

U.S. DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY



HYDROGRAPHY OF THE NEW ENGLAND SHELF AND SLOPE:  
DATA REPORT FOR R/V OCEANUS CRUISE 130, NOVEMBER 1982  
by  
Bradford Butman<sup>1</sup>, John A. Moody<sup>1</sup>, and Sandra J. Conley<sup>1</sup>

Open-File Report 86-101

Prepared in cooperation with the  
U.S. Minerals Management Service  
under Interagency Agreement  
14-12-0001-30180

<sup>1</sup>Woods Hole, MA

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards. Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS or MMS.

<sup>1</sup>Woods Hole, MA

1986

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#### INTRODUCTION

This report presents in graphical and tabular form hydrographic data obtained on R/V OCEANUS cruise 130, conducted between November 9-16, 1982. The hydrographic measurements (temperature, salinity, oxygen, and light transmission) were obtained primarily across the continental slope and upper rise (~lat 40°30' N.) south of New England between long 67°30' W. and long 68°30' W. as part of a study of currents and sediment transport in this region. During R/V OCEANUS 130, a total of 75 hydrographic profiles were obtained, 33 by means of a conductivity-temperature-depth (CTD) profiler and 42 by means of expendable bathythermographs (XBT's). Stations are numbered sequentially; station information is tabulated in table 1. The stations were arranged in ten sections spread about 20 km apart running across the shelf break from approximately the 100-m to 2,500-m isobath (fig. 1). The sections are numbered chronologically. Seven sections (3-9) crossed the northern edge of the warm eddy 82-H located southwest of Lydonia Canyon (fig. 1a)

#### OBJECTIVES

The survey was designed to: 1) map the hydrography across the continental slope and upper rise in and adjacent to four major submarine canyons (Welker, Oceanographer, Gilbert, and Lydonia), and 2) provide hydrographic sections to aid in interpretation of currents measured by U.S.G.S. instrument arrays (see Butman, 1984 and fig. 1) located at the head of Lydonia Canyon (mooring no. 258, 259, and 264), on the slope adjacent to Atlantis Canyons (mooring no. 270) and across the slope adjacent to Welker Canyon (mooring no. 267, 268 and 271) and to Lydonia Canyon (mooring no. 269). Sections 1, 2, 3, 9, and 10 were XBT sections with temperature only.

#### STATION PROCEDURES

At each XBT station, surface salinity and nutrient samples were obtained using a bucket sampler, and an XBT was released while the ship was underway. At each CTD, station the ship was stopped and a surface water sample was obtained using a bucket sampler for analysis of salinity and nutrients. All nutrient samples were immediately frozen for analysis on shore. The CTD was lowered and held at the surface while a 5-L Niskin bottle was attached 4 m above the top of the CTD unit and CTD surface readings, latitude, longitude and water depth were recorded in a log. The CTD was then lowered at approximately 30 m/min and stopped approximately 5 m above bottom to record the deepest readings and to send a messenger to close the Niskin bottle. After the Niskin bottle was closed and its depth recorded (approximate accuracy  $\pm 2$  m), the CTD was raised at approximately 50 m/min and stopped at the surface. The Niskin bottle was removed and 1 water sample was collected for analysis of salinity, 1 sample for nutrients, 1-3 samples for measurement



of oxygen, and 1 sample for determination of suspended-matter concentration. These bottle samples were not obtained at all stations because of bottle malfunctions and bad weather. Deep samples of nutrients were obtained at 21 stations, suspended matter at 17 stations, oxygen at 10 stations, and salinity at 11 stations.

Analysis of nutrients ( $\text{PO}_4$ ,  $\text{SiO}_4$ ,  $\text{NO}_3$ ,  $\text{NO}_2$ ,  $\text{NH}_3$ ) for surface water samples and for the 21 bottle samples were performed later by Z. Mlodzinska-Kijowski at the Woods Hole Oceanographic Institution (WHOI). Suspended-matter concentration was determined by filtering the seawater through paired  $0.45\ \mu\text{m}$  Millipore filters, air drying the filters, and weighing. The results are listed in tables 4 and 5. The oxygen and salinity samples were used as calibration checks on the CTD.

Meteorological observations obtained from the OCEANUS Deck Log are listed in tables 6 and 7.

#### INSTRUMENT DESCRIPTION

The CTD profiler (Neil Brown Instrument Systems, Mark III) was modified to also measure oxygen and light transmission. A scan of data (conductivity, temperature, pressure, oxygen current, oxygen temperature, and light transmission) was obtained 32 times each second. Conductivity was measured with a miniature four-electrode alumina ceramic cell. The temperature sensor was a platinum resistance thermometer (Rosemount Engineering Co., model 171-BJ) mounted in a temperature bridge with a reference resistor. Pressure was measured with a bonded wire strain gauge bridge (Standard Control, Inc., model no. 211-35-440). The dissolved oxygen was computed from an average measurement (1.024 s) of the current and internal temperature of a polarographic membrane (Beckman model no. 147737). Light transmission was measured using a Sea Tech 25-cm path length transmissometer (Bartz and others, 1978) mounted horizontally inside the CTD cage. The light source was a light emitting diode with a wavelength of 660 nm and a beam diameter of 20 mm. All sensor ranges, accuracies, and resolutions from manufacturers' specifications are listed in table 2. For more detailed technical description of the CTD system see Brown and Morrison (1978), and for more detailed description of field performance see Fofonoff and others (1974).

Expendable bathythermographs or XBT's (Sippican Ocean Systems, models T-4, T-5, T-6, T-7, and T-10) were used to measure vertical temperature profiles. Systematic differences in XBT (models T-4 and T-7) and CTD profiles have been reported by Heinmiller and others (1983) from field data. They found mean temperature difference (XBT-CTD) of  $0.19^\circ\text{C}$  and  $0.13^\circ\text{C}$  for the T-4 and T-7 compared to the generally accepted accuracy of  $\sim 0.1^\circ\text{C}$  (Georgi and others, 1980). They also found that the mean T-7 depth error was within the generally accepted depth accuracy of  $\pm 2\%$  of the recorded depth (Stegen and others, 1975) but the T-4 XBT's exceeded this below  $\sim 200\ \text{m}$ . The XBT data in this report were not corrected for these possible systematic errors.

The salinity of water samples collected during the CTD cast was measured by a salinometer (Guildline Autosol 8400) and oxygen by the Winkler chemical titrations method. The accuracies of both methods are listed in table 2.

Navigation was by a Northstar 6000 Loran-C, and latitude and longitude

were determined by the Northstar 5101 algorithm. The Northstar latitude/longitude grid in this region is offset from true latitude/longitude by about 0.92 km toward 294.5° (Butman and Moody, 1984). Water depth at each station was measured by means of a Giffit echo sounder.

## INSTRUMENT CALIBRATION

### Temperature time-lag

The platinum resistance thermometer time constant ( $T_{lag} = 0.125$  s) was selected to minimize density inversions in regions of strong thermal gradients. Since the temperature sensor had the slowest response, an exponential recursive filter (Bendat and Piersol, 1971) was applied to the conductivity and pressure series to lag these variables to match the temperature (Millard, 1982). The digital form of the filter is:

$y(t) = y(t-dt) \cdot W_0 + x(t) \cdot W_1$   
 $dt = \text{CTD sampling time interval} = 0.03125$  s  
 $y(t)$  is the filtered output of conductivity or pressure  
 $y(t-dt)$  is the previous value  
 $x(t)$  is the unfiltered input  
 $W_0 = e^{-dt/T_{lag}}$   
 $W_1 = 1 - W_0$

A laboratory calibration of the CTD temperature was done on January 5, 1982 at the Woods Hole Oceanographic Institution. The temperature offset (calibration bath - CTD) was  $-0.0091^\circ\text{C}$ .

### Salinity

Salinity and sigma-t were calculated from conductivity, temperature, and pressure using algorithms given by Fofonoff and Millard (1983). Salinity values of the 11 deep-water samples collected during CTD casts were determined using a salinometer (see table 2 for accuracy). The 11 bottle salinities and the salinities computed from the CTD observations are listed in table 3. The mean difference (bottle-CTD) was  $-0.007$  psu (practical salinity units; Lewis, 1980; Fofonoff and Millard, 1983) with a standard deviation of  $\pm 0.035$  psu. The mean difference of the surface salinities for the 28 CTD stations was  $0.013$  psu with a standard deviation of  $\pm 0.032$  psu. Some of the difference between the bottle and CTD values of salinity could be due to the choice of CTD reading to compare with the bottle sample. The bottle was located approximately 5 m above the CTD sensors. As described above, the station procedure was to lower the CTD to the maximum depth, close the bottle, and then raise the CTD. The CTD values of salinity and  $O_2$  selected for comparison with the bottle samples were measured on the downcast (5 m above the bottom depth). The downcast readings and sample collection were often separated by several minutes, and thus the water collected in the bottle may differ from the water measured by the CTD. In addition, if there was a vertical gradient in the region of the bottle sample, ship heave, etc., could cause an error in the bottle value of salinity or oxygen. The error in salinity caused by a vertical gradient was estimated as the product of the salinity gradient (determined over 10 m centered at the expected bottle depth) times 2 dbar (a typical CTD or bottle excursion caused by ship motion). In many cases, the estimated error is of the same order as the measured error. No correction was

made to the salinities reported here to account for this small offset between bottle and CTD salinities.

A lab calibration of conductivity done on January 5, 1982 showed an offset (calibration bath - CTD) of 0.0065 mmho.

### Oxygen

Oxygen was computed using an algorithm (Owens and Millard, 1984) which has six adjustable parameters (OXB, OCS,  $\tau$ , tcor, WT, pcor) which are determined by comparison with water sample oxygen values. The oxygen algorithm is:

$$OX = (OXB + OCS (OC + \tau \frac{dOC}{dt})) \cdot OXSAT \cdot e^{tcor \cdot (t+WT(ot-t))} + pcor \cdot p$$

where:

OX = CTD dissolved oxygen value in ml/L  
 t = CTD water temperature in °C  
 p = CTD pressure in dbar  
 OC = CTD oxygen current in  $\mu A$   
 ot = CTD oxygen probe internal temperature in °C  
 OXB = oxygen current bias  
 OCS = oxygen current slope in  $\mu A^{-1}$   
 $\tau$  = oxygen diffusion time-lag constant in s  
 tcor = temperature correction factor ( $^{\circ}C^{-1}$ ) for membrane permeability  
 WT = weighting fraction of oxygen probe internal temperature  
 pcor = pressure correction factor ( $dbar^{-1}$ ) for membrane permeability  
 OXSAT = oxygen saturation value in ml/L after Weiss (1970).

The deep-water samples from 12 CTD casts were measured by chemical titration for dissolved oxygen (Strickland and Parsons, 1972). In order to increase the number of measured oxygen values, it was assumed that the water was saturated at the surface and these 11 surface saturation values were included with the 11 deep oxygen values to give 22 calibration points. Due to the limited calibration values, the correction factors for membrane permeability (tcor and pcor) were fixed at -0.0353 and  $1.15 \times 10^{-4}$ , respectively based on values determined by R. C. Millard (pers. commun., 1985)

The oxygen diffusion time-lag constant  $\tau$  (see Owens and Millard, 1984) is important only in regions of sharp changes in oxygen. These regions are usually small so that this parameter was initially ignored in the regression and determined later by trial and error.

The three parameters, OXB, OCS, and WT, were determined by a non-linear regression fit (SAS Institute, Inc., 1982) to the 22 calibration points giving values ( $\pm$  standard error) of: OXB =  $0.04 \pm 0.06$ , OCS =  $3.19 \pm 0.16$ , and WT =  $0.68 \pm 0.09$ .

The remaining parameter  $\tau$  was determined by creating plots of down and upcast with different values of  $\tau$ . The final value of  $\tau$  = 16.00 s was chosen to minimize the hysteresis in regions of sharp gradients and still retain detailed structure. Table 3 compares the measured and CTD-computed oxygen for

the 12 samples. The mean residual (measured - computed) is -0.02 ml/l with a standard deviation of  $\pm 0.20$  ml/L. These residuals are similar to those obtained by Owens and Millard (1984) from stations in the North Atlantic and North Pacific. The estimated error in oxygen due to the uncertainty in the depth of the Niskin bottle was less than 0.07 ml/l ( $\Delta O_2$  in table 3) because the deep samples were collected in a region of weak oxygen gradient.

### Light transmission

The beam attenuation coefficient, ATN (in  $m^{-1}$ ) over a 100-cm path length, was computed from the measured transmissometer voltages (TR) using

$$ATN = - \frac{1}{0.25} \ln \left( \frac{TR}{TR_{cw}} \right)$$

where  $TR_{cw}$  is the voltage measured in clear water.  $TR_{cw}$  can be determined as 0.95 times the measured voltage in air or in a laboratory tank (see Moody and others, for method). The transmission sensor (SN 46) was calibrated in the laboratory 8 months prior to the cruise and 10 months following the cruise, and air readings were made immediately before and after the cruise. Both sets of measurements gave  $TR_{cw}$  values of 4.44 v.

The computed beam attenuation coefficients when compared to values measured on a later cruise seemed anomalously high, suggesting a malfunction of the sensor. For example, the ATN ranged from 0.06 to 0.07  $m^{-1}$  at 400 m at stations 15 and 27, occupied on R/V OCEANUS cruise 140 (OC 140) (Butman and others, 1985). In contrast at two stations less than a few miles away occupied on OC 130 (stations 43 and 74), the ATN was about 0.70  $m^{-1}$ . It is difficult to accept these large attenuation coefficients because we expect suspended-matter concentrations at these depths on the slope to be relatively low and constant with time. In addition, measured suspended-matter concentrations in the slope water on both OC 130 and OC 140 were less than 0.10 mg/L.

The high beam attenuation coefficients may have been caused by a shift in  $TR_{cw}$ , a malfunction of the CTD digitizing unit, or a dirty transmissometer window. The beam attenuation coefficients are reported here with the caution that they may be high by as much as 0.5-0.7  $m^{-1}$ , and that this offset may not be constant for all casts. We suspect that these errors were caused by dirty transmissometer windows.

### Accuracy

Based on these calibrations, the CTD temperature and salinity data are accurate to  $\pm 0.01^\circ C$  and 0.01 psu, respectively. The oxygen data are at least accurate to  $\pm 0.3$  ml/l, and the changes in the attenuation coefficient are accurate to about  $\pm 0.04 m^{-1}$ . Because of the uncertainty in the normalization voltage for the transmissometer however, the attenuation coefficients may be offset (too high) by 0.5-0.7  $m^{-1}$ .

### DATA PROCESSING

The CTD data (pressure, temperature, conductivity, oxygen current, oxygen temperature, and light transmission) were recorded on both 9-track (9T)

magnetic tape (see Appendix II) and 1/4" FM tape. The data were processed ashore using the techniques described by Millard (1982). The original 9T data tapes were first checked for proper format and station sequence, and the data were transferred to disc storage. The data obtained on both upcast and downcast were subsampled (usually every 100 to 200 points) and listed and plotted to check instrument performance. Wild points were identified and replaced with the previous good value using range filters for each variable. The ranges were typically 1 variable unit except for transmission which was 0.05-0.10 volts. The conductivity and pressure data were time lagged to correct for the time constant of the temperature sensor (see above), and then filtered to obtain a monotonically increasing series in pressure. The data were bin averaged at 2-dbar intervals to within approximately 10 m of the bottom and then at 1-dbar intervals to the bottom to preserve any detailed structure near the sea floor. This averaged data were used to contour the hydrographic sections presented in this report.

The XBT data were recorded on a strip chart. The traces were digitized approximately every 2 m with a depth accuracy of  $\pm 1$  m and a temperature accuracy of  $\pm 0.2^{\circ}\text{C}$ . The XBT data were not averaged to 2-dbar intervals due to the small number of data points.

## DATA PRODUCTS

### Vertical sections

The hydrographic data are presented in several ways. Vertical sections are shown in figures 2-11. The sections are numbered as 0C130-N, where N is the section number (see fig. 1 and column 1 of table 1). The station numbers for each section are labeled across the top with the station type (C = CTD or X = XBT) and surface value of the contoured variable printed below. The vertical scale (1 cm = 40 m) and horizontal scale (1 cm = 6.5 km) have a ratio of 1:162.5 and are the same for each section.

The contour interval for each variable is the same for all sections and every fifth contour is thicker. Because of the contouring algorithms used, these sections do not show much detail at vertical scales less than 10 m and are intended to give an overall picture of the hydrography.

The 2-dbar-averaged data were contoured using DISSPLA graphic subroutines (Integrated Software Systems Corp., 1981). These subroutines require data on a regularly spaced grid in both the horizontal and vertical. A regularly spaced vertical grid of  $2N-1$  grid lines, where N is the number of stations, was constructed for each hydrographic section. The leftmost and rightmost vertical grid lines were set at the first and last stations in the section. The spacing between the remaining vertical grid lines was determined by computing the sum of the great circle distance between successive stations along the trackline and dividing by  $2N-2$ . The position of the equally spaced interior, vertical grid lines does not always correspond to a station location. Horizontal grid lines were spaced every 10 m.

Data values at each regularly spaced grid point were computed as a weighted average of the irregularly spaced data within a region 1 10-m cell vertically and usually 5 cells horizontally (2 on either side) from the grid point. The data were weighted by  $D^{-3}$  where D is the distance (in grid units)

between the location of the data values and the grid point. This smoothing removes some of the fine structure from the sections and may spread some of the frontal features.

The contouring algorithm has no provisions for terminating contours at the sea floor and requires data in a rectangle. For the sections in this data report, the left and right boundaries are the left and right vertical grid lines, the top boundary was the sea surface, and the bottom boundary was the deepest cast in the section. To speed contouring and to obtain reasonable contours at the sea floor, data were provided below the measurement depth by repeating the data measured at the greatest depth to a distance H into the bottom below the last measured value. Data below the distance H were taken from values observed at an adjacent deeper station, shifted upward or downward by a constant so that the values matched at the starting depth. In some cases the values from an adjacent station were inserted below the depth H without adjusting by a constant. The constant distance H ranged from 0 to 100 m and was adjusted for each station to make the contours meet the sea floor in as reasonable a way as possible. The shape and slope of the contours near the sea floor should be interpreted with care. Contours below the sea floor were deleted in the sections presented here.

The contouring algorithm used a linear interpolation between the adjacent regularly spaced points. The tension parameter, which controls the smoothness vs. straight line connection of points of equal value, was varied over its entire range between 1 and 10 and little difference was noted in the contours due to the high density of data points to control the contours.

#### Horizontal sections

Horizontal sections of temperature, salinity, sigma-t, oxygen, attenuation coefficient (figs. 12-21) and nutrients ( $\text{PO}_4$ ,  $\text{SiO}_4$ ,  $\text{NO}_3$ , and  $\text{NH}_3$ , figs. 22 and 23) were contoured for the 10, 50, 100, and 200 dbars pressure surfaces. The same DISSPLA contouring subroutines which require regularly spaced data were used.

The contoured area was a rectangle defined by the stations at the extreme southwest and northeast corners and had 5 grid lines running north-south and east-west for the variables of salinity, sigma-t, oxygen, attenuation coefficient, and each nutrient. There were more stations with temperature observations because of the XBT's and thus 6 grid lines were used in both directions for these horizontal sections. The position of the equally spaced interior grid lines does not always correspond to a station location. The XBT stations 4 and 5 were not used in contouring the temperature data because these stations were located away from most of the other stations and distorted the grid.

The sections at 10, 50, and 100 dbars were all drawn using the computer contouring subroutines. The limited data and the complicated 200-m isobath made computer contouring of the 200-dbar data awkward; these sections were contoured by hand.

#### TS diagrams

Plots of temperature versus salinity (TS plots in figs. 24-31) were

organized by section (see column 1 of table 1). The TS plots for the stations in sections 4 and 5 were plotted on two separate graphs for clarity. The symbol for each station was plotted every 20 dbar and the 100- and 200-dbar points have been annotated.

#### Station profiles

Plots of temperature, salinity, sigma-t, oxygen, light attenuation coefficient and Brunt-Vaisala frequency

$$N = g/\rho \frac{\partial \rho}{\partial z}$$

where  $\rho$  = water density and  $g$  is gravity, as a function of pressure at each station are shown in figures 32-109. For the Brunt-Vaisala frequency, density was determined using the 1980 equation of state (Millero and others, 1980), and the gradient of the specific volume anomaly was estimated from a least squares fit of a straight line to nine observations centered ( $\pm 8$  dbar) about the specified depth. The Brunt-Vaisala frequency was not computed for the first and last four depths; the magnitudes of  $N$  listed at these depths are the same as the Brunt-Vaisala frequency for the fifth and fifth to last depth, respectively. The different symbols used to distinguish variables are shown on each variable axis. XBT profiles have been limited to 500 m. The units of salt are practical salinity units (psu) and are defined by Lewis (1980).

#### Data listing

A listing of the 2-dbar-averaged data is contained in Appendix I. For the data listings, time is in Eastern Standard Time, ATN is the beam attenuation coefficient, SIGT is the density anomaly sigma-t,  $N$  is the Brunt-Vaisala frequency, DYHT A is the dynamic height anomaly, and S SPD is the speed of sound in seawater computed using a Fortran subroutine given in Fofonoff and Millard (1983). For pressures greater than 500 dbar, the 2-dbar-averaged data are listed at 20-dbar intervals. This data has been submitted to the U.S. National Oceanographic Data Center (NODC).

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#### REFERENCES

- Bartz, R., Zanevald, J. R. V., and Pak, H., 1978, A transmissometer for profiling and moored observations in water: SPIE Ocean Optics V, v. 160, p. 102-108.
- Bendat, J. S., and Piersol, A. G., 1971, Random data: Analysis and measurement procedures: New York, Wiley-Interscience, 407 p.

- Brown, N. L., and Morrison, G. K., 1978, Woods Hole Oceanographic Institution/Brown conductivity, temperature and depth microprofiler: Woods Hole Oceanographic Institution Technical Report 78-23, unpublished manuscript.
- Butman, B., 1984, Progress Report North Atlantic Slope and Canyon Study, Administrative Report to Mineral Management Service.
- Butman, B., and Moody, J. A., 1984, Bathymetric map of Lydonia Canyon, U.S. Atlantic Outer Continental Shelf: U.S. Geological Survey Miscellaneous Field Studies Map MF-1710.
- Butman, B., Moody, J. A., and Conley, S. J., 1985, Hydrography of the New England Shelf and Slope: Data report R/V OCEANUS Cruise 140, October 1983: U.S. Geological Survey Open-File Report 85-505, 199 p.
- Fofonoff, N. P., Hayes, S. P., and Millard, R. C., Jr., 1974, Woods Hole Oceanographic Institution/Brown microprofiler: Methods of calibration and data handling: Woods Hole Oceanographic Institution Technical Report No. 74-89, unpublished manuscript.
- Fofonoff, N. P., and Millard, R. C., Jr., 1983, Algorithms for computation of fundamental properties of sea water: Paris, UNESCO Technical Papers in Marine Science, no. 44.
- Georgi, D. T., Dean, J. P., and Chase, J. A., 1980, Temperature calibration of expendable bathythermographs: Ocean Engineering, v. 7, p. 491-499.
- Heinmiller, R. H., Ebbesmeyer, A. C., Taft, B. A., Olsen, D. B., and Nikitin, O. P., 1983, Systematic errors in expendable bathythermograph (XBT) profiles: Deep-Sea Research, v. 30, no. 11A, p. 1185-1197.
- Integrated Software Systems Corporation, 1981, DISSPLA, Display integrated software system and plotting language users manual, version 9.0: San Diego, Calif., Integrated Software Systems.
- Lewis, E. L., 1980, The practical salinity scale 1978 and its antecedents: IEEE Journal of Ocean Engineering, v. OE-5, no. 1, p. 3-8.
- Millard, R. C., Jr., 1982, CTD calibration and data processing techniques at WHOI using the 1978 practical salinity scale: Proceedings of the International STD Conference and Workshop, La Jolla, Calif., 8-11 February 1982, Marine Technology.
- Millero, F. J., Chen, C.-T., Bradshaw, A., and Schleider, K., 1980, A new high-pressure equation of state for seawater: Deep-Sea Research, v. 27A, p. 255-264.
- Moody, J. A., Butman, B., and Bothner, M. H., 1986, Estimates of near-bottom suspended matter concentration during storms, submitted to Continental Shelf Research.
- Owens, W. Brechner, and Millard, Robert C., Jr., 1985, A new algorithm for CTD oxygen calibration: Journal of Physical Oceanography, v. 15, no. 5, p. 621-631.
- SAS Institute, Inc., 1982, SAS user's guide: Statistics: North Carolina, 584 p.
- Stegen, G. R., Delisi, D. P., and Von Collie, R. C., 1975, A portable, digital recording, expendable bathythermograph (XBT) system: Deep-Sea Research, v. 22, p. 447-453.
- Strickland, J. D. H., and Parson, T. R., 1972, A practical handbook of sea water analysis: Ottawa, Fisheries Research Board of Canada, 310 p.
- Weiss, R. F., 1970, The solubility of nitrogen, oxygen and argon in water and sea water: Deep-Sea Research, v. 17, p. 721-735.



Table 1. - Hydrographic stations R/V OCEANUS Cruise 130, November 9-15, 1982.

Section	Station	Date	Time <sup>1</sup>	Latitude <sup>2</sup> (N.)	Longitude (W.)	Water depth (m)	Type
1	1	11/09	1800	40°02.56'	70°11.32'	335	XBT
1	2	11/09	1825	39°57.99'	70°08.90'	293	XBT
1	3	11/09	2245	39°53.18'	70°03.00'	640*	XBT
2	4	11/10	2059	39°55.04'	68°29.82'	2,377**	XBT
2	5	11/10	2125	39°59.70'	68°31.48'	2,194**	XBT
2	6	11/10	2156	40°05.04'	68°33.22'	731**	XBT
2	7	11/10	2225	40°10.08'	68°34.07'	175**	XBT
3	8	11/12	1433	40°36.08'	67°44.74'	90	XBT
3	9	11/12	1458	40°33.45'	67°44.30'	111	XBT
3	10	11/12	1511	40°32.01'	67°43.89'	207	XBT
3	11	11/12	1521	40°31.76'	67°42.90'	260	XBT
3	12	11/12	1548	40°31.54'	67°42.84'	275	XBT
3	13	11/12	1602	40°29.97'	67°42.37'	355	XBT
3	14	11/12	1612	40°28.87'	67°41.45'	355	XBT
3	15	11/12	1630	40°26.41'	67°39.82'	560	XBT
3	16	11/12	1703	40°23.65'	67°40.00'	660†	XBT
3	17	11/12	--	40°20.30'	67°41.20'	1025†	XBT
3	18	11/12	1745	40°19.60'	67°42.39'	380†	XBT
4	19	11/13	1200	40°39.55'	67°34.42'	85	CTD
4	20	11/13	1240	40°36.55'	67°33.80'	100	XBT
4	21	11/13	1257	40°34.89'	67°33.81'	100	CTD
4	22	11/13	1351	40°32.06'	67°32.66'	127	CTD
4	23	11/13	1447	40°28.71'	67°31.77'	138	CTD
4	24	11/13	1537	40°25.72'	67°30.85'	175	CTD
4	25	11/13	1630	40°22.72'	67°29.87'	355	CTD
4	26	11/13	1720	40°19.97'	67°29.19'	1,035	XBT
4	27	11/13	1756	40°17.18'	67°28.25'	1,371**	CTD
5	28	11/13	2020	40°15.03'	67°37.79'	1,215	CTD
5	29	11/13	2202	40°18.09'	67°40.08'	1,200†	XBT
5	30	11/13	2240	40°20.42'	67°41.18'	985	CTD
5	31	11/14	0102	40°23.80'	67°40.09'	630	CTD
5	32	11/14	0232	40°26.83'	67°39.64'	530	CTD
5	33	11/14	0406	40°29.95'	67°42.45'	345	CTD
5	34	11/14	0455	40°31.51'	67°42.88'	305	CTD
5	35	11/14	0548	40°32.41'	67°44.44'	142	CTD
5	36	11/14	0630	40°33.85'	67°44.87'	103	CTD
5	37	11/14	0709	40°36.73'	67°45.62'	85	XBT
5	38	11/14	0736	40°39.04'	67°46.09'	81	CTD

<sup>1</sup> Time is Eastern Standard Time.<sup>2</sup> Latitudes and longitudes computed using Northstar-6000 5101 algorithm.

\* Estimated from NOAA chart 12300.

\*\* Estimated from NOAA chart 13200.

† From Butman and Moody (1984).

Table 1. - Hydrographic stations R/V OCEANUS Cruise 130, November 9-15, 1982--  
Continued.

Section	Station	Date	Time <sup>1</sup>	Latitude <sup>2</sup> (N.)	Longitude (W.)	Water depth (m)	Type
6	39	11/14	1157	40°32.38'	67°49.85'	100	CTD
6	40	11/14	1252	40°28.29'	67°48.57'	132	CTD
6	41	11/14	1343	40°24.86'	67°47.39'	148	CTD
6	42	11/14	1442	40°21.97'	67°46.49'	170	CTD
6	43	11/14	1527	40°19.35'	67°45.69'	395	CTD
6	44	11/14	1609	40°16.55'	67°44.95'	~800	XBT
7	45	11/14	1642	40°15.67'	67°51.87'	~1,300	XBT
7	46	11/14	1715	40°14.78'	67°59.08'	640	XBT
7	47	11/14	1741	40°17.25'	67°59.27'	305	CTD
7	48	11/14	1835	40°20.94'	67°59.66'	140	CTD
7	49	11/14	1925	40°24.53'	67°59.88'	145	CTD
7	50	11/14	2028	40°28.38'	68°00.40'	132	CTD
7	51	11/14	2108	40°32.58'	68°00.65'	101	CTD
7	52	11/14	2151	40°34.08'	68°07.92'	97	CTD
8	53	11/14	2235	40°30.80'	68°14.71'	101	CTD
8	54	11/14	2252	40°30.17'	68°13.20'	139	XBT
8	55	11/14	2302	40°29.67'	68°12.01'	140	XBT
8	56	11/14	2310	40°29.37'	68°11.01'	226	CTD
8	57	11/14	2338	40°28.44'	68°09.13'	345	XBT
8	58	11/14	2347	40°26.86'	68°08.50'	457**	XBT
8	59	11/15	0005	40°24.90'	68°07.86'	560	CTD
8	60	11/15	0115	40°20.27'	68°08.93'	695	CTD
8	61	11/15	0209	40°16.43'	68°06.80'	1,240	CTD
8	62	11/15	0251	40°13.99'	68°05.71'	1,450	XBT
9	63	11/15	0334	40°12.02'	68°13.94'	~705	XBT
9	64	11/15	0400	40°15.03'	68°15.95'	530	XBT
9	65	11/15	0410	40°17.27'	68°17.56'	182**	XBT
9	66	11/15	0434	40°20.13'	68°19.64'	140	XBT
9	67	11/15	0455	40°23.51'	68°22.21'	106**	XBT
9	68	11/15	0513	40°25.78'	68°24.10'	100	XBT
10	68A	11/15	0527	40°23.29'	68°25.47'	110	XBT
10	69	11/15	0548	40°19.90'	68°26.91'	117	XBT
10	70	11/15	0604	40°17.00'	68°28.11'	145	XBT
10	71	11/15	0630	40°12.58'	68°30.03'	493**	XBT
10	72	11/15	0655	40°08.53'	68°31.73'	307**	XBT
10	73	11/15	0657	40°07.93'	68°31.98'	285	XBT
10	74	11/15	0725	40°04.88'	68°33.35'	478	CTD

<sup>1</sup> Time is Eastern Standard Time.

<sup>2</sup> Latitudes and longitudes computed using Northstar-6000 5101 algorithm.

\* Estimated from NOAA chart 12300.

\*\* Estimated from NOAA chart 13200.

† From Butman and Moody (1984).

Table 2. - Manufacturers' specifications for instruments used on R/V OCEANUS  
Cruise 130. See text for calibration of CTD.

Instrument	Sensor	Range	Accuracy	Resolution
CTD	Conductivity	1 to 65 mmho	$\pm 0.005$ mmhos	0.001 mmhos
	Temperature	-32 to +32°C	$\pm 0.005^\circ\text{C}$	0.0005°C
	Pressure	0-3200 dbar	$\pm 3.2$ dbar	0.048 dbar
	Oxygen	0-2 $\mu\text{A}$	$\pm 2$ nA	0.5 nA
	Light	0-4.50 v	$\pm 0.1$ v	0.01 v
XBT*	T-4	0-460 m	$\pm 0.1^\circ\text{C}$ , $\pm 2\%$ depth	0.01°C, 0.65 m
	T-5	0-1830 m	$\pm 0.1^\circ\text{C}$ , $\pm 2\%$ depth	0.01°C, 0.65 m
	T-6	0-460 m	$\pm 0.1^\circ\text{C}$ , $\pm 2\%$ depth	0.01°C, 0.65 m
	T-7	0-760 m	$\pm 0.1^\circ\text{C}$ , $\pm 2\%$ depth	0.01°C, 0.65 m
	T-10	0-200 m	$\pm 0.1^\circ\text{C}$ , $\pm 2\%$ depth	0.01°C, 0.65 m
Salinometer	--	0-40 ppt	$\pm 0.003$ ppt	0.0002 ppt
Winkler	--	0-10 ml/l	$\pm 0.04$ ml/l	0.2%

\*See text for discussion of temperature and depth accuracy.

Table 3. - Calibration data for R/V OCEANUS Cruise 130, November 9-16, 1982.

Station	Sample depth <sup>1</sup> (dbar)	Salinity (psu)				Bottle <sup>3</sup>	Oxygen (ml/l)		
		Bottle	CTD	Residual	$\pm\Delta S^2$		CTD	Residual	$\pm\Delta O_2^2$
19*	75	33.153	33.145	0.008	0.000	5.59*	5.56	0.03	0.00
34	282	35.062	35.128	-0.066	0.005	4.42	4.42	0.00	0.02
35	131	35.390	35.362	0.028	0.016	3.82	4.11	-0.29	0.01
39	90	33.823	33.875	-0.052	0.044	4.93*	4.89	0.04	0.01
41	143	35.372	35.325	0.046	0.018	3.85	3.86	-0.01	0.01
51	93	33.795	33.843	-0.048	0.040	4.88*	5.07	-0.19	0.03
53	93	33.804	33.801	+0.003	0.046	4.89*	4.97	-0.08	0.07
56	219	35.128	35.138	-0.010	0.002	4.19*	4.33	-0.14	0.00
59	524	34.989	34.983	0.006	0.002	5.42	5.27	0.15	0.00
60	197	35.429	35.434	-0.005	0.002	3.65*	3.35	0.30	0.02
61	201	35.520	35.510	0.010	0.006	3.64**	3.35	0.29	0.03
74	391	--	--	--	--	4.37	4.22	0.15	0.00
Mean				-0.007	$\pm 0.016$			-0.02	$\pm 0.02$
Standard deviation				$\pm 0.035$				$\pm 0.20$	

<sup>1</sup>Accuracy of sample depth is approximately  $\pm 2$  dbar.

<sup>2</sup>Change in salinity ( $\Delta S$ ) or oxygen ( $\Delta O_2$ ) between 2 dbars above and below the sample depth.

<sup>3</sup>Three replicates with standard deviations between 0.02 - 0.04 ml/L.

\* Only 1 oxygen sample.

\*\*High standard deviation of 0.16 ml/L.

Table 4. - Nutrient values for water samples obtained on R/V OCEANUS  
Cruise 130.

Station	Sample depth (dbar)	PO <sub>4</sub> (µg at/1)	SiO <sub>4</sub> (µg at/1)	NO <sub>3</sub> (µg at/1)	NO <sub>2</sub> (µg at/1)	NH <sub>3</sub> (µg at/1)
19	0	0.72*	3.52	3.33*	0.27	1.94
	75	1.18*	6.54*	7.21*	0.08*	0.30*
21	0	0.74	3.50	3.55	0.18	1.05
	93	1.31	8.47	11.31	0.05	0.34
22	0	0.97	4.92	4.77	0.24	1.11
	116	1.29	8.02	11.84	0.14	0.35
23	0	0.99	4.36	3.23	0.21	0.49
24	0	0.74	2.42	1.32*	0.14	0.95
25	0	0.83	2.60	1.20	0.17	1.31
27	0	0.74	2.16	0.68	0.12	0.40
	191	1.39	10.78	18.83	0.06	1.29*
28	0	0.54	1.05	0.19	0.02	0.96
30	0	0.50	1.38	0.47	0.07	2.31
31	0	0.51	1.85	0.38	0.08	1.74
32	0	0.50	2.78	2.51	0.12	0.37
33	0	0.79	4.91	4.99	0.20	0.71
34	0	0.80	4.27	4.34	0.17	0.28
	282	1.40	11.39	16.18	0.06	1.39*
35	0	0.93	4.94	5.03	0.20	0.43
	131	1.52	10.60	16.76	0.08	0.17
36	0	0.99	4.81	4.87	0.22	2.44
38	0	1.04	4.96	5.77	0.26	1.77
	74	1.30	6.68	6.97	0.12	2.33*
39	0	0.97	4.77	4.77	0.18	0.93
	90	1.28	8.03	9.90	0.06	0.22
40	0	0.63	1.52	0.83	0.06	0.87
	120	1.08	6.26	8.98	0.05	0.38

\*1 of the 2 replicates was discarded as erroneous after lab analysis was completed. All others are averages of two samples.

Table 4. - Nutrient values for water samples obtained on R/V OCEANUS  
Cruise 130--Continued.

Station	Sample depth (dbar)	PO <sub>4</sub> (µg at/l)	SiO <sub>4</sub> (µg at/l)	NO <sub>3</sub> (µg at/l)	NO <sub>2</sub> (µg at/l)	NH <sub>3</sub> (µg at/l)
41	0	0.91	2.79	0.71	0.15	0.49
	143	1.33	10.34	16.27	0.14	2.35*
42	0	0.78	2.29	0.71	0.12	0.49
	149	1.40	10.37	16.27	0.07	0.42
46	0	0.67	2.79	1.71	0.12	0.82
47	0	0.69	2.51	1.46	0.11	0.73
48	0	0.61	2.44	1.32	0.14	1.14
	138	1.17	10.35	11.22	0.10	0.36
49	0	0.46	2.08	1.47	0.08	2.52
50	0	0.49	2.52	2.49	0.08	6.78
	121	1.02	7.18	6.61	0.06	0.53
51	0	0.82	4.51	4.33	0.27	0.54
	93	1.21	4.50	9.63	0.08	0.50
52	0	0.69	3.26	3.51	0.19	0.73
	90	1.09	7.80	8.66	0.08	0.49
53	0	0.67	3.39	3.38	0.17	1.37
	93	0.92	4.87	6.12	0.07	2.08
56	0	0.64	3.09	3.05	0.16	0.90
	219	1.03	8.41	11.84	0.05	0.74
59	0	0.80	3.64	6.38	0.18	0.82
	524	1.05	7.60	10.19	0.03	0.85
60	0	0.75	2.42	1.17	0.18	1.57
	197	1.15	7.47	12.09	0.05	0.82
61	0	0.65	2.69	2.05	0.18	1.90
	201	1.40	8.43	14.58	0.06	1.36
74	0	0.61	2.33	1.93	0.14	1.81
	391	1.39	9.46	13.16	0.03	0.77

\*1 of the 2 replicates was discarded as erroneous after lab analysis was completed. All others are averages of two samples.

Table 5. - Suspended-matter concentrations for water samples obtained on R/V OCEANUS Cruise 130.

Station	Water depth (m)	Sample depth (dbar)	Suspended matter (mg/l)	Beam attenuation $\alpha(\text{m}^{-1})$
19	85	75	0.70	0.80
21	100	93	.24	.74
22	127	116	.20	.75
34	305	282	.35	.80
35	142	131	.17	.77
38	81	74	.25	.76
39	100	90	.35	.75
40	132	120	.41	.77
41	148	143	.04	.74
48	140	138	.13	.70
50	132	121	.23	.68
52	97	90	.22	.71
53	101	93	.39	.74
56	226	219	.38	.82
59	560	534	.51	.87
61	1,240	201	.05	.66
74	478	474	.09	.75

Table 6. - Meteorological observations for R/V OCEANUS Cruise 130 obtained from ship's Deck Log. (Time is Eastern Standard Time.)

Date	Time	Wind		Dir	Sea		Air		Weather
		Dir	Force		Swell	Height	Pressure (mb)	Temp (°C)	
Nov. 9	1200	NW	4	---	---	3	1029	12.2	bc
	1600	NWxN	5	---	---	3	1029	17.8	bc
	2000	NNW	3	---	---	3	1031	11.1	b
	2400	S	1	---	---	2	1031	10.6	bc
Nov. 10	0400	N	4	NNE	3	3	1031	8.9	bc
	0800	N	5	NxW	3	3-4	1033	7.8	c
	1200	N	5	N	3	3-4	-----	9.4	c
	1600	N	5	N	3	4	-----	7.8	bc
	2000	N	5-6	N	3	4	-----	8.3	bc
	2400	NxW	5	N	3	4	-----	7.8	bc
Nov. 11	0400	N	3	N	1	3	1036	7.2	bc
	0800	NNE	3	N	1	2	1036	8.3	bc
	1200	S	2	NNE	1	2	1036	15.6	bc
	1600	S	3	NNE	1	2	1033	10.0	bc
	2000	S	4-5	S	1	2	1033	11.1	bc
	2400	S	4	S	1	3	1033	11.1	c
Nov. 12	0400	S	3-4	S	3	3	1030	12.2	c
	0800	SSW	4	SSW	3	4	1031	14.4	bc
	1200	SxW	4-5	SSW	1	3-4	1029	16.7	o
	1600	SSW	5	SSW	3	5	1027	15.0	bcz
	2000	SSW	7	SSW	3	5	1027	16.7	bc
	2400	SSW	7	SSW	3	4	1025	17.2	o
Nov. 13	0400	S	6-7	S	3	5	1022	16.7	o
	0800	S	6-7	S	3	5	1019	16.1	o
	1200	SxE	6	S	3	4	1014	16.7	o
	1600	SxE	6-7	S	6	5	1011	16.7	o
	2000	NW	7-8	S	3	5	1016	12.2	or
	2400	NW	7-8	NW	3	5	1020	8.9	o
Nov. 14	0400	NNW	6-7	N	6	5	1024	7.8	o
	0800	NxW	6-7	N	3	5	1029	6.7	c
	1200	NxE	6	N	3	4	1030	6.7	bc
	1600	N	4	NNW	3	4	1031	6.1	bc
	2000	ENE	2-3	NNW	2	3	1032	6.1	bc
	2400	SE	2-3	---	---	3	1032	5.6	bc
Nov. 15	0400	SE	3	SE	1	2-3	1028	10.6	bc
	0800	SSE	7	SSE	1	3-4	1023	12.8	o
	1200	SSE	7-8	SSE	3	4	1015	14.4	o
	1600	NW	4-6	CONFU	---	4	1017	8.9	or
	2000	NW	7-8	NW	3	5	1023	7.8	bc
	2400	NW	7	NW	3	5	1027	5.6	bc
Nov. 16	0400	NWxN	6	N	3	5	1030	3.9	bc
	0800	NW	5	NW	3	3-4	1034	4.4	bc
	1200	NNW	3-4	NW	1	3	1036	2.2	b



Table 7. - Key to meteorological observations.

Swell		Sea height	
0	No swell	0	Calm
1	Low, short or average	1	Smooth, less than 1'
2	Low, long	2	Slight 1-3'
3	Moderate, short	3	Moderate 3-5'
4	Moderate, average	4	Rough 5-8'
5	Moderate, long	5	Very rough 8-12'
6	Heavy, short	6	High 12-20'
7	Heavy, average	7	Very high 20-40'
8	Heavy, long	8	Mountainous 40' and higher
9	Confused	9	Confused

Weather		Wind		
			knots	mph
bc	scattered clouds	1	1-3	1-3
d	drizzle	2	4-6	4-7
f	fog	3	7-10	8-12
h	hail	4	11-16	13-18
l	lightening	5	17-21	19-24
o	overcast	6	22-27	25-31
c	mostly cloudy	7	28-33	32-38
p	passing rain showers	8	34-40	39-46
q	squalls	9	41-47	47-54
r	rain	10	48-55	55-63
s	snow	11	36-63	64-72
t	thunder	12	64-71	73-82
z	haze			

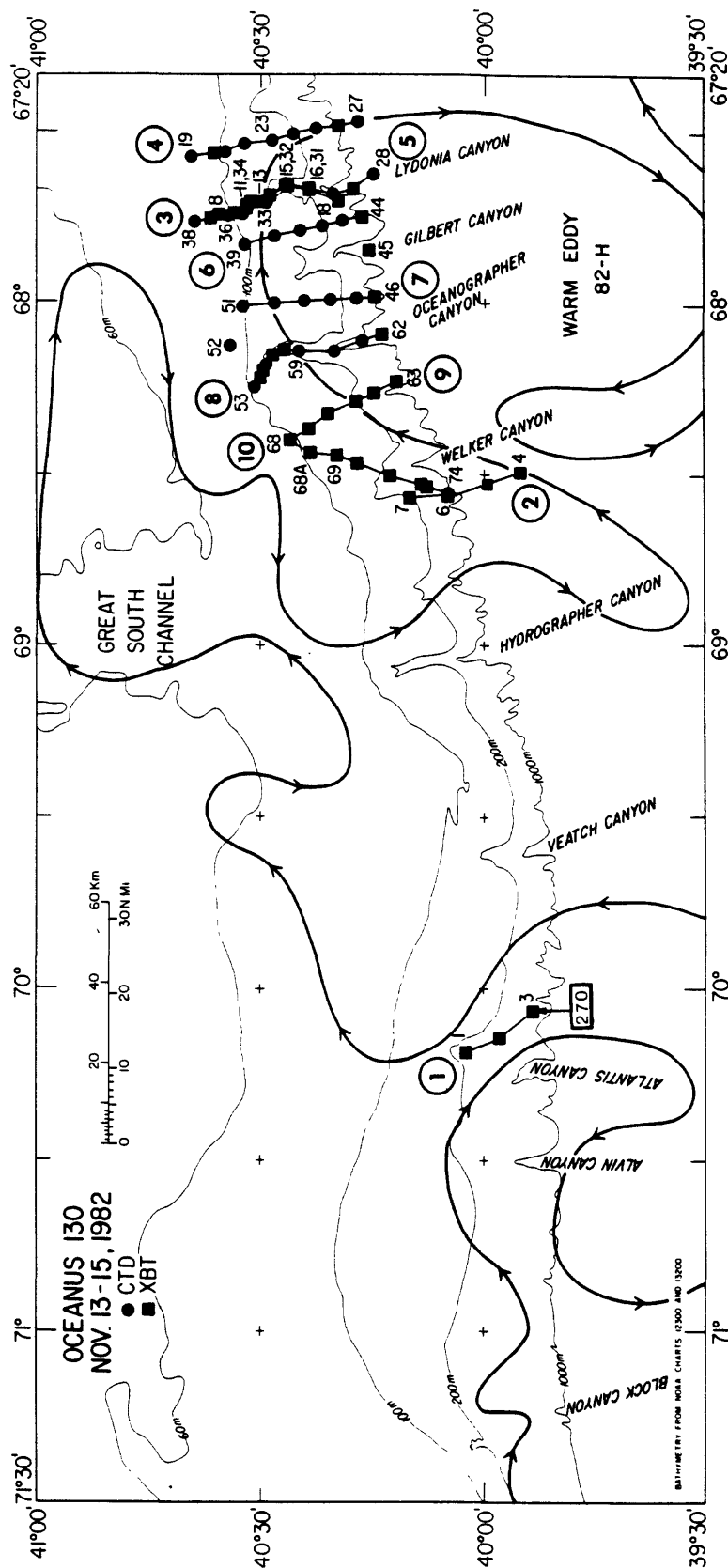


Figure 1a. Location of stations along the Continental Slope and upper rise occupied on R/V OCEANUS cruise 130, November 12-15, 1982. The circled numbers identify the sections shown in figures 2-10. The numbers within rectangles identify U.S.G.S. moorings (see Butman, 1984). The approximate position of the shelf-water/slope-water front and of the warm core ring 82-H are based on the Oceanographic Analysis Chart for November 10, 1982, as modified by the Atlantic Environmental Group, National Marine Fisheries Service, Narragansett, R. I.

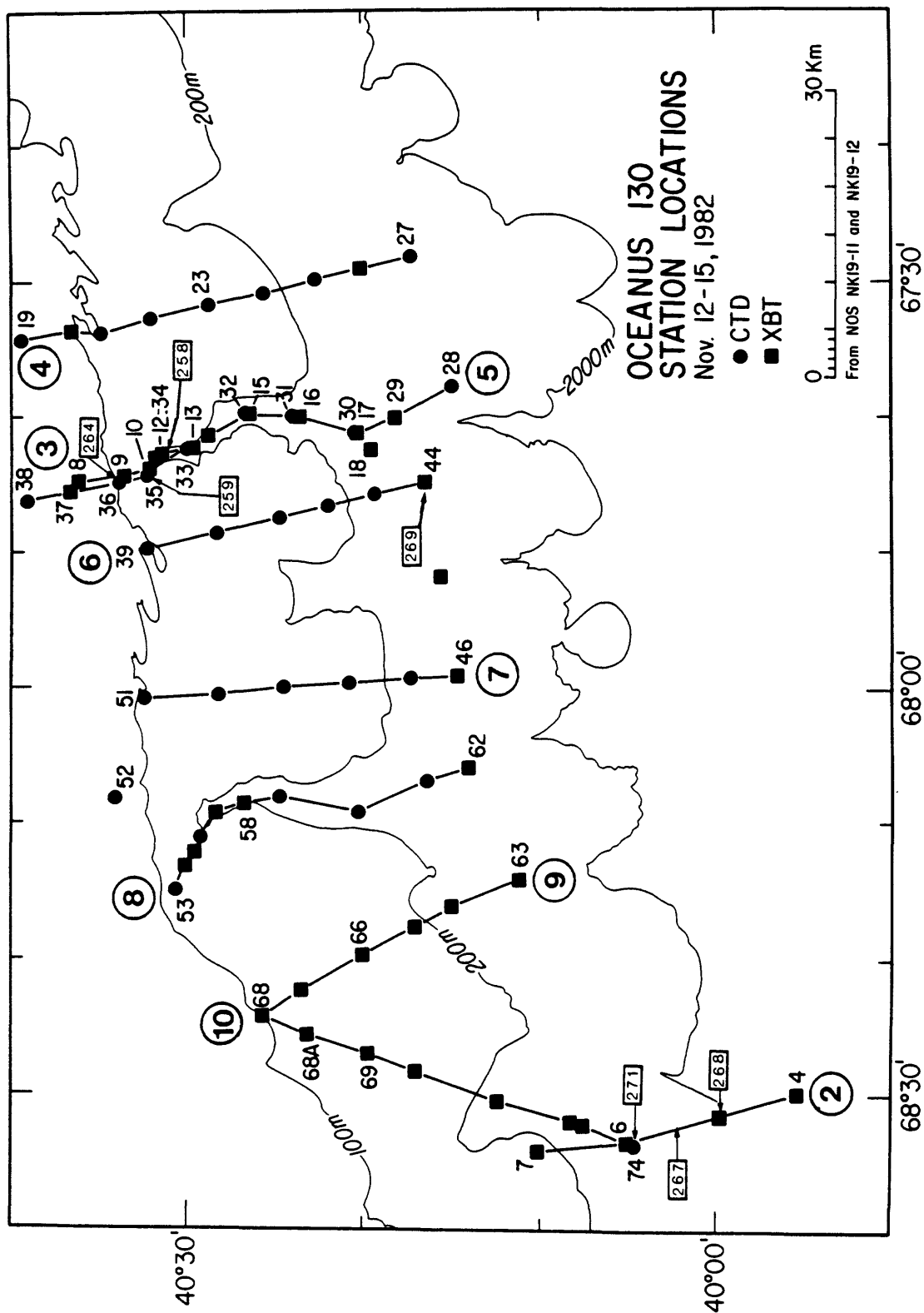
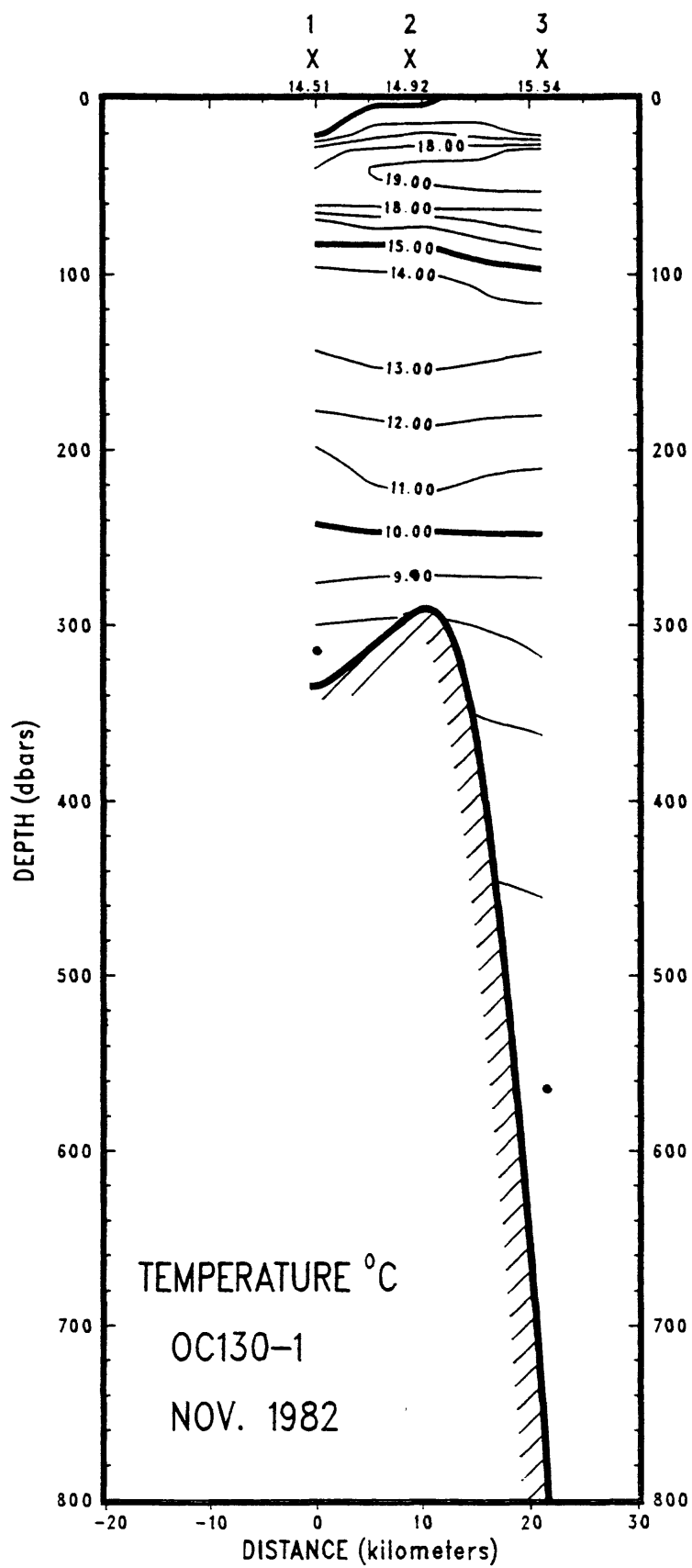
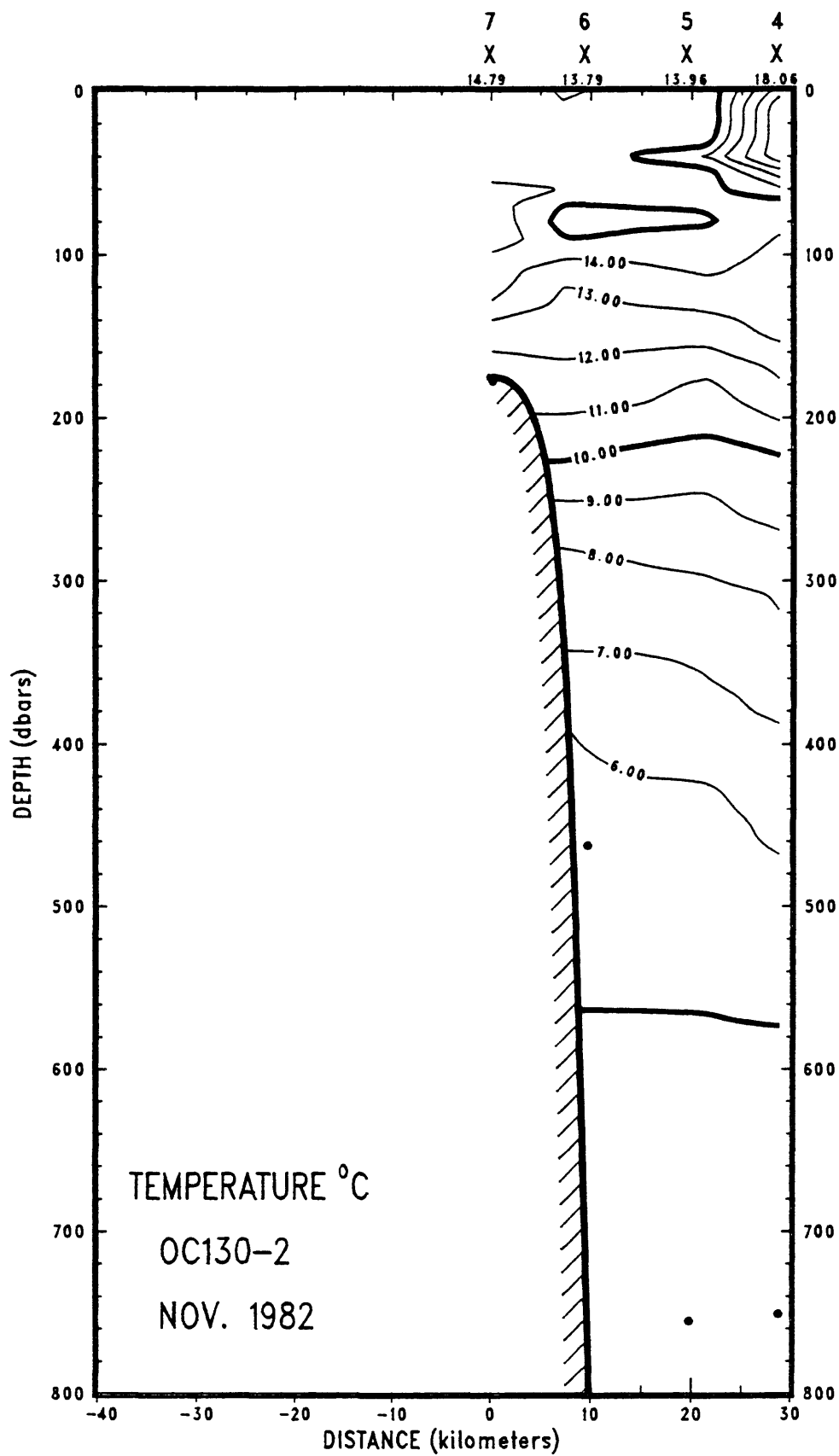


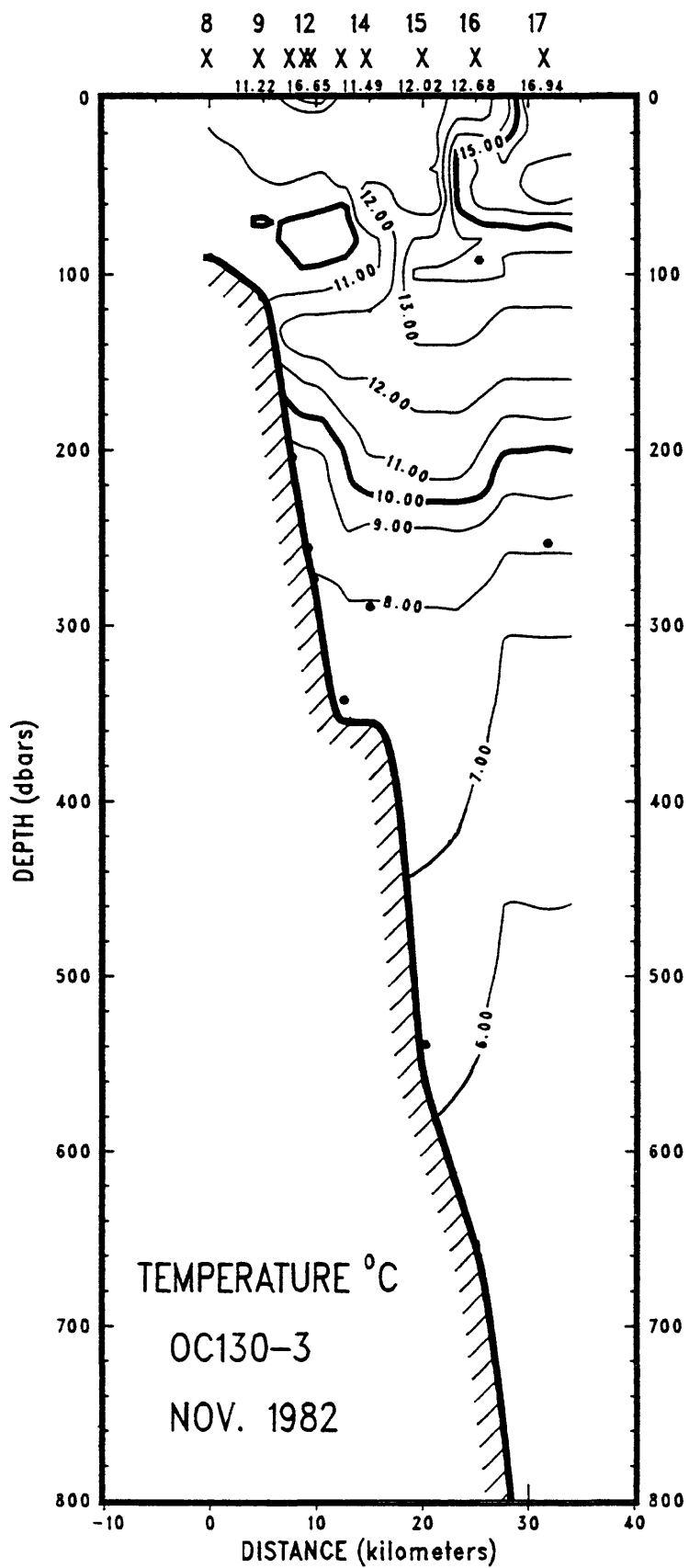
Figure 1b. Detailed chart showing the location of stations between 67°20' and 68°40' W. occupied on R/V OCEANUS cruise 130, November 12-15, 1982.

## Vertical sections

The section numbers follow the hyphen after the cruise symbol OC130 (see fig. 1 and table 1). The station numbers are shown across the top of each section with the station type (C = CTD or X = XBT) and surface value of the contoured variable printed below. The location of the deepest sample is shown by a dot below the station number. The vertical exaggeration of the sections is 1:162.5 and is the same for each section. The contour intervals are also the same for each section (1°C for temperature, 0.2 psu for salinity, 0.2 for sigma-t, 0.2 for oxygen, and 0.05 m<sup>-1</sup> for attenuation coefficient). Because of the computer contouring routine, the shape and slope of the contours near the sea floor should be interpreted with caution (see text).

