

# data report

**CalCOFI Cruise 0808**  
**14 – 30 August 2008**

**CC Reference 09-04**  
**14 October 2009**



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

**PHYSICAL, CHEMICAL AND BIOLOGICAL DATA**

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## CONTENTS

|                                           |    |
|-------------------------------------------|----|
| Introduction .....                        | 3  |
| Literature Cited .....                    | 7  |
| CalCOFI Cruise 0808                       |    |
| List of Figures .....                     | 9  |
| Personnel .....                           | 20 |
| Tabulated Rosette Cast Data .....         | 21 |
| Tabulated Primary Productivity Data ..... | 52 |
| Tabulated Macrozooplankton Data .....     | 58 |

## INTRODUCTION

The data presented in this report were collected during cruise 0808\* of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the RV *New Horizon* of Scripps Institution of Oceanography, University of California, San Diego. The CalCOFI program was organized in the late 1940's to study the causes of variations in population size of fishes of importance to the State of California. It is carried out by NOAA's National Marine Fisheries Service Southwest Fisheries Science Center, the California Department of Fish and Game, and the Integrative Oceanography Division (IOD) at Scripps Institution of Oceanography (SIO). IOD contributes to this program by investigations of the physical, chemical and biological structure of the California Current. Data from the cruises were collected and processed by personnel of the Integrative Oceanography Division and the Southwest Fisheries Science Center. SIO staff members from the Ocean Data Facility participate in the chemical analysis of nutrient samples at sea. CalCOFI data presented in this report and collected on previous cruises can be accessed at <http://www.calcofi.org>.

## STANDARD PROCEDURES

### *CTD/Rosette Cast Data*

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

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

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

Dissolved oxygen analyses were performed with an Ocean Data Facility of Scripps Institution of Oceanography designed automated oxygen titrator using photometric end-point detection based on the absorption of 365nm wavelength ultra-violet light. A computer using PC software controlled the titration of the samples and the data logging. The method used a modified-Winkler titration following the technique of Carpenter (1965) with modifications by Culberson (1991), but with higher concentrations of thiosulfate solution (50 g/l). Standard KIO<sub>3</sub>

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

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

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

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

Evaluation of the water sample data involved comparisons with the CTD data, adjacent stations and consideration of the variation of a property as a function of density or depth and the relationships with other properties (Klein, 1973). Precision estimates for routine analyses were made on CalCOFI cruise 9003 and are reported in SIO Ref. 91-4.

#### *Primary Productivity Sampling*

Primary productivity samples were taken each day shortly before local apparent noon (LAN). Primary production was estimated from  $^{14}\text{C}$  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 52.29  $\mu\text{Ci}$  of  $^{14}\text{C}$  as  $\text{NaHCO}_3$  (200  $\mu\text{l}$  of 271  $\mu\text{Ci/ml}$  stock) 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). An Optical Plankton Counter (OPC, Dave Checkley, SIO) was routinely used in one side of the paired bongo net frame. The purpose of the OPC is to obtain information on the vertical distributions of size categories of zooplankton, using data from the counter, without affecting the ongoing time series of data obtained from the catches of the integrative bongo net.

### *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) *Underway Sea Surface  $xCO_2$ .* Continuous measurements of the partial pressure of  $CO_2$  were made from the ship's uncontaminated seawater system. The seawater was equilibrated in a membrane contactor with a gas loop that was analyzed with a Licor 6262 infrared  $CO_2/H_2O$  analyzer. One-minute averages were recorded and the mole fraction of  $CO_2$  ( $xCO_2$ ) at sea surface temperature was calculated. The system was calibrated with standard gases traceable to CMDL every two hours; at that time absolute zero and atmospheric samples were also collected. (G. Friederich, MBARI)
- 4) *California Current Ecosystem Long Term Ecological Research Program:* The CCE-LTER program augments standard CalCOFI measurements to further characterize the lower trophic levels as well as the carbon system. These additional samples, taken at all CalCOFI stations, are for measurements of particulate organic carbon and nitrogen, dissolved organic carbon and nitrogen, taxon-specific phytoplankton pigments, flow-cytometric counts of bacteria and picoautotrophs, microscopic counts of nano- microplankton, determination of mesozooplankton size structure using a Laser Optical Plankton Counter, and mesozooplankton community structure. (M. Ohman, SIO)
- 5) *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)
- 6) *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)
- 7) *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)

## 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<sup>3</sup>/1000m<sup>3</sup> 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 0808

1. CalCOFI Cruise 0808 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.

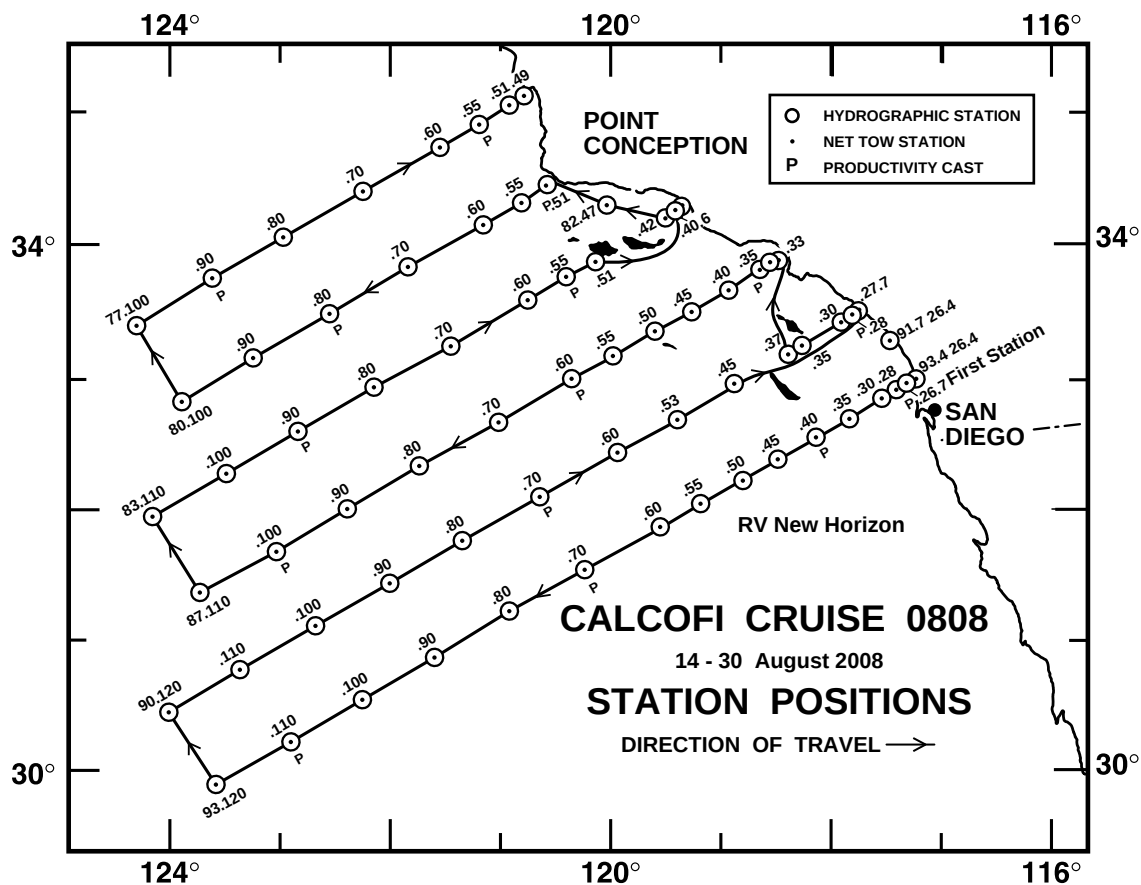


FIGURE 1

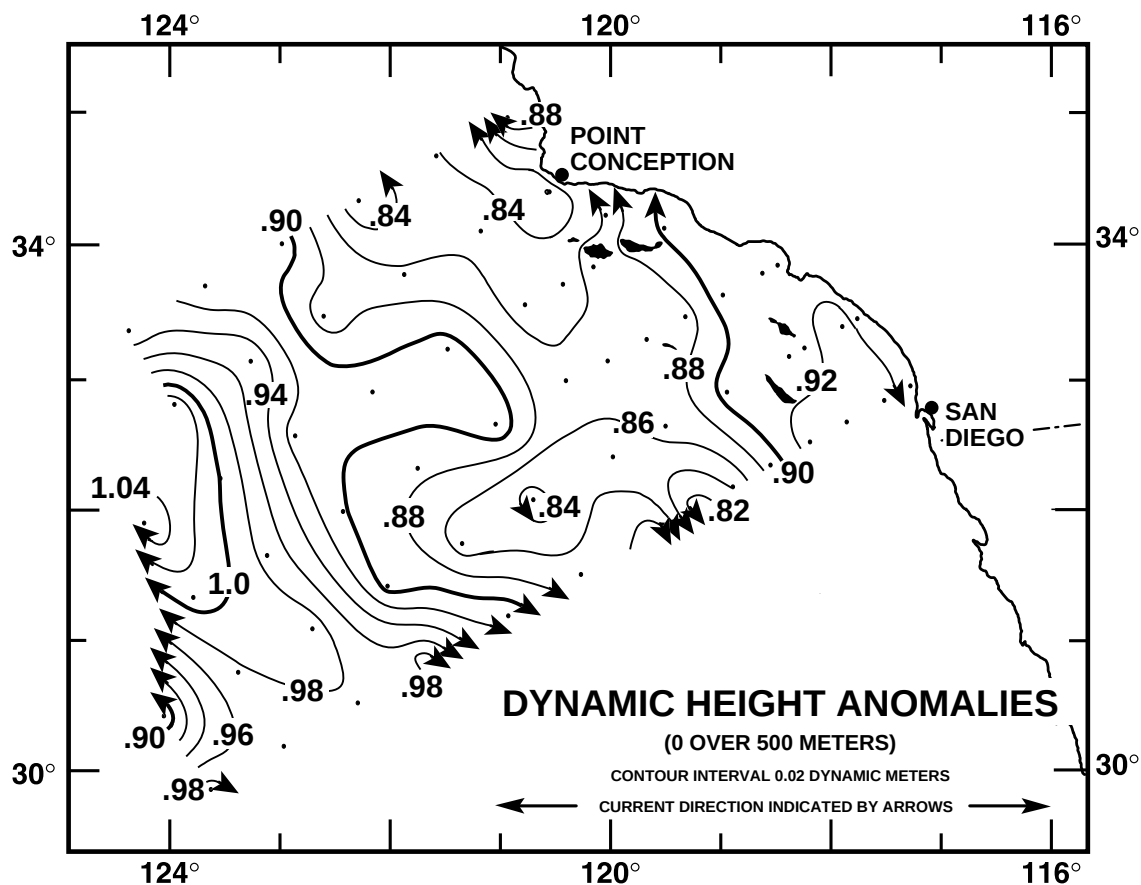


FIGURE 2

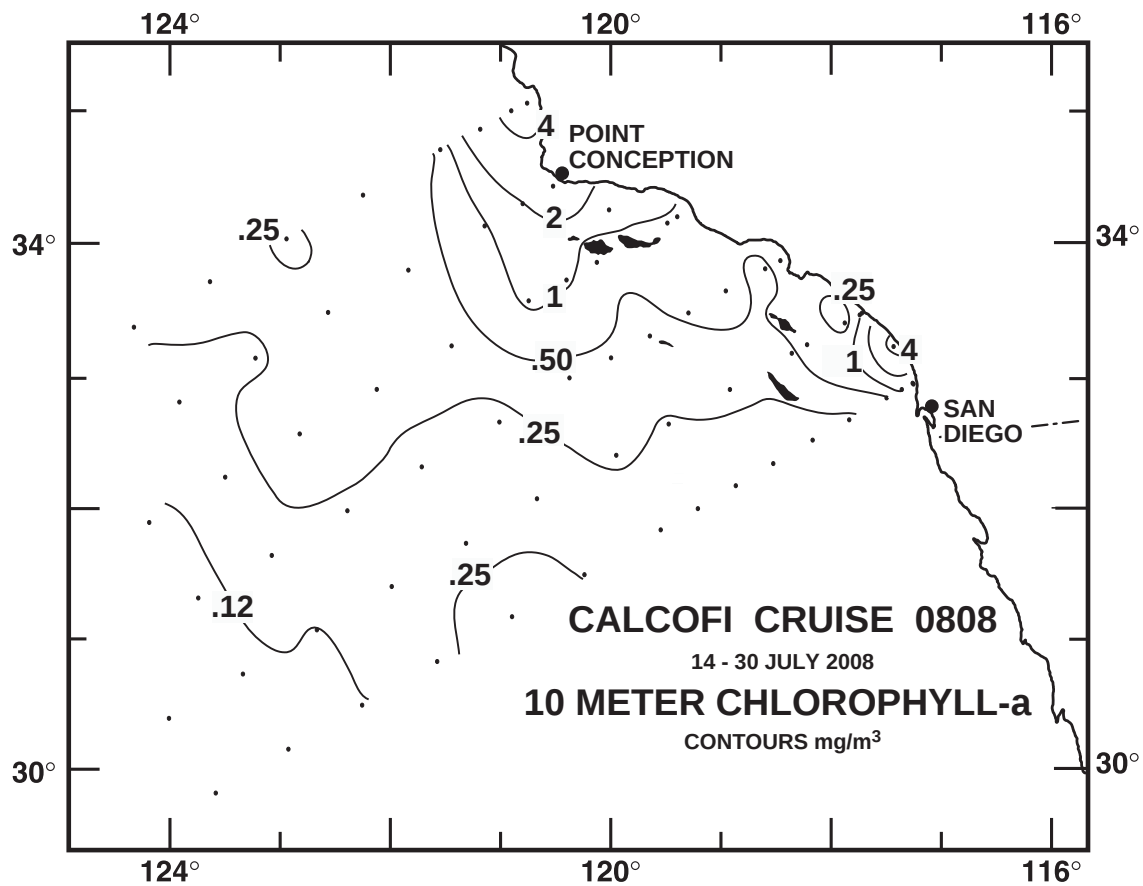


FIGURE 3A

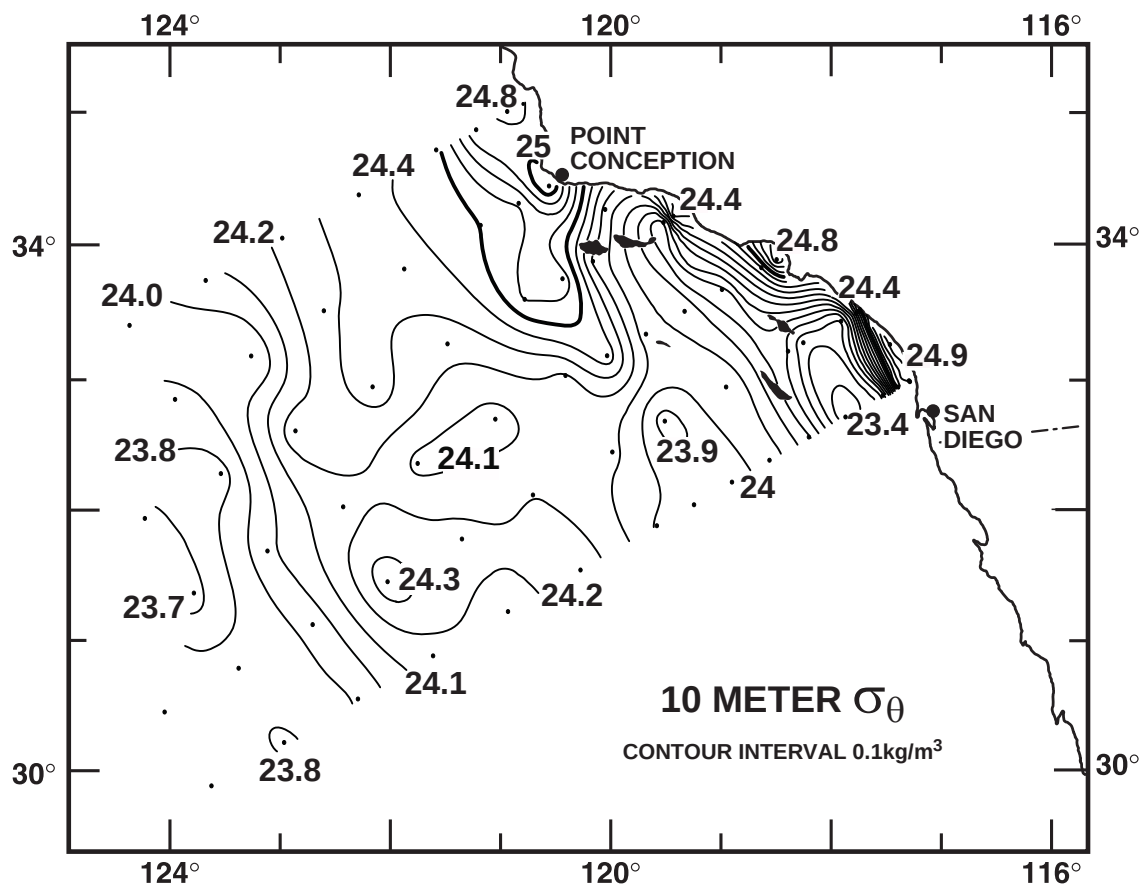


FIGURE 3B

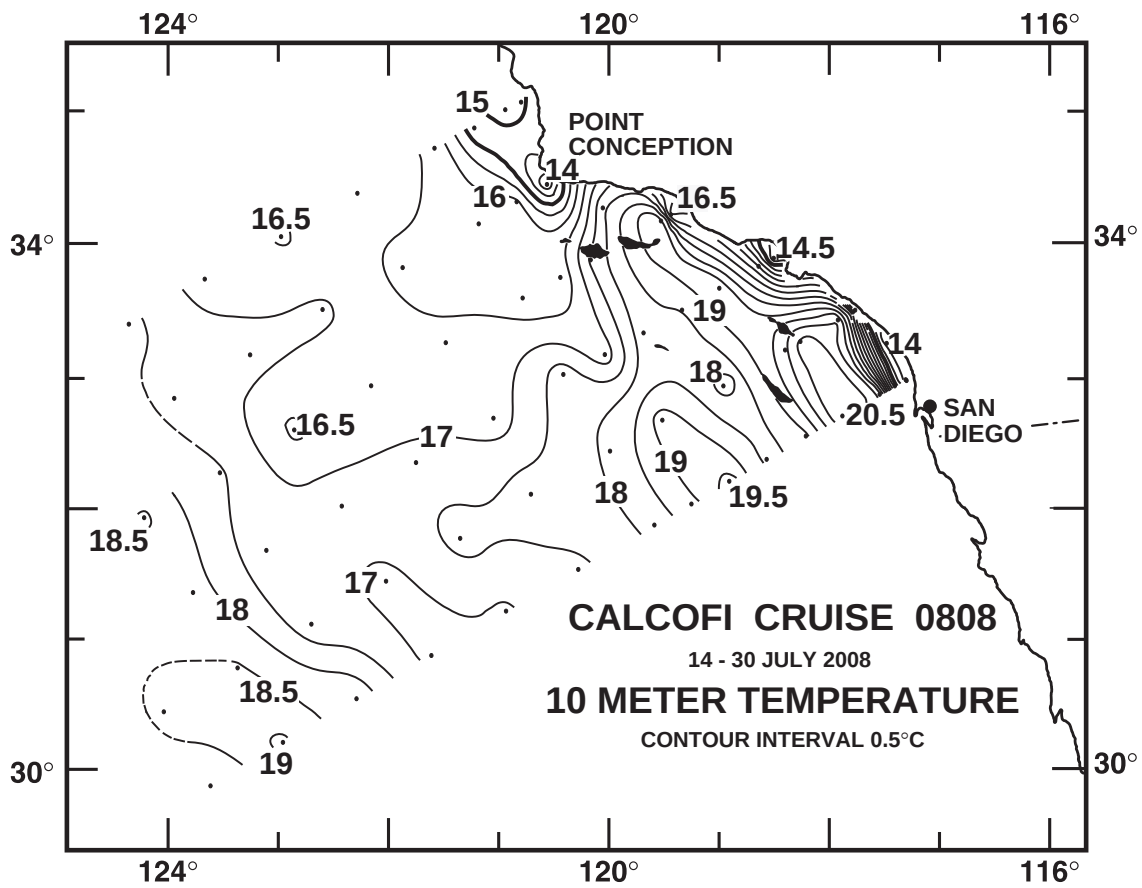


FIGURE 3C

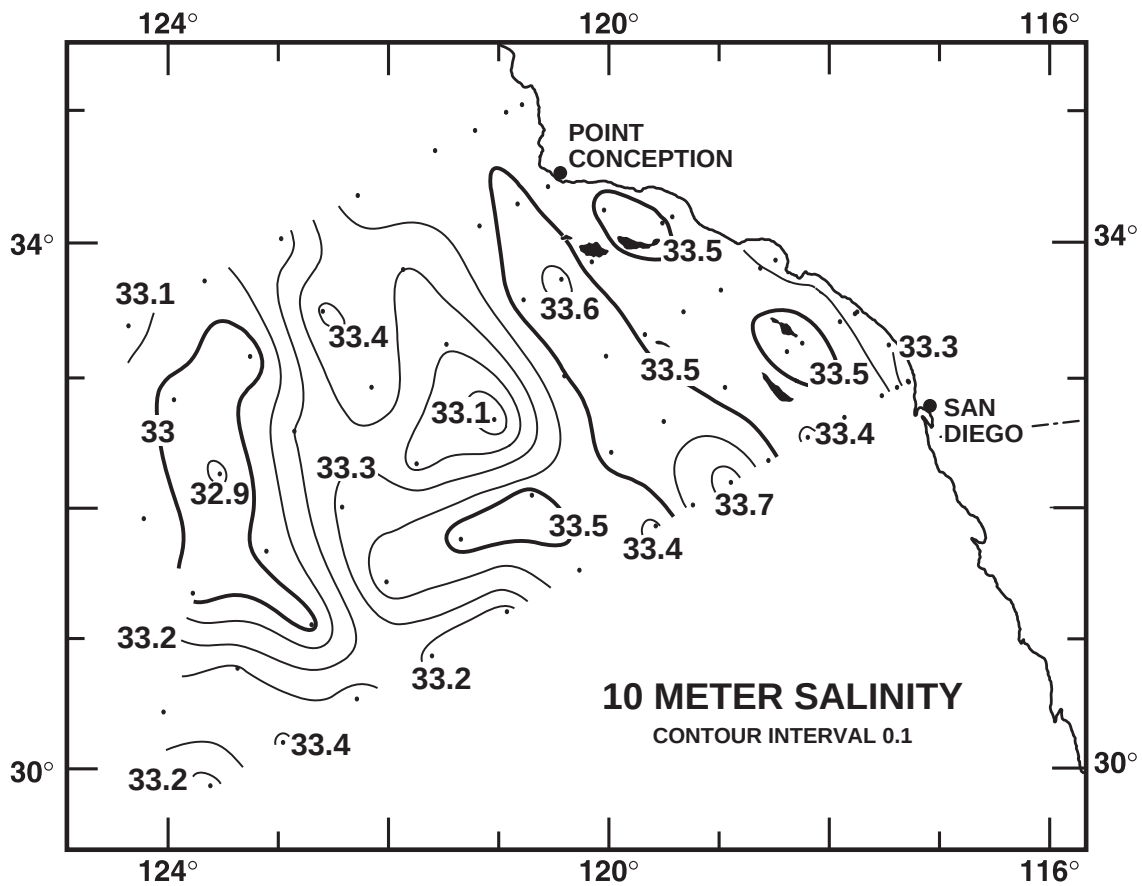


FIGURE 3D

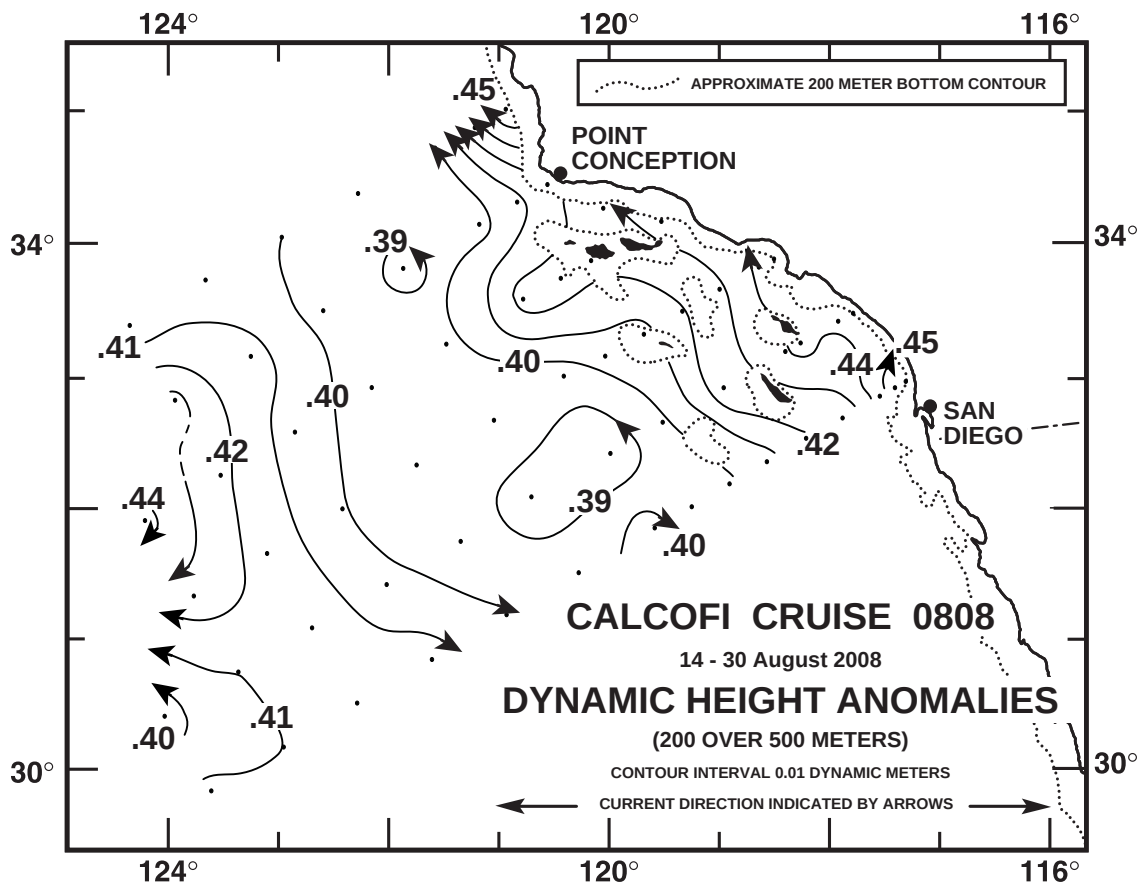


FIGURE 4A

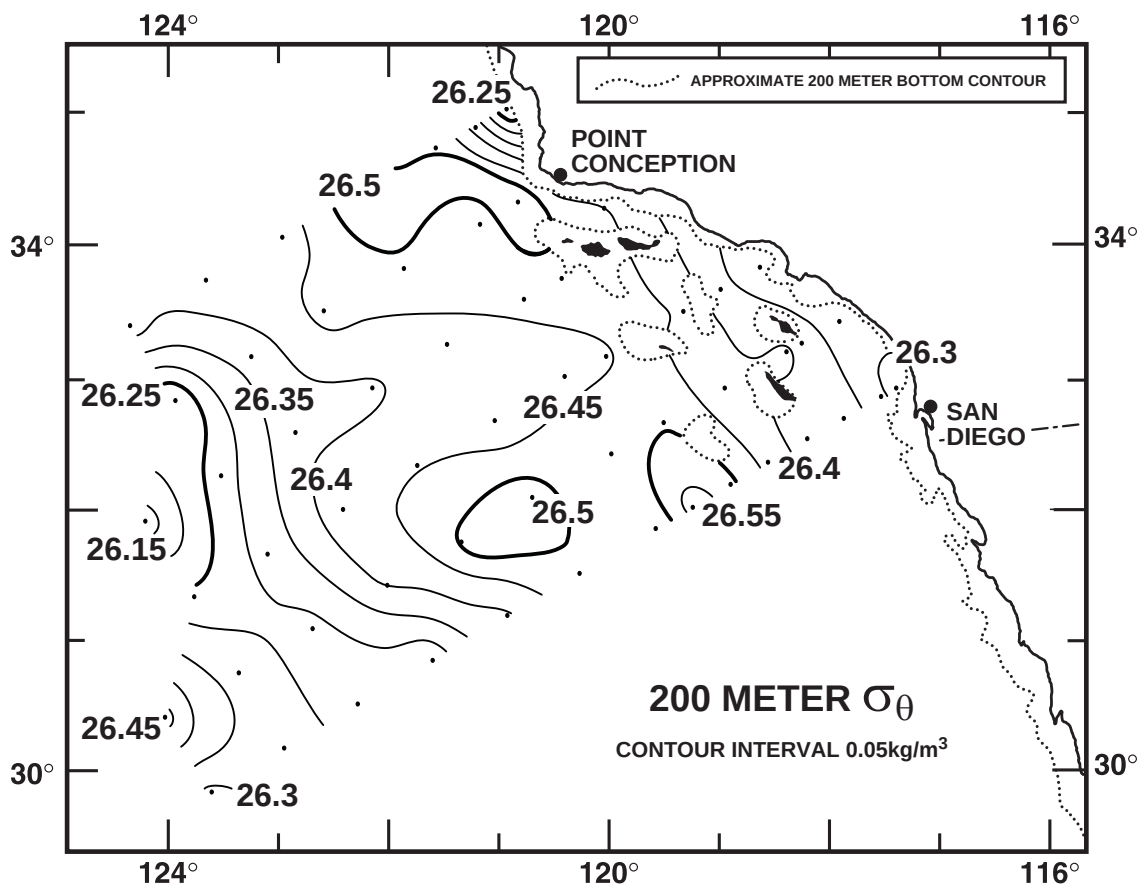


FIGURE 4B

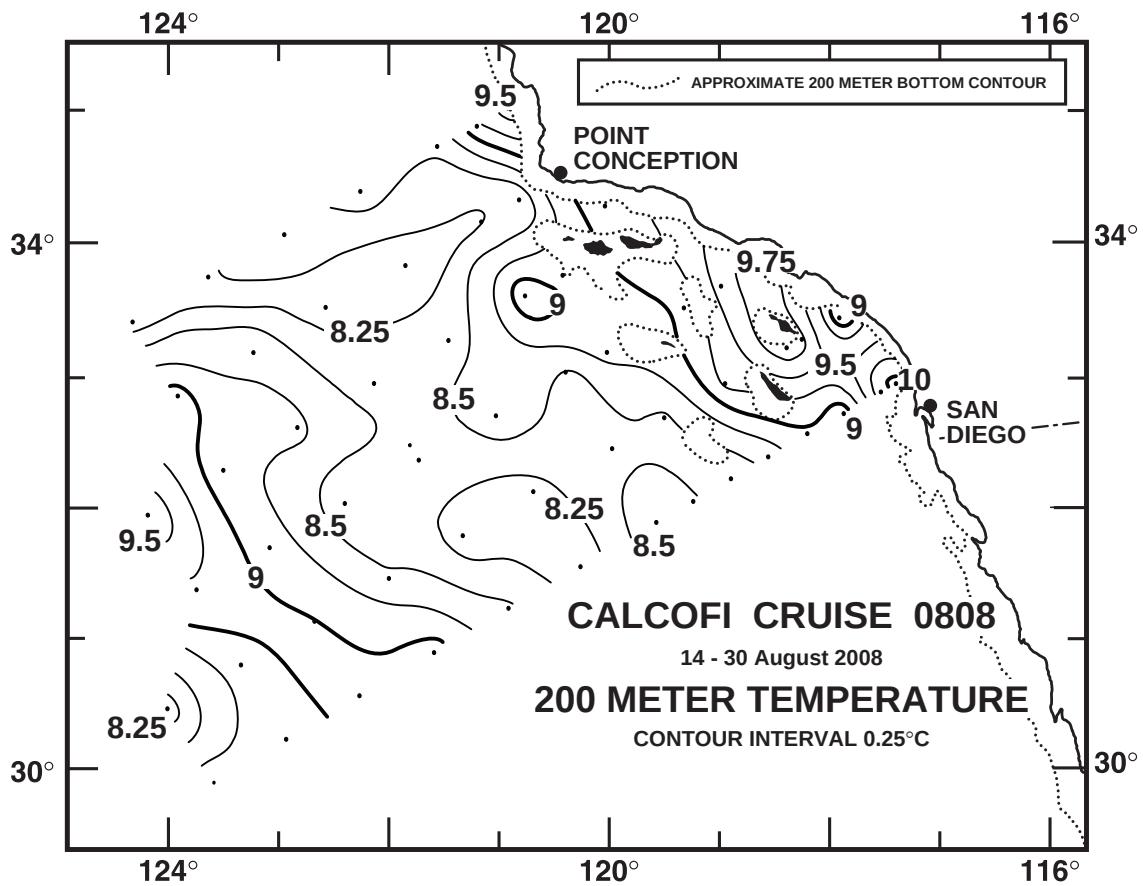


FIGURE 4C

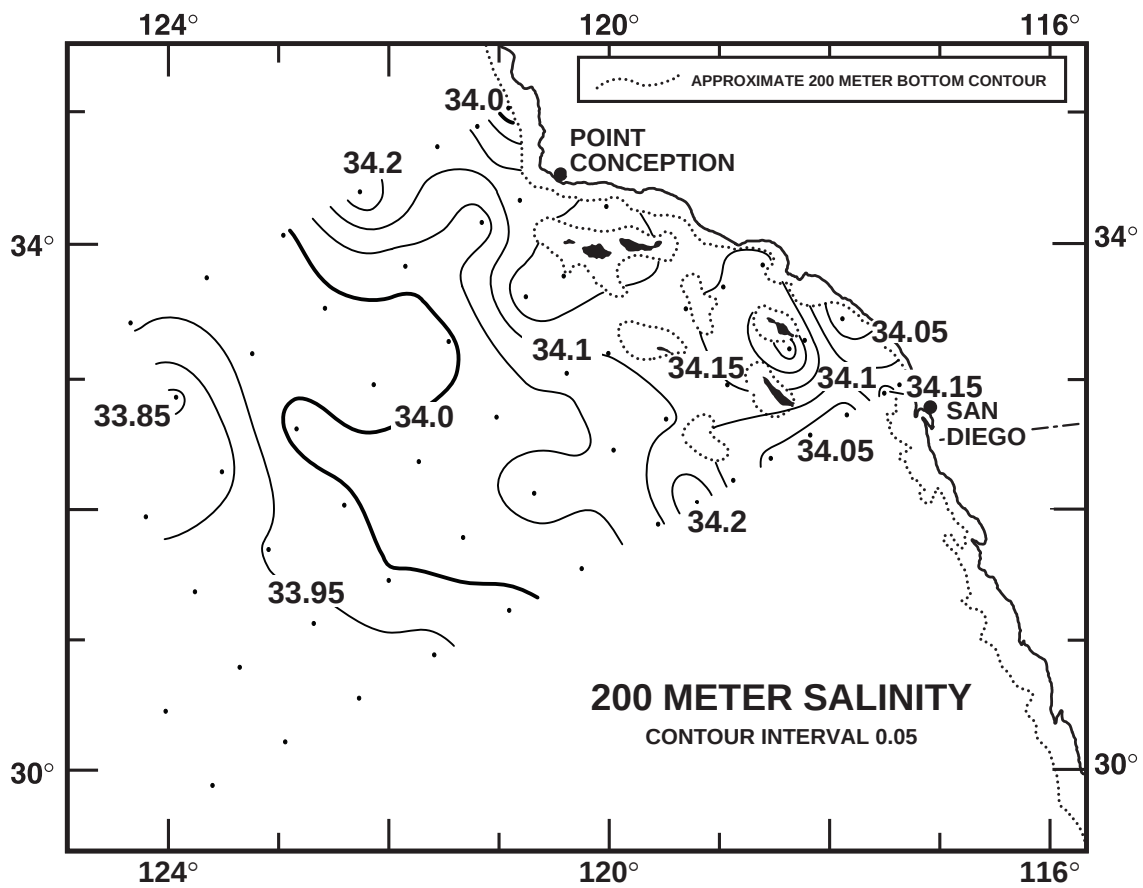


FIGURE 4D

# CALCOFI CRUISE 0808

18 - 21 August 2008

## POTENTIAL DENSITY ( $\sigma_\theta$ ) ALONG CALCOFI LINE 90

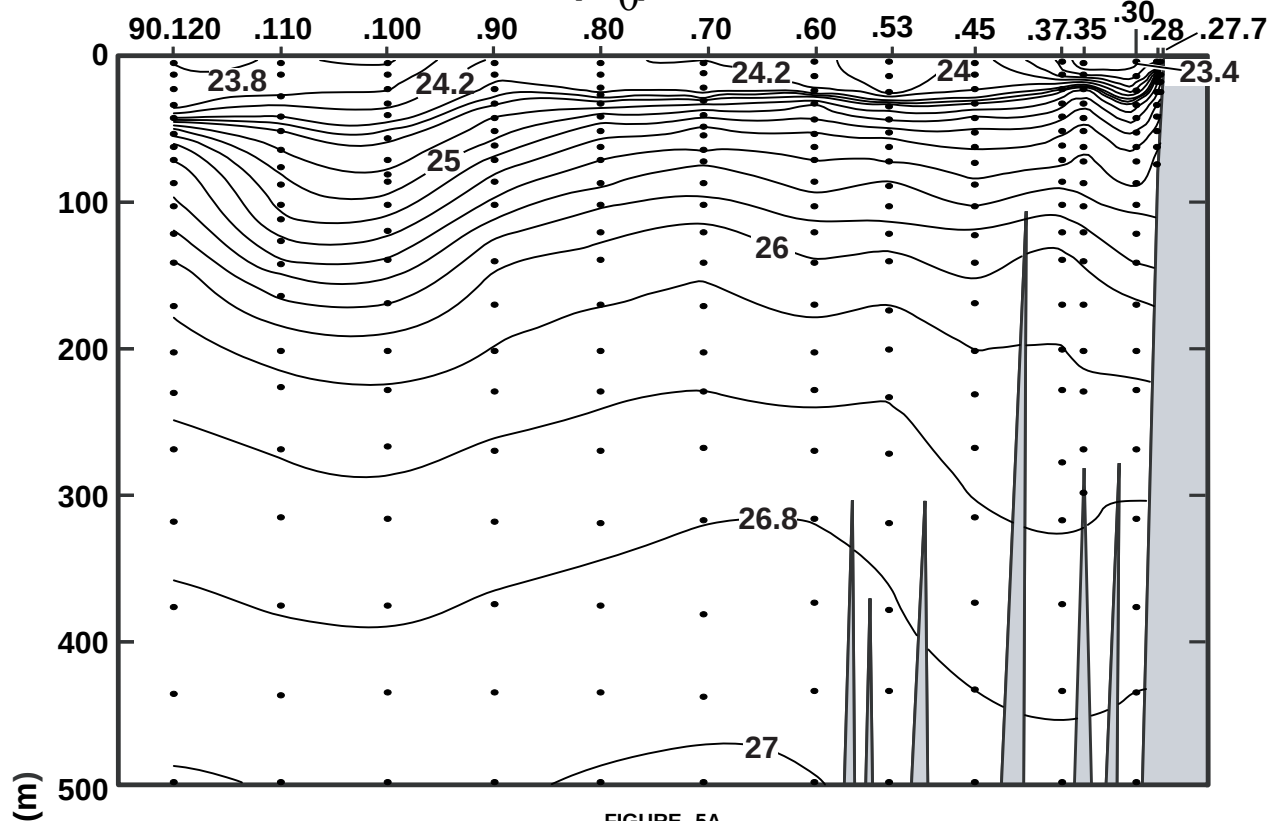


FIGURE 5A

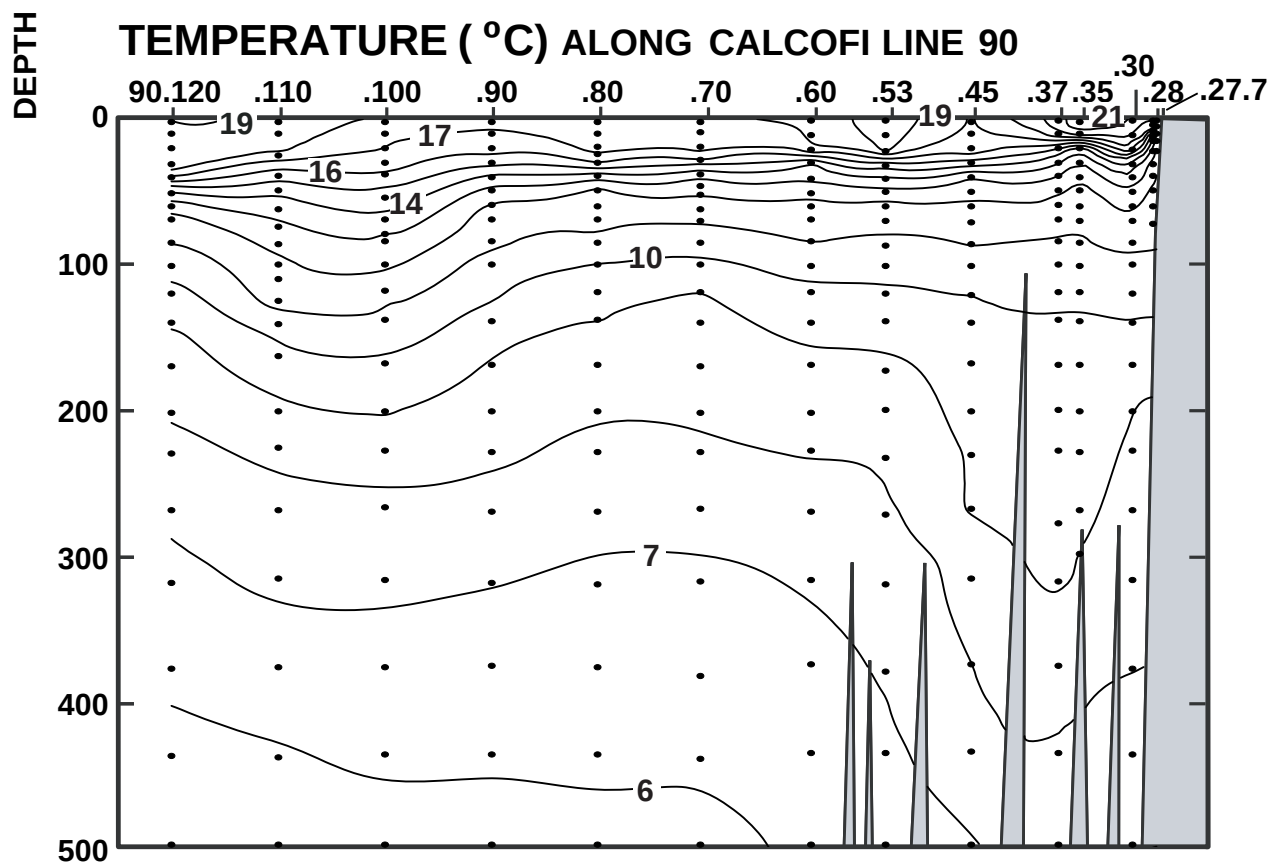


FIGURE 5B

# CALCOFI CRUISE 0808

18 - 21 August 2008

## SALINITY ALONG CALCOFI LINE 90

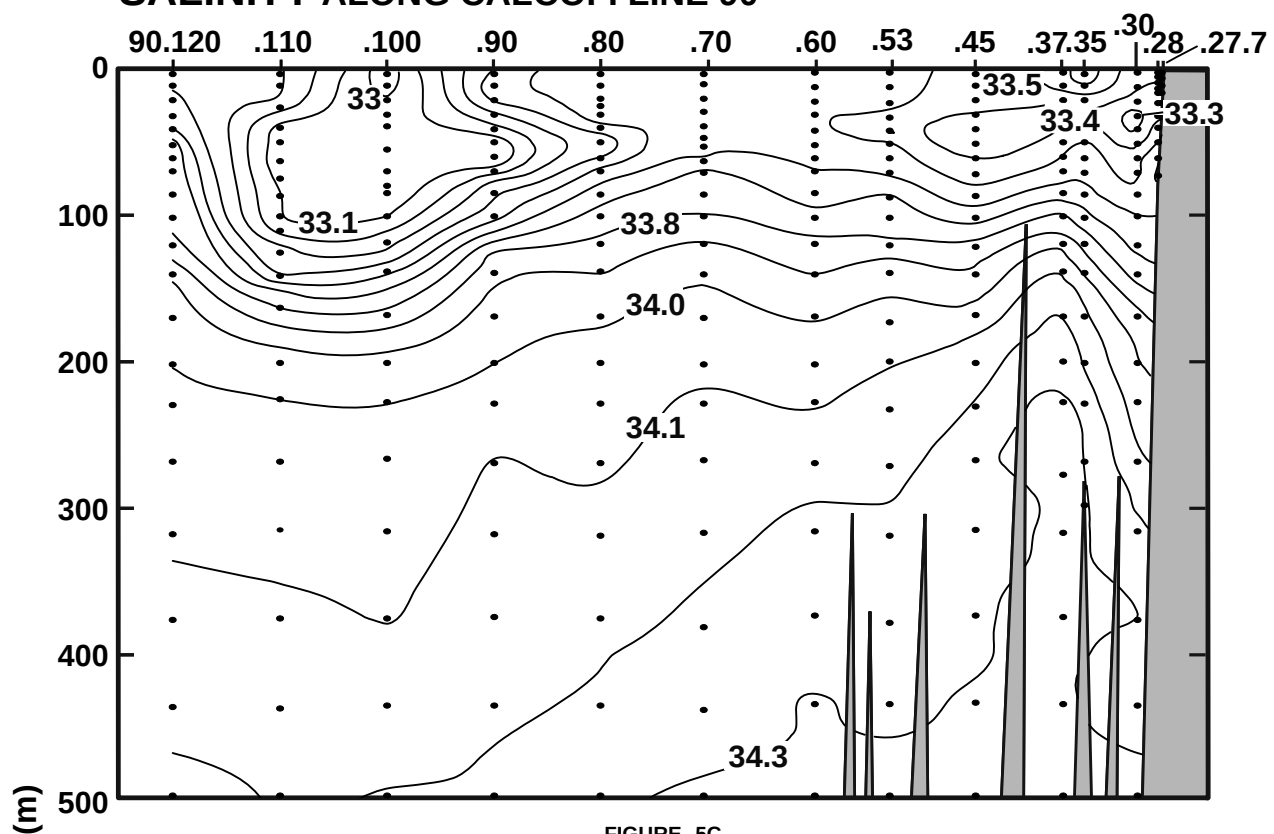


FIGURE 5C

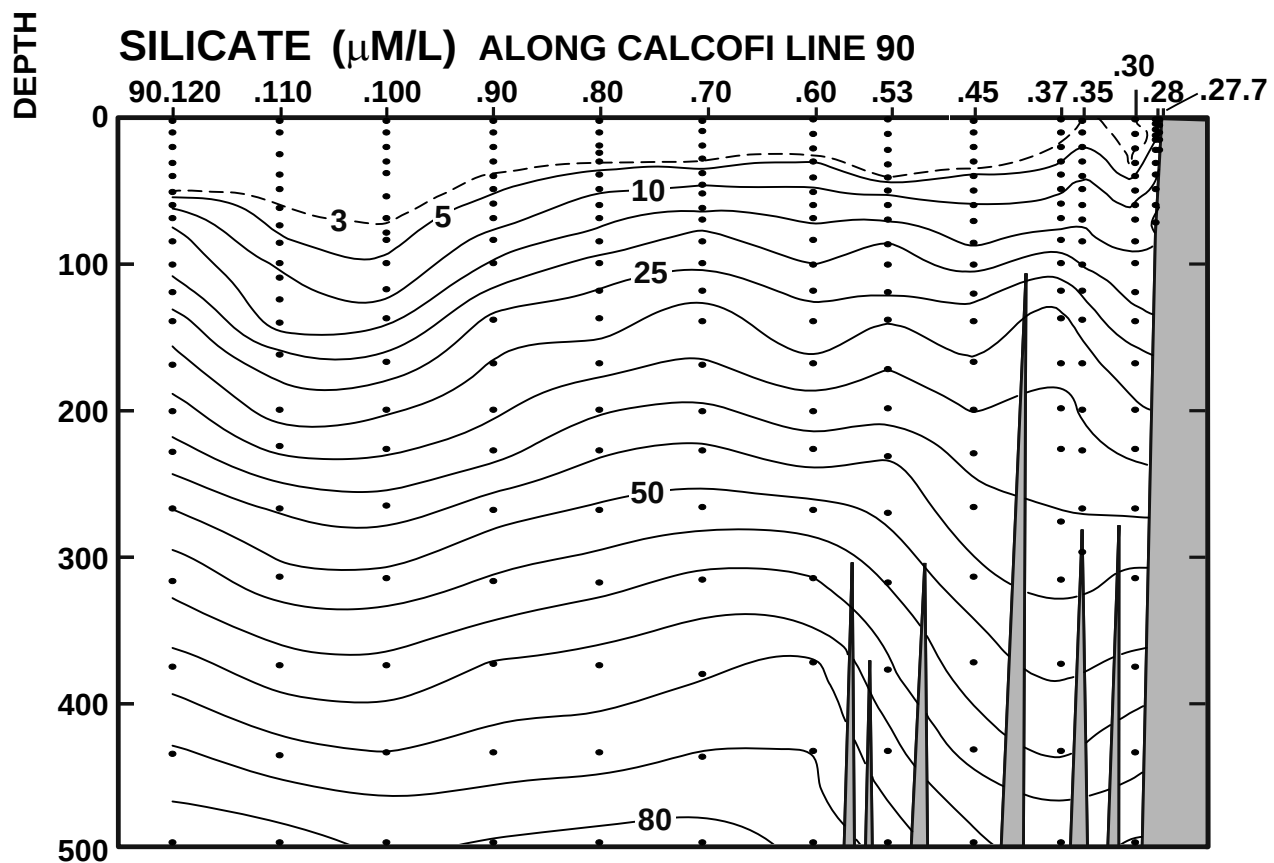


FIGURE 5D

# CALCOFI CRUISE 0808

18 - 21 August 2008

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

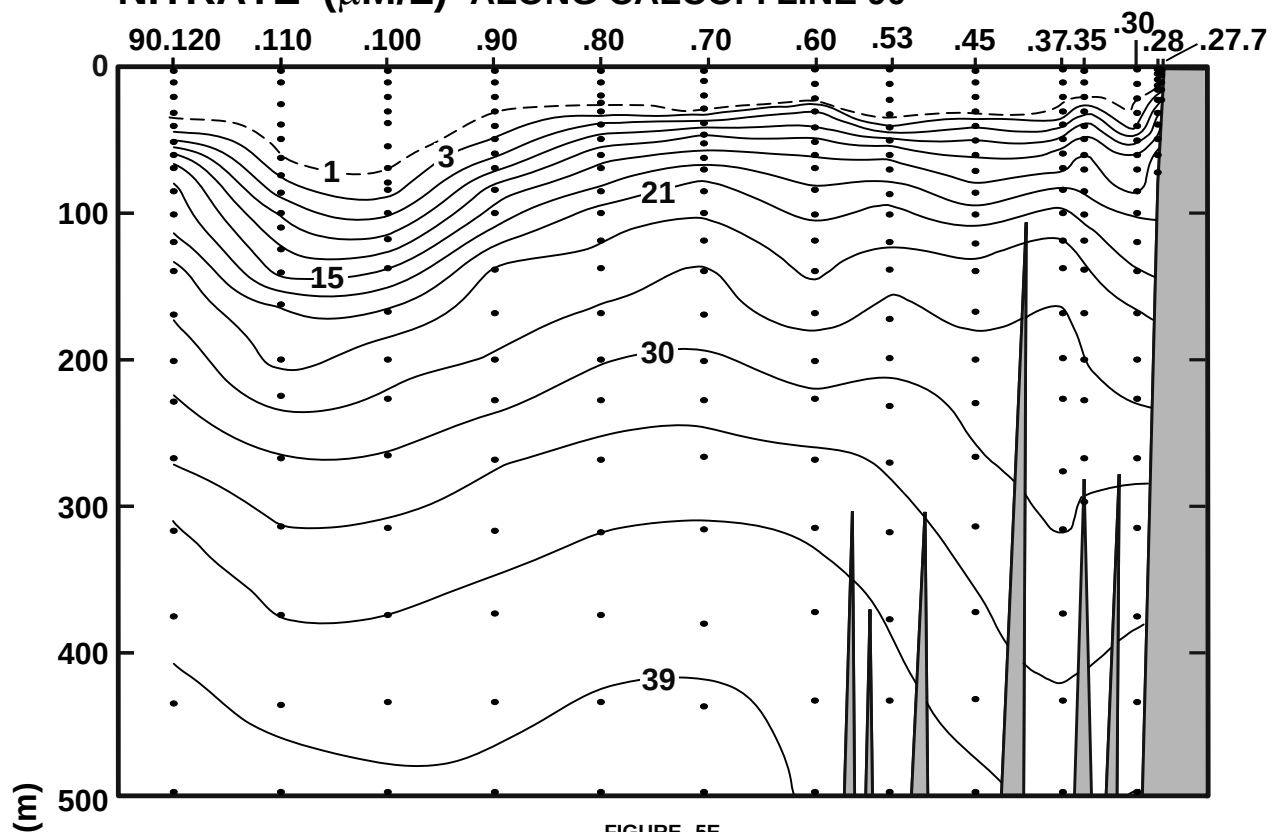


FIGURE 5E

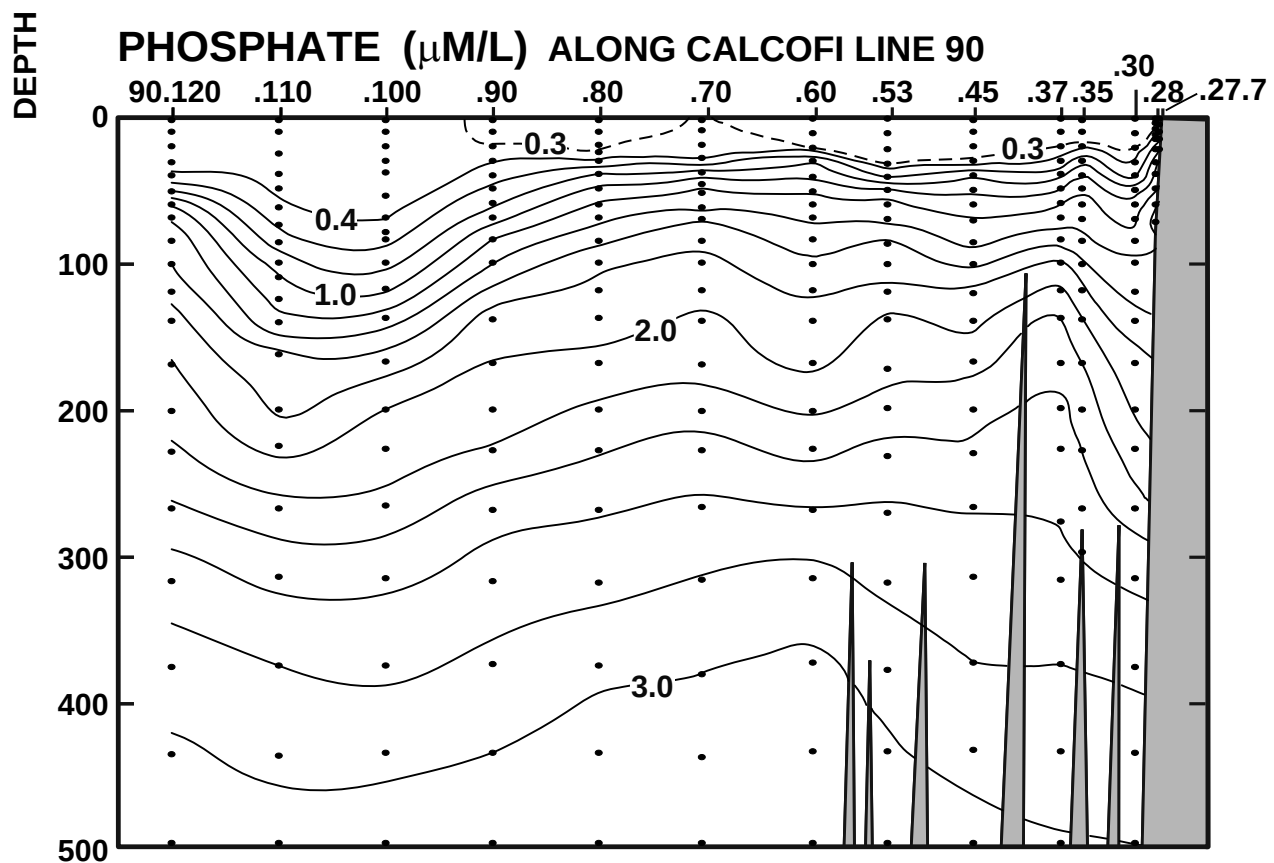


FIGURE 5F

# CALCOFI CRUISE 0808

18 - 21 August 2008

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

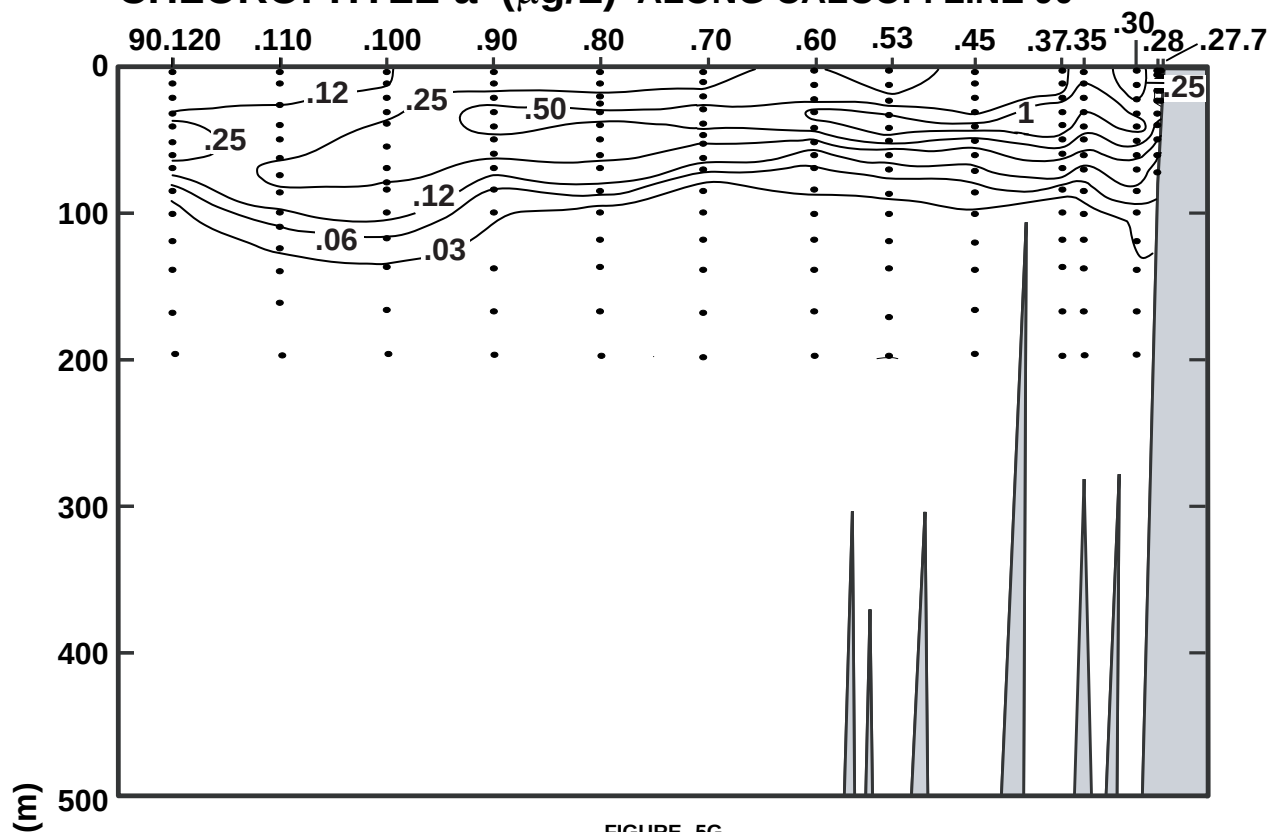


FIGURE 5G

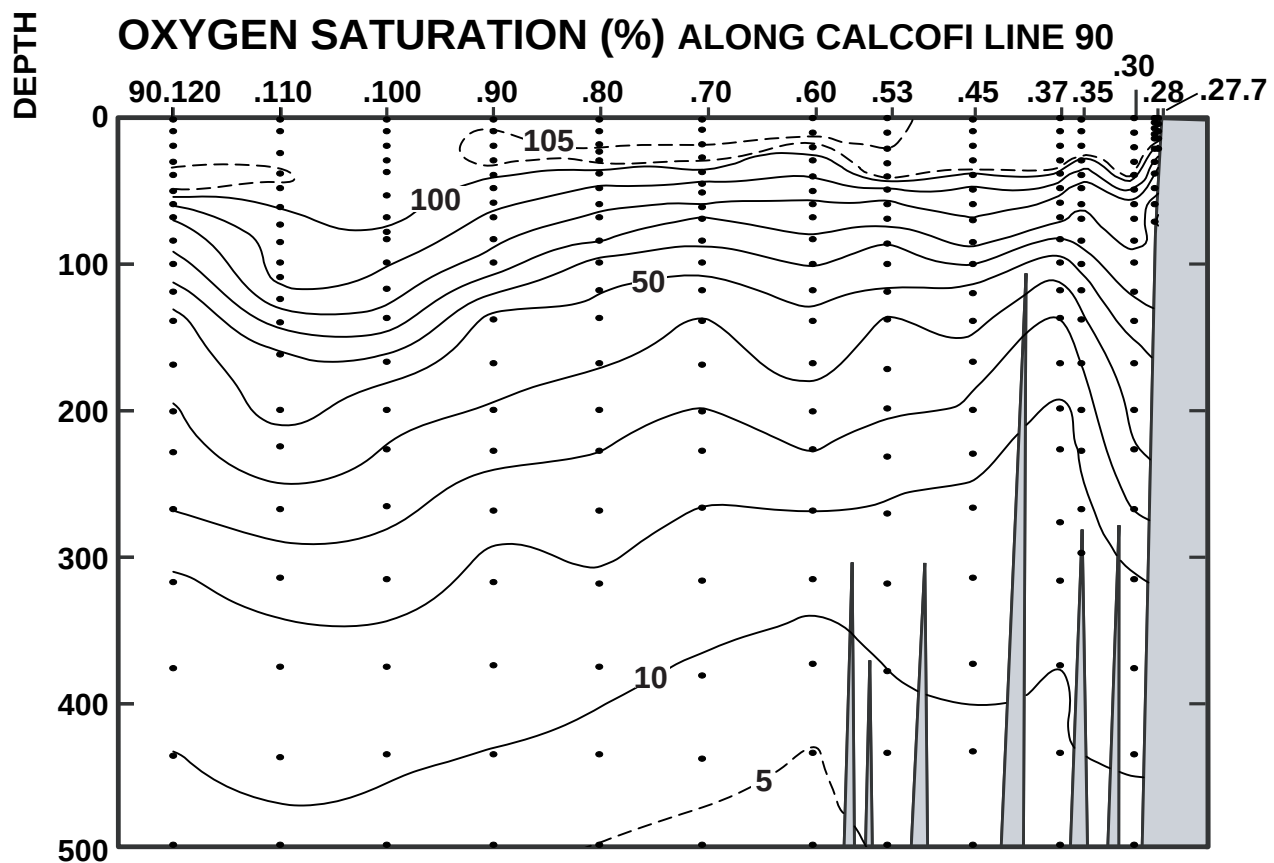
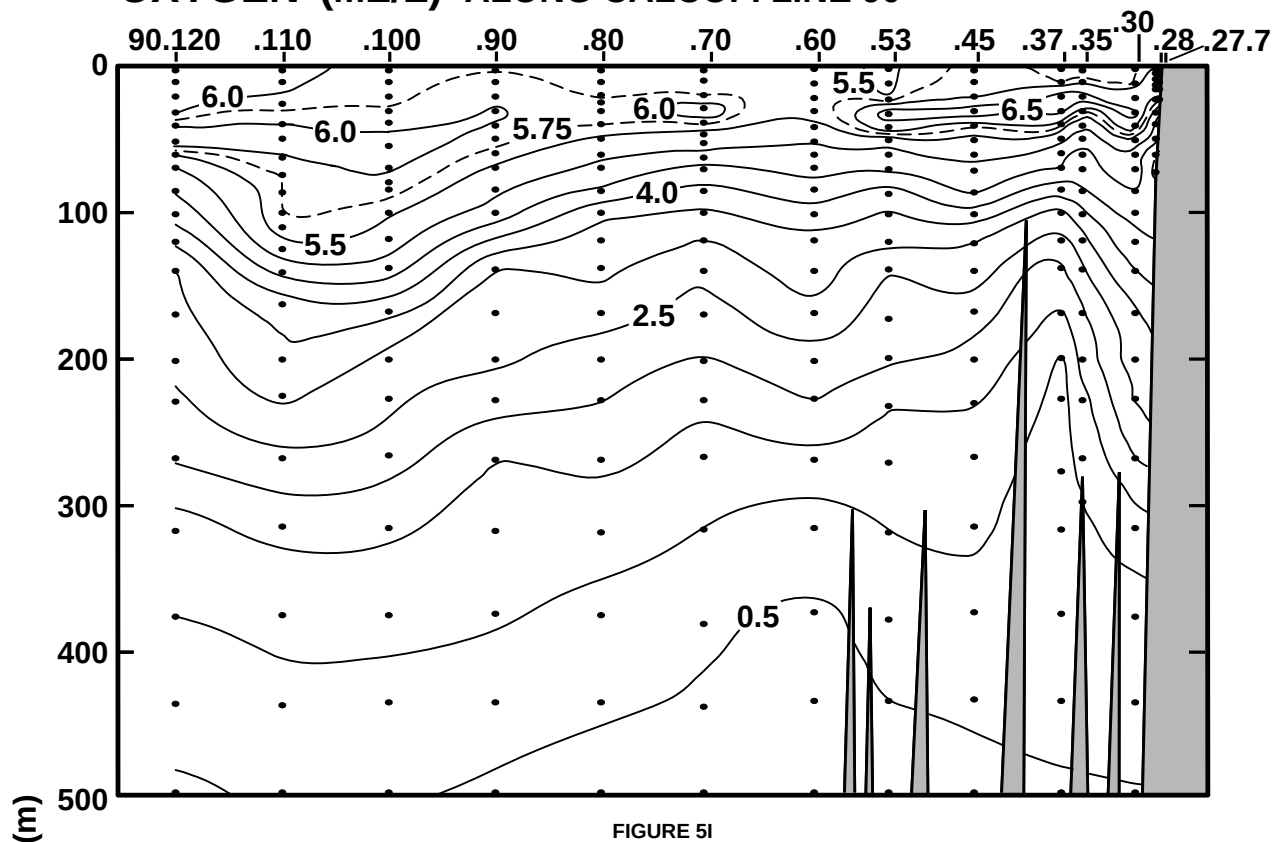


