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NOAA CHLOROFLUOROCARBON TRACER PROGRAM AIR AND SEAWATER MEASUREMENTS: 1986-1989

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NOAA Chlorofluorocarbon Tracer Program Air and Seawater Measurements: 1986–1989

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Abstract. The NOAA Chlorofluorocarbon (CFC) Tracer Program at PMEL has been measuring the growing burden of these anthropogenic gases in the thermocline waters of the Pacific Ocean since 1980. The central goals of the NOAA CFC Tracer Program are to document the transient invasion of the CFC tracers into the Pacific Ocean, by means of repeat occupations of key hydrographic sections at 5-year intervals, and to interpret these changing distributions in terms of coupled ocean-atmosphere models. Studies are underway to use the CFC observations in model-validation studies, and to help develop predictive capabilities on the decade-to-century timescale. This report includes measurements of trichlorofluoromethane (CFC-11) and dichlorodifluoromethane (CFC-12) dissolved in seawater samples collected in the Pacific Ocean by the NOAA CFC Tracer Program on six cruises during the period of 1986–1989. Measurements of depth, pressure, salinity, temperature, and dissolved oxygen are included with the CFC data. Measurements of CFC-11 and CFC-12 in air samples collected along the cruise tracks are also included in the report. Data from this report are also available from the authors in digital format.

1. INTRODUCTION

Analytical techniques have been developed which allow trace levels of CFCs to be measured reliably in the atmosphere and ocean. CFC studies are now included as integral parts of many hydrographic programs, including the World Ocean Circulation Experiment (WOCE). A number of recent studies have demonstrated the usefulness of dissolved CFCs as time-dependent (transient) tracers of ocean circulation and mixing processes (Bullister, 1989). The ocean plays a critical role as a sink, not only for carbon dioxide, the dominant climate forcing (greenhouse) gas, but for the greenhouse warming transient itself. Repeated surveys of the global subsurface ocean carried out at decadal intervals are needed to document the climatically forced changes in ventilation and circulation, as well as determine the evolving burden of carbon dioxide and other climate-linked trace gases. Studies of the entry of CFCs (and other tracers) into the ocean provide a unique description of the time-integrated circulation of the ocean on decadal time scales.

Investigators at NOAA/PMEL have been involved in CFC studies since the early 1980s (Gammon *et al.*, 1982). This program at PMEL has focused on studies in the Pacific Ocean during this period. The data included in this report were collected on six oceanographic cruises during the period 1986–1989. The names and dates of these cruises and the research vessel used are listed in Table 1. The location of stations occupied during the 1986–1989 interval are

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displayed in Fig. 1. Figures 2 and 3 show the stations occupied during the first 5 years of the program (1981–1985; data to be presented in another report) and the most recent cruises (1990–1992).

Table 1. List of cruises.

Cruise Name	Cruise Dates	Research Vessel
EPOCS-86 (EP2-86-OC)	21 May–20 June 1986	*Oceanographer*
CO2-86 (RPI-OC-86)	30 June–22 July 1986	*Oceanographer*
TEW (TW2-87-OC; TW3-87-OC)	6 June–27 July 1987	*Oceanographer*
CO2-87 (CO2-87-OC)	30 July–28 August 1987	*Oceanographer*
CO2-88 (OC-88-CO2)	6 April–5 May 1988	*Oceanographer*
CO2-89 (RTS-89-DI)	15 February–20 May 1989	*Discoverer*

At each station on these cruises, vertical profiles of conductivity, temperature and depth were obtained using a Neil Brown Instruments System Mark III CTD, mounted on a General Oceanics Rosette. The rosette contained 12 (or 24) General Oceanics 10-liter Niskin Bottles, which were used to collect discrete seawater samples. A sub-sample was collected from each bottle for analysis of salinity and dissolved oxygen. Many of the bottles were also sampled for the analyses of CFCs, dissolved carbon dioxide, alkalinity, pH, nutrients, and other parameters. The CTD temperature, bottle salinity (CTD salinity, if a bottle salinity value is not available), bottle oxygen, CFC-11 and CFC-12 will be reported here. Measurements of dissolved carbon dioxide made on these cruises will be reported elsewhere.

1.1 CTD Data Processing

The CTD acquisition, processing and calibration procedures used on these cruises are documented in Mangum *et al.* (1991) and Mangum *et al.* (1980). At each station, the CTD/rosette package was lowered through the water column on an electrical/mechanical cable. The digitized CTD signal was recorded on magnetic tape in the ship's laboratory. Initial processing of the data at sea yielded preliminary values for temperature, salinity and pressure. Final calibration and processing of the CTD data was done at PMEL following the completion of the expedition.

The CTD instruments were calibrated at the Northwest Regional Calibration Center–NRCC (Seattle, WA) before and after each of the cruises included in this report. Although several reversing thermometers were used on most casts, the CTD pressure and temperature readings are considered to be more accurate and no corrections were applied from the thermometer data. Salinity samples drawn from each Niskin bottle were used to determine the calibration of the CTD conductivity cell. On several cruises, a dissolved oxygen sensor was mounted on the CTD,

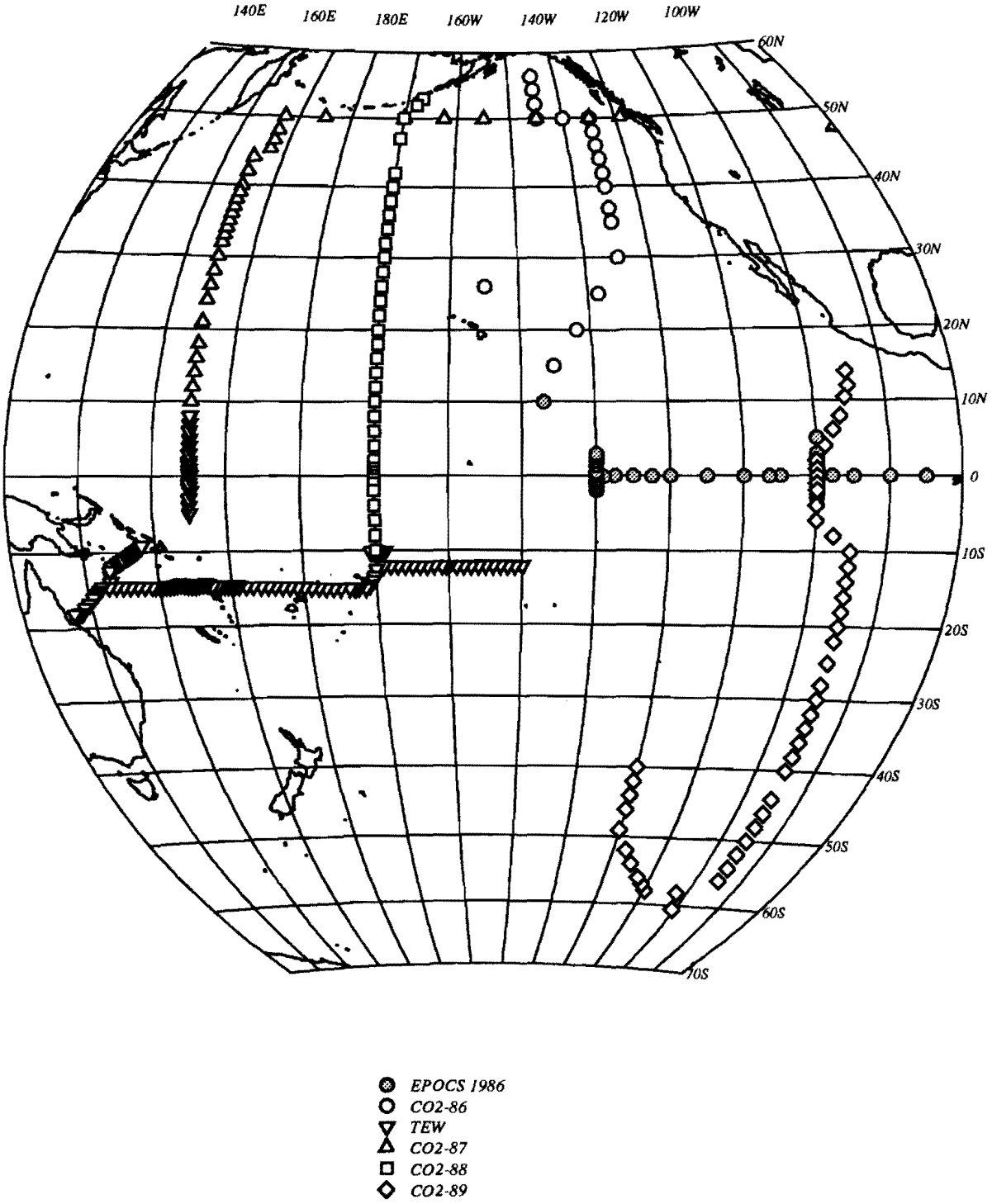

Fig. 1. Station locations from 1986 to 1989.

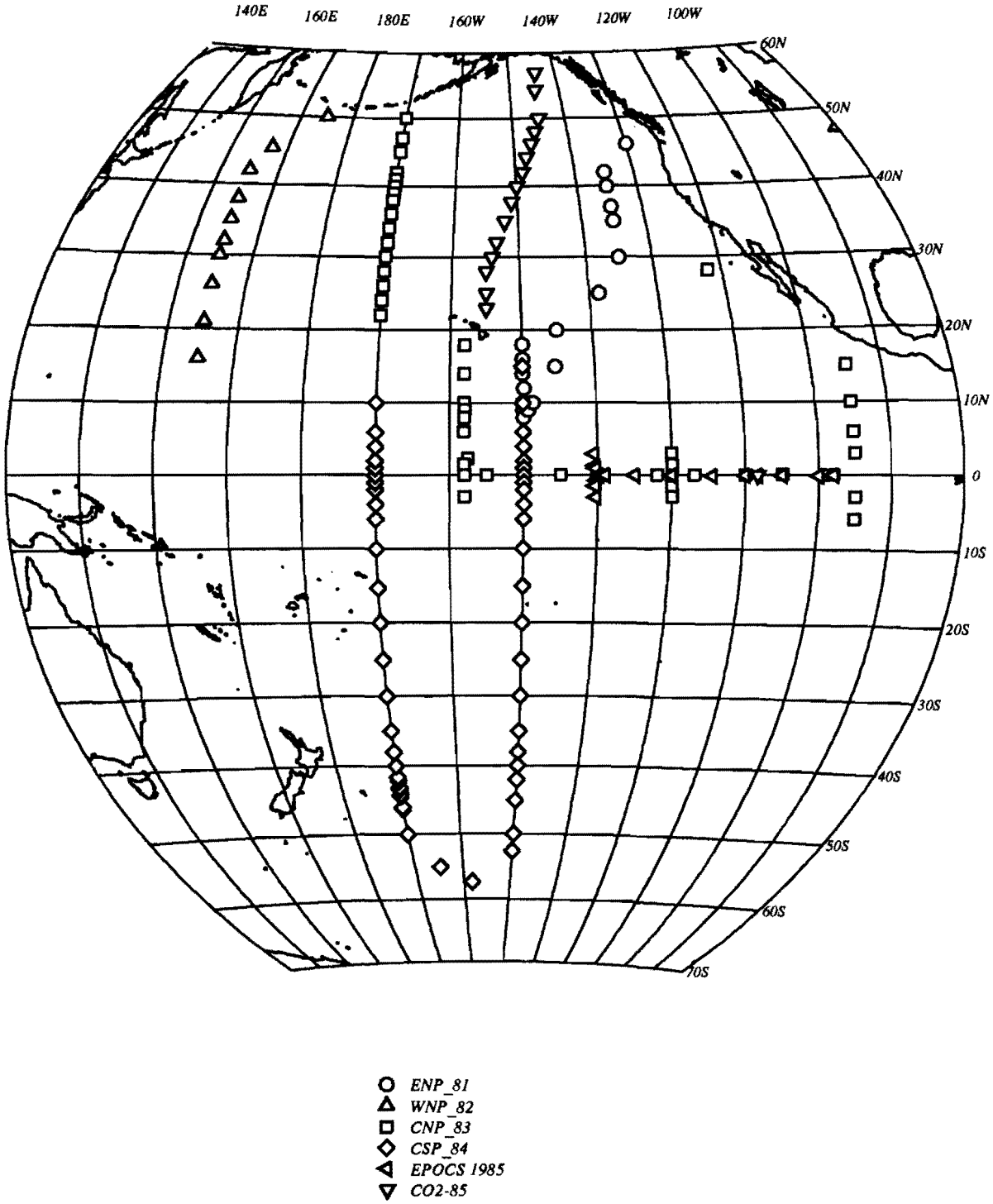

Fig. 2. Station locations from 1981 to 1985.

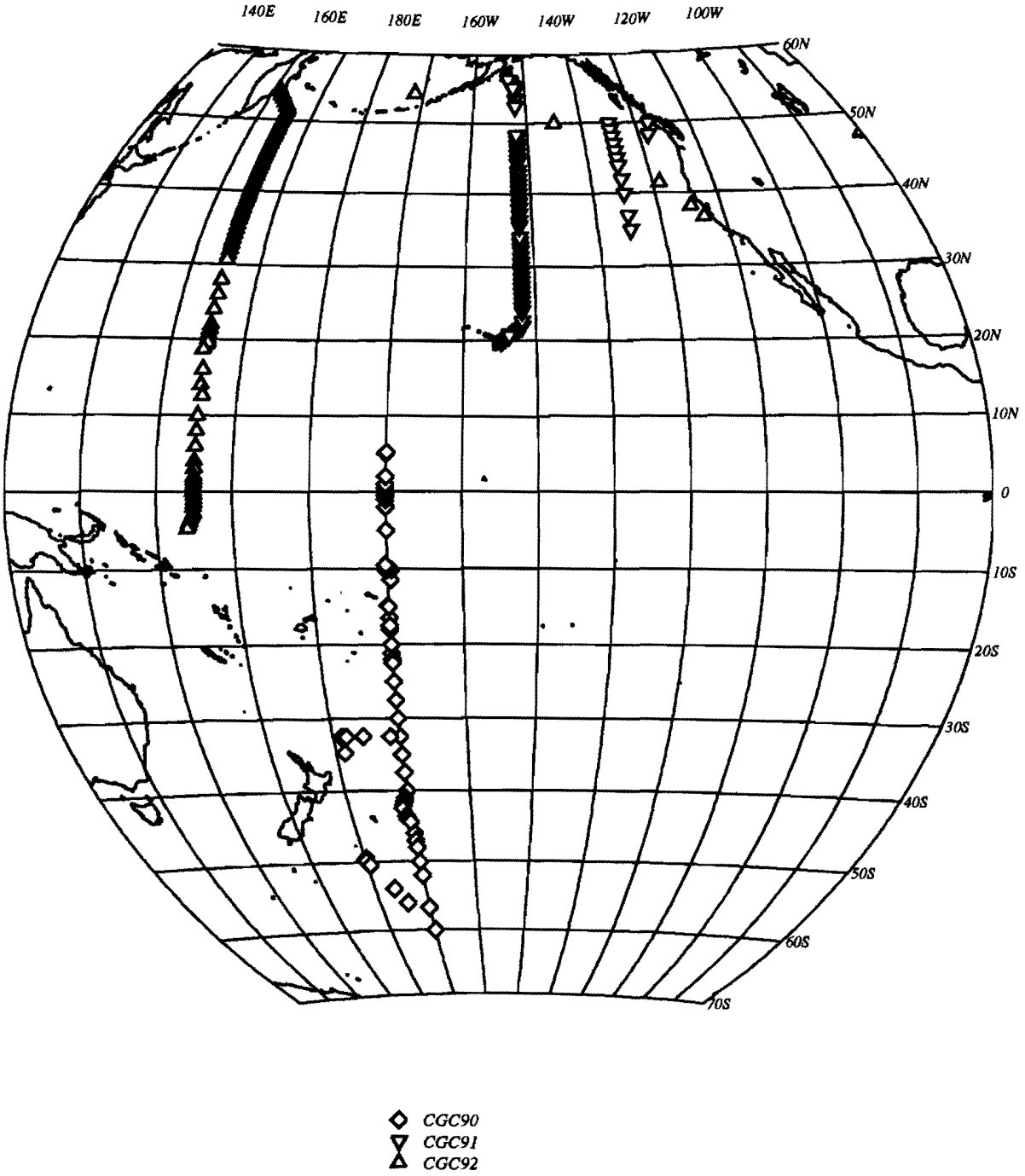

Fig. 3. Station locations from 1990 to 1992.

and data from this sensor was logged with the CTD data stream. Discrete oxygen samples collected in Niskin Bottles were used to calibrate the oxygen sensor.

The CTD data for the EPOCS and TEW cruises are presented in Lynch *et al.* (1988) and Mangum *et al.* (1991). The CTD data from the other cruises will be presented in another report.

1.2 Salinity Data Processing

Seawater samples were analyzed for salinity on a Guildline Autosal salinometer. Vials of IAPSO Standard Seawater were used to calibrate the Autosal and were run before and after a batch of seawater samples (typically one station would be run as a batch). Data are reported in practical salinity units (PSU) discussed in Lewis and Fofonoff (1979).

1.3 Dissolved Oxygen Data Processing

Dissolved oxygen samples were analyzed using a modified Carpenter titration technique (Carpenter, 1965). During the TEW cruise, an automated version of the titration was used (Friedrich, 1991). Results are reported in μmole/kg. Equilibrium concentrations for dissolved oxygen are calculated using the solubility equations of Weiss (1970).

1.4 Chlorofluorocarbons (CFC) Analytical Techniques

To reduce CFC contamination from elastomers, the internal elastic tubing normally used to close Niskin Bottles was replaced with an epoxy-coated spring, and the end cap O-rings used to seal the Niskin bottles were vacuum-baked and changed prior to the first station.

When collected, CFC samples were the first samples drawn from the Niskin Bottles. To minimize contact with air, seawater samples were drawn through the stopcocks of the 10-liter Niskin bottles directly into 100-ml glass syringes (Becton Dickenson, model number 2317) with plastic stopcocks (Pharmaseal Type Pk-70). Syringes containing seawater samples were stored in a stainless steel holding tank, which was continuously flushed with a supply of clean surface seawater. The holding tank was placed on deck outside of the CFC laboratory. This reduced the possibility of contamination of the stored samples due to high CFC levels frequently encountered in enclosed laboratory space on board research vessels.

The CFC analyses were performed using an automated purge and trap, GC/ECD system described in Wisegarver and Cline (1985). Traces of CFCs in the carrier and purge gas supplies were removed by passing the gas streams through a 5-foot length of ¼-inch stainless steel tubing, filled with 60/80 mesh molecular sieve 13x chromatographic packing material.

To initiate sample processing, a 30-ml aliquot of seawater from a glass syringe was transferred into the glass sparging chamber. The dissolved CFCs in the seawater sample were extracted by passing the supply of CFC-free purge gas through the sparging chamber for a period of 4 minutes. Water vapor was removed from the carrier while passing through a short tube of magnesium perchlorate. The sample gases were concentrated on a cold-trap consisting of a 3-inch

section of 1/8-inch stainless steel tubing packed with Porapak Q (60–80 mesh) immersed in a bath of ethanol held at –20°C. After 4 minutes of purging the seawater sample, the sparging chamber was closed and the trap isolated. The cold ethanol in the bath was forced away from the trap with nitrogen gas and the trap was heated electrically to 130°C. The sample gases held in the trap were swept onto a precolumn (12 inches of 1/8-inch O.D. stainless steel tubing packed with 80–100 mesh Porasil C, held at 70°C) for the initial separation of the CFCs and other rapidly eluting gases from more slowly eluting compounds. After the CFC-12 and CFC-11 had passed through the precolumn and into the main analytical column (10 feet, 1/8-inch stainless steel tubing packed with Porasil C, 80–100 mesh, 70°C), the precolumn was taken out of line. Compounds were separated as they passed through the main chromatographic column and exited into a Hewlett-Packard Electron Capture detector (ECD). The analog signal generated by compounds passing through the ECD was sent to either an HP3388 or an HP3396 integrator for quantifying the chromatographic peak areas.

The CFC analytical system was calibrated frequently using standard gas of known CFC composition. Gas sample loops of known volume were thoroughly flushed with standard gas and injected into the system. The temperature and pressure was recorded so that the amount of gas injected could be calculated. The procedures used to transfer the standard gas to the trap, precolumn, main chromatographic column and detector were similar to those used for analyzing water samples. Four sizes of gas sample loops were present in the analytical system, allowing the system to be calibrated over a relatively wide range of CFC concentrations. Air and system blanks were injected and analyzed in a similar manner. The typical analysis time for a seawater, air, blank or standard samples was about 12 minutes.

At the completion of each chromatographic analysis, the CFC-12 and CFC-11 peaks areas, along with information on run number, sample type, volume, temperature and pressure were stored in digital format. Following return to the laboratory, the data were transferred to a Sun SPARCstation computer for final processing. The techniques used for fitting multi-term expressions to the standard gas calibration data, correcting for analytical blanks, and calculating CFC-11 and CFC-12 concentrations in air and seawater samples are discussed in Bullister and Weiss (1988). Dissolved CFC concentrations are reported in units of picomoles/kg. The dissolved CFC-11 and CFC-12 saturation levels are determined from the atmospheric measurements made during the cruise and the solubilities of Warner and Weiss (1985).

1.5 CFC Flagging System

The last column in the data tables contains a 4-digit data quality flag. The first (leftmost) digit is used to differentiate between bottle and CTD derived salinity data. A value of 1 in this position indicates that the salinity value reported for the sample is from a bottle salinity measurement; a value of 2 in this position indicates that a bottle salinity was unavailable for that sample, and that the CTD-derived salinity value is reported. The three rightmost digits are flags

for the CFC measurements. A value of 0 in the hundreds position indicates that a single CFC measurement was made on the sample; a value of 1 in this position indicates that the CFC-11 and CFC-12 values reported for the sample are the means of replicate analyses. A value of 0 in the tens position indicates a normal CFC analytical result for the sample; a value of 1 indicates that the CFC-11 concentration is anomalous, perhaps due to analytical error or contamination. A value of 2 indicates an anomalous CFC-12 result, and a value of 3 indicates anomalous CFC-11 and CFC-12 results for the sample. The criteria for flagging anomalous CFC samples ("flyers") in this manner was based on the CFC content in surrounding samples. In some cases, unexpectedly high or low CFC concentrations obtained for a sample (relative to surrounding CFC samples) could not be correlated to other oceanographic properties, and are thought to be due to CFC contamination problems with that sample, or analytical errors. A discussion of the severe CFC contamination problems which are sometimes encountered on oceanographic expeditions is given in Bullister (1989). CFC samples flagged as anomalous are reported as –9 in this report and are not used to generate the CFC sections shown in the accompanying figures. A zero in the fourth (rightmost) digit indicates a normal chromatographic integration for the CFC sample. A value of 1 indicates that the CFC-11 peak area for the sample was not integrated by the integrator, but was instead estimated manually from the peak height on the chromatogram. A value of 2 in this position indicates the CFC-12 area was estimated, and a value of 3 in this position indicates that both the CFC-11 and CFC-12 peak areas were estimated for the sample. The flagging system is summarized in Table 2.

Table 2. Summary of flagging system used in report.
Flag Position (_ _ _ _)

Position	Code
(Left to Right)	
1	1—Bottle salinity reported 2—CTD salinity reported
2	0—Single CFC analysis 1—Average of replicate CFC analyses reported
3	0—CFC values used in generating sections 1—Anomalous CFC-11 value; not used in generating CFC-11 section 2—Anomalous CFC-12 value; not used in generating CFC-12 section 3—Anomalous CFC-11 and CFC-12 values; not used in generating CFC-11 and CFC-12 sections
4	0—Normal CFC peak area integrations 1—CFC-11 peak area estimated from peak height 2—CFC-12 peak area estimated from peak height 3—Both CFC-11 and CFC-12 peak areas estimated from peak heights

Each cruise discussion section in this report lists the number of CFC samples flagged as anomalous ("flyers"), and discusses possible causes for the anomalous CFC results. Only grossly inconsistent CFC values have been flagged as anomalous. The authors should be contacted for additional information on individual data sets and possible revisions.

1.6 CFC Standardization

The CFC gas standard used during the 1986 field season was a cryogenically trapped air sample held in an AIRCO spectroseal cylinder collected in Seattle, WA during the winter of 1985–86. This working standard will be referred to as AIR0186. The CFC-11 and CFC-12 concentrations in AIR0186 were compared with those in a cryogenically trapped whole air sample (OGC #O-326) prepared and calibrated at the Oregon Graduate Center (OGC) by Dr. R. Rasmussen. The reported concentrations of CFC-11 and CFC-12 in the OGC working standard were 238.7 and 416 PPT (parts-per-trillion), respectively. The concentrations of CFC-11 and CFC-12 in AIR0186, relative to OGC #O-326 (e.g., on the OGC scale) were determined to be 579.9 and 242.1 PPT, respectively. A comparison of the OGC and SIO calibration scales is given in Bullister (1984). All CFC concentrations for air and seawater samples in this report are in the SIO86a scale; therefore, the original CFC-11 and CFC-12 data from the 1986 field season have been divided by factors of 1.0721 and 1.0259 (see Table 3).

In March 1987, Dr. M. Warner and Dr. R.F. Weiss calibrated PMEL standard cylinders #48232 and #48314 which had been filled with dry compressed air at Niwot Ridge, CO on 13–14 January 1987 by researchers at NOAA's Climate Monitoring and Diagnostics Laboratory (NOAA-CMDL). The CFC content of the two cylinders were respectively, 427.52 and 429.85 for CFC-12 and 231.89 and 239.18 for CFC-11. Subsequent analyses have shown that within the precision limits of the calibrations (less than ±0.5%), there has been no significant drift in CFC-11 and CFC-12 concentrations.

Table 3. Summary of standards used for the calibration of the CFC analytical system. CFC concentrations are reported in the SIO 1986 scale (Bullister and Weiss, 1988).

Cylinder #	Calibration	CFC-11	CFC-12	Year used
AIR0186	vs. 0-326 at sea	565.3	225.8	1986
48232	at SIO	231.89	427.52	1987, 1989
48314	at SIO	239.18	429.85	1988

1.7 CFC Air Measurements Techniques

Air samples were analyzed for CFC-11 and CFC-12 along the cruise tracks. On each cruise, an air inlet was mounted on the jackstaff of the vessel, and clean marine air was pumped into

the laboratory through Dekaron 3/8-inch O.D. tubing. This air stream could be flushed through the sample loops, and injected into the CFC analytical system. CFC concentrations for these samples are reported as mole fraction of the CFC in dry air. Air samples were normally analyzed when the wind was within 45 degrees of the ship's bow, to avoid sampling air which had passed over the ship. Air samples were normally analyzed in sets of three or more with a typical precision of 0.5% to 1.0% for both gases. The atmospheric measurements of CFC-11 and CFC-12 from 1986–1989 are shown in Fig. 4.

These samples were used to determine the temporal and spatial distribution of CFCs in the near-surface atmosphere along the ship tracks. These atmospheric measurements, together with CFC solubility data and measurements of sea surface temperature and salinity, are used to calculate equilibrium concentrations of dissolved CFCs in surface waters at the time of the cruise. These calculations and the CFC ratios are only listed where concentrations exceed 0.03 pmole/kg in the water column.

1.8 CFC Blank Corrections

Two types of blank corrections were applied to the CFC samples. An analytical (or "system") blank, derived from the analysis of CFC-free gas, was subtracted from standard and air samples. CFC-11 and CFC-12 peak areas generated from analysis of analytical blanks were typically less than 1% of those for standard or air samples.

Estimates of seawater blanks were sometimes more difficult to determine. CFC contamination can occur during storage of the seawater sample in a Niskin Bottle, glass syringe, or sparging chamber; during the seawater transfer procedures, and during sample analysis.

In most cases, the estimates of the CFC seawater blanks for a station (or group of adjacent stations) are based on analysis of deep water samples in that area. In much of the deep North Pacific below a depth of 2000 meters, the waters are relatively isolated from recent atmospheric contact, and there has been little penetration of anthropogenic tracers such as tritium and bomb radiocarbon during the past 40 years (Broecker, 1981). At present, deep waters in most of this region should contain negligible levels of dissolved CFCs. The presence of measurable levels of dissolved CFCs in these deep samples is an indication of the magnitude of the CFC blank due to sample collection and processing.

For most samples, the average estimated blank correction was less than 0.01 pmol/kg for both CFC-11 and CFC-12. In some cases, higher and more variable CFC seawater blanks were observed, especially during the first few stations of a cruise. These blanks are thought to be due mainly to release of CFCs from the Niskin Bottle walls and O-rings into the samples.

The blank corrections applied to the seawater samples in this report are tabulated in the discussion section of each cruise.

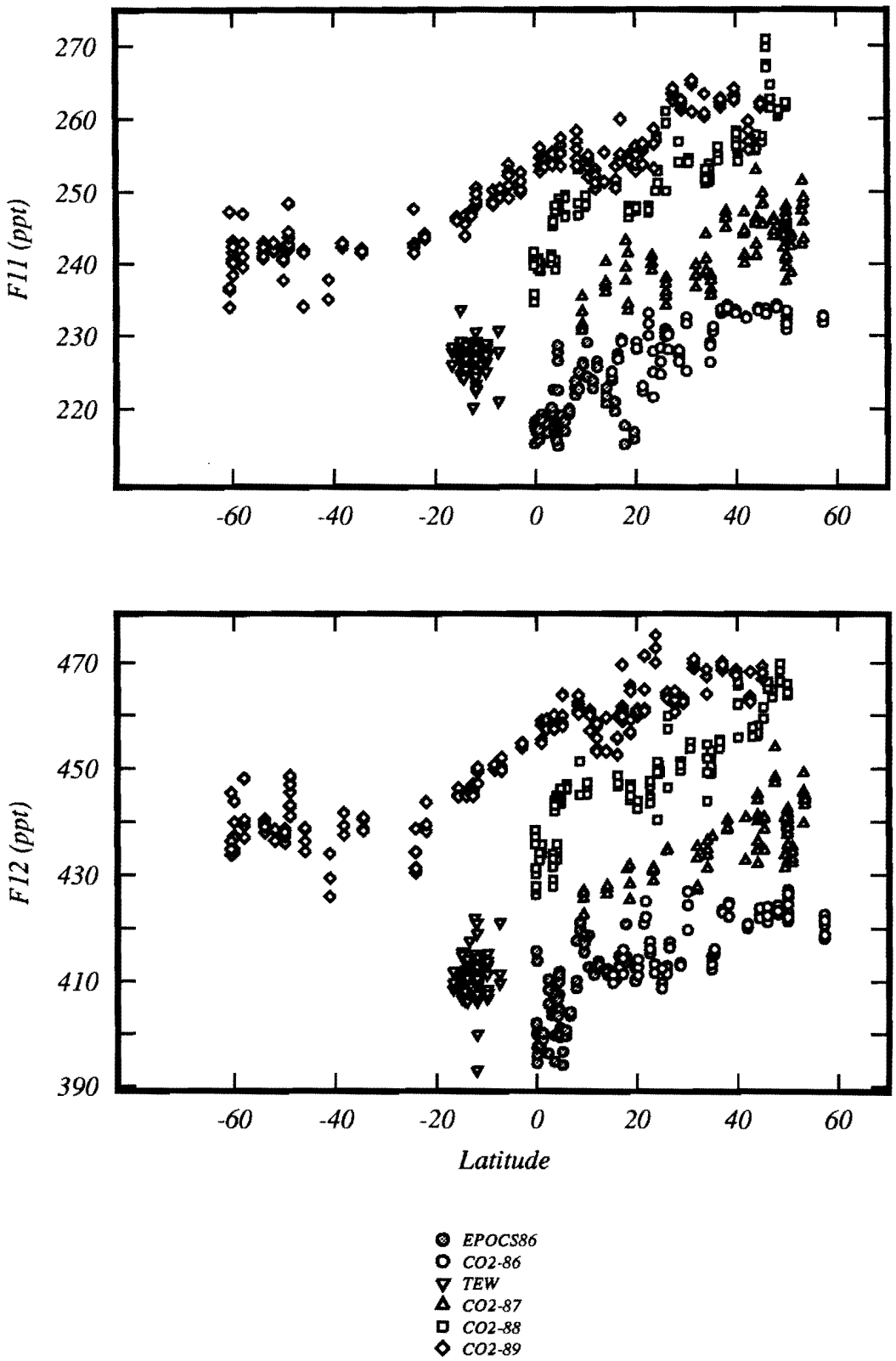

Fig. 4. Atmospheric measurements of CFC-11 and CFC-12 from 1986–1989.

1.9 Estimation of Analytical Precision and Accuracy

Several techniques were used to obtain estimates of analytical precision for seawater samples. Replicate samples were obtained by filling 2 or more syringes with seawater from the same Niskin Bottle, or by closing 2 or more Niskin Bottles at the same depth at a station, and sampling each for CFCs. In some cases, estimates of analytical precision could also be made from analysis of samples collected in a region of near-uniform CFC distribution (e.g., from a set of Niskin bottles closed in the mixed layer, or from a set of Niskin Bottles closed in deep, CFC-free water). The median of the standard deviations for analyses of these types of replicate samples were used to estimate the overall analytical precision.

At most stations, the dissolved CFC concentrations ranged from a high of 1 (or more) pmol/kg in the near surface waters, to near zero concentration in deep waters. In many cases, the analytical precision for a group of samples of varying concentrations can be expressed as either fixed amount (in pmol/kg) or as a percent of sample concentration, whichever is greater. For low concentration samples, typical analytical precisions were of the order of 0.005–0.015 pmol/kg for both CFC-11 and CFC-12. For higher concentration samples, typical precision were of the order of 1–2% for both CFC-11 and CFC-12. Systematic sampling and handling errors are estimated to be of the same order.

A discussion of the replicate samples analyzed and an estimate of analytical precision for the CFCs measurements for each cruise is provided in the cruise description sections below.

1.10 Plotting Techniques

The sections contoured for each cruise follow a few protocols. North is always to the right in latitudinal plots, and east is to the right in longitudinal plots. Stations are listed on the upper axis. Each section begins with a map of the stations used in the contour plots. The gridding and contouring routines are based on those developed by D. Roemmich (Roemmich, 1983) at SIO. All sections are contoured using bottle data only and are intended to provide a coarse overview of the major features present along the section. The temperature and salinity sections do not show the detailed structures apparent in CTD derived sections.

The vertical profile plots of the CFC's were generated using software of R.F. Weiss developed at SIO. Each page consists of five stations and a map of the station locations. Each station is plotted on two scales so that both high and low concentrations may be easily displayed. CFC-11 is represented with circles and CFC-12 with triangles; the solid symbols are plotted against the lower concentration scale on the bottom axis.

2. CRUISE DESCRIPTIONS

2.1 EPOCS-86

The NOAA research vessel *Oceanographer* departed from Panama on 21 May 1986 to begin EPOCS cruise EP2-86-OC. Fifty-five CTD/rosette casts were made at 38 locations in the

equatorial Pacific Ocean. The vessel travelled along the equator from 95°W to 140°W before turning north and docking in Honolulu on 20 June 1986. Transequatorial sections were made at 110°W and 140°W. The processed CTD data from this cruise were reported by Lynch *et al.* (1988).

Atmospheric CFC measurements were made periodically during the cruise. The average concentrations of the measurements south of 4°N are 218.3 PPT and 403.3 PPT. To the north, as the ship approached the ITCZ, the atmospheric concentrations increased.

Dissolved CFC-12 values are not reported for stations 7–9 due to contamination of the sparging chamber on the analytical system. The sample blanks were high during the first ten stations, especially for CFC-12. The blank corrections applied to the seawater measurements are listed below.

EPOCS-86 Sampling blanks

Station	F11	F12
1–9	0.011	0.037
10–11	0.011	0.011
10–38	0.0055	0.011

The estimated precision for measurements of dissolved CFC-11 is ±1.2% or 0.005 pmol/kg, whichever is greater. The estimated precision for CFC-12 is ±2% or 0.02 pmol/kg, whichever is greater for stations 1–9, and 1.5% or 0.01 for stations 10–38. Of the 552 samples analyzed during this cruise, 11 (~2%) of the CFC-11 measurements were flagged, while 82 (nearly 15%) of the CFC-12 values were flagged as anomalous. Most of the flagged CFC-12 data were from the first 10 stations.

EPOCS-86 (EP2-86-OC)

Name	Institution	Measurement Program
Linda Mangum	NOAA/PMEL	CTD, Chief Scientist
Clara Desser	U. of Washington	CTD
David Wisegarver	NOAA/PMEL	CFC's
Kimberly Kelly	NOAA/PMEL	CFC's, pCO_2, CH_4, CO
Lee Waterman	GMCC	pCO_2
Donald Barber	Duke	Nutrients
Eric Olson	USC	Productivity

2.2 CO2-86

The NOAA ship *Oceanographer* departed Honolulu on 30 June 1986 en route to Kodiak, Alaska. Sixty-two CTD/rosette casts were made at 18 stations in the eastern North Pacific (nominally along 135°W), eight of which were stations previously sampled in July 1981.

Atmospheric measurements were usually made in groups of 3 to 5 analyses, over a period of less than 1 hour. The precision of the measurements made in these groups was typically 0.5%–1.0% for CFC-11 and CFC-12, respectively. The averages of the northern hemispheric measurements made during this cruise were 230.0 ± 3.2 PPT and 417.9 ± 4.8 PPT for CFC-11 and CFC-12.

Due to problems with the primary winch, deep casts were only possible at Stations 1 and 2. Casts for all other stations were limited to depths less than 2100 meters. Ten-liter and thirty-liter General Oceanics Niskin bottles were used for collection of discrete water samples; however, CFC's were drawn from 10-liter bottles only. A value of 50 has been added to the 30-liter Niskin bottle number for identification purposes. Therefore, any bottle number that is 51 or greater, refers to a 30-liter bottle. The number which identifies each sample consists of the cast number multiplied times 100 plus the bottle number. A sample identification number with a digit greater than 4 in the "ten's column" indicates that it was drawn from a 30-liter bottle.

The sampling blanks were determined from the median value of samples drawn from water with $\sigma_\theta > 27.1$. The F12 sampling blank for the first station was 0.019. Thereafter, the blank subtracted was 0.009, while 0.005 was subtracted from all F11 concentrations.

CO2-86 Sampling blanks

Station	CFC-11	CFC-12
1	0.005	0.019
2–18	0.005	0.009

The precision of the measurements based on replicate analyses was the greater of 1.2% or 0.005 pmole/kg for CFC-11 and 1% or 0.005 pmole/kg for CFC-12.

Of the 530 samples analyzed for CFC's during this cruise, 17 CFC-11 (3%) measurements and 37 CFC-12 (7%) measurements were flagged as flyers.

CO2-86 (RPI-OC-86)

Name	Institution	Measurement Program
Dr. R. H. Gammon	NOAA/PMEL	Chief Sci., CFC's
David Wisegarver	"	CFC's
Kimberly Kelly	"	CFC's, pCO_2, CH_4, CO
James Gendron	"	Alkalinity
Terri Geiselman	"	Alkalinity
Ron Citterman (UW)	U. of Washington	Nutrients, O_2
Lee Waterman	NOAA/GMCC	pCO_2

2.3 TEW

The *Oceanographer* departed Tahiti on 6 June 1987 en route to Townsville, Australia. The cruise track for Leg 2 started westward along 12°S. A diversion was made to the Samoan Passage (10°S) before continuing westward along 15°S. During Leg 2 a total of 109 casts were made. During Leg 3 the ship moved through the Coral sea, on to 5°S, 165°E and north along 165°E to Kwajalein, completing 42 casts.

CFC's were not measured at every station and only those stations where CFC's were measured will be reported here. The CTD and hydrographic data were reported by Mangum *et al.* (1991).

Atmospheric measurements were made periodically during the cruise. The average of southern hemisphere measurements for the two CFC's are 226.9 PPT and 411.2 PPT for CFC-11 and CFC-12, respectively.

The Niskin bottles used during this cruise were newly purchased and may have caused higher than normal blank problems for some samples. The sampling blanks for Legs 2 and 3 are shown below. The cast numbers for Leg 3 have had 200 added to them so that each cast made during the TEW cruise has a unique number to identify it.

TEW sampling blanks Legs 2 and 3

Station	CFC-11	CFC-12
1–4	0.005	0.006
5–7	0.008	0.006
8	0.007	0.022
9–10	0.001	0.009
11–20	0.004	0.009
21–23	0.006	0.004
24	0.006	0.009
25–27	0.006	0.007
28	0.006	0.000
29–34	0.006	0.005
35	0.011	–.002

TEW sampling blanks Legs 2 and 3 (cont.)

Station	CFC-11	CFC-12
36–37	0.005	0.006
38–39	0.005	0.013
40–48	0.005	0.010
49–51	0.000	0.020
52–60	0.002	0.003
61–67	0.002	0.008
68–84	0.004	0.001
85–109	0.006	0.006
201–222	0.006	0.004
223–242	0.003	0.002

The precision for both CFC-11 and CFC-12 is estimated to be 1% or 0.005 pmol/kg, whichever is greater. Of the 1164 samples analyzed during the cruise, 19 (2%) data points were flagged for CFC-11 and 72 (6%) for CFC-12.

TEW (TW2-87-OC; TW3-87-OC)

Name	Institution	Measurement Program
Dr. Stan Hayes	NOAA/PMEL	Chief Sci.
Dr. Eric Lindstrom	"	CTD
Linda Mangum	"	CTD
Jean Lynch	"	CTD
Michael Stapp	"	CTD
Dr. William Kessler	"	CTD
Carol Coho	"	CTD
Dr. Derek Burrage	AIMS	ADCP, CTD, CFC's
Gernot Friedrich	Bigelow Lab	Oxygen, Nutrients
Nanette Nelson	U. Washington	Oxygen
David Wisegarver	NOAA/PMEL	CFC's
Kimberly Kelly	"	CFC's, pCO_2, CH_4, CO
Michael Andrusek	Texas A&M	Helium sampling for J. Lupton, pigments

2.4 CO2-87

Seventy-two casts were made at 32 stations along 165°E and 50°N during August 1987. Ten of the stations were previously occupied by PMEL in 1982. The *Oceanographer* left Kwajalein on July 30 heading for the first station at 10°N 165°E. The vessel ran north along 165°E to 50°N. Eight stations were occupied along 50°N before landing in Seattle on 28 August 1987.

The average of the atmospheric measurements made in the northern hemisphere are 242.7 ± 4.3 PPT for CFC-11 and 436.6 ± 5.6 PPT for CFC-12.

Oxygen is not reported for stations 2–5 due to analytical problems.

During the cruise, the Autosal salinometer malfunctioned and showed substantial drift. Due to this problem, all salinities reported for this cruise are from the CTD. With few exceptions, the bottle salinities were used only as guides for determining mistrips and leaks.

Sampling blanks were determined from the median value of water sampled which had a σ_θ greater than 27.1. The median values, subtracted from all measurements, were 0.004 for F11 and 0.006 for F12.

CO2-87 Sampling blanks

Station	CFC-11	CFC-12
1–32	0.004	0.006

The precision of the analyses during this cruise, based on replicate measurements, mixed layer measurements and blank levels is the greater of 1% or 0.005 for both gases. Of the 1071 samples analyzed during this cruise, 16 (1.5%) CFC-11 results were flagged and 35 (3%) CFC-12 measurements were flagged as flyers.

CO2-87 (CO2-87-OC)

Name	Institution	Measurement Program
David Wisegarver	NOAA/PMEL	Chief Scientist, CFC's
Kimberly Kelly	"	CFC's, pCO_2, CH_4, CO
Terri Geiselman	"	CO_2
Marilyn Roberts	"	Oxygen
Scott Burger	"	CO_2
Steve Kelly-Hansen	"	CTD, CFC's
Glenn Smith	IOS	pCO_2

Nutrient samples were collected, frozen and analyzed at the Univ. of Washington

2.5 CO2-88

The *Discoverer* departed Dutch Harbor on 5 April 1988 heading for 50°N 170°W to begin the transect along 170°W. Ninety casts were made at 35 stations before landing in Pago Pago, American Samoa on 4 May. This section was a reoccupation of a 1983 PMEL section. Atmospheric measurements were made throughout the cruise. The averages of the northern

hemisphere measurements (average of all measurements north of 5°N) were 254.4 ± 1.0 PPT and 453.6 ± 1.5 PPT for F11 and F12. The precision of each group of measurements was typically 0.5%–1% for both gases.

Sample handling blanks varied through the cruise, and are listed below. The sampling blanks were determined from the median values of groups of stations with similar blank levels.

CO2-88 Sampling blanks

Station	CFC-11	CFC-12
1–12	0.004	0.006
13	0.009	0.006
14–17	0.009	0.010
18–20	0.002	0.010
21–35	0.008	0.002

The precision of the measurements, for both gases, is estimated to be 1% or 0.005, whichever is greater. Of the 1030 samples measured, 19 (2%) of the CFC-11 measurements were flagged and 54 (5%) of the CFC-12 measurements were flagged as flyers.

CO2-88 (OC-88-CO2)

Name	Institution	Measurement Program
Tim Bates	NOAA/PMEL	Chief Scientist
David Wisegarver	"	CFC's
Frederick Menzia	"	CFC's
Marilyn Roberts	"	CO_2
Scott Burger	"	CO_2
Kimberly Kelly	"	pCO_2, CH_4, CO
Marilyn Meenan	"	O_2
James Gendron	"	Radon
Margie McCarty	"	CTD
Jeff Benson	"	CTD

Nutrient samples were collected, frozen and analyzed at the University of Washington.

2.6 CO2-89

The first leg of the RITS/CO2-89 cruise (RITS-89-DI) aboard the NOAA ship *Discoverer* was used as an opportunity to test new equipment en route to the work area. No data from this leg is included in this report. Leg 2 began with the ship's departure from Manzanillo, Mexico on 15 February 1989. The ship ran along 105°W to Easter Island, on to 60°S and north to Tahiti.

The ship returned to Seattle from Tahiti with only three stops for stations, although atmospheric measurements were made periodically throughout the voyage. Eighty-seven CTD/rosette casts were made at 51 stations in the eastern tropical and southeastern Pacific Ocean during this cruise.

Atmospheric measurements were frequently hampered by contamination of the air sampling tube with ship's air. A narrow range of relative wind direction and speed was used to remove spurious results. The average of the atmospheric measurements made north of 10°N were 257 ± 4.2 PPT and 463 ± 3.9 PPT for F11 and F12. The average of the measurements made south of 10°S were 242 ± 2.8 PPT and 439 ± 4.5 PPT. Individual groups of measurements had standard deviations on the order of 0.5% to 1%.

The analytical techniques used to measure the CFC's during this cruise were similar to the earlier cruises, except that the ECD signal was processed on an HP 3396 integrator and the chromatograms stored on floppy diskettes. Upon return to the laboratory, the chromatograms were rerun on the HP3396 integrator and the signal restored using the Chromperfect integration software package (Justice Innovations, Inc.). Each peak was expanded on the computer screen and reintegrated using Chromperfect. The reintegrated areas were assimilated with the analytical parameters necessary for processing the measurements using software developed by D. Lee (PMEL).

The water sampling bottles used during this cruise were new, untested bottles which had little opportunity to "age". Consequently, the samples were contaminated with a significant CFC signal, especially during the early stages of the cruise. The water measurements made during Leg 4 were used for testing analytical methods and are not reported here.

The sampling blanks were determined from the median value of samples drawn from water with $\sigma_\theta > 27.4$ at stations north of any expected CFC intrusion into the denser waters. Sampling blanks for CFC-12 varied from a high at Station 1 of 0.036 to under 0.01 towards the end of the cruise. CFC-11 blanks were somewhat less variable but also elevated at the beginning of the cruise. The blanks subtracted from the measurements are listed below.

CO2-89 Sampling blanks

Station	CFC-11	CFC-12
4	0.013	0.027
5	0.013	0.014
6	0.013	0.021
7	0.013	0.026
8–10	0.013	0.020
11	0.010	0.005
12–13	0.010	0.019
14	0.010	0.015
15	0.018	0.015
16	0.010	0.010
17	0.010	0.020
18	0.010	0.014

CO2-89 Sampling blanks (cont.)

Station	CFC-11	CFC-12
19	0.010	0.024
20–25	0.008	0.010
26	0.008	0.017
27	0.008	0.010
28–29	0.008	0.015
30–43	0.008	0.009
44	0.008	0.006
45–48	0.006	0.006

The precision of the measurements, based on replicate analyses, was the greater of 1.2% or 0.005 pmole/kg for CFC-11 and 1.5% or 0.01 pmole/kg for CFC-12 except where sampling blanks are significantly higher. Of the 1540 samples analyzed during this cruise, 52 (3%) of the CFC-11 measurements and 79 (5%) of the CFC-12 measurements were flagged as flyers.

CO2-89 (RTS-89-DI)

Name	Institution	Measurement Program
Dr. Timothy Bates	NOAA/PMEL	Chief Sci.
David Wisegarver	"	Chief Sci, CFC's
Frederick Menzia	"	CFC's
Paulette Murphy	"	CO_2
Marilyn Roberts	"	CO_2
Kimberly Kelly	"	pCO_2, CH_4, CO
Jeff Benson	"	CTD
Margie McCarty	"	CTD
Steve Hankin	"	CTD
Cindy Zenker	MBARI	Chlorophyll
Melinda Dudley	UW	O_2, C^{13}, Helium sampling for J. Lupton
George Berberian	AOML	Nutrients
Lloyd Moore	"	Nutrients

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Discoverer, especially the survey technicians who assisted in the data collection. We thank CST R. Buendia, CST L. Murray and SST S. Bell for analyzing salinity samples. This work was supported by NOAA's Air Resources Laboratory and NOAA's Climate and Global Change Program.

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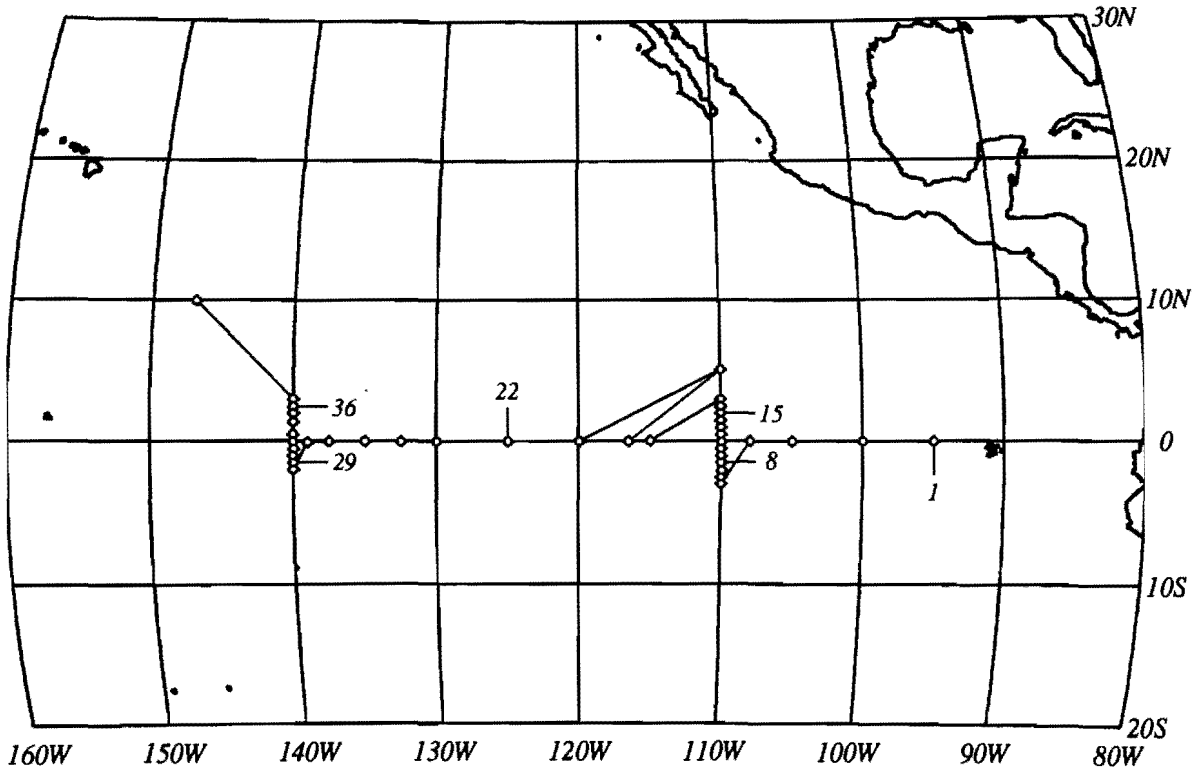
5. CRUISE DATA

5.1. EPOCS-86 (EP2-86-OC)

This section includes the following data collected during the EPOCS86 cruise (21 May to 20 June, 1986).

1) Station location plot.
2) Station location and bottom depth listing.
3) CFC atmospheric measurement listings.
4) Contoured sections of Potential Temperature, Salinity, CFC-11 and CFC-12 along the equator from 95° W to 140 W°, across the equator at 110° W and across the equator at 140° W, derived from bottle data.
5) Tables of hydrographic data including depth, pressure, potential temperature, salinity, sigma-theta, oxygen, CFC-11 and CFC-12. Atmospheric CFC-11 and CFC-12 values for each station are interpolated from surrounding air measurements, and used in calculating saturation values.
6) Individual vertical profiles of CFC-11 and CFC-12. Each page of CFC vertical profiles consists of a map of station locations and five station plots. Each station is plotted on two scales so that both high and low concentrations may be easily viewed. CFC-11 is represented by circles and CFC-12 by triangles; the solid symbols are plotted against the lower concentration scale on the bottom axis. Only the upper 800 meters of data are displayed as the CFC signal is below detection limits in deeper water. Any station which has no CFC data in the range 0–800 meters will appear as a blank box. Units are in picomoles per kilogram.



EPOCS86 Station Locations.
R/V OCEANOGRAPHER
20 May - 20 June, 1986
Panama - Honolulu, Hawaii

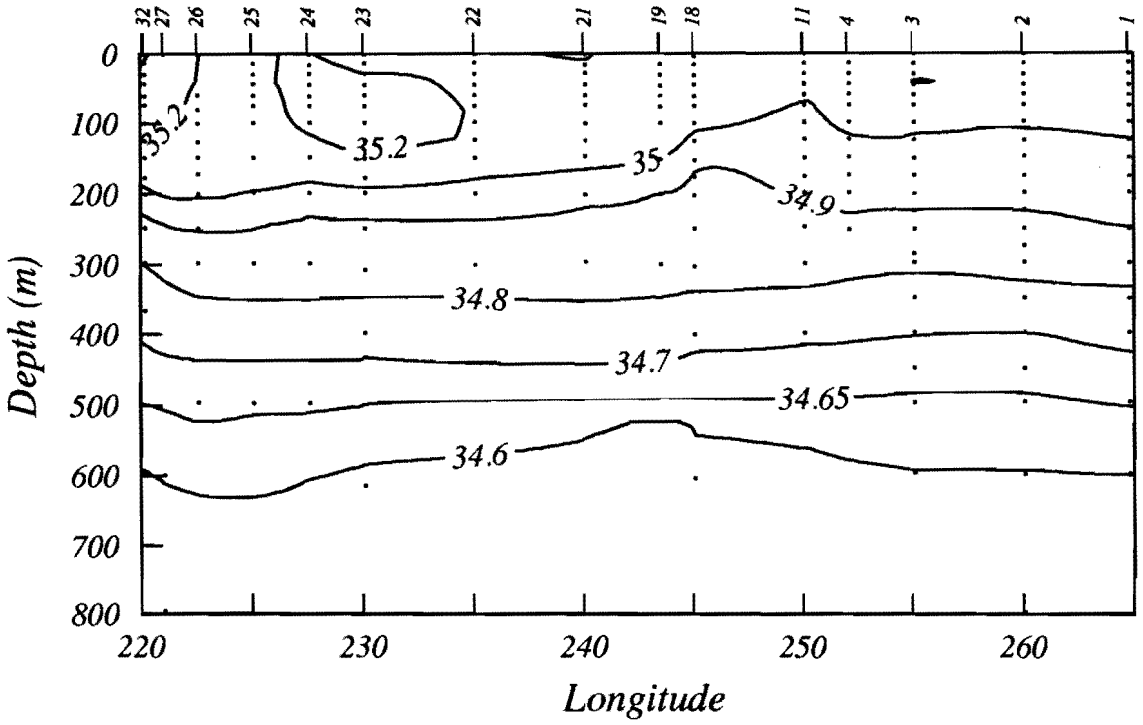
EPOCS-86 Station Locations

STATION NUMBER	Date	Latitude	Longitude	BOTTOM DEPTH (M)
1	24 May 86	00 00.2 N	094 58.7 W	3330
2	25 May 86	00 00.0 N	099 59.1 W	3240
3	26 May 86	00 00.2 N	104 58.7 W	3540
4	28 May 86	00 01.9 N	107 56.4 W	3680
5	28 May 86	03 00.0 S	109 59.9 W	3760
6	29 May 86	02 30.3 S	109 59.7 W	3865
7	29 May 86	02 03.8 S	109 55.9 W	3940
8	30 May 86	01 30.5 S	109 59.2 W	3840
9	30 May 86	01 00.7 S	109 59.1 W	4020
10	31 May 86	00 30.1 S	109 58.7 W	
11	31 May 86	00 00.9 S	109 58.0 W	3830
12	1 Jun 86	00 29.4 N	109 59.4 W	3780
13	1 Jun 86	00 59.7 N	109 59.7 W	
14	1 Jun 86	01 29.6 N	110 01.0 W	3780
15	1 Jun 86	02 00.4 N	110 00.2 W	3820
16	1 Jun 86	02 29.4 N	110 00.0 W	3730
17	2 Jun 86	02 59.6 N	110 00.2 W	3800
18	3 Jun 86	00 02.3 N	114 58.4 W	3995
19	3 Jun 86	00 00.2 N	116 30.9 W	4100
20	5 Jun 86	05 04.7 N	109 59.2 W	3870
21	7 Jun 86	00 00.4 N	119 57.9 W	4100
22	8 Jun 86	00 00.3 N	124 58.3 W	4690
23	9 Jun 86	00 00.4 N	129 58.4 W	4342
24	10 Jun 86	00 01.5 S	132 28.5 W	4600
25	11 Jun 86	00 00.0 N	134 59.2 W	4400
26	11 Jun 86	00 00.8 S	137 29.5 W	4200
27	12 Jun 86	00 04.6 S	139 00.1 W	4380
28	12 Jun 86	01 59.3 S	139 59.4 W	
29	13 Jun 86	01 30.5 S	139 59.8 W	4342
30	13 Jun 86	00 59.4 S	140 00.3 W	4260
31	13 Jun 86	00 31.2 S	139 58.1 W	4260
32	14 Jun 86	00 01.9 S	140 00.4 W	4317
33	14 Jun 86	00 30.4 N	140 00.6 W	4320
34	14 Jun 86	01 22.2 N	140 00.1 W	4462
35	15 Jun 86	01 59.6 N	140 00.1 W	4360
36	15 Jun 86	02 28.1 N	140 00.6 W	4400
37	15 Jun 86	02 59.9 N	139 59.9 W	4290
38	17 Jun 86	09 59.4 N	146 59.2 W	5280

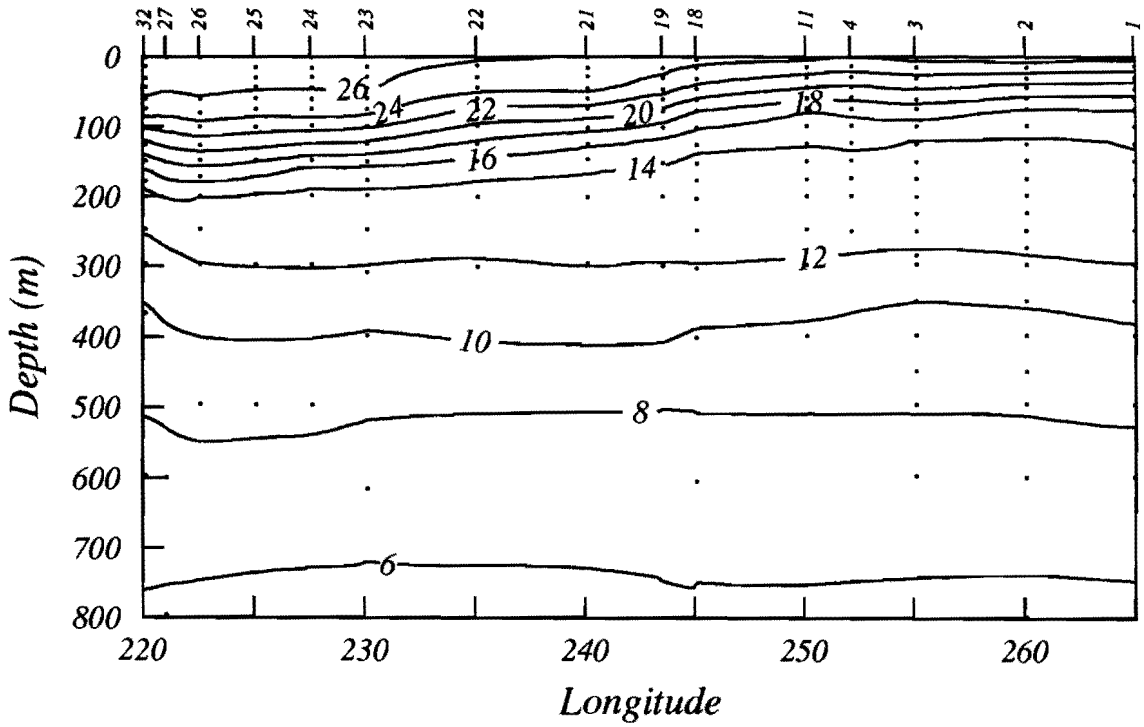
EPOCS-86 Atmospheric Measurements

Latitude	Longitude	Date	Atm F-11	Atm F-12	Avg. F-11	%Std. F-11	Avg. F-12	%Std. F-122
3 31.8 N	85 3 W	22 May 86	219.0	408.6	220.0	0.7	407.5	0.3
3 31.8 N	85 3 W	22 May 86	219.6	408.9				
3 31.8 N	85 3 W	22 May 86	218.9	407.4				
3 31.8 N	85 3 W	22 May 86	222.7	405.3				
3 0 N	86 0 W	22 May 86	218.6	403.7	218.2	0.1	404.4	0.1
3 0 N	86 0 W	22 May 86	217.9	404.5				
3 0 N	86 0 W	22 May 86	218.1	405.1				
4 24 N	110 48 W	4 Jun 86	215.1	410.3	215.9	0.5	407.4	0.7
4 24 N	110 48 W	4 Jun 86	214.9	410.0				
4 24 N	110 48 W	4 Jun 86	217.0	404.8				
4 24 N	110 48 W	4 Jun 86	216.9	404.5				
4 24 N	111 13.2 W	5 Jun 86	222.6	400.3	226.4	1.0	407.7	1.1
4 24 N	111 13.2 W	5 Jun 86	227.7	407.5				
4 24 N	111 13.2 W	5 Jun 86	228.7	411.9				
4 24 N	111 13.2 W	5 Jun 86	226.6	411.3				
4 6 N	111 51.3 W	5 Jun 86	217.7	403.5	217.5	0.1	405.7	0.4
4 6 N	111 51.3 W	5 Jun 86	217.5	407.0				
4 6 N	111 51.3 W	5 Jun 86	217.3	406.6				
3 9 N	113 46 W	6 Jun 86	218.9	408.6	219	0.5	408.2	0.1
3 9 N	113 46 W	6 Jun 86	217.4	408.8				
3 9 N	113 46 W	6 Jun 86	219.5	407.8				
3 9 N	113 46 W	6 Jun 86	220.2	407.7				
2 15 N	115 36 W	6 Jun 86	217.4	410.4	217.2	0.2	405.2	1.3
2 15 N	115 36 W	6 Jun 86	216.7	408.5				
2 15 N	115 36 W	6 Jun 86	217.9	405.8				
2 15 N	115 36 W	6 Jun 86	216.8	396.4				
0 0 N	120 0 W	7 Jun 86	217.6	399.9	217.7	0.1	404.8	1.6
0 0 N	120 0 W	7 Jun 86	217.5	400.6				
0 0 N	120 0 W	7 Jun 86	218.2	413.9				
0 0 N	127 18 W	8 Jun 86	218.2	396.0	217.7	0.2	396.0	0.3
0 0 N	127 18 W	8 Jun 86	217.9	394.5				
0 0 N	127 18 W	8 Jun 86	217.0	397.6				
0 0 N	137 30 W	11 Jun 86	218.1	400.2	218.2	0.1	400.1	
0 0 N	137 30 W	11 Jun 86	218.4	400.1				
0 12 N	139 0 W	11 Jun 86	218.2	415.8	217.0	0.6	406.7	1.6
0 12 N	139 0 W	11 Jun 86	215.3	402.2				
0 12 N	139 0 W	11 Jun 86	217.6	402.1				
0 39 N	140 0 W	14 Jun 86	215.8	397.9	216.8	0.3	399.3	0.2
0 39 N	140 0 W	14 Jun 86	216.6	399.4				
0 39 N	140 0 W	14 Jun 86	217.7	400.5				
0 39 N	140 0 W	14 Jun 86	217.2	399.5				
1 9 N	140 0 W	14 Jun 86	219.3	399.6	218.9	0.2	399.6	0.1
1 9 N	140 0 W	14 Jun 86		399.1				
1 9 N	140 0 W	14 Jun 86	218.6	400.2				
3 33 N	140 30 W	15 Jun 86	217.5	399.8	217.5	0.0	397.3	0.6
3 33 N	140 30 W	15 Jun 86	217.6	394.8				
4 6 N	141 6 W	15 Jun 86	215.7	400.2	216.9	0.6	400.1	0.0
4 6 N	141 6 W	15 Jun 86	218.1	400.1				

Latitude	Longitude	Date	Atm F-11	Atm F-12	Avg. F-11	%Std. F-11	Avg. F-12	%Std. F-122
4 36.6 N	141 39 W	15 Jun 86	218.2	401.2	218.1	0.1	400.4	0.2
4 36.6 N	141 39 W	15 Jun 86	218.0	400.9				
4 36.6 N	141 39 W	15 Jun 86	218.0	399.5				
4 36.6 N	141 39 W	15 Jun 86	218.3	400.0				
5 6 N	142 6 W	15 Jun 86	218.4	394.1	218.7	0.2	395.4	0.3
5 6 N	142 6 W	15 Jun 86	219.1	396.7				
5 48 N	142 51 W	15 Jun 86	217.0	400.4	217.4	0.3	400.3	0.1
5 48 N	142 51 W	15 Jun 86	217.0	399.7				
5 48 N	142 51 W	15 Jun 86	218.3	400.8				
6 39 N	143 42 W	16 Jun 86	219.3	403.6	219.7	0.1	403.9	0.1
6 39 N	143 42 W	16 Jun 86	220.0	403.9				
6 39 N	143 42 W	16 Jun 86	219.8	404.2				
7 51 N	144 54 W	16 Jun 86	221.9	408.8	222.8	0.3	412.2	1.0
7 51 N	144 54 W	16 Jun 86	222.9	410.1				
7 51 N	144 54 W	16 Jun 86	223.8	417.7				
8 36 N	145 36 W	16 Jun 86	222.8	419.9	223.5	0.5	420.2	0.2
8 36 N	145 36 W	16 Jun 86	225.1	419.7				
8 36 N	145 36 W	16 Jun 86	222.7	421.2				
9 24 N	146 24 W	16 Jun 86	226.3	415.6	226.2	0.0	417.1	0.3
9 24 N	146 24 W	16 Jun 86	226.2	418.5				
9 24 N	146 24 W	16 Jun 86	226.1	417.2				
10 15 N	147 12 W	16 Jun 86	224.4	412.8	226.7	1.0	415.7	0.7
10 15 N	147 12 W	16 Jun 86	229.1	418.7				
11 24 N	148 24 W	17 Jun 86	223.7	412.5	223.4	0.2	411.8	0.1
11 24 N	148 24 W	17 Jun 86	222.8	411.8				
11 24 N	148 24 W	17 Jun 86	223.9	411.3				
12 15.6 N	149 18 W	17 Jun 86	226.1	413.8	226.0	0.1	413.2	0.1
12 15.6 N	149 18 W	17 Jun 86	226.4	412.6				
12 15.6 N	149 18 W	17 Jun 86	225.7	413.2				
14 1.2 N	150 52.8 W	17 Jun 86	220.8	411.3	221.8	0.4	411.8	0.1
14 1.2 N	150 52.8 W	17 Jun 86	221.8	412.4				
14 1.2 N	150 52.8 W	17 Jun 86	222.9	411.8				
15 45.6 N	152 45.6 W	18 Jun 86	219.7	410.5	220.5	0.3	410.7	0.1
15 45.6 N	152 45.6 W	18 Jun 86	221.0	410.4				
15 45.6 N	152 45.6 W	18 Jun 86	221.0	411.2				
17 42.7 N	154 52.8 W	18 Jun 86		414.8	216.4	0.6	416.4	0.8
17 42.7 N	154 52.8 W	18 Jun 86	215.2	413.7				
17 42.7 N	154 52.8 W	18 Jun 86	217.7	420.9				
19 37.2 N	156 6 W	19 Jun 86		410.4	216.4	0.2	411.0	0.3
19 37.2 N	156 6 W	19 Jun 86	215.9	410.1				
19 37.2 N	156 6 W	19 Jun 86	216.9	412.7				

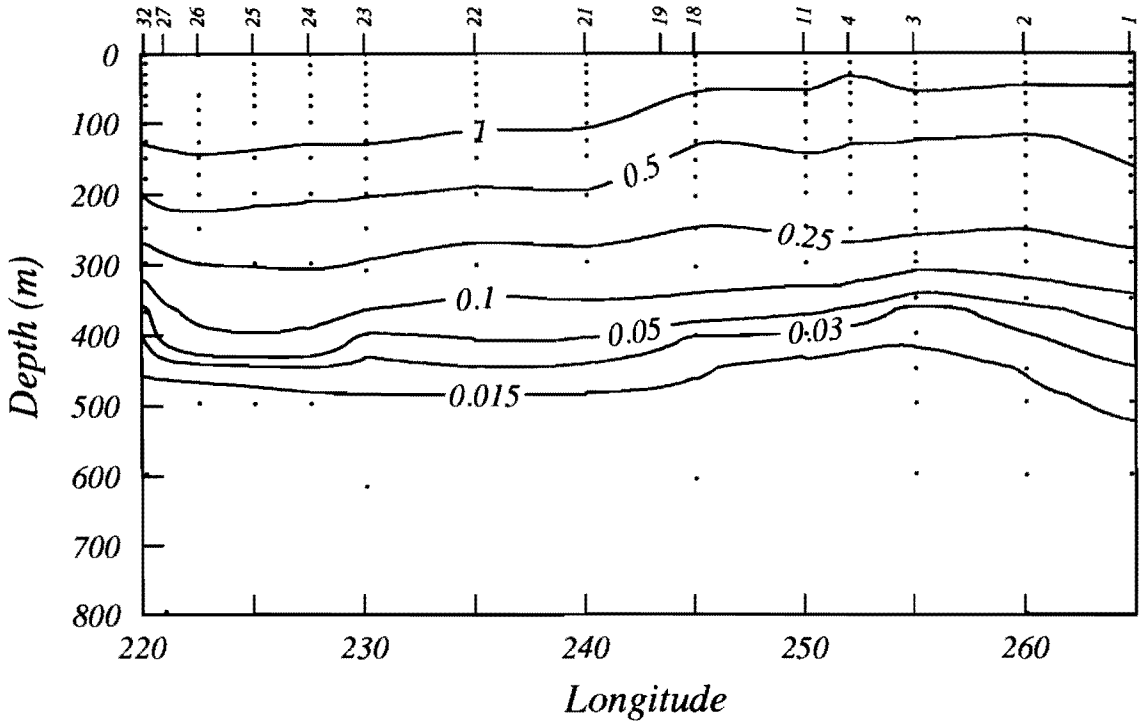


Salinity (PSU)

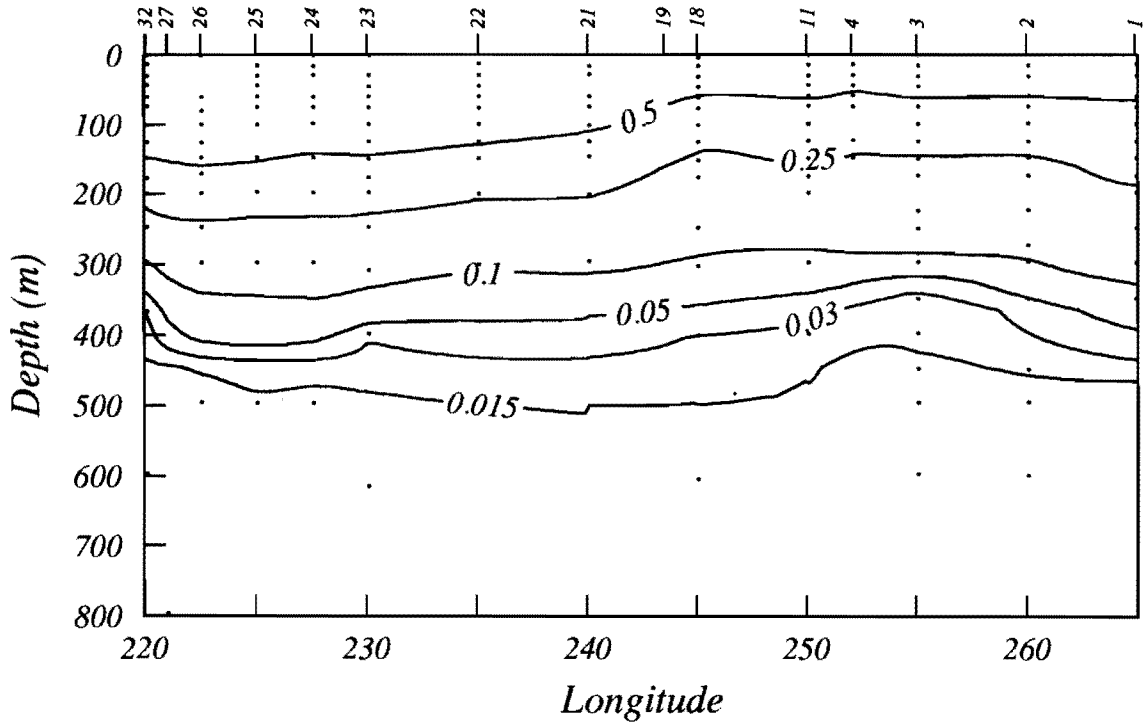


Potential Temperature (Degrees C.)

Potential Temperature and Salinity during EPOCS86 Along the Equator. Station numbers are indicated across the top. East is to the right.

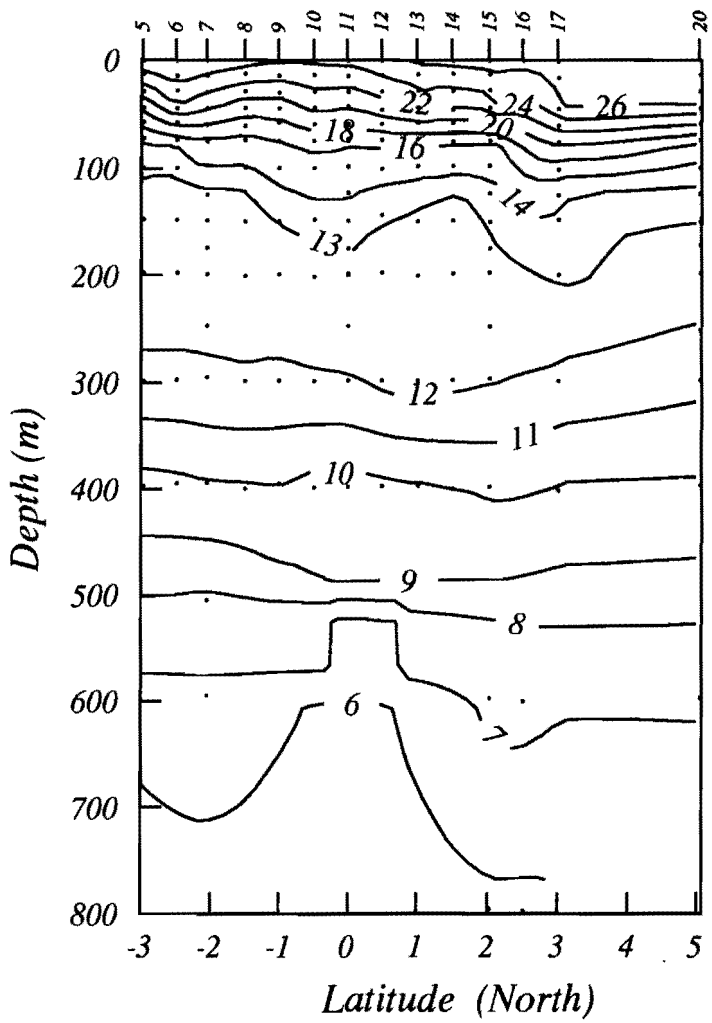


CFC-11 (pmole/Kg)

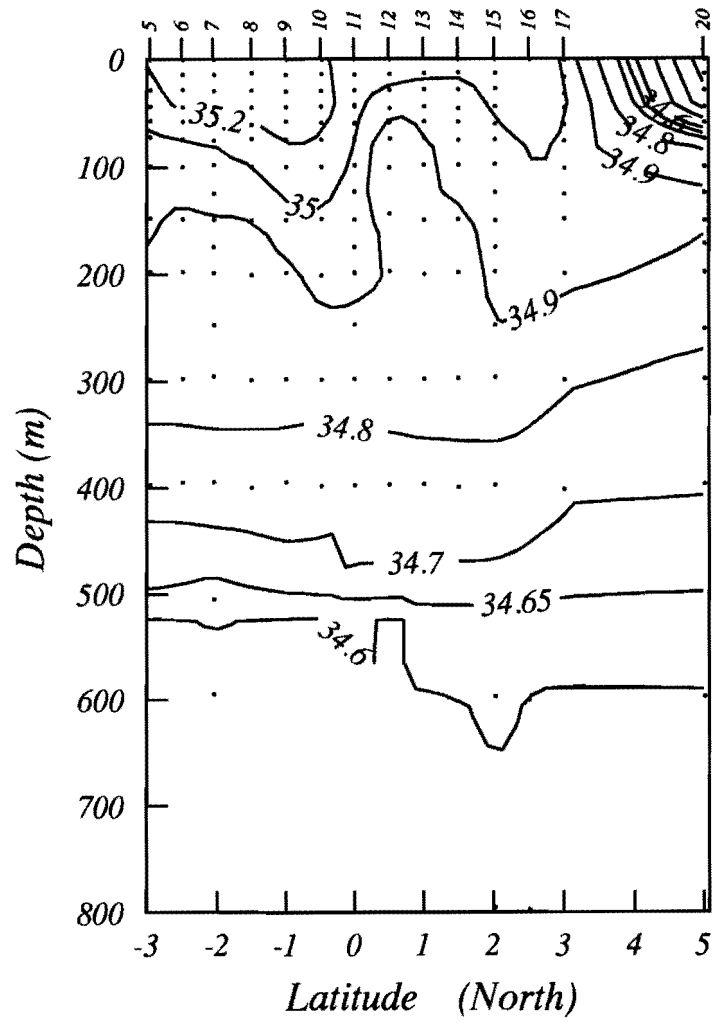


CFC-12 (pmole/Kg)

CFC-11 and CFC-12 during EPOCS86 Along the Equator.
Station numbers are indicated across the top. East is to the right.

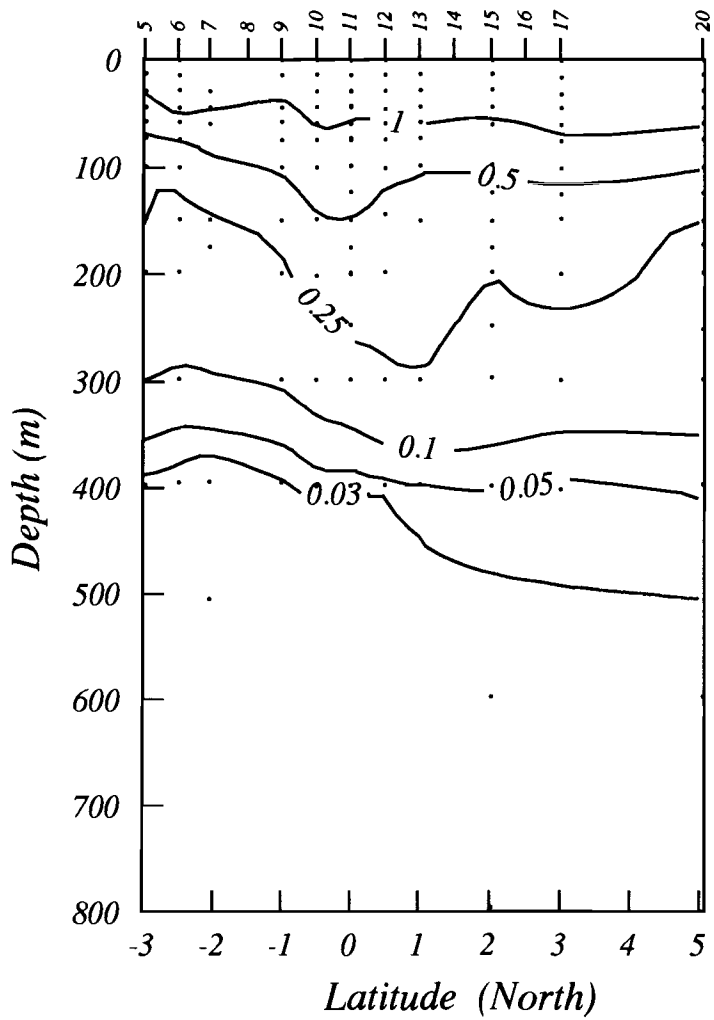


Potential Temperature (Degrees C.)

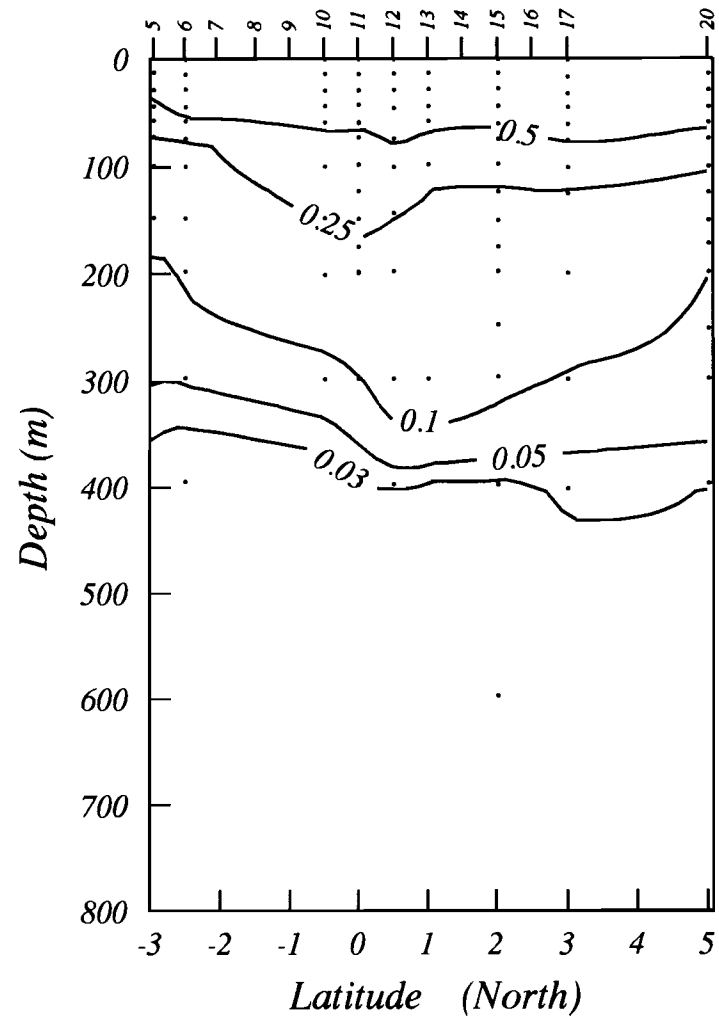


Salinity (PSU)

Potential Temperature and Salinity sections along 110 West during EPOCS86.
Station numbers are indicated across the top.

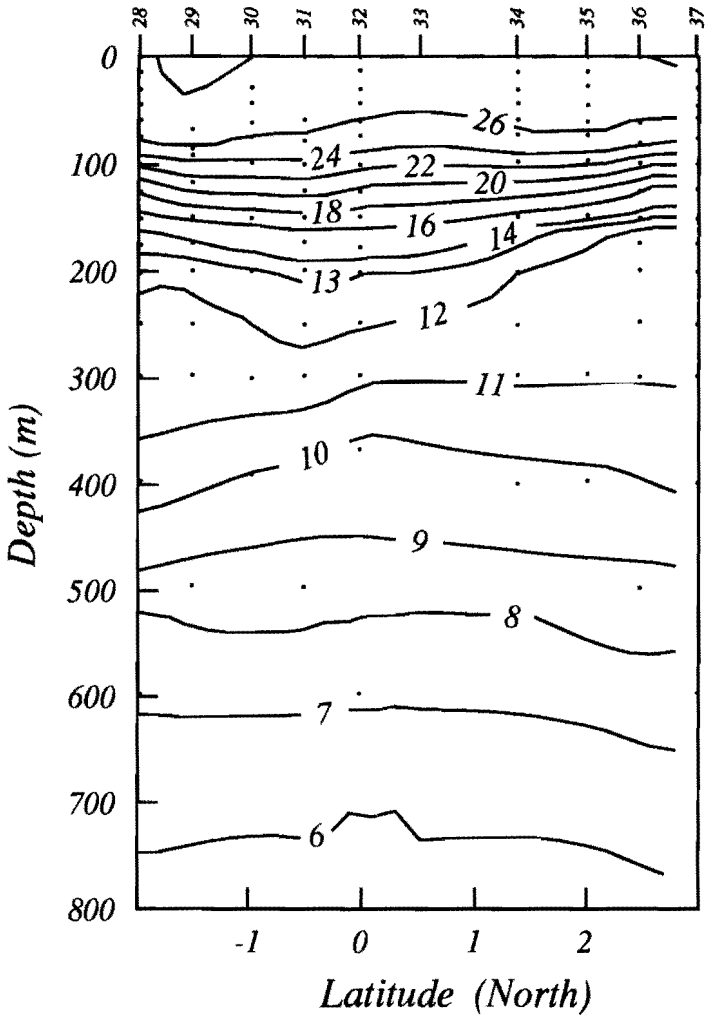


CFC-11 (pmole/Kg)

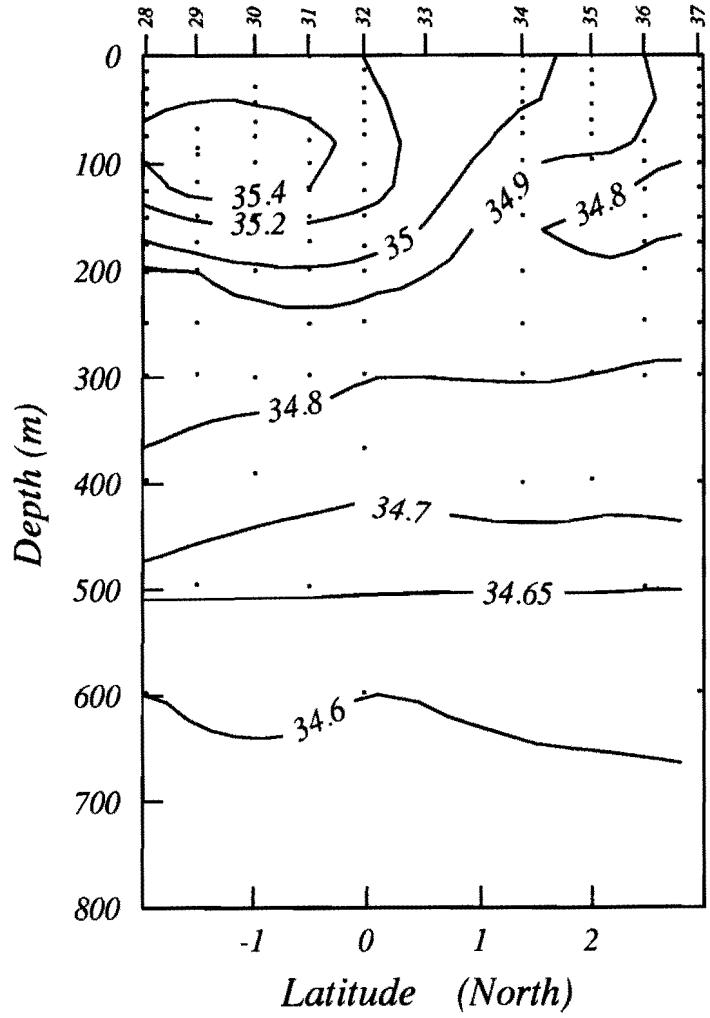


CFC-12 (pmole/Kg)

CFC-11 and CFC-12 sections along 110 West during EPOCS86.
Station numbers are indicated across the top.

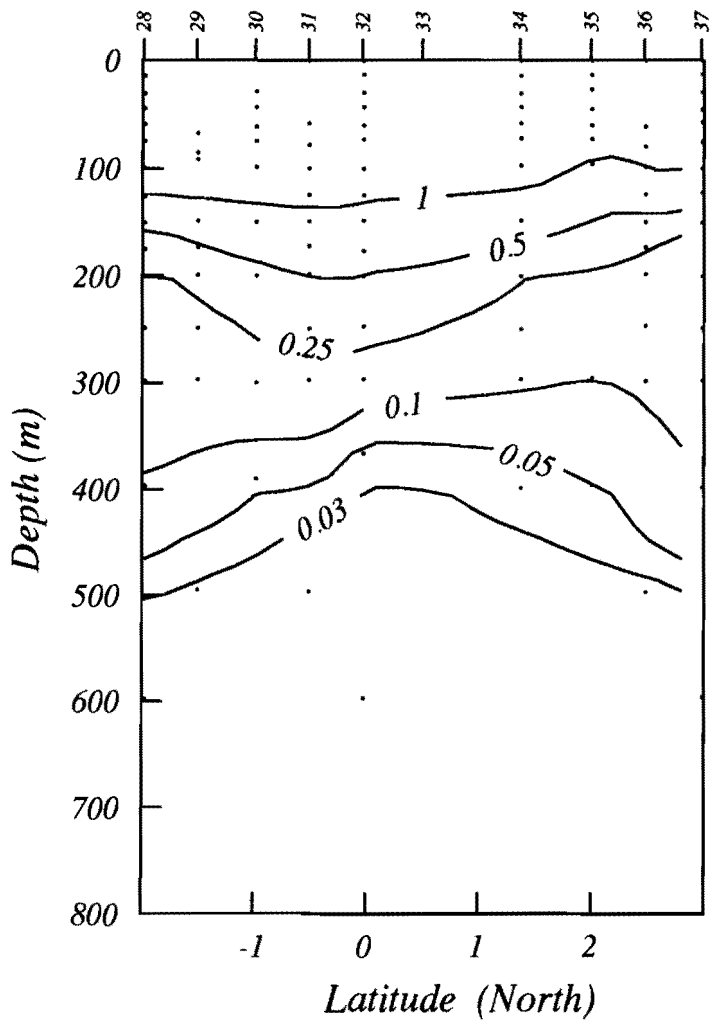


Potential Temperature (Degrees C.)

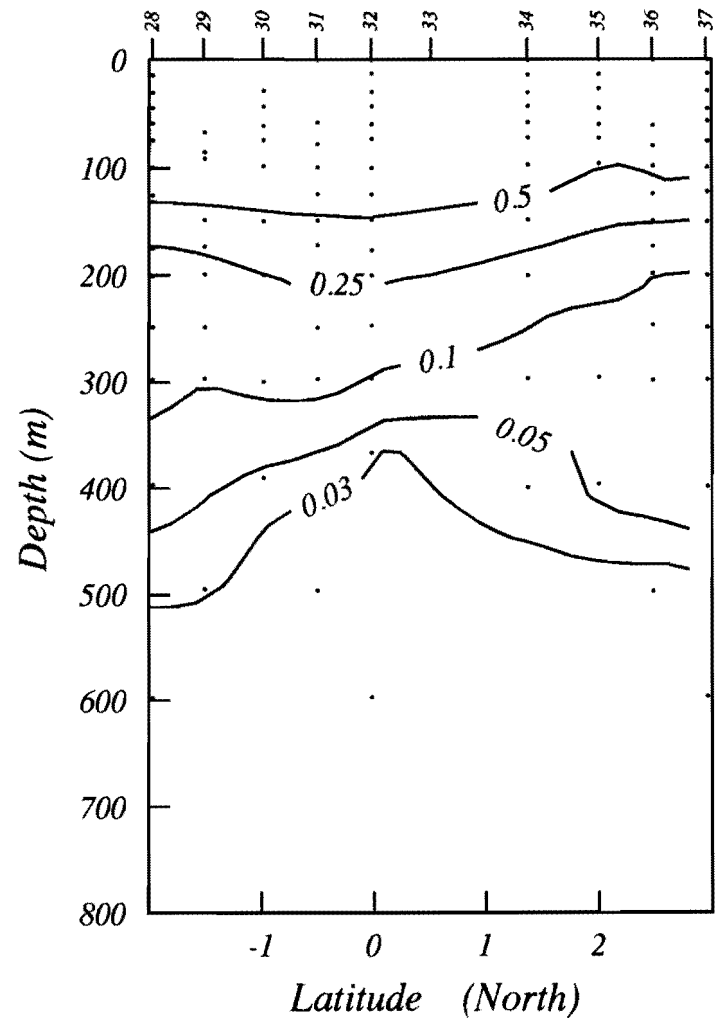


Salinity (PSU)

Potential Temperature and Salinity sections along 140 West during EPOCS86.
Station numbers are indicated across the top.



CFC-11 (pmole/Kg)



CFC-12 (pmole/Kg)

CFC-11 and CFC-12 sections along 140 West during EPOCS86.
Station numbers are indicated across the top.

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
1	24 May 86	00 00.2 N	094 58.7 W	3330	219.2	406.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
210	0	0	24.944	35.010	23.368	230	1.465	-9.000	1.11	0.94	-9.00	-9.00	1020
110	13	13	24.453	35.006	23.513	223	1.405	0.774	1.07	0.89	0.93	1.82	1000
112	28	28	20.699	35.056	24.620	175	1.103	0.761	0.79	0.59	0.79	1.45	1000
118	44	44	18.489	35.018	25.165	156	1.021	-9.000	0.67	0.49	-9.00	-9.00	1020
122	59	59	16.940	35.157	25.650	148	1.017	0.535	0.62	0.46	0.47	1.90	1001
117	74	74	16.169	35.166	25.837	142	0.726	0.392	0.59	0.31	0.34	1.85	1000
113	98	98	14.549	35.000	26.071	137	0.618	0.352	0.55	0.25	0.28	1.75	1100
121	123	124	14.229	35.009	26.146	135	0.568	0.311	0.54	0.22	-9.00	-9.00	1120
115	148	148	13.730	34.950	26.206	116	0.612	0.327	0.46	0.23	0.25	1.87	1000
104	174	174	13.389	34.933	26.263	113	0.438	0.252	0.44	0.16	0.19	1.74	1000
119	198	199	13.145	34.920	26.302	108	0.373	0.223	0.42	0.14	0.17	1.67	1000
108	249	250	13.003	34.908	26.322	86	0.399	0.271	0.33	0.15	0.20	1.47	1000
212	297	298	12.100	34.855	26.458	48	0.176	0.136	0.18	0.06	-9.00	-9.00	1120
218	348	349	10.588	34.768	26.669	32	0.071	0.070	0.12	0.02	-9.00	-9.00	1122
222	397	398	9.688	34.721	26.787	35	-9.000	-9.000	0.13	-9.00	-9.00	-9.00	1000
217	494	497	8.498	34.656	26.928	53	0.022	-9.000	0.18	-9.00	-9.00	-9.00	1023
213	597	600	7.097	34.597	27.088	68	0.002	-9.000	0.23	-9.00	-9.00	-9.00	1023
221	993	999	4.638	34.563	27.370	86	0.000	0.004	0.28	-9.00	-9.00	-9.00	1003
215	1487	1499	3.077	34.604	27.562	98	0.002	0.000	0.30	-9.00	-9.00	-9.00	1003
204	1984	2002	2.196	34.643	27.670	111	0.006	-9.000	0.33	-9.00	-9.00	-9.00	1023
219	2476	2502	1.761	34.662	27.719	127	-0.001	0.011	0.38	-9.00	-9.00	-9.00	1003
208	2924	2958	1.538	34.669	27.742	144	-0.001	0.005	0.43	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
2	25 May 86	00 00.0 N	099 59.1 W	3240	218.7	406.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
308	0	0	25.068	35.020	23.338	219	1.560	0.902	1.06	1.01	1.11	1.73	1000
408	14	14	24.929	35.012	23.374	-9	1.421	0.785	-9.00	0.92	0.96	1.81	1000
410	29	29	20.785	34.954	24.518	-9	1.073	0.653	-9.00	0.58	0.68	1.64	1001
412	43	43	19.122	35.053	25.032	169	1.080	-9.000	0.74	0.54	-9.00	-9.00	1020
418	58	58	16.593	35.133	25.714	-9	0.749	0.429	-9.00	0.33	0.37	1.74	1001
422	73	73	15.708	35.087	25.882	-9	0.747	0.426	-9.00	0.32	0.36	1.75	1001
417	98	98	14.300	34.929	26.070	144	0.562	0.318	0.57	0.22	0.27	1.67	1100
413	123	124	13.846	34.993	26.215	-9	0.455	0.267	-9.00	0.18	0.20	1.80	1100
421	147	147	13.474	34.963	26.269	-9	0.427	0.240	-9.00	0.16	0.18	1.78	1000
415	174	174	13.117	34.922	26.310	118	0.377	0.218	0.46	0.14	0.16	1.73	1000
404	197	198	13.013	34.914	26.324	-9	0.340	-9.000	-9.00	0.13	-9.00	-9.00	1020
419	222	223	12.883	34.907	26.345	-9	0.324	0.214	-9.00	0.12	0.13	1.75	1100
310	247	248	12.435	34.877	26.410	65	0.229	-9.000	0.25	0.08	-9.00	-9.00	1020
312	272	273	12.002	34.854	26.476	-9	0.175	0.093	-9.00	0.06	0.07	1.88	1000
318	296	297	11.953	34.856	26.487	-9	0.141	0.104	-9.00	0.05	0.07	1.35	1000
322	348	349	10.055	34.749	26.747	-9	0.055	0.042	-9.00	0.02	0.03	1.30	1002
317	396	398	9.063	34.691	26.866	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
313	447	449	8.665	34.670	26.913	-9	0.011	0.018	-9.00	-9.00	-9.00	-9.00	1003
321	494	496	7.972	34.635	26.992	-9	0.015	0.004	-9.00	-9.00	-9.00	-9.00	1003
315	598	601	6.948	34.594	27.106	-9	0.003	-0.021	-9.00	-9.00	-9.00	-9.00	1003
304	797	802	5.363	34.558	27.282	-9	0.002	-9.000	-9.00	-9.00	-9.00	-9.00	1023
319	1013	1019	4.494	34.569	27.391	107	0.008	-9.000	0.34	-9.00	-9.00	-9.00	1023

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
3	26 May 86	00 00.2 N	104 58.7 W	3540	218.7	406.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
519	0	0	24.858	35.115	23.473	216	1.439	0.792	1.05	0.93	0.96	1.82	1000
619	14	14	23.531	34.996	23.778	-9	1.294	0.699	-9.00	0.79	0.81	1.85	1001
608	29	29	21.800	34.995	24.271	-9	1.174	0.628	-9.00	0.66	0.68	1.87	1000
610	44	44	20.114	34.959	24.702	172	1.118	0.573	0.76	0.58	0.58	1.95	1000
612	59	59	18.014	34.996	25.267	-9	0.990	-9.000	-9.00	0.47	-9.00	-9.00	1020
618	73	73	17.655	35.074	25.415	-9	0.919	0.470	-9.00	0.43	0.43	1.95	1000
622	98	98	15.306	35.117	25.995	140	0.669	0.353	0.57	0.28	0.29	1.90	1000
617	123	124	13.450	34.950	26.264	-9	0.470	0.252	-9.00	0.18	0.19	1.86	1000
613	149	150	13.221	34.942	26.304	-9	0.409	0.236	-9.00	0.15	0.18	1.73	1000
621	173	174	13.064	34.923	26.321	121	0.375	0.244	0.47	0.14	0.18	1.54	1000
615	199	200	12.902	34.908	26.342	-9	0.391	-9.000	-9.00	0.14	-9.00	-9.00	1020
604	224	224	12.797	34.899	26.356	-9	0.349	0.226	-9.00	0.13	0.17	1.55	1000
508	250	250	12.705	34.892	26.369	-9	0.322	0.192	-9.00	0.12	0.14	1.68	1000
510	283	284	11.707	34.838	26.519	38	0.116	0.098	0.14	0.04	0.07	1.18	1002
512	296	297	11.443	34.827	26.560	-9	0.090	0.043	-9.00	0.03	0.03	2.11	1002
518	347	348	9.581	34.718	26.803	-9	0.021	0.010	-9.00	-9.00	-9.00	-9.00	1002
522	396	398	9.349	34.706	26.832	-9	0.021	0.022	-9.00	-9.00	-9.00	-9.00	1003
517	447	448	8.786	34.674	26.897	-9	0.009	0.010	-9.00	-9.00	-9.00	-9.00	1003
513	495	497	7.976	34.635	26.991	-9	-0.002	-0.008	-9.00	-9.00	-9.00	-9.00	1003
521	596	599	7.104	34.598	27.088	-9	-0.005	-0.007	-9.00	-9.00	-9.00	-9.00	1003
515	800	805	5.505	34.558	27.265	-9	-0.006	-0.015	-9.00	-9.00	-9.00	-9.00	1103
504	985	992	4.622	34.563	27.372	89	-0.001	0.003	0.28	-9.00	-9.00	-9.00	1103

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
4	28 May 86	00 01.9 N	107 56.4 W	3680	218.7	406.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
710	12	12	23.310	35.016	23.858	-9	1.184	0.741	-9.00	0.71	0.85	1.60	1000
712	27	27	21.903	35.016	24.259	184	1.014	0.600	0.85	0.57	0.65	1.69	1001
718	43	43	19.612	35.084	24.929	-9	0.882	0.501	-9.00	0.45	0.50	1.76	1000
722	57	57	17.458	35.189	25.550	-9	0.743	0.422	-9.00	0.34	0.38	1.76	1001
717	73	73	16.574	35.161	25.739	-9	0.760	0.439	-9.00	0.34	0.38	1.73	1000
713	97	97	15.432	35.019	25.892	-9	0.636	-9.000	-9.00	0.27	-9.00	-9.00	1020
721	122	122	14.422	34.986	26.087	101	0.502	0.271	0.40	0.20	0.21	1.85	1000
715	147	148	13.408	34.946	26.269	-9	0.441	0.214	-9.00	0.17	0.16	2.06	1000
704	173	173	13.087	34.913	26.309	-9	0.380	-9.000	-9.00	0.14	-9.00	-9.00	1020
719	198	199	12.887	34.902	26.340	-9	0.318	-9.000	-9.00	0.12	-9.00	-9.00	1020
708	249	250	12.773	34.903	26.364	93	0.353	-9.000	0.36	0.13	-9.00	-9.00	1020

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
5	28 May 86	03 00.0 S	109 59.9 W	3760	218.7	406.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
919	0	0	25.499	35.134	23.292	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
908	12	12	25.288	35.321	23.498	211	1.409	0.772	1.03	0.93	0.96	1.83	1000
914	28	28	24.852	35.304	23.618	-9	1.427	0.765	-9.00	0.92	0.93	1.87	1000
910	43	43	15.861	35.009	25.787	112	0.611	0.324	0.46	0.26	0.27	1.88	1000
912	56	56	14.040	34.949	26.140	-9	0.363	0.225	-9.00	0.14	0.18	1.61	1000
918	72	72	13.429	34.933	26.255	68	0.345	0.196	0.27	0.13	0.15	1.79	1100
922	98	99	13.252	34.931	26.289	-9	0.320	0.175	-9.00	0.12	0.13	1.83	1000
917	147	147	12.931	34.912	26.339	56	0.268	0.128	0.21	0.10	0.09	2.10	1000
913	197	198	12.637	34.896	26.385	-9	0.239	-9.000	-9.00	0.09	-9.00	-9.00	1020
921	298	299	11.817	34.855	26.512	28	0.101	-9.000	0.11	0.04	-9.00	-9.00	1022
915	397	399	9.451	34.716	26.823	-9	0.016	-9.000	-9.00	-9.00	-9.00	-9.00	1023
904	998	1004	4.520	34.551	27.374	95	-0.002	0.013	0.30	-9.00	-9.00	-9.00	1123

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
6	29 May 86	02 30.3 S	109 59.7 W	3865	217.6	405.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1019	0	0	25.420	35.368	23.493	-9	1.541	0.830	-9.00	1.02	1.04	1.86	1000
1008	13	13	25.425	35.368	23.491	238	1.519	0.798	1.16	1.01	1.00	1.90	1000
1014	27	28	25.352	35.367	23.513	-9	1.509	0.824	-9.00	1.00	1.03	1.83	1000
1010	44	44	24.301	35.334	23.806	209	1.448	0.756	1.00	0.92	0.91	1.92	1000
1012	57	57	14.690	34.969	26.017	-9	0.429	0.216	-9.00	0.17	0.17	1.99	1000
1018	73	74	13.377	34.939	26.270	71	0.328	0.168	0.28	0.12	0.13	1.95	1000
1022	99	100	13.128	34.925	26.310	-9	0.316	0.164	-9.00	0.12	0.12	1.93	1000
1017	147	148	12.779	34.905	26.364	54	0.247	0.128	0.21	0.09	0.09	1.93	1000
1013	197	198	12.521	34.889	26.403	-9	0.202	0.100	-9.00	0.07	0.07	2.03	1000
1021	296	298	11.671	34.846	26.532	24	0.073	0.040	0.09	0.03	0.03	1.81	1002
1015	394	396	9.647	34.725	26.797	-9	0.023	-0.001	-9.00	-9.00	-9.00	-9.00	1002
1004	999	1006	4.574	34.552	27.368	91	-0.002	-0.007	0.29	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
7	29 May 86	02 03.8 S	109 55.9 W	3940	217.6	405.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1110	0	0	25.009	35.362	23.614	217	-9.000	-9.000	1.06	-9.00	-9.00	-9.00	1000
1214	14	14	24.893	35.373	23.658	217	-9.000	-9.000	1.05	-9.00	-9.00	-9.00	1000
1210	28	28	24.828	35.372	23.677	-9	1.364	-9.000	-9.00	0.88	-9.00	-9.00	1020
1212	44	44	18.510	35.229	25.322	-9	1.006	-9.000	-9.00	0.49	-9.00	-9.00	1020
1218	59	59	17.130	35.095	25.557	-9	0.672	-9.000	-9.00	0.31	-9.00	-9.00	1020
1222	74	74	15.277	35.001	25.912	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1217	97	97	13.380	34.938	26.268	66	-9.000	-9.000	0.26	-9.00	-9.00	-9.00	1000
1213	124	124	12.970	34.916	26.334	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1221	148	149	12.734	34.902	26.371	-9	0.206	-9.000	-9.00	0.08	-9.00	-9.00	1020
1215	173	173	12.524	34.892	26.404	-9	0.181	-9.000	-9.00	0.07	-9.00	-9.00	1020
1219	246	247	12.199	34.874	26.453	47	-9.000	-9.000	0.18	-9.00	-9.00	-9.00	1000
1112	294	295	11.806	34.855	26.514	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1118	393	395	9.923	34.740	26.762	-9	0.001	-9.000	-9.00	-9.00	-9.00	-9.00	1021
1208	504	507	7.552	34.611	27.034	-9	0.024	-9.000	-9.00	-9.00	-9.00	-9.00	1020
1122	594	597	6.800	34.576	27.112	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1113	1491	1502	3.054	34.601	27.562	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1115	2474	2500	1.758	34.662	27.720	132	-9.000	-9.000	0.39	-9.00	-9.00	-9.00	1000
1104	2965	3000	1.436	34.676	27.755	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1119	3454	3499	1.297	34.685	27.772	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
1108	3541	3588	1.246	34.688	27.778	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
8	30 May 86	01 30.5 S	109 59.2 W	3840	216.9	406.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1319	12	12	24.532	35.348	23.748	214	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
1308	28	28	22.213	35.475	24.520	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1310	44	44	17.519	35.303	25.623	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1312	60	60	15.969	35.134	25.859	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1318	73	73	15.121	35.061	25.993	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1322	99	99	13.436	34.951	26.267	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1317	149	149	12.527	34.885	26.398	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1313	200	201	12.433	34.879	26.412	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1321	298	299	11.917	34.855	26.493	31	-9.000	-9.000	0.12	-9.00	-9.00	-9.00	1000
1315	399	401	9.748	34.727	26.782	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1304	1005	1011	4.503	34.553	27.377	96	-9.000	-9.000	0.31	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
9	30 May 86	01 00.7 S	109 59.1 W	4020	220.1	407.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1414	0	0	24.055	35.277	23.836	200	1.371	-9.000	0.96	0.85	-9.00	-9.00	1020
1410	14	14	23.626	35.302	23.982	-9	1.246	-9.000	-9.00	0.76	-9.00	-9.00	1020
1412	29	29	21.767	35.465	24.638	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1418	44	44	18.099	35.393	25.550	-9	0.873	-9.000	-9.00	0.41	-9.00	-9.00	1020
1422	57	57	16.768	35.277	25.783	-9	0.766	-9.000	-9.00	0.34	-9.00	-9.00	1020
1417	74	74	15.727	35.196	25.961	-9	0.630	-9.000	-9.00	0.27	-9.00	-9.00	1020
1413	99	100	15.113	35.138	26.054	-9	0.543	-9.000	-9.00	0.22	-9.00	-9.00	1020
1421	149	149	12.882	34.926	26.360	-9	0.300	-9.000	-9.00	0.11	-9.00	-9.00	1020
1415	198	198	12.450	34.881	26.410	-9	0.216	-9.000	-9.00	0.08	-9.00	-9.00	1020
1404	297	298	11.696	34.844	26.526	30	0.091	-9.000	0.11	0.03	-9.00	-9.00	1020
1419	394	396	10.111	34.748	26.736	-9	0.026	-9.000	-9.00	-9.00	-9.00	-9.00	1020
1408	989	996	4.572	34.558	27.373	88	0.004	-9.000	0.28	-9.00	-9.00	-9.00	1021

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
10	31 May 86	00 30.1 S	109 58.7 W		216.6	406.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1513	0	0	24.029	35.195	23.782	198	1.680	0.910	0.95	1.06	1.07	1.85	1000
1521	13	13	23.809	35.206	23.855	-9	1.390	0.758	-9.00	0.86	0.89	1.84	1000
1515	29	29	22.647	35.254	24.229	-9	1.361	0.687	-9.00	0.81	0.77	1.98	1000
1504	43	43	20.833	35.392	24.839	-9	1.160	0.600	-9.00	0.63	0.63	1.93	1000
1519	58	58	17.808	35.211	25.482	-9	0.914	0.492	-9.00	0.43	0.45	1.86	1000
1508	74	74	16.530	35.144	25.737	-9	0.985	-9.000	-9.00	0.44	-9.00	-9.00	1020
1514	99	99	15.174	35.106	26.016	-9	0.759	0.467	-9.00	0.32	0.38	1.63	1000
1510	147	148	13.425	34.968	26.282	-9	0.460	0.242	-9.00	0.17	0.18	1.90	1000
1512	200	201	12.851	34.923	26.364	-9	0.365	0.188	-9.00	0.14	0.14	1.96	1100
1518	298	299	11.902	34.850	26.492	34	0.154	0.079	0.13	0.05	0.06	1.95	1002
1522	398	400	9.348	34.703	26.829	-9	0.038	-9.000	-9.00	0.01	-9.00	-9.00	1021
1517	999	1005	4.576	34.559	27.374	85	-9.000	-0.003	0.27	-9.00	-9.00	-9.00	1013

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
11	31 May 86	00 00.9 S	109 58.0 W	3830	219.9	407.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1714	0	0	24.133	35.092	23.673	-9	1.273	0.732	-9.00	0.79	0.86	1.74	1000
1810	13	13	24.053	35.076	23.685	201	1.379	0.711	0.96	0.85	0.84	1.94	1000
1710	14	14	23.997	35.087	23.710	196	1.331	-9.000	0.94	0.82	-9.00	-9.00	1020
1812	28	28	22.522	35.041	24.103	-9	1.267	0.645	-9.00	0.73	0.72	1.96	1000
1712	28	28	22.899	35.062	24.011	-9	1.276	0.715	-9.00	0.75	0.81	1.79	1000
1718	42	42	20.820	35.033	24.569	-9	1.099	0.599	-9.00	0.59	0.62	1.83	1000
1818	43	43	18.826	34.981	25.052	-9	1.044	-9.000	-9.00	0.51	-9.00	-9.00	1020
1722	58	58	17.706	35.035	25.372	-9	0.909	0.500	-9.00	0.42	0.46	1.82	1000
1822	58	59	16.995	34.970	25.493	-9	0.934	0.490	-9.00	0.42	0.43	1.90	1000
1817	72	72	15.917	34.982	25.754	-9	0.808	0.420	-9.00	0.34	0.36	1.92	1000
1717	74	74	16.481	35.001	25.638	-9	0.841	-9.000	-9.00	0.37	-9.00	-9.00	1020
1713	98	98	15.143	34.939	25.894	-9	0.684	0.377	-9.00	0.28	0.31	1.81	1000
1813	98	98	14.853	34.928	25.949	-9	0.688	0.398	-9.00	0.28	0.32	1.73	1000
1721	122	123	14.205	34.905	26.071	-9	0.597	0.313	-9.00	0.23	0.24	1.91	1000
1821	148	148	13.311	34.946	26.289	-9	0.484	0.270	-9.00	0.18	0.20	1.79	1000
1715	148	149	13.417	34.920	26.247	129	0.486	0.285	0.50	0.18	0.22	1.71	1000
1704	174	175	12.969	34.920	26.338	-9	0.398	0.247	-9.00	0.15	0.18	1.61	1000
1815	197	198	12.750	34.909	26.373	-9	0.345	0.190	-9.00	0.12	0.14	1.82	1000
1719	198	199	12.774	34.907	26.367	103	0.353	0.184	0.40	0.13	0.14	1.91	1000
1708	246	247	12.532	34.888	26.400	-9	0.300	-9.000	-9.00	0.11	-9.00	-9.00	1020
1804	297	298	11.887	34.848	26.493	32	0.133	0.075	0.12	0.05	0.05	1.78	1002
1819	397	399	9.371	34.707	26.829	-9	0.021	0.023	-9.00	-9.00	-9.00	-9.00	1003
1808	996	1002	4.348	34.567	27.405	87	0.011	0.003	0.28	-9.00	-9.00	-9.00	1003
1617	3360	3431	1.303	34.685	27.772	154	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
12	1 Jun 86	00 29.4 N	109 59.4 W	3780	219.9	407.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1919	0	0	25.180	35.079	23.348	214	1.346	0.743	1.04	0.87	0.91	1.81	1000
1908	13	13	24.993	35.083	23.408	-9	1.352	0.782	-9.00	0.87	0.96	1.73	1000
1914	28	28	24.402	35.070	23.576	-9	1.308	0.739	-9.00	0.82	0.88	1.77	1000
1910	45	45	20.861	34.894	24.452	-9	1.193	0.720	-9.00	0.64	0.75	1.66	1000
1912	58	58	18.505	34.796	24.991	-9	0.958	-9.000	-9.00	0.46	-9.00	-9.00	1020
1918	73	73	16.149	34.759	25.529	-9	0.819	0.586	-9.00	0.35	0.50	1.40	1000
1922	100	100	14.473	34.844	25.967	-9	0.526	0.333	-9.00	0.21	0.26	1.58	1000
1917	142	143	12.988	34.886	26.307	-9	0.413	0.225	-9.00	0.15	0.17	1.84	1000
1913	197	198	12.713	34.896	26.441	-9	0.330	0.221	-9.00	0.12	0.16	1.50	2000
1921	297	298	12.514	34.887	26.402	-9	0.233	0.173	-9.00	0.08	0.12	1.35	1000
1915	397	398	9.669	34.722	26.791	30	0.025	0.028	0.11	-9.00	-9.00	-9.00	1003
1904	997	1004	4.565	34.560	27.376	84	-0.015	-9.000	0.27	-9.00	-9.00	-9.00	1023

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
13	1 Jun 86	00 59.7 N	109 59.7 W		220.2	407.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2014	12	12	25.402	35.019	23.234	202	1.433	0.770	0.99	0.94	0.95	1.86	1000
2010	27	27	25.168	35.020	23.307	-9	1.466	0.778	-9.00	0.95	0.96	1.88	1000
2012	43	43	24.128	34.929	23.551	-9	1.406	0.749	-9.00	0.87	0.88	1.88	1000
2018	57	57	17.858	34.845	25.189	-9	0.914	0.461	-9.00	0.43	0.42	1.98	1000
2022	72	72	15.773	34.918	25.737	-9	0.663	-9.000	-9.00	0.28	-9.00	-9.00	1020
2017	97	98	14.326	34.944	26.076	-9	0.453	0.268	-9.00	0.18	0.21	1.69	1000
2013	149	149	12.682	34.881	26.365	-9	0.349	-9.000	-9.00	0.13	-9.00	-9.00	1020
2021	199	200	12.604	34.899	26.394	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2015	297	298	12.511	34.889	26.405	-9	0.274	0.178	-9.00	0.10	0.13	1.54	1000
2004	396	398	9.746	34.726	26.781	-9	0.034	0.011	-9.00	0.01	-9.00	-9.00	1003
2008	1007	1013	4.419	34.564	27.395	88	0.001	-0.008	0.28	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
14	1 Jun 86	01 29.6 N	110 01.0 W	3780	220.2	407.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2119	0	0	26.043	35.051	23.060	205	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
2108	12	12	26.062	35.051	23.054	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2114	28	28	25.910	35.040	23.094	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2110	45	45	21.835	34.860	24.159	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2112	58	58	18.096	34.848	25.133	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2118	74	74	15.418	34.938	25.832	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2122	98	98	13.785	34.942	26.188	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2117	148	148	12.631	34.866	26.363	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2113	197	198	12.507	34.877	26.396	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2121	296	298	12.287	34.876	26.438	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2115	399	400	9.842	34.730	26.769	29	-9.000	-9.000	0.11	-9.00	-9.00	-9.00	1000
2104	994	1001	4.518	34.563	27.383	90	-9.000	-9.000	0.29	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
15	1 Jun 86	02 00.4 N	110 00.2 W	3820	220.2	407.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2214	0	0	26.325	35.075	22.990	207	1.354	0.801	1.03	0.92	1.03	1.69	1000
2319	12	12	26.302	35.120	23.031	209	1.372	0.803	1.04	0.93	1.03	1.71	1000
2308	27	27	26.286	35.112	23.030	-9	1.321	0.801	-9.00	0.90	1.03	1.65	1000
2314	43	43	25.727	35.056	23.162	-9	1.277	0.730	-9.00	0.85	0.92	1.75	1000
2310	59	60	16.789	34.894	25.484	-9	0.671	0.400	-9.00	0.30	0.35	1.67	1000
2312	74	74	14.890	34.968	25.972	-9	-9.000	0.396	-9.00	-9.00	0.32	-9.00	1010
2318	97	97	14.136	34.964	26.131	-9	0.454	0.264	-9.00	0.18	0.21	1.72	1000
2322	123	123	13.864	34.966	26.190	-9	0.410	0.245	-9.00	0.16	0.19	1.67	1000
2317	149	150	13.487	34.953	26.258	-9	0.376	0.227	-9.00	0.14	0.17	1.65	1000
2313	174	174	13.043	34.927	26.328	-9	0.248	0.175	-9.00	0.09	0.13	1.42	1000
2321	197	198	12.651	34.909	26.392	-9	0.240	0.141	-9.00	0.09	0.10	1.70	1000
2304	247	248	12.403	34.900	26.434	60	0.227	0.178	0.23	0.08	0.13	1.28	1000
2315	247	248	12.403	34.900	26.434	60	0.226	0.150	0.23	0.08	0.11	1.51	1000
2210	295	296	12.204	34.876	26.454	-9	0.155	0.103	-9.00	0.05	0.07	1.51	1002
2212	397	398	10.188	34.757	26.730	-9	0.052	0.014	-9.00	0.02	-9.00	-9.00	1003
2218	596	599	7.523	34.617	27.043	-9	0.008	0.017	-9.00	-9.00	-9.00	-9.00	1003
2222	795	799	5.751	34.576	27.249	-9	0.006	-9.000	-9.00	-9.00	-9.00	-9.00	1023
2217	989	995	4.576	34.569	27.382	-9	0.008	-9.000	-9.00	-9.00	-9.00	-9.00	1023
2213	1486	1497	2.974	34.618	27.583	-9	0.003	-9.000	-9.00	-9.00	-9.00	-9.00	1023
2221	1981	1999	2.169	34.655	27.682	-9	0.005	0.007	-9.00	-9.00	-9.00	-9.00	1003
2215	2473	2499	1.643	34.667	27.922	-9	0.001	0.003	-9.00	-9.00	-9.00	-9.00	2003
2204	2967	3002	1.451	34.690	27.765	142	0.000	-9.000	0.42	-9.00	-9.00	-9.00	1023
2219	3260	3301	1.341	34.698	27.779	-9	-0.002	-0.015	-9.00	-9.00	-9.00	-9.00	1003
2208	3556	3603	1.242	34.704	27.791	157	0.002	0.002	0.46	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
16	1 Jun 86	02 29.4 N	110 00.0 W	3730	220.2	407.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2412	0	0	26.489	35.049	22.919	206	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
2418	0	0	26.489	35.049	22.919	206	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
2422	599	602	7.201	34.591	27.069	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2417	599	602	7.201	34.591	27.069	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2413	797	801	5.601	34.567	27.260	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2421	797	801	5.601	34.567	27.260	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2415	1004	1010	4.409	34.566	27.398	78	-9.000	-9.000	0.25	-9.00	-9.00	-9.00	1000
2404	1004	1010	4.409	34.566	27.398	78	-9.000	-9.000	0.25	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
17	2 Jun 86	02 59.6 N	110 00.2 W	3800	221.2	407.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2619	1	1	26.687	35.000	22.819	202	1.442	0.776	1.01	0.99	1.01	1.86	1000
2621	16	16	26.682	35.000	22.821	-9	1.436	0.763	-9.00	0.99	0.99	1.88	1000
2614	32	32	26.680	35.000	22.822	-9	1.401	0.781	-9.00	0.96	1.01	1.79	1000
2610	44	44	26.632	34.998	22.835	-9	1.431	0.768	-9.00	0.98	1.00	1.86	1000
2612	60	60	26.512	34.992	22.869	-9	1.407	0.755	-9.00	0.96	0.97	1.86	1000
2618	75	75	20.167	34.860	24.612	-9	0.923	0.537	-9.00	0.48	0.54	1.72	1000
2622	100	100	14.488	34.950	26.045	-9	0.488	0.264	-9.00	0.19	0.21	1.85	1000
2617	124	124	13.964	34.947	26.154	-9	0.442	0.262	-9.00	0.17	0.20	1.69	1000
2613	147	148	13.818	34.950	26.187	-9	0.422	-9.000	-9.00	0.16	-9.00	-9.00	1020
2608	198	199	13.435	34.924	26.246	-9	0.383	0.242	-9.00	0.14	0.18	1.58	1000
2615	298	299	11.832	34.812	26.475	-9	0.141	0.084	-9.00	0.05	0.06	1.68	1002
2604	401	402	9.723	34.698	26.764	35	0.025	0.040	0.12	-9.00	0.03	-9.00	1003
2508	996	1007	4.629	34.551	28.438	73	-0.001	0.015	0.24	-9.00	-9.00	-9.00	2003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
18	3 Jun 86	00 02.3 N	114 58.4 W	3995	218.1	406.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2710	3	3	24.655	34.862	23.343	181	1.361	0.764	0.87	0.87	0.92	1.78	1000
2808	15	15	24.271	35.322	23.806	-9	1.341	0.696	-9.00	0.85	0.83	1.93	1000
2814	30	30	23.104	35.104	23.984	-9	1.139	0.580	-9.00	0.68	0.66	1.96	1000
2810	45	45	21.168	35.286	24.667	-9	1.082	0.558	-9.00	0.60	0.59	1.94	1000
2812	60	61	19.962	35.208	24.932	-9	0.955	0.477	-9.00	0.50	0.48	2.00	1000
2818	75	76	17.768	35.037	25.358	-9	0.753	0.380	-9.00	0.35	0.35	1.98	1000
2822	99	100	16.060	35.130	25.835	88	0.600	0.334	0.36	0.26	0.28	1.80	1000
2817	124	124	14.466	34.907	26.017	-9	0.453	0.216	-9.00	0.18	0.17	2.09	1000
2813	151	152	13.008	34.898	26.313	-9	0.388	0.238	-9.00	0.14	0.18	1.63	1000
2821	176	176	12.778	34.891	26.353	-9	0.342	0.164	-9.00	0.12	0.12	2.08	1000
2815	202	203	12.616	34.876	26.374	-9	0.247	-9.000	-9.00	0.09	-9.00	-9.00	1022
2804	249	250	12.363	34.876	26.423	147	0.241	0.122	0.56	0.09	0.09	1.98	1000
2712	303	304	12.105	34.846	26.695	-9	0.148	0.082	-9.00	0.05	0.06	1.82	2102
2718	400	401	9.439	34.706	26.728	-9	0.019	0.026	-9.00	-9.00	-9.00	-9.00	2002
2722	604	606	7.208	34.575	27.055	-9	0.005	0.018	-9.00	-9.00	-9.00	-9.00	1003
2717	997	1003	4.494	34.561	27.385	-9	0.000	-0.002	-9.00	-9.00	-9.00	-9.00	1003
2713	1492	1504	3.112	34.599	27.555	-9	-0.011	0.010	-9.00	-9.00	-9.00	-9.00	1003
2721	1983	2001	2.193	34.642	27.669	-9	-0.011	-0.005	-9.00	-9.00	-9.00	-9.00	1003
2715	2477	2503	1.707	34.644	27.709	-9	-0.007	-0.007	-9.00	-9.00	-9.00	-9.00	1003
2704	2966	3001	1.480	34.676	27.752	-9	-0.011	-0.007	-9.00	-9.00	-9.00	-9.00	1003
2719	3451	3495	1.299	34.686	27.773	-9	-0.006	0.002	-9.00	-9.00	-9.00	-9.00	1003
2708	3630	3678	1.157	34.694	27.789	165	-0.004	0.004	0.49	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
19	3 Jun 86	00 00.2 N	116 30.9 W	4100	217.5	405.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2918	15	15	24.343	35.069	23.593	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2922	30	30	23.945	35.081	23.721	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2917	45	45	23.045	35.105	24.002	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2913	60	60	21.060	35.251	24.670	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2921	76	76	19.771	35.231	25.000	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2915	100	100	16.343	35.092	25.740	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2904	151	151	14.165	35.014	26.164	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2919	199	200	12.621	34.890	26.384	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2908	298	300	11.871	34.847	26.495	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
20	5 Jun 86	05 04.7 N	109 59.2 W	3870	221.2	407.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3010	0	0	27.521	34.092	21.869	-9	1.380	-9.000	-9.00	0.97	-9.00	-9.00	1020
3110	13	13	27.522	34.092	21.869	-9	1.423	0.730	-9.00	1.00	0.97	1.95	1000
3112	28	28	27.529	34.091	21.866	-9	1.432	0.719	-9.00	1.01	0.95	1.99	1000
3118	44	44	27.395	34.164	21.964	-9	1.373	0.681	-9.00	0.96	0.90	2.02	1000
3122	58	58	22.631	34.611	23.746	-9	1.202	0.646	-9.00	0.69	0.72	1.86	1000
3117	73	73	15.578	34.782	25.677	-9	0.619	0.305	-9.00	0.26	0.25	2.03	1000
3113	99	99	13.957	34.924	26.138	-9	0.366	0.194	-9.00	0.14	0.15	1.88	1000
3121	123	124	13.283	34.902	26.260	-9	0.247	0.132	-9.00	0.09	0.10	1.88	1000
3115	149	150	12.999	34.890	26.308	-9	0.236	0.117	-9.00	0.09	0.09	2.02	1000
3104	171	172	12.765	34.884	26.351	-9	0.195	0.094	-9.00	0.07	0.07	1.99	1100
3119	197	198	12.436	34.859	26.396	-9	0.162	0.081	-9.00	0.06	0.06	1.99	1000
3108	250	251	11.759	34.811	26.489	-9	0.137	0.066	-9.00	0.05	0.05	2.07	1000
3012	297	298	11.008	34.752	26.581	-9	0.167	0.081	-9.00	0.05	0.05	2.05	1000
3018	396	397	9.808	34.704	26.678	-9	0.054	0.024	-9.00	0.02	-9.00	-9.00	2002
3022	596	599	7.202	34.595	27.148	-9	0.031	-9.000	-9.00	0.01	-9.00	-9.00	2021
3017	992	998	4.866	34.562	27.367	-9	0.005	0.001	-9.00	-9.00	-9.00	-9.00	2003
3013	1487	1498	3.017	34.614	27.533	-9	0.005	0.000	-9.00	-9.00	-9.00	-9.00	2003
3021	1982	2000	2.105	34.646	27.680	-9	0.001	0.000	-9.00	-9.00	-9.00	-9.00	1003
3015	2474	2500	1.700	34.662	27.724	-9	0.002	-0.007	-9.00	-9.00	-9.00	-9.00	1003
3004	2963	2997	1.542	34.674	27.746	-9	0.010	0.001	-9.00	-9.00	-9.00	-9.00	1003
3019	3454	3498	1.252	34.686	27.776	-9	0.003	-0.006	-9.00	-9.00	-9.00	-9.00	1003
3008	3661	3710	1.200	34.688	27.781	-9	0.001	-0.008	-9.00	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
21	7 Jun 86	00 00.4 N	119 57.9 W	4100	217.5	405.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3214	0	0	25.527	35.230	23.356	-9	1.624	-9.000	-9.00	1.08	-9.00	-9.00	1020
3210	16	16	25.475	35.229	23.371	-9	1.627	0.775	-9.00	1.08	0.97	2.10	1000
3212	27	27	25.454	35.226	23.375	-9	1.552	0.770	-9.00	1.03	0.96	2.01	1000
3218	44	44	25.281	35.201	23.409	-9	1.510	-9.000	-9.00	1.00	-9.00	-9.00	1020
3222	58	58	23.774	34.965	23.683	-9	1.387	0.711	-9.00	0.86	0.83	1.95	1000
3217	73	73	21.402	35.046	24.420	-9	1.330	0.671	-9.00	0.74	0.72	1.98	1000
3213	100	100	19.039	35.206	25.170	-9	1.095	0.588	-9.00	0.56	-9.00	-9.00	1120
3221	124	124	15.704	35.120	25.908	-9	0.841	0.422	-9.00	-9.00	0.33	-9.00	1110
3215	145	146	14.887	35.040	26.028	-9	0.775	0.398	-9.00	0.32	0.32	1.95	1000
3204	200	201	13.108	34.900	26.294	-9	0.511	0.274	-9.00	0.19	0.20	1.87	1000
3219	296	297	12.213	34.868	26.446	-9	0.220	0.125	-9.00	0.08	0.09	1.82	1100
3208	994	1000	4.462	34.559	27.386	-9	-0.004	0.001	-9.00	-9.00	-9.00	-9.00	1103

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
22	8 Jun 86	00 00.3 N	124 58.3 W	4690	217.8	400.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3314	0	0	25.983	35.196	23.188	-9	1.413	-9.000	-9.00	0.96	-9.00	-9.00	1020
3310	11	12	25.951	35.194	23.197	-9	1.412	0.777	-9.00	0.96	1.00	1.82	1000
3312	27	27	25.830	35.177	23.222	-9	1.411	0.777	-9.00	0.95	1.00	1.82	1000
3318	43	43	24.902	35.069	23.425	-9	1.365	0.754	-9.00	0.88	0.93	1.81	1000
3322	59	59	23.341	35.255	24.030	-9	1.256	0.692	-9.00	0.76	0.81	1.81	1100
3317	74	74	21.423	35.128	24.477	-9	1.121	0.633	-9.00	0.64	0.69	1.81	1100
3313	98	98	19.408	35.252	25.110	-9	1.032	0.573	-9.00	0.52	-9.00	-9.00	1120
3321	123	124	17.953	35.174	25.418	-9	0.961	0.534	-9.00	0.46	0.50	1.80	1000
3315	148	148	15.070	35.053	25.998	-9	0.686	0.389	-9.00	0.28	0.34	1.67	1100
3304	199	200	13.136	34.948	26.326	-9	0.415	0.257	-9.00	0.15	0.21	1.50	1100
3319	300	301	11.686	34.841	26.526	-9	0.115	0.087	-9.00	0.04	0.07	1.31	1102
3308	972	978	4.575	34.560	27.375	-9	0.004	0.017	-9.00	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
23	9 Jun 86	00 00.4 N	129 58.4 W	4342	217.6	402.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3410	0	0	26.345	34.989	22.361	-9	1.429	0.778	-9.00	0.98	1.02	1.82	2100
3508	13	13	26.332	35.254	23.123	-9	1.415	-9.000	-9.00	0.98	-9.00	-9.00	1020
3514	28	28	26.270	35.255	23.143	-9	1.435	0.775	-9.00	0.99	1.01	1.85	1000
3510	44	44	26.176	35.259	23.176	-9	1.424	0.776	-9.00	0.98	1.00	1.84	1000
3512	58	58	26.002	35.280	23.246	-9	1.426	0.791	-9.00	0.97	1.02	1.80	1000
3518	74	74	25.076	35.406	23.627	-9	1.426	0.813	-9.00	0.93	1.01	1.75	1000
3522	98	98	22.400	35.271	24.312	-9	1.218	0.678	-9.00	0.71	0.75	1.82	1100
3517	124	124	19.672	35.331	25.102	-9	1.050	0.616	-9.00	0.54	-9.00	-9.00	1120
3513	149	149	16.347	35.167	25.797	-9	0.815	0.463	-9.00	0.36	0.40	1.76	1000
3521	176	176	14.234	34.998	26.137	-9	0.619	0.341	-9.00	0.24	0.27	1.82	1000
3515	197	198	13.480	34.975	26.276	-9	0.517	0.318	-9.00	0.20	0.24	1.63	1000
3504	247	248	12.534	34.880	26.393	-9	0.376	0.215	-9.00	0.14	0.16	1.73	1100
3412	308	308	12.045	34.855	26.468	-9	0.217	0.126	-9.00	0.08	0.09	1.73	1000
3418	397	398	9.549	34.713	26.804	-9	0.023	0.023	-9.00	-9.00	-9.00	-9.00	1002
3422	614	617	6.767	34.580	27.120	-9	0.006	0.006	-9.00	-9.00	-9.00	-9.00	1003
3417	997	1003	4.610	34.557	27.368	-9	-0.001	-9.000	-9.00	-9.00	-9.00	-9.00	1023
3413	1975	1993	2.162	34.644	27.674	-9	-0.002	0.005	-9.00	-9.00	-9.00	-9.00	1103
3421	2475	2500	1.712	34.666	27.726	-9	0.004	-9.000	-9.00	-9.00	-9.00	-9.00	1123
3415	2954	2989	1.454	34.677	27.754	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
3404	3437	3481	1.272	34.687	27.775	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
3419	3742	3793	1.118	34.699	27.796	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
3408	4133	4193	1.104	34.699	27.796	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
24	10 Jun 86	00 01.5 S	132 28.5 W	4600	217.6	401.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3619	0	0	26.478	35.220	23.051	-9	1.432	0.765	-9.00	0.99	1.00	1.87	1100
3608	15	15	26.459	35.223	23.060	-9	1.444	0.774	-9.00	1.00	1.01	1.87	1000
3614	28	28	26.439	35.225	23.067	-9	1.446	0.771	-9.00	1.00	1.01	1.88	1000
3610	43	43	26.217	35.256	23.160	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
3612	60	60	25.667	35.331	23.389	-9	1.415	0.759	-9.00	0.95	0.97	1.86	1000
3618	74	74	24.891	35.371	23.657	-9	1.339	0.721	-9.00	0.87	0.89	1.86	1000
3622	97	97	23.760	35.187	23.856	-9	1.276	0.687	-9.00	0.79	0.81	1.86	1100
3617	147	148	15.717	35.105	25.894	-9	0.760	0.419	-9.00	0.32	0.36	1.81	1000
3613	197	198	13.255	34.908	26.271	-9	0.525	0.319	-9.00	0.20	0.24	1.65	1000
3621	297	298	12.223	34.863	26.440	-9	0.269	0.167	-9.00	0.10	0.12	1.62	1000
3615	496	498	8.524	34.657	26.925	-9	0.012	0.008	-9.00	-9.00	-9.00	-9.00	1103
3604	999	1005	4.468	34.561	27.387	-9	0.002	0.012	-9.00	-9.00	-9.00	-9.00	1103

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
25	11 Jun 86	00 00.0 N	134 59.2 W	4400	217.5	401.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3714	14	14	26.741	35.185	22.942	-9	1.474	0.790	-9.00	1.03	1.05	1.87	1000
3710	14	14	26.741	35.183	22.940	-9	1.414	0.772	-9.00	0.99	1.02	1.83	1000
3712	29	29	26.582	35.181	22.989	-9	1.420	0.770	-9.00	0.99	1.01	1.84	1000
3718	42	42	26.324	35.177	23.067	-9	1.413	0.772	-9.00	0.97	1.01	1.83	1000
3722	59	59	25.758	35.121	23.202	-9	1.379	0.761	-9.00	0.93	0.97	1.81	1000
3717	73	74	24.745	34.997	23.418	-9	1.336	0.735	-9.00	0.86	0.90	1.82	1000
3713	99	99	23.072	35.109	23.997	-9	1.211	0.674	-9.00	0.72	0.75	1.85	1100
3721	148	148	18.160	35.225	25.406	-9	0.972	0.542	-9.00	0.47	0.51	1.79	1000
3715	197	198	13.400	34.961	26.282	-9	0.537	0.294	-9.00	0.20	0.22	1.83	1000
3704	297	298	12.058	34.859	26.469	-9	0.231	0.128	-9.00	0.08	0.09	1.80	1000
3719	496	498	8.343	34.651	26.948	-9	0.007	0.017	-9.00	-9.00	-9.00	-9.00	1103
3708	989	996	4.625	34.559	27.368	-9	0.004	-0.015	-9.00	-9.00	-9.00	-9.00	1103

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
26	11 Jun 86	00 00.8 S	137 29.5 W	4200	217.5	401.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3819	0	0	26.764	35.198	22.944	-9	1.394	0.790	-9.00	0.98	1.05	1.76	1000
3810	59	59	26.564	35.218	23.023	-9	1.399	0.765	-9.00	0.97	1.01	1.83	1000
3814	79	79	25.506	35.163	23.311	-9	1.371	0.744	-9.00	0.91	0.94	1.84	1000
3808	99	99	22.656	35.138	24.139	-9	1.211	0.655	-9.00	0.71	0.74	1.85	1000
3812	126	126	20.772	35.197	24.707	-9	1.098	0.610	-9.00	0.58	0.62	1.82	1100
3818	147	148	19.668	35.208	25.009	-9	1.032	0.567	-9.00	0.53	0.57	1.82	1000
3822	171	171	16.019	35.164	25.870	-9	0.800	0.440	-9.00	0.35	0.38	1.82	1000
3817	199	199	13.916	34.991	26.198	-9	0.575	0.332	-9.00	0.22	0.26	1.73	1000
3813	247	248	12.518	34.890	26.404	-9	0.398	0.229	-9.00	0.14	0.17	1.74	1000
3821	297	298	12.084	34.862	26.466	-9	0.237	0.147	-9.00	0.08	0.10	1.56	1100
3815	495	497	8.647	34.667	26.914	-9	0.006	0.004	-9.00	-9.00	-9.00	-9.00	1103
3804	1001	1007	4.476	34.561	27.386	-9	-0.004	0.000	-9.00	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
27	12 Jun 86	00 04.6 S	139 00.1 W	4380	217.5	401.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3917	0	0	26.870	35.247	22.194	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000
3921	598	600	7.363	34.603	27.055	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
3904	795	799	5.558	34.552	27.254	-9	-0.005	0.001	-9.00	-9.00	-9.00	-9.00	1103
3910	1017	1023	4.508	34.560	27.382	-9	-0.004	0.000	-9.00	-9.00	-9.00	-9.00	1003
3919	1020	1026	4.504	34.560	27.382	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
28	12 Jun 86	01 59.3 S	139 59.4 W		216.9	402.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4108	0	0	27.523	35.329	22.799	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4010	14	14	27.467	35.325	22.815	-9	1.496	0.811	-9.00	1.09	1.10	1.84	1000
4014	30	30	27.467	35.325	22.815	-9	1.473	0.794	-9.00	1.07	1.08	1.85	1000
4008	43	43	27.469	35.325	22.814	-9	1.468	0.783	-9.00	1.07	1.06	1.88	1000
4012	58	58	27.469	35.325	22.814	-9	1.456	0.785	-9.00	1.06	1.07	1.85	1000
4018	74	74	26.935	35.465	23.091	-9	1.416	0.793	-9.00	1.01	1.06	1.79	1000
4022	99	99	24.939	35.611	23.823	-9	1.526	0.831	-9.00	1.00	1.03	1.84	1000
4017	125	125	16.547	35.234	25.802	-9	0.910	0.503	-9.00	0.41	0.44	1.83	1100
4013	150	150	14.293	35.063	26.174	-9	0.462	-9.000	-9.00	0.18	-9.00	-9.00	1020
4021	174	175	13.115	34.953	26.334	-9	0.228	0.138	-9.00	0.09	0.10	1.66	1000
4015	200	201	12.004	34.860	26.480	-9	0.242	0.152	-9.00	0.09	0.11	1.59	1000
4004	248	249	11.835	34.848	26.503	-9	0.204	0.125	-9.00	0.07	0.09	1.67	1100
4112	297	298	11.707	34.841	26.522	-9	0.186	0.128	-9.00	0.06	0.09	1.43	1100
4118	396	398	10.549	34.786	26.690	-9	0.085	0.062	-9.00	0.03	0.04	1.39	1100
4122	597	600	7.135	34.595	27.081	-9	0.007	0.016	-9.00	-9.00	-9.00	-9.00	1003
4117	995	1001	4.498	34.557	27.381	-9	-0.001	0.005	-9.00	-9.00	-9.00	-9.00	1003
4113	1488	1500	2.886	34.608	27.583	-9	-0.001	0.006	-9.00	-9.00	-9.00	-9.00	1003
4121	1983	2002	2.104	34.652	27.685	-9	-0.001	0.010	-9.00	-9.00	-9.00	-9.00	1103
4115	2475	2501	1.728	34.667	27.726	-9	0.003	0.015	-9.00	-9.00	-9.00	-9.00	1003
4104	2966	3000	1.435	34.681	27.759	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4119	3451	3496	1.225	34.693	27.783	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4110	3758	3809	1.119	34.700	27.796	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
29	13 Jun 86	01 30.5 S	139 59.8 W	4342	217.5	401.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4219	67	67	27.307	35.361	22.893	-9	1.454	0.778	-9.00	1.05	1.05	1.87	1000
4210	85	85	25.808	35.603	23.550	-9	1.465	0.778	-9.00	0.99	1.00	1.88	1000
4214	91	91	25.712	35.622	23.594	-9	1.515	0.796	-9.00	1.02	1.02	1.90	1000
4208	116	116	21.729	35.636	24.778	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4212	148	148	15.589	35.200	25.996	-9	0.669	0.375	-9.00	0.29	0.32	1.78	1100
4218	172	173	13.463	35.015	26.311	-9	0.420	0.231	-9.00	0.16	0.18	1.81	1000
4222	198	199	12.161	34.874	26.461	-9	0.284	0.178	-9.00	0.10	0.13	1.60	1000
4217	248	248	11.824	34.847	26.504	-9	0.200	0.130	-9.00	0.07	0.09	1.54	1000
4213	296	297	11.662	34.832	26.523	-9	0.145	0.087	-9.00	0.05	0.06	1.67	1000
4221	494	496	8.410	34.649	26.936	-9	0.020	0.032	-9.00	-9.00	0.02	-9.00	1003
4204	996	1002	4.363	34.559	27.397	-9	-0.001	-0.010	-9.00	-9.00	-9.00	-9.00	1103
4215	996	1002	4.363	34.559	27.397	-9	-0.005	-0.010	-9.00	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
30	13 Jun 86	00 59.4 S	140 00.3 W	4260	216.9	402.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4312	28	28	27.238	35.387	22.935	-9	1.437	0.772	-9.00	1.03	1.04	1.86	1000
4318	42	42	27.221	35.389	22.942	-9	1.475	0.797	-9.00	1.06	1.07	1.85	1000
4322	60	60	27.040	35.410	23.016	-9	1.468	0.799	-9.00	1.05	1.07	1.84	1000
4317	74	74	25.936	35.322	23.298	-9	1.489	0.796	-9.00	1.01	1.02	1.87	1000
4313	98	98	24.547	35.690	24.002	-9	1.413	0.791	-9.00	0.91	0.97	1.79	1000
4321	149	149	16.011	35.274	25.957	-9	0.733	0.400	-9.00	0.32	0.34	1.85	1100
4315	199	199	12.706	34.931	26.399	-9	0.387	0.246	-9.00	0.14	0.18	1.57	1000
4304	299	300	11.558	34.832	26.543	-9	0.153	0.113	-9.00	0.05	0.08	1.36	1000
4319	389	391	9.772	34.728	26.779	-9	0.045	0.031	-9.00	0.01	0.02	1.47	1000
4310	975	981	4.512	34.558	27.380	-9	-0.005	-0.003	-9.00	-9.00	-9.00	-9.00	1103

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
31	13 Jun 86	00 31.2 S	139 58.1 W	4260	217.4	401.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4419	0	0	26.968	35.301	22.957	-9	1.424	0.780	-9.00	1.01	1.04	1.83	1000
4410	57	58	26.894	35.351	23.018	-9	1.423	0.782	-9.00	1.01	1.04	1.82	1000
4411	77	77	26.010	35.442	23.366	-9	1.536	0.804	-9.00	1.05	1.04	1.91	1000
4408	99	99	24.253	35.563	23.994	-9	1.381	0.741	-9.00	0.88	0.90	1.86	1000
4412	124	124	20.891	35.360	24.799	-9	1.102	0.585	-9.00	0.60	0.62	1.88	1000
4418	149	149	16.719	35.172	25.714	-9	0.833	0.442	-9.00	0.37	0.39	1.88	1000
4422	171	172	14.747	35.101	26.106	-9	0.641	0.340	-9.00	0.26	0.28	1.88	1000
4417	198	198	13.278	34.972	26.316	-9	0.501	0.284	-9.00	0.19	0.22	1.76	1000
4413	248	249	12.233	34.871	26.445	-9	0.330	0.191	-9.00	0.12	0.14	1.73	1000
4421	297	298	11.916	34.847	26.487	-9	0.216	0.121	-9.00	0.08	0.09	1.79	1000
4415	496	498	8.423	34.655	26.939	-9	0.011	0.009	-9.00	-9.00	-9.00	-9.00	1003
4404	996	1002	4.475	34.560	27.386	-9	-0.001	0.005	-9.00	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
32	14 Jun 86	00 01.9 S	140 00.4 W	4317	217.4	401.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4608	0	0	26.864	35.164	22.887	-9	1.384	0.739	-9.00	0.98	0.98	1.87	1000
4510	12	12	26.895	35.190	22.896	-9	1.425	0.766	-9.00	1.01	1.02	1.86	1000
4511	29	29	26.845	35.199	22.919	-9	1.434	0.764	-9.00	1.01	1.02	1.88	1000
4508	42	42	26.788	35.216	22.950	-9	1.426	0.779	-9.00	1.00	1.03	1.83	1000
4512	59	59	26.572	35.272	23.061	-9	1.410	0.767	-9.00	0.98	1.01	1.84	1000
4518	73	73	26.300	35.363	23.215	-9	1.378	0.746	-9.00	0.95	0.97	1.85	1000
4522	100	100	21.737	35.174	24.425	-9	1.163	0.629	-9.00	0.66	0.69	1.85	1000
4517	124	125	19.157	35.349	25.249	-9	1.013	0.572	-9.00	0.51	0.56	1.76	1100
4513	148	148	16.633	35.072	25.657	-9	0.892	0.484	-9.00	0.40	0.43	1.84	1000
4521	176	177	14.645	35.092	26.121	-9	0.675	0.426	-9.00	0.27	0.35	1.58	1000
4515	199	200	12.617	34.896	26.389	-9	0.438	0.245	-9.00	0.16	0.18	1.79	1000
4504	247	248	12.249	34.865	26.437	-9	0.356	0.202	-9.00	0.13	0.15	1.76	1000
4612	296	297	10.872	34.789	26.635	-9	0.083	0.056	-9.00	0.03	0.04	1.47	1000
4618	366	367	9.559	34.715	26.804	-9	0.027	0.017	-9.00	-9.00	-9.00	-9.00	1100
4622	596	599	7.107	34.593	27.084	-9	0.000	0.000	-9.00	-9.00	-9.00	-9.00	1003
4617	993	999	4.501	34.559	27.382	-9	0.005	-0.006	-9.00	-9.00	-9.00	-9.00	1003
4613	1490	1502	2.933	34.609	27.579	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4621	1981	1999	2.105	34.647	27.680	-9	0.004	-0.008	-9.00	-9.00	-9.00	-9.00	1103
4615	2473	2499	1.695	34.666	27.728	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4604	3025	3062	1.429	34.678	27.757	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4619	3450	3495	1.269	34.687	27.775	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4610	3951	4007	1.085	34.699	27.798	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
33	14 Jun 86	00 30.4 N	140 00.6 W	4320	217.5	399.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4704	1011	1020	4.404	34.560	27.393	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
34	14 Jun 86	01 22.2 N	140 00.1 W	4462	217.5	399.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4904	0	0	27.275	35.006	22.636	-9	1.448	0.839	-9.00	1.04	1.14	1.73	1000
4919	13	13	27.251	35.006	22.644	-9	1.426	0.904	-9.00	1.02	1.22	1.58	1000
4910	30	30	27.231	35.004	22.649	-9	1.414	0.824	-9.00	1.01	1.11	1.72	1000
4911	42	42	27.209	35.002	22.654	-9	1.427	0.789	-9.00	1.02	1.06	1.81	1000
4908	58	58	27.099	34.989	22.680	-9	1.462	0.789	-9.00	1.04	1.06	1.85	1000
4912	72	72	26.750	34.961	22.770	-9	1.474	0.793	-9.00	1.03	1.05	1.86	1000
4918	97	97	24.229	34.880	23.484	-9	1.393	0.760	-9.00	0.88	0.92	1.83	1000
4922	148	148	12.984	34.751	26.204	-9	0.593	0.319	-9.00	0.22	0.24	1.86	1000
4917	200	200	11.913	34.853	26.492	-9	0.174	0.096	-9.00	0.06	0.07	1.82	1000
4913	249	250	11.649	34.840	26.532	-9	0.137	0.084	-9.00	0.05	0.06	1.64	1000
4921	296	297	11.222	34.813	26.590	-9	0.106	0.061	-9.00	0.04	0.04	1.74	1000
4915	398	400	9.676	34.729	26.796	-9	0.040	0.043	-9.00	0.01	0.03	0.92	1000
4810	992	1002	4.467	34.567	27.392	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
35	15 Jun 86	01 59.6 N	140 00.1 W	4360	217.5	399.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5010	0	0	27.651	34.967	22.486	-9	1.408	0.768	-9.00	1.02	1.05	1.83	1000
5019	0	0	27.651	34.970	22.488	-9	1.422	0.783	-9.00	1.04	1.09	1.80	1100
5011	13	13	27.596	34.969	22.505	-9	1.436	0.803	-9.00	1.04	1.10	1.79	1000
5008	26	26	27.549	34.974	22.524	-9	1.441	0.797	-9.00	1.04	1.09	1.81	1000
5012	44	44	27.504	34.993	22.553	-9	1.419	0.767	-9.00	1.02	1.05	1.85	1000
5018	60	60	27.254	35.011	22.647	-9	1.428	0.783	-9.00	1.02	1.06	1.82	1000
5022	72	72	26.623	34.945	22.798	-9	1.379	0.756	-9.00	0.96	1.00	1.83	1000
5017	95	95	23.710	34.893	23.648	-9	0.357	0.203	-9.00	0.22	0.24	1.76	1000
5013	147	147	11.990	34.772	26.414	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
5021	295	296	11.080	34.799	26.605	-9	0.102	0.063	-9.00	0.03	0.04	1.61	1000
5015	395	396	9.711	34.713	26.777	-9	0.046	0.062	-9.00	0.01	0.04	0.73	1000
5004	1007	1013	4.481	34.565	27.389	-9	-0.002	0.001	-9.00	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
36	15 Jun 86	02 28.1 N	140 00.6 W	4400	217.4	399.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5111	0	0	27.770	34.831	22.345	-9	1.407	0.773	-9.00	1.03	1.06	1.82	1000
5108	61	61	26.258	34.861	22.850	-9	1.449	0.794	-9.00	0.99	1.04	1.82	1000
5112	79	79	24.306	34.894	23.472	-9	1.380	0.761	-9.00	0.87	0.92	1.81	1000
5118	98	98	21.155	34.850	24.339	-9	1.283	0.721	-9.00	0.70	0.77	1.78	1000
5122	124	124	13.384	34.682	26.070	-9	0.617	0.408	-9.00	0.23	0.31	1.51	1000
5117	149	150	11.813	34.783	26.457	-9	0.313	0.194	-9.00	0.11	0.14	1.61	1000
5113	173	173	11.764	34.829	26.502	-9	0.210	0.141	-9.00	0.07	0.10	1.50	1000
5121	198	198	11.691	34.835	26.520	-9	0.143	0.088	-9.00	0.05	0.06	1.62	1000
5115	246	247	11.377	34.814	26.562	-9	0.122	0.087	-9.00	0.04	0.06	1.40	1000
5104	298	299	11.078	34.790	26.598	-9	0.120	0.086	-9.00	0.04	0.06	1.39	1000
5119	497	499	8.546	34.641	26.909	-9	0.012	0.006	-9.00	-9.00	-9.00	-9.00	1003
5110	999	1005	4.458	34.562	27.389	-9	-0.003	-0.006	-9.00	-9.00	-9.00	-9.00	1003

EPOCS-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
37	15 Jun 86	02 59.9 N	139 59.9 W	4290	217.8	399.1

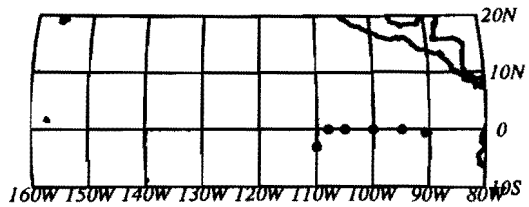
SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5219	0	0	27.928	34.837	22.298	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
5310	0	0	27.877	34.840	22.317	-9	1.374	0.745	-9.00	1.00	1.03	1.84	1000
5210	12	12	27.930	34.837	22.297	-9	1.394	0.770	-9.00	1.02	1.07	1.81	1000
5211	28	28	27.921	34.865	22.321	-9	1.400	0.757	-9.00	1.03	1.05	1.85	1000
5208	45	45	27.808	34.920	22.399	-9	1.410	0.775	-9.00	1.03	1.07	1.82	1000
5212	57	57	27.670	34.888	22.420	-9	1.464	0.787	-9.00	1.06	1.08	1.86	1000
5218	75	75	26.551	34.798	22.710	-9	1.263	0.681	-9.00	0.87	0.90	1.86	1000
5222	99	99	19.830	34.662	24.550	-9	0.801	0.438	-9.00	0.41	0.44	1.83	1000
5217	122	122	15.153	34.742	25.740	-9	0.411	0.234	-9.00	0.17	0.19	1.76	1000
5213	150	150	11.800	34.821	26.489	-9	0.186	0.174	-9.00	0.06	0.13	0.90	1100
5221	173	173	11.639	34.826	26.523	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
5215	200	200	11.541	34.814	26.532	-9	0.148	0.095	-9.00	0.05	0.07	1.56	1000
5204	248	249	11.367	34.814	26.564	-9	0.149	0.093	-9.00	0.05	0.07	1.61	1000
5314	297	298	11.112	34.799	26.599	-9	0.115	0.078	-9.00	0.04	0.06	1.40	1100
5308	398	399	10.396	34.738	26.679	-9	0.130	0.081	-9.00	0.04	0.05	1.61	1000
5312	596	598	7.557	34.610	27.033	-9	0.004	0.001	-9.00	-9.00	-9.00	-9.00	1003
5318	994	1000	4.594	34.566	27.377	-9	-0.002	-0.005	-9.00	-9.00	-9.00	-9.00	1003
5322	1487	1498	2.834	34.618	27.595	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
5317	1981	1999	2.146	34.650	27.680	-9	-0.004	-0.006	-9.00	-9.00	-9.00	-9.00	1103
5313	2472	2498	1.660	34.672	27.735	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
5321	2964	2998	1.501	34.679	27.752	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
5315	3456	3500	1.216	34.692	27.783	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
5304	4074	4133	1.079	34.699	27.798	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

EPOCS-86 Bottle Data

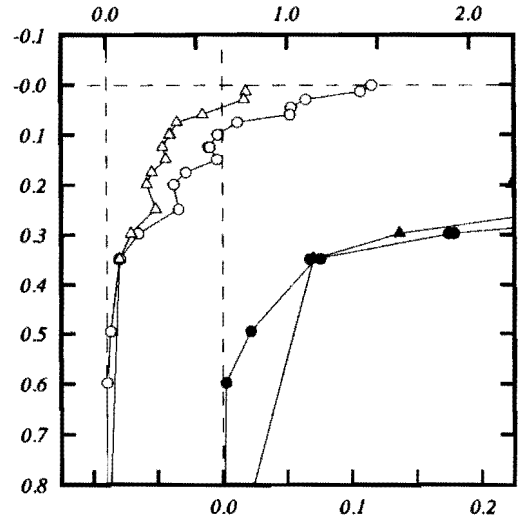
Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
38	17 Jun 86	09 59.4 N	146 59.2 W	5280	224.8	416.3

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5511	0	0	27.483	34.807	22.419	-9	1.521	0.822	-9.00	1.06	1.07	1.85	1000
5508	57	57	27.445	34.807	22.432	-9	1.499	0.807	-9.00	1.04	1.05	1.86	1000
5512	77	77	19.997	34.590	24.451	-9	1.833	0.950	-9.00	0.92	0.93	1.93	1000
5518	99	99	17.446	34.528	25.046	-9	1.598	0.832	-9.00	0.71	0.73	1.92	1000
5522	120	120	14.168	34.426	25.709	-9	1.153	0.615	-9.00	0.44	0.47	1.88	1000
5517	138	138	12.774	34.623	26.146	-9	0.333	0.185	-9.00	0.12	0.13	1.81	1000
5513	156	156	12.048	34.709	26.354	-9	0.152	0.099	-9.00	0.05	0.07	1.54	1000
5521	179	180	11.424	34.737	26.494	-9	0.083	0.076	-9.00	0.03	0.05	1.08	1000
5515	196	197	11.094	34.735	26.553	-9	0.072	0.050	-9.00	0.02	0.03	1.45	1000
5504	227	228	10.668	34.726	26.622	-9	0.043	0.046	-9.00	0.01	0.03	0.94	1000
5519	248	248	10.413	34.717	26.660	-9	0.032	0.023	-9.00	0.01	-9.00	-9.00	1000
5510	300	301	9.908	34.699	26.733	-9	0.020	0.016	-9.00	-9.00	-9.00	-9.00	1000
5422	346	348	9.552	34.683	26.780	-9	0.026	0.031	-9.00	-9.00	0.02	-9.00	1000
5417	395	397	9.226	34.668	26.822	-9	0.008	0.017	-9.00	-9.00	-9.00	-9.00	1003
5413	443	445	8.839	34.651	26.871	-9	0.002	0.002	-9.00	-9.00	-9.00	-9.00	1003
5421	498	500	8.392	34.628	26.923	-9	0.001	0.010	-9.00	-9.00	-9.00	-9.00	1003
5415	547	551	7.900	34.605	26.979	-9	0.000	-0.002	-9.00	-9.00	-9.00	-9.00	1003
5404	595	599	7.307	34.582	27.047	-9	0.003	0.002	-9.00	-9.00	-9.00	-9.00	1003
5419	794	799	5.760	34.551	27.228	-9	0.000	-0.002	-9.00	-9.00	-9.00	-9.00	1003

Locations of Stations on This Page



EPOCS 1986 1



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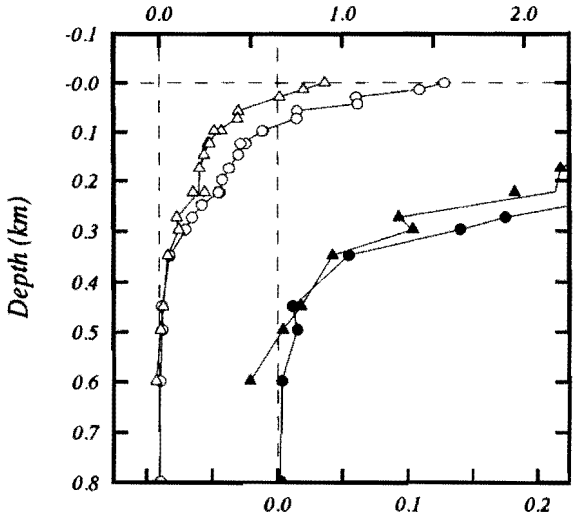

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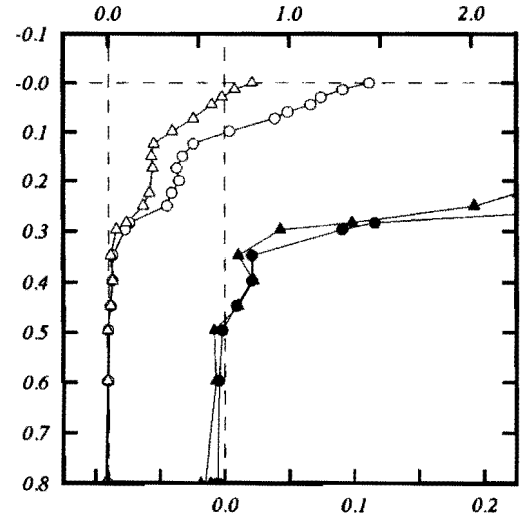

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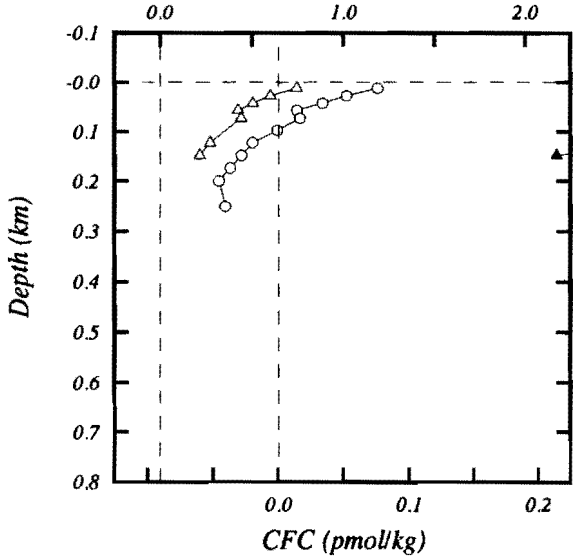

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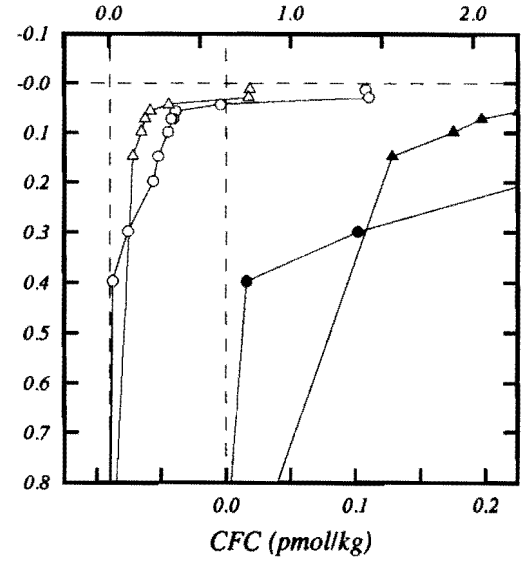

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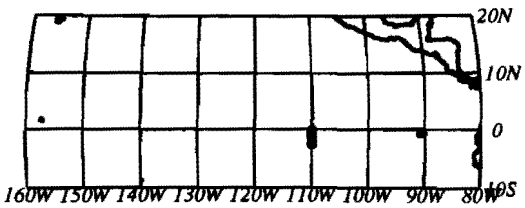

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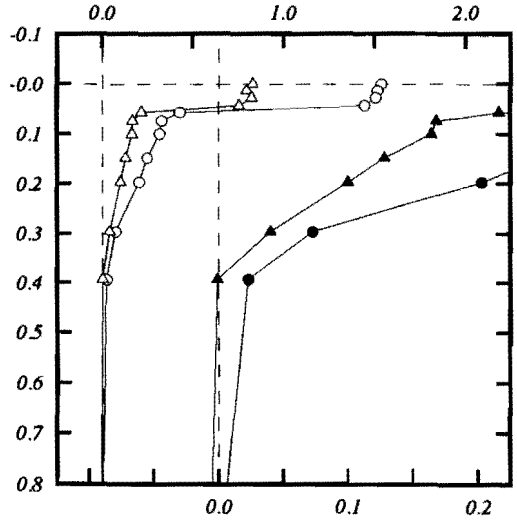

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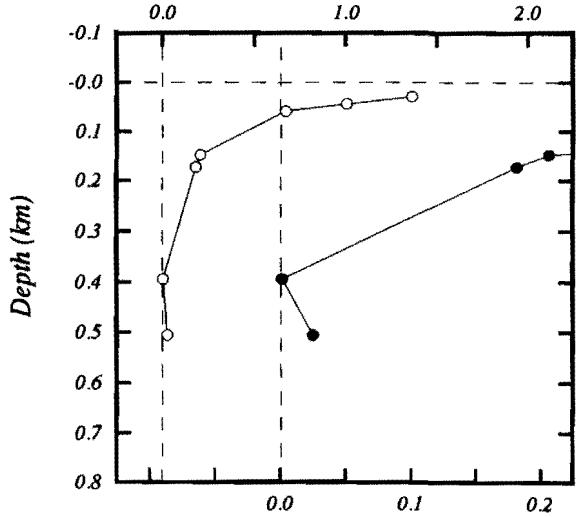

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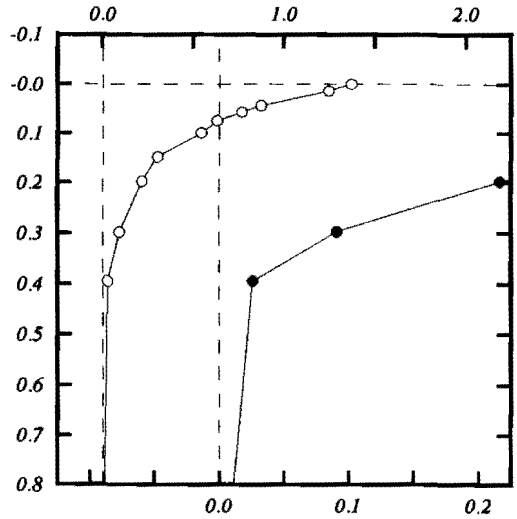

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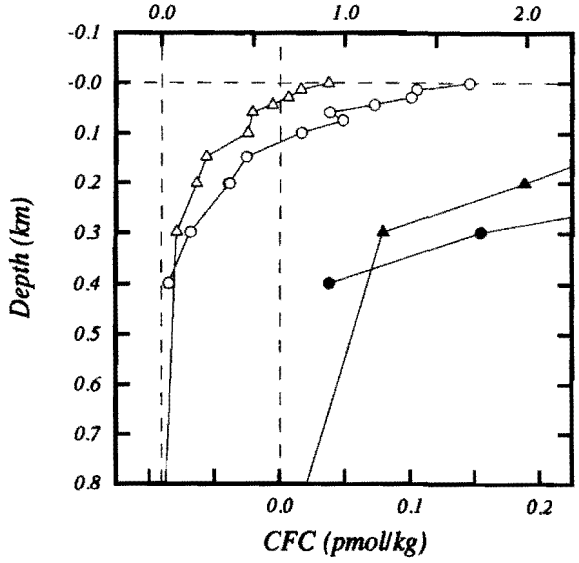

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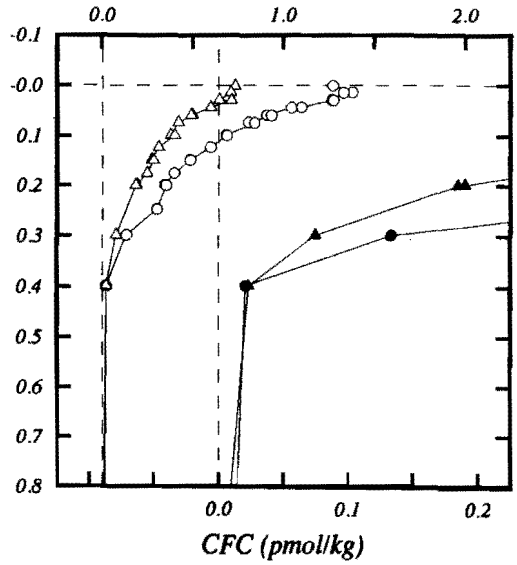

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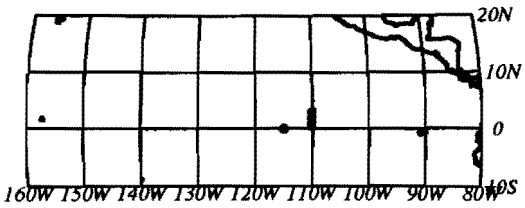

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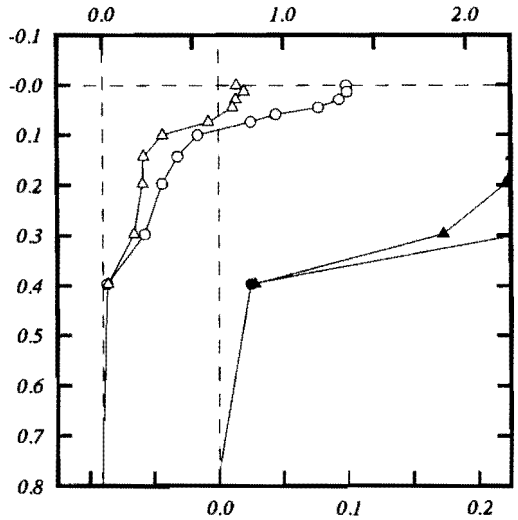

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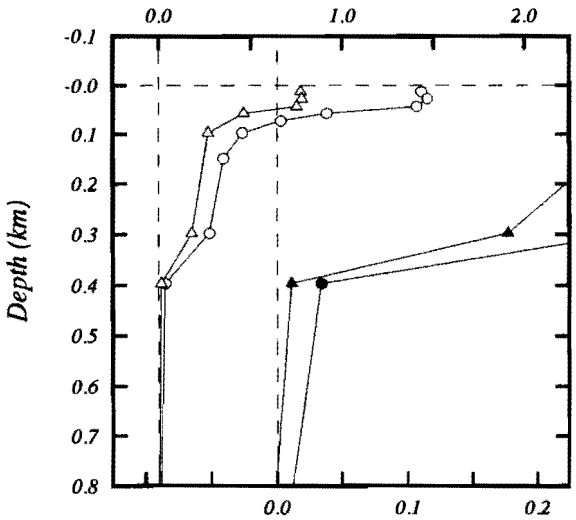

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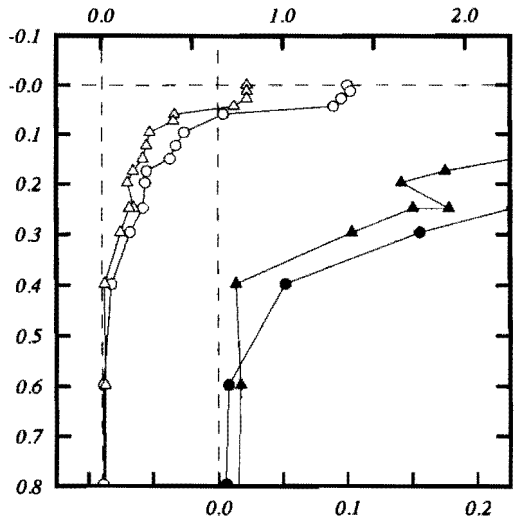

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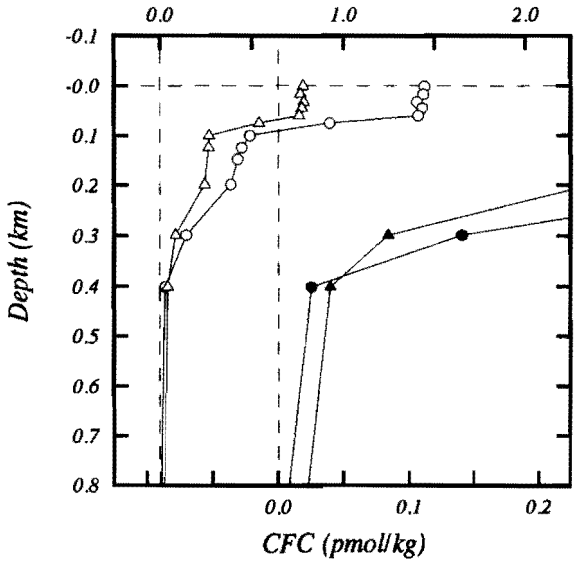

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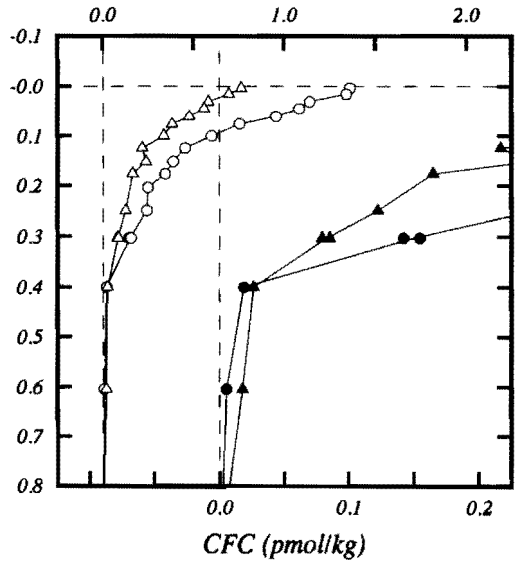

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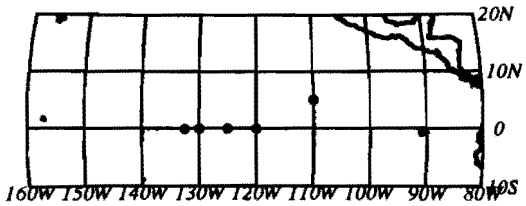

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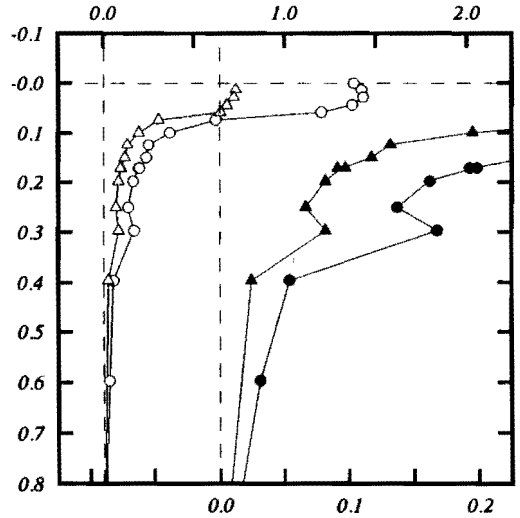

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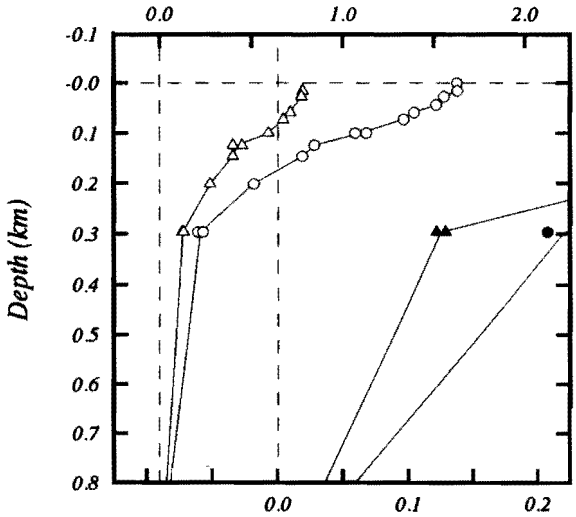

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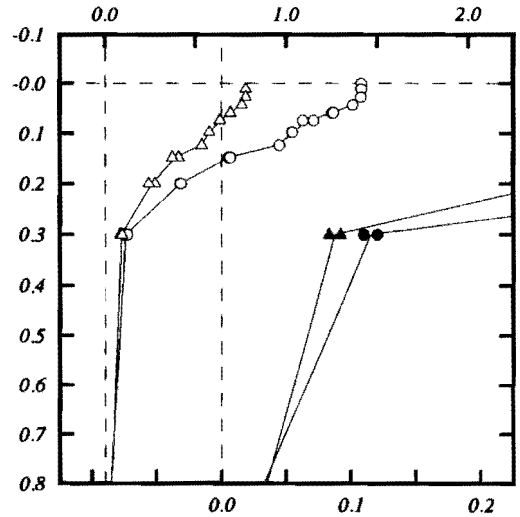

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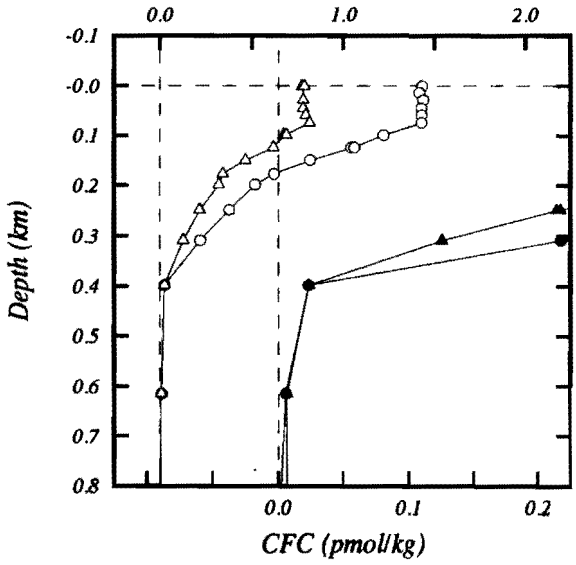
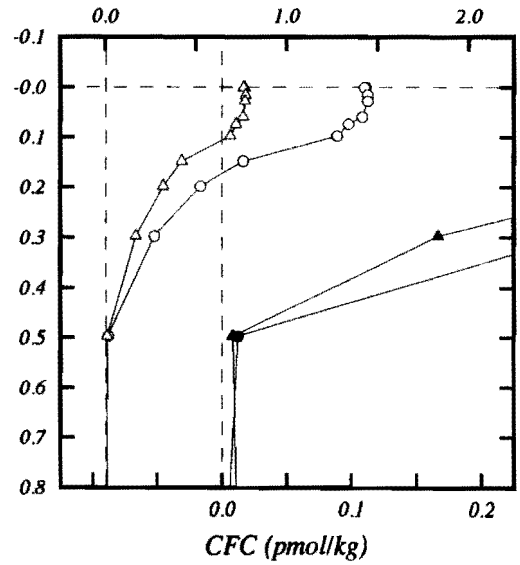
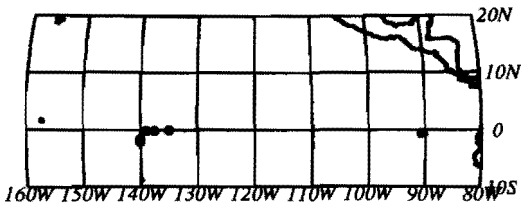


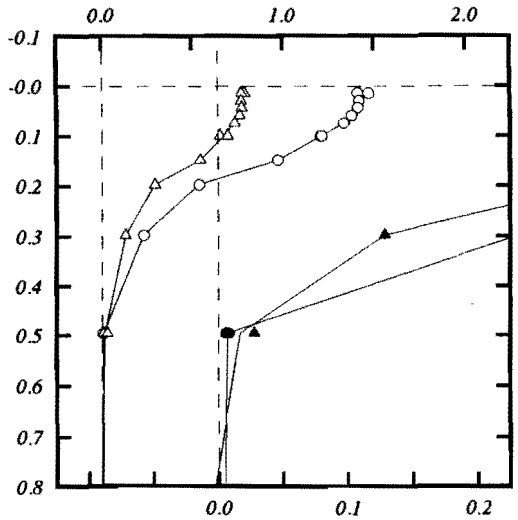
EPOCS 1986 24



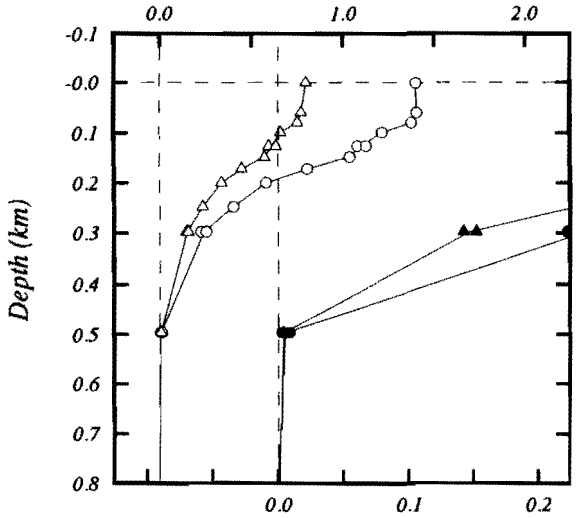
Locations of Stations on This Page



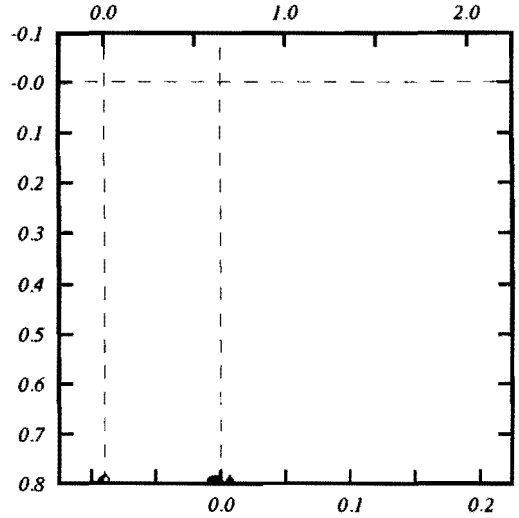
EPOCS 1986 25



EPOCS 1986 26



EPOCS 1986 27



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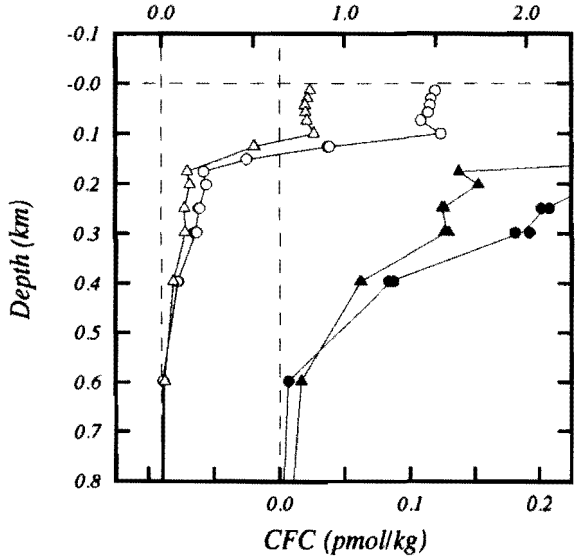

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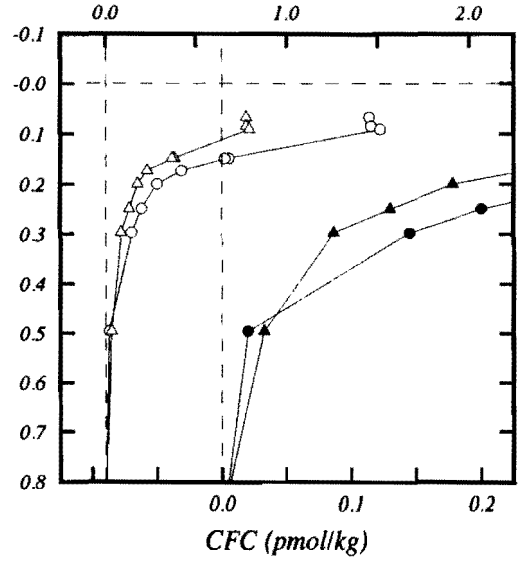
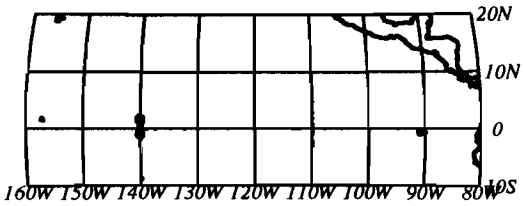
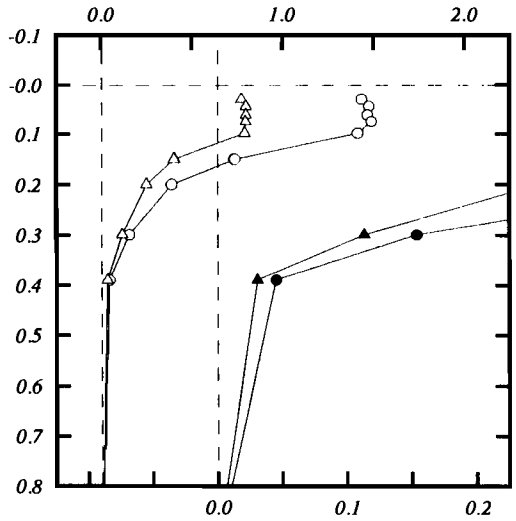


Locations of Stations on This Page



EPOCS 1986 30



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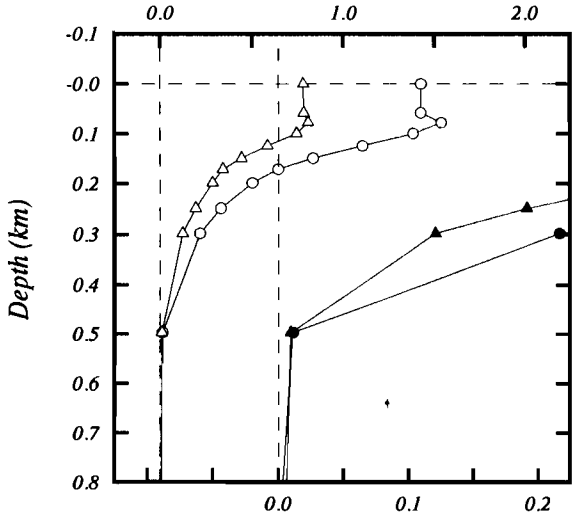
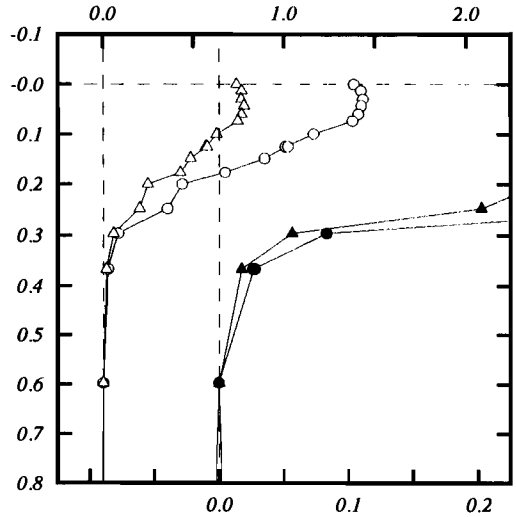


EPOCS 1986 32



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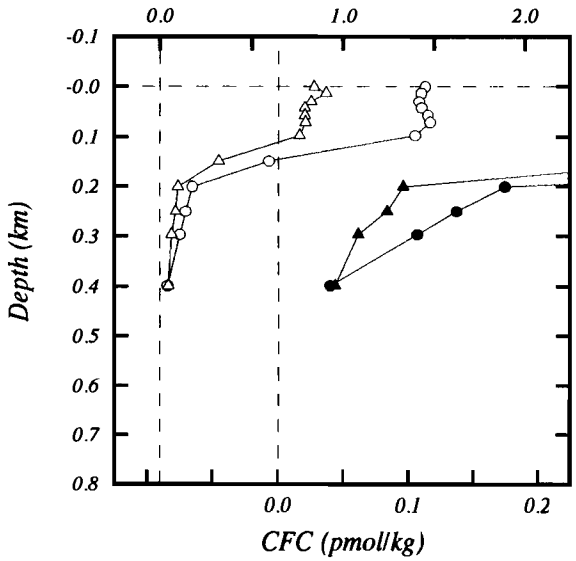

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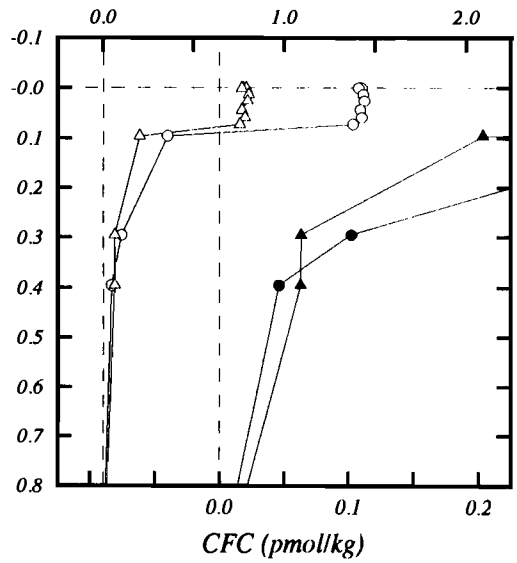
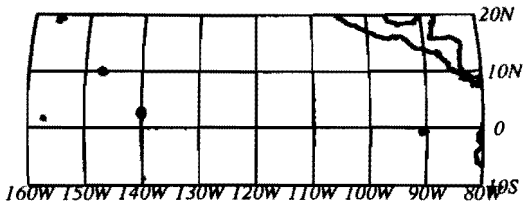
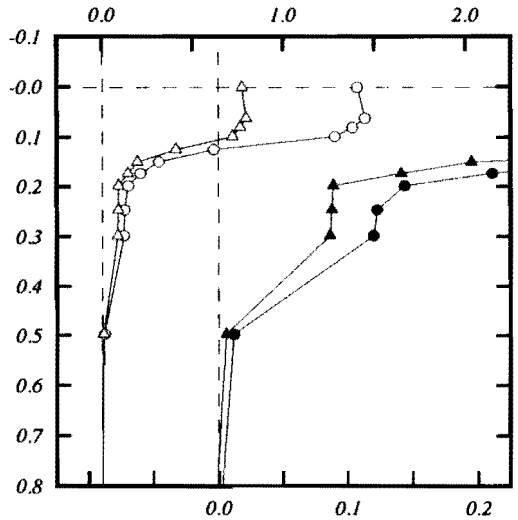


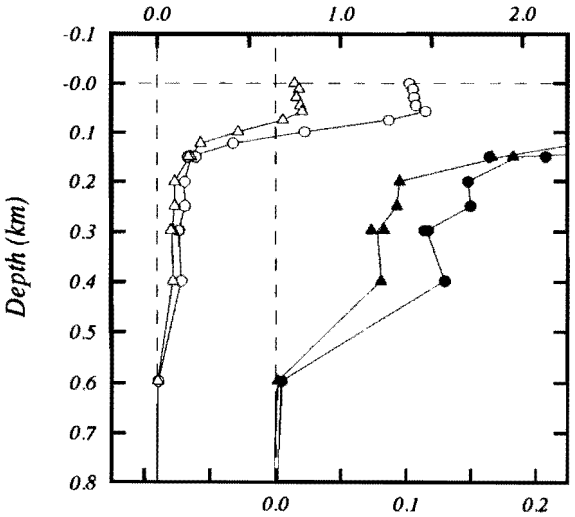
Locations of Stations on This Page



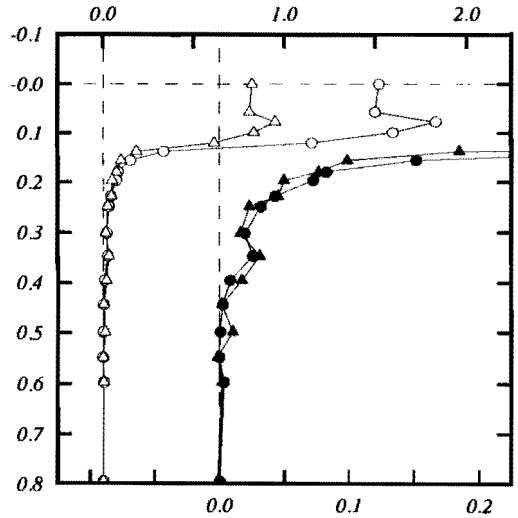
EPOCS 1986 36



EPOCS 1986 37



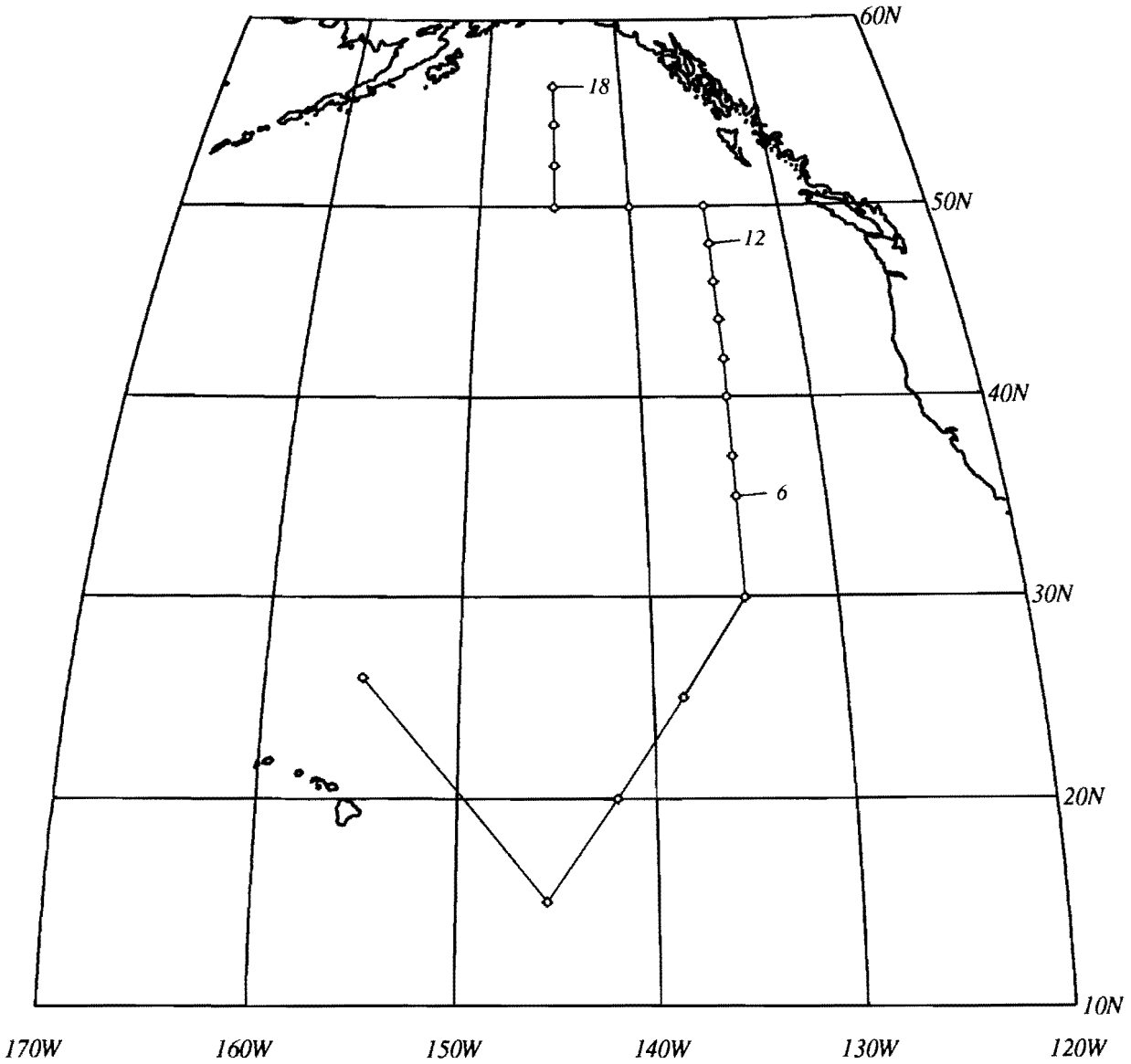
EPOCS 1986 38



5.2 CO2-86 (RPI-OC-86)

This section includes the following data collected during the CO2-86 cruise (30 June to 22 July, 1986).