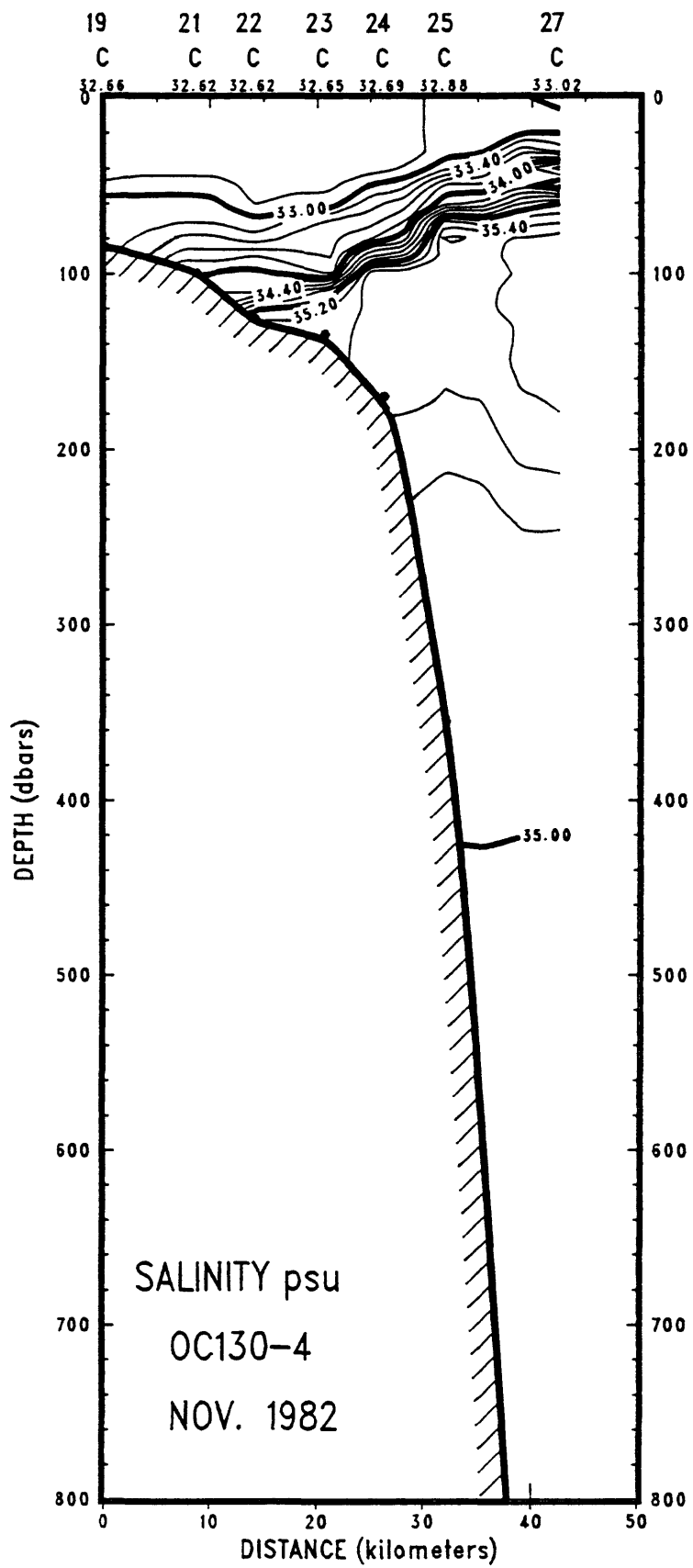


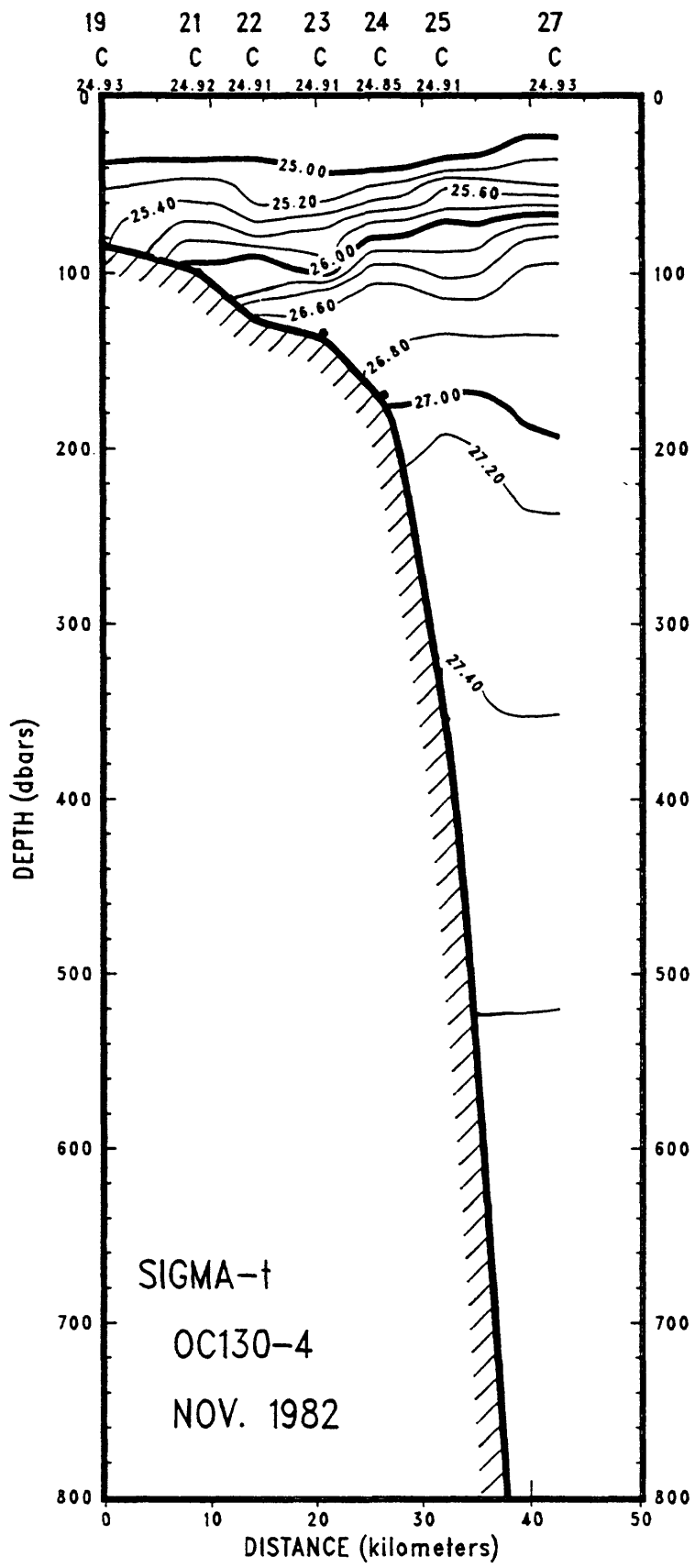


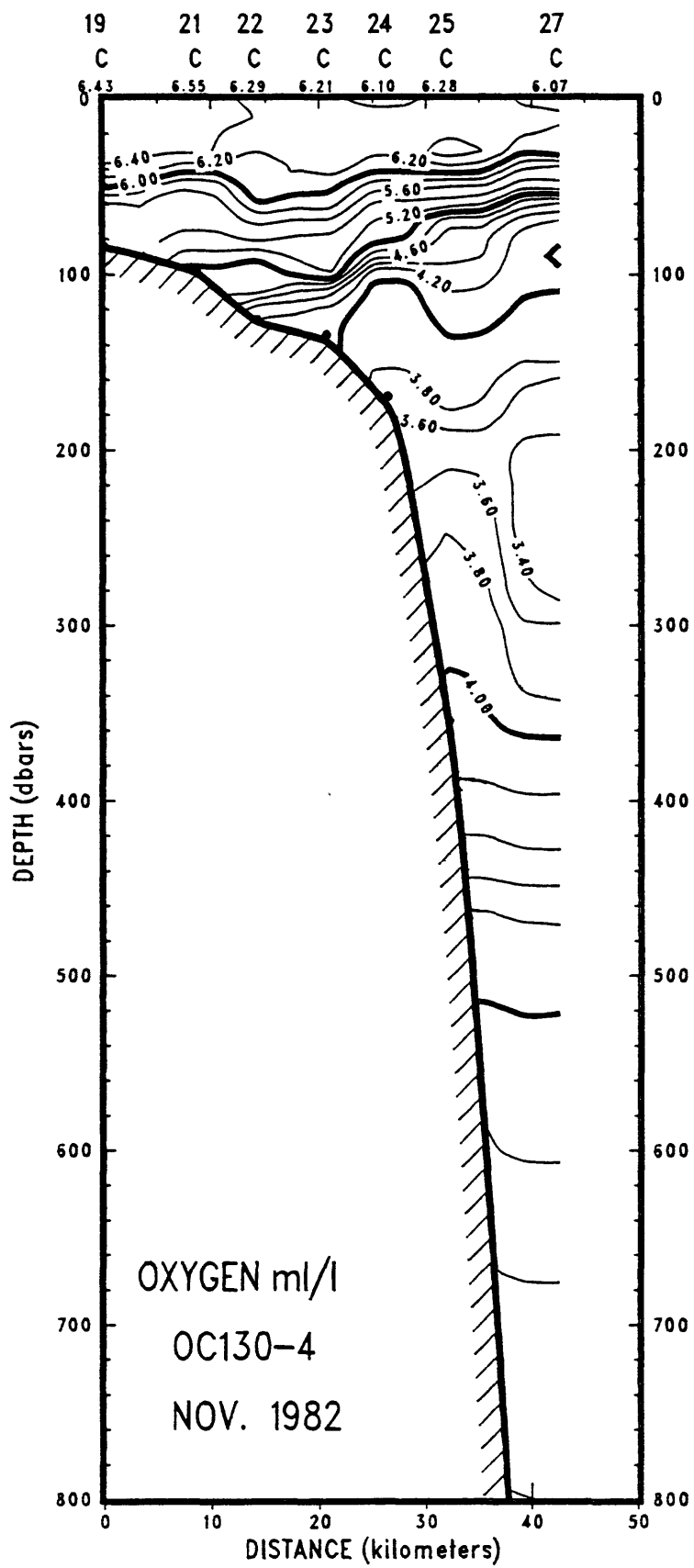


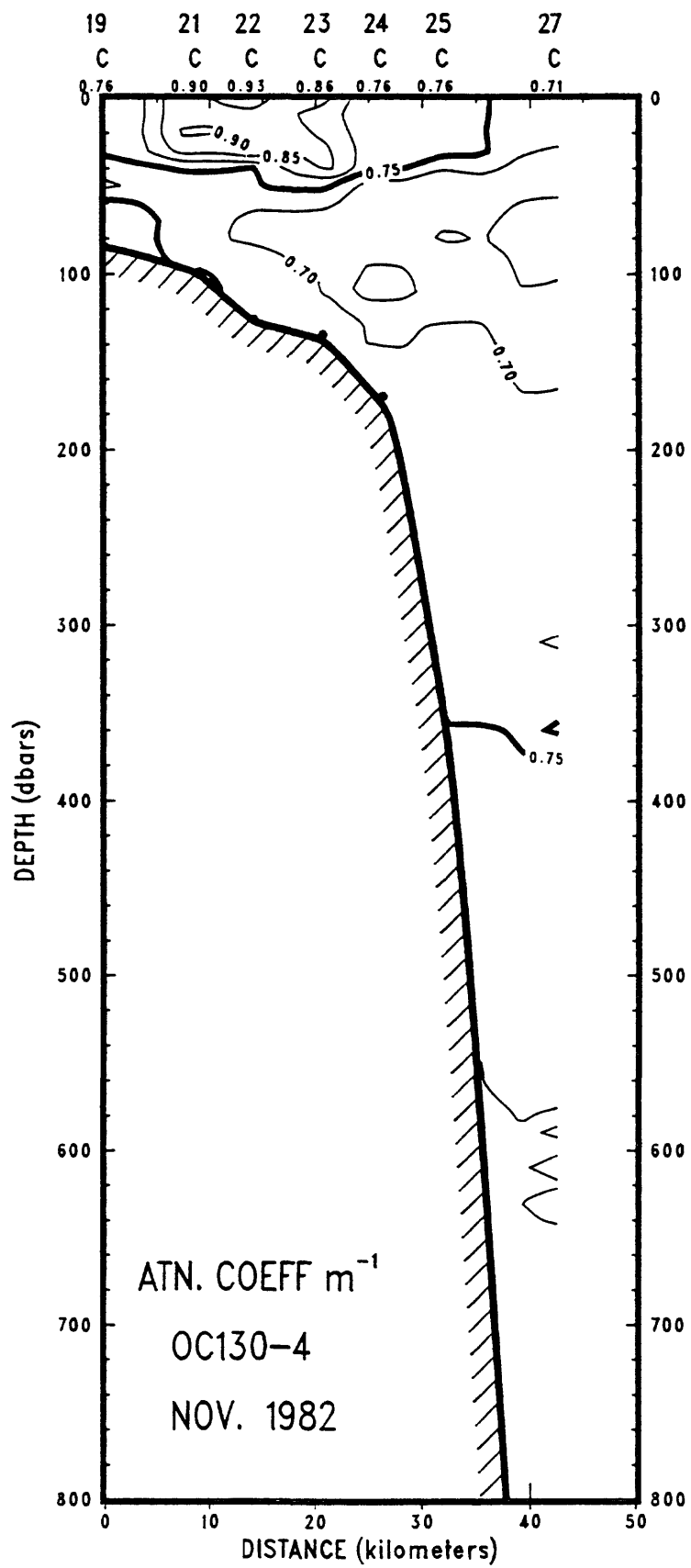


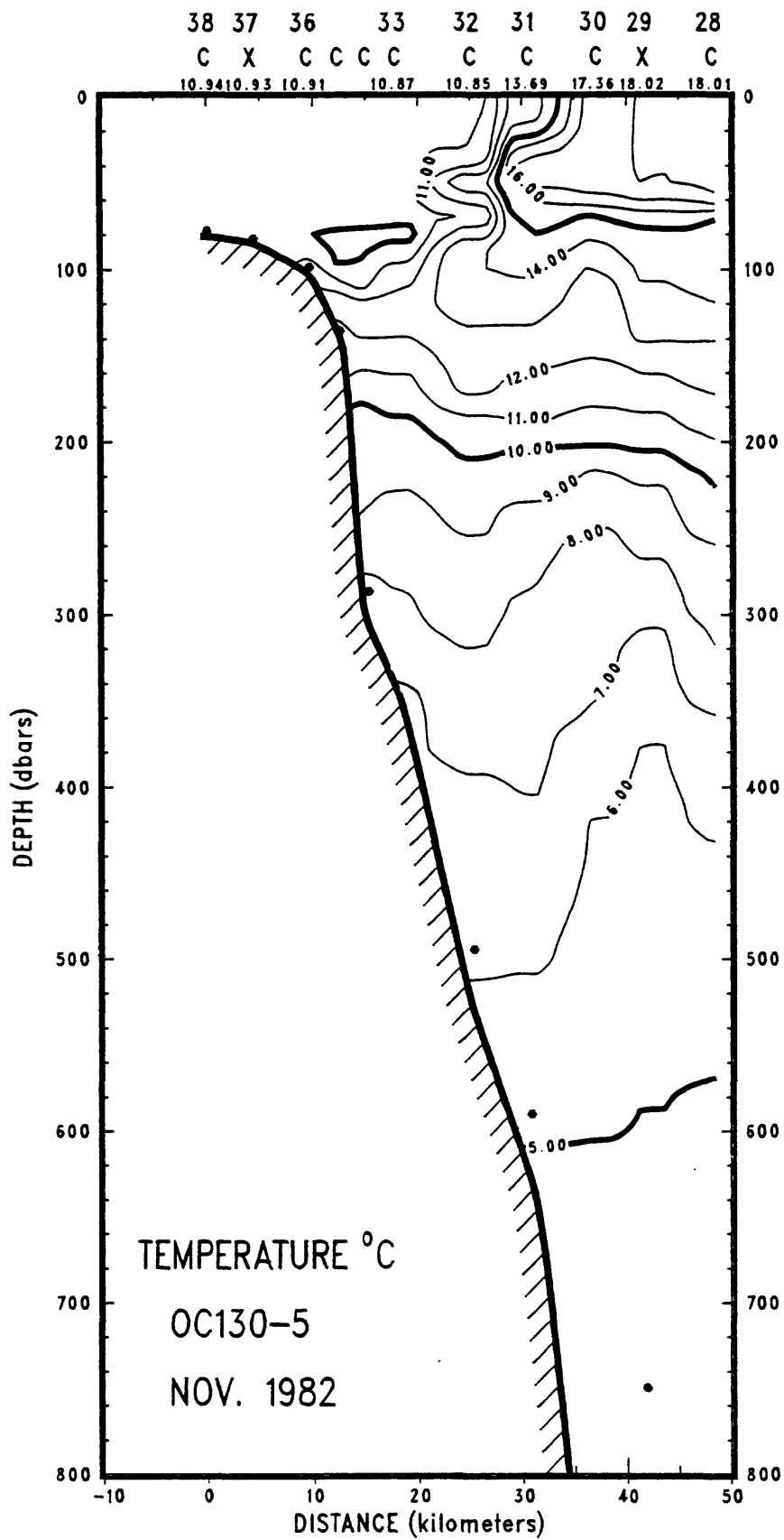


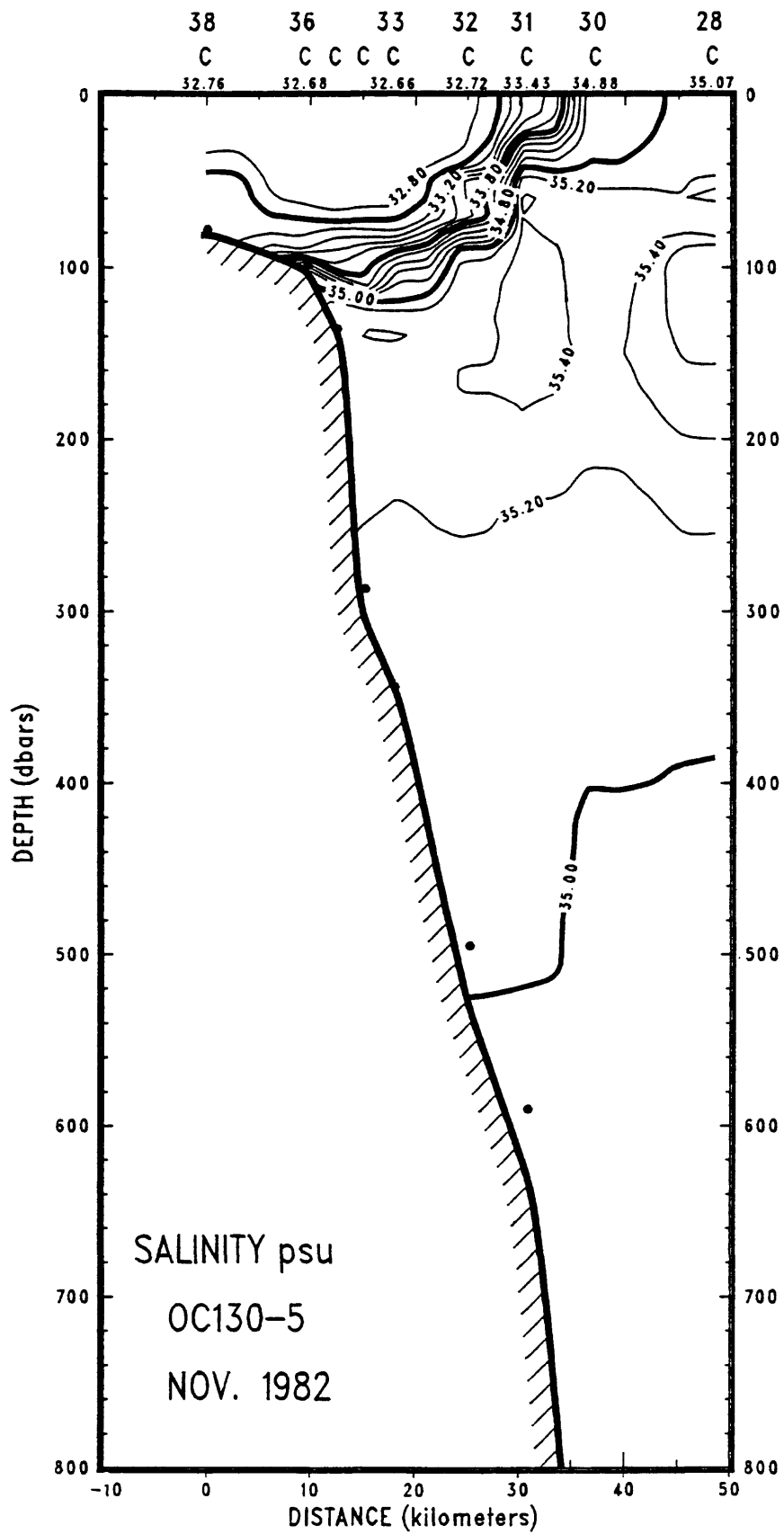


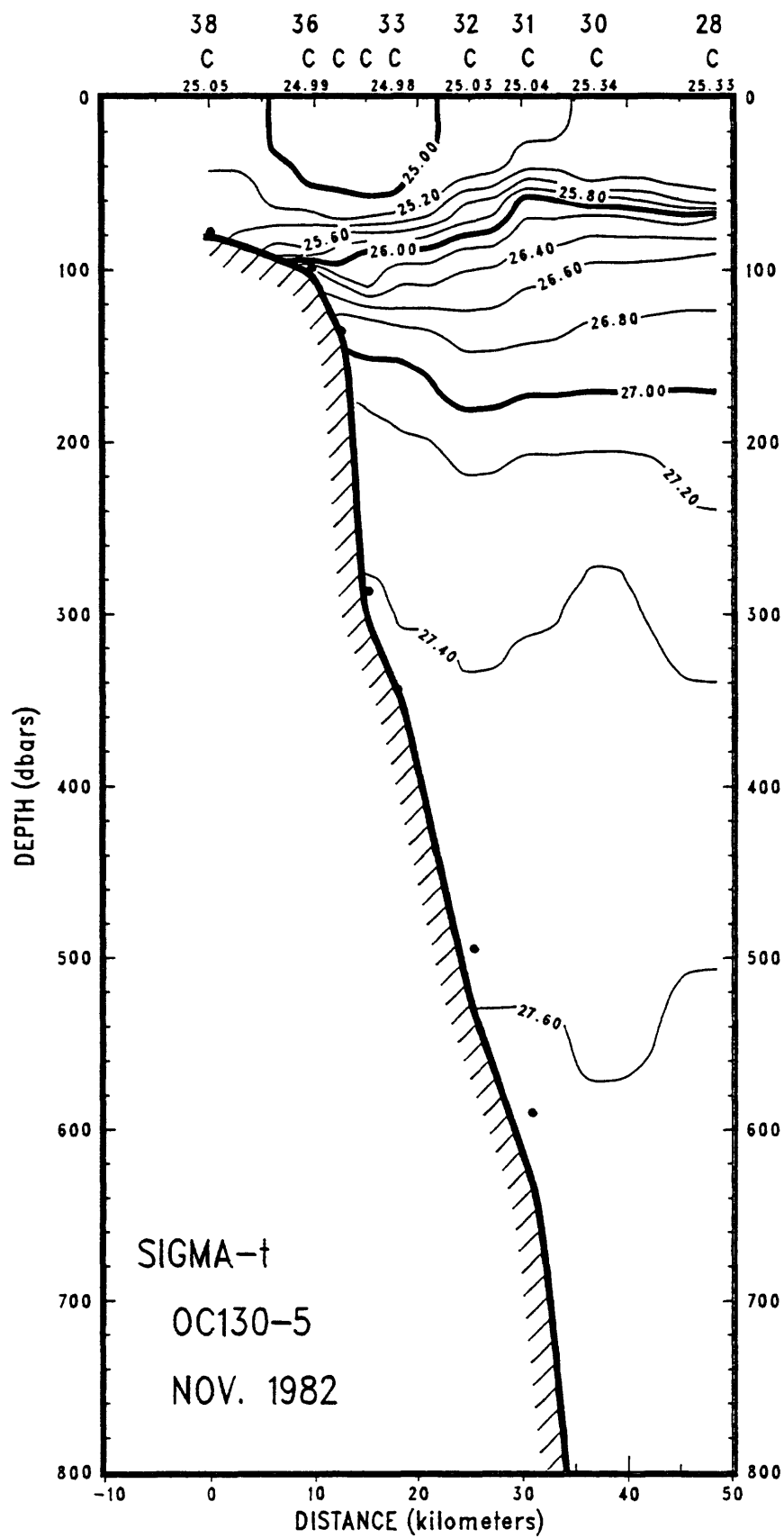


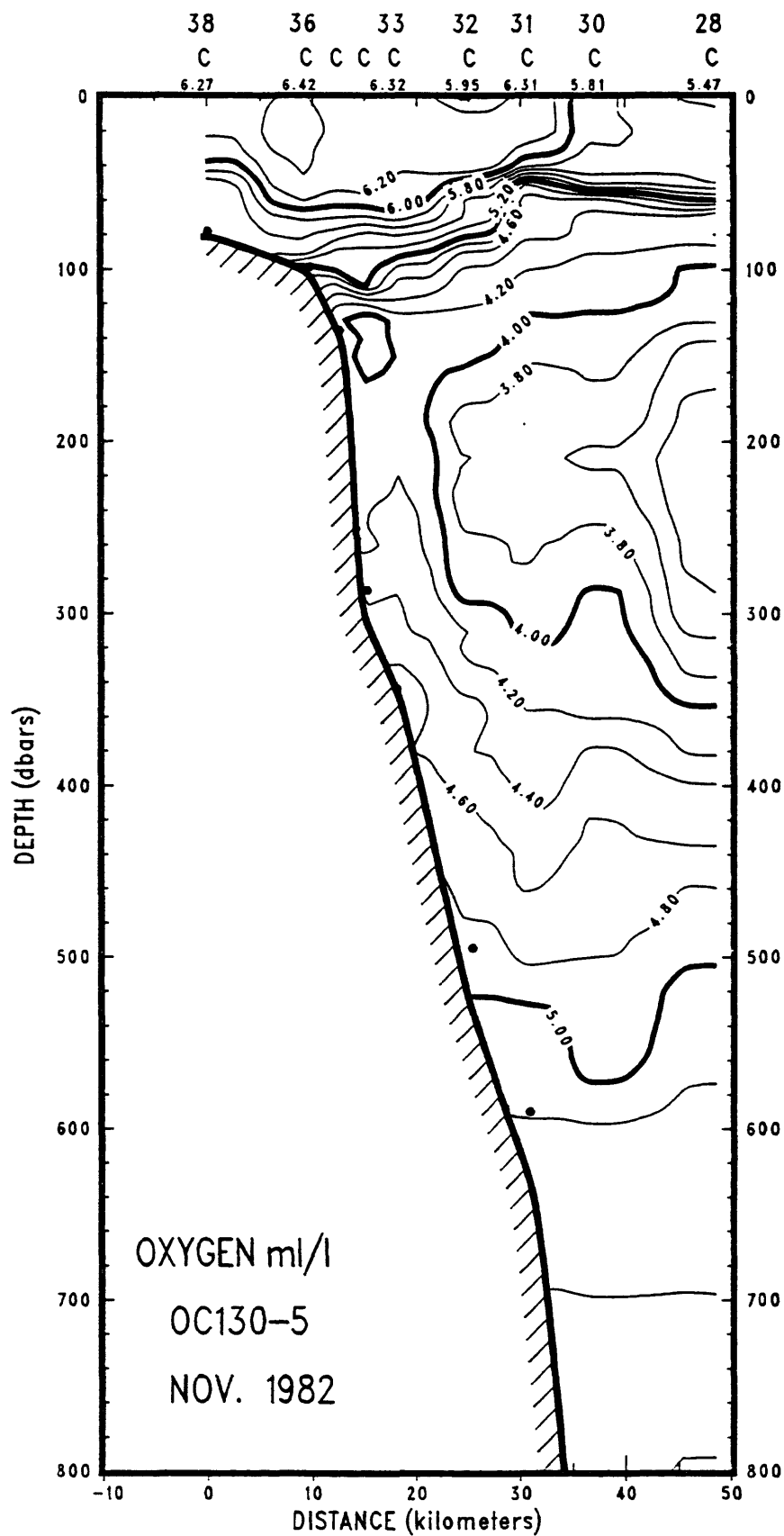




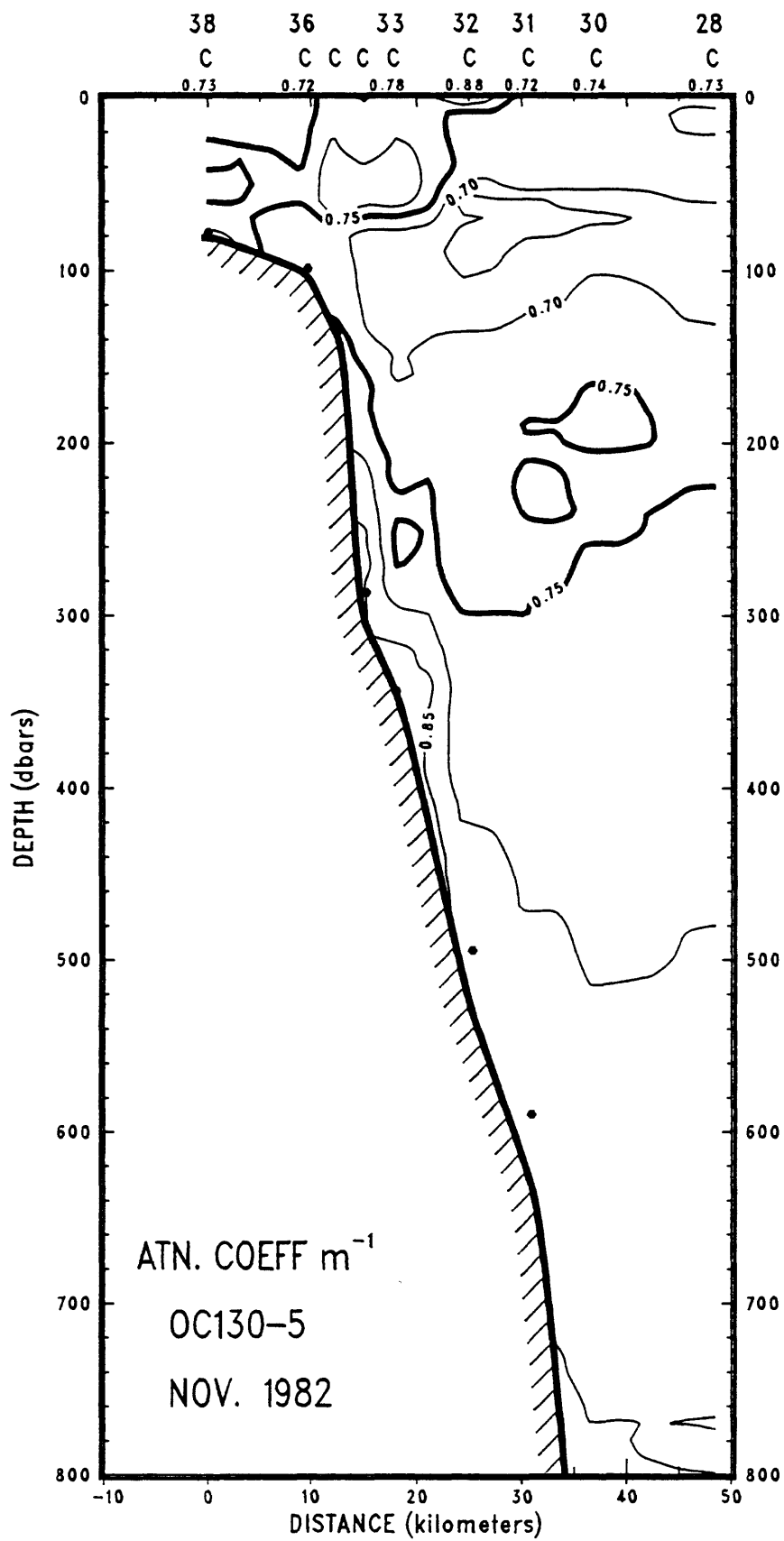


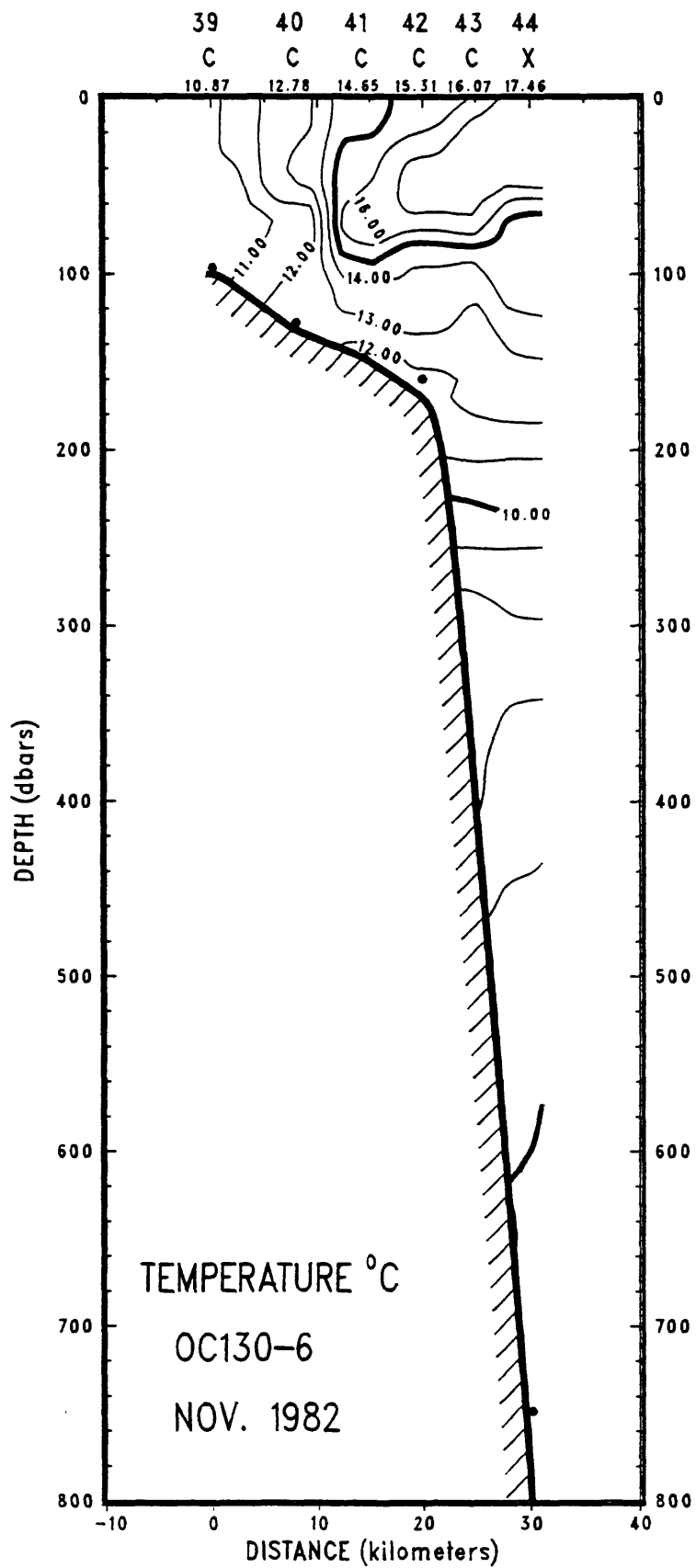


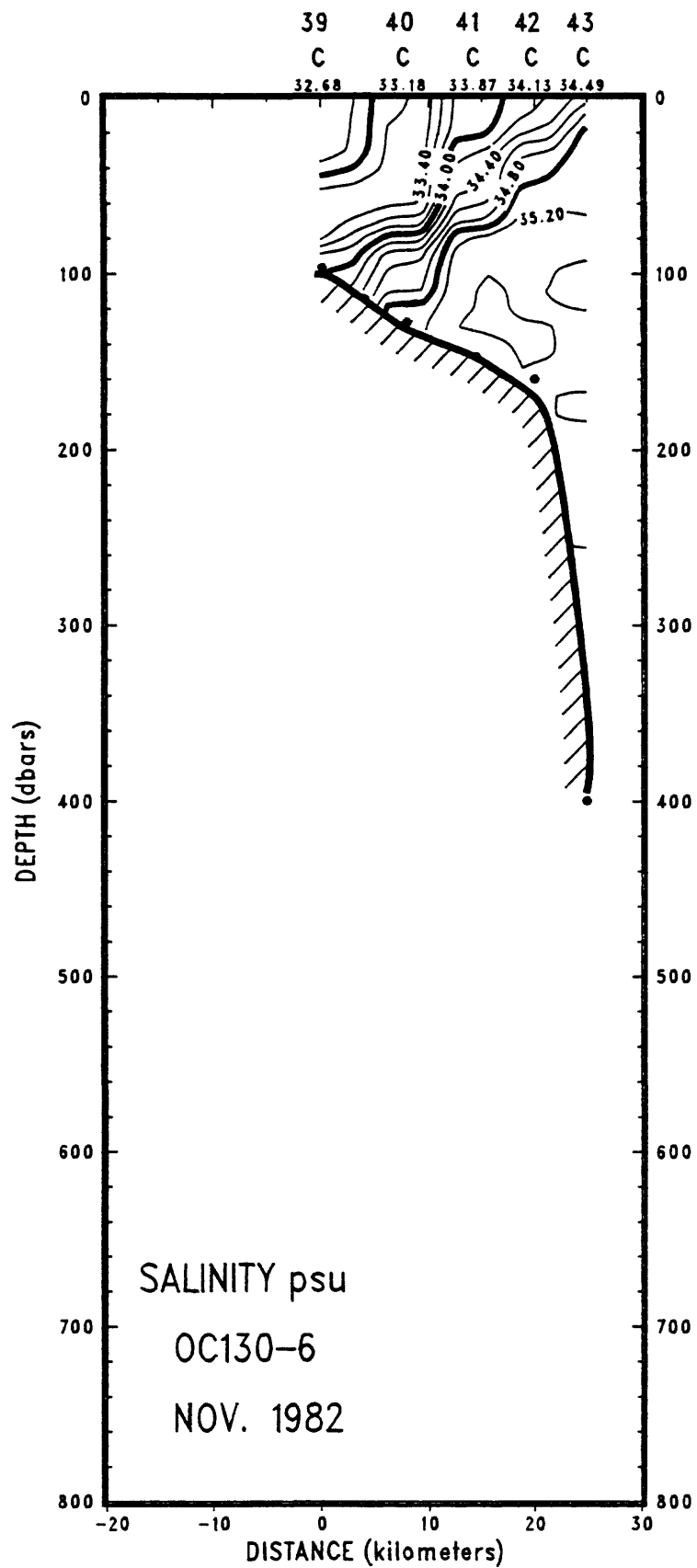


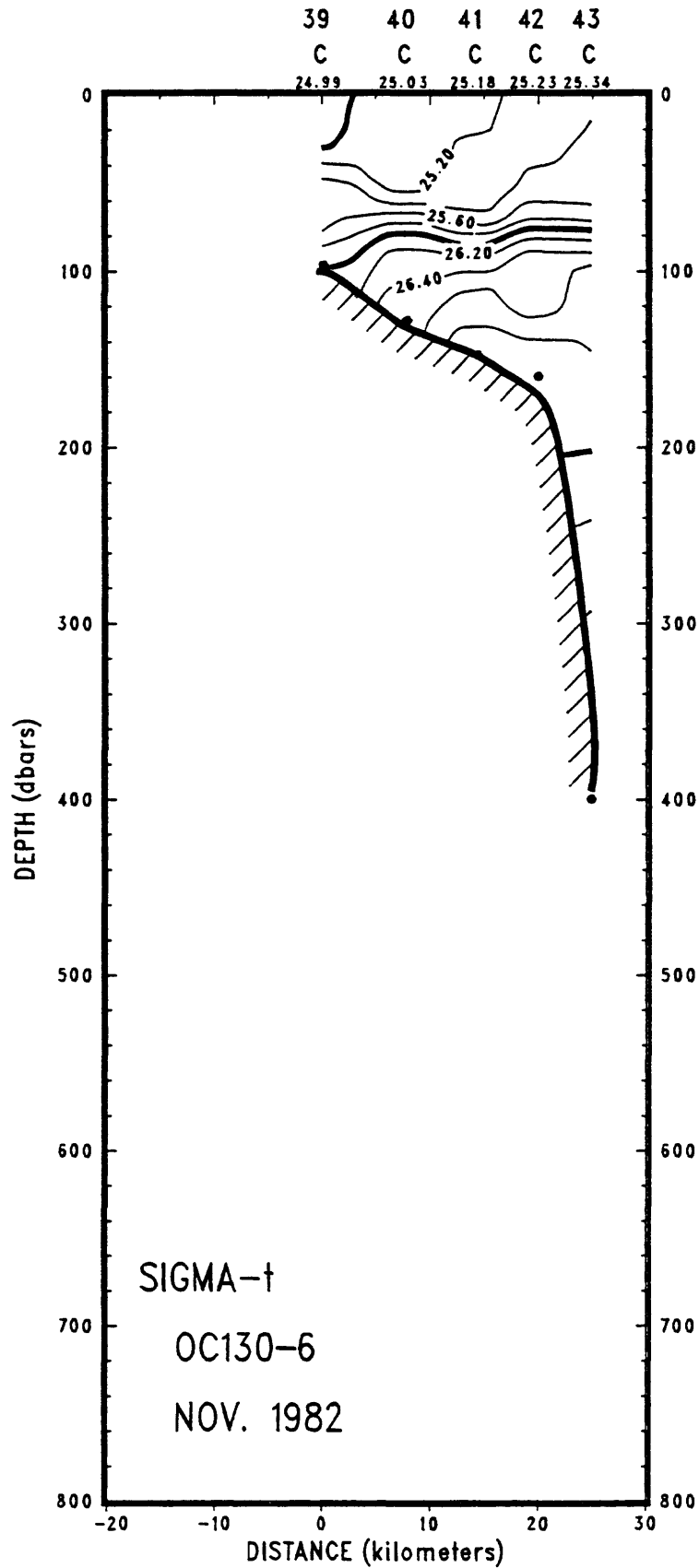


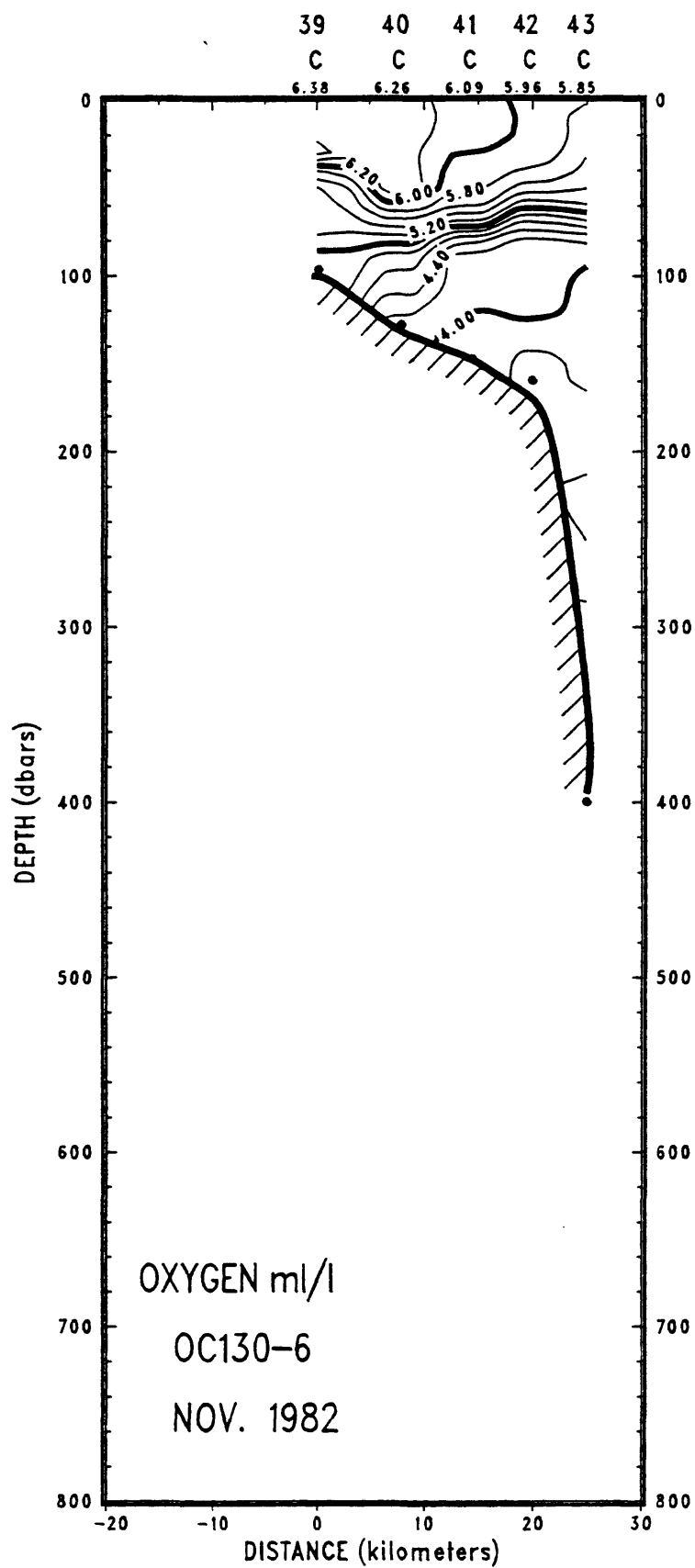


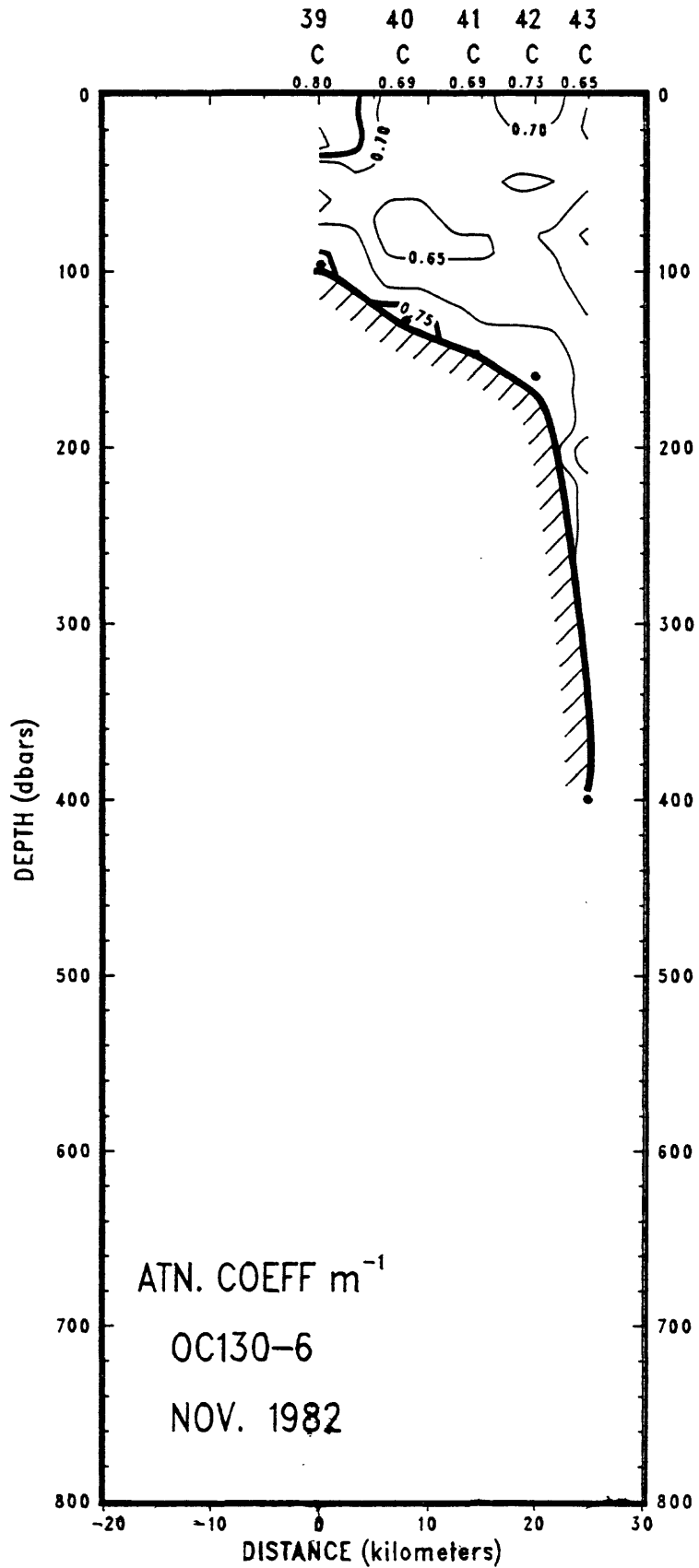


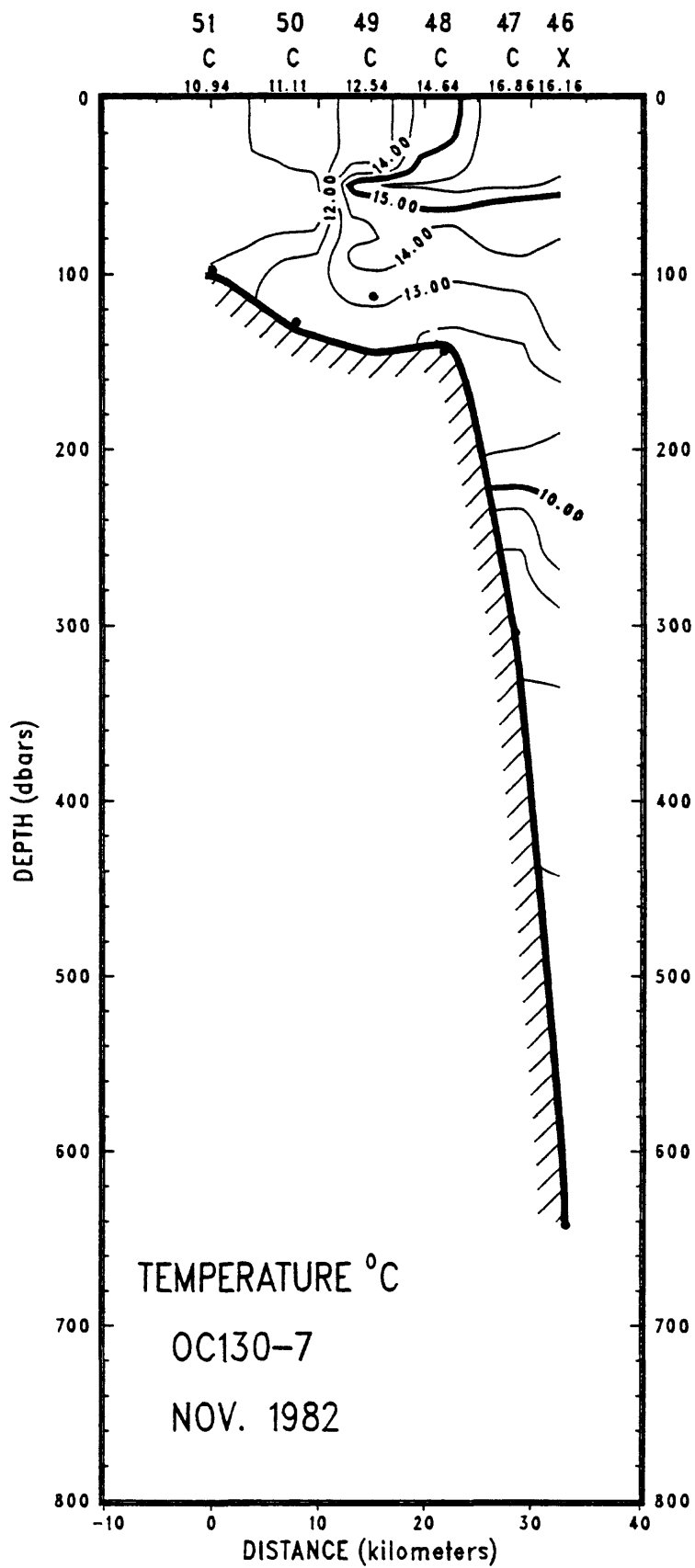


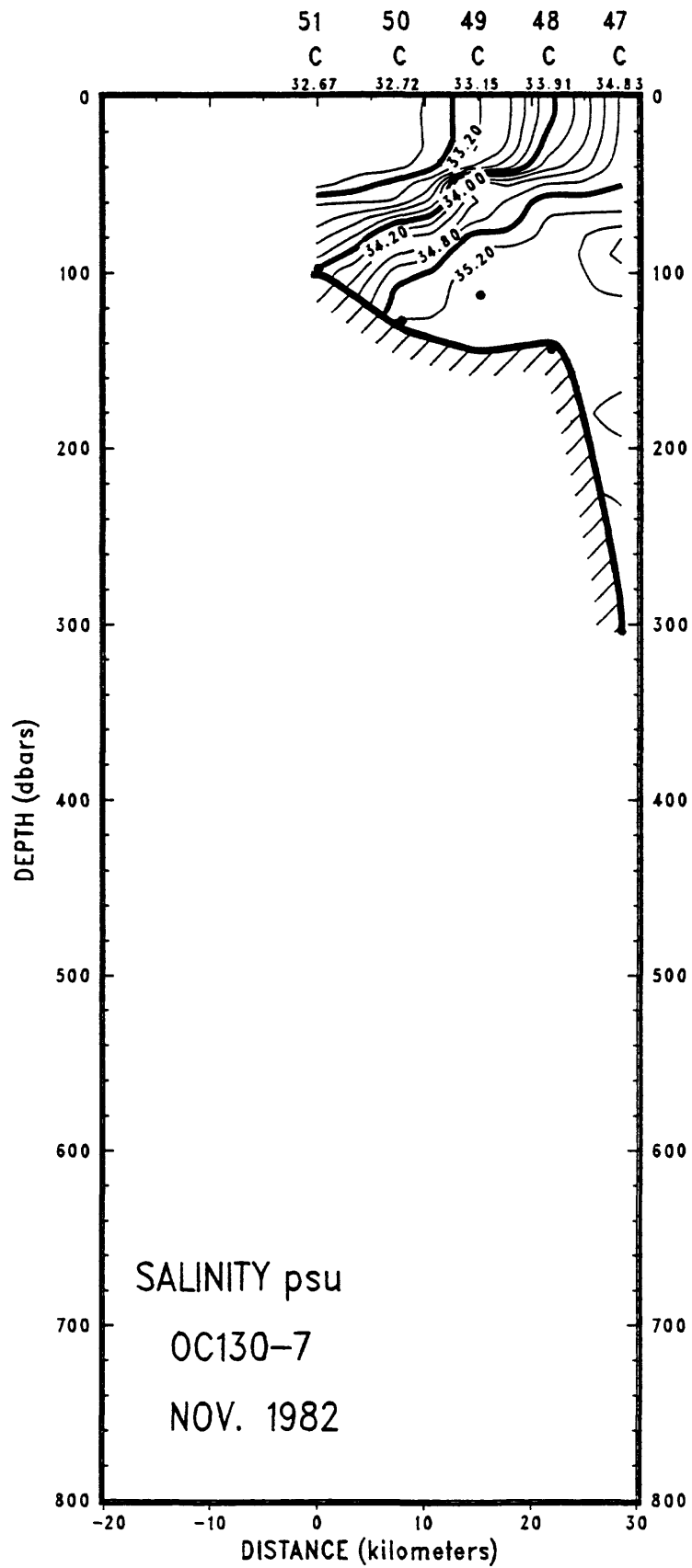




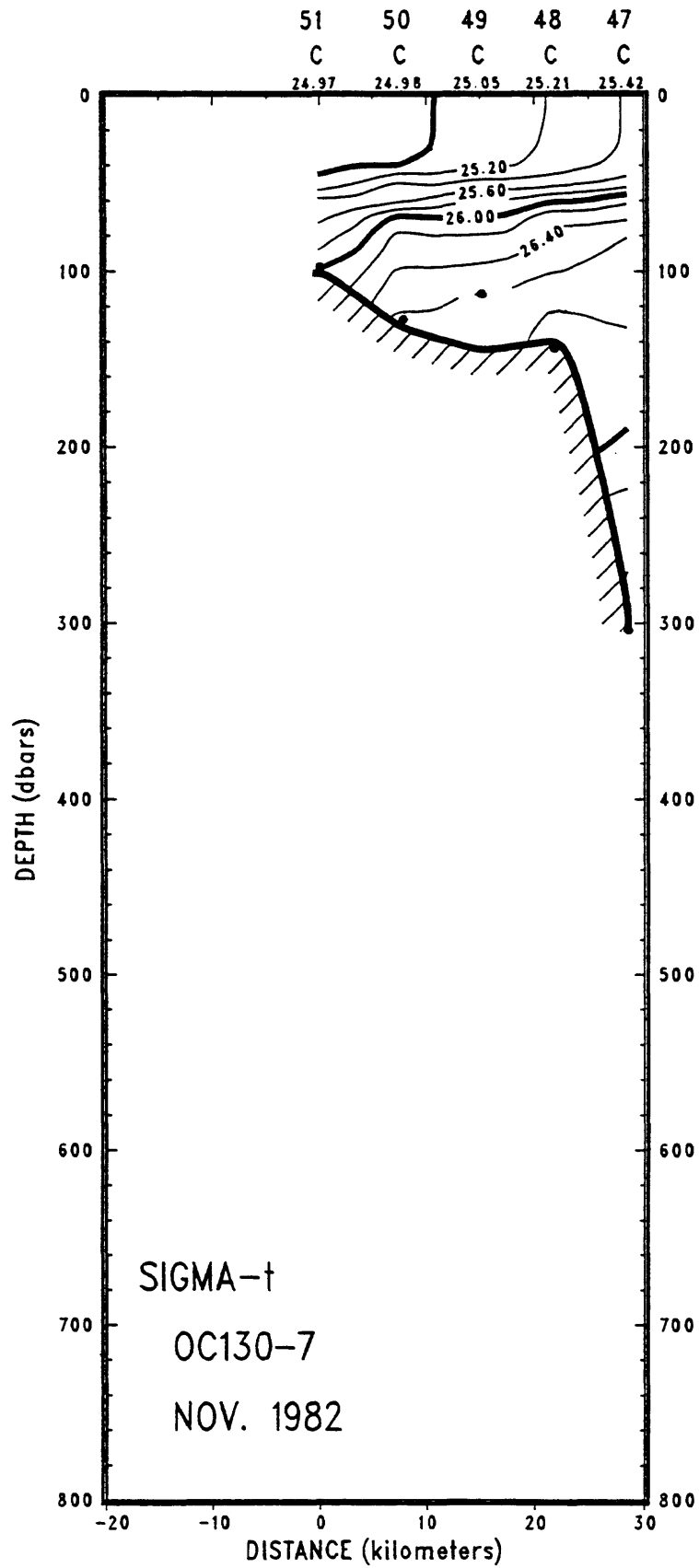


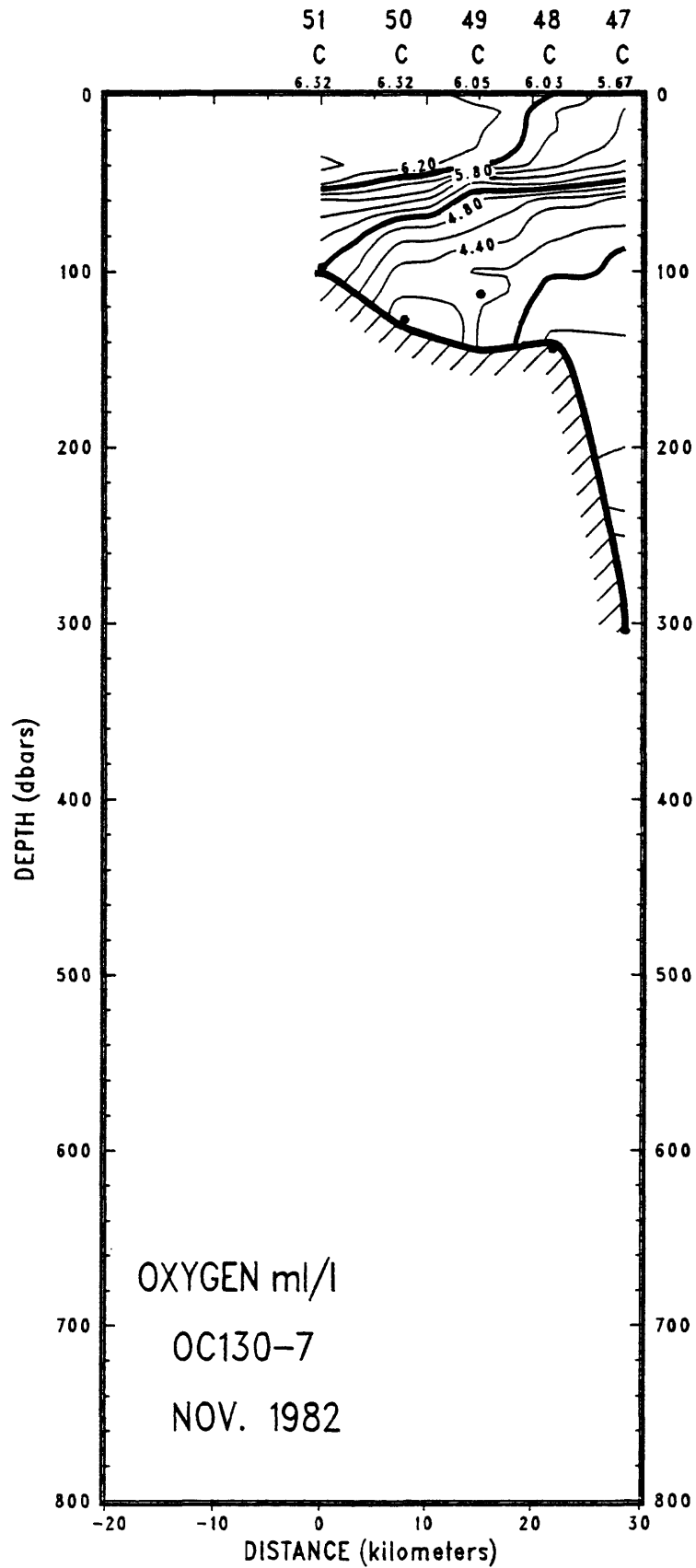


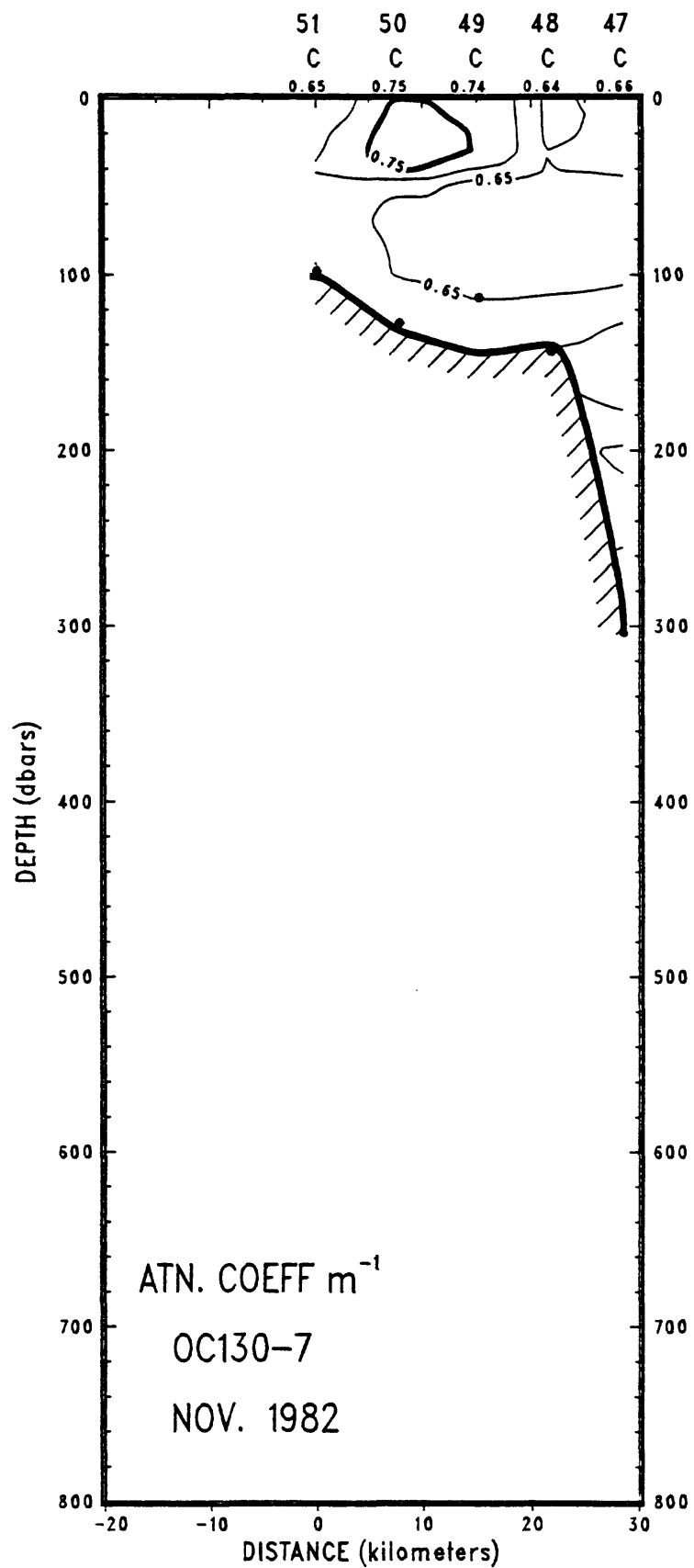


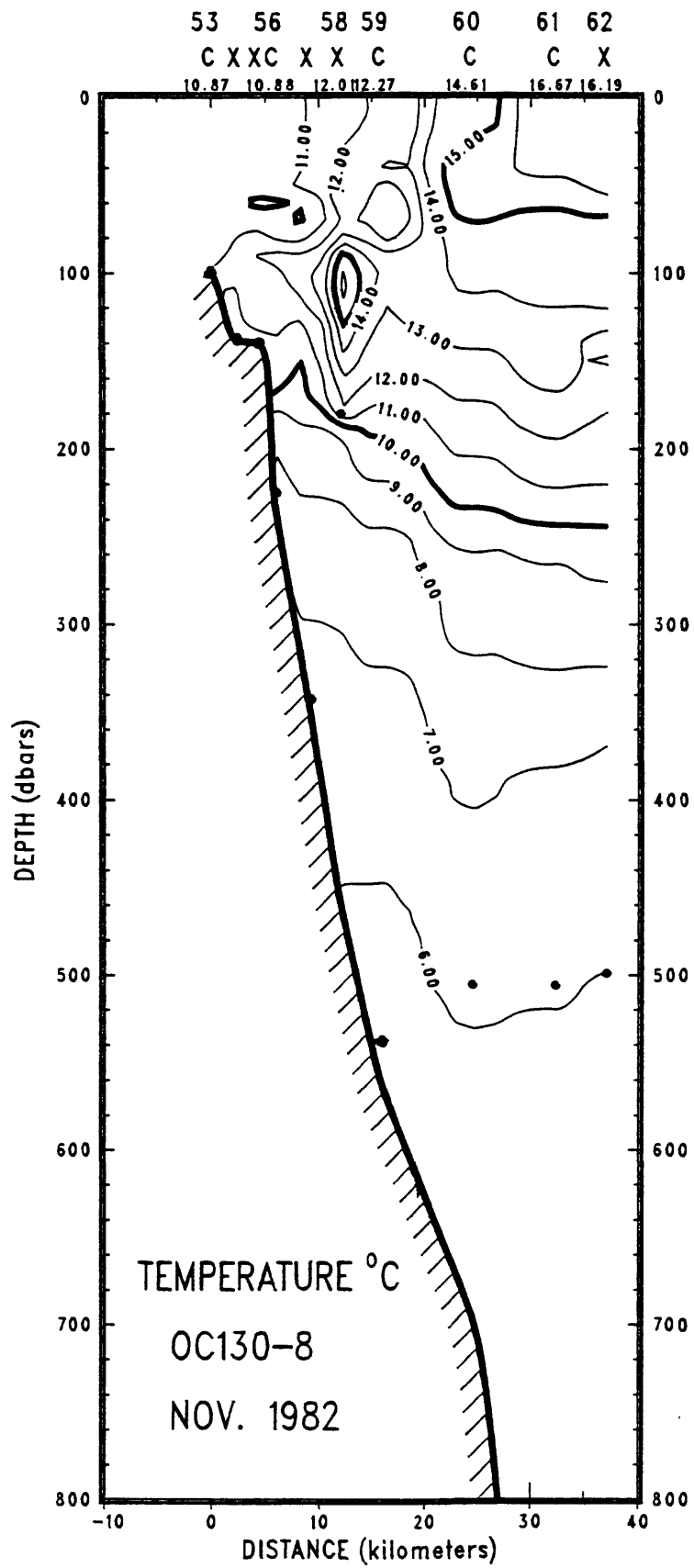


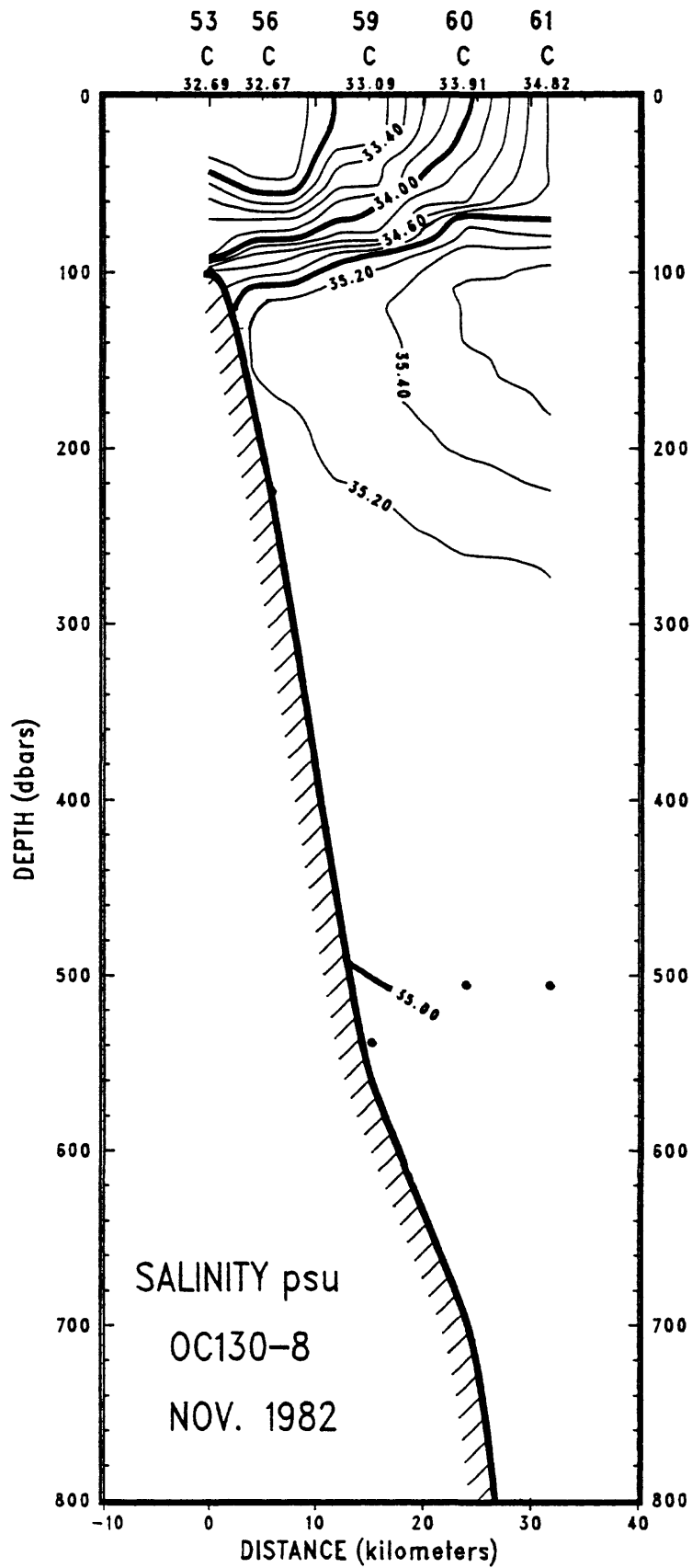


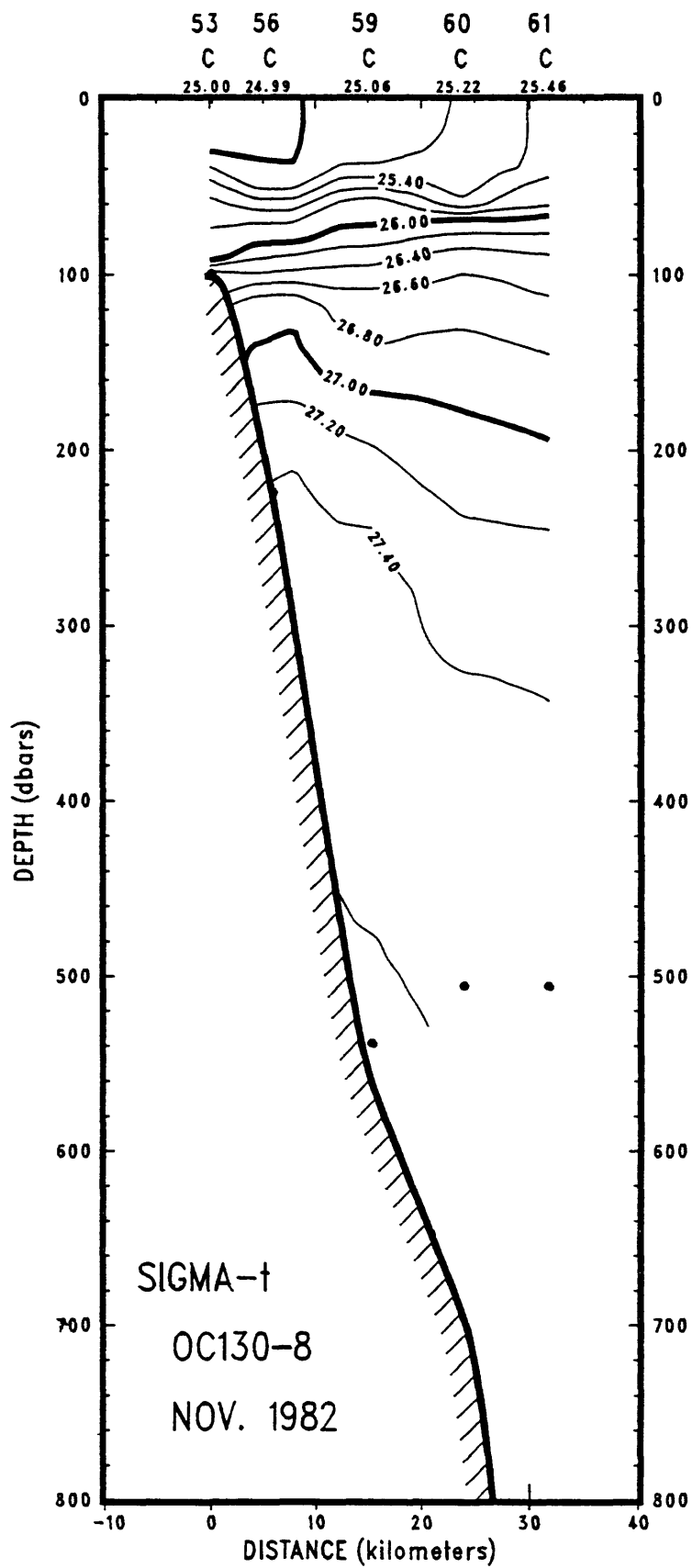


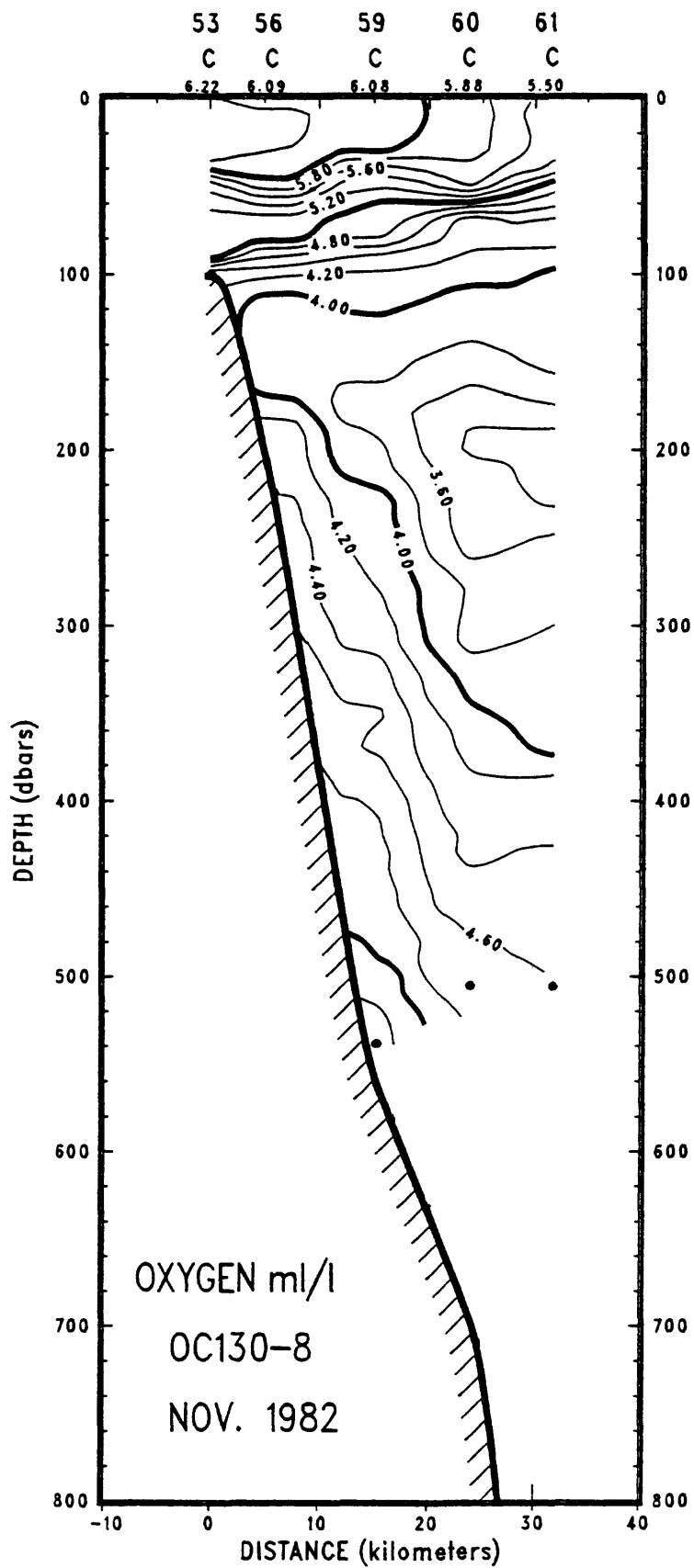


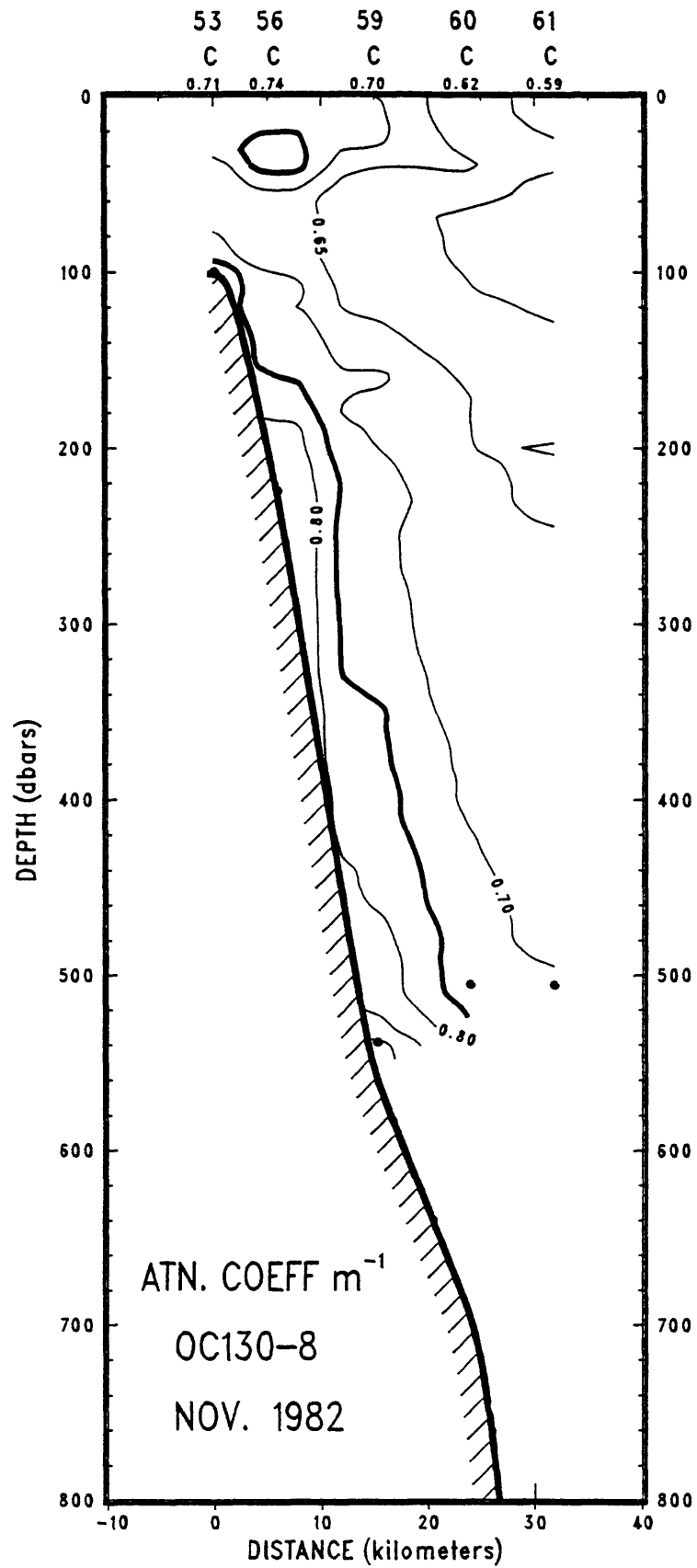




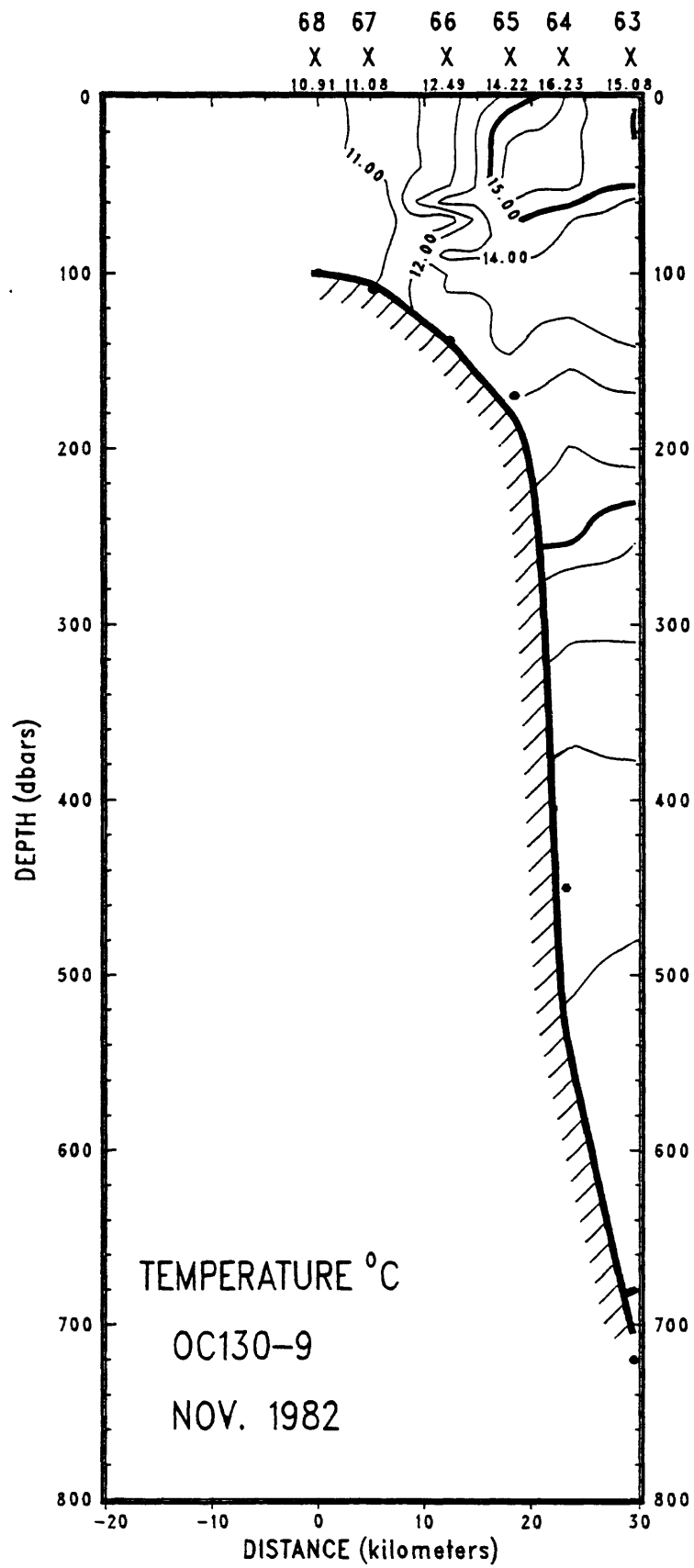


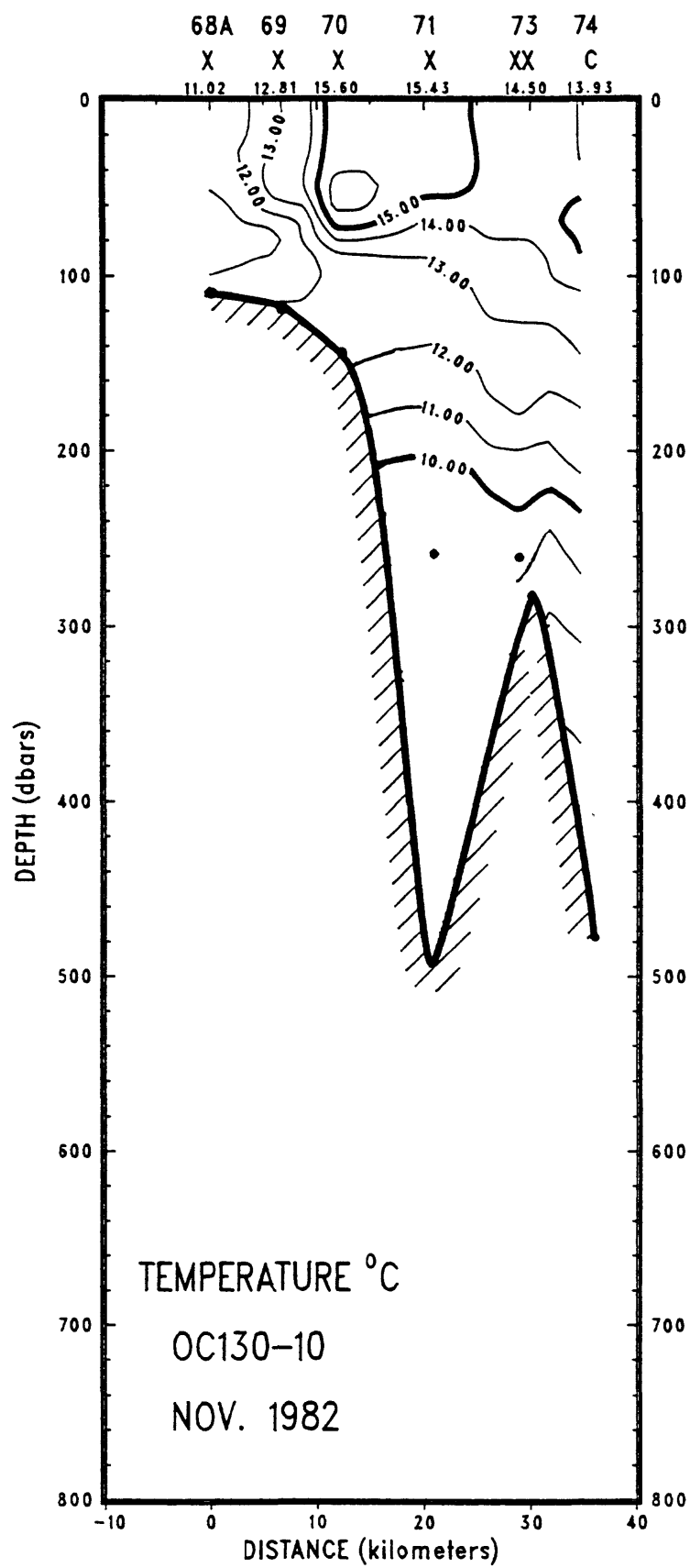






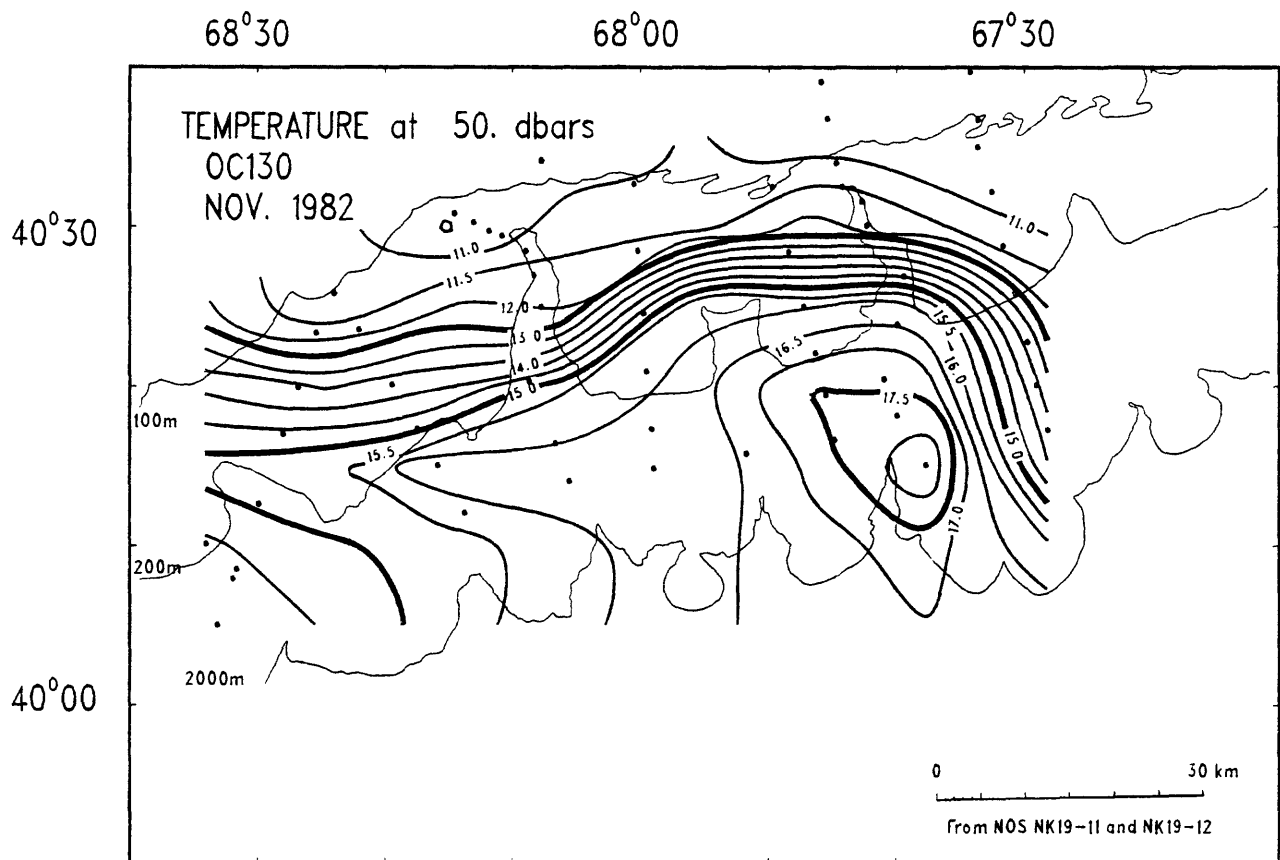
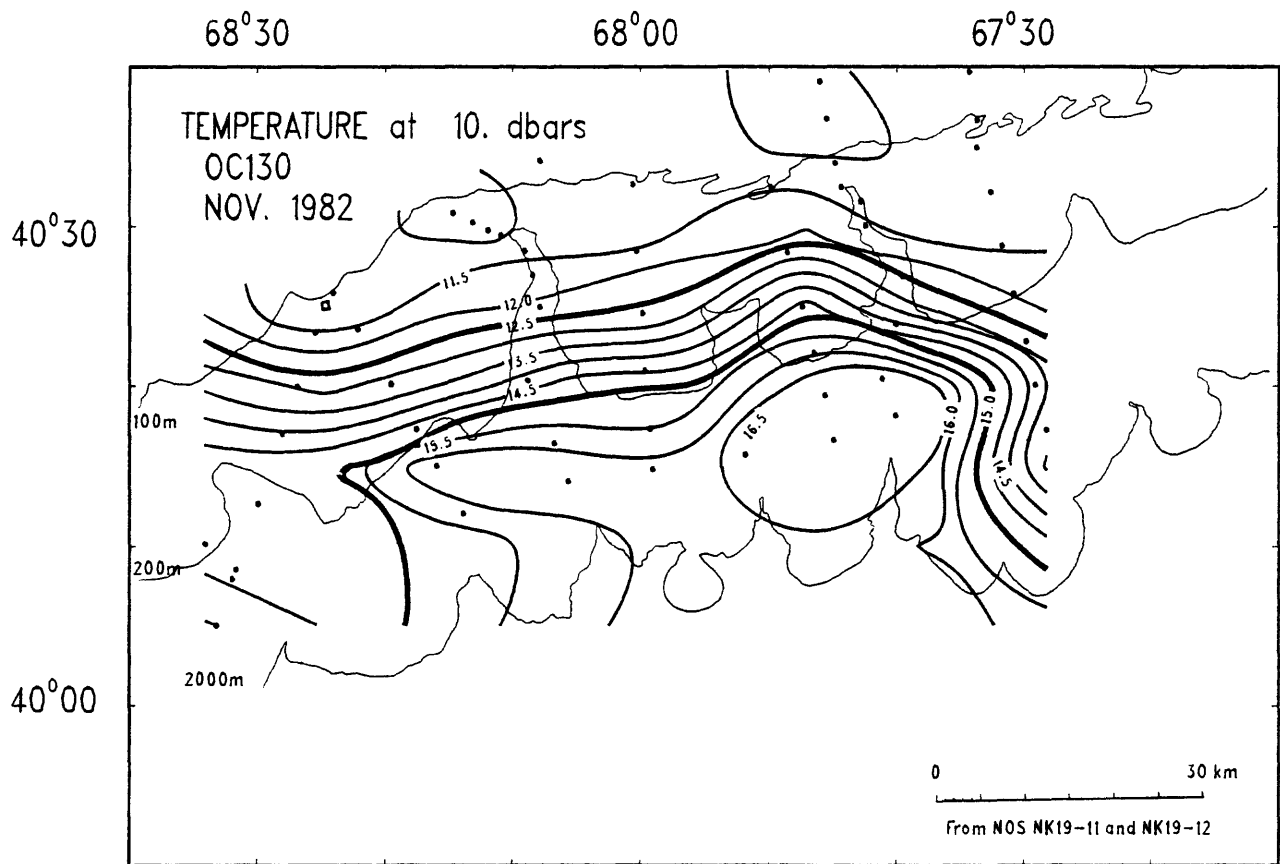


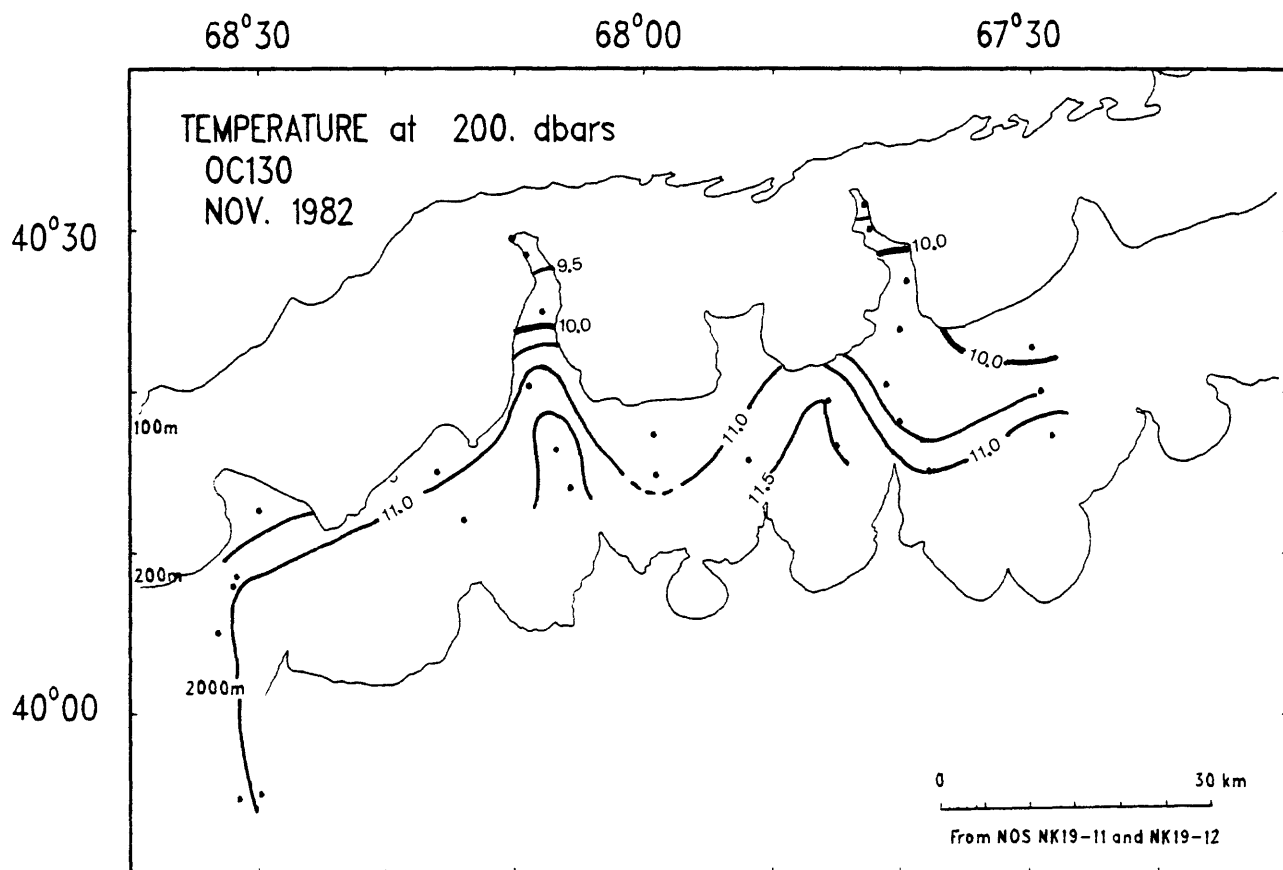
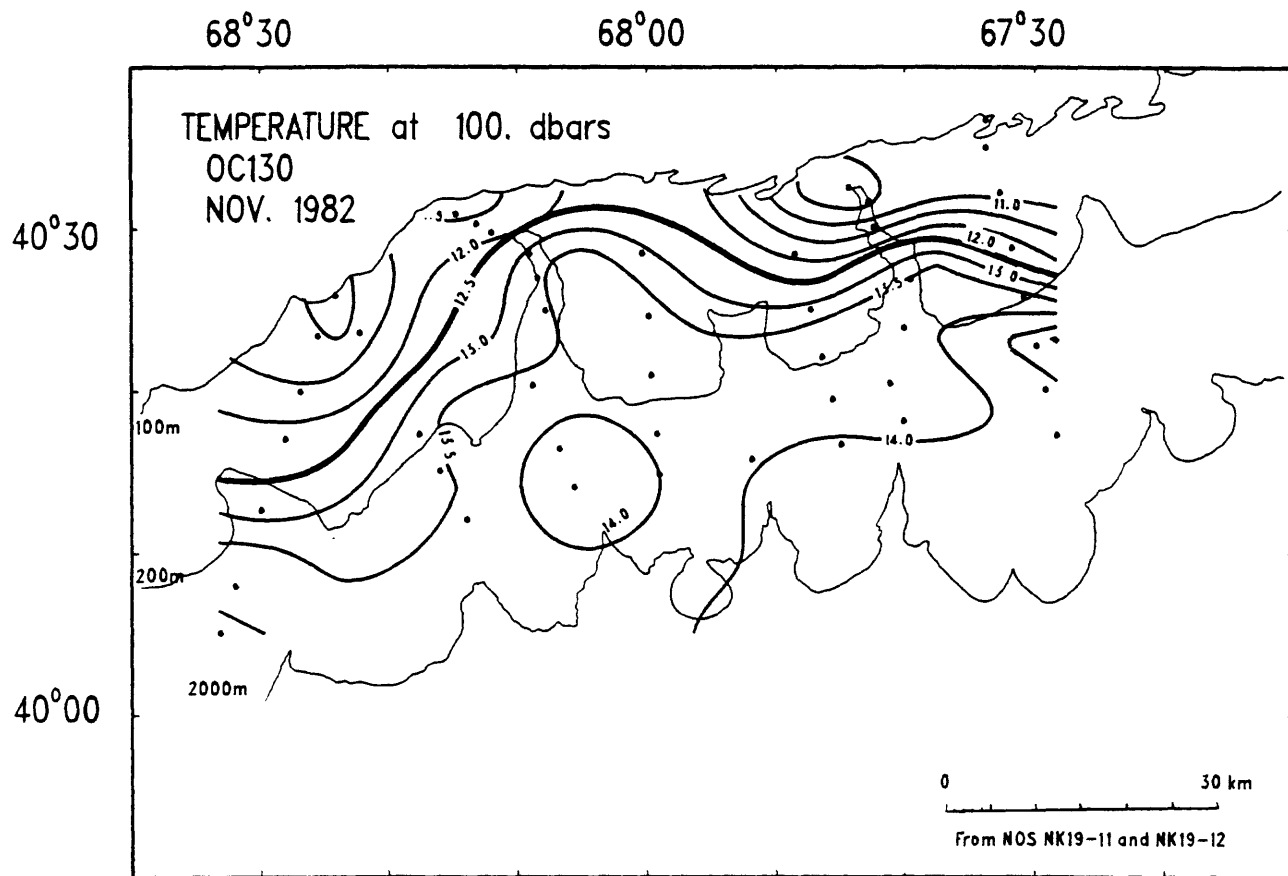


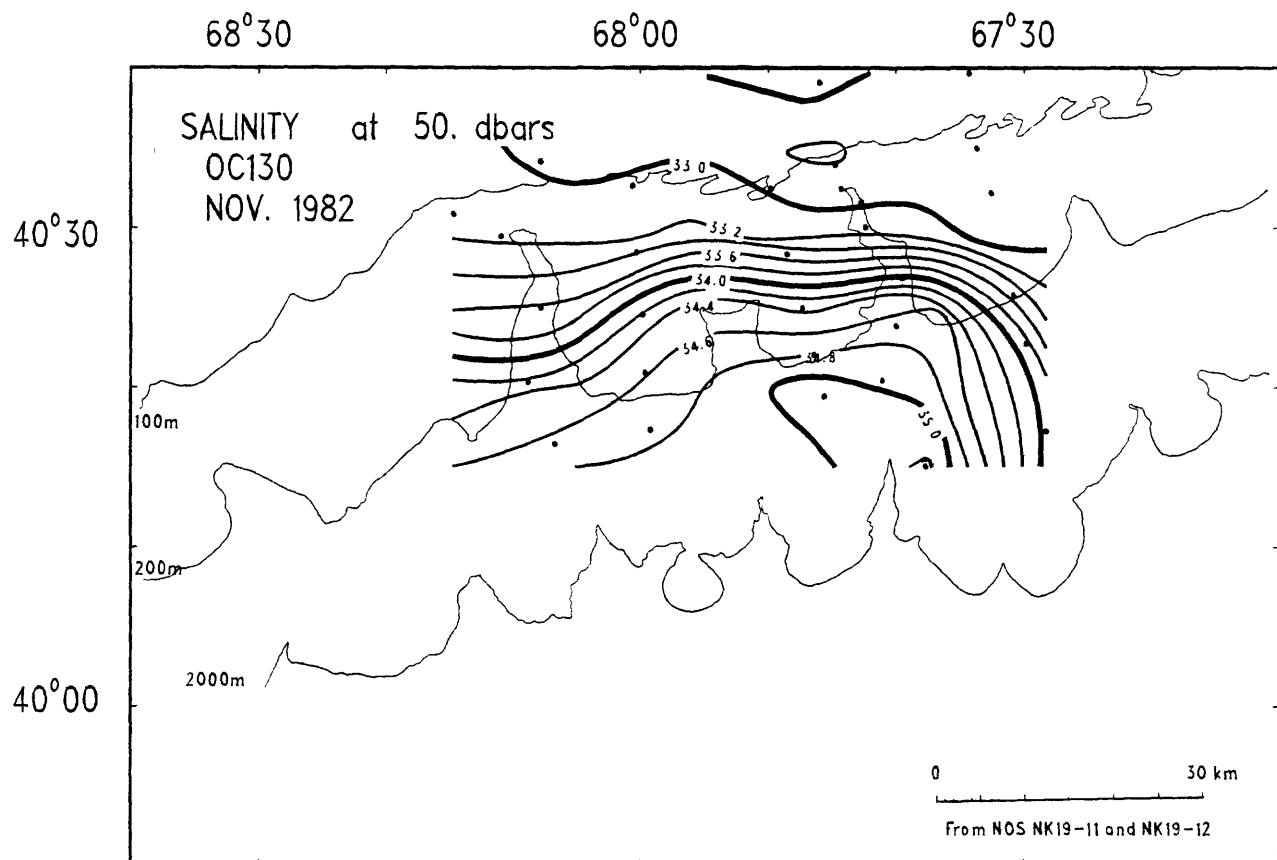
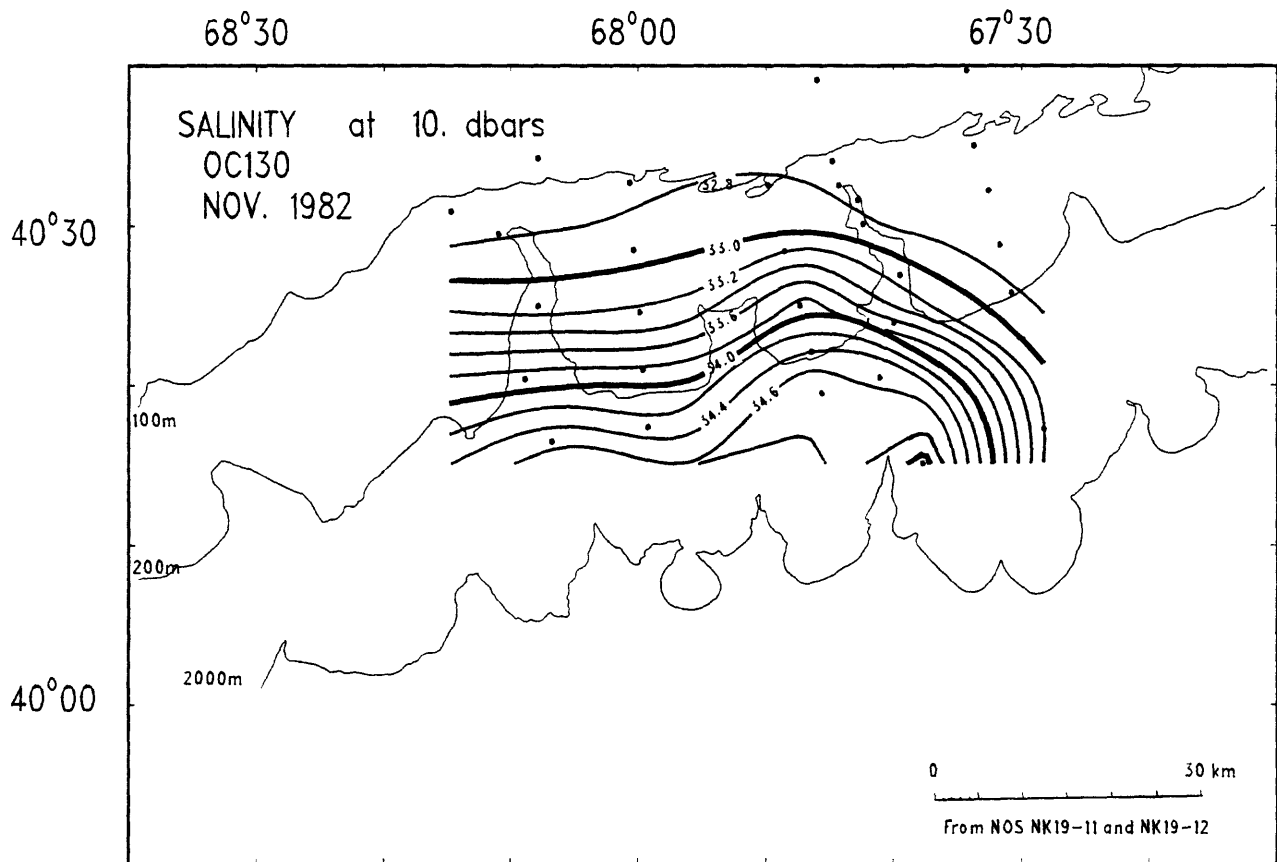


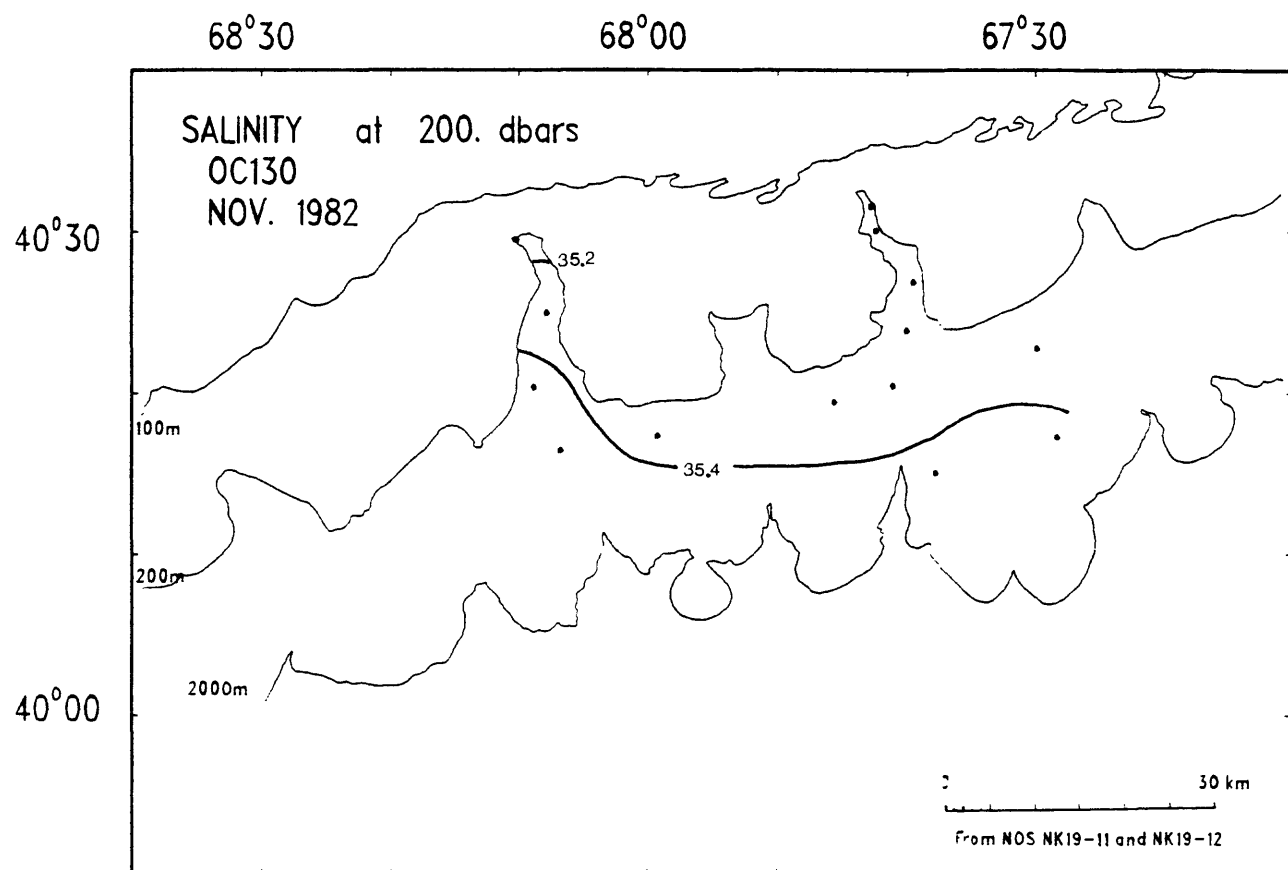
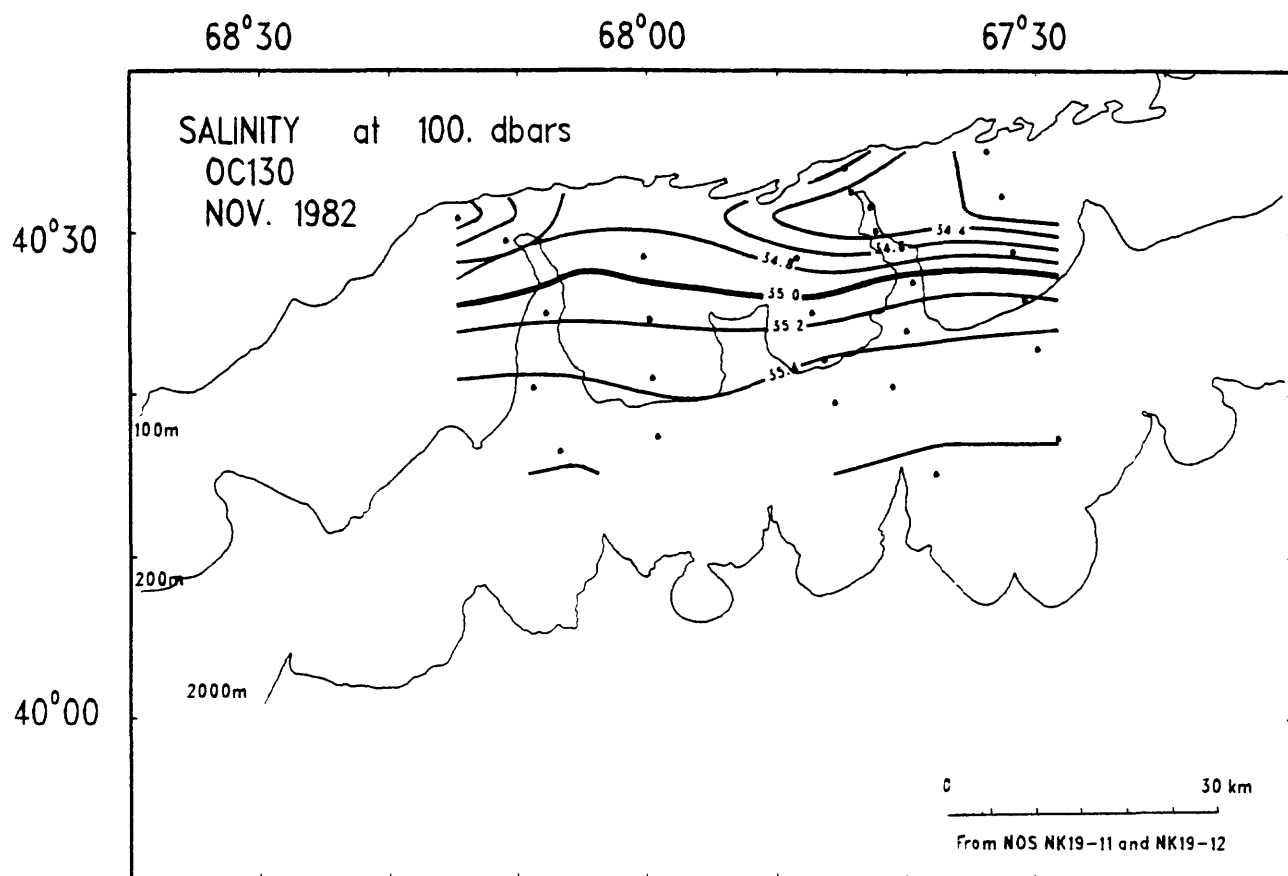
### Horizontal sections

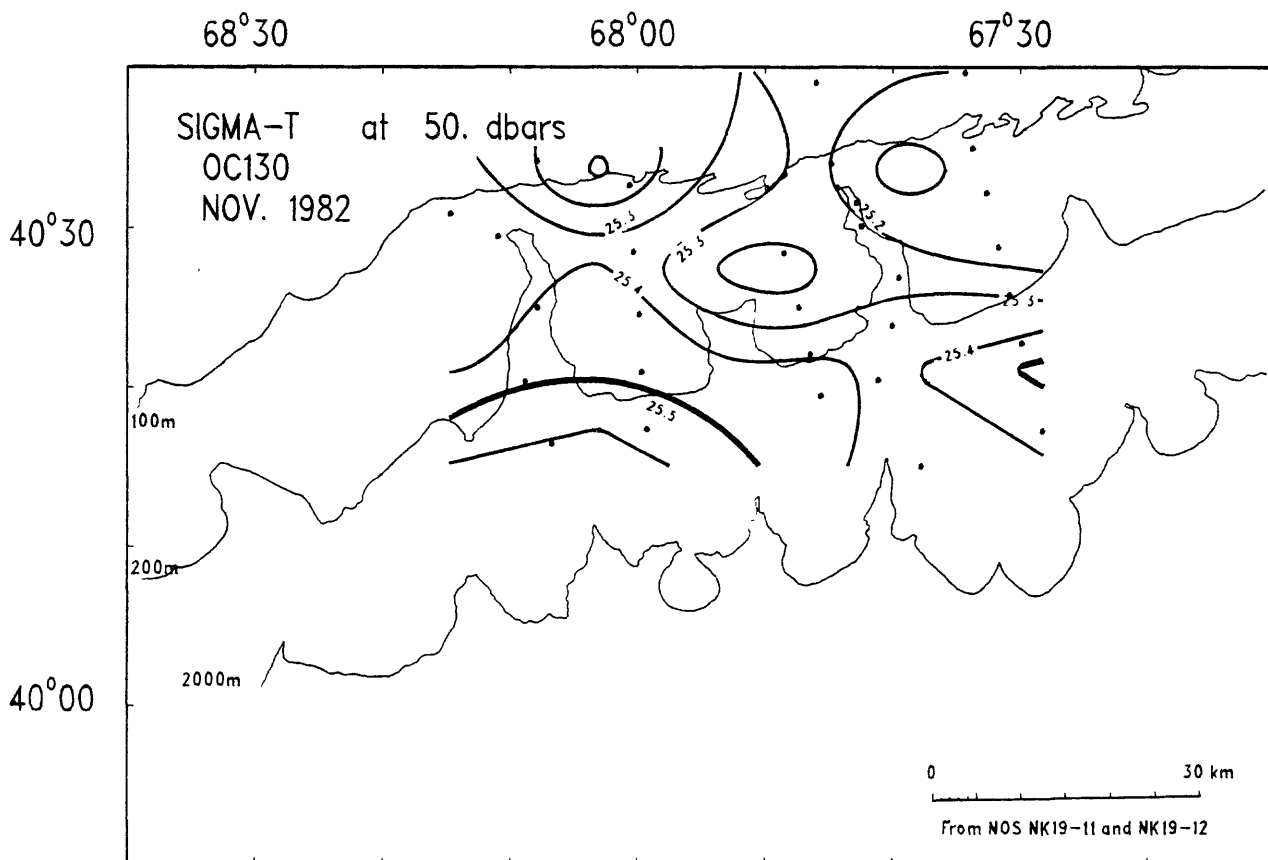
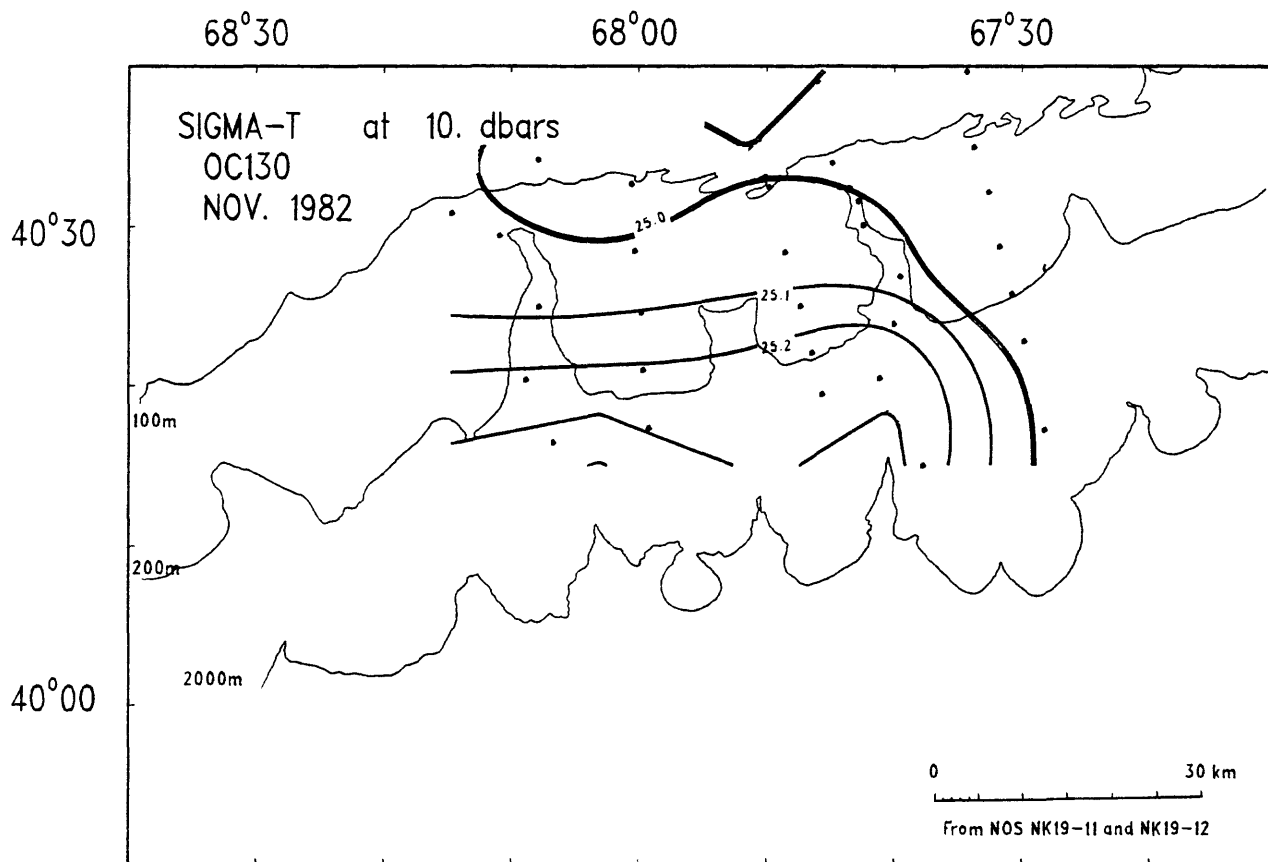
Horizontal sections were constructed on the 10-, 50-, 100-, and 200-dbar pressure surfaces. The contoured area is a rectangle defined by the stations at the extreme southwest and northeast corners. The data were interpreted onto a grid with 5 grid lines running north-south and east-west for each variable except temperature which had 6 grid lines in each direction. Dots indicate the location of stations that were used in contouring the section. The sections at 10, 50, and 100 dbars were contoured using computer subroutines similar to those used for the vertical sections. The 200-dbar section was contoured by hand.



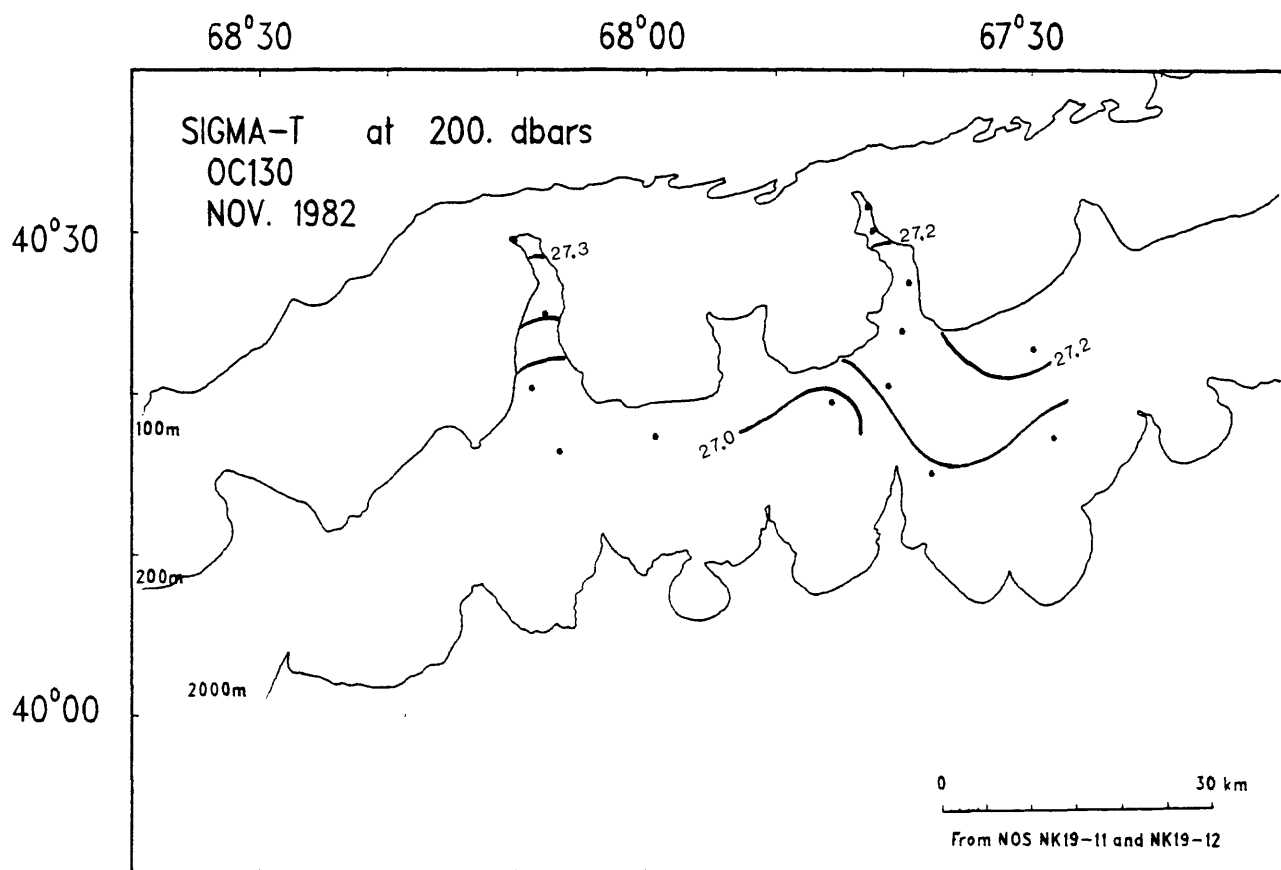
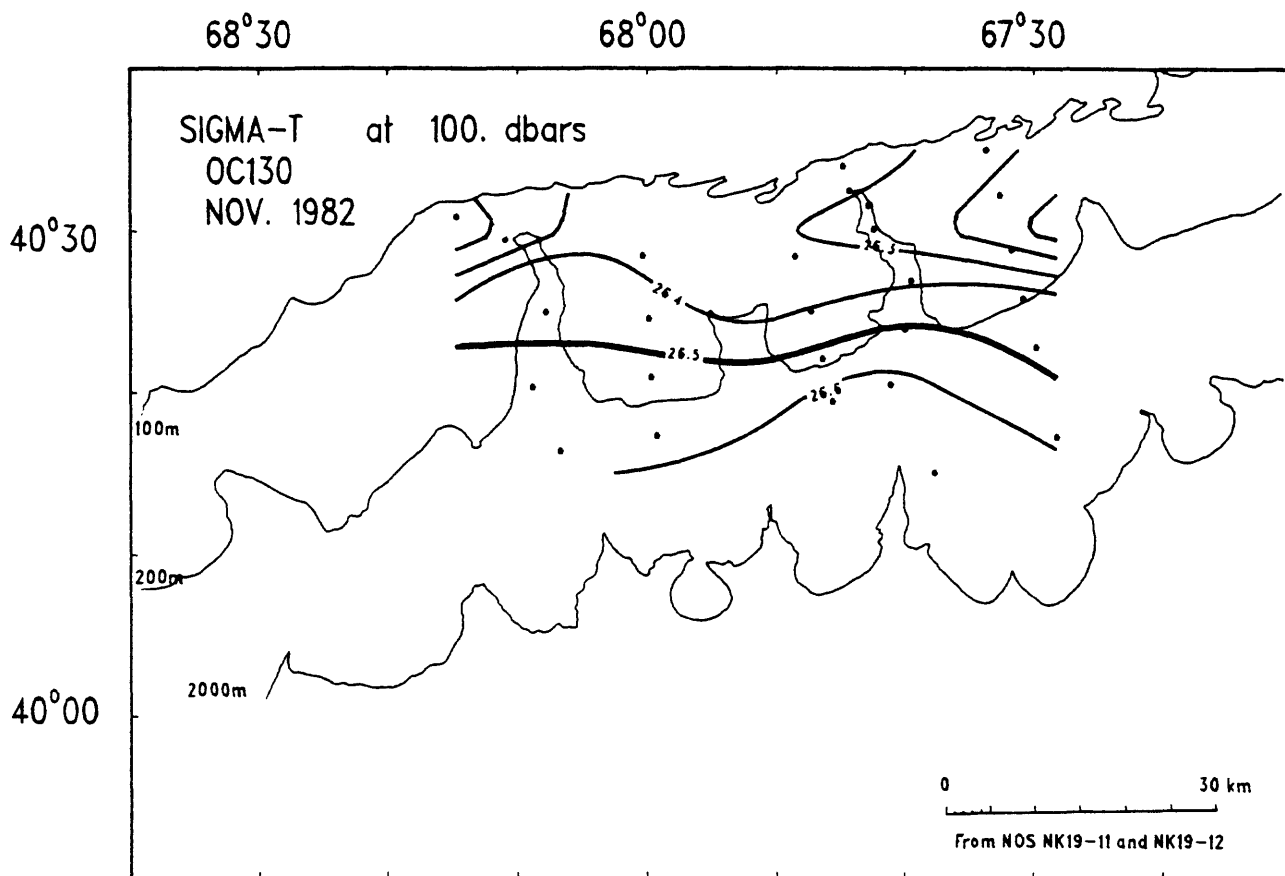


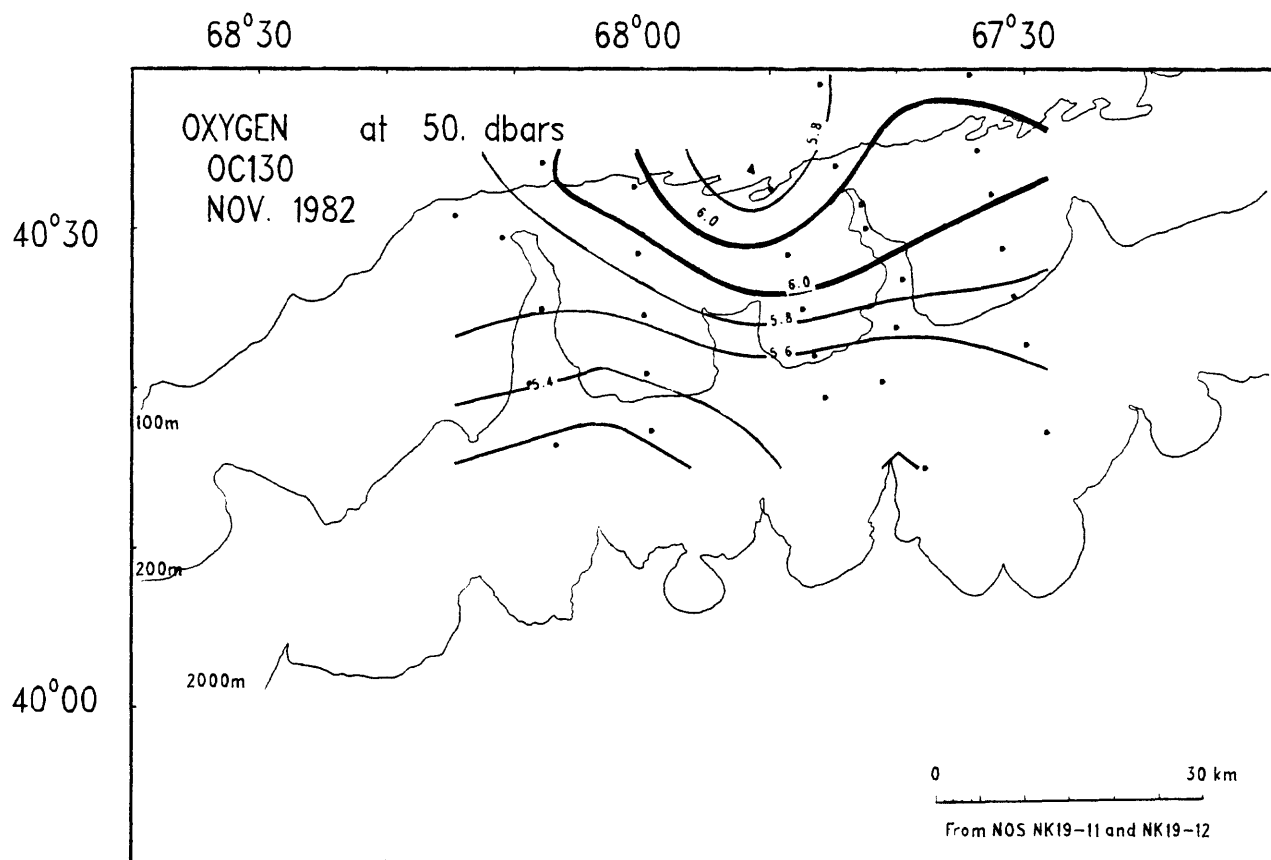
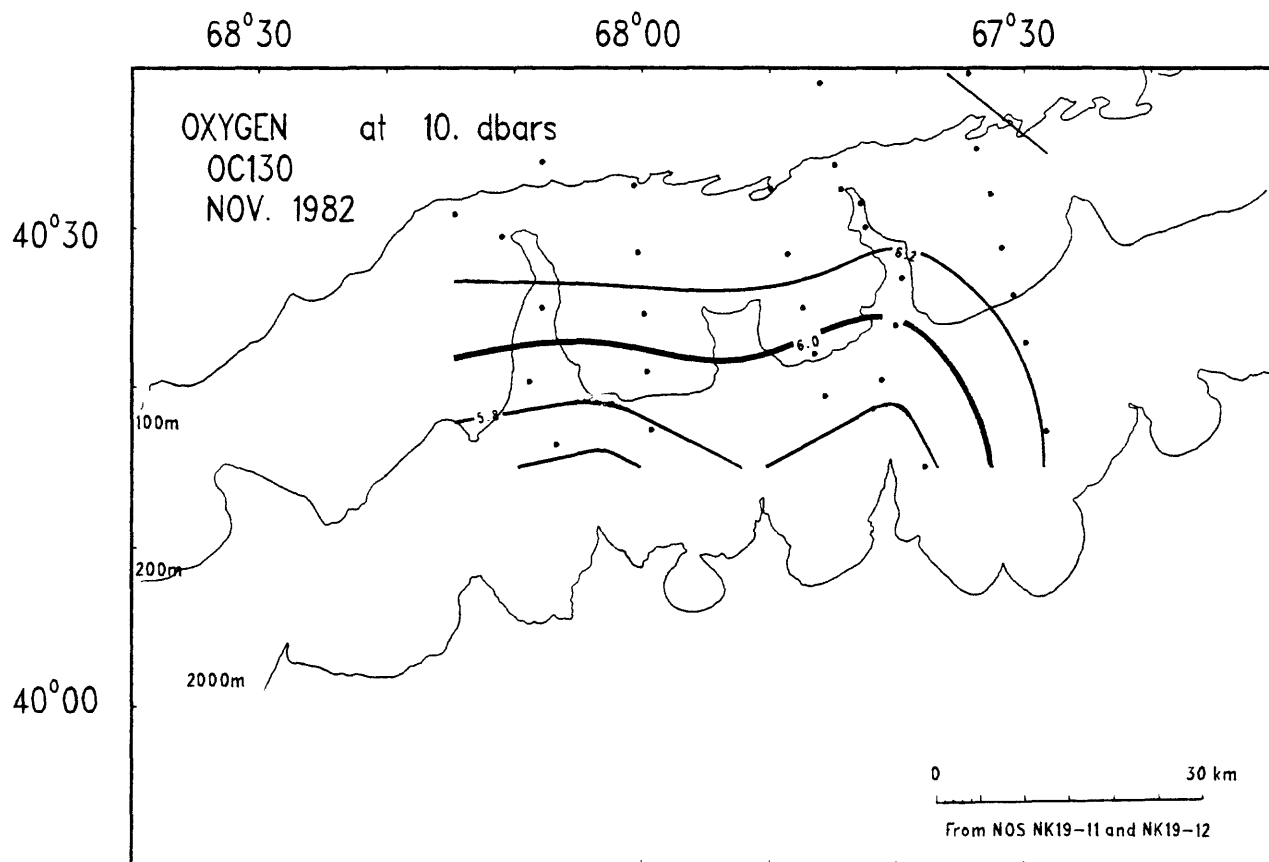


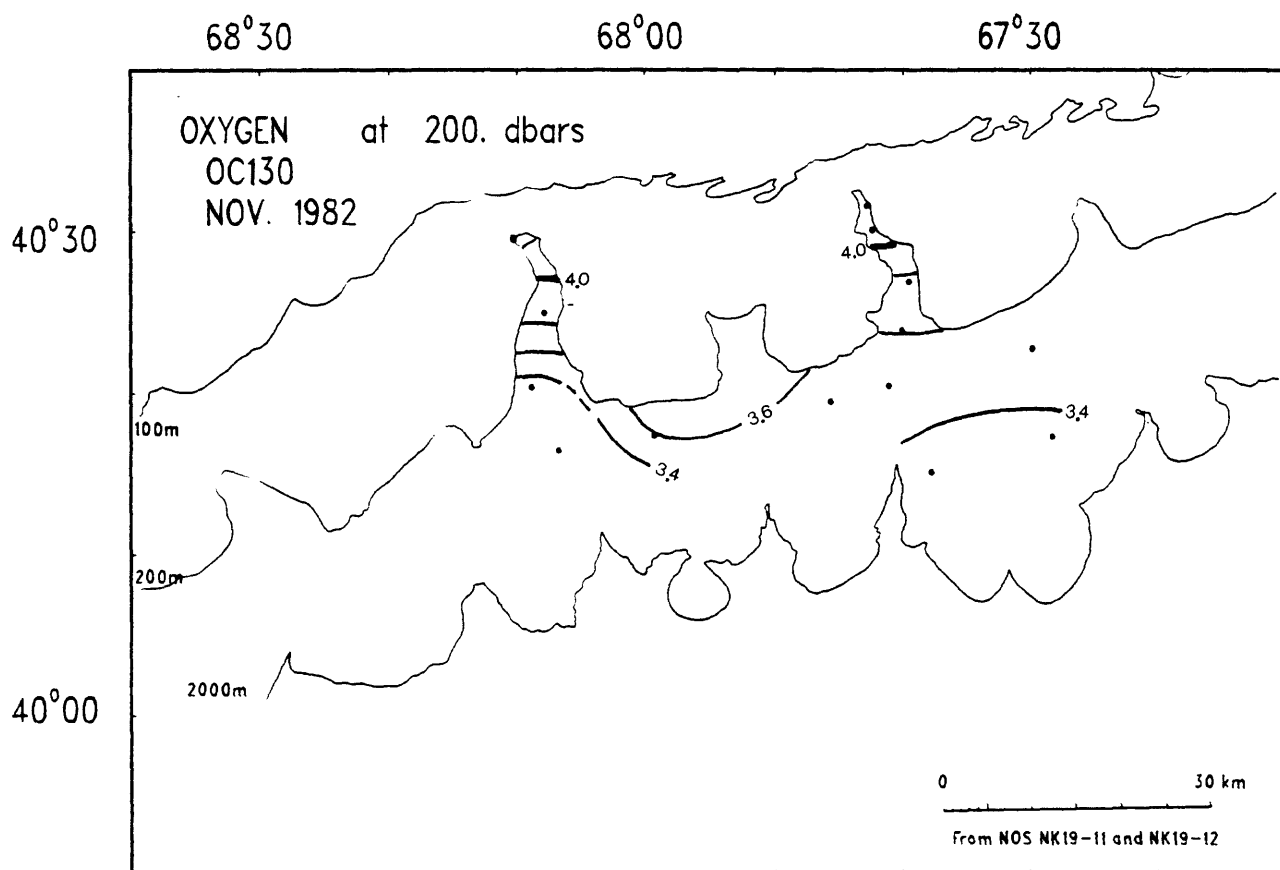
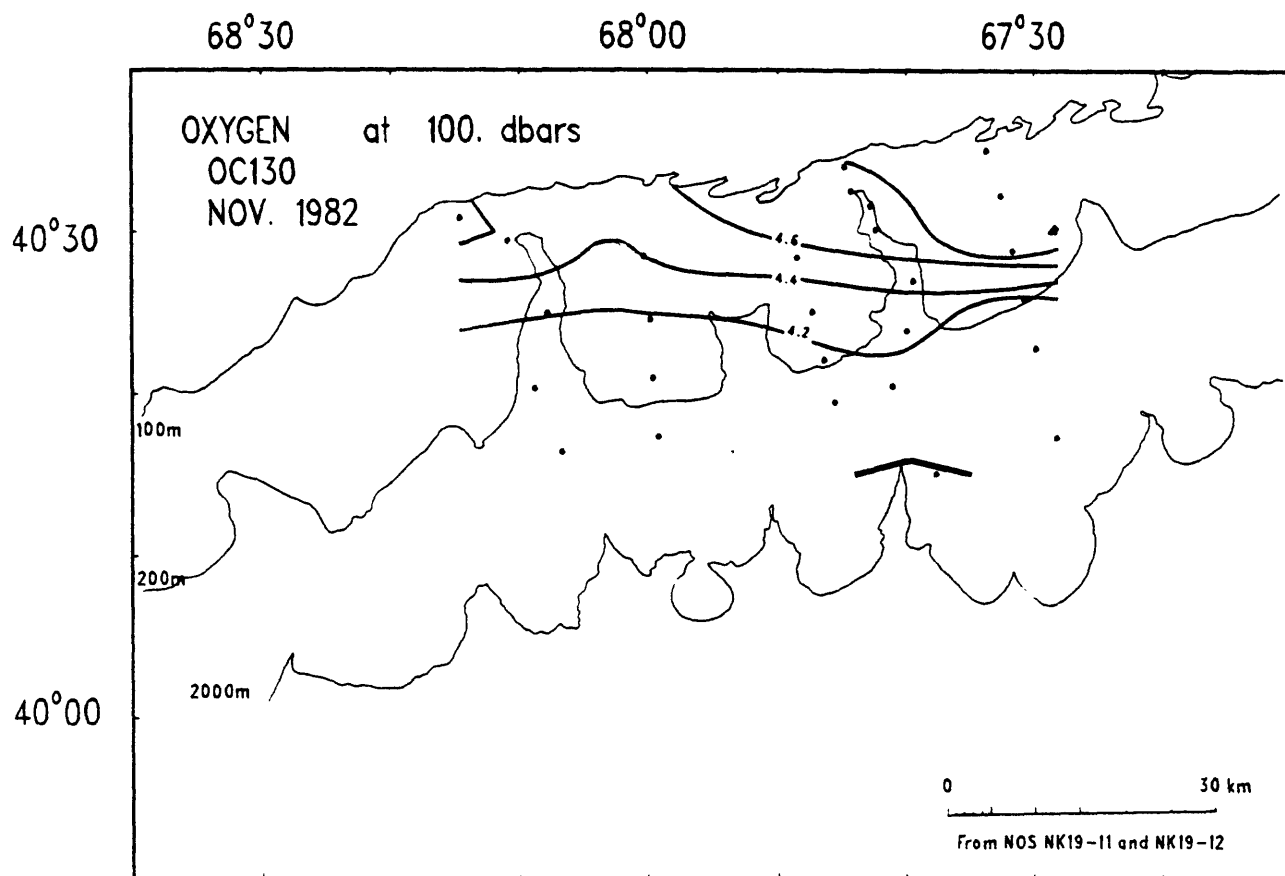


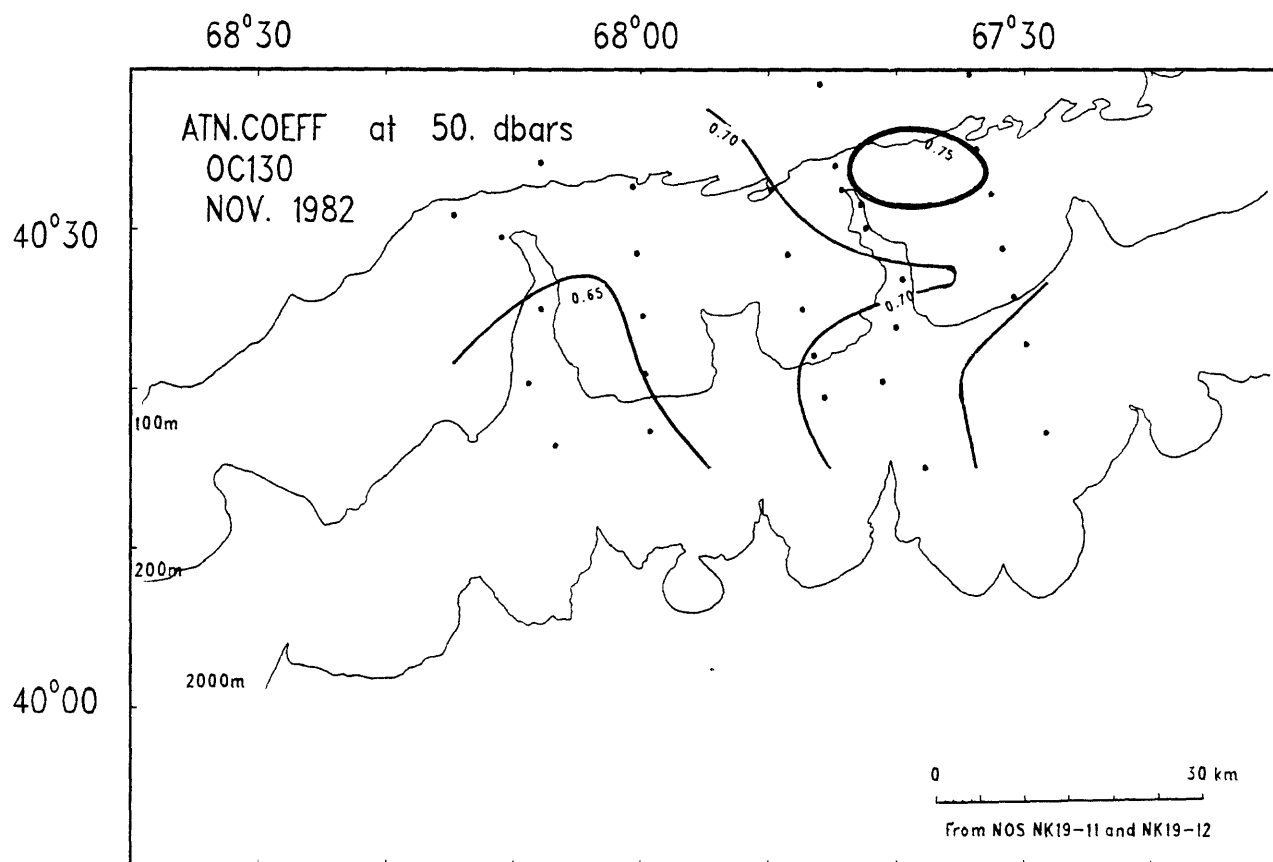
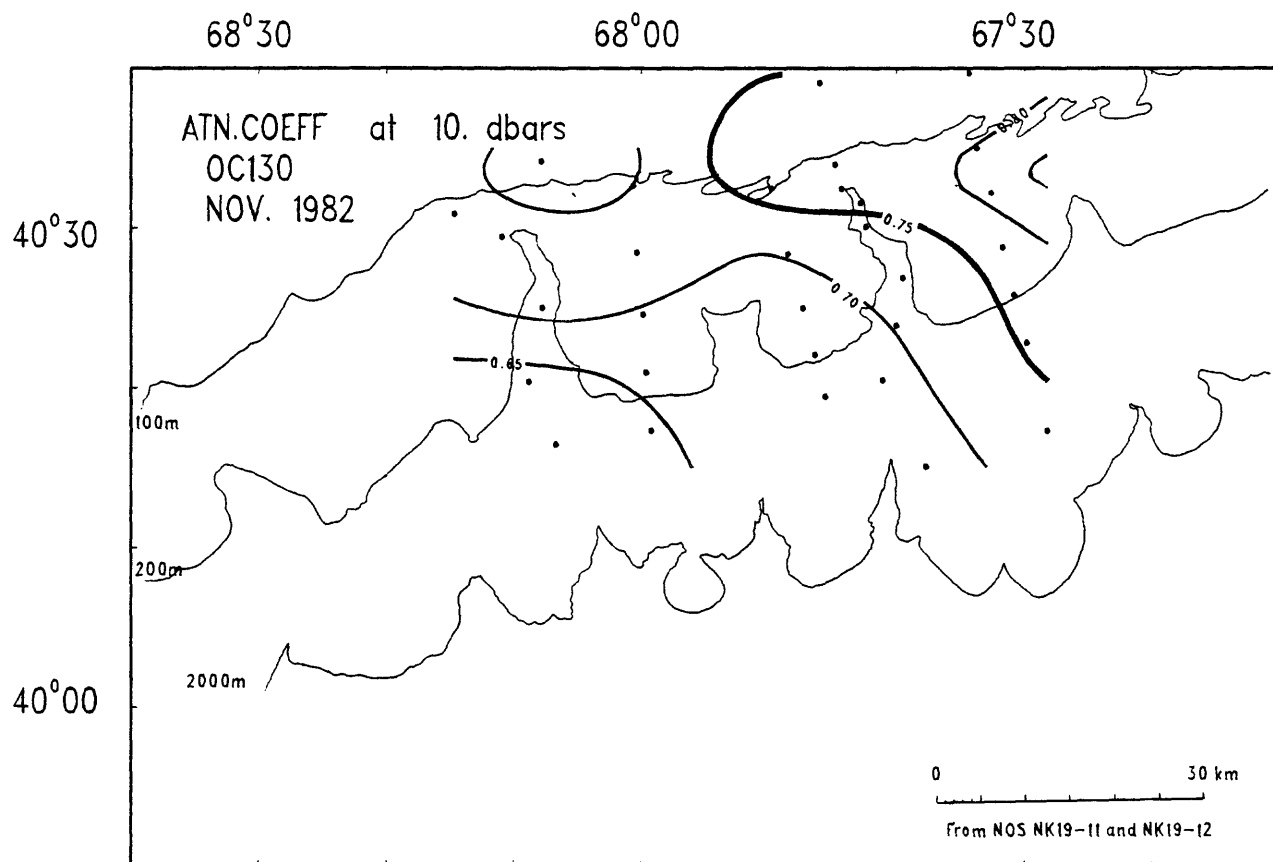


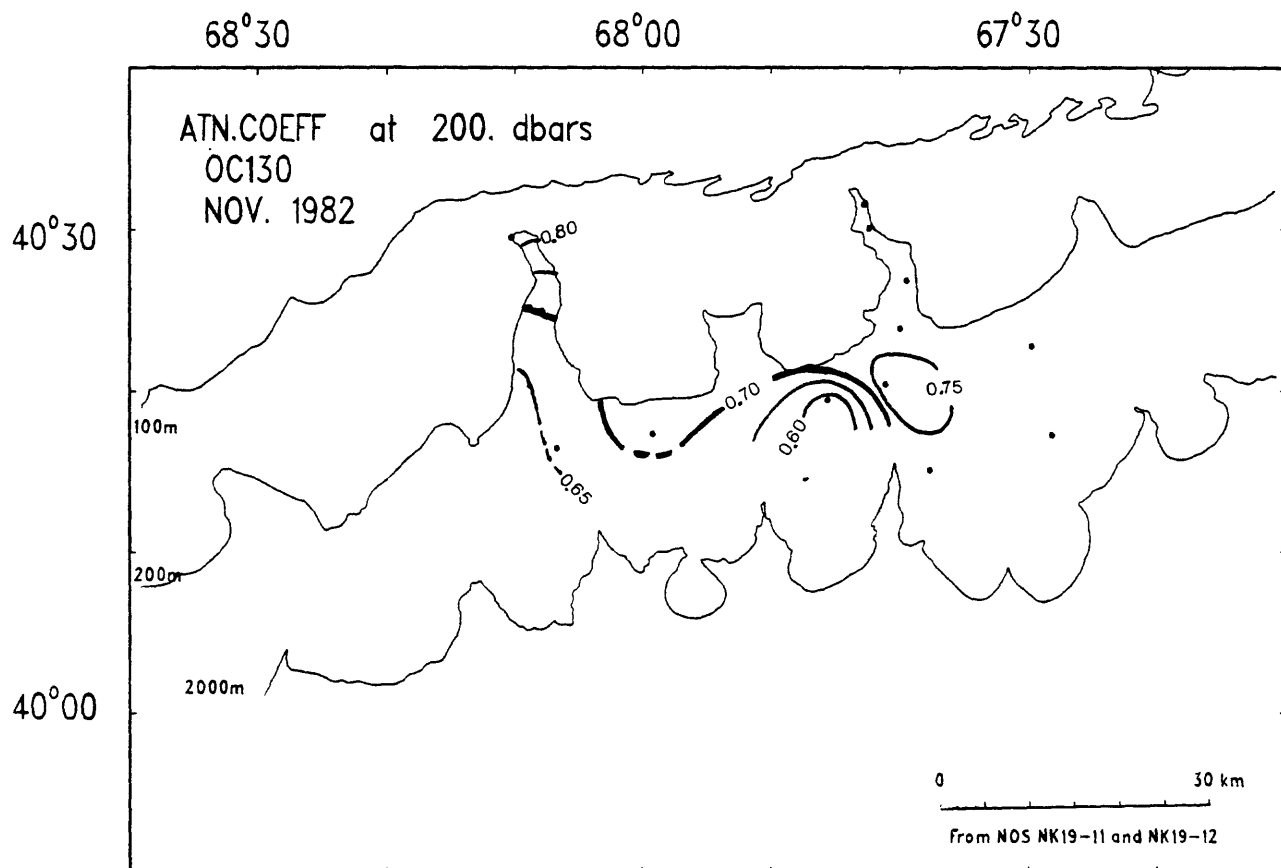
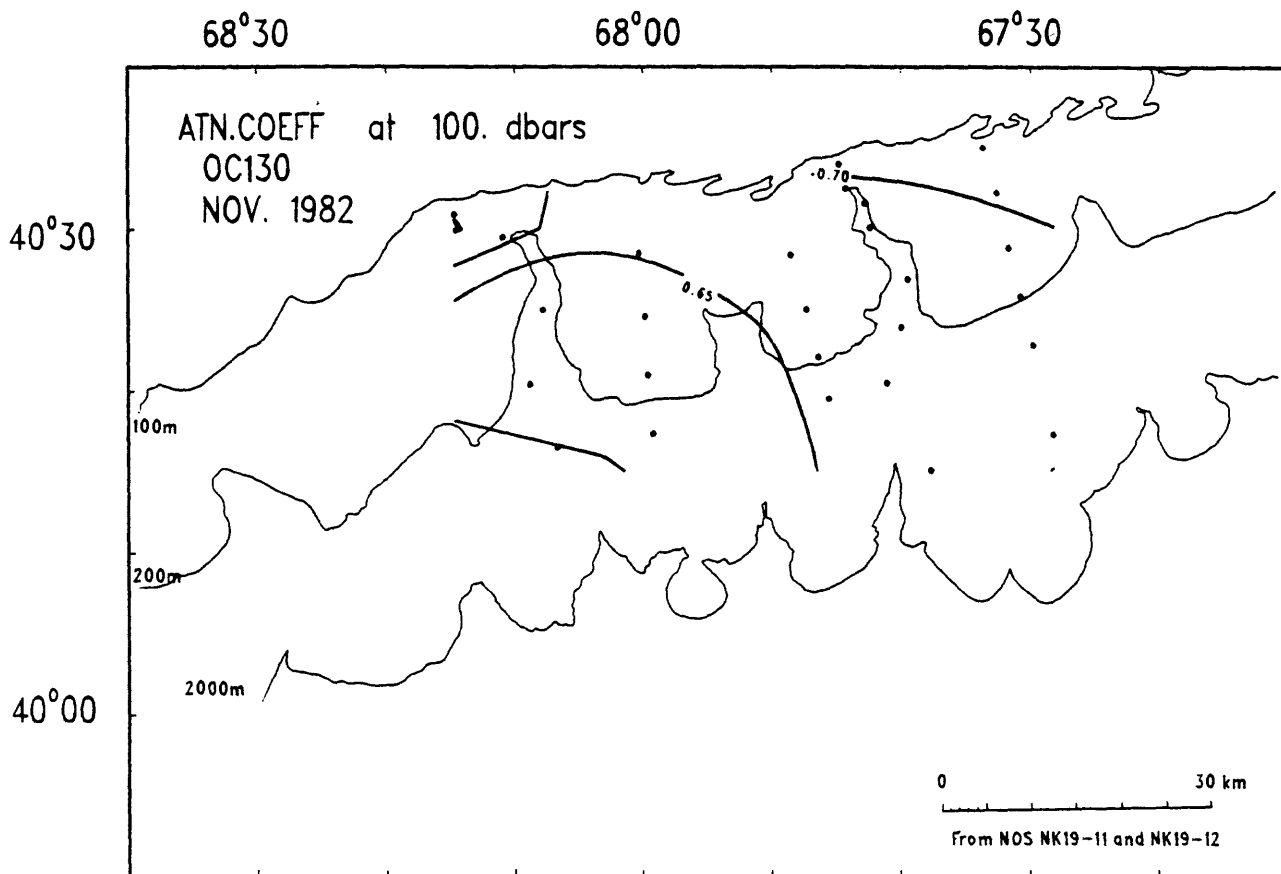


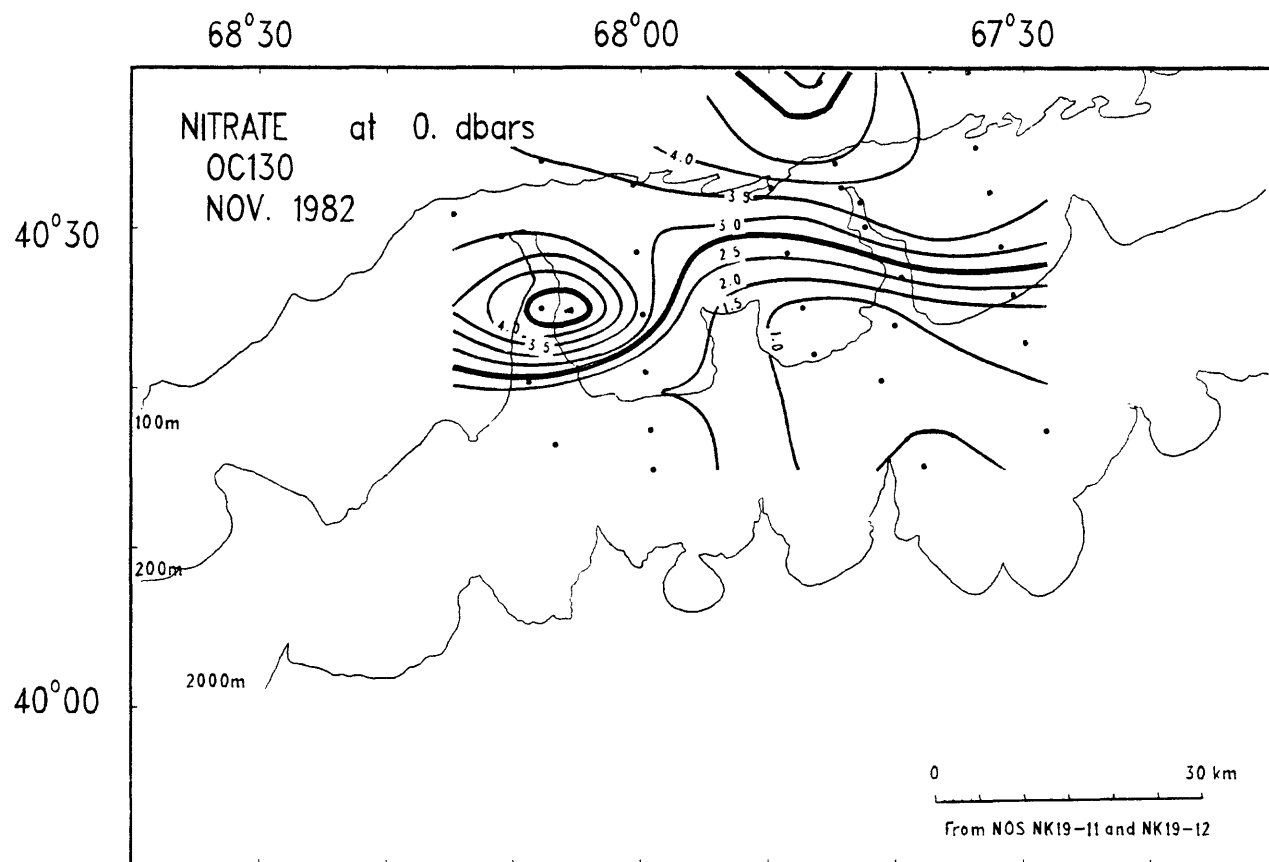
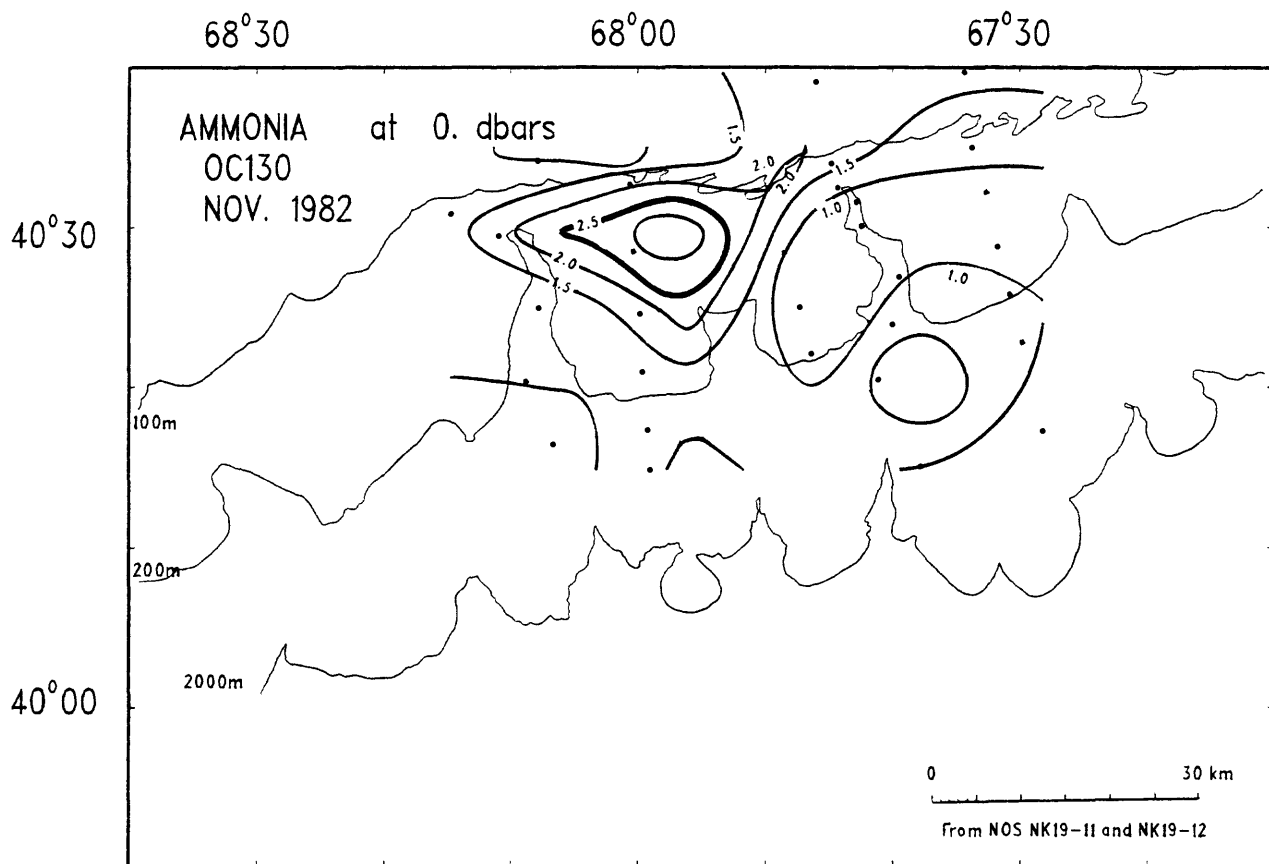


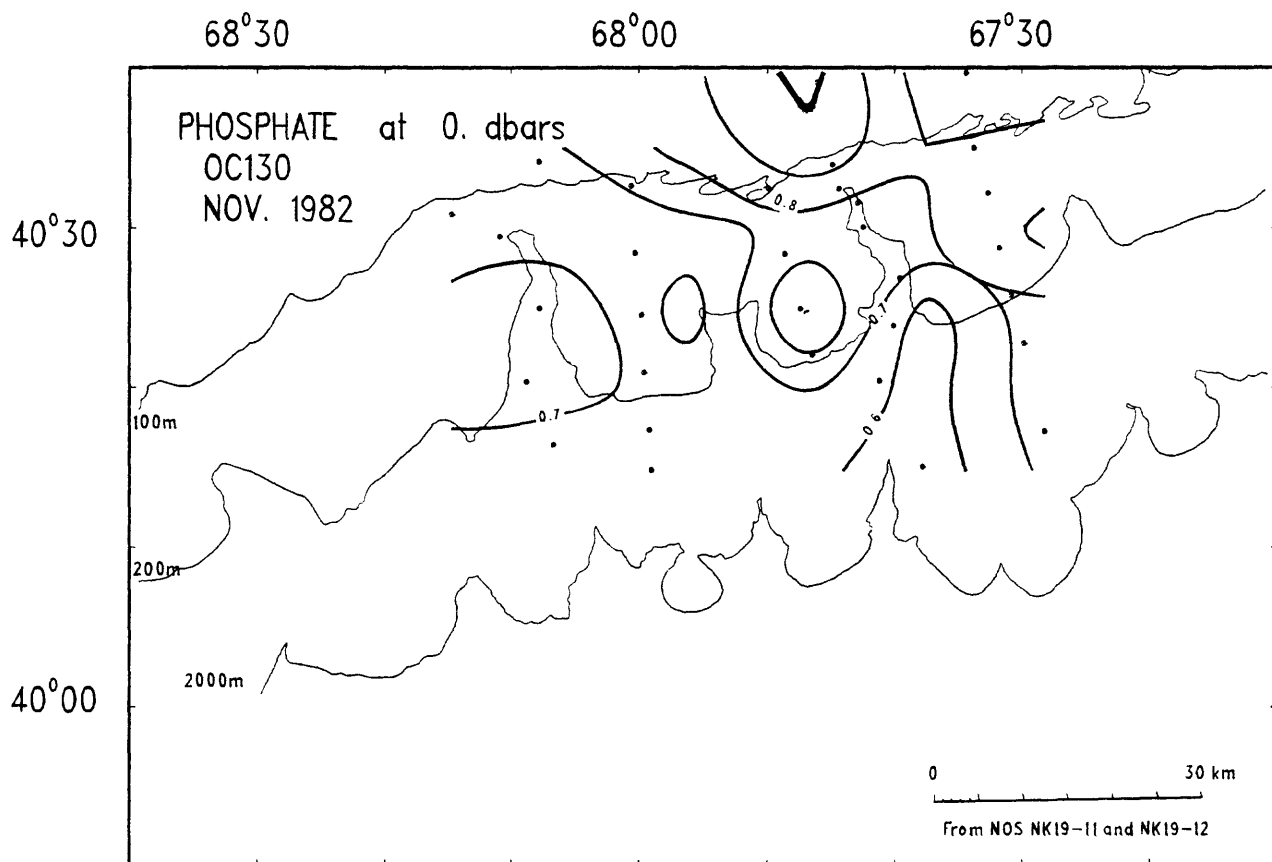
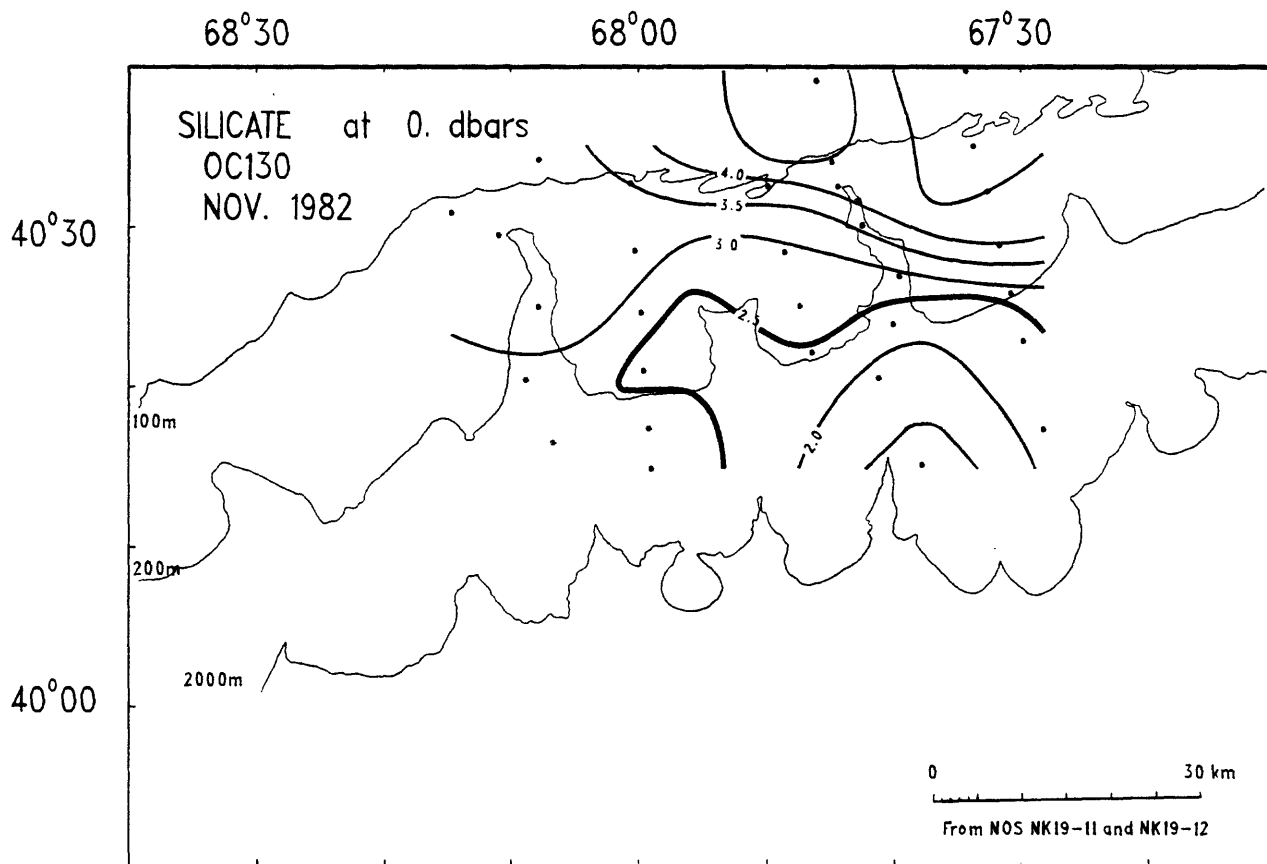










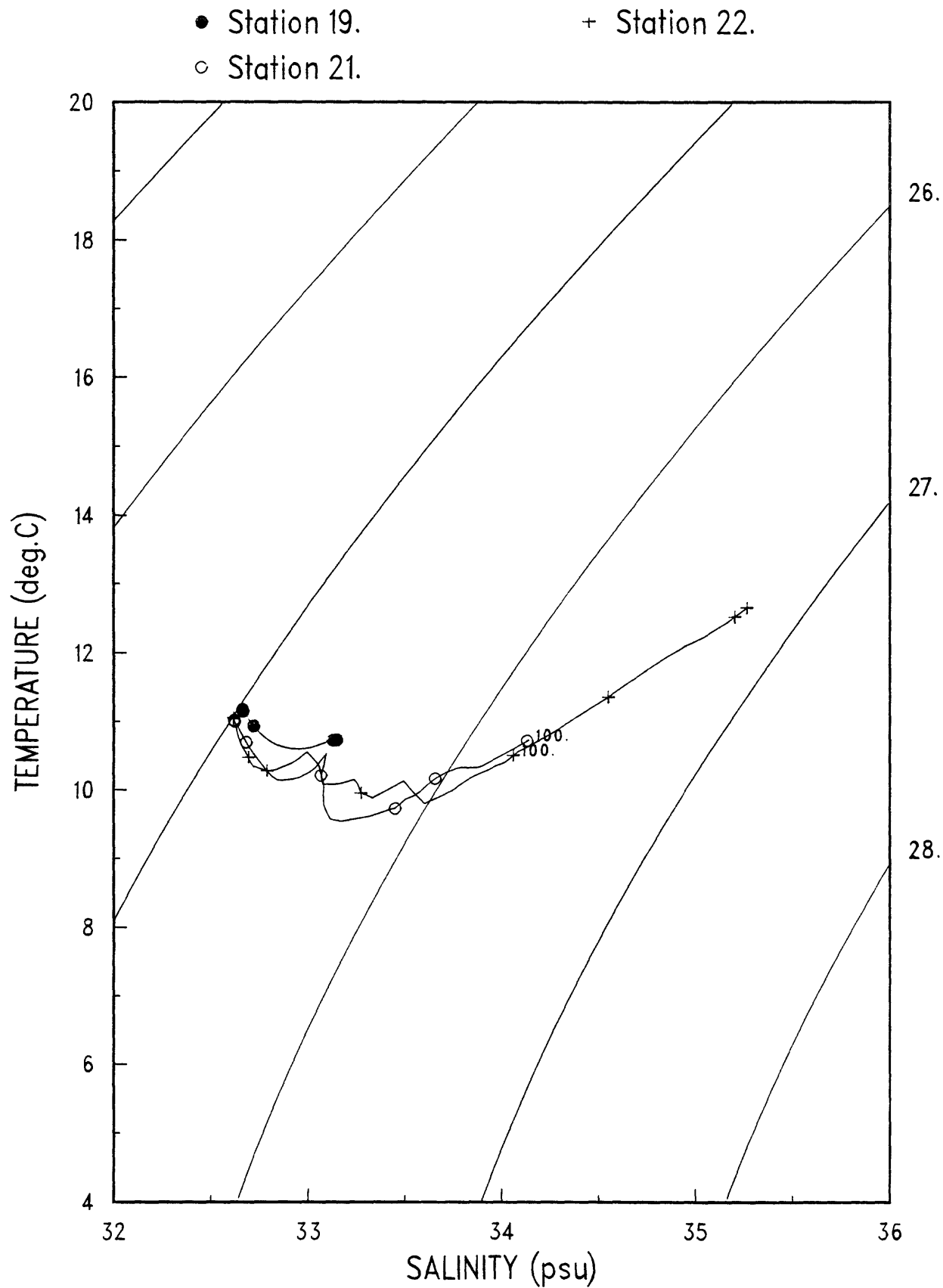


### Temperature salinity diagrams

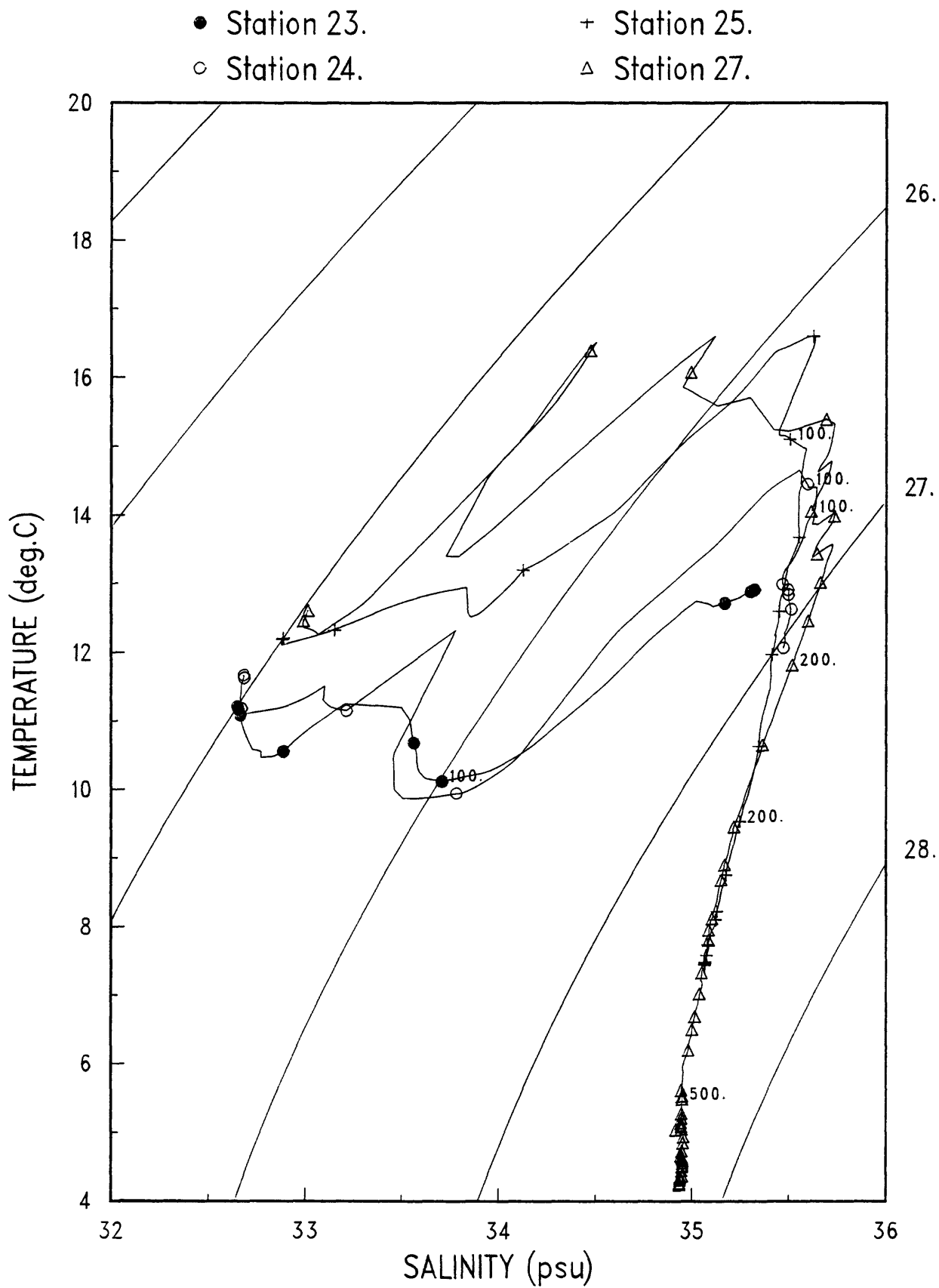
Plots of temperature vs. salinity by section (see fig. 1). Each station is identified with a different symbol. The symbols are plotted every 20 dbars, and the 100-, 200-, and 500-dbar points have been labeled.



# OC130--TS Diagram



# OC130--TS Diagram



# OC130--TS Diagram

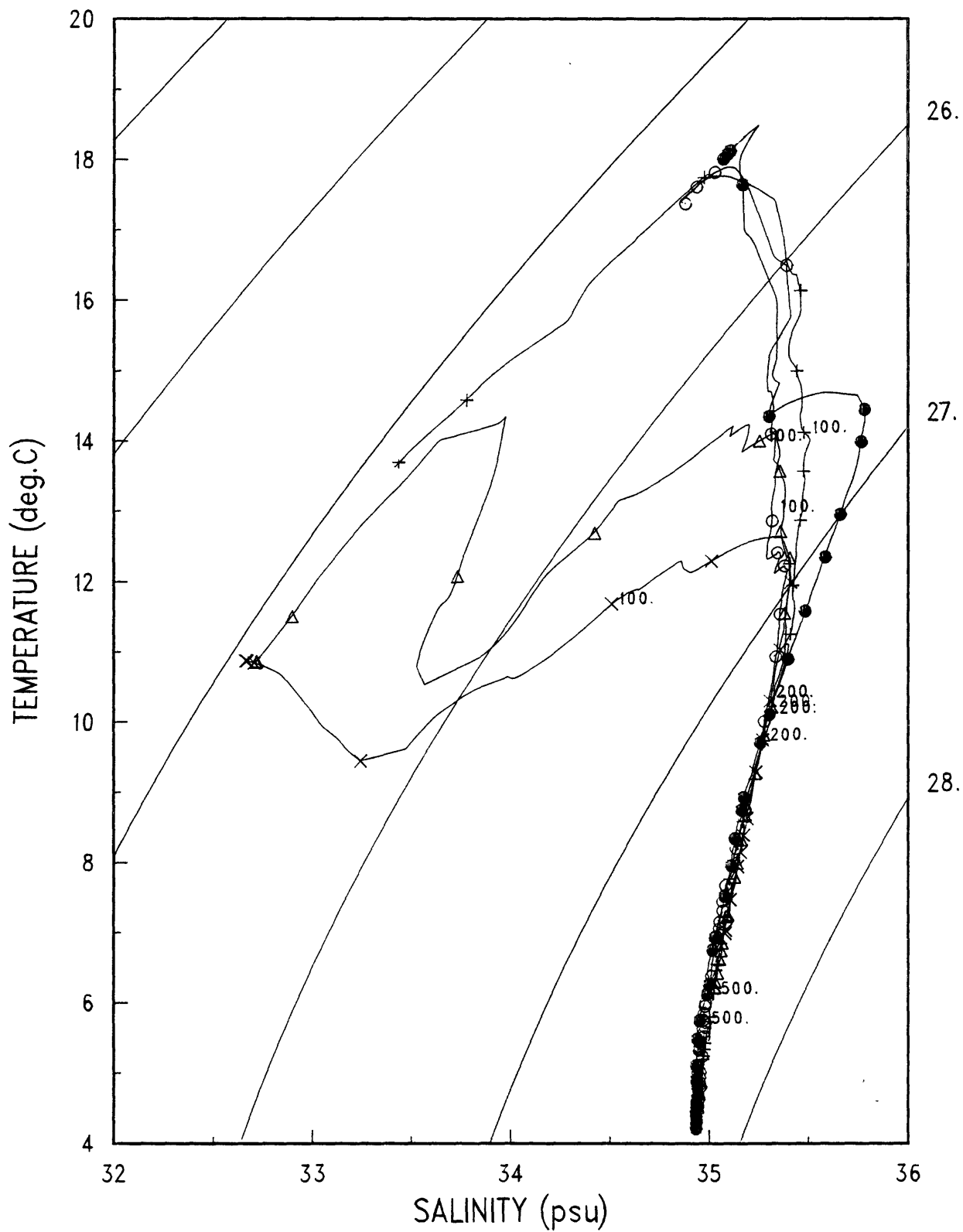
● Station 28.

△ Station 32.

