4	0.006	5.90		101.0	2.6	0.39	0.6	0.05	0.04	0.53	0.14	2	20
10		14.20		14.20		33.385	24.899	304.7	0.031	5.90		101.1	2.6	0.38	0.6	0.05	0.05	0.53	0.14	10	19
19		14.13		14.13		33.379	24.909	304.0	0.058	5.89		100.7	2.7	0.39	0.7	0.05	0.07	0.52	0.17	19	18
20	ISL	14.02	D	14.00		33.369	D 24.928	302.2	0.061	5.88	D	100.3	2.7	0.39	0.7	0.05	0.07	0.50	0.17	20	
30		13.85		13.85		33.367	24.958	299.7	0.091	5.87		99.8	3.1	0.42	1.2	0.08	0.11	0.37	0.15	30	17
40		13.05		13.05		33.362	25.117	284.9	0.120	5.70		95.3	4.2	0.55	2.7	0.20	0.28	0.39	0.23	40	16
50		12.67		12.66		33.356	25.188	278.3	0.148	5.40		89.5	5.6	0.70	5.3	0.34	0.04	0.22	0.17	50	15
60		11.22		11.21		33.340	25.446	253.9	0.175	4.77		76.7	9.6	1.00	10.8	0.03	0.00	0.10	0.10	60	14
70		11.25		11.24		33.384	25.476	251.3	0.200	4.44		71.5	11.4	1.15	12.9	0.03	0.00	0.11	0.14	71	13
75	ISL	10.93	D	10.94		33.430	D 25.565	242.9	0.214	4.25	D	68.0	12.7	1.22	14.2	0.03	0.00	0.09	0.11	76	
85		10.47		10.46		33.471	25.682	231.9	0.236	4.09		64.8	15.3	1.37	16.7	0.02	0.00	0.05	0.06	86	12
100		9.80		9.78		33.653	25.939	207.8	0.269	3.39		53.0	22.1	1.70	21.9	0.01	0.00	0.01	0.04	101	11
120		9.53		9.52		33.809	26.105	192.5	0.309	2.82		43.9	26.4	1.91	24.5	0.01	0.00	0.01	0.04	121	10
125	ISL	9.37	D	9.36		33.808	D 26.130	190.1	0.321	2.89	D	44.8	27.4	1.94	25.0	0.01	0.00	0.01	0.04	126	
140		9.10		9.08		33.938	26.276	176.5	0.346	2.53		39.0	30.4	2.04	26.6	0.00	0.00	0.00	0.04	141	09
150	ISL	9.06	D	9.04		33.966	D 26.305	174.0	0.366	2.51	D	38.6	31.7	2.08	27.1	0.00	0.00	0.00	0.04	151	
170		8.84		8.82		34.016	26.379	167.4	0.398	2.30		35.2	34.2	2.15	28.2	0.00	0.00	0.00	0.03	171	08
200	ISL	8.39	D	8.37		34.072	D 26.492	157.1	0.449	1.94	D	29.4	39.3	2.29	30.3	0.00	0.00	0.00	0.03	202	
201		8.39		8.37		34.069	26.491	157.2	0.448	1.95		29.6	39.5	2.29	30.4	0.00	0.00	0.00	0.03	203	07
230		8.09		8.06		34.099	26.561	151.0	0.493	1.74		26.2	43.3	2.40	31.5	0.00	0.00			232	06
250	ISL	7.89	D	7.87		34.138	D 26.620	145.7	0.526	1.52	D	22.8	46.6	2.49	32.6	0.00	0.00			252	
270		7.65		7.62		34.133	26.653	142.9	0.552	1.33		19.8	49.9	2.58	33.7	0.00	0.00			272	05
300	ISL	7.41	D	7.38		34.161	D 26.709	137.9	0.597	1.14	D	16.9	53.9	2.68	34.7	0.00	0.00			302	
320		7.23		7.20		34.186	26.755	133.8	0.621	0.95		14.1	56.6	2.75	35.4	0.00	0.00			323	04
380		6.63		6.60		34.218	26.862	124.1	0.698	0.65		9.5	65.5	2.93	37.6	0.00	0.00			383	03
400	ISL	6.58	D	6.55		34.252	D 26.896	121.3	0.727	0.52	D	7.5	67.9	2.97	38.0	0.00	0.00			403	
441		6.35		6.31		34.275	26.945	117.0	0.772	0.40		5.8	72.7	3.05	38.9	0.00	0.00			445	02
500	ISL	6.02	D	5.98		34.304	D 27.011	111.4	0.845	0.32	D	4.5	78.0	3.13	39.9	0.00	0.00			504	
515		5.98		5.94		34.310	27.022	110.6	0.856	0.28		4.0	79.4	3.15	40.2	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
31 30.9 N	120 14.9 W	30/01/2012	0326 UTC	3944 m	360 10 kn	360 03 03	1	1021.3 mb	16.0 C	14.3 C	20 m	3/8	ST	012

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP	
0		14.44		14.44		33.281	24.767	317.1	0.000	5.95		102.3		2.5	0.33	0.0	0.01	0.03	0.33	0.10	0		
2	A	14.44		14.44		33.281	24.767	317.1	0.006	5.95		102.3		2.5	0.33	0.0	0.01	0.03	0.33	0.10	2		22
8		14.34		14.34		33.283	24.790	315.0	0.025	5.93		101.8		2.4	0.32	0.0	0.01	0.06	0.34	0.10	8		21
10	ISL	14.31	D	14.31		33.284	D 24.798	314.3	0.032	5.97	D	102.4		2.4	0.32	0.0	0.01	0.08	0.34	0.10	10		
14	A	14.30		14.30		33.283	24.799	314.3	0.044	5.93		101.7		2.4	0.33	0.0	0.01	0.13	0.35	0.09	14		20
18	A	14.28		14.28		33.285	24.805	314.0	0.057	5.94		101.8		2.4	0.32	0.0	0.01	0.08	0.40	0.09	18		19
20	ISL	14.25	D	14.24		33.283	D 24.811	313.4	0.063	5.97	D	102.3		2.4	0.32	0.0	0.01	0.08	0.40	0.10	20		
28		14.24		14.23		33.279	24.810	313.7	0.088	6.01		102.9		2.4	0.32	0.0	0.01	0.06	0.41	0.13	28		18
30	ISL	14.23	D	14.23		33.282	D 24.813	313.5	0.095	5.93	D	101.6		2.4	0.32	0.0	0.01	0.06	0.42	0.12	30		
36	A	14.22		14.22		33.288	24.820	313.0	0.113	5.93		101.5		2.4	0.32	0.0	0.01	0.04	0.45	0.11	36		17
46		14.21		14.20		33.277	24.816	313.8	0.145	5.93		101.4		2.4	0.32	0.0	0.01	0.19	0.48	0.10	46		16
50	ISL	14.20	D	14.19		33.279	D 24.819	313.6	0.159	5.90	D	101.0		2.6	0.32	0.0	0.01	0.23	0.45	0.11	50		
58		14.18		14.17		33.279	24.824	313.3	0.182	5.91		101.0		2.9	0.32	0.1	0.02	0.31	0.39	0.13	58		15
68	A	14.01		14.00		33.265	24.849	311.3	0.213	5.87		100.0		2.6	0.35	0.3	0.05	0.16	0.30	0.14	69		14
75	ISL	13.85	D	13.84		33.261	D 24.879	308.6	0.237	5.84	D	99.2		2.9	0.40	1.0	0.09	0.13	0.24	0.14	76		
77	A	13.61		13.60		33.267	24.934	303.4	0.241	5.75		97.2		3.0	0.41	1.2	0.10	0.12	0.23	0.14	78		13
88		12.46		12.45		33.364	25.235	274.9	0.273	5.22		86.3		5.6	0.65	5.6	0.05	0.06	0.15	0.16	89		12
100		11.86		11.85		33.385	25.367	262.6	0.305	4.98		81.1		7.7	0.82	8.3	0.02	0.18	0.10	0.12	101		11
120		10.24		10.23		33.515	25.756	225.7	0.354	3.88		61.1		17.4	1.48	18.5	0.00	0.23	0.03	0.04	121		10
125	ISL	10.04	D	10.02		33.567	D 25.832	218.6	0.368	3.80	D	59.6		18.5	1.51	19.1	0.00	0.17	0.02	0.04	126		
139		9.62		9.60		33.659	25.974	205.3	0.395	3.69		57.4		21.5	1.61	20.9	0.00	0.00	0.01	0.03	140		09
150	ISL	9.43	D	9.42		33.694	D 26.032	200.0	0.420	3.79	D	58.7		24.2	1.71	22.5	0.00	0.00	0.01	0.03	151		
170		8.97		8.95		33.887	26.258	178.9	0.455	3.01		46.2		29.0	1.90	25.4	0.00	0.00	0.00	0.02	171		08
199		8.44		8.41		33.966	26.403	165.5	0.505	2.82		42.8		33.8	1.99	27.4	0.00	0.00	0.00	0.02	201		07
200	ISL	8.45	D	8.43		33.969	D 26.404	165.5	0.510	2.82	D	42.8		34.0	2.00	27.5	0.00	0.00	0.00	0.02	202		
230		7.98		7.96		34.009	26.506	156.1	0.555	2.46		37.0		38.9	2.16	29.5	0.00	0.00			232		06
250	ISL	7.70	D	7.68		34.038	D 26.569	150.4	0.590	2.17	D	32.4		43.3	2.29	31.2	0.00	0.00			252		
270		7.49		7.46		34.062	26.620	145.8	0.615	1.82		27.0		47.7	2.42	32.8	0.00	0.00			272		05
300	ISL	7.20	D	7.18		34.084	D 26.677	140.8	0.663	1.53	D	22.5		52.4	2.55	34.4	0.00	0.00			302		
320		7.01		6.98		34.104	26.720	136.9	0.686	1.33		19.5		55.5	2.64	35.4	0.00	0.00			323		04
380		6.69		6.66		34.181	26.825	127.7	0.765	0.77		11.2		64.6	2.89	37.6	0.00	0.00			383		03
400	ISL	6.45	D	6.42		34.197	D 26.869	123.6	0.797	0.64	D	9.2		67.2	2.94	38.1	0.00	0.00			403		
440		6.33		6.29		34.246	26.925	118.9	0.839	0.47		6.9		72.4	3.03	39.0	0.00	0.00			444		02
500	ISL	6.10	D	6.06		34.304	D 27.001	112.4	0.916	0.30	D	4.3		79.1	3.13	40.2	0.00	0.00			504		
515		5.91		5.87		34.301	27.022	110.4	0.925	0.28		4.0		80.8	3.16	40.5	0.00	0.00			519		01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
31 10.7 N	120 55.3 W	30/01/2012	1054 UTC	3833 m	340 15 kn			1019.2 mb	15.0 C	13.5 C				013