FIGURE 5H

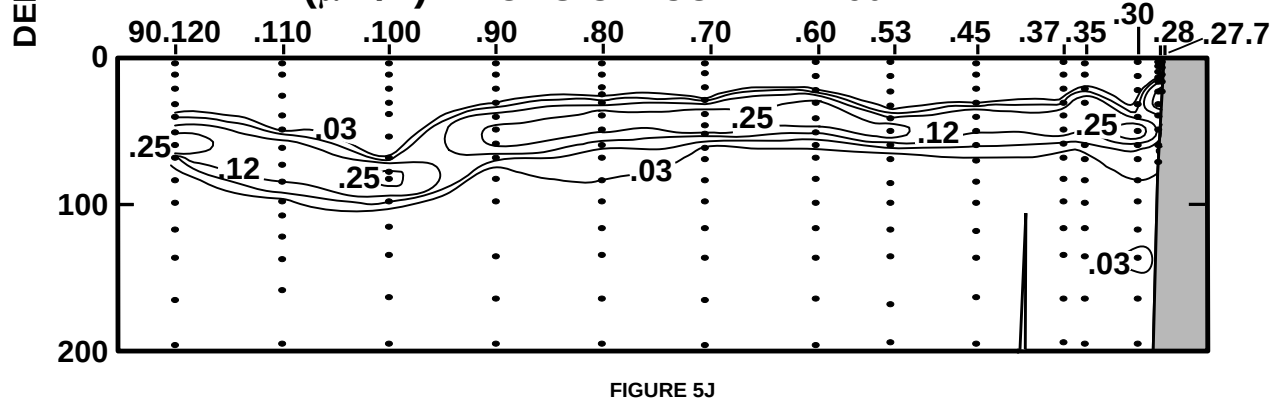
# CALCOFI CRUISE 0808

18 - 21 August 2008

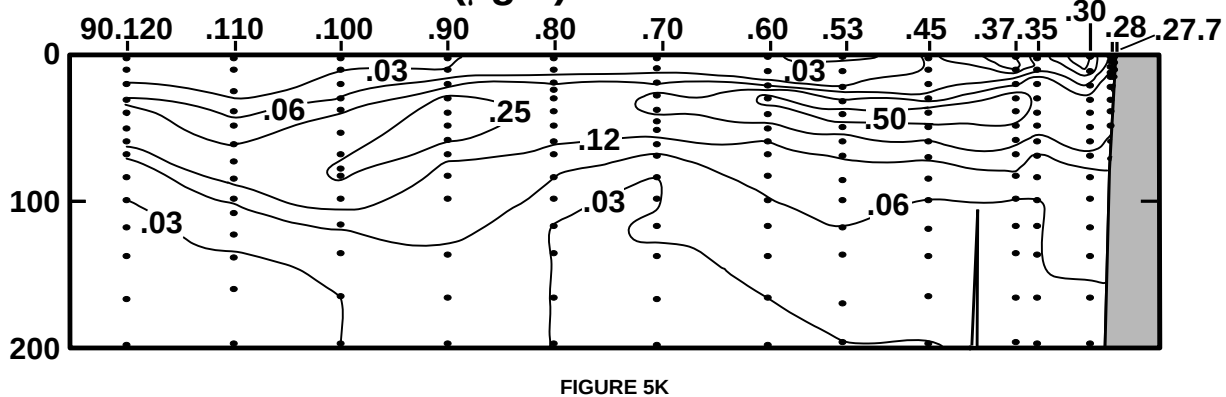
## OXYGEN (mL/L) ALONG CALCOFI LINE 90



## NITRITE ( $\mu$ M/L) ALONG CALCOFI LINE 90



## PHAEOPIGMENTS ( $\mu$ g/L) ALONG CALCOFI LINE 90



PERSONNEL

CalCOFI Cruise 0808

SHIP'S CAPTAIN

Murray Stein, RV *New Horizon*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

|                                        |                                   |
|----------------------------------------|-----------------------------------|
| Wolgast, David M.<br>(Chief Scientist) | Staff Research Associate, SIO     |
| Asch, Rebecca                          | Graduate Student, SIO             |
| Becker, Susan                          | Staff Research Associate, SIO     |
| Camacho-Wylie, Dominique               | Marine Mammal Observer, MPL       |
| Daniels, Emy F.                        | Volunteer, UCSD                   |
| Dovel, Shonna L.                       | Staff Research Associate, SIO     |
| Eide, Nick                             | Bird Observer, Farallon Institute |
| Faber, David N.                        | Staff Research Associate, SIO     |
| Havron, Andrea M.                      | Marine Mammal Observer, MPL       |
| Hays, Amy E.                           | Fishery Biologist, NMFS           |
| Munger, Lisa M.                        | Post-Doc, SIO                     |
| Munro, David R.                        | Graduate Student, UW              |
| Overcash, Bryan J.                     | Staff Research Associate, SIO     |
| Roadman, Megan J.                      | Staff Research Associate, SIO     |
| Rodgers-Wolgast, Jennifer L.           | Staff Research Associate, SIO     |
| Sullivan, Christopher J.               | Volunteer, UCSD                   |
| Susner, Michael G.                     | Staff Research Associate, SIO     |
| Wilkinson, James R.                    | Programmer Analyst, SIO           |

San Diego to San Diego, California, 14-30 August, 2008

| RV NEW HORIZON |       |            |          | CALCOFI CRUISE 0808 |           |        |        |       |           |      |           |        |        | STATION 76.7 49.0 |         |      |        |
|----------------|-------|------------|----------|---------------------|-----------|--------|--------|-------|-----------|------|-----------|--------|--------|-------------------|---------|------|--------|
| LATITUDE       |       | LONGITUDE  |          | DAY/MO/YR           | CAST TIME | BOTTOM | WIND   | SPEED | WAVES     | WEA  | BAROMETER | DRY    | WET    | SECCHI            | CLD AMT | TYPE |        |
| 35 5.1 N       |       | 120 46.3 W |          | 29/08/08            | 2324 UTC  | 70 m   | 290    | 07 kn | 200 04 06 | 4    | 1006.3 mb | 16.0 c | 15.9 c | 05m               | 8/8     |      |        |
| DEPTH          | TEMP  | POT TEMP   | SALINITY | SIGMA               | SVA       | DYN HT | OXYGEN | OXY   | SI03      | P04  | N03       | N02    | NH4    | CHL-A             | PHAE0   | PRES | SAMP   |
| m              | DEG C | DEG C      |          | THETA               |           |        | ml/L   | PCT   | uM/L      | uM/L | uM/L      | uM/L   | uM/L   | ug/L              | ug/L    | db   |        |
| 0              | ISL   | 15.19      | 15.19    | 33.478              | 24.758    | 317.8  | 0.000  | 6.26  | 109.4     | 7.3  | 0.53      | 2.4    | 0.07   | 0.54              | 4.28    | 0.97 | 0      |
| 2              |       | 15.19      | 15.19    | 33.478              | 24.758    | 317.9  | 0.006  | 6.26  | 109.4     | 7.3  | 0.53      | 2.4    | 0.07   | 0.54              | 4.28    | 0.97 | 2 212  |
| 6              |       | 15.03      | 15.03    | 33.477              | 24.792    | 314.7  | 0.019  | 6.21  | 108.2     | 7.4  | 0.56      | 2.7    | 0.08   | 0.46              | 4.15    | 0.89 | 6 210  |
| 6              |       | 15.02      | 15.02    | 33.477              | 24.795    | 314.5  | 0.019  |       |           |      |           |        |        |                   |         |      | 6 211  |
| 10             |       | 14.94      | 14.94    | 33.476              | 24.811    | 313.0  | 0.032  | 6.21  | 108.0     | 7.5  | 0.56      | 2.8    | 0.08   | 0.48              | 4.30    | 0.91 | 10 208 |
| 10             |       | 14.93      | 14.93    | 33.476              | 24.813    | 312.8  | 0.032  |       |           |      |           |        |        |                   |         |      | 10 209 |
| 20             | ISL   | 14.46      | D 14.46  | 33.473              | D 24.912  | 303.7  | 0.062  | 6.18  | 106.5     | 7.7  | 0.58      | 3.2    | 0.09   | 0.59              | 4.94    | 1.02 | 20     |
| 22             |       | 14.42      | 14.42    | 33.474              | 24.921    | 302.9  | 0.068  | 6.17  | 106.2     | 7.7  | 0.59      | 3.3    | 0.09   | 0.61              | 5.03    | 1.04 | 22 207 |
| 30             | ISL   | 13.94      | D 13.94  | 33.489              | D 25.034  | 292.4  | 0.092  | 6.08  | 103.6     | 6.6  | 0.63      | 4.2    | 0.11   | 0.54              | 4.70    | 0.96 | 30     |
| 31             |       | 13.94      | 13.94    | 33.493              | 25.037    | 292.2  | 0.095  | 6.07  | 103.5     | 6.5  | 0.63      | 4.3    | 0.11   | 0.53              | 4.66    | 0.95 | 31 205 |
| 31             |       | 13.94      | 13.94    | 33.492              | 25.036    | 292.3  | 0.095  |       |           |      |           |        |        |                   |         |      | 31 206 |
| 40             |       | 12.45      | 12.44    | 33.527              | 25.361    | 261.5  | 0.120  | 4.81  | 79.5      | 11.5 | 1.13      | 11.8   | 0.20   | 0.25              | 0.79    | 0.41 | 40 204 |
| 50             | ISL   | 11.82      | D 11.81  | 33.591              | D 25.530  | 245.6  | 0.145  | 4.17  | 68.0      | 16.2 | 1.44      | 14.9   | 0.29   | 0.75              | 0.56    | 0.70 | 50     |
| 51             |       | 11.81      | 11.80    | 33.591              | 25.532    | 245.4  | 0.148  |       |           |      |           |        |        |                   |         |      | 51 203 |
| 52             |       | 11.81      | 11.80    | 33.586              | 25.528    | 245.8  | 0.150  | 4.12  | 67.2      | 16.8 | 1.47      | 15.0   | 0.30   | 0.88              | 0.52    | 0.80 | 52 202 |
| 59             |       | 11.83      | 11.82    | 33.594              | 25.531    | 245.7  | 0.168  | 4.05  | 66.1      | 17.5 | 1.51      | 15.1   | 0.34   | 1.02              | 0.59    | 0.94 | 59 201 |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |        |        |           |      |           |        |        |        |         | STATION 76.7 51.0 |       |      |         |  |
|----------------|------------|-----------|-----------|---------------------|--------|--------|-----------|------|-----------|--------|--------|--------|---------|-------------------|-------|------|---------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND   | SPEED  | WAVES     | WEA  | BAROMETER | DRY    | WET    | SECCHI | CLD AMT | TYPE              |       |      |         |  |
| 35 1.6 N       | 120 54.9 W | 29/08/08  | 2103 UTC  | 231 m               | 250    | 08 kn  | 170 04 07 | 2    | 1007.4 mb | 18.0 C | 17.0 C | 05m    | 8/8     | ST                |       |      |         |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA    | DYN HT | OXYGEN    | OXY  | SI03      | P04    | N03    | N02    | NH4     | CHL-A             | PHAE0 | PRES | SAMP    |  |
| m              | DEG C      | DEG C     |           | THETA               |        |        | ml/L      | PCT  | uM/L      | uM/L   | uM/L   | uM/L   | uM/L    | ug/L              | ug/L  | db   |         |  |
| 0              | ISL        | 15.86     | 15.86     | 33.505              | 24.630 | 330.0  | 0.000     | 6.56 | 116.3     | 6.0    | 0.33   | 0.0    | 0.02    | 0.00              | 2.64  | 0.80 | 0       |  |
| 2              |            | 15.86     | 15.86     | 33.505              | 24.630 | 330.0  | 0.007     | 6.56 | 116.3     | 6.0    | 0.33   | 0.0    | 0.02    | 0.00              | 2.64  | 0.80 | 2 215   |  |
| 3              |            | 15.88     | 15.88     | 33.505              | 24.626 | 330.5  | 0.010     |      |           |        |        |        |         |                   |       |      | 3 216   |  |
| 10             |            | 15.35     | 15.35     | 33.502              | 24.742 | 319.7  | 0.033     | 6.55 | 114.9     | 6.5    | 0.40   | 0.3    | 0.04    | 0.35              | 4.55  | 1.34 | 10 214  |  |
| 10             |            | 15.32     | 15.32     | 33.502              | 24.748 | 319.0  | 0.033     |      |           | 6.5    | 0.41   | 0.3    | 0.04    | 0.32              |       |      | 10 213  |  |
| 19             |            | 13.87     | 13.87     | 33.500              | 25.056 | 290.0  | 0.060     | 5.68 | 96.7      | 8.3    | 0.75   | 5.9    | 0.13    | 0.26              | 2.99  | 0.91 | 19 212  |  |
| 20             | ISL        | 13.78     | 13.78     | 33.502              | 25.076 | 288.1  | 0.063     | 5.63 | 95.7      | 8.4    | 0.77   | 6.2    | 0.14    | 0.27              | 2.83  | 0.87 | 20      |  |
| 29             |            | 12.94     | 12.94     | 33.507              | 25.250 | 271.8  | 0.088     | 5.18 | 86.5      | 9.9    | 0.97   | 9.3    | 0.26    | 0.33              | 1.50  | 0.59 | 29 211  |  |
| 30             | ISL        | 12.39     | 12.39     | 33.540              | 25.382 | 259.2  | 0.091     | 5.09 | 84.0      | 10.3   | 1.01   | 9.9    | 0.27    | 0.30              | 1.36  | 0.56 | 30      |  |
| 39             |            | 11.58     | 11.58     | 33.593              | 25.576 | 240.9  | 0.113     | 4.29 | 69.6      | 14.1   | 1.36   | 15.7   | 0.36    | 0.00              | 0.37  | 0.31 | 39 210  |  |
| 50             |            | 11.15     | 11.14     | 33.640              | 25.691 | 230.2  | 0.139     |      |           |        |        |        |         |                   |       |      | 50 209  |  |
| 59             |            | 11.01     | 11.00     | 33.654              | 25.727 | 227.0  | 0.160     | 3.81 | 61.1      | 17.2   | 1.54   | 18.5   | 0.09    | 0.05              | 0.15  | 0.19 | 59 208  |  |
| 70             |            | 10.73     | 10.72     | 33.710              | 25.821 | 218.3  | 0.184     | 3.41 | 54.4      | 19.7   | 1.68   | 20.2   | 0.05    | 0.04              | 0.07  | 0.14 | 70 207  |  |
| 75             | ISL        | 10.69     | 10.68     | 33.718              | 25.834 | 217.2  | 0.195     | 3.34 | 53.2      | 20.1   | 1.70   | 20.5   | 0.05    | 0.05              | 0.07  | 0.14 | 75      |  |
| 85             |            | 10.61     | 10.60     | 33.734              | 25.861 | 214.9  | 0.217     | 3.27 | 52.0      | 20.7   | 1.73   | 21.0   | 0.04    | 0.06              | 0.06  | 0.13 | 85 206  |  |
| 100            |            | 10.37     | 10.36     | 33.781              | 25.939 | 207.7  | 0.248     | 3.06 | 48.4      | 23.4   | 1.84   | 22.3   | 0.02    | 0.02              | 0.03  | 0.13 | 101 205 |  |
| 118            |            | 10.17     | 10.16     | 33.818              | 26.003 | 202.0  | 0.285     | 2.91 | 45.9      | 24.6   | 1.89   | 23.0   | 0.03    | 0.05              | 0.03  | 0.12 | 119 204 |  |
| 125            | ISL        | 10.11     | 10.10     | 33.835              | 26.026 | 199.9  | 0.299     | 2.86 | 45.0      | 24.9   | 1.91   | 23.2   | 0.03    | 0.04              | 0.03  | 0.11 | 126     |  |
| 142            |            | 10.04     | 10.02     | 33.853              | 26.053 | 197.8  | 0.333     | 2.76 | 43.4      | 25.7   | 1.95   | 23.8   | 0.03    | 0.00              | 0.03  | 0.10 | 143 203 |  |
| 150            | ISL        | 9.99      | 9.97      | 33.864              | 26.070 | 196.3  | 0.349     | 2.72 | 42.7      | 26.1   | 1.97   | 24.1   | 0.03    | 0.00              | 0.03  | 0.10 | 151     |  |
| 173            |            | 9.81      | 9.79      | 33.911              | 26.137 | 190.4  | 0.393     | 2.58 | 40.4      | 27.2   | 2.01   | 24.8   | 0.03    | 0.00              | 0.02  | 0.10 | 174 202 |  |
| 200            | ISL        | 9.66      | 9.64      | 33.957              | 26.199 | 185.1  | 0.444     | 2.37 | 37.0      | 28.5   | 2.08   | 25.5   | 0.05    | 0.10              | 0.02  | 0.13 | 201     |  |
| 204            |            | 9.66      | 9.64      | 33.956              | 26.198 | 185.3  | 0.452     | 2.34 | 36.5      | 28.7   | 2.09   | 25.6   | 0.05    | 0.12              | 0.02  | 0.14 | 205 201 |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |          |        |           |      |           |        |        |        |         | STATION 76.7 55.0 |       |      |         |
|----------------|------------|-----------|-----------|---------------------|----------|--------|-----------|------|-----------|--------|--------|--------|---------|-------------------|-------|------|---------|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND     | SPEED  | WAVES     | WEA  | BAROMETER | DRY    | WET    | SECCHI | CLD AMT | TYPE              |       |      |         |
| 34 53.2 N      | 121 11.7 W | 29/08/08  | 1718 UTC  | 572 m               | 180      | 14 kn  | 180 04 07 | 2    | 1008.4 mb | 17.0 c | 16.8 c | 08m    | 8/8     | ST                |       |      |         |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA      | DYN HT | OXYGEN    | OXY  | SI03      | P04    | N03    | N02    | NH4     | CHL-A             | PHAE0 | PRES | SAMP    |
| m              | DEG C      | DEG C     |           | THETA               |          |        | ml/L      | PCT  | uM/L      | uM/L   | uM/L   | uM/L   | uM/L    | ug/L              | ug/L  | db   |         |
| 0              | ISL        | 15.58     | 15.58     | 33.510              | 24.697   | 323.6  | 0.000     | 6.70 | 118.1     | 1.8    | 0.30   | 0.1    | 0.01    | 0.34              | 2.39  | 0.28 | 0       |
| 2              | A          | 15.58     | 15.58     | 33.510              | 24.697   | 323.7  | 0.006     | 6.70 | 118.1     | 1.8    | 0.30   | 0.1    | 0.01    | 0.34              | 2.39  | 0.28 | 2 223   |
| 3              |            | 15.64     | 15.64     | 33.511              | 24.684   | 324.9  | 0.010     |      |           |        | 1.8    | 0.29   | 0.1     | 0.01              | 0.43  |      | 3 224   |
| 4              | A          | 15.61     | 15.61     | 33.508              | 24.689   | 324.5  | 0.013     | 6.70 | 118.2     | 1.9    | 0.30   | 0.1    | 0.02    | 0.10              | 2.25  | 0.43 | 4 222   |
| 10             | A          | 14.61     | 14.61     | 33.500              | 24.901   | 304.5  | 0.032     | 5.97 | 103.2     | 4.7    | 0.55   | 2.8    | 0.14    | 0.38              | 3.19  | 0.89 | 10 220  |
| 10             |            | 14.62     | 14.62     | 33.501              | 24.899   | 304.6  | 0.032     |      |           |        |        |        |         |                   |       |      | 10 221  |
| 15             | A          | 13.91     | 13.91     | 33.545              | 25.083   | 287.3  | 0.047     | 5.27 | 89.8      | 7.2    | 0.88   | 7.1    | 0.25    | 0.88              | 1.17  | 0.42 | 15 219  |
| 20             | A          | 13.48     | 13.48     | 33.581              | 25.199   | 276.4  | 0.061     | 4.96 | 83.8      | 9.3    | 1.00   | 9.4    | 0.29    | 0.52              | 0.65  | 0.26 | 20 218  |
| 29             | A          | 11.58     | 11.58     | 33.655              | 25.624   | 236.1  | 0.084     | 4.18 | 67.9      | 15.3   | 1.43   | 16.5   | 0.18    | 0.06              | 0.23  | 0.24 | 29 217  |
| 30             | ISL        | 11.45     | D 11.45   | 33.679              | D 25.667 | 232.1  | 0.086     | 4.12 | 66.7      | 15.7   | 1.46   | 16.9   | 0.17    | 0.05              | 0.22  | 0.24 | 30      |
| 40             |            | 11.05     | 11.05     | 33.734              | 25.782   | 221.3  | 0.109     | 3.71 | 59.6      | 18.7   | 1.61   | 19.4   | 0.05    | 0.00              | 0.17  | 0.20 | 40 216  |
| 50             |            | 10.70     | 10.69     | 33.764              | 25.868   | 213.4  | 0.131     | 3.47 | 55.3      | 20.6   | 1.71   | 20.9   | 0.03    | 0.00              | 0.12  | 0.19 | 50 215  |
| 60             |            | 10.44     | 10.43     | 33.772              | 25.920   | 208.7  | 0.152     | 3.34 | 53.0      | 21.6   | 1.76   | 21.6   | 0.02    | 0.02              | 0.09  | 0.17 | 60 214  |
| 70             |            | 10.24     | 10.23     | 33.803              | 25.978   | 203.3  | 0.172     | 3.22 | 50.8      | 22.9   | 1.82   | 22.5   | 0.02    | 0.00              | 0.06  | 0.14 | 70 213  |
| 75             | ISL        | 10.10     | D 10.09   | 33.813              | D 26.010 | 200.4  | 0.182     | 3.23 | 50.8      | 23.4   | 1.84   | 22.9   | 0.02    | 0.05              | 0.04  | 0.13 | 75      |
| 85             |            | 9.80      | 9.79      | 33.809              | 26.057   | 196.1  | 0.202     | 3.25 | 50.8      | 24.0   | 1.86   | 23.4   | 0.02    | 0.14              | 0.02  | 0.10 | 85 212  |
| 100            | ISL        | 9.60      | D 9.59    | 33.822              | D 26.101 | 192.2  | 0.231     | 3.22 | 50.1      | 24.6   | 1.85   | 23.6   | 0.01    | 0.02              | 0.02  | 0.08 | 101     |
| 101            |            | 9.60      | 9.59      | 33.823              | 26.102   | 192.1  | 0.233     | 3.22 | 50.1      | 24.6   | 1.85   | 23.6   | 0.01    | 0.01              | 0.02  | 0.08 | 102 211 |
| 120            |            | 9.40      | 9.39      | 33.865              | 26.168   | 186.3  | 0.269     | 3.02 | 46.8      | 26.5   | 1.92   | 24.6   | 0.03    | 0.08              | 0.02  | 0.07 | 121 210 |
| 125            | ISL        | 9.25      | D 9.24    | 33.903              | D 26.222 | 181.2  | 0.278     | 2.95 | 45.6      | 27.2   | 1.94   | 24.9   | 0.03    | 0.06              | 0.02  | 0.07 | 126     |
| 139            |            | 9.14      | 9.12      | 33.938              | 26.267   | 177.2  | 0.303     | 2.72 | 41.9      | 29.1   | 2.01   | 25.7   | 0.03    | 0.00              | 0.01  | 0.07 | 140 209 |
| 150            | ISL        | 9.34      | D 9.32    | 34.036              | D 26.312 | 173.2  | 0.323     | 2.49 | 38.6      | 30.4   | 2.08   | 26.2   | 0.03    | 0.01              | 0.01  | 0.07 | 151     |
| 169            |            | 9.35      | 9.33      | 34.053              | 26.324   | 172.5  | 0.356     | 2.08 | 32.2      | 32.5   | 2.21   | 27.1   | 0.04    | 0.04              | 0.01  | 0.08 | 170 208 |
| 198            |            | 9.22      | 9.20      | 34.096              | 26.379   | 167.8  | 0.405     | 1.65 | 25.5      | 35.5   | 2.36   | 28.6   | 0.14    | 0.04              | 0.01  | 0.09 | 199 207 |
| 200            | ISL        | 9.21      | D 9.19    | 34.097              | D 26.381 | 167.6  | 0.408     | 1.62 | 25.0      | 35.8   | 2.37   | 28.7   | 0.13    | 0.05              |       |      | 201     |
| 228            |            | 8.97      | 8.95      | 34.162              | 26.471   | 159.6  | 0.454     | 1.34 | 20.6      | 39.8   | 2.50   | 30.0   | 0.02    | 0.12              |       |      | 229 206 |
| 250            | ISL        | 8.91      | D 8.88    | 34.223              | D 26.529 | 154.6  | 0.489     | 1.24 | 19.0      | 41.4   | 2.54   | 30.4   | 0.03    | 0.06              |       |      | 252     |
| 268            |            | 8.79      | 8.76      | 34.221              | 26.546   | 153.2  | 0.516     | 1.18 | 18.1      | 42.3   | 2.56   | 30.6   | 0.03    | 0.00              |       |      | 270 205 |
| 300            | ISL        | 8.66      | D 8.63    | 34.247              | D 26.587 | 149.9  | 0.565     | 1.02 | 15.6      | 44.4   | 2.64   | 31.0   | 0.01    | 0.00              |       |      | 302     |
| 320            |            | 8.58      | 8.55      | 34.272              | 26.620   | 147.2  | 0.595     | 0.93 | 14.2      | 46.1   | 2.70   | 31.4   | 0.00    | 0.00              |       |      | 322 204 |
| 379            |            | 7.63      | 7.59      | 34.225              | 26.725   | 137.5  | 0.799     | 0.88 | 13.1      | 54.2   | 2.81   | 34.1   | 0.00    | 0.00              |       |      | 382 203 |
| 400            | ISL        | 7.53      | D 7.49    | 34.252              | D 26.761 | 134.4  | 0.707     | 0.80 | 11.9      | 56.6   | 2.86   | 34.7   | 0.00    | 0.02              |       |      | 403     |
| 439            |            | 7.22      | 7.18      | 34.262              | 26.813   | 129.9  | 0.759     | 0.62 | 9.2       | 61.5   | 2.95   | 35.6   | 0.00    | 0.04              |       |      | 442 202 |
| 500            | ISL        | 6.60      | D 6.55    | 34.292              | D 26.922 | 120.0  | 0.835     | 0.42 | 6.1       | 72.3   | 3.11   | 37.5   | 0.00    | 0.01              |       |      | 504     |
| 508            |            | 6.45      | 6.40      | 34.280              | 26.932   | 118.9  | 0.844     | 0.39 | 5.7       | 73.7   | 3.13   | 37.8   | 0.00    | 0.01              |       |      | 512 201 |

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 76.7 60.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 34 43.9 N      | 121 33.3 W | 29/08/08  | 1306 UTC  | 892 m               | 330   | 08 kn  |        |       | 1006.4 mb | 15.8 c | 15.2 c |        |      |                   |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 16.82  | 16.82     | 33.352    | 24.293              | 362.1 | 0.000  | 5.70   | 102.9 | 2.9       | 0.34   | 0.0    | 0.00   | 0.42 | 0.31              | 0.11  | 0    |      |  |
| 2              | 16.82      | 16.82     | 33.352    | 24.293              | 362.2 | 0.007  | 5.70   | 102.9 | 2.9       | 0.34   | 0.0    | 0.00   | 0.42 | 0.31              | 0.11  | 2    | 220  |  |
| 10             | 16.40      | 16.40     | 33.456    | 24.470              | 345.6 | 0.036  | 5.86   | 104.9 | 3.9       | 0.32   | 0.0    | 0.00   | 0.44 | 0.51              | 0.17  | 10   | 219  |  |
| 20             | 15.54      | 15.54     | 33.481    | 24.684              | 325.5 | 0.069  | 5.85   | 103.0 | 5.1       | 0.46   | 1.4    | 0.07   | 0.70 | 0.81              | 0.35  | 20   | 218  |  |
| 29             | 14.96      | 14.96     | 33.512    | 24.835              | 311.3 | 0.098  | 5.89   | 102.5 | 7.1       | 0.56   | 2.8    | 0.13   | 0.69 | 1.36              | 0.64  | 29   | 217  |  |
| 30             | ISL 14.87  | D 14.87   | 33.520    | D 24.861            | 308.9 | 0.101  | 5.86   | 101.8 | 7.3       | 0.60   | 3.3    | 0.19   | 0.69 | 1.28              | 0.61  | 30   |      |  |
| 39             | 12.48      | 12.47     | 33.360    | 25.226              | 274.3 | 0.127  | 5.55   | 91.7  | 8.5       | 0.97   | 8.5    | 0.63   | 0.69 | 0.39              | 0.28  | 39   | 216  |  |
| 49             | 11.82      | 11.81     | 33.365    | 25.355              | 262.2 | 0.154  | 5.40   | 88.0  | 10.2      | 1.12   | 11.6   | 0.29   | 0.10 | 0.24              | 0.22  | 49   | 215  |  |
| 50             | ISL 11.73  | D 11.72   | 33.378    | D 25.382            | 259.7 | 0.157  | 5.39   | 87.6  | 10.3      | 1.13   | 11.8   | 0.26   | 0.10 | 0.23              | 0.22  | 50   |      |  |
| 60             | 11.30      | 11.29     | 33.380    | 25.462              | 252.2 | 0.182  | 5.18   | 83.5  | 11.9      | 1.23   | 13.6   | 0.05   | 0.11 | 0.14              | 0.17  | 60   | 214  |  |
| 69             | 10.41      | 10.40     | 33.439    | 25.665              | 233.0 | 0.204  | 4.72   | 74.6  | 15.5      | 1.42   | 16.9   | 0.02   | 0.20 | 0.04              | 0.09  | 69   | 213  |  |
| 75             | ISL 10.38  | D 10.37   | 33.453    | D 25.681            | 231.6 | 0.218  | 4.58   | 72.4  | 17.1      | 1.50   | 18.2   | 0.02   | 0.14 | 0.03              | 0.09  | 75   |      |  |
| 85             | 10.13      | 10.12     | 33.608    | 25.845              | 216.3 | 0.240  | 4.32   | 67.9  | 19.4      | 1.62   | 19.9   | 0.02   | 0.00 | 0.02              | 0.08  | 85   | 212  |  |
| 100            | ISL 9.86   | D 9.85    | 33.805    | D 26.045            | 197.6 | 0.271  | 3.32   | 52.0  | 24.2      | 1.84   | 23.2   | 0.01   | 0.00 | 0.03              | 0.08  | 101  |      |  |
| 101            | 9.86       | 9.85      | 33.801    | 26.042              | 197.9 | 0.273  | 3.25   | 50.9  | 24.5      | 1.85   | 23.4   | 0.01   | 0.00 | 0.03              | 0.08  | 102  | 211  |  |
| 119            | 9.24       | 9.23      | 33.952    | 26.262              | 177.3 | 0.307  | 2.59   | 40.0  | 29.9      | 2.04   | 26.2   | 0.00   | 0.06 | 0.01              | 0.09  | 120  | 210  |  |
| 125            | ISL 9.16   | D 9.15    | 33.958    | D 26.279            | 175.7 | 0.318  | 2.50   | 38.6  | 30.7      | 2.07   | 26.5   | 0.00   | 0.09 | 0.01              | 0.09  | 126  |      |  |
| 140            | 9.14       | 9.12      | 34.000    | 26.316              | 172.6 | 0.344  | 2.38   | 36.7  | 31.9      | 2.12   | 26.9   | 0.01   | 0.14 | 0.01              | 0.07  | 141  | 209  |  |
| 150            | ISL 8.92   | D 8.90    | 34.032    | D 26.376            | 167.0 | 0.361  | 2.31   | 35.5  | 33.1      | 2.15   | 27.3   | 0.01   | 0.11 | 0.01              | 0.06  | 151  |      |  |
| 168            | 8.73       | 8.71      | 34.055    | 26.424              | 162.8 | 0.390  | 2.18   | 33.3  | 35.5      | 2.21   | 28.1   | 0.01   | 0.02 | 0.00              | 0.05  | 169  | 208  |  |
| 200            | ISL 8.55   | D 8.53    | 34.124    | D 26.506            | 155.5 | 0.441  | 1.72   | 26.2  | 39.8      | 2.38   | 29.9   | 0.02   | 0.00 | 0.00              | 0.04  | 201  |      |  |
| 201            | 8.54       | 8.52      | 34.124    | 26.508              | 155.4 | 0.443  | 1.71   | 26.0  | 39.9      | 2.39   | 30.0   | 0.02   | 0.00 | 0.00              | 0.04  | 202  | 207  |  |
| 229            | 8.27       | 8.25      | 34.142    | 26.563              | 150.5 | 0.486  | 1.52   | 23.0  | 43.1      | 2.49   | 31.3   | 0.03   | 0.21 |                   |       | 230  | 206  |  |
| 250            | ISL 8.21   | D 8.18    | 34.194    | D 26.614            | 146.2 | 0.517  | 1.35   | 20.4  | 45.3      | 2.57   | 31.9   | 0.01   | 0.12 |                   |       | 252  |      |  |
| 267            | 8.08       | 8.05      | 34.194    | 26.633              | 144.5 | 0.542  | 1.21   | 18.2  | 47.2      | 2.63   | 32.3   | 0.00   | 0.00 |                   |       | 269  | 205  |  |
| 300            | ISL 7.96   | D 7.93    | 34.265    | D 26.707            | 138.1 | 0.588  | 0.92   | 13.8  | 51.2      | 2.76   | 33.1   | 0.00   | 0.00 |                   |       | 302  |      |  |
| 317            | 7.84       | 7.81      | 34.265    | 26.725              | 136.6 | 0.612  | 0.79   | 11.8  | 53.5      | 2.82   | 33.6   | 0.00   | 0.00 |                   |       | 319  | 204  |  |
| 378            | 7.13       | 7.09      | 34.252    | 26.817              | 128.4 | 0.692  | 0.58   | 8.6   | 63.5      | 2.98   | 35.5   | 0.00   | 0.00 |                   |       | 380  | 203  |  |
| 400            | ISL 6.98   | D 6.94    | 34.275    | D 26.856            | 125.0 | 0.720  | 0.53   | 7.8   | 65.9      | 3.02   | 36.1   | 0.00   | 0.07 |                   |       | 403  |      |  |
| 436            | 6.75       | 6.71      | 34.286    | 26.896              | 121.5 | 0.765  | 0.45   | 6.6   | 69.2      | 3.07   | 36.9   | 0.01   | 0.17 |                   |       | 439  | 202  |  |
| 500            | ISL 6.28   | D 6.23    | 34.304    | D 26.973            | 114.8 | 0.840  | 0.33   | 4.8   | 75.6      | 3.15   | 38.3   | 0.00   | 0.01 |                   |       | 504  |      |  |
| 502            | 6.27       | 6.22      | 34.301    | 26.972              | 114.9 | 0.843  | 0.33   | 4.8   | 75.8      | 3.15   | 38.3   | 0.00   | 0.00 |                   |       | 506  | 201  |  |

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

| RV NEW HORIZON |           |            |          | CALCOFI CRUISE 0808 |           |        |        |       |       |      |           |        |        | STATION 76.7 70.0 |       |      |      |  |
|----------------|-----------|------------|----------|---------------------|-----------|--------|--------|-------|-------|------|-----------|--------|--------|-------------------|-------|------|------|--|
| LATITUDE       |           | LONGITUDE  |          | DAY/MO/YR           | CAST TIME | BOTTOM | WIND   | SPEED | WAVES | WEA  | BAROMETER | DRY    | WET    | SECCHI            | CLD   | AMT  | TYPE |  |
| 34 23.2 N      |           | 122 15.1 W |          | 29/08/08            | 0606 UTC  | 4026 m | 290    | 08 kn |       |      | 1007.6 mb | 18.0 C | 16.9 C |                   |       |      |      |  |
| DEPTH          | TEMP      | POT TEMP   | SALINITY | SIGMA               | SVA       | DYN HT | OXYGEN | OXY   | SI03  | P04  | N03       | N02    | NH4    | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C     | DEG C      |          | THETA               |           |        | ml/L   | PCT   | uM/L  | uM/L | uM/L      | uM/L   | uM/L   | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 17.06 | 17.06      | 33.512   | 24.359              | 355.8     | 0.000  | 5.80   | 105.3 | 2.1   | 0.31 | 0.0       | 0.00   | 0.22   | 0.56              | 0.12  | 0    |      |  |
| 2              | 17.06     | 17.06      | 33.512   | 24.359              | 355.9     | 0.007  | 5.80   | 105.3 | 2.1   | 0.31 | 0.0       | 0.00   | 0.22   | 0.56              | 0.12  | 2    | 221  |  |
| 9              | 16.89     | 16.89      | 33.488   | 24.381              | 354.0     | 0.032  | 5.82   | 105.2 | 1.9   | 0.31 | 0.0       | 0.00   | 0.30   | 0.48              | 0.12  | 9    | 219  |  |
| 10             | CSL 16.81 | 16.81      | 33.486   | 24.398              | 352.4     | 0.035  |        |       |       |      |           |        |        |                   |       | 10   | 200  |  |
| 10             | 16.90     | 16.90      | 33.496   | 24.385              | 353.7     | 0.035  |        |       |       |      |           |        |        |                   |       | 10   | 220  |  |
| 19             | 16.50     | 16.50      | 33.477   | 24.464              | 346.5     | 0.067  | 5.82   | 104.4 | 1.8   | 0.33 | 0.0       | 0.00   | 0.13   | 0.70              | 0.21  | 19   | 218  |  |
| 20             | ISL 16.50 | D 16.50    | 33.474   | D 24.461            | 346.7     | 0.070  | 5.81   | 104.3 | 1.9   | 0.34 | 0.0       | 0.01   | 0.18   | 0.76              | 0.24  | 20   |      |  |
| 30             | 15.58     | 15.58      | 33.568   | 24.742              | 320.2     | 0.104  | 5.68   | 100.1 | 3.8   | 0.51 | 1.9       | 0.20   | 0.68   | 1.22              | 0.44  | 30   | 217  |  |
| 41             | 13.32     | 13.31      | 33.612   | 25.255              | 271.6     | 0.136  | 4.80   | 80.8  | 8.6   | 1.03 | 9.4       | 0.70   | 0.29   | 0.63              | 0.24  | 41   | 216  |  |
| 48             | 12.07     | 12.06      | 33.664   | 25.540              | 244.6     | 0.154  | 4.16   | 68.3  | 15.1  | 1.42 | 16.5      | 0.02   | 0.22   | 0.14              | 0.15  | 48   | 215  |  |
| 50             | ISL 11.78 | D 11.77    | 33.665   | D 25.595            | 239.4     | 0.159  | 4.12   | 67.2  | 16.1  | 1.48 | 17.0      | 0.02   | 0.20   | 0.13              | 0.15  | 50   |      |  |
| 60             | 11.01     | 11.00      | 33.682   | 25.749              | 224.9     | 0.182  | 3.94   | 63.2  | 18.7  | 1.61 | 19.5      | 0.01   | 0.12   | 0.06              | 0.13  | 60   | 214  |  |
| 71             | 9.97      | 9.96       | 33.656   | 25.909              | 209.8     | 0.206  | 3.98   | 62.4  | 20.7  | 1.68 | 20.9      | 0.01   | 0.15   | 0.03              | 0.07  | 71   | 213  |  |
| 75             | ISL 9.98  | D 9.97     | 33.771   | D 25.998            | 201.6     | 0.215  | 3.77   | 59.2  | 21.7  | 1.73 | 21.6      | 0.01   | 0.13   | 0.03              | 0.07  | 75   |      |  |
| 85             | 9.90      | 9.89       | 33.817   | 26.047              | 197.1     | 0.235  | 3.12   | 48.9  | 24.5  | 1.87 | 23.4      | 0.01   | 0.05   | 0.02              | 0.08  | 85   | 212  |  |
| 100            | ISL 9.60  | D 9.59     | 33.907   | D 26.167            | 185.9     | 0.263  | 2.64   | 41.1  | 28.3  | 2.03 | 25.6      | 0.00   | 0.00   | 0.01              | 0.08  | 101  |      |  |
| 102            | 9.50      | 9.49       | 33.926   | 26.199              | 183.0     | 0.267  | 2.60   | 40.4  | 28.7  | 2.05 | 25.8      | 0.00   | 0.00   | 0.01              | 0.08  | 103  | 211  |  |
| 120            | 9.29      | 9.28       | 33.989   | 26.282              | 175.4     | 0.299  | 2.29   | 35.4  | 31.4  | 2.14 | 27.0      | 0.01   | 0.03   | 0.01              | 0.07  | 121  | 210  |  |
| 125            | ISL 9.19  | D 9.18     | 33.997   | D 26.305            | 173.3     | 0.308  | 2.21   | 34.1  | 32.2  | 2.17 | 27.4      | 0.01   | 0.03   | 0.01              | 0.07  | 126  |      |  |
| 141            | 8.98      | 8.96       | 34.045   | 26.376              | 166.8     | 0.335  | 1.96   | 30.1  | 34.8  | 2.29 | 28.8      | 0.00   | 0.02   | 0.00              | 0.08  | 142  | 209  |  |
| 150            | ISL 8.87  | D 8.85     | 34.098   | D 26.435            | 161.4     | 0.350  | 1.82   | 27.9  | 36.5  | 2.35 | 29.4      | 0.00   | 0.03   | 0.00              | 0.07  | 151  |      |  |
| 169            | 8.67      | 8.65       | 34.133   | 26.494              | 156.1     | 0.380  | 1.53   | 23.4  | 39.8  | 2.45 | 30.5      | 0.00   | 0.04   | 0.00              | 0.06  | 170  | 208  |  |
| 200            | 8.65      | 8.63       | 34.204   | 26.553              | 151.1     | 0.428  | 1.17   | 17.9  | 43.0  | 2.60 | 31.3      | 0.00   | 0.00   | 0.00              | 0.07  | 201  | 207  |  |
| 230            | 8.49      | 8.47       | 34.229   | 26.598              | 147.4     | 0.472  | 1.01   | 15.4  | 46.5  | 2.69 | 31.9      | 0.00   | 0.00   |                   |       | 231  | 206  |  |
| 250            | ISL 8.14  | D 8.11     | 34.235   | D 26.656            | 142.1     | 0.501  | 0.92   | 13.9  | 49.2  | 2.75 | 32.8      | 0.00   | 0.00   |                   |       | 252  |      |  |
| 268            | 7.95      | 7.92       | 34.238   | 26.687              | 139.4     | 0.527  | 0.85   | 12.8  | 51.6  | 2.80 | 33.6      | 0.00   | 0.00   |                   |       | 270  | 205  |  |
| 300            | ISL 7.72  | D 7.69     | 34.261   | D 26.739            | 134.9     | 0.571  | 0.79   | 11.8  | 55.0  | 2.86 | 34.4      | 0.00   | 0.00   |                   |       | 302  |      |  |
| 318            | 7.49      | 7.46       | 34.235   | 26.752              | 133.8     | 0.595  | 0.76   | 11.3  | 56.7  | 2.89 | 34.7      | 0.00   | 0.00   |                   |       | 320  | 204  |  |
| 377            | 7.21      | 7.17       | 34.263   | 26.814              | 128.7     | 0.672  | 0.59   | 8.7   | 62.0  | 2.99 | 35.6      | 0.00   | 0.00   |                   |       | 380  | 203  |  |
| 400            | ISL 6.87  | D 6.83     | 34.256   | D 26.856            | 124.9     | 0.701  | 0.51   | 7.5   | 65.5  | 3.04 | 36.4      | 0.00   | 0.00   |                   |       | 403  |      |  |
| 437            | 6.61      | 6.57       | 34.288   | 26.916              | 119.5     | 0.747  | 0.41   | 6.0   | 71.1  | 3.11 | 37.6      | 0.00   | 0.00   |                   |       | 440  | 202  |  |
| 500            | ISL 6.18  | D 6.14     | 34.294   | D 26.978            | 114.2     | 0.820  | 0.37   | 5.3   | 76.2  | 3.17 | 38.6      | 0.00   | 0.00   |                   |       | 504  |      |  |
| 510            | 6.16      | 6.11       | 34.295   | 26.981              | 114.0     | 0.832  | 0.36   | 5.2   | 77.0  | 3.18 | 38.8      | 0.00   | 0.00   |                   |       | 514  | 201  |  |

STATION 76.7 80.0

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS:PRIMARY T: PRIMARY CORRECTED S:

STATION 76.7 90.0

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.  
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS: PRIMARY T; PRIMARY CORRECTED S;

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 76.7 100.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|--------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT                | TYPE  |      |      |  |
| 33 23.1 N      | 124 19.1 W | 28/08/08  | 1140 UTC  | 4595 m              | 360   | 09 kn  |        |       | 1009.9 mb | 17.2 c | 15.8 c |        |      |                    |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A              | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/l   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/l               | ug/l  | db   |      |  |
| 0              | ISL 17.66  | 17.66     | 33.148    | 23.937              | 396.0 | 0.000  | 5.66   | 103.7 | 1.3       | 0.37   | 0.2    | 0.01   | 0.43 | 0.25               | 0.04  | 0    |      |  |
| 2              | 17.66      | 17.66     | 33.148    | 23.938              | 396.1 | 0.008  | 5.66   | 103.7 | 1.3       | 0.37   | 0.2    | 0.01   | 0.43 | 0.25               | 0.04  | 2    | 220  |  |
| 10             | 17.67      | 17.67     | 33.149    | 23.936              | 396.5 | 0.040  | 5.66   | 103.7 | 1.3       | 0.37   | 0.2    | 0.01   | 0.43 | 0.27               | 0.04  | 10   | 219  |  |
| 20             | 17.65      | 17.65     | 33.151    | 23.943              | 396.2 | 0.079  | 5.67   | 103.8 | 1.3       | 0.38   | 0.2    | 0.01   | 0.40 | 0.27               | 0.04  | 20   | 218  |  |
| 30             | 14.63      | 14.63     | 32.801    | 24.358              | 356.8 | 0.117  | 6.54   | 112.6 | 0.3       | 0.42   | 0.0    | 0.01   | 0.42 | 0.52               | 0.18  | 30   | 217  |  |
| 40             | 13.18      | 13.17     | 32.773    | 24.634              | 330.7 | 0.151  | 6.32   | 105.6 | 3.2       | 0.55   | 1.6    | 0.07   | 0.39 | 0.42               | 0.25  | 40   | 216  |  |
| 50             | 12.35      | 12.34     | 32.736    | 24.767              | 318.2 | 0.184  | 6.04   | 99.1  | 5.0       | 0.70   | 2.6    | 0.39   | 1.30 | 0.38               | 0.24  | 50   | 215  |  |
| 59             | 12.01      | 12.00     | 32.740    | 24.834              | 312.0 | 0.212  | 5.97   | 97.3  | 5.4       | 0.73   | 3.2    | 0.77   | 0.81 | 0.35               | 0.20  | 59   | 214  |  |
| 69             | 11.53      | 11.52     | 32.783    | 24.956              | 300.5 | 0.243  | 5.87   | 94.7  | 6.2       | 0.80   | 5.3    | 0.32   | 0.46 | 0.27               | 0.15  | 69   | 213  |  |
| 75             | ISL 11.05  | 11.04     | 32.793    | D 25.051            | 291.7 | 0.260  | 5.77   | 92.1  | 6.8       | 0.86   | 6.6    | 0.16   | 0.33 | 0.22               | 0.15  | 75   |      |  |
| 84             | 10.84      | 10.83     | 32.911    | 25.179              | 279.6 | 0.286  | 5.53   | 88.0  | 8.4       | 0.97   | 8.9    | 0.03   | 0.21 | 0.14               | 0.16  | 84   | 212  |  |
| 100            | 10.18      | 10.17     | 33.240    | 25.550              | 244.6 | 0.328  | 4.78   | 75.1  | 13.8      | 1.30   | 14.8   | 0.01   | 0.20 | 0.05               | 0.09  | 100  | 211  |  |
| 119            | 10.48      | 10.47     | 33.656    | 25.823              | 219.2 | 0.372  | 4.26   | 67.5  | 19.1      | 1.68   | 20.2   | 0.01   | 0.15 | 0.07               | 0.09  | 120  | 210  |  |
| 125            | ISL 10.17  | D 10.16   | 33.659    | D 25.879            | 213.9 | 0.385  | 3.90   | 61.4  | 21.3      | 1.78   | 21.8   | 0.01   | 0.11 | 0.06               | 0.09  | 126  |      |  |
| 138            | 9.73       | 9.71      | 33.829    | 26.086              | 194.5 | 0.412  | 3.16   | 49.3  | 25.8      | 1.94   | 24.5   | 0.00   | 0.04 | 0.03               | 0.09  | 139  | 209  |  |
| 150            | ISL 9.09   | D 9.07    | 33.908    | D 26.252            | 178.8 | 0.434  | 3.16   | 48.7  | 28.1      | 1.94   | 24.9   | 0.00   | 0.05 | 0.02               | 0.07  | 151  |      |  |
| 171            | 8.49       | 8.47      | 33.897    | 26.337              | 170.9 | 0.471  | 3.16   | 48.0  | 30.7      | 1.94   | 25.7   | 0.00   | 0.06 | 0.01               | 0.03  | 172  | 208  |  |
| 200            | ISL 8.19   | D 8.17    | 33.961    | D 26.433            | 162.3 | 0.519  | 2.87   | 43.3  | 34.3      | 2.05   | 27.3   | 0.00   | 0.00 | 0.00               | 0.02  | 201  |      |  |
| 202            | 8.17       | 8.15      | 33.962    | 26.437              | 161.9 | 0.522  | 2.85   | 43.0  | 34.5      | 2.06   | 27.4   | 0.00   | 0.00 | 0.00               | 0.02  | 203  | 207  |  |
| 227            | 7.73       | 7.71      | 33.970    | 26.508              | 155.4 | 0.562  | 2.92   | 43.6  | 37.9      | 2.09   | 28.0   | 0.00   | 0.00 | 0.00               |       | 228  | 206  |  |
| 250            | ISL 7.43   | D 7.41    | 33.994    | D 26.570            | 149.8 | 0.597  | 2.61   | 38.7  | 42.4      | 2.22   | 29.9   | 0.00   | 0.00 | 0.00               |       | 251  |      |  |
| 267            | 7.27       | 7.24      | 33.999    | 26.597              | 147.5 | 0.622  | 2.28   | 33.7  | 46.0      | 2.35   | 31.6   | 0.00   | 0.00 | 0.00               |       | 269  | 205  |  |
| 300            | ISL 7.15   | D 7.12    | 34.079    | D 26.677            | 140.4 | 0.670  | 1.72   | 25.4  | 52.3      | 2.56   | 34.1   | 0.00   | 0.00 | 0.00               |       | 302  |      |  |
| 318            | 6.83       | 6.80      | 34.057    | 26.703              | 137.9 | 0.695  | 1.46   | 21.4  | 55.6      | 2.66   | 35.2   | 0.00   | 0.00 | 0.00               |       | 320  | 204  |  |
| 376            | 6.12       | 6.09      | 34.076    | 26.812              | 128.0 | 0.772  | 1.19   | 17.1  | 66.1      | 2.84   | 37.4   | 0.00   | 0.00 | 0.00               |       | 378  | 203  |  |
| 400            | ISL 6.00   | D 5.97    | 34.108    | D 26.852            | 124.4 | 0.802  | 1.05   | 15.1  | 69.5      | 2.91   | 38.1   | 0.00   | 0.00 | 0.00               |       | 403  |      |  |
| 435            | 5.78       | 5.74      | 34.120    | 26.889              | 121.1 | 0.845  | 0.84   | 12.0  | 74.0      | 3.00   | 39.1   | 0.00   | 0.00 | 0.00               |       | 438  | 202  |  |
| 500            | ISL 5.35   | D 5.31    | 34.171    | D 26.982            | 112.7 | 0.921  | 0.56   | 7.9   | 83.2      | 3.12   | 40.4   | 0.00   | 0.00 | 0.00               |       | 503  |      |  |
| 520            | 5.28       | 5.24      | 34.187    | 27.003              | 110.9 | 0.944  | 0.48   | 6.8   | 86.0      | 3.16   | 40.8   | 0.00   | 0.00 | 0.00               |       | 524  | 201  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 80.0 51.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 34 27.3 N      | 120 32.3 W | 26/08/08  | 1905 UTC  | 78 m                | 310   | 25 kn  | 330 09 08 | 0     | 1008.6 mb | 17.0 c | 15.6 c | 06m    |      |                   |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/l      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/l              | ug/l  | db   |      |  |
| 0              | ISL 17.38  | 17.38     | 33.532    | 24.299              | 361.6 | 0.000  | 6.04      | 110.3 | 5.2       | 0.33   | 0.1    | 0.04   | 0.00 | 2.92              | 0.62  | 0    |      |  |
| 1              | A 17.38    | 17.38     | 33.532    | 24.299              | 361.6 | 0.004  | 6.04      | 110.3 | 5.2       | 0.33   | 0.1    | 0.04   | 0.00 | 2.92              | 0.62  | 1    | 214  |  |
| 4              | A 17.43    | 17.43     | 33.532    | 24.287              | 362.8 | 0.014  | 6.03      | 110.2 | 5.1       | 0.33   | 0.1    | 0.04   | 0.17 | 3.02              | 0.50  | 4    | 212  |  |
| 4              | 17.41      | 17.41     | 33.532    | 24.292              | 362.4 | 0.014  |           |       |           |        |        |        |      |                   |       | 4    | 213  |  |
| 8              | A 17.37    | 17.37     | 33.525    | 24.296              | 362.1 | 0.029  | 6.03      | 110.1 | 5.1       | 0.34   | 0.2    | 0.04   | 0.66 | 3.76              | 0.80  | 8    | 210  |  |
| 8              | 17.29      | 17.29     | 33.528    | 24.317              | 360.1 | 0.029  |           |       |           |        |        |        |      |                   |       | 8    | 211  |  |
| 10             | ISL 13.69  | D 13.69   | 33.412    | D 25.025            | 292.7 | 0.035  | 6.09      | 103.2 | 5.6       | 0.39   | 0.6    | 0.05   | 0.63 | 3.43              | 0.78  | 10   |      |  |
| 12             | A 15.72    | 15.72     | 33.480    | 24.643              | 329.2 | 0.042  | 6.12      | 108.1 | 6.3       | 0.48   | 1.5    | 0.07   | 0.55 | 3.10              | 0.76  | 12   | 209  |  |
| 16             | A 13.02    | 13.02     | 33.393    | 25.145              | 281.4 | 0.054  | 5.87      | 98.1  | 7.6       | 0.74   | 5.3    | 0.14   | 0.72 | 0.79              | 0.45  | 16   | 207  |  |
| 16             | 12.82      | 12.82     | 33.388    | 25.181              | 278.0 | 0.054  |           |       |           |        |        |        |      |                   |       | 16   | 208  |  |
| 20             | ISL 12.09  | D 12.09   | 33.417    | D 25.344            | 262.6 | 0.065  | 5.33      | 87.4  | 9.1       | 0.96   | 9.2    | 0.12   | 0.47 | 0.64              | 0.40  | 20   |      |  |
| 23             | A 12.02    | 12.02     | 33.432    | 25.369              | 260.3 | 0.073  | 4.93      | 80.7  | 10.1      | 1.09   | 11.5   | 0.08   | 0.24 | 0.52              | 0.37  | 23   | 206  |  |
| 30             | ISL 11.90  | D 11.90   | 33.462    | D 25.415            | 256.1 | 0.091  | 4.84      | 79.0  | 10.9      | 1.13   | 12.1   | 0.07   | 0.39 | 0.46              | 0.36  | 30   |      |  |
| 33             | 11.91      | 11.91     | 33.458    | 25.410              | 256.6 | 0.098  | 4.80      | 78.4  | 11.0      | 1.15   | 12.4   | 0.06   | 0.50 | 0.44              | 0.36  | 33   | 204  |  |
| 33             | 11.90      | 11.90     | 33.459    | 25.412              | 256.4 | 0.098  |           |       |           |        |        |        |      |                   |       | 33   | 205  |  |
| 40             | 11.82      | 11.81     | 33.482    | 25.445              | 253.4 | 0.116  | 4.70      | 76.6  | 11.6      | 1.19   | 13.2   | 0.05   | 0.34 | 0.25              | 0.26  | 40   | 203  |  |
| 50             | ISL 11.46  | D 11.45   | 33.551    | D 25.566            | 242.2 | 0.141  | 4.32      | 69.9  | 13.7      | 1.33   | 15.3   | 0.02   | 0.49 | 0.20              | 0.25  | 50   |      |  |
| 51             | 11.46      | 11.45     | 33.550    | 25.565              | 242.3 | 0.143  | 4.28      | 69.3  | 13.9      | 1.34   | 15.5   | 0.02   | 0.51 | 0.19              | 0.25  | 51   | 202  |  |
| 60             | 11.34      | 11.33     | 33.580    | 25.610              | 238.2 | 0.165  | 4.10      | 66.2  | 15.4      | 1.42   | 16.4   | 0.05   | 0.41 |                   |       | 60   | 201  |  |

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

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

STATION 80.0 55.0

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS:PRIMARY T: PRIMARY CORRECTED S:

STATION 80.0 60.0

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |          |        |        |      |           |        |        |        |      | STATION 80.0 70.0 |       |      |      |     |
|----------------|------------|-----------|-----------|---------------------|----------|--------|--------|------|-----------|--------|--------|--------|------|-------------------|-------|------|------|-----|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND     | SPEED  | WAVES  | WEA  | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |     |
| 33 49.1 N      | 121 50.6 W | 27/08/08  | 0900 UTC  | 3630 m              | 320      | 15 kn  |        |      | 1010.4 mb | 16.2 C | 14.5 C |        |      |                   |       |      |      |     |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA      | DYN HT | OXYGEN | OXY  | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |     |
| m              | DEG C      | DEG C     |           | THETA               |          |        | ml/L   | PCT  | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |     |
| 0              | ISL        | 16.33     | 16.33     | 33.295              | 24.362   | 355.5  | 0.000  |      |           |        |        |        |      |                   |       |      | 0    |     |
| 9              |            | 16.33     | 16.33     | 33.295              | 24.362   | 355.5  | 0.004  |      |           |        |        |        |      |                   |       |      | 9    | 222 |
| 9              |            | 16.33     | 16.33     | 33.296              | 24.363   | 355.7  | 0.032  |      |           |        |        |        |      |                   |       |      | 9    | 221 |
| 10             |            | 16.34     | 16.34     | 33.297              | 24.362   | 355.9  | 0.036  | 5.75 | 102.7     | 2.4    | 0.36   | 0.1    | 0.02 | 0.32              | 0.30  | 0.12 | 10   | 220 |
| 19             |            | 16.34     | 16.34     | 33.298              | 24.363   | 356.1  | 0.068  | 5.76 | 102.9     | 2.2    | 0.37   | 0.1    | 0.02 | 0.38              | 0.29  | 0.12 | 19   | 219 |
| 20             | ISL        | 16.34     | D 16.34   | 33.296              | D 24.361 | 356.2  | 0.071  | 5.76 | 102.9     | 2.2    | 0.37   | 0.1    | 0.02 | 0.38              | 0.29  | 0.12 | 20   |     |
| 30             |            | 16.28     | 16.28     | 33.323              | 24.396   | 353.2  | 0.107  | 5.76 | 102.8     | 2.1    | 0.37   | 0.1    | 0.02 | 0.36              | 0.31  | 0.15 | 30   | 218 |
| 35             |            | 15.78     | 15.77     | 33.415              | 24.580   | 355.9  | 0.124  | 5.83 | 103.1     | 1.9    | 0.42   | 0.6    | 0.09 | 0.73              | 0.49  | 0.19 | 35   | 217 |
| 40             |            | 14.58     | 14.57     | 33.392              | 24.825   | 312.6  | 0.140  | 5.80 | 100.1     | 2.8    | 0.58   | 2.0    | 0.31 | 1.00              | 0.79  | 0.34 | 40   | 216 |
| 49             |            | 12.56     | 12.55     | 33.132              | 25.034   | 292.8  | 0.167  | 5.73 | 94.7      | 5.5    | 0.80   | 5.5    | 0.46 | 0.59              | 0.58  | 0.34 | 49   | 215 |
| 50             | ISL        | 12.24     | D 12.23   | 33.074              | D 25.050 | 291.3  | 0.170  | 5.72 | 93.9      | 5.7    | 0.81   | 5.8    | 0.45 | 0.53              | 0.55  | 0.33 | 50   |     |
| 60             |            | 11.67     | 11.66     | 33.105              | 25.181   | 279.0  | 0.199  | 5.60 | 90.8      | 7.9    | 0.95   | 8.6    | 0.27 | 0.05              | 0.26  | 0.19 | 60   | 214 |
| 69             |            | 11.46     | 11.45     | 33.305              | 25.375   | 260.8  | 0.223  | 5.34 | 86.3      | 10.8   | 1.13   | 12.2   | 0.02 | 0.09              | 0.11  | 0.12 | 69   | 213 |
| 75             | ISL        | 11.01     | D 11.00   | 33.345              | D 25.487 | 250.2  | 0.238  | 5.11 | 81.8      | 12.9   | 1.23   | 14.0   | 0.02 | 0.10              | 0.06  | 0.09 | 75   |     |
| 85             |            | 10.13     | 10.12     | 33.316              | 25.617   | 237.9  | 0.263  | 4.72 | 74.1      | 16.0   | 1.38   | 16.3   | 0.01 | 0.12              | 0.03  | 0.06 | 85   | 212 |
| 100            | ISL        | 9.73      | D 9.72    | 33.509              | D 25.835 | 217.5  | 0.297  | 4.22 | 65.7      | 18.5   | 1.53   | 18.9   | 0.01 | 0.04              | 0.02  | 0.04 | 100  |     |
| 101            |            | 9.72      | 9.71      | 33.513              | 25.840   | 217.0  | 0.299  | 4.19 | 65.3      | 18.6   | 1.54   | 19.1   | 0.01 | 0.03              | 0.02  | 0.04 | 101  | 211 |
| 119            |            | 9.40      | 9.39      | 33.666              | 26.012   | 201.0  | 0.337  | 3.64 | 56.4      | 22.8   | 1.75   | 22.4   | 0.01 | 0.00              | 0.01  | 0.03 | 120  | 210 |
| 125            | ISL        | 9.17      | D 9.16    | 33.766              | D 26.127 | 190.1  | 0.348  | 3.47 | 53.5      | 24.5   | 1.81   | 23.4   | 0.01 | 0.00              | 0.01  | 0.03 | 126  |     |
| 139            |            | 8.96      | 8.95      | 33.873              | 26.245   | 179.2  | 0.374  | 3.12 | 47.9      | 28.5   | 1.94   | 25.3   | 0.00 | 0.00              | 0.01  | 0.04 | 140  | 209 |
| 150            | ISL        | 8.72      | D 8.70    | 33.897              | D 26.301 | 174.0  | 0.394  | 2.93 | 44.7      | 30.9   | 2.01   | 26.4   | 0.00 | 0.05              | 0.01  | 0.03 | 151  |     |
| 169            |            | 8.39      | 8.37      | 33.977              | 26.415   | 163.5  | 0.426  | 2.69 | 40.8      | 34.3   | 2.10   | 27.7   | 0.00 | 0.15              | 0.00  | 0.02 | 170  | 208 |
| 200            | ISL        | 8.04      | D 8.02    | 34.006              | D 26.490 | 156.8  | 0.475  | 2.48 | 37.3      | 38.3   | 2.20   | 29.2   | 0.00 | 0.28              | 0.00  | 0.02 | 201  |     |
| 202            |            | 8.00      | 7.98      | 34.009              | 26.499   | 156.0  | 0.479  | 2.47 | 37.1      | 38.6   | 2.21   | 29.3   | 0.00 | 0.28              | 0.00  | 0.02 | 203  | 207 |
| 230            |            | 7.63      | 7.61      | 34.025              | 26.566   | 150.0  | 0.521  | 2.19 | 32.6      | 43.6   | 2.33   | 31.1   | 0.00 | 0.03              |       |      | 231  | 206 |
| 250            | ISL        | 7.42      | D 7.40    | 34.036              | D 26.604 | 146.5  | 0.551  | 1.97 | 29.2      | 47.7   | 2.43   | 32.5   | 0.00 | 0.01              |       |      | 251  |     |
| 266            |            | 7.10      | 7.07      | 34.042              | 26.654   | 141.9  | 0.574  | 1.79 | 26.4      | 51.1   | 2.52   | 33.6   | 0.00 | 0.00              |       |      | 268  | 205 |
| 300            | ISL        | 6.68      | D 6.65    | 34.070              | D 26.733 | 134.7  | 0.621  | 1.45 | 21.1      | 57.5   | 2.69   | 35.7   | 0.00 | 0.00              |       |      | 302  |     |
| 317            |            | 6.53      | 6.50      | 34.072              | 26.755   | 132.8  | 0.644  | 1.30 | 18.9      | 60.5   | 2.76   | 36.6   | 0.00 | 0.00              |       |      | 319  | 204 |
| 378            |            | 6.06      | 6.03      | 34.114              | 26.849   | 124.4  | 0.722  | 0.96 | 13.8      | 69.4   | 2.93   | 38.3   | 0.00 | 0.00              |       |      | 380  | 203 |
| 400            | ISL        | 6.05      | D 6.02    | 34.163              | D 26.890 | 120.9  | 0.749  | 0.77 | 11.1      | 71.9   | 3.00   | 38.7   | 0.00 | 0.00              |       |      | 403  |     |
| 437            |            | 6.02      | 5.98      | 34.227              | 26.944   | 116.2  | 0.793  | 0.48 | 6.9       | 75.6   | 3.11   | 39.2   | 0.00 | 0.00              |       |      | 440  | 202 |
| 500            | ISL        | 5.63      | D 5.59    | 34.264              | D 27.022 | 109.3  | 0.864  | 0.31 | 4.4       | 81.1   | 3.20   | 39.9   | 0.00 | 0.24              |       |      | 503  |     |
| 515            |            | 5.82      | 5.78      | 34.314              | 27.039   | 108.2  | 0.881  | 0.27 | 3.9       | 82.4   | 3.22   | 40.1   | 0.00 | 0.30              |       |      | 519  | 201 |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |          |        |           |      |           |        |        |        |      | STATION 80.0 80.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|----------|--------|-----------|------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND     | SPEED  | WAVES     | WEA  | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 33 29.8 N      | 122 34.0 W | 27/08/08  | 1702 UTC  | 3995 m              | 330      | 12 kn  | 340 06 06 | 2    | 1012.0 mb | 16.8 C | 15.0 C | 13m    |      |                   |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA      | DYN HT | OXYGEN    | OXY  | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |          |        | ml/l      | PCT  | uM/l      | uM/l   | uM/l   | uM/l   | uM/l | ug/l              | ug/l  | db   |      |  |
| 0              | ISL        | 17.12     | 17.12     | 33.430              | 24.282   | 363.1  | 0.000     | 5.62 | 102.1     | 1.8    | 0.33   | 0.0    | 0.00 | 0.07              | 0.31  | 0.06 | 0    |  |
| 2              | A          | 17.12     | 17.12     | 33.430              | 24.282   | 363.2  | 0.007     | 5.62 | 102.1     | 1.8    | 0.33   | 0.0    | 0.00 | 0.07              | 0.31  | 0.06 | 2    |  |
| 8              |            | 17.12     | 17.12     | 33.429              | 24.282   | 363.4  | 0.029     |      |           |        |        |        |      |                   |       |      | 8    |  |
| 9              | A          | 17.12     | 17.12     | 33.429              | 24.282   | 363.5  | 0.033     | 5.64 | 102.4     | 1.7    | 0.32   | 0.0    | 0.00 | 0.04              | 0.33  | 0.04 | 9    |  |
| 10             | ISL        | 17.11     | D 17.11   | 33.428              | D 24.283 | 363.4  | 0.036     | 5.64 | 102.4     | 1.7    | 0.32   | 0.0    | 0.00 | 0.05              | 0.33  | 0.04 | 10   |  |
| 19             | A          | 17.10     | 17.10     | 33.439              | 24.295   | 362.6  | 0.069     | 5.63 | 102.2     | 1.7    | 0.32   | 0.0    | 0.00 | 0.08              | 0.37  | 0.04 | 19   |  |
| 20             | ISL        | 17.10     | D 17.10   | 33.436              | D 24.292 | 362.8  | 0.073     | 5.63 | 102.2     | 1.7    | 0.32   | 0.0    | 0.00 | 0.06              | 0.37  | 0.04 | 20   |  |
| 27             | A          | 17.09     | 17.09     | 33.471              | 24.322   | 360.3  | 0.098     | 5.64 | 102.4     | 1.8    | 0.31   | 0.0    | 0.01 | 0.00              | 0.38  | 0.08 | 27   |  |
| 30             | ISL        | 17.02     | D 17.02   | 33.500              | D 24.361 | 356.7  | 0.109     | 5.75 | 104.2     | 1.9    | 0.32   | 0.0    | 0.01 | 0.09              | 0.61  | 0.13 | 30   |  |
| 36             | A          | 16.11     | 16.10     | 33.567              | 24.623   | 331.9  | 0.129     | 5.93 | 105.6     | 2.0    | 0.34   | 0.1    | 0.02 | 0.26              | 1.23  | 0.32 | 36   |  |
| 41             |            | 14.97     | 14.96     | 33.540              | 24.855   | 309.8  | 0.145     | 5.86 | 102.0     | 3.3    | 0.53   | 2.0    | 0.13 | 0.94              | 1.71  | 0.63 | 41   |  |
| 48             | A          | 14.44     | 14.43     | 33.553              | 24.979   | 298.2  | 0.167     | 5.58 | 96.1      | 5.6    | 0.69   | 4.1    | 0.43 | 0.71              | 0.78  | 0.40 | 48   |  |
| 50             | ISL        | 13.91     | D 13.90   | 33.525              | D 25.068 | 289.7  | 0.173     | 5.51 | 93.9      | 6.3    | 0.75   | 5.2    | 0.40 | 0.59              | 0.64  | 0.36 | 50   |  |
| 60             |            | 12.29     | 12.28     | 33.378              | 25.277   | 270.0  | 0.201     | 5.19 | 85.4      | 9.8    | 1.06   | 10.8   | 0.10 | 0.07              | 0.29  | 0.22 | 60   |  |
| 69             |            | 11.55     | 11.54     | 33.466              | 25.484   | 250.5  | 0.224     | 4.83 | 78.3      | 12.8   | 1.28   | 14.5   | 0.04 | 0.01              | 0.11  | 0.15 | 69   |  |
| 75             | ISL        | 11.25     | D 11.24   | 33.518              | D 25.579 | 241.5  | 0.239     | 4.54 | 73.1      | 14.7   | 1.41   | 16.5   | 0.03 | 0.01              | 0.09  | 0.13 | 75   |  |
| 87             |            | 10.72     | 10.71     | 33.652              | 25.778   | 222.8  | 0.267     | 4.05 | 64.5      | 18.4   | 1.62   | 19.7   | 0.02 | 0.00              | 0.04  | 0.10 | 87   |  |
| 100            |            | 9.67      | 9.66      | 33.638              | 25.946   | 206.9  | 0.295     | 3.92 | 61.0      | 22.3   | 1.76   | 22.2   | 0.00 | 0.03              | 0.01  | 0.07 | 100  |  |
| 119            |            | 9.47      | 9.46      | 33.777              | D 26.087 | 193.9  | 0.333     |      |           |        |        |        |      |                   | 0.02  | 0.08 | 120  |  |
| 125            | ISL        | 9.39      | D 9.38    | 33.830              | D 26.142 | 188.8  | 0.344     | 3.35 | 51.9      | 26.5   | 1.93   | 24.8   | 0.00 | 0.01              | 0.02  | 0.08 | 126  |  |
| 140            |            | 9.12      | 9.10      | 33.862              | 26.211   | 182.5  | 0.372     | 3.00 | 46.2      | 28.1   | 1.98   | 25.6   | 0.00 | 0.00              | 0.01  | 0.06 | 141  |  |
| 150            | ISL        | 8.92      | D 8.90    | 33.899              | D 26.271 | 176.9  | 0.390     | 2.92 | 44.8      | 29.5   | 2.00   | 26.1   | 0.00 | 0.00              | 0.01  | 0.06 | 151  |  |
| 170            |            | 8.48      | 8.46      | 33.947              | 26.378   | 167.1  | 0.424     | 2.82 | 42.8      | 32.4   | 2.03   | 27.1   | 0.00 | 0.00              | 0.01  | 0.06 | 171  |  |
| 199            |            | 8.11      | 8.09      | 33.987              | 26.465   | 159.2  | 0.472     | 2.63 | 39.6      | 36.5   | 2.13   | 28.6   | 0.00 | 0.00              | 0.00  | 0.03 | 200  |  |
| 200            | ISL        | 8.08      | D 8.06    | 33.991              | D 26.473 | 158.5  | 0.473     | 2.62 | 39.4      | 36.7   | 2.13   | 28.7   | 0.00 | 0.00              |       |      | 201  |  |
| 228            |            | 7.74      | 7.72      | 34.013              | 26.540   | 152.4  | 0.517     | 2.29 | 34.2      | 41.4   | 2.27   | 30.4   | 0.02 | 0.00              |       |      | 229  |  |
| 250            | ISL        | 7.46      | D 7.44    | 34.030              | D 26.594 | 147.5  | 0.550     | 2.02 | 30.0      | 45.2   | 2.39   | 31.9   | 0.01 | 0.00              |       |      | 251  |  |
| 268            |            | 7.31      | 7.28      | 34.041              | 26.624   | 144.9  | 0.576     | 1.81 | 26.8      | 48.4   | 2.49   | 33.1   | 0.00 | 0.00              |       |      | 270  |  |
| 300            | ISL        | 6.98      | D 6.95    | 34.065              | D 26.689 | 139.1  | 0.621     | 1.47 | 21.6      | 54.1   | 2.64   | 34.9   | 0.00 | 0.00              |       |      | 302  |  |
| 319            |            | 6.78      | 6.75      | 34.077              | 26.726   | 135.8  | 0.648     | 1.30 | 19.0      | 57.5   | 2.72   | 35.8   | 0.00 | 0.00              |       |      | 321  |  |
| 380            |            | 6.08      | 6.05      | 34.110              | 26.844   | 125.0  | 0.727     | 0.93 | 13.4      | 69.1   | 2.93   | 38.5   | 0.00 | 0.00              |       |      | 382  |  |
| 400            | ISL        | 5.90      | D 5.87    | 34.130              | D 26.882 | 121.4  | 0.752     | 0.84 | 12.0      | 72.3   | 2.98   | 39.0   | 0.00 | 0.00              |       |      | 403  |  |
| 437            |            | 5.66      | 5.62      | 34.147              | 26.925   | 117.6  | 0.796     | 0.69 | 9.8       | 77.8   | 3.05   | 39.7   | 0.00 | 0.00              |       |      | 440  |  |
| 500            | ISL        | 5.33      | D 5.29    | 34.196              | D 27.004 | 110.6  | 0.868     | 0.49 | 6.9       | 85.8   | 3.15   | 40.9   | 0.00 | 0.00              |       |      | 503  |  |
| 512            |            | 5.27      | 5.23      | 34.199              | 27.014   | 109.8  | 0.881     | 0.45 | 6.3       | 87.3   | 3.17   | 41.1   | 0.00 | 0.00              |       |      | 516  |  |

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 80.0 90.0 |       |      |      |     |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|-----|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |     |
| 33 9.0 N       | 123 13.3 W | 27/08/08  | 2219 UTC  | 4235 m              | 350   | 06 kn  | 340 06 08 | 2     | 1011.5 mb | 18.3 c | 16.1 c | 19m    |      | 8/8               | ST    |      |      |     |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |     |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |     |
| 0              | ISL 17.40  | 17.40     | 32.929    | 23.832              | 406.1 | 0.000  | 5.75      | 104.7 | 0.8       | 0.38   | 0.0    | 0.00   | 0.00 | 0.18              | 0.02  | 0    |      |     |
| 2              | 17.40      | 17.40     | 32.929    | 23.832              | 406.1 | 0.008  | 5.75      | 104.7 | 0.8       | 0.38   | 0.0    | 0.00   | 0.00 | 0.18              | 0.02  | 2    | 221  |     |
| 9              | 17.26      | 17.26     | 32.927    | 23.864              | 403.3 | 0.036  | 5.75      | 104.4 | 0.8       | 0.38   | 0.0    | 0.00   | 0.17 | 0.20              | 0.02  | 9    | 219  |     |
| 9              | 17.26      | 17.26     | 32.928    | 23.865              | 403.3 | 0.036  |           |       |           |        |        |        |      |                   |       |      | 9    | 220 |
| 10             | ISL 17.25  | D 17.25   | 32.924    | D 23.864            | 403.4 | 0.040  | 5.75      | 104.4 | 0.8       | 0.38   | 0.0    | 0.00   | 0.17 | 0.20              | 0.02  | 10   |      |     |
| 20             | ISL 17.23  | D 17.23   | 32.925    | D 23.870            | 403.1 | 0.081  | 5.76      | 104.5 | 0.9       | 0.38   | 0.0    | 0.00   | 0.16 | 0.20              | 0.03  | 20   |      |     |
| 24             | 17.17      | 17.17     | 32.928    | 23.886              | 401.7 | 0.097  | 5.76      | 104.4 | 0.9       | 0.38   | 0.0    | 0.00   | 0.16 | 0.20              | 0.03  | 24   | 218  |     |
| 30             | ISL 15.61  | D 15.61   | 32.999    | D 24.298            | 362.6 | 0.120  | 5.91      | 103.9 | 1.3       | 0.40   | 0.3    | 0.01   | 0.12 | 0.26              | 0.06  | 30   |      |     |
| 39             | 15.10      | 15.09     | 32.985    | 24.399              | 353.2 | 0.152  | 6.11      | 106.3 | 1.9       | 0.43   | 0.7    | 0.02   | 0.06 | 0.36              | 0.13  | 39   | 217  |     |
| 49             | 14.16      | 14.15     | 32.912    | 24.543              | 339.7 | 0.187  | 6.09      | 103.9 | 2.5       | 0.43   | 0.2    | 0.01   | 0.40 | 0.45              | 0.22  | 49   | 216  |     |
| 50             | ISL 13.60  | D 13.59   | 32.958    | D 24.693            | 325.3 | 0.190  | 6.08      | 102.6 | 2.6       | 0.44   | 0.3    | 0.05   | 0.40 | 0.44              | 0.22  | 50   |      |     |
| 62             | 12.85      | 12.84     | 32.889    | 24.790              | 316.4 | 0.229  | 5.92      | 98.3  | 3.6       | 0.55   | 1.0    | 0.43   | 0.42 | 0.37              | 0.28  | 62   | 215  |     |
| 74             | 11.99      | 11.98     | 32.972    | 25.018              | 294.8 | 0.265  | 5.70      | 93.0  | 5.3       | 0.71   | 4.6    | 0.08   | 0.00 | 0.13              | 0.17  | 74   | 214  |     |
| 75             | ISL 11.99  | D 11.98   | 33.013    | D 25.050            | 291.8 | 0.268  | 5.69      | 92.8  | 5.5       | 0.73   | 4.9    | 0.07   | 0.00 | 0.12              | 0.16  | 75   |      |     |
| 86             | 11.55      | 11.54     | 33.079    | 25.183              | 279.4 | 0.300  | 5.56      | 89.9  | 8.0       | 0.89   | 8.0    | 0.02   | 0.00 | 0.08              | 0.10  | 86   | 213  |     |
| 100            | ISL 10.31  | D 10.30   | 33.135    | D 25.446            | 254.5 | 0.337  | 5.49      | 86.4  | 10.0      | 1.02   | 10.1   | 0.01   | 0.04 | 0.03              | 0.05  | 100  |      |     |
| 101            | 10.40      | 10.39     | 33.020    | 25.341              | 264.5 | 0.340  | 5.48      | 86.4  | 10.2      | 1.03   | 10.3   | 0.01   | 0.04 | 0.03              | 0.05  | 101  | 212  |     |
| 111            | 10.14      | 10.13     | 33.226    | 25.546              | 245.2 | 0.365  | 5.06      | 79.4  | 13.5      | 1.24   | 13.8   | 0.01   | 0.00 | 0.02              | 0.04  | 111  | 211  |     |
| 124            | 9.66       | 9.65      | 33.308    | 25.690              | 231.7 | 0.396  | 4.65      | 72.2  | 17.2      | 1.44   | 17.1   | 0.00   | 0.00 | 0.01              | 0.03  | 125  | 210  |     |
| 125            | ISL 9.61   | D 9.60    | 33.334    | D 25.719            | 229.0 | 0.398  | 4.63      | 71.9  | 17.3      | 1.45   | 17.2   | 0.00   | 0.00 | 0.01              | 0.03  | 126  |      |     |
| 139            | 9.52       | 9.50      | 33.418    | 25.799              | 221.6 | 0.430  | 4.36      | 67.6  | 19.2      | 1.55   | 18.8   | 0.00   | 0.00 | 0.01              | 0.05  | 140  | 209  |     |
| 150            | ISL 9.66   | D 9.64    | 33.672    | D 25.975            | 205.2 | 0.453  | 3.97      | 61.8  | 21.9      | 1.68   | 21.0   | 0.00   | 0.00 | 0.01              | 0.04  | 151  |      |     |
| 164            | 9.30       | 9.28      | 33.791    | 26.127              | 191.0 | 0.481  | 3.44      | 53.2  | 25.6      | 1.86   | 23.9   | 0.00   | 0.00 | 0.01              | 0.03  | 165  | 208  |     |
| 200            | ISL 8.67   | D 8.65    | 33.968    | D 26.365            | 168.9 | 0.546  | 2.68      | 40.9  | 32.0      | 2.09   | 27.2   | 0.00   | 0.00 | 0.00              | 0.03  | 201  |      |     |
| 201            | 8.72       | 8.70      | 33.957    | 26.349              | 170.5 | 0.548  | 2.67      | 40.8  | 32.1      | 2.09   | 27.2   | 0.00   | 0.00 | 0.00              | 0.03  | 202  | 207  |     |
| 228            | 8.23       | 8.21      | 33.986    | 26.447              | 161.5 | 0.592  | 3.09      | 46.7  | 33.8      | 1.98   | 26.3   | 0.00   | 0.00 |                   |       | 229  | 206  |     |
| 250            | ISL 7.90   | D 7.87    | 34.009    | D 26.514            | 155.4 | 0.627  | 2.73      | 40.9  | 38.0      | 2.12   | 28.4   | 0.00   | 0.00 |                   |       | 251  |      |     |
| 268            | 7.72       | 7.69      | 34.023    | 26.552              | 152.0 | 0.655  | 2.25      | 33.6  | 42.2      | 2.30   | 30.7   | 0.00   | 0.00 |                   |       | 270  | 205  |     |
| 300            | ISL 7.41   | D 7.38    | 34.071    | D 26.634            | 144.6 | 0.702  | 1.62      | 24.0  | 48.6      | 2.54   | 33.0   | 0.00   | 0.00 |                   |       | 302  |      |     |
| 318            | 7.40       | 7.37      | 34.117    | 26.672              | 141.3 | 0.728  | 1.32      | 19.6  | 51.9      | 2.65   | 34.0   | 0.00   | 0.00 |                   |       | 320  | 204  |     |
| 379            | 6.85       | 6.81      | 34.160    | 26.783              | 131.4 | 0.811  | 0.94      | 13.8  | 60.5      | 2.86   | 36.1   | 0.00   | 0.00 |                   |       | 381  | 203  |     |
| 400            | ISL 6.72   | D 6.68    | 34.174    | D 26.811            | 128.9 | 0.839  | 0.84      | 12.3  | 63.6      | 2.92   | 36.8   | 0.00   | 0.00 |                   |       | 403  |      |     |
| 437            | 6.35       | 6.31      | 34.184    | 26.868              | 123.7 | 0.885  | 0.70      | 10.1  | 68.9      | 3.01   | 37.9   | 0.00   | 0.00 |                   |       | 440  | 202  |     |
| 500            | ISL 5.92   | D 5.88    | 34.227    | D 26.958            | 115.8 | 0.961  | 0.48      | 6.9   | 77.4      | 3.13   | 39.4   | 0.00   | 0.00 |                   |       | 503  |      |     |
| 519            | 5.81       | 5.77      | 34.246    | 26.986              | 113.2 | 0.983  | 0.41      | 5.9   | 79.9      | 3.17   | 39.8   | 0.00   | 0.00 |                   |       | 522  | 201  |     |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 80.0 100.0 |       |      |      |
|----------------|------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|--------------------|-------|------|------|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT                | TYPE  |      |      |
| 32 49.0 N      | 123 54.5 W | 28/08/08  | 0449 UTC  | 4359 m              | 350   | 07 kn  |        |       | 1011.1 mb | 17.0 C | 15.1 C |        |      |                    |       |      |      |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A              | PHAE0 | PRES | SAMP |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L               | ug/L  | db   |      |
| 0              | ISL 17.57  | 17.57     | 32.928    | 23.791              | 410.0 | 0.000  | 5.63   | 102.8 | 1.8       | 0.34   | 0.0    | 0.00   | 0.08 | 0.10               | 0.02  | 0    |      |
| 3              | 17.57      | 17.57     | 32.928    | 23.791              | 410.1 | 0.012  | 5.63   | 102.8 | 1.8       | 0.34   | 0.0    | 0.00   | 0.08 | 0.10               | 0.02  | 3    | 221  |
| 9              | 17.33      | 17.33     | 32.945    | 23.861              | 403.6 | 0.037  | 5.69   | 103.4 | 1.8       | 0.35   | 0.0    | 0.00   | 0.13 | 0.14               | 0.03  | 9    | 219  |
| 10             | ISL 17.26  | D 17.26   | 32.950    | D 23.882            | 401.7 | 0.041  | 5.70   | 103.5 | 1.8       | 0.35   | 0.0    | 0.00   | 0.15 | 0.15               | 0.03  | 10   |      |
| 10             | 17.41      | 17.41     | 32.938    | 23.837              | 405.9 | 0.041  |        |       |           |        |        |        |      |                    |       | 10   | 220  |
| 20             | ISL 17.09  | D 17.09   | 32.960    | D 23.930            | 397.4 | 0.081  | 5.77   | 104.4 | 1.5       | 0.36   | 0.1    | 0.00   | 0.37 | 0.28               | 0.05  | 20   |      |
| 25             | 17.05      | 17.05     | 32.985    | 23.958              | 394.8 | 0.101  | 5.80   | 104.9 | 1.4       | 0.36   | 0.1    | 0.00   | 0.46 | 0.35               | 0.06  | 25   | 218  |
| 30             | ISL 16.96  | D 16.96   | 32.991    | D 23.984            | 392.5 | 0.120  | 5.81   | 104.9 | 1.3       | 0.36   | 0.1    | 0.00   | 0.44 | 0.42               | 0.06  | 30   |      |
| 40             | 16.98      | 16.97     | 33.040    | 24.018              | 389.7 | 0.160  | 5.82   | 105.1 | 1.2       | 0.37   | 0.2    | 0.01   | 0.35 | 0.49               | 0.09  | 40   | 217  |
| 50             | 15.16      | 15.15     | 32.832    | 24.269              | 365.9 | 0.197  | 6.10   | 106.2 | 2.3       | 0.38   | 0.0    | 0.00   | 0.30 | 0.37               | 0.16  | 50   | 216  |
| 62             | 14.06      | 14.05     | 32.926    | 24.575              | 337.0 | 0.239  | 6.30   | 107.3 | 2.5       | 0.61   | 2.6    | 0.11   | 0.60 | 0.51               | 0.28  | 62   | 215  |
| 75             | ISL 14.32  | D 14.31   | 33.107    | D 24.661            | 329.2 | 0.283  | 6.06   | 103.8 | 3.0       | 0.69   | 3.9    | 0.15   | 0.74 | 0.43               | 0.10  | 75   |      |
| 76             | 14.33      | 14.32     | 33.122    | 24.670              | 328.4 | 0.286  | 6.04   | 103.5 | 3.1       | 0.69   | 4.0    | 0.15   | 0.75 | 0.42               | 0.09  | 76   | 214  |
| 87             | 14.14      | 14.13     | 33.152    | 24.734              | 322.6 | 0.322  | 5.94   | 101.4 | 3.7       | 0.73   | 4.5    | 0.19   | 1.05 | 0.39               | 0.26  | 87   | 213  |
| 100            | ISL 11.94  | D 11.93   | 32.872    | D 24.951            | 301.9 | 0.362  | 5.77   | 93.9  | 5.2       | 0.75   | 4.6    | 0.25   | 0.29 | 0.24               | 0.23  | 100  |      |
| 101            | 11.82      | 11.81     | 32.865    | 24.968              | 300.3 | 0.365  | 5.75   | 93.4  | 5.4       | 0.75   | 4.6    | 0.25   | 0.23 | 0.22               | 0.23  | 101  | 212  |
| 112            | 10.71      | 10.70     | 32.935    | 25.222              | 276.2 | 0.397  | 5.49   | 87.1  | 8.2       | 0.94   | 8.6    | 0.01   | 0.33 | 0.06               | 0.14  | 112  | 211  |
| 125            | 9.79       | 9.78      | 32.942    | 25.383              | 260.9 | 0.432  | 5.50   | 85.5  | 12.3      | 1.17   | 12.2   | 0.01   | 0.00 | 0.05               | 0.07  | 126  | 210  |
| 141            | 10.05      | 10.03     | 33.240    | 25.573              | 243.3 | 0.472  | 4.86   | 76.1  | 13.3      | 1.26   | 14.2   | 0.00   | 0.21 | 0.03               | 0.05  | 142  | 209  |
| 150            | ISL 9.71   | D 9.69    | 33.315    | D 25.688            | 232.5 | 0.494  | 4.55   | 70.8  | 15.8      | 1.39   | 16.4   | 0.00   | 0.17 | 0.02               | 0.04  | 151  |      |
| 165            | 9.60       | 9.58      | 33.532    | 25.875              | 214.9 | 0.527  | 4.10   | 63.7  | 20.7      | 1.64   | 20.4   | 0.00   | 0.11 | 0.01               | 0.03  | 166  | 208  |
| 200            | ISL 9.13   | D 9.11    | 33.839    | D 26.192            | 185.5 | 0.597  | 3.32   | 51.1  | 27.1      | 1.90   | 24.9   | 0.00   | 0.12 | 0.00               | 0.02  | 201  |      |
| 202            | 9.12       | 9.10      | 33.845    | 26.198              | 184.9 | 0.601  | 3.29   | 50.7  | 27.4      | 1.91   | 25.0   | 0.00   | 0.12 | 0.00               | 0.02  | 203  | 207  |
| 229            | 8.65       | 8.63      | 33.947    | 26.353              | 170.7 | 0.649  | 2.99   | 45.6  | 30.9      | 1.97   | 26.1   | 0.00   | 0.42 |                    |       | 230  | 206  |
| 250            | ISL 8.40   | D 8.37    | 34.005    | D 26.437            | 163.0 | 0.684  | 2.55   | 38.7  | 34.7      | 2.13   | 28.1   | 0.00   | 0.25 |                    |       | 251  |      |
| 270            | 8.27       | 8.24      | 34.034    | 26.479              | 159.2 | 0.716  | 2.14   | 32.4  | 38.5      | 2.29   | 30.0   | 0.00   | 0.00 |                    |       | 271  | 205  |
| 300            | ISL 7.79   | D 7.76    | 34.037    | D 26.553            | 152.5 | 0.763  | 1.94   | 29.0  | 43.1      | 2.38   | 31.3   | 0.00   | 0.00 |                    |       | 302  |      |
| 319            | 7.60       | 7.57      | 34.055    | 26.595              | 148.8 | 0.792  | 1.88   | 28.0  | 45.9      | 2.42   | 31.9   | 0.00   | 0.00 |                    |       | 321  | 204  |
| 378            | 6.87       | 6.83      | 34.088    | 26.723              | 137.0 | 0.876  | 1.47   | 21.5  | 56.2      | 2.66   | 34.8   | 0.00   | 0.00 |                    |       | 380  | 203  |
| 400            | ISL 6.56   | D 6.52    | 34.092    | D 26.768            | 132.8 | 0.906  | 1.34   | 19.5  | 60.4      | 2.74   | 35.8   | 0.00   | 0.00 |                    |       | 402  |      |
| 439            | 6.08       | 6.04      | 34.101    | 26.837              | 126.4 | 0.956  | 1.11   | 16.0  | 67.8      | 2.86   | 37.5   | 0.00   | 0.00 |                    |       | 442  | 202  |
| 500            | ISL 5.52   | D 5.48    | 34.141    | D 26.938            | 117.1 | 1.031  | 0.77   | 10.9  | 78.7      | 3.02   | 39.6   | 0.00   | 0.00 |                    |       | 503  |      |
| 513            | 5.46       | 5.42      | 34.158    | 26.959              | 115.2 | 1.046  | 0.70   | 9.9   | 81.0      | 3.06   | 40.1   | 0.00   | 0.00 |                    |       | 516  | 201  |

| RV NEW HORIZON |           |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 81.8 46.9 |       |      |      |  |
|----------------|-----------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 34 16.5 N      | 120 2.0 W | 26/08/08  | 1359 UTC  | 583 m               | 240   | 05 kn  | 290 03 08 | 1     | 1007.4 mb | 18.8 c | 17.3 c | 08m    |      | 2/8               | ST    |      |      |  |
| DEPTH          | TEMP      | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C     | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 19.22 | 19.22     | 33.557    | 23.864              | 403.0 | 0.000  | 5.79      | 109.5 | 3.3       | 0.17   | 0.0    | 0.00   | 0.14 | 1.03              | 0.15  | 0    |      |  |
| 2              | A 19.22   | 19.22     | 33.557    | 23.864              | 403.1 | 0.008  | 5.79      | 109.5 | 3.3       | 0.17   | 0.0    | 0.00   | 0.14 | 1.03              | 0.15  | 2    | 224  |  |
| 10             | 17.94     | 17.94     | 33.526    | 24.160              | 375.2 | 0.039  | 6.13      | 113.2 | 3.5       | 0.23   | 0.0    | 0.00   | 0.00 | 1.20              | 0.29  | 10   | 223  |  |
| 19             | 15.21     | 15.21     | 33.467    | 24.746              | 319.6 | 0.070  | 6.13      | 107.2 | 4.9       | 0.45   | 0.9    | 0.07   | 0.00 | 2.19              | 0.75  | 19   | 222  |  |
| 20             | ISL 14.50 | D 14.50   | 33.471    | D 24.902            | 304.7 | 0.074  | 6.06      | 104.5 | 5.2       | 0.49   | 1.5    | 0.12   | 0.00 | 2.05              | 0.73  | 20   |      |  |
| 29             | 13.31     | 13.31     | 33.461    | 25.140              | 282.2 | 0.100  | 5.32      | 89.5  | 7.9       | 0.88   | 7.8    | 0.48   | 0.02 | 0.50              | 0.37  | 29   | 221  |  |
| 30             | ISL 13.08 | D 13.08   | 33.478    | D 25.199            | 276.6 | 0.103  | 5.28      | 88.4  | 8.1       | 0.90   | 8.2    | 0.46   | 0.02 | 0.48              | 0.37  | 30   |      |  |
| 39             | 12.60     | 12.59     | 33.482    | 25.297              | 267.5 | 0.127  | 4.99      | 82.7  | 9.9       | 1.05   | 10.9   | 0.14   | 0.00 | 0.30              | 0.32  | 39   | 220  |  |
| 49             | 11.63     | 11.62     | 33.570    | 25.549              | 243.7 | 0.153  | 4.35      | 70.7  | 14.0      | 1.32   | 15.3   | 0.03   | 0.00 | 0.13              | 0.20  | 49   | 219  |  |
| 50             | ISL 11.50 | D 11.49   | 33.587    | D 25.586            | 240.2 | 0.155  | 4.31      | 69.8  | 14.3      | 1.34   | 15.5   | 0.03   | 0.00 | 0.13              | 0.19  | 50   |      |  |
| 60             | 11.21     | 11.20     | 33.627    | 25.671              | 232.4 | 0.179  | 3.94      | 63.5  | 16.9      | 1.49   | 17.4   | 0.02   | 0.03 | 0.10              | 0.16  | 60   | 218  |  |
| 69             | 10.82     | 10.81     | 33.687    | 25.787              | 221.5 | 0.199  | 3.61      | 57.7  | 19.0      | 1.60   | 19.2   | 0.02   | 0.00 | 0.06              | 0.12  | 69   | 217  |  |
| 75             | ISL 10.54 | D 10.53   | 33.751    | D 25.886            | 212.2 | 0.212  | 3.32      | 52.7  | 21.0      | 1.71   | 20.7   | 0.02   | 0.00 | 0.04              | 0.11  | 75   |      |  |
| 84             | 10.20     | 10.19     | 33.842    | 26.016              | 200.1 | 0.231  | 2.88      | 45.4  | 24.1      | 1.87   | 22.8   | 0.01   | 0.00 | 0.02              | 0.10  | 84   | 216  |  |
| 100            | ISL 9.84  | D 9.83    | 33.974    | D 26.180            | 184.8 | 0.262  | 2.38      | 37.3  | 28.1      | 2.05   | 25.0   | 0.00   | 0.00 | 0.01              | 0.06  | 101  |      |  |
| 101            | 9.85      | 9.84      | 33.970    | 26.175              | 185.2 | 0.264  | 2.36      | 37.0  | 28.3      | 2.06   | 25.1   | 0.00   | 0.00 | 0.01              | 0.06  | 102  | 215  |  |
| 120            | 9.69      | 9.68      | 34.034    | 26.252              | 178.3 | 0.298  | 2.10      | 32.8  | 30.8      | 2.17   | 26.3   | 0.00   | 0.00 | 0.01              | 0.07  | 121  | 214  |  |
| 125            | ISL 9.65  | D 9.64    | 34.053    | D 26.274            | 176.4 | 0.307  | 2.02      | 31.5  | 31.5      | 2.20   | 26.7   | 0.00   | 0.03 | 0.01              | 0.07  | 126  |      |  |
| 139            | 9.49      | 9.47      | 34.081    | 26.322              | 172.1 | 0.331  | 1.80      | 28.0  | 33.3      | 2.28   | 27.7   | 0.00   | 0.10 | 0.01              | 0.07  | 140  | 213  |  |
| 150            | ISL 9.52  | D 9.50    | 34.106    | D 26.337            | 170.9 | 0.350  | 1.66      | 25.8  | 34.5      | 2.33   | 28.2   | 0.00   | 0.08 | 0.01              | 0.07  | 151  |      |  |
| 169            | 9.36      | 9.34      | 34.139    | 26.389              | 166.3 | 0.382  | 1.45      | 22.5  | 36.3      | 2.40   | 28.9   | 0.00   | 0.00 | 0.00              | 0.08  | 170  | 212  |  |
| 200            | ISL 9.17  | D 9.15    | 34.183    | D 26.455            | 160.6 | 0.433  | 1.16      | 17.9  | 38.9      | 2.52   | 30.3   | 0.00   | 0.00 | 0.00              | 0.08  | 201  |      |  |
| 201            | 9.17      | 9.15      | 34.182    | 26.454              | 160.7 | 0.434  | 1.15      | 17.8  | 39.0      | 2.52   | 30.3   | 0.00   | 0.00 | 0.00              | 0.08  | 202  | 211  |  |
| 228            | 9.06      | 9.04      | 34.200    | 26.486              | 158.2 | 0.478  | 1.02      | 15.7  | 40.8      | 2.58   | 30.9   | 0.00   | 0.00 |                   |       | 229  | 210  |  |
| 250            | ISL 8.97  | D 8.94    | 34.213    | D 26.511            | 156.3 | 0.512  | 0.93      | 14.3  | 42.2      | 2.62   | 31.4   | 0.00   | 0.00 |                   |       | 252  |      |  |
| 269            | 8.85      | 8.82      | 34.219    | 26.535              | 154.3 | 0.542  | 0.85      | 13.0  | 43.9      | 2.67   | 31.8   | 0.00   | 0.00 |                   |       | 271  | 209  |  |
| 300            | ISL 8.46  | D 8.43    | 34.230    | D 26.605            | 148.1 | 0.589  | 0.72      | 10.9  | 48.8      | 2.79   | 32.7   | 0.00   | 0.03 |                   |       | 302  |      |  |
| 317            | 8.27      | 8.24      | 34.235    | 26.638              | 145.2 | 0.613  | 0.66      | 10.0  | 51.6      | 2.85   | 33.2   | 0.00   | 0.04 |                   |       | 319  | 208  |  |
| 377            | 7.89      | 7.85      | 34.231    | 26.692              | 140.8 | 0.699  | 0.53      | 8.0   | 57.4      | 2.95   | 34.0   | 0.00   | 0.00 |                   |       | 379  | 207  |  |
| 400            | ISL 7.68  | D 7.64    | 34.235    | D 26.726            | 137.9 | 0.731  | 0.50      | 7.5   | 59.6      | 2.98   | 34.2   | 0.00   | 0.04 |                   |       | 403  |      |  |
| 437            | 7.33      | 7.29      | 34.243    | 26.783              | 132.8 | 0.781  | 0.39      | 5.8   | 66.7      | 3.08   | 34.5   | 0.00   | 0.08 |                   |       | 440  | 206  |  |
| 476            | 6.79      | 6.75      | 34.248    | 26.861              | 125.5 | 0.832  | 0.08      | 1.2   | 83.4      | 3.34   | 32.7   | 0.00   | 0.00 |                   |       | 479  | 205  |  |
| 500            | ISL 6.67  | D 6.62    | 34.249    | D 26.878            | 124.1 | 0.862  | 0.06      | 0.9   | 86.9      | 3.38   | 32.2   | 0.00   | 0.00 |                   |       | 503  |      |  |
| 510            | 6.65      | 6.60      | 34.247    | 26.880              | 124.1 | 0.874  | 0.05      | 0.7   | 88.1      | 3.40   | 31.9   | 0.00   | 0.00 |                   |       | 514  | 204  |  |
| 543            | 6.50      | 6.45      | 34.249    | 26.901              | 122.4 | 0.915  | 0.02      | 0.3   | 98.3      | 3.56   | 29.2   | 0.00   | 0.00 |                   |       | 547  | 203  |  |
| 565            | 6.43      | 6.38      | 34.248    | 26.910              | 121.8 | 0.942  | 0.01      | 0.1   | 112.1     | 3.79   | 23.5   | 0.00   | 1.61 |                   |       | 569  | 202  |  |
| 571            | 6.43      | 6.38      | 34.250    | 26.912              | 121.7 | 0.949  | 0.01      | 0.1   | 112.5     | 3.79   | 23.3   | 0.00   | 1.71 |                   |       | 575  | 201  |  |

A) SANTA BARBARA BASIN STATION.

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 83.3 40.6 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 34 13.4 N      | 119 25.1 W | 26/08/08  | 0929 UTC  | 38 m                | 090   | 07 kn  |        |       | 1006.4 mb | 20.1 c | 18.6 c |        |      |                   |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 20.60  | 20.60     | 33.553    | 23.501              | 437.6 | 0.000  | 5.76   | 111.8 | 3.8       | 0.15   | 0.0    | 0.00   | 0.29 | 0.78              | 0.12  | 0    |      |  |
| 1              | 20.60      | 20.60     | 33.553    | 23.501              | 437.7 | 0.004  | 5.76   | 111.8 | 3.8       | 0.15   | 0.0    | 0.00   | 0.29 | 0.78              | 0.12  | 1    | 208  |  |
| 4              | 20.36      | 20.36     | 33.542    | 23.557              | 432.5 | 0.017  |        |       |           |        |        |        |      |                   |       | 4    | 207  |  |
| 5              | 19.55      | 19.55     | 33.536    | 23.764              | 412.8 | 0.022  | 5.89   | 112.1 | 3.6       | 0.16   | 0.0    | 0.00   | 0.41 | 0.80              | 0.12  | 5    | 206  |  |
| 9              | 16.43      | 16.43     | 33.420    | 24.436              | 348.8 | 0.037  |        |       |           |        |        |        |      |                   |       | 9    | 205  |  |
| 10             | 16.45      | 16.45     | 33.420    | 24.431              | 349.3 | 0.040  | 6.47   | 115.9 | 3.1       | 0.33   | 0.0    | 0.00   | 0.40 | 0.91              | 0.36  | 10   | 204  |  |
| 13             | 14.99      | 14.99     | 33.584    | 24.730              | 320.9 | 0.050  | 6.42   | 111.7 | 3.7       | 0.41   | 0.6    | 0.03   | 0.39 | 2.15              | 0.58  | 13   | 203  |  |
| 20             | 13.34      | 13.34     | 33.390    | 25.079              | 287.8 | 0.072  | 5.74   | 96.6  | 6.8       | 0.76   | 5.8    | 0.16   | 0.22 | 1.09              | 0.52  | 20   | 202  |  |
| 30             | ISL 12.48  | D 12.48   | 33.409    | D 25.263            | 270.5 | 0.100  | 5.27   | 87.1  | 9.2       | 0.99   | 9.1    | 0.16   | 0.60 | 0.63              | 0.50  | 30   |      |  |
| 32             | 12.39      | 12.39     | 33.413    | 25.284              | 268.6 | 0.105  | 5.18   | 85.4  | 9.7       | 1.04   | 9.7    | 0.16   | 0.68 | 0.54              | 0.50  | 32   | 201  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 83.3 42.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 34 10.5 N      | 119 30.4 W | 26/08/08  | 0627 UTC  | 166 m               | 250   | 07 kn  |        |       | 1005.8 mb | 18.6 c | 16.8 c |        |      |                   |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 19.81  | 19.81     | 33.543    | 23.701              | 418.5 | 0.000  | 5.77   | 110.4 | 3.1       | 0.17   | 0.0    | 0.00   | 0.53 | 0.93              | 0.11  | 0    |      |  |
| 2              | 19.81      | 19.81     | 33.543    | 23.702              | 418.6 | 0.008  | 5.77   | 110.4 | 3.1       | 0.17   | 0.0    | 0.00   | 0.53 | 0.93              | 0.11  | 2    | 216  |  |
| 4              | 19.80      | 19.80     | 33.543    | 23.704              | 418.4 | 0.017  | 5.77   | 110.3 | 3.1       | 0.17   | 0.0    | 0.00   | 0.36 | 0.95              | 0.13  | 4    | 215  |  |
| 10             | 19.75      | 19.75     | 33.540    | 23.715              | 417.6 | 0.042  | 5.81   | 111.0 | 3.0       | 0.17   | 0.0    | 0.00   | 0.21 | 0.96              | 0.14  | 10   | 213  |  |
| 10             | 19.76      | 19.76     | 33.541    | 23.713              | 417.8 | 0.042  |        |       |           |        |        |        |      |                   |       | 10   | 214  |  |
| 20             | 16.47      | 16.47     | 33.415    | 24.423              | 350.4 | 0.080  | 6.39   | 114.6 | 2.9       | 0.30   | 0.0    | 0.00   | 0.00 | 0.89              | 0.31  | 20   | 212  |  |
| 26             | 14.07      | 14.07     | 33.368    | 24.913              | 303.8 | 0.100  | 6.04   | 103.2 | 5.3       | 0.58   | 3.5    | 0.10   | 0.09 | 1.09              | 0.49  | 26   | 211  |  |
| 30             | 13.64      | 13.64     | 33.367    | 25.001              | 295.5 | 0.112  | 5.98   | 101.2 | 5.6       | 0.66   | 4.3    | 0.13   | 0.26 | 0.96              | 0.49  | 30   | 210  |  |
| 40             | 12.76      | 12.75     | 33.368    | 25.178              | 278.9 | 0.141  | 5.53   | 91.9  | 7.1       | 0.84   | 7.4    | 0.21   | 0.18 | 0.65              | 0.47  | 40   | 209  |  |
| 50             | ISL 12.19  | D 12.18   | 33.434    | D 25.339            | 263.8 | 0.168  | 5.15   | 84.6  | 8.9       | 1.02   | 10.3   | 0.12   | 0.09 | 0.40              | 0.38  | 50   |      |  |
| 51             | 12.19      | 12.18     | 33.427    | 25.333              | 264.4 | 0.170  | 5.10   | 83.8  | 9.2       | 1.04   | 10.6   | 0.11   | 0.09 | 0.38              | 0.37  | 51   | 208  |  |
| 60             | 11.64      | 11.63     | 33.542    | 25.526              | 246.2 | 0.193  | 4.41   | 71.6  | 14.5      | 1.32   | 14.7   | 0.07   | 0.15 | 0.29              | 0.21  | 60   | 207  |  |
| 69             | 11.07      | 11.06     | 33.627    | 25.696              | 230.2 | 0.215  | 3.87   | 62.1  | 15.9      | 1.49   | 17.5   | 0.01   | 0.05 | 0.05              | 0.10  | 69   | 206  |  |
| 75             | ISL 10.87  | D 10.86   | 33.696    | D 25.785            | 221.8 | 0.228  | 3.63   | 58.1  | 17.2      | 1.57   | 18.7   | 0.01   | 0.03 | 0.04              | 0.09  | 75   |      |  |
| 85             | 10.75      | 10.74     | 33.718    | 25.824              | 218.4 | 0.250  | 3.35   | 53.4  | 19.2      | 1.68   | 19.9   | 0.01   | 0.00 | 0.02              | 0.08  | 85   | 205  |  |
| 100            | ISL 10.55  | D 10.54   | 33.762    | D 25.893            | 212.1 | 0.283  | 3.11   | 49.4  | 20.8      | 1.78   | 21.1   | 0.01   | 0.00 | 0.02              | 0.08  | 100  |      |  |
| 102            | 10.55      | 10.54     | 33.763    | 25.894              | 212.1 | 0.287  | 3.09   | 49.1  | 21.0      | 1.79   | 21.2   | 0.01   | 0.00 | 0.02              | 0.08  | 103  | 204  |  |
| 121            | 10.31      | 10.30     | 33.836    | 25.993              | 203.1 | 0.326  | 2.83   | 44.7  | 24.4      | 1.92   | 22.6   | 0.02   | 0.00 | 0.02              | 0.08  | 122  | 203  |  |
| 125            | ISL 10.32  | D 10.31   | 33.837    | D 25.992            | 203.3 | 0.334  | 2.82   | 44.6  | 24.4      | 1.92   | 22.6   | 0.02   | 0.00 | 0.02              | 0.08  | 126  |      |  |
| 141            | 10.29      | 10.27     | 33.845    | 26.004              | 202.5 | 0.367  | 2.79   | 44.1  | 24.2      | 1.92   | 22.8   | 0.00   | 0.00 | 0.01              | 0.07  | 142  | 202  |  |
| 150            | 10.22      | 10.20     | 33.859    | 26.027              | 200.5 | 0.385  | 2.71   | 42.8  | 24.5      | 1.94   | 23.3   | 0.00   | 0.00 | 0.01              | 0.06  | 151  | 201  |  |

| RV NEW HORIZON |           |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 83.3 51.0 |       |      |      |  |
|----------------|-----------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 33 52.6 N      | 120 8.6 W | 25/08/08  | 2346 UTC  | 111 m               | 300   | 23 kn  | 280 05 09 | 0     | 1006.1 mb | 18.1 c | 16.5 c | 09m    |      | 0/8               |       |      |      |  |
| DEPTH          | TEMP      | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C     | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 17.78 | 17.78     | 33.437    | 24.130              | 377.7 | 0.000  | 6.07      | 111.6 | 2.6       | 0.29   | 0.0    | 0.00   | 0.14 | 0.40              | 0.11  | 0    |      |  |
| 2              | 17.78     | 17.78     | 33.437    | 24.130              | 377.7 | 0.008  | 6.07      | 111.6 | 2.6       | 0.29   | 0.0    | 0.00   | 0.14 | 0.40              | 0.11  | 2    | 212  |  |
| 6              | 17.81     | 17.81     | 33.438    | 24.124              | 378.5 | 0.023  | 6.06      | 111.5 | 2.5       | 0.29   | 0.0    | 0.00   | 0.03 | 0.40              | 0.10  | 6    | 211  |  |
| 10             | 17.62     | 17.62     | 33.440    | 24.171              | 374.1 | 0.038  | 6.12      | 112.2 | 2.6       | 0.29   | 0.0    | 0.00   | 0.02 | 0.52              | 0.15  | 10   | 209  |  |
| 10             | 17.64     | 17.64     | 33.441    | 24.167              | 374.5 | 0.038  |           |       |           |        |        |        |      |                   |       | 10   | 210  |  |
| 20             | ISL 13.59 | D 13.59   | 33.409    | D 25.043            | 291.2 | 0.071  | 5.81      | 98.3  | 6.1       | 0.70   | 5.2    | 0.15   | 0.09 | 1.18              | 0.44  | 20   |      |  |
| 22             | 13.16     | 13.16     | 33.418    | 25.137              | 282.4 | 0.077  | 5.70      | 95.6  | 7.0       | 0.80   | 6.6    | 0.18   | 0.10 | 1.28              | 0.49  | 22   | 208  |  |
| 30             | ISL 12.75 | D 12.75   | 33.435    | D 25.231            | 273.6 | 0.099  | 5.32      | 88.4  | 8.9       | 0.98   | 9.5    | 0.12   | 0.04 | 1.00              | 0.43  | 30   |      |  |
| 31             | 12.40     | 12.40     | 33.443    | 25.305              | 266.5 | 0.102  | 5.28      | 87.1  | 9.1       | 1.00   | 9.8    | 0.11   | 0.03 | 0.95              | 0.41  | 31   | 207  |  |
| 39             | 12.17     | 12.16     | 33.453    | 25.357              | 261.8 | 0.123  | 5.14      | 84.4  | 9.8       | 1.07   | 10.8   | 0.08   | 0.00 | 0.75              | 0.35  | 39   | 206  |  |
| 50             | ISL 11.82 | D 11.81   | 33.487    | D 25.450            | 253.2 | 0.151  | 4.93      | 80.4  | 11.1      | 1.16   | 12.4   | 0.04   | 0.00 | 0.38              | 0.26  | 50   |      |  |
| 51             | 11.84     | 11.83     | 33.490    | 25.448              | 253.4 | 0.154  | 4.90      | 79.9  | 11.3      | 1.17   | 12.6   | 0.04   | 0.00 | 0.35              | 0.25  | 51   | 205  |  |
| 57             | 11.50     | 11.49     | 33.541    | 25.551              | 243.8 | 0.169  | 4.69      | 76.0  | 13.4      | 1.29   | 14.5   | 0.04   | 0.00 | 0.20              | 0.18  | 57   | 204  |  |
| 71             | 11.47     | 11.46     | 33.538    | 25.554              | 243.8 | 0.203  | 4.66      | 75.4  | 13.5      | 1.29   | 14.6   | 0.04   | 0.00 | 0.21              | 0.17  | 71   | 203  |  |
| 75             | ISL 11.49 | D 11.48   | 33.538    | D 25.551            | 244.2 | 0.212  | 4.65      | 75.3  | 13.6      | 1.31   | 14.6   | 0.04   | 0.00 | 0.21              | 0.17  | 75   |      |  |
| 78             | 11.47     | 11.46     | 33.540    | 25.556              | 243.8 | 0.220  | 4.63      | 74.9  | 13.6      | 1.32   | 14.7   | 0.04   | 0.00 | 0.21              | 0.17  | 78   | 202  |  |
| 93             | 11.30     | 11.29     | 33.590    | 25.626              | 237.5 | 0.256  | 4.39      | 70.8  | 15.5      | 1.38   | 15.4   | 0.09   | 0.10 | 0.22              | 0.25  | 93   | 201  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 83.3 55.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 33 44.6 N      | 120 25.0 W | 25/08/08  | 1932 UTC  | 1102 m              | 320   | 15 kn  | 340 08 09 | 2     | 1008.8 mb | 17.5 c | 16.9 c | 08m    |      | 8/8               | ST    |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 16.16  | 16.16     | 33.642    | 24.668              | 326.4 | 0.000  | 5.73      | 102.2 | 2.2       | 0.46   | 2.3    | 0.08   | 0.22 | 1.09              | 0.24  | 0    |      |  |
| 2              | A 16.16    | 16.16     | 33.642    | 24.668              | 326.5 | 0.007  | 5.73      | 102.2 | 2.2       | 0.46   | 2.3    | 0.08   | 0.22 | 1.09              | 0.24  | 2    | 223  |  |
| 5              | A 16.15    | 16.15     | 33.641    | 24.669              | 326.4 | 0.016  | 5.73      | 102.2 | 2.1       | 0.47   | 2.3    | 0.08   | 0.11 | 1.04              | 0.24  | 5    | 222  |  |
| 10             | A 16.13    | 16.13     | 33.640    | 24.673              | 326.2 | 0.033  | 5.71      | 101.8 | 2.2       | 0.46   | 2.3    | 0.08   | 0.17 | 1.07              | 0.24  | 10   | 220  |  |
| 10             | 16.12      | 16.12     | 33.640    | 24.676              | 326.0 | 0.033  |           |       |           |        |        |        |      |                   |       | 10   | 221  |  |
| 16             | A 16.10    | 16.10     | 33.641    | 24.681              | 325.6 | 0.052  | 5.69      | 101.4 | 2.2       | 0.46   | 2.3    | 0.08   | 0.24 | 1.05              | 0.24  | 16   | 219  |  |
| 20             | ISL 16.09  | D 16.09   | 33.635    | D 24.679            | 326.0 | 0.065  | 5.68      | 101.2 | 2.2       | 0.44   | 2.3    | 0.08   | 0.40 | 1.07              | 0.26  | 20   |      |  |
| 21             | A 16.09    | 16.09     | 33.643    | 24.685              | 325.4 | 0.068  | 5.68      | 101.2 | 2.2       | 0.44   | 2.3    | 0.08   | 0.44 | 1.07              | 0.27  | 21   | 218  |  |
| 30             | A 14.21    | 14.21     | 33.656    | 25.106              | 285.5 | 0.096  | 5.15      | 88.4  | 6.9       | 0.99   | 7.4    | 0.15   | 0.29 | 1.30              | 0.45  | 30   | 217  |  |
| 39             | 12.31      | 12.30     | 33.680    | 25.506              | 247.6 | 0.120  | 4.45      | 73.4  | 13.6      | 1.25   | 14.2   | 0.21   | 0.23 | 0.91              | 0.37  | 39   | 216  |  |
| 49             | 11.44      | 11.43     | 33.710    | 25.693              | 230.1 | 0.144  | 4.07      | 65.9  | 16.6      | 1.46   | 17.3   | 0.23   | 0.13 | 0.38              | 0.38  | 49   | 215  |  |
| 50             | ISL 11.32  | D 11.31   | 33.728    | D 25.729            | 226.7 | 0.146  | 4.03      | 65.1  | 16.9      | 1.48   | 17.6   | 0.21   | 0.12 | 0.35              | 0.36  | 50   |      |  |
| 60             | 10.64      | 10.63     | 33.736    | 25.857              | 214.7 | 0.168  | 3.71      | 59.1  | 19.7      | 1.63   | 20.2   | 0.00   | 0.00 | 0.15              | 0.17  | 60   | 214  |  |
| 71             | 10.34      | 10.33     | 33.717    | 25.894              | 211.4 | 0.192  | 3.71      | 58.7  | 20.0      | 1.65   | 20.6   | 0.05   | 0.00 | 0.07              | 0.12  | 71   | 213  |  |
| 75             | ISL 9.96   | D 9.95    | 33.763    | D 25.995            | 201.8 | 0.200  | 3.59      | 56.3  | 20.9      | 1.69   | 21.2   | 0.05   | 0.02 | 0.05              | 0.11  | 75   |      |  |
| 85             | 9.92       | 9.91      | 33.811    | 26.039              | 197.8 | 0.220  | 3.20      | 50.2  | 23.8      | 1.81   | 22.9   | 0.02   | 0.05 | 0.03              | 0.08  | 85   | 212  |  |
| 100            | 9.77       | 9.76      | 33.908    | 26.140              | 188.5 | 0.249  | 2.69      | 42.1  | 27.1      | 1.96   | 24.4   | 0.00   | 0.00 | 0.02              | 0.07  | 101  | 211  |  |
| 119            | 9.36       | 9.35      | 33.947    | 26.238              | 179.6 | 0.284  | 2.62      | 40.6  | 29.3      | 2.01   | 25.6   | 0.00   | 0.18 | 0.01              | 0.06  | 120  | 210  |  |
| 125            | ISL 9.35   | D 9.34    | 33.952    | D 26.244            | 179.1 | 0.295  | 2.52      | 39.0  | 30.2      | 2.04   | 26.0   | 0.00   | 0.14 | 0.01              | 0.07  | 126  |      |  |
| 141            | 9.23       | 9.21      | 34.016    | 26.314              | 172.8 | 0.323  | 2.24      | 34.6  | 32.6      | 2.14   | 27.0   | 0.00   | 0.00 | 0.01              | 0.08  | 142  | 209  |  |
| 150            | ISL 9.20   | D 9.18    | 34.038    | D 26.336            | 170.9 | 0.338  | 2.16      | 33.4  | 33.3      | 2.17   | 27.3   | 0.00   | 0.00 | 0.01              | 0.08  | 151  |      |  |
| 168            | 9.18       | 9.16      | 34.067    | 26.362              | 168.8 | 0.369  | 2.01      | 31.0  | 34.6      | 2.23   | 27.9   | 0.00   | 0.00 | 0.01              | 0.07  | 169  | 208  |  |
| 199            | 8.96       | 8.94      | 34.162    | 26.472              | 158.9 | 0.420  | 1.59      | 24.4  | 38.4      | 2.39   | 29.2   | 0.00   | 0.00 | 0.00              | 0.06  | 200  | 207  |  |
| 200            | ISL 8.97   | D 8.95    | 34.171    | D 26.478            | 158.4 | 0.421  | 1.58      | 24.3  | 38.5      | 2.39   | 29.2   | 0.00   | 0.00 |                   |       | 201  |      |  |
| 229            | 8.79       | 8.77      | 34.207    | 26.535              | 153.5 | 0.466  | 1.33      | 20.4  | 41.4      | 2.48   | 30.2   | 0.00   | 0.10 |                   |       | 230  | 206  |  |
| 250            | ISL 8.71   | D 8.68    | 34.222    | D 26.559            | 151.6 | 0.498  | 1.21      | 18.5  | 43.1      | 2.53   | 30.8   | 0.00   | 0.06 |                   |       | 252  |      |  |
| 268            | 8.59       | 8.56      | 34.234    | 26.587              | 149.2 | 0.525  | 1.13      | 17.2  | 44.5      | 2.57   | 31.2   | 0.00   | 0.00 |                   |       | 270  | 205  |  |
| 300            | ISL 8.46   | D 8.43    | 34.288    | D 26.650            | 143.8 | 0.572  | 0.99      | 15.1  | 47.1      | 2.64   | 31.7   | 0.00   | 0.00 |                   |       | 302  |      |  |
| 326            | 8.31       | 8.28      | 34.274    | 26.662              | 143.0 | 0.610  | 0.89      | 13.5  | 49.1      | 2.70   | 32.1   | 0.00   | 0.00 |                   |       | 328  | 204  |  |
| 379            | 7.99       | 7.95      | 34.285    | 26.720              | 138.4 | 0.684  | 0.77      | 11.6  | 52.8      | 2.79   | 33.1   | 0.00   | 0.00 |                   |       | 381  | 203  |  |
| 400            | ISL 7.92   | D 7.88    | 34.290    | D 26.734            | 137.3 | 0.713  | 0.71      | 10.7  | 54.2      | 2.82   | 33.5   | 0.00   | 0.00 |                   |       | 403  |      |  |
| 438            | 7.63       | 7.59      | 34.292    | 26.779              | 133.5 | 0.765  | 0.62      | 9.3   | 57.3      | 2.87   | 34.4   | 0.00   | 0.00 |                   |       | 441  | 202  |  |
| 500            | ISL 6.80   | D 6.75    | 34.269    | D 26.877            | 124.4 | 0.845  | 0.53      | 7.8   | 65.5      | 2.98   | 36.7   | 0.00   | 0.02 |                   |       | 503  |      |  |
| 512            | 6.77       | 6.72      | 34.268    | 26.880              | 124.2 | 0.860  | 0.51      | 7.5   | 67.1      | 3.00   | 37.2   | 0.00   | 0.02 |                   |       | 516  | 201  |  |