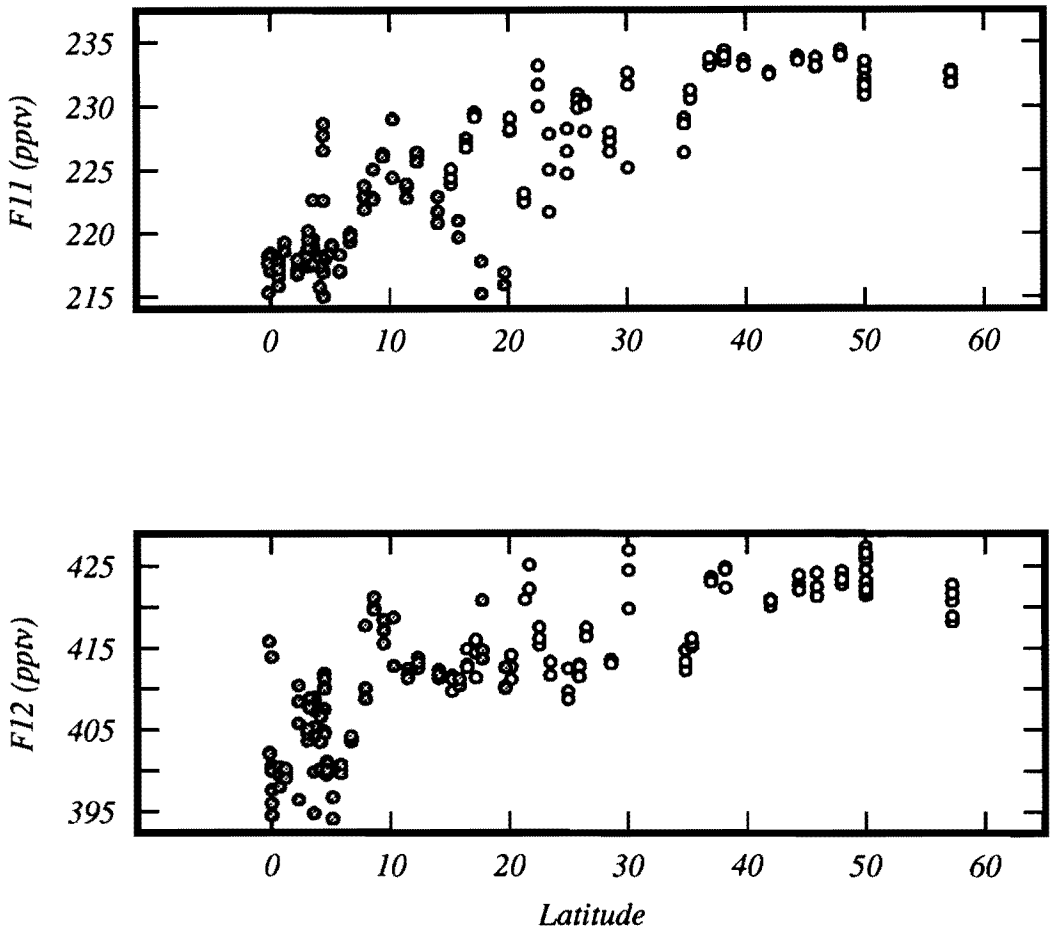
1) Station location plot.
2) Station location and bottom depth listing.
3) CFC atmospheric measurement plot.
4) CFC atmospheric measurement listing.
5) Contoured sections of Potential Temperature, Salinity, Oxygen, CFC-11 and CFC-12 along 135° W from 15° N. to 56° N, derived from bottle data.
6) Tables of hydrographic data including depth, pressure, potential temperature, salinity, sigma-theta, oxygen, CFC-11 and CFC-12. Atmospheric CFC-11 and CFC-12 values for each station are interpolated from surrounding air measurements, and used in calculating saturation values.
7) Individual vertical profiles of CFC-11 and CFC-12. Each page of CFC vertical profiles consists of a map of station locations and five station plots. Each station is plotted on two scales so that both high and low concentrations may be easily viewed. CFC-11 is represented by circles and CFC-12 by triangles; the solid symbols are plotted against the lower concentration scale on the bottom axis. Only the upper 1500 meters of data are displayed as the CFC signal is below detection limits in deeper water. Any station which has no CFC data in the range 0–1500 meters will appear as a blank box. Units are in picomoles per kilogram.



CO2-86 Station Locations.
R/V OCEANOGRAPHER
30 June - 22July, 1986
Honolulu, Hawaii - Kodiak, Alaska

CO2-86 Station Locations

STATION NUMBER	Date	Latitude	Longitude	BOTTOM DEPTH (M)
1	2 Jul 86	26 00.3 N	155 00.7 W	5246
2	5 Jul 86	14 59.8 N	145 30.3 W	5300
3	7 Jul 86	20 00.1 N	141 58.7 W	5550
4	9 Jul 86	24 59.4 N	138 29.5 W	4710
5	10 Jul 86	29 58.6 N	134 58.3 W	4090
6	12 Jul 86	34 59.5 N	135 00.4 W	5190
7	12 Jul 86	36 59.9 N	135 00.4 W	5665
8	13 Jul 86	40 00.5 N	134 59.6 W	3960
9	14 Jul 86	41 59.0 N	134 55.8 W	4020
10	15 Jul 86	44 03.5 N	134 57.6 W	3930
11	16 Jul 86	45 59.6 N	135 00.0 W	3960
12	16 Jul 86	47 58.6 N	134 57.7 W	4364
13	17 Jul 86	50 00.1 N	135 00.2 W	3530
14	18 Jul 86	49 59.0 N	140 00.0 W	3930
15	19 Jul 86	49 57.3 N	145 00.6 W	4260
16	20 Jul 86	52 10.1 N	144 58.9 W	4080
17	21 Jul 86	54 19.5 N	145 00.4 W	3060
18	22 Jul 86	56 22.1 N	145 04.4 W	3890

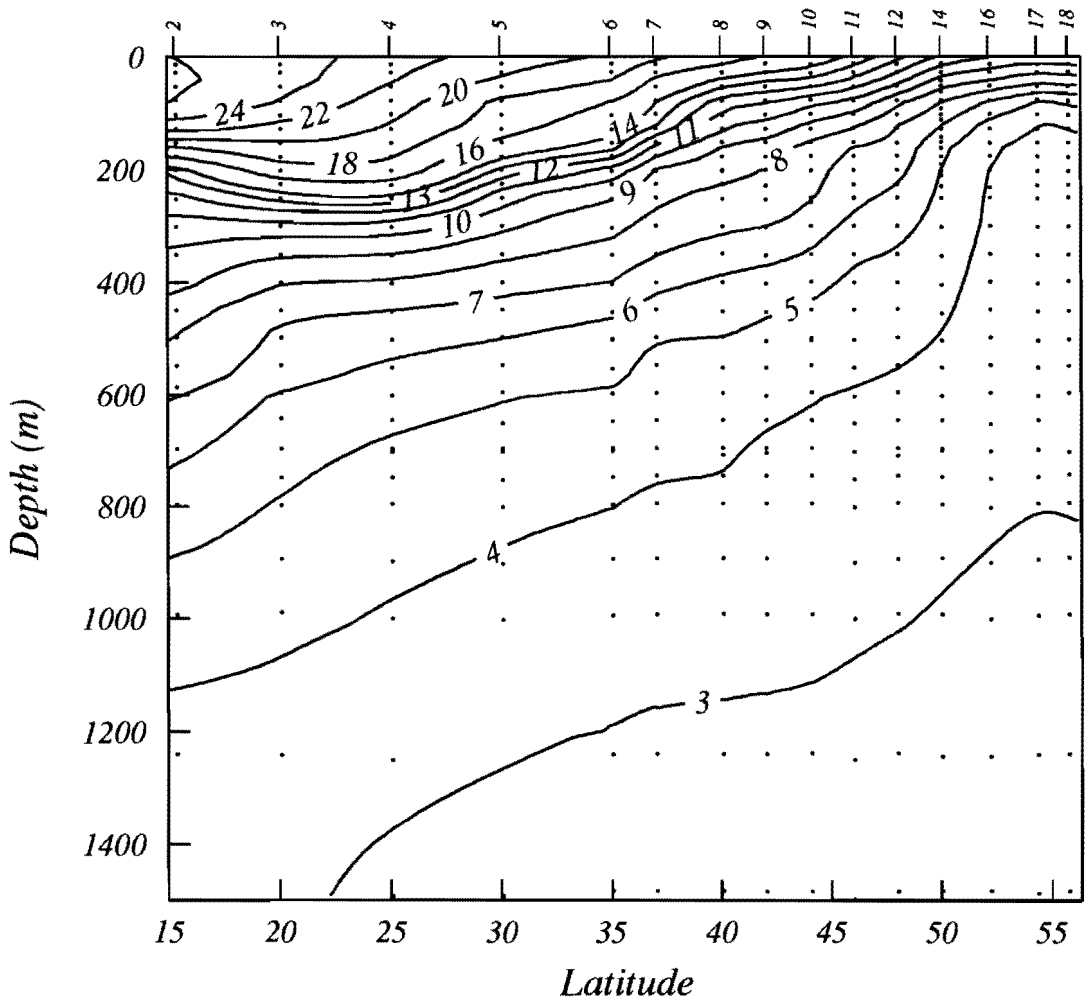


Atmospheric Measurements during the EPOCS86 and CO2-86 cruises. The average of the northern hemisphere concentrations of the two CFC's are 230.0 and 417.9 for CFC-11 and CFC-12, respectively.

CO2-86 Atmospheric Measurements

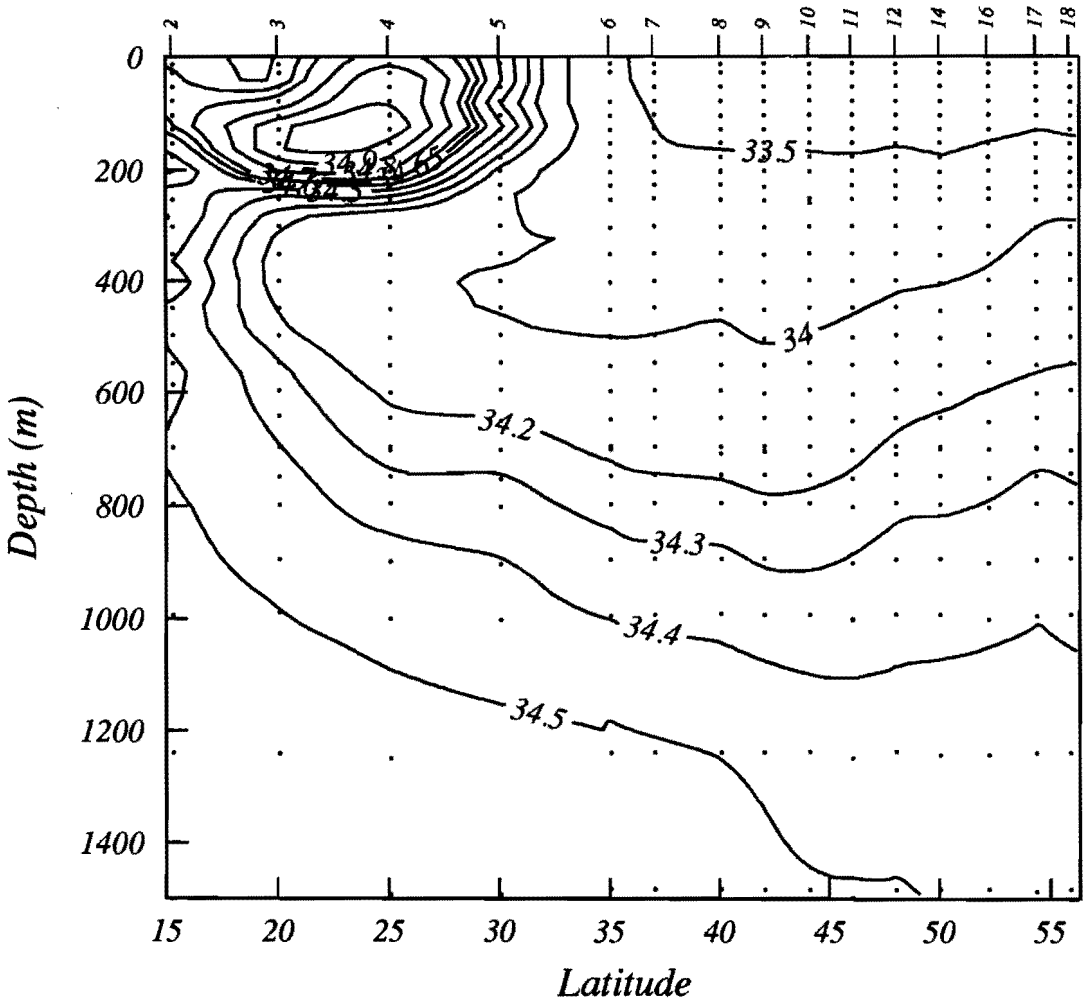
Latitude	Longitude	Date	Atm. F-11	Atm. F-12	Ave F-11	Std F-11	Ave F-12	Std F-12
25 51 N	155 6 W	1 Jul 86	231.0	413.0	230.5	0.2	412.5	0.1
25 51 N	155 6 W	1 Jul 86	230.5	412.8				
25 51 N	155 6 W	1 Jul 86	229.9	411.6				
23 24 N	152 36 W	3 Jul 86	227.9	411.7	224.9	1.1	412.5	0.2
23 24 N	152 36 W	3 Jul 86	221.7	413.3				
23 24 N	152 36 W	3 Jul 86	225.0					
22 30 N	150 0 W	3 Jul 86	233.2	415.4	231.6	0.6	416.4	0.2
22 30 N	150 0 W	3 Jul 86	230.0	417.6				
22 30 N	150 0 W	3 Jul 86	231.7	416.2				
20 6 N	149 48 W	3 Jul 86	229.1	411.2	228.5	0.2	412.7	0.3
20 6 N	149 48 W	4 Jul 86	228.1	412.8				
20 6 N	149 48 W	4 Jul 86	228.2	414.2				
16 24 N	146 39 W	4 Jul 86	227.5	414.9	227.1	0.1	413.5	0.2
16 24 N	146 39 W	4 Jul 86	227.0	413.0				
16 24 N	146 39 W	4 Jul 86	226.8	412.7				
15 9 N	145 18 W	5 Jul 86	223.9	411.6	224.5	0.2	410.9	0.2
15 9 N	145 18 W	5 Jul 86	224.4	411.3				
15 9 N	145 18 W	5 Jul 86	225.1	409.8				
17 9 N	144 0 W	6 Jul 86	229.5	414.5	229.4	0.1	414.0	0.5
17 9 N	144 0 W	6 Jul 86	229.6	411.4				
17 9 N	144 0 W	6 Jul 86	229.2	416.0				
21 18 N	141 6 W	8 Jul 86	222.5	421.0	222.9	0.2	421.6	0.1
21 18 N	141 6 W	8 Jul 86	223.2					
21 39 N	140 0 W	8 Jul 86		422.2				
21 39 N	140 0 W	8 Jul 86		425.1				
24 54 N	138 36 W	9 Jul 86	224.7	409.8	226.5	0.6	410.4	0.4
24 54 N	138 36 W	9 Jul 86	226.5	408.8				
24 54 N	138 36 W	9 Jul 86	228.3	412.5				
26 27 N	137 27 W	9 Jul 86	228.1	416.6	229.5	0.4	416.9	0.1
26 27 N	137 27 W	9 Jul 86	230.4	417.5				
26 27 N	137 27 W	9 Jul 86	230.1	416.5				
28 33 N	136 3 W	10 Jul 86	227.3	413.6	227.2	0.3	413.4	0.1
28 33 N	136 3 W	10 Jul 86	228.0	413.6				
28 33 N	136 3 W	10 Jul 86	226.4	413.1				
30 3 N	135 0 W	10 Jul 86	232.6	424.5	229.8	1.4	423.8	0.7
30 3 N	135 0 W	10 Jul 86	231.7	427.0				
30 3 N	135 0 W	10 Jul 86	225.2	419.8				
34 48 N	135 0 W	11 Jul 86	226.4	412.3	228.0	0.5	413.5	0.2
34 48 N	135 0 W	11 Jul 86	229.1	413.4				
34 48 N	135 0 W	11 Jul 86	228.6	414.8				
35 21 N	135 0 W	12 Jul 86	230.8	415.2	230.9	0.1	415.6	0.1
35 21 N	135 0 W	12 Jul 86	230.6	415.5				
35 21 N	135 0 W	12 Jul 86	231.3	416.2				
37 0 N	135 0 W	12 Jul 86	233.2	423.6	233.5	0.1	423.3	0.0
37 0 N	135 0 W	12 Jul 86	233.7	423.3				
37 0 N	135 0 W	12 Jul 86	233.7	423.1				
38 12 N	135 0 W	12 Jul 86	234.3	424.9	233.9	0.1	424.0	0.3
38 12 N	135 0 W	12 Jul 86	233.5	422.4				
38 12 N	135 0 W	12 Jul 86	233.9	424.6				

Latitude	Longitude	Date	Atm. F-11	Atm. F-12	Ave F-11	Std F-11	Ave F-12	Std F-12
39 51 N	135 0 W	13 Jul 87	233.6					
39 51 N	135 0 W	13 Jul 87	233.1					
42 0 N	135 0 W	14 Jul 86	232.7	420.1	232.6	0.0	420.6	0.1
42 0 N	135 0 W	14 Jul 86	232.6	421.0				
42 0 N	135 0 W	14 Jul 86	232.5	420.8				
44 24 N	134 57 W	15 Jul 86	233.9	422.8	233.7	0.1	422.9	0.2
44 24 N	134 57 W	15 Jul 86	233.8	422.1				
44 24 N	134 57 W	15 Jul 86	233.5	423.9				
45 54 N	135 0 W	15 Jul 86	233.8	421.4	233.3	0.2	422.7	0.3
45 54 N	135 0 W	15 Jul 86	233.0	422.5				
45 54 N	135 0 W	15 Jul 86	233.1	424.2				
48 0 N	135 0 W	16 Jul 86	234.4	424.4	234.1	0.1	423.5	0.2
48 0 N	135 0 W	16 Jul 86	233.9	422.8				
48 0 N	135 0 W	16 Jul 86	234.0	423.4				
50 0 N	135 0 W	16 Jul 86	232.0	421.4	232.8	0.3	422.4	0.2
50 0 N	135 0 W	16 Jul 86	232.8	422.5				
50 0 N	135 0 W	16 Jul 86	233.5	423.2				
50 0 N	145 0 W	19 Jul 86	231.4	427.3	231.4	0.2	424.8	0.5
50 0 N	145 0 W	19 Jul 86	231.0	425.9				
50 0 N	145 0 W	19 Jul 86	230.9	426.6				
50 0 N	145 0 W	19 Jul 86	232.1	421.8				
50 0 N	145 0 W	19 Jul 86	231.7	422.2				
50 0 N	145 0 W	19 Jul 86	231.6	424.6				
57 15 N	149 30 W	22 Jul 86	232.8	422.7	232.3	0.2	420.3	0.4
57 15 N	149 30 W	22 Jul 86	232.1	420.8				
57 15 N	149 30 W	22 Jul 86	231.9	421.7				
57 15 N	149 30 W	22 Jul 86	232.6	418.3				
57 15 N	149 30 W	22 Jul 86	231.9	418.2				
57 15 N	149 30 W	22 Jul 86	232.7	418.9				



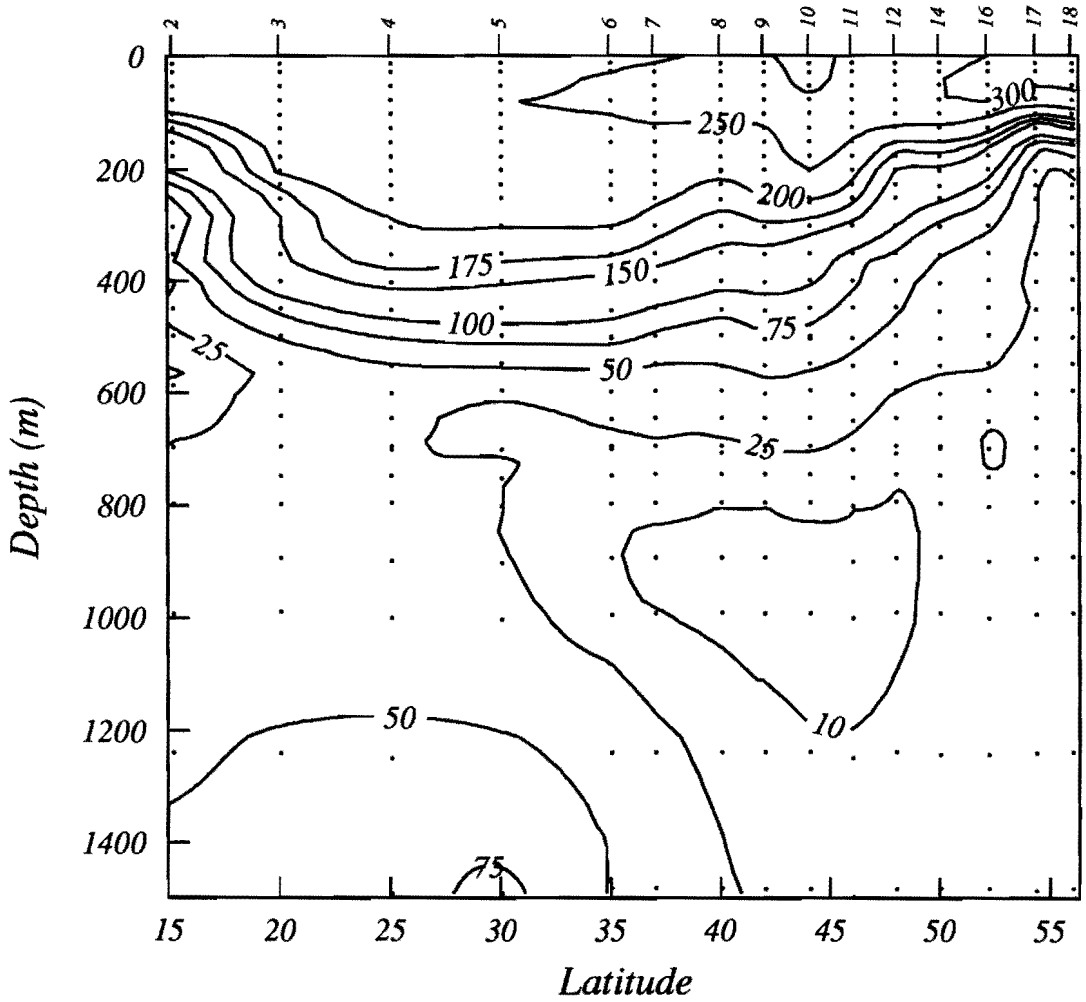
Potential Temperature (Degrees C.)

Potential Temperature section along 135 W. during CO2-86. Station numbers are indicated across the top.



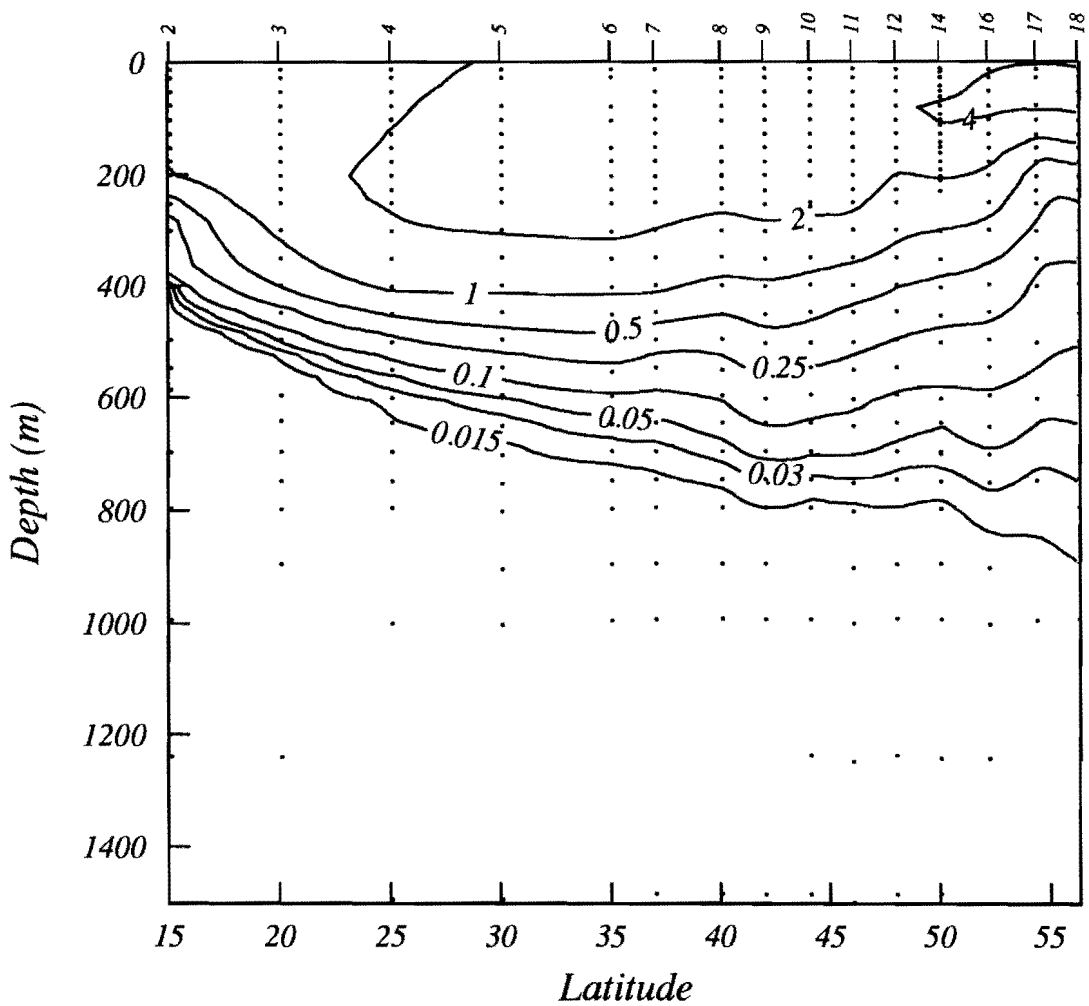
Salinity (PSU)

Salinity section along 135 W. during CO2-86.
Station numbers are indicated across the top.



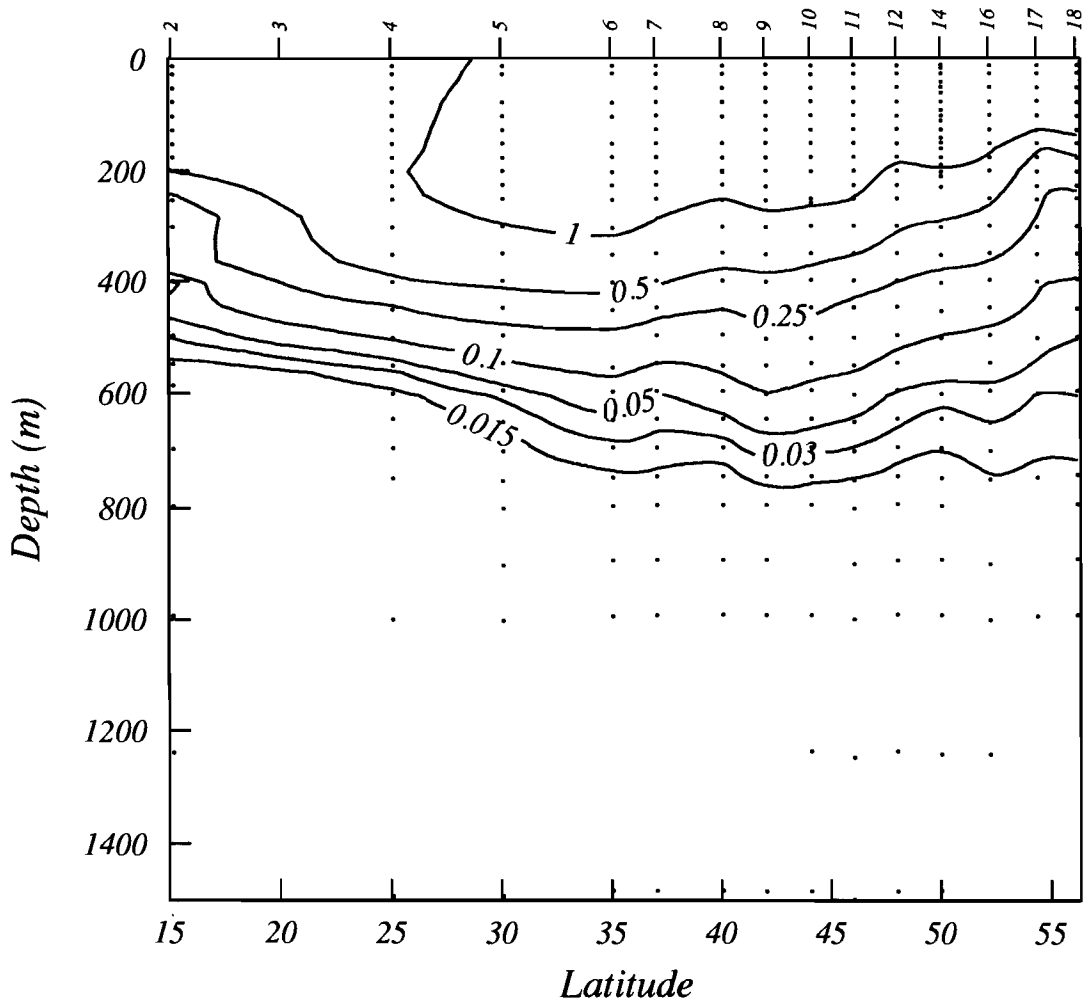
Oxygen (umole/Kg)

Oxygen section along 135 W. during CO2-86.
Station numbers are indicated across the top.



CFC-11 (pmole/Kg)

CFC-11 section along 135 W. during CO2-86.
Station numbers are indicated across the top.



CFC-12 (pmole/Kg)

CFC-12 section along 135 W. during CO2-86.
Station numbers are indicated across the top.

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
1	2 Jul 86	26 00.3 N	155 00.7 W	5246	229.0	414.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
318	12	12	24.195	35.211	23.745	241	1.769	0.928	1.15	1.06	1.08	1.91	1000
360	12	12	24.195	35.395	23.884	246	-9.000	-9.000	1.18	-9.00	-9.00	-9.00	1000
321	27	27	23.979	35.400	23.952	251	1.869	0.958	1.20	1.11	1.11	1.95	1000
154	52	52	22.855	35.399	24.280	272	-9.000	-9.000	1.27	-9.00	-9.00	-9.00	1000
315	53	53	22.850	35.400	24.282	255	1.813	0.911	1.19	1.03	1.01	1.99	1000
112	76	77	21.825	35.354	24.537	262	1.920	1.000	1.21	1.03	1.07	1.90	1100
153	101	101	21.124	35.362	24.737	297	-9.000	-9.000	1.35	-9.00	-9.00	-9.00	1000
118	101	101	21.124	35.360	24.736	268	1.963	0.973	1.22	1.01	1.01	1.99	1100
122	126	127	20.163	35.271	24.927	273	1.994	1.014	1.22	1.00	1.01	1.97	1000
152	151	151	19.547	35.227	25.055	267	-9.000	-9.000	1.18	-9.00	-9.00	-9.00	1000
117	151	151	19.547	35.228	25.056	246	2.028	1.007	1.08	1.01	0.97	2.07	1100
119	176	176	18.826	35.152	25.183	256	2.048	1.015	1.11	0.96	0.96	2.02	1000
151	201	202	17.827	34.994	25.311	222	-9.000	-9.000	0.95	-9.00	-9.00	-9.00	1000
121	201	202	17.827	34.992	25.310	238	2.056	1.008	1.02	0.92	0.91	2.03	1100
115	225	226	16.379	34.761	25.478	256	2.073	1.027	1.06	0.86	0.87	2.02	1000
104	251	252	14.957	34.545	25.631	269	2.102	1.015	1.08	0.81	0.81	2.07	1000
218	300	302	12.688	34.286	25.902	248	2.258	1.034	0.95	0.78	0.74	2.18	1000
221	348	350	11.032	34.171	26.125	238	2.177	0.987	0.88	0.68	0.65	2.21	1000
215	399	401	9.656	34.110	26.315	233	1.729	0.808	0.84	0.49	0.50	2.06	1100
256	399	401	9.656	34.114	26.318	243	-9.000	-9.000	0.87	-9.00	-9.00	-9.00	1000
204	447	449	8.403	34.059	26.474	211	1.220	0.739	0.74	0.33	0.43	1.65	1000
219	499	502	7.479	34.043	26.598	177	0.726	0.378	0.60	0.19	0.21	1.92	1000
217	545	548	6.598	34.024	26.704	145	0.376	0.222	0.48	0.09	0.12	1.69	1000
255	595	599	5.936	34.043	26.805	108	-9.000	-9.000	0.36	-9.00	-9.00	-9.00	1000
210	595	599	5.936	34.043	26.805	124	0.190	0.111	0.41	0.05	0.05	1.83	1100
211	646	650	5.242	34.097	26.931	80	0.061	0.041	0.26	0.01	0.02	1.49	1003
208	694	699	4.912	34.157	27.017	56	0.022	0.016	0.18	-9.00	-9.00	-9.00	1003
417	793	799	4.368	34.269	27.166	40	-9.000	-9.000	0.13	-9.00	-9.00	-9.00	1000
419	991	998	3.796	34.430	27.354	56	0.005	0.007	0.18	-9.00	-9.00	-9.00	1103
410	1236	1247	3.212	34.518	27.481	72	-0.001	0.001	0.22	-9.00	-9.00	-9.00	1103
411	1976	1997	2.000	34.610	27.659	98	0.008	0.000	0.30	-9.00	-9.00	-9.00	1103
408	2468	2498	1.547	34.646	27.723	124	0.001	0.003	0.37	-9.00	-9.00	-9.00	1103
412	2958	2998	1.338	34.666	27.754	141	0.002	-0.002	0.42	-9.00	-9.00	-9.00	1103
418	3447	3498	1.220	34.678	27.772	157	0.000	-0.004	0.46	-9.00	-9.00	-9.00	1103
458	3935	3998	1.147	34.683	27.781	166	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
422	4423	4499	1.101	34.689	27.789	181	-0.002	-0.007	0.53	-9.00	-9.00	-9.00	1003
404	4810	4897	1.080	34.696	27.796	182	0.000	0.003	0.54	-9.00	-9.00	-9.00	1003

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
2	5 Jul 86	14 59.8 N	145 30.3 W	5300	225.8	412.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
551	12	12	26.151	34.685	22.750	223	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
508	12	12	26.151	34.685	22.750	223	1.530	0.818	1.10	1.00	1.02	1.88	1100
504	26	27	26.144	34.682	22.750	218	1.534	0.818	1.07	1.01	1.03	1.87	1000
515	52	52	26.150	34.683	22.749	220	1.518	0.812	1.09	1.00	1.02	1.87	1000
521	76	76	26.148	34.682	22.749	236	1.488	0.797	1.16	0.98	1.00	1.87	1000
552	101	102	26.104	34.542	22.657	173	-9.000	-9.000	0.85	-9.00	-9.00	-9.00	1000
519	101	102	26.104	34.673	22.756	239	1.690	0.900	1.18	1.10	1.15	1.85	1100
517	126	126	22.787	34.597	23.690	110	1.179	0.613	0.51	0.67	0.68	1.92	1000
522	151	152	18.706	34.506	24.719	102	1.023	0.538	0.44	0.48	0.50	1.90	1000
518	175	176	14.975	34.391	25.509	108	0.975	0.503	0.44	0.38	0.40	1.94	1000
512	200	201	12.733	34.334	25.931	101	0.981	0.506	0.39	0.34	0.37	1.92	1100
553	200	201	12.733	34.335	25.931	105	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	1000
608	251	252	11.297	34.648	26.448	20	0.126	0.071	0.08	0.04	0.05	1.76	1100
611	300	301	10.729	34.688	26.582	11	0.037	0.028	0.04	0.01	-9.00	-9.00	1003
610	300	301	10.729	34.689	26.582	10	0.033	0.036	0.04	0.01	0.02	0.93	1003
654	349	351	9.978	34.650	26.683	11	-9.000	-9.000	0.04	-9.00	-9.00	-9.00	1000
619	398	400	9.473	34.624	26.747	13	0.006	0.008	0.05	-9.00	-9.00	-9.00	1103
617	398	400	9.473	34.624	26.747	15	0.013	0.015	0.05	-9.00	-9.00	-9.00	1003
655	448	451	8.960	34.610	26.819	8	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
604	497	500	8.308	34.554	26.877	15	0.007	0.008	0.05	-9.00	-9.00	-9.00	1003
615	548	551	7.828	34.548	26.945	-9	0.004	0.008	-9.00	-9.00	-9.00	-9.00	1003
621	586	589	7.447	34.536	26.991	11	0.003	0.001	0.04	-9.00	-9.00	-9.00	1003
622	586	589	7.447	34.537	26.991	14	0.001	-0.002	0.05	-9.00	-9.00	-9.00	1103
656	586	589	7.447	34.535	26.990	10	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
722	696	700	6.249	34.488	27.116	28	0.003	0.005	0.09	-9.00	-9.00	-9.00	1003
718	796	801	5.651	34.510	27.209	27	0.002	0.000	0.09	-9.00	-9.00	-9.00	1003
757	992	1000	4.588	34.526	27.346	35	-9.000	-9.000	0.11	-9.00	-9.00	-9.00	1000
712	992	1000	4.588	34.527	27.347	35	0.000	0.001	0.11	-9.00	-9.00	-9.00	1003
708	1238	1249	3.712	34.562	27.467	45	-0.001	-0.001	0.14	-9.00	-9.00	-9.00	1000
758	1976	1997	2.076	34.633	27.672	53	-9.000	-9.000	0.16	-9.00	-9.00	-9.00	1000
711	2462	2492	1.676	34.658	27.723	47	0.000	0.001	0.14	-9.00	-9.00	-9.00	1003
710	2957	2997	1.460	34.674	27.752	128	0.000	0.003	0.38	-9.00	-9.00	-9.00	1003
759	3455	3506	1.266	34.680	27.770	149	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1030
719	3937	4000	1.113	34.693	27.791	167	0.001	0.004	0.49	-9.00	-9.00	-9.00	1003
717	4422	4498	1.043	34.696	27.798	181	0.000	-0.002	0.53	-9.00	-9.00	-9.00	1003
760	4851	4939	1.002	34.699	27.803	185	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1030

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
3	7 Jul 86	20 00.1 N	141 58.7 W	5550	226.3	414.3

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
951	13	13	25.081	34.511	22.949	224	-9.000	-9.000	1.09	-9.00	-9.00	-9.00	1000
911	13	13	25.081	34.511	22.949	223	1.591	-9.000	1.08	0.99	-9.00	-9.00	1020
912	27	27	24.961	34.514	22.987	230	1.532	-9.000	1.11	0.95	-9.00	-9.00	1020
908	52	52	24.838	34.551	23.053	223	1.540	-9.000	1.07	0.95	-9.00	-9.00	1020
919	76	77	24.001	34.637	23.368	247	1.595	-9.000	1.17	0.95	-9.00	-9.00	1020
918	103	103	22.460	34.900	24.014	242	1.671	-9.000	1.12	0.94	-9.00	-9.00	1020
952	103	103	22.460	34.900	24.014	238	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
922	126	127	20.950	35.015	24.520	226	1.700	-9.000	1.02	0.89	-9.00	-9.00	1020
917	151	152	19.821	35.036	24.837	219	1.752	-9.000	0.97	0.87	-9.00	-9.00	1020
921	175	176	18.809	35.015	25.083	214	1.770	-9.000	0.93	0.84	-9.00	-9.00	1020
915	200	201	17.545	34.840	25.262	214	1.759	-9.000	0.91	0.78	-9.00	-9.00	1020
904	225	226	15.217	34.518	25.553	198	1.685	-9.000	0.80	0.67	-9.00	-9.00	1020
1022	250	251	12.794	34.228	25.836	-9	1.535	-9.000	-9.00	0.54	-9.00	-9.00	1020
1053	250	252	12.793	34.228	25.837	192	-9.000	-9.000	0.74	-9.00	-9.00	-9.00	1000
1021	299	300	10.377	34.124	26.204	174	1.123	-9.000	0.63	0.34	-9.00	-9.00	1020
1015	349	351	8.847	34.102	26.439	162	0.766	-9.000	0.57	0.22	-9.00	-9.00	1020
1054	349	351	8.831	34.102	26.442	166	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1000
1004	398	400	7.852	34.105	26.593	132	0.481	-9.000	0.45	0.13	-9.00	-9.00	1020
1019	448	451	7.006	34.159	26.755	80	0.099	-9.000	0.27	0.03	-9.00	-9.00	1023
1011	497	500	6.442	34.212	26.873	53	0.024	-9.000	0.18	-9.00	-9.00	-9.00	1023
1055	498	501	6.450	34.214	26.874	54	-9.000	-9.000	0.18	-9.00	-9.00	-9.00	1000
1017	547	550	6.095	34.284	26.975	38	-9.000	-9.000	0.13	-9.00	-9.00	-9.00	1030
1008	596	599	5.732	34.327	27.055	37	0.012	-9.000	0.12	-9.00	-9.00	-9.00	1023
1010	641	645	5.570	34.385	27.120	31	0.005	-9.000	0.10	-9.00	-9.00	-9.00	1023
1210	695	700	5.267	34.411	27.177	27	0.003	-9.000	0.09	-9.00	-9.00	-9.00	1023
1208	747	752	5.147	34.454	27.225	27	0.005	-9.000	0.09	-9.00	-9.00	-9.00	1023
1257	797	803	4.861	34.462	27.265	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1217	797	803	4.861	34.458	27.261	33	0.005	-9.000	0.11	-9.00	-9.00	-9.00	1023
1212	893	899	4.437	34.478	27.325	39	0.004	-9.000	0.12	-9.00	-9.00	-9.00	1023
1219	988	995	4.171	34.516	27.383	40	-9.000	-9.000	0.13	-9.00	-9.00	-9.00	1033
1258	988	995	4.171	34.509	27.378	41	-9.000	-9.000	0.13	-9.00	-9.00	-9.00	1000
1211	1239	1250	3.391	34.551	27.490	54	0.003	-9.000	0.17	-9.00	-9.00	-9.00	1023
1259	1239	1250	3.391	34.551	27.490	55	-9.000	-9.000	0.17	-9.00	-9.00	-9.00	1000
1260	2008	2030	1.970	34.630	27.678	96	-9.000	-9.000	0.29	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
4	9 Jul 86	24 59.4 N	138 29.5 W	4710	228.0	413.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1351	12	12	22.684	35.050	24.064	223	-9.000	-9.000	1.04	-9.00	-9.00	-9.00	1000
1311	12	12	22.684	35.049	24.063	219	1.841	0.835	1.02	1.03	0.92	2.20	1000
1317	27	27	22.689	35.049	24.062	223	1.840	0.903	1.04	1.03	0.99	2.04	1000
1318	52	52	21.711	35.038	24.329	226	1.873	0.860	1.04	1.01	0.91	2.18	1000
1322	76	76	20.898	34.998	24.521	228	1.860	0.828	1.03	0.96	0.85	2.25	1000
1521	100	100	20.269	35.136	24.795	234	2.002	0.917	1.04	1.01	0.92	2.18	1000
1352	101	102	20.362	34.987	24.657	227	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
1312	101	102	20.432	34.998	24.647	226	2.049	0.918	1.01	1.04	0.92	2.23	1000
1321	126	126	19.820	35.148	24.923	240	1.987	0.885	1.07	0.98	0.87	2.24	1000
1319	151	152	18.946	34.962	25.007	220	1.992	0.899	0.96	0.94	0.85	2.21	1000
1308	176	177	18.156	34.902	25.159	202	2.094	0.938	0.86	0.95	0.86	2.23	1000
1310	201	202	17.655	34.889	25.273	222	2.118	0.985	0.94	0.94	0.88	2.15	1000
1304	227	228	16.418	34.705	25.425	223	2.117	0.962	0.92	0.89	0.82	2.20	1000
1453	250	251	13.282	34.292	25.788	209	-9.000	-9.000	0.81	-9.00	-9.00	-9.00	1000
1411	250	251	13.282	34.294	25.790	212	2.063	0.913	0.82	0.73	0.67	2.26	1000
1417	301	303	10.499	34.016	26.098	194	1.915	0.826	0.71	0.59	0.53	2.33	1100
1454	351	352	9.012	34.036	26.362	189	-9.000	-9.000	0.67	-9.00	-9.00	-9.00	1000
1422	351	352	9.012	34.036	26.362	194	1.676	0.726	0.68	0.47	0.43	2.31	1000
1412	400	403	7.875	34.025	26.527	163	1.139	0.484	0.56	0.30	0.27	2.35	1000
1419	451	454	6.967	34.036	26.664	110	0.474	0.215	0.37	0.12	0.12	2.21	1000
1421	501	504	6.325	34.080	26.784	71	0.157	0.090	0.24	0.04	0.05	1.75	1000
1455	501	504	6.325	34.082	26.786	73	-9.000	-9.000	0.24	-9.00	-9.00	-9.00	1000
1408	550	554	5.793	34.122	26.885	48	0.058	0.033	0.16	0.01	0.02	1.72	1003
1410	600	604	5.385	34.182	26.982	32	0.016	0.011	0.10	-9.00	-9.00	-9.00	1103
1522	644	648	5.090	34.214	27.042	30	0.018	0.003	0.10	-9.00	-9.00	-9.00	1003
1517	695	700	4.868	34.254	27.099	25	0.010	0.009	0.08	-9.00	-9.00	-9.00	1003
1456	701	706	4.740	34.278	27.132	16	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
1511	747	752	4.661	34.305	27.163	24	0.015	0.005	0.08	-9.00	-9.00	-9.00	1003
1512	794	800	4.461	34.344	27.216	26	0.003	-9.000	0.08	-9.00	-9.00	-9.00	1023
1557	794	800	4.461	34.342	27.214	25	-9.000	-9.000	0.08	-9.00	-9.00	-9.00	1000
1519	897	904	4.170	34.428	27.313	29	-9.000	-9.000	0.09	-9.00	-9.00	-9.00	1033
1508	999	1007	3.898	34.476	27.380	34	0.004	0.004	0.11	-9.00	-9.00	-9.00	1003
1558	999	1007	3.898	34.478	27.381	39	-9.000	-9.000	0.12	-9.00	-9.00	-9.00	1000
1559	1248	1259	3.270	34.538	27.491	57	-9.000	-9.000	0.18	-9.00	-9.08	-9.00	1000
1510	1493	1507	2.764	34.573	27.566	64	0.005	0.004	0.20	-9.00	-9.00	-9.00	1003
1560	1975	1996	2.035	34.618	27.663	80	-9.000	-9.000	0.24	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
5	10 Jul 86	29 58.6 N	134 58.3 W	4090	228.5	418.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1604	12	12	20.752	34.594	24.253	235	2.066	1.056	1.06	1.06	1.06	1.96	1100
1651	12	12	20.752	34.594	24.253	235	-9.000	-9.000	1.06	-9.00	-9.00	-9.00	1000
1611	27	27	20.702	34.593	24.266	235	2.070	1.051	1.05	1.06	1.05	1.97	1000
1617	52	52	17.729	34.253	24.767	256	-9.000	-9.000	1.09	-9.00	-9.00	-9.00	1000
1618	76	77	16.890	34.275	24.985	252	2.435	1.195	1.05	1.04	1.02	2.04	1000
1652	101	102	17.444	34.566	25.076	254	-9.000	-9.000	1.07	-9.00	-9.00	-9.00	1000
1622	101	102	17.444	34.568	25.078	250	2.343	1.154	1.05	1.03	1.01	2.03	1000
1612	126	126	17.103	34.565	25.157	245	2.338	1.166	1.03	1.01	1.01	2.00	1000
1621	151	151	15.537	34.356	25.358	238	2.379	1.181	0.97	0.95	0.95	2.01	1000
1619	175	176	14.039	34.292	25.632	226	2.359	1.162	0.89	0.87	0.87	2.03	1000
1608	200	201	12.303	34.123	25.851	224	2.463	1.187	0.85	0.83	0.82	2.07	1000
1610	224	225	10.995	34.023	26.016	226	2.517	1.212	0.83	0.79	0.79	2.08	1000
1704	250	251	9.861	33.974	26.174	211	2.406	1.150	0.76	0.71	0.71	2.09	1000
1753	250	251	9.861	33.968	26.170	211	-9.000	-9.000	0.76	-9.00	-9.00	-9.00	1000
1711	299	301	9.067	34.027	26.346	196	1.962	0.938	0.69	0.55	0.56	2.09	1000
1718	348	350	8.132	34.017	26.482	178	1.551	0.752	0.62	0.42	0.43	2.06	1000
1754	348	350	8.132	34.017	26.482	179	-9.000	-9.000	0.62	-9.00	-9.00	-9.00	1000
1717	398	400	7.267	34.001	26.595	150	1.062	0.521	0.51	0.27	0.28	2.04	1000
1722	448	450	6.652	33.999	26.677	122	0.669	0.346	0.41	0.16	0.18	1.93	1000
1712	497	500	5.954	34.024	26.787	81	0.313	0.166	0.27	0.07	0.08	1.89	1000
1755	497	500	5.953	34.023	26.787	81	-9.000	-9.000	0.27	-9.00	-9.00	-9.00	1000
1719	546	549	5.457	34.080	26.892	48	0.123	0.080	0.16	0.03	0.04	1.54	1000
1708	595	599	5.062	34.132	26.980	34	0.052	0.035	0.11	0.01	0.02	1.48	1003
1819	650	655	4.841	34.233	27.085	-9	0.012	0.009	-9.00	-9.00	-9.00	-9.00	1003
1804	701	706	4.609	34.285	27.152	36	0.010	0.008	0.11	-9.00	-9.00	-9.00	1003
1811	751	757	4.411	34.333	27.212	26	0.009	0.005	0.08	-9.00	-9.00	-9.00	1003
1818	800	806	4.180	34.334	27.238	27	0.005	0.003	0.08	-9.00	-9.00	-9.00	1003
1822	901	908	3.916	34.434	27.345	28	0.003	0.006	0.09	-9.00	-9.00	-9.00	1003
1812	1001	1009	3.661	34.436	27.372	36	0.007	0.008	0.11	-9.00	-9.00	-9.00	1003
1808	1493	1507	2.596	34.616	27.615	95	0.000	-0.007	0.29	-9.00	-9.00	-9.00	1003
1858	1985	2007	1.909	34.557	27.624	93	-9.000	-9.000	0.28	-9.00	-9.00	-9.00	1000
1860	1985	2007	1.903	34.614	27.670	91	-9.000	-9.000	0.27	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
6	12 Jul 86	34 59.5 N	135 00.4 W	5190	229.5	414.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1951	12	12	19.292	33.598	23.877	239	-9.000	-9.000	1.04	-9.00	-9.00	-9.00	1000
1917	12	12	19.292	33.598	23.877	239	2.352	1.220	1.04	1.11	1.15	1.93	1000
1918	26	26	19.062	33.610	23.944	256	2.684	1.418	1.11	1.25	1.33	1.89	1000
1922	78	78	15.830	33.711	24.796	254	2.663	1.364	1.04	1.06	1.11	1.95	1000
1912	103	103	15.320	33.759	24.946	251	2.656	1.357	1.01	1.04	1.08	1.96	1000
1921	103	103	15.320	33.759	24.946	254	2.656	1.342	1.02	1.04	1.07	1.98	1000
1952	127	127	14.945	33.816	25.072	237	-9.000	-9.000	0.95	-9.00	-9.00	-9.00	1000
1919	151	152	13.949	33.806	25.276	230	2.661	1.376	0.90	0.97	1.03	1.93	1000
1908	175	176	12.762	33.810	25.519	-9	2.682	1.360	-9.00	0.92	0.97	1.97	1000
1910	202	203	10.111	33.657	25.885	222	2.609	1.317	0.80	0.77	0.83	1.98	1000
1911	226	227	9.671	33.887	26.138	220	2.658	1.328	0.79	0.77	0.82	2.00	1000
1904	226	227	9.671	33.887	26.138	221	2.670	1.331	0.79	0.78	0.82	2.01	1000
2017	251	252	8.991	33.955	26.302	219	2.579	1.312	0.77	0.72	0.78	1.97	1000
2053	251	252	8.991	33.955	26.302	216	-9.000	-9.000	0.76	-9.00	-9.00	-9.00	1000
2018	302	303	8.317	34.010	26.449	201	2.147	1.088	0.70	0.58	0.63	1.97	1000
2012	350	352	7.541	33.994	26.551	181	1.689	0.863	0.62	0.44	0.48	1.96	1000
2054	350	352	7.541	33.994	26.551	175	-9.000	-9.000	0.60	-9.00	-9.00	-9.00	1000
2021	402	404	6.991	33.988	26.623	131	1.033	0.562	0.44	0.26	0.30	1.84	1000
2008	451	454	6.107	33.980	26.733	106	0.729	0.384	0.35	0.17	0.20	1.90	1000
2112	499	502	5.476	33.988	26.817	85	0.441	-9.000	0.28	0.10	-9.00	-9.00	1020
2019	501	504	5.576	33.966	26.788	92	-9.000	-9.000	0.30	-9.00	-9.00	-9.00	1000
2055	501	504	5.576	33.990	26.807	88	-9.000	-9.000	0.29	-9.00	-9.00	-9.00	1000
2010	554	557	5.337	34.060	26.891	49	0.195	0.128	0.16	0.04	0.06	1.53	1000
2004	598	602	4.926	34.091	26.963	36	0.080	0.082	0.12	0.02	0.04	0.97	1003
2117	646	651	4.549	34.122	27.030	27	0.038	0.044	0.08	0.01	0.02	0.87	1003
2118	695	700	4.295	34.167	27.093	22	0.016	0.023	0.07	-9.00	-9.00	-9.00	1003
2056	700	705	4.264	34.168	27.097	18	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
2111	746	751	4.146	34.231	27.159	15	0.010	0.012	0.05	-9.00	-9.00	-9.00	1103
2157	796	802	4.006	34.264	27.200	10	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
2122	796	802	4.006	34.268	27.203	10	0.004	0.003	0.03	-9.00	-9.00	-9.00	1003
2108	893	900	3.733	34.326	27.277	10	0.005	0.003	0.03	-9.00	-9.00	-9.00	1103
2119	993	1001	3.568	34.396	27.349	11	0.005	0.005	0.03	-9.00	-9.00	-9.00	1003
2158	993	1001	3.568	34.396	27.349	11	-9.000	-9.000	0.04	-9.00	-9.00	-9.00	1000
2159	1238	1249	3.055	34.491	27.474	26	-9.000	-9.000	0.08	-9.00	-9.00	-9.00	1000
2104	1483	1497	2.617	34.545	27.556	42	-9.000	0.002	0.13	-9.00	-9.00	-9.00	1010
2160	1996	2018	1.868	34.610	27.670	70	-9.000	-9.000	0.21	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
7	12 Jul 86	36 59.9 N	135 00.4 W	5665	232.8	421.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2251	12	12	18.601	33.240	23.778	246	-9.000	-9.000	1.05	-9.00	-9.00	-9.00	1000
2211	12	12	18.601	33.247	23.783	237	2.412	1.194	1.01	1.08	1.08	2.02	1000
2217	27	27	15.957	33.199	24.373	261	-9.000	1.313	1.06	-9.00	1.06	-9.00	1010
2218	52	52	14.753	33.429	24.815	269	2.838	1.351	1.07	1.06	1.03	2.10	1000
2222	76	77	14.043	33.437	24.971	274	2.864	1.367	1.07	1.03	1.01	2.10	1000
2212	100	101	13.681	33.508	25.101	258	2.843	1.351	1.00	1.00	0.99	2.10	1000
2221	125	126	13.369	33.576	25.217	247	2.827	1.339	0.96	0.98	0.96	2.11	1000
2215	150	151	11.212	33.473	25.549	234	2.973	1.416	0.86	0.92	0.92	2.10	1000
2208	174	175	9.461	33.638	25.978	222	2.948	1.359	0.79	0.83	0.81	2.17	1000
2210	202	203	8.611	33.823	26.258	218	2.835	1.298	0.76	0.76	0.75	2.18	1000
2204	224	226	8.462	33.893	26.335	215	2.712	1.236	0.75	0.73	0.71	2.19	1000
2311	249	251	8.326	33.969	26.416	209	2.458	1.156	0.73	0.65	0.66	2.13	1000
2353	250	251	8.326	33.969	26.416	208	-9.000	-9.000	0.72	-9.00	-9.00	-9.00	1000
2317	299	301	7.669	33.991	26.530	185	1.947	-9.000	0.64	0.50	-9.00	-9.00	1020
2354	348	350	7.069	33.975	26.602	166	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1000
2322	348	350	7.069	33.975	26.602	164	1.550	0.714	0.56	0.38	0.38	2.17	1000
2312	398	401	6.217	33.949	26.695	139	1.184	0.548	0.46	0.28	0.28	2.16	1000
2318	447	450	5.481	33.971	26.803	96	0.552	0.270	0.31	0.12	0.13	2.05	1000
2355	497	500	4.934	34.002	26.892	71	-9.000	-9.000	0.23	-9.00	-9.00	-9.00	1000
2321	497	500	4.934	34.002	26.892	69	0.300	0.158	0.22	0.06	0.08	1.88	1100
2308	546	550	4.675	34.048	26.957	48	0.142	0.076	0.15	0.03	0.04	1.86	1000
2310	596	600	4.444	34.100	27.024	32	-9.000	0.046	0.10	-9.00	0.02	-9.00	1013
2411	645	649	4.332	34.117	27.049	29	0.039	0.033	0.09	0.01	0.02	1.19	1003
2356	694	699	4.120	34.181	27.122	18	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
2417	695	700	4.113	34.161	27.107	25	0.018	0.021	0.08	-9.00	-9.00	-9.00	1003
2420	744	749	4.026	34.209	27.154	17	0.015	0.013	0.05	-9.00	-9.00	-9.00	1003
2457	793	799	3.899	34.256	27.205	13	-9.000	-9.000	0.04	-9.00	-9.00	-9.00	1000
2422	793	799	3.899	34.256	27.205	12	0.008	0.004	0.04	-9.00	-9.00	-9.00	1003
2418	892	899	3.582	34.326	27.292	9	0.003	0.003	0.03	-9.00	-9.00	-9.00	1003
2421	991	999	3.328	34.383	27.362	11	0.003	0.004	0.03	-9.00	-9.00	-9.00	1003
2458	991	999	3.328	34.383	27.362	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2459	1237	1248	2.843	34.483	27.487	19	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
2410	1483	1497	2.452	34.546	27.571	39	-0.001	-0.001	0.12	-9.00	-9.00	-9.00	1103
2460	1981	2003	1.831	34.610	27.672	69	-9.000	-9.000	0.21	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
8	13 Jul 86	40 00.5 N	134 59.6 W	3960	233.7	423.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2504	13	13	16.941	32.864	23.890	254	2.626	1.240	1.05	1.08	1.04	2.10	1100
2551	13	13	16.941	32.864	23.890	250	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
2511	27	27	14.344	32.775	24.397	276	2.960	1.386	1.08	1.07	1.03	2.14	1000
2517	52	52	12.496	32.730	24.733	276	3.183	1.470	1.04	1.04	1.00	2.16	1000
2518	76	77	11.399	32.734	24.941	276	3.285	1.512	1.02	1.02	0.98	2.17	1000
2522	102	103	10.714	32.705	25.039	268	3.360	1.552	0.97	1.00	0.97	2.16	1000
2553	102	103	10.714	32.703	25.038	269	-9.000	-9.000	0.98	-9.00	-9.00	-9.00	1000
2512	127	127	9.918	33.099	25.482	236	-9.000	-9.000	0.85	-9.00	-9.00	-9.00	1000
2521	151	151	8.921	33.430	25.902	211	3.132	1.460	0.74	0.85	0.84	2.14	1000
2515	176	176	8.544	33.629	26.116	199	2.897	1.328	0.70	0.77	0.76	2.18	1000
2701	200	201	8.309	33.815	26.297	204	2.638	1.205	0.71	0.70	0.68	2.19	1000
2508	202	203	8.283	33.827	26.311	214	2.723	1.255	0.74	0.72	0.71	2.17	1000
2510	225	226	8.040	33.912	26.414	198	2.436	1.113	0.68	0.63	0.62	2.19	1000
2604	251	253	7.661	33.957	26.505	175	2.008	0.912	0.60	0.51	0.50	2.20	1000
2652	251	253	7.661	33.957	26.505	173	-9.000	-9.000	0.59	-9.00	-9.00	-9.00	1000
2611	300	302	7.107	33.973	26.595	150	1.547	0.712	0.51	0.38	0.38	2.17	1000
2654	348	350	6.434	33.959	26.675	141	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
2618	348	350	6.434	33.960	26.676	146	1.284	0.597	0.49	0.31	0.31	2.15	1000
2622	399	401	5.697	33.970	26.776	104	0.726	0.348	0.34	0.17	0.17	2.08	1000
2621	450	453	5.441	34.012	26.841	68	0.421	0.218	0.22	0.09	0.11	1.93	1000
2655	496	499	5.023	34.022	26.897	62	-9.000	-9.000	0.20	-9.00	-9.00	-9.00	1000
2612	496	499	5.023	34.022	26.897	61	0.276	0.141	0.20	0.06	0.07	1.96	1000
2615	550	554	4.650	34.046	26.958	51	0.180	0.109	0.16	0.04	0.05	1.66	1000
2608	596	600	4.346	34.071	27.011	41	0.109	0.075	0.13	0.02	0.03	1.49	1100
2704	645	649	4.225	34.106	27.052	32	0.064	0.040	0.10	0.01	0.02	1.62	1003
2711	694	699	4.068	34.147	27.101	23	0.031	0.017	0.07	0.01	-9.00	-9.00	1003
2656	706	711	4.024	34.174	27.127	19	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
2717	744	749	4.017	34.202	27.150	14	0.018	0.008	0.04	-9.00	-9.00	-9.00	1003
2757	793	799	3.876	34.247	27.200	10	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
2718	793	799	3.876	34.247	27.200	10	0.006	0.003	0.03	-9.00	-9.00	-9.00	1003
2721	891	898	3.651	34.332	27.290	7	0.006	0.003	0.02	-9.00	-9.00	-9.00	1003
2712	991	999	3.470	34.379	27.345	7	0.005	0.002	0.02	-9.00	-9.00	-9.00	1103
2758	991	999	3.470	34.379	27.345	7	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
2759	1237	1248	2.902	34.476	27.476	17	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
2708	1483	1497	2.459	34.578	27.596	27	-0.001	-0.002	0.08	-9.00	-9.00	-9.00	1103
2760	1975	1997	1.850	34.618	27.677	63	-9.000	-9.000	0.19	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
9	14 Jul 86	41 59.0 N	134 55.8 W	4020	233.7	423.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2820	12	12	15.692	32.817	24.139	258	2.789	1.404	1.04	1.08	1.11	1.99	1000
2851	12	12	15.692	32.817	24.139	259	-9.000	-9.000	1.04	-9.00	-9.00	-9.00	1000
2804	27	27	14.299	32.816	24.438	265	2.962	1.422	1.04	1.07	1.05	2.08	1000
2811	52	52	11.727	32.823	24.950	282	3.251	1.534	1.05	1.02	1.01	2.12	1000
2817	77	77	11.284	32.884	25.078	270	3.258	1.553	1.00	1.00	1.00	2.10	1000
2852	101	102	10.481	32.917	25.245	261	-9.000	-9.000	0.95	-9.00	-9.00	-9.00	1000
2818	101	102	10.481	32.917	25.245	261	3.351	1.587	0.95	0.99	0.98	2.11	1000
2822	126	126	9.629	33.081	25.515	244	3.274	1.545	0.87	0.92	0.92	2.12	1000
2812	151	151	8.720	33.320	25.847	234	3.086	1.452	0.82	0.83	0.83	2.13	1000
2821	175	176	8.153	33.679	26.214	227	3.273	1.535	0.78	0.86	0.86	2.13	1000
2815	200	201	7.969	33.869	26.391	226	2.898	1.354	0.78	0.75	0.75	2.14	1000
2808	228	229	7.831	33.937	26.464	211	2.613	1.221	0.72	0.68	0.68	2.14	1100
2910	252	254	7.735	33.963	26.498	201	2.368	1.125	0.69	0.61	0.62	2.10	1000
2952	252	254	7.735	33.963	26.498	203	-9.000	-9.000	0.70	-9.00	-9.00	-9.00	1000
2904	301	303	7.040	33.962	26.596	174	1.904	0.900	0.59	0.47	0.48	2.12	1000
2955	351	354	6.244	33.954	26.695	143	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
2917	351	354	6.244	33.942	26.686	142	1.388	0.656	0.47	0.33	0.33	2.12	1000
2918	401	404	5.455	33.939	26.781	109	0.886	0.435	0.35	0.20	0.21	2.03	1000
2912	452	454	5.040	33.957	26.844	90	0.602	0.302	0.29	0.13	0.14	1.99	1000
2922	503	506	4.621	33.985	26.913	74	0.452	0.228	0.24	0.10	0.11	1.98	1000
2954	503	506	4.621	33.985	26.913	74	-9.000	-9.000	0.24	-9.00	-9.00	-9.00	1000
2921	550	554	4.362	34.029	26.976	57	0.277	0.156	0.18	0.06	0.07	1.78	1000
2915	602	606	4.192	34.062	27.020	43	0.167	0.105	0.14	0.03	0.05	1.59	1000
3110	645	649	4.037	34.097	27.064	31	0.098	0.059	0.10	0.02	0.03	1.73	1100
3104	694	699	3.875	34.135	27.111	27	0.053	0.036	0.08	0.01	0.02	1.48	1003
2956	703	708	3.823	34.148	27.126	21	-9.000	-9.000	0.07	-9.00	-9.00	-9.00	1000
3111	744	749	3.713	34.176	27.160	18	0.027	0.016	0.06	-9.00	-9.00	-9.00	1003
3117	793	800	3.573	34.213	27.203	9	0.015	0.010	0.03	-9.00	-9.00	-9.00	1003
3157	793	800	3.573	34.212	27.202	11	-9.000	-9.000	0.04	-9.00	-9.00	-9.00	1000
3112	892	899	3.366	34.288	27.283	7	0.004	0.001	0.02	-9.00	-9.00	-9.00	1003
3122	991	999	3.261	34.354	27.345	5	0.004	0.000	0.02	-9.00	-9.00	-9.00	1003
3158	991	999	3.261	34.355	27.346	5	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
3159	1237	1248	2.823	34.448	27.461	7	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
3115	1484	1498	2.357	34.522	27.560	22	-0.002	-0.001	0.07	-9.00	-9.00	-9.00	1103
3160	1975	1997	1.835	34.605	27.668	57	-9.000	-9.000	0.17	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
10	15 Jul 86	44 03.5 N	134 57.6 W	3930	233.7	423.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3251	12	12	14.529	32.718	24.314	184	-9.000	-9.000	0.72	-9.00	-9.00	-9.00	1000
3211	12	12	14.529	32.717	24.314	214	2.975	1.495	0.84	1.08	1.12	1.99	1000
3217	28	28	14.340	32.709	24.347	231	2.950	1.438	0.91	1.06	1.06	2.05	1000
3218	52	52	11.368	32.690	24.912	238	3.406	1.622	0.88	1.05	1.05	2.10	1000
3222	76	76	10.235	32.690	25.110	254	3.463	1.645	0.91	1.00	1.00	2.10	1100
3252	101	101	9.859	32.800	25.258	267	-9.000	-9.000	0.95	-9.00	-9.00	-9.00	1000
3212	101	101	9.859	32.796	25.255	263	3.473	1.648	0.94	0.99	0.99	2.11	1000
3221	127	127	8.424	32.922	25.580	285	3.601	1.700	0.99	0.95	0.95	2.12	1000
3215	150	150	7.539	33.388	26.075	289	3.381	1.593	0.98	0.85	0.86	2.12	1000
3208	174	175	7.401	33.649	26.299	261	3.213	1.505	0.89	0.80	0.81	2.14	1000
3210	201	202	7.424	33.842	26.448	258	2.808	1.320	0.88	0.71	0.71	2.13	1000
3311	249	251	7.144	33.944	26.567	188	2.213	1.013	0.64	0.55	0.54	2.18	1000
3353	249	251	7.144	33.944	26.567	187	-9.000	-9.000	0.63	-9.00	-9.00	-9.00	1000
3204	257	259	6.830	33.927	26.597	207	2.165	1.027	0.69	0.53	0.54	2.11	1000
3317	299	301	6.502	33.947	26.656	157	1.595	0.763	0.52	0.38	0.39	2.09	1000
3354	348	350	5.883	33.937	26.727	130	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
3304	348	350	5.883	33.937	26.727	128	1.162	0.565	0.42	0.27	0.28	2.06	1000
3312	398	400	5.315	33.946	26.803	104	0.784	0.385	0.34	0.17	0.19	2.04	1000
3322	447	450	4.795	33.975	26.886	82	0.519	0.260	0.26	0.11	0.12	2.00	1000
3355	498	502	4.472	34.011	26.950	67	-9.000	-9.000	0.21	-9.00	-9.00	-9.00	1000
3321	502	506	4.474	34.013	26.951	67	0.353	0.180	0.21	0.07	0.08	1.96	1000
3308	547	550	4.213	34.055	27.013	49	0.207	0.113	0.15	0.04	0.05	1.84	1000
3310	595	600	4.035	34.095	27.063	41	0.136	0.078	0.13	0.03	0.04	1.73	1000
3421	645	649	3.958	34.114	27.086	34	0.088	0.057	0.11	0.02	0.03	1.55	1003
3356	694	699	3.708	34.174	27.159	20	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
3411	694	699	3.777	34.153	27.135	27	0.045	0.028	0.08	0.01	-9.00	-9.00	1003
3417	744	750	3.658	34.187	27.174	17	0.022	0.014	0.05	-9.00	-9.00	-9.00	1003
3457	793	799	3.555	34.220	27.210	13	-9.000	-9.000	0.04	-9.00	-9.00	-9.00	1000
3418	793	799	3.555	34.224	27.214	12	0.009	0.009	0.04	-9.00	-9.00	-9.00	1003
3422	991	999	3.200	34.349	27.347	6	0.000	0.002	0.02	-9.00	-9.00	-9.00	1003
3459	1236	1247	2.859	34.450	27.459	9	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
3408	1236	1247	2.860	34.450	27.459	10	0.006	0.002	0.03	-9.00	-9.00	-9.00	1003
3410	1484	1498	2.419	34.510	27.545	26	0.008	0.006	0.08	-9.00	-9.00	-9.00	1003
3460	1975	1997	1.830	34.592	27.658	57	-9.000	-9.000	0.17	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
11	16 Jul 86	45 59.6 N	135 00.0 W	3960	233.7	423.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3517	12	12	13.311	32.643	24.506	268	3.114	1.474	1.03	1.06	1.04	2.11	1000
3551	12	12	13.311	32.643	24.506	258	-9.000	-9.000	0.99	-9.00	-9.00	-9.00	1000
3515	27	27	13.196	32.645	24.531	272	3.143	1.473	1.04	1.07	1.04	2.13	1000
3522	52	52	10.445	32.722	25.099	276	3.474	1.615	1.00	1.02	1.00	2.15	1000
3518	76	77	9.789	32.751	25.232	275	3.543	1.656	0.98	1.01	0.99	2.14	1000
3521	101	101	8.988	32.757	25.364	273	3.611	1.682	0.96	0.98	0.97	2.15	1000
3552	101	101	8.988	32.759	25.366	269	-9.000	-9.000	0.94	-9.00	-9.00	-9.00	1000
3512	125	126	7.945	32.831	25.579	273	3.605	1.679	0.94	0.92	0.92	2.15	1000
3508	150	151	7.053	33.293	26.067	242	3.514	1.617	0.82	0.86	0.85	2.17	1000
3510	175	176	6.580	33.609	26.379	228	3.197	1.454	0.76	0.76	0.75	2.20	1000
3504	200	201	6.601	33.823	26.545	207	2.695	1.222	0.69	0.65	0.63	2.21	1000
3511	226	227	6.314	33.860	26.612	192	2.407	1.095	0.64	0.57	0.56	2.20	1000
3617	250	251	6.238	33.884	26.641	188	2.228	1.018	0.62	0.52	0.52	2.19	1000
3653	250	251	6.238	33.884	26.641	182	-9.000	-9.000	0.60	-9.00	-9.00	-9.00	1000
3618	299	301	5.527	33.869	26.717	153	1.815	0.832	0.50	0.41	0.41	2.18	1000
3612	348	350	5.034	33.917	26.813	68	1.068	0.492	0.22	0.23	0.23	2.17	1000
3654	348	350	5.034	33.957	26.845	105	-9.000	-9.000	0.34	-9.00	-9.00	-9.00	1000
3621	398	401	4.673	33.962	26.889	80	0.626	0.294	0.26	0.13	0.14	2.13	1000
3608	447	450	4.427	33.995	26.942	64	0.411	0.203	0.20	0.09	0.09	2.03	1000
3655	501	505	4.243	34.030	26.989	54	-9.000	-9.000	0.17	-9.00	-9.00	-9.00	1000
3611	502	505	4.243	34.030	26.989	53	0.285	0.137	0.17	0.06	0.06	2.08	1000
3610	551	555	4.067	34.069	27.039	45	0.197	0.111	0.14	0.04	0.05	1.77	1000
3604	603	607	3.938	34.109	27.084	34	0.111	0.067	0.11	0.02	0.03	1.66	1000
3717	650	654	3.845	34.137	27.115	28	0.085	0.045	0.09	0.02	0.02	1.88	1003
3656	701	706	3.682	34.180	27.166	20	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
3718	701	706	3.698	34.180	27.164	19	0.041	0.024	0.06	0.01	-9.00	-9.00	1003
3711	750	756	3.570	34.213	27.203	17	0.029	0.013	0.05	-9.00	-9.00	-9.00	1003
3757	801	807	3.431	34.255	27.250	8	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
3722	801	807	3.431	34.255	27.250	10	0.008	0.003	0.03	-9.00	-9.00	-9.00	1103
3708	900	907	3.251	34.313	27.314	8	0.004	-0.003	0.03	-9.00	-9.00	-9.00	1003
3721	1000	1008	3.107	34.352	27.358	7	0.001	0.000	0.02	-9.00	-9.00	-9.00	1003
3758	1001	1009	3.107	34.352	27.358	7	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
3710	1247	1258	2.705	34.451	27.473	10	-0.001	-0.004	0.03	-9.00	-9.00	-9.00	1003
3759	1247	1258	2.705	34.451	27.473	10	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
3704	1497	1512	2.343	34.510	27.551	22	0.003	0.001	0.07	-9.00	-9.00	-9.00	1103
3760	1992	2014	1.791	34.594	27.663	55	-9.000	-9.000	0.16	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
12	16 Jul 86	47 58.6 N	134 57.7 W	4364	233.7	423.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3822	13	13	11.812	32.534	24.710	285	3.391	1.588	1.06	1.07	1.05	2.14	1000
3851	13	13	11.812	32.534	24.710	287	-9.000	-9.000	1.07	-9.00	-9.00	-9.00	1000
3808	27	27	11.760	32.534	24.719	291	3.365	1.571	1.08	1.06	1.03	2.14	1000
3821	51	51	9.155	32.544	25.172	297	3.764	1.729	1.04	1.03	1.00	2.18	1000
3817	76	77	8.128	32.556	25.337	296	3.938	1.831	1.01	1.02	1.01	2.15	1000
3852	101	102	7.637	32.575	25.422	289	-9.000	-9.000	0.98	-9.00	-9.00	-9.00	1000
3812	101	102	7.637	32.573	25.420	290	3.946	1.824	0.98	0.99	0.98	2.16	1000
3804	125	126	6.729	32.999	25.879	246	3.564	1.630	0.82	0.85	0.84	2.19	1000
3815	151	152	6.503	33.538	26.333	186	2.692	1.225	0.62	0.64	0.63	2.20	1000
3811	175	176	6.703	33.769	26.489	144	1.934	0.887	0.48	0.47	0.46	2.18	1000
3818	200	201	6.253	33.830	26.596	147	1.886	0.852	0.49	0.44	0.43	2.21	1000
3810	226	228	6.025	33.879	26.664	133	1.595	0.726	0.44	0.37	0.36	2.20	1000
4022	249	251	5.702	33.889	26.712	124	1.459	0.667	0.41	0.33	0.33	2.19	1000
4053	249	251	5.702	33.889	26.712	124	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
4008	299	301	5.368	33.923	26.779	95	1.035	0.469	0.31	0.23	0.23	2.21	1000
4017	348	351	4.919	33.957	26.858	72	0.713	0.321	0.23	0.15	0.15	2.22	1000
4054	348	351	4.919	33.957	26.858	73	-9.000	-9.000	0.23	-9.00	-9.00	-9.00	1000
4012	398	400	4.682	33.993	26.913	57	0.494	0.249	0.18	0.11	0.12	1.98	1000
4015	446	449	4.405	34.022	26.966	54	0.371	0.187	0.17	0.08	0.09	1.98	1000
4055	497	500	4.156	34.071	27.031	42	-9.000	-9.000	0.13	-9.00	-9.00	-9.00	1000
4004	497	501	4.156	34.071	27.031	43	0.224	0.110	0.14	0.05	0.05	2.04	1000
4011	547	550	3.994	34.119	27.086	33	0.138	0.080	0.10	0.03	0.04	1.72	1000
4018	595	599	3.878	34.160	27.130	25	0.085	0.046	0.08	0.02	0.02	1.87	1100
4117	644	649	3.853	34.187	27.155	18	0.066	0.034	0.06	0.01	0.02	1.94	1003
4122	694	699	3.765	34.224	27.193	12	0.036	0.016	0.04	0.01	-9.00	-9.00	1003
4056	708	713	3.707	34.228	27.202	15	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
4108	744	750	3.657	34.280	27.248	10	0.025	0.012	0.03	-9.00	-9.00	-9.00	1003
4110	793	799	3.531	34.289	27.268	10	-9.000	0.007	0.03	-9.00	-9.00	-9.00	1013
4157	793	799	3.531	34.289	27.268	10	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
4112	893	900	3.253	34.337	27.333	10	0.008	0.002	0.03	-9.00	-9.00	-9.00	1003
4158	991	999	3.046	34.377	27.384	11	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
4104	991	999	3.046	34.378	27.385	10	0.006	0.002	0.03	-9.00	-9.00	-9.00	1003
4111	1236	1247	2.557	34.448	27.484	14	0.006	0.007	0.04	-9.00	-9.00	-9.00	1003
4159	1236	1247	2.557	34.449	27.484	16	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
4118	1484	1498	2.233	34.512	27.562	27	-0.001	-0.002	0.08	-9.00	-9.00	-9.00	1003
4160	1977	1999	1.794	34.587	27.657	55	-9.000	-9.000	0.16	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
13	17 Jul 86	50 00.1 N	135 00.2 W	3530	233.7	423.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4251	12	12	12.017	32.435	24.595	286	-9.000	-9.000	1.07	-9.00	-9.00	-9.00	1000
4218	12	12	12.017	32.436	24.596	287	3.421	1.608	1.07	1.09	1.07	2.13	1000
4210	27	27	11.508	32.452	24.702	286	3.423	1.599	1.06	1.06	1.04	2.14	1000
4222	52	52	8.042	32.535	25.333	289	3.960	1.813	0.99	1.02	0.99	2.18	1000
4208	76	76	7.169	32.764	25.635	262	3.758	1.738	0.88	0.92	0.91	2.16	1000
4252	101	102	6.678	33.246	26.080	209	-9.000	-9.000	0.70	-9.00	-9.00	-9.00	1000
4221	101	102	6.678	33.245	26.079	211	3.095	1.426	0.70	0.74	0.74	2.17	1000
4217	126	127	6.238	33.490	26.330	199	2.898	1.324	0.66	0.68	0.67	2.19	1000
4212	151	152	6.636	33.798	26.521	142	1.869	0.864	0.47	0.45	0.45	2.16	1000
4204	175	176	6.314	33.868	26.619	133	1.615	0.755	0.44	0.38	0.38	2.14	1000
4215	200	202	5.998	33.899	26.683	120	1.385	0.676	0.40	0.32	0.34	2.05	1000
4211	226	227	5.778	33.923	26.729	101	1.066	0.535	0.33	0.24	0.27	1.99	1000
4318	251	253	5.682	33.927	26.744	97	1.031	0.517	0.32	0.23	0.26	1.99	1000
4353	251	253	5.682	33.926	26.743	106	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
4310	301	303	5.309	33.953	26.810	77	0.712	0.370	0.25	0.16	0.18	1.92	1000
4354	352	354	4.971	33.992	26.880	62	-9.000	-9.000	0.20	-9.00	-9.00	-9.00	1000
4308	352	354	4.971	33.991	26.879	64	0.429	0.227	0.20	0.09	0.11	1.89	1000
4321	401	404	4.673	34.035	26.947	40	0.265	0.153	0.13	0.06	0.07	1.73	1000
4312	451	454	4.469	34.073	27.000	33	0.181	0.105	0.10	0.04	0.05	1.72	1000
4355	501	505	4.313	34.105	27.042	24	-9.000	-9.000	0.08	-9.00	-9.00	-9.00	1000
4317	501	505	4.313	34.105	27.042	24	0.121	0.074	0.08	0.03	0.03	1.63	1000
4304	550	554	4.111	34.151	27.099	19	0.077	0.048	0.06	0.02	0.02	1.60	1003
4315	602	606	3.977	34.190	27.144	15	0.054	0.033	0.05	0.01	0.02	1.61	1003
4408	650	655	3.928	34.217	27.171	13	0.037	0.023	0.04	0.01	-9.00	-9.00	1003
4356	700	705	3.795	34.256	27.215	9	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
4418	701	706	3.818	34.249	27.207	24	-9.000	-9.000	0.07	-9.00	-9.00	-9.00	1033
4410	750	756	3.708	34.273	27.237	8	0.017	0.006	0.03	-9.00	-9.00	-9.00	1003
4411	801	807	3.586	34.298	27.270	8	0.016	0.008	0.02	-9.00	-9.00	-9.00	1003
4457	801	807	3.586	34.297	27.269	7	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
4421	900	907	3.253	34.355	27.347	7	0.011	0.006	0.02	-9.00	-9.00	-9.00	1003
4508	995	1003	3.047	34.390	27.394	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4554	995	1003	3.047	34.390	27.394	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4417	999	1007	3.065	34.418	27.415	-9	0.002	0.001	-9.00	-9.00	-9.00	-9.00	1103
4458	999	1007	3.065	34.418	27.415	7	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
4459	1248	1259	2.585	34.451	27.484	14	-9.000	-9.000	0.04	-9.00	-9.00	-9.00	1000
4404	1248	1259	2.585	34.451	27.484	15	0.000	-0.001	0.05	-9.00	-9.00	-9.00	1003
4415	1497	1512	2.201	34.549	27.594	27	-0.003	-0.004	0.08	-9.00	-9.00	-9.00	1003
4518	1499	1514	2.193	34.517	27.569	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4460	2104	2128	1.690	34.607	27.681	64	-9.000	-9.000	0.19	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
14	18 Jul 86	49 59.0 N	140 00.0 W	3930	233.7	423.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4620	12	12	10.284	32.471	24.931	288	-9.000	-9.000	1.04	-9.00	-9.00	-9.00	1000
4632	12	12	10.284	32.471	24.931	288	3.352	1.554	1.03	0.97	0.95	2.16	1000
4622	27	27	9.910	32.469	24.991	291	3.488	1.594	1.04	0.99	0.96	2.19	1000
4601	51	52	7.500	32.534	25.409	303	3.613	1.637	1.03	0.90	0.87	2.21	1000
4618	77	77	6.910	32.552	25.503	302	4.129	1.877	1.01	0.99	0.97	2.20	1000
4621	102	102	6.453	32.617	25.614	289	4.187	1.903	0.95	0.98	0.96	2.20	1000
4652	102	102	6.453	32.617	25.614	289	-9.000	-9.000	0.95	-9.00	-9.00	-9.00	1000
4612	126	127	5.648	33.090	26.087	238	3.528	1.590	0.78	0.79	0.78	2.22	1000
4608	151	151	5.233	33.488	26.450	198	2.892	1.319	0.64	0.64	0.63	2.19	1000
4610	176	177	5.093	33.711	26.643	167	2.380	1.069	0.54	0.52	0.51	2.23	1000
4604	202	203	4.954	33.787	26.719	144	1.951	0.871	0.46	0.42	0.41	2.24	1000
4611	229	230	4.838	33.815	26.754	126	1.704	0.762	0.40	0.37	0.36	2.24	1000
4753	250	252	4.709	33.847	26.794	77	-9.000	-9.000	0.25	-9.00	-9.00	-9.00	1000
4732	301	303	4.520	33.898	26.855	58	0.950	0.471	0.18	0.20	0.22	2.02	1000
4754	352	355	4.274	33.950	26.923	59	-9.000	-9.000	0.19	-9.00	-9.00	-9.00	1000
4722	352	355	4.274	33.950	26.923	48	0.622	0.296	0.15	0.13	0.14	2.10	1000
4718	403	406	4.149	34.000	26.975	39	0.383	0.186	0.12	0.08	0.08	2.06	1000
4721	453	456	4.056	34.042	27.018	32	0.283	0.141	0.10	0.06	0.06	2.01	1000
4711	502	505	3.948	34.089	27.067	34	0.174	0.083	0.11	0.04	0.04	2.09	1000
4712	502	505	3.948	34.089	27.067	28	0.189	0.086	0.09	0.04	0.04	2.20	1000
4755	550	554	3.808	34.127	27.111	20	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
4710	602	606	3.703	34.174	27.159	17	0.074	0.036	0.05	0.01	0.02	2.07	1003
4811	644	649	3.553	34.216	27.207	17	0.041	0.018	0.05	0.01	-9.00	-9.00	1003
4832	695	701	3.463	34.243	27.238	19	0.041	0.017	0.06	0.01	-9.00	-9.00	1103
4704	699	704	3.497	34.233	27.226	14	0.036	0.017	0.04	0.01	-9.00	-9.00	1003
4756	699	704	3.497	34.232	27.225	14	-9.000	-9.000	0.04	-9.00	-9.00	-9.00	1000
4822	747	752	3.349	34.267	27.267	15	0.019	0.003	0.05	-9.00	-9.00	-9.00	1003
4857	796	803	3.271	34.292	27.295	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4818	796	803	3.271	34.292	27.295	11	0.008	-0.003	0.03	-9.00	-9.00	-9.00	1003
4821	892	900	3.085	34.329	27.342	11	0.003	-0.005	0.03	-9.00	-9.00	-9.00	1003
4858	992	1000	2.914	34.372	27.392	11	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
4812	992	1000	2.914	34.372	27.392	11	0.003	-0.004	0.03	-9.00	-9.00	-9.00	1003
4859	1242	1253	2.554	34.443	27.480	16	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
4808	1242	1253	2.554	34.442	27.479	16	-0.002	-0.012	0.05	-9.00	-9.00	-9.00	1003
4804	1482	1497	2.266	34.499	27.549	22	0.000	-0.008	0.07	-9.00	-9.00	-9.00	1003
4860	2105	2129	1.705	34.606	27.679	64	-9.000	-9.000	0.19	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
15	19 Jul 86	49 57.3 N	145 00.6 W	4260	233.7	423.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5011	13	13	10.128	32.503	24.982	288	3.698	1.701	1.03	1.07	1.03	2.17	1000
5020	13	14	10.128	32.503	24.982	291	-9.000	-9.000	1.04	-9.00	-9.00	-9.00	1000
5032	27	28	10.119	32.502	24.983	300	3.718	1.706	1.07	1.07	1.04	2.18	1000
5022	52	52	8.245	32.561	25.323	310	4.054	1.829	1.06	1.05	1.01	2.22	1000
5001	77	77	6.690	32.582	25.556	307	4.280	1.913	1.02	1.02	0.98	2.24	1000
5052	101	101	6.183	32.660	25.682	299	-9.000	-9.000	0.98	-9.00	-9.00	-9.00	1000
5018	101	101	6.183	32.660	25.682	300	4.251	1.926	0.99	0.98	0.96	2.21	1000
5021	126	127	5.339	33.317	26.302	235	3.444	1.542	0.76	0.76	0.74	2.23	1000
5012	150	151	5.168	33.638	26.576	194	2.780	1.245	0.63	0.61	0.60	2.23	1000
5008	176	177	5.016	33.761	26.691	160	2.174	0.981	0.51	0.47	0.47	2.22	1000
5010	203	204	4.843	33.800	26.742	140	1.861	0.836	0.45	0.40	0.39	2.23	1000
5004	227	229	4.654	33.831	26.787	117	1.550	0.695	0.37	0.33	0.32	2.23	1000
5153	250	251	4.531	33.851	26.816	102	-9.000	-9.000	0.32	-9.00	-9.00	-9.00	1000
5111	250	251	4.531	33.852	26.817	100	1.309	0.588	0.32	0.28	0.27	2.23	1100
5132	300	301	4.287	33.906	26.886	72	-9.000	-9.000	0.23	-9.00	-9.00	-9.00	1000
5122	348	350	4.175	33.964	26.944	57	0.762	0.359	0.18	0.13	0.13	2.18	1100
5154	348	350	4.175	33.964	26.944	56	-9.000	-9.000	0.18	-9.00	-9.00	-9.00	1000
5112	448	451	3.901	34.050	27.041	40	0.336	0.161	0.13	0.07	0.07	2.09	1000
5155	501	504	3.787	34.102	27.094	37	-9.000	-9.000	0.11	-9.00	-9.00	-9.00	1000
5121	501	504	3.787	34.102	27.094	35	0.214	0.129	0.11	0.04	0.06	1.66	1000
5108	545	549	3.708	34.141	27.132	29	0.133	0.061	0.09	0.03	0.03	2.17	1000
5110	595	600	3.604	34.174	27.169	27	0.102	0.051	0.08	0.02	0.02	1.99	1000
5208	651	656	3.528	34.199	27.196	24	0.094	0.040	0.07	0.02	0.02	2.35	1001
5211	696	701	3.417	34.233	27.234	21	0.070	0.027	0.07	0.01	-9.00	-9.00	1003
5156	704	709	3.382	34.234	27.238	19	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
5232	745	751	3.319	34.258	27.263	19	0.049	0.013	0.06	0.01	-9.00	-9.00	1003
5222	796	802	3.225	34.290	27.298	15	0.025	0.006	0.05	-9.00	-9.00	-9.00	1003
5257	796	802	3.225	34.283	27.292	16	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
5218	894	902	3.032	34.331	27.348	11	0.010	0.000	0.03	-9.00	-9.00	-9.00	1003
5258	995	1003	2.862	34.367	27.392	10	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
5221	995	1003	2.862	34.374	27.398	11	0.008	0.004	0.03	-9.00	-9.00	-9.00	1003
5259	1242	1253	2.503	34.446	27.487	16	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
5204	1242	1253	2.503	34.449	27.489	11	0.007	-0.005	0.03	-9.00	-9.00	-9.00	1003
5210	1492	1507	2.225	34.503	27.556	23	0.007	0.000	0.07	-9.00	-9.00	-9.00	1003
5260	2005	2028	1.789	34.588	27.658	53	-9.000	-9.000	0.16	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
16	20 Jul 86	52 10.1 N	144 58.9 W	4080	233.0	422.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5420	12	12	9.483	32.474	25.065	296	-9.000	-9.000	1.05	-9.00	-9.00	-9.00	1000
5404	12	12	9.483	32.473	25.064	297	3.939	1.768	1.05	1.10	1.04	2.23	1000
5411	27	27	9.228	32.493	25.120	299	4.015	1.800	1.05	1.11	1.05	2.23	1000
5432	51	52	7.223	32.561	25.468	309	4.284	1.904	1.04	1.05	1.01	2.25	1000
5422	76	76	5.919	32.591	25.659	313	4.422	1.978	1.02	1.01	0.98	2.23	1000
5452	101	102	5.222	32.814	25.918	279	-9.000	-9.000	0.90	-9.00	-9.00	-9.00	1000
5401	101	102	5.222	32.812	25.916	282	4.178	1.856	0.90	0.92	0.89	2.25	1000
5418	126	126	4.447	33.361	26.436	211	3.219	1.428	0.67	0.68	0.66	2.25	1000
5421	151	152	4.190	33.650	26.693	161	2.443	1.099	0.51	0.51	0.50	2.22	1000
5412	175	176	4.053	33.737	26.776	136	2.076	0.918	0.43	0.43	0.42	2.26	1000
5408	200	201	3.916	33.772	26.818	116	1.757	0.781	0.36	0.36	0.35	2.25	1000
5410	231	232	3.835	33.816	26.861	90	-9.000	-9.000	0.28	-9.00	-9.00	-9.00	1000
5504	249	250	3.817	33.837	26.880	78	1.277	0.554	0.24	0.26	0.25	2.30	1000
5553	249	250	3.817	33.835	26.878	80	-9.000	-9.000	0.25	-9.00	-9.00	-9.00	1000
5511	299	301	3.782	33.907	26.939	57	0.911	0.409	0.18	0.19	0.18	2.23	1000
5554	348	350	3.780	33.973	26.991	44	-9.000	-9.000	0.14	-9.00	-9.00	-9.00	1000
5532	348	350	3.780	33.972	26.991	44	-9.000	0.281	0.14	-9.00	0.13	-9.00	1010
5501	397	400	3.754	34.024	27.035	37	0.431	0.206	0.12	0.09	0.09	2.09	1000
5510	448	451	3.705	34.077	27.082	38	0.281	0.134	0.12	0.06	0.06	2.10	1000
5557	496	500	3.657	34.113	27.115	31	-9.000	-9.000	0.10	-9.00	-9.00	-9.00	1000
5518	497	500	3.657	34.113	27.115	32	0.203	0.084	0.10	0.04	0.04	2.43	1000
5512	546	550	3.559	34.158	27.161	27	0.140	0.072	0.08	0.03	0.03	1.95	1000
5508	596	600	3.432	34.204	27.209	23	0.097	0.044	0.07	0.02	0.02	2.20	1001
5610	651	656	3.348	34.232	27.240	24	0.063	0.030	0.07	0.01	-9.00	-9.00	1003
5604	700	706	3.265	34.257	27.268	33	0.047	0.023	0.10	0.01	-9.00	-9.00	1003
5611	750	756	3.180	34.282	27.296	24	0.036	0.014	0.07	0.01	-9.00	-9.00	1003
5657	801	808	3.087	34.309	27.326	22	-9.000	-9.000	0.07	-9.00	-9.00	-9.00	1000
5632	801	808	3.087	34.305	27.323	27	-9.000	-9.000	0.08	-9.00	-9.00	-9.00	1000
5601	900	907	2.934	34.351	27.373	19	0.009	0.002	0.06	-9.00	-9.00	-9.00	1003
5618	1000	1009	2.779	34.386	27.415	17	0.003	0.003	0.05	-9.00	-9.00	-9.00	1003
5658	1000	1009	2.779	34.387	27.416	17	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
5612	1242	1253	2.448	34.454	27.498	18	0.000	-0.007	0.05	-9.00	-9.00	-9.00	1003
5659	1242	1253	2.448	34.455	27.499	24	-9.000	-9.000	0.07	-9.00	-9.00	-9.00	1000
5608	1482	1497	2.196	34.507	27.561	37	-9.000	-9.000	0.11	-9.00	-9.00	-9.00	1000
5660	1979	2001	1.833	34.580	27.648	59	-9.000	-9.000	0.18	-9.00	-9.00	-9.00	1000

CO2-86 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
17	21 Jul 86	54 19.5 N	145 00.4 W	3060	233.0	422.0

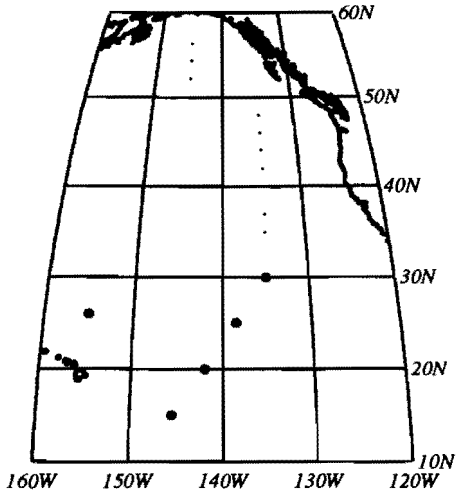
SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5732	12	12	9.110	32.482	25.130	303	3.974	1.775	1.06	1.09	1.03	2.24	1000
5720	12	12	9.110	32.486	25.133	300	-9.000	-9.000	1.05	-9.00	-9.00	-9.00	1000
5722	27	27	8.915	32.494	25.170	311	4.010	1.795	1.09	1.08	1.03	2.23	1000
5701	52	52	6.036	32.615	25.664	314	-9.000	2.021	1.03	-9.00	1.01	-9.00	1010
5718	76	76	4.845	32.712	25.879	296	4.492	1.983	0.94	0.96	0.93	2.27	1000
5721	101	102	4.259	33.132	26.274	206	3.313	1.460	0.65	0.69	0.66	2.27	1000
5752	101	102	4.259	33.150	26.288	200	-9.000	-9.000	0.63	-9.00	-9.00	-9.00	1000
5712	127	128	3.925	33.649	26.719	94	1.717	0.764	0.29	0.35	0.34	2.25	1000
5708	151	152	3.824	33.824	26.868	47	1.057	0.469	0.15	0.22	0.21	2.25	1000
5710	177	178	3.776	33.873	26.912	37	0.847	0.379	0.11	0.17	0.17	2.23	1000
5704	202	203	3.742	33.912	26.947	25	0.694	0.307	0.08	0.14	0.14	2.26	1000
5711	228	229	3.721	33.937	26.969	24	0.587	0.285	0.07	0.12	0.13	2.06	1000
5853	252	253	3.710	33.967	26.994	20	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
5832	252	253	3.710	33.966	26.993	20	0.501	0.232	0.06	0.10	0.10	2.16	1000
5822	301	303	3.675	34.026	27.044	20	0.335	0.204	0.06	0.07	0.09	1.65	1000
5854	351	353	3.625	34.074	27.087	16	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
5801	351	353	3.625	34.074	27.087	19	0.238	0.164	0.06	0.05	0.07	1.45	1000
5821	401	404	3.564	34.111	27.123	17	0.190	0.088	0.05	0.04	0.04	2.18	1000
5811	451	454	3.498	34.145	27.156	16	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
5812	502	506	3.439	34.176	27.187	17	0.107	0.053	0.05	0.02	0.02	2.03	1000
5855	502	506	3.439	34.178	27.188	17	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
5810	551	555	3.370	34.215	27.224	17	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
5804	601	605	3.282	34.244	27.256	17	0.050	0.025	0.05	0.01	-9.00	-9.00	1003
5932	644	649	3.189	34.272	27.287	20	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
5922	696	702	3.088	34.303	27.321	20	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
5856	698	704	3.140	34.289	27.305	17	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
5901	746	752	3.026	34.322	27.341	17	0.017	0.008	0.05	-9.00	-9.00	-9.00	1003
5921	793	800	2.977	34.342	27.362	17	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
5957	793	800	2.977	34.342	27.362	20	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
5958	894	902	2.824	34.378	27.404	17	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
5912	993	1002	2.672	34.406	27.440	20	0.006	0.002	0.06	-9.00	-9.00	-9.00	1003
5910	1239	1250	2.387	34.467	27.513	22	-9.000	-9.000	0.07	-9.00	-9.00	-9.00	1000
5959	1239	1250	2.387	34.467	27.513	23	-9.000	-9.000	0.07	-9.00	-9.00	-9.00	1000
5904	1486	1501	2.148	34.518	27.574	29	-9.000	-9.000	0.09	-9.00	-9.00	-9.00	1000
5960	1996	2019	1.783	34.589	27.659	57	-9.000	-9.000	0.17	-9.00	-9.00	-9.00	1000

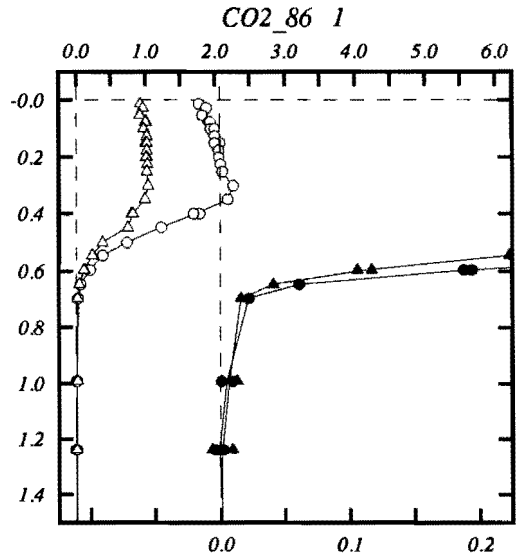
CO2-86 Bottle Data

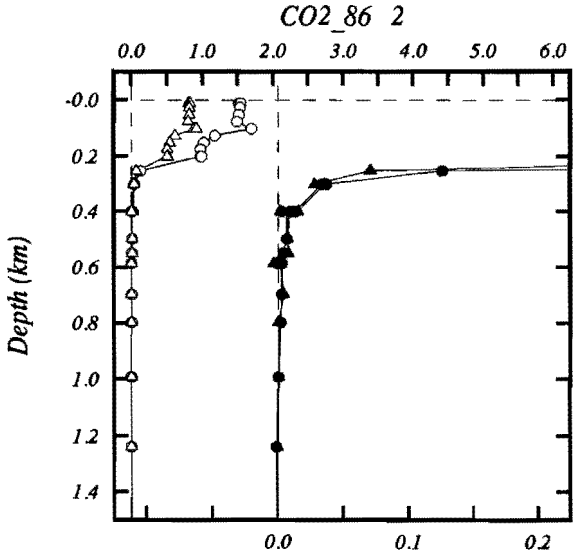
Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
18	22 Jul 86	56 22.1 N	145 04.4 W	3890	233.0	422.0

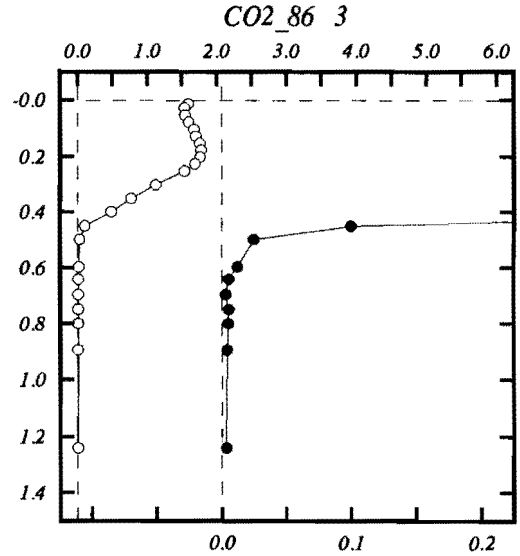
SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6011	12	12	10.218	32.524	24.983	300	3.830	1.748	1.08	1.11	1.07	2.19	1000
6020	12	12	10.218	32.523	24.982	300	-9.000	-9.000	1.08	-9.00	-9.00	-9.00	1000
6032	26	26	9.114	32.517	25.157	303	3.960	1.785	1.06	1.08	1.04	2.22	1000
6022	52	52	6.267	32.586	25.613	316	4.472	1.995	1.04	1.04	1.00	2.24	1000
6001	77	77	5.338	32.619	25.750	310	4.586	2.033	1.00	1.01	0.98	2.26	1000
6018	102	103	4.621	32.818	25.987	277	4.239	1.887	0.88	0.90	0.87	2.25	1000
6052	102	103	4.621	32.825	25.993	278	-9.000	-9.000	0.88	-9.00	-9.00	-9.00	1000
6021	127	128	4.017	33.434	26.539	151	2.487	1.134	0.47	0.51	0.51	2.19	1000
6012	152	152	3.834	33.752	26.810	74	1.407	0.616	0.23	0.29	0.28	2.28	1000
6008	177	178	3.754	33.836	26.885	50	1.042	0.484	0.15	0.21	0.22	2.15	1000
6010	202	204	3.782	33.897	26.931	33	0.768	0.346	0.10	0.16	0.15	2.22	1000
6004	227	228	3.778	33.930	26.957	24	0.639	0.285	0.07	0.13	0.13	2.24	1000
6153	249	251	3.753	33.966	26.989	21	-9.000	-9.000	0.07	-9.00	-9.00	-9.00	1000
6111	249	251	3.753	33.965	26.988	26	0.506	0.238	0.08	0.10	0.11	2.12	1000
6132	300	302	3.720	34.002	27.021	21	0.400	0.182	0.07	0.08	0.08	2.20	1000
6154	349	352	3.682	34.095	27.098	19	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
6122	349	352	3.682	34.044	27.058	20	0.279	0.135	0.06	0.06	0.06	2.07	1000
6118	396	399	3.606	34.039	27.061	19	0.197	0.096	0.06	0.04	0.04	2.04	1000
6112	449	452	3.569	34.138	27.144	20	0.133	0.064	0.06	0.03	0.03	2.07	1000
6155	500	504	3.480	34.174	27.181	20	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
6121	500	504	3.480	34.175	27.182	20	0.096	0.047	0.06	0.02	0.02	2.05	1000
6108	548	552	3.378	34.202	27.213	21	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
6110	596	600	3.318	34.223	27.236	17	0.068	0.034	0.05	0.01	0.02	1.97	1003
6156	702	707	3.158	34.282	27.298	17	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
6208	742	748	3.143	34.288	27.304	20	0.032	0.011	0.06	0.01	-9.00	-9.00	1003
6232	792	799	3.053	34.311	27.330	17	0.025	0.008	0.05	-9.00	-9.00	-9.00	1103
6211	792	799	3.053	34.312	27.331	14	0.023	0.007	0.04	-9.00	-9.00	-9.00	1003
6222	891	898	2.905	34.350	27.375	18	0.015	0.007	0.05	-9.00	-9.00	-9.00	1003
6218	991	1000	2.795	34.378	27.407	20	0.008	0.003	0.06	-9.00	-9.00	-9.00	1003
6257	991	1000	2.795	34.376	27.405	19	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
6221	1237	1248	2.416	34.460	27.505	20	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
6258	1237	1248	2.416	34.460	27.505	23	-9.000	-9.000	0.07	-9.00	-9.00	-9.00	1000
6204	1482	1497	2.120	34.522	27.579	28	-9.000	-9.000	0.09	-9.00	-9.00	-9.00	1000
6210	1975	1997	1.740	34.595	27.667	58	-9.000	-9.000	0.17	-9.00	-9.00	-9.00	1000
6260	1975	1997	1.740	34.595	27.667	64	-9.000	-9.000	0.19	-9.00	-9.00	-9.00	1000

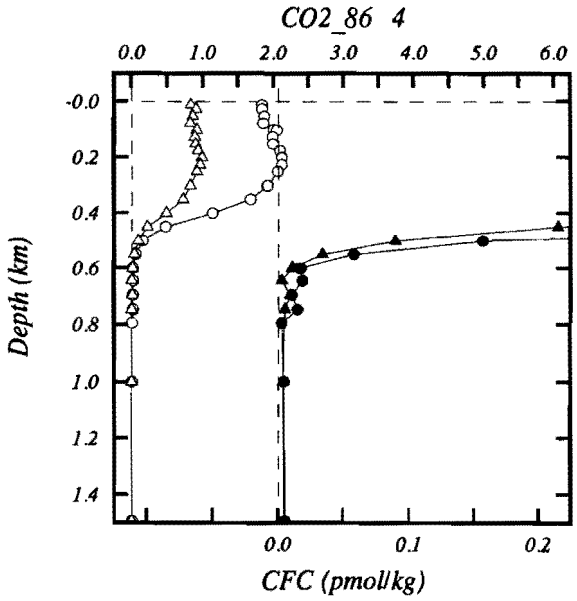
Locations of Stations on This Page

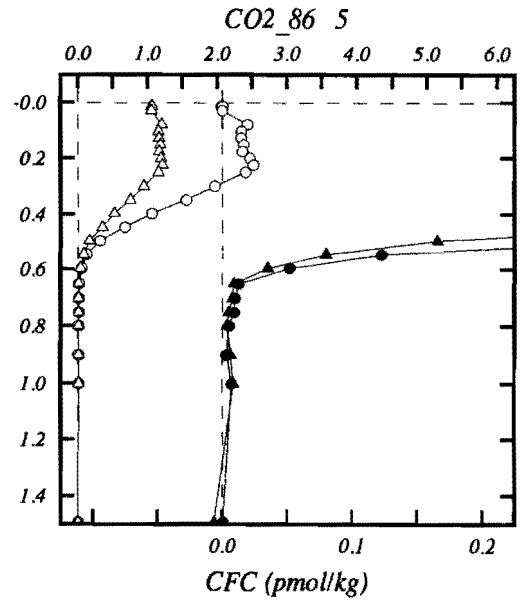




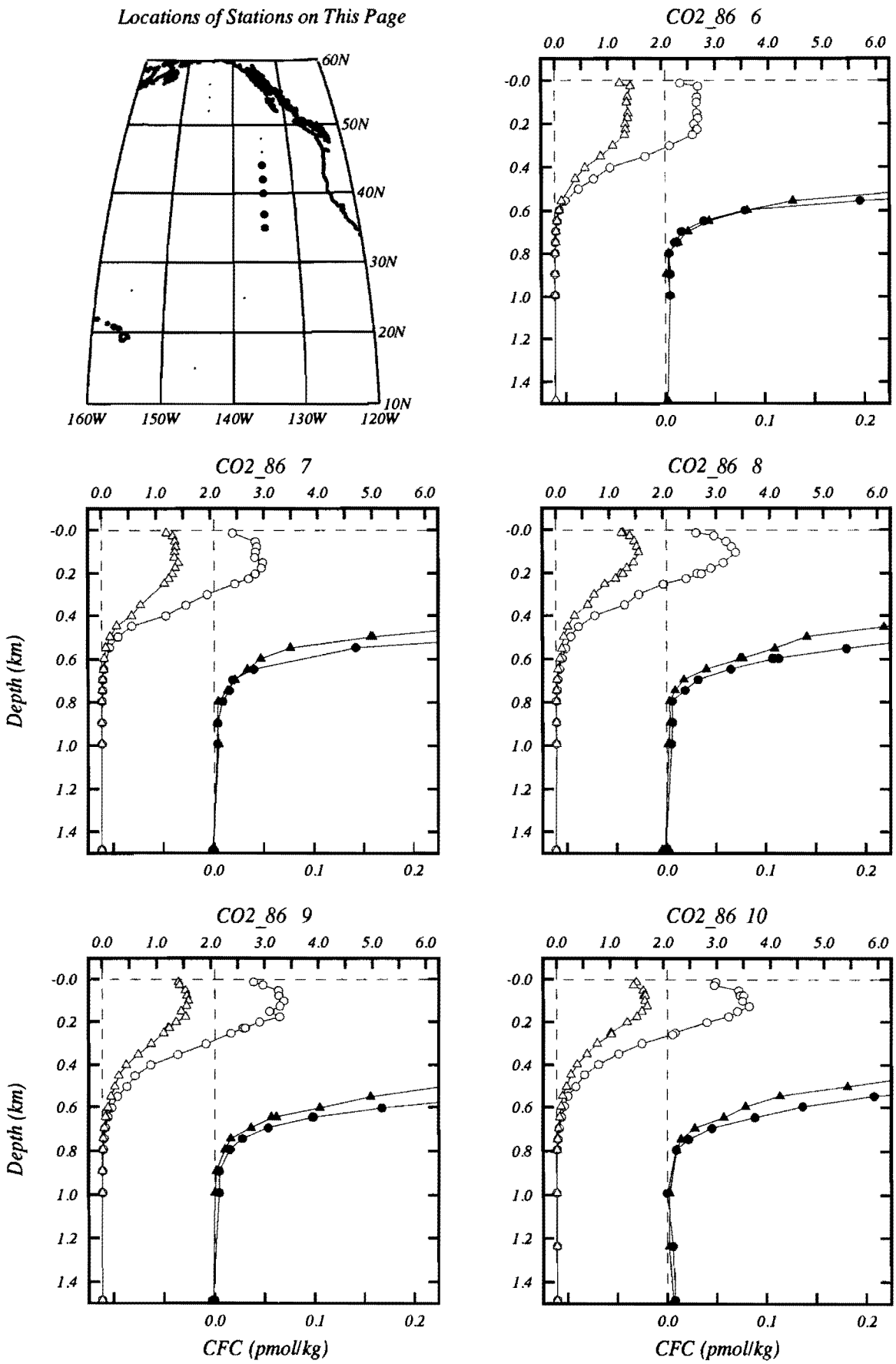




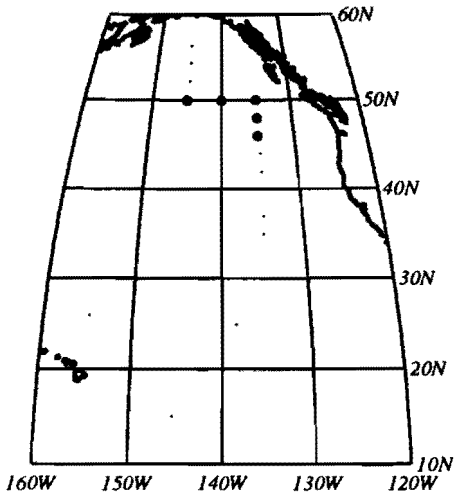


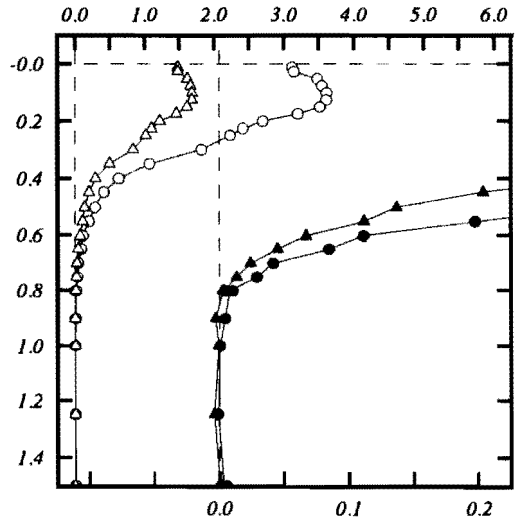


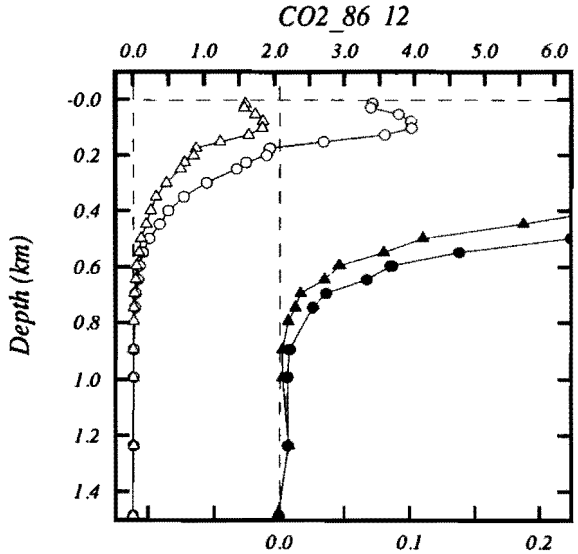
Locations of Stations on This Page

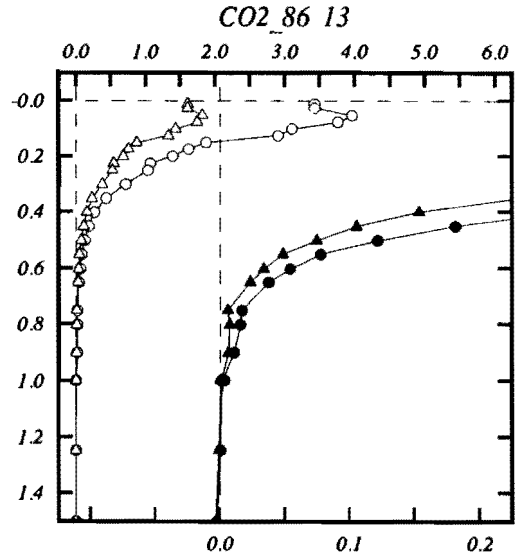


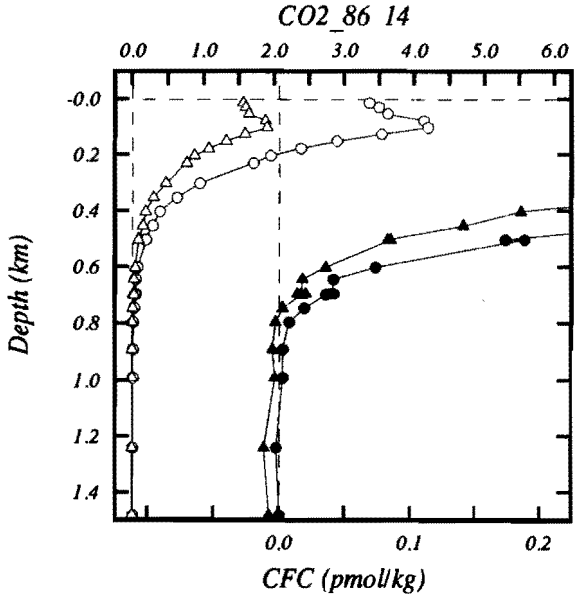
Locations of Stations on This Page

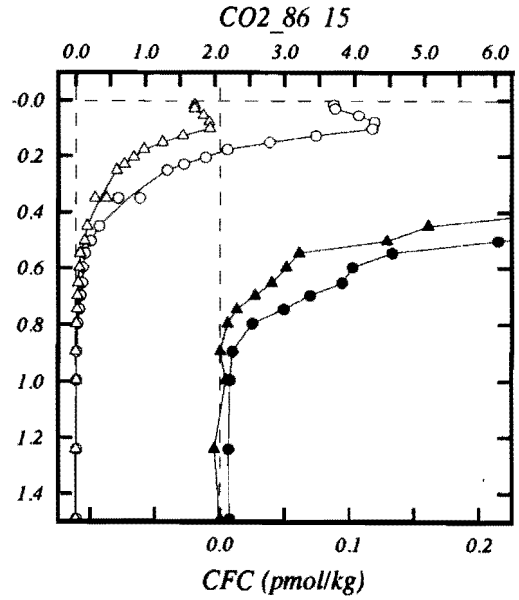




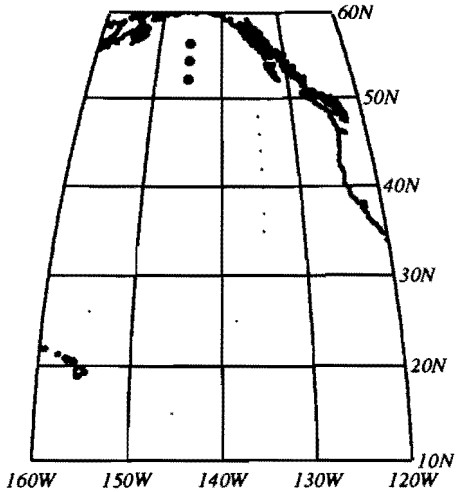


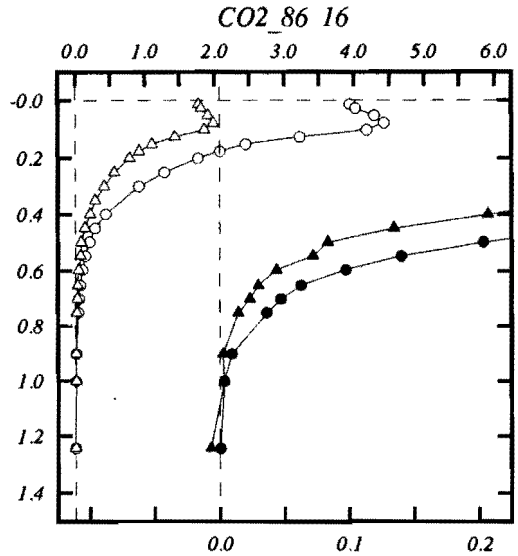


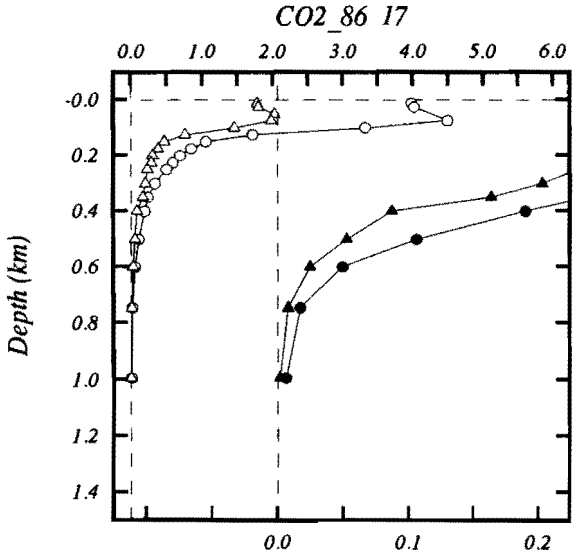


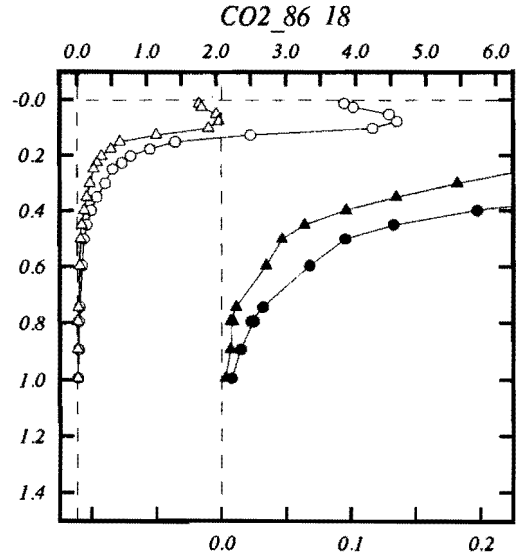


Locations of Stations on This Page





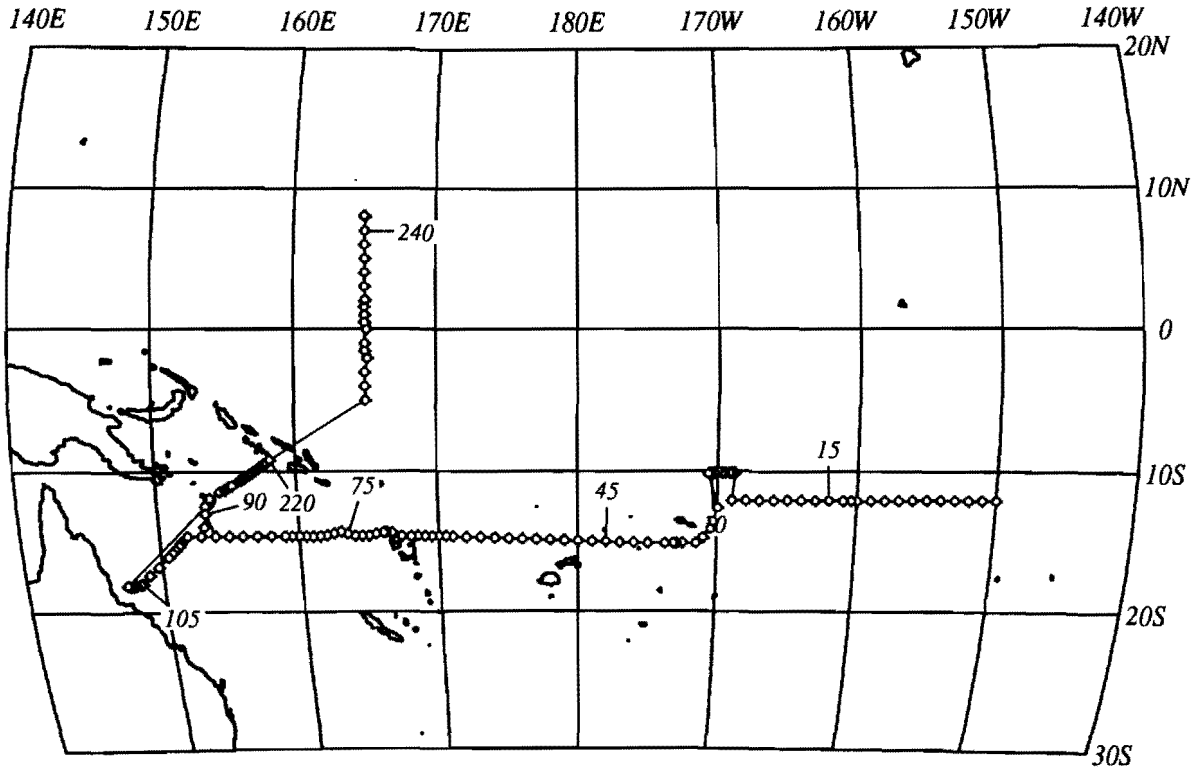




5.3 TEW (TW2-87-OC; TW3-87-OC)

This section includes the following data collected during the TEW cruise (6 June to 22 July, 1987).

1) Station location plot.
2) Station location and bottom depth listing. For Leg 3, the station identifier is 200 plus the station number.
3) CFC atmospheric measurement listing.
4) Contoured sections of Potential Temperature, Salinity, Oxygen, CFC-11 and CFC-12 along 12-15° S from Tahiti to Australia and the transect of the Coral Sea, derived from bottle data.
5) Tables of hydrographic data including depth, pressure, potential temperature, salinity, sigma-theta, oxygen, CFC-11 and CFC-12. Only stations with CFC data will be presented. Atmospheric CFC-11 and CFC-12 values for each station are interpolated from surrounding air measurements, and used in calculating saturation values.
6) Individual vertical profiles of CFC-11 and CFC-12. Each page of CFC vertical profiles consists of a map of station locations and five station plots. Each station is plotted on two scales so that both high and low concentrations may be easily viewed. CFC-11 is represented by circles and CFC-12 by triangles; the solid symbols are plotted against the lower concentration scale on the bottom axis. Only the upper 1500 meters of data are displayed as the CFC signal is below detection limits in deeper water. Any station which has no CFC data in the range 0–1500 meters will appear as a blank box. Units are in picomoles per kilogram.



TEW Station Locations.
R/V OCEANOGRAPHER
Leg 2. 6 June-5 July, 1987
Papeete, Tahiti - Townsville, Australia
Leg 3. 12 July-22 July, 1987
Townsville, Australia - Kwajalein, Marshall Islands

TEW Leg 2 Station Locations

STATION NUMBER	Date	Latitude	Longitude	BOTTOM DEPTH (M)
1	6 Jun 87	12 00.0 S	149 59.9 W	4817
2	7 Jun 87	11 59.7 S	149 59.8 W	4840
3	7 Jun 87	12 00.1 S	151 00.1 W	4893
4	7 Jun 87	12 00.1 S	151 59.4 W	5125
5	8 Jun 87	11 59.0 S	152 58.7 W	5309
6	8 Jun 87	11 59.0 S	153 59.4 W	5464
7	8 Jun 87	11 59.5 S	154 59.8 W	5377
8	9 Jun 87	11 59.7 S	156 00.6 W	5093
9	9 Jun 87	12 00.3 S	157 00.2 W	4940
10	9 Jun 87	12 00.7 S	158 00.5 W	5340
11	9 Jun 87	12 00.0 S	158 59.9 W	5278
12	10 Jun 87	12 01.1 S	159 59.0 W	4940
13	10 Jun 87	12 00.8 S	160 24.1 W	5460
14	11 Jun 87	12 00.4 S	160 59.8 W	2211
15	11 Jun 87	11 59.2 S	162 01.0 W	2495
16	11 Jun 87	12 00.6 S	162 59.9 W	2991
17	11 Jun 87	12 00.5 S	164 00.1 W	3535
18	12 Jun 87	11 59.1 S	164 59.6 W	4443
19	12 Jun 87	12 00.7 S	166 00.3 W	5619
20	13 Jun 87	11 59.6 S	167 00.3 W	5558
21	13 Jun 87	11 59.7 S	167 59.3 W	5430
22	13 Jun 87	11 59.9 S	168 58.7 W	5309
23	14 Jun 87	10 04.4 S	168 44.7 W	4060
24	14 Jun 87	10 03.9 S	169 00.0 W	4632
25	15 Jun 87	10 04.7 S	169 11.1 W	4829
26	15 Jun 87	10 05.4 S	169 30.5 W	5248
27	15 Jun 87	10 05.4 S	169 44.4 W	3780
28	15 Jun 87	10 00.0 S	169 59.7 W	5170
29	16 Jun 87	10 05.2 S	170 15.1 W	5053
30	16 Jun 87	10 06.1 S	170 31.3 W	4770
31	16 Jun 87	10 07.1 S	170 41.3 W	4700
32	17 Jun 87	12 30.2 S	170 00.0 W	5001
33	17 Jun 87	13 28.9 S	170 18.8 W	4866
34	17 Jun 87	14 00.5 S	170 28.0 W	3626
35	19 Jun 87	14 36.5 S	171 00.0 W	3993
36	19 Jun 87	15 00.2 S	171 30.8 W	4375
37	19 Jun 87	14 58.6 S	172 28.1 W	5516
38	19 Jun 87	15 00.5 S	172 53.7 W	6916
39	20 Jun 87	15 00.0 S	173 07.8 W	5063
40	20 Jun 87	15 01.0 S	173 45.0 W	2445
41	20 Jun 87	14 59.9 S	174 59.2 W	1883
42	21 Jun 87	14 57.5 S	176 00.4 W	2136
43	21 Jun 87	14 57.6 S	176 59.9 W	1957
44	21 Jun 87	14 53.6 S	178 00.5 W	1525
45	21 Jun 87	14 54.2 S	177 59.9 W	1590
46	21 Jun 87	14 51.9 S	179 00.5 W	2047
47	22 Jun 87	14 50.3 S	179 59.3 E	2495
48	22 Jun 87	14 46.5 S	178 59.2 E	2805
49	22 Jun 87	14 50.4 S	179 00.5 E	2700
50	22 Jun 87	14 45.8 S	177 58.9 E	2306
51	22 Jun 87	14 44.0 S	176 59.4 E	2816

STATION NUMBER	Date	Latitude	Longitude	BOTTOM DEPTH (M)
52	23 Jun 87	14 41.6 S	175 59.5 E	2836
53	23 Jun 87	14 41.1 S	175 59.9 E	2836
54	23 Jun 87	14 40.9 S	175 00.1 E	2871
55	23 Jun 87	14 38.0 S	173 59.9 E	2585
56	23 Jun 87	14 35.5 S	172 59.0 E	3187
57	24 Jun 87	14 34.7 S	172 59.8 E	3187
58	24 Jun 87	14 34.9 S	171 57.6 E	3584
59	24 Jun 87	14 33.0 S	170 59.6 E	3045
60	24 Jun 87	14 29.7 S	170 29.7 E	3323
61	24 Jun 87	14 30.4 S	169 59.9 E	3723
62	25 Jun 87	14 30.3 S	169 59.7 E	3723
63	25 Jun 87	14 30.4 S	169 29.8 E	3346
64	25 Jun 87	14 30.2 S	169 00.1 E	2735
65	25 Jun 87	14 29.9 S	168 30.0 E	2726
66	25 Jun 87	14 32.0 S	168 00.3 E	1750
67	25 Jun 87	14 30.3 S	167 21.1 E	2450
68	26 Jun 87	14 14.5 S	166 38.2 E	3142
69	26 Jun 87	14 11.3 S	166 13.5 E	5625
70	26 Jun 87	14 14.6 S	166 03.1 E	2892
71	26 Jun 87	14 21.6 S	165 30.3 E	2342
72	26 Jun 87	14 29.9 S	165 00.0 E	3380
73	27 Jun 87	14 30.3 S	164 29.7 E	4266
74	27 Jun 87	14 30.4 S	163 59.8 E	4174
75	27 Jun 87	14 21.0 S	163 28.5 E	3953
76	27 Jun 87	14 11.1 S	163 00.0 E	4604
77	27 Jun 87	14 20.6 S	162 29.9 E	4083
78	28 Jun 87	14 28.4 S	161 59.7 E	3600
79	28 Jun 87	14 32.1 S	161 30.7 E	4205
80	28 Jun 87	14 32.4 S	160 58.2 E	2315
81	28 Jun 87	14 30.7 S	160 29.9 E	2630
82	28 Jun 87	14 30.6 S	160 00.8 E	5005
83	28 Jun 87	14 30.5 S	159 30.1 E	1496
84	29 Jun 87	14 31.2 S	159 00.0 E	2991
85	29 Jun 87	14 30.5 S	158 00.0 E	2884
86	29 Jun 87	14 30.0 S	157 00.2 E	4450
87	30 Jun 87	14 31.0 S	155 59.1 E	3142
88	30 Jun 87	14 31.0 S	154 59.7 E	4506
89	30 Jun 87	14 30.2 S	154 00.1 E	4627
90	1 Jul 87	12 55.1 S	153 24.3 E	4430
91	1 Jul 87	12 21.0 S	153 36.0 E	3924
92	1 Jul 87	12 08.2 S	153 42.4 E	3765
93	1 Jul 87	12 00.1 S	153 45.4 E	2241
94	1 Jul 87	11 51.1 S	153 47.2 E	495
95	2 Jul 87	13 50.2 S	153 15.6 E	4620
96	2 Jul 87	14 29.7 S	153 00.4 E	4650
97	3 Jul 87	14 30.9 S	151 58.8 E	4647
98	3 Jul 87	14 59.7 S	151 29.3 E	4140
99	3 Jul 87	15 12.8 S	151 19.2 E	3398
100	3 Jul 87	15 29.1 S	151 02.2 E	1525
101	3 Jul 87	15 42.0 S	150 48.3 E	1139
102	4 Jul 87	16 00.1 S	150 29.7 E	1031
103	4 Jul 87	16 43.7 S	149 43.5 E	507
104	4 Jul 87	17 17.8 S	149 00.2 E	885

STATION NUMBER	Date	Latitude	Longitude	BOTTOM DEPTH (M)
105	4 Jul 87	17 55.4 S	148 27.1 E	1030
106	5 Jul 87	17 58.1 S	148 16.2 E	1093
107	5 Jul 87	18 02.2 S	147 56.4 E	1154
108	5 Jul 87	18 05.2 S	147 42.8 E	1095
109	5 Jul 87	18 09.1 S	147 28.7 E	869

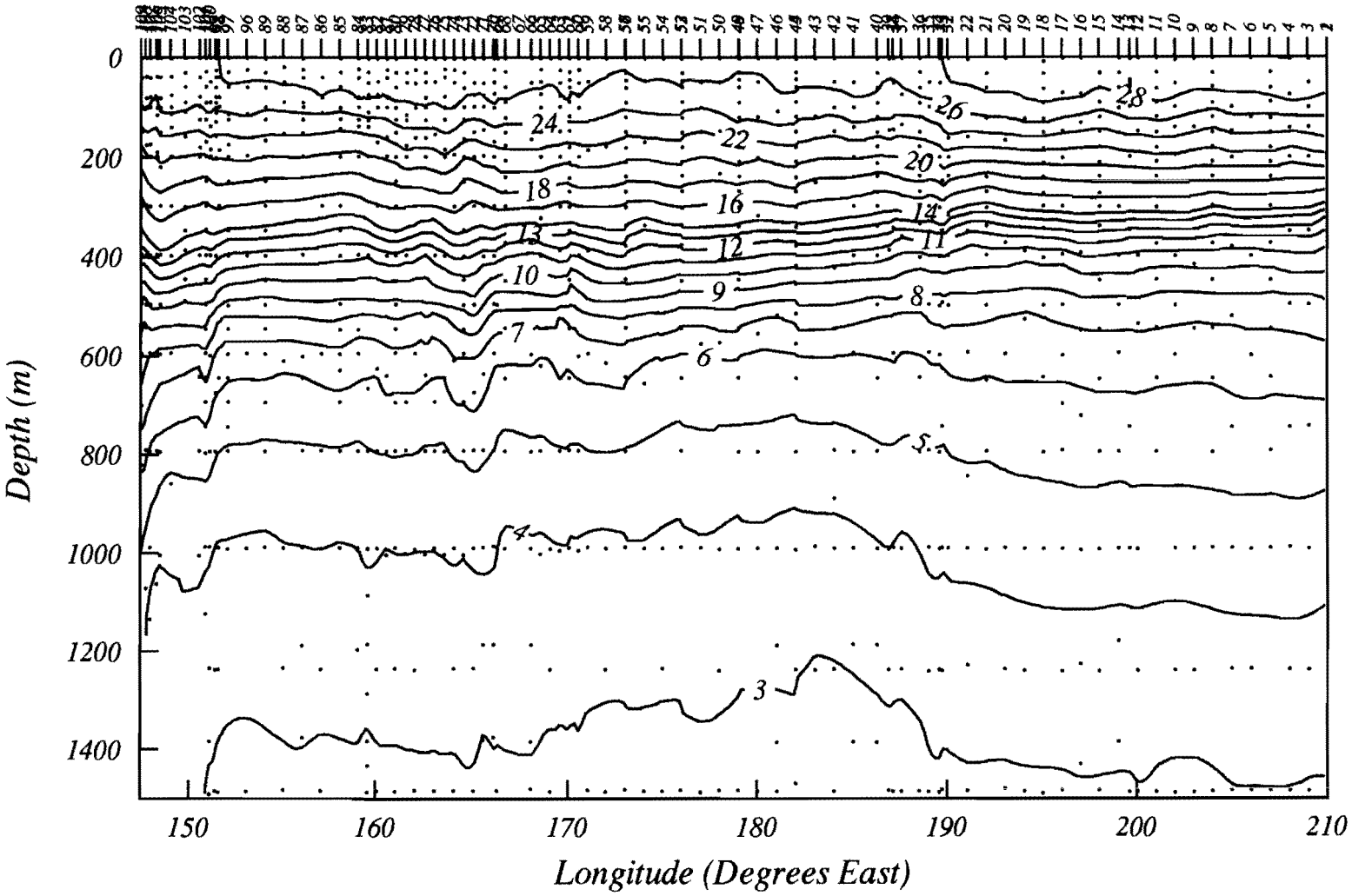
TEW Leg 3 Station Locations

STATION NUMBER	Date	Latitude	Longitude	BOTTOM DEPTH (M)
201	13 Jul 87	18 03.6 S	147 18.0 E	513
202	14 Jul 87	12 22.1 S	153 26.8 E	3945
203	15 Jul 87	11 23.7 S	154 31.9 E	2226
204	15 Jul 87	11 15.8 S	154 54.9 E	1749
205	15 Jul 87	11 10.2 S	154 59.1 E	1211
206	15 Jul 87	11 03.3 S	155 12.6 E	688
207	15 Jul 87	10 56.5 S	155 26.0 E	1484
208	16 Jul 87	10 36.8 S	155 57.6 E	3820
209	16 Jul 87	10 33.4 S	156 04.7 E	3854
210	16 Jul 87	10 28.9 S	156 12.4 E	3687
211	16 Jul 87	10 25.0 S	156 19.8 E	3081
212	16 Jul 87	10 20.8 S	156 26.4 E	3450
213	17 Jul 87	10 11.1 S	156 39.7 E	3232
214	17 Jul 87	10 03.6 S	156 52.6 E	3149
215	17 Jul 87	09 54.7 S	157 07.0 E	4251
216	17 Jul 87	09 45.7 S	157 19.9 E	3547
217	17 Jul 87	09 37.7 S	157 32.7 E	4007
218	18 Jul 87	09 28.2 S	157 44.8 E	3657
219	18 Jul 87	09 20.7 S	157 56.7 E	3595
220	18 Jul 87	09 09.6 S	158 10.7 E	1250
221	20 Jul 87	04 59.1 S	165 00.7 E	2400
222	20 Jul 87	04 00.0 S	164 59.2 E	3150
223	20 Jul 87	03 00.6 S	164 59.8 E	4116
224	21 Jul 87	02 00.2 S	165 12.1 E	4469
225	21 Jul 87	02 02.3 S	165 10.2 E	4472
226	22 Jul 87	01 29.9 S	165 00.9 E	4440
227	22 Jul 87	01 00.0 S	165 00.4 E	4428
228	22 Jul 87	00 29.9 N	165 00.2 E	4432
229	22 Jul 87	00 05.4 N	165 10.0 E	4362
230	23 Jul 87	00 00.6 N	165 08.2 E	4349
231	23 Jul 87	00 30.1 N	165 01.1 E	4387
232	24 Jul 87	00 59.9 N	165 00.5 E	4320
233	24 Jul 87	01 34.3 N	164 59.8 E	4266
234	25 Jul 87	02 00.2 N	165 01.5 E	4153
235	25 Jul 87	02 02.7 N	165 02.7 E	4100
236	25 Jul 87	02 59.9 N	164 59.9 E	4260
237	25 Jul 87	04 00.8 N	165 00.4 E	4509
238	26 Jul 87	05 00.4 N	165 00.3 E	4779
239	26 Jul 87	05 59.7 N	164 58.4 E	5010
240	26 Jul 87	07 00.2 N	165 00.2 E	5160
241	26 Jul 87	08 00.3 N	164 59.6 E	5202
242	27 Jul 87	08 03.1 N	164 56.5 E	5214

TEW Atmospheric Measurements

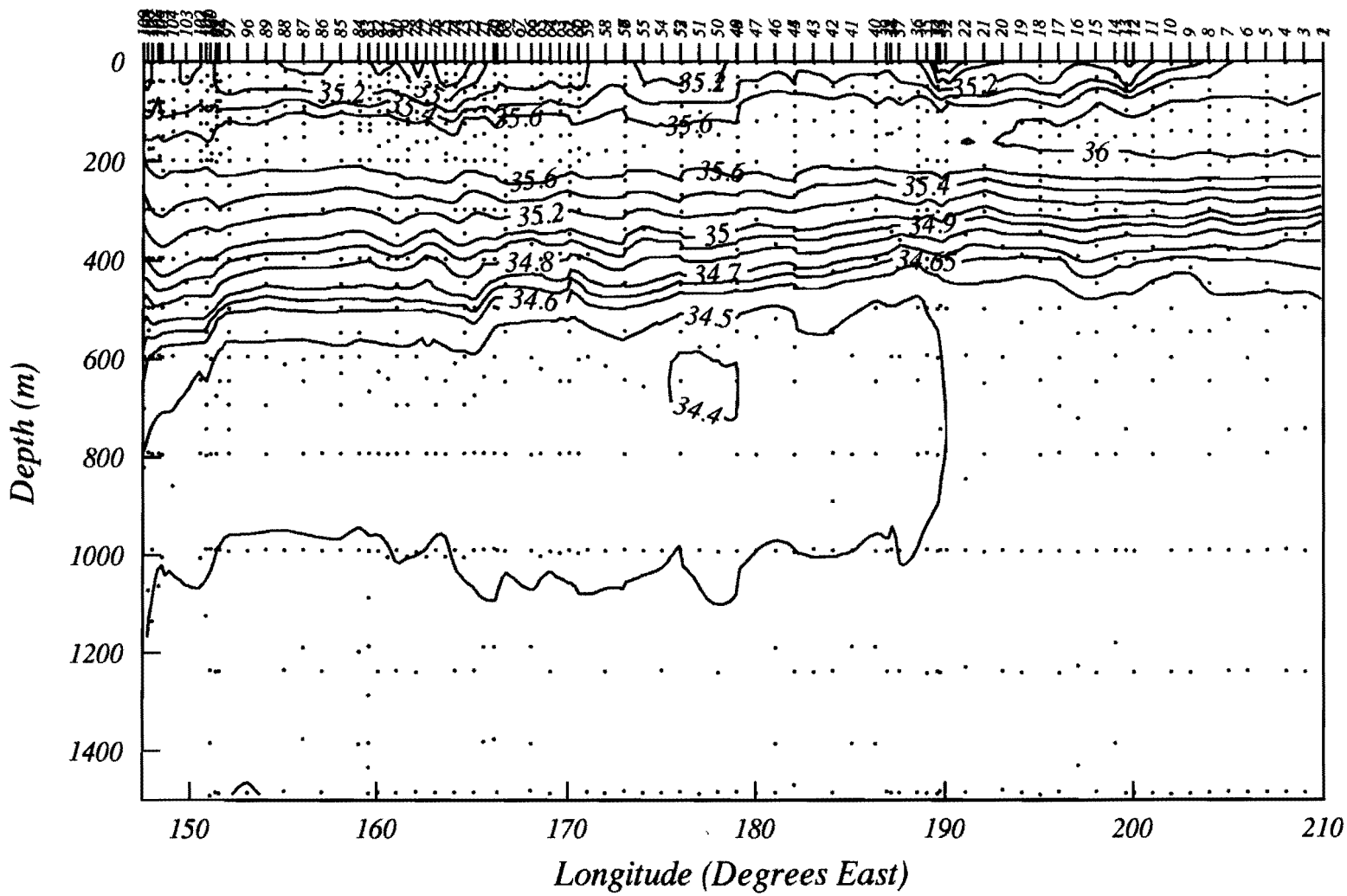
Latitude	Longitude	Date	Atm. F11	Atm. F12	Avg. F11	%Std. F11	Avg. F12	%Std. F12
12 30 S	150 0 W	6 Jun 87	220.3	422.0	223.3	1.0	416.3	1.0
12 30 S	150 0 W	6 Jun 87	224.6	415.2				
12 30 S	150 0 W	6 Jun 87	225.0	411.8				
12 0 S	155 0 W	8 Jun 87	228.8	413.4	229.0	0.1	412.1	0.3
12 0 S	155 0 W	8 Jun 87	229.1	410.8				
12 0 S	155 0 W	8 Jun 87	229.2	412.0				
12 3 S	160 12 W	10 Jun 87	226.2	413.9	226.0	0.5	413.9	1.4
12 3 S	160 12 W	10 Jun 87	227.8					
12 3 S	160 12 W	10 Jun 87	224.5	421.0				
12 3 S	160 12 W	10 Jun 87	225.3	406.8				
12 0 S	164 0 W	11 Jun 87	228.9	411.1	229.0	0.4	413.1	0.9
12 0 S	164 0 W	11 Jun 87	230.6	413.0				
12 0 S	164 0 W	11 Jun 87	228.5	419.2				
12 0 S	164 0 W	11 Jun 87	227.9	409.2				
12 0 S	168 0 W	13 Jun 87	227.0	409.5	227.5	0.2	410.8	0.2
12 0 S	168 0 W	13 Jun 87	227.3	410.3				
12 0 S	168 0 W	13 Jun 87	228.4	411.5				
12 0 S	168 0 W	13 Jun 87	227.2	411.8				
11 57 S	170 12 W	16 Jun 87	222.5	407.3	225.8	0.9	408.1	1.1
11 57 S	170 12 W	16 Jun 87	227.4	409.8				
11 57 S	170 12 W	16 Jun 87	228.3	414.5				
11 57 S	170 12 W	16 Jun 87	224.8	400.0				
11 57 S	170 12 W	16 Jun 87	225.0	410.5				
11 57 S	170 12 W	16 Jun 87	226.8	406.3				
10 0 S	171 0 W	17 Jun 87	227.5	407.8	226.9	0.6	407.7	0.2
10 0 S	171 0 W	17 Jun 87	226.3	408.6				
10 0 S	171 0 W	17 Jun 87	225.1	406.8				
10 0 S	171 0 W	17 Jun 87	228.6	407.7				
15 0 S	173 0 W	18 Jun 87	233.6	411.1	230.1	0.9	410.4	0.1
15 0 S	173 0 W	18 Jun 87	228.6	410.0				
15 0 S	173 0 W	18 Jun 87	229.3	409.9				
15 0 S	173 0 W	18 Jun 87	228.9	410.5				
15 0 S	177 0 W	20 Jun 87	229.3	415.7	227.2	0.8	415.4	0.1
15 0 S	177 0 W	20 Jun 87	227.6	415.0				
15 0 S	177 0 W	20 Jun 87						
15 0 S	177 0 W	20 Jun 87	224.7					
15 0 S	179 0 E	21 Jun 87	227.5	406.9	227.5	0.2	408.2	0.3
15 0 S	179 0 E	21 Jun 87	226.8	408.8				
15 0 S	179 0 E	21 Jun 87	227.2	409.6				
15 0 S	179 0 E	21 Jun 87	228.3	407.4				
14 42 S	176 30 E	22 Jun 87	226.7	409.1	225.7	0.4	409.5	0.2
14 42 S	176 30 E	22 Jun 87	224.6	409.7				
14 42 S	176 30 E	22 Jun 87	224.9	410.0				
14 42 S	176 30 E	22 Jun 87	226.2	408.0				
14 42 S	176 30 E	22 Jun 87	226.3	410.7				
14 30 S	170 0 E	24 Jun 87	226.7	410.4	227.0	0.1	411.0	0.2
14 30 S	170 0 E	24 Jun 87	227.4	410.4				
14 30 S	170 0 E	24 Jun 87	226.8	412.2				
14 12 S	166 18 E	25 Jun 87	226.5	411.7	225.9	0.2	410.1	0.3

Latitude	Longitude	Date	Atm. F11	Atm. F12	Avg. F11	%Std. F11	Avg. F12	%Std. F12
14 12 S	166 18 E	25 Jun 87	225.9	410.5				
14 12 S	166 18 E	25 Jun 87	226.1	410.2				
14 12 S	166 18 E	25 Jun 87	225.8	410.5				
14 12 S	166 18 E	25 Jun 87	225.1	407.6				
14 24 S	162 18 E	27 Jun 87	226.6	406.5	226.2	0.6	408.3	0.4
14 24 S	162 18 E	27 Jun 87	225.3	407.1				
14 24 S	162 18 E	27 Jun 87	224.2	409.3				
14 24 S	162 18 E	27 Jun 87	228.2	410.7				
14 24 S	162 18 E	27 Jun 87	226.7	408.1				
13 30 S	153 30 E	29 Jun 87	227.8	412.5	228.6	0.2	414.0	0.5
13 30 S	153 30 E	29 Jun 87	228.6	412.0				
13 30 S	153 30 E	29 Jun 87	228.8	413.7				
13 30 S	153 30 E	29 Jun 87	229.1	417.7				
13 54 S	153 9 E	1 Jul 87	228.7	413.4	226.6	0.5	411.8	0.6
13 54 S	153 9 E	1 Jul 87	226.0	413.0				
13 54 S	153 9 E	1 Jul 87	226.4	411.7				
13 54 S	153 9 E	1 Jul 87	227.1	410.7				
13 54 S	153 9 E	1 Jul 87	226.8	413.2				
13 54 S	153 9 E	1 Jul 87	225.5	414.3				
13 54 S	153 9 E	1 Jul 87	225.4	406.2				
16 42 S	149 42 E	3 Jul 87	227.9	408.6	227.6	0.4	409.8	0.3
16 42 S	149 42 E	3 Jul 87	226.0	408.8				
16 42 S	149 42 E	3 Jul 87	227.9	412.0				
16 42 S	149 42 E	3 Jul 87	228.5	409.8				
12 0 S	153 0 E	13 Jul 87	225.1	412.6	223.9	0.4	406.5	2.0
12 0 S	153 0 E	13 Jul 87	223.4	412.7				
12 0 S	153 0 E	13 Jul 87	222.7	393.1				
12 0 S	153 0 E	13 Jul 87	224.4	407.7				
10 0 S	156 0 E	15 Jul 87	228.2	413.1	227.9	0.3	413.4	0.3
10 0 S	156 0 E	15 Jul 87	229.0	411.4				
10 0 S	156 0 E	15 Jul 87	227.1	415.3				
10 0 S	156 0 E	15 Jul 87	227.3	413.9				
7 28 S	161 0 E	18 Jul 87	227.8	411.5	226.9	1.6	413.5	1.1
7 28 S	161 0 E	18 Jul 87	227.9	409.8				
7 28 S	161 0 E	18 Jul 87	221.1	411.5				
7 28 S	161 0 E	18 Jul 87	230.8	421.2				



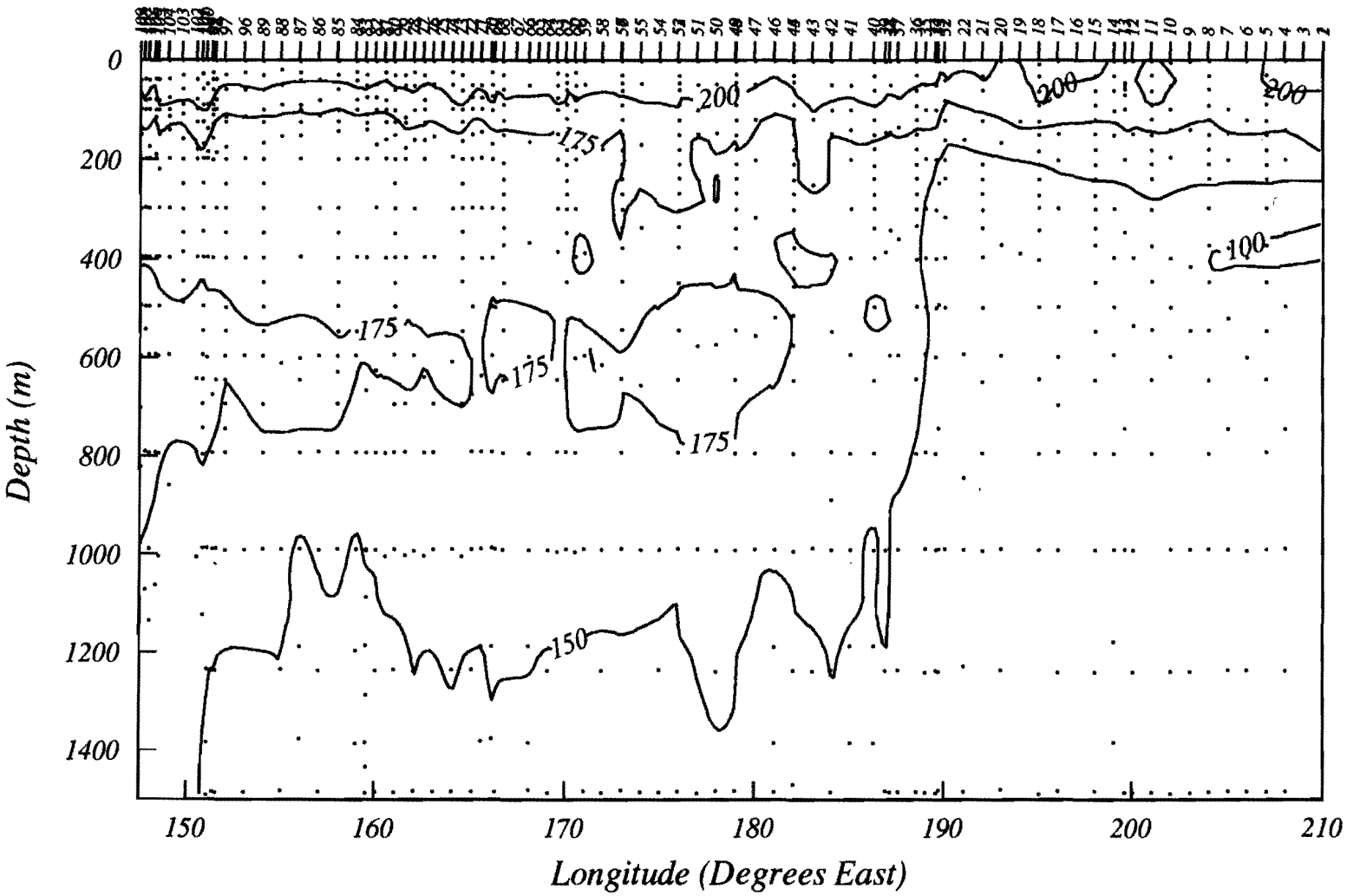
Potential Temperature (Degrees C.)

Potential Temperature section along 12-15 South during the TEW Cruise
Station numbers are indicated across the top.



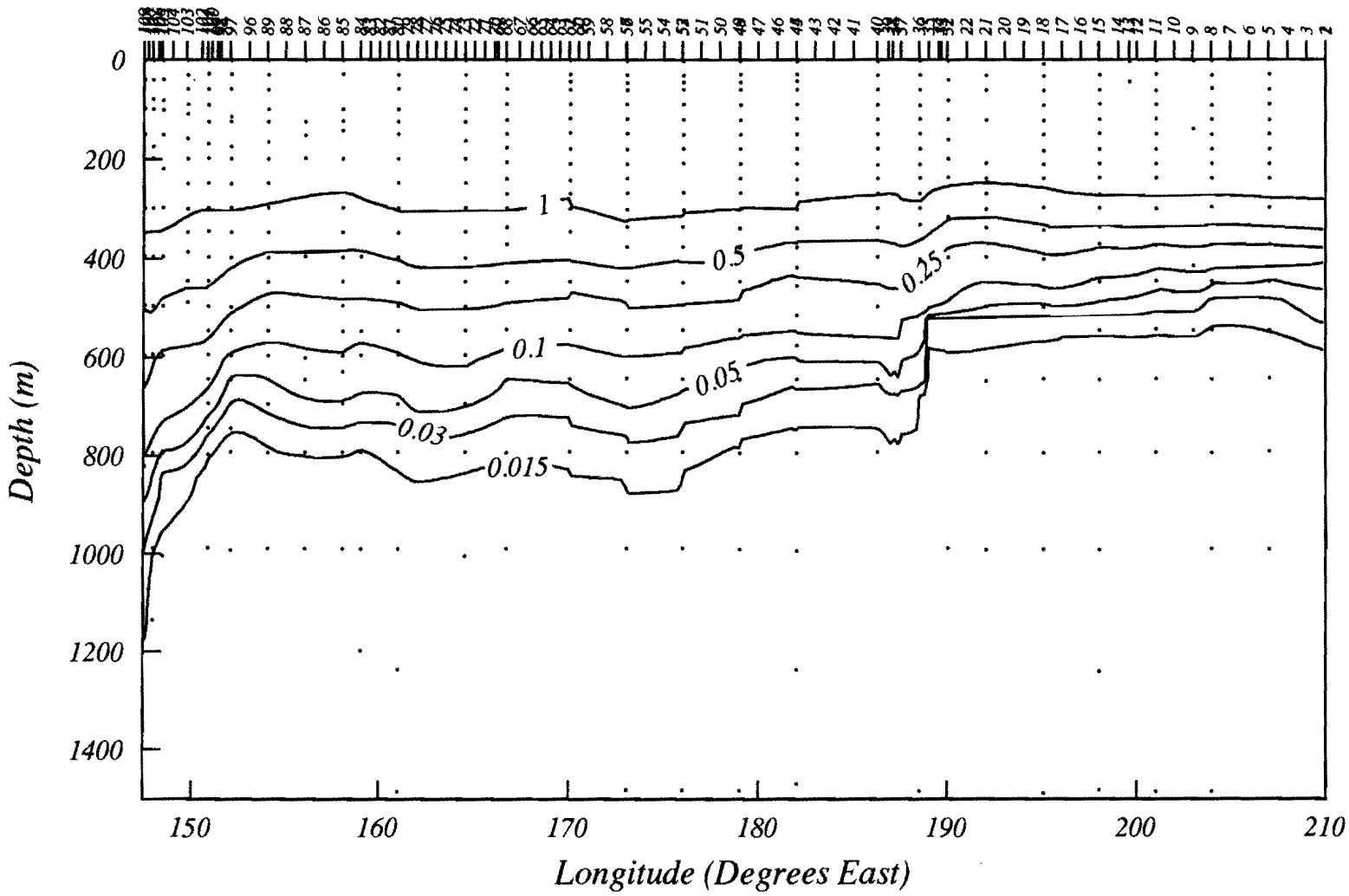
Salinity (PSU)

Salinity section along 12-15 South during the TEW Cruise
Station numbers are indicated across the top.



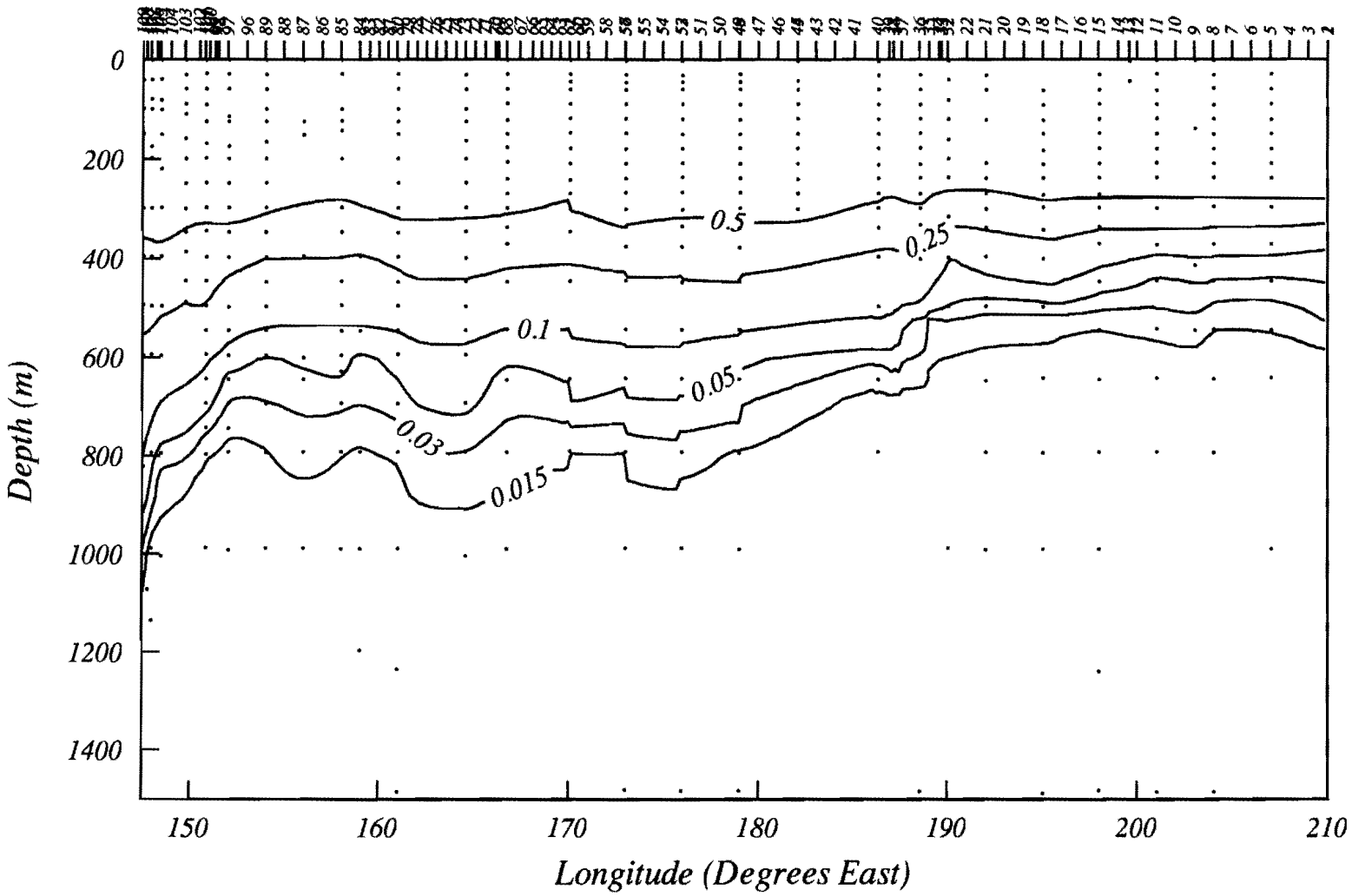
Oxygen (umole/Kg)

Dissolved Oxygen section along 12-15 South during the TEW Cruise
Station numbers are indicated across the top.



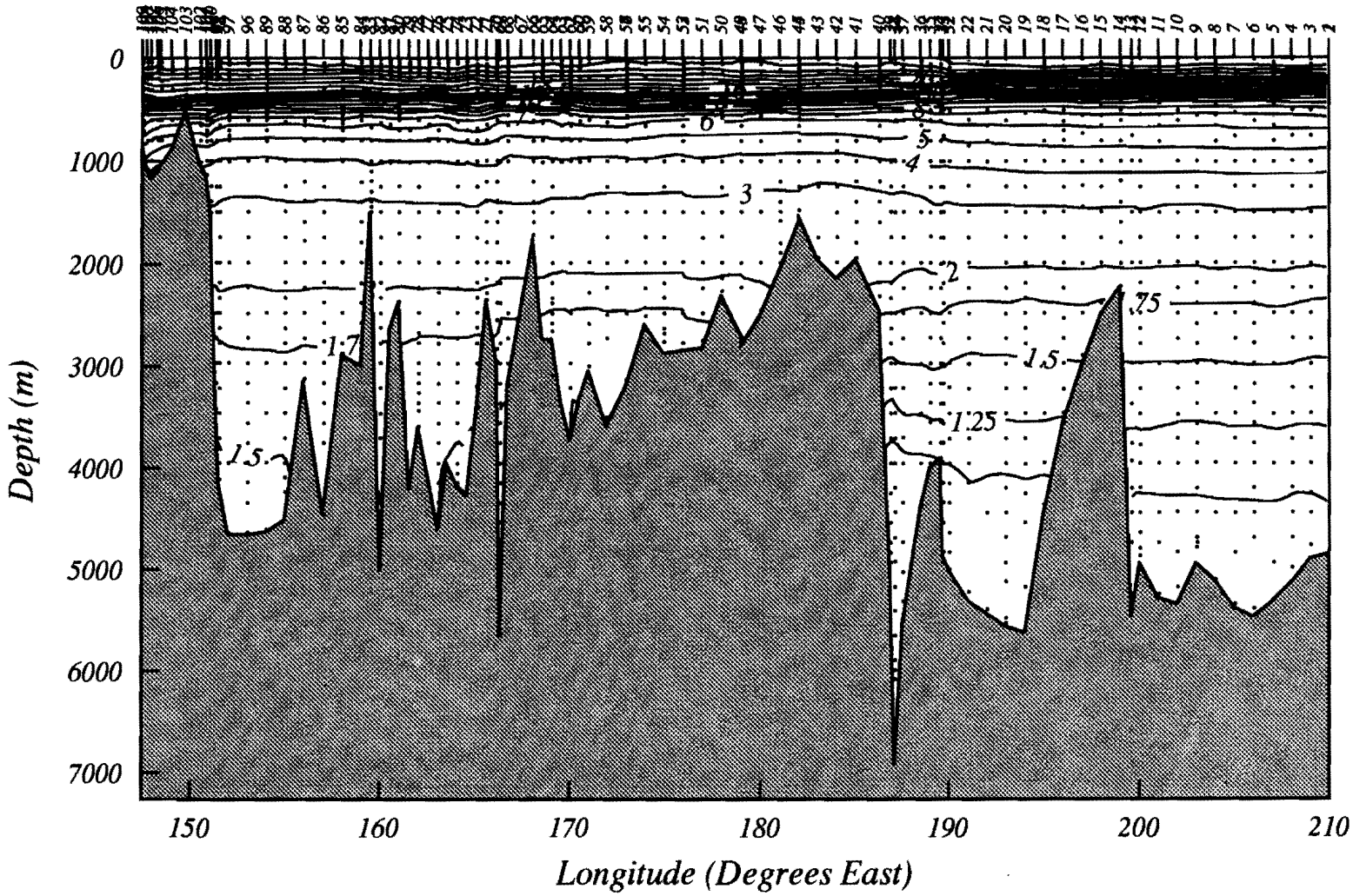
CFC-11 (pmole/Kg)

CFC-11 section along 12-15 South during the TEW Cruise
Station numbers are indicated across the top.



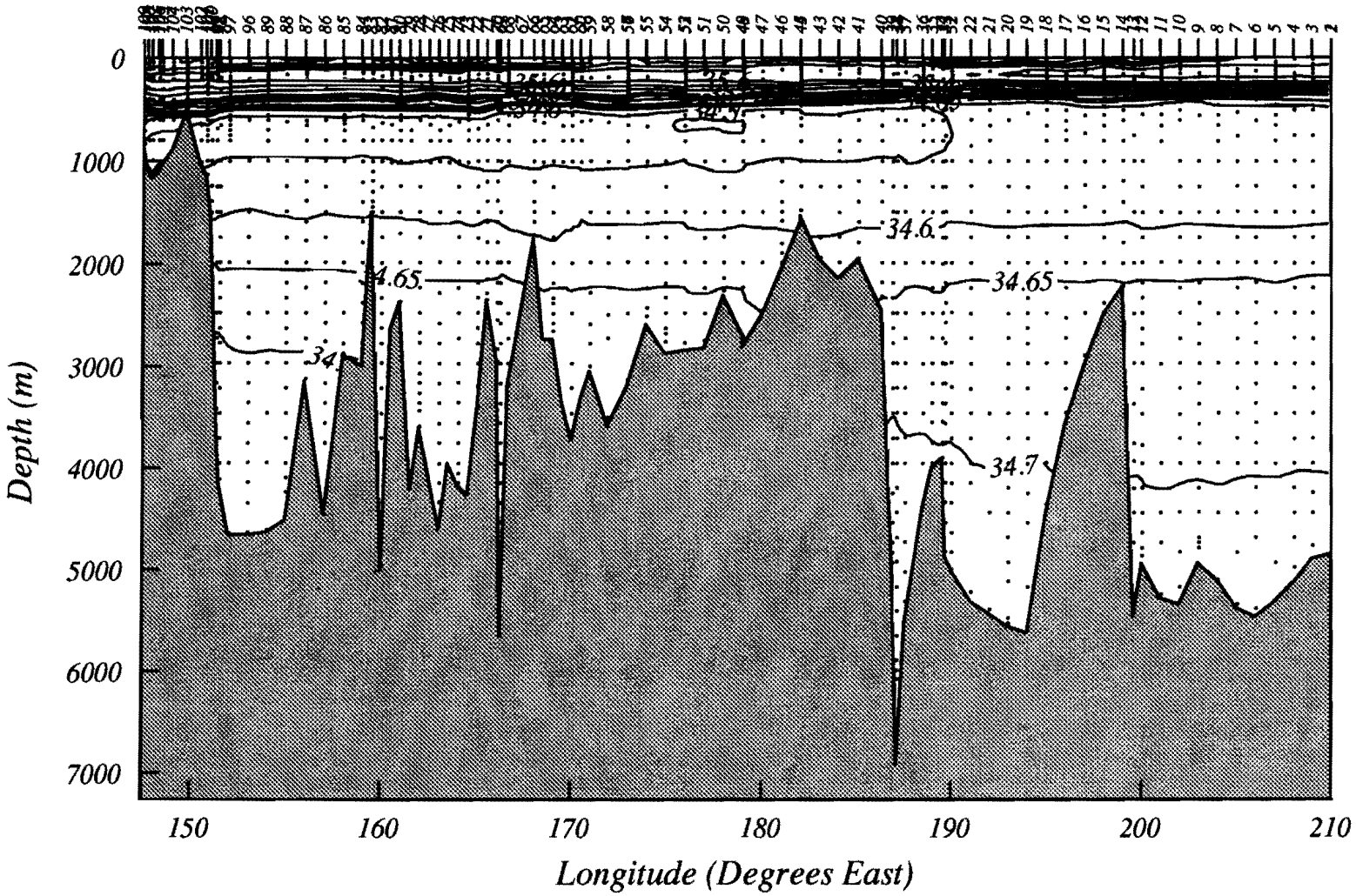
CFC-12 (pmole/Kg)

CFC-12 section along 12-15 South during the TEW Cruise
Station numbers are indicated across the top.



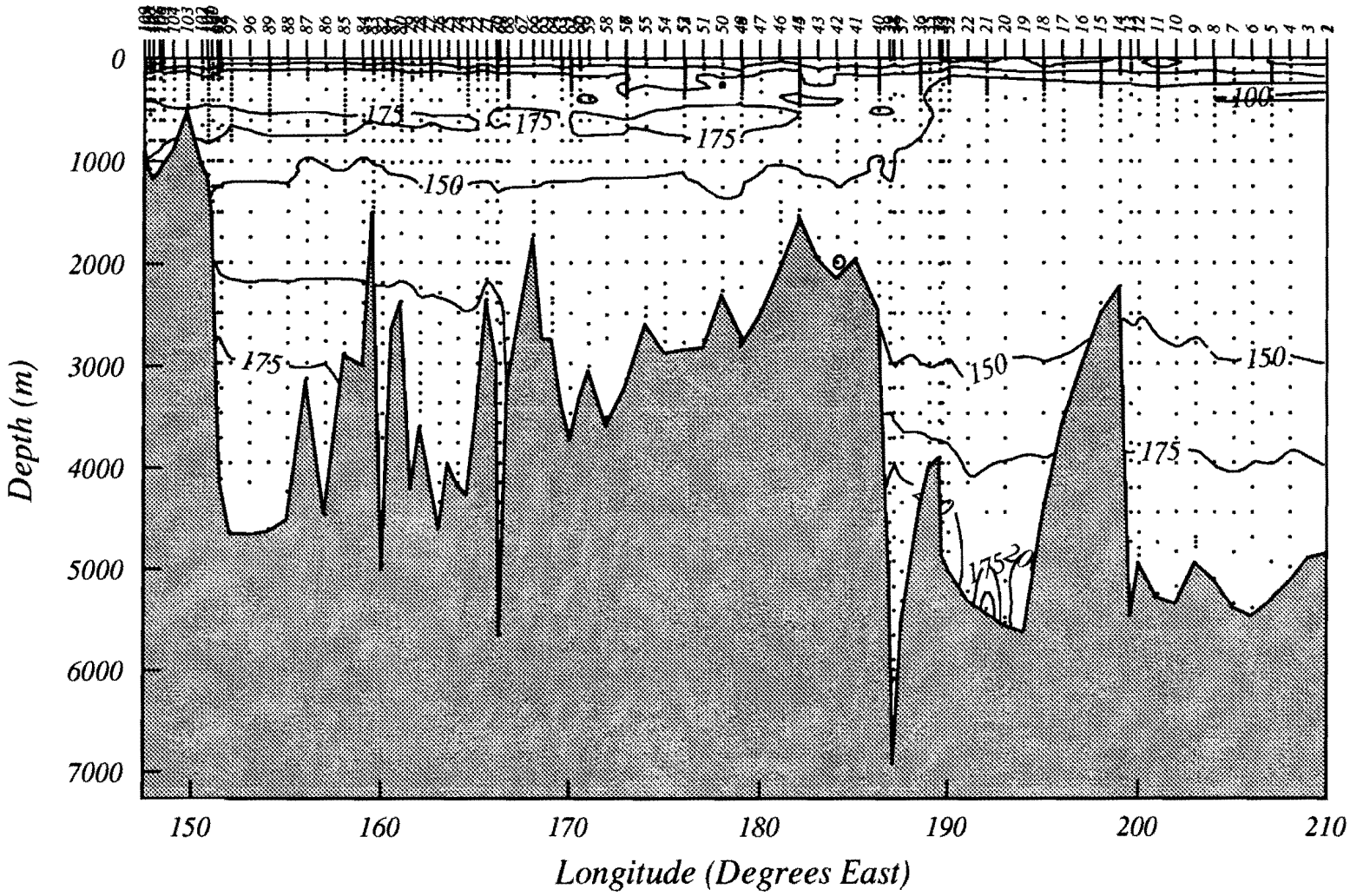
Potential Temperature (Degrees C.)