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP	
0		14.94		14.94		33.361	24.723	321.2	0.000	5.83		101.3		2.0	0.31	0.0	0.00	0.00	0.21	0.07	0		
2		14.94		14.94		33.361	24.723	321.2	0.006	5.83		101.3		2.0	0.31	0.0	0.00	0.00	0.21	0.07	2		20
10		14.94		14.94		33.360	24.722	321.5	0.032	5.84		101.6		2.0	0.30	0.0	0.00	0.00	0.21	0.07	10		19
20	ISL	14.93	D	14.92		33.360	D 24.727	321.5	0.065	5.82	D	101.2		2.0	0.30	0.0	0.00	0.00	0.23	0.08	20		
25		14.85		14.84		33.358	24.742	320.2	0.080	5.84		101.3		2.0	0.30	0.0	0.00	0.00	0.24	0.09	25		18
30	ISL	14.84	D	14.84		33.360	D 24.745	320.1	0.097	5.83	D	101.1		2.0	0.30	0.0	0.00	0.00	0.26	0.10	30		
40		14.82		14.81		33.357	24.748	320.1	0.128	5.85		101.5		2.0	0.30	0.0	0.00	0.00	0.30	0.11	40		17
50		14.77		14.76		33.354	24.756	319.6	0.160	5.85		101.2		2.0	0.30	0.0	0.00	0.00	0.31	0.11	50		16
62		14.56		14.55		33.343	24.793	316.5	0.198	5.85		100.8		2.0	0.31	0.0	0.01	0.07	0.34	0.13	62		15
75		14.28		14.27		33.329	24.842	312.2	0.239	5.83		99.9		2.3	0.33	0.2	0.04	0.14	0.23	0.10	76		14
87		13.28		13.26		33.329	25.050	292.7	0.276	5.71		95.9		3.7	0.50	2.1	0.24	0.33	0.15	0.12	88		13
100		12.53		12.52		33.312	25.183	280.2	0.313	5.24		86.7		5.8	0.73	6.1	0.14	0.10	0.12	0.12	101		12
112		11.67		11.65		33.311	25.345	264.9	0.346	4.81		78.0		8.3	0.95	10.0	0.03	0.00	0.11	0.13	113		11
125		10.75		10.74		33.374	25.559	244.7	0.379	4.53		72.2		11.9	1.14	13.4	0.01	0.07	0.05	0.07	126		10
140		10.06		10.05		33.507	25.781	223.8	0.414	4.03		63.2		17.2	1.43	18.2	0.01	0.24	0.02	0.04	141		09
150	ISL	9.89	D	9.87		33.574	D 25.864	216.1	0.439	3.83	D	59.9		20.0	1.55	20.1	0.01	0.17	0.02	0.03	151		
170		9.20		9.19		33.798	26.150	189.2	0.476	3.26		50.4		25.7	1.79	24.0	0.00	0.03	0.00	0.02	171		08
200	ISL	8.87	D	8.85		33.959	D 26.330	172.6	0.534	2.73	D	41.9		31.3	1.98	26.7	0.00	0.00	0.00	0.02	202		
201		8.84		8.82		33.958	26.335	172.2	0.532	2.74		41.9		31.5	1.99	26.8	0.00	0.00	0.00	0.02	203		07
230		8.45		8.43		34.023	26.446	162.1	0.581	2.38		36.1		36.6	2.15	28.9	0.00	0.00			232		06
250	ISL	8.34	D	8.31		34.077	D 26.506	156.7	0.616	2.05	D	31.0		40.2	2.31	30.5	0.00	0.00			252		
270		8.23		8.20		34.125	26.561	151.9	0.644	1.51		22.8		43.8	2.46	32.1	0.00	0.00			272		05
300	ISL	8.02	D	7.99		34.169	D 26.627	146.1	0.692	1.21	D	18.3		48.0	2.55	33.2	0.00	0.00			302		
321		7.65		7.62		34.153	26.670	142.2	0.719	1.21		18.1		51.0	2.62	34.0	0.00	0.00			324		04
381		6.72		6.68		34.163	26.807	129.4	0.800	1.00		14.6		60.0	2.78	36.4	0.00	0.00			384		03
400	ISL	7.15	D	7.12		34.236	D 26.806	130.3	0.831	0.71	D	10.5		62.3	2.84	36.9	0.00	0.00			403		
441		6.69		6.65		34.238	26.872	124.3	0.877	0.59		8.6		67.2	2.96	37.9	0.00	0.00			445		02
500	ISL	6.35	D	6.30		34.317	D 26.980	114.7	0.954	0.30	D	4.3		74.1	3.09	39.2	0.00	0.00			504		
516		6.22		6.17		34.311	26.993	113.6	0.966	0.29		4.2		76.0	3.12	39.6	0.00	0.00			520		01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
30 50.9 N	121 35.2 W	30/01/2012	1635 UTC	4106 m	330 10 kn			1019.6 mb	14.0 C	13.1 C				014