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

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

STATION 83.3 60.0

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS:PRIMARY T: PRIMARY CORRECTED S:

STATION 83.3 70.0

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

STATION 83.3 80.0

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS:PRIMARY T: PRIMARY CORRECTED S:

STATION 83.3 90.0

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.  
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS: PRIMARY T; PRIMARY CORRECTED S;

STATION 83.3 100.0

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS:PRIMARY T: PRIMARY CORRECTED S:

STATION 83.3 110.0

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

| LATITUDE  | LONGITUDE   | DAY/MO/YR | CAST TIME | BOTTOM | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD AMT | TYPE  |       |      |      |
|-----------|-------------|-----------|-----------|--------|-------|--------|-----------|-------|-----------|--------|--------|--------|---------|-------|-------|------|------|
| 33 53.4 N | 118 29.3 W  | 21/08/08  | 1528 UTC  | 59 m   | 120   | 06 kn  | 260 02 08 | 1     | 1009.1 mb | 20.0 C | 18.0 C | 10m    | 6/8     | SC    |       |      |      |
| DEPTH     | TEMP        | POT TEMP  | SALINITY  | SIGMA  | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4     | CHL-A | PHAE0 | PRES | SAMP |
| m         | DEG C       | DEG C     |           | THETA  |       |        | ml/l      | PCT   | uM/l      | uM/l   | uM/l   | uM/l   | uM/l    | ug/l  | ug/l  | db   |      |
| 0         | ISL 17.30   | 17.30     | 33.416    | 24.229 | 368.2 | 0.000  | 6.30      | 114.8 | 3.6       | 0.35   | 0.0    | 0.00   | 0.29    | 0.81  | 0.05  | 0    |      |
| 1         | 17.30       | 17.30     | 33.416    | 24.229 | 368.2 | 0.004  | 6.30      | 114.8 | 3.6       | 0.35   | 0.0    | 0.00   | 0.29    | 0.81  | 0.05  | 1    | 208  |
| 4         | 14.90       | 14.90     | 33.373    | 24.740 | 319.6 | 0.014  | 6.69      | 116.2 | 4.0       | 0.38   | 0.0    | 0.00   | 0.16    | 0.89  | 0.19  | 4    | 207  |
| 9         | 14.14       | 14.14     | 33.367    | 24.897 | 304.8 | 0.030  |           |       |           |        |        |        |         |       |       | 9    | 206  |
| 10        | 14.15       | 14.15     | 33.365    | 24.894 | 305.2 | 0.033  | 6.75      | 115.5 | 4.3       | 0.40   | 0.1    | 0.01   | 0.37    | 1.01  | 0.19  | 10   | 205  |
| 19        | 13.55       | 13.55     | 33.378    | 25.027 | 292.7 | 0.060  | 6.15      | 103.9 | 5.3       | 0.59   | 3.2    | 0.19   | 0.22    | 2.19  | 0.50  | 19   | 204  |
| 20        | ISL 13.47 D | 13.47     | 33.383 D  | 25.047 | 290.8 | 0.062  | 6.03      | 101.7 | 6.0       | 0.67   | 4.0    | 0.22   | 0.63    | 2.11  | 0.49  | 20   |      |
| 30        | 12.38       | 12.38     | 33.281    | 25.183 | 278.1 | 0.091  | 5.10      | 84.0  | 11.8 A    | 1.34 A | 10.2 A | 0.51   | 4.10 A  | 0.87  | 0.40  | 30   | 203  |
| 39        | 12.50       | 12.49     | 33.363    | 25.224 | 274.5 | 0.116  | 5.27      | 87.1  | 9.3       | 1.00   | 8.6    | 0.58   | 2.02    | 0.79  | 0.37  | 39   | 202  |
| 50        | 11.63       | 11.62     | 33.535    | 25.522 | 246.3 | 0.144  | 4.16      | 67.6  | 15.7      | 1.42   | 15.5   | 0.26   | 0.31    | 0.25  | 0.24  | 50   | 201  |

A) UNUSUAL PROFILES AND ODD NO3/P04 RATIOS 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 S;

| LATITUDE  | LONGITUDE   | DAY/MO/YR | CAST TIME | BOTTOM | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD AMT | TYPE  |       |      |      |
|-----------|-------------|-----------|-----------|--------|-------|--------|-----------|-------|-----------|--------|--------|--------|---------|-------|-------|------|------|
| 33 49.7 N | 118 37.5 W  | 21/08/08  | 1815 UTC  | 626 m  | 070   | 01 kn  | 280 02 06 | 1     | 1009.6 mb | 20.1 c | 19.0 c | 18m    | 4/8     | ST    |       |      |      |
| DEPTH     | TEMP        | POT TEMP  | SALINITY  | SIGMA  | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4     | CHL-A | PHAE0 | PRES | SAMP |
| m         | DEG C       | DEG C     |           | THETA  |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L    | ug/L  | ug/L  | db   |      |
| 0         | ISL 19.21   | 19.21     | 33.485    | 23.811 | 408.0 | 0.000  | 5.93      | 112.1 | 2.5       | 0.27   | 0.0    | 0.00   | 0.20    | 0.34  | 0.08  | 0    |      |
| 1         | A 19.21     | 19.21     | 33.485    | 23.812 | 408.1 | 0.004  | 5.93      | 112.1 | 2.5       | 0.27   | 0.0    | 0.00   | 0.20    | 0.34  | 0.08  | 1    | 223  |
| 3         | 19.22       | 19.22     | 33.476    | 23.802 | 409.0 | 0.012  |           |       | 2.4       | 0.28   | 0.0    | 0.00   | 0.15    |       |       | 3    | 224  |
| 10        | ISL 16.59 D | 16.59     | 33.404 D  | 24.386 | 353.5 | 0.039  | 6.48      | 116.4 | 2.2       | 0.30   | 0.0    | 0.00   | 0.11    | 0.27  | 0.07  | 10   |      |
| 11        | A 16.19     | 16.19     | 33.378    | 24.458 | 346.7 | 0.042  | 6.56      | 116.9 | 2.2       | 0.31   | 0.0    | 0.00   | 0.10    | 0.26  | 0.07  | 11   | 221  |
| 11        | 16.11       | 16.11     | 33.399    | 24.493 | 343.4 | 0.042  | 6.55      | 116.6 | 2.2       | 0.31   | 0.0    | 0.00   | 0.24    | 0.25  | 0.07  | 11   | 222  |
| 18        | 14.24       | 14.24     | 33.330    | 24.848 | 309.8 | 0.065  | 6.75      | 115.7 | 3.7       | 0.38   | 0.0    | 0.00   | 0.13    | 0.61  | 0.22  | 18   | 220  |
| 20        | ISL 13.95 D | 13.95     | 33.340 D  | 24.916 | 303.3 | 0.071  | 6.70      | 114.1 | 3.9       | 0.40   | 0.2    | 0.02   | 0.19    | 1.20  | 0.37  | 20   |      |
| 24        | A 13.74     | 13.74     | 33.356    | 24.972 | 298.1 | 0.083  | 6.51      | 110.4 | 4.3       | 0.46   | 1.2    | 0.07   | 0.30    | 2.20  | 0.65  | 24   | 219  |
| 30        | 13.19       | 13.19     | 33.348    | 25.077 | 288.3 | 0.101  | 6.03      | 101.1 | 6.3       | 0.67   | 4.2    | 0.46   | 1.61    | 1.56  | 0.63  | 30   | 218  |
| 37        | A 12.68     | 12.68     | 33.400    | 25.218 | 275.0 | 0.121  | 5.36      | 88.9  | 9.5       | 0.92   | 8.1    | 1.41   | 2.55    | 0.80  | 0.50  | 37   | 217  |
| 48        | A 12.02     | 12.01     | 33.478    | 25.405 | 257.5 | 0.150  | 4.74      | 77.6  | 11.4      | 1.15   | 13.2   | 0.26   | 0.07    | 0.26  | 0.26  | 48   | 216  |
| 50        | ISL 11.99 D | 11.98     | 33.482 D  | 25.414 | 256.7 | 0.155  | 4.71      | 77.1  | 11.5      | 1.16   | 13.4   | 0.22   | 0.05    | 0.25  | 0.24  | 50   |      |
| 57        | 11.86       | 11.85     | 33.502    | 25.454 | 253.0 | 0.173  | 4.63      | 75.6  | 11.8      | 1.19   | 13.8   | 0.07   | 0.00    | 0.22  | 0.21  | 57   | 215  |
| 66        | A 11.50     | 11.49     | 33.552    | 25.560 | 243.2 | 0.195  | 4.24      | 68.7  | 14.0      | 1.35   | 15.7   | 0.03   | 0.00    | 0.14  | 0.20  | 66   | 214  |
| 75        | 11.32       | 11.31     | 33.572    | 25.608 | 238.7 | 0.217  | 3.96      | 63.9  | 16.1      | 1.47   | 17.1   | 0.03   | 0.11    | 0.10  | 0.20  | 75   | 213  |
| 84        | 11.07       | 11.06     | 33.624    | 25.694 | 230.8 | 0.238  | 3.66      | 58.8  | 17.6      | 1.56   | 18.2   | 0.01   | 0.01    | 0.15  | 0.20  | 84   | 212  |
| 100       | 10.66       | 10.65     | 33.741    | 25.858 | 215.5 | 0.274  | 3.35      | 53.3  | 19.4      | 1.64   | 19.7   | 0.02   | 0.00    | 0.02  | 0.06  | 100  | 211  |
| 119       | 10.41       | 10.40     | 33.836    | 25.976 | 204.7 | 0.314  | 2.84      | 45.0  | 23.1      | 1.84   | 22.3   | 0.01   | 0.00    | 0.01  | 0.05  | 120  | 210  |
| 125       | ISL 10.30 D | 10.29     | 33.858 D  | 26.012 | 201.4 | 0.326  | 2.68      | 42.4  | 24.3      | 1.90   | 22.9   | 0.01   | 0.00    | 0.01  | 0.05  | 126  |      |
| 140       | 10.27       | 10.25     | 33.942    | 26.083 | 195.0 | 0.356  | 2.37      | 37.5  | 26.8      | 2.01   | 24.1   | 0.00   | 0.00    | 0.01  | 0.05  | 141  | 209  |
| 150       | ISL 9.83 D  | 9.81      | 33.932 D  | 26.150 | 188.7 | 0.375  | 2.37      | 37.1  | 27.5      | 2.02   | 24.4   | 0.00   | 0.00    | 0.01  | 0.05  | 151  |      |
| 169       | 9.77        | 9.75      | 33.997    | 26.211 | 183.3 | 0.410  | 2.37      | 37.1  | 28.6      | 2.04   | 24.9   | 0.00   | 0.00    | 0.00  | 0.04  | 170  | 208  |
| 200       | ISL 9.96 D  | 9.94      | 34.171 D  | 26.316 | 174.2 | 0.466  | 1.56      | 24.5  | 33.2      | 2.30   | 26.8   | 0.00   | 0.00    | 0.00  | 0.04  | 201  |      |
| 201       | 9.96        | 9.94      | 34.172    | 26.317 | 174.1 | 0.467  | 1.53      | 24.1  | 33.3      | 2.31   | 26.9   | 0.00   | 0.00    | 0.00  | 0.04  | 202  | 207  |
| 227       | 9.73        | 9.70      | 34.214    | 26.388 | 167.8 | 0.512  | 1.50      | 23.5  | 34.8      | 2.36   | 27.4   | 0.01   | 0.01    |       |       | 228  | 206  |
| 250       | ISL 9.33 D  | 9.30      | 34.178 D  | 26.426 | 164.5 | 0.550  | 1.49      | 23.1  | 36.2      | 2.38   | 27.8   | 0.01   | 0.02    |       |       | 251  |      |
| 268       | 9.31        | 9.28      | 34.228    | 26.469 | 160.8 | 0.579  | 1.49      | 23.1  | 37.5      | 2.40   | 28.2   | 0.01   | 0.02    |       |       | 270  | 205  |
| 300       | ISL 9.01 D  | 8.98      | 34.239 D  | 26.526 | 155.9 | 0.630  | 1.28      | 19.7  | 40.6      | 2.50   | 29.2   | 0.00   | 0.02    |       |       | 302  |      |
| 316       | 8.94        | 8.91      | 34.286    | 26.574 | 151.6 | 0.655  | 1.14      | 17.5  | 42.4      | 2.56   | 29.8   | 0.00   | 0.02    |       |       | 318  | 204  |
| 376       | 8.51        | 8.47      | 34.351    | 26.693 | 141.3 | 0.742  | 0.70      | 10.7  | 48.9      | 2.77   | 31.8   | 0.00   | 0.00    |       |       | 378  | 203  |
| 400       | ISL 8.21 D  | 8.17      | 34.328 D  | 26.721 | 138.8 | 0.776  | 0.62      | 9.4   | 51.6      | 2.82   | 32.5   | 0.00   | 0.02    |       |       | 403  |      |
| 436       | 7.87        | 7.83      | 34.324    | 26.769 | 134.7 | 0.825  | 0.55      | 8.3   | 55.9      | 2.89   | 33.6   | 0.01   | 0.05    |       |       | 439  | 202  |
| 500       | ISL 7.06 D  | 7.01      | 34.323 D  | 26.884 | 124.0 | 0.908  | 0.39      | 5.7   | 65.5      | 3.03   | 35.9   | 0.01   | 0.02    |       |       | 503  |      |
| 518       | 6.90        | 6.85      | 34.324    | 26.907 | 122.0 | 0.930  | 0.34      | 5.0   | 68.2      | 3.07   | 36.5   | 0.01   | 0.01    |       |       | 522  | 201  |

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 86.7 40.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 33 39.6 N      | 118 58.8 W | 21/08/08  | 2304 UTC  | 778 m               | 230   | 04 kn  | 300 03 06 | 1     | 1008.1 mb | 22.0 c | 19.1 c | 11m    |      | 1/8               | CI    |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | PO4    | NO3    | NO2    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 21.31  | 21.31     | 33.548    | 23.306              | 456.2 | 0.000  | 5.55      | 109.1 | 2.8       | 0.17   | 0.0    | 0.00   | 0.22 | 0.52              | 0.05  | 0    |      |  |
| 3              | 21.31      | 21.31     | 33.548    | 23.306              | 456.4 | 0.014  | 5.55      | 109.1 | 2.8       | 0.17   | 0.0    | 0.00   | 0.22 | 0.52              | 0.05  | 3    | 224  |  |
| 9              | 20.26      | 20.26     | 33.509    | 23.558              | 432.5 | 0.040  | 5.90      | 113.8 | 2.8       | 0.18   | 0.0    | 0.00   | 0.20 | 0.73              | 0.08  | 9    | 223  |  |
| 10             | ISL 19.43  | D 19.43   | 33.492    | D 23.761            | 413.2 | 0.045  | 6.00      | 113.9 | 2.8       | 0.18   | 0.0    | 0.00   | 0.20 | 0.73              | 0.09  | 10   |      |  |
| 20             | 16.04      | 16.04     | 33.376    | 24.491              | 343.9 | 0.082  | 6.73      | 119.6 | 3.1       | 0.29   | 0.0    | 0.00   | 0.25 | 0.75              | 0.15  | 20   | 222  |  |
| 29             | 14.16      | 14.16     | 33.342    | 24.874              | 307.6 | 0.112  | 6.42      | 109.8 | 4.2       | 0.48   | 1.5    | 0.07   | 0.31 | 2.04              | 0.53  | 29   | 221  |  |
| 30             | ISL 13.74  | D 13.74   | 33.352    | D 24.969            | 298.6 | 0.115  | 6.37      | 108.0 | 4.3       | 0.50   | 1.8    | 0.08   | 0.31 | 2.03              | 0.56  | 30   |      |  |
| 39             | 13.22      | 13.21     | 33.357    | 25.078              | 288.4 | 0.141  | 5.88      | 98.7  | 5.5       | 0.67   | 4.4    | 0.20   | 0.28 | 1.47              | 0.69  | 39   | 220  |  |
| 50             | 12.56      | 12.55     | 33.365    | 25.214              | 275.7 | 0.172  | 5.42      | 89.7  | 7.4       | 0.87   | 7.8    | 0.24   | 0.24 | 0.83              | 0.50  | 50   | 219  |  |
| 60             | 11.74      | 11.73     | 33.517    | 25.488              | 249.8 | 0.198  | 4.57      | 74.4  | 11.9      | 1.20   | 13.6   | 0.04   | 0.13 | 0.28              | 0.26  | 60   | 218  |  |
| 69             | 11.37      | 11.36     | 33.569    | 25.597              | 239.7 | 0.221  | 4.25      | 68.7  | 14.1      | 1.35   | 15.8   | 0.02   | 0.13 | 0.14              | 0.18  | 69   | 217  |  |
| 75             | ISL 11.18  | D 11.17   | 33.609    | D 25.662            | 233.6 | 0.235  | 4.08      | 65.7  | 15.0      | 1.41   | 16.7   | 0.02   | 0.09 | 0.10              | 0.15  | 75   |      |  |
| 85             | 10.99      | 10.98     | 33.635    | 25.717              | 228.6 | 0.258  | 3.81      | 61.1  | 16.4      | 1.49   | 17.9   | 0.01   | 0.02 | 0.07              | 0.11  | 85   | 216  |  |
| 100            | ISL 10.43  | D 10.42   | 33.736    | D 25.894            | 212.0 | 0.291  | 3.32      | 52.6  | 20.2      | 1.69   | 20.7   | 0.02   | 0.08 | 0.03              | 0.07  | 100  |      |  |
| 101            | 10.44      | 10.43     | 33.732    | 25.889              | 212.5 | 0.293  | 3.29      | 52.1  | 20.5      | 1.70   | 20.9   | 0.02   | 0.09 | 0.03              | 0.07  | 101  | 215  |  |
| 119            | 10.22      | 10.21     | 33.797    | 25.978              | 204.4 | 0.331  | 3.01      | 47.5  | 22.8      | 1.80   | 22.5   | 0.01   | 0.11 | 0.02              | 0.07  | 120  | 214  |  |
| 125            | ISL 10.13  | D 10.12   | 33.822    | D 26.013            | 201.2 | 0.343  | 2.98      | 46.9  | 23.3      | 1.81   | 22.7   | 0.01   | 0.13 | 0.02              | 0.07  | 126  |      |  |
| 140            | 10.05      | 10.03     | 33.855    | 26.053              | 197.8 | 0.373  | 2.90      | 45.6  | 24.6      | 1.85   | 23.1   | 0.01   | 0.17 | 0.01              | 0.06  | 141  | 213  |  |
| 150            | ISL 9.84   | D 9.82    | 33.946    | D 26.159            | 187.9 | 0.392  | 2.75      | 43.1  | 25.9      | 1.91   | 23.7   | 0.01   | 0.16 | 0.01              | 0.06  | 151  |      |  |
| 169            | 9.77       | 9.75      | 33.996    | 26.210              | 183.4 | 0.427  | 2.37      | 37.1  | 28.7      | 2.05   | 25.2   | 0.01   | 0.15 | 0.01              | 0.06  | 170  | 212  |  |
| 200            | 9.60       | 9.58      | 34.151    | 26.360              | 169.8 | 0.482  | 1.74      | 27.1  | 33.6      | 2.28   | 27.4   | 0.01   | 0.00 | 0.00              | 0.05  | 201  | 211  |  |
| 227            | 9.31       | 9.28      | 34.207    | 26.452              | 161.6 | 0.527  | 1.49      | 23.1  | 37.2      | 2.39   | 28.7   | 0.05   | 0.15 |                   |       | 228  | 210  |  |
| 250            | ISL 9.34   | D 9.31    | 34.295    | D 26.516            | 156.0 | 0.563  | 1.23      | 19.1  | 39.7      | 2.49   | 29.5   | 0.04   | 0.11 |                   |       | 251  |      |  |
| 271            | 9.14       | 9.11      | 34.330    | 26.576              | 150.6 | 0.595  | 1.03      | 15.9  | 41.7      | 2.57   | 30.0   | 0.01   | 0.03 |                   |       | 273  | 209  |  |
| 300            | ISL 8.89   | D 8.86    | 34.319    | D 26.608            | 148.1 | 0.639  | 0.91      | 14.0  | 43.9      | 2.64   | 30.8   | 0.00   | 0.00 |                   |       | 302  |      |  |
| 316            | 8.76       | 8.73      | 34.317    | 26.627              | 146.5 | 0.662  | 0.87      | 13.3  | 45.2      | 2.68   | 31.2   | 0.00   | 0.00 |                   |       | 318  | 208  |  |
| 378            | 8.03       | 7.99      | 34.322    | 26.743              | 136.2 | 0.750  | 0.63      | 9.5   | 53.2      | 2.84   | 33.5   | 0.00   | 0.00 |                   |       | 380  | 207  |  |
| 400            | ISL 7.85   | D 7.81    | 34.313    | D 26.763            | 134.6 | 0.780  | 0.58      | 8.7   | 55.1      | 2.87   | 34.0   | 0.00   | 0.00 |                   |       | 403  |      |  |
| 441            | 7.60       | 7.56      | 34.316    | 26.802              | 131.4 | 0.834  | 0.51      | 7.6   | 58.5      | 2.93   | 34.9   | 0.00   | 0.00 |                   |       | 444  | 206  |  |
| 500            | ISL 7.07   | D 7.02    | 34.310    | D 26.872            | 125.2 | 0.910  | 0.43      | 6.3   | 65.6      | 3.03   | 36.5   | 0.00   | 0.05 |                   |       | 503  |      |  |
| 509            | 6.96       | 6.91      | 34.309    | 26.887              | 123.8 | 0.921  | 0.42      | 6.2   | 66.7      | 3.04   | 36.7   | 0.00   | 0.06 |                   |       | 512  | 205  |  |
| 596            | 6.38       | 6.33      | 34.327    | 26.979              | 115.7 | 1.025  | 0.29      | 4.2   | 76.1      | 3.15   | 38.2   | 0.00   | 0.00 |                   |       | 600  | 204  |  |
| 600            | ISL 6.33   | D 6.28    | 34.329    | D 26.987            | 114.9 | 1.030  | 0.28      | 4.1   | 76.5      | 3.15   | 38.2   | 0.00   | 0.00 |                   |       | 604  |      |  |
| 700            | 5.75       | 5.69      | 34.364    | 27.089              | 105.9 | 1.140  | 0.16      | 2.3   | 90.0      | 3.28   | 38.8   | 0.00   | 0.02 |                   |       | 705  | 203  |  |
| 758            | 5.35       | 5.29      | 34.385    | 27.154              | 99.8  | 1.200  | 0.09      | 1.3   | 102.5     | 3.39   | 37.5   | 0.00   | 0.00 |                   |       | 764  | 202  |  |
| 761            | 5.36       | 5.30      | 34.386    | 27.154              | 99.9  | 1.203  | 0.09      | 1.3   | 102.4     | 3.38   | 37.6   | 0.00   | 0.10 |                   |       | 767  | 201  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 86.7 45.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 33 29.6 N      | 119 19.0 W | 22/08/08  | 0327 UTC  | 1647 m              | 250   | 07 kn  |        |       | 1008.3 mb | 18.1 C | 17.1 C |        |      |                   |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 20.53  | 20.53     | 33.506    | 23.484              | 439.3 | 0.000  | 5.72   | 110.8 | 2.7       | 0.22   | 0.0    | 0.00   | 0.14 | 0.34              | 0.04  | 0    |      |  |
| 2              | 20.53      | 20.53     | 33.506    | 23.484              | 439.3 | 0.009  | 5.72   | 110.8 | 2.7       | 0.22   | 0.0    | 0.00   | 0.14 | 0.34              | 0.04  | 2    | 222  |  |
| 2              | 20.52      | 20.52     | 33.507    | 23.488              | 439.0 | 0.009  |        |       |           |        |        |        |      |                   |       | 2    | 221  |  |
| 9              | 19.68      | 19.68     | 33.492    | 23.697              | 419.3 | 0.039  | 5.95   | 113.5 | 2.6       | 0.23   | 0.0    | 0.00   | 0.04 | 0.41              | 0.05  | 9    | 219  |  |
| 10             | CSL 18.48  | 18.48     | 33.456    | 23.973              | 393.0 | 0.043  |        |       |           |        |        |        |      |                   |       | 10   | 200  |  |
| 10             | 19.68      | 19.68     | 33.487    | 23.693              | 419.7 | 0.043  |        |       |           |        |        |        |      |                   |       | 10   | 220  |  |
| 19             | 12.99      | 12.99     | 33.339    | 25.109              | 284.9 | 0.075  | 5.96   | 99.5  | 5.4       | 0.65   | 4.2    | 0.17   | 0.10 | 0.94              | 0.44  | 19   | 218  |  |
| 20             | ISL 12.87  | D 12.87   | 33.340    | D 25.134            | 282.6 | 0.077  | 5.90   | 98.3  | 5.7       | 0.69   | 4.8    | 0.17   | 0.09 | 0.91              | 0.43  | 20   |      |  |
| 29             | 12.34      | 12.34     | 33.396    | 25.280              | 268.9 | 0.102  | 5.26   | 86.7  | 8.7       | 0.98   | 9.9    | 0.13   | 0.02 | 0.44              | 0.38  | 29   | 217  |  |
| 30             | ISL 12.33  | D 12.33   | 33.397    | D 25.283            | 268.6 | 0.105  | 5.21   | 85.8  | 9.0       | 1.00   | 10.3   | 0.12   | 0.03 | 0.41              | 0.37  | 30   |      |  |
| 39             | 11.92      | 11.92     | 33.462    | 25.411              | 256.6 | 0.129  | 4.87   | 79.6  | 10.8      | 1.15   | 12.5   | 0.02   | 0.12 | 0.25              | 0.26  | 39   | 216  |  |
| 49             | 11.76      | 11.75     | 33.493    | 25.465              | 251.7 | 0.154  | 4.77   | 77.7  | 11.7      | 1.21   | 13.5   | 0.02   | 0.10 | 0.17              | 0.22  | 49   | 215  |  |
| 50             | ISL 11.75  | D 11.74   | 33.495    | D 25.469            | 251.4 | 0.157  | 4.74   | 77.2  | 11.9      | 1.22   | 13.7   | 0.02   | 0.09 | 0.16              | 0.21  | 50   |      |  |
| 59             | 11.33      | 11.32     | 33.558    | 25.595              | 239.6 | 0.179  | 4.38   | 70.7  | 14.1      | 1.35   | 15.6   | 0.02   | 0.04 | 0.10              | 0.15  | 59   | 214  |  |
| 69             | 10.77      | 10.76     | 33.650    | 25.767              | 223.4 | 0.202  | 3.84   | 61.3  | 17.4      | 1.55   | 18.5   | 0.01   | 0.03 | 0.04              | 0.08  | 69   | 213  |  |
| 75             | ISL 10.60  | D 10.59   | 33.722    | D 25.853            | 215.4 | 0.215  | 3.58   | 56.9  | 18.9      | 1.63   | 19.6   | 0.01   | 0.02 | 0.03              | 0.07  | 75   |      |  |
| 84             | 10.52      | 10.51     | 33.740    | 25.881              | 212.9 | 0.234  | 3.30   | 52.4  | 20.5      | 1.71   | 20.6   | 0.01   | 0.00 | 0.02              | 0.06  | 84   | 212  |  |
| 99             | 10.30      | 10.29     | 33.770    | 25.943              | 207.3 | 0.266  | 3.21   | 50.7  | 21.8      | 1.77   | 21.5   | 0.00   | 0.00 | 0.02              | 0.06  | 99   | 211  |  |
| 100            | ISL 10.27  | D 10.26   | 33.785    | D 25.960            | 205.8 | 0.268  | 3.18   | 50.2  | 22.0      | 1.78   | 21.6   | 0.00   | 0.00 | 0.02              | 0.06  | 101  |      |  |
| 119            | 10.18      | 10.17     | 33.912    | 26.075              | 195.3 | 0.306  | 2.55   | 40.2  | 26.1      | 1.99   | 23.6   | 0.00   | 0.00 | 0.01              | 0.04  | 120  | 210  |  |
| 125            | ISL 10.11  | D 10.10   | 33.948    | D 26.115            | 191.6 | 0.317  | 2.55   | 40.2  | 26.6      | 2.00   | 23.9   | 0.00   | 0.00 | 0.01              | 0.04  | 126  |      |  |
| 137            | 9.86       | 9.84      | 33.936    | 26.148              | 188.6 | 0.340  | 2.55   | 39.9  | 27.3      | 2.01   | 24.4   | 0.00   | 0.00 | 0.01              | 0.04  | 138  | 209  |  |
| 150            | ISL 9.84   | D 9.82    | 34.020    | D 26.217            | 182.4 | 0.364  | 2.44   | 38.2  | 28.8      | 2.07   | 25.0   | 0.00   | 0.00 | 0.01              | 0.04  | 151  |      |  |
| 168            | 9.52       | 9.50      | 34.078    | 26.316              | 173.3 | 0.396  | 2.21   | 34.4  | 31.5      | 2.17   | 26.1   | 0.00   | 0.01 | 0.00              | 0.03  | 169  | 208  |  |
| 200            | 9.02       | 9.00      | 34.145    | 26.449              | 161.1 | 0.450  | 1.73   | 26.6  | 37.4      | 2.37   | 28.9   | 0.00   | 0.00 | 0.00              | 0.04  | 201  | 207  |  |
| 229            | 8.84       | 8.82      | 34.208    | 26.527              | 154.2 | 0.496  | 1.37   | 21.0  | 41.2      | 2.53   | 30.2   | 0.00   | 0.00 |                   |       | 230  | 206  |  |
| 250            | ISL 8.88   | D 8.85    | 34.259    | D 26.562            | 151.4 | 0.528  | 1.17   | 18.0  | 42.6      | 2.60   | 30.3   | 0.00   | 0.00 |                   |       | 251  |      |  |
| 267            | 8.87       | 8.84      | 34.277    | 26.578              | 150.3 | 0.553  | 1.05   | 16.1  | 43.6      | 2.64   | 30.4   | 0.00   | 0.00 |                   |       | 269  | 205  |  |
| 300            | ISL 8.50   | D 8.47    | 34.290    | D 26.646            | 144.2 | 0.602  | 0.90   | 13.7  | 46.8      | 2.74   | 31.3   | 0.00   | 0.00 |                   |       | 302  |      |  |
| 317            | 8.42       | 8.39      | 34.290    | 26.658              | 143.3 | 0.626  | 0.85   | 12.9  | 48.6      | 2.78   | 31.9   | 0.00   | 0.00 |                   |       | 319  | 204  |  |
| 376            | 8.00       | 7.96      | 34.309    | 26.737              | 136.7 | 0.709  | 0.64   | 9.6   | 53.8      | 2.89   | 33.4   | 0.00   | 0.00 |                   |       | 378  | 203  |  |
| 400            | ISL 7.74   | D 7.70    | 34.307    | D 26.774            | 133.4 | 0.741  | 0.59   | 8.8   | 56.4      | 2.94   | 34.1   | 0.00   | 0.02 |                   |       | 403  |      |  |
| 435            | 7.43       | 7.39      | 34.305    | 26.817              | 129.6 | 0.787  | 0.53   | 7.9   | 60.7      | 3.01   | 35.1   | 0.00   | 0.05 |                   |       | 438  | 202  |  |
| 500            | ISL 6.84   | D 6.79    | 34.313    | D 26.906            | 121.7 | 0.869  | 0.39   | 5.7   | 69.7      | 3.12   | 36.9   | 0.00   | 0.00 |                   |       | 503  | 200  |  |
| 519            | 6.63       | 6.58      | 34.319    | 26.939              | 118.6 | 0.892  | 0.35   | 5.1   | 72.3      | 3.15   | 37.4   | 0.00   | 0.37 |                   |       | 523  | 200  |  |

| RV NEW HORIZON |             |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 86.7 50.0 |       |      |      |  |
|----------------|-------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE   | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 33 19.1 N      | 119 39.9 W  | 22/08/08  | 0736 UTC  | 81 m                | 340   | 15 kn  |        |       | 1009.3 mb | 17.2 c | 16.3 c |        |      |                   |       |      |      |  |
| DEPTH          | TEMP        | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | PO4    | NO3    | NO2    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C       | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 18.29   | 18.29     | 33.494    | 24.049              | 385.4 | 0.000  | 5.85   | 108.7 | 1.8       | 0.29   | 0.0    | 0.00   | 0.48 | 0.46              | 0.09  | 0    |      |  |
| 1              | 18.29       | 18.29     | 33.494    | 24.049              | 385.4 | 0.004  | 5.85   | 108.7 | 1.8       | 0.29   | 0.0    | 0.00   | 0.48 | 0.46              | 0.09  | 1    | 210  |  |
| 5              | 18.30       | 18.30     | 33.499    | 24.050              | 385.4 | 0.019  | 5.84   | 108.5 | 1.8       | 0.28   | 0.0    | 0.00   | 0.43 | 0.46              | 0.06  | 5    | 209  |  |
| 10             | ISL 18.30 D | 18.30     | 33.490 D  | 24.044              | 386.2 | 0.039  | 5.84   | 108.5 | 1.8       | 0.26   | 0.0    | 0.00   | 0.55 | 0.45              | 0.08  | 10   |      |  |
| 11             | 18.26       | 18.26     | 33.495    | 24.057              | 385.0 | 0.042  | 5.84   | 108.4 | 1.8       | 0.26   | 0.0    | 0.00   | 0.58 | 0.45              | 0.08  | 11   | 207  |  |
| 11             | 18.27       | 18.27     | 33.495    | 24.055              | 385.2 | 0.042  |        |       |           |        |        |        |      |                   |       | 11   | 208  |  |
| 20             | ISL 16.15 D | 16.15     | 33.486 D  | 24.551              | 338.2 | 0.075  | 5.98   | 106.6 | 2.0       | 0.38   | 1.0    | 0.06   | 0.63 | 1.78              | 0.28  | 20   |      |  |
| 21             | 16.56       | 16.56     | 33.477    | 24.450              | 347.9 | 0.078  | 5.99   | 107.6 | 2.0       | 0.39   | 1.1    | 0.07   | 0.63 | 1.91              | 0.30  | 21   | 206  |  |
| 30             | ISL 13.34 D | 13.34     | 33.409 D  | 25.094              | 286.6 | 0.107  | 5.58   | 93.9  | 6.2       | 0.80   | 6.6    | 0.25   | 0.76 | 1.17              | 0.23  | 30   |      |  |
| 31             | 13.30       | 13.30     | 33.409    | 25.102              | 285.9 | 0.110  | 5.52   | 92.8  | 6.7       | 0.85   | 7.3    | 0.26   | 0.77 | 1.03              | 0.22  | 31   | 205  |  |
| 41             | 12.13       | 12.12     | 33.375    | 25.304              | 266.9 | 0.137  | 5.30   | 86.9  | 9.1       | 1.02   | 10.2   | 0.14   | 0.43 | 0.27              | 0.30  | 41   | 204  |  |
| 50             | ISL 11.64 D | 11.63     | 33.492 D  | 25.487              | 249.7 | 0.161  | 4.93   | 80.1  | 12.0      | 1.22   | 13.2   | 0.09   | 0.10 | 0.13              | 0.16  | 50   |      |  |
| 51             | 11.62       | 11.61     | 33.497    | 25.494              | 249.0 | 0.163  | 4.88   | 79.2  | 12.4      | 1.24   | 13.6   | 0.09   | 0.07 | 0.11              | 0.14  | 51   | 203  |  |
| 59             | 11.12       | 11.11     | 33.588    | 25.656              | 233.8 | 0.183  | 4.38   | 70.4  | 16.2      | 1.44   | 16.5   | 0.06   | 0.00 | 0.09              | 0.10  | 59   | 202  |  |
| 69             | 11.08       | 11.07     | 33.597    | 25.671              | 232.6 | 0.206  | 4.32   | 69.4  | 16.6      | 1.46   | 16.8   | 0.05   | 0.00 | 0.07              | 0.12  | 69   | 201  |  |

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

| RV NEW HORIZON |             |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 86.7 55.0 |       |      |      |  |
|----------------|-------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE   | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 33 9.1 N       | 120 0.9 W   | 22/08/08  | 1134 UTC  | 1196 m              | 300   | 15 kn  |        |       | 1009.1 mb | 16.8 c | 15.7 c |        |      |                   |       |      |      |  |
| DEPTH          | TEMP        | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | PO4    | NO3    | NO2    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C       | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 16.69   | 16.69     | 33.551    | 24.476              | 344.7 | 0.000  | 5.75   | 103.6 | 1.0       | 0.35   | 0.8    | 0.04   | 0.03 | 0.63              | 0.20  | 0    |      |  |
| 1              | 16.69       | 16.69     | 33.551    | 24.476              | 344.7 | 0.003  | 5.75   | 103.6 | 1.0       | 0.35   | 0.8    | 0.04   | 0.03 | 0.63              | 0.20  | 1    | 222  |  |
| 10             | CSL 16.69   | 16.69     | 33.543    | 24.470              | 345.6 | 0.035  |        |       |           |        |        |        |      |                   |       | 10   | 200  |  |
| 10             | 16.69       | 16.69     | 33.544    | 24.471              | 345.5 | 0.035  |        |       |           |        |        |        |      |                   |       | 10   | 221  |  |
| 11             | 16.69       | 16.69     | 33.543    | 24.470              | 345.6 | 0.038  | 5.76   | 103.8 | 1.0       | 0.35   | 0.8    | 0.04   | 0.00 | 0.65              | 0.16  | 11   | 220  |  |
| 20             | 16.45       | 16.45     | 33.531    | 24.517              | 341.5 | 0.069  | 5.81   | 104.2 | 1.0       | 0.36   | 0.9    | 0.05   | 0.00 | 0.84              | 0.22  | 20   | 219  |  |
| 30             | 16.27       | 16.27     | 33.511    | 24.543              | 339.3 | 0.103  | 5.89   | 105.2 | 1.0       | 0.37   | 0.9    | 0.05   | 0.07 | 1.33              | 0.40  | 30   | 218  |  |
| 40             | 16.14       | 16.13     | 33.505    | 24.568              | 337.2 | 0.137  | 5.92   | 105.5 | 1.1       | 0.37   | 0.9    | 0.05   | 0.15 | 1.56              | 0.25  | 40   | 217  |  |
| 50             | ISL 14.56 D | 14.55     | 33.576 D  | 24.971              | 299.0 | 0.169  | 6.03   | 104.1 | 1.9       | 0.60   | 3.6    | 0.14   | 0.01 | 2.29              | 0.57  | 50   |      |  |
| 51             | 14.36       | 14.35     | 33.577    | 25.014              | 294.9 | 0.172  | 6.04   | 103.9 | 2.1       | 0.63   | 4.0    | 0.15   | 0.00 | 2.33              | 0.61  | 51   | 216  |  |
| 60             | 13.71       | 13.70     | 33.553    | 25.131              | 284.0 | 0.198  | 5.67   | 96.2  | 4.8       | 0.82   | 6.7    | 0.28   | 0.06 | 1.50              | 0.61  | 60   | 215  |  |
| 65             | 13.14       | 13.13     | 33.557    | 25.250              | 272.8 | 0.211  | 5.37   | 90.1  | 7.3       | 0.99   | 9.1    | 0.36   | 0.19 | 0.95              | 0.42  | 65   | 214  |  |
| 69             | 12.69       | 12.68     | 33.557    | 25.339              | 264.4 | 0.222  | 5.15   | 85.6  | 9.2       | 1.09   | 11.1   | 0.36   | 0.21 | 0.54              | 0.41  | 69   | 213  |  |
| 75             | ISL 11.43 D | 11.42     | 33.631 D  | 25.634              | 236.3 | 0.237  | 4.80   | 77.7  | 12.1      | 1.25   | 13.9   | 0.23   | 0.17 | 0.35              | 0.29  | 75   |      |  |
| 84             | 11.16       | 11.15     | 33.632    | 25.684              | 231.7 | 0.258  | 4.30   | 69.2  | 16.1      | 1.46   | 17.3   | 0.01   | 0.06 | 0.06              | 0.09  | 84   | 212  |  |
| 100            | ISL 10.36 D | 10.35     | 33.741 D  | 25.910              | 210.5 | 0.294  | 3.64   | 57.6  | 20.9      | 1.69   | 20.8   | 0.01   | 0.00 | 0.02              | 0.08  | 100  |      |  |
| 101            | 10.36       | 10.35     | 33.741    | 25.910              | 210.5 | 0.296  | 3.61   | 57.1  | 21.1      | 1.70   | 21.0   | 0.01   | 0.00 | 0.02              | 0.08  | 101  | 211  |  |
| 119            | 9.70        | 9.69      | 33.843    | 26.101              | 192.6 | 0.332  | 3.05   | 47.6  | 25.5      | 1.86   | 23.6   | 0.00   | 0.00 | 0.02              | 0.06  | 120  | 210  |  |
| 125            | ISL 9.51 D  | 9.50      | 33.876 D  | 26.158              | 187.3 | 0.343  | 2.98   | 46.3  | 26.2      | 1.88   | 24.0   | 0.00   | 0.00 | 0.02              | 0.06  | 126  |      |  |
| 139            | 9.36        | 9.34      | 33.904    | 26.205              | 183.1 | 0.369  | 2.88   | 44.6  | 27.5      | 1.92   | 24.5   | 0.00   | 0.00 | 0.01              | 0.05  | 140  | 209  |  |
| 150            | ISL 9.28 D  | 9.26      | 33.918 D  | 26.229              | 181.0 | 0.389  | 2.74   | 42.4  | 28.9      | 1.97   | 25.2   | 0.00   | 0.01 | 0.01              | 0.04  | 151  |      |  |
| 169            | 9.06        | 9.04      | 34.008    | 26.335              | 171.3 | 0.423  | 2.47   | 38.0  | 31.5      | 2.06   | 26.4   | 0.00   | 0.03 | 0.01              | 0.04  | 170  | 208  |  |
| 196            | 8.85        | 8.83      | 34.071    | 26.418              | 163.9 | 0.468  | 2.11   | 32.3  | 35.3      | 2.22   | 28.1   | 0.00   | 0.20 | 0.00              | 0.05  | 197  | 207  |  |
| 200            | ISL 8.82 D  | 8.80      | 34.102 D  | 26.447              | 161.2 | 0.475  | 2.05   | 31.4  | 36.0      | 2.24   | 28.4   | 0.00   | 0.19 |                   |       | 201  |      |  |
| 231            | 8.43        | 8.41      | 34.145    | 26.542              | 152.7 | 0.523  | 1.64   | 24.9  | 41.8      | 2.43   | 30.4   | 0.00   | 0.00 |                   |       | 232  | 206  |  |
| 250            | ISL 8.32 D  | 8.29      | 34.184 D  | 26.589              | 148.5 | 0.552  | 1.41   | 21.4  | 44.6      | 2.52   | 31.2   | 0.00   | 0.00 |                   |       | 251  |      |  |
| 295            | 8.04        | 8.01      | 34.250    | 26.684              | 140.3 | 0.617  | 0.96   | 14.5  | 50.5      | 2.72   | 32.6   | 0.00   | 0.00 |                   |       | 297  | 205  |  |
| 300            | ISL 7.93 D  | 7.90      | 34.252 D  | 26.702              | 138.6 | 0.624  | 0.92   | 13.8  | 51.2      | 2.74   | 32.8   | 0.00   | 0.00 |                   |       | 302  |      |  |
| 320            | 7.84        | 7.81      | 34.280    | 26.737              | 135.5 | 0.651  | 0.76   | 11.4  | 53.8      | 2.82   | 33.4   | 0.00   | 0.01 |                   |       | 322  | 204  |  |
| 379            | 7.35        | 7.31      | 34.281    | 26.809              | 129.4 | 0.729  | 0.60   | 8.9   | 59.9      | 2.93   | 35.0   | 0.00   | 0.20 |                   |       | 381  | 203  |  |
| 400            | ISL 7.32 D  | 7.28      | 34.307 D  | 26.834              | 127.4 | 0.756  | 0.54   | 8.0   | 62.2      | 2.96   | 35.4   | 0.00   | 0.16 |                   |       | 403  |      |  |
| 437            | 6.99        | 6.95      | 34.306    | 26.879              | 123.4 | 0.803  | 0.44   | 6.5   | 66.1      | 3.02   | 36.1   | 0.00   | 0.06 |                   |       | 440  | 202  |  |
| 500            | ISL 6.46 D  | 6.41      | 34.298 D  | 26.945              | 117.6 | 0.879  | 0.38   | 5.5   | 72.3      | 3.10   | 37.7   | 0.00   | 0.10 |                   |       | 503  |      |  |
| 502            | 6.46        | 6.41      | 34.296    | 26.943              | 117.8 | 0.881  | 0.38   | 5.5   | 72.5      | 3.10   | 37.8   | 0.00   | 0.10 |                   |       | 505  | 201  |  |

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

| RV NEW HORIZON |            |           |           |          | CALCOFI CRUISE 0808 |        |           |       |           |        |        |        |      |       | STATION 86.7 60.0 |      |      |  |  |
|----------------|------------|-----------|-----------|----------|---------------------|--------|-----------|-------|-----------|--------|--------|--------|------|-------|-------------------|------|------|--|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM   | WIND                | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT   | TYPE              |      |      |  |  |
| 33 0.0 N       | 120 23.4 W | 22/08/08  | 1805 UTC  | 885 m    | 340                 | 15 kn  | 330 05 07 | 2     | 1011.6 mb | 17.1 c | 15.2 c | 13m    |      | 8/8   | SC                |      |      |  |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA    | SVA                 | DYN HT | OXYGEN    | OXY   | SI03      | PO4    | NO3    | NO2    | NH4  | CHL-A | PHAE0             | PRES | SAMP |  |  |
| m              | DEG C      | DEG C     |           | THETA    |                     |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L  | ug/L              | db   |      |  |  |
| 0              | ISL 17.84  | 17.84     | 33.505    | 24.167   | 374.1               | 0.000  | 5.59      | 103.0 | 1.7       | 0.29   | 0.0    | 0.00   | 0.45 | 0.33  | 0.06              | 0    |      |  |  |
| 2              | A 17.84    | 17.84     | 33.505    | 24.167   | 374.2               | 0.007  | 5.59      | 103.0 | 1.7       | 0.29   | 0.0    | 0.00   | 0.45 | 0.33  | 0.06              | 2    | 223  |  |  |
| 8              | A 17.82    | 17.82     | 33.503    | 24.171   | 374.0               | 0.030  | 5.57      | 102.6 | 1.7       | 0.30   | 0.0    | 0.00   | 0.35 | 0.31  | 0.07              | 8    | 222  |  |  |
| 10             | ISL 17.80  | D 17.80   | 33.497    | D 24.171 | 374.0               | 0.037  | 5.57      | 102.5 | 1.7       | 0.30   | 0.0    | 0.00   | 0.33 | 0.31  | 0.07              | 10   |      |  |  |
| 17             | 17.74      | 17.74     | 33.498    | 24.187   | 372.8               | 0.064  | 5.60      | 103.0 | 1.7       | 0.30   | 0.0    | 0.00   | 0.27 | 0.33  | 0.08              | 17   | 220  |  |  |
| 20             | ISL 17.71  | D 17.71   | 33.491    | D 24.189 | 372.7               | 0.075  | 5.60      | 102.9 | 1.7       | 0.30   | 0.0    | 0.00   | 0.24 | 0.34  | 0.08              | 20   |      |  |  |
| 26             | A 17.68    | 17.68     | 33.494    | 24.199   | 372.0               | 0.097  | 5.60      | 102.8 | 1.7       | 0.29   | 0.0    | 0.00   | 0.19 | 0.36  | 0.07              | 26   | 219  |  |  |
| 30             | ISL 17.56  | D 17.55   | 33.487    | D 24.222 | 369.9               | 0.112  | 5.63      | 103.1 | 1.5       | 0.29   | 0.0    | 0.00   | 0.17 | 0.45  | 0.04              | 30   |      |  |  |
| 35             | A 17.33    | 17.32     | 33.506    | 24.292   | 363.4               | 0.130  | 5.67      | 103.4 | 1.3       | 0.30   | 0.0    | 0.00   | 0.15 | 0.57  | 0.00              | 35   | 218  |  |  |
| 42             | A 14.75    | 14.74     | 33.456    | 24.838   | 311.5               | 0.154  | 6.02      | 104.3 | 3.4       | 0.57   | 3.2    | 0.16   | 0.44 | 1.54  | 0.52              | 42   | 217  |  |  |
| 49             | A 12.50    | 12.49     | 33.381    | 25.238   | 273.4               | 0.174  | 5.45      | 90.1  | 8.5       | 0.98   | 9.4    | 0.41   | 0.49 | 0.48  | 0.29              | 49   | 215  |  |  |
| 49             | 12.58      | 12.57     | 33.383    | 25.224   | 274.7               | 0.174  | 5.46      | 90.4  |           |        |        |        |      |       |                   | 49   | 216  |  |  |
| 50             | ISL 12.29  | D 12.28   | 33.393    | D 25.288 | 268.7               | 0.177  | 5.40      | 88.9  | 8.9       | 1.01   | 9.9    | 0.39   | 0.48 | 0.46  | 0.27              | 50   |      |  |  |
| 60             | 11.78      | 11.77     | 33.454    | 25.432   | 255.2               | 0.203  | 5.07      | 82.6  | 11.4      | 1.18   | 13.2   | 0.06   | 0.29 | 0.21  | 0.17              | 60   | 214  |  |  |
| 70             | 11.01      | 11.00     | 33.534    | 25.634   | 236.1               | 0.228  | 4.67      | 74.8  | 14.9      | 1.38   | 16.4   | 0.02   | 0.26 | 0.08  | 0.08              | 70   | 213  |  |  |
| 75             | ISL 10.61  | D 10.60   | 33.608    | D 25.762 | 224.0               | 0.239  | 4.43      | 70.4  | 16.7      | 1.47   | 17.9   | 0.02   | 0.25 | 0.06  | 0.07              | 75   |      |  |  |
| 85             | 10.40      | 10.39     | 33.666    | 25.844   | 216.4               | 0.261  | 3.99      | 63.2  | 19.8      | 1.62   | 20.2   | 0.01   | 0.24 | 0.03  | 0.06              | 85   | 212  |  |  |
| 100            | ISL 10.14  | D 10.13   | 33.754    | D 25.958 | 205.9               | 0.293  | 3.63      | 57.2  | 21.9      | 1.73   | 21.6   | 0.00   | 0.01 | 0.03  | 0.07              | 100  |      |  |  |
| 101            | 10.19      | 10.18     | 33.738    | 25.937   | 207.9               | 0.295  | 3.61      | 56.9  | 22.0      | 1.74   | 21.7   | 0.00   | 0.00 | 0.03  | 0.07              | 101  | 211  |  |  |
| 119            | 9.33       | 9.32      | 33.872    | 26.184   | 184.6               | 0.330  | 2.94      | 45.5  | 27.6      | 1.94   | 25.0   | 0.00   | 0.00 | 0.01  | 0.05              | 120  | 210  |  |  |
| 125            | ISL 9.31   | D 9.30    | 33.888    | D 26.200 | 183.2               | 0.341  | 2.83      | 43.8  | 28.6      | 1.96   | 25.5   | 0.00   | 0.00 | 0.01  | 0.05              | 126  |      |  |  |
| 139            | 9.11       | 9.09      | 33.961    | 26.290   | 175.0               | 0.367  | 2.68      | 41.3  | 30.2      | 1.99   | 26.0   | 0.00   | 0.02 | 0.01  | 0.04              | 140  | 209  |  |  |
| 150            | ISL 9.02   | D 9.00    | 33.977    | D 26.317 | 172.6               | 0.386  | 2.63      | 40.4  | 31.0      | 2.01   | 26.3   | 0.00   | 0.05 | 0.01  | 0.04              | 151  |      |  |  |
| 168            | 8.85       | 8.83      | 34.002    | 26.364   | 168.5               | 0.416  | 2.58      | 39.5  | 32.4      | 2.05   | 26.7   | 0.00   | 0.11 | 0.01  | 0.04              | 169  | 208  |  |  |
| 200            | 8.49       | 8.47      | 34.054    | 26.460   | 159.8               | 0.469  | 2.23      | 33.9  | 37.1      | 2.19   | 28.7   | 0.00   | 0.11 | 0.00  | 0.05              | 201  | 207  |  |  |
| 229            | 7.97       | 7.95      | 34.104    | 26.578   | 149.0               | 0.514  | 1.68      | 25.2  | 44.4      | 2.44   | 31.6   | 0.00   | 0.00 |       |                   | 230  | 206  |  |  |
| 250            | ISL 7.77   | D 7.75    | 34.116    | D 26.617 | 145.5               | 0.545  | 1.52      | 22.7  | 47.4      | 2.52   | 32.6   | 0.00   | 0.00 |       |                   | 251  |      |  |  |
| 268            | 7.59       | 7.56      | 34.124    | 26.650   | 142.7               | 0.571  | 1.44      | 21.5  | 49.5      | 2.57   | 33.2   | 0.00   | 0.00 |       |                   | 270  | 205  |  |  |
| 300            | ISL 7.14   | D 7.11    | 34.148    | D 26.732 | 135.1               | 0.615  | 1.22      | 18.0  | 54.6      | 2.69   | 34.5   | 0.00   | 0.00 |       |                   | 302  |      |  |  |
| 314            | 7.08       | 7.05      | 34.153    | 26.745   | 134.1               | 0.634  | 1.12      | 16.5  | 57.0      | 2.74   | 35.0   | 0.00   | 0.00 |       |                   | 316  | 204  |  |  |
| 380            | 6.55       | 6.52      | 34.220    | 26.870   | 122.9               | 0.719  | 0.65      | 9.5   | 67.3      | 2.97   | 37.2   | 0.00   | 0.00 |       |                   | 382  | 203  |  |  |
| 400            | ISL 6.54   | D 6.50    | 34.235    | D 26.883 | 122.0               | 0.743  | 0.59      | 8.6   | 68.4      | 2.99   | 37.5   | 0.00   | 0.00 |       |                   | 403  |      |  |  |
| 438            | 6.45       | 6.41      | 34.250    | 26.907   | 120.2               | 0.789  | 0.52      | 7.5   | 70.1      | 3.02   | 37.8   | 0.00   | 0.00 |       |                   | 441  | 202  |  |  |
| 500            | ISL 6.15   | D 6.11    | 34.291    | D 26.979 | 114.0               | 0.862  | 0.35      | 5.0   | 76.6      | 3.14   | 38.9   | 0.00   | 0.00 |       |                   | 503  |      |  |  |
| 514            | 6.07       | 6.02      | 34.309    | 27.004   | 111.8               | 0.878  | 0.31      | 4.5   | 78.1      | 3.17   | 39.2   | 0.00   | 0.00 |       |                   | 518  | 201  |  |  |

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

| RV NEW HORIZON |           |           |          |           | CALCOFI CRUISE 0808 |        |        |       |           |      |           |        |        |        | STATION 86.7 70.0 |      |      |  |  |
|----------------|-----------|-----------|----------|-----------|---------------------|--------|--------|-------|-----------|------|-----------|--------|--------|--------|-------------------|------|------|--|--|
| LATITUDE       |           | LONGITUDE |          | DAY/MO/YR | CAST TIME           | BOTTOM | WIND   | SPEED | WAVES     | WEA  | BAROMETER | DRY    | WET    | SECCHI | CLD               | AMT  | TYPE |  |  |
| 32 39.9 N      |           | 121 1.3 W |          | 22/08/08  | 2253 UTC            | 3775 m | 340    | 14 kn | 330 05 06 | 2    | 1011.1 mb | 17.9 C | 16.0 C | 17m    |                   | 8/8  | ST   |  |  |
| DEPTH          | TEMP      | POT TEMP  | SALINITY | SIGMA     | SVA                 | DYN HT | OXYGEN | OXY   | SI03      | P04  | N03       | N02    | NH4    | CHL-A  | PHAE0             | PRES | SAMP |  |  |
| m              | DEG C     | DEG C     |          | THETA     |                     |        | ml/L   | PCT   | uM/L      | uM/L | uM/L      | uM/L   | uM/L   | ug/L   | ug/L              | db   |      |  |  |
| 0              | ISL 16.70 | 16.70     | 32.992   | 24.044    | 385.8               | 0.000  | 5.71   | 102.6 | 2.5       | 0.39 | 0.1       | 0.00   | 0.09   | 0.16   | 0.03              | 0    |      |  |  |
| 2              | 16.70     | 16.70     | 32.992   | 24.045    | 385.9               | 0.008  | 5.71   | 102.6 | 2.5       | 0.39 | 0.1       | 0.00   | 0.09   | 0.16   | 0.03              | 2    | 224  |  |  |
| 9              | 16.70     | 16.70     | 32.994   | 24.046    | 385.9               | 0.035  | 5.72   | 102.7 | 2.5       | 0.39 | 0.1       | 0.00   | 0.26   | 0.17   | 0.02              | 9    | 223  |  |  |
| 9              | 16.69     | 16.69     | 32.993   | 24.048    | 385.8               | 0.035  |        |       | 2.5       | 0.38 | 0.1       | 0.00   | 0.28   |        |                   | 9    | 222  |  |  |
| 10             | ISL 16.69 | D 16.69   | 32.992   | D 24.047  | 385.9               | 0.039  | 5.72   | 102.7 | 2.5       | 0.39 | 0.1       | 0.00   | 0.26   | 0.17   | 0.02              | 10   |      |  |  |
| 19             | 16.58     | 16.58     | 33.013   | 24.089    | 382.2               | 0.073  | 5.74   | 102.9 | 2.6       | 0.38 | 0.0       | 0.00   | 0.25   | 0.18   | 0.04              | 19   | 221  |  |  |
| 20             | ISL 16.15 | D 16.15   | 33.026   | D 24.197  | 371.9               | 0.077  | 5.77   | 102.5 | 2.6       | 0.38 | 0.0       | 0.00   | 0.24   | 0.20   | 0.05              | 20   |      |  |  |
| 29             | 15.83     | 15.83     | 33.114   | 24.337    | 358.8               | 0.110  | 6.01   | 106.2 | 2.7       | 0.37 | 0.0       | 0.00   | 0.18   | 0.41   | 0.18              | 29   | 220  |  |  |
| 30             | ISL 15.81 | D 15.81   | 33.163   | D 24.380  | 354.8               | 0.113  | 6.02   | 106.4 | 2.7       | 0.37 | 0.0       | 0.00   | 0.19   | 0.44   | 0.20              | 30   |      |  |  |
| 34             | 15.43     | 15.42     | 33.121   | 24.432    | 349.9               | 0.127  | 6.07   | 106.4 | 2.6       | 0.38 | 0.1       | 0.02   | 0.24   | 0.52   | 0.25              | 34   | 219  |  |  |
| 40             | 13.78     | 13.77     | 32.921   | 24.628    | 331.3               | 0.148  | 6.15   | 104.1 | 3.6       | 0.50 | 1.0       | 0.15   | 0.26   | 0.48   | 0.28              | 40   | 218  |  |  |
| 49             | 12.85     | 12.84     | 32.914   | 24.809    | 314.3               | 0.177  | 6.01   | 99.8  | 4.4       | 0.59 | 2.1       | 0.55   | 0.51   | 0.41   | 0.37              | 49   | 217  |  |  |
| 50             | CSL 12.59 | 12.58     | 32.896   | 24.845    | 310.8               | 0.180  |        |       |           |      |           |        |        |        |                   | 50   | 200  |  |  |
| 50             | 12.79     | 12.78     | 32.914   | 24.820    | 313.2               | 0.180  |        |       |           |      |           |        |        |        |                   | 50   | 216  |  |  |
| 59             | 12.30     | 12.29     | 32.945   | 24.939    | 302.1               | 0.208  | 5.83   | 95.7  | 4.7       | 0.63 | 3.2       | 0.43   | 0.32   | 0.34   | 0.38              | 59   | 215  |  |  |
| 69             | 11.42     | 11.41     | 32.931   | 25.091    | 287.7               | 0.237  | 5.68   | 91.5  | 6.8       | 0.80 | 6.7       | 0.04   | 0.14   | 0.26   | 0.17              | 69   | 214  |  |  |
| 75             | ISL 11.14 | D 11.13   | 33.034   | D 25.222  | 275.4               | 0.254  | 5.58   | 89.4  | 7.6       | 0.87 | 8.2       | 0.03   | 0.14   | 0.19   | 0.15              | 75   |      |  |  |
| 84             | 11.49     | 11.48     | 33.253   | 25.329    | 265.4               | 0.278  | 5.37   | 86.8  | 9.3       | 1.00 | 10.5      | 0.01   | 0.14   | 0.10   | 0.12              | 84   | 212  |  |  |
| 85             | 11.52     | 11.51     | 33.259   | 25.328    | 265.6               | 0.281  |        |       |           |      |           |        |        |        |                   | 85   | 213  |  |  |
| 99             | 10.66     | 10.65     | 33.483   | 25.657    | 234.6               | 0.316  | 4.77   | 75.8  | 15.4      | 1.37 | 16.4      | 0.00   | 0.05   | 0.03   | 0.04              | 99   | 211  |  |  |
| 100            | ISL 10.59 | D 10.58   | 33.516   | D 25.695  | 231.0               | 0.318  | 4.74   | 75.3  | 15.6      | 1.38 | 16.6      | 0.00   | 0.05   | 0.03   | 0.04              | 100  |      |  |  |
| 119            | 10.37     | 10.36     | 33.612   | 25.808    | 220.6               | 0.361  | 4.25   | 67.2  | 18.6      | 1.55 | 19.5      | 0.00   | 0.00   | 0.01   | 0.04              | 120  | 210  |  |  |
| 125            | ISL 10.24 | D 10.23   | 33.678   | D 25.882  | 213.7               | 0.374  | 4.07   | 64.2  | 20.1      | 1.63 | 20.7      | 0.00   | 0.00   | 0.01   | 0.04              | 126  |      |  |  |
| 138            | 9.89      | 9.87      | 33.793   | 26.031    | 199.7               | 0.401  | 3.67   | 57.5  | 23.6      | 1.80 | 23.1      | 0.00   | 0.00   | 0.01   | 0.04              | 139  | 209  |  |  |
| 150            | ISL 9.50  | D 9.48    | 33.841   | D 26.133  | 190.2               | 0.425  | 3.31   | 51.4  | 26.1      | 1.88 | 24.5      | 0.00   | 0.00   | 0.01   | 0.04              | 151  |      |  |  |
| 168            | 9.10      | 9.08      | 33.913   | 26.254    | 179.0               | 0.458  | 2.82   | 43.4  | 29.4      | 1.96 | 26.0      | 0.00   | 0.00   | 0.01   | 0.03              | 169  | 208  |  |  |
| 200            | ISL 8.66  | D 8.64    | 34.020   | D 26.408  | 164.9               | 0.513  | 2.23   | 34.0  | 34.8      | 2.13 | 28.5      | 0.00   | 0.10   | 0.00   | 0.03              | 201  |      |  |  |
| 201            | 8.68      | 8.66      | 34.015   | 26.401    | 165.6               | 0.515  | 2.22   | 33.9  | 35.0      | 2.14 | 28.6      | 0.00   | 0.10   | 0.00   | 0.03              | 202  | 207  |  |  |
| 228            | 8.24      | 8.22      | 34.061   | 26.504    | 156.1               | 0.558  | 2.02   | 30.5  | 39.6      | 2.25 | 30.1      | 0.00   | 0.00   |        |                   | 229  | 206  |  |  |
| 250            | ISL 8.07  | D 8.04    | 34.090   | D 26.553  | 151.8               | 0.592  | 1.75   | 26.4  | 43.0      | 2.35 | 31.2      | 0.00   | 0.02   |        |                   | 251  |      |  |  |
| 268            | 7.95      | 7.92      | 34.121   | 26.595    | 148.1               | 0.619  | 1.52   | 22.8  | 45.7      | 2.44 | 32.1      | 0.00   | 0.04   |        |                   | 270  | 205  |  |  |
| 300            | ISL 7.58  | D 7.55    | 34.161   | D 26.681  | 140.3               | 0.665  | 1.25   | 18.6  | 50.9      | 2.58 | 33.6      | 0.00   | 0.01   |        |                   | 302  |      |  |  |
| 318            | 7.40      | 7.37      | 34.160   | 26.706    | 138.1               | 0.690  | 1.14   | 16.9  | 53.7      | 2.65 | 34.3      | 0.00   | 0.00   |        |                   | 320  | 204  |  |  |
| 380            | 6.79      | 6.75      | 34.186   | 26.811    | 128.7               | 0.773  | 0.84   | 12.3  | 62.2      | 2.81 | 36.2      | 0.00   | 0.10   |        |                   | 382  | 203  |  |  |
| 400            | ISL 6.67  | D 6.63    | 34.204   | D 26.842  | 126.0               | 0.798  | 0.72   | 10.5  | 65.2      | 2.87 | 36.8      | 0.00   | 0.07   |        |                   | 403  |      |  |  |
| 438            | 6.44      | 6.40      | 34.247   | 26.906    | 120.3               | 0.845  | 0.50   | 7.3   | 70.6      | 2.97 | 37.9      | 0.00   | 0.00   |        |                   | 441  | 202  |  |  |
| 500            | ISL 6.07  | D 6.03    | 34.282   | D 26.982  | 113.6               | 0.918  | 0.37   | 5.3   | 77.8      | 3.06 | 39.2      | 0.00   | 0.00   |        |                   | 503  |      |  |  |
| 516            | 5.92      | 5.87      | 34.280   | 27.000    | 112.0               | 0.936  | 0.34   | 4.9   | 79.6      | 3.08 | 39.5      | 0.00   | 0.00   |        |                   | 519  | 201  |  |  |