Potential Temperature section along 12-15 South during the TEW Cruise
Station numbers are indicated across the top.



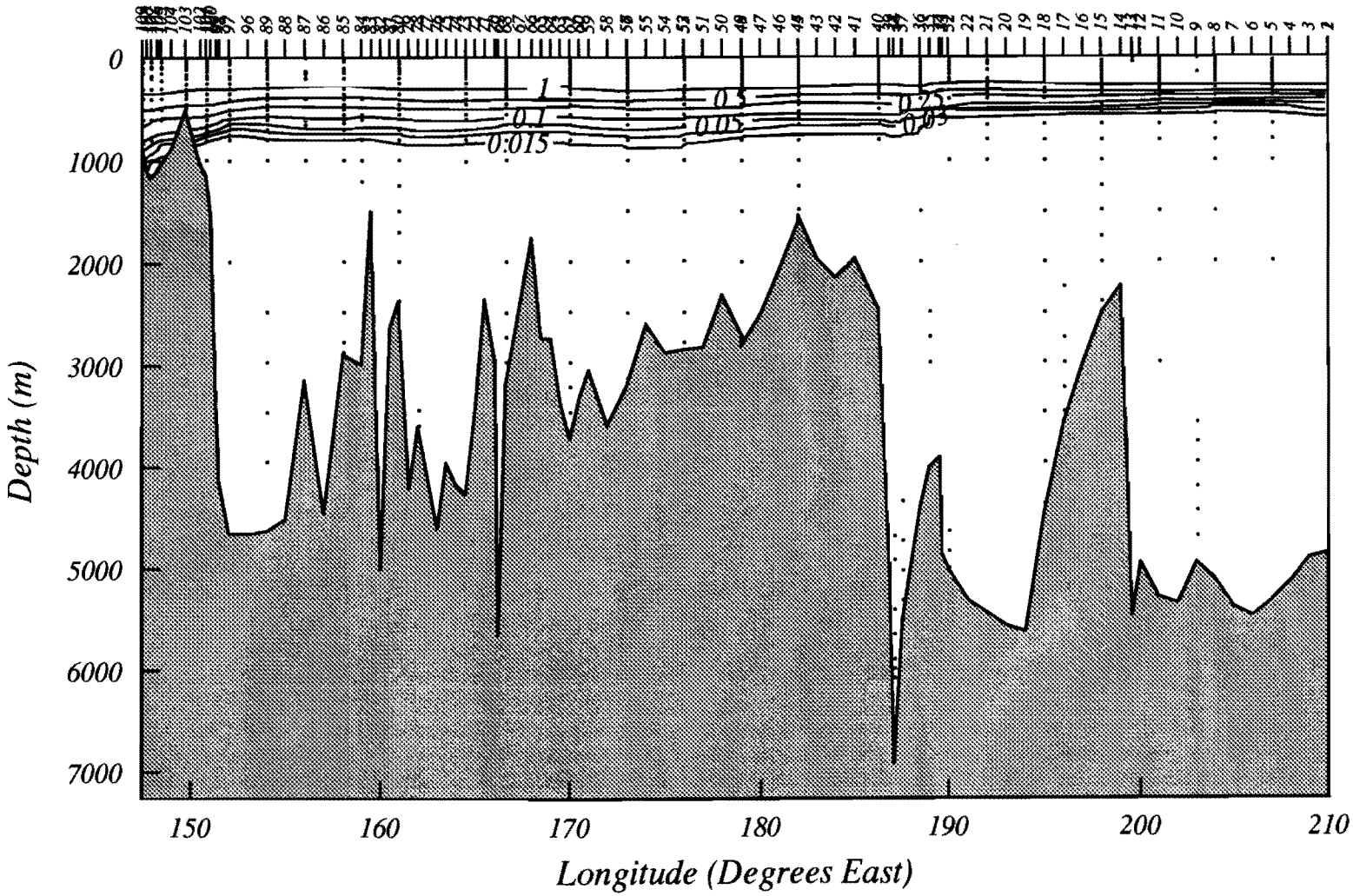
Salinity (PSU)

Salinity section along 12-15 South during the TEW Cruise
Station numbers are indicated across the top.



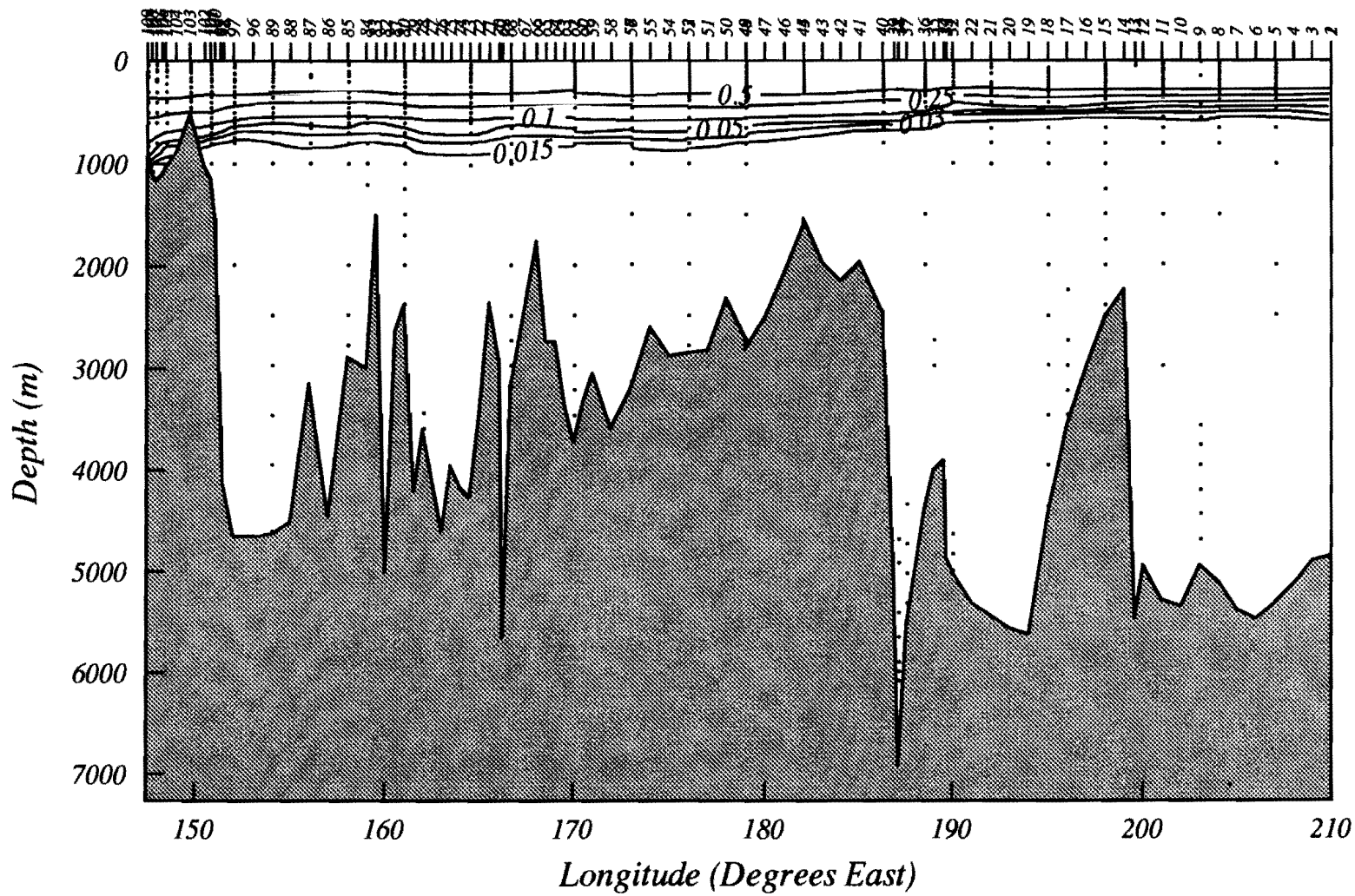
Oxygen (umole/Kg)

Dissolved Oxygen section along 12-15 South during the TEW Cruise
Station numbers are indicated across the top.



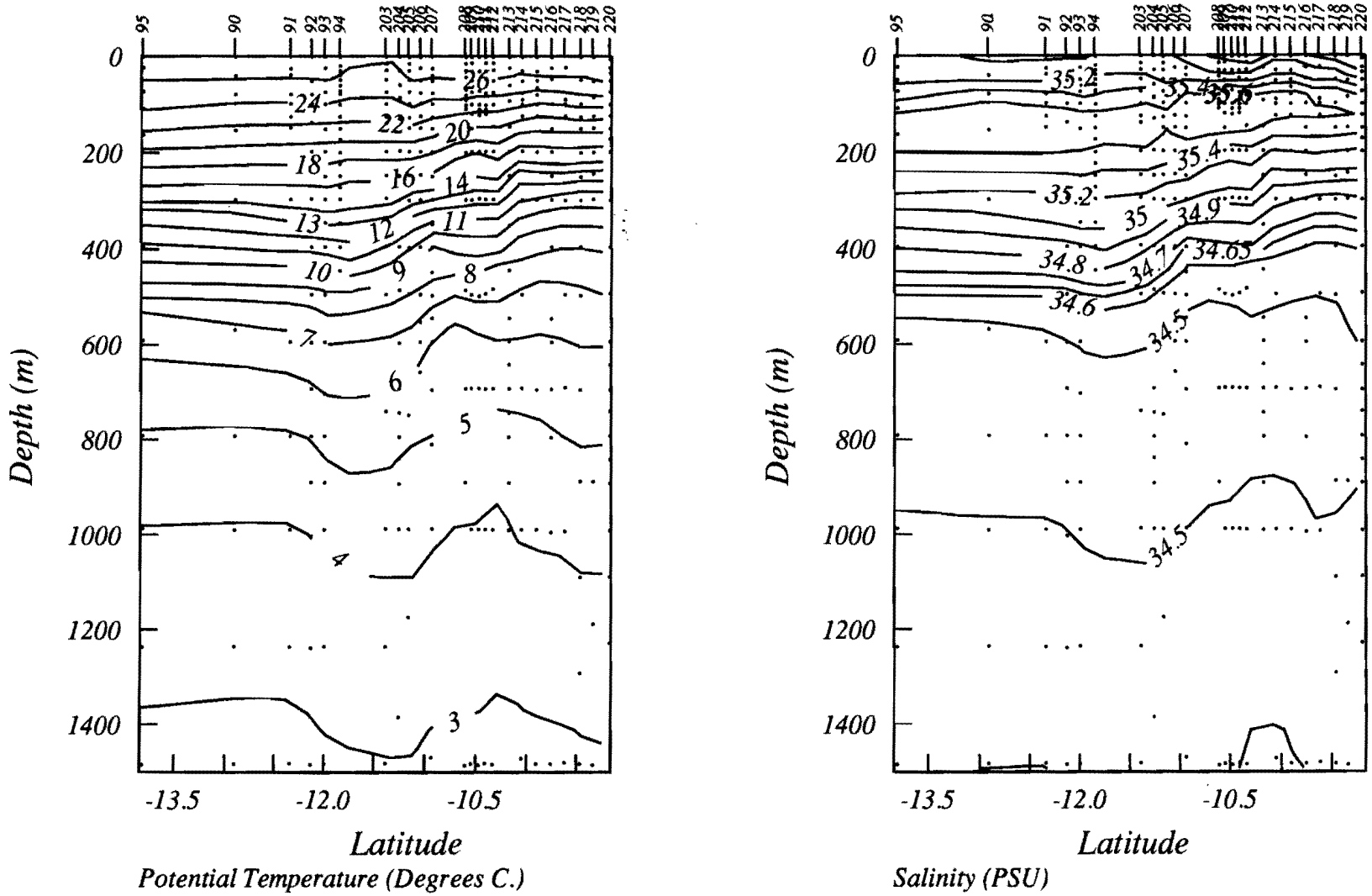
CFC-11 (pmole/Kg)

CFC-11 section along 12-15 South during the TEW Cruise
Station numbers are indicated across the top.

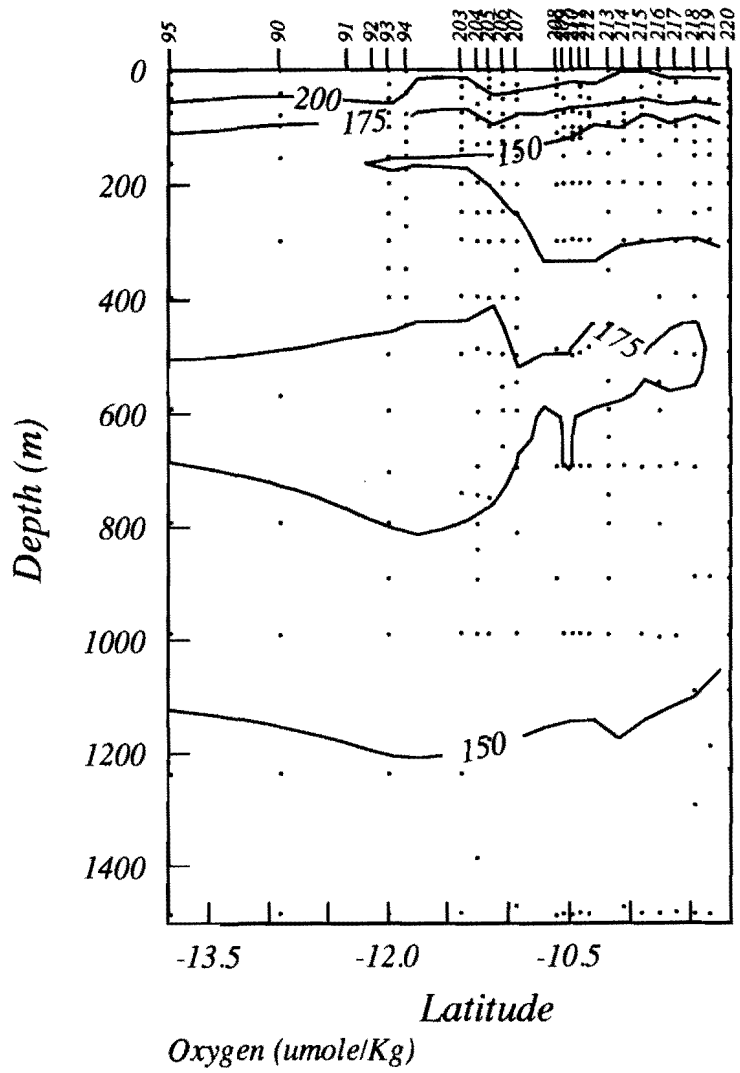


CFC-12 (pmole/Kg)

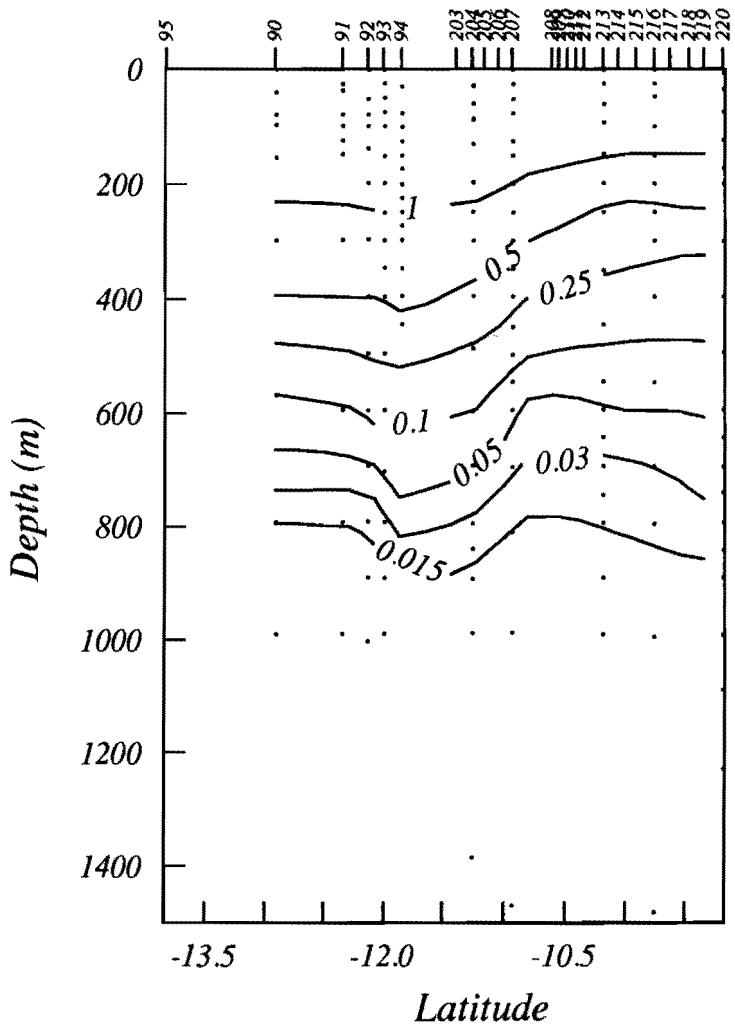
CFC-12 section along 12-15 South during the TEW Cruise
Station numbers are indicated across the top.



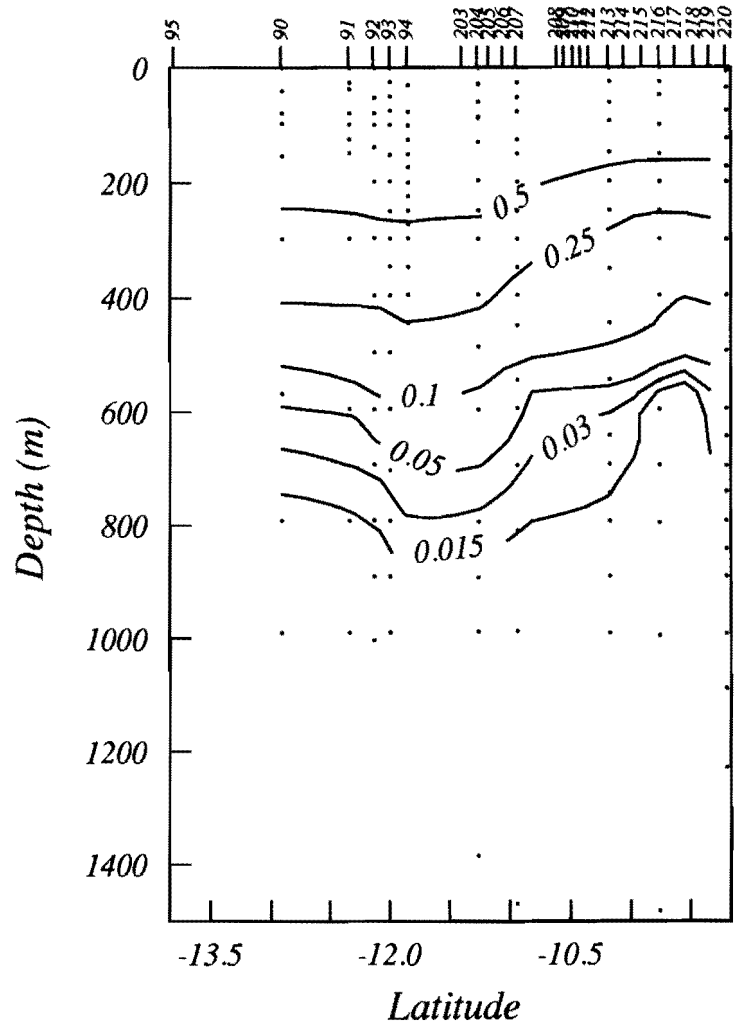
Potential Temperature and Salinity sections across the Coral Sea during TEW.
Station numbers are indicated across the top.



Dissolved Oxygen section across the Coral Sea during TEW. Station numbers are indicated across the top.

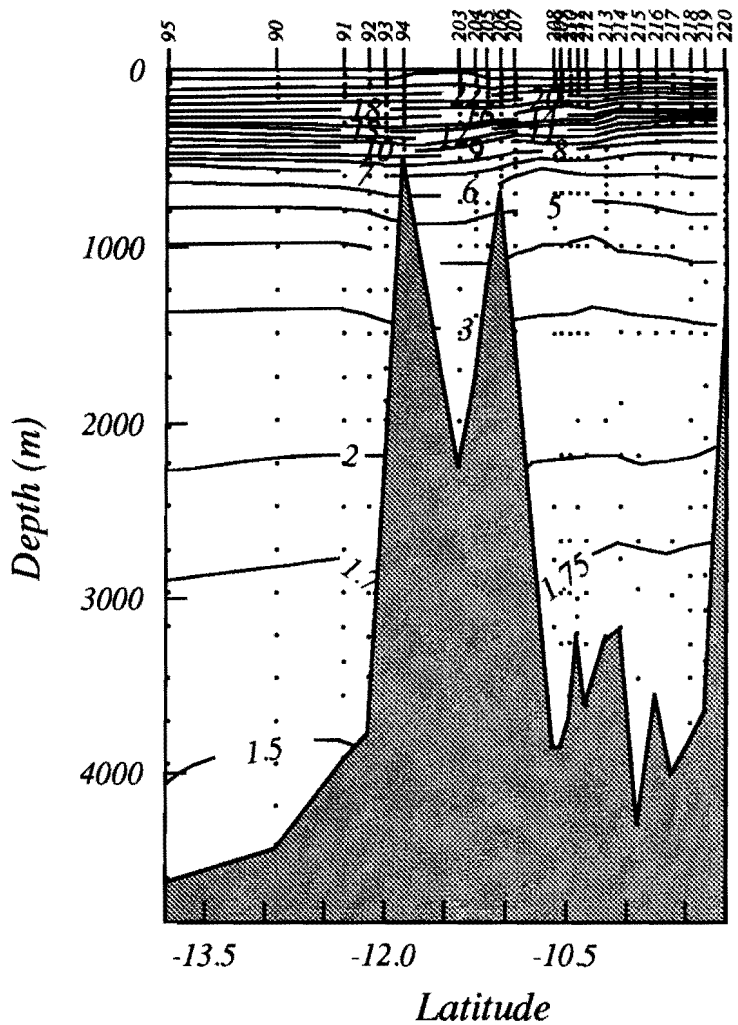


CFC-11 (pmole/Kg)

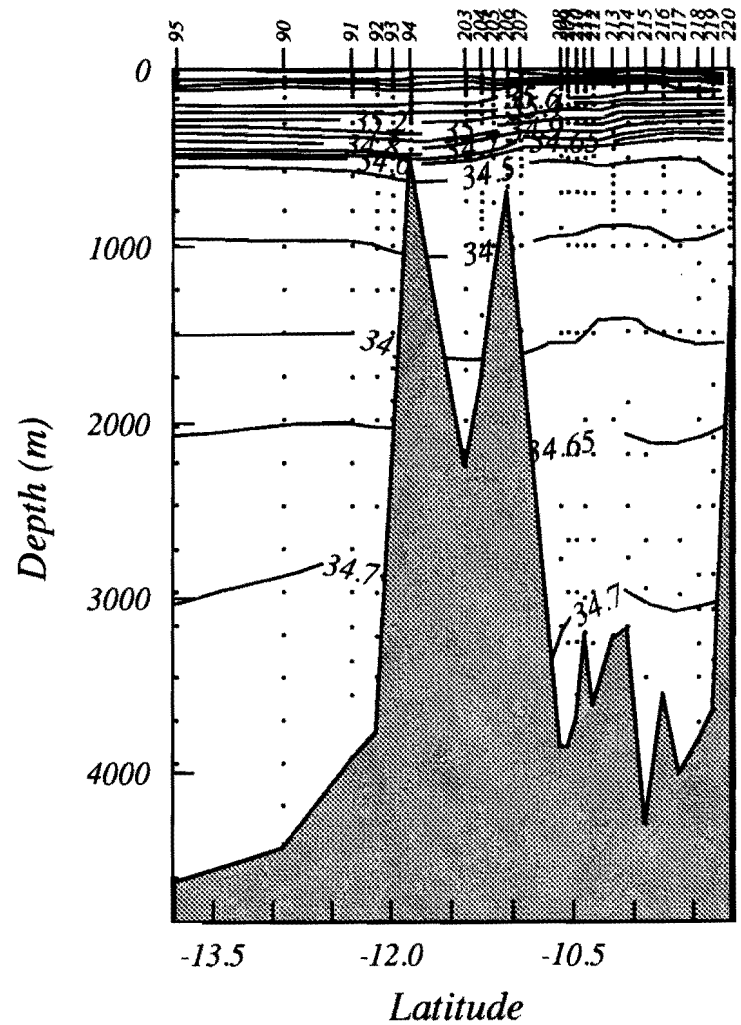


CFC-12 (pmole/Kg)

CFC-11 and CFC-12 sections across the Coral Sea during TEW. Station numbers are indicated across the top.

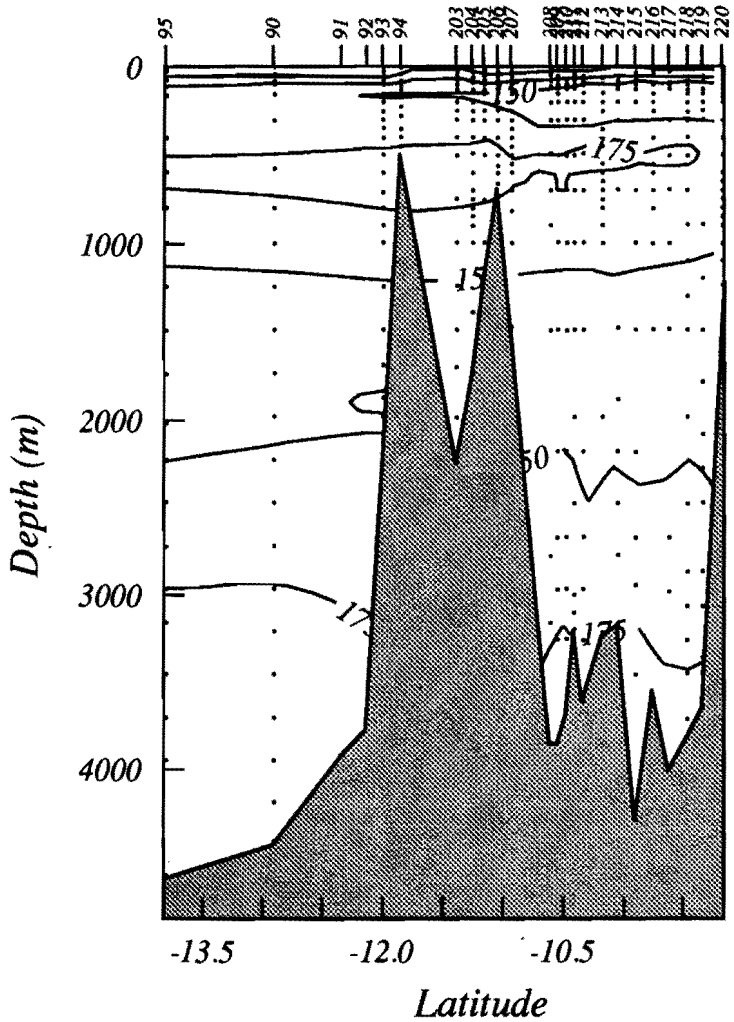


Potential Temperature (Degrees C.)



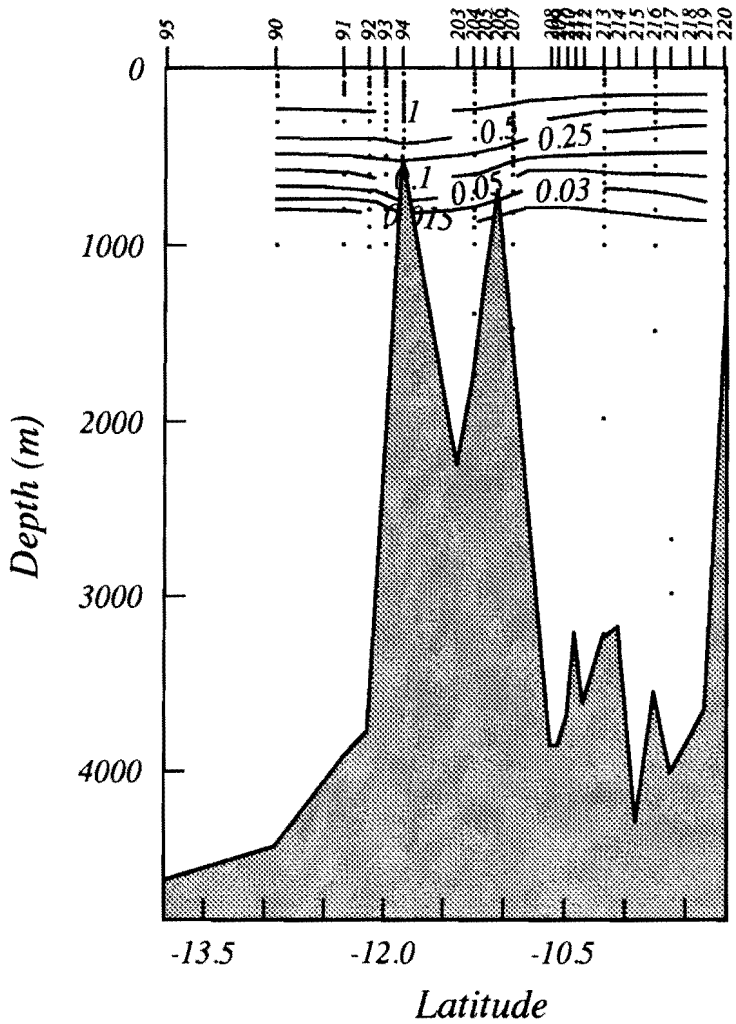
Salinity (PSU)

Potential Temperature and Salinity sections across the Coral Sea during TEW.
Station numbers are indicated across the top.

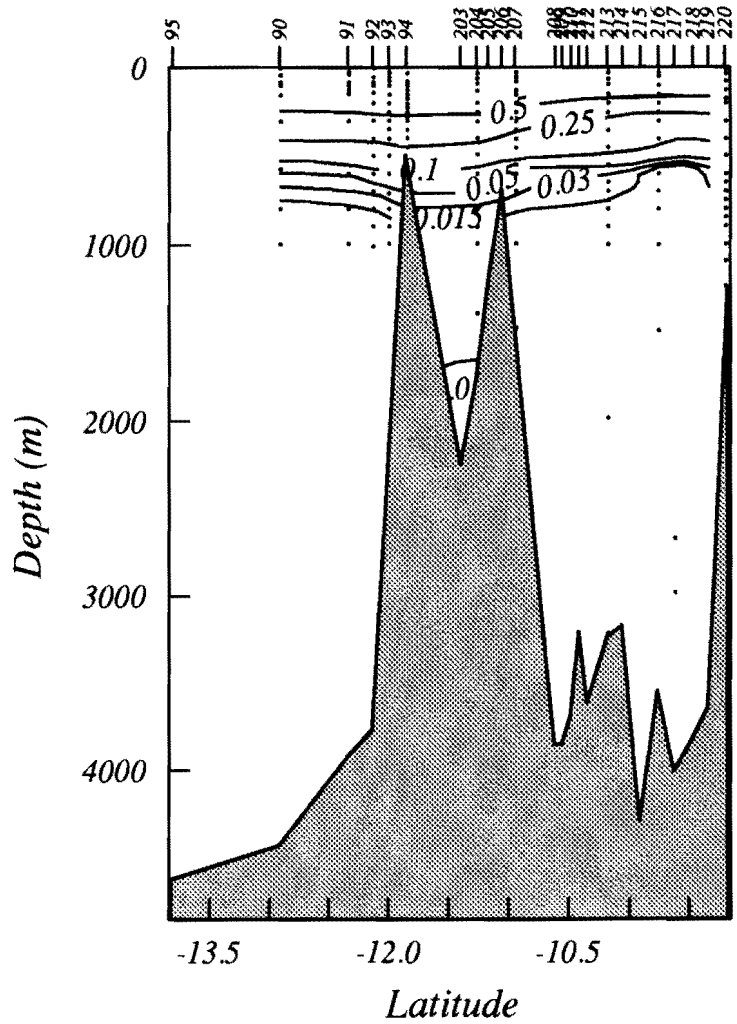


Oxygen (umole/Kg)

Dissolved Oxygen section across the Coral Sea during TEW.
Station numbers are indicated across the top.



CFC-11 (pmole/Kg)



CFC-12 (pmole/Kg)

CFC-11 and CFC-12 sections across the Coral Sea during TEW. Station numbers are indicated across the top.

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
1	6 Jun 87	12 00.0 S	149 59.9 W	4817	226.2	414.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
112	0	0	29.391	35.801	22.536	203	1.365	0.810	1.06	1.03	1.15	1.69	1000
111	23	23	29.367	35.801	22.544	203	1.358	0.818	1.06	1.03	1.16	1.66	1000
110	48	48	29.353	35.811	22.557	205	1.359	0.816	1.07	1.03	1.16	1.66	1000
109	97	98	26.738	36.246	23.743	206	1.471	0.917	1.03	1.00	1.19	1.60	1000
108	134	134	25.194	36.251	24.230	186	1.492	0.826	0.91	0.95	1.01	1.81	1000
107	147	147	25.048	36.250	24.273	181	1.500	0.800	0.88	0.95	0.97	1.88	1000
106	195	196	22.065	36.051	25.000	180	1.542	0.887	0.83	0.86	0.96	1.74	1000
105	244	244	17.304	35.368	25.725	148	1.311	0.684	0.62	0.58	0.61	1.92	1000
104	295	296	12.110	34.780	26.398	103	-9.000	-9.000	0.39	-9.00	-9.00	-9.00	1000
103	345	346	10.379	34.704	26.656	91	-9.000	0.118	0.33	-9.00	0.08	-9.00	1010
102	394	396	9.386	34.667	26.795	102	0.084	0.073	0.36	0.02	0.04	1.15	1000
101	509	511	7.933	34.598	26.969	108	0.041	0.039	0.37	0.01	0.02	1.11	1103

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
2	7 Jun 87	11 59.7 S	149 59.8 W	4840	226.2	414.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
224	0	0	29.370	35.696	22.465	201	-9.000	-9.000	1.05	-9.00	-9.00	-9.00	1000
223	97	97	26.121	36.261	23.949	181	-9.000	-9.000	0.90	-9.00	-9.00	-9.00	1000
222	245	246	18.571	35.486	25.503	151	-9.000	-9.000	0.66	-9.00	-9.00	-9.00	1000
221	493	495	7.932	34.596	26.967	105	0.032	0.027	0.36	0.01	-9.00	-9.00	1003
220	741	745	5.604	34.528	27.229	104	0.000	-0.001	0.34	-9.00	-9.00	-9.00	1003
219	988	994	4.349	34.535	27.380	107	0.002	0.002	0.34	-9.00	-9.00	-9.00	1003
218	1187	1195	3.616	34.554	27.470	116	0.000	-0.001	0.36	-9.00	-9.00	-9.00	1003
217	1384	1395	3.147	34.566	27.525	121	-9.000	-9.000	0.37	-9.00	-9.00	-9.00	1000
216	1581	1594	2.676	34.601	27.596	127	-0.002	0.000	0.39	-9.00	-9.00	-9.00	1103
215	1779	1794	2.312	34.621	27.643	137	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
214	1975	1993	2.060	34.639	27.678	142	0.002	-9.000	0.43	-9.00	-9.00	-9.00	1023
213	2172	2194	1.855	34.656	27.708	142	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
212	2368	2392	1.713	34.666	27.726	146	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
211	2567	2594	1.636	34.672	27.737	145	-0.001	0.005	0.43	-9.00	-9.00	-9.00	1103
210	2764	2796	1.552	34.678	27.748	140	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
209	2964	2999	1.478	34.682	27.757	152	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
208	3158	3197	1.409	34.683	27.762	156	-0.005	-0.003	0.46	-9.00	-9.00	-9.00	1003
207	3357	3401	1.335	34.677	27.763	159	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
206	3520	3567	1.280	34.691	27.778	162	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
205	3745	3797	1.193	34.697	27.789	169	-0.006	-0.003	0.50	-9.00	-9.00	-9.00	1003
204	3943	4000	1.120	34.698	27.795	173	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
202	4476	4546	0.971	34.706	27.811	189	0.003	-9.000	0.55	-9.00	-9.00	-9.00	1023
201	4728	4806	0.898	34.710	27.819	191	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
5	8 Jun 87	11 59.0 S	152 58.7 W	5309	226.2	414.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
503	27	27	29.606	35.718	22.401	202	1.363	0.707	1.06	1.04	1.01	1.93	1000
502	58	58	29.413	35.767	22.504	204	1.359	0.711	1.07	1.03	1.01	1.91	1000
501	87	87	27.220	36.171	23.532	195	1.430	0.734	0.99	0.99	0.97	1.95	1000
524	119	119	25.660	36.251	24.085	181	1.473	0.755	0.89	0.96	0.94	1.95	1000
523	147	147	24.014	36.233	24.573	171	1.496	0.789	0.82	0.91	0.92	1.89	1000
522	177	178	22.775	36.135	24.861	168	1.518	0.769	0.79	0.87	0.86	1.98	1000
521	207	207	21.123	35.889	25.139	165	1.501	0.769	0.75	0.80	0.80	1.95	1000
520	236	237	18.492	35.509	25.540	155	1.344	0.671	0.67	0.63	0.63	2.00	1000
519	296	296	14.130	34.964	26.133	129	0.801	0.419	0.51	0.30	0.32	1.91	1000
518	369	371	10.520	34.689	26.619	92	0.217	0.135	0.34	0.07	0.09	1.61	1000
517	444	445	8.243	34.602	26.925	105	0.033	0.036	0.37	0.01	0.02	0.92	1003
516	543	545	6.942	34.558	27.079	108	0.013	0.013	0.36	-9.00	-9.00	-9.00	1003
515	641	644	6.167	34.537	27.166	101	0.001	0.005	0.34	-9.00	-9.00	-9.00	1003
514	790	794	5.335	34.523	27.258	103	-0.001	-9.000	0.33	-9.00	-9.00	-9.00	1023
513	989	995	4.431	34.530	27.367	106	0.001	0.000	0.34	-9.00	-9.00	-9.00	1003
512	1482	1494	2.958	34.583	27.556	127	-9.000	-9.000	0.39	-9.00	-9.00	-9.00	1000
511	1975	1994	2.115	34.633	27.668	140	0.000	-0.001	0.42	-9.00	-9.00	-9.00	1003
510	2468	2495	1.728	34.655	27.716	145	-9.000	0.002	0.43	-9.00	-9.00	-9.00	1013
509	2961	2997	1.500	34.680	27.753	151	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
508	3456	3502	1.314	34.688	27.773	162	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
507	3946	4002	1.129	34.698	27.794	175	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
506	4919	5002	0.868	34.710	27.821	196	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1000
504	5292	5386	0.850	34.712	27.824	195	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
8	9 Jun 87	11 59.7 S	156 00.6 W	5093	227.3	413.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
824	0	0	29.426	35.462	22.270	192	1.362	0.726	1.00	1.02	1.03	1.88	1000
823	29	29	29.363	35.453	22.285	192	1.356	0.692	1.00	1.01	0.98	1.96	1000
822	56	56	29.096	35.863	22.682	200	1.383	0.727	1.04	1.03	1.02	1.90	1000
821	89	89	26.663	36.217	23.745	189	1.436	0.788	0.95	0.97	1.02	1.82	1000
820	117	117	24.958	36.250	24.301	173	1.469	0.787	0.84	0.93	0.96	1.87	1000
819	148	148	23.368	36.190	24.731	166	1.501	0.801	0.79	0.88	0.92	1.87	1000
818	177	177	22.310	36.051	24.930	164	1.486	0.767	0.76	0.83	0.84	1.94	1000
817	207	207	20.625	35.824	25.225	163	1.459	0.729	0.74	0.76	0.75	2.00	1000
816	235	236	19.173	35.590	25.429	158	1.360	0.716	0.70	0.66	0.69	1.90	1000
815	294	295	13.282	34.891	26.252	127	0.709	0.385	0.49	0.25	0.28	1.84	1000
814	369	371	10.449	34.687	26.630	94	0.205	0.118	0.34	0.06	0.08	1.74	1000
813	444	446	8.508	34.629	26.906	99	0.035	0.043	0.35	0.01	0.03	0.81	1003
812	542	544	6.855	34.553	27.087	110	0.007	0.009	0.37	-9.00	-9.00	-9.00	1003
811	642	646	6.033	34.531	27.178	104	0.000	0.003	0.35	-9.00	-9.00	-9.00	1003
810	793	797	5.329	34.519	27.255	106	-0.002	0.000	0.34	-9.00	-9.00	-9.00	1003
809	988	994	4.481	34.525	27.357	110	0.001	-9.000	0.35	-9.00	-9.00	-9.00	1023
808	1483	1495	2.852	34.586	27.568	129	0.000	-0.003	0.39	-9.00	-9.00	-9.00	1003
807	1975	1994	2.089	34.635	27.672	142	-0.001	-9.000	0.43	-9.00	-9.00	-9.00	1023
806	2470	2496	1.697	34.666	27.727	145	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
805	2960	2996	1.491	34.681	27.755	150	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
804	3452	3497	1.277	34.689	27.777	165	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
803	3941	3998	1.119	34.696	27.793	174	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
802	4431	4500	0.952	34.704	27.811	185	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
801	5091	5179	0.854	34.709	27.821	193	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
9	9 Jun 87	12 00.3 S	157 00.2 W	4940	227.3	413.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
924	1	1	29.270	35.292	22.195	193	1.355	0.739	1.00	1.01	1.04	1.84	1000
923	137	137	24.615	36.240	24.398	169	1.454	0.845	0.82	0.90	1.01	1.72	1000
922	413	414	8.995	34.583	26.793	110	0.116	0.076	0.39	0.03	0.05	1.53	1000
921	543	546	6.661	34.523	27.089	131	0.021	0.027	0.44	-9.00	-9.00	-9.00	1003
920	988	994	4.394	34.528	27.369	111	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
919	1238	1247	3.436	34.558	27.491	125	-9.000	-9.000	0.39	-9.00	-9.00	-9.00	1000
918	1485	1497	2.784	34.588	27.576	134	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
917	1730	1744	2.339	34.613	27.634	142	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
916	1979	1997	2.010	34.641	27.683	145	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
915	2174	2196	1.863	34.652	27.704	147	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
914	2372	2396	1.757	34.661	27.719	146	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
913	2568	2596	1.649	34.671	27.735	149	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
912	2765	2796	1.568	34.678	27.747	152	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
911	2961	2997	1.478	34.681	27.756	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
910	3159	3198	1.407	34.683	27.762	156	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
909	3356	3400	1.328	34.687	27.771	163	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
908	3554	3601	1.231	34.691	27.781	170	0.000	0.003	0.50	-9.00	-9.00	-9.00	1003
907	3747	3799	1.169	34.694	27.788	-9	0.005	0.000	-9.00	-9.00	-9.00	-9.00	1003
906	3941	3998	1.094	34.698	27.796	178	-0.002	-0.007	0.52	-9.00	-9.00	-9.00	1003
905	4188	4251	1.019	34.701	27.804	183	-0.002	-0.013	0.54	-9.00	-9.00	-9.00	1003
904	4426	4495	0.948	34.706	27.813	188	-0.001	-0.013	0.55	-9.00	-9.00	-9.00	1003
903	4676	4752	0.892	34.708	27.818	193	0.004	-0.008	0.56	-9.00	-9.00	-9.00	1003
902	4725	4802	0.880	34.708	27.819	193	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1000
901	4775	4853	0.873	34.708	27.819	194	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
11	9 Jun 87	12 00.0 S	158 59.9 W	5278	227.3	413.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1103	0	0	29.106	35.261	22.227	201	1.409	0.734	1.04	1.04	1.03	1.92	1000
1102	28	28	29.112	35.261	22.225	203	1.356	0.712	1.05	1.00	1.00	1.90	1000
1101	60	60	29.069	35.786	22.633	210	1.357	0.714	1.09	1.01	1.00	1.90	1000
1124	88	88	28.294	36.011	23.061	209	1.375	0.722	1.08	0.99	0.99	1.90	1000
1123	116	116	26.636	36.130	23.687	182	1.381	0.772	0.91	0.93	1.00	1.79	1000
1122	147	147	24.638	36.223	24.378	169	1.421	0.762	0.82	0.88	0.92	1.86	1000
1121	178	178	22.973	36.114	24.788	168	1.423	0.757	0.79	0.82	0.85	1.88	1000
1120	206	207	21.283	35.897	25.101	168	1.403	0.733	0.77	0.75	0.77	1.91	1000
1119	235	236	19.108	35.599	25.453	166	1.293	0.656	0.73	0.62	0.63	1.97	1000
1118	298	298	14.407	34.986	26.091	147	0.825	0.422	0.59	0.31	0.33	1.96	1000
1117	371	373	10.294	34.691	26.661	99	0.154	0.089	0.36	0.05	0.06	1.73	1000
1116	443	444	8.233	34.588	26.916	118	0.048	0.039	0.41	0.01	0.02	1.21	1003
1115	541	543	6.974	34.549	27.067	116	0.014	0.019	0.39	-9.00	-9.00	-9.00	1003
1114	642	645	6.062	34.517	27.163	120	0.005	0.004	0.40	-9.00	-9.00	-9.00	1003
1113	792	796	5.306	34.506	27.248	119	0.004	0.004	0.39	-9.00	-9.00	-9.00	1003
1111	1484	1495	2.812	34.584	27.570	133	-0.001	0.000	0.41	-9.00	-9.00	-9.00	1003
1110	1971	1989	2.022	34.635	27.678	146	-0.002	-0.002	0.44	-9.00	-9.00	-9.00	1003
1109	2963	2998	1.486	34.678	27.753	152	-0.002	-0.004	0.45	-9.00	-9.00	-9.00	1003
1108	2963	2999	1.487	34.679	27.754	152	0.001	-0.001	0.45	-9.00	-9.00	-9.00	1103
1107	3942	3999	1.104	34.695	27.793	176	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000
1106	4431	4500	0.947	34.704	27.811	188	-9.000	-9.000	0.55	-9.00	-9.00	-9.00	1000
1105	4722	4799	0.867	34.707	27.819	195	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1000
1104	5231	5323	0.813	34.709	27.824	198	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
13	10 Jun 87	12 00.8 S	160 24.1 W	5460	227.5	413.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1303	1	1	29.151	35.014	22.026	196	1.367	0.713	1.02	1.01	1.00	1.92	1000
1302	42	42	29.133	35.017	22.035	196	1.369	0.750	1.02	1.01	1.05	1.83	1000
1301	47	47	29.135	35.018	22.035	197	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
1324	53	53	29.135	35.021	22.037	197	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
1323	56	56	29.136	35.019	22.035	195	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
1322	67	67	29.132	35.660	22.518	203	-9.000	-9.000	1.06	-9.00	-9.00	-9.00	1000
1321	96	96	27.593	36.093	23.352	192	-9.000	-9.000	0.98	-9.00	-9.00	-9.00	1000
1320	196	196	21.608	35.933	25.038	169	-9.000	-9.000	0.78	-9.00	-9.00	-9.00	1000
1319	343	344	11.366	34.761	26.523	110	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
1318	741	745	5.630	34.524	27.223	107	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
1317	989	995	4.474	34.530	27.362	110	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
1316	1484	1496	2.858	34.587	27.568	133	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
1315	1977	1996	2.041	34.637	27.678	147	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
1314	2471	2497	1.697	34.666	27.727	147	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
1313	2962	2997	1.498	34.681	27.754	156	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
1312	3356	3399	1.331	34.689	27.773	163	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
1311	3747	3798	1.178	34.694	27.787	173	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
1310	3918	3974	1.128	34.696	27.792	177	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000
1309	4188	4251	1.037	34.704	27.805	185	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
1308	4428	4497	0.901	34.709	27.818	193	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1000
1307	4722	4798	0.813	34.713	27.827	197	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1000
1306	5230	5322	0.805	34.711	27.826	200	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1000
1305	5323	5418	0.804	34.712	27.827	199	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1000
1304	5396	5492	0.804	34.711	27.826	200	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
15	11 Jun 87	11 59.2 S	162 01.0 W	2495	227.5	413.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1524	29	29	28.969	35.119	22.166	208	1.378	0.739	1.08	1.01	1.03	1.87	1000
1523	59	59	28.478	35.841	22.872	186	1.387	0.770	0.96	1.01	1.06	1.80	1000
1522	87	87	26.551	36.150	23.730	190	1.407	0.731	0.95	0.95	0.94	1.93	1000
1521	117	117	25.226	36.222	24.198	175	1.406	0.761	0.86	0.89	0.93	1.85	1000
1520	146	146	23.773	36.226	24.639	167	1.470	0.752	0.80	0.88	0.87	1.95	1000
1519	177	178	21.846	35.988	25.014	166	1.463	0.754	0.77	0.80	0.81	1.94	1000
1518	207	208	20.506	35.831	25.262	163	1.422	0.731	0.73	0.73	0.74	1.95	1000
1517	236	236	18.863	35.599	25.515	152	1.308	0.685	0.67	0.62	0.65	1.91	1000
1516	269	270	17.058	35.308	25.738	138	1.067	0.540	0.58	0.46	0.47	1.98	1000
1515	297	298	14.314	35.036	26.149	118	0.719	0.364	0.47	0.27	0.28	1.98	1000
1514	335	336	12.461	34.878	26.406	103	0.431	0.254	0.39	0.15	0.18	1.70	1000
1513	369	370	10.869	34.757	26.610	101	0.235	0.157	0.37	0.07	0.10	1.50	1000
1512	445	447	8.545	34.626	26.897	113	0.067	0.050	0.40	0.02	0.03	1.33	1000
1511	544	546	7.050	34.554	27.061	118	0.013	0.009	0.40	-9.00	-9.00	-9.00	1003
1510	644	647	6.152	34.532	27.164	109	0.002	0.006	0.36	-9.00	-9.00	-9.00	1003
1509	792	796	5.331	34.521	27.257	105	0.001	0.000	0.34	-9.00	-9.00	-9.00	1003
1508	990	996	4.454	34.532	27.366	106	-0.001	-0.001	0.34	-9.00	-9.00	-9.00	1003
1507	1239	1248	3.530	34.559	27.483	117	0.004	-0.001	0.37	-9.00	-9.00	-9.00	1003
1506	1481	1492	2.881	34.585	27.565	130	-0.001	-0.004	0.40	-9.00	-9.00	-9.00	1003
1505	1731	1746	2.360	34.616	27.635	139	0.001	-0.004	0.42	-9.00	-9.00	-9.00	1003
1504	1979	1997	2.008	34.640	27.683	144	-0.002	-0.001	0.43	-9.00	-9.00	-9.00	1003
1502	2371	2395	1.715	34.664	27.725	147	-0.001	-0.003	0.44	-9.00	-9.00	-9.00	1003
1501	2461	2487	1.672	34.668	27.731	148	0.001	0.000	0.44	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
17	11 Jun 87	12 00.5 S	164 00.1 W	3535	227.5	412.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1724	0	0	28.750	35.198	22.298	202	-9.000	-9.000	1.04	-9.00	-9.00	-9.00	1000
1723	69	69	28.734	35.215	22.316	200	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
1722	146	146	23.945	36.185	24.557	162	-9.000	-9.000	0.78	-9.00	-9.00	-9.00	1000
1721	198	198	21.253	35.883	25.098	160	-9.000	-9.000	0.73	-9.00	-9.00	-9.00	1000
1720	296	297	14.556	35.064	26.119	127	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
1719	393	394	9.137	34.619	26.798	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1718	495	496	7.350	34.552	27.017	126	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
1717	595	598	6.380	34.528	27.131	119	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	1000
1716	694	698	5.645	34.514	27.213	116	-9.000	-9.000	0.38	-9.00	-9.00	-9.00	1000
1715	789	793	5.287	34.519	27.260	105	-9.000	-9.000	0.34	-9.00	-9.00	-9.00	1000
1714	989	996	4.447	34.523	27.359	113	-9.000	-9.000	0.36	-9.00	-9.00	-9.00	1000
1713	1239	1248	3.502	34.551	27.479	130	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
1712	1481	1492	2.846	34.585	27.568	134	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
1711	1731	1746	2.326	34.616	27.638	140	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
1710	1976	1995	2.066	34.635	27.674	144	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
1709	2221	2243	1.835	34.654	27.707	146	0.000	0.004	0.44	-9.00	-9.00	-9.00	1103
1708	2519	2546	1.670	34.667	27.730	146	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
1707	2715	2746	1.599	34.672	27.740	147	0.005	-0.001	0.44	-9.00	-9.00	-9.00	1003
1706	2963	2998	1.486	34.677	27.752	152	0.001	0.003	0.45	-9.00	-9.00	-9.00	1003
1705	3209	3250	1.347	34.684	27.768	158	0.003	0.010	0.47	-9.00	-9.00	-9.00	1003
1702	3446	3491	1.256	34.688	27.777	166	0.001	-0.007	0.49	-9.00	-9.00	-9.00	1103
1701	3545	3593	1.233	34.689	27.780	169	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
18	12 Jun 87	11 59.1 S	164 59.6 W	4443	228.2	411.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1803	7	7	28.739	35.052	22.192	200	1.429	-9.000	1.03	1.03	-9.00	-9.00	1020
1802	30	30	28.832	35.141	22.228	200	1.366	-9.000	1.03	0.99	-9.00	-9.00	1020
1801	60	60	28.804	35.153	22.247	205	1.385	0.760	1.06	1.01	1.05	1.82	1000
1824	89	89	28.318	35.790	22.887	205	1.381	0.783	1.05	0.99	1.08	1.76	1000
1823	120	120	26.842	36.105	23.603	184	1.386	0.790	0.93	0.94	1.03	1.75	1000
1822	148	148	24.261	36.161	24.444	158	1.425	0.789	0.76	0.87	0.94	1.81	1000
1821	181	181	22.504	36.024	24.855	156	1.416	0.767	0.73	0.80	0.85	1.85	1000
1820	208	208	20.160	35.757	25.298	153	1.326	0.707	0.68	0.67	0.71	1.87	1000
1819	237	238	18.053	35.462	25.614	140	1.112	0.605	0.60	0.51	0.56	1.84	1000
1818	270	270	16.412	35.291	25.877	134	-9.000	0.554	0.56	-9.00	0.47	-9.00	1010
1817	295	296	14.717	35.052	26.075	128	0.758	0.461	0.51	0.29	0.37	1.64	1000
1816	340	341	11.966	34.790	26.433	115	0.421	0.279	0.44	0.14	0.19	1.51	1000
1815	399	400	9.431	34.639	26.766	120	0.234	0.213	0.43	0.07	0.13	1.10	1000
1814	496	498	7.311	34.556	27.026	123	0.025	0.028	0.42	-9.00	-9.00	-9.00	1003
1813	641	644	6.067	34.528	27.171	108	0.003	0.009	0.36	-9.00	-9.00	-9.00	1003
1812	793	798	5.215	34.508	27.260	120	0.003	0.007	0.39	-9.00	-9.00	-9.00	1003
1811	989	995	4.414	34.521	27.361	118	0.001	0.007	0.38	-9.00	-9.00	-9.00	1003
1810	1488	1499	2.853	34.586	27.568	129	-0.002	0.003	0.40	-9.00	-9.00	-9.00	1003
1809	1976	1994	2.033	34.637	27.678	143	-0.001	-0.002	0.43	-9.00	-9.00	-9.00	1003
1808	2471	2497	1.687	34.666	27.728	144	-0.001	0.000	0.43	-9.00	-9.00	-9.00	1003
1807	2960	2995	1.477	34.678	27.754	150	0.005	-0.003	0.45	-9.00	-9.00	-9.00	1003
1806	3453	3498	1.279	34.687	27.775	161	0.000	0.001	0.47	-9.00	-9.00	-9.00	1003
1805	3940	3997	1.067	34.698	27.798	175	0.000	-0.004	0.51	-9.00	-9.00	-9.00	1003
1804	4351	4418	0.789	34.709	27.825	198	-0.001	-0.003	0.58	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
21	13 Jun 87	11 59.7 S	167 59.3 W	5430	226.5	409.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2101	30	30	28.714	35.099	22.236	204	1.415	0.770	1.05	1.03	1.07	1.84	1000
2124	58	58	28.743	35.119	22.241	198	1.374	0.749	1.02	1.00	1.04	1.84	1000
2122	120	120	25.969	36.066	23.849	166	1.407	0.762	0.82	0.93	0.97	1.85	1000
2119	206	206	20.339	35.717	25.220	145	1.277	0.661	0.65	0.65	0.67	1.93	1000
2118	237	237	16.980	35.295	25.746	142	1.023	0.557	0.60	0.45	0.49	1.84	1000
2117	267	268	15.255	35.104	25.997	134	0.858	0.495	0.54	0.34	0.40	1.73	1000
2116	299	300	13.397	34.916	26.248	121	0.579	0.361	0.47	0.21	0.27	1.60	1000
2115	335	336	11.560	34.792	26.511	113	0.340	0.248	0.42	0.11	0.17	1.37	1000
2114	394	396	9.572	34.644	26.746	122	0.150	0.138	0.44	0.04	0.09	1.08	1000
2113	495	497	7.316	34.549	27.019	126	0.030	0.023	0.43	-9.00	-9.00	-9.00	1003
2112	646	649	5.889	34.508	27.178	125	0.011	0.004	0.41	-9.00	-9.00	-9.00	1003
2111	791	796	5.056	34.509	27.280	119	0.002	-0.001	0.38	-9.00	-9.00	-9.00	1103
2110	991	997	4.236	34.514	27.375	131	0.001	0.001	0.42	-9.00	-9.00	-9.00	1003
2106	3454	3500	1.273	34.688	27.776	160	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
2104	4431	4500	0.779	34.709	27.826	197	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1000
2102	5382	5478	0.650	34.711	27.836	5	-9.000	-9.000	0.01	-9.00	-9.00	-9.00	1000
2103	5382	5478	0.650	34.711	27.836	204	-9.000	-9.000	0.59	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
24	14 Jun 87	10 03.9 S	169 00.0 W	4632	226.6	408.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2423	0	0	28.960	34.873	21.984	196	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
2422	248	248	15.089	35.124	26.049	108	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
2421	495	497	7.590	34.592	27.014	112	-9.000	-9.000	0.38	-9.00	-9.00	-9.00	1000
2420	741	745	5.520	34.506	27.222	130	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
2419	988	994	4.402	34.538	27.376	111	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
2418	1486	1497	2.811	34.589	27.574	133	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
2417	1978	1996	2.033	34.643	27.683	134	-0.001	-0.006	0.40	-9.00	-9.00	-9.00	1103
2416	2471	2497	1.660	34.667	27.731	142	-0.002	-0.004	0.42	-9.00	-9.00	-9.00	1103
2411	2962	2997	1.443	34.680	27.757	150	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
2415	2963	2998	1.443	34.680	27.757	149	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
2410	3196	3236	1.369	34.685	27.767	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
2414	3205	3246	1.360	34.685	27.768	154	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
2413	3452	3498	1.281	34.688	27.776	157	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
2409	3453	3498	1.283	34.690	27.777	158	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
2412	3687	3738	1.200	34.692	27.784	162	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
2408	3716	3767	1.191	34.693	27.786	162	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
2407	3943	4000	1.137	34.695	27.791	191	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	2000
2406	4040	4099	1.095	34.697	27.796	169	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	1000
2405	4131	4193	1.043	34.700	27.802	172	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
2404	4236	4300	0.944	34.706	27.813	183	0.001	0.004	0.53	-9.00	-9.00	-9.00	1103
2403	4336	4402	0.837	34.710	27.823	192	0.005	0.000	0.56	-9.00	-9.00	-9.00	1103
2402	4499	4570	0.697	34.713	27.834	202	0.001	0.002	0.59	-9.00	-9.00	-9.00	1103
2401	4621	4695	0.688	34.713	27.835	202	-9.000	-9.000	0.59	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
25	15 Jun 87	10 04.7 S	169 11.1 W	4829	226.6	408.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2522	0	0	29.023	34.895	21.980	197	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
2523	0	0	29.025	34.895	21.979	194	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
2521	48	48	28.896	34.959	22.070	195	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
2520	97	97	26.640	36.037	23.616	171	-9.000	-9.000	0.86	-9.00	-9.00	-9.00	1000
2519	149	149	23.439	36.080	24.627	153	-9.000	-9.000	0.73	-9.00	-9.00	-9.00	1000
2518	193	194	20.053	35.707	25.288	146	-9.000	-9.000	0.65	-9.00	-9.00	-9.00	1000
2517	495	497	7.938	34.613	26.979	99	-9.000	-9.000	0.34	-9.00	-9.00	-9.00	1000
2516	985	991	4.486	34.532	27.362	110	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
2515	1459	1471	2.932	34.580	27.556	131	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	1000
2514	1978	1996	2.037	34.640	27.680	136	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
2513	2467	2493	1.667	34.665	27.729	140	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
2512	2964	2999	1.446	34.679	27.757	149	-0.001	0.004	0.44	-9.00	-9.00	-9.00	1003
2509	3455	3500	1.285	34.686	27.774	158	0.013	0.000	0.47	-9.00	-9.00	-9.00	1003
2511	3502	3548	1.279	34.687	27.775	159	-0.001	0.000	0.47	-9.00	-9.00	-9.00	1003
2508	3698	3749	1.210	34.691	27.783	163	0.012	0.000	0.48	-9.00	-9.00	-9.00	1003
2510	3845	3899	1.150	34.693	27.789	167	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
2507	3945	4001	1.094	34.700	27.798	172	0.019	0.004	0.51	-9.00	-9.00	-9.00	1003
2506	4138	4200	0.968	34.709	27.814	187	0.012	0.000	0.55	-9.00	-9.00	-9.00	1003
2505	4335	4402	0.818	34.711	27.825	196	0.001	-0.002	0.57	-9.00	-9.00	-9.00	1003
2504	4529	4601	0.693	34.712	27.834	202	0.001	0.000	0.59	-9.00	-9.00	-9.00	1003
2503	4632	4707	0.675	34.713	27.836	203	0.004	-0.002	0.59	-9.00	-9.00	-9.00	1003
2502	4722	4798	0.663	34.713	27.836	203	0.001	0.002	0.59	-9.00	-9.00	-9.00	1003
2501	4790	4868	0.659	34.711	27.835	203	-9.000	-9.000	0.59	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
27	15 Jun 87	10 05.4 S	169 44.4 W	3780	226.2	407.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2722	50	50	28.871	35.006	22.114	198	1.413	0.739	1.02	1.04	1.04	1.91	1000
2721	99	100	26.861	35.932	23.466	173	1.467	0.742	0.87	1.00	0.98	1.98	1000
2720	148	148	24.078	36.113	24.463	156	1.448	0.753	0.75	0.88	0.90	1.92	1000
2719	198	198	18.598	35.511	25.515	137	1.180	0.613	0.59	0.56	0.58	1.92	1000
2718	299	300	12.215	34.876	26.452	95	0.343	0.209	0.36	0.12	0.15	1.64	1000
2717	455	457	9.127	34.683	26.850	91	0.064	-9.000	0.32	0.02	-9.00	-9.00	1020
2716	495	497	7.880	34.612	26.987	100	0.023	0.020	0.34	-9.00	-9.00	-9.00	1003
2715	990	996	4.520	34.529	27.356	113	0.000	0.003	0.36	-9.00	-9.00	-9.00	1003
2714	1480	1492	2.899	34.585	27.563	130	0.007	-0.001	0.40	-9.00	-9.00	-9.00	1003
2713	1975	1993	2.049	34.638	27.678	139	-0.001	0.002	0.42	-9.00	-9.00	-9.00	1003
2712	2471	2497	1.651	34.667	27.732	142	-0.001	0.002	0.42	-9.00	-9.00	-9.00	1003
2711	2763	2794	1.545	34.673	27.744	147	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
2710	2861	2894	1.474	34.676	27.752	150	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
2709	2962	2997	1.432	34.678	27.757	151	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
2708	3061	3098	1.399	34.681	27.761	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
2707	3160	3199	1.371	34.682	27.764	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
2706	3261	3303	1.344	34.683	27.767	155	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
2705	3354	3398	1.314	34.685	27.771	158	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
2704	3453	3498	1.285	34.685	27.773	158	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
2703	3555	3602	1.259	34.687	27.776	160	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
2702	3658	3708	1.234	34.687	27.778	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2701	3757	3810	1.210	34.689	27.781	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
28	15 Jun 87	10 00.0 S	169 59.7 W	5170	226.2	407.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2823	0	0	28.942	34.753	21.900	204	-9.000	-9.000	1.05	-9.00	-9.00	-9.00	1000
2822	248	249	14.424	35.059	26.143	103	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
2821	493	496	7.888	34.608	26.983	109	-9.000	-9.000	0.38	-9.00	-9.00	-9.00	1000
2820	740	744	5.709	34.510	27.202	129	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
2819	987	994	4.407	34.532	27.371	116	-9.000	-9.000	0.37	-9.00	-9.00	-9.00	1000
2818	1232	1241	3.497	34.557	27.484	123	-9.000	-9.000	0.38	-9.00	-9.00	-9.00	1000
2817	1479	1490	2.843	34.590	27.572	130	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	1000
2816	1729	1744	2.302	34.623	27.645	136	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
2815	1977	1995	2.006	34.642	27.685	139	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
2814	2222	2244	1.814	34.659	27.713	142	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
2813	2470	2497	1.676	34.668	27.731	141	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
2812	2712	2742	1.561	34.674	27.744	144	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
2811	2963	2998	1.449	34.680	27.757	150	-0.002	0.006	0.44	-9.00	-9.00	-9.00	1003
2810	3198	3238	1.369	34.684	27.766	154	-0.003	-0.004	0.45	-9.00	-9.00	-9.00	1003
2809	3451	3497	1.284	34.690	27.777	158	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1033
2808	3697	3748	1.217	34.692	27.783	162	-9.000	-0.003	0.48	-9.00	-9.00	-9.00	1013
2807	3940	3997	1.058	34.709	27.808	183	-9.000	0.004	0.54	-9.00	-9.00	-9.00	1013
2806	4133	4194	0.903	34.716	27.823	201	0.008	0.005	0.59	-9.00	-9.00	-9.00	1003
2805	4334	4400	0.763	34.715	27.832	203	-0.002	0.009	0.59	-9.00	-9.00	-9.00	1003
2804	4528	4599	0.669	34.717	27.839	205	-0.001	0.013	0.60	-9.00	-9.00	-9.00	1003
2803	4723	4800	0.663	34.716	27.839	206	0.001	0.017	0.60	-9.00	-9.00	-9.00	1003
2801	5139	5228	0.651	34.714	27.838	206	0.002	0.017	0.60	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
29	16 Jun 87	10 05.2 S	170 15.1 W	5053	226.2	407.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2921	0	0	29.070	34.758	21.861	200	-9.000	-9.000	1.04	-9.00	-9.00	-9.00	1000
2920	48	48	29.043	34.900	21.977	197	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
2919	71	71	28.751	35.604	22.603	193	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
2918	97	97	26.966	35.893	23.404	169	-9.000	-9.000	0.85	-9.00	-9.00	-9.00	1000
2917	148	149	23.351	36.068	24.643	154	-9.000	-9.000	0.73	-9.00	-9.00	-9.00	1000
2916	196	196	20.299	35.734	25.244	148	-9.000	-9.000	0.66	-9.00	-9.00	-9.00	1000
2915	492	494	7.997	34.620	26.976	95	-9.000	-9.000	0.33	-9.00	-9.00	-9.00	1000
2914	987	993	4.424	34.531	27.368	114	-9.000	-9.000	0.36	-9.00	-9.00	-9.00	1000
2913	1483	1495	2.847	34.590	27.572	129	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	1000
2912	1976	1994	1.998	34.644	27.687	139	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
2911	2468	2494	1.637	34.668	27.734	141	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
2910	2958	2993	1.440	34.680	27.758	149	-0.002	0.000	0.44	-9.00	-9.00	-9.00	1003
2909	3204	3244	1.361	34.685	27.767	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
2908	3453	3498	1.286	34.688	27.775	158	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
2907	3697	3748	1.200	34.692	27.784	164	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
2906	3940	3996	0.998	34.710	27.812	188	-9.000	-9.000	0.55	-9.00	-9.00	-9.00	1000
2905	4139	4200	0.840	34.715	27.827	199	-0.003	0.000	0.58	-9.00	-9.00	-9.00	1003
2904	4333	4400	0.735	34.716	27.834	203	-0.002	0.006	0.59	-9.00	-9.00	-9.00	1003
2903	4533	4605	0.681	34.714	27.836	205	0.000	0.000	0.59	-9.00	-9.00	-9.00	1003
2902	4724	4801	0.672	34.715	27.838	205	-0.002	0.003	0.60	-9.00	-9.00	-9.00	1003
2901	4919	5001	0.668	34.713	27.836	205	0.004	0.001	0.59	-9.00	-9.00	-9.00	1003
2923	5016	5101	0.665	34.713	27.836	206	-0.002	0.000	0.60	-9.00	-9.00	-9.00	1003
2922	5041	5127	0.663	34.714	27.837	205	0.000	-0.002	0.60	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
30	16 Jun 87	10 06.1 S	170 31.3 W	4770	226.2	407.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3020	96	96	26.564	35.945	23.571	175	-9.000	-9.000	0.87	-9.00	-9.00	-9.00	1000
3019	246	247	14.073	35.038	26.202	102	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	1000
3018	495	497	7.464	34.590	27.031	108	-9.000	-9.000	0.37	-9.00	-9.00	-9.00	1000
3017	740	744	5.522	34.508	27.224	128	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
3016	991	997	4.405	34.529	27.369	118	-9.000	-9.000	0.38	-9.00	-9.00	-9.00	1000
3015	1236	1245	3.581	34.551	27.472	127	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	1000
3014	1485	1497	2.804	34.589	27.575	132	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
3013	1730	1745	2.310	34.619	27.641	138	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
3012	1977	1996	2.017	34.642	27.683	142	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
3011	2226	2248	1.811	34.657	27.712	142	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
3010	2472	2499	1.657	34.668	27.732	144	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
3009	2716	2747	1.539	34.674	27.746	147	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
3008	2964	2999	1.428	34.681	27.759	151	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3007	3157	3197	1.375	34.683	27.765	154	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3006	3352	3396	1.314	34.687	27.772	157	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
3005	3551	3598	1.254	34.690	27.779	161	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
3004	3749	3801	1.162	34.694	27.789	170	-0.004	-0.002	0.50	-9.00	-9.00	-9.00	1003
3003	3941	3998	1.020	34.709	27.810	186	0.002	-0.001	0.55	-9.00	-9.00	-9.00	1003
3002	4139	4201	0.835	34.716	27.828	201	-0.002	-0.003	0.59	-9.00	-9.00	-9.00	1003
3001	4335	4401	0.729	34.715	27.834	204	0.001	0.000	0.59	-9.00	-9.00	-9.00	1003
3023	4528	4600	0.715	34.715	27.835	205	-0.001	0.003	0.60	-9.00	-9.00	-9.00	1003
3022	4729	4806	0.697	34.715	27.836	205	-0.001	0.005	0.60	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
31	16 Jun 87	10 07.1 S	170 41.3 W	4700	226.2	407.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3121	0	0	28.993	34.779	21.903	210	-9.000	-9.000	1.08	-9.00	-9.00	-9.00	1000
3120	49	48	28.863	34.847	21.997	199	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
3119	73	73	27.466	35.899	23.247	183	-9.000	-9.000	0.93	-9.00	-9.00	-9.00	1000
3118	97	97	26.581	35.981	23.593	169	-9.000	-9.000	0.85	-9.00	-9.00	-9.00	1000
3117	147	148	22.928	36.028	24.736	154	-9.000	-9.000	0.72	-9.00	-9.00	-9.00	1000
3116	198	198	19.345	35.602	25.394	139	-9.000	-9.000	0.61	-9.00	-9.00	-9.00	1000
3115	468	470	8.317	34.631	26.937	107	-9.000	-9.000	0.38	-9.00	-9.00	-9.00	1000
3114	988	994	4.507	34.532	27.360	112	-9.000	-9.000	0.36	-9.00	-9.00	-9.00	1000
3113	1479	1491	2.871	34.588	27.568	129	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	1000
3112	1977	1995	2.049	34.639	27.679	141	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
3111	2222	2244	1.841	34.654	27.707	142	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
3110	2474	2500	1.645	34.667	27.732	142	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
3109	2715	2746	1.536	34.675	27.747	146	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
3108	2961	2996	1.441	34.680	27.758	150	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3107	3157	3196	1.375	34.683	27.765	152	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3106	3352	3395	1.295	34.688	27.774	158	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
3105	3550	3598	1.241	34.690	27.780	162	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
3104	3745	3797	1.139	34.696	27.792	171	0.000	0.000	0.50	-9.00	-9.00	-9.00	1003
3103	3941	3998	1.030	34.708	27.809	185	0.001	0.001	0.54	-9.00	-9.00	-9.00	1003
3102	4121	4182	0.785	34.715	27.830	202	0.000	0.003	0.59	-9.00	-9.00	-9.00	1003
3101	4331	4397	0.734	34.715	27.834	203	0.006	0.001	0.59	-9.00	-9.00	-9.00	1003
3123	4526	4597	0.720	34.716	27.835	204	0.001	-0.001	0.59	-9.00	-9.00	-9.00	1003
3122	4693	4769	0.702	34.716	27.836	205	0.004	0.002	0.59	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
32	17 Jun 87	12 30.2 S	170 00.0 W	5001	225.8	408.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3223	0	0	28.245	34.806	22.171	204	1.438	0.760	1.04	1.03	1.04	1.89	1000
3222	39	39	28.187	34.796	22.182	206	1.425	0.778	1.05	1.02	1.06	1.83	1000
3221	79	79	27.566	35.703	23.067	171	1.403	0.697	0.87	0.99	0.94	2.01	2000
3220	118	118	25.910	35.832	23.691	160	1.366	0.707	0.79	0.90	0.90	1.93	1000
3219	158	158	23.874	36.049	24.475	151	1.403	0.758	0.72	0.85	0.89	1.85	1000
3218	198	198	20.885	35.776	25.118	145	1.312	0.650	0.66	0.69	0.68	2.02	1000
3217	234	235	18.527	35.485	25.513	138	1.139	0.610	0.60	0.54	0.58	1.87	1000
3216	313	314	13.145	34.922	26.304	118	0.492	0.279	0.46	0.18	0.21	1.76	1000
3215	395	397	9.643	34.654	26.742	122	0.144	0.082	0.44	0.04	0.05	1.75	1000
3214	495	497	7.360	34.539	27.005	139	-9.000	0.041	0.48	-9.00	0.02	-9.00	1013
3213	987	993	4.280	34.509	27.366	138	0.000	0.002	0.44	-9.00	-9.00	-9.00	1003
3212	1977	1995	2.056	34.637	27.677	143	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
3211	2465	2492	1.707	34.655	27.718	146	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
3210	2954	2989	1.478	34.677	27.753	152	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3209	3197	3237	1.388	34.683	27.764	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3208	3453	3499	1.292	34.687	27.774	159	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
3207	3698	3749	1.169	34.696	27.790	170	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	1000
3206	3943	4000	1.006	34.712	27.814	188	-9.000	-9.000	0.55	-9.00	-9.00	-9.00	1000
3205	4138	4199	0.853	34.717	27.828	199	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1000
3204	4333	4400	0.739	34.716	27.834	203	-9.000	-9.000	0.59	-9.00	-9.00	-9.00	1000
3203	4627	4701	0.660	34.714	27.837	205	0.001	0.001	0.60	-9.00	-9.00	-9.00	1103
3202	4821	4901	0.645	34.719	27.842	208	0.001	0.003	0.60	-9.00	-9.00	-9.00	1003
3201	4988	5072	0.644	34.713	27.838	-9	0.003	0.001	-9.00	-9.00	-9.00	-9.00	1103

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
35	19 Jun 87	14 36.5 S	171 00.0 W	3993	227.5	409.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3522	47	47	27.212	35.312	22.887	202	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
3521	97	97	25.335	35.913	23.931	186	-9.000	-9.000	0.91	-9.00	-9.00	-9.00	1000
3520	195	196	20.436	35.746	25.216	167	-9.000	-9.000	0.75	-9.00	-9.00	-9.00	1000
3519	296	297	13.740	34.946	26.200	136	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
3518	395	396	9.907	34.655	26.699	123	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3517	494	496	7.638	34.523	26.953	145	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	1000
3516	590	593	6.255	34.475	27.105	148	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
3515	790	794	4.986	34.486	27.270	140	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3514	986	993	4.277	34.511	27.368	136	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
3513	1239	1248	3.430	34.549	27.485	132	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
3512	1485	1496	2.811	34.584	27.570	137	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
3511	1719	1733	2.419	34.609	27.624	142	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
3510	1979	1997	2.098	34.633	27.670	145	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
3509	2224	2246	1.874	34.648	27.700	146	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1031
3508	2469	2495	1.755	34.659	27.718	147	0.003	-9.000	0.44	-9.00	-9.00	-9.00	1021
3507	2712	2742	1.612	34.667	27.735	147	0.000	-0.001	0.44	-9.00	-9.00	-9.00	1103
3506	2962	2998	1.522	34.674	27.747	150	0.000	0.002	0.44	-9.00	-9.00	-9.00	1003
3505	3159	3199	1.439	34.677	27.755	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3504	3348	3392	1.344	34.683	27.767	157	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
3503	3542	3589	1.238	34.690	27.780	167	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
3502	3743	3795	1.123	34.700	27.796	175	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
3501	3942	3998	0.896	34.712	27.821	194	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
36	19 Jun 87	15 00.2 S	171 30.8 W	4375	227.5	409.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3603	0	0	26.909	35.200	22.900	201	1.481	-9.000	1.01	1.00	-9.00	-9.00	1020
3602	28	28	26.906	35.327	22.996	202	1.480	0.807	1.01	1.00	1.06	1.83	1000
3601	58	58	26.834	35.374	23.055	202	1.474	0.794	1.01	0.99	1.04	1.86	1000
3623	89	89	25.784	35.884	23.770	192	1.435	0.766	0.95	0.93	0.97	1.87	1000
3622	117	117	23.769	35.960	24.438	179	1.444	0.754	0.85	0.86	0.88	1.91	1000
3621	146	146	22.631	35.995	24.796	168	1.465	0.752	0.79	0.83	0.84	1.95	1000
3620	176	176	21.493	35.868	25.021	167	1.392	0.719	0.77	0.75	0.77	1.94	1000
3619	208	209	19.780	35.657	25.322	167	1.309	0.669	0.74	0.65	0.67	1.96	1000
3618	235	236	18.844	35.536	25.472	168	1.234	0.640	0.73	0.59	0.61	1.93	1000
3617	267	267	17.137	35.336	25.740	165	1.092	0.569	0.70	0.48	0.51	1.92	1000
3616	297	298	14.967	35.135	26.084	169	0.940	0.491	0.68	0.37	0.40	1.92	1000
3615	330	331	12.796	34.889	26.349	162	0.649	0.346	0.63	0.23	0.25	1.87	1000
3614	399	400	9.413	34.603	26.741	161	0.304	0.184	0.58	0.09	0.11	1.65	1000
3613	493	496	6.944	34.431	26.979	178	-9.000	-9.000	0.60	-9.00	-9.00	-9.00	1000
3612	641	644	5.664	34.461	27.169	155	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
3611	792	796	4.637	34.475	27.300	149	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
3610	1483	1495	2.598	34.594	27.597	140	-0.003	0.001	0.43	-9.00	-9.00	-9.00	1003
3609	1975	1994	2.010	34.639	27.682	145	0.004	-0.002	0.43	-9.00	-9.00	-9.00	1003
3608	2470	2496	1.707	34.662	27.724	147	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
3607	2963	2998	1.497	34.676	27.750	149	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
3606	3452	3497	1.253	34.691	27.780	163	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
3605	3945	4002	0.930	34.717	27.823	197	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1000
3604	4374	4442	0.675	34.713	27.836	205	-9.000	-9.000	0.60	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
37	19 Jun 87	14 58.6 S	172 28.1 W	5516	227.5	409.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3703	0	0	26.450	35.326	23.140	206	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
3702	72	72	26.118	35.433	23.325	206	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
3701	132	132	22.973	35.830	24.573	181	-9.000	-9.000	0.85	-9.00	-9.00	-9.00	1000
3723	356	357	10.980	34.706	26.551	151	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1000
3722	593	596	5.859	34.424	27.115	170	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1000
3721	988	995	3.744	34.486	27.403	154	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
3720	1235	1244	3.074	34.545	27.515	146	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3719	1483	1495	2.702	34.587	27.582	141	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
3718	1729	1744	2.375	34.610	27.629	144	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
3717	1976	1994	2.067	34.635	27.674	145	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
3716	2223	2246	1.868	34.651	27.702	146	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
3715	2468	2494	1.726	34.661	27.721	149	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3714	2715	2746	1.600	34.670	27.738	150	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3713	2961	2996	1.487	34.674	27.750	148	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
3712	3205	3246	1.408	34.681	27.761	166	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
3711	3451	3496	1.262	34.689	27.778	164	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
3710	3687	3737	1.116	34.699	27.796	175	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000
3709	3942	3998	0.910	34.718	27.825	197	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1000
3708	4334	4400	0.716	34.715	27.835	205	-0.006	-0.001	0.60	-9.00	-9.00	-9.00	1003
3707	4719	4796	0.648	34.713	27.837	210	0.005	0.002	0.61	-9.00	-9.00	-9.00	1003
3706	5015	5100	0.630	34.713	27.839	206	0.002	0.001	0.60	-9.00	-9.00	-9.00	1103
3705	5307	5401	0.620	34.712	27.838	206	-0.002	0.001	0.60	-9.00	-9.00	-9.00	1103
3704	5505	5605	0.618	34.711	27.838	208	0.000	0.003	0.60	-9.00	-9.00	-9.00	1103

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
38	19 Jun 87	15 00.5 S	172 53.7 W	6916	228.8	412.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3803	0	0	26.435	35.352	23.164	206	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
3802	48	48	26.073	35.418	23.328	208	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
3801	142	142	22.742	35.991	24.761	171	-9.000	-9.000	0.80	-9.00	-9.00	-9.00	1000
3823	339	341	11.902	34.818	26.467	159	-9.000	-9.000	0.60	-9.00	-9.00	-9.00	1000
3822	592	595	6.249	34.451	27.087	163	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
3821	987	993	3.930	34.521	27.412	139	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
3820	1484	1496	2.624	34.590	27.591	146	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3819	2469	2496	1.741	34.659	27.719	142	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
3818	2962	2997	1.487	34.674	27.750	149	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
3817	3204	3244	1.363	34.682	27.765	155	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
3816	3449	3494	1.224	34.692	27.783	167	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
3815	3696	3747	1.031	34.706	27.807	185	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
3814	3942	3999	0.855	34.717	27.827	204	-9.000	-9.000	0.59	-9.00	-9.00	-9.00	1000
3813	4189	4252	0.749	34.716	27.833	205	-9.000	-9.000	0.60	-9.00	-9.00	-9.00	1000
3812	4425	4494	0.678	34.715	27.837	206	-9.000	-9.000	0.60	-9.00	-9.00	-9.00	1000
3811	4676	4751	0.642	34.713	27.838	207	-0.003	-0.002	0.60	-9.00	-9.00	-9.00	1003
3810	4910	4992	0.622	34.712	27.838	209	-0.005	-0.003	0.61	-9.00	-9.00	-9.00	1003
3809	5161	5250	0.611	34.709	27.836	205	-9.000	-9.000	0.59	-9.00	-9.00	-9.00	1000
3808	5402	5499	0.604	34.711	27.839	208	0.005	0.001	0.60	-9.00	-9.00	-9.00	1003
3807	5645	5750	0.598	34.710	27.838	207	0.002	0.000	0.60	-9.00	-9.00	-9.00	1003
3806	5886	5998	0.591	34.711	27.839	207	0.005	-0.002	0.60	-9.00	-9.00	-9.00	1103
3805	5981	6097	0.592	34.711	27.839	222	-0.001	0.016	0.64	-9.00	-9.00	-9.00	2003
3804	6074	6192	0.590	34.710	27.838	178	0.000	0.001	0.52	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
40	20 Jun 87	15 01.0 S	173 45.0 W	2445	228.8	412.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4023	1	1	26.270	35.381	23.238	207	1.515	0.809	1.03	0.99	1.02	1.88	1100
4022	29	29	26.138	35.397	23.292	208	1.516	0.833	1.03	0.99	1.05	1.82	1000
4021	58	58	26.047	35.442	23.354	208	1.544	0.803	1.03	1.01	1.01	1.92	1100
4020	89	89	25.997	35.525	23.432	210	1.501	0.793	1.04	0.97	1.00	1.89	1000
4019	118	118	24.180	35.970	24.324	183	1.444	0.779	0.88	0.87	0.92	1.85	1000
4018	148	148	22.034	35.893	24.889	177	1.486	0.798	0.82	0.81	0.87	1.86	1000
4017	177	177	20.944	35.816	25.132	173	1.412	0.742	0.79	0.74	0.77	1.90	1000
4016	209	210	19.295	35.617	25.418	172	1.289	0.681	0.76	0.62	0.66	1.89	1000
4015	236	237	17.410	35.374	25.704	170	1.140	0.594	0.72	0.50	0.53	1.92	1000
4014	267	268	15.742	35.203	25.964	170	1.024	0.536	0.70	0.41	0.44	1.91	1000
4013	296	297	14.480	35.059	26.131	164	0.848	0.435	0.65	0.32	0.34	1.95	1000
4012	335	337	12.862	34.883	26.331	150	0.617	0.327	0.58	0.22	0.24	1.89	1000
4011	395	396	10.365	34.672	26.633	153	0.336	0.197	0.56	0.10	0.13	1.71	1000
4010	494	497	7.248	34.442	26.945	189	0.185	0.112	0.64	0.05	0.06	1.65	1000
4009	643	647	5.714	34.464	27.165	154	0.023	0.010	0.51	-9.00	-9.00	-9.00	1003
4008	791	795	4.901	34.472	27.268	152	0.010	0.003	0.49	-9.00	-9.00	-9.00	1003
4007	990	996	3.925	34.514	27.407	142	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
4006	1185	1194	3.221	34.536	27.494	149	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
4005	1384	1394	2.800	34.571	27.561	147	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
4004	1582	1595	2.527	34.595	27.604	147	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
4003	1976	1995	2.178	34.626	27.658	146	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
4002	2171	2193	1.990	34.640	27.684	145	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
4001	2304	2327	1.857	34.651	27.703	145	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
44	21 Jun 87	14 53.6 S	178 00.5 W	1525	227.3	410.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4420	0	0	26.734	35.327	23.051	212	1.498	-9.000	1.06	1.01	-9.00	-9.00	1020
4419	337	338	12.811	34.874	26.334	143	0.552	-9.000	0.55	0.19	-9.00	-9.00	1020
4418	375	376	11.892	34.799	26.454	142	0.443	-9.000	0.54	0.15	-9.00	-9.00	1020
4417	415	417	9.963	34.664	26.696	139	0.249	-9.000	0.50	0.07	-9.00	-9.00	1020
4413	453	455	8.609	34.571	26.844	152	0.173	-9.000	0.54	0.05	-9.00	-9.00	1020
4411	513	515	7.360	34.487	26.964	171	0.131	-9.000	0.59	0.03	-9.00	-9.00	1020
4410	574	576	6.308	34.448	27.077	170	0.061	-9.000	0.57	0.01	-9.00	-9.00	1020
4405	643	646	5.500	34.431	27.165	170	0.029	-9.000	0.56	-9.00	-9.00	-9.00	1021
4404	793	797	4.360	34.451	27.311	162	0.006	-9.000	0.51	-9.00	-9.00	-9.00	1023
4403	992	999	3.600	34.503	27.431	153	0.001	-9.000	0.48	-9.00	-9.00	-9.00	1023
4402	1236	1245	3.093	34.555	27.521	145	0.000	-9.000	0.45	-9.00	-9.00	-9.00	1021
4401	1468	1479	2.715	34.583	27.578	149	0.001	-9.000	0.45	-9.00	-9.00	-9.00	1021

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
45	21 Jun 87	14 54.2 S	177 59.9 W	1590	227.3	410.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4520	2	2	26.733	35.328	23.052	204	1.492	0.871	1.02	1.00	1.13	1.71	1000
4519	28	28	26.687	35.350	23.083	205	1.506	-9.000	1.02	1.01	-9.00	-9.00	1020
4518	42	42	26.649	35.362	23.104	209	1.456	0.861	1.04	0.98	1.11	1.69	1000
4517	58	58	26.617	35.382	23.130	206	1.501	0.864	1.03	1.00	1.12	1.74	1000
4513	88	88	25.246	35.916	23.960	186	1.448	0.906	0.91	0.92	1.12	1.60	1000
4511	117	117	24.539	36.000	24.239	176	1.442	0.786	0.85	0.89	0.94	1.83	1000
4510	147	148	23.328	36.038	24.627	164	1.434	0.745	0.78	0.84	0.85	1.92	1000
4505	177	177	21.769	35.959	25.013	160	1.390	0.833	0.74	0.76	0.90	1.67	1000
4504	207	208	20.495	35.757	25.209	165	1.353	0.759	0.74	0.70	0.78	1.78	1000
4503	238	239	18.992	35.574	25.463	169	1.288	0.687	0.74	0.62	0.66	1.87	1000
4502	267	267	18.053	35.477	25.625	174	1.261	0.661	0.75	0.58	0.61	1.91	1000
4501	298	299	16.179	35.248	25.898	173	1.081	0.649	0.72	0.45	0.55	1.67	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
48	22 Jun 87	14 46.5 S	178 59.2 E	2805	226.5	408.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4820	0	0	26.545	35.230	23.038	216	1.463	-9.000	1.07	0.98	-9.00	-9.00	1020
4819	336	337	13.264	34.959	26.309	168	0.746	0.455	0.65	0.27	0.34	1.64	1000
4818	376	377	11.999	34.855	26.477	171	0.677	0.343	0.65	0.23	0.24	1.97	1000
4817	444	446	9.238	34.596	26.764	177	0.347	0.256	0.63	0.10	0.16	1.36	1000
4813	542	545	7.096	34.488	27.002	166	0.095	0.090	0.56	0.02	0.05	1.06	1000
4811	643	646	5.620	34.369	27.102	192	0.051	0.058	0.63	0.01	0.03	0.87	1000
4810	792	797	4.549	34.416	27.263	172	0.008	0.005	0.55	-9.00	-9.00	-9.00	1003
4805	990	996	3.601	34.484	27.416	159	0.000	0.009	0.50	-9.00	-9.00	-9.00	1103
4804	1481	1493	2.603	34.594	27.597	145	-0.002	-0.003	0.44	-9.00	-9.00	-9.00	1003
4803	1978	1996	2.098	34.634	27.671	146	0.000	-9.000	0.44	-9.00	-9.00	-9.00	1021
4802	2221	2244	1.908	34.649	27.698	146	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
4801	2700	2731	1.739	34.660	27.720	146	0.003	-0.010	0.43	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
49	22 Jun 87	14 50.4 S	179 00.5 E	2700	226.5	408.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4920	0	0	26.356	35.253	23.115	209	-9.000	-9.000	1.04	-9.00	-9.00	-9.00	1000
4920	0	0	26.356	35.253	23.115	209	1.492	-9.000	1.04	0.99	-9.00	-9.00	1020
4919	28	28	26.038	35.362	23.297	208	1.504	0.785	1.03	0.99	1.00	1.91	1000
4919	28	28	26.038	35.362	23.297	208	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
4918	43	44	25.602	35.386	23.450	209	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
4918	43	44	25.602	35.386	23.450	209	1.522	0.850	1.03	0.98	1.06	1.79	1000
4917	58	58	25.501	35.396	23.489	210	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
4917	58	58	25.501	35.396	23.489	210	1.530	0.837	1.03	0.98	1.04	1.83	1000
4912	88	88	25.321	35.416	23.560	211	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
4913	88	88	25.321	35.416	23.560	211	1.536	0.885	1.03	0.98	1.09	1.74	1000
4911	119	119	24.356	35.512	23.925	204	1.548	0.901	0.98	0.95	1.07	1.72	1000
4911	119	119	24.356	35.512	23.925	204	-9.000	-9.000	0.98	-9.00	-9.00	-9.00	1000
4910	149	149	23.524	35.897	24.463	177	1.458	0.780	0.84	0.86	0.90	1.87	1000
4910	149	149	23.524	35.897	24.463	177	-9.000	-9.000	0.84	-9.00	-9.00	-9.00	1000
4905	177	177	22.427	35.942	24.814	168	-9.000	-9.000	0.78	-9.00	-9.00	-9.00	1000
4905	177	177	22.427	35.942	24.814	168	1.399	0.725	0.78	0.79	0.81	1.93	1000
4904	207	207	20.319	35.737	25.240	172	1.344	0.693	0.77	0.69	0.71	1.94	1000
4904	207	207	20.319	35.737	25.240	172	-9.000	-9.000	0.77	-9.00	-9.00	-9.00	1000
4903	236	237	18.834	35.564	25.496	174	-9.000	-9.000	0.76	-9.00	-9.00	-9.00	1000
4903	236	237	18.834	35.564	25.496	174	1.278	0.652	0.76	0.61	0.63	1.96	1000
4902	265	266	17.377	35.395	25.728	174	-9.000	-9.000	0.74	-9.00	-9.00	-9.00	1000
4902	265	266	17.377	35.395	25.728	174	1.141	0.611	0.74	0.51	0.55	1.87	1000
4901	297	298	15.994	35.242	25.936	173	-9.000	-9.000	0.71	-9.00	-9.00	-9.00	1000
4901	297	298	15.994	35.242	25.936	173	1.020	0.546	0.71	0.42	0.46	1.87	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
52	23 Jun 87	14 41.6 S	175 59.5 E	2836	226.5	408.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5220	0	0	26.531	35.093	22.939	210	1.474	0.826	1.04	0.98	1.06	1.78	1000
5222	333	334	13.503	34.980	26.276	165	0.758	0.394	0.65	0.28	0.30	1.93	1000
5218	374	375	12.051	34.831	26.449	160	0.567	0.327	0.61	0.19	0.23	1.73	1000
5217	446	448	9.365	34.618	26.760	169	0.315	0.229	0.61	0.09	0.14	1.38	1000
5213	543	545	6.818	34.418	26.986	193	0.156	0.131	0.65	0.04	0.07	1.19	1000
5211	642	646	5.505	34.368	27.115	191	0.047	0.060	0.62	0.01	0.03	0.79	1000
5210	790	795	4.516	34.426	27.275	168	0.009	0.008	0.54	-9.00	-9.00	-9.00	1003
5205	987	993	3.690	34.515	27.432	149	0.002	0.003	0.47	-9.00	-9.00	-9.00	1003
5204	1481	1493	2.639	34.592	27.592	142	-0.001	0.000	0.43	-9.00	-9.00	-9.00	1003
5203	1964	1982	2.088	34.634	27.672	145	0.000	-0.002	0.44	-9.00	-9.00	-9.00	1003
5202	2468	2494	1.722	34.660	27.721	145	0.000	0.002	0.43	-9.00	-9.00	-9.00	1003
5201	2764	2796	1.650	34.665	27.730	146	0.002	0.011	0.43	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
53	23 Jun 87	14 41.1 S	175 59.9 E	2836	226.5	408.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5320	0	0	26.496	35.105	22.959	205	1.425	-9.000	1.02	0.95	-9.00	-9.00	1020
5322	29	29	26.516	35.105	22.952	205	1.425	0.805	1.02	0.95	1.04	1.77	1000
5318	44	44	26.510	35.106	22.955	205	1.421	0.802	1.02	0.95	1.03	1.77	1000
5317	58	58	26.023	35.345	23.288	208	1.446	0.809	1.03	0.95	1.03	1.79	1000
5313	87	87	25.390	35.432	23.550	204	1.449	0.816	1.00	0.92	1.01	1.78	1000
5311	118	118	23.586	35.614	24.230	193	1.486	0.796	0.92	0.88	0.92	1.87	1000
5310	148	148	22.582	35.602	24.512	185	1.530	0.848	0.86	0.87	0.95	1.80	1000
5305	177	177	21.621	35.754	24.898	179	1.459	0.804	0.82	0.79	0.86	1.82	1000
5304	207	207	20.341	35.696	25.203	181	1.479	0.776	0.81	0.76	0.79	1.91	1000
5303	234	235	18.982	35.611	25.494	182	-9.000	0.705	0.80	-9.00	0.68	-9.00	1010
5302	265	266	17.760	35.506	25.720	187	1.372	0.699	0.80	0.62	0.64	1.96	1000
5301	300	300	16.447	35.323	25.894	179	1.137	0.581	0.74	0.48	0.50	1.96	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
56	23 Jun 87	14 35.5 S	172 59.0 E	3187	226.2	410.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5620	0	0	26.007	35.326	23.279	206	1.533	-9.000	1.02	1.00	-9.00	-9.00	1020
5622	334	335	14.385	35.119	26.198	183	1.006	0.549	0.73	0.39	0.43	1.83	1000
5618	374	376	13.136	34.984	26.354	176	0.827	0.425	0.68	0.30	0.32	1.95	1000
5617	443	445	9.854	34.673	26.722	160	0.342	0.192	0.58	0.10	0.12	1.78	1000
5613	541	544	7.640	34.529	26.957	168	0.179	0.126	0.58	0.05	0.07	1.42	1000
5611	640	644	6.202	34.431	27.077	177	0.073	0.047	0.59	0.02	0.02	1.57	1000
5610	791	795	4.878	34.412	27.223	173	0.017	0.010	0.56	-9.00	-9.00	-9.00	1003
5605	987	994	3.836	34.482	27.391	158	0.005	0.004	0.50	-9.00	-9.00	-9.00	1003
5604	1480	1492	2.666	34.589	27.587	145	0.001	0.001	0.44	-9.00	-9.00	-9.00	1003
5603	1969	1987	2.086	34.634	27.672	146	0.003	0.002	0.44	-9.00	-9.00	-9.00	1003
5602	2470	2496	1.731	34.659	27.719	146	0.001	-9.000	0.44	-9.00	-9.00	-9.00	1023
5601	3119	3158	1.532	34.669	27.742	146	0.001	-0.001	0.43	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
57	24 Jun 87	14 34.7 S	172 59.8 E	3187	226.2	410.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5720	0	0	25.995	35.335	23.290	-9	1.493	0.816	-9.00	0.98	1.03	1.83	1000
5722	29	29	25.953	35.335	23.303	205	1.496	0.826	1.01	0.98	1.04	1.81	1000
5718	44	44	25.932	35.341	23.314	205	1.484	0.817	1.01	0.97	1.03	1.82	1000
5717	59	59	25.915	35.350	23.326	206	1.498	0.841	1.02	0.98	1.06	1.78	1000
5713	88	88	24.608	35.618	23.929	200	1.491	0.823	0.97	0.92	0.99	1.81	1000
5711	117	118	23.037	35.743	24.488	177	1.470	0.808	0.84	0.85	0.92	1.82	1000
5710	147	147	22.410	35.751	24.674	165	1.433	0.806	0.77	0.81	0.89	1.78	1000
5705	178	179	21.179	35.727	25.000	172	1.449	0.780	0.79	0.77	0.82	1.86	1000
5704	207	207	19.989	35.669	25.276	176	1.395	0.742	0.78	0.70	0.74	1.88	1000
5703	236	237	18.451	35.561	25.590	174	1.328	0.692	0.75	0.62	0.65	1.92	1000
5702	266	267	17.268	35.445	25.793	178	1.246	0.678	0.75	0.55	0.61	1.84	1000
5701	298	299	15.283	35.211	26.073	180	1.072	0.554	0.73	0.43	0.45	1.93	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
61	24 Jun 87	14 30.4 S	169 59.9 E	3723	226.3	410.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6120	344	346	12.891	34.932	26.363	162	0.686	0.361	0.63	0.24	0.26	1.90	1000
6122	444	447	8.728	34.582	26.834	165	0.227	0.136	0.58	0.06	0.08	1.67	1000
6118	542	545	6.865	34.462	27.014	178	0.113	-9.000	0.60	0.03	-9.00	-9.00	1020
6117	642	646	5.816	34.419	27.117	178	0.047	0.079	0.59	0.01	0.04	0.60	1000
6113	789	795	4.866	34.423	27.233	171	0.020	0.011	0.55	-9.00	-9.00	-9.00	1003
6111	988	996	3.832	34.490	27.398	155	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
6110	1977	1996	2.076	34.636	27.674	145	0.000	0.002	0.44	-9.00	-9.00	-9.00	1003
6105	2467	2494	1.736	34.658	27.718	144	0.003	0.000	0.43	-9.00	-9.00	-9.00	1003
6104	2960	2996	1.557	34.668	27.740	145	0.001	0.001	0.43	-9.00	-9.00	-9.00	1003
6103	3202	3244	1.511	34.672	27.746	146	-0.001	0.003	0.43	-9.00	-9.00	-9.00	1003
6102	3451	3497	1.487	34.670	27.746	146	-0.001	-0.004	0.43	-9.00	-9.00	-9.00	1003
6101	3631	3681	1.473	34.673	27.750	146	0.000	-9.000	0.43	-9.00	-9.00	-9.00	1021

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
62	25 Jun 87	14 30.3 S	169 59.7 E	3723	226.3	410.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6220	0	0	26.434	35.159	23.019	203	1.491	0.809	1.01	0.99	1.03	1.84	1000
6222	28	28	26.413	35.156	23.024	205	1.494	0.827	1.02	0.99	1.06	1.81	1000
6218	43	43	26.402	35.158	23.028	204	1.481	0.804	1.01	0.98	1.03	1.84	1000
6217	58	58	26.432	35.162	23.022	204	1.497	0.823	1.01	1.00	1.05	1.82	1000
6213	88	88	26.592	35.381	23.137	202	1.464	0.798	1.01	0.98	1.03	1.84	1000
6211	116	116	24.205	35.733	24.137	182	1.460	0.790	0.87	0.89	0.94	1.85	1000
6210	145	145	22.726	35.778	24.604	173	1.468	0.767	0.81	0.84	0.86	1.91	1000
6205	177	178	21.422	35.769	24.965	172	1.447	0.748	0.79	0.78	0.80	1.93	1000
6204	207	208	20.292	35.710	25.227	173	1.386	0.704	0.78	0.71	0.71	1.97	1000
6203	240	241	18.341	35.492	25.565	167	1.126	0.588	0.72	0.52	0.55	1.91	1000
6202	267	268	17.125	35.341	25.747	160	0.956	0.490	0.67	0.42	0.43	1.95	1000
6201	297	298	15.347	35.146	26.008	155	0.931	0.460	0.63	0.37	0.38	2.02	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
68	26 Jun 87	14 14.5 S	166 38.2 E	3142	226.3	410.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6823	0	0	26.608	35.017	22.857	205	1.495	0.821	1.02	1.00	1.05	1.84	1100
6822	28	28	26.613	35.095	22.915	205	1.493	0.798	1.02	1.00	1.03	1.87	1000
6821	57	57	26.449	35.236	23.072	203	1.512	0.790	1.01	1.01	1.01	1.91	1000
6820	87	87	26.181	35.323	23.222	202	1.490	0.795	1.00	0.98	1.01	1.87	1000
6819	119	119	24.305	35.786	24.147	179	1.460	0.764	0.86	0.89	0.91	1.91	1000
6818	148	148	23.430	35.868	24.469	169	1.435	0.748	0.80	0.85	0.86	1.92	1000
6817	174	175	22.076	35.867	24.857	-9	1.395	0.741	-9.00	0.78	0.81	1.88	1000
6816	204	205	21.158	35.789	25.053	160	1.350	0.707	0.73	0.72	0.74	1.91	1000
6815	238	238	19.502	35.618	25.365	158	1.250	0.656	0.70	0.62	0.64	1.91	1000
6814	267	267	18.204	35.486	25.595	168	1.204	0.629	0.73	0.56	0.58	1.91	1000
6813	296	297	16.885	35.317	25.786	170	1.074	0.564	0.71	0.47	0.49	1.90	1000
6812	335	336	13.159	34.987	26.351	172	0.773	0.406	0.67	0.28	0.30	1.91	1000
6811	369	370	12.088	34.884	26.483	168	0.667	0.347	0.64	0.23	0.24	1.92	1000
6810	446	448	9.471	34.648	26.766	173	0.333	0.185	0.62	0.10	0.11	1.80	1000
6809	542	544	6.981	34.465	27.000	181	0.125	0.077	0.61	0.03	0.04	1.61	1000
6808	644	647	5.714	34.444	27.149	173	0.038	0.027	0.57	0.01	-9.00	-9.00	1002
6807	791	796	4.515	34.449	27.293	164	0.012	0.014	0.52	-9.00	-9.00	-9.00	1003
6806	989	995	3.664	34.503	27.425	155	0.008	0.009	0.49	-9.00	-9.00	-9.00	1003
6805	1976	1995	2.138	34.639	27.672	146	0.002	0.000	0.44	-9.00	-9.00	-9.00	1003
6804	2470	2497	1.790	34.663	27.718	148	-0.002	0.001	0.44	-9.00	-9.00	-9.00	1003
6803	2716	2746	1.675	34.668	27.731	146	0.000	-0.001	0.43	-9.00	-9.00	-9.00	1003
6802	2961	2997	1.564	34.674	27.744	149	0.000	-0.004	0.44	-9.00	-9.00	-9.00	1003
6801	3168	3208	1.515	34.678	27.751	149	-9.000	0.001	0.44	-9.00	-9.00	-9.00	1013

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
73	27 Jun 87	14 30.3 S	164 29.7 E	4266	226.1	409.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7322	0	0	26.911	34.894	22.668	225	1.474	-9.000	1.12	1.00	-9.00	-9.00	2020
7321	29	29	26.715	34.895	22.731	203	1.475	0.800	1.01	0.99	1.03	1.84	1000
7320	58	58	26.719	34.907	22.739	225	1.469	0.782	1.12	0.99	1.01	1.88	2000
7301	98	98	25.215	35.507	23.661	188	1.425	0.764	0.92	0.91	0.94	1.86	1000
7318	122	122	24.011	35.832	24.270	195	1.425	0.773	0.93	0.86	0.91	1.84	2000
7317	161	162	22.403	35.812	24.722	161	1.353	0.715	0.75	0.76	0.79	1.89	1000
7316	197	197	19.949	35.690	25.303	167	1.298	0.676	0.74	0.65	0.68	1.92	1000
7315	246	246	17.587	35.447	25.717	170	1.197	0.631	0.72	0.54	0.57	1.91	1100
7314	295	296	15.897	35.269	25.979	161	1.037	0.551	0.66	0.43	0.46	1.88	1100
7313	344	345	14.019	35.076	26.243	164	0.788	0.433	0.65	0.30	0.34	1.82	1000
7312	397	398	11.944	34.884	26.510	162	0.555	0.325	0.61	0.19	0.23	1.71	1000
7311	444	446	10.754	34.760	26.633	162	0.408	0.242	0.60	0.13	0.16	1.68	1000
7310	495	497	8.811	34.600	26.835	-9	0.233	0.160	-9.00	0.07	0.10	1.46	2000
7309	544	546	7.935	34.544	26.926	176	0.181	0.127	0.61	0.05	0.07	1.42	1000
7308	593	596	7.065	34.469	26.992	-9	0.128	0.084	-9.00	0.03	0.05	1.52	2000
7307	692	695	5.904	34.445	27.126	176	0.047	0.063	0.58	0.01	0.03	0.75	1000
7306	791	795	5.027	34.447	27.234	-9	0.019	0.028	-9.00	-9.00	-9.00	-9.00	2003
7304	1003	1009	3.930	34.489	27.387	158	0.000	0.009	0.50	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
78	28 Jun 87	14 28.4 S	161 59.7 E	3600	226.1	409.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7803	0	0	26.804	34.872	22.686	205	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
7802	23	23	26.768	34.868	22.694	207	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
7825	50	50	26.747	34.865	22.699	205	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
7823	99	99	26.181	35.419	23.295	195	-9.000	-9.000	0.96	-9.00	-9.00	-9.00	1000
7822	158	158	22.695	35.828	24.651	159	-9.000	-9.000	0.74	-9.00	-9.00	-9.00	1000
7821	297	297	15.719	35.219	25.981	161	-9.000	-9.000	0.66	-9.00	-9.00	-9.00	1000
7820	593	596	6.842	34.478	27.030	179	-9.000	-9.000	0.61	-9.00	-9.00	-9.00	1000
7801	991	998	3.982	34.500	27.390	157	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
7818	1237	1246	3.316	34.549	27.495	152	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
7817	1481	1493	2.821	34.593	27.576	140	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
7816	1729	1744	2.470	34.617	27.626	142	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
7815	1976	1994	2.183	34.638	27.667	144	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
7814	2224	2246	2.010	34.655	27.694	148	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
7813	2469	2495	1.849	34.668	27.718	152	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
7812	2665	2694	1.757	34.680	27.734	159	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
7811	2764	2795	1.719	34.685	27.741	161	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
7810	2957	2992	1.649	34.689	27.750	163	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
7809	3059	3096	1.614	34.691	27.754	162	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
7808	3156	3195	1.590	34.691	27.755	163	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
7807	3253	3294	1.562	34.692	27.758	162	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
7806	3355	3398	1.547	34.694	27.761	164	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
7805	3428	3473	1.541	34.693	27.761	164	0.001	0.000	0.49	-9.00	-9.00	-9.00	1103
7804	3582	3630	1.530	34.694	27.762	165	-0.001	-0.001	0.49	-9.00	-9.00	-9.00	1103

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
80	28 Jun 87	14 32.4 S	160 58.2 E	2315	226.1	409.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
8023	0	0	26.658	35.029	22.850	202	1.470	0.781	1.01	0.99	1.00	1.89	1100
8022	28	28	26.663	35.029	22.849	203	1.476	0.781	1.01	0.99	1.01	1.89	1000
8021	58	58	26.674	35.032	22.848	206	1.487	0.767	1.03	1.00	0.99	1.94	1000
8020	98	98	26.086	35.456	23.352	188	1.411	0.778	0.93	0.93	0.99	1.81	1000
8001	123	123	24.452	35.706	24.043	168	1.404	0.776	0.81	0.87	0.93	1.81	1000
8018	148	148	23.259	35.843	24.499	156	1.357	0.713	0.74	0.80	0.82	1.90	1000
8017	197	197	20.297	35.690	25.210	160	1.283	0.669	0.72	0.66	0.68	1.92	1000
8016	246	247	18.120	35.480	25.611	164	1.135	0.608	0.70	0.52	0.56	1.87	1000
8015	296	297	16.209	35.295	25.927	164	1.053	0.552	0.68	0.44	0.47	1.91	1000
8014	346	347	13.984	35.131	26.292	169	0.864	0.456	0.67	0.32	0.35	1.90	1000
8013	395	396	11.690	34.863	26.542	160	0.505	0.274	0.60	0.17	0.19	1.85	1000
8012	446	448	9.771	34.693	26.751	166	0.323	0.217	0.60	0.10	0.14	1.49	1000
8011	494	496	8.601	34.597	26.866	172	0.228	0.158	0.61	0.06	0.09	1.44	1000
8010	544	546	7.434	34.513	26.974	175	0.131	0.088	0.60	0.03	0.05	1.49	1000
8009	592	595	6.904	34.484	27.026	178	0.102	0.069	0.60	0.03	0.04	1.48	1000
8008	693	696	5.663	34.443	27.155	173	0.033	0.036	0.57	0.01	0.02	0.91	1000
8007	791	795	5.061	34.458	27.239	165	0.021	0.015	0.53	-9.00	-9.00	-9.00	1003
8006	988	994	4.016	34.489	27.378	157	0.005	0.007	0.50	-9.00	-9.00	-9.00	1003
8005	1235	1243	3.277	34.562	27.510	144	0.001	0.001	0.45	-9.00	-9.00	-9.00	1003
8004	1484	1495	2.796	34.595	27.580	139	-0.003	0.004	0.43	-9.00	-9.00	-9.00	1003
8003	1690	1704	2.520	34.615	27.620	141	-0.001	0.002	0.43	-9.00	-9.00	-9.00	1003
8002	1976	1995	2.141	34.644	27.675	146	-0.002	0.004	0.44	-9.00	-9.00	-9.00	1003
8025	2357	2381	1.913	34.666	27.711	156	0.003	0.001	0.47	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
84	29 Jun 87	14 31.2 S	159 00.0 E	2991	227.0	411.3

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
8423	0	0	26.669	35.032	22.849	205	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
8422	22	22	26.608	35.030	22.867	205	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
8421	39	39	26.597	35.030	22.870	204	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
8420	77	77	26.485	35.227	23.054	199	-9.000	-9.000	0.99	-9.00	-9.00	-9.00	1000
8401	98	98	25.280	35.589	23.703	181	-9.000	-9.000	0.88	-9.00	-9.00	-9.00	1000
8418	122	122	23.457	35.749	24.371	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
8417	136	136	22.313	35.783	24.726	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
8416	196	197	19.385	35.625	25.401	157	-9.000	-9.000	0.69	-9.00	-9.00	-9.00	1000
8415	393	395	11.288	34.818	26.582	145	0.355	0.202	0.54	0.11	0.14	1.75	1000
8414	544	547	7.112	34.501	27.010	179	0.118	0.083	0.61	0.03	0.05	1.38	1100
8413	593	596	6.442	34.478	27.083	176	0.071	0.038	0.59	0.02	0.02	1.82	1100
8412	791	795	4.712	34.482	27.297	157	0.009	0.011	0.50	-9.00	-9.00	-9.00	1003
8411	989	995	3.936	34.518	27.410	143	0.002	-0.001	0.45	-9.00	-9.00	-9.00	1003
8410	1196	1205	3.321	34.558	27.502	146	0.000	0.000	0.45	-9.00	-9.00	-9.00	1003
8409	1384	1394	3.011	34.582	27.551	142	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
8408	1578	1591	2.673	34.604	27.598	141	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
8407	1778	1794	2.376	34.627	27.642	144	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
8406	1975	1993	2.195	34.642	27.669	145	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
8405	2176	2198	2.031	34.659	27.696	151	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
8404	2370	2394	1.915	34.673	27.716	156	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
8403	2565	2593	1.847	34.682	27.729	160	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
8402	2763	2795	1.771	34.693	27.744	168	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	1000
8425	2978	3014	1.680	34.704	27.759	173	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
85	29 Jun 87	14 30.5 S	158 00.0 E	2884	227.0	411.3

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
8503	0	0	26.576	35.085	22.919	203	1.463	0.784	1.01	0.98	1.01	1.87	1000
8502	28	28	26.584	35.084	22.915	202	1.452	0.767	1.00	0.97	0.98	1.89	1000
8525	57	57	26.566	35.083	22.920	201	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
8523	98	98	24.624	35.639	23.940	176	1.403	0.756	0.85	0.86	0.91	1.83	1100
8522	122	122	22.837	35.850	24.627	152	1.331	0.696	0.71	0.76	0.78	1.91	1000
8521	140	140	22.196	35.863	24.820	149	1.302	0.675	0.69	0.73	0.74	1.93	1000
8520	197	198	19.763	35.640	25.314	155	1.175	0.611	0.69	0.58	0.61	1.92	1000
8518	295	296	14.503	35.176	26.217	165	0.868	0.463	0.66	0.33	0.36	1.87	1000
8517	345	346	12.511	34.960	26.459	160	0.614	0.328	0.62	0.21	0.24	1.87	1000
8516	395	397	11.274	34.827	26.591	160	0.459	0.256	0.60	0.15	0.17	1.79	1000
8515	445	447	9.881	34.702	26.740	162	0.326	0.189	0.59	0.10	0.12	1.72	1000
8514	493	495	8.668	34.603	26.860	170	0.216	0.125	0.60	0.06	0.07	1.73	1000
8513	545	547	7.548	34.534	26.974	170	0.120	0.087	0.58	0.03	0.05	1.38	1000
8512	594	597	6.839	34.475	27.027	180	0.106	0.075	0.61	0.03	0.04	1.42	1000
8511	627	630	6.356	34.449	27.072	183	0.082	0.054	0.61	0.02	0.03	1.51	1000
8510	692	695	5.732	34.438	27.142	182	0.043	0.030	0.60	0.01	0.02	1.41	1000
8509	790	795	4.909	34.450	27.250	171	0.015	0.015	0.55	-9.00	-9.00	-9.00	1003
8508	989	995	3.898	34.504	27.402	158	0.001	0.001	0.50	-9.00	-9.00	-9.00	1003
8507	1975	1994	2.191	34.643	27.670	145	-0.001	0.000	0.44	-9.00	-9.00	-9.00	1003
8506	2469	2496	1.881	34.680	27.725	159	-0.002	-0.003	0.48	-9.00	-9.00	-9.00	1003
8505	2765	2797	1.760	34.695	27.746	168	0.002	0.000	0.50	-9.00	-9.00	-9.00	1003
8504	2863	2897	1.722	34.700	27.753	170	0.000	-9.000	0.51	-9.00	-9.00	-9.00	1023

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
87	30 Jun 87	14 31.0 S	155 59.1 E	3142	227.3	412.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
8703	0	0	26.731	34.971	22.784	202	1.446	0.766	1.01	0.97	0.98	1.89	1000
8702	23	23	26.696	34.971	22.795	205	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
8725	39	39	26.689	34.972	22.797	202	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
8723	89	89	24.845	35.571	23.822	186	-9.000	-9.000	0.90	-9.00	-9.00	-9.00	1000
8722	97	98	24.411	35.630	23.997	175	-9.000	-9.000	0.84	-9.00	-9.00	-9.00	1000
8721	122	122	23.442	35.782	24.400	163	1.386	0.724	0.77	0.81	0.83	1.91	1000
8720	150	150	22.231	35.807	24.768	159	1.324	0.701	0.74	0.74	0.77	1.89	1000
8701	196	197	20.193	35.694	25.241	159	1.283	-9.000	0.71	0.65	-9.00	-9.00	1020
8718	393	394	11.423	34.837	26.572	161	0.483	0.261	0.60	0.16	0.18	1.85	1000
8717	599	602	6.357	34.448	27.071	192	0.084	0.059	0.64	0.02	0.03	1.32	1100
8716	643	646	5.928	34.436	27.116	191	0.064	0.038	0.63	0.02	0.02	1.68	1000
8715	790	795	4.842	34.457	27.263	166	0.014	0.029	0.53	-9.00	-9.00	-9.00	1003
8714	988	994	3.935	34.511	27.404	142	0.004	-0.002	0.45	-9.00	-9.00	-9.00	1003
8713	1187	1195	3.410	34.559	27.495	146	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
8712	1374	1385	3.028	34.577	27.545	142	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
8711	1581	1594	2.659	34.604	27.600	142	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
8710	1763	1779	2.427	34.622	27.634	143	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
8709	1975	1993	2.200	34.644	27.670	145	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
8708	2221	2244	2.008	34.665	27.703	155	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
8707	2468	2495	1.879	34.680	27.725	160	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
8706	2716	2747	1.753	34.698	27.749	171	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
8705	2962	2997	1.698	34.704	27.758	174	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000
8704	3111	3149	1.661	34.708	27.764	177	-9.000	-9.000	0.53	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
89	30 Jun 87	14 30.2 S	154 00.1 E	4627	227.3	412.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
8923	0	0	26.239	35.077	23.019	205	1.488	0.799	1.01	0.98	1.01	1.86	1000
8922	30	30	26.235	35.077	23.020	205	1.488	0.811	1.01	0.98	1.02	1.83	1000
8921	58	58	26.198	35.147	23.084	205	1.496	0.809	1.02	0.98	1.02	1.85	1000
8920	98	98	23.838	35.448	24.030	194	1.496	0.802	0.93	0.89	0.93	1.86	1000
8901	122	122	23.203	35.639	24.361	160	1.408	0.747	0.75	0.82	0.85	1.88	1000
8918	163	164	21.593	35.745	24.899	159	1.349	0.714	0.73	0.73	0.76	1.89	1000
8917	197	197	19.887	35.648	25.287	172	1.421	0.744	0.77	0.71	0.74	1.91	1000
8916	245	246	17.666	35.473	25.718	165	1.159	0.607	0.71	0.52	0.55	1.91	1000
8915	295	296	15.535	35.269	26.061	165	0.971	0.534	0.68	0.39	0.44	1.82	1000
8914	345	346	13.565	35.045	26.313	160	0.691	0.391	0.63	0.25	0.29	1.77	1000
8913	395	397	11.480	34.842	26.565	154	0.399	0.242	0.58	0.13	0.16	1.65	1000
8912	446	448	9.727	34.692	26.758	154	0.257	0.149	0.56	0.08	0.09	1.72	1000
8911	495	497	8.341	34.579	26.892	169	0.191	0.148	0.59	0.05	0.09	1.29	1000
8910	544	547	7.366	34.508	26.980	179	0.119	0.085	0.61	0.03	0.05	1.39	1000
8909	594	597	6.685	34.488	27.059	176	0.071	0.047	0.59	0.02	0.03	1.52	1000
8908	692	696	5.500	34.438	27.171	179	0.037	0.030	0.59	0.01	0.02	1.23	1002
8907	791	796	4.791	34.458	27.270	172	0.014	0.012	0.55	-9.00	-9.00	-9.00	1003
8906	987	993	3.770	34.512	27.422	161	0.004	0.004	0.50	-9.00	-9.00	-9.00	1003
8905	2469	2496	1.880	34.684	27.728	163	0.000	0.003	0.49	-9.00	-9.00	-9.00	1003
8904	2960	2995	1.698	34.707	27.760	178	-0.003	0.003	0.53	-9.00	-9.00	-9.00	1003
8903	3450	3496	1.562	34.717	27.779	183	-0.001	0.000	0.54	-9.00	-9.00	-9.00	1003
8902	3940	3997	1.501	34.720	27.785	183	-0.001	0.001	0.54	-9.00	-9.00	-9.00	1003
8925	4599	4672	1.484	34.720	27.787	183	-9.000	0.000	0.54	-9.00	-9.00	-9.00	1113

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
90	1 Jul 87	12 55.1 S	153 24.3 E	4430	227.3	412.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
9023	0	0	26.562	34.960	22.829	203	1.488	0.808	1.01	0.99	1.03	1.84	1000
9022	39	39	26.529	34.957	22.837	204	1.478	0.789	1.01	0.98	1.01	1.87	1000
9021	78	78	24.792	35.604	23.863	182	1.427	0.771	0.88	0.89	0.93	1.85	1000
9020	96	96	23.495	35.722	24.339	166	1.402	0.724	0.79	0.82	0.83	1.93	1000
9001	153	153	21.442	35.783	24.970	157	1.310	0.690	0.72	0.70	0.73	1.90	1000
9018	297	298	13.562	35.058	26.324	157	0.672	0.357	0.61	0.25	0.27	1.88	1000
9017	567	570	6.861	34.486	27.033	181	0.090	0.055	0.61	0.02	0.03	1.79	1100
9016	792	796	4.743	34.460	27.277	167	0.008	0.000	0.54	-9.00	-9.00	-9.00	1003
9015	989	996	3.901	34.507	27.404	156	0.001	-0.006	0.49	-9.00	-9.00	-9.00	1003
9014	1234	1243	3.186	34.565	27.521	145	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
9013	1482	1493	2.710	34.601	27.593	141	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
9012	1730	1745	2.361	34.628	27.644	142	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
9011	1974	1993	2.114	34.650	27.682	146	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
9010	2222	2244	1.968	34.669	27.709	154	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
9009	2469	2495	1.871	34.681	27.726	161	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
9008	2713	2743	1.774	34.694	27.744	172	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
9007	2958	2993	1.695	34.705	27.759	176	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000
9006	3205	3246	1.607	34.713	27.772	183	-9.000	-9.000	0.55	-9.00	-9.00	-9.00	1000
9005	3449	3495	1.548	34.716	27.779	182	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
9004	3697	3748	1.507	34.719	27.784	184	-9.000	-9.000	0.55	-9.00	-9.00	-9.00	1000
9003	3941	3998	1.491	34.719	27.785	183	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
9002	4185	4248	1.482	34.719	27.786	182	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
9025	4407	4475	1.482	34.720	27.787	182	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
91	1 Jul 87	12 21.0 S	153 36.0 E	3924	227.3	412.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
9123	0	0	26.468	35.008	22.895	-9	1.473	0.816	-9.00	0.98	1.04	1.80	1000
9122	24	24	26.470	35.008	22.894	-9	1.477	0.808	-9.00	0.98	1.03	1.83	1000
9121	36	36	26.463	35.008	22.896	-9	1.488	0.786	-9.00	0.99	1.00	1.89	1000
9120	77	78	24.549	35.456	23.824	-9	1.450	0.797	-9.00	0.89	0.95	1.82	1000
9101	97	97	23.973	35.527	24.050	-9	1.453	0.785	-9.00	0.87	0.91	1.85	1000
9118	123	123	23.020	35.693	24.455	-9	1.374	0.738	-9.00	0.79	0.83	1.86	1000
9117	147	147	21.645	35.753	24.891	-9	1.277	0.658	-9.00	0.69	0.70	1.94	1000
9116	295	296	14.718	35.144	26.145	-9	0.760	0.415	-9.00	0.29	0.33	1.83	1000
9115	593	596	6.516	34.469	27.066	-9	0.072	0.047	-9.00	0.02	0.02	1.53	1000
9114	791	796	4.819	34.462	27.270	-9	0.014	0.012	-9.00	-9.00	-9.00	-9.00	1003
9113	989	995	3.853	34.512	27.413	-9	-0.001	0.004	-9.00	-9.00	-9.00	-9.00	1003
9112	1235	1244	3.178	34.567	27.523	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9111	1480	1492	2.707	34.603	27.595	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9110	1731	1746	2.358	34.629	27.645	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9109	1976	1995	2.141	34.650	27.680	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9108	2222	2245	1.952	34.671	27.712	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9107	2469	2496	1.857	34.687	27.732	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9106	2715	2746	1.750	34.703	27.753	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9105	2960	2996	1.686	34.709	27.763	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9104	3160	3199	1.640	34.712	27.769	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9103	3358	3401	1.570	34.716	27.777	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9102	3550	3597	1.529	34.719	27.783	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9125	3910	3966	1.491	34.719	27.786	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
92	1 Jul 87	12 08.2 S	153 42.4 E	3765	227.3	412.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
9223	0	0	26.510	35.014	22.886	-9	1.476	0.786	-9.00	0.98	1.00	1.88	1000
9222	50	50	26.508	35.014	22.887	-9	1.485	0.816	-9.00	0.99	1.04	1.82	1000
9221	78	78	24.824	35.516	23.787	-9	1.385	0.744	-9.00	0.86	0.90	1.86	1000
9220	98	98	23.926	35.617	24.132	-9	1.416	0.740	-9.00	0.85	0.86	1.91	1000
9201	137	137	21.933	35.730	24.793	-9	1.389	0.760	-9.00	0.76	0.82	1.83	1000
9218	196	197	19.071	35.589	25.455	-9	1.133	0.612	-9.00	0.54	0.59	1.85	1000
9217	294	295	14.537	35.192	26.222	-9	0.820	0.426	-9.00	0.32	0.34	1.93	1000
9216	395	396	11.029	34.840	26.646	-9	0.454	0.246	-9.00	0.14	0.16	1.84	1000
9215	494	496	8.396	34.605	26.904	-9	0.244	0.181	-9.00	0.07	0.11	1.34	1000
9214	594	597	6.919	34.504	27.039	-9	0.122	0.077	-9.00	0.03	0.04	1.58	1000
9213	691	695	5.830	34.453	27.142	-9	0.026	0.026	-9.00	-9.00	-9.00	-9.00	1002
9212	790	795	5.032	34.456	27.240	-9	0.015	0.014	-9.00	-9.00	-9.00	-9.00	1003
9211	889	894	4.540	34.476	27.312	-9	0.008	0.010	-9.00	-9.00	-9.00	-9.00	1003
9210	1001	1008	4.021	34.503	27.389	-9	0.001	0.004	-9.00	-9.00	-9.00	-9.00	1003
9209	1238	1247	3.325	34.557	27.501	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9208	1483	1495	2.817	34.595	27.578	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9207	1728	1743	2.416	34.625	27.637	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9206	1976	1995	2.191	34.644	27.671	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9205	2470	2496	1.873	34.681	27.726	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9204	2963	2998	1.662	34.707	27.763	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9203	3216	3256	1.583	34.714	27.775	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9202	3446	3491	1.546	34.717	27.780	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9225	3668	3718	1.508	34.718	27.783	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
93	1 Jul 87	12 00.1 S	153 45.4 E	2241	227.3	412.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
9323	0	0	26.456	35.016	22.904	204	1.493	0.782	1.01	0.99	0.99	1.91	1000
9322	23	23	26.455	35.014	22.903	226	1.500	0.784	1.12	0.99	1.00	1.91	1000
9321	49	49	26.452	35.016	22.906	204	1.501	0.781	1.01	0.99	0.99	1.92	1000
9320	73	73	24.958	35.252	23.546	210	1.487	0.783	1.02	0.93	0.94	1.90	1000
9301	98	98	23.875	35.542	24.090	153	1.419	0.729	0.73	0.85	0.85	1.95	1000
9318	150	150	21.296	35.705	24.951	146	1.274	0.665	0.67	0.68	0.70	1.91	1000
9317	196	196	19.059	35.593	25.461	154	1.187	0.628	0.67	0.57	0.60	1.89	1000
9316	248	249	16.841	35.397	25.858	155	1.007	0.534	0.65	0.43	0.47	1.88	1000
9315	295	296	15.042	35.226	26.138	156	0.829	0.463	0.63	0.33	0.37	1.79	1000
9314	344	345	13.094	35.048	26.412	163	0.700	0.367	0.63	0.25	0.27	1.91	1000
9313	395	396	11.274	34.873	26.627	170	0.523	0.304	0.64	0.17	0.20	1.72	1000
9312	494	496	8.697	34.637	26.882	183	0.274	0.158	0.65	0.08	0.09	1.73	1000
9311	593	596	7.070	34.516	27.028	187	0.135	0.084	0.63	0.03	0.05	1.60	1000
9310	702	706	5.997	34.465	27.130	183	0.060	0.037	0.61	0.01	0.02	1.61	1000
9309	792	796	5.391	34.457	27.199	176	0.031	0.024	0.57	0.01	-9.00	-9.00	1003
9308	889	894	4.756	34.468	27.281	170	0.013	0.010	0.55	-9.00	-9.00	-9.00	1003
9307	989	995	4.282	34.488	27.349	165	0.007	0.006	0.52	-9.00	-9.00	-9.00	1003
9306	1234	1243	3.395	34.550	27.489	150	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
9305	1482	1493	2.849	34.592	27.573	143	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
9304	1680	1694	2.478	34.620	27.628	140	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
9303	1867	1884	2.267	34.638	27.660	160	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
9302	1975	1994	2.151	34.648	27.678	146	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
9325	2146	2167	2.003	34.664	27.702	153	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
94	1 Jul 87	11 51.1 S	153 47.2 E	495	227.3	412.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
9423	1	1	26.459	35.036	22.919	205	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
9421	19	19	26.452	35.038	22.922	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9420	29	29	26.426	35.044	22.935	-9	1.484	0.833	-9.00	0.98	1.06	1.78	1000
9401	38	38	25.562	35.248	23.358	190	-9.000	-9.000	0.93	-9.00	-9.00	-9.00	1000
9418	49	49	25.069	35.275	23.530	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9417	59	59	24.974	35.300	23.578	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9416	71	71	24.688	35.344	23.698	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
9415	76	76	24.246	35.407	23.878	174	1.422	0.760	0.83	0.86	0.89	1.87	1000
9414	99	99	23.651	35.516	24.137	160	1.398	0.776	0.76	0.83	0.89	1.80	1000
9413	123	123	22.384	35.648	24.603	149	1.328	0.746	0.70	0.74	0.82	1.78	1000
9412	148	148	21.747	35.688	24.813	148	1.303	0.696	0.68	0.71	0.74	1.87	1000
9411	171	172	19.929	35.647	25.275	153	1.227	0.672	0.68	0.61	0.67	1.83	1000
9410	198	198	18.638	35.540	25.527	-9	1.126	0.587	-9.00	0.53	0.55	1.92	1000
9409	222	222	17.394	35.436	25.755	157	1.025	0.534	0.67	0.45	0.48	1.92	1000
9408	247	247	16.278	35.338	25.944	-9	0.979	0.546	-9.00	0.41	0.46	1.79	1000
9407	270	271	15.556	35.276	26.062	159	0.892	0.470	0.65	0.36	0.39	1.90	1000
9406	295	296	14.535	35.186	26.218	-9	0.824	0.429	-9.00	0.32	0.34	1.92	1000
9403	345	346	12.865	35.021	26.437	165	0.647	0.345	0.64	0.23	0.25	1.88	1000
9402	394	395	12.182	34.957	26.521	167	0.582	0.357	0.64	0.20	0.25	1.63	1000
9426	444	446	10.413	34.797	26.722	177	0.450	0.229	0.65	0.14	0.15	1.96	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
97	3 Jul 87	14 30.9 S	151 58.8 E	4647	227.3	412.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
9703	0	0	26.388	35.017	22.927	203	1.481	0.824	1.01	0.98	1.00	1.87	1100
9702	28	28	26.347	35.015	22.938	204	1.477	0.780	1.01	0.97	0.99	1.89	1000
9725	57	57	26.343	35.016	22.940	204	1.509	0.796	1.01	0.99	1.01	1.90	1000
9723	113	113	23.721	35.588	24.171	169	1.365	0.783	0.80	0.81	0.90	1.74	1000
9722	122	122	23.196	35.666	24.384	166	1.376	0.785	0.78	0.80	0.89	1.75	1000
9721	171	172	21.094	35.737	25.031	155	1.319	0.755	0.71	0.70	0.79	1.75	1000
9720	197	198	20.198	35.668	25.220	165	1.342	0.745	0.74	0.68	0.75	1.80	1000
9701	246	247	18.260	35.543	25.625	170	1.226	0.693	0.73	0.57	0.64	1.77	1000
9718	296	296	15.901	35.345	26.037	171	1.067	0.604	0.70	0.44	0.51	1.77	1000
9717	345	346	13.536	35.091	26.355	167	0.785	0.463	0.65	0.29	0.35	1.69	1000
9716	396	398	11.641	34.900	26.580	169	0.574	0.305	0.64	0.19	0.21	1.88	1000
9715	496	498	8.460	34.599	26.889	180	0.258	0.149	0.63	0.07	0.09	1.73	1000
9714	544	546	7.299	34.512	26.993	179	0.149	0.112	0.61	0.04	0.06	1.33	1000
9713	595	597	6.553	34.467	27.060	179	0.079	0.084	0.60	0.02	0.04	0.94	1000
9712	643	646	5.999	34.455	27.122	173	0.034	0.027	0.57	0.01	-9.00	-9.00	1002
9711	691	695	5.636	34.448	27.162	172	0.026	0.030	0.56	-9.00	0.02	-9.00	1002
9710	742	746	5.222	34.450	27.213	172	0.016	0.016	0.56	-9.00	-9.00	-9.00	1003
9709	791	795	4.880	34.462	27.262	168	0.010	0.013	0.54	-9.00	-9.00	-9.00	1003
9708	990	996	3.898	34.512	27.409	153	0.000	0.003	0.48	-9.00	-9.00	-9.00	1003
9707	1974	1992	2.163	34.646	27.675	142	0.001	0.001	0.43	-9.00	-9.00	-9.00	1003
9706	2960	2995	1.693	34.707	27.761	175	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000
9705	3943	4000	1.504	34.721	27.786	183	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
9704	4632	4707	1.483	34.721	27.787	182	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
101	3 Jul 87	15 42.0 S	150 48.3 E	1139	226.9	411.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
10121	0	0	25.169	35.294	23.514	209	1.540	0.835	1.02	0.97	1.02	1.85	1000
10120	27	27	25.169	35.291	23.511	209	1.528	0.811	1.02	0.96	0.99	1.88	1000
10101	57	58	25.088	35.317	23.556	208	1.517	0.853	1.01	0.95	1.04	1.78	1000
10118	89	89	25.040	35.332	23.582	208	1.511	0.835	1.01	0.95	1.02	1.81	1000
10117	122	123	23.420	35.473	24.172	191	1.486	0.795	0.91	0.87	0.91	1.87	1000
10116	166	167	21.197	35.643	24.931	171	1.483	0.794	0.78	0.79	0.83	1.87	1000
10115	196	197	19.694	35.649	25.339	172	1.392	0.756	0.76	0.69	0.75	1.84	1000
10114	245	246	17.366	35.486	25.801	174	1.195	0.627	0.74	0.53	0.56	1.91	1000
10113	295	296	15.588	35.302	26.075	173	0.979	0.517	0.71	0.40	0.43	1.89	1000
10112	343	344	13.753	35.140	26.348	172	0.851	0.482	0.68	0.31	0.37	1.77	1000
10111	395	396	12.513	35.001	26.491	168	0.696	0.376	0.64	0.24	0.27	1.85	1000
10110	444	446	10.926	34.856	26.677	177	0.544	0.295	0.66	0.17	0.20	1.84	1000
10109	494	496	9.819	34.731	26.773	180	0.406	0.268	0.65	0.12	0.17	1.51	1000
10108	543	546	8.947	34.639	26.844	183	0.304	0.202	0.65	0.09	0.12	1.50	1000
10107	592	595	7.875	34.546	26.936	187	0.203	0.121	0.65	0.05	0.07	1.68	1000
10106	642	645	7.226	34.504	26.997	181	0.122	0.083	0.62	0.03	0.05	1.47	1000
10105	691	695	6.433	34.467	27.076	177	0.063	0.070	0.59	0.02	0.04	0.90	1000
10104	741	745	5.940	34.454	27.129	178	0.029	0.027	0.59	-9.00	-9.00	-9.00	1002
10103	795	799	5.340	34.444	27.195	177	0.017	0.016	0.58	-9.00	-9.00	-9.00	1003
10102	986	992	4.135	34.487	27.364	166	-0.002	0.000	0.53	-9.00	-9.00	-9.00	1003
10125	1123	1130	3.686	34.520	27.436	159	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
103	4 Jul 87	16 43.7 S	149 43.5 E	507	227.4	411.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
10313	0	0	25.357	35.186	23.375	207	1.486	0.803	1.01	0.94	0.98	1.85	1000
10312	29	29	25.355	35.186	23.375	207	1.495	0.845	1.01	0.95	1.04	1.77	1000
10311	57	57	25.326	35.184	23.382	207	1.494	0.839	1.01	0.94	1.03	1.78	1000
10310	88	88	25.161	35.263	23.493	201	1.455	0.817	0.98	0.91	0.99	1.78	1000
10309	107	108	23.888	35.484	24.043	180	1.438	0.748	0.86	0.86	0.87	1.92	1000
10308	157	157	21.524	35.728	24.905	154	1.309	0.678	0.71	0.71	0.72	1.93	1000
10307	197	197	19.899	35.653	25.288	159	1.277	0.658	0.71	0.64	0.65	1.94	1000
10306	247	247	18.214	35.531	25.627	167	1.222	0.628	0.72	0.56	0.58	1.95	1000
10305	297	298	15.925	35.322	26.013	165	1.009	0.544	0.68	0.42	0.46	1.85	1000
10304	345	346	14.264	35.174	26.266	170	0.889	0.485	0.68	0.34	0.38	1.83	1000
10303	384	386	13.233	35.067	26.398	172	0.777	0.431	0.67	0.28	0.32	1.81	1000
10302	444	446	11.327	34.864	26.610	170	0.516	0.317	0.63	0.17	0.21	1.63	1000
10325	486	488	9.896	34.739	26.766	176	0.380	0.236	0.64	0.11	0.15	1.60	1100

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
105	4 Jul 87	17 55.4 S	148 27.1 E	1030	227.4	411.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
10512	0	0	24.893	35.257	23.570	208	1.513	0.832	1.01	0.94	1.00	1.82	1000
10511	39	39	24.897	35.257	23.569	207	1.513	0.813	1.00	0.94	0.98	1.86	1000
10510	80	80	24.895	35.258	23.570	207	1.526	0.830	1.00	0.95	1.00	1.84	1000
10509	98	99	24.894	35.260	23.572	207	1.538	0.827	1.00	0.96	1.00	1.86	1000
10508	148	149	22.248	35.593	24.600	168	1.460	0.753	0.78	0.81	0.82	1.94	1000
10507	217	218	19.952	35.651	25.272	171	1.434	0.738	0.76	0.72	0.74	1.94	1000
10506	295	296	17.154	35.469	25.838	171	1.208	0.616	0.72	0.53	0.55	1.96	1000
10505	393	395	13.681	35.129	26.354	172	0.860	0.489	0.68	0.32	0.37	1.76	1000
10504	494	496	9.931	34.748	26.767	178	0.425	0.262	0.64	0.13	0.17	1.62	1000
10503	594	597	7.592	34.545	26.977	184	0.196	0.145	0.63	0.05	0.08	1.35	1000
10502	793	798	5.681	34.463	27.168	179	0.032	0.031	0.59	0.01	0.02	1.04	1002
10525	1002	1009	4.010	34.501	27.388	161	0.007	0.001	0.51	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
107	5 Jul 87	18 02.2 S	147 56.4 E	1154	226.9	411.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
10713	0	0	25.093	35.200	23.466	208	1.526	0.832	1.01	0.96	1.01	1.84	1000
10712	39	40	25.077	35.200	23.471	207	1.529	0.817	1.00	0.96	0.99	1.87	1000
10711	78	78	24.723	35.232	23.602	202	1.531	0.831	0.98	0.95	1.00	1.84	1000
10710	98	98	24.059	35.377	23.911	185	1.467	0.785	0.89	0.88	0.92	1.87	1000
10709	173	173	20.936	35.658	25.014	164	1.378	0.738	0.74	0.72	0.77	1.87	1000
10708	196	197	20.123	35.656	25.231	167	1.394	0.720	0.75	0.71	0.72	1.94	1000
10707	297	297	16.490	35.422	25.960	172	1.171	0.626	0.72	0.50	0.54	1.87	1000
10706	395	396	12.764	35.035	26.468	173	0.746	0.414	0.67	0.26	0.30	1.80	1000
10705	494	496	10.165	34.791	26.761	183	0.563	0.311	0.67	0.17	0.20	1.81	1000
10704	593	595	8.125	34.591	26.934	189	0.285	0.186	0.66	0.08	0.11	1.54	1100
10703	793	797	5.813	34.462	27.151	185	0.069	0.060	0.61	0.02	0.03	1.15	1100
10702	988	994	4.488	34.473	27.315	171	0.014	0.004	0.55	-9.00	-9.00	-9.00	1103
10725	1134	1142	3.846	34.509	27.411	160	0.011	-0.001	0.50	-9.00	-9.00	-9.00	1103

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
108	5 Jul 87	18 05.2 S	147 42.8 E	1095	226.9	411.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
10815	0	0	25.294	35.183	23.392	207	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
10814	37	37	25.297	35.182	23.390	206	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
10813	80	80	25.283	35.180	23.393	206	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
10812	98	98	24.463	35.303	23.734	189	-9.000	-9.000	0.91	-9.00	-9.00	-9.00	1000
10811	174	174	20.741	35.679	25.083	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
10810	197	198	19.529	35.627	25.365	163	-9.000	-9.000	0.72	-9.00	-9.00	-9.00	1000
10809	294	295	15.888	35.361	26.052	173	-9.000	-9.000	0.71	-9.00	-9.00	-9.00	1000
10808	394	395	12.357	34.997	26.519	174	-9.000	-9.000	0.67	-9.00	-9.00	-9.00	1000
10807	494	496	9.022	34.676	26.861	183	-9.000	-9.000	0.65	-9.00	-9.00	-9.00	1000
10806	541	543	8.580	34.637	26.901	186	-9.000	-9.000	0.65	-9.00	-9.00	-9.00	1000
10805	789	793	6.429	34.483	27.089	189	-9.000	-9.000	0.63	-9.00	-9.00	-9.00	1000
10804	1070	1077	4.219	34.487	27.355	166	0.019	0.020	0.53	-9.00	-9.00	-9.00	1003

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
109	5 Jul 87	18 09.1 S	147 28.7 E	869	226.9	411.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
10915	0	0	25.387	35.178	23.359	208	1.502	0.808	1.02	0.95	0.99	1.86	1000
10914	40	40	25.389	35.171	23.353	208	1.301	0.685	1.02	0.83	0.84	1.90	1000
10913	97	97	24.537	35.340	23.740	184	1.467	0.787	0.89	0.90	0.94	1.86	1000
10912	147	148	20.934	35.680	25.031	163	1.322	0.691	0.74	0.69	0.72	1.91	1000
10911	197	198	18.525	35.579	25.586	169	-9.000	-9.000	0.73	-9.00	-9.00	-9.00	1000
10910	296	297	15.037	35.261	26.166	173	1.287	0.673	0.70	0.51	0.54	1.91	1000
10909	393	395	12.530	35.014	26.498	173	0.738	0.376	0.66	0.26	0.27	1.96	1000
10908	492	494	10.050	34.769	26.764	180	0.481	0.299	0.65	0.15	0.19	1.61	1000
10907	594	597	8.848	34.656	26.873	185	0.357	0.219	0.66	0.10	0.13	1.64	1000
10906	700	703	7.69	34.56	26.974	190.3	-9	-9	0.66	-9	-9	-9	1000
10904	821	826	5.871	34.467	27.148	183.8	0.069	0.099	0.61	0.02	0.05	0.7	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
201	13 Jul 87	18 03.6 S	147 18.0 E	513	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
23	1	1	24.861	35.219	23.551	203	1.551	0.853	0.98	0.96	1.03	1.82	1000
22	14	14	24.857	35.217	23.550	207	1.517	0.823	1.00	0.94	0.99	1.84	1000
21	28	28	24.865	35.217	23.548	207	1.548	0.854	1.00	0.96	1.03	1.81	1000
20	48	48	24.867	35.218	23.548	207	1.528	0.855	1.00	0.95	1.03	1.79	1000
1	72	72	24.862	35.219	23.550	207	1.549	0.818	1.00	0.96	0.99	1.89	1000
18	97	97	24.259	35.321	23.809	198	1.596	0.933	0.95	0.97	1.10	1.71	1000
17	131	131	21.787	35.663	24.783	156	1.320	0.794	0.72	0.72	0.86	1.66	1000
16	197	198	18.403	35.569	25.609	167	1.295	0.741	0.72	0.60	0.70	1.75	1000
15	242	243	16.809	35.433	25.893	171	1.165	0.698	0.72	0.50	0.61	1.67	1000
14	296	297	15.378	35.307	26.126	172	1.033	0.701	0.70	0.42	0.58	1.47	1000
13	393	395	13.377	35.104	26.398	171	0.802	0.524	0.67	0.29	0.39	1.53	1000
5	477	479	10.753	34.835	26.692	180	-9.000	-9.000	0.66	-9.00	-9.00	-9.00	1000
10	478	480	10.804	34.839	26.686	180	0.524	-9.000	0.66	0.17	-9.00	-9.00	1020
11	478	480	10.804	34.842	26.688	180	0.556	0.382	0.66	0.18	0.25	1.45	1000
12	478	480	10.804	34.841	26.688	180	0.553	0.412	0.66	0.17	0.27	1.34	1000
25	478	480	10.687	34.832	26.701	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
202	14 Jul 87	12 22.1 S	153 26.8 E	3945	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
23	0	0	26.078	35.089	23.078	202	1.491	0.784	1.00	0.97	0.99	1.90	1000
22	29	29	26.066	35.089	23.082	201	1.499	0.795	0.99	0.98	1.00	1.89	1000
21	29	29	26.066	35.089	23.082	202	1.491	0.788	1.00	0.97	0.99	1.89	1000
20	146	146	21.498	35.740	24.922	141	-9.000	-9.000	0.65	-9.00	-9.00	-9.00	1000
1	762	766	5.445	34.461	27.196	176	0.036	0.033	0.57	0.01	0.02	1.09	1000
17	763	766	5.442	34.461	27.196	178	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1000
18	764	768	5.443	34.461	27.196	175	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1000
10	1441	1452	2.889	34.592	27.569	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000
13	1443	1454	2.888	34.592	27.570	140	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
14	1443	1454	2.885	34.593	27.571	140	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
16	1443	1454	2.885	34.593	27.571	140	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1030
15	1443	1454	2.885	34.590	27.568	140	-0.001	-9.000	0.43	-9.00	-9.00	-9.00	1020
9	1476	1488	2.824	34.597	27.579	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000
8	1974	1992	2.180	34.646	27.674	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000
7	1976	1994	2.178	34.646	27.674	144	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
6	2370	2394	1.906	34.676	27.719	145	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
5	2565	2592	1.847	34.687	27.733	162	-0.001	0.015	0.48	-9.00	-9.00	-9.00	1000
4	2768	2799	1.770	34.700	27.749	169	-0.005	0.016	0.50	-9.00	-9.00	-9.00	1000
3	2990	3025	1.688	34.708	27.762	-9	-0.002	-9.000	-9.00	-9.00	-9.00	-9.00	2020
2	2992	3027	1.689	34.706	27.760	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000
25	2993	3028	1.689	34.707	27.761	174	-0.003	-9.000	0.52	-9.00	-9.00	-9.00	1120

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
204	15 Jul 87	11 15.8 S	154 54.9 E	1749	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
23	0	0	26.242	35.029	22.982	202	1.521	0.774	1.00	1.00	0.98	1.96	1000
21	27	27	26.247	35.029	22.980	-9	1.538	0.770	-9.00	1.01	0.98	2.00	2000
22	28	28	26.249	35.029	22.979	203	1.523	0.770	1.00	1.00	0.98	1.98	1000
20	58	58	26.235	35.037	22.990	202	1.515	0.768	1.00	1.00	0.98	1.97	1000
1	59	59	26.219	35.041	22.998	-9	1.534	0.813	-9.00	1.01	1.03	1.89	2000
18	85	85	25.119	35.483	23.672	186	1.453	0.749	0.90	0.92	0.92	1.94	1000
17	87	87	25.092	35.488	23.684	-9	1.453	0.742	-9.00	0.91	0.91	1.96	2000
16	128	128	22.572	35.748	24.626	146	1.317	0.713	0.68	0.74	0.79	1.85	1000
15	128	128	22.589	35.749	24.622	-9	1.316	0.694	-9.00	0.75	0.77	1.90	2000
14	194	195	19.277	35.601	25.411	150	1.164	0.661	0.66	0.57	0.64	1.76	1000
13	247	247	16.294	35.338	25.941	154	0.936	0.525	0.64	0.39	0.45	1.78	1000
12	296	297	13.665	35.090	26.327	158	0.684	0.416	0.62	0.25	0.32	1.65	1000
11	394	395	10.095	34.756	26.745	174	0.397	0.274	0.63	0.12	0.18	1.45	1000
10	485	487	7.847	34.565	26.955	181	0.196	0.139	0.63	0.05	0.08	1.41	1000
9	596	598	6.530	34.490	27.081	183	0.103	0.096	0.61	0.03	0.05	1.07	1000
8	692	695	5.663	34.461	27.169	178	0.044	-9.000	0.58	0.01	-9.00	-9.00	1020
7	742	746	5.408	34.458	27.198	176	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1030
6	793	797	5.026	34.462	27.246	173	0.024	0.023	0.56	-9.00	-9.00	-9.00	1000
5	838	843	4.784	34.465	27.276	169	0.017	-9.000	0.54	-9.00	-9.00	-9.00	1020
4	891	896	4.612	34.473	27.301	165	0.008	0.004	0.53	-9.00	-9.00	-9.00	1000
3	988	994	4.540	34.476	27.312	167	0.007	0.001	0.53	-9.00	-9.00	-9.00	1000
2	1384	1394	3.114	34.572	27.533	144	-0.004	-0.010	0.44	-9.00	-9.00	-9.00	1000
25	1721	1736	2.510	34.618	27.624	139	-0.005	0.026	0.42	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
207	15 Jul 87	10 56.5 S	155 26.0 E	1484	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
23	0	0	26.374	34.965	22.892	203	1.502	-9.000	1.01	0.99	-9.00	-9.00	1020
21	24	24	26.385	34.964	22.888	202	1.515	0.780	1.00	1.00	1.00	1.94	1000
22	24	24	26.385	34.964	22.888	202	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
20	39	39	26.385	34.964	22.887	201	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
1	51	51	26.384	34.964	22.888	202	1.498	0.788	1.00	0.99	1.01	1.90	1000
18	51	51	26.384	34.964	22.888	202	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
17	75	75	24.904	35.504	23.753	181	1.439	0.811	0.88	0.90	0.98	1.78	1000
16	98	98	24.080	35.819	24.239	155	-9.000	-9.000	0.74	-9.00	-9.00	-9.00	1000
15	124	124	21.776	35.837	24.918	149	1.272	0.705	0.69	0.69	0.76	1.80	1000
14	149	149	20.227	35.700	25.237	151	1.219	0.660	0.68	0.62	0.67	1.85	1000
13	197	197	16.965	35.364	25.803	149	0.927	0.530	0.63	0.40	0.47	1.75	1000
12	248	249	14.463	35.131	26.191	140	0.650	0.409	0.56	0.25	0.32	1.59	1000
11	296	297	12.753	34.956	26.409	146	0.499	0.320	0.56	0.17	0.23	1.56	1000
10	347	348	10.674	34.796	26.676	151	0.357	0.225	0.56	0.11	0.15	1.59	1000
9	395	397	9.197	34.660	26.821	160	0.230	0.161	0.57	0.07	0.10	1.43	1000
8	447	449	8.163	34.580	26.920	172	0.170	0.159	0.60	0.05	0.09	1.07	1000
7	496	498	6.402	34.482	27.092	178	0.072	-9.000	0.60	0.02	-9.00	-9.00	1020
6	544	547	5.814	34.462	27.151	176	0.045	0.034	0.58	0.01	0.02	1.32	1000
5	594	596	5.432	34.463	27.199	174	0.032	0.040	0.57	0.01	0.02	0.80	1000
4	693	697	5.231	34.462	27.222	173	0.020	0.018	0.56	-9.00	-9.00	-9.00	1000
3	808	813	4.657	34.478	27.300	168	0.009	0.010	0.54	-9.00	-9.00	-9.00	1000
2	987	993	3.967	34.511	27.401	159	-0.006	0.004	0.50	-9.00	-9.00	-9.00	1000
25	1468	1479	2.827	34.598	27.580	140	0.003	0.017	0.43	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
213	17 Jul 87	10 11.1 S	156 39.7 E	3232	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
23	0	0	26.602	34.959	22.815	202	1.446	0.784	1.00	0.96	1.01	1.84	1000
21	23	23	26.564	34.962	22.830	-9	1.472	0.780	-9.00	0.98	1.00	1.89	1000
1	60	60	24.516	35.633	23.968	160	1.299	0.712	0.77	0.80	0.85	1.82	1000
17	91	92	22.463	35.780	24.681	149	1.245	0.655	0.69	0.70	0.73	1.90	1000
15	145	145	18.803	35.513	25.465	132	0.994	0.536	0.57	0.47	0.51	1.85	1000
14	196	196	14.337	35.112	26.203	138	0.590	0.365	0.55	0.22	0.29	1.62	1000
13	247	248	11.434	34.857	26.585	135	0.356	0.229	0.51	0.12	0.16	1.55	1000
12	349	350	8.925	34.665	26.868	163	0.226	0.151	0.58	0.06	0.09	1.49	1000
11	443	445	7.469	34.556	27.003	170	0.122	0.124	0.58	0.03	0.07	0.99	1000
10	543	546	6.302	34.483	27.105	178	0.068	0.069	0.59	0.02	0.04	0.99	1000
9	592	595	5.998	34.486	27.147	173	0.059	-9.000	0.57	0.01	-9.00	-9.00	1020
8	641	644	5.538	34.476	27.196	167	0.034	0.034	0.55	0.01	0.02	0.98	1000
7	691	695	5.218	34.482	27.239	166	0.026	0.020	0.54	-9.00	-9.00	-9.00	1000
6	743	747	4.968	34.488	27.273	171	0.020	0.017	0.55	-9.00	-9.00	-9.00	1000
5	792	797	4.733	34.492	27.303	162	0.018	0.011	0.52	-9.00	-9.00	-9.00	1000
4	890	895	4.376	34.503	27.351	157	0.006	0.006	0.50	-9.00	-9.00	-9.00	1000
3	990	996	4.235	34.512	27.373	163	0.004	0.008	0.52	-9.00	-9.00	-9.00	1000
2	1979	1997	2.158	34.646	27.675	142	-0.003	-0.005	0.43	-9.00	-9.00	-9.00	1000
25	3210	3250	1.625	34.709	27.767	175	0.000	-0.006	0.52	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
216	17 Jul 87	09 45.7 S	157 19.9 E	3547	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
15	0	0	26.586	34.918	22.789	201	1.503	0.792	1.00	1.00	1.02	1.90	1000
14	24	24	26.591	34.919	22.789	201	1.504	0.780	1.00	1.00	1.00	1.93	1000
13	46	46	26.568	34.932	22.806	201	1.485	0.798	1.00	0.99	1.02	1.86	1000
12	98	98	22.150	35.775	24.766	147	1.282	0.690	0.68	0.71	0.76	1.86	1000
11	148	148	18.059	35.473	25.621	141	1.010	0.558	0.61	0.46	0.52	1.81	1000
10	197	197	15.367	35.202	26.047	136	0.713	0.429	0.55	0.29	0.35	1.66	1000
9	246	247	12.209	34.928	26.494	138	0.441	0.288	0.53	0.15	0.20	1.53	1000
8	297	298	10.166	34.734	26.716	153	0.294	0.195	0.56	0.09	0.13	1.51	1000
7	395	396	7.648	34.557	26.978	173	0.150	0.143	0.60	0.04	0.08	1.05	1000
6	545	547	6.280	34.474	27.101	176	0.061	0.042	0.59	0.01	0.02	1.46	1000
5	594	597	5.994	34.477	27.140	173	0.050	0.026	0.57	0.01	-9.00	-9.00	1000
4	693	697	5.529	34.477	27.198	170	0.028	0.026	0.56	-9.00	-9.00	-9.00	1000
3	794	799	4.977	34.478	27.264	166	0.021	0.009	0.54	-9.00	-9.00	-9.00	1000
2	994	1000	4.220	34.500	27.365	158	0.003	-0.001	0.50	-9.00	-9.00	-9.00	1000
25	1481	1493	2.831	34.597	27.579	137	0.003	0.001	0.42	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
217	17 Jul 87	09 37.7 S	157 32.7 E	4007	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
13	22	22	26.636	34.886	22.750	201	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
12	22	22	26.634	34.886	22.750	201	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
10	87	87	23.464	35.677	24.314	139	-9.000	-9.000	0.66	-9.00	-9.00	-9.00	1000
11	88	88	23.243	35.677	24.378	139	-9.000	-9.000	0.65	-9.00	-9.00	-9.00	1000
9	97	97	22.654	35.663	24.538	133	-9.000	-9.000	0.62	-9.00	-9.00	-9.00	1000
8	123	123	20.703	35.591	25.026	128	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1000
7	298	299	10.214	34.756	26.725	152	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1000
6	494	496	6.751	34.495	27.055	182	-9.000	-9.000	0.61	-9.00	-9.00	-9.00	1000
5	689	692	5.681	34.475	27.178	170	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1000
4	992	998	4.426	34.505	27.347	157	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	1000
3	1479	1490	2.907	34.592	27.568	145	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
2	2668	2697	1.742	34.686	27.740	169	-0.005	-0.003	0.50	-9.00	-9.00	-9.00	1000
25	2978	3013	1.683	34.700	27.756	168	0.003	-0.003	0.50	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
220	18 Jul 87	09 09.6 S	158 10.7 E	1250	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
23	5	5	27.263	34.728	22.431	203	1.415	0.766	1.02	0.97	1.01	1.85	1000
22	22	22	26.985	34.819	22.588	193	-9.000	-9.000	0.97	-9.00	-9.00	-9.00	1000
21	33	33	26.768	34.963	22.766	183	1.373	0.739	0.91	0.92	0.96	1.86	1000
20	49	49	25.735	35.262	23.315	167	-9.000	-9.000	0.82	-9.00	-9.00	-9.00	1000
1	73	73	23.755	35.528	24.115	145	1.258	0.663	0.69	0.75	0.77	1.90	1000
18	98	98	22.260	35.658	24.646	136	-9.000	-9.000	0.63	-9.00	-9.00	-9.00	1000
17	122	122	20.330	35.623	25.151	136	1.119	0.616	0.61	0.57	0.63	1.82	1000
16	148	148	18.028	35.407	25.578	137	-9.000	-9.000	0.59	-9.00	-9.00	-9.00	1000
15	170	170	16.853	35.347	25.817	144	0.921	0.500	0.61	0.40	0.44	1.84	1000
14	197	197	14.391	35.129	26.204	140	0.636	0.364	0.56	0.24	0.29	1.75	1000
13	297	298	9.761	34.735	26.786	154	0.266	0.184	0.56	0.08	0.12	1.45	1000
12	394	396	8.296	34.618	26.929	165	0.175	0.118	0.58	0.05	0.07	1.48	1000
11	492	494	6.704	34.534	27.092	165	0.080	0.072	0.55	0.02	0.04	1.12	1000
10	593	596	6.177	34.511	27.144	164	0.049	0.050	0.54	0.01	0.03	0.98	1000
9	642	645	5.827	34.504	27.183	163	0.057	0.057	0.54	0.01	0.03	0.99	1000
8	693	697	5.649	34.500	27.202	162	0.042	0.032	0.53	0.01	0.02	1.34	1000
7	739	743	5.380	34.493	27.229	162	0.030	0.025	0.53	-9.00	-9.00	-9.00	1000
6	791	795	5.154	34.493	27.255	161	0.024	0.022	0.52	-9.00	-9.00	-9.00	1000
5	840	845	5.050	34.493	27.268	159	0.018	0.009	0.52	-9.00	-9.00	-9.00	1000
4	890	895	4.750	34.498	27.306	158	0.006	0.003	0.51	-9.00	-9.00	-9.00	1000
3	991	997	4.361	34.510	27.358	153	0.001	-0.008	0.49	-9.00	-9.00	-9.00	1000
2	1088	1095	4.001	34.530	27.412	147	-0.006	-0.012	0.46	-9.00	-9.00	-9.00	1000
25	1228	1236	3.465	34.561	27.491	141	-0.006	-0.017	0.44	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
221	20 Jul 87	04 59.1 S	165 00.7 E	2400	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
23	0	0	28.256	34.470	21.915	195	1.416	0.744	0.99	1.00	1.01	1.90	1000
22	13	13	28.269	34.846	22.193	194	-9.000	-9.000	0.99	-9.00	-9.00	-9.00	1000
21	29	29	28.486	35.507	22.618	185	1.397	0.735	0.95	1.01	1.02	1.90	1000
20	48	48	28.031	35.537	22.791	165	-9.000	-9.000	0.85	-9.00	-9.00	-9.00	1000
1	74	74	27.135	35.648	23.165	152	1.404	0.736	0.77	0.96	0.97	1.91	1000
18	98	98	25.952	35.817	23.667	142	-9.000	-9.000	0.70	-9.00	-9.00	-9.00	1000
17	123	123	23.444	35.889	24.480	134	1.339	0.730	0.63	0.79	0.84	1.83	1000
16	147	148	20.318	35.633	25.161	121	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
15	198	198	14.686	35.136	26.146	107	0.590	0.367	0.43	0.23	0.29	1.61	1000
14	248	249	11.231	34.853	26.620	106	0.263	0.169	0.39	0.08	0.11	1.56	1000
13	296	297	9.965	34.752	26.765	60	0.061	-9.000	0.22	0.02	-9.00	-9.00	1020
12	344	345	9.332	34.703	26.832	106	0.105	0.121	0.38	0.03	0.07	0.87	1000
11	397	398	8.883	34.674	26.882	92	0.060	-9.000	0.33	0.02	-9.00	-9.00	1020
10	446	448	8.338	34.642	26.942	102	0.047	0.034	0.36	0.01	0.02	1.39	1000
9	493	495	7.841	34.618	26.998	89	0.025	0.020	0.31	-9.00	-9.00	-9.00	1000
8	543	545	7.279	34.591	27.058	85	0.013	0.005	0.29	-9.00	-9.00	-9.00	1000
7	593	596	6.826	34.572	27.106	90	0.009	0.003	0.31	-9.00	-9.00	-9.00	1000
6	643	646	6.264	34.546	27.160	111	0.013	0.006	0.37	-9.00	-9.00	-9.00	1000
5	694	697	5.933	34.540	27.198	106	0.008	0.000	0.35	-9.00	-9.00	-9.00	1000
4	742	746	5.662	34.540	27.232	99	0.001	-0.001	0.32	-9.00	-9.00	-9.00	1000
3	791	795	5.354	34.537	27.267	103	0.003	-0.001	0.34	-9.00	-9.00	-9.00	1000
2	989	995	4.577	34.540	27.359	107	-0.002	-0.003	0.34	-9.00	-9.00	-9.00	1000
25	1286	1296	3.466	34.573	27.500	115	0.001	0.002	0.36	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
222	20 Jul 87	04 00.0 S	164 59.2 E	3150	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
23	0	0	28.111	34.579	22.044	197	1.434	0.752	1.00	1.01	1.02	1.91	1000
22	14	14	28.124	34.580	22.041	196	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
21	28	28	28.088	34.598	22.066	195	1.440	0.745	0.99	1.02	1.01	1.93	1000
20	59	58	26.833	35.138	22.877	178	-9.000	-9.000	0.89	-9.00	-9.00	-9.00	1000
1	73	73	25.358	35.386	23.525	157	1.350	0.702	0.77	0.86	0.87	1.92	1000
17	120	120	23.184	35.533	24.286	130	1.249	0.652	0.61	0.72	0.74	1.92	1000
16	147	147	20.182	35.522	25.113	124	1.064	0.614	0.55	0.54	0.62	1.73	1000
15	198	198	13.782	35.057	26.278	92	0.471	0.303	0.36	0.17	0.23	1.56	1000
14	247	248	11.709	34.900	26.567	135	0.394	0.239	0.51	0.13	0.17	1.64	1000
13	295	296	10.089	34.760	26.750	121	0.204	0.141	0.44	0.06	0.09	1.45	1000
12	346	347	9.231	34.695	26.842	132	0.166	0.123	0.47	0.05	0.08	1.35	1000
11	395	396	8.548	34.644	26.911	135	0.129	-9.000	0.47	0.04	-9.00	-9.00	1020
10	444	446	7.974	34.609	26.971	133	0.091	0.075	0.46	0.02	0.04	1.21	1000
9	488	490	7.492	34.593	27.029	103	0.037	0.028	0.35	0.01	-9.00	-9.00	1000
8	543	545	7.051	34.579	27.080	90	0.011	0.007	0.30	-9.00	-9.00	-9.00	1000
7	593	596	6.547	34.564	27.137	83	0.003	-0.005	0.28	-9.00	-9.00	-9.00	1000
6	642	645	6.237	34.557	27.172	85	0.004	-0.002	0.28	-9.00	-9.00	-9.00	1000
5	692	696	5.935	34.554	27.209	78	0.002	-0.007	0.26	-9.00	-9.00	-9.00	1000
4	739	743	5.657	34.550	27.240	79	-0.005	-0.002	0.26	-9.00	-9.00	-9.00	1000
3	794	799	5.313	34.540	27.274	96	0.001	-0.005	0.31	-9.00	-9.00	-9.00	1000
2	989	995	4.429	34.553	27.385	93	-0.004	-0.006	0.30	-9.00	-9.00	-9.00	1000
25	1287	1296	3.496	34.576	27.500	107	-0.003	-0.005	0.33	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
223	20 Jul 87	03 00.6 S	164 59.8 E	4116	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
23	0	0	28.464	34.120	21.583	201	1.416	0.771	1.03	1.01	1.05	1.84	1000
22	12	12	28.388	34.120	21.608	196	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
21	28	28	28.385	34.127	21.614	199	1.420	0.793	1.01	1.01	1.08	1.79	1000
20	49	49	27.080	34.979	22.679	185	-9.000	-9.000	0.93	-9.00	-9.00	-9.00	1000
1	74	74	25.222	35.313	23.512	162	1.350	0.759	0.79	0.85	0.93	1.78	1000
18	98	98	23.518	35.401	24.089	148	-9.000	-9.000	0.70	-9.00	-9.00	-9.00	1000
17	121	121	22.691	35.535	24.430	137	1.237	0.646	0.64	0.70	0.72	1.91	1000
16	149	150	19.996	35.514	25.156	132	1.055	0.572	0.59	0.53	0.57	1.84	1000
15	198	198	14.707	35.162	26.162	143	0.686	0.392	0.58	0.27	0.31	1.75	1000
14	249	250	12.396	34.896	26.432	128	0.460	0.300	0.49	0.16	0.21	1.53	1000
13	295	296	11.204	34.817	26.596	93	0.243	0.167	0.35	0.08	0.11	1.46	1000
12	348	349	10.574	34.782	26.682	115	0.249	0.164	0.42	0.08	0.11	1.52	1000
11	397	398	9.900	34.735	26.763	107	0.198	-9.000	0.39	0.06	-9.00	-9.00	1020
10	443	445	8.929	34.678	26.878	143	0.190	0.123	0.51	0.05	0.07	1.54	1000
9	494	496	7.684	34.593	27.001	132	0.078	0.058	0.45	0.02	0.03	1.33	1000
8	543	545	7.095	34.565	27.063	129	0.049	0.045	0.44	0.01	0.02	1.10	1000
7	595	598	6.693	34.557	27.112	109	0.023	0.015	0.37	-9.00	-9.00	-9.00	1000
6	641	644	6.364	34.564	27.161	78	0.002	0.001	0.26	-9.00	-9.00	-9.00	1000
5	691	695	5.642	34.532	27.228	118	0.014	0.009	0.39	-9.00	-9.00	-9.00	1000
4	740	744	5.355	34.533	27.263	114	0.003	0.005	0.37	-9.00	-9.00	-9.00	1000
3	792	796	5.028	34.544	27.311	96	-0.003	0.000	0.31	-9.00	-9.00	-9.00	1000
2	989	995	4.312	34.556	27.400	96	-0.007	-0.002	0.31	-9.00	-9.00	-9.00	1000
25	1286	1295	3.360	34.583	27.519	105	-0.002	0.000	0.33	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
225	21 Jul 87	02 02.3 S	165 10.2 E	4472	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
24	0	0	28.346	34.166	21.657	198	1.458	0.777	1.01	1.04	1.06	1.88	1000
16	12	12	28.248	34.150	21.677	197	1.468	0.761	1.00	1.04	1.03	1.93	1000
22	27	27	28.244	34.170	21.693	198	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
21	49	49	28.308	34.269	21.746	197	1.457	0.757	1.00	1.03	1.03	1.92	1000
20	58	58	27.978	34.382	21.939	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1	70	70	24.860	35.143	23.494	151	1.367	0.699	0.73	0.85	0.84	1.95	1000
18	88	88	24.626	35.220	23.623	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
17	95	95	24.578	35.240	23.652	-9	1.364	0.698	-9.00	0.84	0.84	1.95	1000
23	147	147	19.722	35.414	25.152	138	1.119	0.580	0.61	0.55	0.57	1.93	1000
15	195	196	14.776	35.161	26.146	-9	0.729	0.388	-9.00	0.28	0.31	1.88	1000
14	248	248	12.466	34.920	26.437	130	0.484	0.255	0.50	0.17	0.18	1.90	1000
13	295	295	11.735	34.865	26.535	-9	0.379	0.215	-9.00	0.13	0.15	1.76	1000
12	346	347	11.008	34.808	26.625	113	0.268	0.159	0.42	0.09	0.11	1.69	1000
11	395	397	9.959	34.746	26.761	111	0.195	0.119	0.40	0.06	0.08	1.63	1000
10	444	446	9.626	34.716	26.794	112	0.168	0.097	0.40	0.05	0.06	1.73	1000
9	494	496	8.408	34.643	26.932	-9	0.106	0.083	-9.00	0.03	0.05	1.28	1000
8	545	547	7.496	34.582	27.020	-9	0.082	0.049	-9.00	0.02	0.03	1.68	1000
7	593	595	6.955	34.563	27.081	123	0.041	0.025	0.42	0.01	-9.00	-9.00	1000
6	642	645	6.301	34.546	27.155	-9	0.020	0.010	-9.00	-9.00	-9.00	-9.00	1000
5	692	695	5.815	34.547	27.218	-9	0.008	0.001	-9.00	-9.00	-9.00	-9.00	1000
4	739	743	5.448	34.540	27.258	-9	0.004	0.003	-9.00	-9.00	-9.00	-9.00	1000
3	790	794	5.285	34.549	27.284	85	-0.001	0.000	0.28	-9.00	-9.00	-9.00	1000
2	989	995	4.323	34.558	27.401	98	-0.002	-0.002	0.31	-9.00	-9.00	-9.00	1000
25	1287	1296	3.341	34.588	27.524	-9	0.000	-0.001	-9.00	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
227	22 Jul 87	01 00.0 S	165 00.4 E	4428	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
24	0	0	28.451	34.154	21.613	197	1.470	0.762	1.01	1.05	1.04	1.93	1000
16	14	14	28.442	34.155	21.617	196	1.466	0.766	1.00	1.04	1.04	1.91	1000
22	28	28	28.422	34.176	21.639	195	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
21	47	47	28.380	34.213	21.681	195	1.485	0.756	1.00	1.06	1.03	1.96	1000
20	58	58	28.347	34.225	21.701	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
18	86	86	24.642	35.100	23.527	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1	88	88	24.650	35.100	23.524	144	1.356	0.703	0.69	0.83	0.84	1.93	1000
17	119	119	22.602	35.340	24.307	143	1.294	0.613	0.67	0.73	0.68	2.11	1000
23	148	148	18.710	35.334	25.351	143	1.084	0.566	0.62	0.51	0.54	1.91	1000
15	170	171	15.965	35.244	25.944	148	0.861	0.445	0.61	0.36	0.38	1.94	1000
14	196	197	14.168	35.058	26.197	143	0.718	0.369	0.57	0.27	0.29	1.95	1000
13	226	226	13.298	34.905	26.260	-9	0.684	0.365	-9.00	0.25	0.27	1.88	1000
12	256	256	13.050	34.950	26.345	137	0.579	0.313	0.53	0.21	0.23	1.85	1000
11	296	297	11.247	34.828	26.597	119	0.316	0.173	0.44	0.10	0.12	1.83	1000
10	326	327	10.636	34.784	26.673	-9	0.235	0.139	-9.00	0.07	0.09	1.69	1000
9	360	361	10.244	34.765	26.727	113	0.222	0.121	0.41	0.07	0.08	1.84	1000
8	394	395	9.594	34.715	26.798	80	0.104	0.072	0.29	0.03	0.05	1.44	1000
7	444	446	8.799	34.662	26.886	124	0.140	0.074	0.44	0.04	0.04	1.90	1000
6	494	496	8.250	34.629	26.945	110	0.083	0.057	0.38	0.02	0.03	1.46	1000
5	592	595	7.099	34.574	27.070	106	0.043	0.028	0.36	0.01	-9.00	-9.00	1000
4	690	694	6.251	34.554	27.168	94	0.008	0.012	0.31	-9.00	-9.00	-9.00	1000
3	782	786	5.711	34.545	27.230	100	0.010	0.009	0.33	-9.00	-9.00	-9.00	1000
2	988	994	4.546	34.556	27.375	95	-0.001	0.011	0.30	-9.00	-9.00	-9.00	1000
25	1289	1298	3.384	34.588	27.520	100	-0.001	0.002	0.31	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
228	22 Jul 87	00 29.9 N	165 00.2 E	4432	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
24	0	0	28.508	34.062	21.525	197	1.465	0.757	1.01	1.05	1.03	1.94	1000
22	28	28	28.513	34.093	21.547	196	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
21	48	48	28.527	34.062	21.519	197	1.467	0.756	1.01	1.05	1.03	1.94	1000
20	56	56	28.522	34.106	21.554	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1	87	87	24.567	35.085	23.538	-9	1.370	0.698	-9.00	0.84	0.83	1.96	1000
18	87	87	24.567	35.089	23.541	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
17	118	118	22.504	35.317	24.318	141	1.288	0.666	0.66	0.72	0.74	1.94	1000
16	146	146	17.393	35.289	25.643	141	1.261	0.652	0.60	0.65	0.68	1.93	1100
15	173	173	15.515	35.049	25.896	144	0.955	0.502	0.59	0.39	0.41	1.90	1000
14	197	197	14.478	34.862	25.980	143	0.977	0.489	0.57	0.37	0.38	2.00	1000
13	227	227	13.657	34.978	26.243	-9	0.685	0.376	-9.00	0.25	0.29	1.83	1000
12	256	257	13.273	34.950	26.300	-9	0.629	0.335	-9.00	0.23	0.25	1.87	1000
11	297	298	11.801	34.868	26.525	117	0.378	0.221	0.44	0.13	0.15	1.71	1000
10	325	326	11.171	34.824	26.608	-9	0.291	0.167	-9.00	0.09	0.11	1.74	1000
9	354	356	10.405	34.766	26.700	-9	0.153	0.086	-9.00	0.05	0.06	1.79	1000
8	395	396	9.608	34.715	26.796	73	0.100	0.076	0.26	0.03	0.05	1.32	1000
7	444	446	9.089	34.682	26.855	72	0.071	0.060	0.26	0.02	0.04	1.17	1000
6	493	495	8.173	34.627	26.955	97	0.062	0.037	0.34	0.02	0.02	1.66	1000
5	592	595	7.280	34.586	27.054	87	0.031	0.020	0.30	0.01	-9.00	-9.00	1000
4	692	695	6.134	34.549	27.179	99	0.013	0.010	0.33	-9.00	-9.00	-9.00	1000
3	791	796	5.264	34.540	27.280	103	0.006	0.003	0.34	-9.00	-9.00	-9.00	1000
2	989	995	4.288	34.562	27.407	94	-0.001	0.002	0.30	-9.00	-9.00	-9.00	1000
25	1288	1298	3.264	34.592	27.535	103	-0.001	-0.005	0.32	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
229	22 Jul 87	00 05.4 N	165 10.0 E	4362	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
24	0	0	28.599	34.085	21.513	197	1.444	0.744	1.01	1.03	1.02	1.94	2000
16	13	13	28.593	34.095	21.522	194	-9.000	-9.000	0.99	-9.00	-9.00	-9.00	1000
22	29	29	28.595	34.088	21.516	194	-9.000	-9.000	0.99	-9.00	-9.00	-9.00	1000
21	47	47	28.594	34.092	21.519	197	1.459	0.739	1.01	1.05	1.01	1.97	1000
20	47	47	28.587	34.092	21.522	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1	88	88	24.048	35.018	23.642	136	1.332	0.674	0.65	0.80	0.79	1.98	1000
18	89	89	24.403	35.036	23.550	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
17	117	117	21.929	35.254	24.432	140	1.264	0.646	0.65	0.69	0.70	1.96	1000
23	149	149	18.290	35.210	25.362	142	1.093	0.564	0.61	0.51	0.53	1.94	1000
15	171	171	17.339	35.242	25.620	144	1.003	0.503	0.61	0.44	0.45	1.99	1000
14	197	197	15.104	34.889	25.864	144	1.027	0.508	0.58	0.41	0.41	2.02	1000
13	228	229	13.702	34.966	26.224	-9	0.706	0.360	-9.00	0.26	0.27	1.96	1000
12	256	257	13.420	34.970	26.285	140	0.632	0.327	0.55	0.23	0.25	1.93	1000
11	296	297	12.242	34.899	26.465	127	0.461	0.235	0.49	0.16	0.17	1.96	1000
10	325	326	10.894	34.792	26.633	-9	0.175	0.110	-9.00	0.06	0.07	1.58	1000
9	353	354	9.793	34.721	26.770	77	0.125	0.072	0.28	0.04	0.05	1.72	1000
8	388	389	9.397	34.700	26.819	65	0.078	0.043	0.23	0.02	0.03	1.83	1000
7	444	445	8.503	34.644	26.918	117	0.107	0.067	0.41	0.03	0.04	1.59	1000
6	493	495	8.085	34.624	26.966	78	0.051	0.031	0.27	0.01	0.02	1.61	1000
5	591	594	7.074	34.582	27.079	82	0.019	0.017	0.28	-9.00	-9.00	-9.00	1000
4	692	695	6.166	34.555	27.180	92	0.008	0.015	0.30	-9.00	-9.00	-9.00	1000
3	797	802	5.494	34.548	27.259	95	0.003	0.005	0.31	-9.00	-9.00	-9.00	1000
2	989	995	4.544	34.560	27.378	93	-0.001	-0.003	0.30	-9.00	-9.00	-9.00	1000
25	1293	1303	3.343	34.590	27.526	100	-0.003	-0.005	0.31	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
231	23 Jul 87	00 30.1 N	165 01.1 E	4387	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
24	0	0	28.740	33.999	21.401	198	1.441	0.775	1.01	1.04	1.07	1.86	1000
16	13	13	28.694	34.004	21.420	195	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
22	28	28	28.639	34.003	21.438	194	-9.000	-9.000	0.99	-9.00	-9.00	-9.00	1000
21	49	49	28.577	34.072	21.510	197	1.454	0.761	1.01	1.04	1.04	1.91	1000
20	67	67	27.113	34.676	22.440	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1	88	88	25.363	34.920	23.172	153	1.337	0.673	0.74	0.85	0.83	1.99	1000
18	102	102	24.514	34.998	23.488	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
17	117	117	22.169	35.168	24.300	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
23	147	147	19.456	35.108	24.987	135	1.192	0.610	0.59	0.58	0.60	1.95	1000
15	170	170	18.711	35.026	25.116	140	1.188	0.592	0.61	0.56	0.56	2.01	1000
14	198	198	17.653	35.186	25.501	143	1.074	0.557	0.61	0.48	0.50	1.93	1000
13	226	226	13.536	34.923	26.225	-9	0.729	0.389	-9.00	0.27	0.29	1.87	1000
12	258	258	13.047	34.939	26.337	-9	0.585	0.301	-9.00	0.21	0.22	1.95	1000
11	297	298	12.443	34.894	26.422	120	0.462	0.255	0.46	0.16	0.18	1.81	1000
10	326	327	10.802	34.785	26.644	-9	0.153	0.104	-9.00	0.05	0.07	1.47	1000
9	357	358	10.148	34.748	26.730	-9	0.139	0.067	-9.00	0.04	0.04	2.06	1000
8	399	400	9.284	34.679	26.821	91	0.118	0.058	0.32	0.03	0.04	2.04	1000
7	446	447	8.798	34.663	26.887	87	0.083	0.042	0.31	0.02	0.03	1.96	1000
6	498	500	8.317	34.631	26.936	85	0.060	0.034	0.30	0.02	0.02	1.80	1000
5	596	599	7.030	34.577	27.082	89	0.022	0.007	0.30	-9.00	-9.00	-9.00	1000
4	693	696	6.156	34.552	27.179	93	0.009	0.001	0.31	-9.00	-9.00	-9.00	1000
3	802	806	5.486	34.546	27.258	96	0.005	-0.007	0.32	-9.00	-9.00	-9.00	1000
2	991	997	4.498	34.559	27.382	96	-0.002	-0.009	0.31	-9.00	-9.00	-9.00	1000
25	1277	1286	3.448	34.585	27.511	99	-0.001	-0.011	0.31	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
232	24 Jul 87	00 59.9 N	165 00.5 E	4320	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
24	0	0	28.824	33.896	21.296	198	1.449	0.756	1.01	1.05	1.04	1.92	1000
16	13	13	28.637	33.901	21.362	198	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
22	28	28	28.623	33.907	21.371	198	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
21	48	48	28.646	34.085	21.497	197	1.430	0.772	1.01	1.03	1.06	1.85	1000
20	69	69	26.671	34.887	22.739	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1	88	88	23.428	35.027	23.832	136	1.311	0.671	0.64	0.76	0.77	1.96	1000
18	103	103	21.501	35.050	24.396	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
17	118	118	21.163	35.048	24.487	134	1.243	0.648	0.61	0.66	0.68	1.92	1000
23	146	146	17.670	35.013	25.364	141	1.128	0.564	0.60	0.51	0.51	2.00	1000
15	171	172	17.075	35.132	25.599	144	1.059	0.524	0.60	0.46	0.46	2.02	1000
14	197	197	13.450	34.692	26.064	137	0.919	0.452	0.54	0.33	0.34	2.04	1000
13	227	228	13.285	34.933	26.284	-9	0.637	0.342	-9.00	0.23	0.26	1.86	1000
12	255	256	12.772	34.910	26.369	130	0.517	0.265	0.50	0.18	0.19	1.95	1000
11	296	297	11.634	34.844	26.538	104	0.330	0.193	0.39	0.11	0.13	1.71	1000
10	318	319	10.917	34.791	26.628	-9	0.181	0.117	-9.00	0.06	0.08	1.54	1000
9	353	354	9.852	34.713	26.753	88	0.146	0.098	0.32	0.04	0.06	1.49	1000
8	394	395	9.390	34.681	26.805	105	0.144	0.081	0.38	0.04	0.05	1.78	1000
7	443	444	8.719	34.640	26.881	101	0.107	0.057	0.36	0.03	0.03	1.88	1000
6	492	494	8.323	34.617	26.924	109	-9.000	0.019	0.38	-9.00	-9.00	-9.00	1010
5	593	596	6.859	34.563	27.094	96	-9.000	-0.001	0.32	-9.00	-9.00	-9.00	1010
4	692	696	6.003	34.550	27.197	93	0.004	-0.010	0.31	-9.00	-9.00	-9.00	1000
3	796	800	5.300	34.545	27.280	96	0.002	-0.009	0.31	-9.00	-9.00	-9.00	1000
2	990	996	4.476	34.558	27.384	93	-0.002	-0.007	0.30	-9.00	-9.00	-9.00	1000
25	1283	1292	3.432	34.587	27.515	99	0.000	0.001	0.31	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
235	25 Jul 87	02 02.7 N	165 02.7 E	4100	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
24	0	0	28.627	33.878	21.348	198	1.461	0.784	1.01	1.05	1.07	1.86	1000
16	13	13	28.588	33.917	21.390	194	-9.000	-9.000	0.99	-9.00	-9.00	-9.00	1000
22	29	29	28.539	33.963	21.441	187	-9.000	-9.000	0.96	-9.00	-9.00	-9.00	1000
21	48	48	27.513	34.804	22.408	-9	1.361	0.696	-9.00	0.94	0.92	1.96	1000
20	69	69	24.996	34.914	23.279	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1	88	88	22.818	35.036	24.015	134	1.304	0.675	0.63	0.74	0.75	1.93	1000
18	103	103	21.639	35.039	24.350	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
17	117	117	20.290	35.162	24.810	135	1.217	0.615	0.61	0.62	0.62	1.98	1000
23	147	147	17.255	34.949	25.415	146	1.161	0.580	0.62	0.51	0.52	2.00	1000
15	173	173	14.955	34.783	25.815	146	1.102	0.538	0.59	0.43	0.43	2.05	1000
14	198	198	12.324	34.834	26.398	-9	0.568	0.296	-9.00	0.19	0.21	1.92	1000
13	226	227	12.189	34.879	26.459	-9	0.512	0.253	-9.00	0.17	0.18	2.02	1000
12	257	258	11.896	34.852	26.495	122	0.422	0.232	0.46	0.14	0.16	1.82	1000
11	296	296	10.925	34.785	26.622	-9	0.260	0.151	-9.00	0.08	0.10	1.73	1000
10	325	326	10.556	34.759	26.668	-9	0.207	0.116	-9.00	0.06	0.08	1.78	1000
9	354	355	9.858	34.710	26.750	104	0.177	0.102	0.38	0.05	0.06	1.73	1000
8	395	396	9.291	34.674	26.816	109	0.172	0.097	0.39	0.05	0.06	1.78	1000
7	444	445	8.622	34.634	26.892	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
6	492	494	8.184	34.610	26.940	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
5	591	593	7.126	34.568	27.061	99	0.033	-9.000	0.34	0.01	-9.00	-9.00	1020
4	694	697	6.024	34.548	27.193	86	0.005	0.005	0.29	-9.00	-9.00	-9.00	1000
3	790	794	5.433	34.547	27.265	85	0.008	0.007	0.28	-9.00	-9.00	-9.00	1000
2	987	994	4.356	34.563	27.401	96	0.002	0.005	0.31	-9.00	-9.00	-9.00	1000
25	1287	1296	3.546	34.585	27.502	-9	0.002	0.001	-9.00	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
237	25 Jul 87	04 00.8 N	165 00.4 E	4509	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
24	0	0	28.657	33.998	21.428	198	1.455	0.785	1.01	1.04	1.08	1.85	1000
16	15	15	28.588	34.044	21.485	197	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
22	27	27	28.452	34.473	21.853	193	-9.000	-9.000	0.99	-9.00	-9.00	-9.00	1000
21	47	47	26.656	34.993	22.824	166	1.339	0.691	0.83	0.89	0.89	1.94	1000
20	68	68	24.607	35.048	23.498	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1	72	72	24.551	35.055	23.520	92	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
18	103	103	21.416	34.949	24.343	140	-9.000	-9.000	0.64	-9.00	-9.00	-9.00	1000
17	122	122	19.306	34.894	24.863	135	1.264	0.659	0.59	0.61	0.64	1.92	1000
23	148	148	15.921	34.712	25.545	124	1.057	0.529	0.51	0.43	0.44	2.00	1000
15	198	198	11.147	34.575	26.418	66	0.341	0.211	0.25	0.11	0.14	1.62	1000
14	248	248	9.697	34.611	26.700	54	0.116	0.074	0.20	0.03	0.05	1.58	1000
13	295	296	9.043	34.621	26.815	60	0.075	0.078	0.21	0.02	0.05	0.96	1000
12	345	346	8.575	34.628	26.894	-9	0.072	0.050	-9.00	0.02	0.03	1.45	1000
11	396	398	8.172	34.603	26.937	90	0.082	-9.000	0.31	0.02	-9.00	-9.00	1020
10	443	445	7.825	34.592	26.980	-9	0.058	0.035	-9.00	0.02	0.02	1.67	1000
9	494	496	7.539	34.590	27.020	71	0.027	0.023	0.24	-9.00	-9.00	-9.00	1000
8	543	546	7.227	34.588	27.063	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
7	592	595	6.653	34.567	27.125	53	0.005	0.004	0.18	-9.00	-9.00	-9.00	1000
6	642	646	6.408	34.566	27.157	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
5	692	696	6.029	34.556	27.198	63	0.004	-0.003	0.21	-9.00	-9.00	-9.00	1000
4	737	742	5.775	34.555	27.230	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
3	811	816	5.179	34.551	27.298	73	0.004	0.002	0.24	-9.00	-9.00	-9.00	1000
2	990	996	4.278	34.566	27.412	82	-0.002	0.002	0.26	-9.00	-9.00	-9.00	1000
25	1287	1296	3.453	34.590	27.515	86	-9.000	-9.000	0.27	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
239	26 Jul 87	05 59.7 N	164 58.4 E	5010	227.0	410.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
24	0	0	28.924	33.632	21.065	198	1.489	0.901	1.01	1.07	-9.00	-9.00	1120
16	14	14	28.796	33.833	21.258	198	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
22	28	28	28.721	33.870	21.311	197	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
21	47	47	28.769	34.115	21.479	199	1.520	0.755	1.02	1.10	1.04	2.01	1000
20	49	49	28.769	34.085	21.456	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1	72	72	26.800	34.685	22.546	192	1.563	0.760	0.96	1.05	0.98	2.06	1000
18	98	98	21.193	34.919	24.381	178	-9.000	-9.000	0.81	-9.00	-9.00	-9.00	1000
17	122	122	18.394	34.845	25.057	158	1.625	0.759	0.68	0.75	0.71	2.14	1000
23	146	147	14.170	34.572	25.821	118	1.121	0.530	0.47	0.42	0.41	2.11	1000
15	197	197	10.246	34.624	26.617	44	0.155	0.105	0.16	0.05	0.07	1.48	1000
14	245	245	9.528	34.655	26.762	44	-9.000	-9.000	0.16	-9.00	-9.00	-9.00	1000
13	295	296	9.181	34.657	26.821	45	0.043	-9.000	0.16	0.01	-9.00	-9.00	1020
12	346	347	8.800	34.645	26.872	-9	0.025	0.022	-9.00	-9.00	-9.00	-9.00	1000
11	395	396	8.501	34.633	26.910	46	0.017	0.021	0.16	-9.00	-9.00	-9.00	1000
10	445	447	8.053	34.609	26.959	-9	0.022	0.011	-9.00	-9.00	-9.00	-9.00	1000
9	493	495	7.738	34.598	26.997	51	0.014	0.011	0.18	-9.00	-9.00	-9.00	1000
8	542	545	7.307	34.585	27.049	-9	0.000	-0.004	-9.00	-9.00	-9.00	-9.00	1000
7	593	596	6.926	34.573	27.093	38	0.001	-0.004	0.13	-9.00	-9.00	-9.00	1000
6	643	646	6.670	34.567	27.123	-9	0.001	-0.002	-9.00	-9.00	-9.00	-9.00	1000
5	691	694	6.266	34.557	27.169	46	0.002	-9.000	0.15	-9.00	-9.00	-9.00	1020
4	740	744	5.903	34.553	27.212	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
3	808	812	5.551	34.554	27.256	61	-0.002	-0.002	0.20	-9.00	-9.00	-9.00	1000
2	989	995	4.595	34.560	27.372	69	-0.003	-0.008	0.22	-9.00	-9.00	-9.00	1000
25	1285	1294	3.551	34.586	27.502	83	-9.000	-9.000	0.26	-9.00	-9.00	-9.00	1000