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		15.41		15.41		33.394	24.645	328.6	0.000	5.77		101.2		1.7	0.30	0.0	0.00	0.00	0.15	0.05	0	
2		15.41		15.41		33.394	24.645	328.6	0.007	5.77		101.2		1.7	0.30	0.0	0.00	0.00	0.15	0.05	2	20
10		15.42		15.42		33.394	24.644	329.0	0.033	5.79		101.6		1.8	0.29	0.0	0.00	0.00	0.16	0.05	10	19
20	ISL	15.43	D	15.42		33.396	D 24.644	329.3	0.066	5.78	D	101.5		1.7	0.29	0.0	0.00	0.00	0.16	0.05	20	
25		15.42		15.42		33.394	24.644	329.6	0.082	5.77		101.4		1.7	0.29	0.0	0.00	0.00	0.17	0.05	25	18
30	ISL	15.42	D	15.42		33.396	D 24.645	329.6	0.099	5.75	D	101.0		1.7	0.29	0.0	0.00	0.00	0.17	0.06	30	
40		15.38		15.37		33.398	24.658	328.7	0.132	5.76		101.0		1.7	0.29	0.0	0.00	0.00	0.18	0.06	40	17
50		15.35		15.34		33.397	24.663	328.5	0.165	5.78		101.3		1.7	0.29	0.0	0.00	0.00	0.22	0.07	50	16
62		15.31		15.30		33.396	24.674	328.0	0.204	5.75		100.7		1.8	0.30	0.0	0.00	0.00	0.34	0.10	62	15
74		12.46		12.45		33.238	25.138	283.7	0.241	5.26		86.8		5.4	0.70	5.8	0.07	0.00	0.30	0.21	75	14
75	ISL	12.26	D	12.26		33.250	D 25.184	279.4	0.245	5.16	D	84.9		5.6	0.72	6.1	0.07	0.00	0.30	0.21	76	
87		11.75		11.74		33.293	25.315	267.1	0.276	4.83		78.6		8.2	0.95	9.9	0.03	0.00	0.21	0.17	88	13
100		11.03		11.02		33.358	25.496	250.1	0.310	4.48		71.8		11.5	1.15	13.4	0.02	0.00	0.12	0.12	101	12
112		10.43		10.42		33.428	25.656	235.1	0.339	4.36		68.9		13.7	1.26	15.2	0.01	0.00	0.05	0.06	113	11
124		9.99		9.98		33.515	25.799	221.7	0.366	4.29		67.2		16.2	1.34	16.9	0.01	0.00	0.03	0.04	125	10
125	ISL	9.97	D	9.94		33.527	D 25.815	220.2	0.371	4.20	D	65.8		16.6	1.36	17.2	0.01	0.00	0.02	0.04	126	
140		9.75		9.73		33.668	25.959	206.8	0.401	3.38		52.8		22.4	1.71	22.0	0.01	0.00	0.01	0.04	141	09
150	ISL	9.55	D	9.52		33.745	D 26.055	197.9	0.423	3.18	D	49.4		24.2	1.77	23.1	0.01	0.00	0.01	0.03	151	
170		9.17		9.15		33.858	26.202	184.2	0.459	2.92		45.1		27.9	1.90	25.2	0.00	0.00	0.00	0.03	171	08
200		8.92		8.90		33.984	26.343	171.5	0.512	2.47		37.8		32.5	2.06	27.4	0.00	0.00	0.00	0.03	202	07
230		8.51		8.48		34.048	26.458	161.0	0.562	2.17		33.0		37.4	2.21	29.3	0.00	0.00			232	06
250	ISL	7.96	D	7.94		34.043	D 26.535	153.8	0.597	2.17	D	32.6		41.3	2.29	30.7	0.00	0.00			252	
270		7.72		7.69		34.059	26.585	149.3	0.624	1.90		28.4		45.1	2.37	32.0	0.00	0.00			272	05
300	ISL	7.43	D	7.40		34.095	D 26.654	143.1	0.672	1.54	D	22.9		50.5	2.52	33.8	0.00	0.00			302	
320		7.18		7.15		34.099	26.693	139.6	0.696	1.35		19.9		54.1	2.62	35.0	0.00	0.00			323	04
380		6.72		6.68		34.186	26.825	127.7	0.777	0.78		11.4		63.5	2.86	37.2	0.00	0.00			383	03
400	ISL	6.53	D	6.49		34.184	D 26.850	125.6	0.806	0.72	D	10.5		66.4	2.91	37.8	0.00	0.00			403	
440		6.23		6.19		34.212	26.911	120.1	0.851	0.54		7.8		72.2	3.01	39.0	0.00	0.00			444	02
500	ISL	5.86	D	5.81		34.284	D 27.016	110.7	0.926	0.33	D	4.7		80.0	3.14	40.3	0.00	0.00			504	
515		5.79		5.75		34.293	27.031	109.5	0.937	0.28		4.0		82.0	3.17	40.6	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
30 30.7 N	122 15.7 W	30/01/2012	2344 UTC	4173 m	320 06 kn	320 03 05	1	1018.2 mb	14.1 C	12.7 C	21 m	3/8	ST	015

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		15.24		15.23		33.395	24.685	324.9	0.000	5.79		101.2		1.8	0.33	0.0	0.00	0.00	0.26	0.09	0	
2	A	15.24		15.23		33.395	24.685	324.9	0.007	5.79		101.2		1.8	0.33	0.0	0.00	0.00	0.26	0.09	2	22
10	ISL	15.24	D	15.24		33.399	D 24.687	324.9	0.033	5.82	D	101.8		1.8	0.32	0.0	0.00	0.00	0.27	0.09	10	
15	A	15.24		15.24		33.396	24.685	325.3	0.049	5.78		101.2		1.8	0.31	0.0	0.00	0.00	0.27	0.10	15	21
19	A	15.24		15.23		33.396	24.686	325.3	0.062	5.81		101.5		1.8	0.31	0.0	0.00	0.00	0.30	0.10	19	20
20	ISL	15.23	D	15.23		33.397	D 24.688	325.2	0.065	5.79	D	101.2		1.8	0.31	0.0	0.00	0.00	0.30	0.10	20	
29		15.24		15.23		33.394	24.685	325.8	0.094	5.79		101.3		1.8	0.31	0.0	0.00	0.00	0.29	0.10	29	19
30	ISL	15.24	D	15.23		33.398	D 24.688	325.5	0.098	5.77	D	100.9		1.8	0.31	0.0	0.00	0.00	0.29	0.10	30	
38	A	15.22		15.21		33.395	24.690	325.6	0.124	5.80		101.3		1.8	0.30	0.0	0.00	0.02	0.29	0.09	38	18
49		15.20		15.19		33.390	24.693	325.7	0.160	5.77		100.8		1.8	0.31	0.0	0.00	0.02	0.40	0.14	49	17
50	ISL	15.19	D	15.17		33.393	D 24.698	325.2	0.164	5.73	D	100.0		1.9	0.32	0.1	0.01	0.02	0.39	0.14	50	
60		13.91		13.90		33.335	24.925	303.8	0.194	5.65		96.2		2.6	0.40	1.2	0.10	0.05	0.30	0.18	60	16
72	A	12.35		12.34		33.263	25.178	279.9	0.229	5.02		82.7		6.6	0.85	7.9	0.08	0.00	0.26	0.24	73	15
75	ISL	12.01	D	12.00		33.296	D 25.268	271.4	0.240	4.80	D	78.5		7.2	0.89	8.7	0.06	0.00	0.23	0.22	76	
81	A	11.58		11.57		33.305	25.355	263.1	0.254	4.76		77.1		8.5	0.97	10.4	0.03	0.00	0.16	0.18	82	14
88		11.20		11.19		33.342	25.453	253.9	0.272	4.75		76.4		9.5	1.01	11.1	0.03	0.00	0.12	0.11	89	13
95		10.77		10.76		33.405	25.578	242.1	0.289	4.55		72.5		11.7	1.13	13.2	0.01	0.00	0.07	0.07	96	12
100	ISL	10.53	D	10.49		33.448	D 25.659	234.5	0.303	4.38	D	69.4		13.6	1.24	14.9	0.01	0.00	0.06	0.07	101	
110		10.23		10.22		33.514	25.758	225.4	0.324	3.90		61.5		17.3	1.47	18.4	0.01	0.00	0.04	0.05	111	11
125		9.86		9.84		33.630	25.912	211.0	0.357	3.52		55.0		20.9	1.64	21.1	0.00	0.00	0.01	0.04	126	10
145		9.49		9.47		33.779	26.089	194.5	0.397	3.13		48.6		25.1	1.82	23.7	0.00	0.00	0.00	0.03	146	09
150	ISL	9.35	D	9.33		33.824	D 26.147	189.1	0.410	3.09	D	47.8		26.0	1.85	24.1	0.00	0.00	0.00	0.03	151	
170		9.03		9.01		33.916	26.270	177.7	0.444	2.83		43.4		29.6	1.95	25.7	0.00	0.00	0.00	0.03	171	08
199		8.60		8.58		34.008	26.411	164.9	0.493	2.42		36.8		34.8	2.11	28.2	0.00	0.00	0.00	0.03	201	07
200	ISL	8.58	D	8.56		34.013	D 26.417	164.3	0.498	2.41	D	36.7		34.9	2.11	28.3	0.00	0.00	0.00	0.02	202	
230		8.35		8.33		34.060	26.490	157.8	0.543	2.05		31.0		38.9	2.25	29.9	0.00	0.00			232	06
250	ISL	8.08	D	8.06		34.094	D 26.558	151.7	0.578	1.77	D	26.7		42.6	2.35	31.2	0.00	0.00			252	
270		7.77		7.74		34.105	26.613	146.7	0.604	1.61		24.1		46.3	2.45	32.5	0.00	0.00			272	05
300	ISL	7.68	D	7.65		34.126	D 26.643	144.3	0.652	1.40	D	20.9		49.5	2.55	33.6	0.00	0.00			302	
320		7.47		7.44		34.134	26.679	141.1	0.676	1.25		18.5		51.7	2.61	34.3	0.00	0.00			323	04
383		6.68		6.64		34.153	26.805	129.7	0.761	0.90		13.1		62.6	2.82	37.2	0.00	0.00			386	03
400	ISL	6.40	D	6.36		34.147	D 26.837	126.6	0.789	0.87	D	12.7		65.4	2.87	37.7	0.00	0.00			403	
439		6.13		6.09		34.187	26.904	120.6	0.831	0.64		9.1		71.9	2.98	39.0	0.00	0.00			443	02
500	ISL	5.73	D	5.69		34.238	D 26.995	112.5	0.909	0.43	D	6.2		79.2	3.11	40.2	0.00	0.00			504	
516		5.79		5.74		34.273	27.016	110.8	0.920	0.33		4.7		81.1	3.14	40.5	0.00	0.00			520	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
30 10.8 N	122 55.2 W	31/01/2012	0617 UTC	3982 m	320 08 kn	320 03 05	1	1016.5 mb	15.9 C	13.8 C	18 m	7/8	SC	016