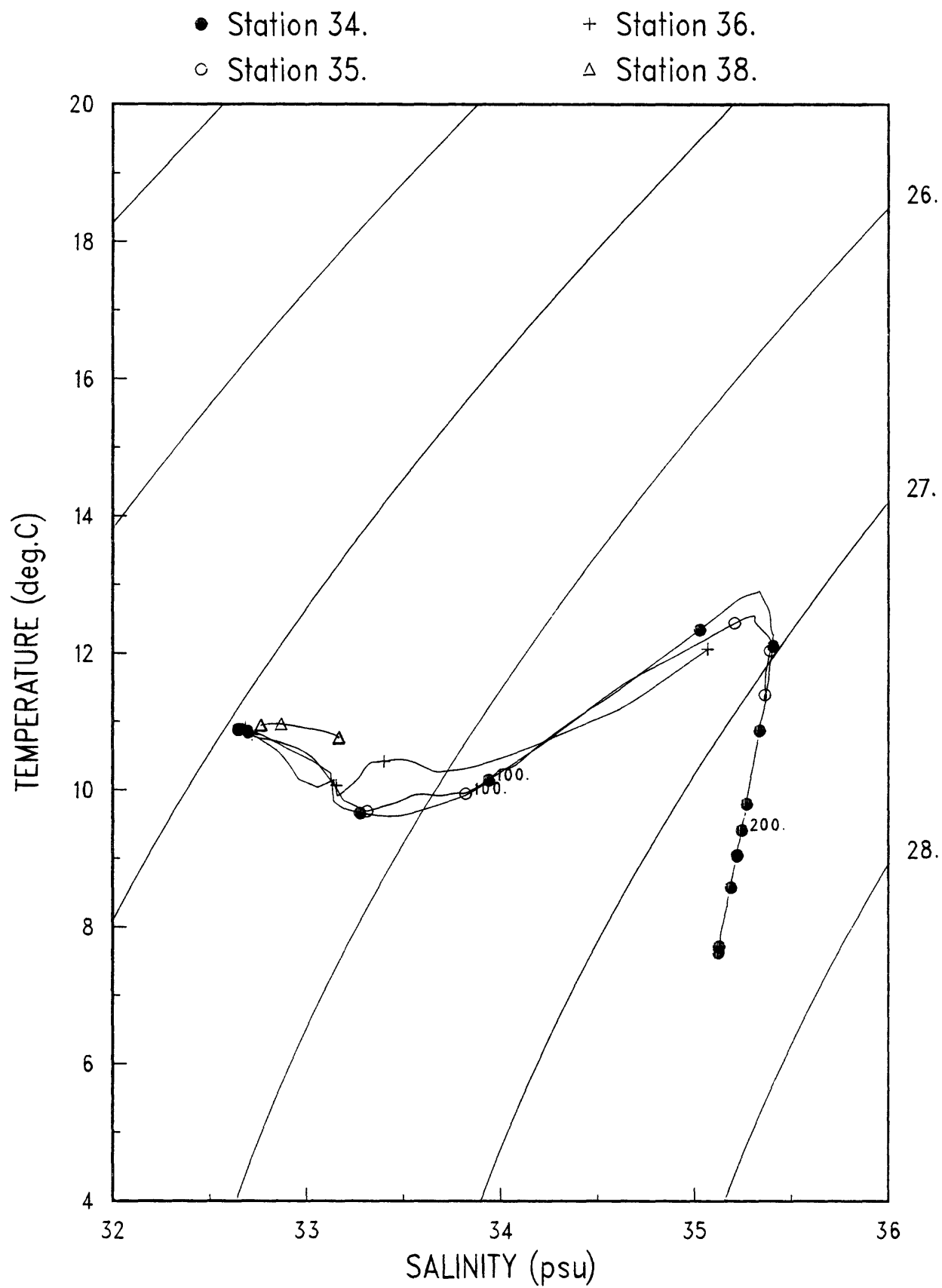
○ Station 30.

× Station 33.

+ Station 31.



# OC130--TS Diagram



# OC130--TS Diagram

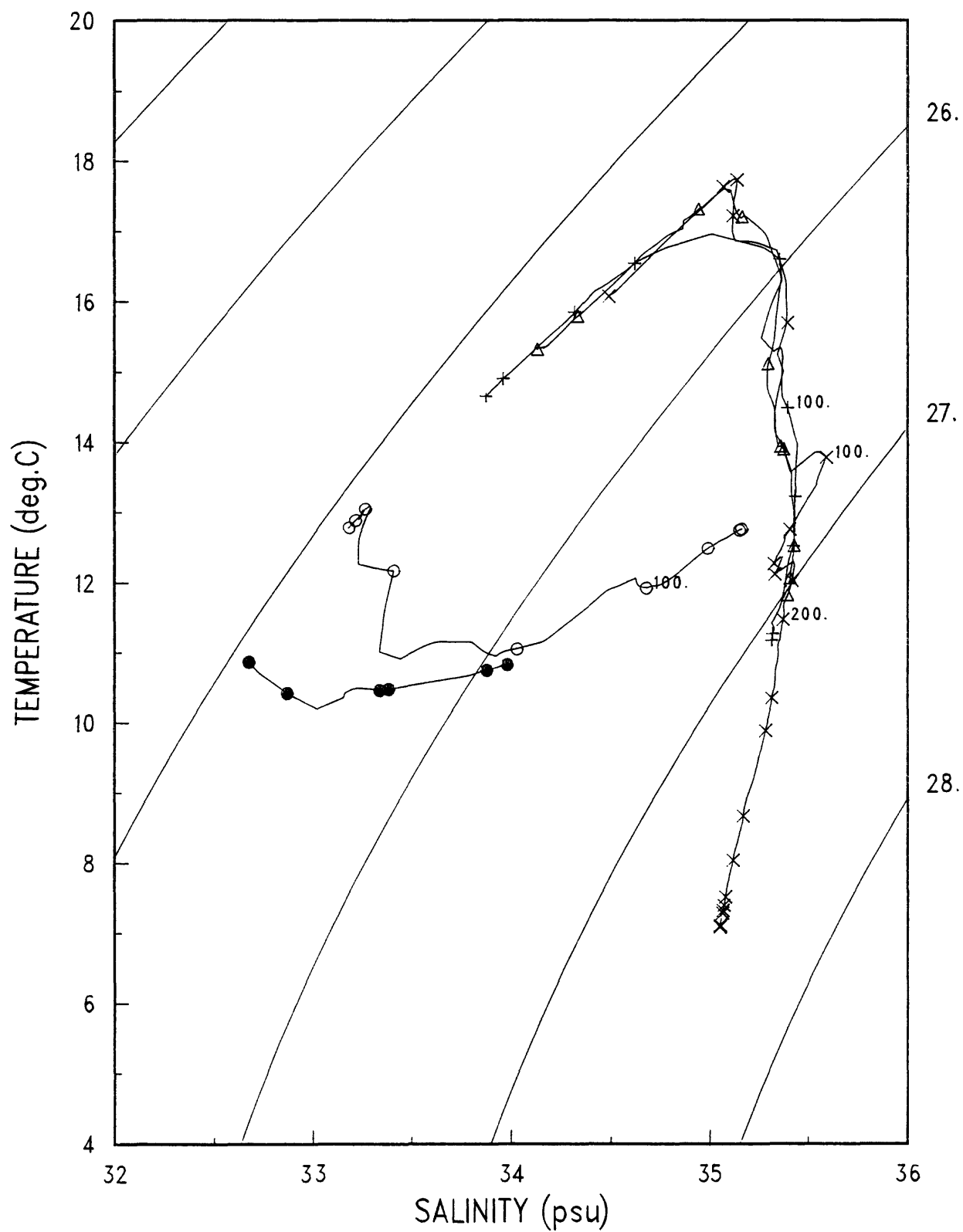
● Station 39.

○ Station 40.

+ Station 41.

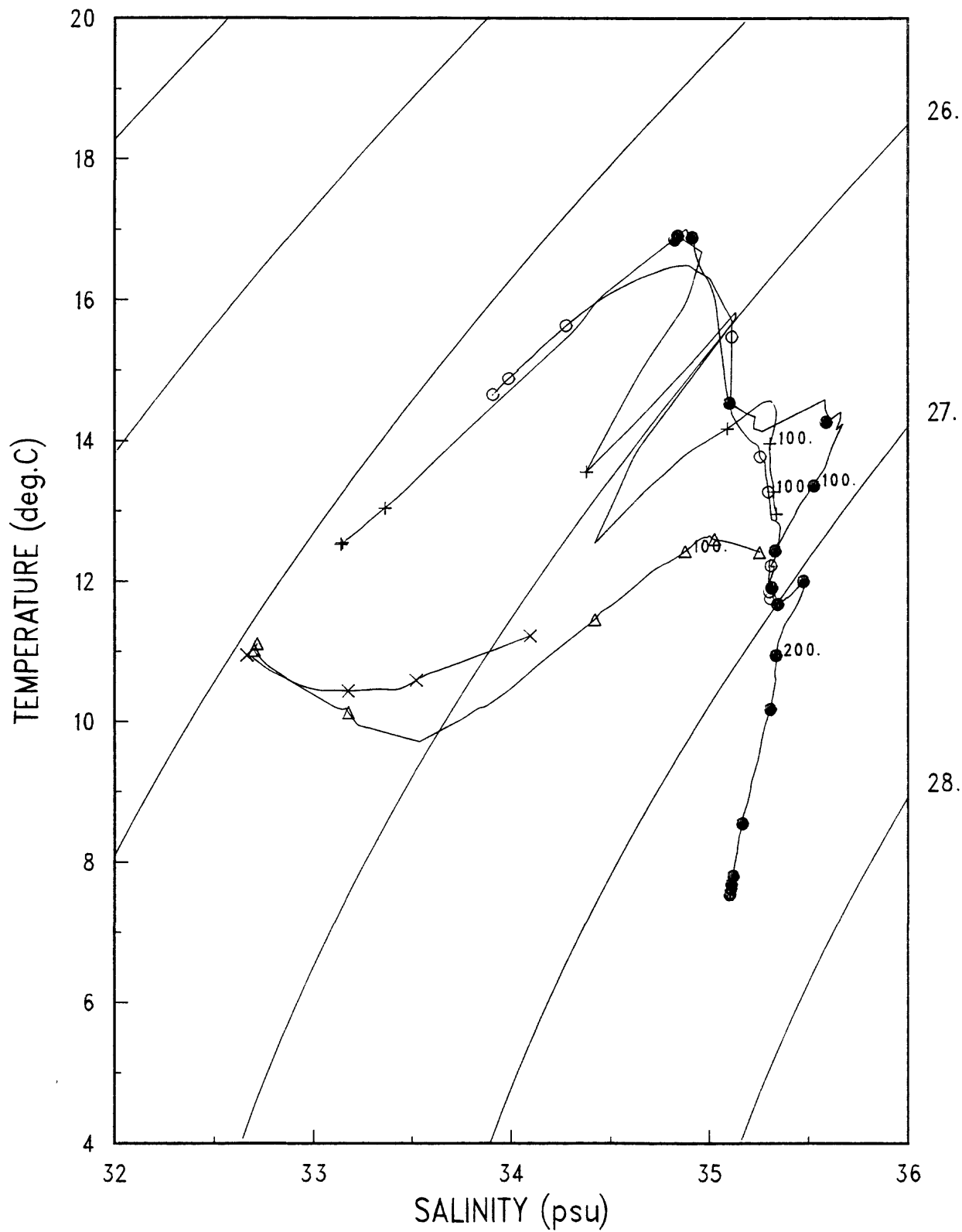
△ Station 42.

× Station 43.



# OC130--TS Diagram

- Station 47.
- Station 48.
- + Station 49.
- △ Station 50.
- × Station 51.



# OC130--TS Diagram

● Station 52.

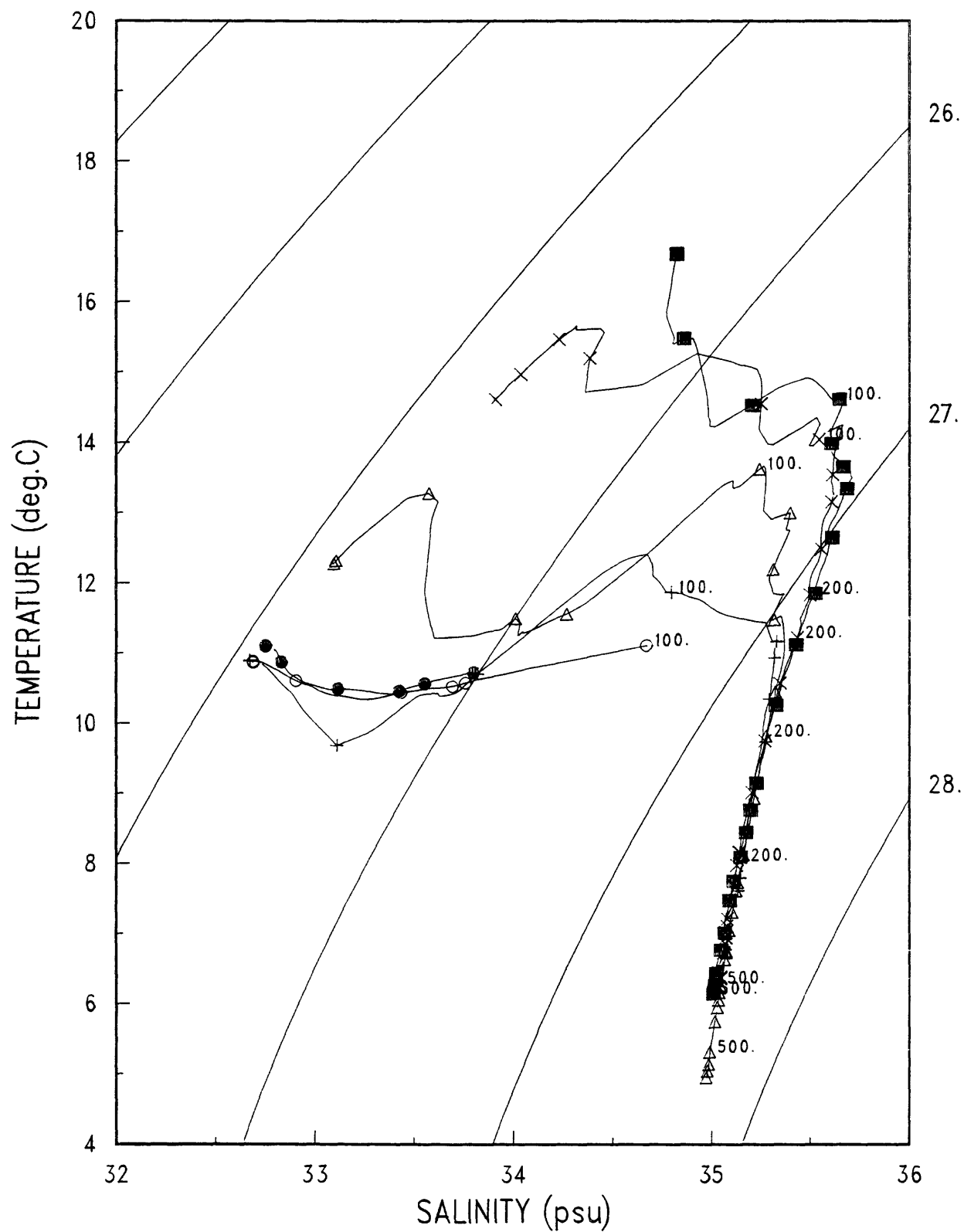
○ Station 53.

+ Station 56.

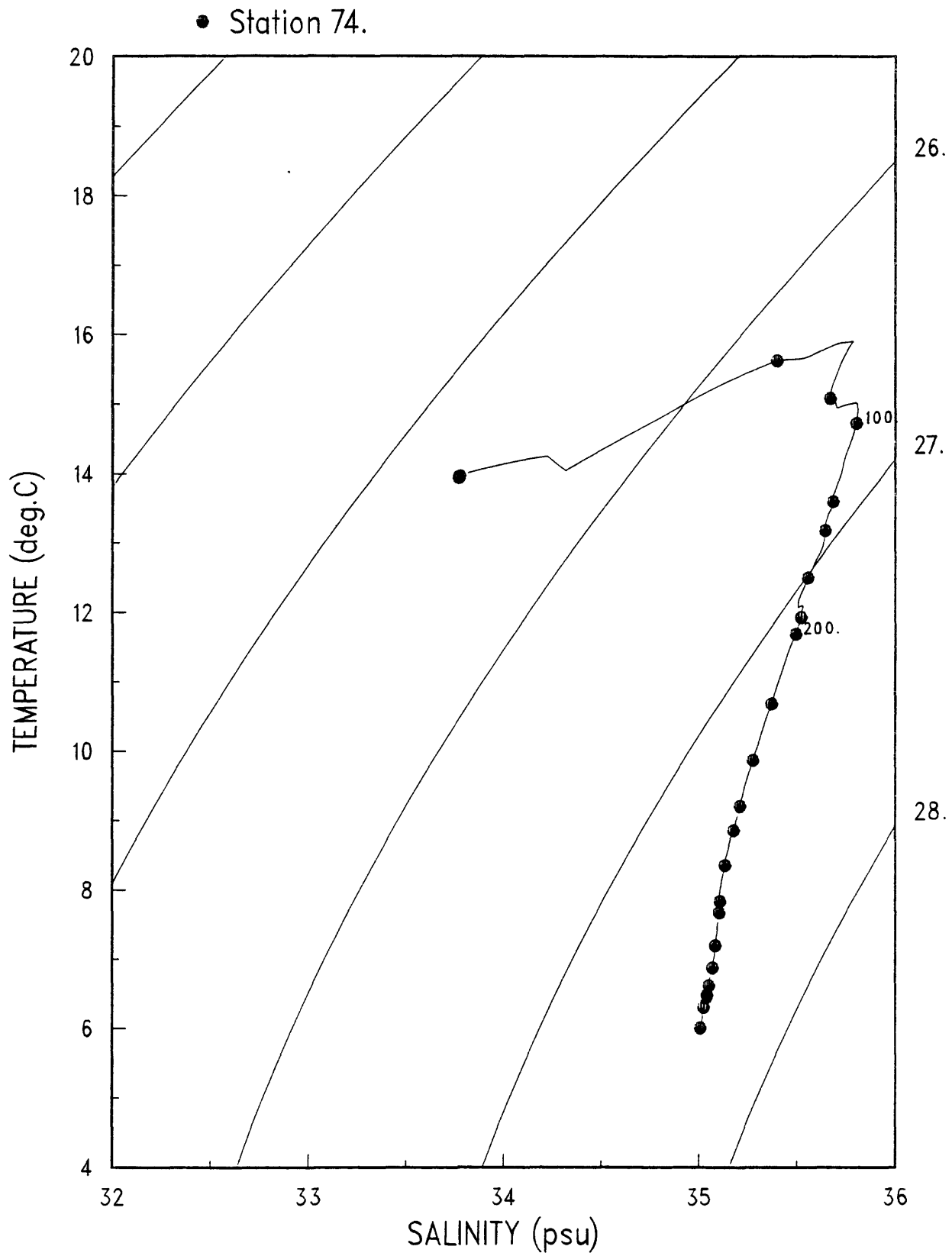
△ Station 59.

× Station 60.

■ Station 61.



# OC130--TS Diagram



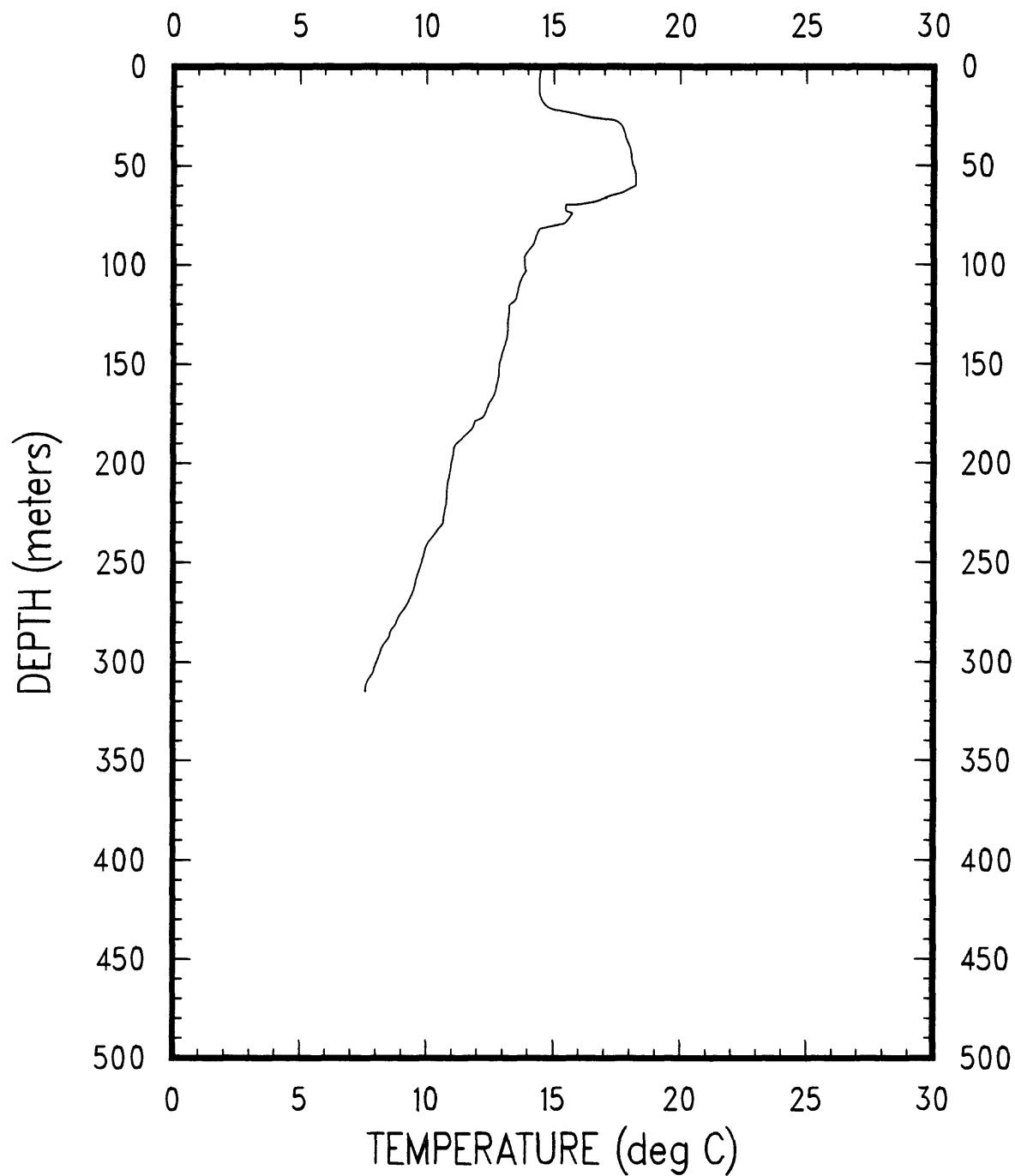


### Station profiles

Vertical profiles of temperature, salinity, sigma-t, oxygen, attenuation coefficient, and Brunt-Vaisala frequency at each station are shown in figures 32-109. The profiles are drawn using the 2-dbar-averaged data; at approximately 10 dbars above the bottom, the averaging interval becomes 1 dbar. The data are listed in Appendix I. The different symbols used to distinguish variables are shown on each variable axis. XBT profiles are limited to 500 m. The units of salinity are practical salinity units (psu) and are defined by Lewis (1980).