TEW Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
240	26 Jul 87	07 00.2 N	165 00.2 E	5160	227.0	410.0

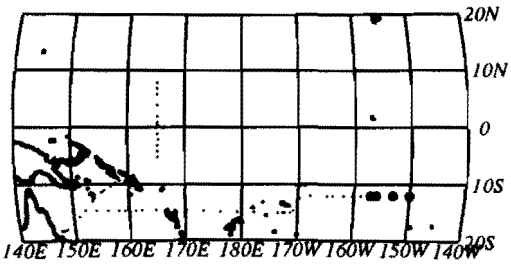
SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
24	0	0	29.017	33.865	21.209	197	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
16	14	14	28.747	33.950	21.362	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
22	28	28	28.634	34.002	21.439	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
21	48	48	28.609	34.176	21.578	198	1.534	0.752	1.01	1.10	1.03	2.04	1000
20	49	49	28.607	34.214	21.607	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1	72	72	27.212	34.544	22.309	-9	1.636	0.797	-9.00	1.11	1.04	2.05	1000
18	98	98	22.671	34.795	23.874	180	-9.000	-9.000	0.84	-9.00	-9.00	-9.00	1000
17	122	122	16.641	34.694	25.365	-9	1.474	0.735	-9.00	0.63	0.63	2.01	1000
23	147	147	13.461	34.546	25.948	-9	0.949	0.432	-9.00	0.34	0.32	2.20	1000
15	196	197	11.116	34.577	26.426	57	0.332	0.180	0.21	0.11	0.12	1.84	1000
14	247	248	9.850	34.650	26.705	40	0.080	0.038	0.14	0.02	0.02	2.11	1000
13	298	298	9.202	34.639	26.803	31	0.032	-9.000	0.11	0.01	-9.00	-9.00	1020
12	344	345	8.803	34.638	26.866	47	0.037	-9.000	0.17	0.01	-9.00	-9.00	1020
11	396	398	8.485	34.617	26.900	40	0.015	0.005	0.14	-9.00	-9.00	-9.00	1000
10	446	448	8.240	34.614	26.935	46	0.018	0.007	0.16	-9.00	-9.00	-9.00	1000
9	495	497	7.699	34.587	26.994	47	0.006	-9.000	0.16	-9.00	-9.00	-9.00	1020
8	543	545	7.235	34.570	27.047	52	0.005	0.002	0.18	-9.00	-9.00	-9.00	1000
7	593	596	6.812	34.562	27.100	54	0.003	0.007	0.18	-9.00	-9.00	-9.00	1000
6	643	646	6.379	34.550	27.148	61	-9.000	-9.000	0.20	-9.00	-9.00	-9.00	1000
5	691	694	6.020	34.551	27.195	55	0.005	0.000	0.18	-9.00	-9.00	-9.00	1000
4	740	744	5.694	34.551	27.236	54	-9.000	-9.000	0.18	-9.00	-9.00	-9.00	1000
3	794	798	5.324	34.551	27.281	57	0.002	0.001	0.19	-9.00	-9.00	-9.00	1000
2	988	994	4.434	34.562	27.392	77	-0.001	0.002	0.25	-9.00	-9.00	-9.00	1000
25	1286	1296	3.387	34.590	27.521	84	-9.000	-9.000	0.26	-9.00	-9.00	-9.00	1000

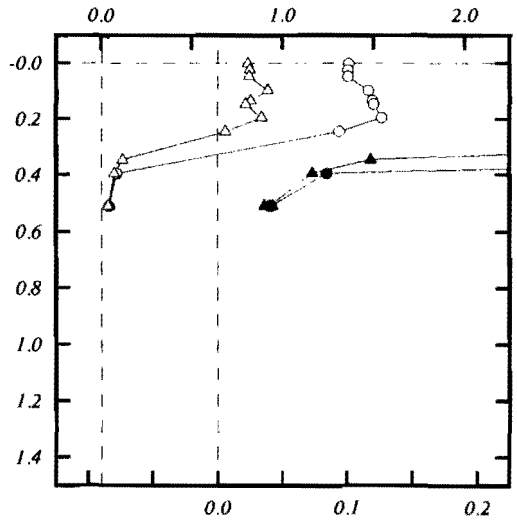
TEW Bottle Data

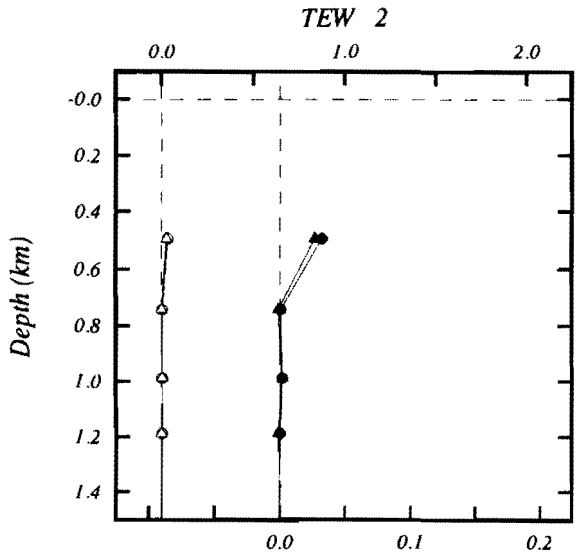
Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
241	26 Jul 87	08 00.3 N	164 59.6 E	5202	227.0	410.0

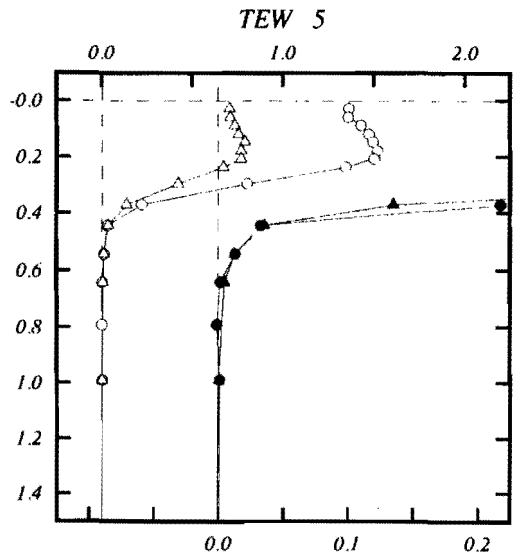
SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
24	0	0	29.006	33.863	21.211	198	1.502	0.781	1.01	1.09	1.08	1.92	1000
16	14	14	28.675	33.931	21.372	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
22	29	29	28.689	34.017	21.432	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
21	48	48	28.026	34.392	21.931	-9	1.572	0.794	-9.00	1.10	1.07	1.98	1000
20	48	48	27.994	34.403	21.950	198	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
1	73	73	26.741	34.561	22.471	202	1.655	0.820	1.00	1.10	1.06	2.02	1000
18	98	98	24.034	34.796	23.478	177	1.594	0.945	0.84	0.95	1.10	1.69	1000
17	122	122	18.384	34.803	25.027	154	1.604	0.751	0.66	0.74	0.70	2.14	1000
23	147	148	14.986	34.599	25.667	128	1.262	0.579	0.51	0.49	0.46	2.18	1000
15	197	197	11.088	34.569	26.425	55	0.325	0.205	0.21	0.10	0.14	1.58	1000
14	247	248	9.862	34.639	26.694	41	0.100	0.048	0.15	0.03	0.03	2.08	1000
13	291	292	9.369	34.643	26.779	30	0.036	0.027	0.11	0.01	-9.00	-9.00	1000
12	345	347	8.875	34.624	26.844	-9	0.026	-9.000	-9.00	-9.00	-9.00	-9.00	1020
11	395	396	8.449	34.609	26.899	35	0.012	0.016	0.12	-9.00	-9.00	-9.00	1000
10	445	446	8.144	34.607	26.944	-9	0.014	-9.000	-9.00	-9.00	-9.00	-9.00	1020
9	494	497	7.863	34.599	26.979	52	0.017	-9.000	0.18	-9.00	-9.00	-9.00	1020
8	542	544	7.527	34.586	27.018	-9	0.005	-9.000	-9.00	-9.00	-9.00	-9.00	1020
7	593	596	6.996	34.559	27.072	40	0.000	-9.000	0.14	-9.00	-9.00	-9.00	1020
6	642	645	6.619	34.554	27.120	-9	0.000	-9.000	-9.00	-9.00	-9.00	-9.00	1020
5	691	695	6.232	34.546	27.164	46	0.004	0.000	0.15	-9.00	-9.00	-9.00	1000
4	742	746	5.846	34.544	27.212	-9	-0.002	-0.003	-9.00	-9.00	-9.00	-9.00	1000
3	788	792	5.500	34.545	27.255	52	0.000	0.009	0.17	-9.00	-9.00	-9.00	1000
2	989	995	4.429	34.560	27.391	65	-0.004	-0.004	0.21	-9.00	-9.00	-9.00	1000
25	1286	1296	3.499	34.584	27.506	76	-9.000	-9.000	0.24	-9.00	-9.00	-9.00	1030

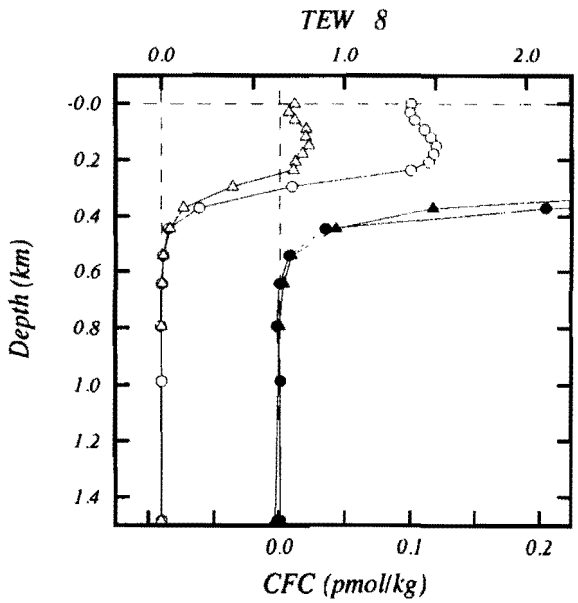
Locations of Stations on This Page

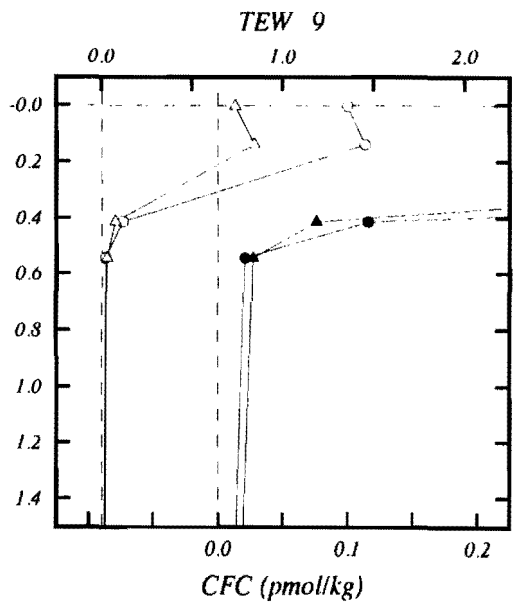




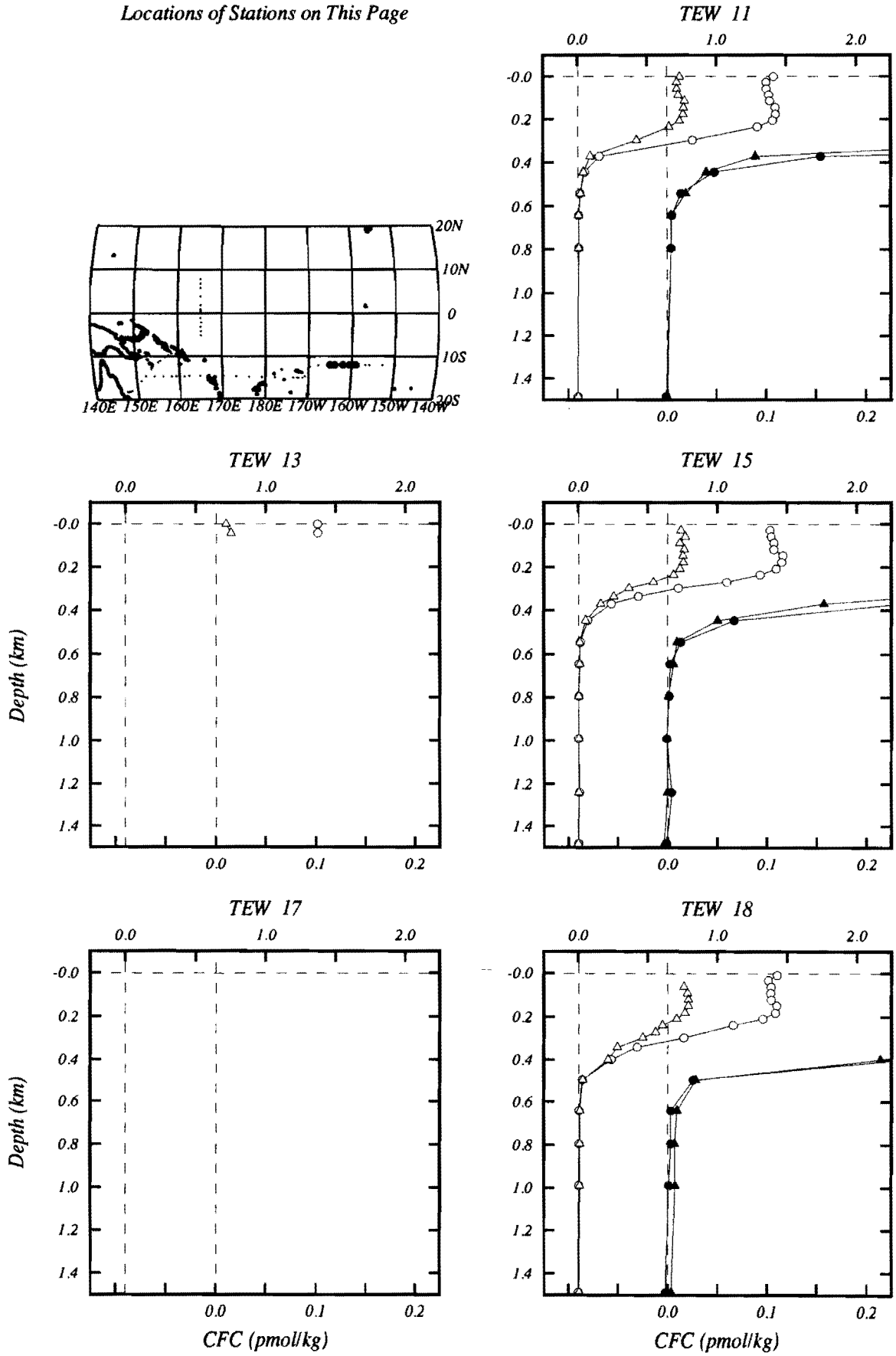








Locations of Stations on This Page



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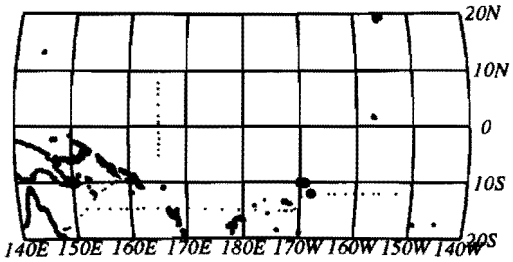

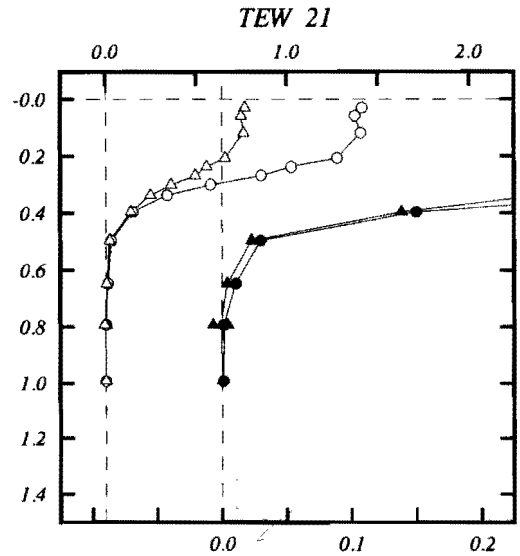

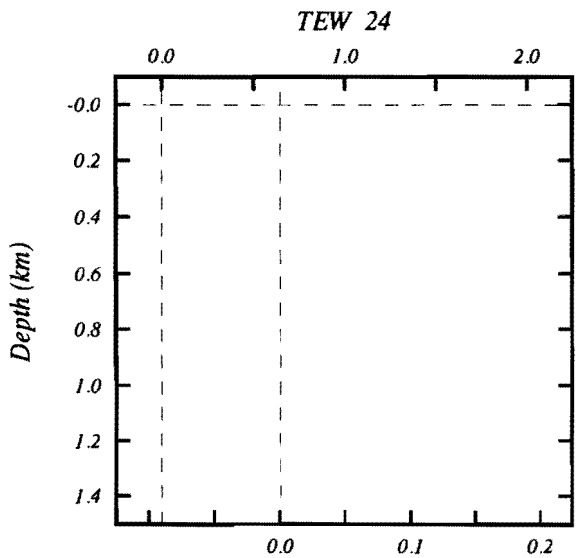

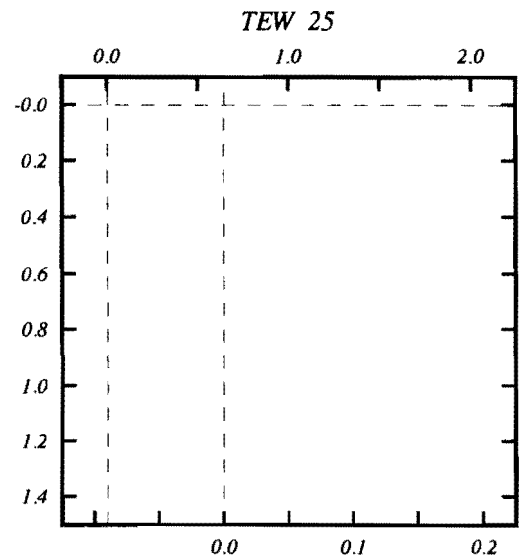

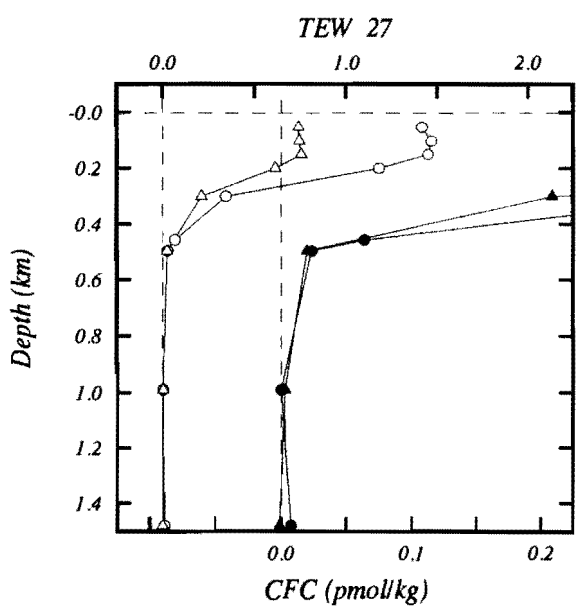

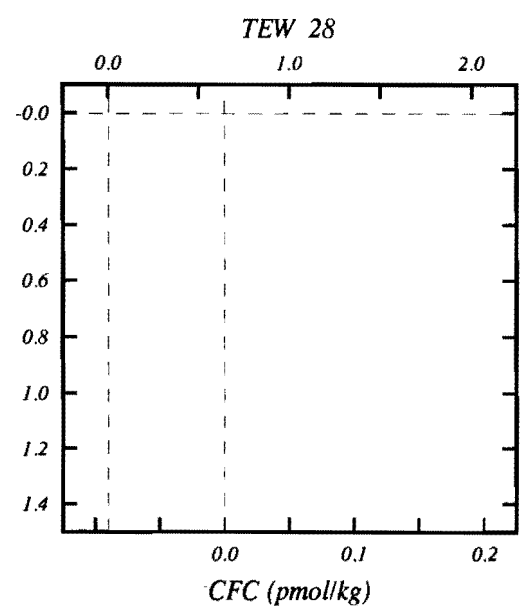

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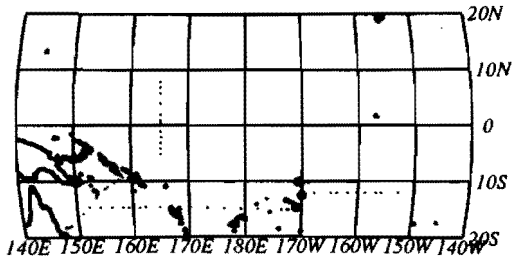
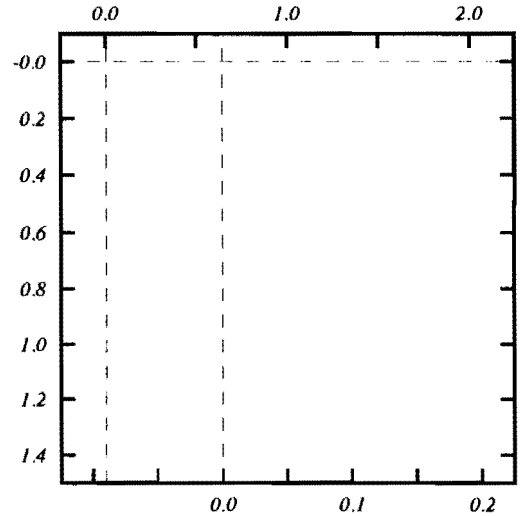


TEW 29



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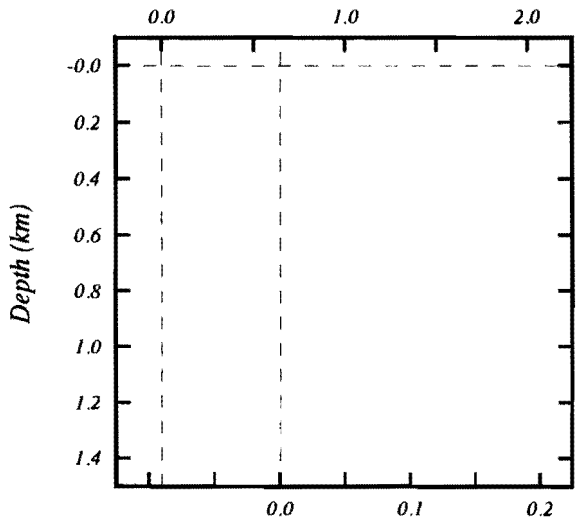

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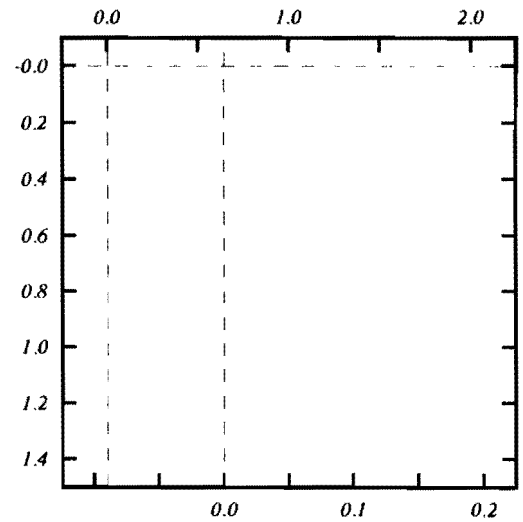

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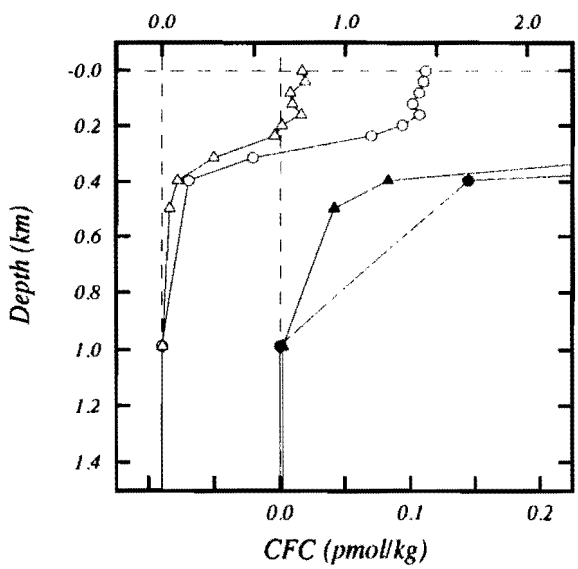

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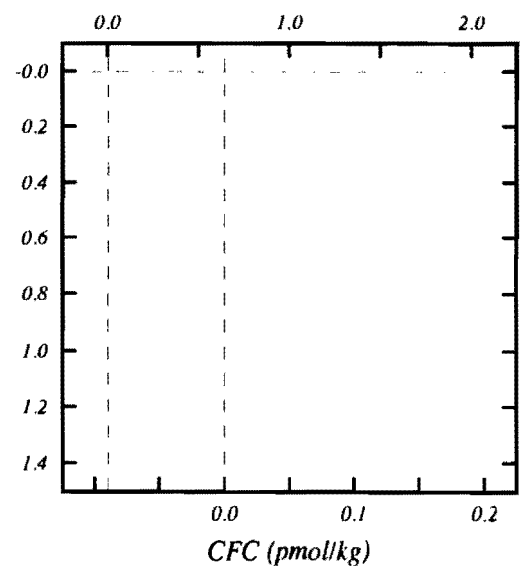

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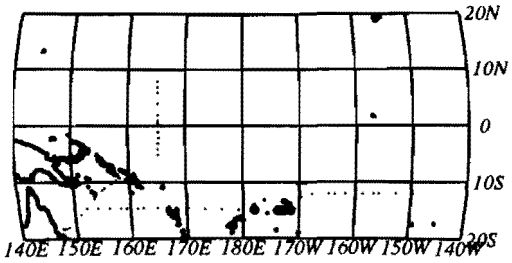

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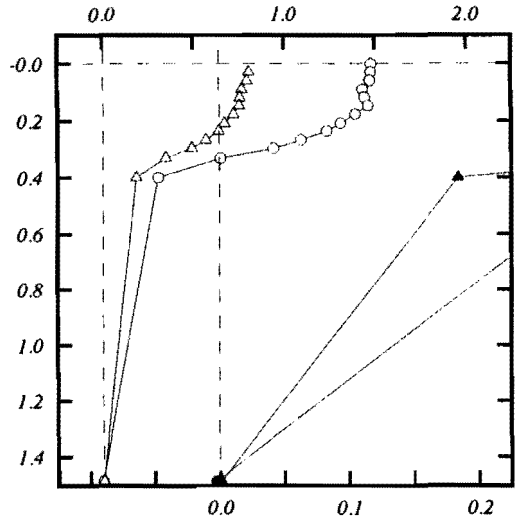

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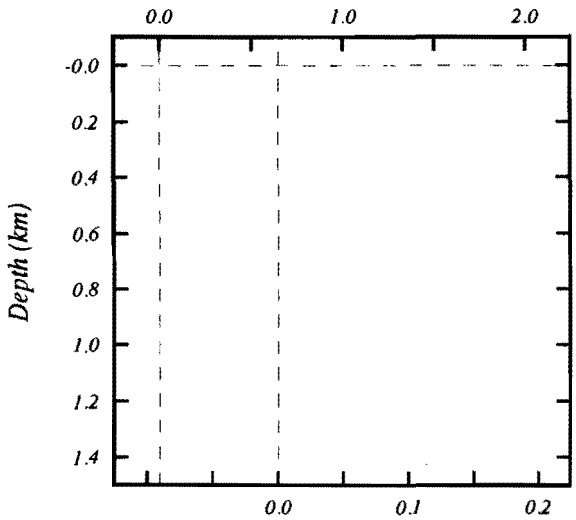

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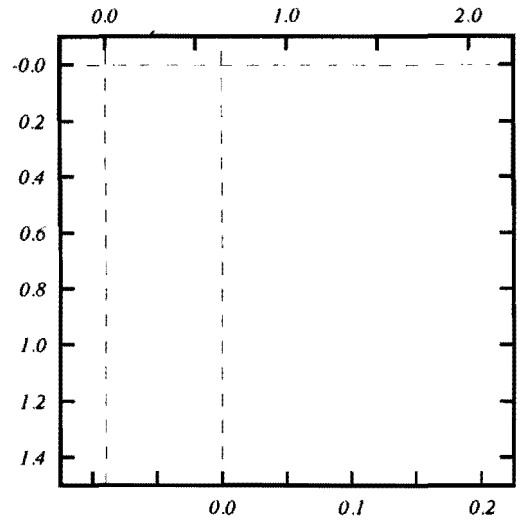

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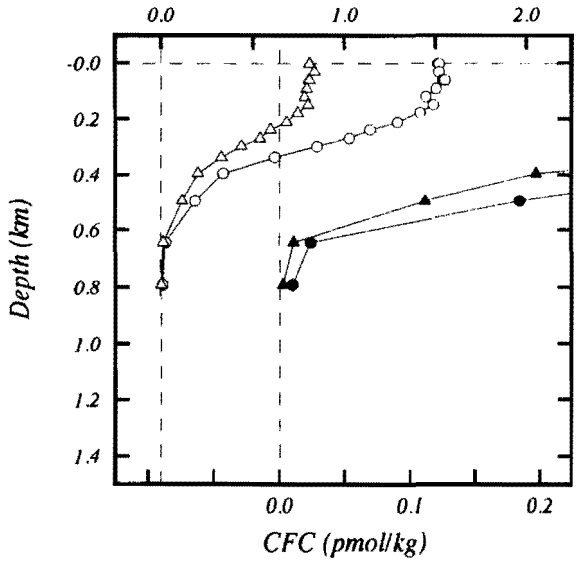

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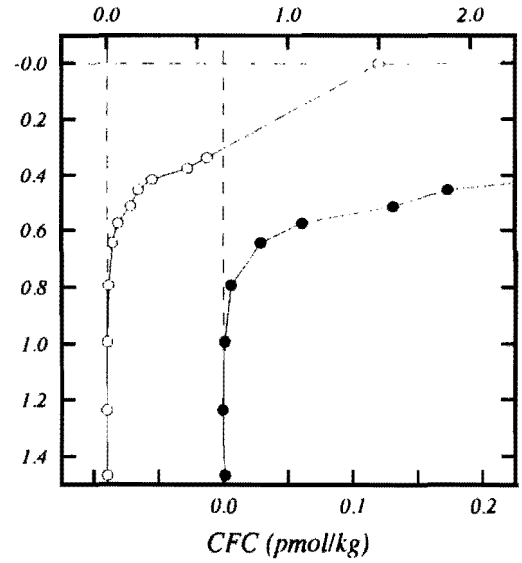

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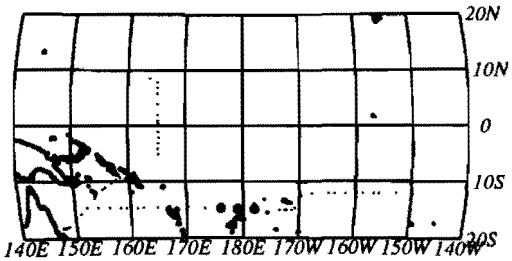

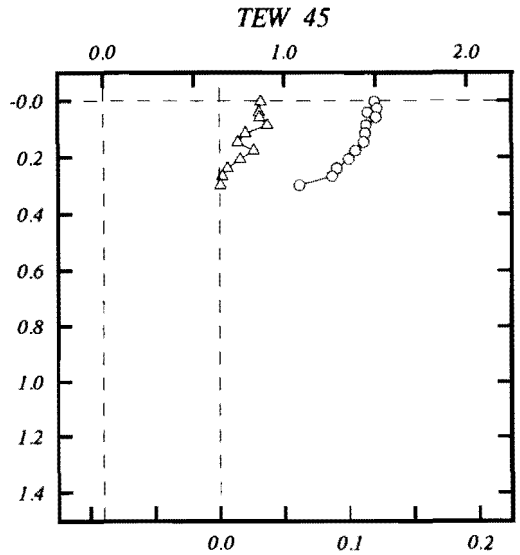

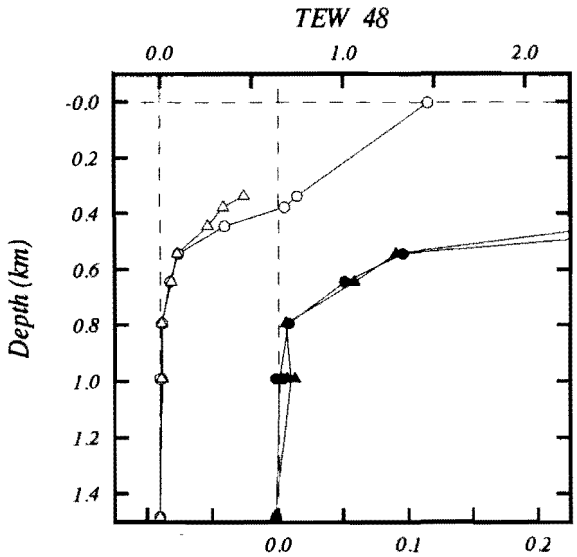

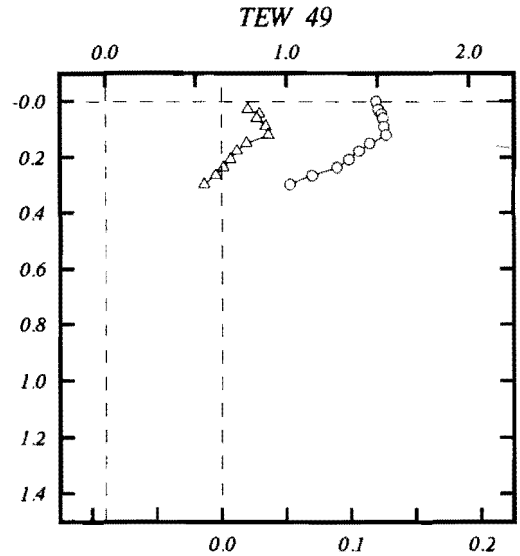

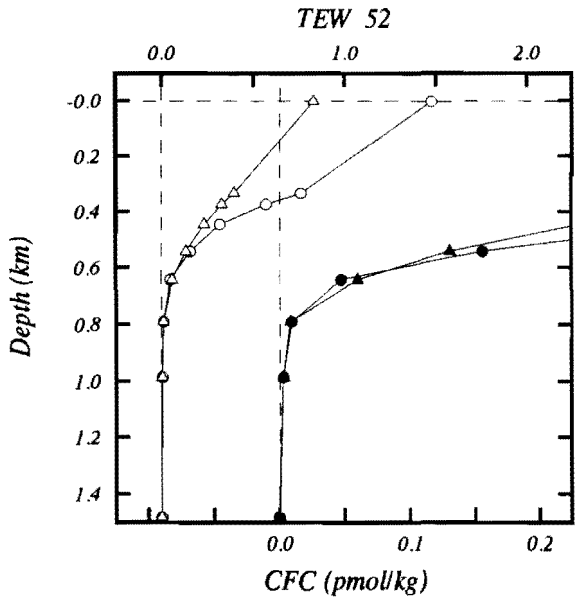

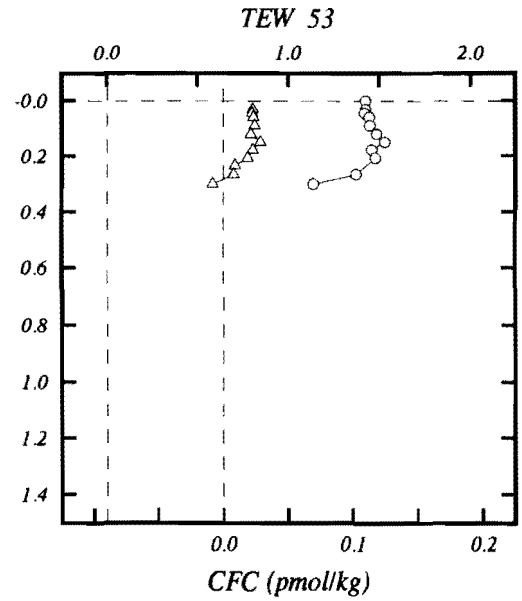

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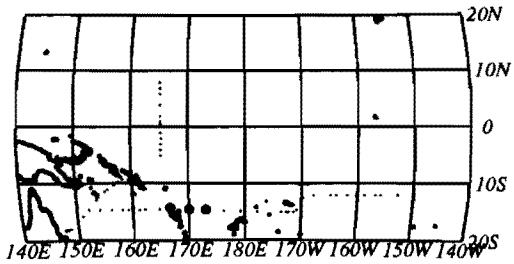

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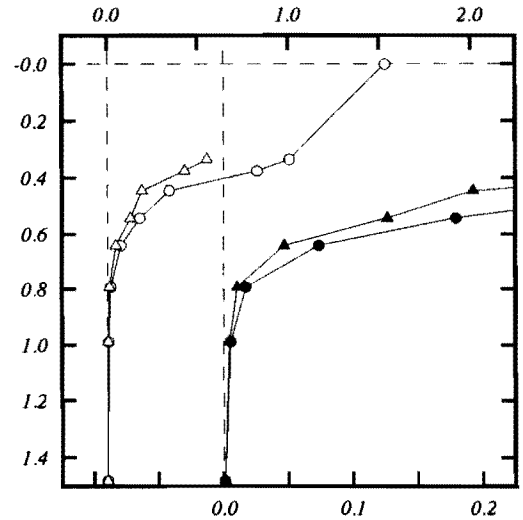

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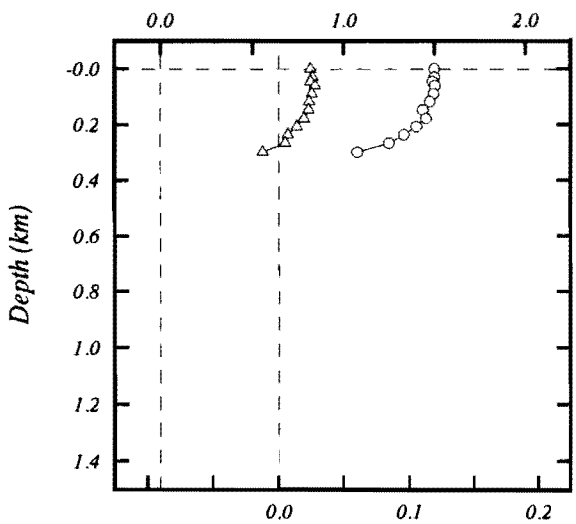

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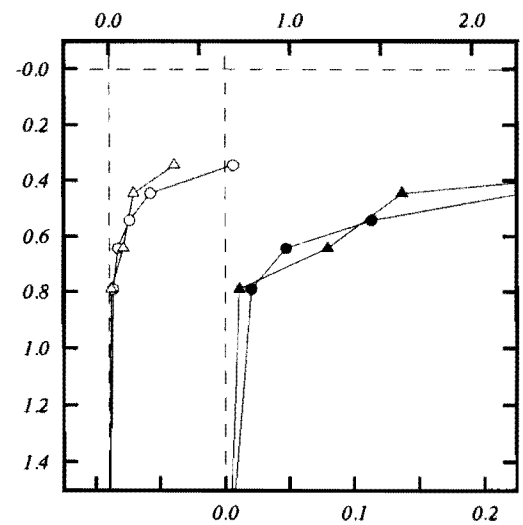

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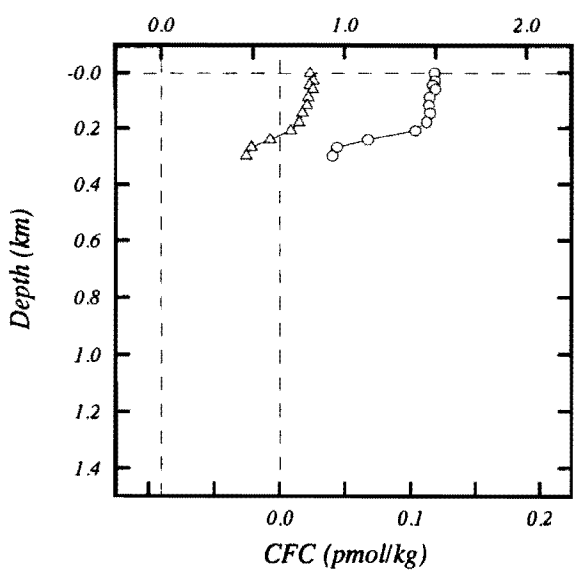

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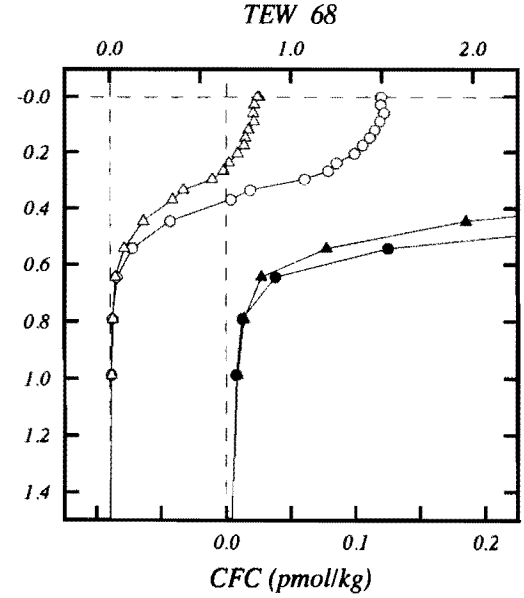

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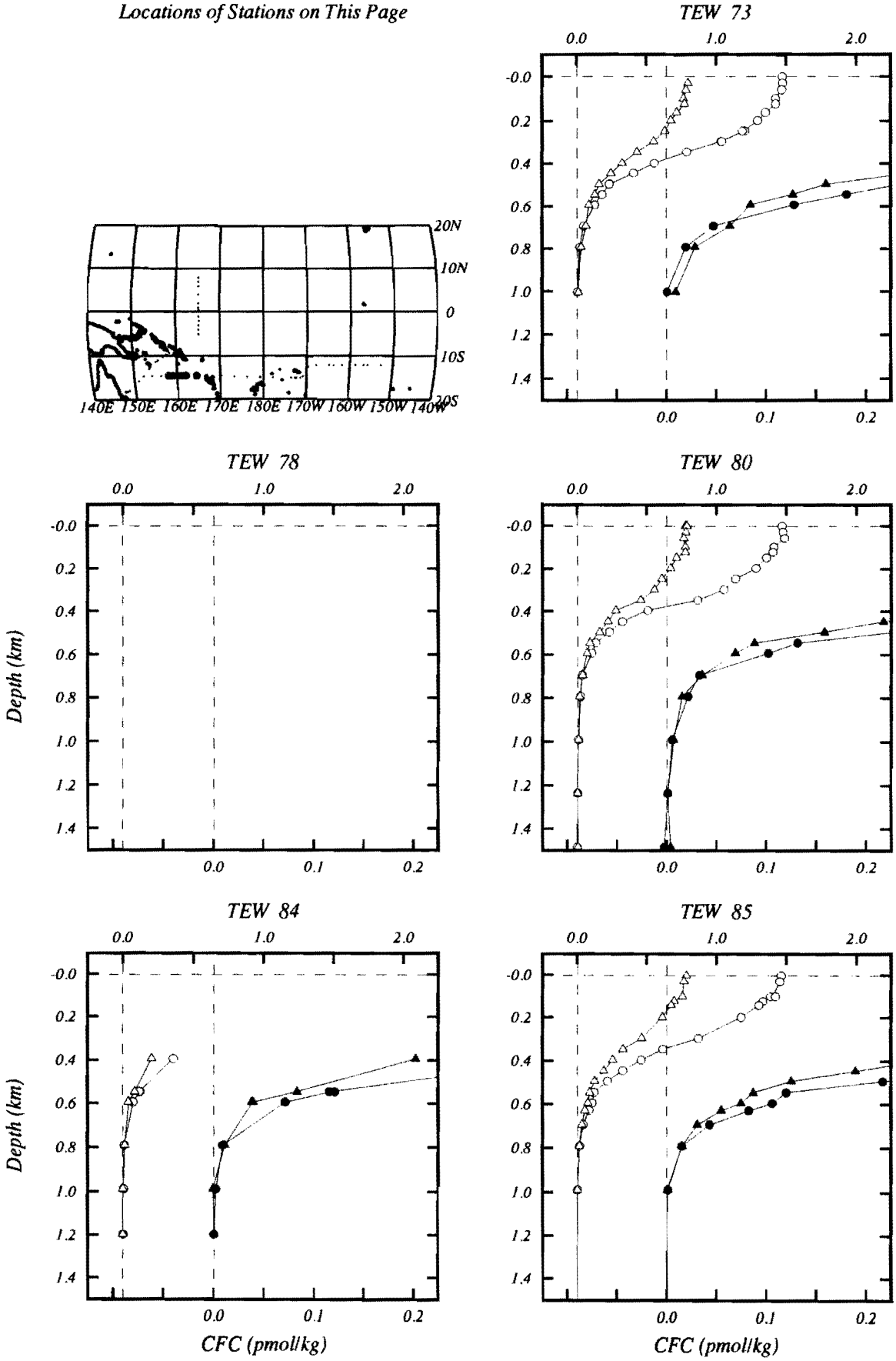

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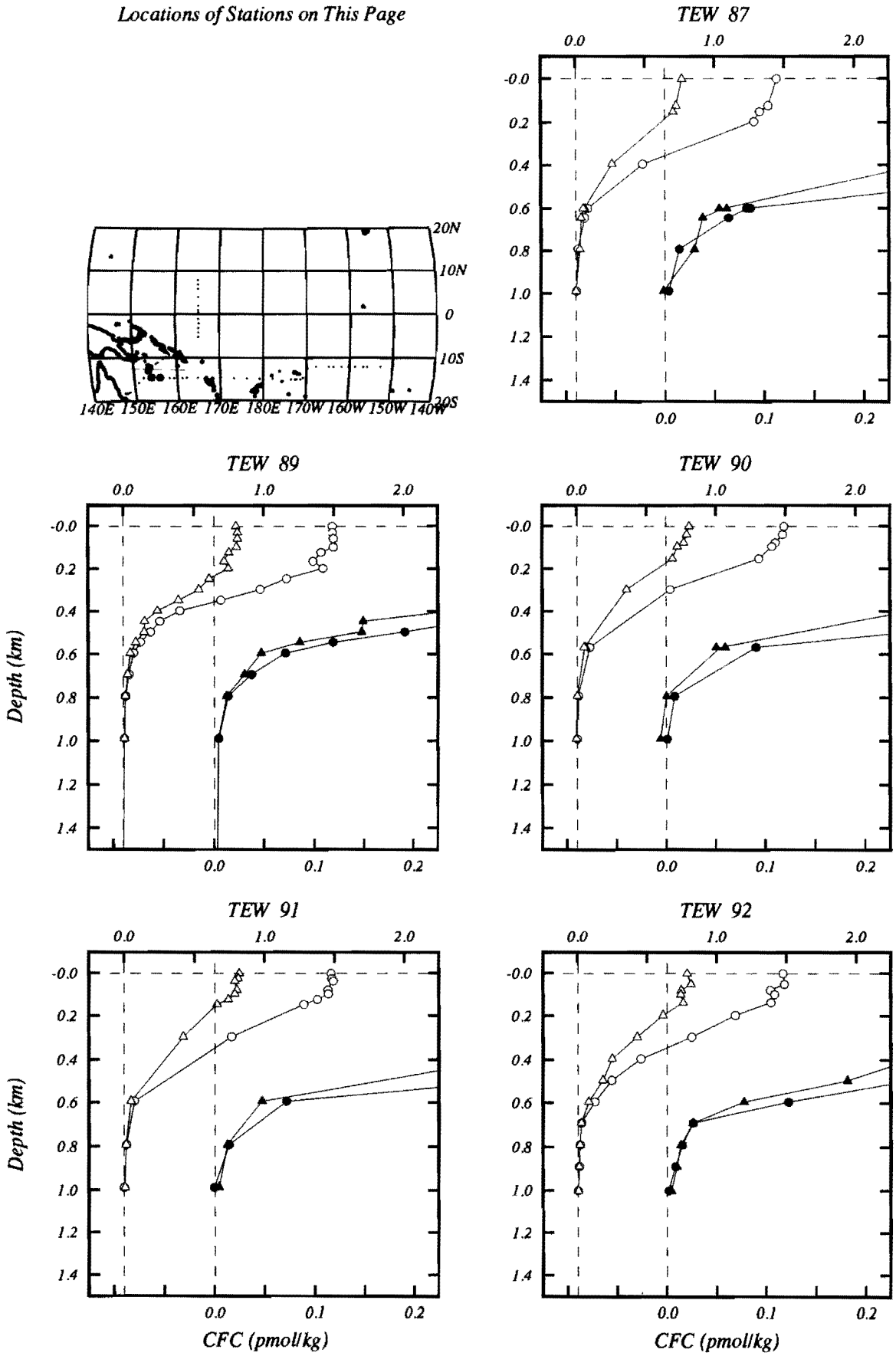

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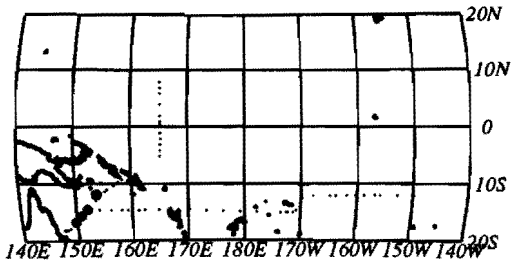

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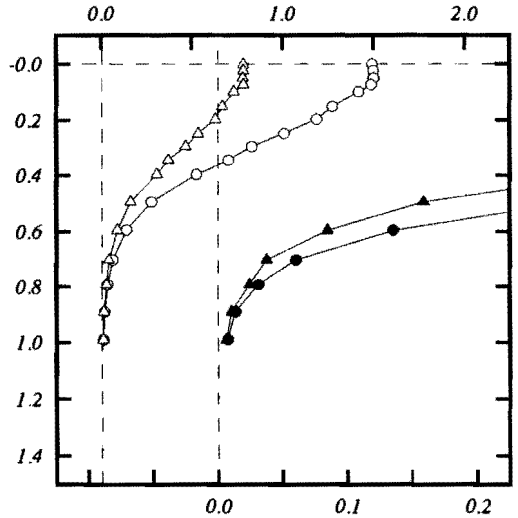

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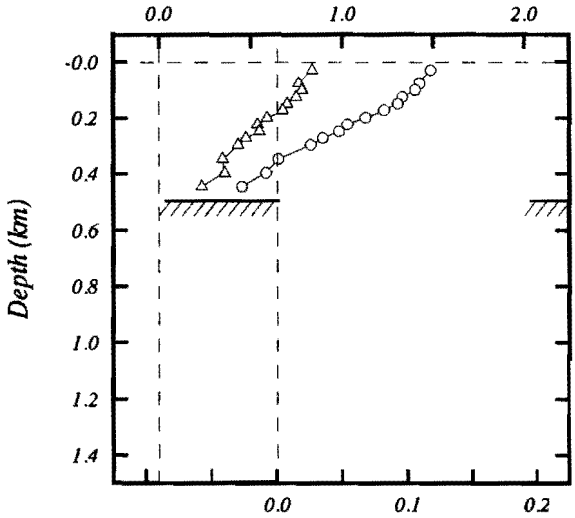

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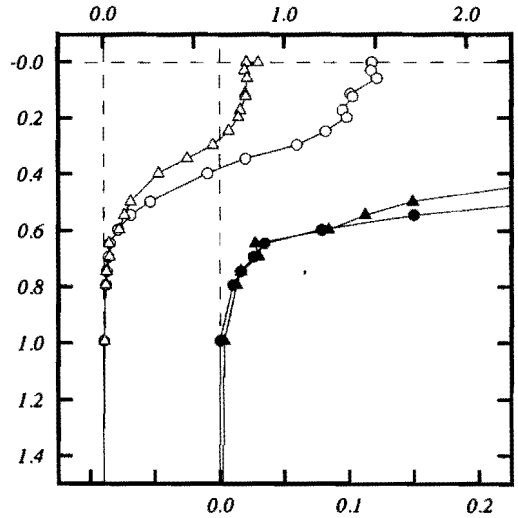

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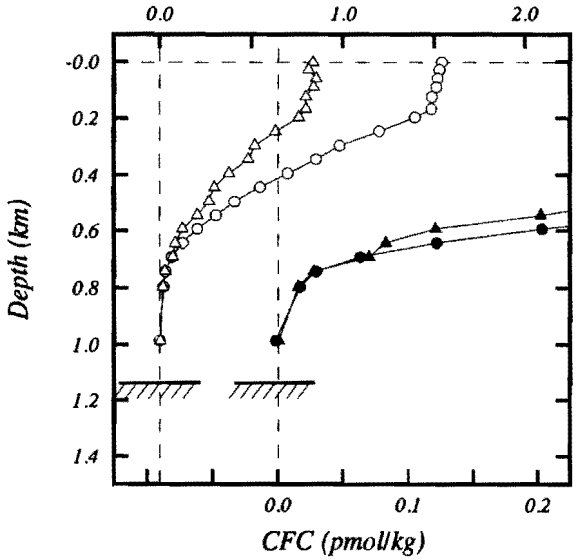

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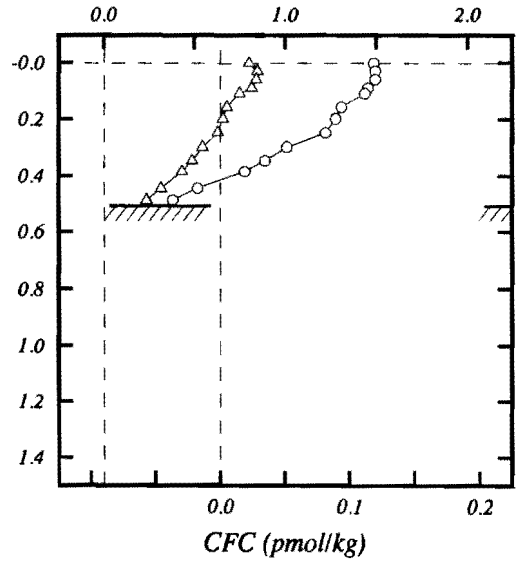

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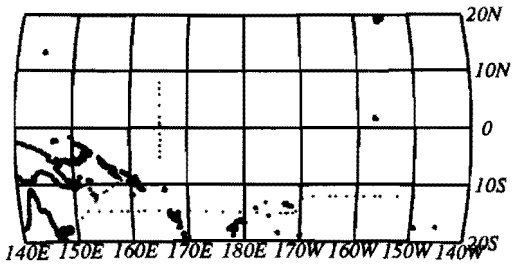

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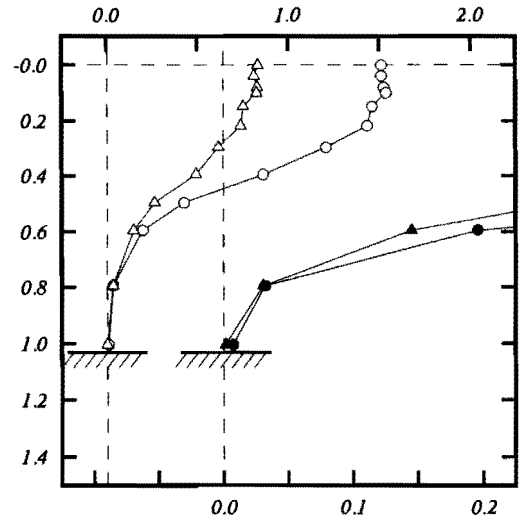

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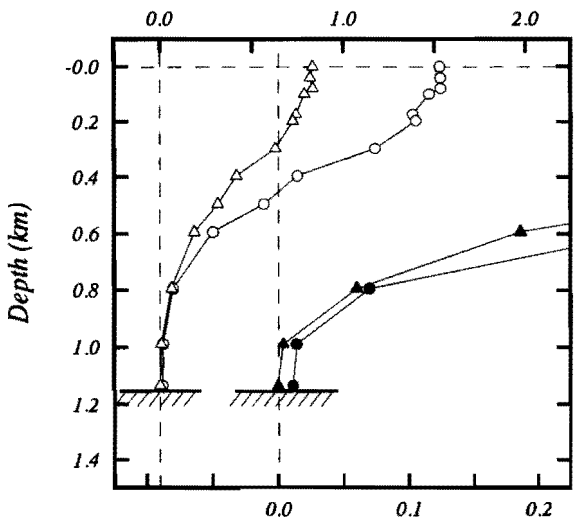

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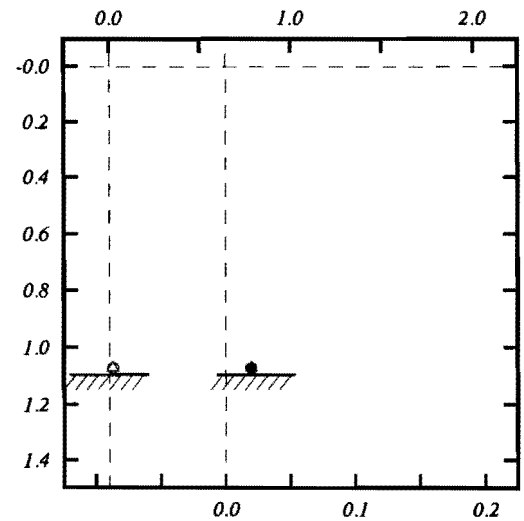

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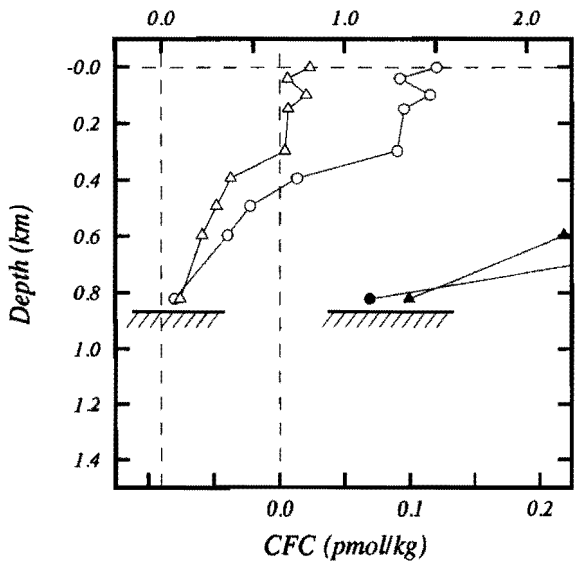

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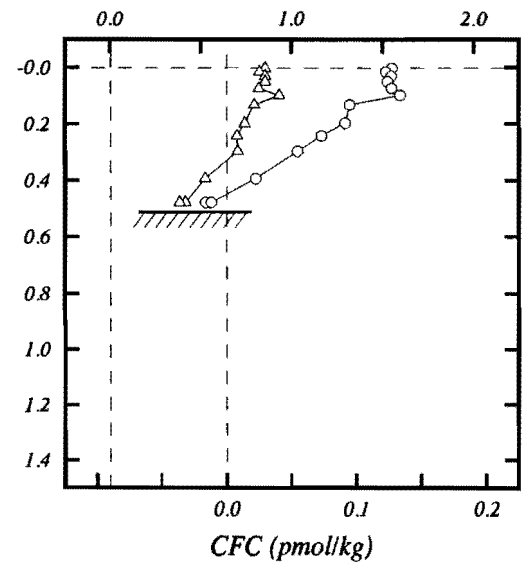

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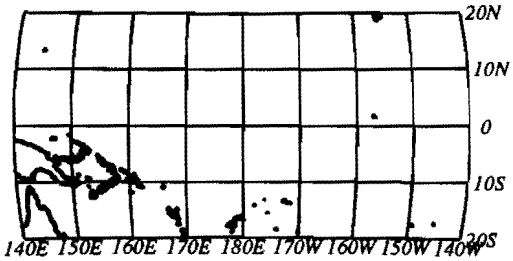

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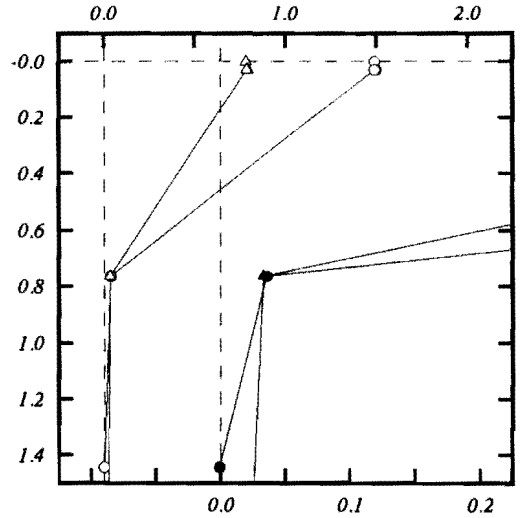

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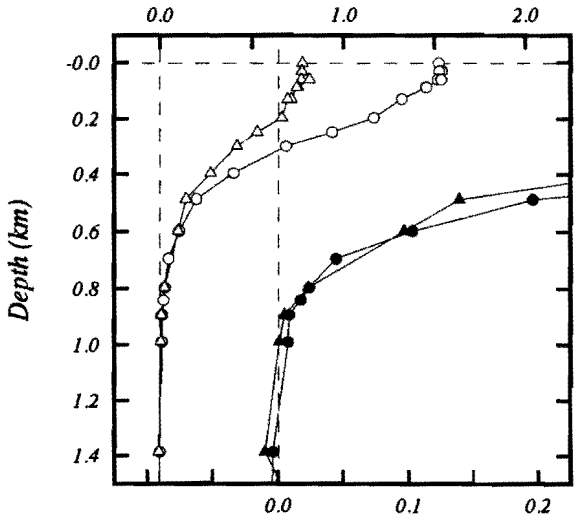

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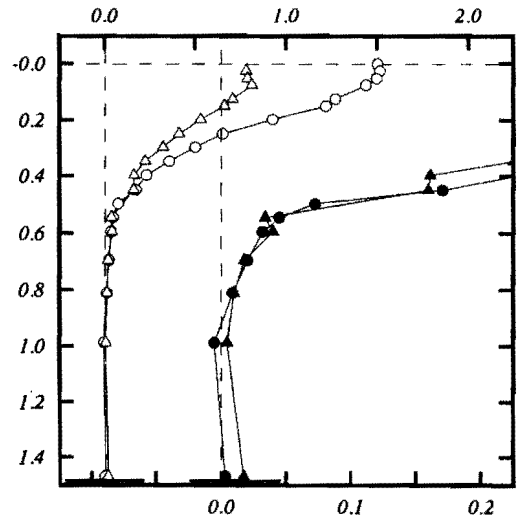

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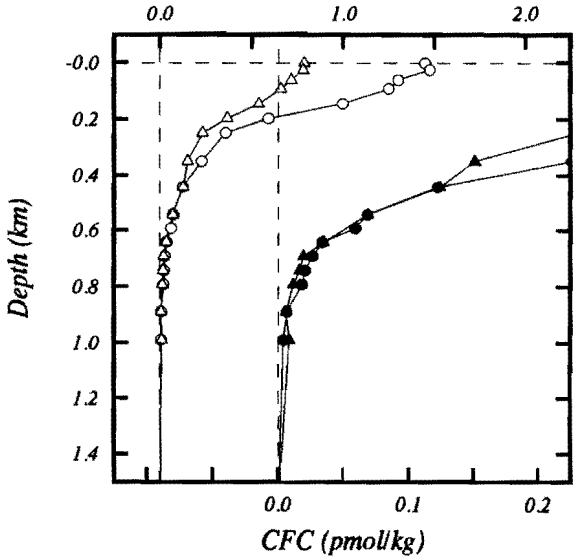

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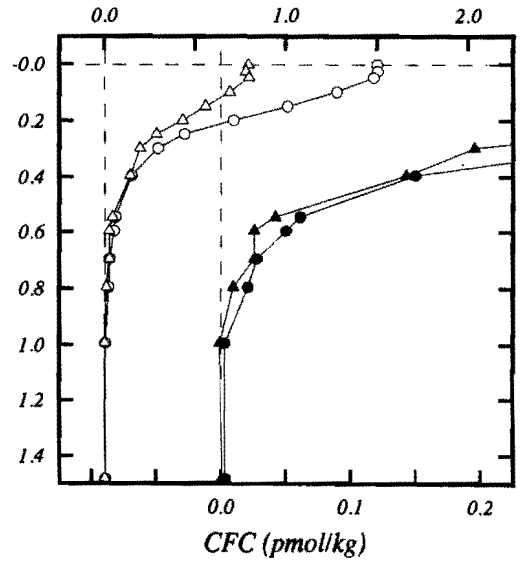

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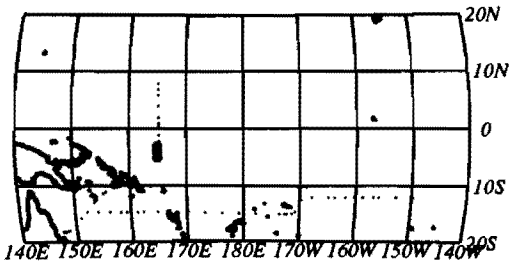
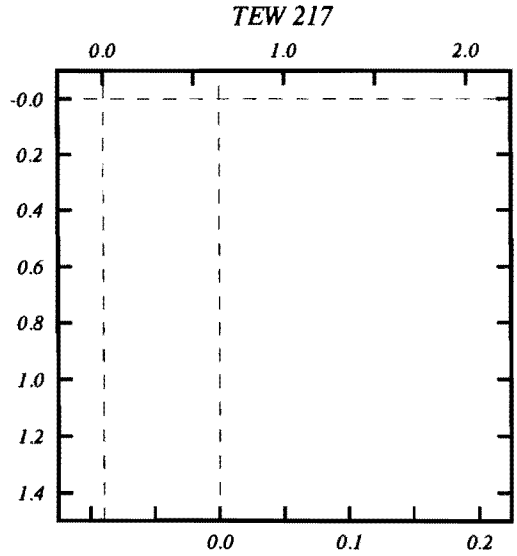
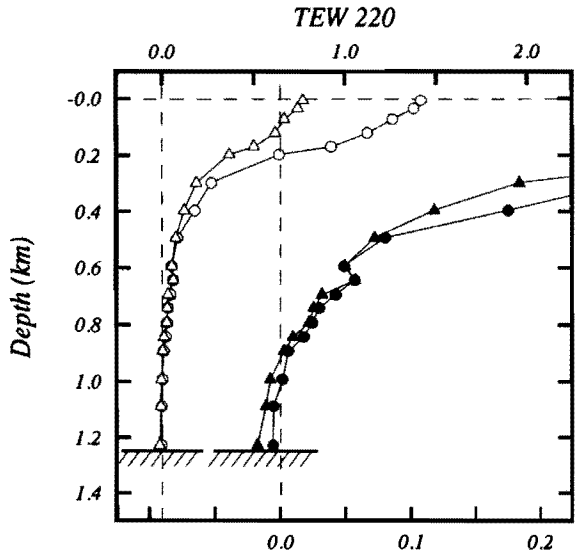
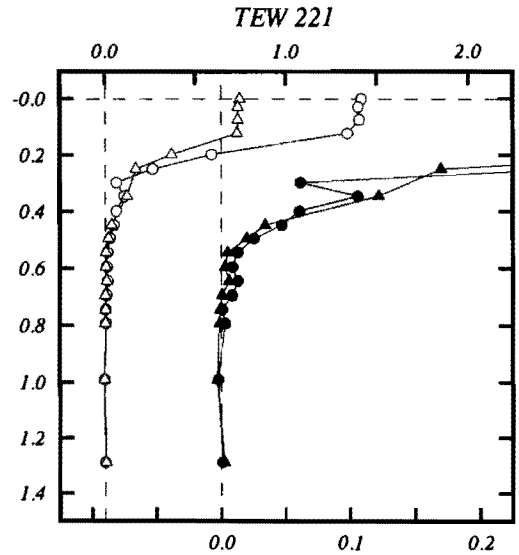
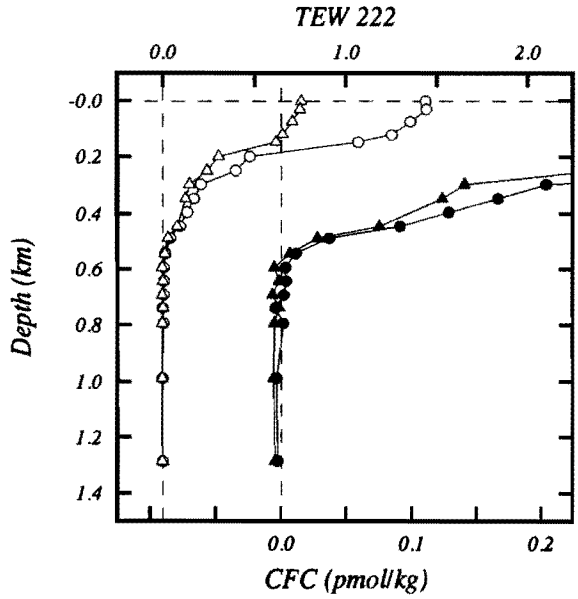
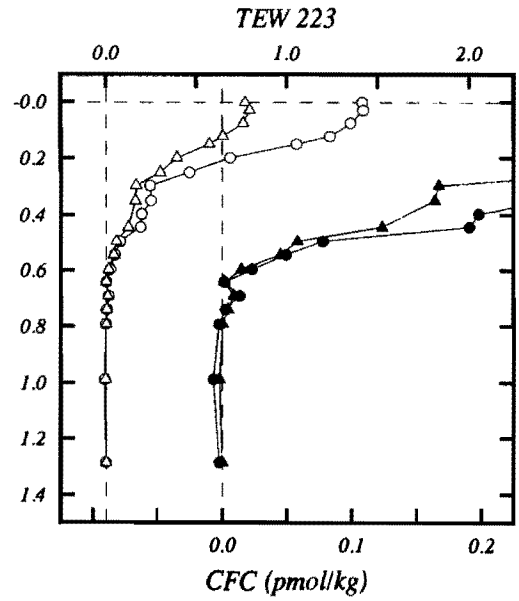




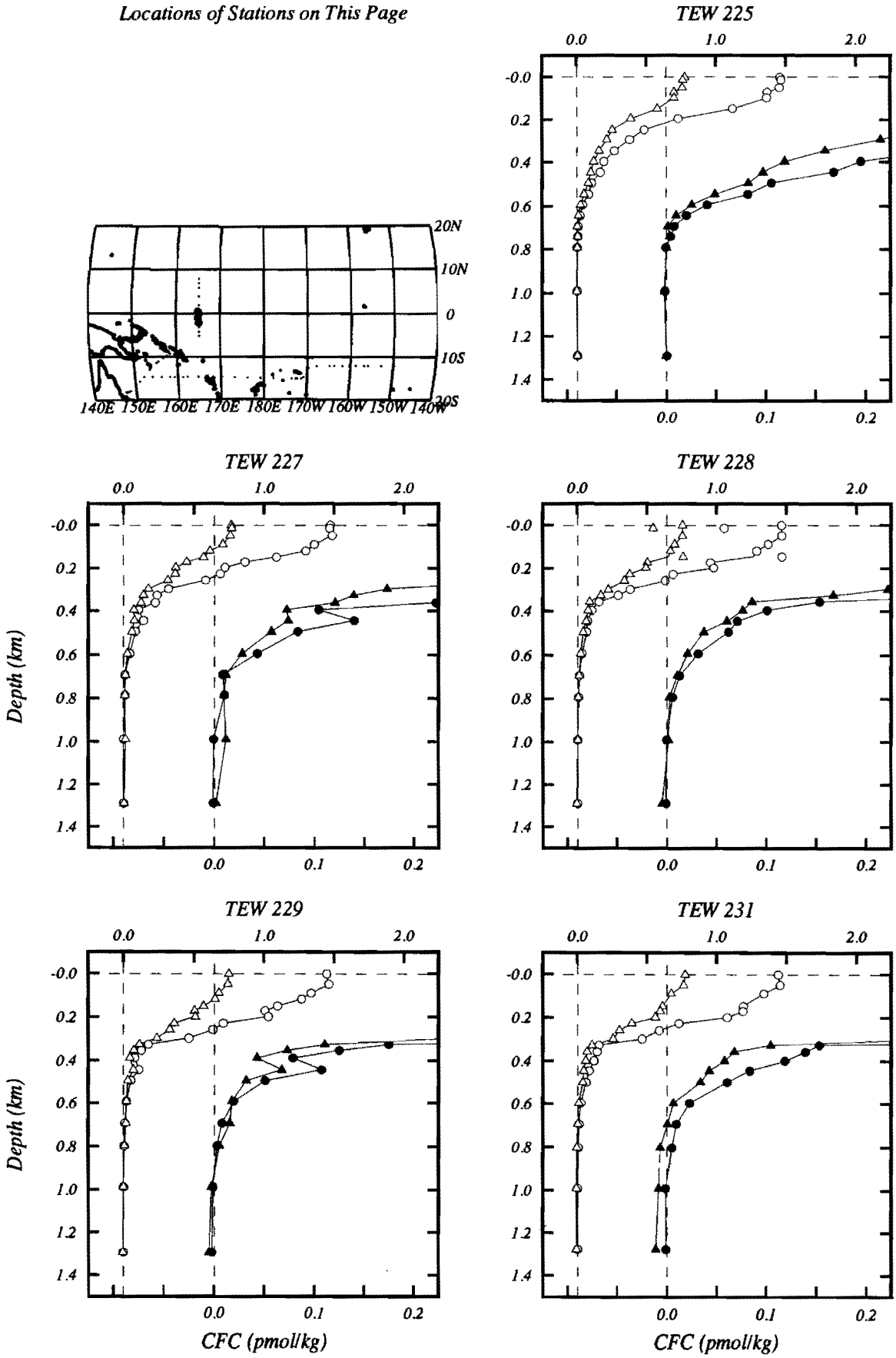




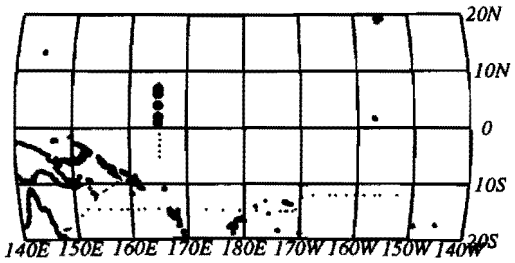




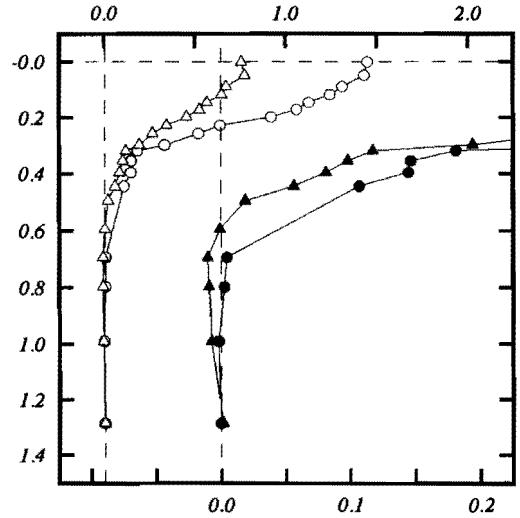
Locations of Stations on This Page



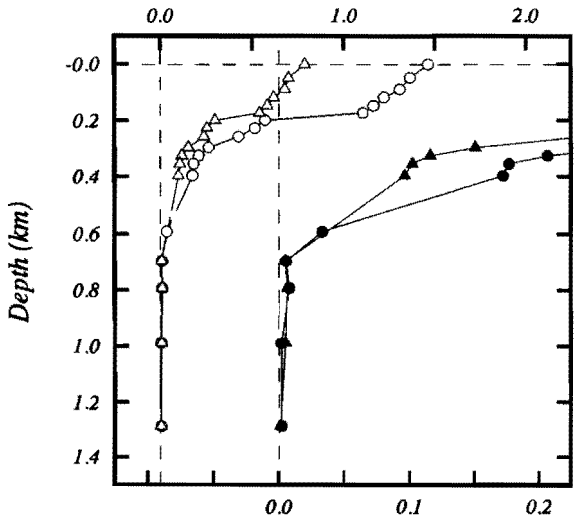
Locations of Stations on This Page



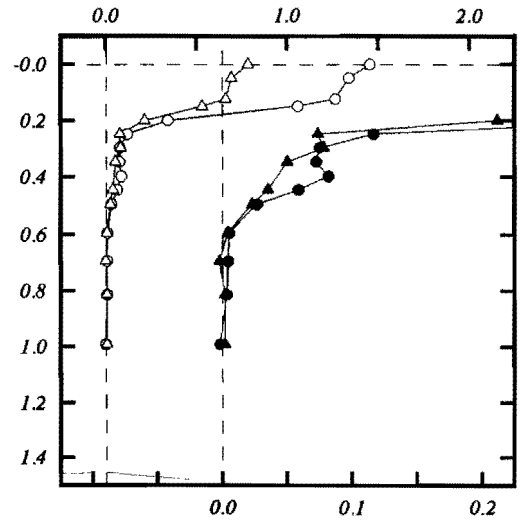
TEW 232



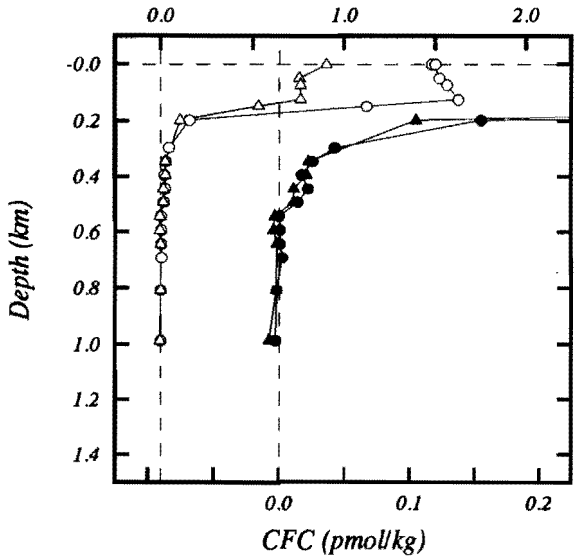
TEW 235



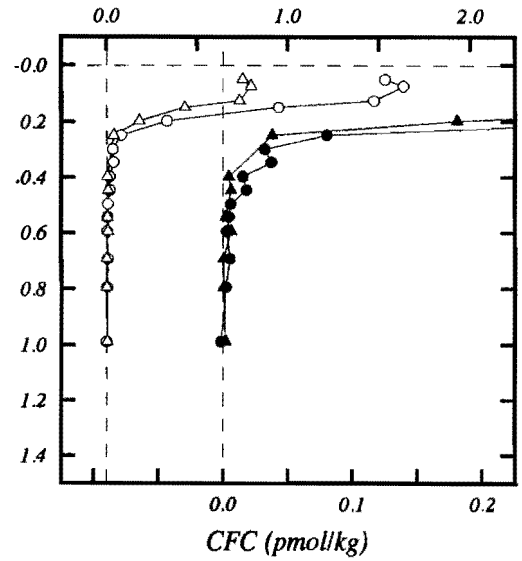
TEW 237



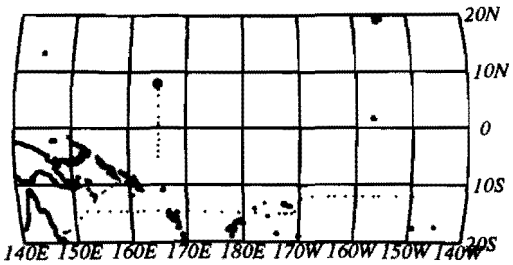
TEW 239



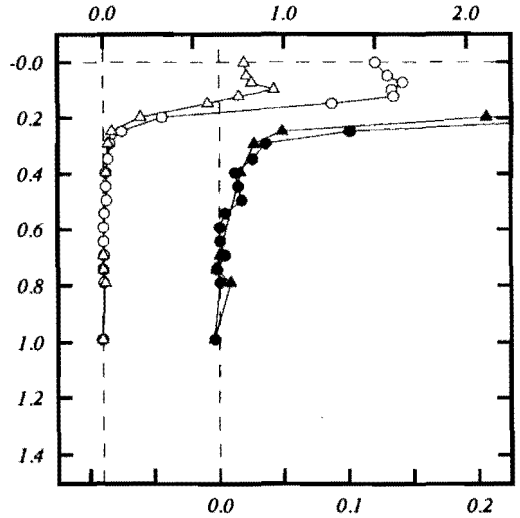
TEW 240



Locations of Stations on This Page



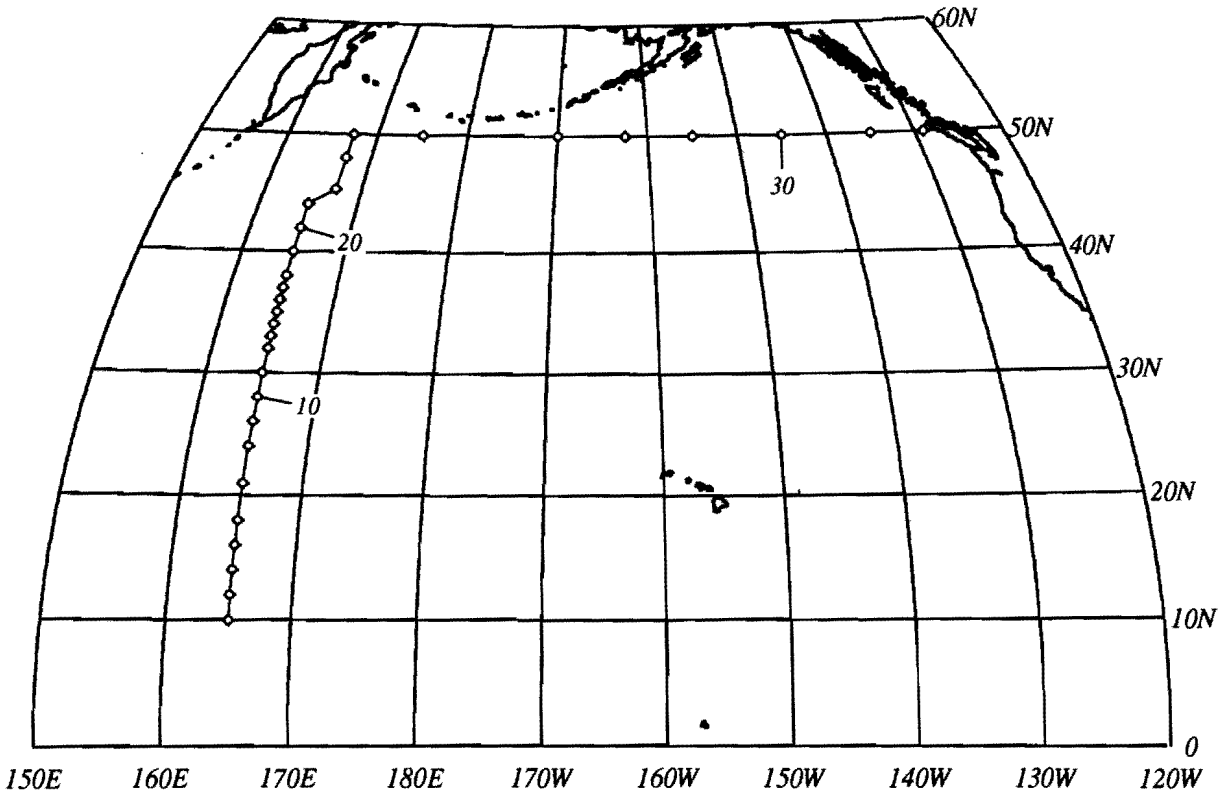
TEW 241



5.4 CO2-87 (CO2-87-OC)

This section includes the following data collected during the CO2-87 cruise (30 July to 28 Aug, 1987).

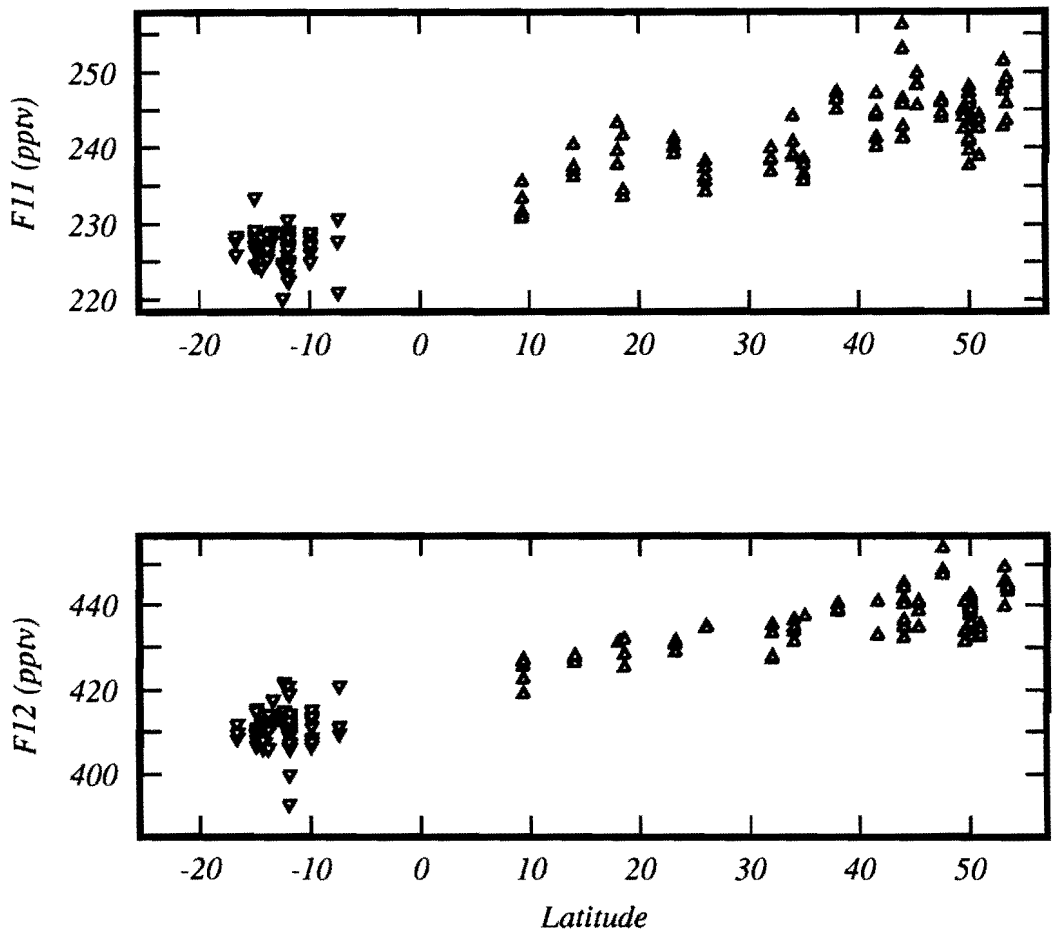
1) Station location plot.
2) Station location and bottom depth listing.
3) CFC atmospheric measurement plot.
4) CFC atmospheric measurement listing.
5) Contoured sections of Potential Temperature, Salinity, Oxygen, CFC-11 and CFC-12 along 165° E. from 5° S. to 50 N°. (The data from TEW Leg 3 have been combined with the CO2-87 data for these plots.) Contoured sections from 167° E. to 129° W along 50° N are also presented. All sections are derived from bottle data.
6) Tables of hydrographic data including depth, pressure, potential temperature, salinity, sigma-theta, oxygen, CFC-11 and CFC-12. Atmospheric CFC-11 and CFC-12 values for each station are interpolated from surrounding air measurements, and used in calculating saturation values.
7) Individual vertical profiles of CFC-11 and CFC-12. Each page of CFC vertical profiles consists of a map of station locations and five station plots. Each station is plotted on two scales so that both high and low concentrations may be easily viewed. CFC-11 is represented by circles and CFC-12 by triangles; the solid symbols are plotted against the lower concentration scale on the bottom axis. Only the upper 1500 meters of data are displayed as the CFC signal is below detection limits in deeper water. Any station which has no CFC data in the range 0–1500 meters will appear as a blank box. Units are in picomoles per kilogram.



CO2-87 Station Locations.
R/V OCEANOGRAPHER
30 July - 28 August, 1987
Kwajalein - Dutch Harbor - Seattle.

CO2-87 Station Locations

STATION NUMBER	Date	Latitude	Longitude	BOTTOM DEPTH (M)
2	30 Jul 87	10 00.1 N	165 00.1 E	5075
3	31 Jul 87	12 00.2 N	164 59.5 E	2557
4	31 Jul 87	13 59.8 N	165 00.3 E	5307
5	1 Aug 87	16 00.4 N	165 00.3 E	5403
6	2 Aug 87	18 00.3 N	164 59.6 E	5459
7	3 Aug 87	20 59.7 N	165 00.2 E	5552
8	3 Aug 87	24 00.2 N	165 00.2 E	6134
9	4 Aug 87	26 00.6 N	165 00.2 E	5744
10	5 Aug 87	28 00.7 N	165 00.1 E	5772
11	6 Aug 87	30 00.5 N	164 59.1 E	5868
12	6 Aug 87	32 00.3 N	165 00.0 E	6046
13	7 Aug 87	33 00.9 N	164 59.1 E	6288
14	8 Aug 87	34 00.8 N	165 00.2 E	6175
15	9 Aug 87	34 59.9 N	165 00.1 E	5930
16	10 Aug 87	36 00.2 N	165 00.0 E	5549
17	10 Aug 87	37 00.3 N	165 00.6 E	4086
18	11 Aug 87	37 59.8 N	164 59.9 E	5497
18.1	11 Aug 87	39 01.7 N	165 00.7 E	5358
19	12 Aug 87	40 00.1 N	164 59.9 E	5482
20	12 Aug 87	42 00.1 N	164 59.9 E	4038
21	13 Aug 87	43 59.8 N	164 59.0 E	5690
22	14 Aug 87	45 16.8 N	167 18.7 E	5719
22.1	15 Aug 87	46 29.9 N	167 19.5 E	6042
23	15 Aug 87	47 59.8 N	167 18.9 E	6088
24	16 Aug 87	50 00.1 N	167 18.3 E	3230
25	17 Aug 87	49 59.9 N	174 59.5 E	4285
26	20 Aug 87	50 01.8 N	169 59.5 W	5224
28	23 Aug 87	50 00.0 N	162 30.3 W	4974
29	24 Aug 87	50 00.1 N	155 00.0 W	4805
30	25 Aug 87	49 59.9 N	145 00.2 W	4241
31	27 Aug 87	50 00.2 N	134 59.8 W	3455
32	28 Aug 87	50 00.5 N	129 00.2 W	1977



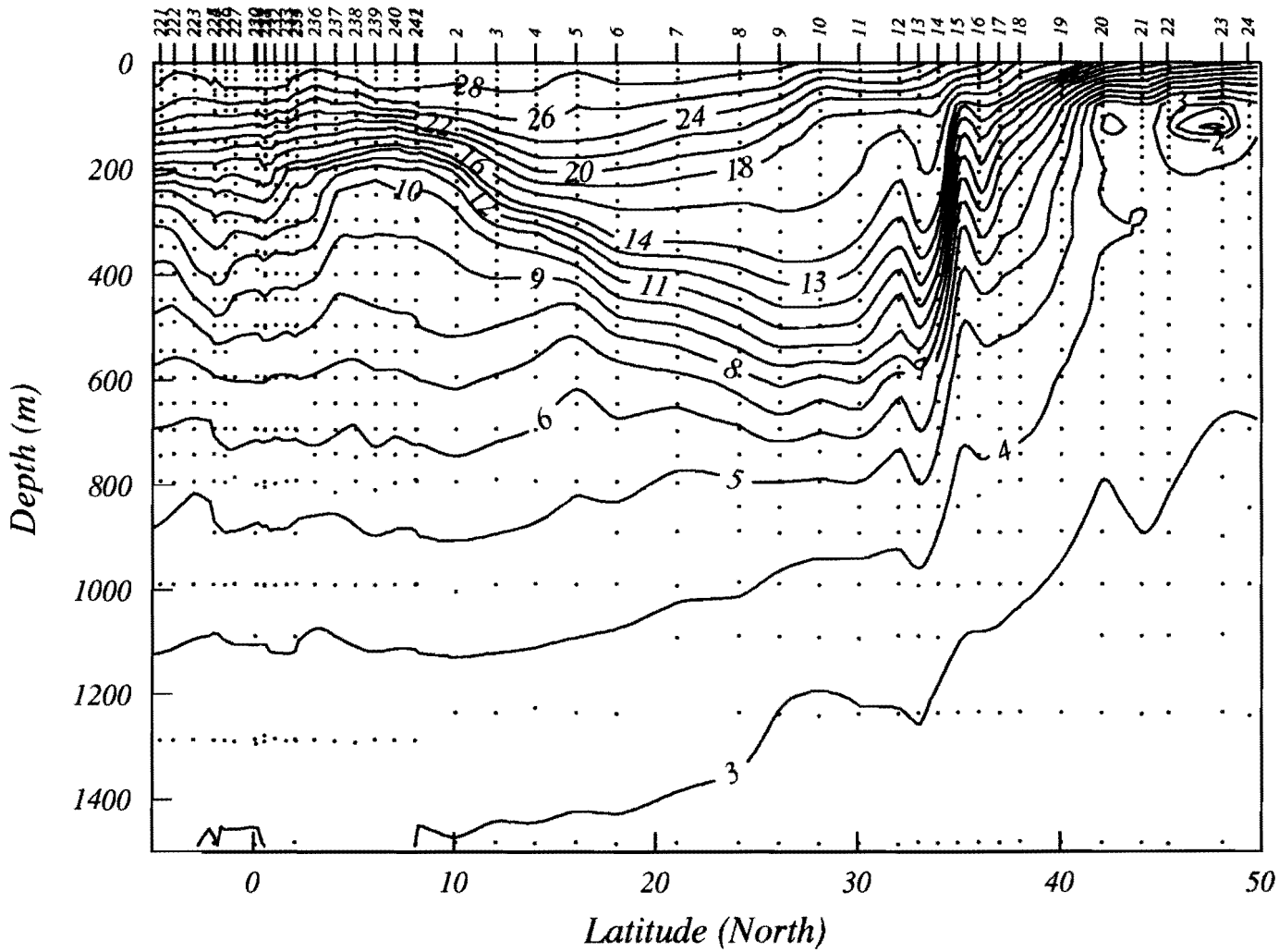
Atmospheric Measurements during the TEW and CO2-87 cruises. The average northern hemisphere concentrations of the two CFC's are 242.7 and 436.6 for CFC-11 and CFC-12, respectively. The average southern hemisphere concentrations are 226.9 and 411.2.

CO2-87 Atmospheric Measurements

Latitude	Longitude	Date	Atm. F-11	Atm. F-12	Ave. F-11	Std. F-11	Ave. F-12	Std. F-12
9 18 N	169 0 E	29 Jul 87	233.3	419.0	232.5	0.8	424.2	0.7
9 18 N	169 0 E	29 Jul 87	235.5	425.6				
9 18 N	169 0 E	29 Jul 87	231.6	427.0				
9 18 N	169 0 E	29 Jul 87	231.2	422.6				
9 18 N	169 0 E	29 Jul 87	230.7	426.6				
14 0 N	165 0 E	31 Jul 87	236.8	427.4	237.6	0.7	427.3	0.1
14 0 N	165 0 E	31 Jul 87	236.1	427.4				
14 0 N	165 0 E	31 Jul 87	237.4	426.5				
14 0 N	165 0 E	31 Jul 87	240.2	427.9				
18 0 N	165 0 E	1 Aug 87	243.2		240.1	1.0	431.1	
18 0 N	165 0 E	1 Aug 87	239.5					
18 0 N	165 0 E	1 Aug 87	237.6	431.1				
18 30 N	165 0 E	2 Aug 87	233.5	425.3	236.4	1.5	428.4	0.6
18 30 N	165 0 E	2 Aug 87	241.5	428.3				
18 30 N	165 0 E	2 Aug 87	234.3	431.7				
23 12 N	165 0 E	3 Aug 87	241.1	431.3	240.1	0.3	430.5	0.2
23 12 N	165 0 E	3 Aug 87	240.1	430.7				
23 12 N	165 0 E	3 Aug 87	240.0	431.0				
23 12 N	165 0 E	3 Aug 87	239.1	428.8				
26 0 N	165 0 E	5 Aug 87	235.5		236.2	0.6	434.7	0.0
26 0 N	165 0 E	5 Aug 87	236.1					
26 0 N	165 0 E	5 Aug 87	234.2	434.8				
26 0 N	165 0 E	5 Aug 87	238.0	434.5				
26 0 N	165 0 E	5 Aug 87	237.2					
32 0 N	165 0 E	6 Aug 87	239.8	435.3	238.3	0.5	430.9	0.8
32 0 N	165 0 E	6 Aug 87	238.2	433.2				
32 0 N	165 0 E	6 Aug 87	236.7	427.2				
32 0 N	165 0 E	6 Aug 87	238.4	427.8				
34 0 N	165 0 E	7 Aug 87	244.1	431.3	240.6	0.9	434.1	0.4
34 0 N	165 0 E	7 Aug 87	240.6	436.5				
34 0 N	165 0 E	7 Aug 87	238.6	433.7				
34 0 N	165 0 E	7 Aug 87	239.0	434.7				
35 0 N	165 0 E	8 Aug 87	236.4		237.0	0.4	437.3	
35 0 N	165 0 E	8 Aug 87	238.3					
35 0 N	165 0 E	8 Aug 87	235.6	437.3				
35 0 N	165 0 E	8 Aug 87	237.6					
38 0 N	165 0 E	10 Aug 87	245.0	438.4	246.3	0.3	439.1	0.2
38 0 N	165 0 E	10 Aug 87	247.3	438.9				
38 0 N	165 0 E	10 Aug 87	246.5	440.3				
38 0 N	165 0 E	10 Aug 87	246.3	438.8				
41 36 N	165 0 E	12 Aug 87	241.2		243.4	1.0	436.9	0.9
41 36 N	165 0 E	12 Aug 87	244.1					
41 36 N	165 0 E	12 Aug 87	244.6					
41 36 N	165 0 E	12 Aug 87	240.0	440.9				
41 36 N	165 0 E	12 Aug 87	247.1	432.8				
44 0 N	165 0 E	12 Aug 87	246.4	435.0	248.4	2.0	441.4	0.9
44 0 N	165 0 E	12 Aug 87	252.9	445.2				
44 0 N	165 0 E	12 Aug 87	241.1	444.2				
44 0 N	165 0 E	12 Aug 87	253.0	441.3				

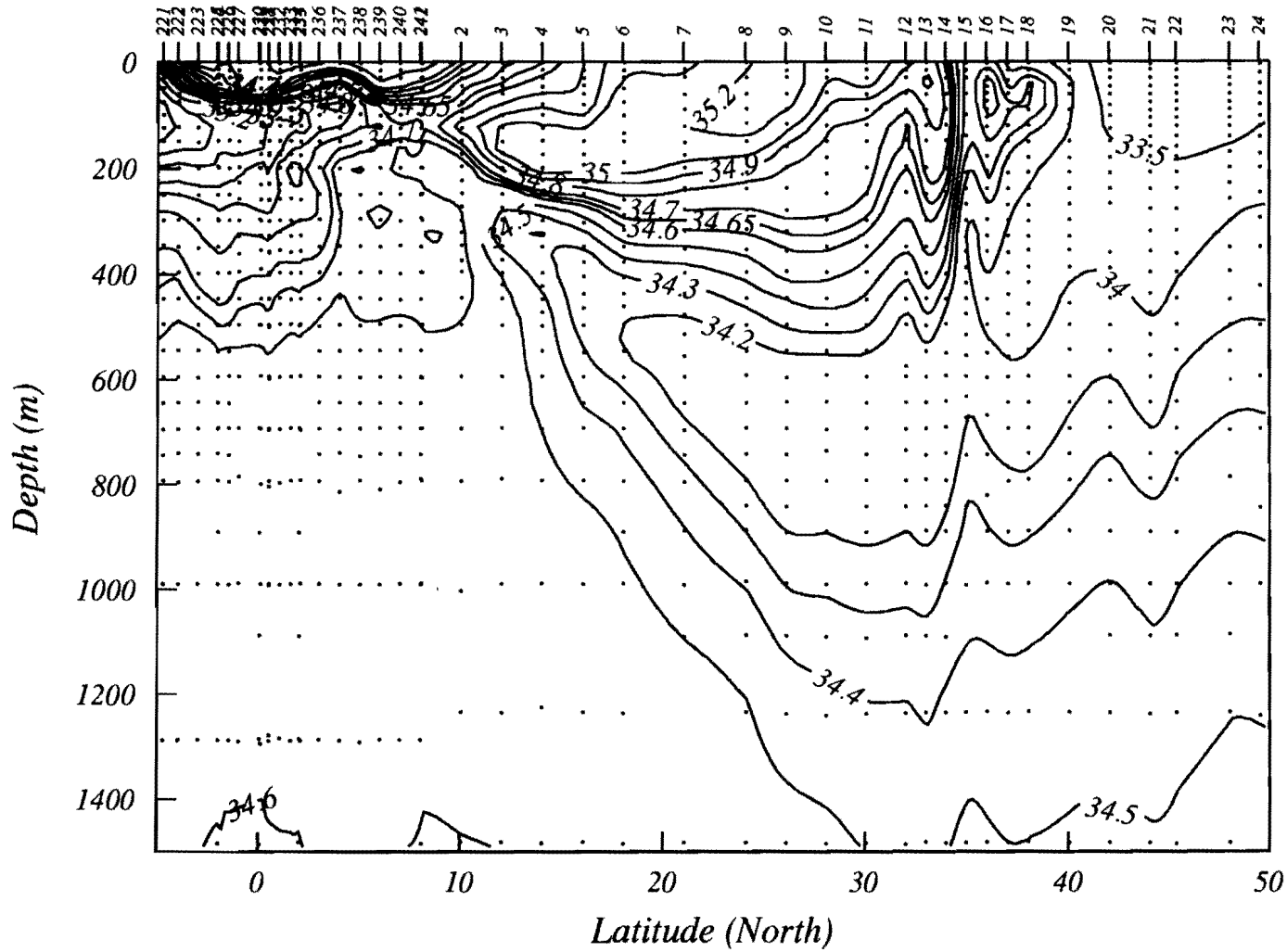
Latitude	Longitude	Date	Atm. F-11	Atm. F-12	Ave. F-11	Std. F-11	Ave. F-12	Std. F-12
44 0 N	165 0 E	13 Aug 87	256.1	434.6	247.5	2.1	435.8	0.7
44 0 N	165 0 E	13 Aug 87	245.8	432.1				
44 0 N	165 0 E	13 Aug 87	245.6	440.3				
44 0 N	165 0 E	13 Aug 87	242.6	436.3				
45 18 N	167 18 E	14 Aug 87	245.4	440.6	247.9	0.6	438.7	0.6
45 18 N	167 18 E	14 Aug 87	249.7	438.6				
45 18 N	167 18 E	14 Aug 87	248.4	440.8				
45 18 N	167 18 E	14 Aug 87	248.2	434.6				
47 30 N	167 18 E	15 Aug 87	243.8	448.4	245.1	0.4	449.4	0.6
47 30 N	167 18 E	15 Aug 87	244.5	447.6				
47 30 N	167 18 E	15 Aug 87	246.3	454.0				
47 30 N	167 18 E	15 Aug 87	245.9	447.4				
50 0 N	172 12 E	16 Aug 87	246.3	441.4	244.9	0.6	439.6	0.3
50 0 N	172 12 E	16 Aug 87	244.4	437.7				
50 0 N	172 12 E	16 Aug 87	242.8	439.8				
50 0 N	172 12 E	16 Aug 87	246.1	439.4				
50 0 N	179 30 E	19 Aug 87	242.8	432.6	243.5	0.2	436.2	0.6
50 0 N	179 30 E	19 Aug 87		438.2				
50 0 N	179 30 E	19 Aug 87	244.1	434.4				
50 0 N	179 30 E	19 Aug 87	243.7	439.6				
50 0 N	173 16 W	19 Aug 87	240.6		240.4	0.6	438.2	0.5
50 0 N	173 16 W	19 Aug 87	242.5					
50 0 N	173 16 W	19 Aug 87	241.1	440.9				
50 0 N	173 16 W	19 Aug 87	239.5	439.2				
50 0 N	173 16 W	19 Aug 87	237.5	437.8				
50 0 N	173 16 W	19 Aug 87	241.0	434.8				
50 54 N	168 52 W	20 Aug 87	242.4	435.2	242.2	0.9	433.7	0.3
50 54 N	168 52 W	20 Aug 87	244.1	432.2				
50 54 N	168 52 W	20 Aug 87	238.7	433.0				
50 54 N	168 52 W	20 Aug 87	243.7	434.3				
53 6 N	169 34 W	20 Aug 87	242.6	445.6	247.4	1.3	445.1	0.8
53 6 N	169 34 W	20 Aug 87	251.5	449.2				
53 6 N	169 34 W	20 Aug 87	248.1	439.7				
53 6 N	169 34 W	20 Aug 87	247.4	445.7				
53 24 N	165 10 W	21 Aug 87	248.3	444.4	246.7	0.9	444.2	0.1
53 24 N	165 10 W	21 Aug 87	243.4	444.9				
53 24 N	165 10 W	21 Aug 87	245.8	443.3				
53 24 N	165 10 W	21 Aug 87	249.2	444.2				
50 0 N	158 58 W	23 Aug 87		440.3	246.1	0.3	439.3	0.5
50 0 N	158 58 W	23 Aug 87	247.2	439.6				
50 0 N	158 58 W	23 Aug 87	245.6	435.7				
50 0 N	158 58 W	23 Aug 87	245.6	441.5				
50 0 N	150 0 W	24 Aug 87	246.2	440.2	245.5	0.4	441.2	0.2
50 0 N	150 0 W	24 Aug 87	246.2	440.4				
50 0 N	150 0 W	24 Aug 87	244.0	441.8				
50 0 N	150 0 W	24 Aug 87	245.6	442.5				
50 0 N	145 0 W	25 Aug 87	245.8	439.2	246.8	0.4	440.4	0.2
50 0 N	145 0 W	25 Aug 87	246.1	439.6				
50 0 N	145 0 W	25 Aug 87	248.0	441.0				
50 0 N	145 0 W	25 Aug 87	247.1	441.6				
50 0 N	132 19 W	27 Aug 87	244.4	439.4	245.5	0.3	440.0	0.2
50 0 N	132 19 W	27 Aug 87	245.8	441.0				

Latitude	Longitude	Date	Atm. F-11	Atm. F-12	Ave. F-11	Std. F-11	Ave. F-12	Std. F-12
50 0 N	132 19 W	27 Aug 87	245.5	440.5				
50 0 N	132 19 W	27 Aug 87	246.3	438.9				
49 30 N	131 10 W	28 Aug 87	242.3		244.0	0.4	435.4	0.9
49 30 N	131 10 W	28 Aug 87	245.1	440.9				
49 30 N	131 10 W	28 Aug 87	244.7	433.8				
49 30 N	131 10 W	28 Aug 87	244.0	431.4				



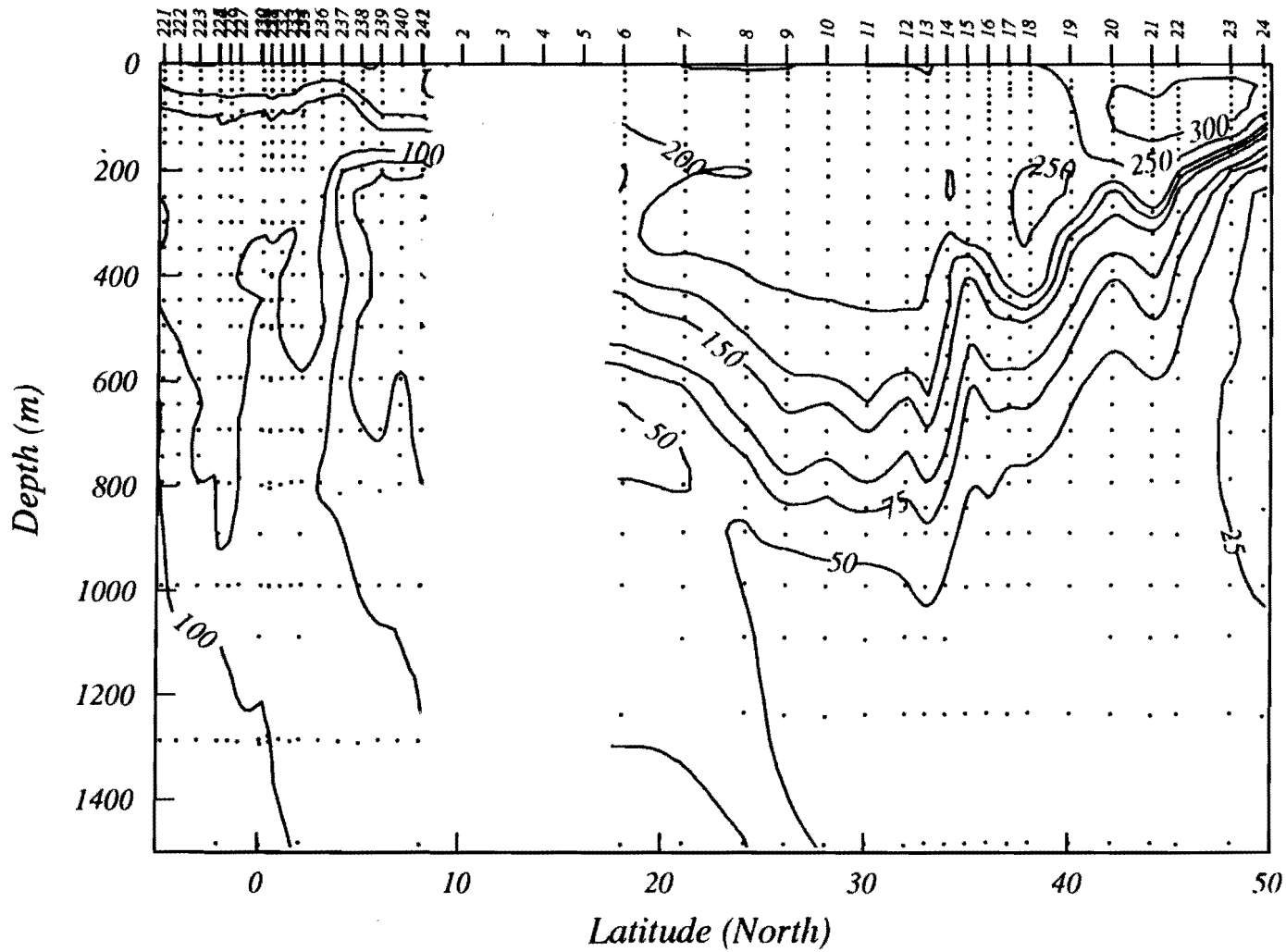
Potential Temperature (Degrees C.)

Potential Temperature section along 165 E during the TEW Leg3 & CO2-87 Cruises. Station numbers are indicated across the top.



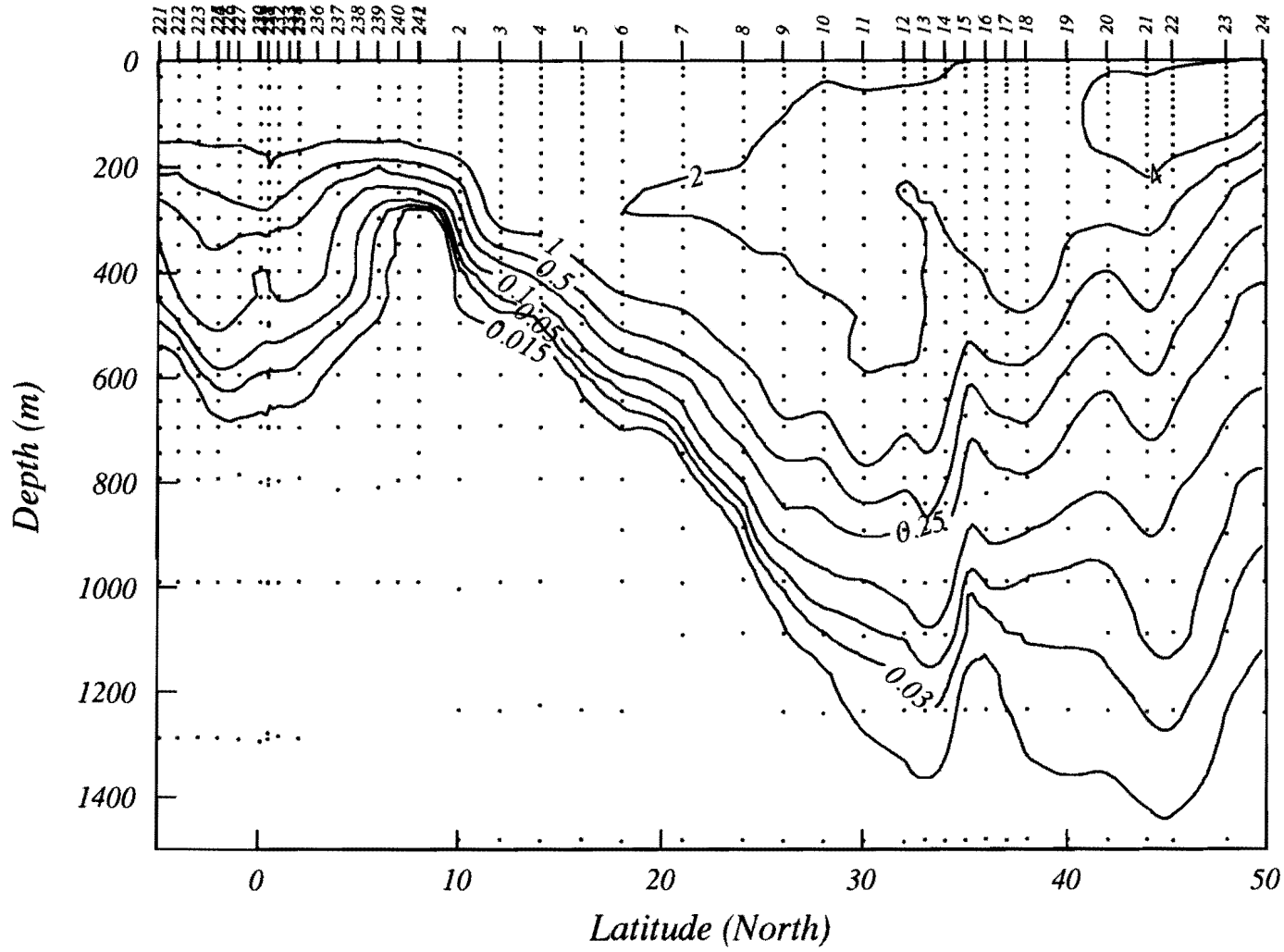
Salinity (PSU)

Salinity section along 165 E during the TEW Leg3 & CO2-87 Cruises.
Station numbers are indicated across the top.



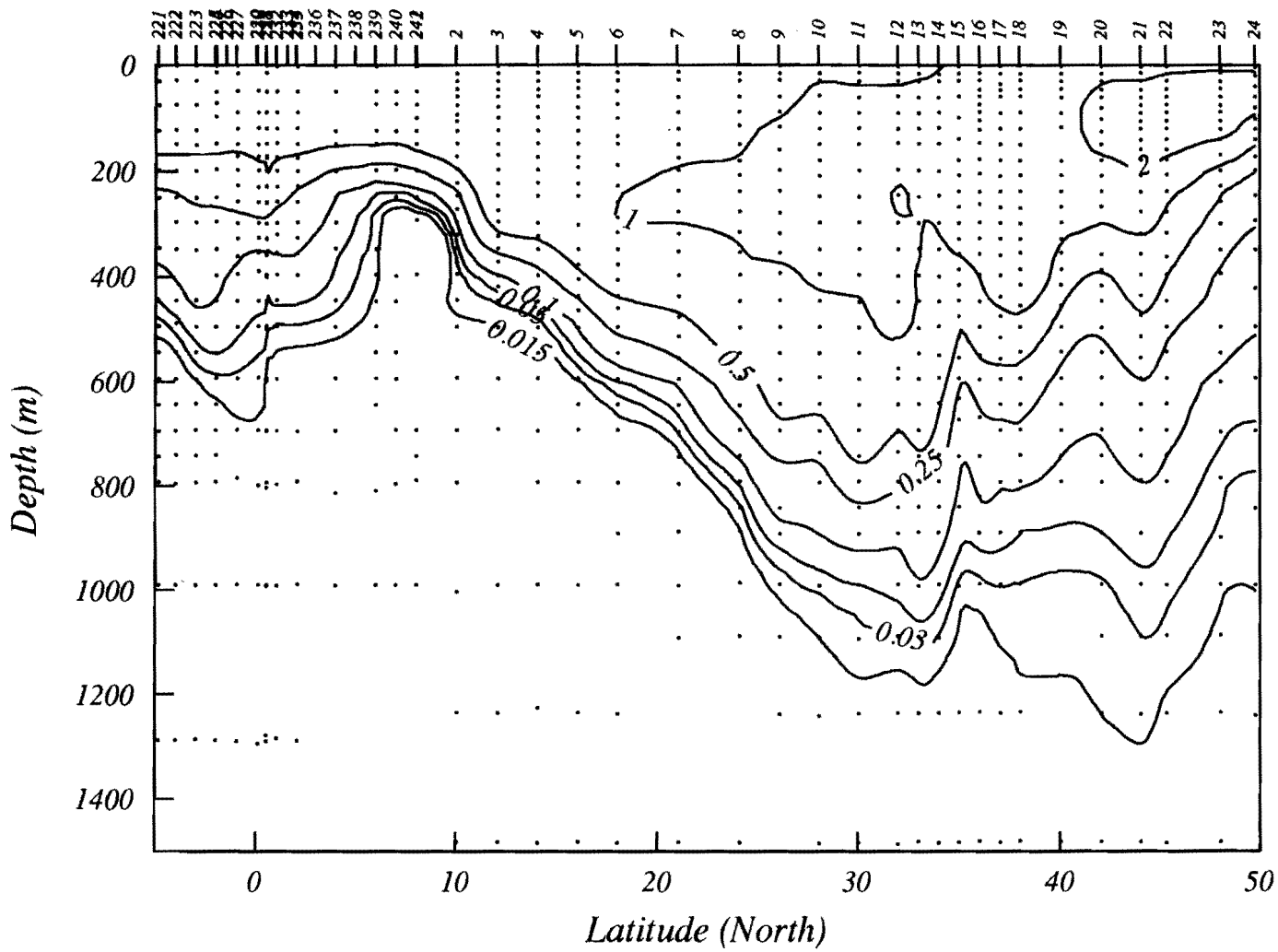
Oxygen (umole/Kg)

Dissolved Oxygen section along 165 E during the TEW Leg3 & CO2-87 Cruises. Station numbers are indicated across the top.



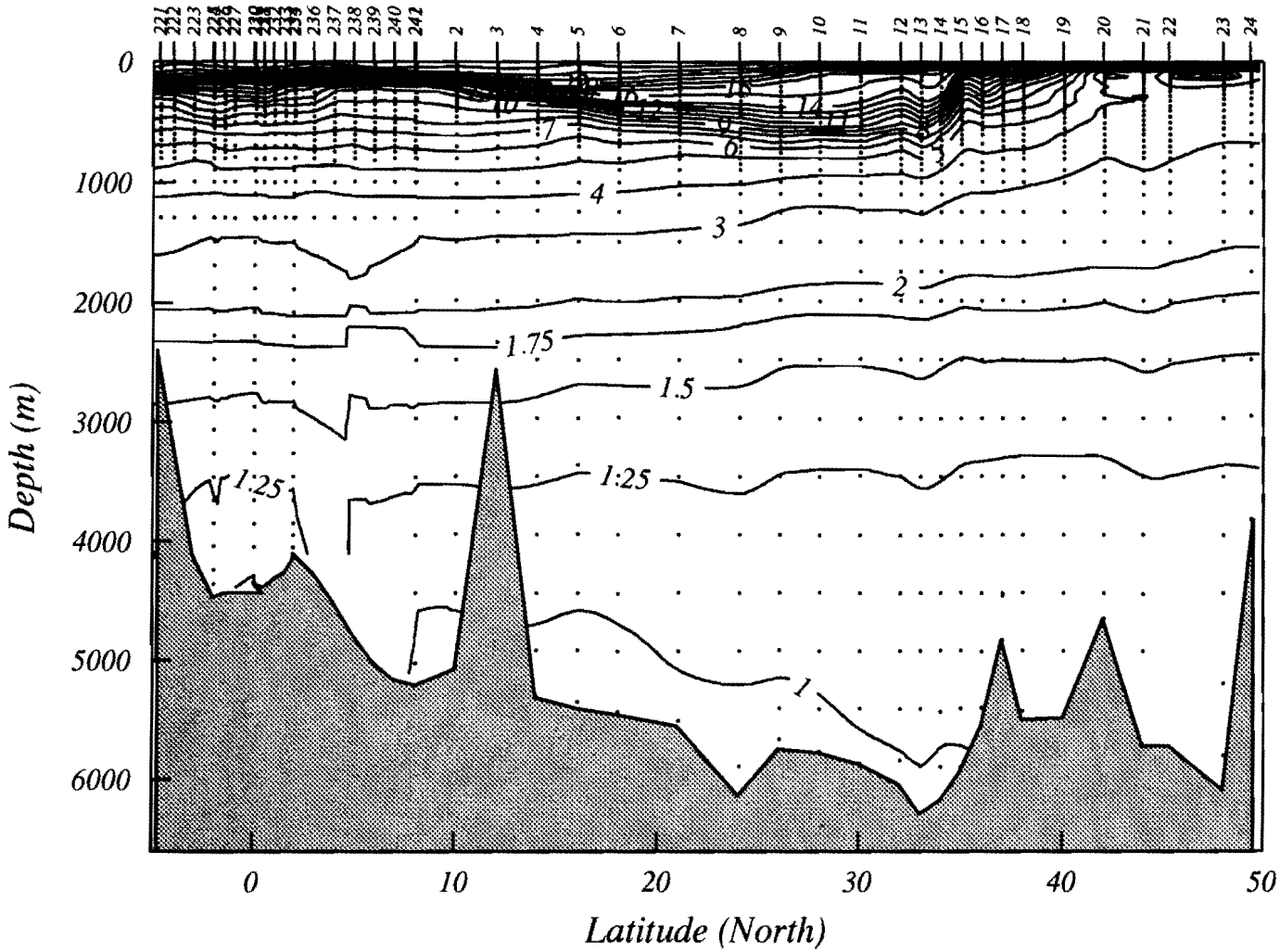
CFC-11 (pmole/Kg)

CFC-11 section along 165 E during the TEW Leg3 & CO2-87 Cruises.
Station numbers are indicated across the top.



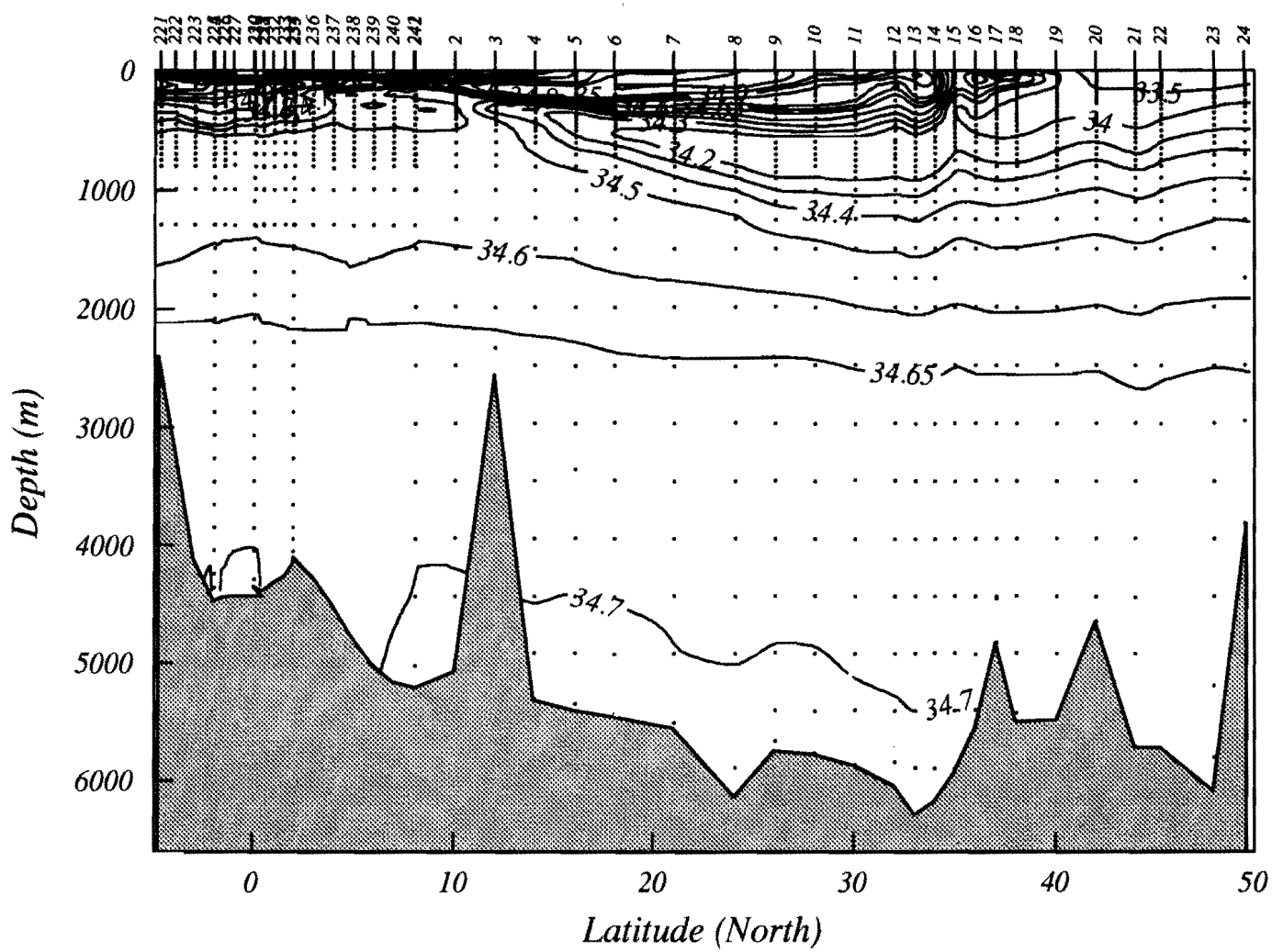
CFC-12 (pmole/Kg)

CFC-12 section along 165 E during the TEW Leg3 & CO2-87 Cruises.
Station numbers are indicated across the top.



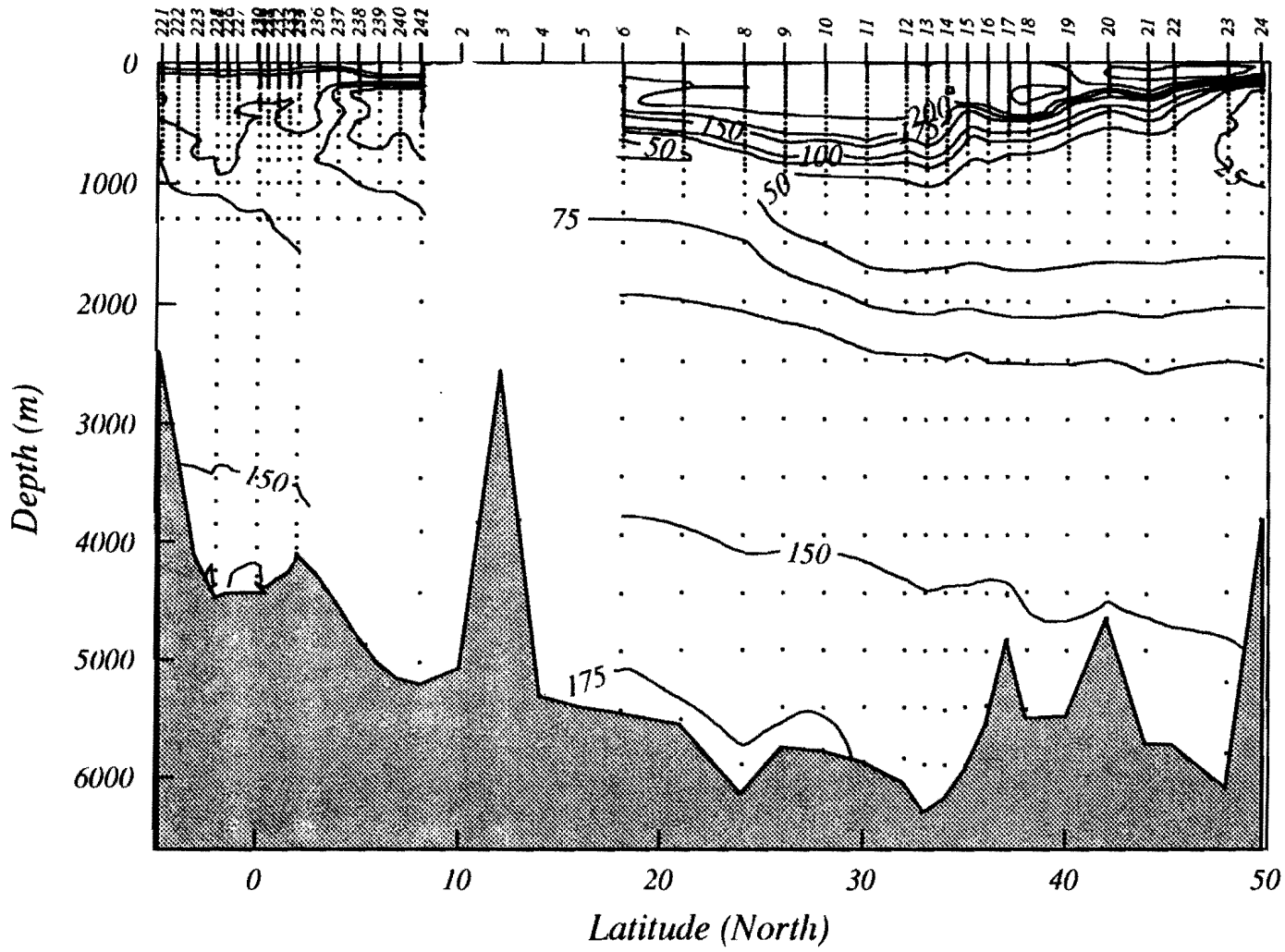
Potential Temperature (Degrees C.)

Potential Temperature section along 165 E during the TEW Leg3 & CO2-87 Cruises. Station numbers are indicated across the top.



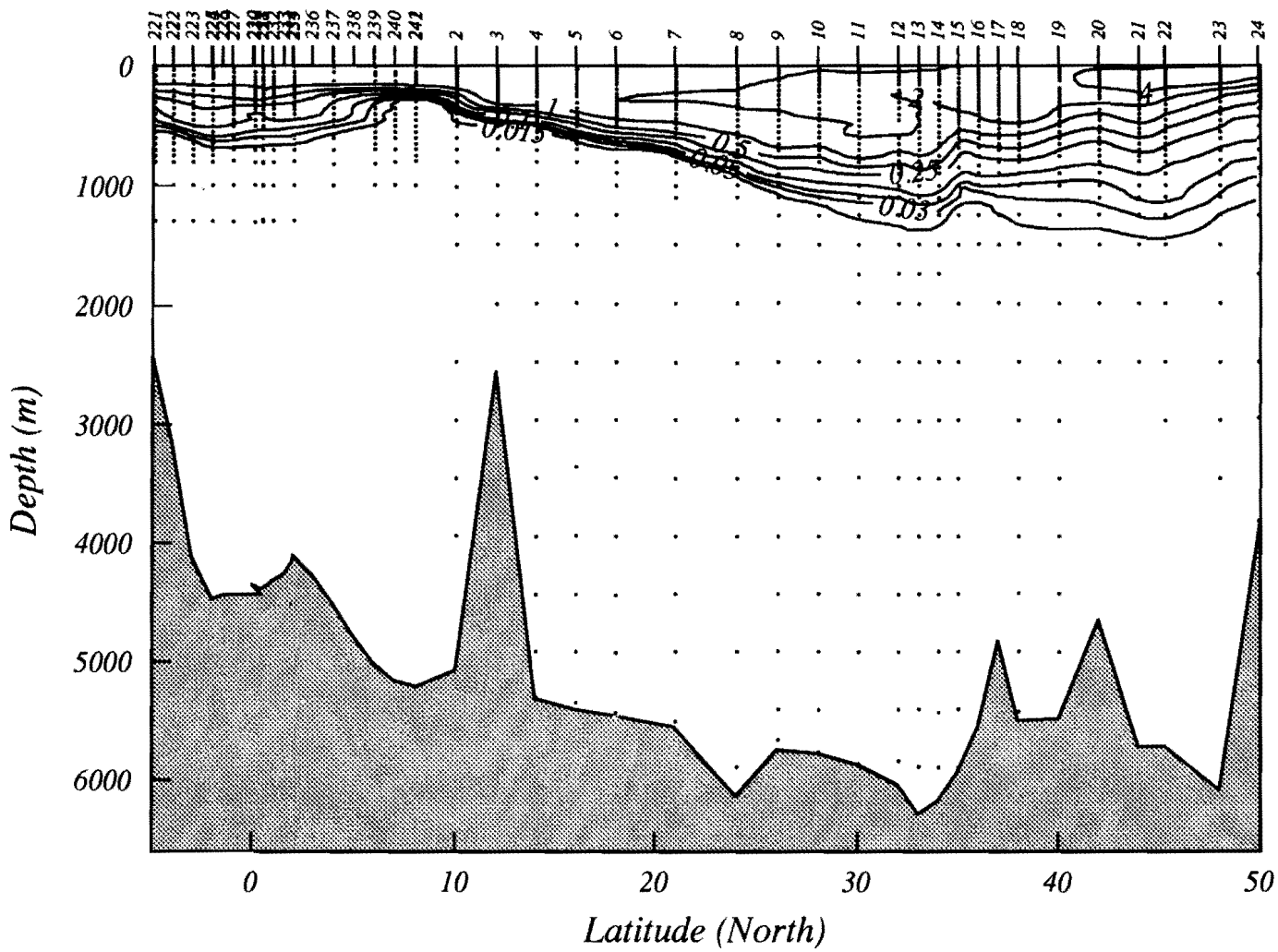
Salinity (PSU)

Salinity section along 165 E during the TEW Leg3 & CO2-87 Cruises.
Station numbers are indicated across the top.



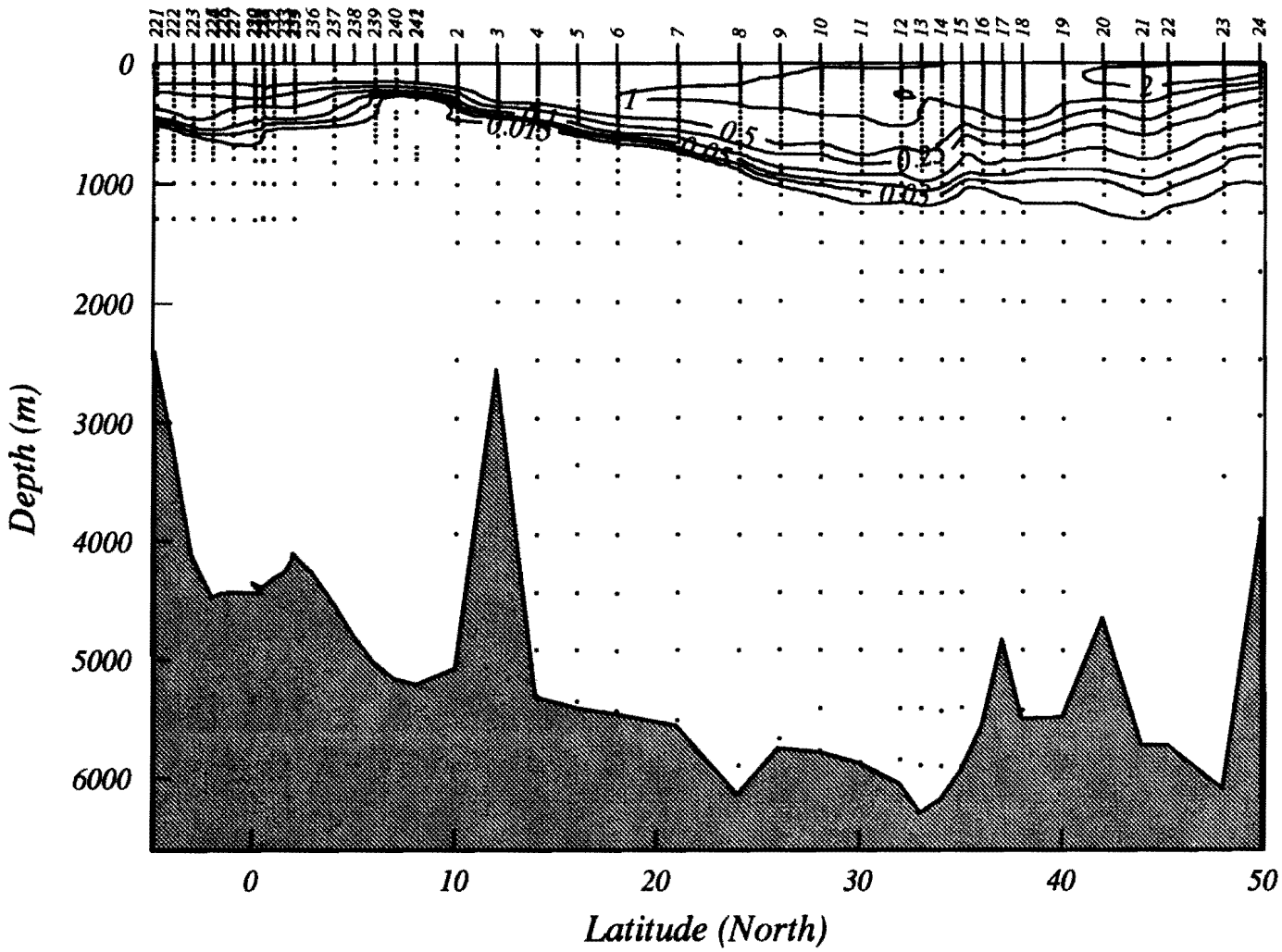
Oxygen (umole/Kg)

Dissolved Oxygen section along 165 E during the TEW Leg3 & CO2-87 Cruises. Station numbers are indicated across the top.



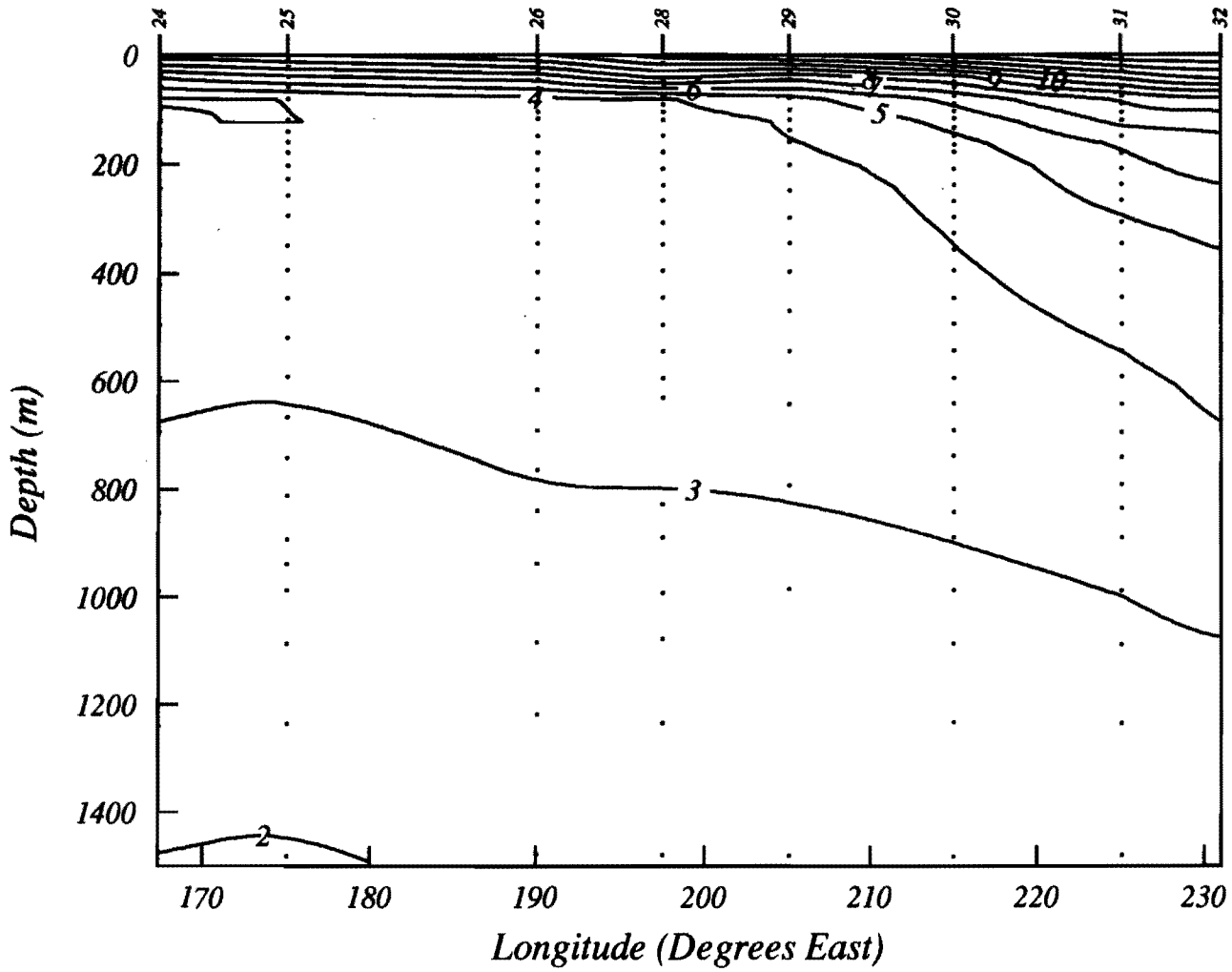
CFC-11 (pmole/Kg)

CFC-11 section along 165 E during the TEW Leg3 & CO2-87 Cruises.
Station numbers are indicated across the top.



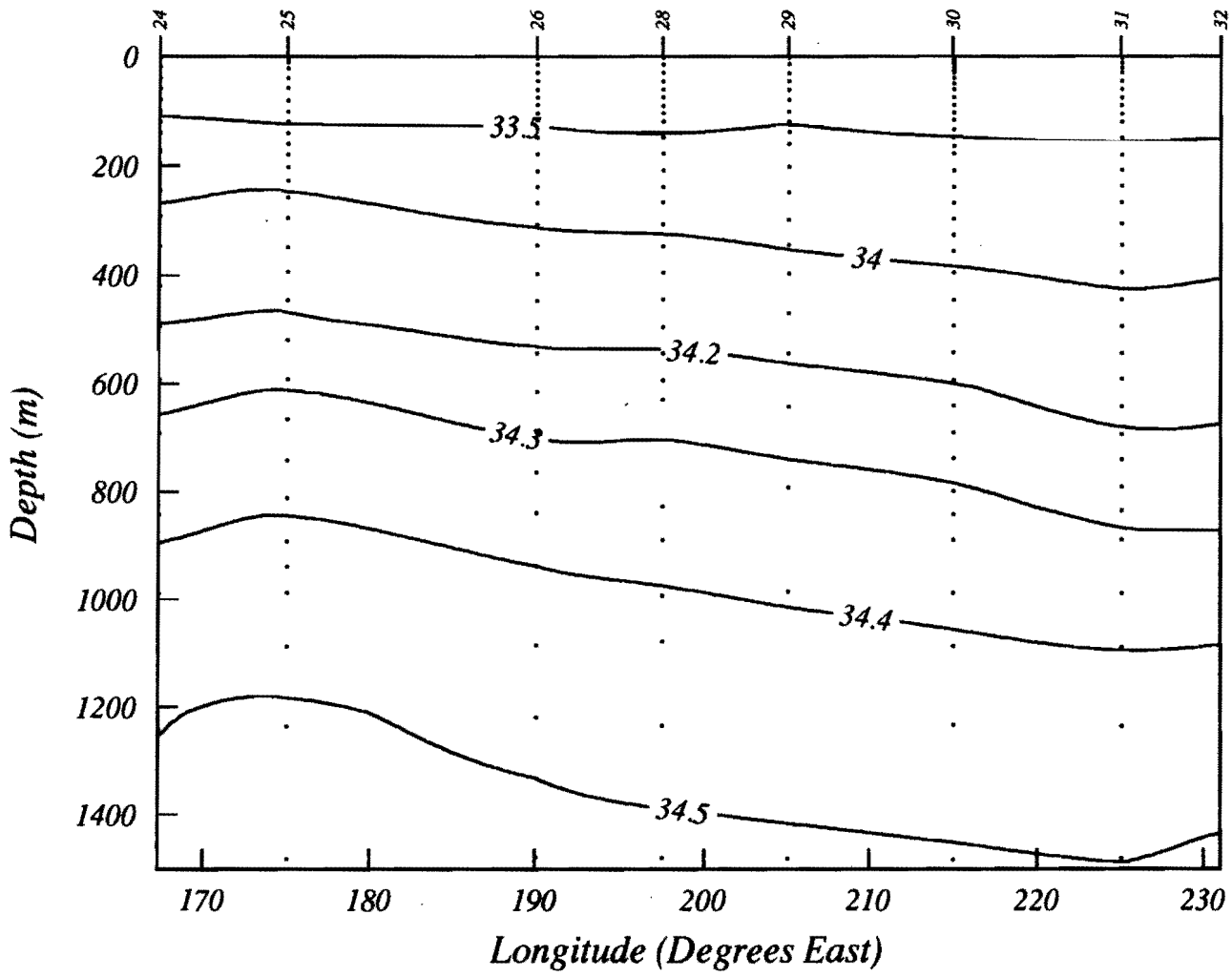
CFC-12 (pmole/Kg)

CFC-12 section along 165 E during the TEW Leg3 & CO2-87 Cruises.
Station numbers are indicated across the top.



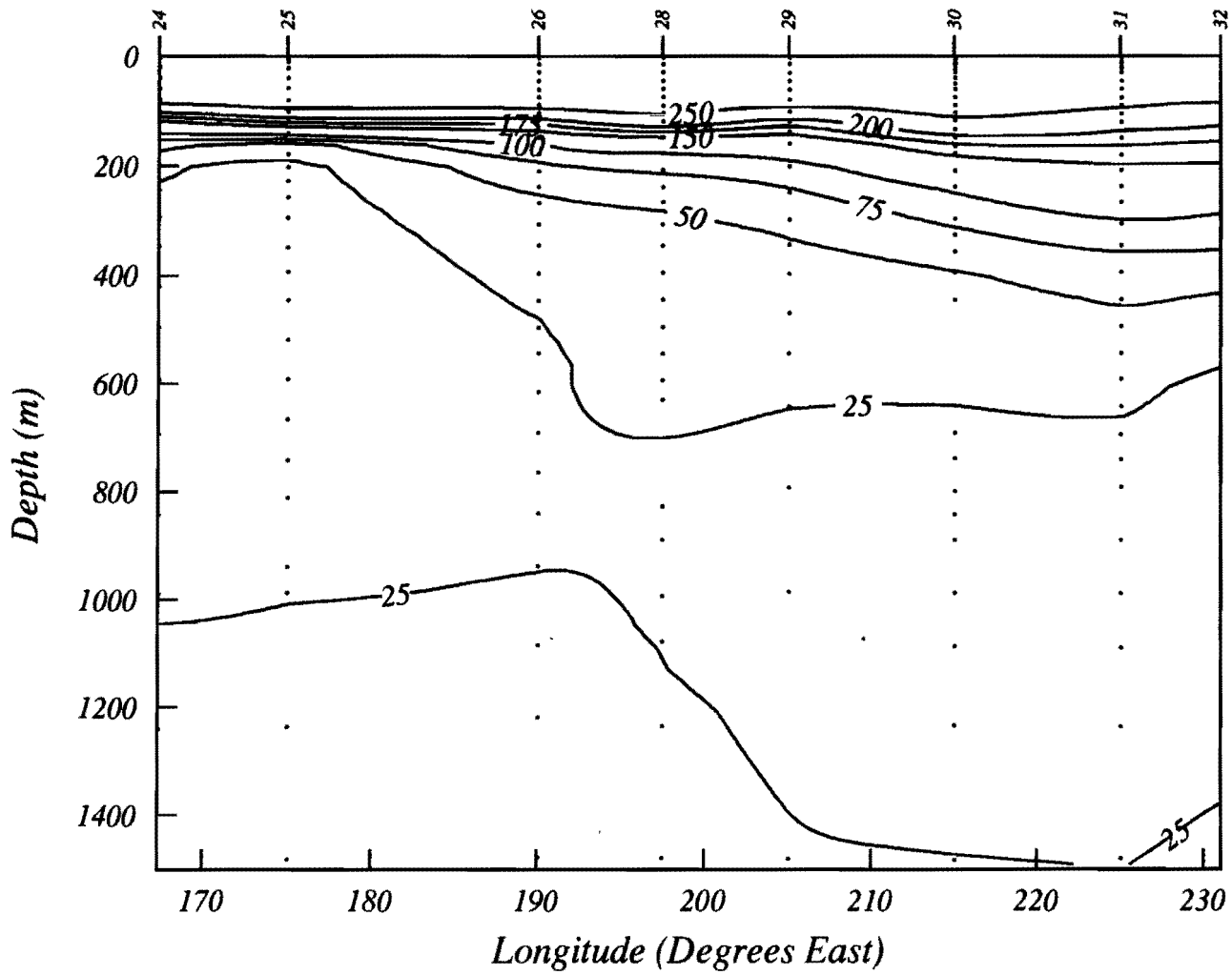
Potential Temperature (Degrees C.)

Potential Temperature section along 50 North during the CO2-87 Cruise
Station numbers are indicated across the top.



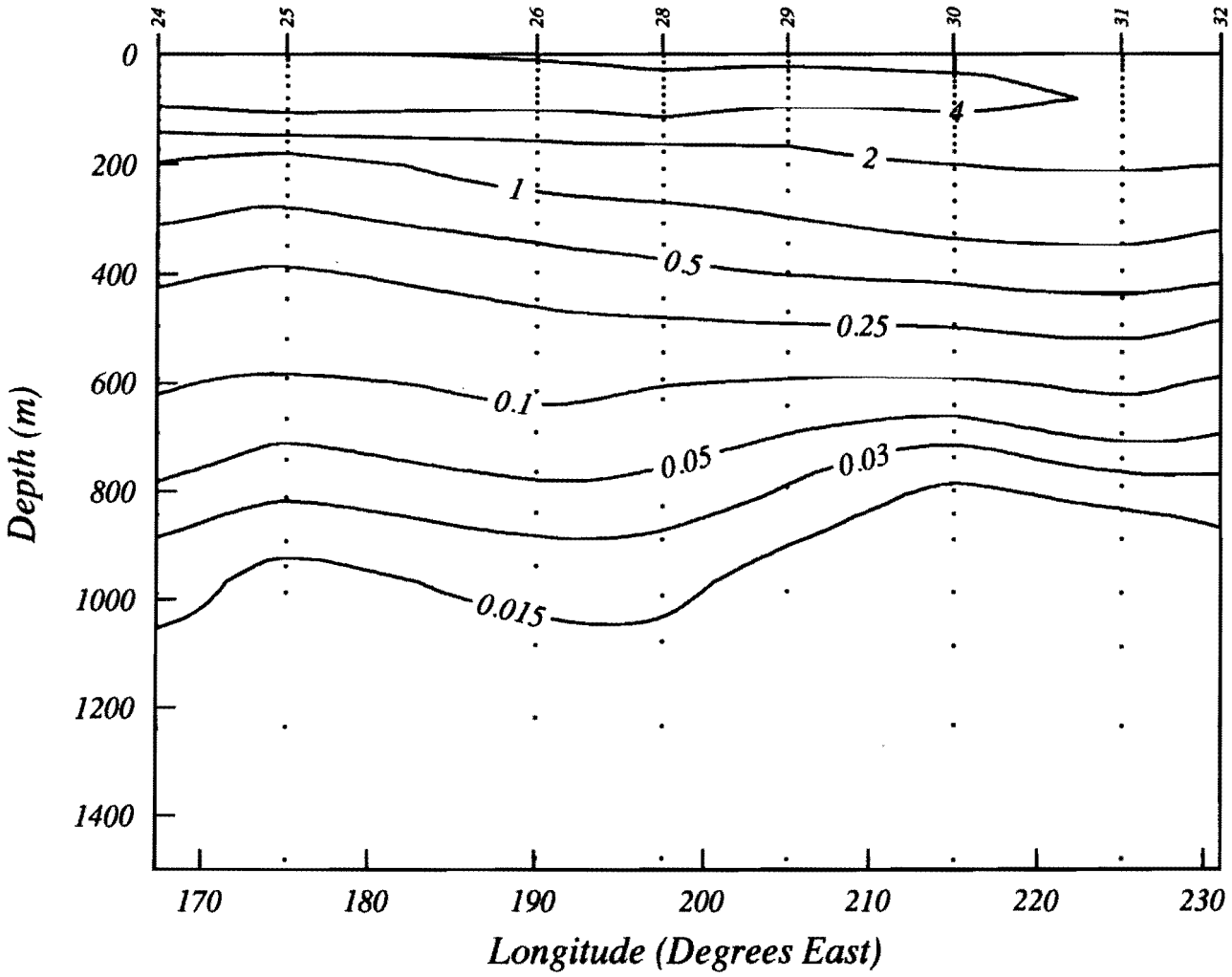
Salinity (PSU)

Salinity section along 50 North during the CO2-87 Cruise
Station numbers are indicated across the top.



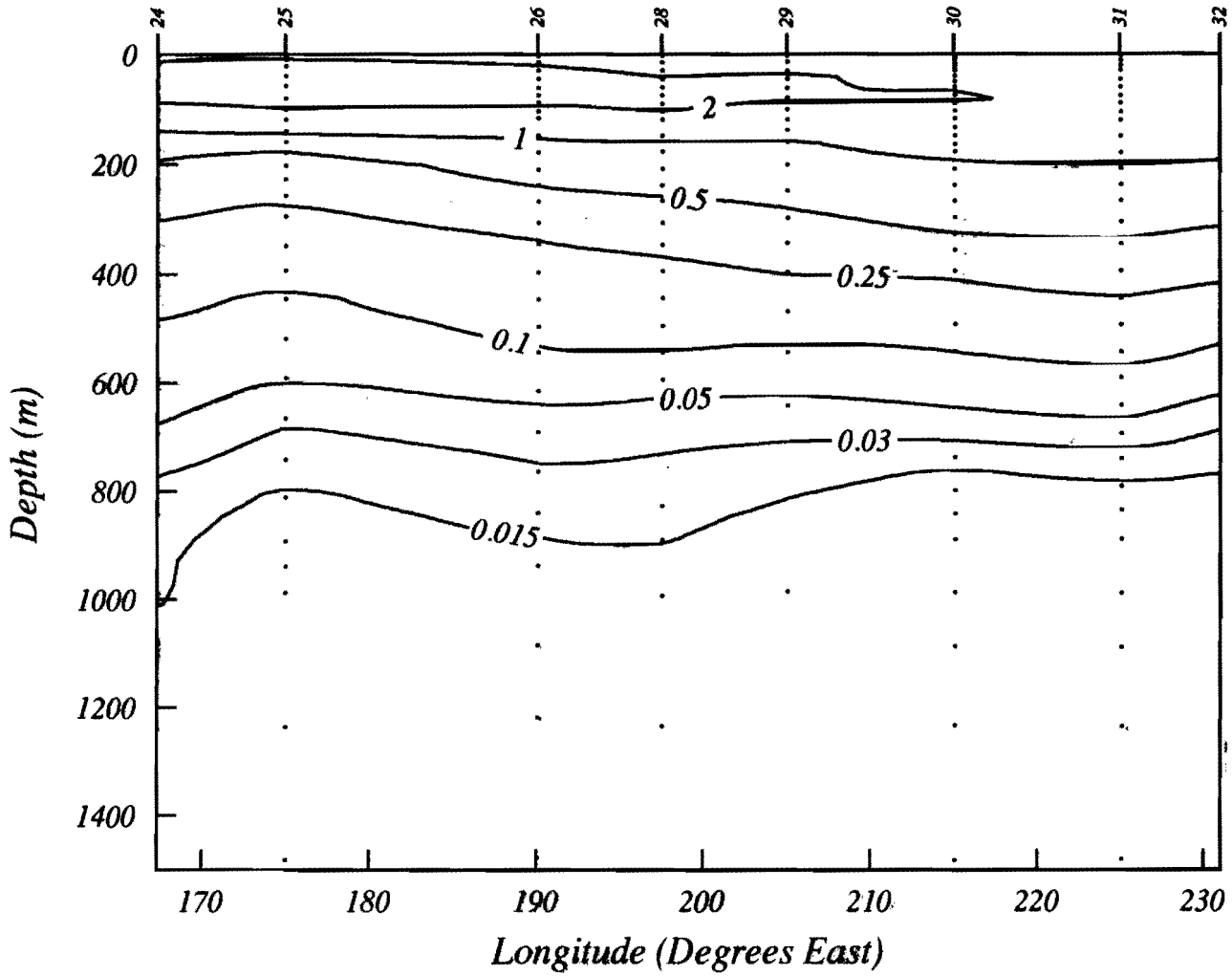
Oxygen (umole/Kg)

Dissolved Oxygen section along 50 North during the CO2-87 Cruise
Station numbers are indicated across the top.



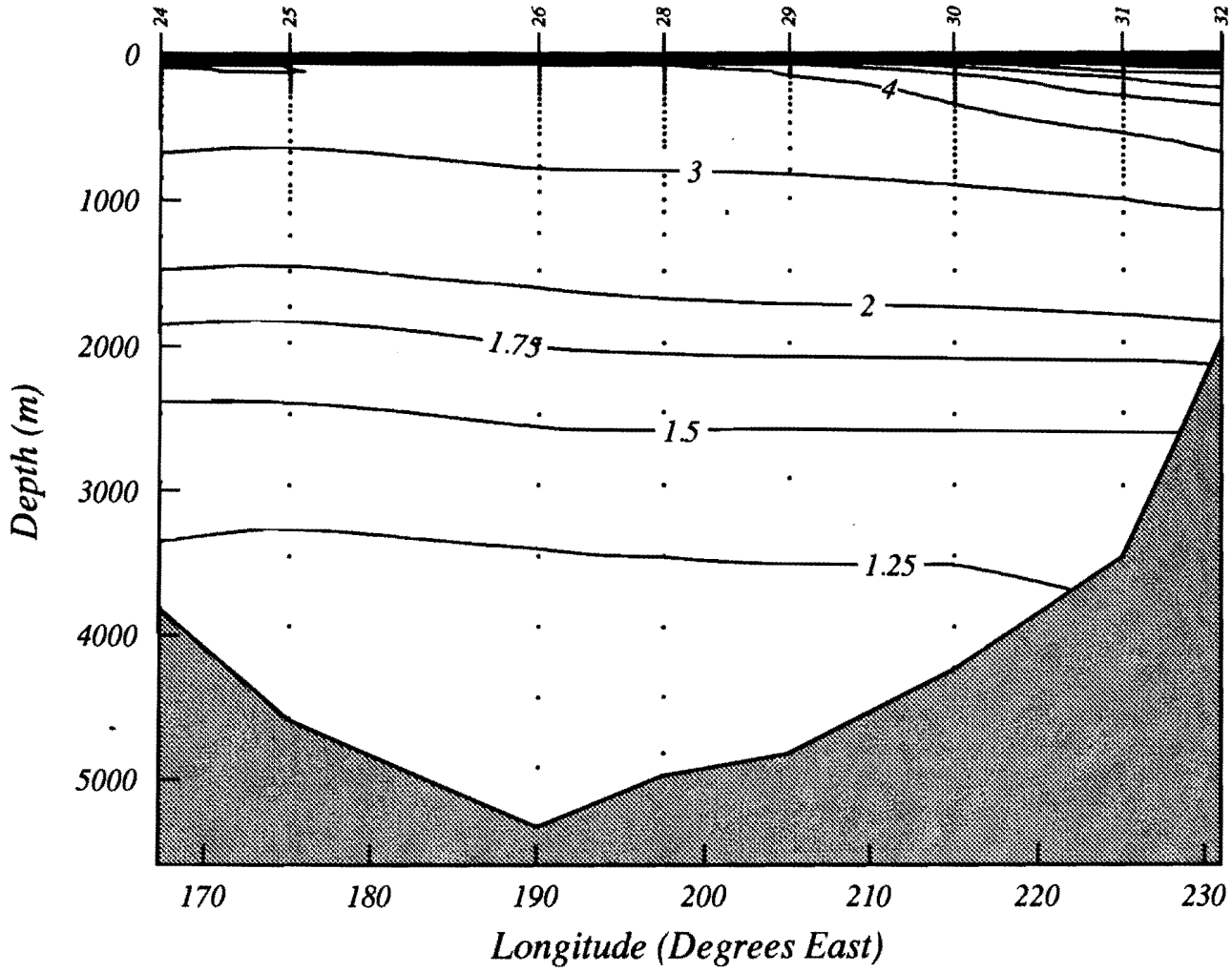
CFC-11 (pmole/Kg)

CFC-11 section along 50 North during the CO2-87 Cruise
Station numbers are indicated across the top.



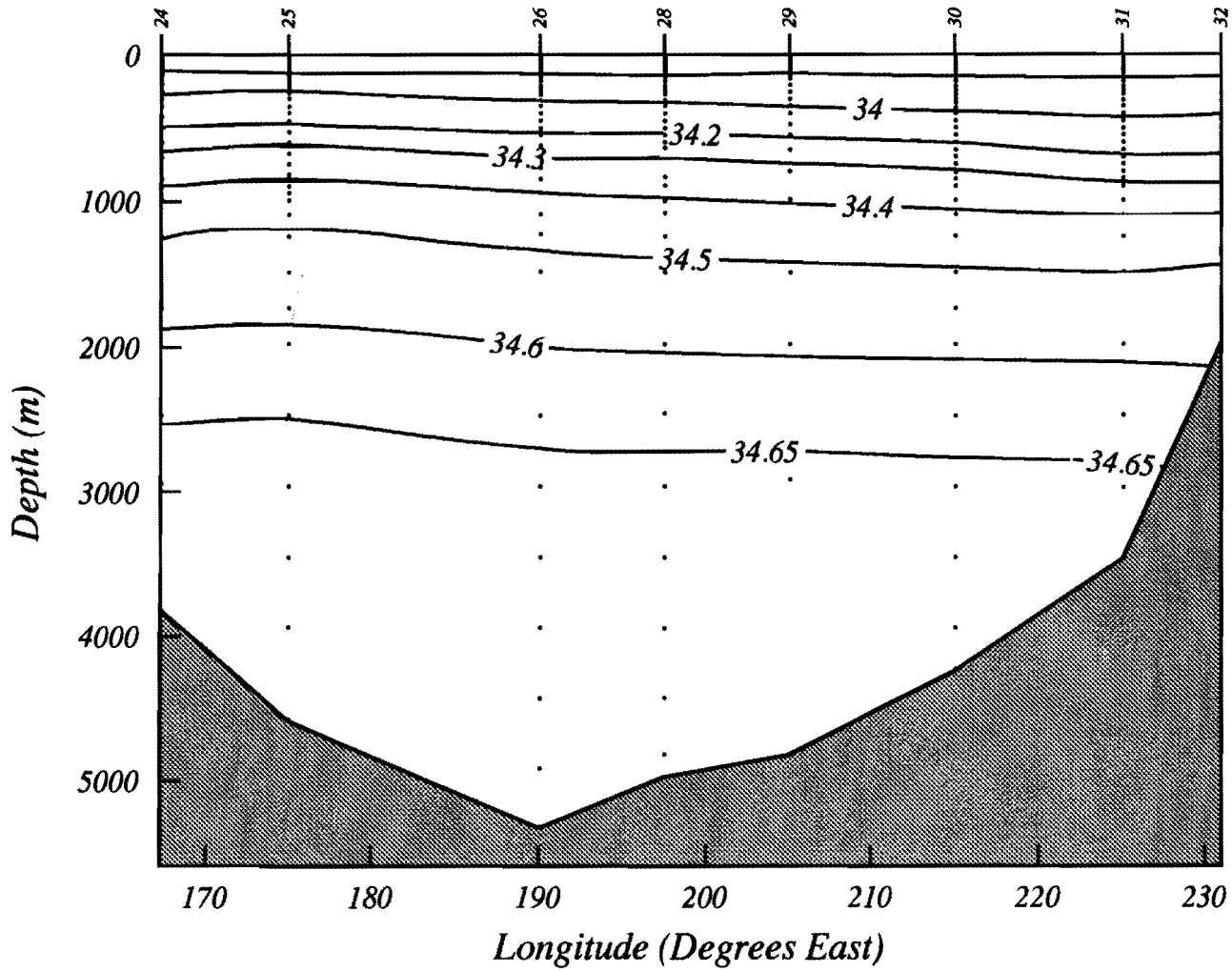
CFC-12 (pmole/Kg)

CFC-12 section along 50 North during the CO2-87 Cruise
Station numbers are indicated across the top.



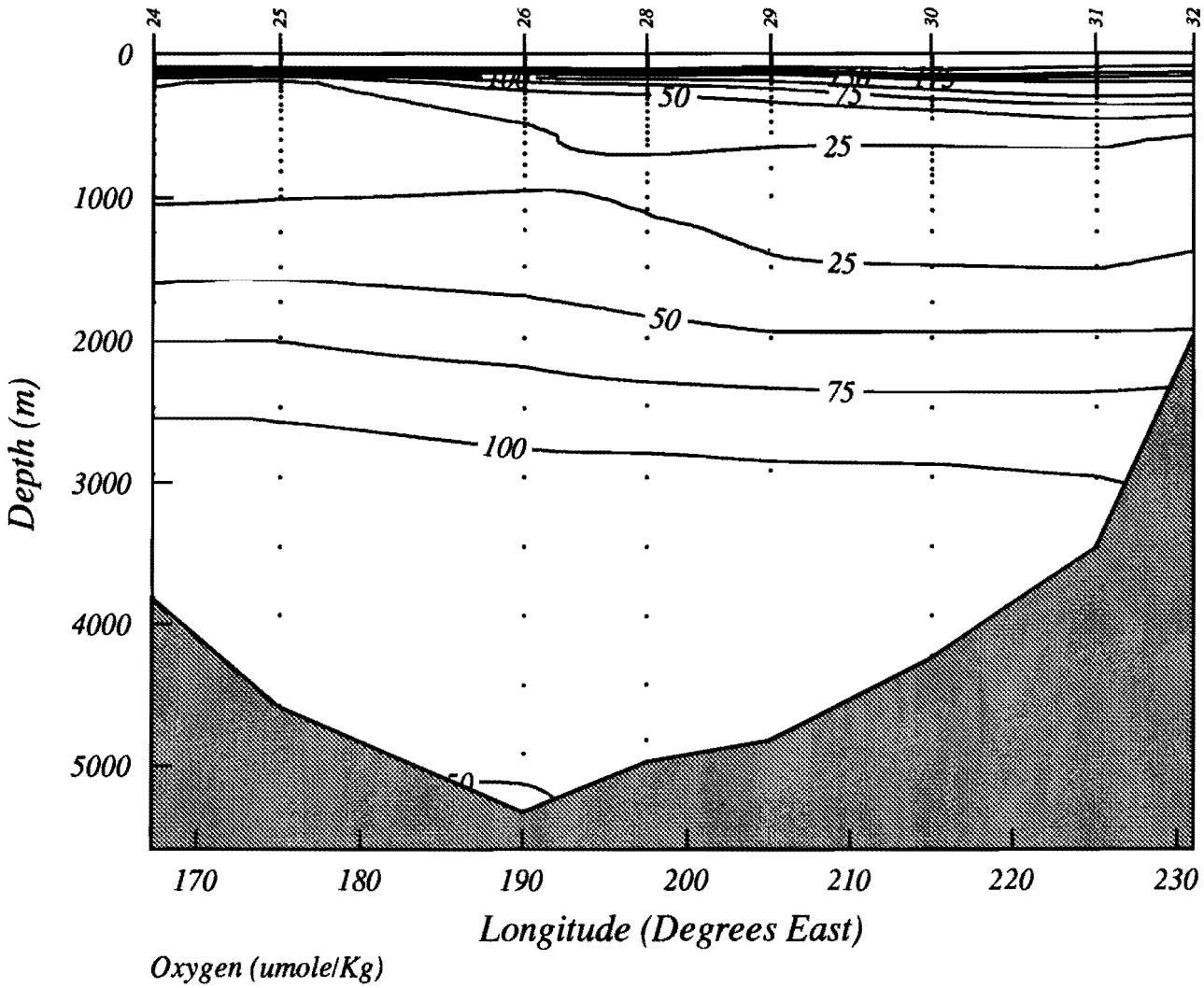
Potential Temperature (Degrees C.)

Potential Temperature section along 50 North during the CO2-87 Cruise
Station numbers are indicated across the top.

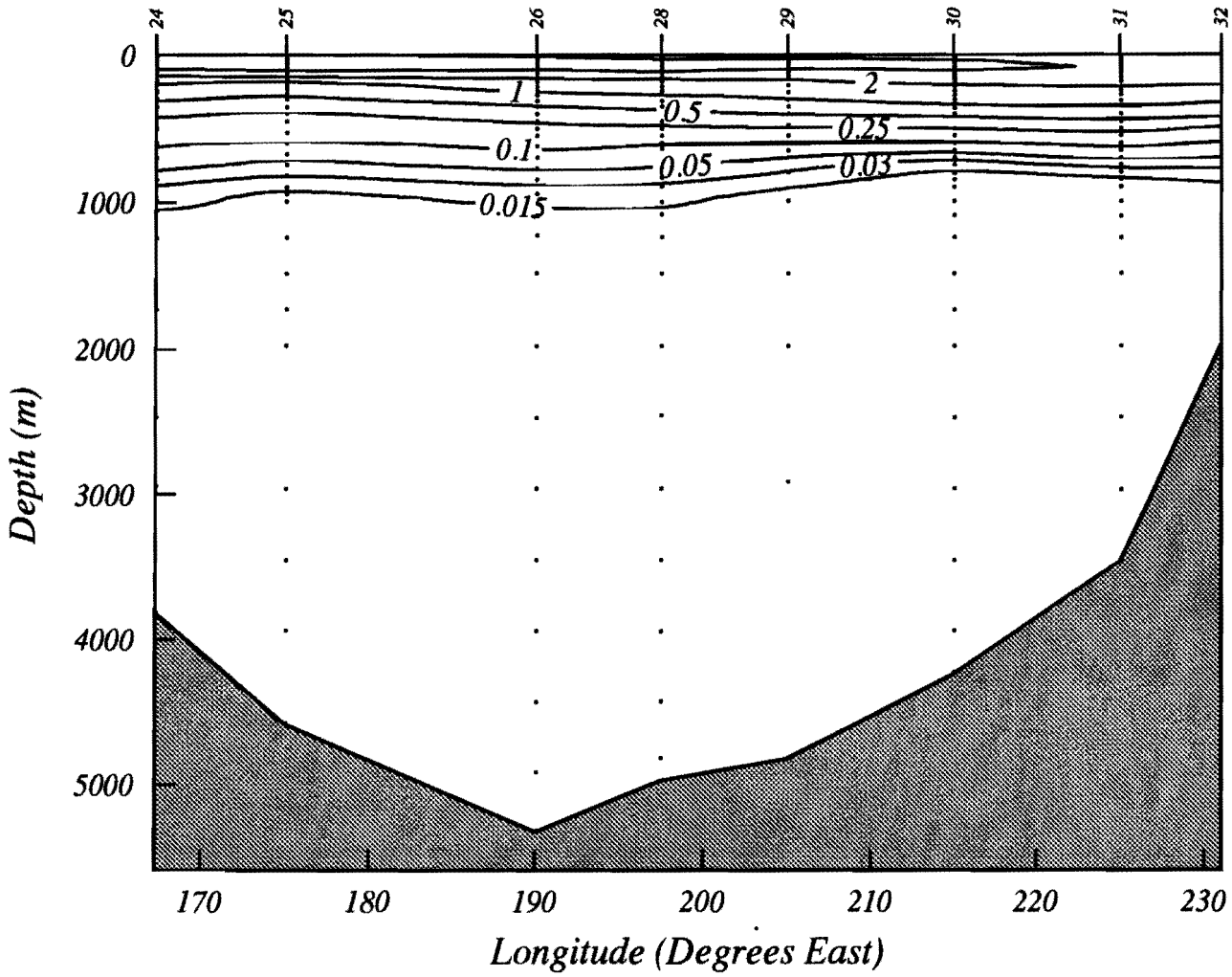


Salinity (PSU)

Salinity section along 50 North during the CO2-87 Cruise
Station numbers are indicated across the top.

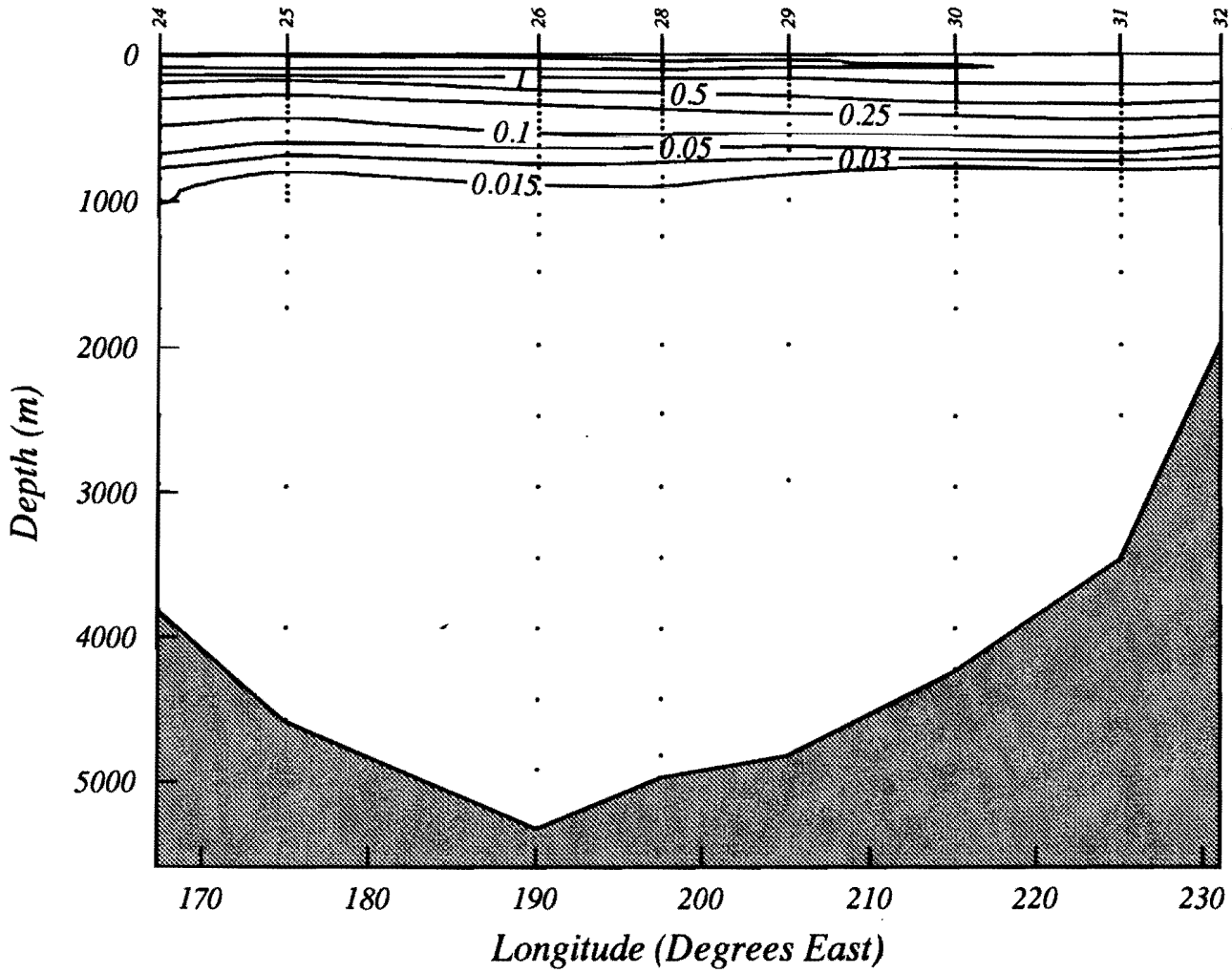


Dissolved Oxygen section along 50 North during the CO2-87 Cruise
Station numbers are indicated across the top.



CFC-11 (pmole/Kg)

CFC-11 section along 50 North during the CO2-87 Cruise
Station numbers are indicated across the top.



CFC-12 (pmole/Kg)

CFC-12 section along 50 North during the CO2-87 Cruise
Station numbers are indicated across the top.

