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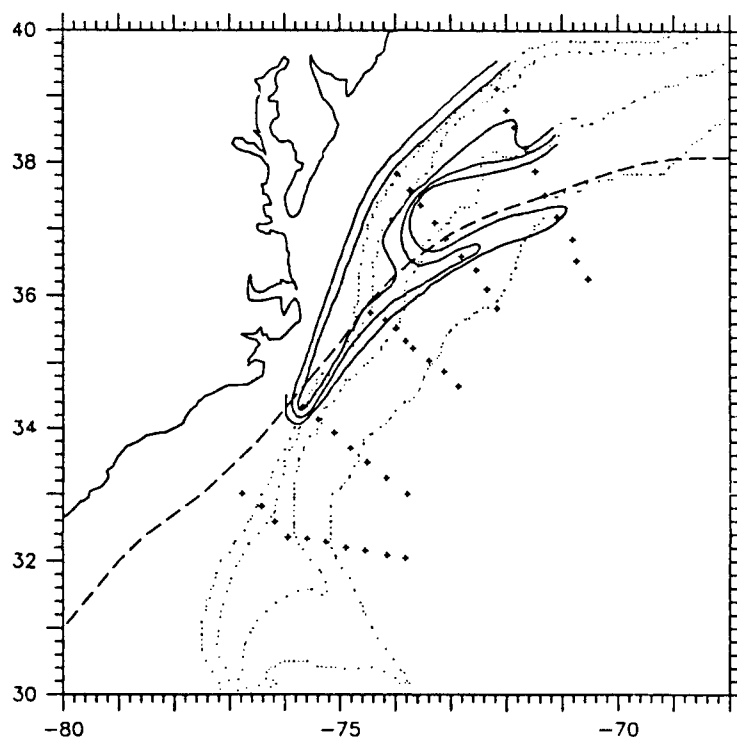
**Woods Hole  
Oceanographic  
Institution**

WHOI-92-23

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**Hydrographic Data from Endeavor 214:**

**A Study of the Gulf Stream—Deep Western Boundary Current Crossover**



Robert S. Pickart  
Theresa K. McKee  
Woods Hole Oceanographic Institution

and

William M. Smethie, Jr.  
Lamont-Doherty Geological Observatory

May 1992

**Technical Report**

Funding was provided by the National Science Foundation and the  
Office of Naval Research under Grant No. OCE90-09464.

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by

Robert S. Pickart  
Theresa K. McKee

Woods Hole Oceanographic Institution  
Woods Hole, Massachusetts 02543

and

William M. Smethie, Jr.  
Lamont-Doherty Geological Observatory  
Palisades, New York 10953

May 1992

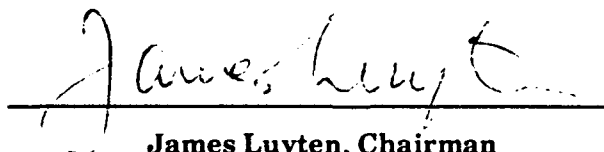
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Woods Hole Oceanog. Inst. Tech. Rept., WHOI-92-23.

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**Approved for Distribution:**

  
**James Luyten, Chairman**  
Department of Physical Oceanography

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### **3 List of Participants**

#### **Woods Hole Oceanographic Institution**

|                   |                           |
|-------------------|---------------------------|
| Robert S. Pickart | co-Principal Investigator |
| Amy Bower         | CTD/POGO watch stander    |
| Sara Gille        | CTD watch stander         |
| Elise Berliner    | CTD watch stander         |
| Barry Klinger     | Oxygen Measurements       |

---

#### **Lamont-Doherty Geological Observatory**

|                         |                           |
|-------------------------|---------------------------|
| William M. Smethie, Jr. | co-Principal Investigator |
| Eric Nelson             | CTD watch stander         |
| Mike Benjamin           | CFC technician            |
| Guy Mathieu             | CFC technician            |

---

#### **University of Rhode Island**

|                |                         |
|----------------|-------------------------|
| Sandy Fontanna | CTD watch stander       |
| Jules Hummon   | CTD/POGO watch stander  |
| Erik Fields    | CTD/ADCP watch stander  |
| Jie Lin        | Oxygen Measurements     |
| Jan Szelag     | CTD hardware technician |
| Joe Lewkowicz  | CTD software technician |

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#### **Scripps Institution of Oceanography**

|             |                       |
|-------------|-----------------------|
| Doug Masten | Nutrient measurements |
|-------------|-----------------------|

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## 4 Abstract

In late June, 1990, a 17-day cruise aboard R/V ENDEAVOR was undertaken to investigate the manner in which the Deep Western Boundary Current (DWBC) crosses under the Gulf Stream. Forty-four CTD casts, comprising five sections, were made along with bottle measurements of Dissolved Oxygen, Nitrate, Nitrite, Phosphate, Silica, F-11, and F-12. An acoustic transport float (POGO) was deployed at each station to obtain a measurement of the upper layer transport. The shipboard Acoustic Doppler Current Profiler (ADCP) measured currents throughout the cruise. This report presents vertical profiles and sections of the bottle and CTD data, a vector map of the average POGO currents, and listings of the bottle data.

## 5 Introduction

As the Gulf Stream leaves the continental shelf near Cape Hatteras and flows into deeper water, it crosses the equatorward flowing Deep Western Boundary Current (DWBC). The DWBC consists of three separate water mass components, which together span the water column from approximately 800 m to the bottom. At present, it is not understood just how the "crossover" occurs, particularly for the shallowest DWBC component which should encounter significant Gulf Stream flow to the northeast.

In June–July 1990 a hydrographic survey of the Gulf Stream – DWBC crossover was completed aboard R/V ENDEAVOR. The co-principal investigators were Robert Pickart from Woods Hole Oceanographic Institution (WHOI) and William Smethie from Lamont-Doherty Geological Observatory. The survey consisted of five sections across the continental slope, spanning the crossover region. Measurements of various chemical properties were carried out, as well as measurements of upper layer currents using acoustic transport floats. The main objective of the experiment was to determine the kinematics of the crossover, in particular to determine if water from the DWBC recirculates with the Gulf Stream. Ultimately, analysis of the data will contribute to a better understanding of how the two currents dynamically influence one another.

The hydrographic survey was carried out during the multi-year Gulf Stream Synoptic Ocean Prediction (SYNOP) experiment. During SYNOP, a line of bottom current meters was maintained from October, 1987 through August, 1990 across the DWBC at the Gulf Stream crossover. Our central section coincided with this current meter line. Although the hydrographic survey was not formally part of SYNOP, the concurrent data complement one other and will strengthen the respective analyses.

This report documents the CTD, water sample and acoustic float data collected during the 17-day hydrographic survey. The instrumentation and data processing are described, then the data are plotted as vertical profiles and vertical sections. Finally, water sample data listings are included.

## 6 Data Collection

### 6.1 CTD

Five sections were occupied (Figure 1): two upstream of the crossover (Sections 1 and 2), one at the crossover (Section 3), and two downstream (Sections 4 and 5). A total of 44 casts were made – 41 bottom casts plus three additional 1500 m casts on the last Section (Table 1). At each section an attempt was made to cross both the DWBC and the Gulf Stream. However, the Gulf Stream was not completely crossed on the southern two sections (where it is still near the continental shelf).

CTD operations during the cruise were handled by the Marine Technical Services Group from the University of Rhode Island (URI). A single Neil Brown Mark III CTD (no. 1088), mounted on a 24 10-liter bottle rosette, was used. The CTD was equipped with a Beckmann oxygen sensor; however, the oxygen current contained random jumps that could not be fixed. During the cruise it was thought that this was a software problem. Unfortunately, it was later determined that the

probe was faulty, making the oxygen data unusable.

For 43 out of 44 stations, the CTD gave complete data return. The exception was station 12 which had no data deeper than 2335 m, where the CTD failed; the last 625 m were lost.

Table 1. Hydrographic Station Dates, Positions, and Bottom Depths.

| Station Number | Date (yyymmdd) | Time (GMT) | Latitude (° N) |       | Longitude (° W) |       | Depth (m)           |
|----------------|----------------|------------|----------------|-------|-----------------|-------|---------------------|
| 1              | 90/06/24       | 1901       | 32             | 2.94  | 73              | 49.46 | 5062                |
| 2              | 90/06/25       | 0658       | 32             | 5.52  | 74              | 9.43  | 4833                |
| 3              | 90/06/25       | 1502       | 32             | 9.49  | 74              | 33.05 | 4618                |
| 4              | 90/06/25       | 2106       | 32             | 12.16 | 74              | 54.04 | 4313                |
| 5              | 90/06/26       | 0239       | 32             | 17.18 | 75              | 15.08 | 3933                |
| 6              | 90/06/26       | 0750       | 32             | 20.05 | 75              | 35.29 | 3377                |
| 7              | 90/06/26       | 1421       | 32             | 21.39 | 75              | 56.41 | 2660                |
| 8              | 90/06/26       | 2011       | 32             | 35.22 | 76              | 11.03 | 2117                |
| 9              | 90/06/27       | 1000       | 32             | 49.01 | 76              | 25.46 | 1129                |
| 10             | 90/06/27       | 1511       | 33             | 0.44  | 76              | 46.95 | 614                 |
| 11             | 90/06/27       | 2352       | 34             | 19.49 | 75              | 41.20 | 1149                |
| 12             | 90/06/28       | 0503       | 34             | 8.33  | 75              | 23.55 | 2953                |
| 13             | 90/06/28       | 1019       | 33             | 56.17 | 75              | 6.54  | 3296                |
| 14             | 90/06/28       | 1541       | 33             | 42.02 | 74              | 49.13 | 3750                |
| 15             | 90/06/28       | 2058       | 33             | 28.91 | 74              | 30.81 | 4180                |
| 16             | 90/06/29       | 0322       | 33             | 15.03 | 74              | 10.03 | 4510                |
| 17             | 90/06/29       | 1014       | 33             | 0.15  | 73              | 47.17 | 4823                |
| 18             | 90/06/29       | 2350       | 34             | 39.11 | 72              | 52.06 | 4494                |
| 19             | 90/06/30       | 0539       | 34             | 52.52 | 73              | 7.28  | 4295                |
| 20             | 90/06/30       | 1122       | 35             | 2.37  | 73              | 23.65 | 4014                |
| 21             | 90/06/30       | 2324       | 35             | 13.00 | 73              | 41.00 | 3653                |
| 22             | 90/06/30       | 2217       | 35             | 20.32 | 73              | 48.97 | 3330                |
| 23             | 90/07/01       | 0427       | 35             | 31.60 | 73              | 59.02 | 3026                |
| 24             | 90/07/01       | 1139       | 35             | 38.51 | 74              | 10.97 | 2644                |
| 25             | 90/07/01       | 1701       | 35             | 45.02 | 74              | 27.17 | 1949                |
| 26             | 90/07/02       | 0758       | 37             | 49.88 | 73              | 58.40 | 1000( <i>est.</i> ) |
| 27             | 90/07/02       | 1205       | 37             | 34.40 | 73              | 44.18 | 2049                |
| 28             | 90/07/02       | 1624       | 37             | 21.06 | 73              | 32.74 | 2454                |
| 29             | 90/07/02       | 2056       | 37             | 5.56  | 73              | 17.54 | 2885                |
| 30             | 90/07/03       | 0304       | 36             | 51.13 | 73              | 5.60  | 3148                |
| 31             | 90/07/03       | 1017       | 36             | 34.91 | 72              | 48.67 | 3416                |
| 32             | 90/07/03       | 1810       | 36             | 22.74 | 72              | 32.24 | 3685                |
| 33             | 90/07/04       | 0115       | 36             | 5.93  | 72              | 20.90 | 3894                |
| 34             | 90/07/04       | 0727       | 35             | 48.96 | 72              | 10.20 | 4055                |
| 35             | 90/07/04       | 1816       | 36             | 15.01 | 70              | 32.29 | 4407                |
| 36             | 90/07/05       | 0135       | 36             | 31.18 | 70              | 44.73 | 4354                |
| 37             | 90/07/05       | 0915       | 36             | 50.66 | 70              | 49.39 | 4256                |
| 38             | 90/07/05       | 1412       | 37             | 11.01 | 71              | 5.69  | 4093                |
| 39             | 90/07/06       | 0032       | 37             | 30.51 | 71              | 18.57 | 3807                |
| 40             | 90/07/06       | 0541       | 37             | 52.17 | 71              | 29.04 | 3229                |
| 41             | 90/07/06       | 1039       | 38             | 12.84 | 71              | 39.74 | 2953                |
| 42             | 90/07/06       | 1502       | 38             | 31.90 | 71              | 51.89 | 2815                |
| 43             | 90/07/07       | 0900       | 38             | 47.00 | 72              | 0.00  | 2639                |
| 44             | 90/07/07       | 1629       | 39             | 6.67  | 72              | 9.69  | 1606                |

# ENDEAVOR 214

## Station Locations

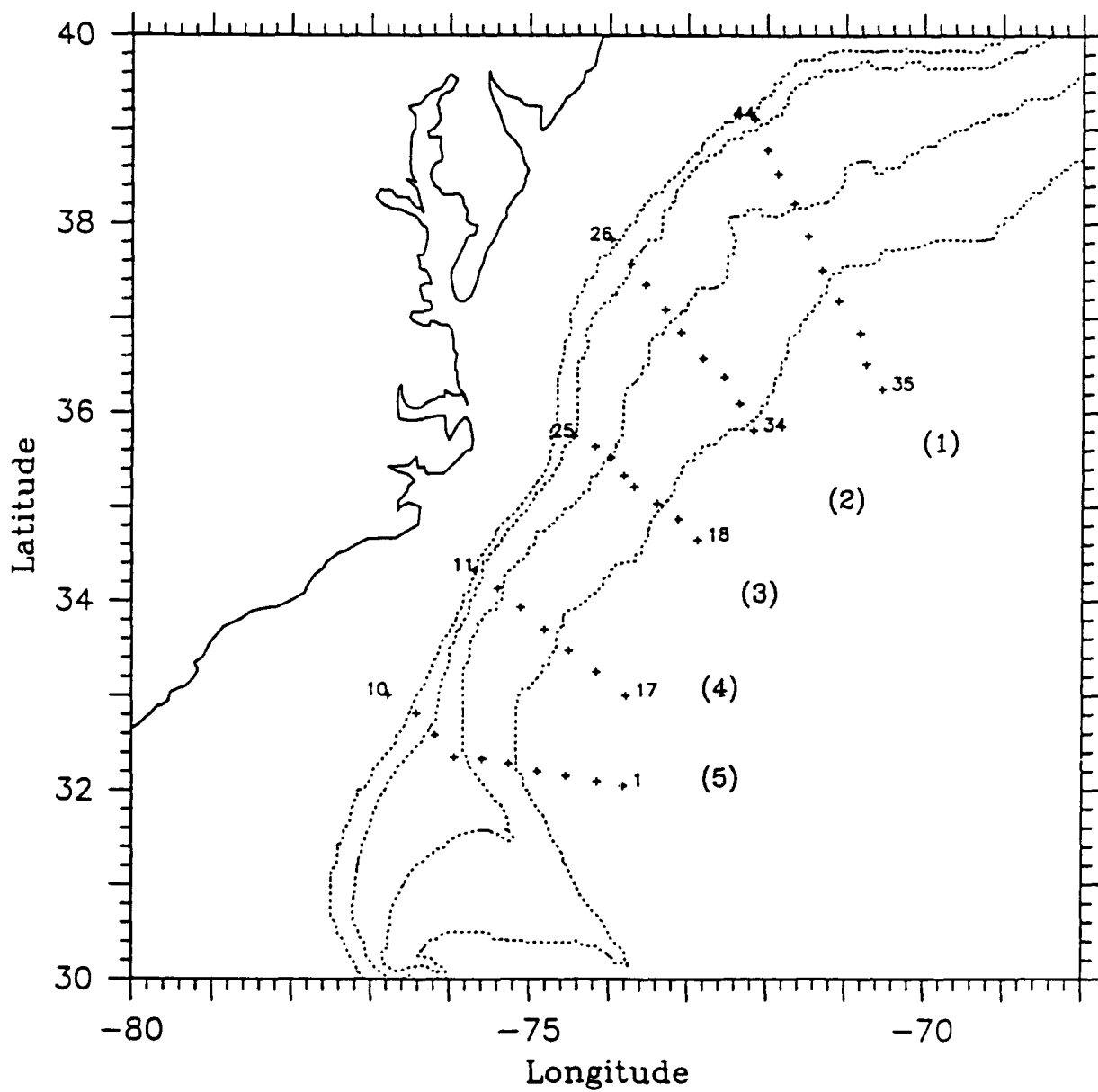


Figure 1: Map showing hydrographic station locations. Section numbers are in parentheses.

## **6.2 Water samples**

At most stations, 24 water samples were collected using Scripps type 10-liter Niskin bottles. At some early stations 5-liter Niskin bottles were used, and 5-liter Niskin bottles were also occasionally used as replacements. All bottles were equipped with coated springs and baked O-rings to reduce contamination of the chlorofluorocarbons (CFCs) (standard Niskins were occasionally used as replacements). At shallow stations a smaller number of samples were collected. Measurements of dissolved oxygen, CFCs F-11 and F-12, and nutrients were routinely carried out. Funding for the nutrient measurements came under a separate NSF grant with M. McCartney as Principal Investigator.

### **6.2.1 Salinity**

Salinity was measured using a standard AUTOSAL located in the ENDEAVOR's special purpose laboratory, which has the best temperature control of any working location on the ship. This task was handled by the URI Marine Technical Services Group, and upon completion of the cruise the data were in final form.

### **6.2.2 Oxygen**

Oxygen was measured using a Winkler system operated by D. Kester's laboratory group at URI. The concentrations were determined using the Winkler (1888) titration method as modified by Carritt and Carpenter (1966).

### **6.2.3 Chlorofluorocarbons (CFCs)**

The chlorofluorocarbons, F-11 and F-12, were measured on air and water samples. Water samples were collected using the 5- or 10-liter Niskin bottles attached to a rosette. Samples were drawn from these bottles into 100-cc glass syringes fitted with plastic valves. The samples were then stored (for no longer than 12 hours) in a sink continually flushed with clean surface seawater until analysis.

Water and air samples were analyzed using a purge and trap system interfaced to a gas chromatograph with an electron capture detector. The method is described in detail by Smethie et al. (1988). Calibration curves were run by introducing different size sample loops of standard gas into the system. The calibration points were fit with a polynomial equation, and this equation was used to calculate the sample concentrations as described by Bullister and Weiss (1988). System blanks, stripper blanks, and sample bottle blanks were measured during the cruise, and the data have been corrected for these blanks. Stripper blanks were generally zero for F-12 and between 0.008 and 0.015 pmol/kg for F-11. Sample bottle blanks were determined by tripping two or three bottles at the same depth and sampling the bottles at 2-hour intervals to measure CFC ingrowth. The F-12 blank was zero for both the 5- and 10-liter bottles. The F-11 blank for the 10-liter bottles was 0.014 pmol/kg at the beginning of the cruise and 0.006 pmol/kg at the end of the cruise. The

F-11 blank for the 5-liter bottles was 0.034 pmol/kg at the beginning and 0.026 pmol/kg at the end. A linear drift in the blank was assumed and a correction applied to the data.

The precision of the atmospheric measurements based on replicate measurements, was  $\pm 0.4\%$  for F-11 and F-12. The precision for water samples, based on differences between duplicate samples, was the larger of 0.004 or 0.8% for F-11 and 0.008 or 0.7% for F-12.

The fit to the calibration curves was  $\pm 1\%$  for both F-11 and F-12. Thus the overall accuracy is about  $\pm 1.5\%$  for both CFCs.

All concentrations are relative to the Scripps Institution of Oceanography 1986 scale.

#### 6.2.4 Nutrients

The measurement of nutrients was handled by the Scripps Institution of Oceanography (SIO) shipboard operations group. Silicate, Phosphate, Nitrate and Nitrite were measured on an auto-analyzer located in the special purpose lab. Post-cruise data processing was performed at SIO. Since these data are not formally part of our data set, they have not been subject to the same quality control (described later in the report) as the other properties.