STATION 86.7 80.0

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS:PRIMARY T: PRIMARY CORRECTED S:

STATION 86.7 90.0

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

| RV NEW HORIZON |           |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 86.7 100.0 |       |      |      |  |
|----------------|-----------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|--------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT                | TYPE  |      |      |  |
| 31 39.2 N      | 123 4.5 W | 23/08/08  | 1716 UTC  | 4120 m              | 350   | 16 kn  | 350 05 07 | 2     | 1015.1 mb | 17.0 c | 14.9 c | 17m    |      | 8/8                | ST    |      |      |  |
| DEPTH          | TEMP      | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | PO4    | NO3    | NO2    | NH4  | CHL-A              | PHAE0 | PRES | SAMP |  |
| m              | DEG C     | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L               | ug/L  | db   |      |  |
| 0              | ISL 17.10 | 17.10     | 33.034    | 23.983              | 391.6 | 0.000  | 5.77      | 104.5 | 2.0       | 0.39   | 0.1    | 0.01   | 0.24 | 0.23               | 0.02  | 0    |      |  |
| 2              | A 17.10   | 17.10     | 33.034    | 23.983              | 391.7 | 0.008  | 5.77      | 104.5 | 2.0       | 0.39   | 0.1    | 0.01   | 0.24 | 0.23               | 0.02  | 2    | 222  |  |
| 10             | A 17.10   | 17.10     | 33.032    | 23.982              | 392.1 | 0.039  | 5.79      | 104.8 | 2.1       | 0.39   | 0.1    | 0.01   | 0.00 | 0.23               | 0.03  | 10   | 220  |  |
| 10             | 17.10     | 17.10     |           |                     |       | 0.039  |           |       |           |        |        |        |      |                    |       | 10   | 221  |  |
| 16             | 16.61     | 16.61     | 33.029    | 24.094              | 381.6 | 0.062  | 5.89      | 105.6 | 2.1       | 0.39   | 0.1    | 0.01   | 0.21 | 0.24               | 0.04  | 16   | 219  |  |
| 20             | ISL 15.55 | D 15.55   | 32.983    | D 24.299            | 362.2 | 0.077  | 5.97      | 104.8 | 2.4       | 0.44   | 0.6    | 0.04   | 0.29 | 0.21               | 0.05  | 20   |      |  |
| 24             | A 15.27   | 15.27     | 32.962    | 24.344              | 358.0 | 0.092  | 6.04      | 105.4 | 2.7       | 0.49   | 1.1    | 0.07   | 0.35 | 0.17               | 0.05  | 24   | 218  |  |
| 30             | ISL 15.16 | D 15.16   | 32.968    | D 24.373            | 355.4 | 0.113  | 6.04      | 105.2 | 2.8       | 0.51   | 1.3    | 0.08   | 0.39 | 0.18               | 0.05  | 30   |      |  |
| 35             | A 15.12   | 15.11     | 32.971    | 24.384              | 354.5 | 0.131  | 6.04      | 105.1 | 2.9       | 0.51   | 1.4    | 0.09   | 0.42 | 0.19               | 0.05  | 35   | 217  |  |
| 46             | A 14.05   | 14.04     | 32.991    | 24.627              | 331.6 | 0.169  | 6.15      | 104.7 | 3.6       | 0.59   | 2.4    | 0.21   | 0.20 | 0.27               | 0.09  | 46   | 216  |  |
| 50             | ISL 13.74 | D 13.73   | 32.997    | D 24.695            | 325.2 | 0.182  | 6.14      | 103.9 | 3.9       | 0.62   | 2.8    | 0.26   | 0.35 | 0.27               | 0.10  | 50   |      |  |
| 55             | 13.59     | 13.58     | 33.008    | 24.734              | 321.6 | 0.198  | 6.13      | 103.4 | 4.3       | 0.65   | 3.3    | 0.31   | 0.58 | 0.27               | 0.12  | 55   | 215  |  |
| 63             | A 13.52   | 13.51     | 33.040    | 24.773              | 318.1 | 0.223  | 6.02      | 101.4 | 4.7       | 0.69   | 3.7    | 0.36   | 0.77 | 0.24               | 0.14  | 63   | 214  |  |
| 74             | 13.36     | 13.35     | 33.066    | 24.826              | 313.3 | 0.258  | 5.93      | 99.6  | 5.0       | 0.74   | 4.2    | 0.45   | 0.84 | 0.26               | 0.16  | 74   | 213  |  |
| 75             | ISL 13.14 | D 13.13   | 33.051    | D 24.858            | 310.3 | 0.261  | 5.92      | 99.0  | 5.1       | 0.75   | 4.3    | 0.48   | 0.78 | 0.27               | 0.16  | 75   |      |  |
| 85             | 12.26     | 12.25     | 32.977    | 24.972              | 299.6 | 0.292  | 5.82      | 95.5  | 6.4       | 0.81   | 5.8    | 0.72   | 0.14 | 0.31               | 0.16  | 85   | 212  |  |
| 100            | ISL 11.45 | D 11.44   | 33.009    | D 25.147            | 283.1 | 0.335  | 5.70      | 91.9  | 9.4       | 0.97   | 9.2    | 0.15   | 0.06 | 0.11               | 0.09  | 100  |      |  |
| 103            | 11.26     | 11.25     | 33.038    | 25.204              | 277.7 | 0.344  | 5.67      | 91.1  | 10.0      | 1.01   | 9.9    | 0.01   | 0.04 | 0.06               | 0.07  | 103  | 211  |  |
| 119            | 10.62     | 10.61     | 33.113    | 25.376              | 261.7 | 0.387  | 5.34      | 84.6  | 12.0      | 1.14   | 12.0   | 0.01   | 0.10 | 0.03               | 0.05  | 120  | 210  |  |
| 125            | ISL 10.51 | D 10.50   | 33.135    | D 25.412            | 258.3 | 0.403  | 5.13      | 81.1  | 13.0      | 1.20   | 13.1   | 0.01   | 0.07 | 0.02               | 0.05  | 126  |      |  |
| 138            | 10.05     | 10.03     | 33.408    | D 25.704            | 230.8 | 0.434  | 4.59      | 72.0  | 15.5      | 1.34   | 15.9   | 0.01   | 0.00 | 0.01               | 0.04  | 139  | 209  |  |
| 150            | ISL 10.05 | D 10.03   | 33.615    | D 25.865            | 215.7 | 0.461  | 3.98      | 62.5  | 19.0      | 1.53   | 19.0   | 0.01   | 0.09 | 0.00               | 0.03  | 151  |      |  |
| 170            | 9.45      | 9.43      | 33.822    | 26.127              | 191.2 | 0.502  | 3.12      | 48.4  | 25.0      | 1.83   | 23.6   | 0.00   | 0.25 | 0.00               | 0.02  | 171  | 208  |  |
| 200            | ISL 8.86  | D 8.84    | 33.956    | D 26.326            | 172.7 | 0.557  | 2.96      | 45.3  | 30.0      | 1.93   | 25.4   | 0.00   | 0.03 | 0.00               | 0.01  | 201  |      |  |
| 204            | 8.75      | 8.73      | 33.966    | 26.351              | 170.3 | 0.563  | 2.94      | 44.9  | 30.5      | 1.94   | 25.6   | 0.00   | 0.00 | 0.00               | 0.01  | 205  | 207  |  |
| 231            | 8.17      | 8.15      | 33.993    | 26.461              | 160.1 | 0.608  | 3.49      | 52.7  | 33.2      | 1.81   | 24.6   | 0.00   | 0.14 |                    |       | 232  | 206  |  |
| 250            | ISL 7.95  | D 7.92    | 34.003    | D 26.502            | 156.5 | 0.638  | 3.23      | 48.5  | 36.5      | 1.93   | 26.1   | 0.00   | 0.09 |                    |       | 251  |      |  |
| 269            | 7.72      | 7.69      | 34.014    | 26.545              | 152.7 | 0.667  | 2.78      | 41.5  | 40.3      | 2.11   | 28.3   | 0.00   | 0.00 |                    |       | 270  | 205  |  |
| 300            | ISL 7.45  | D 7.42    | 34.053    | D 26.614            | 146.5 | 0.714  | 2.33      | 34.6  | 45.6      | 2.30   | 30.6   | 0.00   | 0.00 |                    |       | 302  |      |  |
| 324            | 7.13      | 7.10      | 34.040    | 26.649              | 143.4 | 0.749  | 2.04      | 30.1  | 49.9      | 2.42   | 32.2   | 0.00   | 0.00 |                    |       | 326  | 204  |  |
| 376            | 6.33      | 6.30      | 34.062    | 26.774              | 131.7 | 0.820  | 1.50      | 21.7  | 61.6      | 2.69   | 35.7   | 0.00   | 0.00 |                    |       | 378  | 203  |  |
| 400            | ISL 6.13  | D 6.09    | 34.083    | D 26.816            | 127.9 | 0.851  | 1.28      | 18.4  | 65.9      | 2.79   | 36.7   | 0.00   | 0.00 |                    |       | 402  |      |  |
| 439            | 5.88      | 5.84      | 34.124    | 26.880              | 122.1 | 0.900  | 0.95      | 13.6  | 72.2      | 2.92   | 38.0   | 0.00   | 0.00 |                    |       | 442  | 202  |  |
| 500            | ISL 5.52  | D 5.48    | 34.199    | D 26.984            | 112.7 | 0.972  | 0.48      | 6.8   | 81.9      | 3.08   | 39.8   | 0.00   | 0.00 |                    |       | 503  |      |  |
| 504            | 5.51      | 5.47      | 34.200    | 26.986              | 112.6 | 0.976  | 0.45      | 6.4   | 82.5      | 3.09   | 39.9   | 0.00   | 0.00 |                    |       | 507  | 201  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 86.7 110.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|--------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT                | TYPE  |      |      |  |
| 31 19.8 N      | 123 44.3 W | 23/08/08  | 2321 UTC  | 406 m               | 360   | 15 kn  | 360 04 06 | 2     | 1014.1 mb | 19.6 C | 16.7 C | 21m    |      | 7/8                | SC    |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | PO4    | NO3    | NO2    | NH4  | CHL-A              | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L               | ug/L  | db   |      |  |
| 0              | ISL 18.16  | 18.16     | 32.955    | 23.669              | 421.7 | 0.000  | 5.54      | 102.3 | 2.3       | 0.36   | 0.0    | 0.00   | 0.13 | 0.07               | 0.01  | 0    |      |  |
| 2              | 18.16      | 18.16     | 32.955    | 23.669              | 421.7 | 0.008  | 5.54      | 102.3 | 2.3       | 0.36   | 0.0    | 0.00   | 0.13 | 0.07               | 0.01  | 2    | 221  |  |
| 10             | 18.15      | 18.15     | 32.955    | 23.671              | 421.7 | 0.042  | 5.55      | 102.5 | 2.3       | 0.35   | 0.0    | 0.00   | 0.04 | 0.08               | 0.01  | 10   | 219  |  |
| 10             | 18.16      | 18.16     | 32.954    | 23.668              | 422.0 | 0.042  |           |       |           |        |        |        |      |                    |       | 10   | 220  |  |
| 20             | ISL 18.10  | D 18.10   | 33.209    | D 23.878            | 402.4 | 0.083  | 5.55      | 102.6 | 2.4       | 0.33   | 0.0    | 0.00   | 0.07 | 0.09               | 0.02  | 20   |      |  |
| 23             | 18.02      | 18.02     | 33.206    | 23.896              | 400.8 | 0.095  | 5.55      | 102.4 | 2.4       | 0.32   | 0.0    | 0.00   | 0.09 | 0.09               | 0.02  | 23   | 218  |  |
| 30             | ISL 17.78  | D 17.77   | 33.238    | D 23.979            | 393.1 | 0.123  | 5.72      | 105.1 | 2.4       | 0.32   | 0.0    | 0.00   | 0.04 | 0.11               | 0.02  | 30   |      |  |
| 39             | 16.21      | 16.20     | 33.144    | 24.275              | 365.1 | 0.157  | 5.96      | 106.1 | 2.5       | 0.32   | 0.0    | 0.00   | 0.00 | 0.14               | 0.03  | 39   | 217  |  |
| 50             | 15.40      | 15.39     | 33.114    | 24.433              | 350.3 | 0.197  | 6.10      | 106.8 | 2.8       | 0.34   | 0.0    | 0.00   | 0.15 | 0.15               | 0.05  | 50   | 216  |  |
| 61             | 13.62      | 13.61     | 32.972    | 24.700              | 325.0 | 0.234  | 6.21      | 104.8 | 2.6       | 0.37   | 0.0    | 0.00   | 0.00 | 0.24               | 0.14  | 61   | 215  |  |
| 74             | 13.36      | 13.35     | 33.061    | 24.822              | 313.7 | 0.275  | 5.98      | 100.4 | 3.6       | 0.47   | 1.0    | 0.22   | 0.00 | 0.39               | 0.41  | 74   | 214  |  |
| 75             | ISL 13.21  | D 13.20   | 33.087    | D 24.872            | 308.9 | 0.278  | 5.96      | 99.8  | 3.7       | 0.49   | 1.2    | 0.24   | 0.00 | 0.39               | 0.41  | 75   |      |  |
| 86             | 12.51      | 12.50     | 33.047    | 24.978              | 299.0 | 0.312  | 5.77      | 95.2  | 5.3       | 0.66   | 4.1    | 0.33   | 0.04 | 0.28               | 0.37  | 86   | 213  |  |
| 100            | ISL 11.97  | D 11.96   | 33.086    | D 25.111            | 286.7 | 0.353  | 5.64      | 92.0  | 6.5       | 0.77   | 6.2    | 0.03   | 0.06 | 0.16               | 0.25  | 100  |      |  |
| 101            | 12.01      | 12.00     | 33.081    | 25.100              | 287.8 | 0.356  | 5.63      | 91.9  | 6.6       | 0.78   | 6.3    | 0.01   | 0.06 | 0.15               | 0.24  | 101  | 212  |  |
| 111            | 11.74      | 11.73     | 33.136    | 25.193              | 279.1 | 0.384  | 5.60      | 90.9  | 8.1       | 0.90   | 8.2    | 0.00   | 0.00 | 0.12               | 0.10  | 111  | 211  |  |
| 124            | 11.32      | 11.30     | 33.189    | 25.311              | 268.1 | 0.420  | 5.46      | 87.9  | 9.4       | 0.98   | 9.8    | 0.00   | 0.03 | 0.06               | 0.06  | 125  | 210  |  |
| 125            | ISL 11.24  | D 11.22   | 33.184    | D 25.322            | 267.1 | 0.422  | 5.45      | 87.6  | 9.5       | 0.99   | 9.9    | 0.00   | 0.03 | 0.06               | 0.06  | 126  |      |  |
| 139            | 10.74      | 10.72     | 33.335    | 25.528              | 247.7 | 0.458  | 5.12      | 81.5  | 11.7      | 1.12   | 12.4   | 0.00   | 0.00 | 0.01               | 0.02  | 140  | 209  |  |
| 150            | ISL 10.36  | D 10.34   | 33.514    | D 25.734            | 228.3 | 0.485  | 4.54      | 71.7  | 15.3      | 1.35   | 16.0   | 0.00   | 0.01 | 0.01               | 0.02  | 151  |      |  |
| 164            | 9.87       | 9.85      | 33.669    | 25.938              | 209.1 | 0.515  | 3.82      | 59.8  | 20.1      | 1.63   | 20.4   | 0.00   | 0.03 | 0.00               | 0.02  | 165  | 208  |  |
| 199            | 9.22       | 9.20      | 33.928    | 26.247              | 180.3 | 0.583  | 3.67      | 56.7  | 24.4      | 1.66   | 21.7   | 0.00   | 0.00 | 0.00               | 0.01  | 200  | 207  |  |
| 200            | ISL 9.20   | D 9.18    | 33.941    | D 26.261            | 179.0 | 0.585  | 3.67      | 56.7  | 24.5      | 1.66   | 21.8   | 0.00   | 0.00 |                    |       | 201  |      |  |
| 228            | 8.66       | 8.64      | 33.982    | 26.378              | 168.2 | 0.634  | 3.54      | 54.0  | 29.0      | 1.76   | 23.7   | 0.00   | 0.00 |                    |       | 229  | 206  |  |
| 250            | ISL 8.31   | D 8.28    | 34.007    | D 26.452            | 161.5 | 0.670  | 3.16      | 47.8  | 33.8      | 1.93   | 26.0   | 0.00   | 0.02 |                    |       | 251  |      |  |
| 266            | 8.04       | 8.01      | 34.016    | 26.499              | 157.1 | 0.695  | 2.83      | 42.6  | 37.5      | 2.07   | 27.7   | 0.00   | 0.03 |                    |       | 267  | 205  |  |
| 300            | ISL 7.70   | D 7.67    | 34.044    | D 26.572            | 150.7 | 0.748  | 2.29      | 34.2  | 43.7      | 2.29   | 30.6   | 0.00   | 0.01 |                    |       | 302  |      |  |
| 317            | 7.44       | 7.41      | 34.045    | 26.610              | 147.2 | 0.773  | 2.06      | 30.6  | 46.7      | 2.39   | 31.9   | 0.00   | 0.00 |                    |       | 319  | 204  |  |
| 377            | 6.63       | 6.60      | 34.066    | 26.738              | 135.4 | 0.858  | 1.49      | 21.7  | 58.6      | 2.68   | 35.6   | 0.00   | 0.01 |                    |       | 379  | 203  |  |
| 400            | ISL 6.36   | D 6.32    | 34.089    | D 26.792            | 130.4 | 0.888  | 1.25      | 18.1  | 62.8      | 2.78   | 36.7   | 0.00   | 0.01 |                    |       | 402  |      |  |
| 438            | 6.14       | 6.10      | 34.138    | 26.859              | 124.4 | 0.937  | 0.90      | 13.0  | 69.5      | 2.93   | 38.1   | 0.00   | 0.00 |                    |       | 441  | 202  |  |
| 500            | ISL 5.66   | D 5.62    | 34.195    | D 26.964            | 114.8 | 1.011  | 0.61      | 8.7   | 79.5      | 3.08   | 39.8   | 0.00   | 0.00 |                    |       | 503  |      |  |
| 519            | 5.55       | 5.51      | 34.203    | 26.984              | 113.1 | 1.033  | 0.52      | 7.4   | 82.6      | 3.12   | 40.3   | 0.00   | 0.00 |                    |       | 522  | 201  |  |

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |         | STATION 90.0 27.7 |       |      |      |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|---------|-------------------|-------|------|------|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD AMT | TYPE              |       |      |      |
| 33 29.5 N      | 117 45.1 W | 20/08/08  | 2232 UTC  | 39 m                | 290   | 03 kn  | 250 01 06 | 1     | 1008.8 mb | 21.7 C | 19.2 C |        | 1/8     | CU                |       |      |      |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | PO4    | NO3    | NO2    | NH4     | CHL-A             | PHAE0 | PRES | SAMP |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/l      | PCT   | uM/l      | uM/l   | uM/l   | uM/l   | uM/l    | ug/l              | ug/l  | db   |      |
| 0 ISL          | 20.13      | 20.13     | 33.464    | 23.558              | 432.2 | 0.000  | 6.09      | 117.1 | 4.5       | 0.25   | 0.0    | 0.01   | 0.13    | 0.94              | 0.11  | 0    |      |
| 1              | 20.13      | 20.13     | 33.464    | 23.558              | 432.3 | 0.004  | 6.09      | 117.1 | 4.5       | 0.25   | 0.0    | 0.01   | 0.13    | 0.94              | 0.11  | 1    | 205  |
| 5              | 19.18      | 19.18     | 33.432    | 23.779              | 411.3 | 0.021  | 6.43      | 121.5 | 4.5       | 0.27   | 0.0    | 0.01   | 0.06    | 0.89              | 0.18  | 5    | 204  |
| 10             | 14.45      | 14.45     | 33.362    | 24.828              | 311.4 | 0.039  | 6.68      | 115.0 | 5.0       | 0.42   | 0.1    | 0.01   | 0.02    | 0.86              | 0.28  | 10   | 203  |
| 15             | 13.43      | 13.43     | 33.344    | 25.025              | 292.8 | 0.054  | 6.30      | 106.2 | 6.0       | 0.58   | 2.6    | 0.16   | 0.65    | 1.41              | 0.43  | 15   | 202  |
| 20 ISL         | 12.90 D    | 12.90     | 33.323 D  | 25.115              | 284.4 | 0.069  | 5.92      | 98.7  | 7.0       | 0.73   | 5.2    | 0.30   | 1.83    | 1.34              | 0.52  | 20   |      |
| 22             | 12.92      | 12.92     | 33.328    | 25.115              | 284.4 | 0.074  | 5.77      | 96.2  | 7.4       | 0.79   | 6.2    | 0.35   | 2.30    | 1.31              | 0.56  | 22   | 201  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |         | STATION 90.0 28.0 |       |      |      |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|---------|-------------------|-------|------|------|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD AMT | TYPE              |       |      |      |
| 33 28.7 N      | 117 46.3 W | 20/08/08  | 2034 UTC  | 92 m                | 180   | 04 kn  | 270 02 07 | 0     | 1009.6 mb | 21.0 C | 18.7 C | 6m     | 0/8     |                   |       |      |      |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | PO4    | NO3    | NO2    | NH4     | CHL-A             | PHAE0 | PRES | SAMP |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L    | ug/L              | ug/L  | db   |      |
| 0 ISL          | 19.83      | 19.83     | 33.439    | 23.617              | 426.6 | 0.000  | 6.05      | 115.7 | 4.7       | 0.24   | 0.0    | 0.00   | 0.12    | 1.27              | 0.15  | 0    |      |
| 1 A            | 19.83      | 19.83     | 33.439    | 23.617              | 426.6 | 0.004  | 6.05      | 115.7 | 4.7       | 0.24   | 0.0    | 0.00   | 0.12    | 1.27              | 0.15  | 1    | 211  |
| 1              | 19.68      | 19.68     | 33.441    | 23.657              | 422.8 | 0.004  |           |       |           |        |        |        |         |                   |       | 1    | 212  |
| 4 A            | 18.58      | 18.58     | 33.438    | 23.934              | 396.5 | 0.017  | 6.25      | 116.7 | 4.3       | 0.24   | 0.0    | 0.01   | 0.08    | 0.81              | 0.12  | 4    | 210  |
| 8 A            | 18.37      | 18.37     | 33.425    | 23.977              | 392.6 | 0.032  | 6.35      | 118.1 | 4.1       | 0.24   | 0.0    | 0.01   | 0.04    | 0.92              | 0.17  | 8    | 209  |
| 10 ISL         | 17.46 D    | 17.46     | 33.391 D  | 24.172              | 374.0 | 0.040  | 6.47      | 118.2 | 3.6       | 0.25   | 0.0    | 0.00   | 0.02    | 0.88              | 0.20  | 10   |      |
| 12 A           | 16.79      | 16.79     | 33.359    | 24.306              | 361.3 | 0.047  | 6.59      | 118.8 | 3.2       | 0.28   | 0.0    | 0.00   | 0.00    | 0.86              | 0.24  | 12   | 208  |
| 15 A           | 15.52      | 15.52     | 33.327    | 24.570              | 336.2 | 0.058  | 6.67      | 117.3 | 3.8       | 0.35   | 0.4    | 0.03   | 0.01    | 0.99              | 0.29  | 15   | 207  |
| 20 ISL         | 13.55 D    | 13.55     | 33.305 D  | 24.971              | 298.1 | 0.074  | 6.25      | 105.6 | 5.1       | 0.56   | 2.8    | 0.19   | 0.99    | 1.06              | 0.46  | 20   |      |
| 22 A           | 13.29      | 13.29     | 33.308    | 25.026              | 292.9 | 0.080  | 6.00      | 100.8 | 5.7       | 0.66   | 4.0    | 0.26   | 1.43    | 1.09              | 0.52  | 22   | 206  |
| 30 ISL         | 12.44 D    | 12.44     | 33.340 D  | 25.218              | 274.8 | 0.102  | 5.31      | 87.6  | 8.4       | 0.94   | 8.5    | 0.39   | 1.39    | 0.72              | 0.46  | 30   |      |
| 31             | 12.42      | 12.42     | 33.361    | 25.238              | 273.0 | 0.105  | 5.23      | 86.3  | 8.7       | 0.97   | 9.0    | 0.41   | 1.38    | 0.66              | 0.45  | 31   | 205  |
| 39             | 12.14      | 12.13     | 33.489    | 25.391              | 258.6 | 0.126  | 4.68      | 76.8  | 10.3      | 1.12   | 12.1   | 0.08   | 0.01    | 0.30              | 0.32  | 39   | 204  |
| 49             | 11.78      | 11.77     | 33.503    | 25.469              | 251.3 | 0.152  | 4.62      | 75.3  | 11.3      | 1.18   | 13.1   | 0.04   | 0.00    | 0.21              | 0.26  | 49   | 203  |
| 50 ISL         | 11.73 D    | 11.72     | 33.543 D  | 25.510              | 247.5 | 0.154  | 4.56      | 74.2  | 11.6      | 1.20   | 13.4   | 0.04   | 0.00    | 0.20              | 0.25  | 50   |      |
| 60             | 11.47      | 11.46     | 33.610    | 25.610              | 238.2 | 0.179  | 3.89      | 63.0  | 14.8      | 1.42   | 16.5   | 0.03   | 0.00    | 0.12              | 0.19  | 60   | 202  |
| 72             | 11.21      | 11.20     | 33.655    | 25.693              | 230.6 | 0.207  | 3.58      | 57.7  | 16.9      | 1.55   | 18.1   | 0.04   | 0.00    | 0.07              | 0.16  | 72   | 201  |

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |         | STATION 90.0 30.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|---------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD AMT | TYPE              |       |      |      |  |
| 33 25.0 N      | 117 54.4 W | 21/08/08  | 0033 UTC  | 615 m               | 230   | 04 kn  | 270 02 06 | 0     | 1008.0 mb | 22.0 C | 18.9 C | 19m    | 0/8     |                   |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4     | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L    | ug/L              | ug/L  | db   |      |  |
| 0 ISL          | 20.79      | 20.79     | 33.423    | 23.352              | 451.9 | 0.000  | 5.61      | 109.2 | 2.7       | 0.25   | 0.0    | 0.00   | 0.27    | 0.23              | 0.02  | 0    |      |  |
| 1              | 20.79      | 20.79     | 33.423    | 23.352              | 451.9 | 0.005  | 5.61      | 109.2 | 2.7       | 0.25   | 0.0    | 0.00   | 0.27    | 0.23              | 0.02  | 1    | 221  |  |
| 10 ISL         | 20.03 D    | 20.03     | 33.403 D  | 23.538              | 434.5 | 0.044  | 5.70      | 109.4 | 2.6       | 0.25   | 0.0    | 0.00   | 0.18    | 0.24              | 0.03  | 10   |      |  |
| 11             | 20.02      | 20.02     | 33.413    | 23.548              | 433.6 | 0.049  | 5.71      | 109.5 | 2.6       | 0.25   | 0.0    | 0.00   | 0.17    | 0.24              | 0.03  | 11   | 219  |  |
| 11             | 20.02      | 20.02     | 33.411    | 23.547              | 433.7 | 0.049  |           |       |           |        |        |        |         |                   |       | 11   | 220  |  |
| 20 ISL         | 18.69 D    | 18.69     | 33.368 D  | 23.854              | 404.7 | 0.086  | 6.02      | 112.6 | 2.6       | 0.27   | 0.0    | 0.00   | 0.36    | 0.43              | 0.09  | 20   |      |  |
| 21             | 18.58      | 18.58     | 33.361    | 23.876              | 402.6 | 0.091  | 6.07      | 113.3 | 2.6       | 0.27   | 0.0    | 0.00   | 0.38    | 0.46              | 0.10  | 21   | 218  |  |
| 30 ISL         | 14.78 D    | 14.78     | 33.255 D  | 24.676              | 326.5 | 0.123  | 6.59      | 114.1 | 2.7       | 0.31   | 0.1    | 0.01   | 0.29    | 0.90              | 0.25  | 30   |      |  |
| 31             | 14.77      | 14.77     | 33.255    | 24.678              | 326.3 | 0.127  | 6.63      | 114.8 | 2.7       | 0.32   | 0.1    | 0.01   | 0.28    | 0.96              | 0.27  | 31   | 217  |  |
| 40             | 13.93      | 13.92     | 33.272    | 24.868              | 308.4 | 0.155  | 6.42      | 109.3 | 3.7       | 0.42   | 0.7    | 0.05   | 0.31    | 1.46              | 0.49  | 40   | 216  |  |
| 50             | 12.66      | 12.65     | 33.354    | 25.187              | 278.3 | 0.184  | 5.44      | 90.2  | 7.5       | 0.86   | 7.7    | 0.50   | 0.29    | 0.66              | 0.47  | 50   | 215  |  |
| 60             | 12.26      | 12.25     | 33.456    | 25.343              | 263.7 | 0.212  | 4.85      | 79.8  | 9.6       | 1.03   | 11.2   | 0.08   | 0.03    | 0.31              | 0.40  | 60   | 214  |  |
| 70             | 11.68      | 11.67     | 33.448    | 25.446              | 254.1 | 0.237  | 4.98      | 80.9  | 10.9      | 1.12   | 12.4   | 0.04   | 0.17    | 0.18              | 0.19  | 70   | 213  |  |
| 75 ISL         | 11.66 D    | 11.65     | 33.491 D  | 25.483              | 250.7 | 0.250  | 4.87      | 79.1  | 11.6      | 1.16   | 13.1   | 0.04   | 0.19    | 0.15              | 0.14  | 75   |      |  |
| 85             | 11.38      | 11.37     | 33.528    | 25.563              | 243.3 | 0.275  | 4.55      | 73.5  | 13.2      | 1.26   | 14.6   | 0.03   | 0.22    | 0.12              | 0.10  | 85   | 212  |  |
| 100            | 10.60      | 10.59     | 33.603    | 25.761              | 224.7 | 0.310  | 4.22      | 67.1  | 16.7      | 1.45   | 17.7   | 0.03   | 0.03    | 0.04              | 0.07  | 100  | 211  |  |
| 120            | 10.31      | 10.30     | 33.668    | 25.862              | 215.5 | 0.354  | 3.89      | 61.4  | 18.7      | 1.54   | 19.2   | 0.02   | 0.00    | 0.03              | 0.08  | 121  | 210  |  |
| 125 ISL        | 10.22 D    | 10.21     | 33.693 D  | 25.897              | 212.3 | 0.365  | 3.79      | 59.8  | 19.3      | 1.57   | 19.6   | 0.02   | 0.00    | 0.03              | 0.08  | 126  |      |  |
| 140            | 9.98       | 9.96      | 33.759    | 25.989              | 203.8 | 0.396  | 3.50      | 54.9  | 21.4      | 1.67   | 21.1   | 0.03   | 0.00    | 0.02              | 0.08  | 141  | 209  |  |
| 150 ISL        | 9.67 D     | 9.65      | 33.818 D  | 26.087              | 194.6 | 0.416  | 3.29      | 51.3  | 23.3      | 1.75   | 22.2   | 0.03   | 0.00    | 0.02              | 0.07  | 151  |      |  |
| 169            | 9.36       | 9.34      | 33.924    | 26.221              | 182.2 | 0.452  | 2.95      | 45.7  | 27.0      | 1.88   | 24.2   | 0.02   | 0.00    | 0.01              | 0.04  | 170  | 208  |  |
| 200 ISL        | 8.95 D     | 8.93      | 34.000 D  | 26.347              | 170.8 | 0.506  | 2.79      | 42.8  | 30.4      | 1.96   | 25.5   | 0.01   | 0.00    | 0.01              | 0.03  | 201  |      |  |
| 201            | 8.99       | 8.97      | 34.005    | 26.344              | 171.0 | 0.508  | 2.79      | 42.9  | 30.5      | 1.96   | 25.5   | 0.01   | 0.00    | 0.01              | 0.03  | 202  | 207  |  |
| 228            | 8.74       | 8.72      | 34.053    | 26.422              | 164.2 | 0.553  | 2.57      | 39.3  | 33.9      | 2.06   | 26.8   | 0.00   | 0.00    |                   |       | 229  | 206  |  |
| 250 ISL        | 8.57 D     | 8.54      | 34.082 D  | 26.471              | 159.8 | 0.589  | 2.30      | 35.0  | 36.7      | 2.17   | 28.0   | 0.00   | 0.00    |                   |       | 251  |      |  |
| 269            | 8.49       | 8.46      | 34.117    | 26.511              | 156.4 | 0.619  | 2.02      | 30.7  | 39.2      | 2.28   | 29.1   | 0.00   | 0.00    |                   |       | 271  | 205  |  |
| 300 ISL        | 8.32 D     | 8.29      | 34.187 D  | 26.592              | 149.2 | 0.666  | 1.52      | 23.0  | 43.7      | 2.47   | 30.8   | 0.00   | 0.10    |                   |       | 302  |      |  |
| 317            | 8.28       | 8.25      | 34.216    | 26.621              | 146.7 | 0.691  | 1.27      | 19.2  | 46.0      | 2.56   | 31.6   | 0.00   | 0.15    |                   |       | 319  | 204  |  |
| 378            | 8.07       | 8.03      | 34.302    | 26.721              | 138.3 | 0.778  | 0.76      | 11.5  | 51.6      | 2.77   | 32.8   | 0.00   | 0.00    |                   |       | 380  | 203  |  |
| 400 ISL        | 7.38 D     | 7.34      | 34.212 D  | 26.751              | 135.3 | 0.808  | 0.75      | 11.1  | 54.4      | 2.81   | 33.6   | 0.00   | 0.00    |                   |       | 403  |      |  |
| 437            | 7.26       | 7.22      | 34.256    | 26.803              | 130.9 | 0.858  | 0.74      | 10.9  | 59.2      | 2.87   | 35.0   | 0.00   | 0.00    |                   |       | 440  | 202  |  |
| 500 ISL        | 7.05 D     | 7.00      | 34.334 D  | 26.894              | 123.1 | 0.938  | 0.47      | 6.9   | 65.7      | 3.00   | 36.1   | 0.00   | 0.02    |                   |       | 503  |      |  |
| 517            | 6.86       | 6.81      | 34.325    | 26.913              | 121.3 | 0.958  | 0.40      | 5.9   | 67.4      | 3.04   | 36.4   | 0.00   | 0.03    |                   |       | 521  | 201  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 90.0 35.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 33 15.1 N      | 118 14.8 W | 21/08/08  | 0442 UTC  | 307 m               | 270   | 08 kn  |        |       | 1008.4 mb | 20.5 c | 18.9 c |        |      |                   |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | PO4    | NO3    | NO2    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 21.76  | 21.76     | 33.654    | 23.263              | 460.3 | 0.000  | 5.57   | 110.5 | 3.2       | 0.09   | 0.0    | 0.01   | 0.43 | 0.85              | 0.08  | 0    |      |  |
| 2              | 21.76      | 21.76     | 33.654    | 23.263              | 460.4 | 0.009  | 5.57   | 110.5 | 3.2       | 0.09   | 0.0    | 0.01   | 0.43 | 0.85              | 0.08  | 2    | 219  |  |
| 3              | 21.78      | 21.78     | 33.655    | 23.259              | 460.9 | 0.014  |        |       |           |        |        |        |      |                   |       | 3    | 218  |  |
| 10             | 20.69      | 20.69     | 33.609    | 23.520              | 436.2 | 0.045  | 5.93   | 115.3 | 3.4       | 0.11   | 0.0    | 0.01   | 0.14 | 1.02              | 0.08  | 10   | 216  |  |
| 10             | 21.09      | 21.09     | 33.626    | 23.426              | 445.2 | 0.045  |        |       |           |        |        |        |      |                   |       | 10   | 217  |  |
| 20             | 14.32      | 14.32     | 33.441    | 24.917              | 303.3 | 0.083  | 6.85   | 117.6 | 5.8       | 0.39   | 0.3    | 0.03   | 0.40 | 1.55              | 0.52  | 20   | 215  |  |
| 30             | 12.91      | 12.91     | 33.414    | 25.183              | 278.1 | 0.112  | 5.65   | 94.2  | 7.5       | 0.78   | 6.2    | 0.26   | 0.34 | 0.87              | 0.44  | 30   | 214  |  |
| 40             | 12.12      | 12.11     | 33.456    | 25.369              | 260.7 | 0.139  | 4.96   | 81.4  | 10.2      | 1.05   | 10.9   | 0.22   | 0.27 | 0.47              | 0.38  | 40   | 213  |  |
| 49             | 11.73      | 11.72     | 33.513    | 25.486              | 249.7 | 0.162  | 4.63   | 75.4  | 11.9      | 1.18   | 13.2   | 0.11   | 0.22 | 0.31              | 0.27  | 49   | 212  |  |
| 50             | ISL 11.65  | D 11.64   | 33.527    | D 25.512            | 247.3 | 0.164  | 4.60   | 74.7  | 12.1      | 1.19   | 13.5   | 0.10   | 0.21 | 0.30              | 0.26  | 50   |      |  |
| 60             | 11.36      | 11.35     | 33.568    | 25.597              | 239.4 | 0.188  | 4.32   | 69.8  | 13.7      | 1.31   | 15.5   | 0.04   | 0.10 | 0.19              | 0.19  | 60   | 211  |  |
| 70             | 11.19      | 11.18     | 33.591    | 25.646              | 235.0 | 0.212  | 4.17   | 67.1  | 14.7      | 1.36   | 16.3   | 0.02   | 0.21 | 0.08              | 0.10  | 70   | 210  |  |
| 75             | ISL 11.02  | D 11.01   | 33.606    | D 25.689            | 231.1 | 0.224  | 4.11   | 65.9  | 15.2      | 1.39   | 16.7   | 0.02   | 0.20 | 0.07              | 0.09  | 75   |      |  |
| 85             | 10.91      | 10.90     | 33.627    | 25.725              | 227.8 | 0.247  | 3.93   | 62.9  | 16.4      | 1.45   | 17.7   | 0.02   | 0.16 | 0.04              | 0.07  | 85   | 209  |  |
| 100            | ISL 10.64  | D 10.63   | 33.732    | D 25.854            | 215.8 | 0.280  | 3.43   | 54.6  | 19.2      | 1.60   | 19.8   | 0.02   | 0.25 | 0.02              | 0.06  | 100  |      |  |
| 101            | 10.66      | 10.65     | 33.720    | 25.842              | 217.1 | 0.282  | 3.39   | 54.0  | 19.4      | 1.61   | 19.9   | 0.02   | 0.25 | 0.02              | 0.06  | 101  | 208  |  |
| 119            | 10.21      | 10.20     | 33.861    | 26.030              | 199.5 | 0.320  | 2.86   | 45.1  | 24.0      | 1.82   | 22.4   | 0.02   | 0.10 | 0.01              | 0.06  | 120  | 207  |  |
| 125            | ISL 10.11  | D 10.10   | 33.895    | D 26.073            | 195.5 | 0.332  | 2.73   | 43.0  | 25.2      | 1.87   | 23.1   | 0.02   | 0.09 | 0.01              | 0.06  | 126  |      |  |
| 139            | 9.91       | 9.89      | 33.979    | 26.173              | 186.3 | 0.358  | 2.46   | 38.6  | 27.7      | 1.98   | 24.3   | 0.02   | 0.08 | 0.02              | 0.06  | 140  | 206  |  |
| 150            | ISL 9.88   | D 9.86    | 34.058    | D 26.240            | 180.2 | 0.378  | 2.26   | 35.4  | 29.4      | 2.05   | 25.1   | 0.02   | 0.08 | 0.02              | 0.06  | 151  |      |  |
| 169            | 9.79       | 9.77      | 34.115    | 26.300              | 174.9 | 0.412  | 1.97   | 30.8  | 31.7      | 2.15   | 26.0   | 0.02   | 0.07 | 0.01              | 0.05  | 170  | 205  |  |
| 200            | ISL 9.74   | D 9.72    | 34.183    | D 26.362            | 169.7 | 0.466  | 1.69   | 26.4  | 33.8      | 2.26   | 26.9   | 0.02   | 0.03 |                   |       | 201  |      |  |
| 201            | 9.74       | 9.72      | 34.182    | 26.361              | 169.8 | 0.467  | 1.68   | 26.3  | 33.9      | 2.26   | 26.9   | 0.02   | 0.03 |                   |       | 202  | 204  |  |
| 229            | 9.70       | 9.67      | 34.251    | 26.422              | 164.6 | 0.514  | 1.33   | 20.8  | 36.4      | 2.39   | 27.8   | 0.03   | 0.17 |                   |       | 230  | 203  |  |
| 250            | ISL 9.55   | D 9.52    | 34.301    | D 26.487            | 158.9 | 0.548  | 1.18   | 18.4  | 37.9      | 2.46   | 28.3   | 0.04   | 0.12 |                   |       | 251  |      |  |
| 269            | 9.48       | 9.45      | 34.303    | 26.500              | 158.0 | 0.578  | 1.09   | 17.0  | 39.5      | 2.51   | 28.8   | 0.04   | 0.04 |                   |       | 271  | 202  |  |
| 299            | 8.96       | 8.93      | 34.317    | 26.595              | 149.3 | 0.624  | 0.95   | 14.6  | 43.6      | 2.59   | 30.2   | 0.02   | 0.00 |                   |       | 301  | 201  |  |
| 300            | CSL 8.94   | 8.91      | 34.318    | 26.599              | 148.9 | 0.626  |        |       |           |        |        |        |      |                   |       | 302  | 200  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 90.0 37.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 33 11.2 N      | 118 23.1 W | 21/08/08  | 0808 UTC  | 1177 m              | 210   | 05 kn  |        |       | 1008.2 mb | 19.2 c | 16.9 c |        |      |                   |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | PO4    | NO3    | NO2    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 20.42  | 20.42     | 33.564    | 23.557              | 432.3 | 0.000  | 5.59   | 108.1 | 2.3       | 0.20   | 0.0    | 0.00   | 0.09 | 0.35              | 0.03  | 0    |      |  |
| 1              | 20.42      | 20.42     | 33.564    | 23.557              | 432.3 | 0.004  | 5.59   | 108.1 | 2.3       | 0.20   | 0.0    | 0.00   | 0.09 | 0.35              | 0.03  | 1    | 222  |  |
| 1              | 20.42      | 20.42     | 33.560    | 23.555              | 432.6 | 0.004  |        |       |           |        |        |        |      |                   |       | 1    | 223  |  |
| 9              | 19.87      | 19.87     | 33.541    | 23.685              | 420.5 | 0.038  |        |       |           |        |        |        |      |                   |       | 9    | 221  |  |
| 10             | 19.80      | 19.80     | 33.545    | 23.706              | 418.5 | 0.043  | 5.69   | 108.8 | 2.4       | 0.22   | 0.0    | 0.00   | 0.15 | 0.30              | 0.02  | 10   | 220  |  |
| 20             | 16.11      | 16.11     | 33.410    | 24.501              | 342.9 | 0.081  | 6.72   | 119.6 | 3.2       | 0.30   | 0.0    | 0.00   | 0.14 | 0.52              | 0.16  | 20   | 219  |  |
| 30             | 14.16      | 14.16     | 33.386    | 24.908              | 304.4 | 0.113  | 6.67   | 114.1 | 4.7       | 0.41   | 0.5    | 0.03   | 0.23 | 1.92              | 0.71  | 30   | 217  |  |
| 30             | 14.30      | 14.30     | 33.391    | 24.883              | 306.8 | 0.113  |        |       |           |        |        |        |      |                   |       | 30   | 218  |  |
| 39             | 13.04      | 13.03     | 33.398    | 25.146              | 282.0 | 0.140  | 5.88   | 98.3  | 6.8       | 0.71   | 4.9    | 0.20   | 0.12 | 1.50              | 0.62  | 39   | 216  |  |
| 49             | 12.29      | 12.28     | 33.434    | 25.320              | 265.6 | 0.167  | 5.21   | 85.8  | 9.0       | 0.97   | 9.5    | 0.18   | 0.00 | 0.82              | 0.48  | 49   | 215  |  |
| 50             | ISL 12.10  | D 12.09   | 33.460    | D 25.376            | 260.3 | 0.170  | 5.14   | 84.3  | 9.3       | 1.00   | 9.9    | 0.17   | 0.01 | 0.76              | 0.46  | 50   |      |  |
| 59             | 11.76      | 11.75     | 33.504    | 25.474              | 251.1 | 0.193  | 4.66   | 75.9  | 11.7      | 1.19   | 13.2   | 0.05   | 0.09 | 0.33              | 0.30  | 59   | 214  |  |
| 69             | 11.55      | 11.54     | 33.536    | 25.538              | 245.3 | 0.217  | 4.49   | 72.8  | 12.8      | 1.27   | 14.4   | 0.02   | 0.11 | 0.20              | 0.19  | 69   | 213  |  |
| 75             | ISL 11.25  | D 11.24   | 33.584    | D 25.630            | 236.6 | 0.232  | 4.21   | 67.8  | 14.4      | 1.37   | 15.9   | 0.02   | 0.11 | 0.13              | 0.15  | 75   |      |  |
| 84             | 10.89      | 10.88     | 33.661    | 25.755              | 225.0 | 0.253  | 3.69   | 59.0  | 17.4      | 1.54   | 18.5   | 0.01   | 0.10 | 0.05              | 0.11  | 84   | 212  |  |
| 100            | 10.50      | 10.49     | 33.825    | 25.951              | 206.6 | 0.287  | 2.82   | 44.8  | 23.1      | 1.83   | 21.9   | 0.00   | 0.00 | 0.02              | 0.06  | 100  | 211  |  |
| 119            | 10.19      | 10.18     | 33.978    | 26.124              | 190.6 | 0.325  | 2.27   | 35.8  | 27.9      | 2.06   | 24.2   | 0.00   | 0.00 | 0.01              | 0.05  | 120  | 210  |  |
| 125            | ISL 10.11  | D 10.10   | 34.013    | D 26.165            | 186.8 | 0.336  | 2.14   | 33.7  | 29.1      | 2.11   | 24.8   | 0.00   | 0.00 | 0.01              | 0.05  | 126  |      |  |
| 138            | 9.95       | 9.93      | 34.093    | 26.255              | 178.5 | 0.360  | 1.90   | 29.9  | 31.3      | 2.20   | 25.8   | 0.00   | 0.00 | 0.00              | 0.05  | 139  | 209  |  |
| 150            | ISL 9.93   | D 9.91    | 34.151    | D 26.304            | 174.2 | 0.381  | 1.69   | 26.6  | 32.9      | 2.27   | 26.5   | 0.00   | 0.00 | 0.00              | 0.05  | 151  |      |  |
| 169            | 9.90       | 9.88      | 34.212    | 26.357              | 169.5 | 0.414  | 1.39   | 21.8  | 34.9      | 2.37   | 27.3   | 0.00   | 0.00 | 0.00              | 0.04  | 170  | 208  |  |
| 200            | 9.94       | 9.92      | 34.290    | 26.412              | 165.1 | 0.466  | 0.94   | 14.8  | 37.9      | 2.54   | 28.2   | 0.00   | 0.00 | 0.00              | 0.05  | 201  | 207  |  |
| 228            | 9.90       | 9.87      | 34.330    | 26.451              | 162.0 | 0.511  | 0.98   | 15.4  | 37.9      | 2.55   | 28.2   | 0.00   | 0.00 |                   |       | 229  | 206  |  |
| 250            | ISL 9.79   | D 9.76    | 34.340    | D 26.477            | 159.9 | 0.547  | 0.97   | 15.2  | 39.0      | 2.57   | 28.6   | 0.00   | 0.00 |                   |       | 251  |      |  |
| 278            | 9.41       | 9.38      | 34.330    | 26.533              | 155.1 | 0.591  | 0.96   | 14.9  | 40.8      | 2.60   | 29.3   | 0.00   | 0.00 |                   |       | 280  | 205  |  |
| 300            | ISL 9.22   | D 9.19    | 34.318    | D 26.554            | 153.4 | 0.625  | 0.94   | 14.5  | 41.9      | 2.62   | 29.6   | 0.00   | 0.01 |                   |       | 302  |      |  |
| 318            | 9.15       | 9.11      | 34.330    | 26.575              | 151.7 | 0.652  | 0.91   | 14.1  | 42.9      | 2.65   | 29.8   | 0.00   | 0.01 |                   |       | 320  | 204  |  |
| 376            | 8.63       | 8.59      | 34.354    | 26.677              | 142.9 | 0.738  | 0.65   | 9.9   | 48.8      | 2.80   | 31.4   | 0.00   | 0.02 |                   |       | 378  | 203  |  |
| 400            | ISL 8.37   | D 8.33    | 34.337    | D 26.704            | 140.6 | 0.772  | 0.65   | 9.9   | 50.8      | 2.83   | 32.1   | 0.00   | 0.02 |                   |       | 403  |      |  |
| 436            | 7.97       | 7.93      | 34.312    | 26.745              | 137.0 | 0.822  | 0.65   | 9.8   | 54.0      | 2.86   | 33.1   | 0.00   | 0.01 |                   |       | 439  | 202  |  |
| 500            | ISL 7.26   | D 7.21    | 34.332    | D 26.863            | 126.2 | 0.906  | 0.44   | 6.5   | 61.9      | 3.02   | 35.2   | 0.00   | 0.00 |                   |       | 503  |      |  |
| 518            | 7.19       | 7.14      | 34.335    | 26.876              | 125.3 | 0.929  | 0.38   | 5.6   | 64.1      | 3.07   | 35.8   | 0.00   | 0.00 |                   |       | 522  | 201  |  |

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

STATION 90.0 45.0

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS:PRIMARY T: PRIMARY CORRECTED S:

STATION 90.0 53.0

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

| RV NEW HORIZON |             |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 90.0 60.0 |       |      |      |  |
|----------------|-------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE   | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 32 24.8 N      | 119 58.1 W  | 19/08/08  | 2350 UTC  | 854 m               | 320   | 15 kn  | 290 05 05 | 1     | 1012.1 mb | 18.1 c | 16.5 c | 11m    |      | 5/8               | SC    |      |      |  |
| DEPTH          | TEMP        | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C       | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 18.15   | 18.15     | 33.546    | 24.123              | 378.3 | 0.000  | 5.65      | 104.7 | 0.8       | 0.25   | 0.0    | 0.00   | 0.14 | 0.26              | 0.04  | 0    |      |  |
| 1              | 18.15       | 18.15     | 33.546    | 24.123              | 378.3 | 0.004  | 5.65      | 104.7 | 0.8       | 0.25   | 0.0    | 0.00   | 0.14 | 0.26              | 0.04  | 1    | 221  |  |
| 10             | ISL 18.12 D | 18.12     | 33.540    | 24.126              | 378.4 | 0.038  | 5.66      | 104.8 | 0.7       | 0.24   | 0.0    | 0.00   | 0.02 | 0.27              | 0.04  | 10   |      |  |
| 11             | 18.10       | 18.10     | 33.545    | 24.135              | 377.6 | 0.042  | 5.66      | 104.8 | 0.7       | 0.24   | 0.0    | 0.00   | 0.00 | 0.27              | 0.04  | 11   | 219  |  |
| 11             | 18.13       | 18.13     | 33.546    | 24.128              | 378.2 | 0.042  |           |       |           |        |        |        |      |                   |       | 11   | 220  |  |
| 20             | ISL 17.89 D | 17.89     | 33.543    | 24.185              | 373.1 | 0.075  | 5.70      | 105.1 | 0.4       | 0.24   | 0.0    | 0.00   | 0.00 | 0.29              | 0.05  | 20   |      |  |
| 21             | 17.92       | 17.92     | 33.545    | 24.179              | 373.7 | 0.079  | 5.70      | 105.2 | 0.4       | 0.24   | 0.0    | 0.00   | 0.00 | 0.29              | 0.05  | 21   | 218  |  |
| 30             | 13.93       | 13.93     | 33.499    | 25.043              | 291.5 | 0.109  | 5.63      | 95.9  | 5.3       | 0.79   | 6.6    | 0.32   | 0.42 | 1.25              | 0.60  | 30   | 217  |  |
| 41             | 13.26       | 13.25     | 33.513    | 25.191              | 277.7 | 0.140  | 5.39      | 90.6  | 7.6       | 0.96   | 8.9    | 0.46   | 0.51 | 0.59              | 0.37  | 41   | 216  |  |
| 50             | ISL 12.21 D | 12.20     | 33.539    | 25.417              | 256.4 | 0.164  | 5.06      | 83.2  | 10.8      | 1.16   | 12.8   | 0.13   | 0.15 | 0.20              | 0.19  | 50   |      |  |
| 51             | 12.17       | 12.16     | 33.541    | 25.426              | 255.6 | 0.167  | 5.02      | 82.5  | 11.2      | 1.18   | 13.2   | 0.09   | 0.11 | 0.17              | 0.17  | 51   | 215  |  |
| 60             | 11.83       | 11.82     | 33.579    | 25.519              | 246.9 | 0.190  | 4.84      | 79.0  | 12.9      | 1.28   | 14.8   | 0.03   | 0.07 | 0.09              | 0.12  | 60   | 214  |  |
| 69             | 11.54       | 11.53     | 33.603    | 25.592              | 240.2 | 0.212  | 4.69      | 76.1  | 14.3      | 1.36   | 16.1   | 0.02   | 0.00 | 0.06              | 0.09  | 69   | 213  |  |
| 75             | ISL 11.27 D | 11.26     | 33.633    | 25.665              | 233.4 | 0.226  | 4.53      | 73.1  | 15.4      | 1.42   | 17.0   | 0.01   | 0.00 | 0.05              | 0.08  | 75   |      |  |
| 84             | 11.02       | 11.01     | 33.662    | 25.732              | 227.1 | 0.246  | 4.26      | 68.3  | 17.2      | 1.50   | 18.4   | 0.01   | 0.01 | 0.04              | 0.07  | 84   | 212  |  |
| 100            | ISL 10.54 D | 10.53     | 33.718    | 25.861              | 215.2 | 0.282  | 3.86      | 61.3  | 19.8      | 1.62   | 20.2   | 0.01   | 0.00 | 0.02              | 0.06  | 100  |      |  |
| 101            | 10.51       | 10.50     | 33.722    | 25.869              | 214.4 | 0.284  | 3.84      | 60.9  | 20.0      | 1.63   | 20.3   | 0.01   | 0.00 | 0.02              | 0.06  | 101  | 211  |  |
| 119            | 9.71        | 9.70      | 33.830    | 26.089              | 193.7 | 0.321  | 3.33      | 52.0  | 24.0      | 1.78   | 22.7   | 0.01   | 0.00 | 0.01              | 0.05  | 120  | 210  |  |
| 125            | ISL 9.57 D  | 9.56      | 33.852    | 26.130              | 190.0 | 0.332  | 3.27      | 50.9  | 24.7      | 1.80   | 23.0   | 0.01   | 0.04 | 0.01              | 0.05  | 126  |      |  |
| 140            | 9.29        | 9.27      | 33.897    | 26.211              | 182.6 | 0.360  | 3.19      | 49.3  | 26.3      | 1.82   | 23.6   | 0.01   | 0.12 | 0.01              | 0.04  | 141  | 209  |  |
| 150            | ISL 9.10 D  | 9.08      | 33.941    | 26.276              | 176.5 | 0.378  | 3.11      | 47.9  | 27.7      | 1.85   | 24.2   | 0.01   | 0.11 | 0.01              | 0.04  | 151  |      |  |
| 169            | 8.84        | 8.82      | 33.989    | 26.355              | 169.3 | 0.411  | 2.90      | 44.4  | 30.7      | 1.94   | 25.6   | 0.00   | 0.04 | 0.00              | 0.03  | 170  | 208  |  |
| 200            | ISL 8.43 D  | 8.41      | 34.055    | 26.470              | 158.8 | 0.462  | 2.34      | 35.5  | 36.8      | 2.16   | 28.4   | 0.00   | 0.00 | 0.00              | 0.02  | 201  |      |  |
| 202            | 8.43        | 8.41      | 34.056    | 26.471              | 158.8 | 0.465  | 2.30      | 34.9  | 37.2      | 2.18   | 28.6   | 0.00   | 0.00 | 0.00              | 0.02  | 203  | 207  |  |
| 228            | 8.12        | 8.10      | 34.090    | 26.545              | 152.2 | 0.505  | 2.02      | 30.5  | 41.8      | 2.33   | 30.3   | 0.00   | 0.00 |                   |       | 229  | 206  |  |
| 250            | ISL 7.67 D  | 7.65      | 34.125    | 26.639              | 143.4 | 0.538  | 1.68      | 25.1  | 46.9      | 2.48   | 32.1   | 0.00   | 0.00 |                   |       | 251  |      |  |
| 270            | 7.45        | 7.42      | 34.138    | 26.681              | 139.7 | 0.566  | 1.35      | 20.1  | 51.7      | 2.61   | 33.6   | 0.00   | 0.00 |                   |       | 272  | 205  |  |
| 300            | ISL 7.25 D  | 7.22      | 34.208    | 26.764              | 132.2 | 0.607  | 0.95      | 14.0  | 57.2      | 2.78   | 35.0   | 0.00   | 0.00 |                   |       | 302  |      |  |
| 317            | 7.13        | 7.10      | 34.225    | 26.795              | 129.5 | 0.629  | 0.77      | 11.4  | 60.1      | 2.86   | 35.6   | 0.00   | 0.00 |                   |       | 319  | 204  |  |
| 375            | 6.56        | 6.53      | 34.290    | 26.924              | 117.8 | 0.701  | 0.40      | 5.8   | 70.7      | 3.07   | 37.7   | 0.00   | 0.01 |                   |       | 377  | 203  |  |
| 400            | ISL 6.45 D  | 6.41      | 34.298    | 26.945              | 116.1 | 0.730  | 0.37      | 5.4   | 72.9      | 3.11   | 38.1   | 0.00   | 0.01 |                   |       | 403  |      |  |
| 436            | 6.34        | 6.30      | 34.309    | 26.968              | 114.3 | 0.772  | 0.32      | 4.6   | 74.9      | 3.13   | 38.3   | 0.00   | 0.00 |                   |       | 439  | 202  |  |
| 500            | ISL 6.13 D  | 6.09      | 34.322    | 27.006              | 111.4 | 0.844  | 0.28      | 4.0   | 78.3      | 3.14   | 38.7   | 0.00   | 0.00 |                   |       | 503  |      |  |
| 524            | 6.10        | 6.05      | 34.325    | 27.013              | 111.2 | 0.871  | 0.27      | 3.9   | 79.6      | 3.15   | 38.9   | 0.00   | 0.00 |                   |       | 528  | 201  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 90.0 70.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 32 5.0 N       | 120 41.0 W | 19/08/08  | 1807 UTC  | 3779 m              | 340   | 18 kn  | 340 04 05 | 2     | 1015.2 mb | 17.0 C | 16.0 C | 14m    |      | 8/8               | SC    |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 17.81  | 17.81     | 33.541    | 24.202              | 370.8 | 0.000  | 5.59      | 102.9 | 2.3       | 0.31   | 0.0    | 0.00   | 0.18 | 0.21              | 0.04  | 0    |      |  |
| 2              | A 17.81    | 17.81     | 33.541    | 24.202              | 370.8 | 0.007  | 5.59      | 102.9 | 2.3       | 0.31   | 0.0    | 0.00   | 0.18 | 0.21              | 0.04  | 2    | 223  |  |
| 2              | 17.81      | 17.81     |           |                     |       | 0.007  |           |       | 2.3       | 0.31   | 0.0    | 0.00   | 0.14 |                   |       | 2    | 224  |  |
| 9              | A 17.80    | 17.80     | 33.541    | 24.205              | 370.8 | 0.033  | 5.58      | 102.7 | 2.3       | 0.31   | 0.0    | 0.00   | 0.00 | 0.21              | 0.04  | 9    | 221  |  |
| 9              | 17.81      | 17.81     | 33.540    | 24.202              | 371.1 | 0.033  |           |       | 2.3       | 0.31   | 0.0    | 0.00   | 0.00 |                   |       | 9    | 222  |  |
| 10             | ISL 17.79  | D 17.79   | 33.534    | D 24.202            | 371.1 | 0.037  | 5.59      | 102.9 | 2.3       | 0.31   | 0.0    | 0.00   | 0.01 | 0.22              | 0.04  | 10   |      |  |
| 19             | A 17.43    | 17.43     | 33.535    | 24.290              | 363.1 | 0.070  | 5.70      | 104.2 | 2.4       | 0.31   | 0.0    | 0.00   | 0.09 | 0.29              | 0.09  | 19   | 220  |  |
| 20             | ISL 17.24  | D 17.24   | 33.532    | D 24.333            | 359.0 | 0.074  | 5.76      | 104.9 | 2.4       | 0.31   | 0.0    | 0.00   | 0.10 | 0.33              | 0.11  | 20   |      |  |
| 28             | A 16.23    | 16.23     | 33.507    | 24.549              | 338.6 | 0.102  | 6.17      | 110.1 | 2.2       | 0.35   | 0.1    | 0.02   | 0.14 | 0.60              | 0.30  | 28   | 218  |  |
| 28             | 15.91      | 15.91     | 33.503    | 24.619              | 332.0 | 0.102  |           |       |           |        |        |        |      |                   |       | 28   | 219  |  |
| 30             | ISL 15.07  | D 15.07   | 33.526    | D 24.822            | 312.6 | 0.108  | 6.15      | 107.3 | 2.8       | 0.44   | 1.3    | 0.07   | 0.37 | 0.60              | 0.30  | 30   |      |  |
| 38             | A 13.46    | 13.45     | 33.510    | 25.148              | 281.7 | 0.132  | 5.82      | 98.2  | 6.3       | 0.88   | 7.2    | 0.37   | 1.01 | 0.61              | 0.29  | 38   | 217  |  |
| 46             | 12.31      | 12.30     | 33.555    | 25.410              | 257.0 | 0.153  | 5.33      | 87.8  | 9.9       | 1.15   | 12.0   | 0.69   | 0.05 | 0.37              | 0.19  | 46   | 216  |  |
| 50             | ISL 12.08  | D 12.07   | 33.595    | D 25.485            | 250.0 | 0.164  | 5.15      | 84.5  | 11.4      | 1.22   | 13.7   | 0.31   | 0.02 | 0.28              | 0.15  | 50   |      |  |
| 52             | A 12.04    | 12.03     | 33.590    | 25.488              | 249.6 | 0.169  | 5.08      | 83.3  | 12.1      | 1.25   | 14.4   | 0.10   | 0.00 | 0.24              | 0.14  | 52   | 215  |  |
| 62             | 11.65      | 11.64     | 33.604    | 25.572              | 241.9 | 0.193  | 4.92      | 80.0  | 13.5      | 1.33   | 15.6   | 0.02   | 0.00 | 0.15              | 0.10  | 62   | 214  |  |
| 70             | 11.11      | 11.10     | 33.731    | 25.770              | 223.3 | 0.212  | 4.24      | 68.2  | 18.3      | 1.58   | 19.6   | 0.01   | 0.00 | 0.08              | 0.05  | 70   | 213  |  |
| 75             | ISL 10.85  | D 10.84   | 33.752    | D 25.832            | 217.4 | 0.223  | 4.08      | 65.3  | 19.7      | 1.66   | 20.7   | 0.01   | 0.00 | 0.05              | 0.04  | 75   |      |  |
| 85             | 10.48      | 10.47     | 33.777    | 25.917              | 209.5 | 0.244  | 3.93      | 62.4  | 21.1      | 1.75   | 21.8   | 0.01   | 0.00 | 0.02              | 0.03  | 85   | 212  |  |
| 100            | 9.77       | 9.76      | 33.795    | 26.052              | 196.9 | 0.275  | 3.41      | 53.3  | 24.0      | 1.85   | 23.7   | 0.00   | 0.00 | 0.01              | 0.03  | 100  | 211  |  |
| 119            | 8.99       | 8.98      | 33.909    | 26.268              | 176.6 | 0.310  | 3.01      | 46.2  | 28.3      | 1.91   | 25.3   | 0.00   | 0.00 | 0.00              | 0.03  | 120  | 210  |  |
| 125            | ISL 8.91   | D 8.90    | 33.945    | D 26.309            | 172.9 | 0.321  | 2.87      | 44.0  | 29.6      | 1.95   | 25.9   | 0.00   | 0.00 | 0.00              | 0.03  | 126  |      |  |
| 140            | 8.77       | 8.76      | 33.987    | 26.364              | 167.9 | 0.346  | 2.56      | 39.2  | 32.6      | 2.06   | 27.3   | 0.00   | 0.01 | 0.00              | 0.04  | 141  | 209  |  |
| 150            | ISL 8.67   | D 8.65    | 34.005    | D 26.394            | 165.2 | 0.363  | 2.49      | 38.0  | 33.6      | 2.09   | 27.7   | 0.00   | 0.01 | 0.00              | 0.03  | 151  |      |  |
| 170            | 8.52       | 8.50      | 34.036    | 26.441              | 161.1 | 0.395  | 2.41      | 36.7  | 35.5      | 2.13   | 28.2   | 0.00   | 0.00 | 0.00              | 0.01  | 171  | 208  |  |
| 200            | ISL 8.13   | D 8.11    | 34.078    | D 26.534            | 152.7 | 0.442  | 1.98      | 29.9  | 40.8      | 2.32   | 30.5   | 0.00   | 0.07 | 0.00              | 0.02  | 201  |      |  |
| 202            | 8.12       | 8.10      | 34.082    | 26.538              | 152.3 | 0.445  | 1.95      | 29.4  | 41.2      | 2.33   | 30.7   | 0.00   | 0.08 | 0.00              | 0.02  | 203  | 207  |  |
| 229            | 7.87       | 7.85      | 34.115    | 26.602              | 146.7 | 0.486  | 1.60      | 24.0  | 45.9      | 2.48   | 32.3   | 0.00   | 0.11 |                   |       | 230  | 206  |  |
| 250            | ISL 7.70   | D 7.68    | 34.128    | D 26.637            | 143.7 | 0.516  | 1.44      | 21.5  | 49.2      | 2.57   | 33.1   | 0.00   | 0.10 |                   |       | 251  |      |  |
| 268            | 7.43       | 7.40      | 34.139    | 26.684              | 139.3 | 0.542  | 1.34      | 19.9  | 52.0      | 2.63   | 33.8   | 0.00   | 0.10 |                   |       | 270  | 205  |  |
| 300            | ISL 7.00   | D 6.97    | 34.150    | D 26.753            | 133.0 | 0.585  | 1.11      | 16.3  | 57.9      | 2.75   | 35.4   | 0.00   | 0.04 |                   |       | 302  |      |  |
| 318            | 6.78       | 6.75      | 34.164    | 26.794              | 129.3 | 0.609  | 0.99      | 14.5  | 61.2      | 2.81   | 36.3   | 0.00   | 0.00 |                   |       | 320  | 204  |  |
| 383            | 6.38       | 6.35      | 34.223    | 26.895              | 120.5 | 0.690  | 0.60      | 8.7   | 69.5      | 3.00   | 38.1   | 0.00   | 0.00 |                   |       | 385  | 203  |  |
| 400            | ISL 6.31   | D 6.27    | 34.230    | D 26.909            | 119.3 | 0.711  | 0.55      | 8.0   | 71.3      | 3.03   | 38.5   | 0.00   | 0.00 |                   |       | 403  |      |  |
| 440            | 6.06       | 6.02      | 34.245    | 26.953              | 115.5 | 0.758  | 0.46      | 6.6   | 75.4      | 3.09   | 39.4   | 0.00   | 0.00 |                   |       | 443  | 202  |  |
| 500            | ISL 5.83   | D 5.79    | 34.313    | D 27.037            | 108.2 | 0.825  | 0.28      | 4.0   | 82.1      | 3.17   | 40.2   | 0.00   | 0.00 |                   |       | 503  |      |  |
| 504            | 5.82       | 5.78      | 34.316    | 27.040              | 107.9 | 0.829  | 0.27      | 3.9   | 82.5      | 3.18   | 40.3   | 0.00   | 0.00 |                   |       | 507  | 200  |  |