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
2	30 Jul 87	10 00.1 N	165 00.1 E	5075	235.8	427.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
122	0	0	28.719	34.272	21.613	-9	1.467	0.773	-9.00	1.02	1.02	1.90	2000
121	14	14	28.622	34.276	21.648	-9	1.463	0.801	-9.00	1.01	1.06	1.83	2000
120	28	28	27.990	34.563	22.071	-9	1.527	0.776	-9.00	1.03	1.00	1.97	2000
101	44	44	27.721	34.633	22.212	-9	1.520	0.814	-9.00	1.02	1.04	1.87	2000
118	57	57	27.536	34.639	22.276	-9	1.526	0.822	-9.00	1.01	1.05	1.86	2000
117	73	74	26.797	34.607	22.488	-9	1.559	0.841	-9.00	1.00	1.04	1.85	2000
123	92	92	26.177	34.617	22.691	-9	1.594	0.856	-9.00	1.00	1.04	1.86	2000
115	104	104	24.992	34.765	23.168	-9	1.664	0.883	-9.00	1.00	1.02	1.89	2000
114	123	123	21.688	34.982	24.293	-9	1.494	0.765	-9.00	0.78	0.78	1.95	2000
113	146	146	16.570	34.721	25.402	-9	1.527	0.810	-9.00	0.62	0.67	1.88	2000
112	171	171	13.907	34.513	25.831	-9	1.105	0.610	-9.00	0.39	0.45	1.81	2000
111	195	195	12.503	34.492	26.098	-9	0.821	0.504	-9.00	0.27	0.35	1.63	2000
216	221	222	10.994	34.538	26.417	-9	0.384	0.221	-9.00	0.12	0.14	1.74	2000
222	245	246	10.435	34.583	26.552	-9	0.222	0.159	-9.00	0.07	0.10	1.40	2002
221	270	271	10.013	34.626	26.658	-9	0.106	0.078	-9.00	0.03	0.05	1.36	2003
220	296	297	9.604	34.642	26.740	-9	0.080	0.056	-9.00	0.02	0.03	1.44	2003
201	319	320	9.424	34.644	26.771	-9	0.060	0.030	-9.00	0.02	0.02	1.99	2003
218	343	345	9.150	34.638	26.811	-9	0.033	0.021	-9.00	0.01	-9.00	-9.00	2003
217	372	374	9.000	34.642	26.838	-9	0.035	0.025	-9.00	0.01	-9.00	-9.00	2003
223	393	395	8.922	34.640	26.849	-9	0.032	0.025	-9.00	0.01	-9.00	-9.00	2003
215	443	445	8.643	34.631	26.886	-9	0.026	0.029	-9.00	-9.00	-9.00	-9.00	2003
214	494	496	8.317	34.605	26.916	-9	0.014	0.013	-9.00	-9.00	-9.00	-9.00	2003
213	591	595	7.307	34.565	27.033	-9	0.007	0.015	-9.00	-9.00	-9.00	-9.00	2103
212	691	696	6.403	34.544	27.140	-9	0.002	0.007	-9.00	-9.00	-9.00	-9.00	2003
211	792	797	5.739	34.539	27.221	-9	0.002	-0.001	-9.00	-9.00	-9.00	-9.00	2003
210	1002	1009	4.577	34.558	27.373	-9	0.000	-0.005	-9.00	-9.00	-9.00	-9.00	2003
209	1233	1243	3.628	34.583	27.492	-9	0.002	0.000	-9.00	-9.00	-9.00	-9.00	2003
208	1480	1494	2.989	34.601	27.568	-9	-0.001	-0.001	-9.00	-9.00	-9.00	-9.00	2003
207	1972	1993	2.100	34.640	27.675	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000
206	2467	2496	1.667	34.663	27.727	-9	0.003	0.003	-9.00	-9.00	-9.00	-9.00	2003
205	2961	2999	1.421	34.678	27.758	-9	0.013	0.000	-9.00	-9.00	-9.00	-9.00	2003
204	3447	3496	1.261	34.687	27.776	-9	-0.001	0.011	-9.00	-9.00	-9.00	-9.00	2003
203	3933	3994	1.113	34.697	27.794	-9	0.014	0.007	-9.00	-9.00	-9.00	-9.00	2003
202	4429	4503	1.018	34.704	27.806	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000
225	5048	5140	0.935	34.709	27.816	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
3	31 Jul 87	12 00.2 N	164 59.5 E	2557	235.8	427.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
307	0	0	28.764	34.624	21.863	-9	1.515	0.810	-9.00	1.06	1.08	1.87	2000
306	14	14	28.414	34.616	21.972	-9	1.532	0.795	-9.00	1.05	1.04	1.93	2000
305	28	28	28.388	34.616	21.981	-9	1.516	0.804	-9.00	1.04	1.06	1.88	2000
304	45	45	28.171	34.639	22.069	-9	1.536	0.807	-9.00	1.05	1.05	1.90	2003
303	57	57	28.043	34.711	22.165	-9	1.543	0.829	-9.00	1.05	1.08	1.86	2000
302	77	78	27.583	34.812	22.391	-9	1.592	0.837	-9.00	1.06	1.07	1.90	2000
325	98	98	25.869	34.835	22.951	-9	1.669	0.859	-9.00	1.04	1.03	1.94	2000
316	121	121	25.310	35.035	23.275	-9	1.678	0.905	-9.00	1.02	1.07	1.85	2000
322	148	148	21.958	35.205	24.387	-9	1.792	0.917	-9.00	0.94	0.95	1.96	2000
324	168	169	19.587	35.030	24.894	-9	1.816	0.949	-9.00	0.86	0.89	1.91	2000
320	196	197	17.288	34.834	25.319	-9	1.931	0.958	-9.00	0.82	0.82	2.02	2000
301	221	222	14.991	34.597	25.664	-9	1.872	0.980	-9.00	0.70	0.75	1.91	2000
318	246	246	13.595	34.476	25.867	-9	1.603	0.791	-9.00	0.56	0.57	2.03	2000
408	272	273	12.465	34.401	26.035	-9	1.583	0.776	-9.00	0.52	0.53	2.04	2003
407	295	296	11.572	34.337	26.155	-9	1.352	0.668	-9.00	0.43	0.44	2.02	2000
406	321	322	10.276	34.277	26.340	-9	0.956	0.481	-9.00	0.28	0.30	1.99	2000
405	345	346	9.584	34.347	26.512	-9	0.585	0.323	-9.00	0.17	0.19	1.81	2000
404	370	372	9.519	34.476	26.624	-9	0.184	0.130	-9.00	0.05	0.08	1.41	2002
403	395	397	9.161	34.493	26.696	-9	0.117	0.088	-9.00	0.03	0.05	1.33	2003
402	418	420	8.786	34.515	26.773	-9	0.084	0.056	-9.00	0.02	0.03	1.50	2003
425	444	446	8.412	34.521	26.836	-9	0.071	0.037	-9.00	0.02	0.02	1.94	2003
416	494	497	7.984	34.508	26.890	-9	0.035	0.023	-9.00	0.01	-9.00	-9.00	2003
422	592	595	6.873	34.510	27.050	-9	0.023	0.007	-9.00	-9.00	-9.00	-9.00	2003
421	690	694	6.111	34.522	27.161	-9	0.007	0.007	-9.00	-9.00	-9.00	-9.00	2003
420	787	792	5.371	34.527	27.257	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000
401	988	995	4.436	34.555	27.386	-9	0.001	-0.003	-9.00	-9.00	-9.00	-9.00	2003
418	1234	1244	3.448	34.578	27.506	-9	-0.003	0.005	-9.00	-9.00	-9.00	-9.00	2003
417	1480	1493	2.831	34.600	27.581	-9	-0.006	0.001	-9.00	-9.00	-9.00	-9.00	2000
423	1982	2002	2.050	34.639	27.678	-9	-0.003	0.005	-9.00	-9.00	-9.00	-9.00	2003
415	1982	2002	2.050	34.639	27.678	-9	0.000	0.006	-9.00	-9.00	-9.00	-9.00	2003
409	2322	2348	1.772	34.657	27.715	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
4	31 Jul 87	13 59.8 N	165 00.3 E	5307	238.7	427.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
513	0	0	28.403	34.651	22.002	-9	1.516	0.805	-9.00	1.04	1.06	1.89	2100
512	13	13	28.362	34.650	22.015	-9	1.516	0.834	-9.00	1.03	1.09	1.82	2000
511	29	29	28.355	34.652	22.019	-9	1.512	0.808	-9.00	1.03	1.06	1.87	2000
510	44	44	28.213	34.772	22.156	-9	1.536	0.818	-9.00	1.04	1.07	1.88	2000
509	57	57	28.113	34.804	22.212	-9	1.542	0.808	-9.00	1.04	1.05	1.91	2000
508	77	77	27.351	34.894	22.527	-9	1.605	0.827	-9.00	1.05	1.05	1.94	2000
507	98	98	26.443	34.973	22.876	-9	1.647	0.859	-9.00	1.04	1.05	1.92	2000
506	122	122	25.291	34.939	23.208	-9	1.685	0.868	-9.00	1.01	1.02	1.94	2000
505	146	146	24.275	35.250	23.751	-9	1.729	0.876	-9.00	1.00	0.99	1.97	2000
504	172	172	22.182	35.201	24.321	-9	1.712	0.893	-9.00	0.90	0.93	1.92	2000
503	196	196	20.862	35.150	24.647	-9	1.797	0.911	-9.00	0.89	0.90	1.97	2000
502	221	221	18.059	34.890	25.174	-9	1.866	0.930	-9.00	0.81	0.82	2.01	2000
525	245	246	15.848	34.658	25.520	-9	1.648	0.809	-9.00	0.64	0.65	2.04	2000
616	296	297	11.863	34.332	26.097	-9	1.439	0.697	-9.00	0.45	0.46	2.07	2100
622	321	322	10.566	34.291	26.301	-9	0.973	0.504	-9.00	0.29	0.32	1.93	2000
621	346	347	10.323	34.336	26.379	-9	0.670	0.324	-9.00	0.19	0.20	2.07	2000
620	396	397	9.075	34.348	26.596	-9	0.339	0.189	-9.00	0.09	0.11	1.80	2002
601	420	421	8.772	34.399	26.684	-9	0.190	0.098	-9.00	0.05	0.06	1.93	2002
618	445	447	8.397	34.430	26.766	-9	0.106	0.062	-9.00	0.03	0.03	1.72	2003
617	470	472	8.076	34.465	26.842	-9	0.049	0.036	-9.00	0.01	0.02	1.34	2003
623	495	498	7.734	34.480	26.905	-9	0.026	0.014	-9.00	-9.00	-9.00	-9.00	2003
615	543	546	7.130	34.480	26.991	-9	0.017	0.007	-9.00	-9.00	-9.00	-9.00	2003
614	592	595	6.768	34.497	27.055	-9	0.012	0.008	-9.00	-9.00	-9.00	-9.00	2003
613	693	697	5.975	34.502	27.162	-9	0.002	0.005	-9.00	-9.00	-9.00	-9.00	2103
612	791	796	5.486	34.514	27.233	-9	0.000	0.004	-9.00	-9.00	-9.00	-9.00	2003
611	987	994	4.513	34.542	27.367	-9	-0.003	-0.002	-9.00	-9.00	-9.00	-9.00	2003
610	1225	1234	3.615	34.571	27.484	-9	-0.003	-0.002	-9.00	-9.00	-9.00	-9.00	2003
609	1483	1496	2.890	34.592	27.569	-9	0.000	-0.003	-9.00	-9.00	-9.00	-9.00	2003
608	1974	1994	2.038	34.634	27.675	-9	-0.003	0.000	-9.00	-9.00	-9.00	-9.00	2003
607	2466	2495	1.659	34.662	27.727	-9	-0.001	0.001	-9.00	-9.00	-9.00	-9.00	2003
606	2957	2996	1.419	34.674	27.755	-9	0.000	0.000	-9.00	-9.00	-9.00	-9.00	2000
605	3447	3496	1.263	34.685	27.774	-9	0.002	-0.002	-9.00	-9.00	-9.00	-9.00	2003
604	3937	3998	1.148	34.693	27.789	-9	-0.003	-0.002	-9.00	-9.00	-9.00	-9.00	2003
603	4428	4502	1.056	34.699	27.800	-9	0.000	0.000	-9.00	-9.00	-9.00	-9.00	2000
602	4912	5000	0.971	34.704	27.809	-9	-0.002	0.002	-9.00	-9.00	-9.00	-9.00	2003
625	5300	5399	0.902	34.708	27.817	-9	-0.001	-0.002	-9.00	-9.00	-9.00	-9.00	2103

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
5	1 Aug 87	16 00.4 N	165 00.3 E	5403	240.1	427.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
707	0	0	28.523	34.853	22.114	-9	1.565	0.838	-9.00	1.07	1.11	1.87	2000
706	13	13	28.236	34.792	22.163	-9	1.592	0.834	-9.00	1.07	1.09	1.91	2000
705	28	28	27.404	34.799	22.439	-9	1.621	0.847	-9.00	1.05	1.07	1.91	2000
704	42	42	27.105	34.836	22.563	-9	1.654	0.854	-9.00	1.06	1.07	1.94	2000
703	58	58	26.623	34.806	22.693	-9	1.666	0.835	-9.00	1.05	1.03	1.99	2000
702	78	78	25.762	34.776	22.940	-9	1.672	0.859	-9.00	1.02	1.03	1.95	2000
725	98	98	25.506	34.856	23.079	-9	1.700	0.869	-9.00	1.02	1.03	1.96	2000
716	123	123	25.082	34.974	23.298	-9	1.678	0.868	-9.00	0.99	1.01	1.93	2000
722	147	147	24.227	35.061	23.622	-9	1.707	0.870	-9.00	0.97	0.98	1.96	2000
721	173	173	22.249	35.117	24.238	-9	1.752	0.902	-9.00	0.92	0.94	1.94	2000
720	191	191	20.813	35.082	24.609	-9	1.851	0.923	-9.00	0.91	0.91	2.01	2000
701	221	222	18.260	34.899	25.131	-9	1.801	0.913	-9.00	0.78	0.81	1.97	2000
718	246	247	16.141	34.682	25.472	-9	1.734	0.870	-9.00	0.68	0.71	1.99	2000
717	300	301	13.402	34.428	25.869	-9	1.767	0.876	-9.00	0.60	0.63	2.02	2000
808	345	347	10.929	34.270	26.220	-9	1.303	0.642	-9.00	0.39	0.41	2.03	2000
807	375	376	9.970	34.232	26.358	-9	1.099	0.543	-9.00	0.31	0.33	2.02	2000
806	403	405	9.066	34.206	26.486	-9	0.713	0.407	-9.00	0.19	0.24	1.75	2000
805	435	437	8.250	34.208	26.615	-9	0.472	0.256	-9.00	0.12	0.14	1.84	2000
804	463	465	7.599	34.232	26.730	-9	0.255	0.134	-9.00	0.06	0.07	1.90	2002
803	494	497	6.632	34.216	26.851	-9	0.146	0.077	-9.00	0.03	0.04	1.89	2003
802	546	549	6.504	34.310	26.942	-9	0.054	0.041	-9.00	0.01	0.02	1.31	2003
825	592	596	6.097	34.341	27.020	-9	0.026	0.017	-9.00	-9.00	-9.00	-9.00	2003
816	642	646	5.682	34.383	27.105	-9	0.015	0.003	-9.00	-9.00	-9.00	-9.00	2003
822	690	694	5.529	34.447	27.174	-9	0.013	-0.001	-9.00	-9.00	-9.00	-9.00	2003
821	790	795	4.967	34.484	27.270	-9	0.001	-0.004	-9.00	-9.00	-9.00	-9.00	2003
820	988	995	4.232	34.539	27.395	-9	-9.000	-0.004	-9.00	-9.00	-9.00	-9.00	2013
801	1233	1243	3.346	34.569	27.509	-9	0.001	-0.007	-9.00	-9.00	-9.00	-9.00	2003
818	1481	1494	2.800	34.595	27.580	-9	-0.001	-0.005	-9.00	-9.00	-9.00	-9.00	2003
817	1971	1992	1.938	34.638	27.687	-9	-0.002	-0.006	-9.00	-9.00	-9.00	-9.00	2003
823	2470	2498	1.571	34.662	27.734	-9	-0.001	0.000	-9.00	-9.00	-9.00	-9.00	2003
815	2960	2998	1.364	34.676	27.760	-9	0.000	-0.006	-9.00	-9.00	-9.00	-9.00	2003
814	3350	3397	1.256	34.684	27.774	-9	0.001	-0.002	-9.00	-9.00	-9.00	-9.00	2003
813	3935	3996	1.130	34.694	27.791	-9	-0.002	-0.004	-9.00	-9.00	-9.00	-9.00	2003
812	4427	4501	1.018	34.701	27.804	-9	-0.003	-0.003	-9.00	-9.00	-9.00	-9.00	2003
810	4913	5001	0.924	34.707	27.815	-9	0.000	-0.008	-9.00	-9.00	-9.00	-9.00	2003
811	4913	5001	0.924	34.707	27.815	-9	-0.001	-0.006	-9.00	-9.00	-9.00	-9.00	2003
809	5343	5444	0.899	34.708	27.817	-9	-0.001	-0.010	-9.00	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
6	2 Aug 87	18 00.3 N	164 59.6 E	5459	238.9	427.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
923	0	0	28.814	35.032	22.152	212	1.540	0.807	1.09	1.07	1.08	1.91	2000
922	13	13	28.706	35.069	22.216	214	1.576	0.806	1.10	1.09	1.07	1.95	2000
921	27	28	28.403	35.029	22.286	205	1.567	0.796	1.05	1.07	1.05	1.97	2000
920	48	48	27.810	35.005	22.463	208	1.647	0.812	1.06	1.10	1.05	2.03	2000
901	73	73	26.379	35.115	23.003	210	1.667	0.870	1.04	1.05	1.07	1.91	2000
918	98	98	25.701	35.157	23.247	207	1.679	0.890	1.01	1.03	1.06	1.89	2000
917	133	133	24.431	35.273	23.721	201	1.740	0.890	0.97	1.01	1.02	1.95	2000
923	147	147	23.734	35.288	23.940	198	1.762	0.902	0.94	0.99	1.00	1.95	2000
915	186	187	20.623	35.134	24.699	191	1.851	0.938	0.86	0.91	0.92	1.97	2000
914	226	227	18.127	34.907	25.171	192	1.969	1.001	0.82	0.86	0.88	1.97	2000
913	257	258	16.569	34.762	25.434	196	1.998	0.994	0.81	0.80	0.82	2.01	2000
912	286	287	15.538	34.682	25.608	201	2.028	1.029	0.82	0.78	0.81	1.97	2000
911	314	316	14.694	34.605	25.735	200	1.943	0.973	0.80	0.71	0.74	2.00	2000
1016	346	347	13.408	34.477	25.906	197	1.857	0.914	0.77	0.63	0.65	2.05	2100
1022	375	376	12.274	34.396	26.068	190	1.672	0.831	0.72	0.54	0.56	2.01	2000
1021	405	407	11.164	34.289	26.193	180	1.464	0.701	0.67	0.44	0.45	2.09	2000
1020	435	437	10.176	34.262	26.346	144	0.982	0.480	0.52	0.28	0.29	2.05	2000
1001	458	460	9.679	34.232	26.406	149	0.940	0.456	0.54	0.26	0.27	2.06	2000
1018	494	496	8.797	34.199	26.523	145	0.648	0.326	0.51	0.17	0.19	1.99	2000
1017	543	546	7.332	34.199	26.742	90	0.274	0.152	0.31	0.07	0.08	1.80	2002
1023	592	596	6.599	34.258	26.889	63	0.099	0.060	0.21	0.02	0.03	1.66	2003
1015	642	646	6.392	34.355	26.993	50	0.036	0.019	0.17	0.01	-9.00	-9.00	2003
1014	691	695	5.873	34.403	27.097	48	0.039	0.018	0.16	0.01	-9.00	-9.00	2003
1013	791	796	5.306	34.463	27.214	53	0.000	0.007	0.17	-9.00	-9.00	-9.00	2003
1012	888	894	4.785	34.496	27.300	64	0.000	0.002	0.20	-9.00	-9.00	-9.00	2003
1011	987	994	4.432	34.517	27.356	66	-0.001	0.002	0.21	-9.00	-9.00	-9.00	2003
1010	1236	1246	3.566	34.557	27.478	71	-0.001	-0.004	0.22	-9.00	-9.00	-9.00	2003
1009	1483	1496	2.844	34.576	27.561	86	0.000	-0.003	0.26	-9.00	-9.00	-9.00	2003
1008	1978	1998	2.024	34.621	27.666	106	-0.002	-0.003	0.32	-9.00	-9.00	-9.00	2003
1007	2467	2496	1.607	34.656	27.726	116	-0.002	-0.004	0.35	-9.00	-9.00	-9.00	2003
1006	2956	2994	1.385	34.673	27.756	131	0.001	-0.003	0.39	-9.00	-9.00	-9.00	2003
1005	3442	3490	1.248	34.684	27.775	142	-0.001	0.001	0.42	-9.00	-9.00	-9.00	2003
1004	3938	3998	1.139	34.692	27.788	156	0.000	0.004	0.46	-9.00	-9.00	-9.00	2003
1003	4432	4506	1.041	34.699	27.801	165	-0.001	0.002	0.49	-9.00	-9.00	-9.00	2003
1002	4920	5008	0.960	34.705	27.811	177	-0.004	-0.005	0.52	-9.00	-9.00	-9.00	2003
1025	5430	5534	0.917	34.708	27.816	182	-0.002	-0.007	0.53	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
7	3 Aug 87	20 59.7 N	165 00.2 E	5552	239.4	428.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1106	0	0	29.587	34.908	21.800	200	1.480	0.818	1.04	1.05	1.12	1.81	2000
1105	12	12	29.432	34.904	21.849	196	1.482	0.792	1.02	1.05	1.08	1.87	2000
1104	27	27	29.012	34.886	21.977	200	1.510	0.803	1.03	1.05	1.08	1.88	2000
1103	59	59	26.438	35.142	23.005	212	1.726	0.918	1.06	1.09	1.13	1.88	2000
1102	87	87	24.587	35.203	23.621	213	1.744	0.908	1.03	1.01	1.04	1.92	2000
1125	119	119	22.777	35.185	24.140	198	1.784	0.919	0.92	0.96	0.98	1.94	2000
1116	149	149	21.103	35.101	24.544	194	1.895	0.953	0.88	0.95	0.95	1.99	2000
1122	173	173	19.978	35.040	24.799	202	2.019	1.029	0.90	0.96	0.98	1.96	2000
1121	197	197	18.691	34.936	25.052	198	1.964	1.000	0.86	0.87	0.90	1.96	2000
1120	235	236	17.023	34.795	25.352	196	2.023	1.034	0.82	0.83	0.87	1.96	2000
1101	275	276	15.802	34.702	25.564	202	2.017	1.027	0.83	0.78	0.82	1.96	2000
1118	316	317	14.615	34.599	25.747	200	1.913	0.955	0.80	0.70	0.72	2.00	2000
1117	350	351	13.320	34.463	25.913	194	1.817	0.908	0.75	0.62	0.65	2.00	2000
1208	395	397	11.554	34.344	26.164	189	1.625	0.787	0.71	0.50	0.52	2.07	2000
1207	435	437	10.421	34.246	26.291	171	1.304	0.640	0.63	0.38	0.40	2.04	2000
1206	435	437	10.421	34.246	26.291	159	1.065	0.527	0.58	0.31	0.33	2.02	2000
1205	474	476	9.357	34.198	26.433	146	0.858	0.425	0.52	0.24	0.25	2.02	2000
1204	511	514	8.201	34.160	26.584	129	0.650	0.321	0.45	0.17	0.18	2.02	2000
1203	553	556	7.525	34.122	26.654	110	0.442	0.236	0.38	0.11	0.13	1.87	2000
1202	593	596	6.738	34.116	26.758	78	0.176	0.099	0.26	0.04	0.05	1.78	2003
1225	643	646	5.933	34.155	26.893	59	0.077	0.050	0.20	0.02	0.02	1.54	2003
1216	695	699	5.424	34.224	27.010	50	0.032	0.020	0.16	0.01	-9.00	-9.00	2003
1222	742	747	5.120	34.294	27.102	48	0.023	0.013	0.16	-9.00	-9.00	-9.00	2003
1221	794	799	4.782	34.339	27.176	49	0.005	0.000	0.16	-9.00	-9.00	-9.00	2003
1220	886	892	4.364	34.406	27.275	59	0.018	0.000	0.19	-9.00	-9.00	-9.00	2003
1201	990	997	4.034	34.459	27.352	63	0.009	0.004	0.20	-9.00	-9.00	-9.00	2003
1218	1090	1098	3.687	34.497	27.418	72	-0.001	0.002	0.23	-9.00	-9.00	-9.00	2003
1217	1481	1494	2.664	34.570	27.572	82	0.009	0.004	0.25	-9.00	-9.00	-9.00	2003
1223	1973	1994	1.935	34.624	27.676	100	-0.002	0.001	0.30	-9.00	-9.00	-9.00	2003
1215	2469	2497	1.585	34.654	27.726	118	0.002	-0.002	0.35	-9.00	-9.00	-9.00	2003
1214	2955	2993	1.391	34.670	27.753	131	0.006	0.003	0.39	-9.00	-9.00	-9.00	2003
1213	3449	3498	1.248	34.682	27.773	142	-0.002	0.001	0.42	-9.00	-9.00	-9.00	2003
1212	3939	3999	1.148	34.691	27.787	152	-0.002	0.000	0.45	-9.00	-9.00	-9.00	2003
1211	4426	4500	1.066	34.699	27.799	162	0.000	-0.003	0.48	-9.00	-9.00	-9.00	2003
1210	4914	5002	1.024	34.700	27.803	167	0.001	0.003	0.49	-9.00	-9.00	-9.00	2103
1209	5503	5609	0.957	34.704	27.810	178	0.002	0.003	0.52	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
8	3 Aug 87	24 00.2 N	165 00.2 E	6134	238.7	431.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1318	0	0	28.774	35.245	22.326	195	1.500	0.819	1.01	1.04	1.08	1.83	2000
1317	14	14	28.673	35.234	22.351	197	1.518	0.822	1.02	1.05	1.09	1.85	2000
1323	27	27	27.714	35.174	22.621	204	1.601	0.846	1.04	1.06	1.08	1.89	2000
1315	57	58	25.117	35.275	23.515	213	1.706	0.896	1.04	1.02	1.04	1.90	2000
1314	86	86	23.839	35.375	23.975	215	1.793	0.929	1.02	1.02	1.03	1.93	2000
1313	113	113	22.958	35.394	24.246	216	1.865	0.971	1.01	1.02	1.04	1.92	2000
1312	147	148	20.960	35.181	24.644	211	1.954	0.981	0.96	0.97	0.97	1.99	2000
1311	179	180	18.930	34.961	25.010	192	1.924	0.982	0.84	0.87	0.89	1.96	2000
1310	206	206	17.298	34.820	25.306	197	2.004	1.014	0.83	0.84	0.86	1.98	2000
1309	236	237	16.335	34.756	25.484	205	2.066	1.071	0.85	0.82	0.87	1.93	2000
1308	275	276	15.716	34.696	25.579	204	2.045	1.036	0.83	0.79	0.82	1.97	2000
1307	313	314	14.823	34.614	25.714	203	2.023	0.997	0.81	0.75	0.75	2.03	2000
1306	351	352	13.681	34.517	25.881	204	2.011	1.011	0.80	0.70	0.73	1.99	2000
1401	395	396	12.756	34.434	26.004	200	1.959	0.965	0.77	0.65	0.66	2.02	2100
1418	444	446	11.467	34.335	26.173	197	1.837	0.905	0.74	0.57	0.59	2.03	2000
1417	494	497	10.072	34.237	26.344	186	1.547	0.758	0.67	0.44	0.46	2.04	2000
1423	543	546	8.747	34.152	26.494	166	1.181	0.595	0.59	0.31	0.34	1.99	2000
1415	589	593	7.673	34.114	26.626	142	0.801	0.415	0.49	0.20	0.22	1.93	2000
1414	643	646	6.763	34.094	26.738	121	0.606	0.304	0.41	0.14	0.16	1.99	2000
1413	690	694	5.695	34.097	26.877	93	0.360	0.185	0.31	0.08	0.09	1.94	2002
1412	740	744	5.258	34.160	26.979	69	0.157	0.078	0.22	0.03	0.04	2.02	2003
1411	790	795	5.003	34.205	27.045	58	0.096	0.047	0.19	0.02	0.02	2.04	2003
1410	839	844	4.687	34.273	27.135	49	0.026	0.021	0.16	-9.00	-9.00	-9.00	2003
1409	885	890	4.589	34.294	27.162	47	0.019	0.012	0.15	-9.00	-9.00	-9.00	2003
1408	984	991	4.120	34.406	27.301	48	0.000	-0.001	0.15	-9.00	-9.00	-9.00	2003
1407	1086	1094	3.783	34.473	27.389	57	0.002	0.005	0.18	-9.00	-9.00	-9.00	2003
1406	1233	1242	3.311	34.511	27.466	64	-9.000	-9.000	0.20	-9.00	-9.00	-9.00	2000
1405	1482	1495	2.708	34.560	27.560	78	0.002	0.004	0.24	-9.00	-9.00	-9.00	2103
1404	1975	1995	1.966	34.617	27.667	98	-0.002	-0.010	0.29	-9.00	-9.00	-9.00	2001
1403	2477	2506	1.594	34.655	27.726	115	0.004	0.003	0.34	-9.00	-9.00	-9.00	2003
1402	2954	2992	1.415	34.668	27.750	127	0.004	0.006	0.38	-9.00	-9.00	-9.00	2003
1425	3450	3499	1.286	34.681	27.769	140	0.004	0.004	0.41	-9.00	-9.00	-9.00	2003
1416	3938	3998	1.197	34.687	27.780	148	0.005	0.005	0.44	-9.00	-9.00	-9.00	2003
1422	4427	4500	1.106	34.694	27.792	153	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2033
1421	4912	5000	1.033	34.699	27.801	166	0.004	0.010	0.49	-9.00	-9.00	-9.00	2003
1420	5882	6001	0.960	34.704	27.810	174	0.007	-0.002	0.51	-9.00	-9.00	-9.00	2103

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
9	4 Aug 87	26 00.6 N	165 00.2 E	5744	238.7	431.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1516	0	0	28.567	35.250	22.398	198	1.503	0.791	1.02	1.04	1.04	1.90	2000
1522	14	14	28.388	35.316	22.507	196	1.529	0.787	1.01	1.05	1.03	1.94	2000
1521	26	26	28.057	35.463	22.726	199	1.580	0.817	1.02	1.07	1.06	1.93	2000
1520	58	58	24.619	35.348	23.722	220	1.956	0.945	1.06	1.15	1.08	2.07	2000
1501	86	86	22.640	35.248	24.227	220	1.914	0.942	1.02	1.03	0.99	2.03	2000
1518	115	115	20.106	35.022	24.752	216	2.016	1.059	0.96	0.96	1.01	1.90	2000
1517	157	157	17.827	34.827	25.183	216	2.175	1.064	0.92	0.93	0.92	2.04	2000
1523	196	196	17.060	34.788	25.338	217	2.243	1.134	0.91	0.93	0.95	1.98	2000
1515	235	236	16.525	34.760	25.443	211	2.175	1.090	0.88	0.87	0.89	1.99	2000
1514	277	278	16.101	34.740	25.525	215	2.202	1.099	0.88	0.87	0.88	2.00	2000
1513	315	317	15.403	34.661	25.622	204	2.043	1.069	0.83	0.78	0.83	1.91	2000
1512	353	355	14.455	34.583	25.769	200	1.977	1.021	0.80	0.72	0.76	1.94	2000
1511	391	393	13.444	34.578	25.977	202	1.945	0.936	0.79	0.67	0.67	2.08	2000
1616	443	445	12.343	34.395	26.054	198	1.892	0.900	0.75	0.61	0.61	2.10	2100
1622	493	496	11.269	34.325	26.202	192	1.758	0.832	0.72	0.54	0.53	2.11	2000
1621	543	546	9.920	34.221	26.358	184	1.652	0.774	0.66	0.47	0.47	2.13	2000
1620	594	597	8.605	34.106	26.480	174	1.441	0.677	0.61	0.38	0.38	2.13	2000
1601	641	644	7.608	34.085	26.613	161	1.342	0.637	0.55	0.33	0.34	2.11	2000
1618	691	695	6.363	34.061	26.765	135	0.970	0.455	0.45	0.23	0.23	2.13	2000
1617	740	745	5.540	34.028	26.841	122	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	2030
1623	791	796	4.929	34.082	26.956	99	-9.000	-9.000	0.32	-9.00	-9.00	-9.00	2030
1615	840	846	4.561	34.150	27.051	68	0.324	0.151	0.22	0.07	0.07	2.15	2002
1614	890	896	4.345	34.199	27.113	53	0.119	0.063	0.17	0.02	0.03	1.89	2003
1613	987	994	3.844	34.280	27.229	38	0.030	0.018	0.12	-9.00	-9.00	-9.00	2003
1612	1087	1095	3.454	34.369	27.339	34	0.015	0.010	0.10	-9.00	-9.00	-9.00	2003
1611	1236	1246	2.946	34.448	27.449	37	0.002	0.000	0.11	-9.00	-9.00	-9.00	2103
1610	1482	1495	2.464	34.538	27.564	57	-0.002	-9.000	0.17	-9.00	-9.00	-9.00	2023
1609	1971	1991	1.843	34.617	27.677	88	0.000	0.000	0.26	-9.00	-9.00	-9.00	2003
1608	2467	2496	1.513	34.655	27.732	114	0.001	0.003	0.34	-9.00	-9.00	-9.00	2003
1607	2955	2994	1.353	34.675	27.760	130	0.000	-0.002	0.38	-9.00	-9.00	-9.00	2003
1606	3447	3496	1.231	34.684	27.776	139	0.001	0.000	0.41	-9.00	-9.00	-9.00	2003
1605	3936	3996	1.147	34.691	27.787	148	0.002	0.002	0.43	-9.00	-9.00	-9.00	2003
1604	4424	4498	1.075	34.695	27.795	159	0.001	0.000	0.47	-9.00	-9.00	-9.00	2003
1603	4904	4991	1.015	34.702	27.805	169	0.000	0.002	0.49	-9.00	-9.00	-9.00	2003
1602	5398	5500	0.971	34.704	27.809	172	0.001	-9.000	0.50	-9.00	-9.00	-9.00	2023
1625	5654	5765	0.960	34.705	27.811	-9	0.001	0.002	-9.00	-9.00	-9.00	-9.00	2103

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
10	5 Aug 87	28 00.7 N	165 00.1 E	5772	237.3	432.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1707	0	0	27.943	34.998	22.414	205	1.592	0.837	1.04	1.07	1.07	1.90	2000
1706	14	14	27.817	34.997	22.454	206	1.586	0.857	1.05	1.06	1.09	1.85	2000
1705	28	28	22.084	34.922	24.136	231	2.082	1.091	1.07	1.09	1.12	1.91	2000
1704	55	56	19.766	34.914	24.759	237	2.187	1.094	1.05	1.03	1.02	2.00	2000
1703	88	88	18.034	34.844	25.145	214	2.288	1.119	0.92	1.00	0.97	2.04	2000
1702	118	118	17.241	34.787	25.294	220	2.231	1.105	0.93	0.93	0.93	2.02	2000
1725	147	148	16.918	34.786	25.370	219	2.272	1.212	0.91	0.94	1.00	1.87	2000
1716	177	178	16.678	34.769	25.414	219	2.262	1.140	0.91	0.92	0.94	1.98	2000
1722	207	208	16.516	34.763	25.447	220	2.251	1.126	0.91	0.91	0.92	2.00	2000
1721	246	247	16.262	34.745	25.492	211	2.188	1.090	0.87	0.87	0.88	2.01	2000
1720	295	296	15.524	34.681	25.611	200	2.052	0.998	0.81	0.79	0.78	2.06	2000
1701	346	348	14.407	34.612	25.802	205	2.131	1.042	0.82	0.77	0.77	2.04	2000
1808	393	395	13.405	34.520	25.940	205	2.095	1.057	0.80	0.72	0.74	2.01	2100
1807	444	447	12.206	34.443	26.118	199	1.978	0.971	0.76	0.64	0.65	2.04	2000
1806	493	496	10.846	34.331	26.283	194	1.861	0.907	0.71	0.56	0.57	2.05	2000
1805	543	546	9.189	34.205	26.466	187	1.878	0.925	0.66	0.52	0.53	2.03	2000
1804	589	593	7.648	34.078	26.602	179	1.818	0.881	0.61	0.46	0.47	2.06	2000
1803	641	644	6.675	34.059	26.722	140	0.935	0.479	0.47	0.22	0.24	1.95	2000
1802	693	697	5.861	34.077	26.841	115	0.641	0.316	0.38	0.15	0.15	2.03	2000
1825	735	739	5.365	34.084	26.907	95	0.475	0.233	0.31	0.10	0.11	2.04	2000
1816	791	797	4.888	34.141	27.007	70	0.254	0.131	0.23	0.05	0.06	1.94	2002
1822	887	893	4.232	34.214	27.137	65	-9.000	-9.000	0.21	-9.00	-9.00	-9.00	2032
1821	989	996	3.699	34.297	27.258	37	-9.000	0.029	0.12	-9.00	-9.00	-9.00	2013
1820	1089	1097	3.273	34.354	27.344	32	0.024	0.015	0.10	-9.00	-9.00	-9.00	2003
1801	1239	1249	2.864	34.447	27.456	35	0.011	0.002	0.11	-9.00	-9.00	-9.00	2103
1818	1483	1496	2.372	34.535	27.569	50	0.001	-0.002	0.15	-9.00	-9.00	-9.00	2003
1817	1976	1997	1.842	34.619	27.679	92	-9.000	-9.000	0.27	-9.00	-9.00	-9.00	2033
1823	2467	2496	1.518	34.654	27.731	112	-0.001	-0.004	0.33	-9.00	-9.00	-9.00	2003
1815	2961	2999	1.352	34.672	27.758	128	0.002	-0.004	0.38	-9.00	-9.00	-9.00	2003
1814	3448	3498	1.234	34.682	27.774	140	0.004	-0.003	0.41	-9.00	-9.00	-9.00	2003
1813	3938	3999	1.143	34.692	27.788	148	-0.001	0.000	0.43	-9.00	-9.00	-9.00	2003
1812	4423	4496	1.080	34.696	27.796	156	0.000	-0.003	0.46	-9.00	-9.00	-9.00	2003
1811	4912	5000	1.027	34.701	27.803	167	-0.001	-0.001	0.49	-9.00	-9.00	-9.00	2003
1810	5401	5503	0.991	34.703	27.807	173	0.002	0.007	0.51	-9.00	-9.00	-9.00	2003
1809	5762	5876	0.974	34.704	27.809	189	0.001	-0.002	0.55	-9.00	-9.00	-9.00	2103

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
11	6 Aug 87	30 00.5 N	164 59.1 E	5868	236.5	433.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1920	0	0	27.918	35.210	22.582	201	1.588	0.820	1.02	1.08	1.05	1.94	2000
1901	12	12	27.805	35.207	22.616	196	1.572	0.864	0.99	1.06	1.10	1.82	2000
1918	29	29	25.691	35.173	23.262	201	1.672	0.959	0.98	1.03	1.13	1.74	2000
1917	59	59	20.190	34.920	24.652	235	2.111	1.083	1.05	1.02	1.03	1.95	2000
1923	88	88	18.115	34.847	25.128	235	2.245	1.137	1.01	0.98	0.99	1.98	2000
1915	117	117	16.957	34.785	25.360	223	2.319	1.184	0.93	0.96	0.98	1.96	2000
1914	147	148	16.729	34.774	25.406	217	2.326	1.157	0.91	0.95	0.95	2.01	2000
1913	197	198	16.398	34.757	25.470	217	2.295	1.142	0.90	0.93	0.92	2.01	2000
1912	246	247	15.810	34.726	25.581	210	2.171	1.128	0.86	0.85	0.89	1.92	2000
1911	295	297	14.950	34.696	25.749	201	2.076	1.004	0.81	0.78	0.76	2.07	2000
1910	346	348	13.960	34.557	25.854	203	2.098	1.026	0.80	0.75	0.74	2.04	2000
1909	395	396	12.971	34.476	25.993	202	2.060	1.020	0.78	0.70	0.71	2.02	2000
1908	446	448	12.040	34.400	26.116	200	1.993	0.959	0.76	0.64	0.64	2.08	2000
2020	495	497	11.177	34.348	26.236	197	1.978	0.965	0.73	0.61	0.61	2.05	2000
2001	543	546	9.909	34.229	26.233	196	2.070	0.955	0.71	0.59	0.57	2.17	1000
2018	592	596	8.860	34.165	26.487	192	2.046	0.956	0.68	0.55	0.54	2.14	2000
2017	642	646	7.377	34.068	26.632	182	2.014	0.940	0.62	0.50	0.49	2.14	2000
2023	691	695	6.177	34.001	26.741	158	1.740	0.802	0.52	0.40	0.40	2.17	2000
2015	741	745	5.511	34.010	26.831	131	1.354	0.613	0.43	0.30	0.29	2.21	2000
2014	790	795	5.066	34.061	26.923	101	0.812	0.370	0.33	0.18	0.17	2.20	2000
2013	839	845	4.590	34.122	27.025	76	0.457	0.213	0.24	0.10	0.10	2.14	2000
2012	889	896	4.283	34.172	27.098	61	0.259	0.141	0.19	0.05	0.06	1.84	2002
2011	988	995	3.792	34.265	27.223	41	0.080	0.040	0.13	0.02	0.02	1.97	2003
2010	1092	1101	3.419	34.321	27.304	37	0.045	0.031	0.11	0.01	0.01	1.44	2003
2009	1236	1246	3.001	34.403	27.408	31	0.019	0.016	0.10	-9.00	-9.00	-9.00	2003
2008	1482	1495	2.492	34.493	27.525	37	0.003	0.004	0.11	-9.00	-9.00	-9.00	2003
2007	1731	1747	2.089	34.557	27.610	52	-0.003	-0.001	0.15	-9.00	-9.00	-9.00	2003
2006	1970	1990	1.833	34.601	27.665	71	0.001	-0.001	0.21	-9.00	-9.00	-9.00	2003
2005	2462	2491	1.521	34.648	27.726	103	-0.002	-0.001	0.31	-9.00	-9.00	-9.00	2003
2004	2959	2998	1.342	34.670	27.757	125	-0.003	-0.002	0.37	-9.00	-9.00	-9.00	2003
2003	3441	3490	1.230	34.684	27.776	137	-0.001	-0.001	0.40	-9.00	-9.00	-9.00	2003
2002	3939	3999	1.151	34.691	27.787	148	-0.003	0.000	0.43	-9.00	-9.00	-9.00	2003
2025	4428	4502	1.093	34.695	27.794	154	-0.002	-0.002	0.45	-9.00	-9.00	-9.00	2003
2016	4912	5000	1.047	34.698	27.799	153	0.000	0.007	0.45	-9.00	-9.00	-9.00	2003
2022	5397	5500	1.012	34.702	27.805	161	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	2033
2021	5862	5979	0.984	34.703	27.808	170	0.001	0.003	0.50	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
12	6 Aug 87	32 00.3 N	165 00.0 E	6046	236.5	433.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2109	0	0	27.068	34.826	22.567	207	1.668	0.877	1.04	1.09	1.08	1.90	2000
2108	14	14	26.684	34.836	22.697	203	1.677	0.883	1.01	1.08	1.08	1.90	2000
2107	27	27	26.621	34.840	22.720	199	1.655	0.893	0.99	1.06	1.09	1.85	2000
2106	56	56	20.008	34.723	24.550	246	2.296	1.165	1.09	1.10	1.10	1.97	2000
2105	88	88	17.829	34.678	25.068	242	2.394	1.194	1.03	1.03	1.03	2.00	2000
2104	118	118	15.976	34.609	25.453	227	2.407	1.202	0.93	0.95	0.95	2.00	2000
2103	145	146	15.212	34.621	25.634	210	2.191	1.106	0.85	0.83	0.85	1.98	2000
2102	195	196	13.775	34.552	25.888	204	2.030	1.007	0.80	0.72	0.72	2.02	2000
2125	243	244	12.725	34.487	26.051	194	1.871	0.929	0.74	0.63	0.64	2.01	2000
2116	295	297	11.713	34.402	26.179	202	2.073	1.005	0.76	0.66	0.66	2.06	2000
2122	346	348	10.905	34.338	26.277	206	2.234	1.084	0.76	0.68	0.68	2.06	2000
2121	396	398	9.915	34.262	26.391	215	2.428	1.172	0.78	0.70	0.70	2.07	2000
2120	445	447	8.907	34.174	26.486	201	2.250	1.090	0.71	0.61	0.62	2.06	2000
2208	493	496	7.698	34.073	26.590	190	-9.000	-9.000	0.65	-9.00	-9.00	-9.00	2000
2207	572	576	6.454	33.994	26.700	174	2.036	0.934	0.58	0.48	0.47	2.18	2000
2206	592	595	6.033	33.985	26.747	162	1.816	0.822	0.54	0.42	0.40	2.21	2000
2205	642	646	5.597	34.007	26.818	136	1.426	0.643	0.45	0.32	0.31	2.22	2000
2204	691	696	5.031	34.062	26.928	103	0.888	0.405	0.33	0.19	0.19	2.19	2000
2203	733	738	4.783	34.092	26.980	85	0.597	0.272	0.27	0.13	0.13	2.20	2000
2202	790	795	4.527	34.129	27.038	85	0.578	0.283	0.27	0.12	0.13	2.04	2000
2225	839	845	4.260	34.174	27.102	64	0.304	0.148	0.20	0.06	0.07	2.05	2002
2216	889	895	4.024	34.219	27.162	56	0.202	0.096	0.17	0.04	0.04	2.10	2002
2222	987	995	3.679	34.286	27.251	50	0.140	0.061	0.16	0.03	0.03	2.29	2003
2221	1086	1095	3.306	34.345	27.334	40	0.041	0.023	0.12	0.01	-9.00	-9.00	2003
2220	1235	1245	2.952	34.416	27.423	31	0.019	0.000	0.09	-9.00	-9.00	-9.00	2003
2201	1484	1497	2.461	34.500	27.533	40	0.011	0.005	0.12	-9.00	-9.00	-9.00	2003
2218	1728	1745	2.123	34.553	27.604	51	0.003	0.000	0.15	-9.00	-9.00	-9.00	2003
2217	1971	1992	1.862	34.596	27.659	68	0.006	0.002	0.20	-9.00	-9.00	-9.00	2003
2223	2467	2496	1.543	34.645	27.722	103	-0.003	-0.002	0.31	-9.00	-9.00	-9.00	2003
2215	2958	2996	1.360	34.670	27.755	124	0.001	-0.004	0.37	-9.00	-9.00	-9.00	2003
2214	3446	3495	1.244	34.682	27.773	-9	0.004	0.002	-9.00	-9.00	-9.00	-9.00	2003
2213	3939	4000	1.164	34.690	27.785	145	0.000	0.001	0.43	-9.00	-9.00	-9.00	2003
2212	4427	4501	1.108	34.694	27.792	152	-0.002	-0.001	0.45	-9.00	-9.00	-9.00	2003
2211	4913	5001	1.063	34.698	27.799	159	-0.002	-0.002	0.47	-9.00	-9.00	-9.00	2003
2210	5403	5506	1.014	34.701	27.804	167	0.001	0.001	0.49	-9.00	-9.00	-9.00	2003
2209	5836	5953	0.996	34.703	27.807	169	-0.002	0.000	0.49	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
13	7 Aug 87	33 00.9 N	164 59.1 E	6288	236.3	435.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2301	0	0	26.837	34.874	22.677	198	1.633	0.879	0.99	1.05	1.07	1.86	2000
2318	13	14	26.624	34.874	22.744	190	1.642	0.884	0.95	1.05	1.07	1.86	2000
2317	28	28	23.977	35.082	23.712	205	1.957	1.045	0.98	1.12	1.15	1.87	2000
2323	59	59	19.250	34.833	24.831	194	2.206	1.137	0.85	1.02	1.03	1.94	2000
2315	88	89	17.916	34.823	25.158	206	2.225	1.143	0.88	0.97	0.98	1.95	2000
2314	118	118	17.074	34.791	25.337	210	2.250	1.152	0.88	0.94	0.96	1.95	2000
2313	146	147	16.708	34.770	25.407	213	2.293	1.182	0.89	0.94	0.96	1.94	2000
2312	197	198	16.206	34.742	25.503	212	2.231	1.132	0.88	0.89	0.90	1.97	2000
2311	246	247	15.654	34.692	25.590	230	2.117	1.079	0.94	0.82	0.84	1.96	2000
2310	296	297	14.946	34.643	25.709	238	1.913	0.988	0.96	0.72	0.75	1.94	2000
2309	345	346	14.100	34.568	25.833	223	2.132	1.073	0.88	0.77	0.78	1.99	2000
2308	395	397	13.109	34.505	25.988	199	1.832	0.916	0.77	0.62	0.64	2.00	2000
2307	444	446	11.977	34.409	26.135	198	1.957	0.983	0.75	0.63	0.65	1.99	2000
2401	496	498	10.588	34.301	26.305	196	1.976	0.959	0.72	0.59	0.59	2.04	2100
2418	544	547	9.460	34.226	26.438	189	1.860	0.899	0.68	0.52	0.52	2.07	2000
2417	593	596	8.173	34.107	26.547	188	1.993	0.954	0.65	0.52	0.52	2.09	2000
2423	642	645	6.986	34.021	26.650	183	1.974	0.929	0.62	0.48	0.48	2.13	2000
2415	691	696	6.068	34.004	26.757	152	1.447	0.686	0.50	0.33	0.34	2.11	2000
2414	741	746	5.597	34.033	26.839	120	0.932	0.433	0.39	0.21	0.21	2.15	2000
2413	788	793	5.118	34.067	26.922	101	0.735	0.338	0.33	0.16	0.16	2.17	2000
2412	838	844	4.684	34.106	27.002	85	0.641	0.302	0.27	0.14	0.14	2.13	2000
2411	886	892	4.428	34.169	27.080	71	0.438	0.197	0.23	0.09	0.09	2.23	2000
2410	991	998	3.953	34.254	27.198	55	0.222	0.100	0.17	0.05	0.04	2.23	2002
2409	1088	1096	3.511	34.314	27.289	45	0.082	0.032	0.14	0.02	0.01	2.54	2003
2408	1234	1244	3.075	34.385	27.387	38	0.028	0.012	0.12	-9.00	-9.00	-9.00	2003
2407	1480	1493	2.552	34.476	27.506	45	0.005	-0.003	0.14	-9.00	-9.00	-9.00	2003
2406	1727	1744	2.172	34.541	27.590	51	0.002	-0.006	0.15	-9.00	-9.00	-9.00	2103
2405	1977	1997	1.902	34.589	27.650	64	-0.002	-0.006	0.19	-9.00	-9.00	-9.00	2003
2404	2467	2496	1.574	34.641	27.717	105	0.000	-9.000	0.31	-9.00	-9.00	-9.00	2023
2403	2962	3001	1.381	34.667	27.752	122	-0.001	-0.002	0.36	-9.00	-9.00	-9.00	2003
2402	3449	3498	1.269	34.679	27.769	140	-0.003	-0.004	0.41	-9.00	-9.00	-9.00	2003
2425	3938	3999	1.187	34.686	27.780	143	-0.001	-0.003	0.42	-9.00	-9.00	-9.00	2003
2416	4428	4501	1.124	34.692	27.789	150	-0.001	-0.003	0.44	-9.00	-9.00	-9.00	2003
2422	4913	5001	1.074	34.696	27.796	156	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	2033
2421	5402	5504	1.025	34.700	27.803	164	-0.001	-0.003	0.48	-9.00	-9.00	-9.00	2003
2420	5886	6005	1.000	34.702	27.806	167	0.002	-0.002	0.49	-9.00	-9.00	-9.00	2103

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
14	8 Aug 87	34 00.8 N	165 00.2 E	6175	235.6	437.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2506	0	0	25.922	34.698	22.832	203	1.738	0.934	1.00	1.08	1.10	1.86	2000
2505	14	14	23.401	34.655	23.558	217	1.979	1.016	1.02	1.11	1.08	1.95	2000
2504	28	28	22.348	34.719	23.908	219	2.024	1.044	1.01	1.08	1.07	1.94	2000
2503	59	59	19.686	34.810	24.700	220	2.109	1.061	0.97	1.00	0.98	1.99	2000
2502	87	87	18.123	34.816	25.102	209	2.194	1.103	0.89	0.97	0.95	1.99	2000
2525	117	117	17.487	34.804	25.248	210	2.237	1.157	0.89	0.96	0.97	1.93	2000
2516	146	147	17.042	34.786	25.341	215	2.258	1.157	0.90	0.94	0.95	1.95	2000
2522	198	198	16.405	34.749	25.462	196	1.981	0.991	0.81	0.80	0.80	2.00	2000
2521	244	245	15.468	34.682	25.624	185	1.815	0.924	0.75	0.70	0.71	1.96	2000
2520	297	298	13.769	34.560	25.896	196	2.028	1.002	0.77	0.72	0.71	2.02	2000
2501	346	348	12.370	34.471	26.108	171	1.516	0.759	0.65	0.50	0.51	2.00	2000
2518	397	399	10.672	34.330	26.313	176	1.614	0.795	0.65	0.48	0.49	2.03	2000
2517	445	447	9.212	34.199	26.457	189	1.940	0.925	0.67	0.54	0.53	2.10	2000
2608	493	496	7.912	34.100	26.580	174	1.681	0.790	0.60	0.43	0.42	2.13	2000
2607	548	551	6.635	34.022	26.698	161	1.551	0.725	0.54	0.37	0.36	2.14	2000
2606	590	594	5.861	33.997	26.778	148	1.544	0.711	0.49	0.35	0.34	2.17	2000
2605	640	644	5.406	34.035	26.863	117	0.971	0.445	0.38	0.22	0.21	2.18	2000
2604	689	693	5.012	34.067	26.934	103	-9.000	-9.000	0.33	-9.00	-9.00	-9.00	2000
2603	739	744	4.766	34.114	26.999	88	0.654	0.298	0.28	0.14	0.14	2.19	2000
2602	790	795	4.548	34.157	27.058	76	0.521	0.241	0.24	0.11	0.11	2.16	2000
2625	838	844	4.207	34.197	27.126	63	0.343	0.174	0.20	0.07	0.08	1.97	2002
2616	888	894	3.908	34.252	27.201	54	0.191	0.118	0.17	0.04	0.05	1.62	2002
2622	987	995	3.538	34.319	27.291	48	0.144	0.059	0.15	0.03	0.03	2.45	2003
2621	1089	1097	3.222	34.363	27.356	41	0.061	0.025	0.13	0.01	-9.00	-9.00	2003
2620	1234	1244	2.872	34.420	27.434	38	0.028	0.009	0.12	-9.00	-9.00	-9.00	2003
2601	1483	1496	2.442	34.495	27.531	40	0.004	-0.002	0.12	-9.00	-9.00	-9.00	2003
2618	1728	1744	2.072	34.559	27.613	51	-0.001	-0.004	0.15	-9.00	-9.00	-9.00	2003
2617	1973	1994	1.842	34.598	27.662	71	-9.000	-9.000	0.21	-9.00	-9.00	-9.00	2033
2623	2468	2496	1.522	34.644	27.723	100	-0.004	-0.006	0.30	-9.00	-9.00	-9.00	2003
2615	2959	2998	1.359	34.668	27.754	122	-0.001	-0.006	0.36	-9.00	-9.00	-9.00	2003
2614	3451	3500	1.249	34.680	27.771	133	-0.002	-0.006	0.39	-9.00	-9.00	-9.00	2003
2613	3940	4001	1.171	34.688	27.783	143	-0.002	-0.004	0.42	-9.00	-9.00	-9.00	2003
2612	4427	4501	1.108	34.693	27.791	152	0.002	-0.003	0.45	-9.00	-9.00	-9.00	2003
2611	4911	4999	1.053	34.699	27.800	160	-0.001	-0.003	0.47	-9.00	-9.00	-9.00	2003
2610	5427	5531	1.011	34.701	27.804	166	-0.002	-0.003	0.49	-9.00	-9.00	-9.00	2003
2609	5888	6007	0.990	34.703	27.807	170	-0.001	-0.003	0.50	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
15	9 Aug 87	34 59.9 N	165 00.1 E	5930	235.6	437.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2716	1	1	24.397	34.284	22.983	210	1.886	0.992	1.00	1.10	1.10	1.90	2000
2722	13	13	22.349	34.327	23.610	218	2.107	1.079	1.01	1.12	1.10	1.95	2000
2721	28	28	21.468	34.370	23.888	231	2.261	1.188	1.05	1.16	1.17	1.90	2000
2720	57	57	12.558	34.185	25.849	263	3.081	1.510	1.00	1.02	1.01	2.04	2000
2701	97	98	10.522	34.179	26.221	243	3.200	1.585	0.89	0.95	0.97	2.02	2000
2718	136	137	9.765	34.238	26.397	212	2.663	1.461	0.76	0.76	0.86	1.82	2000
2717	177	177	8.816	34.167	26.495	207	2.469	1.187	0.73	0.67	0.67	2.08	2000
2723	206	207	8.398	34.124	26.526	207	2.499	1.212	0.72	0.66	0.67	2.06	2000
2715	236	237	7.613	34.045	26.581	216	2.758	1.316	0.74	0.70	0.70	2.10	2000
2714	266	267	6.934	33.977	26.622	234	3.227	1.556	0.79	0.78	0.79	2.07	2000
2713	296	297	6.147	33.888	26.656	244	3.487	1.667	0.81	0.81	0.82	2.09	2000
2712	327	329	5.699	33.870	26.697	224	3.130	1.474	0.73	0.71	0.70	2.12	2000
2711	355	357	5.845	33.951	26.743	169	2.077	0.957	0.55	0.47	0.46	2.17	2000
2816	385	387	5.403	33.954	26.799	150	1.845	0.853	0.49	0.41	0.40	2.16	2000
2822	414	416	5.285	33.984	26.837	135	1.543	0.696	0.44	0.34	0.33	2.22	2000
2821	443	446	5.080	34.013	26.884	122	1.336	0.595	0.39	0.29	0.28	2.25	2000
2820	473	476	5.022	34.045	26.916	113	1.117	0.493	0.36	0.24	0.23	2.26	2100
2801	512	516	4.375	34.034	26.979	90	0.965	0.425	0.29	0.20	0.19	2.27	2000
2818	553	556	4.299	34.071	27.016	81	0.790	0.350	0.26	0.16	0.16	2.26	2000
2817	592	596	4.490	34.152	27.060	74	0.505	0.220	0.24	0.11	0.10	2.29	2000
2823	631	635	4.312	34.201	27.118	65	0.366	0.157	0.21	0.08	0.07	2.33	2000
2815	670	675	4.139	34.222	27.153	60	0.284	0.126	0.19	0.06	0.06	2.25	2002
2814	741	747	3.800	34.276	27.231	51	0.158	0.073	0.16	0.03	0.03	2.16	2003
2813	838	844	3.414	34.330	27.312	43	0.085	0.048	0.13	0.02	0.02	1.79	2003
2812	990	998	3.032	34.392	27.397	36	0.011	0.011	0.11	-9.00	-9.00	-9.00	2003
2811	1233	1243	2.562	34.474	27.504	37	-0.007	-0.001	0.11	-9.00	-9.00	-9.00	2003
2810	1481	1495	2.213	34.535	27.582	45	-0.004	-0.003	0.14	-9.00	-9.00	-9.00	2003
2809	1973	1994	1.761	34.608	27.676	73	-0.004	-0.002	0.22	-9.00	-9.00	-9.00	2003
2808	2464	2493	1.476	34.652	27.733	107	-0.001	-0.004	0.32	-9.00	-9.00	-9.00	2003
2807	2956	2995	1.322	34.671	27.759	123	0.001	0.003	0.36	-9.00	-9.00	-9.00	2003
2806	3447	3497	1.220	34.683	27.776	135	-0.011	-0.009	0.40	-9.00	-9.00	-9.00	2003
2805	3937	3998	1.150	34.690	27.786	145	-0.002	-9.000	0.43	-9.00	-9.00	-9.00	2023
2804	4426	4500	1.101	34.694	27.793	151	-0.001	0.002	0.44	-9.00	-9.00	-9.00	2003
2803	4911	4999	1.061	34.697	27.798	157	0.002	0.001	0.46	-9.00	-9.00	-9.00	2003
2802	5397	5500	1.016	34.701	27.804	165	-0.001	-0.002	0.48	-9.00	-9.00	-9.00	2003
2825	5886	6006	0.993	34.704	27.808	168	-0.001	-0.003	0.49	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
16	10 Aug 87	36 00.2 N	165 00.0 E	5549	240.7	439.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2907	0	0	23.311	34.387	23.381	214	1.928	1.035	1.00	1.05	1.09	1.86	2000
2906	12	12	23.084	34.394	23.451	214	2.007	1.069	1.00	1.08	1.12	1.88	2000
2905	27	27	20.201	34.523	24.346	233	2.243	1.123	1.04	1.06	1.05	2.00	2000
2904	44	44	16.462	34.640	25.365	261	2.429	1.192	1.08	0.96	0.95	2.04	2000
2903	57	57	15.291	34.636	25.628	222	2.278	1.128	0.90	0.85	0.86	2.02	2000
2902	71	72	14.633	34.588	25.735	211	2.244	1.110	0.84	0.81	0.82	2.02	2000
2925	86	86	14.030	34.550	25.834	216	2.355	1.184	0.85	0.83	0.85	1.99	2000
2916	102	102	13.641	34.536	25.904	208	2.203	1.103	0.82	0.76	0.78	2.00	2000
2922	120	120	12.924	34.469	25.997	217	2.412	1.216	0.84	0.80	0.83	1.98	2000
2921	145	146	12.461	34.441	26.067	217	2.458	1.231	0.83	0.80	0.82	2.00	2000
2920	176	176	11.851	34.398	26.150	220	2.481	1.255	0.83	0.78	0.81	1.98	2000
2901	203	204	11.423	34.375	26.212	216	2.370	1.202	0.81	0.73	0.76	1.97	2000
2918	236	237	10.631	34.319	26.312	203	2.183	1.107	0.75	0.64	0.68	1.97	2100
2917	260	262	10.050	34.267	26.371	204	2.220	1.123	0.74	0.63	0.67	1.98	2000
2923	294	296	9.248	34.180	26.437	210	2.350	1.173	0.75	0.64	0.67	2.00	2000
3008	325	327	8.579	34.130	26.503	218	2.638	1.291	0.76	0.69	0.71	2.04	2000
3007	355	356	8.003	34.093	26.561	203	2.375	1.162	0.70	0.60	0.62	2.04	2000
3006	394	396	7.157	34.034	26.636	185	2.101	1.017	0.63	0.51	0.52	2.07	2000
3005	445	448	6.115	33.983	26.735	168	1.951	0.939	0.56	0.44	0.46	2.08	2000
3004	493	496	5.574	33.975	26.795	144	1.605	0.776	0.47	0.35	0.37	2.07	2000
3003	548	551	5.160	34.032	26.889	118	1.160	0.557	0.38	0.25	0.26	2.08	2000
3002	593	597	4.879	34.066	26.949	98	0.831	0.418	0.31	0.18	0.19	1.99	2000
3025	666	670	4.476	34.130	27.044	75	0.481	0.247	0.24	0.10	0.11	1.95	2000
3019	740	745	4.087	34.212	27.150	58	0.273	0.158	0.18	0.05	0.07	1.72	2000
3022	818	824	3.805	34.260	27.218	54	0.232	0.128	0.17	0.05	0.06	1.82	2002
3021	887	894	3.592	34.301	27.271	45	0.129	0.071	0.14	0.03	0.03	1.81	2002
3020	985	993	3.296	34.350	27.339	40	0.065	0.027	0.12	0.01	-9.00	-9.00	2003
3001	1232	1243	2.711	34.443	27.466	35	0.012	0.006	0.11	-9.00	-9.00	-9.00	2003
3018	1479	1493	2.294	34.512	27.557	40	0.003	0.000	0.12	-9.00	-9.00	-9.00	2003
3017	1973	1994	1.810	34.598	27.664	68	-9.000	-9.000	0.20	-9.00	-9.00	-9.00	2033
3023	2466	2495	1.514	34.644	27.724	98	-9.000	-9.000	0.29	-9.00	-9.00	-9.00	2000
3015	2957	2996	1.329	34.671	27.758	121	-9.000	-9.000	0.36	-9.00	-9.00	-9.00	2000
3014	3447	3497	1.220	34.683	27.776	138	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	2000
3013	3938	4000	1.140	34.691	27.788	146	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	2000
3012	4428	4502	1.095	34.695	27.794	152	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	2000
3011	4921	5010	1.063	34.698	27.798	156	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	2000
3010	5389	5492	1.011	34.702	27.805	165	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	2000
3009	5543	5651	1.006	34.702	27.806	170	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	2000

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
17	10 Aug 87	37 00.3 N	165 00.6 E	4086	240.7	439.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3116	0	0	19.772	34.059	24.105	228	2.280	1.174	1.00	1.05	1.07	1.94	2000
3122	13	13	18.935	34.116	24.363	236	2.358	1.213	1.02	1.05	1.07	1.94	2000
3121	33	33	17.675	34.126	24.683	242	2.458	1.262	1.02	1.03	1.06	1.95	2000
3120	44	44	15.708	34.286	25.265	253	2.603	1.312	1.03	0.99	1.01	1.98	2000
3101	57	57	14.611	34.335	25.544	240	2.625	1.325	0.96	0.95	0.97	1.98	2000
3118	89	89	12.055	34.416	26.125	217	2.464	1.245	0.82	0.78	0.81	1.98	2000
3117	118	118	11.000	34.335	26.258	214	2.433	1.219	0.79	0.73	0.76	2.00	2000
3123	147	148	10.225	34.263	26.338	220	2.606	1.296	0.80	0.75	0.78	2.01	2000
3115	177	178	9.006	34.148	26.450	236	2.932	1.446	0.83	0.78	0.81	2.03	2000
3114	206	207	8.273	34.059	26.494	248	2.915	1.646	0.86	0.75	0.89	1.77	2000
3113	236	237	7.988	34.048	26.528	250	2.767	1.674	0.86	0.70	0.90	1.65	2000
3112	267	268	7.333	33.966	26.558	260	3.115	1.772	0.88	0.76	0.92	1.76	2000
3111	296	297	7.415	34.017	26.587	238	3.231	1.540	0.81	0.79	0.80	2.10	2000
3110	325	327	6.729	33.929	26.612	244	3.357	1.607	0.82	0.79	0.81	2.09	2000
3109	357	359	6.460	33.921	26.641	239	3.305	1.587	0.80	0.76	0.79	2.08	2000
3108	395	398	5.938	33.894	26.687	218	2.959	1.429	0.72	0.66	0.69	2.07	2000
3221	436	438	5.574	33.901	26.737	183	2.382	1.124	0.60	0.52	0.53	2.12	2000
3220	473	476	5.414	33.962	26.804	145	1.679	0.785	0.47	0.36	0.37	2.14	2000
3201	514	517	4.913	33.969	26.868	126	1.400	0.663	0.40	0.30	0.30	2.11	2000
3218	554	558	4.642	33.991	26.916	105	1.123	0.524	0.34	0.23	0.24	2.14	2000
3217	593	596	4.504	34.048	26.976	87	0.798	0.382	0.28	0.16	0.17	2.09	2000
3223	641	645	4.302	34.085	27.027	75	0.608	0.291	0.24	0.12	0.13	2.09	2000
3215	691	696	4.058	34.139	27.095	60	0.408	0.200	0.19	0.08	0.09	2.05	2003
3214	791	797	3.655	34.227	27.206	40	0.188	0.094	0.13	0.04	0.04	2.00	2000
3213	888	895	3.420	34.285	27.275	39	0.110	0.061	0.12	0.02	0.03	1.81	2003
3212	987	995	3.146	34.337	27.342	34	0.052	0.030	0.10	0.01	0.01	1.71	2003
3211	1234	1244	2.696	34.429	27.457	31	0.014	0.009	0.10	-9.00	-9.00	-9.00	2003
3210	1481	1495	2.313	34.502	27.547	39	0.006	0.001	0.12	-9.00	-9.00	-9.00	2003
3209	1970	1991	1.816	34.593	27.660	66	0.001	0.000	0.20	-9.00	-9.00	-9.00	2003
3208	2462	2492	1.499	34.646	27.726	99	-9.000	-9.000	0.29	-9.00	-9.00	-9.00	2000
3207	2958	2997	1.326	34.670	27.758	121	-9.000	-9.000	0.36	-9.00	-9.00	-9.00	2000
3206	3443	3493	1.208	34.683	27.776	136	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	2000
3205	3937	3998	1.131	34.692	27.789	146	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	2000
3204	4429	4504	1.094	34.694	27.793	151	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	2000
3203	4443	4517	1.094	34.694	27.793	151	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	2000
3202	4448	4523	1.094	34.695	27.794	152	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	2000
3225	4820	4905	1.079	34.696	27.796	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	2000

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
18	11 Aug 87	37 59.8 N	164 59.9 E	5497	240.7	439.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3306	0	0	19.062	34.037	24.271	230	2.314	1.234	1.00	1.03	1.09	1.88	2000
3305	14	14	16.933	34.106	24.845	251	2.470	1.322	1.04	1.00	1.07	1.87	2000
3304	26	26	14.925	34.428	25.548	247	2.533	1.317	0.99	0.93	0.98	1.92	2000
3303	43	43	13.774	34.497	25.846	220	2.428	1.265	0.86	0.84	0.90	1.92	2000
3302	57	57	12.677	34.433	26.018	220	2.536	1.343	0.85	0.83	0.90	1.89	2000
3325	87	88	11.237	34.413	26.276	215	2.501	1.294	0.80	0.76	0.81	1.93	2000
3316	118	118	10.100	34.246	26.346	221	2.647	1.341	0.80	0.75	0.80	1.97	2000
3322	148	149	9.120	34.149	26.433	223	2.752	1.373	0.79	0.74	0.78	2.00	2000
3321	177	178	8.002	34.032	26.514	257	3.439	1.712	0.89	0.87	0.92	2.01	2000
3320	205	206	7.933	34.047	26.535	256	3.424	1.694	0.88	0.86	0.90	2.02	2000
3301	236	237	7.659	34.010	26.547	263	3.517	1.744	0.90	0.87	0.92	2.02	2000
3318	268	269	7.323	33.955	26.551	266	3.662	1.809	0.91	0.89	0.94	2.02	2000
3317	297	298	7.106	33.944	26.573	266	3.634	1.784	0.90	0.87	0.91	2.04	2000
3323	326	328	6.929	33.952	26.603	247	3.343	1.654	0.83	0.79	0.84	2.02	2000
3407	353	355	6.338	33.907	26.646	246	3.432	1.698	0.82	0.79	0.83	2.02	2000
3406	384	386	6.035	33.904	26.682	249	3.414	1.699	0.82	0.77	0.82	2.01	2000
3405	413	416	5.270	33.814	26.704	257	3.713	1.815	0.83	0.80	0.84	2.05	2000
3404	453	456	5.493	33.908	26.752	174	2.283	1.102	0.57	0.50	0.52	2.07	2000
3403	494	497	5.061	33.935	26.824	142	1.711	0.815	0.46	0.36	0.37	2.10	2000
3402	541	545	4.641	33.979	26.906	114	1.301	0.627	0.36	0.27	0.28	2.07	2000
3425	592	596	4.607	34.053	26.969	95	0.853	0.405	0.30	0.18	0.18	2.10	2000
3416	641	646	4.505	34.116	27.030	77	0.572	0.278	0.25	0.12	0.12	2.06	2000
3422	689	694	4.099	34.134	27.087	64	0.517	0.244	0.20	0.10	0.11	2.12	2000
3421	739	744	3.854	34.171	27.142	52	0.347	0.168	0.16	0.07	0.07	2.07	2002
3420	788	794	3.699	34.219	27.195	44	0.214	0.104	0.14	0.04	0.04	2.06	2003
3401	886	893	3.378	34.294	27.286	36	0.098	0.043	0.11	0.02	0.02	2.29	2003
3418	986	994	3.097	34.356	27.362	32	0.041	0.030	0.10	0.01	0.01	1.34	2003
3417	1232	1242	2.610	34.438	27.471	31	0.021	0.013	0.09	-9.00	-9.00	-9.00	2003
3423	1479	1493	2.287	34.506	27.553	36	0.004	0.004	0.11	-9.00	-9.00	-9.00	2003
3415	1976	1997	1.813	34.595	27.662	64	0.000	-0.002	0.19	-9.00	-9.00	-9.00	2003
3414	2464	2494	1.500	34.645	27.725	98	0.000	-0.003	0.29	-9.00	-9.00	-9.00	2003
3413	2956	2995	1.315	34.671	27.759	121	-0.004	-0.003	0.36	-9.00	-9.00	-9.00	2002
3412	3449	3499	1.205	34.684	27.778	138	-0.003	-0.004	0.41	-9.00	-9.00	-9.00	2002
3411	3938	3999	1.131	34.692	27.789	144	0.001	-0.002	0.42	-9.00	-9.00	-9.00	2003
3410	4421	4495	1.094	34.694	27.793	149	-0.003	-0.002	0.44	-9.00	-9.00	-9.00	2002
3409	4911	5000	1.081	34.695	27.795	151	0.001	0.001	0.44	-9.00	-9.00	-9.00	2003
3408	5418	5522	1.078	34.696	27.796	152	0.000	-0.001	0.45	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
18.1	11 Aug 87	39 01.7 N	165 00.7 E	5358	243.6	437.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3523	0	0	17.915	33.963	24.500	235	2.571	1.268	1.00	1.07	1.08	2.03	2000
3515	48	48	13.277	34.413	25.883	223	2.578	1.296	0.87	0.86	0.90	1.99	2000
3514	96	96	11.421	34.362	26.202	210	2.452	1.224	0.79	0.74	0.78	2.00	2000
3513	148	148	9.637	34.230	26.412	216	2.634	1.328	0.78	0.72	0.78	1.98	2000
3512	194	195	8.510	34.134	26.517	218	2.736	1.248	0.76	0.70	0.69	2.19	2000
3511	295	297	6.845	33.931	26.598	246	3.314	1.637	0.83	0.77	0.83	2.02	2000
3510	392	394	5.837	33.905	26.708	199	2.689	1.310	0.65	0.59	0.63	2.05	2000
3509	493	496	5.093	33.965	26.844	132	1.544	0.728	0.43	0.33	0.34	2.12	2000
3508	593	596	4.489	34.048	26.977	86	0.838	0.400	0.27	0.17	0.18	2.10	2000
3507	790	796	3.830	34.240	27.199	52	0.196	0.100	0.16	0.04	0.04	1.97	2003
3506	986	993	3.202	34.354	27.351	36	0.047	0.030	0.11	0.01	0.01	1.55	2003
3505	1481	1494	2.254	34.509	27.558	41	0.005	0.004	0.12	-9.00	-9.00	-9.00	2003
3504	1971	1992	1.822	34.594	27.660	66	-9.000	-9.000	0.20	-9.00	-9.00	-9.00	2000
3503	2460	2489	1.521	34.642	27.721	97	-9.000	-9.000	0.29	-9.00	-9.00	-9.00	2000
3502	2957	2996	1.331	34.670	27.757	119	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	2000
3525	3445	3495	1.218	34.682	27.775	137	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	2000
3516	3941	4002	1.139	34.691	27.788	144	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	2000
3522	4429	4504	1.095	34.695	27.794	151	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	2000
3521	4913	5001	1.075	34.697	27.797	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	2000
3520	5375	5478	1.072	34.697	27.797	154	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	2000

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
19	12 Aug 87	40 00.1 N	164 59.9 E	5482	243.6	437.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3603	0	0	16.446	33.786	24.713	-9	2.604	1.367	-9.00	1.01	1.09	1.90	2000
3602	0	0	16.446	33.786	24.713	-9	2.601	1.370	-9.00	1.01	1.09	1.90	2000
3625	14	14	14.981	33.952	25.169	-9	2.891	1.499	-9.00	1.05	1.12	1.93	2000
3616	14	14	14.981	33.952	25.169	-9	2.924	1.498	-9.00	1.06	1.12	1.95	2000
3622	28	29	11.157	33.729	25.758	264	3.399	1.694	0.98	1.01	1.06	2.01	2000
3621	42	42	10.360	34.159	26.234	262	3.226	1.632	0.96	0.92	0.99	1.98	2000
3620	42	42	10.360	34.159	26.234	243	3.225	1.636	0.89	0.92	0.99	1.97	2000
3601	59	59	8.310	33.972	26.420	254	3.505	1.756	0.89	0.89	0.96	2.00	2000
3618	88	89	8.092	34.071	26.531	241	3.234	1.646	0.83	0.81	0.89	1.97	2000
3617	116	116	7.477	34.036	26.593	243	3.270	1.640	0.83	0.79	0.86	1.99	2000
3623	146	147	6.940	33.976	26.621	231	-9.000	-9.000	0.78	-9.00	-9.00	-9.00	2030
3615	178	179	6.223	33.891	26.648	243	3.388	1.687	0.80	0.76	0.83	2.01	2000
3614	206	207	5.757	33.848	26.673	255	3.739	1.835	0.84	0.82	0.88	2.04	2000
3613	236	237	5.450	33.825	26.691	256	3.707	1.843	0.83	0.80	0.87	2.01	2000
3612	266	267	5.223	33.818	26.713	237	3.429	1.674	0.77	0.73	0.78	2.05	2000
3611	295	297	5.312	33.868	26.742	192	2.623	1.288	0.62	0.56	0.60	2.04	2000
3610	326	328	5.362	33.946	26.798	147	1.770	0.878	0.48	0.38	0.41	2.02	2000
3716	352	355	5.113	33.957	26.836	142	1.609	0.767	0.46	0.34	0.36	2.10	2000
3722	384	387	4.802	33.958	26.872	125	1.495	0.690	0.40	0.31	0.31	2.17	2000
3721	414	417	4.934	34.028	26.912	109	1.091	0.511	0.35	0.23	0.23	2.14	2000
3720	453	456	4.773	34.077	26.969	92	0.807	0.357	0.30	0.17	0.16	2.26	2000
3701	493	496	4.154	34.061	27.023	76	0.779	0.315	0.24	0.16	0.14	2.47	2000
3718	541	545	4.194	34.130	27.074	68	0.505	0.200	0.21	0.10	0.09	2.53	2000
3717	592	596	3.884	34.153	27.124	58	0.409	0.193	0.18	0.08	0.08	2.12	2000
3723	641	645	3.712	34.191	27.172	48	0.314	0.154	0.15	0.06	0.07	2.03	2002
3715	690	695	3.587	34.225	27.211	42	0.232	0.118	0.13	0.04	0.05	1.97	2002
3714	740	745	3.469	34.258	27.249	40	0.175	0.091	0.12	0.03	0.04	1.92	2003
3713	789	795	3.349	34.282	27.280	38	-9.000	0.074	0.12	-9.00	0.03	-9.00	2013
3712	886	893	3.133	34.342	27.348	35	0.061	-9.000	0.11	0.01	-9.00	-9.00	2021
3711	988	996	2.907	34.379	27.398	34	0.053	-9.000	0.10	0.01	-9.00	-9.00	2023
3710	1233	1244	2.491	34.453	27.493	33	0.025	-9.000	0.10	-9.00	-9.00	-9.00	2021
3709	1480	1494	2.204	34.517	27.568	42	0.010	0.005	0.13	-9.00	-9.00	-9.00	2003
3708	1974	1995	1.795	34.596	27.664	66	0.000	-0.002	0.20	-9.00	-9.00	-9.00	2003
3707	2468	2497	1.511	34.644	27.724	97	-0.001	-9.000	0.29	-9.00	-9.00	-9.00	2023
3706	2959	2999	1.326	34.670	27.758	121	0.002	-0.001	0.36	-9.00	-9.00	-9.00	2003
3705	3448	3498	1.209	34.682	27.776	134	0.000	0.001	0.39	-9.00	-9.00	-9.00	2003
3704	3938	3999	1.141	34.690	27.787	143	0.000	0.006	0.42	-9.00	-9.00	-9.00	2003
3703	4424	4499	1.100	34.694	27.793	149	0.001	0.001	0.44	-9.00	-9.00	-9.00	2003
3702	4913	5002	1.080	34.695	27.795	152	0.000	0.002	0.44	-9.00	-9.00	-9.00	2003
3725	5468	5574	1.073	34.697	27.797	152	0.003	0.001	0.45	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
20	12 Aug 87	42 00.1 N	164 59.9 E	4038	246.0	436.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3807	0	0	11.754	33.073	25.139	275	3.562	1.850	1.02	1.07	1.18	1.93	2000
3806	14	14	11.727	33.070	25.141	277	3.582	1.746	1.03	1.08	1.12	2.05	2000
3805	28	28	9.776	33.077	25.488	291	3.922	1.834	1.04	1.06	1.07	2.14	2000
3804	44	44	6.314	33.260	26.139	309	4.744	2.145	1.02	1.06	1.05	2.21	2000
3803	58	58	3.818	33.311	26.461	312	5.052	2.305	0.97	0.97	0.99	2.19	2000
3802	78	79	2.793	33.293	26.541	316	5.254	2.411	0.96	0.95	0.98	2.18	2000
3825	99	100	2.349	33.296	26.580	309	5.273	2.413	0.93	0.92	0.96	2.19	2000
3816	123	123	2.406	33.332	26.604	304	5.164	2.354	0.91	0.91	0.94	2.19	2000
3822	147	148	3.090	33.452,	26.641	291	4.726	2.215	0.89	0.87	0.92	2.13	2000
3821	177	178	4.029	33.622	26.687	268	4.120	1.973	0.84	0.80	0.86	2.09	2000
3820	207	208	3.909	33.703	26.764	194	3.108	1.436	0.61	0.60	0.62	2.16	2000
3801	236	238	3.642	33.747	26.825	143	2.395	1.103	0.44	0.46	0.47	2.17	2000
3818	264	266	3.677	33.809	26.871	121	1.970	0.916	0.38	0.38	0.39	2.15	2000
3817	356	359	3.780	33.961	26.982	83	1.186	0.576	0.26	0.23	0.25	2.06	2000
3907	385	388	3.703	34.001	27.021	75	0.990	0.469	0.23	0.19	0.20	2.11	2000
3906	414	416	3.684	34.044	27.057	64	0.820	0.402	0.20	0.16	0.17	2.04	2000
3905	444	446	3.633	34.083	27.094	55	0.645	0.333	0.17	0.12	0.14	1.94	2000
3904	494	498	3.626	34.147	27.145	48	0.450	0.241	0.15	0.09	0.10	1.87	2000
3903	542	546	3.482	34.184	27.189	42	0.324	0.185	0.13	0.06	0.08	1.76	2002
3902	591	595	3.358	34.213	27.224	38	0.281	0.161	0.12	0.05	0.07	1.75	2002
3925	641	646	3.224	34.246	27.263	33	0.204	0.120	0.10	0.04	0.05	1.70	2002
3916	690	695	3.098	34.290	27.309	32	0.147	0.093	0.10	0.03	0.04	1.59	2003
3922	740	745	2.989	34.312	27.337	33	0.141	0.095	0.10	0.03	0.04	1.48	2003
3921	790	796	2.915	34.335	27.362	29	0.115	0.071	0.09	0.02	0.03	1.62	2003
3920	887	894	2.769	34.379	27.410	29	0.061	0.049	0.09	0.01	0.02	1.25	2003
3901	987	995	2.638	34.415	27.450	30	0.039	0.021	0.09	0.01	-9.00	-9.00	2003
3918	1086	1095	2.498	34.443	27.485	31	0.032	0.017	0.09	0.01	-9.00	-9.00	2103
3917	1234	1245	2.321	34.485	27.533	35	0.020	0.016	0.11	-9.00	-9.00	-9.00	2003
3923	1480	1494	2.095	34.536	27.592	45	0.004	0.003	0.14	-9.00	-9.00	-9.00	2003
3915	1972	1994	1.719	34.609	27.680	74	0.001	0.006	0.22	-9.00	-9.00	-9.00	2003
3914	2465	2495	1.476	34.650	27.731	102	0.000	0.002	0.30	-9.00	-9.00	-9.00	2003
3913	2956	2996	1.311	34.671	27.760	124	-9.000	-9.000	0.37	-9.00	-9.00	-9.00	2000
3912	3445	3495	1.199	34.684	27.778	137	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	2000
3911	3933	3995	1.123	34.691	27.789	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000
3910	3935	3996	1.123	34.691	27.789	146	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	2000
3909	4429	4504	1.092	34.694	27.793	150	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	2000
3908	4640	4721	1.088	34.695	27.794	150	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	2000

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
21	13 Aug 87	43 59.8 N	164 59.0 E	5690	248.4	437.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4016	2	2	10.174	33.223	25.536	279	3.639	1.863	1.01	1.00	1.11	1.95	2000
4022	13	13	10.132	33.226	25.545	280	3.705	1.861	1.01	1.01	1.10	1.99	2000
4021	28	28	9.685	33.264	25.649	280	3.685	1.861	1.00	0.98	1.08	1.98	2000
4020	44	44	7.392	33.291	26.019	295	4.167	2.089	1.00	0.98	1.08	1.99	2000
4001	59	59	4.408	33.405	26.476	311	4.843	2.355	0.98	0.95	1.05	2.06	2000
4018	73	73	4.204	33.430	26.517	302	4.850	2.337	0.95	0.94	1.03	2.08	2000
4017	88	89	3.970	33.447	26.554	303	4.887	2.344	0.95	0.94	1.02	2.08	2000
4023	103	103	3.786	33.484	26.602	302	4.728	2.355	0.94	0.90	1.01	2.01	2000
4015	118	118	3.706	33.493	26.617	300	4.754	2.316	0.93	0.90	0.99	2.05	2000
4014	139	139	3.711	33.512	26.631	298	4.645	2.255	0.93	0.88	0.97	2.06	2000
4013	157	158	3.742	33.532	26.644	296	4.674	2.232	0.92	0.89	0.96	2.09	2000
4012	177	178	3.819	33.553	26.653	295	4.544	2.195	0.92	0.87	0.95	2.07	2000
4011	206	207	3.946	33.585	26.666	291	4.492	2.148	0.91	0.86	0.93	2.09	2000
4010	237	239	4.063	33.616	26.679	273	4.090	1.955	0.86	0.79	0.85	2.09	2000
4009	274	276	4.232	33.714	26.739	205	3.093	1.468	0.65	0.61	0.65	2.11	2000
4008	316	318	4.075	33.791	26.817	147	2.190	1.049	0.46	0.42	0.46	2.09	2000
4007	355	357	3.916	33.843	26.874	122	1.823	0.830	0.38	0.35	0.36	2.20	2000
4116	394	396	3.878	33.866	26.896	115	1.649	0.767	0.36	0.32	0.33	2.15	2000
4122	434	437	3.870	33.908	26.931	100	1.403	0.666	0.31	0.27	0.29	2.10	2000
4121	471	474	3.838	33.962	26.977	83	1.102	0.523	0.26	0.21	0.23	2.11	2000
4120	512	516	3.766	34.004	27.018	75	0.927	0.458	0.23	0.18	0.20	2.03	2000
4101	552	556	3.699	34.053	27.063	62	0.736	0.357	0.19	0.14	0.15	2.06	2000
4118	592	596	3.626	34.100	27.108	53	0.562	0.280	0.17	0.11	0.12	2.01	2000
4117	641	646	3.516	34.145	27.154	44	0.411	0.219	0.14	0.08	0.09	1.88	2000
4123	690	695	3.458	34.190	27.196	41	0.303	0.158	0.13	0.06	0.07	1.92	2002
4115	739	744	3.389	34.226	27.231	38	0.221	0.131	0.12	0.04	0.06	1.69	2002
4114	787	792	3.277	34.262	27.270	35	0.165	0.103	0.11	0.03	0.04	1.60	2003
4113	888	895	3.062	34.316	27.333	33	0.118	0.073	0.10	0.02	0.03	1.63	2003
4112	987	995	2.895	34.367	27.389	33	0.065	0.046	0.10	0.01	0.02	1.40	2003
4111	1087	1096	2.754	34.395	27.424	33	0.058	0.032	0.10	0.01	0.01	1.83	2003
4110	1236	1247	2.541	34.443	27.481	35	0.032	0.020	0.11	0.01	-9.00	-9.00	2003
4109	1481	1495	2.264	34.503	27.552	39	0.009	0.005	0.12	-9.00	-9.00	-9.00	2003
4108	1974	1995	1.860	34.585	27.650	63	0.000	0.000	0.19	-9.00	-9.00	-9.00	2003
4107	2467	2496	1.562	34.637	27.714	93	0.000	0.002	0.28	-9.00	-9.00	-9.00	2003
4106	2958	2997	1.377	34.661	27.747	114	-9.000	-9.000	0.34	-9.00	-9.00	-9.00	2000
4105	3448	3498	1.252	34.678	27.770	130	-9.000	-9.000	0.38	-9.00	-9.00	-9.00	2000
4104	3938	3999	1.171	34.686	27.781	142	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	2000
4103	4436	4511	1.113	34.691	27.790	148	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	2000
4102	4913	5002	1.085	34.694	27.794	152	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	2000
4125	5704	5817	1.063	34.697	27.798	155	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	2000

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
22	14 Aug 87	45 16.8 N	167 18.7 E	5719	247.4	441.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4209	0	0	9.844	32.960	25.386	280	3.718	1.899	1.00	1.00	1.10	1.96	2000
4208	13	13	9.650	32.964	25.421	-9	3.774	1.879	-9.00	1.01	1.08	2.01	2000
4207	28	28	9.384	32.977	25.474	-9	3.806	1.883	-9.00	1.00	1.06	2.02	2000
4206	43	43	4.094	33.217	26.359	311	5.046	2.355	0.97	0.98	1.02	2.14	2000
4204	58	58	3.082	33.233	26.467	310	5.295	2.450	0.95	0.96	1.00	2.16	2000
4205	58	58	3.082	33.233	26.467	316	5.321	2.448	0.97	0.97	1.00	2.17	2000
4203	72	72	2.446	33.228	26.517	309	5.476	2.459	0.93	0.96	0.97	2.23	2000
4202	87	88	2.051	33.242	26.560	307	5.427	2.460	0.92	0.93	0.95	2.21	2000
4225	87	88	2.051	33.248	26.560	306	5.453	2.448	0.91	0.93	0.95	2.23	1000
4216	103	103	1.807	33.244	26.579	308	5.441	2.431	0.91	0.92	0.93	2.24	2000
4222	118	118	1.805	33.270	26.594	306	5.369	2.404	0.91	0.90	0.92	2.23	1000
4221	118	118	1.805	33.263	26.594	305	5.425	2.405	0.90	0.91	0.92	2.26	2000
4220	138	139	2.033	33.302	26.609	301	5.270	2.371	0.89	0.90	0.92	2.22	2000
4201	157	158	2.388	33.379	26.643	286	4.943	2.232	0.86	0.86	0.88	2.21	2000
4218	177	178	2.827	33.413	26.634	237	4.123	1.884	0.72	0.74	0.76	2.19	2000
4217	205	206	2.983	33.607	26.775	174	3.084	1.425	0.53	0.56	0.58	2.16	2000
4223	236	237	2.994	33.695	26.844	127	2.386	1.097	0.39	0.43	0.45	2.17	2000
4215	274	276	3.360	33.816	26.907	103	1.840	0.857	0.32	0.34	0.36	2.15	2000
4214	315	317	3.522	33.904	26.962	88	1.447	0.655	0.27	0.27	0.28	2.21	2000
4213	359	361	3.368	33.940	27.005	73	1.222	0.573	0.23	0.23	0.24	2.13	2000
4311	394	396	3.351	33.992	27.048	58	0.969	0.485	0.18	0.18	0.20	2.00	2000
4310	443	446	3.443	34.073	27.104	55	0.689	0.341	0.17	0.13	0.14	2.02	2000
4309	493	497	3.515	34.149	27.158	48	0.470	0.245	0.15	0.09	0.10	1.92	2000
4308	542	545	3.488	34.196	27.198	47	0.350	0.184	0.15	0.07	0.08	1.90	2002
4307	592	596	3.254	34.215	27.235	40	0.305	0.139	0.12	0.06	0.06	2.19	2002
4306	640	645	3.177	34.245	27.266	-9	0.253	0.124	-9.00	0.05	0.05	2.04	2002
4305	691	696	3.126	34.271	27.292	37	0.209	0.131	0.11	0.04	0.05	1.60	2002
4304	738	743	3.081	34.301	27.320	38	0.150	0.090	0.12	0.03	0.04	1.66	2003
4303	789	795	3.031	34.332	27.349	35	0.106	0.080	0.11	0.02	0.03	1.32	2003
4302	889	896	2.824	34.369	27.397	34	0.081	-9.000	0.11	0.01	-9.00	-9.00	2023
4301	988	996	2.677	34.401	27.436	35	0.065	0.033	0.11	0.01	0.01	1.95	2003
4406	1086	1095	2.555	34.426	27.466	34	0.062	0.025	0.10	0.01	-9.00	-9.00	2300
4405	1234	1245	2.381	34.472	27.518	38	0.033	0.011	0.11	-9.00	-9.00	-9.00	2103
4404	1482	1497	2.132	34.521	27.578	43	0.011	0.001	0.13	-9.00	-9.00	-9.00	2100
4403	1975	1996	1.752	34.604	27.674	70	-0.003	-0.004	0.21	-9.00	-9.00	-9.00	2100
4402	2466	2496	1.512	34.644	27.724	97	-0.003	-0.005	0.29	-9.00	-9.00	-9.00	2100
4425	2959	2999	1.345	34.666	27.753	119	-0.004	-0.005	0.35	-9.00	-9.00	-9.00	2103

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
22.1	15 Aug 87	46 29.9 N	167 19.5 E	6042	246.4	445.3

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4512	2	2	9.255	32.942	25.467	285	3.987	1.878	1.00	1.04	1.04	2.12	2000
4511	33	33	4.426	33.158	26.277	312	5.028	2.283	0.99	1.00	0.99	2.20	2000
4510	48	48	2.614	33.175	26.461	318	5.580	2.486	0.96	0.99	0.98	2.24	2000
4509	83	83	1.861	33.222	26.558	308	5.447	2.450	0.91	0.92	0.93	2.22	2000
4508	98	99	1.664	33.248	26.593	300	5.396	2.397	0.88	0.90	0.90	2.25	2000
4507	111	112	1.850	33.369	26.676	248	4.513	2.046	0.74	0.77	0.78	2.21	2000
4506	129	130	2.758	33.629	26.812	119	2.434	1.164	0.36	0.44	0.47	2.09	2000
4505	152	153	3.106	33.778	26.900	70	1.694	0.803	0.22	0.31	0.33	2.11	2000
4504	197	198	3.309	33.895	26.975	37	1.119	0.526	0.11	0.21	0.22	2.13	2000
4503	273	275	3.363	34.010	27.061	27	0.651	0.317	0.08	0.12	0.13	2.06	2000
4502	344	346	3.364	34.094	27.128	23	0.420	0.205	0.07	0.08	0.09	2.05	2000
4525	498	501	3.154	34.239	27.264	19	0.160	0.083	0.06	0.03	0.03	1.92	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
23	15 Aug 87	47 59.8 N	167 18.9 E	6088	246.4	445.3

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4612	3	3	8.961	32.996	25.556	284	3.994	1.907	0.99	1.03	1.05	2.09	2003
4611	12	12	8.961	32.996	25.556	284	3.993	1.904	1.00	1.03	1.05	2.10	2000
4610	28	28	8.809	33.018	25.596	284	3.997	1.923	0.99	1.02	1.05	2.08	2000
4609	42	42	2.962	33.177	26.433	322	5.479	2.444	0.98	0.99	0.98	2.24	2000
4608	58	58	2.342	33.212	26.513	320	5.649	2.520	0.96	0.99	0.98	2.24	2000
4607	73	73	1.985	33.224	26.550	316	5.649	2.514	0.94	0.97	0.96	2.25	2000
4606	86	87	1.776	33.230	26.570	314	5.636	2.516	0.93	0.95	0.95	2.24	2000
4605	103	103	1.607	33.235	26.586	313	5.600	2.491	0.92	0.93	0.93	2.25	2000
4604	119	119	1.397	33.253	26.615	309	5.544	2.470	0.90	0.91	0.91	2.24	2000
4603	137	138	1.496	33.301	26.647	284	5.090	2.294	0.83	0.84	0.85	2.22	2000
4602	167	168	2.767	33.647	26.825	126	2.519	1.170	0.38	0.45	0.47	2.15	2000
4625	196	197	3.215	33.834	26.935	54	1.419	0.672	0.17	0.26	0.28	2.11	2000
4712	225	227	3.225	33.916	26.999	43	1.091	0.527	0.13	0.20	0.22	2.07	2000
4711	255	256	3.278	33.976	27.042	32	0.880	0.390	0.10	0.16	0.16	2.26	2000
4710	297	299	3.273	34.023	27.080	30	0.704	0.345	0.09	0.13	0.14	2.04	2000
4709	346	348	3.274	34.084	27.129	25	0.482	0.273	0.08	0.09	0.11	1.76	2000
4708	392	395	3.278	34.144	27.176	25	0.337	0.168	0.08	0.06	0.07	2.01	2002
4707	445	448	3.273	34.182	27.207	20	0.225	-9.000	0.06	0.04	-9.00	-9.00	2022
4706	494	497	3.188	34.212	27.239	26	0.244	0.133	0.08	0.05	0.05	1.84	2002
4705	543	547	3.102	34.245	27.273	25	0.199	0.108	0.08	0.04	0.04	1.84	2003
4704	598	602	3.057	34.278	27.304	20	0.123	0.075	0.06	0.02	0.03	1.63	2003
4703	694	699	2.926	34.324	27.352	19	0.071	0.047	0.06	0.01	0.02	1.53	2003
4702	783	789	2.776	34.367	27.400	20	0.054	0.026	0.06	0.01	-9.00	-9.00	2003
4725	896	903	2.603	34.411	27.450	25	0.047	0.024	0.08	0.01	-9.00	-9.00	2003
4812	987	995	2.484	34.439	27.483	26	0.030	0.012	0.08	-9.00	-9.00	-9.00	2003
4811	1084	1093	2.372	34.466	27.514	31	0.022	0.010	0.09	-9.00	-9.00	-9.00	2003
4810	1233	1244	2.218	34.504	27.557	37	0.010	0.005	0.11	-9.00	-9.00	-9.00	2003
4809	1480	1495	2.013	34.551	27.611	47	0.006	0.000	0.14	-9.00	-9.00	-9.00	2003
4808	1972	1994	1.710	34.612	27.683	74	-0.003	-0.007	0.22	-9.00	-9.00	-9.00	2003
4807	2469	2499	1.476	34.651	27.732	101	-0.001	-0.003	0.30	-9.00	-9.00	-9.00	2003
4806	2957	2996	1.328	34.670	27.758	120	0.000	-9.000	0.35	-9.00	-9.00	-9.00	2023
4805	3449	3499	1.220	34.683	27.776	135	-0.001	-0.001	0.40	-9.00	-9.00	-9.00	2003
4804	3938	4000	1.160	34.689	27.785	142	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	2000
4803	4424	4499	1.118	34.693	27.791	147	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	2000
4802	5189	5286	1.084	34.698	27.797	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	2000
4825	5791	5908	1.076	34.698	27.798	156	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	2000

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
24	16 Aug 87	50 00.1 N	167 18.3 E	3230	244.3	446.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4912	2	2	8.681	33.009	25.609	276	4.096	1.916	0.96	1.05	1.04	2.14	2000
4911	18	18	8.674	33.010	25.611	277	4.078	1.935	0.97	1.04	1.05	2.11	2000
4910	38	38	4.613	33.041	26.165	291	4.648	2.129	0.92	0.94	0.93	2.18	2000
4909	57	58	3.349	33.172	26.395	294	5.159	2.320	0.90	0.97	0.95	2.22	2000
4908	78	78	2.696	33.231	26.499	282	5.026	2.267	0.86	0.91	0.90	2.22	2000
4907	99	100	2.865	33.388	26.092	224	3.921	1.838	0.68	0.72	0.74	2.13	1000
4906	119	119	3.349	33.624	26.755	135	2.546	1.231	0.42	0.48	0.51	2.07	2000
4905	138	139	3.512	33.772	26.858	74	1.586	0.807	0.23	0.30	0.34	1.97	2000
4904	171	172	3.539	33.854	26.920	45	1.209	0.533	0.14	0.23	0.22	2.27	2000
4903	196	197	3.555	33.897	26.953	37	1.036	0.499	0.12	0.20	0.21	2.08	2000
4902	244	245	3.553	33.958	27.002	23	0.783	0.394	0.07	0.15	0.16	1.99	2000
4925	291	293	3.538	34.022	27.054	26	0.597	0.268	0.08	0.11	0.11	2.23	2000
5012	347	349	3.503	34.084	27.107	21	0.410	0.201	0.06	0.08	0.08	2.04	2000
5011	420	423	3.415	34.143	27.162	20	0.274	0.142	0.06	0.05	0.06	1.94	2002
5010	494	497	3.312	34.192	27.211	20	0.194	0.105	0.06	0.04	0.04	1.85	2003
5009	591	596	3.178	34.256	27.275	19	0.123	0.076	0.06	0.02	0.03	1.61	2003
5008	691	697	3.002	34.306	27.331	19	0.081	0.050	0.06	0.02	0.02	1.61	2003
5007	842	848	2.784	34.368	27.400	18	0.037	0.020	0.06	0.01	-9.00	-9.00	2003
5006	988	996	2.573	34.420	27.460	22	0.022	0.019	0.07	-9.00	-9.00	-9.00	2003
5005	1239	1250	2.268	34.490	27.542	30	0.006	0.005	0.09	-9.00	-9.00	-9.00	2003
5004	1730	1748	1.847	34.580	27.647	53	-0.001	0.001	0.16	-9.00	-9.00	-9.00	2003
5003	2465	2495	1.482	34.645	27.727	95	-0.002	-0.004	0.28	-9.00	-9.00	-9.00	2000
5002	2937	2976	1.359	34.665	27.751	112	0.001	0.000	0.33	-9.00	-9.00	-9.00	2003
5025	3806	3865	1.139	34.690	27.787	140	-0.001	-0.001	0.41	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
25	17 Aug 87	49 59.9 N	174 59.5 E	4285	242.2	439.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5112	3	3	8.519	32.752	25.432	280	4.111	1.956	0.97	1.05	1.06	2.10	2000
5111	9	9	8.520	32.752	25.432	305	4.137	1.959	1.06	1.06	1.06	2.11	2000
5110	20	20	8.507	32.754	25.436	281	4.161	1.950	0.97	1.06	1.06	2.13	2000
5109	38	38	6.152	32.926	25.895	291	4.703	2.161	0.96	1.05	1.04	2.18	2000
5108	56	56	3.462	33.100	26.327	299	5.301	2.355	0.92	1.01	0.99	2.25	2000
5107	79	79	2.970	33.130	26.395	295	5.268	2.378	0.90	0.97	0.97	2.22	2000
5106	98	99	2.752	33.160	26.438	290	5.147	2.350	0.88	0.94	0.95	2.19	2000
5105	117	118	2.946	33.429	26.636	193	3.589	1.693	0.59	0.66	0.69	2.12	2000
5104	139	140	3.324	33.743	26.852	72	1.763	0.825	0.22	0.33	0.35	2.14	2000
5103	158	159	3.459	33.869	26.940	21	1.148	0.536	0.07	0.22	0.23	2.14	2000
5102	177	178	3.499	33.922	26.978	32	0.879	0.417	0.10	0.17	0.18	2.11	2000
5125	200	201	3.516	33.980	27.023	15	0.694	0.361	0.05	0.13	0.15	1.92	2000
5212	225	227	3.523	33.989	27.029	15	0.633	0.295	0.05	0.12	0.13	2.14	2000
5211	256	257	3.519	34.027	27.060	14	0.514	0.252	0.04	0.10	0.11	2.04	2000
5210	293	295	3.491	34.075	27.101	14	0.380	0.193	0.04	0.07	0.08	1.97	2002
5209	347	349	3.436	34.133	27.152	16	0.256	0.142	0.05	0.05	0.06	1.80	2002
5208	392	394	3.370	34.172	27.190	16	0.209	0.113	0.05	0.04	0.05	1.85	2002
5207	445	448	3.283	34.216	27.233	15	0.141	0.072	0.05	0.03	0.03	1.94	2003
5206	518	522	3.158	34.262	27.281	16	0.108	0.050	0.05	0.02	0.02	2.17	2003
5205	590	594	3.034	34.302	27.325	15	0.076	0.047	0.05	0.01	0.02	1.60	2003
5204	665	670	2.886	34.344	27.372	17	0.045	0.025	0.05	0.01	-9.00	-9.00	2003
5203	740	745	2.777	34.373	27.405	17	0.038	0.020	0.05	0.01	-9.00	-9.00	2003
5202	811	817	2.665	34.403	27.438	18	0.026	0.008	0.05	-9.00	-9.00	-9.00	2003
5225	891	899	2.553	34.429	27.469	-9	0.017	0.010	-9.00	-9.00	-9.00	-9.00	2003
5312	938	945	2.433	34.454	27.499	23	0.009	0.006	0.07	-9.00	-9.00	-9.00	2003
5311	987	995	2.378	34.468	27.515	25	0.009	0.007	0.08	-9.00	-9.00	-9.00	2003
5310	1085	1095	2.260	34.493	27.545	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	2000
5309	1235	1246	2.104	34.527	27.584	36	0.003	-0.001	0.11	-9.00	-9.00	-9.00	2003
5308	1481	1495	1.911	34.567	27.632	48	-0.001	-0.001	0.14	-9.00	-9.00	-9.00	2003
5307	1725	1743	1.772	34.595	27.665	62	-0.001	0.000	0.19	-9.00	-9.00	-9.00	2003
5306	1974	1995	1.618	34.621	27.697	78	0.000	-9.000	0.23	-9.00	-9.00	-9.00	2023
5305	2466	2496	1.441	34.652	27.735	97	-9.000	-9.000	0.29	-9.00	-9.00	-9.00	2000
5304	2959	2998	1.282	34.673	27.763	121	-0.002	-0.006	0.36	-9.00	-9.00	-9.00	2003
5303	3447	3498	1.198	34.684	27.778	131	-0.001	-9.000	0.39	-9.00	-9.00	-9.00	2023
5302	3934	3996	1.135	34.691	27.788	142	-0.002	0.000	0.42	-9.00	-9.00	-9.00	2003
5325	4574	4653	1.096	34.694	27.793	146	0.000	-0.002	0.43	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
26	20 Aug 87	50 01.8 N	169 59.5 W	5224	242.4	436.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5412	1	2	9.619	32.632	25.166	278	3.822	1.898	0.99	1.03	1.09	2.01	2000
5411	13	13	9.432	32.617	25.185	281	3.854	1.876	0.99	1.03	1.07	2.05	2000
5410	28	29	8.502	32.622	25.333	283	4.077	1.959	0.98	1.04	1.07	2.08	2000
5409	43	43	5.491	32.805	25.880	297	4.694	2.178	0.96	1.01	1.02	2.15	2000
5408	60	60	4.178	32.878	26.081	297	4.881	2.256	0.93	0.97	0.99	2.16	2000
5407	73	73	3.802	32.902	26.137	298	4.979	2.276	0.92	0.96	0.97	2.19	2000
5406	86	87	3.746	32.963	26.191	290	4.858	2.243	0.90	0.94	0.96	2.17	2000
5405	102	102	3.672	33.229	26.410	236	3.935	1.876	0.73	0.76	0.80	2.10	2000
5404	115	116	3.644	33.487	26.618	175	3.007	1.427	0.54	0.58	0.61	2.11	2000
5403	147	147	3.575	33.711	26.803	115	2.065	0.987	0.36	0.40	0.42	2.09	2000
5402	177	178	3.537	33.779	26.861	90	1.651	0.771	0.28	0.32	0.33	2.14	2000
5425	208	210	3.587	33.835	26.900	73	1.387	0.651	0.23	0.27	0.28	2.13	2000
5512	236	238	3.753	33.867	26.910	62	1.153	0.543	0.19	0.22	0.23	2.12	2000
5511	265	267	3.777	33.921	26.950	45	0.884	0.401	0.14	0.17	0.17	2.21	2000
5510	305	307	3.754	33.982	27.001	35	0.638	0.301	0.11	0.12	0.13	2.12	2000
5509	344	346	3.705	34.027	27.042	34	0.528	0.257	0.11	0.10	0.11	2.06	2000
5508	396	398	3.664	34.079	27.087	29	0.361	0.184	0.09	0.07	0.08	1.96	2002
5507	445	448	3.604	34.121	27.127	27	0.280	0.148	0.08	0.05	0.06	1.89	2002
5506	495	498	3.519	34.161	27.167	25	0.221	0.114	0.08	0.04	0.05	1.94	2002
5505	542	546	3.438	34.194	27.201	25	0.184	0.111	0.08	0.04	0.05	1.66	2003
5504	613	618	3.315	34.243	27.252	25	0.128	0.060	0.08	0.02	0.03	2.15	2003
5503	689	694	3.157	34.290	27.304	24	0.077	0.037	0.07	0.01	0.02	2.06	2003
5502	762	768	3.064	34.317	27.334	24	0.054	0.031	0.07	0.01	0.01	1.74	2003
5525	839	845	2.946	34.346	27.368	24	0.040	0.021	0.07	0.01	-9.00	-9.00	2003
5612	937	944	2.746	34.393	27.423	25	0.023	0.011	0.08	-9.00	-9.00	-9.00	2003
5611	1083	1093	2.557	34.435	27.473	27	0.012	0.003	0.08	-9.00	-9.00	-9.00	2003
5610	1218	1229	2.413	34.466	27.510	30	0.007	0.001	0.09	-9.00	-9.00	-9.00	2003
5609	1477	1491	2.144	34.524	27.579	36	0.001	-0.003	0.11	-9.00	-9.00	-9.00	2003
5608	1974	1995	1.784	34.595	27.664	62	-0.003	0.000	0.18	-9.00	-9.00	-9.00	2003
5607	2468	2498	1.551	34.635	27.714	85	-0.003	-0.003	0.25	-9.00	-9.00	-9.00	2003
5606	2959	2998	1.369	34.662	27.748	108	0.000	0.001	0.32	-9.00	-9.00	-9.00	2003
5605	3449	3499	1.234	34.679	27.772	127	-0.002	0.001	0.38	-9.00	-9.00	-9.00	2003
5604	3938	4000	1.158	34.688	27.784	138	-0.002	-0.001	0.41	-9.00	-9.00	-9.00	2003
5603	4430	4505	1.117	34.693	27.791	145	0.000	0.001	0.43	-9.00	-9.00	-9.00	2003
5602	4913	5001	1.092	34.696	27.795	149	-0.001	-0.002	0.44	-9.00	-9.00	-9.00	2003
5625	5315	5416	1.078	34.697	27.797	152	-0.001	-0.001	0.45	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
28	23 Aug 87	50 00.0 N	162 30.3 W	4974	246.3	439.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5712	1	1	11.148	32.566	24.855	278	3.578	1.796	1.02	1.04	1.11	1.99	2000
5711	13	13	11.138	32.566	24.857	278	3.573	1.745	1.02	1.03	1.07	2.05	2000
5710	28	29	10.690	32.554	24.926	281	3.647	1.806	1.02	1.03	1.09	2.02	2000
5709	44	44	7.950	32.723	25.494	297	4.222	1.986	1.02	1.03	1.05	2.13	2000
5708	59	59	4.465	32.904	26.072	305	4.864	2.270	0.96	0.97	1.00	2.14	2000
5707	73	73	3.811	32.926	26.155	302	4.995	2.394	0.94	0.95	1.02	2.09	2000
5706	88	89	3.759	32.932	26.165	303	4.966	2.286	0.94	0.94	0.97	2.17	2000
5705	102	103	3.623	32.930	26.176	298	4.991	2.279	0.92	0.94	0.96	2.19	2000
5704	117	118	3.711	33.213	26.393	237	4.030	1.867	0.74	0.77	0.79	2.16	2000
5703	147	148	3.728	33.724	26.798	115	2.064	0.958	0.36	0.40	0.41	2.15	2000
5702	176	177	3.715	33.784	26.847	94	1.748	0.806	0.29	0.33	0.35	2.17	2000
5725	206	208	3.712	33.823	26.879	79	1.501	0.698	0.25	0.29	0.30	2.15	2000
5812	236	238	3.698	33.879	26.925	66	1.233	0.561	0.21	0.24	0.24	2.20	2000
5811	265	266	3.715	33.925	26.960	54	1.001	0.472	0.17	0.19	0.20	2.12	2000
5810	305	307	3.698	33.988	27.011	44	0.735	0.365	0.14	0.14	0.16	2.01	2000
5809	345	347	3.686	34.036	27.051	41	0.566	0.281	0.13	0.11	0.12	2.01	2000
5808	393	396	3.637	34.092	27.100	36	-9.000	0.201	0.11	-9.00	0.09	-9.00	2010
5807	443	446	3.589	34.141	27.144	33	0.291	0.148	0.10	0.06	0.06	1.96	2002
5806	494	497	3.520	34.180	27.182	31	0.219	0.131	0.10	0.04	0.06	1.67	2002
5805	543	547	3.411	34.217	27.222	27	0.149	0.096	0.08	0.03	0.04	1.56	2003
5804	592	596	3.335	34.251	27.256	28	0.116	0.070	0.09	0.02	0.03	1.66	2003
5803	628	632	3.206	34.303	27.310	27	0.073	0.040	0.08	0.01	0.02	1.82	2003
5825	826	833	2.919	34.352	27.375	23	0.036	0.017	0.07	0.01	-9.00	-9.00	2003
5912	887	894	2.814	34.375	27.403	24	0.027	0.016	0.07	-9.00	-9.00	-9.00	2003
5911	992	1000	2.649	34.410	27.445	25	0.018	0.010	0.08	-9.00	-9.00	-9.00	2003
5910	1076	1085	2.558	34.431	27.470	25	0.014	-9.000	0.08	-9.00	-9.00	-9.00	2023
5909	1233	1244	2.375	34.470	27.517	29	0.006	0.003	0.09	-9.00	-9.00	-9.00	2003
5908	1478	1492	2.143	34.523	27.578	38	0.001	-9.000	0.11	-9.00	-9.00	-9.00	2023
5907	1973	1994	1.786	34.596	27.665	60	-0.001	0.002	0.18	-9.00	-9.00	-9.00	2003
5906	2452	2481	1.552	34.635	27.714	84	0.002	0.007	0.25	-9.00	-9.00	-9.00	2003
5905	2957	2997	1.362	34.664	27.751	110	-0.002	0.003	0.33	-9.00	-9.00	-9.00	2003
5904	3447	3497	1.245	34.679	27.771	127	-0.001	-0.001	0.38	-9.00	-9.00	-9.00	2003
5903	3941	4002	1.167	34.689	27.784	138	0.002	-0.002	0.41	-9.00	-9.00	-9.00	2003
5902	4426	4501	1.132	34.693	27.790	144	0.000	0.001	0.42	-9.00	-9.00	-9.00	2003
5925	4815	4901	1.112	34.695	27.793	147	0.001	-0.003	0.43	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
29	24 Aug 87	50 00.1 N	155 00.0 W	4805	246.1	440.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6012	1	1	12.005	32.647	24.762	269	3.501	1.758	1.01	1.06	1.13	1.99	2000
6011	12	12	11.931	32.652	24.779	270	3.539	1.724	1.01	1.07	1.10	2.05	2000
6010	29	29	7.637	32.710	25.528	297	4.355	2.004	1.01	1.04	1.04	2.17	2000
6009	43	44	6.659	32.737	25.682	291	4.490	2.070	0.97	1.01	1.02	2.17	2000
6008	60	60	5.849	32.777	25.815	288	4.635	2.124	0.94	1.00	1.01	2.18	2000
6007	78	78	4.567	32.867	26.031	284	4.738	2.135	0.90	0.95	0.95	2.22	2000
6006	99	99	4.292	33.235	26.353	228	3.829	1.763	0.72	0.76	0.77	2.17	2000
6005	117	118	4.232	33.524	26.588	177	2.992	1.386	0.56	0.59	0.61	2.16	2000
6004	136	137	4.141	33.692	26.731	138	2.361	1.077	0.43	0.46	0.47	2.19	2000
6003	157	158	3.990	33.752	26.794	117	2.003	0.913	0.37	0.39	0.40	2.19	2000
6002	199	200	3.831	33.815	26.861	90	1.604	0.769	0.28	0.31	0.33	2.08	2000
6025	246	248	3.786	33.873	26.911	71	1.276	0.565	0.22	0.25	0.24	2.26	2000
6112	296	298	3.759	33.944	26.970	54	0.948	0.434	0.17	0.18	0.19	2.18	2000
6111	343	345	3.747	33.990	27.008	47	0.736	0.339	0.15	0.14	0.15	2.17	2000
6110	396	398	3.693	34.051	27.062	39	0.517	0.267	0.12	0.10	0.11	1.94	2000
6109	468	471	3.610	34.122	27.127	29	0.291	0.123	0.09	0.06	0.05	2.37	2002
6108	543	546	3.485	34.183	27.188	25	0.154	0.083	0.08	0.03	0.03	1.86	2003
6107	641	645	3.323	34.252	27.258	25	0.066	0.041	0.08	0.01	0.02	1.61	2003
6106	790	796	3.035	34.324	27.342	21	0.031	-9.000	0.07	0.01	-9.00	-9.00	2023
6105	984	992	2.780	34.393	27.420	17	0.004	0.006	0.05	-9.00	-9.00	-9.00	2003
6104	1479	1494	2.179	34.518	27.571	25	0.000	-9.000	0.08	-9.00	-9.00	-9.00	2023
6103	1976	1997	1.810	34.592	27.660	51	0.000	0.004	0.15	-9.00	-9.00	-9.00	2003
6102	2910	2949	1.368	34.663	27.749	103	-0.001	-0.002	0.30	-9.00	-9.00	-9.00	2003
6125	4815	4900	1.136	34.693	27.790	137	-0.001	-0.006	0.40	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
30	25 Aug 87	49 59.9 N	145 00.2 W	4241	245.9	440.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6212	1	1	13.216	32.476	24.396	275	3.326	1.588	1.05	1.07	1.07	2.09	2000
6211	4	4	13.206	32.475	24.397	272	3.303	1.605	1.04	1.07	1.08	2.06	2000
6210	9	9	13.209	32.475	24.397	270	3.329	1.621	1.04	1.07	1.10	2.05	2000
6209	13	13	13.195	32.475	24.400	272	3.339	1.611	1.04	1.08	1.09	2.07	2000
6208	18	18	12.996	32.519	24.473	275	3.357	1.620	1.05	1.07	1.08	2.07	2000
6207	24	24	10.563	32.499	24.905	292	3.685	1.761	1.06	1.03	1.05	2.09	2000
6206	28	28	9.586	32.562	25.117	304	3.993	1.877	1.08	1.06	1.07	2.13	2000
6205	38	38	8.348	32.563	25.310	297	4.215	1.969	1.02	1.05	1.06	2.14	2000
6204	48	48	7.812	32.581	25.402	293	4.249	1.973	1.00	1.02	1.03	2.15	2000
6203	58	58	7.349	32.581	25.467	288	4.324	1.998	0.97	1.01	1.02	2.16	2000
6202	73	73	6.714	32.642	25.600	287	4.424	2.040	0.95	1.00	1.01	2.17	2000
6225	88	88	5.918	32.697	25.743	282	4.443	2.048	0.92	0.96	0.97	2.17	2000
6312	101	102	5.633	32.789	25.850	276	4.348	2.020	0.89	0.93	0.95	2.15	2000
6311	114	115	5.501	33.039	26.063	256	3.976	1.852	0.83	0.84	0.86	2.15	2000
6310	132	132	5.147	33.469	26.445	219	3.378	1.597	0.70	0.70	0.73	2.12	2000
6309	147	147	4.929	33.623	26.592	197	3.046	1.418	0.63	0.63	0.65	2.15	2000
6308	162	163	4.660	33.706	26.687	172	2.675	1.272	0.55	0.54	0.57	2.10	2000
6307	176	177	4.495	33.751	26.741	149	2.277	1.066	0.47	0.46	0.47	2.14	2000
6306	207	208	4.291	33.792	26.795	123	1.913	0.895	0.39	0.38	0.39	2.14	2000
6305	237	238	4.175	33.822	26.831	105	1.674	0.764	0.33	0.33	0.33	2.19	2000
6304	266	267	4.097	33.852	26.863	-9	1.470	0.672	-9.00	0.29	0.29	2.19	2000
6303	296	297	4.053	33.891	26.899	79	1.230	0.595	0.25	0.24	0.26	2.07	2000
6302	325	326	3.995	33.923	26.930	69	1.070	0.500	0.22	0.21	0.22	2.14	2000
6325	355	357	3.972	33.963	26.964	59	0.860	0.388	0.19	0.17	0.17	2.22	2000
6510	393	396	3.875	34.032	27.029	46	0.523	0.247	0.15	0.10	0.11	2.11	2000
6509	444	447	3.810	34.079	27.073	37	-9.000	-9.000	0.12	-9.00	-9.00	-9.00	2000
6508	491	494	3.723	34.123	27.116	-9	0.209	0.116	-9.00	0.04	0.05	1.80	2002
6507	542	546	3.639	34.163	27.157	-9	0.143	0.092	-9.00	0.03	0.04	1.54	2003
6506	592	596	3.543	34.200	27.195	-9	0.083	-9.000	-9.00	0.02	-9.00	-9.00	2023
6505	640	644	3.446	34.231	27.230	24	0.054	-9.000	0.08	0.01	-9.00	-9.00	2023
6504	689	694	3.360	34.257	27.259	22	0.029	-9.000	0.07	-9.00	-9.00	-9.00	2023
6503	737	743	3.268	34.283	27.288	19	0.021	0.014	0.06	-9.00	-9.00	-9.00	2003
6502	797	803	3.150	34.314	27.324	16	0.009	0.008	0.05	-9.00	-9.00	-9.00	2003
6525	841	848	3.081	34.329	27.342	16	0.008	0.003	0.05	-9.00	-9.00	-9.00	2003
6412	888	895	3.008	34.344	27.361	19	0.007	0.004	0.06	-9.00	-9.00	-9.00	2003
6411	986	994	2.839	34.382	27.406	14	0.002	0.001	0.04	-9.00	-9.00	-9.00	2003
6410	1086	1095	2.688	34.415	27.446	14	0.000	0.005	0.04	-9.00	-9.00	-9.00	2003
6409	1233	1243	2.492	34.455	27.495	16	0.000	-0.003	0.05	-9.00	-9.00	-9.00	2003
6408	1482	1496	2.208	34.511	27.563	26	-0.004	-0.002	0.08	-9.00	-9.00	-9.00	2002
6407	1728	1746	1.987	34.557	27.618	41	-0.001	0.001	0.12	-9.00	-9.00	-9.00	2003
6406	1976	1997	1.814	34.588	27.656	53	0.001	-9.000	0.16	-9.00	-9.00	-9.00	2023
6405	2467	2496	1.551	34.633	27.712	80	0.000	-0.001	0.24	-9.00	-9.00	-9.00	2003
6404	2958	2997	1.372	34.661	27.747	107	-0.001	0.000	0.31	-9.00	-9.00	-9.00	2003
6403	3448	3498	1.248	34.678	27.770	125	0.000	-0.002	0.37	-9.00	-9.00	-9.00	2003
6402	3938	4000	1.182	34.687	27.781	133	-0.001	-0.003	0.39	-9.00	-9.00	-9.00	2003
6425	4223	4292	1.164	34.690	27.785	135	-0.001	-0.004	0.40	-9.00	-9.00	-9.00	2003

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
31	27 Aug 87	50 00.2 N	134 59.8 W	3455	243.9	439.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6612	1	1	14.854	32.171	23.824	253	2.999	1.483	1.00	1.06	1.08	2.02	2000
6611	9	9	14.473	32.162	23.898	255	2.995	1.473	1.00	1.04	1.05	2.03	2000
6610	18	18	14.259	32.155	23.937	257	3.057	1.532	1.00	1.05	1.08	2.00	2000
6609	27	27	13.018	32.215	24.233	263	3.210	1.588	1.00	1.03	1.06	2.02	2000
6607	58	58	9.413	32.463	25.067	270	3.875	1.857	0.95	1.03	1.05	2.09	2000
6606	73	74	8.234	32.495	25.273	265	3.880	1.840	0.91	0.96	0.98	2.11	2000
6605	88	88	7.838	32.557	25.379	270	3.867	1.838	0.92	0.91	0.94	2.08	2100
6604	103	104	7.746	32.684	25.492	247	3.715	1.754	0.84	0.90	0.92	2.12	2000
6603	118	118	7.698	33.001	25.748	199	3.091	1.472	0.68	0.75	0.77	2.10	2000
6602	147	148	6.414	33.444	26.271	189	2.950	1.360	0.63	0.67	0.67	2.17	2000
6625	178	178	5.937	33.747	26.571	157	2.314	1.100	0.52	0.51	0.53	2.10	2000
6712	206	207	5.790	33.820	26.646	146	2.105	0.990	0.48	0.46	0.47	2.13	2000
6711	235	236	5.561	33.857	26.703	131	1.772	0.832	0.43	0.38	0.39	2.13	2000
6710	265	266	5.354	33.875	26.743	119	1.608	0.747	0.39	0.34	0.35	2.15	2000
6709	304	306	4.919	33.886	26.802	100	1.299	0.584	0.32	0.27	0.27	2.22	2000
6708	343	345	4.652	33.910	26.850	82	1.097	0.492	0.26	0.22	0.22	2.23	2000
6707	393	396	4.431	33.961	26.915	65	0.740	0.351	0.21	0.15	0.16	2.11	2000
6706	443	445	4.279	34.010	26.970	54	0.483	0.257	0.17	0.10	0.11	1.88	2000
6705	493	496	4.110	34.051	27.020	47	0.329	0.184	0.15	0.07	0.08	1.79	2002
6704	543	546	3.993	34.089	27.062	39	0.235	0.128	0.12	0.05	0.06	1.84	2002
6703	590	594	3.859	34.136	27.113	31	0.142	0.084	0.10	0.03	0.04	1.70	2003
6702	641	645	3.726	34.173	27.156	27	0.085	0.060	0.08	0.02	0.03	1.42	2003
6725	692	697	3.579	34.209	27.199	23	0.055	0.040	0.07	0.01	0.02	1.38	2003
6812	739	744	3.495	34.233	27.226	21	0.039	0.022	0.06	0.01	-9.00	-9.00	2003
6811	790	795	3.390	34.262	27.260	18	0.023	0.012	0.06	-9.00	-9.00	-9.00	2003
6810	834	840	3.288	34.286	27.289	-9	0.014	0.007	-9.00	-9.00	-9.00	-9.00	2003
6809	888	895	3.193	34.308	27.315	15	0.008	0.007	0.05	-9.00	-9.00	-9.00	2003
6808	988	996	2.999	34.352	27.368	13	0.003	0.001	0.04	-9.00	-9.00	-9.00	2003
6807	1087	1096	2.790	34.399	27.424	13	0.000	-0.002	0.04	-9.00	-9.00	-9.00	2003
6806	1234	1245	2.574	34.444	27.479	16	0.001	-0.001	0.05	-9.00	-9.00	-9.00	2003
6805	1479	1493	2.292	34.497	27.545	23	0.000	-0.005	0.07	-9.00	-9.00	-9.00	2003
6804	1976	1997	1.808	34.588	27.657	53	-0.001	-0.003	0.16	-9.00	-9.00	-9.00	2003
6803	2463	2492	1.541	34.635	27.714	81	0.001	-0.004	0.24	-9.00	-9.00	-9.00	2002
6802	2965	3004	1.377	34.660	27.746	102	0.000	-9.000	0.30	-9.00	-9.00	-9.00	2023
6825	3453	3503	1.298	34.672	27.761	109	-0.004	-0.003	0.32	-9.00	-9.00	-9.00	2002

CO2-87 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
32	28 Aug 87	50 00.5 N	129 00.2 W	1977	243.9	439.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6912	0	0	15.311	32.087	23.661	-9	2.902	1.429	-9.00	1.05	1.06	2.03	2000
6911	18	18	15.088	32.172	23.774	259	2.902	1.416	1.03	1.04	1.04	2.05	2000
6910	38	38	12.615	32.217	24.313	263	3.228	1.549	0.99	1.02	1.02	2.08	2000
6909	58	58	9.791	32.451	24.997	266	3.684	1.727	0.95	1.00	1.00	2.13	2000
6908	77	77	8.870	32.584	25.247	269	3.830	1.796	0.94	0.99	0.99	2.13	2000
6907	98	98	8.089	32.768	25.509	228	3.423	1.626	0.78	0.85	0.86	2.11	2000
6906	116	116	7.297	33.206	25.965	208	3.163	1.512	0.70	0.75	0.78	2.09	2000
6905	146	146	6.771	33.611	26.356	174	2.582	1.237	0.58	0.60	0.62	2.09	2000
6904	194	195	6.446	33.824	26.567	151	2.105	0.988	0.50	0.48	0.49	2.13	2000
6903	243	245	5.917	33.921	26.711	111	1.333	0.648	0.36	0.29	0.31	2.06	2000
6902	293	295	5.309	33.927	26.789	94	-9.000	-9.000	0.30	-9.00	-9.00	-9.00	2000
6925	348	350	4.989	33.974	26.863	74	0.658	0.329	0.24	0.14	0.15	2.00	2000
7012	394	396	4.955	33.997	26.885	58	-9.000	-9.000	0.19	-9.00	-9.00	-9.00	2000
7011	442	445	4.820	34.038	26.933	45	0.327	0.170	0.14	0.07	0.08	1.92	2002
7010	493	496	4.530	34.082	27.000	33	0.183	0.106	0.10	0.04	0.05	1.73	2003
7009	543	546	4.318	34.133	27.063	26	0.114	0.074	0.08	0.02	0.03	1.55	2003
7008	590	594	4.211	34.165	27.100	20	0.089	0.068	0.06	0.02	0.03	1.32	2003
7007	639	644	4.081	34.191	27.134	18	0.062	0.036	0.06	0.01	0.02	1.75	2003
7006	690	695	3.986	34.210	27.159	17	0.047	0.026	0.05	0.01	-9.00	-9.00	2003
7005	739	745	3.850	34.234	27.192	14	0.039	0.019	0.04	0.01	-9.00	-9.00	2003
7004	787	793	3.722	34.267	27.231	13	0.020	0.010	0.04	-9.00	-9.00	-9.00	2003
7003	985	993	3.260	34.374	27.361	11	0.006	0.000	0.03	-9.00	-9.00	-9.00	2003
7002	1232	1242	2.768	34.459	27.474	22	0.002	0.000	0.07	-9.00	-9.00	-9.00	2003
7025	1484	1498	2.291	34.521	27.564	31	0.001	-0.003	0.09	-9.00	-9.00	-9.00	2003

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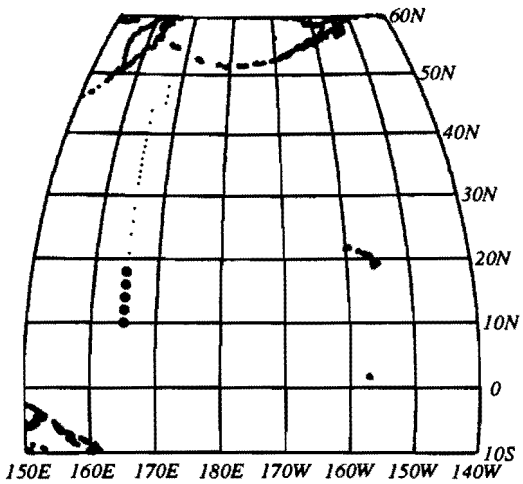

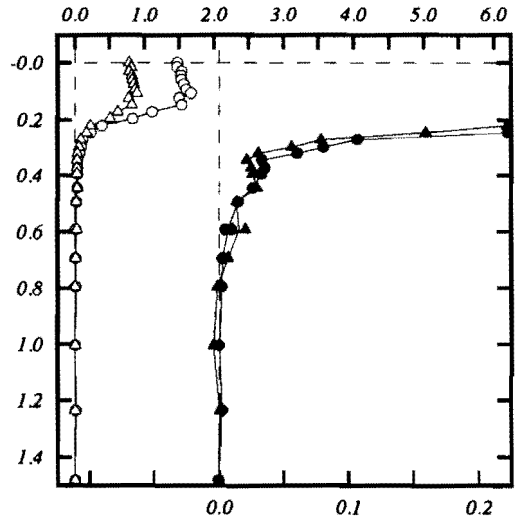

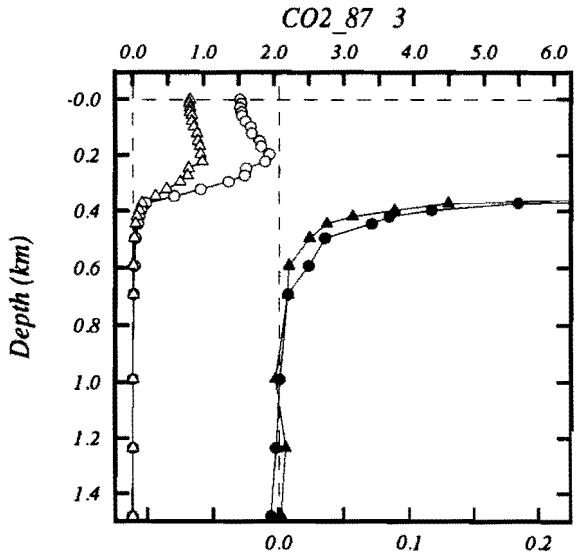

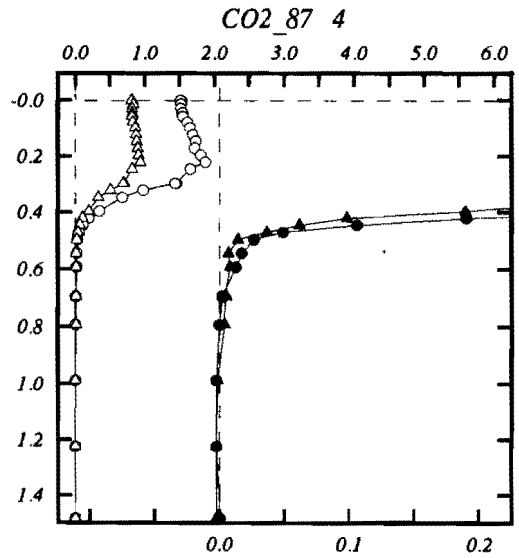

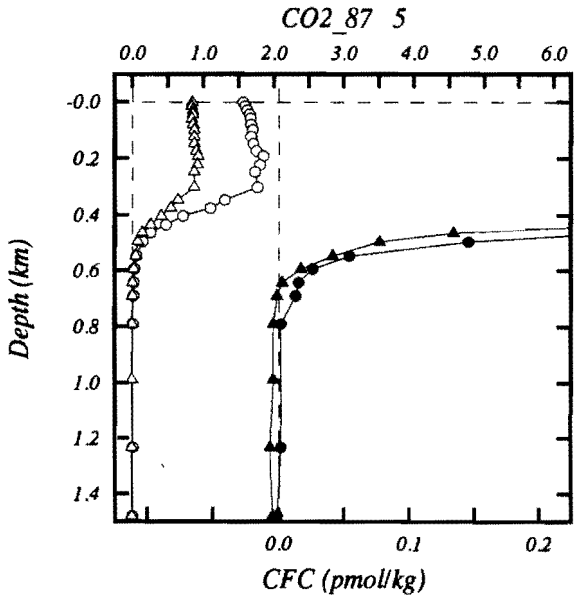

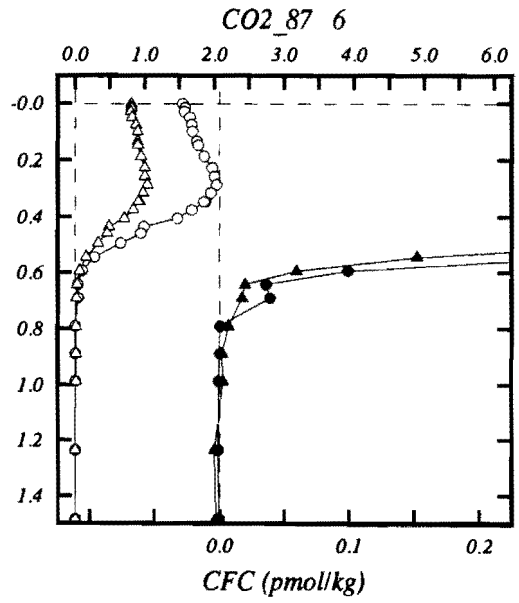

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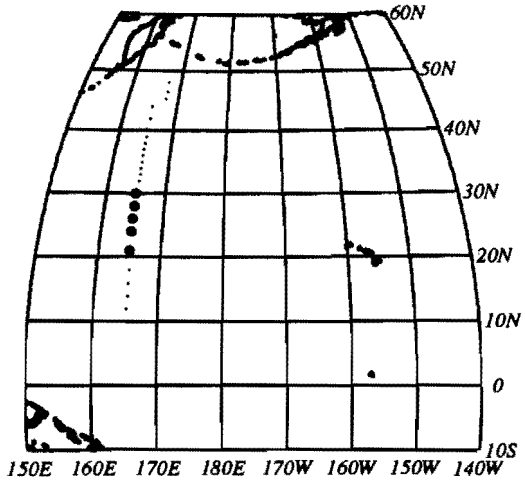

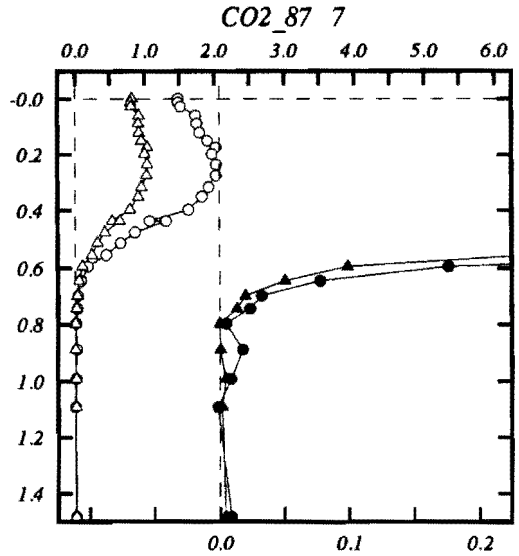

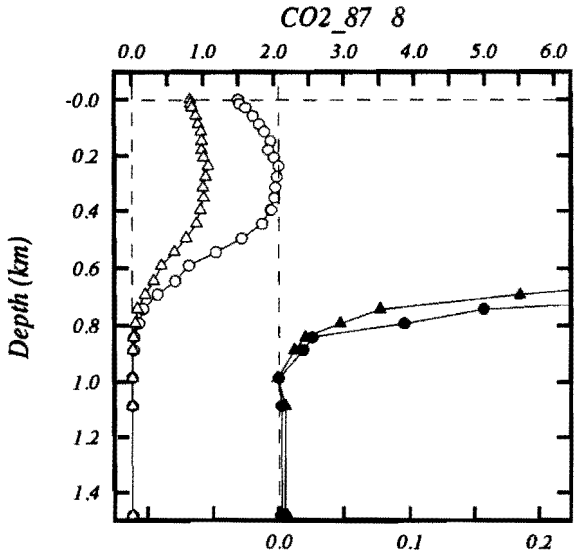

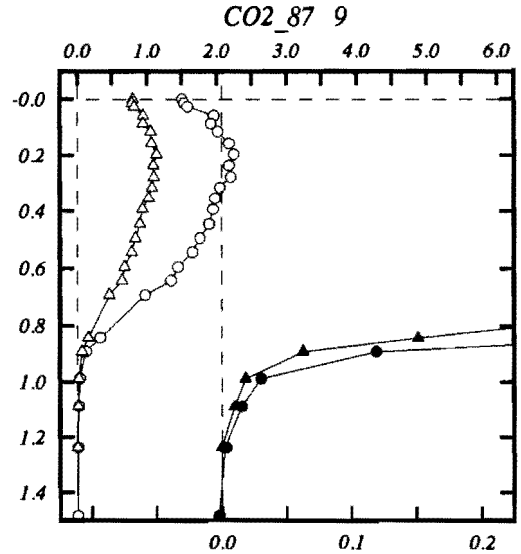

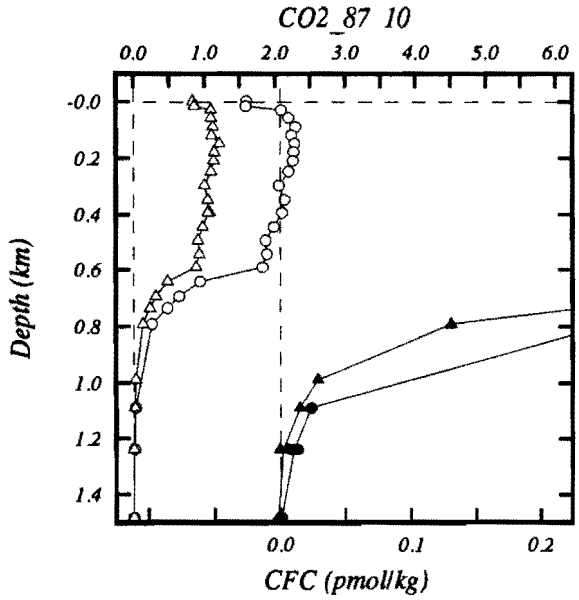

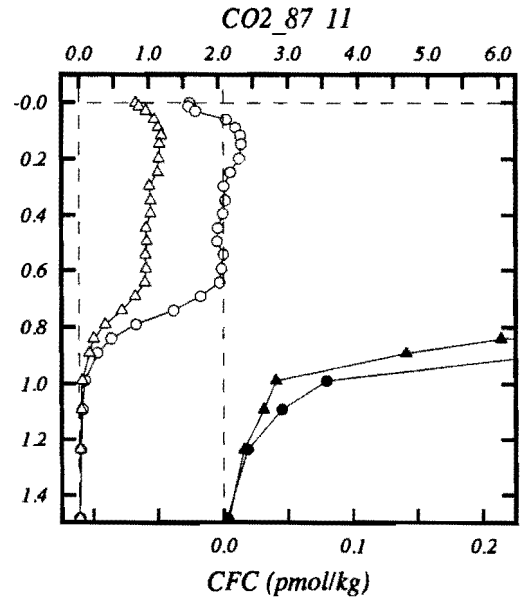

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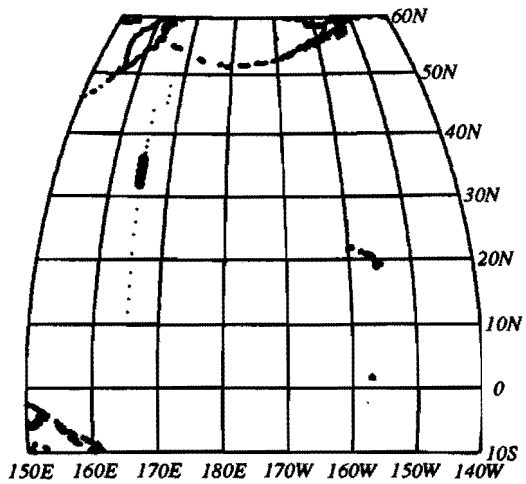
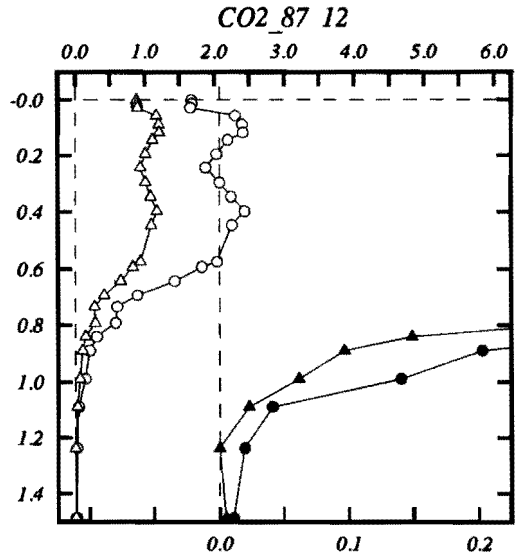
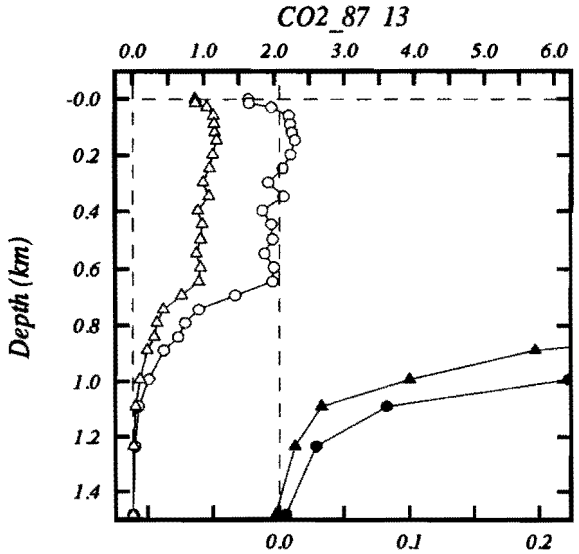
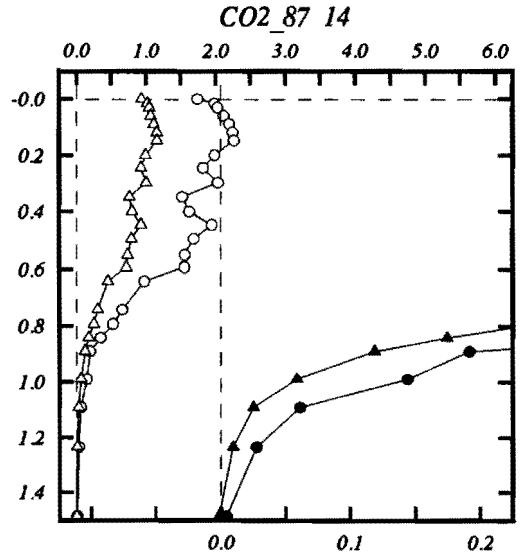
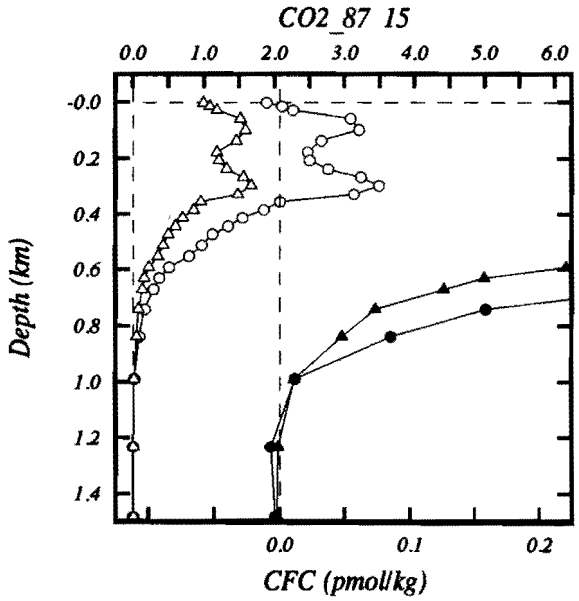
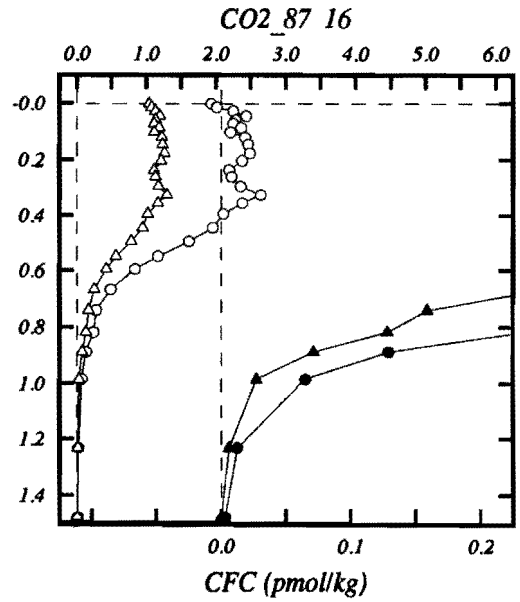




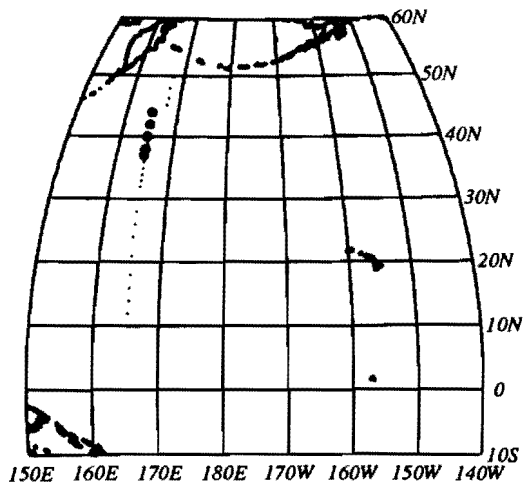


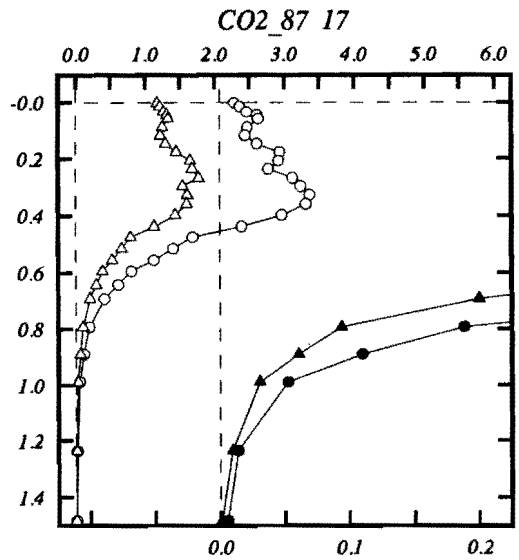


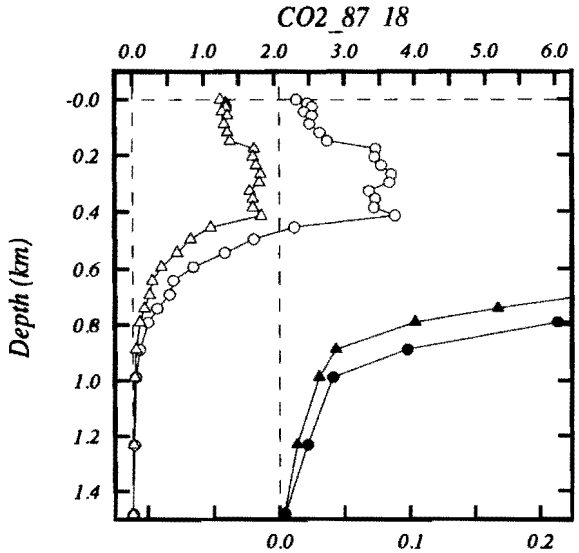


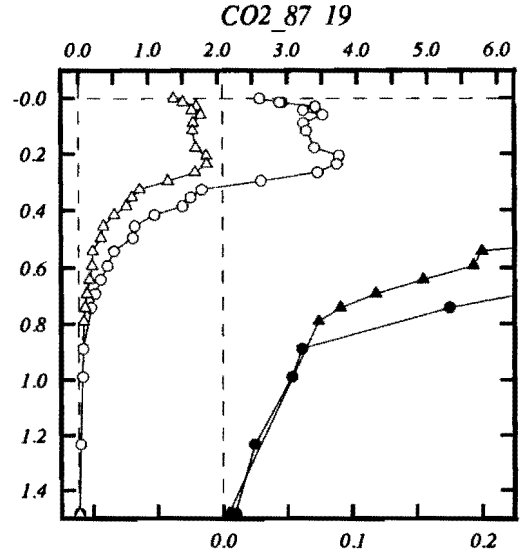


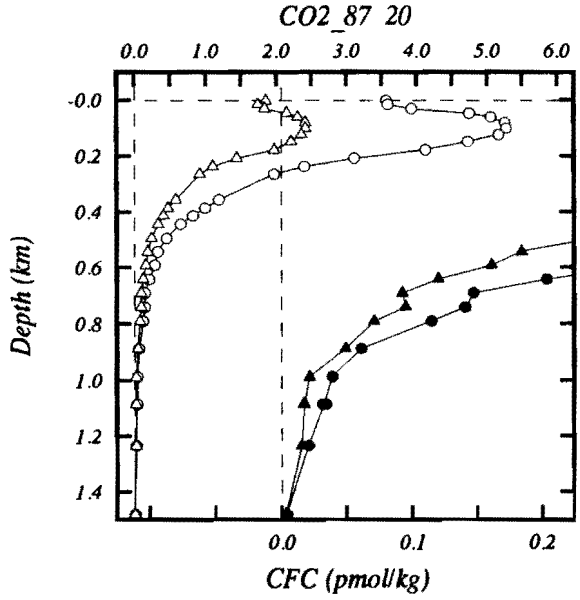
Locations of Stations on This Page

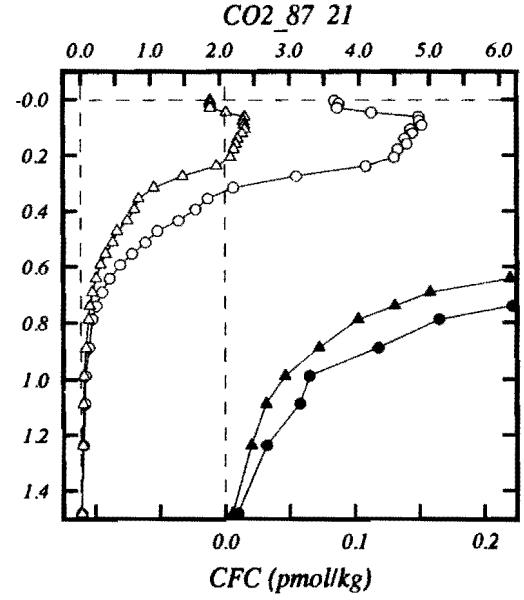




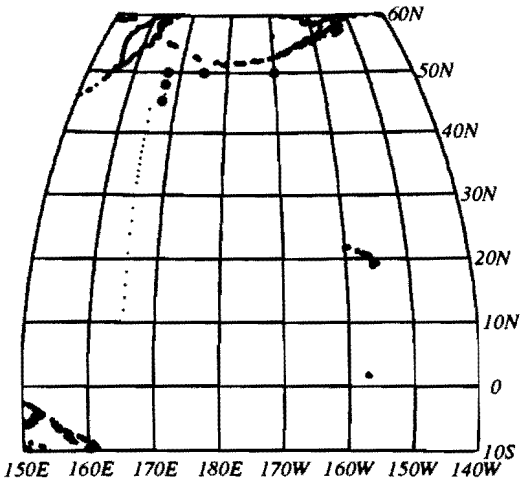


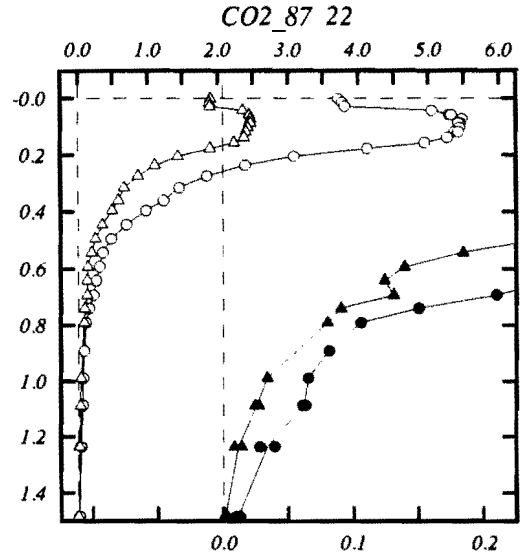


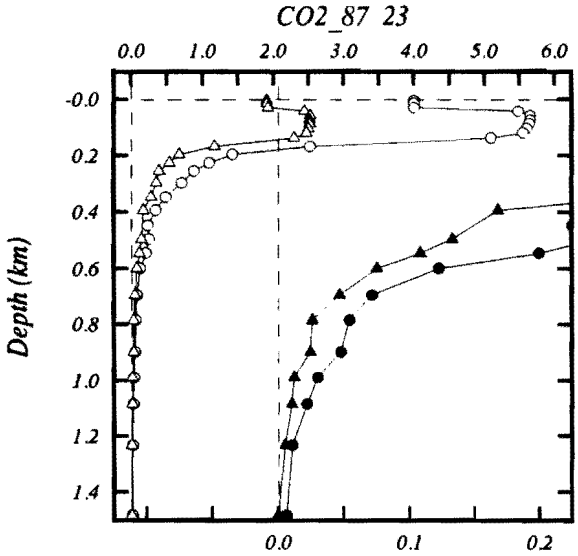


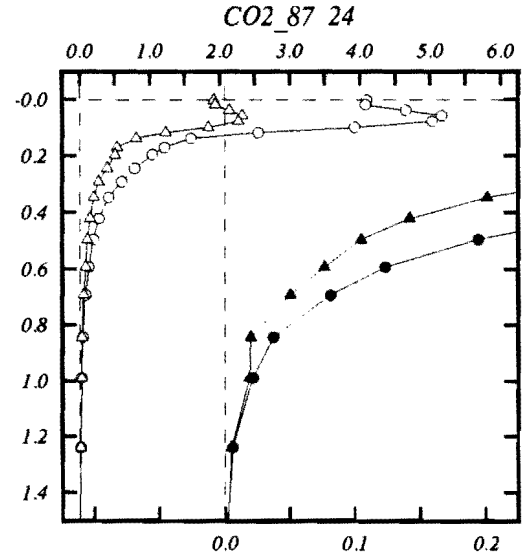


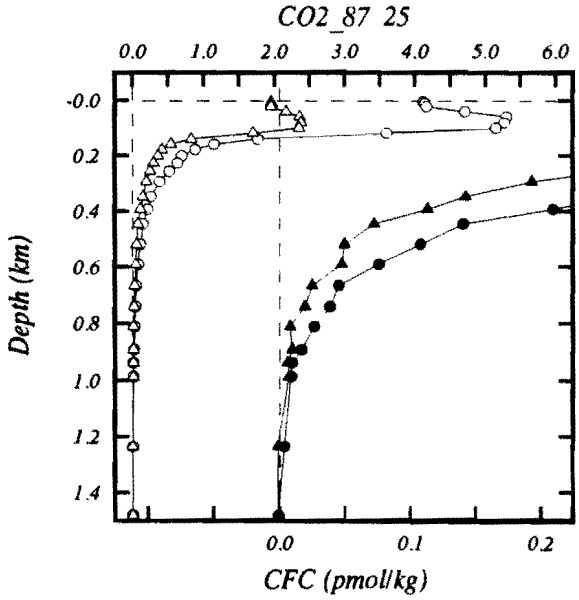
Locations of Stations on This Page

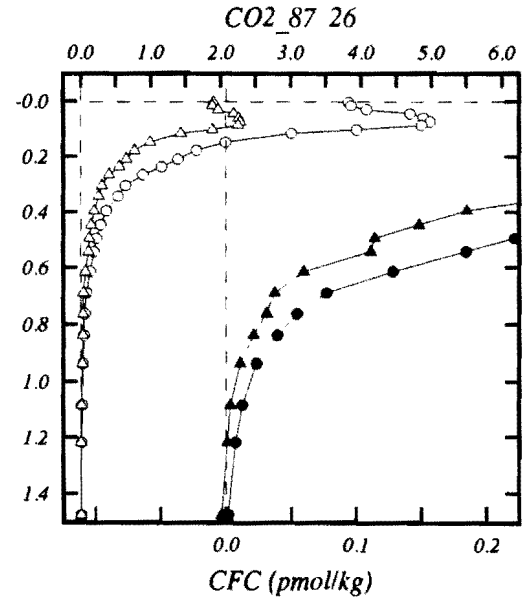




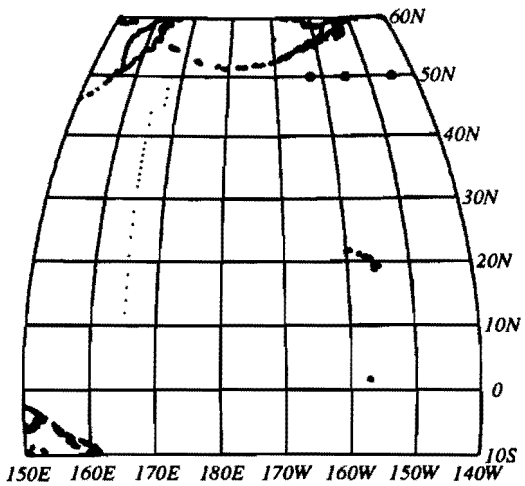


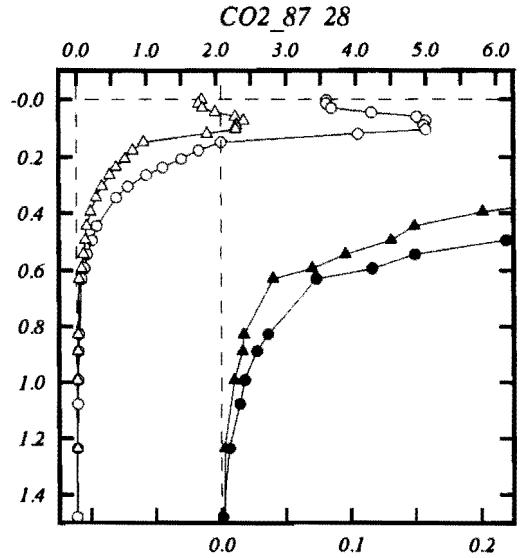


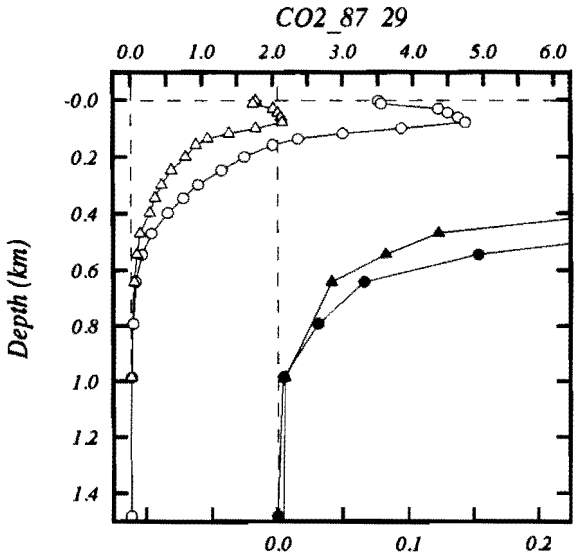


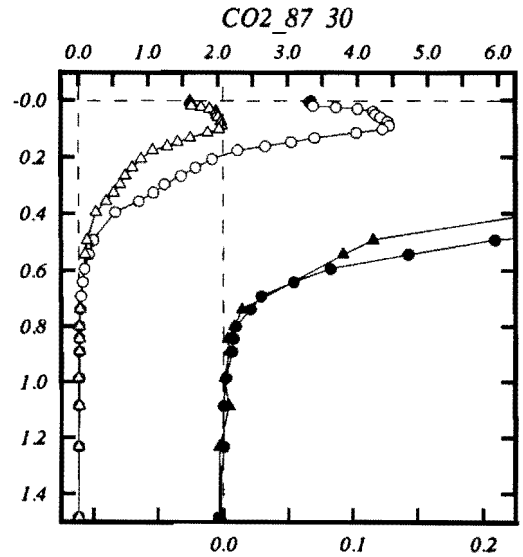


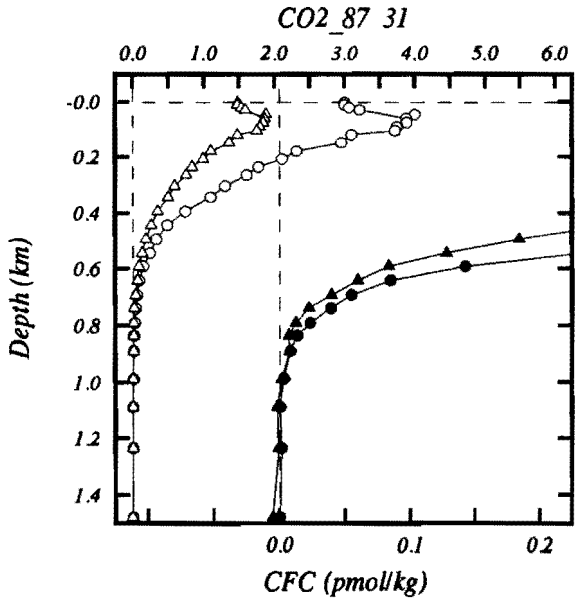
Locations of Stations on This Page

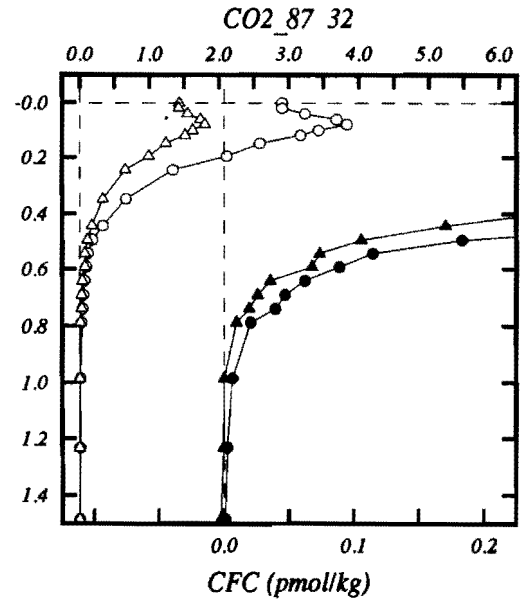




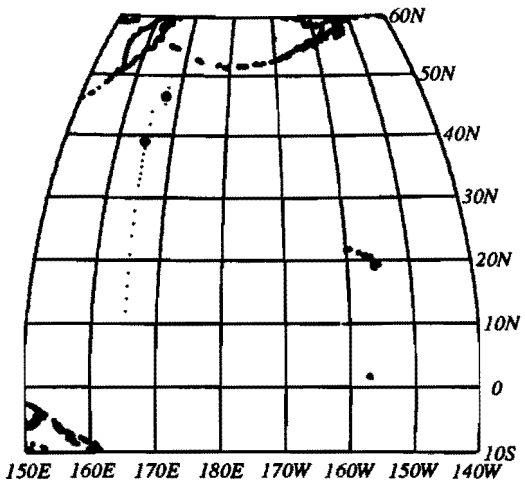




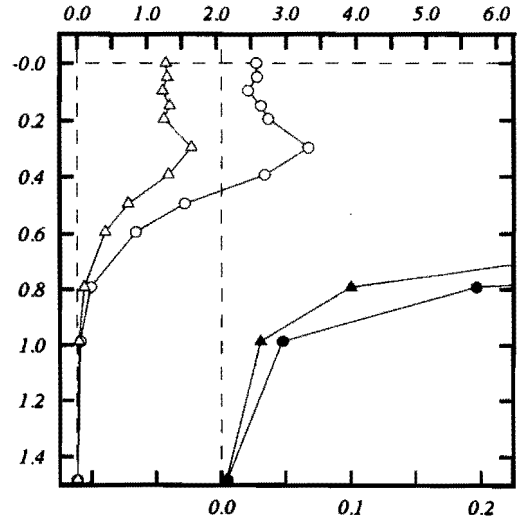




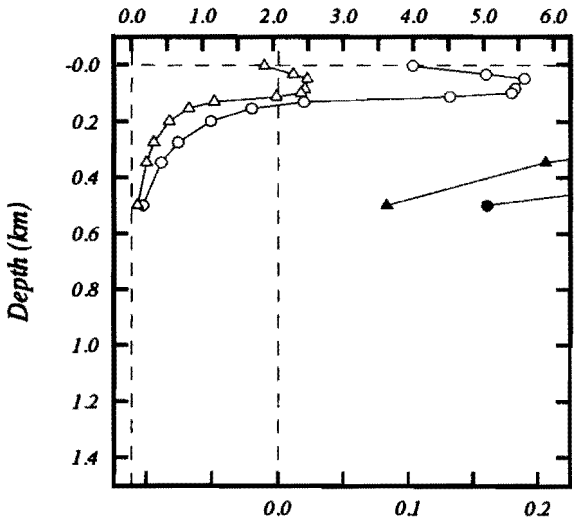
Locations of Stations on This Page



CO2_87 181



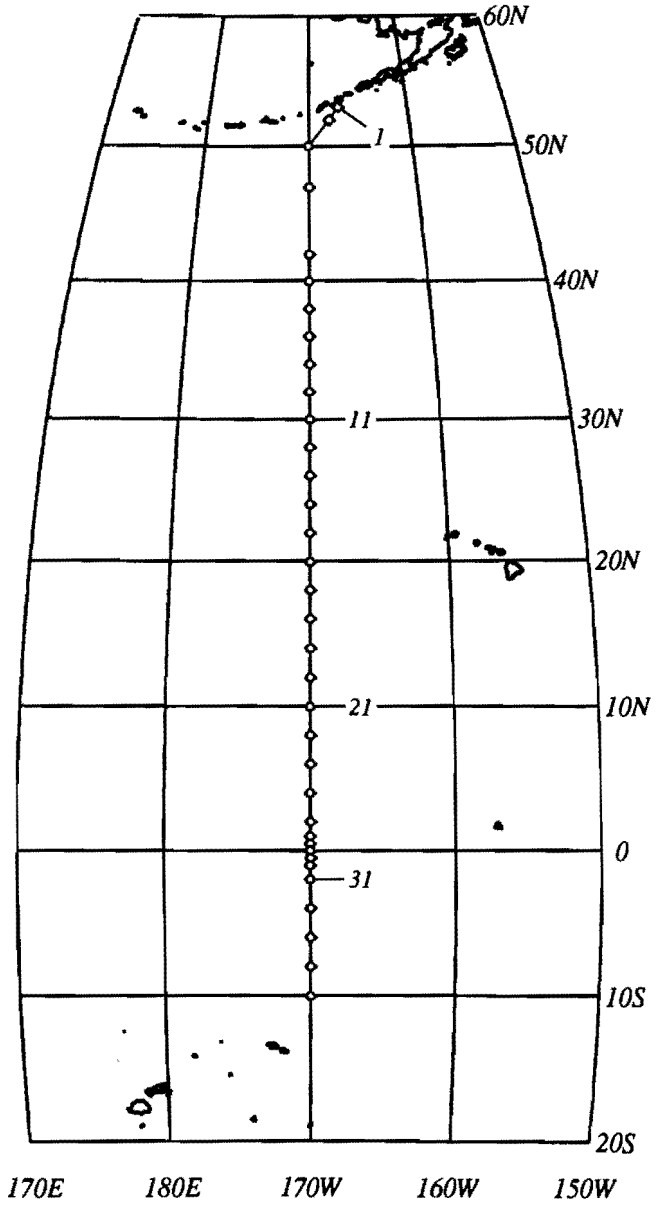
CO2_87 221



5.5 CO2-88 (OC-88-CO2)

This section includes the following data collected during the CO2-88 cruise (6 April to 5 May, 1988).

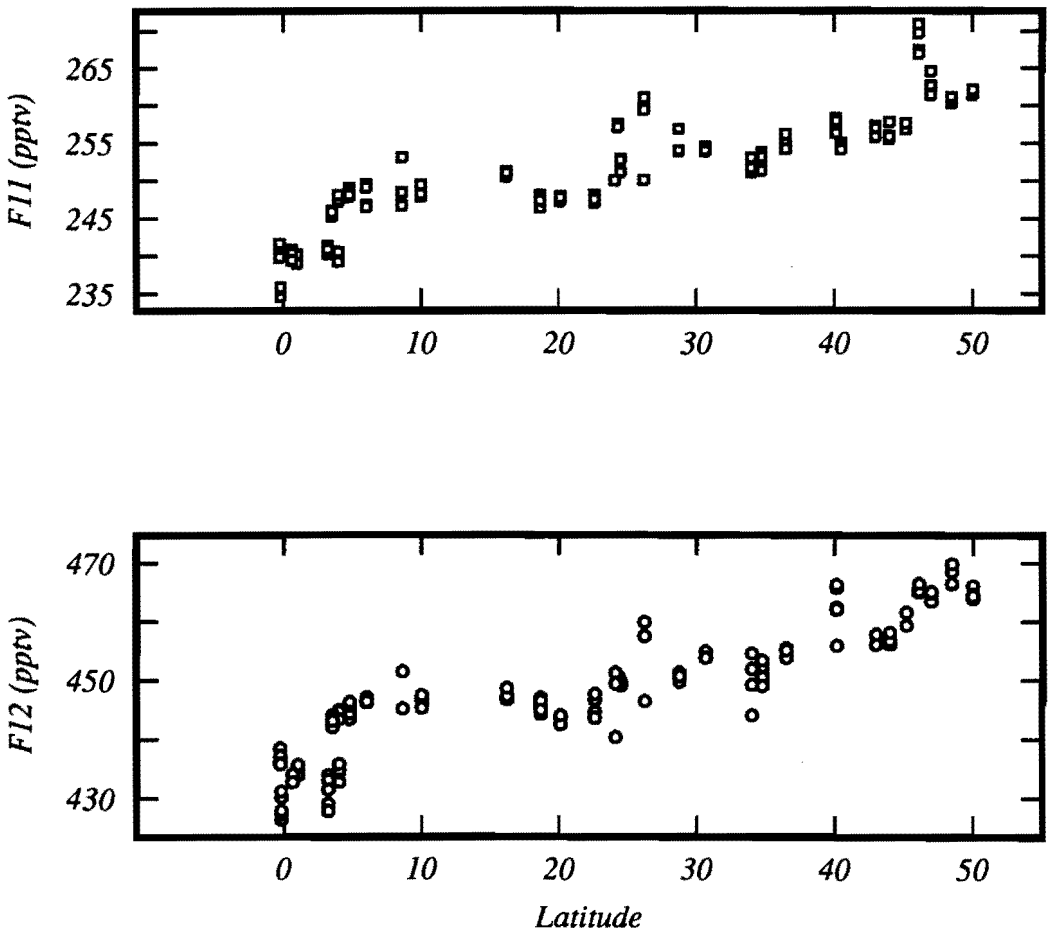
1) Station location plot.
2) Station location and bottom depth listing.
3) CFC atmospheric measurement plot.
4) CFC atmospheric measurement listing.
5) Contoured sections of Potential Temperature, Salinity, Oxygen, CFC-11 and CFC-12 along 170° W from 10° S. to 53 N°, derived from bottle data.
6) Tables of hydrographic data including depth, pressure, potential temperature, salinity, sigma-theta, oxygen, CFC-11 and CFC-12. Atmospheric CFC-11 and CFC-12 values for each station are interpolated from surrounding air measurements, and used in calculating saturation values.
7) Individual vertical profiles of CFC-11 and CFC-12. Each page of CFC vertical profiles consists of a map of station locations and five station plots. Each station is plotted on two scales so that both high and low concentrations may be easily viewed. CFC-11 is represented by circles and CFC-12 by triangles; the solid symbols are plotted against the lower concentration scale on the bottom axis. Only the upper 1500 meters of data are displayed as the CFC signal is below detection limits in deeper water. Any station which has no CFC data in the range 0–1500 meters will appear as a blank box. Units are in picomoles per kilogram.



CO2-88 Station Locations.
R/V DISCOVERER
5 April - 4 May, 1987
Dutch Harbor - Pago Pago

CO2-88 Station Locations

STATION NUMBER	Date	Latitude	Longitude	BOTTOM DEPTH (M)
1	7 Apr 88	53 00.1 N	167 01.8 W	1563
2	7 Apr 88	52 00.2 N	168 00.0 W	5039
3	8 Apr 88	50 02.8 N	170 03.0 W	5358
4	9 Apr 88	46 59.6 N	169 59.8 W	5522
5	13 Apr 88	42 00.7 N	169 59.9 W	5987
6	14 Apr 88	40 00.4 N	170 01.2 W	5652
7	15 Apr 88	38 00.1 N	170 00.5 W	4693
8	16 Apr 88	35 59.7 N	170 00.2 W	5979
9	17 Apr 88	34 00.3 N	169 58.8 W	5817
10	17 Apr 88	31 59.9 N	170 00.6 W	5782
11	18 Apr 88	30 00.0 N	170 00.1 W	5425
12	19 Apr 88	28 00.0 N	170 00.0 W	4659
13	19 Apr 88	25 59.8 N	170 00.1 W	4426
14	20 Apr 88	23 59.5 N	169 58.1 W	4634
15	21 Apr 88	22 00.0 N	169 59.5 W	4825
16	21 Apr 88	19 57.4 N	169 59.1 W	3246
17	22 Apr 88	18 00.2 N	169 59.8 W	4813
18	23 Apr 88	16 00.1 N	169 59.7 W	4077
19	24 Apr 88	13 59.5 N	169 58.5 W	5928
20	24 Apr 88	12 00.1 N	169 59.3 W	5685
21	25 Apr 88	09 59.6 N	170 00.4 W	4389
22	26 Apr 88	07 59.5 N	169 58.9 W	5369
23	27 Apr 88	06 00.7 N	170 00.0 W	5421
24	28 Apr 88	04 00.4 N	170 00.2 W	5655
25	29 Apr 88	02 01.8 N	169 59.4 W	5414
26	30 Apr 88	01 00.6 N	170 00.3 W	5450
27	30 Apr 88	00 30.0 N	170 00.3 W	5009
28	1 May 88	00 00.3 N	170 00.5 W	5063
29	1 May 88	00 31.0 S	169 59.3 W	5752
30	2 May 88	01 01.7 S	170 02.2 W	5535
31	2 May 88	02 00.4 S	170 00.9 W	5302
32	3 May 88	04 00.3 S	169 59.9 W	5511
33	3 May 88	06 00.3 S	169 59.3 W	4812
34	4 May 88	08 00.2 S	169 59.7 W	5364
35	4 May 88	10 00.8 S	169 59.3 W	5021



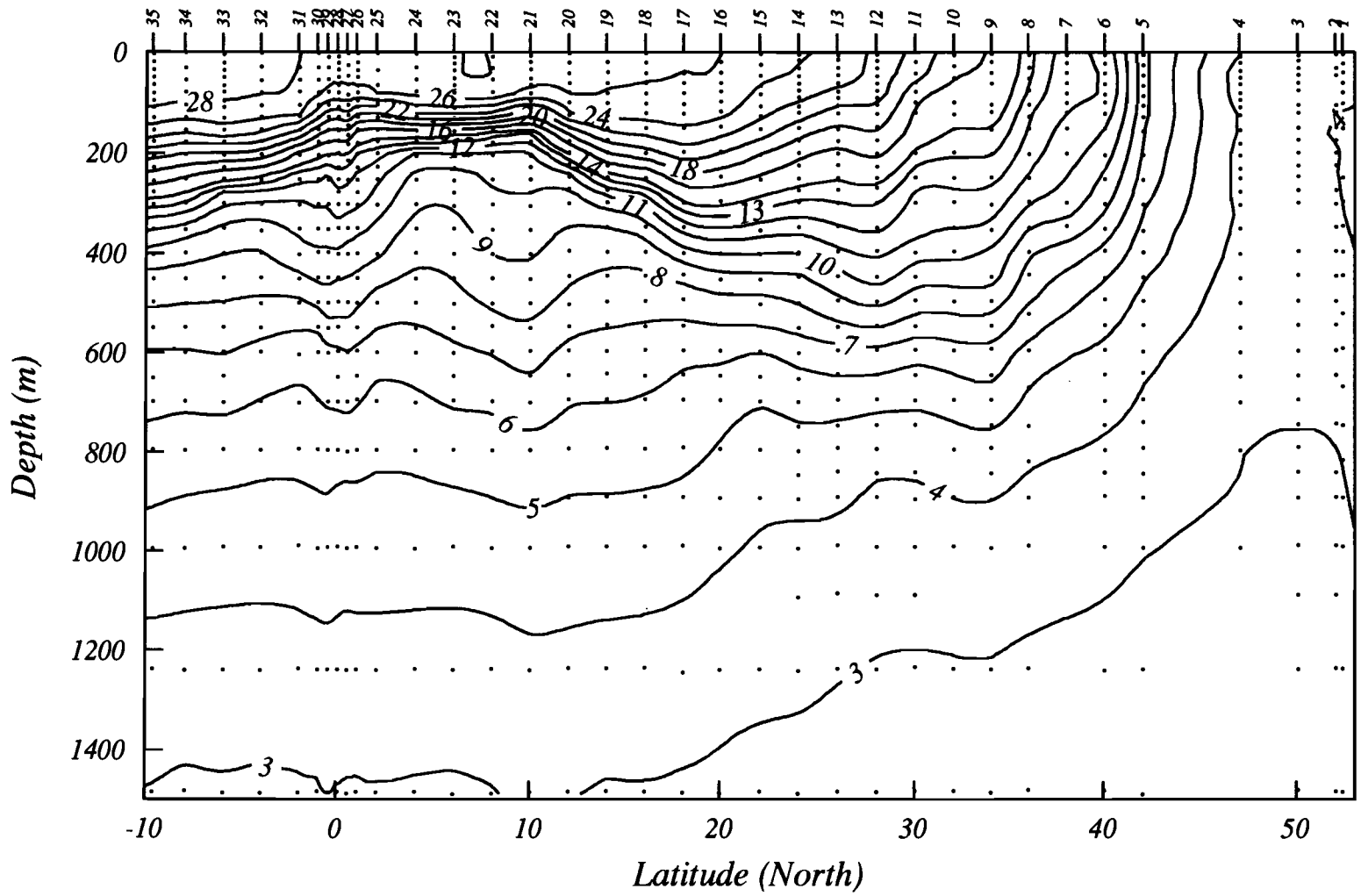
Atmospheric Measurements during the CO2-88 cruises. The average northern hemisphere concentrations of the two CFC's are 254.4 and 453.6 for CFC-11 and CFC-12, respectively.