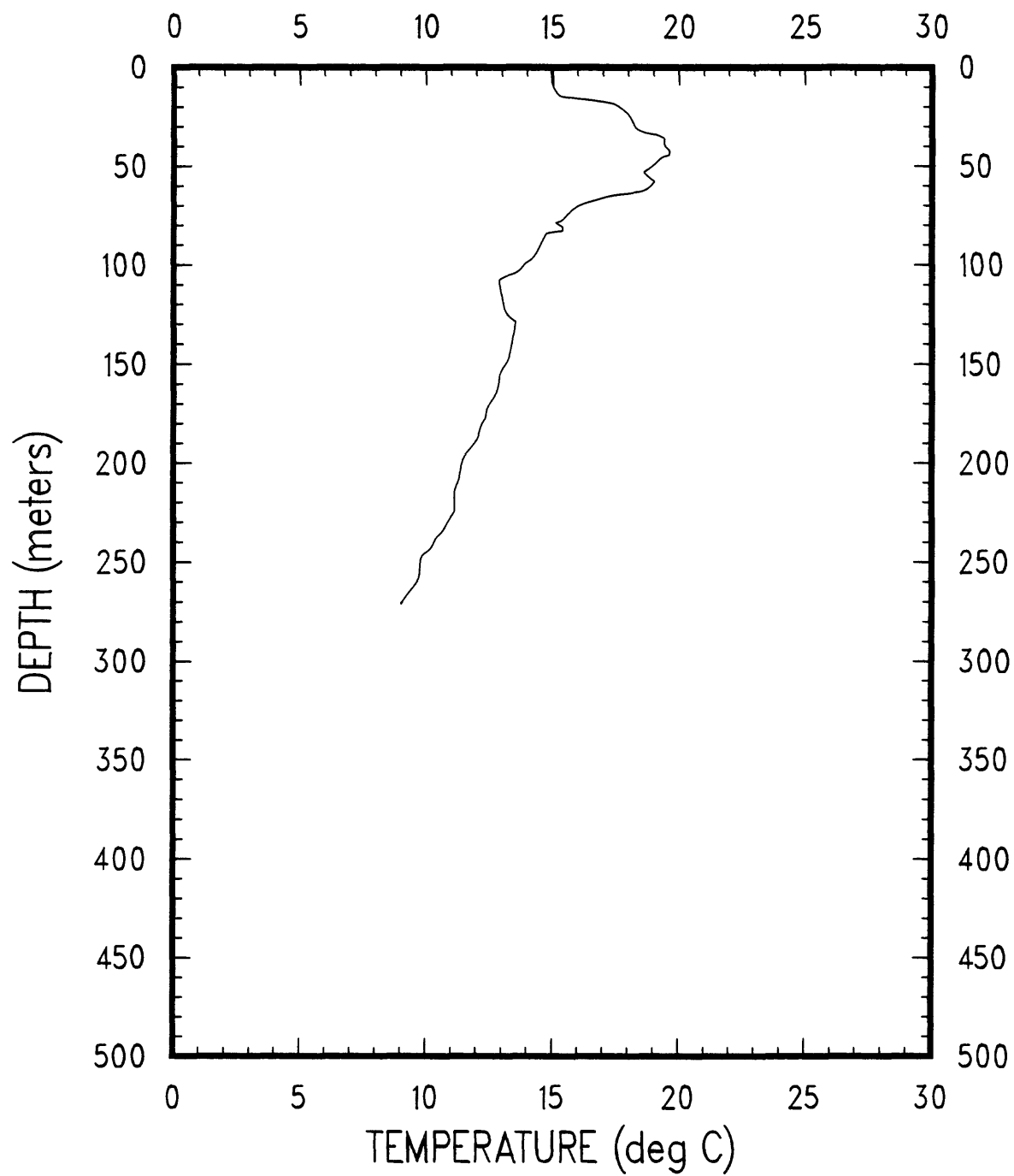
OC130

XBT-1



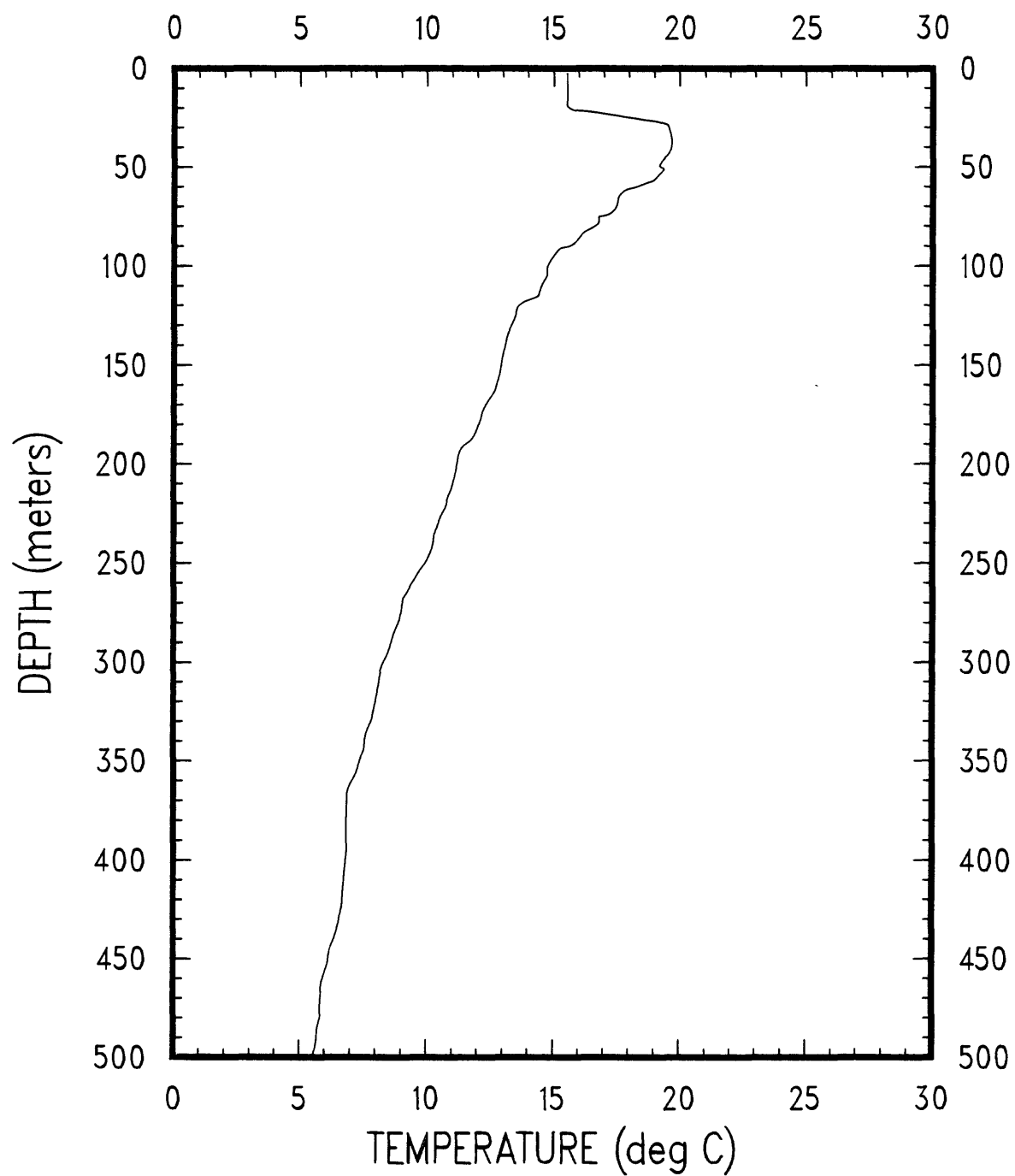
OC130

XBT-2



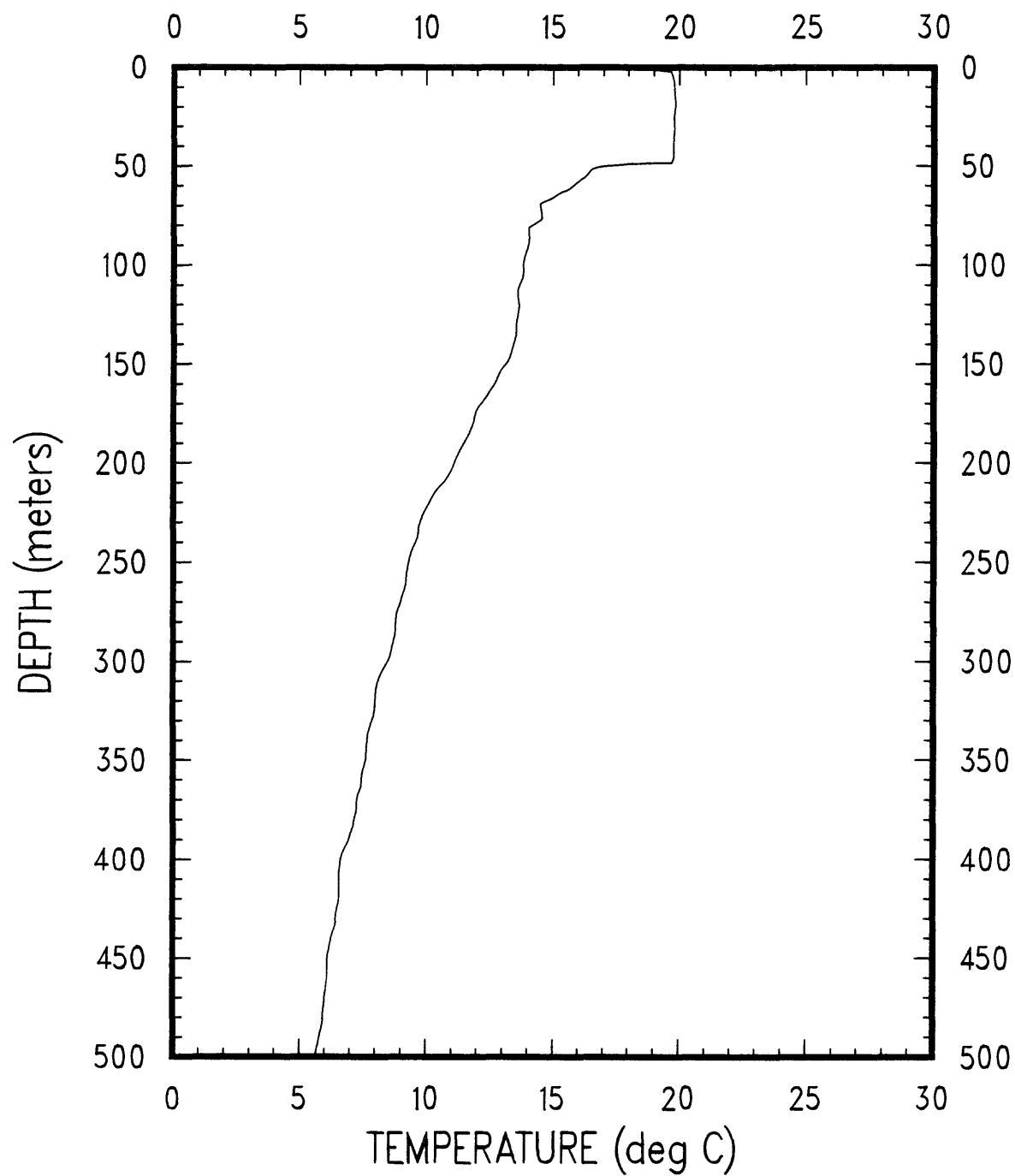
OC130

XBT-3



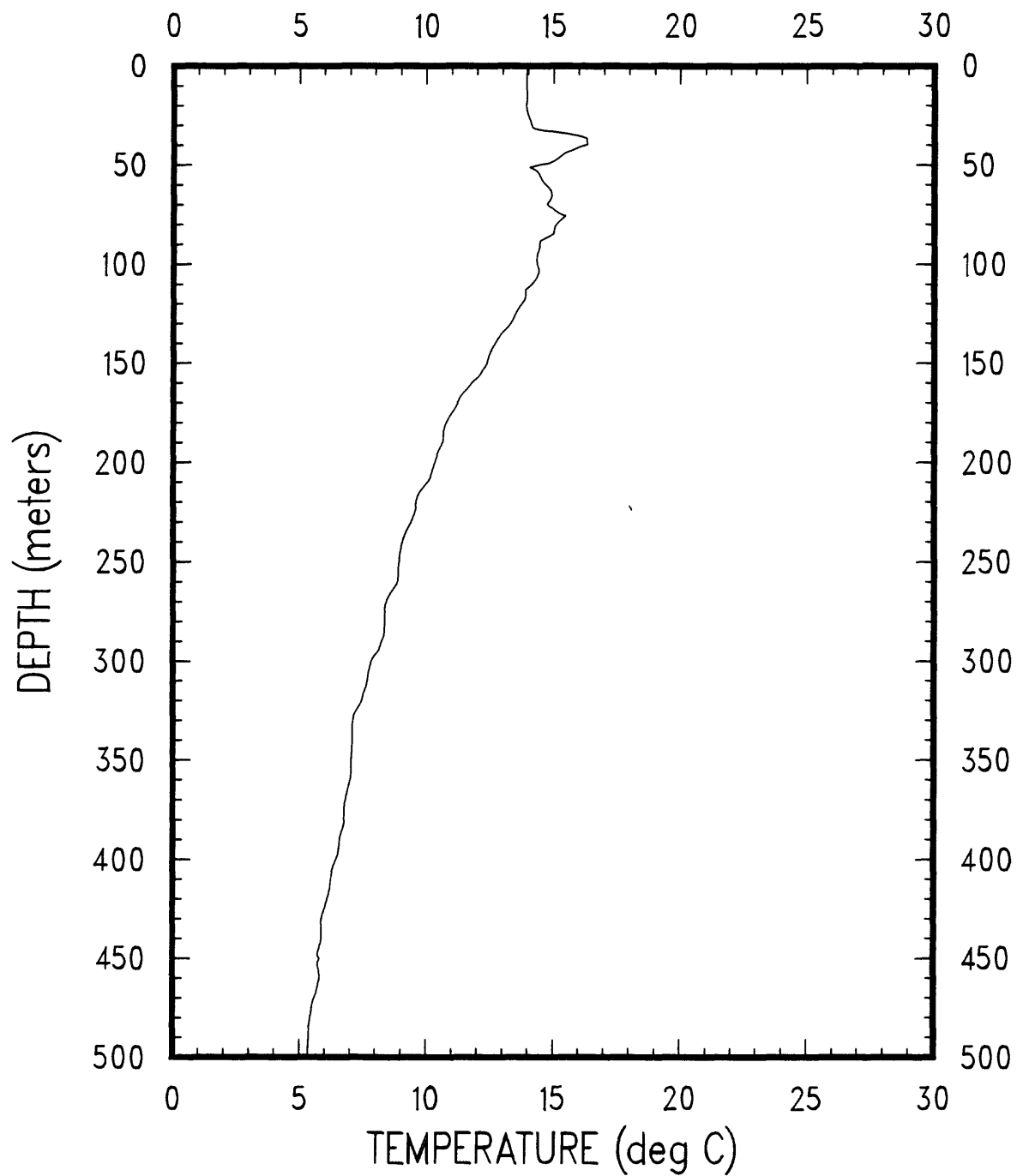
OC130

XBT-4



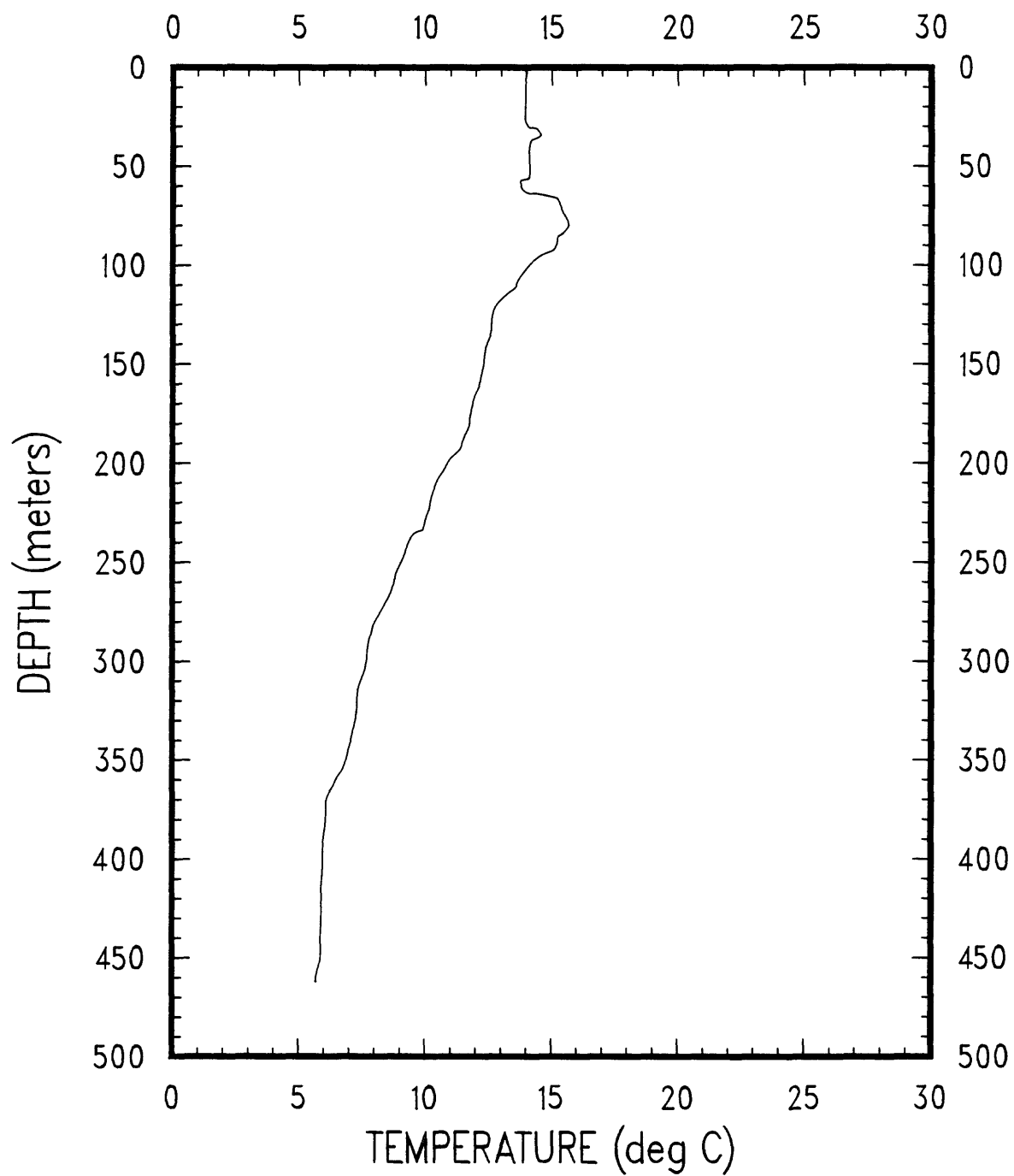
OC130

XBT-5



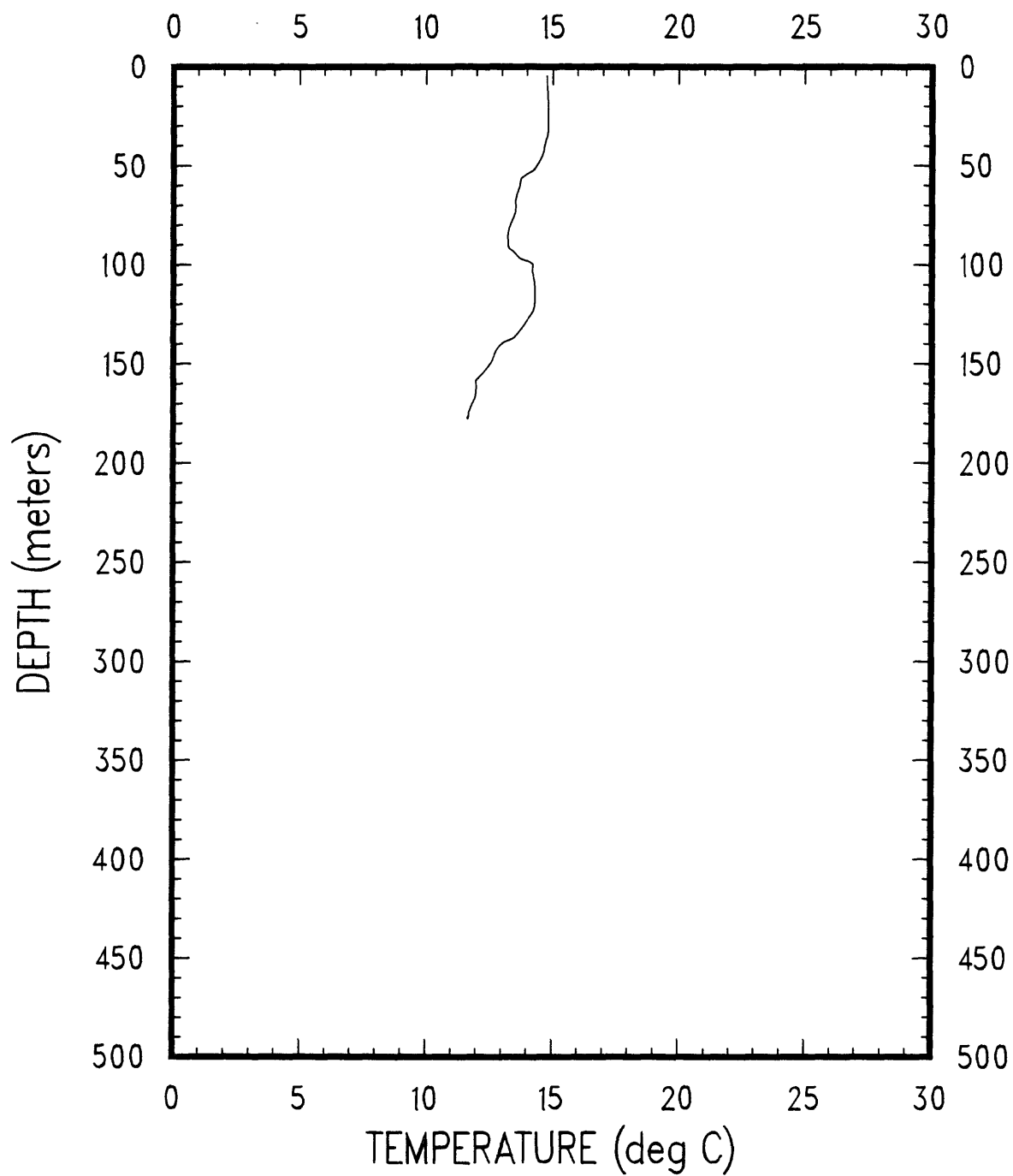
OC130

XBT-6



OC130

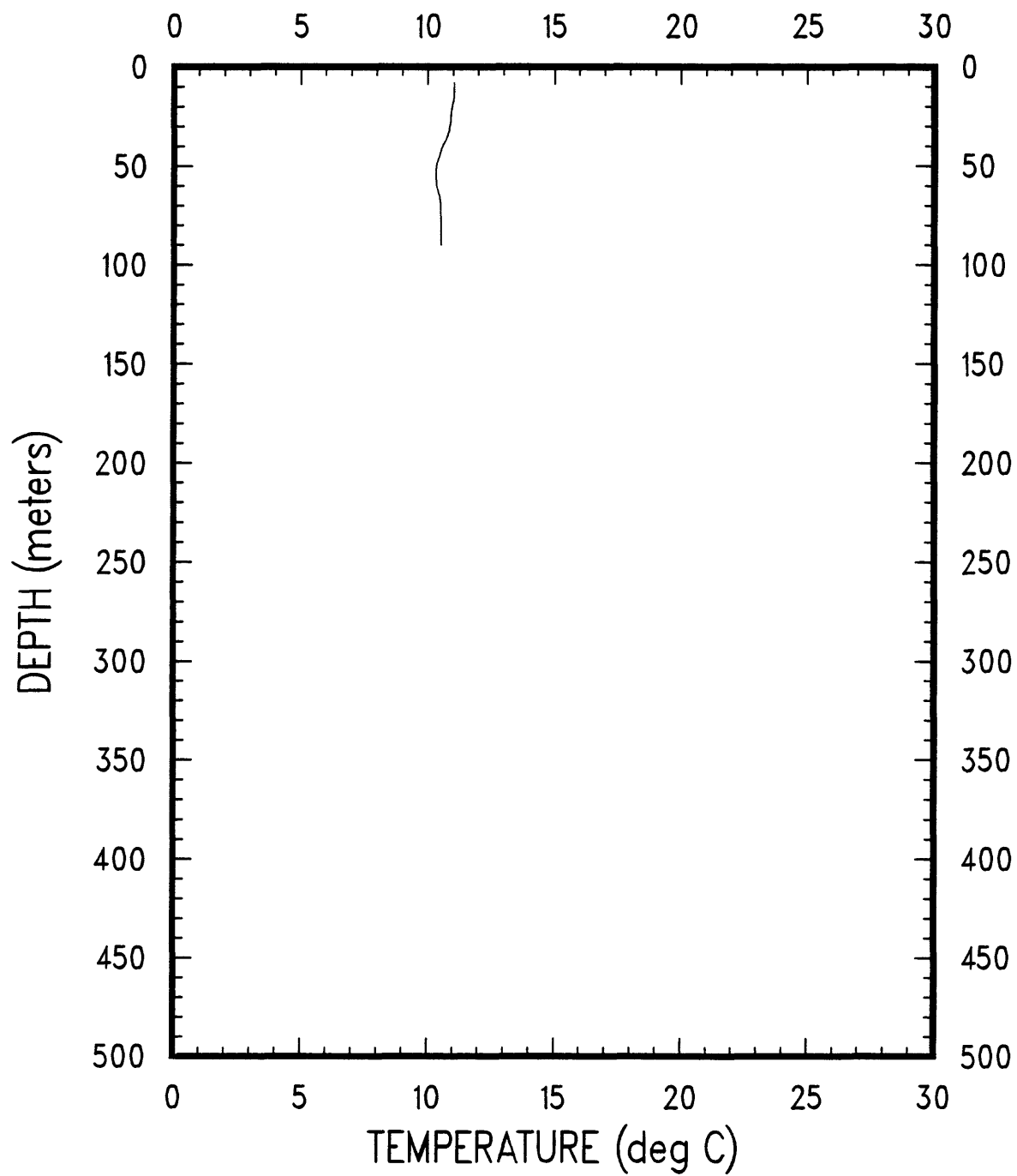
XBT-7





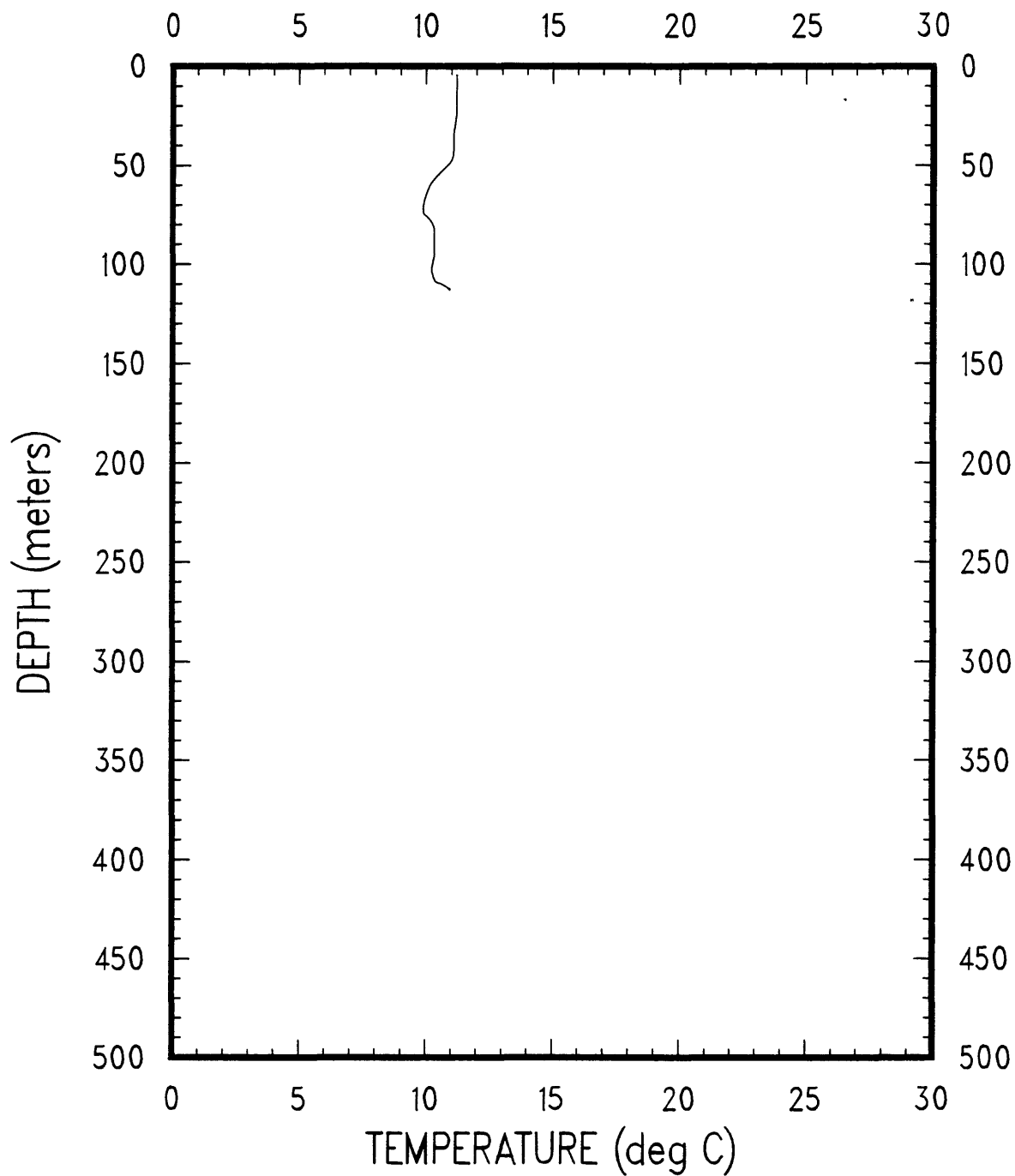
OC130

XBT-8



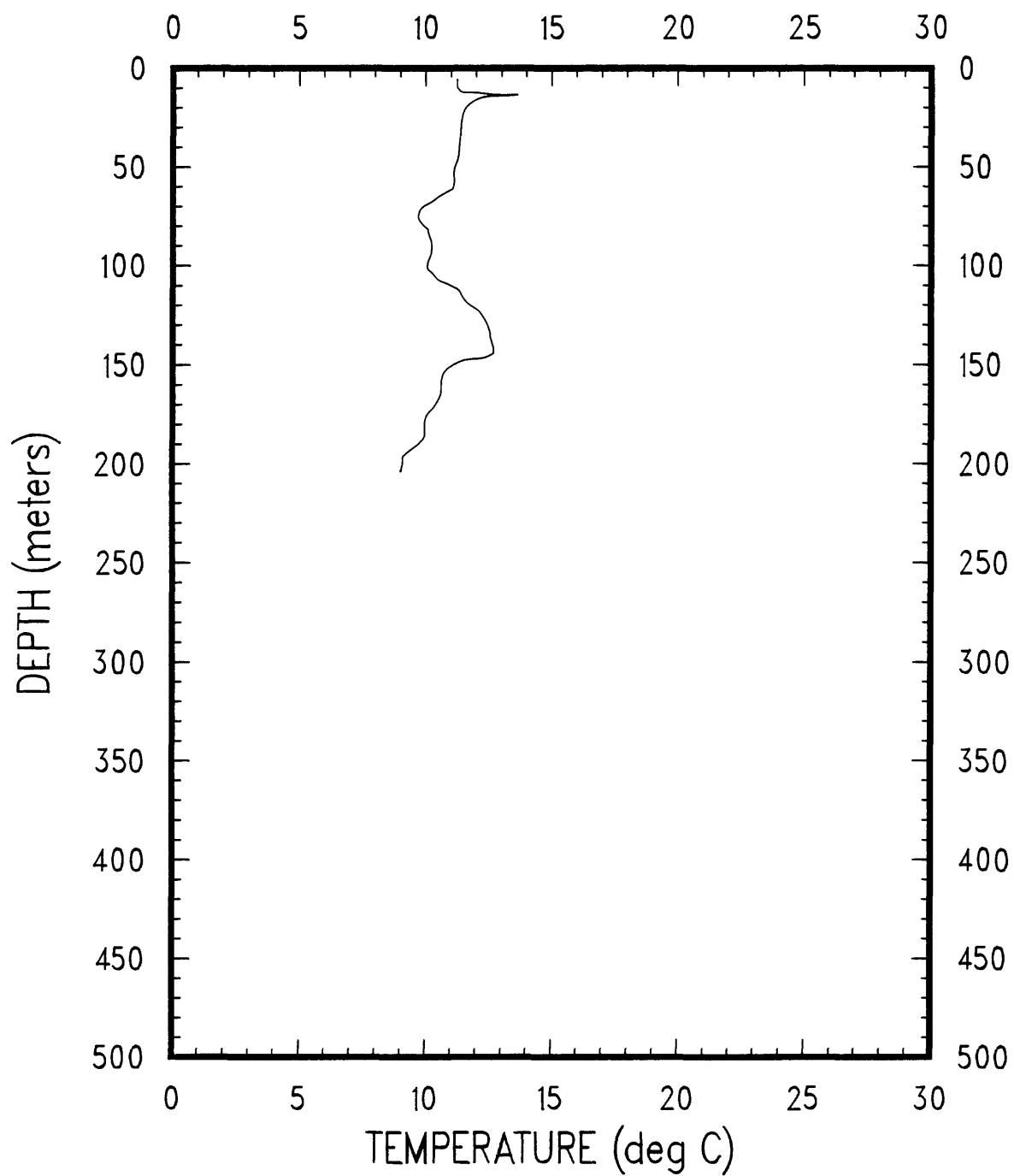
OC130

XBT-9



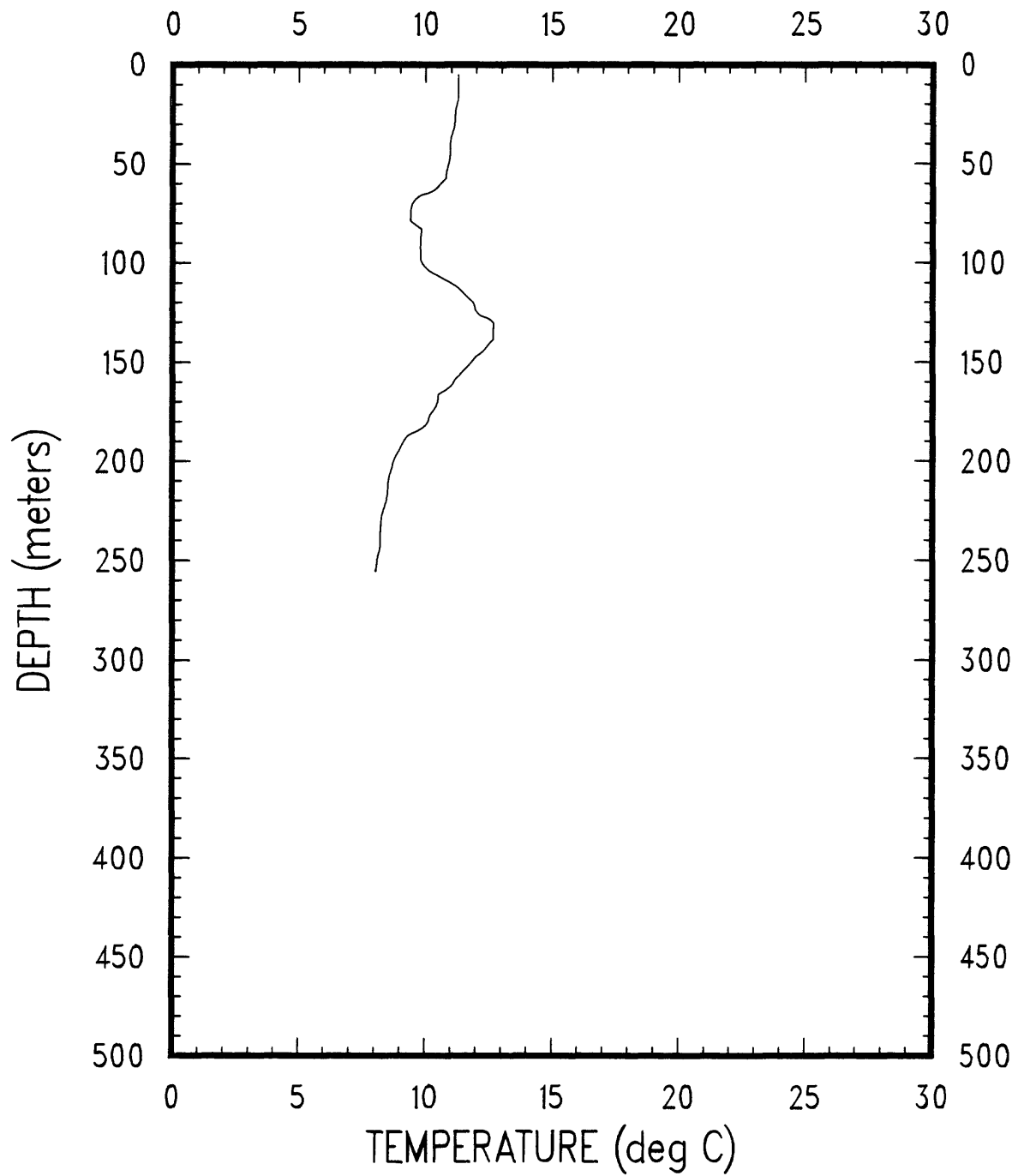
OC130

XBT-10



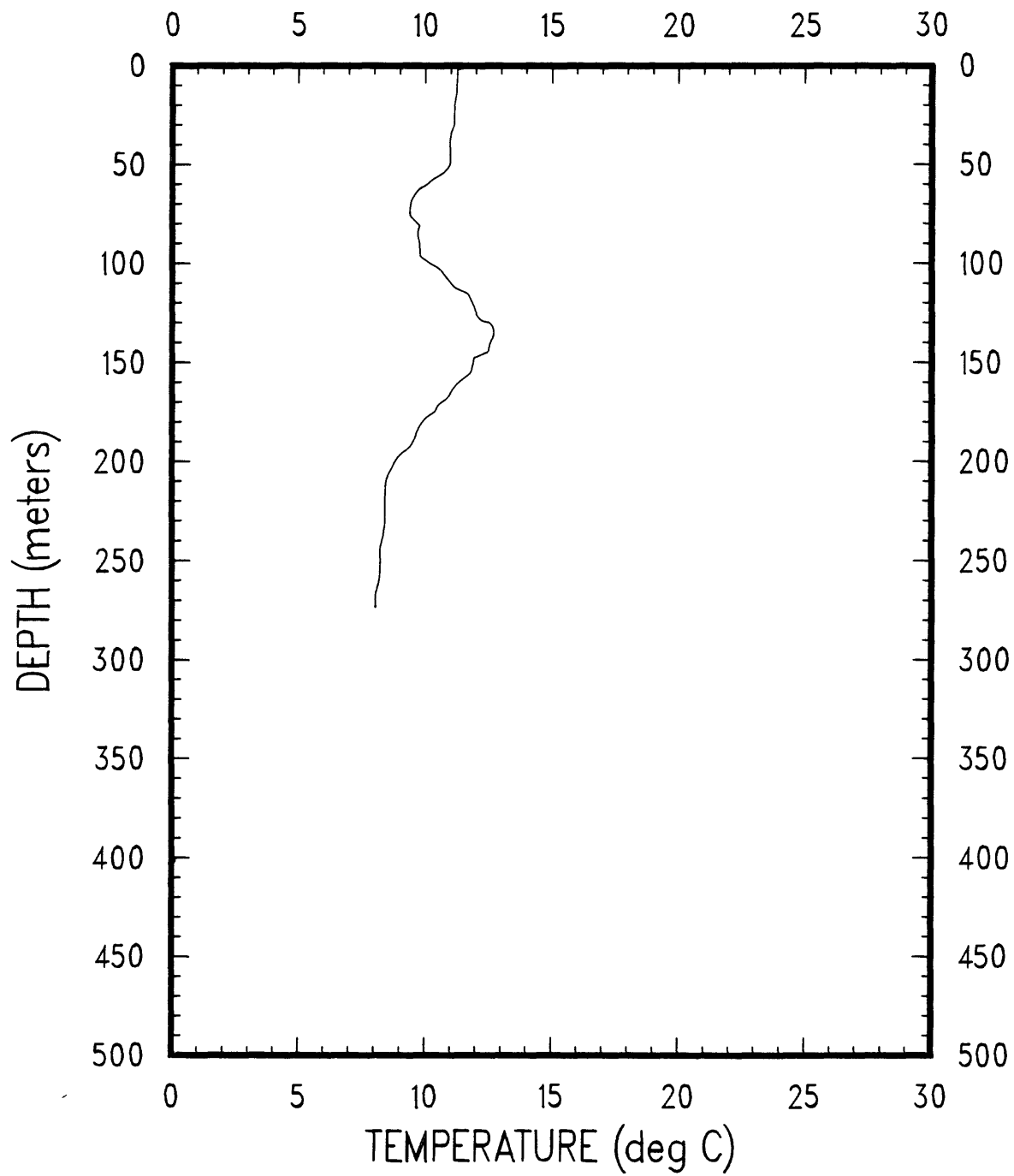
OC130

XBT-11



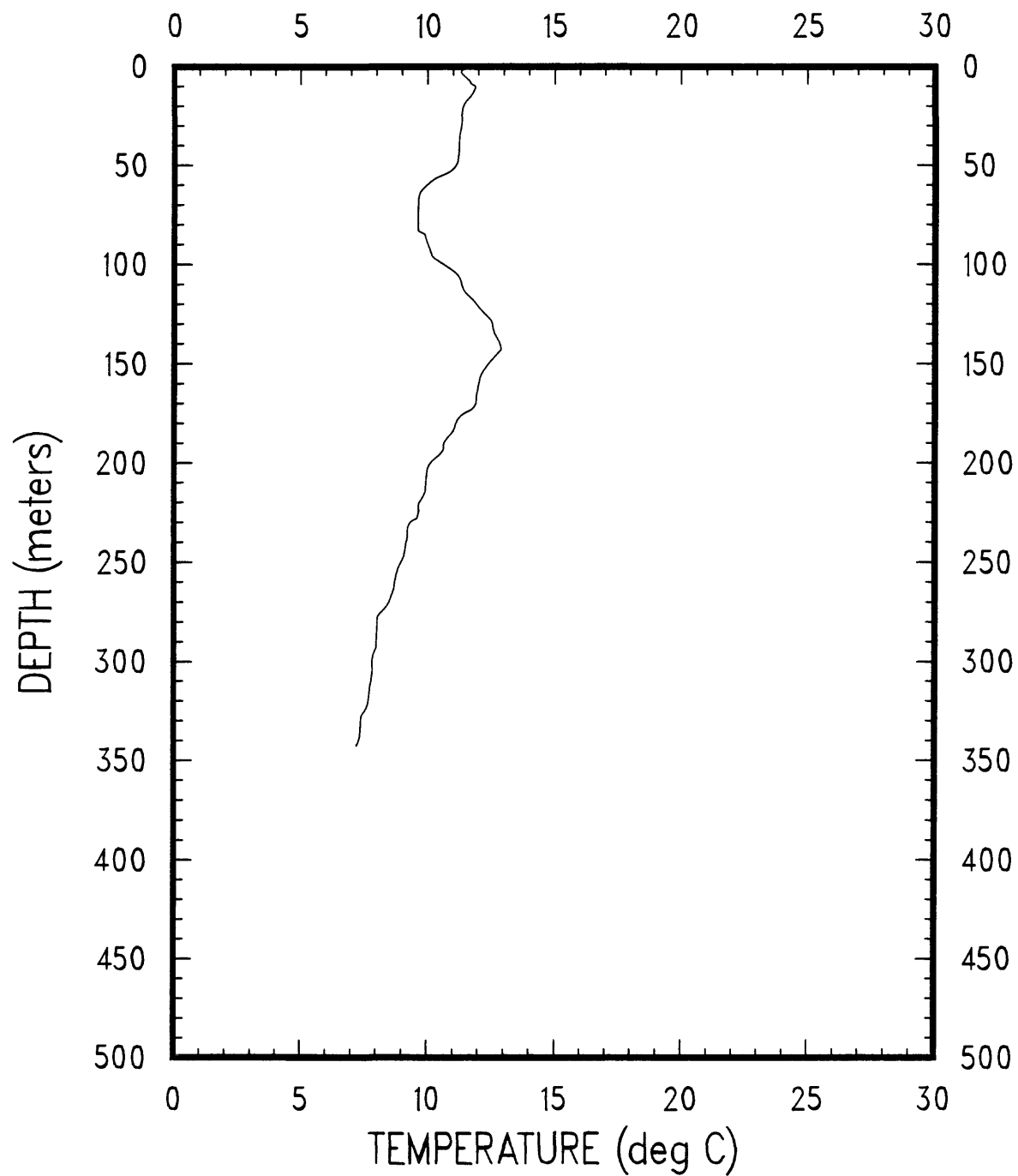
OC130

XBT-12



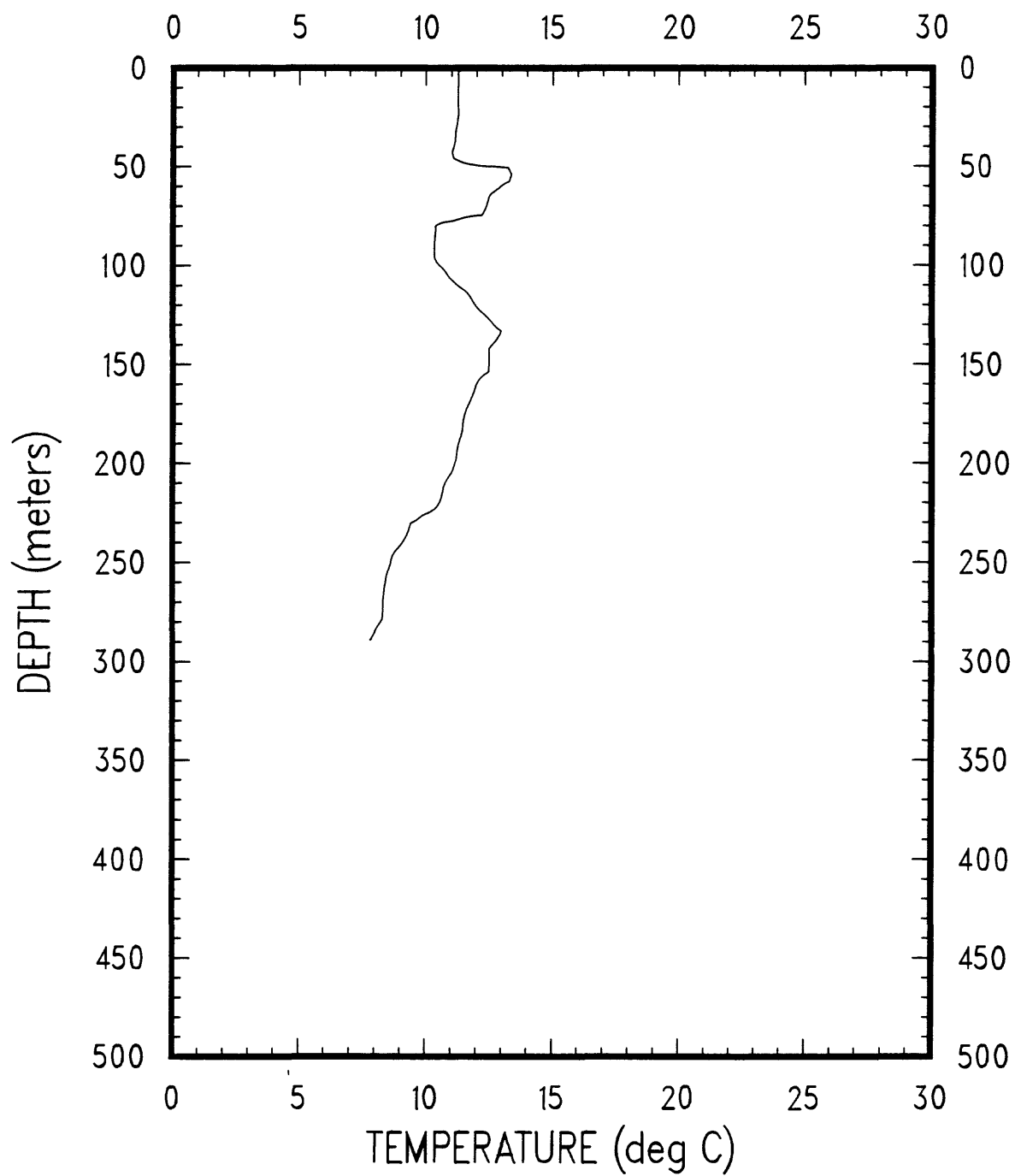
OC130

XBT-13



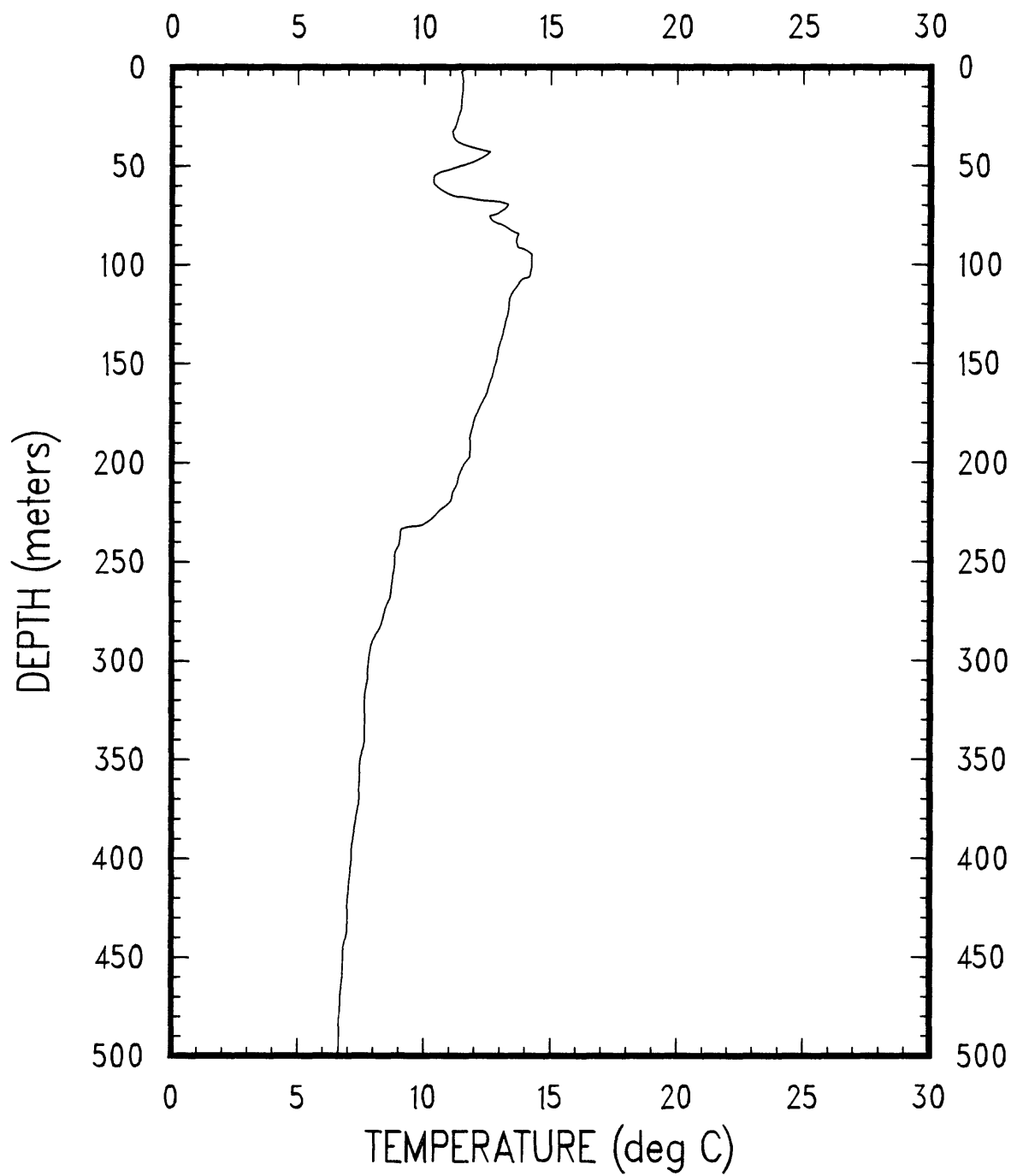
OC130

XBT-14



OC130

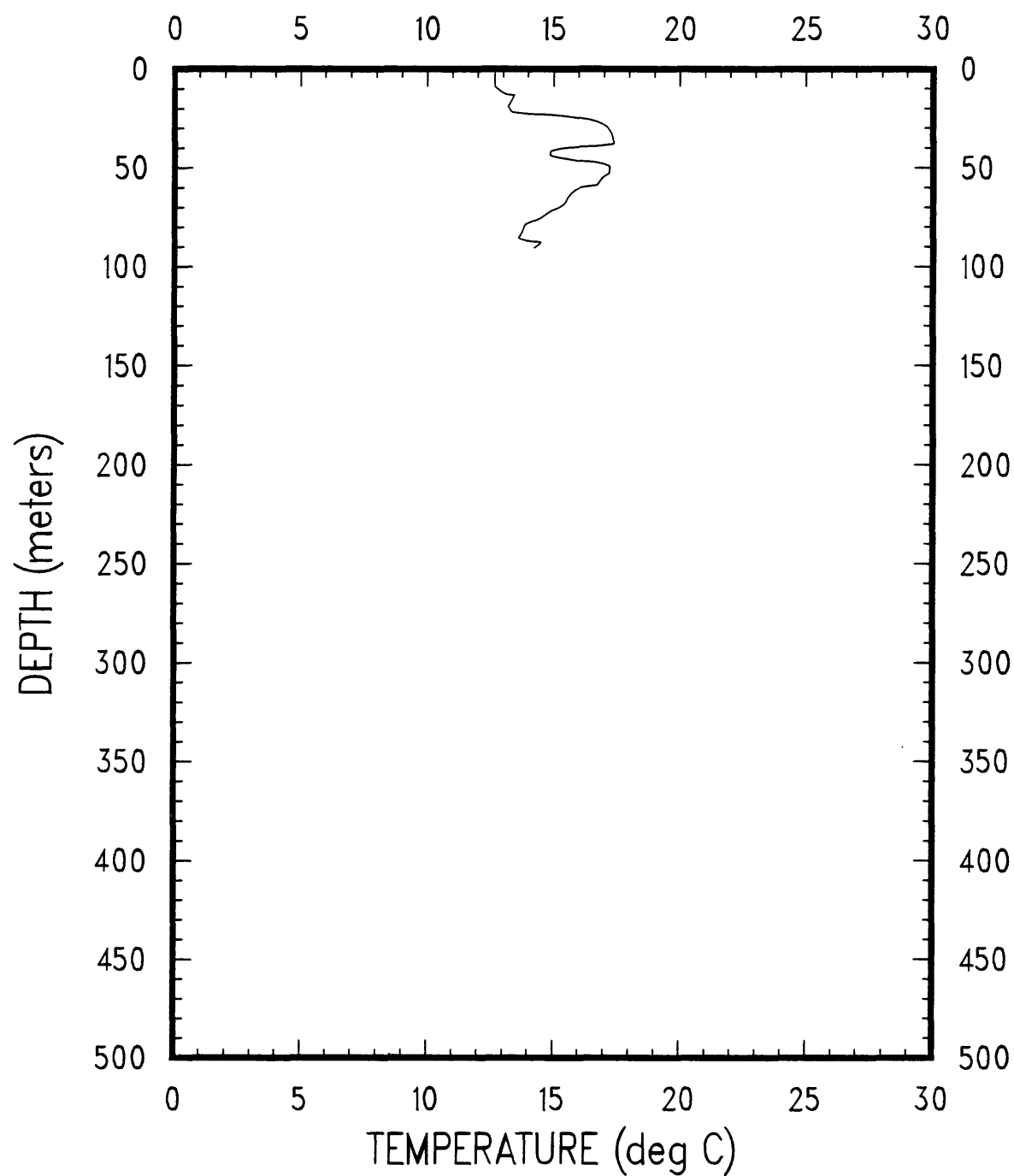
XBT-15





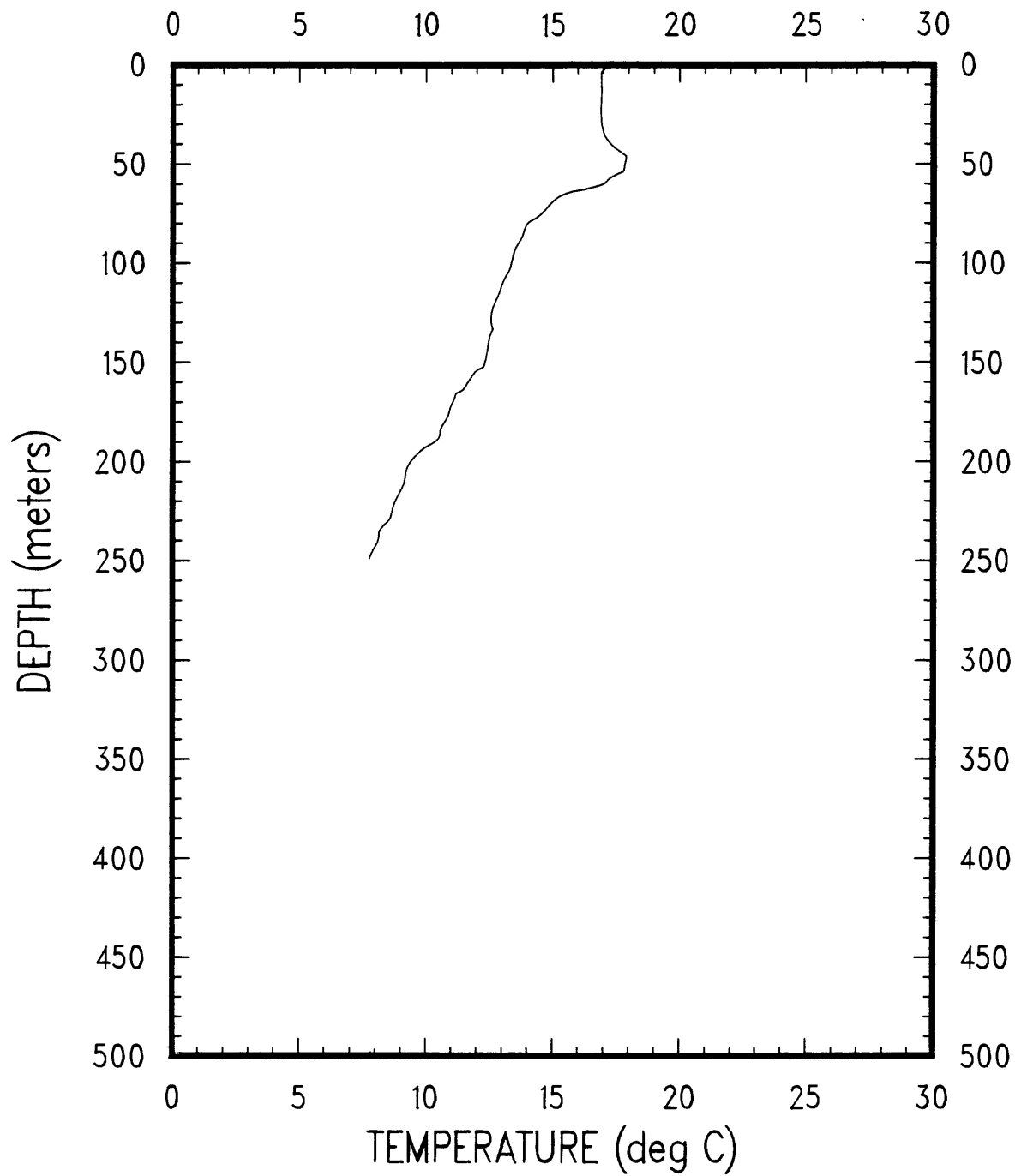
OC130

XBT-16



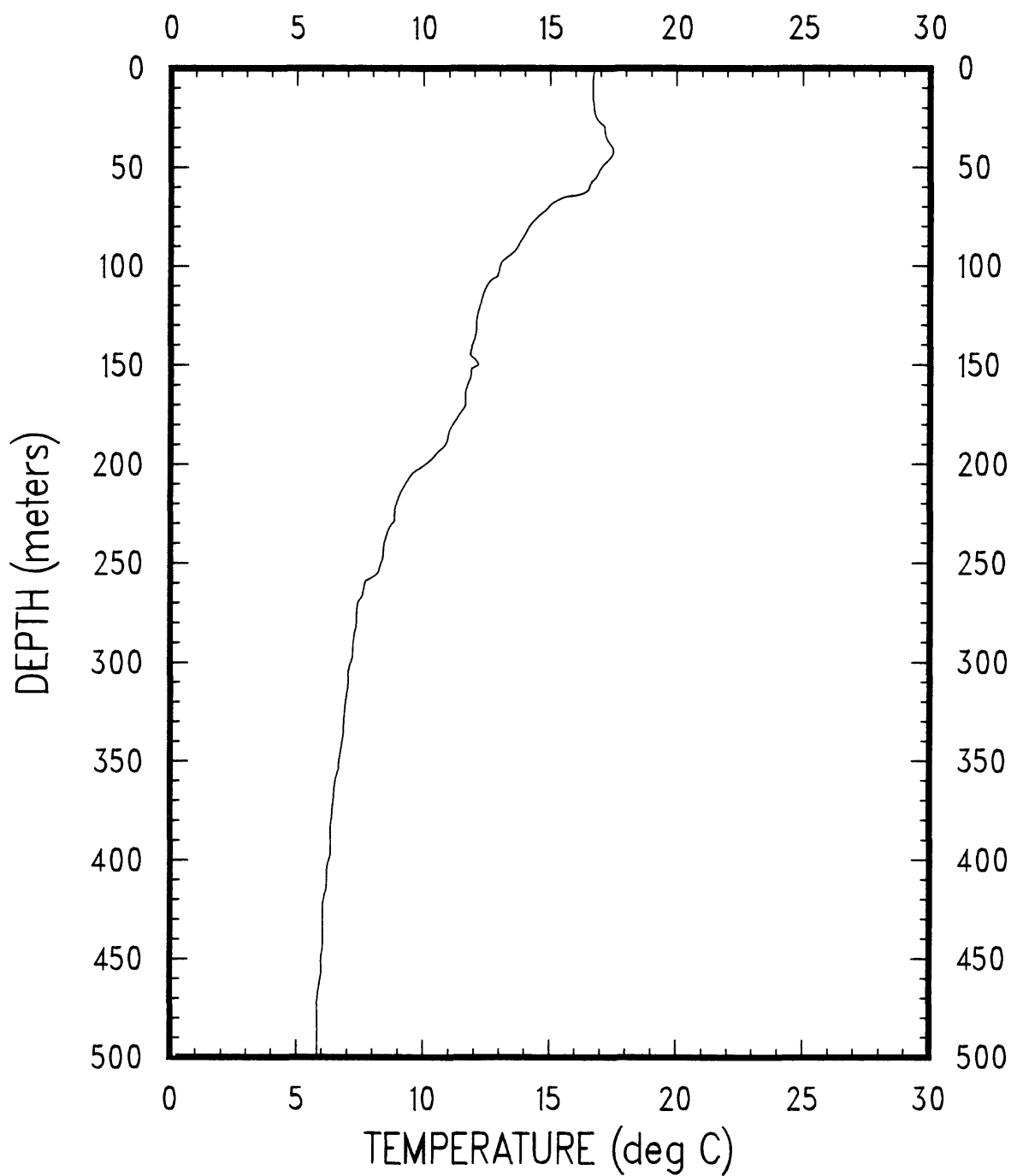
OC130

XBT-17

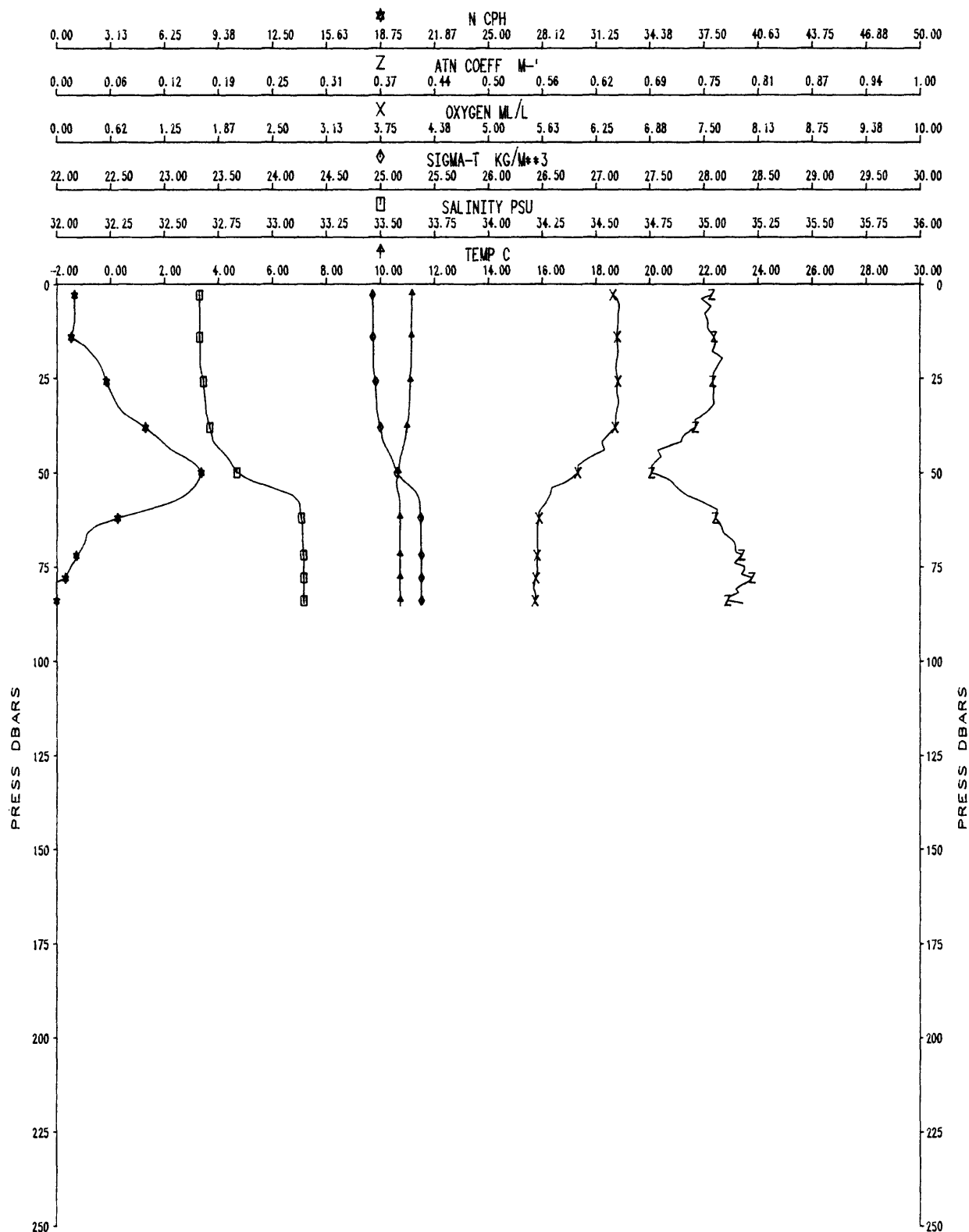


OC130

XBT-18

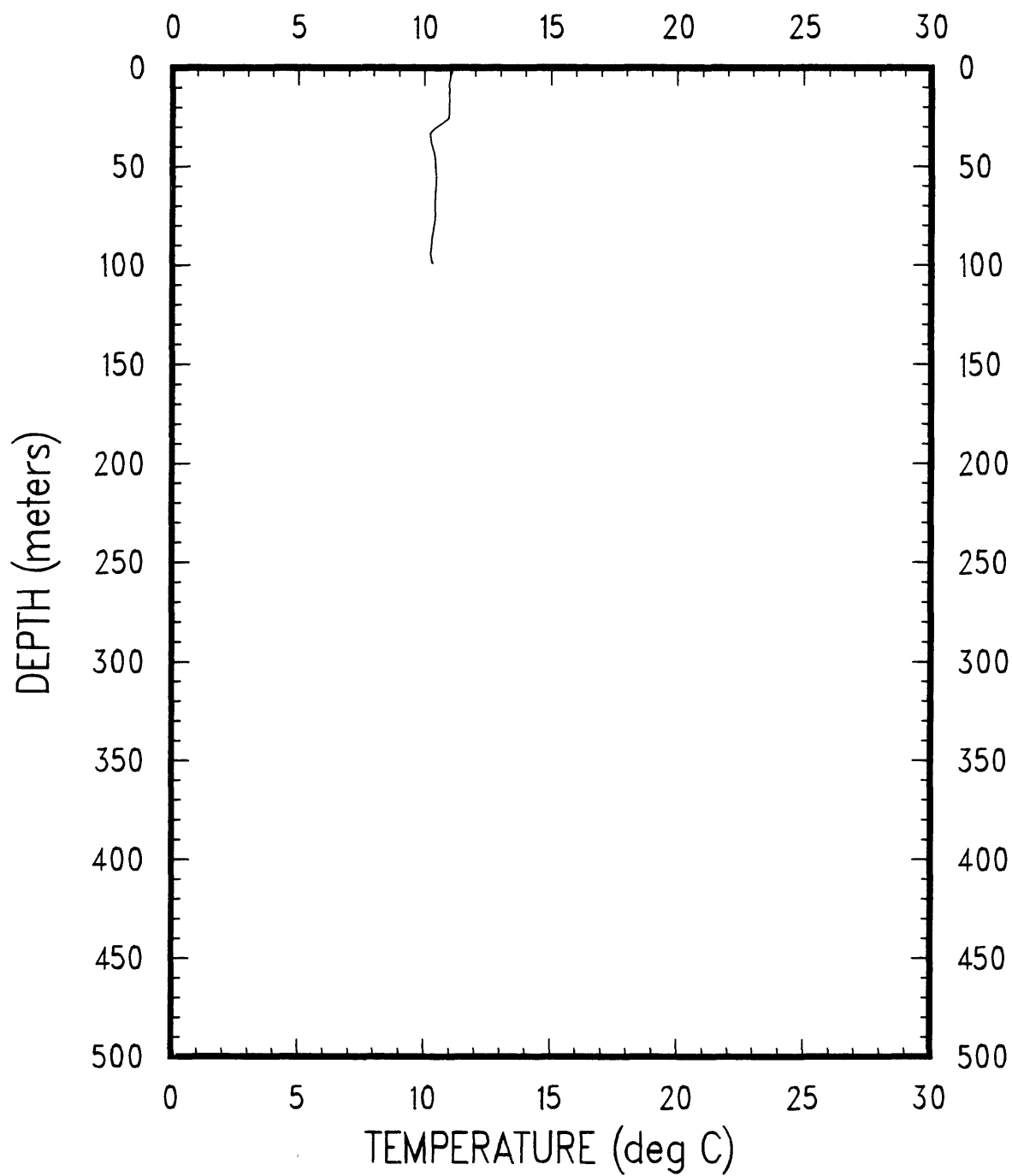


# OC130A CAST #19

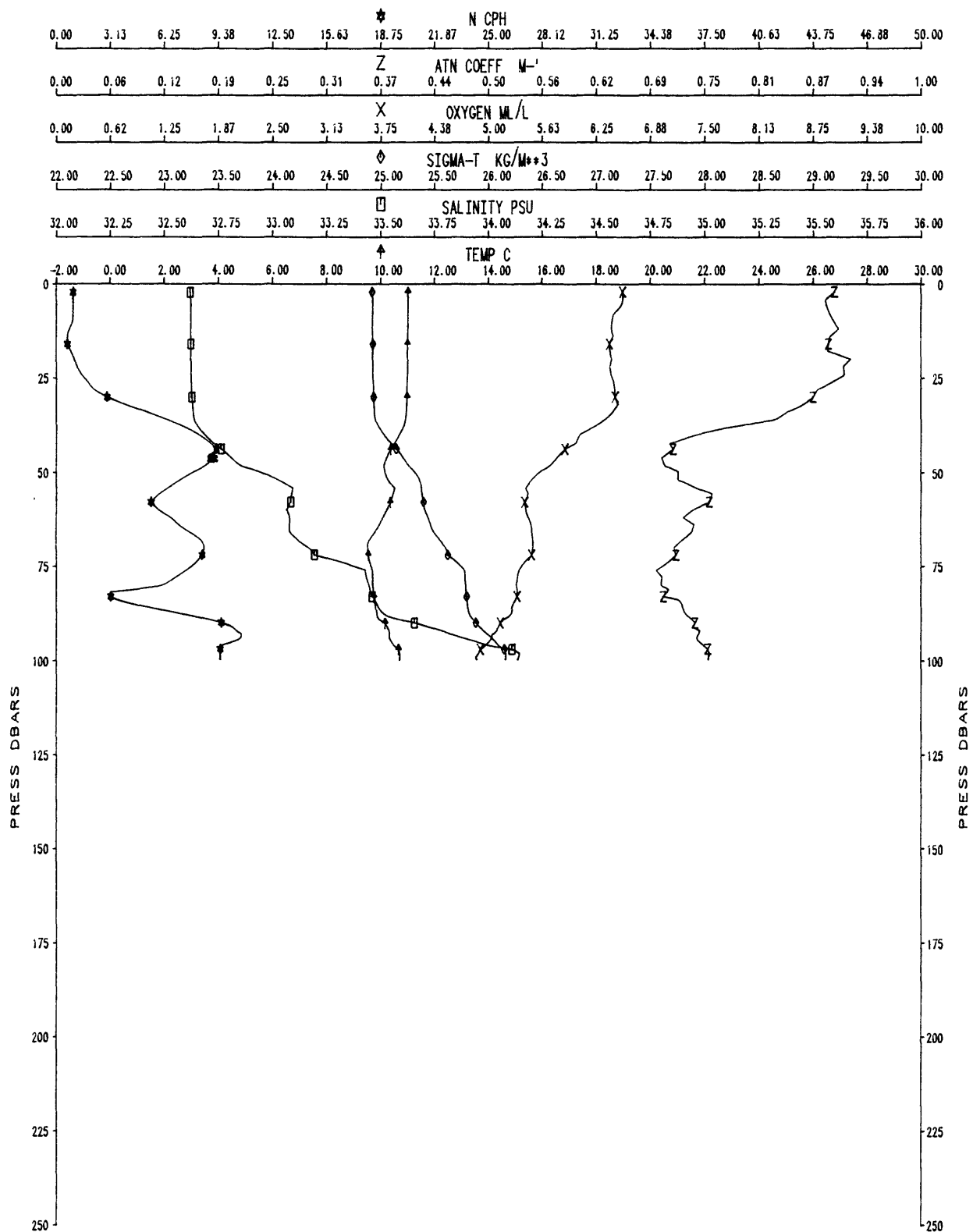


OC130

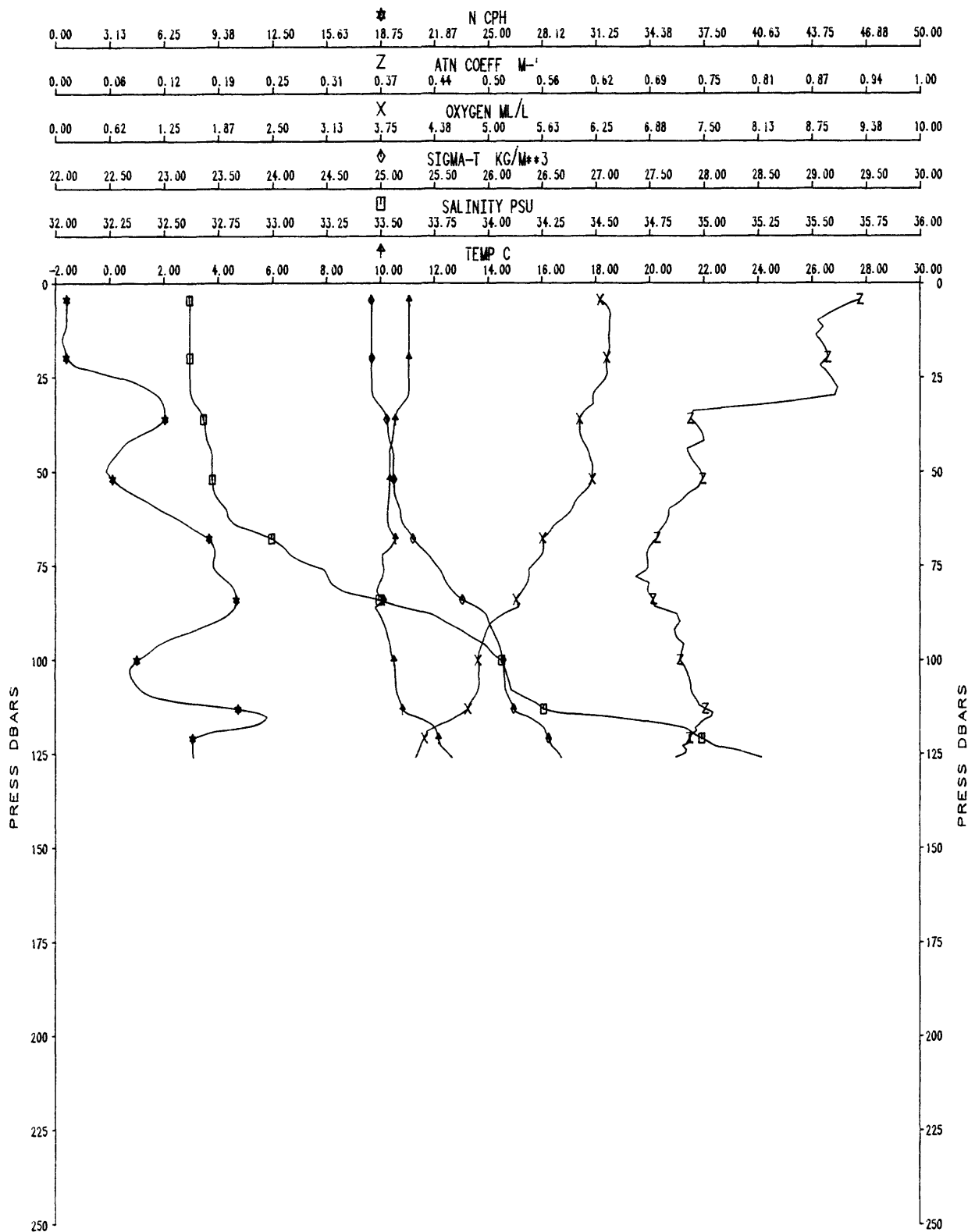
XBT-20



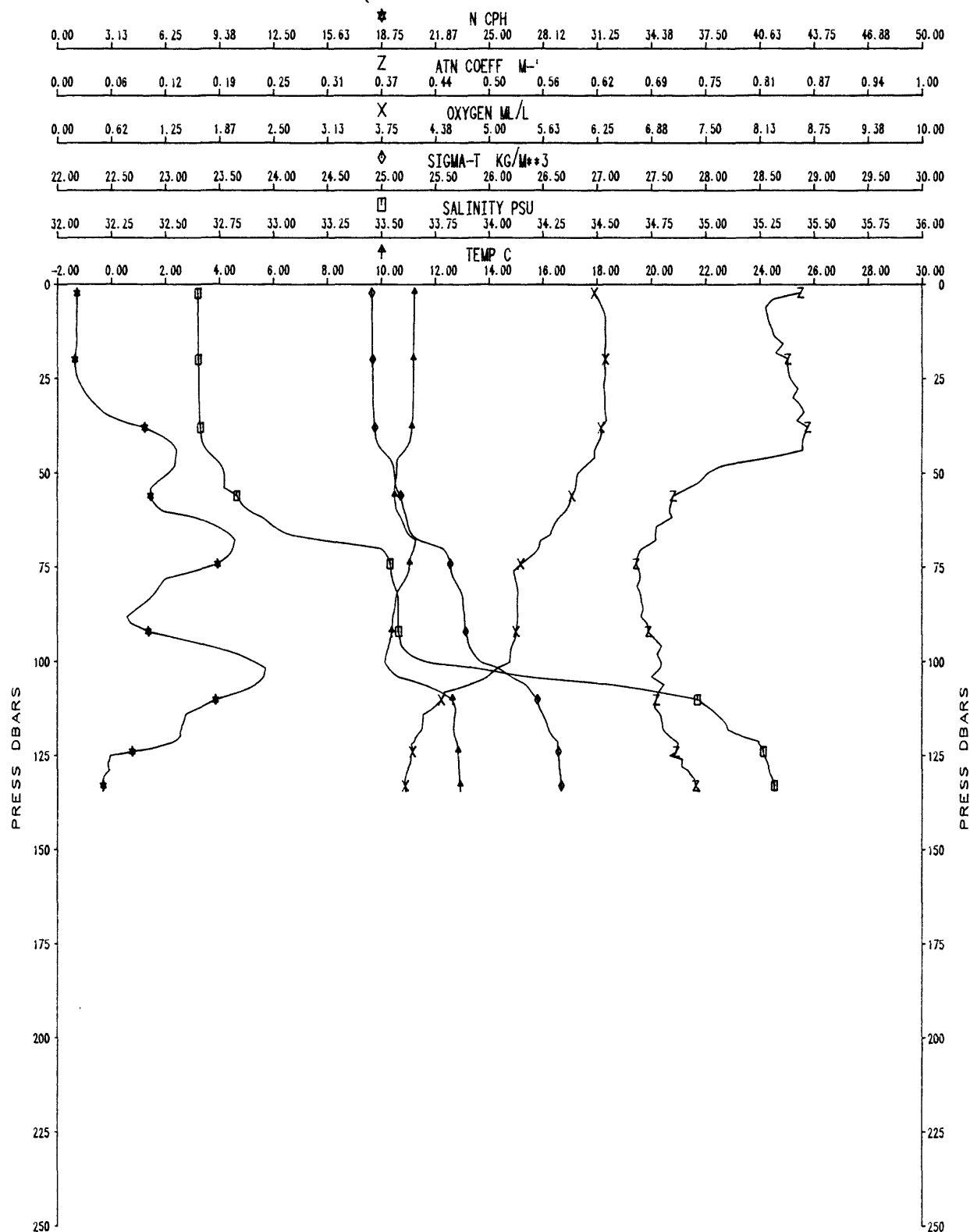
OC130A CAST #21



# OC130A CAST #22

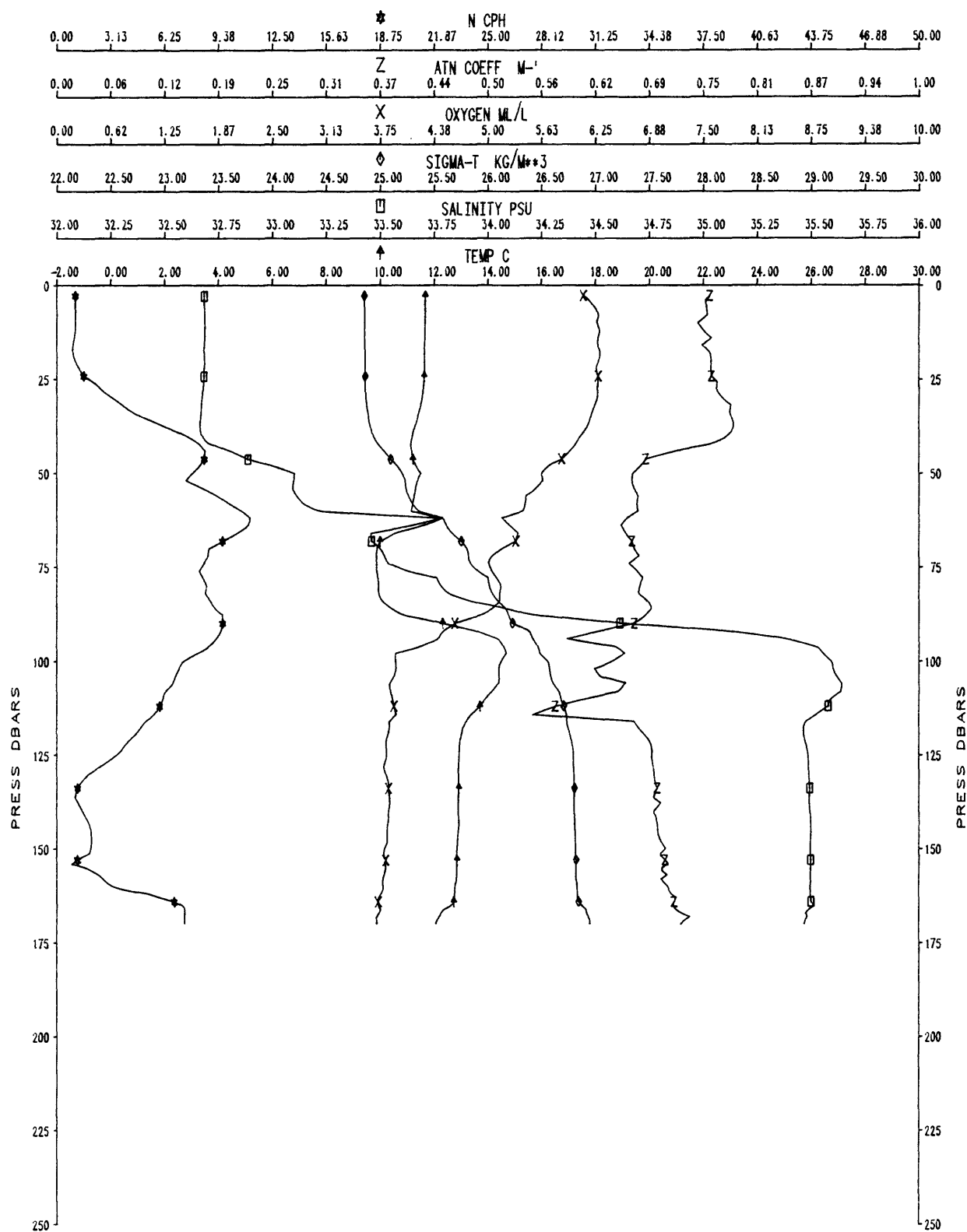


# OC130A CAST #23

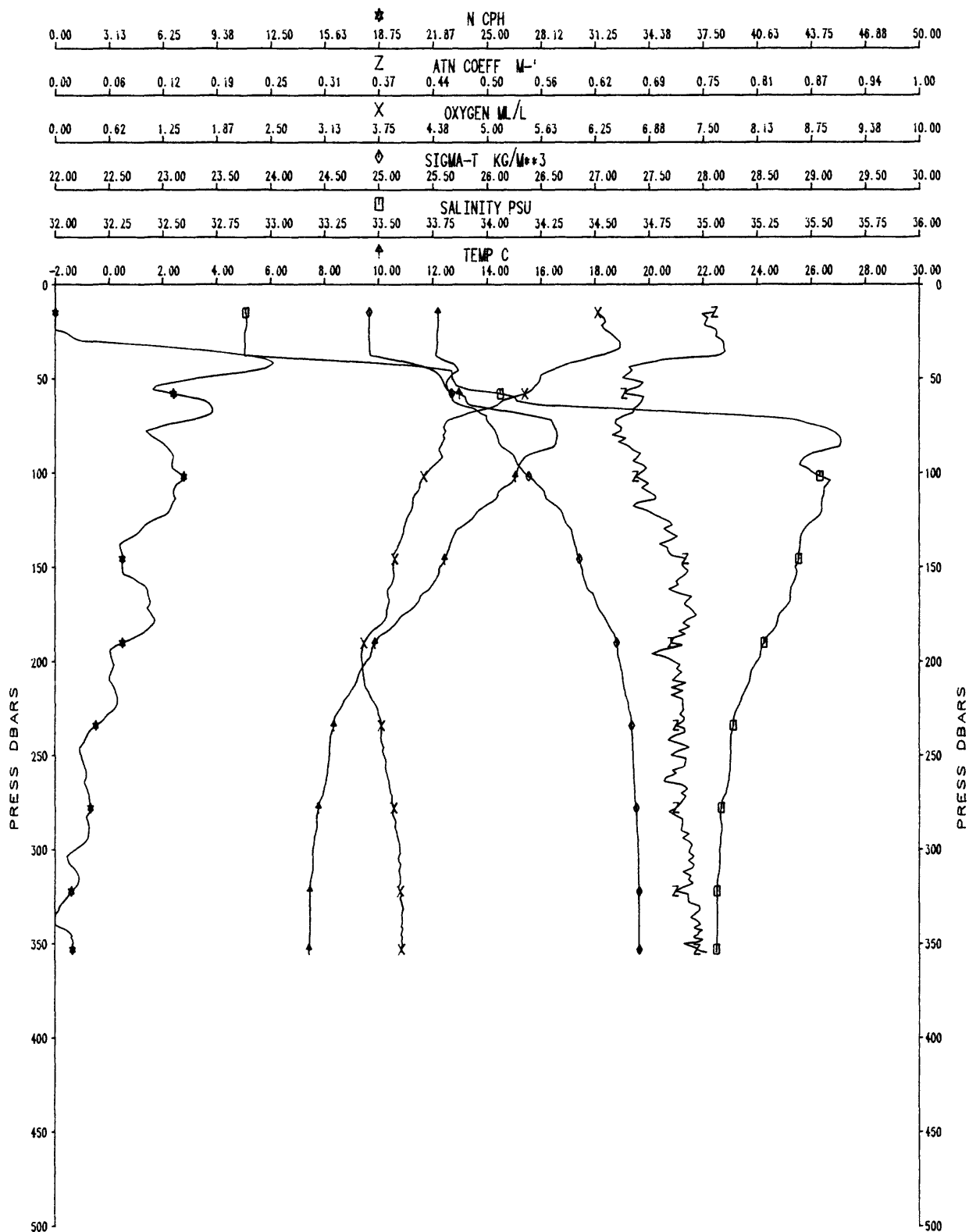




OC130A CAST #24

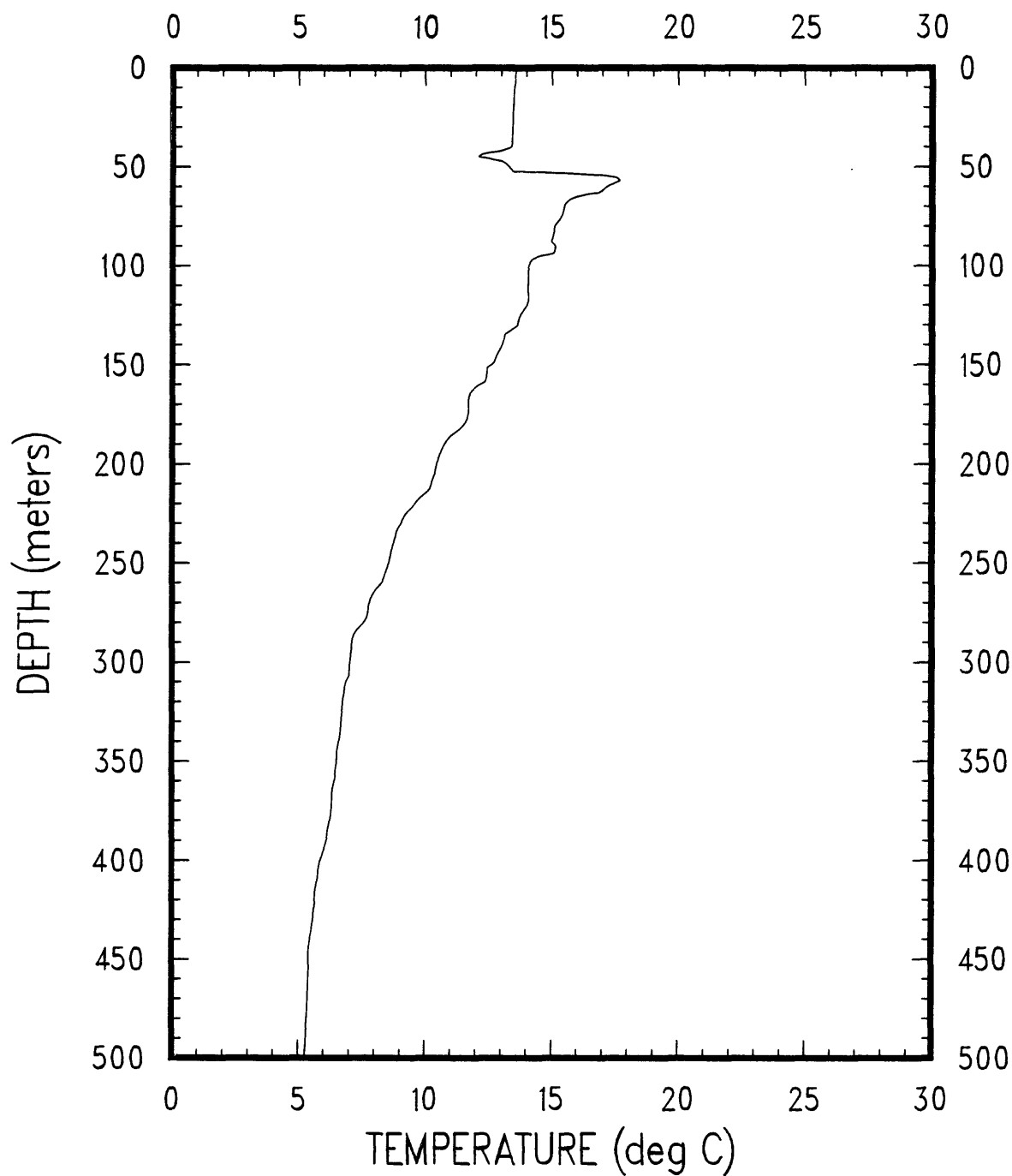


OC130A CAST #25

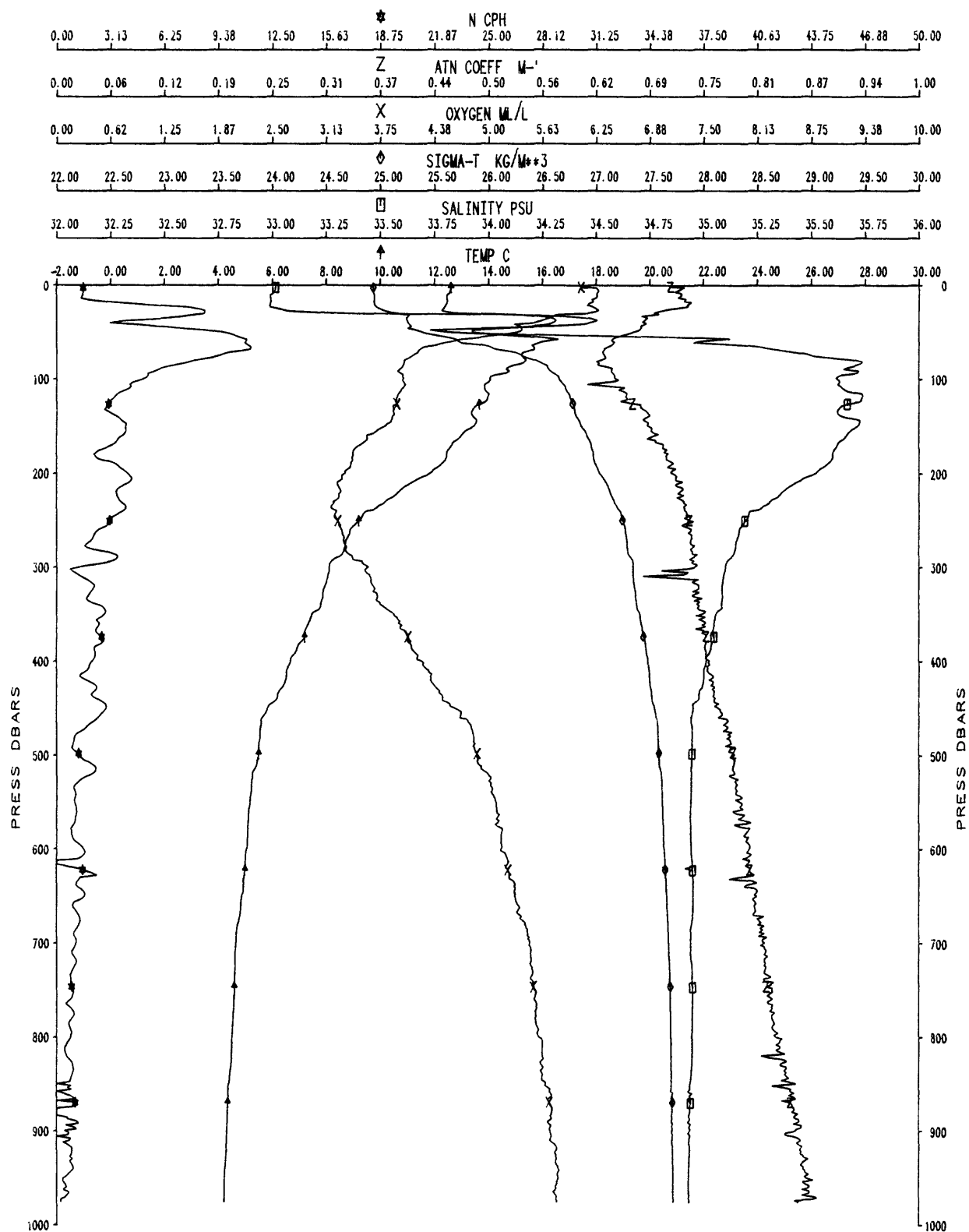


OC130

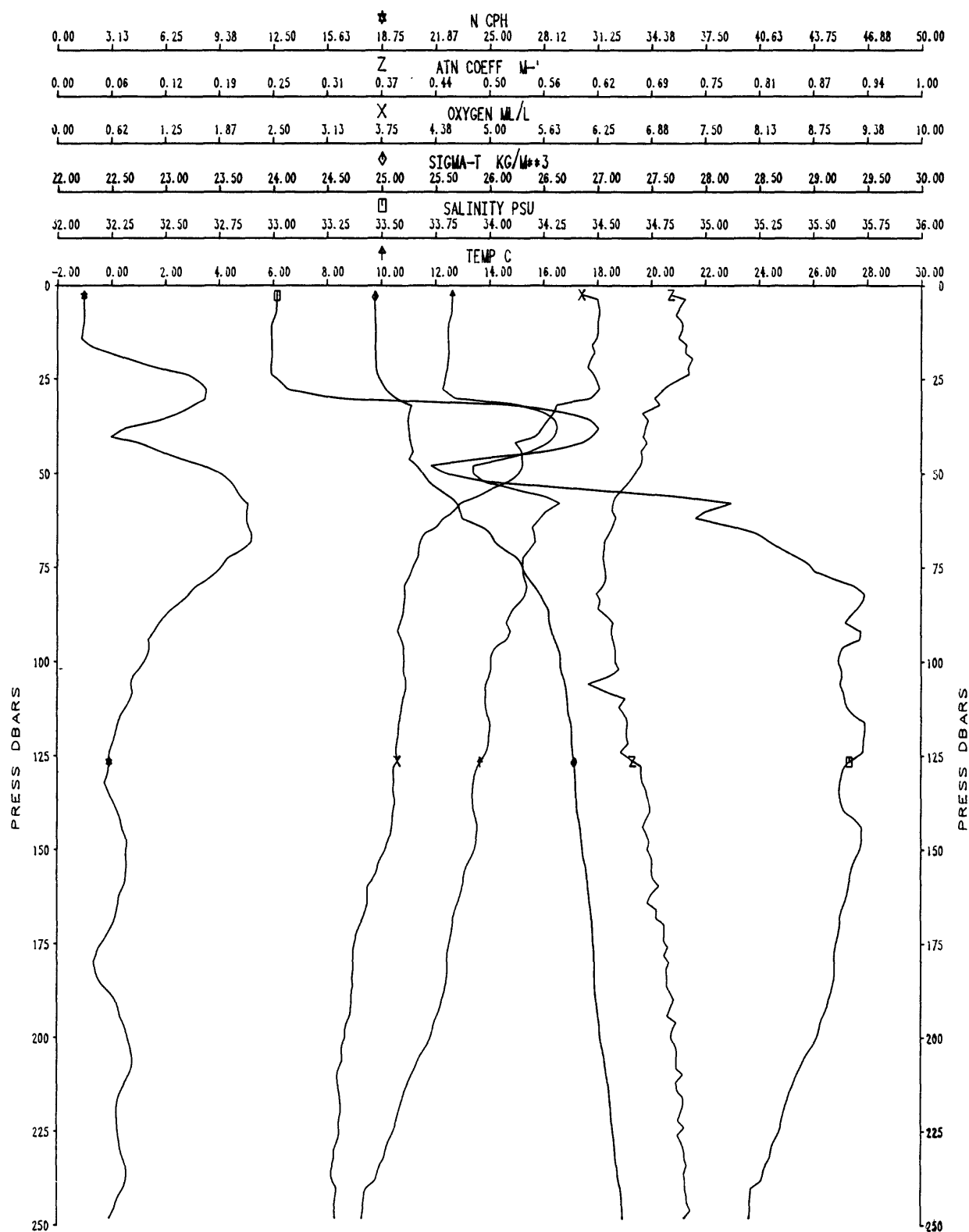
XBT-26



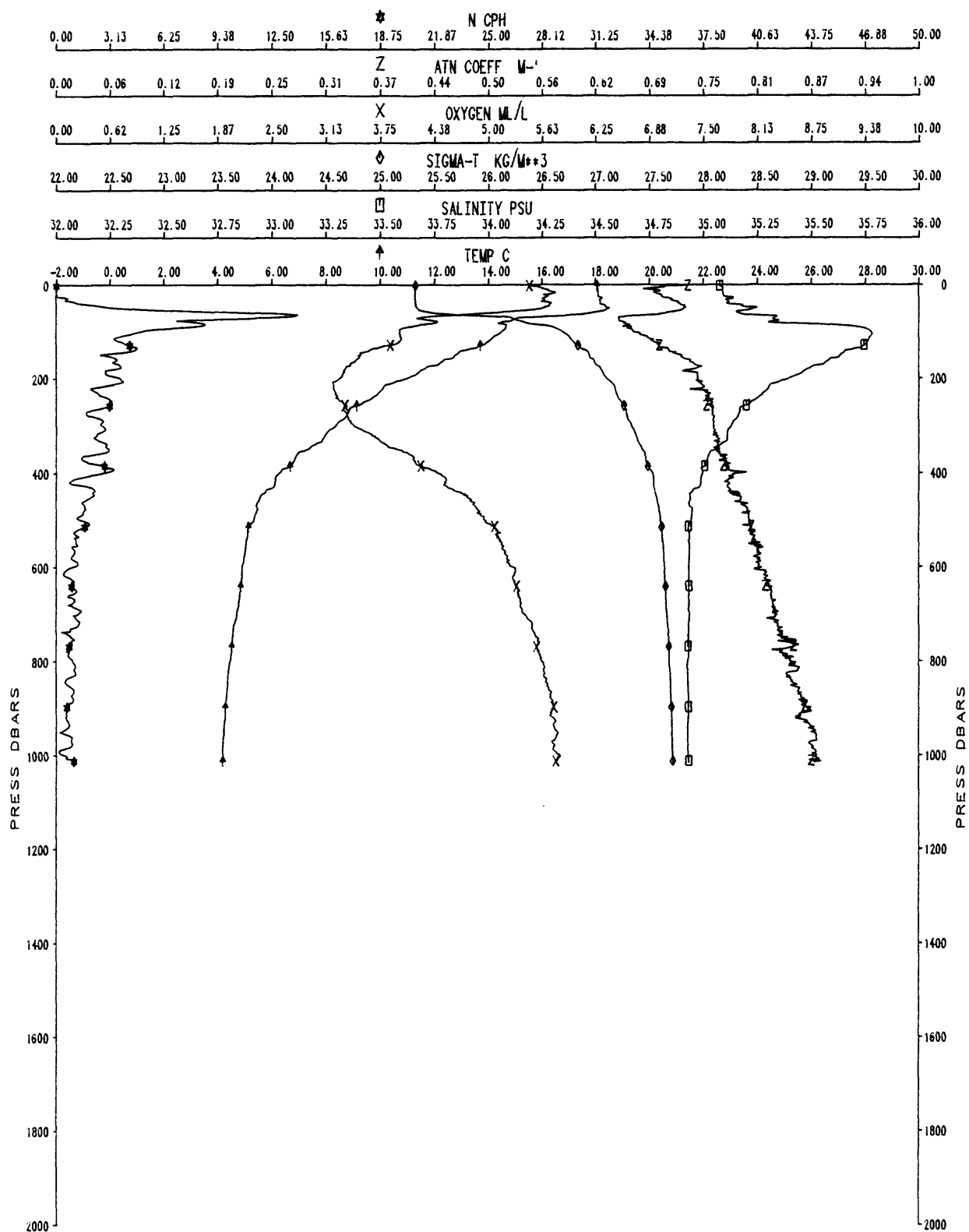
OC130A CAST #27



OC130A CAST #27

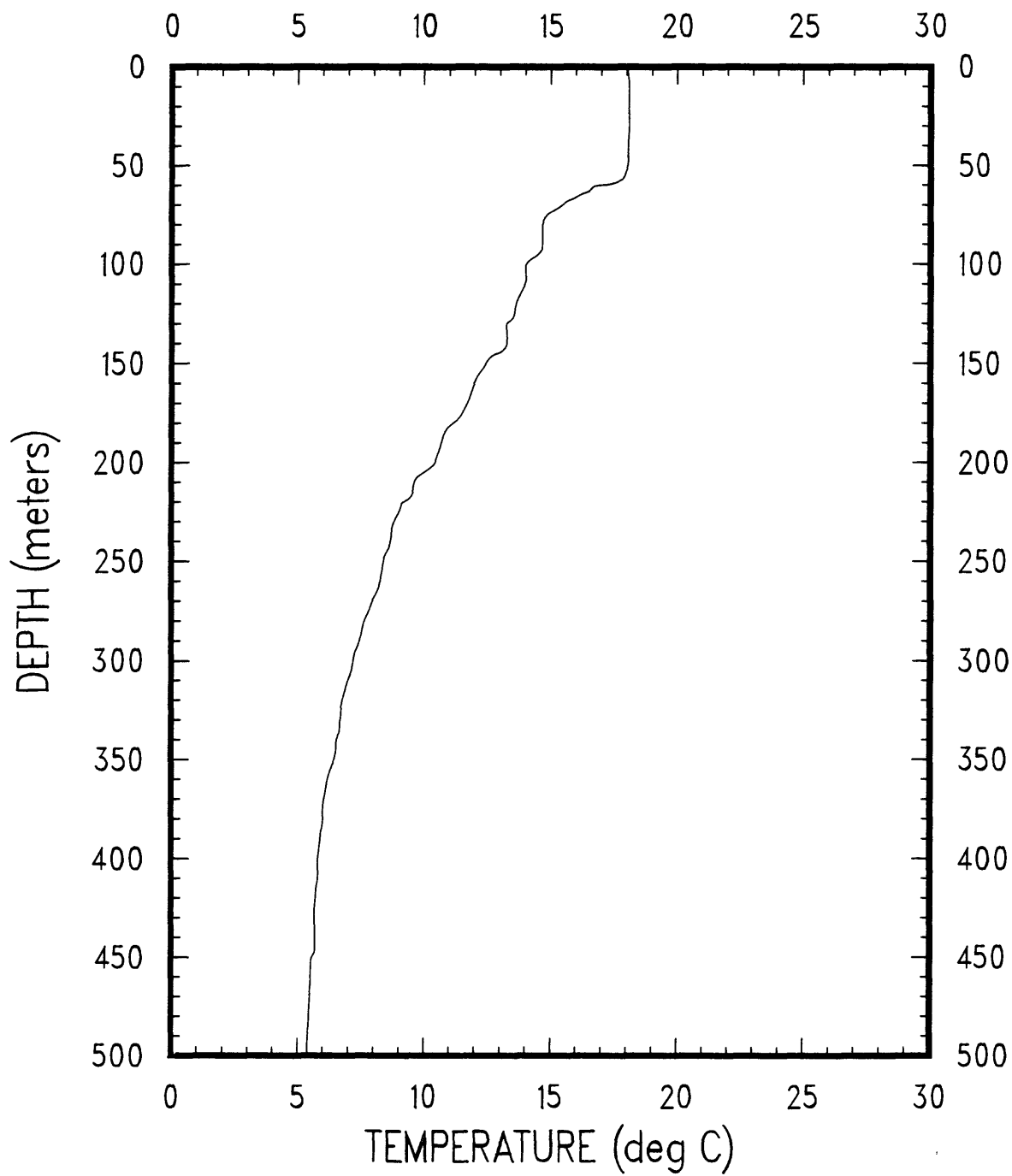


OC130A CAST #28

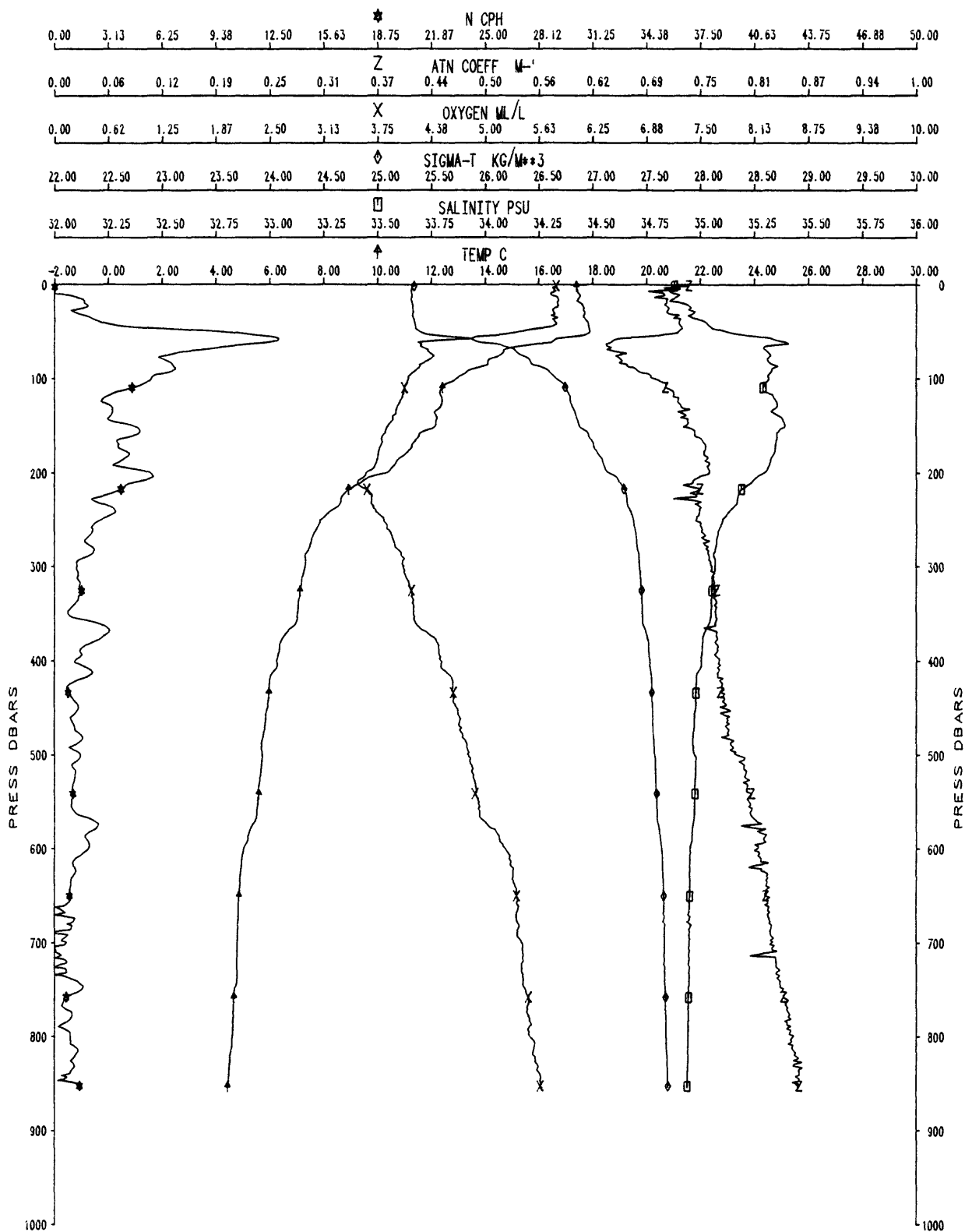


OC130

XBT-29

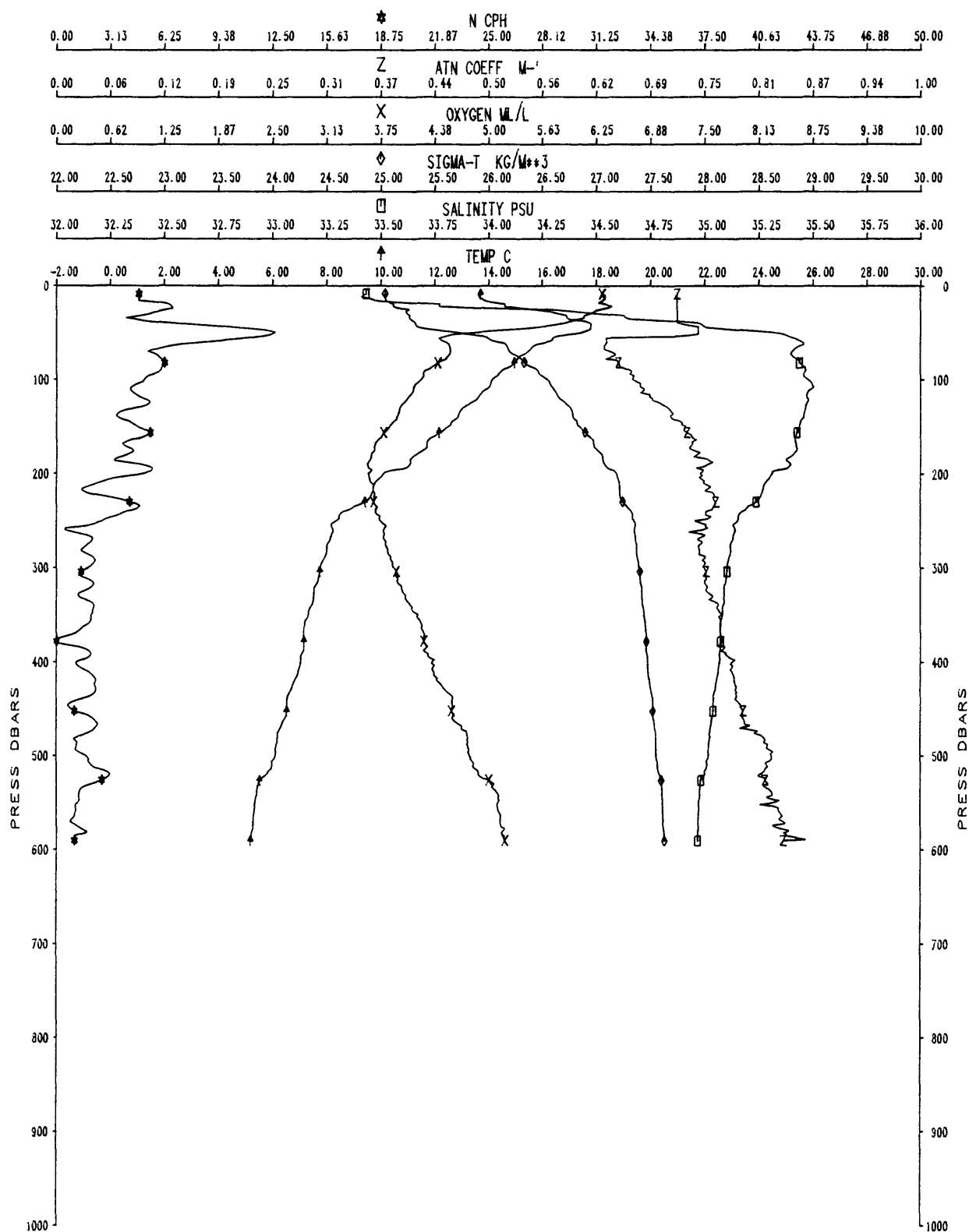


OC130A CAST #30

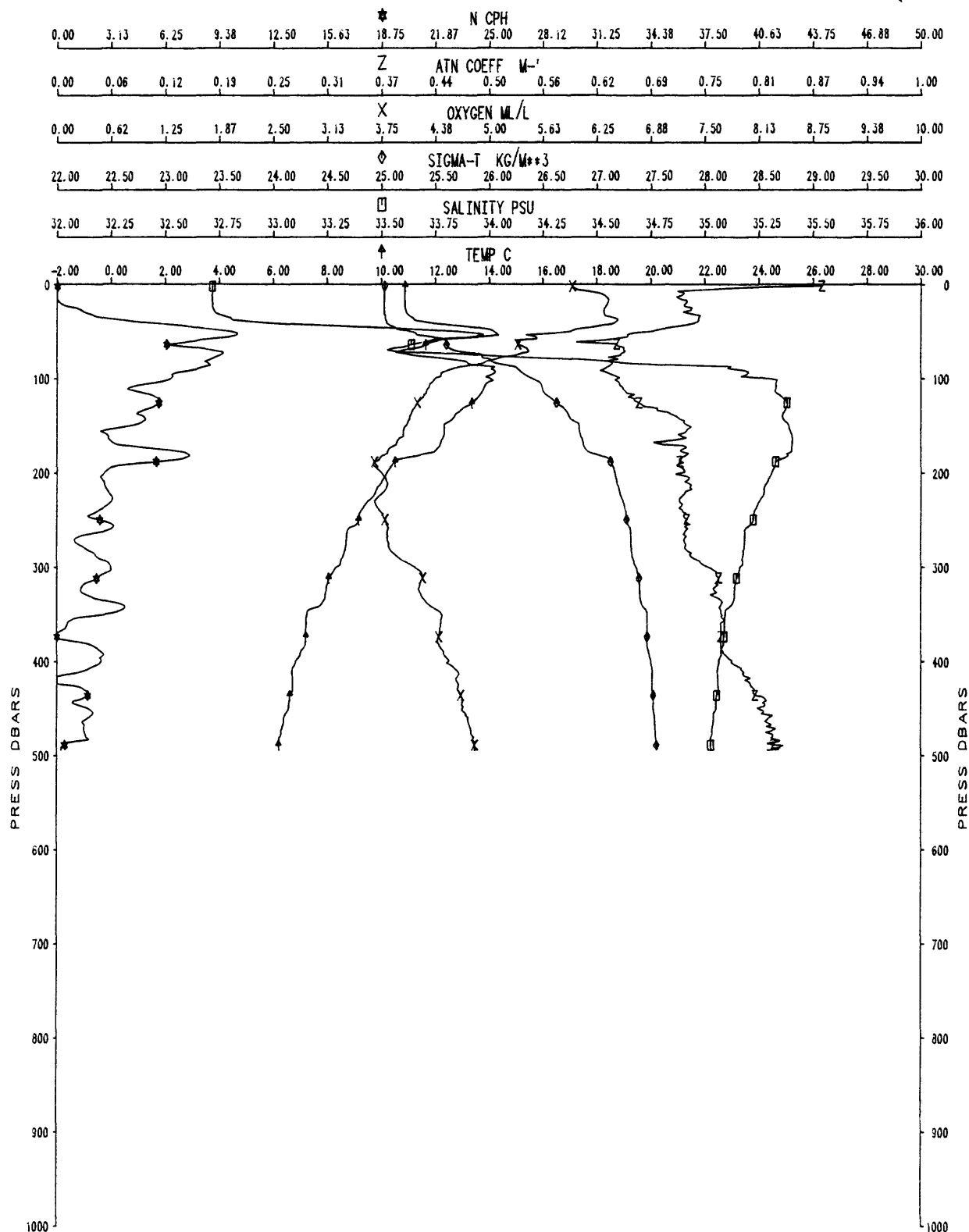




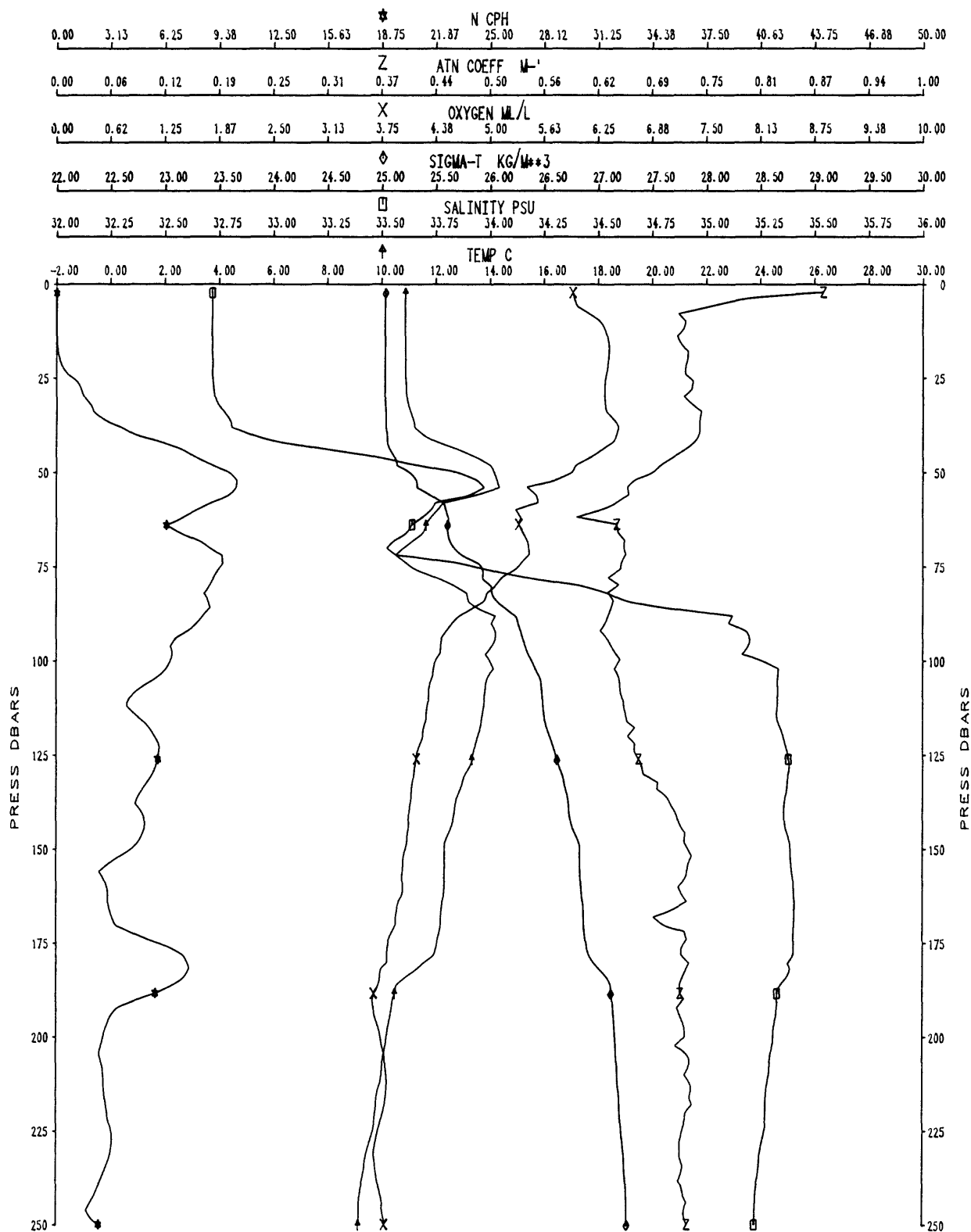
OC130A CAST #31



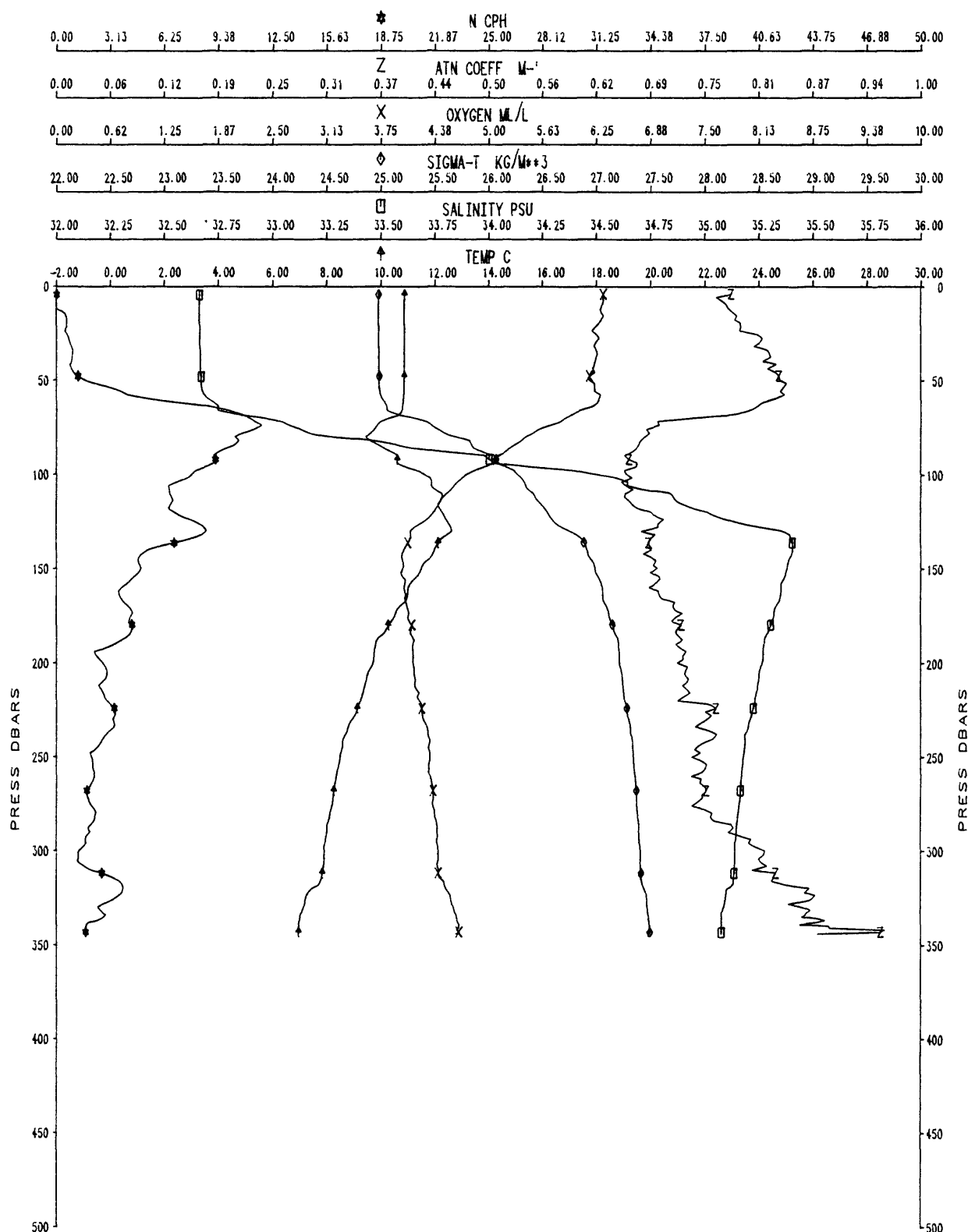
OC130A CAST #32



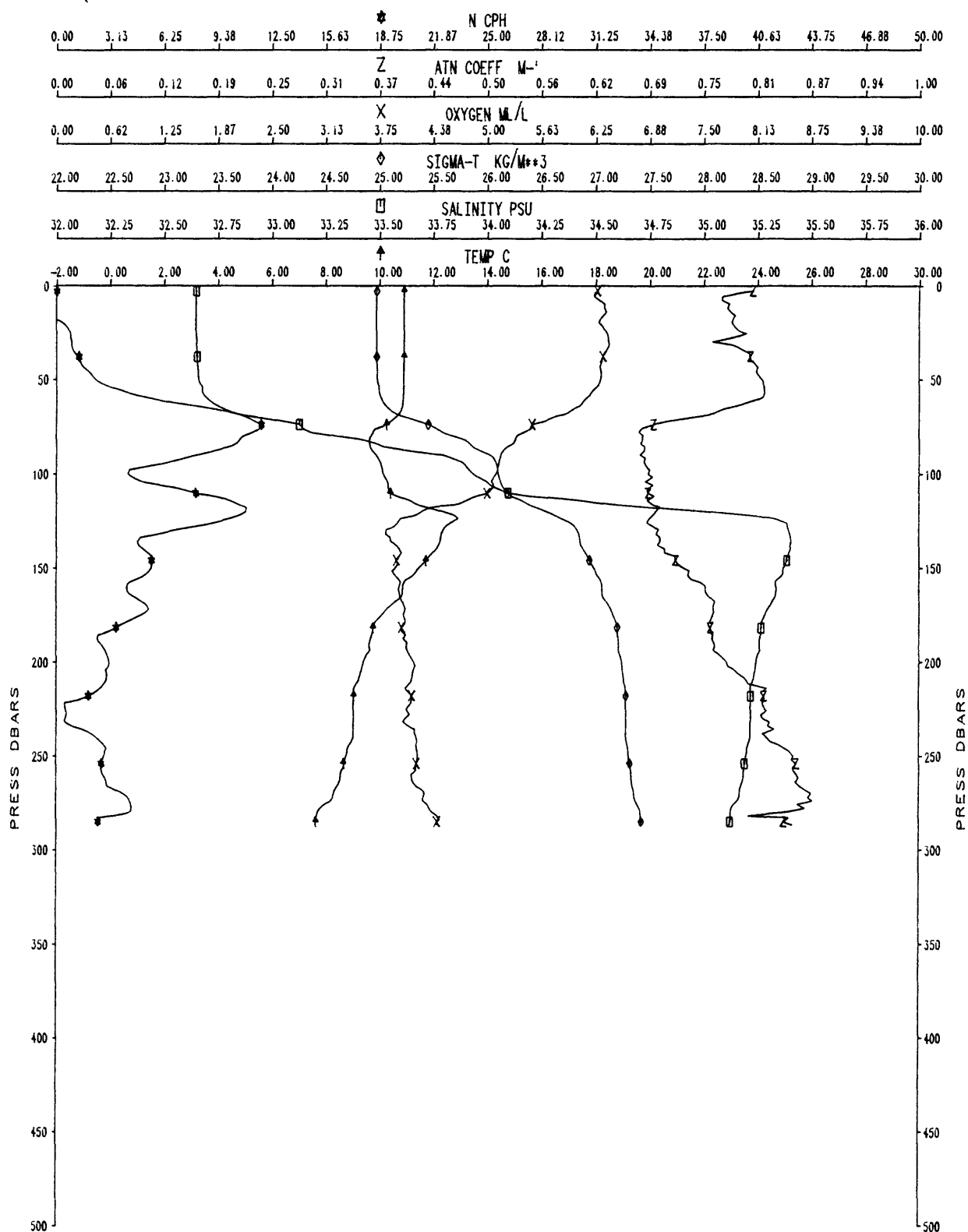
0C130A CAST #32



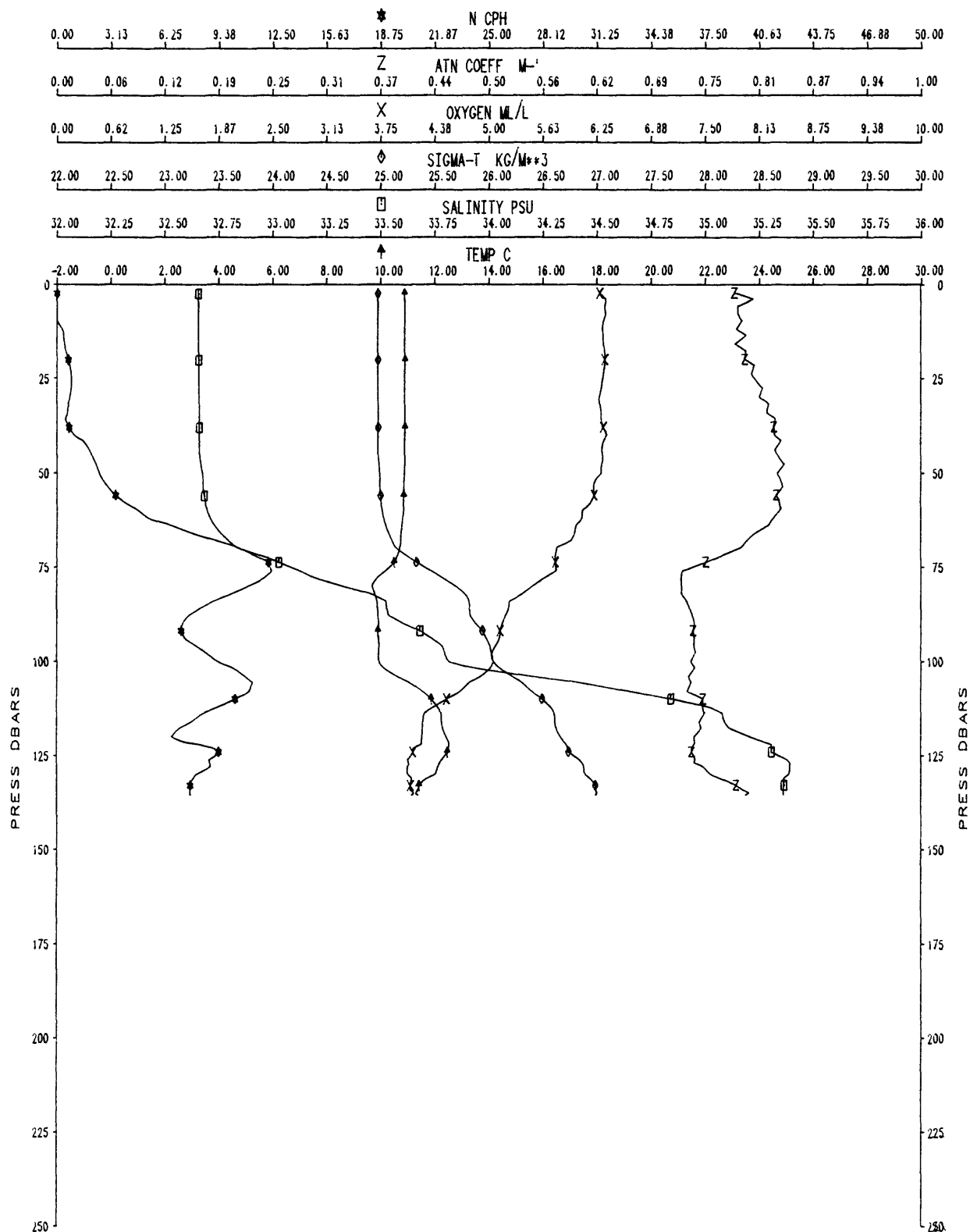
OC130A CAST #33



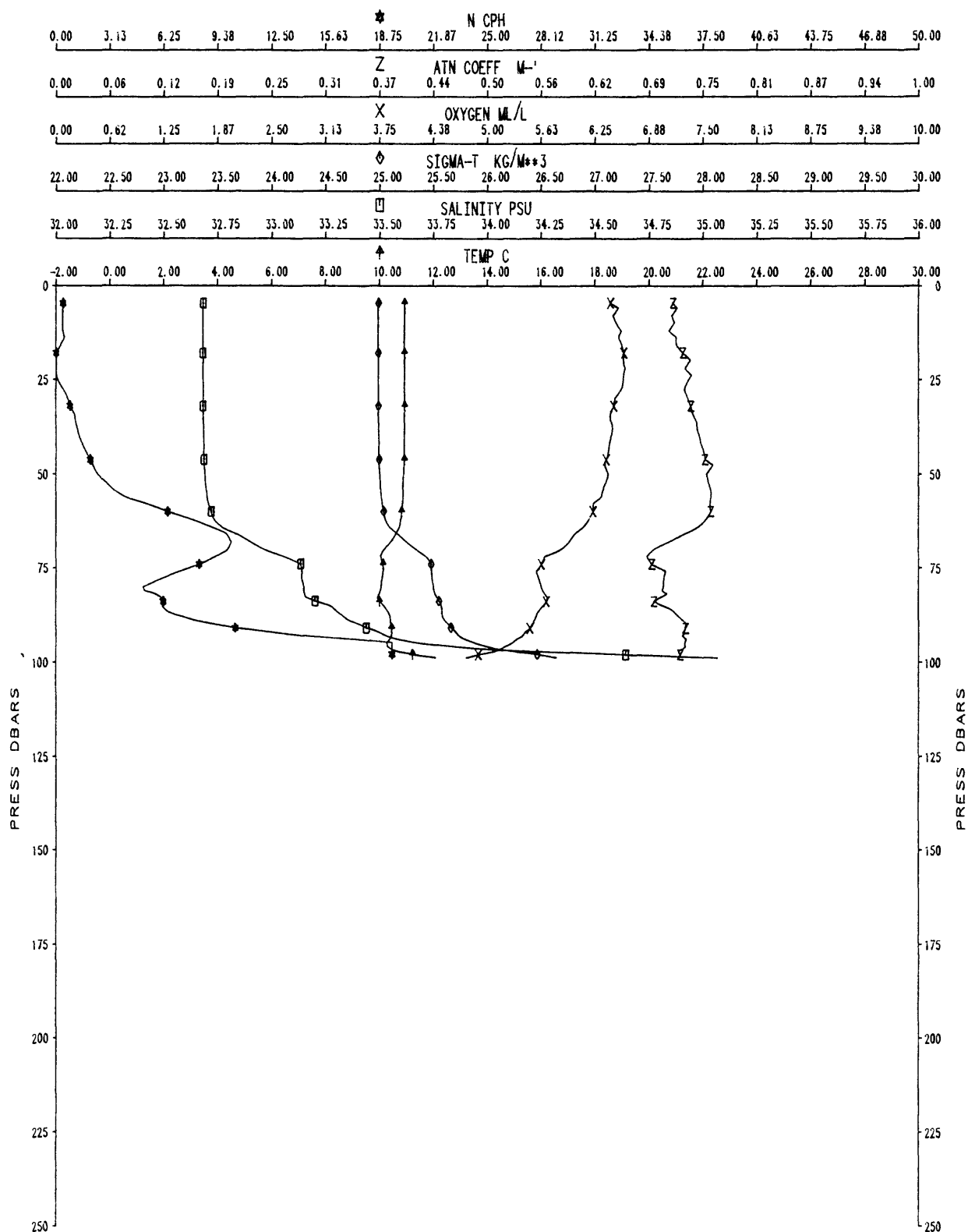
OC130A CAST #34



OC130A CAST #35

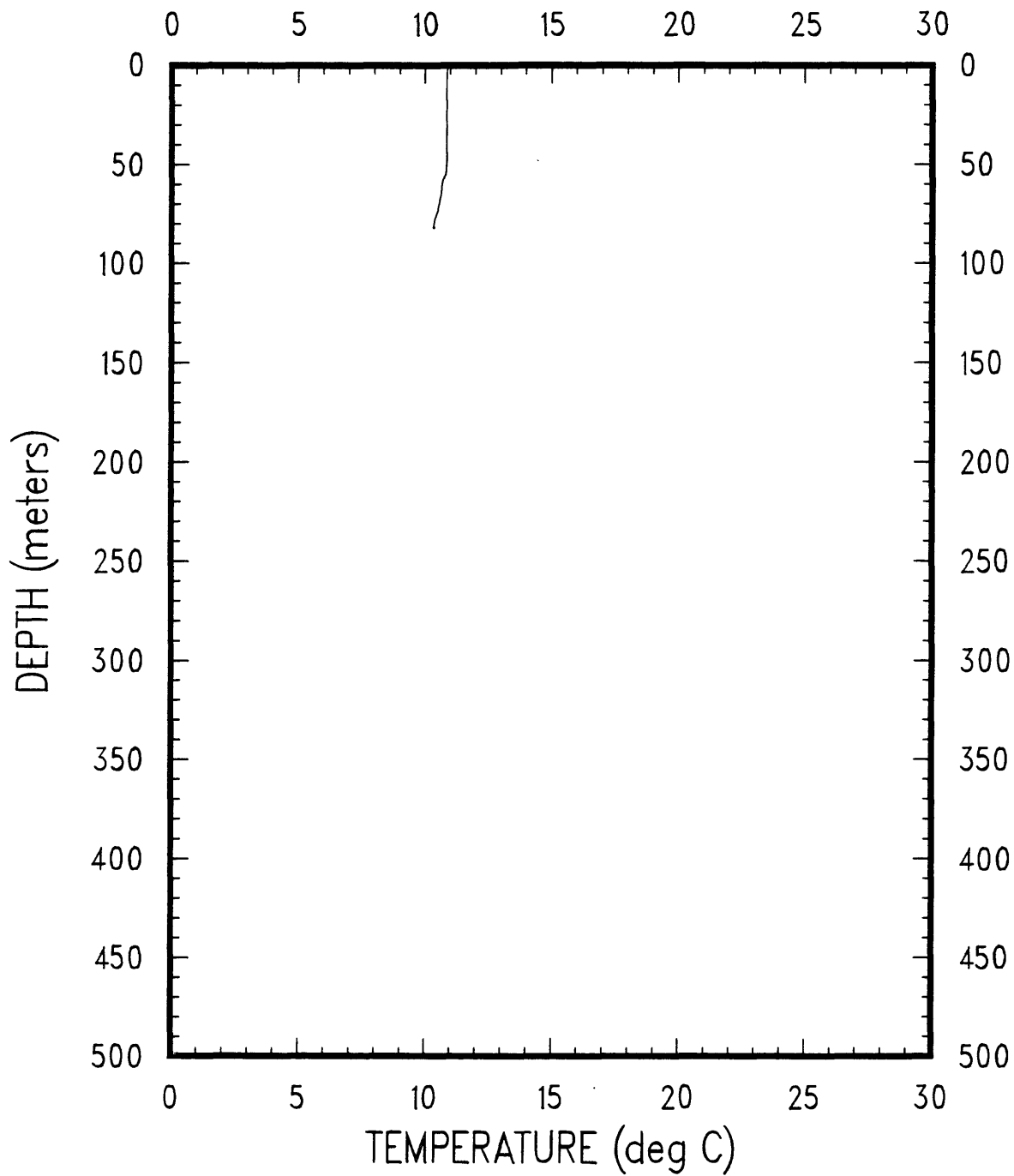


# OC130A CAST #36



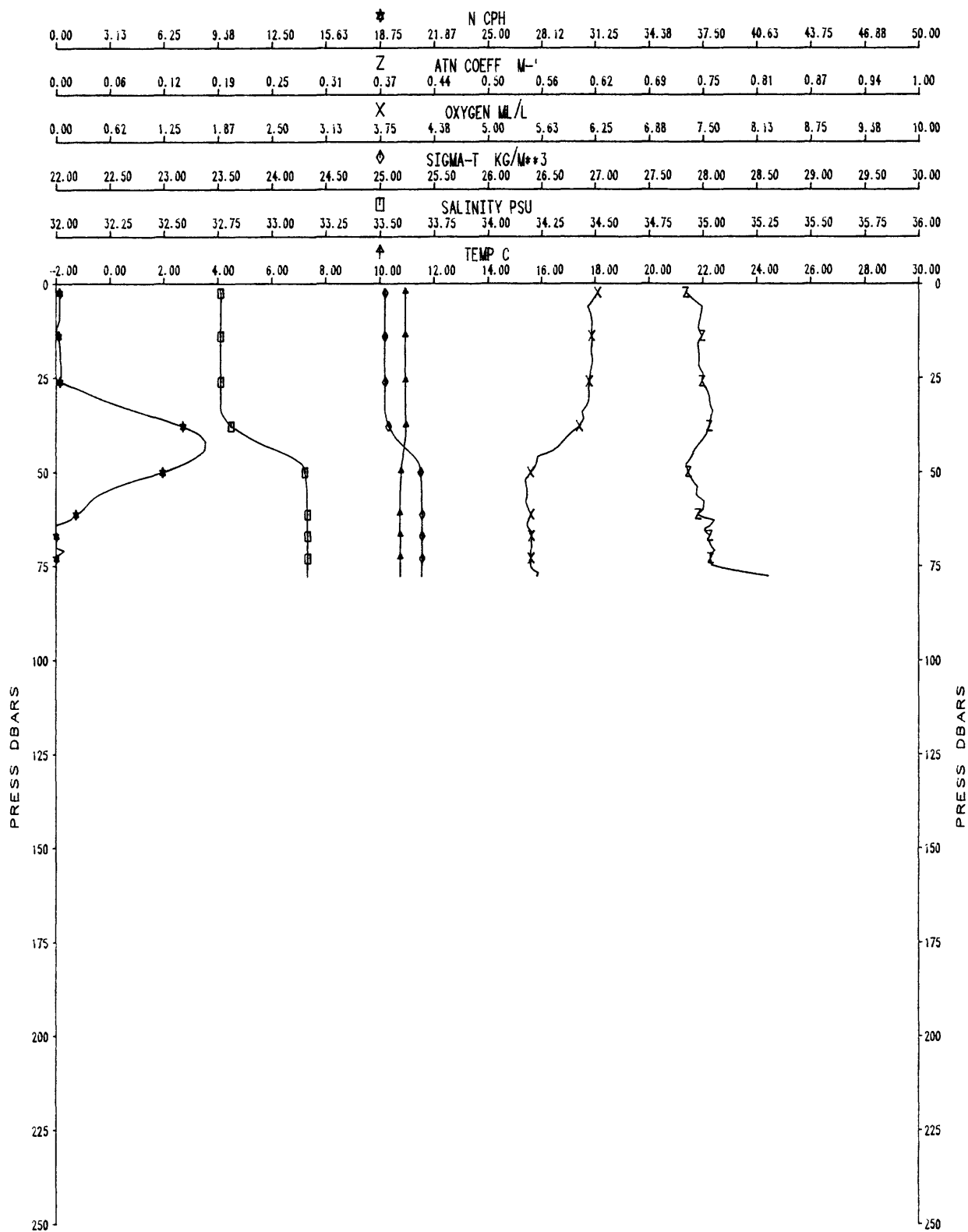
OC130

XBT-37

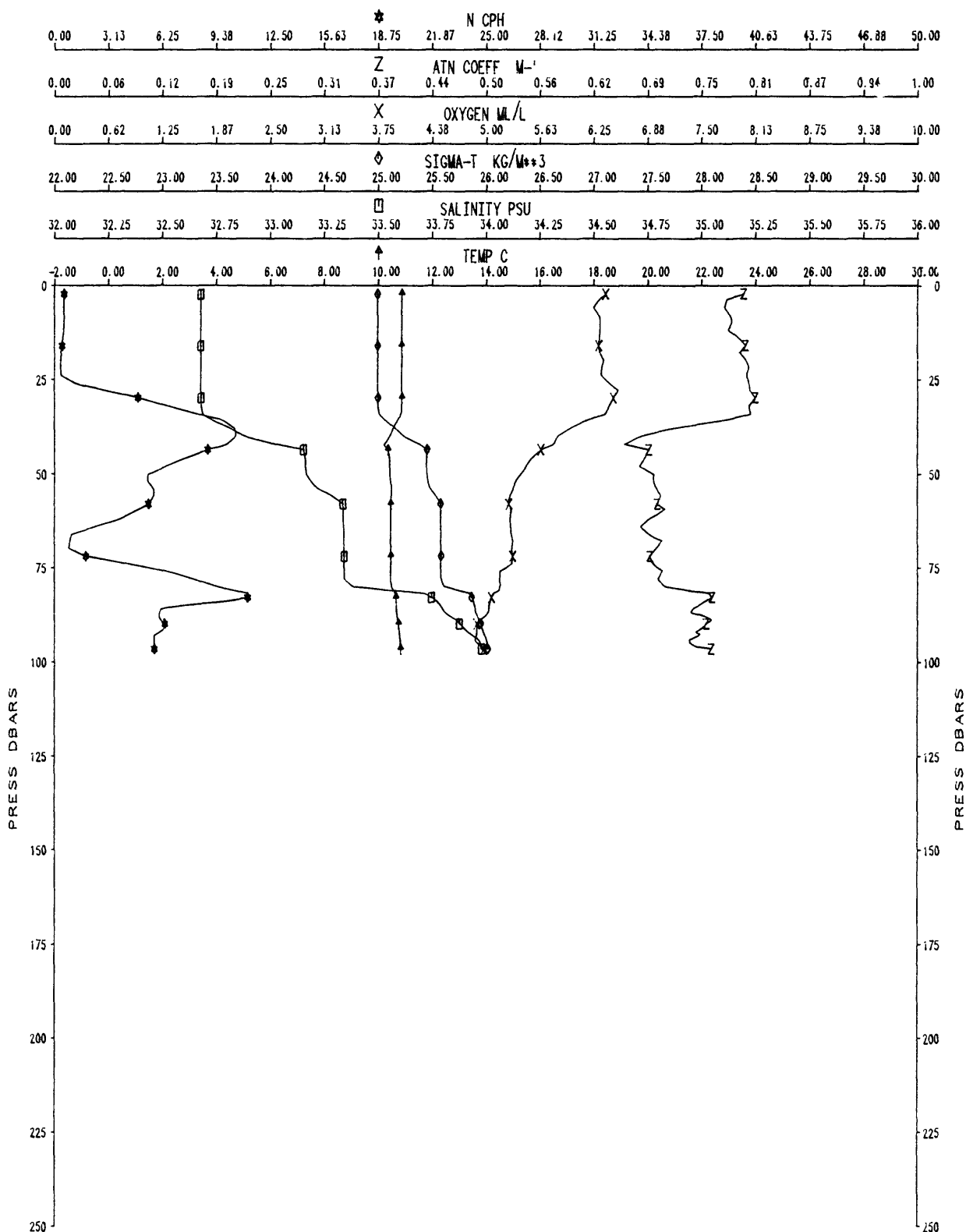




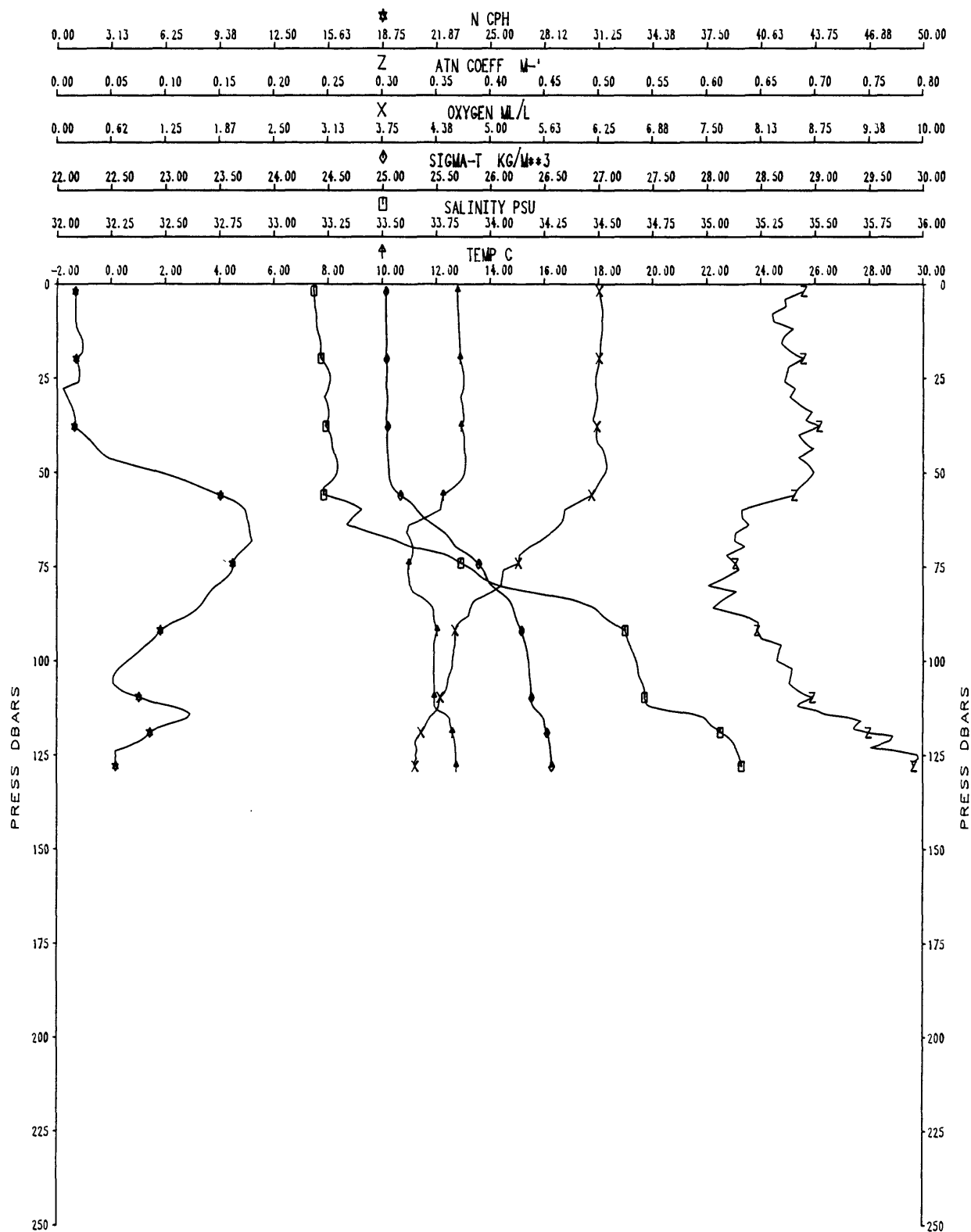
OC130A CAST #38



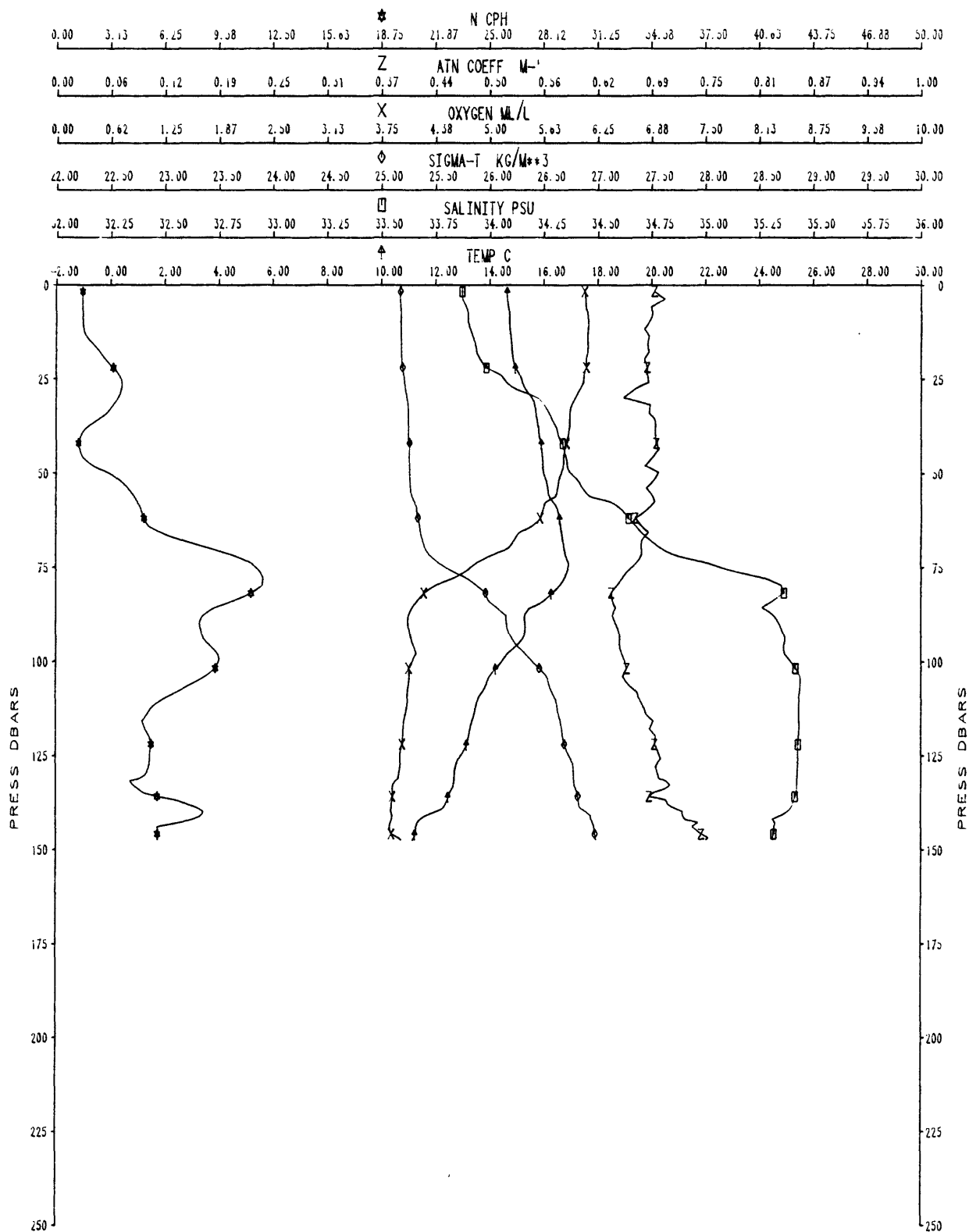
# OC130A CAST #39



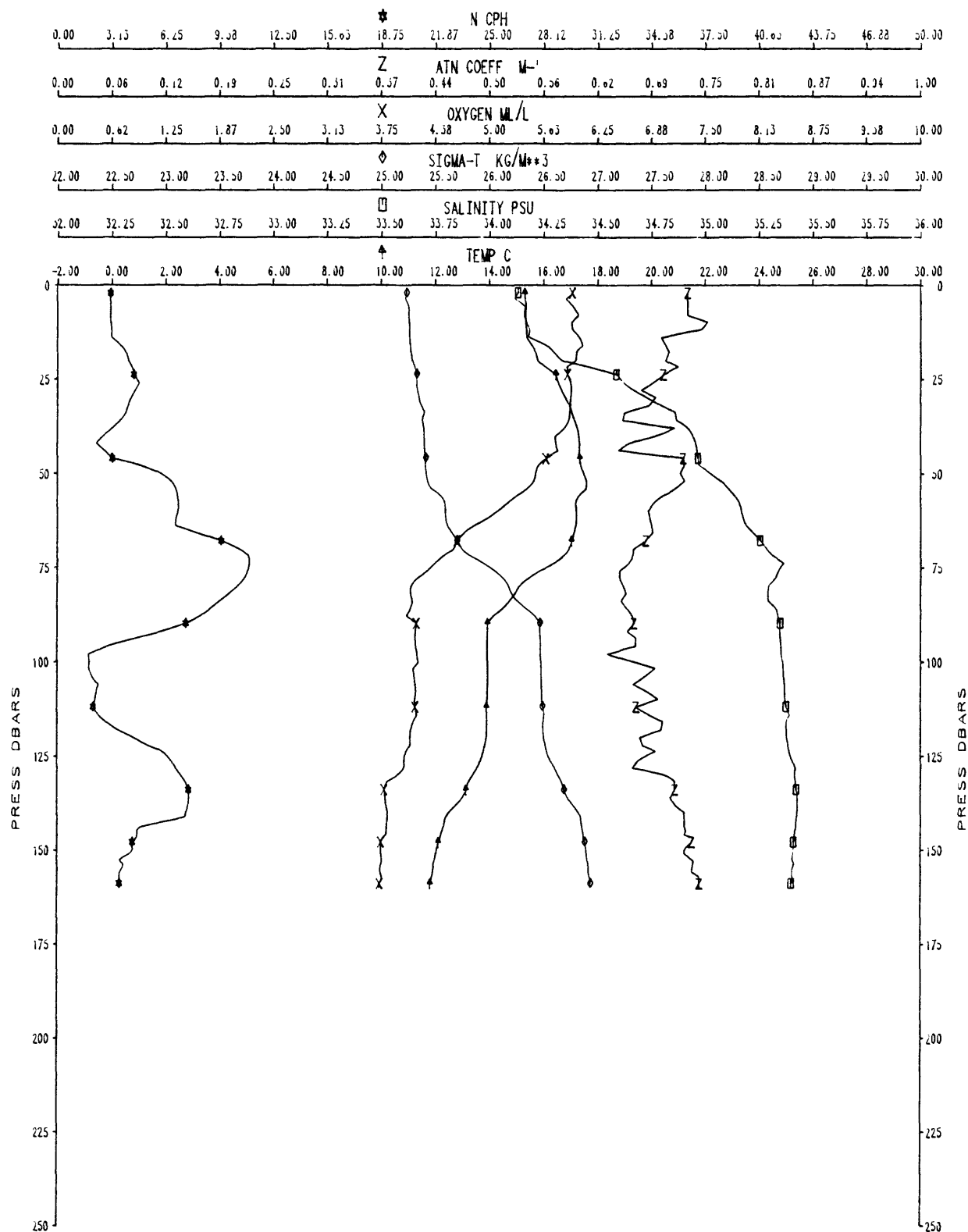
0C130U CAST #40



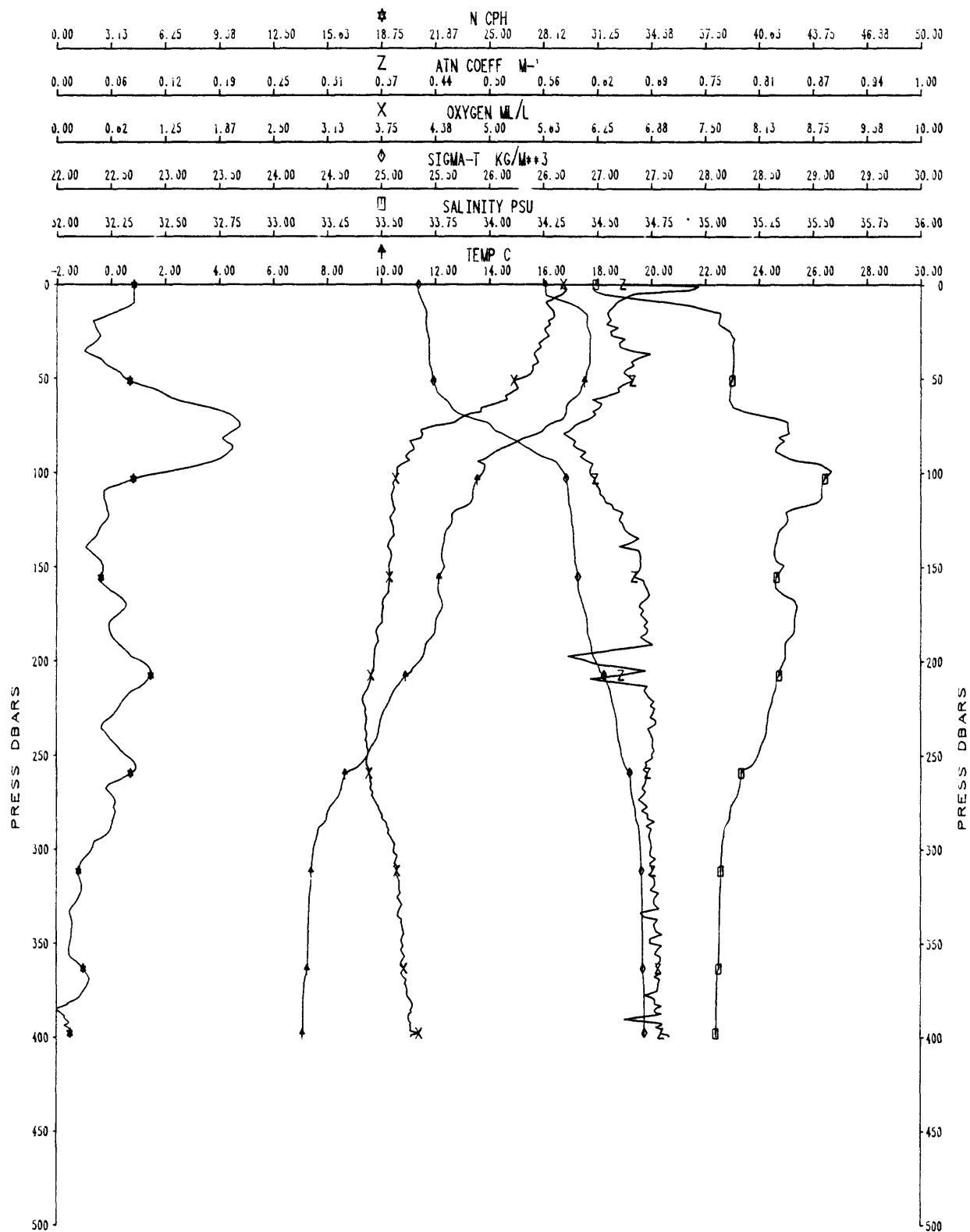
OC130A CAST #41



OC130A CAST #42

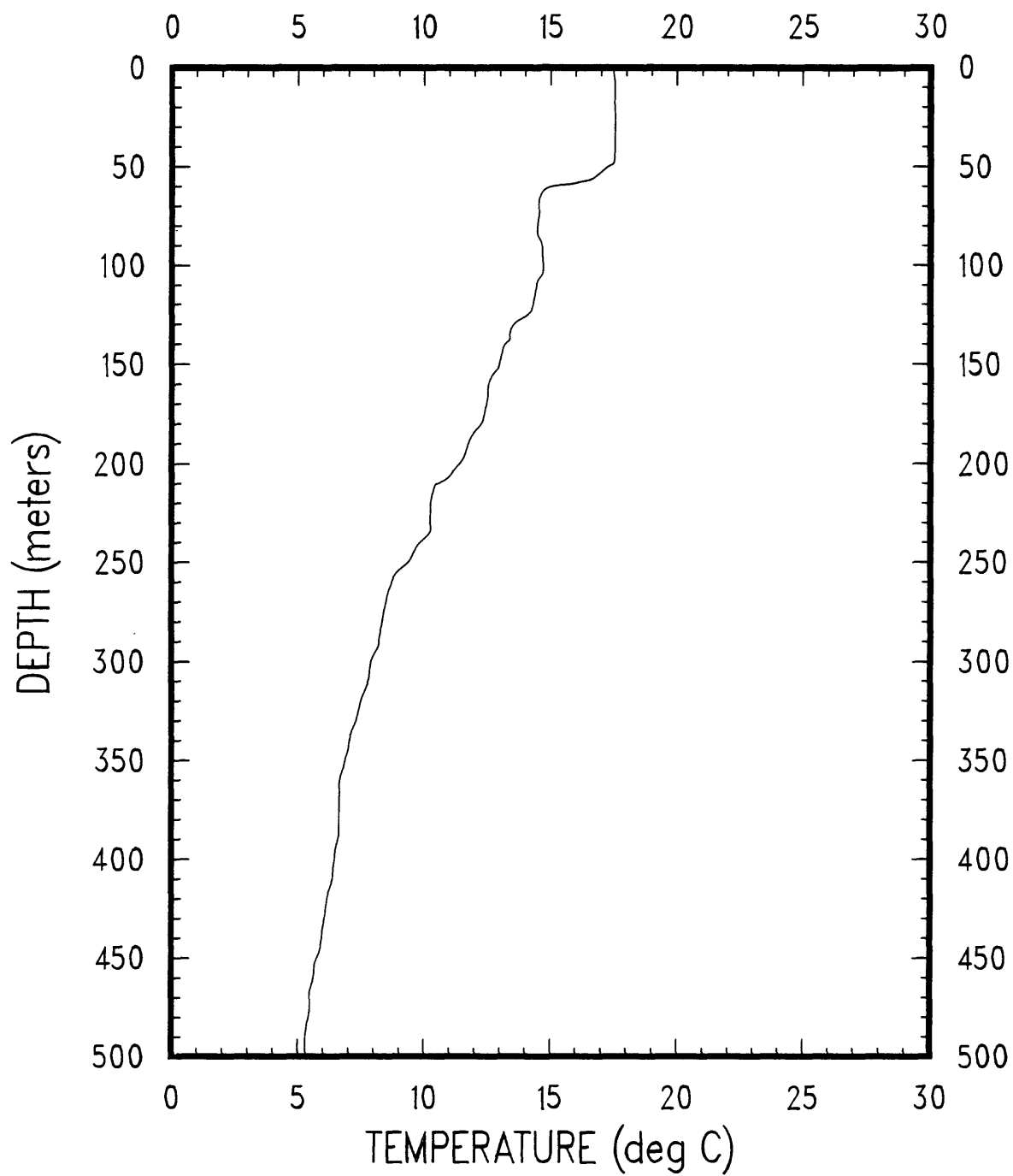


OC130A CAST #43



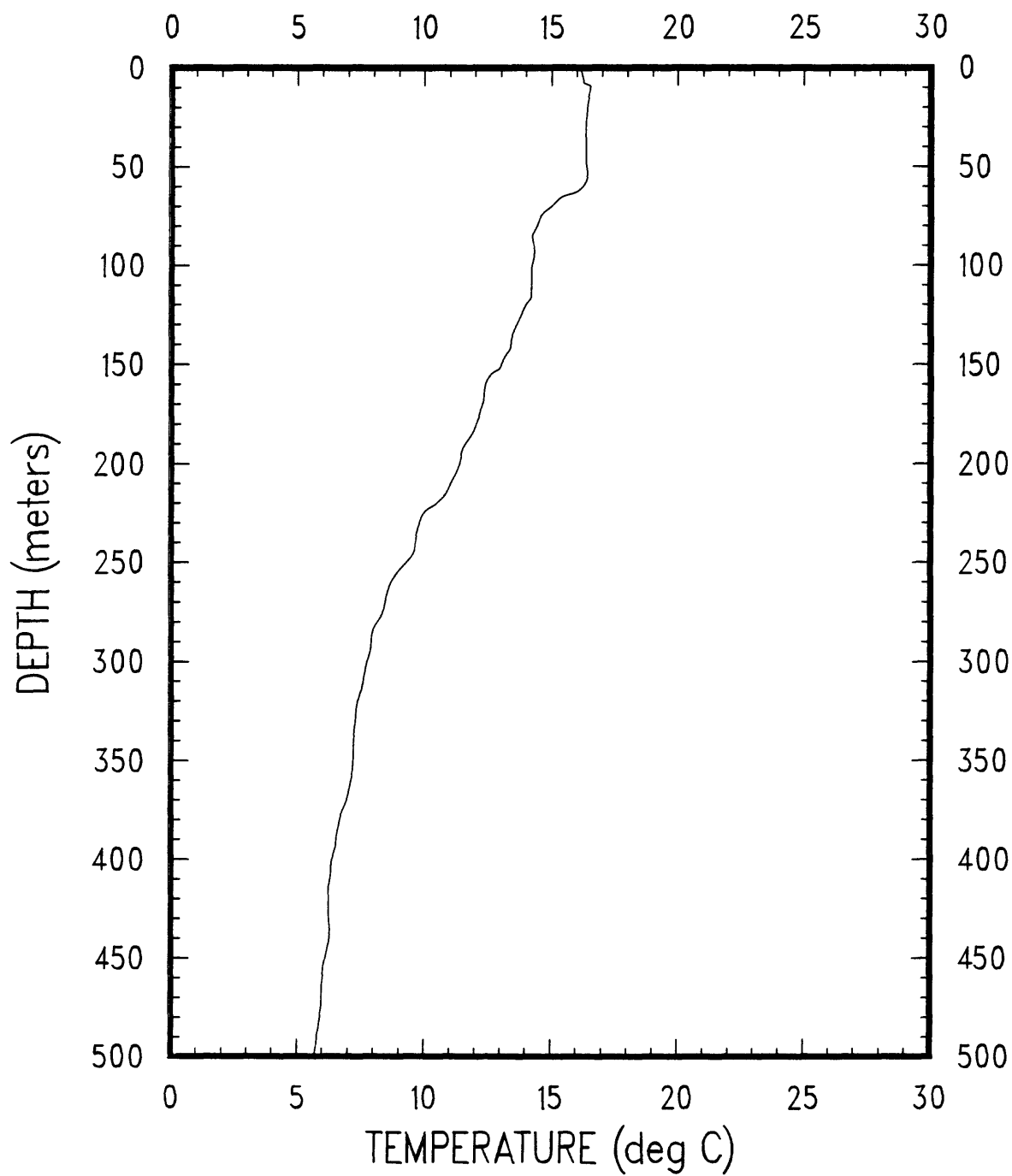
OC130

XBT-44



OC130

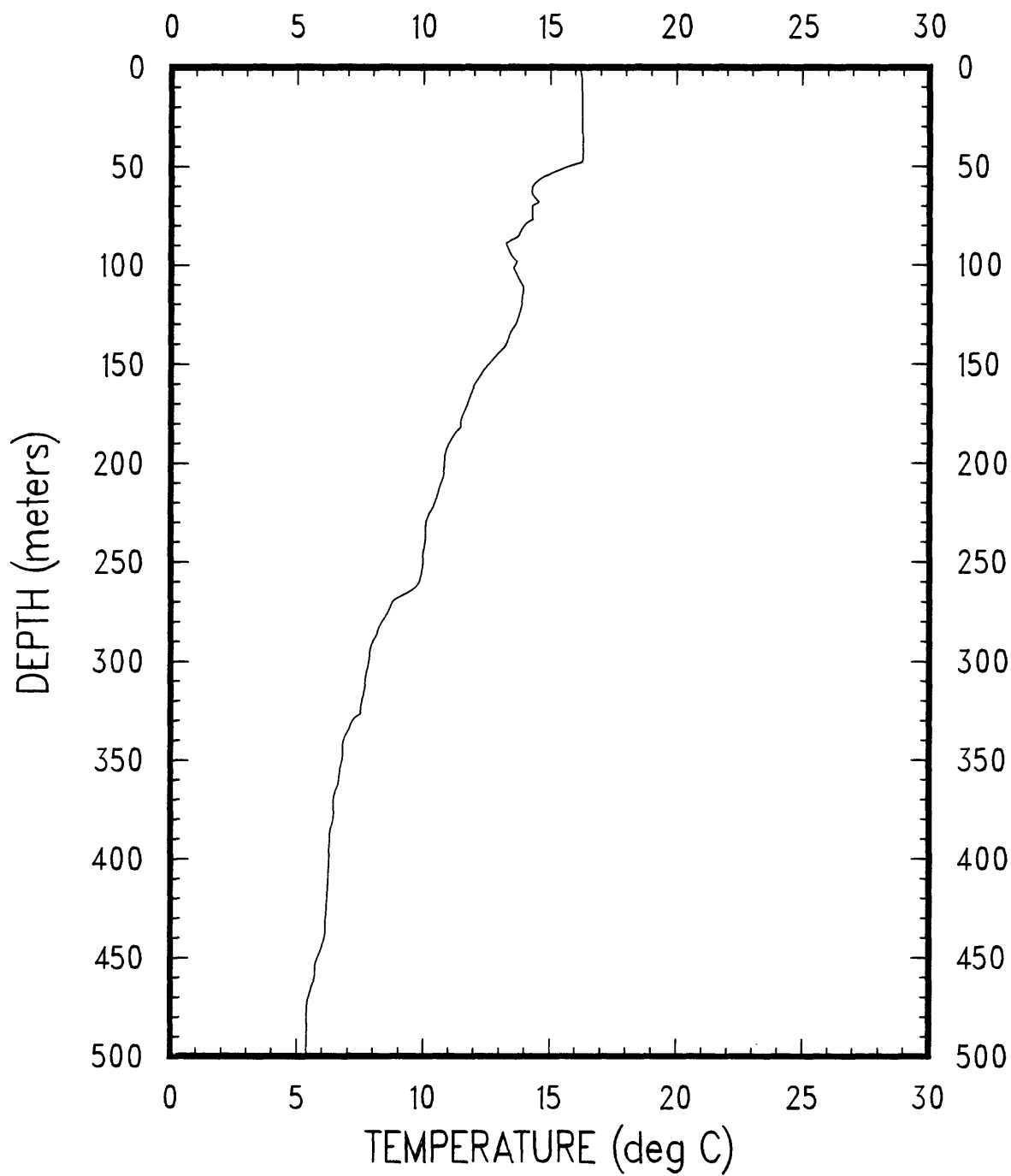
XBT-45



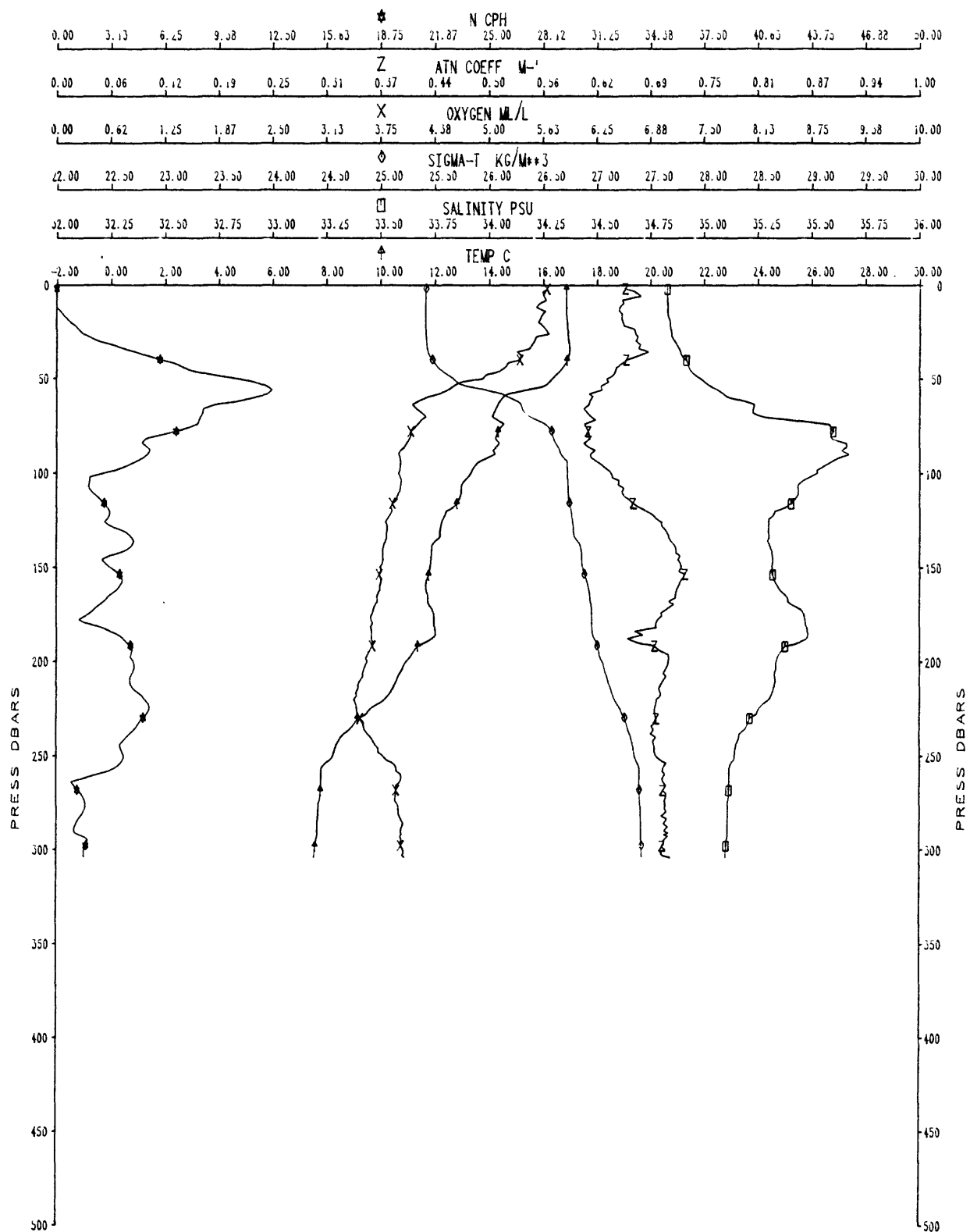


OC130

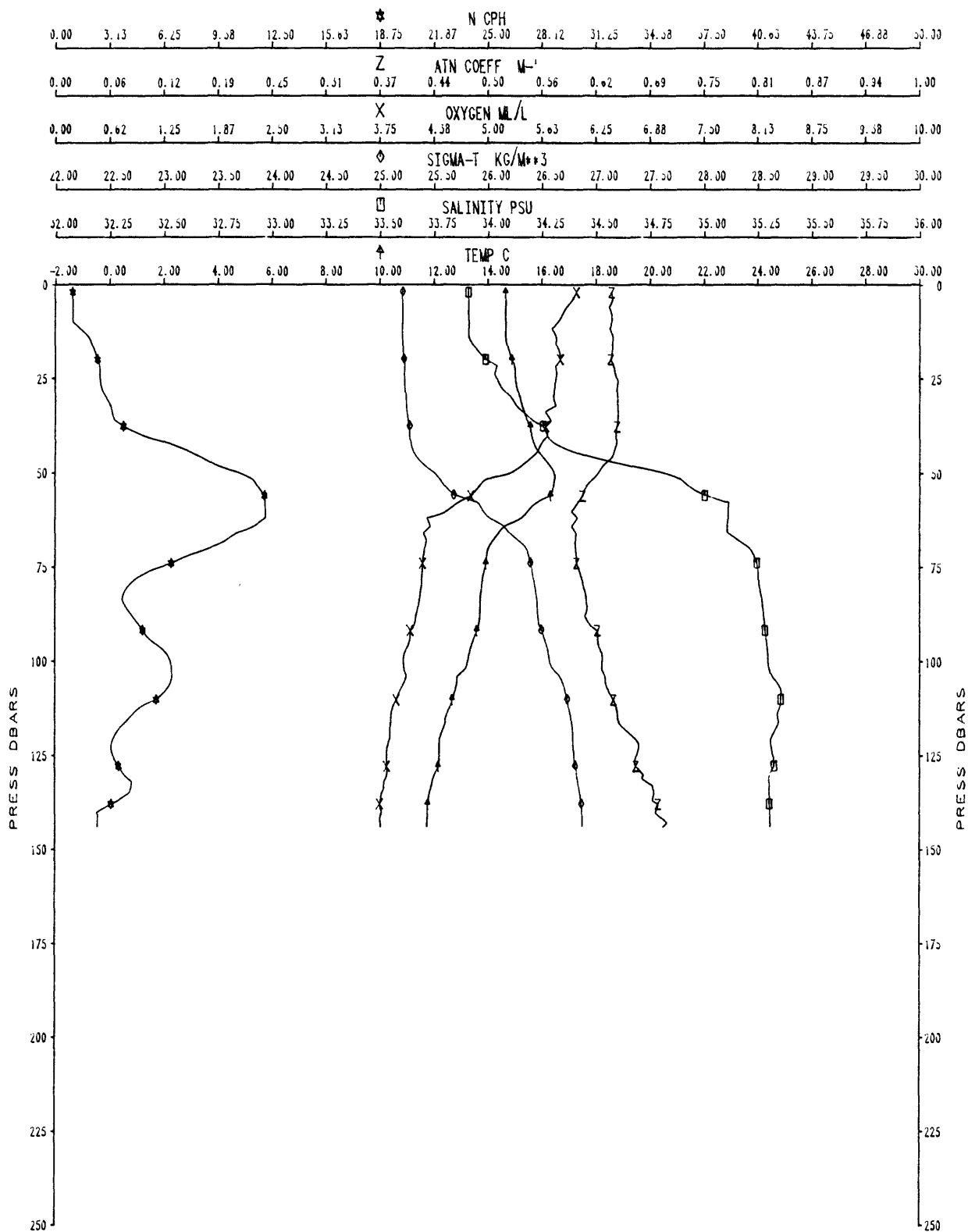
XBT-46



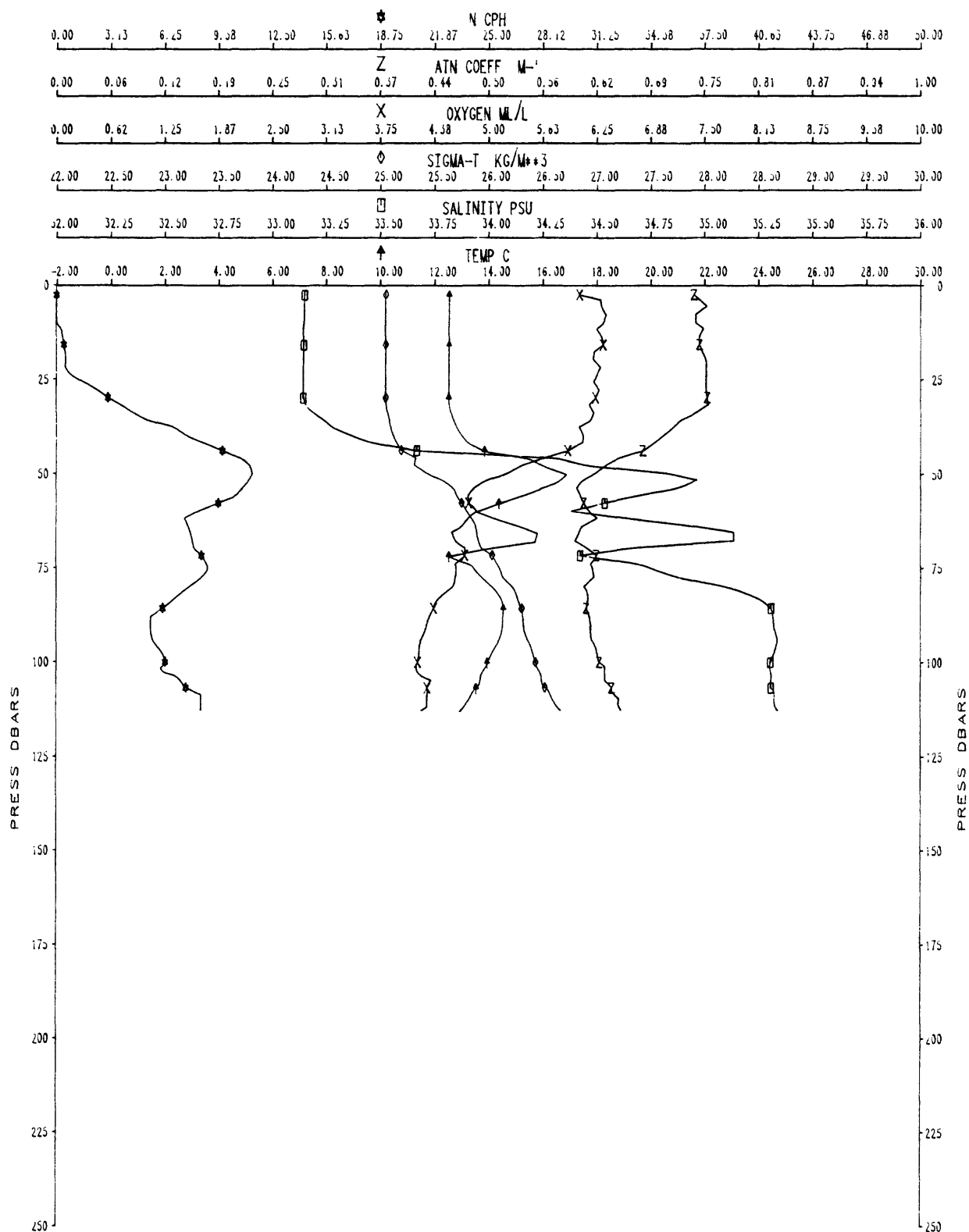
# OC130A CAST #47



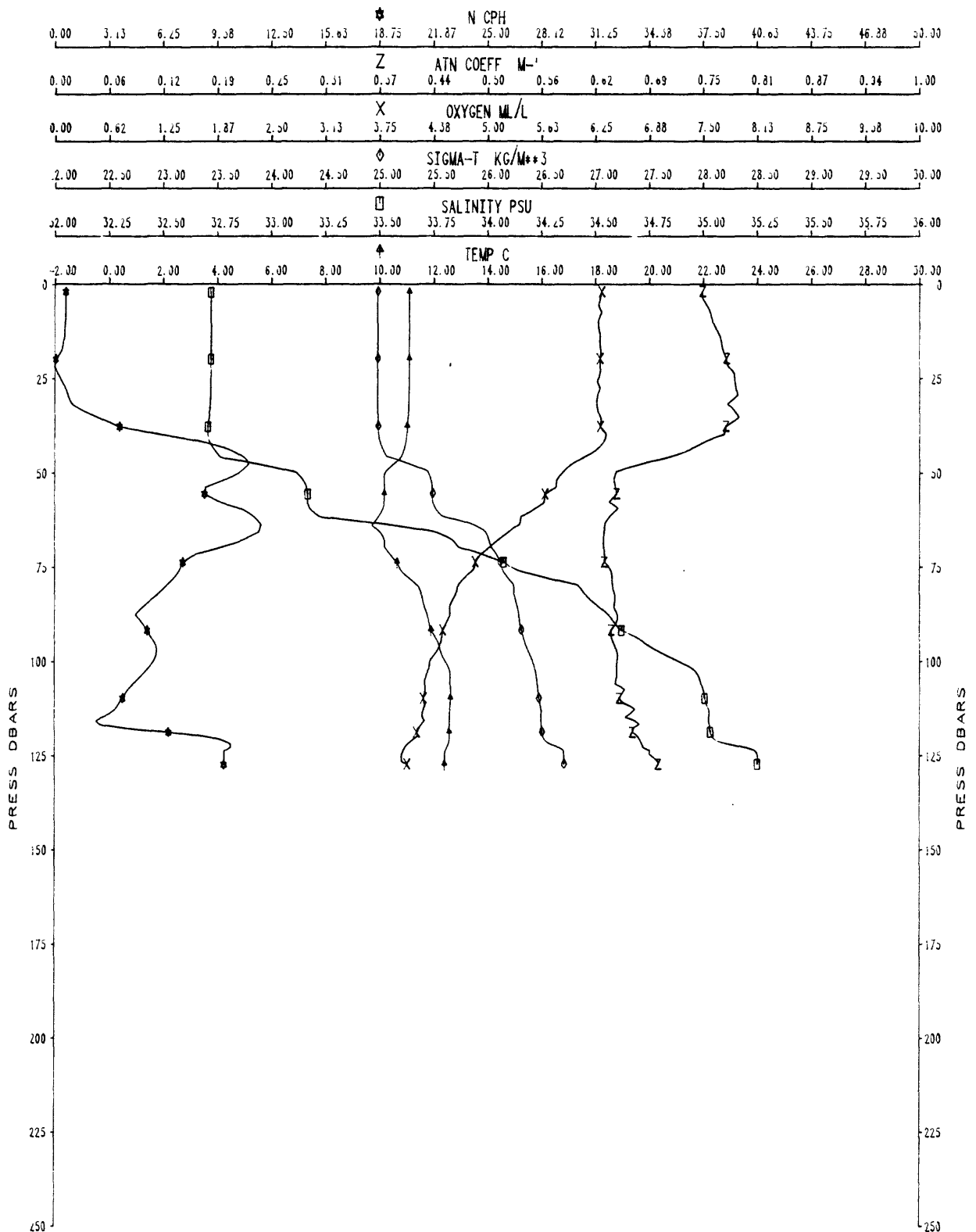
OC130A CAST #48



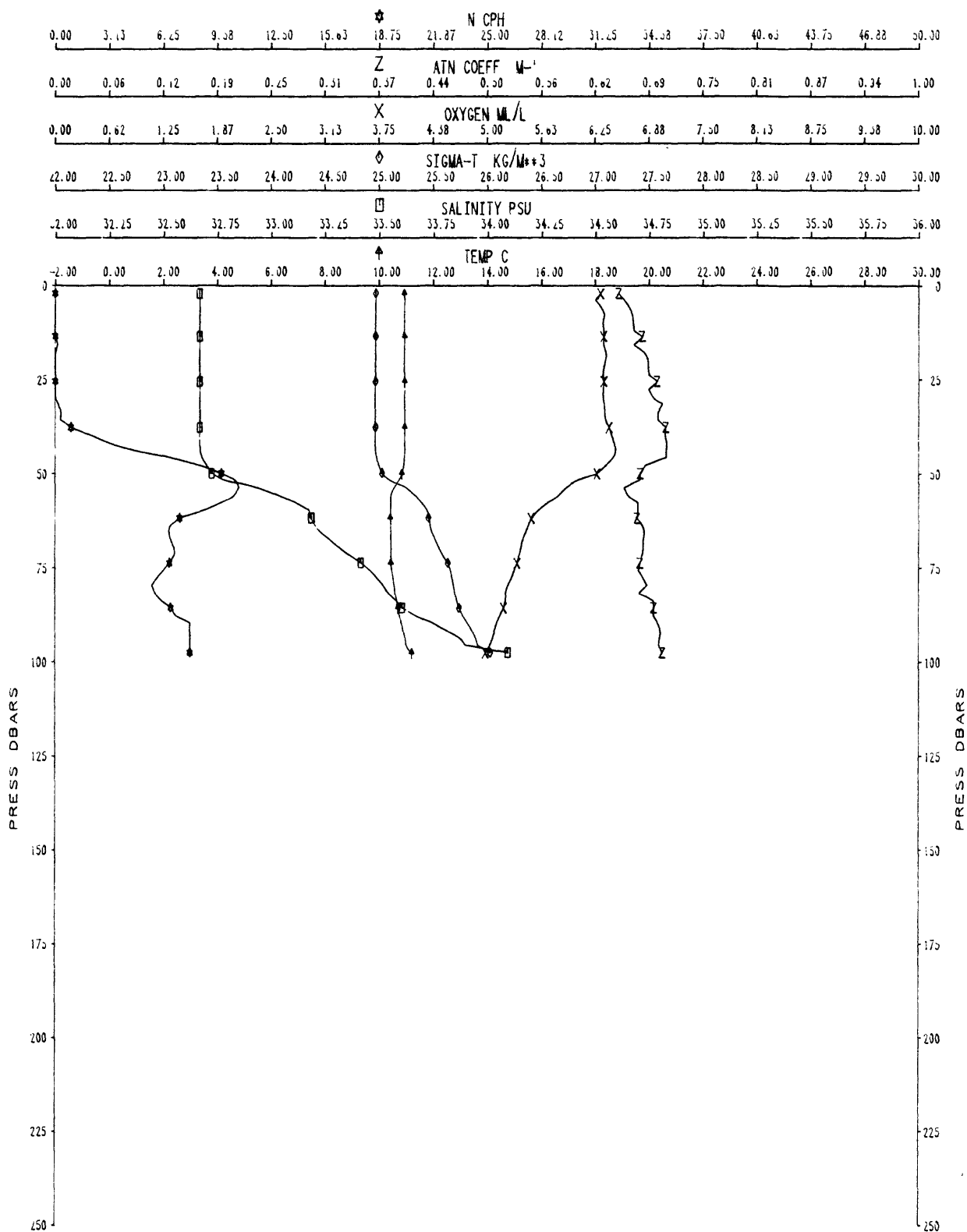
0C130A CAST #49



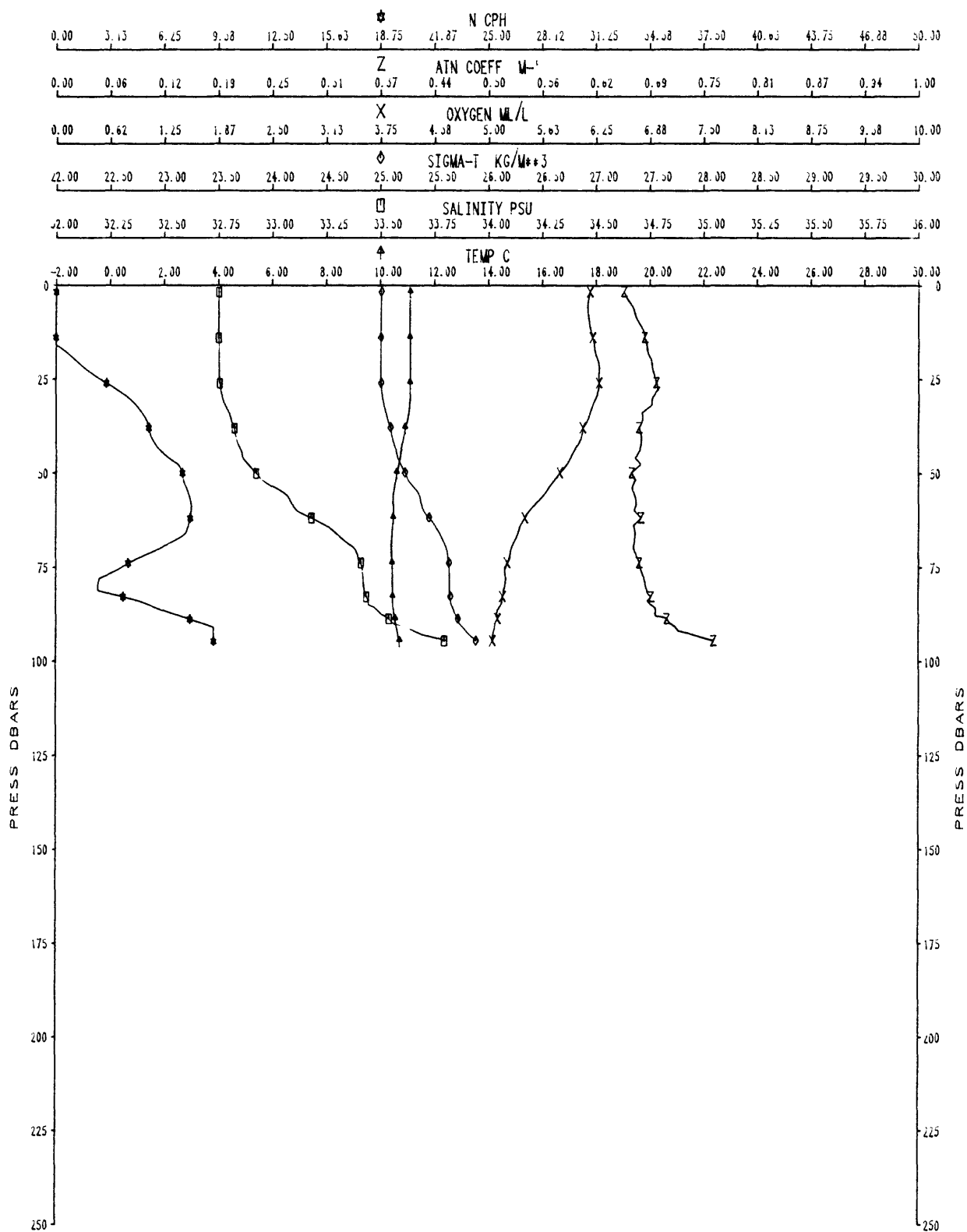
0C130U CAST #50



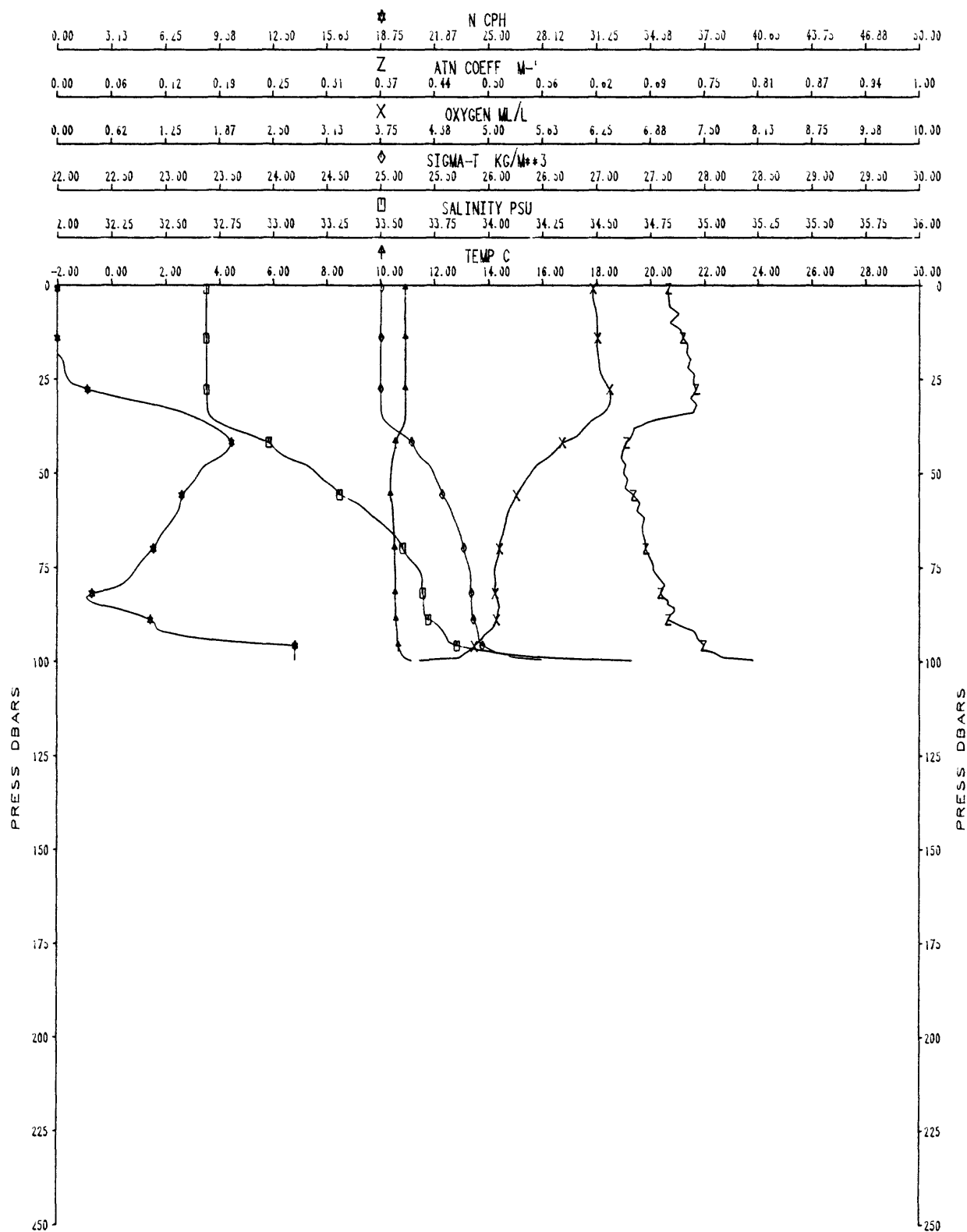
00130U CAST #51



0C130U CAST #52



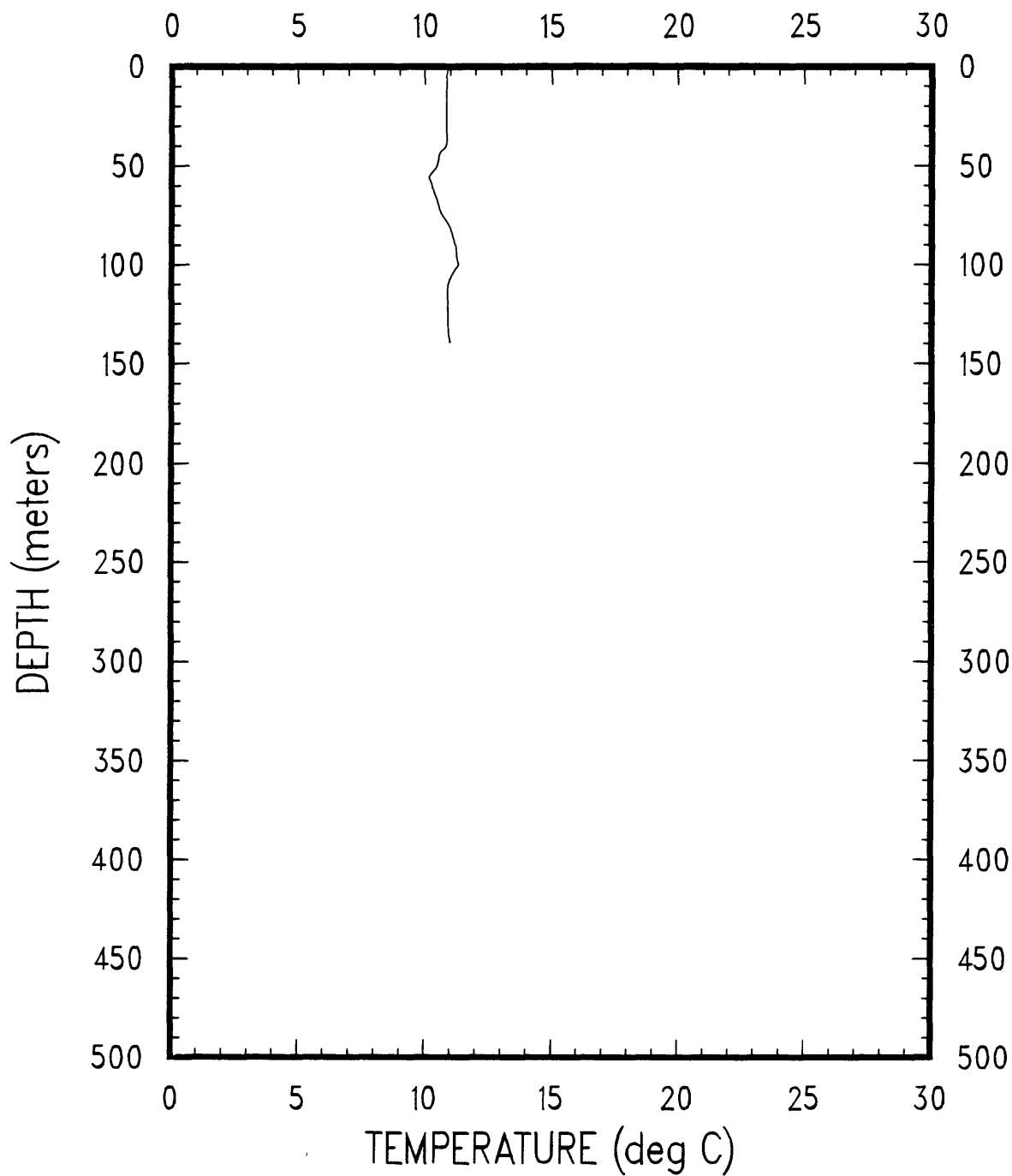
0C130U CAST #53





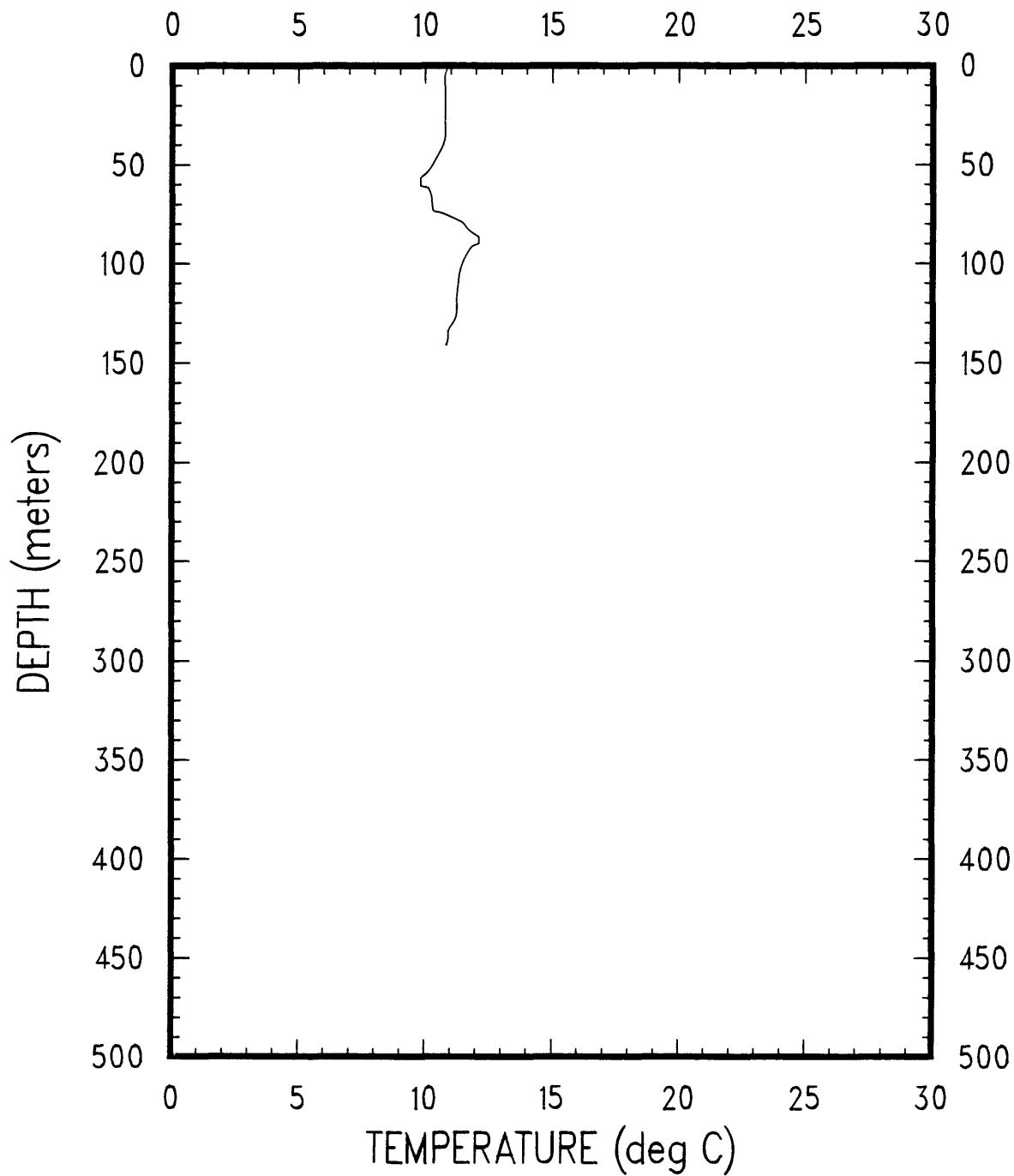
OC130

XBT-54

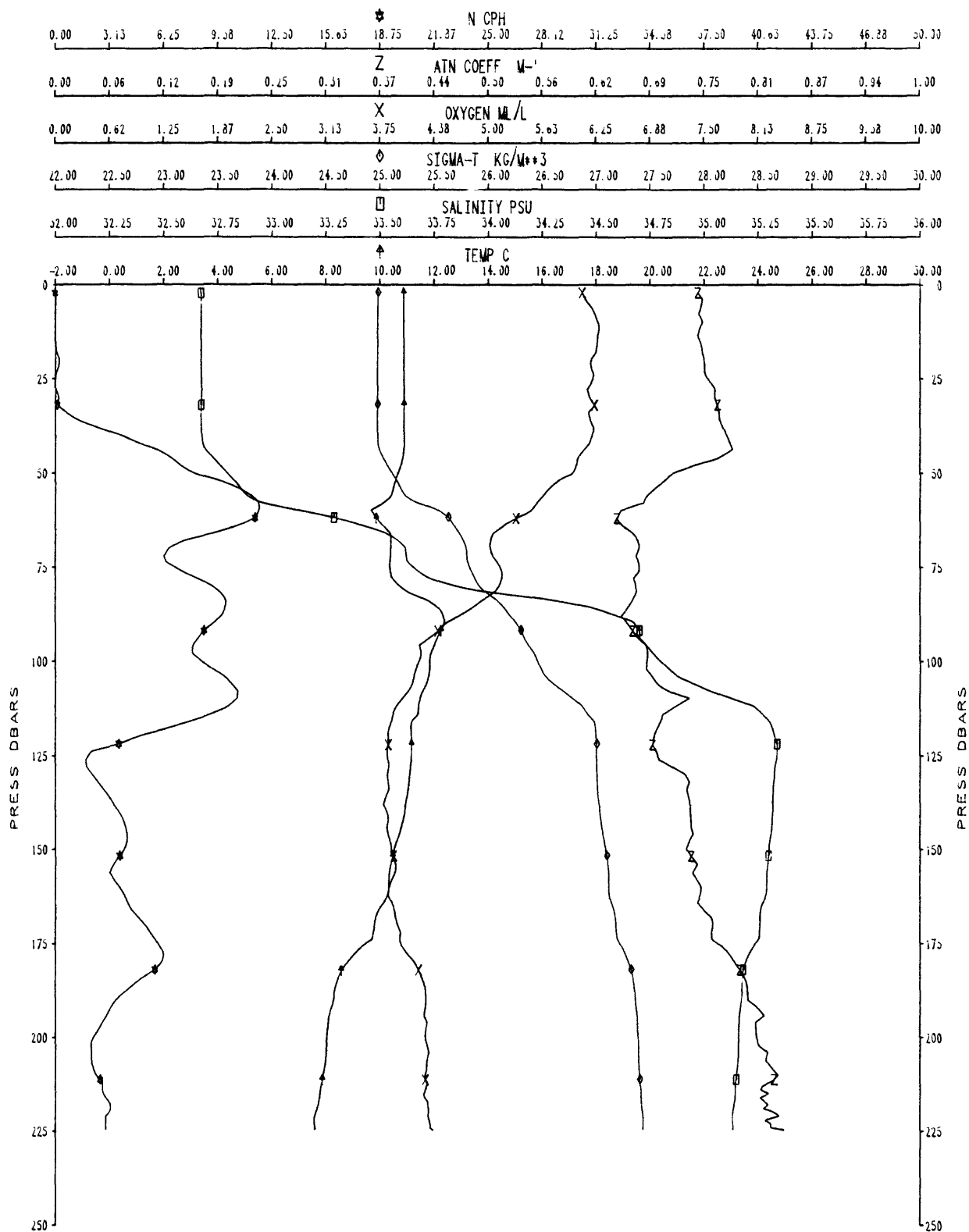


OC130

XBT-55

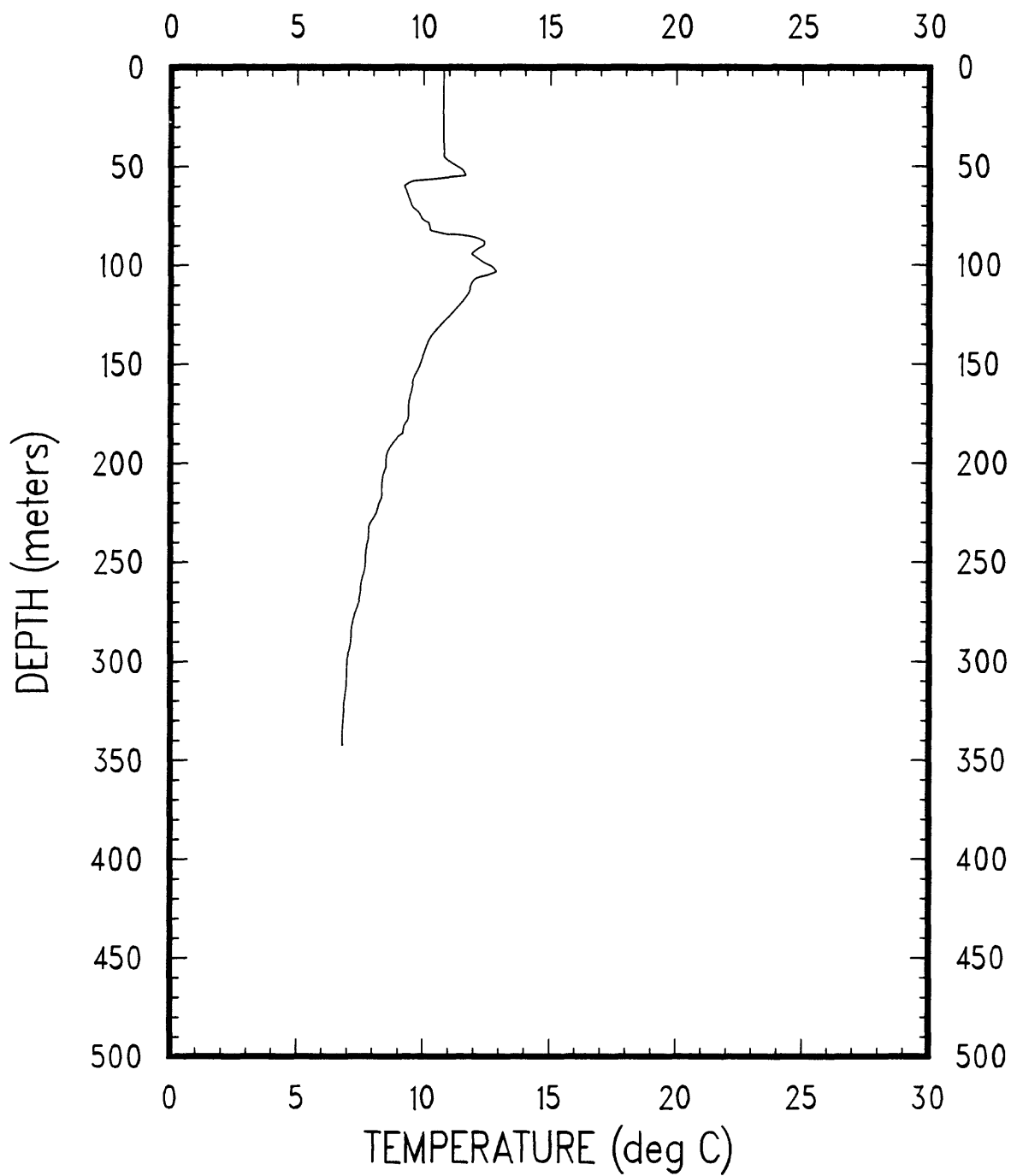


OC130A CAST #56



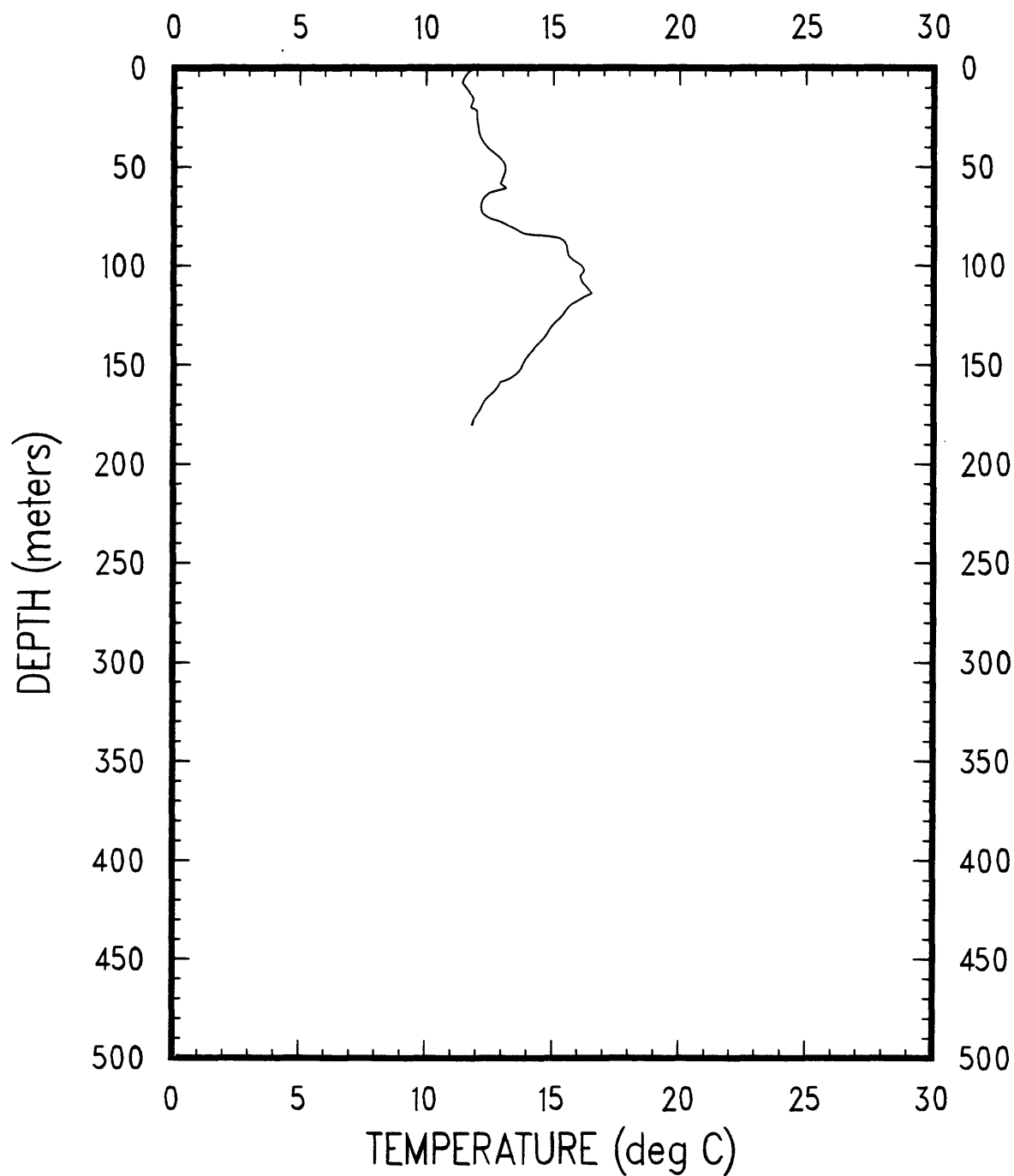
OC130

XBT-57

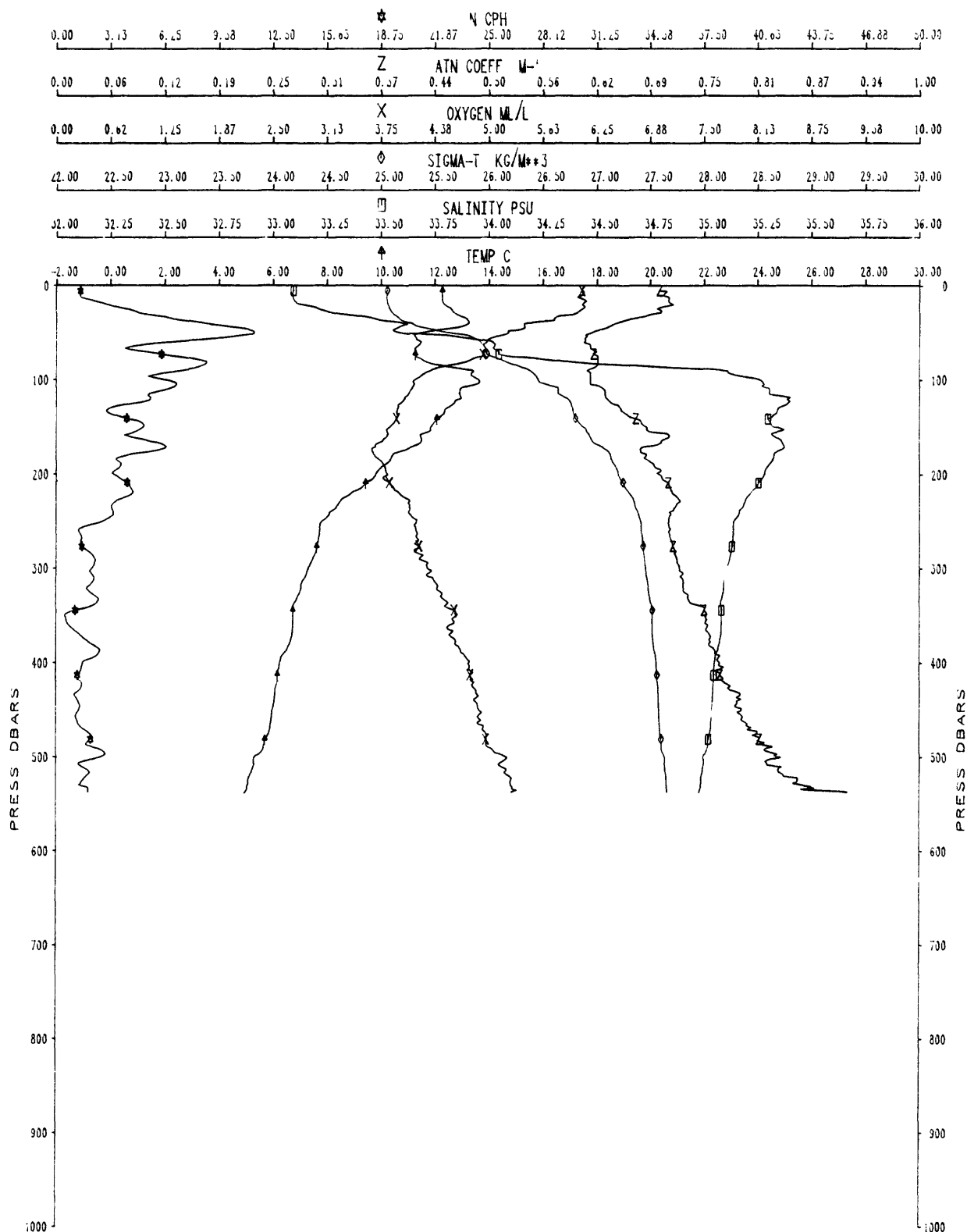


OC130

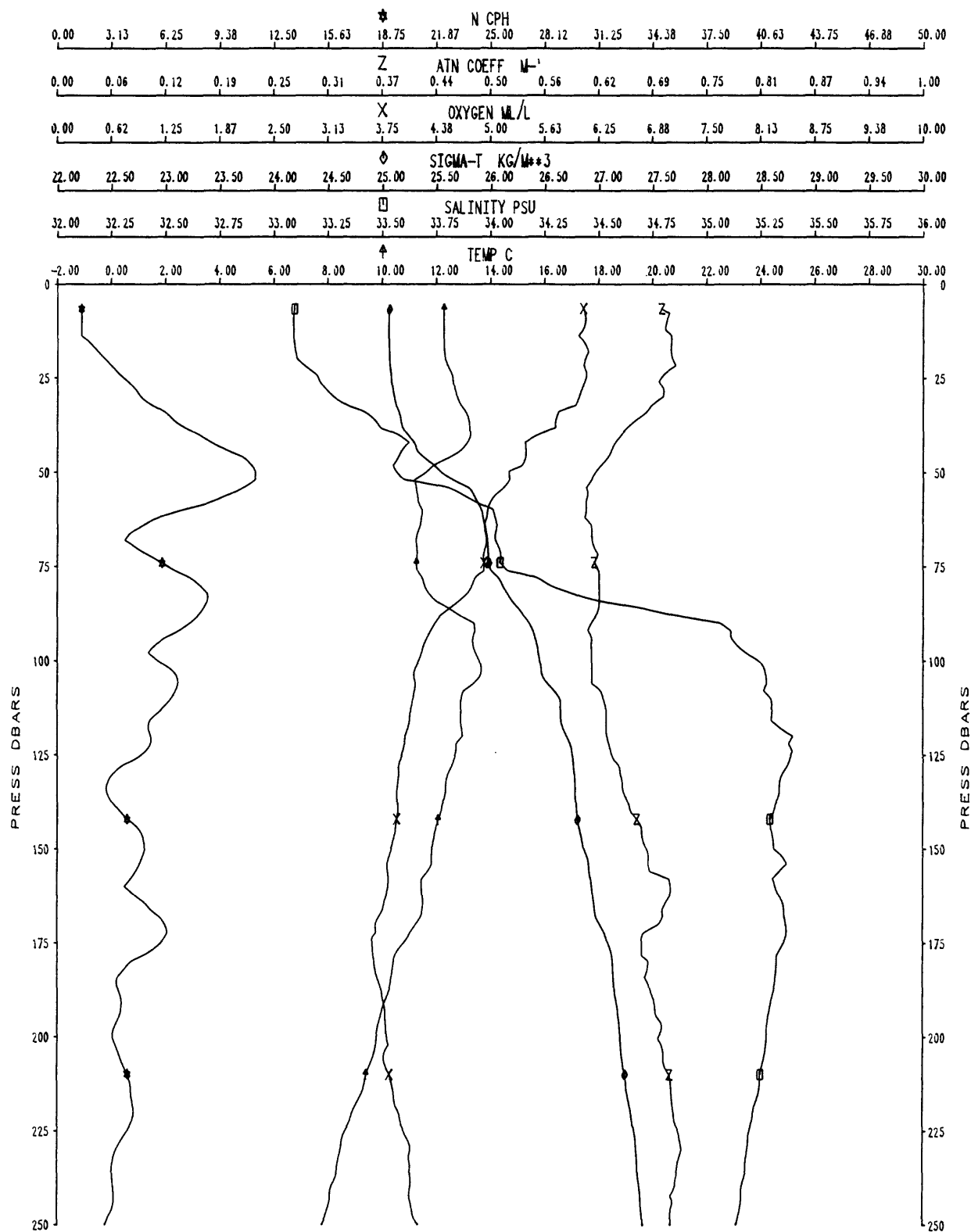
XBT-58



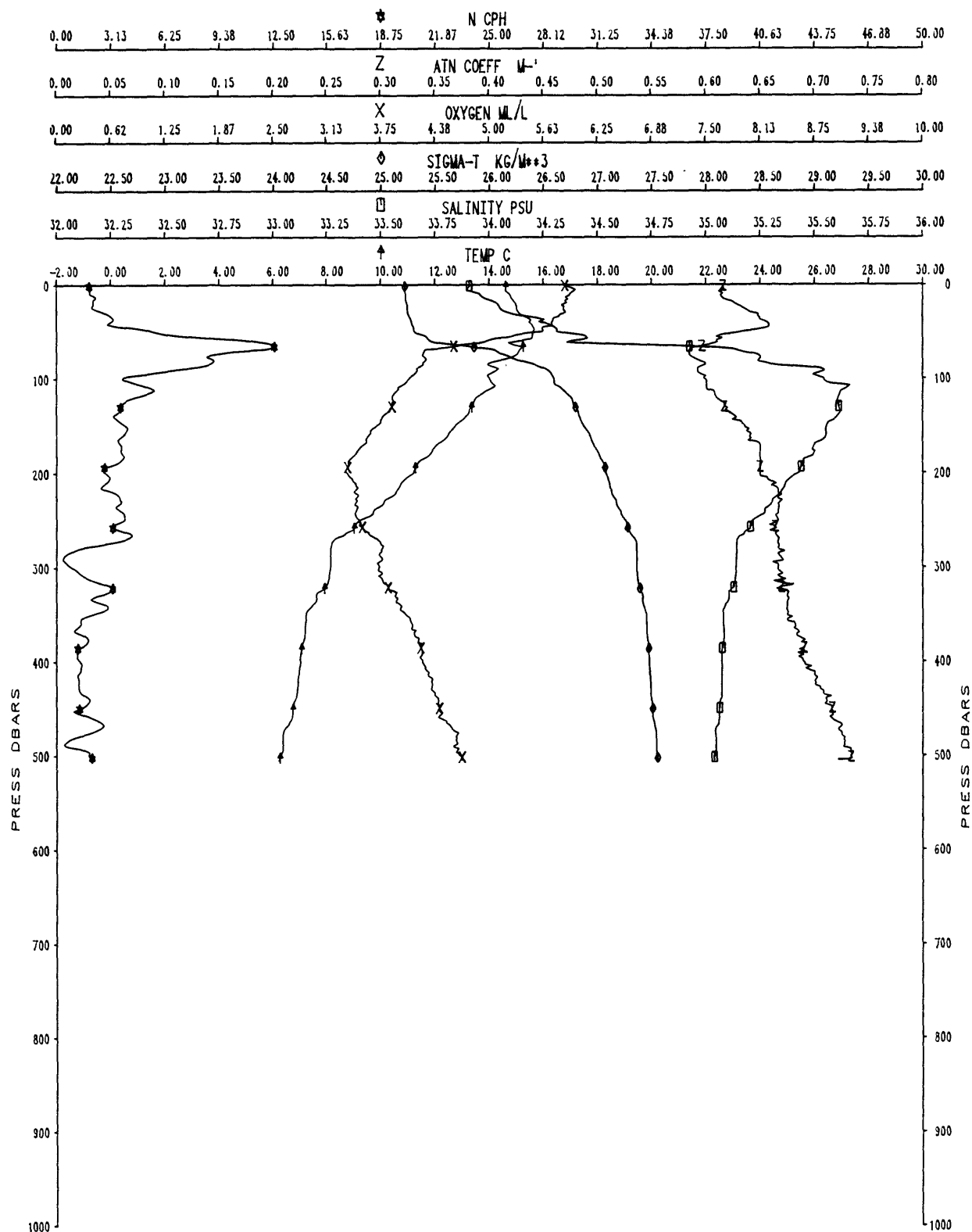
0C130A CAST #59



OC130A CAST #59

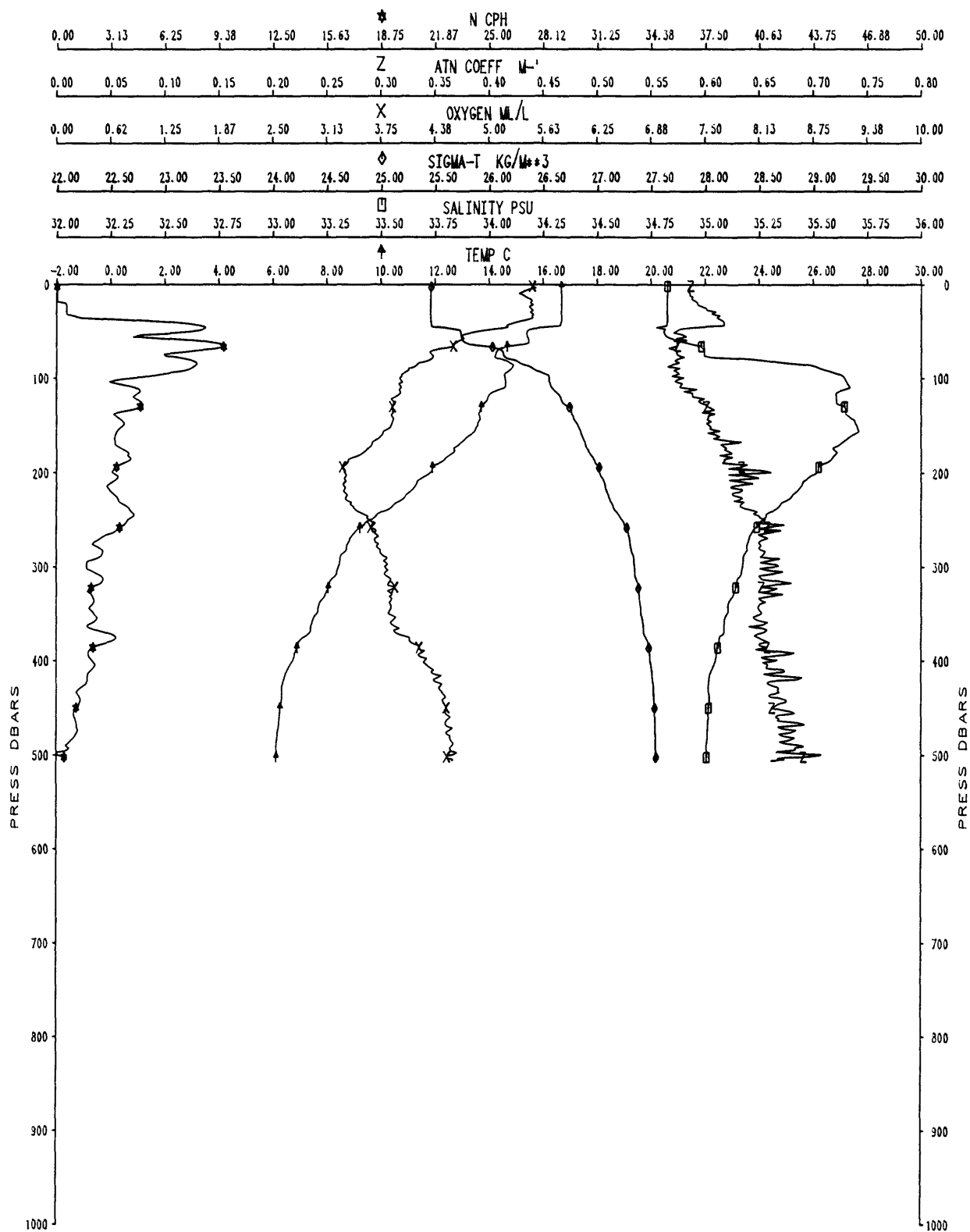


OC130A CAST #60



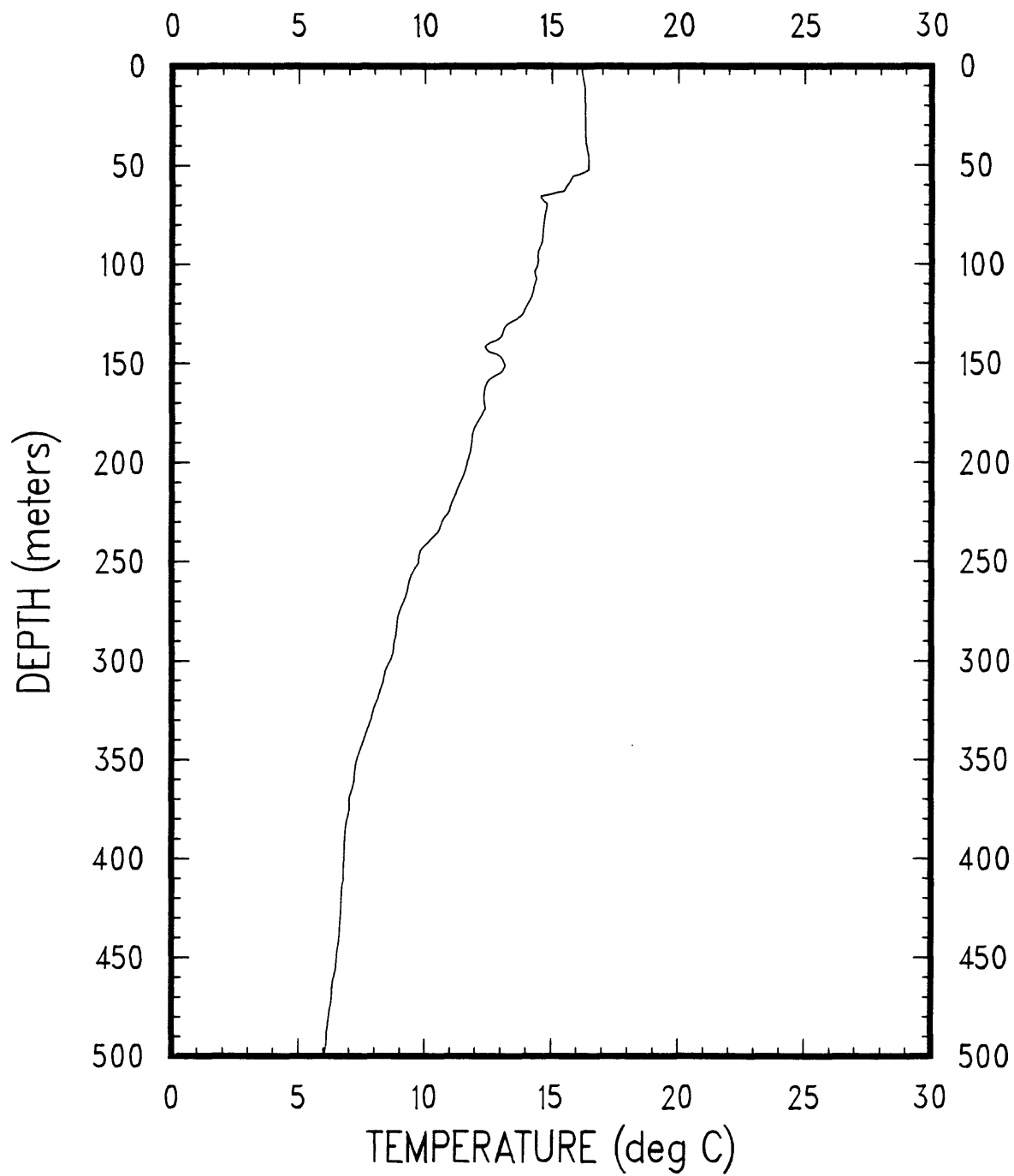


OC130A CAST #61



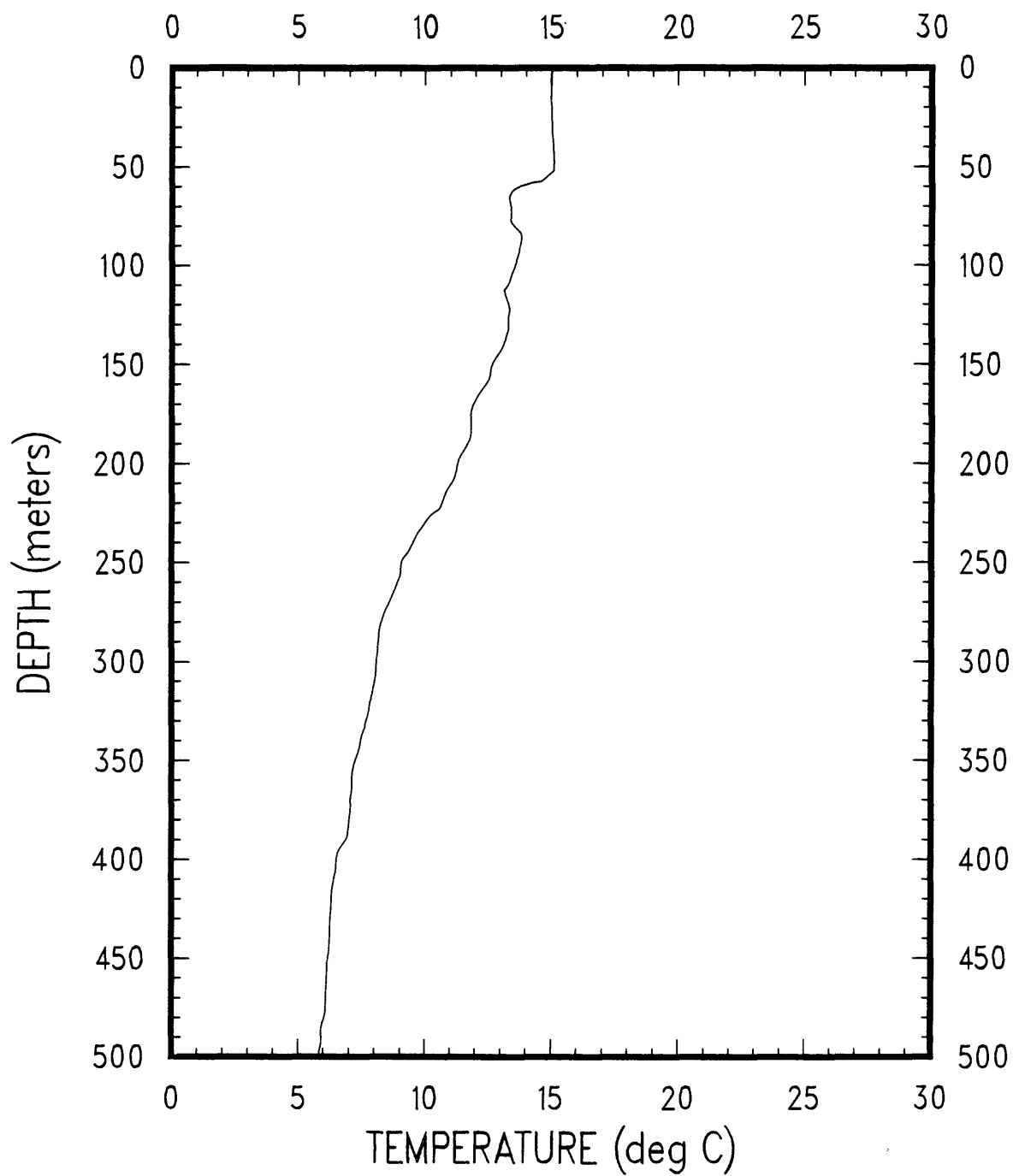
OC130

XBT-62



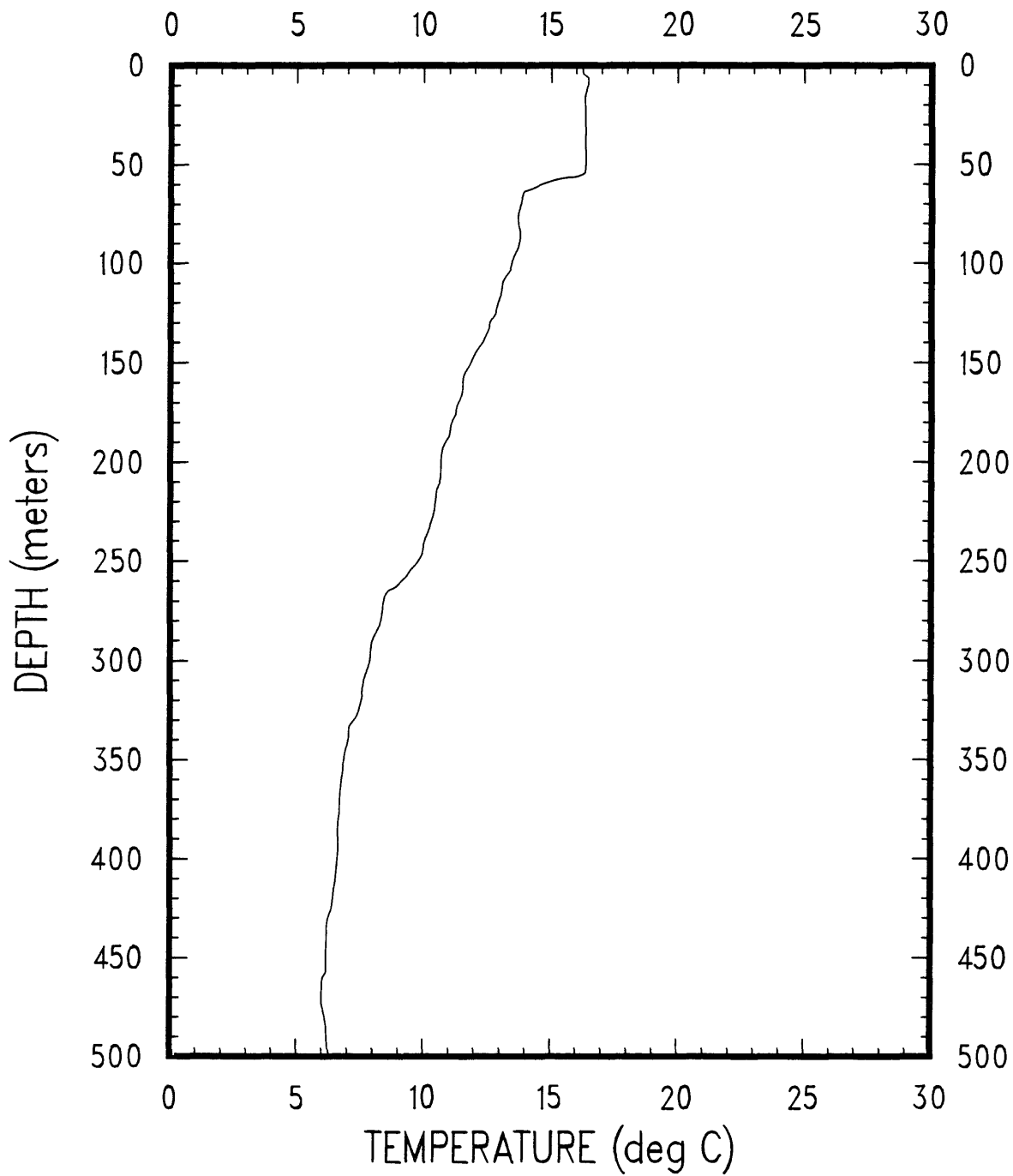
OC130

XBT-63



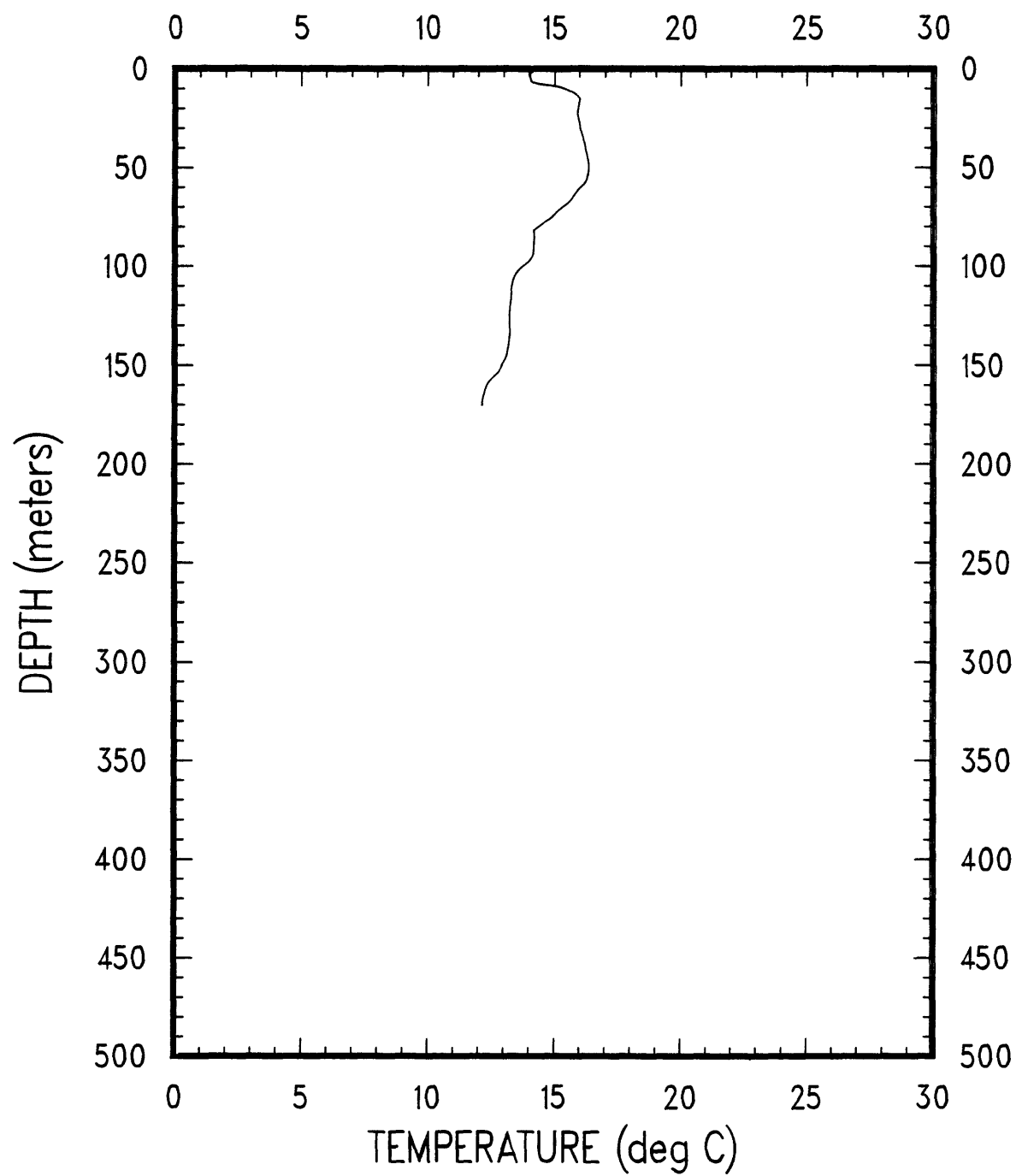
OC130

XBT-64



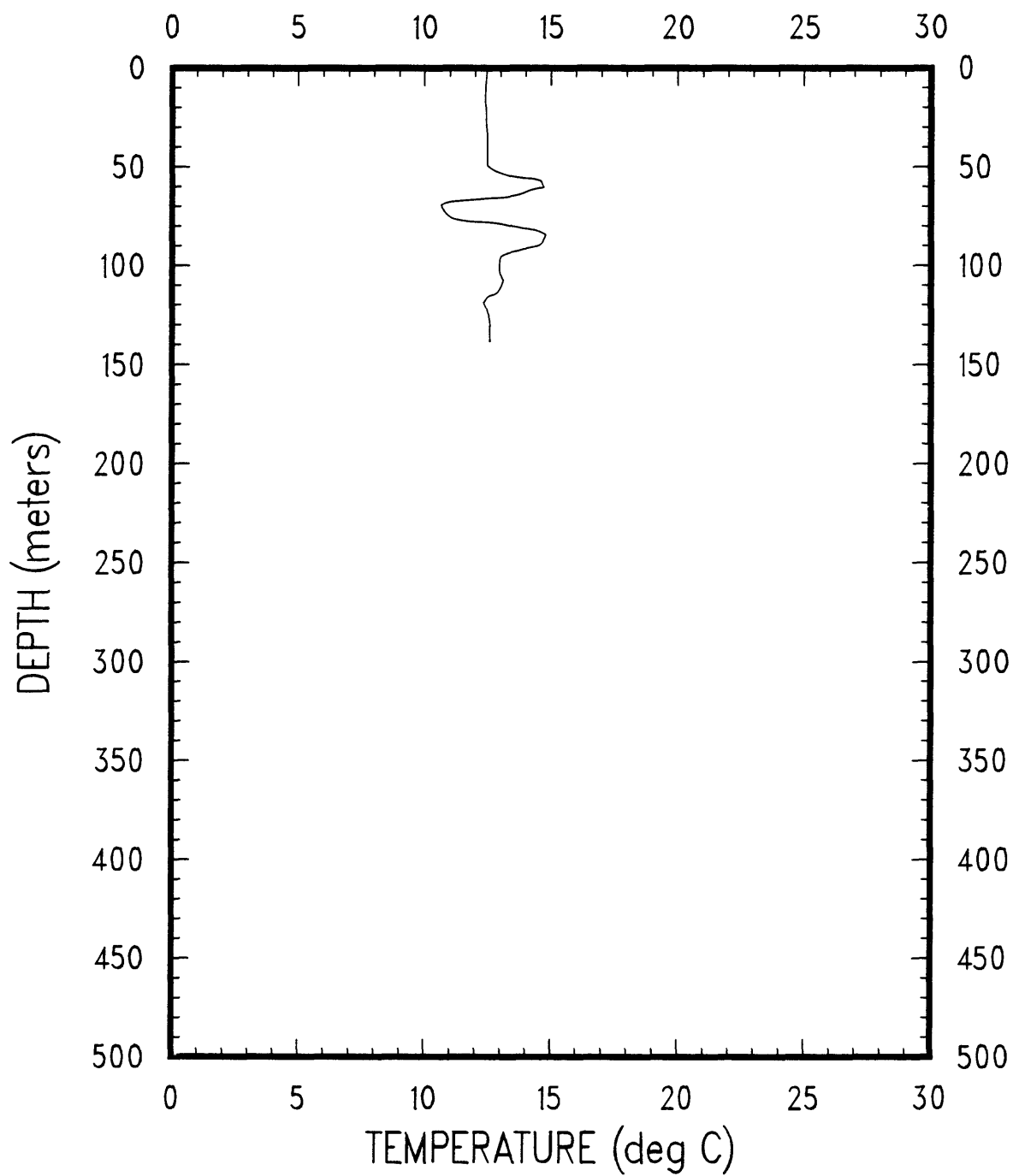
OC130

XBT-65



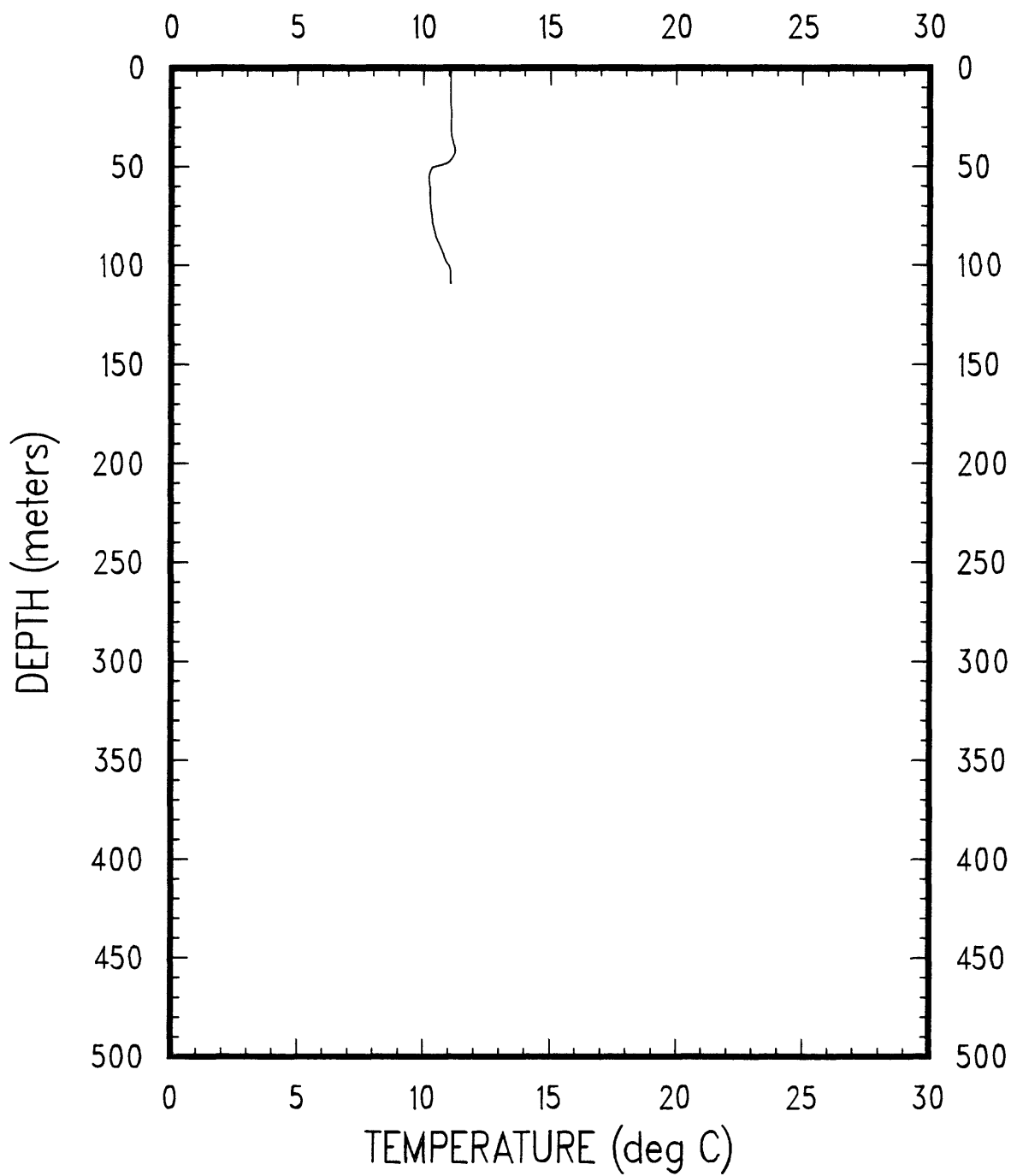
OC130

XBT-66



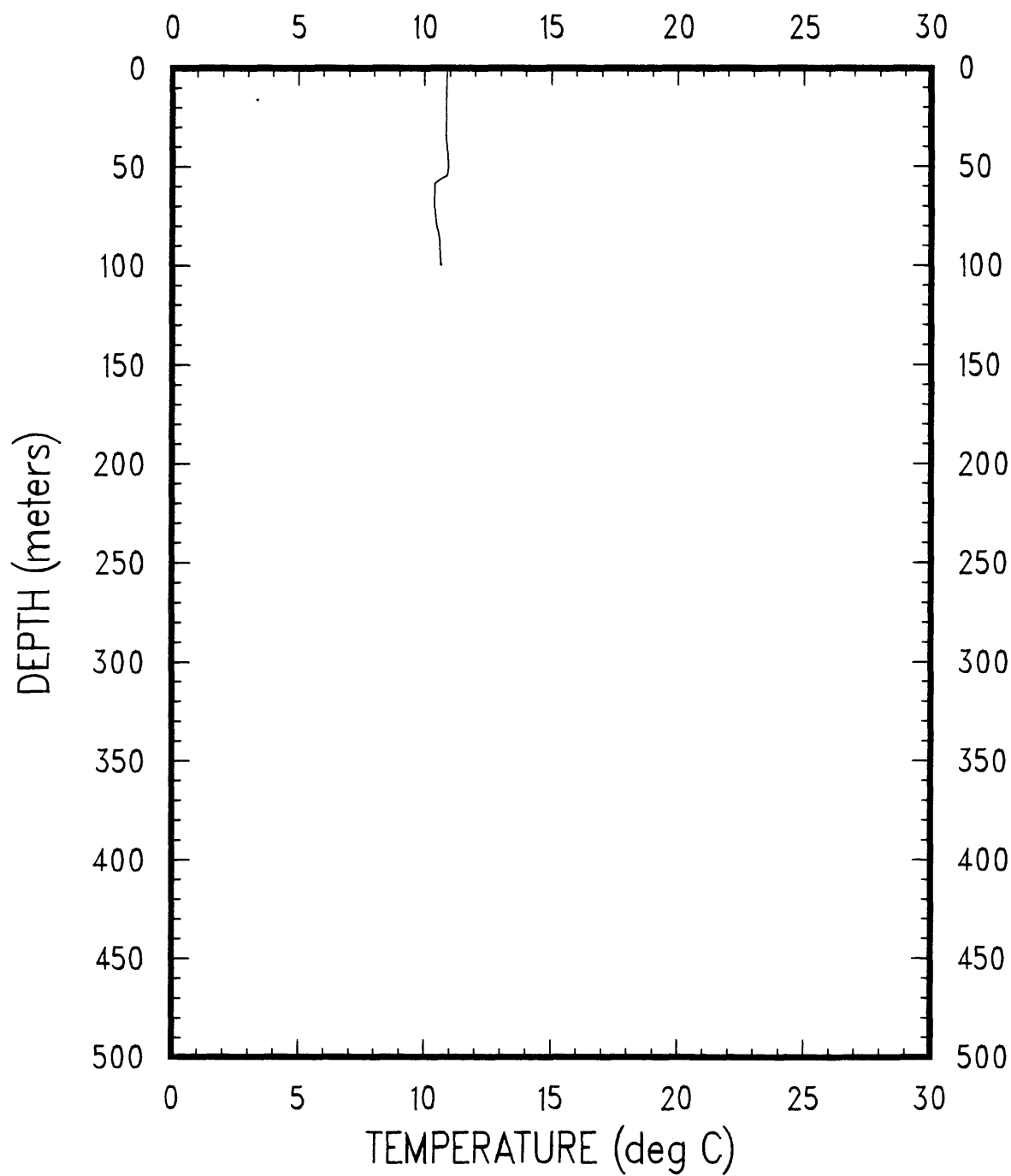
OC130

XBT-67



OC130

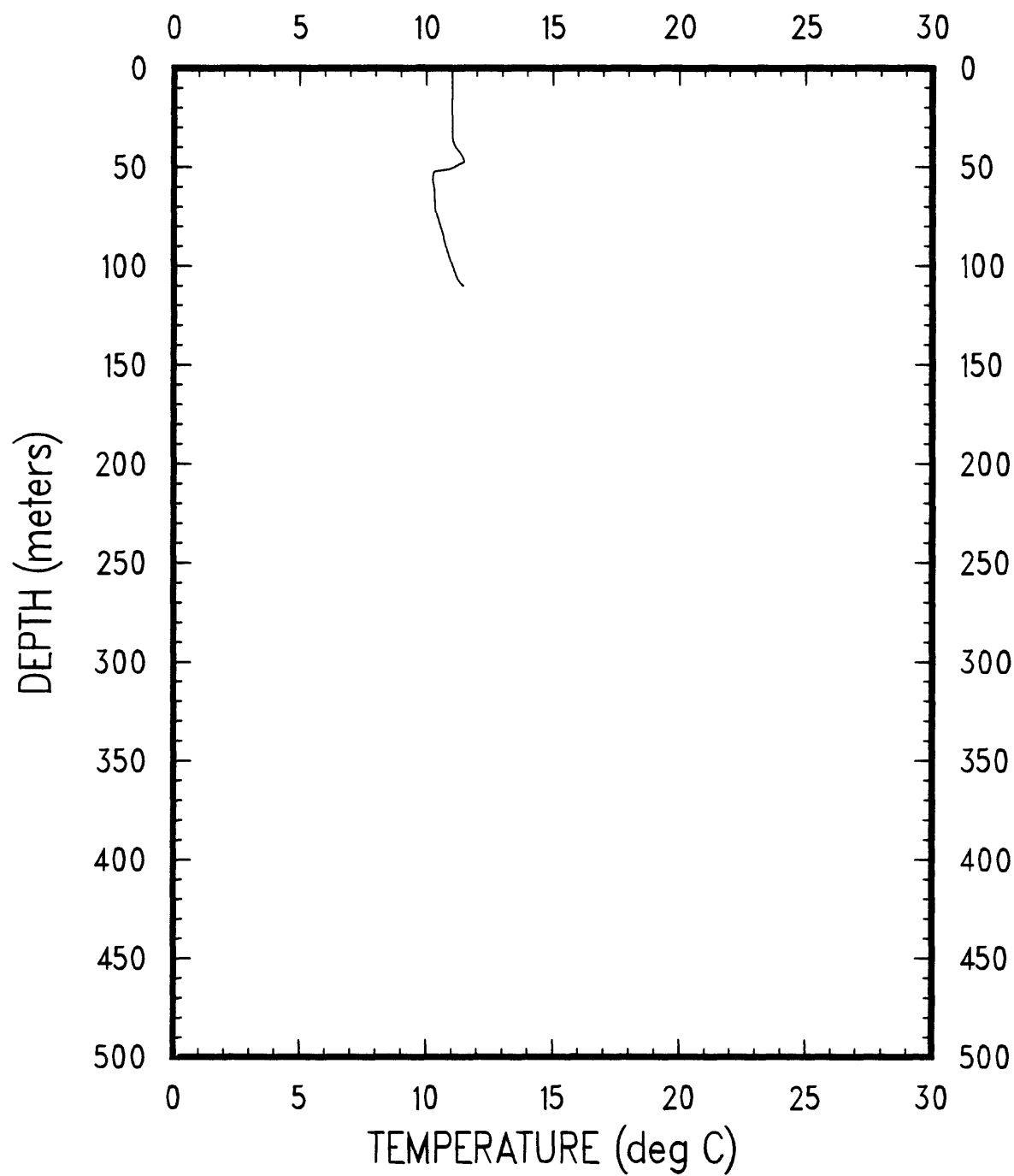
XBT-68





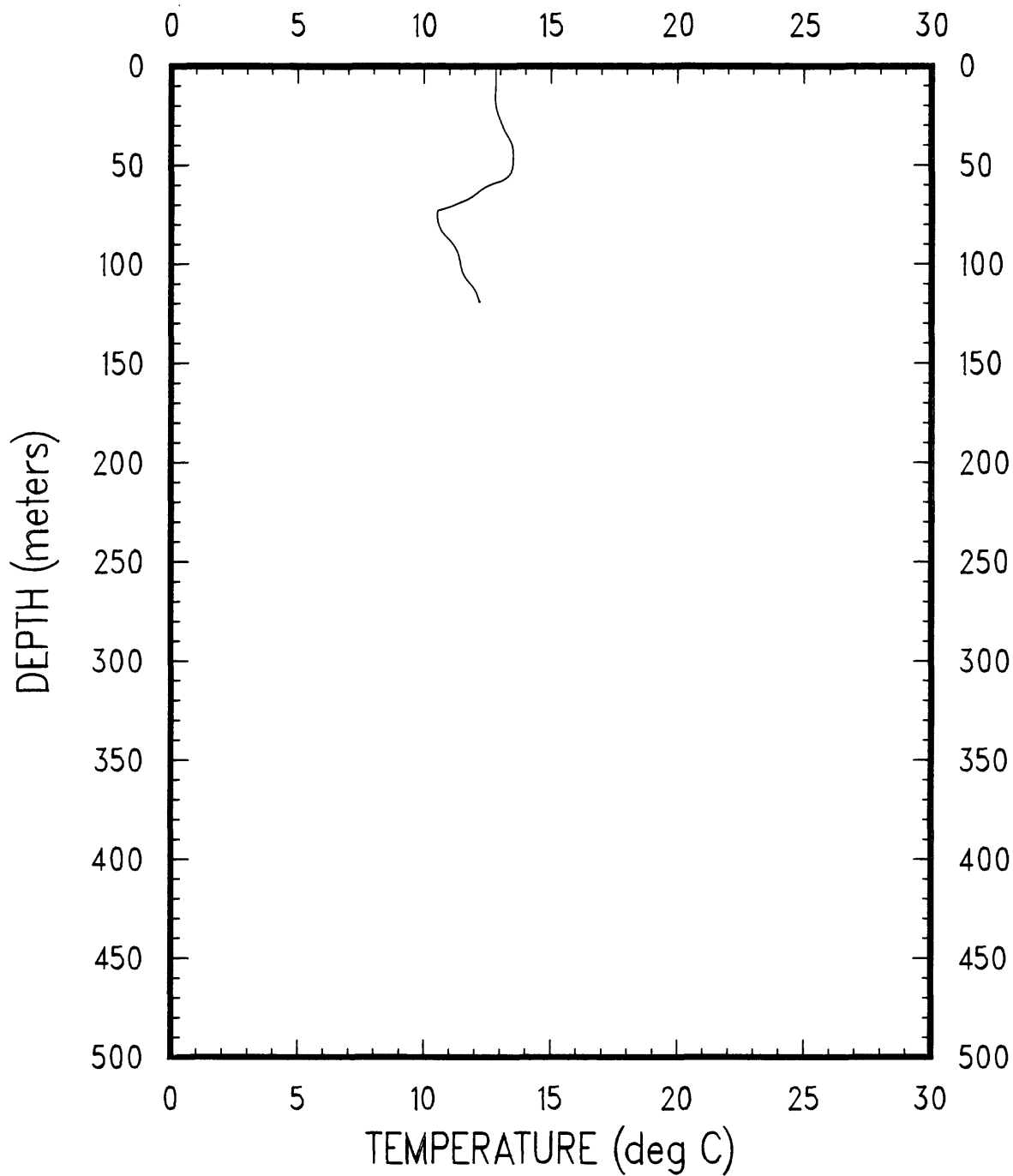
OC130

XBT-68A



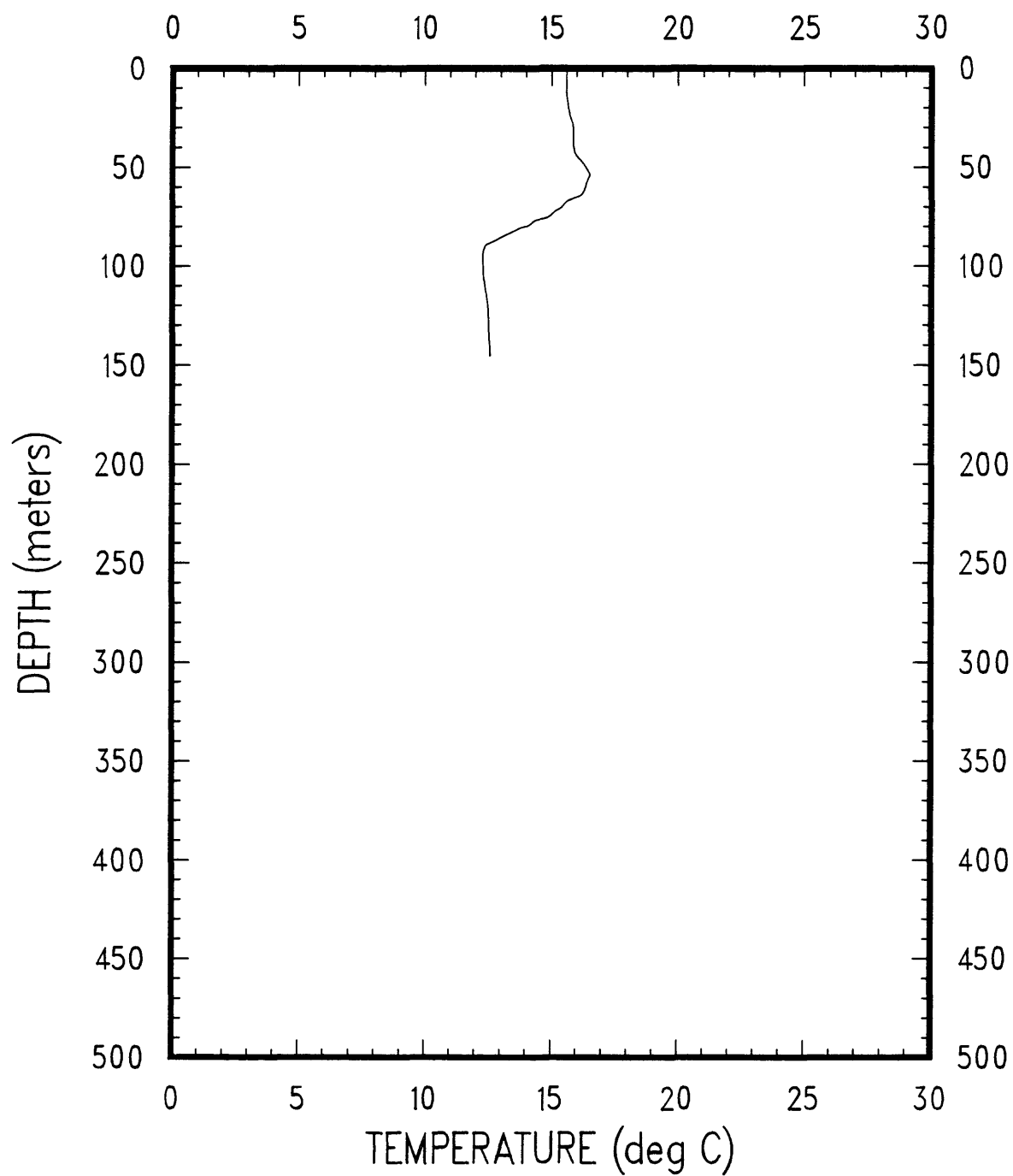
OC130

XBT-69



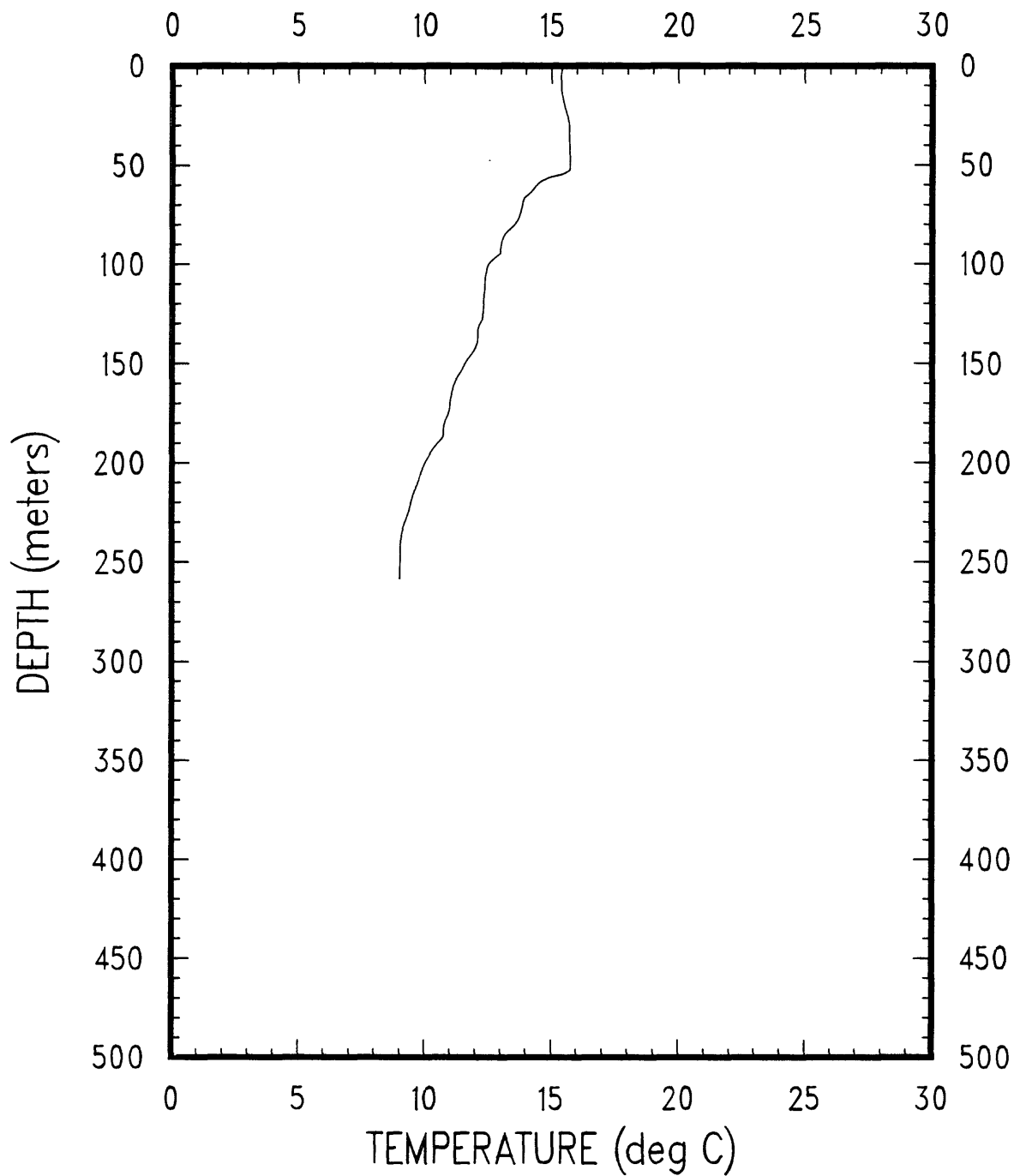
OC130

XBT-70



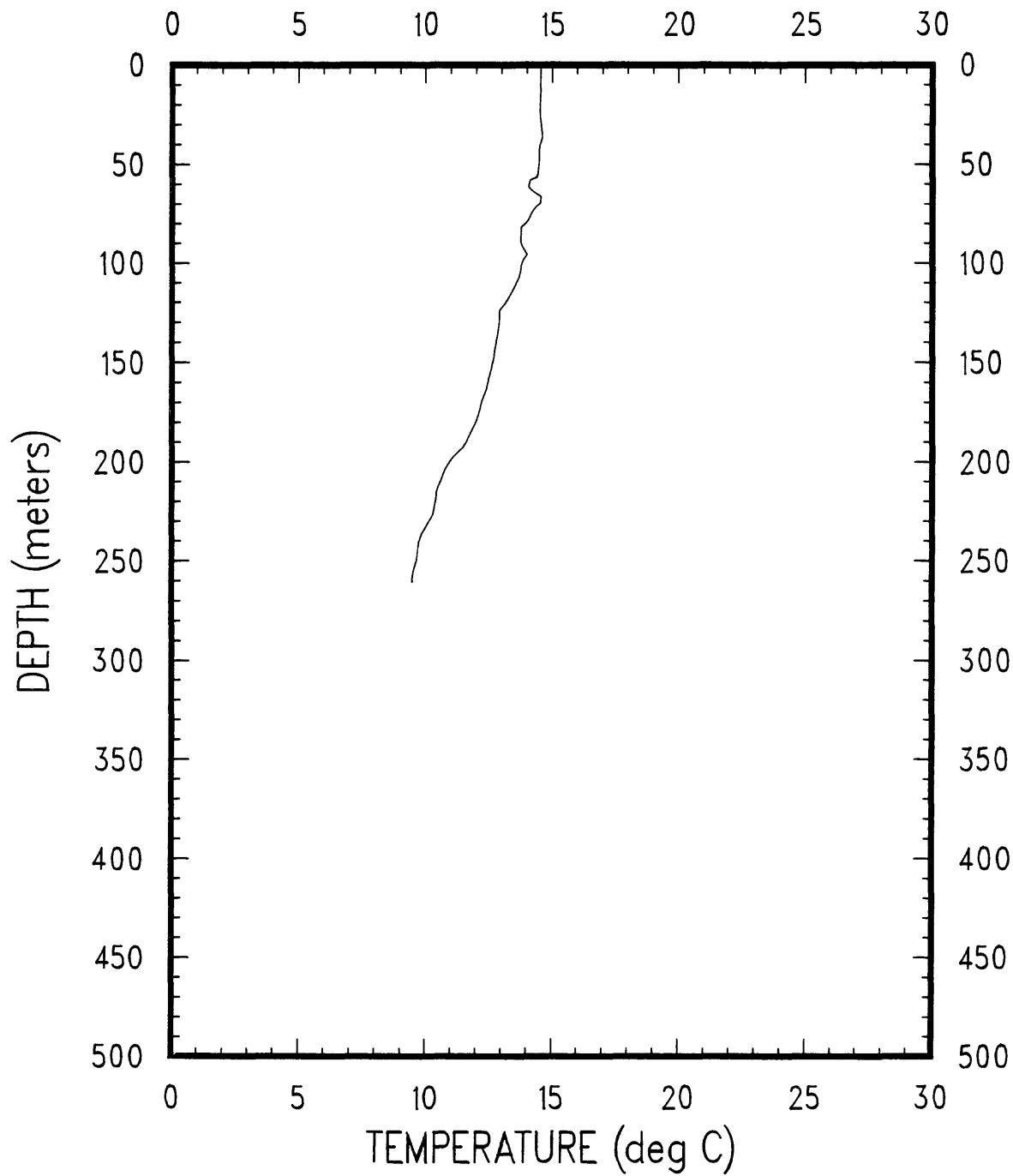
OC130

XBT-71



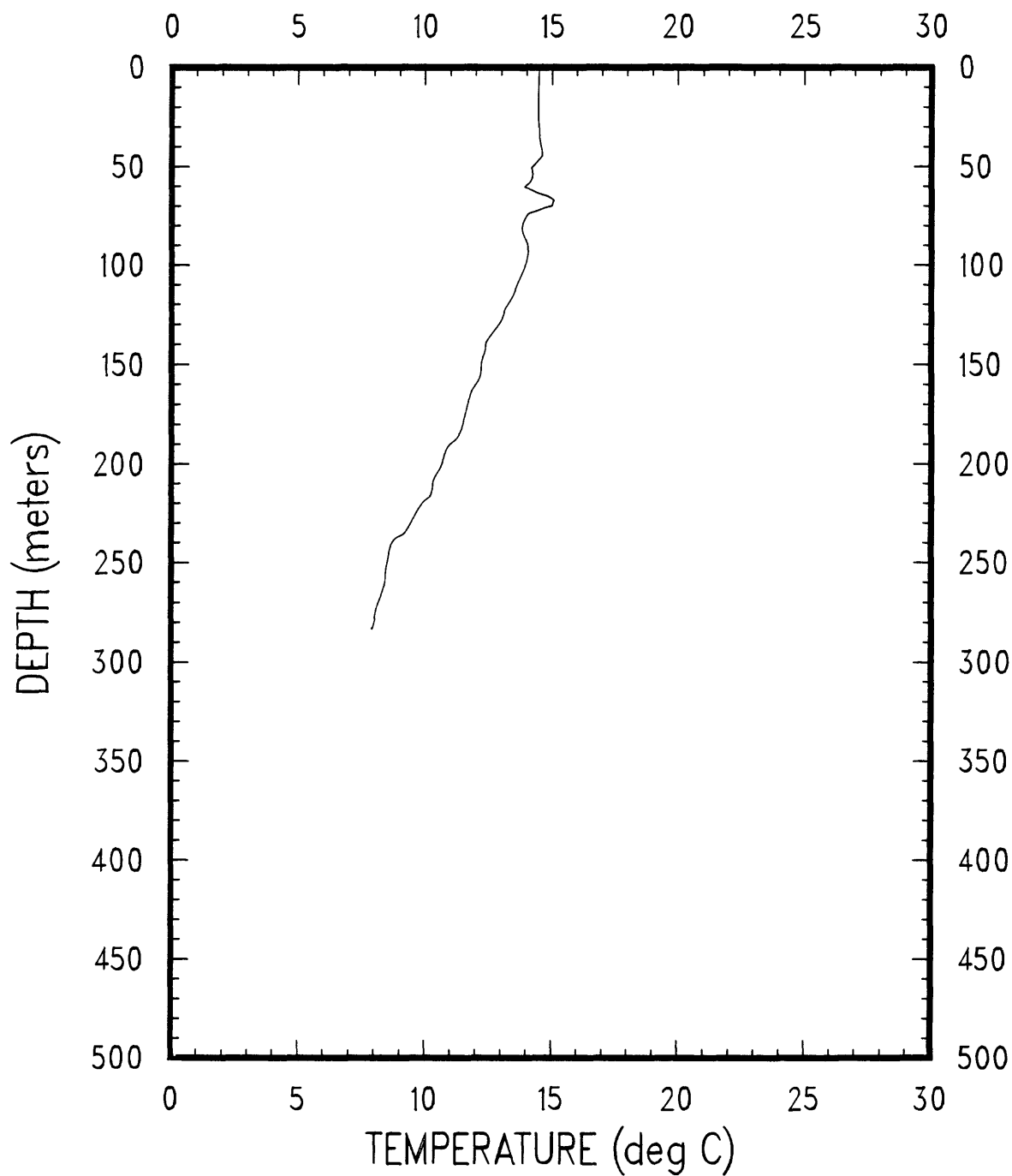
OC130

XBT-72

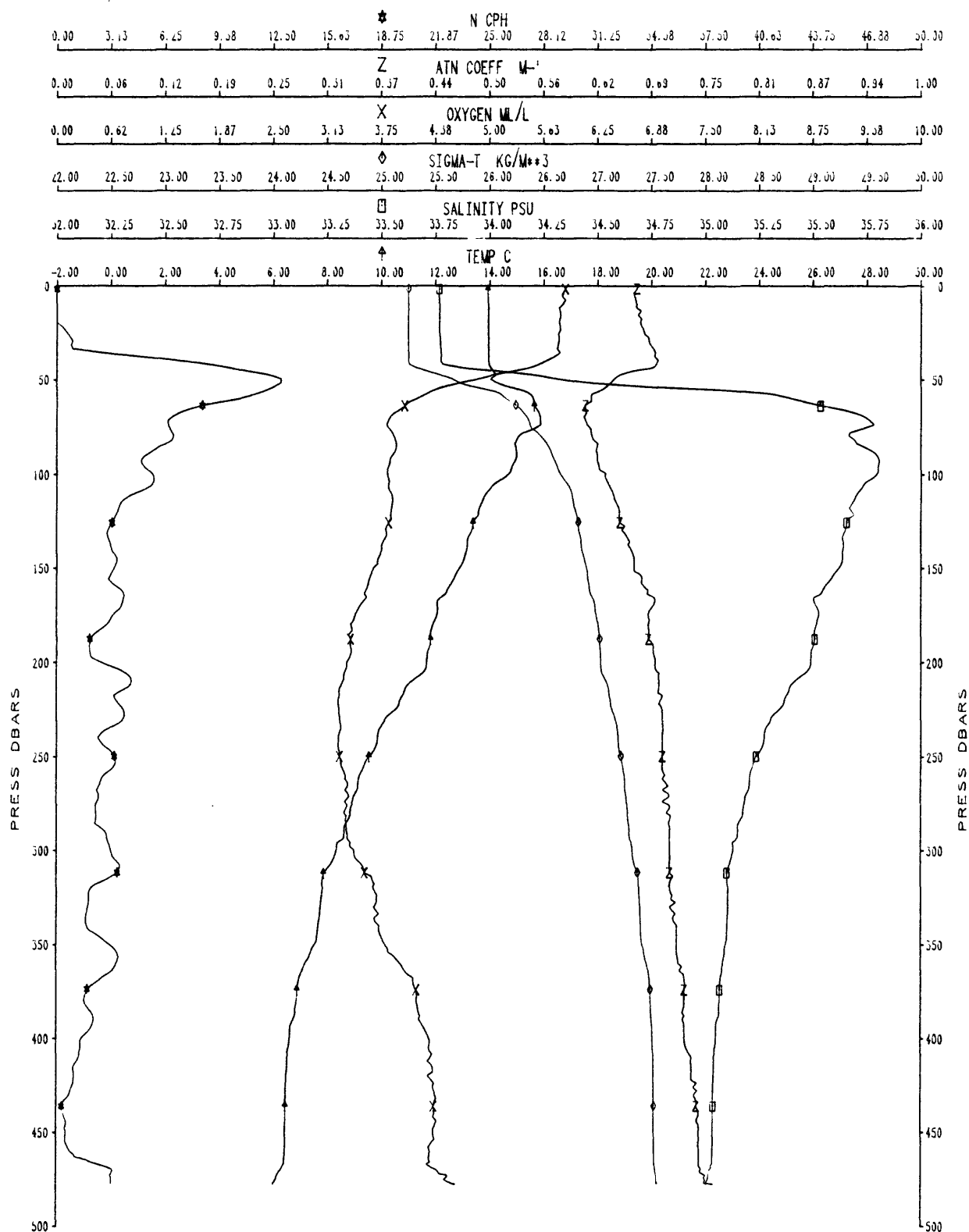


OC130

XBT-73



0C130A CAST #74



## Appendix I. - Data listings

The 2-dbar-averaged data are listed in Appendix I. For the data listings, time is in Eastern Standard Time, ATN is the beam attenuation coefficient, SIGT is the density anomaly  $\sigma_t$ , N is the Brunt-Vaisala frequency, DYHT A is the dynamic height anomaly, and S SPD is the speed of sound in seawater. For pressures greater than 500 dbar, the 2-dbar-averaged data are subsampled at 20-dbar intervals.



STA 1 DAY: 9 TIME: 1800										STA 2 DAY: 9 TIME: 1825									
DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP
(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)
0.1	14.5	73.0	15.4	142.9	13.0	220.8	10.8	285.7	8.6	0.2	14.9	42.6	19.7	83.6	15.1	151.7	13.0	221.2	11.1
2.0	14.5	73.4	15.7	144.5	13.0	222.9	10.8	287.5	8.6	2.5	14.9	43.5	19.8	84.2	15.0	153.2	13.0	223.2	11.1
3.1	14.4	73.7	15.7	145.6	13.0	222.9	10.7	288.7	8.5	4.6	14.9	43.9	19.6	84.4	14.8	154.0	13.0	224.8	11.1
4.3	14.5	75.0	15.7	147.2	12.9	224.0	10.7	289.5	8.4	7.1	14.9	44.4	19.6	84.7	14.7	154.7	12.9	226.0	11.1
5.8	14.4	74.9	15.6	150.1	12.9	226.3	10.7	289.9	8.4	8.2	14.9	44.6	19.5	86.1	14.7	156.7	12.9	226.6	11.1
6.7	14.4	76.5	15.6	152.6	12.8	228.2	10.6	290.7	8.3	10.1	14.9	45.1	19.4	86.1	14.7	158.0	12.9	227.4	11.0
8.1	14.4	78.9	15.6	155.1	12.9	228.8	10.6	291.5	8.3	10.9	15.0	45.5	19.3	87.5	14.6	159.5	12.9	228.0	10.9
9.4	14.4	79.8	15.3	157.2	12.8	231.0	10.6	292.0	8.2	12.0	15.1	46.6	19.1	89.7	14.6	161.9	12.9	228.7	10.9
11.1	14.4	80.9	15.0	158.9	12.8	232.1	10.6	293.7	8.2	13.3	15.1	48.2	19.1	90.6	14.5	162.4	12.9	230.2	10.8
12.6	14.4	81.6	14.7	159.5	12.8	232.9	10.5	295.1	8.2	14.1	15.2	49.1	19.0	92.9	14.4	163.6	12.8	231.6	10.8
14.3	14.4	82.7	14.4	161.6	12.8	234.5	10.4	296.8	8.1	14.5	15.3	50.4	18.9	94.4	14.4	165.1	12.7	232.9	10.8
15.8	14.5	84.1	14.3	163.7	12.7	236.2	10.3	298.1	8.1	15.0	15.4	51.2	18.8	94.8	14.3	166.3	12.7	234.3	10.7
18.7	14.6	86.7	14.3	165.5	12.7	237.2	10.3	298.7	8.0	15.4	15.5	52.0	18.7	96.4	14.3	167.4	12.6	235.4	10.6
20.6	14.7	88.7	14.3	167.0	12.7	238.4	10.2	300.3	8.0	15.4	15.7	52.0	18.6	97.1	14.2	167.4	12.6	236.2	10.6
22.4	15.1	90.6	14.2	167.3	12.6	239.0	10.1	301.5	8.0	16.0	15.8	53.5	18.6	97.7	14.1	167.8	12.5	236.4	10.4
23.9	15.8	92.1	14.1	168.2	12.5	239.8	10.1	303.0	7.9	16.2	16.0	54.3	18.6	98.4	14.1	171.2	12.5	237.2	10.4
25.6	16.4	93.0	14.0	169.4	12.5	240.9	10.0	304.7	7.9	16.2	16.0	55.2	18.6	98.8	13.9	172.2	12.4	238.3	10.4
26.5	16.9	94.8	13.9	170.1	12.4	242.1	10.0	306.9	7.9	16.5	16.2	55.7	18.8	100.4	13.9	173.2	12.4	239.4	10.4
27.1	17.3	96.8	13.8	171.2	12.4	243.7	9.9	307.8	7.8	16.6	16.4	56.0	18.9	102.2	13.8	174.8	12.4	240.3	10.3
27.8	17.6	100.0	13.9	172.9	12.4	246.3	9.9	306.9	7.8	16.9	16.5	57.1	19.0	103.4	13.7	177.3	12.4	240.6	10.3
29.2	17.7	103.5	13.9	174.5	12.4	247.9	9.9	307.5	7.8	17.3	16.8	58.7	19.0	104.6	13.5	177.6	12.3	241.3	10.3
30.6	17.7	105.8	13.8	176.5	12.3	249.0	9.8	309.5	7.7	17.6	17.0	60.1	18.9	105.5	13.2	179.2	12.2	241.8	10.2
31.8	17.8	108.3	13.6	177.8	12.1	252.2	9.8	310.8	7.6	18.1	17.2	61.0	18.8	106.5	13.1	181.2	12.2	242.5	10.1
33.0	17.8	106.9	13.8	177.3	12.2	250.5	9.8	310.5	7.7	18.4	17.5	62.2	18.7	107.3	12.9	183.6	12.1	243.4	10.1
34.8	17.8	109.7	13.6	178.3	12.0	253.9	9.7	311.9	7.6	19.5	17.5	62.8	18.5	109.4	12.9	184.1	12.1	244.8	10.1
36.4	17.9	110.9	13.7	179.2	11.9	255.8	9.6	312.8	7.6	19.8	17.6	63.4	18.3	111.6	12.9	185.8	12.1	245.4	10.0
38.2	17.9	112.1	13.7	180.7	11.9	258.2	9.6	314.9	7.6	21.0	17.7	64.1	18.1	112.6	12.9	187.2	12.1	246.1	9.9
39.4	18.0	113.0	13.6	183.5	11.8	259.3	9.6			21.8	17.9	64.6	17.8	114.7	13.0	188.9	12.0	246.9	9.8
41.1	18.0	113.9	13.6	184.5	11.7	261.2	9.6			23.8	18.0	64.7	17.6	116.0	13.0	189.8	11.9	248.0	9.8
42.7	18.1	115.5	13.6	185.6	11.6	262.6	9.5			25.2	18.0	65.4	17.3	119.5	13.0	190.6	11.9	249.7	9.8
45.6	18.1	117.0	13.6	186.6	11.5	264.2	9.5			26.4	18.1	66.1	17.0	120.1	13.1	191.5	11.8	251.4	9.8
47.5	18.1	118.4	13.5	187.9	11.4	265.5	9.4			27.3	18.2	67.3	16.8	122.8	13.1	192.6	11.7	252.8	9.8
50.0	18.1	119.4	13.4	189.0	11.3	266.6	9.4			28.4	18.2	68.0	16.5	124.5	13.1	193.9	11.6	254.5	9.7
51.2	18.2	119.8	13.4	190.1	11.2	268.1	9.4			30.2	18.2	69.2	16.2	126.0	13.2	195.3	11.6	256.5	9.7
53.0	18.2	119.9	13.3	191.0	11.1	268.3	9.3			30.8	18.3	70.3	16.0	127.1	13.4	196.5	11.6	257.7	9.7
54.7	18.3	120.8	13.2	192.7	11.1	269.5	9.3			31.6	18.4	71.9	15.8	129.0	13.5	197.6	11.5	259.4	9.7
55.7	18.2	122.2	13.2	194.7	11.1	271.3	9.2			32.7	18.5	73.3	15.7	129.0	13.6	198.8	11.4	260.9	9.6
57.3	18.3	123.0	13.3	195.9	11.0	272.8	9.2			33.0	18.6	75.2	15.5	130.8	13.6	200.5	11.4	262.0	9.5
59.5	18.3	124.5	13.3	197.9	11.0	273.4	9.1			33.5	18.8	76.5	15.5	131.9	13.5	202.2	11.4	262.8	9.5
60.6	18.2	125.8	13.2	199.7	11.0	274.5	9.1			33.9	19.1	77.6	15.4	133.8	13.4	204.3	11.4	263.8	9.4
61.5	18.0	127.8	13.2	202.0	10.9	275.7	9.0			34.2	19.2	78.0	15.3	135.9	13.4	205.4	11.3	265.1	9.4
62.6	17.9	129.8	13.2	204.2	10.9	276.6	9.0			34.5	19.3	78.6	15.1	137.9	13.4	206.8	11.3	266.3	9.3
64.0	17.6	131.1	13.2	206.1	10.9	277.0	8.9			35.1	19.4	79.1	15.1	140.3	13.4	208.6	11.3	266.8	9.2
65.0	17.4	132.5	13.2	207.4	10.9	278.0	8.9			36.3	19.4	79.9	15.1	143.0	13.4	209.9	11.3	268.3	9.2
66.0	17.2	134.3	13.2	208.8	10.8	279.6	8.8			37.0	19.4	80.6	15.3	144.4	13.3	211.0	11.2	269.5	9.1
66.8	17.0	136.4	13.2	210.1	10.8	281.4	8.8			38.1	19.4	81.3	15.4	146.2	13.3	211.8	11.1	270.5	9.1
68.0	16.8	137.7	13.2	211.8	10.8	281.8	8.8			38.7	19.4	81.9	15.5	147.9	13.3	213.7	11.1	271.1	9.0
69.5	16.2	138.9	13.1	214.1	10.8	282.8	8.7			40.0	19.4	82.6	15.5	149.5	13.2	215.3	11.1		
70.1	15.8	140.5	13.1	216.8	10.8	283.3	8.6			41.1	19.5	83.1	15.4	150.4	13.2	217.3	11.1		
70.3	15.4	141.9	13.1	218.6	10.8	284.0	8.6			41.7	19.6	83.4	15.2	150.8	13.1	219.0	11.1		



STA 4				DAY: 10				TIME: 2059				DAY: 10				TIME: 2059			
DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.8	18.1	49.8	17.6	87.4	14.1	158.9	12.7	224.0	9.9	302.3	8.4	382.9	7.1	470.3	6.0	556.2	5.3	636.0	4.6
1.3	18.6	50.0	17.3	88.2	14.1	160.3	12.7	225.3	9.9	304.0	8.3	384.4	7.1	473.4	6.0	557.5	5.3	638.2	4.6
1.4	19.1	50.2	17.1	89.3	14.0	161.6	12.6	226.6	9.9	304.8	8.3	386.0	7.1	474.8	5.9	559.0	5.2	639.6	4.5
1.5	19.1	50.3	17.0	89.9	14.0	162.6	12.6	228.5	9.9	305.6	8.2	386.6	7.0	476.6	5.9	560.6	5.3	640.8	4.6
2.1	19.6	50.7	16.9	91.5	14.0	163.5	12.5	229.2	9.7	306.7	8.2	387.6	6.9	478.6	5.9	561.4	5.3	643.5	4.6
2.5	19.7	51.0	16.7	93.0	14.0	165.2	12.5	231.1	9.7	308.1	8.1	389.9	6.9	481.5	5.9	562.9	5.2	645.5	4.6
4.5	19.7	51.6	16.6	94.6	13.9	165.6	12.4	232.7	9.7	309.5	8.1	390.6	6.9	483.5	5.9	563.7	5.2	647.0	4.6
5.2	19.8	52.0	16.5	95.9	13.9	166.4	12.4	234.3	9.7	310.3	8.1	392.0	6.8	485.2	5.9	565.1	5.1	648.8	4.6
6.8	19.8	52.8	16.4	97.9	13.8	167.2	12.3	235.9	9.7	313.2	8.0	394.2	6.8	485.6	5.8	566.0	5.1	650.5	4.5
8.5	19.8	54.2	16.4	100.3	13.8	168.3	12.3	236.6	9.7	314.5	8.0	395.5	6.7	487.1	5.8	568.5	5.1	653.1	4.6
9.8	19.8	55.5	16.3	102.3	13.8	169.1	12.2	238.7	9.6	316.5	8.0	396.7	6.7	488.6	5.8	569.8	5.1	654.5	4.6
11.5	19.8	56.4	16.2	103.9	13.9	170.5	12.1	240.7	9.5	317.4	8.0	398.6	6.7	491.5	5.8	571.6	5.0	656.3	4.6
13.8	19.8	56.8	16.1	105.8	13.9	171.5	12.1	243.0	9.5	319.3	8.0	400.9	6.6	492.7	5.7	573.8	5.0	658.7	4.6
14.8	19.8	57.7	16.0	107.3	13.8	172.2	12.0	243.8	9.4	321.0	8.0	403.1	6.6	494.9	5.7	576.0	5.0	660.7	4.6
16.1	19.9	58.4	15.9	108.7	13.7	172.8	11.9	245.4	9.4	322.7	8.0	404.8	6.6	495.2	5.7	577.6	4.9	663.6	4.6
19.0	19.9	59.1	15.9	110.0	13.7	174.3	11.9	246.4	9.3	325.1	8.0	406.5	6.6	496.6	5.7	579.0	4.9	665.7	4.6
20.9	19.9	60.0	15.8	111.6	13.6	176.0	11.9	248.2	9.3	327.0	7.9	408.6	6.6	498.0	5.6	580.2	4.9	668.0	4.6
21.5	19.8	61.1	15.8	112.7	13.6	177.6	11.9	249.7	9.3	328.8	7.9	411.0	6.6	499.6	5.6	581.0	4.9	669.8	4.6
24.4	19.8	61.8	15.7	114.3	13.6	179.7	11.9	251.2	9.3	330.2	7.8	413.1	6.6	502.5	5.6	581.6	4.9	671.4	4.6
25.7	19.8	62.2	15.6	115.7	13.6	182.3	11.8	253.0	9.3	330.6	7.8	414.7	6.6	504.8	5.6	582.3	4.8	672.5	4.5
27.4	19.8	62.5	15.5	115.7	13.6	183.7	11.7	254.9	9.2	332.6	7.8	416.2	6.6	506.8	5.6	583.7	4.8	675.3	4.5
28.8	19.8	62.7	15.4	117.5	13.6	186.0	11.6	256.6	9.2	333.7	7.8	418.3	6.6	509.5	5.6	584.8	4.8	676.8	4.5
30.9	19.8	63.5	15.3	119.2	13.6	187.7	11.6	258.1	9.2	335.1	7.7	420.2	6.6	511.6	5.6	586.3	4.8	679.3	4.5
32.5	19.8	64.2	15.2	120.9	13.6	188.9	11.5	259.6	9.2	337.1	7.7	421.8	6.6	513.7	5.6	588.2	4.8	680.9	4.5
33.3	19.8	65.3	15.1	122.8	13.7	190.6	11.4	262.3	9.1	339.1	7.7	422.8	6.5	515.4	5.6	589.6	4.8	683.4	4.5
33.8	19.8	66.3	15.0	125.0	13.6	192.0	11.4	264.7	9.1	341.8	7.7	425.1	6.5	517.5	5.6	591.1	4.7	685.9	4.5
35.3	19.8	66.9	14.9	126.2	13.6	194.0	11.3	265.8	9.1	343.8	7.7	426.8	6.5	519.4	5.6	592.3	4.7	687.5	4.5
36.9	19.8	67.5	14.8	127.6	13.6	196.0	11.3	268.2	9.1	346.2	7.6	430.1	6.4	521.3	5.6	593.6	4.7	689.4	4.5
38.4	19.8	67.7	14.7	129.2	13.5	197.4	11.2	268.1	9.0	347.4	7.6	430.1	6.4	524.0	5.5	594.5	4.7	691.9	4.5
40.2	19.8	68.0	14.6	131.1	13.6	199.1	11.1	270.3	9.0	349.4	7.7	432.0	6.4	525.1	5.5	596.1	4.6	694.8	4.5
41.7	19.8	68.7	14.5	132.6	13.6	201.0	11.1	272.3	9.0	351.7	7.6	434.3	6.4	526.2	5.5	597.9	4.6	697.6	4.5
42.9	19.8	69.5	14.5	134.3	13.6	201.9	11.1	272.9	8.9	353.2	7.5	436.1	6.3	527.3	5.5	600.9	4.6	699.1	4.5
44.2	19.8	70.0	14.4	136.5	13.5	202.3	11.0	274.7	8.8	355.0	7.5	438.0	6.3	529.2	5.5	603.2	4.6	701.3	4.5
45.8	19.8	71.1	14.4	137.9	13.5	203.7	11.0	276.6	8.8	356.8	7.5	439.6	6.3	529.2	5.5	605.3	4.6	703.5	4.5
47.2	19.8	71.9	14.5	138.6	13.4	205.1	10.9	278.0	8.8	357.9	7.5	441.2	6.2	531.0	5.5	606.8	4.6	705.9	4.4
48.3	19.8	72.5	14.5	140.3	13.4	206.9	10.9	280.2	8.8	360.0	7.5	442.7	6.2	532.2	5.5	609.0	4.6	705.9	4.4
48.6	19.6	73.7	14.6	142.0	13.4	207.5	10.8	282.1	8.8	361.5	7.5	444.5	6.2	533.3	5.4	611.3	4.6	707.5	4.4
48.5	19.6	74.2	14.6	143.6	13.4	208.7	10.8	284.6	8.8	363.5	7.4	445.8	6.2	534.3	5.5	613.2	4.6	709.2	4.4
48.7	19.3	75.5	14.6	145.0	13.3	209.5	10.7	286.4	8.8	364.3	7.4	446.6	6.1	536.0	5.4	614.9	4.6	709.9	4.5
48.8	19.1	77.2	14.6	145.8	13.3	210.3	10.6	287.5	8.7	365.3	7.4	448.1	6.1	537.2	5.4	616.2	4.6	711.4	4.4
48.8	18.9	77.9	14.5	146.8	13.2	211.6	10.6	289.0	8.7	366.3	7.3	449.2	6.1	540.3	5.5	617.6	4.6	713.2	4.5
48.8	18.8	78.2	14.4	148.2	13.2	212.6	10.4	290.9	8.7	367.8	7.3	450.2	6.2	542.2	5.4	618.9	4.6	715.2	4.4
49.0	18.6	79.1	14.4	149.7	13.2	213.6	10.4	292.1	8.7	370.0	7.3	452.6	6.1	542.6	5.4	621.3	4.6	716.1	4.4
49.2	18.4	79.5	14.3	150.5	13.2	215.0	10.3	294.5	8.6	371.8	7.3	453.1	6.1	543.7	5.4	623.2	4.6	718.0	4.4
49.1	18.3	80.1	14.2	151.1	13.0	216.3	10.3	295.9	8.6	373.5	7.3	455.1	6.1	544.8	5.3	624.5	4.6	719.7	4.4
48.9	18.1	80.4	14.1	151.8	13.0	217.5	10.2	297.1	8.6	375.6	7.3	455.8	6.1	546.0	5.3	627.3	4.6	722.1	4.4
49.3	18.0	81.4	14.0	153.2	12.9	218.7	10.2	298.2	8.6	376.8	7.3	462.7	6.1	547.6	5.3	628.3	4.6	723.3	4.4
49.6	17.9	83.2	14.0	154.6	12.9	220.4	10.1	299.5	8.5	378.0	7.2	464.3	6.1	548.8	5.3	629.5	4.6	724.8	4.5
49.6	17.8	84.3	14.0	156.3	12.8	221.8	10.0	300.8	8.5	380.2	7.2	466.1	6.0	551.4	5.2	631.8	4.6	726.4	4.4
49.6	17.7	86.0	14.1	157.6	12.8	222.9	10.0	301.6	8.5	381.4	7.1	468.4	6.0	554.4	5.3	633.9	4.6	727.9	4.5

STA 4 DAY: 10 TIME: 2059

DEPTH TEMP  
(m) (°C)  
729.5 4.5  
730.5 4.5  
732.5 4.4  
733.7 4.4  
735.2 4.4  
737.3 4.4  
739.1 4.4  
740.4 4.4  
743.2 4.4  
744.8 4.4  
746.5 4.4  
748.3 4.4  
749.4 4.4  
751.0 4.4

STA 5 DAY: 10 TIME: 2125

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.8	14.0	43.9	15.4	74.2	15.1	126.0	13.5	177.7	10.8		
1.6	13.9	44.8	15.4	74.7	15.2	127.4	13.4	179.0	10.8		
2.0	14.0	45.6	15.3	74.8	15.3	128.5	13.4	180.3	10.8		
3.5	14.0	46.3	15.2	75.1	15.4	129.5	13.4	181.3	10.7		
5.3	13.9	46.9	15.1	75.6	15.5	130.1	13.3	182.6	10.7		
6.8	13.9	47.8	15.1	76.3	15.5	130.8	13.3	184.4	10.7		
8.3	13.9	48.6	15.0	76.8	15.4	132.0	13.2	186.1	10.7		
9.6	14.0	49.1	14.9	77.0	15.3	133.0	13.1	187.8	10.6		
10.0	13.9	49.6	14.7	77.6	15.3	133.7	13.0	189.3	10.6		
11.8	14.0	49.8	14.5	78.8	15.2	134.2	13.0	191.0	10.6		
13.0	13.9	50.5	14.4	80.2	15.2	135.1	12.9	192.3	10.6		
14.4	14.0	50.7	14.2	80.8	15.1	136.3	12.9	192.9	10.5		
16.3	14.0	51.0	14.1	81.9	15.0	137.2	12.8	194.7	10.5		
16.9	13.9	51.5	14.1	83.0	15.0	137.9	12.8	195.8	10.4		
17.8	13.9	51.9	14.1	84.2	15.0	138.9	12.7	197.5	10.4		
18.8	13.9	52.1	14.2	85.8	15.0	140.1	12.7	199.4	10.4		
19.9	13.9	52.2	14.3	86.2	14.9	140.9	12.7	200.5	10.3		
22.4	13.9	52.9	14.3	86.8	14.8	141.4	12.6	202.3	10.3		
23.3	14.0	53.1	14.4	87.1	14.7	142.6	12.6	203.4	10.2		
24.6	14.0	54.2	14.5	87.8	14.6	143.9	12.5	204.8	10.2		
25.6	14.1	55.3	14.5	88.3	14.5	144.8	12.5	206.2	10.2		
26.0	14.1	56.5	14.5	88.5	14.5	146.4	12.4	207.2	10.2		
27.7	14.1	57.8	14.5	89.8	14.5	147.7	12.4	209.3	10.1		
29.2	14.1	58.8	14.5	91.7	14.5	149.3	12.4	209.9	10.0		
30.0	14.2	59.0	14.6	92.2	14.4	150.6	12.4	211.8	9.9		
31.5	14.2	59.8	14.7	93.2	14.4	151.5	12.3	212.8	9.9		
32.0	14.2	60.8	14.8	94.1	14.3	152.4	12.3	213.7	9.8		
32.4	14.4	61.2	14.9	95.4	14.3	153.2	12.2	214.6	9.8		
33.0	14.5	61.8	14.9	97.3	14.3	154.4	12.1	216.1	9.7		
33.0	14.7	62.8	15.0	98.9	14.3	156.0	12.1	217.1	9.6		
33.3	14.9	63.6	15.0	101.1	14.4	156.9	12.1	218.3	9.6		
33.8	15.1	64.5	14.9	101.4	14.4	157.7	12.0	219.6	9.6		
33.9	15.4	64.9	14.9	103.3	14.4	158.1	11.9	222.4	9.6		
34.3	15.5	65.9	14.9	104.8	14.4	159.2	11.8	223.1	9.6		
35.0	15.7	66.2	15.0	105.8	14.4	160.3	11.7	224.4	9.6		
35.2	15.9	66.9	15.0	107.2	14.3	161.6	11.7	225.2	9.6		
35.6	16.1	67.0	14.9	108.4	14.3	162.6	11.6	226.2	9.5		
36.1	16.2	67.5	14.9	109.5	14.2	163.4	11.6	227.5	9.5		
36.7	16.3	67.8	14.8	111.0	14.1	164.4	11.5	228.6	9.4		
37.1	16.4	68.1	14.8	112.1	14.0	165.2	11.4	229.6	9.4		
38.5	16.4	68.5	14.7	112.8	13.9	166.5	11.3	230.5	9.4		
39.4	16.4	69.1	14.7	114.5	13.9	167.8	11.3	230.9	9.3		
39.9	16.3	70.3	14.7	116.2	13.9	169.0	11.3	232.5	9.3		
40.1	16.2	71.3	14.8	117.6	13.9	170.8	11.2	233.7	9.2		
40.4	16.1	71.9	14.8	118.8	13.8	171.9	11.2	235.7	9.2		
41.5	16.0	72.1	14.9	119.8	13.7	172.9	11.1	236.9	9.1		
42.0	15.9	72.5	15.0	121.5	13.7	173.2	11.0	237.9	9.1		
42.5	15.8	72.9	15.0	122.8	13.6	175.0	11.0	240.8	9.0		
42.8	15.6	73.2	15.1	123.8	13.5	176.6	11.0	242.2	9.0		
43.3	15.6	73.8	15.1	124.5	13.5	177.4	10.9	243.9	9.0		

STA 5 DAY: 10 TIME: 2125

STA 5 DAY: 10 TIME: 2125

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
245.4	9.0	319.7	7.5	398.4	6.4	475.7	5.5	573.4	4.9	695.3	4.4		
246.7	8.9	321.3	7.5	399.6	6.4	477.7	5.4	575.4	4.9	698.2	4.4		
249.1	8.9	321.9	7.4	401.2	6.4	479.6	5.4	577.2	4.9	700.6	4.4		
251.5	8.9	322.4	7.4	403.9	6.3	481.8	5.4	579.1	4.9	702.4	4.4		
253.9	8.9	323.7	7.3	405.2	6.3	484.4	5.3	581.3	4.9	704.2	4.4		
255.6	8.9	324.9	7.3	406.3	6.3	486.8	5.3	583.7	4.9	705.9	4.4		
256.8	8.9	326.4	7.2	407.6	6.3	489.0	5.3	585.3	4.8	708.0	4.4		
259.0	8.9	327.3	7.1	409.1	6.2	492.4	5.3	588.5	4.8	710.1	4.4		
261.0	8.9	329.2	7.1	410.9	6.2	494.2	5.3	591.0	4.8	711.7	4.4		
262.3	8.8	331.0	7.1	412.8	6.2	496.5	5.3	593.2	4.8	713.9	4.4		
263.5	8.7	332.6	7.1	414.1	6.2	498.0	5.3	596.6	4.8	715.5	4.4		
264.9	8.6	334.5	7.1	415.7	6.1	500.0	5.3	598.9	4.8	718.6	4.4		
265.5	8.5	336.0	7.1	417.3	6.1	501.4	5.3	601.6	4.8	721.5	4.4		
267.2	8.5	337.6	7.1	418.9	6.1	503.2	5.3	604.2	4.7	724.7	4.4		
268.3	8.5	339.9	7.1	421.3	6.1	505.1	5.3	607.2	4.7	727.0	4.4		
269.3	8.4	342.0	7.1	423.3	6.0	507.3	5.3	609.0	4.7	729.4	4.4		
271.1	8.4	343.8	7.1	424.9	6.0	508.7	5.2	610.7	4.7	731.5	4.4		
272.2	8.4	345.5	7.1	425.9	5.9	510.0	5.3	613.0	4.7	733.0	4.4		
273.6	8.4	347.3	7.1	427.7	5.9	512.5	5.2	615.2	4.6	735.1	4.4		