### 6.3 CFC Air Samples

CFC air samples were collected at 10 locations along the cruise track. Samples were normally collected when the ship was underway between stations to insure a headwind across the sample intake at the bow and thus avoid contamination with the ship's atmosphere. Air samples were collected by pumping air from a mast on the ship's bow to the CFC analysis system in the main laboratory of the ship. The intake was located approximately 7 meters above the sea surface. The air stream was dried by passing it over magnesium perchlorate, and 4 cc aliquots were collected from the gas stream using a calibrated loop. The volume was corrected to STP using the temperature and pressure measured at the time the sample was collected.

The results are summarized in Table 2. Concentrations for F-11 and F-12 are slightly lower for samples collected along transects 4 and 5. Samples 7 and 9 have unusually high F-12 concentrations which suggests that these samples were contaminated with the ship's atmosphere.

**Table 2. Atmospheric Concentrations of F-11 and F-12.**

| Sample | Date     | Station | Latitude<br>(° N) |      | Longitude<br>(° W) |      | F-12<br>(pptv) | F-11<br>(pptv) |
|--------|----------|---------|-------------------|------|--------------------|------|----------------|----------------|
| 1      | 90/06/25 | 2-3     | 32                | 07.3 | 74                 | 19.4 | 481.5          | 259.7          |
| 2      | 90/06/25 | 4-5     | 32                | 12.1 | 75                 | 00.8 | 484.0          | 258.2          |
| 3      | 90/06/26 | 6-7     | 32                | 19.6 | 75                 | 49.3 | 484.7          | 264.7          |
| 4      | 90/06/27 | 11      | 34                | 18.5 | 75                 | 41.2 | 480.8          | 261.9          |
| 5      | 90/06/28 | 13-14   | 33                | 44.6 | 74                 | 52.2 | 483.8          | 261.4          |
| 6      | 90/06/29 | 17-18   | 33                | 11.5 | 73                 | 37.2 | 483.1          | 258.7          |
| 7      | 90/06/30 | 22-23   | 35                | 23.2 | 73                 | 52.6 | 516.9          | 265.3          |
| 8      | 90/07/04 | 34-35   | 35                | 55.5 | 71                 | 42.7 | 490.2          | 264.2          |
| 9      | 90/07/05 | 38      | 37                | 12.4 | 71                 | 00.8 | 523.1          | 271.1          |
| 10     | 90/07/07 | 44      | 39                | 13.5 | 72                 | 07.9 | 490.7          | 262.9          |

## 6.4 POGO

An acoustic transport float, POGO (see Rossby et al., 1991), was deployed near the end of each CTD cast to obtain a measurement of the upper layer transport. Data were processed shortly after the cast using software written by T. Rossby's group at URI. Mean speed and bearing over a depth range of 250 m to 3000 m were computed (Table 3); the associated vectors are shown in Figure 2. Surface speed and bearing were also computed (Table 3).

## 6.5 XBT

While in the Gulf Stream, XBTs were taken between the CTD stations for increased resolution. These data are not included in this report.

Table 3. Surface and Mean Current Data from POGO Floats.

| Station<br>Number | Depth<br>(m) | Surface         |                     | Mean            |                     |
|-------------------|--------------|-----------------|---------------------|-----------------|---------------------|
|                   |              | Speed<br>(cm/s) | Bearing<br>(° true) | Speed<br>(cm/s) | Bearing<br>(° true) |
| 1                 | 3044.7       | 10.5            | 1                   | 6.4             | 45                  |
| 2                 | 3049.0       | 18.7            | 133                 | 3.9             | 22                  |
| 3                 | 3044.7       | 15.7            | 200                 | 2.0             | 131                 |
| 4                 | 3062.4       | 23.7            | 166                 | 2.7             | 251                 |
| 5                 | 3000.7       | 14.2            | 11                  | 4.2             | 298                 |
| 6                 | —            | —               | —                   | —               | —                   |
| 7                 | —            | —               | —                   | —               | —                   |
| 8                 | 1060.0       | 66.1            | 93                  | 32.5            | 19                  |
| 9                 | 262.0        | 203.2           | 36                  | 126.8           | 49                  |
| 10                | —            | —               | —                   | —               | —                   |
| 11                | 492.0        | 150.8           | 23                  | 137.8           | 34                  |
| 12                | 2058.3       | 85.2            | 50                  | 36.8            | 30                  |
| 13                | 2058.3       | 27.1            | 78                  | 19.2            | 21                  |
| 14                | 3083.8       | 24.3            | 207                 | 3.5             | 240                 |
| 15                | 3005.6       | 15.3            | 192                 | 4.3             | 242                 |
| 16                | 2979.5       | 48.5            | 222                 | 13.6            | 242                 |
| 17                | 1104.4       | 17.4            | 144                 | 8.3             | 255                 |
| 18                | 1078.0       | 43.8            | 127                 | 5.7             | 234                 |
| 19                | 1086.8       | 89.2            | 80                  | 15.6            | 51                  |
| 20                | 1065.7       | 57.4            | 59                  | 32.0            | 35                  |
| 21                | 900.4        | 83.1            | 57                  | 50.1            | 51                  |
| 22                | 1092.1       | 48.7            | 66                  | 62.4            | 58                  |
| 23                | 1049.9       | 166.0           | 54                  | 86.3            | 57                  |
| 24                | 1083.3       | 133.5           | 48                  | 64.4            | 57                  |
| 25                | 1072.8       | 74.6            | 56                  | 7.0             | 51                  |
| 26                | 499.5        | 46.8            | 247                 | 9.7             | 38                  |
| 27                | 1067.5       | 53.4            | 273                 | 24.1            | 232                 |
| 28                | 1072.8       | 23.4            | 286                 | 21.7            | 231                 |
| 29                | 1106.2       | 11.6            | 170                 | 8.6             | 228                 |
| 30                | 1085.1       | 16.7            | 140                 | 5.0             | 163                 |
| 31                | 1055.2       | 83.9            | 38                  | 22.8            | 66                  |
| 32                | 1081.6       | 206.2           | 51                  | 93.0            | 51                  |
| 33                | 1106.2       | 136.1           | 58                  | 99.3            | 48                  |
| 34                | 1086.8       | 37.7            | 185                 | 47.3            | 62                  |
| 35                | 1081.6       | 68.8            | 55                  | 23.8            | 55                  |
| 36                | 1078.0       | 63.9            | 97                  | 50.7            | 66                  |
| 37                | 1088.6       | 162.8           | 91                  | 89.6            | 67                  |
| 38                | 1065.7       | 263.6           | 70                  | 96.7            | 78                  |
| 39                | 1083.3       | 51.9            | 60                  | 3.2             | 186                 |
| 40                | 1042.9       | 25.0            | 181                 | 10.1            | 239                 |
| 41                | 1041.1       | 12.4            | 184                 | 11.7            | 241                 |
| 42                | 1106.2       | 27.3            | 19                  | 18.4            | 212                 |
| 43                | 1076.3       | 5.3             | 319                 | 10.1            | 252                 |
| 44                | 1049.9       | 42.1            | 278                 | 5.1             | 257                 |

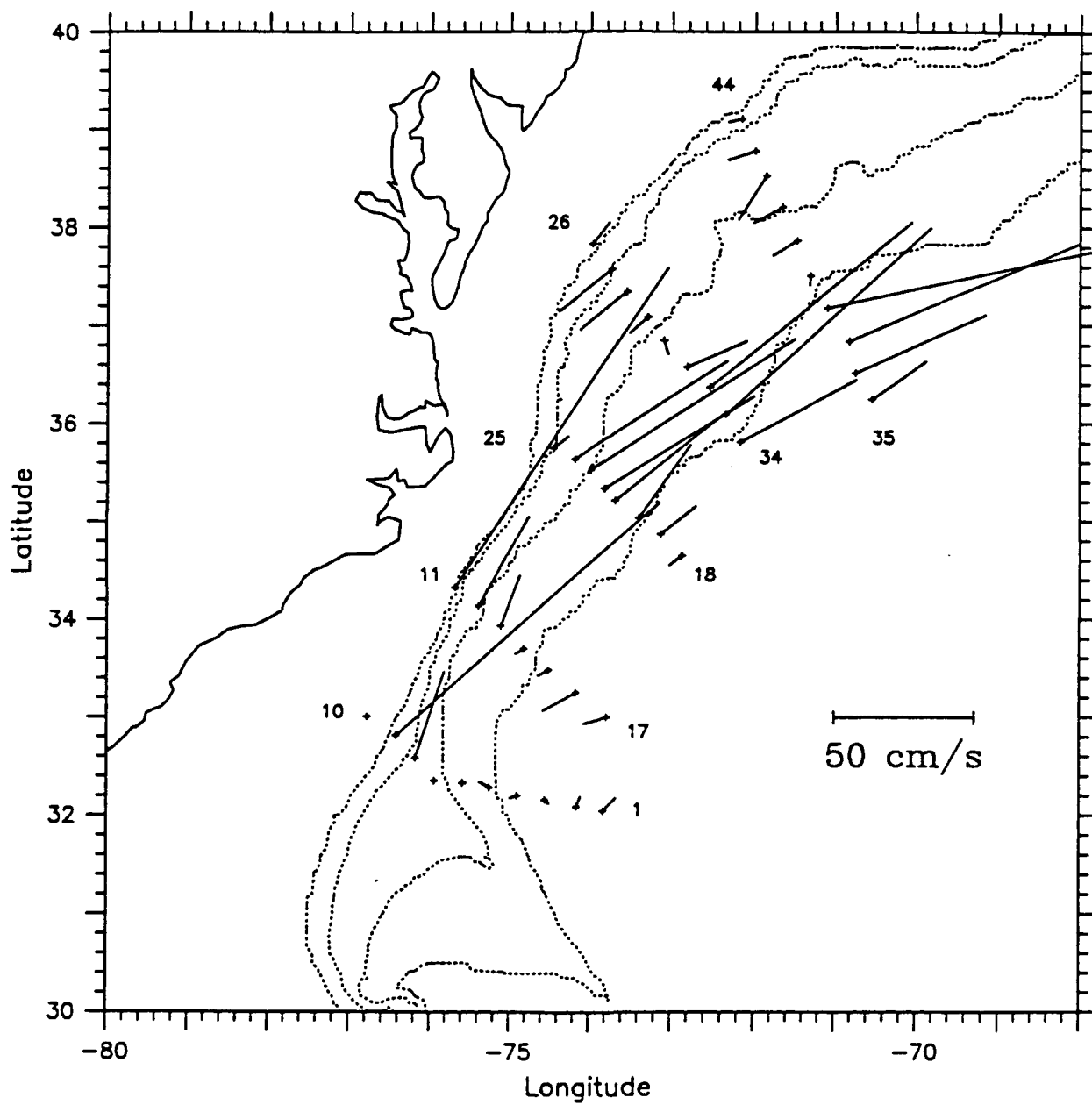


Figure 2: Map showing average POGO vectors.

## 7 CTD Calibration and Processing

CTD data acquisition and post-cast processing were accomplished on two MicroVAX II systems on ENDEAVOR using software written by the URI Marine Technical Services Group (for a description, see Hummon et al., 1991). By the end of the cruise, all processing steps were completed through pressure-averaging, leaving only the post-cruise calibrations to be done.

Laboratory calibrations of the CTD pressure, temperature and conductivity sensors were performed by Neil Brown Instrument Systems before and after the cruise. Based on the small amount of drift between calibrations, the pre-cruise pressure and temperature coefficients were used for the final data.

The bottle conductivity calibration was performed at WHOI by R. Pickart on a VAXstation 3100 using the water sample salinity data. Before this process was begun, a chronology of  $\Delta S$ 's was constructed,  $\Delta S$  being the difference between the raw CTD value and water sample value at each bottle depth (Figure 3). No systematic trend over the length of the cruise was observed, and, since the dependence of  $\Delta S$  on pressure was very small as well (not shown), the CTD values were calibrated as a function of conductivity only (no station trend or pressure trend included).

The bottle salinity calibration steps are summarized here:

1. Insert bottle salinity values into CTD "tag files" which contain the raw CTD variables at the bottle depths.
2. Insert upcast pressure coefficients into "header files."
3. Run the program TAGCAL to obtain calibration coefficients.  
*Note: only 32 stations were used for the calibration. The following stations were not used: 14, 30, 39, 41, 42; lower quality water sample data (Figure 3) 16, 21, 22, 25, 33, 34, 38; bad or missing "tag files"*
4. Apply conductivity coefficients to pressure averaged CTD files and compute salinities using SAL78 subroutine.

When these calibrated values were used to re-create the  $\Delta S$ 's, the resulting standard deviation of all values was .0040 PSU (Figure 4). The coefficients used for conductivity, pressure and temperature calibration are listed in Table 4.

A comparison was made between the deep T/S relation obtained from this data set and the standard Worthington-Metcalf curve for the western North Atlantic. The ENDEAVOR 214 data are consistently fresher between 2 and 4°C (maximum of .008 PSU fresher). It is well documented, however, that there has been a distinct freshening of the deep North Atlantic since the time the Worthington-Metcalf curve was created (e.g., M. Hall, 1991, personal communication), and our deep T/S curve is in agreement with more recent CTD surveys in this area of the North Atlantic.

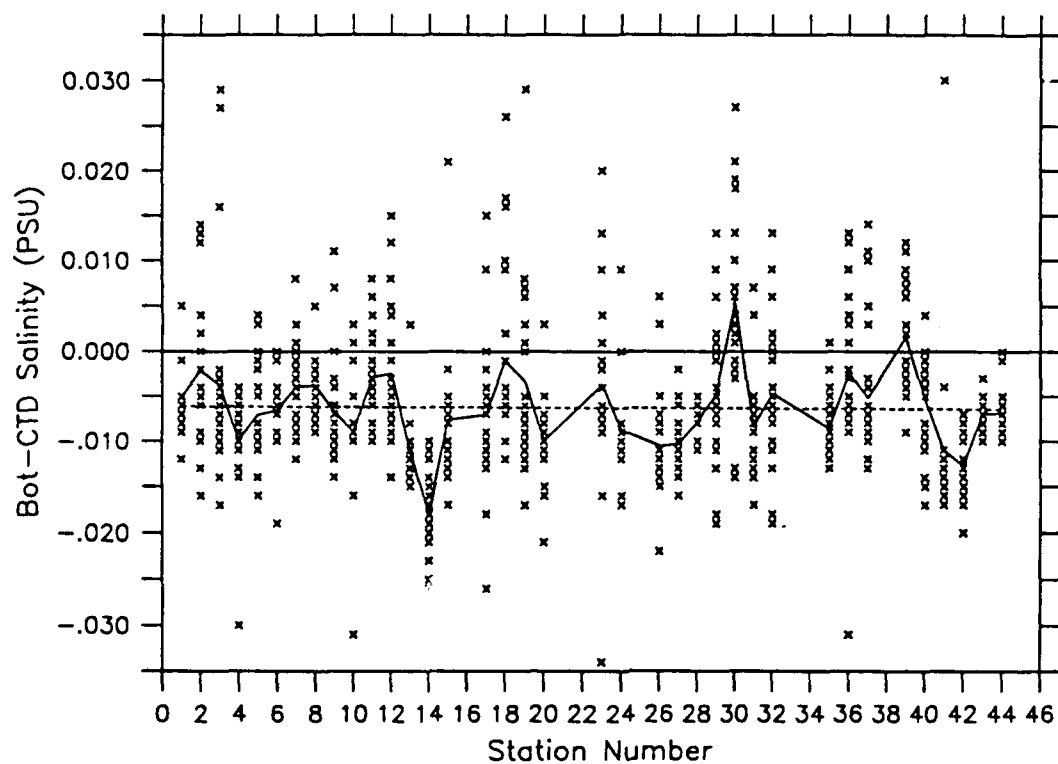


Figure 3: Plot of uncalibrated  $\Delta S$  (bottle salinity - raw CTD salinity) versus station number. X's mark the  $\Delta S$ . The solid line graphs the mean of each station group. The dashed line is the linear least squares fit to the mean.

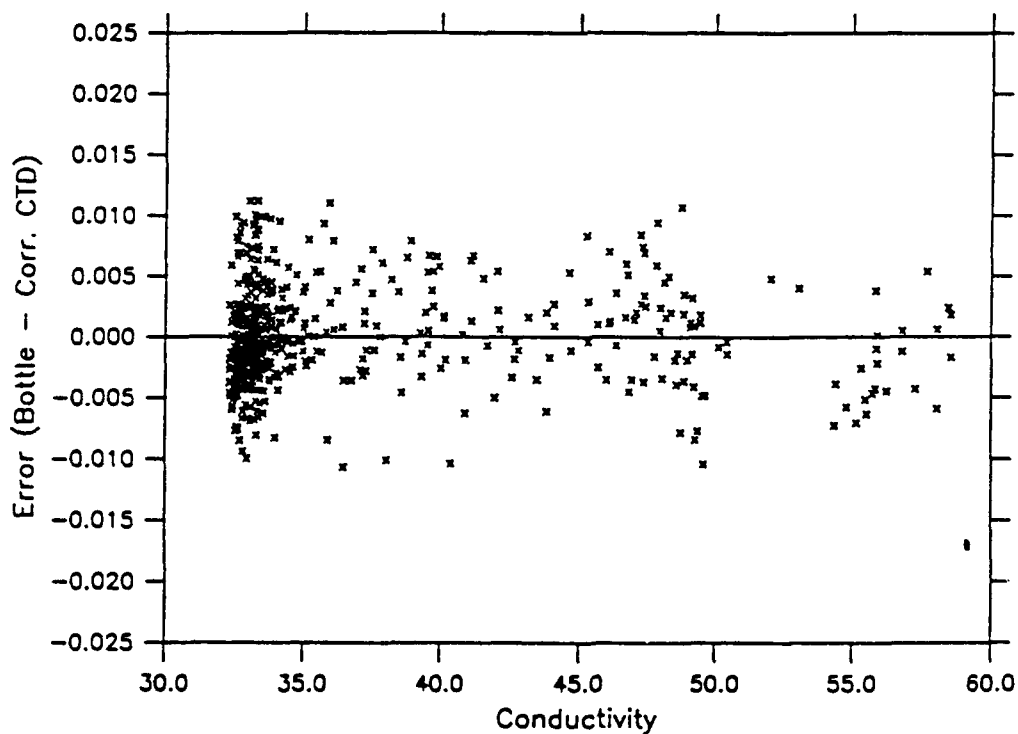


Figure 4: Plot of calibrated  $\Delta S$  (bottle salinity - calibrated CTD salinity) versus conductivity.

---

**Table 4. CTD Calibration Coefficients**

**PRESSURE** (laboratory, pre-cruise):

upcast:

$$A0 = -1.215764$$

$$A1 = .9987324$$

$$A2 = .0000008356674$$

$$A3 = -.00000000009893856$$

downcast:

$$A0 = -.7954182$$

$$A1 = .9994162$$

$$A2 = .0000004804482$$

$$A3 = -.00000000006912594$$

**TEMPERATURE** (laboratory, pre-cruise):

$$A0 = .003269084$$

$$A1 = .9999887$$

$$A2 = .0000001020303$$

**CONDUCTIVITY** (bottle):

$$A0 = -.00177182$$

$$A1 = .999933$$

---

## **8 Final Processing and Data Quality Control**

Final processing of the data took place at Woods Hole Oceanographic Institution. CTD data underwent final editing, and the different water property data were merged with calibrated CTD pressures and temperatures to form a composite bottle data set.

Edited CTD and water sample ascii data were converted to standard binary file format for compatibility with existing WHOI hydrographic data analysis software.

## 8.1 CTD

The calibrated CTD profiles were interpolated onto a regular pressure grid, starting at 3 db with an increment of 2 db. Several stations required a small amount of further editing (to remove isolated spikes). These edits are summarized in Table 5.

---

**Table 5. Summary of Manually Edited CTD Files**

| Station        | Description of edit                                                               |
|----------------|-----------------------------------------------------------------------------------|
| 21             | linearly interpolated over salinity and temperature spike near 1900 db            |
| 24             | linearly interpolated over salinity spike near 380 db                             |
| 36             | linearly interpolated over salinity and temperature spike near 950 db             |
| 14, 33, 42, 44 | extrapolated over <10db in order to extend the data up to the 3 db starting point |

---

## 8.2 Water Sample

### 8.2.1 Salinity

Two methods were employed to identify bad bottle values. First, vertical traces of bottle salinity were overplotted with CTD down-trace salinity measurements on a large-scale T/S plot. Suspicious bottles could be visually identified.