CO2-88 Atmospheric Measurements

Latitude	Longitude	Date	Atm F-11	Atm F-12	Avg. F-11	%std F-11	Ave. F-11	%std F-11
50 0 N	170 0 W	8 Apr 88	261.5	463.9	261.9	0.1	464.7	0.2
50 0 N	170 0 W	8 Apr 88	262.1	466.1				
50 0 N	170 0 W	8 Apr 88	261.7	464.6				
50 0 N	170 0 W	8 Apr 88	262.1	464.3				
48 30 N	170 0 W	8 Apr 88	260.4	468.6	260.8	0.1	467.9	0.3
48 30 N	170 0 W	8 Apr 88	260.8	469.9				
48 30 N	170 0 W	8 Apr 88	260.7	466.4				
48 30 N	170 0 W	8 Apr 88	261.1	466.5				
47 0 N	170 0 W	9 Apr 88			262.9	0.5	464.4	0.1
47 0 N	170 0 W	9 Apr 88	264.6	463.4				
47 0 N	170 0 W	9 Apr 88	262.7	464.7				
47 0 N	170 0 W	9 Apr 88	261.4	465.0				
46 6 N	169 57 W	10 Apr 88	267.4	465.0	268.7	0.6	465.7	0.1
46 6 N	169 57 W	10 Apr 88	269.7	466.1				
46 6 N	169 57 W	10 Apr 88	270.9	465.3				
46 6 N	169 57 W	10 Apr 88	266.9	466.5				
45 12 N	171 18 W	11 Apr 88	257.3	459.4	257.2	0.1	460.8	0.2
45 12 N	171 18 W	11 Apr 88	256.8	461.6				
45 12 N	171 18 W	11 Apr 88	257.6	461.5				
44 0 N	170 0 W	12 Apr 88	257.8	456.1	256.3	0.3	456.9	0.2
44 0 N	170 0 W	12 Apr 88	255.9	456.6				
44 0 N	170 0 W	12 Apr 88	255.6	456.8				
44 0 N	170 0 W	12 Apr 88	255.9	458.1				
43 0 N	170 0 W	12 Apr 88	257.3	456.1	256.7	0.2	457.2	0.2
43 0 N	170 0 W	12 Apr 88	256.9	457.8				
43 0 N	170 0 W	12 Apr 88	255.9	457.8				
40 30 N	170 0 W	13 Apr 88	255.0		254.6	0.1		
40 30 N	170 0 W	13 Apr 88	254.5					
40 30 N	170 0 W	13 Apr 88	254.2					
40 9 N	170 0 W	14 Apr 88	257.5	462.4	257.6	0.2	463.7	0.4
40 9 N	170 0 W	14 Apr 88	258.3	465.7				
40 9 N	170 0 W	14 Apr 88	258.3	466.3				
40 9 N	170 0 W	14 Apr 88	257.1	462.0				
40 9 N	170 0 W	14 Apr 88	258.0	462.1				
40 9 N	170 0 W	14 Apr 88	256.3	455.9				
36 30 N	169 36 W	15 Apr 88	254.9	454.1	255.1	0.3	454.6	0.2
36 30 N	169 36 W	15 Apr 88	256.2	453.8				
36 30 N	169 36 W	15 Apr 88	254.9	455.5				
36 30 N	169 36 W	15 Apr 88	254.3	455.1				
34 45 N	170 0 W	16 Apr 88	253.8	451.8	252.3	0.3	451.8	0.2
34 45 N	170 0 W	16 Apr 88	251.7	450.9				
34 45 N	170 0 W	16 Apr 88	251.7	452.3				
34 45 N	170 0 W	16 Apr 88	253.1	450.5				
34 45 N	170 0 W	16 Apr 88	251.9	453.4				
34 45 N	170 0 W	16 Apr 88	251.4	449.0				
34 0 N	170 0 W	16 Apr 88		444.0	252.0	0.3	450.0	0.9
34 0 N	170 0 W	16 Apr 88	251.1	449.3				
34 0 N	170 0 W	16 Apr 88	251.7	451.9				
34 0 N	170 0 W	17 Apr 88	253.1	454.6				

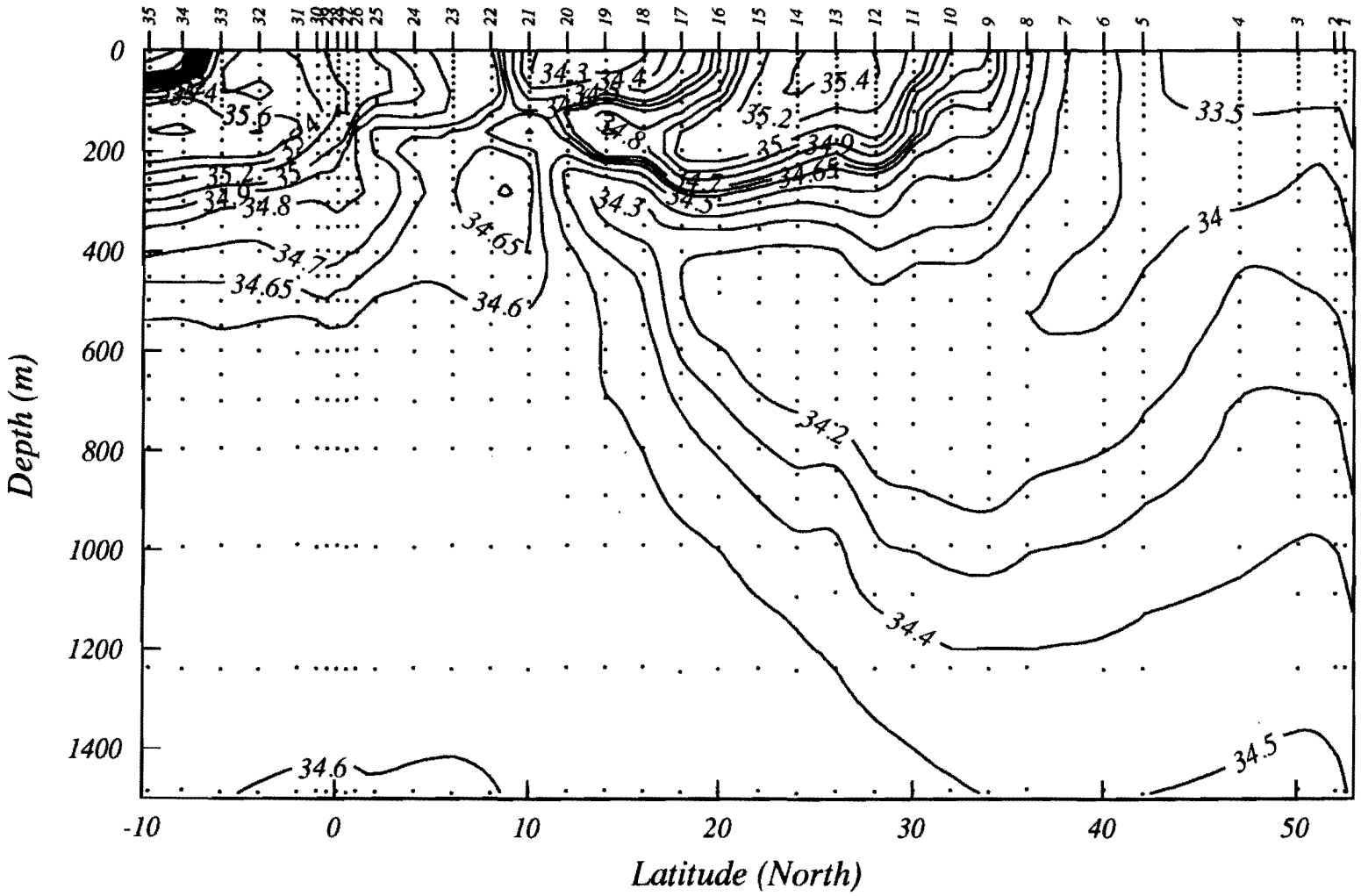
Latitude	Longitude	Date	Atm F-11	Atm F-12	Avg. F-11	%std F-11	Ave. F-11	%std F-11
30 39 N	170 0 W	17 Apr 88	253.9	454.9	254.1	0.1	454.5	0.1
30 39 N	170 0 W	17 Apr 88	254.5	454.8				
30 39 N	170 0 W	17 Apr 88	254.0	453.8				
28 44 N	170 0 W	18 Apr 88	253.9	449.7	254.9	0.5	450.6	0.1
28 44 N	170 0 W	18 Apr 88	256.8	451.3				
28 44 N	170 0 W	18 Apr 88	254.1	450.7				
26 12 N	170 0 W	19 Apr 88	261.0	457.5	256.8	1.9	454.6	1.3
26 12 N	170 0 W	19 Apr 88	259.4	459.9				
26 12 N	170 0 W	19 Apr 88	250.1	446.4				
24 30 N	170 0 W	19 Apr 88	251.1	449.1	252.3	0.3	449.4	0.0
24 30 N	170 0 W	19 Apr 88	252.9	449.6				
24 30 N	170 0 W	19 Apr 88	252.8	449.4				
24 18 N	170 0 W	19 Apr 88	257.6	450.7	257.4	0.1	450.7	0.1
24 18 N	170 0 W	19 Apr 88	257.2	450.3				
24 6 N	170 0 W	19 Apr 88		451.2	250.1		447.0	1.1
24 6 N	170 0 W	19 Apr 88	250.1	449.4				
24 6 N	170 0 W	19 Apr 88		440.3				
22 36 N	170 0 W	20 Apr 88	248.0	444.6	247.6	0.2	445.6	0.4
22 36 N	170 0 W	20 Apr 88	247.9	446.6				
22 36 N	170 0 W	20 Apr 88	247.0	447.6				
22 36 N	170 0 W	20 Apr 88	247.5	443.6				
20 6 N	170 0 W	21 Apr 88	247.3	443.6	247.6	0.1	443.4	0.1
20 6 N	170 0 W	21 Apr 88	247.3	443.4				
20 6 N	170 0 W	21 Apr 88	247.9	442.5				
20 6 N	170 0 W	21 Apr 88	247.7	444.0				
18 39 N	170 0 W	21 Apr 88	246.5	447.0	247.3	0.3	445.6	0.2
18 39 N	170 0 W	22 Apr 88	248.1	445.5				
18 39 N	170 0 W	22 Apr 88	246.4	444.2				
18 39 N	170 0 W	22 Apr 88	247.8	445.5				
18 39 N	170 0 W	22 Apr 88	247.5	446.0				
18 39 N	170 0 W	22 Apr 88	247.2	446.4				
18 39 N	170 0 W	22 Apr 88	247.3	444.9				
16 12 N	170 0 W	22 Apr 88		446.7	250.9	0.1	447.4	0.2
16 12 N	170 0 W	22 Apr 88	250.5	447.0				
16 12 N	170 0 W	22 Apr 88	251.2	447.2				
16 12 N	170 0 W	22 Apr 88	251.1	448.7				
10 0 N	170 0 W	24 Apr 88	249.3	446.9	248.7	0.3	446.5	0.2
10 0 N	170 0 W	24 Apr 88	247.9	446.4				
10 0 N	170 0 W	24 Apr 88	248.2	445.2				
10 0 N	170 0 W	24 Apr 88	249.4	447.4				
8 38 N	170 0 W	26 Apr 88	253.1		249.4	1.1	448.3	0.7
8 38 N	170 0 W	26 Apr 88	248.4	451.4				
8 38 N	170 0 W	26 Apr 88	246.7	445.1				
6 0 N	170 0 W	26 Apr 88	249.5	446.2	248.0	0.5	446.6	0.1
6 0 N	170 0 W	26 Apr 88	249.1	447.1				
6 0 N	170 0 W	26 Apr 88	246.7	446.6				
6 0 N	170 0 W	26 Apr 88	246.5	446.3				
4 46 N	170 0 W	27 Apr 88	248.9	443.4	248.5	0.2	445.0	0.2
4 46 N	170 0 W	27 Apr 88	249.0	445.5				
4 46 N	170 0 W	27 Apr 88	248.4	444.3				
4 46 N	170 0 W	27 Apr 88	247.9	445.5				
4 46 N	170 0 W	27 Apr 88	248.1	446.2				

Latitude	Longitude	Date	Atm F-11	Atm F-12	Avg. F-11	%std F-11	Ave. F-11	%std F-11
4 0 N	170 0 W	27 Apr 88	247.2	444.9	243.2	1.6	440.0	1.2
4 0 N	170 0 W	27 Apr 88	247.4	444.5				
4 0 N	170 0 W	27 Apr 88	248.1	443.3				
4 0 N	170 0 W	27 Apr 88	239.7	432.8				
4 0 N	170 0 W	27 Apr 88	239.2	434.4				
4 0 N	170 0 W	27 Apr 88	240.3	434.8				
4 0 N	170 0 W	27 Apr 88	240.5	435.8				
3 31 N	170 0 W	28 Apr 88	245.9	444.0	245.7	0.1	443.0	0.2
3 31 N	170 0 W	28 Apr 88	245.2	442.6				
3 31 N	170 0 W	28 Apr 88	245.7	442.0				
3 31 N	170 0 W	28 Apr 88	245.7	443.3				
3 31 N	170 0 W	28 Apr 88	245.8	443.1				
3 12 N	170 0 W	29 Apr 88	241.3	433.9	240.6	0.2	431.8	0.4
3 12 N	170 0 W	29 Apr 88	240.3	431.6				
3 12 N	170 0 W	29 Apr 88	240.8	433.1				
3 12 N	170 0 W	29 Apr 88	240.3	431.5				
3 12 N	170 0 W	29 Apr 88	240.2	429.0				
3 12 N	170 0 W	29 Apr 88	240.8	427.8				
1 0 N	170 0 W	29 Apr 88	239.5	434.5	239.5	0.2	434.7	0.2
1 0 N	170 0 W	29 Apr 88	240.1	433.9				
1 0 N	170 0 W	29 Apr 88	239.0	435.7				
0 36 N	170 0 W	30 Apr 88	240.8	433.0	240.2	0.2	433.3	0.1
0 36 N	170 0 W	30 Apr 88	240.4	434.1				
0 36 N	170 0 W	30 Apr 88	239.4	432.8				
0 18 N	170 0 W	1 May 88	240.4	438.5	240.5	0.3	437.0	0.2
0 18 N	170 0 W	1 May 88	240.3	436.3				
0 18 N	170 0 W	1 May 88	239.8	437.2				
0 18 N	170 0 W	1 May 88	241.6	435.8				
0 12 N	0 30 W	5 May 88	235.8	426.3	235.4	0.2	428.6	0.4
0 12 N	0 30 W	5 May 88	235.4	427.3				
0 12 N	0 30 W	5 May 88	234.6	430.2				
0 12 N	0 30 W	5 May 88	235.6	427.9				
0 12 N	0 30 W	5 May 88	235.8	431.2				



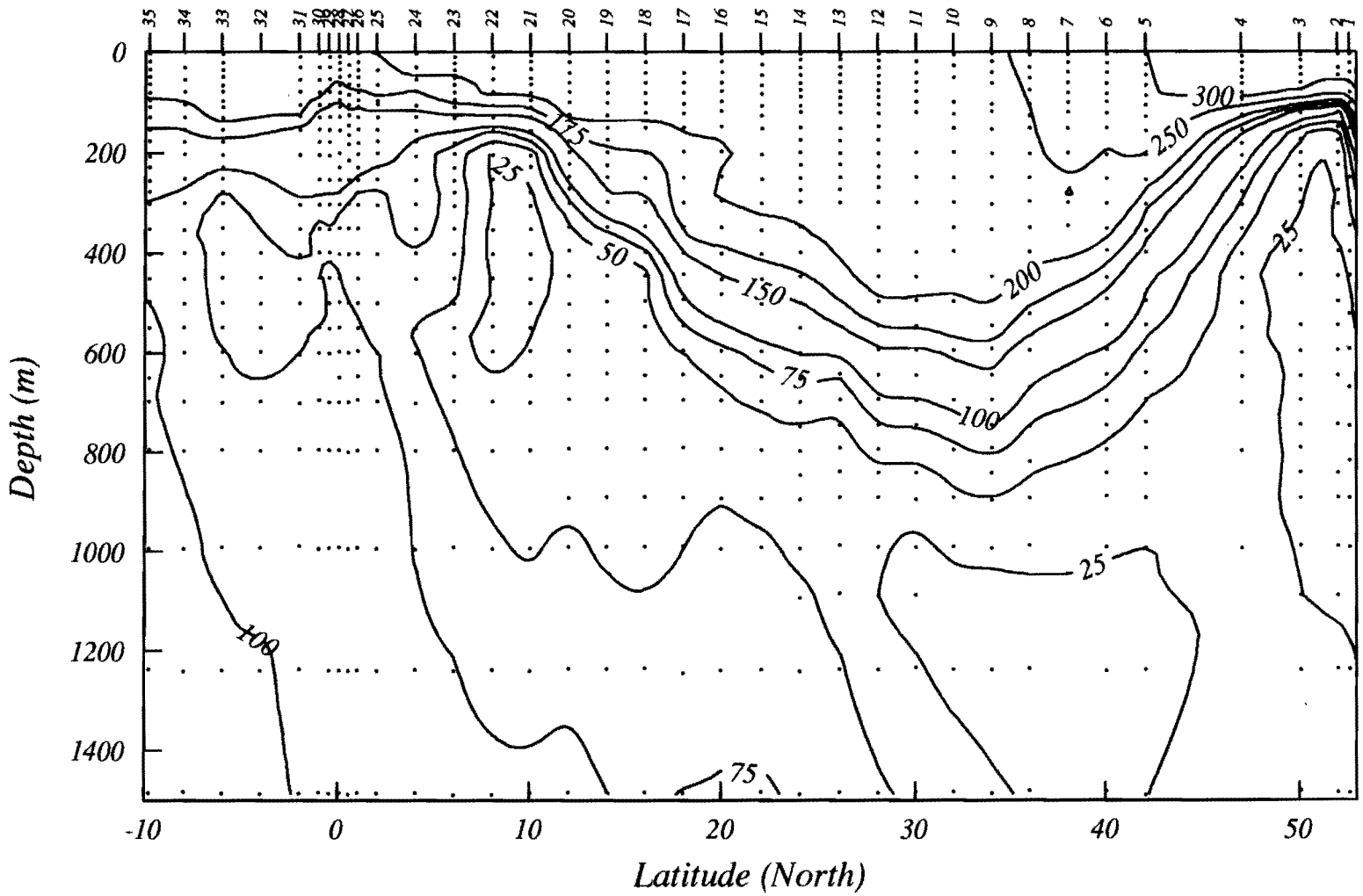
Potential Temperature (Degrees C.)

Potential Temperature section along 170 West during the CO2-88 Cruise.
Station numbers are indicated across the top.



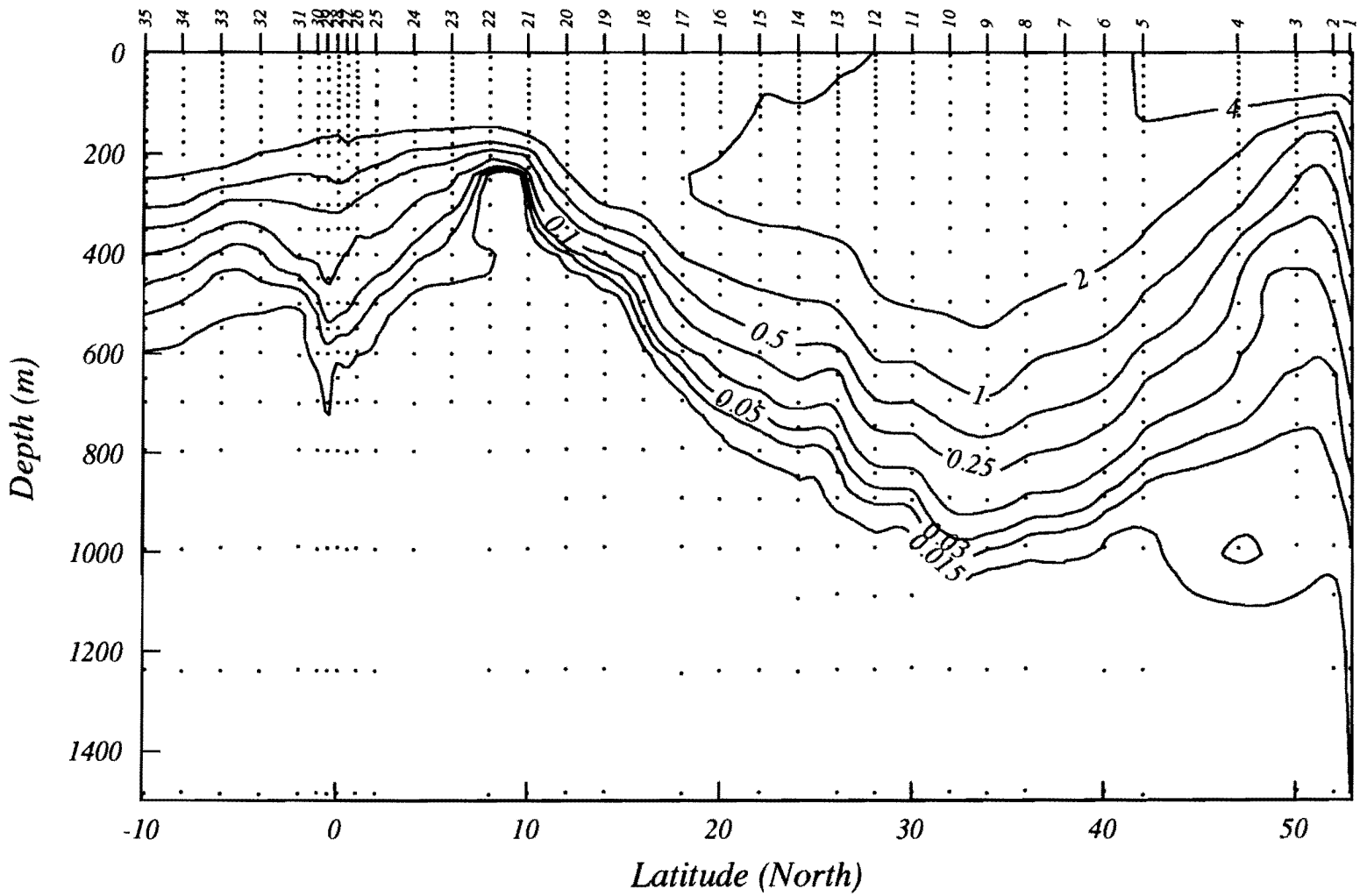
Salinity (PSU)

Salinity section along 170 West during the CO2-88 Cruise.
Station numbers are indicated across the top.



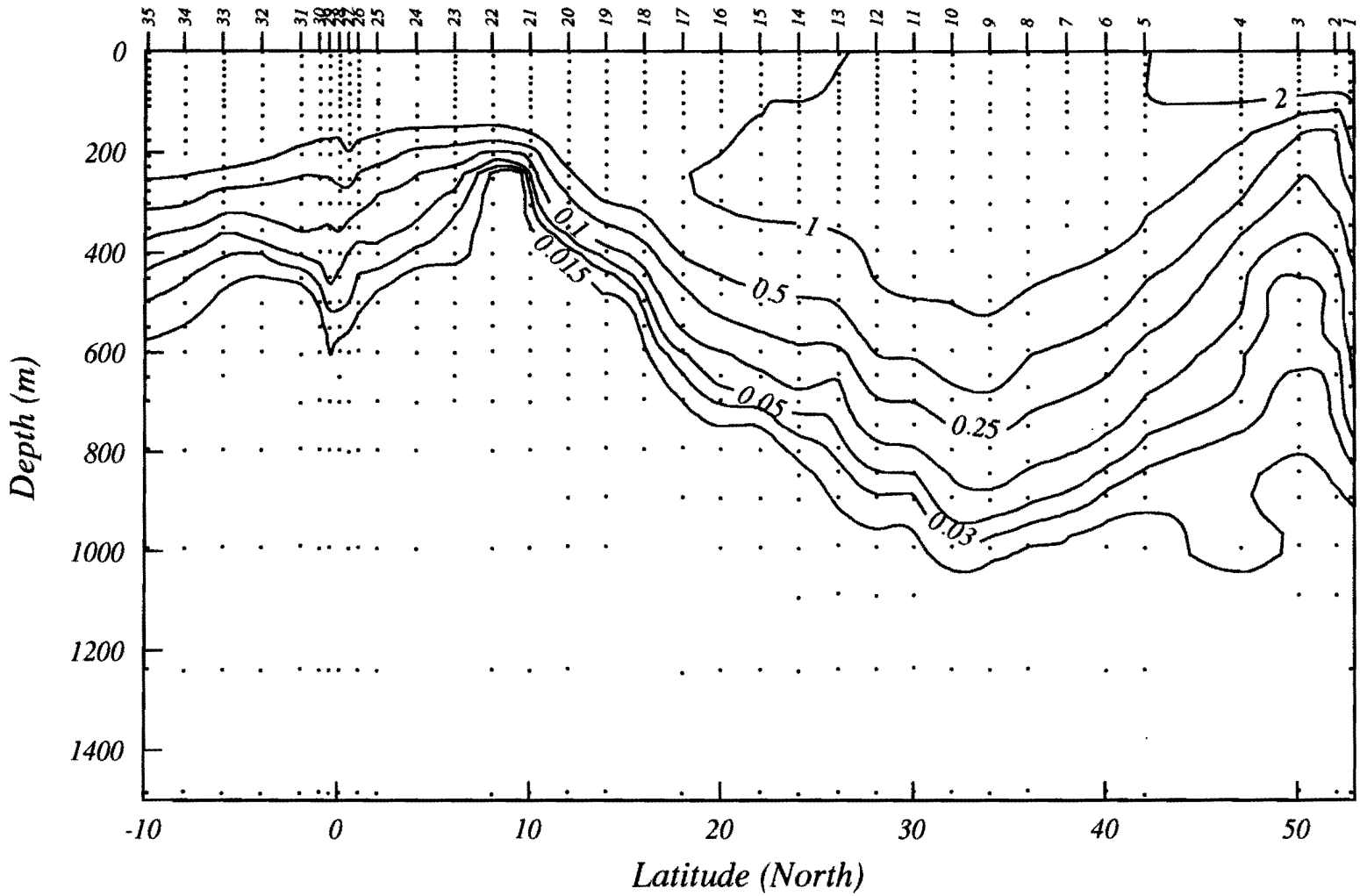
Oxygen (umole/Kg)

Dissolved Oxygen section along 170 West during the CO2-88 Cruise.
Station numbers are indicated across the top.



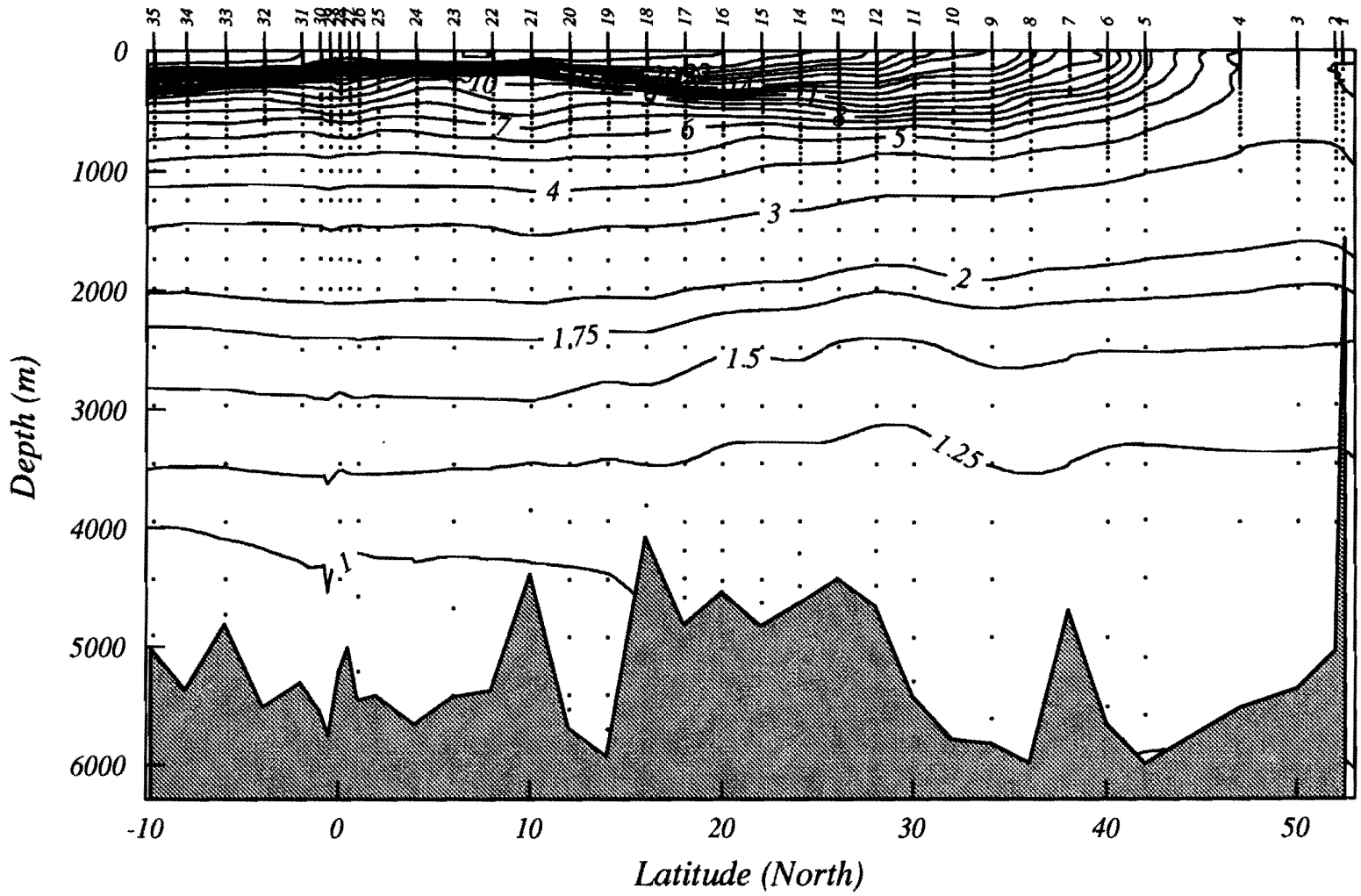
CFC-11 (pmole/Kg)

CFC-11 section along 170 West during the CO2-88 Cruise.
Station numbers are indicated across the top.



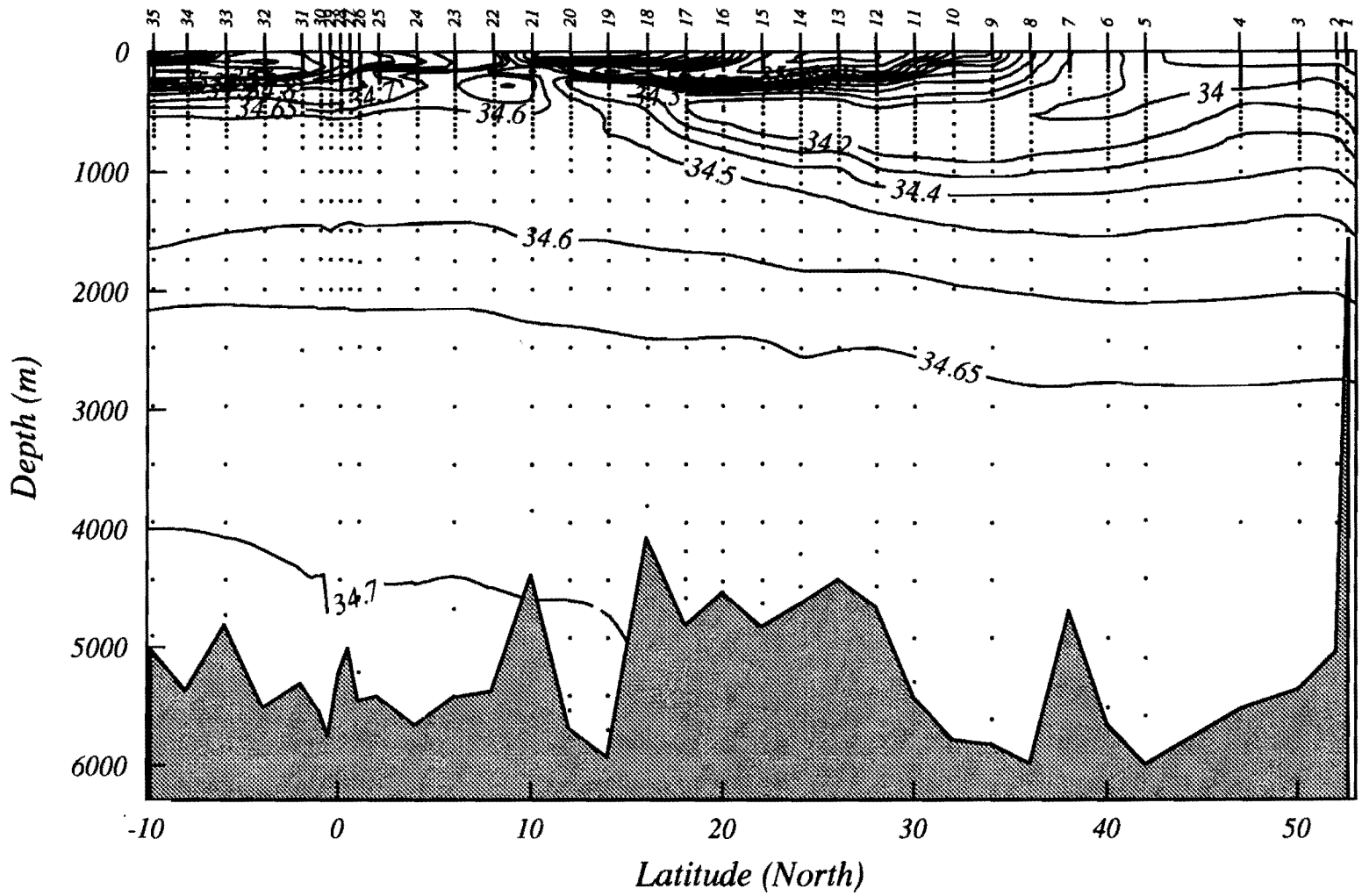
CFC-12 (pmole/Kg)

CFC-12 section along 170 West during the CO2-88 Cruise.
Station numbers are indicated across the top.



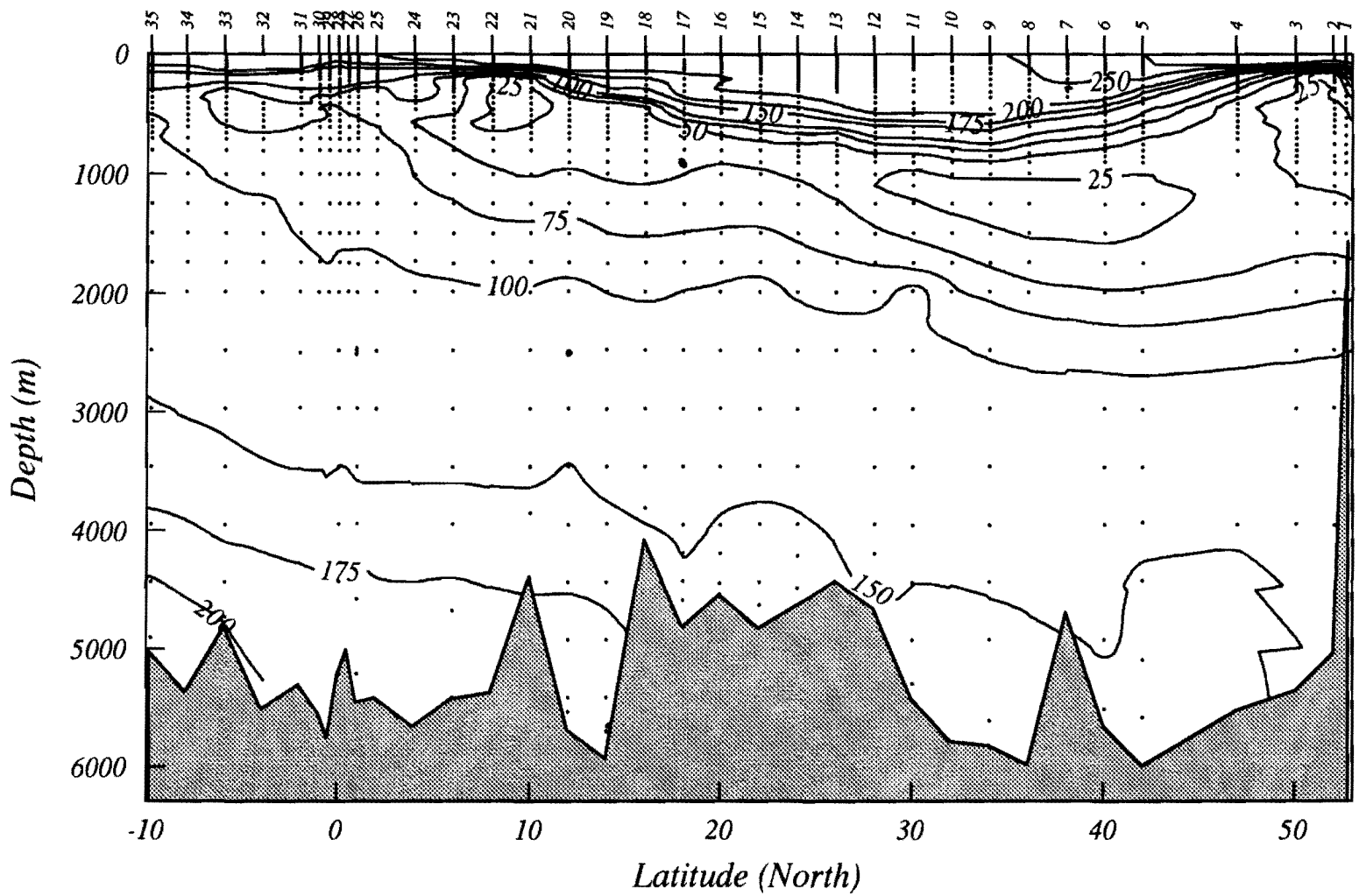
Potential Temperature (Degrees C.)

Potential Temperature section along 170 West during the CO2-88 Cruise. Station numbers are indicated across the top.



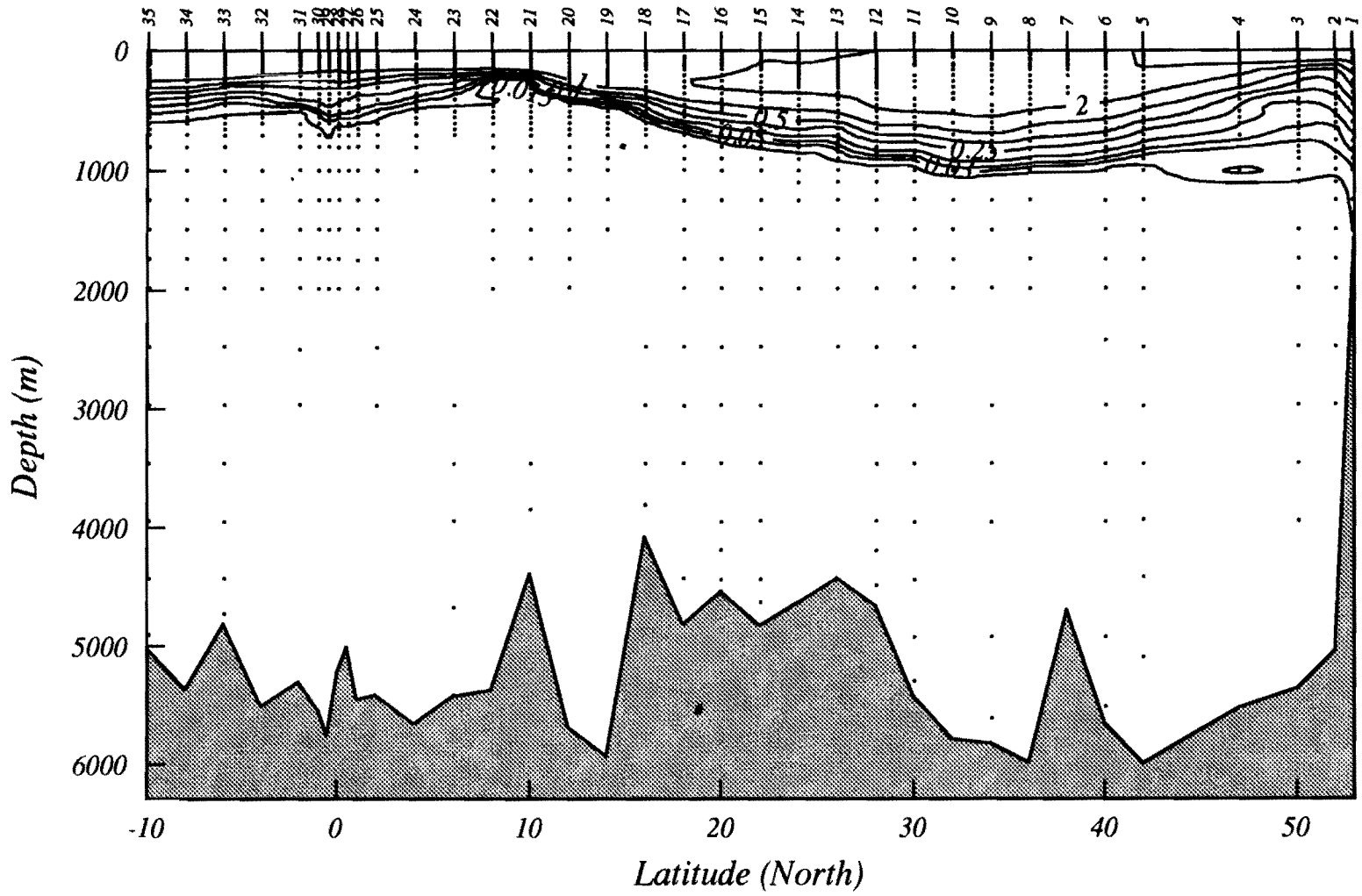
Salinity (PSU)

Salinity section along 170 West during the CO2-88 Cruise.
Station numbers are indicated across the top.



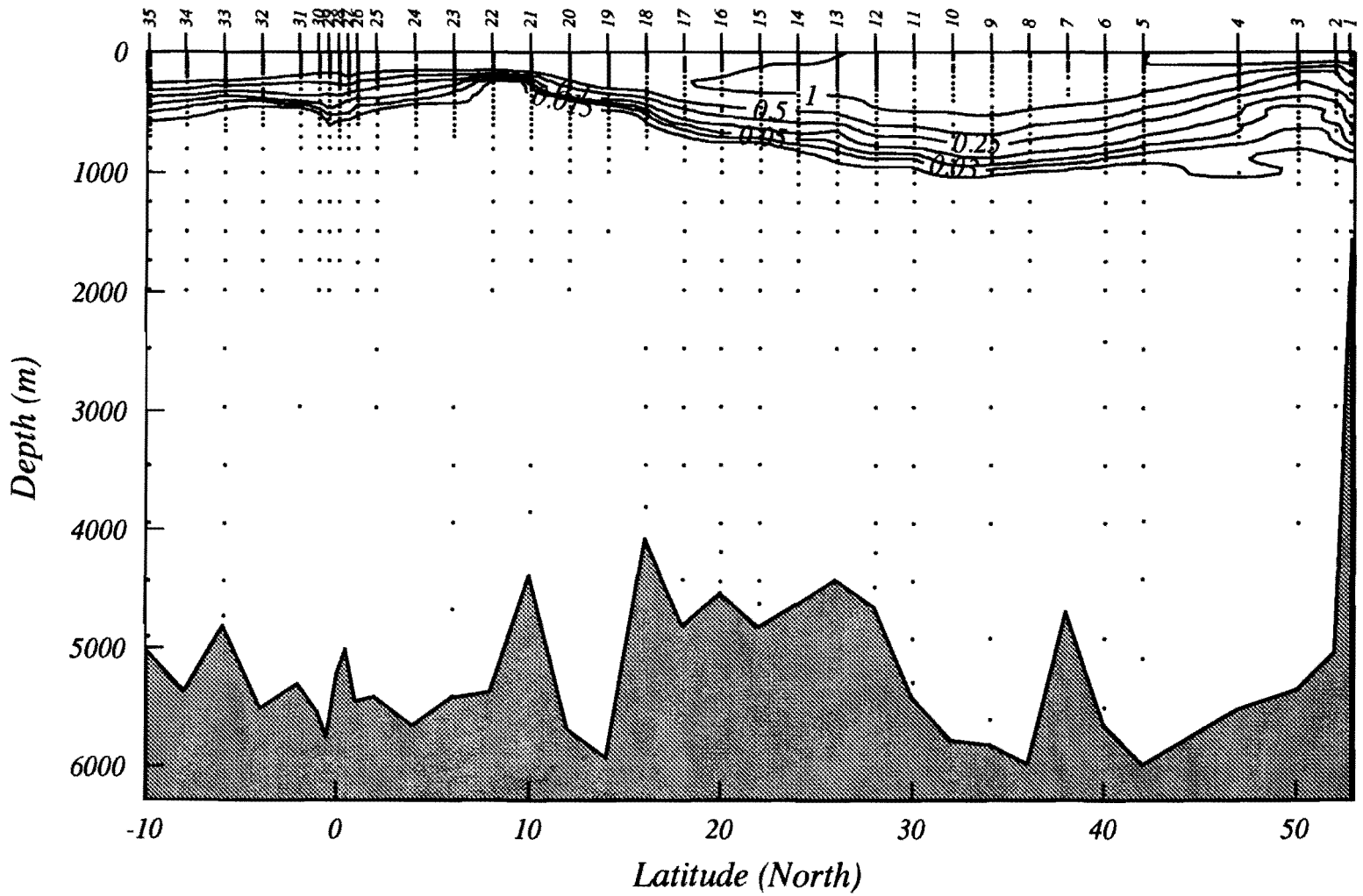
Oxygen (umole/Kg)

Dissolved Oxygen section along 170 West during the CO2-88 Cruise.
Station numbers are indicated across the top.



CFC-11 (pmole/Kg)

CFC-11 section along 170 West during the CO2-88 Cruise.
Station numbers are indicated across the top.



CFC-12 (pmole/Kg)

CFC-12 section along 170 West during the CO2-88 Cruise.
Station numbers are indicated across the top.

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
1	7 Apr 88	53 00.1 N	167 01.8 W	1563	261.7	465.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
123	2	2	3.610	31.977	25.419	323	5.185	2.424	0.99	0.91	0.95	2.14	1000
122	20	20	3.598	31.977	25.420	325	5.153	2.373	1.00	0.90	0.93	2.17	1000
120	58	59	3.453	31.972	25.429	319	4.986	2.328	0.98	0.87	0.91	2.14	1000
119	78	78	3.509	32.001	25.447	318	4.880	2.428	0.97	0.85	0.95	2.01	1000
118	99	100	4.087	32.166	25.524	287	4.523	2.277	0.89	0.82	0.92	1.99	1000
116	149	149	4.731	32.685	25.870	268	4.180	2.074	0.85	0.79	0.87	2.02	1000
114	247	248	5.134	33.748	26.668	109	1.801	0.843	0.35	0.35	0.37	2.14	1000
113	295	296	4.809	33.843	26.780	90	1.328	-9.000	0.29	0.26	-9.00	-9.00	1020
112	343	345	4.339	33.912	26.885	61	0.954	0.501	0.19	0.18	0.21	1.91	1000
111	395	397	4.056	33.950	26.945	44	0.718	0.424	0.14	0.13	0.17	1.69	1000
110	442	445	3.969	33.992	26.988	38	0.546	-9.000	0.12	0.10	-9.00	-9.00	1020
109	519	522	3.858	34.053	27.047	32	0.355	0.213	0.10	0.06	0.09	1.67	1000
108	589	592	3.751	34.103	27.098	27	0.230	0.151	0.08	0.04	0.06	1.52	1000
107	666	670	3.616	34.159	27.156	23	0.136	0.134	0.07	0.02	0.05	1.02	1000
106	743	748	3.494	34.204	27.203	20	0.083	-9.000	0.06	0.01	-9.00	-9.00	1020
105	813	819	3.371	34.237	27.242	20	0.072	0.029	0.06	0.01	-9.00	-9.00	1002
104	889	895	3.219	34.279	27.289	18	0.037	0.013	0.06	0.01	-9.00	-9.00	1002
103	989	996	3.033	34.322	27.341	18	0.038	-9.000	0.06	0.01	-9.00	-9.00	1021
102	1234	1244	2.730	34.391	27.423	23	0.023	0.005	0.07	-9.00	-9.00	-9.00	1003
101	1484	1497	2.306	34.479	27.530	32	0.019	0.019	0.10	-9.00	-9.00	-9.00	1121

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
2	7 Apr 88	52 00.2 N	168 00.0 W	5039	261.3	466.3

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
216	3	3	3.145	32.805	26.120	330	5.084	2.656	1.01	0.88	1.03	1.91	1000
214	29	29	3.132	32.806	26.122	327	5.084	2.649	1.00	0.88	1.02	1.92	1000
213	44	44	3.124	32.807	26.124	322	5.095	2.597	0.98	0.88	1.00	1.96	1000
211	103	103	3.428	33.144	26.365	217	3.659	1.704	0.67	0.64	0.67	2.15	1000
210	118	118	4.210	33.776	26.791	75	1.502	0.683	0.24	0.28	0.28	2.20	1000
209	118	118	4.210	33.780	26.794	74	1.482	0.664	0.23	0.28	0.27	2.23	1000
207	147	148	4.050	33.867	26.880	50	1.109	0.521	0.16	0.20	0.21	2.13	1000
208	147	148	4.050	33.867	26.880	50	1.109	0.513	0.16	0.20	0.21	2.16	1000
206	172	173	3.973	33.917	26.927	41	0.860	0.414	0.13	0.16	0.17	2.08	1000
205	197	198	3.914	33.950	26.960	32	0.680	-9.000	0.10	0.12	-9.00	-9.00	1020
204	222	223	3.864	33.980	26.989	27	0.555	-9.000	0.08	0.10	-9.00	-9.00	1020
202	272	273	3.820	34.020	27.025	24	0.410	-9.000	0.07	0.07	-9.00	-9.00	1020
201	299	300	3.787	34.041	27.045	21	0.365	-9.000	0.07	0.07	-9.00	-9.00	1020
324	345	347	3.700	34.090	27.093	-9	0.261	0.135	-9.00	0.05	0.05	1.94	1000
323	393	396	3.628	34.132	27.133	23	0.172	0.090	0.07	0.03	0.04	1.92	1000
322	443	446	3.521	34.170	27.174	19	0.140	0.079	0.06	0.03	0.03	1.78	1000
321	494	497	3.435	34.203	27.208	18	0.101	0.059	0.06	0.02	0.02	1.72	1000
320	541	545	3.355	34.234	27.241	17	0.071	-9.000	0.05	0.01	-9.00	-9.00	1020
319	592	596	3.258	34.260	27.271	17	0.060	0.038	0.05	0.01	0.01	1.59	1002
318	643	647	3.171	34.285	27.299	18	0.043	0.033	0.06	0.01	0.01	1.18	1102
316	741	746	3.029	34.321	27.340	17	0.036	-9.000	0.05	0.01	-9.00	-9.00	1021
314	838	844	2.871	34.356	27.383	20	0.030	-9.000	0.06	0.01	-9.00	-9.00	1021
313	889	895	2.794	34.376	27.406	19	0.025	0.014	0.06	-9.00	-9.00	-9.00	1003
312	986	994	2.662	34.404	27.439	21	0.013	0.009	0.06	-9.00	-9.00	-9.00	1003
311	1087	1095	2.519	34.435	27.476	23	0.011	0.006	0.07	-9.00	-9.00	-9.00	1003
310	1234	1244	2.339	34.473	27.522	30	0.007	-9.000	0.09	-9.00	-9.00	-9.00	1023
309	1483	1496	2.087	34.528	27.587	42	0.005	0.002	0.13	-9.00	-9.00	-9.00	1003
308	1727	1743	1.892	34.567	27.633	54	0.003	0.000	0.16	-9.00	-9.00	-9.00	1003
307	1976	1996	1.726	34.598	27.671	73	0.004	0.000	0.22	-9.00	-9.00	-9.00	1003
306	2466	2494	1.494	34.636	27.719	96	0.006	0.003	0.29	-9.00	-9.00	-9.00	1003
305	2952	2989	1.326	34.661	27.751	118	0.007	0.003	0.35	-9.00	-9.00	-9.00	1003
304	3452	3499	1.210	34.677	27.771	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
302	3946	4005	1.144	34.684	27.782	146	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
3	8 Apr 88	50 02.8 N	170 03.0 W	5358	262.5	464.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
522	4	4	3.107	32.810	26.128	-9	5.271	2.410	-9.00	0.90	0.93	2.19	1000
521	4	4	3.107	32.816	26.133	331	5.047	2.389	1.01	0.86	0.92	2.11	1000
520	4	4	3.107	32.811	26.129	331	5.248	2.463	1.01	0.90	0.95	2.13	1000
519	14	14	3.106	32.810	26.128	331	5.276	2.439	1.01	0.90	0.94	2.16	1000
518	29	29	3.106	32.811	26.129	331	5.242	2.462	1.01	0.90	0.95	2.13	1000
517	43	43	3.106	32.811	26.129	336	5.297	2.471	1.02	0.91	0.96	2.14	1000
516	58	58	3.108	32.812	26.129	330	5.220	2.415	1.01	0.89	0.93	2.16	1000
515	73	73	3.107	32.814	26.131	328	5.200	2.432	1.00	0.89	0.94	2.14	1000
513	102	103	3.516	33.064	26.293	248	4.201	1.940	0.76	0.74	0.77	2.17	1000
512	118	119	4.164	33.707	26.741	88	1.784	0.794	0.28	0.33	0.33	2.25	1000
511	148	149	4.055	33.870	26.882	56	1.104	0.514	0.18	0.20	0.21	2.15	1000
510	172	173	3.897	33.888	26.912	55	1.061	0.473	0.17	0.19	0.19	2.24	1000
509	197	198	3.847	33.932	26.952	41	0.837	0.383	0.13	0.15	0.16	2.18	1000
508	223	224	3.915	33.979	26.983	36	0.572	0.269	0.11	0.10	0.11	2.13	1000
507	245	246	3.873	34.001	27.004	29	0.504	0.238	0.09	0.09	0.10	2.12	1000
506	272	273	3.825	34.028	27.031	28	0.433	0.208	0.09	0.08	0.08	2.08	1000
505	296	298	3.761	34.052	27.056	27	0.378	0.198	0.08	0.07	0.08	1.91	1000
604	394	396	3.651	34.124	27.124	22	0.204	0.105	0.07	0.04	0.04	1.94	1001
603	442	444	3.587	34.163	27.162	21	0.126	0.075	0.07	0.02	0.03	1.69	1000
602	493	496	3.460	34.198	27.202	-9	0.089	0.040	-9.00	0.02	0.02	2.21	1000
601	542	545	3.378	34.225	27.231	18	0.077	0.038	0.06	0.01	0.02	2.03	1000
623	594	598	3.266	34.254	27.265	20	0.066	0.051	0.06	0.01	0.02	1.29	1000
624	594	598	3.266	34.253	27.264	22	0.089	0.043	0.07	0.02	0.02	2.06	1000
622	643	648	3.204	34.275	27.288	21	0.043	0.027	0.06	0.01	-9.00	-9.00	1002
621	692	696	3.106	34.301	27.317	20	0.054	0.019	0.06	0.01	-9.00	-9.00	1002
620	742	747	3.039	34.318	27.337	16	0.028	0.028	0.05	-9.00	-9.00	-9.00	1002
619	788	794	2.952	34.336	27.359	21	0.031	0.017	0.06	0.01	-9.00	-9.00	1002
618	838	844	2.870	34.359	27.385	18	0.025	0.007	0.06	-9.00	-9.00	-9.00	1003
617	889	895	2.784	34.377	27.407	20	0.023	0.010	0.06	-9.00	-9.00	-9.00	1003
616	986	993	2.657	34.405	27.441	24	0.025	0.017	0.07	-9.00	-9.00	-9.00	1003
615	1086	1095	2.543	34.429	27.470	25	0.014	0.001	0.08	-9.00	-9.00	-9.00	1003
614	1236	1246	2.336	34.473	27.522	31	-9.000	-9.000	0.09	-9.00	-9.00	-9.00	1000
613	1479	1492	2.066	34.531	27.591	41	0.002	-0.005	0.12	-9.00	-9.00	-9.00	1003
612	1726	1742	1.881	34.569	27.636	54	0.000	-0.004	0.16	-9.00	-9.00	-9.00	1003
611	1975	1995	1.736	34.597	27.669	68	-0.005	-0.004	0.20	-9.00	-9.00	-9.00	1003
610	2467	2495	1.504	34.635	27.717	95	-0.002	-0.008	0.28	-9.00	-9.00	-9.00	1003
609	2957	2995	1.334	34.661	27.750	119	-0.002	-0.004	0.35	-9.00	-9.00	-9.00	1003
608	3448	3496	1.226	34.674	27.768	134	-0.001	-0.002	0.40	-9.00	-9.00	-9.00	1003
607	3938	3997	1.152	34.683	27.780	145	-0.001	-0.005	0.43	-9.00	-9.00	-9.00	1003
606	3938	3997	1.152	34.683	27.780	-9	-0.002	-0.006	-9.00	-9.00	-9.00	-9.00	1003
605	3940	3999	1.153	34.683	27.780	-9	0.004	0.001	-9.00	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
4	9 Apr 88	46 59.6 N	169 59.8 W	5522	262.5	464.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
720	6	6	3.535	32.997	26.238	325	5.122	2.378	1.00	0.90	0.94	2.15	1000
719	19	19	3.533	33.000	26.241	320	5.103	2.381	0.99	0.90	0.95	2.14	1000
718	35	35	3.535	33.001	26.241	325	5.118	2.412	1.00	0.90	0.96	2.12	1000
717	48	48	3.534	33.001	26.241	322	5.077	2.381	0.99	0.89	0.95	2.13	1000
716	61	62	3.534	33.000	26.240	320	5.112	2.416	0.99	0.90	0.96	2.12	1000
715	79	80	3.533	33.001	26.241	331	5.110	2.388	1.02	0.90	0.95	2.14	1000
714	92	93	3.530	33.002	26.243	327	5.134	2.397	1.01	0.90	0.95	2.14	1000
713	107	108	3.616	33.215	26.404	-9	4.423	2.051	-9.00	0.78	0.82	2.16	1000
712	123	124	3.838	33.655	26.733	176	2.989	1.390	0.55	0.54	0.57	2.15	1000
711	152	153	3.650	33.714	26.798	149	2.504	1.129	0.46	0.45	0.45	2.22	1000
710	179	180	3.569	33.753	26.837	135	2.165	0.957	0.42	0.39	0.38	2.26	1000
709	203	204	3.582	33.797	26.871	110	1.849	0.810	0.34	0.33	0.33	2.28	1000
708	229	230	3.597	33.843	26.906	89	1.596	0.692	0.28	0.28	0.28	2.31	1000
707	249	250	3.605	33.874	26.930	84	1.370	0.600	0.26	0.24	0.24	2.28	1000
706	276	277	3.623	33.925	26.969	71	1.128	0.497	0.22	0.20	0.20	2.27	1000
705	301	303	3.629	33.952	26.990	61	0.980	0.431	0.19	0.18	0.17	2.28	1000
809	349	351	3.610	34.164	27.160	37	0.252	0.131	0.11	0.05	0.05	1.93	1000
808	400	402	3.577	34.203	27.195	28	0.192	0.100	0.09	0.03	0.04	1.92	1000
807	449	451	3.515	34.242	27.232	27	0.146	0.073	0.09	0.03	0.03	2.03	1100
806	498	501	3.434	34.269	27.261	35	0.123	0.077	0.11	0.02	0.03	1.61	1000
805	547	551	3.348	34.287	27.284	27	0.111	0.052	0.08	0.02	0.02	2.12	1000
804	597	601	3.250	34.311	27.312	29	0.078	0.042	0.09	0.01	0.02	1.88	1000
803	646	650	3.172	34.242	27.264	50	-9.000	-9.000	0.15	-9.00	-9.00	-9.00	1030
802	697	702	3.107	34.349	27.356	29	0.080	0.051	0.09	0.01	0.02	1.57	1000
801	795	800	2.945	34.332	27.357	44	-9.000	-9.000	0.14	-9.00	-9.00	-9.00	1030
822	991	999	2.652	34.380	27.421	34	0.049	0.028	0.10	0.01	-9.00	-9.00	1002
811	3943	4003	1.141	34.675	27.775	150	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1033

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
5	13 Apr 88	42 00.7 N	169 59.9 W	5987	260.2	460.3

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
912	3	3	7.038	33.600	26.311	301	4.289	1.979	1.01	0.94	0.96	2.17	1000
911	24	24	7.105	33.608	26.308	296	4.285	1.970	1.00	0.95	0.96	2.18	1000
910	44	44	7.137	33.612	26.307	299	4.358	2.018	1.01	0.97	0.98	2.16	1000
909	64	64	7.180	33.622	26.309	296	4.135	1.926	1.00	0.92	0.94	2.15	1000
908	84	85	7.172	33.625	26.312	294	4.191	2.023	0.99	0.93	0.99	2.07	1000
907	104	104	7.165	33.624	26.312	295	4.338	1.986	1.00	0.96	0.97	2.18	1000
906	126	127	7.157	33.624	26.314	299	4.243	2.022	1.01	0.94	0.99	2.10	1000
905	155	156	7.019	33.664	26.364	288	4.038	1.881	0.97	0.89	0.91	2.15	1000
904	202	203	6.806	33.751	26.462	266	3.777	1.747	0.89	0.82	0.84	2.16	1000
903	251	252	6.724	33.885	26.578	235	3.172	1.493	0.79	0.69	0.71	2.13	1000
902	301	302	6.204	33.909	26.665	194	2.598	1.195	0.64	0.55	0.56	2.17	1000
901	353	355	5.594	33.896	26.730	167	2.201	0.993	0.54	0.45	0.45	2.22	1000
1012	396	398	5.555	33.939	26.769	149	1.762	0.790	0.49	0.36	0.36	2.23	1000
1011	445	448	5.126	33.987	26.858	-9	1.205	0.534	-9.00	0.24	0.24	2.26	1000
1010	493	496	4.799	34.020	26.921	98	0.916	0.396	0.31	0.18	0.17	2.32	1000
1009	542	545	4.578	34.054	26.972	84	0.657	0.291	0.27	0.13	0.12	2.26	1000
1008	595	599	4.270	34.107	27.048	65	0.404	0.176	0.21	0.08	0.07	2.30	1000
1007	638	642	4.098	34.143	27.094	57	0.259	0.131	0.18	0.05	0.05	1.98	1000
1006	691	696	3.888	34.182	27.147	48	0.143	0.085	0.15	0.03	0.04	1.69	1000
1005	737	742	3.746	34.208	27.182	41	0.100	0.055	0.13	0.02	0.02	1.83	1002
1004	789	794	3.612	34.234	27.216	36	0.065	0.040	0.11	0.01	0.02	1.63	1002
1003	840	846	3.451	34.266	27.257	35	0.032	0.028	0.11	0.01	-9.00	-9.00	1002
1002	889	895	3.319	34.292	27.290	28	0.025	0.017	0.09	-9.00	-9.00	-9.00	1003
1001	991	998	3.063	34.345	27.357	23	0.009	0.012	0.07	-9.00	-9.00	-9.00	1003
1112	1236	1246	2.586	34.437	27.472	23	0.001	0.005	0.07	-9.00	-9.00	-9.00	1003
1111	1488	1501	2.226	34.503	27.555	24	-0.002	0.002	0.07	-9.00	-9.00	-9.00	1003
1110	1732	1748	1.991	34.552	27.613	36	-0.002	0.003	0.11	-9.00	-9.00	-9.00	1003
1109	1977	1997	1.820	34.583	27.652	52	0.000	0.000	0.16	-9.00	-9.00	-9.00	1003
1108	2471	2499	1.528	34.632	27.713	84	-0.001	0.004	0.25	-9.00	-9.00	-9.00	1003
1107	2967	3004	1.321	34.660	27.750	118	-0.001	0.005	0.35	-9.00	-9.00	-9.00	1003
1106	3455	3502	1.201	34.674	27.770	137	-0.001	0.001	0.40	-9.00	-9.00	-9.00	1003
1105	3923	3981	0.737	34.682	27.807	146	0.001	0.002	0.43	-9.00	-9.00	-9.00	1003
1104	4413	4484	1.082	34.688	27.789	153	-0.002	0.002	0.45	-9.00	-9.00	-9.00	1003
1103	5088	5178	1.078	34.689	27.790	151	0.002	0.002	0.44	-9.00	-9.00	-9.00	1003
1102	5574	5679	1.062	34.688	27.791	153	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1033

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
6	14 Apr 88	40 00.4 N	170 01.2 W	5652	258.8	461.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1304	4	4	10.885	34.178	26.156	270	3.352	1.525	1.00	0.93	0.90	2.20	1000
1303	20	20	10.879	34.178	26.158	269	3.382	1.586	0.99	0.93	0.93	2.13	1000
1302	39	40	10.878	34.176	26.156	272	3.422	1.627	1.00	0.94	0.96	2.10	1000
1301	61	61	10.878	34.177	26.157	272	3.404	1.632	1.00	0.94	0.96	2.09	1000
1312	81	81	10.876	34.178	26.158	269	3.364	1.579	0.99	0.93	0.93	2.13	1000
1311	97	98	10.865	34.174	26.157	272	3.361	1.591	1.00	0.93	0.94	2.11	1000
1310	120	120	10.347	34.123	26.208	267	3.326	1.559	0.97	0.89	0.89	2.13	1000
1309	149	149	10.239	34.188	26.277	246	3.038	1.478	0.89	0.81	0.84	2.06	1000
1308	202	203	9.478	34.145	26.372	237	2.981	1.413	0.85	0.76	0.78	2.11	1000
1307	249	251	8.706	34.087	26.450	224	2.749	1.287	0.79	0.67	0.68	2.14	1000
1306	299	300	8.182	34.070	26.517	213	2.614	1.207	0.74	0.62	0.62	2.17	1000
1305	350	351	7.393	34.012	26.586	204	2.537	1.217	0.70	0.58	0.60	2.08	1000
1404	393	395	6.653	33.980	26.662	185	2.223	1.016	0.62	0.48	0.48	2.19	1000
1403	447	449	6.002	33.966	26.735	162	1.771	0.781	0.54	0.37	0.36	2.27	1000
1402	490	493	5.496	33.970	26.801	140	1.459	0.630	0.45	0.30	0.28	2.32	1000
1401	542	545	5.169	34.003	26.865	119	1.115	0.484	0.38	0.22	0.21	2.30	1000
1412	592	595	4.829	34.037	26.931	99	0.826	0.336	0.32	0.16	0.15	2.46	1000
1411	642	646	4.520	34.078	26.998	80	0.597	0.257	0.25	0.11	0.11	2.32	1000
1410	694	699	4.296	34.118	27.054	66	0.409	0.176	0.21	0.08	0.07	2.32	1000
1409	743	748	4.045	34.166	27.118	55	0.235	0.113	0.17	0.04	0.05	2.08	1000
1408	793	798	3.852	34.201	27.166	46	0.131	0.066	0.14	0.02	0.03	1.99	1000
1407	838	844	3.681	34.232	27.208	39	0.083	0.038	0.12	0.02	0.02	2.20	1002
1406	886	892	3.543	34.258	27.242	36	0.039	0.026	0.11	0.01	-9.00	-9.00	1002
1405	989	996	3.271	34.310	27.309	26	0.017	0.006	0.08	-9.00	-9.00	-9.00	1003
1503	1239	1248	2.709	34.422	27.450	19	0.002	0.005	0.06	-9.00	-9.00	-9.00	1003
1502	1480	1493	2.341	34.487	27.533	20	0.007	0.008	0.06	-9.00	-9.00	-9.00	1003
1501	1730	1746	2.038	34.546	27.605	33	0.004	0.003	0.10	-9.00	-9.00	-9.00	1003
1512	1975	1994	1.821	34.586	27.654	52	0.001	0.000	0.15	-9.00	-9.00	-9.00	1003
1511	2410	2436	1.538	34.632	27.712	-9	0.003	0.004	-9.00	-9.00	-9.00	-9.00	1003
1510	2958	2995	1.329	34.661	27.750	116	0.000	0.001	0.34	-9.00	-9.00	-9.00	1003
1509	3452	3500	1.206	34.674	27.770	137	-0.001	-0.004	0.40	-9.00	-9.00	-9.00	1003
1508	3943	4001	1.131	34.683	27.782	145	0.001	0.000	0.42	-9.00	-9.00	-9.00	1003
1506	4918	5003	1.090	34.687	27.788	148	0.001	-0.002	0.44	-9.00	-9.00	-9.00	1003
1505	5501	5604	1.086	34.688	27.789	153	-0.002	-0.002	0.45	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
7	15 Apr 88	38 00.1 N	170 00.5 W	4693	256.7	460.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1607	4	4	11.277	34.188	26.094	270	3.402	1.595	1.00	0.97	0.96	2.13	1000
1606	19	20	11.263	34.186	26.095	268	3.356	1.579	1.00	0.95	0.95	2.13	1100
1605	39	39	11.221	34.185	26.101	268	3.307	1.559	0.99	0.94	0.93	2.12	1100
1604	59	60	11.204	34.179	26.100	268	3.395	-9.000	0.99	0.96	-9.00	-9.00	1020
1603	79	80	11.146	34.172	26.105	270	3.410	1.588	1.00	0.96	0.95	2.15	1000
1602	99	99	11.112	34.166	26.106	268	3.373	1.590	0.99	0.95	0.95	2.12	1000
1601	118	119	10.986	34.159	26.124	270	3.415	1.623	1.00	0.95	0.96	2.10	1000
1612	149	150	10.438	34.143	26.208	268	3.449	1.620	0.98	0.94	0.93	2.13	1000
1611	198	199	10.325	34.135	26.221	270	3.416	1.618	0.98	0.92	0.93	2.11	1000
1609	297	298	9.686	34.061	26.272	266	3.407	1.599	0.95	0.89	0.89	2.13	1000
1608	343	345	8.881	34.079	26.416	236	2.994	1.433	0.83	0.75	0.77	2.09	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
8	16 Apr 88	35 59.7 N	170 00.2 W	5979	255.0	455.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1712	3	3	13.064	34.403	25.918	257	3.043	1.508	0.99	0.96	1.00	2.02	1000
1711	28	28	13.047	34.403	25.922	255	3.097	1.484	0.99	0.97	0.98	2.09	1000
1710	50	50	13.048	34.402	25.921	255	3.084	-9.000	0.99	0.97	-9.00	-9.00	1020
1709	73	73	12.859	34.396	25.954	252	2.983	1.436	0.97	0.93	0.94	2.08	1000
1708	101	102	12.050	34.327	26.057	251	3.097	1.474	0.95	0.92	0.93	2.10	1000
1707	125	125	11.894	34.312	26.075	249	3.083	1.502	0.94	0.91	0.94	2.05	1000
1706	149	149	11.682	34.305	26.110	245	3.039	1.437	0.92	0.89	0.89	2.11	1000
1705	200	201	11.198	34.270	26.172	242	2.955	1.404	0.90	0.84	0.85	2.10	1000
1704	247	248	10.684	34.266	26.261	227	2.698	1.291	0.83	0.75	0.76	2.09	1000
1703	295	297	9.753	34.182	26.355	228	2.778	1.324	0.82	0.73	0.75	2.10	1000
1702	346	348	8.455	34.076	26.480	220	2.641	1.245	0.77	0.65	0.66	2.12	1000
1701	395	397	7.912	34.054	26.544	203	2.394	1.140	0.70	0.57	0.59	2.10	1000
1812	440	442	7.346	34.023	26.601	194	2.250	1.058	0.66	0.52	0.53	2.13	1000
1811	519	522	6.246	33.989	26.723	161	1.681	0.780	0.53	0.36	0.37	2.16	1000
1810	593	596	5.416	34.013	26.844	122	1.088	0.503	0.40	0.22	0.23	2.17	1000
1809	667	671	4.818	34.061	26.952	91	0.680	0.313	0.29	0.13	0.14	2.17	1000
1808	745	750	4.368	34.129	27.055	67	0.355	0.174	0.21	0.07	0.07	2.05	1000
1807	816	822	4.033	34.179	27.130	53	0.206	0.100	0.17	0.04	0.04	2.05	1000
1806	890	896	3.700	34.236	27.209	39	0.066	0.052	0.12	0.01	0.02	1.27	1002
1805	986	993	3.388	34.302	27.292	30	0.022	0.011	0.09	-9.00	-9.00	-9.00	1003
1804	1234	1243	2.832	34.413	27.432	21	0.003	0.000	0.07	-9.00	-9.00	-9.00	1003
1803	1479	1492	2.396	34.500	27.539	21	-0.001	-0.002	0.06	-9.00	-9.00	-9.00	1003
1802	1728	1744	2.070	34.558	27.612	38	-0.002	-0.002	0.11	-9.00	-9.00	-9.00	1003
1801	1980	1999	1.835	34.596	27.661	57	0.000	-0.006	0.17	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
9	17 Apr 88	34 00.3 N	169 58.8 W	5817	253.1	451.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2004	1	1	15.914	34.713	25.547	245	2.685	1.361	1.01	0.99	1.03	1.97	1000
2003	17	17	15.903	34.711	25.548	247	2.692	-9.000	1.01	0.99	-9.00	-9.00	1020
2002	39	39	15.861	34.714	25.560	244	2.655	1.285	1.00	0.97	0.97	2.07	1000
2001	60	60	15.671	34.691	25.585	242	2.693	1.355	0.99	0.98	1.02	1.99	1000
2011	102	102	15.033	34.656	25.700	241	2.674	1.317	0.97	0.94	0.96	2.03	1000
2010	117	117	14.816	34.621	25.720	239	2.702	1.346	0.96	0.94	0.97	2.01	1000
2009	151	152	14.183	34.548	25.800	230	2.664	1.290	0.91	0.90	0.91	2.07	1000
2008	200	201	13.205	34.463	25.936	245	2.803	1.350	0.95	0.90	0.91	2.08	1000
2007	246	247	12.452	34.388	26.027	244	2.953	1.425	0.93	0.91	0.92	2.07	1000
2006	301	302	11.689	34.354	26.146	227	2.633	1.265	0.85	0.78	0.79	2.08	1000
2005	351	353	11.093	34.308	26.220	231	2.637	1.281	0.85	0.75	0.78	2.06	1000
2103	445	447	9.633	34.187	26.379	206	2.597	1.232	0.74	0.68	0.70	2.11	1000
2102	493	496	8.594	34.107	26.483	207	2.313	1.090	0.73	0.58	0.59	2.12	1000
2101	543	546	7.718	34.054	26.573	192	2.101	0.986	0.66	0.50	0.51	2.13	1000
2112	590	593	6.915	34.016	26.656	172	1.772	0.842	0.58	0.40	0.42	2.10	1000
2111	642	646	6.167	34.004	26.745	149	1.363	0.630	0.49	0.29	0.30	2.16	1000
2110	693	697	5.687	34.016	26.814	125	0.925	0.429	0.41	0.19	0.20	2.16	1000
2109	743	748	5.036	34.037	26.908	99	0.631	0.312	0.32	0.13	0.14	2.02	1000
2108	789	794	4.638	34.074	26.982	77	0.337	0.168	0.25	0.07	0.07	2.01	1000
2107	841	846	4.307	34.126	27.059	66	0.280	0.156	0.21	0.05	0.07	1.80	1000
2106	894	900	3.989	34.178	27.133	47	0.111	0.062	0.15	0.02	0.03	1.79	1000
2105	991	998	3.635	34.247	27.224	27	0.022	0.017	0.09	-9.00	-9.00	-9.00	1003
2204	1236	1246	2.978	34.426	27.429	16	0.006	0.009	0.05	-9.00	-9.00	-9.00	1003
2203	1484	1497	2.571	34.499	27.523	28	-0.003	-0.001	0.08	-9.00	-9.00	-9.00	1003
2202	1731	1747	2.232	34.558	27.599	46	-9.000	-9.000	0.14	-9.00	-9.00	-9.00	1000
2201	1976	1995	1.930	34.600	27.657	72	-0.002	-0.002	0.21	-9.00	-9.00	-9.00	1003
2212	2468	2496	1.576	34.640	27.716	97	-9.000	0.000	0.29	-9.00	-9.00	-9.00	1013
2211	2961	2998	1.382	34.659	27.745	115	-0.001	-0.002	0.34	-9.00	-9.00	-9.00	1003
2210	3452	3499	1.246	34.674	27.767	128	-0.002	0.001	0.38	-9.00	-9.00	-9.00	1003
2209	3944	4003	1.166	34.683	27.779	143	-0.002	-0.001	0.42	-9.00	-9.00	-9.00	1003
2208	4431	4502	1.112	34.687	27.786	148	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
2207	4916	5001	1.078	34.691	27.792	156	-0.002	-0.002	0.46	-9.00	-9.00	-9.00	1003
2205	5600	5706	1.045	34.694	27.796	158	-0.001	-0.005	0.46	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
10	17 Apr 88	31 59.9 N	170 00.6 W	5782	252.2	450.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2307	4	4	16.390	34.711	25.436	243	2.647	1.270	1.01	1.00	0.99	2.08	1000
2306	24	24	16.226	34.703	25.468	243	2.620	1.246	1.00	0.98	0.96	2.10	1000
2305	49	49	15.944	34.680	25.515	242	2.658	1.258	0.99	0.98	0.96	2.11	1000
2304	98	98	14.830	34.610	25.709	238	-9.000	-9.000	0.96	-9.00	-9.00	-9.00	1000
2303	98	98	14.830	34.612	25.711	238	2.723	1.329	0.96	0.95	0.96	2.05	1000
2302	121	121	14.421	34.569	25.766	227	2.702	1.301	0.90	0.92	0.93	2.08	1000
2301	149	150	13.910	34.516	25.833	227	2.632	1.252	0.90	0.88	0.87	2.10	1000
2312	149	150	13.910	34.517	25.833	227	2.681	1.283	0.90	0.89	0.89	2.09	1000
2311	197	198	13.127	34.461	25.950	223	2.678	1.274	0.86	0.86	0.85	2.10	1000
2310	247	248	12.393	34.424	26.067	218	2.544	1.214	0.83	0.78	0.79	2.10	1000
2309	296	298	11.687	34.359	26.151	220	2.525	1.206	0.83	0.75	0.76	2.09	1000
2407	346	348	10.970	34.299	26.235	220	2.428	1.146	0.81	0.69	0.69	2.12	1000
2406	394	396	10.317	34.243	26.307	214	2.401	1.150	0.78	0.66	0.67	2.09	1000
2405	494	497	8.323	34.100	26.519	191	1.960	0.931	0.66	0.48	0.49	2.10	1000
2404	592	596	6.627	34.009	26.689	163	1.607	0.819	0.55	0.36	0.40	1.96	1000
2403	692	696	5.328	34.039	26.875	106	0.722	0.378	0.34	0.15	0.17	1.91	1000
2402	793	798	4.478	34.112	27.030	66	0.280	0.137	0.21	0.06	0.06	2.05	1000
2401	889	895	4.013	34.194	27.144	47	0.152	0.092	0.15	0.03	0.04	1.65	1000
2412	988	995	3.609	34.266	27.242	30	0.039	0.027	0.09	0.01	-9.00	-9.00	1003
2411	1235	1244	2.954	34.409	27.418	18	0.003	0.007	0.06	-9.00	-9.00	-9.00	1003
2410	1482	1494	2.609	34.517	27.534	39	0.000	0.000	0.12	-9.00	-9.00	-9.00	1003
2409	1732	1748	2.211	34.570	27.610	57	0.004	-9.000	0.17	-9.00	-9.00	-9.00	1023
2408	1976	1995	1.895	34.604	27.663	72	0.001	-9.000	0.22	-9.00	-9.00	-9.00	1023

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
11	18 Apr 88	30 00.0 N	170 00.1 W	5425	253.1	451.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2509	17	17	19.504	35.172	25.024	233	2.221	1.110	1.02	0.97	0.99	2.00	1000
2507	39	39	19.307	35.147	25.056	230	2.330	1.154	1.01	1.01	1.02	2.02	1000
2506	58	58	17.843	34.928	25.256	241	2.506	-9.000	1.03	1.01	-9.00	-9.00	1020
2505	76	76	16.290	34.782	25.514	226	2.443	1.244	0.93	0.92	0.96	1.96	1000
2504	98	98	15.671	34.695	25.589	233	2.636	1.319	0.95	0.96	0.99	2.00	1000
2503	117	118	15.371	34.672	25.638	229	2.617	1.259	0.93	0.94	0.93	2.08	1000
2502	198	199	13.103	34.468	25.961	219	2.514	1.219	0.85	0.80	0.82	2.06	1000
2501	246	247	12.172	34.390	26.083	224	2.750	1.304	0.85	0.83	0.83	2.11	1000
2512	246	247	12.172	34.390	26.083	228	2.713	1.289	0.87	0.82	0.82	2.11	1000
2510	297	299	11.252	34.311	26.194	223	2.697	1.283	0.83	0.78	0.79	2.10	1000
2511	297	299	11.252	34.311	26.194	228	2.693	1.286	0.85	0.78	0.79	2.09	1000
2609	396	398	10.153	34.216	26.314	223	2.566	1.218	0.81	0.70	0.71	2.11	1000
2608	445	447	9.128	34.141	26.425	209	2.285	1.094	0.74	0.59	0.60	2.09	1000
2607	492	495	8.168	34.081	26.527	195	2.062	0.979	0.68	0.50	0.52	2.11	1000
2606	544	547	7.205	34.033	26.629	174	1.732	0.823	0.59	0.40	0.41	2.10	1000
2605	592	595	6.355	34.018	26.731	143	1.131	0.540	0.48	0.25	0.26	2.09	1000
2604	643	646	5.690	34.024	26.820	118	0.746	0.363	0.39	0.16	0.17	2.05	1000
2603	693	697	5.138	34.045	26.902	95	0.448	0.227	0.31	0.09	0.10	1.97	1000
2602	743	747	4.669	34.088	26.990	74	0.252	0.127	0.24	0.05	0.06	1.99	1000
2612	839	844	4.047	34.180	27.129	41	0.055	0.044	0.13	0.01	0.02	1.27	1002
2611	893	899	3.830	34.225	27.187	31	0.027	0.019	0.10	-9.00	-9.00	-9.00	1003
2610	989	996	3.437	34.304	27.289	20	0.009	0.010	0.06	-9.00	-9.00	-9.00	1003
2709	1086	1094	3.263	34.358	27.348	16	0.005	0.002	0.05	-9.00	-9.00	-9.00	1003
2708	1232	1242	2.927	34.445	27.449	26	-0.001	-0.002	0.08	-9.00	-9.00	-9.00	1003
2707	1481	1494	2.460	34.538	27.564	46	-0.001	-0.002	0.14	-9.00	-9.00	-9.00	1003
2706	1731	1747	2.043	34.585	27.636	64	-0.006	-0.006	0.19	-9.00	-9.00	-9.00	1000
2705	1970	1989	1.800	34.611	27.676	127	-0.007	-0.002	0.38	-9.00	-9.00	-9.00	1003
2704	2470	2497	1.464	34.646	27.729	101	0.001	0.000	0.30	-9.00	-9.00	-9.00	1003
2703	2963	2999	1.278	34.666	27.758	125	-0.004	-0.003	0.37	-9.00	-9.00	-9.00	1003
2702	3456	3503	1.167	34.678	27.775	142	-0.002	0.004	0.42	-9.00	-9.00	-9.00	1003
2701	3945	4003	1.108	34.685	27.785	148	0.002	0.000	0.43	-9.00	-9.00	-9.00	1003
2712	4432	4503	1.078	34.688	27.789	150	0.003	0.000	0.44	-9.00	-9.00	-9.00	1003
2711	4921	5006	1.063	34.690	27.792	155	-0.007	0.002	0.46	-9.00	-9.00	-9.00	1003
2710	5287	5383	1.043	34.694	27.797	150	-0.007	0.000	0.44	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
12	19 Apr 88	28 00.0 N	170 00.0 W	4659	255.3	453.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2916	3	3	21.216	35.410	24.748	222	2.036	1.054	1.01	0.96	1.00	1.93	1000
2915	14	14	21.117	35.416	24.780	222	1.929	1.038	1.01	0.91	0.98	1.86	1000
2914	30	30	21.012	35.416	24.809	222	2.136	1.068	1.01	1.00	1.01	2.00	1000
2913	45	45	20.987	35.417	24.816	220	2.149	1.092	1.00	1.00	1.03	1.97	1000
2912	60	60	20.985	35.414	24.815	223	2.097	1.064	1.01	0.98	1.00	1.97	1000
2911	74	74	20.980	35.419	24.820	225	2.098	1.101	1.02	0.98	1.04	1.91	1000
2910	88	88	20.921	35.407	24.827	225	2.097	1.071	1.02	0.98	1.01	1.96	1000
2909	102	102	20.447	35.342	24.905	222	2.182	1.120	1.00	0.99	1.03	1.95	1000
2908	119	120	19.024	35.150	25.131	222	2.253	1.124	0.97	0.96	0.98	2.01	1000
2907	146	146	18.305	35.106	25.279	225	2.305	1.151	0.97	0.95	0.97	2.00	1000
2906	173	173	18.134	35.157	25.360	230	2.342	1.142	0.99	0.96	0.95	2.05	1000
2905	198	199	16.568	34.866	25.514	229	2.541	1.236	0.95	0.96	0.96	2.06	1000
2904	225	225	15.455	34.691	25.634	212	2.392	1.180	0.86	0.85	0.88	2.03	1000
2903	247	248	14.430	34.589	25.779	213	2.370	1.172	0.85	0.80	0.83	2.02	1000
2902	267	268	13.782	34.522	25.864	216	2.400	1.180	0.85	0.78	0.81	2.03	1000
2901	296	298	13.233	34.474	25.939	223	2.493	1.231	0.86	0.79	0.82	2.03	1000
3024	347	349	12.442	34.416	26.051	215	2.467	1.150	0.82	0.75	0.74	2.14	1000
3023	393	395	11.321	34.321	26.189	221	2.451	1.161	0.82	0.70	0.71	2.11	1000
3022	446	448	10.721	34.266	26.254	214	2.351	1.120	0.79	0.65	0.67	2.10	1000
3021	495	497	9.375	34.171	26.409	200	2.006	0.952	0.71	0.52	0.53	2.11	1000
3020	543	546	8.260	34.102	26.530	177	1.512	0.720	0.62	0.37	0.38	2.10	1000
3019	592	595	6.869	34.039	26.680	160	1.380	0.649	0.54	0.31	0.32	2.13	1000
3018	642	646	5.977	34.037	26.795	120	0.787	0.381	0.40	0.17	0.18	2.07	1000
3017	690	694	5.219	34.052	26.899	99	0.515	0.252	0.32	0.10	0.11	2.05	1000
3016	743	747	4.679	34.099	26.997	71	0.256	0.136	0.23	0.05	0.06	1.89	1000
3015	791	796	4.370	34.131	27.056	63	0.175	0.089	0.20	0.03	0.04	1.95	1000
3014	840	845	4.008	34.188	27.140	42	0.067	0.043	0.13	0.01	0.02	1.55	1002
3013	888	894	3.833	34.233	27.193	34	0.038	0.032	0.11	0.01	0.01	1.18	1002
3012	989	996	3.629	34.290	27.259	29	0.023	0.014	0.09	-9.00	-9.00	-9.00	1003
3011	1087	1095	3.302	34.378	27.361	22	0.005	0.006	0.07	-9.00	-9.00	-9.00	1003
3010	1236	1245	2.953	34.470	27.466	37	-0.003	0.000	0.11	-9.00	-9.00	-9.00	1002
3009	1483	1495	2.506	34.540	27.562	53	-0.004	0.000	0.16	-9.00	-9.00	-9.00	1002
3008	1730	1746	2.043	34.591	27.641	73	-9.000	-9.000	0.22	-9.00	-9.00	-9.00	1033
3007	1974	1993	1.758	34.618	27.684	86	0.000	-0.005	0.26	-9.00	-9.00	-9.00	1003
3006	2472	2500	1.458	34.651	27.733	107	0.000	-0.006	0.32	-9.00	-9.00	-9.00	1003
3005	2964	3000	1.280	34.670	27.761	127	-0.002	-0.008	0.37	-9.00	-9.00	-9.00	1003
3004	3453	3500	1.165	34.680	27.777	139	-0.002	0.000	0.41	-9.00	-9.00	-9.00	1003
3003	3939	3998	1.084	34.690	27.791	148	-0.002	0.002	0.43	-9.00	-9.00	-9.00	1003
3002	4189	4253	1.064	34.682	27.786	141	0.000	-0.002	0.41	-9.00	-9.00	-9.00	1003
3001	4482	4555	1.042	34.693	27.796	148	-0.003	-0.003	0.43	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
13	19 Apr 88	25 59.8 N	170 00.1 W	4426	255.9	452.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3120	3	3	23.561	35.417	24.088	212	1.817	0.976	1.01	0.95	1.02	1.86	1000
3118	29	29	23.508	35.444	24.124	217	1.947	1.002	1.03	1.01	1.04	1.94	1000
3117	43	44	23.492	35.392	24.090	220	2.040	1.008	1.04	1.06	1.05	2.02	1000
3116	59	60	22.533	35.388	24.363	215	2.050	1.054	1.00	1.02	1.06	1.94	1000
3115	76	76	21.542	35.326	24.594	216	2.020	1.001	0.99	0.96	0.97	2.02	1000
3114	88	89	20.833	35.327	24.790	215	2.067	1.037	0.97	0.96	0.97	1.99	1000
3113	103	103	19.701	35.204	24.997	211	2.108	1.044	0.94	0.92	0.93	2.02	1000
3112	118	118	19.052	35.154	25.127	215	2.136	1.041	0.94	0.91	0.91	2.05	1000
3111	150	150	17.505	34.940	25.348	206	2.192	1.062	0.87	0.86	0.86	2.06	1000
3110	174	175	16.237	34.784	25.528	217	2.333	1.106	0.89	0.86	0.85	2.11	1000
3109	198	199	15.369	34.682	25.646	214	2.391	1.146	0.87	0.85	0.85	2.09	1000
3108	222	223	14.722	34.613	25.735	215	2.332	1.154	0.86	0.80	0.83	2.02	1000
3107	247	248	13.936	34.538	25.844	215	2.422	1.193	0.85	0.80	0.83	2.03	1000
3106	271	272	13.509	34.494	25.898	218	2.396	1.171	0.85	0.77	0.80	2.05	1000
3105	297	298	12.982	34.452	25.973	205	2.400	1.162	0.79	0.75	0.77	2.06	1000
3204	343	345	11.980	34.272	26.028	-9	2.267	1.070	-9.00	0.67	0.68	2.12	1000
3203	394	396	10.842	34.172	26.160	-9	1.581	0.736	-9.00	0.44	0.44	2.15	1000
3202	444	446	9.584	34.131	26.343	-9	1.309	0.627	-9.00	0.34	0.35	2.09	1000
3201	492	495	8.776	34.094	26.444	-9	0.895	0.429	-9.00	0.22	0.23	2.09	1000
3224	545	548	7.703	34.077	26.593	-9	0.600	0.297	-9.00	0.14	0.15	2.02	1000
3223	593	596	6.677	34.088	26.744	-9	0.383	0.199	-9.00	0.08	0.10	1.92	1000
3222	641	644	6.066	34.126	26.854	68	0.091	0.054	0.22	0.02	0.03	1.68	1000
3221	692	696	5.261	34.180	26.995	53	0.089	0.053	0.17	0.02	0.02	1.67	1000
3220	744	748	4.868	34.225	27.076	46	0.061	-9.000	0.15	0.01	-9.00	-9.00	1020
3219	789	794	4.614	34.265	27.136	40	0.044	0.041	0.13	0.01	0.02	1.08	1002
3218	837	842	4.387	34.321	27.205	36	0.025	0.021	0.12	-9.00	-9.00	-9.00	1003
3217	889	894	4.122	34.395	27.292	42	0.032	0.020	0.13	0.01	-9.00	-9.00	1003
3216	985	992	3.856	34.439	27.355	42	-0.004	0.009	0.13	-9.00	-9.00	-9.00	1002
3215	1083	1091	3.462	34.439	27.394	42	0.010	0.006	0.13	-9.00	-9.00	-9.00	1103
3214	1235	1244	3.048	34.503	27.484	53	0.003	0.013	0.16	-9.00	-9.00	-9.00	1003
3213	1483	1495	2.543	34.554	27.570	68	0.005	0.003	0.21	-9.00	-9.00	-9.00	1003
3212	1729	1745	2.114	34.589	27.633	79	-0.002	-9.000	0.24	-9.00	-9.00	-9.00	1023
3211	1979	1999	1.804	34.616	27.679	92	-0.001	-9.000	0.27	-9.00	-9.00	-9.00	1023
3210	2469	2496	1.445	34.650	27.733	112	-0.005	0.004	0.33	-9.00	-9.00	-9.00	1002

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
14	20 Apr 88	23 59.5 N	169 58.1 W	4634	252.2	449.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3303	2	2	24.008	35.413	23.953	215	1.880	0.957	1.03	1.02	1.02	1.96	1000
3302	14	14	24.007	35.415	23.955	214	1.867	0.968	1.02	1.01	1.04	1.93	1000
3301	30	30	23.995	35.415	23.959	215	1.859	0.939	1.03	1.00	1.01	1.98	1000
3324	45	45	23.829	35.415	24.008	214	1.867	0.918	1.02	1.00	0.98	2.03	1000
3323	60	61	23.251	35.410	24.174	223	1.920	0.957	1.05	1.00	0.99	2.01	1000
3322	74	74	22.994	35.406	24.245	203	1.926	0.958	0.95	1.00	0.99	2.01	1000
3321	87	88	22.525	35.400	24.375	204	1.960	1.014	0.95	0.99	1.03	1.93	1000
3320	105	105	21.694	35.363	24.581	215	1.960	0.990	0.98	0.96	0.97	1.98	1000
3319	117	118	21.073	35.326	24.724	213	2.053	1.022	0.97	0.97	0.97	2.01	1100
3318	148	148	19.163	35.119	25.071	202	2.101	1.043	0.88	0.91	0.92	2.01	1000
3317	173	174	17.535	34.936	25.338	197	2.174	1.059	0.84	0.87	0.87	2.05	1000
3316	197	198	16.395	34.797	25.501	202	2.166	1.061	0.84	0.82	0.83	2.04	1000
3315	222	223	15.628	34.709	25.609	201	2.212	1.087	0.82	0.81	0.82	2.03	1000
3314	248	249	14.786	34.612	25.720	203	2.189	1.101	0.81	0.76	0.80	1.99	1000
3313	272	273	13.423	34.461	25.891	205	2.215	1.085	0.80	0.72	0.74	2.04	1000
3312	296	297	12.824	34.402	25.965	203	2.151	1.087	0.78	0.68	0.72	1.98	1000
3311	346	347	11.189	34.256	26.162	202	2.016	0.988	0.75	0.58	0.61	2.04	1000
3310	397	398	9.984	34.190	26.323	186	1.709	0.823	0.67	0.46	0.48	2.08	1000
3309	445	447	8.692	34.125	26.482	170	1.290	0.635	0.60	0.32	0.34	2.03	1000
3308	498	500	7.972	34.093	26.566	142	1.010	0.501	0.49	0.24	0.26	2.02	1000
3403	548	551	7.145	34.089	26.681	127	0.711	0.353	0.43	0.16	0.18	2.02	1000
3402	598	601	6.500	34.092	26.771	105	0.473	0.239	0.35	0.10	0.12	1.98	1000
3401	651	654	5.661	34.111	26.892	83	0.284	0.141	0.27	0.06	0.07	2.01	1000
3424	697	701	5.308	34.188	26.996	57	0.093	0.060	0.19	0.02	0.03	1.55	1000
3423	746	751	4.966	34.224	27.064	46	0.061	0.045	0.15	0.01	0.02	1.34	1002
3422	796	800	4.604	34.268	27.140	49	0.026	0.020	0.16	-9.00	-9.00	-9.00	1003
3421	844	849	4.394	34.305	27.192	42	0.022	0.011	0.13	-9.00	-9.00	-9.00	1003
3420	893	899	4.103	34.343	27.253	38	0.009	0.012	0.12	-9.00	-9.00	-9.00	1003
3419	992	999	3.849	34.404	27.328	43	0.008	0.004	0.14	-9.00	-9.00	-9.00	1003
3418	1092	1099	3.635	34.488	27.416	57	0.004	0.007	0.18	-9.00	-9.00	-9.00	1003
3417	1240	1249	3.217	34.511	27.475	60	0.003	-0.006	0.19	-9.00	-9.00	-9.00	1000
3416	1487	1500	2.624	34.559	27.567	71	-9.000	0.002	0.22	-9.00	-9.00	-9.00	1013
3415	1731	1746	2.254	34.588	27.621	79	0.001	-0.002	0.24	-9.00	-9.00	-9.00	1003
3414	1977	1996	1.949	34.615	27.667	93	0.000	0.003	0.28	-9.00	-9.00	-9.00	1003
3413	2469	2496	1.585	34.643	27.717	108	-9.000	-9.000	0.32	-9.00	-9.00	-9.00	1000
3412	2960	2997	1.328	34.668	27.756	128	-9.000	-9.000	0.38	-9.00	-9.00	-9.00	1000
3411	3451	3498	1.203	34.679	27.774	145	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
3410	3938	3996	1.126	34.687	27.785	152	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
3409	4208	4273	1.092	34.689	27.789	157	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
3408	4480	4552	1.055	34.692	27.794	162	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
15	21 Apr 88	22 00.0 N	169 59.5 W	4825	251.3	447.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3624	1	2	25.222	35.159	23.396	212	1.961	0.965	1.03	1.12	1.08	2.03	1000
3623	23	23	24.874	35.158	23.501	212	1.939	1.048	1.03	1.09	1.16	1.85	1000
3622	44	44	24.540	35.184	23.621	213	1.871	0.933	1.03	1.03	1.02	2.00	1000
3621	65	65	23.841	35.315	23.928	213	2.055	1.010	1.02	1.10	1.08	2.03	1000
3620	81	82	23.206	35.361	24.149	226	1.985	1.001	1.06	1.04	1.04	1.98	1000
3619	105	105	22.836	35.374	24.266	215	2.128	1.005	1.01	1.10	1.03	2.12	1000
3618	124	124	22.255	35.373	24.431	213	1.999	0.982	0.99	1.00	0.98	2.04	1000
3617	151	151	21.384	35.323	24.636	205	2.121	1.069	0.94	1.05	1.04	2.02	1100
3616	202	202	17.627	34.945	25.322	201	2.278	1.114	0.85	0.92	0.92	2.04	1000
3615	251	251	15.611	34.705	25.610	205	2.273	1.116	0.84	0.83	0.84	2.04	1000
3614	300	301	13.060	34.411	25.925	204	2.248	1.103	0.79	0.72	0.74	2.04	1000
3613	352	354	11.386	34.266	26.134	192	1.954	0.940	0.71	0.57	0.58	2.08	1000
3612	399	401	9.934	34.175	26.319	180	1.595	0.837	0.65	0.43	0.48	1.91	1000
3611	451	453	8.619	34.119	26.488	160	1.152	0.563	0.56	0.29	0.31	2.05	1000
3610	500	502	7.482	34.096	26.639	141	0.737	0.358	0.48	0.17	0.18	2.06	1000
3703	595	598	6.045	34.100	26.836	94	0.306	0.157	0.31	0.07	0.07	1.95	1000
3702	646	650	5.312	34.154	26.968	61	0.110	0.074	0.20	0.02	0.03	1.49	1000
3701	696	700	4.973	34.225	27.064	51	0.050	0.019	0.16	0.01	-9.00	-9.00	1000
3724	794	799	4.420	34.319	27.200	42	0.020	0.001	0.14	-9.00	-9.00	-9.00	1001
3723	891	896	4.098	34.397	27.296	43	0.010	-0.005	0.14	-9.00	-9.00	-9.00	1001
3722	990	996	3.884	34.463	27.371	57	0.006	0.001	0.18	-9.00	-9.00	-9.00	1003
3721	1237	1246	3.210	34.540	27.499	66	0.005	-0.003	0.20	-9.00	-9.00	-9.00	1000
3720	1483	1495	2.649	34.577	27.579	79	-0.002	0.000	0.24	-9.00	-9.00	-9.00	1003
3719	1731	1746	2.229	34.597	27.630	96	0.002	-0.005	0.29	-9.00	-9.00	-9.00	1001
3718	1978	1997	1.906	34.626	27.679	116	0.002	0.009	0.35	-9.00	-9.00	-9.00	1003
3717	2467	2494	1.537	34.655	27.731	132	0.009	0.002	0.39	-9.00	-9.00	-9.00	1003
3716	2961	2998	1.326	34.672	27.760	130	-0.002	0.006	0.39	-9.00	-9.00	-9.00	1003
3715	3447	3494	1.198	34.683	27.777	147	0.003	-0.003	0.43	-9.00	-9.00	-9.00	1000
3714	3447	3494	1.198	34.683	27.777	146	-0.006	-0.001	0.43	-9.00	-9.00	-9.00	1000
3713	3938	3996	1.111	34.690	27.789	152	0.000	-0.001	0.45	-9.00	-9.00	-9.00	1000
3711	4427	4498	1.047	34.696	27.798	162	-0.004	0.001	0.48	-9.00	-9.00	-9.00	1000
3712	4428	4498	1.047	34.696	27.798	163	-0.003	0.001	0.48	-9.00	-9.00	-9.00	1000
3710	4624	4700	1.033	34.696	27.799	165	-0.003	0.002	0.49	-9.00	-9.00	-9.00	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
16	21 Apr 88	19 57.4 N	169 59.1 W	3246	247.6	445.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3824	1	2	26.046	34.677	22.777	217	1.696	0.898	1.07	1.01	1.04	1.89	1000
3823	18	18	25.966	34.675	22.801	216	1.720	0.870	1.06	1.02	1.00	1.98	1000
3822	39	39	25.853	34.712	22.864	221	1.717	0.885	1.08	1.01	1.02	1.94	1000
3821	59	59	25.802	34.727	22.891	219	1.743	0.878	1.07	1.03	1.01	1.99	1000
3820	76	76	25.740	34.738	22.918	214	1.713	0.882	1.05	1.01	1.01	1.94	1000
3819	96	96	25.284	34.921	23.197	212	1.768	0.906	1.03	1.02	1.02	1.95	1000
3818	115	116	24.821	35.053	23.437	218	1.711	0.892	1.05	0.97	0.99	1.92	1000
3817	146	146	22.941	35.160	24.073	197	1.803	0.919	0.93	0.94	0.95	1.96	1000
3816	196	196	20.095	35.140	24.845	199	1.956	0.981	0.89	0.90	0.90	1.99	1000
3815	245	245	16.772	34.824	25.434	201	2.048	1.029	0.84	0.80	0.82	1.99	1000
3814	294	294	14.385	34.544	25.754	198	2.051	1.031	0.79	0.71	0.74	1.99	1000
3813	347	348	12.012	34.318	26.058	189	1.765	0.868	0.71	0.54	0.56	2.03	1000
3812	399	400	9.998	34.207	26.333	166	1.261	-9.000	0.60	0.35	-9.00	-9.00	1020
3811	451	453	8.579	34.150	26.519	147	0.878	0.441	0.51	0.22	0.24	1.99	1000
3810	480	482	8.028	34.148	26.601	126	0.697	0.393	0.43	0.17	0.21	1.77	1000
3902	594	596	6.433	34.216	26.878	67	0.139	0.084	0.22	0.03	0.04	1.65	1000
3903	594	596	6.433	34.216	26.878	67	-9.000	-9.000	0.22	-9.00	-9.00	-9.00	1000
3901	644	647	5.686	34.258	27.005	52	0.097	0.069	0.17	0.01	0.02	1.33	1100
3924	693	697	5.373	34.306	27.081	47	0.031	0.028	0.15	0.01	-9.00	-9.00	1002
3923	792	797	4.938	34.389	27.198	44	0.018	0.009	0.14	-9.00	-9.00	-9.00	1003
3922	890	896	4.504	34.464	27.306	52	0.006	0.003	0.16	-9.00	-9.00	-9.00	1003
3921	992	998	4.113	34.501	27.377	55	0.003	0.001	0.17	-9.00	-9.00	-9.00	1103
3920	1238	1247	3.294	34.554	27.502	67	-0.001	-0.001	0.21	-9.00	-9.00	-9.00	1003
3918	1730	1745	2.324	34.606	27.630	87	-0.002	-0.003	0.26	-9.00	-9.00	-9.00	1002
3917	1976	1995	1.960	34.628	27.677	103	0.002	-0.005	0.31	-9.00	-9.00	-9.00	1000
3916	2469	2496	1.518	34.655	27.732	117	-0.007	-0.003	0.35	-9.00	-9.00	-9.00	1002
3915	2958	2994	1.314	34.672	27.760	132	-0.001	-0.001	0.39	-9.00	-9.00	-9.00	1002
3914	3452	3498	1.204	34.682	27.776	146	-0.003	-0.002	0.43	-9.00	-9.00	-9.00	1000
3913	3941	3999	1.142	34.688	27.785	152	0.000	0.000	0.45	-9.00	-9.00	-9.00	1003
3912	4184	4248	1.130	34.692	27.789	153	-0.003	0.004	0.45	-9.00	-9.00	-9.00	1001
3911	4437	4508	1.119	34.690	27.788	154	-0.006	0.006	0.45	-9.00	-9.00	-9.00	1000
3910	4532	4605	1.115	34.692	27.790	154	-0.004	0.006	0.45	-9.00	-9.00	-9.00	1002

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
17	22 Apr 88	18 00.2 N	169 59.8 W	4813	247.3	445.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4007	39	39	25.859	34.569	22.754	211	1.689	0.894	1.04	1.00	1.03	1.89	1000
4006	59	59	25.859	34.573	22.757	212	1.796	0.926	1.04	1.06	1.06	1.94	1000
4005	79	79	25.678	34.694	22.904	211	1.711	0.897	1.03	1.00	1.02	1.91	1000
4004	100	100	25.508	34.704	22.964	212	1.723	0.891	1.03	1.01	1.01	1.93	1000
4003	119	120	25.199	34.757	23.099	202	1.730	0.911	0.98	1.00	1.02	1.90	1000
4002	148	148	24.085	35.005	23.622	207	1.794	0.930	0.99	0.99	1.00	1.93	1000
4001	196	196	21.766	35.154	24.402	191	1.827	0.934	0.88	0.91	0.92	1.95	1000
4024	248	249	17.159	34.860	25.370	191	2.049	1.028	0.80	0.82	0.84	1.99	1000
4023	248	249	17.159	34.861	25.371	193	2.012	0.988	0.81	0.81	0.80	2.04	1000
4022	297	298	14.261	34.538	25.776	198	2.041	1.005	0.79	0.71	0.72	2.03	1000
4021	346	347	11.615	34.300	26.118	191	1.762	0.861	0.72	0.53	0.54	2.05	1000
4020	346	347	11.615	34.302	26.120	192	1.744	0.838	0.72	0.52	0.53	2.08	1000
4019	397	399	9.609	34.195	26.389	160	1.184	0.586	0.58	0.32	0.34	2.02	1000
4018	441	442	8.203	34.171	26.593	122	0.599	0.310	0.42	0.15	0.17	1.93	1000
4017	491	493	7.365	34.173	26.717	106	0.357	0.187	0.36	0.08	0.10	1.91	1000
4110	543	545	6.803	34.203	26.818	76	0.191	0.120	0.25	0.04	0.06	1.59	1000
4109	593	596	6.165	34.250	26.939	51	0.063	0.050	0.17	0.01	0.02	1.27	1002
4108	642	645	5.920	34.317	27.023	44	0.029	0.030	0.15	-9.00	-9.00	-9.00	1003
4107	692	696	5.678	34.383	27.105	38	0.008	0.013	0.12	-9.00	-9.00	-9.00	1003
4106	788	792	5.364	34.441	27.190	38	-0.002	0.005	0.13	-9.00	-9.00	-9.00	1000
4105	889	894	4.794	34.479	27.286	48	0.011	0.013	0.15	-9.00	-9.00	-9.00	1003
4104	987	994	4.395	34.514	27.358	50	0.002	-9.000	0.16	-9.00	-9.00	-9.00	1023
4103	1243	1252	3.561	34.548	27.471	61	-0.008	-0.003	0.19	-9.00	-9.00	-9.00	1002
4102	1485	1497	2.815	34.583	27.569	77	-0.002	0.001	0.24	-9.00	-9.00	-9.00	1003
4101	1730	1746	2.341	34.606	27.628	88	0.006	0.002	0.27	-9.00	-9.00	-9.00	1003
4124	1977	1995	1.986	34.625	27.672	102	-0.004	-0.011	0.31	-9.00	-9.00	-9.00	1002
4123	2467	2494	1.592	34.653	27.725	118	0.008	-0.001	0.35	-9.00	-9.00	-9.00	1003
4122	2961	2997	1.370	34.668	27.753	130	0.000	-0.001	0.38	-9.00	-9.00	-9.00	1003
4121	3452	3498	1.241	34.678	27.770	142	0.008	-0.003	0.42	-9.00	-9.00	-9.00	1001
4120	3943	4002	1.159	34.684	27.781	151	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1030
4119	4185	4249	1.134	34.678	27.778	145	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1032
4118	4422	4492	1.086	34.690	27.791	158	0.000	0.000	0.46	-9.00	-9.00	-9.00	1003
4117	4581	4656	1.055	34.692	27.794	163	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1033

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
18	23 Apr 88	16 00.1 N	169 59.7 W	4077	248.0	445.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4316	1	1	26.260	34.277	22.409	206	1.682	0.880	1.01	1.00	1.02	1.91	1000
4315	18	18	26.240	34.289	22.424	203	1.681	0.879	1.00	1.00	1.02	1.91	1000
4314	39	39	26.183	34.316	22.462	205	1.665	0.888	1.01	0.99	1.03	1.88	1000
4313	59	59	25.996	34.428	22.605	203	1.751	0.913	1.00	1.04	1.05	1.92	1000
4312	79	80	25.760	34.468	22.708	206	1.734	0.905	1.01	1.02	1.03	1.92	1000
4311	99	99	25.410	34.613	22.925	208	1.742	0.932	1.01	1.01	1.05	1.87	1000
4310	119	119	25.133	34.710	23.083	210	1.740	0.914	1.02	1.00	1.02	1.90	1000
4309	148	148	22.685	34.709	23.805	192	1.765	0.906	0.89	0.91	0.92	1.95	1000
4308	198	198	19.292	34.749	24.756	171	1.794	0.928	0.75	0.79	0.83	1.93	1000
4307	248	249	13.169	34.391	25.888	142	1.477	0.739	0.55	0.48	0.50	2.00	1000
4306	296	297	10.622	34.253	26.261	136	1.094	0.533	0.50	0.31	0.32	2.05	1000
4305	345	346	9.318	34.259	26.487	109	0.625	0.321	0.39	0.17	0.18	1.94	1000
4304	395	397	8.246	34.338	26.717	59	0.169	0.103	0.20	0.04	0.06	1.64	1000
4303	443	445	7.869	34.403	26.825	30	0.065	0.049	0.10	0.02	0.03	1.31	1000
4302	494	496	7.416	34.435	26.916	43	0.023	0.007	0.15	-9.00	-9.00	-9.00	1003
4419	544	546	6.873	34.456	27.008	31	0.017	0.009	0.10	-9.00	-9.00	-9.00	1003
4418	591	594	6.605	34.473	27.057	37	0.012	0.019	0.12	-9.00	-9.00	-9.00	1003
4417	643	646	6.197	34.484	27.120	36	0.008	0.003	0.12	-9.00	-9.00	-9.00	1002
4416	691	694	5.924	34.490	27.159	36	0.004	0.007	0.12	-9.00	-9.00	-9.00	1002
4415	792	796	5.391	34.503	27.235	40	0.005	0.001	0.13	-9.00	-9.00	-9.00	1000
4414	888	893	4.884	34.520	27.308	42	-9.000	-9.000	0.13	-9.00	-9.00	-9.00	1000
4413	988	995	4.545	34.530	27.354	43	-9.000	-9.000	0.14	-9.00	-9.00	-9.00	1000
4412	1234	1243	3.608	34.560	27.476	58	-9.000	-9.000	0.18	-9.00	-9.00	-9.00	1000
4411	1483	1495	2.915	34.587	27.563	74	-9.000	-9.000	0.23	-9.00	-9.00	-9.00	1000
4410	1729	1744	2.435	34.610	27.624	84	-9.000	-9.000	0.26	-9.00	-9.00	-9.00	1000
4409	1976	1995	2.130	34.626	27.662	94	-9.000	-9.000	0.28	-9.00	-9.00	-9.00	1000
4408	2468	2495	1.700	34.653	27.717	111	0.000	-0.003	0.33	-9.00	-9.00	-9.00	1000
4407	2959	2995	1.419	34.669	27.750	128	0.001	-0.002	0.38	-9.00	-9.00	-9.00	1000
4406	3451	3497	1.248	34.681	27.772	138	0.002	0.000	0.41	-9.00	-9.00	-9.00	1000
4402	3802	3856	1.161	34.686	27.782	147	0.004	-9.000	0.43	-9.00	-9.00	-9.00	1020
4403	3803	3858	1.162	34.687	27.783	-9	-0.001	-0.001	-9.00	-9.00	-9.00	-9.00	1000
4405	3806	3861	1.161	34.687	27.783	-9	0.000	0.004	-9.00	-9.00	-9.00	-9.00	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
19	24 Apr 88	13 59.5 N	169 58.5 W	5928	248.5	446.3

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4519	17	17	26.406	34.211	22.313	206	1.645	0.841	1.02	0.99	0.98	1.96	1000
4518	38	38	26.367	34.214	22.328	207	1.666	0.872	1.02	1.00	1.01	1.91	1000
4517	59	59	26.065	34.438	22.591	206	1.669	0.846	1.01	0.99	0.97	1.97	1000
4516	79	79	25.804	34.610	22.802	208	1.673	0.844	1.02	0.98	0.97	1.98	1000
4515	98	98	25.417	34.705	22.993	210	1.693	0.861	1.02	0.98	0.97	1.97	1000
4514	123	123	24.802	34.824	23.270	207	1.734	0.888	1.00	0.98	0.98	1.95	1000
4513	148	148	22.721	34.983	24.002	193	1.799	0.905	0.90	0.93	0.92	1.99	1000
4512	172	172	20.410	34.961	24.625	180	1.818	0.909	0.81	0.85	0.85	2.00	1000
4510	197	198	18.214	34.812	25.076	171	1.842	0.910	0.74	0.77	0.77	2.02	1000
4511	197	198	18.214	34.814	25.078	163	1.813	0.897	0.70	0.76	0.76	2.02	1000
4509	222	223	15.283	34.573	25.581	160	1.846	0.836	0.65	0.67	0.62	2.21	1000
4508	246	247	13.314	34.394	25.861	169	1.755	0.809	0.66	0.57	0.55	2.17	1000
4507	271	272	11.678	34.288	26.097	158	1.443	0.687	0.59	0.43	0.43	2.10	1100
4506	296	297	10.431	34.235	26.281	139	1.166	0.527	0.51	0.33	0.31	2.21	1100
4505	346	347	8.927	34.304	26.585	81	0.404	0.205	0.29	0.10	0.11	1.96	1100
4504	395	397	8.331	34.400	26.753	47	0.117	0.073	0.16	0.03	0.04	1.64	1100
4503	443	445	7.878	34.459	26.867	32	0.040	0.029	0.11	0.01	0.02	-9.00	1102
4502	495	497	7.447	34.482	26.948	30	0.018	0.022	0.10	-9.00	-9.00	-9.00	1103
4620	541	543	7.045	34.491	27.012	31	0.004	0.002	0.11	-9.00	-9.00	-9.00	1001
4619	594	597	6.653	34.490	27.064	36	0.014	0.003	0.12	-9.00	-9.00	-9.00	1003
4618	639	643	6.469	34.492	27.091	35	0.004	0.004	0.12	-9.00	-9.00	-9.00	1003
4617	691	694	6.003	34.496	27.154	36	0.003	-0.003	0.12	-9.00	-9.00	-9.00	1001
4616	789	794	5.471	34.506	27.228	40	-0.003	-0.007	0.13	-9.00	-9.00	-9.00	1000
4615	888	893	4.961	34.520	27.299	39	0.005	-0.003	0.12	-9.00	-9.00	-9.00	1001
4614	988	994	4.494	34.532	27.361	45	0.001	-0.014	0.14	-9.00	-9.00	-9.00	1000
4613	1234	1243	3.586	34.565	27.482	59	0.003	-9.000	0.18	-9.00	-9.00	-9.00	1022
4612	1481	1494	2.846	34.595	27.576	74	-0.003	-0.013	0.23	-9.00	-9.00	-9.00	1000
4611	1738	1753	2.387	34.613	27.630	86	-9.000	-9.000	0.26	-9.00	-9.00	-9.00	1000
4610	1975	1994	2.058	34.630	27.671	98	-9.000	-9.000	0.29	-9.00	-9.00	-9.00	1000
4609	2461	2488	1.630	34.656	27.725	118	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
4608	2961	2997	1.374	34.672	27.756	130	-9.000	-9.000	0.38	-9.00	-9.00	-9.00	1000
4607	3452	3498	1.222	34.682	27.775	141	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
4606	3935	3993	1.097	34.690	27.790	156	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
4605	4431	4502	0.979	34.698	27.804	172	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	1000
4604	4917	5001	0.908	34.702	27.812	180	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000
4603	5402	5501	0.876	34.702	27.814	186	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
4602	5694	5802	0.871	34.704	27.816	186	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
20	24 Apr 88	12 00.1 N	169 59.3 W	5685	249.6	447.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4722	0	0	26.797	34.297	22.255	215	1.651	0.851	1.07	1.00	1.00	1.94	1000
4721	19	19	26.771	34.296	22.263	212	1.654	0.847	1.05	1.00	1.00	1.95	1000
4720	40	40	26.768	34.296	22.263	214	1.645	0.837	1.07	1.00	0.99	1.96	1000
4719	59	59	26.763	34.296	22.265	214	1.654	0.855	1.06	1.00	1.01	1.93	1000
4718	77	77	26.018	34.390	22.570	223	1.703	0.869	1.09	1.00	1.00	1.96	1000
4717	98	98	25.547	34.646	22.909	225	1.757	0.892	1.10	1.02	1.01	1.97	1000
4716	122	122	24.908	34.791	23.213	214	1.706	0.900	1.04	0.96	0.99	1.90	1000
4715	147	147	19.804	34.627	24.530	178	1.669	0.854	0.78	0.75	0.77	1.95	1000
4714	174	174	16.743	34.669	25.322	166	1.744	0.866	0.69	0.68	0.69	2.01	1000
4713	197	197	14.300	34.503	25.740	154	1.583	0.776	0.61	0.54	0.55	2.04	1000
4712	220	221	11.794	34.355	26.128	129	1.233	0.609	0.49	0.37	0.39	2.02	1000
4711	246	247	10.371	34.317	26.355	115	0.824	0.398	0.42	0.23	0.24	2.07	1000
4710	269	270	9.684	34.305	26.463	100	0.632	0.304	0.36	0.17	0.17	2.08	1000
4709	298	299	9.650	34.457	26.587	54	0.241	0.170	0.19	0.06	0.10	1.42	1000
4708	346	347	8.761	34.433	26.712	52	0.121	0.062	0.18	0.03	0.03	1.95	1000
4707	393	395	8.614	34.527	26.809	35	0.033	0.022	0.12	0.01	-9.00	-9.00	1003
4706	444	446	8.037	34.546	26.912	37	0.019	0.017	0.13	-9.00	-9.00	-9.00	1001
4705	501	503	7.567	34.540	26.977	38	0.018	0.007	0.13	-9.00	-9.00	-9.00	1003
4823	544	546	7.034	34.527	27.042	51	0.005	0.002	0.17	-9.00	-9.00	-9.00	1000
4822	593	596	6.662	34.524	27.090	49	0.012	0.012	0.17	-9.00	-9.00	-9.00	1003
4821	643	646	6.304	34.521	27.135	49	0.010	0.002	0.16	-9.00	-9.00	-9.00	1001
4820	691	695	5.976	34.519	27.176	34	0.005	0.005	0.11	-9.00	-9.00	-9.00	1003
4819	791	796	5.413	34.523	27.249	34	0.009	-0.002	0.11	-9.00	-9.00	-9.00	1000
4818	889	895	4.916	34.529	27.312	47	0.004	-0.001	0.15	-9.00	-9.00	-9.00	1001
4817	988	995	4.504	34.544	27.370	59	0.005	-0.002	0.19	-9.00	-9.00	-9.00	1001
4816	1234	1243	3.667	34.571	27.479	74	-0.002	-0.003	0.23	-9.00	-9.00	-9.00	1000
4815	1482	1494	3.002	34.595	27.562	88	0.001	-0.002	0.27	-9.00	-9.00	-9.00	1001
4814	1727	1743	2.468	34.615	27.625	96	-0.003	-0.003	0.29	-9.00	-9.00	-9.00	1000
4813	1972	1991	2.063	34.635	27.674	112	-0.001	-0.009	0.34	-9.00	-9.00	-9.00	1000
4812	2468	2496	1.681	34.659	27.723	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
4811	2958	2994	1.438	34.673	27.752	139	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
4810	3451	3498	1.255	34.681	27.771	156	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
4809	3941	3999	1.107	34.690	27.789	157	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
4808	4429	4500	0.968	34.698	27.805	174	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
4807	4915	4999	0.886	34.704	27.815	184	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
4806	5401	5500	0.869	34.705	27.817	185	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
4805	5527	5630	0.866	34.700	27.813	183	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
21	25 Apr 88	09 59.6 N	170 00.4 W	4389	249.0	447.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5112	5	5	26.802	34.280	22.240	204	1.636	0.870	1.02	1.00	1.03	1.88	1000
5111	17	17	26.804	34.275	22.236	197	-9.000	-9.000	0.98	-9.00	-9.00	-9.00	1000
5110	32	32	26.808	34.279	22.238	204	1.682	0.856	1.01	1.02	1.01	1.96	1000
5109	50	50	26.796	34.291	22.251	204	1.665	0.858	1.01	1.01	1.01	1.94	1000
5108	63	63	26.777	34.287	22.254	205	1.708	0.856	1.02	1.04	1.01	2.00	1000
5107	79	79	26.150	34.324	22.479	204	1.731	0.895	1.00	1.03	1.03	1.93	1000
5106	95	95	23.357	34.672	23.583	209	1.976	0.966	0.98	1.04	1.01	2.05	1000
5105	109	109	21.113	34.693	24.231	194	1.735	0.862	0.88	0.83	0.82	2.01	1000
5104	128	128	16.421	34.577	25.326	138	1.695	0.815	0.57	0.65	0.64	2.08	1000
5103	155	155	12.537	34.413	26.030	113	1.241	0.585	0.43	0.39	0.38	2.12	1000
5102	175	175	11.531	34.488	26.280	68	0.642	0.281	0.26	0.19	0.18	2.28	1000
5101	203	204	10.898	34.686	26.550	21	0.108	0.031	0.08	0.03	0.02	3.46	1000
5212	226	227	10.572	34.693	26.613	17	0.037	0.041	0.06	0.01	0.02	0.89	1002
5211	251	252	10.311	34.692	26.658	-9	0.036	0.029	-9.00	0.01	-9.00	-9.00	1002
5210	277	278	10.103	34.689	26.692	17	0.034	0.028	0.06	0.01	-9.00	-9.00	1002
5209	304	306	9.917	34.684	26.720	17	0.030	0.022	0.06	-9.00	-9.00	-9.00	1003
5208	351	353	9.550	34.674	26.774	17	0.026	0.018	0.06	-9.00	-9.00	-9.00	1003
5207	400	402	9.105	34.655	26.832	16	0.015	0.010	0.06	-9.00	-9.00	-9.00	1003
5206	450	452	8.801	34.637	26.866	17	0.006	0.006	0.06	-9.00	-9.00	-9.00	1003
5205	499	501	8.383	34.614	26.913	17	0.006	0.010	0.06	-9.00	-9.00	-9.00	1003
5204	548	551	8.051	34.596	26.949	22	0.003	0.003	0.08	-9.00	-9.00	-9.00	1003
5203	594	598	7.595	34.574	26.999	25	0.002	-0.001	0.08	-9.00	-9.00	-9.00	1000
5202	644	648	6.970	34.547	27.066	35	0.002	-0.001	0.12	-9.00	-9.00	-9.00	1003
5201	698	702	6.557	34.540	27.117	36	-0.002	0.000	0.12	-9.00	-9.00	-9.00	1002
5312	794	799	5.794	34.540	27.215	34	-0.005	-0.001	0.11	-9.00	-9.00	-9.00	1002
5311	992	998	4.783	34.549	27.343	46	0.006	0.002	0.15	-9.00	-9.00	-9.00	1003
5310	1239	1248	3.925	34.569	27.451	59	0.004	0.000	0.19	-9.00	-9.00	-9.00	1003
5309	1484	1496	3.144	34.590	27.545	83	-0.001	0.006	0.26	-9.00	-9.00	-9.00	1003
5308	1726	1742	2.554	34.612	27.615	89	0.002	-0.003	0.27	-9.00	-9.00	-9.00	1001
5307	1979	1999	2.176	34.630	27.661	99	-9.000	-9.000	0.30	-9.00	-9.00	-9.00	1000
5306	2468	2496	1.713	34.658	27.720	113	-9.000	-9.000	0.34	-9.00	-9.00	-9.00	1000
5305	2962	2998	1.487	34.671	27.747	125	-9.000	-9.000	0.37	-9.00	-9.00	-9.00	1000
5303	3449	3496	1.236	34.683	27.775	145	-0.006	-0.002	0.43	-9.00	-9.00	-9.00	1002
5302	3450	3497	1.235	34.683	27.775	143	-0.004	-0.003	0.42	-9.00	-9.00	-9.00	1002
5304	3453	3500	1.232	34.683	27.775	145	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
5301	3845	3901	1.097	34.690	27.790	158	-0.001	-0.002	0.46	-9.00	-9.00	-9.00	1100

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
22	26 Apr 88	07 59.5 N	169 58.9 W	5369	248.6	446.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5402	7	7	27.883	34.801	22.285	206	1.590	0.801	1.04	1.02	0.99	1.99	1000
5401	29	30	27.883	34.801	22.285	199	1.613	0.837	1.01	1.03	1.03	1.93	1000
5412	53	53	27.883	34.801	22.285	201	1.567	0.864	1.02	1.00	1.07	1.81	1000
5411	77	77	27.880	34.800	22.286	205	1.653	0.797	1.04	1.06	0.98	2.07	1000
5410	104	104	27.791	34.812	22.324	201	1.582	0.831	1.02	1.01	1.02	1.90	1000
5409	127	128	19.159	34.537	24.628	151	1.460	0.743	0.66	0.64	0.65	1.97	1000
5408	154	154	13.430	34.564	25.969	73	0.809	0.375	0.28	0.27	0.26	2.16	1000
5407	177	178	11.739	34.630	26.352	29	0.292	0.160	0.11	0.09	0.10	1.82	1000
5406	203	203	11.106	34.701	26.524	17	0.080	0.049	0.06	0.02	0.03	1.63	1000
5405	251	252	10.453	34.694	26.635	25	0.053	0.034	0.09	0.01	0.02	1.55	1002
5404	300	301	9.909	34.691	26.726	20	0.023	0.020	0.07	-9.00	-9.00	-9.00	1003
5403	352	354	9.528	34.678	26.780	13	0.010	0.010	0.05	-9.00	-9.00	-9.00	1003
5502	400	402	9.058	34.653	26.838	17	0.027	0.015	0.06	-9.00	-9.00	-9.00	1002
5501	449	451	8.595	34.626	26.890	19	0.017	0.009	0.07	-9.00	-9.00	-9.00	1001
5512	500	502	8.090	34.600	26.946	17	0.002	0.004	0.06	-9.00	-9.00	-9.00	1003
5511	545	548	7.579	34.581	27.007	11	0.019	0.001	0.04	-9.00	-9.00	-9.00	1000
5510	596	599	7.034	34.564	27.071	15	0.012	0.016	0.05	-9.00	-9.00	-9.00	1003
5509	696	700	6.016	34.540	27.187	33	0.010	0.018	0.11	-9.00	-9.00	-9.00	1003
5508	795	800	5.368	34.542	27.269	38	0.006	0.007	0.12	-9.00	-9.00	-9.00	1003
5507	993	1000	4.380	34.556	27.393	54	0.008	0.005	0.17	-9.00	-9.00	-9.00	1003
5506	1236	1246	3.458	34.586	27.511	66	0.000	0.001	0.21	-9.00	-9.00	-9.00	1003
5505	1488	1500	2.891	34.606	27.581	84	-0.003	0.000	0.26	-9.00	-9.00	-9.00	1002
5504	1729	1744	2.464	34.622	27.631	96	-0.013	-0.003	0.29	-9.00	-9.00	-9.00	1002
5503	1978	1997	2.072	34.641	27.678	101	-0.001	0.000	0.30	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
23	27 Apr 88	06 00.7 N	170 00.0 W	5421	248.2	445.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5604	8	8	27.775	34.757	22.287	199	1.532	0.845	1.01	0.98	1.04	1.81	1000
5603	21	22	27.780	34.757	22.286	201	1.562	0.794	1.02	1.00	0.98	1.97	1000
5602	34	34	27.771	34.757	22.289	201	1.543	0.841	1.02	1.04	1.02	1.97	1100
5601	50	50	27.770	34.757	22.289	200	1.762	0.892	1.01	1.12	1.10	1.98	1000
5612	64	64	27.764	34.759	22.292	197	1.708	0.892	1.00	1.09	1.10	1.91	1000
5611	78	78	27.720	34.763	22.310	196	1.678	0.857	0.99	1.07	1.05	1.96	1000
5610	93	93	27.313	34.806	22.474	193	1.665	0.851	0.97	1.04	1.03	1.96	1000
5609	108	108	25.477	34.795	23.042	176	1.697	0.846	0.86	0.99	0.96	2.01	1000
5608	129	129	20.267	34.821	24.556	145	1.515	0.765	0.65	0.70	0.71	1.98	1000
5607	154	155	13.947	34.628	25.911	101	0.846	0.408	0.40	0.29	0.29	2.08	1000
5606	179	180	12.117	34.613	26.267	66	0.518	0.238	0.25	0.16	0.15	2.18	1000
5605	201	201	11.224	34.624	26.442	67	0.346	0.168	0.25	0.10	0.10	2.06	1000
5704	228	229	9.832	34.639	26.699	65	0.151	0.086	0.23	0.04	0.05	1.75	1000
5703	253	254	9.580	34.643	26.744	59	0.114	0.056	0.21	0.03	0.03	2.02	1000
5702	277	278	9.359	34.645	26.782	70	0.111	0.059	0.25	0.03	0.03	1.89	1000
5701	304	305	9.012	34.640	26.835	67	0.061	0.037	0.24	0.02	0.02	1.65	1002
5712	350	351	8.648	34.629	26.884	66	0.034	0.024	0.23	0.01	-9.00	-9.00	1002
5711	400	402	8.299	34.617	26.928	63	0.028	0.022	0.22	-9.00	-9.00	-9.00	1002
5710	449	451	7.971	34.604	26.967	59	0.018	0.009	0.20	-9.00	-9.00	-9.00	1003
5709	499	502	7.708	34.594	26.998	64	0.011	0.009	0.22	-9.00	-9.00	-9.00	1003
5708	548	551	7.209	34.576	27.056	33	-0.001	-0.008	0.11	-9.00	-9.00	-9.00	1000
5707	599	602	6.846	34.566	27.098	35	0.001	-0.010	0.12	-9.00	-9.00	-9.00	1000
5706	645	649	6.477	34.556	27.140	37	-0.006	-0.008	0.12	-9.00	-9.00	-9.00	1000
5705	695	699	6.165	34.552	27.178	44	-0.004	-0.012	0.15	-9.00	-9.00	-9.00	1000
5804	794	799	5.391	34.549	27.272	52	-9.000	-9.000	0.17	-9.00	-9.00	-9.00	1000
5803	990	996	4.435	34.561	27.391	63	-9.000	-9.000	0.20	-9.00	-9.00	-9.00	1000
5802	1238	1248	3.465	34.586	27.511	78	-9.000	-9.000	0.24	-9.00	-9.00	-9.00	1000
5801	1488	1500	2.836	34.608	27.587	86	-9.000	-9.000	0.26	-9.00	-9.00	-9.00	1000
5812	1736	1752	2.411	34.625	27.638	99	-9.000	-9.000	0.30	-9.00	-9.00	-9.00	1000
5811	1975	1994	2.095	34.643	27.678	102	-9.000	-9.000	0.31	-9.00	-9.00	-9.00	1000
5810	2470	2497	1.696	34.664	27.726	118	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
5809	2961	2997	1.466	34.674	27.751	132	0.001	0.000	0.39	-9.00	-9.00	-9.00	1003
5808	3457	3504	1.254	34.685	27.775	146	0.000	-0.001	0.43	-9.00	-9.00	-9.00	1003
5807	3939	3998	1.073	34.694	27.795	165	-0.001	-0.001	0.48	-9.00	-9.00	-9.00	1003
5806	4671	4749	0.859	34.705	27.818	184	0.002	-0.001	0.54	-9.00	-9.00	-9.00	1003
5805	5409	5508	0.828	34.706	27.820	187	0.000	-0.003	0.55	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
24	28 Apr 88	04 00.4 N	170 00.2 W	5655	244.2	439.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6012	2	2	27.346	34.820	22.473	213	1.535	0.801	1.07	0.98	0.99	1.92	1000
6011	29	29	27.291	34.855	22.517	210	1.571	0.796	1.06	1.00	0.98	1.97	1000
6010	53	53	27.226	34.926	22.592	205	1.583	0.784	1.03	1.01	0.96	2.02	1000
6009	76	76	27.095	34.950	22.652	164	-9.000	-9.000	0.82	-9.00	-9.00	-9.00	1000
6008	105	105	24.799	34.927	23.349	156	1.468	0.737	0.75	0.84	0.83	1.99	1000
6007	127	127	21.305	34.864	24.308	144	1.381	0.678	0.65	0.68	0.66	2.04	1000
6006	154	154	15.512	34.667	25.603	115	1.072	0.505	0.47	0.40	0.39	2.12	1000
6005	176	176	12.417	34.594	26.194	80	0.554	0.275	0.30	0.18	0.18	2.02	1000
6004	205	205	10.428	34.621	26.583	85	0.267	0.143	0.31	0.08	0.09	1.88	1000
6003	252	253	9.574	34.654	26.754	92	0.177	0.087	0.33	0.05	0.05	2.03	1000
6002	301	302	8.901	34.635	26.848	89	0.075	0.062	0.32	0.02	0.03	1.22	1000
6001	350	351	8.541	34.623	26.896	87	0.067	0.050	0.31	0.02	0.03	1.34	1000
6106	398	400	8.219	34.616	26.940	75	0.029	0.022	0.26	-9.00	-9.00	-9.00	1002
6105	450	452	7.681	34.598	27.006	49	0.015	0.003	0.17	-9.00	-9.00	-9.00	1003
6104	499	501	7.314	34.592	27.054	-9	0.006	-0.004	-9.00	-9.00	-9.00	-9.00	1003
6103	549	552	6.885	34.575	27.100	44	0.004	-0.009	0.15	-9.00	-9.00	-9.00	1001
6102	599	602	6.409	34.565	27.156	51	0.004	0.003	0.17	-9.00	-9.00	-9.00	1003
6101	699	704	5.772	34.554	27.229	61	0.009	-0.002	0.20	-9.00	-9.00	-9.00	1003
6112	796	801	5.212	34.547	27.292	70	0.000	0.000	0.23	-9.00	-9.00	-9.00	1003
6111	994	1001	4.439	34.558	27.388	73	0.000	-0.004	0.23	-9.00	-9.00	-9.00	1003
6110	1236	1246	3.532	34.583	27.502	81	-9.000	-9.000	0.25	-9.00	-9.00	-9.00	1000
6109	1484	1497	2.873	34.607	27.583	87	-9.000	-9.000	0.27	-9.00	-9.00	-9.00	1000
6108	1719	1734	2.453	34.625	27.634	95	-9.000	-9.000	0.29	-9.00	-9.00	-9.00	1000
6107	1975	1994	2.106	34.640	27.675	105	-9.000	-9.000	0.32	-9.00	-9.00	-9.00	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
25	29 Apr 88	02 01.8 N	169 59.4 W	5414	243.9	439.3

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6207	0	0	27.435	34.876	22.487	198	1.524	0.804	1.00	0.98	0.99	1.90	1000
6206	34	34	26.907	35.068	22.801	193	1.484	0.779	0.97	0.93	0.95	1.90	1000
6205	63	63	26.791	35.101	22.863	190	1.532	0.804	0.95	0.96	0.97	1.91	1000
6204	95	95	26.548	35.095	22.935	185	1.487	0.794	0.92	0.92	0.95	1.87	1000
6203	102	102	23.011	34.836	23.808	149	1.357	0.703	0.70	0.72	0.74	1.93	1000
6202	128	128	17.488	34.788	25.235	138	1.270	0.573	0.58	0.52	0.48	2.21	1000
6201	153	154	14.718	34.635	25.753	137	1.098	0.557	0.55	0.39	0.41	1.97	1000
6212	176	176	13.667	34.671	26.003	134	0.896	0.449	0.53	0.31	0.32	1.99	1000
6211	199	199	12.601	34.674	26.220	128	0.758	0.390	0.49	0.24	0.26	1.94	1000
6210	227	227	11.635	34.777	26.485	104	0.436	0.221	0.39	0.13	0.14	1.97	1000
6213	251	252	11.395	34.807	26.553	65	0.215	0.121	0.24	0.07	0.08	1.78	1000
6208	302	303	10.809	34.766	26.628	66	0.203	0.098	0.24	0.06	0.06	2.06	1000
6307	400	402	9.322	34.674	26.811	67	0.102	0.052	0.24	0.03	0.03	1.97	1000
6306	498	500	7.375	34.584	27.039	65	0.023	0.010	0.22	-9.00	-9.00	-9.00	1003
6305	597	600	6.199	34.552	27.173	80	0.016	0.008	0.27	-9.00	-9.00	-9.00	1003
6304	696	700	5.718	34.548	27.231	80	0.004	0.001	0.26	-9.00	-9.00	-9.00	1003
6303	794	799	5.157	34.545	27.296	90	0.006	0.004	0.29	-9.00	-9.00	-9.00	1003
6302	992	999	4.440	34.556	27.386	91	0.004	0.001	0.29	-9.00	-9.00	-9.00	1003
6301	1238	1248	3.601	34.580	27.493	94	0.003	0.005	0.29	-9.00	-9.00	-9.00	1003
6312	1485	1498	2.911	34.604	27.577	98	-0.002	0.003	0.30	-9.00	-9.00	-9.00	1002
6311	1731	1747	2.463	34.622	27.631	104	-0.002	0.000	0.32	-9.00	-9.00	-9.00	1003
6310	1978	1997	2.106	34.640	27.675	109	-0.004	0.005	0.33	-9.00	-9.00	-9.00	1003
6313	2477	2504	1.684	34.664	27.727	122	-0.004	-0.005	0.36	-9.00	-9.00	-9.00	1003
6308	2961	2998	1.452	34.673	27.751	131	0.000	-0.002	0.39	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
26	30 Apr 88	01 00.6 N	170 00.3 W	5450	239.8	434.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6508	0	0	27.299	35.086	22.689	200	1.558	0.804	1.01	1.01	1.00	1.94	1000
6507	19	19	26.969	35.115	22.816	190	1.608	0.804	0.95	1.03	0.99	2.00	1000
6506	34	34	26.899	35.129	22.849	195	1.593	0.809	0.98	1.02	1.00	1.97	1000
6505	48	48	26.797	35.150	22.897	195	1.565	0.805	0.97	1.00	0.99	1.94	1000
6504	65	65	26.395	35.129	23.009	185	1.538	0.779	0.92	0.96	0.94	1.97	1000
6503	79	79	25.621	35.098	23.227	175	1.501	0.812	0.86	0.91	0.95	1.85	1000
6502	94	94	24.670	35.151	23.557	158	1.405	0.742	0.76	0.82	0.84	1.89	1000
6501	106	106	21.650	35.093	24.387	137	1.280	0.679	0.63	0.65	0.68	1.88	1000
6512	127	127	18.983	34.959	24.995	141	1.240	0.667	0.61	0.56	0.60	1.86	1000
6511	152	152	15.776	34.735	25.595	134	1.136	0.604	0.55	0.44	0.47	1.88	1000
6510	179	179	13.580	34.738	26.073	132	0.874	0.463	0.52	0.30	0.33	1.89	1000
6513	200	201	13.004	34.825	26.257	139	0.698	0.381	0.54	0.23	0.26	1.83	1000
6608	227	228	12.048	34.764	26.397	122	0.613	0.301	0.46	0.20	0.20	2.04	1000
6607	252	253	11.771	34.834	26.504	85	0.364	0.175	0.32	0.11	0.11	2.08	1000
6606	277	278	11.520	34.815	26.536	67	0.257	0.124	0.25	0.08	0.08	2.08	1000
6605	303	304	11.221	34.793	26.575	76	0.273	0.137	0.28	0.08	0.09	2.00	1000
6604	348	350	10.186	34.738	26.716	44	0.090	0.054	0.16	0.03	0.03	1.67	1000
6603	399	401	9.521	34.699	26.798	56	0.081	0.044	0.20	0.02	0.03	1.86	1000
6602	449	451	8.808	34.656	26.880	60	0.057	0.026	0.21	0.02	-9.00	-9.00	1000
6601	498	501	8.141	34.614	26.950	75	0.047	0.023	0.26	0.01	-9.00	-9.00	1000
6612	548	551	7.593	34.592	27.014	76	0.026	0.003	0.26	-9.00	-9.00	-9.00	1000
6611	594	597	6.817	34.564	27.101	82	0.016	0.003	0.28	-9.00	-9.00	-9.00	1002
6610	645	648	6.261	34.550	27.164	77	0.009	-9.000	0.26	-9.00	-9.00	-9.00	1022
6613	693	697	6.209	34.557	27.176	77	0.007	-9.000	0.26	-9.00	-9.00	-9.00	1023
6708	794	798	5.364	34.547	27.273	85	0.006	-0.001	0.28	-9.00	-9.00	-9.00	1003
6707	991	997	4.418	34.558	27.390	85	0.003	-0.003	0.27	-9.00	-9.00	-9.00	1003
6706	1238	1247	3.612	34.581	27.492	86	0.003	-0.005	0.27	-9.00	-9.00	-9.00	1003
6705	1484	1497	2.833	34.607	27.587	96	0.003	-0.006	0.30	-9.00	-9.00	-9.00	1003
6704	1745	1761	2.522	34.621	27.625	104	-0.004	-0.007	0.32	-9.00	-9.00	-9.00	1000
6703	1977	1997	2.128	34.640	27.673	108	-0.001	-0.007	0.33	-9.00	-9.00	-9.00	1000
6702	2460	2487	1.717	34.661	27.722	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
6701	2959	2996	1.466	34.672	27.749	134	-9.000	-9.000	0.40	-9.00	-9.00	-9.00	1000
6712	3451	3498	1.280	34.681	27.770	146	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
6711	3937	3995	1.096	34.692	27.791	164	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
6710	4574	4648	0.855	34.704	27.817	189	-9.000	-9.000	0.55	-9.00	-9.00	-9.00	1000
6713	5206	5299	0.822	34.706	27.821	180	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
27	30 Apr 88	00 30.0 N	170 00.3 W	5009	239.8	434.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6812	1	1	26.735	35.160	22.925	195	1.514	0.812	0.97	0.96	0.99	1.87	1000
6811	24	24	26.709	35.158	22.932	193	1.528	0.812	0.96	0.97	0.99	1.88	1000
6810	46	46	26.637	35.155	22.952	191	1.519	0.811	0.95	0.96	0.99	1.87	1000
6813	63	63	26.419	35.144	23.013	185	1.523	0.823	0.92	0.96	1.00	1.85	1000
6808	83	83	25.463	35.184	23.341	168	1.465	0.762	0.82	0.88	0.89	1.92	1000
6807	104	104	23.593	35.310	23.998	154	1.386	0.723	0.73	0.77	0.79	1.92	1000
6806	123	123	21.743	35.153	24.407	144	1.339	0.706	0.66	0.69	0.71	1.90	1000
6805	143	144	19.055	35.300	25.238	131	1.132	0.629	0.57	0.51	0.57	1.80	1000
6804	163	164	17.049	34.891	25.420	138	1.198	0.644	0.58	0.49	0.54	1.86	1000
6803	181	182	15.224	34.953	25.887	139	0.953	0.566	0.56	0.36	0.43	1.69	1000
6802	214	214	13.142	34.792	26.204	131	0.769	0.481	0.51	0.26	0.34	1.60	1000
6801	253	254	12.125	34.859	26.456	112	0.468	0.327	0.43	0.15	0.22	1.43	1000
6912	300	301	11.148	34.793	26.588	63	0.222	0.138	0.23	0.07	0.09	1.61	1000
6911	348	349	10.521	34.762	26.676	55	0.148	0.069	0.20	0.04	0.04	2.15	1000
6910	400	402	9.392	34.695	26.816	66	0.094	0.046	0.24	0.03	0.03	2.05	1000
6913	497	500	8.463	34.636	26.918	76	0.058	0.035	0.27	0.02	0.02	1.68	1000
6908	597	600	6.969	34.572	27.086	90	0.021	0.009	0.30	-9.00	-9.00	-9.00	1003
6907	697	701	6.230	34.558	27.174	76	0.007	-0.001	0.25	-9.00	-9.00	-9.00	1003
6906	798	802	5.280	34.548	27.284	83	0.001	-0.003	0.27	-9.00	-9.00	-9.00	1003
6905	993	1000	4.320	34.560	27.402	87	0.005	0.010	0.28	-9.00	-9.00	-9.00	1003
6904	1239	1248	3.545	34.583	27.501	87	-9.000	-9.000	0.27	-9.00	-9.00	-9.00	1000
6903	1487	1500	2.857	34.609	27.586	94	-9.000	-9.000	0.29	-9.00	-9.00	-9.00	1000
6902	1733	1748	2.494	34.623	27.629	105	-9.000	-9.000	0.32	-9.00	-9.00	-9.00	1000
6901	1974	1993	2.142	34.639	27.671	108	-9.000	-9.000	0.33	-9.00	-9.00	-9.00	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
28	1 May 88	00 00.3 N	170 00.5 W	5063	243.5	438.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7002	7	7	26.946	35.168	22.863	192	1.541	0.771	0.96	0.97	0.94	2.00	1000
7001	19	19	26.650	35.163	22.954	188	1.560	0.806	0.94	0.97	0.97	1.94	1000
7012	34	34	26.601	35.162	22.969	191	1.494	0.817	0.95	0.93	0.98	1.83	1000
7011	48	48	26.504	35.159	22.997	180	1.519	0.801	0.89	0.94	0.96	1.90	1000
7010	64	64	26.273	35.162	23.072	167	1.498	0.766	0.83	0.92	0.91	1.96	1000
7009	79	79	25.845	35.170	23.212	170	1.518	0.763	0.84	0.92	0.89	1.99	1000
7008	94	94	24.467	35.439	23.836	153	1.411	0.721	0.74	0.81	0.80	1.96	1000
7007	108	108	21.910	35.132	24.345	133	1.318	0.673	0.61	0.67	0.68	1.96	1000
7006	127	127	20.074	35.109	24.827	132	1.256	0.632	0.59	0.59	0.59	1.99	1000
7005	154	154	17.970	35.282	25.496	134	1.020	0.533	0.57	0.43	0.46	1.92	1000
7004	175	176	15.397	35.025	25.904	-9	0.898	0.464	-9.00	0.34	0.36	1.93	1000
7003	199	200	13.719	34.889	26.161	121	0.773	0.408	0.48	0.27	0.29	1.89	1000
7102	227	228	13.544	34.923	26.223	128	0.716	0.366	0.50	0.24	0.26	1.96	1000
7101	251	252	12.429	34.869	26.405	123	0.542	0.270	0.47	0.17	0.18	2.01	1000
7112	276	277	11.803	34.846	26.507	101	0.371	0.210	0.38	0.12	0.14	1.77	1000
7111	301	302	11.447	34.814	26.549	80	0.289	0.175	0.30	0.09	0.11	1.65	1000
7110	349	350	10.934	34.792	26.626	69	0.208	0.120	0.26	0.06	0.07	1.73	1000
7113	400	402	9.781	34.724	26.774	70	0.101	0.061	0.25	0.03	0.04	1.67	1000
7108	448	450	8.974	34.668	26.863	78	0.092	0.043	0.28	0.02	0.02	2.14	1000
7107	496	498	8.298	34.625	26.935	79	0.058	0.032	0.28	0.01	0.02	1.82	1002
7106	547	550	7.661	34.604	27.013	79	0.031	0.019	0.27	0.01	-9.00	-9.00	1003
7105	596	599	6.741	34.565	27.112	86	0.018	0.008	0.29	-9.00	-9.00	-9.00	1003
7104	647	651	6.249	34.554	27.168	86	0.006	0.002	0.29	-9.00	-9.00	-9.00	1003
7103	696	700	6.203	34.554	27.174	82	0.009	0.001	0.27	-9.00	-9.00	-9.00	1003
7202	795	800	5.296	34.550	27.284	85	0.012	-0.001	0.28	-9.00	-9.00	-9.00	1003
7201	990	997	4.314	34.561	27.404	83	0.012	-9.000	0.26	-9.00	-9.00	-9.00	1023
7212	1237	1247	3.640	34.582	27.490	86	0.001	-0.003	0.27	-9.00	-9.00	-9.00	1000
7211	1484	1497	2.897	34.607	27.581	96	0.000	-0.005	0.29	-9.00	-9.00	-9.00	1003
7210	1731	1746	2.481	34.625	27.632	106	-0.002	0.002	0.32	-9.00	-9.00	-9.00	1002
7213	1977	1996	2.142	34.642	27.674	114	-0.003	-9.000	0.34	-9.00	-9.00	-9.00	1022
7208	2470	2497	1.687	34.665	27.727	123	-9.000	-9.000	0.37	-9.00	-9.00	-9.00	1000
7207	2957	2994	1.433	34.676	27.755	140	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
7206	3451	3498	1.259	34.684	27.774	150	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
7205	3939	3997	1.103	34.694	27.793	162	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
7204	4427	4498	0.871	34.706	27.818	184	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
7203	5211	5304	0.820	34.707	27.822	205	-9.000	-9.000	0.60	-9.00	-9.00	-9.00	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
29	1 May 88	00 31.0 S	169 59.3 W	5752	243.0	437.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7404	8	8	26.709	35.193	22.958	191	1.593	0.780	0.95	1.00	0.95	2.04	1000
7403	29	29	26.853	35.197	22.915	190	1.522	0.782	0.95	0.96	0.95	1.95	1000
7402	53	53	26.421	35.234	23.080	182	1.581	0.785	0.91	0.98	0.94	2.01	1000
7401	77	78	26.530	35.374	23.151	180	1.516	0.773	0.90	0.95	0.93	1.96	1000
7412	103	103	23.953	35.486	24.025	149	1.345	0.730	0.71	0.75	0.80	1.84	1000
7411	128	128	19.783	35.125	24.915	133	1.260	0.658	0.59	0.58	0.61	1.91	1000
7410	153	153	18.690	35.337	25.359	128	1.096	0.573	0.55	0.48	0.51	1.91	1000
7413	177	178	15.253	34.941	25.871	135	0.955	0.510	0.55	0.35	0.39	1.87	1000
7408	204	205	14.091	35.046	26.204	133	0.716	0.371	0.53	0.25	0.27	1.93	1000
7407	252	253	11.117	34.873	26.656	114	0.434	0.225	0.42	0.13	0.14	1.93	1000
7406	301	302	11.089	34.797	26.602	87	0.279	0.142	0.32	0.08	0.09	1.97	1000
7405	351	352	10.404	34.763	26.698	74	0.152	0.082	0.27	0.04	0.05	1.85	1000
7504	398	399	9.794	34.722	26.770	71	0.120	0.058	0.26	0.03	0.03	2.07	1000
7503	448	450	9.161	34.684	26.845	83	0.126	0.067	0.30	0.03	0.04	1.87	1000
7502	498	500	8.591	34.649	26.908	81	0.082	0.039	0.28	0.02	0.02	2.10	1000
7501	549	551	7.731	34.608	27.006	79	0.046	0.017	0.27	0.01	-9.00	-9.00	1000
7512	598	602	6.593	34.558	27.126	89	0.020	0.022	0.30	-9.00	-9.00	-9.00	1000
7511	697	701	6.119	34.553	27.184	78	0.022	0.010	0.26	-9.00	-9.00	-9.00	1000
7510	794	799	5.409	34.546	27.267	82	0.011	0.009	0.27	-9.00	-9.00	-9.00	1000
7513	991	998	4.662	34.551	27.358	84	0.008	0.007	0.27	-9.00	-9.00	-9.00	1000
7508	1237	1247	3.699	34.575	27.479	85	0.007	0.009	0.27	-9.00	-9.00	-9.00	1000
7507	1486	1498	2.961	34.600	27.569	92	0.005	0.003	0.28	-9.00	-9.00	-9.00	1000
7506	1729	1745	2.565	34.619	27.620	98	0.006	-0.001	0.30	-9.00	-9.00	-9.00	1000
7505	1978	1997	2.164	34.637	27.668	109	0.005	0.002	0.33	-9.00	-9.00	-9.00	1000

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
30	2 May 88	01 01.7 S	170 02.2 W	5535	243.0	437.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7606	0	0	27.244	35.224	22.810	197	1.520	0.781	0.99	0.97	0.97	1.95	1000
7605	29	29	26.852	35.226	22.937	194	1.543	0.788	0.97	0.97	0.96	1.96	1000
7604	53	53	26.741	35.219	22.967	194	1.503	0.777	0.97	0.94	0.94	1.93	1000
7603	79	79	26.674	35.257	23.017	191	1.525	0.787	0.95	0.96	0.95	1.94	1000
7602	103	103	25.207	35.555	23.699	157	1.502	0.763	0.76	0.89	0.88	1.97	1000
7601	128	128	22.104	35.528	24.591	133	1.308	0.661	0.61	0.68	0.67	1.98	1000
7612	152	152	19.378	35.348	25.191	128	1.140	0.600	0.57	0.52	0.55	1.90	1000
7611	177	178	15.620	35.055	25.877	134	0.908	0.461	0.55	0.34	0.36	1.97	1000
7610	203	203	14.389	35.072	26.161	134	0.704	0.371	0.53	0.25	0.27	1.90	1000
7613	251	251	12.240	34.872	26.444	123	0.492	0.249	0.47	0.16	0.16	1.99	1100
7608	301	302	11.154	34.795	26.588	83	0.272	0.135	0.31	0.08	0.08	2.03	1100
7607	350	351	10.531	34.768	26.679	63	0.160	0.103	0.23	0.05	0.06	1.55	1100
7706	397	399	9.800	34.725	26.772	75	0.106	0.059	0.27	0.03	0.04	1.79	1000
7705	447	449	9.261	34.690	26.834	81	0.091	-9.000	0.29	0.02	-9.00	-9.00	1020
7704	498	500	8.212	34.646	26.964	-9	0.015	0.008	-9.00	-9.00	-9.00	-9.00	1003
7703	547	550	6.940	34.571	27.089	88	0.028	0.010	0.30	-9.00	-9.00	-9.00	1003
7702	597	600	6.362	34.553	27.153	88	0.020	0.003	0.29	-9.00	-9.00	-9.00	1003
7701	693	697	6.033	34.554	27.196	75	0.006	-0.002	0.25	-9.00	-9.00	-9.00	1003
7712	792	797	5.425	34.545	27.265	85	0.002	0.015	0.28	-9.00	-9.00	-9.00	1003
7711	993	999	4.424	34.556	27.388	88	0.002	0.000	0.28	-9.00	-9.00	-9.00	1003
7710	1238	1248	3.636	34.578	27.488	-9	-0.001	0.003	-9.00	-9.00	-9.00	-9.00	1003
7713	1483	1495	2.827	34.608	27.588	95	-0.001	0.000	0.29	-9.00	-9.00	-9.00	1003
7708	1725	1741	2.597	34.618	27.616	102	-0.002	0.000	0.31	-9.00	-9.00	-9.00	1003
7707	1978	1998	2.090	34.642	27.678	110	-0.002	-0.003	0.33	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
31	2 May 88	02 00.4 S	170 00.9 W	5302	242.0	436.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7807	8	8	27.792	35.381	22.751	198	1.509	0.780	1.00	0.99	0.99	1.93	1000
7806	29	29	27.866	35.457	22.784	197	1.493	0.765	1.01	0.99	0.97	1.95	1000
7805	54	54	27.900	35.492	22.799	192	1.478	0.776	0.98	0.98	0.99	1.90	1000
7804	77	77	27.742	35.503	22.859	191	1.496	0.788	0.97	0.99	1.00	1.90	1000
7803	104	104	27.332	35.476	22.972	189	1.498	0.779	0.96	0.97	0.97	1.92	1000
7802	127	127	26.907	35.460	23.096	185	1.487	0.797	0.93	0.95	0.98	1.86	1000
7801	153	154	21.809	35.882	24.943	133	1.432	0.734	0.61	0.74	0.75	1.95	1000
7812	203	203	14.486	35.129	26.184	102	0.662	0.339	0.41	0.24	0.25	1.96	1000
7811	251	251	11.824	34.891	26.538	-9	0.415	0.217	-9.00	0.13	0.14	1.92	1000
7810	302	303	10.763	34.793	26.657	95	0.236	0.147	0.35	0.07	0.09	1.61	1000
7813	350	351	10.323	34.761	26.710	88	0.192	0.125	0.32	0.06	0.08	1.53	1000
7808	402	403	9.753	34.726	26.780	86	0.126	0.053	0.31	0.04	0.03	2.37	1000
7907	450	452	8.736	34.675	26.906	40	0.025	0.011	0.14	-9.00	-9.00	-9.00	1003
7906	499	501	7.568	34.613	27.034	49	0.008	0.002	0.17	-9.00	-9.00	-9.00	1003
7905	603	606	6.311	34.558	27.163	76	0.012	-0.001	0.25	-9.00	-9.00	-9.00	1003
7904	700	704	5.709	34.546	27.231	85	0.006	0.003	0.28	-9.00	-9.00	-9.00	1003
7903	792	796	5.291	34.544	27.280	87	0.007	-0.001	0.28	-9.00	-9.00	-9.00	1003
7902	988	995	4.356	34.555	27.395	91	0.006	0.009	0.29	-9.00	-9.00	-9.00	1003
7901	1236	1245	3.594	34.578	27.492	92	0.003	0.002	0.29	-9.00	-9.00	-9.00	1003
7912	1485	1498	2.842	34.608	27.587	97	-0.005	-0.005	0.30	-9.00	-9.00	-9.00	1003
7911	1727	1742	2.444	34.625	27.635	106	0.000	-0.006	0.32	-9.00	-9.00	-9.00	1003
7910	1973	1992	2.147	34.641	27.672	111	0.000	-9.000	0.33	-9.00	-9.00	-9.00	1023
7913	2490	2518	1.695	34.665	27.727	127	0.003	-9.000	0.38	-9.00	-9.00	-9.00	1023
7908	2958	2994	1.442	34.674	27.753	133	-0.004	0.004	0.39	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
32	3 May 88	04 00.3 S	169 59.9 W	5511	240.1	435.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
8008	1	1	29.206	35.502	22.374	-9	1.468	0.758	-9.00	1.03	1.01	1.94	1000
8007	28	28	29.028	35.500	22.432	-9	1.516	0.756	-9.00	1.06	1.01	2.00	1000
8006	55	55	28.353	35.332	22.531	-9	1.535	0.770	-9.00	1.04	1.00	1.99	1000
8005	78	78	27.850	35.290	22.664	-9	1.504	0.763	-9.00	1.00	0.97	1.97	1000
8004	104	104	27.809	35.414	22.771	-9	1.546	0.782	-9.00	1.03	1.00	1.98	1000
8003	127	127	26.337	35.306	23.161	-9	1.555	0.779	-9.00	0.97	0.94	2.00	1000
8002	152	152	23.794	36.156	24.580	-9	1.553	0.793	-9.00	0.88	0.88	1.96	1000
8001	175	176	23.152	36.130	24.749	-9	1.595	0.794	-9.00	0.88	0.85	2.01	1000
8012	202	202	18.921	35.644	25.535	-9	0.765	-9.000	-9.00	0.35	-9.00	-9.00	1020
8011	253	253	13.192	35.003	26.357	-9	0.478	0.253	-9.00	0.16	0.18	1.89	1000
8010	301	302	10.749	34.823	26.683	-9	0.180	0.147	-9.00	0.05	0.09	1.22	1000
8013	353	355	9.439	34.723	26.830	-9	0.077	0.073	-9.00	0.02	0.04	1.06	1000
8108	399	400	8.840	34.674	26.889	70	0.037	0.026	0.25	0.01	-9.00	-9.00	1003
8107	448	450	8.437	34.653	26.935	66	0.034	0.014	0.23	0.01	-9.00	-9.00	1003
8106	500	502	7.751	34.616	27.010	69	0.025	0.011	0.24	-9.00	-9.00	-9.00	1003
8105	548	551	7.270	34.597	27.064	55	0.008	0.001	0.19	-9.00	-9.00	-9.00	1003
8104	596	600	6.683	34.572	27.125	66	0.010	0.005	0.22	-9.00	-9.00	-9.00	1003
8103	697	700	5.910	34.550	27.209	81	0.003	-9.000	0.27	-9.00	-9.00	-9.00	1023
8102	795	800	5.275	34.539	27.278	95	-9.000	0.006	0.31	-9.00	-9.00	-9.00	1013
8101	990	997	4.358	34.546	27.387	100	0.003	0.000	0.32	-9.00	-9.00	-9.00	1003
8112	1239	1248	3.347	34.578	27.516	107	-0.004	0.001	0.33	-9.00	-9.00	-9.00	1003
8111	1486	1498	2.804	34.603	27.586	109	-0.001	-0.001	0.33	-9.00	-9.00	-9.00	1003
8110	1730	1745	2.405	34.624	27.637	112	-0.002	0.007	0.34	-9.00	-9.00	-9.00	1003
8113	1979	1998	2.096	34.640	27.676	117	0.005	0.010	0.35	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
33	3 May 88	06 00.3 S	169 59.3 W	4812	240.1	435.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
8312	2	2	29.122	35.418	22.339	196	1.425	0.757	1.02	1.00	1.01	1.88	1000
8311	19	20	29.129	35.421	22.339	199	1.457	0.767	1.03	1.02	1.02	1.90	1000
8310	34	34	29.121	35.427	22.347	196	1.469	0.776	1.02	1.03	1.03	1.89	1000
8313	48	48	28.920	35.442	22.425	197	1.456	0.764	1.02	1.01	1.01	1.91	1000
8308	65	65	28.886	35.496	22.477	195	1.445	0.736	1.01	1.00	0.97	1.96	1000
8307	78	78	28.150	35.359	22.618	195	1.542	0.793	1.00	1.04	1.02	1.94	1000
8306	95	95	27.941	35.340	22.672	191	1.526	0.788	0.98	1.02	1.01	1.94	1000
8305	108	108	27.891	35.475	22.790	191	1.532	0.796	0.98	1.02	1.02	1.92	1000
8304	130	130	26.983	35.357	22.994	198	1.566	0.812	1.00	1.01	1.00	1.93	1000
8303	154	154	26.306	36.059	23.738	156	1.499	0.776	0.78	0.94	0.94	1.93	1000
8302	177	177	22.573	36.051	24.855	148	1.572	0.804	0.69	0.84	0.85	1.95	1000
8301	203	203	19.018	35.640	25.507	123	1.355	0.701	0.54	0.62	0.64	1.93	1000
8412	227	228	17.160	35.426	25.804	111	1.134	0.617	0.47	0.47	0.52	1.84	1000
8411	250	250	13.735	35.028	26.265	71	0.584	0.307	0.28	0.20	0.22	1.90	1000
8410	276	276	11.748	34.876	26.541	75	0.283	0.193	0.28	0.09	0.13	1.47	1000
8413	299	299	10.942	34.819	26.646	67	0.168	0.112	0.25	0.05	0.07	1.50	1000
8408	349	350	9.729	34.736	26.792	66	0.070	0.050	0.24	0.02	0.03	1.39	1000
8407	399	401	9.047	34.688	26.867	64	0.054	0.036	0.23	0.01	0.02	1.48	1002
8406	448	450	8.521	34.661	26.929	54	0.020	0.016	0.19	-9.00	-9.00	-9.00	1003
8405	497	499	7.957	34.626	26.987	62	-9.000	-9.000	0.21	-9.00	-9.00	-9.00	1000
8404	547	549	7.550	34.606	27.031	67	0.012	0.006	0.23	-9.00	-9.00	-9.00	1103
8403	597	600	7.087	34.582	27.078	79	0.008	0.006	0.27	-9.00	-9.00	-9.00	1103
8402	645	648	6.658	34.567	27.125	77	0.005	-0.001	0.26	-9.00	-9.00	-9.00	1003
8401	698	702	6.254	34.553	27.167	82	0.003	-9.000	0.27	-9.00	-9.00	-9.00	1023
8512	793	798	5.460	34.539	27.255	90	-0.002	0.003	0.30	-9.00	-9.00	-9.00	1003
8511	990	996	4.483	34.546	27.374	90	0.006	0.000	0.29	-9.00	-9.00	-9.00	1003
8510	1238	1247	3.556	34.574	27.492	97	0.000	0.006	0.30	-9.00	-9.00	-9.00	1003
8513	1485	1497	2.895	34.600	27.575	108	0.000	0.001	0.33	-9.00	-9.00	-9.00	1003
8508	1729	1744	2.472	34.616	27.625	121	0.000	0.008	0.37	-9.00	-9.00	-9.00	1003
8507	1977	1996	2.065	34.642	27.680	125	-0.002	-0.002	0.38	-9.00	-9.00	-9.00	1003
8506	2468	2495	1.649	34.668	27.733	134	-0.001	0.007	0.40	-9.00	-9.00	-9.00	1003
8505	2959	2996	1.426	34.679	27.758	147	-0.001	0.005	0.44	-9.00	-9.00	-9.00	1003
8504	3454	3500	1.250	34.688	27.778	157	-0.004	-0.004	0.46	-9.00	-9.00	-9.00	1003
8503	3942	4000	1.092	34.696	27.795	166	-0.001	0.000	0.49	-9.00	-9.00	-9.00	1003
8502	4428	4499	0.789	34.712	27.828	195	0.004	0.004	0.57	-9.00	-9.00	-9.00	1003
8501	4724	4802	0.747	34.712	27.830	200	0.001	0.001	0.58	-9.00	-9.00	-9.00	1003

CO2-88 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
34	4 May 88	08 00.2 S	169 59.7 W	5364	240.1	435.2

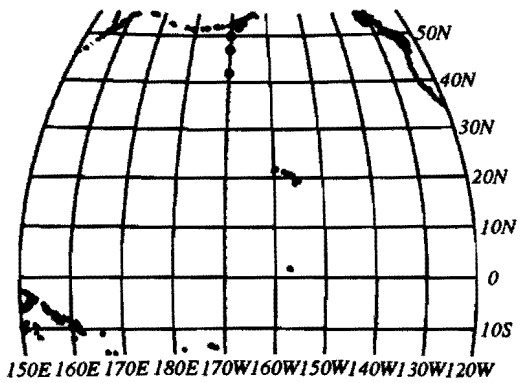
SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
8602	0	0	29.619	33.932	21.057	194	1.402	0.752	1.01	0.99	1.00	1.87	1000
8601	30	30	29.514	33.920	21.084	193	1.431	0.761	1.00	1.00	1.01	1.88	1000
8612	53	53	29.972	34.456	21.330	196	1.417	0.764	1.03	1.02	1.04	1.85	1000
8611	78	78	28.794	35.625	22.604	190	1.397	0.738	0.98	0.97	0.97	1.89	1000
8610	103	103	27.301	35.877	23.284	164	1.420	0.731	0.83	0.93	0.92	1.94	1000
8613	128	128	26.400	35.984	23.652	152	1.416	0.741	0.76	0.89	0.90	1.91	1000
8608	153	154	24.353	36.089	24.362	145	1.470	0.744	0.70	0.85	0.84	1.98	1000
8607	176	177	22.107	35.959	24.918	145	1.460	0.740	0.67	0.77	0.76	1.97	1000
8606	202	202	19.655	35.669	25.364	142	1.339	0.686	0.63	0.63	0.64	1.95	1000
8605	251	251	15.623	35.186	25.977	110	0.925	0.476	0.45	0.36	0.37	1.94	1000
8604	298	299	13.441	34.970	26.281	93	0.574	0.298	0.36	0.20	0.21	1.92	1000
8603	351	352	10.453	34.766	26.691	77	0.150	0.081	0.28	0.04	0.05	1.86	1000
8702	399	400	9.383	34.697	26.819	95	0.084	0.059	0.34	0.02	0.03	1.44	1000
8701	450	452	8.481	34.664	26.937	100	0.048	0.030	0.35	0.01	0.02	1.59	1002
8712	499	501	8.005	34.618	26.973	98	0.029	0.024	0.34	-9.00	-9.00	-9.00	1003
8711	547	550	7.393	34.584	27.036	99	0.019	0.013	0.34	-9.00	-9.00	-9.00	1003
8710	597	600	6.913	34.567	27.090	97	0.015	0.011	0.33	-9.00	-9.00	-9.00	1003
8713	696	700	6.085	34.538	27.177	97	0.006	-9.000	0.32	-9.00	-9.00	-9.00	1023
8708	795	800	5.363	34.530	27.260	98	0.005	0.003	0.32	-9.00	-9.00	-9.00	1003
8707	992	999	4.359	34.535	27.378	109	0.000	0.001	0.35	-9.00	-9.00	-9.00	1003
8706	1239	1248	3.447	34.567	27.497	117	0.001	0.004	0.36	-9.00	-9.00	-9.00	1003
8705	1482	1494	2.750	34.594	27.584	125	-0.002	-0.002	0.38	-9.00	-9.00	-9.00	1003
8704	1731	1746	2.348	34.619	27.638	129	-0.004	-0.004	0.39	-9.00	-9.00	-9.00	1003
8703	1977	1996	2.008	34.641	27.683	136	0.000	-0.001	0.41	-9.00	-9.00	-9.00	1003

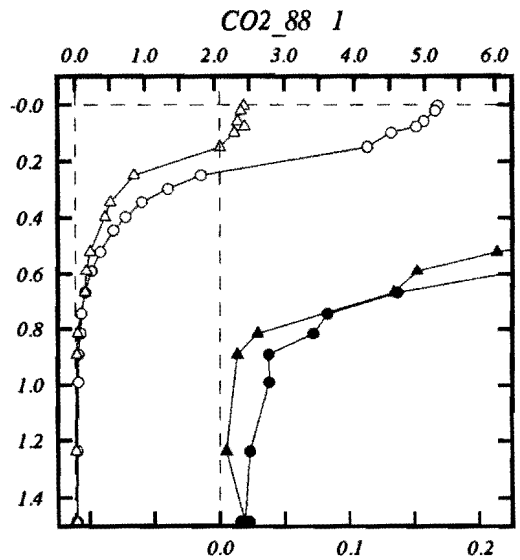
CO2-88 Bottle Data

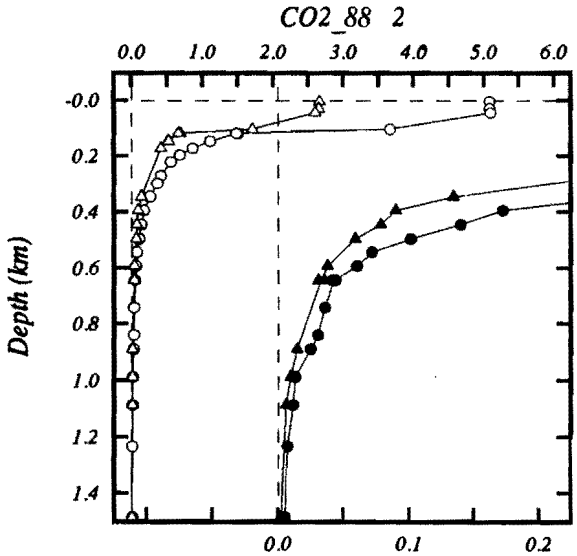
Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
35	4 May 88	10 00.8 S	169 59.3 W	5021	240.1	435.2

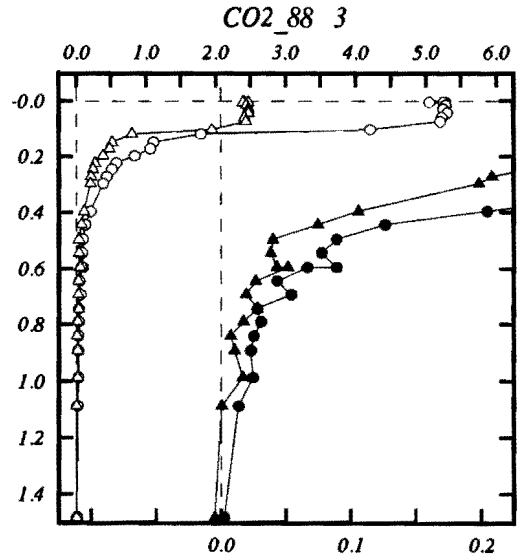
SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
8804	2	2	29.508	33.940	21.101	196	1.395	0.752	1.02	0.98	1.00	1.86	1000
8803	18	18	29.514	33.946	21.103	193	1.419	0.765	1.00	1.00	1.02	1.85	1000
8802	34	34	29.503	33.997	21.145	193	1.428	0.768	1.00	1.00	1.02	1.86	1000
8801	48	48	29.510	34.061	21.191	194	1.424	0.764	1.01	1.00	1.02	1.86	1000
8812	63	63	29.645	34.218	21.263	187	1.412	0.767	0.97	1.00	1.03	1.84	1000
8811	80	80	29.414	35.370	22.205	182	1.414	0.759	0.95	1.00	1.02	1.86	1000
8810	94	94	28.565	35.559	22.631	174	1.432	0.763	0.90	0.98	1.00	1.88	1000
8813	108	108	28.020	35.648	22.878	164	1.466	0.782	0.84	0.99	1.00	1.87	1000
8808	128	128	27.245	35.820	23.259	156	-9.000	-9.000	0.79	-9.00	-9.00	-9.00	1000
8807	153	153	25.680	35.970	23.867	148	1.441	0.751	0.73	0.88	0.89	1.92	1000
8806	176	176	23.752	36.047	24.510	144	1.407	0.741	0.69	0.79	0.82	1.90	1000
8805	207	207	19.950	35.723	25.328	136	1.299	0.677	0.61	0.62	0.64	1.92	1000
8904	228	228	18.837	35.560	25.492	130	1.169	0.604	0.57	0.53	0.54	1.94	1000
8903	254	255	16.843	35.315	25.794	120	0.988	0.513	0.50	0.40	0.42	1.93	1000
8902	276	277	14.623	35.081	26.118	106	0.719	0.372	0.42	0.26	0.28	1.93	1000
8901	302	302	13.100	34.942	26.328	95	0.481	0.271	0.37	0.16	0.19	1.78	1000
8912	351	352	10.873	34.783	26.630	85	0.186	0.117	0.32	0.06	0.07	1.59	1000
8911	401	402	9.623	34.709	26.789	93	0.094	0.058	0.33	0.03	0.03	1.62	1000
8910	450	452	8.581	34.648	26.909	98	0.044	0.043	0.34	0.01	0.02	1.02	1000
8913	497	499	8.147	34.625	26.958	99	0.037	0.028	0.35	0.01	-9.00	-9.00	1002
8908	548	551	7.544	34.594	27.022	100	0.023	0.020	0.34	-9.00	-9.00	-9.00	1003
8907	597	600	6.942	34.566	27.085	107	0.014	0.009	0.36	-9.00	-9.00	-9.00	1003
8906	649	652	6.554	34.550	27.125	101	0.008	0.009	0.34	-9.00	-9.00	-9.00	1003
8905	696	700	6.272	34.542	27.156	100	0.005	0.003	0.33	-9.00	-9.00	-9.00	1003
9004	793	798	5.655	34.527	27.222	105	0.009	-0.004	0.35	-9.00	-9.00	-9.00	1003
9003	993	1000	4.655	34.531	27.343	106	0.005	-0.005	0.34	-9.00	-9.00	-9.00	1003
9002	1235	1244	3.733	34.546	27.452	127	0.004	0.000	0.40	-9.00	-9.00	-9.00	1003
9001	1484	1496	2.957	34.578	27.552	134	0.003	0.003	0.41	-9.00	-9.00	-9.00	1003
9012	1729	1744	2.401	34.611	27.627	142	0.001	-0.002	0.43	-9.00	-9.00	-9.00	1003
9011	1977	1996	2.028	34.638	27.679	141	0.002	0.002	0.42	-9.00	-9.00	-9.00	1003
9010	2468	2495	1.644	34.666	27.731	143	0.002	0.003	0.43	-9.00	-9.00	-9.00	1003
9013	2960	2996	1.425	34.678	27.757	152	0.004	-9.000	0.45	-9.00	-9.00	-9.00	1023
9008	3454	3501	1.280	34.686	27.774	160	0.002	-0.004	0.47	-9.00	-9.00	-9.00	1003
9007	3937	3995	1.037	34.699	27.801	181	0.002	-0.003	0.53	-9.00	-9.00	-9.00	1003
9006	4429	4499	0.673	34.712	27.835	205	0.005	0.001	0.60	-9.00	-9.00	-9.00	1003
9005	4902	4986	0.654	34.714	27.838	218	0.002	0.003	0.63	-9.00	-9.00	-9.00	1003

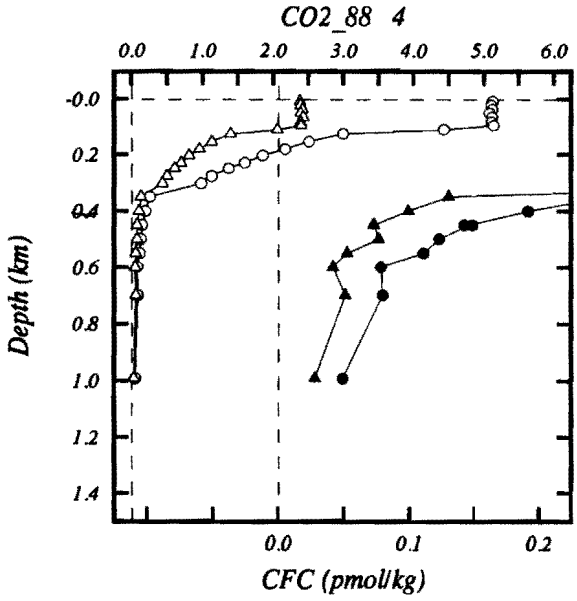
Locations of Stations on This Page

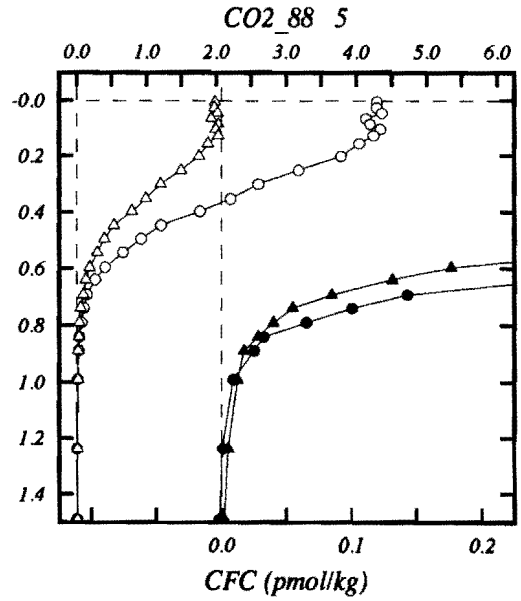












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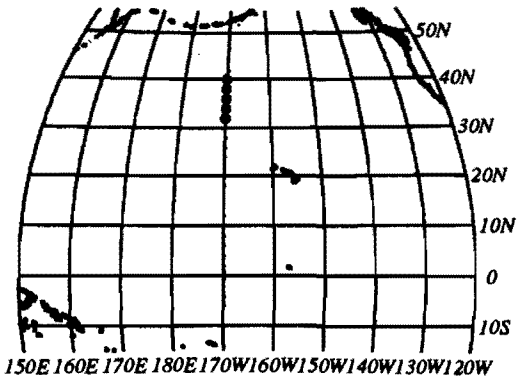

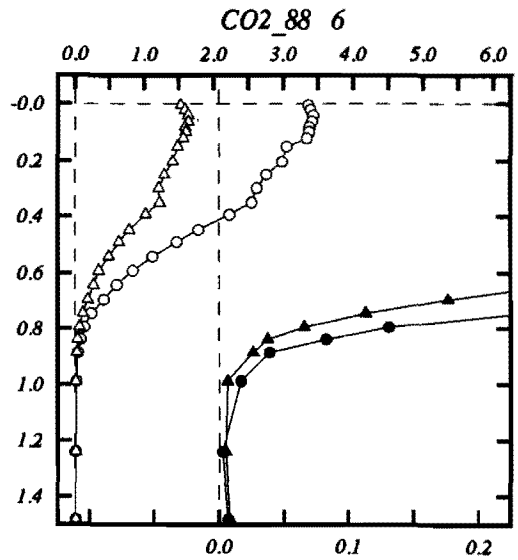

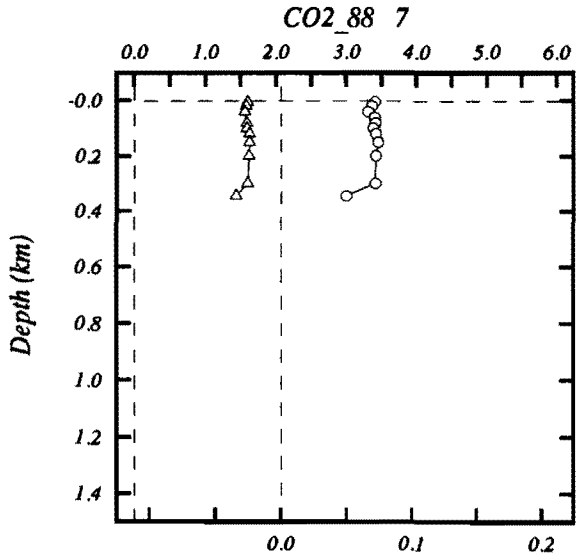

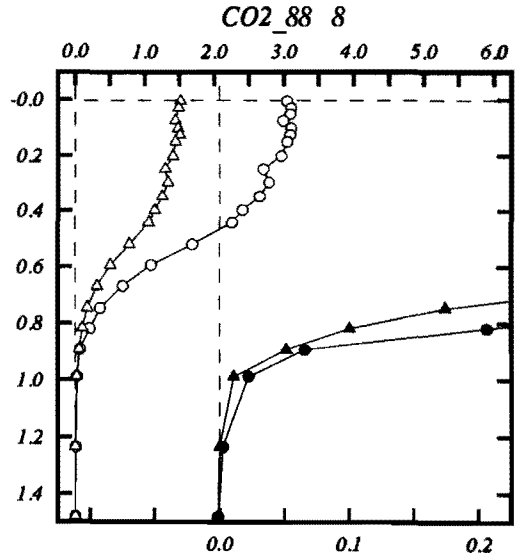

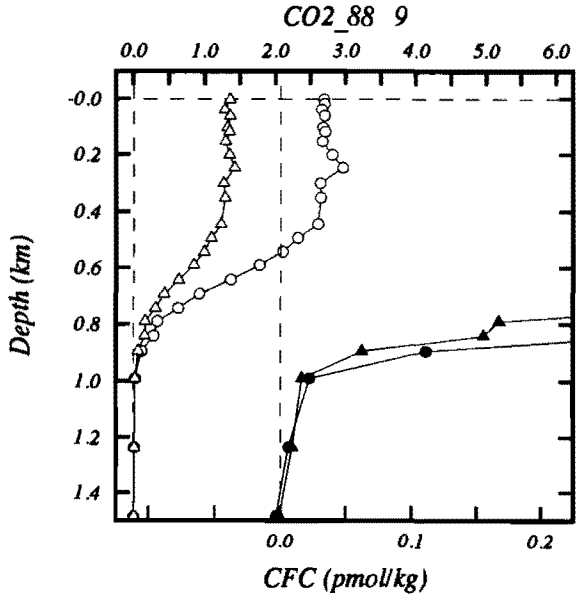

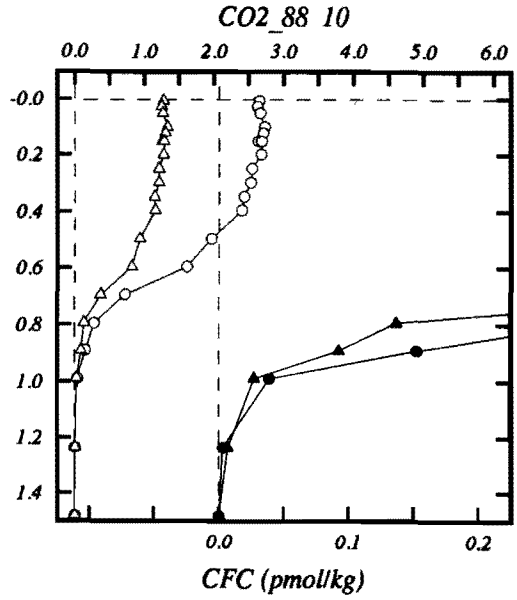

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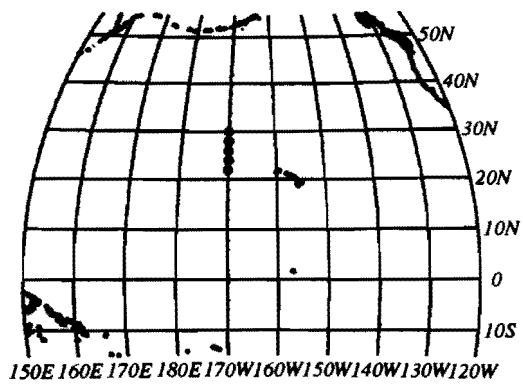

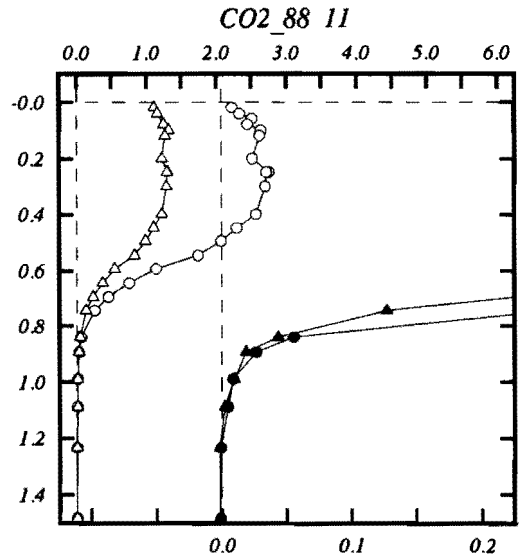

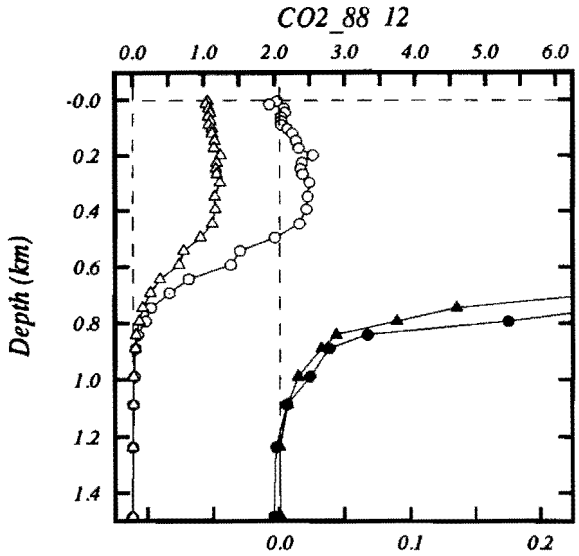

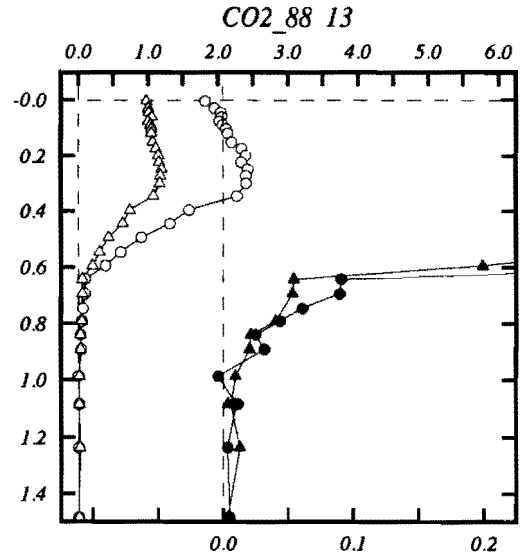

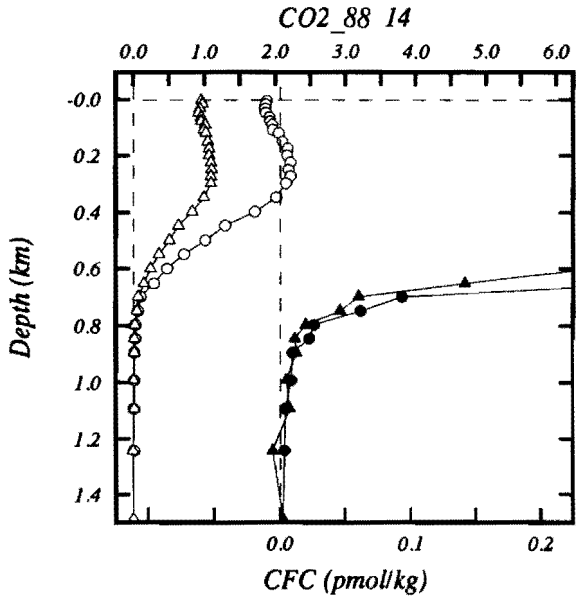

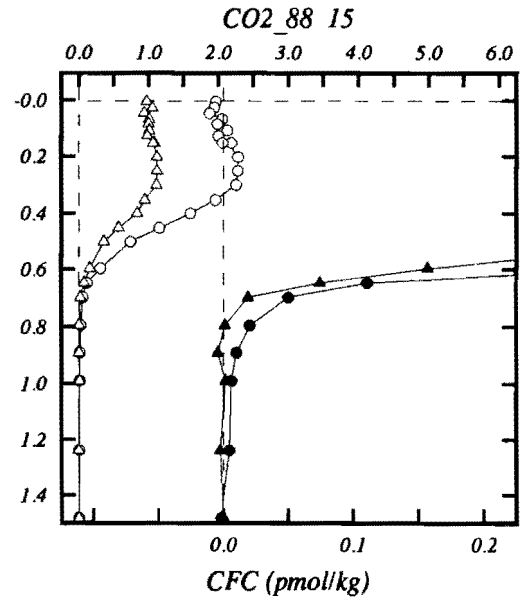

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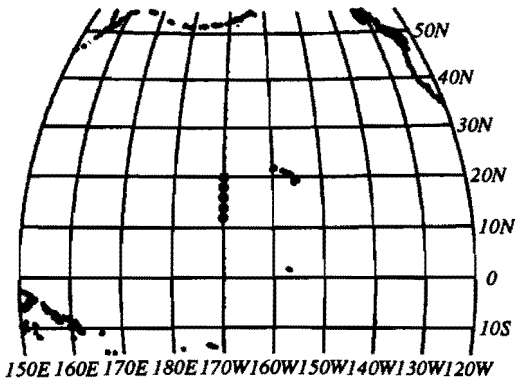
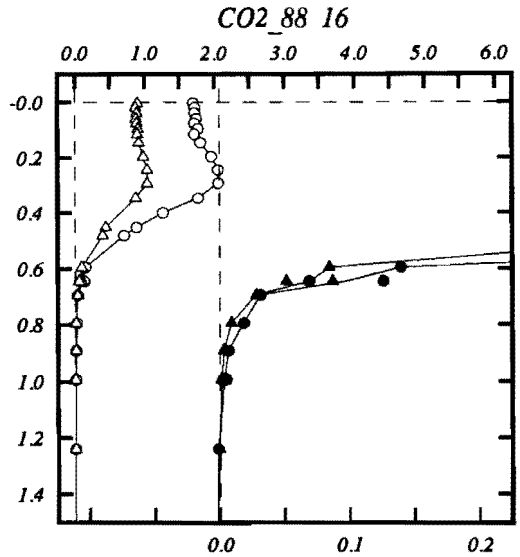
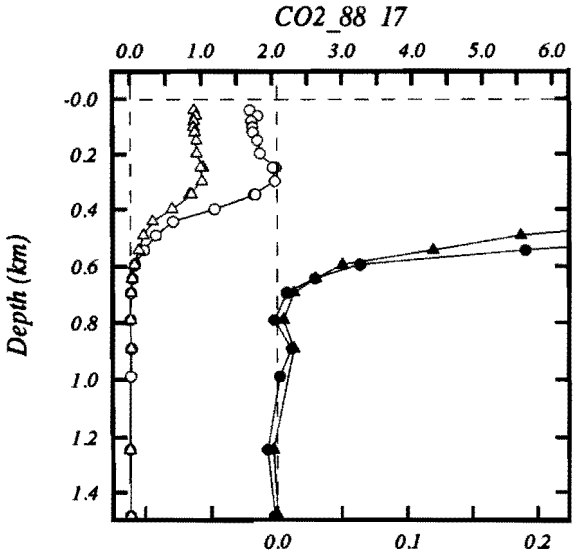
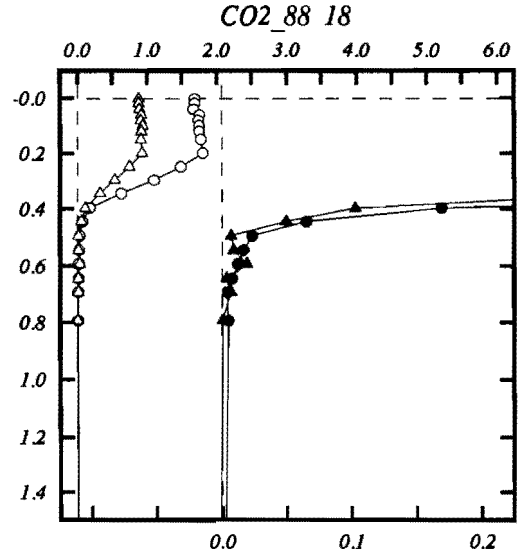
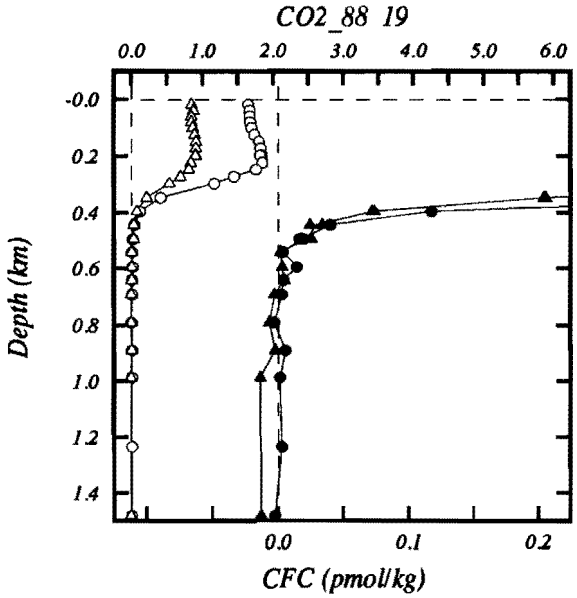
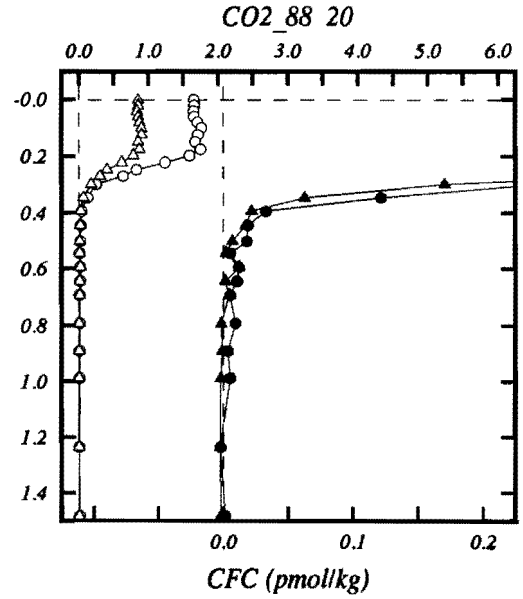




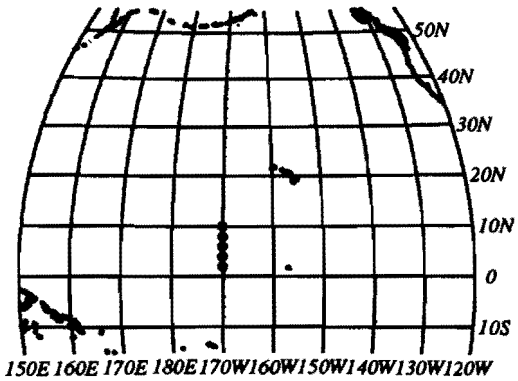


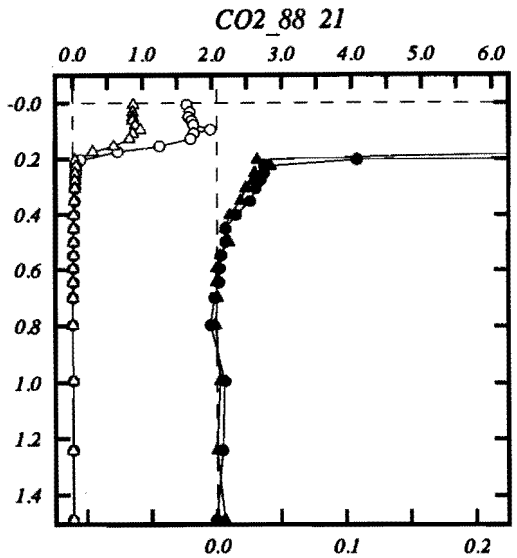


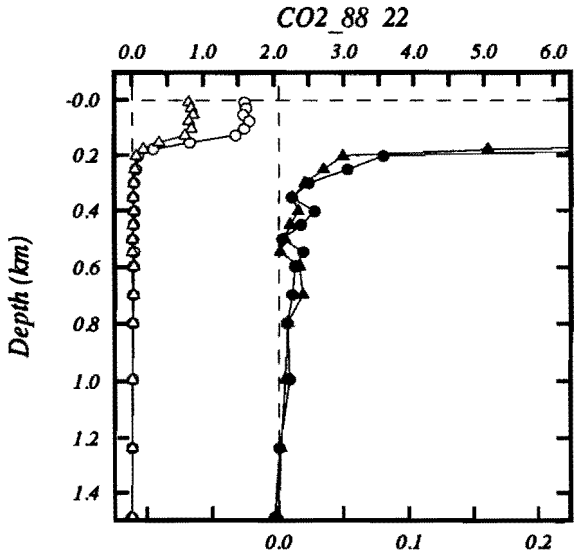


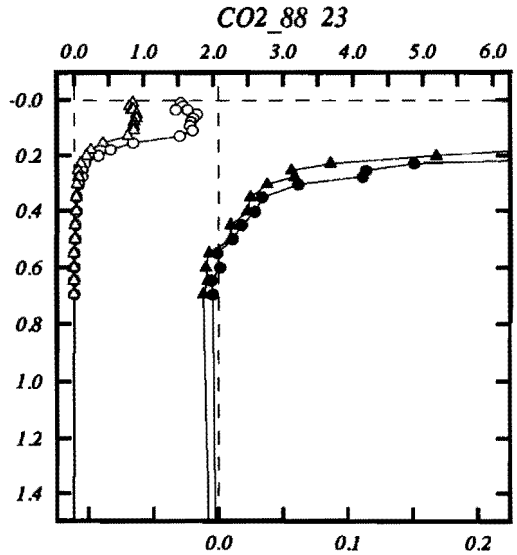


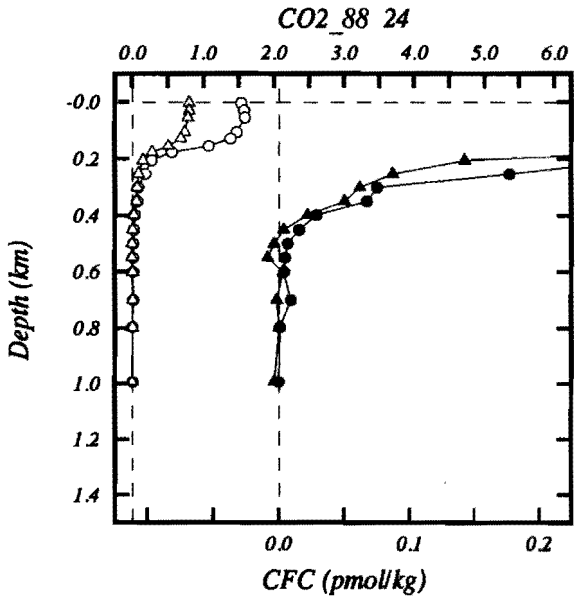
Locations of Stations on This Page

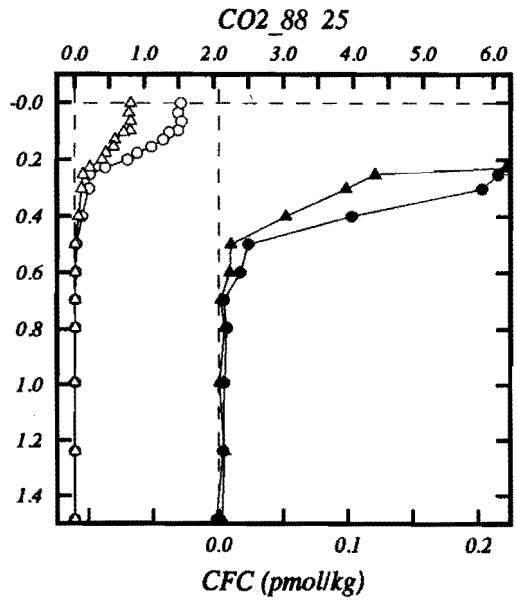




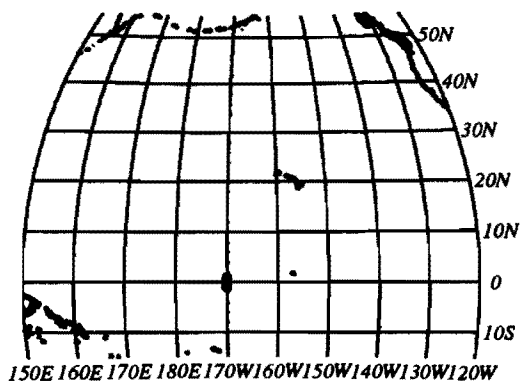


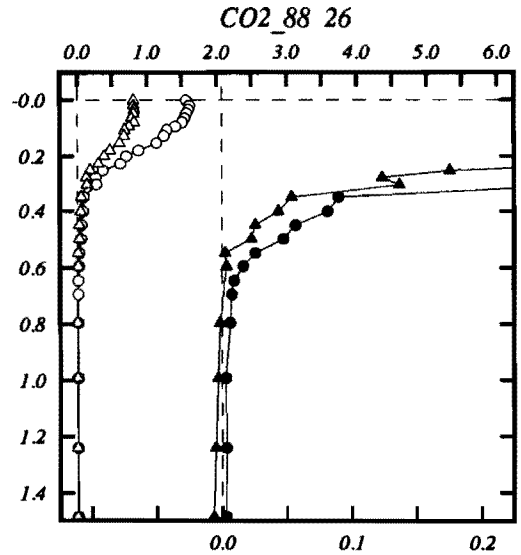


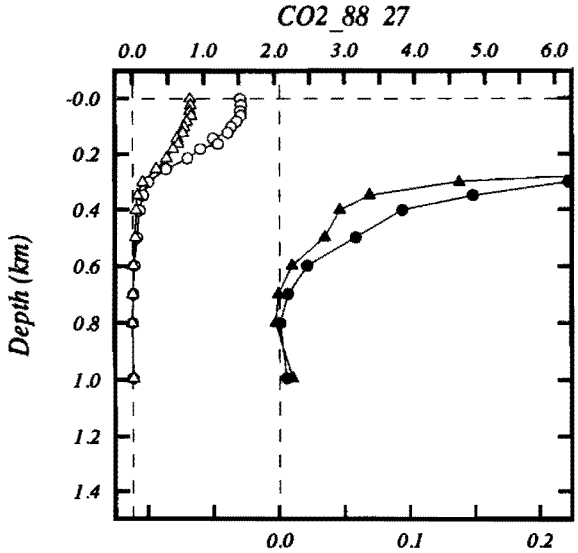


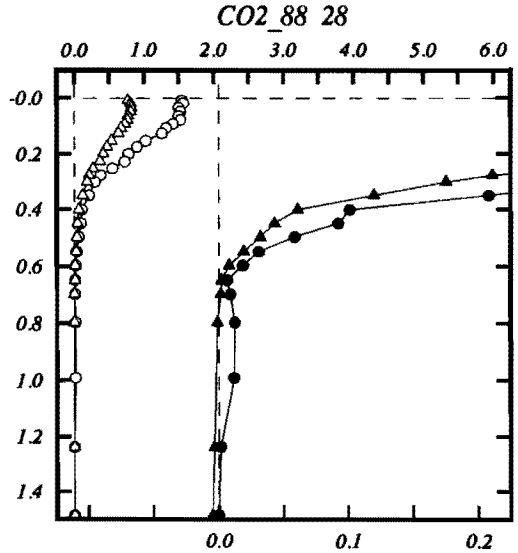


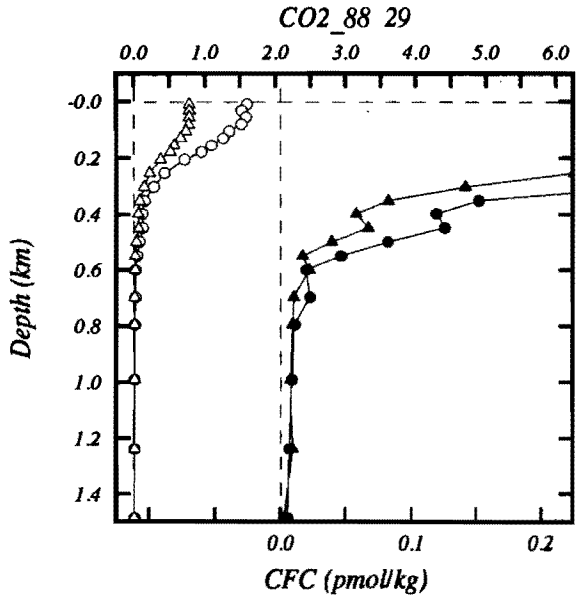
Locations of Stations on This Page

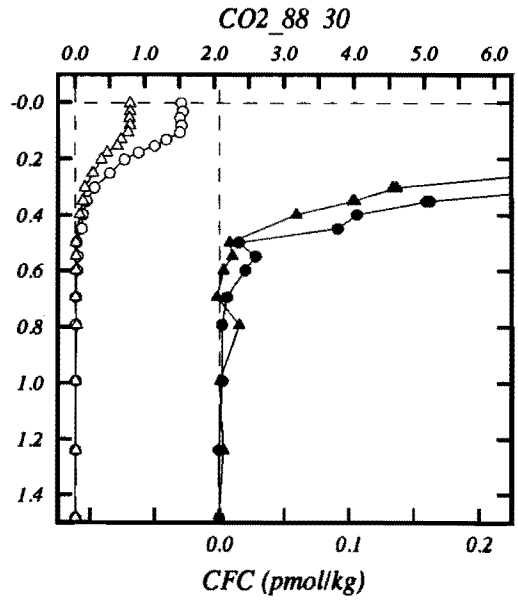




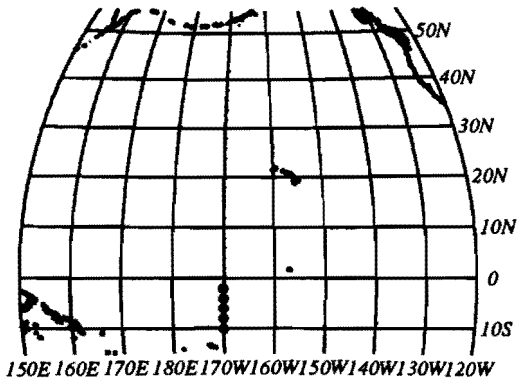


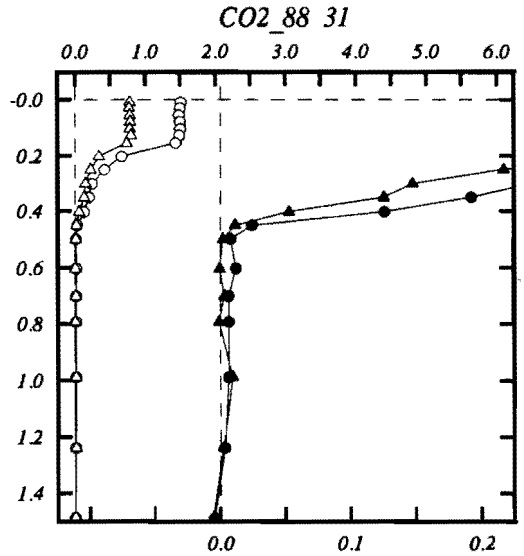


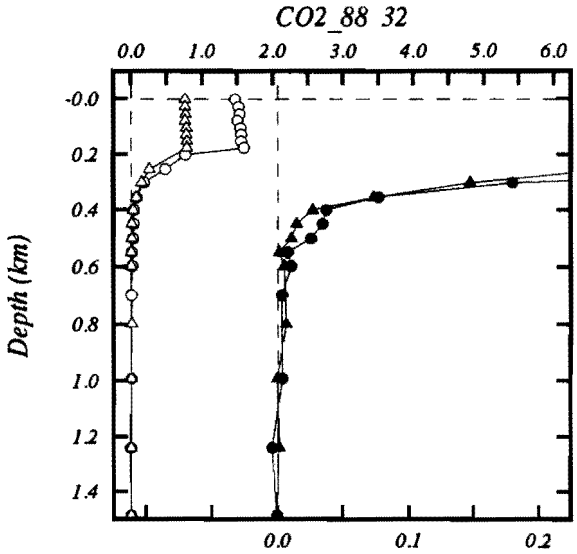


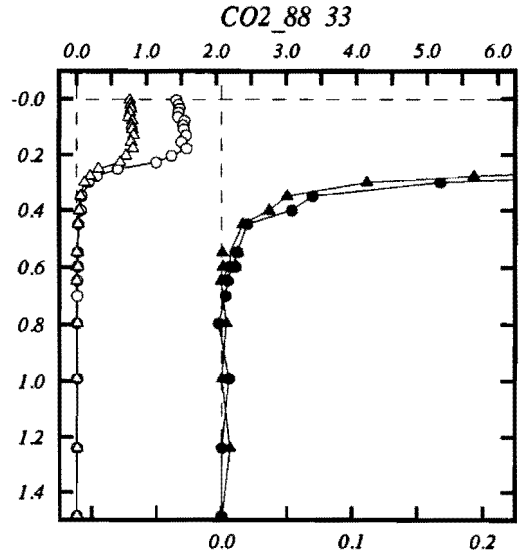


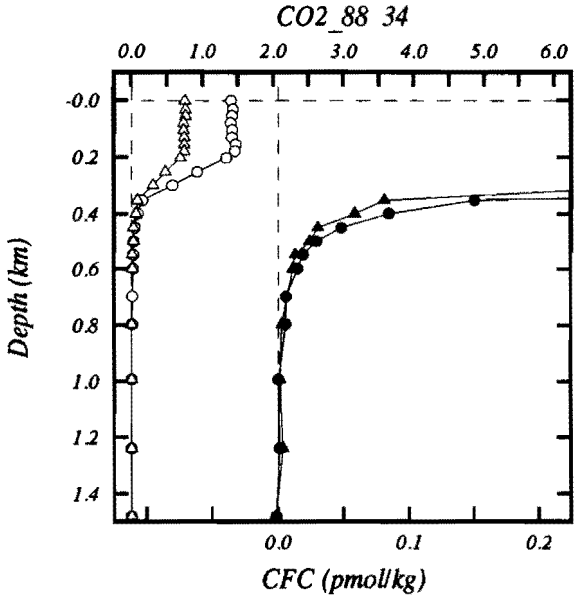
Locations of Stations on This Page

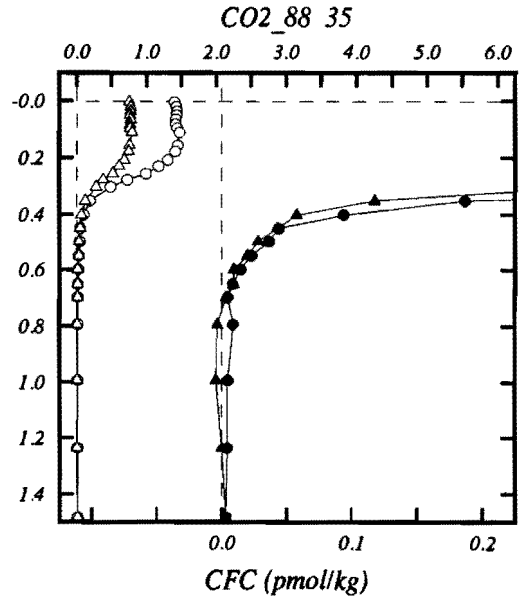








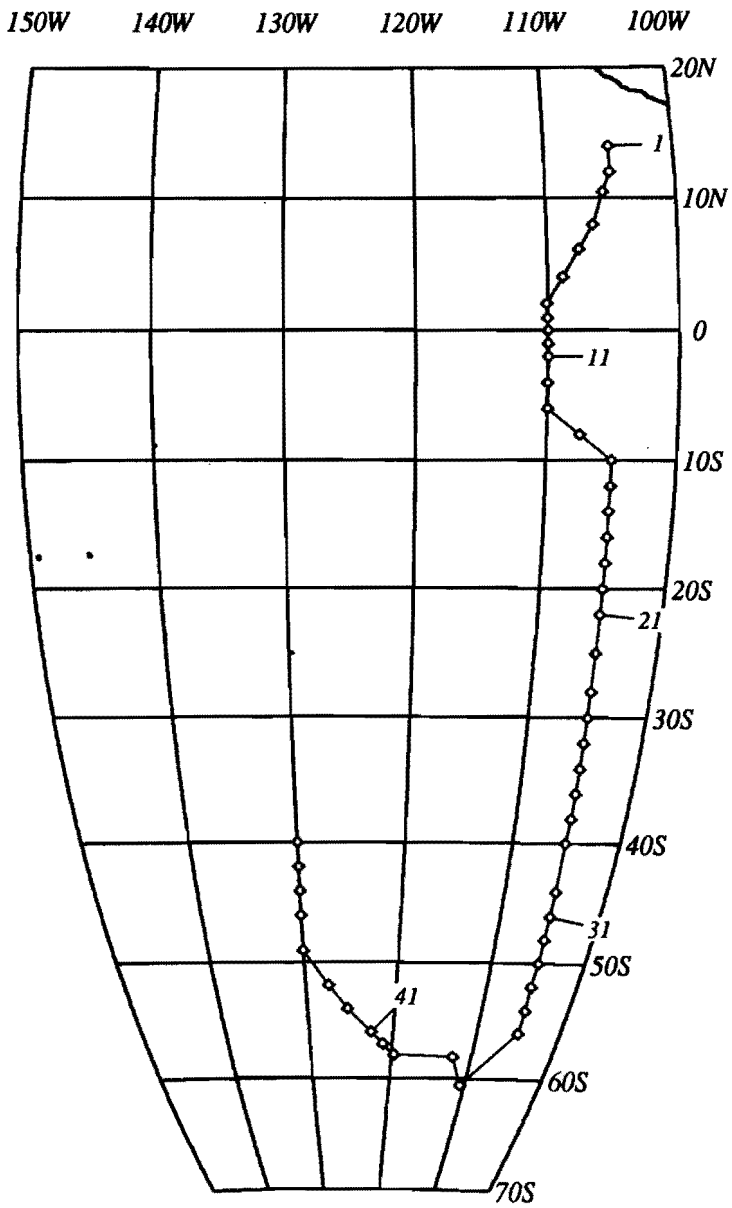




5.6 CO2-89 (RTS-89-DI)

This section includes the following data collected during the CO2-89 cruise (15 Feb to 20 May, 1989).