275.7	8.4	350.0	7.0	428.8	5.8	514.2	5.2	618.1	4.6	737.8	4.4		
277.3	8.4	351.6	7.0	430.3	5.8	516.0	5.2	620.0	4.6	740.5	4.4		
278.8	8.4	353.8	7.0	431.9	5.8	518.6	5.2	622.2	4.6	742.9	4.4		
281.3	8.4	355.4	7.0	434.0	5.8	520.4	5.2	626.3	4.6	745.4	4.4		
283.8	8.4	356.2	7.0	435.3	5.8	521.8	5.2	629.3	4.6	748.0	4.4		
285.7	8.4	357.6	7.0	436.8	5.8	524.0	5.2	631.3	4.6	749.8	4.3		
287.3	8.3	359.5	7.0	438.9	5.8	526.0	5.1	632.5	4.6	752.5	4.3		
288.1	8.3	360.8	7.0	440.8	5.8	527.0	5.1	634.8	4.6	755.4	4.3		
289.5	8.2	361.8	6.9	442.6	5.8	528.7	5.1	636.8	4.6				
290.7	8.2	363.5	6.9	444.4	5.8	530.4	5.1	638.3	4.5				
292.8	8.2	365.2	6.9	444.4	5.8	532.7	5.1	640.4	4.5				
294.4	8.2	366.6	6.9	445.3	5.7	535.8	5.1	642.3	4.5				
295.4	8.1	367.8	6.8	447.6	5.7	538.1	5.1	644.7	4.5				
296.2	8.1	370.5	6.8	449.2	5.7	539.7	5.1	647.3	4.5				
297.0	8.0	373.1	6.8	450.8	5.7	541.5	5.1	650.3	4.5				
297.5	7.9	374.6	6.8	450.1	5.8	543.6	5.1	651.8	4.5				
298.2	7.9	376.4	6.8	450.9	5.8	545.7	5.1	655.0	4.5				
299.9	7.8	378.5	6.8	451.8	5.7	547.3	5.1	657.9	4.5				
301.5	7.8	379.8	6.7	453.3	5.7	548.8	5.1	659.9	4.5				
303.7	7.8	381.8	6.7	455.4	5.7	550.6	5.1	664.2	4.5				
303.7	7.7	383.6	6.7	456.2	5.8	552.5	5.1	666.1	4.5				
305.4	7.7	385.0	6.7	457.8	5.8	555.0	5.1	669.2	4.5				
307.1	7.7	385.6	6.7	460.1	5.8	557.3	5.1	671.8	4.5				
308.9	7.7	386.4	6.6	462.1	5.7	559.1	5.1	673.9	4.5				
310.8	7.7	388.1	6.6	463.9	5.7	560.7	5.1	677.4	4.5				
312.6	7.7	390.2	6.6	466.4	5.7	561.5	5.0	680.2	4.5				
314.6	7.7	391.9	6.6	468.0	5.6	563.4	5.0	682.8	4.5				
315.6	7.6	393.5	6.6	469.2	5.6	565.8	5.0	685.5	4.4				
315.9	7.5	395.5	6.5	469.6	5.5	567.3	5.0	688.5	4.4				
316.6	7.5	397.0	6.6	470.8	5.5	569.3	5.0	691.1	4.4				
318.1	7.5	397.7	6.5	473.0	5.5	571.1	5.0	693.4	4.4				

STA 6 DAY: 10 TIME: 2156

STA 6 DAY: 10 TIME: 2156

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.2	13.8	63.1	13.9	104.3	13.9	181.5	11.7	247.9	9.1	311.9	7.4	387.7	6.0	311.9	7.4
0.6	13.9	63.6	14.0	105.1	13.8	182.2	11.7	248.6	9.1	313.5	7.4	388.4	6.0	313.5	7.4
1.1	14.0	63.7	14.0	106.2	13.7	183.6	11.6	249.6	9.0	316.0	7.3	390.8	6.0	316.0	7.3
10.0	13.9	63.7	14.2	107.6	13.7	185.1	11.6	251.1	9.0	317.6	7.3	392.4	6.0	317.6	7.3
13.1	14.0	64.0	14.3	109.6	13.6	186.2	11.6	252.5	8.9	320.0	7.3	394.0	5.9	320.0	7.3
16.2	14.0	64.2	14.5	110.8	13.6	187.2	11.6	253.1	8.9	322.5	7.3	396.6	5.9	322.5	7.3
19.3	13.9	64.9	14.7	111.6	13.5	188.2	11.5	254.3	8.8	324.9	7.3	398.7	5.9	324.9	7.3
23.5	13.9	65.0	14.8	112.4	13.5	190.3	11.4	255.9	8.8	327.1	7.3	400.7	5.9	327.1	7.3
26.6	13.9	65.5	15.0	112.9	13.4	192.6	11.4	258.5	8.8	329.0	7.3	402.6	5.9	329.0	7.3
29.0	13.9	65.5	15.1	113.9	13.3	193.9	11.4	260.2	8.8	330.4	7.2	403.9	5.9	330.4	7.2
29.8	14.0	66.0	15.2	114.6	13.2	194.6	11.3	261.1	8.8	332.8	7.2	405.6	5.9	332.8	7.2
30.4	14.1	66.8	15.3	115.8	13.1	195.2	11.2	262.3	8.7	334.3	7.2	407.7	5.9	334.3	7.2
30.7	14.2	67.8	15.4	116.8	13.0	195.8	11.1	263.6	8.7	335.6	7.1	409.1	5.9	335.6	7.1
31.0	14.3	69.6	15.4	117.2	13.0	196.9	11.1	265.5	8.6	337.3	7.1	411.8	5.9	337.3	7.1
31.2	14.4	71.7	15.4	118.1	12.9	197.4	11.0	266.6	8.6	339.3	7.1	414.4	5.9	339.3	7.1
31.7	14.5	72.9	15.4	119.5	12.8	197.5	10.9	267.7	8.5	340.4	7.1	417.2	5.9	340.4	7.1
32.8	14.5	73.6	15.5	121.4	12.8	198.9	10.9	268.9	8.5	340.9	7.1	419.0	5.9	340.9	7.1
34.2	14.5	74.1	15.5	122.9	12.7	200.8	10.9	270.1	8.4	342.2	7.0	420.5	5.9	342.2	7.0
34.5	14.6	74.8	15.6	124.9	12.7	202.1	10.8	271.3	8.4	343.3	7.0	423.3	5.9	343.3	7.0
35.5	14.6	76.0	15.6	126.9	12.6	203.6	10.7	272.4	8.4	345.0	6.9	426.6	5.9	345.0	6.9
35.5	14.5	77.1	15.6	129.3	12.6	204.6	10.7	273.7	8.3	346.1	6.9	428.5	5.9	346.1	6.9
35.6	14.4	78.5	15.7	131.6	12.6	205.2	10.6	274.9	8.2	348.8	6.9	430.5	5.9	348.8	6.9
36.1	14.3	80.5	15.7	133.8	12.6	206.4	10.6	275.4	8.2	349.7	6.9	432.0	5.9	349.7	6.9
36.5	14.2	81.4	15.6	135.2	12.6	207.4	10.5	277.1	8.1	351.0	6.9	434.0	5.9	351.0	6.9
37.2	14.2	82.1	15.6	136.4	12.5	208.6	10.5	278.4	8.1	351.1	6.8	435.8	5.9	351.1	6.8
38.2	14.1	83.1	15.5	137.1	12.5	210.9	10.4	278.8	8.0	352.3	6.8	438.0	5.9	352.3	6.8
38.9	14.1	83.6	15.5	139.5	12.5	212.9	10.4	279.5	7.9	354.2	6.8	439.7	5.8	354.2	6.8
39.7	14.1	83.7	15.4	141.6	12.4	214.6	10.3	280.9	7.9	355.0	6.8	440.7	5.9	355.0	6.8
40.3	14.1	84.5	15.4	143.4	12.4	216.0	10.2	282.4	7.9	356.2	6.7	442.4	5.9	356.2	6.7
40.7	14.1	84.9	15.3	145.7	12.3	217.7	10.2	283.5	7.9	357.2	6.6	444.8	5.9	357.2	6.6
41.7	14.1	85.4	15.2	147.3	12.3	219.8	10.2	285.3	7.9	357.7	6.6	446.4	5.9	357.7	6.6
42.7	14.1	86.1	15.2	150.4	12.3	221.6	10.2	286.2	7.9	358.6	6.5	448.2	5.9	358.6	6.5
43.3	14.1	86.8	15.2	152.9	12.3	223.8	10.2	287.2	7.8	359.7	6.5	449.8	5.9	359.7	6.5
44.1	14.1	87.3	15.2	154.2	12.3	224.8	10.1	287.9	7.8	361.0	6.4	451.2	5.9	361.0	6.4
45.6	14.1	89.1	15.2	154.4	12.2	225.9	10.1	290.2	7.8	362.5	6.4	452.8	5.8	362.5	6.4
47.3	14.1	90.4	15.1	156.2	12.2	227.4	10.0	291.5	7.7	363.6	6.4	453.3	5.8	363.6	6.4
48.8	14.1	92.0	15.1	158.1	12.2	229.5	10.0	293.6	7.7	364.9	6.2	454.2	5.8	364.9	6.2
50.6	14.1	93.1	15.0	158.9	12.1	232.1	10.0	295.1	7.7	365.9	6.2	455.9	5.7	365.9	6.2
51.5	14.1	93.8	14.9	160.9	12.1	233.3	10.0	296.4	7.7	366.8	6.1	457.3	5.7	366.8	6.1
52.4	14.1	94.4	14.7	163.3	12.1	234.1	9.8	297.9	7.7	368.3	6.1	460.2	5.7	368.3	6.1
53.8	14.1	95.1	14.6	164.1	12.0	234.7	9.7	299.3	7.7	370.2	6.1	460.4	5.7	370.2	6.1
55.5	14.1	95.8	14.5	165.2	11.9	235.4	9.5	301.7	7.7	372.3	6.1	462.5	5.7	372.3	6.1
56.2	14.1	96.2	14.4	167.5	11.9	236.9	9.5	303.0	7.7	373.6	6.1			373.6	6.1
56.6	14.0	97.3	14.3	169.6	11.9	237.7	9.4	303.6	7.6	375.7	6.1			375.7	6.1
57.0	13.9	98.2	14.3	171.0	11.9	238.5	9.3	304.9	7.6	377.4	6.1			377.4	6.1
57.2	13.8	98.8	14.2	172.3	11.8	239.5	9.3	306.2	7.6	379.9	6.1			379.9	6.1
57.8	13.7	99.6	14.1	174.1	11.8	241.4	9.3	306.9	7.6	380.8	6.1			380.8	6.1
59.5	13.7	101.0	14.0	175.7	11.8	243.2	9.3	307.6	7.5	382.7	6.0			382.7	6.0
60.4	13.8	102.4	14.0	177.1	11.8	244.7	9.2	308.8	7.5	384.1	6.0			384.1	6.0
62.3	13.8	103.4	13.9	178.9	11.8	246.0	9.2	310.7	7.4	386.0	6.0			386.0	6.0



STA 10 DAY: 12 TIME: 1511

STA 11 DAY: 11 TIME: 1521

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
5.9	11.3	59.5	11.2	102.4	10.1	147.0	12.0	5.5	11.3	65.8	9.9	107.4	10.6	156.7	11.4
7.0	11.3	60.4	11.1	102.7	10.2	147.3	11.8	7.4	11.3	66.1	9.8	107.9	10.6	157.1	11.3
8.0	11.3	61.4	11.1	102.9	10.3	147.6	11.6	9.1	11.3	66.7	9.7	108.4	10.7	157.9	11.2
9.5	11.3	62.2	11.0	103.9	10.3	147.7	11.5	11.2	11.3	68.0	9.6	109.0	10.8	158.3	11.1
11.2	11.3	62.8	10.9	104.8	10.4	148.3	11.4	12.6	11.3	68.8	9.5	110.0	10.9	160.0	11.1
11.5	11.3	63.4	10.8	105.3	10.4	148.5	11.4	14.4	11.3	68.9	9.4	110.2	11.0	161.3	11.1
12.1	11.3	63.5	10.6	107.0	10.4	149.2	11.3	15.7	11.3	70.7	9.4	110.8	11.1	161.8	11.0
12.3	11.5	64.7	10.6	107.4	10.5	149.7	11.1	17.2	11.3	72.0	9.4	111.3	11.1	162.4	11.0
12.6	12.0	65.4	10.5	107.7	10.6	150.8	11.0	19.3	11.3	73.6	9.4	112.3	11.2	163.2	10.9
12.5	12.2	66.5	10.4	108.2	10.7	151.4	10.8	20.2	11.3	74.3	9.4	112.8	11.3	164.2	10.8
13.0	12.2	67.5	10.3	109.1	10.8	153.0	10.8	21.0	11.2	76.0	9.4	113.5	11.4	164.3	10.7
13.3	12.5	68.4	10.2	109.6	10.8	153.9	10.7	21.5	11.2	77.2	9.4	114.8	11.5	165.1	10.6
13.8	13.0	69.0	10.1	110.0	10.9	155.7	10.6	22.9	11.1	78.3	9.3	116.5	11.6	165.9	10.5
13.8	13.5	69.1	10.0	110.5	11.0	157.2	10.6	25.1	11.1	79.3	9.4	118.1	11.7	166.3	10.5
13.6	13.7	69.7	9.9	110.5	11.1	158.8	10.6	26.7	11.1	79.7	9.4	118.2	11.8	168.0	10.5
13.9	13.5	71.0	9.9	110.8	11.2	160.4	10.6	28.5	11.1	80.7	9.5	119.1	11.9	169.9	10.5
14.2	13.0	71.9	9.8	111.1	11.2	162.1	10.6	30.6	11.1	81.3	9.6	120.8	11.9	171.3	10.5
14.3	12.5	73.3	9.8	111.9	11.3	163.7	10.6	32.5	11.1	81.8	9.6	122.2	11.9	172.7	10.5
15.2	12.2	74.6	9.7	112.4	11.3	164.6	10.6	33.7	11.1	82.0	9.7	124.5	12.0	173.3	10.4
15.4	12.1	76.7	9.7	113.7	11.4	166.1	10.6	34.4	11.0	82.3	9.8	125.6	12.0	174.0	10.3
15.6	12.0	77.8	9.8	115.0	11.4	166.9	10.5	35.0	11.0	82.5	9.9	126.5	12.1	175.0	10.3
16.4	11.9	78.7	9.8	115.2	11.4	168.2	10.5	36.5	10.9	82.7	9.9	127.1	12.2	175.9	10.3
17.7	11.9	79.7	9.9	116.2	11.5	170.0	10.4	38.5	10.9	83.4	9.8	127.4	12.4	176.3	10.2
18.8	11.7	80.1	10.0	116.6	11.6	170.9	10.4	39.7	10.9	84.1	9.9	128.0	12.5	176.7	10.1
18.9	11.6	80.4	10.1	116.9	11.6	171.8	10.3	41.3	10.9	84.6	9.9	128.9	12.6	178.4	10.1
20.0	11.6	81.4	10.1	117.9	11.6	172.7	10.2	42.7	11.0	85.8	9.8	131.0	12.7	179.6	10.1
20.8	11.6	82.0	10.1	118.9	11.6	173.3	10.1	44.6	10.9	86.6	9.8	133.5	12.7	180.6	10.1
21.5	11.5	82.7	10.2	120.2	11.8	175.1	10.1	46.3	10.9	87.4	9.8	135.2	12.7	181.2	10.1
22.5	11.5	83.1	10.2	120.9	11.9	176.3	10.0	47.5	10.9	88.2	9.9	137.3	12.7	181.5	10.0
24.2	11.4	83.6	10.2	121.4	12.0	176.9	10.0	48.5	10.9	89.3	9.9	138.7	12.7	182.0	9.9
26.0	11.4	84.1	10.1	121.8	12.1	179.7	10.0	49.9	10.9	90.1	9.9	139.3	12.6	183.0	9.9
29.0	11.4	85.3	10.1	123.9	12.1	182.5	10.0	50.8	10.9	90.3	9.8	140.1	12.5	183.6	9.9
30.3	11.4	85.7	10.2	125.0	12.2	184.5	9.9	52.1	10.8	91.3	9.8	140.6	12.5	184.6	9.8
32.2	11.4	86.4	10.2	126.0	12.3	188.2	9.9	53.7	10.8	91.7	9.8	141.7	12.4	184.9	9.7
35.9	11.4	87.2	10.2	126.9	12.4	189.1	9.8	55.4	10.8	92.9	9.7	142.4	12.4	185.5	9.6
37.9	11.4	88.1	10.2	128.5	12.4	190.9	9.7	57.1	10.8	93.8	9.8	143.8	12.4	185.9	9.5
40.1	11.3	89.4	10.3	130.0	12.5	191.3	9.6	58.2	10.8	95.4	9.8	144.6	12.3	186.3	9.5
41.1	11.3	90.8	10.3	131.6	12.6	192.1	9.5	59.1	10.8	97.6	9.8	145.3	12.2	186.8	9.4
42.9	11.3	92.1	10.3	133.6	12.5	192.3	9.4	59.8	10.7	99.4	9.8	146.0	12.1	187.2	9.2
45.0	11.3	92.7	10.2	136.7	12.6	193.1	9.4	60.0	10.6	100.6	9.8	146.4	12.0	188.5	9.1
46.5	11.3	93.7	10.2	138.5	12.6	193.8	9.3	60.7	10.5	101.2	9.8	147.2	12.0	189.9	9.1
47.2	11.2	95.1	10.2	140.3	12.7	194.2	9.3	61.9	10.5	101.6	9.9	147.7	11.9	191.3	9.1
48.5	11.2	96.0	10.2	141.8	12.7	195.6	9.2	62.5	10.5	102.9	9.9	148.9	11.8	192.6	9.1
50.1	11.1	96.7	10.2	142.6	12.8	196.6	9.1	62.8	10.4	104.0	10.0	150.6	11.8	194.1	9.0
52.2	11.1	97.2	10.1	143.8	12.8	199.1	9.1	63.2	10.3	104.3	10.1	151.3	11.8	194.9	8.9
53.4	11.1	98.1	10.1	144.1	12.7	200.8	9.1	63.4	10.3	104.7	10.2	152.0	11.7	195.7	8.9
55.0	11.1	98.8	10.1	145.0	12.7	202.0	9.1	64.2	10.2	105.3	10.3	152.9	11.6	197.0	8.8
56.3	11.1	98.9	10.0	145.9	12.6	202.9	9.1	64.9	10.1	105.7	10.4	153.9	11.5	197.8	8.8
58.0	11.1	99.8	10.0	146.0	12.5	203.8	9.1	65.2	10.1	106.5	10.4	154.8	11.4	198.7	8.7
58.2	11.2	101.3	10.0	146.7	12.2	204.0	9.0	65.5	10.0	107.0	10.5	155.6	11.4	199.6	8.7



STA 12				DAY: 12				TIME: 1548				STA 13				DAY: 12				TIME: 1602			
DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.5	16.6	57.9	10.3	104.4	10.7	146.4	12.2	185.7	9.7	0.3	11.4	48.7	11.1	98.6	10.4	140.3	12.9	183.1	11.0				
0.4	16.5	58.3	10.2	105.2	10.7	146.7	12.1	187.0	9.6	0.4	11.3	50.8	11.1	99.0	10.5	141.5	12.9	184.1	11.0				
0.8	16.0	58.7	10.1	107.2	10.8	147.0	12.0	188.1	9.6	1.4	11.3	51.5	11.0	100.5	10.6	142.6	12.9	184.4	10.9				
0.7	15.5	60.3	10.1	108.9	10.9	147.6	11.9	188.9	9.6	3.3	11.3	52.5	11.0	100.8	10.8	143.8	12.9	184.8	10.9				
0.8	15.0	60.8	10.0	109.7	11.0	148.4	11.9	189.9	9.5	4.0	11.3	53.0	10.9	101.0	10.8	144.4	12.8	185.3	10.8				
0.9	14.5	61.3	9.9	111.0	11.1	149.3	11.9	190.5	9.5	4.0	11.4	53.5	10.8	102.1	10.8	145.1	12.7	186.2	10.8				
1.0	14.0	61.7	9.8	111.3	11.1	150.7	11.9	191.6	9.4	5.1	11.4	54.1	10.8	102.5	10.9	146.0	12.7	187.2	10.8				
1.2	13.5	62.3	9.8	112.6	11.1	152.6	11.8	193.0	9.4	5.4	11.5	54.7	10.6	102.6	11.0	146.6	12.6	188.1	10.8				
1.0	13.0	62.7	9.7	113.2	11.3	154.2	11.8	193.8	9.4	6.5	11.5	55.1	10.5	103.1	11.1	147.3	12.5	188.9	10.7				
1.3	12.5	63.2	9.6	113.8	11.4	155.2	11.8	194.7	9.2	7.3	11.6	55.5	10.4	104.0	11.1	148.3	12.5	189.3	10.6				
1.0	12.0	64.3	9.6	114.1	11.5	155.6	11.7	195.4	9.1	7.6	11.7	56.3	10.4	105.1	11.1	149.1	12.4	190.7	10.6				
1.5	11.5	65.4	9.6	114.2	11.6	156.4	11.6	196.4	9.0	7.8	11.8	56.8	10.3	105.8	11.2	149.7	12.4	191.8	10.6				
1.7	11.3	65.9	9.6	114.9	11.6	157.2	11.6	197.5	8.9	7.7	11.8	57.3	10.3	105.8	11.3	150.9	12.3	192.8	10.6				
3.4	11.3	66.6	9.5	115.3	11.7	157.9	11.6	198.6	8.9	8.3	11.8	58.0	10.2	107.0	11.3	151.9	12.3	194.1	10.6				
4.9	11.3	67.9	9.4	116.3	11.7	158.1	11.5	199.8	8.8	8.6	11.7	58.1	10.1	108.1	11.3	152.6	12.2	195.0	10.6				
7.0	11.2	69.4	9.4	116.9	11.8	159.0	11.4	200.6	8.8	8.9	11.6	58.9	10.1	109.4	11.3	153.4	12.1	195.3	10.5				
8.7	11.2	71.6	9.4	117.8	11.8	159.8	11.4	202.6	8.7	9.7	11.7	59.1	10.0	110.3	11.4	154.1	12.1	195.6	10.5				
9.8	11.2	72.9	9.4	118.9	11.8	160.2	11.3	204.3	8.7	10.0	11.7	60.8	9.9	111.6	11.3	155.9	12.1	196.4	10.4				
10.9	11.2	73.7	9.4	119.8	11.9	161.0	11.3	206.0	8.6	10.2	11.9	61.3	9.8	112.5	11.4	157.4	12.1	196.8	10.4				
11.6	11.3	74.6	9.4	120.5	11.9	162.1	11.2	207.6	8.5	10.5	11.9	62.3	9.7	113.0	11.4	158.5	12.1	197.8	10.3				
13.5	11.3	75.8	9.4	120.6	12.0	162.5	11.2	208.9	8.5	10.8	12.0	63.3	9.7	114.7	11.5	159.5	12.0	198.9	10.2				
14.8	11.2	77.2	9.4	122.9	12.0	162.9	11.1	210.8	8.4	11.2	12.0	64.0	9.6	115.5	11.5	160.9	12.0	199.1	10.1				
16.5	11.2	77.8	9.4	124.2	12.0	163.8	11.1	213.3	8.4	11.6	11.9	65.4	9.6	116.1	11.6	161.8	12.0	200.0	10.1				
18.0	11.2	78.2	9.5	125.8	12.0	164.5	11.0	215.6	8.4	12.2	11.8	66.6	9.6	116.7	11.7	162.4	12.0	201.0	10.0				
19.4	11.1	78.8	9.6	126.3	12.0	165.2	11.0	217.5	8.4	13.8	11.8	68.0	9.6	117.5	11.7	162.8	11.9	202.2	10.0				
21.6	11.1	79.3	9.7	128.0	12.1	167.1	11.0	220.6	8.4	14.4	11.8	69.4	9.6	118.2	11.8	163.1	11.9	204.0	10.0				
24.1	11.1	80.5	9.8	128.9	12.1	168.0	10.9	222.5	8.4	14.8	11.7	70.8	9.6	119.4	11.9	164.7	11.9	205.6	9.9				
25.9	11.1	81.5	9.8	129.1	12.3	168.6	10.8	224.5	8.4	15.3	11.7	72.5	9.6	119.9	11.9	166.1	11.9	207.4	9.9				
27.9	11.1	83.0	9.8	129.4	12.4	169.1	10.8	226.8	8.4	15.8	11.6	74.1	9.6	120.3	12.0	167.5	11.9	208.8	9.9				
30.7	11.1	83.5	9.8	129.6	12.5	169.5	10.7	228.7	8.4	16.5	11.6	75.4	9.6	121.3	12.0	169.0	11.9	210.0	9.9				
31.2	11.1	84.2	9.7	129.8	12.5	170.1	10.6	230.7	8.4	16.9	11.5	76.6	9.6	122.2	12.0	170.5	11.9	211.2	9.9				
31.9	11.1	84.8	9.7	130.3	12.6	171.0	10.6	232.1	8.4	18.4	11.5	78.1	9.6	122.7	12.1	171.7	11.9	213.0	9.9				
33.2	11.0	85.3	9.6	131.2	12.6	171.4	10.5	233.7	8.4	19.1	11.4	79.4	9.6	123.2	12.1	172.7	11.9	214.3	9.9				
34.0	11.0	86.4	9.7	131.6	12.7	171.5	10.4	235.1	8.4	20.0	11.4	80.9	9.6	124.7	12.2	173.2	11.8	216.0	9.9				
33.7	11.0	87.3	9.7	133.1	12.7	172.1	10.4	236.9	8.4	21.7	11.4	82.6	9.6	125.3	12.3	173.2	11.7	217.3	9.8				
38.0	11.0	87.5	9.7	134.5	12.7	173.4	10.4	238.1	8.3	23.0	11.3	83.4	9.6	125.8	12.3	173.7	11.6	218.2	9.8				
39.9	11.0	87.9	9.7	135.8	12.7	175.0	10.4	239.1	8.3	25.0	11.3	83.8	9.7	126.8	12.4	174.1	11.6	219.8	9.7				
41.6	11.0	88.7	9.8	137.3	12.7	175.8	10.3	240.1	8.3	26.3	11.3	84.2	9.8	127.3	12.4	174.2	11.5	220.3	9.6				
43.9	11.0	90.3	9.8	138.2	12.7	176.2	10.2	241.6	8.3	27.5	11.3	85.0	9.9	127.4	12.5	174.5	11.5	222.6	9.6				
46.1	11.0	91.8	9.8	138.6	12.6	176.6	10.1	243.2	8.2	30.3	11.3	85.5	9.9	128.6	12.5	175.1	11.4	224.7	9.6				
48.4	11.0	93.5	9.8	139.3	12.6	177.7	10.1	244.9	8.2	31.7	11.3	87.3	9.9	130.3	12.5	175.1	11.3	226.1	9.6				
49.9	11.0	95.5	9.8	139.9	12.6	178.0	10.1	247.4	8.2	33.0	11.3	88.8	10.0	131.9	12.6	175.8	11.3	226.2	9.6				
51.2	11.0	97.7	9.8	140.8	12.5	178.1	10.0	248.8	8.2	33.8	11.2	90.1	10.0	133.6	12.6	176.2	11.3	228.5	9.6				
52.3	10.9	98.1	9.9	142.0	12.5	178.6	9.9	250.6	8.2	35.8	11.2	91.3	10.1	134.9	12.6	177.1	11.2	228.7	9.5				
53.2	10.8	99.1	10.1	143.3	12.5	179.7	9.9	252.8	8.2	37.5	11.2	92.9	10.1	135.3	12.6	178.2	11.2	228.7	9.4				
54.4	10.7	99.8	10.3	144.5	12.5	180.9	9.9	254.3	8.2	39.0	11.2	94.3	10.1	136.9	12.7	179.0	11.1	229.6	9.4				
55.3	10.6	100.9	10.3	144.7	12.4	182.0	9.8	256.2	8.2	40.8	11.2	95.9	10.1	136.9	12.7	179.9	11.1	230.0	9.3				
56.0	10.5	101.6	10.4	145.4	12.4	182.5	9.8	257.6	8.2	42.9	11.2	96.4	10.2	137.7	12.7	180.2	11.1	230.3	9.2				
56.5	10.4	102.3	10.5	145.9	12.3	183.8	9.8	259.3	8.2	45.1	11.2	98.2	10.3	138.6	12.8	180.8	11.1	232.4	9.2				
57.2	10.4	103.1	10.6	146.2	12.2	185.4	9.7	261.2	8.2	47.4	11.2	98.2	10.4	139.1	12.8	181.9	11.0	234.3	9.2				

STA 13 DAY: 12 TIME: 1602

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
236.1	9.2	305.8	7.8
237.9	9.2	306.6	7.8
238.8	9.2	308.7	7.8
239.8	9.1	309.9	7.8
241.0	9.1	311.2	7.7
242.9	9.1	313.8	7.7
244.3	9.1	315.6	7.7
245.8	9.1	317.9	7.7
247.3	9.1	319.5	7.7
247.8	9.1	320.4	7.7
248.9	9.0	322.0	7.7
249.3	9.0	323.7	7.6
249.9	8.9	324.6	7.6
251.3	8.9	324.8	7.4
253.7	8.8	326.2	7.4
255.1	8.8	328.2	7.4
256.7	8.8	330.5	7.4
257.8	8.8	332.4	7.4
259.5	8.7	334.9	7.4
261.0	8.7	336.7	7.3
262.3	8.7	338.9	7.3
263.4	8.7	340.7	7.3
264.9	8.7	341.1	7.2
265.3	8.6	342.2	7.2
266.4	8.6	342.6	7.2
267.9	8.5		
269.1	8.5		
270.7	8.5		
271.8	8.4		
273.1	8.4		
273.9	8.3		
275.1	8.1		
276.1	8.1		
276.8	8.0		
279.5	8.0		
282.1	8.0		
284.0	8.0		
287.1	8.0		
289.0	8.0		
290.2	8.0		
291.6	8.0		
294.0	8.0		
294.6	7.9		
295.4	7.9		
296.2	7.8		
297.3	7.8		
299.4	7.8		
301.1	7.8		
302.2	7.8		
304.0	7.8		

STA 14 DAY: 12 TIME: 1612

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.5	11.5	58.0	13.3	102.7	10.7	142.0	12.5	189.2	11.3
0.9	11.3	58.3	13.2	104.2	10.8	143.8	12.5	191.0	11.3
1.5	11.3	58.3	13.1	105.2	10.8	145.6	12.5	192.6	11.2
4.4	11.3	59.0	13.1	106.0	10.9	146.8	12.5	194.2	11.2
6.8	11.3	59.3	13.1	106.6	11.0	148.2	12.5	195.9	11.2
8.9	11.3	59.5	13.0	107.5	11.1	149.5	12.5	197.3	11.2
11.7	11.3	60.1	13.0	108.5	11.1	151.2	12.5	198.3	11.2
14.1	11.3	60.7	12.9	109.7	11.2	152.6	12.5	200.1	11.1
16.6	11.3	61.1	12.9	110.5	11.2	153.8	12.5	200.8	11.1
18.5	11.3	61.5	12.8	110.9	11.3	154.2	12.4	201.6	11.1
20.9	11.3	62.2	12.8	111.4	11.4	154.4	12.3	203.0	11.1
23.5	11.3	62.5	12.7	111.8	11.5	154.7	12.3	204.5	11.1
26.2	11.3	62.7	12.6	112.0	11.6	155.4	12.3	205.2	11.0
28.5	11.2	63.6	12.6	113.7	11.6	156.2	12.2	205.6	10.9
29.4	11.2	64.6	12.5	114.4	11.6	157.2	12.1	206.1	10.9
30.4	11.2	65.9	12.5	115.7	11.8	158.0	12.1	207.3	10.9
32.4	11.2	67.8	12.4	116.8	11.8	158.4	12.1	207.9	10.8
34.3	11.1	68.7	12.4	117.8	11.9	158.8	12.0	208.6	10.8
36.3	11.1	70.0	12.4	118.8	11.9	159.7	12.0	209.4	10.7
37.3	11.1	71.3	12.3	119.7	11.9	160.8	11.9	211.2	10.7
39.5	11.1	73.0	12.3	121.2	12.0	162.1	11.9	212.5	10.7
40.7	11.1	74.7	12.3	122.1	12.1	163.2	11.9	213.9	10.7
41.8	11.0	74.8	12.1	123.2	12.2	164.6	11.9	215.0	10.6
42.7	11.0	75.2	12.0	124.0	12.2	165.2	11.9	215.9	10.6
43.3	11.0	75.4	11.8	124.7	12.3	165.9	11.8	217.2	10.6
44.4	11.0	75.8	11.6	125.1	12.4	166.7	11.8	218.3	10.6
45.7	11.0	76.1	11.5	126.2	12.5	167.9	11.8	219.6	10.6
46.1	11.1	76.3	11.4	128.1	12.6	168.9	11.8	220.8	10.6
46.7	11.1	77.1	11.3	129.4	12.6	169.8	11.8	221.6	10.5
47.5	11.2	77.4	11.2	129.9	12.7	170.2	11.7	221.9	10.5
47.8	11.3	77.9	11.0	130.3	12.7	170.6	11.6	222.5	10.4
48.0	11.4	78.5	10.8	132.1	12.8	171.0	11.6	223.6	10.4
48.3	11.5	78.7	10.6	132.4	12.8	171.3	11.6	224.3	10.3
48.7	11.5	78.7	10.5	133.0	12.9	172.3	11.6	224.6	10.2
49.0	11.6	79.1	10.4	133.5	13.0	173.6	11.6	225.3	10.1
49.4	11.8	80.1	10.4	134.1	13.0	174.8	11.6	225.8	10.1
49.9	12.0	81.6	10.4	134.5	13.0	175.3	11.5	226.1	10.0
50.1	12.2	83.8	10.4	134.9	12.9	175.9	11.5	226.7	9.8
50.3	12.4	85.1	10.3	135.4	12.9	176.7	11.5	227.1	9.7
50.2	12.6	86.9	10.3	135.6	12.9	178.2	11.5	228.5	9.7
50.5	12.8	89.1	10.3	135.7	12.9	179.1	11.5	228.9	9.6
50.9	13.0	91.1	10.3	136.2	12.9	179.9	11.5	228.9	9.5
51.1	13.2	93.1	10.3	136.7	12.8	180.7	11.5	230.0	9.5
51.7	13.4	95.5	10.3	137.3	12.8	181.1	11.4	230.6	9.4
52.6	13.4	97.3	10.3	138.2	12.7	182.9	11.4	232.1	9.3
53.8	13.4	97.7	10.4	138.9	12.7	184.8	11.4	234.0	9.3
54.2	13.4	99.3	10.4	139.5	12.6	186.1	11.4	235.2	9.3
54.6	13.3	100.4	10.5	140.3	12.6	187.5	11.4	237.0	9.2
56.0	13.3	100.8	10.6	140.8	12.6	188.1	11.4	238.3	9.2
57.3	13.3	101.2	10.7	141.4	12.5	188.6	11.3	239.1	9.1

STA 14 DAY: 12 TIME: 1612

STA 15 DAY: 12 TIME: 1630

DEPTH (m)	TEMP (°C)
239.9	9.1
240.8	9.0
241.8	9.0
242.4	9.0
242.6	8.9
243.2	8.9
244.3	8.8
245.3	8.7
246.4	8.7
247.7	8.7
249.3	8.6
250.9	8.6
251.7	8.6
252.6	8.6
254.1	8.5
255.2	8.5
257.1	8.5
258.5	8.4
259.3	8.4
260.7	8.4
262.2	8.4
264.0	8.4
265.6	8.4
266.2	8.3
267.9	8.3
269.1	8.3
271.0	8.3
273.3	8.3
275.2	8.3
277.0	8.3
278.5	8.3
279.6	8.3
280.4	8.3
281.4	8.2
282.0	8.1
282.5	8.1
283.3	8.0
284.9	8.0
286.4	7.9
287.4	7.9
288.3	7.9
289.0	7.8
289.4	7.8