Each bottle salinity was then compared with the associated calibrated CTD up-trace value (recorded at the time of the bottle measurement) and CTD down-trace value at a matching potential temperature. If the up-trace and bottle agreed, then the bottle value was deemed good. If the two disagreed, then the down-trace value was used as a check to determine whether the bottle value was indeed bad or if, in fact, the up-trace was bad. In cases where the bottle was deemed bad, the up-trace value was inserted. When all three measurements disagreed substantially, the down-trace value was inserted into the bottle data set. The final salinity data set retained 80% of the original bottle values.

Some of the bad salinities were known to be caused by sample bottle leakage. In this case, other measured properties were also bad and were removed from the data set.

### 8.2.2 Oxygen and CFCs

For CFCs, the F-11:F-12 ratio was calculated. Unreasonable ratios were used to identify bad data.

In addition, profiles of bottle Oxygen and F-11 versus Pressure and versus Potential Temperature were prepared and reviewed. Values of Oxygen and F-11 that did not lie on the trend were examined. Editing these was a somewhat subjective process. Extremely bad values were easily identified and removed; dubious values were compared for coherence with adjacent data, and removed if deemed unreliable.

## 9 Description of Plots

Part 1 contains individual vertical profiles of Salinity, Oxygen, and F-11. Salinity is plotted as a function of Potential Temperature. For each cast, there are two plots, one showing the upper water column (8–29°C) and the other showing the deeper water (0–8°C). Symbols denote the bottle measurements; the solid line is the CTD down trace. Oxygen and F-11 are plotted as a function of pressure for the whole water column and Potential Temperature for the deeper water only. The plots are presented in geographic order (North to South and shallow to deep) rather than in station numerical order.

Part 2 contains vertical sections of Potential Temperature, Salinity, and Sigma 0, 1.5, 3.0 from the CTD, and bottle Oxygen, F-11, and Silicate. Before being contoured, the CTD data were subsampled. All data were then regridded using spline-laplacian interpolation to 50 m in the vertical, and 10 km in the horizontal. The bathymetry is the digitized output from the ship's depth recorder. For the water sample properties, crosses denote the bottle locations. All sections are drawn to a scale of 1000 m = 100 km.

Part 3 contains individual station listings of the bottle data. In addition to the measured variables Pressure, Temperature, Salinity, Oxygen, and F-11, these present Depth, Potential Temperature (Theta), and Potential Density (Sigma 0, Sigma 1.5, Sigma 2.0, Sigma 3.0, Sigma 4.0).

To give a more complete data set, uptrace CTD salinities were substituted for bad or missing bottle salinities where possible. Where the uptrace values were questionable, down-trace CTD salinities were used. Uptrace substitutions are enclosed in double brackets ({ { } }). Down-trace substitutions are enclosed in double asterisks ( \*\* \*\* ).

Other chemical data (Phosphate, Nitrite, Nitrate, and F-12) are listed as well. These have not been edited to the same degree as the plotted data. In some cases, questionable Oxygen and F-11 data are presented. These are preceded by a pound sign (#). Other missing or edited data appear as blanks in the listing.

All plots were generated using PLOTPLUS software from PLOTPLUS Graphics, Sequim, Washington.

## 10 Acknowledgements

We are most grateful to Captain Tom Tyler and the crew of the R/V ENDEAVOR for their hard work and patience, which made this a very successful experiment. The POGO floats were ably built and tested by Jim Fontaine, with the help of Mike Mulroney. Tom Rossby and Randy Watts graciously donated miscellaneous equipment used in the POGO floats. Mike McCartney provided helpful suggestions for quality-controlling the water sample data. Staff assistants Veta Green, Anne-Marie Michael, and Barbara Gaffron were most helpful in the preparation of the report. This work was supported by grants from the National Science Foundation and the Office of Naval Research, OCE90-09464.

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## 12 Figure Captions for Data Presentations

Figures 5 – 9. Bottle Salinity vs. Potential Temperature Profiles — Deep (0–8°C), Sections 1 – 5.

Figures 10 – 14. Bottle Salinity vs. Potential Temperature Profiles — Shallow (8–29°C), Sections 1 – 5.

Figures 15 – 19. Bottle Oxygen vs. Pressure Profiles, Sections 1 – 5.

Figures 20 – 24. Bottle Oxygen vs. Potential Temperature Profiles — Deep, Sections 1 – 5.

Figures 25 – 29. Bottle F-11 vs. Pressure Profiles, Sections 1 – 5.

Figures 30 – 34. Bottle F-11 vs. Potential Temperature Profiles — Deep, Sections 1 – 5.

Figure 35. Vertical Sections of CTD Potential Temperature, Salinity, and Sigma 0, 1.5, 3.0 for Section 1.

Figure 36. Vertical Sections of Bottle Oxygen, F-11, and Silicate for Section 1.

Figure 37. Vertical Sections of CTD Potential Temperature, Salinity, and Sigma 0, 1.5, 3.0 for Section 2.

Figure 38. Vertical Sections of Bottle Oxygen, F-11, and Silicate for Section 2.

Figure 39. Vertical Sections of CTD Potential Temperature, Salinity, and Sigma 0, 1.5, 3.0 for Section 3.

Figure 40. Vertical Sections of Bottle Oxygen, F-11, and Silicate for Section 3.

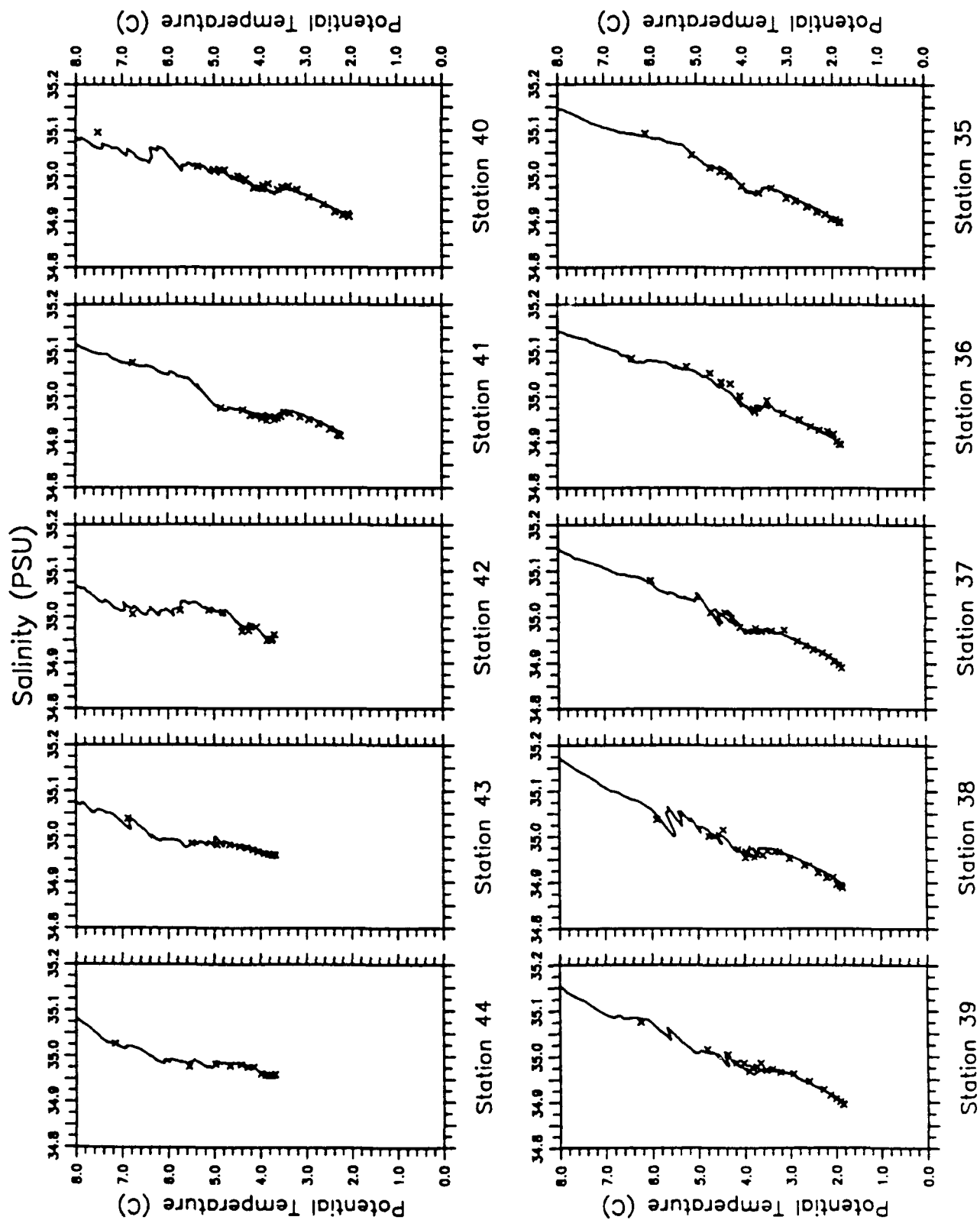
Figure 41. Vertical Sections of CTD Potential Temperature, Salinity, and Sigma 0, 1.5, 3.0 for Section 4.

- Figure 42. Vertical Sections of Bottle Oxygen, F-11, and Silicate for Section 4.
- Figure 43. Vertical Sections of CTD Potential Temperature, Salinity, and Sigma 0, 1.5, 3.0 for Section 5.
- Figure 44. Vertical Sections of Bottle Oxygen, F-11, and Silicate for Section 5.

## **13 Data Presentations**

### **13.1 Part 1. Property Plots**





# SECTION 1

Figure 5.

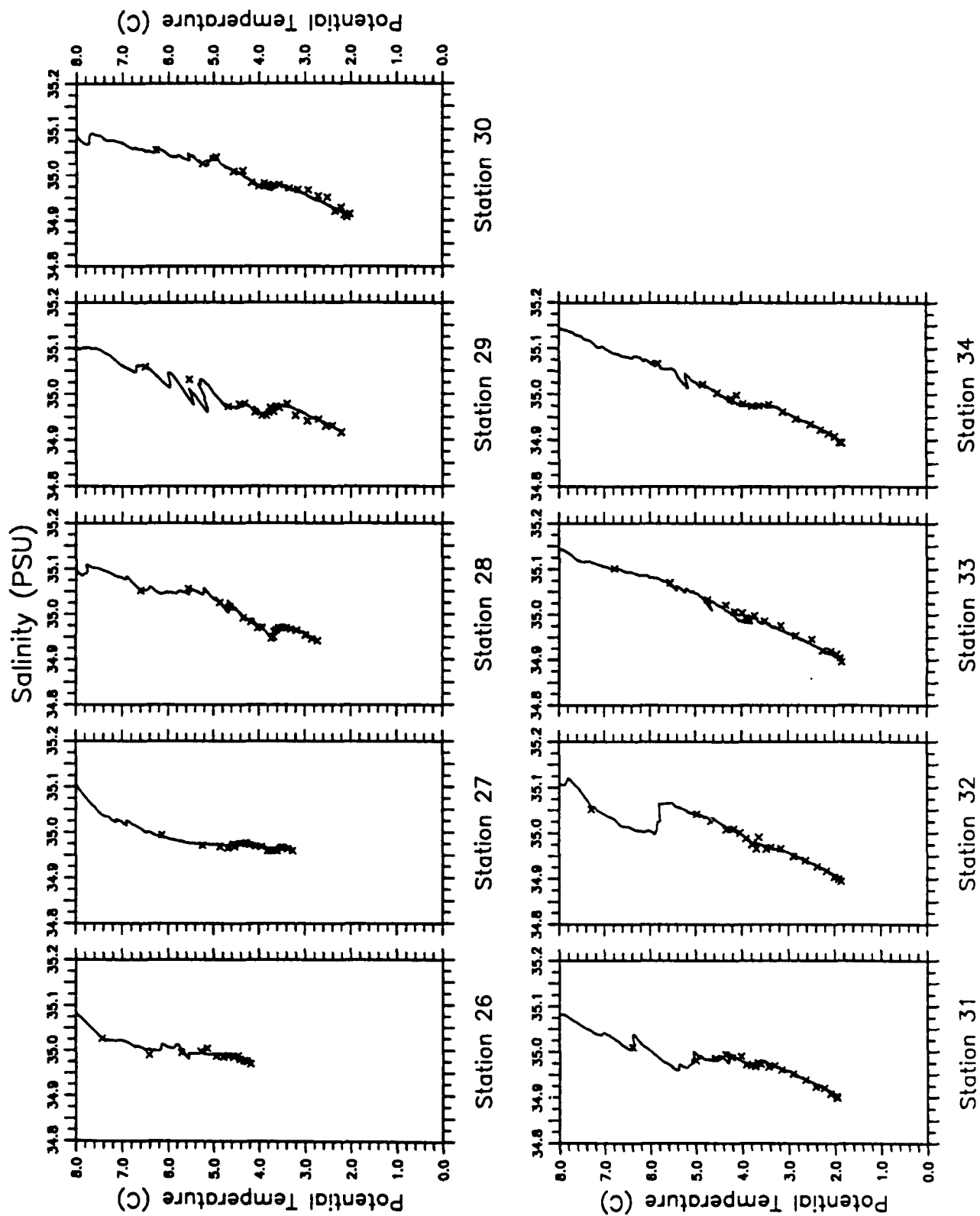


Figure 6.

## SECTION 2

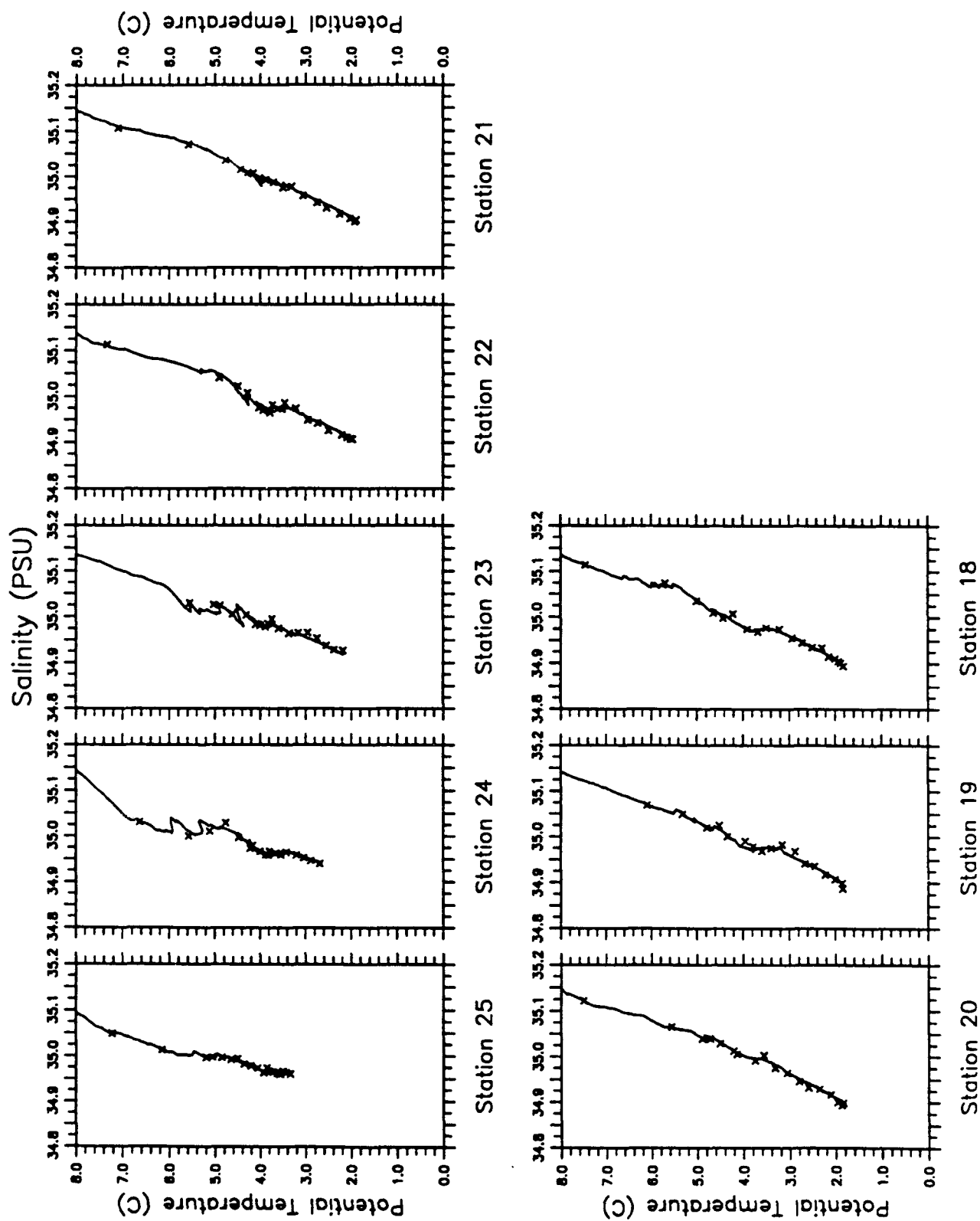
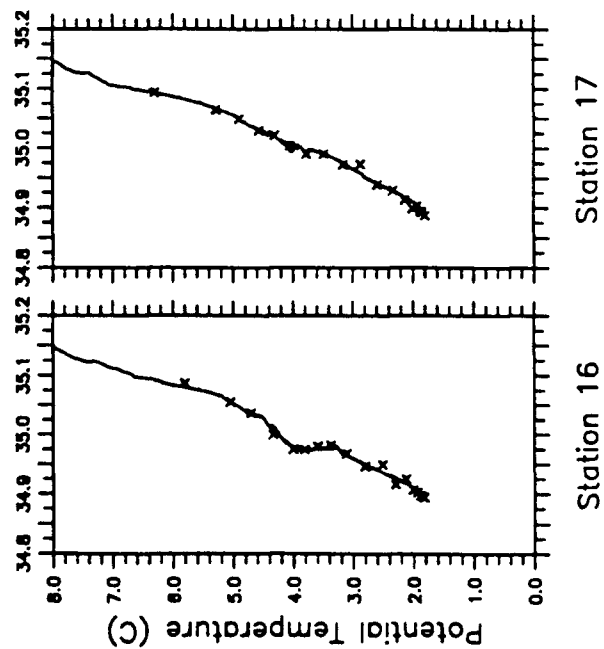
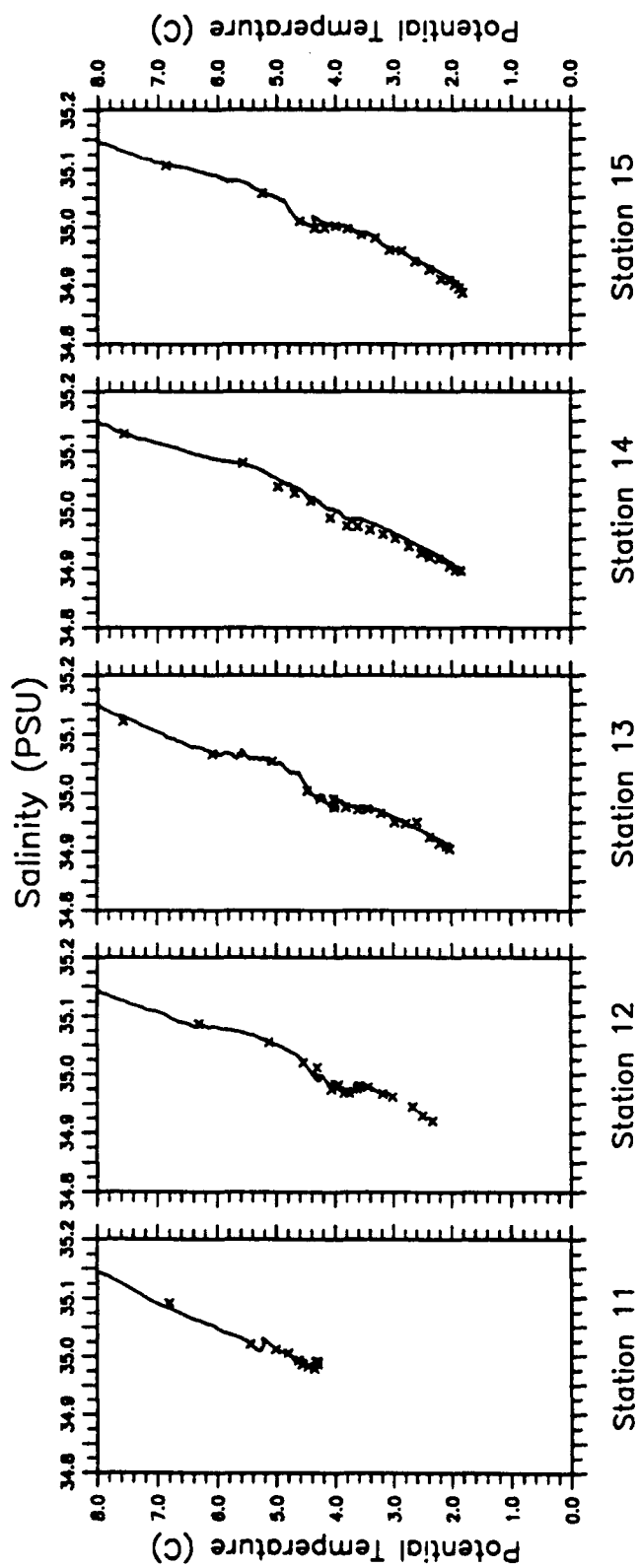