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		15.07		15.07		33.270	24.625	330.6	0.000	5.84		101.7		2.1	0.29	0.0	0.00	0.00	0.15	0.05	0	
2		15.07		15.07		33.270	24.625	330.6	0.007	5.84		101.7		2.1	0.29	0.0	0.00	0.00	0.15	0.05	2	20
10		14.96		14.95		33.268	24.648	328.7	0.033	5.84		101.4		2.1	0.29	0.0	0.00	0.00	0.15	0.05	10	19
20	ISL	14.92	D	14.91		33.270	D 24.659	327.9	0.066	5.85	D	101.6		2.0	0.28	0.0	0.00	0.00	0.17	0.06	20	
25		14.91		14.91		33.268	24.658	328.1	0.082	5.85		101.5		2.0	0.28	0.0	0.00	0.00	0.18	0.06	25	18
30	ISL	14.91	D	14.90		33.269	D 24.661	328.0	0.099	5.85	D	101.6		2.0	0.28	0.0	0.00	0.00	0.19	0.07	30	
39		14.90		14.90		33.268	24.662	328.3	0.128	5.85		101.5		2.1	0.28	0.0	0.00	0.00	0.21	0.08	39	17
50		14.89		14.89		33.267	24.663	328.5	0.164	5.84		101.3		2.1	0.28	0.0	0.00	0.00	0.24	0.08	50	16
61		14.81		14.80		33.254	24.672	328.1	0.200	5.82		100.8		2.0	0.28	0.0	0.00	0.00	0.26	0.11	61	15
75		14.47		14.46		33.231	24.726	323.3	0.246	5.84		100.5		2.2	0.30	0.0	0.04	0.06	0.26	0.14	76	14
87		13.82		13.80		33.236	24.867	310.1	0.284	5.77		97.9		2.6	0.37	0.6	0.28	0.00	0.20	0.13	88	13
100		13.01		12.99		33.279	25.065	291.5	0.323	5.75		96.0		3.0	0.38	1.3	0.10	0.00	0.13	0.14	101	12
112		12.25		12.24		33.315	25.239	275.1	0.357	5.61		92.2		3.7	0.45	2.6	0.02	0.00	0.10	0.11	113	11
125		11.13		11.11		33.266	25.409	259.1	0.392	5.18		83.1		7.2	0.80	7.9	0.01	0.00	0.06	0.07	126	10
139		10.65		10.64		33.366	25.571	243.9	0.427	4.68		74.3		11.2	1.08	12.6	0.00	0.00	0.04	0.05	140	09
150	ISL	10.34	D	10.32		33.496	D 25.726	229.3	0.456	3.94	D	62.3		13.8	1.18	14.6	0.00	0.00	0.03	0.04	151	
170		9.50		9.48		33.661	25.996	203.9	0.496	4.26		66.0		18.5	1.37	18.1	0.00	0.00	0.00	0.02	171	08
200		8.77		8.74		33.880	26.284	176.9	0.553	3.51		53.7		27.3	1.73	23.8	0.00	0.00	0.00	0.02	202	07
230		8.33		8.30		33.990	26.440	162.6	0.604	2.48		37.5		36.0	2.11	28.8	0.00	0.00			232	06
250	ISL	7.94	D	7.92		34.000	D 26.504	156.7	0.640	2.51	D	37.7		38.6	2.13	29.3	0.00	0.00			252	
269		7.65		7.62		33.993	26.543	153.2	0.666	2.62		39.0		41.0	2.15	29.8	0.00	0.00			271	05
300	ISL	7.29	D	7.26		34.028	D 26.621	146.1	0.716	2.07	D	30.6		46.8	2.33	32.0	0.00	0.00			302	
320		7.11		7.08		34.037	26.654	143.2	0.741	1.87		27.6		50.6	2.45	33.5	0.00	0.00			322	04
380		6.50		6.47		34.110	26.794	130.5	0.823	1.07		15.5		62.7	2.78	37.3	0.00	0.00			383	03
400	ISL	6.35	D	6.31		34.122	D 26.824	127.8	0.854	0.99	D	14.4		65.8	2.84	37.9	0.00	0.00			403	
440		6.05		6.01		34.165	26.897	121.3	0.899	0.70		10.0		71.9	2.97	39.2	0.00	0.00			444	02
500	ISL	5.73	D	5.69		34.214	D 26.975	114.4	0.976	0.50	D	7.2		79.0	3.07	40.4	0.00	0.00			504	
515		5.68		5.63		34.218	26.986	113.5	0.986	0.45		6.3		80.8	3.09	40.7	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY STA-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
29 51.0 N	123 35.4 W	31/01/2012	1208 UTC	4063 m	020 16 kn			1018.6 mb	15.1 C	13.3 C				017