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.0	12.0	41.1	12.0	56.1	10.3	72.1	13.0	97.0	14.3		
0.3	11.8	41.8	12.1	56.9	10.3	72.4	13.0	98.4	14.3		
0.7	11.6	41.9	12.2	57.9	10.3	72.7	13.1	99.2	14.2		
1.1	11.6	42.3	12.3	58.8	10.4	72.9	13.1	100.0	14.2		
1.5	11.5	42.5	12.4	59.1	10.4	73.3	13.1	100.7	14.3		
1.8	11.5	42.7	12.5	59.8	10.4	73.5	13.1	101.6	14.2		
3.6	11.5	42.7	12.6	60.3	10.5	73.6	13.0	102.0	14.2		
5.2	11.5	42.9	12.6	60.8	10.5	73.6	13.0	102.7	14.2		
6.0	11.5	43.4	12.6	61.6	10.6	74.2	12.9	103.4	14.2		
6.1	11.5	44.3	12.6	62.2	10.6	74.6	12.8	104.4	14.2		
6.3	11.6	44.5	12.5	62.6	10.7	74.8	12.8	104.9	14.2		
7.6	11.6	44.7	12.5	63.1	10.7	75.1	12.7	105.5	14.2		
8.7	11.6	45.0	12.5	63.6	10.8	75.3	12.6	106.0	14.2		
9.9	11.6	45.3	12.4	63.8	10.9	75.3	12.6	106.4	14.1		
10.2	11.5	45.6	12.3	64.6	11.0	75.4	12.5	106.8	14.0		
10.9	11.5	45.9	12.2	65.2	11.1	75.6	12.5	106.9	13.9		
12.1	11.5	46.3	12.2	65.5	11.1	75.8	12.5	107.2	13.9		
13.4	11.5	46.8	12.1	65.6	11.3	76.7	12.5	107.3	13.8		
14.6	11.5	47.4	12.1	65.9	11.4	76.7	12.5	107.7	13.8		
16.2	11.5	47.8	12.1	66.1	11.5	77.2	12.6	108.0	13.7		
17.6	11.5	47.9	12.0	66.2	11.6	77.8	12.7	108.7	13.7		
19.1	11.5	48.0	12.0	66.7	11.7	78.1	12.7	109.3	13.7		
21.1	11.5	48.6	11.9	66.6	11.8	78.6	12.8	110.3	13.7		
22.4	11.5	48.7	11.9	66.9	11.9	79.3	12.9	111.1	13.7		
22.9	11.4	48.7	11.8	66.9	11.9	79.4	12.9	111.4	13.6		
23.9	11.4	49.0	11.8	67.0	12.0	79.6	13.0	111.7	13.6		
25.0	11.4	49.4	11.7	67.1	12.1	79.8	13.0	112.3	13.5		
26.2	11.3	49.7	11.6	67.6	12.2	80.4	13.2	113.0	13.5		
27.4	11.3	50.0	11.6	67.7	12.4	81.4	13.2	113.5	13.5		
28.6	11.3	50.1	11.5	67.7	12.5	82.3	13.2	114.0	13.4		
29.2	11.3	50.3	11.5	67.6	12.6	82.7	13.4	114.4	13.4		
30.0	11.3	50.5	11.4	67.7	12.7	83.3	13.5	115.1	13.4		
30.6	11.2	50.5	11.3	68.1	12.8	83.4	13.6	115.8	13.4		
31.4	11.1	50.7	11.3	68.3	12.8	83.8	13.7	116.6	13.4		
32.8	11.1	51.3	11.2	68.5	12.9	84.3	13.7	117.2	13.4		
34.1	11.1	51.5	11.1	68.8	13.1	85.0	13.7	117.8	13.4		
35.1	11.1	51.8	11.1	69.1	13.1	86.5	13.7	118.7	13.4		
35.9	11.1	52.0	11.1	69.0	13.2	87.2	13.7	119.7	13.4		
36.3	11.1	52.2	11.0	69.1	13.3	88.3	13.6	120.8	13.4		
36.8	11.2	52.6	10.9	69.3	13.3	88.9	13.6	121.8	13.3		
37.1	11.2	52.9	10.9	69.8	13.3	89.8	13.6	122.7	13.3		
37.9	11.3	53.0	10.8	70.2	13.4	90.8	13.6	123.4	13.4		
38.3	11.3	53.1	10.7	70.5	13.4	91.4	13.7	123.8	13.3		
38.6	11.4	53.4	10.6	70.8	13.4	91.8	13.8	124.7	13.3		
39.2	11.4	53.8	10.5	70.9	13.3	92.3	14.0	126.0	13.3		
39.3	11.5	54.1	10.5	71.1	13.3	92.5	14.0	126.4	13.3		
39.6	11.6	54.5	10.4	71.3	13.2	93.0	14.1	127.7	13.2		
40.2	11.7	55.0	10.4	71.4	13.1	93.3	14.2	129.1	13.2		
40.6	11.8	55.6	10.4	71.7	13.1	94.5	14.2	130.5	13.2		
40.9	11.9	55.9	10.3	71.8	13.1	95.8	14.3	131.4	13.2		

STA 15					DAY: 12					TIME: 1630				
DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH
(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)
132.4	13.1	181.6	11.9	226.3	10.5	254.6	8.8	304.0	7.8	368.9	7.4	435.0	6.9	516.4
133.4	13.1	182.4	11.9	227.3	10.4	256.2	8.8	305.0	7.8	370.2	7.4	436.9	6.9	518.7
134.7	13.1	182.7	11.9	227.9	10.4	257.2	8.8	306.1	7.8	371.4	7.4	438.5	6.9	519.9
135.5	13.1	183.7	11.8	228.3	10.4	258.9	8.7	307.6	7.8	371.7	7.4	439.2	6.9	520.9
136.1	13.1	184.9	11.8	228.6	10.4	260.4	8.7	307.9	7.7	371.9	7.4	439.6	6.9	521.5
136.9	13.1	186.2	11.8	228.6	10.3	261.2	8.7	309.1	7.7	373.1	7.4	440.5	6.9	523.2
137.5	13.1	187.2	11.8	228.6	10.2	262.2	8.7	310.0	7.7	374.1	7.4	441.8	6.8	524.9
138.3	13.1	188.3	11.8	229.7	10.2	263.7	8.7	310.9	7.8	375.1	7.3	442.9	6.8	526.9
139.1	13.0	190.2	11.8	230.4	10.2	265.0	8.7	311.7	7.8	376.7	7.3	444.5	6.8	529.0
139.8	13.0	192.0	11.8	230.5	10.2	266.3	8.7	312.4	7.7	378.1	7.3	445.3	6.8	531.3
140.9	13.0	193.9	11.8	230.7	10.1	267.7	8.7	312.9	7.7	379.2	7.3	445.9	6.8	532.7
142.3	12.9	195.3	11.8	230.9	10.1	268.7	8.7	313.3	7.7	380.6	7.3	446.9	6.8	534.8
144.4	12.9	196.4	11.8	231.2	10.1	269.3	8.6	314.5	7.7	382.0	7.3	448.0	6.8	536.0
145.5	12.9	197.5	11.8	231.4	10.0	270.2	8.6	315.9	7.7	383.3	7.3	449.5	6.8	537.7
146.4	12.9	198.3	11.7	231.7	9.9	270.9	8.5	317.4	7.7	383.8	7.2	450.0	6.8	538.7
147.5	12.9	199.1	11.6	232.0	9.9	272.3	8.5	319.1	7.7	385.7	7.2	451.6	6.8	538.8
148.7	12.9	200.8	11.6	232.1	9.8	273.7	8.5	320.9	7.7	387.2	7.2	453.6	6.8	
149.8	12.8	201.2	11.5	232.0	9.7	275.1	8.4	322.2	7.6	388.9	7.2	454.9	6.8	
150.8	12.7	201.7	11.5	232.1	9.6	276.4	8.4	324.4	7.7	390.1	7.2	457.6	6.8	
152.3	12.7	203.1	11.5	232.3	9.6	276.9	8.4	325.8	7.7	391.0	7.2	459.5	6.8	
153.9	12.7	204.2	11.5	232.4	9.5	277.9	8.4	327.7	7.6	391.7	7.1	461.4	6.8	
155.1	12.7	205.4	11.5	232.6	9.4	279.2	8.3	329.2	7.7	392.7	7.1	462.8	6.8	
156.4	12.7	206.3	11.4	232.8	9.3	280.7	8.3	330.5	7.6	394.2	7.1	464.1	6.7	
157.1	12.7	206.8	11.4	233.1	9.2	281.6	8.3	332.1	7.6	395.3	7.1	464.8	6.7	
157.9	12.6	207.4	11.3	233.1	9.2	282.4	8.3	333.9	7.6	396.7	7.1	466.0	6.7	
158.5	12.6	208.4	11.3	233.5	9.1	283.2	8.3	335.4	7.6	397.6	7.1	468.7	6.7	
158.9	12.6	209.5	11.3	233.8	9.1	284.1	8.2	336.5	7.6	398.7	7.1	470.1	6.7	
160.1	12.6	210.4	11.3	234.8	9.1	284.6	8.2	337.5	7.6	400.6	7.1	472.7	6.7	
161.8	12.6	211.6	11.3	235.7	9.1	285.4	8.2	340.0	7.6	402.5	7.1	475.5	6.7	
162.9	12.6	212.4	11.3	236.3	9.1	286.0	8.2	341.6	7.6	404.0	7.1	477.5	6.7	
163.6	12.5	212.6	11.2	236.7	9.0	286.6	8.1	342.8	7.6	405.2	7.1	479.4	6.7	
165.0	12.5	213.4	11.1	237.4	9.0	286.8	8.1	344.3	7.6	406.1	7.1	481.2	6.7	
166.2	12.5	214.2	11.1	238.1	9.0	287.0	8.1	344.9	7.6	406.8	7.0	483.2	6.6	
166.9	12.4	215.5	11.1	239.4	9.0	288.0	8.0	345.8	7.6	408.9	7.0	485.6	6.6	
167.5	12.4	216.6	11.1	240.4	9.0	288.9	7.9	346.4	7.5	410.6	7.0	488.1	6.6	
168.3	12.3	218.0	11.1	241.3	9.0	289.8	7.9	347.7	7.5	412.3	7.0	490.3	6.6	
169.3	12.3	219.1	11.1	242.5	9.0	290.9	7.9	348.2	7.5	414.0	7.0	492.6	6.6	
170.1	12.2	219.9	11.1	242.8	9.0	291.9	7.9	349.0	7.5	415.7	7.0	495.2	6.6	
170.9	12.2	220.2	11.0	243.1	9.0	292.9	7.9	351.1	7.5	417.0	7.0	497.0	6.6	
172.0	12.2	221.1	10.9	243.7	8.9	293.7	7.9	352.5	7.5	418.4	7.0	498.6	6.6	
173.3	12.1	221.5	10.9	244.1	8.9	294.7	7.9	353.9	7.4	419.8	7.0	499.5	6.6	
174.1	12.1	222.0	10.8	244.9	8.9	295.5	7.8	355.4	7.4	421.0	7.0	500.5	6.5	
175.0	12.1	222.5	10.8	246.2	8.9	296.0	7.8	357.0	7.4	423.0	7.0	501.8	6.5	
175.1	12.1	222.8	10.8	247.7	8.9	297.2	7.8	358.1	7.5	424.9	7.0	503.2	6.5	
176.0	12.0	223.5	10.7	249.2	8.8	298.1	7.8	360.2	7.4	426.8	7.0	504.5	6.5	
176.7	12.0	223.7	10.7	250.7	8.8	298.9	7.8	361.8	7.4	428.3	7.0	506.2	6.5	
177.4	12.0	223.9	10.6	251.9	8.8	299.9	7.8	363.6	7.4	429.6	7.0	508.4	6.4	
178.8	12.0	224.3	10.6	253.1	8.8	300.9	7.8	365.4	7.4	431.2	7.0	510.0	6.4	
179.9	12.0	224.8	10.5	253.7	8.8	301.9	7.8	366.6	7.4	432.5	6.9	512.2	6.5	
181.0	11.9	225.6	10.5	254.1	8.8	302.9	7.8	367.0	7.4	434.0	7.0	514.4	6.4	

STA 16 DAY: 12 TIME: 1703

STA 16 DAY: 12 TIME: 1703

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.1	13.0	23.0	14.1	39.6	16.3	51.6	17.3	70.1	15.3	88.1	14.6	90.1	14.2
0.0	12.9	23.0	14.2	39.5	16.2	52.1	17.3	70.3	15.2	88.1	14.6	90.1	14.2
0.6	12.8	23.1	14.3	39.4	16.1	52.4	17.2	70.5	15.1	88.5	14.6	90.1	14.2
0.9	12.7	23.1	14.4	39.6	16.0	52.9	17.2	70.6	15.1	88.6	14.6	90.1	14.2
2.5	12.7	23.2	14.5	39.5	15.9	53.4	17.1	71.1	15.0	88.7	14.5	90.1	14.2
3.7	12.7	23.3	14.6	39.8	15.8	53.8	17.1	71.2	15.0	88.8	14.4	90.1	14.2
4.8	12.6	23.4	14.8	39.7	15.7	54.1	17.1	71.6	14.9	89.1	14.4	90.1	14.2
6.4	12.7	23.4	14.8	39.8	15.6	54.3	17.0	71.9	14.9	89.3	14.3	90.1	14.2
8.0	12.7	23.5	15.0	40.0	15.6	54.5	16.9	72.2	14.8	89.5	14.3	90.1	14.2
9.2	12.7	23.7	15.0	40.0	15.4	54.9	16.9	72.6	14.8	89.6	14.2	90.1	14.2
9.9	12.7	23.7	15.1	40.4	15.3	55.0	16.8	73.1	14.8	89.7	14.2	90.1	14.2
9.9	12.7	23.7	15.2	40.6	15.2	55.0	16.8	74.0	14.7	89.8	14.2	90.1	14.2
10.0	12.8	23.8	15.4	40.8	15.1	55.8	16.8	74.5	14.6	89.8	14.2	90.1	14.2
10.7	12.8	24.2	15.5	41.1	15.0	56.6	16.8	75.1	14.6	89.8	14.2	90.1	14.2
11.2	12.9	24.1	15.6	41.4	14.9	56.6	16.8	75.4	14.5	89.8	14.2	90.1	14.2
11.7	12.9	24.6	15.8	41.8	14.8	56.8	16.9	76.0	14.4	89.8	14.2	90.1	14.2
12.4	13.0	24.7	15.9	42.3	14.8	57.0	16.9	76.5	14.4	89.8	14.2	90.1	14.2
12.7	13.0	24.9	16.0	43.0	14.7	57.5	16.9	76.8	14.3	89.8	14.2	90.1	14.2
13.1	13.0	25.0	16.1	43.3	14.8	57.6	16.8	77.1	14.2	89.8	14.2	90.1	14.2
13.1	13.2	25.2	16.2	43.7	14.8	57.7	16.8	77.3	14.1	89.8	14.2	90.1	14.2
13.1	13.3	25.5	16.3	44.0	14.9	58.1	16.8	77.7	14.1	89.8	14.2	90.1	14.2
13.2	13.3	25.7	16.4	44.2	14.9	58.6	16.7	77.8	14.0	89.8	14.2	90.1	14.2
13.5	13.4	25.9	16.5	44.5	15.1	58.8	16.7	78.3	14.0	89.8	14.2	90.1	14.2
13.4	13.5	26.0	16.6	44.9	15.1	58.8	16.6	78.4	13.9	89.8	14.2	90.1	14.2
14.1	13.5	26.2	16.7	45.3	15.2	59.0	16.6	78.7	13.9	89.8	14.2	90.1	14.2
14.9	13.5	27.0	16.8	45.3	15.3	59.3	16.5	79.4	13.9	89.8	14.2	90.1	14.2
15.3	13.5	27.3	16.9	45.4	15.4	59.3	16.5	80.7	13.9	89.8	14.2	90.1	14.2
15.5	13.4	27.8	17.0	45.8	15.6	59.4	16.4	80.9	13.9	89.8	14.2	90.1	14.2
15.6	13.4	28.4	17.0	46.0	15.6	59.7	16.3	81.5	13.9	89.8	14.2	90.1	14.2
15.8	13.4	28.8	17.2	46.2	15.8	59.8	16.2	81.8	13.8	89.8	14.2	90.1	14.2
16.3	13.4	29.3	17.2	46.6	15.8	59.9	16.2	82.3	13.8	89.8	14.2	90.1	14.2
17.1	13.3	30.1	17.3	46.4	15.9	59.9	16.1	83.0	13.7	89.8	14.2	90.1	14.2
17.4	13.3	30.9	17.2	46.7	16.1	59.8	16.0	83.7	13.7	89.8	14.2	90.1	14.2
17.8	13.3	32.0	17.2	46.8	16.2	60.0	16.0	84.5	13.6	89.8	14.2	90.1	14.2
18.3	13.2	32.5	17.3	46.8	16.3	60.8	15.9	84.8	13.6	89.8	14.2	90.1	14.2
19.1	13.2	33.5	17.3	47.0	16.5	61.3	15.8	85.4	13.6	89.8	14.2	90.1	14.2
20.2	13.2	34.5	17.4	47.0	16.5	61.8	15.8	85.8	13.6	89.8	14.2	90.1	14.2
20.8	13.2	35.2	17.4	47.2	16.7	62.3	15.8	86.1	13.6	89.8	14.2	90.1	14.2
21.0	13.2	36.2	17.4	47.4	16.8	62.8	15.7	86.2	13.7	89.8	14.2	90.1	14.2
21.2	13.2	37.5	17.4	47.7	16.9	63.4	15.6	86.3	13.7	89.8	14.2	90.1	14.2
21.6	13.3	37.9	17.4	48.2	17.0	64.0	15.6	86.8	13.7	89.8	14.2	90.1	14.2
21.8	13.3	38.0	17.2	48.2	17.1	65.2	15.6	87.0	13.8	89.8	14.2	90.1	14.2
22.0	13.4	38.3	17.2	48.4	17.2	65.5	15.5	87.2	13.9	89.8	14.2	90.1	14.2
22.3	13.5	38.5	17.1	48.8	17.2	66.4	15.5	87.2	14.0	89.8	14.2	90.1	14.2
22.5	13.6	38.5	17.0	49.0	17.1	67.7	15.5	87.0	14.0	89.8	14.2	90.1	14.2
22.7	13.7	38.8	16.9	49.5	17.2	68.5	15.5	87.4	14.1	89.8	14.2	90.1	14.2
22.7	13.8	39.0	16.8	49.4	17.2	69.1	15.4	87.5	14.2	89.8	14.2	90.1	14.2
22.7	13.9	39.2	16.6	49.8	17.3	69.4	15.4	87.7	14.3	89.8	14.2	90.1	14.2
22.9	13.9	39.2	16.5	50.1	17.3	69.8	15.4	87.8	14.4	89.8	14.2	90.1	14.2
23.1	14.0	39.4	16.5	50.7	17.3	70.0	15.3	87.9	14.5	89.8	14.2	90.1	14.2

STA 17				DAY: 12				TIME: 1730				STA 17				DAY: 12				TIME: 1730			
DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
1.3	18.1	47.1	17.9	70.1	14.9	116.4	12.8	170.5	11.0	229.6	8.6	170.5	11.0	229.6	8.6	170.5	11.0	229.6	8.6	170.5	11.0	229.6	8.6
1.3	17.6	47.9	17.9	70.7	14.9	117.4	12.8	171.7	10.9	230.5	8.5	171.7	10.9	230.5	8.5	171.7	10.9	230.5	8.5	171.7	10.9	230.5	8.5
1.6	17.0	48.9	17.9	71.2	14.8	118.2	12.8	173.6	10.9	231.1	8.4	173.6	10.9	231.1	8.4	173.6	10.9	231.1	8.4	173.6	10.9	231.1	8.4
1.9	17.0	49.9	17.9	71.7	14.8	118.9	12.7	175.4	10.9	231.6	8.4	175.4	10.9	231.6	8.4	175.4	10.9	231.6	8.4	175.4	10.9	231.6	8.4
2.3	16.9	50.3	17.8	72.4	14.8	120.3	12.7	176.8	10.9	232.5	8.3	176.8	10.9	232.5	8.3	176.8	10.9	232.5	8.3	176.8	10.9	232.5	8.3
4.4	16.9	51.0	17.8	73.1	14.7	122.0	12.6	177.8	10.8	233.2	8.3	177.8	10.8	233.2	8.3	177.8	10.8	233.2	8.3	177.8	10.8	233.2	8.3
6.8	16.9	51.8	17.8	73.9	14.7	123.6	12.6	179.0	10.7	233.4	8.3	179.0	10.7	233.4	8.3	179.0	10.7	233.4	8.3	179.0	10.7	233.4	8.3
8.8	16.9	52.6	17.8	74.6	14.6	124.9	12.6	180.3	10.7	233.9	8.2	180.3	10.7	233.9	8.2	180.3	10.7	233.9	8.2	180.3	10.7	233.9	8.2
10.7	16.9	53.2	17.8	74.9	14.5	125.6	12.6	181.3	10.6	235.0	8.2	181.3	10.6	235.0	8.2	181.3	10.6	235.0	8.2	181.3	10.6	235.0	8.2
13.6	16.9	53.9	17.8	75.8	14.4	126.2	12.6	183.0	10.6	236.5	8.1	183.0	10.6	236.5	8.1	183.0	10.6	236.5	8.1	183.0	10.6	236.5	8.1
15.6	16.9	54.6	17.7	76.2	14.4	127.6	12.5	184.7	10.6	237.9	8.1	184.7	10.6	237.9	8.1	184.7	10.6	237.9	8.1	184.7	10.6	237.9	8.1
17.0	16.9	55.1	17.7	76.9	14.4	129.0	12.5	185.9	10.6	239.1	8.1	185.9	10.6	239.1	8.1	185.9	10.6	239.1	8.1	185.9	10.6	239.1	8.1
18.1	16.9	55.3	17.6	77.5	14.3	129.3	12.5	187.2	10.5	240.5	8.1	187.2	10.5	240.5	8.1	187.2	10.5	240.5	8.1	187.2	10.5	240.5	8.1
18.5	16.9	55.3	17.5	77.9	14.3	130.1	12.6	188.1	10.5	241.3	8.1	188.1	10.5	241.3	8.1	188.1	10.5	241.3	8.1	188.1	10.5	241.3	8.1
19.3	16.9	55.5	17.5	78.3	14.2	130.8	12.6	189.3	10.5	242.7	8.0	189.3	10.5	242.7	8.0	189.3	10.5	242.7	8.0	189.3	10.5	242.7	8.0
20.1	16.9	55.7	17.4	78.9	14.1	131.4	12.6	189.9	10.4	244.1	8.0	189.9	10.4	244.1	8.0	189.9	10.4	244.1	8.0	189.9	10.4	244.1	8.0
20.8	16.9	56.0	17.3	79.6	14.0	132.0	12.6	190.3	10.2	245.0	8.0	190.3	10.2	245.0	8.0	190.3	10.2	245.0	8.0	190.3	10.2	245.0	8.0
22.8	16.9	56.3	17.3	80.6	14.0	132.8	12.6	191.3	10.2	245.6	7.9	191.3	10.2	245.6	7.9	191.3	10.2	245.6	7.9	191.3	10.2	245.6	7.9
25.1	16.9	57.2	17.2	81.3	13.9	134.0	12.6	191.9	10.1	246.8	7.8	191.9	10.1	246.8	7.8	191.9	10.1	246.8	7.8	191.9	10.1	246.8	7.8
26.9	16.9	57.8	17.2	82.4	13.9	134.5	12.6	193.0	10.0	248.0	7.8	193.0	10.0	248.0	7.8	193.0	10.0	248.0	7.8	193.0	10.0	248.0	7.8
28.3	16.9	58.0	17.1	85.1	13.8	135.7	12.5	193.6	9.9	248.8	7.8	193.6	9.9	248.8	7.8	193.6	9.9	248.8	7.8	193.6	9.9	248.8	7.8
29.9	16.9	58.1	17.1	86.6	13.8	136.1	12.5	194.6	9.8	249.6	7.8	194.6	9.8	249.6	7.8	194.6	9.8	249.6	7.8	194.6	9.8	249.6	7.8
30.3	16.9	58.6	17.1	87.5	13.8	137.4	12.5	195.4	9.7	250.2	7.7	195.4	9.7	250.2	7.7	195.4	9.7	250.2	7.7	195.4	9.7	250.2	7.7
30.8	17.0	59.4	17.1	88.5	13.8	139.6	12.5	196.5	9.6			196.5	9.6			196.5	9.6						
31.8	17.0	59.8	17.1	89.0	13.7	141.7	12.4	197.3	9.6			197.3	9.6			197.3	9.6						
32.6	17.0	60.2	17.0	90.1	13.6	143.1	12.4	198.5	9.5			198.5	9.5			198.5	9.5						
33.6	17.0	60.5	16.9	90.9	13.6	145.1	12.4	199.6	9.4			199.6	9.4			199.6	9.4						
33.9	17.0	60.8	16.8	91.3	13.5	146.6	12.4	200.5	9.4			200.5	9.4			200.5	9.4						
34.2	17.0	61.3	16.7	92.5	13.5	148.0	12.4	201.9	9.3			201.9	9.3			201.9	9.3						
35.2	17.0	61.7	16.6	93.7	13.5	150.5	12.3	202.5	9.3			202.5	9.3			202.5	9.3						
36.5	17.0	61.8	16.5	94.9	13.5	152.1	12.3	203.9	9.2			203.9	9.2			203.9	9.2						
37.3	17.1	62.6	16.4	96.1	13.4	152.7	12.2	205.7	9.2			205.7	9.2			205.7	9.2						
37.6	17.1	62.8	16.3	96.6	13.4	153.4	12.1	207.1	9.2			207.1	9.2			207.1	9.2						
38.0	17.2	63.1	16.1	97.6	13.4	153.8	12.1	208.9	9.2			208.9	9.2			208.9	9.2						
38.2	17.2	63.6	16.0	98.7	13.4	154.2	12.0	210.1	9.2			210.1	9.2			210.1	9.2						
38.8	17.2	63.6	16.0	100.4	13.4	154.6	11.9	210.9	9.1			210.9	9.1			210.9	9.1						
39.5	17.2	63.8	15.9	101.7	13.3	155.2	11.8	212.0	9.0			212.0	9.0			212.0	9.0						
40.3	17.2	64.1	15.8	103.2	13.3	156.6	11.8	213.2	9.0			213.2	9.0			213.2	9.0						
41.1	17.3	64.5	15.7	103.9	13.3	158.0	11.8	214.7	9.0			214.7	9.0			214.7	9.0						
41.4	17.4	64.7	15.6	104.2	13.2	158.4	11.7	216.2	9.0			216.2	9.0			216.2	9.0						
41.8	17.4	64.9	15.5	105.6	13.2	158.8	11.6	217.3	8.9			217.3	8.9			217.3	8.9						
42.2	17.5	65.3	15.4	106.8	13.1	160.9	11.6	218.4	8.8			218.4	8.8			218.4	8.8						
42.4	17.5	65.8	15.4	108.1	13.1	162.8	11.6	219.6	8.8			219.6	8.8			219.6	8.8						
42.4	17.5	66.4	15.3	109.0	13.0	163.7	11.5	221.6	8.7			221.6	8.7			221.6	8.7						
43.6	17.6	66.7	15.2	110.3	13.0	164.4	11.4	223.2	8.7			223.2	8.7			223.2	8.7						
43.9	17.7	67.3	15.2	111.7	13.0	165.0	11.3	224.4	8.7			224.4	8.7			224.4	8.7						
44.9	17.8	67.8	15.1	112.8	13.0	165.5	11.2	226.1	8.7			226.1	8.7			226.1	8.7						
45.3	17.8	68.1	15.0	113.0	12.9	166.1	11.1	227.0	8.6			227.0	8.6			227.0	8.6						
45.9	17.9	68.8	15.0	113.9	12.9	167.6	11.1	227.9	8.6			227.9	8.6			227.9	8.6						
46.1	17.9	69.4	14.9	115.6	12.9	169.3	11.1	228.6	8.6			228.6	8.6			228.6	8.6						

STA 18				DAY: 12				TIME: 1745			
DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP
(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)
0-2	16.7	45.3	17.4	73.3	14.8	107.1	12.7	151.8	11.9	200.7	10.0
0.3	16.7	46.5	17.3	73.8	14.7	107.7	12.6	153.4	11.9	201.2	10.0
1.0	16.7	46.9	17.3	74.0	14.6	108.2	12.6	154.9	11.9	201.8	9.9
2.4	16.7	47.5	17.2	74.9	14.6	108.4	12.5	156.3	11.9	202.2	9.8
3.7	16.7	47.8	17.2	75.9	14.5	109.0	12.5	157.3	11.9	202.4	9.8
4.6	16.7	48.6	17.1	76.7	14.4	109.9	12.5	158.4	11.8	202.9	9.7
5.0	16.7	48.8	17.1	77.1	14.4	110.8	12.5	158.9	11.8	203.5	9.6
6.7	16.7	49.4	17.0	77.4	14.3	111.1	12.5	159.5	11.7	204.4	9.6
8.5	16.7	50.5	17.0	78.1	14.3	112.0	12.4	160.0	11.6	205.1	9.5
9.6	16.7	51.4	17.0	79.2	14.3	112.9	12.4	161.0	11.6	206.1	9.5
11.0	16.7	52.0	17.0	79.5	14.2	114.2	12.4	163.0	11.6	207.0	9.4
12.7	16.7	52.6	16.9	79.9	14.1	116.2	12.4	165.1	11.6	208.2	9.4
14.6	16.7	53.1	16.9	80.3	14.1	117.4	12.4	167.4	11.6	208.9	9.3
16.2	16.7	53.3	16.8	80.9	14.1	117.9	12.3	168.8	11.6	209.5	9.3
18.6	16.7	54.3	16.8	82.2	14.1	118.3	12.3	170.5	11.6	209.5	9.3
19.7	16.7	55.3	16.8	83.1	14.1	119.1	12.2	171.5	11.6	211.5	9.2
20.5	16.7	55.8	16.8	83.3	14.1	120.7	12.2	172.6	11.5	212.1	9.2
21.2	16.8	56.7	16.7	83.9	14.0	122.3	12.2	173.1	11.5	213.0	9.1
22.2	16.7	57.4	16.6	84.4	14.0	123.7	12.1	173.1	11.5	214.1	9.1
23.4	16.8	57.8	16.6	84.8	13.9	125.0	12.1	174.5	11.4	215.9	9.1
24.3	16.8	58.5	16.5	85.7	13.9	126.5	12.1	175.6	11.4	216.9	9.1
25.6	16.8	60.4	16.5	87.1	13.9	127.8	12.1	176.6	11.4	217.4	9.0
26.5	16.8	61.7	16.5	87.8	13.9	129.3	12.1	177.4	11.3	218.1	9.0
27.0	16.9	62.6	16.4	88.5	13.8	131.2	12.1	178.0	11.3	219.5	9.0
27.6	16.9	63.2	16.4	89.5	13.8	132.7	12.1	179.1	11.3	219.7	8.9
28.3	17.0	63.6	16.4	89.5	13.8	134.0	12.1	179.3	11.2	220.1	8.9
28.5	17.1	64.1	16.3	91.2	13.7	135.3	12.0	179.7	11.1	221.5	8.9
28.6	17.1	64.1	16.2	91.7	13.7	136.9	12.0	180.9	11.1	222.8	8.9
30.3	17.1	64.2	16.2	92.3	13.6	138.1	12.0	181.9	11.1	224.1	8.9
31.4	17.2	64.3	16.1	93.6	13.6	139.8	12.0	183.2	11.0	224.6	8.9
33.0	17.2	64.4	16.0	94.1	13.5	140.3	11.9	184.2	11.0	225.3	8.8
34.3	17.2	64.6	15.9	94.5	13.5	140.9	11.9	185.4	11.0	226.0	8.8
35.0	17.2	64.7	15.9	94.9	13.4	141.5	11.9	186.9	10.9	226.8	8.8
37.4	17.3	64.8	15.7	95.2	13.4	142.5	11.8	188.5	11.0	228.0	8.9
38.2	17.3	64.9	15.7	95.8	13.3	143.7	11.9	189.3	10.9	229.4	8.8
38.6	17.4	65.2	15.6	96.1	13.3	144.6	11.9	189.5	10.9	230.2	8.7
39.0	17.4	65.4	15.5	96.3	13.2	145.4	11.9	190.6	10.8	230.9	8.7
39.7	17.5	65.9	15.4	97.0	13.2	145.6	11.9	191.6	10.8	231.9	8.6
40.4	17.5	66.5	15.4	97.5	13.1	145.9	12.0	192.4	10.7	233.4	8.6
40.8	17.5	66.7	15.3	97.9	13.1	146.9	12.0	192.9	10.6	234.8	8.6
41.3	17.5	67.3	15.2	98.9	13.1	147.2	12.0	193.5	10.6	236.0	8.5
41.6	17.5	67.7	15.1	100.5	13.0	147.5	12.1	194.0	10.5	237.2	8.5
41.9	17.5	68.1	15.1	101.5	13.0	147.9	12.1	195.1	10.4	238.1	8.5
42.6	17.5	69.1	15.0	102.4	13.0	148.2	12.2	196.0	10.4	239.5	8.4
43.1	17.5	69.1	15.0	104.2	13.0	148.5	12.2	196.9	10.4	240.0	8.4
43.6	17.5	70.0	15.0	105.0	12.9	149.3	12.2	197.3	10.3	241.9	8.4
43.8	17.4	70.7	14.9	106.1	12.9	149.9	12.2	198.2	10.3	243.2	8.4
44.0	17.4	71.5	14.9	106.5	12.8	150.7	12.1	198.9	10.2	245.3	8.4
44.6	17.4	72.2	14.8	106.7	12.7	151.0	12.0	199.9	10.1	246.5	8.4
						151.4	12.0	200.1	10.1	247.7	8.4

STA 18 DAY: 12 TIME: 1745

STA 18 DAY: 12 TIME: 1745

SHIP OC	CRUISE 130	STATION 19	DATE 13 NOV 1982	EST 12.0	LATITUDE 40 39.6 N	LONGITUDE 67 34.4 W	DEPTH 85	STA 20	DAY: 13	TIME: 1240		
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
3	2.9	11.172	32.664	6.43	0.76	24.927	0.000	1491.	0.0	11.4	39.9	10.3
4	4.0	11.161	32.664	6.48	0.75	24.929	0.003	1491.	0.6	11.3	40.8	10.3
5	5.1	11.150	32.665	6.50	0.76	24.930	0.009	1491.	0.9	11.2	41.3	10.3
6	6.0	11.158	32.665	6.50	0.76	24.930	0.009	1491.	1.0	11.1	42.1	10.4
7	7.9	11.157	32.664	6.49	0.75	24.932	0.015	1491.	1.2	11.1	43.2	10.4
8	9.9	11.152	32.666	6.49	0.75	24.932	0.021	1491.	1.6	11.1	44.2	10.4
9	11.9	11.151	32.666	6.48	0.75	24.932	0.027	1491.	2.0	11.1	45.3	10.4
10	13.9	11.151	32.666	6.48	0.76	24.930	0.034	1491.	2.8	11.0	46.9	10.4
11	14.1	11.157	32.664	6.48	0.76	24.932	0.039	1491.	3.7	11.0	48.0	10.4
12	15.8	11.150	32.666	6.48	0.76	24.934	0.046	1491.	4.8	11.0	48.9	10.4
13	18.1	11.146	32.667	6.49	0.77	24.934	0.051	1491.	6.1	11.0	49.8	10.4
14	19.8	11.146	32.667	6.48	0.77	24.934	0.051	1491.	7.5	11.0	51.2	10.4
15	22.0	11.147	32.666	6.46	0.76	24.933	0.058	1491.	8.8	11.0	52.8	10.4
16	24.2	11.112	32.677	6.48	0.76	24.948	0.064	1491.	10.8	10.9	54.2	10.4
17	26.0	11.098	32.682	6.49	0.76	24.954	0.070	1491.	11.4	10.9	55.2	10.4
18	28.0	11.092	32.683	6.47	0.76	24.956	0.076	1491.	13.2	10.9	56.1	10.4
19	30.1	11.077	32.689	6.49	0.76	24.963	0.082	1491.	14.8	10.9	56.9	10.4
20	31.9	11.070	32.691	6.50	0.76	24.966	0.087	1491.	17.2	10.9	58.9	10.4
21	33.9	11.058	32.693	6.47	0.75	24.970	0.093	1491.	18.2	10.9	59.6	10.4
22	36.0	11.017	32.701	6.46	0.74	24.983	0.100	1491.	20.2	10.9	60.7	10.4
23	38.1	10.976	32.710	6.46	0.74	24.997	0.106	1491.	21.5	10.9	61.7	10.4
24	40.1	10.930	32.721	6.37	0.73	25.014	0.112	1491.	22.3	10.9	63.9	10.4
25	41.9	10.904	32.726	6.31	0.72	25.022	0.117	1491.	23.3	10.9	64.7	10.4
26	44.1	10.807	32.761	6.33	0.70	25.066	0.123	1491.	25.3	10.9	66.2	10.4
27	45.8	10.741	32.790	6.17	0.70	25.100	0.128	1491.	26.5	10.9	68.3	10.4
28	48.0	10.698	32.812	6.03	0.69	25.126	0.134	1490.	26.9	10.9	69.2	10.4
29	50.0	10.660	32.835	6.03	0.69	25.150	0.140	1490.	27.3	10.8	70.5	10.4
30	51.9	10.599	32.891	5.94	0.71	25.204	0.146	1490.	28.0	10.7	71.7	10.4
31	53.9	10.591	32.987	5.73	0.72	25.288	0.151	1490.	28.4	10.7	73.2	10.4
32	56.0	10.693	33.096	5.71	0.73	25.347	0.156	1491.	28.8	10.6	74.8	10.4
33	58.1	10.718	33.124	5.65	0.75	25.365	0.162	1491.	29.1	10.6	76.3	10.4
34	59.9	10.720	33.127	5.59	0.76	25.367	0.167	1491.	29.4	10.5	77.4	10.4
35	62.0	10.725	33.134	5.58	0.76	25.372	0.172	1491.	29.9	10.5	78.2	10.4
36	63.9	10.727	33.139	5.56	0.77	25.375	0.177	1491.	30.2	10.4	79.4	10.4
37	66.0	10.727	33.141	5.57	0.77	25.376	0.183	1491.	30.6	10.4	80.4	10.4
38	68.3	10.727	33.141	5.57	0.78	25.377	0.189	1491.	31.5	10.4	81.6	10.3
39	69.9	10.727	33.143	5.57	0.79	25.378	0.193	1491.	32.0	10.3	82.7	10.3
40	71.3	10.727	33.144	5.58	0.79	25.379	0.196	1491.	32.4	10.3	83.5	10.3
41	71.9	10.726	33.144	5.56	0.79	25.379	0.198	1491.	32.6	10.2	84.7	10.3
42	73.0	10.725	33.145	5.56	0.79	25.380	0.201	1491.	32.6	10.2	85.3	10.3
43	74.0	10.725	33.146	5.56	0.78	25.381	0.204	1491.	32.4	10.3	86.4	10.3
44	75.0	10.725	33.145	5.56	0.80	25.380	0.206	1491.	33.5	10.4	87.6	10.3
45	76.0	10.726	33.144	5.57	0.80	25.379	0.209	1491.	33.6	10.2	88.6	10.3
46	77.1	10.725	33.146	5.56	0.79	25.381	0.211	1491.	35.6	10.2	89.6	10.3
47	78.0	10.725	33.145	5.55	0.81	25.380	0.214	1491.	36.4	10.2	90.5	10.3
48	78.9	10.726	33.146	5.53	0.80	25.381	0.216	1491.	37.0	10.2	91.2	10.3
49	80.0	10.726	33.146	5.53	0.79	25.381	0.219	1491.	38.5	10.2	92.4	10.2
50	81.1	10.726	33.146	5.52	0.79	25.381	0.222	1491.	39.1	10.3	93.2	10.2
51	82.0	10.727	33.146	5.54	0.79	25.380	0.224	1492.				
52	83.0	10.729	33.145	5.55	0.78	25.379	0.227	1492.				
53	84.0	10.728	33.145	5.54	0.78	25.380	0.230	1492.				
54	84.8	10.726	33.147	5.54	0.79	25.381	0.232	1492.				







SHIP OC	DEPTH m	CRUISE 130	STATION 23	DATE 13 NOV 1982	EST 14.8	LATITUDE 40 28.7 N	LONGITUDE 67 31.8 W	DEPTH 138												
SHIP OC	DEPTH m	CRUISE 130	STATION 23	DATE 13 NOV 1982	EST 14.8	LATITUDE 40 28.7 N	LONGITUDE 67 31.8 W	DEPTH 138												
2	2	2-3	11-214	32-651	6-21	0.86	24.909	0.000	1491.	1.1	99	100.2	10-120	33-705	5-23	0.70	25.921	0.267	1490.	11.5
4	4	4.0	11-203	32-651	6-26	0.83	24.911	0.005	1491.	1.1	101	101.7	10-252	33-945	5-08	0.70	26.085	0.270	1491.	12.0
6	6	6.1	11-199	32-651	6-30	0.82	24.912	0.012	1491.	1.1	103	104.0	10-552	34-137	4-99	0.69	26.184	0.274	1492.	11.9
8	8	7-9	11-201	32-651	6-34	0.82	24.911	0.017	1491.	1.1	105	106.1	11-567	34-563	4-77	0.70	26.332	0.278	1497.	11.5
10	10	10.0	11-197	32-651	6-34	0.82	24.912	0.023	1491.	1.1	107	108.0	12-196	34-778	4-48	0.70	26.379	0.281	1499.	10.6
12	12	12.0	11-189	32-652	6-34	0.83	24.915	0.029	1491.	1.1	109	110.0	12-627	34-963	4-45	0.69	26.440	0.284	1501.	9.2
14	14	13-9	11-188	32-652	6-34	0.83	24.915	0.035	1491.	1.1	111	112.2	12-748	35-021	4-35	0.69	26.460	0.288	1501.	8.2
16	16	15-9	11-187	32-653	6-35	0.84	24.915	0.041	1491.	1.1	113	113.9	12-727	35-051	4-24	0.70	26.488	0.290	1501.	7.4
18	18	18.3	11-180	32-653	6-34	0.83	24.915	0.048	1491.	1.1	115	116.0	12-697	35-092	4-23	0.70	26.525	0.294	1501.	7.3
20	20	19-9	11-180	32-653	6-34	0.85	24.917	0.053	1491.	1.0	117	118.1	12-665	35-106	4-22	0.70	26.543	0.297	1501.	7.1
22	22	21-9	11-178	32-654	6-33	0.84	24.918	0.059	1492.	1.0	119	119.9	12-712	35-166	4-15	0.71	26.580	0.300	1501.	7.1
24	24	24.1	11-177	32-654	6-34	0.85	24.918	0.066	1492.	1.1	120	121.3	12-798	35-249	4-13	0.72	26.627	0.302	1502.	6.8
26	26	26.0	11-177	32-654	6-32	0.85	24.918	0.072	1492.	1.3	121	121.9	12-801	35-247	4-09	0.72	26.625	0.303	1502.	6.3
28	28	27-7	11-172	32-654	6-32	0.86	24.919	0.077	1492.	1.5	122	123.0	12-831	35-266	4-11	0.72	26.634	0.304	1502.	5.7
30	30	30.1	11-171	32-655	6-33	0.85	24.920	0.084	1492.	1.8	123	123.9	12-836	35-269	4-11	0.72	26.635	0.305	1502.	4.3
32	32	31.8	11-166	32-655	6-33	0.86	24.921	0.089	1492.	2.2	124	125.0	12-838	35-270	4-09	0.71	26.635	0.307	1502.	3.1
34	34	34.0	11-153	32-657	6-34	0.86	24.925	0.096	1492.	2.6	125	126.1	12-862	35-284	4-10	0.72	26.641	0.308	1502.	3.0
36	36	36.3	11-134	32-659	6-35	0.86	24.930	0.103	1492.	3.6	126	127.0	12-866	35-290	4-09	0.72	26.645	0.310	1502.	2.9
38	38	37.9	11-112	32-662	6-29	0.87	24.936	0.108	1492.	5.0	127	128.1	12-872	35-293	4-06	0.72	26.646	0.311	1502.	3.0
40	40	40.0	11-092	32-665	6-29	0.86	24.942	0.114	1492.	6.0	128	129.0	12-873	35-294	4-05	0.73	26.647	0.313	1502.	3.0
42	42	42.0	11-027	32-670	6-25	0.86	24.958	0.120	1491.	6.6	129	130.0	12-881	35-301	4-03	0.73	26.651	0.314	1502.	2.8
44	44	44.0	10-857	32-690	6-21	0.86	25.003	0.126	1491.	6.9	130	130.8	12-895	35-310	4-03	0.74	26.655	0.315	1502.	2.6
46	46	46.0	10-588	32-728	6-22	0.82	25.079	0.132	1490.	6.8	131	132.0	12-901	35-314	4-01	0.74	26.657	0.317	1502.	2.6
48	48	47-9	10-572	32-759	6-11	0.77	25.106	0.138	1490.	6.8	132	133.0	12-906	35-318	4-02	0.74	26.659	0.318	1502.	2.6
50	50	50.0	10-561	32-771	6-03	0.75	25.117	0.143	1490.	6.4	133	134.1	12-907	35-319	4-03	0.74	26.659	0.320	1502.	2.6
52	52	51-9	10-532	32-774	6-01	0.75	25.125	0.149	1490.	5.8	133	134.5	12-908	35-319	4-03	0.74	26.659	0.320	1502.	2.6
54	54	54.0	10-471	32-772	6-00	0.73	25.133	0.155	1490.	5-4										
56	56	56.0	10-480	32-831	5-96	0.71	25.178	0.160	1490.	5-4										
58	58	58.1	10-502	32-849	5-93	0.71	25.188	0.166	1490.	5-6										
60	60	60.2	10-558	32-886	5-88	0.71	25.208	0.172	1490.	6-1										
61	61	61.7	10-716	32-948	5-80	0.71	25-228	0.176	1491.	7-9										
63	63	64.0	10-832	32-993	5-74	0.69	25-243	0.182	1491.	9-2										
66	66	66.3	10-974	33-060	5-71	0.69	25-270	0.189	1492.	10-0										
67	67	67.8	11-255	33-205	5-59	0.69	25-332	0.193	1493.	10-2										
70	70	70.1	11-202	33-496	5-57	0.68	25-569	0.199	1493.	10-1										
71	71	71.9	11-082	33-528	5-49	0.67	25-615	0.203	1493.	9-9										
74	74	74.1	11-031	33-538	5-37	0.67	25-632	0.208	1493.	9-3										
75	75	75-9	11-002	33-543	5-28	0.67	25-641	0.212	1493.	8-0										
77	77	78.0	10-897	33-548	5-30	0.67	25-664	0.217	1493.	6-2										
80	80	80.1	10-685	33-560	5-33	0.67	25-711	0.222	1492.	5-9										
81	81	82.0	10-561	33-573	5-33	0.68	25-742	0.226	1491.	5-6										
83	83	84.0	10-519	33-576	5-33	0.68	25-752	0.231	1491.	5-2										
85	85	85.9	10-490	33-577	5-33	0.68	25-757	0.235	1491.	4-6										
87	87	88.1	10-412	33-577	5-33	0.68	25-771	0.240	1491.	4-0										
89	89	89.8	10-408	33-577	5-33	0.68	25-771	0.244	1491.	4-2										
91	91	92.1	10-376	33-578	5-31	0.68	25-778	0.249	1491.	5-2										
93	93	94.1	10-304	33-584	5-30	0.69	25-795	0.254	1491.	7-1										
95	95	95.9	10-257	33-588	5-25	0.70	25-807	0.257	1491.	8-8										
97	97	98.0	10-160	33-620	5-25	0.69	25-848	0.262	1490.	10-4										







STA 26				DAY: 13				TIME: 1720				STA 26				DAY: 13				TIME: 1720			
DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.0	13.6	43.6	12.3	59.2	17.4	91.4	15.2	126.9	13.7	171.5	11.7	215.4	9.9	264.3	7.9	328.4	6.6	391.8	6.0				
0.8	13.6	44.0	12.2	59.3	17.3	91.8	15.1	127.6	13.6	172.2	11.6	216.1	9.9	265.2	7.9	330.0	6.6	393.0	6.0				
1.3	13.5	44.1	12.1	59.6	17.2	92.4	15.1	129.2	13.6	173.0	11.7	216.6	9.8	266.4	7.9	332.1	6.6	394.3	6.0				
2.5	13.6	44.4	12.0	60.2	17.2	92.8	15.1	130.2	13.6	173.8	11.7	217.0	9.8	267.6	7.9	333.8	6.6	395.5	6.0				
3.7	13.5	45.2	12.0	60.4	17.1	93.7	15.1	131.1	13.6	174.6	11.7	218.0	9.7	268.7	7.8	335.1	6.6	396.3	5.9				
4.7	13.5	45.3	12.0	61.0	17.1	94.1	15.1	132.0	13.5	175.4	11.7	219.3	9.7	269.2	7.8	336.8	6.6	397.3	5.9				
6.2	13.5	45.3	12.1	62.1	17.0	94.5	15.0	132.5	13.4	176.2	11.7	220.2	9.6	270.1	7.8	337.9	6.6	398.3	5.9				
7.5	13.5	45.6	12.2	62.9	17.0	94.7	14.9	132.8	13.3	177.1	11.7	220.8	9.6	271.6	7.7	338.5	6.6	398.7	5.9				
8.4	13.5	45.8	12.2	63.3	16.8	95.0	14.8	133.7	13.2	178.2	11.6	221.3	9.5	273.4	7.7	339.2	6.5	400.0	5.8				
9.2	13.5	45.7	12.4	63.5	16.6	95.2	14.8	134.1	13.1	179.0	11.6	221.9	9.4	275.0	7.7	340.4	6.5	401.1	5.8				
10.0	13.5	45.8	12.4	63.9	16.5	95.3	14.7	135.3	13.1	180.1	11.5	222.5	9.4	276.4	7.7	341.5	6.5	402.7	5.8				
11.2	13.5	45.8	12.4	64.3	16.4	95.5	14.6	136.7	13.1	180.9	11.5	223.3	9.4	277.5	7.7	343.0	6.5	405.9	5.8				
13.2	13.5	46.0	12.5	64.5	16.3	95.5	14.5	138.0	13.1	181.9	11.4	224.0	9.3	278.3	7.6	344.4	6.5	408.0	5.8				
14.4	13.5	46.3	12.6	64.4	16.3	95.5	14.4	138.9	13.0	182.6	11.4	224.2	9.2	279.3	7.6	345.8	6.5	410.0	5.7				
15.9	13.5	46.3	12.6	64.7	16.2	95.6	14.3	139.5	13.0	183.3	11.3	225.0	9.2	280.6	7.5	347.2	6.5	411.6	5.7				
17.6	13.5	46.5	12.6	65.0	16.1	96.1	14.3	140.2	12.9	183.8	11.2	225.8	9.2	281.6	7.5	348.2	6.5	413.5	5.7				
19.0	13.5	46.8	12.7	65.3	16.0	96.4	14.2	141.3	12.9	184.4	11.2	226.7	9.1	282.3	7.4	350.4	6.5	415.8	5.6				
20.2	13.4	47.1	12.9	65.8	15.9	96.9	14.2	142.6	12.9	185.1	11.1	228.1	9.1	282.6	7.4	351.5	6.4	418.4	5.6				
21.6	13.4	47.1	12.9	66.2	15.8	97.8	14.2	143.3	12.9	185.6	11.1	229.2	9.0	283.4	7.3	352.7	6.4	419.8	5.6				
23.2	13.4	47.4	13.1	66.4	15.7	98.5	14.2	143.8	12.8	185.7	11.0	230.3	9.0	284.4	7.2	353.5	6.4	421.8	5.6				
24.9	13.4	48.1	13.1	67.0	15.7	99.3	14.1	144.5	12.8	186.2	11.0	231.2	8.9	286.1	7.2	355.0	6.4	423.5	5.6				
26.4	13.4	48.6	13.2	67.7	15.6	100.0	14.1	145.4	12.8	186.6	10.9	232.2	8.9	287.5	7.1	356.0	6.4	425.5	5.6				
27.7	13.4	49.2	13.2	68.2	15.6	100.8	14.1	146.9	12.8	187.1	10.9	233.2	8.9	288.8	7.1	357.0	6.4	428.3	5.6				
29.1	13.4	49.7	13.3	68.8	15.5	102.0	14.1	147.9	12.8	187.8	10.8	234.5	8.8	290.2	7.1	358.3	6.4	430.7	5.5				
30.7	13.4	50.2	13.3	70.1	15.5	103.5	14.0	148.7	12.7	188.4	10.8	235.8	8.8	292.5	7.1	359.1	6.4	432.5	5.5				
31.4	13.4	51.1	13.3	71.8	15.4	105.0	14.1	149.1	12.7	189.3	10.8	236.9	8.8	294.2	7.1	360.6	6.4	433.7	5.5				
32.7	13.4	51.9	13.4	72.7	15.4	106.5	14.1	149.9	12.6	190.2	10.8	238.6	8.8	295.6	7.1	361.8	6.3	435.0	5.5				
34.1	13.4	52.4	13.4	73.8	15.4	107.7	14.1	150.4	12.5	191.1	10.7	239.7	8.7	296.7	7.0	363.1	6.3	436.2	5.4				
35.6	13.4	52.7	13.6	74.9	15.4	108.8	14.0	150.9	12.4	192.0	10.7	241.3	8.7	297.6	7.0	364.6	6.3	437.9	5.4				
36.9	13.4	52.6	13.8	76.1	15.3	109.4	14.0	151.5	12.4	192.8	10.7	242.3	8.7	299.0	7.0	365.6	6.3	439.2	5.4				
38.0	13.4	52.7	14.0	77.0	15.3	110.5	14.0	153.0	12.4	193.4	10.6	243.6	8.6	301.0	7.0	366.9	6.3	440.6	5.4				
38.8	13.4	52.8	14.1	77.7	15.2	111.8	14.0	154.6	12.4	194.3	10.6	244.8	8.6	302.6	7.0	369.2	6.3	442.3	5.4				
39.9	13.4	53.1	14.6	78.1	15.2	112.9	14.0	156.0	12.4	195.2	10.6	245.9	8.6	304.0	7.0	370.7	6.3	446.2	5.4				
40.4	13.4	53.5	15.2	78.8	15.1	113.7	14.0	157.2	12.4	196.3	10.6	247.4	8.6	305.1	7.0	372.3	6.3	448.3	5.4				
40.7	13.3	53.5	15.7	80.1	15.1	114.3	14.1	157.2	12.4	196.9	10.5	248.6	8.6	306.4	7.0	373.8	6.3	449.4	5.4				
41.0	13.3	53.9	16.3	81.4	15.1	114.6	14.1	158.3	12.4	197.6	10.5	249.8	8.5	307.2	7.0	375.1	6.3	449.8	5.4				
41.3	13.2	54.3	16.8	82.5	15.1	115.0	14.1	158.7	12.3	198.5	10.4	251.1	8.5	307.2	6.9	376.3	6.3	449.7	4.7				
41.6	13.1	54.7	17.1	83.8	15.1	115.9	14.1	159.2	12.3	200.0	10.4	252.6	8.5	308.2	6.8	378.4	6.3	451.8	4.7				
42.0	13.1	55.2	17.4	84.8	15.1	116.4	14.1	160.1	12.1	202.1	10.4	253.6	8.4	309.9	6.8	378.4	6.3	453.5	4.7				
42.5	13.0	55.4	17.4	85.9	15.0	117.4	14.1	160.5	12.1	204.0	10.4	254.8	8.4	311.9	6.8	379.5	6.2	455.4	4.7				
42.6	12.9	55.7	17.6	86.5	15.0	119.1	14.0	161.6	12.0	205.4	10.4	255.9	8.4	314.1	6.8	380.1	6.2	456.4	4.7				
42.5	12.9	55.9	17.7	87.1	15.0	119.9	14.0	161.9	11.9	206.2	10.3	257.1	8.3	315.3	6.8	381.3	6.2	457.9	4.7				
42.5	12.8	56.2	17.8	88.1	14.9	121.4	14.0	162.1	11.9	207.3	10.3	258.6	8.3	316.4	6.8	382.6	6.2	459.6	4.7				
42.6	12.7	56.6	17.8	88.7	15.0	121.8	14.0	163.0	11.8	208.9	10.2	259.9	8.3	317.5	6.7	383.9	6.2	460.8	4.7				
42.7	12.6	57.0	17.7	89.1	15.0	122.2	13.9	163.4	11.8	210.8	10.2	261.3	8.3	319.2	6.7	385.0	6.2	461.9	4.7				
42.8	12.6	57.2	17.7	89.1	15.1	122.6	13.8	164.8	11.7	212.2	10.2	262.0	8.2	320.4	6.7	385.6	6.1	462.9	4.7				
42.9	12.5	57.4	17.6	89.7	15.1	123.5	13.8	166.2	11.7	213.4	10.2	262.4	8.2	322.6	6.7	387.0	6.1	465.5	4.6				
43.2	12.5	57.6	17.5	89.9	15.1	124.1	13.7	167.9	11.7	213.6	10.1	262.6	8.1	324.2	6.7	388.2	6.1	466.5	4.6				
43.3	12.4	58.0	17.4	90.3	15.1	124.6	13.8	169.2	11.7	214.4	10.1	263.5	8.0	325.5	6.7	389.3	6.1	469.9	4.6				
43.4	12.3	58.5	17.4	90.6	15.2	125.7	13.7	170.2	11.7	214.9	10.0	264.0	8.0	326.9	6.7	390.6	6.1	472.0	4.6				

STA	26	DAY:	13	TIME:	1720	SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
OC	130					27	13 NOV 1982	18.0	40 17.2 N	67 28.3 W	137		
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT	A	S	SPD	N		
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s	m/s	cph			
675.5	4.6	3	2.7	12.608	33.016	6.07	0.71	24.934	0.000	1497.	1.5		
677.1	4.7	4	3.9	12.604	33.016	6.25	0.73	24.934	0.004	1497.	1.5		
679.0	4.7	6	6.0	12.594	33.015	6.27	0.72	24.935	0.010	1497.	1.5		
680.8	4.7	8	8.1	12.561	33.008	6.27	0.72	24.936	0.016	1496.	1.5		
683.0	4.6	10	10.0	12.465	32.991	6.25	0.72	24.941	0.022	1496.	1.5		
685.9	4.6	12	11.9	12.450	32.990	6.25	0.72	24.944	0.028	1496.	1.5		
687.5	4.6	14	14.2	12.453	32.992	6.24	0.72	24.944	0.034	1496.	1.4		
690.0	4.6	16	16.0	12.473	32.994	6.18	0.73	24.942	0.040	1496.	1.8		
692.7	4.6	18	18.1	12.473	32.994	6.21	0.73	24.942	0.046	1496.	3.0		
694.3	4.6	19	19.6	12.456	32.992	6.16	0.73	24.944	0.051	1496.	4.1		
697.4	4.6	22	22.1	12.424	32.987	6.13	0.73	24.946	0.058	1496.	5.7		
702.0	4.6	24	23.8	12.361	32.991	6.20	0.73	24.962	0.063	1496.	7.5		
703.2	4.6	26	26.2	12.318	33.045	6.25	0.71	25.011	0.070	1496.	8.4		
704.7	4.6	27	27.7	12.257	33.065	6.27	0.70	25.038	0.075	1496.	8.6		
706.5	4.6	30	30.2	12.689	33.298	6.16	0.69	25.136	0.082	1498.	8.5		
708.9	4.6	32	31.9	15.098	34.122	5.77	0.70	25.274	0.087	1506.	7.9		
711.0	4.6	34	34.1	16.042	34.363	5.74	0.68	25.249	0.093	1510.	7.0		
712.7	4.6	36	35.8	16.419	34.467	5.67	0.68	25.242	0.097	1511.	5.9		
715.9	4.6	38	38.0	16.508	34.503	5.61	0.68	25.249	0.103	1511.	3.8		
719.7	4.5	40	40.3	16.387	34.472	5.52	0.68	25.254	0.110	1511.	3.1		
722.7	4.5	42	41.9	16.174	34.427	5.29	0.68	25.268	0.114	1510.	4.7		
725.1	4.5	44	44.1	15.586	34.282	5.37	0.68	25.290	0.120	1508.	5.9		
727.9	4.5	46	46.1	14.623	33.961	5.37	0.68	25.253	0.125	1505.	7.1		
730.4	4.5	48	47.9	13.393	33.728	5.39	0.68	25.330	0.130	1501.	8.5		
732.8	4.5	50	50.0	13.389	33.793	5.35	0.67	25.381	0.136	1501.	9.4		
734.3	4.5	52	52.2	13.789	33.971	5.23	0.66	25.436	0.141	1502.	10.0		
736.0	4.5	53	53.8	14.692	34.317	5.05	0.66	25.513	0.145	1506.	10.3		
737.4	4.5	56	56.2	16.099	34.886	4.86	0.65	25.638	0.151	1511.	10.6		
739.2	4.5	57	57.9	16.598	35.116	4.67	0.64	25.700	0.155	1513.	11.0		
741.7	4.5	60	60.1	16.078	34.994	4.60	0.64	25.726	0.160	1511.	11.0		
743.7	4.5	61	61.8	15.859	34.951	4.47	0.65	25.743	0.164	1510.	10.9		
745.4	4.5	64	64.3	15.579	35.133	4.40	0.64	25.947	0.169	1510.	11.0		
746.8	4.5	65	65.8	15.657	35.239	4.26	0.64	26.010	0.172	1510.	11.2		
748.4	4.5	68	68.2	15.699	35.298	4.20	0.63	26.046	0.177	1510.	11.2		
749.8	4.5	69	70.0	15.506	35.351	4.19	0.63	26.131	0.181	1510.	10.7		
		72	72.1	15.240	35.420	4.18	0.63	26.244	0.185	1509.	9.9		
		73	74.0	15.220	35.479	4.13	0.63	26.293	0.188	1509.	9.6		
		75	75.8	15.212	35.498	4.11	0.63	26.310	0.191	1509.	9.3		
		77	78.1	15.291	35.592	4.06	0.64	26.365	0.195	1510.	8.7		
		79	79.9	15.388	35.692	4.02	0.63	26.420	0.198	1510.	8.0		
		81	82.1	15.324	35.733	4.03	0.62	26.466	0.201	1510.	7.6		
		83	83.8	15.192	35.730	4.02	0.63	26.493	0.204	1510.	7.2		
		85	86.0	14.850	35.698	4.01	0.63	26.545	0.207	1508.	6.6		
		87	88.1	14.724	35.664	4.00	0.64	26.546	0.211	1508.	6.1		
		89	89.8	14.618	35.647	3.97	0.64	26.555	0.213	1508.	5.9		
		91	92.0	14.775	35.718	3.94	0.64	26.576	0.216	1508.	5.6		
		93	94.1	14.645	35.713	3.98	0.64	26.601	0.219	1508.	5.2		
		95	96.0	14.226	35.635	4.01	0.65	26.631	0.222	1507.	5.3		
		97	98.0	14.064	35.618	4.01	0.65	26.652	0.225	1506.	5.2		





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SHIP OC	CRUISE 130	STATION 27	DATE 13 NOV 1982	EST 18.0	LATITUDE 40 17.2 N	LONGITUDE 67 28.3 W	DEPTH 137	SHIP OC	CRUISE 130	STATION 28	DATE 13 NOV 1982	EST 20.3	LATITUDE 40 15.0 N	LONGITUDE 67 37.8 W	DEPTH 121				
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph	DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph
496	500.0	5.488	34.948	4.87	0.79	27.576	0.574	1481.	1.3	2	1.5	18.005	35.073	5.47	0.73	25.328	0.000	1516.	-0.4
515	519.9	5.277	34.946	4.99	0.79	27.600	0.585	1480.	2.0	3	2.8	18.010	35.075	5.56	0.70	25.328	0.003	1516.	-0.4
535	540.0	5.208	34.946	5.03	0.79	27.608	0.596	1480.	1.1	5	4.8	18.041	35.083	5.60	0.70	25.327	0.009	1516.	-0.4
555	560.0	5.136	34.943	5.10	0.78	27.614	0.606	1480.	1.2	7	7.1	18.061	35.092	5.62	0.69	25.328	0.015	1516.	-0.4
575	580.0	5.093	34.944	5.16	0.80	27.620	0.617	1481.	0.8	9	9.0	18.054	35.087	5.64	0.68	25.327	0.020	1516.	-0.4
594	599.8	5.050	34.945	5.15	0.80	27.626	0.627	1481.	1.6	11	11.1	18.045	35.085	5.70	0.69	25.327	0.025	1516.	-0.5
614	619.9	5.038	34.916	5.19	0.80	27.604	0.638	1481.	1.1	13	12.9	18.052	35.087	5.69	0.70	25.327	0.030	1516.	-0.4
634	640.3	4.939	34.954	5.29	0.80	27.646	0.648	1481.	1.2	15	15.0	18.059	35.089	5.75	0.69	25.327	0.036	1516.	-0.6
654	660.1	4.850	34.953	5.35	0.81	27.656	0.658	1481.	0.9	17	17.0	18.066	35.091	5.78	0.69	25.326	0.041	1516.	-0.5
674	680.3	4.732	34.947	5.42	0.81	27.664	0.668	1481.	1.3	19	19.2	18.062	35.090	5.74	0.70	25.326	0.047	1516.	-0.4
693	699.9	4.659	34.942	5.47	0.82	27.669	0.678	1481.	1.1	21	20.9	18.067	35.090	5.63	0.70	25.326	0.051	1516.	0.1
713	719.8	4.640	34.948	5.49	0.82	27.675	0.688	1481.	1.2	23	23.1	18.071	35.091	5.70	0.70	25.325	0.057	1516.	-0.2
733	740.4	4.619	34.951	5.52	0.82	27.680	0.698	1481.	0.8	25	24.8	18.078	35.093	5.67	0.70	25.325	0.061	1517.	-0.1
753	759.9	4.589	34.952	5.52	0.83	27.684	0.707	1481.	0.8	27	27.1	18.210	35.137	5.66	0.71	25.327	0.072	1517.	0.5
773	780.0	4.555	34.951	5.53	0.83	27.687	0.717	1482.	0.9	29	28.8	18.201	35.135	5.61	0.71	25.327	0.072	1517.	0.7
793	800.2	4.520	34.950	5.58	0.83	27.691	0.727	1482.	0.8	31	31.0	18.096	35.098	5.64	0.71	25.325	0.078	1517.	0.6
812	820.0	4.502	34.949	5.62	0.82	27.692	0.736	1482.	0.6	33	33.2	18.100	35.100	5.65	0.71	25.325	0.084	1517.	0.5
832	840.2	4.445	34.946	5.63	0.84	27.695	0.746	1482.	0.9	35	34.9	18.129	35.113	5.60	0.72	25.328	0.088	1517.	1.0
852	860.0	4.366	34.950	5.72	0.85	27.707	0.755	1482.	0.3	37	36.9	18.147	35.119	5.69	0.72	25.328	0.094	1517.	1.1
872	880.2	4.353	34.939	5.73	0.85	27.700	0.765	1482.	-0.3	39	39.1	18.109	35.103	5.73	0.72	25.325	0.099	1517.	1.3
891	899.7	4.333	34.937	5.71	0.86	27.701	0.774	1483.	0.4	40	40.7	18.119	35.107	5.70	0.72	25.326	0.104	1517.	1.7
911	919.9	4.304	34.939	5.79	0.86	27.705	0.784	1483.	0.9	43	43.1	18.315	35.181	5.70	0.72	25.334	0.110	1518.	2.1
931	940.1	4.261	34.933	5.81	0.86	27.705	0.793	1483.	1.0	45	44.9	18.303	35.172	5.71	0.73	25.330	0.115	1518.	2.5
950	960.0	4.240	34.933	5.78	0.87	27.708	0.803	1483.	0.6	47	47.0	18.338	35.188	5.65	0.73	25.333	0.120	1518.	2.9
										49	49.1	18.476	35.249	5.64	0.73	25.345	0.126	1518.	3.4
										51	50.9	18.379	35.225	5.58	0.73	25.351	0.131	1518.	4.4
										53	53.0	18.322	35.214	5.51	0.73	25.357	0.136	1518.	5.4
										55	55.1	18.173	35.177	5.38	0.72	25.366	0.142	1517.	7.2
										57	57.0	17.984	35.153	5.26	0.72	25.394	0.147	1517.	8.5
										59	59.0	17.774	35.152	5.09	0.71	25.445	0.152	1516.	10.8
										61	61.0	17.636	35.167	4.89	0.70	25.491	0.157	1516.	12.8
										63	63.0	16.967	35.177	4.79	0.70	25.659	0.162	1514.	13.7
										64	64.9	16.852	35.217	4.53	0.68	25.717	0.166	1514.	14.0
										66	67.0	16.006	35.340	4.37	0.66	26.009	0.170	1511.	13.7
										68	69.0	15.169	35.341	4.26	0.65	26.198	0.174	1509.	12.8
										71	71.2	15.054	35.327	4.16	0.65	26.213	0.178	1508.	11.4
										72	73.0	14.937	35.318	4.19	0.65	26.232	0.182	1508.	9.9
										74	74.9	14.855	35.327	4.28	0.65	26.257	0.185	1508.	7.6
										76	77.1	14.811	35.352	4.34	0.65	26.286	0.189	1508.	7.0
										78	79.1	14.476	35.307	4.41	0.66	26.324	0.192	1507.	7.7
										80	80.9	14.346	35.300	4.41	0.66	26.346	0.195	1506.	8.3
										82	83.0	14.510	35.383	4.36	0.66	26.375	0.199	1507.	8.6
										84	85.2	14.670	35.539	4.28	0.66	26.461	0.202	1508.	8.7
										86	86.9	14.675	35.632	4.16	0.66	26.532	0.205	1508.	8.4
										88	89.1	14.647	35.688	4.14	0.66	26.580	0.208	1508.	8.1
										90	90.7	14.646	35.713	4.05	0.67	26.600	0.211	1508.	7.5
										92	93.0	14.636	35.746	4.00	0.66	26.628	0.214	1508.	6.5
										94	95.2	14.576	35.758	3.98	0.67	26.650	0.217	1508.	5.7
										96	97.0	14.537	35.765	3.96	0.67	26.665	0.220	1508.	5.3

SHIP OC	DEPTH m	CRUISE 130	STATION 28	DATE 13 NOV 1982	EST 20.3	LATITUDE 40 15.0 N	LONGITUDE 67 37.8 W	DEPTH 121	SHIP OC	DEPTH m	CRUISE 130	STATION 28	DATE 13 NOV 1982	EST 20.3	LATITUDE 40 15.0 N	LONGITUDE 67 37.8 W	DEPTH 121	
			PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph							
98	98.9	98-9	14.500	35.773	3.98	0.67	26.679	0.222	1508.	5.0								
100	101.2	14.442	35.779	3.98	0.67	26.696	0.225	1507.	4.8									
102	102.9	14.402	35.781	3.97	0.68	26.706	0.228	1507.	4.6									
104	104.9	14.339	35.782	3.97	0.68	26.720	0.231	1507.	4.4									
106	107.0	14.278	35.786	3.99	0.68	26.736	0.233	1507.	4.1									
108	109.2	14.206	35.778	3.98	0.68	26.746	0.236	1507.	3.8									
110	110.8	14.174	35.776	3.98	0.68	26.751	0.238	1507.	3.6									
112	113.0	14.131	35.773	4.00	0.68	26.757	0.241	1507.	3.4									
114	115.3	14.095	35.768	4.00	0.69	26.762	0.244	1507.	3.3									
116	116.8	14.060	35.766	3.99	0.69	26.767	0.246	1506.	3.3									
118	119.1	14.001	35.764	3.99	0.69	26.778	0.249	1506.	3.5									
120	120.9	13.979	35.763	3.97	0.69	26.782	0.251	1506.	3.7									
122	123.1	13.898	35.757	3.96	0.69	26.795	0.254	1506.	3.9									
124	124.9	13.873	35.757	3.94	0.70	26.800	0.257	1506.	3.9									
126	127.0	13.801	35.755	3.93	0.70	26.813	0.259	1506.	4.0									
128	129.0	13.700	35.745	3.87	0.70	26.827	0.262	1506.	4.2									
130	131.0	13.662	35.746	3.78	0.70	26.835	0.264	1505.	4.4									
132	133.3	13.580	35.735	3.76	0.70	26.844	0.267	1505.	4.6									
134	134.8	13.498	35.729	3.69	0.71	26.856	0.269	1505.	4.7									
136	137.0	13.287	35.699	3.65	0.71	26.877	0.272	1504.	4.7									
138	139.0	13.198	35.689	3.63	0.71	26.887	0.274	1504.	4.6									
140	140.9	12.949	35.656	3.62	0.71	26.912	0.276	1503.	4.3									
142	143.3	12.903	35.654	3.58	0.71	26.920	0.279	1503.	4.0									
144	144.8	12.887	35.653	3.51	0.72	26.922	0.281	1503.	3.4									
146	147.0	12.826	35.645	3.53	0.71	26.928	0.283	1503.	3.0									
148	149.1	12.757	35.634	3.53	0.72	26.934	0.286	1503.	2.5									
150	151.0	12.744	35.634	3.49	0.72	26.936	0.288	1503.	2.9									
152	153.0	12.737	35.633	3.50	0.72	26.937	0.290	1503.	3.1									
154	155.1	12.716	35.630	3.52	0.72	26.939	0.293	1503.	3.3									
156	156.9	12.616	35.614	3.51	0.73	26.946	0.295	1502.	3.4									
158	159.1	12.376	35.585	3.48	0.73	26.971	0.297	1501.	3.5									
160	160.9	12.343	35.580	3.47	0.73	26.974	0.299	1501.	3.5									
162	163.0	12.308	35.577	3.46	0.73	26.978	0.302	1501.	3.3									
164	165.0	12.242	35.566	3.45	0.73	26.982	0.304	1501.	3.2									
166	166.8	12.189	35.561	3.41	0.74	26.989	0.306	1501.	3.3									
168	169.0	12.172	35.560	3.40	0.74	26.991	0.308	1501.	3.6									
170	171.0	12.122	35.553	3.40	0.74	26.996	0.310	1501.	3.7									
172	173.0	11.903	35.520	3.41	0.74	27.012	0.313	1500.	3.7									
174	175.0	11.742	35.506	3.35	0.75	27.032	0.315	1499.	3.7									
176	177.1	11.697	35.498	3.36	0.74	27.034	0.317	1499.	3.7									
178	179.0	11.669	35.494	3.36	0.74	27.037	0.319	1499.	3.5									
179	180.9	11.579	35.480	3.35	0.74	27.042	0.321	1499.	3.1									
182	183.0	11.493	35.472	3.33	0.73	27.053	0.323	1499.	2.8									
184	185.1	11.420	35.465	3.33	0.73	27.061	0.325	1498.	2.8									
186	187.1	11.404	35.460	3.35	0.74	27.060	0.327	1498.	2.9									
187	188.9	11.380	35.457	3.32	0.74	27.062	0.329	1498.	2.9									
189	191.0	11.330	35.451	3.32	0.74	27.066	0.331	1498.	2.8									
191	192.9	11.247	35.439	3.32	0.74	27.073	0.333	1498.	3.0									
193	195.0	11.131	35.425	3.32	0.74	27.083	0.336	1498.	3.3									
195	197.0	11.089	35.420	3.31	0.74	27.087	0.338	1497.	3.5									

SHIP OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH	SHIP OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
296	299.0	8.366	35.131	3.44	27.321	0.428	1489.	296	299.0	8.366	35.131	3.44	27.321	0.428	1489.
298	301.0	8.345	35.129	3.45	27.323	0.430	1489.	298	301.0	8.345	35.129	3.45	27.323	0.430	1489.
299	302.0	8.345	35.129	3.45	27.323	0.430	1489.	299	302.0	8.345	35.129	3.45	27.323	0.430	1489.
300	303.0	8.285	35.124	3.48	27.328	0.431	1489.	300	303.0	8.285	35.124	3.48	27.328	0.431	1489.
301	304.0	8.242	35.123	3.49	27.334	0.433	1489.	301	304.0	8.242	35.123	3.49	27.334	0.433	1489.
302	305.0	8.146	35.114	3.52	27.342	0.435	1488.	302	305.0	8.146	35.114	3.52	27.342	0.435	1488.
303	306.0	8.125	35.114	3.55	27.345	0.436	1488.	303	306.0	8.125	35.114	3.55	27.345	0.436	1488.
304	307.0	8.125	35.114	3.55	27.345	0.436	1488.	304	307.0	8.125	35.114	3.55	27.345	0.436	1488.
305	308.0	8.078	35.112	3.56	27.351	0.438	1488.	305	308.0	8.078	35.112	3.56	27.351	0.438	1488.
306	309.0	8.065	35.113	3.59	27.353	0.439	1488.	306	309.0	8.065	35.113	3.59	27.353	0.439	1488.
307	310.0	8.033	35.111	3.62	27.356	0.441	1488.	307	310.0	8.033	35.111	3.62	27.356	0.441	1488.
308	311.0	7.999	35.109	3.64	27.360	0.442	1488.	308	311.0	7.999	35.109	3.64	27.360	0.442	1488.
309	312.0	7.978	35.111	3.66	27.365	0.444	1488.	309	312.0	7.978	35.111	3.66	27.365	0.444	1488.
310	313.0	7.953	35.110	3.65	27.368	0.445	1488.	310	313.0	7.953	35.110	3.65	27.368	0.445	1488.
311	314.0	7.937	35.111	3.69	27.371	0.448	1488.	311	314.0	7.937	35.111	3.69	27.371	0.448	1488.
312	315.0	7.923	35.110	3.70	27.378	0.450	1488.	312	315.0	7.923	35.110	3.70	27.378	0.450	1488.
313	316.0	7.873	35.110	3.73	27.380	0.451	1488.	313	316.0	7.873	35.110	3.73	27.380	0.451	1488.
314	317.0	7.868	35.110	3.75	27.380	0.453	1488.	314	317.0	7.868	35.110	3.75	27.380	0.453	1488.
315	318.0	7.849	35.108	3.75	27.381	0.455	1488.	315	318.0	7.849	35.108	3.75	27.381	0.455	1488.
316	319.0	7.755	35.099	3.77	27.388	0.456	1487.	316	319.0	7.755	35.099	3.77	27.388	0.456	1487.
317	320.0	7.651	35.087	3.78	27.395	0.457	1487.	317	320.0	7.651	35.087	3.78	27.395	0.457	1487.
318	321.0	7.628	35.086	3.81	27.397	0.459	1487.	318	321.0	7.628	35.086	3.81	27.397	0.459	1487.
319	322.0	7.525	35.073	3.83	27.404	0.460	1486.	319	322.0	7.525	35.073	3.83	27.404	0.460	1486.
320	323.0	7.458	35.073	3.84	27.412	0.462	1486.	320	323.0	7.458	35.073	3.84	27.412	0.462	1486.
321	324.0	7.431	35.072	3.85	27.414	0.463	1486.	321	324.0	7.431	35.072	3.85	27.414	0.463	1486.
322	325.0	7.392	35.067	3.89	27.417	0.465	1486.	322	325.0	7.392	35.067	3.89	27.417	0.465	1486.
323	326.0	7.353	35.066	3.93	27.421	0.466	1486.	323	326.0	7.353	35.066	3.93	27.421	0.466	1486.
324	327.0	7.281	35.059	3.96	27.426	0.467	1486.	324	327.0	7.281	35.059	3.96	27.426	0.467	1486.
325	328.0	7.179	35.047	4.01	27.431	0.469	1485.	325	328.0	7.179	35.047	4.01	27.431	0.469	1485.
326	329.0	6.993	35.032	4.01	27.446	0.470	1484.	326	329.0	6.993	35.032	4.01	27.446	0.470	1484.
327	330.0	6.972	35.031	4.07	27.448	0.471	1484.	327	330.0	6.972	35.031	4.07	27.448	0.471	1484.
328	331.0	6.931	35.028	4.10	27.451	0.474	1484.	328	331.0	6.931	35.028	4.10	27.451	0.474	1484.
329	332.0	6.908	35.026	4.13	27.452	0.475	1484.	329	332.0	6.908	35.026	4.13	27.452	0.475	1484.
330	333.0	6.865	35.022	4.15	27.453	0.477	1484.	330	333.0	6.865	35.022	4.15	27.453	0.477	1484.
331	334.0	6.849	35.021	4.14	27.457	0.480	1484.	331	334.0	6.849	35.021	4.14	27.457	0.480	1484.
332	335.0	6.847	35.021	4.15	27.457	0.481	1484.	332	335.0	6.847	35.021	4.15	27.457	0.481	1484.
333	336.0	6.842	35.021	4.15	27.458	0.482	1484.	333	336.0	6.842	35.021	4.15	27.458	0.482	1484.
334	337.0	6.827	35.019	4.17	27.458	0.484	1484.	334	337.0	6.827	35.019	4.17	27.458	0.484	1484.
335	338.0	6.797	35.017	4.15	27.461	0.485	1484.	335	338.0	6.797	35.017	4.15	27.461	0.485	1484.
336	339.0	6.766	35.015	4.17	27.463	0.486	1484.	336	339.0	6.766	35.015	4.17	27.463	0.486	1484.
337	340.0	6.747	35.015	4.17	27.466	0.487	1484.	337	340.0	6.747	35.015	4.17	27.466	0.487	1484.
338	341.0	6.712	35.014	4.17	27.470	0.489	1484.	338	341.0	6.712	35.014	4.17	27.470	0.489	1484.
339	342.0	6.678	35.008	4.22	27.476	0.490	1484.	339	342.0	6.678	35.008	4.22	27.476	0.490	1484.
340	343.0	6.628	35.003	4.24	27.473	0.492	1484.	340	343.0	6.628	35.003	4.24	27.473	0.492	1484.
341	344.0	6.468	34.989	4.25	27.483	0.493	1483.	341	344.0	6.468	34.989	4.25	27.483	0.493	1483.
342	345.0	6.396	34.987	4.32	27.491	0.494	1483.	342	345.0	6.396	34.987	4.32	27.491	0.494	1483.
343	346.0	6.366	34.993	4.33	27.496	0.495	1483.	343	346.0	6.366	34.993	4.33	27.496	0.495	1483.
344	347.0	6.349	34.998	4.37	27.504	0.497	1483.	344	347.0	6.349	34.998	4.37	27.504	0.497	1483.
345	348.0	6.322	35.000	4.41	27.511	0.498	1483.	345	348.0	6.322	35.000	4.41	27.511	0.498	1483.

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH	STA	DAY:	TIME:						
OC	130	28	13 NOV 1982	20:3	40 15.0 N	67 37.8 W	121	29	13	2202						
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /g <sup>2</sup>	m/s	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)
495	499.3	5.340	34.947	4.96	0.80	27.593	0.558	1480.	58.0	17.8	79.4	14.7	115.6	13.8	159.7	12.0
516	521.1	5.111	34.933	5.11	0.80	27.609	0.569	1480.	58.3	17.7	80.3	14.7	116.3	13.8	161.2	12.0
534	539.0	5.091	34.939	5.13	0.81	27.616	0.579	1480.	58.8	17.6	81.0	14.6	117.3	13.7	162.0	12.0
556	561.0	5.030	34.938	5.15	0.81	27.623	0.590	1480.	59.2	17.5	82.2	14.6	118.3	13.6	162.7	11.9
574	579.1	4.974	34.936	5.22	0.81	27.628	0.600	1480.	59.4	17.4	82.7	14.6	119.4	13.6	163.8	11.9
595	600.7	4.903	34.934	5.30	0.81	27.635	0.611	1480.	59.9	17.3	84.0	14.6	121.1	13.6	165.3	11.8
615	620.8	4.899	34.935	5.29	0.83	27.636	0.621	1480.	60.1	17.2	85.1	14.6	122.3	13.6	166.1	11.8
633	638.9	4.865	34.935	5.31	0.83	27.640	0.631	1481.	60.3	17.0	87.3	14.6	125.2	13.6	169.9	11.7
653	658.9	4.814	34.936	5.35	0.83	27.646	0.641	1481.	60.7	16.9	88.6	14.7	126.8	13.6	170.6	11.7
673	679.0	4.779	34.934	5.38	0.83	27.649	0.651	1481.	60.7	16.8	89.0	14.7	127.8	13.5	171.9	11.6
693	699.0	4.713	34.938	5.40	0.83	27.659	0.661	1481.	60.8	16.7	89.7	14.7	128.1	13.4	173.2	11.6
712	719.1	4.657	34.937	5.51	0.83	27.664	0.671	1481.	61.3	16.6	90.1	14.7	129.1	13.4	174.3	11.5
734	741.1	4.572	34.936	5.53	0.84	27.674	0.682	1481.	61.4	16.6	91.2	14.7	129.3	13.4	175.7	11.5
752	759.0	4.539	34.932	5.57	0.84	27.674	0.691	1481.	62.2	16.5	91.7	14.7	129.7	13.3	177.2	11.4
771	778.9	4.528	34.936	5.57	0.84	27.678	0.701	1482.	63.1	16.5	92.2	14.7	130.2	13.3	178.3	11.4
791	799.0	4.478	34.932	5.62	0.85	27.681	0.711	1482.	63.5	16.5	93.1	14.6	131.4	13.3	179.3	11.3
811	819.0	4.415	34.930	5.63	0.86	27.686	0.720	1482.	63.7	16.5	93.9	14.6	132.6	13.2	179.6	11.2
831	839.0	4.378	34.931	5.67	0.85	27.691	0.730	1482.	64.1	16.3	94.6	14.6	133.9	13.3	180.4	11.1
853	861.0	4.362	34.932	5.70	0.86	27.694	0.741	1482.	64.3	16.2	95.2	14.6	134.2	13.3	180.9	11.1
872	880.9	4.334	34.935	5.74	0.87	27.699	0.750	1482.	64.8	16.2	95.7	14.5	135.1	13.3	181.4	11.1
890	899.0	4.300	34.934	5.75	0.88	27.702	0.759	1483.	65.7	16.1	96.0	14.5	135.9	13.3	182.5	10.9
912	920.9	4.282	34.933	5.75	0.86	27.703	0.769	1483.	66.1	16.1	96.3	14.4	136.7	13.3	183.3	10.9
932	940.9	4.244	34.931	5.76	0.88	27.705	0.779	1483.	66.7	16.0	96.5	14.3	137.7	13.3	185.7	10.8
951	960.9	4.230	34.930	5.79	0.88	27.706	0.788	1483.	67.3	15.9	96.7	14.3	138.9	13.3	187.0	10.8
969	979.0	4.210	34.933	5.78	0.88	27.711	0.797	1484.	67.4	15.8	97.1	14.2	140.0	13.3	188.1	10.7
990	1000.2	4.204	34.933	5.83	0.88	27.712	0.807	1484.	68.1	15.7	97.6	14.2	141.3	13.2	189.2	10.7
									68.5	15.6	97.9	14.2	142.4	13.2	190.4	10.7
									68.7	15.5	98.4	14.1	143.0	13.2	192.1	10.6
									69.3	15.5	99.0	14.1	143.4	13.1	193.5	10.6
									69.9	15.5	99.7	14.0	144.2	13.1	194.7	10.5
									70.4	15.5	100.1	14.0	144.6	13.0	195.8	10.5
									70.8	15.4	101.0	14.0	145.1	12.9	197.6	10.5
									71.3	15.4	102.0	14.0	145.5	12.8	198.9	10.5
									71.5	15.3	102.8	14.0	145.6	12.8	200.0	10.5
									72.1	15.3	104.0	14.0	146.0	12.7	200.4	10.5
									72.4	15.2	104.5	14.0	146.9	12.6	200.7	10.4
									72.8	15.2	105.1	14.0	147.2	12.6	201.1	10.4
									73.2	15.1	105.4	14.1	147.7	12.5	201.6	10.4
									73.6	15.1	106.4	14.0	149.6	12.4	202.1	10.3
									73.9	15.0	107.1	14.0	150.9	12.4	203.0	10.3
									74.2	14.9	107.8	14.0	152.1	12.4	203.6	10.2
									74.6	14.9	108.7	14.0	152.9	12.3	203.9	10.1
									74.6	14.8	109.4	14.0	153.6	12.3	204.7	10.1
									74.8	14.8	110.4	13.9	154.2	12.2	205.1	10.0
									75.4	14.7	111.5	13.9	154.7	12.2	205.5	10.0
									76.0	14.7	112.6	13.9	155.6	12.2	206.5	9.9
									76.5	14.7	113.3	13.9	156.7	12.1	207.2	9.9
									77.6	14.7	113.8	13.8	157.2	12.1	207.7	9.8
									78.3	14.7	114.6	13.8	158.3	12.0	208.1	9.7

STA 29 DAY: 13 TIME: 2202

STA 29 DAY: 13 TIME: 2202

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
208.6	9.6	267.4	8.1	330.3	6.7	418.9	5.7	509.4	5.3	624.4	4.8		
209.6	9.6	268.2	8.0	331.6	6.7	419.8	5.7	511.8	5.3	626.4	4.8		
211.4	9.6	269.9	7.9	332.9	6.7	421.8	5.7	513.2	5.3	629.6	4.8		
212.6	9.6	271.3	7.9	334.6	6.7	423.0	5.7	514.1	5.3	633.5	4.8		
214.7	9.6	272.5	7.9	336.4	6.7	424.4	5.7	517.4	5.2	636.8	4.8		
216.2	9.5	274.5	7.8	337.3	6.6	426.3	5.7	519.2	5.2	640.0	4.8		
217.5	9.5	275.5	7.8	338.5	6.6	428.3	5.7	522.3	5.2	643.4	4.8		
218.3	9.5	276.6	7.7	340.2	6.5	430.0	5.7	524.6	5.2	646.2	4.8		
219.0	9.4	278.2	7.7	342.7	6.5	431.5	5.7	526.3	5.2	648.5	4.8		
219.6	9.3	279.2	7.7	344.9	6.5	432.9	5.7	529.1	5.2	651.6	4.8		
219.7	9.3	280.4	7.7	346.9	6.5	434.5	5.7	531.0	5.2	654.3	4.8		
220.1	9.2	281.0	7.6	348.2	6.5	436.0	5.7	533.1	5.2	656.2	4.8		
220.7	9.1	282.4	7.6	349.5	6.4	437.5	5.7	535.5	5.2	650.0	4.8		
221.4	9.1	283.9	7.6	350.8	6.4	439.1	5.7	538.0	5.2	652.8	4.8		
223.1	9.1	285.2	7.5	352.3	6.4	441.0	5.7	539.6	5.2	654.6	4.8		
224.3	9.0	286.5	7.5	353.9	6.3	443.0	5.7	542.6	5.2	656.6	4.8		
225.4	9.0	287.9	7.5	354.8	6.3	444.3	5.7	545.5	5.2	660.0	4.8		
226.9	8.9	288.9	7.5	356.1	6.3	445.5	5.7	548.8	5.2	663.0	4.8		
228.5	8.9	289.8	7.4	358.0	6.2	446.9	5.7	551.4	5.1	665.9	4.8		
229.3	8.9	291.0	7.4	359.2	6.2	448.5	5.7	553.5	5.1	669.3	4.8		
230.0	8.8	292.9	7.4	361.1	6.2	450.0	5.7	556.0	5.2	672.0	4.8		
230.6	8.8	294.6	7.3	362.9	6.1	450.2	5.6	558.2	5.2	675.5	4.8		
231.5	8.8	295.3	7.3	365.6	6.1	451.9	5.5	560.7	5.2	678.5	4.8		
233.6	8.7	295.8	7.2	367.0	6.1	453.5	5.6	562.1	5.1	682.2	4.8		
233.3	8.7	297.1	7.2	369.7	6.0	454.6	5.5	563.0	5.1	686.3	4.8		
237.2	8.7	298.4	7.2	370.9	6.0	456.1	5.5	564.9	5.1	689.2	4.8		
239.0	8.7	299.4	7.2	372.4	6.0	457.9	5.5	566.3	5.1	691.8	4.8		
239.9	8.7	300.8	7.2	374.6	6.0	460.0	5.5	568.2	5.1	693.4	4.8		
241.4	8.7	302.7	7.2	377.3	6.0	462.3	5.5	570.8	5.0	694.7	4.7		
242.4	8.6	303.6	7.2	379.6	6.0	464.5	5.5	573.6	5.0	697.1	4.7		
243.6	8.6	304.7	7.1	382.1	6.0	466.3	5.5	577.1	5.0	703.1	4.7		
244.2	8.6	305.9	7.1	384.5	6.0	468.5	5.5	579.7	5.0	706.2	4.7		
245.1	8.5	307.2	7.0	385.6	5.9	471.4	5.5	583.2	5.0	709.5	4.7		
246.0	8.5	308.5	7.0	387.0	5.9	473.3	5.5	586.1	5.0	714.1	4.7		
247.0	8.4	310.0	7.0	388.9	5.9	475.7	5.5	588.9	5.0	716.8	4.7		
248.5	8.4	310.5	7.0	391.2	5.9	478.5	5.5	591.7	5.0	719.7	4.7		
249.8	8.4	311.1	6.9	393.8	5.9	480.0	5.4	594.5	5.0	722.7	4.7		
251.4	8.4	312.4	6.9	396.3	5.8	482.0	5.4	596.8	5.0	725.8	4.7		
252.7	8.4	313.6	6.9	398.0	5.8	483.9	5.4	599.5	5.0	729.1	4.7		
253.4	8.4	314.7	6.9	401.1	5.8	486.4	5.4	601.3	5.0	732.8	4.7		
254.1	8.3	315.9	6.9	402.5	5.8	488.5	5.4	602.3	4.9	735.6	4.7		
255.3	8.3	316.6	6.8	404.4	5.8	490.5	5.4	603.2	4.9	739.2	4.7		
256.5	8.3	317.3	6.8	406.0	5.8	491.4	5.4	604.4	4.9	742.5	4.7		
258.0	8.3	319.1	6.8	408.8	5.8	494.1	5.4	606.2	4.9	746.6	4.7		
259.4	8.3	320.5	6.7	410.4	5.8	496.2	5.4	608.3	4.9	749.7	4.7		
261.0	8.2	321.8	6.7	411.3	5.8	499.0	5.4	610.0	4.9				
262.5	8.2	323.3	6.7	412.3	5.8	501.3	5.4	612.2	4.9				
264.4	8.2	325.1	6.7	414.1	5.7	503.2	5.4	614.3	4.9				
265.8	8.1	326.2	6.7	415.8	5.7	504.8	5.3	617.8	4.8				
266.7	8.1	327.3	6.7	417.6	5.7	507.4	5.3	621.0	4.9				







SHIP	DEPTH	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH		
OC	m	130	30	13 NOV 1982	22.7	40 20.4 N	67 41.2 W	985		
SHIP	DEPTH	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH		
OC	m	130	30	13 NOV 1982	22.7	40 20.4 N	67 41.2 W	985		
			TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD	N
			°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s	cph
396	399.9	6-253	35.002	4.47	0.77	27.522	0.478	1482.	1.2	1.2
399	402.0	6-258	35.003	4.49	0.77	27.521	0.479	1482.	1.2	1.2
401	404.0	6-272	35.004	4.48	0.77	27.521	0.480	1482.	1.5	1.5
402	405.8	6-278	35.003	4.48	0.77	27.519	0.482	1483.	1.7	1.7
405	408.0	6-235	35.002	4.48	0.77	27.524	0.483	1482.	1.9	1.9
406	410.0	6-177	34.993	4.50	0.77	27.525	0.484	1482.	2.1	2.1
408	412.0	6-091	34.987	4.54	0.77	27.531	0.485	1482.	2.2	2.2
411	414.2	6-048	34.983	4.56	0.77	27.533	0.487	1482.	2.2	2.2
412	415.8	6-016	34.981	4.59	0.77	27.536	0.488	1482.	2.0	2.0
415	418.3	6-006	34.982	4.60	0.77	27.538	0.489	1482.	1.7	1.7
416	419.7	5-997	34.981	4.61	0.78	27.538	0.490	1482.	1.4	1.4
418	422.1	5-990	34.981	4.62	0.77	27.540	0.491	1482.	1.2	1.2
420	424.1	5-985	34.980	4.62	0.77	27.539	0.493	1482.	0.9	0.9
422	425.9	5-981	34.980	4.62	0.77	27.540	0.494	1482.	0.7	0.7
424	428.2	5-975	34.979	4.62	0.77	27.540	0.495	1482.	0.7	0.7
426	429.9	5-975	34.980	4.61	0.78	27.540	0.496	1482.	0.7	0.7
428	432.0	5-974	34.980	4.61	0.78	27.540	0.497	1482.	0.7	0.7
430	434.1	5-972	34.980	4.63	0.77	27.541	0.499	1482.	0.8	0.8
432	435.7	5-972	34.980	4.62	0.77	27.541	0.500	1482.	0.9	0.9
434	438.1	5-965	34.980	4.62	0.78	27.541	0.501	1482.	1.0	1.0
436	440.1	5-962	34.980	4.64	0.78	27.542	0.502	1482.	1.1	1.1
438	441.8	5-954	34.979	4.62	0.78	27.542	0.503	1482.	1.1	1.1
440	444.0	5-942	34.979	4.63	0.77	27.544	0.504	1482.	1.2	1.2
442	445.8	5-933	34.979	4.64	0.78	27.545	0.506	1482.	1.3	1.3
444	447.9	5-927	34.978	4.64	0.78	27.545	0.507	1482.	1.4	1.4
446	450.1	5-917	34.977	4.66	0.77	27.546	0.508	1482.	1.4	1.4
448	452.0	5-889	34.976	4.68	0.78	27.548	0.509	1482.	1.3	1.3
450	453.9	5-861	34.973	4.67	0.78	27.550	0.510	1482.	1.3	1.3
452	456.0	5-856	34.973	4.67	0.77	27.550	0.512	1482.	1.2	1.2
454	458.2	5-854	34.973	4.68	0.78	27.550	0.513	1482.	1.0	1.0
456	460.0	5-853	34.973	4.70	0.78	27.551	0.514	1482.	0.9	0.9
458	462.1	5-848	34.973	4.71	0.78	27.551	0.515	1482.	0.9	0.9
460	463.9	5-846	34.973	4.70	0.78	27.551	0.516	1482.	1.0	1.0
462	466.3	5-833	34.972	4.70	0.78	27.552	0.518	1482.	1.1	1.1
464	467.8	5-818	34.971	4.69	0.78	27.553	0.518	1482.	1.1	1.1
466	470.1	5-816	34.971	4.69	0.78	27.554	0.520	1482.	1.2	1.2
468	472.0	5-811	34.972	4.72	0.78	27.554	0.521	1482.	1.2	1.2
470	473.9	5-800	34.970	4.69	0.78	27.555	0.522	1482.	1.2	1.2
472	476.1	5-778	34.968	4.72	0.78	27.556	0.523	1482.	1.3	1.3
474	478.0	5-772	34.967	4.72	0.78	27.556	0.524	1482.	1.5	1.5
476	479.9	5-760	34.967	4.74	0.78	27.557	0.526	1482.	1.6	1.6
478	482.1	5-753	34.967	4.72	0.77	27.558	0.527	1482.	1.6	1.6
480	484.2	5-711	34.966	4.77	0.78	27.563	0.528	1482.	1.6	1.6
482	485.8	5-698	34.966	4.77	0.79	27.565	0.529	1482.	1.5	1.5
484	488.0	5-696	34.967	4.78	0.78	27.565	0.530	1482.	1.3	1.3
486	490.1	5-698	34.967	4.79	0.78	27.565	0.531	1482.	1.1	1.1
488	492.0	5-701	34.968	4.78	0.79	27.566	0.533	1482.	0.8	0.8
490	493.9	5-701	34.968	4.79	0.79	27.565	0.534	1482.	1.0	1.0
492	496.1	5-699	34.968	4.79	0.78	27.566	0.535	1482.	1.3	1.3
493	497.9	5-703	34.970	4.80	0.79	27.566	0.536	1482.	1.4	1.4

SHIP OC	CRUISE 130	STATION 31	DATE 14 NOV 1982	EST 01.0	LATITUDE 40 23.8 N	LONGITUDE 67 40.1 W	DEPTH 630	SHIP OC	CRUISE 130	STATION 31	DATE 14 NOV 1982	EST 01.0	LATITUDE 40 23.8 N	LONGITUDE 67 40.1 W	DEPTH 630
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SVHT A 10m <sup>2</sup> /s <sup>2</sup>	N cph	DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SVHT A 10m <sup>2</sup> /s <sup>2</sup>	N cph
9	8.7	13.687	33.433	6.31	0.72	25.041	0.000	105	106.2	14.029	35.496	4.14	0.68	0.212	1506.4.5
10	10.2	13.627	33.417	6.35	0.72	25.041	0.005	107	108.1	14.002	35.506	4.12	0.68	0.215	1506.4.3
12	11.9	13.622	33.411	6.34	0.72	25.038	0.009	109	110.0	13.858	35.488	4.13	0.68	0.218	1505.4.3
14	14.0	13.723	33.452	6.34	0.72	25.049	0.015	111	111.8	13.774	35.477	4.12	0.68	0.221	1505.4.3
16	16.1	13.799	33.472	6.32	0.72	25.048	0.022	113	114.0	13.699	35.476	4.11	0.68	0.224	1505.4.4
18	18.0	14.078	33.577	6.27	0.72	25.072	0.027	115	116.0	13.639	35.471	4.10	0.69	0.227	1505.4.6
20	19.8	14.573	33.775	6.35	0.72	25.120	0.032	117	118.1	13.592	35.471	4.07	0.69	0.230	1505.4.8
22	22.2	14.569	33.770	6.42	0.72	25.117	0.039	119	120.1	13.554	35.472	4.06	0.69	0.232	1505.5.0
24	24.1	15.035	33.941	6.35	0.72	25.149	0.044	121	122.0	13.461	35.480	4.04	0.69	0.235	1504.5.3
26	25.8	15.684	34.279	6.25	0.72	25.265	0.049	123	124.0	13.313	35.472	4.02	0.70	0.238	1504.5.4
28	28.1	16.220	34.389	6.21	0.72	25.228	0.055	125	126.0	13.235	35.470	3.99	0.70	0.241	1504.5.3
30	29.9	16.461	34.475	6.17	0.72	25.239	0.060	127	128.0	13.099	35.465	3.98	0.71	0.243	1503.5.1
32	32.0	16.826	34.622	6.09	0.72	25.266	0.066	129	129.9	13.005	35.467	3.97	0.71	0.246	1503.4.5
34	34.3	16.868	34.629	6.10	0.72	25.262	0.072	131	132.1	12.955	35.463	3.96	0.71	0.249	1503.4.0
36	35.9	16.921	34.653	6.03	0.72	25.268	0.076	133	134.1	12.917	35.461	3.96	0.71	0.251	1503.3.7
38	38.0	17.536	34.889	5.94	0.72	25.301	0.082	135	135.9	12.891	35.458	3.95	0.71	0.254	1503.3.5
39	39.8	17.730	34.974	5.88	0.72	25.319	0.087	137	138.1	12.865	35.455	3.94	0.71	0.257	1503.3.5
42	42.1	17.779	34.990	5.76	0.73	25.320	0.093	139	140.0	12.856	35.457	3.93	0.71	0.259	1503.3.5
44	44.0	17.751	35.001	5.59	0.74	25.335	0.098	141	142.2	12.726	35.444	3.93	0.71	0.262	1502.3.8
46	46.2	17.755	35.087	5.36	0.74	25.400	0.104	143	143.8	12.632	35.444	3.90	0.72	0.264	1502.4.1
48	48.0	17.609	35.220	5.03	0.74	25.538	0.108	145	145.9	12.604	35.440	3.88	0.72	0.267	1502.4.3
50	50.0	17.406	35.328	4.82	0.74	25.670	0.113	147	148.2	12.575	35.438	3.86	0.72	0.269	1502.4.6
51	51.8	17.000	35.369	4.57	0.74	25.798	0.117	149	149.8	12.476	35.436	3.85	0.73	0.271	1501.4.7
54	54.1	16.490	35.390	4.50	0.72	25.935	0.122	151	152.0	12.365	35.436	3.83	0.73	0.274	1501.4.9
55	55.8	16.356	35.417	4.42	0.64	25.987	0.126	153	154.1	12.311	35.432	3.81	0.73	0.277	1501.5.2
58	58.1	16.346	35.438	4.45	0.64	26.006	0.130	155	156.1	12.163	35.427	3.79	0.73	0.279	1500.5.4
60	60.2	16.124	35.458	4.51	0.64	26.072	0.135	157	157.9	12.096	35.425	3.77	0.73	0.281	1500.5.3
61	62.0	15.803	35.460	4.53	0.64	26.148	0.138	159	159.9	11.935	35.420	3.76	0.73	0.284	1500.5.1
63	64.0	15.647	35.435	4.55	0.63	26.163	0.142	161	162.0	11.827	35.418	3.74	0.74	0.286	1499.4.8
66	66.0	15.571	35.421	4.55	0.63	26.170	0.145	162	163.8	11.755	35.419	3.71	0.74	0.288	1499.4.2
68	68.0	15.508	35.412	4.56	0.63	26.178	0.149	165	166.0	11.727	35.419	3.70	0.73	0.290	1499.4.0
70	70.1	15.423	35.404	4.56	0.64	26.191	0.153	167	168.1	11.717	35.422	3.68	0.74	0.293	1499.3.8
71	72.1	15.356	35.398	4.56	0.65	26.201	0.157	169	169.9	11.707	35.422	3.68	0.74	0.295	1499.3.9
74	74.1	15.176	35.400	4.55	0.65	26.242	0.160	171	172.0	11.699	35.424	3.66	0.73	0.297	1499.4.2
75	75.9	15.104	35.412	4.51	0.64	26.267	0.164	173	174.1	11.615	35.430	3.68	0.73	0.299	1499.4.4
78	78.1	15.053	35.431	4.52	0.64	26.293	0.167	175	176.2	11.473	35.420	3.67	0.74	0.302	1498.4.5
79	79.8	14.985	35.439	4.45	0.65	26.315	0.170	176	177.8	11.363	35.414	3.64	0.74	0.304	1498.4.3
81	81.9	14.943	35.438	4.41	0.65	26.323	0.174	179	180.0	11.242	35.407	3.64	0.74	0.306	1498.4.1
84	84.2	14.896	35.445	4.38	0.65	26.339	0.178	181	182.0	11.163	35.391	3.63	0.74	0.308	1497.3.6
85	85.9	14.762	35.461	4.34	0.65	26.381	0.181	183	184.0	11.086	35.376	3.64	0.75	0.308	1497.3.4
87	88.1	14.565	35.466	4.32	0.66	26.427	0.184	185	186.2	11.082	35.378	3.61	0.76	0.312	1497.3.3
89	89.9	14.494	35.468	4.26	0.66	26.444	0.187	186	187.9	11.105	35.392	3.61	0.76	0.314	1497.4.0
91	91.9	14.400	35.461	4.25	0.67	26.459	0.190	188	190.0	11.083	35.398	3.59	0.75	0.316	1497.4.8
94	94.3	14.362	35.457	4.25	0.66	26.464	0.194	190	192.0	10.994	35.392	3.60	0.75	0.318	1497.5.3
95	95.8	14.279	35.456	4.24	0.67	26.481	0.197	192	194.0	10.882	35.384	3.60	0.74	0.320	1497.5.5
97	98.0	14.155	35.464	4.24	0.67	26.514	0.200	195	196.1	10.372	35.330	3.65	0.75	0.322	1495.5.5
99	100.0	14.104	35.474	4.21	0.67	26.532	0.203	196	197.9	10.139	35.311	3.64	0.75	0.324	1494.5.3
101	102.3	14.055	35.490	4.18	0.67	26.555	0.206	198	200.0	10.121	35.314	3.60	0.74	0.326	1494.5.0
103	103.9	14.059	35.495	4.15	0.68	26.558	0.209	200	202.0	10.023	35.304	3.61	0.75	0.328	1494.4.4
								202	204.0	9.972	35.299	3.62	0.74	0.330	1493.3.5

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH	SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
OC	130	31	14 NOV 1982	01.0	40 23.8 N	67 40.1 W	630	OC	130	31	14 NOV 1982	01.0	40 23.8 N	67 40.1 W	630
DEPTH		TEMP	SALIN	OXY	ATN	SIGT	DYHT	DEPTH		TEMP	SALIN	OXY	ATN	SIGT	DYHT
m		°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m		°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>
204	206.0	9.897	35.293	3.62	0.75	27.199	0.331	303	305.9	7.735	35.102	3.92	0.75	27.394	0.411
206	208.0	9.812	35.283	3.63	0.75	27.206	0.333	305	308.0	7.728	35.101	3.92	0.75	27.394	0.412
208	210.1	9.778	35.279	3.64	0.75	27.208	0.335	307	310.1	7.726	35.101	3.93	0.75	27.395	0.414
210	212.0	9.739	35.272	3.67	0.75	27.209	0.337	309	311.9	7.702	35.099	3.95	0.75	27.397	0.415
212	213.9	9.719	35.271	3.67	0.76	27.212	0.339	311	314.0	7.697	35.099	3.93	0.75	27.397	0.417
214	216.0	9.716	35.270	3.66	0.75	27.211	0.340	313	316.1	7.675	35.098	3.94	0.75	27.399	0.418
216	218.0	9.709	35.268	3.66	0.75	27.211	0.342	315	318.1	7.608	35.093	3.96	0.75	27.405	0.420
218	220.3	9.676	35.263	3.68	0.76	27.213	0.344	317	319.9	7.557	35.090	3.99	0.75	27.411	0.421
220	221.8	9.651	35.261	3.68	0.76	27.215	0.346	319	322.0	7.551	35.090	3.99	0.75	27.411	0.423
222	223.9	9.637	35.259	3.68	0.76	27.216	0.347	321	324.0	7.540	35.090	4.00	0.75	27.413	0.424
224	226.1	9.593	35.253	3.67	0.76	27.219	0.349	323	326.0	7.542	35.090	4.01	0.75	27.413	0.425
226	227.9	9.511	35.244	3.68	0.76	27.226	0.351	325	328.1	7.544	35.091	4.02	0.76	27.413	0.427
228	230.0	9.418	35.238	3.67	0.76	27.236	0.353	327	329.9	7.537	35.090	4.04	0.76	27.414	0.428
230	232.1	9.240	35.224	3.68	0.76	27.255	0.355	329	332.0	7.526	35.090	4.03	0.76	27.415	0.430
232	234.2	9.038	35.199	3.70	0.76	27.269	0.356	331	334.0	7.518	35.091	4.04	0.75	27.417	0.431
234	235.8	8.955	35.198	3.71	0.76	27.281	0.358	333	336.1	7.510	35.092	4.05	0.76	27.419	0.433
236	237.9	8.815	35.191	3.69	0.76	27.298	0.359	335	337.9	7.502	35.092	4.08	0.77	27.420	0.434
238	240.0	8.578	35.168	3.69	0.75	27.317	0.361	337	340.1	7.466	35.087	4.08	0.77	27.421	0.435
240	242.1	8.505	35.160	3.69	0.75	27.322	0.363	339	341.9	7.397	35.083	4.12	0.76	27.428	0.437
242	244.1	8.456	35.156	3.72	0.75	27.327	0.364	341	344.0	7.377	35.084	4.11	0.77	27.432	0.438
244	245.8	8.450	35.156	3.75	0.76	27.328	0.366	343	346.0	7.361	35.085	4.12	0.77	27.435	0.440
246	248.0	8.453	35.155	3.73	0.75	27.327	0.367	345	348.2	7.353	35.085	4.15	0.77	27.436	0.441
248	250.0	8.326	35.153	3.74	0.74	27.345	0.369	347	349.7	7.349	35.084	4.19	0.77	27.436	0.442
250	252.1	8.212	35.139	3.76	0.74	27.351	0.371	349	352.0	7.333	35.083	4.17	0.77	27.437	0.444
252	254.0	8.149	35.130	3.80	0.75	27.354	0.372	351	354.1	7.273	35.078	4.21	0.77	27.442	0.445
254	256.1	8.208	35.136	3.81	0.75	27.349	0.374	353	356.0	7.229	35.075	4.21	0.77	27.446	0.446
256	257.7	8.228	35.140	3.79	0.75	27.350	0.375	355	357.9	7.209	35.075	4.21	0.77	27.449	0.448
258	259.9	8.262	35.142	3.78	0.75	27.346	0.377	357	360.0	7.211	35.076	4.21	0.77	27.449	0.449
260	262.0	8.246	35.141	3.78	0.73	27.348	0.378	359	362.0	7.202	35.075	4.24	0.77	27.450	0.451
262	264.4	8.201	35.134	3.80	0.75	27.349	0.380	361	364.0	7.179	35.074	4.22	0.77	27.452	0.452
263	265.7	8.179	35.133	3.79	0.75	27.352	0.381	363	366.0	7.165	35.074	4.24	0.77	27.454	0.453
266	267.9	8.157	35.134	3.78	0.74	27.355	0.383	365	368.0	7.168	35.074	4.24	0.77	27.454	0.455
268	270.0	8.147	35.132	3.79	0.74	27.355	0.384	367	370.0	7.149	35.073	4.26	0.77	27.456	0.456
270	272.2	8.091	35.125	3.81	0.75	27.358	0.386	369	372.0	7.137	35.072	4.26	0.77	27.457	0.457
272	273.8	8.037	35.122	3.81	0.75	27.364	0.387	371	374.0	7.148	35.073	4.25	0.77	27.456	0.459
274	276.0	8.014	35.120	3.81	0.74	27.367	0.389	373	375.9	7.160	35.074	4.25	0.77	27.455	0.460
276	278.0	8.021	35.121	3.82	0.74	27.366	0.390	375	378.0	7.164	35.074	4.25	0.77	27.454	0.461
278	280.0	8.025	35.122	3.83	0.74	27.366	0.392	377	379.0	7.165	35.074	4.25	0.77	27.454	0.463
280	281.9	8.012	35.121	3.84	0.74	27.367	0.393	379	382.1	7.158	35.074	4.26	0.77	27.455	0.464
282	284.0	8.008	35.121	3.83	0.75	27.368	0.395	381	383.9	7.156	35.073	4.29	0.77	27.455	0.465
284	286.1	8.001	35.121	3.84	0.74	27.373	0.396	383	386.0	7.163	35.073	4.26	0.77	27.454	0.467
285	287.9	7.943	35.114	3.87	0.75	27.373	0.398	385	388.1	7.167	35.074	4.24	0.77	27.454	0.468
288	290.0	7.930	35.115	3.86	0.75	27.375	0.399	387	389.9	7.109	35.069	4.27	0.77	27.459	0.470
290	292.1	7.883	35.112	3.87	0.75	27.380	0.401	389	392.0	7.051	35.067	4.30	0.77	27.465	0.471
292	294.1	7.847	35.108	3.89	0.75	27.382	0.402	391	394.1	7.051	35.071	4.29	0.78	27.468	0.472
293	295.9	7.812	35.107	3.89	0.75	27.387	0.404	393	396.2	7.051	35.072	4.33	0.78	27.469	0.474
296	298.0	7.807	35.106	3.88	0.75	27.387	0.405	394	397.8	7.046	35.071	4.37	0.79	27.469	0.475
298	300.1	7.761	35.103	3.90	0.75	27.391	0.407	397	400.0	7.039	35.071	4.34	0.78	27.469	0.476
300	302.1	7.753	35.103	3.93	0.75	27.392	0.408	399	402.2	7.030	35.070	4.34	0.78	27.470	0.478
301	303.8	7.753	35.104	3.93	0.75	27.393	0.409	401	404.0	7.024	35.068	4.37	0.78	27.469	0.478
								402	405.8	7.004	35.065	4.36	0.78	27.470	0.480

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH	SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
OC	130	31	14 NOV 1982	01.0	40 23.8 N	67 40.1 W	630	OC	130	32	14 NOV 1982	02.5	40 26.8 N	67 39.6 W	530

SHIP OC	CRUISE 130	STATION 32	DATE 14 NOV 1982	EST 02.5	LATITUDE 40 26.8 N	LONGITUDE 67 39.6 W	DEPTH 530		
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph
99	99.7	13.984	35.253	4.37	0.65	26.387	0.246	1505.	6.6
101	102.1	14.123	35.333	4.35	0.64	26.419	0.249	1506.	6.3
103	104.2	13.908	35.331	4.35	0.64	26.463	0.253	1505.	5.9
105	105.9	13.853	35.327	4.31	0.65	26.471	0.255	1505.	5.3
107	108.0	13.829	35.331	4.30	0.65	26.480	0.259	1505.	4.6
109	110.3	13.786	35.327	4.30	0.65	26.486	0.262	1505.	4.1
111	112.0	13.772	35.328	4.28	0.65	26.489	0.265	1505.	4.0
113	113.9	13.714	35.321	4.27	0.66	26.496	0.268	1505.	4.5
115	116.1	13.679	35.328	4.27	0.66	26.509	0.272	1505.	5.0
117	117.7	13.652	35.344	4.24	0.67	26.526	0.274	1505.	5.4
119	120.0	13.552	35.356	4.24	0.66	26.556	0.277	1504.	5.7
121	121.9	13.483	35.364	4.21	0.67	26.577	0.280	1504.	5.9
123	124.0	13.398	35.376	4.17	0.67	26.604	0.283	1504.	5.9
125	126.0	13.344	35.379	4.16	0.67	26.617	0.286	1504.	5.8
127	127.9	13.259	35.384	4.14	0.68	26.639	0.289	1504.	5.7
129	130.1	13.062	35.377	4.14	0.68	26.673	0.292	1503.	5.5
131	132.2	12.998	35.372	4.11	0.69	26.683	0.295	1503.	5.2
133	133.9	12.913	35.374	4.10	0.69	26.701	0.297	1503.	5.0
135	136.2	12.778	35.363	4.10	0.71	26.719	0.300	1502.	4.7
137	137.9	12.734	35.359	4.09	0.71	26.725	0.303	1502.	4.6
139	140.2	12.697	35.358	4.08	0.72	26.732	0.306	1502.	5.0
141	141.9	12.656	35.360	4.07	0.72	26.742	0.308	1502.	5.1
143	144.1	12.575	35.363	4.07	0.72	26.759	0.311	1502.	5.1
145	145.7	12.487	35.373	4.05	0.73	26.785	0.313	1501.	5.0
147	148.0	12.340	35.385	4.05	0.72	26.823	0.316	1501.	4.7
149	150.1	12.333	35.388	4.03	0.73	26.826	0.319	1501.	4.3
151	151.9	12.336	35.390	4.01	0.73	26.828	0.321	1501.	3.6
153	154.2	12.338	35.392	4.01	0.73	26.829	0.324	1501.	2.9
155	155.9	12.337	35.396	4.00	0.73	26.832	0.326	1501.	2.5
157	157.9	12.332	35.401	3.99	0.73	26.837	0.328	1501.	2.7
159	160.0	12.327	35.403	4.00	0.72	26.839	0.331	1501.	2.9
161	162.3	12.295	35.404	4.00	0.72	26.847	0.334	1501.	3.0
163	163.9	12.255	35.407	3.95	0.73	26.857	0.336	1501.	3.0
165	166.0	12.217	35.406	3.94	0.71	26.864	0.338	1501.	3.1
167	168.0	12.203	35.406	3.92	0.69	26.866	0.341	1501.	3.2
169	170.2	12.188	35.406	3.93	0.70	26.869	0.343	1501.	3.4
171	172.0	12.153	35.402	3.88	0.73	26.873	0.346	1501.	4.2
173	173.9	12.079	35.402	3.84	0.73	26.887	0.348	1500.	5.3
175	175.9	12.036	35.402	3.83	0.72	26.895	0.350	1500.	6.5
177	178.0	11.944	35.402	3.82	0.72	26.913	0.353	1500.	7.3
179	180.3	11.542	35.377	3.82	0.73	26.970	0.355	1499.	7.6
180	181.7	11.341	35.387	3.75	0.73	27.015	0.357	1498.	7.6
182	184.0	10.890	35.375	3.74	0.72	27.088	0.359	1496.	7.4
184	186.0	10.576	35.341	3.73	0.72	27.118	0.361	1495.	6.8
187	188.3	10.520	35.329	3.67	0.72	27.119	0.364	1495.	5.7
188	189.8	10.442	35.328	3.65	0.73	27.132	0.365	1495.	4.7
190	192.0	10.397	35.326	3.66	0.72	27.138	0.367	1495.	3.6
193	194.1	10.351	35.323	3.67	0.72	27.144	0.369	1495.	3.1
195	196.1	10.289	35.316	3.71	0.72	27.149	0.371	1494.	3.0
196	197.9	10.239	35.312	3.73	0.73	27.155	0.373	1494.	2.8

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
OC	130	32	14 NOV 1982	02.5	40 26.8 N	67 39.6 W	530
DEPTH	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
297	300.0	8.319	35.163	4.13	27.353	0.460	1489.
300	302.1	8.273	35.161	4.15	27.359	0.461	1489.
301	304.0	8.241	35.160	4.19	27.363	0.463	1489.
303	305.9	8.218	35.158	4.21	27.365	0.464	1489.
305	307.9	8.147	35.153	4.22	27.372	0.466	1488.
307	310.1	8.102	35.150	4.22	27.376	0.467	1488.
309	312.0	8.061	35.147	4.22	27.380	0.469	1488.
311	313.9	8.040	35.144	4.21	27.382	0.470	1488.
313	316.0	8.031	35.144	4.20	27.383	0.472	1488.
315	318.2	8.019	35.144	4.19	27.384	0.473	1488.
317	319.7	7.988	35.141	4.20	27.387	0.475	1488.
319	322.0	7.971	35.138	4.18	27.387	0.476	1488.
321	324.0	7.983	35.140	4.17	27.386	0.478	1488.
323	326.1	7.965	35.139	4.19	27.388	0.479	1488.
325	328.0	7.939	35.136	4.20	27.391	0.481	1488.
327	330.0	7.938	35.137	4.21	27.391	0.482	1488.
329	332.1	7.937	35.137	4.21	27.392	0.484	1488.
331	334.0	7.920	35.137	4.23	27.394	0.485	1488.
333	335.9	7.886	35.135	4.25	27.398	0.486	1488.
335	338.3	7.818	35.129	4.27	27.402	0.488	1487.
337	340.0	7.785	35.128	4.29	27.407	0.489	1487.
339	341.9	7.727	35.122	4.32	27.410	0.491	1487.
341	343.9	7.745	35.103	4.35	27.433	0.492	1486.
343	346.0	7.705	35.095	4.39	27.451	0.494	1486.
345	348.1	7.621	35.096	4.43	27.454	0.495	1486.
347	349.9	7.265	35.094	4.45	27.456	0.496	1486.
349	352.0	7.237	35.094	4.45	27.457	0.498	1486.
351	354.1	7.238	35.092	4.45	27.458	0.499	1486.
353	355.9	7.237	35.092	4.44	27.459	0.500	1486.
355	358.0	7.236	35.092	4.44	27.459	0.502	1486.
357	359.9	7.243	35.092	4.44	27.457	0.503	1486.
359	362.0	7.245	35.092	4.43	27.457	0.504	1486.
361	364.2	7.238	35.093	4.43	27.458	0.506	1486.
363	365.8	7.231	35.092	4.42	27.459	0.507	1486.
365	368.1	7.219	35.091	4.43	27.460	0.509	1486.
367	370.0	7.223	35.090	4.43	27.459	0.510	1486.
369	371.9	7.226	35.090	4.42	27.458	0.511	1486.
371	374.0	7.227	35.090	4.42	27.458	0.513	1486.
373	375.8	7.232	35.089	4.41	27.457	0.514	1486.
375	378.0	7.229	35.088	4.40	27.456	0.515	1486.
377	380.1	7.225	35.088	4.40	27.457	0.517	1486.
379	381.9	7.209	35.088	4.42	27.459	0.518	1486.
381	384.0	7.196	35.085	4.42	27.459	0.519	1486.
383	386.1	7.137	35.077	4.44	27.460	0.521	1486.
385	388.1	7.032	35.078	4.46	27.473	0.522	1485.
387	390.1	7.049	35.077	4.47	27.473	0.523	1485.
389	392.0	7.031	35.077	4.47	27.475	0.525	1485.
391	394.0	6.999	35.075	4.48	27.479	0.526	1485.
393	396.0	6.949	35.070	4.50	27.482	0.527	1485.
395	398.0	6.855	35.066	4.53	27.491	0.529	1485.