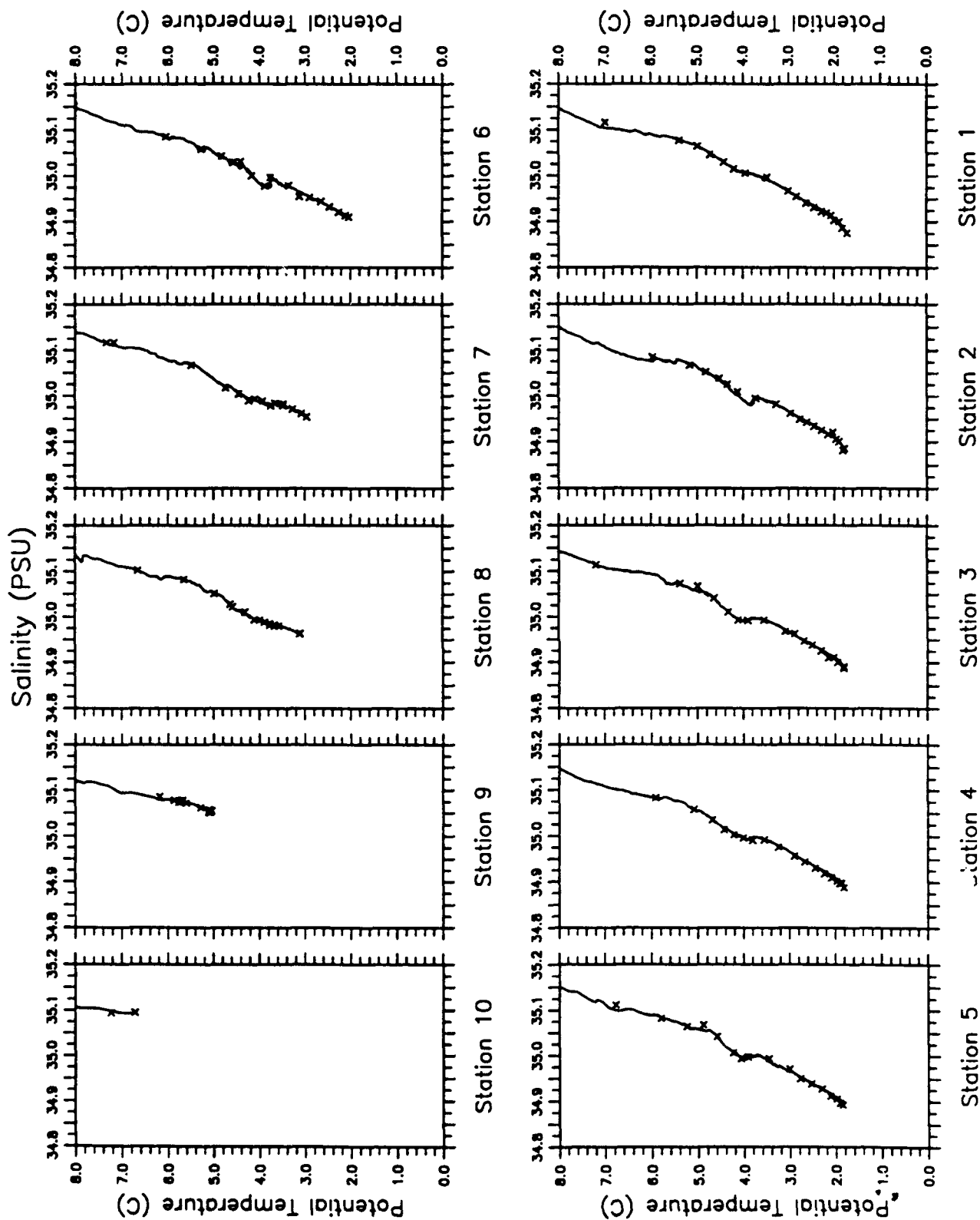
Figure 7.

### SECTION 3



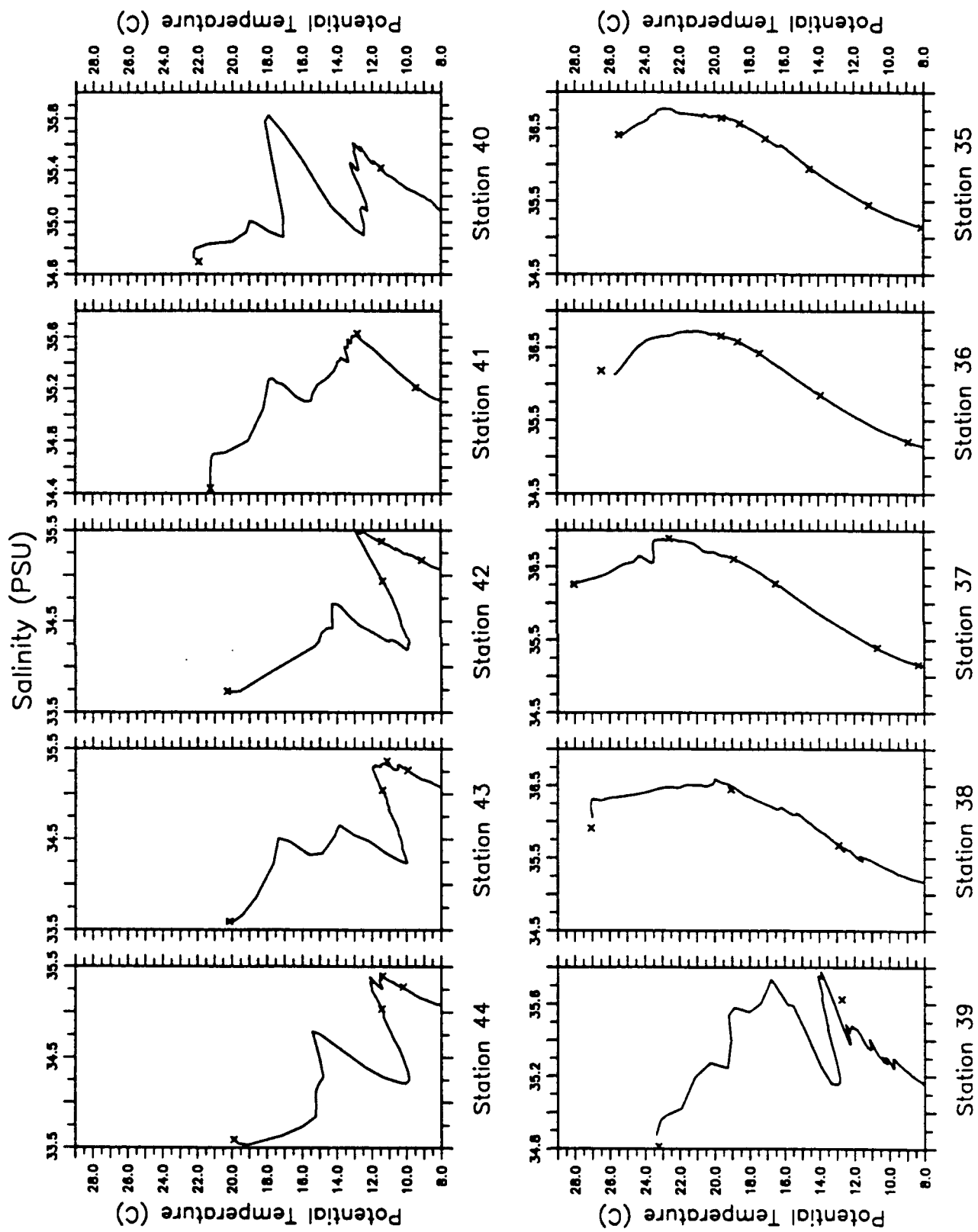
## SECTION 4

Figure 8.



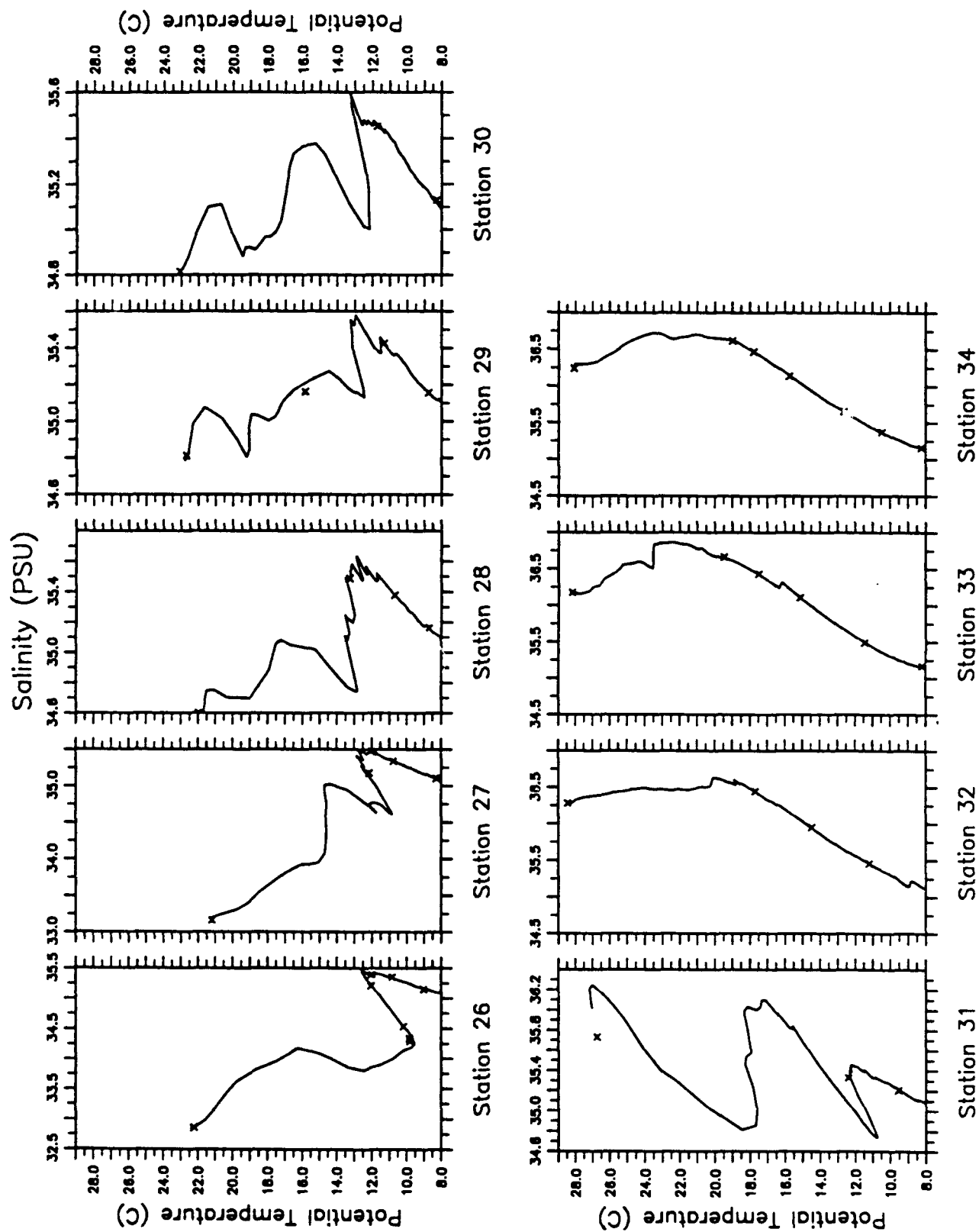
## SECTION 5

Figure 9.



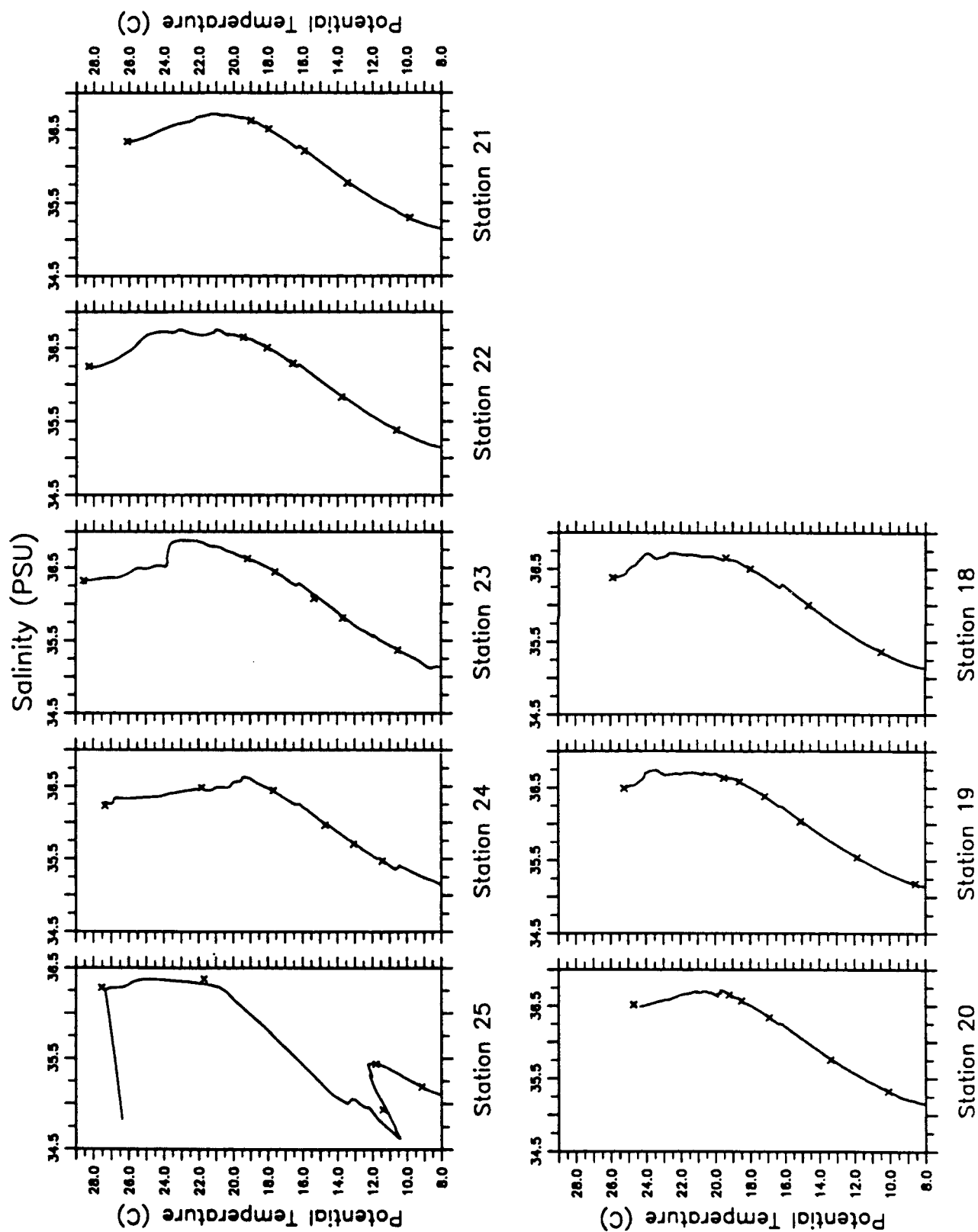
# SECTION 1

Figure 10.



## SECTION 2

Figure 11.



### SECTION 3

Figure 12.

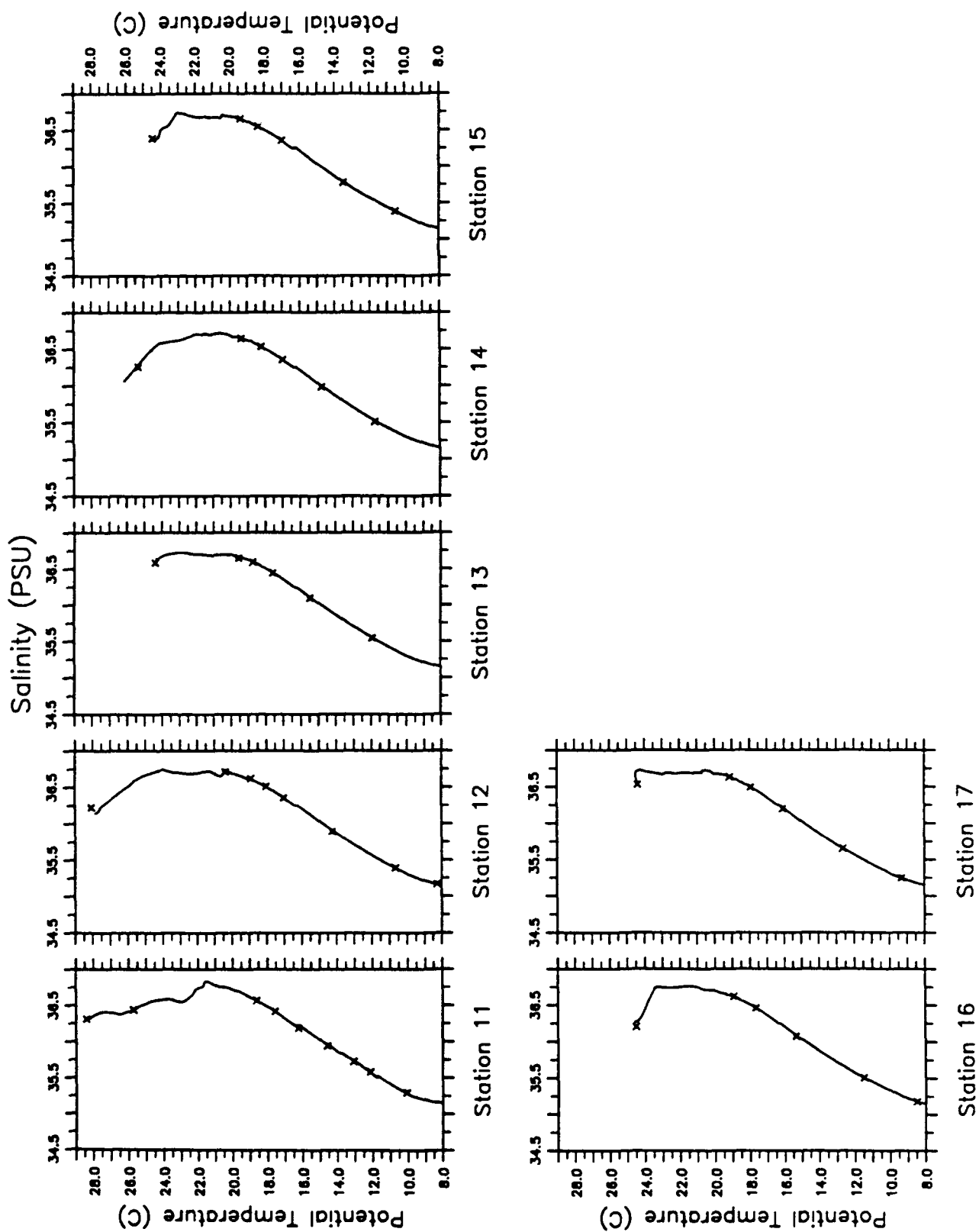


Figure 13.