1) Station location plot.
2) Station location and bottom depth listing.
3) CFC atmospheric measurement plot.
4) CFC atmospheric measurement listing.
5) Contoured sections of Potential Temperature, Salinity, Oxygen, CFC-11 and CFC-12 along 105° W from 14° N. to 60 S°, derived from bottle data.
6) Tables of hydrographic data including depth, pressure, potential temperature, salinity, sigma-theta, oxygen, CFC-11 and CFC-12. Atmospheric CFC-11 and CFC-12 values for each station are interpolated from surrounding air measurements, and used in calculating saturation values.
7) Individual vertical profiles of CFC-11 and CFC-12. Each page of CFC vertical profiles consists of a map of station locations and five station plots. Each station is plotted on two scales so that both high and low concentrations may be easily viewed. CFC-11 is represented by circles and CFC-12 by triangles; the solid symbols are plotted against the lower concentration scale on the bottom axis. Plots are made for the 0–1500 meter range and, since a deep signal was present in the southern stations, plots are made for the 0–6000 meter range.



CO2-89 Station Locations.
R/V DISCOVERER

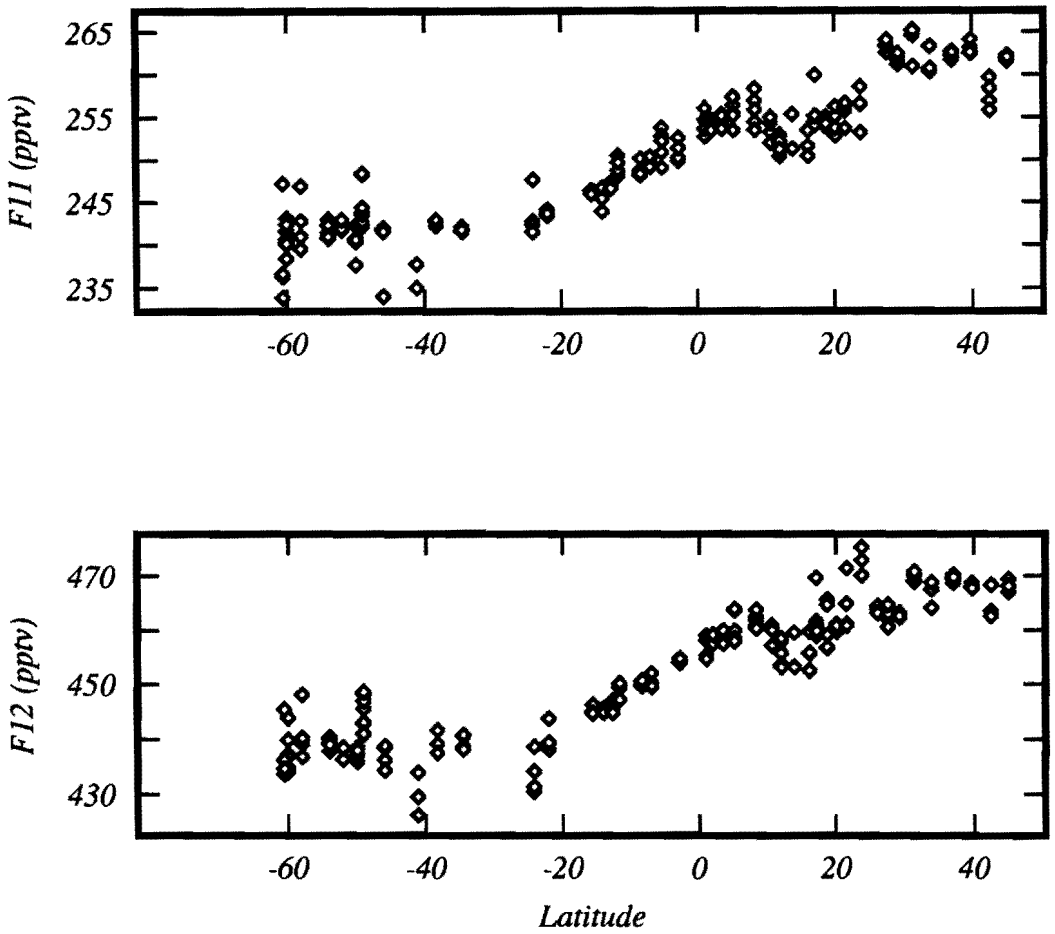
Leg 2. 15 Feb - 28 Feb, 1989
Manzanillo - Easter, Island

Leg 3. 3 March - 2 April, 1989
Easter Island - Papeete, Tahiti

Leg 4. 7 April - 20 May, 1989
Papeete, Tahiti - Seattle

CO2-89 Station Locations

STATION NUMBER	Date	Latitude	Longitude	BOTTOM DEPTH (M)
1	16 Feb 89	14 00.2 N	104 58.3 W	3370
2	17 Feb 89	12 01.3 N	105 00.0 W	3335
3	18 Feb 89	10 29.6 N	105 36.1 W	3370
4	18 Feb 89	07 59.9 N	106 27.8 W	3634
5	19 Feb 89	06 08.1 N	107 35.0 W	3480
6	20 Feb 89	04 00.9 N	108 50.9 W	3700
7	20 Feb 89	01 59.9 N	110 05.7 W	3900
8	21 Feb 89	00 55.3 N	110 01.5 W	3820
9	21 Feb 89	00 00.3 N	109 59.5 W	3847
10	22 Feb 89	01 00.7 S	109 58.9 W	3996
11	22 Feb 89	01 59.5 S	109 57.7 W	3950
12	22 Feb 89	04 00.2 S	110 00.3 W	3650
13	23 Feb 89	06 00.0 S	109 59.4 W	3470
14	24 Feb 89	07 59.9 S	107 30.7 W	2785
15	24 Feb 89	10 00.1 S	105 00.2 W	3882
16	24 Feb 89	12 00.3 S	104 59.6 W	4164
17	26 Feb 89	14 00.0 S	105 00.1 W	3939
18	26 Feb 89	15 59.8 S	104 59.5 W	3754
19	27 Feb 89	18 01.1 S	104 59.2 W	4015
20	27 Feb 89	20 00.4 S	104 59.7 W	3950
21	28 Feb 89	22 00.1 S	105 00.2 W	3700
22	28 Feb 89	24 59.6 S	104 59.7 W	3570
23	2 Mar 89	28 00.0 S	105 00.7 W	3425
24	6 Mar 89	30 00.7 S	104 58.4 W	3360
25	6 Mar 89	32 00.1 S	105 00.2 W	2755
26	7 Mar 89	33 59.7 S	104 59.3 W	3550
27	7 Mar 89	35 59.8 S	104 59.8 W	3080
28	8 Mar 89	38 00.3 S	104 59.6 W	3900
29	9 Mar 89	40 01.3 S	105 03.3 W	4120
30	10 Mar 89	44 00.6 S	104 59.7 W	3800
31	11 Mar 89	46 03.3 S	104 59.7 W	3900
32	11 Mar 89	48 00.0 S	105 00.0 W	3850
33	12 Mar 89	50 01.7 S	104 58.0 W	4000
34	12 Mar 89	52 01.9 S	105 04.2 W	4100
35	13 Mar 89	54 04.5 S	104 58.8 W	4100
36	13 Mar 89	56 01.3 S	105 03.0 W	4310
37	15 Mar 89	60 32.8 S	110 36.9 W	5185
38	18 Mar 89	58 05.7 S	112 20.7 W	4733
39	20 Mar 89	57 54.5 S	119 43.1 W	5000
40	21 Mar 89	56 59.0 S	121 12.2 W	4390
41	22 Mar 89	55 58.2 S	122 39.0 W	3570
42	23 Mar 89	53 58.0 S	125 25.9 W	3580
43	23 Mar 89	51 59.3 S	127 30.7 W	3900
44	25 Mar 89	49 00.5 S	130 02.6 W	3750
45	26 Mar 89	46 02.0 S	130 02.0 W	1780
46	26 Mar 89	44 00.3 S	129 59.7 W	4900
47	27 Mar 89	41 59.4 S	129 59.1 W	4970
48	27 Mar 89	40 00.0 S	129 59.6 W	4830



Atmospheric Measurements during the CO2-89 cruise. The average northern hemisphere concentrations of the two CFC's are 257.6 and 463.5 for CFC-11 and CFC-12, respectively. The average southern hemisphere concentrations are 242.7 and 440.1.

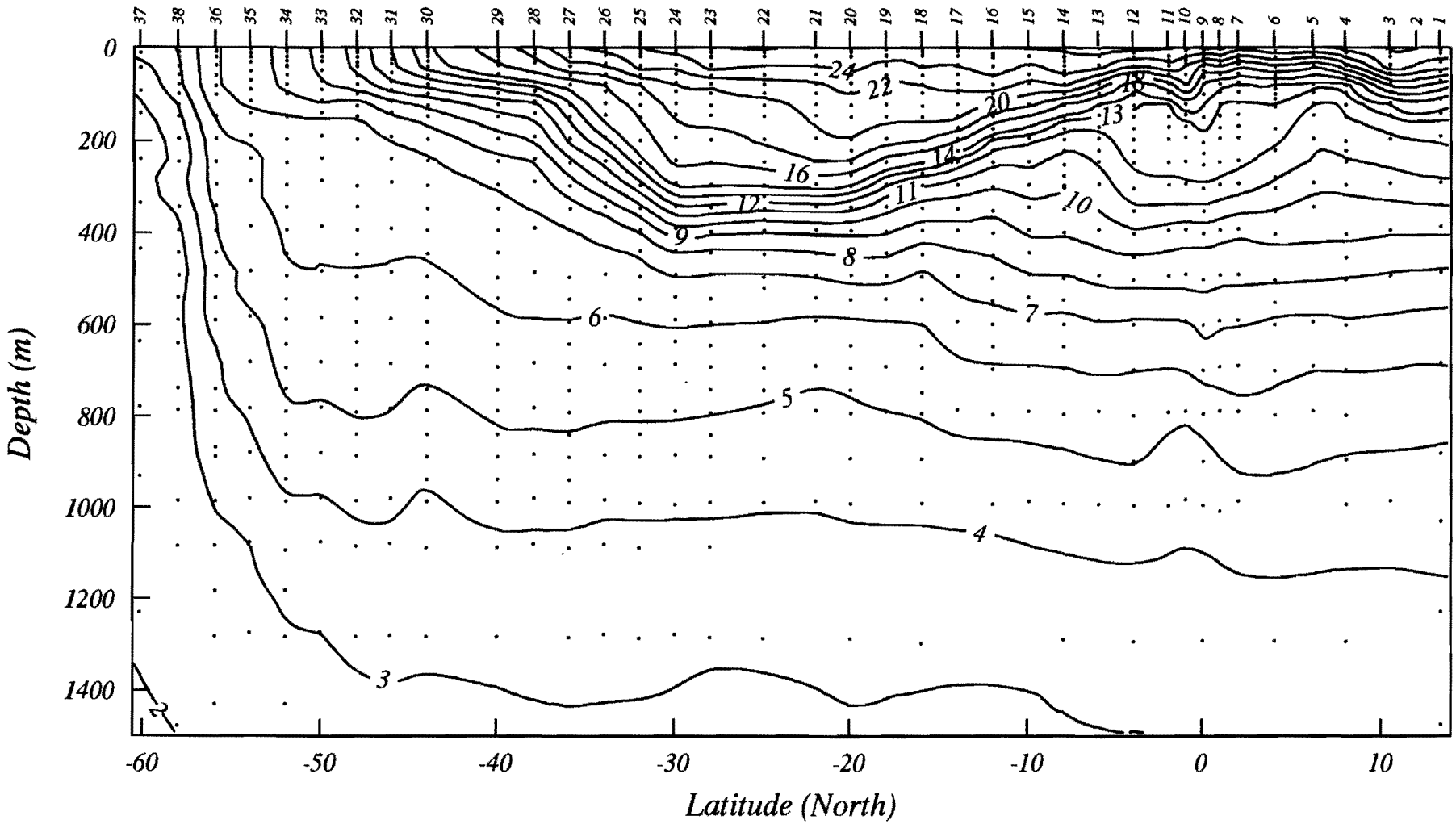
CO2-89 Atmospheric Measurements

Latitude	Longitude	Date	Atm F11	Atm F12	Avg F11	%Std F11	Avg F12	%Std F12
22 0 S	105 0 W	27 Feb 89	243.4	443.8	243.8	0.1	440.6	0.5
22 0 S	105 0 W	27 Feb 89	244.2	438.3				
22 0 S	105 0 W	27 Feb 89	243.7	439.6				
24 9 S	105 0 W	28 Feb 89	242.8	430.5	243.6	1.0	433.8	0.7
24 9 S	105 0 W	28 Feb 89	247.7	434.3				
24 9 S	105 0 W	28 Feb 89	242.4	431.4				
24 9 S	105 0 W	28 Feb 89	241.5	438.8				
34 30 S	105 0 W	7 Mar 89	241.6	440.5	241.9	0.1	439.7	0.2
34 30 S	105 0 W	7 Mar 89	242.1	440.9				
34 30 S	105 0 W	7 Mar 89	242.1	438.8				
34 30 S	105 0 W	7 Mar 89	241.8	438.4				
38 18 S	105 0 W	8 Mar 89	242.8	439.4	242.8	0.1	439.5	0.3
38 18 S	105 0 W	8 Mar 89	242.9	439.3				
38 18 S	105 0 W	8 Mar 89	242.3	437.6				
38 18 S	105 0 W	8 Mar 89	243.0	441.8				
41 9 S	105 1.2 W	9 Mar 89		426.0	236.5	0.6	429.8	0.8
41 9 S	105 1.2 W	9 Mar 89	235.1	429.5				
41 9 S	105 1.2 W	9 Mar 89	237.8	434.0				
46 0 S	105 0 W	10 Mar 89	242.0	436.4	239.9	1.4	437.1	0.4
46 0 S	105 0 W	10 Mar 89	241.8	438.6				
46 0 S	105 0 W	10 Mar 89	241.6	438.9				
46 0 S	105 0 W	10 Mar 89	234.1	434.5				
50 0 S	105 0 W	12 Mar 89	240.5	438.6	240.4	0.6	437.7	0.2
50 0 S	105 0 W	12 Mar 89	242.3	438.7				
50 0 S	105 0 W	12 Mar 89	237.8	436.0				
50 0 S	105 0 W	12 Mar 89	240.8	437.3				
50 0 S	105 0 W	12 Mar 89	240.7	438.1				
52 0 S	105 0 W	12 Mar 89	241.8	438.4	242.2	0.2	437.8	0.2
52 0 S	105 0 W	12 Mar 89	241.9	436.4				
52 0 S	105 0 W	12 Mar 89	243.0	438.6				
54 0 S	105 0 W	13 Mar 89	243.1	438.0	241.9	0.3	439.5	0.2
54 0 S	105 0 W	13 Mar 89	241.5	440.1				
54 0 S	105 0 W	13 Mar 89	242.3	440.5				
54 0 S	105 0 W	13 Mar 89	242.4	439.5				
54 0 S	105 0 W	13 Mar 89	240.8	439.4				
54 0 S	105 0 W	13 Mar 89	241.1	439.2				
60 0 S	107 12 W	15 Mar 89	240.7	434.2	240.3	0.5	436.0	0.3
60 0 S	107 12 W	15 Mar 89	241.7	437.4				
60 0 S	107 12 W	15 Mar 89	238.5	434.9				
60 0 S	107 12 W	15 Mar 89	240.1	437.4				
60 0 S	110 0 W	16 Mar 89	243.2	443.9	241.6	0.5	440.4	0.7
60 0 S	110 0 W	16 Mar 89	241.6	444.0				
60 0 S	110 0 W	16 Mar 89	240.4	440.0				
60 0 S	110 0 W	16 Mar 89	242.4	437.2				
60 0 S	110 0 W	16 Mar 89	240.2	437.0				
60 35.4 S	111 28.8 W	17 Mar 89	247.3	445.5	238.6	2.2	437.6	1.1
60 35.4 S	111 28.8 W	17 Mar 89	236.4	436.4				
60 35.4 S	111 28.8 W	17 Mar 89	234.0	433.7				
60 35.4 S	111 28.8 W	17 Mar 89	236.7	434.8				

Latitude			Longitude			Date	Atm F11	Atm F12	Avg F11	%Std F11	Avg F12	%Std F12
58	0	S	112	0	W	18 Mar 89	247.0	448.2	242.6	1.1	441.2	1.0
58	0	S	112	0	W	18 Mar 89	242.9	439.3				
58	0	S	112	0	W	18 Mar 89	239.6	437.0				
58	0	S	112	0	W	18 Mar 89	241.0	440.4				
49	0	S	130	0	W	24 Mar 89	242.4	445.6	244.5	1.0	445.3	0.6
49	0	S	130	0	W	24 Mar 89	242.2	448.4				
49	0	S	130	0	W	24 Mar 89	243.8	441.1				
49	0	S	130	0	W	24 Mar 89	248.3	447.1				
49	0	S	130	0	W	24 Mar 89	242.7	448.7				
49	0	S	130	0	W	24 Mar 89	248.5	442.9				
49	0	S	130	0	W	24 Mar 89	243.7	443.2				
49	0	S	130	0	W	25 Mar 89	244.4	442.4				
15	36	S	148	42	W	7 Apr 89	246.4	445.2	246.3	0.1	445.5	0.2
15	36	S	148	42	W	7 Apr 89	246.5	446.4				
15	36	S	148	42	W	7 Apr 89	246.0	444.8				
14	0	S	147	54	W	7 Apr 89	245.7	445.7	245.5	0.4	445.3	0.1
14	0	S	147	54	W	7 Apr 89	246.8	445.1				
14	0	S	147	54	W	7 Apr 89	245.5	445.4				
14	0	S	147	54	W	7 Apr 89	243.9	444.9				
12	42	S	147	0	W	8 Apr 89	247.2	447.1	247.1	0.1	445.7	0.2
12	42	S	147	0	W	8 Apr 89	247.4	445.1				
12	42	S	147	0	W	8 Apr 89	247.1	446.1				
12	42	S	147	0	W	8 Apr 89	247.1	445.2				
12	42	S	147	0	W	8 Apr 89	246.7	445.0				
11	42	S	146	18	W	8 Apr 89	248.2	447.3	249.4	0.4	449.2	0.3
11	42	S	146	18	W	8 Apr 89	248.8	449.5				
11	42	S	146	18	W	8 Apr 89	250.6	449.6				
11	42	S	146	18	W	8 Apr 89	249.8	450.3				
8	24	S	144	6	W	9 Apr 89	250.2	449.8	248.9	0.3	450.4	0.1
8	24	S	144	6	W	9 Apr 89	248.2	450.8				
8	24	S	144	6	W	9 Apr 89	248.9	450.0				
8	24	S	144	6	W	9 Apr 89	248.4	450.8				
7	0	S	143	12	W	9 Apr 89	249.7	449.6	249.8	0.2	450.4	0.2
7	0	S	143	12	W	9 Apr 89	250.2	450.2				
7	0	S	143	12	W	9 Apr 89	249.5	450.4				
7	0	S	143	12	W	9 Apr 89	249.2	449.8				
7	0	S	143	12	W	9 Apr 89	250.5	452.1				
5	15	S	142	6	W	9 Apr 89	253.8		251.6	0.6		
5	15	S	142	6	W	9 Apr 89	252.9					
5	15	S	142	6	W	9 Apr 89	252.3					
5	15	S	142	6	W	9 Apr 89	250.9					
5	15	S	142	6	W	9 Apr 89	249.2					
2	51	S	140	30	W	10 Apr 89	250.3	454.9	250.9	0.4	454.5	0.1
2	51	S	140	30	W	10 Apr 89	252.7	454.8				
2	51	S	140	30	W	10 Apr 89	249.9	454.2				
2	51	S	140	30	W	10 Apr 89	250.3	454.0				
2	51	S	140	30	W	10 Apr 89	251.5	454.8				
1	0	N	139	48	W	11 Apr 89	256.1	455.5	254.3	0.5	456.9	0.4
1	0	N	139	48	W	11 Apr 89	254.7	458.2				
1	0	N	139	48	W	11 Apr 89	252.8	454.8				
1	0	N	139	48	W	11 Apr 89	253.7	459.0				
2	0	N	140	0	W	11 Apr 89	254.6	459.0	254.2	0.2	458.5	0.2

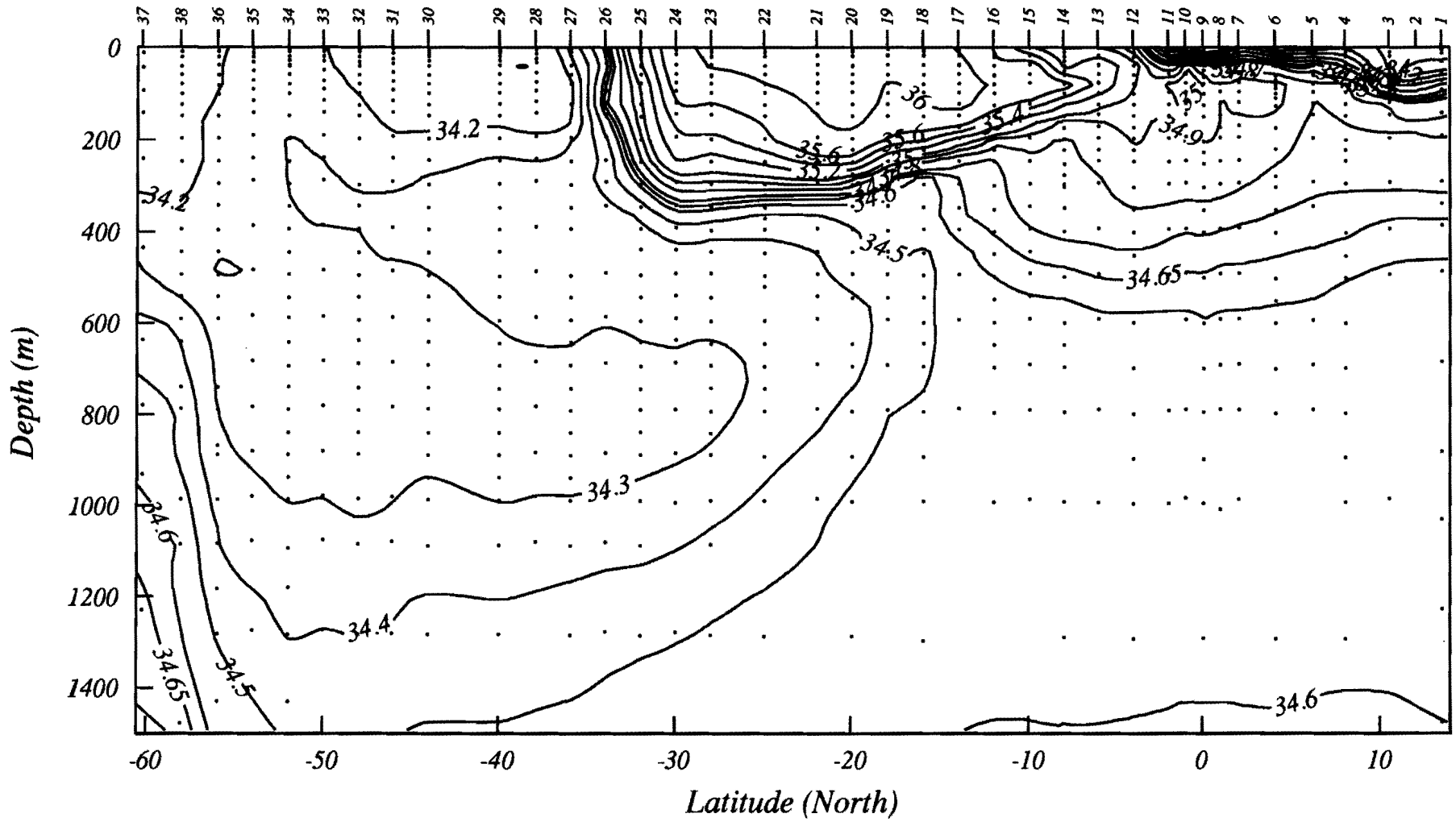
Latitude	Longitude	Date	Atm F11	Atm F12	Avg F11	%Std F11	Avg F12	%Std F12
2 0 N	140 0 W	11 Apr 89	254.7	457.6				
2 0 N	140 0 W	11 Apr 89	254.1	457.5				
2 0 N	140 0 W	12 Apr 89	254.3	459.2				
2 0 N	140 0 W	12 Apr 89	253.5	459.2				
3 30.6 N	140 30 W	12 Apr 89	254.3	458.8	254.7	0.2	459.2	0.2
3 30.6 N	140 30 W	12 Apr 89	254.8	460.0				
3 30.6 N	140 30 W	12 Apr 89	255.4	459.4				
3 30.6 N	140 30 W	12 Apr 89	253.7	460.0				
3 30.6 N	140 30 W	12 Apr 89	255.2	457.6				
5 9.6 N	141 12 W	12 Apr 89	256.4	460.0	255.6	0.5	460.9	0.6
5 9.6 N	141 12 W	12 Apr 89	253.6	458.5				
5 9.6 N	141 12 W	12 Apr 89	255.4	458.1				
5 9.6 N	141 12 W	12 Apr 89	257.4	464.0				
5 9.6 N	141 12 W	12 Apr 89	255.3	463.8				
8 20.4 N	141 24 W	12 Apr 89	256.9	462.6	255.9	0.7	461.9	0.3
8 20.4 N	141 24 W	12 Apr 89	255.9	463.8				
8 20.4 N	141 24 W	12 Apr 89	258.4	461.9				
8 20.4 N	141 24 W	13 Apr 89	254.5	460.9				
8 20.4 N	141 24 W	13 Apr 89	253.6	460.4				
10 37.8 N	140 18 W	13 Apr 89	253.3	460.6	253.7	0.4	459.7	0.3
10 37.8 N	140 18 W	13 Apr 89	254.3	461.0				
10 37.8 N	140 18 W	13 Apr 89	252.0	460.0				
10 37.8 N	140 18 W	13 Apr 89	255.0	457.1				
11 58.8 N	140 6 W	13 Apr 89	252.1	457.9	251.8	0.3	455.8	0.5
11 58.8 N	140 6 W	13 Apr 89	253.0	458.5				
11 58.8 N	140 6 W	13 Apr 89	252.3	455.8				
11 58.8 N	140 6 W	13 Apr 89	250.5	453.7				
11 58.8 N	140 6 W	13 Apr 89	251.3	453.2				
13 51.6 N	139 24 W	13 Apr 89	251.3	453.3	252.7	0.8	455.4	0.7
13 51.6 N	139 24 W	13 Apr 89	251.4	453.2				
13 51.6 N	139 24 W	14 Apr 89	255.4	459.6				
16 4.2 N	138 36 W	14 Apr 89	253.5	459.8	251.6	0.5	456.0	0.6
16 4.2 N	138 36 W	14 Apr 89	250.5	452.6				
16 4.2 N	138 36 W	14 Apr 89	251.7	455.6				
16 4.2 N	138 36 W	14 Apr 89	250.5	455.9				
17 6 N	138 12 W	14 Apr 89	255.1	461.7	255.7	0.8	462.0	0.8
17 6 N	138 12 W	14 Apr 89	254.6	460.6				
17 6 N	138 12 W	14 Apr 89	254.1	460.9				
17 6 N	138 12 W	14 Apr 89	255.2	459.0				
17 6 N	138 12 W	14 Apr 89	255.2	459.9				
17 6 N	138 12 W	14 Apr 89	260.0	469.8				
18 42 N	167 36 W	14 Apr 89	254.0	459.2	254.7	0.2	457.6	0.2
18 42 N	167 36 W	14 Apr 89	255.1	456.7				
18 42 N	167 36 W	14 Apr 89	255.0	456.9				
18 42 N	167 36 W	15 Apr 89	254.3	465.8	254.3	ERR	465.3	0.1
18 42 N	167 36 W	15 Apr 89	254.3	464.7				
20 6 N	137 6 W	15 Apr 89	255.2	460.7	254.7	0.5	460.7	0.1
20 6 N	137 6 W	15 Apr 89	252.9	461.2				
20 6 N	137 6 W	15 Apr 89	253.8	460.7				
20 6 N	137 6 W	15 Apr 89	255.1	459.8				
20 6 N	137 6 W	15 Apr 89	256.3	460.9				

Latitude	Longitude	Date	Atm F11	Atm F12	Avg F11	%Std F11	Avg F12	%Std F12
21 33 N	136 30 W	15 Apr 89	256.3	461.3	255.7	0.4	464.7	0.8
21 33 N	136 30 W	15 Apr 89	255.7	460.9				
21 33 N	136 30 W	15 Apr 89	253.8	465.0				
21 33 N	136 30 W	15 Apr 89	256.0	465.0				
21 33 N	136 30 W	15 Apr 89	256.7	471.5				
23 43.2 N	135 36 W	15 Apr 89	256.6	470.1	256.3	0.7	472.8	0.4
23 43.2 N	135 36 W	15 Apr 89	253.3	472.9				
23 43.2 N	135 36 W	15 Apr 89	258.6	472.9				
23 43.2 N	135 36 W	15 Apr 89	256.7	475.4				
26 3 N	134 42 W	16 Apr 89		463.9			464.0	0.1
26 3 N	134 42 W	16 Apr 89		464.4				
26 3 N	134 42 W	16 Apr 89		464.5				
26 3 N	134 42 W	16 Apr 89		463.2				
27 32 N	134 7 W	16 Apr 89	262.6	462.1	263.5	0.2	462.6	0.3
27 32 N	134 7 W	16 Apr 89	264.1	463.0				
27 32 N	134 7 W	16 Apr 89	263.3	464.7				
27 32 N	134 7 W	16 Apr 89	263.5	460.6				
27 32 N	134 7 W	16 Apr 89	264.1					
29 13 N	123 25.1 W	16 Apr 89	262.3	463.3	262.0	0.2	462.7	0.1
29 13 N	123 25.1 W	16 Apr 89	261.2	462.4				
29 13 N	123 25.1 W	16 Apr 89	261.8	462.4				
29 13 N	123 25.1 W	16 Apr 89	262.5	462.7				
31 22 N	132 31 W	16 Apr 89	265.3	469.0	264.2	0.1	470.0	0.2
31 22 N	132 31 W	16 Apr 89	264.6	469.2				
31 22 N	132 31 W	16 Apr 89	265.2	470.9				
31 22 N	132 31 W	16 Apr 89	265.2	470.1				
31 22 N	132 31 W	16 Apr 89	260.9	470.9				
33 53 N	131 27.6 W	17 Apr 89	263.3	467.5	261.5	0.5	466.9	0.4
33 53 N	131 27.6 W	17 Apr 89	260.4	468.9				
33 53 N	131 27.6 W	17 Apr 89	260.7	464.2				
37 2.8 N	130 2.8 W	17 Apr 89	262.7	470.3	262.3	0.1	469.6	0.1
37 2.8 N	130 2.8 W	17 Apr 89	261.7	469.7				
37 2.8 N	130 2.8 W	17 Apr 89	262.2	468.7				
37 2.8 N	130 2.8 W	17 Apr 89	262.2	469.5				
37 2.8 N	130 2.8 W	17 Apr 89	262.6	469.8				
39 45 N	129 0 W	18 Apr 89	263.2	468.1	263.1	0.2	468.2	0.1
39 45 N	129 0 W	18 Apr 89	262.5	468.0				
39 45 N	129 0 W	18 Apr 89	262.6	468.8				
39 45 N	129 0 W	18 Apr 89	264.1	467.8				
42 31.9 N	127 41 W	18 Apr 89	259.7	468.4	257.7	0.6	464.5	0.5
42 31.9 N	127 41 W	18 Apr 89	256.9	463.7				
42 31.9 N	127 41 W	18 Apr 89	255.8	463.2				
42 31.9 N	127 41 W	18 Apr 89	258.4	462.6				
45 0.7 N	126 33.6 W	19 Apr 89	261.5	467.1	262.0	0.1	468.2	0.2
45 0.7 N	126 33.6 W	19 Apr 89	262.0	468.1				
45 0.7 N	126 33.6 W	19 Apr 89	262.3	469.4				
45 0.7 N	126 33.6 W	19 Apr 89	262.0	468.2				



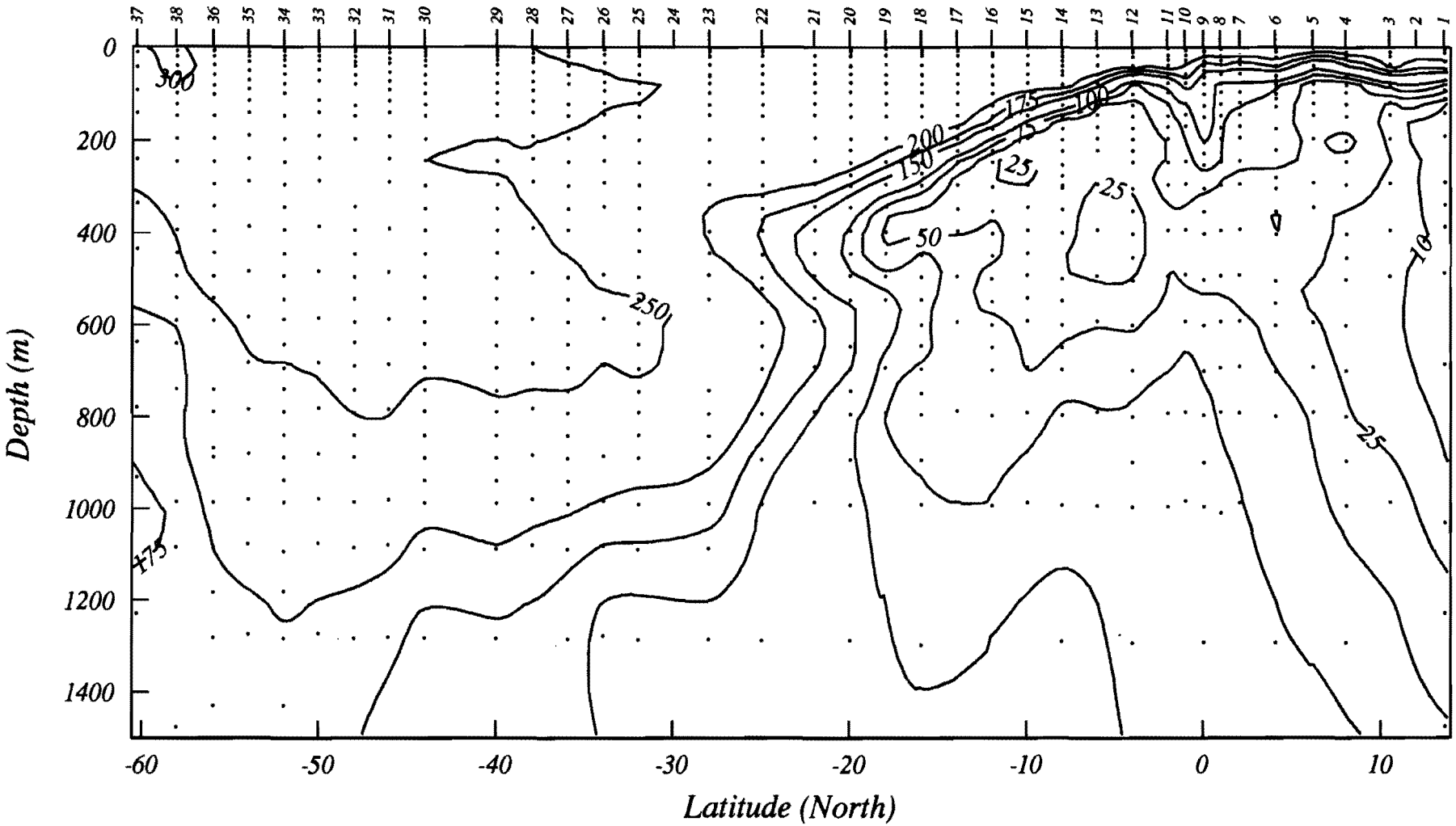
Potential Temperature (Degrees C.)

Potetntial Temperature section along 105 West during the CO2-89 Cruise.
Station numbers are indicated across the top.

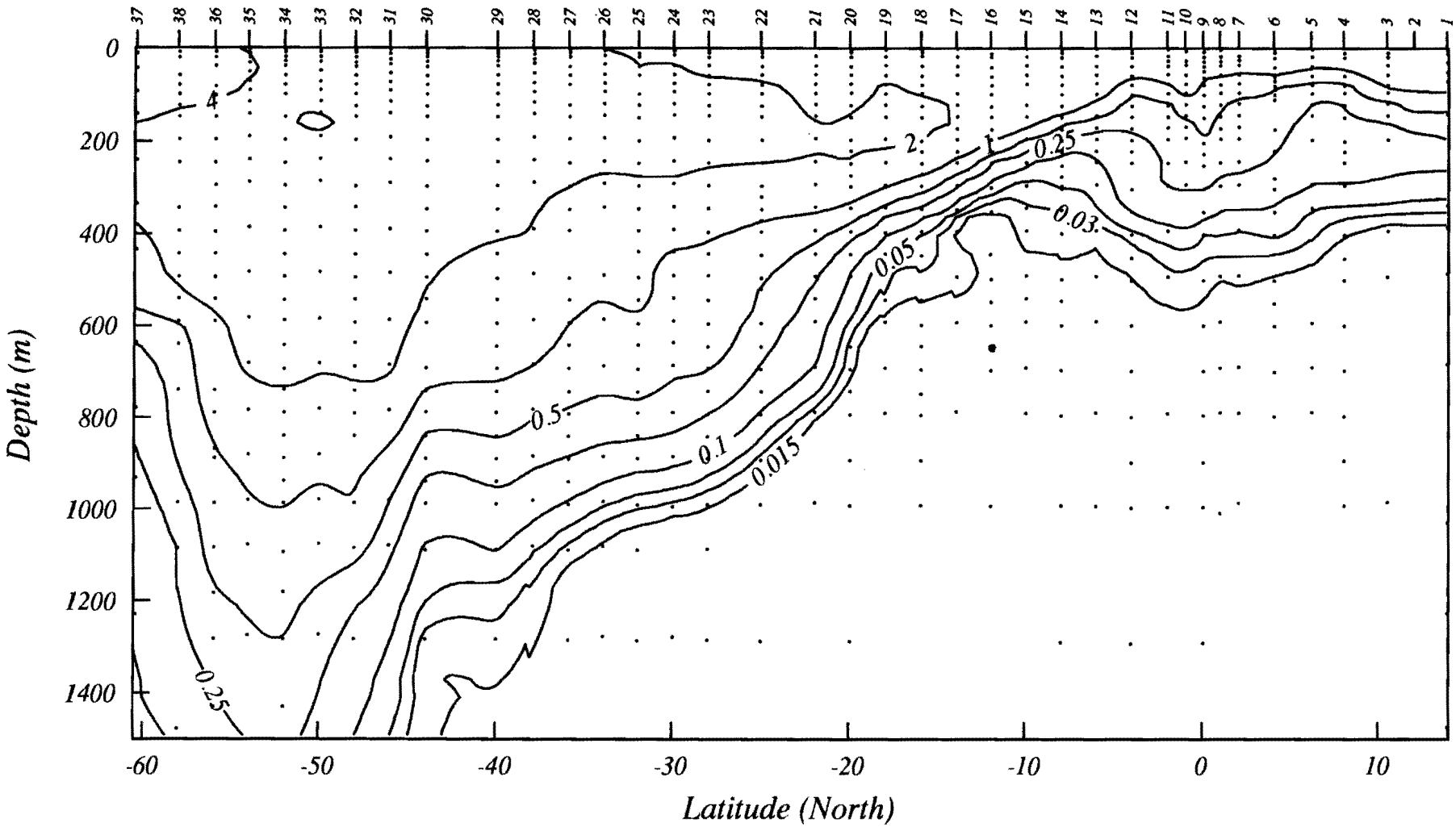


Salinity (PSU)

Salinity section along 105 West during the CO2-89 Cruise.
Station numbers are indicated across the top.

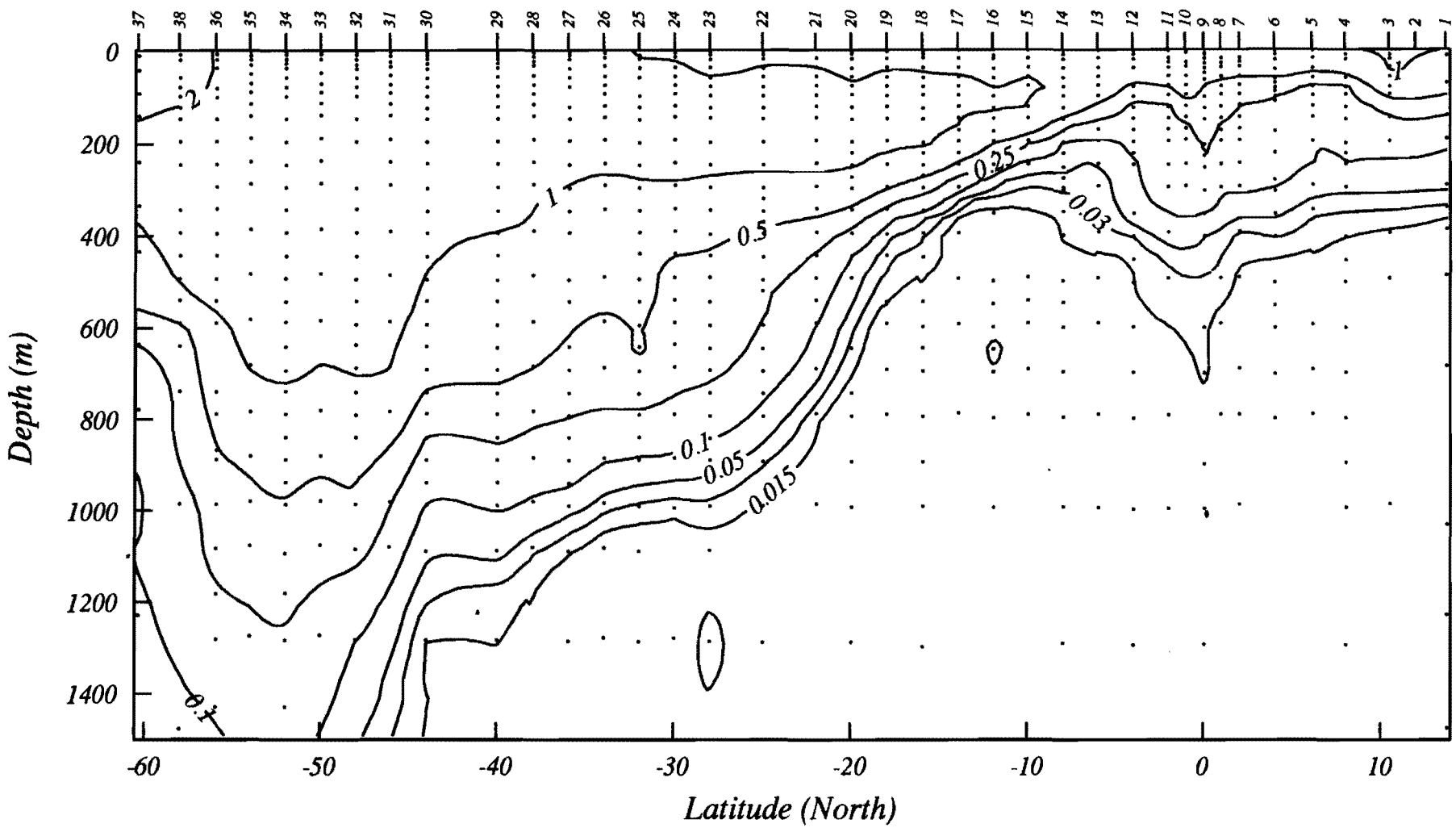


Dissolved Oxygen section along 105 West during the CO2-89 Cruise.
Station numbers are indicated across the top.



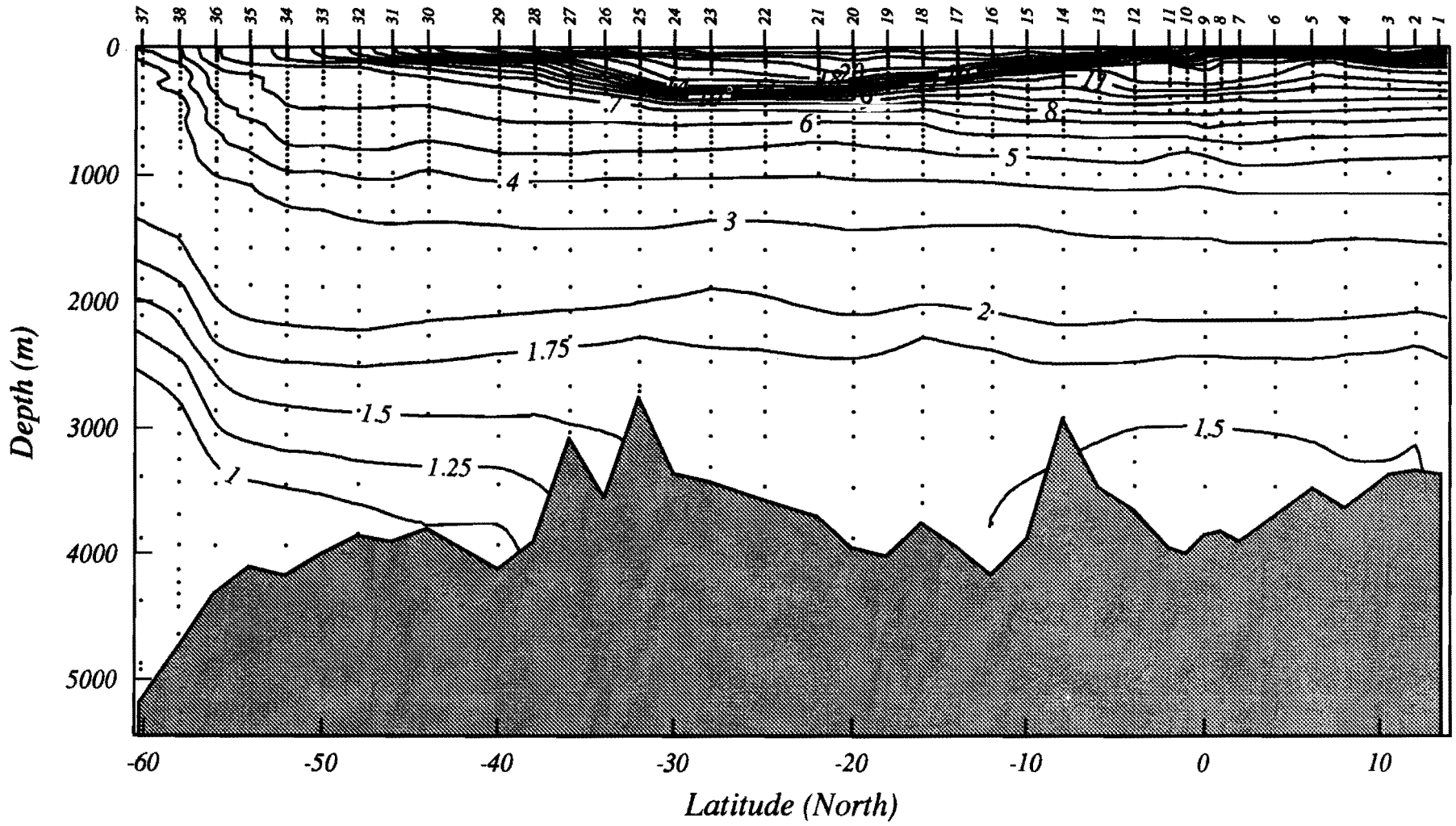
CFC-11 (pmole/Kg)

CFC-11 section along 105 West during the CO2-89 Cruise.
Station numbers are indicated across the top.



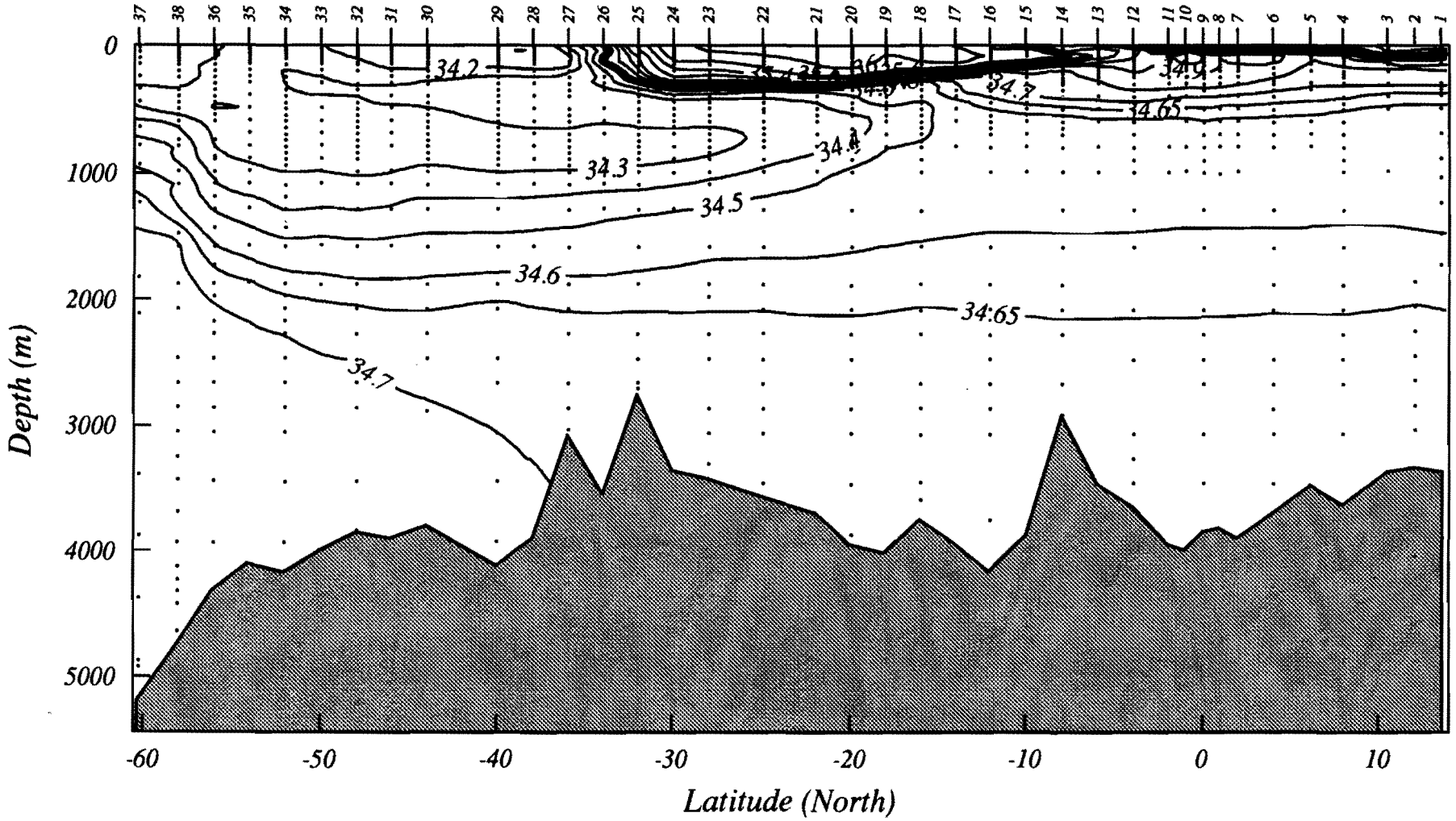
CFC-12 (pmole/Kg)

CFC-12 section along 105 West during the CO2-89 Cruise.
Station numbers are indicated across the top.



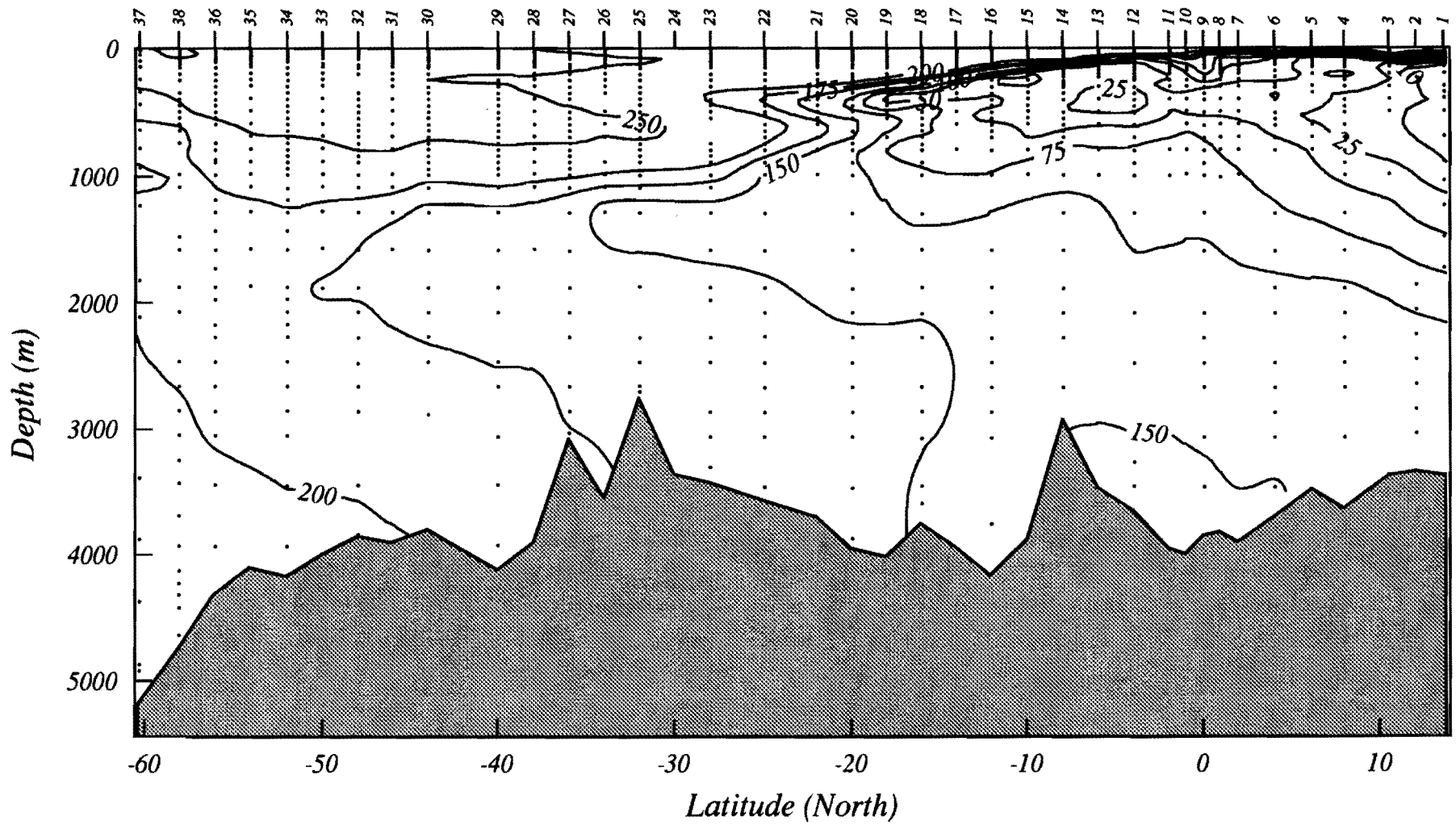
Potential Temperature (Degrees C.)

Potential Temperature section along 105 West during the CO2-89 Cruise.
Station numbers are indicated across the top.



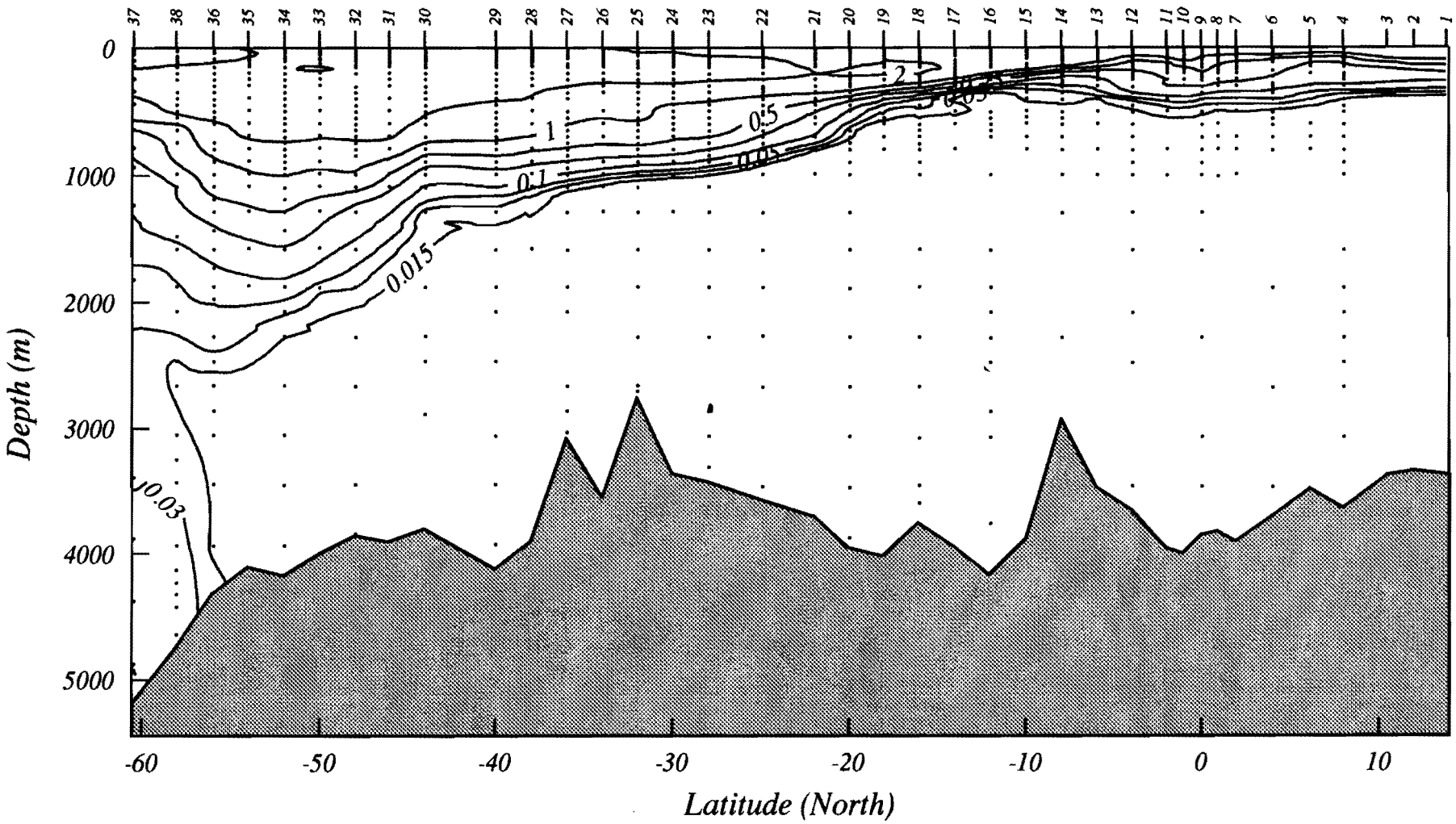
Salinity (PSU)

Salinity section along 105 West during the CO2-89 Cruise.
Station numbers are indicated across the top.



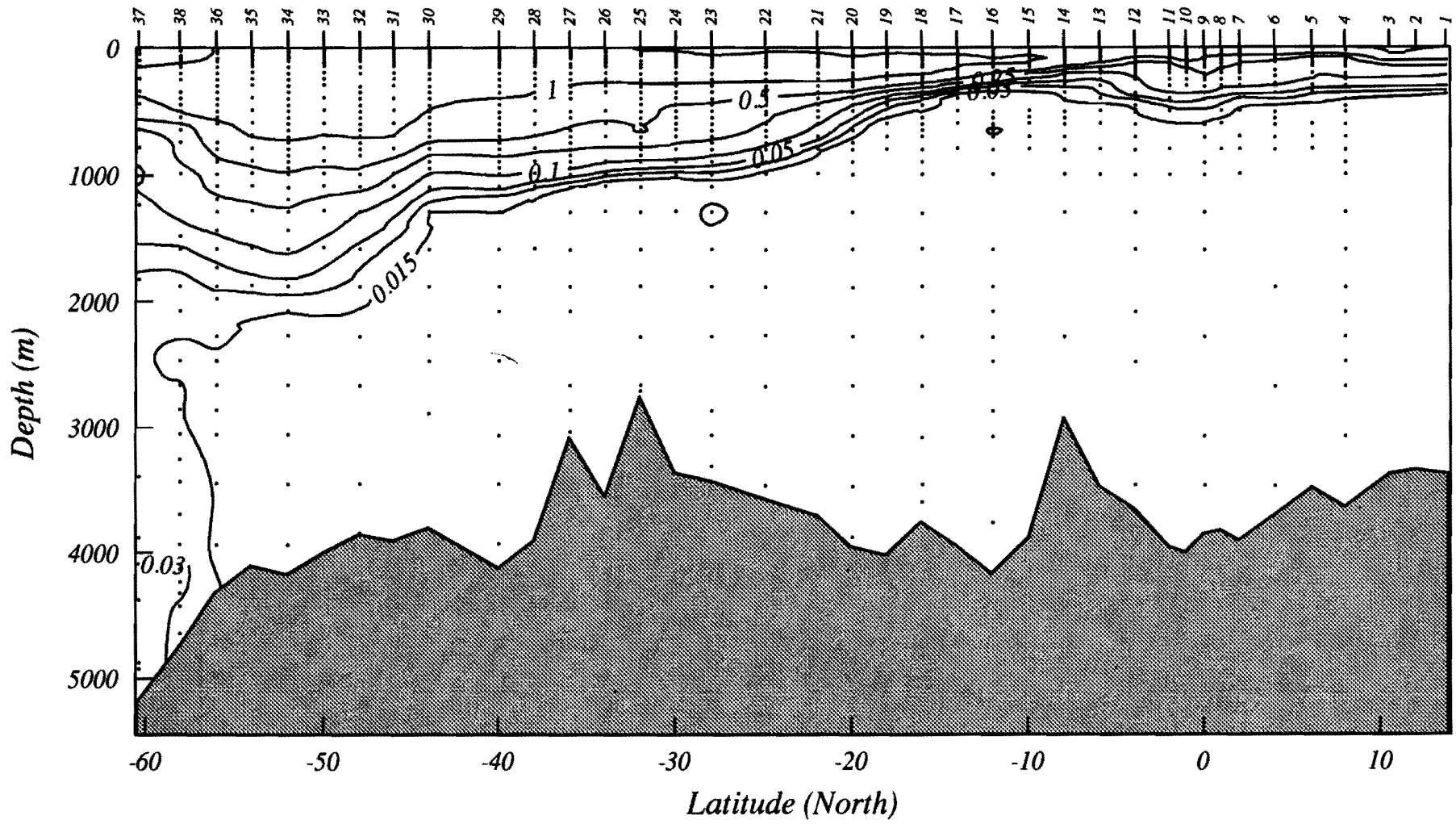
Oxygen (umole/Kg)

Dissolved Oxygen section along 105 West during the CO2-89 Cruise.
Station numbers are indicated across the top.



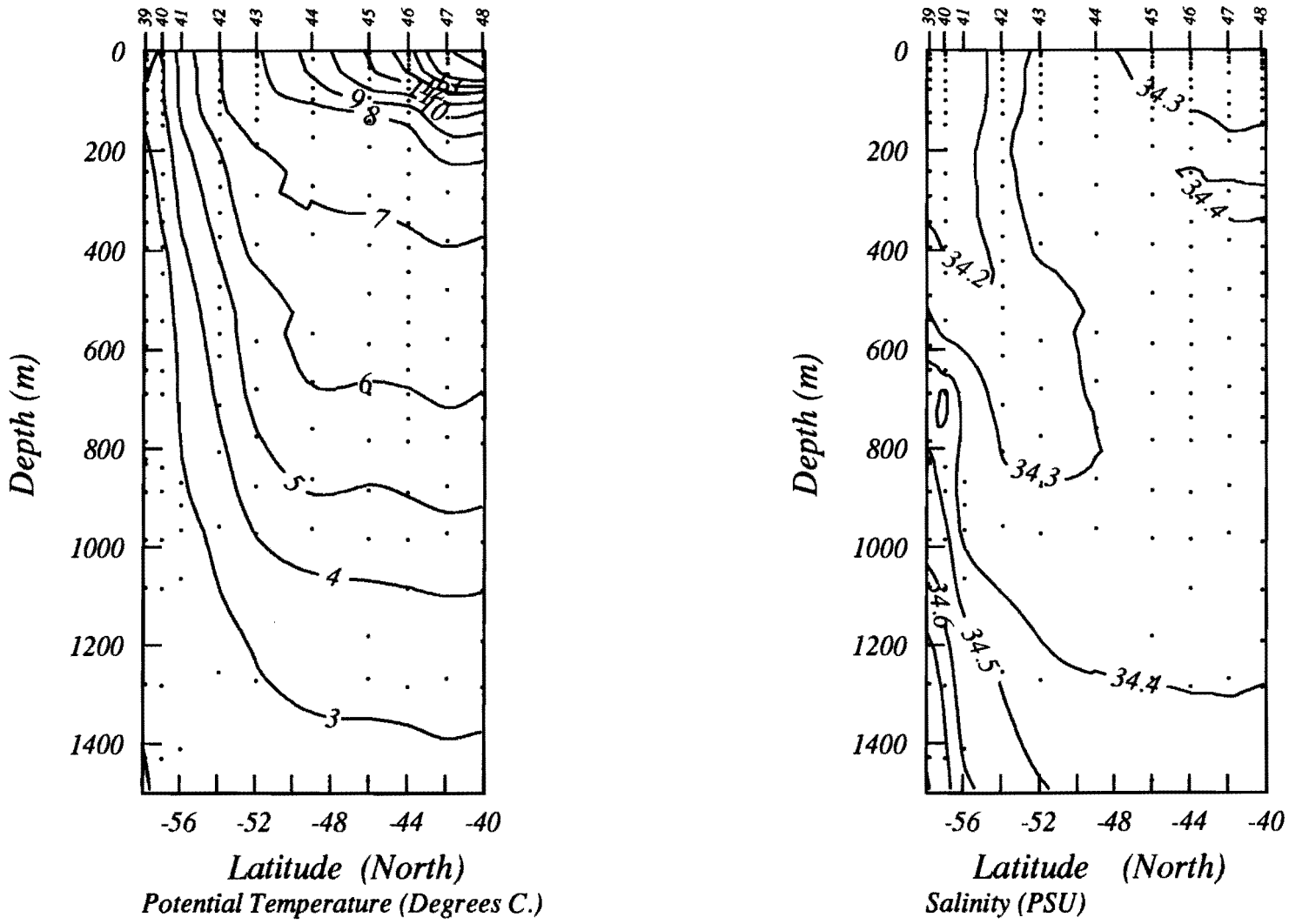
CFC-11 (pmole/Kg)

CFC-11 section along 105 West during the CO2-89 Cruise.
Station numbers are indicated across the top.

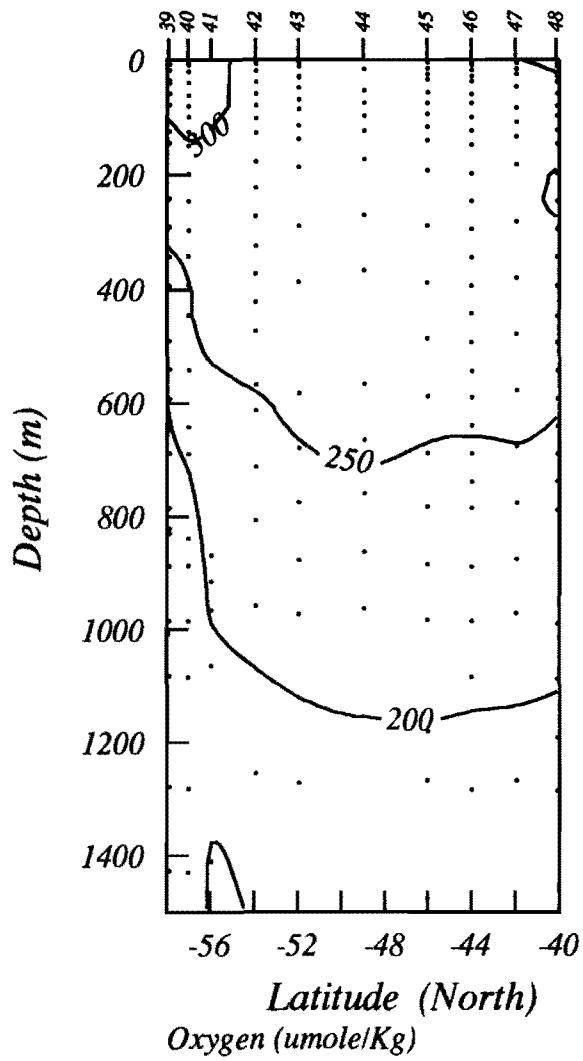


CFC-12 (pmole/Kg)

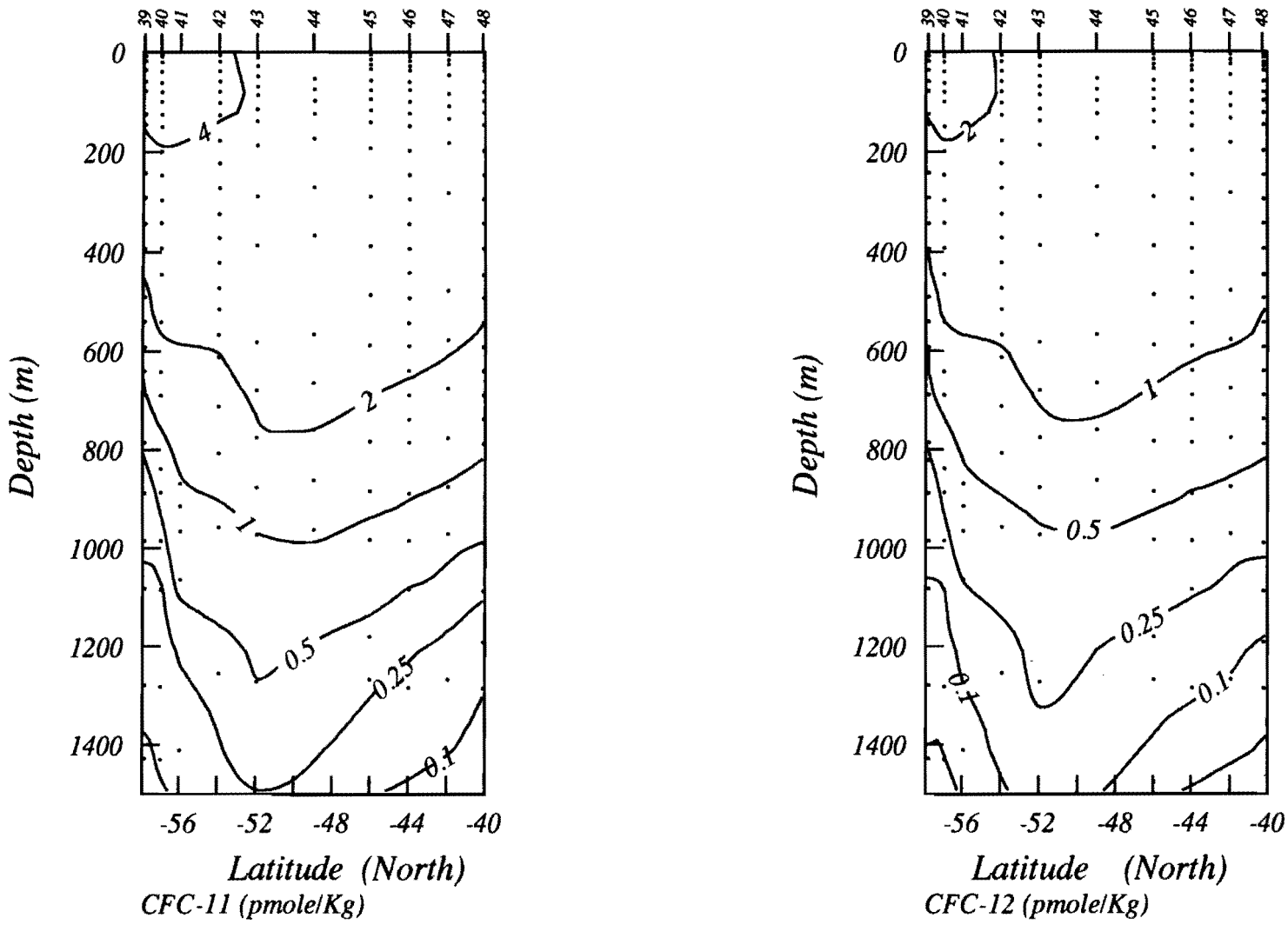
CFC-12 section along 105 West during the CO2-89 Cruise.
Station numbers are indicated across the top.



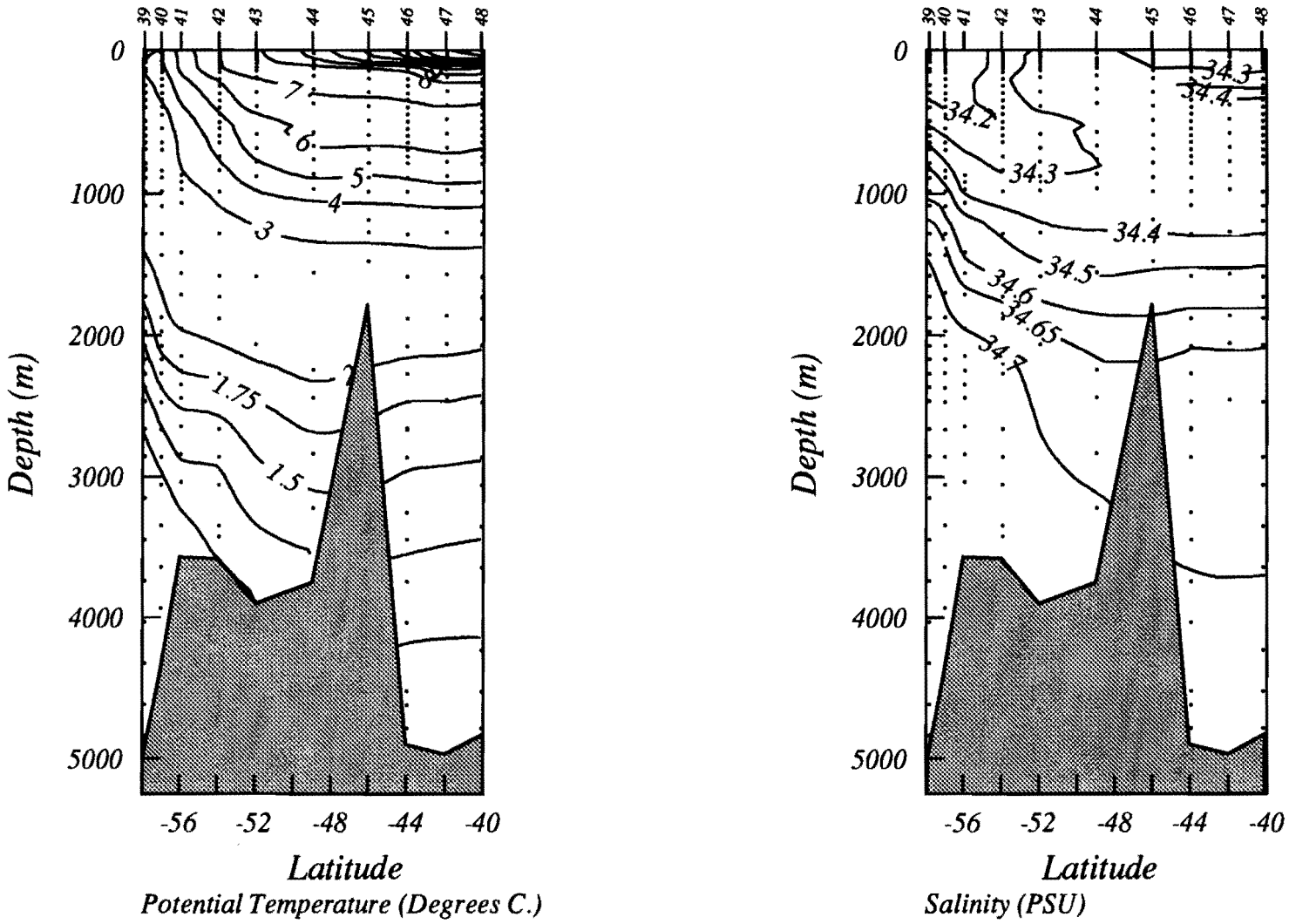
Potential Temperature and Salinity section along 130 W during the CO2-89 Cruise.
Station numbers are indicated across the top.



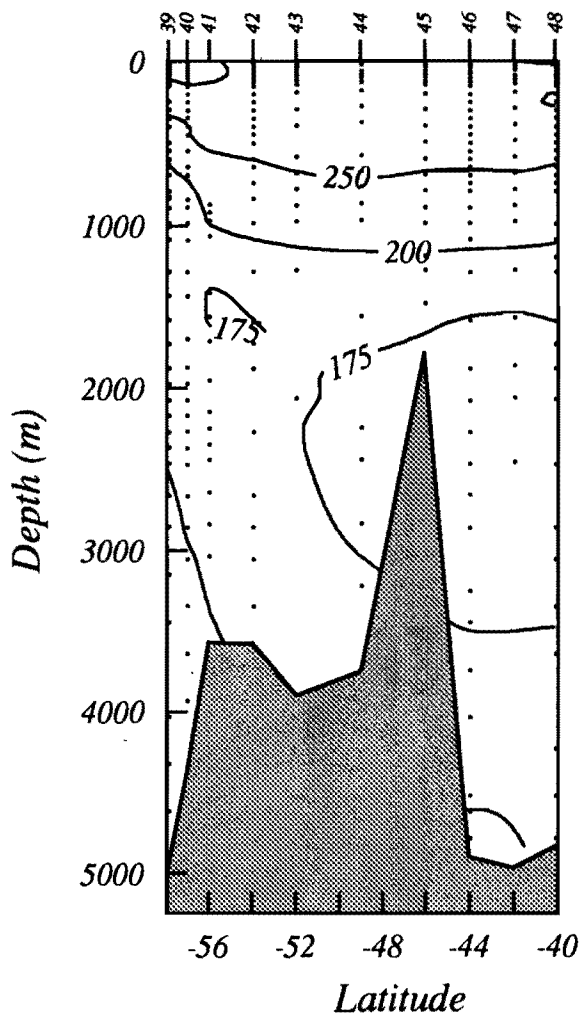
Dissolved Oxygen section along 130 W during the CO2-89 Cruise. Station numbers are indicated across the top.



CFC-11 and CFC-12 section along 130 W during the CO2-89 Cruise.
Station numbers are indicated across the top.

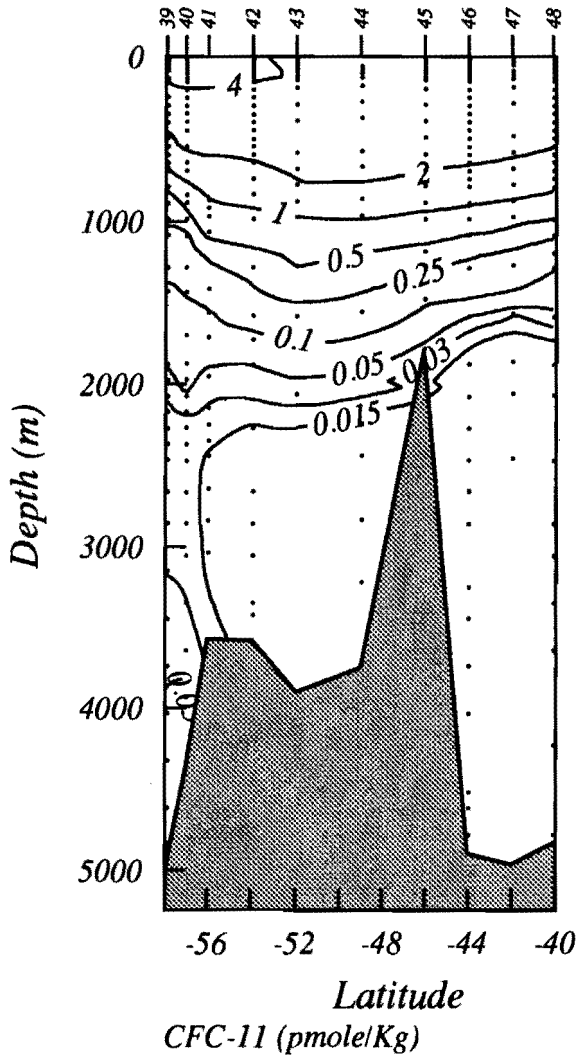


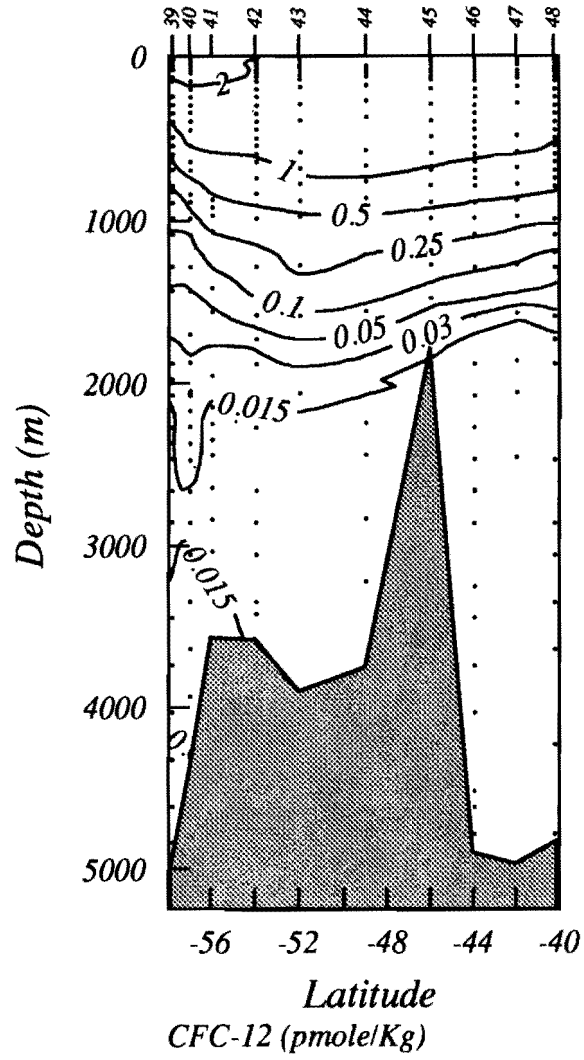
Potential Temperature and Salinity sections along 130 W during the CO2-89 Cruise. Station numbers are indicated across the top.



Oxygen (umole/Kg)

Dissolved Oxygen section along 130 W during the CO2-89 Cruise.
Station numbers are indicated across the top.





CFC-11 and CFC-12 section along 130 W during the CO2-89 Cruise.
Station numbers are indicated across the top.

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
1	16 Feb 89	14 00.2 N	104 58.3 W	3370	254.2	459.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
124	3	3	27.156	33.747	21.727	219	-9.000	-9.000	1.09	-9.00	-9.00	-9.00	1000
115	3	3	27.156	33.733	21.716	206	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
127	19	19	26.443	33.779	21.976	211	-9.000	-9.000	1.04	-9.00	-9.00	-9.00	1000
129	38	38	25.969	33.956	22.258	211	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
128	59	59	25.081	34.348	22.826	213	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
119	78	78	19.392	34.489	24.531	79	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
118	99	99	15.816	34.632	25.507	13	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
117	117	117	14.156	34.810	26.008	4	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
116	148	148	13.255	34.811	26.196	3	-9.000	-9.000	0.01	-9.00	-9.00	-9.00	1000
114	197	198	12.403	34.799	26.356	7	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
121	197	198	12.403	34.799	26.356	7	-9.000	-9.000	0.03	-9.00	-9.00	-9.00	1000
109	296	297	10.938	34.733	26.579	1	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
126	345	346	10.015	34.673	26.695	5	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
110	393	394	9.237	34.639	26.797	5	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
111	393	394	9.237	34.635	26.794	15	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
108	493	495	7.804	34.586	26.978	5	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
113	493	495	7.804	34.586	26.978	5	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
106	691	695	6.061	34.554	27.193	5	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
103	691	695	6.061	34.560	27.197	6	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
105	888	894	4.757	34.551	27.347	7	-9.000	-9.000	0.02	-9.00	-9.00	-9.00	1000
104	1038	1044	4.381	34.565	27.400	15	-9.000	-9.000	0.05	-9.00	-9.00	-9.00	1000
107	1235	1244	3.837	34.577	27.467	26	-9.000	-9.000	0.08	-9.00	-9.00	-9.00	1000
102	1482	1493	3.135	34.600	27.553	52	-9.000	-9.000	0.16	-9.00	-9.00	-9.00	1000
101	1729	1744	2.524	34.624	27.627	72	-9.000	-9.000	0.22	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
2	17 Feb 89	12 01.3 N	105 00.0 W	3335	254.2	459.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
203	1867	1893	2.309	34.637	27.656	87	-9.000	-9.000	0.26	-9.00	-9.00	-9.00	1000
206	2066	2095	2.007	34.653	27.693	98	-9.000	-9.000	0.30	-9.00	-9.00	-9.00	1000
205	2263	2295	1.770	34.664	27.720	110	-9.000	-9.000	0.33	-9.00	-9.00	-9.00	1000
204	2459	2495	1.696	34.669	27.730	114	-9.000	-9.000	0.34	-9.00	-9.00	-9.00	1000
207	2655	2694	1.634	34.672	27.737	118	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
222	2856	2898	1.558	34.675	27.745	122	-9.000	-9.000	0.36	-9.00	-9.00	-9.00	1000
201	3049	3095	1.480	34.678	27.753	131	-9.000	-9.000	0.39	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
3	18 Feb 89	10 29.6 N	105 36.1 W	3370	254.2	459.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
324	12	12	27.501	33.941	21.762	221	-9.000	-9.000	1.11	-9.00	-9.00	-9.00	1000
327	21	21	27.474	33.937	21.768	213	-9.000	-9.000	1.07	-9.00	-9.00	-9.00	1000
315	21	21	27.473	33.937	21.768	216	-9.000	-9.000	1.08	-9.00	-9.00	-9.00	1000
320	38	38	27.372	33.932	21.797	217	-9.000	-9.000	1.09	-9.00	-9.00	-9.00	1000
323	40	40	27.374	33.932	21.796	218	-9.000	-9.000	1.09	-9.00	-9.00	-9.00	1000
319	57	57	27.344	33.932	21.806	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
318	59	59	27.362	33.932	21.800	213	-9.000	-9.000	1.07	-9.00	-9.00	-9.00	1000
317	79	79	21.193	34.357	23.953	80	-9.000	-9.000	0.36	-9.00	-9.00	-9.00	1000
321	80	80	20.976	34.354	24.010	83	-9.000	-9.000	0.37	-9.00	-9.00	-9.00	1000
314	97	97	16.315	34.731	25.469	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
308	120	120	14.008	34.811	26.040	17	-9.000	-9.000	0.07	-9.00	-9.00	-9.00	1000
326	147	147	12.955	34.807	26.253	15	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
311	198	198	11.955	34.787	26.433	15	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
310	295	296	10.556	34.713	26.632	15	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
313	395	397	9.057	34.623	26.814	17	-9.000	-9.000	0.06	-9.00	-9.00	-9.00	1000
305	495	497	7.815	34.584	26.975	13	-9.000	-9.000	0.04	-9.00	-9.00	-9.00	1000
304	495	497	7.815	34.583	26.974	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
322	987	993	4.482	34.563	27.387	36	-9.000	-9.000	0.11	-9.00	-9.00	-9.00	1000
301	987	993	4.482	34.562	27.387	38	-9.000	-9.000	0.12	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
4	18 Feb 89	07 59.9 N	106 27.8 W	3634	253.5	458.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
601	5	5	25.900	34.310	22.546	218	1.738	0.970	1.07	1.00	1.08	1.79	1000
420	19	19	25.729	34.303	22.594	211	1.584	0.867	1.03	0.91	0.96	1.83	1000
419	36	36	24.171	34.295	23.059	202	-9.000	-9.000	0.96	-9.00	-9.00	-9.00	1000
418	58	58	14.573	34.782	25.897	32	0.490	0.293	0.13	0.17	0.21	1.67	1000
417	60	60	14.423	34.783	25.930	30	-9.000	-9.000	0.12	-9.00	-9.00	-9.00	1000
421	79	80	13.619	34.809	26.120	33	0.373	0.184	0.13	0.12	0.12	2.02	1000
414	80	80	13.635	34.809	26.116	31	-9.000	-9.000	0.12	-9.00	-9.00	-9.00	1000
408	96	96	13.036	34.840	26.262	35	0.329	0.175	0.14	0.10	0.12	1.88	1000
426	121	122	12.468	34.817	26.357	40	0.264	0.154	0.15	0.08	0.10	1.71	1000
411	148	148	12.213	34.814	26.404	46	0.249	0.146	0.17	0.08	0.09	1.71	1000
410	148	148	12.213	34.815	26.405	44	0.256	0.162	0.17	0.08	0.10	1.58	1000
413	200	201	11.499	34.770	26.505	65	0.217	0.117	0.24	0.06	0.07	1.86	1000
405	222	222	11.203	34.760	26.552	54	0.191	0.100	0.20	0.06	0.06	1.92	1000
404	245	246	10.940	34.743	26.587	43	0.152	0.108	0.16	0.04	0.06	1.40	1000
422	295	296	10.224	34.712	26.689	40	0.090	0.059	0.15	0.02	0.03	1.51	1000
401	295	296	10.224	34.713	26.690	41	0.088	0.049	0.15	0.02	0.03	1.81	1000
624	396	398	9.194	34.659	26.820	18	0.015	0.016	0.06	-9.00	-9.00	-9.00	1000
606	447	450	8.593	34.631	26.894	15	-0.003	0.001	0.05	-9.00	-9.00	-9.00	1000
627	495	497	7.865	34.596	26.977	22	0.000	0.004	0.08	-9.00	-9.00	-9.00	1100
623	594	597	6.943	34.575	27.092	15	0.010	-0.013	0.05	-9.00	-9.00	-9.00	1000
604	693	696	5.972	34.558	27.207	19	0.002	-0.003	0.06	-9.00	-9.00	-9.00	1000
619	791	796	5.315	34.556	27.286	25	0.015	0.000	0.08	-9.00	-9.00	-9.00	1000
618	791	796	5.315	34.557	27.287	26	0.000	0.002	0.09	-9.00	-9.00	-9.00	1000
617	889	894	4.936	34.558	27.332	34	-0.002	0.004	0.11	-9.00	-9.00	-9.00	1000
616	986	993	4.520	34.565	27.385	43	-0.002	0.000	0.14	-9.00	-9.00	-9.00	1000
621	1287	1296	3.461	34.592	27.516	67	-9.000	-0.002	0.21	-9.00	-9.00	-9.00	1010
614	1579	1592	2.764	34.616	27.600	84	0.002	0.007	0.26	-9.00	-9.00	-9.00	1000
608	1878	1895	2.307	34.636	27.655	107	0.010	-0.009	0.32	-9.00	-9.00	-9.00	1000
626	2076	2096	2.039	34.648	27.687	106	-0.001	0.007	0.32	-9.00	-9.00	-9.00	1000
611	2271	2294	1.820	34.661	27.714	114	0.008	0.000	0.34	-9.00	-9.00	-9.00	1000
610	2468	2495	1.698	34.668	27.729	118	0.005	0.013	0.35	-9.00	-9.00	-9.00	1000
613	2664	2694	1.660	34.669	27.733	122	0.000	-0.002	0.36	-9.00	-9.00	-9.00	1000
501	3063	3100	1.541	34.675	27.746	131	-0.002	0.000	0.39	-9.00	-9.00	-9.00	1100
522	3063	3100	1.541	34.673	27.745	134	-0.001	0.009	0.40	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
5	19 Feb 89	06 08.1 N	107 35.0 W	3480	252.9	457.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
709	3	3	25.455	34.126	22.544	223	1.729	0.929	1.08	0.98	1.02	1.86	1000
703	18	18	25.146	34.149	22.656	224	-9.000	-9.000	1.08	-9.00	-9.00	-9.00	1000
705	18	18	25.074	34.192	22.710	221	1.678	0.926	1.06	0.93	1.00	1.81	1000
707	40	40	18.339	34.688	24.950	116	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	1000
722	40	40	18.425	34.689	24.930	117	1.077	0.578	0.50	0.45	0.48	1.86	1000
701	40	40	18.425	34.689	24.930	112	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
724	60	60	14.346	34.760	25.929	33	0.431	0.261	0.13	0.15	0.18	1.65	1000
706	79	79	13.400	34.810	26.165	28	-9.000	-9.000	0.11	-9.00	-9.00	-9.00	1000
727	79	79	13.395	34.812	26.168	33	0.341	0.205	0.13	0.11	0.14	1.66	1000
723	97	98	12.860	34.810	26.274	34	0.299	0.178	0.13	0.09	0.12	1.68	1000
704	122	122	12.074	34.770	26.397	45	0.245	0.158	0.17	0.07	0.10	1.56	1000
719	145	146	11.580	34.748	26.473	49	0.235	0.145	0.19	0.07	0.09	1.63	1000
717	197	198	11.004	34.744	26.576	42	0.144	0.101	0.15	0.04	0.06	1.42	1000
718	197	198	11.004	34.744	26.576	49	0.142	0.093	0.18	0.04	0.06	1.53	1000
716	292	293	10.155	34.710	26.699	35	0.074	0.061	0.13	0.02	0.03	1.23	1000
721	345	346	9.568	34.686	26.780	23	0.040	0.027	0.08	0.01	-9.00	-9.00	1000
714	345	346	9.568	34.686	26.780	24	0.037	-9.000	0.09	0.01	-9.00	-9.00	1020
711	594	597	6.705	34.585	27.132	27	0.005	0.004	0.09	-9.00	-9.00	-9.00	1100
710	691	695	6.002	34.567	27.210	35	0.002	-0.005	0.12	-9.00	-9.00	-9.00	1100
713	789	794	5.454	34.560	27.273	48	0.000	0.007	0.16	-9.00	-9.00	-9.00	1100

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
6	20 Feb 89	04 00.9 N	108 50.9 W	3700	252.1	456.3

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
807	2	2	25.971	34.093	22.360	235	1.685	0.900	1.15	0.98	1.01	1.87	1000
822	2	2	25.971	34.094	22.361	235	-9.000	-9.000	1.15	-9.00	-9.00	-9.00	1000
828	2	2	25.968	34.094	22.362	232	-9.000	-9.000	1.14	-9.00	-9.00	-9.00	1000
909	3	3	25.901	34.041	22.343	236	1.681	0.877	1.15	0.97	0.98	1.92	1000
801	21	21	22.487	34.507	23.708	230	1.582	0.822	1.07	0.79	0.81	1.92	1000
824	38	38	20.431	34.715	24.431	190	-9.000	-9.000	0.85	-9.00	-9.00	-9.00	1000
806	40	40	19.923	34.715	24.566	189	1.412	0.744	0.84	0.63	0.66	1.90	1000
827	59	59	16.298	34.826	25.546	99	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
823	60	60	16.329	34.820	25.534	107	0.915	0.496	0.44	0.35	0.38	1.84	1000
804	70	70	14.084	34.904	26.096	58	0.406	0.234	0.23	0.14	0.16	1.74	1000
819	78	78	13.954	34.935	26.147	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
818	80	80	13.895	34.934	26.159	71	0.519	0.283	0.28	0.17	0.19	1.84	1000
812	88	88	13.704	34.937	26.201	63	0.485	0.269	0.25	0.16	0.18	1.81	1000
816	99	99	13.584	34.932	26.222	68	0.473	0.270	0.27	0.16	0.18	1.75	1000
814	109	110	13.353	34.923	26.262	64	0.438	0.237	0.25	0.14	0.16	1.85	1000
821	109	110	13.353	34.926	26.265	65	0.442	0.249	0.25	0.14	0.17	1.77	1000
808	127	127	13.033	34.910	26.317	60	-9.000	-9.000	0.23	-9.00	-9.00	-9.00	1000
826	174	174	12.600	34.878	26.379	51	0.282	0.182	0.20	0.09	0.12	1.55	1000
811	174	174	12.600	34.876	26.377	49	0.297	0.163	0.19	0.09	0.11	1.82	1000
813	220	221	11.940	34.835	26.473	62	-9.000	-9.000	0.24	-9.00	-9.00	-9.00	1030
810	220	221	11.940	34.836	26.474	57	0.271	0.154	0.21	0.08	0.10	1.76	1000
903	272	273	10.980	34.763	26.595	47	0.172	0.125	0.17	0.05	0.08	1.38	1000
928	296	297	10.640	34.742	26.640	41	0.117	0.074	0.15	0.03	0.04	1.58	1000
907	345	347	9.949	34.700	26.727	54	0.090	0.067	0.20	0.02	0.04	1.35	1000
922	345	347	9.949	34.700	26.727	58	0.086	0.050	0.21	0.02	0.03	1.73	1000
901	395	397	9.364	34.674	26.804	56	0.054	0.034	0.20	0.01	0.02	1.61	1000
924	495	497	8.077	34.630	26.972	26	0.007	0.004	0.09	-9.00	-9.00	-9.00	1000
906	545	548	7.284	34.599	27.063	29	-0.003	0.006	0.10	-9.00	-9.00	-9.00	1000
927	593	596	6.731	34.583	27.127	37	-0.001	0.004	0.13	-9.00	-9.00	-9.00	1000
923	593	596	6.731	34.583	27.127	37	0.013	0.009	0.12	-9.00	-9.00	-9.00	1000
904	693	697	6.119	34.568	27.196	50	-0.002	-0.006	0.17	-9.00	-9.00	-9.00	1000
919	790	795	5.668	34.559	27.246	57	-9.000	-9.000	0.19	-9.00	-9.00	-9.00	1000
918	790	795	5.668	34.559	27.246	69	-0.002	0.001	0.23	-9.00	-9.00	-9.00	1000
912	1286	1296	3.657	34.583	27.490	77	-9.000	-9.000	0.24	-9.00	-9.00	-9.00	1000
916	1584	1597	2.807	34.618	27.598	91	-9.000	-9.000	0.28	-9.00	-9.00	-9.00	1000
921	1878	1895	2.332	34.636	27.653	107	-0.001	-0.005	0.32	-9.00	-9.00	-9.00	1000
914	2077	2096	2.042	34.650	27.688	116	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
908	2470	2496	1.703	34.666	27.727	129	-9.000	-9.000	0.38	-9.00	-9.00	-9.00	1000
926	2667	2696	1.643	34.670	27.735	127	-0.006	-0.002	0.38	-9.00	-9.00	-9.00	1000
911	2865	2898	1.593	34.671	27.739	126	-9.000	-9.000	0.37	-9.00	-9.00	-9.00	1000
910	3062	3099	1.482	34.678	27.753	143	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
913	3457	3502	1.276	34.685	27.773	156	0.000	0.002	0.46	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
7	20 Feb 89	01 59.9 N	110 05.7 W	3900	251.4	455.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1006	18	18	22.803	34.471	23.590	218	1.586	0.830	1.01	0.81	0.83	1.91	1000
1027	18	18	22.783	34.476	23.600	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1023	27	27	21.081	34.662	24.216	199	1.492	0.786	0.90	0.70	0.74	1.90	1000
1004	37	37	19.811	34.717	24.597	184	1.301	0.680	0.81	0.58	0.60	1.91	1000
1019	37	38	19.457	34.739	24.705	175	-9.000	-9.000	0.77	-9.00	-9.00	-9.00	1000
1012	57	57	14.770	34.966	25.997	104	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
1018	57	58	14.751	34.966	26.001	102	0.715	0.396	0.41	0.25	0.28	1.81	1000
1016	77	77	14.242	34.959	26.105	101	0.674	0.360	0.40	0.23	0.25	1.87	1000
1021	77	78	14.224	34.958	26.108	99	-9.000	-9.000	0.39	-9.00	-9.00	-9.00	1000
1014	97	97	13.388	34.926	26.257	85	0.517	0.326	0.33	0.17	0.22	1.58	1000
1008	120	120	13.015	34.907	26.318	80	0.439	0.241	0.31	0.14	0.16	1.82	1000
1026	146	146	12.739	34.893	26.363	74	0.423	0.221	0.29	0.13	0.14	1.92	1000
1011	170	171	12.592	34.885	26.386	65	0.359	0.194	0.25	0.11	0.13	1.85	1000
1010	196	196	12.301	34.868	26.429	74	0.325	0.181	0.28	0.10	0.12	1.79	1000
1025	245	246	12.274	34.868	26.434	62	0.306	0.170	0.24	0.09	0.11	1.80	1000
1015	295	296	11.650	34.827	26.521	25	0.192	0.126	0.09	0.06	0.08	1.52	1000
1029	393	395	9.032	34.680	26.863	38	0.037	0.019	0.13	0.01	-9.00	-9.00	1000
1009	492	494	8.276	34.642	26.951	40	0.021	0.007	0.14	-9.00	-9.00	-9.00	1000
1003	592	595	7.177	34.592	27.073	62	-9.000	-9.000	0.21	-9.00	-9.00	-9.00	1000
1030	691	695	6.472	34.569	27.151	66	0.008	-0.002	0.22	-9.00	-9.00	-9.00	1000
1007	791	796	5.757	34.567	27.241	63	-0.001	0.000	0.21	-9.00	-9.00	-9.00	1000
1022	791	796	5.757	34.560	27.236	58	-0.007	-0.015	0.19	-9.00	-9.00	-9.00	1000
1001	988	994	4.706	34.562	27.362	-9	0.002	0.000	-9.00	-9.00	-9.00	-9.00	1000
1024	988	994	4.706	34.563	27.362	76	0.007	0.014	0.24	-9.00	-9.00	-9.00	1100

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
8	21 Feb 89	00 55.3 N	110 01.5 W	3820	251.1	454.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1122	2	2	26.465	34.116	22.223	222	1.697	0.936	1.09	1.01	1.07	1.81	1000
1101	5	4	26.305	34.107	22.267	222	1.745	-9.000	1.10	1.03	-9.00	-9.00	1020
1124	19	19	25.781	34.120	22.439	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1106	20	20	25.786	34.121	22.439	227	1.679	0.901	1.11	0.97	1.01	1.86	1000
1127	30	30	22.720	34.490	23.629	212	1.587	0.847	0.99	0.81	0.84	1.87	1000
1104	39	39	20.707	34.684	24.334	190	1.451	0.762	0.85	0.68	0.70	1.90	1000
1123	39	39	20.707	34.680	24.331	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1119	59	59	16.306	34.873	25.580	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1118	60	60	16.298	34.874	25.583	118	0.885	0.495	0.49	0.34	0.38	1.79	1000
1116	80	80	14.280	34.909	26.058	75	0.622	0.333	0.30	0.21	0.23	1.87	1000
1112	80	80	14.304	34.910	26.054	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1121	98	98	13.555	34.892	26.197	76	0.526	0.283	0.30	0.17	0.19	1.86	1000
1114	124	124	13.043	34.873	26.286	89	0.594	0.415	0.35	0.19	0.28	1.43	1000
1108	148	149	12.793	34.897	26.355	76	0.417	0.253	0.29	0.13	0.17	1.65	1000
1126	174	174	12.678	34.892	26.374	67	0.366	0.203	0.26	0.12	0.13	1.81	1000
1111	197	198	12.591	34.886	26.386	68	0.359	0.196	0.26	0.11	0.13	1.83	1000
1110	247	248	12.434	34.871	26.406	75	0.365	0.203	0.29	0.11	0.13	1.80	1000
1125	298	299	11.573	34.839	26.545	37	0.104	0.059	0.14	0.03	0.04	1.76	1000
1115	395	397	9.241	34.693	26.839	35	-9.000	-9.000	0.13	-9.00	-9.00	-9.00	1000
1129	494	496	8.074	34.632	26.974	46	0.009	0.027	0.16	-9.00	-9.00	-9.00	1000
1109	593	596	7.089	34.584	27.079	64	0.002	0.008	0.22	-9.00	-9.00	-9.00	1000
1103	693	697	6.330	34.567	27.168	59	0.013	-9.000	0.20	-9.00	-9.00	-9.00	1020
1130	791	796	5.513	34.560	27.266	66	0.002	0.001	0.22	-9.00	-9.00	-9.00	1000
1107	1010	1017	4.271	34.564	27.411	90	0.002	-9.000	0.28	-9.00	-9.00	-9.00	1020

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
9	21 Feb 89	00 00.3 N	109 59.5 W	3847	250.7	454.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1406	6	6	26.506	33.930	22.070	227	1.802	0.975	1.12	1.07	1.09	1.85	1100
1427	9	9	26.476	33.932	22.081	227	-9.000	0.853	1.12	-9.00	0.98	-9.00	1010
1423	18	18	22.784	34.473	23.597	219	1.581	0.960	1.02	0.81	0.96	1.65	1000
1418	19	19	22.660	34.498	23.652	220	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
1419	19	19	22.681	34.514	23.658	222	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	2000
1412	28	28	20.584	34.663	24.351	178	1.359	0.711	0.80	0.63	0.65	1.91	1000
1416	38	38	18.663	34.847	24.991	163	1.221	0.640	0.71	0.52	0.55	1.91	1000
1421	38	38	18.811	34.847	24.953	169	-9.000	-9.000	0.73	-9.00	-9.00	-9.00	1000
1414	48	48	17.993	34.869	25.175	138	1.130	0.702	0.59	0.46	0.58	1.61	1000
1426	61	61	16.983	34.887	25.432	124	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000
1408	62	62	16.889	34.888	25.456	117	0.996	0.523	0.49	0.39	0.41	1.90	1000
1411	78	78	15.269	34.988	25.904	124	0.843	0.432	0.50	0.30	0.32	1.95	1000
1410	99	99	14.271	34.931	26.077	109	0.704	0.379	0.43	0.24	0.27	1.86	1000
1425	124	124	13.772	34.943	26.191	123	0.668	0.344	0.49	0.22	0.24	1.94	1000
1409	149	149	13.531	34.967	26.260	138	0.619	0.318	0.54	0.20	0.22	1.95	1000
1415	149	149	13.531	34.967	26.260	128	0.643	0.339	0.50	0.21	0.23	1.90	1000
1429	149	149	13.531	34.967	26.260	-9	0.620	0.321	-9.00	0.20	0.21	1.93	1100
1524	196	197	12.722	34.898	26.370	103	0.475	0.262	0.40	0.15	0.17	1.82	1000
1506	220	221	12.644	34.888	26.377	102	0.457	0.249	0.39	0.14	0.16	1.83	1000
1527	245	246	12.605	34.885	26.383	92	0.447	0.262	0.35	0.14	0.17	1.71	1000
1523	296	297	11.887	34.847	26.492	43	0.227	0.239	0.16	0.07	0.15	0.95	1000
1504	345	347	10.644	34.769	26.660	46	0.113	0.061	0.17	0.03	0.04	1.85	1000
1519	394	395	9.384	34.703	26.823	30	0.036	0.047	0.11	0.01	0.03	0.76	1000
1518	493	495	8.329	34.647	26.947	39	0.018	-9.000	0.14	-9.00	-9.00	-9.00	1020
1512	593	596	7.440	34.601	27.043	66	0.010	0.013	0.23	-9.00	-9.00	-9.00	1000
1516	691	695	6.317	34.568	27.171	68	0.010	0.018	0.23	-9.00	-9.00	-9.00	1000
1521	788	793	5.274	34.551	27.287	89	0.004	-9.000	0.29	-9.00	-9.00	-9.00	1020
1514	891	896	4.778	34.554	27.347	88	0.005	0.009	0.28	-9.00	-9.00	-9.00	1000
1508	987	994	4.280	34.554	27.402	90	0.008	0.015	0.29	-9.00	-9.00	-9.00	1000
1526	1284	1294	3.538	34.587	27.505	92	0.000	0.005	0.29	-9.00	-9.00	-9.00	1000
1511	1580	1593	2.724	34.616	27.604	103	-0.005	-0.013	0.32	-9.00	-9.00	-9.00	1000
1510	1580	1593	2.724	34.616	27.604	106	0.006	0.005	0.33	-9.00	-9.00	-9.00	1000
1525	2074	2094	2.063	34.648	27.685	116	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1030
1529	2272	2294	1.825	34.659	27.712	127	-0.002	-0.007	0.38	-9.00	-9.00	-9.00	1000
1515	2272	2294	1.825	34.657	27.711	126	-9.000	-9.000	0.38	-9.00	-9.00	-9.00	1000
1509	2469	2495	1.712	34.665	27.726	130	-9.000	-9.000	0.39	-9.00	-9.00	-9.00	1000
1503	2665	2694	1.598	34.670	27.738	138	-9.000	-9.000	0.41	-9.00	-9.00	-9.00	1000
1507	3060	3098	1.454	34.676	27.754	147	-0.001	0.000	0.44	-9.00	-9.00	-9.00	1000
1530	3060	3098	1.454	34.676	27.754	144	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
1522	3454	3499	1.269	34.687	27.776	156	0.003	0.001	0.46	-9.00	-9.00	-9.00	1000
1501	3454	3499	1.269	34.688	27.776	160	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
10	22 Feb 89	01 00.7 S	109 58.9 W	3996	250.4	453.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1601	2	2	26.938	33.870	21.889	231	1.689	-9.000	1.15	1.02	-9.00	-9.00	1020
1624	4	4	26.913	33.873	21.899	230	1.673	0.889	1.14	1.01	1.03	1.88	1000
1606	8	8	26.540	33.917	22.050	232	1.652	1.024	1.15	0.98	1.18	1.61	1000
1627	18	18	22.008	34.769	24.041	210	-9.000	-9.000	0.97	-9.00	-9.00	-9.00	1000
1620	28	28	21.468	34.966	24.341	197	1.537	0.809	0.90	0.74	0.77	1.90	1000
1619	37	37	21.481	34.991	24.357	196	-9.000	-9.000	0.89	-9.00	-9.00	-9.00	1000
1604	37	37	21.530	34.996	24.347	197	1.501	0.780	0.90	0.73	0.75	1.92	1000
1612	58	58	21.436	35.029	24.398	191	-9.000	-9.000	0.87	-9.00	-9.00	-9.00	1000
1618	58	58	21.437	35.031	24.399	189	1.490	0.772	0.86	0.72	0.74	1.93	1000
1616	78	78	21.155	35.081	24.515	182	1.470	0.760	0.83	0.70	0.72	1.93	1000
1621	78	78	21.159	35.079	24.512	185	-9.000	-9.000	0.84	-9.00	-9.00	-9.00	1000
1617	97	97	19.867	35.289	25.019	-9	1.322	0.700	-9.00	0.60	0.63	1.89	1000
1608	123	123	14.314	35.066	26.172	97	0.630	0.344	0.39	0.21	0.24	1.83	1100
1626	146	147	13.365	34.976	26.301	85	0.504	0.280	0.33	0.17	0.19	1.80	1000
1611	171	172	12.632	34.893	26.384	80	0.397	0.220	0.31	0.13	0.14	1.80	1000
1610	195	196	12.617	34.892	26.386	-9	0.379	0.214	-9.00	0.12	0.14	1.77	1000
1625	247	248	12.221	34.861	26.439	58	0.293	0.161	0.22	0.09	0.10	1.82	1000
1615	295	296	11.927	34.844	26.482	56	0.264	0.157	0.21	0.08	0.10	1.68	1000
1629	394	396	9.333	34.698	26.828	31	-9.000	-9.000	0.11	-9.00	-9.00	-9.00	1000
1609	491	494	8.370	34.647	26.941	41	-9.000	-9.000	0.14	-9.00	-9.00	-9.00	1000
1603	593	596	6.893	34.582	27.104	73	-9.000	-9.000	0.25	-9.00	-9.00	-9.00	1000
1630	790	795	5.027	34.548	27.314	92	-9.000	-9.000	0.30	-9.00	-9.00	-9.00	1000
1607	985	991	4.267	34.563	27.410	93	-9.000	-9.000	0.30	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
11	22 Feb 89	01 59.5 S	109 57.7 W	3950	250.0	452.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1722	0	0	26.293	33.831	22.062	226	1.681	0.887	1.11	0.99	1.01	1.89	1000
1701	4	4	25.917	34.037	22.335	228	1.679	0.861	1.12	0.98	0.97	1.95	1000
1706	19	19	24.813	34.359	22.915	228	1.635	0.910	1.10	0.91	0.99	1.80	1000
1724	19	19	25.008	34.334	22.837	228	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
1727	29	29	23.969	34.594	23.345	230	1.587	0.843	1.09	0.86	0.89	1.88	1000
1720	40	40	23.647	34.754	23.561	234	-9.000	-9.000	1.11	-9.00	-9.00	-9.00	1000
1704	40	40	23.684	34.750	23.547	204	1.605	0.840	0.97	0.86	0.88	1.91	1000
1718	58	58	22.573	34.758	23.874	194	1.526	0.804	0.90	0.78	0.80	1.90	1000
1719	58	58	22.573	34.759	23.875	211	-9.000	-9.000	0.98	-9.00	-9.00	-9.00	1000
1712	78	78	17.699	35.065	25.397	104	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
1716	78	78	17.690	35.065	25.399	109	1.060	0.540	0.46	0.43	0.44	1.96	1000
1721	99	99	13.787	34.997	26.230	83	0.563	0.285	0.33	0.19	0.20	1.97	1000
1717	125	125	12.597	34.893	26.391	76	0.417	0.215	0.29	0.13	0.14	1.94	1000
1708	149	149	12.436	34.891	26.421	87	0.420	0.226	0.33	0.13	0.15	1.86	1000
1726	172	173	12.308	34.869	26.428	57	0.348	0.189	0.22	0.11	0.12	1.84	1000
1711	198	199	12.223	34.868	26.444	53	0.297	0.165	0.20	0.09	0.11	1.80	1000
1710	248	249	12.042	34.856	26.470	51	0.259	0.144	0.19	0.08	0.09	1.80	1000
1715	297	298	11.850	34.850	26.502	74	0.270	0.152	0.28	0.08	0.09	1.77	1100
1725	297	298	11.850	34.849	26.501	84	0.285	0.157	0.32	0.09	0.10	1.82	1000
1729	396	397	9.336	34.700	26.829	54	0.063	0.072	0.19	0.02	0.04	0.88	1000
1709	495	497	8.225	34.639	26.957	67	0.026	0.023	0.23	-9.00	-9.00	-9.00	1000
1703	793	797	5.120	34.548	27.303	96	-0.004	-0.004	0.31	-9.00	-9.00	-9.00	1000
1707	997	1004	4.264	34.562	27.410	95	-0.003	0.005	0.30	-9.00	-9.00	-9.00	1100

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
12	22 Feb 89	04 00.2 S	110 00.3 W	3650	249.3	451.7

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
1827	1	1	26.356	34.871	22.827	226	1.662	0.887	1.12	1.00	1.03	1.87	1000
1820	9	9	26.156	34.874	22.892	250	1.754	0.940	1.23	1.04	1.08	1.87	1000
1819	19	19	25.713	34.926	23.069	257	1.757	0.959	1.26	1.03	1.08	1.83	1000
1804	20	20	25.704	34.930	23.074	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
1818	39	39	23.440	35.082	23.870	212	-9.000	-9.000	1.00	-9.00	-9.00	-9.00	1000
1812	39	39	23.087	35.104	23.989	254	1.732	0.927	1.19	0.91	0.95	1.87	1000
1821	58	58	15.749	35.009	25.813	103	0.698	-9.000	0.42	0.26	-9.00	-9.00	1020
1816	59	59	15.888	34.998	25.773	118	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
1808	78	78	14.062	34.981	26.160	56	0.495	0.286	0.22	0.17	0.20	1.73	1000
1817	79	79	14.089	34.982	26.155	64	-9.000	-9.000	0.26	-9.00	-9.00	-9.00	1000
1826	99	99	13.695	34.964	26.224	61	0.446	0.274	0.24	0.15	0.19	1.63	1000
1811	122	123	13.312	34.946	26.289	41	0.332	0.186	0.16	0.11	0.13	1.79	1000
1810	147	148	13.127	34.934	26.317	51	0.325	0.215	0.20	0.11	0.14	1.51	1000
1825	172	173	12.898	34.923	26.354	31	0.284	0.163	0.12	0.09	0.11	1.74	1000
1815	197	197	12.748	34.913	26.376	31	0.223	0.129	0.12	0.07	0.09	1.72	1000
1829	222	223	12.567	34.905	26.406	31	0.190	0.111	0.12	0.06	0.07	1.71	1000
1809	246	247	12.318	34.892	26.445	38	0.163	0.095	0.14	0.05	0.06	1.72	1000
1927	296	298	11.807	34.863	26.520	19	0.161	-9.000	0.07	0.05	-9.00	-9.00	1020
1920	345	347	10.847	34.805	26.652	12	0.099	0.072	0.04	0.03	0.04	1.38	1000
1904	395	397	9.902	34.748	26.772	14	0.030	0.025	0.05	-9.00	-9.00	-9.00	1000
1919	445	447	8.873	34.685	26.892	14	0.017	0.011	0.05	-9.00	-9.00	-9.00	1000
1918	495	498	8.241	34.653	26.965	17	0.010	0.016	0.06	-9.00	-9.00	-9.00	1000
1912	593	596	6.742	34.581	27.124	44	0.007	0.012	0.15	-9.00	-9.00	-9.00	1000
1916	692	696	5.936	34.556	27.210	68	0.009	0.014	0.22	-9.00	-9.00	-9.00	1000
1921	792	797	5.435	34.551	27.268	76	0.017	0.017	0.25	-9.00	-9.00	-9.00	1000
1917	891	897	5.053	34.548	27.311	84	0.010	-9.000	0.27	-9.00	-9.00	-9.00	1020
1908	990	996	4.704	34.548	27.351	82	0.017	0.009	0.26	-9.00	-9.00	-9.00	1000
1926	1287	1296	3.429	34.583	27.512	96	0.006	0.006	0.30	-9.00	-9.00	-9.00	1100
1911	1580	1593	2.751	34.615	27.600	94	-9.000	-9.000	0.29	-9.00	-9.00	-9.00	1000
1910	1580	1593	2.751	34.615	27.600	103	0.003	0.003	0.32	-9.00	-9.00	-9.00	1000
1915	2075	2095	2.031	34.647	27.687	125	0.001	0.000	0.38	-9.00	-9.00	-9.00	1000
1925	2075	2095	2.031	34.648	27.687	124	-9.000	-9.000	0.37	-9.00	-9.00	-9.00	1000
1909	2471	2497	1.735	34.664	27.723	137	0.000	0.000	0.41	-9.00	-9.00	-9.00	1100
1903	2471	2497	1.735	34.665	27.724	145	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
1929	2471	2497	1.735	34.665	27.724	134	-0.003	-0.006	0.40	-9.00	-9.00	-9.00	1000
1930	3062	3099	1.464	34.680	27.756	149	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
1907	3258	3299	1.374	34.684	27.766	156	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
1922	3449	3494	1.312	34.685	27.771	161	-0.001	-0.003	0.47	-9.00	-9.00	-9.00	1000
1901	3452	3497	1.312	34.687	27.772	176	-0.002	0.005	0.52	-9.00	-9.00	-9.00	1100

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
13	23 Feb 89	06 00.0 S	109 59.4 W	3470	248.7	450.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2022	3	3	25.992	34.991	23.031	222	1.710	0.899	1.10	1.02	1.03	1.90	1000
2006	18	18	26.018	35.053	23.070	225	1.737	0.919	1.11	1.03	1.05	1.89	1000
2024	20	20	26.018	35.052	23.069	229	-9.000	-9.000	1.13	-9.00	-9.00	-9.00	1000
2027	39	39	24.818	35.425	23.720	226	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
2020	40	40	24.792	35.429	23.730	232	1.938	0.984	1.12	1.09	1.07	1.97	1100
2004	59	59	23.238	35.417	24.183	224	-9.000	-9.000	1.06	-9.00	-9.00	-9.00	1000
2019	60	60	22.700	35.418	24.339	216	1.856	0.980	1.01	0.96	0.99	1.89	1000
2012	77	77	18.878	35.419	25.374	164	1.679	0.882	0.72	0.73	0.77	1.90	1000
2018	78	78	19.870	35.419	25.117	172	-9.000	-9.000	0.77	-9.00	-9.00	-9.00	1000
2016	100	100	15.694	35.155	25.937	-9	1.052	0.547	-9.00	0.39	0.41	1.92	1000
2021	125	125	13.423	34.986	26.297	31	-9.000	-9.000	0.12	-9.00	-9.00	-9.00	1000
2017	147	147	12.610	34.918	26.408	28	0.528	-9.000	0.11	0.17	-9.00	-9.00	1020
2008	172	172	12.274	34.897	26.457	33	0.207	0.117	0.12	0.06	0.07	1.77	1100
2026	197	197	11.736	34.866	26.536	42	0.165	0.097	0.16	0.05	0.06	1.71	1000
2011	223	223	11.339	34.839	26.589	36	0.128	-9.000	0.13	0.04	-9.00	-9.00	1020
2010	246	247	11.154	34.826	26.612	-9	0.096	0.058	-9.00	0.03	0.04	1.66	1000
2015	295	296	10.484	34.783	26.699	20	0.046	0.025	0.07	0.01	-9.00	-9.00	1000
2025	295	296	10.484	34.783	26.699	22	0.058	-9.000	0.08	0.02	-9.00	-9.00	1020
2029	394	396	9.321	34.713	26.842	22	0.008	0.024	0.08	-9.00	-9.00	-9.00	1000
2009	493	495	8.357	34.659	26.952	23	0.014	0.010	0.08	-9.00	-9.00	-9.00	1000
2003	592	595	7.153	34.595	27.079	49	0.000	0.008	0.17	-9.00	-9.00	-9.00	1000
2030	790	795	5.473	34.545	27.259	75	0.003	0.003	0.25	-9.00	-9.00	-9.00	1000
2007	995	1002	4.403	34.552	27.387	93	0.000	0.000	0.30	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
14	24 Feb 89	07 59.9 S	107 30.7 W	2785	248.0	449.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2106	2	2	25.851	35.019	23.096	233	1.722	0.964	1.15	1.02	1.10	1.79	1000
2127	9	9	25.832	35.018	23.101	232	1.676	0.889	1.14	0.99	1.01	1.88	1000
2123	18	18	25.749	35.017	23.126	235	-9.000	-9.000	1.15	-9.00	-9.00	-9.00	1000
2104	19	19	25.747	35.017	23.127	228	1.729	0.895	1.12	1.02	1.02	1.93	1000
2119	29	29	25.736	35.018	23.131	231	-9.000	-9.000	1.13	-9.00	-9.00	-9.00	1000
2112	39	39	25.722	35.020	23.137	233	1.717	0.906	1.14	1.01	1.03	1.90	1000
2118	39	39	25.722	35.020	23.137	230	-9.000	-9.000	1.13	-9.00	-9.00	-9.00	1000
2116	50	50	24.055	35.416	23.942	242	-9.000	-9.000	1.16	-9.00	-9.00	-9.00	1000
2117	59	59	23.761	35.458	24.061	238	1.807	0.946	1.13	0.98	1.00	1.91	1000
2121	59	59	23.745	35.458	24.065	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2126	78	78	22.723	35.749	24.583	217	1.836	0.982	1.02	0.96	1.00	1.87	1000
2108	79	79	22.752	35.751	24.576	221	-9.000	-9.000	1.04	-9.00	-9.00	-9.00	1000
2111	98	99	20.053	35.688	25.274	192	1.853	0.958	0.86	0.86	0.88	1.93	1000
2114	123	124	14.664	35.069	26.099	126	1.486	0.781	0.50	0.53	0.57	1.90	1000
2125	148	149	13.180	34.877	26.262	25	0.580	0.307	0.10	0.19	0.21	1.89	1000
2115	174	174	11.979	34.806	26.443	20	0.257	0.141	0.08	0.08	0.09	1.82	1000
2129	197	198	11.324	34.797	26.559	28	0.125	0.077	0.11	0.04	0.05	1.63	1000
2109	222	223	10.959	34.798	26.626	44	0.098	0.079	0.16	0.03	-9.00	-9.00	1120
2206	248	249	10.604	34.781	26.676	45	0.108	0.088	0.17	0.03	0.05	1.23	1000
2227	271	272	10.273	34.770	26.726	36	0.071	0.045	0.13	0.02	0.03	1.60	1000
2120	296	297	10.076	34.755	26.748	40	0.052	0.030	0.15	0.01	0.02	1.72	1000
2223	297	298	10.035	34.755	26.755	34	0.038	0.036	0.12	0.01	0.02	1.06	1000
2204	344	346	9.468	34.723	26.825	30	0.031	0.021	0.11	0.01	-9.00	-9.00	1000
2219	394	396	9.007	34.718	26.896	30	0.027	0.018	0.11	-9.00	-9.00	-9.00	1000
2212	494	496	7.687	34.622	27.023	29	0.014	0.016	0.10	-9.00	-9.00	-9.00	1000
2216	542	544	7.168	34.594	27.076	38	0.001	0.001	0.13	-9.00	-9.00	-9.00	1110
2221	595	598	6.660	34.573	27.129	46	0.001	0.002	0.15	-9.00	-9.00	-9.00	1000
2217	643	647	6.261	34.560	27.172	54	-9.000	-9.000	0.18	-9.00	-9.00	-9.00	1000
2208	692	696	5.923	34.552	27.209	59	0.003	0.004	0.20	-9.00	-9.00	-9.00	1000
2226	791	796	5.329	34.553	27.282	93	0.009	0.003	0.30	-9.00	-9.00	-9.00	1000
2211	987	994	4.410	34.548	27.383	104	0.000	-0.002	0.33	-9.00	-9.00	-9.00	1000
2214	1285	1294	3.329	34.580	27.519	109	0.002	-0.003	0.34	-9.00	-9.00	-9.00	1000
2225	1580	1593	2.713	34.612	27.601	113	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1000
2215	1878	1895	2.292	34.636	27.656	118	-9.000	-9.000	0.36	-9.00	-9.00	-9.00	1000
2229	2077	2097	2.097	34.646	27.680	129	-9.000	-9.000	0.39	-9.00	-9.00	-9.00	1000
2209	2272	2295	1.927	34.655	27.701	129	-0.007	-0.014	0.39	-9.00	-9.00	-9.00	1000
2220	2272	2295	1.927	34.656	27.702	148	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
2222	2666	2696	1.636	34.674	27.739	148	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
2207	2666	2696	1.636	34.675	27.739	146	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
2230	2667	2696	1.636	34.676	27.740	148	-9.000	-9.000	0.44	-9.00	-9.00	-9.00	1000
2201	2912	2946	1.584	34.678	27.746	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
15	24 Feb 89	10 00.1 S	105 00.2 W	3882	247.3	448.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2322	2	2	25.868	35.175	23.208	227	1.748	-9.000	1.12	1.04	-9.00	-9.00	1120
2301	19	19	25.865	35.175	23.209	224	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
2324	20	20	25.868	35.177	23.210	222	1.732	0.915	1.09	1.03	1.05	1.89	1000
2306	38	38	23.563	35.757	24.345	245	-9.000	-9.000	1.16	-9.00	-9.00	-9.00	1000
2327	38	38	23.628	35.746	24.318	244	1.874	0.997	1.16	1.02	1.06	1.88	1000
2304	60	60	22.415	36.030	24.885	221	1.897	1.002	1.03	0.98	1.02	1.89	1000
2323	60	60	22.274	36.017	24.915	220	-9.000	-9.000	1.03	-9.00	-9.00	-9.00	1000
2319	78	79	21.584	35.994	25.091	212	-9.000	-9.000	0.97	-9.00	-9.00	-9.00	1000
2318	79	79	21.585	35.994	25.091	220	1.925	1.023	1.01	0.96	1.00	1.88	1000
2316	123	123	18.828	35.554	25.490	184	1.833	0.981	0.80	0.80	0.86	1.87	1000
2321	148	148	15.574	35.053	25.886	114	1.516	1.058	0.47	0.56	0.80	1.43	1000
2317	197	198	12.400	34.843	26.391	14	0.259	0.206	0.05	0.08	0.14	1.25	1000
2308	248	248	11.473	34.823	26.551	19	0.113	0.077	0.07	0.03	0.05	1.47	1000
2310	297	298	10.652	34.774	26.662	24	0.060	-9.000	0.09	0.02	-9.00	-9.00	1020
2311	346	347	9.987	34.744	26.755	28	0.038	0.023	0.10	0.01	-9.00	-9.00	1000
2314	396	397	9.271	34.699	26.839	32	0.026	-9.000	0.12	-9.00	-9.00	-9.00	1020
2325	445	447	8.655	34.664	26.910	31	-9.000	-9.000	0.11	-9.00	-9.00	-9.00	1030
2315	492	494	8.005	34.628	26.981	24	0.000	0.000	0.08	-9.00	-9.00	-9.00	1000
2329	542	545	7.490	34.598	27.033	28	0.009	0.007	0.10	-9.00	-9.00	-9.00	1000
2309	592	595	6.932	34.572	27.091	30	0.000	0.002	0.10	-9.00	-9.00	-9.00	1000
2320	692	696	5.902	34.545	27.206	42	0.009	0.002	0.14	-9.00	-9.00	-9.00	1000
2330	791	796	5.344	34.538	27.269	57	-0.018	-0.013	0.19	-9.00	-9.00	-9.00	1000
2307	988	995	4.366	34.543	27.384	88	-9.000	-9.000	0.28	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
16	24 Feb 89	12 00.3 S	104 59.6 W	4164	246.6	447.1

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2423	11	11	25.354	35.589	23.680	228	1.743	0.972	1.12	1.02	1.10	1.79	1000
2419	18	18	25.351	35.588	23.680	231	-9.000	-9.000	1.13	-9.00	-9.00	-9.00	1000
2418	19	19	25.354	35.589	23.680	230	1.750	0.927	1.13	1.03	1.05	1.89	1000
2404	20	20	25.353	35.588	23.680	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
2412	39	39	25.340	35.590	23.685	227	-9.000	-9.000	1.11	-9.00	-9.00	-9.00	1000
2416	39	39	25.339	35.591	23.686	229	1.745	0.932	1.12	1.02	1.06	1.87	1000
2421	59	59	24.211	35.740	24.141	223	-9.000	-9.000	1.07	-9.00	-9.00	-9.00	1000
2417	60	60	24.024	35.744	24.199	230	1.813	0.948	1.10	1.01	1.02	1.91	1000
2408	78	78	23.059	35.970	24.654	230	-9.000	-9.000	1.08	-9.00	-9.00	-9.00	1000
2410	79	79	23.070	35.982	24.660	219	1.878	0.990	1.04	1.00	1.03	1.90	1000
2411	98	98	21.432	35.909	25.069	202	1.948	1.004	0.93	0.97	0.98	1.94	1000
2414	124	124	19.794	35.687	25.342	197	1.923	1.017	0.88	0.88	0.93	1.89	1000
2425	147	148	17.412	35.332	25.671	176	1.835	0.963	0.74	0.75	0.79	1.90	1000
2415	147	148	14.129	35.335	26.420	175	1.843	0.963	0.70	0.64	0.69	1.91	1000
2429	196	196	12.278	34.744	26.337	88	0.888	0.464	0.34	0.28	0.30	1.91	1000
2409	222	223	11.796	34.733	26.421	25	0.313	0.207	0.10	0.10	0.13	1.51	1000
2420	246	247	11.095	34.696	26.522	25	0.175	0.121	0.09	0.05	0.07	1.44	1000
2524	295	296	9.733	34.674	26.743	35	-9.000	-9.000	0.13	-9.00	-9.00	-9.00	1000
2430	299	300	10.059	34.676	26.689	29	0.067	0.052	0.10	0.02	0.03	1.29	1000
2506	346	348	8.965	34.658	26.856	58	0.027	0.021	0.20	-9.00	-9.00	-9.00	1000
2527	395	397	8.451	34.651	26.932	59	-9.000	-9.000	0.21	-9.00	-9.00	-9.00	1030
2523	443	445	7.927	34.621	26.987	59	-9.000	-9.000	0.20	-9.00	-9.00	-9.00	1030
2504	493	495	7.420	34.596	27.042	39	0.008	0.006	0.13	-9.00	-9.00	-9.00	1000
2519	543	546	6.967	34.574	27.088	41	0.015	0.010	0.14	-9.00	-9.00	-9.00	1000
2518	594	597	6.440	34.545	27.136	68	0.010	0.009	0.23	-9.00	-9.00	-9.00	1000
2512	642	646	6.190	34.535	27.161	77	0.019	0.026	0.26	-9.00	-9.00	-9.00	1000
2516	692	696	5.914	34.531	27.193	68	0.013	0.012	0.22	-9.00	-9.00	-9.00	1000
2521	791	796	5.282	34.520	27.262	70	-9.000	0.019	0.23	-9.00	-9.00	-9.00	1010
2508	987	994	4.237	34.536	27.392	75	0.002	-0.002	0.24	-9.00	-9.00	-9.00	1000
2517	987	994	4.237	34.535	27.391	75	-9.000	0.007	0.24	-9.00	-9.00	-9.00	1010
2510	1582	1595	2.604	34.610	27.609	113	0.000	0.003	0.34	-9.00	-9.00	-9.00	1100
2511	1876	1893	2.211	34.634	27.661	127	0.001	0.000	0.38	-9.00	-9.00	-9.00	1110
2514	2072	2092	1.989	34.649	27.691	135	-0.005	0.000	0.40	-9.00	-9.00	-9.00	1000
2515	2277	2300	1.796	34.663	27.718	142	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
2525	2277	2300	1.796	34.662	27.717	139	0.004	0.010	0.42	-9.00	-9.00	-9.00	1000
2529	2469	2495	1.686	34.669	27.731	145	-0.002	-0.003	0.43	-9.00	-9.00	-9.00	1000
2509	2666	2696	1.617	34.674	27.740	146	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
2520	2863	2896	1.576	34.679	27.747	142	0.007	0.017	0.42	-9.00	-9.00	-9.00	1000
2507	3067	3104	1.544	34.678	27.749	143	-0.004	-0.001	0.42	-9.00	-9.00	-9.00	1100
2530	3067	3104	1.544	34.677	27.748	143	-9.000	-9.000	0.42	-9.00	-9.00	-9.00	1000
2522	3751	3802	1.505	34.682	27.755	144	0.000	0.004	0.43	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
17	26 Feb 89	14 00.0 S	105 00.1 W	3939	245.9	445.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2609	2	2	24.952	35.985	24.103	228	1.786	0.924	1.11	1.04	1.04	1.93	1000
2620	8	8	24.953	35.985	24.102	225	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
2630	19	19	24.927	35.983	24.109	230	-9.000	-9.000	1.12	-9.00	-9.00	-9.00	1000
2607	19	19	24.931	35.982	24.107	235	1.776	0.924	1.15	1.03	1.04	1.92	1000
2622	38	38	24.404	36.102	24.357	228	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
2601	39	39	24.217	36.119	24.426	236	1.809	0.925	1.14	1.02	1.01	1.96	1000
2606	58	58	22.607	36.201	24.960	243	1.905	1.005	1.14	1.00	1.03	1.90	1000
2624	58	59	22.847	36.197	24.888	242	-9.000	-9.000	1.14	-9.00	-9.00	-9.00	1000
2627	78	79	22.137	36.266	25.143	237	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
2623	79	79	22.138	36.259	25.137	230	-9.000	1.186	1.07	-9.00	1.20	-9.00	13000
2604	98	98	22.064	36.302	25.191	222	1.906	0.993	1.03	0.98	1.00	1.92	1000
2619	123	123	21.454	36.141	25.239	225	1.940	1.001	1.03	0.97	0.98	1.94	1000
2618	148	148	20.751	35.960	25.294	220	1.959	0.996	1.00	0.94	0.95	1.97	1000
2612	173	173	19.466	35.628	25.382	200	1.911	0.977	0.88	0.87	0.88	1.96	1000
2616	197	198	16.188	35.091	25.775	173	1.794	0.909	0.71	0.69	0.71	1.97	1000
2621	223	223	13.775	34.774	26.060	126	1.357	0.884	0.50	0.46	0.62	1.53	1000
2617	247	248	12.329	34.701	26.294	57	0.645	0.322	0.22	0.20	0.21	2.01	1000
2608	296	297	10.586	34.687	26.606	21	0.116	0.039	0.08	0.03	0.02	2.98	1000
2610	348	350	9.646	34.670	26.754	29	0.042	0.029	0.10	0.01	-9.00	-9.00	1000
2611	395	397	8.831	34.646	26.868	47	0.019	0.003	0.17	-9.00	-9.00	-9.00	1000
2614	494	496	7.647	34.598	27.010	54	0.019	0.002	0.19	-9.00	-9.00	-9.00	1000
2625	593	596	6.693	34.546	27.103	51	0.000	0.001	0.17	-9.00	-9.00	-9.00	1100
2615	788	792	5.361	34.517	27.250	56	0.004	0.001	0.18	-9.00	-9.00	-9.00	1000
2629	788	792	5.361	34.519	27.252	60	-9.000	-9.000	0.20	-9.00	-9.00	-9.00	1030

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
18	26 Feb 89	15 59.8 S	104 59.5 W	3754	245.2	444.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2707	3	3	24.735	36.168	24.307	227	1.759	0.940	1.10	1.02	1.05	1.87	1000
2722	8	8	24.737	36.167	24.305	231	1.754	0.936	1.12	1.01	1.05	1.87	1000
2706	17	17	24.732	36.176	24.314	230	1.774	0.949	1.12	1.02	1.06	1.87	1000
2724	17	17	24.740	36.166	24.304	236	-9.000	-9.000	1.15	-9.00	-9.00	-9.00	1000
2727	38	38	24.526	36.174	24.375	226	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
2723	38	38	24.628	36.175	24.344	229	1.759	0.993	1.11	1.01	1.11	1.77	1000
2704	58	58	22.735	36.108	24.852	244	-9.000	-9.000	1.15	-9.00	-9.00	-9.00	1000
2719	59	59	22.729	36.109	24.855	238	1.931	1.024	1.12	1.02	1.06	1.88	1000
2712	79	79	22.040	36.117	25.057	239	1.952	1.026	1.11	1.00	1.03	1.90	1000
2718	79	80	22.048	36.111	25.050	237	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
2716	97	98	21.637	36.092	25.151	239	1.955	1.032	1.10	0.99	1.02	1.89	1000
2721	125	125	21.008	35.989	25.246	234	2.013	1.055	1.07	0.99	1.02	1.91	1000
2717	148	149	20.397	35.874	25.324	223	2.005	1.044	1.00	0.95	0.98	1.92	1000
2708	199	200	18.616	35.514	25.513	214	2.065	1.058	0.93	0.90	0.92	1.95	1000
2710	223	224	15.672	35.043	25.856	171	1.806	0.929	0.70	0.68	0.71	1.94	1000
2711	248	249	13.704	34.751	26.057	144	1.474	0.755	0.57	0.50	0.53	1.95	1000
2714	271	272	12.153	34.620	26.265	97	0.877	0.455	0.37	0.27	0.30	1.93	1000
2725	297	298	10.756	34.525	26.450	109	0.622	0.325	0.40	0.18	0.20	1.91	1000
2715	346	348	9.491	34.581	26.711	39	0.142	0.072	0.14	0.04	0.04	1.98	1000
2729	395	397	8.486	34.545	26.843	47	0.059	0.040	0.17	0.01	0.02	1.49	1100
2709	446	448	7.316	34.468	26.956	87	0.049	0.032	0.30	0.01	0.02	1.51	1100
2720	496	498	6.522	34.441	27.043	104	-9.000	-9.000	0.35	-9.00	-9.00	-9.00	1030
2730	544	546	6.388	34.484	27.095	82	0.017	0.011	0.27	-9.00	-9.00	-9.00	1000
2827	595	598	5.936	34.480	27.150	78	0.003	-0.003	0.26	-9.00	-9.00	-9.00	1000
2823	641	644	5.685	34.486	27.186	93	0.015	0.010	0.31	-9.00	-9.00	-9.00	1000
2804	691	695	5.496	34.493	27.215	67	0.010	-0.001	0.22	-9.00	-9.00	-9.00	1000
2819	745	749	5.269	34.499	27.247	67	0.016	-9.000	0.22	-9.00	-9.00	-9.00	1020
2818	792	796	5.024	34.508	27.282	62	0.002	-0.004	0.20	-9.00	-9.00	-9.00	1000
2812	890	896	4.544	34.525	27.350	75	0.015	0.002	0.24	-9.00	-9.00	-9.00	1000
2816	987	993	4.149	34.531	27.398	79	0.015	0.007	0.25	-9.00	-9.00	-9.00	1000
2821	1295	1305	3.202	34.576	27.528	95	-9.000	0.006	0.29	-9.00	-9.00	-9.00	1010
2817	1576	1589	2.624	34.607	27.605	107	0.002	0.000	0.33	-9.00	-9.00	-9.00	1000
2808	1873	1890	2.142	34.637	27.669	132	0.003	0.003	0.40	-9.00	-9.00	-9.00	1000
2810	2080	2100	1.869	34.654	27.705	150	-9.000	-9.000	0.45	-9.00	-9.00	-9.00	1000
2814	2272	2295	1.740	34.665	27.724	160	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
2811	2272	2295	1.740	34.666	27.724	153	-0.011	-0.008	0.46	-9.00	-9.00	-9.00	1110
2825	2664	2694	1.615	34.679	27.744	158	0.003	-0.011	0.47	-9.00	-9.00	-9.00	1000
2815	2859	2892	1.591	34.676	27.743	155	-9.000	-9.000	0.46	-9.00	-9.00	-9.00	1000
2829	3072	3109	1.570	34.678	27.747	149	-0.002	-0.010	0.44	-9.00	-9.00	-9.00	1000
2809	3449	3494	1.546	34.678	27.748	147	-0.001	-0.005	0.44	-9.00	-9.00	-9.00	1000
2820	3591	3639	1.542	34.672	27.744	145	0.007	-0.005	0.43	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
19	27 Feb 89	18 01.1 S	104 59.2 W	4015	244.5	443.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
2909	4	4	24.421	36.209	24.433	240	1.810	0.953	1.16	1.04	1.06	1.90	1000
2920	16	16	24.412	36.207	24.434	227	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
2930	18	18	24.382	36.208	24.444	232	1.809	0.972	1.12	1.03	1.08	1.86	1000
2922	37	37	24.309	36.200	24.460	232	1.809	0.969	1.12	1.03	1.07	1.87	1000
2907	38	38	24.308	36.200	24.460	230	-9.000	-9.000	1.11	-9.00	-9.00	-9.00	1000
2901	59	59	22.113	35.999	24.947	240	-9.000	-9.000	1.12	-9.00	-9.00	-9.00	1000
2924	59	59	22.101	36.009	24.958	238	1.990	1.058	1.11	1.03	1.07	1.88	1000
2906	77	77	21.334	35.950	25.127	233	-9.000	-9.000	1.07	-9.00	-9.00	-9.00	1000
2927	78	78	21.304	35.950	25.135	236	2.056	1.078	1.08	1.02	1.06	1.91	1000
2923	99	100	20.903	35.949	25.245	229	1.927	1.031	1.04	0.94	0.99	1.87	1000
2904	123	123	20.565	35.913	25.309	228	1.997	1.036	1.03	0.96	0.99	1.93	1000
2919	148	149	20.132	35.815	25.350	223	2.045	1.060	1.00	0.96	0.99	1.93	1000
2918	196	197	19.089	35.616	25.471	216	2.087	1.074	0.95	0.93	0.96	1.94	1000
2912	246	247	14.595	34.859	25.952	188	1.825	0.928	0.75	0.65	0.68	1.97	1000
2916	295	296	11.232	34.538	26.374	133	0.936	0.465	0.50	0.28	0.29	2.01	1000
2921	344	345	10.314	34.614	26.597	38	0.218	0.113	0.14	0.06	0.07	1.93	1000
2917	398	400	9.134	34.576	26.765	39	0.092	0.053	0.14	0.02	0.03	1.75	1000
2908	444	446	8.209	34.545	26.885	46	0.042	0.033	0.16	0.01	0.02	1.25	1000
2910	494	496	7.349	34.492	26.970	75	-9.000	-9.000	0.26	-9.00	-9.00	-9.00	1000
2911	545	547	6.462	34.430	27.043	111	0.022	0.012	0.37	-9.00	-9.00	-9.00	1000
2914	593	596	5.991	34.432	27.105	-9	0.003	-0.001	-9.00	-9.00	-9.00	-9.00	1000
2925	692	696	5.507	34.469	27.194	74	0.005	0.001	0.24	-9.00	-9.00	-9.00	1000
2915	791	795	4.971	34.501	27.283	71	0.003	0.005	0.23	-9.00	-9.00	-9.00	1000
2929	791	795	4.971	34.502	27.284	-9	-9.000	0.006	-9.00	-9.00	-9.00	-9.00	1010