| RV NEW HORIZON |             |            |          |           |           |        |        |       |       | CALCOFI CRUISE 0808 |           |        |        |        |       |      |      |  |  | STATION 90.0 80.0 |  |  |  |
|----------------|-------------|------------|----------|-----------|-----------|--------|--------|-------|-------|---------------------|-----------|--------|--------|--------|-------|------|------|--|--|-------------------|--|--|--|
| LATITUDE       |             | LONGITUDE  |          | DAY/MO/YR | CAST TIME | BOTTOM | WIND   | SPEED | WAVES | WEA                 | BAROMETER | DRY    | WET    | SECCHI | CLD   | AMT  | TYPE |  |  |                   |  |  |  |
| 31 44.7 N      |             | 121 19.4 W |          | 19/08/08  | 0942 UTC  | 3726 m | 340    | 11 kn |       |                     | 1014.3 mb | 16.8 C | 15.2 C |        |       |      |      |  |  |                   |  |  |  |
| DEPTH          | TEMP        | POT TEMP   | SALINITY | SIGMA     | SVA       | DYN HT | OXYGEN | OXY   | SI03  | P04                 | N03       | N02    | NH4    | CHL-A  | PHAE0 | PRES | SAMP |  |  |                   |  |  |  |
| m              | DEG C       | DEG C      |          | THETA     |           |        | ml/L   | PCT   | uM/L  | uM/L                | uM/L      | uM/L   | uM/L   | ug/L   | ug/L  | db   |      |  |  |                   |  |  |  |
| 0              | ISL 17.72   | 17.72      | 33.569   | 24.245    | 366.6     | 0.000  | 5.59   | 102.8 | 1.2   | 0.30                | 0.0       | 0.02   | 0.03   | 0.21   | 0.04  | 0    |      |  |  |                   |  |  |  |
| 2              | 17.72       | 17.72      | 33.569   | 24.245    | 366.7     | 0.007  | 5.59   | 102.8 | 1.2   | 0.30                | 0.0       | 0.02   | 0.03   | 0.21   | 0.04  | 2    | 221  |  |  |                   |  |  |  |
| 10             | 17.73       | 17.73      | 33.569   | 24.243    | 367.2     | 0.037  | 5.59   | 102.8 | 1.1   | 0.29                | 0.0       | 0.00   | 0.00   | 0.21   | 0.04  | 10   | 220  |  |  |                   |  |  |  |
| 19             | 17.48       | 17.48      | 33.579   | 24.312    | 361.0     | 0.069  | 5.68   | 104.0 | 1.4   | 0.29                | 0.0       | 0.00   | 0.00   | 0.26   | 0.10  | 19   | 219  |  |  |                   |  |  |  |
| 20             | ISL 17.31 D | 17.31      | 33.573 D | 24.348    | 357.6     | 0.073  | 5.71   | 104.2 | 1.4   | 0.29                | 0.0       | 0.00   | 0.00   | 0.27   | 0.12  | 20   |      |  |  |                   |  |  |  |
| 24             | 16.94       | 16.94      | 33.573   | 24.435    | 349.4     | 0.087  | 5.86   | 106.1 | 1.4   | 0.29                | 0.1       | 0.01   | 0.00   | 0.36   | 0.18  | 24   | 218  |  |  |                   |  |  |  |
| 30             | 16.11       | 16.11      | 33.579   | 24.632    | 330.8     | 0.108  | 6.01   | 107.1 | 2.0   | 0.40                | 1.1       | 0.05   | 0.00   | 0.58   | 0.25  | 30   | 217  |  |  |                   |  |  |  |
| 39             | 13.49       | 13.48      | 33.464   | 25.107    | 285.7     | 0.135  | 5.76   | 97.3  | 6.5   | 0.84                | 6.8       | 0.38   | 0.38   | 0.46   | 0.20  | 39   | 216  |  |  |                   |  |  |  |
| 49             | 11.81       | 11.80      | 33.303   | 25.308    | 266.6     | 0.163  | 5.44   | 88.6  | 9.2   | 1.03                | 10.1      | 0.30   | 0.00   | 0.44   | 0.20  | 49   | 215  |  |  |                   |  |  |  |
| 50             | ISL 11.66 D | 11.65      | 33.300 D | 25.334    | 264.2     | 0.166  | 5.41   | 87.8  | 9.5   | 1.05                | 10.5      | 0.28   | 0.00   | 0.43   | 0.19  | 50   |      |  |  |                   |  |  |  |
| 60             | 11.33       | 11.32      | 33.410   | 25.480    | 250.5     | 0.191  | 5.10   | 82.2  | 12.2  | 1.23                | 13.8      | 0.05   | 0.00   | 0.28   | 0.13  | 60   | 214  |  |  |                   |  |  |  |
| 69             | 11.22       | 11.21      | 33.537   | 25.599    | 239.5     | 0.213  | 4.87   | 78.4  | 14.0  | 1.34                | 15.6      | 0.05   | 0.00   | 0.21   | 0.09  | 69   | 213  |  |  |                   |  |  |  |
| 75             | ISL 11.04 D | 11.03      | 33.583 D | 25.667    | 233.1     | 0.228  | 4.73   | 75.9  | 14.9  | 1.42                | 16.7      | 0.04   | 0.00   | 0.16   | 0.07  | 75   |      |  |  |                   |  |  |  |
| 85             | 10.89       | 10.88      | 33.660   | 25.754    | 225.1     | 0.250  | 4.42   | 70.7  | 16.8  | 1.55                | 18.7      | 0.03   | 0.00   | 0.08   | 0.06  | 85   | 212  |  |  |                   |  |  |  |
| 100            | 9.96        | 9.95       | 33.741   | 25.978    | 204.0     | 0.283  | 3.63   | 56.9  | 21.8  | 1.76                | 22.2      | 0.03   | 0.00   | 0.02   | 0.06  | 100  | 211  |  |  |                   |  |  |  |
| 119            | 9.32        | 9.31       | 33.823   | 26.148    | 188.1     | 0.320  | 3.26   | 50.4  | 25.2  | 1.84                | 23.9      | 0.02   | 0.02   | 0.01   | 0.03  | 120  | 210  |  |  |                   |  |  |  |
| 125            | ISL 9.18 D  | 9.17       | 33.858 D | 26.198    | 183.5     | 0.331  | 3.21   | 49.5  | 26.0  | 1.86                | 24.2      | 0.02   | 0.02   | 0.01   | 0.03  | 126  |      |  |  |                   |  |  |  |
| 138            | 9.04        | 9.03       | 33.888   | 26.244    | 179.3     | 0.355  | 3.13   | 48.1  | 27.6  | 1.91                | 24.9      | 0.01   | 0.00   | 0.01   | 0.03  | 139  | 209  |  |  |                   |  |  |  |
| 150            | ISL 8.68 D  | 8.66       | 33.964 D | 26.360    | 168.4     | 0.375  | 2.98   | 45.5  | 29.5  | 1.96                | 25.9      | 0.01   | 0.00   | 0.01   | 0.03  | 151  |      |  |  |                   |  |  |  |
| 169            | 8.56        | 8.54       | 33.981   | 26.392    | 165.7     | 0.407  | 2.71   | 41.2  | 33.0  | 2.05                | 27.5      | 0.02   | 0.00   | 0.00   | 0.03  | 170  | 208  |  |  |                   |  |  |  |
| 200            | ISL 8.08 D  | 8.06       | 34.039 D | 26.510    | 154.9     | 0.457  | 2.31   | 34.8  | 39.2  | 2.23                | 29.7      | 0.01   | 0.00   | 0.00   | 0.03  | 201  |      |  |  |                   |  |  |  |
| 201            | 8.10        | 8.08       | 34.045   | 26.512    | 154.8     | 0.458  | 2.30   | 34.7  | 39.4  | 2.24                | 29.8      | 0.01   | 0.00   | 0.00   | 0.03  | 202  | 207  |  |  |                   |  |  |  |
| 229            | 7.75        | 7.73       | 34.060   | 26.576    | 149.1     | 0.501  | 2.02   | 30.2  | 44.2  | 2.38                | 31.5      | 0.01   | 0.00   |        |       | 230  | 206  |  |  |                   |  |  |  |
| 250            | ISL 7.53 D  | 7.51       | 34.073 D | 26.618    | 145.3     | 0.532  | 1.80   | 26.8  | 47.6  | 2.49                | 32.8      | 0.01   | 0.03   |        |       | 251  |      |  |  |                   |  |  |  |
| 270            | 7.30        | 7.27       | 34.091   | 26.665    | 141.1     | 0.561  | 1.61   | 23.8  | 50.8  | 2.58                | 33.9      | 0.01   | 0.05   |        |       | 272  | 205  |  |  |                   |  |  |  |
| 300            | ISL 7.00 D  | 6.97       | 34.099 D | 26.713    | 136.8     | 0.602  | 1.42   | 20.9  | 55.3  | 2.67                | 35.2      | 0.01   | 0.02   |        |       | 302  |      |  |  |                   |  |  |  |
| 320            | 6.78        | 6.75       | 34.104   | 26.747    | 133.8     | 0.629  | 1.31   | 19.2  | 58.2  | 2.73                | 36.0      | 0.01   | 0.00   |        |       | 322  | 204  |  |  |                   |  |  |  |
| 377            | 6.42        | 6.39       | 34.170   | 26.847    | 124.9     | 0.703  | 0.83   | 12.0  | 66.7  | 2.96                | 37.9      | 0.00   | 0.00   |        |       | 379  | 203  |  |  |                   |  |  |  |
| 400            | ISL 6.40 D  | 6.36       | 34.195 D | 26.870    | 123.1     | 0.732  | 0.71   | 10.3  | 69.0  | 3.01                | 38.4      | 0.00   | 0.00   |        |       | 403  |      |  |  |                   |  |  |  |
| 437            | 6.18        | 6.14       | 34.220   | 26.919    | 118.8     | 0.776  | 0.56   | 8.1   | 72.6  | 3.07                | 39.2      | 0.00   | 0.00   |        |       | 440  | 202  |  |  |                   |  |  |  |
| 500            | ISL 5.85 D  | 5.81       | 34.291 D | 27.017    | 110.1     | 0.848  | 0.34   | 4.9   | 81.4  | 3.18                | 40.6      | 0.00   | 0.07   |        |       | 503  |      |  |  |                   |  |  |  |
| 509            | 5.74        | 5.70       | 34.283   | 27.024    | 109.4     | 0.858  | 0.31   | 4.4   | 82.7  | 3.20                | 40.8      | 0.00   | 0.08   |        |       | 512  | 201  |  |  |                   |  |  |  |

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

| RV NEW HORIZON |  |            |       |           |  |           |        |        |  | CALCOFI CRUISE 0808 |       |        |  |           |       |     |      |           |      | STATION 90.0 90.0 |      |        |      |        |      |         |     |       |  |       |  |      |  |      |  |
|----------------|--|------------|-------|-----------|--|-----------|--------|--------|--|---------------------|-------|--------|--|-----------|-------|-----|------|-----------|------|-------------------|------|--------|------|--------|------|---------|-----|-------|--|-------|--|------|--|------|--|
| LATITUDE       |  | LONGITUDE  |       | DAY/MO/YR |  | CAST TIME |        | BOTTOM |  | WIND                |       | SPEED  |  | WAVES     |       | WEA |      | BAROMETER |      | DRY               |      | WET    |      | SECCHI |      | CLD AMT |     | TYPE  |  |       |  |      |  |      |  |
| 31 25.0 N      |  | 121 59.6 W |       | 19/08/08  |  | 0307 UTC  |        | 3871 m |  | 310                 |       | 12 kn  |  | 330 02 07 |       | 2   |      | 1014.1 mb |      | 16.9 c            |      | 15.7 c |      |        |      | 8/8     |     | SC    |  |       |  |      |  |      |  |
| DEPTH          |  | TEMP       |       | POT TEMP  |  | SALINITY  |        | SIGMA  |  | SVA                 |       | DYN HT |  | OXYGEN    |       | OXY |      | SI03      |      | PO4               |      | NO3    |      | NO2    |      | NH4     |     | CHL-A |  | PHAE0 |  | PRES |  | SAMP |  |
| m              |  | DEG C      |       | DEG C     |  |           |        | THETA  |  |                     |       |        |  | mL/L      |       | PCT |      | uM/L      |      | uM/L              |      | uM/L   |      | uM/L   |      | ug/L    |     | ug/L  |  | db    |  |      |  |      |  |
| 0 ISL          |  | 17.25      | 17.25 |           |  | 33.409    | 24.235 |        |  | 367.6               | 0.000 |        |  | 5.73      | 104.3 |     | 0.4  | 0.30      | 0.0  | 0.00              | 0.00 | 0.00   | 0.00 | 0.19   | 0.03 |         | 0   |       |  |       |  |      |  |      |  |
| 2              |  | 17.25      | 17.25 |           |  | 33.409    | 24.235 |        |  | 367.7               | 0.007 |        |  | 5.73      | 104.3 |     | 0.4  | 0.30      | 0.0  | 0.00              | 0.00 | 0.00   | 0.00 | 0.19   | 0.03 |         | 2   | 220   |  |       |  |      |  |      |  |
| 3              |  | 17.26      | 17.26 |           |  | 33.409    | 24.233 |        |  | 367.9               | 0.011 |        |  |           |       |     |      |           |      |                   |      |        |      |        |      |         | 3   | 221   |  |       |  |      |  |      |  |
| 10             |  | 16.85      | 16.85 |           |  | 33.474    | 24.380 |        |  | 354.2               | 0.036 |        |  | 5.82      | 105.2 |     | 0.0  | 0.28      | 0.0  | 0.00              | 0.00 | 0.01   | 0.22 | 0.03   |      | 10      | 219 |       |  |       |  |      |  |      |  |
| 20             |  | 16.43      | 16.43 |           |  | 33.422    | 24.438 |        |  | 349.0               | 0.071 |        |  | 5.87      | 105.2 |     | 0.1  | 0.30      | 0.0  | 0.00              | 0.00 | 0.08   | 0.28 | 0.08   |      | 20      | 218 |       |  |       |  |      |  |      |  |
| 30             |  | 15.36      | 15.36 |           |  | 33.276    | 24.566 |        |  | 337.0               | 0.106 |        |  | 6.08      | 106.5 |     | 1.2  | 0.38      | 0.1  | 0.01              | 0.01 | 0.22   | 0.75 | 0.29   | 30   | 217     |     |       |  |       |  |      |  |      |  |
| 40             |  | 13.69      | 13.68 |           |  | 33.167    | 24.836 |        |  | 311.5               | 0.138 |        |  | 5.93      | 100.4 |     | 3.5  | 0.54      | 1.8  | 0.16              | 0.67 | 0.60   | 0.43 | 40     | 216  |         |     |       |  |       |  |      |  |      |  |
| 49             |  | 12.75      | 12.74 |           |  | 33.037    | 24.923 |        |  | 303.3               | 0.166 |        |  | 5.86      | 97.2  |     | 4.6  | 0.63      | 3.1  | 0.30              | 0.38 | 0.42   | 0.37 | 49     | 215  |         |     |       |  |       |  |      |  |      |  |
| 50 ISL         |  | 12.64 D    | 12.63 |           |  | 33.023 D  | 24.934 |        |  | 302.4               | 0.169 |        |  | 5.84      | 96.6  |     | 4.7  | 0.64      | 3.3  | 0.30              | 0.35 | 0.41   | 0.36 | 50     |      |         |     |       |  |       |  |      |  |      |  |
| 59             |  | 11.93      | 11.92 |           |  | 33.012    | 25.060 |        |  | 290.5               | 0.196 |        |  | 5.67      | 92.4  |     | 5.9  | 0.76      | 5.3  | 0.28              | 0.09 | 0.29   | 0.26 | 59     | 214  |         |     |       |  |       |  |      |  |      |  |
| 69             |  | 11.41      | 11.40 |           |  | 33.140    | 25.256 |        |  | 272.1               | 0.224 |        |  | 5.45      | 87.9  |     | 7.6  | 0.90      | 8.2  | 0.05              | 0.00 | 0.16   | 0.16 | 69     | 213  |         |     |       |  |       |  |      |  |      |  |
| 75 ISL         |  | 11.61 D    | 11.60 |           |  | 33.315 D  | 25.355 |        |  | 262.8               | 0.240 |        |  | 5.30      | 85.9  |     | 9.4  | 1.03      | 10.4 | 0.03              | 0.01 | 0.11   | 0.11 | 75     |      |         |     |       |  |       |  |      |  |      |  |
| 84             |  | 11.30      | 11.29 |           |  | 33.387    | 25.468 |        |  | 252.3               | 0.263 |        |  | 5.09      | 82.0  |     | 12.2 | 1.21      | 13.4 | 0.01              | 0.04 | 0.06   | 0.07 | 84     | 212  |         |     |       |  |       |  |      |  |      |  |
| 100            |  | 10.49      | 10.48 |           |  | 33.458    | 25.667 |        |  | 233.6               | 0.302 |        |  | 4.80      | 76.0  |     | 15.5 | 1.39      | 16.1 | 0.01              | 0.00 | 0.04   | 0.04 | 100    | 211  |         |     |       |  |       |  |      |  |      |  |
| 120            |  | 10.26      | 10.25 |           |  | 33.782    | 25.959 |        |  | 206.2               | 0.346 |        |  |           |       |     |      |           |      |                   |      |        |      | 121    | 210  |         |     |       |  |       |  |      |  |      |  |
| 125 ISL        |  | 10.03 D    | 10.02 |           |  | 33.821 D  | 26.029 |        |  | 199.7               | 0.356 |        |  | 3.63      | 57.0  |     | 22.6 | 1.74      | 21.7 | 0.00              | 0.00 | 0.00   | 0.02 | 0.07   | 126  |         |     |       |  |       |  |      |  |      |  |
| 139            |  | 9.51       | 9.49  |           |  | 33.859    | 26.145 |        |  | 188.8               | 0.383 |        |  | 2.98      | 46.3  |     | 26.3 | 1.91      | 24.4 | 0.00              | 0.00 | 0.02   | 0.05 | 140    | 209  |         |     |       |  |       |  |      |  |      |  |
| 150 ISL        |  | 9.23 D     | 9.21  |           |  | 33.910 D  | 26.231 |        |  | 180.9               | 0.403 |        |  | 2.88      | 44.5  |     | 28.1 | 1.96      | 25.3 | 0.00              | 0.00 | 0.02   | 0.05 | 151    |      |         |     |       |  |       |  |      |  |      |  |
| 169            |  | 8.93       | 8.91  |           |  | 33.950    | 26.310 |        |  | 173.6               | 0.437 |        |  | 2.72      | 41.7  |     | 30.4 | 2.01      | 26.1 | 0.00              | 0.00 | 0.01   | 0.05 | 170    | 208  |         |     |       |  |       |  |      |  |      |  |
| 200 ISL        |  | 8.54 D     | 8.52  |           |  | 33.998 D  | 26.409 |        |  | 164.7               | 0.490 |        |  | 2.60      | 39.6  |     | 34.0 | 2.08      | 27.2 | 0.00              | 0.16 | 0.01   | 0.05 | 201    |      |         |     |       |  |       |  |      |  |      |  |
| 201            |  | 8.54       | 8.52  |           |  | 34.000    | 26.411 |        |  | 164.6               | 0.491 |        |  | 2.59      | 39.4  |     | 34.1 | 2.08      | 27.2 | 0.00              | 0.16 | 0.01   | 0.05 | 202    | 207  |         |     |       |  |       |  |      |  |      |  |
| 229            |  | 8.25       | 8.23  |           |  | 34.033    | 26.481 |        |  | 158.3               | 0.536 |        |  | 2.22      | 33.6  |     | 38.0 | 2.22      | 29.2 | 0.00              | 0.13 |        |      | 230    | 206  |         |     |       |  |       |  |      |  |      |  |
| 250 ISL        |  | 7.86 D     | 7.84  |           |  | 34.066 D  | 26.565 |        |  | 150.5               | 0.569 |        |  | 1.84      | 27.6  |     | 43.0 | 2.38      | 31.1 | 0.00              | 0.20 |        |      | 251    |      |         |     |       |  |       |  |      |  |      |  |
| 270            |  | 7.68       | 7.65  |           |  | 34.111    | 26.627 |        |  | 145.0               | 0.598 |        |  | 1.50      | 22.4  |     | 47.9 | 2.53      | 32.7 | 0.00              | 0.27 |        |      | 272    | 205  |         |     |       |  |       |  |      |  |      |  |
| 300 ISL        |  | 7.28 D     | 7.25  |           |  | 34.112 D  | 26.685 |        |  | 139.7               | 0.641 |        |  | 1.29      | 19.1  |     | 52.9 | 2.64      | 34.0 | 0.00              | 0.18 |        |      | 302    |      |         |     |       |  |       |  |      |  |      |  |
| 319            |  | 7.05       | 7.02  |           |  | 34.122    | 26.725 |        |  | 136.1               | 0.667 |        |  | 1.23      | 18.1  |     | 55.7 | 2.69      | 34.6 | 0.00              | 0.09 |        |      | 321    | 204  |         |     |       |  |       |  |      |  |      |  |
| 376            |  | 6.28       | 6.25  |           |  | 34.108    | 26.817 |        |  | 127.6               | 0.742 |        |  | 1.07      | 15.5  |     | 65.4 | 2.85      | 37.1 | 0.00              | 0.00 |        |      | 378    | 203  |         |     |       |  |       |  |      |  |      |  |
| 400 ISL        |  | 6.16 D     | 6.12  |           |  | 34.122 D  | 26.843 |        |  | 125.4               | 0.773 |        |  | 0.92      | 13.3  |     | 68.3 | 2.91      | 37.7 | 0.00              | 0.00 |        |      | 403    |      |         |     |       |  |       |  |      |  |      |  |
| 437            |  | 6.09       | 6.05  |           |  | 34.177    | 26.896 |        |  | 120.9               | 0.818 |        |  | 0.67      | 9.6   |     | 72.3 | 3.00      | 38.3 | 0.00              | 0.00 |        |      | 440    | 202  |         |     |       |  |       |  |      |  |      |  |
| 500 ISL        |  | 5.62 D     | 5.58  |           |  | 34.209 D  | 26.980 |        |  | 113.3               | 0.892 |        |  | 0.45      | 6.4   |     | 80.5 | 3.11      | 39.4 | 0.01              | 0.00 |        |      | 503    |      |         |     |       |  |       |  |      |  |      |  |
| 516            |  | 5.60       | 5.56  |           |  | 34.235    | 27.003 |        |  | 111.3               | 0.910 |        |  | 0.40      | 5.7   |     | 82.6 | 3.14      | 39.7 | 0.01              | 0.00 |        |      | 519    | 201  |         |     |       |  |       |  |      |  |      |  |

| RV NEW HORIZON |             |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |         | STATION 90.0 100.0 |       |      |      |  |
|----------------|-------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|---------|--------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE   | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD AMT | TYPE               |       |      |      |  |
| 31 5.3 N       | 122 40.1 W  | 18/08/08  | 2047 UTC  | 3976 m              | 020   | 05 kn  | 330 02 08 | 1     | 1015.5 mb | 19.5 c | 18.0 c | 22m    | 7/8     | SC                 |       |      |      |  |
| DEPTH          | TEMP        | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4     | CHL-A              | PHAE0 | PRES | SAMP |  |
| m              | DEG C       | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L    | ug/L               | ug/L  | db   |      |  |
| 0              | ISL 17.86   | 17.86     | 32.989    | 23.767              | 412.2 | 0.000  | 5.58      | 102.5 | 2.6       | 0.35   | 0.0    | 0.00   | 0.14    | 0.12               | 0.00  | 0    |      |  |
| 2              | 17.86       | 17.86     | 32.989    | 23.768              | 412.3 | 0.008  | 5.58      | 102.5 | 2.6       | 0.35   | 0.0    | 0.00   | 0.14    | 0.12               | 0.00  | 2    | 220  |  |
| 3              | 17.45       | 17.45     | 32.987    | 23.865              | 403.1 | 0.012  |           |       |           |        |        |        |         |                    |       | 3    | 221  |  |
| 10             | 17.13       | 17.13     | 32.973    | 23.930              | 397.1 | 0.040  | 5.65      | 102.3 | 2.6       | 0.36   | 0.0    | 0.00   | 0.01    | 0.11               | 0.03  | 10   | 219  |  |
| 20             | 17.01       | 17.01     | 33.004    | 23.982              | 392.4 | 0.080  | 5.66      | 102.3 | 2.6       | 0.35   | 0.0    | 0.00   | 0.08    | 0.16               | 0.04  | 20   | 218  |  |
| 30             | 16.56       | 16.56     | 33.070    | 24.138              | 377.9 | 0.118  | 5.79      | 103.8 | 2.9       | 0.35   | 0.0    | 0.00   | 0.00    | 0.20               | 0.06  | 30   | 217  |  |
| 38             | 15.86       | 15.85     | 33.078    | 24.303              | 362.3 | 0.148  | 5.93      | 104.8 | 2.8       | 0.35   | 0.0    | 0.00   | 0.13    | 0.27               | 0.10  | 38   | 216  |  |
| 50             | ISL 14.73 D | 14.72     | 33.059 D  | 24.536              | 340.4 | 0.190  | 6.05      | 104.5 | 2.7       | 0.36   | 0.0    | 0.00   | 0.15    | 0.34               | 0.18  | 50   |      |  |
| 54             | 14.55       | 14.54     | 33.049    | 24.567              | 337.6 | 0.204  | 6.07      | 104.5 | 2.7       | 0.36   | 0.0    | 0.00   | 0.16    | 0.35               | 0.20  | 54   | 215  |  |
| 69             | 13.76       | 13.75     | 33.038    | 24.723              | 323.0 | 0.253  | 6.04      | 102.3 | 2.7       | 0.39   | 0.1    | 0.02   | 0.26    | 0.39               | 0.24  | 69   | 214  |  |
| 75             | ISL 13.37 D | 13.36     | 33.019 D  | 24.788              | 317.0 | 0.272  | 5.96      | 100.1 | 3.2       | 0.46   | 0.9    | 0.17   | 0.37    | 0.30               | 0.25  | 75   |      |  |
| 79             | 13.00       | 12.99     | 33.013    | 24.857              | 310.5 | 0.285  | 5.91      | 98.5  | 3.6       | 0.51   | 1.5    | 0.27   | 0.39    | 0.24               | 0.26  | 79   | 213  |  |
| 84             | 12.88       | 12.87     | 33.026    | 24.890              | 307.4 | 0.300  | 5.86      | 97.4  | 3.8       | 0.54   | 1.8    | 0.35   | 0.25    | 0.22               | 0.27  | 84   | 212  |  |
| 100            | 12.16       | 12.15     | 33.098    | 25.085              | 289.2 | 0.348  | 5.55      | 90.9  | 5.6       | 0.73   | 5.5    | 0.04   | 0.06    | 0.15               | 0.16  | 100  | 211  |  |
| 118            | 11.48       | 11.47     | 33.275    | 25.349              | 264.4 | 0.398  | 5.26      | 85.0  | 8.4       | 0.96   | 9.6    | 0.01   | 0.03    | 0.06               | 0.07  | 118  | 210  |  |
| 125            | ISL 11.06 D | 11.04     | 33.308 D  | 25.451              | 254.8 | 0.416  | 5.11      | 81.9  | 10.1      | 1.07   | 11.5   | 0.00   | 0.02    | 0.04               | 0.05  | 126  |      |  |
| 138            | 10.89       | 10.87     | 33.479    | 25.614              | 239.6 | 0.448  | 4.76      | 76.0  | 13.7      | 1.29   | 14.9   | 0.00   | 0.00    | 0.03               | 0.04  | 139  | 209  |  |
| 150            | ISL 10.41 D | 10.39     | 33.600 D  | 25.792              | 222.8 | 0.476  | 4.32      | 68.4  | 17.0      | 1.47   | 17.7   | 0.00   | 0.02    | 0.02               | 0.04  | 151  |      |  |
| 168            | 9.81        | 9.79      | 33.728    | 25.994              | 203.8 | 0.514  | 3.64      | 56.9  | 21.7      | 1.70   | 21.4   | 0.00   | 0.05    | 0.01               | 0.03  | 169  | 208  |  |
| 200            | ISL 9.02 D  | 9.00      | 33.933 D  | 26.283              | 176.8 | 0.575  | 2.78      | 42.7  | 29.2      | 1.99   | 25.9   | 0.00   | 0.00    | 0.00               | 0.03  | 201  |      |  |
| 201            | 9.06        | 9.04      | 33.935    | 26.278              | 177.3 | 0.577  | 2.76      | 42.5  | 29.4      | 2.00   | 26.0   | 0.00   | 0.00    | 0.00               | 0.03  | 202  | 207  |  |
| 228            | 8.49        | 8.47      | 33.998    | 26.417              | 164.5 | 0.623  | 2.60      | 39.5  | 34.1      | 2.08   | 27.4   | 0.00   | 0.00    |                    |       | 229  | 206  |  |
| 250            | ISL 8.05 D  | 8.02      | 34.020 D  | 26.501              | 156.7 | 0.659  | 2.42      | 36.4  | 38.6      | 2.18   | 28.9   | 0.00   | 0.00    |                    |       | 251  |      |  |
| 267            | 7.79        | 7.76      | 34.026    | 26.544              | 152.8 | 0.685  | 2.25      | 33.7  | 42.1      | 2.27   | 30.2   | 0.00   | 0.00    |                    |       | 268  | 205  |  |
| 300            | ISL 7.38 D  | 7.35      | 34.056 D  | 26.627              | 145.3 | 0.734  | 1.82      | 27.0  | 48.3      | 2.46   | 32.4   | 0.00   | 0.00    |                    |       | 302  |      |  |
| 317            | 7.26        | 7.23      | 34.079    | 26.662              | 142.1 | 0.758  | 1.60      | 23.6  | 51.3      | 2.55   | 33.4   | 0.00   | 0.00    |                    |       | 319  | 204  |  |
| 377            | 6.55        | 6.52      | 34.093    | 26.770              | 132.3 | 0.841  | 1.22      | 17.7  | 61.2      | 2.75   | 36.0   | 0.00   | 0.04    |                    |       | 379  | 203  |  |
| 400            | ISL 6.49 D  | 6.45      | 34.141 D  | 26.816              | 128.3 | 0.871  | 1.04      | 15.1  | 64.7      | 2.83   | 36.8   | 0.00   | 0.03    |                    |       | 402  |      |  |
| 437            | 6.19        | 6.15      | 34.165    | 26.874              | 123.0 | 0.917  | 0.76      | 11.0  | 70.0      | 2.96   | 37.9   | 0.00   | 0.00    |                    |       | 440  | 202  |  |
| 500            | ISL 5.75 D  | 5.71      | 34.206 D  | 26.962              | 115.1 | 0.992  | 0.54      | 7.7   | 78.8      | 3.08   | 39.4   | 0.00   | 0.02    |                    |       | 503  |      |  |
| 519            | 5.62        | 5.58      | 34.217    | 26.987              | 112.9 | 1.014  | 0.48      | 6.8   | 81.4      | 3.12   | 39.9   | 0.00   | 0.03    |                    |       | 522  | 201  |  |

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

| RV NEW HORIZON |             |            |          | CALCOFI CRUISE 0808 |           |        |        |       |           |      |           |           |        | STATION 90.0 110.0 |        |         |      |  |
|----------------|-------------|------------|----------|---------------------|-----------|--------|--------|-------|-----------|------|-----------|-----------|--------|--------------------|--------|---------|------|--|
| LATITUDE       |             | LONGITUDE  |          | DAY/MO/YR           | CAST TIME | BOTTOM | WIND   | SPEED | WAVES     |      | WEA       | BAROMETER | DRY    | WET                | SECCHI | CLD AMT | TYPE |  |
| 30 45.2 N      |             | 123 20.1 W |          | 18/08/08            | 1403 UTC  | 4057 m | 320    | 10 kn | 340 03 06 | 2    | 1014.2 mb | 17.2 C    | 15.2 C | 27m                |        | 8/8     | ST   |  |
| DEPTH          | TEMP        | POT TEMP   | SALINITY | SIGMA               | SVA       | DYN HT | OXYGEN | OXY   | SI03      | P04  | N03       | N02       | NH4    | CHL-A              | PHAE0  | PRES    | SAMP |  |
| m              | DEG C       | DEG C      |          | THETA               |           |        | ml/L   | PCT   | uM/L      | uM/L | uM/L      | uM/L      | uM/L   | ug/L               | ug/L   | db      |      |  |
| 0              | ISL 18.58   | 18.58      | 33.313   | 23.839              | 405.4     | 0.000  | 5.44   | 101.5 | 2.7       | 0.32 | 0.1       | 0.00      | 0.00   | 0.10               | 0.01   | 0       |      |  |
| 2              | 18.58       | 18.58      | 33.313   | 23.839              | 405.5     | 0.008  | 5.44   | 101.5 | 2.7       | 0.32 | 0.1       | 0.00      | 0.00   | 0.10               | 0.01   | 2       | 221  |  |
| 2              | 18.58       | 18.58      | 33.315   | 23.840              | 405.4     | 0.008  |        |       |           |      |           |           |        |                    |        | 2       | 222  |  |
| 10             | 18.56       | 18.56      | 33.312   | 23.843              | 405.3     | 0.041  | 5.44   | 101.5 | 2.7       | 0.32 | 0.1       | 0.00      | 0.05   | 0.10               | 0.01   | 10      | 220  |  |
| 20             | ISL 18.35 D | 18.35      | 33.302 D | 23.888              | 401.4     | 0.081  | 5.52   | 102.6 | 2.6       | 0.32 | 0.1       | 0.00      | 0.06   | 0.11               | 0.01   | 20      |      |  |
| 25             | 17.61       | 17.61      | 33.229   | 24.012              | 389.7     | 0.101  | 5.60   | 102.5 | 2.6       | 0.32 | 0.1       | 0.00      | 0.07   | 0.12               | 0.02   | 25      | 219  |  |
| 30             | ISL 16.74 D | 16.74      | 33.173 D | 24.175              | 374.3     | 0.120  | 5.76   | 103.7 | 2.6       | 0.33 | 0.1       | 0.00      | 0.05   | 0.13               | 0.03   | 30      |      |  |
| 39             | 15.27       | 15.26      | 33.059   | 24.419              | 351.3     | 0.152  | 6.03   | 105.3 | 2.7       | 0.34 | 0.1       | 0.00      | 0.01   | 0.14               | 0.05   | 39      | 218  |  |
| 49             | 14.49       | 14.48      | 33.055   | 24.584              | 335.8     | 0.187  | 6.08   | 104.5 | 2.8       | 0.36 | 0.0       | 0.00      | 0.00   | 0.16               | 0.07   | 49      | 217  |  |
| 50             | ISL 14.16 D | 14.15      | 33.056 D | 24.654              | 329.1     | 0.190  | 6.08   | 103.8 | 2.8       | 0.36 | 0.0       | 0.02      | 0.01   | 0.17               | 0.07   | 50      |      |  |
| 62             | 13.42       | 13.41      | 33.033   | 24.788              | 316.6     | 0.229  | 5.98   | 100.5 | 3.1       | 0.45 | 0.6       | 0.20      | 0.12   | 0.24               | 0.12   | 62      | 215  |  |
| 62             | 13.42       | 13.41      | 33.031   | 24.786              | 316.8     | 0.229  |        |       |           |      |           |           |        |                    |        | 62      | 216  |  |
| 74             | 12.78       | 12.77      | 33.075   | 24.948              | 301.7     | 0.266  | 5.76   | 95.6  | 4.1       | 0.57 | 2.7       | 0.20      | 0.05   | 0.30               | 0.14   | 74      | 214  |  |
| 75             | ISL 12.73 D | 12.72      | 33.075 D | 24.957              | 300.8     | 0.269  | 5.75   | 95.3  | 4.2       | 0.58 | 2.9       | 0.20      | 0.04   | 0.30               | 0.14   | 75      |      |  |
| 86             | 12.30       | 12.29      | 33.104   | 25.063              | 291.0     | 0.301  | 5.67   | 93.2  | 5.8       | 0.70 | 5.0       | 0.12      | 0.00   | 0.22               | 0.14   | 86      | 213  |  |
| 100            | 11.77       | 11.76      | 33.100   | 25.159              | 282.0     | 0.342  | 5.77   | 93.7  | 9.3       | 0.93 | 8.7       | 0.01      | 0.00   | 0.10               | 0.07   | 100     | 212  |  |
| 110            | 11.64       | 11.63      | 33.164   | 25.233              | 275.2     | 0.369  | 5.72   | 92.7  | 10.7      | 1.01 | 10.0      | 0.01      | 0.03   | 0.06               | 0.04   | 110     | 211  |  |
| 125            | 11.42       | 11.40      | 33.372   | 25.436              | 256.3     | 0.409  | 5.29   | 85.4  | 11.1      | 1.14 | 12.3      | 0.01      | 0.00   | 0.04               | 0.06   | 126     | 210  |  |
| 141            | 10.33       | 10.31      | 33.379   | 25.634              | 237.6     | 0.449  | 4.63   | 73.0  | 13.0      | 1.23 | 14.1      | 0.00      | 0.00   | 0.01               | 0.02   | 142     | 209  |  |
| 150            | ISL 10.08 D | 10.06      | 33.610 D | 25.856              | 216.6     | 0.469  | 4.24   | 66.6  | 16.1      | 1.40 | 16.7      | 0.00      | 0.00   | 0.01               | 0.02   | 151     |      |  |
| 163            | 9.79        | 9.77       | 33.695   | 25.972              | 205.9     | 0.497  | 3.75   | 58.6  | 21.1      | 1.66 | 20.7      | 0.00      | 0.00   | 0.01               | 0.01   | 164     | 208  |  |
| 200            | ISL 8.82 D  | 8.80       | 33.956 D | 26.333              | 172.0     | 0.567  | 3.50   | 53.6  | 27.6      | 1.75 | 23.1      | 0.00      | 0.03   | 0.00               | 0.01   | 201     |      |  |
| 201            | 8.82        | 8.80       | 33.958   | 26.334              | 171.9     | 0.568  | 3.49   | 53.4  | 27.7      | 1.75 | 23.1      | 0.00      | 0.03   | 0.00               | 0.01   | 202     | 207  |  |
| 226            | 8.32        | 8.30       | 33.999   | 26.444              | 161.8     | 0.610  | 3.11   | 47.1  | 33.4      | 1.93 | 25.8      | 0.00      | 0.13   |                    |        | 227     | 206  |  |
| 250            | ISL 7.89 D  | 7.86       | 34.029 D | 26.531              | 153.7     | 0.648  | 2.70   | 40.5  | 39.7      | 2.12 | 28.4      | 0.00      | 0.07   |                    |        | 251     |      |  |
| 269            | 7.49        | 7.46       | 34.026   | 26.587              | 148.6     | 0.677  | 2.37   | 35.2  | 44.4      | 2.27 | 30.2      | 0.00      | 0.00   |                    |        | 270     | 205  |  |
| 300            | ISL 7.32 D  | 7.29       | 34.063 D | 26.641              | 143.9     | 0.722  | 1.91   | 28.3  | 49.3      | 2.45 | 32.2      | 0.01      | 0.00   |                    |        | 302     |      |  |
| 316            | 7.21        | 7.18       | 34.078   | 26.668              | 141.5     | 0.745  | 1.70   | 25.1  | 51.4      | 2.53 | 33.0      | 0.01      | 0.00   |                    |        | 318     | 204  |  |
| 377            | 6.58        | 6.55       | 34.118   | 26.785              | 130.9     | 0.828  | 1.12   | 16.3  | 61.9      | 2.80 | 35.9      | 0.00      | 0.02   |                    |        | 379     | 203  |  |
| 400            | ISL 6.31 D  | 6.27       | 34.132 D | 26.832              | 126.6     | 0.858  | 1.03   | 14.9  | 65.7      | 2.86 | 36.8      | 0.00      | 0.06   |                    |        | 402     |      |  |
| 439            | 5.89        | 5.85       | 34.127   | 26.881              | 122.0     | 0.906  | 0.93   | 13.3  | 72.1      | 2.93 | 38.1      | 0.00      | 0.10   |                    |        | 442     | 202  |  |
| 500            | ISL 5.42 D  | 5.38       | 34.192 D | 26.991              | 112.0     | 0.977  | 0.60   | 8.5   | 82.3      | 3.08 | 40.1      | 0.00      | 0.02   |                    |        | 503     |      |  |
| 512            | 5.48        | 5.34       | 34.195   | 26.998              | 111.4     | 0.991  | 0.53   | 7.5   | 84.3      | 3.11 | 40.5      | 0.00      | 0.00   |                    |        | 515     | 201  |  |

| RV NEW HORIZON |           |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 90.0 120.0 |       |      |      |  |
|----------------|-----------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|--------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT                | TYPE  |      |      |  |
| 30 25.0 N      | 124 0.1 W | 18/08/08  | 0717 UTC  | 4308 m              | 330   | 04 kn  |        |       | 1013.9 mb | 19.0 c | 17.0 c |        |      |                    |       |      |      |  |
| DEPTH          | TEMP      | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A              | PHAE0 | PRES | SAMP |  |
| m              | DEG C     | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L               | ug/L  | db   |      |  |
| 0              | ISL 19.02 | 19.02     | 33.388    | 23.786              | 410.5 | 0.000  | 5.43   | 102.2 | 2.9       | 0.33   | 0.0    | 0.00   | 0.32 | 0.11               | 0.02  | 0    |      |  |
| 2              | 19.02     | 19.02     | 33.388    | 23.786              | 410.6 | 0.008  | 5.43   | 102.2 | 2.9       | 0.33   | 0.0    | 0.00   | 0.32 | 0.11               | 0.02  | 2    | 222  |  |
| 10             | 18.78     | 18.78     | 33.389    | 23.847              | 405.0 | 0.041  | 5.45   | 102.1 | 2.9       | 0.33   | 0.0    | 0.00   | 0.17 | 0.11               | 0.03  | 10   | 220  |  |
| 10             | 18.78     | 18.78     | 33.388    | 23.846              | 405.0 | 0.041  |        |       |           |        |        |        |      |                    |       | 10   | 221  |  |
| 20             | 18.80     | 18.80     | 33.422    | 23.868              | 403.4 | 0.081  | 5.43   | 101.8 | 2.6       | 0.31   | 0.0    | 0.00   | 0.01 | 0.11               | 0.03  | 20   | 219  |  |
| 30             | ISL 18.79 | D 18.78   | 33.439    | D 23.884            | 402.2 | 0.122  | 5.43   | 101.8 | 2.4       | 0.31   | 0.0    | 0.01   | 0.02 | 0.11               | 0.05  | 30   |      |  |
| 31             | 18.80     | 18.79     | 33.455    | 23.894              | 401.3 | 0.126  | 5.43   | 101.8 | 2.4       | 0.31   | 0.0    | 0.01   | 0.02 | 0.11               | 0.05  | 31   | 218  |  |
| 40             | 16.93     | 16.92     | 33.489    | 24.374              | 355.8 | 0.160  | 5.99   | 108.4 | 1.9       | 0.44   | 1.2    | 0.04   | 0.58 | 0.36               | 0.27  | 40   | 216  |  |
| 40             | 16.97     | 16.96     | 33.505    | 24.377              | 355.5 | 0.160  |        |       |           |        |        |        |      |                    |       | 40   | 217  |  |
| 50             | ISL 13.69 | D 13.68   | 33.650    | D 25.210            | 276.2 | 0.191  | 6.29   | 106.8 | 2.3       | 0.76   | 5.8    | 0.17   | 1.22 | 0.31               | 0.16  | 50   |      |  |
| 51             | 13.95     | 13.94     | 33.635    | 25.145              | 282.4 | 0.194  | 6.32   | 107.8 | 2.3       | 0.80   | 6.4    | 0.18   | 1.24 | 0.30               | 0.14  | 51   | 215  |  |
| 60             | 12.37     | 12.36     | 33.657    | 25.478              | 250.9 | 0.218  | 5.47   | 90.3  | 9.0       | 1.20   | 12.9   | 0.65   | 0.39 | 0.31               | 0.15  | 60   | 214  |  |
| 69             | 11.72     | 11.71     | 33.642    | 25.589              | 240.5 | 0.240  | 4.99   | 81.3  | 13.2      | 1.36   | 16.0   | 0.04   | 0.15 | 0.17               | 0.07  | 69   | 213  |  |
| 75             | ISL 11.33 | D 11.32   | 33.655    | D 25.671            | 232.8 | 0.254  | 4.79   | 77.4  | 15.0      | 1.44   | 17.4   | 0.03   | 0.15 | 0.11               | 0.05  | 75   |      |  |
| 85             | 11.04     | 11.03     | 33.691    | 25.751              | 225.3 | 0.277  | 4.54   | 72.9  | 17.0      | 1.54   | 18.8   | 0.01   | 0.16 | 0.04               | 0.03  | 85   | 212  |  |
| 100            | ISL 10.43 | D 10.42   | 33.659    | D 25.834            | 217.7 | 0.310  | 4.21   | 66.7  | 18.7      | 1.60   | 19.7   | 0.01   | 0.04 | 0.02               | 0.03  | 100  |      |  |
| 101            | 10.37     | 10.36     | 33.659    | 25.844              | 216.7 | 0.313  | 4.19   | 66.3  | 18.8      | 1.60   | 19.7   | 0.01   | 0.03 | 0.02               | 0.03  | 101  | 211  |  |
| 120            | 9.69      | 9.68      | 33.748    | 26.029              | 199.5 | 0.352  | 3.60   | 56.1  | 22.0      | 1.71   | 21.8   | 0.01   | 0.00 | 0.01               | 0.02  | 121  | 210  |  |
| 125            | ISL 9.58  | D 9.57    | 33.767    | D 26.062            | 196.5 | 0.362  | 3.42   | 53.2  | 23.3      | 1.76   | 22.7   | 0.01   | 0.00 | 0.01               | 0.02  | 126  |      |  |
| 140            | 9.17      | 9.15      | 33.873    | 26.211              | 182.5 | 0.390  | 2.97   | 45.8  | 27.3      | 1.92   | 25.1   | 0.01   | 0.00 | 0.00               | 0.02  | 141  | 209  |  |
| 150            | ISL 8.79  | D 8.77    | 33.926    | D 26.313            | 172.9 | 0.408  | 2.94   | 45.0  | 29.1      | 1.96   | 25.9   | 0.01   | 0.00 | 0.00               | 0.02  | 151  |      |  |
| 170            | 8.55      | 8.53      | 33.960    | 26.377              | 167.1 | 0.442  | 2.87   | 43.7  | 32.0      | 2.01   | 26.8   | 0.01   | 0.01 | 0.00               | 0.02  | 171  | 208  |  |
| 200            | ISL 8.09  | D 8.07    | 33.994    | D 26.474            | 158.4 | 0.491  | 2.61   | 39.3  | 36.9      | 2.12   | 28.8   | 0.00   | 0.11 | 0.00               | 0.02  | 201  |      |  |
| 202            | 8.09      | 8.07      | 33.998    | 26.477              | 158.1 | 0.494  | 2.59   | 39.0  | 37.2      | 2.13   | 28.9   | 0.00   | 0.12 | 0.00               | 0.02  | 203  | 207  |  |
| 230            | 7.68      | 7.66      | 34.013    | 26.549              | 151.6 | 0.538  | 2.40   | 35.8  | 42.0      | 2.24   | 30.3   | 0.00   | 0.12 |                    |       | 231  | 206  |  |
| 250            | ISL 7.41  | D 7.39    | 34.032    | D 26.603            | 146.7 | 0.567  | 2.24   | 33.2  | 46.0      | 2.33   | 31.5   | 0.00   | 0.06 |                    |       | 251  |      |  |
| 269            | 7.09      | 7.06      | 34.034    | 26.649              | 142.4 | 0.595  | 2.05   | 30.2  | 49.9      | 2.43   | 32.7   | 0.00   | 0.00 |                    |       | 271  | 205  |  |
| 300            | ISL 6.94  | D 6.91    | 34.094    | D 26.717            | 136.4 | 0.638  | 1.55   | 22.7  | 55.5      | 2.62   | 35.1   | 0.00   | 0.00 |                    |       | 302  |      |  |
| 319            | 6.75      | 6.72      | 34.095    | 26.744              | 134.0 | 0.664  | 1.25   | 18.3  | 58.7      | 2.73   | 36.4   | 0.00   | 0.00 |                    |       | 321  | 204  |  |
| 378            | 6.18      | 6.15      | 34.112    | 26.833              | 126.1 | 0.741  | 1.00   | 14.4  | 67.3      | 2.89   | 38.2   | 0.00   | 0.00 |                    |       | 380  | 203  |  |
| 400            | ISL 6.02  | D 5.99    | 34.132    | D 26.869            | 122.8 | 0.768  | 0.88   | 12.6  | 70.5      | 2.95   | 38.8   | 0.00   | 0.00 |                    |       | 402  |      |  |
| 438            | 5.78      | 5.74      | 34.162    | 26.923              | 118.0 | 0.814  | 0.68   | 9.7   | 75.9      | 3.04   | 39.8   | 0.00   | 0.00 |                    |       | 441  | 202  |  |
| 500            | ISL 5.56  | D 5.52    | 34.252    | D 27.021            | 109.3 | 0.884  | 0.40   | 5.7   | 84.0      | 3.18   | 40.8   | 0.00   | 0.03 |                    |       | 503  |      |  |
| 515            | 5.47      | 5.43      | 34.263    | 27.041              | 107.5 | 0.900  | 0.33   | 4.7   | 86.0      | 3.21   | 41.1   | 0.00   | 0.04 |                    |       | 518  | 201  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 91.7 26.4 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 33 14.3 N      | 117 28.0 W | 15/08/08  | 0125 UTC  | 30 m                | 310   | 04 kn  | 310 01 07 | 1     | 1009.7 mb | 22.2 c | 20.4 c |        |      |                   |       | 7/8  | CS   |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 20.56  | 20.56     | 33.497    | 23.469              | 440.7 | 0.000  | 6.11      | 118.5 | 3.7       | 0.26   | 0.0    | 0.01   | 0.17 | 1.08              | 0.36  | 0    |      |  |
| 1              | 20.56      | 20.56     | 33.497    | 23.469              | 440.7 | 0.004  | 6.11      | 118.5 | 3.7       | 0.26   | 0.0    | 0.01   | 0.17 | 1.08              | 0.36  | 1    | 205  |  |
| 5              | 19.29      | 19.29     | 33.456    | 23.769              | 412.2 | 0.021  | 6.28      | 118.9 | 3.8       | 0.28   | 0.0    | 0.01   | 0.19 | 2.31              | 0.61  | 5    | 204  |  |
| 10             | 13.52      | 13.52     | 33.308    | 24.979              | 297.0 | 0.039  | 6.54      | 110.4 | 4.4       | 0.52   | 2.3    | 0.15   | 0.75 | 4.99              | 0.75  | 10   | 203  |  |
| 15             | 12.64      | 12.64     | 33.314    | 25.158              | 280.1 | 0.054  | 5.78      | 95.8  | 6.2       | 0.75   | 5.8    | 0.18   | 0.31 | 0.81              | 0.09  | 15   | 202  |  |
| 20             | ISL 12.35  | D 12.35   | 33.351    | D 25.243            | 272.2 | 0.067  | 5.41      | 89.1  | 8.0       | 0.89   | 7.8    | 0.26   | 0.59 | 0.74              | 0.13  | 20   |      |  |
| 21             | 12.36      | 12.36     | 33.353    | 25.243              | 272.2 | 0.070  | 5.34      | 88.0  | 8.3       | 0.92   | 8.2    | 0.28   | 0.65 | 0.73              | 0.14  | 21   | 201  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 93.3 26.7 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 32 57.6 N      | 117 17.7 W | 14/08/08  | 1836 UTC  | 47 m                | 290   | 06 kn  | 230 02 05 | 1     | 1011.3 mb | 22.4 c | 20.0 c |        |      |                   |       | 2/8  | CS   |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 21.18  | 21.18     | 33.514    | 23.316              | 455.3 | 0.000  | 5.85      | 114.7 | 3.3       | 0.24   | 0.1    | 0.00   | 0.00 | 0.74              | 0.15  | 0    |      |  |
| 1              | A 21.18    | 21.18     | 33.514    | 23.316              | 455.4 | 0.005  | 5.85      | 114.7 | 3.3       | 0.24   | 0.1    | 0.00   | 0.00 | 0.74              | 0.15  | 1    | 208  |  |
| 2              | 21.23      | 21.23     |           |                     |       | 0.009  |           |       |           |        |        |        |      |                   |       | 2    | 211  |  |
| 7              | A 14.60    | 14.60     | 33.252    | 24.711              | 322.5 | 0.029  | 6.72      | 115.9 | 3.7       | 0.36   | 0.5    | 0.00   | 0.11 | 0.43              | 0.17  | 7    | 207  |  |
| 10             | ISL 13.97  | D 13.97   | 33.245    | D 24.838            | 310.4 | 0.038  | 6.81      | 116.0 | 3.2       | 0.37   | 0.8    | 0.00   | 0.46 | 1.04              | 0.34  | 10   |      |  |
| 16             | A 13.53    | 13.53     | 33.357    | 25.015              | 293.8 | 0.056  | 6.99      | 118.0 | 2.1       | 0.38   | 1.1    | 0.01   | 0.81 | 2.27              | 0.67  | 16   | 206  |  |
| 20             | 13.09      | 13.09     | 33.365    | 25.110              | 284.9 | 0.068  | 6.45      | 107.9 | 2.0       | 0.51   | 0.8    | 0.04   | 0.23 | 5.86              | 1.62  | 20   | 204  |  |
| 21             | 13.09      | 13.09     | 33.365    | 25.110              | 284.9 | 0.071  | 6.45      | 107.9 | 1.9       | 0.51   | 0.9    | 0.04   | 0.00 | 5.76              | 1.76  | 21   | 205  |  |
| 24             | A 12.92    | 12.92     | 33.363    | 25.142              | 281.9 | 0.079  | 6.04      | 100.7 | 4.2       | 0.67   | 3.4    | 0.11   | 0.57 | 4.57              | 1.41  | 24   | 203  |  |
| 30             | ISL 12.67  | D 12.67   | 33.381    | D 25.205            | 276.0 | 0.096  | 5.47      | 90.7  | 7.1       | 0.88   | 6.5    | 0.19   | 0.73 | 2.94              | 0.93  | 30   |      |  |
| 34             | A 12.56    | 12.56     | 33.412    | 25.250              | 271.8 | 0.107  | 5.24      | 86.7  | 8.2       | 0.97   | 7.7    | 0.22   | 0.83 | 2.25              | 0.75  | 34   | 202  |  |
| 40             | 12.40      | 12.39     | 33.428    | 25.294              | 267.9 | 0.123  | 5.07      | 83.7  | 9.7       | 1.06   | 9.0    | 0.27   | 1.09 | 1.51              | 0.67  | 40   | 201  |  |