## SECTION 4

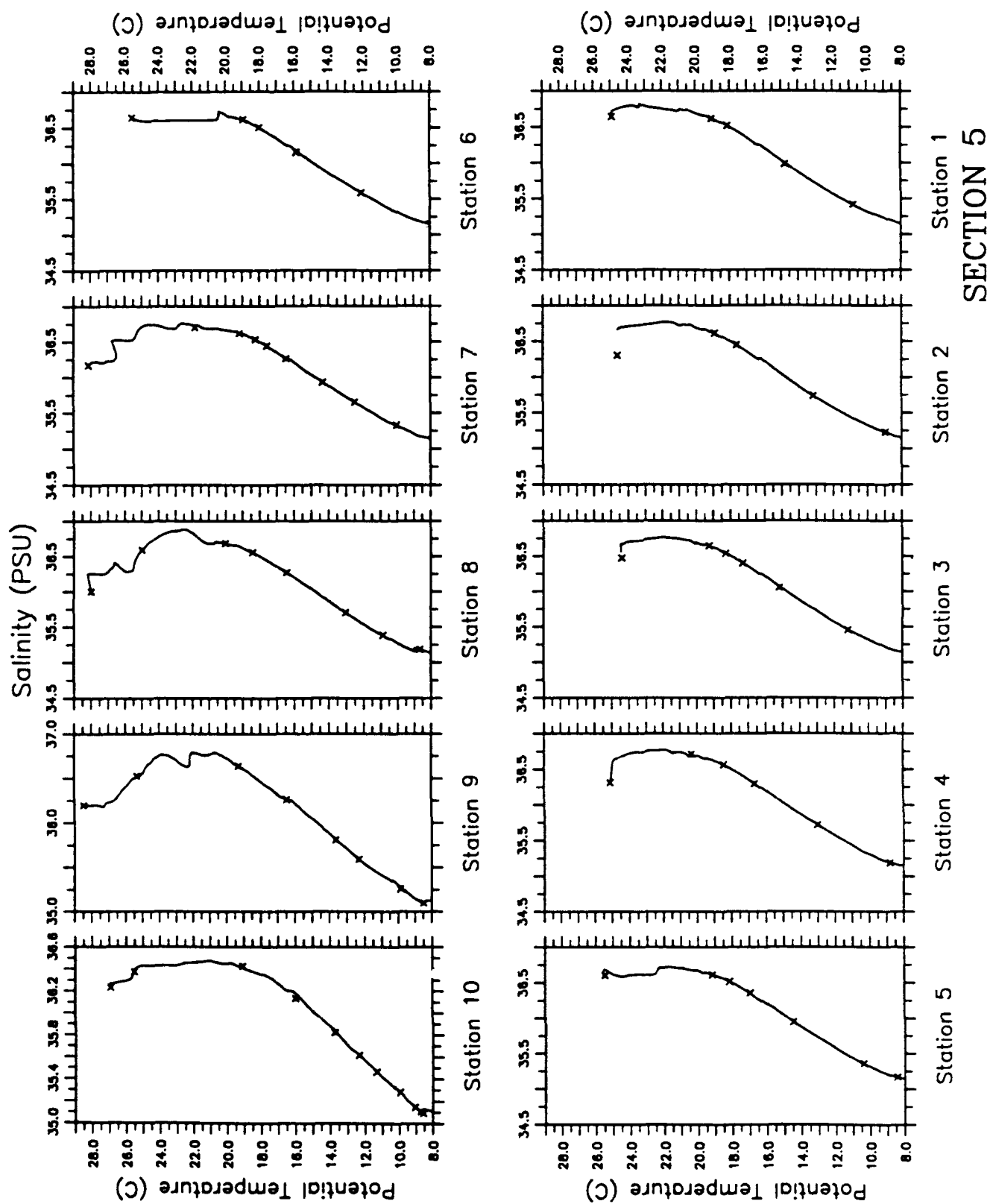
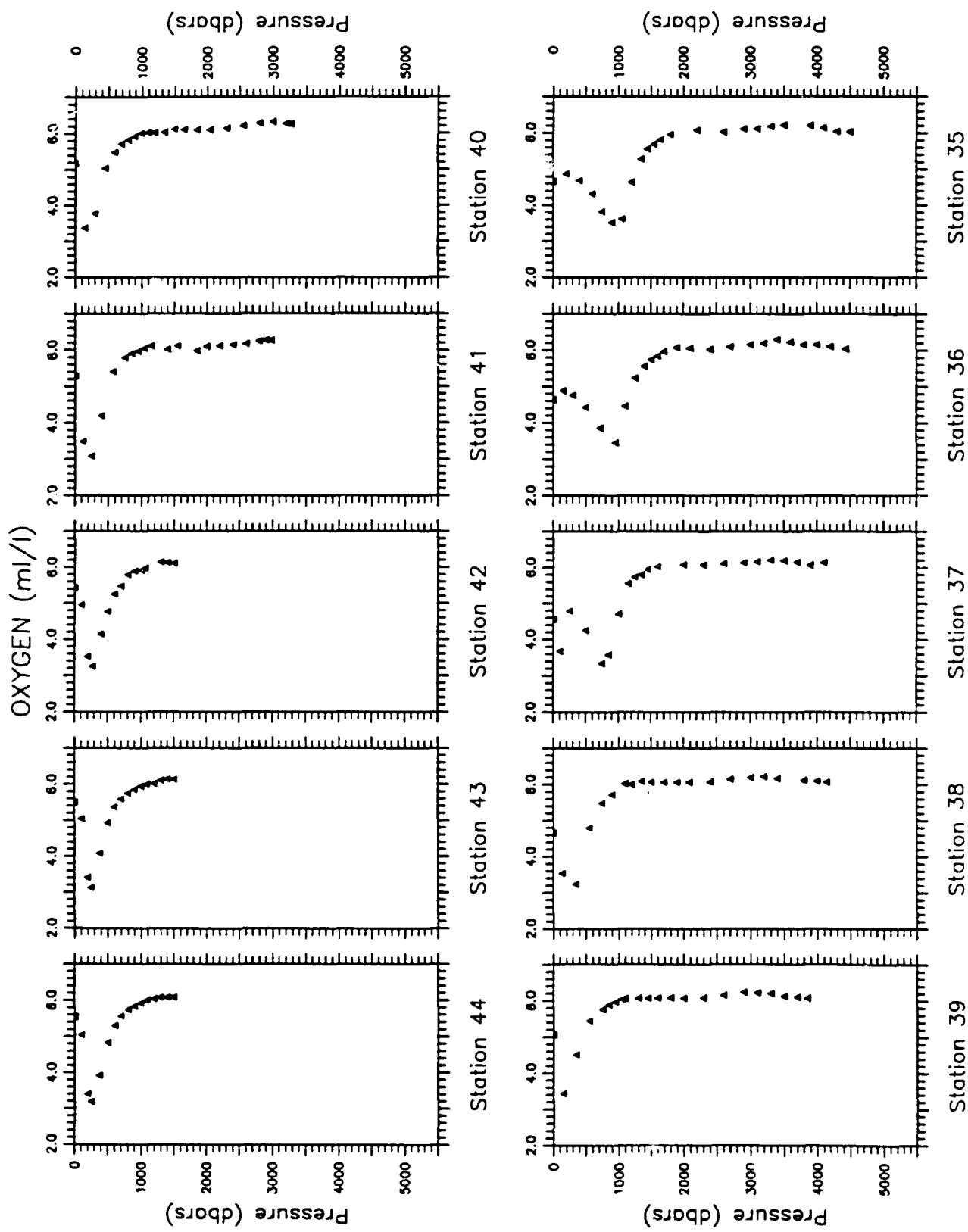
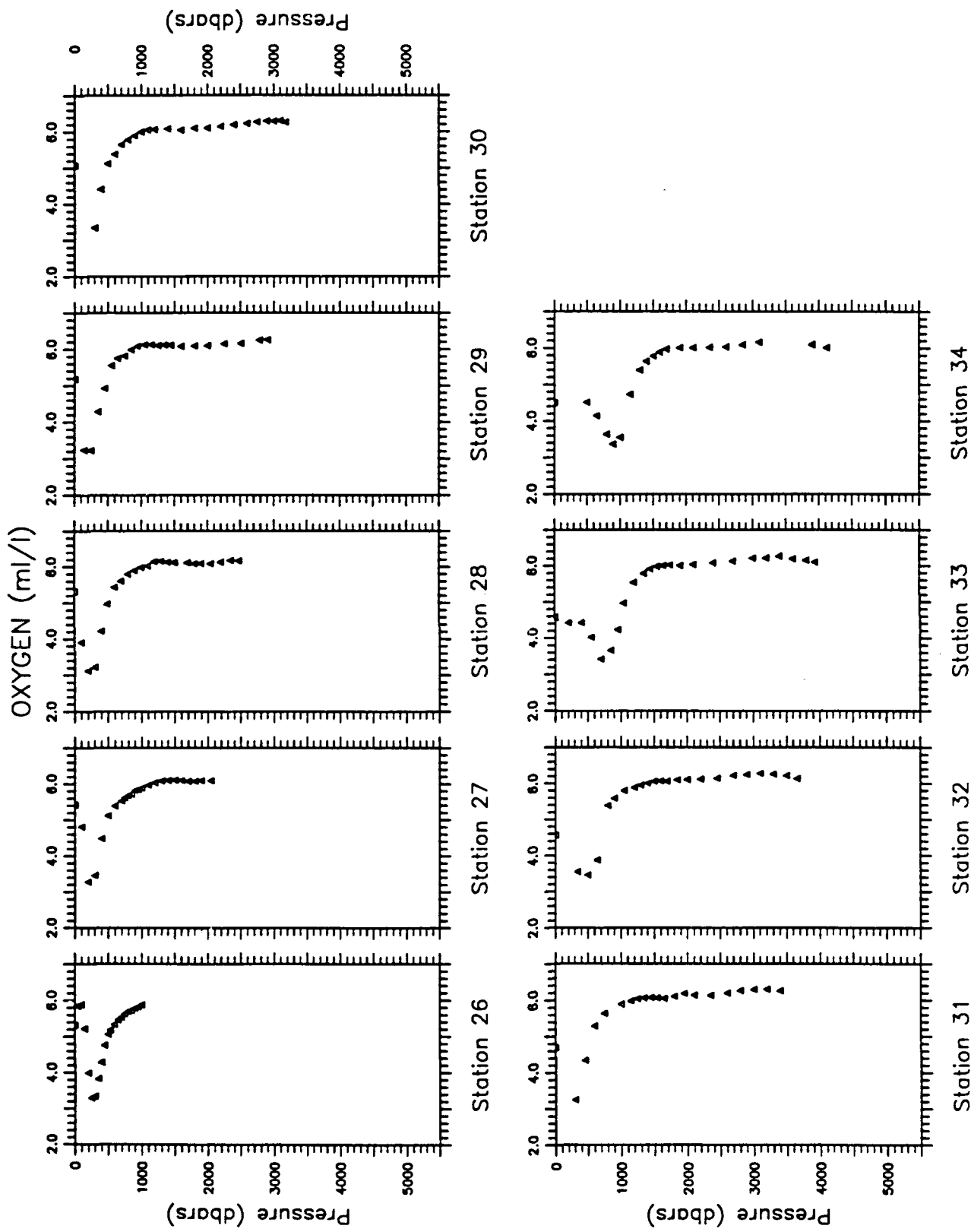


Figure 14.



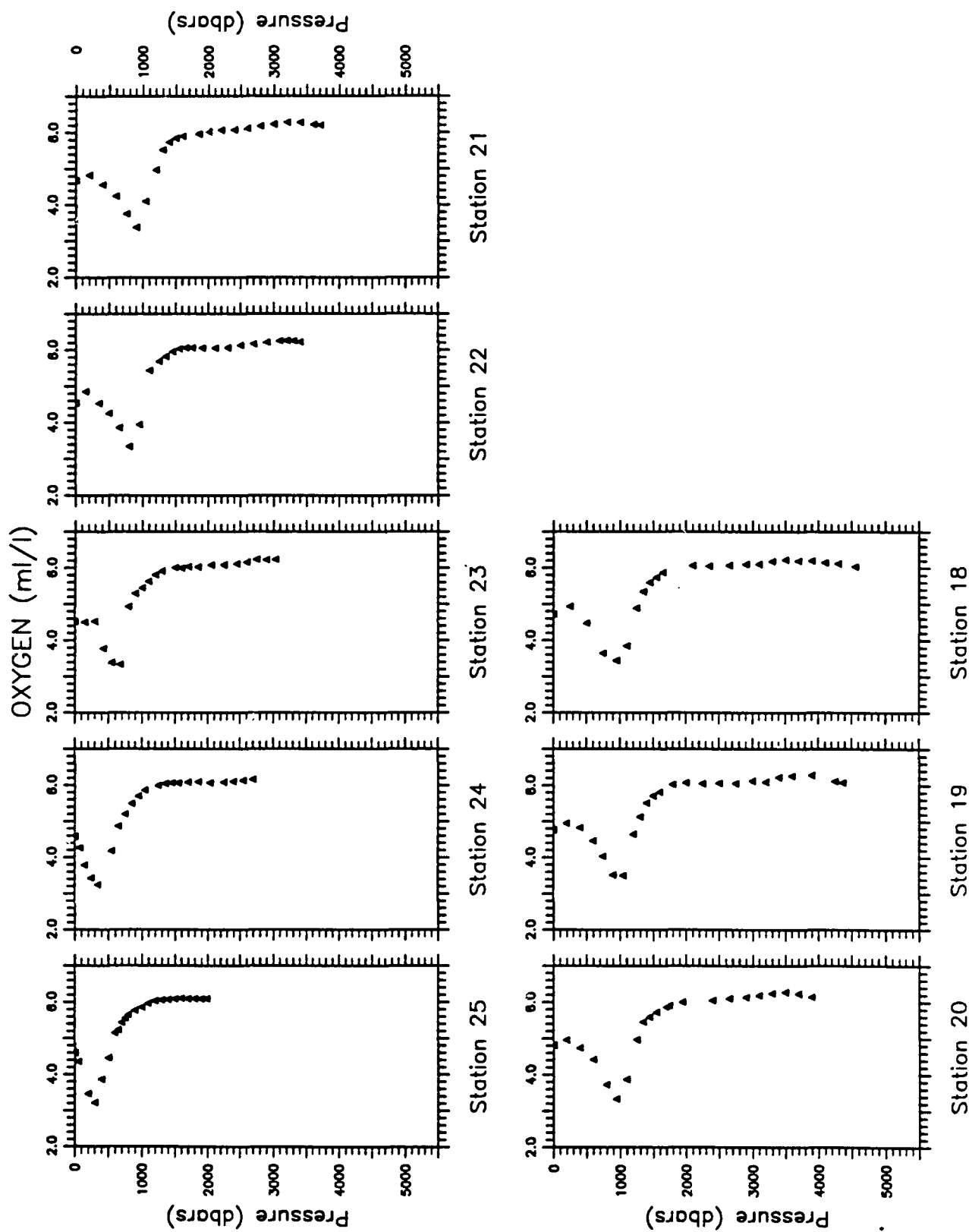
# SECTION 1

Figure 15.



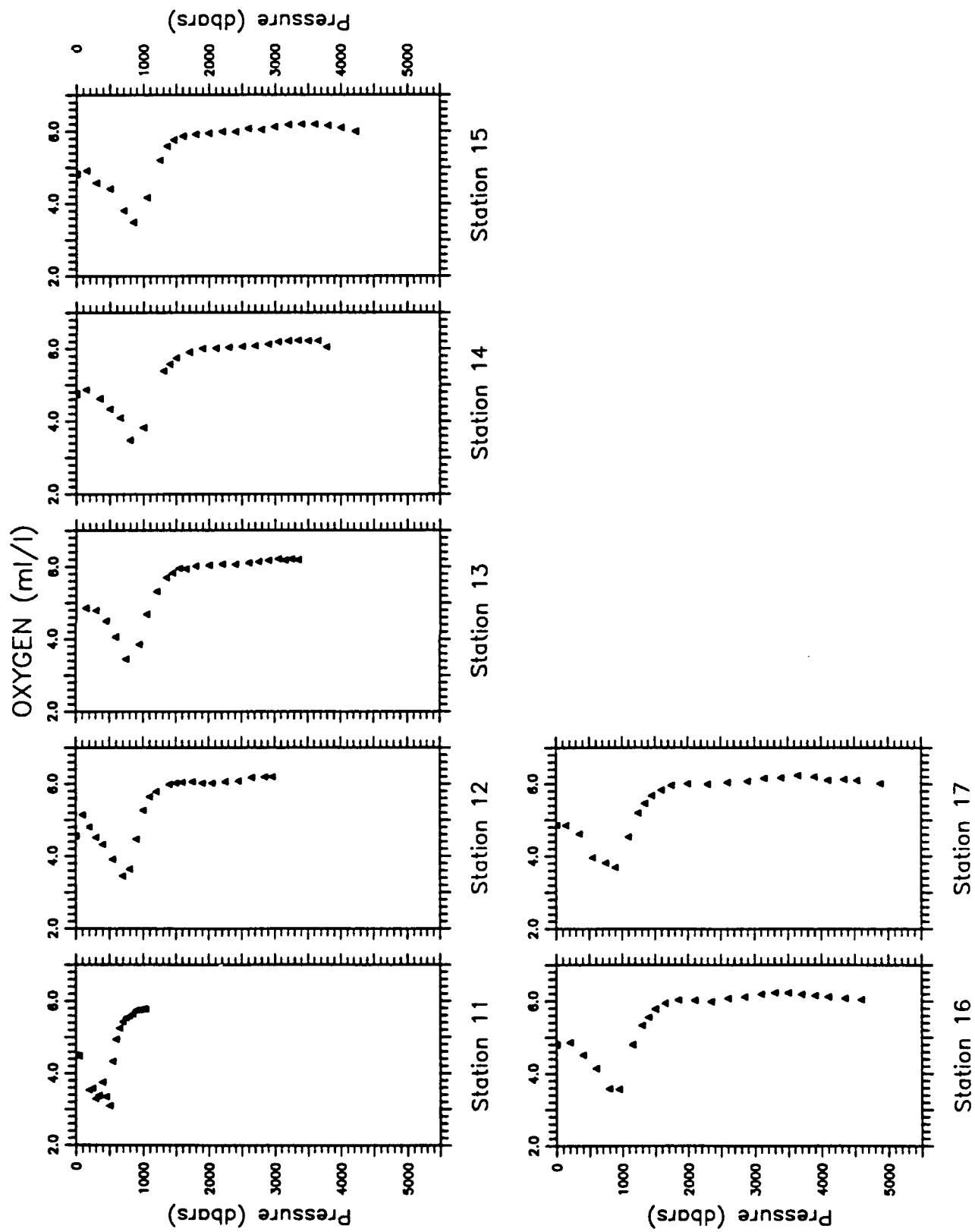
## SECTION 2

Figure 19.