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		16.29		16.29		33.563	24.578	335.0	0.000	5.65		100.9		1.9	0.24	0.0	0.00	0.00	0.09	0.01	0	
2		16.29		16.29		33.563	24.578	335.0	0.007	5.65		100.9		1.9	0.24	0.0	0.00	0.00	0.09	0.01	2	20
10		16.29		16.29		33.564	24.579	335.2	0.034	5.66		101.2		2.1	0.24	0.0	0.00	0.00	0.11	0.02	10	19
20	ISL	16.28	D	16.28		33.561	D 24.579	335.0	0.060	5.63	D	100.7		2.0	0.23	0.0	0.00	0.00	0.10	0.02	20	
25		16.30		16.30		33.564	24.578	335.9	0.084	5.64		100.9		2.0	0.23	0.0	0.00	0.00	0.09	0.02	25	18
30	ISL	16.30	D	16.30		33.566	D 24.578	336.0	0.101	5.63	D	100.7		2.0	0.23	0.0	0.00	0.00	0.10	0.01	30	
40		16.36		16.35		33.592	24.586	335.6	0.134	5.63		100.9		2.0	0.23	0.0	0.00	0.00	0.11	0.01	40	17
50		16.35		16.34		33.589	24.587	335.9	0.168	5.64		100.9		2.1	0.22	0.0	0.00	0.00	0.09	0.02	50	16
62		16.20		16.19		33.563	24.603	334.8	0.208	5.65		100.7		2.0	0.23	0.0	0.00	0.00	0.12	0.01	62	15
75		16.10		16.09		33.527	24.597	335.8	0.252	5.64		100.5		1.9	0.23	0.0	0.00	0.00	0.15	0.03	76	14
87		15.06		15.04		33.654	24.929	304.5	0.290	5.73		100.0		2.5	0.22	0.0	0.00	0.00	0.28	0.14	88	13
100		14.45		14.43		33.692	25.090	289.5	0.329	5.60		96.6		2.8	0.25	0.3	0.12	0.00	0.24	0.15	101	12
112		14.01		14.00		33.683	25.174	281.8	0.363	5.48		93.6		3.2	0.32	1.3	0.04	0.03	0.20	0.12	113	11
124		13.63		13.61		33.651	25.229	276.8	0.396	5.39		91.4		3.5	0.37	2.2	0.02	0.04	0.19	0.07	125	10
125	ISL	13.65	D	13.65		33.666	D 25.233	276.5	0.402	5.40	D	91.6		3.6	0.38	2.3	0.02	0.04	0.19	0.07	126	
140		12.81		12.79		33.581	25.339	266.6	0.440	5.38		89.6		4.4	0.46	3.5	0.01	0.00	0.10	0.07	141	09
150	ISL	11.86	D	11.84		33.496	D 25.456	255.5	0.470	5.25	D	85.7		6.9	0.65	6.5	0.01	0.00	0.07	0.06	151	
170		10.35		10.33		33.494	25.723	230.1	0.515	4.77		75.3		11.8	1.03	12.4	0.00	0.00	0.02	0.03	171	08
200	ISL	9.22	D	9.19		33.758	D 26.120	192.7	0.582	3.95	D	60.9		21.6	1.52	20.5	0.00	0.00	0.00	0.02	202	
201		9.17		9.15		33.745	26.116	193.0	0.580	3.95		60.8		21.9	1.54	20.8	0.00	0.00	0.00	0.02	203	07
230		8.76		8.74		33.905	26.306	175.5	0.633	3.42		52.2									232	06
250	ISL	8.39	D	8.36		33.949	D 26.398	167.0	0.672	3.40	D	51.5		32.5	1.92	26.7	0.00	0.00			252	
270		8.05		8.03		33.985	26.477	159.7	0.700	2.89		43.5		36.2	2.01	27.9	0.00	0.00			272	05
300	ISL	7.56	D	7.53		34.031	D 26.585	149.7	0.752	2.18	D	32.4		43.6	2.26	31.0	0.00	0.00			302	
320		7.34		7.31		34.048	26.631	145.6	0.776	1.88		27.8		48.5	2.42	33.0	0.00	0.00			322	04
381		6.66		6.63		34.098	26.764	133.5	0.861	1.20		17.5		60.3	2.72	36.8	0.00	0.00			384	03
400	ISL	6.44	D	6.41		34.110	D 26.802	129.9	0.893	1.06	D	15.3		63.5	2.78	37.5	0.00	0.00			403	
440		6.09		6.05		34.134	26.867	124.1	0.937	0.84		12.1		70.2	2.92	38.9	0.00	0.00			444	02
500	ISL	5.73	D	5.68		34.196	D 26.963	115.5	1.016	0.54	D	7.7		79.2	3.07	40.5	0.00	0.00			504	
516		5.61		5.57		34.210	26.987	113.3	1.027	0.49		6.9		81.6	3.11	40.9	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.4 26.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE	ORD
32 57.2 N	117 17.0 W	28/01/2012	1019 UTC	23 m	060 14 kn			1014.0 mb	22.1 C	13.2 C				002

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT		SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0		14.73		14.73		33.373	24.776	316.1	0.000	6.12		105.9		1.9	0.32	0.0	0.00	0.00	0.67	0.18	0	
1		14.73		14.73		33.373	24.776	316.1	0.003	6.12		105.9		1.9	0.32	0.0	0.00	0.00	0.67	0.18	1	04
5		14.63		14.63		33.370	24.796	314.4	0.016	6.11		105.5		2.0	0.32	0.0	0.00	0.00	0.76	0.23	5	03
10		14.36		14.36		33.368	24.851	309.3	0.031	6.09		104.7		2.1	0.34	0.0	0.00	0.00	1.13	0.40	10	02
15		13.96		13.95		33.356	24.927	302.2	0.047	5.78		98.5		2.0	0.44	1.4	0.10	0.13	4.16	0.38	15	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 76.7 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
34 53.4 N	121 12.6 W	12/02/2012	0318 UTC	15 m	1236 - 1809 PST	1219 PST	1809 PST	352.8 mg C/m2	073

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
3	12.79	33.439	25.225	6.05	100.6	2.6	0.58	2.5	0.10	0.71	1.08	0.52	74. A	10.3	12.5	11.4	0.15
10	12.76	33.440	25.233	6.11	101.6	2.4	0.55	2.5	0.10	0.64	1.02	0.64	36.	13.3	12.0	12.7	0.12
14	12.70	33.440	25.245	6.05	100.4	2.5	0.57	2.5	0.10	0.61	1.16	0.73	24.	11.4	10.6	11.0	0.15
27	12.08	33.451	25.372	5.18	84.9	8.4	0.92	8.1	0.19	0.55	0.66	0.67	6.3	5.9	5.2	5.6	0.10
38	11.56	33.464	25.481	4.94	80.1	10.3	1.02	9.8	0.20	0.44	0.52	0.52					
50	11.24	33.539	25.597	3.97	63.9	15.3	1.39	15.8	0.19	0.29	0.62	0.67	0.60	0.95	0.86	0.90	0.09
58	11.07	33.536	25.627	3.84	61.6	15.1	1.44	16.6	0.17	0.37	0.86	0.90	0.26	0.49	0.41	0.45	0.11

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 76.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
33 43.0 N	123 38.3 W	11/02/2012	0326 UTC	19 m	1235 - 1816 PST	1227 PST	1818 PST	229.0 mg C/m2	069

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	13.93	33.156	24.778	6.00	102.1	2.6	0.33	0.0	0.00	0.00	0.23	0.06	85. A	4.4	4.4	4.4	0.10
13	13.86	33.159	24.795	5.99	101.6	2.6	0.33	0.0	0.00	0.00	0.25	0.06	35.	4.3	4.5	4.4	0.09
18	13.79	33.154	24.805	6.01	101.9	2.6	0.33	0.0	0.00	0.00	0.29	0.08	23.	4.4	4.9	4.6	0.10
26	13.71	33.143	24.814	6.01	101.7	2.6	0.33	0.0	0.00	0.00	0.37	0.13					
35	13.71	33.135	24.809	5.99	101.4	2.6	0.33	0.0	0.00	0.00	0.44	0.16	5.9	4.7	4.5	4.6	0.09
46	13.63	33.169	24.851	5.96	100.7	2.6	0.35	0.1	0.03	0.12	0.33	0.14					
54	13.31	33.165	24.914	5.90	99.1	3.0	0.40	0.7	0.13	0.23	0.23	0.12					
65	12.23	33.092	25.067	5.83	95.7	3.9	0.51	2.2	0.30	0.09	0.13	0.10	0.52	0.02	0.14	0.08	0.41
75	11.83	33.124	25.169	5.60	91.0	4.9	0.64	4.6	0.06	0.00	0.10	0.10	0.23	0.12	0.12	0.12	0.05

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 80.0 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
33 29.3 N	122 33.1 W	10/02/2012	0258 UTC	15 m	1248 - 1815 PST	1224 PST	1815 PST	136.5 mg C/m2	065