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 93.3 28.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 32 54.7 N      | 117 23.6 W | 15/08/08  | 0405 UTC  | 604 m               | 230   | 02 kn  |        |       | 1011.0 mb | 21.8 C | 19.9 C |        |      |                   |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 21.31  | 21.31     | 33.513    | 23.280              | 458.8 | 0.000  | 6.06   | 119.1 | 3.3       | 0.23   | 0.0    | 0.01   | 0.23 | 0.61              | 0.13  | 0    |      |  |
| 1              | 21.32      | 21.32     | 33.518    | 23.281              | 458.7 | 0.005  |        |       |           |        |        |        |      |                   |       | 1    | 221  |  |
| 2              | 21.31      | 21.31     | 33.513    | 23.280              | 458.9 | 0.009  | 6.06   | 119.1 | 3.3       | 0.23   | 0.0    | 0.01   | 0.23 | 0.61              | 0.13  | 2    | 220  |  |
| 10             | 14.88      | 14.88     | 33.338    | 24.718              | 321.9 | 0.040  | 6.82   | 118.4 | 3.5       | 0.35   | 0.0    | 0.01   | 0.21 | 1.12              | 0.55  | 10   | 219  |  |
| 20             | 13.42      | 13.42     | 33.320    | 25.009              | 294.5 | 0.071  | 6.49   | 109.3 | 3.4       | 0.48   | 1.6    | 0.07   | 0.39 | 1.84              | 0.72  | 20   | 218  |  |
| 30             | 12.57      | 12.57     | 33.473    | 25.296              | 267.4 | 0.099  | 5.04   | 83.5  | 9.0       | 0.96   | 9.0    | 0.39   | 0.17 | 0.81              | 0.64  | 30   | 217  |  |
| 40             | 12.09      | 12.08     | 33.529    | 25.431              | 254.8 | 0.125  | 4.41   | 72.3  | 11.5      | 1.22   | 13.2   | 0.16   | 0.26 | 0.50              | 0.38  | 40   | 216  |  |
| 50             | 11.94      | 11.93     | 33.573    | 25.494              | 249.0 | 0.151  | 4.01   | 65.6  | 13.3      | 1.36   | 15.0   | 0.17   | 0.07 | 0.22              | 0.20  | 50   | 215  |  |
| 60             | 11.81      | 11.80     | 33.592    | 25.533              | 245.5 | 0.175  | 3.90   | 63.6  | 14.2      | 1.40   | 15.8   | 0.07   | 0.05 | 0.23              | 0.25  | 60   | 214  |  |
| 70             | 11.42      | 11.41     | 33.606    | 25.616              | 237.9 | 0.200  | 4.02   | 65.0  | 14.2      | 1.36   | 15.8   | 0.03   | 0.00 | 0.16              | 0.14  | 70   | 213  |  |
| 75             | ISL 11.05  | D 11.04   | 33.668    | D 25.731            | 227.0 | 0.211  | 3.67   | 58.9  | 16.6      | 1.49   | 17.4   | 0.03   | 0.01 | 0.12              | 0.13  | 75   |      |  |
| 86             | 10.89      | 10.88     | 33.753    | 25.826              | 218.2 | 0.236  | 2.84   | 45.5  | 22.3      | 1.81   | 21.2   | 0.02   | 0.03 | 0.04              | 0.12  | 86   | 212  |  |
| 100            | ISL 10.65  | D 10.64   | 33.768    | D 25.881            | 213.3 | 0.266  | 2.99   | 47.6  | 22.5      | 1.78   | 21.4   | 0.02   | 0.00 | 0.03              | 0.09  | 100  |      |  |
| 101            | 10.61      | 10.60     | 33.773    | 25.892              | 212.3 | 0.268  | 3.00   | 47.7  | 22.5      | 1.78   | 21.4   | 0.02   | 0.00 | 0.03              | 0.09  | 102  | 211  |  |
| 120            | 10.61      | 10.60     | 33.846    | 25.949              | 207.3 | 0.308  | 2.42   | 38.5  | 26.1      | 1.98   | 23.1   | 0.02   | 0.05 | 0.02              | 0.11  | 121  | 210  |  |
| 125            | ISL 10.57  | D 10.56   | 33.849    | D 25.958            | 206.5 | 0.318  | 2.35   | 37.4  | 26.6      | 2.01   | 23.4   | 0.02   | 0.05 | 0.02              | 0.11  | 126  |      |  |
| 140            | 10.37      | 10.35     | 33.910    | D 26.041            | 199.0 | 0.349  |        |       |           |        |        |        |      |                   |       | 141  | 209  |  |
| 150            | ISL 10.25  | D 10.23   | 33.970    | D 26.109            | 192.8 | 0.368  | 2.09   | 33.0  | 28.7      | 2.11   | 24.7   | 0.02   | 0.08 | 0.01              | 0.10  | 151  |      |  |
| 170            | 10.13      | 10.11     | 34.043    | 26.186              | 185.8 | 0.406  | 1.99   | 31.4  | 29.9      | 2.15   | 25.3   | 0.02   | 0.11 | 0.01              | 0.08  | 171  | 208  |  |
| 200            | 10.12      | 10.10     | 34.136    | 26.261              | 179.4 | 0.461  | 1.58   | 24.9  | 33.2      | 2.30   | 26.3   | 0.01   | 0.23 | 0.00              | 0.07  | 201  | 207  |  |
| 229            | 9.98       | 9.95      | 34.177    | 26.318              | 174.6 | 0.512  | 1.74   | 27.4  | 33.2      | 2.29   | 26.6   | 0.02   | 0.06 |                   |       | 230  | 206  |  |
| 250            | ISL 9.97   | D 9.94    | 34.238    | D 26.367            | 170.4 | 0.548  | 1.63   | 25.6  | 33.9      | 2.33   | 27.0   | 0.01   | 0.25 |                   |       | 251  |      |  |
| 269            | 9.83       | 9.80      | 34.248    | 26.399              | 167.8 | 0.581  | 1.45   | 22.7  | 35.0      | 2.38   | 27.5   | 0.00   | 0.43 |                   |       | 271  | 205  |  |
| 300            | ISL 9.63   | D 9.60    | 34.294    | D 26.469            | 161.7 | 0.632  | 1.19   | 18.6  | 37.1      | 2.48   | 28.1   | 0.00   | 0.20 |                   |       | 302  |      |  |
| 319            | 9.68       | 9.64      | 34.335    | 26.493              | 159.9 | 0.662  | 1.03   | 16.1  | 38.8      | 2.54   | 28.5   | 0.00   | 0.00 |                   |       | 321  | 204  |  |
| 378            | 8.75       | 8.71      | 34.344    | 26.651              | 145.5 | 0.752  | 0.71   | 10.9  | 46.9      | 2.74   | 31.1   | 0.00   | 0.00 |                   |       | 380  | 203  |  |
| 400            | ISL 8.42   | D 8.38    | 34.340    | D 26.699            | 141.1 | 0.784  | 0.66   | 10.0  | 49.3      | 2.78   | 31.9   | 0.00   | 0.00 |                   |       | 403  |      |  |
| 439            | 8.00       | 7.95      | 34.324    | 26.750              | 136.6 | 0.838  | 0.60   | 9.0   | 53.7      | 2.85   | 33.3   | 0.00   | 0.00 |                   |       | 442  | 202  |  |
| 500            | ISL 7.20   | D 7.15    | 34.328    | D 26.869            | 125.7 | 0.918  | 0.42   | 6.2   | 62.5      | 2.99   | 35.6   | 0.00   | 0.00 |                   |       | 503  |      |  |
| 519            | 7.10       | 7.05      | 34.332    | 26.886              | 124.2 | 0.942  | 0.36   | 5.3   | 65.2      | 3.03   | 36.3   | 0.00   | 0.00 |                   |       | 523  | 201  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |        |       |           |        |        |        |      | STATION 93.3 30.0 |       |      |      |  |
|----------------|------------|-----------|-----------|---------------------|-------|--------|--------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES  | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 32 50.9 N      | 117 31.8 W | 15/08/08  | 0739 UTC  | 843 m               | 230   | 05 kn  |        |       | 1011.5 mb | 21.2 C | 19.8 C |        |      |                   |       |      |      |  |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L   | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 22.01  | 22.01     | 33.555    | 23.119              | 474.1 | 0.000  | 5.48   | 109.1 | 3.6       | 0.20   | 0.0    | 0.00   | 0.11 | 0.37              | 0.06  | 0    |      |  |
| 1              | 22.02      | 22.02     | 33.556    | 23.117              | 474.4 | 0.005  |        |       |           |        |        |        |      |                   |       | 1    | 221  |  |
| 2              | 22.01      | 22.01     | 33.555    | 23.119              | 474.2 | 0.009  | 5.48   | 109.1 | 3.6       | 0.20   | 0.0    | 0.00   | 0.11 | 0.37              | 0.06  | 2    | 220  |  |
| 10             | 20.08      | 20.08     | 33.461    | 23.569              | 431.5 | 0.046  | 5.89   | 113.2 | 3.4       | 0.26   | 0.0    | 0.00   | 0.15 | 0.35              | 0.06  | 10   | 219  |  |
| 20             | 15.58      | 15.58     | 33.306    | 24.540              | 339.2 | 0.084  | 6.57   | 115.6 | 3.0       | 0.32   | 0.1    | 0.00   | 0.28 | 0.25              | 0.08  | 20   | 218  |  |
| 30             | 14.94      | 14.94     | 33.418    | 24.767              | 317.8 | 0.117  | 6.51   | 113.2 | 2.3       | 0.35   | 0.0    | 0.01   | 0.19 | 0.41              | 0.17  | 30   | 217  |  |
| 40             | 13.83      | 13.82     | 33.423    | 25.006              | 295.4 | 0.148  | 6.42   | 109.1 | 1.4       | 0.46   | 0.7    | 0.03   | 0.21 | 1.54              | 0.61  | 40   | 216  |  |
| 50             | 12.66      | 12.65     | 33.452    | 25.262              | 271.1 | 0.176  | 5.05   | 83.8  | 8.5       | 0.95   | 8.8    | 0.33   | 0.07 | 0.67              | 0.43  | 50   | 215  |  |
| 60             | 12.21      | 12.20     | 33.478    | 25.369              | 261.2 | 0.203  | 4.78   | 78.6  | 10.5      | 1.09   | 11.3   | 0.09   | 0.08 | 0.44              | 0.40  | 60   | 214  |  |
| 70             | 11.81      | 11.80     | 33.570    | 25.516              | 247.4 | 0.228  | 4.16   | 67.8  | 13.6      | 1.31   | 14.7   | 0.04   | 0.11 | 0.18              | 0.21  | 70   | 213  |  |
| 75             | ISL 11.68  | D 11.67   | 33.568    | D 25.539            | 245.4 | 0.240  | 4.04   | 65.7  | 14.3      | 1.36   | 15.5   | 0.04   | 0.16 | 0.15              | 0.20  | 75   |      |  |
| 85             | 11.37      | 11.36     | 33.615    | 25.633              | 236.6 | 0.265  | 3.90   | 63.0  | 15.3      | 1.43   | 16.5   | 0.03   | 0.23 | 0.09              | 0.18  | 85   | 212  |  |
| 100            | ISL 10.79  | D 10.78   | 33.705    | D 25.807            | 220.4 | 0.299  | 3.43   | 54.8  | 18.8      | 1.60   | 19.0   | 0.02   | 0.03 | 0.03              | 0.10  | 100  |      |  |
| 101            | 10.78      | 10.77     | 33.712    | 25.814              | 219.7 | 0.301  | 3.40   | 54.3  | 19.1      | 1.61   | 19.2   | 0.02   | 0.01 | 0.03              | 0.09  | 101  | 211  |  |
| 120            | 10.44      | 10.43     | 33.818    | 25.957              | 206.5 | 0.342  | 2.93   | 46.5  | 22.7      | 1.80   | 21.4   | 0.01   | 0.00 | 0.02              | 0.07  | 121  | 210  |  |
| 125            | ISL 10.22  | D 10.21   | 33.834    | D 26.007            | 201.8 | 0.352  | 2.96   | 46.7  | 23.3      | 1.80   | 21.7   | 0.01   | 0.00 | 0.02              | 0.07  | 126  |      |  |
| 140            | 9.83       | 9.81      | 33.895    | 26.121              | 191.3 | 0.381  | 3.00   | 47.0  | 25.1      | 1.82   | 22.5   | 0.01   | 0.00 | 0.02              | 0.06  | 141  | 209  |  |
| 150            | ISL 10.05  | D 10.03   | 34.061    | D 26.214            | 182.8 | 0.400  | 2.60   | 40.9  | 27.8      | 1.97   | 23.8   | 0.01   | 0.00 | 0.02              | 0.06  | 151  |      |  |
| 169            | 10.01      | 9.99      | 34.134    | 26.278              | 177.1 | 0.434  | 1.75   | 27.5  | 32.8      | 2.26   | 26.1   | 0.02   | 0.01 | 0.01              | 0.05  | 170  | 208  |  |
| 200            | ISL 9.92   | D 9.90    | 34.165    | D 26.318            | 174.0 | 0.489  | 1.65   | 25.9  | 33.6      | 2.31   | 26.5   | 0.02   | 0.00 | 0.01              | 0.05  | 201  |      |  |
| 202            | 9.91       | 9.89      | 34.170    | 26.323              | 173.5 | 0.492  | 1.64   | 25.8  | 33.7      | 2.31   | 26.5   | 0.02   | 0.00 | 0.01              | 0.05  | 203  | 207  |  |
| 229            | 9.78       | 9.75      | 34.243    | 26.403              | 166.5 | 0.538  | 1.49   | 23.3  | 35.4      | 2.38   | 27.1   | 0.01   | 0.01 |                   |       | 230  | 206  |  |
| 250            | ISL 9.55   | D 9.52    | 34.263    | D 26.457            | 161.7 | 0.572  | 1.37   | 21.4  | 37.0      | 2.44   | 27.7   | 0.01   | 0.17 |                   |       | 251  |      |  |
| 268            | 9.53       | 9.50      | 34.287    | 26.479              | 160.0 | 0.601  | 1.25   | 19.5  | 38.5      | 2.49   | 28.2   | 0.01   | 0.30 |                   |       | 270  | 205  |  |
| 300            | ISL 9.59   | D 9.56    | 34.347    | D 26.517            | 157.2 | 0.652  | 0.92   | 14.4  | 40.8      | 2.62   | 28.8   | 0.00   | 0.14 |                   |       | 302  |      |  |
| 319            | 9.38       | 9.34      | 34.386    | 26.582              | 151.3 | 0.681  | 0.77   | 12.0  | 42.4      | 2.69   | 29.2   | 0.00   | 0.00 |                   |       | 321  | 204  |  |
| 377            | 8.23       | 8.19      | 34.264    | 26.667              | 143.5 | 0.767  | 0.99   | 15.0  | 49.2      | 2.70   | 31.8   | 0.00   | 0.00 |                   |       | 379  | 203  |  |
| 400            | ISL 7.88   | D 7.84    | 34.231    | D 26.694            | 141.1 | 0.800  | 0.93   | 14.0  | 52.2      | 2.75   | 32.7   | 0.00   | 0.00 |                   |       | 403  |      |  |
| 437            | 7.57       | 7.53      | 34.263    | 26.764              | 134.8 | 0.851  | 0.77   | 11.5  | 56.8      | 2.84   | 33.9   | 0.00   | 0.00 |                   |       | 440  | 202  |  |
| 500            | ISL 7.26   | D 7.21    | 34.284    | D 26.826            | 129.8 | 0.934  | 0.56   | 8.3   | 61.3      | 2.94   | 35.1   | 0.00   | 0.00 |                   |       | 503  |      |  |
| 516            | 7.23       | 7.18      | 34.299    | 26.842              | 128.5 | 0.955  | 0.51   | 7.5   | 62.5      | 2.97   | 35.4   | 0.00   | 0.00 |                   |       | 519  | 201  |  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |        |        |        |      |           |        |        |        |      | STATION 93.3 35.0 |       |      |         |
|----------------|------------|-----------|-----------|---------------------|--------|--------|--------|------|-----------|--------|--------|--------|------|-------------------|-------|------|---------|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND   | SPEED  | WAVES  | WEA  | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |         |
| 32 40.9 N      | 117 52.0 W | 15/08/08  | 1203 UTC  | 635 m               | 300    | 01 kn  |        |      | 1010.3 mb | 20.1 C | 18.9 C |        |      |                   |       |      |         |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA    | DYN HT | OXYGEN | OXY  | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP    |
| m              | DEG C      | DEG C     |           | THETA               |        |        | ml/L   | PCT  | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |         |
| 0              | ISL        | 21.76     | 21.76     | 33.479              | 23.130 | 473.0  | 0.000  | 5.28 | 104.6     | 2.7    | 0.27   | 0.0    | 0.00 | 0.00              | 0.15  | 0.02 | 0       |
| 2              |            | 21.76     | 21.76     | 33.479              | 23.131 | 473.1  | 0.009  | 5.28 | 104.6     | 2.7    | 0.27   | 0.0    | 0.00 | 0.00              | 0.15  | 0.02 | 2 220   |
| 10             |            | 21.03     | 21.03     | 33.457              | 23.313 | 456.0  | 0.047  | 5.61 | 109.7     | 2.6    | 0.26   | 0.0    | 0.00 | 0.08              | 0.20  | 0.02 | 10 219  |
| 20             |            | 17.33     | 17.33     | 33.364              | 24.183 | 373.3  | 0.088  | 6.38 | 116.3     | 2.4    | 0.29   | 0.0    | 0.00 | 0.14              | 0.24  | 0.04 | 20 218  |
| 30             |            | 14.70     | 14.70     | 33.232              | 24.675 | 326.6  | 0.123  | 6.54 | 113.0     | 3.2    | 0.35   | 0.0    | 0.00 | 0.09              | 0.36  | 0.17 | 30 217  |
| 40             |            | 13.55     | 13.54     | 33.218              | 24.904 | 305.0  | 0.155  | 6.17 | 104.1     | 4.6    | 0.54   | 2.3    | 0.11 | 0.12              | 1.14  | 0.51 | 40 216  |
| 50             |            | 13.52     | 13.51     | 33.410              | 25.059 | 290.5  | 0.184  | 5.85 | 98.8      | 3.9    | 0.64   | 3.1    | 0.12 | 0.51              | 0.79  | 0.50 | 50 215  |
| 60             |            | 12.97     | 12.96     | 33.422              | 25.179 | 279.4  | 0.213  | 5.29 | 88.3      | 7.1    | 0.85   | 6.8    | 0.26 | 0.32              | 0.52  | 0.45 | 60 214  |
| 69             |            | 12.38     | 12.37     | 33.416              | 25.289 | 269.1  | 0.238  | 5.12 | 84.4      | 8.8    | 0.99   | 9.8    | 0.13 | 0.11              | 0.28  | 0.29 | 69 213  |
| 75             | ISL        | 11.75 D   | 11.74     | 33.397 D            | 25.393 | 259.2  | 0.253  | 4.98 | 81.0      | 10.2   | 1.07   | 11.4   | 0.07 | 0.10              | 0.18  | 0.22 | 75      |
| 84             |            | 11.56     | 11.55     | 33.506              | 25.513 | 248.0  | 0.276  | 4.70 | 76.2      | 12.4   | 1.20   | 13.4   | 0.01 | 0.09              | 0.10  | 0.15 | 84 212  |
| 100            |            | 10.97     | 10.96     | 33.627              | 25.714 | 229.2  | 0.314  | 3.96 | 63.4      | 16.1   | 1.44   | 17.1   | 0.01 | 0.06              | 0.05  | 0.09 | 100 211 |
| 119            |            | 10.35     | 10.34     | 33.750              | 25.919 | 210.1  | 0.356  | 3.34 | 52.8      | 21.4   | 1.68   | 20.6   | 0.00 | 0.03              | 0.02  | 0.05 | 120 210 |
| 125            | ISL        | 10.25 D   | 10.24     | 33.748 D            | 25.935 | 208.7  | 0.369  | 3.23 | 51.0      | 22.3   | 1.72   | 21.1   | 0.00 | 0.02              | 0.02  | 0.05 | 126     |
| 138            |            | 10.03     | 10.01     | 33.830              | 26.036 | 199.3  | 0.395  | 3.05 | 47.9      | 23.9   | 1.78   | 21.8   | 0.00 | 0.00              | 0.01  | 0.07 | 139 209 |
| 150            | ISL        | 9.84 D    | 9.82      | 33.864 D            | 26.095 | 193.9  | 0.419  | 2.92 | 45.7      | 25.6   | 1.84   | 22.7   | 0.00 | 0.00              | 0.01  | 0.06 | 151     |
| 168            |            | 9.48      | 9.46      | 33.967              | 26.235 | 180.9  | 0.453  | 2.76 | 42.9      | 28.2   | 1.93   | 24.2   | 0.00 | 0.00              | 0.01  | 0.04 | 169 208 |
| 199            |            | 8.83      | 8.81      | 34.016              | 26.378 | 167.7  | 0.507  | 2.51 | 38.4      | 33.0   | 2.08   | 26.7   | 0.00 | 0.06              | 0.00  | 0.02 | 200 207 |
| 200            | ISL        | 8.83 D    | 8.81      | 34.013 D            | 26.376 | 168.0  | 0.508  | 2.50 | 38.3      | 33.1   | 2.08   | 26.8   | 0.00 | 0.06              |       |      | 201     |
| 228            |            | 8.49      | 8.47      | 34.055              | 26.462 | 160.2  | 0.554  | 2.28 | 34.7      | 36.7   | 2.19   | 28.2   | 0.00 | 0.07              |       |      | 229 206 |
| 250            | ISL        | 8.27 D    | 8.24      | 34.094 D            | 26.526 | 154.5  | 0.589  | 2.02 | 30.6      | 40.5   | 2.30   | 29.5   | 0.00 | 0.07              |       |      | 251     |
| 268            |            | 8.04      | 8.01      | 34.112              | 26.575 | 150.0  | 0.616  | 1.80 | 27.1      | 43.7   | 2.40   | 30.6   | 0.00 | 0.07              |       |      | 270 205 |
| 300            | ISL        | 7.75 D    | 7.72      | 34.141 D            | 26.641 | 144.2  | 0.663  | 1.46 | 21.8      | 48.4   | 2.54   | 32.0   | 0.00 | 0.04              |       |      | 302     |
| 319            |            | 7.63      | 7.60      | 34.158              | 26.672 | 141.5  | 0.691  | 1.30 | 19.4      | 50.8   | 2.61   | 32.7   | 0.00 | 0.02              |       |      | 321 204 |
| 378            |            | 7.19      | 7.15      | 34.181              | 26.753 | 134.5  | 0.772  | 1.04 | 15.4      | 56.9   | 2.76   | 34.4   | 0.00 | 0.00              |       |      | 380 203 |
| 400            | ISL        | 7.07 D    | 7.03      | 34.193 D            | 26.779 | 132.3  | 0.801  | 0.93 | 13.7      | 59.1   | 2.81   | 35.0   | 0.00 | 0.00              |       |      | 403     |
| 439            |            | 6.84      | 6.80      | 34.218              | 26.830 | 127.8  | 0.852  | 0.75 | 11.0      | 63.3   | 2.90   | 36.1   | 0.00 | 0.00              |       |      | 442 202 |
| 500            | ISL        | 6.34 D    | 6.29      | 34.237 D            | 26.912 | 120.5  | 0.928  | 0.51 | 7.4       | 70.9   | 3.04   | 37.5   | 0.00 | 0.03              |       |      | 503     |
| 514            |            | 6.31      | 6.26      | 34.269              | 26.942 | 117.9  | 0.944  | 0.45 | 6.5       | 72.6   | 3.07   | 37.8   | 0.00 | 0.04              |       |      | 517 201 |

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

| RV NEW HORIZON |       |            |          | CALCOFI CRUISE 0808 |           |        |        |       |           |      |           |        |        | STATION 93.3 40.0 |         |        |         |
|----------------|-------|------------|----------|---------------------|-----------|--------|--------|-------|-----------|------|-----------|--------|--------|-------------------|---------|--------|---------|
| LATITUDE       |       | LONGITUDE  |          | DAY/MO/YR           | CAST TIME | BOTTOM | WIND   | SPEED | WAVES     | WEA  | BAROMETER | DRY    | WET    | SECCHI            | CLD AMT | TYPE   |         |
| 32 31.7 N      |       | 118 11.8 W |          | 15/08/08            | 1754 UTC  | 1778 m | 290    | 03 kn | 320 02 05 | 1    | 1012.5 mb | 20.2 C | 18.3 C | 25m               | 4/8     | SC     |         |
| DEPTH          | TEMP  | POT TEMP   | SALINITY | SIGMA               | SVA       | DYN HT | OXYGEN | OXY   | SI03      | P04  | N03       | N02    | NH4    | CHL-A             | PHAE0   | PRES   | SAMP    |
| m              | DEG C | DEG C      |          | THETA               |           |        | ml/L   | PCT   | uM/L      | uM/L | uM/L      | uM/L   | uM/L   | ug/L              | ug/L    | db     |         |
| 0              | ISL   | 19.06      | 19.06    | 33.396              | 23.782    | 410.9  | 0.000  | 5.51  | 103.8     | 4.0  | 0.29      | 0.0    | 0.00   | 0.00              | 0.16    | 0.00   | 0       |
| 1              | A     | 19.06      | 19.06    | 33.396              | 23.782    | 410.9  | 0.004  | 5.51  | 103.8     | 4.0  | 0.29      | 0.0    | 0.00   | 0.00              | 0.16    | 0.00   | 1 224   |
| 8              |       | 18.90      | 18.90    | 33.385              | 23.814    | 408.1  | 0.033  | 5.52  | 103.7     | 4.1  | 0.30      | 0.0    | 0.00   | 0.00              | 0.17 B  | 0.00 B | 8 222   |
| 9              |       | 18.90      | 18.90    | 33.384              | 23.813    | 408.2  | 0.037  |       |           | 4.1  | 0.30      | 0.0    | 0.00   | 0.00              |         |        | 9 223   |
| 10             | ISL   | 18.87 D    | 18.87    | 33.375 D            | 23.814    | 408.1  | 0.041  | 5.53  | 103.8     | 4.0  | 0.30      | 0.0    | 0.00   | 0.00              | 0.17    | 0.00   | 10      |
| 15             | A     | 18.71      | 18.71    | 33.378              | 23.857    | 404.3  | 0.061  | 5.57  | 104.2     | 3.8  | 0.30      | 0.0    | 0.00   | 0.00              | 0.18    | 0.00   | 15 220  |
| 20             | ISL   | 17.68 D    | 17.68    | 33.366 D            | 24.100    | 381.2  | 0.081  | 5.97  | 109.5     | 3.8  | 0.31      | 0.0    | 0.00   | 0.02              | 0.27    | 0.02   | 20      |
| 24             |       | 15.78      | 15.78    | 33.257              | 24.458    | 347.1  | 0.095  | 6.29  | 111.1     | 3.8  | 0.33      | 0.0    | 0.00   | 0.05              | 0.37    | 0.03   | 24 219  |
| 30             | ISL   | 15.45 D    | 15.45    | 33.239 D            | 24.518    | 341.6  | 0.116  | 6.30  | 110.6     | 4.0  | 0.34      | 0.0    | 0.00   | 0.10              | 0.49    | 0.12   | 30      |
| 34             | A     | 15.13      | 15.12    | 33.255              | 24.601    | 333.8  | 0.130  | 6.31  | 110.0     | 4.1  | 0.36      | 0.0    | 0.00   | 0.13              | 0.58    | 0.20   | 34 218  |
| 42             |       | 13.95      | 13.94    | 33.193              | 24.803    | 314.7  | 0.156  | 5.99  | 101.9     | 4.4  | 0.47      | 1.1    | 0.15   | 0.17              | 0.85    | 0.38   | 42 217  |
| 50             | ISL   | 13.56 D    | 13.55    | 33.277 D            | 24.948    | 301.1  | 0.180  | 5.79  | 97.8      | 5.4  | 0.61      | 3.2    | 0.23   | 0.32              | 0.64    | 0.45   | 50      |
| 52             | A     | 13.58      | 13.57    | 33.292              | 24.956    | 300.4  | 0.186  | 5.74  | 97.0      | 5.7  | 0.64      | 3.8    | 0.25   | 0.34              | 0.56    | 0.46   | 52 216  |
| 60             |       | 12.89      | 12.88    | 33.273              | 25.079    | 288.8  | 0.210  | 5.50  | 91.6      | 6.2  | 0.73      | 5.5    | 0.11   | 0.04              | 0.45    | 0.47   | 60 215  |
| 68             | A     | 12.49      | 12.48    | 33.293              | 25.173    | 280.1  | 0.233  | 5.38  | 88.9      | 7.4  | 0.83      | 7.3    | 0.06   | 0.11              | 0.33    | 0.29   | 68 214  |
| 75             | ISL   | 12.08 D    | 12.07    | 33.370 D            | 25.311    | 267.1  | 0.252  | 5.14  | 84.2      | 8.8  | 0.93      | 9.0    | 0.03   | 0.05              | 0.22    | 0.18   | 75      |
| 79             |       | 12.01      | 12.00    | 33.393              | 25.342    | 264.3  | 0.262  | 4.99  | 81.6      | 9.6  | 0.99      | 9.9    | 0.02   | 0.00              | 0.16    | 0.14   | 79 213  |
| 94             | A     | 11.44      | 11.43    | 33.508              | 25.537    | 246.0  | 0.301  | 4.52  | 73.1      | 12.7 | 1.18      | 13.1   | 0.01   | 0.00              | 0.07    | 0.08   | 94 212  |
| 100            | ISL   | 11.15 D    | 11.14    | 33.557 D            | 25.628    | 237.5  | 0.315  | 4.38  | 70.4      | 13.5 | 1.23      | 14.0   | 0.00   | 0.00              | 0.06    | 0.06   | 100     |
| 106            |       | 11.12      | 11.11    | 33.569              | 25.643    | 236.2  | 0.329  | 4.26  | 68.4      | 14.5 | 1.29      | 14.9   | 0.00   | 0.00              | 0.06    | 0.05   | 106 211 |
| 120            |       | 10.42      | 10.41    | 33.650              | 25.829    | 218.6  | 0.361  | 3.98  | 63.0      | 18.8 | 1.53      | 18.6   | 0.00   | 0.00              | 0.02    | 0.02   | 121 210 |
| 125            | ISL   | 10.19 D    | 10.18    | 33.715 D            | 25.919    | 210.1  | 0.372  | 3.80  | 59.9      | 20.2 | 1.59      | 19.6   | 0.00   | 0.01              | 0.02    | 0.02   | 126     |
| 139            |       | 9.80       | 9.78     | 33.819              | 26.066    | 196.4  | 0.400  | 3.29  | 51.4      | 23.5 | 1.73      | 21.7   | 0.00   | 0.03              | 0.01    | 0.02   | 140 209 |
| 150            | ISL   | 9.50 D     | 9.48     | 33.868 D            | 26.154    | 188.2  | 0.421  | 3.09  | 48.0      | 25.3 | 1.82      | 22.8   | 0.00   | 0.07              | 0.01    | 0.02   | 151     |
| 168            |       | 9.37       | 9.35     | 33.923              | 26.219    | 182.4  | 0.455  | 2.88  | 44.6      | 27.9 | 1.93      | 24.1   | 0.00   | 0.12              | 0.00    | 0.02   | 169 208 |
| 199            |       | 8.96       | 8.94     | 34.040              | 26.376    | 168.0  | 0.509  | 2.34  | 36.0      | 33.8 | 2.11      | 26.9   | 0.00   | 0.00              | 0.00    | 0.02   | 200 207 |
| 200            | ISL   | 8.96 D     | 8.94     | 34.036 D            | 26.373    | 168.3  | 0.511  | 2.33  | 35.8      | 33.9 | 2.11      | 26.9   | 0.00   | 0.00              |         |        | 201     |
| 228            |       | 8.80       | 8.78     | 34.081              | 26.434    | 163.0  | 0.557  | 2.22  | 34.0      | 36.1 | 2.18      | 27.5   | 0.00   | 0.00              |         |        | 229 206 |
| 250            | ISL   | 8.53 D     | 8.50     | 34.107 D            | 26.497    | 157.4  | 0.592  | 1.95  | 29.7      | 38.8 | 2.29      | 28.4   | 0.00   | 0.00              |         |        | 251     |
| 269            |       | 8.55       | 8.52     | 34.158              | 26.534    | 154.2  | 0.622  | 1.70  | 25.9      | 41.5 | 2.40      | 29.4   | 0.00   | 0.00              |         |        | 271 205 |
| 300            | ISL   | 7.90 D     | 7.87     | 34.128 D            | 26.609    | 147.3  | 0.669  | 1.47  | 22.1      | 46.4 | 2.51      | 31.2   | 0.00   | 0.00              |         |        | 302     |
| 318            |       | 7.74       | 7.71     | 34.154              | 26.652    | 143.4  | 0.695  | 1.36  | 20.3      | 49.4 | 2.57      | 32.3   | 0.00   | 0.00              |         |        | 320 204 |
| 379            |       | 7.16       | 7.12     | 34.201              | 26.772    | 132.7  | 0.779  | 0.89  | 13.1      | 58.9 | 2.81      | 35.0   | 0.00   | 0.00              |         |        | 381 203 |
| 400            | ISL   | 6.96 D     | 6.92     | 34.223 D            | 26.818    | 128.6  | 0.807  | 0.79  | 11.6      | 61.9 | 2.87      | 35.7   | 0.00   | 0.00              |         |        | 403     |
| 441            |       | 6.64       | 6.60     | 34.233              | 26.869    | 124.0  | 0.858  | 0.63  | 9.2       | 67.0 | 2.96      | 36.8   | 0.00   | 0.00              |         |        | 444 202 |
| 500            | ISL   | 6.37 D     | 6.32     | 34.261 D            | 26.927    | 119.1  | 0.930  | 0.42  | 6.1       | 71.3 | 3.07      | 37.6   | 0.00   | 0.00              |         |        | 503     |
| 515            |       | 6.43       | 6.38     | 34.300              | 26.950    | 117.3  | 0.948  | 0.37  | 5.4       | 72.4 | 3.10      | 37.8   | 0.00   | 0.00              |         |        | 518 201 |

| RV NEW HORIZON |           |            |          | CALCOFI CRUISE 0808 |           |        |        |       |           |      |           |        |        | STATION 93.3 45.0 |         |      |      |
|----------------|-----------|------------|----------|---------------------|-----------|--------|--------|-------|-----------|------|-----------|--------|--------|-------------------|---------|------|------|
| LATITUDE       |           | LONGITUDE  |          | DAY/MO/YR           | CAST TIME | BOTTOM | WIND   | SPEED | WAVES     | WEA  | BAROMETER | DRY    | WET    | SECCHI            | CLD AMT | TYPE |      |
| 32 21.0 N      |           | 118 33.1 W |          | 15/08/08            | 2136 UTC  | 1315 m | 300    | 08 kn | 280 03 07 | 1    | 1012.1 mb | 19.9 C | 18.0 C | 17m               | 4/8     | SC   |      |
| DEPTH          | TEMP      | POT TEMP   | SALINITY | SIGMA               | SVA       | DYN HT | OXYGEN | OXY   | SI03      | P04  | N03       | N02    | NH4    | CHL-A             | PHAE0   | PRES | SAMP |
| m              | DEG C     | DEG C      |          | THETA               |           |        | ml/L   | PCT   | uM/L      | uM/L | uM/L      | uM/L   | uM/L   | ug/L              | ug/L    | db   |      |
| 0              | ISL 19.14 | 19.14      | 33.495   | 23.837              | 405.6     | 0.000  | 5.50   | 103.9 | 3.3       | 0.29 | 0.0       | 0.00   | 0.19   | 0.14              | 0.02    | 0    |      |
| 2              | 19.14     | 19.14      | 33.495   | 23.837              | 405.7     | 0.008  | 5.50   | 103.8 | 3.3       | 0.29 | 0.0       | 0.00   | 0.19   | 0.14              | 0.02    | 2    | 220  |
| 2              | 19.12     | 19.12      | 33.493   | 23.841              | 405.3     | 0.008  |        |       |           |      |           |        |        |                   |         | 2    | 221  |
| 10             | 18.40     | 18.40      | 33.538   | 24.056              | 385.1     | 0.040  | 5.62   | 104.7 | 2.7       | 0.27 | 0.0       | 0.00   | 0.10   | 0.19              | 0.03    | 10   | 219  |
| 20             | 18.27     | 18.27      | 33.625   | 24.155              | 376.0     | 0.078  | 5.66   | 105.2 | 1.7       | 0.26 | 0.0       | 0.00   | 0.00   | 0.27              | 0.06    | 20   | 218  |
| 30             | 14.87     | 14.87      | 33.344   | 24.725              | 321.8     | 0.113  | 6.36   | 110.4 | 5.3       | 0.46 | 1.6       | 0.08   | 0.27   | 0.79              | 0.45    | 30   | 217  |
| 40             | 13.25     | 13.24      | 33.259   | 24.996              | 296.2     | 0.144  | 5.98   | 100.3 | 7.0       | 0.70 | 4.8       | 0.27   | 0.38   | 0.68              | 0.47    | 40   | 216  |
| 50             | 12.28     | 12.27      | 33.264   | 25.190              | 278.0     | 0.172  | 5.61   | 92.2  | 8.5       | 0.89 | 8.0       | 0.32   | 0.17   | 0.41              | 0.31    | 50   | 215  |
| 61             | 11.92     | 11.91      | 33.334   | 25.312              | 266.6     | 0.202  | 5.39   | 88.0  | 9.9       | 1.02 | 10.2      | 0.06   | 0.20   | 0.28              | 0.22    | 61   | 214  |
| 69             | 11.64     | 11.63      | 33.443   | 25.449              | 253.7     | 0.223  | 5.17   | 83.9  | 11.8      | 1.14 | 12.4      | 0.02   | 0.02   | 0.13              | 0.12    | 69   | 213  |
| 75             | ISL 11.33 | D 11.32    | 33.479   | D 25.534            | 245.8     | 0.238  | 5.01   | 80.8  | 12.8      | 1.20 | 13.5      | 0.02   | 0.06   | 0.10              | 0.08    | 75   |      |
| 84             | 10.95     | 10.94      | 33.489   | 25.610              | 238.7     | 0.260  | 4.73   | 75.7  | 14.4      | 1.29 | 15.0      | 0.01   | 0.12   | 0.05              | 0.05    | 84   | 212  |
| 100            | 10.60     | 10.59      | 33.676   | 25.818              | 219.3     | 0.296  | 3.97   | 63.1  | 19.4      | 1.58 | 19.3      | 0.00   | 0.13   | 0.04              | 0.06    | 100  | 211  |
| 118            | 10.25     | 10.24      | 33.751   | 25.937              | 208.3     | 0.335  | 3.51   | 55.4  | 22.1      | 1.72 | 21.4      | 0.00   | 0.02   | 0.03              | 0.06    | 119  | 210  |
| 125            | ISL 9.93  | D 9.92     | 33.798   | D 26.028            | 199.8     | 0.349  | 3.30   | 51.7  | 23.6      | 1.78 | 22.3      | 0.00   | 0.02   | 0.02              | 0.06    | 126  |      |
| 139            | 9.59      | 9.57       | 33.862   | 26.135              | 189.8     | 0.377  | 2.93   | 45.6  | 26.5      | 1.89 | 24.0      | 0.00   | 0.03   | 0.01              | 0.05    | 140  | 209  |
| 150            | ISL 9.27  | D 9.25     | 33.904   | D 26.220            | 181.9     | 0.397  | 2.89   | 44.7  | 27.8      | 1.92 | 24.6      | 0.00   | 0.03   | 0.01              | 0.04    | 151  |      |
| 169            | 9.04      | 9.02       | 33.962   | 26.302              | 174.4     | 0.431  | 2.83   | 43.5  | 29.9      | 1.96 | 25.3      | 0.00   | 0.04   | 0.00              | 0.03    | 170  | 208  |
| 199            | 8.57      | 8.55       | 34.040   | 26.437              | 162.0     | 0.481  | 2.38   | 36.2  | 35.8      | 2.15 | 27.8      | 0.00   | 0.00   | 0.01              | 0.04    | 200  | 207  |
| 200            | ISL 8.57  | D 8.55     | 34.038   | D 26.436            | 162.2     | 0.483  | 2.37   | 36.1  | 36.0      | 2.15 | 27.9      | 0.00   | 0.00   |                   |         | 201  |      |
| 227            | 8.26      | 8.24       | 34.076   | 26.513              | 155.2     | 0.526  | 2.14   | 32.4  | 39.9      | 2.27 | 29.3      | 0.00   | 0.00   |                   |         | 228  | 206  |
| 250            | ISL 8.06  | D 8.03     | 34.088   | D 26.553            | 151.8     | 0.561  | 1.96   | 29.5  | 42.8      | 2.35 | 30.4      | 0.00   | 0.01   |                   |         | 251  |      |
| 268            | 7.86      | 7.83       | 34.102   | 26.593              | 148.2     | 0.588  | 1.81   | 27.1  | 45.1      | 2.42 | 31.2      | 0.00   | 0.01   |                   |         | 270  | 205  |
| 300            | ISL 7.74  | D 7.71     | 34.142   | D 26.643            | 144.0     | 0.635  | 1.42   | 21.2  | 50.1      | 2.59 | 32.9      | 0.00   | 0.00   |                   |         | 302  |      |
| 318            | 7.43      | 7.40       | 34.164   | 26.705              | 138.2     | 0.660  | 1.20   | 17.8  | 53.2      | 2.69 | 33.8      | 0.00   | 0.00   |                   |         | 320  | 204  |
| 378            | 6.86      | 6.82       | 34.219   | 26.828              | 127.2     | 0.740  | 0.77   | 11.3  | 63.5      | 2.92 | 36.3      | 0.00   | 0.00   |                   |         | 380  | 203  |
| 400            | ISL 6.74  | D 6.70     | 34.230   | D 26.853            | 125.0     | 0.768  | 0.68   | 9.9   | 65.8      | 2.97 | 36.7      | 0.00   | 0.00   |                   |         | 403  |      |
| 438            | 6.55      | 6.51       | 34.256   | 26.899              | 121.1     | 0.814  | 0.56   | 8.1   | 69.0      | 3.04 | 37.2      | 0.00   | 0.00   |                   |         | 441  | 202  |
| 500            | ISL 6.22  | D 6.18     | 34.282   | D 26.963            | 115.6     | 0.888  | 0.40   | 5.8   | 74.7      | 3.12 | 38.3      | 0.00   | 0.00   |                   |         | 503  |      |
| 519            | 6.16      | 6.11       | 34.296   | 26.982              | 114.0     | 0.910  | 0.35   | 5.0   | 76.4      | 3.15 | 38.6      | 0.00   | 0.00   |                   |         | 523  | 201  |

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

| RV NEW HORIZON |            |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |         | STATION 93.3 50.0 |       |      |      |
|----------------|------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|---------|-------------------|-------|------|------|
| LATITUDE       | LONGITUDE  | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD AMT | TYPE              |       |      |      |
| 32 10.9 N      | 118 53.4 W | 16/08/08  | 0201 UTC  | 1463 m              | 290   | 09 kn  | 320 03 07 | 1     | 1010.7 mb | 19.0 C | 17.0 C |        | 7/8     | SC                |       |      |      |
| DEPTH          | TEMP       | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4     | CHL-A             | PHAE0 | PRES | SAMP |
| m              | DEG C      | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L    | ug/L              | ug/L  | db   |      |
| 0 ISL          | 19.79      | 19.79     | 33.766    | 23.877              | 401.8 | 0.000  | 5.43      | 103.9 | 0.8       | 0.22   | 0.0    | 0.00   | 0.06    | 0.19              | 0.03  | 0    |      |
| 1              | 19.79      | 19.79     | 33.766    | 23.877              | 401.8 | 0.004  | 5.43      | 103.9 | 0.8       | 0.22   | 0.0    | 0.00   | 0.06    | 0.19              | 0.03  | 1    | 222  |
| 10             | 19.60      | 19.60     | 33.764    | 23.925              | 397.6 | 0.040  | 5.44      | 103.8 | 0.6       | 0.22   | 0.0    | 0.00   | 0.02    | 0.18              | 0.04  | 10   | 220  |
| 10             | 19.66      | 19.66     | 33.762    | 23.908              | 399.2 | 0.040  |           |       |           |        |        |        |         |                   |       | 10   | 221  |
| 19             | 19.13      | 19.13     | 33.750    | 24.035              | 387.4 | 0.075  | 5.59      | 105.7 | 0.7       | 0.23   | 0.0    | 0.00   | 0.05    | 0.26              | 0.06  | 19   | 219  |
| 20 ISL         | 18.94 D    | 18.94     | 33.744 D  | 24.079              | 383.3 | 0.079  | 5.76      | 108.5 | 0.7       | 0.24   | 0.2    | 0.01   | 0.06    | 0.65              | 0.14  | 20   |      |
| 30             | 14.68      | 14.68     | 33.632    | 24.988              | 296.8 | 0.113  | 6.63      | 114.8 | 0.7       | 0.39   | 1.9    | 0.07   | 0.12    | 3.21              | 0.77  | 30   | 218  |
| 36             | 12.81      | 12.81     | 33.595    | 25.344              | 263.0 | 0.130  | 5.33      | 88.8  | 8.9       | 1.02   | 10.0   | 0.41   | 0.05    | 1.05              | 0.47  | 36   | 217  |
| 40             | 12.45      | 12.44     | 33.593    | 25.412              | 256.6 | 0.140  | 5.08      | 84.0  | 10.8      | 1.14   | 11.9   | 0.29   | 0.11    | 0.69              | 0.35  | 40   | 216  |
| 50             | 11.74      | 11.73     | 33.616    | 25.565              | 242.3 | 0.165  | 4.67      | 76.1  | 13.7      | 1.31   | 14.8   | 0.04   | 0.08    | 0.28              | 0.19  | 50   | 215  |
| 60             | 11.66      | 11.65     | 33.617    | 25.580              | 241.0 | 0.190  | 4.58      | 74.5  | 14.4      | 1.34   | 15.2   | 0.03   | 0.13    | 0.24              | 0.17  | 60   | 214  |
| 70             | 10.48      | 10.47     | 33.736    | 25.885              | 212.2 | 0.212  | 3.49      | 55.4  | 21.0      | 1.70   | 20.9   | 0.00   | 0.16    | 0.05              | 0.08  | 70   | 213  |
| 75 ISL         | 10.28 D    | 10.27     | 33.749 D  | 25.929              | 208.1 | 0.223  | 3.42      | 54.0  | 22.2      | 1.73   | 21.3   | 0.00   | 0.11    | 0.04              | 0.08  | 75   |      |
| 84             | 10.04      | 10.03     | 33.769    | 25.986              | 202.9 | 0.241  | 3.30      | 51.9  | 23.1      | 1.77   | 22.1   | 0.00   | 0.00    | 0.02              | 0.07  | 84   | 212  |
| 100            | 9.59       | 9.58      | 33.828    | 26.107              | 191.6 | 0.273  | 3.10      | 48.2  | 25.6      | 1.83   | 23.2   | 0.00   | 0.00    | 0.01              | 0.06  | 100  | 211  |
| 119            | 9.15       | 9.14      | 33.929    | 26.258              | 177.6 | 0.308  | 2.89      | 44.6  | 28.9      | 1.92   | 24.5   | 0.00   | 0.00    | 0.00              | 0.04  | 120  | 210  |
| 125 ISL        | 9.09 D     | 9.08      | 33.940 D  | 26.276              | 176.0 | 0.318  | 2.87      | 44.2  | 29.4      | 1.93   | 24.7   | 0.00   | 0.00    | 0.00              | 0.04  | 126  |      |
| 139            | 8.97       | 8.96      | 33.976    | 26.324              | 171.7 | 0.343  | 2.85      | 43.8  | 30.5      | 1.95   | 25.0   | 0.00   | 0.00    | 0.01              | 0.04  | 140  | 209  |
| 150 ISL        | 8.78 D     | 8.76      | 34.001 D  | 26.373              | 167.2 | 0.361  | 2.79      | 42.7  | 31.7      | 1.98   | 25.5   | 0.00   | 0.00    | 0.01              | 0.04  | 151  |      |
| 169            | 8.66       | 8.64      | 34.026    | 26.412              | 163.9 | 0.393  | 2.61      | 39.8  | 34.3      | 2.06   | 26.6   | 0.00   | 0.00    | 0.00              | 0.03  | 170  | 208  |
| 200 ISL        | 8.26 D     | 8.24      | 34.076 D  | 26.513              | 154.8 | 0.442  | 2.08      | 31.5  | 40.0      | 2.26   | 29.0   | 0.00   | 0.00    | 0.00              | 0.02  | 201  |      |
| 201            | 8.28       | 8.26      | 34.079    | 26.512              | 154.9 | 0.444  | 2.06      | 31.2  | 40.2      | 2.27   | 29.1   | 0.00   | 0.00    | 0.00              | 0.02  | 202  | 207  |
| 229            | 7.95       | 7.93      | 34.114    | 26.589              | 147.9 | 0.486  | 1.71      | 25.7  | 45.3      | 2.44   | 30.9   | 0.00   | 0.00    |                   |       | 230  | 206  |
| 250 ISL        | 7.79 D     | 7.77      | 34.147 D  | 26.639              | 143.5 | 0.517  | 1.58      | 23.7  | 48.6      | 2.52   | 32.0   | 0.00   | 0.01    |                   |       | 251  |      |
| 269            | 7.48       | 7.45      | 34.129    | 26.669              | 140.8 | 0.544  | 1.49      | 22.1  | 51.2      | 2.57   | 32.8   | 0.00   | 0.01    |                   |       | 271  | 205  |
| 300 ISL        | 7.51 D     | 7.48      | 34.199 D  | 26.721              | 136.5 | 0.587  | 1.23      | 18.3  | 55.0      | 2.68   | 33.8   | 0.00   | 0.00    |                   |       | 302  |      |
| 319            | 7.19       | 7.16      | 34.181    | 26.752              | 133.6 | 0.612  | 1.06      | 15.7  | 57.0      | 2.75   | 34.3   | 0.00   | 0.00    |                   |       | 321  | 204  |
| 377            | 7.12       | 7.08      | 34.265    | 26.828              | 127.3 | 0.688  | 0.62      | 9.1   | 62.2      | 2.93   | 35.2   | 0.00   | 0.00    |                   |       | 379  | 203  |
| 400 ISL        | 7.13 D     | 7.09      | 34.299 D  | 26.854              | 125.3 | 0.717  | 0.53      | 7.8   | 63.8      | 2.97   | 35.5   | 0.00   | 0.00    |                   |       | 403  |      |
| 436            | 7.00       | 6.96      | 34.315    | 26.885              | 122.8 | 0.762  | 0.40      | 5.9   | 66.2      | 3.03   | 36.0   | 0.00   | 0.00    |                   |       | 439  | 202  |
| 500 ISL        | 6.85 D     | 6.80      | 34.318 D  | 26.909              | 121.5 | 0.840  |           |       |           |        |        |        |         |                   |       | 503  |      |
| 516            | 6.83       | 6.78      | 34.318 D  | 26.912              | 121.4 | 0.859  |           |       |           |        |        |        |         |                   |       | 520  | 201  |

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

STATION 93.3 55.0

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

STATION 93.3 60.0

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

| RV NEW HORIZON |             |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 93.3 70.0 |       |      |      |  |
|----------------|-------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|--|
| LATITUDE       | LONGITUDE   | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |  |
| 31 30.4 N      | 120 15.3 W  | 16/08/08  | 1754 UTC  | 3943 m              | 340   | 06 kn  | 290 04 06 | 2     | 1013.3 mb | 18.0 c | 16.6 c | 16m    |      | 8/8               | ST    |      |      |  |
| DEPTH          | TEMP        | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |  |
| m              | DEG C       | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |  |
| 0              | ISL 17.54   | 17.54     | 33.513    | 24.246              | 366.6 | 0.000  | 5.64      | 103.3 | 2.7       | 0.31   | 0.0    | 0.00   | 0.55 | 0.23              | 0.06  | 0    |      |  |
| 1              | A 17.54     | 17.54     | 33.513    | 24.246              | 366.6 | 0.004  | 5.64      | 103.3 | 2.7       | 0.31   | 0.0    | 0.00   | 0.55 | 0.23              | 0.06  | 1    | 221  |  |
| 10             | A 17.38     | 17.38     | 33.497    | 24.272              | 364.4 | 0.037  | 5.66      | 103.3 | 2.5       | 0.31   | 0.0    | 0.00   | 0.53 | 0.24              | 0.06  | 10   | 219  |  |
| 10             | 17.39       | 17.39     | 33.499    | 24.271              | 364.5 | 0.037  |           |       |           |        |        |        |      |                   |       | 10   | 220  |  |
| 20             | ISL 17.03 D | 17.03     | 33.441 D  | 24.313              | 360.9 | 0.073  | 5.73      | 103.9 | 2.5       | 0.32   | 0.1    | 0.00   | 0.40 | 0.32              | 0.10  | 20   |      |  |
| 22             | A 16.95     | 16.95     | 33.440    | 24.331              | 359.2 | 0.080  | 5.74      | 103.9 | 2.5       | 0.32   | 0.1    | 0.00   | 0.37 | 0.35              | 0.11  | 22   | 218  |  |
| 30             | ISL 14.72 D | 14.72     | 33.324 D  | 24.742              | 320.2 | 0.107  | 6.02      | 104.2 | 3.2       | 0.46   | 1.6    | 0.05   | 0.38 | 0.53              | 0.26  | 30   |      |  |
| 33             | A 14.51     | 14.51     | 33.299    | 24.768              | 317.9 | 0.117  | 6.09      | 104.9 | 3.6       | 0.53   | 2.3    | 0.10   | 0.38 | 0.58              | 0.31  | 33   | 217  |  |
| 43             | A 13.29     | 13.28     | 33.279    | 25.004              | 295.6 | 0.147  | 5.76      | 96.7  | 6.1       | 0.76   | 4.9    | 0.42   | 0.95 | 0.48              | 0.33  | 43   | 216  |  |
| 50             | ISL 12.67 D | 12.66     | 33.290 D  | 25.135              | 283.2 | 0.168  | 5.63      | 93.3  | 7.4       | 0.86   | 6.9    | 0.56   | 0.30 | 0.38              | 0.24  | 50   |      |  |
| 52             | 12.65       | 12.64     | 33.291    | 25.140              | 282.8 | 0.173  | 5.60      | 92.8  | 7.7       | 0.88   | 7.5    | 0.60   | 0.09 | 0.34              | 0.21  | 52   | 215  |  |
| 59             | A 12.16     | 12.15     | 33.296    | 25.238              | 273.7 | 0.193  | 5.45      | 89.4  | 8.9       | 0.98   | 9.6    | 0.09   | 0.00 | 0.20              | 0.13  | 59   | 214  |  |
| 70             | 11.38       | 11.37     | 33.304    | 25.389              | 259.5 | 0.222  | 5.30      | 85.5  | 10.8      | 1.11   | 11.9   | 0.01   | 0.00 | 0.09              | 0.07  | 70   | 213  |  |
| 75             | ISL 11.34 D | 11.33     | 33.342 D  | 25.426              | 256.1 | 0.235  | 5.23      | 84.3  | 11.3      | 1.15   | 12.6   | 0.01   | 0.00 | 0.07              | 0.07  | 75   |      |  |
| 84             | 11.03       | 11.02     | 33.391    | 25.520              | 247.3 | 0.258  | 5.04      | 80.7  | 12.7      | 1.25   | 14.1   | 0.01   | 0.00 | 0.05              | 0.06  | 84   | 212  |  |
| 100            | 10.82       | 10.81     | 33.725    | 25.817              | 219.4 | 0.295  | 4.30      | 68.7  | 18.5      | 1.58   | 19.4   | 0.00   | 0.00 | 0.03              | 0.05  | 100  | 211  |  |
| 118            | 9.60        | 9.59      | 33.708    | 26.012              | 201.0 | 0.333  | 3.68      | 57.2  | 21.7      | 1.67   | 21.1   | 0.00   | 0.02 | 0.01              | 0.02  | 118  | 210  |  |
| 125            | ISL 9.43 D  | 9.42      | 33.809 D  | 26.119              | 191.0 | 0.347  | 3.53      | 54.7  | 23.3      | 1.73   | 22.0   | 0.00   | 0.03 | 0.01              | 0.02  | 126  |      |  |
| 138            | 9.12        | 9.11      | 33.851    | 26.202              | 183.3 | 0.371  | 3.33      | 51.3  | 26.2      | 1.84   | 23.6   | 0.00   | 0.04 | 0.01              | 0.03  | 139  | 209  |  |
| 150            | ISL 8.88 D  | 8.86      | 33.898 D  | 26.277              | 176.4 | 0.393  | 3.16      | 48.4  | 28.4      | 1.91   | 24.7   | 0.00   | 0.07 | 0.01              | 0.03  | 151  |      |  |
| 167            | 8.61        | 8.59      | 33.934    | 26.347              | 169.9 | 0.422  | 2.94      | 44.8  | 31.3      | 2.00   | 26.1   | 0.00   | 0.12 | 0.00              | 0.02  | 168  | 208  |  |
| 200            | ISL 8.05 D  | 8.03      | 34.007 D  | 26.490              | 156.8 | 0.476  | 2.52      | 37.9  | 36.8      | 2.16   | 28.6   | 0.00   | 0.10 | 0.00              | 0.02  | 201  |      |  |
| 201            | 8.14        | 8.12      | 34.014    | 26.482              | 157.6 | 0.477  | 2.51      | 37.8  | 37.0      | 2.16   | 28.7   | 0.00   | 0.10 | 0.00              | 0.02  | 202  | 207  |  |
| 228            | 7.70        | 7.68      | 34.019    | 26.551              | 151.4 | 0.519  | 2.21      | 33.0  | 42.0      | 2.30   | 30.7   | 0.00   | 0.00 |                   |       | 229  | 206  |  |
| 250            | ISL 7.51 D  | 7.49      | 34.052 D  | 26.604              | 146.6 | 0.552  | 1.92      | 28.5  | 46.6      | 2.43   | 32.3   | 0.00   | 0.00 |                   |       | 251  |      |  |
| 267            | 7.32        | 7.29      | 34.067    | 26.643              | 143.1 | 0.577  | 1.70      | 25.2  | 49.9      | 2.52   | 33.3   | 0.00   | 0.00 |                   |       | 269  | 205  |  |
| 300            | ISL 6.98 D  | 6.95      | 34.087 D  | 26.706              | 137.4 | 0.623  | 1.40      | 20.6  | 54.5      | 2.65   | 34.6   | 0.00   | 0.00 |                   |       | 302  |      |  |
| 316            | 6.97        | 6.94      | 34.109    | 26.725              | 135.9 | 0.645  | 1.29      | 18.9  | 56.5      | 2.70   | 35.1   | 0.00   | 0.00 |                   |       | 318  | 204  |  |
| 377            | 6.34        | 6.31      | 34.148    | 26.840              | 125.5 | 0.724  | 0.92      | 13.3  | 66.2      | 2.90   | 37.5   | 0.00   | 0.03 |                   |       | 379  | 203  |  |
| 400            | ISL 6.31 D  | 6.27      | 34.178 D  | 26.868              | 123.2 | 0.753  | 0.77      | 11.1  | 68.7      | 2.96   | 38.0   | 0.00   | 0.02 |                   |       | 403  |      |  |
| 437            | 6.14        | 6.10      | 34.215    | 26.920              | 118.7 | 0.798  | 0.56      | 8.1   | 72.4      | 3.05   | 38.5   | 0.00   | 0.00 |                   |       | 440  | 202  |  |
| 500            | ISL 5.75 D  | 5.71      | 34.239 D  | 26.988              | 112.7 | 0.871  | 0.39      | 5.6   | 80.2      | 3.15   | 39.7   | 0.00   | 0.00 |                   |       | 503  |      |  |
| 519            | 5.70        | 5.66      | 34.269    | 27.018              | 110.0 | 0.892  | 0.34      | 4.8   | 82.5      | 3.18   | 40.1   | 0.00   | 0.00 |                   |       | 523  | 201  |  |