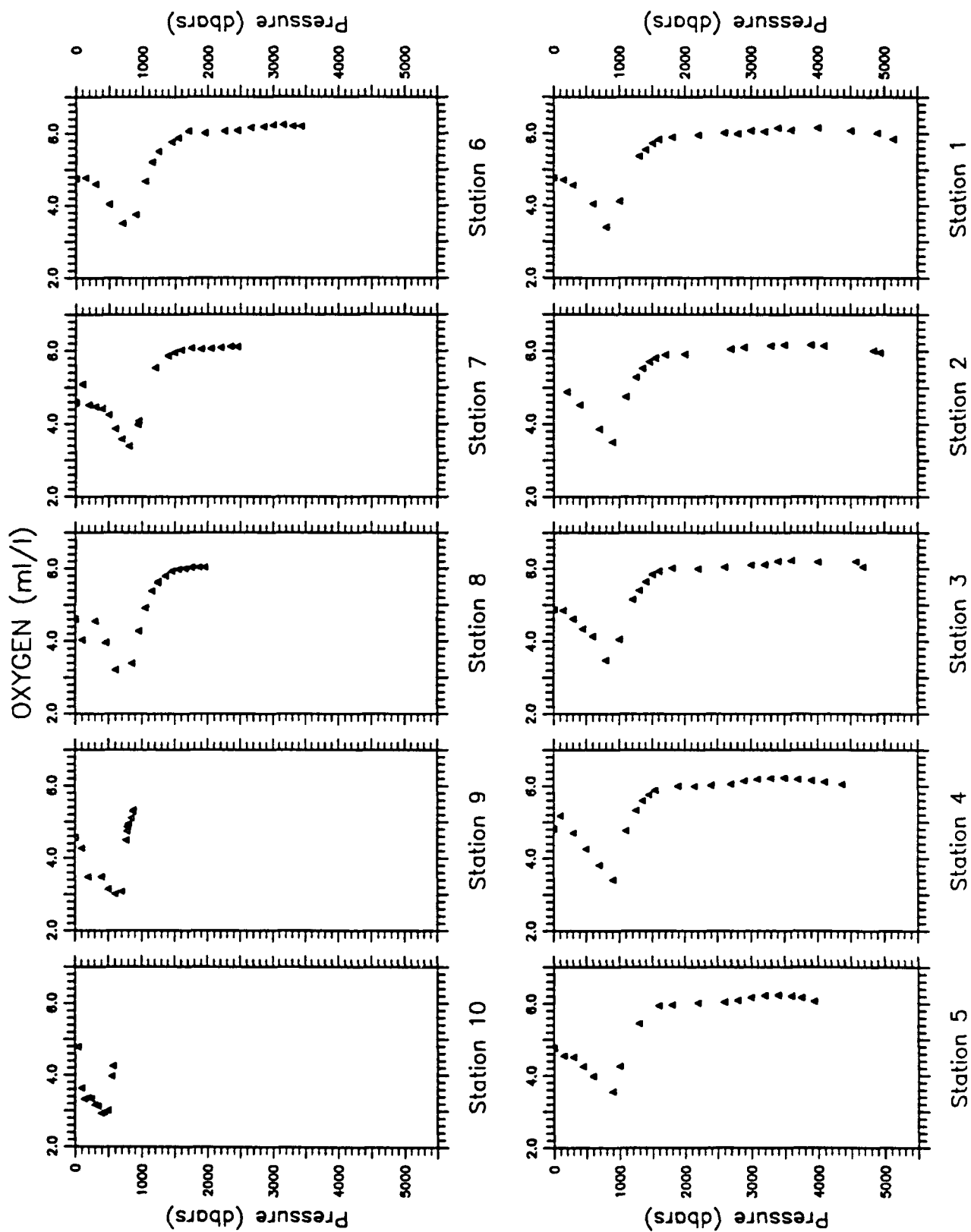
### SECTION 3

Figure 17.



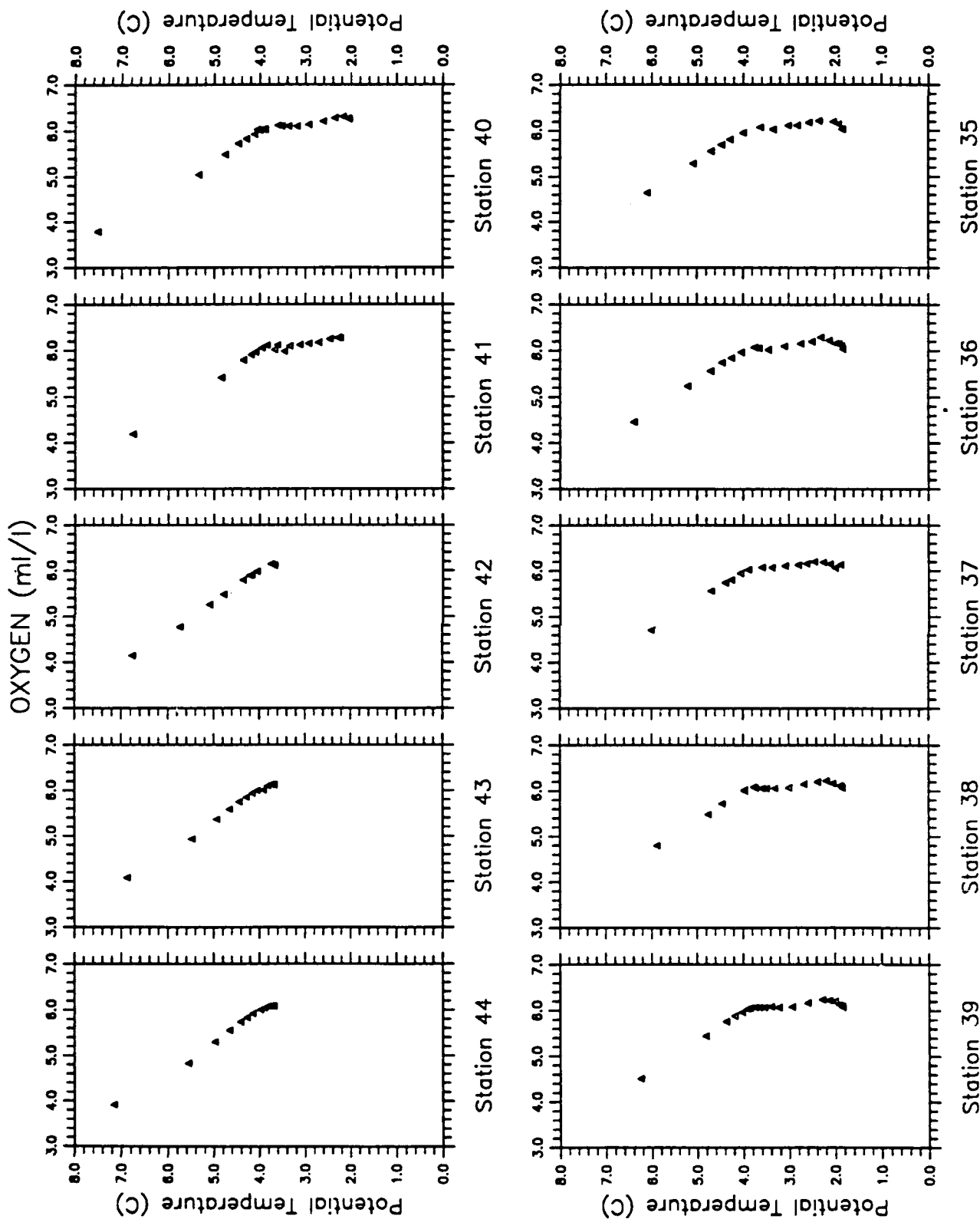
SECTION 4

Figure 18.



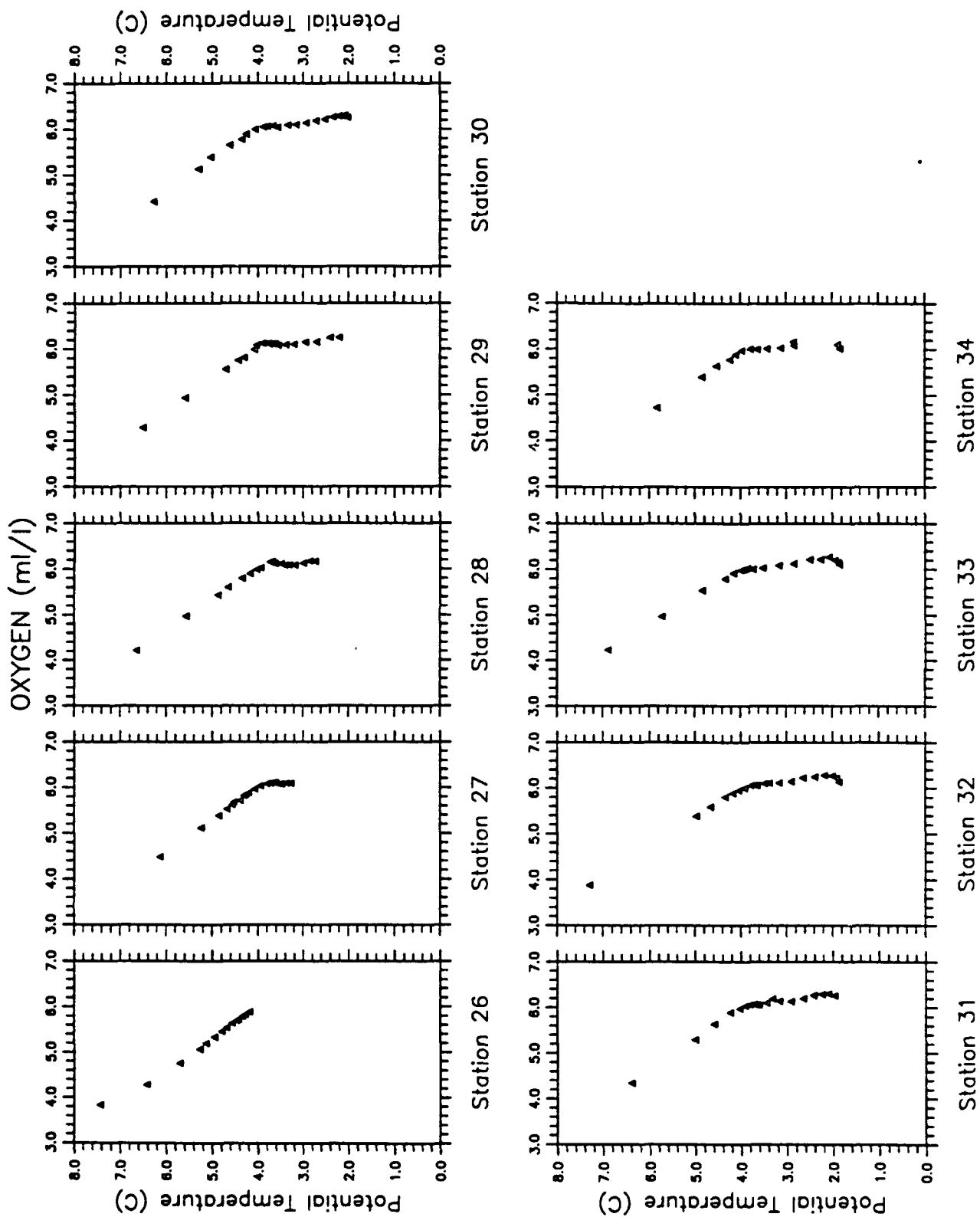
## SECTION 5

Figure 19.



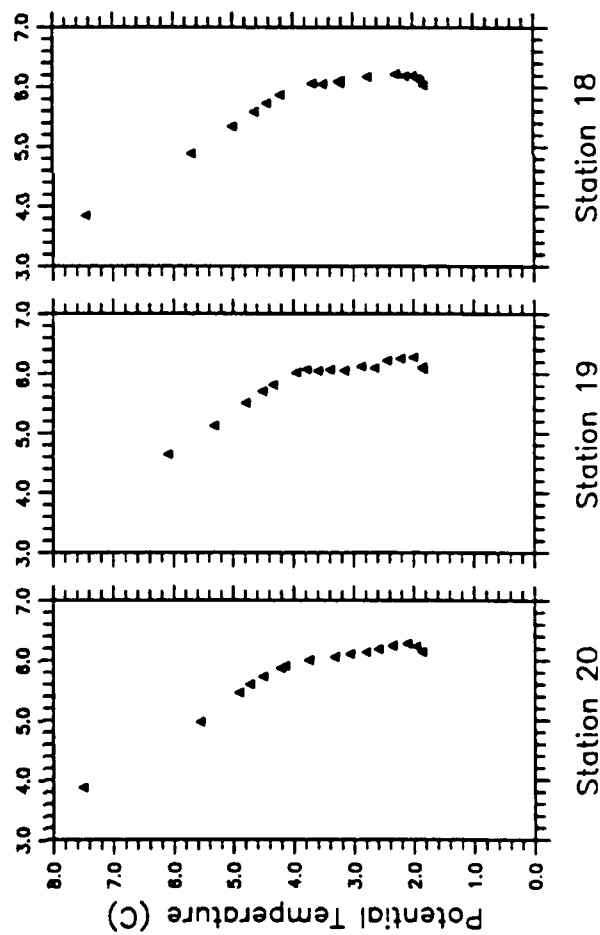
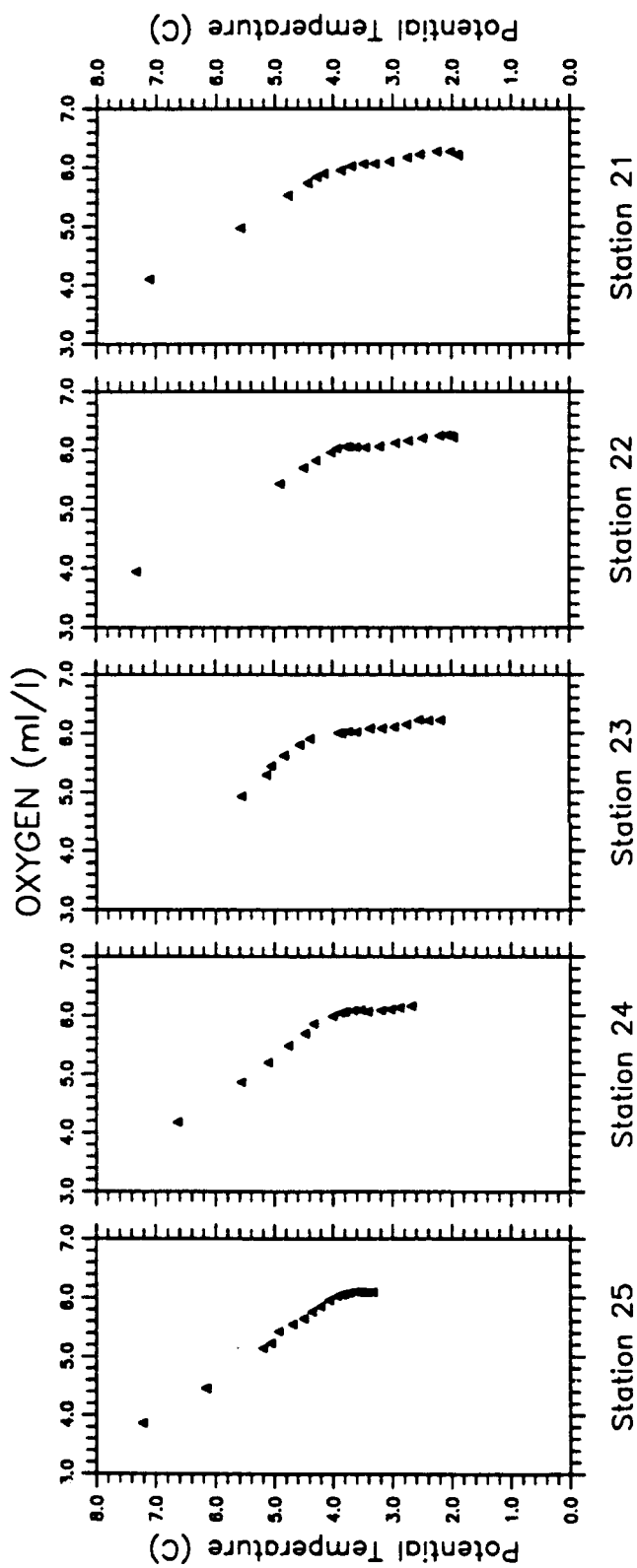
# SECTION 1

Figure 20.



## SECTION 2

Figure 21.



### SECTION 3

Figure 22.