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
3	13.01	32.944	24.800	6.16	102.7	3.1	0.34	0.1	0.02	0.00	0.34	0.08	74. A	5.8	5.8	5.8	0.07
10	12.98	32.940	24.803	6.14	102.3	3.0	0.34	0.1	0.02	0.00	0.36	0.10	36.	5.6	5.7	5.7	0.08
14	12.97	32.942	24.806	6.15	102.3	3.1	0.34	0.1	0.02	0.06	0.35	0.09	24.	5.3	5.0	5.1	0.10
20	12.96	32.940	24.807	6.14	102.2	3.0	0.33	0.1	0.02	0.00	0.36	0.08					
27	12.88	32.935	24.819	6.14	102.0	3.2	0.34	0.1	0.02	0.00	0.44	0.09	6.3	0.83	0.49	0.66	3.7
39	12.74	32.973	24.876	6.15	102.0	3.5	0.36	0.5	0.05	0.00	0.48	0.13					
52	12.73	33.059	24.945	6.13	101.6	3.6	0.39	0.8	0.06	0.06	0.46	0.14	0.49	0.79	0.66	0.73	0.06
57	12.51	33.065	24.994	6.09	100.5	3.8	0.42	1.2	0.11	0.12	0.38	0.15	0.29	0.30	0.21	0.26	0.05

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 81.8 46.9

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
34 16.8 N	120 1.4 W	09/02/2012	0128 UTC	12 m	1215 - 1803 PST	1214 PST	1803 PST	1504.3 mg C/m2	059

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	13.03	33.430	25.171	6.06	101.3	2.8	0.54	2.4	0.08	0.49	2.97	0.68	88. A	44.2	43.4	43.8	0.17
8	12.85	33.430	25.208	6.07	101.1	2.8	0.55	2.4	0.09	0.49	3.90	1.07	36.	53.2	53.7	53.5	0.18
11	12.84	33.430	25.209	6.04	100.5	2.7	0.59	2.4	0.08	0.55	3.59	0.95	24.	50.8	49.6	50.2	0.16
22	12.79	33.438	25.226	6.01	100.1	2.7	0.58	2.6	0.08	0.57	3.93	1.01	6.0	41.8	41.0	41.4	0.16
31	12.77	33.442	25.234	6.01	100.0	2.7	0.60	2.7	0.08	0.65	3.88	0.91					
41	12.21	33.474	25.368	5.57	91.5	5.3	0.78	5.4	0.12	1.00	3.04	1.30	0.53	5.5	4.5	5.0	0.15
48	11.95	33.506	25.441	4.83	79.0	10.0	1.06	9.5	0.16	1.05	1.58	1.01	0.22	0.76	0.81	0.79	0.11

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 83.3 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
33 34.8 N	120 44.1 W	08/02/2012	0259 UTC	11 m	1215 - 1745 PST	1217 PST	1806 PST	205.8 mg C/m2	052

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	12.66	33.413	25.231	6.18	102.6	3.2	0.61	3.3	0.12	0.64	0.71	0.50	87. A	13.1	11.7	12.4	0.12
8	12.66	33.409	25.227	6.17	102.3	3.1	0.60	3.3	0.12	0.63	0.72	0.48	33.	9.8	10.7	10.2	0.11
11	12.66	33.410	25.229	6.16	102.2	3.2	0.60	3.3	0.12	0.63	0.76	0.42	22.	7.8	7.9	7.8	0.06
20	12.66	33.413	25.233	6.14	101.9	3.2	0.60	3.4	0.12	0.64	0.71	0.38	6.1	3.6	3.4	3.5	0.13
30	12.63	33.416	25.241	6.12	101.5	3.3	0.60	3.4	0.13	0.66	0.74	0.45					
39	12.58	33.419	25.254	6.09	100.8	3.6	0.62	3.7	0.13	0.71	0.73	0.54	0.43	0.28	0.23	0.26	0.11
44	12.51	33.430	25.275	5.91	97.7	5.1	0.70	4.7	0.16	0.82	0.62	0.59	0.22	0.02	0.12	0.07	0.17

A) INCUBATION LIGHT INTENSITIES WERE 50.0, 34.6, 23.1, 6.1, 0.5, 0.26 PERCENT RESPECTIVELY.

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 83.3 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
32 14.9 N	123 28.4 W	07/02/2012	0129 UTC	21 m	1228 - 1817 PST	1228 PST	1817 PST	102.3 mg C/m2	048

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.91	33.336	24.709	5.82	101.1	2.1	0.30	0.0	0.00	0.00	0.15	0.04	86. A	2.2	2.4	2.3	0.08
15	14.92	33.336	24.709	5.86	101.8	2.0	0.29	0.0	0.00	0.00	0.15	0.05	33.	2.1	2.1	2.1	0.06
20	14.92	33.336	24.709	5.82	101.1	2.0	0.29	0.0	0.00	0.00	0.15	0.04	23.	1.9	1.9	1.9	0.07
29	14.92	33.335	24.708	5.82	101.1	2.0	0.28	0.0	0.00	0.00	0.15	0.05					
37	14.91	33.336	24.712	5.82	101.1	2.0	0.29	0.0	0.00	0.00	0.16	0.04	6.7	1.3	1.2	1.2	0.08
50	14.89	33.334	24.716	5.82	101.0	2.0	0.29	0.0	0.00	0.00	0.22	0.06					
61	14.49	33.317	24.789	5.83	100.4	2.1	0.29	0.0	0.01	0.00	0.29	0.11					
72	13.54	33.239	24.925	5.69	96.1	3.1	0.43	1.5	0.19	0.00	0.32	0.16	0.52	0.52	0.42	0.47	0.03
81	12.88	33.242	25.060	5.50	91.6	4.1	0.54	3.4	0.17	0.00	0.26	0.16	0.27	0.17	0.17	0.17	0.04

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 33.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
33 53.5 N	118 29.5 W	04/02/2012	0124 UTC	11 m	1208 - 1755 PST	1208 PST	1752 PST	478.8 mg C/m2	034

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.35	33.372	24.856	6.10	104.8	2.1	0.31	0.0	0.00	0.00	0.90	0.25	76. A	17.2	17.8	17.5	0.16
8	14.33	33.370	24.861	6.09	104.6	2.1	0.31	0.0	0.00	0.00	0.99	0.28	33.	19.0	19.8	19.4	0.17
11	14.32	33.371	24.864	6.09	104.5	2.1	0.31	0.0	0.00	0.00	1.01	0.28	22.	18.2	18.4	18.3	0.16
20	14.19	33.369	24.889	6.04	103.3	2.2	0.34	0.1	0.03	0.00	1.10	0.30	6.1	14.0	13.4	13.7	0.13
29	12.76	33.346	25.161	4.50	74.8	8.7	1.01	10.2	0.48	0.53	0.73	0.48					
38	12.11	33.380	25.313	3.95	64.7	12.2	1.27	13.7	0.53	1.03	0.42	0.38	0.50	0.81	0.62	0.72	0.17
43	11.60	33.409	25.430	3.60	58.4	15.8	1.46	16.7	0.47	3.93	0.28	0.29	0.25	0.23	0.20	0.21	0.13

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
33 10.1 N	120 1.7 W	05/02/2012	0144 UTC	11 m	1222 - 1809 PST	1222 PST	1809 PST	369.5 mg C/m2	040

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	14.10	33.371	24.907	5.97	102.0	3.0	0.37	0.4	0.03	0.00	0.62	0.07	87. A	9.3	9.5	9.4	0.04
12	14.01	33.370	24.927	5.95	101.4	3.0	0.37	0.4	0.03	0.00	0.57	0.19	19.	9.5	9.7	9.6	0.11
16	14.01	33.370	24.929	5.95	101.5	3.0	0.37	0.4	0.03	0.00	0.55	0.14	11.	8.6	9.2	8.9	0.09
24	14.00	33.376	24.934	5.94	101.3	3.0	0.37	0.4	0.04	0.00	0.63	0.09					
31	13.98	33.373	24.937	5.94	101.2	3.0	0.37	0.4	0.04	0.03	0.65	0.08	1.3	7.2	6.7	7.0	0.03
40	13.77	33.367	24.976	5.79	98.2	3.5	0.44	1.3	0.11	0.08	0.48	0.16					
48	12.70	33.352	25.179	5.27	87.4	5.9	0.72	5.7	0.30	0.00	0.36	0.14					
58	10.95	33.397	25.538	4.49	71.8	11.5	1.15	12.9	0.03	0.00	0.16	0.09	0.03	0.44	0.18	0.31	0.05
66	10.28	33.506	25.742	3.87	61.1	16.6	1.45	17.6	0.02	0.00	0.07	0.07	0.01	0.09	0.08	0.08	0.02