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

| RV NEW HORIZON |             |           |           | CALCOFI CRUISE 0808 |       |        |           |       |           |        |        |        |      | STATION 93.3 80.0 |       |      |      |
|----------------|-------------|-----------|-----------|---------------------|-------|--------|-----------|-------|-----------|--------|--------|--------|------|-------------------|-------|------|------|
| LATITUDE       | LONGITUDE   | DAY/MO/YR | CAST TIME | BOTTOM              | WIND  | SPEED  | WAVES     | WEA   | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT               | TYPE  |      |      |
| 31 11.3 N      | 120 54.5 W  | 16/08/08  | 2324 UTC  | 3852 m              | 250   | 04 kn  | 350 03 06 | 2     | 1012.0 mb | 18.7 C | 16.4 C | 20m    |      | 7/8               | ST    |      |      |
| DEPTH          | TEMP        | POT TEMP  | SALINITY  | SIGMA               | SVA   | DYN HT | OXYGEN    | OXY   | SI03      | P04    | N03    | N02    | NH4  | CHL-A             | PHAE0 | PRES | SAMP |
| m              | DEG C       | DEG C     |           | THETA               |       |        | ml/L      | PCT   | uM/L      | uM/L   | uM/L   | uM/L   | uM/L | ug/L              | ug/L  | db   |      |
| 0              | ISL 17.26   | 17.26     | 33.205    | 24.077              | 382.7 | 0.000  | 5.70      | 103.6 | 3.4       | 0.37   | 0.1    | 0.00   | 0.17 | 0.15              | 0.03  | 0    |      |
| 1              | 17.26       | 17.26     | 33.205    | 24.077              | 382.8 | 0.004  | 5.70      | 103.6 | 3.4       | 0.37   | 0.1    | 0.00   | 0.17 | 0.15              | 0.03  | 1    | 221  |
| 10             | CSL 16.90   | 16.90     | 33.181    | 24.143              | 376.7 | 0.038  |           |       |           |        |        |        |      |                   |       | 10   | 200  |
| 10             | 16.91       | 16.91     | 33.187    | 24.146              | 376.5 | 0.038  |           |       |           |        |        |        |      |                   |       | 10   | 220  |
| 11             | 16.90       | 16.90     | 33.189    | 24.149              | 376.2 | 0.042  | 5.73      | 103.5 | 3.2       | 0.36   | 0.1    | 0.00   | 0.12 | 0.15              | 0.03  | 11   | 219  |
| 20             | 16.62       | 16.62     | 33.200    | 24.223              | 369.4 | 0.075  | 5.79      | 104.0 | 3.2       | 0.36   | 0.1    | 0.00   | 0.03 | 0.19              | 0.05  | 20   | 218  |
| 30             | 15.61       | 15.61     | 33.134    | 24.402              | 352.7 | 0.111  | 5.97      | 105.0 | 3.2       | 0.37   | 0.1    | 0.00   | 0.04 | 0.28              | 0.11  | 30   | 217  |
| 40             | 13.81       | 13.80     | 33.012    | 24.692              | 325.2 | 0.145  | 6.09      | 103.2 | 3.2       | 0.45   | 0.4    | 0.04   | 0.14 | 0.38              | 0.22  | 40   | 216  |
| 50             | 12.95       | 12.94     | 32.996    | 24.852              | 310.1 | 0.177  | 5.94      | 98.9  | 4.3       | 0.56   | 1.8    | 0.37   | 0.19 | 0.36              | 0.32  | 50   | 215  |
| 60             | 12.59       | 12.58     | 33.059    | 24.972              | 299.0 | 0.208  | 5.86      | 96.9  | 5.6       | 0.77   | 4.8    | 0.42   | 0.47 | 0.31              | 0.25  | 60   | 214  |
| 71             | 11.89       | 11.88     | 33.059    | 25.105              | 286.6 | 0.240  | 5.67      | 92.3  | 7.0       | 0.80   | 6.4    | 0.15   | 0.06 | 0.20              | 0.19  | 71   | 213  |
| 75             | ISL 11.64 D | 11.63     | 33.079 D  | 25.167              | 280.7 | 0.251  | 5.61      | 90.9  | 7.4       | 0.83   | 7.0    | 0.10   | 0.04 | 0.17              | 0.16  | 75   |      |
| 86             | 11.22       | 11.21     | 33.144    | 25.293              | 268.8 | 0.281  | 5.43      | 87.2  | 8.8       | 0.96   | 9.1    | 0.02   | 0.00 | 0.10              | 0.10  | 86   | 212  |
| 100            | ISL 10.94 D | 10.93     | 33.375 D  | 25.523              | 247.3 | 0.317  | 5.06      | 80.9  | 11.8      | 1.17   | 13.0   | 0.00   | 0.00 | 0.03              | 0.04  | 100  |      |
| 101            | 10.95       | 10.94     | 33.389    | 25.533              | 246.4 | 0.320  | 5.02      | 80.3  | 12.1      | 1.19   | 13.3   | 0.00   | 0.00 | 0.03              | 0.04  | 101  | 211  |
| 119            | 10.39       | 10.38     | 33.623    | 25.813              | 220.1 | 0.362  | 4.08      | 64.5  | 17.9      | 1.53   | 18.9   | 0.00   | 0.00 | 0.01              | 0.03  | 120  | 210  |
| 125            | ISL 10.19 D | 10.18     | 33.650 D  | 25.869              | 214.9 | 0.375  | 3.93      | 61.9  | 18.9      | 1.57   | 19.7   | 0.00   | 0.00 | 0.01              | 0.03  | 126  |      |
| 140            | 9.87        | 9.85      | 33.745    | 25.997              | 203.0 | 0.406  | 3.70      | 57.9  | 20.9      | 1.64   | 20.8   | 0.00   | 0.00 | 0.01              | 0.03  | 141  | 209  |
| 150            | ISL 9.53 D  | 9.51      | 33.817 D  | 26.109              | 192.4 | 0.426  | 3.48      | 54.1  | 23.3      | 1.73   | 22.2   | 0.00   | 0.03 | 0.01              | 0.03  | 151  |      |
| 170            | 9.13        | 9.11      | 33.897    | 26.237              | 180.6 | 0.463  | 3.08      | 47.5  | 28.3      | 1.91   | 24.9   | 0.00   | 0.10 | 0.01              | 0.02  | 171  | 208  |
| 200            | ISL 8.55 D  | 8.53      | 33.978 D  | 26.392              | 166.4 | 0.515  | 2.88      | 43.8  | 33.3      | 2.00   | 26.6   | 0.00   | 0.13 | 0.00              | 0.03  | 201  |      |
| 201            | 8.50        | 8.48      | 33.988    | 26.407              | 164.9 | 0.517  | 2.88      | 43.8  | 33.5      | 2.00   | 26.6   | 0.00   | 0.13 | 0.00              | 0.03  | 202  | 207  |
| 229            | 8.03        | 8.01      | 34.011    | 26.496              | 156.7 | 0.562  | 2.50      | 37.6  | 39.1      | 2.17   | 29.1   | 0.00   | 0.07 |                   |       | 230  | 206  |
| 250            | ISL 7.83 D  | 7.81      | 34.031 D  | 26.542              | 152.7 | 0.595  | 2.19      | 32.8  | 43.2      | 2.30   | 30.9   | 0.00   | 0.08 |                   |       | 251  |      |
| 272            | 7.45        | 7.42      | 34.060    | 26.619              | 145.5 | 0.627  | 1.88      | 27.9  | 47.6      | 2.44   | 32.6   | 0.00   | 0.09 |                   |       | 274  | 205  |
| 300            | ISL 7.06 D  | 7.03      | 34.065 D  | 26.678              | 140.2 | 0.667  | 1.59      | 23.4  | 54.0      | 2.59   | 34.5   | 0.00   | 0.03 |                   |       | 302  |      |
| 315            | 6.84        | 6.81      | 34.075    | 26.716              | 136.7 | 0.688  | 1.45      | 21.2  | 57.3      | 2.66   | 35.4   | 0.00   | 0.00 |                   |       | 317  | 204  |
| 384            | 6.54        | 6.51      | 34.197    | 26.853              | 124.6 | 0.778  | 0.74      | 10.8  | 67.0      | 2.95   | 37.5   | 0.00   | 0.00 |                   |       | 386  | 203  |
| 400            | ISL 6.43 D  | 6.39      | 34.196 D  | 26.867              | 123.4 | 0.798  | 0.68      | 9.9   | 69.4      | 2.99   | 38.0   | 0.00   | 0.00 |                   |       | 402  |      |
| 432            | 6.12        | 6.08      | 34.204    | 26.913              | 119.2 | 0.837  | 0.60      | 8.6   | 74.0      | 3.04   | 38.9   | 0.00   | 0.00 |                   |       | 435  | 202  |
| 500            | ISL 5.89 D  | 5.85      | 34.269 D  | 26.994              | 112.2 | 0.916  | 0.36      | 5.2   | 80.5      | 3.16   | 40.0   | 0.00   | 0.00 |                   |       | 503  |      |
| 502            | 5.89        | 5.85      | 34.271    | 26.996              | 112.1 | 0.918  | 0.35      | 5.0   | 80.7      | 3.16   | 40.0   | 0.00   | 0.00 |                   |       | 505  | 201  |

| LATITUDE  |       | LONGITUDE  |          | DAY/MO/YR |          | CAST TIME |        | BOTTOM | WIND  | SPEED | WAVES | WEA  | BAROMETER | DRY    | WET    | SECCHI | CLD  | AMT | TYPE |
|-----------|-------|------------|----------|-----------|----------|-----------|--------|--------|-------|-------|-------|------|-----------|--------|--------|--------|------|-----|------|
| 30 50.9 N |       | 121 35.0 W |          | 17/08/08  |          | 0609 UTC  |        | 4085 m | 270   | 05 kn |       |      | 1012.8 mb | 17.2 C | 15.5 C |        |      |     |      |
| DEPTH     | TEMP  | POT TEMP   | SALINITY | SIGMA     | SVA      | DYN HT    | OXYGEN | OXY    | SI03  | P04   | N03   | N02  | NH4       | CHL-A  | PHAE0  | PRES   | SAMP |     |      |
| m         | DEG C | DEG C      |          | THETA     |          |           | ml/l   | PCT    | uM/l  | uM/l  | uM/l  | uM/l | uM/l      | ug/l   | ug/l   | db     |      |     |      |
| 0         | ISL   | 17.06      | 17.06    | 33.096    | 24.040   | 386.2     | 0.000  | 5.69   | 103.0 | 3.6   | 0.36  | 0.0  | 0.00      | 0.26   | 0.15   | 0.03   | 0    |     |      |
| 2         |       | 17.06      | 17.06    | 33.096    | 24.040   | 386.3     | 0.008  | 5.69   | 103.0 | 3.6   | 0.36  | 0.0  | 0.00      | 0.26   | 0.15   | 0.03   | 2    | 221 |      |
| 10        |       | 16.84      | 16.84    | 33.166    | 24.146   | 376.5     | 0.038  | 5.76   | 103.9 | 3.6   | 0.35  | 0.0  | 0.00      | 0.34   | 0.19   | 0.06   | 10   | 219 |      |
| 11        |       | 16.84      | 16.84    | 33.163    | 24.144   | 376.7     | 0.042  |        |       |       |       |      |           |        |        |        | 11   | 220 |      |
| 20        | ISL   | 16.73      | D 16.73  | 33.201    | D 24.199 | 371.8     | 0.076  | 5.77   | 103.8 | 3.0   | 0.34  | 0.0  | 0.00      | 0.33   | 0.24   | 0.06   | 20   |     |      |
| 21        |       | 16.75      | 16.75    | 33.209    | 24.200   | 371.7     | 0.079  | 5.77   | 103.9 | 3.0   | 0.34  | 0.0  | 0.00      | 0.33   | 0.25   | 0.06   | 21   | 218 |      |
| 30        | ISL   | 16.47      | D 16.47  | 33.164    | D 24.231 | 369.0     | 0.113  | 5.80   | 103.8 | 3.4   | 0.35  | 0.0  | 0.00      | 0.40   | 0.30   | 0.09   | 30   |     |      |
| 31        |       | 16.50      | 16.50    | 33.170    | 24.228   | 369.3     | 0.116  | 5.81   | 104.1 | 3.5   | 0.35  | 0.0  | 0.00      | 0.41   | 0.31   | 0.10   | 31   | 217 |      |
| 41        |       | 15.71      | 15.70    | 33.110    | 24.361   | 356.9     | 0.153  | 5.92   | 104.3 | 3.4   | 0.37  | 0.0  | 0.00      | 0.41   | 0.45   | 0.16   | 41   | 216 |      |
| 50        | ISL   | 15.90      | D 15.89  | 33.273    | D 24.445 | 349.2     | 0.185  | 5.90   | 104.5 | 2.0   | 0.34  | 0.0  | 0.00      | 0.33   | 0.45   | 0.20   | 50   |     |      |
| 51        |       | 15.92      | 15.91    | 33.274    | 24.441   | 349.6     | 0.188  | 5.90   | 104.5 | 1.9   | 0.34  | 0.0  | 0.00      | 0.32   | 0.45   | 0.21   | 51   | 215 |      |
| 61        |       | 14.11      | 14.10    | 33.007    | 24.627   | 332.0     | 0.222  | 6.12   | 104.4 | 3.0   | 0.38  | 0.0  | 0.00      | 0.24   | 0.54   | 0.30   | 61   | 214 |      |
| 70        |       | 13.56      | 13.55    | 32.962    | 24.705   | 324.8     | 0.252  | 6.13   | 103.3 | 3.3   | 0.39  | 0.0  | 0.02      | 0.15   | 0.47   | 0.32   | 70   | 213 |      |

## PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 76.7 55.0

| LATITUDE  |       | LONGITUDE  |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       |       | LAN              |      | CIVIL TWILIGHT |      | INTEGRATED VALUE |  |
|-----------|-------|------------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|-------|------------------|------|----------------|------|------------------|--|
| 34 53.2 N |       | 121 11.7 W |        | 29/08/08  |       | 1718 UTC  |      | 8 m    |      | 1205 - 1901 PST |       |       | 1206 PST         |      | 1901 PST       |      | 750.1 mg C/m2    |  |
| DEPTH     | TEMP  | SALINITY   | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT | UPTAKE (mg C/m3) |      |                |      |                  |  |
|           |       |            |        |           |       |           |      |        |      |                 |       |       | PCT              | 1    | 2              | MEAN | DARK             |  |
| 2         | 15.58 | 33.510     | 24.697 | 6.70      | 118.1 | 1.8       | 0.30 | 0.1    | 0.01 | 2.39            | 0.28  | 68. A | 59.9             | 60.6 | 60.3           | 0.72 |                  |  |
| 3         | 15.64 | 33.511     | 24.684 |           |       | 1.8       | 0.29 | 0.1    | 0.01 |                 |       |       |                  |      |                |      |                  |  |
| 4         | 15.61 | 33.508     | 24.689 | 6.70      | 118.2 | 1.9       | 0.30 | 0.1    | 0.02 | 2.25            | 0.43  | 46.   | 60.9             | 60.6 | 60.7           | 1.1  |                  |  |
| 10        | 14.61 | 33.500     | 24.901 | 5.97      | 103.2 | 4.7       | 0.55 | 2.8    | 0.14 | 3.19            | 0.89  | 15.   | 50.8             | 52.9 | 51.8           | 0.25 |                  |  |
| 15        | 13.91 | 33.545     | 25.083 | 5.27      | 89.8  | 7.2       | 0.88 | 7.1    | 0.25 | 1.17            | 0.42  | 5.6   | 5.9              | 6.1  | 6.0            | 0.10 |                  |  |
| 20        | 13.48 | 33.581     | 25.199 | 4.96      | 83.8  | 9.3       | 1.00 | 9.4    | 0.29 | 0.65            | 0.26  | 2.2   | 1.5              | 1.6  | 1.6            | 0.11 |                  |  |
| 29        | 11.58 | 33.655     | 25.624 | 4.18      | 67.9  | 15.3      | 1.43 | 16.5   | 0.18 | 0.23            | 0.24  | 0.38  | 0.05             | 0.07 | 0.06           | 0.06 |                  |  |

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 76.7 90.0

| LATITUDE  |       | LONGITUDE  |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       |       | LAN              |      | CIVIL TWILIGHT |      | INTEGRATED VALUE |  |
|-----------|-------|------------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|-------|------------------|------|----------------|------|------------------|--|
| 33 43.8 N |       | 123 37.9 W |        | 28/08/08  |       | 1743 UTC  |      | 16 m   |      | 1210 - 1921 PST |       |       | 1216 PST         |      | 1907 PST       |      | 399.6 mg C/m2    |  |
| DEPTH     | TEMP  | SALINITY   | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT | UPTAKE (mg C/m3) |      |                |      |                  |  |
|           |       |            |        |           |       |           |      |        |      |                 |       |       | PCT              | 1    | 2              | MEAN | DARK             |  |
| 2         | 16.94 | 33.039     | 24.025 | 5.88      | 106.1 | 1.0       | 0.38 | 0.3    | 0.02 | 0.31            | 0.05  | 83. A | 9.1              | 8.9  | 9.0            | 0.11 |                  |  |
| 9         | 16.78 | 33.043     | 24.065 | 5.89      | 106.0 | 0.9       | 0.40 | 0.4    | 0.03 | 0.34            | 0.06  | 42.   | 13.8             | 13.3 | 13.5           | 0.15 |                  |  |
| 22        | 15.64 | 33.068     | 24.344 | 6.21      | 109.3 | 1.6       | 0.49 | 1.5    | 0.06 | 0.54            | 0.24  | 12.   | 10.5             | 11.4 | 10.9           | 0.14 |                  |  |
| 32        | 15.03 | 33.237     | 24.608 | 6.16      | 107.2 | 2.5       | 0.55 | 2.5    | 0.09 | 0.66            | 0.28  | 4.6   | 5.7              | 6.0  | 5.9            | 0.09 |                  |  |
| 43        | 12.01 | 32.884     | 24.946 | 5.89      | 96.1  | 5.3       | 0.76 | 4.3    | 0.38 | 0.53            | 0.34  | 1.6   | 1.9              | 1.8  | 1.9            | 0.07 |                  |  |
| 51        | 11.58 | 32.853     | 25.001 | 6.10      | 98.6  | 6.7       | 0.85 | 6.0    | 0.37 | 0.32            | 0.25  |       |                  |      |                |      |                  |  |
| 60        | 11.21 | 32.939     | 25.135 | 5.96      | 95.6  | 7.0       | 0.93 | 7.0    | 0.45 | 0.30            | 0.19  | 0.32  | 0.14             | 0.15 | 0.14           | 0.04 |                  |  |

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 80.0 51.0

| LATITUDE  |       | LONGITUDE  |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       | LAN      |                  | CIVIL TWILIGHT |      | INTEGRATED VALUE |      |
|-----------|-------|------------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|----------|------------------|----------------|------|------------------|------|
| 34 27.3 N |       | 120 32.3 W |        | 26/08/08  |       | 1905 UTC  |      | 6 m    |      | 1200 - 1905 PST |       | 1204 PST |                  | 1906 PST       |      | 828.3 mg C/m2    |      |
| DEPTH     | TEMP  | SALINITY   | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT    | UPTAKE (mg C/m3) |                |      |                  |      |
|           |       |            |        |           |       |           |      |        |      |                 |       |          | PCT              | 1              | 2    | MEAN             | DARK |
| 1         | 17.38 | 33.532     | 24.299 | 6.04      | 110.3 | 5.2       | 0.33 | 0.1    | 0.04 | 2.92            | 0.62  | 77. A    | 41.5             | 49.4           | 45.5 | 0.55             |      |
| 4         | 17.43 | 33.532     | 24.287 | 6.03      | 110.2 | 5.1       | 0.33 | 0.1    | 0.04 | 3.02            | 0.50  | 36.      | 80.4             | 83.2           | 81.8 | 0.49             |      |
| 8         | 17.37 | 33.525     | 24.296 | 6.03      | 110.1 | 5.1       | 0.34 | 0.2    | 0.04 | 3.76            | 0.80  | 13.      | 57.1             | 60.2           | 58.6 | 0.52             |      |
| 12        | 15.72 | 33.480     | 24.643 | 6.12      | 108.1 | 6.3       | 0.48 | 1.5    | 0.07 | 3.10            | 0.76  | 4.6      | 32.7             | 35.4           | 34.1 | 0.33             |      |
| 16        | 13.02 | 33.393     | 25.145 | 5.87      | 98.1  | 7.6       | 0.74 | 5.3    | 0.14 | 0.79            | 0.45  | 1.7      | 11.1             | 9.6            | 10.3 | 0.18             |      |
| 23        | 12.02 | 33.432     | 25.369 | 4.93      | 80.7  | 10.1      | 1.09 | 11.5   | 0.08 | 0.52            | 0.37  | 0.28     | 0.28             | 0.19           | 0.24 | 0.06             |      |

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 80.0 80.0

| LATITUDE  |       | LONGITUDE  |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       | LAN      |                  | CIVIL TWILIGHT |      | INTEGRATED VALUE |      |
|-----------|-------|------------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|----------|------------------|----------------|------|------------------|------|
| 33 29.8 N |       | 122 34.0 W |        | 27/08/08  |       | 1702 UTC  |      | 13 m   |      | 1210 - 1911 PST |       | 1211 PST |                  | 1911 PST       |      | 201.7 mg C/m2    |      |
| DEPTH     | TEMP  | SALINITY   | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT    | UPTAKE (mg C/m3) |                |      |                  |      |
|           |       |            |        |           |       |           |      |        |      |                 |       |          | PCT              | 1              | 2    | MEAN             | DARK |
| 2         | 17.12 | 33.430     | 24.282 | 5.62      | 102.1 | 1.8       | 0.33 | 0.0    | 0.00 | 0.31            | 0.06  | 79. A    | 6.4              | 6.5            | 6.4  | 0.12             |      |
| 9         | 17.12 | 33.429     | 24.282 | 5.64      | 102.4 | 1.7       | 0.32 | 0.0    | 0.00 | 0.33            | 0.04  | 35.      | 7.8              | 8.4            | 8.1  | 0.12             |      |
| 19        | 17.10 | 33.439     | 24.295 | 5.63      | 102.2 | 1.7       | 0.32 | 0.0    | 0.00 | 0.37            | 0.04  | 11.      | 5.2              | 5.2            | 5.2  | 0.12             |      |
| 27        | 17.09 | 33.471     | 24.322 | 5.64      | 102.4 | 1.8       | 0.31 | 0.0    | 0.01 | 0.38            | 0.08  | 4.1      | 2.8              | 2.8            | 2.8  | 0.10             |      |
| 36        | 16.11 | 33.567     | 24.623 | 5.93      | 105.6 | 2.0       | 0.34 | 0.1    | 0.02 | 1.23            | 0.32  | 1.4      | 2.6              | 2.4            | 2.5  | 0.15             |      |
| 41        | 14.97 | 33.540     | 24.855 | 5.86      | 102.0 | 3.3       | 0.53 | 2.0    | 0.13 | 1.71            | 0.63  |          |                  |                |      |                  |      |
| 48        | 14.44 | 33.553     | 24.979 | 5.58      | 96.1  | 5.6       | 0.69 | 4.1    | 0.43 | 0.78            | 0.40  | 0.35     | 0.11             | 0.18           | 0.14 | 0.11             |      |

A) INCUBATION LIGHT INTENSITIES WERE 91, 39, 12, 4.4, 1.6, 0.31 PERCENT RESPECTIVELY.

## PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 83.3 55.0

| LATITUDE  |       | LONGITUDE  |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       | LAN      |                  | CIVIL TWILIGHT |      | INTEGRATED VALUE |      |
|-----------|-------|------------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|----------|------------------|----------------|------|------------------|------|
| 33 44.6 N |       | 120 25.0 W |        | 25/08/08  |       | 1932 UTC  |      | 8 m    |      | 1230 - 1903 PST |       | 1204 PST |                  | 1900 PST       |      | 431.7 mg C/m2    |      |
| DEPTH     | TEMP  | SALINITY   | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT    | UPTAKE (mg C/m3) |                |      |                  |      |
|           |       |            |        |           |       |           |      |        |      |                 |       |          | PCT              | 1              | 2    | MEAN             | DARK |
| 2         | 16.16 | 33.642     | 24.668 | 5.73      | 102.2 | 2.2       | 0.46 | 2.3    | 0.08 | 1.09            | 0.24  | 68. A    | 22.9             | 23.1           | 23.0 | 0.24             |      |
| 5         | 16.15 | 33.641     | 24.669 | 5.73      | 102.2 | 2.1       | 0.47 | 2.3    | 0.08 | 1.04            | 0.24  | 38.      | 33.6             | 32.3           | 32.9 | 0.23             |      |
| 10        | 16.13 | 33.640     | 24.673 | 5.71      | 101.8 | 2.2       | 0.46 | 2.3    | 0.08 | 1.07            | 0.24  | 15.      | 24.4             | 22.9           | 23.6 | 0.22             |      |
| 16        | 16.10 | 33.641     | 24.681 | 5.69      | 101.4 | 2.2       | 0.46 | 2.3    | 0.08 | 1.05            | 0.24  | 4.6      | 11.6             | 11.9           | 11.8 | 0.21             |      |
| 21        | 16.09 | 33.643     | 24.685 | 5.68      | 101.2 | 2.2       | 0.44 | 2.3    | 0.08 | 1.07            | 0.27  | 1.8      | 3.4              | 3.1            | 3.3  | 0.21             |      |
| 30        | 14.21 | 33.656     | 25.106 | 5.15      | 88.4  | 6.9       | 0.79 | 7.4    | 0.15 | 1.30            | 0.45  | 0.32     | 0.44             | 0.35           | 0.39 | 0.12             |      |

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 83.3 90.0

| LATITUDE  |       | LONGITUDE  |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       | LAN      |                  | CIVIL TWILIGHT |      | INTEGRATED VALUE |      |
|-----------|-------|------------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|----------|------------------|----------------|------|------------------|------|
| 32 34.5 N |       | 122 49.4 W |        | 24/08/08  |       | 1855 UTC  |      | 14 m   |      | 1223 - 1907 PST |       | 1213 PST |                  | 1906 PST       |      | 133.0 mg C/m2    |      |
| DEPTH     | TEMP  | SALINITY   | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT    | UPTAKE (mg C/m3) |                |      |                  |      |
|           |       |            |        |           |       |           |      |        |      |                 |       |          | PCT              | 1              | 2    | MEAN             | DARK |
| 2         | 16.37 | 33.208     | 24.286 | 5.93      | 106.0 | 2.0       | 0.40 | 0.3    | 0.03 |                 |       |          |                  |                |      |                  |      |
| 9         | 16.36 | 33.207     | 24.288 | 5.94      | 106.1 | 1.9       | 0.40 | 0.3    | 0.03 | 0.48            | 0.07  | 37.      | 11.0             | 11.1           | 11.1 | 0.13             |      |
| 19        | 16.10 | 33.197     | 24.340 | 5.96      | 105.9 | 2.0       | 0.40 | 0.4    | 0.03 | 0.51            | 0.08  | 12.      | 0.23             | 5.5            | 2.9  | 0.12             |      |
| 28        | 15.06 | 33.163     | 24.545 | 6.12      | 106.5 | 2.6       | 0.47 | 1.2    | 0.06 | 0.64            | 0.28  | 4.6      | 3.5              | 3.5            | 3.5  | 0.09             |      |
| 37        | 13.49 | 32.996     | 24.745 | 6.01      | 101.2 | 4.0       | 0.63 | 2.4    | 0.37 | 0.55            | 0.36  | 1.7      | 1.5              | 1.5            | 1.5  | 0.06             |      |
| 45        | 13.24 | 33.030     | 24.821 | 5.93      | 99.3  | 4.2       | 0.69 | 3.2    | 0.52 | 0.43            | 0.28  |          |                  |                |      |                  |      |
| 52        | 12.07 | 32.940     | 24.978 | 5.87      | 95.9  | 4.9       | 0.74 | 4.3    | 0.42 | 0.31            | 0.20  | 0.33     | 0.07             | 0.05           | 0.06 | 0.04             |      |

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 86.7 35.0

| LATITUDE  |       | LONGITUDE  |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       | LAN      |                  | CIVIL TWILIGHT |      | INTEGRATED VALUE |      |
|-----------|-------|------------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|----------|------------------|----------------|------|------------------|------|
| 33 49.7 N |       | 118 37.5 W |        | 21/08/08  |       | 1815 UTC  |      | 18 m   |      | 1202 - 1900 PST |       | 1157 PST |                  | 1900 PST       |      | 1108.2 mg C/m2   |      |
| DEPTH     | TEMP  | SALINITY   | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT    | UPTAKE (mg C/m3) |                |      |                  |      |
|           |       |            |        |           |       |           |      |        |      |                 |       |          | PCT              | 1              | 2    | MEAN             | DARK |
| 1         | 19.21 | 33.485     | 23.812 | 5.93      | 112.1 | 2.5       | 0.27 | 0.0    | 0.00 | 0.34            | 0.08  | 92. A    | 15.3             | 15.3           | 15.3 | 0.41             |      |
| 11        | 16.19 | 33.378     | 24.458 | 6.56      | 116.9 | 2.2       | 0.31 | 0.0    | 0.00 | 0.26            | 0.07  | 39.      | 13.2             | 12.6           | 12.9 | 0.20             |      |
| 18        | 14.24 | 33.330     | 24.848 | 6.75      | 115.7 | 3.7       | 0.38 | 0.0    | 0.00 | 0.61            | 0.22  |          |                  |                |      |                  |      |
| 24        | 13.74 | 33.356     | 24.972 | 6.51      | 110.4 | 4.3       | 0.46 | 1.2    | 0.07 | 2.20            | 0.65  | 13.      |                  | 55.2           | 55.2 | 0.24             |      |
| 30        | 13.19 | 33.348     | 25.077 | 6.03      | 101.1 | 6.3       | 0.67 | 4.2    | 0.46 | 1.56            | 0.63  |          |                  |                |      |                  |      |
| 37        | 12.68 | 33.400     | 25.218 | 5.36      | 88.9  | 9.5       | 0.92 | 8.1    | 1.41 | 0.80            | 0.50  | 4.3      | 10.4             | 10.4           | 10.4 | 0.16             |      |
| 48        | 12.02 | 33.478     | 25.405 | 4.74      | 77.6  | 11.4      | 1.15 | 13.2   | 0.26 | 0.26            | 0.26  | 1.7      | 1.8              | 1.6            | 1.7  | 0.07             |      |
| 57        | 11.86 | 33.502     | 25.454 | 4.63      | 75.6  | 11.8      | 1.19 | 13.8   | 0.07 | 0.22            | 0.21  |          |                  |                |      |                  |      |
| 66        | 11.50 | 33.552     | 25.560 | 4.24      | 68.7  | 14.0      | 1.35 | 15.7   | 0.03 | 0.14            | 0.20  | 0.36     | 0.11             | 0.10           | 0.11 | 0.04             |      |

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 86.7 60.0

| LATITUDE |       | LONGITUDE  |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       | LAN      |                  | CIVIL TWILIGHT |      | INTEGRATED VALUE |      |
|----------|-------|------------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|----------|------------------|----------------|------|------------------|------|
| 33 0.0 N |       | 120 23.4 W |        | 22/08/08  |       | 1805 UTC  |      | 13 m   |      | 1205 - 1906 PST |       | 1204 PST |                  | 1908 PST       |      | 218.6 mg C/m2    |      |
| DEPTH    | TEMP  | SALINITY   | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT    | UPTAKE (mg C/m3) |                |      |                  |      |
|          |       |            |        |           |       |           |      |        |      |                 |       |          | PCT              | 1              | 2    | MEAN             | DARK |
| 2        | 17.84 | 33.505     | 24.167 | 5.59      | 103.0 | 1.7       | 0.29 | 0.0    | 0.00 | 0.33            | 0.06  | 79. A    | 8.2              | 7.6            | 7.9  | 0.14             |      |
| 8        | 17.82 | 33.503     | 24.171 | 5.57      | 102.6 | 1.7       | 0.30 | 0.0    | 0.00 | 0.31            | 0.07  | 39.      | 7.8              | 8.7            | 8.2  | 0.15             |      |
| 17       | 17.74 | 33.498     | 24.187 | 5.60      | 103.0 | 1.7       | 0.30 | 0.0    | 0.00 | 0.33            | 0.08  |          |                  |                |      |                  |      |
| 26       | 17.68 | 33.494     | 24.199 | 5.60      | 102.8 | 1.7       | 0.29 | 0.0    | 0.00 | 0.36            | 0.07  | 4.6      | 4.3              | 5.1            | 4.7  | 0.17             |      |
| 35       | 17.33 | 33.506     | 24.292 | 5.67      | 103.4 | 1.3       | 0.30 | 0.0    | 0.00 | 0.57            | 0.00  | 1.6      | 1.7              | 1.9            | 1.8  | 0.19             |      |
| 42       | 14.75 | 33.456     | 24.838 | 6.02      | 104.3 | 3.4       | 0.57 | 3.2    | 0.16 | 1.54            | 0.52  | 0.70     | 0.71             | 0.00           | 0.35 | 0.17             |      |
| 49       | 12.50 | 33.381     | 25.238 | 5.45      | 90.1  | 8.5       | 0.98 | 9.4    | 0.41 | 0.48            | 0.29  | 0.31     | 0.12             | 0.11           | 0.11 | 0.06             |      |

A) INCUBATION LIGHT INTENSITIES WERE 91, 39, 12, 4.4, 1.6, 0.31 PERCENT RESPECTIVELY.

## PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 86.7 100.0

| LATITUDE  |       | LONGITUDE |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       | LAN      |                  | CIVIL TWILIGHT |      | INTEGRATED VALUE |      |
|-----------|-------|-----------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|----------|------------------|----------------|------|------------------|------|
| 31 39.2 N |       | 123 4.5 W |        | 23/08/08  |       | 1716 UTC  |      | 17 m   |      | 1213 - 1921 PST |       | 1215 PST |                  | 1917 PST       |      | 171.7 mg C/m2    |      |
| DEPTH     | TEMP  | SALINITY  | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT    | UPTAKE (mg C/m3) |                |      |                  |      |
|           |       |           |        |           |       |           |      |        |      |                 |       |          | PCT              | 1              | 2    | MEAN             | DARK |
| 2         | 17.10 | 33.034    | 23.983 | 5.77      | 104.5 | 2.0       | 0.39 | 0.1    | 0.01 | 0.23            | 0.02  | 83. A    | 5.8              | 5.4            | 5.6  | 0.08             |      |
| 10        | 17.10 | 33.032    | 23.982 | 5.79      | 104.8 | 2.1       | 0.39 | 0.1    | 0.01 | 0.23            | 0.03  | 41.      | 6.4              | 6.9            | 6.7  | 0.07             |      |
| 16        | 16.61 | 33.029    | 24.094 | 5.89      | 105.6 | 2.1       | 0.39 | 0.1    | 0.01 | 0.24            | 0.04  |          |                  |                |      |                  |      |
| 24        | 15.27 | 32.962    | 24.344 | 6.04      | 105.4 | 2.7       | 0.49 | 1.1    | 0.07 | 0.17            | 0.05  | 11.      | 3.0              | 3.5            | 3.3  | 0.07             |      |
| 35        | 15.12 | 32.971    | 24.384 | 6.04      | 105.1 | 2.9       | 0.51 | 1.4    | 0.09 | 0.19            | 0.05  | 4.2      | 1.4              | 1.4            | 1.4  | 0.04             |      |
| 46        | 14.05 | 32.991    | 24.627 | 6.15      | 104.7 | 3.6       | 0.59 | 2.4    | 0.21 | 0.27            | 0.09  | 1.6      | 0.56             | 0.49           | 0.52 | 0.04             |      |
| 55        | 13.59 | 33.008    | 24.734 | 6.13      | 103.4 | 4.3       | 0.65 | 3.3    | 0.31 | 0.27            | 0.12  |          |                  |                |      |                  |      |
| 63        | 13.52 | 33.040    | 24.773 | 6.02      | 101.4 | 4.7       | 0.69 | 3.7    | 0.36 | 0.24            | 0.14  | 0.34     | 0.05             | 0.05           | 0.05 | 0.03             |      |

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 90.0 28.0

| LATITUDE  |       | LONGITUDE  |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       | LAN      |                  | CIVIL TWILIGHT |      | INTEGRATED VALUE |      |
|-----------|-------|------------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|----------|------------------|----------------|------|------------------|------|
| 33 28.7 N |       | 117 46.3 W |        | 20/08/08  |       | 2034 UTC  |      | 6 m    |      | 1313 - 1858 PST |       | 1154 PST |                  | 1857 PST       |      | 253.9 mg C/m2    |      |
| DEPTH     | TEMP  | SALINITY   | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT    | UPTAKE (mg C/m3) |                |      |                  |      |
|           |       |            |        |           |       |           |      |        |      |                 |       |          | PCT              | 1              | 2    | MEAN             | DARK |
| 1         | 19.83 | 33.439     | 23.617 | 6.05      | 115.7 | 4.7       | 0.24 | 0.0    | 0.00 | 1.27            | 0.15  | 77. A    | 30.7             | 30.7           | 30.7 | 0.41             |      |
| 4         | 18.58 | 33.438     | 23.934 | 6.25      | 116.7 | 4.3       | 0.24 | 0.0    | 0.01 | 0.81            | 0.12  | 36.      | 21.7             | 23.6           | 22.6 | 0.44             |      |
| 8         | 18.37 | 33.425     | 23.977 | 6.35      | 118.1 | 4.1       | 0.24 | 0.0    | 0.01 | 0.92            | 0.17  | 13.      | 14.6             | 16.8           | 15.7 | 0.53             |      |
| 12        | 16.79 | 33.359     | 24.306 | 6.59      | 118.8 | 3.2       | 0.28 | 0.0    | 0.00 | 0.86            | 0.24  | 4.6      | 6.5              | 6.4            | 6.4  | 0.40             |      |
| 15        | 15.52 | 33.327     | 24.570 | 6.67      | 117.3 | 3.8       | 0.35 | 0.4    | 0.03 | 0.99            | 0.29  | 2.2      | 2.0              | 3.1            | 2.5  | 0.27             |      |
| 22        | 13.29 | 33.308     | 25.026 | 6.00      | 100.8 | 5.7       | 0.66 | 4.0    | 0.26 | 1.09            | 0.52  | 0.36     | 0.09             | 0.13           | 0.11 | 0.20             |      |

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 90.0 70.0

| LATITUDE |       | LONGITUDE  |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       | LAN      |                  | CIVIL TWILIGHT |      | INTEGRATED VALUE |      |
|----------|-------|------------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|----------|------------------|----------------|------|------------------|------|
| 32 5.0 N |       | 120 41.0 W |        | 19/08/08  |       | 1807 UTC  |      | 14 m   |      | 1211 - 1910 PST |       | 1209 PST |                  | 1909 PST       |      | 292.7 mg C/m2    |      |
| DEPTH    | TEMP  | SALINITY   | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT    | UPTAKE (mg C/m3) |                |      |                  |      |
|          |       |            |        |           |       |           |      |        |      |                 |       |          | PCT              | 1              | 2    | MEAN             | DARK |
| 2        | 17.81 | 33.541     | 24.202 | 5.59      | 102.9 | 2.3       | 0.31 | 0.0    | 0.00 | 0.21            | 0.04  | 80. A    | 1.8              | 5.4            | 3.6  | 0.10             |      |
| 9        | 17.80 | 33.541     | 24.205 | 5.58      | 102.7 | 2.3       | 0.31 | 0.0    | 0.00 | 0.21            | 0.04  | 37.      | 8.4              | 8.6            | 8.5  | 0.11             |      |
| 19       | 17.43 | 33.535     | 24.290 | 5.70      | 104.2 | 2.4       | 0.31 | 0.0    | 0.00 | 0.29            | 0.09  | 12.      | 6.6              | 6.9            | 6.8  | 0.11             |      |
| 28       | 16.23 | 33.507     | 24.549 | 6.17      | 110.1 | 2.2       | 0.35 | 0.1    | 0.02 | 0.60            | 0.30  | 4.6      | 9.9              | 10.6           | 10.2 | 0.17             |      |
| 38       | 13.46 | 33.510     | 25.148 | 5.82      | 98.2  | 6.3       | 0.88 | 7.2    | 0.37 | 0.61            | 0.29  | 1.6      | 3.1              | 3.2            | 3.2  | 0.06             |      |
| 46       | 12.31 | 33.555     | 25.410 | 5.33      | 87.8  | 9.9       | 1.15 | 12.0   | 0.69 | 0.37            | 0.19  |          |                  |                |      |                  |      |
| 52       | 12.04 | 33.590     | 25.488 | 5.08      | 83.3  | 12.1      | 1.25 | 14.4   | 0.10 | 0.24            | 0.14  | 0.33     | 0.09             | 0.12           | 0.11 | 0.04             |      |

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 93.3 26.7

| LATITUDE  |       | LONGITUDE  |        | DAY/MO/YR |       | CAST TIME |      | SECCHI |      | INCUBATION TIME |       | LAN      |                  | CIVIL TWILIGHT |      | INTEGRATED VALUE |      |
|-----------|-------|------------|--------|-----------|-------|-----------|------|--------|------|-----------------|-------|----------|------------------|----------------|------|------------------|------|
| 32 57.6 N |       | 117 17.7 W |        | 14/08/08  |       | 1836 UTC  |      | 12 m   |      | 1210 - 1905 PST |       | 1154 PST |                  | 1901 PST       |      | 944.0 mg C/m2    |      |
| DEPTH     | TEMP  | SALINITY   | SIGMA  | OXYGEN    | OXY   | SI03      | P04  | N03    | N02  | CHL-A           | PHAE0 | LIGHT    | UPTAKE (mg C/m3) |                |      |                  |      |
|           |       |            |        |           |       |           |      |        |      |                 |       |          | PCT              | 1              | 2    | MEAN             | DARK |
| 1         | 21.18 | 33.514     | 23.316 | 5.85      | 114.7 | 3.3       | 0.24 | 0.1    | 0.00 | 0.74            | 0.15  | 88. A    | 36.3             | 36.6           | 36.4 | 0.73             |      |
| 7         | 14.60 | 33.252     | 24.711 | 6.72      | 115.9 | 3.7       | 0.36 | 0.5    | 0.00 | 0.43            | 0.17  | 41.      | 14.2             | 14.5           | 14.3 | 0.38             |      |
| 16        | 13.53 | 33.357     | 25.015 | 6.99      | 118.0 | 2.1       | 0.38 | 1.1    | 0.01 | 2.27            | 0.67  | 13.      | 44.8             | 46.4           | 45.6 | 0.70             |      |
| 20        | 13.09 | 33.365     | 25.110 | 6.45      | 107.9 | 2.0       | 0.51 | 0.8    | 0.04 | 5.86            | 1.62  |          |                  |                |      |                  |      |
| 21        | 13.09 | 33.365     | 25.110 | 6.45      | 107.9 | 1.9       | 0.51 | 0.9    | 0.04 | 5.76            | 1.76  |          |                  |                |      |                  |      |
| 24        | 12.92 | 33.363     | 25.142 | 6.04      | 100.7 | 4.2       | 0.67 | 3.4    | 0.11 | 4.57            | 1.41  | 4.6      | 29.6             | 30.1           | 29.9 | 0.42             |      |
| 34        | 12.56 | 33.412     | 25.250 | 5.24      | 86.7  | 8.2       | 0.97 | 7.7    | 0.22 | 2.25            | 0.75  | 1.3      | 6.6              | 7.3            | 6.9  | 0.15             |      |

A) INCUBATION LIGHT INTENSITIES WERE 91, 39, 12, 4.4, 1.6, 0.31 PERCENT RESPECTIVELY.

## PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 93.3 40.0

| LATITUDE  | LONGITUDE  | DAY/MO/YR | CAST TIME | SECCHI | INCUBATION TIME | LAN      | CIVIL TWILIGHT | INTEGRATED VALUE |
|-----------|------------|-----------|-----------|--------|-----------------|----------|----------------|------------------|
| 32 31.7 N | 118 11.8 W | 15/08/08  | 1754 UTC  | 25 m   | 1200 - 1905 PST | 1157 PST | 1903 PST       | 459.5 mg C/m2    |

| DEPTH<br>m | TEMP<br>DEG C | SALINITY | SIGMA<br>THETA | OXYGEN<br>mL/L | OXY<br>PCT | SI03<br>uM/L | P04<br>uM/L | N03<br>uM/L | N02<br>uM/L | CHL-A<br>ug/L | PHAE0<br>ug/L | LIGHT<br>PCT | UPTAKE (mg C/m3) |      |      |      |
|------------|---------------|----------|----------------|----------------|------------|--------------|-------------|-------------|-------------|---------------|---------------|--------------|------------------|------|------|------|
|            |               |          |                |                |            |              |             |             |             |               |               |              | 1                | 2    | MEAN | DARK |
| 1          | 19.06         | 33.396   | 23.782         | 5.51           | 103.8      | 4.0          | 0.29        | 0.0         | 0.00        | 0.16          | 0.00          | 94. A        | 3.9              | 3.6  | 3.8  | 0.13 |
| 8          | 18.90         | 33.385   | 23.814         | 5.52           | 103.7      | 4.1          | 0.30        | 0.0         | 0.00        | 0.17 B        | 0.00 B        |              |                  |      |      |      |
| 15         | 18.71         | 33.378   | 23.857         | 5.57           | 104.2      | 3.8          | 0.30        | 0.0         | 0.00        | 0.18          | 0.00          | 40.          | 5.3              | 5.1  | 5.2  | 0.18 |
| 24         | 15.78         | 33.257   | 24.458         | 6.29           | 111.1      | 3.8          | 0.33        | 0.0         | 0.00        | 0.37          | 0.03          |              |                  |      |      |      |
| 34         | 15.13         | 33.255   | 24.601         | 6.31           | 110.0      | 4.1          | 0.36        | 0.0         | 0.00        | 0.58          | 0.20          | 12.          | 11.0             | 11.2 | 11.1 | 0.14 |
| 42         | 13.95         | 33.193   | 24.803         | 5.99           | 101.9      | 4.4          | 0.47        | 1.1         | 0.15        | 0.85          | 0.38          |              |                  |      |      |      |
| 52         | 13.58         | 33.292   | 24.956         | 5.74           | 97.0       | 5.7          | 0.64        | 3.8         | 0.25        | 0.56          | 0.46          | 4.1          | 5.9              | 5.5  | 5.7  | 0.05 |
| 60         | 12.89         | 33.273   | 25.079         | 5.50           | 91.6       | 6.2          | 0.73        | 5.5         | 0.11        | 0.45          | 0.47          |              |                  |      |      |      |
| 68         | 12.49         | 33.293   | 25.173         | 5.38           | 88.9       | 7.4          | 0.83        | 7.3         | 0.06        | 0.33          | 0.29          | 1.5          | 1.9              | 2.0  | 1.9  | 0.03 |
| 79         | 12.01         | 33.393   | 25.342         | 4.99           | 81.6       | 9.6          | 0.99        | 9.9         | 0.02        | 0.16          | 0.14          |              |                  |      |      |      |
| 94         | 11.44         | 33.508   | 25.537         | 4.52           | 73.1       | 12.7         | 1.18        | 13.1        | 0.01        | 0.07          | 0.08          | 0.31         | 0.07             | 0.10 | 0.09 | 0.01 |

B) SECOND FLUOROMETER READING NOT RECORDED, CHLOROPHYLL AND PHAEOPIGMENT  
CALCULATED WITH ASSUMED ACID RATIO INTERPOLATED FROM ADJACENT LEVELS.

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 93.3 70.0

| LATITUDE  | LONGITUDE  | DAY/MO/YR | CAST TIME | SECCHI | INCUBATION TIME | LAN      | CIVIL TWILIGHT | INTEGRATED VALUE |
|-----------|------------|-----------|-----------|--------|-----------------|----------|----------------|------------------|
| 31 30.4 N | 120 15.3 W | 16/08/08  | 1754 UTC  | 16 m   | 1207 - 1911 PST | 1205 PST | 1909 PST       | 289.3 mg C/m2    |

| DEPTH<br>m | TEMP<br>DEG C | SALINITY | SIGMA<br>THETA | OXYGEN<br>mL/L | OXY<br>PCT | SI03<br>uM/L | P04<br>uM/L | N03<br>uM/L | N02<br>uM/L | CHL-A<br>ug/L | PHAE0<br>ug/L | LIGHT<br>PCT | UPTAKE (mg C/m3) |      |      |      |
|------------|---------------|----------|----------------|----------------|------------|--------------|-------------|-------------|-------------|---------------|---------------|--------------|------------------|------|------|------|
|            |               |          |                |                |            |              |             |             |             |               |               |              | 1                | 2    | MEAN | DARK |
| 1          | 17.54         | 33.513   | 24.246         | 5.64           | 103.3      | 2.7          | 0.31        | 0.0         | 0.00        | 0.23          | 0.06          | 91. A        | 7.6              | 7.4  | 7.5  | 0.09 |
| 10         | 17.38         | 33.497   | 24.272         | 5.66           | 103.3      | 2.5          | 0.31        | 0.0         | 0.00        | 0.24          | 0.06          | 38.          | 9.3              | 8.6  | 8.9  | 0.23 |
| 22         | 16.95         | 33.440   | 24.331         | 5.74           | 103.9      | 2.5          | 0.32        | 0.1         | 0.00        | 0.35          | 0.11          | 12.          | 6.4              | 6.7  | 6.6  | 0.10 |
| 33         | 14.51         | 33.299   | 24.768         | 6.09           | 104.9      | 3.6          | 0.53        | 2.3         | 0.10        | 0.58          | 0.31          | 4.2          | 5.3              | 5.1  | 5.2  | 0.07 |
| 43         | 13.29         | 33.279   | 25.004         | 5.76           | 96.7       | 6.1          | 0.76        | 4.9         | 0.42        | 0.48          | 0.33          | 1.6          | 1.8              | 1.8  | 1.8  | 0.05 |
| 52         | 12.65         | 33.291   | 25.140         | 5.60           | 92.8       | 7.7          | 0.88        | 7.5         | 0.60        | 0.34          | 0.21          |              |                  |      |      |      |
| 59         | 12.16         | 33.296   | 25.238         | 5.45           | 89.4       | 8.9          | 0.98        | 9.6         | 0.09        | 0.20          | 0.13          | 0.35         | 0.08             | 0.10 | 0.09 | 0.03 |

RV NEW HORIZON

CALCOFI CRUISE 0808

STATION 93.3 110.0

| LATITUDE  | LONGITUDE  | DAY/MO/YR | CAST TIME | SECCHI | INCUBATION TIME | LAN      | CIVIL TWILIGHT | INTEGRATED VALUE |
|-----------|------------|-----------|-----------|--------|-----------------|----------|----------------|------------------|
| 30 11.0 N | 122 55.5 W | 17/08/08  | 1853 UTC  | 33 m   | 1216 - 1915 PST | 1216 PST | 1915 PST       | 226.3 mg C/m2    |

| DEPTH<br>m | TEMP<br>DEG C | SALINITY | SIGMA<br>THETA | OXYGEN<br>mL/L | OXY<br>PCT | SI03<br>uM/L | P04<br>uM/L | N03<br>uM/L | N02<br>uM/L | CHL-A<br>ug/L | PHAE0<br>ug/L | LIGHT<br>PCT | UPTAKE (mg C/m3) |      |      |      |
|------------|---------------|----------|----------------|----------------|------------|--------------|-------------|-------------|-------------|---------------|---------------|--------------|------------------|------|------|------|
|            |               |          |                |                |            |              |             |             |             |               |               |              | 1                | 2    | MEAN | DARK |
| 2          | 19.25         | 33.418   | 23.750         | 5.39           | 101.9      | 2.1          | 0.31        | 0.0         | 0.01        | 0.09          | 0.01          | 91. A        | 1.9              | 2.0  | 2.0  | 0.08 |
| 12         | 19.07         | 33.420   | 23.798         | 5.40           | 101.8      | 1.9          | 0.31        | 0.0         | 0.00        | 0.09          | 0.01          |              |                  |      |      |      |
| 20         | 19.04         | 33.414   | 23.801         | 5.41           | 101.9      | 2.1          | 0.31        | 0.0         | 0.01        | 0.10          | 0.02          | 39.          | 2.9              | 2.7  | 2.8  | 0.13 |
| 32         | 17.81         | 33.320   | 24.034         | 5.78           | 106.3      | 2.1          | 0.31        | 0.0         | 0.01        | 0.15          | 0.04          |              |                  |      |      |      |
| 46         | 15.63         | 33.242   | 24.481         | 6.10           | 107.4      | 1.8          | 0.33        | 0.0         | 0.00        | 0.19          | 0.06          | 12.          | 2.8              | 2.7  | 2.8  | 0.09 |
| 57         | 15.07         | 33.229   | 24.594         | 6.06           | 105.5      | 2.4          | 0.35        | 0.0         | 0.00        | 0.21          | 0.10          |              |                  |      |      |      |
| 67         | 14.04         | 33.201   | 24.792         | 5.93           | 101.1      | 3.1          | 0.43        | 0.4         | 0.07        | 0.26          | 0.14          | 4.4          | 2.5              | 2.3  | 2.4  | 0.03 |
| 77         | 13.04         | 33.163   | 24.965         | 5.72           | 95.5       | 4.3          | 0.61        | 3.0         | 0.32        | 0.21          | 0.13          |              |                  |      |      |      |
| 87         | 12.66         | 33.202   | 25.070         | 5.62           | 93.1       | 5.5          | 0.75        | 5.7         | 0.21        | 0.21          | 0.15          | 1.7          | 0.99             | 0.90 | 0.95 | 0.03 |
| 100        | 12.29         | 33.315   | 25.229         | 5.34           | 87.8       | 7.0          | 0.88        | 8.0         | 0.02        | 0.13          | 0.13          |              |                  |      |      |      |
| 111        | 11.73         | 33.373   | 25.379         | 5.13           | 83.4       | 8.9          | 0.99        | 10.0        | 0.01        | 0.07          | 0.08          |              |                  |      |      |      |
| 123        | 11.44         | 33.535   | 25.559         | 4.56           | 73.8       | 11.1         | 1.14        | 12.6        | 0.01        | 0.06          | 0.09          | 0.33         | 0.05             | 0.07 | 0.06 | 0.01 |

A) INCUBATION LIGHT INTENSITIES WERE 91, 39, 12, 4.4, 1.6, 0.31 PERCENT RESPECTIVELY.

## MACROZOOPLANKTON BIOMASS

Net Mesh Size: 0.505mm

| Line | Sta.  | Latitude N | Longitude W | Date<br>Mo/Day | Time (PST) |      | Water Volume<br>Strained (m <sup>3</sup> ) | Max. Tow<br>Depth (m) | Volume per<br>1000 m <sup>3</sup> Strained |                          |
|------|-------|------------|-------------|----------------|------------|------|--------------------------------------------|-----------------------|--------------------------------------------|--------------------------|
|      |       |            |             |                | Start      | End  |                                            |                       | Total (cm <sup>3</sup> )                   | Small (cm <sup>3</sup> ) |
| 76.7 | 100.0 | 33 23.5    | 124 19.4    | 08/28          | 0442       | 0502 | 410                                        | 213                   | 134                                        | 134                      |
| 76.7 | 90.0  | 33 43.6    | 123 37.9    | 08/28          | 1054       | 1116 | 454                                        | 209                   | 57                                         | 57                       |
| 76.7 | 80.0  | 34 03.3    | 122 56.4    | 08/28          | 1705       | 1727 | 431                                        | 212                   | 67                                         | 67                       |
| 76.7 | 70.0  | 34 23.3    | 122 14.9    | 08/28          | 2331       | 2356 | 519                                        | 207                   | 79                                         | 79                       |
| 76.7 | 60.0  | 34 43.7    | 121 33.2    | 08/29          | 0621       | 0642 | 432                                        | 212                   | 58                                         | 58                       |
| 76.7 | 55.0  | 34 53.2    | 121 11.3    | 08/29          | 1044       | 1106 | 464                                        | 209                   | 24                                         | 24                       |
| 76.7 | 51.0  | 35 01.4    | 120 55.1    | 08/29          | 1402       | 1421 | 421                                        | 183                   | 17                                         | 17                       |
| 76.7 | 49.0  | 35 05.1    | 120 46.5    | 08/29          | 1611       | 1617 | 136                                        | 57                    | 15                                         | 15                       |
| 80.0 | 51.0  | 34 27.2    | 120 32.0    | 08/26          | 1158       | 1206 | 176                                        | 66                    | 11                                         | 11                       |
| 80.0 | 55.0  | 34 19.1    | 120 48.4    | 08/26          | 1549       | 1609 | 422                                        | 223                   | 78                                         | 78                       |
| 80.0 | 60.0  | 34 09.1    | 121 09.2    | 08/26          | 2004       | 2026 | 469                                        | 209                   | 111                                        | 111                      |
| 80.0 | 70.0  | 33 49.1    | 121 50.5    | 08/27          | 0231       | 0253 | 458                                        | 219                   | 72                                         | 72                       |
| 80.0 | 80.0  | 33 29.8    | 122 33.9    | 08/27          | 0757       | 0821 | 501                                        | 210                   | 46                                         | 46                       |
| 80.0 | 90.0  | 33 08.9    | 123 13.2    | 08/27          | 1546       | 1606 | 406                                        | 214                   | 76                                         | 76                       |
| 80.0 | 100.0 | 32 49.0    | 123 54.4    | 08/27          | 2214       | 2237 | 472                                        | 212                   | 49                                         | 49                       |
| 81.8 | 46.9  | 34 16.5    | 120 01.9    | 08/26          | 0738       | 0800 | 461                                        | 220                   | 22                                         | 22                       |
| 83.3 | 110.0 | 31 54.6    | 124 10.1    | 08/23          | 2312       | 2334 | 453                                        | 211                   | 18                                         | 18                       |
| 83.3 | 100.0 | 32 14.7    | 123 29.5    | 08/24          | 0546       | 0607 | 429                                        | 205                   | 89                                         | 89                       |
| 83.3 | 90.0  | 32 34.7    | 122 48.7    | 08/24          | 1207       | 1229 | 432                                        | 215                   | 46                                         | 46                       |
| 83.3 | 80.0  | 32 54.8    | 122 07.6    | 08/24          | 1813       | 1833 | 396                                        | 217                   | 73                                         | 73                       |
| 83.3 | 70.0  | 33 14.6    | 121 26.8    | 08/25          | 0050       | 0112 | 497                                        | 192                   | 109                                        | 109                      |
| 83.3 | 60.0  | 33 34.9    | 120 45.3    | 08/25          | 0806       | 0829 | 447                                        | 209                   | 36                                         | 36                       |
| 83.3 | 55.0  | 33 44.6    | 120 24.7    | 08/25          | 1301       | 1322 | 436                                        | 217                   | 37                                         | 37                       |
| 83.3 | 51.0  | 33 52.8    | 120 08.4    | 08/25          | 1652       | 1700 | 181                                        | 73                    | 22                                         | 22                       |
| 83.3 | 42.0  | 34 10.6    | 119 30.5    | 08/25          | 2346       | 0007 | 440                                        | 217                   | 186                                        | 186                      |
| 83.3 | 40.6  | 34 13.4    | 119 25.1    | 08/26          | 0220       | 0224 | 86                                         | 29                    | 12                                         | 12                       |
| 86.7 | 33.0  | 33 53.4    | 118 29.3    | 08/21          | 0833       | 0837 | 107                                        | 33                    | 19                                         | 19                       |
| 86.7 | 35.0  | 33 49.5    | 118 37.7    | 08/21          | 1150       | 1211 | 429                                        | 203                   | 19                                         | 19                       |
| 86.7 | 40.0  | 33 39.4    | 118 58.6    | 08/21          | 1642       | 1703 | 413                                        | 212                   | 34                                         | 34                       |
| 86.7 | 45.0  | 33 29.5    | 119 19.0    | 08/21          | 2101       | 2122 | 440                                        | 205                   | 43                                         | 43                       |
| 86.7 | 50.0  | 33 19.3    | 119 39.8    | 08/22          | 0041       | 0047 | 123                                        | 44                    | 186                                        | 186                      |
| 86.7 | 55.0  | 33 09.4    | 120 00.5    | 08/22          | 0511       | 0531 | 446                                        | 210                   | 49                                         | 49                       |
| 86.7 | 60.0  | 32 59.9    | 120 23.1    | 08/22          | 0901       | 0923 | 449                                        | 208                   | 36                                         | 36                       |
| 86.7 | 70.0  | 32 39.8    | 121 01.3    | 08/22          | 1625       | 1646 | 421                                        | 214                   | 28                                         | 28                       |
| 86.7 | 80.0  | 32 19.6    | 121 43.0    | 08/22          | 2234       | 2256 | 466                                        | 213                   | 52                                         | 52                       |
| 86.7 | 90.0  | 31 59.6    | 122 23.4    | 08/23          | 0509       | 0530 | 456                                        | 205                   | 44                                         | 44                       |
| 86.7 | 100.0 | 31 39.3    | 123 03.9    | 08/23          | 1037       | 1100 | 474                                        | 212                   | 63                                         | 63                       |
| 86.7 | 110.0 | 31 19.7    | 123 44.2    | 08/23          | 1635       | 1655 | 406                                        | 217                   | 25                                         | 25                       |
| 90.0 | 120.0 | 30 25.1    | 123 59.9    | 08/18          | 0049       | 0111 | 451                                        | 211                   | 47                                         | 47                       |
| 90.0 | 110.0 | 30 45.2    | 123 19.9    | 08/18          | 0734       | 0755 | 458                                        | 206                   | 9                                          | 9                        |
| 90.0 | 100.0 | 31 05.3    | 122 40.0    | 08/18          | 1413       | 1434 | 425                                        | 213                   | 33                                         | 33                       |
| 90.0 | 90.0  | 31 25.0    | 121 59.5    | 08/18          | 2032       | 2054 | 423                                        | 211                   | 118                                        | 118                      |
| 90.0 | 80.0  | 31 44.9    | 121 19.3    | 08/19          | 0310       | 0332 | 433                                        | 212                   | 51                                         | 51                       |
| 90.0 | 70.0  | 32 04.9    | 120 40.9    | 08/19          | 0906       | 0928 | 430                                        | 219                   | 40                                         | 40                       |
| 90.0 | 60.0  | 32 25.0    | 119 57.9    | 08/19          | 1707       | 1728 | 461                                        | 196                   | 30                                         | 30                       |
| 90.0 | 53.0  | 32 39.1    | 119 29.1    | 08/19          | 2226       | 2248 | 452                                        | 213                   | 49                                         | 49                       |
| 90.0 | 45.0  | 32 54.9    | 118 56.4    | 08/20          | 0426       | 0448 | 455                                        | 215                   | 51                                         | 51                       |
| 90.0 | 28.0  | 33 28.8    | 117 46.0    | 08/20          | 1332       | 1353 | 436                                        | 198                   | 37                                         | 37                       |
| 90.0 | 27.7  | 33 29.5    | 117 45.1    | 08/20          | 1443       | 1446 | 79                                         | 23                    | 76                                         | 76                       |
| 90.0 | 30.0  | 33 25.1    | 117 54.3    | 08/20          | 1801       | 1823 | 426                                        | 218                   | 42                                         | 42                       |
| 90.0 | 35.0  | 33 15.2    | 118 14.9    | 08/20          | 2210       | 2231 | 411                                        | 216                   | 58                                         | 58                       |
| 90.0 | 37.0  | 33 11.3    | 118 23.2    | 08/21          | 0143       | 0205 | 442                                        | 210                   | 41                                         | 41                       |
| 91.7 | 26.4  | 33 14.3    | 117 27.9    | 08/14          | 1710       | 1712 | 41                                         | 16                    | 49                                         | 49                       |
| 93.3 | 26.7  | 32 57.4    | 117 17.8    | 08/14          | 1305       | 1326 | 429                                        | 210                   | 14                                         | 14                       |
| 93.3 | 28.0  | 32 54.8    | 117 23.7    | 08/14          | 2150       | 2211 | 430                                        | 211                   | 28                                         | 28                       |
| 93.3 | 30.0  | 32 50.9    | 117 31.8    | 08/15          | 0102       | 0123 | 433                                        | 216                   | 58                                         | 58                       |
| 93.3 | 35.0  | 32 40.8    | 117 51.8    | 08/15          | 0526       | 0546 | 415                                        | 213                   | 58                                         | 58                       |
| 93.3 | 40.0  | 32 31.7    | 118 11.9    | 08/15          | 0850       | 0911 | 425                                        | 214                   | 21                                         | 21                       |
| 93.3 | 45.0  | 32 21.0    | 118 33.0    | 08/15          | 1504       | 1525 | 419                                        | 221                   | 26                                         | 26                       |
| 93.3 | 50.0  | 32 11.0    | 118 53.1    | 08/15          | 1923       | 1944 | 445                                        | 215                   | 70                                         | 70                       |
| 93.3 | 55.0  | 32 00.9    | 119 13.9    | 08/15          | 2323       | 2346 | 470                                        | 219                   | 66                                         | 66                       |
| 93.3 | 60.0  | 31 50.8    | 119 33.9    | 08/16          | 0335       | 0357 | 472                                        | 215                   | 55                                         | 55                       |
| 93.3 | 70.0  | 31 30.4    | 120 15.3    | 08/16          | 0849       | 0911 | 448                                        | 215                   | 56                                         | 56                       |
| 93.3 | 80.0  | 31 11.0    | 120 54.8    | 08/16          | 1637       | 1658 | 441                                        | 211                   | 57                                         | 57                       |
| 93.3 | 90.0  | 30 50.9    | 121 35.3    | 08/16          | 2323       | 2346 | 460                                        | 212                   | 44                                         | 44                       |
| 93.3 | 100.0 | 30 30.8    | 122 15.4    | 08/17          | 0540       | 0602 | 460                                        | 214                   | 22                                         | 22                       |
| 93.3 | 110.0 | 30 10.9    | 122 55.4    | 08/17          | 1159       | 1220 | 441                                        | 213                   | 18                                         | 18                       |
| 93.3 | 120.0 | 29 50.9    | 123 34.9    | 08/17          | 1815       | 1836 | 416                                        | 215                   | 31                                         | 31                       |
| 93.4 | 26.4  | 32 57.2    | 117 17.0    | 08/14          | 1450       | 1452 | 41                                         | 16                    | 25                                         | 25                       |