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH		
OC	130	32	14 NOV 1982	02.5	40 26.8 N	67 39.6 W	530		
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD	N
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s	cph
486	490.0	6.209	35.028	4.83	0.84	27.548	0.586	1484.	0.5
487	491.0	6.214	35.029	4.83	0.84	27.548	0.586	1484.	0.2
488	492.0	6.214	35.030	4.84	0.84	27.549	0.587	1484.	0.2
489	493.0	6.215	35.030	4.84	0.83	27.549	0.588	1484.	0.2
490	494.0	6.212	35.030	4.83	0.84	27.549	0.588	1484.	0.2
490	494.8	6.214	35.029	4.83	0.82	27.548	0.589	1484.	0.2
4	4.3	10.874	32.664	6.32	0.78	24.979	0.000	1490.	0.0
6	6.0	10.871	32.663	6.32	0.76	24.980	0.005	1490.	0.5
8	8.1	10.871	32.663	6.32	0.77	24.980	0.011	1490.	0.5
10	9.9	10.872	32.663	6.31	0.78	24.979	0.017	1490.	0.5
12	12.1	10.871	32.663	6.28	0.78	24.980	0.023	1490.	0.5
14	14.1	10.871	32.663	6.29	0.78	24.980	0.029	1490.	0.5
16	15.9	10.872	32.663	6.32	0.79	24.979	0.034	1490.	0.6
18	18.1	10.872	32.662	6.29	0.78	24.979	0.041	1490.	0.6
20	19.7	10.872	32.664	6.28	0.79	24.980	0.046	1490.	0.6
22	22.0	10.872	32.666	6.21	0.79	24.982	0.052	1490.	0.5
24	24.1	10.873	32.665	6.19	0.79	24.981	0.059	1490.	0.5
26	26.0	10.873	32.665	6.25	0.81	24.980	0.064	1491.	0.6
28	27.9	10.873	32.665	6.27	0.82	24.981	0.070	1491.	0.7
30	29.9	10.874	32.664	6.23	0.81	24.980	0.076	1491.	0.7
32	32.1	10.874	32.664	6.21	0.81	24.980	0.082	1491.	0.9
34	34.0	10.872	32.668	6.24	0.82	24.983	0.088	1491.	0.9
36	36.0	10.872	32.669	6.25	0.83	24.984	0.094	1491.	0.9
38	37.9	10.874	32.668	6.24	0.83	24.983	0.100	1491.	0.9
40	40.1	10.874	32.669	6.23	0.82	24.983	0.106	1491.	0.9
41	41.8	10.874	32.669	6.22	0.83	24.983	0.111	1491.	0.8
44	44.0	10.874	32.669	6.20	0.82	24.984	0.118	1491.	0.9
46	46.2	10.873	32.669	6.22	0.83	24.984	0.124	1491.	1.0
48	47.9	10.872	32.672	6.16	0.84	24.986	0.130	1491.	1.2
50	50.1	10.872	32.672	6.16	0.84	24.986	0.136	1491.	1.7
52	52.0	10.872	32.672	6.22	0.84	24.986	0.142	1491.	2.3
54	53.9	10.870	32.674	6.22	0.84	24.988	0.147	1491.	3.1
56	56.1	10.866	32.678	6.23	0.84	24.992	0.154	1491.	3.8
57	57.9	10.859	32.688	6.29	0.84	25.000	0.159	1491.	4.1
59	60.0	10.844	32.705	6.28	0.83	25.016	0.165	1491.	5.2
62	62.0	10.817	32.733	6.26	0.82	25.044	0.171	1491.	7.0
63	63.8	10.801	32.750	6.20	0.81	25.059	0.177	1491.	8.7
66	66.0	10.802	32.748	6.05	0.80	25.057	0.183	1491.	9.8
68	68.2	10.692	32.836	5.96	0.79	25.145	0.189	1491.	10.7
69	69.9	10.317	32.948	5.88	0.74	25.297	0.194	1490.	11.1
71	72.0	9.955	33.040	5.83	0.70	25.430	0.199	1488.	11.4
73	73.9	9.871	33.072	5.71	0.70	25.468	0.204	1488.	11.9
75	76.0	9.745	33.129	5.57	0.68	25.534	0.209	1488.	11.4
78	78.2	9.595	33.167	5.51	0.69	25.588	0.215	1487.	10.7
79	79.9	9.439	33.239	5.43	0.68	25.670	0.219	1487.	10.3
81	81.9	9.611	33.470	5.38	0.68	25.822	0.223	1488.	10.6
84	84.2	9.930	33.567	5.30	0.67	25.845	0.228	1489.	10.3
85	85.9	10.087	33.620	5.25	0.67	25.860	0.232	1490.	9.9
87	88.1	10.439	33.798	5.19	0.67	25.939	0.237	1491.	9.3
89	90.0	10.643	33.983	5.11	0.66	26.048	0.240	1492.	9.1
91	92.1	10.614	34.001	5.08	0.66	26.067	0.244	1492.	9.2
93	94.0	10.623	34.025	5.04	0.67	26.084	0.248	1492.	9.1
95	95.9	10.867	34.167	4.95	0.67	26.151	0.252	1493.	8.6
97	97.9	11.396	34.397	4.82	0.66	26.234	0.256	1496.	8.0
100	100.4	11.677	34.504	4.72	0.66	26.265	0.260	1497.	7.8



SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH	SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH		
OC	130	33	14 NOV 1982	04.1	40 30.0 N	67 42.5 W	345	OC	130	33	14 NOV 1982	04.1	40 30.0 N	67 42.5 W	345		
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD	DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s	m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s
101	101.8	11.837	34.585	4.69	0.67	26.298	0.262	1497.	200	202.0	9.670	35.259	4.14	0.73	27.211	0.381	1492.
103	104.0	11.894	34.639	4.63	0.65	26.329	0.266	1498.	202	204.0	9.565	35.256	4.14	0.73	27.226	0.383	1492.
105	106.0	11.873	34.640	4.59	0.66	26.334	0.270	1498.	204	206.0	9.523	35.253	4.14	0.73	27.230	0.384	1492.
107	107.9	12.004	34.703	4.56	0.67	26.358	0.273	1498.	206	208.2	9.499	35.252	4.16	0.73	27.234	0.386	1492.
109	110.0	12.270	34.838	4.51	0.66	26.412	0.276	1499.	208	209.9	9.472	35.250	4.16	0.73	27.237	0.388	1492.
111	112.0	12.285	34.855	4.46	0.66	26.422	0.280	1499.	210	212.0	9.426	35.246	4.15	0.72	27.241	0.390	1492.
113	113.9	12.185	34.864	4.44	0.66	26.449	0.283	1499.	212	214.0	9.406	35.246	4.17	0.73	27.245	0.391	1492.
115	115.9	12.120	34.899	4.41	0.67	26.489	0.286	1499.	214	215.9	9.360	35.239	4.20	0.73	27.247	0.393	1491.
117	118.1	12.176	34.948	4.38	0.67	26.516	0.289	1499.	216	218.0	9.325	35.236	4.18	0.73	27.250	0.395	1491.
119	119.8	12.282	35.009	4.37	0.69	26.543	0.292	1500.	218	220.2	9.275	35.233	4.20	0.72	27.256	0.397	1491.
121	122.1	12.363	35.053	4.32	0.69	26.561	0.295	1500.	220	221.8	9.190	35.229	4.23	0.76	27.267	0.398	1491.
123	123.8	12.426	35.099	4.28	0.70	26.584	0.298	1500.	222	224.0	9.152	35.226	4.23	0.76	27.271	0.400	1491.
125	126.3	12.537	35.179	4.19	0.70	26.624	0.301	1501.	224	226.0	9.128	35.221	4.23	0.75	27.271	0.402	1491.
127	127.8	12.608	35.253	4.13	0.70	26.668	0.304	1501.	226	227.8	9.037	35.218	4.24	0.76	27.283	0.403	1490.
129	130.1	12.636	35.363	4.09	0.68	26.748	0.307	1502.	228	230.0	8.951	35.210	4.24	0.75	27.291	0.405	1490.
131	131.9	12.427	35.394	4.10	0.69	26.813	0.309	1501.	230	232.1	8.851	35.205	4.28	0.74	27.303	0.407	1490.
133	134.0	12.236	35.401	4.09	0.69	26.856	0.312	1500.	232	234.0	8.816	35.203	4.29	0.74	27.307	0.408	1490.
135	136.1	12.125	35.405	4.06	0.69	26.881	0.314	1500.	234	236.0	8.786	35.200	4.30	0.76	27.310	0.410	1490.
137	138.0	12.034	35.409	4.04	0.69	26.901	0.316	1500.	236	238.0	8.715	35.187	4.30	0.76	27.311	0.411	1489.
139	139.9	11.984	35.407	4.01	0.69	26.909	0.319	1500.	238	240.1	8.620	35.189	4.32	0.76	27.327	0.413	1489.
141	142.0	11.936	35.403	3.99	0.68	26.915	0.321	1499.	240	242.0	8.619	35.190	4.32	0.75	27.328	0.414	1489.
143	144.2	11.829	35.392	3.99	0.69	26.927	0.324	1499.	242	244.0	8.612	35.189	4.31	0.74	27.328	0.416	1489.
145	145.8	11.638	35.387	4.00	0.69	26.959	0.325	1498.	244	246.1	8.583	35.188	4.31	0.74	27.332	0.418	1489.
147	148.1	11.547	35.384	4.01	0.69	26.974	0.328	1498.	246	247.7	8.541	35.185	4.33	0.75	27.336	0.419	1489.
149	149.9	11.512	35.383	4.01	0.70	26.980	0.330	1498.	248	250.1	8.525	35.182	4.33	0.74	27.336	0.421	1489.
151	152.0	11.449	35.375	3.98	0.69	26.985	0.332	1498.	250	252.1	8.498	35.181	4.33	0.75	27.340	0.422	1489.
153	154.2	11.317	35.373	3.99	0.70	27.008	0.335	1497.	252	254.0	8.481	35.179	4.31	0.75	27.341	0.424	1489.
155	155.9	11.192	35.363	4.04	0.70	27.024	0.336	1497.	254	256.2	8.442	35.176	4.32	0.75	27.345	0.425	1489.
157	158.0	11.066	35.353	4.03	0.69	27.039	0.339	1497.	256	257.9	8.416	35.176	4.30	0.75	27.349	0.427	1488.
159	160.0	11.016	35.354	4.02	0.69	27.049	0.341	1496.	258	260.3	8.382	35.172	4.33	0.73	27.351	0.429	1488.
161	162.0	11.007	35.354	4.03	0.70	27.051	0.343	1496.	259	261.7	8.355	35.169	4.34	0.75	27.354	0.430	1488.
163	164.0	10.990	35.353	4.04	0.70	27.053	0.345	1496.	262	264.0	8.328	35.169	4.34	0.75	27.357	0.431	1488.
165	166.1	10.964	35.348	4.02	0.70	27.054	0.347	1496.	264	266.0	8.286	35.167	4.36	0.75	27.359	0.433	1488.
167	168.0	10.885	35.342	4.05	0.72	27.063	0.349	1496.	266	267.9	8.267	35.167	4.36	0.75	27.362	0.434	1488.
169	170.0	10.678	35.327	4.05	0.71	27.089	0.351	1495.	268	270.0	8.273	35.166	4.35	0.75	27.363	0.436	1488.
171	172.3	10.586	35.324	4.07	0.72	27.103	0.353	1495.	270	271.8	8.268	35.166	4.37	0.75	27.364	0.437	1488.
172	173.8	10.566	35.324	4.08	0.72	27.108	0.355	1495.	272	274.0	8.239	35.163	4.35	0.74	27.366	0.439	1488.
175	176.0	10.502	35.320	4.06	0.72	27.115	0.357	1495.	274	276.1	8.231	35.160	4.35	0.74	27.365	0.441	1488.
177	178.2	10.375	35.311	4.08	0.71	27.130	0.359	1494.	276	278.0	8.182	35.158	4.38	0.75	27.371	0.442	1488.
178	179.8	10.292	35.305	4.11	0.72	27.140	0.361	1494.	278	280.0	8.139	35.157	4.37	0.76	27.377	0.444	1488.
180	182.0	10.209	35.300	4.10	0.72	27.151	0.363	1494.	280	282.0	8.128	35.154	4.38	0.76	27.376	0.445	1488.
182	184.0	10.137	35.291	4.09	0.72	27.156	0.365	1494.	282	284.0	8.088	35.153	4.40	0.76	27.381	0.447	1488.
185	186.3	9.916	35.277	4.12	0.72	27.184	0.367	1493.	284	285.9	8.032	35.150	4.40	0.78	27.387	0.448	1487.
186	187.8	9.856	35.277	4.14	0.72	27.194	0.368	1493.	286	288.0	8.038	35.150	4.41	0.78	27.386	0.449	1488.
188	190.0	9.826	35.274	4.12	0.72	27.196	0.370	1493.	288	290.1	8.037	35.148	4.40	0.78	27.385	0.451	1488.
190	192.0	9.785	35.270	4.12	0.72	27.200	0.372	1493.	290	291.8	8.005	35.147	4.41	0.79	27.390	0.452	1487.
192	194.0	9.768	35.271	4.12	0.73	27.203	0.374	1493.	292	294.0	7.993	35.147	4.40	0.80	27.391	0.454	1487.
194	196.0	9.759	35.270	4.13	0.73	27.205	0.376	1493.	294	296.1	7.957	35.140	4.40	0.80	27.391	0.455	1487.
196	197.9	9.750	35.270	4.13	0.73	27.206	0.377	1493.	296	297.9	7.919	35.145	4.42	0.81	27.400	0.457	1487.
198	200.0	9.732	35.267	4.13	0.72	27.207	0.379	1492.	297	300.0	7.938	35.141	4.42	0.82	27.394	0.458	1487.

SHIP OC	CRUISE 130	STATION 33	DATE 14 NOV 1982	EST 04.1	LATITUDE 40 30.0 N	LONGITUDE 67 42.5 W	DEPTH 345	SHIP OC	CRUISE 130	STATION 34	DATE 14 NOV 1982	EST 04.9	LATITUDE 40 31.5 N	LONGITUDE 67 42.9 W	DEPTH 305		
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph
300	302.1	7.912	35.141	4.41	0.82	27.398	0.460	1487.	1.3	10.877	32.647	6.27	0.81	24.966	0.000	1490.	-0.5
302	304.1	7.923	35.143	4.42	0.81	27.398	0.461	1487.	1.3	10.878	32.647	6.23	0.79	24.965	0.003	1490.	-0.5
303	305.7	7.935	35.142	4.41	0.81	27.395	0.462	1487.	1.2	10.881	32.646	6.23	0.77	24.964	0.009	1490.	-0.5
305	308.1	7.899	35.138	4.40	0.82	27.398	0.464	1487.	1.6	10.880	32.646	6.30	0.77	24.965	0.016	1490.	-0.5
308	310.3	7.897	35.142	4.42	0.80	27.401	0.466	1487.	2.0	10.877	32.647	6.35	0.78	24.965	0.021	1490.	-0.5
309	311.8	7.866	35.139	4.42	0.83	27.403	0.467	1487.	2.6	10.879	32.646	6.35	0.78	24.965	0.027	1490.	-0.4
311	314.1	7.843	35.136	4.43	0.83	27.404	0.468	1487.	3.2	10.883	32.646	6.37	0.78	24.964	0.033	1490.	-0.3
313	316.1	7.807	35.135	4.48	0.83	27.409	0.470	1487.	3.7	10.884	32.646	6.37	0.79	24.964	0.039	1490.	-0.4
315	317.9	7.741	35.134	4.49	0.84	27.418	0.471	1487.	3.9	10.884	32.646	6.34	0.78	24.964	0.045	1490.	-0.4
317	320.0	7.465	35.105	4.51	0.87	27.435	0.473	1486.	3.9	10.884	32.646	6.29	0.78	24.964	0.051	1490.	0.4
319	322.1	7.349	35.104	4.54	0.87	27.451	0.474	1485.	3.8	10.884	32.646	6.34	0.79	24.964	0.057	1490.	0.6
321	323.7	7.285	35.100	4.56	0.88	27.458	0.475	1485.	3.6	10.884	32.646	6.36	0.79	24.964	0.063	1491.	0.7
323	326.0	7.253	35.097	4.56	0.87	27.460	0.477	1485.	3.2	10.884	32.646	6.39	0.80	24.964	0.068	1491.	0.8
325	328.2	7.225	35.095	4.58	0.85	27.462	0.478	1485.	2.7	10.883	32.649	6.39	0.78	24.966	0.075	1491.	0.8
327	329.7	7.184	35.091	4.60	0.86	27.465	0.479	1485.	2.4	10.883	32.648	6.40	0.76	24.966	0.081	1491.	0.9
328	331.3	7.142	35.086	4.60	0.87	27.467	0.480	1485.	2.5	10.884	32.649	6.41	0.78	24.966	0.086	1491.	0.9
329	332.0	7.124	35.085	4.61	0.87	27.469	0.481	1485.	2.6	10.884	32.650	6.38	0.79	24.967	0.094	1491.	0.9
330	333.0	7.092	35.078	4.62	0.87	27.468	0.481	1485.	2.7	10.885	32.650	6.34	0.80	24.967	0.099	1491.	1.1
331	334.0	7.045	35.081	4.63	0.87	27.476	0.482	1484.	2.9	10.884	32.651	6.33	0.80	24.968	0.104	1491.	1.3
332	335.0	7.027	35.082	4.64	0.86	27.480	0.483	1484.	2.8	10.884	32.651	6.32	0.80	24.968	0.111	1491.	1.4
333	335.9	7.052	35.083	4.64	0.88	27.477	0.483	1484.	2.6	10.882	32.653	6.30	0.81	24.970	0.117	1491.	1.4
334	337.0	7.042	35.082	4.64	0.89	27.478	0.484	1484.	2.4	10.879	32.656	6.30	0.81	24.972	0.122	1491.	1.6
335	338.0	6.998	35.084	4.65	0.88	27.486	0.485	1484.	1.9	10.877	32.658	6.31	0.81	24.975	0.129	1491.	1.9
336	339.0	7.007	35.081	4.66	0.86	27.482	0.485	1484.	1.7	10.878	32.658	6.31	0.81	24.974	0.135	1491.	2.1
337	340.0	6.986	35.080	4.65	0.89	27.484	0.486	1484.	1.7	10.877	32.659	6.31	0.82	24.975	0.141	1491.	2.2
338	341.0	6.987	35.080	4.66	0.89	27.484	0.486	1484.	1.7	10.873	32.663	6.30	0.82	24.979	0.146	1491.	2.6
339	342.0	6.983	35.080	4.62	0.96	27.484	0.487	1484.	1.7	10.863	32.675	6.26	0.82	24.990	0.152	1491.	3.1
340	343.0	6.979	35.080	4.66	0.95	27.485	0.488	1484.	1.7	10.865	32.673	6.20	0.82	24.988	0.158	1491.	3.8
341	344.0	6.985	35.080	4.61	0.88	27.484	0.488	1484.	1.7	10.860	32.681	6.19	0.82	24.995	0.165	1491.	4.4
										59	32.695	6.14	0.82	25.008	0.170	1491.	5.3
										62	32.715	6.10	0.80	25.025	0.176	1491.	6.4
										63	32.747	6.07	0.79	25.053	0.182	1491.	7.9
										65	32.774	5.98	0.77	25.080	0.188	1491.	9.3
										68	32.827	5.92	0.76	25.134	0.194	1491.	10.3
										69	32.902	5.77	0.74	25.214	0.199	1491.	10.9
										72	33.028	5.68	0.71	25.341	0.205	1490.	11.4
										73	33.124	5.52	0.69	25.447	0.210	1490.	11.8
										75	33.140	5.52	0.68	25.530	0.215	1488.	11.8
										78	33.178	5.41	0.67	25.574	0.220	1488.	11.3
										79	33.275	5.34	0.68	25.663	0.224	1488.	10.8
										81	33.417	5.32	0.68	25.783	0.229	1488.	10.6
										83	33.483	5.30	0.68	25.832	0.234	1488.	10.4
										85	33.514	5.23	0.68	25.854	0.237	1488.	10.0
										87	33.630	5.17	0.68	25.929	0.242	1489.	9.1
										89	33.786	5.15	0.68	26.025	0.246	1489.	8.1
										91	33.832	5.15	0.68	26.053	0.249	1490.	7.4
										93	33.881	5.13	0.68	26.074	0.254	1490.	6.6
										95	33.900	5.13	0.68	26.083	0.258	1490.	5.3
										97	33.915	5.11	0.69	26.089	0.261	1490.	4.2

SHIP OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH		
		34	14 NOV 1982	04.9	40 31.5 N	67 42.9 W	305		
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD	DEPTH
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s	cph
99	100.3	10.140	33.934	5.10	0.69	26.096	0.266	1491.	4.1
101	101.9	10.191	33.957	5.07	0.69	26.105	0.269	1491.	4.4
103	104.2	10.294	33.997	5.05	0.68	26.119	0.273	1491.	4.9
105	106.0	10.302	34.009	5.08	0.69	26.127	0.277	1491.	6.0
107	108.1	10.312	34.046	5.06	0.69	26.154	0.281	1492.	7.1
109	110.2	10.387	34.093	5.00	0.69	26.178	0.285	1492.	8.0
111	111.9	10.630	34.184	4.86	0.69	26.207	0.288	1493.	9.2
113	114.0	11.102	34.415	4.76	0.68	26.302	0.292	1495.	9.9
115	116.4	11.366	34.568	4.66	0.69	26.372	0.296	1496.	10.5
117	117.7	11.757	34.744	4.34	0.70	26.437	0.298	1498.	10.9
119	120.0	12.337	35.025	4.23	0.69	26.544	0.301	1500.	10.9
121	122.1	12.805	35.234	4.16	0.69	26.614	0.304	1502.	10.5
123	123.8	12.893	35.333	3.99	0.69	26.673	0.307	1502.	9.9
125	126.1	12.612	35.384	3.95	0.68	26.769	0.310	1501.	9.1
127	128.0	12.439	35.389	3.92	0.69	26.807	0.312	1501.	7.9
129	129.8	12.351	35.393	3.82	0.70	26.827	0.315	1501.	6.8
131	132.2	12.284	35.401	3.82	0.70	26.846	0.318	1500.	5.8
133	133.8	12.264	35.402	3.87	0.70	26.851	0.320	1500.	4.9
135	136.0	12.261	35.406	3.88	0.70	26.855	0.322	1500.	4.7
137	138.2	12.167	35.400	3.95	0.70	26.868	0.325	1500.	4.7
139	140.0	12.102	35.402	3.98	0.70	26.883	0.327	1500.	5.0
141	142.1	11.915	35.393	4.00	0.70	26.912	0.329	1499.	5.3
143	143.9	11.802	35.384	3.97	0.72	26.926	0.332	1499.	5.5
145	146.0	11.712	35.383	3.94	0.72	26.942	0.334	1499.	5.5
147	148.1	11.570	35.377	3.96	0.72	26.964	0.336	1498.	5.6
149	150.1	11.401	35.366	3.93	0.73	26.988	0.339	1498.	5.5
151	151.7	11.363	35.369	3.89	0.73	26.997	0.340	1498.	5.4
153	154.0	11.250	35.363	3.92	0.73	27.013	0.343	1497.	5.1
155	156.1	10.952	35.337	3.97	0.73	27.047	0.345	1496.	4.6
157	157.9	10.893	35.331	3.99	0.75	27.053	0.347	1496.	4.2
159	159.9	10.864	35.335	3.97	0.75	27.061	0.349	1496.	4.1
161	162.1	10.856	35.335	3.97	0.75	27.063	0.351	1496.	4.1
163	163.9	10.848	35.335	3.98	0.75	27.064	0.353	1496.	4.2
165	165.9	10.801	35.330	3.98	0.76	27.069	0.355	1496.	4.5
166	167.8	10.576	35.314	4.01	0.76	27.097	0.357	1495.	4.9
169	170.0	10.405	35.306	4.03	0.76	27.121	0.359	1494.	4.2
171	172.3	10.231	35.291	4.05	0.76	27.140	0.361	1494.	5.3
172	173.9	10.146	35.286	4.03	0.76	27.151	0.363	1494.	5.2
175	176.0	10.011	35.279	4.03	0.76	27.168	0.365	1493.	4.7
177	178.1	9.850	35.266	4.05	0.76	27.186	0.367	1493.	4.2
178	179.9	9.793	35.267	4.04	0.75	27.197	0.368	1492.	3.8
180	181.9	9.763	35.266	4.00	0.76	27.201	0.370	1492.	3.4
183	184.0	9.754	35.266	4.00	0.76	27.202	0.372	1492.	3.0
184	185.8	9.714	35.262	4.05	0.76	27.206	0.374	1492.	2.4
187	188.2	9.656	35.258	4.02	0.76	27.212	0.376	1492.	2.3
188	189.9	9.640	35.259	4.07	0.76	27.216	0.377	1492.	2.5
190	192.0	9.622	35.258	4.06	0.76	27.218	0.379	1492.	2.7
192	194.0	9.661	35.261	4.07	0.76	27.214	0.381	1492.	2.8
194	195.9	9.531	35.249	4.10	0.77	27.227	0.383	1492.	2.9
196	197.9	9.464	35.244	4.11	0.77	27.233	0.384	1491.	3.0

SHIP OC	CRUISE 130	STATION 35	DATE 14 NOV 1982	EST 05.8	LATITUDE 40 32.4 N	LONGITUDE 67 44.4 W	DEPTH 138			
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N	DEPTH cph
2	2.5	10.876	32.657	6.28	0.78	24.973	0.000	1490.	-0.2	
4	4.0	10.882	32.656	6.35	0.81	24.972	0.005	1490.	-0.2	
6	6.0	10.881	32.656	6.33	0.79	24.972	0.010	1490.	-0.2	
8	8.1	10.883	32.656	6.35	0.79	24.972	0.017	1490.	-0.2	
10	9.9	10.883	32.656	6.32	0.79	24.972	0.022	1490.	-0.2	
12	12.1	10.882	32.656	6.31	0.79	24.972	0.029	1490.	0.4	
14	13.7	10.883	32.656	6.32	0.80	24.972	0.034	1490.	0.4	
16	16.1	10.884	32.657	6.32	0.78	24.972	0.041	1490.	0.5	
18	17.9	10.884	32.657	6.34	0.80	24.972	0.046	1490.	0.5	
20	20.1	10.884	32.657	6.33	0.80	24.972	0.053	1490.	0.6	
22	21.7	10.884	32.657	6.33	0.81	24.973	0.057	1490.	0.8	
24	24.1	10.885	32.658	6.32	0.80	24.973	0.064	1491.	0.8	
26	25.9	10.885	32.658	6.30	0.81	24.973	0.070	1491.	0.9	
27	27.7	10.884	32.660	6.29	0.82	24.974	0.075	1491.	0.8	
30	30.2	10.884	32.660	6.27	0.81	24.975	0.083	1491.	0.7	
31	31.7	10.884	32.660	6.27	0.82	24.975	0.087	1491.	0.6	
34	34.2	10.884	32.661	6.29	0.82	24.975	0.094	1491.	0.6	
36	35.9	10.885	32.660	6.29	0.83	24.975	0.100	1491.	0.4	
38	38.0	10.885	32.660	6.32	0.83	24.975	0.106	1491.	0.7	
40	40.2	10.885	32.660	6.36	0.83	24.975	0.112	1491.	1.0	
41	41.6	10.885	32.661	6.32	0.84	24.975	0.117	1491.	1.6	
44	44.0	10.885	32.661	6.30	0.83	24.975	0.124	1491.	1.9	
46	46.2	10.882	32.664	6.32	0.84	24.978	0.130	1491.	2.1	
48	47.9	10.879	32.667	6.30	0.84	24.981	0.135	1491.	2.3	
50	50.3	10.864	32.676	6.29	0.83	24.991	0.142	1491.	2.5	
51	51.9	10.862	32.678	6.23	0.84	24.993	0.147	1491.	2.7	
54	54.0	10.862	32.678	6.21	0.84	24.993	0.153	1491.	3.0	
56	56.0	10.852	32.684	6.22	0.83	24.999	0.159	1491.	3.4	
58	58.1	10.845	32.689	6.17	0.84	25.004	0.166	1491.	4.0	
59	59.9	10.834	32.696	6.08	0.84	25.012	0.171	1491.	4.7	
62	62.3	10.805	32.713	6.07	0.83	25.030	0.178	1491.	5.3	
63	63.9	10.779	32.730	6.00	0.82	25.048	0.182	1491.	6.6	
66	66.2	10.753	32.763	5.99	0.81	25.077	0.189	1491.	7.8	
68	68.1	10.740	32.798	5.95	0.80	25.107	0.195	1491.	9.2	
69	69.8	10.725	32.827	5.79	0.79	25.133	0.199	1491.	10.4	
71	72.0	10.607	32.950	5.76	0.77	25.249	0.206	1491.	11.4	
73	73.8	10.492	33.026	5.76	0.75	25.328	0.210	1490.	12.2	
76	76.1	10.131	33.129	5.77	0.72	25.470	0.216	1489.	12.4	
77	77.8	9.846	33.188	5.64	0.72	25.564	0.221	1488.	12.0	
79	80.0	9.682	33.311	5.50	0.72	25.686	0.226	1488.	11.1	
82	82.2	9.809	33.460	5.38	0.72	25.782	0.231	1489.	10.1	
83	84.0	9.887	33.523	5.24	0.73	25.818	0.235	1489.	9.1	
85	86.0	9.898	33.529	5.22	0.73	25.821	0.239	1489.	8.3	
87	87.9	9.912	33.535	5.18	0.73	25.823	0.243	1489.	7.6	
89	90.0	9.944	33.600	5.15	0.74	25.869	0.248	1489.	7.3	
91	92.0	9.901	33.681	5.13	0.74	25.939	0.252	1489.	7.2	
94	94.3	9.939	33.745	5.12	0.74	25.983	0.257	1490.	7.4	
95	96.0	9.955	33.786	5.07	0.74	26.012	0.260	1490.	8.1	
97	97.7	9.938	33.794	5.03	0.74	26.021	0.264	1490.	8.6	

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH	SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH			
OC	130	36	14 NOV 1982	06.5	40 33.9 N	67 44.9 W	103	OC	130	36	14 NOV 1982	06.5	40 33.9 N	67 44.9 W	103			
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD	DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD	DEPTH
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s	m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s	cph
5	4.7	10.913	32.684	6.42	0.72	24.988	0.000	1490.	90	91.0	10.437	33.437	5.49	0.73	25.658	0.244	1491.	10.4
6	6.0	10.921	32.682	6.51	0.72	24.985	0.004	1490.	91	91.9	10.441	33.489	5.43	0.73	25.697	0.246	1491.	12.0
8	8.0	10.922	32.682	6.45	0.71	24.985	0.010	1490.	92	93.1	10.433	33.524	5.41	0.73	25.726	0.249	1491.	13.9
10	9.9	10.919	32.683	6.48	0.72	24.986	0.016	1490.	93	94.0	10.379	33.572	5.33	0.73	25.773	0.251	1491.	16.9
12	12.1	10.918	32.682	6.55	0.71	24.986	0.022	1490.	94	95.0	10.259	33.660	5.29	0.73	25.862	0.253	1491.	19.4
14	13.8	10.917	32.683	6.52	0.72	24.987	0.027	1491.	95	96.0	10.294	33.819	5.19	0.73	25.980	0.255	1491.	19.4
16	15.9	10.914	32.684	6.56	0.72	24.988	0.033	1491.	96	97.1	10.529	34.076	5.10	0.72	26.140	0.258	1492.	19.4
18	18.0	10.918	32.682	6.58	0.73	24.986	0.039	1491.	97	98.0	11.208	34.638	4.89	0.72	26.456	0.259	1495.	19.4
20	19.9	10.916	32.683	6.56	0.74	24.987	0.045	1491.	98	98.9	12.054	35.064	4.75	0.72	26.629	0.260	1499.	19.4
22	22.1	10.919	32.682	6.59	0.73	24.986	0.052	1491.										
24	23.9	10.920	32.682	6.57	0.74	24.985	0.057	1491.										
26	26.1	10.920	32.682	6.57	0.73	24.986	0.063	1491.										
28	27.9	10.917	32.684	6.54	0.73	24.987	0.069	1491.										
30	29.9	10.922	32.683	6.47	0.73	24.986	0.075	1491.										
32	32.0	10.919	32.683	6.46	0.74	24.986	0.081	1491.										
34	34.2	10.922	32.683	6.42	0.74	24.986	0.088	1491.										
36	35.9	10.914	32.684	6.43	0.74	24.988	0.092	1491.										
38	38.1	10.916	32.684	6.45	0.74	24.988	0.099	1491.										
40	39.9	10.910	32.685	6.43	0.75	24.989	0.104	1491.										
42	42.1	10.898	32.688	6.41	0.75	24.994	0.111	1491.										
44	43.9	10.909	32.686	6.40	0.75	24.990	0.116	1491.										
46	46.2	10.903	32.687	6.37	0.75	24.992	0.123	1491.										
47	47.8	10.899	32.688	6.35	0.76	24.994	0.128	1491.										
50	50.0	10.881	32.692	6.40	0.75	25.000	0.135	1491.										
52	52.1	10.870	32.694	6.38	0.76	25.004	0.141	1491.										
53	53.8	10.858	32.698	6.34	0.76	25.009	0.146	1491.										
56	56.2	10.849	32.701	6.31	0.76	25.013	0.153	1491.										
57	57.8	10.837	32.706	6.22	0.76	25.019	0.157	1491.										
60	60.0	10.805	32.720	6.22	0.76	25.035	0.164	1491.										
61	61.9	10.787	32.729	6.18	0.75	25.045	0.169	1491.										
64	64.3	10.717	32.770	6.10	0.74	25.089	0.176	1491.										
65	65.8	10.620	32.831	6.01	0.73	25.154	0.181	1490.										
68	68.1	10.415	32.901	5.95	0.71	25.244	0.187	1490.										
70	70.1	10.155	32.957	5.86	0.69	25.331	0.192	1489.										
71	72.0	10.035	33.054	5.66	0.68	25.427	0.197	1489.										
74	74.1	10.127	33.134	5.62	0.69	25.474	0.203	1489.										
75	75.9	10.152	33.142	5.56	0.71	25.477	0.207	1489.										
77	78.0	10.078	33.138	5.60	0.70	25.485	0.212	1489.										
79	80.1	10.062	33.151	5.63	0.70	25.499	0.218	1489.										
81	81.2	10.023	33.148	5.64	0.70	25.502	0.220	1489.										
81	82.0	9.997	33.151	5.67	0.71	25.509	0.222	1489.										
82	83.0	9.910	33.158	5.70	0.70	25.530	0.225	1489.										
83	84.0	9.995	33.201	5.68	0.69	25.549	0.227	1489.										
84	85.1	10.170	33.271	5.64	0.70	25.574	0.230	1490.										
85	86.0	10.247	33.287	5.61	0.71	25.573	0.232	1490.										
86	87.0	10.331	33.307	5.57	0.72	25.574	0.234	1490.										
87	88.0	10.403	33.332	5.56	0.72	25.582	0.237	1491.										
88	89.0	10.406	33.351	5.55	0.73	25.596	0.239	1491.										
89	90.0	10.414	33.398	5.52	0.73	25.631	0.242	1491.										

STA 37 DAY: 14 TIME: 0709

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	STA 37	DAY: 14	TIME: 0709	SHIP OC	CRUISE 130	STATION 38	DATE 14 NOV 1982	EST 07.6	LATITUDE 40 39.0 N	LONGITUDE 67 46.1 W	DEPTH 81
0.3	10.9	68.8	10.6											
0.9	10.9	69.5	10.5											
1.6	10.9	70.5	10.5											
2.7	10.9	71.6	10.5											
4.6	10.9	72.3	10.5											
6.3	10.9	73.1	10.5											
8.0	10.9	74.5	10.5											
9.4	10.9	75.5	10.4											
11.4	10.9	76.2	10.4											
12.9	10.9	76.6	10.4											
15.1	10.8	77.2	10.4											
16.8	10.8	77.5	10.4											
18.2	10.9	77.6	10.4											
19.6	10.9	78.3	10.4											
21.0	10.9	79.3	10.4											
23.1	10.9	80.0	10.4											
25.5	10.9	80.8	10.4											
27.1	10.9	81.7	10.3											
28.5	10.9	82.1	10.3											
29.8	10.9	82.5	10.3											
31.4	10.9													
32.9	10.9													
35.0	10.9													
36.1	10.9													
37.8	10.9													
39.1	10.9													
40.4	10.9													
41.8	10.9													
43.3	10.9													
45.6	10.9													
47.2	10.9													
48.5	10.9													
49.9	10.9													
51.4	10.9													
52.3	10.9													
54.7	10.8													
55.8	10.8													
56.9	10.8													
57.5	10.8													
57.9	10.7													
58.1	10.7													
59.0	10.7													
60.1	10.6													
61.3	10.6													
62.2	10.6													
63.0	10.6													
64.3	10.6													
65.7	10.6													
66.8	10.6													
67.8	10.6													

SHIP OC	CRUISE 130	STATION 39	DATE 14 NOV 1982	EST 12.0	LATITUDE 40 32.4 N	LONGITUDE 67 49.9 W	DEPTH 100		
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph
89	90.0	10.746	33.875	4.89	0.75	25.945	0.231	1493.	6.4
90	91.0	10.758	33.893	4.89	0.75	25.957	0.233	1493.	6.4
91	92.0	10.775	33.913	4.89	0.74	25.970	0.235	1493.	6.1
92	92.9	10.786	33.929	4.89	0.75	25.980	0.237	1493.	5.8
93	94.1	10.815	33.962	4.87	0.74	26.000	0.239	1493.	5.8
94	95.0	10.823	33.971	4.88	0.74	26.006	0.241	1493.	5.8
95	96.0	10.826	33.974	4.95	0.74	26.008	0.243	1493.	5.8
96	96.6	10.827	33.978	4.97	0.76	26.011	0.244	1493.	5.8

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
OC	130	40	14 NOV 1982	12.9	40 28.3 N	67 48.6 W	132
DEPTH	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
m	130	40	14 NOV 1982	12.9	40 28.3 N	67 48.6 W	132
2	1.9	12.778	33.184	6.26	0.69	0.000	1497.1
4	4.1	12.769	33.187	6.28	0.67	0.006	1497.1
6	6.0	12.791	33.188	6.30	0.67	0.012	1497.1
8	8.0	12.821	33.197	6.30	0.66	0.018	1498.1
10	10.0	12.823	33.196	6.29	0.66	0.024	1498.1
12	11.9	12.818	33.196	6.30	0.68	0.029	1498.1
14	13.9	12.858	33.209	6.29	0.67	0.035	1498.1
16	15.9	12.871	33.216	6.28	0.67	0.041	1498.1
18	18.2	12.864	33.215	6.27	0.68	0.047	1498.1
20	19.8	12.882	33.218	6.26	0.69	0.052	1498.1
22	22.0	12.963	33.247	6.25	0.68	0.059	1498.1
24	23.9	13.025	33.260	6.23	0.67	0.064	1499.1
26	26.0	13.032	33.260	6.22	0.67	0.070	1499.1
28	27.8	13.028	33.253	6.22	0.68	0.075	1499.1
30	30.0	12.897	33.234	6.24	0.68	0.082	1498.1
32	32.2	12.972	33.250	6.23	0.69	0.088	1499.1
34	33.9	12.996	33.253	6.21	0.70	0.093	1499.1
36	36.1	13.028	33.252	6.19	0.69	0.100	1499.1
38	37.7	12.918	33.241	6.24	0.70	0.104	1498.1
40	40.0	13.043	33.266	6.23	0.69	0.111	1499.1
42	42.2	13.042	33.268	6.24	0.69	0.117	1499.1
44	43.7	13.052	33.273	6.31	0.70	0.122	1499.1
46	46.0	13.089	33.289	6.33	0.69	0.129	1499.1
48	48.1	13.082	33.295	6.35	0.70	0.135	1499.1
50	50.0	13.062	33.294	6.34	0.70	0.140	1499.1
51	51.9	12.966	33.277	6.28	0.70	0.146	1499.1
54	54.1	12.664	33.232	6.24	0.69	0.152	1498.1
56	56.1	12.264	33.231	6.18	0.68	0.158	1497.1
57	57.8	12.190	33.343	6.04	0.66	0.162	1496.1
60	60.0	12.166	33.409	5.87	0.63	0.168	1496.1
62	62.1	11.651	33.363	5.86	0.63	0.174	1495.1
63	64.0	11.007	33.337	5.82	0.64	0.179	1492.1
65	66.0	10.907	33.442	5.72	0.63	0.183	1492.1
68	68.2	11.090	33.562	5.60	0.63	0.189	1493.1
69	69.7	11.155	33.621	5.46	0.64	0.192	1493.1
71	72.0	11.148	33.800	5.35	0.62	0.197	1494.1
74	74.2	11.004	33.863	5.34	0.63	0.202	1493.1
75	75.9	10.949	33.921	5.17	0.63	0.206	1493.1
77	78.0	11.008	33.958	5.15	0.62	0.210	1493.1
79	80.1	11.047	34.027	5.14	0.60	0.214	1494.1
81	81.8	11.149	34.161	5.04	0.63	0.218	1494.1
83	84.0	11.644	34.384	4.83	0.61	0.222	1496.1
85	86.0	11.893	34.480	4.78	0.61	0.226	1497.1
87	88.1	11.916	34.515	4.76	0.64	0.229	1497.1
89	90.0	11.975	34.559	4.64	0.65	0.233	1498.1
91	92.0	12.056	34.622	4.61	0.65	0.236	1498.1
93	94.1	11.964	34.631	4.60	0.65	0.240	1498.1
95	95.9	11.928	34.646	4.60	0.67	0.243	1498.1
97	98.0	11.928	34.658	4.58	0.67	0.246	1498.1



SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH		
OC	130	41	14 NOV 1982	13.7	40 24.9 N	67 47.4 W	148		
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD	DEPTH
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s	cph
2	1.9	14.651	33.871	6.09	0.69	25.178	0.000	1504.	1.5
4	4.0	14.655	33.871	6.10	0.70	25.177	0.006	1504.	1.5
6	6.0	14.718	33.895	6.11	0.69	25.182	0.011	1505.	1.5
8	8.0	14.733	33.900	6.13	0.69	25.182	0.017	1505.	1.5
10	10.0	14.731	33.899	6.14	0.68	25.182	0.022	1505.	1.5
12	12.0	14.771	33.911	6.14	0.68	25.183	0.028	1505.	1.6
14	13.9	14.796	33.923	6.13	0.68	25.186	0.033	1505.	1.7
16	16.0	14.836	33.936	6.13	0.68	25.188	0.039	1505.	2.2
18	18.1	14.839	33.938	6.13	0.68	25.189	0.045	1505.	2.5
20	19.9	14.897	33.957	6.11	0.68	25.191	0.050	1505.	2.8
22	22.2	14.956	33.983	6.12	0.68	25.198	0.056	1506.	3.3
24	24.0	15.149	34.053	6.08	0.68	25.210	0.061	1506.	3.6
26	26.2	15.204	34.077	6.08	0.67	25.216	0.067	1507.	3.8
28	27.8	15.321	34.119	6.03	0.67	25.223	0.072	1507.	3.8
30	30.2	15.602	34.228	5.99	0.65	25.244	0.078	1508.	3.6
32	32.0	15.668	34.254	5.94	0.69	25.250	0.083	1508.	3.2
34	34.3	15.729	34.279	5.92	0.69	25.255	0.089	1509.	2.9
36	35.8	15.763	34.290	5.92	0.69	25.256	0.093	1509.	2.4
38	38.1	15.829	34.313	5.92	0.69	25.259	0.100	1509.	1.7
40	39.9	15.843	34.316	5.90	0.69	25.258	0.105	1509.	1.4
42	42.2	15.903	34.338	5.89	0.70	25.261	0.111	1509.	1.3
43	43.8	15.909	34.339	5.86	0.70	25.261	0.115	1509.	1.3
46	46.0	15.973	34.357	5.85	0.69	25.260	0.121	1510.	1.5
48	48.1	15.969	34.359	5.85	0.68	25.262	0.127	1510.	2.0
50	49.9	15.999	34.370	5.83	0.70	25.264	0.132	1510.	3.0
52	52.0	16.122	34.410	5.79	0.69	25.267	0.137	1510.	3.7
54	54.1	16.158	34.427	5.79	0.68	25.272	0.143	1510.	4.1
56	56.3	16.221	34.463	5.76	0.69	25.285	0.149	1511.	4.5
57	57.8	16.422	34.570	5.64	0.69	25.320	0.153	1512.	4.7
60	60.0	16.531	34.617	5.61	0.68	25.331	0.159	1512.	4.9
62	62.0	16.584	34.643	5.58	0.67	25.339	0.164	1512.	5.0
64	64.0	16.626	34.677	5.51	0.67	25.356	0.170	1512.	5.3
65	65.9	16.668	34.703	5.34	0.68	25.365	0.175	1513.	6.0
67	68.0	16.725	34.747	5.28	0.68	25.386	0.180	1513.	7.3
70	70.1	16.777	34.792	5.21	0.68	25.408	0.185	1513.	8.9
71	71.9	16.827	34.858	5.01	0.68	25.447	0.190	1513.	10.2
73	73.9	16.930	35.006	4.85	0.67	25.532	0.195	1514.	11.3
75	76.1	16.875	35.115	4.73	0.66	25.633	0.200	1514.	11.7
77	78.1	16.754	35.277	4.60	0.65	25.786	0.205	1514.	12.0
79	79.9	16.589	35.351	4.37	0.65	25.964	0.209	1513.	11.9
81	82.0	16.280	35.364	4.24	0.64	25.991	0.213	1512.	11.2
83	84.1	15.994	35.313	4.16	0.64	25.991	0.217	1512.	10.2
85	85.9	15.472	35.262	4.11	0.65	26.070	0.221	1510.	9.1
87	88.0	15.280	35.321	4.06	0.64	26.158	0.225	1509.	8.4
89	90.0	15.314	35.340	4.05	0.65	26.165	0.229	1510.	8.2
91	92.0	15.337	35.358	4.07	0.65	26.174	0.233	1510.	8.4
93	93.9	15.231	35.370	4.09	0.65	26.207	0.236	1509.	8.4
95	96.1	14.971	35.362	4.13	0.65	26.258	0.240	1509.	8.9
97	98.0	14.636	35.365	4.16	0.65	26.334	0.243	1508.	9.3
99	99.8	14.481	35.394	4.12	0.66	26.390	0.246	1507.	9.4
101	101.9	14.224	35.418	4.07	0.66	26.463	0.250	1506.	9.2
103	104.0	13.964	35.441	4.08	0.65	26.533	0.253	1506.	8.6
105	106.2	13.885	35.442	4.07	0.66	26.557	0.256	1505.	7.8
107	108.0	13.736	35.438	4.05	0.67	26.582	0.259	1505.	7.0
109	110.0	13.554	35.434	4.05	0.67	26.616	0.262	1504.	6.2
111	112.0	13.486	35.434	4.05	0.68	26.630	0.265	1504.	5.5
113	114.1	13.426	35.430	4.03	0.68	26.640	0.268	1504.	5.2
115	116.0	13.337	35.435	4.01	0.69	26.662	0.270	1504.	4.9
117	118.1	13.270	35.435	4.00	0.69	26.676	0.273	1504.	5.1
119	119.9	13.219	35.432	4.00	0.69	26.684	0.276	1503.	5.4
121	122.1	13.162	35.431	3.99	0.69	26.695	0.279	1503.	5.5
123	123.8	13.053	35.428	3.97	0.70	26.715	0.281	1503.	5.4
125	126.0	12.832	35.431	3.97	0.70	26.761	0.284	1502.	5.4
127	128.0	12.734	35.427	3.97	0.69	26.778	0.287	1502.	5.3
129	130.1	12.700	35.425	3.95	0.69	26.783	0.290	1502.	5.2
130	131.3	12.685	35.425	3.94	0.70	26.786	0.291	1502.	4.8
131	131.8	12.685	35.424	3.91	0.70	26.785	0.292	1502.	4.2
132	133.0	12.665	35.425	3.88	0.71	26.790	0.293	1502.	4.4
133	134.0	12.601	35.426	3.88	0.70	26.803	0.294	1502.	4.8
134	134.9	12.515	35.422	3.88	0.69	26.818	0.296	1501.	4.9
135	136.0	12.474	35.416	3.88	0.68	26.820	0.297	1501.	5.8
136	137.0	12.430	35.412	3.88	0.70	26.832	0.298	1501.	7.0
137	138.0	12.372	35.403	3.86	0.71	26.832	0.300	1501.	7.6
138	139.0	12.298	35.397	3.87	0.71	26.841	0.301	1501.	8.1
139	140.0	11.985	35.384	3.86	0.72	26.891	0.302	1500.	8.5
140	140.0	11.618	35.355	3.88	0.72	26.938	0.303	1498.	8.4
141	142.1	11.410	35.311	3.87	0.73	26.943	0.304	1498.	7.9
142	142.9	11.344	35.325	3.86	0.74	26.966	0.305	1497.	7.1
143	144.0	11.296	35.322	3.85	0.74	26.973	0.307	1497.	5.8
144	145.1	11.263	35.317	3.85	0.74	26.975	0.308	1497.	0.0
145	146.0	11.255	35.318	3.87	0.75	26.977	0.309	1497.	0.0
146	147.0	11.186	35.313	3.96	0.75	26.986	0.310	1497.	0.0
147	147.6	11.171	35.313	3.98	0.75	26.989	0.310	1497.	0.0

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SHIP OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH	SHIP OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
		43	14 NOV 1982	15.5	40 19.4 N	67 45.7 W	395			43	14 NOV 1982	15.5	40 19.4 N	67 45.7 W	395
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT	DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>
197	198.1	11.533	35.377	3.68	0.59	26.971	0.351	295	297.9	7.524	35.081	3.92	0.69	27.408	0.438
198	199.9	11.461	35.370	3.66	0.61	26.979	0.353	298	300.1	7.511	35.082	3.90	0.69	27.411	0.440
200	202.0	11.306	35.358	3.66	0.62	26.999	0.355	300	302.1	7.485	35.079	3.90	0.69	27.413	0.441
202	204.1	11.161	35.333	3.67	0.66	27.022	0.357	302	304.1	7.475	35.079	3.95	0.69	27.414	0.443
204	205.8	11.130	35.345	3.65	0.68	27.021	0.359	303	305.8	7.459	35.078	3.93	0.69	27.415	0.444
206	208.0	10.910	35.345	3.63	0.65	27.061	0.361	305	308.0	7.444	35.078	3.91	0.69	27.417	0.445
208	210.0	10.770	35.333	3.63	0.62	27.077	0.363	307	309.8	7.434	35.076	3.94	0.69	27.417	0.447
210	212.1	10.689	35.332	3.61	0.65	27.091	0.366	309	312.0	7.427	35.076	3.94	0.69	27.418	0.448
212	214.0	10.568	35.332	3.60	0.68	27.112	0.368	311	314.2	7.423	35.076	3.92	0.69	27.419	0.450
214	216.2	10.486	35.327	3.58	0.68	27.123	0.370	313	315.9	7.415	35.075	3.96	0.69	27.419	0.451
216	217.9	10.405	35.318	3.55	0.68	27.130	0.371	315	318.0	7.400	35.075	3.96	0.69	27.421	0.453
218	220.0	10.345	35.313	3.54	0.69	27.137	0.373	317	319.9	7.391	35.074	3.97	0.69	27.422	0.454
220	222.0	10.288	35.313	3.54	0.69	27.147	0.375	320	322.3	7.370	35.072	3.96	0.69	27.423	0.456
222	224.2	10.206	35.306	3.56	0.69	27.156	0.377	321	323.9	7.353	35.072	3.98	0.70	27.425	0.457
224	225.8	10.137	35.301	3.58	0.69	27.164	0.379	323	326.1	7.338	35.071	3.94	0.69	27.427	0.458
226	227.9	10.051	35.294	3.56	0.69	27.173	0.381	325	328.1	7.334	35.071	3.97	0.69	27.428	0.460
228	230.3	9.998	35.291	3.58	0.69	27.180	0.383	327	330.0	7.334	35.071	3.99	0.69	27.428	0.461
230	231.9	9.980	35.291	3.58	0.69	27.183	0.385	329	332.1	7.328	35.070	3.97	0.70	27.428	0.462
232	234.0	9.938	35.287	3.57	0.69	27.187	0.386	331	334.1	7.327	35.069	3.95	0.68	27.427	0.464
234	236.2	9.918	35.286	3.56	0.68	27.190	0.389	333	336.3	7.321	35.070	3.95	0.68	27.429	0.465
236	237.8	9.895	35.284	3.58	0.69	27.192	0.390	335	337.9	7.319	35.069	3.99	0.70	27.429	0.466
238	240.0	9.874	35.282	3.59	0.69	27.195	0.392	337	340.1	7.317	35.069	3.99	0.69	27.429	0.468
240	242.1	9.799	35.274	3.57	0.69	27.201	0.394	339	342.1	7.308	35.069	4.01	0.69	27.430	0.469
242	243.7	9.713	35.266	3.59	0.69	27.209	0.395	341	344.1	7.299	35.068	4.01	0.69	27.431	0.471
244	246.1	9.609	35.259	3.59	0.69	27.221	0.398	343	345.9	7.298	35.068	4.02	0.70	27.431	0.472
246	247.8	9.577	35.256	3.61	0.69	27.224	0.399	345	348.0	7.296	35.068	3.99	0.69	27.431	0.474
248	250.2	9.484	35.247	3.60	0.69	27.232	0.401	347	350.3	7.295	35.068	3.99	0.69	27.431	0.475
250	252.0	9.413	35.242	3.59	0.69	27.241	0.403	349	351.9	7.295	35.068	4.01	0.70	27.431	0.476
252	254.1	9.277	35.231	3.58	0.68	27.254	0.405	351	354.0	7.290	35.068	3.98	0.69	27.432	0.478
254	256.0	9.171	35.220	3.59	0.68	27.263	0.406	353	356.3	7.282	35.067	4.01	0.69	27.432	0.479
256	258.2	8.836	35.177	3.62	0.68	27.284	0.408	355	357.7	7.278	35.067	4.03	0.70	27.433	0.480
258	259.9	8.668	35.170	3.61	0.68	27.305	0.409	357	360.0	7.280	35.067	3.99	0.70	27.432	0.482
260	262.0	8.612	35.168	3.63	0.68	27.312	0.411	359	362.2	7.279	35.067	3.98	0.69	27.433	0.483
262	264.1	8.578	35.166	3.63	0.68	27.316	0.413	361	363.9	7.269	35.066	4.02	0.70	27.433	0.485
263	265.6	8.556	35.165	3.64	0.68	27.318	0.414	363	365.9	7.227	35.060	3.99	0.70	27.434	0.486
266	268.1	8.525	35.161	3.63	0.68	27.320	0.416	365	368.4	7.187	35.060	4.00	0.69	27.440	0.488
268	269.9	8.470	35.156	3.66	0.68	27.325	0.417	366	369.7	7.173	35.059	4.05	0.70	27.441	0.489
270	271.9	8.442	35.153	3.64	0.68	27.327	0.419	369	372.1	7.144	35.055	4.03	0.70	27.442	0.490
272	274.1	8.308	35.143	3.68	0.67	27.340	0.421	371	373.8	7.136	35.057	4.05	0.70	27.445	0.491
274	276.2	8.179	35.128	3.70	0.68	27.348	0.422	373	375.9	7.109	35.055	4.05	0.69	27.447	0.493
276	277.9	8.089	35.124	3.73	0.68	27.358	0.424	375	378.1	7.111	35.055	4.05	0.68	27.447	0.494
278	280.1	8.036	35.121	3.74	0.68	27.363	0.425	377	379.8	7.107	35.055	4.08	0.69	27.447	0.496
280	281.9	8.012	35.119	3.77	0.68	27.366	0.427	378	381.3	7.100	35.055	4.10	0.69	27.448	0.497
282	284.2	7.982	35.117	3.77	0.68	27.369	0.428	379	382.0	7.099	35.055	4.11	0.69	27.449	0.497
283	285.9	7.916	35.110	3.81	0.69	27.373	0.430	380	382.9	7.102	35.055	4.11	0.69	27.448	0.498
286	288.3	7.688	35.093	3.81	0.68	27.394	0.431	381	383.9	7.100	35.055	4.12	0.70	27.448	0.498
287	289.8	7.674	35.092	3.84	0.69	27.395	0.432	382	385.0	7.102	35.054	4.11	0.69	27.448	0.499
290	292.0	7.638	35.089	3.83	0.69	27.398	0.434	383	386.1	7.100	35.055	4.09	0.69	27.448	0.500
292	294.0	7.612	35.088	3.87	0.69	27.401	0.436	384	387.2	7.100	35.055	4.11	0.69	27.448	0.501
293	296.0	7.572	35.083	3.89	0.69	27.403	0.437	385	388.0	7.100	35.054	4.07	0.70	27.448	0.501

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH	STA 44				DAY: 14	TIME: 1609				
OC	130	43	14 NOV 1982	15.5	40 19.4 N	67 45.7 W	395	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N								
386	389.1	7.101	35.054	4.07	0.69	27.448	0.502	1486.	0.5	53.2	16.9	73.6	14.5	117.1	14.3	153.1	12.9
387	389.9	7.101	35.055	4.07	0.67	27.448	0.502	1486.	0.4	53.3	16.9	74.4	14.5	117.8	14.3	153.7	12.8
388	390.9	7.100	35.055	4.07	0.66	27.448	0.503	1486.	0.5	53.6	16.9	75.2	14.5	118.7	14.3	154.4	12.8
389	392.1	7.102	35.056	4.08	0.68	27.449	0.504	1486.	0.7	54.2	16.8	76.2	14.5	119.8	14.3	155.4	12.7
390	393.0	7.103	35.055	4.10	0.70	27.448	0.505	1486.	0.7	54.9	16.8	77.3	14.5	121.3	14.3	156.3	12.7
391	394.0	7.102	35.056	4.09	0.70	27.449	0.505	1486.	0.4	55.3	16.8	78.0	14.5	122.2	14.3	157.1	12.6
392	395.2	7.100	35.055	4.10	0.69	27.448	0.506	1486.	0.7	55.4	16.7	78.6	14.5	123.0	14.3	158.1	12.6
393	396.0	7.095	35.055	4.09	0.70	27.449	0.507	1486.	0.8	55.4	16.7	79.5	14.5	123.9	14.2	159.1	12.6
394	397.0	7.097	35.055	4.09	0.70	27.449	0.507	1486.	0.8	55.9	16.6	80.2	14.4	124.3	14.2	160.4	12.5
395	398.2	7.092	35.053	4.20	0.70	27.448	0.508	1486.	0.8	56.3	16.5	81.6	14.4	124.9	14.1	161.4	12.5
396	399.0	7.084	35.055	4.11	0.71	27.450	0.509	1486.	0.8	56.7	16.5	83.8	14.4	125.3	14.1	162.8	12.5
397	400.0	7.087	35.055	4.10	0.71	27.450	0.509	1486.	0.8	57.0	16.5	85.0	14.4	126.0	14.0	164.0	12.5
										57.2	16.5	85.3	14.5	126.8	13.9	166.9	12.5
										57.3	16.4	85.6	14.5	127.3	13.9	167.8	12.5
										57.5	16.3	86.0	14.6	127.6	13.8	168.9	12.5
										57.8	16.2	86.4	14.6	128.0	13.7	169.9	12.5
										57.9	16.2	87.2	14.6	128.1	13.6	170.2	12.5
										58.0	16.1	87.8	14.6	128.6	13.6	170.6	12.4
										58.3	16.1	88.3	14.6	128.9	13.5	171.6	12.4
										58.5	16.0	89.4	14.7	129.6	13.5	173.1	12.4
										58.8	15.9	90.5	14.7	130.3	13.5	174.5	12.4
										59.0	15.9	91.9	14.7	131.2	13.5	175.3	12.4
										59.1	15.8	93.0	14.7	131.8	13.4	176.1	12.4
										59.2	15.7	94.4	14.7	132.5	13.4	177.0	12.3
										59.1	15.6	95.3	14.7	133.8	13.4	178.6	12.3
										59.4	15.5	96.1	14.7	135.4	13.4	179.2	12.3
										59.6	15.5	96.5	14.7	136.6	13.4	179.3	12.3
										59.7	15.4	97.3	14.7	137.4	13.4	179.7	12.2
										59.7	15.3	98.3	14.7	138.4	13.4	180.4	12.2
										59.9	15.2	99.3	14.7	139.3	13.4	180.9	12.2
										60.0	15.1	100.3	14.7	139.5	13.3	181.3	12.2
										60.0	15.1	101.6	14.7	140.0	13.2	181.5	12.1
										60.0	15.0	102.9	14.7	140.2	13.2	181.6	12.1
										60.4	14.9	104.0	14.7	140.6	13.1	181.8	12.0
										60.7	14.8	104.5	14.7	141.8	13.1	182.6	12.0
										61.0	14.8	105.3	14.6	142.8	13.1	183.6	12.0
										61.7	14.8	105.9	14.6	143.8	13.1	183.9	11.9
										62.3	14.7	106.3	14.6	144.3	13.1	184.5	11.9
										62.8	14.6	106.5	14.5	144.8	13.1	185.8	11.9
										63.0	14.6	107.2	14.5	145.5	13.1	186.8	11.9
										63.9	14.6	108.0	14.5	146.4	13.0	187.8	11.9
										64.9	14.6	108.9	14.4	147.1	13.0	188.8	11.9
										66.3	14.5	109.8	14.4	148.3	13.0	189.5	11.8
										67.6	14.5	111.2	14.4	149.3	13.0	190.4	11.7
										68.6	14.5	112.4	14.4	150.3	13.0	191.1	11.7
										69.8	14.5	113.5	14.4	150.8	13.0	191.6	11.6
										70.7	14.5	114.4	14.4	151.4	13.0	192.2	12.9
										72.0	14.5	115.4	14.4	152.2	12.9	193.1	11.6
										72.7	14.5	116.4	14.4	152.6	12.9		

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STA 45				DAY: 14				TIME: 1642			
DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.6	16.1	50.3	16.4	76.5	14.5	109.6	14.2	153.1	12.8	192.6	11.5
0.9	16.2	51.0	16.4	77.1	14.5	111.6	14.2	153.3	12.7	193.6	11.4
1.4	16.2	51.8	16.4	77.4	14.4	113.4	14.2	153.8	12.7	194.3	11.4
2.7	16.2	52.8	16.4	77.5	14.4	114.6	14.2	154.3	12.6	194.9	11.4
3.9	16.2	53.2	16.4	77.8	14.4	115.9	14.2	155.3	12.6	195.7	11.4
5.1	16.2	53.7	16.4	78.5	14.4	116.2	14.2	155.6	12.6	196.8	11.4
6.8	16.2	54.7	16.4	78.7	14.4	116.9	14.2	155.8	12.5	197.9	11.4
7.5	16.2	55.5	16.4	78.9	14.4	117.6	14.1	156.5	12.5	199.2	11.4
8.0	16.3	56.2	16.4	79.0	14.5	118.3	14.1	157.3	12.5	200.9	11.4
8.5	16.4	56.7	16.4	79.1	14.5	118.7	14.0	158.4	12.5	202.9	11.3
8.5	16.4	57.4	16.4	79.3	14.5	119.2	14.0	159.1	12.4	204.7	11.2
8.8	16.5	57.9	16.4	79.5	14.5	119.8	14.0	159.7	12.4	206.5	11.2
9.1	16.5	58.2	16.3	80.0	14.5	120.3	13.9	160.4	12.4	208.6	11.1
9.6	16.6	59.0	16.3	80.3	14.5	121.0	13.9	161.2	12.4	209.6	11.0
10.1	16.6	59.7	16.3	80.4	14.4	122.1	13.9	162.1	12.4	210.2	11.0
11.1	16.6	60.4	16.2	80.5	14.4	122.9	13.9	163.4	12.3	211.3	11.0
11.5	16.5	60.8	16.2	80.6	14.4	124.1	13.8	164.5	12.3	212.7	10.9
11.9	16.5	61.2	16.2	81.3	14.4	124.8	13.8	165.6	12.3	213.1	10.9
12.5	16.5	61.9	16.1	82.1	14.4	125.9	13.7	166.8	12.3	214.3	10.8
13.2	16.5	62.6	16.1	83.1	14.4	126.7	13.7	167.9	12.3	215.2	10.8
14.0	16.5	63.2	16.0	83.6	14.3	127.5	13.7	168.4	12.3	216.3	10.8
15.0	16.4	63.4	15.9	84.0	14.3	128.6	13.7	169.2	12.3	217.6	10.8
15.9	16.4	63.6	15.9	84.2	14.3	129.2	13.7	169.8	12.3	218.4	10.7
17.3	16.4	63.7	15.8	84.7	14.2	130.0	13.6	170.4	12.2	219.1	10.6
18.2	16.4	63.8	15.8	85.1	14.2	130.6	13.6	170.9	12.2	220.5	10.5
19.0	16.4	64.0	15.7	85.4	14.2	131.2	13.6	172.0	12.2	221.0	10.4
19.9	16.4	64.4	15.6	86.1	14.2	132.1	13.5	173.1	12.2	221.5	10.3
21.0	16.4	64.7	15.6	86.6	14.2	133.2	13.5	174.2	12.1	222.0	10.3
22.1	16.4	65.0	15.6	87.2	14.2	134.5	13.5	175.6	12.1	222.5	10.3
23.6	16.4	65.2	15.5	88.0	14.2	135.8	13.4	176.4	12.1	223.0	10.1
24.2	16.4	65.5	15.5	88.3	14.3	137.1	13.4	177.2	12.1	223.6	10.0
25.2	16.4	65.6	15.4	89.2	14.3	138.7	13.4	178.6	12.1	224.1	10.0
25.9	16.4	65.9	15.3	89.7	14.3	140.5	13.4	179.1	12.1	224.7	9.9
26.9	16.4	66.1	15.3	90.8	14.3	141.8	13.4	179.8	12.0	225.6	9.9
28.0	16.4	66.4	15.3	91.6	14.3	142.8	13.3	179.8	12.0	226.6	9.9
29.0	16.4	66.8	15.3	92.9	14.3	143.5	13.3	180.6	12.0	228.3	9.8
30.4	16.4	67.8	15.2	94.3	14.3	143.6	13.2	181.6	11.9		
31.8	16.3	68.2	15.2	95.3	14.3	144.4	13.2	182.7	11.9		
33.6	16.4	68.5	15.1	95.8	14.3	145.4	13.2	183.8	11.9		
34.8	16.4	68.8	15.1	96.3	14.3	146.3	13.2	184.5	11.9		
37.0	16.4	69.6	15.1	97.2	14.3	146.7	13.1	185.0	11.9		
37.6	16.4	70.1	15.0	97.8	14.2	147.8	13.1	185.7	11.8		
38.8	16.4	70.9	14.9	98.4	14.2	148.3	13.1	186.8	11.8		
41.1	16.4	71.3	14.9	99.6	14.2	149.4	13.0	187.8	11.7		
43.2	16.4	71.8	14.8	100.3	14.2	150.2	13.0	188.2	11.7		
45.1	16.4	72.2	14.8	101.3	14.2	150.8	13.0	189.0	11.6		
46.6	16.4	73.0	14.7	102.8	14.2	151.8	13.0	189.7	11.6		
47.9	16.4	73.7	14.7	103.9	14.2	152.3	13.0	190.6	11.6		
49.0	16.4	74.9	14.6	106.0	14.2	152.6	12.9	190.9	11.5		
49.5	16.4	75.6	14.6	107.9	14.2	152.8	12.8	191.6	11.5		

STA 45 DAY: 14 TIME: 1642

STA 45				DAY: 14				TIME: 1642				STA 46				DAY: 14				TIME: 1715			
DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP
(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)
476.0	5.9	529.4	5.5	604.3	5.1	700.0	4.8	0.2	16.2	55.6	14.8	83.3	13.8	116.2	13.9	161.5	12.0						
476.9	5.9	530.7	5.5	606.3	5.1	701.4	4.8	0.5	16.2	55.9	14.7	84.4	13.8	117.6	13.9	163.0	12.0						
478.1	5.9	532.3	5.5	608.9	5.1	702.0	4.7	1.0	16.3	56.4	14.6	85.3	13.8	118.8	13.9	163.9	11.9						
479.0	5.9	533.8	5.5	611.2	5.1	703.0	4.7	2.0	16.3	56.8	14.6	86.4	13.7	119.7	13.9	165.0	11.9						
479.8	5.9	534.8	5.5	613.1	5.1	705.1	4.7	3.4	16.3	57.1	14.5	86.8	13.7	120.6	13.9	166.2	11.8						
480.6	5.8	536.3	5.5	615.4	5.1	706.8	4.7	4.7	16.3	57.7	14.4	86.8	13.6	121.8	13.9	168.2	11.7						
481.5	5.8	538.0	5.5	617.5	5.1	708.5	4.7	5.8	16.3	58.2	14.4	86.9	13.5	122.8	13.8	169.4	11.7						
482.7	5.8	539.6	5.5	619.7	5.1	710.3	4.7	7.4	16.3	58.9	14.3	87.2	13.5	123.9	13.8	170.8	11.7						
483.6	5.8	541.0	5.5	621.3	5.1	712.0	4.7	9.8	16.3	59.5	14.3	87.4	13.5	124.9	13.7	172.3	11.7						
484.5	5.8	542.3	5.5	624.0	5.1	714.1	4.7	11.7	16.3	60.5	14.3	87.5	13.4	126.5	13.7	172.8	11.7						
485.7	5.8	542.7	5.5	625.7	5.1	716.1	4.7	13.8	16.3	61.8	14.3	87.5	13.3	127.4	13.7	173.7	11.6						
486.1	5.8	543.5	5.4	628.5	5.0	719.1	4.7	15.9	16.3	62.7	14.3	88.0	13.3	128.8	13.7	174.1	11.6						
487.2	5.8	544.4	5.4	630.8	5.0	720.6	4.7	18.4	16.3	63.5	14.3	88.9	13.3	130.2	13.7	174.9	11.5						
487.9	5.7	545.3	5.4	633.3	5.0	722.1	4.7	21.0	16.3	64.5	14.3	89.8	13.2	131.2	13.6	175.7	11.5						
489.7	5.7	546.4	5.4	635.9	5.0	724.0	4.7	23.1	16.3	64.9	14.3	90.7	13.2	131.9	13.6	176.6	11.5						
490.5	5.7	547.2	5.4	638.3	5.0	725.4	4.7	25.3	16.3	65.6	14.3	91.2	13.3	132.3	13.5	177.8	11.5						
491.4	5.7	548.4	5.4	640.4	5.0	726.7	4.7	27.3	16.3	66.1	14.4	91.4	13.3	132.6	13.5	179.2	11.5						
492.1	5.7	548.8	5.4	642.5	5.0	728.1	4.7	28.6	16.3	66.7	14.4	92.4	13.4	133.7	13.4	180.8	11.5						
493.3	5.7	550.1	5.3	644.9	5.0	729.7	4.7	31.4	16.3	67.0	14.5	92.9	13.4	135.1	13.4	181.9	11.5						
494.3	5.7	551.0	5.3	647.7	5.0	730.7	4.6	33.7	16.3	67.2	14.5	93.9	13.4	136.6	13.4	182.4	11.4						
495.5	5.7	552.6	5.3	649.8	5.0	732.0	4.6	36.0	16.3	67.4	14.6	94.8	13.4	137.9	13.3	182.8	11.4						
496.2	5.7	554.3	5.3	650.3	5.0	733.9	4.6	37.8	16.3	67.6	14.6	95.8	13.4	139.2	13.3	183.1	11.3						
497.0	5.7	556.2	5.3	652.2	5.0	736.0	4.6	40.2	16.3	68.0	14.6	95.9	13.5	140.0	13.3	184.1	11.3						
497.6	5.7	557.1	5.3	653.7	5.0	738.0	4.6	42.1	16.3	68.1	14.6	96.3	13.6	140.9	13.2	184.7	11.2						
498.2	5.7	558.6	5.3	655.7	5.0	739.7	4.6	43.5	16.3	68.5	14.5	97.1	13.6	141.7	13.2	185.5	11.1						
499.2	5.6	560.5	5.3	657.9	4.9	742.2	4.6	43.8	16.3	68.8	14.4	97.4	13.6	142.1	13.1	186.4	11.1						
500.5	5.6	561.0	5.3	659.7	4.9	743.7	4.6	44.7	16.3	69.4	14.3	97.4	13.6	142.6	13.1	187.7	11.1						
502.0	5.6	562.8	5.3	661.3	4.9	745.6	4.6	45.5	16.3	70.3	14.3	98.0	13.7	143.1	13.0	188.4	11.1						
502.7	5.6	563.8	5.3	664.0	4.9			46.4	16.3	71.2	14.3	99.2	13.7	144.1	13.0	189.1	11.1						
503.9	5.6	565.3	5.3	666.2	4.9			47.1	16.3	72.3	14.3	99.6	13.7	144.6	12.9	189.9	11.0						
505.0	5.6	566.4	5.2	668.3	4.9			47.9	16.3	73.0	14.3	99.9	13.6	145.0	12.9	190.4	11.0						
506.3	5.6	568.3	5.2	670.7	4.9			48.4	16.2	73.5	14.3	100.6	13.6	145.7	12.8	191.7	10.9						
507.6	5.6	570.2	5.2	672.8	4.9			48.6	16.1	74.1	14.3	101.6	13.5	146.6	12.8	193.0	10.9						
508.8	5.6	572.3	5.2	674.9	4.9			48.8	16.1	74.4	14.3	102.2	13.5	147.3	12.7	194.6	10.9						
509.6	5.6	574.3	5.2	676.1	4.9			49.2	16.0	74.6	14.3	103.8	13.5	148.2	12.7	196.1	10.9						
511.1	5.6	576.2	5.2	677.3	4.9			49.8	15.8	74.9	14.4	104.2	13.6	149.1	12.7	197.8	10.8						
512.2	5.6	578.3	5.2	678.3	4.9			50.3	15.7	75.3	14.4	104.8	13.6	149.7	12.6	199.6	10.8						
513.3	5.6	580.1	5.2	680.0	4.9			50.7	15.6	76.2	14.4	105.1	13.7	150.0	12.6	201.3	10.8						
515.0	5.6	582.4	5.2	681.3	4.9			51.0	15.6	76.8	14.3	105.5	13.8	150.3	12.5	202.9	10.8						
516.7	5.6	584.5	5.2	682.8	4.8			51.5	15.4	77.0	14.3	106.5	13.8	151.3	12.4	204.6	10.8						
518.1	5.6	587.2	5.2	684.4	4.8			52.1	15.4	77.8	14.3	107.4	13.8	152.0	12.4	205.9	10.8						
519.5	5.6	589.0	5.2	685.6	4.8			52.3	15.3	78.2	14.2	108.1	13.8	152.6	12.4	206.7	10.8						
520.8	5.6	591.4	5.2	687.3	4.8			52.9	15.2	78.7	14.2	108.6	13.9	153.8	12.3	207.9	10.8						
521.6	5.6	593.9	5.2	689.0	4.8			53.2	15.1	78.7	14.1	109.1	13.9	155.4	12.3	208.9	10.7						
522.8	5.6	596.3	5.2	690.5	4.8			53.6	15.1	78.8	14.1	109.3	13.9	156.2	12.3	210.1	10.7						
524.3	5.6	598.4	5.2	691.8	4.8			53.7	15.0	78.7	14.0	110.6	13.9	156.7	12.2	210.8	10.6						
525.5	5.6	599.6	5.2	692.9	4.8			54.0	15.0	79.3	13.9	112.2	14.0	157.8	12.2	212.3	10.6						
527.1	5.6	600.9	5.2	695.1	4.8			54.4	14.9	79.9	13.9	113.3	14.0	158.6	12.1	213.2	10.6						
528.1	5.6	601.6	5.2	696.7	4.8			54.7	14.8	80.8	13.9	114.0	13.9	158.9	12.1	214.4	10.6						
528.6	5.5	602.8	5.1	698.1	4.8			55.1	14.8	82.2	13.8	114.8	13.9	159.9	12.0	215.6	10.6						



STA 46 DAY: 14 TIME: 1715 STA 46 DAY: 14 TIME: 1715

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
216.7	10.6	266.1	9.3	320.2	7.5	376.7	6.4	445.8	6.0	503.2	5.4	579.7	5.3	638.4	4.9
217.9	10.5	267.2	9.2	321.3	7.5	378.6	6.4	446.5	6.0	504.9	5.4	580.7	5.3	639.5	4.9
219.2	10.5	267.5	9.1	322.7	7.5	380.1	6.4	447.9	5.9	506.4	5.4	581.7	5.2	640.3	4.9
220.7	10.5	267.8	9.0	324.3	7.5	381.5	6.4	447.7	5.9	508.1	5.4	581.9	5.2	641.2	4.9
221.1	10.4	267.9	8.9	325.6	7.5	382.7	6.4	448.3	5.9	509.5	5.4	582.5	5.2	642.2	4.9
222.0	10.4	268.5	8.9	327.0	7.5	383.1	6.3	449.1	5.8	510.4	5.4	583.8	5.2		
222.6	10.4	269.3	8.8	327.3	7.4	383.4	6.3	450.1	5.8	511.1	5.3	584.7	5.2		
223.3	10.3	269.9	8.8	327.7	7.4	384.3	6.3	450.8	5.8	512.3	5.3	586.1	5.2		
224.2	10.2	271.1	8.7	328.2	7.3	385.6	6.3	451.6	5.7	513.4	5.3	587.5	5.2		
225.6	10.2	272.3	8.7	328.7	7.3	387.0	6.3	452.2	5.7	514.6	5.3	588.7	5.2		
226.6	10.2	274.2	8.6	330.5	7.1	389.0	6.3	455.5	5.7	515.9	5.3	589.9	5.2		
227.0	10.1	275.0	8.6	331.6	7.1	391.0	6.3	457.2	5.7	517.2	5.3	591.1	5.2		
227.3	10.1	276.3	8.5	332.6	7.1	392.5	6.3	458.6	5.7	518.9	5.3	592.3	5.2		
228.0	10.1	277.3	8.5	333.0	7.1	394.6	6.3	460.0	5.7	520.1	5.3	593.5	5.2		
229.3	10.1	278.1	8.4	333.4	7.0	396.4	6.3	461.2	5.7	521.3	5.3	595.6	5.2		
230.8	10.1	278.9	8.4	334.9	7.0	397.8	6.3	461.8	5.7	521.8	5.3	596.2	5.2		
232.1	10.1	279.7	8.4	336.0	7.0	398.7	6.3	462.2	5.7	524.4	5.3	597.0	5.2		
234.3	10.1	280.9	8.3	336.2	6.9	400.5	6.3	462.7	5.6	525.5	5.3	597.7	5.1		
235.9	10.1	281.2	8.3	337.2	6.9	401.7	6.3	463.7	5.6	526.7	5.3	598.2	5.1		
236.6	10.1	281.7	8.3	338.5	6.8	403.1	6.3	464.4	5.6	528.0	5.3	599.6	5.1		
238.1	10.1	282.8	8.2	340.2	6.8	405.2	6.3	465.6	5.6	529.8	5.3	600.9	5.1		
239.3	10.1	284.4	8.2	341.1	6.8	406.3	6.2	466.6	5.5	532.0	5.3	602.2	5.1		
240.6	10.1	285.9	8.2	342.4	6.8	408.6	6.2	467.7	5.5	533.8	5.3	603.3	5.1		
241.8	10.1	287.3	8.1	343.8	6.8	410.5	6.2	468.7	5.5	535.5	5.3	604.6	5.1		
243.3	10.1	288.3	8.1	344.8	6.8	412.2	6.2	469.5	5.5	536.7	5.3	605.8	5.1		
243.8	10.0	289.3	8.0	346.6	6.8	413.3	6.2	470.2	5.5	538.7	5.3	607.0	5.1		
244.7	10.0	290.0	8.0	347.2	6.8	414.5	6.2	470.7	5.4	540.1	5.3	607.8	5.1		
246.0	10.0	290.6	7.9	348.8	6.8	416.2	6.2	471.4	5.4	542.1	5.3	608.9	5.1		
247.0	10.0	291.9	7.9	349.9	6.8	417.9	6.2	472.6	5.4	543.5	5.3	610.0	5.1		
248.4	10.0	293.1	7.9	351.5	6.8	419.4	6.2	473.7	5.4	545.0	5.3	611.6	5.1		
249.4	10.0	294.8	7.9	351.9	6.7	421.3	6.2	474.7	5.4	547.4	5.3	614.2	5.0		
250.6	10.0	296.8	7.9	352.5	6.7	423.0	6.2	476.2	5.4	549.1	5.3	615.9	5.0		
251.5	9.9	298.8	7.8	354.0	6.7	424.5	6.2	478.4	5.4	550.2	5.3	617.6	5.0		
253.0	9.9	300.7	7.8	355.5	6.7	426.6	6.2	479.4	5.4	551.8	5.3	618.9	5.1		
254.4	9.9	302.0	7.8	357.0	6.7	428.6	6.2	480.7	5.4	553.6	5.3	620.5	5.0		
255.7	9.9	302.9	7.8	358.5	6.7	430.5	6.1	481.9	5.4	555.3	5.3	622.0	5.0		
256.9	9.9	303.9	7.8	360.0	6.7	432.3	6.1	483.2	5.4	556.9	5.3	624.0	5.0		
257.7	9.9	305.9	7.7	360.9	6.7	434.1	6.1	484.8	5.4	558.7	5.3	625.3	5.0		
258.3	9.9	307.0	7.7	362.1	6.6	436.0	6.1	486.4	5.4	560.4	5.3	626.5	5.0		
259.0	9.9	308.8	7.7	363.7	6.6	437.7	6.1	487.8	5.4	563.5	5.3	627.9	5.0		
260.1	9.8	310.3	7.7	364.6	6.6	438.9	6.1	489.1	5.4	565.4	5.3	628.8	5.0		
261.4	9.8	311.9	7.7	364.7	6.6	440.2	6.1	490.4	5.4	567.2	5.3	629.8	5.0		
262.0	9.8	313.6	7.7	365.5	6.5	440.7	6.1	491.8	5.4	568.8	5.3	630.5	4.9		
262.7	9.7	315.8	7.7	366.4	6.5	441.2	6.0	493.3	5.4	570.5	5.3	631.4	4.9		
263.1	9.7	316.6	7.7	367.4	6.5	442.3	6.0	495.0	5.4	572.0	5.3	633.2	4.9		
263.6	9.6	316.6	7.7	369.2	6.4	443.5	6.0	496.5	5.4	573.8	5.3	634.5	4.9		
264.1	9.6	317.4	7.6	370.9	6.4	444.0	6.0	498.2	5.4	575.5	5.3	635.4	4.9		
264.7	9.5	318.2	7.6	373.1	6.4	444.2	6.0	500.0	5.4	576.9	5.3	636.6	4.9		
265.5	9.4	319.2	7.6	375.0	6.4	444.8	6.0	501.5	5.4	578.6	5.3	637.6	4.9		

SHIP OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH			
OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH			
130	47	14 NOV 1982	17.7	40 17.3 N	67 59.3 W	305				
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm <sup>3</sup> /cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N	cph
2	2.1	16.856	34.826	5.67	0.66	25.416	0.000	1512.	-0.4	
4	3.8	16.848	34.825	5.62	0.67	25.417	0.004	1512.	-0.4	
6	6.0	16.859	34.827	5.64	0.68	25.416	0.010	1512.	-0.4	
8	8.1	16.858	34.828	5.66	0.65	25.417	0.015	1512.	-0.4	
10	9.8	16.858	34.828	5.58	0.66	25.417	0.020	1512.	-0.4	
12	12.0	16.868	34.829	5.55	0.65	25.415	0.025	1512.	-0.3	
14	14.2	16.872	34.830	5.66	0.65	25.415	0.031	1512.	0.2	
16	15.8	16.871	34.829	5.61	0.66	25.415	0.035	1512.	0.4	
18	18.1	16.891	34.837	5.60	0.65	25.416	0.041	1513.	0.6	
20	20.0	16.907	34.842	5.57	0.66	25.416	0.046	1513.	0.8	
22	22.0	16.908	34.843	5.63	0.66	25.416	0.051	1513.	1.1	
24	23.8	16.912	34.844	5.66	0.67	25.417	0.055	1513.	1.3	
26	26.2	16.922	34.848	5.70	0.67	25.417	0.062	1513.	1.5	
27	27.7	16.921	34.848	5.55	0.67	25.418	0.065	1513.	1.9	
30	30.1	16.956	34.865	5.53	0.67	25.422	0.072	1513.	3.1	
32	31.8	16.971	34.871	5.50	0.68	25.423	0.076	1513.	3.3	
34	34.2	16.997	34.885	5.47	0.67	25.427	0.082	1513.	3.8	
36	35.9	16.978	34.889	5.32	0.69	25.435	0.086	1513.	4.5	
38	38.0	16.948	34.894	5.38	0.67	25.446	0.092	1513.	5.2	
40	40.1	16.884	34.916	5.36	0.66	25.478	0.097	1513.	6.0	
41	41.7	16.842	34.924	5.23	0.66	25.495	0.101	1513.	6.8	
44	44.0	16.723	34.927	5.20	0.65	25.524	0.107	1513.	7.2	
46	46.1	16.614	34.937	5.13	0.65	25.558	0.112	1512.	7.8	
48	48.0	16.469	34.955	4.97	0.64	25.605	0.116	1512.	8.9	
50	50.2	16.316	34.986	4.93	0.64	25.665	0.121	1512.	10.4	
51	51.7	16.261	35.000	4.68	0.64	25.689	0.125	1511.	11.4	
54	54.0	16.060	35.030	4.60	0.63	25.758	0.130	1511.	12.1	
55	55.9	15.409	35.059	4.55	0.63	25.927	0.134	1509.	12.4	
58	58.1	14.707	35.087	4.43	0.62	26.104	0.139	1507.	12.2	
59	59.8	14.531	35.102	4.29	0.62	26.153	0.142	1506.	11.5	
62	62.3	14.371	35.195	4.17	0.62	26.259	0.147	1506.	10.5	
63	63.7	14.331	35.232	4.12	0.62	26.297	0.149	1506.	9.2	
65	66.0	14.257	35.226	4.16	0.61	26.308	0.153	1506.	8.5	
68	68.1	14.168	35.224	4.23	0.61	26.325	0.157	1505.	8.4	
70	70.2	14.124	35.267	4.28	0.62	26.368	0.160	1505.	8.3	
71	71.8	14.311	35.397	4.22	0.62	26.429	0.163	1506.	8.2	
74	74.1	14.568	35.583	4.18	0.61	26.517	0.166	1507.	8.1	
75	75.8	14.414	35.587	4.14	0.61	26.553	0.169	1507.	7.6	
77	77.9	14.342	35.600	4.10	0.61	26.579	0.172	1507.	6.9	
79	80.0	14.258	35.588	4.11	0.62	26.588	0.175	1506.	6.0	
81	81.8	14.254	35.593	4.09	0.62	26.592	0.178	1506.	5.1	
83	84.1	14.395	35.663	4.05	0.61	26.616	0.181	1507.	4.9	
85	86.2	14.298	35.664	4.04	0.61	26.638	0.184	1507.	5.2	
87	87.9	14.145	35.637	3.98	0.62	26.650	0.186	1506.	5.3	
89	90.0	14.230	35.674	3.96	0.62	26.660	0.189	1506.	5.3	
91	91.9	13.947	35.622	3.98	0.62	26.680	0.192	1506.	5.0	
93	94.1	13.607	35.584	3.99	0.63	26.722	0.195	1504.	4.6	
95	95.9	13.514	35.559	3.98	0.63	26.721	0.197	1504.	4.1	
97	98.1	13.364	35.524	3.98	0.64	26.726	0.200	1504.	3.6	

SHIP OC	CRUISE 130	STATION 47	DATE 14 NOV 1982	EST 17.7	LATITUDE 40 17.3 N	LONGITUDE 67 59.3 W	DEPTH 305		
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph
198	200.1	10.944	35.335	3.60	0.71	27.047	0.324	1497.	4.5
200	202.0	10.861	35.337	3.58	0.71	27.064	0.326	1497.	4.5
202	204.0	10.830	35.337	3.56	0.71	27.069	0.328	1497.	4.5
204	206.1	10.730	35.328	3.55	0.70	27.081	0.330	1496.	4.4
206	207.9	10.643	35.330	3.55	0.71	27.098	0.332	1496.	4.3
208	210.1	10.620	35.335	3.51	0.70	27.105	0.334	1496.	4.2
210	212.0	10.539	35.331	3.50	0.70	27.117	0.336	1496.	4.3
212	214.1	10.451	35.324	3.50	0.70	27.127	0.338	1495.	4.3
214	216.0	10.378	35.320	3.47	0.70	27.137	0.340	1495.	4.6
216	218.0	10.263	35.311	3.48	0.70	27.150	0.342	1495.	4.9
218	220.0	10.178	35.306	3.44	0.69	27.160	0.344	1494.	5.0
220	222.0	9.950	35.279	3.47	0.69	27.179	0.346	1494.	5.3
222	224.0	9.704	35.262	3.47	0.69	27.208	0.348	1493.	5.4
224	226.2	9.556	35.252	3.48	0.69	27.224	0.349	1492.	5.4
226	227.8	9.490	35.247	3.50	0.69	27.231	0.351	1492.	5.2
228	230.0	9.161	35.213	3.52	0.69	27.259	0.353	1491.	5.0
230	232.0	9.071	35.210	3.56	0.69	27.271	0.354	1491.	4.8
232	233.9	8.980	35.201	3.55	0.69	27.280	0.356	1490.	4.7
234	236.0	8.855	35.192	3.57	0.69	27.292	0.358	1490.	4.5
236	238.1	8.650	35.165	3.60	0.69	27.304	0.360	1489.	4.2
238	239.9	8.553	35.166	3.65	0.69	27.320	0.361	1489.	4.1
240	242.2	8.452	35.157	3.67	0.69	27.328	0.363	1488.	3.9
242	244.1	8.370	35.150	3.70	0.69	27.336	0.364	1488.	3.6
244	245.8	8.320	35.147	3.73	0.69	27.341	0.366	1488.	3.6
246	248.0	8.270	35.145	3.73	0.69	27.347	0.367	1488.	3.8
248	250.0	8.236	35.142	3.79	0.69	27.350	0.369	1488.	3.9
250	252.0	8.170	35.142	3.81	0.70	27.360	0.370	1487.	3.9
252	253.9	7.959	35.125	3.90	0.71	27.379	0.372	1487.	3.7
254	256.1	7.824	35.121	3.94	0.70	27.395	0.373	1486.	3.5
256	258.1	7.808	35.120	3.94	0.70	27.397	0.375	1486.	3.1
258	259.9	7.809	35.120	3.99	0.71	27.397	0.376	1486.	2.4
260	262.1	7.807	35.120	4.00	0.70	27.397	0.378	1486.	1.6
262	264.1	7.808	35.121	3.99	0.70	27.398	0.379	1486.	0.8
264	265.7	7.805	35.120	3.94	0.71	27.398	0.380	1486.	1.0
266	268.3	7.798	35.119	3.94	0.70	27.398	0.382	1486.	1.2
268	269.8	7.793	35.119	3.93	0.71	27.399	0.383	1486.	1.4
270	271.8	7.781	35.118	3.93	0.71	27.400	0.385	1486.	1.6
272	274.1	7.746	35.115	3.93	0.70	27.403	0.386	1486.	1.7
274	276.1	7.717	35.113	3.96	0.71	27.405	0.388	1486.	1.7
276	277.9	7.702	35.112	3.96	0.70	27.407	0.389	1486.	1.7
278	280.0	7.693	35.112	3.97	0.71	27.408	0.390	1486.	1.6
280	282.2	7.688	35.113	3.97	0.70	27.409	0.392	1486.	1.4
281	283.8	7.677	35.112	3.99	0.71	27.410	0.393	1486.	1.3
284	286.2	7.671	35.112	4.02	0.70	27.411	0.395	1486.	1.1
285	287.9	7.663	35.111	4.01	0.71	27.412	0.396	1486.	1.1
288	289.9	7.665	35.112	3.99	0.70	27.412	0.397	1486.	1.0
289	291.2	7.666	35.112	3.99	0.71	27.412	0.398	1486.	1.0
290	292.1	7.665	35.112	4.00	0.70	27.412	0.399	1486.	1.2
292	294.0	7.644	35.110	3.99	0.71	27.413	0.400	1486.	1.5
292	294.0	7.644	35.110	3.99	0.71	27.413	0.400	1486.	1.7

SHIP OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH		
		48	14 NOV 1982	18.4	40 20.9 N	67 59.7 W	140		
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph
2	2.2	14.642	33.907	6.03	0.64	25.208	0.000	1504.	1.0
4	4.1	14.651	33.907	5.98	0.64	25.206	0.005	1504.	1.0
6	6.1	14.643	33.907	5.91	0.64	25.207	0.011	1504.	1.0
8	8.1	14.635	33.907	5.87	0.64	25.209	0.016	1504.	1.0
10	10.2	14.648	33.910	5.81	0.64	25.208	0.022	1504.	1.0
12	11.9	14.655	33.909	5.74	0.64	25.206	0.027	1504.	1.4
14	14.2	14.650	33.908	5.80	0.65	25.206	0.033	1505.	2.0
16	16.1	14.696	33.928	5.79	0.64	25.212	0.038	1505.	2.1
18	17.8	14.774	33.951	5.83	0.64	25.213	0.043	1505.	2.3
20	20.1	14.872	33.987	5.84	0.64	25.219	0.049	1505.	2.4
22	21.8	15.004	34.040	5.78	0.65	25.232	0.054	1506.	2.6
24	24.1	14.998	34.030	5.80	0.65	25.225	0.060	1506.	2.6
26	25.7	15.031	34.044	5.78	0.65	25.229	0.065	1506.	2.6
28	28.0	15.085	34.066	5.78	0.65	25.234	0.071	1506.	2.7
30	30.0	15.189	34.107	5.75	0.65	25.243	0.077	1507.	2.9
32	32.2	15.248	34.127	5.79	0.65	25.245	0.083	1507.	3.2
34	33.9	15.335	34.159	5.67	0.65	25.251	0.087	1507.	3.2
36	36.2	15.452	34.207	5.73	0.65	25.262	0.093	1508.	3.4
37	37.8	15.565	34.254	5.67	0.65	25.273	0.098	1508.	3.9
40	40.2	15.627	34.275	5.70	0.65	25.275	0.104	1508.	5.1
42	42.0	15.669	34.293	5.62	0.65	25.280	0.109	1509.	6.4
44	44.0	15.818	34.361	5.59	0.65	25.298	0.114	1509.	7.6
46	45.9	16.040	34.468	5.51	0.64	25.331	0.119	1510.	8.4
48	48.1	16.298	34.644	5.39	0.63	25.406	0.125	1511.	9.3
50	50.0	16.467	34.811	5.28	0.63	25.496	0.130	1512.	10.7
51	51.7	16.483	34.892	4.98	0.62	25.554	0.134	1512.	11.4
54	54.0	16.414	34.934	4.88	0.61	25.602	0.140	1512.	11.7
56	56.1	16.305	35.002	4.81	0.61	25.680	0.145	1512.	12.1
58	58.0	15.708	35.115	4.63	0.60	25.904	0.149	1510.	12.1
60	60.2	15.466	35.114	4.53	0.60	25.957	0.153	1509.	12.2
61	61.9	15.266	35.113	4.30	0.60	26.001	0.157	1509.	12.1
64	64.2	14.591	35.108	4.34	0.60	26.145	0.161	1507.	11.5
66	66.1	14.383	35.110	4.26	0.60	26.191	0.165	1506.	10.4
67	68.0	14.157	35.157	4.29	0.60	26.276	0.168	1505.	9.9
69	69.9	13.983	35.210	4.27	0.60	26.354	0.172	1505.	8.9
72	72.1	13.953	35.232	4.26	0.60	26.378	0.175	1505.	7.6
73	74.0	13.923	35.245	4.25	0.60	26.393	0.178	1505.	6.7
75	75.8	13.871	35.252	4.24	0.61	26.410	0.181	1505.	5.6
78	78.2	13.797	35.253	4.24	0.61	26.426	0.185	1504.	4.6
79	79.9	13.764	35.256	4.23	0.61	26.435	0.188	1504.	4.2
81	81.8	13.728	35.262	4.22	0.61	26.447	0.191	1504.	3.9
83	84.0	13.707	35.271	4.21	0.61	26.458	0.194	1504.	3.8
85	86.0	13.700	35.273	4.19	0.62	26.462	0.198	1504.	4.1
87	88.0	13.697	35.278	4.17	0.61	26.467	0.201	1504.	4.4
90	90.3	13.672	35.282	4.16	0.62	26.475	0.204	1504.	4.8
91	91.9	13.578	35.282	4.11	0.63	26.494	0.207	1504.	5.0
93	94.0	13.459	35.288	4.10	0.63	26.523	0.210	1504.	5.3
95	96.1	13.376	35.294	4.08	0.63	26.545	0.213	1503.	6.0
97	98.0	13.301	35.297	4.03	0.63	26.562	0.216	1503.	6.4



SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH												
OC	130	50	14 NOV 1982	20.5	40 28.4 N	68 00.4 W	132												
DEPTH	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH												
m	130	50	14 NOV 1982	20.5	40 28.4 N	68 00.4 W	132												
2	2.3	11.107	32.721	6.32	0.75	24.982	0.000	1491.	0.6	99	100.0	12.416	34.875	4.33	0.65	26.413	0.240	1500.	5.8
4	4.0	11.107	32.721	6.29	0.75	24.983	0.005	1491.	0.6	101	102.0	12.596	34.949	4.32	0.65	26.434	0.244	1500.	5.4
6	6.1	11.108	32.721	6.28	0.75	24.982	0.011	1491.	0.6	103	103.9	12.625	34.980	4.28	0.65	26.452	0.247	1501.	5.0
8	7.8	11.107	32.721	6.32	0.76	24.983	0.016	1491.	0.6	105	106.2	12.617	34.989	4.27	0.65	26.461	0.250	1501.	4.5
10	10.0	11.108	32.721	6.27	0.76	24.983	0.023	1491.	0.6	107	107.7	12.650	35.002	4.28	0.66	26.465	0.253	1501.	4.2
12	12.1	11.104	32.721	6.28	0.76	24.984	0.029	1491.	0.6	109	110.0	12.624	35.005	4.25	0.65	26.472	0.256	1501.	3.9
14	13.9	11.102	32.721	6.30	0.77	24.984	0.034	1491.	0.6	110	111.3	12.606	35.010	4.26	0.66	26.480	0.258	1501.	3.7
16	16.0	11.098	32.721	6.29	0.77	24.984	0.041	1491.	0.5	111	112.0	12.599	35.016	4.28	0.66	26.486	0.259	1501.	3.6
18	18.2	11.101	32.721	6.31	0.77	24.984	0.047	1491.	0.4	112	113.0	12.591	35.027	4.25	0.67	26.496	0.261	1501.	3.5
20	20.0	11.103	32.721	6.30	0.78	24.983	0.053	1491.	0.1	113	114.0	12.591	35.027	4.24	0.67	26.496	0.263	1501.	3.2
22	22.0	11.099	32.721	6.30	0.78	24.984	0.059	1491.	-0.1	114	115.0	12.591	35.026	4.24	0.66	26.495	0.264	1501.	2.7
24	23.9	11.102	32.720	6.30	0.78	24.983	0.064	1491.	0.2	115	116.0	12.587	35.025	4.27	0.67	26.495	0.266	1501.	2.4
26	26.1	11.095	32.719	6.26	0.79	24.984	0.071	1491.	0.4	116	117.0	12.584	35.029	4.22	0.68	26.499	0.267	1501.	2.6
28	28.0	11.096	32.718	6.26	0.79	24.983	0.076	1491.	0.7	117	118.0	12.581	35.031	4.20	0.67	26.501	0.269	1501.	4.1
30	29.9	11.092	32.718	6.26	0.79	24.983	0.082	1491.	0.8	118	119.0	12.580	35.031	4.18	0.67	26.501	0.270	1501.	6.6
32	32.1	11.084	32.717	6.26	0.78	24.984	0.089	1491.	1.0	119	120.0	12.576	35.035	4.19	0.67	26.505	0.272	1501.	8.5
34	33.8	11.074	32.716	6.26	0.79	24.985	0.094	1491.	1.6	120	121.0	12.573	35.048	4.14	0.68	26.516	0.273	1501.	9.6
36	35.8	11.040	32.710	6.31	0.79	24.986	0.099	1491.	2.6	121	122.0	12.554	35.093	4.07	0.68	26.554	0.275	1501.	10.2
38	37.9	11.022	32.706	6.30	0.78	24.986	0.106	1491.	3.7	122	123.0	12.471	35.190	4.04	0.68	26.646	0.276	1501.	10.2
40	40.1	11.005	32.705	6.37	0.77	24.989	0.112	1491.	6.2	123	123.9	12.415	35.242	4.02	0.69	26.697	0.278	1501.	9.8
42	42.0	10.963	32.713	6.35	0.75	25.002	0.118	1491.	8.6	124	125.0	12.405	35.252	4.00	0.69	26.707	0.279	1501.	9.8
44	44.0	10.904	32.736	6.27	0.74	25.030	0.124	1491.	10.2	125	126.0	12.404	35.253	4.00	0.69	26.708	0.281	1501.	9.8
46	46.2	10.806	32.767	6.12	0.71	25.071	0.130	1491.	11.0	126	127.0	12.404	35.254	4.00	0.70	26.709	0.282	1501.	9.8
47	47.8	10.489	32.935	5.97	0.68	25.258	0.135	1490.	11.2	127	127.6	12.408	35.252	4.07	0.70	26.706	0.283	1501.	9.8
50	50.0	10.191	33.113	5.87	0.65	25.447	0.140	1489.	10.7										
52	52.0	10.170	33.150	5.79	0.65	25.479	0.145	1489.	9.9										
54	54.1	10.187	33.165	5.78	0.65	25.488	0.151	1489.	8.7										
55	55.9	10.186	33.169	5.66	0.65	25.491	0.155	1489.	8.7										
58	58.1	10.179	33.168	5.65	0.64	25.492	0.161	1489.	9.5										
59	59.8	10.126	33.177	5.55	0.65	25.508	0.165	1489.	10.8										
61	62.0	9.945	33.224	5.38	0.64	25.575	0.170	1488.	11.5										
63	64.0	9.708	33.535	5.36	0.64	25.857	0.175	1488.	11.9										
65	66.0	10.043	33.759	5.24	0.64	25.976	0.179	1490.	11.8										
67	67.9	10.189	33.838	5.13	0.63	26.013	0.183	1490.	11.0										
69	70.0	10.200	33.864	5.03	0.63	26.032	0.187	1490.	9.7										
71	71.9	10.417	33.979	4.91	0.64	26.084	0.191	1491.	8.0										
73	74.0	10.649	34.073	4.85	0.64	26.116	0.195	1492.	7.4										
75	76.0	10.782	34.126	4.83	0.64	26.134	0.198	1493.	7.2										
77	78.0	11.073	34.253	4.73	0.64	26.181	0.202	1494.	6.9										
79	80.1	11.444	34.419	4.65	0.64	26.242	0.206	1496.	6.5										
82	82.2	11.557	34.448	4.63	0.65	26.244	0.210	1496.	6.0										
83	83.9	11.597	34.473	4.58	0.65	26.256	0.213	1496.	5.6										
85	86.1	11.695	34.523	4.55	0.65	26.277	0.217	1497.	5.0										
87	88.0	11.787	34.562	4.56	0.65	26.290	0.220	1497.	4.7										
89	89.9	11.840	34.584	4.52	0.65	26.297	0.223	1497.	5.0										
91	92.0	11.911	34.620	4.48	0.64	26.311	0.227	1498.	5.3										
93	94.1	12.119	34.700	4.47	0.64	26.334	0.230	1498.	5.6										
95	95.9	12.198	34.739	4.45	0.65	26.349	0.234	1499.	5.9										
97	98.0	12.280	34.802	4.40	0.65	26.382	0.237	1499.	5.9										

SHIP OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH	SHIP OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH		
	130	51	14 NOV 1982	21.1	40 32.6 N	68 00.7 W	101		130	52	14 NOV 1982	21.9	40 34.1 N	68 07.9 W	97		
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph
2	2.3	10.938	32.667	6.32	0.65	24.971	0.000	1490.	-0.4	11.104	32.752	6.18	0.66	25.007	0.000	1491.	-0.4
4	4.0	10.944	32.667	6.25	0.66	24.970	0.005	1490.	-0.4	11.100	32.751	6.16	0.66	25.008	0.006	1491.	-0.4
6	5.9	10.942	32.667	6.32	0.67	24.970	0.011	1490.	-0.4	11.101	32.751	6.15	0.67	25.007	0.012	1491.	-0.4
8	7.9	10.940	32.667	6.36	0.67	24.970	0.017	1490.	-0.4	11.101	32.752	6.16	0.67	25.008	0.018	1491.	-0.4
10	10.0	10.943	32.667	6.34	0.67	24.970	0.023	1491.	-0.4	11.101	32.751	6.17	0.67	25.007	0.024	1491.	-0.4
12	12.3	10.944	32.667	6.36	0.67	24.969	0.030	1491.	-0.2	11.101	32.751	6.19	0.68	25.007	0.030	1491.	-0.5
14	13.8	10.944	32.667	6.35	0.68	24.969	0.034	1491.	-0.1	11.104	32.751	6.21	0.68	25.007	0.036	1491.	-0.5
16	16.0	10.943	32.667	6.34	0.67	24.969	0.041	1491.	0.2	11.108	32.752	6.23	0.68	25.006	0.042	1491.	-0.3
18	18.1	10.943	32.666	6.38	0.68	24.969	0.047	1491.	-0.2	11.110	32.752	6.23	0.68	25.006	0.047	1491.	0.6
20	20.0	10.941	32.666	6.38	0.69	24.970	0.053	1491.	-0.2	11.111	32.752	6.27	0.69	25.006	0.054	1491.	1.1
22	22.0	10.942	32.667	6.36	0.69	24.970	0.059	1491.	-0.3	11.117	32.754	6.29	0.69	25.006	0.059	1491.	1.6
24	24.2	10.943	32.667	6.34	0.69	24.970	0.065	1491.	-0.4	11.116	32.754	6.28	0.69	25.007	0.065	1491.	2.2
26	25.7	10.947	32.666	6.35	0.70	24.968	0.070	1491.	-0.3	11.109	32.757	6.28	0.70	25.010	0.072	1491.	2.9
28	27.9	10.948	32.667	6.34	0.69	24.969	0.076	1491.	-0.3	11.104	32.762	6.28	0.70	25.015	0.077	1491.	3.5
30	30.4	10.947	32.667	6.34	0.69	24.969	0.084	1491.	-0.3	11.098	32.768	6.25	0.69	25.021	0.083	1492.	4.2
32	31.8	10.948	32.667	6.36	0.70	24.969	0.088	1491.	0.2	11.080	32.781	6.20	0.69	25.034	0.089	1491.	4.6
34	34.0	10.947	32.667	6.36	0.70	24.969	0.094	1491.	0.3	11.050	32.803	6.18	0.68	25.057	0.095	1491.	5.0
36	36.1	10.948	32.667	6.37	0.70	24.969	0.101	1491.	0.3	11.003	32.810	6.15	0.68	25.071	0.100	1491.	5.3
38	37.9	10.948	32.667	6.42	0.71	24.969	0.106	1491.	0.9	10.927	32.825	6.09	0.68	25.096	0.106	1491.	5.4
40	40.0	10.948	32.667	6.45	0.71	24.969	0.112	1491.	2.0	10.874	32.830	6.08	0.68	25.109	0.112	1491.	5.5
42	42.1	10.948	32.667	6.48	0.71	24.969	0.119	1491.	3.1	10.820	32.843	6.05	0.68	25.128	0.117	1491.	5.7
44	44.0	10.948	32.667	6.50	0.71	24.969	0.124	1491.	4.4	10.766	32.859	5.99	0.68	25.150	0.123	1491.	6.0
46	45.9	10.940	32.674	6.47	0.71	24.976	0.130	1491.	6.6	10.726	32.865	5.95	0.67	25.162	0.129	1491.	6.5
48	48.0	10.904	32.701	6.38	0.68	25.003	0.136	1491.	8.3	10.676	32.893	5.91	0.68	25.193	0.134	1490.	7.1
50	50.2	10.852	32.722	6.27	0.68	25.029	0.143	1491.	9.6	10.616	32.927	5.83	0.67	25.230	0.140	1490.	7.3
51	51.8	10.746	32.771	6.04	0.68	25.085	0.147	1491.	10.4	10.576	32.956	5.76	0.67	25.258	0.145	1490.	7.4
54	54.0	10.505	32.936	5.89	0.66	25.255	0.153	1490.	10.6	10.541	33.023	5.70	0.67	25.321	0.151	1490.	7.6
56	56.2	10.440	33.035	5.82	0.66	25.344	0.159	1490.	10.3	10.481	33.074	5.64	0.67	25.367	0.156	1490.	7.7
57	57.8	10.447	33.107	5.69	0.67	25.399	0.164	1490.	9.7	10.480	33.092	5.56	0.67	25.381	0.161	1490.	7.8
60	60.0	10.432	33.176	5.58	0.68	25.455	0.169	1490.	8.6	10.490	33.114	5.47	0.67	25.396	0.166	1490.	7.8
62	62.0	10.436	33.184	5.51	0.67	25.460	0.174	1490.	7.2	10.482	33.182	5.43	0.68	25.451	0.171	1490.	7.8
63	64.0	10.437	33.199	5.47	0.68	25.472	0.179	1490.	6.6	10.458	33.256	5.36	0.67	25.513	0.176	1490.	7.6
65	66.0	10.441	33.229	5.44	0.68	25.495	0.184	1490.	6.5	10.435	33.300	5.34	0.67	25.551	0.182	1490.	7.5
67	67.9	10.450	33.273	5.40	0.68	25.527	0.189	1490.	6.7	10.422	33.332	5.31	0.67	25.578	0.186	1490.	6.9
70	70.2	10.462	33.318	5.39	0.68	25.561	0.194	1491.	6.9	10.414	33.384	5.26	0.67	25.621	0.191	1490.	6.0
71	72.0	10.458	33.363	5.37	0.68	25.596	0.199	1491.	6.9	10.429	33.401	5.25	0.67	25.631	0.196	1491.	5.0
73	74.0	10.442	33.412	5.34	0.68	25.637	0.204	1491.	6.6	10.440	33.410	5.22	0.67	25.636	0.200	1491.	4.2
75	76.0	10.483	33.458	5.31	0.68	25.666	0.208	1491.	6.2	10.450	33.418	5.18	0.68	25.641	0.205	1491.	3.4
78	78.2	10.541	33.492	5.28	0.68	25.682	0.213	1491.	5.8	10.453	33.422	5.20	0.68	25.643	0.210	1491.	2.5
79	80.0	10.584	33.520	5.24	0.69	25.697	0.217	1491.	5.6	10.456	33.423	5.19	0.68	25.644	0.215	1491.	2.4
81	82.1	10.619	33.538	5.21	0.68	25.705	0.222	1492.	5.7	10.463	33.430	5.17	0.68	25.647	0.217	1491.	2.4
83	84.1	10.682	33.581	5.21	0.69	25.727	0.227	1492.	6.1	10.465	33.431	5.18	0.68	25.648	0.219	1491.	3.1
85	85.9	10.705	33.604	5.19	0.69	25.741	0.231	1492.	6.7	10.470	33.436	5.16	0.69	25.651	0.221	1491.	3.9
87	88.1	10.768	33.668	5.15	0.69	25.780	0.236	1492.	7.0	10.483	33.446	5.15	0.68	25.657	0.224	1491.	4.8
89	90.0	10.849	33.748	5.11	0.70	25.828	0.240	1493.	7.8	10.482	33.448	5.15	0.69	25.658	0.226	1491.	5.4
91	91.9	10.911	33.808	5.09	0.70	25.864	0.244	1493.	7.8	10.507	33.479	5.12	0.69	25.678	0.228	1491.	5.8
93	94.0	10.983	33.877	5.06	0.70	25.904	0.249	1493.	7.8	10.522	33.496	5.10	0.69	25.689	0.231	1491.	6.5
95	95.9	11.003	33.896	5.03	0.70	25.916	0.253	1494.	7.8	10.541	33.520	5.10	0.69	25.704	0.233	1491.	7.2
97	97.8	11.218	34.093	4.98	0.70	26.031	0.257	1495.	7.8	10.560	33.541	5.11	0.71	25.717	0.235	1492.	7.8

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH		
OC	130	52	14 NOV 1982	21.9	40 34.1 N	68 07.9 W	97		
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD	DEPTH
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s	cph
89	90.0	10.568	33.553	5.07	0.71	25.725	0.238	1492.	8.5
90	91.0	10.613	33.613	5.07	0.72	25.764	0.240	1492.	9.1
91	92.1	10.645	33.659	5.06	0.72	25.794	0.242	1492.	9.1
92	93.0	10.660	33.689	5.05	0.73	25.815	0.244	1492.	9.1
93	94.0	10.712	33.773	5.05	0.75	25.872	0.247	1492.	9.1
94	94.7	10.724	33.797	5.05	0.76	25.888	0.248	1492.	9.1
		</							



STA 54 DAY: 14 TIME: 2245

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH		
OC	130	53	14 NOV 1982	22.6	40 30.8 N	68 14.7 W	101		
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD	N
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s	cph
88	89.0	10.543	33.721	5.10	0.71	25.861	0.229	1492.	5.4
89	90.0	10.569	33.756	5.09	0.72	25.883	0.231	1492.	5.7
90	91.1	10.583	33.773	5.07	0.73	25.894	0.234	1492.	5.7
91	91.9	10.594	33.786	5.03	0.74	25.902	0.236	1492.	5.9
92	93.0	10.605	33.801	4.97	0.74	25.912	0.238	1492.	6.8
93	94.0	10.612	33.809	4.94	0.74	25.917	0.240	1492.	8.1
94	95.0	10.617	33.816	4.88	0.75	25.922	0.242	1492.	10.3
95	96.0	10.646	33.855	4.85	0.75	25.947	0.244	1492.	13.8
96	97.1	10.699	33.956	4.81	0.75	26.016	0.246	1493.	13.8
97	98.0	10.766	34.053	4.73	0.76	26.080	0.248	1493.	13.8
98	99.1	10.869	34.241	4.68	0.77	26.208	0.250	1494.	13.8
99	99.8	11.109	34.666	4.22	0.81	26.496	0.251	1495.	13.8

DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP
(m)	(°C)	(m)	(°C)	(m)	(°C)
0.3	10.9	56.8	10.2	93.0	11.2
0.6	10.9	57.2	10.2	94.1	11.2
2.7	10.8	57.7	10.3	94.9	11.2
4.9	10.9	58.2	10.3	96.0	11.2
7.0	10.8	59.2	10.3	96.8	11.2
9.9	10.8	59.8	10.3	97.6	11.2
11.5	10.8	60.5	10.3	98.1	11.2
13.4	10.8	61.2	10.3	98.9	11.3
15.4	10.8	61.4	10.3	99.3	11.3
17.7	10.9	62.0	10.3	99.5	11.3
18.9	10.9	62.9	10.3	100.3	11.3
20.8	10.8	63.7	10.3	100.8	11.3
22.2	10.8	64.1	10.3	100.9	11.3
24.7	10.8	64.5	10.3	101.2	11.2
27.1	10.8	65.0	10.4	101.7	11.2
29.1	10.8	65.4	10.4	102.3	11.2
30.8	10.8	65.9	10.4	103.0	11.1
32.8	10.8	66.3	10.5	103.5	11.1
34.8	10.8	67.3	10.5	104.0	11.1
36.7	10.9	68.4	10.5	104.6	11.1
37.9	10.8	69.5	10.5	105.0	11.0
39.1	10.8	70.6	10.5	105.3	11.0
40.1	10.8	72.1	10.6	107.2	11.0
40.8	10.8	73.4	10.6	107.7	10.9
41.2	10.8	74.3	10.6	108.0	10.9
41.7	10.7	74.7	10.6	108.6	10.9
42.0	10.6	75.6	10.6	109.9	10.9
42.4	10.6	76.0	10.7	112.0	10.9
43.2	10.6	76.5	10.7	114.3	10.9
43.3	10.6	77.0	10.8	116.8	10.9
43.8	10.5	77.3	10.8	118.4	10.9
45.6	10.5	77.7	10.8	120.3	10.9
46.5	10.5	78.9	10.8	122.9	10.9
47.8	10.5	79.5	10.9	124.5	10.9
48.7	10.5	80.4	10.9	126.7	10.9
49.5	10.5	80.7	10.9	129.3	10.9
50.1	10.4	81.1	11.0	131.4	10.9
50.8	10.4	81.6	11.0	132.8	10.9
51.8	10.4	82.4	11.0	134.3	10.9
52.5	10.4	83.6	11.1	135.8	10.9
53.0	10.4	84.7	11.1	137.1	10.9
53.4	10.3	85.4	11.1	138.2	11.0
53.7	10.2	85.3	11.1	139.2	11.0
53.9	10.2	86.4	11.1		
54.1	10.1	87.3	11.1		
54.4	10.1	88.2	11.2		
55.0	10.1	89.2	11.2		
55.1	10.1	90.1	11.2		
55.7	10.1	90.9	11.2		
56.3	10.2	92.0	11.2		

STA 55				DAY: 14		TIME: 2302		SHIP OC	CRUISE 130	STATION 56	DATE		EST 23.2	LATITUDE		LONGITUDE		DEPTH
DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	14 NOV 1982	23.2				40 29.4 N	SGCT gm/cm <sup>3</sup>		DXHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N	cph	
0.6	10.9	60.8	9.8	88.2	12.2	131.4	10.9	2	2.3	10.882	32.673	6.09	0.74	24.985	0.000	1490.	-0.5	
0.8	10.9	61.2	9.9	88.9	12.2	132.0	10.9	4	4.1	10.883	32.673	6.12	0.75	24.985	0.005	1490.	-0.5	
1.5	10.8	61.4	9.9	89.4	12.2	133.6	10.9	6	6.0	10.886	32.673	6.20	0.75	24.984	0.011	1490.	-0.5	
1.9	10.8	61.7	10.0	89.8	12.1	135.0	10.9	8	7.9	10.887	32.673	6.24	0.74	24.984	0.017	1490.	-0.5	
3.5	10.8	61.8	10.1	90.2	12.0	136.6	10.9	10	10.1	10.889	32.673	6.28	0.75	24.984	0.023	1490.	-0.5	
5.5	10.8	62.0	10.1	90.4	12.0	137.7	10.9	12	11.8	10.891	32.673	6.30	0.75	24.984	0.028	1490.	-0.4	
7.3	10.8	62.1	10.2	90.6	11.9	138.3	10.9	14	14.0	10.893	32.673	6.30	0.74	24.983	0.035	1490.	-0.4	
8.9	10.8	62.6	10.2	90.9	11.9	138.9	10.8	16	16.0	10.890	32.673	6.27	0.75	24.983	0.041	1490.	-0.3	
10.7	10.8	63.9	10.2	91.2	11.8	140.0	10.8	18	18.3	10.889	32.673	6.25	0.75	24.984	0.048	1490.	0.1	
12.4	10.8	65.1	10.3	91.5	11.8	141.0	10.8	20	22.0	10.894	32.673	6.19	0.75	24.983	0.059	1491.	0.2	
14.7	10.8	66.5	10.3	91.7	11.8			22	24.1	10.898	32.674	6.23	0.75	24.983	0.065	1491.	-0.1	
17.1	10.8	68.2	10.3	92.7	11.7			24	26.0	10.899	32.675	6.21	0.76	24.984	0.070	1491.	-0.1	
18.2	10.8	69.6	10.3	93.9	11.7			26	27.9	10.900	32.675	6.15	0.76	24.983	0.076	1491.	-0.1	
19.8	10.8	70.8	10.3	94.4	11.6			28	30.0	10.899	32.674	6.17	0.76	24.983	0.082	1491.	0.2	
21.8	10.8	72.4	10.3	95.8	11.6			30	32.1	10.898	32.674	6.24	0.77	24.983	0.088	1491.	0.1	
23.8	10.8	73.2	10.3	96.7	11.5			32	34.0	10.896	32.673	6.17	0.77	24.983	0.094	1491.	0.6	
25.9	10.8	73.7	10.4	97.3	11.5			34	36.0	10.895	32.673	6.18	0.77	24.983	0.100	1491.	1.2	
28.8	10.8	74.2	10.6	99.7	11.4			36	38.1	10.897	32.674	6.23	0.77	24.983	0.106	1491.	2.5	
30.5	10.8	74.7	10.7	100.4	11.4			38	39.9	10.900	32.675	6.21	0.78	24.983	0.112	1491.	3.7	
32.3	10.8	75.0	10.8	101.2	11.4			40	42.2	10.907	32.680	6.17	0.78	24.987	0.119	1491.	4.9	
33.9	10.8	75.5	10.9	102.5	11.4			42	43.8	10.900	32.689	6.12	0.78	24.995	0.123	1491.	5.9	
35.2	10.8	76.1	10.9	103.7	11.4			43	45.9	10.861	32.726	6.04	0.77	25.030	0.130	1491.	6.7	
37.2	10.8	76.5	11.0	104.3	11.3			46	48.0	10.789	32.762	6.03	0.74	25.070	0.136	1491.	7.2	
38.7	10.7	77.3	11.1	104.5	11.3			48	50.2	10.676	32.796	5.98	0.71	25.117	0.142	1490.	8.0	
40.4	10.7	77.4	11.2	105.6	11.3			50	51.9	10.581	32.825	5.82	0.71	25.156	0.147	1490.	9.4	
40.9	10.6	78.0	11.2	106.8	11.3			52	54.0	10.504	32.854	5.71	0.69	25.192	0.153	1490.	10.6	
42.0	10.6	78.1	11.3	108.2	11.3			54	56.1	10.432	32.883	5.64	0.68	25.226	0.158	1490.	11.4	
43.5	10.6	78.4	11.4	109.2	11.3			56	57.9	10.171	32.939	5.57	0.68	25.315	0.163	1489.	11.8	
44.1	10.5	78.4	11.4	110.4	11.3			57	59	60.0	33.111	5.51	0.65	25.530	0.168	1487.	11.8	
44.5	10.5	79.1	11.4	110.4	11.3			59	62.1	9.880	33.289	5.33	0.65	25.636	0.173	1488.	11.6	
45.5	10.4	79.5	11.5	111.3	11.3			62	63.9	10.131	33.400	5.19	0.65	25.681	0.178	1489.	10.7	
46.7	10.4	79.6	11.6	112.7	11.3			63	66.0	10.395	33.521	5.06	0.67	25.731	0.183	1491.	9.3	
48.3	10.4	80.2	11.6	113.6	11.3			66	68.0	10.422	33.581	5.03	0.67	25.772	0.187	1491.	7.5	
49.2	10.3	80.4	11.6	114.5	11.2			68	69.9	10.421	33.618	5.02	0.68	25.801	0.191	1491.	6.6	
49.9	10.3	81.1	11.6	115.7	11.2			69	72.2	10.404	33.623	5.06	0.67	25.809	0.196	1491.	6.3	
50.9	10.3	81.5	11.6	117.3	11.2			72	73.8	10.385	33.626	5.12	0.67	25.814	0.200	1491.	6.4	
52.0	10.2	81.7	11.6	118.9	11.2			73	76.1	10.391	33.669	5.16	0.68	25.846	0.205	1491.	7.2	
53.1	10.2	82.1	11.6	120.7	11.2			75	78.0	10.441	33.719	5.17	0.67	25.877	0.209	1491.	8.2	
53.5	10.2	82.7	11.6	121.6	11.2			77	80.0	10.703	33.818	5.13	0.67	25.908	0.213	1492.	9.0	
54.0	10.1	83.4	11.7	124.1	11.2			79	81.9	11.060	33.979	5.07	0.67	25.970	0.217	1494.	9.6	
54.3	10.0	83.9	11.8	125.5	11.2			81	84.0	11.794	34.291	4.93	0.67	26.078	0.221	1497.	9.9	
55.0	10.0	84.3	11.8	126.6	11.2			83	86.1	12.210	34.480	4.82	0.66	26.146	0.225	1498.	9.9	
55.3	9.9	84.6	11.9	127.3	11.2			85	88.1	12.361	34.587	4.67	0.65	26.199	0.229	1499.	9.6	
55.7	9.9	84.9	12.0	128.2	11.2			87	89.9	12.406	34.671	4.52	0.66	26.256	0.232	1499.	9.2	
56.2	9.8	85.0	12.1	129.0	11.1			89	92.0	12.267	34.699	4.42	0.67	26.304	0.236	1499.	8.6	
57.3	9.8	85.3	12.1	129.7	11.1			91	94.0	12.097	34.699	4.32	0.67	26.337	0.239	1498.	8.2	
57.8	9.8	86.3	12.1	130.2	11.1			93	95.8	12.032	34.730	4.21	0.68	26.374	0.242	1498.	8.0	
59.0	9.8	86.8	12.1	130.6	11.0			95	98.1	11.875	34.766	4.24	0.69	26.432	0.246	1498.	7.9	
59.9	9.8	87.7	12.1	130.9	11.0			97										

SHIP OC	CRUISE 130	STATION 56	DATE 14 NOV 1982	EST 23.2	LATITUDE 40 29.4 N	LONGITUDE 68 11.0 W	DEPTH 226		
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph
99	99.9	11.864	34.792	4.22	0.69	26.454	0.249	1498.	8.4
101	102.1	11.854	34.838	4.17	0.68	26.492	0.252	1498.	9.0
103	104.0	11.808	34.869	4.15	0.69	26.524	0.255	1498.	9.8
105	106.0	11.756	34.944	4.13	0.70	26.592	0.258	1498.	10.2
107	108.0	11.578	35.027	4.08	0.71	26.691	0.261	1497.	10.6
109	109.8	11.510	35.118	4.01	0.73	26.774	0.264	1497.	10.5
111	112.0	11.441	35.235	3.94	0.72	26.878	0.266	1497.	10.1
113	114.0	11.436	35.270	3.91	0.70	26.906	0.269	1497.	9.1
115	116.0	11.171	35.306	3.88	0.70	26.983	0.271	1496.	7.8
117	118.0	11.157	35.318	3.85	0.69	26.995	0.273	1496.	6.4
119	119.9	11.166	35.329	3.85	0.69	27.002	0.275	1496.	4.8
121	122.0	11.182	35.339	3.85	0.69	27.007	0.277	1496.	3.7
123	123.9	11.184	35.339	3.83	0.70	27.007	0.279	1496.	2.1
125	126.1	11.172	35.336	3.85	0.70	27.006	0.282	1496.	1.8
127	128.0	11.130	35.327	3.86	0.71	27.007	0.284	1496.	1.8
129	130.0	11.115	35.327	3.84	0.73	27.010	0.286	1496.	2.1
131	132.1	11.088	35.324	3.85	0.73	27.012	0.288	1496.	2.5
133	134.1	11.056	35.320	3.86	0.73	27.015	0.290	1496.	2.8
135	135.8	11.024	35.320	3.82	0.73	27.021	0.292	1496.	3.1
137	138.1	10.961	35.319	3.80	0.73	27.031	0.295	1496.	3.4
139	140.1	10.932	35.318	3.84	0.73	27.036	0.297	1496.	3.7
141	142.0	10.884	35.317	3.86	0.74	27.044	0.299	1496.	3.9
143	143.9	10.810	35.314	3.84	0.74	27.055	0.301	1495.	4.1
145	146.0	10.746	35.312	3.85	0.74	27.065	0.303	1495.	4.2
147	148.1	10.631	35.303	3.88	0.73	27.080	0.305	1495.	4.2
149	150.0	10.548	35.303	3.90	0.73	27.093	0.307	1495.	4.0
151	151.9	10.491	35.300	3.92	0.74	27.101	0.309	1494.	3.8
153	154.0	10.407	35.296	3.95	0.74	27.113	0.311	1494.	3.4
155	156.3	10.353	35.292	3.94	0.74	27.119	0.313	1494.	3.2
157	158.1	10.349	35.292	3.90	0.74	27.120	0.315	1494.	3.4
159	159.8	10.343	35.291	3.86	0.75	27.121	0.316	1494.	3.7
161	162.1	10.329	35.291	3.85	0.75	27.122	0.319	1494.	4.0
163	164.1	10.150	35.273	3.90	0.74	27.139	0.321	1493.	4.2
164	165.8	9.962	35.261	3.92	0.75	27.163	0.322	1493.	4.3
167	168.0	9.857	35.260	3.94	0.76	27.180	0.324	1492.	4.8
169	170.1	9.822	35.260	3.97	0.76	27.186	0.326	1492.	5.2
171	172.1	9.777	35.256	4.00	0.76	27.191	0.328	1492.	5.5
172	173.9	9.724	35.255	3.99	0.76	27.199	0.329	1492.	5.8
175	176.0	9.316	35.225	4.02	0.77	27.243	0.331	1491.	6.1
177	178.1	9.038	35.206	4.08	0.78	27.274	0.333	1490.	6.3
178	180.0	8.829	35.193	4.16	0.79	27.297	0.335	1489.	6.2
181	182.0	8.584	35.182	4.21	0.79	27.327	0.336	1488.	5.8
182	184.0	8.475	35.181	4.24	0.80	27.343	0.338	1487.	5.1
184	186.0	8.390	35.177	4.28	0.80	27.353	0.339	1487.	4.5
186	188.0	8.320	35.175	4.29	0.80	27.363	0.341	1487.	4.0
188	190.0	8.302	35.174	4.29	0.80	27.365	0.342	1487.	3.5
190	191.9	8.225	35.170	4.29	0.81	27.374	0.344	1487.	3.2
193	194.2	8.128	35.164	4.27	0.82	27.384	0.345	1486.	3.0
194	195.9	8.104	35.164	4.31	0.81	27.387	0.346	1486.	2.8
196	198.0	8.073	35.162	4.29	0.81	27.390	0.348	1486.	2.5

STA 57					DAY: 14					TIME: 2338					STA 57					DAY: 14					TIME: 2338				
DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP
0.2	10.8	55.3	11.2	81.5	10.3	99.6	12.5	126.6	11.0	162.2	9.6	204.7	8.4	258.3	7.6	313.3	6.9	368.3	6.9	423.3	6.9	478.3	6.9	533.3	6.9	588.3	6.9	643.3	6.9
3.8	10.8	55.4	11.1	82.4	10.3	100.1	12.6	127.2	10.9	162.6	9.5	206.0	8.4	260.3	7.6	314.5	6.9	369.5	6.9	424.5	6.9	479.5	6.9	534.5	6.9	589.5	6.9	644.5	6.9
5.8	10.8	55.5	11.1	82.6	10.3	100.6	12.7	127.7	10.8	163.1	9.5	207.2	8.4	261.3	7.6	315.9	6.9	370.9	6.9	425.9	6.9	480.9	6.9	535.9	6.9	590.9	6.9	645.9	6.9
8.1	10.8	55.5	11.0	82.7	10.4	101.0	12.8	128.1	10.8	163.5	9.5	208.3	8.4	263.5	7.5	316.7	6.9	372.1	6.9	427.1	6.9	482.1	6.9	537.1	6.9	592.1	6.9	647.1	6.9
9.7	10.8	56.0	10.9	82.9	10.5	101.4	12.8	128.1	10.8	164.3	9.5	209.9	8.4	264.6	7.5	317.3	6.9	373.7	6.9	428.7	6.9	483.7	6.9	538.7	6.9	593.7	6.9	648.7	6.9
11.4	10.8	56.0	10.8	83.3	10.5	102.1	12.9	128.9	10.8	165.6	9.4	211.3	8.4	265.7	7.5	318.9	6.9	375.3	6.9	430.3	6.9	485.3	6.9	540.3	6.9	595.3	6.9	650.3	6.9
14.0	10.8	56.2	10.7	83.6	10.6	103.0	12.9	129.7	10.8	166.6	9.4	212.9	8.4	266.5	7.5	320.1	6.9	376.9	6.9	431.9	6.9	486.9	6.9	541.9	6.9	596.9	6.9	651.9	6.9
16.1	10.8	56.3	10.6	84.0	10.7	103.5	12.9	130.3	10.7	168.3	9.4	215.0	8.4	267.6	7.5	321.4	6.9	378.5	6.9	433.5	6.9	488.5	6.9	543.5	6.9	598.5	6.9	653.5	6.9
18.1	10.8	56.5	10.5	84.2	10.8	104.1	12.9	130.6	10.7	170.3	9.4	216.1	8.4	268.6	7.5	322.9	6.9	380.1	6.9	435.1	6.9	490.1	6.9	545.1	6.9	600.1	6.9	655.1	6.9
19.5	10.8	56.5	10.4	84.3	10.9	104.7	12.8	131.0	10.6	171.9	9.4	217.7	8.3	269.7	7.5	324.4	6.8	381.7	6.8	436.7	6.8	491.7	6.8	546.7	6.8	601.7	6.8	656.7	6.8
22.1	10.8	56.6	10.2	84.3	11.0	104.9	12.7	131.4	10.6	173.4	9.4	218.3	8.3	270.8	7.4	325.7	6.8	383.3	6.8	438.3	6.8	493.3	6.8	548.3	6.8	603.3	6.8	658.3	6.8
24.5	10.8	56.8	10.1	84.5	11.1	104.9	12.6	131.8	10.5	175.5	9.4	218.6	8.3	271.5	7.4	326.5	6.8	384.9	6.8	439.9	6.8	494.9	6.8	549.9	6.8	604.9	6.8	659.9	6.8
26.5	10.8	56.9	10.1	84.6	11.2	105.1	12.6	132.0	10.5	177.1	9.4	219.3	8.2	272.2	7.4	327.8	6.8	386.5	6.8	441.5	6.8	496.5	6.8	551.5	6.8	606.5	6.8	661.5	6.8
34.7	10.8	57.4	9.6	85.2	11.6	105.9	12.2	135.7	10.3	180.5	9.2	225.2	8.1	277.0	7.3	334.8	6.8	390.1	6.8	445.1	6.8	500.1	6.8	555.1	6.8	610.1	6.8	665.1	6.8
36.3	10.8	57.5	9.5	85.4	11.8	106.3	12.1	136.2	10.3	181.2	9.2	225.9	8.1	277.7	7.3	336.5	6.8	391.7	6.8	446.7	6.8	501.7	6.8	556.7	6.8	611.7	6.8	666.7	6.8
37.5	10.8	58.0	9.4	85.5	11.9	106.5	12.1	136.9	10.2	182.2	9.2	226.2	8.0	278.1	7.3	337.9	6.8	392.9	6.8	447.9	6.8	502.9	6.8	557.9	6.8	612.9	6.8	667.9	6.8
38.7	10.8	58.1	9.3	85.4	11.9	106.8	12.0	137.5	10.2	183.3	9.2	227.3	8.0	278.7	7.2	339.1	6.8	394.1	6.8	449.1	6.8	504.1	6.8	559.1	6.8	614.1	6.8	669.1	6.8
39.5	10.8	58.5	9.3	85.7	12.0	107.9	12.0	137.9	10.2	184.2	9.2	228.3	8.0	279.6	7.2	340.2	6.8	395.2	6.8	450.2	6.8	505.2	6.8	560.2	6.8	615.2	6.8	670.2	6.8
40.4	10.8	59.3	9.2	86.4	12.1	108.9	12.0	137.9	10.2	185.0	9.2	229.2	8.0	281.0	7.2	341.1	6.8	396.3	6.8	451.3	6.8	506.3	6.8	561.3	6.8	616.3	6.8	671.3	6.8
41.7	10.8	60.3	9.2	86.8	12.2	109.0	11.9	138.8	10.1	185.6	9.1	229.6	7.9	282.1	7.2	341.9	6.8	397.5	6.8	452.5	6.8	507.5	6.8	562.5	6.8	617.5	6.8	672.5	6.8
43.3	10.8	61.3	9.2	87.2	12.3	109.7	11.9	140.0	10.1	186.1	9.1	229.8	7.9	283.7	7.2	342.4	6.8	398.7	6.8	453.7	6.8	508.7	6.8	563.7	6.8	618.7	6.8	673.7	6.8
44.3	10.8	61.8	9.3	88.0	12.4	111.1	11.9	140.8	10.1	186.5	9.0	231.5	7.8	286.4	7.1			399.9	6.8	454.9	6.8	509.9	6.8	564.9	6.8	619.9	6.8	674.9	6.8
45.2	10.8	62.0	9.3	88.4	12.4	112.4	11.9	141.7	10.1	186.7	9.0	232.9	7.8	288.2	7.1			401.1	6.8	456.1	6.8	511.1	6.8	566.1	6.8	621.1	6.8	676.1	6.8
46.1	10.8	63.5	9.3	88.7	12.5	113.3	11.8	142.6	10.1	187.2	8.9	234.1	7.8	290.0	7.1			402.3	6.8	457.3	6.8	512.3	6.8	567.3	6.8	622.3	6.8	677.3	6.8
46.8	10.9	64.5	9.4	89.6	12.5	114.2	11.8	143.4	10.1	187.6	8.9	235.4	7.8	290.9	7.1			403.5	6.8	458.5	6.8	513.5	6.8	568.5	6.8	623.5	6.8	678.5	6.8
47.1	10.9	65.5	9.4	89.9	12.4	114.9	11.8	143.8	10.0	188.2	8.9	236.6	7.8	292.2	7.1			404.7	6.8	459.7	6.8	514.7	6.8	569.7	6.8	624.7	6.8	679.7	6.8
47.5	11.0	66.6	9.4	90.2	12.4	115.1	11.7	144.9	9.9	188.2	8.9	237.7	7.8	293.4	7.1			405.9	6.8	460.9	6.8	515.9	6.8	570.9	6.8	625.9	6.8	680.9	6.8
48.0	11.1	67.8	9.5	90.3	12.3	115.2	11.7	145.8	9.9	189.0	8.9	239.1	7.8	294.0	7.1			407.1	6.8	462.1	6.8	517.1	6.8	572.1	6.8	627.1	6.8	682.1	6.8
48.8	11.2	68.8	9.5	90.7	12.3	116.2	11.6	147.4	9.9	189.6	8.9	239.9	7.8	294.2	7.1			408.3	6.8	463.3	6.8	518.3	6.8	573.3	6.8	628.3	6.8	683.3	6.8
49.2	11.3	70.2	9.5	91.1	12.3	117.2	11.6	148.4	9.9	189.8	8.8	239.9	7.8	294.2	7.1			409.5	6.8	464.5	6.8	519.5	6.8	574.5	6.8	629.5	6.8	684.5	6.8
49.9	11.3	71.1	9.6	91.6	12.2	117.7	11.6	149.3	9.9	190.1	8.8	240.7	7.8	295.1	7.0			410.7	6.8	465.7	6.8	520.7	6.8	575.7	6.8	630.7	6.8	685.7	6.8
50.1	11.4	71.4	9.7	91.9	12.1	117.9	11.6	150.1	9.9	190.6	8.7	241.1	7.8	295.7	7.0			411.9	6.8	466.9	6.8	521.9	6.8	576.9	6.8	631.9	6.8	686.9	6.8
50.3	11.4	72.2	9.7	92.4	12.0	118.5	11.5	151.0	9.9	191.4	8.7	241.6	7.7	296.4	7.0			413.1	6.8	468.1	6.8	523.1	6.8	578.1	6.8	633.1	6.8	688.1	6.8
51.0	11.4	72.7	9.8	92.7	12.0	119.5	11.5	151.4	9.8	192.1	8.6	242.7	7.7	297.1	7.0			414.3	6.8	469.3	6.8	524.3	6.8	579.3	6.8	634.3	6.8	689.3	6.8
51.6	11.5	73.0	9.8	93.4	12.0	119.9	11.4	152.4	9.8	192.5	8.6	243.4	7.7	298.1	7.0			415.5	6.8	470.5	6.8	525.5	6.8	580.5	6.8	635.5	6.8	690.5	6.8
51.8	11.6	74.2	9.9	93.8	11.9	120.5	11.4	153.0	9.7	192.8	8.6	244.5	7.7	299.3	7.0			416.7	6.8	471.7	6.8	526.7	6.8	581.7	6.8	636.7	6.8	691.7	6.8
52.4	11.6	75.6	9.9	94.2	11.9	120.6	11.3	153.7	9.7	193.8	8.6	245.5	7.7	300.4	7.0			417.9	6.8	472.9	6.8	527.9	6.8	582.9	6.8	637.9	6.8	692.9	6.8
53.2	11.7	76.7	9.9	94.8	11.9	121.5	11.3	154.4	9.7	195.2	8.6	246.9	7.7	302.0	7.0			419.1	6.8	474.1	6.8	529.1	6.8	584.1	6.8	639.1	6.8	694.1	6.8
53.8	11.7	77.9	10.0	95.3	11.9	121.8	11.3	154.8	9.7	196.1	8.5	248.9	7.7	303.1	7.0			420.3	6.8	475.3	6.8	530.3	6.8	585.3	6.8	640.3	6.8	695.3	6.8
54.5	11.7	77.8	10.0	95.6	12.0	122.1	11.3	155.2	9.6	197.4	8.5	250.9	7.7	304.1	7.0			421.5	6.8	476.5	6.8	531.5	6.8	586.5	6.8	641.5	6.8	696.5	6.8
54.7	11.6	78.0	10.1	96.1	12.1	122.5	11.2	155.6	9.6	198.6	8.5	252.7	7.7	305.8	7.0			422.7	6.8	477.7	6.8	532.7	6.8	587.7	6.8	642.7	6.8	697.7	6.8
54.9	11.6	78.4	10.2	96.4	12.1	123.0	11.2	156.9	9.6	200.0	8.5	254.3	7.7	306.8	7.0			423.9	6.8	478.9	6.8	533.9	6.8	588.9	6.8	643.9	6.8	698.9	6.8
55.1	11.5	78.7	10.2	97.1	12.2	123.9	11.1	158.1	9.6	201.3	8.5	255.4	7.7	307.7	7.0			424.9	6.8	479.9	6.8	534.9	6.8	589.9	6.8	644.9	6.8	699.9	6.8
55.2	11.5	79.2	10.2	97.8	12.3	124.8	11.1	159.3	9.6	202.7	8.5	256.4	7.7	309.1	7.0			425.											