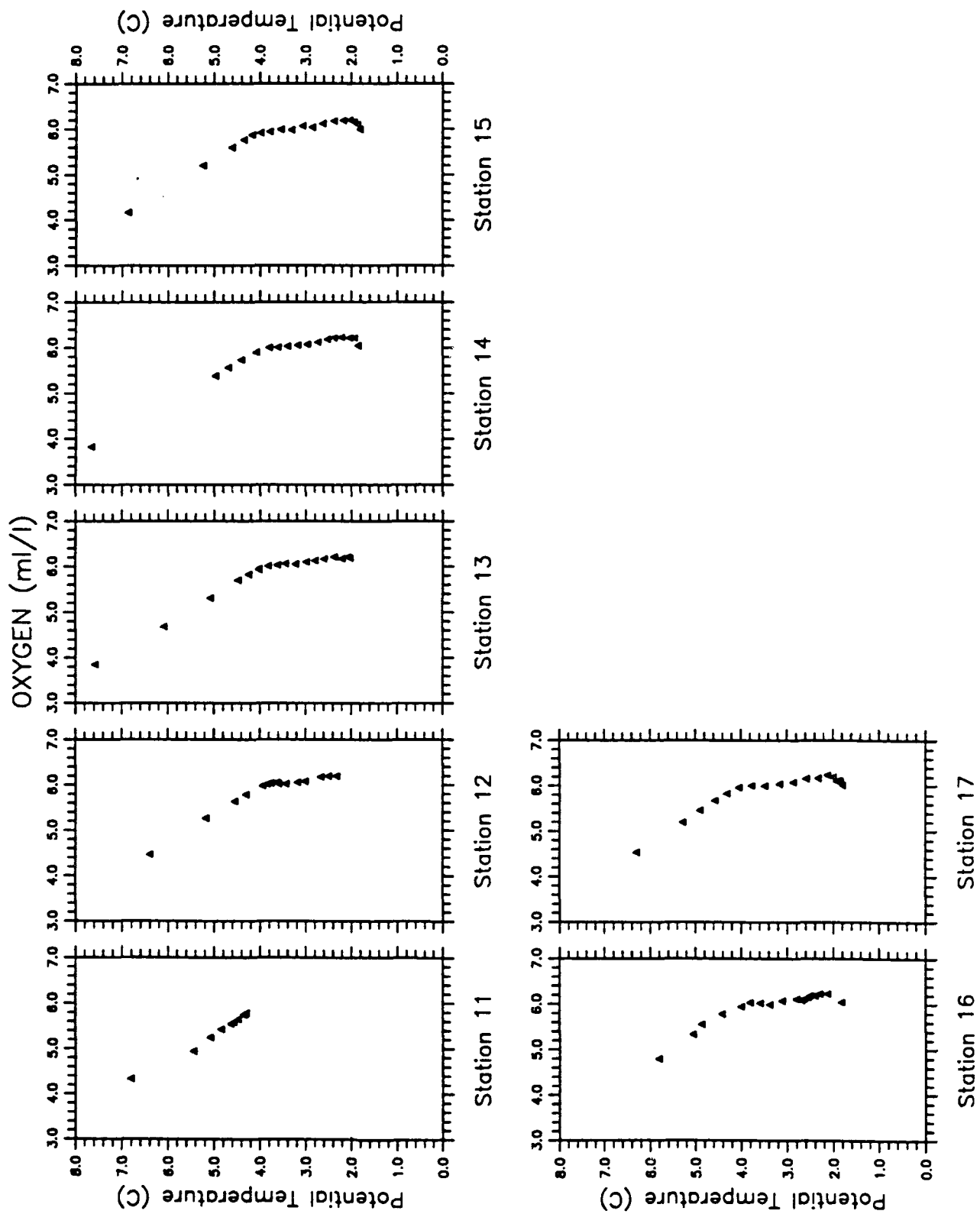
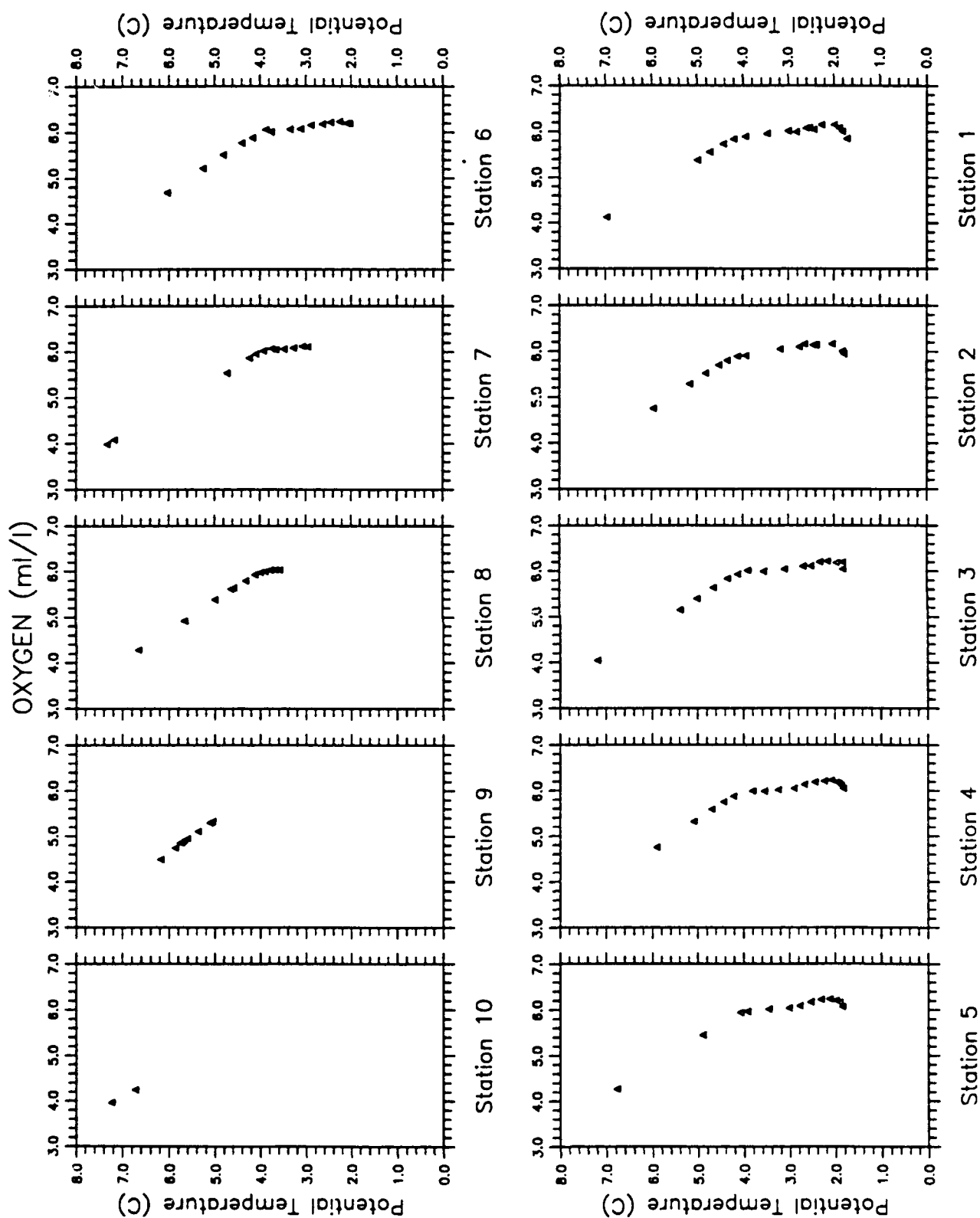
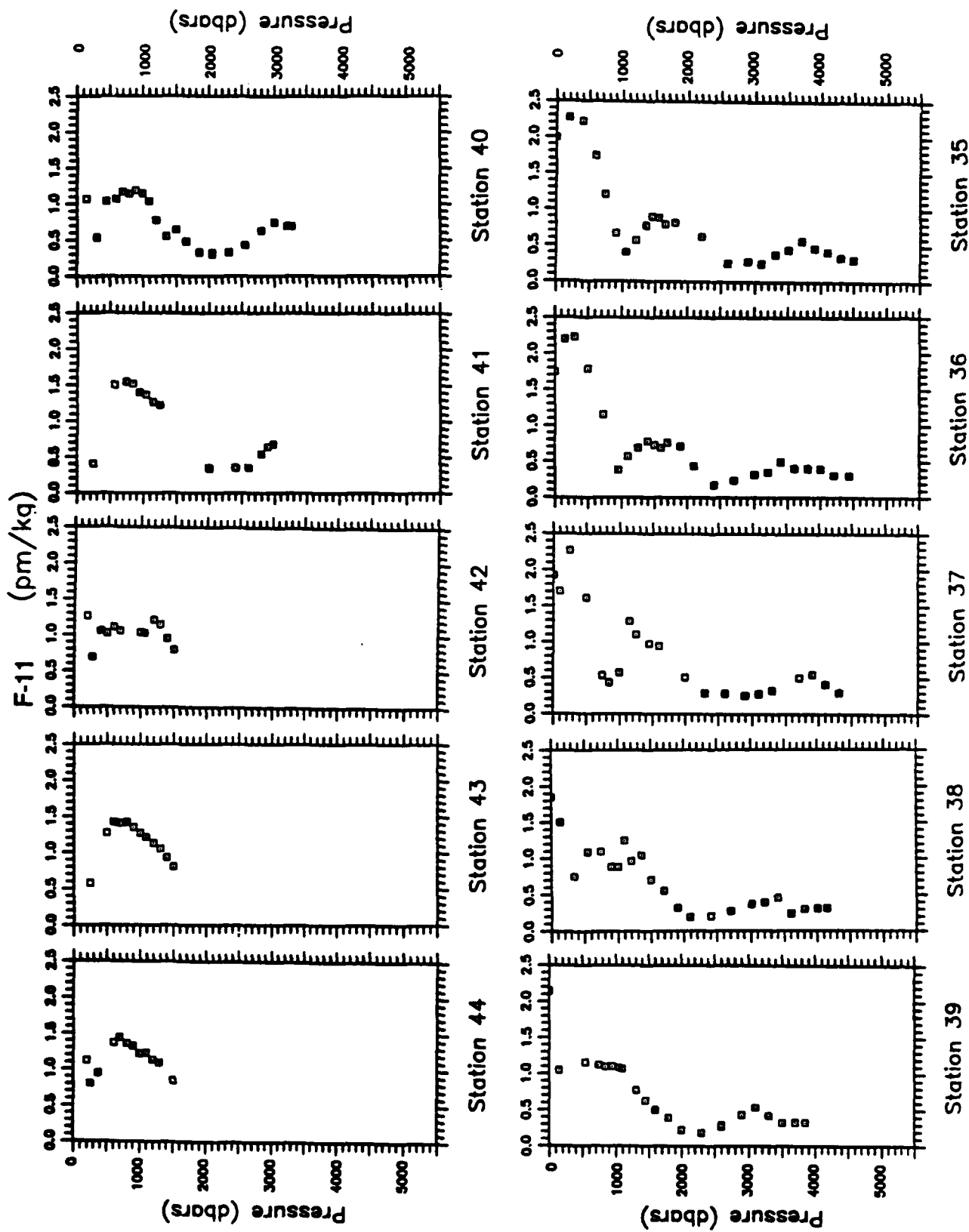


Figure 23.



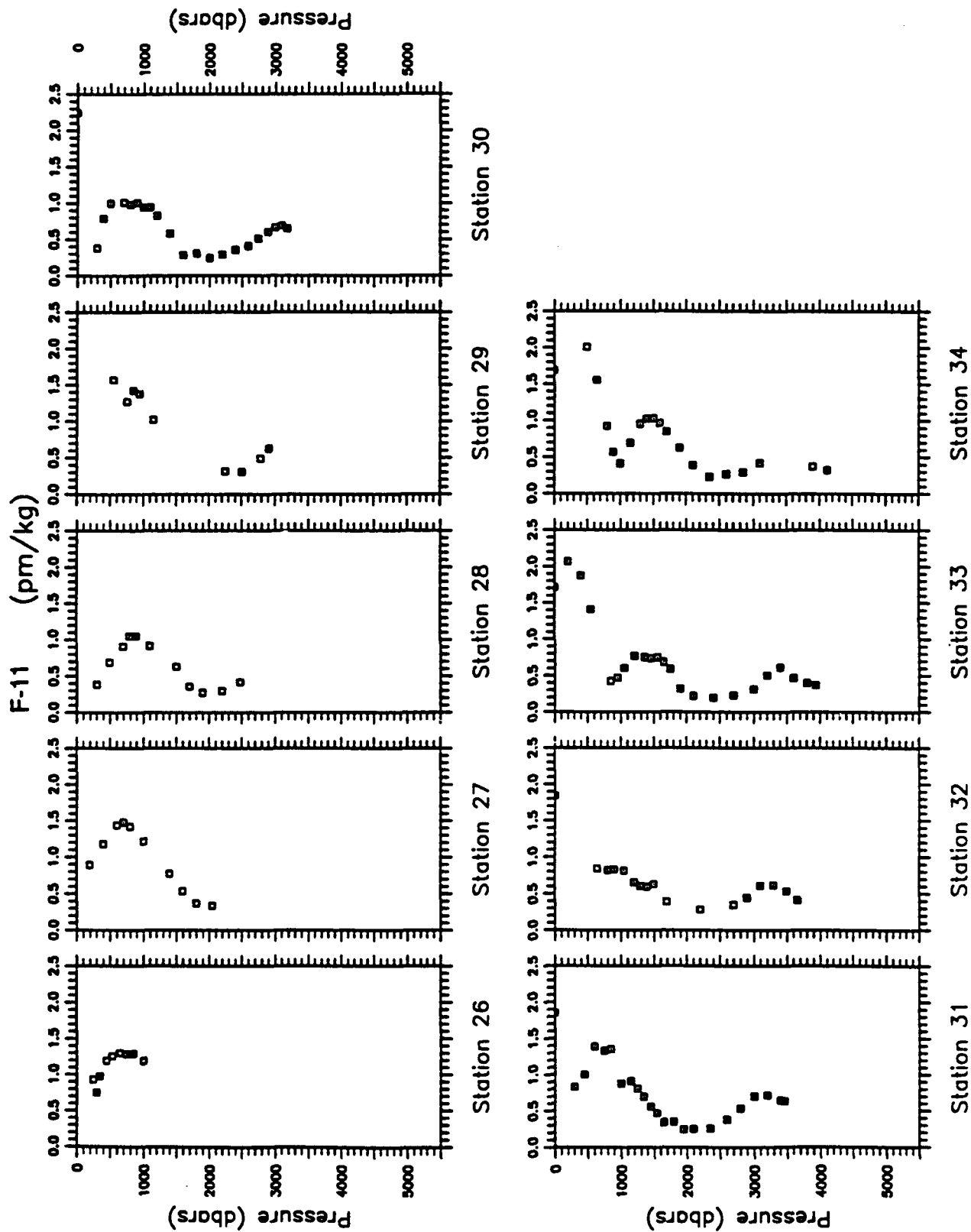
## SECTION 5

Figure 24.



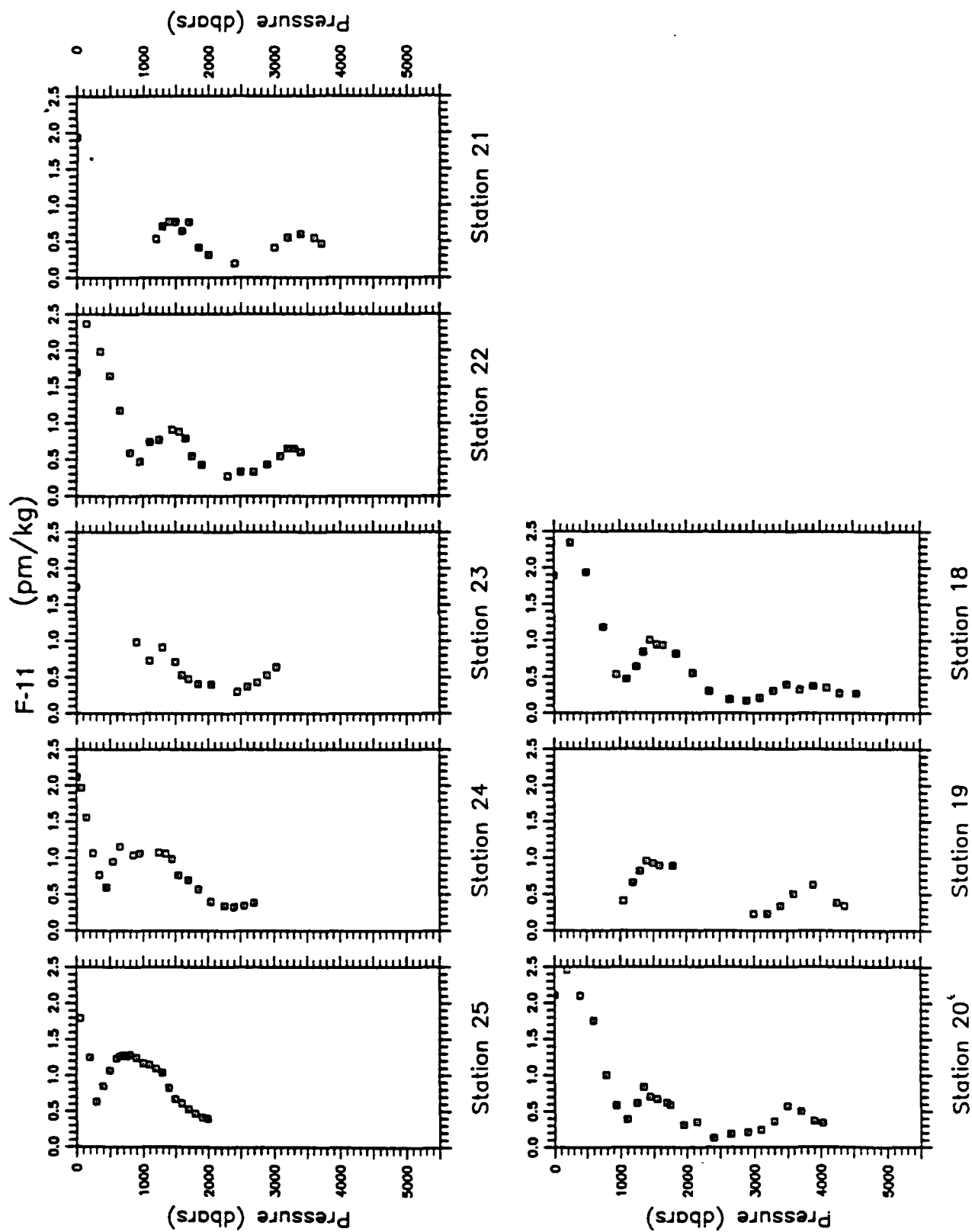
# SECTION 1

Figure 25.



## SECTION 2

Figure 26.



### SECTION 3

Figure 27.

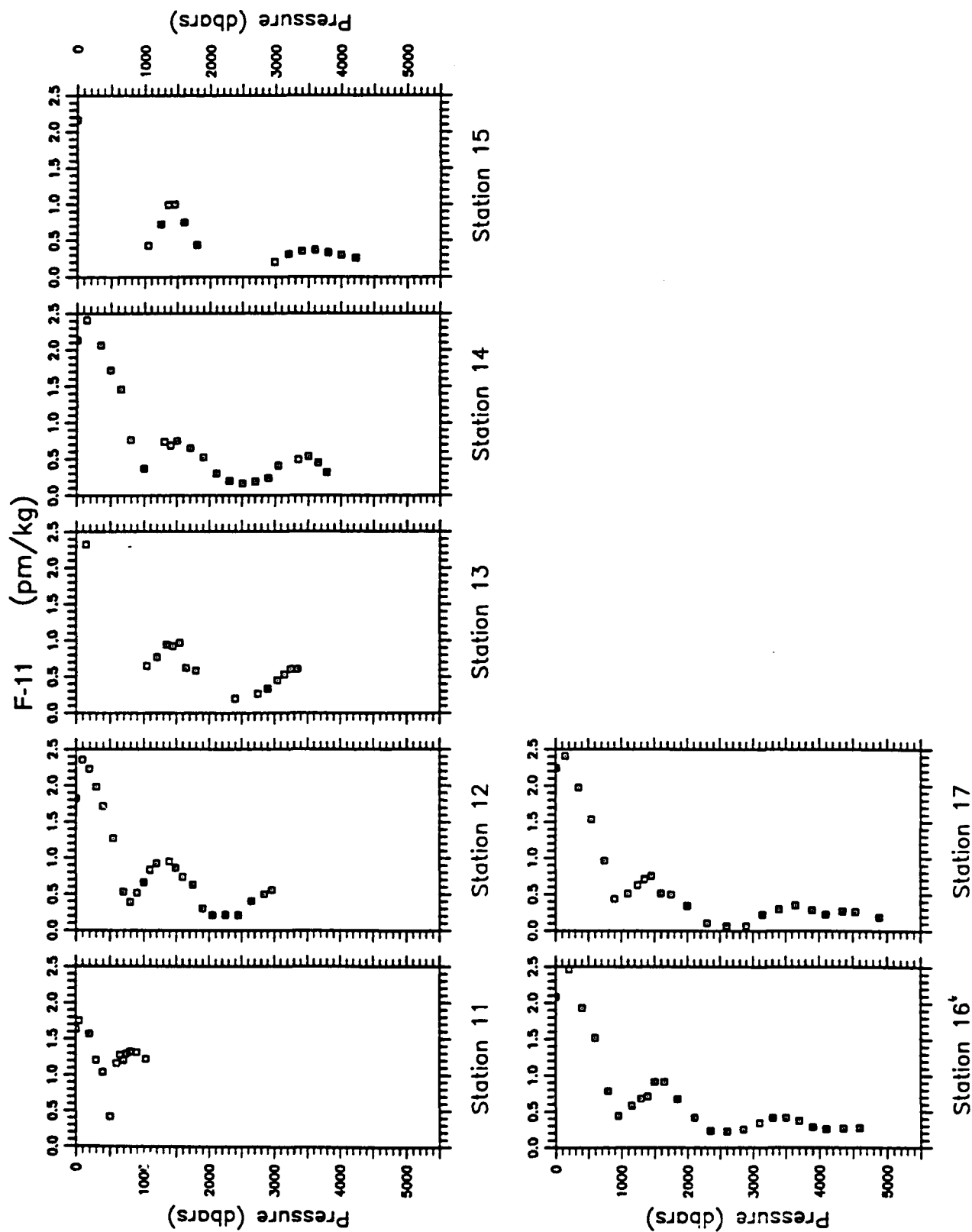
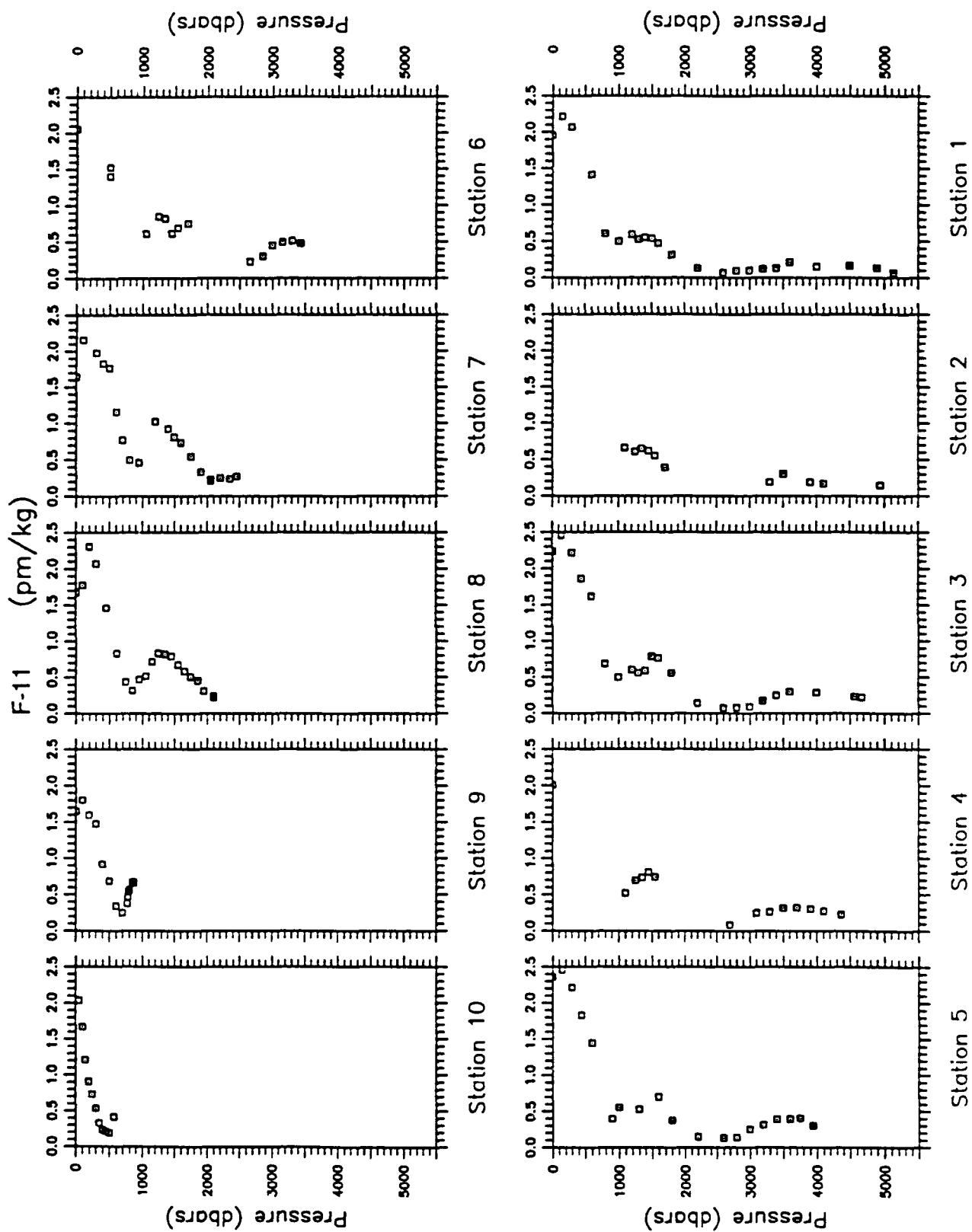
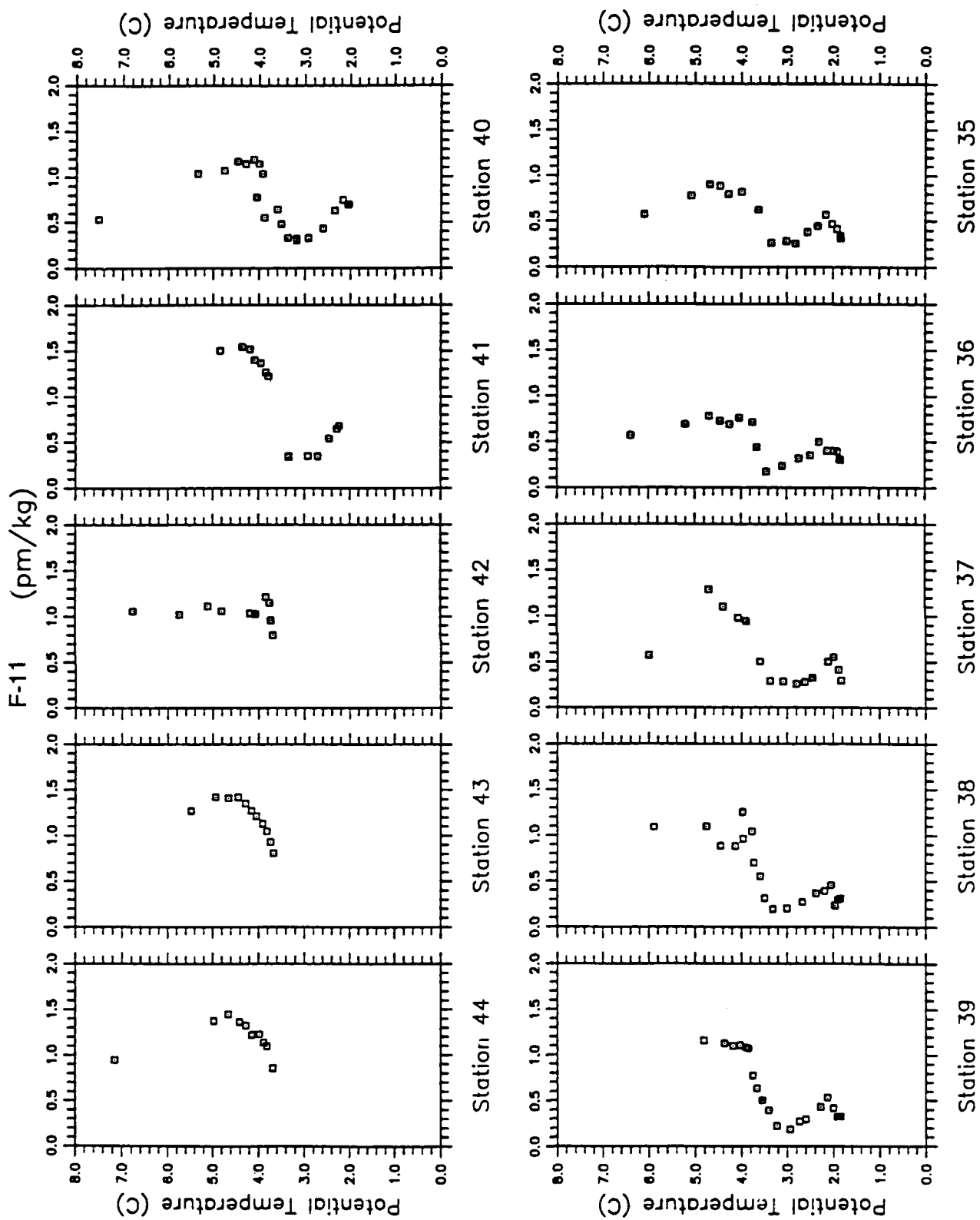