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 86.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
31 59.5 N	122 23.5 W	06/02/2012	0108 UTC	14 m	1224 - 1818 PST	1224 PST	1812 PST	284.8 mg C/m2	044

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	13.41	33.223	24.937	6.13	103.2	3.2	0.36	0.3	0.03	0.05	0.55	0.11	90. A	10.3	10.0	10.1	0.06
10	13.40	33.229	24.942	6.11	102.9	3.2	0.34	0.3	0.04	0.04	0.52	0.11	33.	8.8	9.2	9.0	0.04
13	13.40	33.223D	24.938	6.17D	103.9								24.	8.4	8.6	8.5	0.07
20	13.39	33.223	24.940	6.11	102.7	3.2	0.34	0.4	0.03	0.06	0.51	0.13					
25	13.38	33.223	24.943	6.10	102.5	3.2	0.35	0.4	0.04	0.04	0.58	0.13	6.4	5.8	5.5	5.6	0.08
36	13.34	33.224	24.952	6.05	101.6	3.2	0.36	0.6	0.06	0.09	0.46	0.14					
48	13.34	33.229	24.956	6.04	101.5	3.2	0.36	0.6	0.07	0.13	0.39	0.15	0.52	0.83	0.76	0.79	0.04
54	13.33	33.240	24.968	6.01	101.0	3.2	0.37	0.6	0.08	0.15	0.40	0.17	0.27	0.31	0.28	0.30	0.03

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
32 55.6 N	118 54.7 W	03/02/2012	0104 UTC	24 m	1239 - 1751 PST	1209 PST	1755 PST	365.9 mg C/m2	026

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.24	33.381	24.886	5.97	102.3	2.6	0.33	0.0	0.00	0.00	0.28	0.09	88. A	6.3	6.9	6.6	0.08
10	14.22	33.381	24.891	5.96	102.2	2.6	0.31	0.0	0.00	0.04	0.28	0.11					
17	14.22	33.381	24.892	5.97	102.4	2.6	0.34	0.0	0.00	0.19	0.28	0.09	34.	7.4	7.2	7.3	0.08
23	14.19	33.382	24.900	5.97	102.1	2.6	0.31	0.0	0.00	0.04	0.31	0.11	23.	7.0	6.8	6.9	0.06
33	13.82	33.380	24.977	5.89	100.0	2.9	0.37	0.6	0.06	0.17	0.48	0.18					
44	12.89	33.359	25.146	5.48	91.3	4.8	0.58	4.0	0.29	0.08	0.37	0.18	6.0	4.5	4.5	4.5	0.03
82	10.47	33.559	25.751	3.58	56.7	17.8	1.53	18.9	0.02	0.00	0.07	0.08	0.53	0.05	0.07	0.06	0.13
93	10.15	33.688	25.907	3.12	49.1	22.1	1.74	21.8	0.01	0.00	0.02	0.06	0.26	0.04	0.04	0.04	0.02

A) INCUBATION LIGHT INTENSITIES WERE 50.0, 34.6, 23.1, 6.1, 0.5, 0.26 PERCENT RESPECTIVELY.

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
31 44.6 N	121 19.8 W	02/02/2012	0108 UTC	22 m	1220 - 1805 PST	1219 PST	1805 PST	180.2 mg C/m2	022

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.86	33.355	24.735	5.83	101.2	1.9	0.32	0.0	0.00	0.00	0.21	0.07	87. A	2.1	1.7	1.9	0.06
15	14.86	33.357	24.738	5.82	101.0	2.0	0.31	0.0	0.00	0.00	0.21	0.07	35.	3.1	3.2	3.1	0.06
20	14.86	33.354	24.736	5.83	101.2	2.0	0.31	0.0	0.00	0.00	0.21	0.07	25.	2.8	3.0	2.9	0.06
30	14.85	33.353	24.738	5.84	101.3	2.0	0.30	0.0	0.00	0.00	0.22	0.07					
40	14.83	33.350	24.740	5.83	101.1	2.1	0.30	0.0	0.00	0.00	0.23	0.08	6.1	2.9	2.9	2.9	0.08
52	14.38	33.282	24.784	5.89	101.2	2.2	0.31	0.0	0.00	0.04	0.35	0.14					
64	14.32	33.279	24.796	5.87	100.7	2.2	0.32	0.0	0.02	0.07	0.35	0.15					
75	14.11	33.279	24.841	5.78	98.8	2.6	0.37	0.5	0.13	0.14	0.22	0.13	0.53	0.89	0.83	0.86	0.02
84	13.59	33.309	24.970	5.61	94.8	3.4	0.47	1.9	0.33	0.05	0.15	0.13	0.28	0.38	0.22	0.30	0.01

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 90.0 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
30 45.4 N	123 20.2 W	01/02/2012	0055 UTC	23 m	1225 - 1807 PST	1227 PST	1813 PST	141.2 mg C/m2	019

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.90	33.282	24.671	5.85	101.6	2.1	0.30	0.0	0.00	0.00	0.17	0.06	88. A	2.6	2.8	2.7	0.08
15	14.89	33.281	24.672	5.84	101.3	2.0	0.29	0.0	0.00	0.00	0.18	0.07	37.	2.6	2.7	2.6	0.05
22	14.89	33.280	24.671	5.83	101.2	2.1	0.29	0.0	0.00	0.00	0.17	0.06	23.	2.4	2.4	2.4	0.08
32	14.90	33.285	24.675	5.84	101.4	2.1	0.29	0.0	0.00	0.00	0.18	0.06					
42	14.90	33.285	24.676	5.84	101.4	2.0	0.29	0.0	0.00	0.00	0.18	0.06	6.1	1.6	1.6	1.6	0.04
54	14.88	33.284	24.680	5.85	101.4	2.1	0.28	0.0	0.00	0.00	0.21	0.07					
66	14.57	33.276	24.741	5.82	100.3	2.1	0.30	0.0	0.01	0.04	0.29	0.13					
79	12.94	33.148D	24.975	5.76	96.0	3.0	0.44	1.5	0.28	0.00	0.27	0.22	0.51	0.63	0.53	0.58	0.03
89	12.10	33.169D	25.156	5.68	92.9	4.0	0.53	3.1	0.02	0.00	0.16	0.13	0.26	0.19	0.02	0.10	0.02

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
32 41.2 N	117 52.2 W	29/01/2012	0101 UTC	15 m	1206 - 1750 PST	1204 PST	1746 PST	344.0 mg C/m2	006

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.84	33.409	24.782	6.06	105.1	2.6	0.34	0.0	0.00	0.00	0.41	0.12	81. A	7.1	6.9	7.0	1.1
10	14.82	33.411	24.787	5.98	103.7	2.7	0.35	0.0	0.00	0.04	0.43	0.12	36.	8.7	9.1	8.9	0.22
14	14.77	33.410	24.797	5.93	102.8	2.7	0.34	0.0	0.00	0.05	0.43	0.13	24.	8.1	8.4	8.3	0.18
20	14.57	33.394	24.828	5.94	102.5	2.6	0.35	0.0	0.00	0.04	0.55	0.19					
27	14.54	33.393	24.834	5.92	102.1	2.9	0.34	0.0	0.00	0.11	0.58	0.24	6.3	8.3	8.8	8.6	0.12
39	12.83	33.336	25.139	4.78	79.6	8.0	0.89	7.9	0.08	0.11	0.53	0.56					
52	12.00	33.421	25.366	4.09	67.0	12.3	1.22	12.7	0.03	0.06	0.24	0.30	0.49	0.97	1.0	1.0	0.03
57	11.78	33.498	25.468	3.61	58.7	15.9	1.44	15.8	0.00	0.00	0.14	0.18	0.29	0.25	0.25	0.25	0.01

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
31 30.9 N	120 14.9 W	30/01/2012	0326 UTC	20 m	1230 - 1758 PST	1214 PST	1758 PST	232.5 mg C/m2	012