STA 58 DAY: 14 TIME: 2347

STA 58 DAY: 14 TIME: 2347

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.2	12.0	33.6	12.1	61.3	13.1	84.5	13.9	105.3	16.1	133.5	14.8	163.4	12.7	133.5	14.8
0.3	11.9	34.4	12.1	61.5	13.1	84.4	14.0	106.6	16.1	134.2	14.8	163.7	12.7	134.2	14.8
0.7	11.8	35.5	12.1	61.6	13.0	84.8	14.2	107.8	16.0	134.8	14.8	164.4	12.6	134.8	14.8
1.1	11.8	36.1	12.1	61.9	13.0	84.7	14.3	108.5	16.1	136.0	14.7	164.8	12.6	136.0	14.7
1.7	11.7	36.7	12.2	62.2	12.9	84.8	14.4	109.0	16.1	136.9	14.7	165.4	12.5	136.9	14.7
1.8	11.6	37.0	12.2	62.5	12.8	85.0	14.5	109.2	16.2	137.4	14.7	165.7	12.4	137.4	14.7
2.9	11.6	37.5	12.3	62.5	12.8	85.3	14.6	109.3	16.3	137.8	14.6	166.2	12.4	137.8	14.6
3.8	11.6	38.3	12.3	62.6	12.7	85.4	14.8	110.1	16.3	138.1	14.6	166.9	12.4	138.1	14.6
4.3	11.5	39.3	12.3	62.7	12.6	85.5	14.9	110.9	16.3	139.0	14.5	167.3	12.4	139.0	14.5
4.6	11.5	40.1	12.4	62.9	12.6	85.6	14.9	111.6	16.4	139.9	14.5	167.8	12.3	139.9	14.5
5.4	11.4	40.7	12.4	63.1	12.5	85.7	15.0	112.4	16.4	140.2	14.4	168.0	12.3	140.2	14.4
6.2	11.4	41.3	12.5	63.4	12.4	85.8	15.1	112.8	16.5	140.5	14.4	169.1	12.3	140.5	14.4
7.2	11.4	41.7	12.5	63.9	12.4	85.9	15.2	113.3	16.5	140.7	14.3	170.3	12.2	140.7	14.3
8.2	11.4	42.2	12.6	64.4	12.3	86.4	15.2	113.8	16.5	141.1	14.3	171.0	12.2	141.1	14.3
8.6	11.5	42.4	12.6	65.1	12.3	86.6	15.3	114.5	16.5	142.0	14.2	172.9	12.2	142.0	14.2
9.4	11.5	42.5	12.6	66.5	12.3	86.8	15.4	114.7	16.5	143.6	14.2	173.6	12.1	143.6	14.2
10.2	11.6	42.8	12.6	67.1	12.2	87.6	15.4	114.9	16.4	144.7	14.2	174.7	12.0	144.7	14.2
11.1	11.6	43.2	12.7	67.6	12.2	88.4	15.4	115.1	16.4	145.1	14.1	175.1	12.0	145.1	14.1
11.4	11.7	43.4	12.8	68.2	12.2	88.9	15.5	115.5	16.4	145.4	14.0	176.1	11.9	145.4	14.0
12.1	11.7	43.8	12.8	69.2	12.2	89.1	15.6	115.8	16.3	146.4	13.9	177.0	11.9	146.4	13.9
13.1	11.7	44.0	12.9	70.4	12.1	89.9	15.6	115.9	16.3	147.2	13.9	178.3	11.9	147.2	13.9
13.9	11.8	44.2	12.9	71.9	12.2	90.7	15.6	116.2	16.2	147.8	13.9	178.7	11.8	147.8	13.9
14.3	11.8	44.7	12.9	72.7	12.2	91.8	15.6	116.8	16.1	148.3	13.8	180.3	11.8	148.3	13.8
15.1	11.9	45.5	12.9	73.4	12.2	92.9	15.6	117.3	16.1	149.9	13.8			149.9	13.8
15.3	11.9	46.4	12.9	74.2	12.2	93.2	15.5	117.7	16.0	151.0	13.8			151.0	13.8
16.3	11.9	46.8	13.0	74.6	12.2	93.7	15.5	118.2	16.0	152.2	13.7			152.2	13.7
16.5	11.9	47.2	13.0	75.2	12.3	94.1	15.5	118.9	15.9	153.1	13.7			153.1	13.7
16.7	11.8	47.2	13.1	75.6	12.3	94.2	15.5	119.2	15.8	154.5	13.6			154.5	13.6
17.3	11.8	48.1	13.1	75.8	12.4	94.3	15.6	119.3	15.8	154.9	13.6			154.9	13.6
18.0	11.8	49.2	13.1	75.8	12.5	95.0	15.6	119.6	15.7	155.2	13.5			155.2	13.5
19.1	11.8	50.5	13.1	76.4	12.5	95.5	15.6	120.3	15.7	155.7	13.4			155.7	13.4
19.4	11.8	51.7	13.1	76.5	12.6	96.0	15.6	121.2	15.6	156.1	13.4			156.1	13.4
20.3	11.7	52.5	13.1	77.0	12.6	96.8	15.7	122.0	15.6	157.9	13.2			157.9	13.2
20.7	11.7	53.5	13.1	77.0	12.7	97.3	15.8	122.9	15.6	158.2	13.1			158.2	13.1
20.9	11.8	54.4	13.1	77.5	12.8	97.8	15.8	123.1	15.5	158.4	13.0			158.4	13.0
21.1	11.9	54.9	13.1	77.9	12.9	98.2	15.9	123.3	15.4	158.8	12.9			158.8	12.9
21.5	11.9	55.2	13.1	78.4	12.9	98.8	16.0	123.8	15.4	159.4	12.9			159.4	12.9
21.6	12.0	55.5	13.0	78.1	13.0	99.0	16.0	125.2	15.4	160.0	12.8			160.0	12.8
22.4	12.0	55.9	13.0	78.8	13.1	99.8	16.1	126.0	15.3	161.4	12.8			161.4	12.8
23.5	12.0	56.4	13.0	79.7	13.2	100.1	16.1	126.5	15.3	163.1	12.8			163.1	12.8
24.6	12.0	57.0	12.9	80.3	13.3	100.4	16.2	126.6	15.3						
25.5	12.0	57.7	12.9	80.7	13.3	100.5	16.2	127.0	15.2						
26.6	12.0	58.2	12.9	80.6	13.4	101.0	16.2	127.3	15.2						
27.2	12.0	58.9	12.9	81.0	13.5	101.3	16.2	128.2	15.2						
28.3	12.0	59.5	13.0	82.0	13.5	102.2	16.3	128.8	15.1						
28.9	12.0	59.7	13.0	82.6	13.6	102.8	16.2	129.4	15.1						
29.3	12.1	59.9	13.1	83.5	13.7	103.2	16.2	129.7	15.0						
30.4	12.1	60.3	13.1	83.8	13.7	103.4	16.2	130.4	15.0						
31.5	12.1	60.4	13.1	84.0	13.8	103.6	16.1	131.0	14.9						
32.6	12.1	61.1	13.1	83.9	13.9	103.8	16.1	132.2	14.9						

SHIP OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH	SHIP OC	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH				
DEPTH m	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph	DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph	
7	12.272	33.095	6.08	0.70	25.059	0.000	1496.	1.4	103	103.9	13.637	35.270	4.12	0.62	26.473	0.225	1504.	6.9	
8	12.270	33.091	6.10	0.71	25.057	0.003	1496.	1.4	105	106.0	13.607	35.272	4.14	0.62	26.525	0.228	1504.	7.0	
10	12.268	33.090	6.10	0.70	25.056	0.010	1496.	1.4	107	107.9	13.023	35.267	4.13	0.63	26.592	0.231	1502.	6.8	
12	12.273	33.092	6.08	0.70	25.056	0.016	1496.	1.4	109	110.0	12.919	35.298	4.11	0.63	26.641	0.234	1502.	6.6	
14	13.8	12.273	33.092	6.02	0.71	25.056	0.021	1496.	1.1	112.0	12.917	35.300	4.10	0.63	26.643	0.237	1502.	6.2	
16	16.0	12.274	33.093	6.10	0.71	25.057	0.027	1496.	2.0	113	114.0	12.912	35.301	4.08	0.63	26.644	0.240	1502.	5.7
18	18.1	12.287	33.102	6.13	0.71	25.061	0.033	1496.	2.4	115	115.9	12.894	35.297	4.07	0.63	26.645	0.242	1502.	5.3
20	20.0	12.313	33.108	6.09	0.71	25.061	0.039	1496.	2.8	117	118.1	12.940	35.342	4.05	0.63	26.670	0.245	1502.	5.3
22	21.8	12.410	33.143	6.08	0.71	25.070	0.044	1496.	3.1	119	120.0	12.987	35.398	4.02	0.64	26.704	0.248	1503.	5.4
24	24.0	12.581	33.197	6.12	0.70	25.079	0.050	1497.	3.6	121	122.0	12.747	35.378	4.02	0.64	26.737	0.251	1502.	5.4
26	26.1	12.611	33.211	6.09	0.69	25.084	0.056	1497.	4.1	123	124.0	12.745	35.396	3.99	0.64	26.752	0.253	1502.	5.2
28	28.0	12.683	33.243	6.05	0.70	25.095	0.062	1498.	4.5	125	126.1	12.653	35.384	3.98	0.64	26.760	0.256	1502.	4.6
30	30.0	12.751	33.275	6.03	0.70	25.106	0.067	1498.	4.8	127	127.7	12.607	35.376	3.94	0.65	26.764	0.258	1501.	3.8
32	32.2	12.893	33.334	5.98	0.69	25.124	0.074	1498.	5.4	129	130.1	12.432	35.348	3.95	0.65	26.776	0.261	1501.	3.2
34	33.8	13.093	33.420	5.80	0.68	25.151	0.078	1499.	6.2	131	132.0	12.368	35.338	3.94	0.65	26.781	0.264	1501.	3.0
36	36.0	13.198	33.467	5.75	0.67	25.167	0.084	1500.	6.6	133	134.0	12.353	35.338	3.93	0.65	26.784	0.266	1501.	2.8
38	38.1	13.217	33.491	5.76	0.66	25.182	0.090	1500.	7.3	135	136.2	12.334	35.334	3.93	0.66	26.784	0.269	1501.	3.0
40	40.0	13.272	33.575	5.54	0.65	25.233	0.096	1500.	8.2	137	138.0	12.227	35.317	3.94	0.66	26.792	0.271	1500.	3.3
42	42.0	13.155	33.622	5.40	0.64	25.295	0.101	1500.	8.8	139	140.1	12.190	35.313	3.94	0.66	26.796	0.274	1500.	3.7
44	44.0	12.946	33.589	5.41	0.64	25.311	0.106	1499.	9.7	141	142.1	12.081	35.293	3.93	0.67	26.802	0.277	1500.	4.1
46	46.0	12.519	33.575	5.41	0.64	25.384	0.112	1498.	10.7	143	143.9	12.003	35.294	3.91	0.68	26.818	0.279	1500.	4.6
48	48.2	11.885	33.550	5.37	0.63	25.486	0.117	1495.	11.2	145	146.1	11.946	35.304	3.91	0.68	26.836	0.282	1499.	4.9
49	49.8	11.684	33.559	5.22	0.62	25.530	0.121	1495.	11.4	147	148.0	11.913	35.311	3.88	0.68	26.848	0.284	1499.	5.0
52	51.9	11.209	33.598	5.22	0.62	25.647	0.126	1493.	11.4	149	150.1	11.843	35.311	3.86	0.68	26.861	0.287	1499.	5.1
54	54.1	11.308	33.806	5.17	0.61	25.801	0.131	1494.	10.7	151	152.0	11.825	35.350	3.84	0.68	26.891	0.289	1499.	4.9
55	55.9	11.308	33.869	5.06	0.61	25.840	0.135	1494.	9.8	153	154.1	11.842	35.369	3.81	0.68	26.907	0.291	1499.	4.8
58	58.0	11.329	33.933	5.00	0.61	25.886	0.140	1494.	8.8	155	156.0	11.699	35.337	3.82	0.69	26.909	0.294	1499.	4.6
59	59.9	11.468	34.010	4.97	0.61	25.916	0.144	1495.	7.3	157	158.0	11.469	35.307	3.83	0.71	26.928	0.296	1498.	4.3
62	62.1	11.422	34.021	4.97	0.61	25.929	0.148	1495.	5.0	159	160.0	11.471	35.317	3.83	0.71	26.936	0.298	1498.	4.3
63	63.9	11.405	34.021	4.93	0.62	25.945	0.152	1495.	4.3	161	161.9	11.480	35.330	3.81	0.71	26.944	0.300	1498.	4.3
65	66.0	11.325	34.021	4.94	0.62	25.959	0.156	1494.	4.0	163	164.0	11.518	35.351	3.78	0.70	26.954	0.303	1498.	5.0
68	68.0	11.245	34.020	4.97	0.62	25.968	0.160	1494.	3.9	165	166.1	11.499	35.357	3.77	0.70	26.962	0.305	1498.	5.4
70	70.2	11.294	34.040	4.95	0.62	25.975	0.165	1494.	4.6	166	167.9	11.461	35.358	3.72	0.70	26.970	0.307	1498.	5.9
71	71.9	11.306	34.047	4.92	0.62	25.979	0.168	1494.	4.2	169	170.0	11.262	35.369	3.68	0.70	27.015	0.309	1498.	6.2
73	74.0	11.280	34.044	4.93	0.62	25.981	0.173	1494.	6.1	171	172.2	11.041	35.370	3.69	0.68	27.057	0.312	1497.	6.4
75	76.1	11.303	34.076	4.93	0.63	26.002	0.177	1495.	6.8	172	173.7	10.979	35.368	3.64	0.68	27.067	0.313	1497.	6.2
77	77.9	11.496	34.214	4.83	0.63	26.073	0.180	1495.	7.7	175	176.0	10.670	35.345	3.64	0.68	27.105	0.316	1496.	5.8
79	80.0	11.554	34.266	4.75	0.63	26.103	0.184	1496.	8.2	177	178.3	10.469	35.324	3.66	0.68	27.123	0.318	1495.	5.0
81	82.1	11.716	34.370	4.80	0.63	26.154	0.188	1496.	8.7	178	179.7	10.440	35.324	3.67	0.68	27.129	0.319	1495.	4.3
83	83.9	11.950	34.470	4.66	0.63	26.187	0.192	1497.	8.7	180	181.9	10.402	35.322	3.68	0.68	27.134	0.321	1495.	3.9
85	86.1	12.471	34.700	4.55	0.63	26.265	0.196	1499.	8.4	183	184.1	10.353	35.319	3.70	0.68	27.134	0.324	1495.	3.5
87	87.9	12.833	34.833	4.44	0.62	26.298	0.199	1501.	8.2	184	186.0	10.327	35.316	3.74	0.68	27.143	0.325	1494.	3.4
89	90.0	13.387	35.058	4.37	0.62	26.360	0.202	1503.	7.7	186	188.0	10.255	35.309	3.75	0.69	27.149	0.327	1494.	3.6
91	92.1	13.444	35.109	4.32	0.61	26.387	0.206	1503.	7.1	188	189.9	10.137	35.301	3.77	0.69	27.160	0.329	1494.	3.7
93	93.9	13.337	35.109	4.27	0.62	26.410	0.209	1503.	6.2	190	192.0	10.036	35.294	3.80	0.69	27.176	0.331	1493.	3.7
95	96.2	13.359	35.144	4.23	0.62	26.433	0.213	1503.	5.6	193	194.3	9.969	35.287	3.79	0.69	27.182	0.333	1493.	3.6
97	97.9	13.450	35.179	4.21	0.62	26.441	0.215	1504.	5.8	194	195.9	9.842	35.282	3.81	0.70	27.191	0.335	1493.	3.5
99	100.1	13.617	35.243	4.18	0.62	26.456	0.219	1504.	5.8	196	198.0	9.781	35.279	3.81	0.70	27.198	0.336	1493.	3.3
101	102.0	13.660	35.266	4.14	0.62	26.464	0.222	1504.	6.5	199	200.2	9.811	35.277	3.82	0.69	27.201	0.338	1493.	3.2
										200	202.0	9.787	35.275	3.84	0.70	27.204	0.340	1493.	3.7

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
OC	130	59	15 NOV 1982	00.1	40 24.9 N	68 07.9 W	560
DEPTH	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
202	203.9	9.730	35.271	3.78	0.70	27.210	0.342
204	206.0	9.650	35.265	3.77	0.70	27.219	0.344
206	208.1	9.526	35.255	3.81	0.70	27.232	0.345
208	209.9	9.436	35.250	3.85	0.71	27.243	0.347
210	212.0	9.363	35.247	3.87	0.71	27.253	0.349
212	214.0	9.319	35.244	3.89	0.71	27.258	0.351
214	216.0	9.207	35.238	3.90	0.71	27.271	0.352
216	218.1	9.035	35.222	3.91	0.71	27.286	0.354
218	220.0	8.925	35.217	3.96	0.71	27.301	0.355
220	222.0	8.867	35.214	3.97	0.71	27.307	0.357
222	224.0	8.721	35.202	3.99	0.72	27.321	0.359
224	226.0	8.582	35.194	4.02	0.72	27.337	0.360
226	228.0	8.532	35.192	4.08	0.72	27.343	0.362
228	229.9	8.488	35.189	4.09	0.72	27.348	0.363
230	232.0	8.419	35.184	4.06	0.72	27.355	0.365
232	234.2	8.372	35.181	4.09	0.72	27.359	0.367
234	236.0	8.353	35.180	4.07	0.72	27.362	0.368
236	238.0	8.267	35.171	4.09	0.71	27.368	0.369
238	239.9	8.120	35.162	4.09	0.71	27.383	0.371
240	242.1	8.104	35.163	4.07	0.71	27.387	0.372
242	243.7	8.090	35.162	4.09	0.71	27.388	0.374
244	246.0	7.997	35.156	4.11	0.71	27.397	0.375
246	248.1	7.914	35.148	4.12	0.71	27.403	0.377
248	249.9	7.816	35.138	4.17	0.71	27.410	0.378
250	252.0	7.773	35.137	4.16	0.71	27.416	0.379
252	253.9	7.745	35.135	4.16	0.71	27.418	0.381
254	256.1	7.742	35.135	4.13	0.71	27.419	0.382
256	258.0	7.736	35.135	4.16	0.71	27.419	0.384
258	259.9	7.726	35.134	4.16	0.71	27.421	0.385
260	262.0	7.733	35.135	4.16	0.71	27.420	0.386
262	264.1	7.716	35.133	4.18	0.71	27.421	0.388
264	265.9	7.700	35.133	4.17	0.71	27.423	0.389
266	268.0	7.680	35.131	4.15	0.71	27.425	0.391
268	270.0	7.670	35.131	4.18	0.71	27.426	0.392
270	272.1	7.664	35.130	4.19	0.71	27.427	0.393
272	273.9	7.643	35.129	4.16	0.71	27.428	0.395
274	276.1	7.637	35.129	4.14	0.71	27.429	0.396
276	278.1	7.626	35.127	4.19	0.71	27.430	0.397
278	279.9	7.617	35.127	4.21	0.71	27.431	0.399
280	282.0	7.596	35.126	4.14	0.72	27.433	0.400
282	284.0	7.575	35.124	4.19	0.72	27.435	0.402
284	286.1	7.546	35.121	4.19	0.71	27.437	0.403
286	287.0	7.506	35.120	4.24	0.72	27.441	0.404
288	289.0	7.484	35.118	4.21	0.72	27.443	0.406
290	292.0	7.449	35.116	4.19	0.72	27.447	0.407
292	294.2	7.414	35.113	4.27	0.72	27.450	0.408
294	296.0	7.389	35.112	4.30	0.72	27.452	0.410
296	297.9	7.360	35.110	4.28	0.72	27.455	0.411
298	299.9	7.307	35.107	4.29	0.72	27.460	0.412
300	302.1	7.298	35.107	4.29	0.72	27.461	0.414
SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
OC	130	59	15 NOV 1982	00.1	40 24.9 N	68 07.9 W	560
DEPTH	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
302	304.1	7.258	35.103	4.34	0.72	27.464	0.415
303	305.8	7.248	35.103	4.33	0.72	27.465	0.416
305	308.0	7.235	35.102	4.28	0.73	27.466	0.418
308	310.3	7.199	35.098	4.29	0.72	27.468	0.419
309	311.7	7.154	35.092	4.35	0.72	27.470	0.420
311	314.0	7.098	35.092	4.36	0.73	27.478	0.422
313	316.0	7.067	35.091	4.38	0.73	27.482	0.423
315	318.0	7.057	35.091	4.40	0.73	27.483	0.424
317	320.1	7.050	35.091	4.41	0.73	27.484	0.425
319	321.9	7.038	35.090	4.40	0.73	27.485	0.427
321	324.1	7.033	35.090	4.40	0.73	27.486	0.428
323	326.1	7.002	35.088	4.43	0.73	27.488	0.429
325	328.0	6.967	35.087	4.46	0.73	27.492	0.431
327	329.8	6.945	35.085	4.46	0.73	27.494	0.432
329	332.0	6.902	35.083	4.45	0.73	27.498	0.433
331	334.0	6.886	35.081	4.47	0.73	27.499	0.434
333	336.1	6.843	35.078	4.51	0.73	27.502	0.436
335	338.0	6.777	35.075	4.53	0.73	27.509	0.437
337	339.9	6.750	35.077	4.52	0.74	27.514	0.438
339	342.0	6.740	35.078	4.49	0.75	27.517	0.439
341	344.2	6.740	35.079	4.53	0.75	27.517	0.441
343	345.7	6.739	35.079	4.60	0.75	27.517	0.442
345	348.0	6.741	35.079	4.62	0.75	27.517	0.443
347	350.0	6.740	35.079	4.60	0.75	27.517	0.444
349	352.1	6.737	35.078	4.63	0.75	27.517	0.445
351	353.9	6.735	35.078	4.59	0.75	27.518	0.447
353	356.1	6.735	35.078	4.57	0.75	27.517	0.448
355	358.0	6.735	35.079	4.60	0.75	27.518	0.449
357	360.2	6.732	35.078	4.59	0.75	27.518	0.450
359	361.8	6.731	35.078	4.55	0.75	27.518	0.451
361	364.0	6.730	35.078	4.52	0.75	27.518	0.453
363	366.1	6.722	35.078	4.52	0.75	27.519	0.454
365	368.0	6.713	35.077	4.59	0.75	27.520	0.455
367	369.8	6.714	35.078	4.58	0.76	27.520	0.456
369	372.0	6.691	35.075	4.54	0.76	27.521	0.458
371	374.0	6.680	35.075	4.56	0.76	27.522	0.459
373	376.0	6.654	35.072	4.60	0.76	27.523	0.460
375	378.1	6.637	35.071	4.62	0.76	27.525	0.461
377	379.9	6.628	35.071	4.62	0.76	27.526	0.462
379	382.1	6.577	35.066	4.61	0.75	27.529	0.464
381	384.0	6.552	35.065	4.65	0.76	27.532	0.465
383	386.1	6.522	35.065	4.66	0.76	27.535	0.466
385	387.9	6.504	35.064	4.68	0.76	27.537	0.467
387	390.0	6.405	35.055	4.67	0.76	27.543	0.469
389	391.9	6.353	35.053	4.72	0.76	27.549	0.470
391	394.0	6.317	35.052	4.73	0.77	27.553	0.471
393	396.0	6.302	35.051	4.74	0.77	27.554	0.472
395	398.1	6.276	35.049	4.76	0.76	27.556	0.473
396	399.9	6.259	35.048	4.79	0.77	27.557	0.474
399	402.0	6.240	35.047	4.76	0.77	27.559	0.476





SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH	SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
OC	130	60	15 NOV 1982	01.3	40 20.3 N	68 08.9 W	695	OC	130	60	15 NOV 1982	01.3	40 20.3 N	68 08.9 W	695
DEPTH								DEPTH							
99	100.2	14.028	35.544	4.09	0.60	26.602	0.229	1506.	3.8	198	200.1	11.218	35.434	3.37	0.65
101	101.9	14.040	35.547	4.07	0.60	26.602	0.232	1506.	4.0	200	201.9	11.139	35.421	3.38	0.65
103	104.0	14.059	35.553	4.05	0.60	26.603	0.235	1506.	4.4	202	204.1	10.992	35.402	3.39	0.65
105	106.0	14.145	35.586	4.04	0.60	26.610	0.238	1506.	4.8	204	205.9	10.932	35.392	3.43	0.66
107	108.1	14.242	35.664	3.99	0.60	26.650	0.241	1507.	5.1	206	208.0	10.852	35.381	3.43	0.66
109	109.9	14.134	35.654	3.96	0.60	26.665	0.243	1506.	5.5	208	210.0	10.768	35.370	3.46	0.66
111	112.2	13.960	35.634	3.96	0.60	26.686	0.246	1506.	5.6	210	211.9	10.738	35.369	3.48	0.67
113	113.8	13.840	35.623	3.93	0.61	26.704	0.249	1506.	5.7	212	214.1	10.720	35.367	3.47	0.66
115	116.1	13.749	35.620	3.91	0.61	26.720	0.252	1505.	5.1	214	216.0	10.671	35.361	3.50	0.67
117	117.9	13.631	35.615	3.89	0.61	26.741	0.254	1505.	4.8	216	217.8	10.624	35.356	3.48	0.67
119	120.0	13.530	35.611	3.89	0.61	26.759	0.257	1505.	4.4	218	220.0	10.568	35.348	3.45	0.67
121	122.0	13.488	35.609	3.89	0.61	26.766	0.259	1505.	4.1	220	222.1	10.551	35.347	3.46	0.67
123	124.3	13.442	35.604	3.91	0.61	26.772	0.262	1504.	4.0	222	223.9	10.468	35.337	3.50	0.67
125	125.9	13.424	35.606	3.89	0.62	26.777	0.265	1504.	3.8	224	226.0	10.320	35.325	3.49	0.67
127	128.0	13.411	35.608	3.89	0.62	26.781	0.267	1504.	3.7	226	228.1	10.170	35.310	3.46	0.67
129	130.1	13.367	35.613	3.89	0.62	26.794	0.270	1504.	3.7	228	229.8	10.143	35.309	3.49	0.67
131	131.8	13.277	35.614	3.86	0.62	26.813	0.272	1504.	3.7	230	232.0	10.121	35.309	3.47	0.67
133	134.0	13.263	35.618	3.85	0.62	26.819	0.275	1504.	3.7	232	234.1	10.065	35.301	3.46	0.67
135	136.0	13.262	35.621	3.84	0.62	26.822	0.277	1504.	3.5	234	235.9	9.986	35.294	3.50	0.67
137	138.1	13.219	35.616	3.80	0.62	26.826	0.280	1504.	3.3	236	238.0	9.789	35.274	3.49	0.67
139	140.1	13.145	35.607	3.78	0.63	26.834	0.282	1504.	3.3	238	240.1	9.742	35.271	3.48	0.67
141	141.9	13.087	35.604	3.77	0.63	26.844	0.285	1504.	3.4	240	242.0	9.749	35.274	3.47	0.67
143	144.3	13.013	35.591	3.76	0.62	26.849	0.288	1503.	3.5	242	244.0	9.694	35.270	3.46	0.67
145	145.7	12.903	35.568	3.76	0.63	26.853	0.289	1503.	3.7	244	246.0	9.506	35.248	3.47	0.66
147	148.1	12.802	35.562	3.75	0.63	26.869	0.292	1503.	3.9	246	248.2	9.381	35.234	3.48	0.67
149	149.9	12.755	35.557	3.71	0.64	26.875	0.294	1503.	4.0	248	249.9	9.222	35.220	3.51	0.67
151	152.1	12.709	35.555	3.68	0.64	26.882	0.297	1502.	4.1	250	251.9	9.147	35.216	3.53	0.67
153	153.9	12.636	35.552	3.65	0.64	26.895	0.299	1502.	4.1	252	254.0	9.092	35.211	3.53	0.67
155	156.1	12.547	35.553	3.64	0.64	26.913	0.302	1502.	4.0	254	256.1	9.056	35.208	3.51	0.66
157	158.0	12.516	35.555	3.64	0.64	26.920	0.304	1502.	3.9	256	257.9	9.039	35.207	3.55	0.66
159	159.9	12.474	35.555	3.62	0.64	26.928	0.306	1502.	3.8	258	260.0	9.008	35.205	3.56	0.67
161	162.1	12.447	35.554	3.60	0.64	26.933	0.309	1502.	3.7	260	262.1	8.837	35.184	3.58	0.66
163	164.0	12.372	35.549	3.59	0.64	26.944	0.311	1501.	3.5	262	263.8	8.727	35.178	3.62	0.67
165	166.1	12.301	35.538	3.59	0.64	26.949	0.313	1501.	3.6	264	266.1	8.663	35.176	3.62	0.66
167	168.0	12.166	35.513	3.59	0.65	26.956	0.316	1501.	3.6	266	268.0	8.436	35.153	3.67	0.67
169	170.0	12.060	35.501	3.57	0.65	26.968	0.318	1500.	3.7	268	269.9	8.312	35.150	3.71	0.67
171	171.9	12.015	35.498	3.53	0.65	26.974	0.320	1500.	3.7	270	272.1	8.228	35.143	3.73	0.67
173	174.1	11.955	35.495	3.52	0.65	26.983	0.322	1500.	3.8	272	274.0	8.210	35.144	3.75	0.67
175	175.8	11.896	35.489	3.51	0.65	26.990	0.324	1500.	3.7	274	276.1	8.183	35.142	3.75	0.67
177	178.0	11.879	35.503	3.48	0.65	27.005	0.327	1500.	3.7	276	277.9	8.175	35.142	3.79	0.67
178	179.9	11.828	35.496	3.47	0.65	27.008	0.329	1500.	3.8	278	280.0	8.167	35.142	3.78	0.67
181	182.1	11.771	35.495	3.44	0.65	27.018	0.331	1500.	3.9	280	282.1	8.165	35.142	3.77	0.67
182	183.9	11.658	35.473	3.43	0.65	27.022	0.333	1499.	3.8	282	283.9	8.167	35.142	3.77	0.67
184	186.0	11.480	35.449	3.40	0.65	27.037	0.335	1499.	3.7	284	286.1	8.167	35.142	3.74	0.67
186	188.0	11.439	35.454	3.38	0.65	27.049	0.337	1499.	3.6	286	288.1	8.160	35.141	3.74	0.67
189	190.1	11.359	35.447	3.39	0.65	27.058	0.340	1498.	3.4	288	290.0	8.156	35.140	3.77	0.67
191	192.1	11.327	35.444	3.39	0.65	27.062	0.342	1498.	3.1	289	291.9	8.157	35.140	3.78	0.67
192	193.9	11.296	35.441	3.38	0.65	27.065	0.344	1498.	2.8	291	293.9	8.157	35.141	3.76	0.67
194	196.0	11.256	35.436	3.36	0.65	27.069	0.346	1498.	2.7	294	296.0	8.158	35.141	3.71	0.66
196	198.0	11.218	35.433	3.35	0.65	27.074	0.348	1498.	2.7	295	298.0	8.154	35.140	3.73	0.67



SHIP OC	CRUISE 130	STATION 60	DATE 15 NOV 1982	EST 01.3	LATITUDE 40 20.3 N	LONGITUDE 68 08.9 W	DEPTH 695	SHIP OC	CRUISE 130	STATION 61	DATE 15 NOV 1982	EST 02.2	LATITUDE 40 16.4 N	LONGITUDE 68 06.8 W	DEPTH 1240	
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	DYHT A 10m <sup>2</sup> /g <sup>2</sup>	N cph	DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /g <sup>2</sup>	N cph
491	495.0	6.358	35.048	4.63	0.73	27.544	1.7	2	1.9	16.667	34.821	5.50	0.59	25.457	0.000	1512.
492	496.0	6.345	35.049	4.63	0.73	27.546	1.8	4	4.1	16.674	34.821	5.55	0.58	25.455	0.005	1512.
493	497.1	6.324	35.044	4.61	0.73	27.545	1.9	6	5.9	16.671	34.821	5.45	0.58	25.455	0.010	1512.
494	498.1	6.314	35.043	4.65	0.73	27.546	1.8	8	8.0	16.670	34.821	5.40	0.58	25.456	0.015	1512.
495	498.9	6.306	35.044	4.65	0.74	27.548	1.8	10	9.9	16.672	34.821	5.35	0.59	25.455	0.020	1512.
496	500.0	6.295	35.043	4.66	0.73	27.549	1.9	12	12.2	16.678	34.821	5.41	0.59	25.454	0.026	1512.
								14	13.8	16.678	34.820	5.43	0.59	25.453	0.030	1512.
								16	16.1	16.678	34.820	5.49	0.59	25.453	0.036	1512.
								18	17.9	16.678	34.820	5.51	0.59	25.453	0.040	1512.
								20	19.9	16.679	34.820	5.48	0.59	25.453	0.045	1512.
								22	22.1	16.677	34.820	5.52	0.59	25.453	0.051	1512.
								24	23.8	16.677	34.821	5.47	0.60	25.454	0.055	1512.
								26	26.1	16.678	34.821	5.49	0.60	25.454	0.061	1512.
								28	27.8	16.677	34.821	5.52	0.60	25.454	0.065	1512.
								30	30.0	16.676	34.821	5.48	0.61	25.454	0.071	1512.
								32	32.0	16.675	34.821	5.52	0.61	25.454	0.076	1512.
								34	34.0	16.677	34.821	5.50	0.61	25.454	0.081	1512.
								36	36.0	16.674	34.820	5.51	0.61	25.454	0.086	1512.
								38	38.0	16.671	34.820	5.44	0.61	25.455	0.091	1512.
								40	40.0	16.669	34.820	5.34	0.62	25.455	0.096	1512.
								42	42.0	16.640	34.818	5.26	0.62	25.460	0.101	1512.
								44	44.0	16.625	34.817	5.20	0.62	25.463	0.106	1512.
								46	46.1	15.800	34.770	5.22	0.59	25.617	0.111	1510.
								48	48.0	15.483	34.814	5.04	0.58	25.722	0.116	1509.
								50	50.1	15.399	34.805	4.90	0.57	25.734	0.120	1509.
								52	52.1	15.390	34.807	4.79	0.57	25.738	0.125	1509.
								53	53.9	15.395	34.810	4.70	0.58	25.739	0.129	1509.
								56	56.0	15.414	34.823	4.69	0.58	25.745	0.134	1509.
								58	58.2	15.458	34.847	4.72	0.57	25.753	0.139	1509.
								59	59.8	15.470	34.858	4.66	0.58	25.759	0.142	1509.
								62	62.1	15.475	34.908	4.63	0.57	25.796	0.148	1509.
								63	63.9	15.334	34.927	4.59	0.58	25.843	0.151	1509.
								65	66.0	14.679	34.979	4.60	0.57	26.027	0.156	1507.
								68	68.2	14.361	34.984	4.51	0.57	26.099	0.160	1506.
								69	69.9	14.317	34.992	4.37	0.57	26.114	0.163	1506.
								71	72.0	14.276	34.993	4.32	0.57	26.124	0.167	1506.
								73	74.1	14.248	34.992	4.33	0.57	26.129	0.171	1505.
								75	75.9	14.226	34.992	4.36	0.57	26.134	0.175	1505.
								77	78.0	14.211	35.015	4.36	0.58	26.155	0.179	1505.
								79	80.1	14.517	35.201	4.35	0.57	26.233	0.182	1507.
								81	81.8	14.665	35.278	4.30	0.57	26.261	0.186	1507.
								83	84.0	14.792	35.358	4.19	0.58	26.295	0.189	1508.
								85	86.0	14.908	35.479	4.18	0.57	26.363	0.193	1508.
								87	88.1	14.887	35.511	4.15	0.57	26.391	0.196	1508.
								89	89.9	14.844	35.530	4.08	0.58	26.416	0.199	1508.
								91	92.2	14.753	35.566	4.08	0.57	26.464	0.203	1508.
								93	93.8	14.679	35.586	4.04	0.57	26.495	0.206	1508.
								95	96.0	14.571	35.620	3.99	0.58	26.545	0.209	1508.
								97	98.1	14.586	35.636	4.00	0.57	26.554	0.212	1508.

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH		
OC	130	61	15 NOV 1982	02.2	40 16.4 N	68 06.8 W	1240		
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SIGT	DYHT A	S SPD	DEPTH
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>	m/s	cph
99	99.9	14.603	35.643	3.97	0.58	26.556	0.215	1508.	4.2
101	102.1	14.616	35.648	3.98	0.57	26.557	0.218	1508.	3.4
103	103.9	14.619	35.652	4.01	0.57	26.559	0.221	1508.	3.0
105	105.9	14.611	35.655	3.96	0.58	26.563	0.224	1508.	3.5
107	108.0	14.613	35.664	3.98	0.58	26.570	0.227	1508.	4.1
109	110.0	14.586	35.668	3.99	0.58	26.579	0.230	1508.	4.5
111	112.0	14.383	35.641	3.96	0.59	26.602	0.233	1507.	4.8
113	114.2	14.187	35.609	3.98	0.58	26.619	0.236	1507.	4.8
115	115.9	14.064	35.602	3.98	0.59	26.640	0.238	1506.	4.7
117	118.1	14.010	35.603	3.96	0.59	26.652	0.241	1506.	4.5
119	119.8	13.974	35.603	3.93	0.59	26.659	0.244	1506.	4.4
121	122.0	13.952	35.605	3.87	0.60	26.665	0.247	1506.	4.6
123	124.0	13.925	35.604	3.89	0.59	26.671	0.250	1506.	4.8
125	126.1	13.860	35.604	3.92	0.60	26.685	0.253	1506.	4.9
127	127.9	13.780	35.621	3.91	0.60	26.714	0.255	1506.	4.9
129	130.0	13.731	35.643	3.89	0.60	26.742	0.258	1505.	4.8
131	132.0	13.693	35.649	3.89	0.61	26.754	0.261	1505.	4.6
133	134.0	13.681	35.651	3.89	0.61	26.758	0.263	1505.	4.1
135	136.2	13.662	35.650	3.90	0.60	26.761	0.266	1505.	3.5
137	137.9	13.624	35.651	3.88	0.61	26.770	0.268	1505.	3.3
139	140.0	13.641	35.662	3.88	0.60	26.775	0.271	1505.	3.4
141	142.0	13.654	35.669	3.90	0.60	26.778	0.274	1505.	3.5
143	144.0	13.677	35.688	3.89	0.60	26.788	0.276	1506.	3.7
145	146.0	13.612	35.690	3.89	0.61	26.803	0.279	1505.	3.8
147	148.0	13.579	35.692	3.88	0.60	26.811	0.281	1505.	3.9
149	150.0	13.589	35.704	3.87	0.60	26.818	0.284	1505.	3.8
151	152.1	13.526	35.701	3.86	0.61	26.829	0.286	1505.	3.7
153	153.9	13.491	35.706	3.83	0.60	26.840	0.289	1505.	3.6
155	156.0	13.488	35.712	3.79	0.61	26.846	0.291	1505.	3.5
157	158.2	13.412	35.697	3.78	0.60	26.849	0.294	1505.	3.4
159	159.8	13.328	35.682	3.77	0.61	26.855	0.296	1505.	3.4
161	162.0	13.204	35.665	3.75	0.61	26.867	0.299	1504.	3.4
163	164.2	13.147	35.656	3.73	0.61	26.872	0.301	1504.	3.3
164	165.8	13.093	35.647	3.69	0.62	26.876	0.303	1504.	3.4
167	168.0	12.973	35.634	3.66	0.63	26.890	0.306	1504.	3.4
169	170.1	12.917	35.622	3.66	0.61	26.892	0.309	1503.	3.4
170	171.7	12.858	35.606	3.65	0.62	26.892	0.310	1503.	3.5
173	174.1	12.705	35.587	3.61	0.62	26.908	0.313	1503.	3.7
175	176.0	12.715	35.601	3.59	0.62	26.916	0.316	1503.	3.9
176	177.9	12.730	35.610	3.56	0.62	26.920	0.318	1503.	4.1
179	180.0	12.641	35.606	3.53	0.63	26.936	0.320	1503.	4.2
181	182.0	12.533	35.594	3.50	0.61	26.947	0.323	1502.	4.1
182	184.0	12.426	35.589	3.43	0.63	26.964	0.325	1502.	4.3
185	186.1	12.383	35.584	3.38	0.62	26.969	0.327	1502.	4.3
186	188.0	12.301	35.574	3.39	0.62	26.977	0.329	1502.	4.1
188	190.0	12.193	35.554	3.38	0.62	26.983	0.332	1501.	3.8
190	191.9	11.951	35.529	3.34	0.64	27.010	0.334	1500.	3.6
192	194.0	11.922	35.524	3.32	0.63	27.012	0.336	1500.	3.4
194	195.9	11.921	35.524	3.34	0.62	27.012	0.338	1500.	3.3
196	197.9	11.909	35.524	3.35	0.66	27.014	0.340	1500.	3.2

SHIP	CRUISE	STATION	DATE	EST	LATITUDE	LONGITUDE	DEPTH
OC	130	61	15 NOV 1982	02.2	40 16.4 N	68 06.8 W	1240
DEPTH	PRESS	TEMP	SALIN	OXY	ATN	SICT	DYHT A
m	dbar	°C	psu	ml/l	m <sup>-1</sup>	gm/cm <sup>3</sup>	10m <sup>2</sup> /s <sup>2</sup>
298	300.1	8.444	35.172	3.80	0.67	27.341	0.433
300	302.2	8.411	35.169	3.81	0.65	27.344	0.435
301	303.8	8.399	35.168	3.84	0.66	27.345	0.436
303	306.0	8.390	35.167	3.81	0.67	27.346	0.438
305	308.0	8.374	35.166	3.80	0.66	27.348	0.439
307	310.0	8.342	35.163	3.82	0.65	27.350	0.441
309	312.0	8.232	35.151	3.86	0.65	27.357	0.442
311	314.0	8.177	35.150	3.88	0.65	27.365	0.444
313	315.9	8.142	35.148	3.86	0.67	27.369	0.445
315	318.0	8.095	35.145	3.84	0.68	27.374	0.447
317	320.1	8.068	35.144	3.83	0.66	27.374	0.449
319	321.9	8.088	35.141	3.92	0.65	27.375	0.450
321	324.0	8.031	35.140	3.88	0.67	27.379	0.451
323	326.1	8.014	35.138	3.83	0.66	27.380	0.453
325	327.9	7.978	35.133	3.87	0.65	27.382	0.454
327	329.9	7.946	35.130	3.89	0.67	27.385	0.456
329	332.1	7.942	35.129	3.85	0.66	27.384	0.457
331	334.0	7.882	35.120	3.89	0.65	27.386	0.459
333	335.9	7.802	35.113	3.88	0.65	27.392	0.460
335	338.0	7.763	35.110	3.86	0.66	27.396	0.462
337	340.0	7.749	35.109	3.86	0.65	27.397	0.463
339	342.0	7.722	35.106	3.88	0.65	27.399	0.465
341	344.1	7.700	35.106	3.87	0.65	27.402	0.466
343	345.9	7.706	35.108	3.87	0.65	27.403	0.468
345	348.0	7.702	35.108	3.85	0.65	27.403	0.469
347	350.0	7.672	35.106	3.84	0.65	27.406	0.471
349	352.1	7.591	35.096	3.88	0.65	27.411	0.472
351	354.0	7.537	35.091	3.93	0.64	27.414	0.473
353	356.0	7.510	35.090	3.91	0.65	27.418	0.475
355	357.9	7.499	35.090	3.88	0.65	27.419	0.476
357	360.0	7.471	35.089	3.86	0.66	27.422	0.478
359	362.0	7.431	35.088	3.88	0.66	27.427	0.479
361	364.2	7.425	35.087	3.93	0.64	27.427	0.481
363	365.9	7.418	35.087	3.97	0.65	27.429	0.482
365	368.0	7.417	35.087	3.90	0.66	27.428	0.483
367	370.0	7.416	35.087	3.92	0.66	27.428	0.485
369	372.1	7.361	35.084	3.96	0.65	27.434	0.486
371	374.1	7.229	35.069	4.04	0.65	27.441	0.488
373	376.0	7.118	35.067	4.09	0.65	27.455	0.489
375	377.9	7.056	35.065	4.08	0.65	27.463	0.490
377	380.0	7.006	35.065	4.09	0.66	27.469	0.492
379	382.1	6.959	35.061	4.13	0.65	27.473	0.493
381	383.9	6.949	35.061	4.20	0.65	27.474	0.494
383	386.0	6.925	35.058	4.20	0.66	27.476	0.496
385	388.2	6.887	35.056	4.20	0.65	27.479	0.497
386	389.8	6.856	35.052	4.27	0.66	27.480	0.498
389	392.0	6.828	35.052	4.22	0.68	27.484	0.499
391	394.0	6.811	35.050	4.19	0.68	27.485	0.501
393	396.2	6.805	35.050	4.21	0.65	27.486	0.502
394	397.9	6.789	35.049	4.29	0.65	27.487	0.503

SHIP OC	CRUISE 130	STATION 61	DATE 15 NOV 1982	EST 02-2	LATITUDE 40 16.4 N	LONGITUDE 68 06.8 W	DEPTH 1240			
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N	cph
491	495.0	6.143	35.007	4.57	0.68	27.540	0.563	1483.	0.5	
492	496.0	6.143	35.007	4.55	0.67	27.540	0.564	1483.	0.3	
493	497.1	6.143	35.007	4.61	0.67	27.540	0.565	1483.	-0.3	
493	497.9	6.144	35.007	4.64	0.68	27.540	0.565	1483.	-0.3	
495	499.0	6.144	35.007	4.61	0.70	27.540	0.566	1484.	-0.3	
496	500.0	6.144	35.007	4.60	0.71	27.540	0.566	1484.	0.0	

STA 62 DAY: 15 TIME: 0251									
DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.7	16.2	57.1	15.7	82.7	14.6	125.9	13.8	152.4	13.1
0.9	16.2	57.5	15.8	84.1	14.6	126.2	13.8	153.0	13.0
2.0	16.2	58.1	15.7	85.4	14.6	126.9	13.7	153.8	13.0
3.5	16.2	59.0	15.7	86.8	14.6	127.6	13.6	155.2	13.0
4.8	16.2	59.4	15.7	87.8	14.6	128.2	13.6	155.3	13.0
5.6	16.2	59.8	15.7	89.0	14.6	128.4	13.6	155.6	12.9
6.0	16.3	60.3	15.6	90.2	14.6	128.6	13.5	155.9	12.8
7.3	16.3	60.5	15.6	91.5	14.6	129.4	13.4	156.4	12.7
8.8	16.3	60.7	15.6	92.2	14.5	129.5	13.3	156.8	12.7
10.0	16.3	60.8	15.5	92.6	14.5	129.9	13.3	157.5	12.6
10.3	16.3	61.5	15.5	93.2	14.5	130.3	13.2	158.0	12.5
12.2	16.3	62.0	15.5	95.4	14.5	130.9	13.2	158.4	12.5
14.0	16.3	62.2	15.6	97.2	14.4	131.6	13.1	159.1	12.4
15.5	16.3	62.6	15.6	98.9	14.4	132.3	13.1	160.3	12.4
17.3	16.3	63.1	15.5	100.3	14.4	132.9	13.1	161.8	12.4
18.7	16.3	63.2	15.5	101.5	14.4	133.4	13.1	163.9	12.4
20.8	16.3	63.3	15.4	102.1	14.4	133.8	13.1	165.4	12.3
22.1	16.3	63.7	15.3	102.6	14.4	134.6	13.1	166.8	12.3
23.9	16.3	64.1	15.2	103.1	14.4	136.0	13.1	168.1	12.3
25.3	16.3	64.1	15.1	103.6	14.3	136.8	13.1	169.1	12.3
26.3	16.3	64.5	15.0	103.8	14.3	137.4	13.1	169.8	12.3
27.9	16.3	64.4	15.0	104.9	14.3	137.9	13.0	170.8	12.4
29.1	16.3	64.9	14.9	105.2	14.3	138.1	12.9	171.6	12.4
30.8	16.3	65.1	14.8	105.6	14.4	138.1	12.8	172.0	12.4
32.2	16.3	65.2	14.7	105.9	14.4	138.5	12.8	172.7	12.4
34.0	16.4	65.5	14.7	106.8	14.4	138.7	12.7	173.1	12.3
35.8	16.3	65.8	14.6	107.7	14.4	139.2	12.6	173.9	12.3
37.4	16.4	66.0	14.5	108.1	14.4	139.7	12.5	174.8	12.3
38.8	16.3	66.3	14.5	108.4	14.4	140.0	12.4	175.8	12.2
39.7	16.4	66.7	14.4	109.2	14.3	140.5	12.4	176.7	12.2
40.9	16.4	67.3	14.5	110.2	14.3	141.0	12.4	178.2	12.1
41.9	16.4	67.3	14.6	111.5	14.3	142.1	12.4	179.5	12.1
43.3	16.4	67.5	14.7	112.7	14.3	142.9	12.4	180.4	12.0
44.4	16.5	67.7	14.8	113.8	14.3	143.8	12.4	181.5	11.9
46.2	16.5	68.2	14.8	114.6	14.3	144.2	12.5	183.2	11.9
48.5	16.5	68.7	14.8	115.5	14.3	144.5	12.6	184.4	11.9
50.4	16.4	69.2	14.8	116.3	14.2	144.6	12.7	186.3	11.9
52.9	16.4	69.7	14.8	116.9	14.2	145.0	12.8	188.6	11.8
53.3	16.4	70.3	14.8	117.8	14.2	145.5	12.9	190.6	11.8
53.9	16.3	71.1	14.8	118.6	14.1	145.8	12.9	193.6	11.8
54.3	16.2	71.9	14.8	119.0	14.1	146.2	13.0	194.3	11.8
54.5	16.1	73.0	14.8	119.7	14.0	147.0	13.0	195.7	11.7
54.7	16.1	73.8	14.7	120.6	14.0	147.8	13.1	197.1	11.7
55.1	16.0	74.3	14.7	120.9	14.0	148.8	13.1	198.6	11.7
55.2	16.0	76.0	14.7	121.9	14.0	149.4	13.2	200.4	11.6
55.5	15.9	77.2	14.7	122.8	14.0	150.1	13.2	201.9	11.6
55.8	15.8	78.6	14.7	124.0	13.9	150.8	13.2	203.7	11.6
56.0	15.7	79.6	14.7	124.9	13.9	151.3	13.2	205.6	11.5
56.1	15.7	80.9	14.7	125.5	13.9	151.5	13.1	207.6	11.5
56.5	15.7	81.8	14.7	125.5	13.8	151.9	13.1	209.4	11.4

STA 62				DAY: 15				TIME: 0251				STA 63				DAY: 15				TIME: 0334			
DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP	DEPTH	TEMP
(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)	(m)	(°C)
210.9	11.4	261.8	9.3	319.1	8.1	394.9	6.8	492.4	6.1	0.0	15.1	60.8	13.6	102.6	13.5	145.6	12.8	214.1	10.9				
212.4	11.3	263.1	9.3	319.8	8.1	397.0	6.8	493.9	6.1	0.4	15.0	61.3	13.5	103.2	13.4	146.5	12.8	215.1	10.8				
214.3	11.3	264.6	9.3	320.5	8.1	400.2	6.8	495.3	6.1	1.1	15.0	61.7	13.5	104.3	13.4	147.6	12.7	216.9	10.8				
215.9	11.2	266.4	9.3	322.8	8.0	402.8	6.8	497.0	6.1	3.0	15.0	62.4	13.4	106.3	13.4	149.0	12.7	218.7	10.8				
217.6	11.2	266.8	9.3	323.9	8.0	405.8	6.8	498.3	6.0	5.4	15.0	63.0	13.4	107.6	13.4	149.9	12.6	219.3	10.7				
218.6	11.1	268.6	9.2	325.2	8.0	406.8	6.8	499.0	6.0	7.2	15.0	64.2	13.4	109.0	13.4	151.0	12.6	220.3	10.6				
219.1	11.0	269.8	9.2	326.3	7.9	409.2	6.8			8.8	15.0	65.1	13.4	109.6	13.3	152.2	12.6	221.4	10.6				
220.5	11.0	271.3	9.1	327.8	7.9	410.5	6.8			10.0	15.0	65.6	13.3	110.2	13.3	153.8	12.6	222.8	10.6				
221.9	11.0	272.8	9.1	328.8	7.9	412.3	6.7			12.0	15.0	66.4	13.3	110.8	13.2	155.1	12.6	223.6	10.5				
223.2	11.0	273.7	9.0	330.3	7.9	414.2	6.7			14.6	15.0	67.1	13.3	111.5	13.2	156.4	12.6	224.2	10.5				
224.6	11.0	275.3	9.0	331.2	7.8	416.5	6.7			16.6	15.0	68.3	13.3	112.5	13.1	157.1	12.5	224.6	10.4				
225.4	10.9	277.0	8.9	332.1	7.8	419.3	6.7			18.5	15.0	68.7	13.3	113.0	13.1	157.7	12.5	225.2	10.3				
226.0	10.9	278.1	8.9	332.8	7.7	423.3	6.7			19.6	15.0	69.5	13.4	114.0	13.1	159.3	12.4	226.4	10.2				
226.8	10.8	279.9	8.9	334.3	7.7	426.1	6.7			19.8	15.0	70.7	13.4	114.5	13.1	160.1	12.4	227.0	10.2				
227.9	10.7	281.1	8.9	335.5	7.7	429.4	6.7			21.2	15.0	72.3	13.4	114.7	13.2	161.1	12.3	228.2	10.1				
228.8	10.7	282.8	8.9	336.9	7.7	432.3	6.6			22.7	15.0	73.1	13.4	115.8	13.2	162.2	12.3	229.6	10.1				
229.8	10.6	284.1	8.9	338.1	7.6	434.6	6.6			24.5	15.0	73.7	13.4	116.8	13.2	163.6	12.2	230.6	10.0				
231.1	10.6	286.2	8.9	339.2	7.6	437.7	6.6			26.0	15.0	74.7	13.4	117.6	13.2	164.5	12.2	231.8	9.9				
232.5	10.6	287.4	8.9	340.3	7.6	440.0	6.6			27.5	15.0	75.8	13.4	118.3	13.2	166.0	12.1	232.8	9.9				
233.8	10.6	288.0	8.8	341.7	7.5	441.8	6.6			28.6	15.0	77.0	13.4	119.0	13.3	167.6	12.0	233.5	9.8				
234.2	10.6	289.0	8.8	343.1	7.5	443.5	6.6			29.8	15.0	77.9	13.4	119.6	13.3	169.1	12.0	234.6	9.7				
234.9	10.5	290.1	8.8	344.2	7.4	444.7	6.6			32.1	15.0	78.4	13.4	120.8	13.3	170.4	11.9	236.4	9.7				
235.6	10.5	291.1	8.8	345.7	7.4	446.3	6.5			33.7	15.0	79.1	13.4	122.1	13.3	172.6	11.8	237.4	9.7				
236.7	10.4	292.1	8.8	346.9	7.4	448.0	6.5			35.5	15.0	79.7	13.5	123.1	13.3	174.5	11.8	238.0	9.6				
237.3	10.4	293.0	8.7	347.8	7.3	449.4	6.5			37.5	15.0	80.0	13.5	123.7	13.4	176.8	11.8	239.4	9.6				
237.6	10.3	294.5	8.7	350.1	7.3	450.9	6.5			39.0	15.1	80.5	13.6	124.4	13.4	178.8	11.8	240.3	9.5				
238.3	10.3	296.0	8.7	351.8	7.3	452.9	6.5			40.2	15.1	80.9	13.6	125.6	13.4	181.5	11.8	241.2	9.5				
239.4	10.3	296.9	8.7	353.4	7.2	454.8	6.5			41.8	15.1	81.4	13.6	126.3	13.3	183.9	11.8	242.9	9.4				
240.2	10.2	298.0	8.7	355.3	7.2	456.5	6.5			43.9	15.1	81.8	13.7	127.0	13.3	185.5	11.8	244.2	9.4				
240.8	10.2	298.8	8.7	357.2	7.2	457.9	6.4			45.4	15.1	82.4	13.7	127.6	13.3	187.4	11.8	245.3	9.3				
241.4	10.1	300.0	8.6	358.6	7.2	459.0	6.4			46.8	15.1	82.9	13.8	127.9	13.3	188.1	11.7	245.9	9.2				
242.0	10.0	301.4	8.6	360.9	7.2	460.4	6.4			48.5	15.1	83.3	13.8	128.5	13.3	189.5	11.7	246.7	9.2				
242.0	10.0	302.0	8.6	362.8	7.2	462.4	6.3			50.2	15.1	83.6	13.9	129.3	13.4	191.2	11.6	247.6	9.1				
243.0	9.9	302.7	8.5	364.5	7.1	464.1	6.3			51.5	15.1	85.1	13.9	130.1	13.3	192.3	11.6	248.3	9.1				
243.6	9.8	303.1	8.4	366.0	7.1	466.0	6.3			51.9	15.1	86.4	13.9	130.6	13.3	193.0	11.6	249.1	9.1				
244.4	9.8	304.2	8.4	367.5	7.0	468.0	6.3			53.1	15.0	87.1	13.8	132.0	13.3	194.6	11.5	251.0	9.1				
246.1	9.8	305.3	8.4	368.8	7.0	470.1	6.3			54.0	14.9	87.8	13.8	132.7	13.3	196.2	11.4	253.1	9.0				
247.5	9.8	306.5	8.4	370.3	7.0	472.0	6.3			54.7	14.8	88.5	13.8	133.5	13.3	197.0	11.4	255.4	9.0				
249.2	9.8	307.8	8.4	371.8	7.0	473.3	6.3			55.2	14.8	89.3	13.8	134.0	13.3	198.7	11.3	257.2	9.0				
250.5	9.8	309.3	8.4	373.9	7.0	474.9	6.3			56.1	14.8	90.5	13.8	134.6	13.3	200.3	11.3	258.7	8.9				
251.7	9.7	310.5	8.4	375.6	7.0	476.2	6.2			57.0	14.7	92.0	13.7	135.4	13.2	202.1	11.3	259.9	8.9				
252.9	9.7	311.2	8.3	377.7	7.0	478.3	6.2			57.5	14.6	93.2	13.7	136.7	13.2	203.5	11.3	261.4	8.9				
253.7	9.6	311.5	8.3	378.5	7.0	479.9	6.2			57.9	14.5	94.1	13.7	137.3	13.2	204.9	11.2	262.8	8.8				
253.7	9.6	312.0	8.3	379.8	6.9	481.5	6.2			58.1	14.4	95.1	13.7	138.5	13.1	206.3	11.1	263.7	8.8				
254.6	9.5	312.4	8.2	381.5	6.9	482.7	6.2			58.1	14.2	95.8	13.7	139.4	13.1	207.6	11.1	264.8	8.7				
255.2	9.4	313.2	8.2	383.2	6.9	484.4	6.2			58.6	14.1	96.7	13.6	140.7	13.1	209.0	11.1	266.2	8.7				
256.6	9.4	314.0	8.2	385.0	6.9	486.0	6.1			59.0	14.0	97.7	13.6	141.7	13.1	209.6	11.1	267.6	8.6				
257.8	9.4	315.5	8.2	387.0	6.8	487.8	6.1			59.1	13.9	99.3	13.6	142.2	13.0	210.8	11.0	268.8	8.6				
259.0	9.4	317.1	8.2	389.6	6.8	488.8	6.1			59.6	13.8	101.2	13.5	143.4	12.9	211.8	10.9	269.9	8.6				
260.5	9.4	318.3	8.2	392.1	6.8	490.9	6.1			60.5	13.6	101.8	13.5	144.5	12.9	212.8	10.9	271.3	8.6				

STA 63				DAY: 15				TIME: 0334				STA 64				DAY: 15				TIME: 0400			
DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
273.0	8.5	345.5	7.3	436.5	6.2	545.4	5.5	663.1	5.2	0.3	16.2	60.5	14.5	105.4	13.3	153.4	11.7	218.8	10.5				
273.7	8.5	346.8	7.3	439.8	6.2	547.7	5.5	663.4	5.2	0.9	16.2	61.4	14.5	106.2	13.2	154.5	11.7	220.0	10.4				
274.4	8.4	348.7	7.3	442.3	6.2	550.6	5.5	665.0	5.2	1.9	16.2	61.7	14.4	106.8	13.2	154.8	11.6	221.9	10.4				
275.6	8.4	349.7	7.2	444.1	6.2	553.3	5.4	666.2	5.2	3.4	16.3	62.3	14.3	107.9	13.1	155.7	11.6	223.2	10.4				
276.8	8.4	351.5	7.2	446.4	6.2	555.9	5.4	667.5	5.2	5.0	16.3	62.6	14.2	108.9	13.1	156.9	11.5	225.1	10.4				
278.1	8.3	353.6	7.1	447.9	6.2	557.9	5.4	668.3	5.2	5.4	16.3	62.8	14.1	111.2	13.1	158.1	11.5	226.7	10.4				
279.4	8.3	355.6	7.1	449.0	6.2	560.2	5.4	669.4	5.1	6.1	16.4	63.3	14.0	112.8	13.1	159.4	11.5	228.1	10.4				
280.8	8.2	357.7	7.1	449.5	6.1	562.9	5.4	670.8	5.1	6.6	16.4	63.7	13.9	114.2	13.1	161.6	11.5	228.9	10.3				
282.6	8.2	359.8	7.1	451.3	6.1	565.7	5.4	672.3	5.0	7.1	16.5	64.6	13.8	116.8	13.0	165.1	11.5	230.2	10.3				
284.7	8.2	361.8	7.1	454.0	6.1	567.5	5.4	673.4	5.0	8.5	16.5	65.6	13.8	117.8	13.0	166.5	11.5	231.1	10.2				
286.3	8.2	363.6	7.1	457.0	6.1	569.9	5.4	674.3	5.0	9.7	16.5	66.3	13.8	118.4	13.0	167.1	11.5	232.5	10.2				
288.1	8.2	365.6	7.1	460.4	6.1	570.6	5.4	677.4	5.0	10.6	16.4	66.9	13.9	119.1	12.9	168.0	11.5	234.0	10.2				
290.0	8.2	367.4	7.1	463.7	6.1	571.6	5.4	680.3	5.0	11.4	16.4	67.1	13.9	120.5	12.9	168.5	11.4	235.4	10.2				
291.7	8.1	368.7	7.1	467.8	6.1	573.3	5.4	682.8	5.0	13.0	16.4	67.8	13.9	121.6	12.9	169.0	11.4	235.7	10.2				
293.1	8.1	370.8	7.0	471.2	6.1	575.1	5.4	684.2	4.9	15.4	16.4	68.4	13.9	123.3	12.8	169.9	11.3	236.7	10.1				
294.4	8.1	372.4	7.0	474.5	6.1	577.1	5.4	685.9	4.9	17.8	16.3	68.8	13.9	124.8	12.8	170.9	11.3	237.6	10.1				
295.8	8.1	374.8	7.0	477.1	6.1	578.5	5.4	687.0	4.9	20.8	16.3	69.1	13.8	126.0	12.8	172.2	11.3	239.1	10.0				
297.3	8.1	376.1	7.0	479.1	6.0	581.3	5.4	687.8	4.9	22.5	16.4	70.0	13.8	126.6	12.8	173.9	11.3	240.0	10.0				
299.2	8.1	378.4	7.0	480.1	6.0	583.0	5.3	689.2	4.8	24.7	16.4	71.4	13.8	127.3	12.7	175.3	11.3	242.2	10.0				
300.5	8.1	379.7	7.0	480.3	6.0	586.0	5.3	691.8	4.8	27.5	16.4	72.5	13.8	128.0	12.7	176.5	11.3	244.5	10.0				
301.9	8.1	381.4	7.0	480.9	5.9	589.0	5.3	694.1	4.8	30.3	16.4	73.4	13.7	128.6	12.6	177.6	11.2	246.1	10.0				
303.5	8.1	383.4	7.0	482.0	5.9	591.5	5.3	695.5	4.8	32.8	16.4	74.4	13.7	129.2	12.6	177.9	11.2	247.3	10.0				
304.4	8.0	386.3	6.9	483.8	5.9	594.1	5.3	695.8	4.7	35.8	16.3	75.3	13.7	131.1	12.6	178.9	11.1	248.2	9.9				
305.9	8.0	388.0	6.9	485.3	5.9	596.9	5.4	696.8	4.6	37.8	16.3	76.4	13.7	132.5	12.6	179.6	11.1	249.5	9.8				
307.5	8.0	389.1	6.9	487.7	5.9	601.4	5.3	698.4	4.6	39.8	16.4	78.5	13.7	133.4	12.6	181.6	11.1	250.6	9.8				
308.5	8.0	389.4	6.9	490.4	5.9	604.1	5.3	700.4	4.6	42.7	16.4	79.5	13.7	134.0	12.5	183.2	11.0	251.6	9.7				
310.1	8.0	390.1	6.8	492.3	5.9	606.3	5.3	702.6	4.6	44.5	16.4	80.9	13.7	134.4	12.5	184.8	11.0	252.1	9.6				
311.5	8.0	391.3	6.8	494.4	5.9	609.4	5.3	705.0	4.6	46.9	16.4	82.1	13.7	135.1	12.4	186.0	11.0	253.1	9.6				
312.7	8.0	392.3	6.7	496.5	5.8	611.6	5.3	707.6	4.6	48.8	16.4	83.0	13.7	136.0	12.4	187.4	11.0	253.6	9.5				
313.8	7.9	393.0	6.7	497.6	5.8	614.0	5.3	709.3	4.6	50.7	16.4	83.4	13.8	137.2	12.4	188.4	10.9	254.9	9.4				
314.9	7.9	393.7	6.6	499.1	5.8	617.0	5.3	710.4	4.6	52.2	16.4	84.5	13.8	138.3	12.4	189.3	10.9	256.5	9.4				
316.2	7.9	395.2	6.6	500.4	5.8	620.9	5.2	711.1	4.6	54.0	16.3	85.7	13.8	139.2	12.4	190.0	10.8	257.2	9.4				
317.0	7.9	396.6	6.6	503.1	5.8	622.7	5.3	712.2	4.6	54.9	16.3	86.4	13.8	139.9	12.4	190.9	10.8	258.1	9.3				
318.1	7.9	397.8	6.5	504.4	5.7	625.2	5.3	715.2	4.6	55.4	16.3	87.8	13.8	140.2	12.3	192.3	10.7	258.8	9.3				
320.0	7.9	400.2	6.5	506.5	5.7	627.7	5.3	717.6	4.6	55.9	16.2	89.3	13.8	140.6	12.2	194.4	10.7	259.1	9.2				
321.5	7.8	402.6	6.5	508.7	5.7	631.2	5.3			56.2	16.1	90.4	13.8	141.0	12.2	196.2	10.7	259.5	9.2				
323.1	7.8	404.1	6.5	511.0	5.7	634.0	5.3			56.4	16.0	91.8	13.8	141.6	12.2	199.0	10.7	259.6	9.1				
325.4	7.8	405.8	6.4	513.3	5.7	637.0	5.3			56.8	15.9	92.3	13.7	142.3	12.1	201.7	10.7	260.5	9.1				
327.8	7.8	407.7	6.4	515.5	5.6	640.6	5.3			56.6	15.7	92.5	13.7	143.2	12.1	204.0	10.7	261.3	9.0				
329.1	7.7	409.7	6.4	517.8	5.6	642.5	5.3			56.7	15.6	93.2	13.7	144.5	12.0	206.2	10.7	262.3	9.0				
330.6	7.6	411.4	6.3	520.1	5.6	644.6	5.3			57.2	15.5	94.4	13.6	145.5	12.0	208.6	10.7	263.3	8.9				
332.4	7.6	413.1	6.3	521.8	5.6	647.0	5.3			57.5	15.3	95.4	13.6	146.5	12.0	210.2	10.6	263.5	8.9				
333.9	7.6	415.5	6.3	524.1	5.6	650.0	5.2			57.8	15.2	96.1	13.5	147.4	11.9	210.8	10.6	263.7	8.8				
334.5	7.6	417.9	6.3	526.4	5.6	651.7	5.2			58.2	15.1	97.0	13.5	149.3	11.9	211.4	10.6	264.1	8.6				
335.5	7.5	420.4	6.3	531.0	5.5	652.8	5.2			58.7	15.0	97.7	13.5	150.0	11.9	212.0	10.5	264.9	8.6				
336.5	7.5	422.7	6.3	533.1	5.5	655.5	5.2			59.0	14.9	100.8	13.4	150.4	11.8	213.4	10.5	266.3	8.6				
339.2	7.4	425.3	6.3	536.3	5.5	657.1	5.2			59.4	14.8	102.6	13.4	150.6	11.8	214.8	10.5	267.1	8.6				
341.0	7.4	428.2	6.3	539.5	5.5	659.6	5.2			59.8	14.7	104.1	13.4	151.1	11.7	216.4	10.5	267.3	8.5				
342.7	7.4	430.4	6.2	541.3	5.5	662.9	5.2			60.1	14.6	104.9	13.4	152.1	11.7	217.7	10.5	268.5	8.4				
343.7	7.4	433.7	6.2	542.5	5.5	662.5	5.2																



STA 64 DAY: 15 TIME: 0400

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
269.4	8.4	341.7	7.0	427.4	6.3
271.1	8.4	343.0	7.0	427.9	6.3
272.5	8.4	343.6	6.9	428.4	6.3
274.4	8.4	344.5	6.9	429.5	6.2
275.5	8.4	347.0	6.9	430.5	6.2
277.5	8.4	348.1	6.9	431.7	6.2
278.8	8.3	349.8	6.8	434.4	6.2
280.4	8.3	351.3	6.8	437.0	6.2
282.0	8.3	353.3	6.8	439.4	6.2
283.0	8.3	355.8	6.8	441.5	6.2
283.5	8.2	357.0	6.8	444.0	6.1
284.9	8.1	358.7	6.8	446.1	6.1
285.9	8.1	360.6	6.7	447.8	6.1
287.3	8.1	362.8	6.7	449.5	6.1
288.5	8.0	364.5	6.7		
289.6	8.0	366.5	6.7		
290.1	7.9	368.0	6.7		
290.9	7.9	370.1	6.7		
292.5	7.9	372.0	6.7		
294.1	7.9	374.3	6.7		
295.5	7.9	375.9	6.7		
297.1	7.9	377.9	6.7		
298.6	7.9	379.1	6.7		
300.6	7.9	380.0	6.6		
302.4	7.8	381.8	6.6		
305.0	7.8	384.1	6.6		
305.9	7.7	386.4	6.6		
307.5	7.7	388.1	6.6		
309.4	7.6	389.8	6.6		
311.3	7.6	392.3	6.6		
312.6	7.6	394.8	6.6		
314.6	7.6	396.3	6.6		
316.4	7.6	397.9	6.6		
318.8	7.6	399.0	6.6		
320.4	7.5	400.5	6.6		
321.2	7.5	402.5	6.6		
323.4	7.5	404.1	6.6		
324.8	7.5	406.1	6.5		
325.9	7.4	408.0	6.5		
326.9	7.4	410.2	6.5		
327.8	7.3	411.6	6.5		
329.4	7.3	413.3	6.5		
330.2	7.2	414.6	6.4		
331.3	7.2	416.9	6.4		
331.7	7.1	418.4	6.4		
332.3	7.1	419.8	6.4		
334.3	7.1	421.5	6.4		
336.2	7.0	423.6	6.4		
338.7	7.0	424.6	6.3		
340.4	7.0	426.1	6.3		

STA 65 DAY: 15 TIME: 0410

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.2	14.2	32.5	16.1	77.7	14.6	135.1	13.2
0.4	14.2	33.4	16.1	78.0	14.5	136.7	13.2
1.0	14.1	34.5	16.2	79.3	14.5	138.4	13.2
1.0	14.1	35.3	16.2	79.9	14.4	138.9	13.2
2.2	14.0	36.7	16.2	80.2	14.4	139.9	13.2
3.0	14.0	38.5	16.2	80.3	14.3	141.2	13.2
4.2	14.0	39.3	16.2	80.8	14.2	142.6	13.2
4.9	14.0	40.4	16.2	81.6	14.2	143.6	13.1
5.5	14.0	41.5	16.2	82.8	14.2	144.0	13.1
5.7	14.1	42.6	16.3	83.7	14.2	145.3	13.1
6.5	14.1	43.2	16.3	84.5	14.2	146.5	13.1
7.5	14.1	43.3	16.3	85.7	14.2	147.2	13.1
7.9	14.1	45.2	16.4	87.3	14.2	147.8	13.1
7.9	14.2	46.2	16.4	88.6	14.2	148.3	13.0
8.2	14.4	47.9	16.3	90.2	14.2	149.7	12.9
8.2	14.5	49.2	16.4	91.8	14.2	150.7	12.9
8.3	14.6	50.5	16.4	93.0	14.2	152.1	12.9
8.4	14.8	51.9	16.4	94.4	14.2	153.6	12.8
8.9	14.9	53.5	16.3	95.3	14.1	154.6	12.8
8.9	15.0	54.4	16.4	96.5	14.1	155.2	12.7
9.2	15.1	55.4	16.3	97.2	14.1	155.5	12.6
9.4	15.2	56.0	16.3	97.9	14.0	155.9	12.6
9.7	15.3	57.4	16.2	98.4	14.0	156.3	12.6
10.2	15.4	58.2	16.2	99.1	13.9	156.7	12.5
11.1	15.5	59.5	16.2	99.4	13.8	157.9	12.4
11.1	15.6	60.0	16.1	100.1	13.8	158.9	12.4
11.7	15.7	60.5	16.1	100.7	13.7	159.6	12.3
12.1	15.8	60.8	16.0	101.3	13.7	161.4	12.3
12.9	15.8	61.2	16.0	102.0	13.6	162.9	12.3
13.4	15.9	62.1	15.9	102.3	13.6	164.2	12.3
13.9	16.0	62.9	15.8	102.7	13.5	165.1	12.3
14.5	16.0	64.0	15.8	104.2	13.5	166.2	12.2
15.9	16.0	64.9	15.8	105.0	13.5	166.6	12.2
16.8	16.0	65.9	15.7	106.1	13.4	168.6	12.2
17.8	16.0	66.5	15.7	107.5	13.4	170.3	12.2
18.6	16.0	67.6	15.6	108.6	13.4		
19.4	16.0	68.1	15.5	109.7	13.4		
20.1	15.9	68.7	15.5	110.4	13.3		
21.4	15.9	69.4	15.4	112.6	13.3		
22.5	15.9	70.1	15.3	113.8	13.3		
23.8	15.9	70.7	15.3	115.3	13.3		
24.9	15.9	71.5	15.2	117.1	13.3		
25.7	15.9	72.1	15.2	118.7	13.3		
26.0	15.9	73.0	15.1	120.1	13.3		
26.5	15.9	73.9	15.0	122.0	13.2		
26.7	16.0	74.3	15.0	124.0	13.2		
27.4	16.0	75.5	14.9	127.3	13.2		
28.9	16.0	76.3	14.8	129.7	13.3		
30.3	16.0	76.8	14.8	132.0	13.3		
31.6	16.0	77.2	14.7	133.7	13.2		

STA 66 DAY: 15 TIME: 0400				STA 67 DAY: 15 TIME: 0455				STA 68 DAY: 15 TIME: 0513				STA 68A DAY: 15 TIME: 0527			
DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.4	12.5	61.3	14.3	129.4	12.6	0.9	11.1	1.1	10.9	80.3	10.4	0.9	11.0	76.8	10.5
1.8	12.4	61.9	14.1	131.7	12.6	2.2	11.1	2.4	10.9	81.6	10.5	3.3	11.0	78.1	10.5
3.2	12.4	62.8	14.0	134.1	12.6	3.3	11.1	3.9	10.9	82.7	10.5	5.1	11.0	79.5	10.5
4.3	12.4	64.3	13.8	136.6	12.6	4.7	11.1	5.2	10.9	83.3	10.5	7.3	11.0	80.8	10.6
5.6	12.4	64.8	13.6	138.5	12.6	6.1	11.1	7.1	10.9	85.1	10.6	9.9	11.0	82.4	10.6
6.7	12.4	64.8	13.5			7.4	11.1	8.2	10.9	86.8	10.6	12.2	11.0	83.3	10.6
8.1	12.4	65.7	13.2			8.6	11.1	9.8	10.9	88.7	10.6	14.6	11.0	84.4	10.7
9.2	12.4	66.2	12.5			9.9	11.1	11.9	10.9	90.6	10.6	16.4	11.0	85.7	10.7
10.9	12.4	66.8	12.0			12.0	11.1	13.2	10.9	92.8	10.6	18.4	11.0	88.0	10.7
12.3	12.4	67.3	11.5			13.7	11.1	15.1	10.8	95.6	10.6	19.7	11.0	89.3	10.7
13.6	12.4	67.9	11.0			15.3	11.1	16.8	10.9	96.9	10.6	23.2	11.0	91.3	10.8
15.2	12.4	68.2	10.8			16.8	11.1	18.3	10.8	98.6	10.6	25.8	11.0	92.6	10.8
16.1	12.4	69.1	10.7			18.6	11.1	19.7	10.8	100.1	10.6	27.8	11.0	94.2	10.9
17.8	12.4	70.8	10.6			20.8	11.1	22.1	10.8			29.9	11.0	95.9	10.9
19.1	12.4	72.7	10.7			23.1	11.1	23.8	10.9			33.1	11.0	97.3	10.9
21.1	12.4	74.2	10.9			25.1	11.1	25.4	10.9			35.5	11.0	98.3	11.0
22.9	12.4	75.7	11.0			26.5	11.1	27.4	10.9			37.5	11.0	99.9	11.0
23.8	12.4	77.5	11.5			27.9	11.1	30.4	10.8			39.9	11.1	101.2	11.1
26.2	12.4	78.0	12.0			30.1	11.1	32.1	10.9			40.6	11.1	102.3	11.1
28.4	12.4	78.2	12.5			32.1	11.1	34.5	10.8			41.3	11.2	103.6	11.1
30.0	12.4	79.0	13.0			34.4	11.1	35.9	10.9			41.8	11.3	104.9	11.2
31.8	12.5	81.1	13.8			36.5	11.1	37.7	10.9			42.6	11.4	105.9	11.2
33.4	12.5	82.4	14.4			37.7	11.1	40.7	10.9			44.0	11.4	107.4	11.2
35.0	12.5	83.3	14.7			38.9	11.2	42.0	10.9			46.0	11.5	108.2	11.3
36.7	12.5	84.9	14.8			40.5	11.2	43.6	10.9			48.0	11.5	109.0	11.4
38.0	12.5	87.0	14.8			41.8	11.3	45.0	10.9			48.5	11.4	110.2	11.4
39.7	12.5	87.7	14.6			43.9	11.2	46.6	10.9			48.6	11.3		
41.3	12.5	89.8	14.6			45.4	11.2	47.9	10.9			49.3	11.2		
42.3	12.5	90.9	14.2			46.1	11.1	49.5	10.9			49.8	11.1		
43.6	12.5	92.2	13.8			47.5	11.0	52.6	10.9			50.5	11.0		
46.0	12.5	93.4	13.4			48.0	11.0	54.5	10.9			51.2	10.9		
47.8	12.5	94.4	13.1			49.6	10.9	55.7	10.8			51.9	10.8		
49.5	12.5	96.0	13.0			49.5	10.8	56.3	10.8			51.9	10.6		
50.8	12.6	98.3	12.9			49.7	10.7	56.3	10.6			52.2	10.5		
51.8	12.7	101.3	12.9			49.9	10.5	57.0	10.5			52.3	10.4		
52.5	12.8	103.5	12.9			50.5	10.4	56.4	10.5			52.9	10.2		
53.2	13.0	105.7	13.0			50.7	10.4	57.4	10.4			53.6	10.2		
53.6	13.1	107.6	13.1			51.3	10.2	59.0	10.4			54.9	10.2		
54.3	13.3	110.4	13.1			54.3	10.2	60.6	10.4			57.2	10.2		
55.3	13.4	111.7	13.0			57.2	10.2	61.9	10.4			59.1	10.3		
55.5	13.6	113.4	12.9			60.1	10.2	63.1	10.4			60.0	10.3		
55.8	13.8	114.8	12.8			63.4	10.2	65.3	10.4			61.7	10.3		
55.9	13.9	115.6	12.6			65.3	10.3	67.1	10.4			63.9	10.3		
56.4	14.1	116.1	12.5			67.3	10.2	68.7	10.4			66.0	10.3		
56.1	14.4	117.0	12.4			69.7	10.2	71.2	10.4			67.9	10.3		
57.2	14.5	119.3	12.3			70.7	10.3	72.1	10.4			69.3	10.3		
57.3	14.6	121.3	12.4			72.1	10.3	73.6	10.4			71.8	10.3		
58.9	14.7	122.6	12.5			73.8	10.3	75.5	10.4			72.9	10.4		
60.3	14.7	123.9	12.5			76.1	10.3	77.5	10.4			74.3	10.4		
60.4	14.5	127.1	12.6			77.8	10.3	78.9	10.4			75.2	10.4		

STA 70 DAY: 15 TIME: 0604

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.6	15.6	67.1	15.7	90.8	12.3
2.4	15.6	67.2	15.6	92.8	12.3
4.0	15.6	67.3	15.6	94.4	12.3
5.7	15.6	68.3	15.5	95.8	12.3
6.8	15.6	69.2	15.5	98.1	12.3
8.4	15.6	70.1	15.5	100.1	12.3
9.9	15.6	70.5	15.4	101.8	12.3
12.3	15.6	70.6	15.3	102.7	12.3
13.8	15.6	70.9	15.2	103.5	12.3
16.1	15.6	71.1	15.2	104.5	12.3
16.9	15.6	71.8	15.1	105.2	12.3
18.6	15.6	72.4	15.1	106.4	12.3
21.2	15.7	73.8	15.0	108.2	12.3
23.7	15.7	74.5	15.0	109.4	12.4
25.0	15.7	75.3	14.9	110.8	12.4
25.7	15.8	75.9	14.8	112.1	12.4
27.5	15.9	76.1	14.7	113.2	12.4
29.5	15.9	76.2	14.6	114.6	12.4
32.0	15.9	76.1	14.6	116.0	12.4
33.5	15.9	76.2	14.5	117.9	12.5
34.8	15.9	76.6	14.4	119.3	12.5
36.8	15.9	76.8	14.4	120.7	12.5
38.7	15.9	77.0	14.3	122.0	12.5
40.2	15.9	77.3	14.2	123.8	12.5
42.3	15.9	78.1	14.2	125.3	12.5
43.6	15.9	79.0	14.2	126.5	12.5
44.9	16.0	79.3	14.1	128.6	12.5
45.8	16.1	80.0	14.1	129.6	12.5
46.6	16.1	80.2	13.9	130.9	12.5
47.0	16.2	80.3	13.9	132.6	12.5
47.7	16.2	80.5	13.8	134.8	12.5
49.0	16.3	81.0	13.7	136.3	12.5
49.8	16.3	81.6	13.6	137.2	12.5
51.0	16.4	82.3	13.5	138.9	12.6
52.4	16.5	83.0	13.5	140.0	12.6
53.9	16.5	83.3	13.4	140.9	12.6
55.9	16.5	83.8	13.3	141.9	12.6
56.1	16.4	84.4	13.2	143.7	12.6
56.5	16.4	84.8	13.1	145.3	12.6
58.0	16.4	85.2	13.0		
59.4	16.3	85.6	13.0		
61.2	16.3	86.2	12.9		
62.6	16.3	86.6	12.9		
63.7	16.2	87.4	12.8		
64.5	16.1	87.7	12.7		
65.3	16.0	87.9	12.7		
65.7	16.0	88.2	12.6		
65.8	15.9	88.4	12.5		
66.2	15.8	88.9	12.4		
66.6	15.8	89.9	12.3		

STA 69 DAY: 15 TIME: 0548

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
1.4	12.8	61.8	12.4	109.0	11.7
2.5	12.8	62.4	12.3	109.6	11.8
4.8	12.8	62.7	12.2	110.1	11.8
6.6	12.8	63.7	12.1	110.3	11.9
7.8	12.8	64.8	12.1	110.7	11.9
9.4	12.8	65.3	12.0	112.1	11.9
12.2	12.8	65.9	11.9	113.5	12.0
13.6	12.8	66.4	11.8	114.0	12.0
15.3	12.8	67.1	11.8	115.2	12.1
17.1	12.8	67.6	11.7	116.1	12.1
18.9	12.8	68.2	11.6	117.7	12.1
20.9	12.8	68.7	11.5	119.2	12.2
22.6	12.9	68.9	11.4		
23.5	12.9	69.1	11.4		
24.6	12.9	69.4	11.3		
25.6	13.0	69.8	11.3		
27.0	13.0	70.5	11.2		
28.2	13.0	70.9	11.1		
29.6	13.1	72.0	11.0		
31.1	13.1	71.9	10.9		
32.4	13.1	71.9	10.8		
33.0	13.2	72.3	10.7		
33.8	13.2	72.7	10.6		
35.5	13.3	72.9	10.6		
36.5	13.4	73.6	10.5		
37.5	13.4	75.6	10.5		
38.3	13.5	77.7	10.5		
39.9	13.5	79.6	10.5		
41.7	13.5	81.3	10.6		
43.0	13.5	83.4	10.7		
44.4	13.5	84.6	10.7		
46.3	13.5	85.7	10.8		
48.0	13.5	86.1	10.9		
49.9	13.5	87.9	11.0		
51.4	13.5	89.3	11.1		
52.2	13.5	90.0	11.1		
53.0	13.4	91.2	11.2		
53.9	13.3	92.5	11.3		
55.3	13.3	93.7	11.3		
56.6	13.3	95.3	11.4		
57.2	13.2	96.1	11.4		
57.7	13.1	97.8	11.4		
58.2	13.0	98.8	11.4		
58.4	12.9	101.0	11.4		
58.9	12.8	102.8	11.5		
59.0	12.7	103.8	11.5		
59.5	12.7	105.1	11.5		
60.0	12.6	106.1	11.6		
60.0	12.5	107.4	11.6		
61.0	12.5	108.3	11.7		

STA 71 DAY: 15 TIME: 0630

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.5	15.4	81.8	13.4	167.7	11.0	239.0	9.0
2.5	15.4	82.9	13.3	168.6	11.0	239.9	9.0
3.9	15.4	83.9	13.2	170.9	11.0	242.7	9.0
6.1	15.4	84.8	13.1	172.9	10.9	244.3	9.0
7.4	15.4	86.8	13.1	172.8	10.9	245.9	9.0
10.2	15.4	88.6	13.0	175.4	10.9	248.4	9.0
12.1	15.4	89.3	13.0	177.1	10.9	250.4	9.0
13.6	15.4	91.0	12.9	177.7	10.8	251.6	9.0
15.2	15.4	92.5	13.0	179.4	10.7	252.6	9.0
16.8	15.4	95.2	12.9	181.0	10.7	254.2	9.0
19.2	15.5	96.2	12.8	182.7	10.7	256.1	9.0
21.5	15.5	97.2	12.7	184.8	10.7	257.7	9.0
23.5	15.5	97.7	12.7	186.5	10.7	258.7	9.0
24.2	15.6	98.6	12.6	188.0	10.7		
26.1	15.7	99.6	12.5	188.9	10.6		
28.7	15.7	100.2	12.4	189.8	10.5		
29.7	15.7	102.5	12.4	190.3	10.4		
31.7	15.7	107.3	12.3	190.9	10.4		
33.9	15.7	109.4	12.3	192.4	10.3		
36.0	15.7	111.9	12.3	193.8	10.3		
37.6	15.7	114.9	12.3	195.1	10.2		
39.3	15.7	118.0	12.3	196.1	10.2		
41.3	15.7	120.2	12.3	197.9	10.1		
42.8	15.7	121.6	12.3	198.7	10.1		
44.4	15.7	123.9	12.3	199.6	10.0		
46.7	15.7	126.2	12.3	201.6	9.9		
48.6	15.7	128.5	12.2	203.9	9.9		
51.0	15.7	129.2	12.1	205.4	9.8		
53.0	15.7	130.0	12.1	206.8	9.8		
54.5	15.5	132.4	12.1	208.4	9.7		
55.0	15.3	134.5	12.1	210.2	9.7		
55.7	15.0	136.5	12.1	211.3	9.6		
56.9	14.8	138.9	12.1	212.9	9.6		
58.6	14.5	141.5	12.0	214.2	9.5		
59.5	14.4	142.7	11.9	215.9	9.5		
62.4	14.3	143.7	11.9	217.3	9.5		
63.6	14.2	144.7	11.8	218.8	9.4		
64.7	14.1	145.9	11.8	220.6	9.4		
65.4	14.0	147.2	11.7	222.1	9.4		
66.3	13.9	148.1	11.6	223.9	9.4		
67.0	13.9	149.5	11.6	225.1	9.3		
69.1	13.8	151.3	11.5	226.0	9.3		
71.1	13.8	154.4	11.4	227.1	9.3		
73.1	13.8	155.6	11.3	228.7	9.2		
74.2	13.7	157.0	11.2	230.2	9.2		
75.4	13.7	158.6	11.2	231.6	9.1		
77.2	13.7	159.7	11.1	233.1	9.1		
79.0	13.6	161.8	11.1	233.7	9.1		
79.9	13.5	164.1	11.1	235.4	9.1		
81.1	13.5	166.3	11.0	237.0	9.0		

STA 72 DAY: 15 TIME: 0655

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.6	14.6	69.6	14.6	139.2	12.8	210.0	10.6
2.6	14.6	70.3	14.5	140.9	12.8	211.0	10.6
3.8	14.6	71.5	14.4	143.1	12.8	212.6	10.5
5.1	14.5	71.8	14.3	144.9	12.7	214.1	10.4
6.4	14.5	72.7	14.3	146.5	12.7	216.6	10.4
7.9	14.5	73.5	14.2	148.1	12.7	219.2	10.4
9.9	14.5	74.0	14.2	150.1	12.6	219.6	10.4
11.7	14.5	76.0	14.1	151.7	12.6	222.2	10.4
13.4	14.5	78.0	14.1	153.4	12.6	224.8	10.3
13.5	14.5	78.9	14.1	156.1	12.6	227.4	10.3
17.0	14.5	79.3	14.0	157.2	12.5	228.7	10.2
18.6	14.5	80.2	13.9	159.2	12.5	229.6	10.2
19.7	14.5	81.1	13.9	160.3	12.4	231.3	10.1
22.1	14.5	81.8	13.8	162.5	12.4	233.1	10.0
23.7	14.5	83.2	13.8	164.4	12.4	234.4	10.0
25.0	14.5	85.3	13.8	165.7	12.3	235.7	9.9
26.5	14.5	86.3	13.8	166.8	12.3	237.8	9.8
28.0	14.5	88.0	13.8	168.2	12.2	239.1	9.8
29.1	14.5	89.7	13.8	169.6	12.2	239.8	9.8
29.5	14.6	91.9	13.8	170.9	12.2	241.9	9.7
31.2	14.6	92.8	13.9	172.7	12.2	244.2	9.7
32.9	14.6	93.3	13.9	174.7	12.1	246.5	9.7
34.9	14.6	94.2	14.0	176.2	12.1	248.5	9.7
36.2	14.6	94.4	14.1	177.8	12.1	250.4	9.7
37.8	14.6	96.5	14.0	179.4	12.0	251.8	9.6
39.0	14.6	97.7	13.9	181.5	11.9	252.9	9.6
39.3	14.6	98.2	13.8	182.5	11.9	254.4	9.5
40.0	14.5	101.0	13.8	183.6	11.8	256.6	9.5
42.1	14.5	102.5	13.8	184.7	11.8	259.1	9.5
43.9	14.5	104.9	13.7	186.4	11.7	260.6	9.5
45.7	14.5	106.7	13.7	187.9	11.7		
47.4	14.5	107.4	13.6	189.2	11.7		
49.4	14.5	109.4	13.6	191.0	11.6		
50.4	14.5	110.8	13.6	192.4	11.6		
52.1	14.4	111.9	13.5	193.2	11.5		
53.6	14.5	113.3	13.4	193.8	11.4		
54.8	14.5	114.7	13.4	194.6	11.3		
56.0	14.5	116.3	13.3	195.0	11.3		
56.9	14.3	117.7	13.3	196.5	11.2		
57.5	14.2	119.1	13.2	197.4	11.1		
58.3	14.1	120.1	13.1	198.3	11.1		
59.1	14.0	121.6	13.1	199.6	11.0		
60.8	14.0	122.8	13.0	200.4	10.9		
62.3	14.1	123.3	12.9	201.3	10.9		
63.3	14.2	126.3	12.9	201.9	10.9		
64.2	14.3	128.7	12.9	202.8	10.8		
64.7	14.4	131.8	12.9	204.4	10.7		
65.1	14.4	133.8	12.9	206.3	10.7		
66.0	14.5	135.8	12.9	208.3	10.7		
67.8	14.6	137.8	12.8	209.4	10.7		

STA 73 DAY: 15 TIME: 0657

DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)	DEPTH (m)	TEMP (°C)
0.2	14.5	77.3	13.9	186.6	11.4	271.0	8.1
1.9	14.5	78.4	13.9	187.9	11.2	272.4	8.1
3.7	14.5	80.5	13.8	188.7	11.1	275.2	8.1
5.3	14.5	83.0	13.8	189.4	11.0	277.3	8.0
6.7	14.5	85.3	13.9	190.5	10.9	279.2	8.0
8.6	14.5	87.1	14.0	191.5	10.9	281.5	8.0
9.5	14.5	89.4	14.1	192.6	10.9	283.7	7.9
11.7	14.5	92.5	14.1	193.7	10.8		
13.6	14.5	95.9	14.1	194.8	10.8		
15.7	14.5	100.5	14.0	196.2	10.7		
17.8	14.5	102.7	13.9	198.7	10.7		
20.2	14.5	105.8	13.8	200.7	10.7		
21.8	14.5	109.5	13.7	202.5	10.6		
23.2	14.5	112.9	13.6	203.7	10.5		
25.0	14.5	114.4	13.5	205.2	10.5		
27.3	14.5	117.0	13.5	206.9	10.4		
29.4	14.5	119.0	13.3	209.0	10.3		
31.2	14.5	121.0	13.2	211.8	10.3		
33.0	14.5	123.5	13.1	214.5	10.3		
35.1	14.5	125.1	13.1	216.4	10.2		
36.5	14.5	127.7	13.1	217.2	10.1		
38.3	14.6	130.0	12.9	218.8	10.0		
39.6	14.6	131.5	12.8	220.4	9.9		
42.0	14.6	133.3	12.8	222.6	9.8		
43.8	14.6	134.6	12.7	224.1	9.7		
45.8	14.6	136.6	12.5	226.2	9.6		
46.6	14.5	137.8	12.4	228.7	9.5		
47.7	14.4	139.8	12.4	230.5	9.4		
49.5	14.3	141.9	12.4	232.5	9.4		
50.8	14.2	143.4	12.4	234.6	9.3		
51.7	14.2	145.1	12.4	235.9	9.2		
53.1	14.3	146.5	12.3	236.4	9.0		
54.4	14.3	148.9	12.3	237.6	8.9		
56.1	14.3	151.3	12.2	238.9	8.7		
58.5	14.1	153.4	12.2	241.6	8.6		
59.9	14.0	155.2	12.2	243.3	8.6		
60.2	13.9	156.6	12.1	245.4	8.6		
61.5	14.0	158.8	12.1	247.0	8.6		
62.2	14.1	159.8	12.0	250.1	8.5		
62.5	14.2	162.2	11.9	251.6	8.5		
63.8	14.4	165.2	11.9	253.9	8.5		
64.5	14.7	165.9	11.7	256.4	8.4		
65.5	14.9	168.8	11.7	259.8	8.4		
68.2	15.1	171.7	11.7	262.1	8.4		
70.1	15.0	173.9	11.6	263.6	8.4		
70.9	14.8	175.3	11.6	264.3	8.3		
72.2	14.5	178.8	11.5	265.9	8.3		
72.9	14.3	181.5	11.5	267.7	8.3		
73.9	14.1	182.6	11.4	269.3	8.2		
75.2	14.0	184.6	11.4	270.0	8.2		

SHIP OC	CRUISE 130	STATION 74	DATE 15 NOV 1982	EST 07.4	LATITUDE 40 04.9 N	LONGITUDE 68 33.4 W	DEPTH 478		
DEPTH m	PRESS dbar	TEMP °C	SALIN psu	OXY ml/l	ATN m <sup>-1</sup>	SIGT gm/cm <sup>3</sup>	DYHT A 10m <sup>2</sup> /s <sup>2</sup>	S SPD m/s	N cph
2	2.1	13.935	33.769	5.88	0.67	25.250	0.000	1502.	-0.2
4	4.0	13.936	33.769	5.86	0.67	25.250	0.005	1502.	-0.2
6	6.1	13.940	33.769	5.84	0.67	25.249	0.011	1502.	-0.2
8	8.0	13.940	33.770	5.88	0.67	25.250	0.016	1502.	-0.2
10	10.1	13.942	33.771	5.85	0.67	25.250	0.022	1502.	-0.2
12	12.0	13.943	33.770	5.81	0.67	25.250	0.027	1502.	-0.3
14	13.9	13.943	33.770	5.81	0.67	25.249	0.032	1502.	-0.4
16	16.0	13.943	33.770	5.83	0.67	25.249	0.038	1502.	-0.5
18	18.0	13.944	33.770	5.81	0.68	25.249	0.043	1502.	-0.4
20	20.0	13.944	33.770	5.81	0.67	25.249	0.049	1502.	-0.3
22	22.0	13.941	33.768	5.82	0.68	25.248	0.054	1502.	0.3
24	24.1	13.944	33.769	5.82	0.68	25.248	0.060	1502.	0.5
26	26.0	13.948	33.771	5.80	0.68	25.249	0.065	1502.	0.7
28	27.9	13.955	33.773	5.81	0.68	25.249	0.070	1502.	0.8
30	30.0	13.958	33.775	5.80	0.68	25.250	0.076	1502.	0.9
32	32.0	13.956	33.774	5.80	0.69	25.250	0.081	1502.	0.8
34	34.0	13.960	33.776	5.78	0.69	25.251	0.087	1502.	0.9
36	36.0	13.964	33.779	5.82	0.69	25.251	0.092	1503.	2.5
38	38.0	13.967	33.780	5.76	0.69	25.252	0.097	1503.	4.9
40	40.1	13.959	33.776	5.67	0.70	25.250	0.103	1503.	6.9
42	42.0	13.974	33.785	5.59	0.69	25.254	0.108	1503.	8.7
44	43.9	14.051	33.872	5.48	0.69	25.306	0.114	1503.	9.9
46	46.1	14.177	34.069	5.26	0.66	25.432	0.119	1504.	11.1
48	47.9	14.239	34.219	5.05	0.65	25.534	0.124	1504.	12.3
50	50.0	14.035	34.314	4.88	0.64	25.651	0.129	1504.	12.9
52	52.0	14.248	34.444	4.67	0.64	25.706	0.134	1504.	13.0
54	54.1	14.687	34.726	4.48	0.64	25.830	0.138	1506.	12.6
56	56.0	15.281	35.112	4.35	0.63	25.997	0.142	1509.	12.1
58	58.0	15.524	35.312	4.27	0.62	26.097	0.146	1510.	11.5
60	60.1	15.618	35.395	4.18	0.62	26.139	0.150	1510.	10.8
61	61.9	15.635	35.461	4.08	0.62	26.187	0.153	1510.	9.6
64	64.0	15.645	35.535	4.02	0.61	26.241	0.157	1510.	8.4
65	66.0	15.772	35.633	3.97	0.61	26.288	0.161	1511.	7.6
67	67.9	15.859	35.699	3.89	0.61	26.319	0.164	1511.	7.0
69	70.0	15.882	35.742	3.86	0.61	26.347	0.168	1511.	6.6
71	71.9	15.886	35.765	3.83	0.61	26.364	0.171	1512.	6.4
73	74.1	15.898	35.785	3.81	0.61	26.376	0.174	1512.	6.4
75	76.0	15.691	35.737	3.84	0.62	26.386	0.178	1511.	6.5
77	78.1	15.224	35.673	3.89	0.62	26.442	0.181	1509.	6.6
79	79.9	15.074	35.667	3.90	0.62	26.471	0.184	1509.	6.7
81	82.1	15.013	35.695	3.92	0.62	26.506	0.187	1509.	6.7
83	84.0	14.929	35.701	3.93	0.63	26.529	0.190	1509.	6.3
85	86.0	14.971	35.742	3.93	0.63	26.552	0.193	1509.	5.8
87	88.1	15.002	35.780	3.92	0.62	26.574	0.196	1509.	5.5
89	89.9	15.010	35.798	3.88	0.63	26.586	0.199	1509.	5.1
91	92.0	14.991	35.806	3.86	0.62	26.597	0.202	1509.	4.9
93	94.0	14.910	35.808	3.86	0.63	26.616	0.205	1509.	4.9
95	96.1	14.824	35.804	3.84	0.63	26.632	0.208	1509.	5.0
97	98.1	14.793	35.806	3.82	0.63	26.640	0.211	1509.	5.3



SHIP OC	DEPTH m	CRUISE 130	STATION 74	DATE 15 NOV 1982	EST 07.4	LATITUDE 40 04.9 N	LONGITUDE 68 33.4 W	DEPTH 478		
SHIP OC	DEPTH m	CRUISE 130	STATION 74	DATE 15 NOV 1982	EST 07.4	LATITUDE 40 04.9 N	LONGITUDE 68 33.4 W	DEPTH 478		
297	297	299.9	8.355	35.130	3.44	0.71	27.323	0.424	1489.	3.1
299	299	302.0	8.308	35.126	3.44	0.71	27.326	0.425	1489.	3.2
302	304.1	8.264	35.122	3.46	0.71	27.330	0.427	1489.	3.3	
303	306.0	8.195	35.117	3.51	0.71	27.336	0.428	1488.	3.5	
305	308.0	8.131	35.113	3.54	0.71	27.343	0.430	1488.	3.7	
307	309.9	8.005	35.106	3.56	0.71	27.357	0.431	1488.	3.7	
310	312.2	7.889	35.102	3.57	0.71	27.371	0.433	1487.	3.5	
311	313.8	7.851	35.103	3.64	0.71	27.378	0.434	1487.	3.2	
313	316.0	7.835	35.104	3.66	0.71	27.381	0.436	1487.	2.8	
315	318.0	7.835	35.106	3.68	0.71	27.382	0.437	1487.	2.3	
317	320.0	7.834	35.107	3.66	0.71	27.383	0.439	1487.	2.0	
319	322.0	7.819	35.107	3.68	0.71	27.385	0.440	1487.	1.9	
321	324.0	7.803	35.107	3.71	0.71	27.388	0.442	1487.	1.8	
323	326.1	7.787	35.107	3.70	0.71	27.390	0.443	1487.	1.8	
325	327.8	7.769	35.107	3.71	0.72	27.392	0.445	1487.	1.8	
327	330.1	7.754	35.107	3.67	0.71	27.395	0.446	1487.	1.8	
329	332.1	7.747	35.107	3.70	0.71	27.396	0.448	1487.	1.7	
331	333.8	7.738	35.106	3.73	0.72	27.397	0.449	1487.	1.7	
333	336.0	7.715	35.105	3.68	0.71	27.399	0.451	1487.	1.7	
335	338.1	7.698	35.103	3.69	0.71	27.401	0.452	1487.	1.7	
337	339.9	7.674	35.102	3.73	0.72	27.403	0.454	1487.	1.7	
339	342.0	7.663	35.102	3.73	0.72	27.404	0.455	1487.	1.8	
341	344.0	7.652	35.101	3.74	0.72	27.405	0.456	1487.	2.2	
343	346.0	7.641	35.101	3.76	0.72	27.407	0.458	1487.	2.5	
345	348.1	7.625	35.101	3.78	0.72	27.409	0.459	1487.	2.7	
347	350.0	7.566	35.095	3.80	0.72	27.413	0.461	1487.	3.0	
349	351.9	7.452	35.091	3.84	0.72	27.426	0.462	1486.	3.3	
351	354.1	7.425	35.093	3.84	0.72	27.432	0.464	1486.	3.5	
353	355.9	7.371	35.089	3.91	0.72	27.436	0.465	1486.	3.6	
355	358.0	7.296	35.086	3.94	0.72	27.445	0.466	1486.	3.6	
357	360.1	7.200	35.083	3.98	0.72	27.456	0.468	1485.	3.5	
359	361.9	7.158	35.082	4.01	0.72	27.461	0.469	1485.	3.4	
361	364.2	7.074	35.078	4.02	0.72	27.470	0.471	1485.	3.2	
363	365.9	7.013	35.076	4.07	0.73	27.477	0.472	1485.	2.9	
365	367.8	6.967	35.071	4.13	0.73	27.479	0.473	1485.	2.6	
367	370.1	6.935	35.069	4.13	0.73	27.483	0.474	1485.	2.3	
369	372.0	6.917	35.068	4.14	0.73	27.484	0.476	1485.	2.0	
371	374.1	6.902	35.068	4.16	0.73	27.486	0.477	1485.	1.8	
373	376.0	6.896	35.068	4.17	0.73	27.487	0.478	1485.	1.7	
375	377.9	6.882	35.068	4.17	0.73	27.489	0.479	1484.	1.6	
377	380.0	6.876	35.069	4.16	0.73	27.490	0.481	1485.	1.6	
379	382.0	6.846	35.066	4.17	0.73	27.492	0.482	1484.	1.6	
381	383.9	6.827	35.065	4.19	0.73	27.494	0.483	1484.	1.8	
383	386.2	6.828	35.066	4.19	0.72	27.495	0.485	1484.	2.0	
385	387.9	6.825	35.067	4.21	0.73	27.496	0.486	1484.	2.1	
387	390.2	6.743	35.056	4.20	0.72	27.499	0.487	1484.	2.2	
389	392.0	6.674	35.052	4.23	0.73	27.505	0.488	1484.	2.1	
391	394.0	6.644	35.052	4.25	0.73	27.509	0.490	1484.	2.1	
393	396.0	6.635	35.051	4.28	0.73	27.510	0.491	1484.	1.9	
395	398.0	6.631	35.053	4.30	0.73	27.511	0.492	1484.	1.7	

## Appendix II. - NBIS CTD 9-track tape format

The NBIS CTD tape recorder interface writes two types of records; data records and header records. The records are 512 bytes (8 bits/byte) long. The usual sequence in a CTD cast will be one header record, followed by data records, followed by an End-Of-File.

### Data records

A single scan of CTD data is 13 bytes long, 1 byte of frame sync and 12 bytes of data (table 1). An integer number of data scans is packed into 512 byte data records. For the USGS CTD, a data record contains 39 scans of data, and the remaining 5 bytes in the data record are filled with zeros.

### Header records

A scan of header information consists of 8 bytes. The first byte is frame sync, which is either 00 (all "0"s) or FF (all "1"s). The remaining 7 bytes represent 14 BCD digits (4 bits each) which may be set on the CTD front panel. The 8 byte scan of header information is padded with zeros. One header record is written on the 9-T tape when "enter CTD header" data button is pushed.

Appendix Table II-1. - Bit assignments for USGS NBIS CTD

Byte	Variable	Range	Conversion
	Frame sync	15 or 240	
1	Pressure LSB	0-65535	$\div 20 = P$ (dbars)
2	Pressure MSB		
3	Temperature LSB	0-65535	$\div 2000 = T$ ( $^{\circ}\text{C}$ )
4	Temperature MSB		
5	Conductivity LSB	0-65535	$\div 1000 C$ (mmho)
6	Conductivity MSB		
7	Sign		LSB = pressure negative 2nd = temperature negative 3rd = oxygen temperature negative 4th-8th = zero
8	Oxygen current	0-4096	$\div 2000 = \text{current}$ ( $\mu\text{A}$ )
9	(12 bits only)		
10	Oxygen temperature	0-255	$\times 256 \div 2000 T$ ( $^{\circ}\text{C}$ )
11	Transmission	0-4096	$\times 32 \div 4096 = \text{TR}$ (volts)