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
20	27 Feb 89	20 00.4 S	104 59.7 W	3950	243.8	442.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3011	4	4	24.806	36.418	24.474	223	1.818	0.986	1.09	1.06	1.11	1.84	1000
3025	9	9	24.795	36.415	24.475	221	1.781	0.953	1.08	1.04	1.08	1.87	1000
3015	18	18	24.794	36.412	24.473	228	-9.000	-9.000	1.11	-9.00	-9.00	-9.00	1000
3029	19	19	24.794	36.410	24.472	223	1.791	0.941	1.09	1.05	1.06	1.90	1000
3020	40	40	24.784	36.408	24.473	226	1.813	0.950	1.10	1.06	1.07	1.91	1000
3009	40	40	24.780	36.408	24.474	228	-9.000	-9.000	1.11	-9.00	-9.00	-9.00	1000
3030	57	58	23.841	36.314	24.686	234	-9.000	-9.000	1.12	-9.00	-9.00	-9.00	1000
3007	58	58	23.562	36.305	24.761	242	1.879	0.992	1.15	1.04	1.07	1.90	1000
3022	76	76	22.810	36.265	24.950	237	-9.000	-9.000	1.12	-9.00	-9.00	-9.00	1000
3001	77	77	22.783	36.264	24.957	241	1.945	1.016	1.13	1.04	1.06	1.91	1000
3024	95	95	21.979	36.189	25.129	235	1.960	1.018	1.09	1.01	1.03	1.93	1000
3006	123	123	21.411	36.195	25.292	237	1.952	1.031	1.09	0.98	1.02	1.89	1000
3027	148	149	20.896	36.134	25.387	228	1.985	1.050	1.04	0.97	1.02	1.89	1000
3023	198	198	19.954	35.938	25.491	217	1.998	1.049	0.97	0.94	0.98	1.91	1000
3004	221	222	19.372	35.796	25.535	226	2.029	1.069	1.00	0.92	0.97	1.90	1000
3019	248	249	17.806	35.501	25.705	213	1.961	1.035	0.91	0.83	0.88	1.90	1000
3018	274	275	15.337	34.973	25.878	194	1.795	0.932	0.79	0.67	0.71	1.93	1000
3012	297	298	13.679	34.717	26.036	170	1.551	0.812	0.67	0.53	0.57	1.91	1000
3016	344	346	11.075	34.565	26.424	126	0.748	0.408	0.47	0.22	0.25	1.83	1000
3021	395	396	9.189	34.483	26.683	95	0.298	0.183	0.34	0.08	0.10	1.63	1000
3017	445	446	8.038	34.474	26.855	86	0.116	0.083	0.30	0.03	0.04	1.40	1000
3008	493	495	7.214	34.450	26.956	101	0.079	0.067	0.34	0.02	0.03	1.17	1000
3010	545	548	6.406	34.372	27.004	167	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1030
3109	642	645	5.599	34.352	27.091	162	0.012	0.027	0.53	-9.00	-9.00	-9.00	1000
3120	693	696	5.184	34.362	27.148	159	0.027	-9.000	0.52	-9.00	-9.00	-9.00	1020
3130	739	743	5.021	34.398	27.196	131	0.002	0.008	0.42	-9.00	-9.00	-9.00	1000
3107	790	794	4.934	34.456	27.252	99	-0.004	-0.002	0.32	-9.00	-9.00	-9.00	1000
3122	889	894	4.527	34.485	27.320	104	0.004	0.014	0.33	-9.00	-9.00	-9.00	1000
3101	989	995	4.145	34.513	27.384	111	0.001	0.009	0.35	-9.00	-9.00	-9.00	1000
3124	1285	1294	3.287	34.563	27.510	107	0.000	0.003	0.33	-9.00	-9.00	-9.00	1000
3106	1580	1592	2.711	34.598	27.590	117	0.000	-0.002	0.36	-9.00	-9.00	-9.00	1000
3127	1886	1903	2.254	34.630	27.655	130	-0.004	-0.001	0.39	-9.00	-9.00	-9.00	1000
3123	2074	2094	2.015	34.647	27.688	145	-9.000	-9.000	0.43	-9.00	-9.00	-9.00	1000
3104	2272	2295	1.835	34.660	27.712	157	-0.002	-0.008	0.47	-9.00	-9.00	-9.00	1000
3119	2471	2497	1.727	34.670	27.729	160	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
3118	2666	2696	1.654	34.678	27.740	164	-0.002	0.002	0.49	-9.00	-9.00	-9.00	1000
3112	2864	2897	1.602	34.679	27.745	164	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
3116	3062	3099	1.559	34.684	27.752	158	0.012	0.009	0.47	-9.00	-9.00	-9.00	1000
3121	3469	3514	1.518	34.688	27.758	165	-0.001	0.002	0.49	-9.00	-9.00	-9.00	1000
3108	3867	3921	1.508	34.693	27.763	157	-9.000	-9.000	0.47	-9.00	-9.00	-9.00	1000
3117	3867	3921	1.508	34.694	27.764	156	0.002	0.004	0.46	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
21	28 Feb 89	22 00.1 S	105 00.2 W	3700	243.8	442.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3204	2	2	25.317	36.440	24.335	226	1.730	-9.000	1.11	1.03	-9.00	-9.00	1020
3218	19	19	25.305	36.438	24.337	226	1.760	0.960	1.11	1.05	1.11	1.83	1000
3219	19	20	25.294	36.440	24.342	225	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
3212	38	38	24.383	36.362	24.560	229	-9.000	-9.000	1.11	-9.00	-9.00	-9.00	1000
3216	39	40	24.404	36.352	24.546	237	1.786	0.990	1.15	1.02	1.10	1.80	1000
3221	58	58	22.610	36.224	24.976	243	-9.000	-9.000	1.14	-9.00	-9.00	-9.00	1000
3217	58	58	22.528	36.218	24.995	244	1.903	1.056	1.14	1.01	1.09	1.80	1000
3208	77	77	21.912	36.198	25.155	244	-9.000	-9.000	1.13	-9.00	-9.00	-9.00	1000
3210	78	78	21.624	36.193	25.232	243	1.905	1.058	1.12	0.97	1.06	1.80	1000
3211	99	99	20.983	36.145	25.372	241	1.897	1.081	1.10	0.93	1.03	1.75	1100
3214	122	123	20.598	36.068	25.418	236	1.915	1.154	1.07	0.93	1.10	1.66	1000
3225	147	148	20.395	36.015	25.432	232	1.941	1.069	1.04	0.93	1.01	1.82	1000
3215	196	196	19.847	35.904	25.493	227	1.963	1.078	1.01	0.92	1.00	1.82	1000
3229	246	246	18.108	35.568	25.681	222	1.951	1.080	0.95	0.84	0.93	1.81	1000
3209	296	297	14.742	34.864	25.924	200	1.742	0.904	0.80	0.63	0.67	1.93	1000
3220	344	345	11.553	34.555	26.328	165	1.099	0.580	0.62	0.34	0.37	1.89	1000
3230	394	396	9.312	34.431	26.623	135	0.617	0.344	0.48	0.17	0.20	1.79	1000
3207	445	447	7.903	34.398	26.816	133	0.365	0.220	0.46	0.09	0.12	1.66	1000
3222	494	496	6.889	34.376	26.943	149	0.233	0.157	0.50	0.05	0.08	1.48	1000
3201	542	545	6.408	34.357	26.992	163	0.178	0.123	0.54	0.04	0.06	1.45	1000
3224	593	596	5.830	34.334	27.048	177	0.137	0.091	0.58	0.03	0.04	1.50	1000
3206	692	696	5.127	34.327	27.127	177	0.101	0.059	0.57	0.02	0.03	1.71	1000
3227	790	794	4.716	34.371	27.209	149	0.012	0.012	0.48	-9.00	-9.00	-9.00	1000
3223	987	994	4.040	34.491	27.377	124	0.006	0.000	0.39	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
22	28 Feb 89	24 59.6 S	104 59.7 W	3570	243.8	442.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3327	2	2	26.023	36.438	24.114	225	1.691	0.928	1.12	1.04	1.10	1.82	1000
3323	9	10	26.021	36.436	24.113	225	1.702	0.921	1.12	1.05	1.09	1.85	1000
3304	19	19	26.022	36.440	24.115	224	-9.000	-9.000	1.11	-9.00	-9.00	-9.00	1000
3319	19	19	26.018	36.437	24.114	220	1.667	0.967	1.09	1.03	1.14	1.72	1000
3318	39	39	23.959	36.131	24.512	240	-9.000	-9.000	1.15	-9.00	-9.00	-9.00	1000
3312	39	39	24.015	36.179	24.532	240	1.866	1.020	1.15	1.05	1.12	1.83	1000
3321	58	58	22.238	36.051	24.951	245	1.997	1.080	1.14	1.04	1.10	1.85	1000
3316	58	58	22.240	36.050	24.949	246	-9.000	-9.000	1.14	-9.00	-9.00	-9.00	1000
3308	78	79	21.400	36.022	25.164	244	2.004	1.067	1.12	1.00	1.05	1.88	1000
3317	79	79	21.420	36.025	25.160	246	-9.000	-9.000	1.13	-9.00	-9.00	-9.00	1000
3310	98	98	20.438	35.895	25.329	247	2.062	1.109	1.11	0.99	1.05	1.86	1000
3311	123	124	19.264	35.691	25.483	246	2.114	1.128	1.08	0.96	1.02	1.87	1000
3314	147	148	18.688	35.557	25.528	250	2.144	1.144	1.09	0.94	1.01	1.87	1000
3325	197	198	18.391	35.589	25.627	232	2.098	1.109	1.00	0.91	0.96	1.89	1000
3315	246	247	16.663	35.232	25.773	223	1.997	1.050	0.93	0.80	0.85	1.90	1000
3329	297	298	14.011	34.847	26.067	209	1.639	0.859	0.83	0.57	0.61	1.91	1000
3309	321	322	12.579	34.685	26.233	200	1.462	0.758	0.77	0.47	0.51	1.93	1000
3320	347	348	10.838	34.517	26.429	181	1.162	0.615	0.67	0.34	0.38	1.89	1000
3330	371	373	9.970	34.465	26.540	169	0.970	0.500	0.61	0.27	0.29	1.94	1000
3307	395	397	9.000	34.423	26.667	175	0.847	0.451	0.62	0.22	0.25	1.88	1000
3322	447	449	7.590	34.370	26.839	180	0.669	0.409	0.62	0.16	0.21	1.63	1000
3301	496	499	6.805	34.353	26.936	190	0.505	0.293	0.64	0.12	0.15	1.72	1000
3324	520	522	6.534	34.347	26.968	194	0.441	0.259	0.65	0.10	0.13	1.71	1000
3418	591	594	6.023	34.327	27.018	215	0.344	0.234	0.71	0.07	0.11	1.47	1100
3412	642	646	5.660	34.312	27.052	211	0.283	0.192	0.69	0.06	0.09	1.47	1000
3416	691	695	5.419	34.313	27.082	202	0.190	0.143	0.66	0.04	0.07	1.33	1000
3421	740	744	5.119	34.314	27.118	201	0.134	0.102	0.65	0.03	0.05	1.30	1000
3417	790	795	4.889	34.329	27.156	185	0.061	0.074	0.60	0.01	0.03	0.82	1000
3408	889	894	4.503	34.376	27.236	155	0.019	0.028	0.50	-9.00	-9.00	-9.00	1000
3410	986	992	4.045	34.421	27.321	142	-0.002	0.010	0.45	-9.00	-9.00	-9.00	1000
3411	1285	1294	3.148	34.527	27.494	142	-0.005	-0.004	0.44	-9.00	-9.00	-9.00	1000
3414	1581	1593	2.460	34.588	27.604	143	-0.010	-0.005	0.43	-9.00	-9.00	-9.00	1000
3425	1877	1894	2.048	34.631	27.672	158	-0.002	0.000	0.47	-9.00	-9.00	-9.00	1000
3415	2075	2094	1.881	34.651	27.701	160	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
3429	2263	2286	1.777	34.662	27.718	164	-0.002	0.009	0.49	-9.00	-9.00	-9.00	1000
3409	2469	2495	1.711	34.663	27.724	164	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
3420	2667	2696	1.679	34.674	27.735	164	0.011	0.015	0.49	-9.00	-9.00	-9.00	1000
3430	2863	2896	1.638	34.679	27.742	170	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
3407	2863	2896	1.638	34.679	27.742	165	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1030
3422	3061	3098	1.604	34.683	27.748	163	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
3401	3456	3502	1.567	34.688	27.755	174	-0.018	-0.030	0.52	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
23	2 Mar 89	28 00.0 S	105 00.7 W	3425	242.4	439.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3522	3	3	25.594	36.073	23.971	216	1.720	0.905	1.06	1.03	1.05	1.90	2100
3501	10	10	25.596	36.077	23.974	221	1.535	0.870	1.09	0.95	1.03	1.76	1100
3524	19	19	25.595	36.078	23.975	218	-9.000	-9.000	1.08	-9.00	-9.00	-9.00	1000
3506	20	20	25.596	36.080	23.976	220	1.633	0.854	1.08	0.99	1.00	1.91	1000
3504	38	38	25.582	36.085	23.984	221	1.678	0.869	1.09	1.02	1.02	1.93	1000
3523	38	38	25.568	36.083	23.987	218	-9.000	-9.000	1.07	-9.00	-9.00	-9.00	1000
3527	38	38	25.552	36.081	23.991	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
3518	59	60	22.042	35.809	24.822	243	2.100	1.081	1.13	1.09	1.10	1.94	1000
3519	61	62	21.987	35.810	24.839	245	-9.000	-9.000	1.13	-9.00	-9.00	-9.00	1000
3516	78	78	20.149	35.663	25.229	244	2.190	1.103	1.09	1.04	1.04	1.98	1000
3512	78	78	20.156	35.628	25.201	246	-9.000	-9.000	1.10	-9.00	-9.00	-9.00	1000
3521	98	98	19.353	35.595	25.386	242	2.249	1.147	1.07	1.03	1.05	1.96	1000
3517	124	125	18.892	35.582	25.495	227	2.221	1.131	0.99	0.99	1.01	1.96	1000
3508	145	146	18.510	35.541	25.560	261	2.217	1.124	1.13	0.97	0.99	1.97	1000
3510	198	199	17.195	35.300	25.699	232	2.287	1.148	0.98	0.94	0.95	1.99	1000
3511	247	248	15.752	35.057	25.849	217	2.049	1.087	0.89	0.78	0.85	1.88	1000
3514	296	297	13.980	34.845	26.072	205	1.684	0.897	0.81	0.59	0.64	1.88	1000
3525	345	347	11.458	34.610	26.389	199	1.347	0.662	0.74	0.41	0.42	2.03	1000
3515	397	399	9.037	34.416	26.655	196	1.075	0.538	0.70	0.29	0.30	2.00	1000
3529	443	446	7.575	34.353	26.828	199	0.898	0.486	0.68	0.22	0.26	1.85	1000
3509	491	494	6.913	34.343	26.913	215	0.881	0.453	0.73	0.21	0.23	1.94	1100
3520	544	548	6.343	34.331	26.980	254	0.873	0.444	0.85	0.20	0.22	1.97	1000
3614	592	597	6.028	34.314	27.007	-9	0.781	0.441	-9.00	0.18	0.21	1.77	1000
3625	642	647	5.737	34.295	27.029	-9	0.665	0.362	-9.00	0.15	0.17	1.84	1000
3615	689	695	5.485	34.281	27.048	-9	0.508	0.284	-9.00	0.11	0.13	1.79	1000
3629	738	744	5.236	34.275	27.073	242	0.371	0.214	0.79	0.08	0.10	1.73	1000
3609	790	796	5.007	34.279	27.103	236	0.237	0.146	0.76	0.05	0.07	1.63	1000
3620	838	845	4.736	34.294	27.146	223	0.104	0.094	0.72	0.02	0.04	1.11	1000
3630	885	892	4.575	34.310	27.176	204	0.082	0.064	0.65	0.02	0.03	1.29	1000
3607	987	995	4.111	34.370	27.274	195	0.013	0.029	0.62	-9.00	-9.00	-9.00	1000
3622	1083	1093	3.751	34.423	27.353	165	0.008	0.006	0.52	-9.00	-9.00	-9.00	1000
3601	1282	1294	3.127	34.510	27.482	150	0.014	0.028	0.46	-9.00	-9.00	-9.00	1000
3624	1579	1595	2.408	34.589	27.609	142	0.005	0.020	0.43	-9.00	-9.00	-9.00	1000
3606	1873	1894	1.989	34.634	27.679	159	0.002	-0.003	0.48	-9.00	-9.00	-9.00	1000
3627	1974	1996	1.908	34.643	27.693	177	-9.000	-9.000	0.53	-9.00	-9.00	-9.00	1000
3603	2268	2296	1.770	34.659	27.716	162	0.013	0.011	0.48	-9.00	-9.00	-9.00	1000
3618	2465	2497	1.720	34.664	27.724	162	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000
3612	2859	2898	1.671	34.670	27.733	164	0.029	0.011	0.49	-9.00	-9.00	-9.00	1000
3616	2859	2898	1.671	34.669	27.732	164	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
3621	3055	3099	1.638	34.677	27.741	168	-0.016	-0.004	0.50	-9.00	-9.00	-9.00	1000
3617	3302	3352	1.616	34.682	27.747	169	-0.002	-0.005	0.50	-9.00	-9.00	-9.00	1100
3608	3303	3352	1.616	34.681	27.746	168	0.002	0.000	0.50	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
24	6 Mar 89	30 00.7 S	104 58.4 W	3360	242.4	439.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3701	9	9	24.693	35.915	24.128	-9	1.796	0.942	-9.00	1.04	1.06	1.91	1000
3724	18	18	24.700	35.892	24.109	-9	1.807	0.954	-9.00	1.05	1.08	1.89	1000
3706	40	40	22.230	35.804	24.766	-9	1.997	1.036	-9.00	1.04	1.06	1.93	1000
3727	59	60	21.017	35.794	25.095	-9	2.275	1.146	-9.00	1.12	1.12	1.98	1000
3723	78	79	20.292	35.766	25.270	-9	2.199	1.147	-9.00	1.05	1.09	1.92	1000
3704	97	98	19.557	35.715	25.425	-9	2.199	1.110	-9.00	1.02	1.02	1.98	1000
3703	123	124	18.870	35.624	25.533	-9	2.229	1.119	-9.00	1.00	1.00	1.99	1000
3718	147	147	18.528	35.588	25.592	-9	2.216	1.175	-9.00	0.97	1.03	1.89	1000
3712	197	198	17.724	35.431	25.671	-9	2.253	1.138	-9.00	0.95	0.97	1.98	1000
3716	246	247	17.057	35.299	25.731	-9	2.275	1.164	-9.00	0.93	0.96	1.95	1000
3721	295	297	14.626	34.900	25.977	-9	1.898	0.952	-9.00	0.68	0.70	1.99	1000
3717	346	348	12.287	34.683	26.288	-9	1.545	0.779	-9.00	0.49	0.52	1.98	1000
3708	394	396	9.943	34.456	26.537	-9	1.220	0.607	-9.00	0.34	0.36	2.01	2000
3710	443	446	8.097	34.373	26.767	-9	0.921	0.492	-9.00	0.23	0.27	1.87	1000
3711	494	497	7.059	34.353	26.901	-9	0.629	0.347	-9.00	0.15	0.18	1.81	1000
3714	542	546	6.387	34.331	26.974	-9	0.739	0.385	-9.00	0.17	0.19	1.92	1000
3725	592	596	6.118	34.319	27.000	-9	0.751	0.395	-9.00	0.17	0.19	1.90	1000
3715	640	644	5.902	34.306	27.017	-9	0.641	0.348	-9.00	0.14	0.17	1.84	1000
3729	690	695	5.617	34.293	27.042	-9	0.501	0.276	-9.00	0.11	0.13	1.81	1000
3709	793	799	5.063	34.270	27.089	-9	0.352	0.201	-9.00	0.07	0.09	1.75	1000
3720	888	896	4.616	34.292	27.157	-9	0.105	0.073	-9.00	0.02	0.03	1.44	1000
3730	998	1006	4.071	34.347	27.259	-9	0.018	0.015	-9.00	-9.00	-9.00	-9.00	1000
3707	1282	1294	3.269	34.496	27.458	-9	0.002	0.002	-9.00	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
25	6 Mar 89	32 00.1 S	105 00.2 W	2755	242.4	439.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
3830	3	3	23.640	35.239	23.930	223	-9.000	-9.000	1.06	-9.00	-9.00	-9.00	1000
3807	11	11	23.596	35.238	23.942	222	1.884	0.974	1.05	1.04	1.05	1.93	1000
3822	19	19	23.571	35.240	23.951	228	1.875	0.991	1.08	1.03	1.06	1.89	1000
3801	38	38	23.551	35.240	23.957	224	1.891	0.993	1.06	1.04	1.07	1.90	1000
4101	39	39	23.490	35.177	23.927	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
3824	39	40	23.517	35.245	23.971	-9	1.885	0.968	-9.00	1.04	1.04	1.95	1000
3806	58	58	18.756	34.896	25.005	259	2.492	1.263	1.12	1.10	1.11	1.97	1000
3827	77	78	17.969	34.987	25.271	255	-9.000	-9.000	1.09	-9.00	-9.00	-9.00	1000
3823	98	99	17.353	35.050	25.469	252	2.466	1.243	1.07	1.02	1.04	1.98	1000
3804	122	123	16.424	34.908	25.580	253	2.427	1.230	1.05	0.96	0.98	1.97	1000
3803	150	151	16.139	34.930	25.663	231	2.476	1.266	0.95	0.96	1.00	1.96	1000
3818	199	200	14.939	34.864	25.881	228	2.437	1.249	0.92	0.89	0.94	1.95	1000
3812	247	248	13.395	34.773	26.138	211	2.206	1.118	0.82	0.75	0.78	1.97	1000
3816	296	298	11.304	34.587	26.399	207	1.867	0.942	0.77	0.57	0.60	1.98	1000
3821	346	348	9.236	34.421	26.627	214	1.525	0.758	0.76	0.41	0.43	2.01	1000
3817	394	396	7.911	34.359	26.784	229	1.463	0.711	0.79	0.37	0.38	2.06	1000
3810	439	442	7.082	34.348	26.894	227	1.133	0.552	0.77	0.27	0.28	2.05	1000
3808	439	442	7.082	34.349	26.895	228	-9.000	-9.000	0.77	-9.00	-9.00	-9.00	1030
4124	492	496	6.581	34.343	26.958	247	1.286	0.664	0.83	0.30	0.33	1.94	1000
4106	541	545	6.291	34.333	26.988	251	1.152	0.577	0.84	0.26	0.28	2.00	1000
4127	593	597	6.018	34.312	27.007	250	0.939	0.479	0.83	0.21	0.23	1.96	1000
4123	639	644	5.769	34.300	27.029	253	0.855	0.644	0.83	0.19	0.31	1.33	1000
4104	692	698	5.531	34.283	27.044	252	0.642	0.349	0.83	0.14	0.17	1.84	1000
4103	741	747	5.287	34.272	27.065	246	0.548	0.294	0.80	0.12	0.14	1.87	1000
4118	787	793	5.062	34.266	27.086	239	0.426	0.233	0.77	0.09	0.11	1.82	1000
4112	836	843	4.881	34.279	27.117	227	0.253	0.150	0.73	0.05	0.07	1.69	1000
4116	886	894	4.626	34.285	27.151	211	0.109	0.075	0.67	0.02	0.03	1.45	1000
4121	987	996	4.120	34.323	27.235	188	0.031	0.025	0.59	0.01	-9.00	-9.00	1000
4117	1086	1096	3.781	34.370	27.307	172	0.005	0.004	0.54	-9.00	-9.00	-9.00	1000
4108	1284	1296	3.274	34.490	27.453	134	0.001	-0.001	0.42	-9.00	-9.00	-9.00	1000
4110	1577	1593	2.638	34.567	27.572	-9	0.000	-0.003	-9.00	-9.00	-9.00	-9.00	1000
4114	1870	1891	2.126	34.623	27.660	166	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	1000
4111	1870	1891	2.126	34.620	27.657	163	-0.002	-0.004	0.49	-9.00	-9.00	-9.00	1000
4125	2268	2296	1.730	34.676	27.733	170	-0.001	0.002	0.51	-9.00	-9.00	-9.00	1000
4115	2465	2497	1.638	34.670	27.735	169	-9.000	-9.000	0.50	-9.00	-9.00	-9.00	1000
4129	2658	2694	1.587	34.683	27.750	171	-0.002	0.005	0.51	-9.00	-9.00	-9.00	1000
4109	2700	2736	1.579	34.684	27.751	173	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000
4120	2700	2736	1.579	34.683	27.750	170	0.000	0.000	0.51	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
26	7 Mar 89	33 59.7 S	104 59.3 W	3550	242.4	439.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4222	3	3	22.187	34.569	23.839	241	2.020	1.036	1.11	1.05	1.05	1.95	1100
4201	9	9	22.184	34.570	23.841	227	2.046	1.178	1.05	1.05	1.19	1.74	1000
4224	19	19	22.186	34.572	23.842	228	2.018	1.046	1.05	1.04	1.06	1.93	1000
4206	37	37	22.205	34.596	23.855	268	2.015	1.040	1.24	1.04	1.05	1.94	1000
4227	59	60	16.980	34.551	25.175	226	2.690	1.383	0.94	1.09	1.13	1.94	1100
4223	79	79	15.963	34.617	25.462	269	2.695	1.375	1.10	1.03	1.06	1.96	1100
4204	97	97	16.038	34.818	25.600	255	2.551	1.285	1.05	0.99	1.01	1.99	1000
4203	123	123	15.338	34.739	25.697	250	2.604	1.468	1.02	0.97	1.12	1.77	1000
4218	147	148	14.685	34.633	25.758	252	2.634	1.315	1.01	0.95	0.97	2.00	1000
4212	196	197	13.014	34.460	25.972	238	2.613	1.287	0.92	0.86	0.88	2.03	1000
4216	247	249	11.205	34.416	26.284	232	2.421	1.185	0.86	0.73	0.74	2.04	1100
4221	295	297	10.102	34.457	26.511	217	1.636	0.774	0.79	0.46	0.47	2.11	1100
4217	346	348	8.281	34.359	26.728	217	1.352	0.669	0.76	0.35	0.36	2.02	1000
4211	493	497	6.371	34.327	26.973	239	0.949	0.487	0.80	0.22	0.24	1.95	1000
4214	589	594	5.882	34.305	27.018	250	0.798	0.414	0.83	0.18	0.20	1.93	1000
4215	691	696	5.448	34.274	27.047	249	0.626	0.332	0.81	0.14	0.16	1.88	1000
4225	691	696	5.448	34.278	27.050	248	0.591	0.348	0.81	0.13	-9.00	-9.00	1120
4229	888	895	4.564	34.275	27.150	218	0.159	0.092	0.70	0.03	0.04	1.72	1000
4209	986	994	4.129	34.308	27.223	197	0.047	0.033	0.62	0.01	0.01	1.42	1000
4220	1084	1094	3.722	34.368	27.312	172	0.013	0.005	0.54	-9.00	-9.00	-9.00	1100
4207	1281	1294	3.250	34.476	27.444	138	0.011	-9.000	0.43	-9.00	-9.00	-9.00	1020
4230	1281	1294	3.250	34.474	27.442	138	0.000	0.000	0.43	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
27	7 Mar 89	35 59.8 S	104 59.8 W	3080	242.4	439.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4304	3	3	21.383	34.323	23.875	239	2.123	1.093	1.08	1.05	1.07	1.94	1000
4303	9	9	21.374	34.323	23.878	235	2.124	1.104	1.07	1.05	1.08	1.92	1000
4318	19	19	21.206	34.341	23.938	241	2.127	1.178	1.09	1.04	1.14	1.81	1000
4312	39	39	21.106	34.338	23.963	244	2.139	1.132	1.10	1.05	1.09	1.89	1000
4316	58	59	15.933	34.142	25.104	280	2.876	1.423	1.14	1.10	1.11	2.02	1000
4321	78	78	14.000	34.152	25.532	280	3.016	1.477	1.10	1.05	1.05	2.04	1000
4308	123	123	13.003	34.172	25.751	249	2.905	1.461	0.96	0.96	1.00	1.99	1000
4310	147	148	12.248	34.096	25.840	264	3.118	1.534	1.00	0.99	1.01	2.03	1000
4311	195	196	11.652	34.309	26.118	241	2.744	1.367	0.90	0.84	0.88	2.01	1000
4314	247	248	9.764	34.335	26.473	237	2.399	1.163	0.85	0.67	0.68	2.06	1000
4325	297	299	8.619	34.352	26.671	235	2.022	0.986	0.83	0.53	0.55	2.05	1000
4315	347	350	7.479	34.343	26.834	234	1.666	0.820	0.80	0.41	0.43	2.03	1000
4329	393	396	6.963	34.343	26.906	237	1.449	0.722	0.80	0.34	0.37	2.01	1000
4320	497	500	6.325	34.332	26.983	263	1.107	0.572	0.88	0.25	0.28	1.94	1000
4425	541	545	6.194	34.328	26.997	255	1.104	0.594	0.85	0.25	0.29	1.86	1000
4415	590	594	5.997	34.312	27.010	255	0.988	-9.000	0.84	0.22	-9.00	-9.00	1020
4429	638	643	5.800	34.302	27.026	254	0.887	0.462	0.84	0.20	0.22	1.92	1000
4409	689	694	5.604	34.291	27.042	259	0.754	0.393	0.85	0.17	0.19	1.92	1000
4420	739	745	5.382	34.279	27.059	249	0.576	0.309	0.81	0.12	0.15	1.87	1000
4430	789	795	5.172	34.274	27.080	242	0.451	0.251	0.79	0.10	0.12	1.80	1100
4407	837	844	4.958	34.275	27.105	233	0.337	0.193	0.75	0.07	0.09	1.75	1000
4422	887	894	4.710	34.281	27.138	227	0.230	0.135	0.73	0.05	0.06	1.70	1000
4401	936	944	4.468	34.290	27.172	217	0.145	0.121	0.69	0.03	0.05	1.20	1000
4424	986	994	4.254	34.305	27.207	205	0.079	0.053	0.65	0.02	0.02	1.50	1000
4406	1085	1095	3.833	34.349	27.286	182	0.017	0.013	0.57	-9.00	-9.00	-9.00	1000
4427	1282	1294	3.313	34.458	27.423	167	0.007	0.004	0.52	-9.00	-9.00	-9.00	2000
4423	1584	1600	2.657	34.548	27.555	163	-0.001	-0.001	0.50	-9.00	-9.00	-9.00	1000
4404	1874	1895	2.192	34.616	27.649	165	-0.003	-0.004	0.50	-9.00	-9.00	-9.00	1000
4418	2069	2094	1.964	34.648	27.693	165	-0.003	-0.003	0.50	-9.00	-9.00	-9.00	1000
4428	2069	2094	1.964	34.650	27.694	164	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
4412	2267	2295	1.771	34.672	27.727	173	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000
4416	2660	2696	1.613	34.685	27.749	173	-0.003	-0.001	0.52	-9.00	-9.00	-9.00	1000
4421	2856	2896	1.543	34.689	27.757	172	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
4417	2856	2896	1.544	34.687	27.756	172	-0.004	0.000	0.51	-9.00	-9.00	-9.00	1000
4410	3029	3072	1.459	34.693	27.767	177	0.000	0.001	0.52	-9.00	-9.00	-9.00	1000
4408	3029	3072	1.459	34.693	27.767	176	0.000	0.005	0.52	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
28	8 Mar 89	38 00.3 S	104 59.6 W	3900	241.1	436.6

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4517	4	4	18.832	34.012	24.310	245	2.413	1.214	1.06	1.06	1.07	1.99	1000
4508	9	9	18.556	34.020	24.385	258	2.381	1.200	1.11	1.04	1.05	1.98	1000
4510	19	19	18.375	34.020	24.430	245	2.413	1.264	1.05	1.04	1.10	1.91	1000
4511	29	29	18.331	34.018	24.440	246	2.400	1.208	1.05	1.03	1.05	1.99	1000
4514	38	38	18.191	34.020	24.476	254	2.403	1.220	1.09	1.03	1.05	1.97	1000
4525	59	60	16.349	33.996	24.896	261	2.712	1.479	1.07	1.06	1.18	1.83	1000
4515	79	80	13.551	34.027	25.529	280	3.083	1.542	1.09	1.05	1.08	2.00	1000
4529	98	99	12.098	34.023	25.812	286	3.230	1.585	1.08	1.02	1.04	2.04	1000
4509	122	122	10.977	34.045	26.036	279	3.263	1.621	1.03	0.97	1.01	2.01	1000
4520	147	147	10.041	34.056	26.208	274	3.339	1.733	0.99	0.94	1.03	1.93	1000
4530	197	198	9.122	34.243	26.506	252	2.915	1.412	0.89	0.78	0.81	2.07	1000
4507	245	247	7.856	34.296	26.742	251	2.565	1.241	0.87	0.64	0.67	2.07	1000
4522	294	296	7.324	34.335	26.850	247	2.252	1.087	0.84	0.55	0.57	2.07	1000
4501	395	398	6.682	34.358	26.956	259	2.165	1.064	0.87	0.51	0.54	2.04	1000
4524	492	496	6.320	34.336	26.987	260	1.790	0.867	0.87	0.41	0.43	2.07	1000
4506	592	597	5.971	34.312	27.013	258	1.464	0.728	0.85	0.33	0.35	2.01	1000
4527	689	695	5.599	34.292	27.043	255	1.011	0.503	0.83	0.22	0.24	2.01	1000
4523	788	794	5.112	34.277	27.089	242	0.501	0.273	0.78	0.11	0.13	1.84	1000
4504	889	896	4.699	34.280	27.139	226	0.279	0.156	0.72	0.06	0.07	1.79	1000
4528	985	994	4.244	34.306	27.209	207	0.131	0.083	0.66	0.03	0.04	1.58	1000
4518	1085	1095	3.801	34.340	27.281	191	0.052	0.032	0.60	0.01	0.01	1.61	1000
4512	1085	1095	3.801	34.339	27.281	192	0.050	0.029	0.60	0.01	-9.00	-9.00	1000
4521	1577	1593	2.681	34.555	27.559	154	0.002	-0.002	0.47	-9.00	-9.00	-9.00	1000
4516	1577	1593	2.681	34.555	27.559	148	0.003	0.013	0.45	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
29	9 Mar 89	40 01.3 S	105 03.3 W	4120	240.6	435.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4616	6	6	17.078	34.020	24.745	256	2.557	1.281	1.07	1.04	1.05	2.00	1000
4621	10	10	17.070	34.023	24.749	254	2.563	1.427	1.06	1.04	1.17	1.80	1000
4617	19	19	17.013	34.024	24.763	254	2.546	1.272	1.06	1.03	1.04	2.00	1000
4608	28	28	16.452	34.010	24.884	260	2.600	1.385	1.07	1.03	1.11	1.88	1000
4610	38	38	16.329	34.003	24.906	257	2.619	1.311	1.06	1.03	1.04	2.00	1000
4611	57	57	14.285	34.031	25.379	276	3.008	1.472	1.09	1.06	1.07	2.04	1000
4614	77	78	12.396	34.088	25.806	279	3.174	1.558	1.06	1.02	1.04	2.04	1000
4625	98	98	11.326	34.096	26.013	273	3.229	1.563	1.02	0.98	0.99	2.07	1000
4615	122	122	10.579	34.084	26.137	258	3.278	1.587	0.95	0.96	0.97	2.07	1000
4629	147	148	10.019	34.180	26.309	264	3.131	1.497	0.96	0.89	0.90	2.09	1000
4609	196	197	8.968	34.275	26.556	248	2.826	1.378	0.88	0.76	0.78	2.05	1000
4620	245	246	7.794	34.316	26.767	248	2.427	1.181	0.85	0.61	0.63	2.05	1000
4630	295	297	7.170	34.331	26.869	254	2.444	1.159	0.86	0.59	0.60	2.11	1000
4607	346	349	6.845	34.346	26.925	255	2.166	1.041	0.86	0.51	0.53	2.08	1000
4622	394	397	6.588	34.347	26.960	258	2.059	1.000	0.86	0.48	0.50	2.06	1000
4601	443	446	6.419	34.339	26.976	262	1.888	0.900	0.88	0.44	0.45	2.10	1000
4624	497	501	6.216	34.327	26.993	274	1.446	0.701	0.91	0.33	0.35	2.06	1000
4712	540	544	6.123	34.319	26.999	259	1.640	0.782	0.86	0.37	0.39	2.10	1000
4716	591	596	5.942	34.308	27.013	261	1.440	0.697	0.86	0.32	0.34	2.06	1000
4721	641	646	5.806	34.294	27.019	262	1.476	0.720	0.86	0.33	0.35	2.05	1000
4717	689	695	5.613	34.289	27.039	256	1.024	0.524	0.84	0.23	0.25	1.95	1000
4708	740	746	5.357	34.275	27.059	253	1.001	0.493	0.82	0.22	0.23	2.03	1000
4710	785	792	5.150	34.274	27.082	246	0.644	0.337	0.80	0.14	0.16	1.91	1000
4711	838	845	4.928	34.270	27.105	238	0.536	0.278	0.77	0.11	0.13	1.93	1000
4714	887	894	4.724	34.275	27.132	228	0.387	0.201	0.73	-9.00	0.09	-9.00	1110
4725	936	944	4.547	34.285	27.159	223	0.283	0.155	0.71	0.06	0.07	1.83	1000
4715	986	995	4.334	34.299	27.193	216	0.212	0.115	0.69	0.04	0.05	-9.00	1000
4729	1084	1094	3.844	34.329	27.268	201	0.122	0.068	0.63	0.02	0.03	1.78	1000
4709	1279	1292	3.214	34.414	27.397	174	0.036	0.019	0.54	0.01	-9.00	-9.00	1000
4720	1577	1594	2.611	34.539	27.552	166	0.012	0.003	0.51	-9.00	-9.00	-9.00	1000
4730	1873	1894	2.205	34.629	27.658	169	-0.001	-0.008	0.51	-9.00	-9.00	-9.00	1100
4722	2071	2096	2.019	34.665	27.702	171	-0.001	-0.007	0.51	-9.00	-9.00	-9.00	1100
4707	2071	2096	2.019	34.667	27.703	174	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	1000
4701	2463	2495	1.669	34.688	27.747	173	0.011	0.011	0.52	-9.00	-9.00	-9.00	1000
4724	2660	2696	1.615	34.692	27.755	175	-9.000	-9.000	0.52	-9.00	-9.00	-9.00	2000
4706	2660	2696	1.615	34.693	27.755	181	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
4727	3057	3102	1.442	34.700	27.774	192	0.012	0.013	0.57	-9.00	-9.00	-9.00	1000
4723	3440	3493	1.115	34.707	27.802	197	-0.004	0.003	0.58	-9.00	-9.00	-9.00	1000
4704	3923	3988	0.903	34.709	27.818	199	-0.001	-0.006	0.58	-9.00	-9.00	-9.00	1000
4728	3923	3989	0.903	34.708	27.817	-9	0.005	0.004	-9.00	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
30	10 Mar 89	44 00.6 S	104 59.7 W	3800	238.7	434.0

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
4806	4	4	13.490	34.034	25.546	270	2.944	1.473	1.05	1.03	1.07	2.00	1100
4827	11	11	13.481	34.034	25.548	267	2.972	1.447	1.04	1.02	1.01	2.05	1100
4823	19	19	13.486	34.034	25.547	267	2.984	1.480	1.04	1.02	1.04	2.02	1000
4804	28	28	13.484	34.033	25.547	264	2.973	1.515	1.03	1.02	1.07	1.96	1000
4818	40	40	13.479	34.033	25.548	265	3.022	1.490	1.03	1.04	1.05	2.03	1000
4812	59	60	13.238	34.036	25.599	269	3.088	1.496	1.04	1.04	1.04	2.06	1000
4816	78	79	11.126	34.095	26.048	282	3.458	1.667	1.05	1.05	1.05	2.07	1000
4821	99	100	10.053	34.082	26.227	270	3.604	1.709	0.98	1.03	1.03	2.11	1000
4817	124	124	9.091	34.100	26.399	284	3.595	1.714	1.00	0.97	0.98	2.10	1000
4808	147	148	8.328	34.133	26.544	279	3.576	1.700	0.97	0.93	0.94	2.10	1000
4810	197	198	7.347	34.233	26.766	251	2.932	1.407	0.86	0.73	0.73	2.08	1100
4811	243	245	6.779	34.285	26.886	245	2.532	1.199	0.83	0.60	0.61	2.11	1000
4814	296	298	6.508	34.310	26.942	254	2.408	1.145	0.85	0.56	0.58	2.10	1000
4825	346	348	6.295	34.314	26.973	257	2.266	1.084	0.85	0.52	0.54	2.09	1000
4815	393	396	6.120	34.306	26.989	263	2.155	1.022	0.87	0.49	0.51	2.11	1000
4829	445	448	5.971	34.309	27.010	280	2.131	1.019	0.93	0.48	0.50	2.09	1000
4906	493	497	5.860	34.292	27.011	266	2.047	0.972	0.88	0.46	0.47	2.11	1100
4927	540	545	5.680	34.279	27.023	268	1.863	0.899	0.88	0.42	0.43	2.07	1000
4923	592	596	5.501	34.275	27.042	265	1.727	0.834	0.87	0.38	0.40	2.07	1000
4904	639	644	5.304	34.267	27.059	259	-9.000	0.716	0.84	-9.00	0.34	-9.00	1010
4928	689	695	5.085	34.262	27.080	253	1.189	0.592	0.82	0.26	0.28	2.01	1000
4918	740	746	4.874	34.260	27.103	242	0.835	0.417	0.78	0.18	0.19	2.00	1000
4912	786	793	4.637	34.267	27.135	231	0.569	0.291	0.74	0.12	0.13	1.96	1000
4916	838	846	4.412	34.277	27.168	222	0.392	0.207	0.71	0.08	0.09	1.89	1000
4921	887	895	4.192	34.291	27.202	219	0.267	0.155	0.69	0.05	0.07	1.72	1000
4917	938	946	3.963	34.306	27.238	208	0.200	0.120	0.65	0.04	0.05	1.67	1000
4908	986	995	3.802	34.323	27.268	200	0.121	0.074	0.63	0.02	0.03	1.63	1000
4910	1087	1097	3.505	34.361	27.328	188	0.059	0.043	0.58	0.01	0.02	1.37	1000
4911	1281	1294	3.089	34.451	27.439	163	0.008	0.008	0.50	-9.00	-9.00	-9.00	1000
4914	1579	1596	2.614	34.549	27.559	158	0.016	0.015	0.48	-9.00	-9.00	-9.00	1000
4925	1876	1897	2.231	34.613	27.643	165	0.001	0.002	0.50	-9.00	-9.00	-9.00	1000
4915	2070	2095	2.055	34.647	27.685	169	-9.000	-9.000	0.51	-9.00	-9.00	-9.00	1000
4909	2264	2292	1.897	34.675	27.719	176	-9.000	-9.000	0.53	-9.00	-9.00	-9.00	1000
4929	2264	2292	1.897	34.676	27.720	174	0.000	0.001	0.52	-9.00	-9.00	-9.00	1000
4930	2463	2495	1.744	34.690	27.743	179	0.007	0.007	0.53	-9.00	-9.00	-9.00	1000
4907	2463	2495	1.744	34.693	27.746	178	0.008	0.003	0.53	-9.00	-9.00	-9.00	1100
4920	2465	2497	1.743	34.690	27.743	178	0.003	0.008	0.53	-9.00	-9.00	-9.00	1000
4901	2881	2921	1.502	34.703	27.772	184	-0.002	0.003	0.55	-9.00	-9.00	-9.00	1000
4922	2882	2923	1.502	34.701	27.770	185	-0.001	0.001	0.55	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
31	11 Mar 89	46 03.3 S	104 59.7 W	3900	240.2	437.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5022	2	2	11.875	34.118	25.928	274	3.619	1.692	1.03	1.13	1.10	2.14	1000
5001	9	9	11.876	34.118	25.928	274	3.599	1.750	1.03	1.13	1.14	2.06	1000
5024	18	18	11.874	34.117	25.928	279	3.568	1.698	1.05	1.12	1.10	2.10	1000
5006	30	30	11.857	34.120	25.933	272	3.670	1.722	1.02	1.15	1.12	2.13	1000
5027	40	40	11.832	34.119	25.937	276	2.850	1.482	1.04	0.89	0.96	1.92	1000
5023	59	59	11.822	34.120	25.940	274	3.238	1.651	1.03	1.01	1.07	1.96	1000
5004	79	79	11.818	34.119	25.940	273	3.297	1.595	1.03	1.03	1.03	2.07	1000
5028	97	97	9.724	34.139	26.326	288	3.450	1.674	1.04	0.96	0.98	2.06	1000
5018	121	121	8.774	34.142	26.482	293	3.982	1.814	1.03	1.05	1.02	2.20	1000
5012	145	146	8.077	34.159	26.602	289	4.002	1.832	1.00	1.02	0.99	2.18	1000
5016	196	198	7.271	34.196	26.748	289	4.155	1.877	0.98	1.01	0.98	2.21	1000
5013	244	246	6.713	34.257	26.873	287	3.781	1.671	0.96	0.89	0.84	2.26	1000
5017	295	297	6.518	34.299	26.932	277	3.559	1.678	0.93	0.83	0.84	2.12	2000
5008	395	398	6.262	34.312	26.976	275	2.981	1.388	0.92	0.69	0.69	2.15	1000
5010	491	495	5.971	34.298	27.002	276	2.683	1.291	0.91	0.61	0.63	2.08	1000
5011	592	596	5.731	34.287	27.023	275	2.514	1.182	0.90	0.56	0.57	2.13	1000
5014	690	696	5.415	34.270	27.048	271	2.286	1.067	0.88	0.50	0.50	2.14	1000
5015	788	795	5.070	34.262	27.082	254	1.607	0.787	0.82	0.34	0.37	2.04	1000
5025	788	795	5.070	34.263	27.083	256	1.616	0.779	0.83	0.35	0.36	2.08	1000
5029	986	995	4.257	34.296	27.199	224	0.449	0.233	0.71	0.09	0.10	1.93	1000
5009	1084	1094	3.839	34.320	27.262	213	0.266	0.135	0.67	0.05	0.06	1.97	1000
5020	1286	1299	3.189	34.403	27.391	183	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1000
5007	1578	1595	2.692	34.531	27.538	161	-9.000	-9.000	0.49	-9.00	-9.00	-9.00	1000
5030	1578	1595	2.692	34.530	27.538	157	-9.000	-9.000	0.48	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
32	11 Mar 89	48 00.0 S	105 00.0 W	3850	240.2	437.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5104	4	4	10.229	34.182	26.275	283	3.548	1.732	1.03	1.02	1.04	2.05	1000
5128	9	9	10.232	34.179	26.272	284	3.510	1.721	1.03	1.01	1.04	2.04	1000
5118	19	20	10.240	34.179	26.270	280	3.494	1.746	1.02	1.00	1.05	2.00	1000
5112	30	31	10.248	34.178	26.268	283	3.533	1.719	1.03	1.02	1.03	2.05	1000
5113	39	40	10.238	34.179	26.271	281	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
5116	39	40	10.245	34.180	26.270	281	3.490	1.701	1.02	1.00	1.02	2.05	1000
5117	59	59	10.235	34.183	26.274	282	3.538	1.739	1.02	1.02	1.05	2.03	1000
5108	79	79	10.022	34.186	26.313	284	3.577	1.719	1.03	1.02	1.02	2.08	1000
5110	99	99	7.906	34.197	26.657	-9	3.899	1.842	-9.00	0.98	0.99	2.12	1000
5111	125	126	7.341	34.216	26.754	286	3.917	-9.000	0.97	0.96	-9.00	-9.00	1020
5114	147	148	6.956	34.236	26.823	284	3.879	1.790	0.96	0.93	0.92	2.17	1000
5115	196	198	6.527	34.259	26.899	290	3.775	1.826	0.97	0.87	0.91	2.07	1100
5125	196	198	6.527	34.261	26.901	290	3.766	1.805	0.97	0.88	0.90	2.09	1000
5129	296	299	6.335	34.300	26.957	-9	3.257	1.556	-9.00	0.75	0.77	2.09	1000
5109	342	345	6.233	34.301	26.971	275	3.072	1.486	0.91	0.70	0.73	2.07	1000
5120	393	396	6.123	34.298	26.983	281	2:968	1.432	0.93	0.68	0.70	2.07	1000
5130	445	448	6.023	34.296	26.994	293	2.854	1.395	0.97	0.65	0.68	2.05	1000
5324	495	499	5.967	34.300	27.004	273	2.601	1.255	0.90	0.59	0.61	2.07	1000
5306	542	546	5.834	34.291	27.013	274	2.682	1.288	0.90	0.60	0.62	2.08	1000
5327	592	597	5.738	34.287	27.022	274	2.352	1.206	0.90	0.52	0.58	1.95	1000
5323	637	642	5.587	34.281	27.036	269	2.295	1.099	0.88	0.51	0.52	2.09	1000
5304	688	693	5.422	34.275	27.051	267	2.167	1.043	0.87	0.47	0.49	2.08	1000
5328	741	747	5.229	34.271	27.071	258	1.842	0.881	0.84	0.40	0.41	2.09	1000
5318	790	797	5.032	34.265	27.089	249	1.588	0.836	0.81	0.34	0.39	1.90	1000
5312	838	846	4.858	34.271	27.114	242	1.322	0.629	0.78	0.28	0.29	2.10	1000
5316	886	894	4.632	34.271	27.139	235	-9.000	-9.000	0.75	-9.00	-9.00	-9.00	1000
5326	985	994	4.155	34.292	27.207	222	1.127	0.549	0.70	0.23	0.24	2.05	1000
5308	1084	1094	3.754	34.315	27.266	211	0.491	0.261	0.66	0.10	0.11	1.88	1100
5317	1084	1094	3.754	34.317	27.268	212	0.783	0.392	0.66	0.15	0.17	2.00	1000
5310	1282	1295	3.145	34.394	27.388	191	0.159	0.088	0.59	0.03	0.04	1.81	1000
5305	1577	1594	2.579	34.521	27.540	175	0.070	0.038	0.53	0.01	0.02	1.83	1000
5314	1874	1895	2.288	34.612	27.638	174	0.035	0.026	0.53	0.01	-9.00	-9.00	1000
5325	2070	2095	2.121	34.660	27.690	179	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
5315	2271	2299	1.965	34.686	27.723	178	0.006	0.008	0.53	-9.00	-9.00	-9.00	1000
5329	2478	2510	1.772	34.702	27.751	180	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
5309	2660	2696	1.628	34.706	27.765	182	-0.001	0.006	0.54	-9.00	-9.00	-9.00	1000
5320	2858	2898	1.486	34.709	27.778	187	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1000
5222	3445	3498	1.156	34.717	27.807	199	-0.001	-0.002	0.58	-9.00	-9.00	-9.00	1000
5201	3836	3899	0.763	34.709	27.827	206	-0.009	-0.003	0.60	-9.00	-9.00	-9.00	1000
5224	3836	3899	0.763	34.711	27.829	204	-0.004	0.000	0.59	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
33	12 Mar 89	50 01.7 S	104 58.0 W	4000	241.1	437.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5409	3	3	9.228	34.203	26.458	288	3.765	1.923	1.03	1.02	1.10	1.96	1000
5420	8	8	9.226	34.203	26.458	285	3.786	1.910	1.01	1.02	1.09	1.98	1000
5430	17	18	9.237	34.204	26.457	287	3.687	1.898	1.02	1.00	1.09	1.94	1000
5407	27	27	9.232	34.202	26.456	288	3.706	1.879	1.02	1.00	1.08	1.97	1000
5422	37	37	9.236	34.203	26.457	287	3.720	-9.000	1.02	1.01	-9.00	-9.00	1020
5401	57	57	9.179	34.203	26.466	288	3.761	1.944	1.02	1.02	1.11	1.93	1000
5424	80	81	9.003	34.211	26.500	288	3.751	1.783	1.02	1.00	1.01	2.10	1000
5406	98	98	8.841	34.229	26.540	-9	3.823	1.792	-9.00	1.01	1.01	2.13	1000
5427	121	122	8.675	34.235	26.571	287	3.856	1.808	1.01	1.01	1.01	2.13	1000
5423	148	149	6.915	34.249	26.839	294	4.145	1.918	0.99	0.98	0.98	2.16	1000
5404	197	198	6.370	34.277	26.934	290	4.048	1.868	0.97	0.93	0.93	2.17	1000
5428	246	248	6.371	34.299	26.951	287	3.768	1.811	0.96	0.87	0.90	2.08	1000
5418	295	297	6.326	34.304	26.961	284	3.544	1.669	0.94	0.81	0.83	2.12	1000
5412	394	397	6.122	34.296	26.981	277	3.146	1.516	0.92	0.71	0.74	2.08	1000
5416	490	494	5.908	34.289	27.003	273	2.880	1.376	0.90	0.65	0.67	2.09	1000
5426	592	597	5.590	34.278	27.033	264	2.457	1.151	0.86	0.54	0.55	2.14	1000
5417	689	695	5.259	34.272	27.068	250	2.028	0.937	0.81	0.44	0.44	2.16	1000
5408	788	795	4.800	34.275	27.123	239	1.468	0.690	0.77	0.31	0.32	2.13	1000
5410	888	896	4.240	34.286	27.193	227	1.086	0.515	0.72	0.22	0.23	2.11	1000
5405	986	995	3.851	34.305	27.249	219	0.833	0.392	0.69	0.17	0.17	2.12	1000
5414	1084	1094	3.468	34.332	27.308	209	0.631	0.303	0.65	0.12	0.13	2.08	1000
5425	1280	1293	2.942	34.410	27.419	193	0.296	0.155	0.59	0.06	0.06	1.91	1000
5415	1573	1590	2.484	34.551	27.572	181	0.113	0.062	0.55	0.02	0.02	1.83	1000
5429	1887	1908	2.236	34.629	27.655	171	0.023	-9.000	0.52	-9.00	-9.00	-9.00	1020

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
34	12 Mar 89	52 01.9 S	105 04.2 W	4100	242.0	438.9

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5522	3	3	8.386	34.244	26.622	290	3.864	1.844	1.01	0.99	1.01	2.10	1000
5501	9	9	8.384	34.244	26.623	290	3.891	1.843	1.01	1.00	1.01	2.11	1000
5524	19	19	8.379	34.243	26.623	290	3.940	1.851	1.01	1.01	1.01	2.13	1000
5506	28	28	8.382	34.243	26.622	289	3.803	1.821	1.01	0.98	1.00	2.09	1000
5523	39	39	8.381	34.243	26.622	-9	3.979	1.846	-9.00	1.02	1.01	2.16	1000
5527	40	40	8.382	34.244	26.623	289	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	2000
5504	59	59	8.367	34.243	26.624	292	3.968	1.822	1.02	1.02	1.00	2.18	1000
5528	78	79	8.241	34.245	26.645	288	3.973	1.843	1.00	1.01	1.00	2.16	1000
5518	99	100	8.181	34.243	26.652	288	3.996	1.854	1.00	1.02	1.01	2.16	1000
5516	148	149	6.607	34.292	26.914	288	3.989	1.867	0.97	0.93	0.94	2.14	1000
5526	197	198	6.473	34.312	26.948	286	3.842	1.815	0.96	0.89	0.90	2.12	1000
5517	247	249	6.381	34.309	26.958	288	3.792	1.778	0.96	0.87	0.88	2.13	1000
5508	295	297	6.337	34.310	26.964	286	3.614	1.709	0.95	0.83	0.84	2.12	1000
5510	344	346	6.237	34.303	26.972	286	3.603	1.719	0.95	0.82	0.85	2.10	1000
5505	394	397	6.151	34.298	26.979	289	3.663	1.757	0.96	0.83	0.86	2.08	1000
5514	444	448	6.076	34.293	26.985	280	3.428	1.602	0.93	0.77	0.78	2.14	1000
5525	494	497	5.933	34.282	26.994	277	3.258	1.528	0.91	0.73	0.74	2.13	1000
5515	544	548	5.762	34.267	27.003	291	3.311	1.536	0.96	0.73	0.74	2.16	1000
5529	588	593	5.543	34.251	27.017	274	3.046	1.506	0.90	0.67	0.71	2.02	1000
5509	642	648	5.461	34.256	27.031	263	2.650	1.259	0.86	0.58	0.59	2.10	1000
5520	694	700	5.289	34.259	27.054	239	2.318	1.100	0.78	0.50	0.51	2.11	1000
5607	740	746	5.099	34.268	27.084	244	1.893	0.914	0.79	0.40	0.42	2.07	1000
5622	789	796	4.934	34.281	27.113	250	1.575	0.770	0.81	0.33	0.35	2.05	1000
5601	840	847	4.715	34.288	27.143	230	1.278	0.642	0.74	0.27	0.29	1.99	1000
5624	889	897	4.464	34.290	27.172	224	1.211	0.574	0.72	0.25	0.26	2.11	1000
5606	938	946	4.166	34.291	27.205	224	1.138	0.537	0.71	0.23	0.24	2.12	1000
5627	987	996	3.940	34.297	27.233	224	1.047	0.501	0.70	0.21	0.22	2.09	1000
5623	1095	1105	3.523	34.326	27.298	214	0.711	0.337	0.67	0.14	0.14	2.11	1000
5604	1182	1193	3.223	34.352	27.347	207	0.659	0.311	0.64	0.13	0.13	2.12	1000
5628	1283	1296	2.917	34.393	27.408	198	0.493	0.230	0.61	0.09	0.09	2.14	1000
5618	1430	1445	2.626	34.456	27.484	190	0.378	0.182	0.58	0.07	0.07	2.08	1000
5612	1577	1594	2.440	34.527	27.557	185	0.240	0.113	0.56	0.04	0.05	2.12	1000
5616	1872	1894	2.240	34.628	27.654	177	0.080	0.039	0.54	0.01	0.02	2.06	1000
5626	1969	1992	2.169	34.656	27.682	179	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
5617	2068	2093	2.121	34.668	27.696	179	0.032	0.013	0.54	0.01	-9.00	-9.00	1000
5608	2169	2195	1.979	34.693	27.727	184	-9.000	-9.000	0.55	-9.00	-9.00	-9.00	1000
5610	2266	2295	1.925	34.700	27.737	185	0.012	0.006	0.55	-9.00	-9.00	-9.00	1000
5605	2462	2494	1.759	34.713	27.761	182	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
5614	2660	2696	1.579	34.716	27.776	188	0.001	-0.001	0.56	-9.00	-9.00	-9.00	1000
5625	2856	2896	1.453	34.717	27.786	191	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1000
5615	3051	3096	1.352	34.716	27.793	195	0.003	0.007	0.58	-9.00	-9.00	-9.00	1000
5629	3449	3503	1.009	34.718	27.818	199	-0.001	0.005	0.58	-9.00	-9.00	-9.00	1000
5609	3932	3998	0.550	34.713	27.843	209	0.004	0.008	0.61	-9.00	-9.00	-9.00	1000
5620	4161	4233	0.473	34.711	27.846	215	0.005	0.005	0.62	-9.00	-9.00	-9.00	1100

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
35	13 Mar 89	54 04.5 S	104 58.8 W	4100	241.9	439.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5722	3	3	7.414	34.215	26.743	292	3.898	1.913	1.00	0.95	1.00	2.04	1000
5701	9	9	7.418	34.216	26.743	294	4.021	1.902	1.00	0.98	0.99	2.11	1000
5724	19	19	7.414	34.210	26.739	289	3.970	1.879	0.99	0.97	0.98	2.11	1000
5706	28	28	7.422	34.217	26.743	294	3.959	1.883	1.00	0.97	0.98	2.10	1000
5727	40	40	7.421	34.218	26.744	294	4.086	1.900	1.00	1.00	0.99	2.15	1000
5723	59	59	7.420	34.215	26.742	292	3.998	1.940	1.00	0.97	1.01	2.06	1000
5704	79	79	7.394	34.215	26.745	292	4.037	1.900	1.00	0.98	0.99	2.12	1000
5728	98	98	7.171	34.210	26.773	294	3.908	1.898	1.00	0.94	0.98	2.06	1000
5718	123	124	7.114	34.212	26.782	293	4.031	1.914	0.99	0.97	0.98	2.11	1000
5712	148	149	6.983	34.224	26.810	291	3.931	1.892	0.98	0.93	0.96	2.08	1000
5716	197	198	6.005	34.269	26.974	289	3.843	1.840	0.96	0.86	0.89	2.09	1000
5726	247	249	5.601	34.227	26.992	292	4.048	1.924	0.96	0.89	0.91	2.10	1000
5717	295	297	5.677	34.250	27.000	288	4.002	1.922	0.94	0.88	0.92	2.08	1000
5708	393	396	5.232	34.210	27.022	289	4.157	1.976	0.94	0.89	0.92	2.10	1000
5710	491	494	4.877	34.194	27.051	279	3.368	1.577	0.90	0.71	0.72	2.14	1000
5705	590	595	4.499	34.192	27.091	264	2.789	1.311	0.84	0.57	0.59	2.13	1000
5714	689	694	4.207	34.217	27.142	248	2.200	1.040	0.78	0.44	0.46	2.12	1000
5725	791	798	3.912	34.273	27.217	228	1.426	0.662	0.72	0.28	0.29	2.15	1000
5715	888	896	3.618	34.298	27.266	220	1.119	0.526	0.69	0.22	0.23	2.13	1000
5729	987	996	3.141	34.321	27.330	214	0.969	0.454	0.66	0.18	0.19	2.14	1000
5709	1084	1095	2.887	34.358	27.383	207	0.811	0.391	0.63	0.15	0.16	2.08	1000
5720	1281	1294	2.559	34.459	27.492	190	0.440	0.208	0.58	0.08	0.08	2.12	1100
5730	1575	1592	2.313	34.584	27.613	181	0.161	0.082	0.55	0.03	0.03	1.95	1000
5707	1871	1892	2.131	34.664	27.692	182	0.064	0.034	0.55	0.01	0.01	1.89	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
36	13 Mar 89	56 01.3 S	105 03.0 W	4310	241.9	439.5

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
5823	7	7	6.938	34.195	26.793	297	4.051	1.981	1.00	0.96	1.01	2.05	1000
5827	7	7	6.938	34.200	26.797	294	3.983	1.930	0.99	0.94	0.98	2.06	1000
5804	8	8	6.935	34.200	26.798	296	3.955	1.930	1.00	0.94	0.98	2.05	1000
5828	19	20	6.931	34.199	26.797	294	4.061	2.047	0.99	0.96	1.04	1.98	1000
5818	38	38	6.936	34.200	26.798	295	4.145	1.964	1.00	0.98	1.00	2.11	1000
5812	59	60	6.932	34.200	26.798	302	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
5816	81	82	6.938	34.202	26.799	293	4.082	1.924	0.99	0.97	0.98	2.12	1000
5826	101	102	6.938	34.204	26.800	296	4.044	1.918	1.00	0.96	0.98	2.11	1000
5808	147	148	6.284	34.299	26.963	286	3.777	1.820	0.95	0.86	0.90	2.08	1000
5817	147	148	6.284	34.299	26.963	288	3.829	1.826	0.96	0.87	0.90	2.10	1000
5810	196	198	5.943	34.270	26.983	289	3.751	1.807	0.95	0.84	0.87	2.08	1000
5805	246	247	5.784	34.258	26.993	291	3.776	1.790	0.96	0.84	0.86	2.11	1000
5814	294	296	5.659	34.248	27.001	292	3.718	1.771	0.96	0.82	0.84	2.10	1000
5825	342	344	5.512	34.235	27.009	290	3.646	1.760	0.95	0.80	0.83	2.07	1000
5815	396	399	5.277	34.216	27.022	287	3.480	1.695	0.93	0.75	0.79	2.05	1000
5829	443	446	5.055	34.202	27.036	281	3.455	1.665	0.91	0.73	0.77	2.07	1000
5809	494	498	4.772	34.185	27.055	282	3.293	1.578	0.90	0.69	0.72	2.09	1000
5820	541	546	4.874	34.237	27.085	249	2.287	1.098	0.80	0.48	0.50	2.08	1000
5830	590	594	4.784	34.236	27.094	238	1.530	0.804	0.76	0.32	0.37	1.90	1000
5927	740	746	4.065	34.277	27.204	229	1.404	0.662	0.72	0.28	0.29	2.12	1000
5904	789	796	3.806	34.293	27.244	222	1.162	0.558	0.70	0.23	0.24	2.08	1000
5923	789	796	3.806	34.294	27.245	236	1.166	0.549	0.74	0.23	0.24	2.12	1000
5928	867	875	3.440	34.321	27.302	218	0.988	0.529	0.68	0.19	0.22	1.87	1000
5918	888	896	3.354	34.321	27.310	219	0.926	0.447	0.68	0.18	0.19	2.07	1000
5912	986	995	3.131	34.362	27.364	210	0.660	0.313	0.65	0.12	0.13	2.11	1100
5916	1084	1094	2.789	34.391	27.418	202	0.644	0.306	0.62	0.12	0.13	2.10	1000
5926	1183	1195	2.625	34.439	27.471	193	0.481	0.230	0.59	0.09	0.09	2.09	1000
5917	1283	1296	2.555	34.489	27.517	196	0.298	0.147	0.60	0.05	0.06	2.03	1000
5908	1430	1445	2.384	34.549	27.579	184	0.221	0.107	0.56	0.04	0.04	2.06	1000
5910	1578	1595	2.288	34.601	27.629	181	0.132	0.065	0.55	0.02	0.03	2.03	1000
5905	1725	1745	2.180	34.642	27.670	182	0.091	0.043	0.55	0.02	0.02	2.13	1000
5914	1874	1896	2.079	34.674	27.704	184	0.084	0.039	0.55	0.01	0.02	2.15	1000
5925	1971	1994	2.017	34.692	27.723	183	0.048	0.013	0.55	0.01	-9.00	-9.00	1000
5929	2169	2196	1.887	34.713	27.751	187	-9.000	-9.000	0.56	-9.00	-9.00	-9.00	1000
5909	2267	2296	1.803	34.721	27.763	189	0.046	0.019	0.57	0.01	-9.00	-9.00	1100
5920	2464	2497	1.598	34.726	27.783	192	0.021	0.015	0.57	-9.00	-9.00	-9.00	1000
5930	2660	2696	1.426	34.722	27.793	193	0.004	0.005	0.57	-9.00	-9.00	-9.00	1000
5907	2860	2900	1.314	34.723	27.801	195	0.005	0.003	0.58	-9.00	-9.00	-9.00	1000
5922	3053	3098	1.201	34.725	27.811	198	0.009	0.009	0.58	-9.00	-9.00	-9.00	1000
5901	3440	3494	0.901	34.720	27.827	206	0.013	0.014	0.60	-9.00	-9.00	-9.00	1100
5924	3931	3998	0.427	34.711	27.849	214	0.010	0.008	0.62	-9.00	-9.00	-9.00	1100

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
37	15 Mar 89	60 32.8 S	110 36.9 W	5185	240.2	439.2

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6006	39	39	4.528	34.022	26.953	309	-9.000	-9.000	0.98	-9.00	-9.00	-9.00	2000
6027	67	68	4.528	34.018	26.949	301	4.431	2.225	0.96	0.92	1.00	1.99	1000
6023	99	100	3.408	34.069	27.104	290	4.312	2.043	0.90	0.83	0.86	2.11	1000
6004	148	149	2.885	34.047	27.135	295	4.437	2.075	0.90	0.83	0.85	2.14	1000
6028	197	198	2.662	34.048	27.155	296	4.352	2.156	0.90	0.80	0.87	2.02	1000
6012	296	298	2.650	34.136	27.226	269	3.263	1.637	0.82	0.60	0.66	1.99	1000
6018	296	298	2.650	34.135	27.225	270	3.240	1.707	0.82	0.60	0.69	1.90	1000
6016	391	394	2.793	34.235	27.293	236	2.048	0.971	0.72	0.38	0.40	2.11	1000
6026	491	495	2.652	34.310	27.365	220	1.379	0.767	0.67	0.25	0.31	1.80	1000
6008	692	698	2.381	34.466	27.513	183	0.454	0.235	0.56	0.08	0.09	1.93	1000
6010	835	842	2.396	34.534	27.566	179	0.261	0.127	0.54	0.05	0.05	2.05	1000
6005	987	996	2.285	34.597	27.626	172	0.163	0.080	0.52	0.03	0.03	2.04	1000
6014	1285	1298	2.094	34.672	27.702	179	0.102	0.073	0.54	0.02	0.03	1.40	1000
6015	1873	1896	1.635	34.730	27.784	190	0.041	0.027	0.57	0.01	-9.00	-9.00	1100
6029	2167	2195	1.367	34.724	27.798	202	-9.000	-9.000	0.60	-9.00	-9.00	-9.00	1030
6030	3444	3498	0.577	34.710	27.839	206	0.028	0.023	0.60	-9.00	-9.00	-9.00	1100
6007	3932	3999	0.294	34.706	27.853	212	0.034	0.023	0.61	0.01	-9.00	-9.00	1100
6022	4424	4504	0.100	34.705	27.863	216	0.041	0.037	0.62	0.01	0.01	1.12	1100
6001	4926	5021	0.020	34.705	27.867	215	0.050	0.038	0.62	0.01	0.01	1.30	1100
6024	4973	5070	0.015	34.706	27.868	218	0.052	0.033	0.62	0.01	0.01	1.56	1100

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
38	18 Mar 89	58 05.7 S	112 20.7 W	4733	241.0	439.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6126	10	10	4.812	34.012	26.913	302	4.531	2.269	0.97	0.93	1.01	2.00	1100
6102	20	20	4.810	34.006	26.909	302	4.525	2.125	0.97	0.95	0.96	2.13	1100
6110	40	41	4.816	34.008	26.910	306	-9.000	-9.000	0.98	-9.00	-9.00	-9.00	1000
6105	59	60	4.784	34.021	26.924	300	4.646	2.149	0.96	0.97	0.97	2.16	1000
6114	79	80	4.765	34.022	26.927	297	4.552	2.194	0.95	0.95	0.99	2.07	1000
6125	99	100	4.666	34.021	26.937	304	4.632	2.159	0.97	0.96	0.97	2.15	1000
6115	123	124	3.815	34.044	27.044	293	3.982	1.994	0.92	0.79	0.86	2.00	1000
6129	147	148	3.484	34.089	27.113	285	3.556	1.714	0.89	0.69	0.73	2.07	1000
6119	197	198	3.229	34.112	27.155	274	3.898	1.835	0.85	0.74	0.77	2.12	1000
6108	197	198	3.229	34.108	27.152	276	3.590	1.769	0.85	0.68	0.74	2.03	1000
6130	246	248	2.831	34.117	27.195	271	3.514	1.660	0.83	0.65	0.68	2.12	1000
6107	345	347	2.673	34.187	27.265	256	2.589	1.225	0.78	0.48	0.50	2.11	1000
6122	394	397	2.440	34.198	27.294	250	2.608	1.281	0.76	0.47	0.51	2.04	1000
6101	443	447	2.278	34.229	27.332	243	2.365	1.103	0.73	0.43	0.44	2.14	1000
6124	493	497	2.353	34.246	27.339	236	2.183	1.020	0.71	0.39	0.41	2.14	1000
6106	493	497	2.353	34.274	27.362	227	-9.000	-9.000	0.69	-9.00	-9.00	-9.00	1030
6301	493	497	2.299	34.245	27.343	239	2.154	1.000	0.72	0.39	0.40	-9.00	1000
6127	540	545	2.358	34.305	27.386	217	1.565	0.738	0.66	0.28	0.29	2.12	1000
6123	591	596	2.574	34.373	27.422	201	0.957	0.439	0.61	0.18	0.18	2.18	1000
6104	641	646	2.620	34.409	27.447	191	0.670	0.308	0.58	0.12	0.12	2.17	1000
6118	739	745	2.422	34.458	27.503	184	0.576	0.266	0.56	0.11	0.11	2.16	1100
6425	788	795	2.275	34.525	27.569	-9	-9.000	-9.000	-9.00	-9.00	-9.00	-9.00	1000
6306	986	995	2.247	34.566	27.604	175	0.320	0.153	0.53	0.06	0.06	2.09	1100
6327	1085	1095	2.215	34.606	27.639	177	0.222	-9.000	0.53	0.04	-9.00	-9.00	1120
6313	1477	1493	1.992	34.697	27.730	180	0.119	0.073	0.54	0.02	0.03	1.63	1100
6310	1578	1595	1.929	34.712	27.747	182	0.063	0.038	0.55	0.01	-9.00	-9.00	1100
6305	1873	1895	1.674	34.729	27.780	188	0.045	0.023	0.56	0.01	-9.00	-9.00	1100
6314	2071	2096	1.525	34.734	27.795	192	0.042	0.027	0.57	0.01	-9.00	-9.00	1100
6415	2464	2496	1.184	34.725	27.812	196	0.010	0.004	0.58	-9.00	-9.00	-9.00	1100
6429	2660	2697	1.066	34.726	27.821	200	0.015	0.025	0.59	-9.00	-9.00	-9.00	1000
6419	2854	2895	0.927	34.717	27.823	204	-9.000	0.015	0.60	-9.00	-9.00	-9.00	1110
6408	3051	3096	0.785	34.717	27.832	203	0.019	0.016	0.59	-9.00	-9.00	-9.00	1000
6430	3250	3300	0.629	34.714	27.839	206	0.028	0.026	0.60	-9.00	-9.00	-9.00	1000
6407	3430	3484	0.531	34.712	27.844	209	0.038	0.030	0.60	0.01	0.01	1.25	1000
6422	3689	3750	0.333	34.708	27.852	210	0.034	0.028	0.60	0.01	-9.00	-9.00	1000
6401	3932	3999	0.194	34.707	27.859	213	0.037	0.029	0.61	0.01	0.01	-9.00	1100
6424	4126	4198	0.141	34.705	27.860	211	0.052	0.044	0.60	0.01	0.02	1.18	1100
6406	4228	4302	0.129	34.705	27.861	216	0.041	0.031	0.62	0.01	0.01	1.30	1100
6427	4318	4396	0.117	34.705	27.862	214	0.039	0.032	0.61	0.01	0.01	1.20	1100
6423	4423	4504	0.112	34.705	27.862	214	0.035	0.025	0.61	0.01	-9.00	-9.00	1100
6410	4640	4727	0.092	34.705	27.863	216	0.039	0.028	0.62	0.01	-9.00	-9.00	1100
6405	4733	4822	0.093	34.705	27.863	214	0.039	0.025	0.61	0.01	-9.00	-9.00	1100
6414	4738	4827	0.091	34.705	27.863	216	0.041	0.029	0.62	0.01	-9.00	-9.00	1120

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
39	20 Mar 89	57 54.5 S	119 43.1 W	5000	240.6	439.4

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6512	9	9	4.157	34.028	26.997	306	4.722	2.215	0.97	0.95	0.97	2.13	1000
6516	18	18	4.155	34.027	26.996	309	4.624	2.177	0.98	0.93	0.96	2.12	1000
6526	37	37	4.148	34.024	26.995	325	4.588	2.175	1.03	0.93	0.95	2.11	1000
6502	41	41	4.145	34.028	26.998	308	-9.000	-9.000	0.97	-9.00	-9.00	-9.00	1000
6520	59	60	4.128	34.030	27.001	307	4.583	2.202	0.97	0.92	0.97	2.08	1000
6510	79	79	4.087	34.030	27.006	306	4.618	2.249	0.96	0.93	0.98	2.05	1000
6505	125	126	3.346	34.061	27.104	297	4.250	2.028	0.92	0.82	0.85	2.10	1000
6525	145	146	3.029	34.086	27.153	282	3.956	1.843	0.87	0.74	0.76	2.15	1100
6514	145	146	3.029	34.086	27.153	281	-9.000	-9.000	0.86	-9.00	-9.00	-9.00	1000
6515	242	244	2.751	34.138	27.219	268	3.237	1.484	0.82	0.60	0.60	-9.00	1000
6529	291	293	2.724	34.179	27.254	254	2.768	1.278	0.77	0.51	0.52	2.17	1000
6508	344	346	2.587	34.206	27.288	247	2.476	1.141	0.75	0.45	0.46	2.17	1000
6519	344	346	2.587	34.202	27.285	247	2.512	1.145	0.75	0.46	0.46	2.19	1000
6530	394	397	2.542	34.248	27.325	234	2.064	0.945	0.71	0.38	0.38	2.18	1000
6507	491	495	2.305	34.308	27.393	226	1.584	0.721	0.68	0.29	0.29	2.20	1000
6522	541	545	2.192	34.318	27.410	219	1.662	0.762	0.66	0.30	0.30	2.18	1000
6501	541	545	2.192	34.318	27.410	219	1.654	0.763	0.66	0.30	0.30	2.17	1000
6524	593	598	2.450	34.393	27.449	198	0.881	0.403	0.60	0.16	0.16	2.18	1100
6506	642	647	2.365	34.403	27.464	198	1.023	0.471	0.60	0.19	0.19	2.17	1000
6527	689	695	2.239	34.424	27.491	196	0.951	0.433	0.59	0.17	0.17	2.20	1000
6523	786	793	2.338	34.490	27.536	182	0.517	0.235	0.55	0.09	0.09	2.20	1000
6504	786	793	2.338	34.492	27.537	182	0.491	0.226	0.55	0.09	0.09	2.17	1000
6528	822	830	2.319	34.511	27.554	180	0.425	0.196	0.55	0.08	0.08	2.17	1000
6518	831	839	2.269	34.518	27.564	179	-9.000	-9.000	0.54	-9.00	-9.00	-9.00	1000
6616	890	898	2.293	34.544	27.583	176	0.334	0.154	0.53	0.06	0.06	2.16	1000
6612	890	898	2.293	34.543	27.582	178	0.332	0.146	0.54	0.06	0.06	2.27	1000
6626	987	996	2.187	34.573	27.615	175	0.335	0.156	0.53	0.06	0.06	2.15	1000
6602	1084	1095	2.192	34.618	27.650	178	0.191	0.090	0.54	0.03	0.04	2.13	1000
6620	1280	1294	2.070	34.673	27.704	182	0.130	0.079	0.55	0.02	0.03	1.64	1000
6610	1429	1444	1.982	34.699	27.732	186	0.085	0.041	0.56	0.02	0.02	2.08	1000
6605	1578	1595	1.871	34.717	27.755	191	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1000
6614	1725	1744	1.755	34.728	27.773	191	-9.000	-9.000	0.57	-9.00	-9.00	-9.00	1030
6625	1872	1894	1.618	34.733	27.787	196	0.048	0.020	0.58	0.01	-9.00	-9.00	1000
6615	1971	1995	1.511	34.734	27.796	194	0.034	0.013	0.58	0.01	-9.00	-9.00	1000
6629	2070	2095	1.452	34.732	27.799	195	0.032	0.016	0.58	0.01	-9.00	-9.00	1000
6619	2167	2195	1.367	34.730	27.803	198	0.019	0.008	0.59	-9.00	-9.00	-9.00	1000
6608	2268	2297	1.281	34.729	27.808	197	0.021	0.012	0.58	-9.00	-9.00	-9.00	1000
6630	2365	2396	1.206	34.728	27.813	198	0.018	0.013	0.58	-9.00	-9.00	-9.00	1000
6607	2463	2496	1.126	34.725	27.816	200	0.015	0.009	0.59	-9.00	-9.00	-9.00	1000
6622	2660	2697	0.989	34.722	27.823	202	0.023	0.012	0.59	-9.00	-9.00	-9.00	1000
6601	2855	2896	0.863	34.719	27.829	205	0.023	0.012	0.60	-9.00	-9.00	-9.00	1000
6624	3151	3198	0.696	34.713	27.834	208	0.029	0.011	0.60	-9.00	-9.00	-9.00	1000
6606	3445	3499	0.536	34.709	27.841	210	0.039	0.021	0.61	0.01	-9.00	-9.00	1000
6627	3739	3800	0.360	34.706	27.849	-9	0.052	0.028	-9.00	0.01	-9.00	-9.00	1000
6623	4032	4101	0.185	34.734	27.881	215	0.041	0.017	0.62	0.01	-9.00	-9.00	1000
6604	4324	4401	0.083	34.704	27.863	218	0.074	0.042	0.62	0.01	0.01	-9.00	1000
6628	4615	4701	0.068	34.704	27.864	216	0.080	0.043	0.62	0.01	0.02	1.88	1000
6618	4838	4930	0.062	34.703	27.863	-9	0.082	0.047	-9.00	0.01	0.02	1.74	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
40	21 Mar 89	56 59.0 S	121 12.2 W	4390	241.0	439.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6704	5	5	3.884	34.042	27.036	308	4.509	2.169	0.97	0.89	0.94	2.08	1100
6728	9	9	3.889	34.043	27.036	308	4.567	2.163	0.97	0.91	0.94	2.11	1100
6718	20	20	3.898	34.043	27.035	308	4.713	2.174	0.97	0.94	0.94	2.17	1100
6712	40	40	3.892	34.044	27.037	308	-9.000	-9.000	0.97	-9.00	-9.00	-9.00	1000
6716	40	40	3.894	34.042	27.035	309	4.607	2.166	0.97	0.91	0.94	2.13	1100
6726	62	62	3.914	34.049	27.039	306	4.554	2.255	0.96	0.90	0.98	2.02	1100
6702	80	81	3.909	34.050	27.040	312	4.661	2.237	0.98	0.93	0.97	2.08	1000
6720	99	100	3.876	34.050	27.043	309	4.606	2.238	0.97	0.91	0.97	2.06	1000
6710	126	127	3.762	34.036	27.043	304	4.596	-9.000	0.95	0.90	-9.00	-9.00	1020
6705	149	150	3.553	34.053	27.077	303	4.587	2.235	0.94	0.89	0.95	2.05	1000
6714	199	200	3.405	34.098	27.128	283	3.813	1.874	0.88	0.73	0.79	2.03	1000
6725	246	247	3.230	34.118	27.160	271	3.517	1.703	0.84	0.67	0.71	2.07	1000
6715	297	299	3.098	34.146	27.194	261	3.095	1.419	0.80	0.59	0.59	2.18	1000
6729	342	344	2.963	34.175	27.230	253	2.757	1.260	0.78	0.52	0.52	2.19	1000
6719	392	395	2.776	34.195	27.263	247	2.570	1.180	0.75	0.48	0.48	2.18	1100
6708	446	450	2.525	34.206	27.293	249	2.573	1.178	0.76	0.47	0.47	2.18	1000
6730	446	450	2.525	34.205	27.292	248	2.597	1.188	0.75	0.47	0.48	2.18	1000
6722	542	547	2.263	34.253	27.352	236	2.277	1.039	0.71	0.41	0.41	2.19	1000
6707	542	547	2.263	34.253	27.352	237	2.271	1.039	0.72	0.41	0.41	2.19	1000
6701	642	647	2.204	34.313	27.405	219	1.718	0.775	0.66	0.31	0.31	2.22	1000
6724	689	695	2.311	34.360	27.626	206	1.271	0.569	0.62	0.23	0.23	2.23	1000
6706	689	695	2.311	34.360	27.626	193	1.277	0.576	0.58	0.23	0.23	2.22	1000
6823	839	847	2.403	34.449	27.498	188	0.672	0.300	0.57	0.12	0.12	2.24	1000
6804	888	896	2.325	34.488	27.535	184	0.534	0.278	0.56	0.10	0.11	1.92	1000
6818	987	996	2.288	34.560	27.596	178	0.328	0.183	0.54	0.06	0.07	1.79	1000
6828	987	996	2.288	34.564	27.599	175	0.297	0.134	0.53	0.05	0.05	2.22	1000
6812	1086	1096	2.268	34.610	27.638	173	0.123	0.052	0.52	0.02	0.02	2.36	1000
6816	1282	1296	2.165	34.650	27.678	175	0.117	0.054	0.53	0.02	0.02	2.16	1000
6826	1431	1446	2.112	34.666	27.695	185	0.109	0.049	0.56	0.02	0.02	2.25	1000
6802	1697	1716	1.991	34.698	27.730	182	0.087	0.036	0.55	0.02	0.01	2.41	1000
6810	1871	1893	1.931	34.706	27.742	184	0.063	0.027	0.55	0.01	-9.00	-9.00	1000
6820	1871	1893	1.931	34.710	27.745	184	0.070	0.033	0.55	0.01	0.01	2.12	1000
6805	1967	1991	1.896	34.715	27.752	184	0.058	-9.000	0.55	0.01	-9.00	-9.00	1020
6814	2069	2095	1.806	34.725	27.767	197	0.057	0.044	0.59	0.01	0.02	1.29	1000
6825	2167	2195	1.680	34.731	27.781	190	0.028	0.009	0.57	-9.00	-9.00	-9.00	1100
6815	2264	2293	1.577	34.732	27.789	192	0.022	0.020	0.57	-9.00	-9.00	-9.00	1100
6829	2366	2397	1.464	34.732	27.798	193	0.021	0.034	0.57	-9.00	0.01	-9.00	1000
6819	2469	2502	1.401	34.729	27.800	198	0.026	0.027	0.59	-9.00	0.02	-9.00	1100
6808	2661	2698	1.203	34.729	27.814	198	0.022	0.008	0.58	-9.00	-9.00	-9.00	1000
6830	2856	2897	1.050	34.724	27.820	199	0.019	0.010	0.58	-9.00	-9.00	-9.00	1100
6807	3053	3098	0.908	34.717	27.824	202	0.027	0.022	0.59	-9.00	-9.00	-9.00	1100
6822	3342	3393	0.719	34.716	27.835	205	0.032	0.024	0.60	0.01	-9.00	-9.00	1000
6801	3639	3697	0.523	34.710	27.843	209	0.038	0.026	0.60	0.01	-9.00	-9.00	1100
6824	3933	3999	0.356	34.709	27.852	211	0.062	0.044	0.61	0.01	0.01	1.40	1100

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
41	22 Mar 89	55 58.2 S	122 39.0 W	3570	241.0	439.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
6902	888	898	2.927	34.336	27.362	208	1.024	0.482	0.64	0.19	0.20	2.13	1000
6920	934	945	2.824	34.361	27.391	202	0.898	0.419	0.62	0.17	0.17	2.14	1000
6910	986	997	2.625	34.355	27.403	206	0.900	0.418	0.63	0.17	0.17	2.15	1000
6905	1083	1096	2.565	34.434	27.472	189	0.581	0.263	0.58	0.11	0.11	2.21	1000
6914	1083	1096	2.565	34.433	27.471	192	0.657	-9.000	0.58	0.12	-9.00	-9.00	1020
6925	1430	1447	2.357	34.590	27.614	173	0.117	0.060	0.52	0.02	0.02	1.93	1000
6915	1575	1594	2.249	34.629	27.654	173	0.087	0.046	0.52	0.02	0.02	1.87	1000
6929	1575	1594	2.249	34.628	27.654	174	0.092	0.042	0.53	0.02	0.02	2.18	1000
6919	1725	1746	2.150	34.662	27.689	179	0.095	-9.000	0.54	0.02	-9.00	-9.00	1020
6930	1968	1994	1.992	34.701	27.733	183	0.034	0.017	0.55	0.01	-9.00	-9.00	1100
6908	1968	1994	1.992	34.701	27.733	181	0.037	0.024	0.55	0.01	-9.00	-9.00	1000
6907	2160	2189	1.848	34.719	27.758	187	0.028	0.011	0.56	-9.00	-9.00	-9.00	1100
6922	2262	2293	1.752	34.725	27.771	192	0.022	0.010	0.57	-9.00	-9.00	-9.00	1000
6901	2361	2394	1.653	34.724	27.777	191	0.017	0.007	0.57	-9.00	-9.00	-9.00	1100
6924	2456	2490	1.569	34.726	27.785	191	0.013	0.007	0.57	-9.00	-9.00	-9.00	1100
6906	2657	2696	1.395	34.725	27.797	198	0.009	0.003	0.59	-9.00	-9.00	-9.00	1100
6927	2855	2898	1.276	34.724	27.805	196	0.013	0.011	0.58	-9.00	-9.00	-9.00	1100
6923	3053	3100	1.118	34.721	27.813	197	0.011	0.011	0.58	-9.00	-9.00	-9.00	1100

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
42	23 Mar 89	53 58.0 S	125 25.9 W	3580	244.5	444.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7023	3	3	7.093	34.241	26.808	293	4.043	2.035	0.99	0.96	1.03	1.99	1000
7028	19	19	7.003	34.241	26.821	294	4.080	1.993	0.99	0.96	1.01	2.05	1000
7018	28	28	6.989	34.241	26.823	299	4.091	1.951	1.01	0.96	0.99	2.10	1100
7016	41	41	6.981	34.242	26.824	298	4.077	1.952	1.01	0.96	0.99	2.09	1100
7012	41	41	6.981	34.241	26.824	292	-9.000	-9.000	0.99	-9.00	-9.00	-9.00	1000
7026	60	60	6.972	34.239	26.823	296	4.116	2.001	1.00	0.97	1.01	-9.00	1000
7002	80	81	6.964	34.240	26.825	295	4.055	1.964	1.00	0.95	0.99	2.06	1000
7020	100	101	6.957	34.242	26.828	296	4.158	1.992	1.00	0.98	1.00	2.09	1000
7010	123	123	6.932	34.242	26.831	295	4.078	1.958	1.00	0.96	0.98	2.08	1000
7005	148	149	6.910	34.242	26.834	295	4.065	1.967	1.00	0.95	0.99	2.07	1000
7014	198	200	6.042	34.274	26.974	282	3.785	1.824	0.93	0.84	0.88	2.08	1000
7025	244	246	5.886	34.267	26.988	280	3.605	1.728	0.92	0.80	0.82	2.09	1000
7015	293	295	5.565	34.235	27.002	282	3.725	1.808	0.92	0.81	0.85	2.06	1000
7029	345	348	5.383	34.231	27.021	279	3.665	1.698	0.91	0.78	0.79	2.16	1000
7019	394	397	5.171	34.209	27.028	280	3.462	1.666	0.91	0.73	0.76	2.08	1000
7008	443	447	4.917	34.197	27.048	269	3.172	1.510	0.87	0.66	0.68	2.10	1000
7030	494	498	4.769	34.197	27.065	273	3.182	1.532	0.88	0.66	0.69	2.08	1000
7123	543	547	4.557	34.215	27.103	-9	2.573	1.223	-9.00	0.52	0.54	2.10	1000
7104	594	598	4.471	34.238	27.130	252	2.162	1.020	0.80	0.44	0.45	2.12	1000
7128	639	644	4.328	34.250	27.155	244	1.880	0.883	0.77	0.38	0.39	2.13	1000
7118	639	644	4.328	34.250	27.155	236	1.898	0.902	0.75	0.38	0.40	2.10	1000
7112	738	744	4.058	34.280	27.208	235	1.459	0.746	0.74	0.29	0.32	1.96	1000
7116	738	744	4.058	34.274	27.203	227	1.427	0.679	0.72	0.28	0.29	2.10	1000
7126	833	841	3.709	34.298	27.257	222	1.162	0.627	0.70	0.23	0.27	1.85	1000
7111	833	841	3.709	34.298	27.257	217	1.140	0.536	0.68	0.22	0.23	2.13	1000
7110	985	994	3.214	34.344	27.342	-9	0.785	0.373	-9.00	0.15	0.15	2.10	1000
7120	985	994	3.214	34.346	27.343	214	0.777	0.365	0.66	0.14	0.15	2.13	1100
7105	1282	1294	2.548	34.495	27.522	179	0.296	0.133	0.54	0.05	0.05	2.23	1000
7114	1282	1294	2.548	34.497	27.524	179	0.297	0.136	0.54	0.05	0.05	2.19	1000
7125	1575	1592	2.278	34.603	27.631	175	0.139	0.062	0.53	0.02	0.02	2.26	1000
7115	1724	1743	2.191	34.646	27.673	173	0.064	0.027	0.52	0.01	-9.00	-9.00	1000
7129	1724	1743	2.191	34.646	27.673	173	0.064	0.036	0.52	0.01	0.01	1.80	1100
7119	1875	1897	2.088	34.676	27.705	178	0.050	0.025	0.53	0.01	-9.00	-9.00	1000
7130	2267	2296	1.768	34.716	27.762	184	0.011	0.016	0.55	-9.00	-9.00	-9.00	1000
7108	2267	2296	1.768	34.716	27.762	184	0.012	0.010	0.55	-9.00	-9.00	-9.00	1100
7107	2658	2694	1.399	34.719	27.792	188	-0.001	0.000	0.56	-9.00	-9.00	-9.00	1000
7122	2855	2895	1.235	34.716	27.801	190	-0.001	0.009	0.56	-9.00	-9.00	-9.00	1000
7101	3053	3098	1.167	34.717	27.807	190	0.001	0.006	0.56	-9.00	-9.00	-9.00	1000
7124	3346	3397	1.103	34.716	27.810	194	0.002	0.020	0.57	-9.00	-9.00	-9.00	1100
7106	3423	3476	1.098	34.715	27.810	-9	0.000	0.006	-9.00	-9.00	-9.00	-9.00	1100

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
43	23 Mar 89	51 59.3 S	127 30.7 W	3900	244.5	444.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7206	4	4	7.802	34.322	26.771	296	3.863	1.924	1.02	0.96	1.02	2.01	1100
7227	8	8	7.798	34.322	26.771	291	3.908	1.914	1.00	0.96	1.01	-9.00	1000
7223	21	21	7.796	34.322	26.772	297	3.916	1.915	1.02	0.97	1.01	2.04	1000
7228	38	38	7.792	34.327	26.776	293	3.931	1.923	1.01	0.97	1.01	2.04	1000
7204	40	41	7.789	34.345	26.791	295	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
7218	58	58	7.787	34.329	26.778	292	3.922	1.912	1.01	0.97	1.00	2.05	1000
7212	79	79	7.776	34.330	26.781	291	3.913	1.920	1.00	0.96	1.01	2.04	1000
7216	95	96	7.735	34.330	26.787	290	3.934	1.910	1.00	0.97	1.00	2.06	1000
7226	123	124	7.621	34.337	26.809	290	3.995	1.940	1.00	0.98	1.01	2.06	1000
7211	147	148	7.574	34.348	26.824	289	3.920	1.891	0.99	0.95	0.98	2.07	1000
7220	196	198	7.195	34.413	26.929	274	3.504	1.705	0.93	0.84	0.87	2.06	1000
7210	299	301	6.972	34.394	26.946	273	3.318	1.616	0.93	0.78	0.82	-9.00	1000
7205	397	400	6.560	34.349	26.966	268	2.977	1.449	0.90	0.68	0.72	2.05	1000
7214	397	400	6.560	34.352	26.968	269	3.026	1.496	0.90	0.70	0.74	2.02	1000
7225	591	596	5.630	34.262	27.016	271	3.015	1.451	0.89	0.66	0.68	2.08	1000
7215	689	695	5.429	34.280	27.054	245	2.085	1.023	0.80	0.45	0.48	2.04	1000
7229	785	792	4.921	34.279	27.113	247	2.099	1.007	0.80	0.44	0.46	2.09	1000
7219	886	894	4.535	34.306	27.177	218	1.222	0.585	0.70	0.25	0.26	2.09	1000
7208	886	894	4.535	34.308	27.179	219	1.205	0.582	0.70	0.25	0.26	2.07	1000
7230	983	992	4.009	34.312	27.238	213	0.997	0.479	0.67	0.20	0.21	2.08	1000
7207	1281	1294	2.968	34.404	27.412	192	0.555	0.339	0.59	0.10	0.14	1.64	1000
7222	1587	1604	2.465	34.547	27.571	-9	0.178	0.082	-9.00	0.03	0.03	2.17	1000
7224	2069	2094	2.107	34.673	27.701	178	0.042	0.025	0.54	0.01	-9.00	-9.00	1000
7201	2069	2094	2.107	34.675	27.703	179	0.042	0.026	0.54	0.01	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
44	25 Mar 89	49 00.5 S	130 02.6 W	3750	244.5	444.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7323	19	19	9.163	34.328	26.566	284	3.704	1.722	1.01	0.99	0.97	2.15	1000
7304	40	40	9.159	34.327	26.566	285	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
7328	77	78	9.155	34.329	26.568	287	3.743	1.763	1.02	1.00	0.99	2.12	1000
7318	99	100	8.979	34.334	26.600	282	3.766	1.780	1.00	0.99	0.99	2.12	1000
7312	121	122	7.899	34.358	26.785	279	3.896	1.903	0.97	0.97	1.01	2.05	1000
7316	147	148	7.438	34.369	26.860	278	3.868	1.824	0.95	0.94	0.94	2.12	1000
7326	198	199	7.167	34.382	26.909	287	3.812	1.803	0.98	0.91	0.92	2.11	1000
7311	295	297	7.073	34.391	26.929	278	3.550	1.683	0.94	0.84	0.85	2.11	1000
7310	391	394	6.877	34.374	26.943	280	3.538	1.656	0.94	0.83	0.83	2.14	1000
7320	391	394	6.877	34.374	26.943	278	3.529	1.668	0.94	0.83	0.84	2.12	1000
7305	591	595	6.447	34.340	26.974	268	2.978	1.412	0.89	0.68	0.69	2.11	1000
7314	689	695	6.125	34.314	26.995	257	2.571	1.214	0.85	0.58	0.59	2.12	1000
7325	784	791	5.677	34.302	27.042	244	1.982	0.924	0.80	0.43	0.44	2.15	1000
7315	887	895	5.221	34.306	27.099	229	1.456	0.676	0.74	0.31	0.31	2.15	1000
7329	987	996	4.704	34.315	27.166	221	1.105	0.513	0.71	0.23	0.23	2.16	1000
7308	1578	1595	2.710	34.494	27.507	186	0.161	0.069	0.57	0.03	0.03	2.32	1000
7330	1578	1595	2.710	34.481	27.497	181	0.144	0.071	0.55	0.03	0.03	2.04	1000
7307	2264	2292	2.057	34.652	27.688	165	0.002	-0.002	0.50	-9.00	-9.00	-9.00	1100
7301	2463	2495	1.911	34.676	27.719	167	0.004	-0.006	0.50	-9.00	-9.00	-9.00	1000
7322	2463	2495	1.911	34.670	27.714	167	0.005	0.003	0.50	-9.00	-9.00	-9.00	1000
7324	2855	2895	1.675	34.691	27.749	171	-0.006	-0.007	0.51	-9.00	-9.00	-9.00	1100
7306	3245	3294	1.407	34.705	27.780	179	0.002	0.004	0.53	-9.00	-9.00	-9.00	1100

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
45	26 Mar 89	46 02.0 S	130 02.0 W	1780	244.5	444.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7424	5	5	11.143	34.273	26.184	275	3.428	1.628	1.02	1.02	1.01	2.11	1000
7406	9	9	11.130	34.274	26.187	275	3.431	1.631	1.02	1.02	1.01	2.10	1000
7427	19	19	11.126	34.272	26.186	275	3.447	1.650	1.02	1.02	1.02	2.09	1000
7423	29	30	11.030	34.271	26.203	278	3.454	1.640	1.03	1.02	1.01	2.11	1000
7404	38	38	11.026	34.270	26.203	276	3.445	1.627	1.02	1.01	1.00	2.12	1000
7428	60	61	10.856	34.273	26.236	278	3.459	1.634	1.02	1.01	1.00	2.12	1000
7418	79	80	10.574	34.297	26.304	281	3.535	1.756	1.03	1.02	1.06	2.01	1000
7412	98	99	9.347	34.280	26.499	281	3.669	1.721	1.00	0.99	0.98	2.13	1000
7416	121	122	8.044	34.273	26.697	287	3.653	1.748	0.99	0.91	0.93	2.09	1000
7426	144	145	7.620	34.320	26.796	276	3.755	1.780	0.95	0.92	0.93	2.11	1000
7411	196	198	7.262	34.372	26.888	267	3.446	1.627	0.91	0.82	0.83	2.12	1000
7420	294	296	6.975	34.383	26.936	269	3.267	1.639	0.91	0.77	0.83	1.99	1000
7414	393	396	6.805	34.375	26.953	264	2.878	1.364	0.89	0.67	0.68	2.11	1000
7405	491	495	6.576	34.360	26.972	263	2.677	1.273	0.88	0.62	0.63	2.10	1000
7410	593	597	6.266	34.336	26.994	258	2.392	1.145	0.86	0.54	0.56	2.09	1000
7425	692	698	5.781	34.308	27.033	246	1.948	0.922	0.81	0.43	0.44	2.11	1000
7415	788	794	5.357	34.299	27.078	234	1.409	0.677	0.76	0.30	0.31	2.08	1000
7429	889	897	4.821	34.305	27.145	225	1.117	0.529	0.72	0.23	0.24	2.11	1000
7408	987	996	4.305	34.314	27.208	214	0.800	0.388	0.68	0.16	0.17	2.06	1000
7419	987	996	4.305	34.314	27.208	213	0.797	0.401	0.68	0.16	0.18	1.99	1000
7430	1185	1196	3.449	34.362	27.334	198	0.387	0.199	0.62	0.07	0.08	1.94	1000
7407	1272	1284	3.139	34.399	27.393	192	0.256	0.127	0.59	0.05	0.05	2.02	1000
7422	1479	1494	2.700	34.486	27.502	179	0.098	0.050	0.55	0.02	0.02	1.96	1000
7401	1479	1494	2.700	34.488	27.503	179	0.096	0.055	0.55	0.02	0.02	1.74	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
46	26 Mar 89	44 00.3 S	129 59.7 W	4900	244.5	444.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7528	4	4	12.450	34.240	25.913	-9	3.215	1.551	-9.00	1.02	1.02	2.07	1000
7518	9	9	12.448	34.239	25.913	267	3.197	1.537	1.02	1.02	1.01	2.08	1000
7512	19	19	12.451	34.239	25.912	267	3.193	1.537	1.02	1.01	1.01	2.08	1000
7516	28	28	12.452	34.238	25.911	265	3.187	1.546	1.01	1.01	1.02	2.06	1000
7526	37	38	12.389	34.241	25.925	267	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
7511	38	38	12.383	34.238	25.924	266	3.209	1.558	1.01	1.02	1.02	2.06	1000
7520	60	60	11.728	34.267	26.071	270	3.348	1.611	1.01	1.02	1.02	2.08	1000
7514	76	77	10.447	34.262	26.299	280	3.545	1.695	1.02	1.01	1.01	2.09	1000
7505	99	100	9.211	34.271	26.514	281	3.750	1.792	1.00	1.00	1.01	2.09	1000
7510	123	123	8.248	34.309	26.694	271	3.671	1.908	0.94	0.93	1.03	1.92	1000
7525	148	149	7.797	34.334	26.781	273	3.663	1.756	0.94	0.90	0.92	2.09	1000
7515	197	199	7.409	34.399	26.888	262	3.274	1.573	0.90	0.79	0.81	2.08	1000
7529	246	248	7.221	34.406	26.920	264	3.189	1.532	0.90	0.76	0.78	2.08	1100
7519	295	297	7.057	34.392	26.932	268	3.233	1.527	0.91	0.76	0.77	2.12	1000
7508	344	347	6.973	34.388	26.940	265	2.986	1.414	0.90	0.70	0.71	2.11	1000
7530	394	396	6.903	34.386	26.949	261	2.922	1.514	0.88	0.69	0.76	1.93	1000
7507	442	446	6.814	34.384	26.959	260	2.642	1.244	0.88	0.61	0.63	2.12	1100
7522	494	498	6.696	34.381	26.973	262	2.561	1.189	0.88	0.59	0.59	2.15	1000
7501	544	548	6.533	34.364	26.981	258	2.431	1.134	0.86	0.56	0.56	2.14	1000
7524	591	596	6.387	34.352	26.991	258	2.279	1.071	0.86	0.52	0.52	2.13	1000
7506	640	645	6.159	34.335	27.007	253	2.044	0.948	0.84	0.46	0.46	2.16	1000
7527	689	695	5.892	34.319	27.028	243	1.830	0.858	0.80	0.40	0.41	2.13	1000
7523	739	745	5.653	34.313	27.053	241	1.530	0.716	0.79	0.33	0.34	2.14	1000
7504	786	793	5.384	34.310	27.083	225	1.532	0.718	0.73	0.33	0.33	2.13	1000
7628	889	897	5.024	34.307	27.123	223	0.954	0.457	0.72	0.20	0.21	2.09	1000
7618	985	994	4.457	34.307	27.187	224	0.955	0.461	0.71	0.19	0.20	2.07	1000
7616	1084	1094	3.934	34.329	27.259	204	0.431	0.218	0.64	0.08	0.09	1.98	1000
7612	1084	1094	3.934	34.333	27.262	204	0.422	0.285	0.64	0.08	0.12	1.48	1000
7626	1284	1296	3.143	34.393	27.387	189	0.211	0.113	0.58	0.04	0.05	1.87	1000
7611	1284	1296	3.143	34.401	27.394	190	0.195	0.100	0.59	0.04	0.04	1.95	1000
7614	1580	1596	2.545	34.536	27.555	172	0.046	-9.000	0.52	0.01	-9.00	-9.00	1020
7620	1580	1596	2.545	34.536	27.555	175	0.044	0.027	0.53	0.01	-9.00	-9.00	1000
7610	1875	1896	2.240	34.627	27.654	165	0.003	-0.001	0.50	-9.00	-9.00	-9.00	1000
7605	1875	1896	2.240	34.628	27.654	-9	0.003	0.001	-9.00	-9.00	-9.00	-9.00	1000
7625	2074	2099	2.047	34.652	27.689	163	0.000	-0.004	0.49	-9.00	-9.00	-9.00	1000
7615	2269	2298	1.874	34.663	27.712	160	-0.001	0.001	0.48	-9.00	-9.00	-9.00	1000
7629	2463	2495	1.733	34.670	27.728	160	-0.001	-0.005	0.48	-9.00	-9.00	-9.00	1000
7619	2654	2690	1.620	34.673	27.739	161	-0.002	-0.004	0.48	-9.00	-9.00	-9.00	1000
7608	2661	2697	1.617	34.676	27.741	-9	-0.001	-0.006	-9.00	-9.00	-9.00	-9.00	1000
7630	2858	2898	1.525	34.680	27.752	165	-0.001	-0.004	0.49	-9.00	-9.00	-9.00	1000
7607	3252	3301	1.357	34.690	27.772	162	-0.001	0.004	0.48	-9.00	-9.00	-9.00	1000
7622	3252	3301	1.357	34.690	27.772	171	-0.001	0.000	0.51	-9.00	-9.00	-9.00	1000
7601	3445	3499	1.284	34.696	27.782	175	0.000	0.008	0.52	-9.00	-9.00	-9.00	1000
7624	3738	3799	1.167	34.702	27.795	183	0.001	0.016	0.54	-9.00	-9.00	-9.00	1000
7606	4033	4101	1.038	34.707	27.807	190	0.011	0.003	0.56	-9.00	-9.00	-9.00	1100
7627	4519	4601	0.881	34.712	27.822	197	0.001	0.005	0.58	-9.00	-9.00	-9.00	1100
7623	4617	4701	0.861	34.713	27.824	201	-0.002	0.000	0.59	-9.00	-9.00	-9.00	1000
7604	4783	4873	0.845	34.713	27.825	211	0.003	0.005	0.61	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

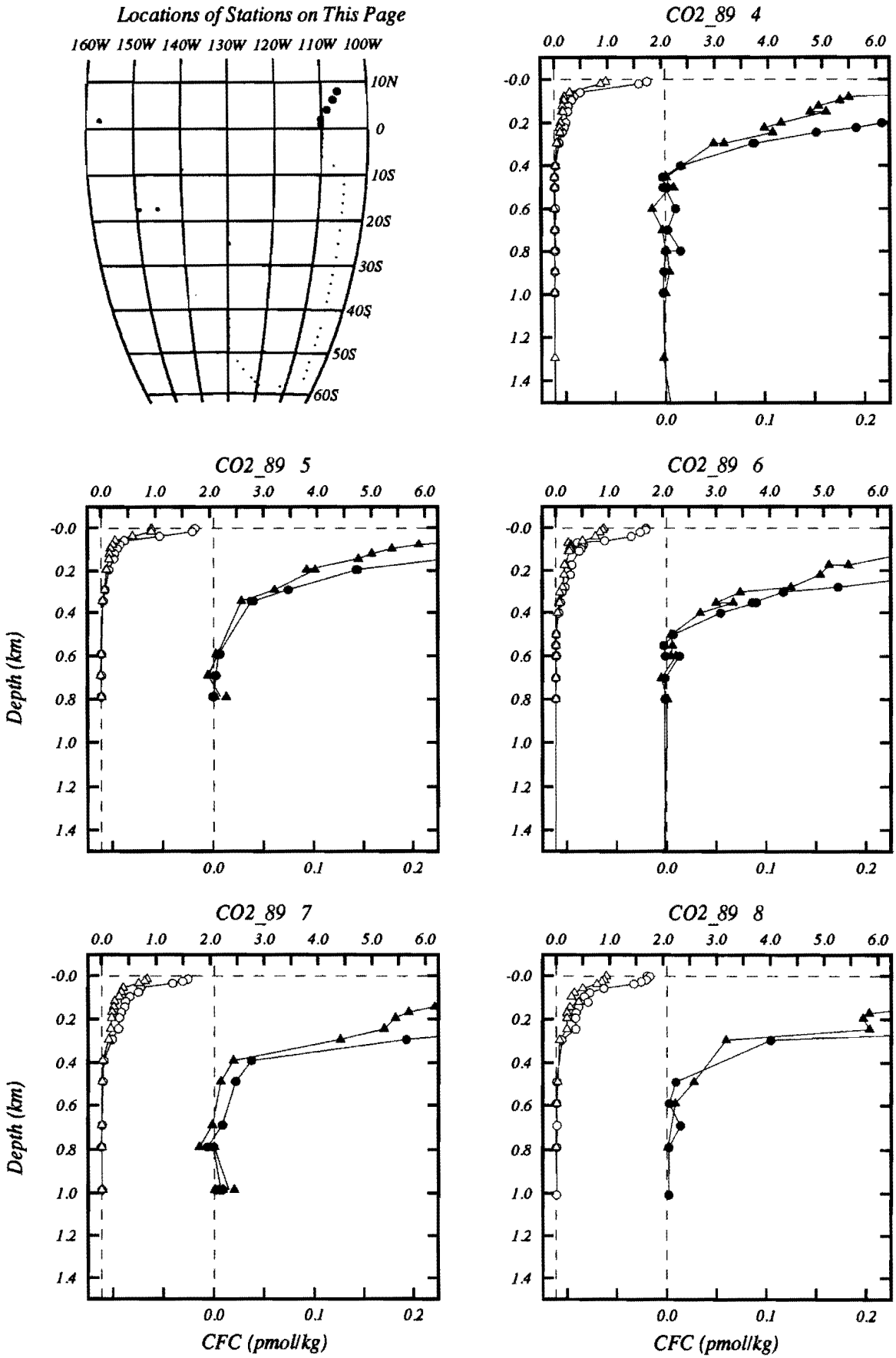
Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
47	27 Mar 89	41 59.4 S	129 59.1 W	4970	244.5	444.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7728	4	4	15.911	34.236	25.181	250	2.681	1.342	1.02	1.02	1.03	2.00	1000
7718	9	9	15.914	34.235	25.180	247	-9.000	-9.000	1.01	-9.00	-9.00	-9.00	1000
7712	19	19	15.912	34.238	25.182	250	2.688	1.357	1.02	1.02	1.04	1.98	1000
7716	29	30	15.916	34.233	25.177	249	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
7726	29	30	15.916	34.235	25.179	249	2.694	1.334	1.02	1.02	1.02	2.02	1000
7711	39	39	15.844	34.248	25.205	259	2.893	1.409	1.06	1.09	1.08	2.05	1000
7720	60	60	14.598	34.252	25.483	267	3.369	1.645	1.06	1.20	1.19	2.05	1000
7714	98	98	11.844	34.317	26.089	268	3.269	1.570	1.01	1.01	1.00	2.08	1000
7705	123	123	10.978	34.275	26.215	270	3.175	1.534	1.00	0.93	0.94	2.07	1000
7710	147	148	10.254	34.262	26.333	266	3.464	1.646	0.97	0.98	0.98	2.10	1000
7725	195	197	9.312	34.287	26.510	264	3.475	1.639	0.94	0.93	0.93	2.12	1000
7715	296	298	7.624	34.417	26.872	249	2.739	1.294	0.86	0.67	0.67	2.12	1000
7729	394	397	7.064	34.396	26.934	264	-9.000	-9.000	0.90	-9.00	-9.00	-9.00	1030
7719	492	496	6.916	34.395	26.954	256	2.466	1.166	0.87	0.58	0.59	2.12	1000
7708	592	597	6.642	34.376	26.976	260	2.297	1.091	0.87	0.53	0.54	2.11	1000
7730	690	696	6.230	34.341	27.003	250	1.690	0.800	0.83	0.38	0.39	2.11	1000
7707	790	797	5.830	34.317	27.035	243	1.341	0.647	0.80	0.30	0.31	2.07	1000
7722	890	898	5.327	34.305	27.086	229	0.926	0.445	0.74	0.20	0.21	2.08	1000
7701	986	995	4.778	34.314	27.157	214	0.568	0.279	0.69	0.12	0.13	2.04	1000
7724	1281	1294	3.318	34.382	27.362	191	0.190	0.098	0.59	0.04	0.04	1.94	1000
7706	1578	1594	2.616	34.517	27.534	171	0.018	0.011	0.52	-9.00	-9.00	-9.00	1000
7727	1870	1892	2.279	34.612	27.638	163	0.000	-0.001	0.49	-9.00	-9.00	-9.00	1000
7723	2069	2094	2.087	34.644	27.680	162	-0.003	-0.002	0.49	-9.00	-9.00	-9.00	1000
7704	2469	2501	1.763	34.666	27.723	163	0.000	-0.001	0.49	-9.00	-9.00	-9.00	1000

CO2-89 Bottle Data

Station	Date	Latitude	Longitude	Bottom Depth	Atmos. F-11	Atmos. F-12
48	27 Mar 89	40 00.0 S	129 59.6 W	4830	244.5	444.8

SAMP NO.	DEPTH M	PRESS DB	POT T DEG C	SAL 0/00	SIGMA 0	O2 uM/kg	F11 pM/kg	F12 pM/kg	O2 Sat.	F-11 Sat.	F-12 Sat.	F11/F12 RATIO	Flag
7806	5	5	16.856	34.253	24.976	246	2.567	1.262	1.02	1.02	1.01	2.03	1000
7827	11	11	16.855	34.252	24.975	244	2.574	1.381	1.02	1.02	1.11	1.86	1000
7823	22	22	16.859	34.252	24.974	244	2.580	1.398	1.02	1.02	1.12	1.84	1000
7804	28	28	16.850	34.249	24.974	245	2.612	1.320	1.02	1.04	1.06	1.98	1000
7818	37	37	16.851	34.255	24.979	244	2.580	1.355	1.01	1.02	1.08	1.90	1000
7828	38	39	16.851	34.251	24.976	244	-9.000	-9.000	1.02	-9.00	-9.00	-9.00	1000
7812	59	59	13.639	34.222	25.661	277	3.191	1.539	1.08	1.08	1.07	2.07	1000
7816	80	80	11.732	34.226	26.039	278	3.366	1.622	1.05	1.03	1.03	2.08	1000
7826	97	98	10.674	34.239	26.241	272	3.403	1.631	1.00	0.98	0.99	2.09	1000
7811	122	123	9.686	34.270	26.435	264	3.360	1.598	0.95	0.92	0.92	2.10	1000
7805	146	147	9.157	34.303	26.547	255	3.272	1.557	0.91	0.87	0.88	2.10	1000
7814	197	199	8.184	34.378	26.758	243	2.792	1.347	0.84	0.70	0.72	2.07	1000
7820	247	248	7.487	34.398	26.876	248	2.701	1.270	0.85	0.66	0.66	2.13	1000
7810	295	297	7.190	34.403	26.922	252	2.533	1.200	0.86	0.60	0.61	2.11	1000
7825	344	346	7.035	34.399	26.941	256	2.463	1.168	0.87	0.58	0.59	2.11	1000
7815	394	396	6.888	34.386	26.951	257	2.373	1.132	0.87	0.56	0.57	2.10	1000
7829	447	450	6.784	34.384	26.963	256	2.222	1.055	0.86	0.52	0.53	2.11	1000
7819	493	497	6.667	34.372	26.970	255	2.031	0.971	0.86	0.47	0.48	2.09	1000
7808	543	548	6.504	34.362	26.983	255	1.961	0.942	0.85	0.45	0.46	2.08	1000
7830	592	597	6.300	34.345	26.997	251	1.700	0.917	0.83	0.38	0.45	1.85	1000
7807	641	646	6.118	34.333	27.011	248	1.558	0.751	0.82	0.35	0.36	2.08	1000
7822	690	696	5.897	34.320	27.029	244	1.381	0.684	0.81	0.31	0.33	2.02	1000
7801	738	744	5.705	34.312	27.046	241	1.249	0.628	0.79	0.27	0.30	1.99	1000
7824	789	796	5.433	34.304	27.073	234	1.009	0.500	0.76	0.22	0.23	2.02	1000
7923	987	996	4.541	34.318	27.186	211	0.451	0.298	0.68	0.09	0.13	1.52	1000
7904	1085	1095	3.937	34.340	27.268	200	0.224	0.126	0.63	0.04	0.05	1.77	1000
7928	1189	1200	3.444	34.372	27.342	192	0.130	0.082	0.60	0.02	0.03	1.59	1000
7918	1283	1296	3.135	34.404	27.397	192	0.085	0.056	0.59	0.02	0.02	1.51	1000
7912	1581	1598	2.520	34.546	27.565	175	0.047	0.032	0.53	0.01	0.01	1.50	1100
7916	1724	1744	2.352	34.578	27.605	169	0.013	0.010	0.51	-9.00	-9.00	-9.00	1100
7926	1875	1896	2.189	34.629	27.659	167	0.007	0.018	0.50	-9.00	-9.00	-9.00	1000
7905	2065	2090	2.003	34.651	27.692	157	0.017	-9.000	0.47	-9.00	-9.00	-9.00	1020
7911	2065	2090	2.003	34.650	27.691	160	0.014	-9.000	0.48	-9.00	-9.00	-9.00	1020
7914	2465	2498	1.698	34.670	27.731	159	0.009	0.019	0.48	-9.00	-9.00	-9.00	1000
7920	2465	2498	1.698	34.669	27.730	156	0.000	0.007	0.47	-9.00	-9.00	-9.00	1000
7910	2858	2898	1.494	34.683	27.756	156	0.001	-0.002	0.46	-9.00	-9.00	-9.00	1000
7925	3054	3098	1.403	34.687	27.766	163	0.000	-0.003	0.48	-9.00	-9.00	-9.00	1000
7915	3347	3398	1.272	34.691	27.778	169	-0.001	0.004	0.50	-9.00	-9.00	-9.00	1000
7929	3347	3398	1.272	34.691	27.778	174	0.000	0.002	0.51	-9.00	-9.00	-9.00	1000
7919	3641	3699	1.167	34.700	27.793	183	0.000	-0.002	0.54	-9.00	-9.00	-9.00	1000
7908	3641	3699	1.167	34.700	27.793	182	0.000	-0.002	0.54	-9.00	-9.00	-9.00	1000
7930	4227	4301	0.955	34.710	27.815	193	0.006	0.015	0.57	-9.00	-9.00	-9.00	1000
7907	4520	4601	0.884	34.712	27.822	198	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1030
7901	4782	4872	0.865	34.713	27.824	197	-9.000	-9.000	0.58	-9.00	-9.00	-9.00	1030
7924	4782	4872	0.865	34.713	27.824	186	-0.001	0.008	0.54	-9.00	-9.00	-9.00	1000
7922	4782	4872	0.865	34.713	27.824	202	0.001	0.002	0.59	-9.00	-9.00	-9.00	1000


Locations of Stations on This Page
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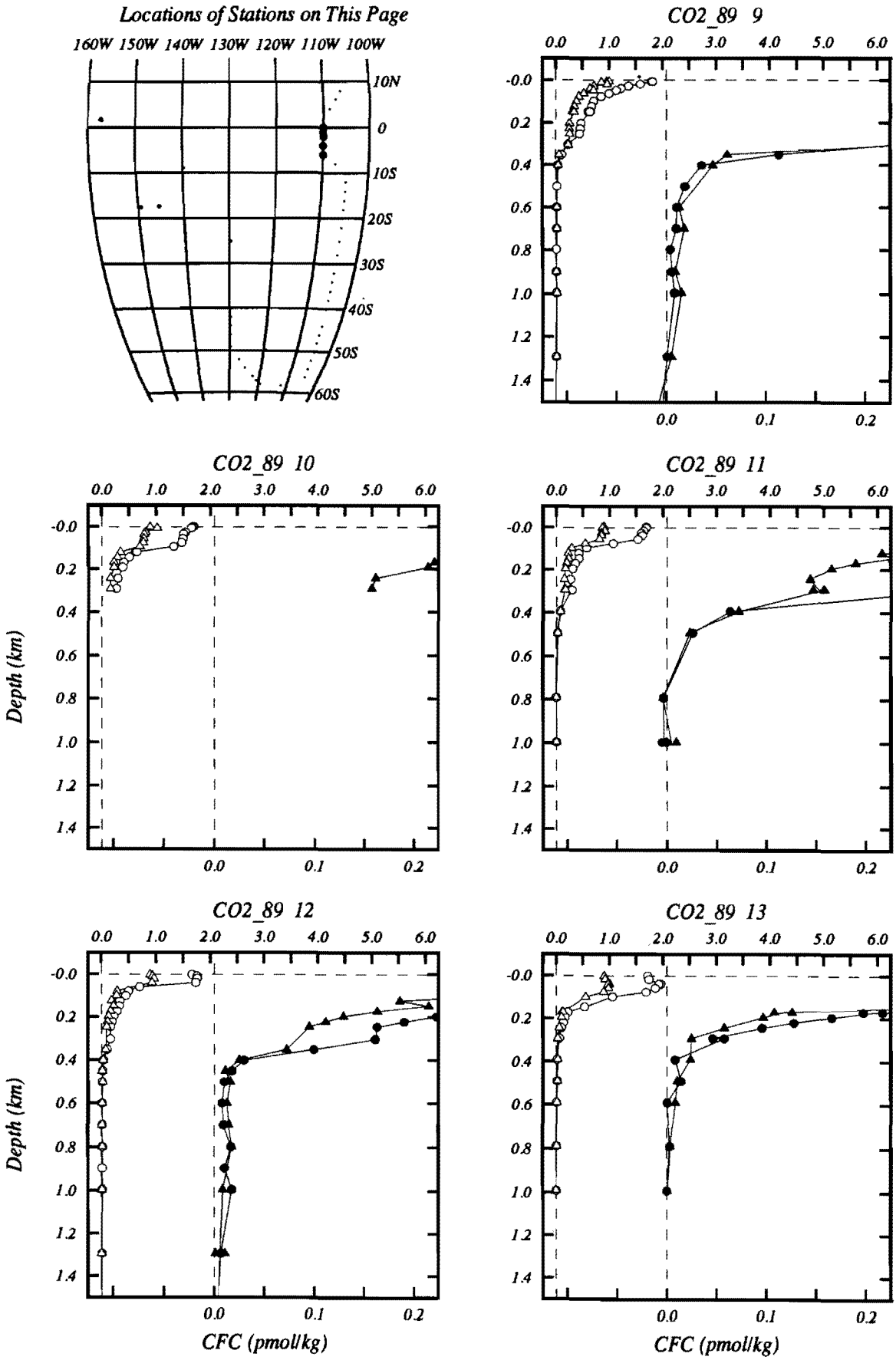
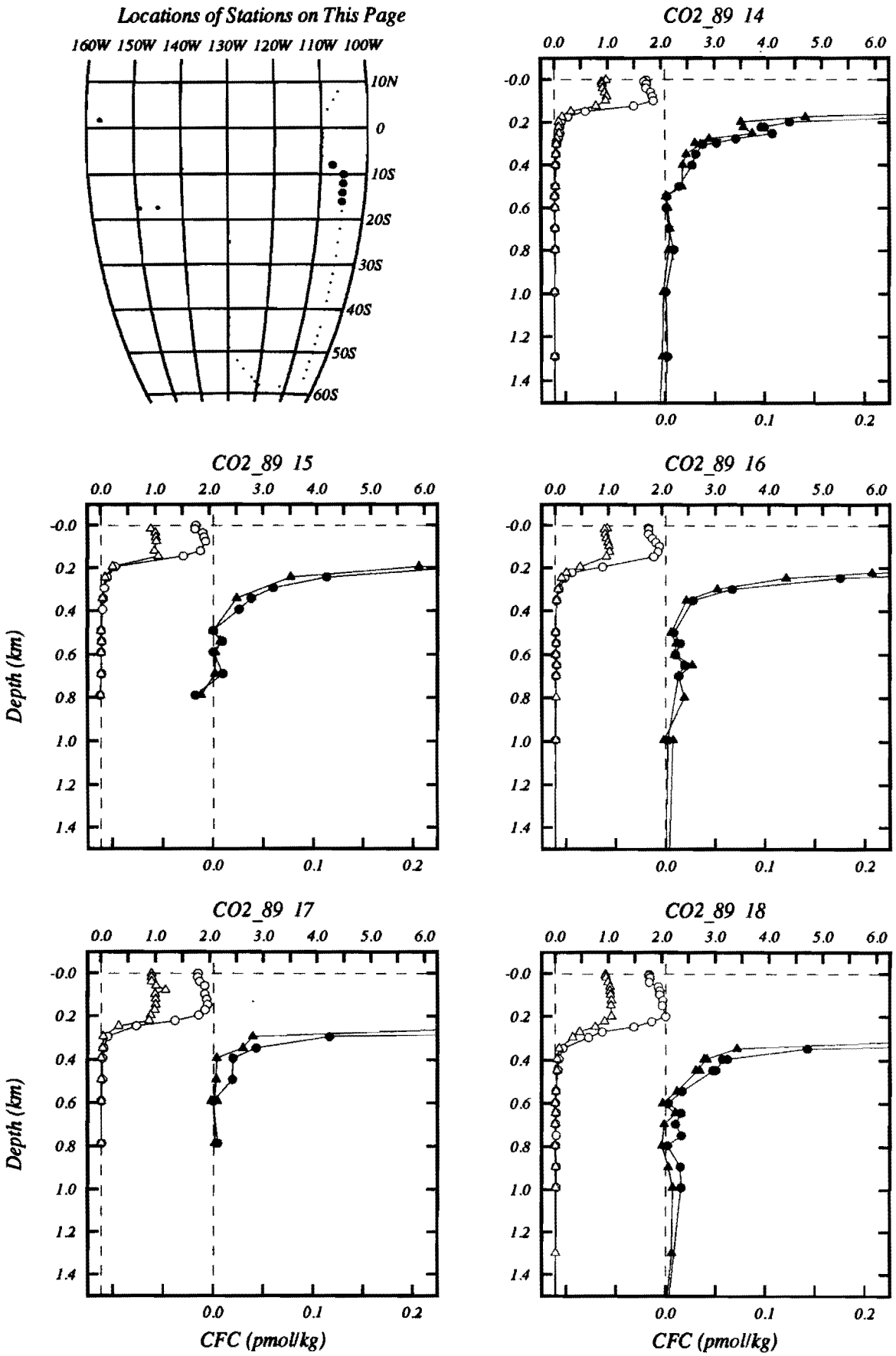
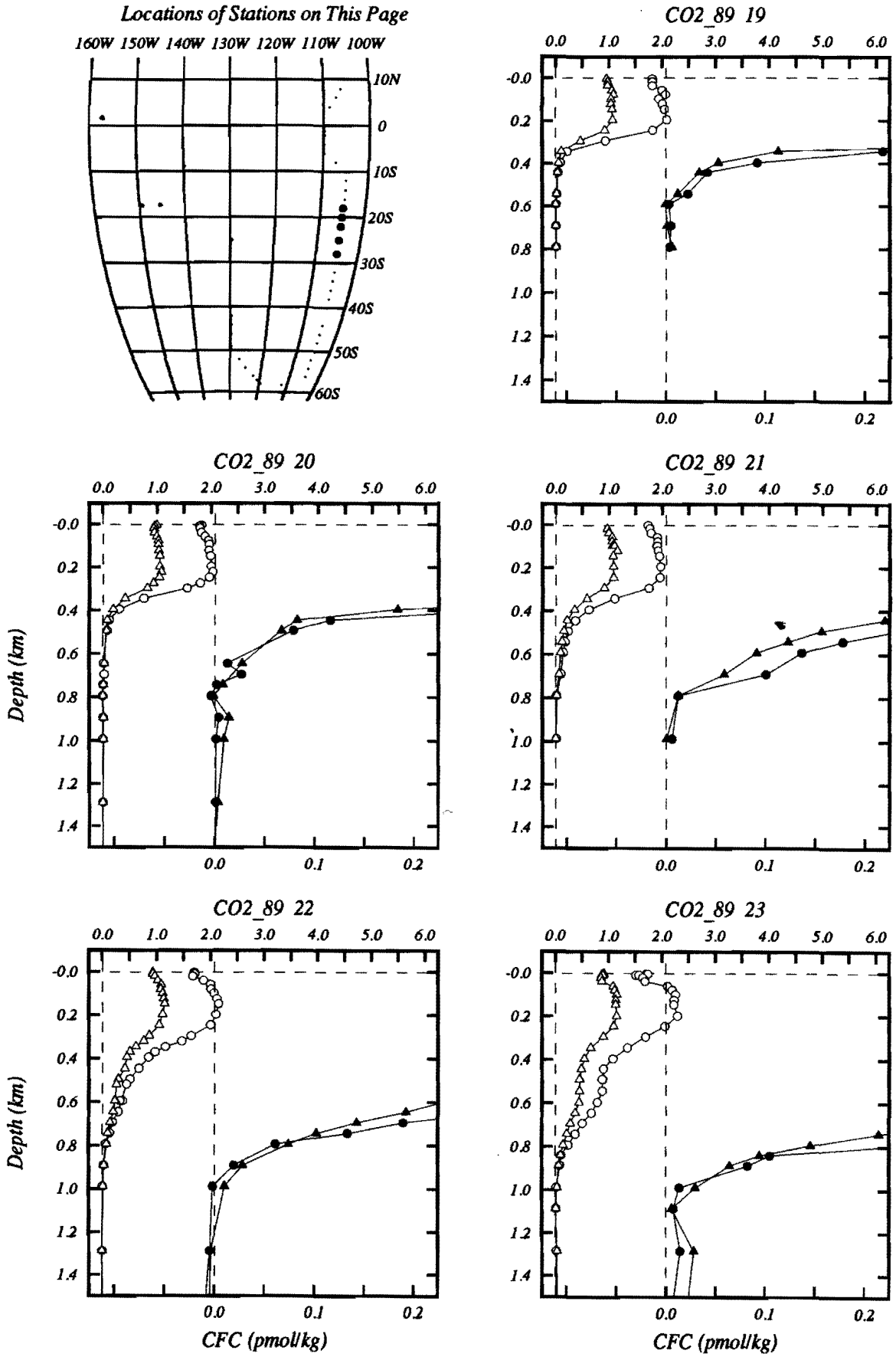
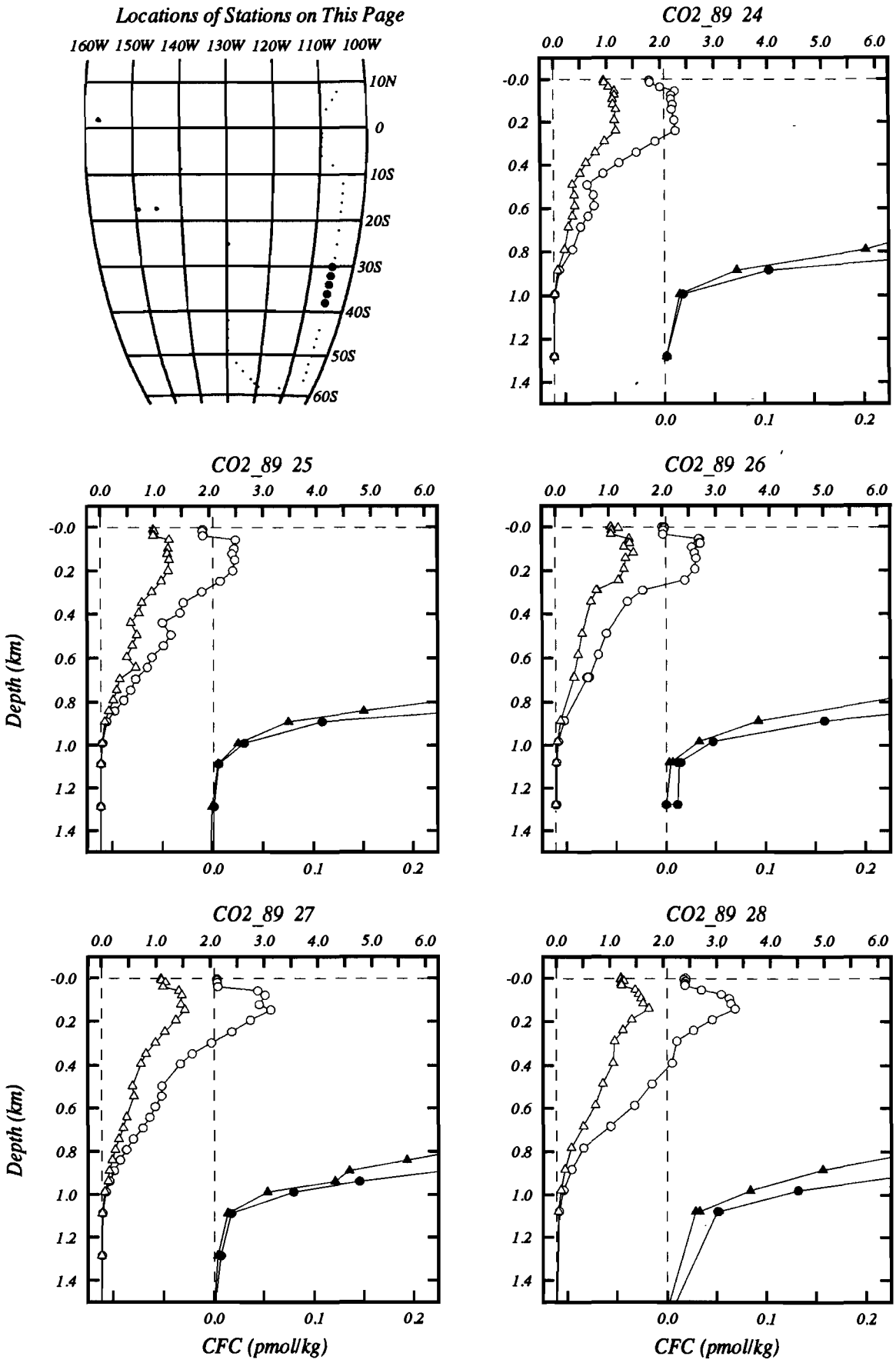
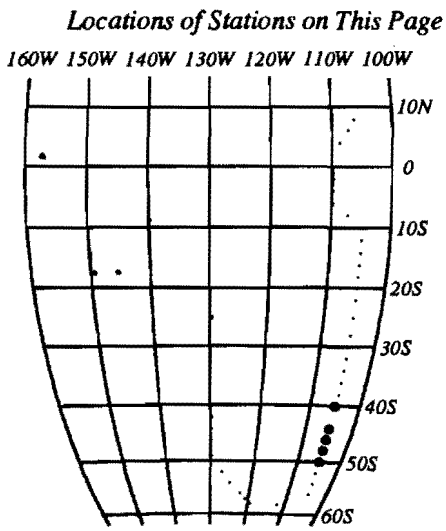
10N
0
10S
20S
30S
40S
50S
60S
CO2_89 4
CO2_89 5
CO2_89 6
CO2_89 7
CO2_89 8
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
Depth (km)
0.0 0.1 0.2
CFC (pmol/kg)

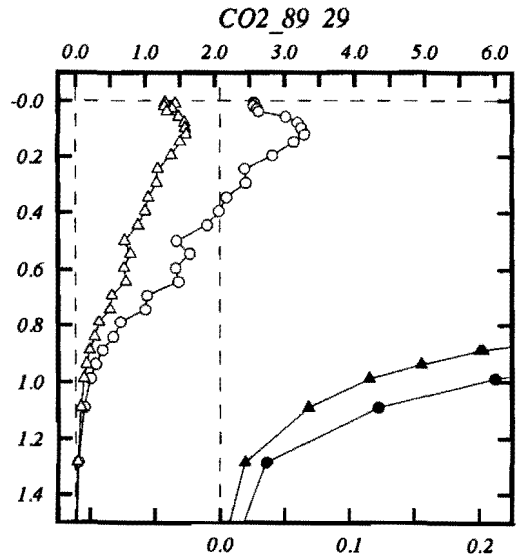

Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S
CO2_89 9
CO2_89 10
CO2_89 11
CO2_89 12
CO2_89 13
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
0.0 0.1 0.2
Depth (km)
CFC (pmol/kg)


Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S
CO2_89 14
CO2_89 15
CO2_89 16
CO2_89 17
CO2_89 18
Depth (km)
CFC (pmol/kg)


Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S
CO2_89 19
CO2_89 20
CO2_89 21
CO2_89 22
CO2_89 23
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
Depth (km)
0.0 0.1 0.2
CFC (pmol/kg)


Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S
CO2_89 24
CO2_89 25
CO2_89 26
CO2_89 27
CO2_89 28
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
Depth (km)
0.0 0.1 0.2
CFC (pmol/kg)


Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S


CO2_89 29
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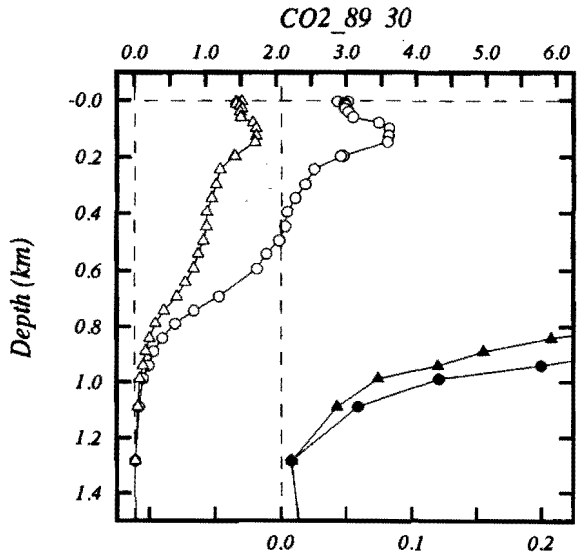
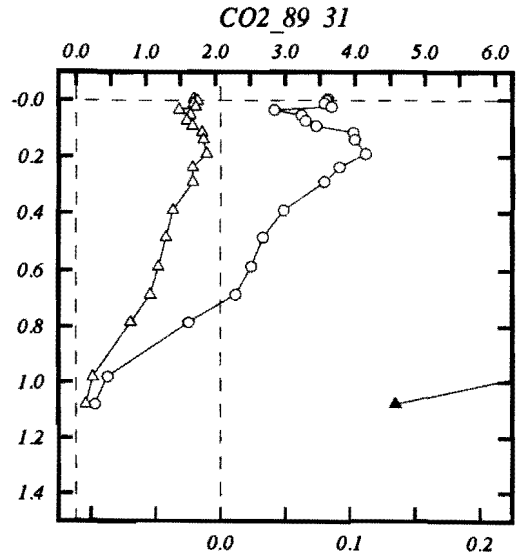
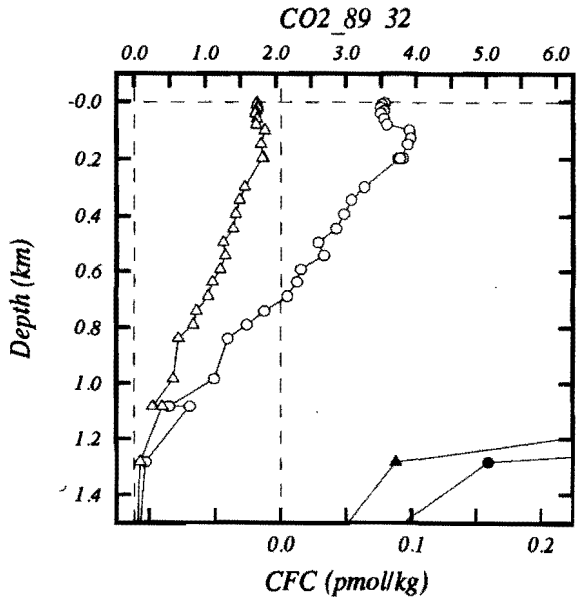
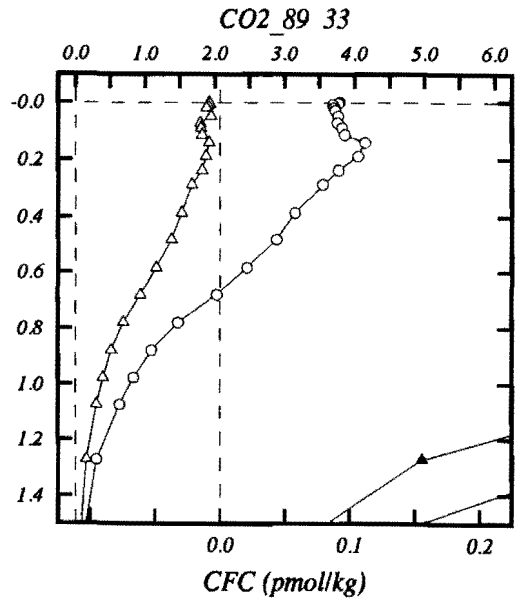
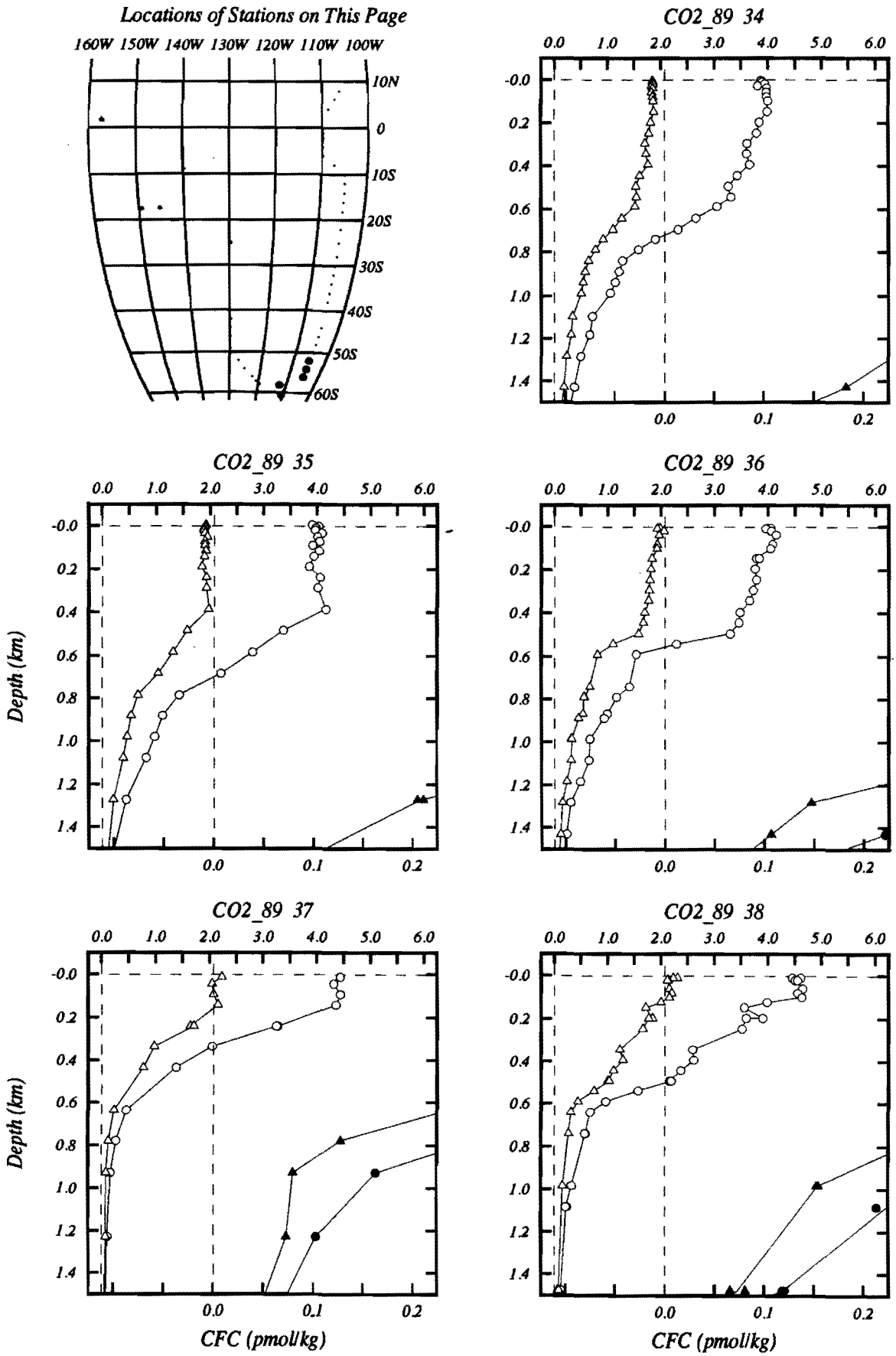
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
0.0 0.1 0.2

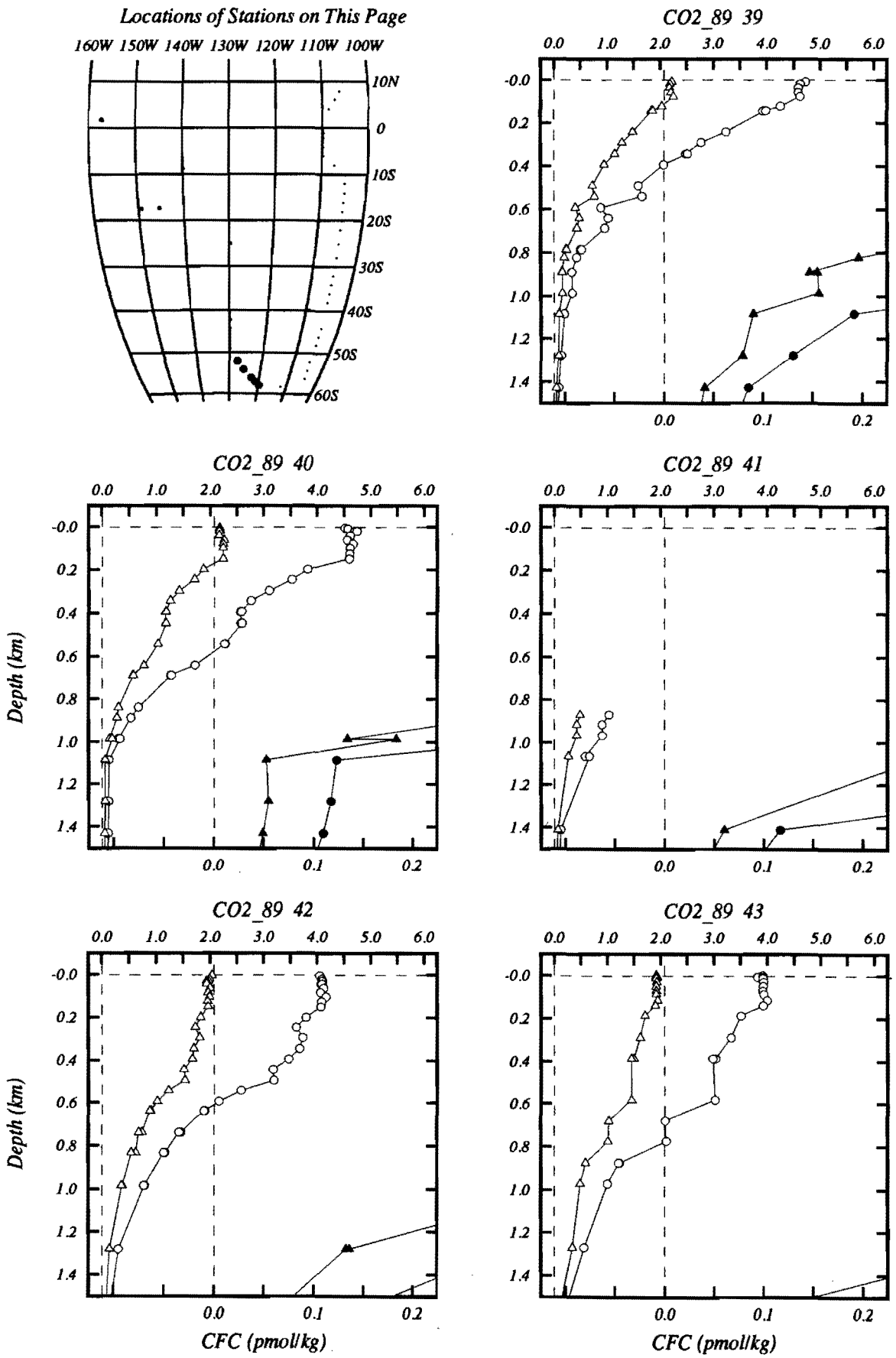

CO2_89 30
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
Depth (km)
0.0 0.1 0.2

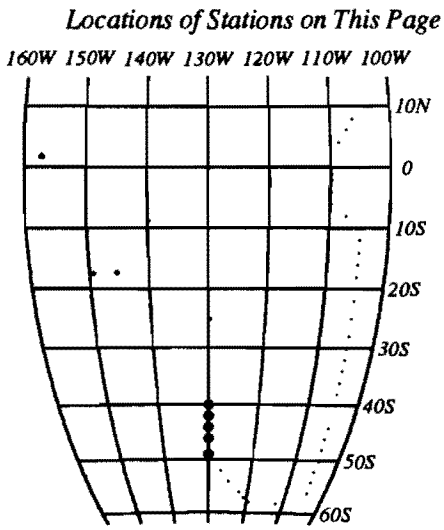

CO2_89 31
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
0.0 0.1 0.2

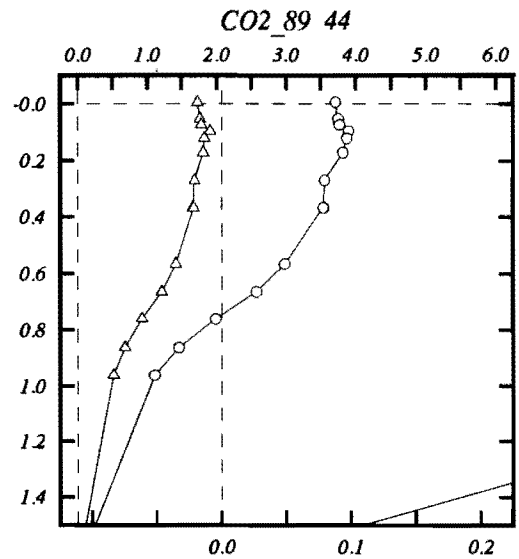

CO2_89 32
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
Depth (km)
0.0 0.1 0.2
CFC (pmol/kg)

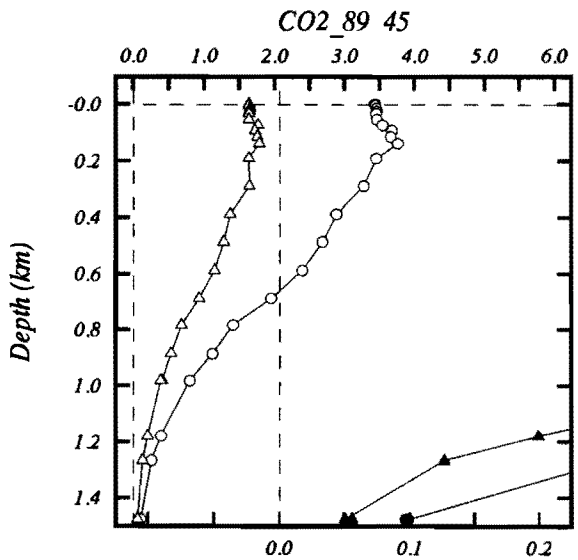

CO2_89 33
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
0.0 0.1 0.2
CFC (pmol/kg)

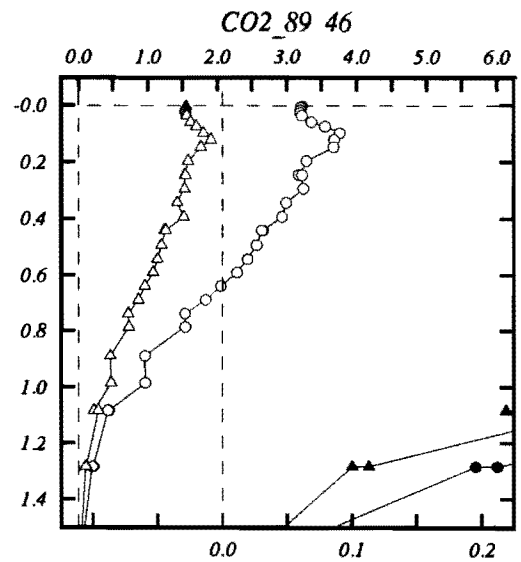

Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S
CO2_89 34
CO2_89 35
CO2_89 36
CO2_89 37
CO2_89 38
Depth (km)
CFC (pmol/kg)

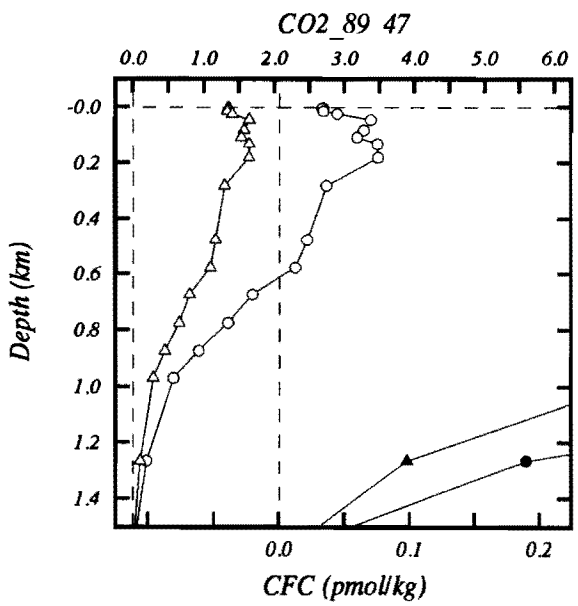

Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S
CO2_89 39
CO2_89 40
CO2_89 41
CO2_89 42
CO2_89 43
Depth (km)
CFC (pmol/kg)

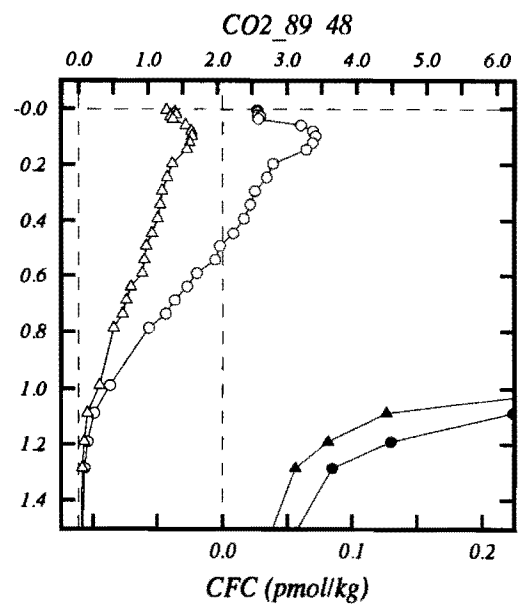

Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S

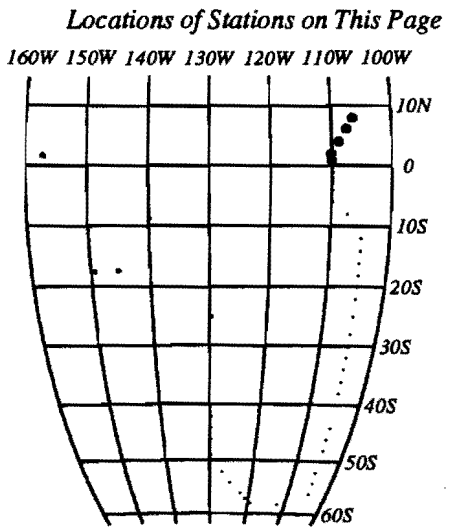

CO2_89 44
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
0.0 0.1 0.2

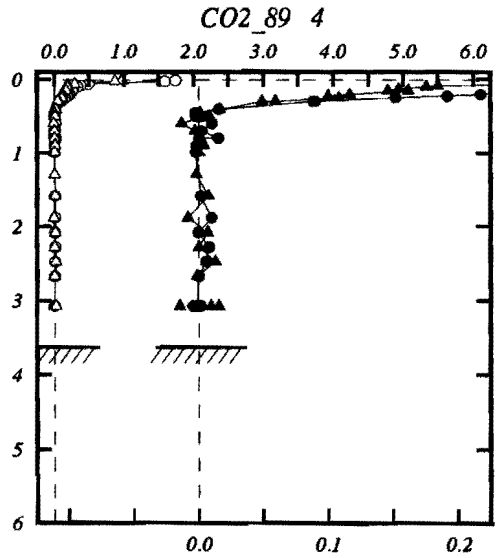

CO2_89 45
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
Depth (km)
0.0 0.1 0.2

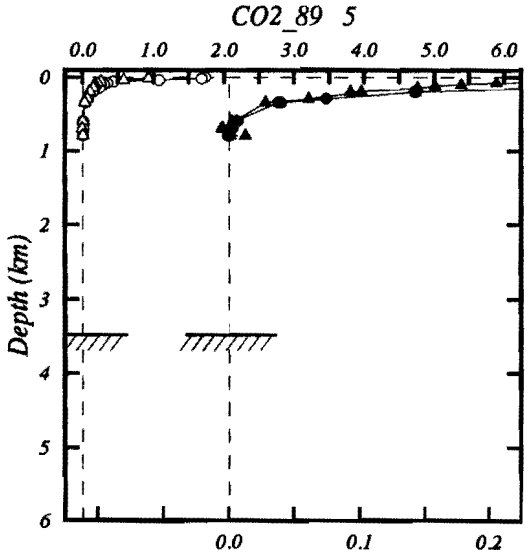

CO2_89 46
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
0.0 0.1 0.2

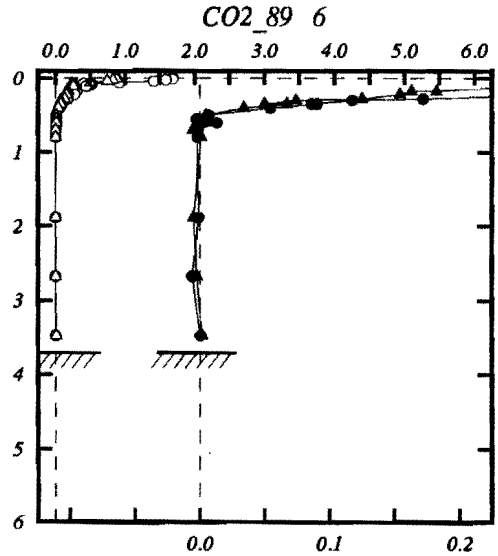

CO2_89 47
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
Depth (km)
0.0 0.1 0.2
CFC (pmol/kg)


CO2_89 48
0.0 1.0 2.0 3.0 4.0 5.0 6.0
-0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4
0.0 0.1 0.2
CFC (pmol/kg)


Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S


CO2_89 4
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
0.0 0.1 0.2


CO2_89 5
0.0 1.0 2.0 3.0 4.0 5.0 6.0
Depth (km)
0 1 2 3 4 5 6
0.0 0.1 0.2


CO2_89 6
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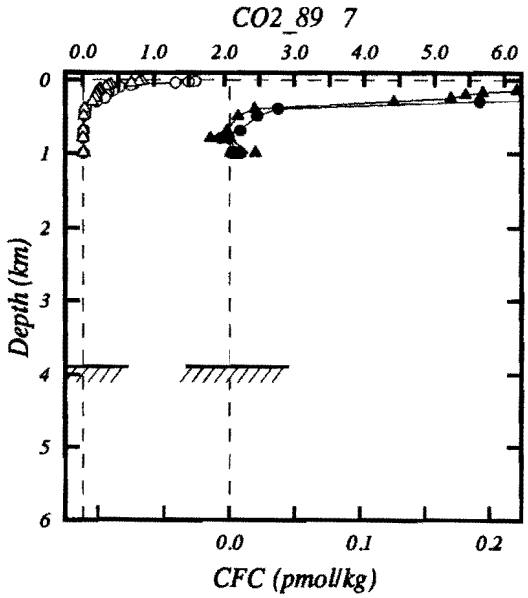
0 1 2 3 4 5 6
0.0 0.1 0.2


CO2_89 7
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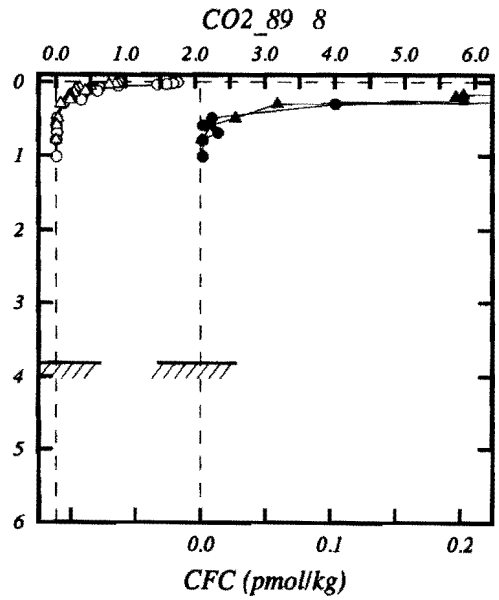
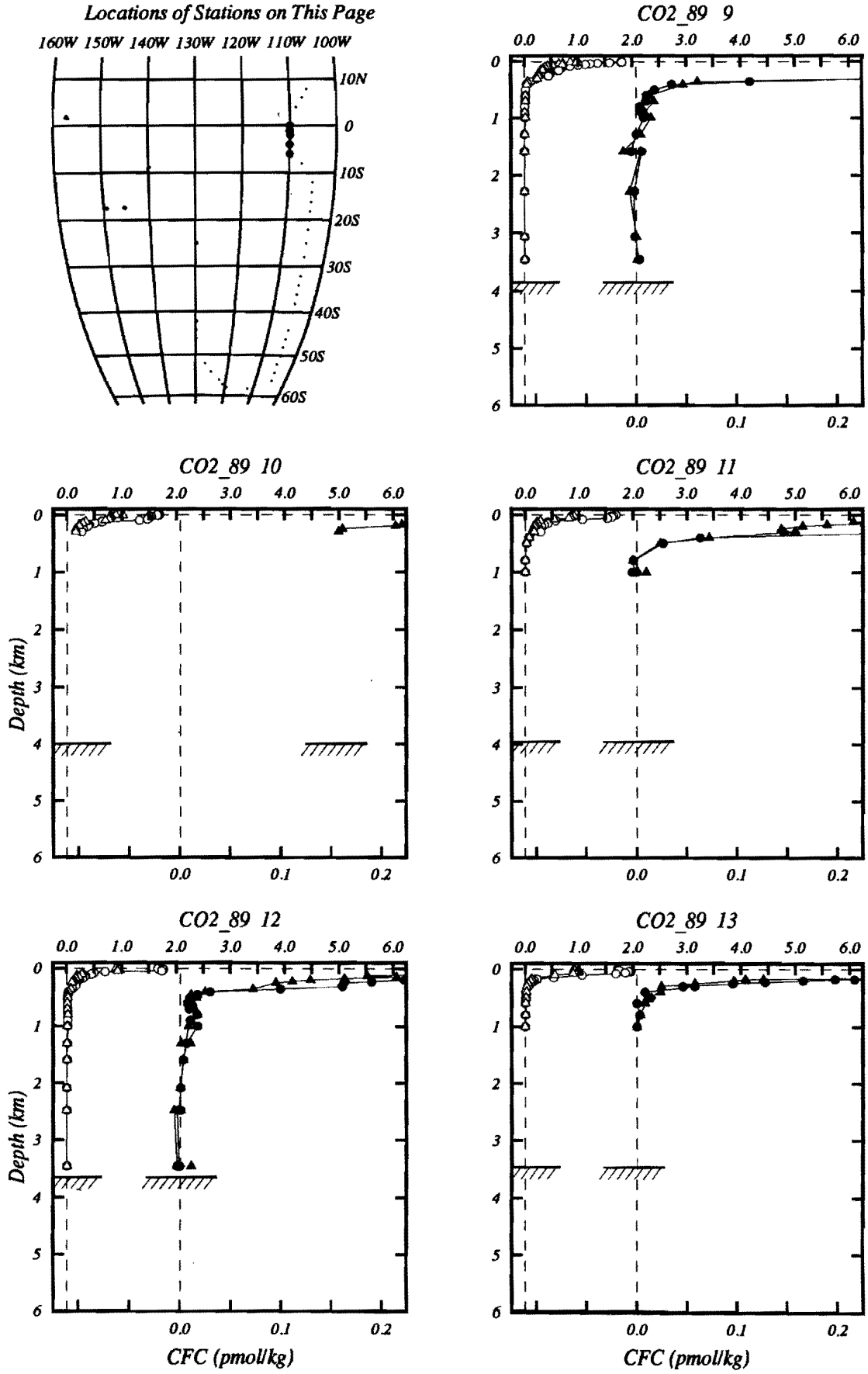
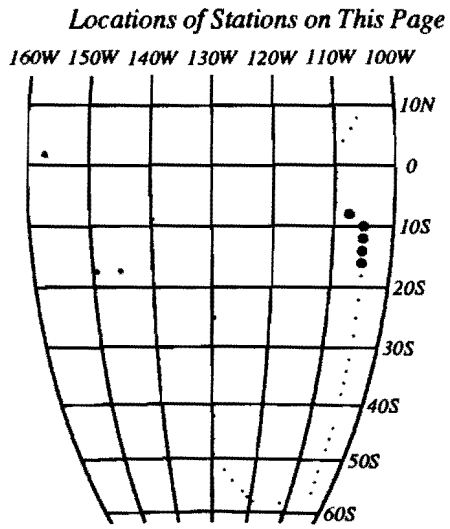
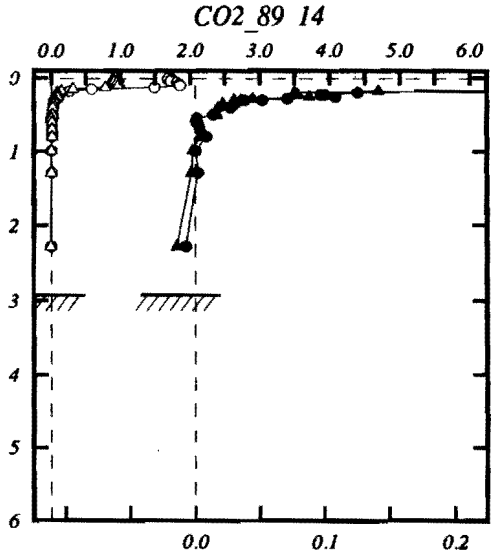
Depth (km)
0 1 2 3 4 5 6
0.0 0.1 0.2
CFC (pmol/kg)


CO2_89 8
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
0.0 0.1 0.2
CFC (pmol/kg)

Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S


CO2_89 9
CO2_89 10
CO2_89 11
CO2_89 12
CO2_89 13
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
Depth (km)
0.0 0.1 0.2
CFC (pmol/kg)


Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S


CO2_89 14
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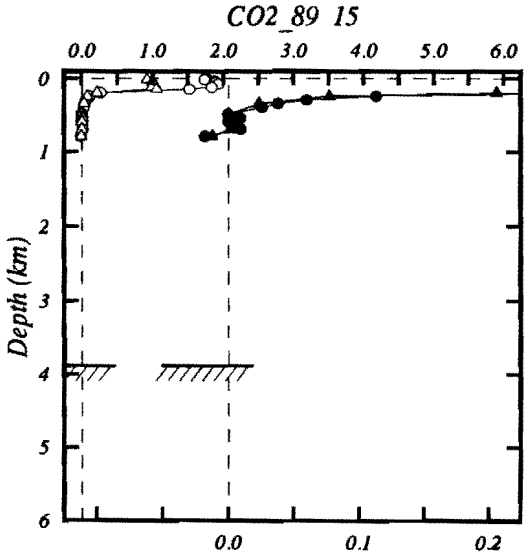
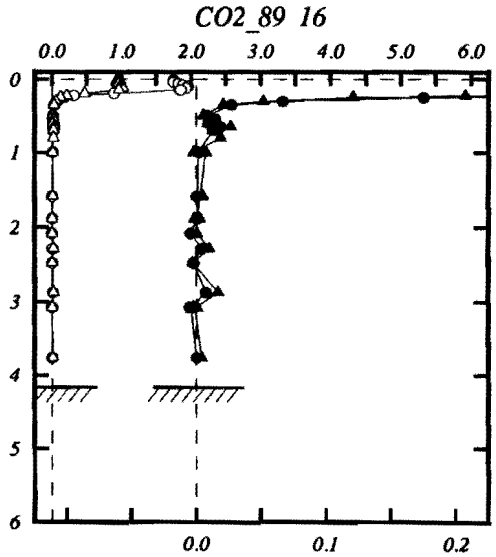
0 1 2 3 4 5 6
0.0 0.1 0.2


CO2_89 15
0.0 1.0 2.0 3.0 4.0 5.0 6.0
Depth (km)
0 1 2 3 4 5 6
0.0 0.1 0.2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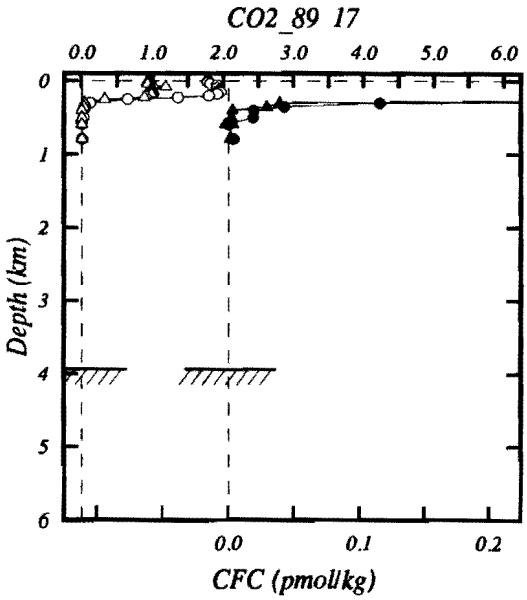
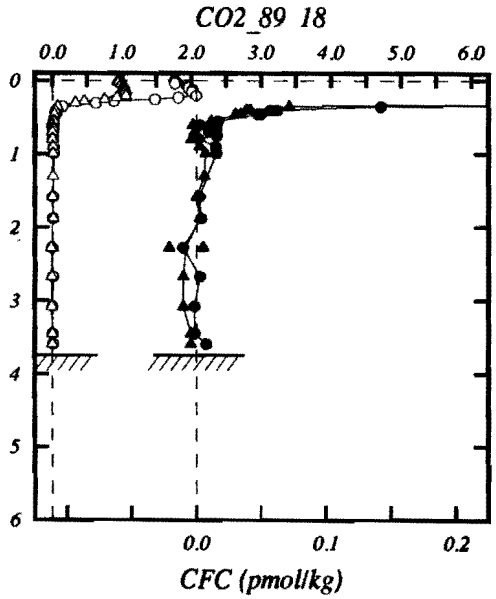
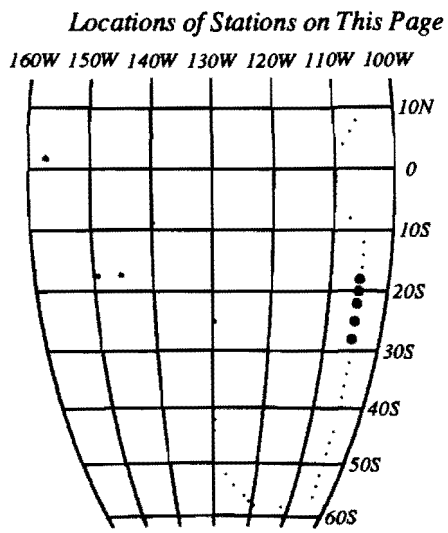
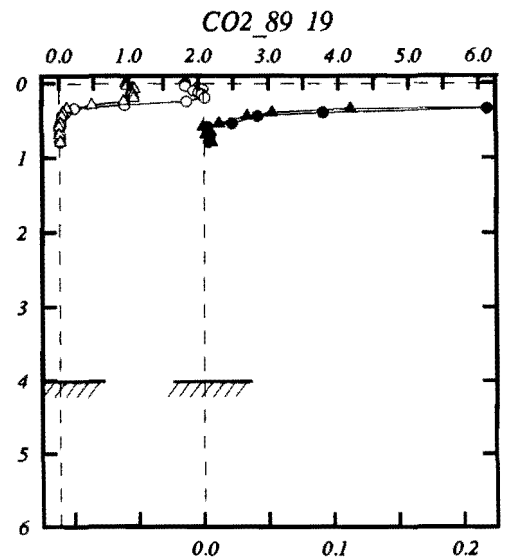
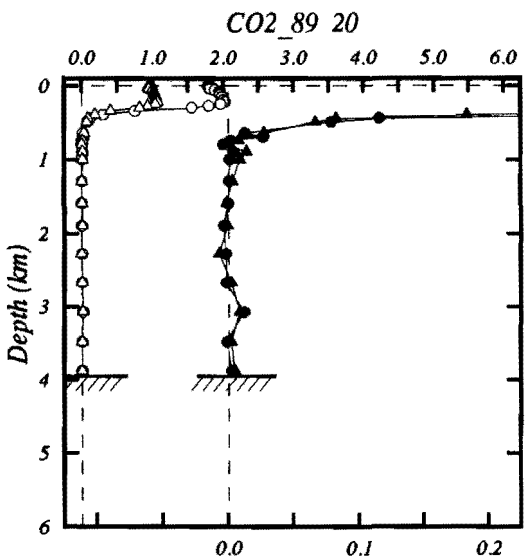
0 1 2 3 4 5 6
0.0 0.1 0.2

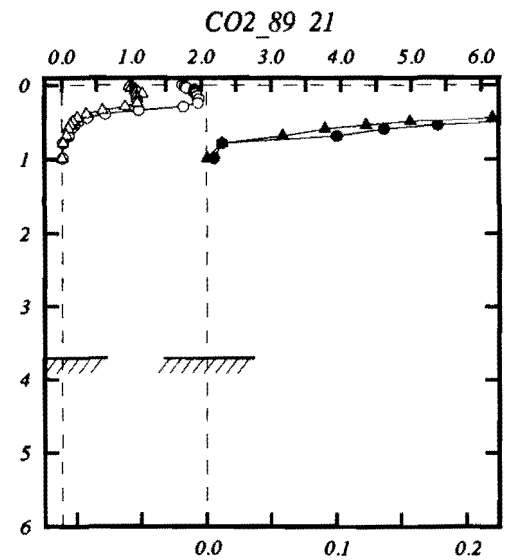

CO2_89 17
0.0 1.0 2.0 3.0 4.0 5.0 6.0
Depth (km)
0 1 2 3 4 5 6
0.0 0.1 0.2
CFC (pmol/kg)

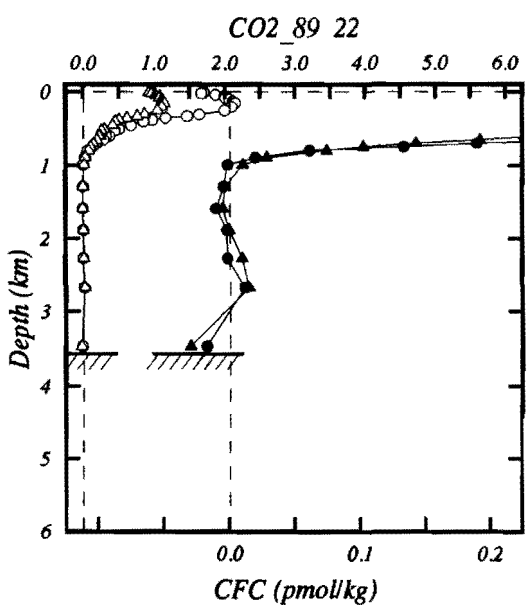

CO2_89 18
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
0.0 0.1 0.2
CFC (pmol/kg)

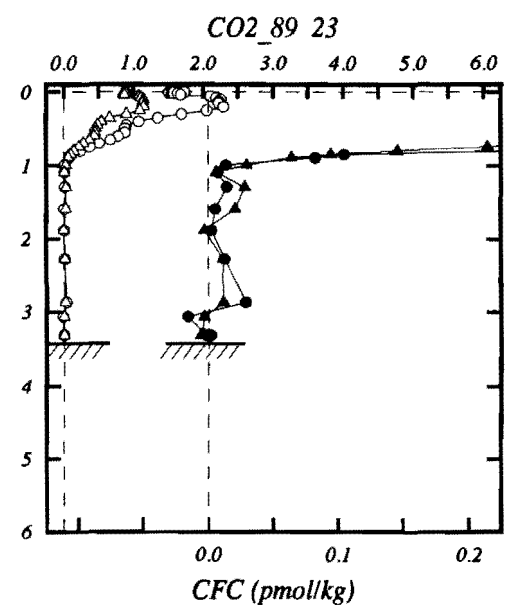

Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S

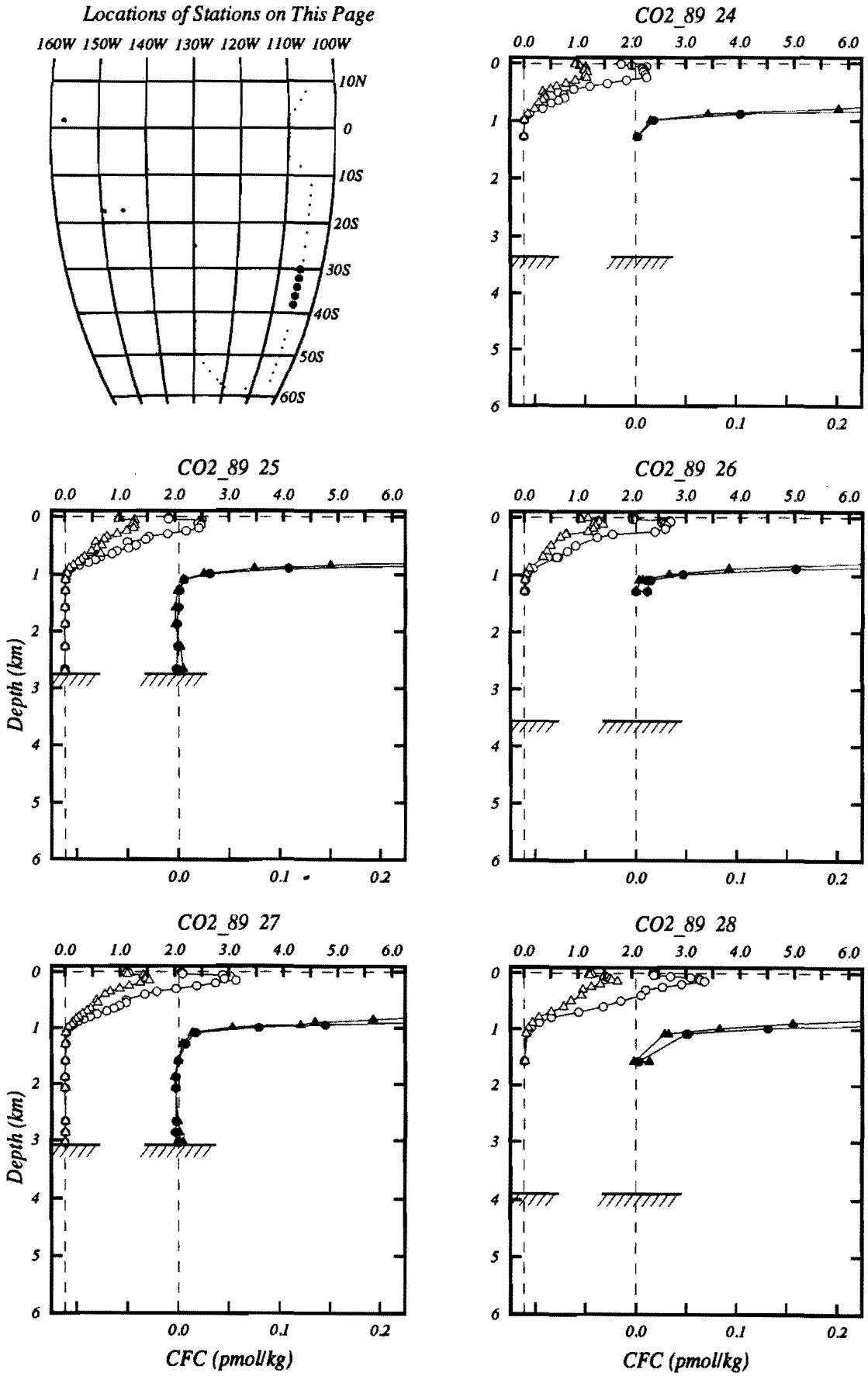

CO2_89 19
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
0.0 0.1 0.2

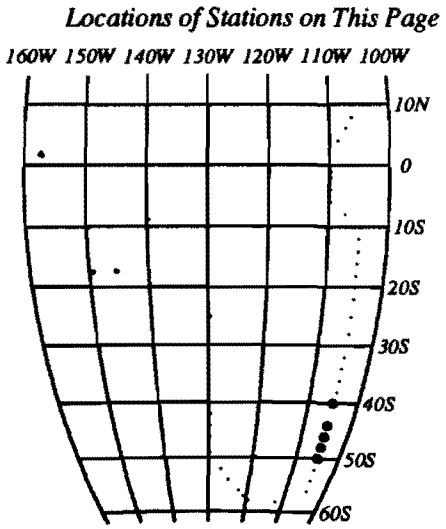

CO2_89 20
0.0 1.0 2.0 3.0 4.0 5.0 6.0
Depth (km)
0 1 2 3 4 5 6
0.0 0.1 0.2

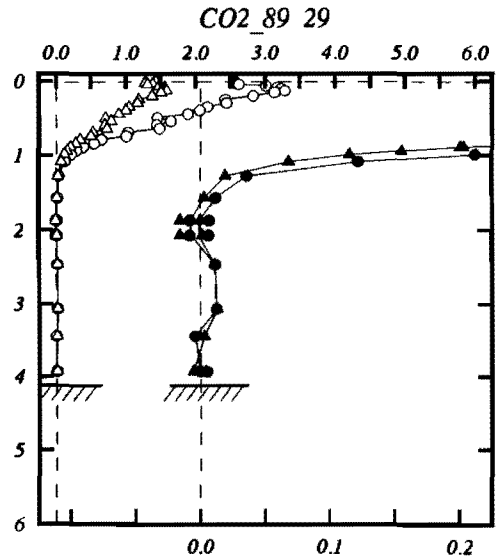

CO2_89 21
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
0.0 0.1 0.2

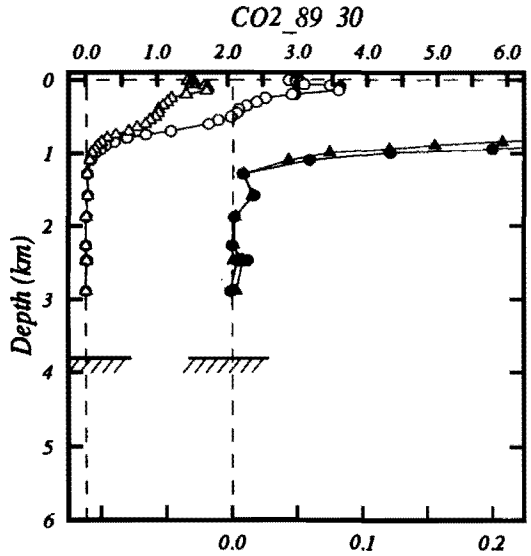

CO2_89 22
0.0 1.0 2.0 3.0 4.0 5.0 6.0
Depth (km)
0 1 2 3 4 5 6
0.0 0.1 0.2
CFC (pmol/kg)

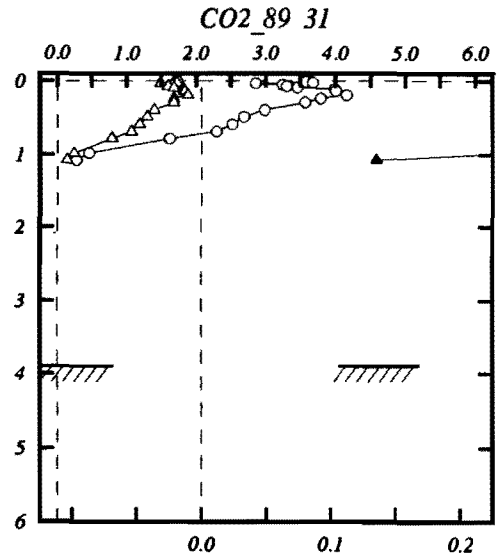

CO2_89 23
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
0.0 0.1 0.2
CFC (pmol/kg)


Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S
CO2_89 24
CO2_89 25
CO2_89 26
CO2_89 27
CO2_89 28
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
Depth (km)
0.0 0.1 0.2
CFC (pmol/kg)


Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S


CO2_89 29
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
0.0 0.1 0.2


CO2_89 30
0.0 1.0 2.0 3.0 4.0 5.0 6.0
Depth (km)
0 1 2 3 4 5 6
0.0 0.1 0.2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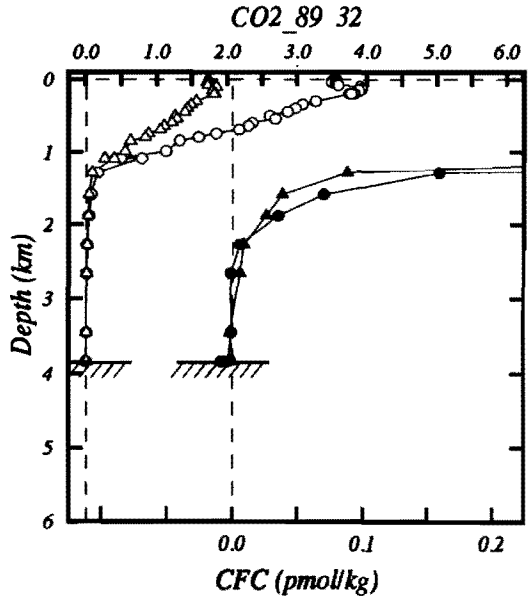
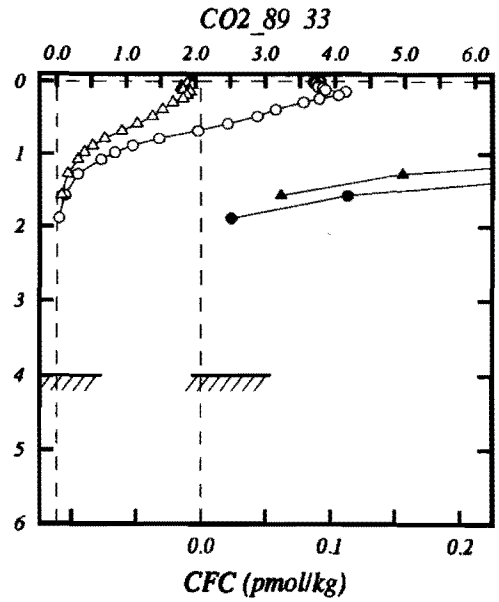
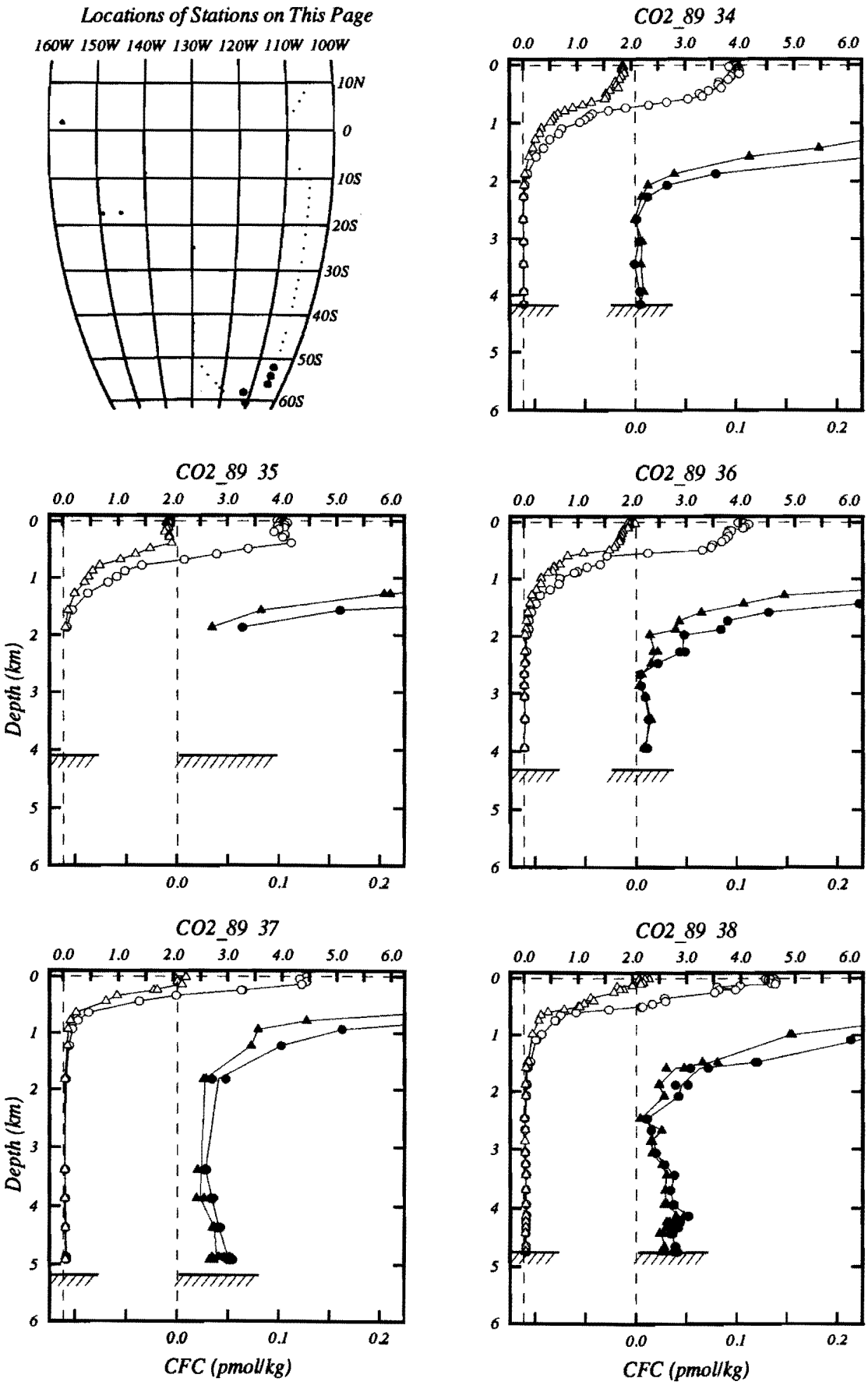
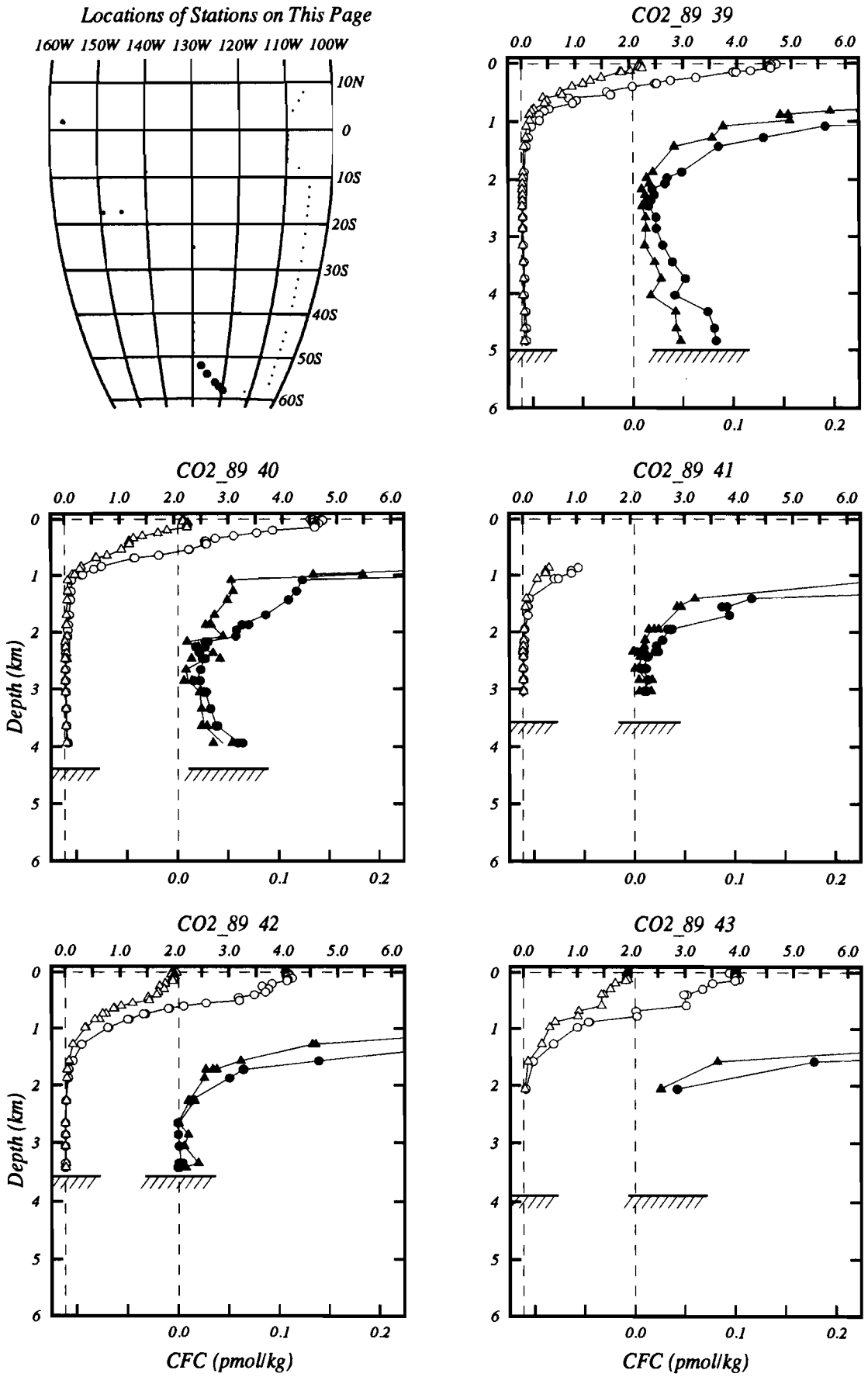
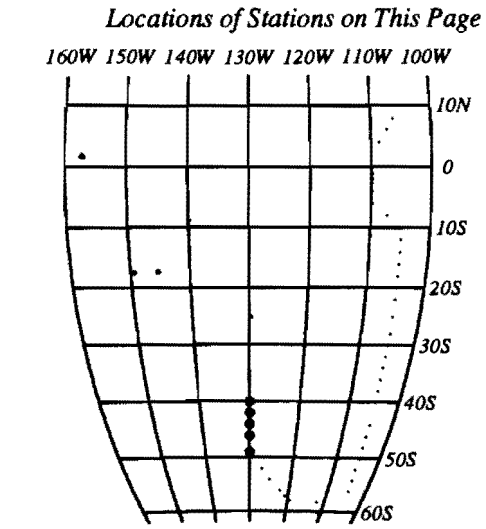
0 1 2 3 4 5 6
0.0 0.1 0.2

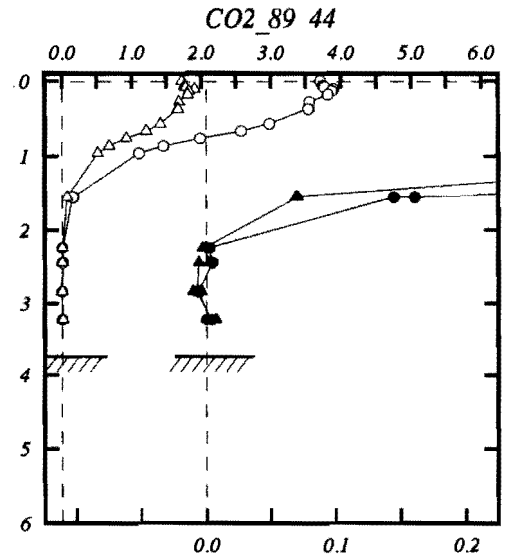

CO2_89 32
0.0 1.0 2.0 3.0 4.0 5.0 6.0
Depth (km)
0 1 2 3 4 5 6
0.0 0.1 0.2
CFC (pmol/kg)

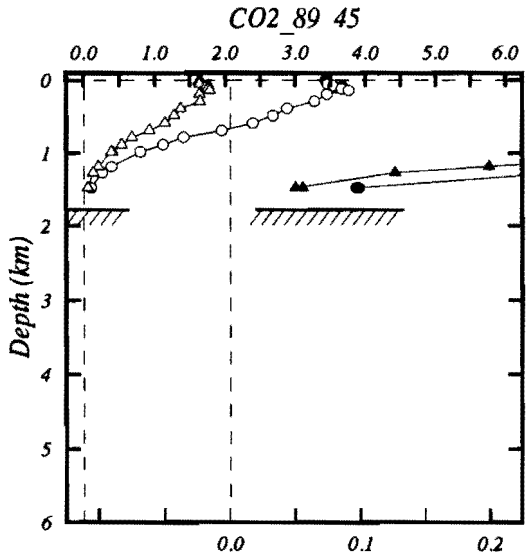

CO2_89 33
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
0.0 0.1 0.2
CFC (pmol/kg)

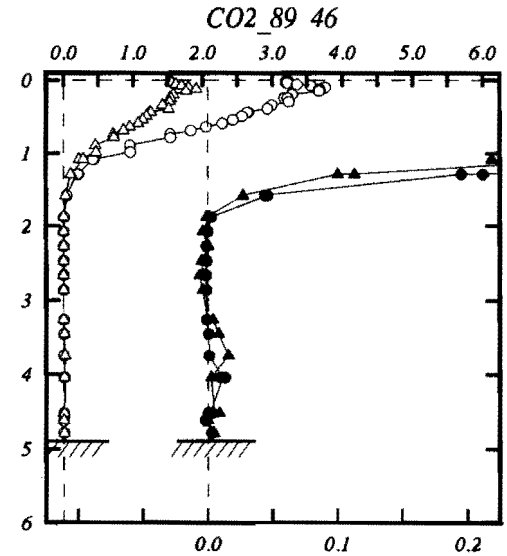

Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S
CO2_89 34
CO2_89 35
CO2_89 36
CO2_89 37
CO2_89 38
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
Depth (km)
0.0 0.1 0.2
CFC (pmol/kg)

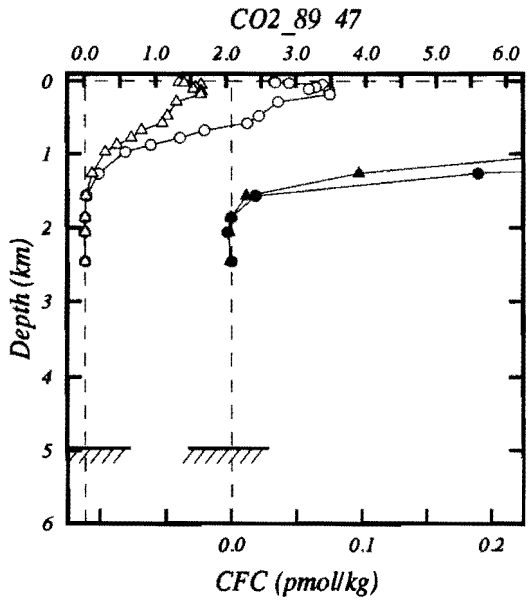

Locations of Stations on This Page
160W 150W 140W 130W 120W 110W 100W
10N
0
10S
20S
30S
40S
50S
60S
CO2_89 39
CO2_89 40
CO2_89 41
CO2_89 42
CO2_89 43
0.0 1.0 2.0 3.0 4.0 5.0 6.0
0 1 2 3 4 5 6
Depth (km)
0.0 0.1 0.2
CFC (pmol/kg)

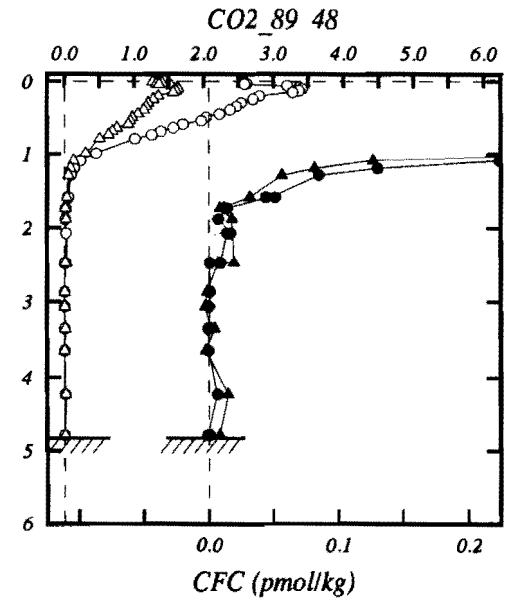












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