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.44	33.281	24.767	5.95	102.3	2.5	0.33	0.0	0.01	0.03	0.33	0.10	86. A	5.8	5.5	5.7	0.05
8	14.34	33.283	24.790	5.93	101.8	2.4	0.32	0.0	0.01	0.06	0.34	0.10					
14	14.30	33.283	24.799	5.93	101.7	2.4	0.33	0.0	0.01	0.13	0.35	0.09	34.	6.0	5.7	5.9	0.08
18	14.28	33.285	24.805	5.94	101.8	2.4	0.32	0.0	0.01	0.08	0.40	0.09	25.	5.1	4.9	5.0	0.03
28	14.24	33.279	24.810	5.95D	101.9	2.4	0.32	0.0	0.01	0.06	0.41	0.13					
36	14.22	33.288	24.820	5.93	101.5	2.4	0.32	0.0	0.01	0.04	0.45	0.11	6.3	2.7	2.7	2.7	0.03
46	14.21	33.277	24.816	5.93	101.4	2.4	0.32	0.0	0.01	0.19	0.48	0.10					
58	14.18	33.279	24.824	5.91	101.0	2.9	0.32	0.1	0.02	0.31	0.39	0.13					
68	14.01	33.265	24.849	5.87	100.0	2.6	0.35	0.3	0.05	0.16	0.30	0.14	0.54	0.74	0.85	0.80	0.02
77	13.61	33.267	24.934	5.75	97.2	3.0	0.41	1.2	0.10	0.12	0.23	0.14	0.27	0.40	0.37	0.39	0.02

RV NEW HORIZON CALCOFI CRUISE 1202 STATION 93.3 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD
30 30.7 N	122 15.7 W	30/01/2012	2344 UTC	21 m	1222 - 1809 PST	1222 PST	1809 PST	248.2 mg C/m2	015

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	15.24	33.395	24.685	5.79	101.2	1.8	0.33	0.0	0.00	0.00	0.26	0.09	86. A	3.7	3.7	3.7	0.01
15	15.24	33.396	24.685	5.78	101.2	1.8	0.31	0.0	0.00	0.00	0.27	0.10	33.	4.4	4.6	4.5	0.05
19	15.24	33.396	24.686	5.81	101.5	1.8	0.31	0.0	0.00	0.00	0.30	0.10	25.	4.7	4.5	4.6	0.05
29	15.24	33.394	24.685	5.79	101.3	1.8	0.31	0.0	0.00	0.00	0.29	0.10					
38	15.22	33.395	24.690	5.80	101.3	1.8	0.30	0.0	0.00	0.02	0.29	0.09	6.2	3.8	4.1	4.0	0.02
49	15.20	33.390	24.693	5.77	100.8	1.8	0.31	0.0	0.00	0.02	0.40	0.14					
60	13.91	33.335	24.925	5.65	96.2	2.6	0.40	1.2	0.10	0.05	0.30	0.18					
72	12.35	33.263	25.178	5.02	82.7	6.6	0.85	7.9	0.08	0.00	0.26	0.24	0.52	0.67	0.98	0.83	0.03
81	11.58	33.305	25.355	4.76	77.1	8.5	0.97	10.4	0.03	0.00	0.16	0.18	0.27	0.29	0.33	0.31	0.02

A) INCUBATION LIGHT INTENSITIES WERE 50.0, 34.6, 23.1, 6.1, 0.5, 0.26 PERCENT RESPECTIVELY.

CalCOFI Cruise 1202

MACROZOOPLANKTON BIOMASS
Net Mesh Size: 0.505mm

Line	Sta.	Latitude N	Longitude W	Date Mo/Day	Time (PST) Start	Time (PST) End	Water Volume Strained (m^3)	Max. Tow Depth (m)	Volume per 1000 m^3 Strained Total (cm^3)	Volume per 1000 m^3 Strained Small (cm^3)
83.3	90.0	32 34.7	122 48.6	02/06	1649	1713	478	203	285	285
83.3	100.0	32 14.8	123 29.0	02/06	1043	1105	469	204	23	23
83.3	110.0	31 54.6	124 10.2	02/06	0438	0504	468	210	30	30
85.4	35.8	34 00.7	118 50.0	02/03	1246	1248	59	17	338	338
86.7	33.0	33 53.2	118 29.3	02/03	1018	1023	109	39	146	146
86.7	35.0	33 49.4	118 37.7	02/03	1623	1646	429	207	84	84
86.7	40.0	33 39.5	118 58.5	02/03	2047	2109	417	214	72	72
86.7	45.0	33 29.7	119 18.5	02/04	0136	0159	450	203	87	87
86.7	50.0	33 19.6	119 39.7	02/04	0523	0530	136	57	155	155
86.7	55.0	33 10.0	120 01.4	02/04	0839	0901	425	218	54	54
86.7	60.0	32 59.5	120 21.0	02/04	1422	1444	456	212	81	81
86.7	70.0	32 39.4	121 02.0	02/04	2032	2054	454	210	110	51
86.7	80.0	32 19.4	121 42.7	02/05	0303	0326	477	212	52	52
86.7	90.0	31 59.4	122 23.7	02/05	0754	0816	455	207	99	66
86.7	100.0	31 39.3	123 04.1	02/05	1539	1601	479	196	19	19
86.7	110.0	31 19.4	123 44.5	02/05	2208	2230	459	213	44	44
86.8	32.5	33 53.2	118 26.7	02/03	0842	0844	50	10	200	200
88.5	30.1	33 40.4	118 05.6	02/03	0515	0517	36	12	394	394
90.0	27.7	33 29.6	117 45.0	02/03	0248	0250	59	21	101	101
90.0	28.0	33 29.1	117 46.1	02/03	0132	0150	345	160	104	104
90.0	30.0	33 25.1	117 54.2	02/02	2320	2342	417	215	58	58
90.0	35.0	33 15.0	118 15.1	02/02	1910	1932	388	211	219	219
90.0	37.0	33 11.1	118 23.3	02/02	1559	1621	419	219	62	62
90.0	45.0	32 55.6	118 54.5	02/02	0810	0832	425	208	82	82
90.0	53.0	32 39.1	119 28.9	02/02	0335	0359	467	227	56	56
90.0	70.0	32 05.1	120 38.3	02/01	1557	1622	460	208	113	33
90.0	80.0	31 44.8	121 19.6	02/01	0811	0833	429	215	21	21
90.0	90.0	31 25.0	121 59.8	02/01	0113	0135	444	212	63	47
90.0	100.0	31 05.1	122 39.9	01/31	1642	1705	450	212	42	42
90.0	110.0	30 45.1	123 20.0	01/31	1021	1043	420	215	14	14
90.0	120.0	30 24.8	123 59.3	01/31	0401	0422	331	220	24	24
91.7	26.4	33 14.8	117 27.9	01/27	2110	2112	49	14	123	123
93.3	26.7	32 57.4	117 18.3	01/27	1659	1718	347	183	86	86
93.3	28.0	32 54.9	117 23.6	01/28	0119	0141	409	208	54	54
93.3	30.0	32 50.9	117 31.9	01/28	0550	0611	442	197	57	57
93.3	35.0	32 40.8	117 52.2	01/28	1018	1040	454	212	37	37
93.3	40.0	32 30.9	118 12.9	01/28	1439	1501	454	213	42	26
93.3	45.0	32 20.8	118 33.3	01/28	1836	1857	453	200	71	71
93.3	50.0	32 10.8	118 53.7	01/28	2247	2309	456	212	44	44
93.3	55.0	32 00.7	119 13.8	01/29	0241	0305	491	202	65	51
93.3	60.0	31 50.8	119 34.3	01/29	0638	0659	425	207	35	35
93.3	70.0	31 30.9	120 14.8	01/29	1240	1302	449	211	45	45
93.3	80.0	31 10.8	120 55.1	01/29	1955	2017	447	212	49	49
93.3	90.0	30 50.8	121 35.1	01/30	0135	0157	454	207	53	53
93.3	100.0	30 30.8	122 15.6	01/30	0649	0710	433	203	37	37
93.3	110.0	30 10.8	122 55.1	01/30	1526	1548	452	209	18	18
93.3	120.0	29 50.8	123 35.3	01/30	2114	2136	446	211	16	16
93.4	26.4	32 57.2	117 16.9	01/27	1833	1835	45	13	89	89