Figure 28.



## SECTION 5

Figure 29.



# SECTION 1

Figure 30.

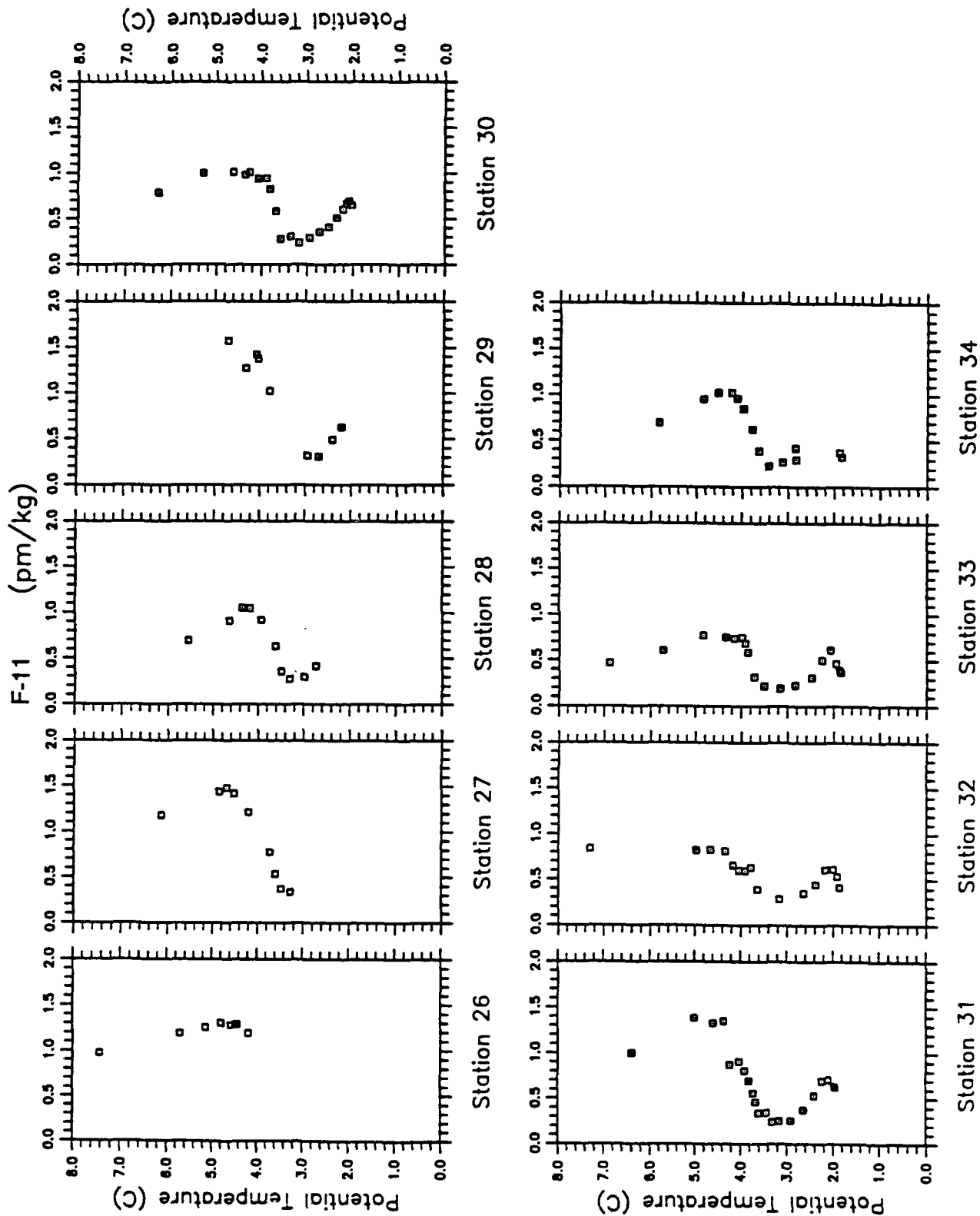


Figure 31.

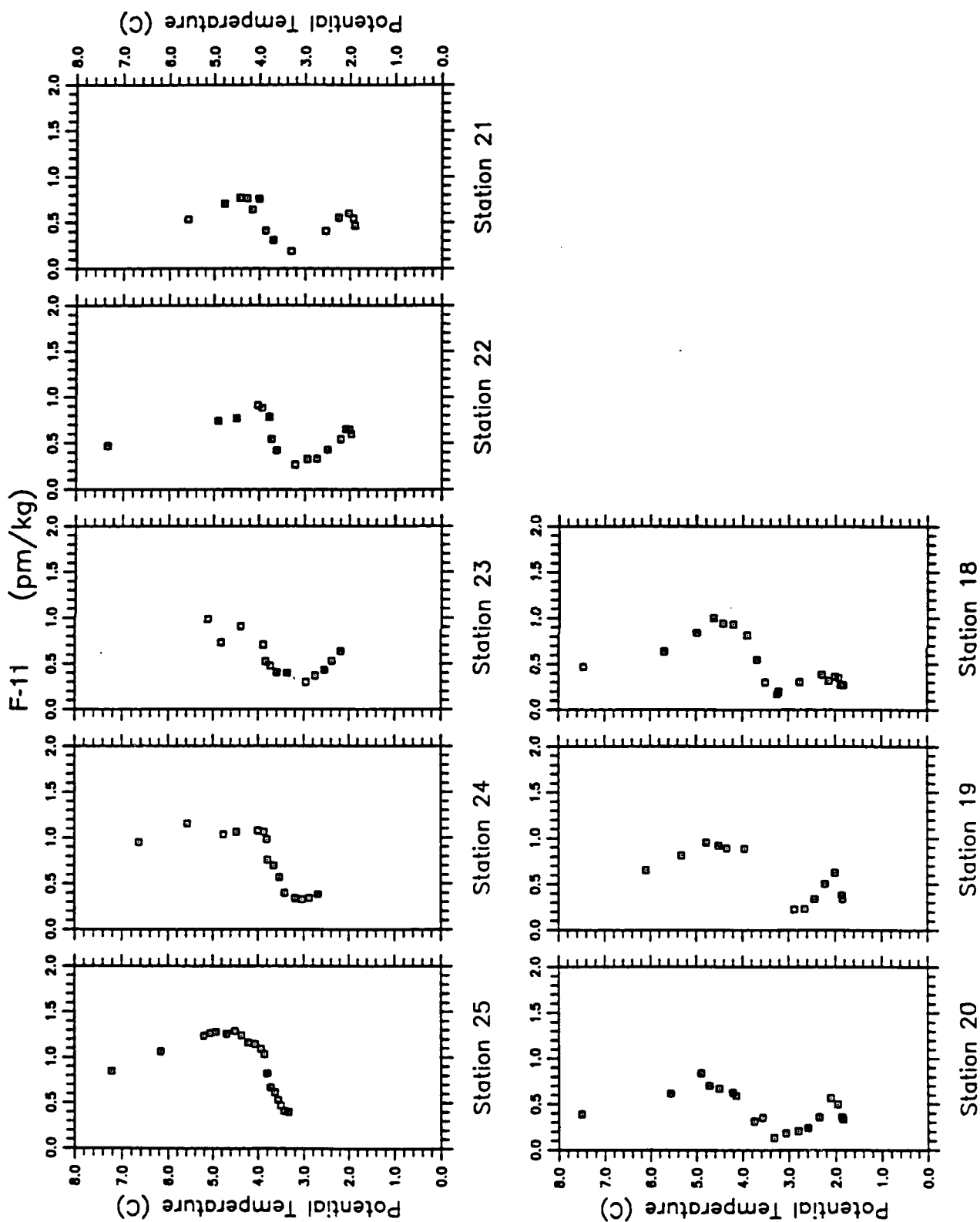


Figure 32.

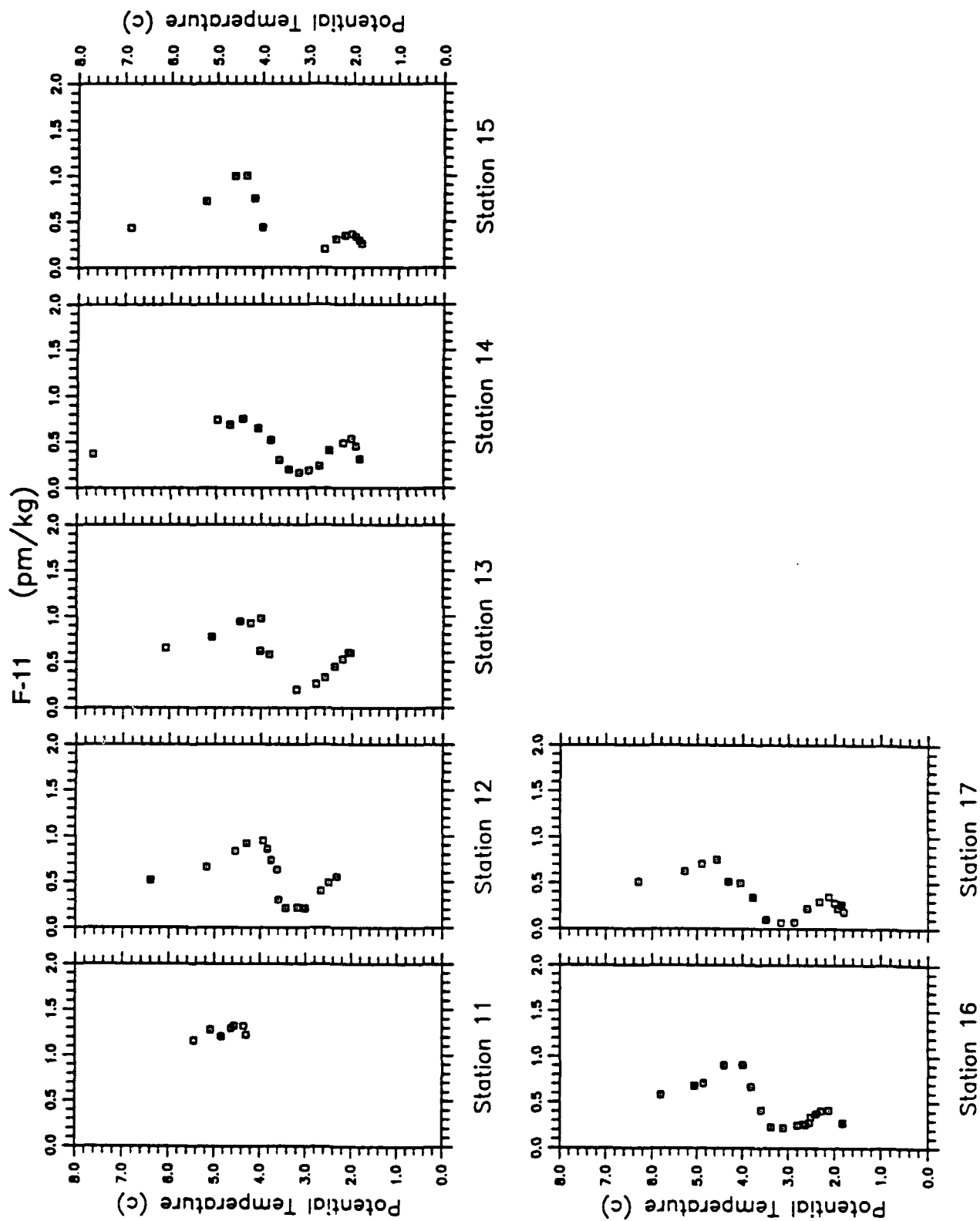
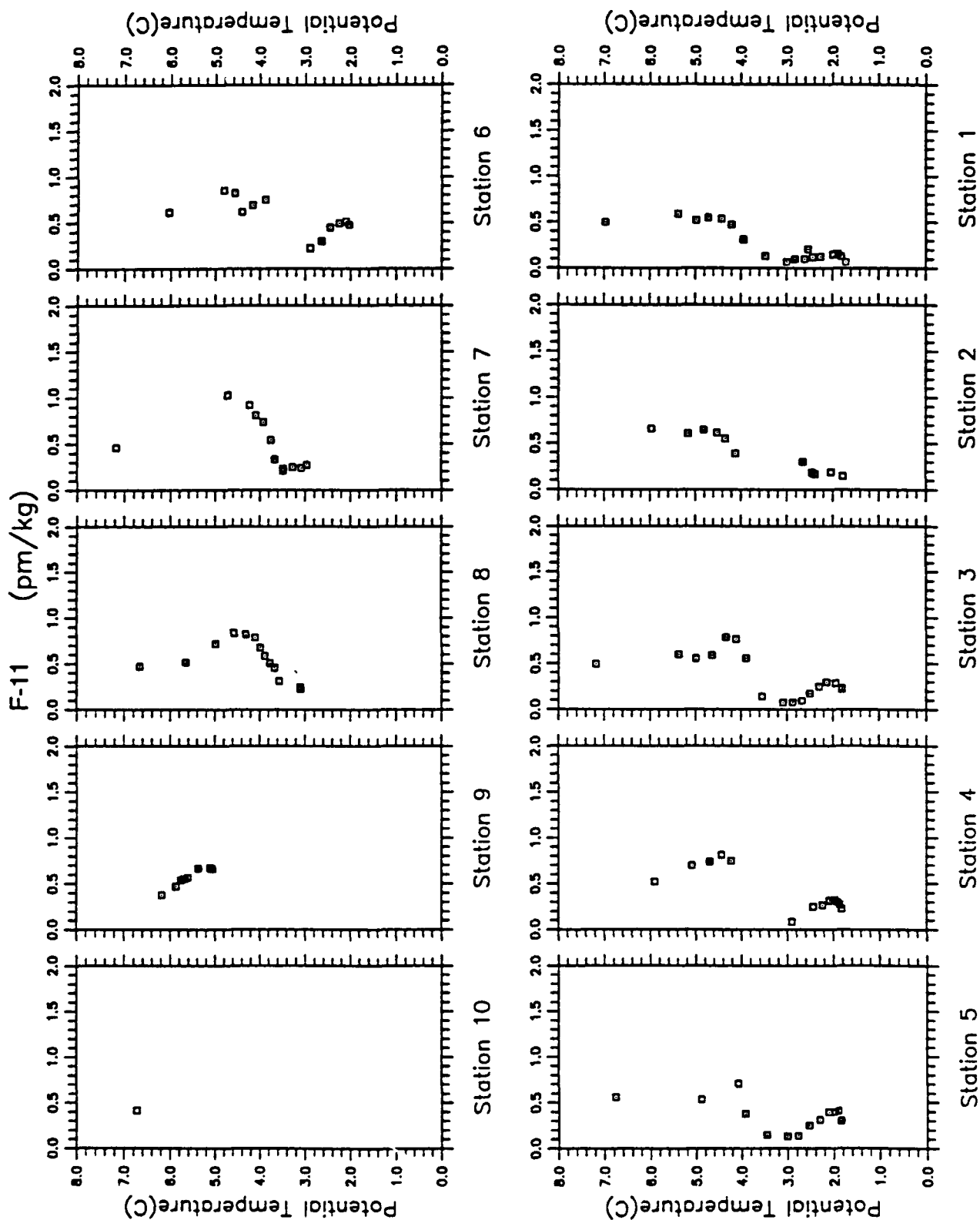


Figure 33.



## SECTION 5

Figure 34.

## **13.2 Part 2. Vertical Sections**



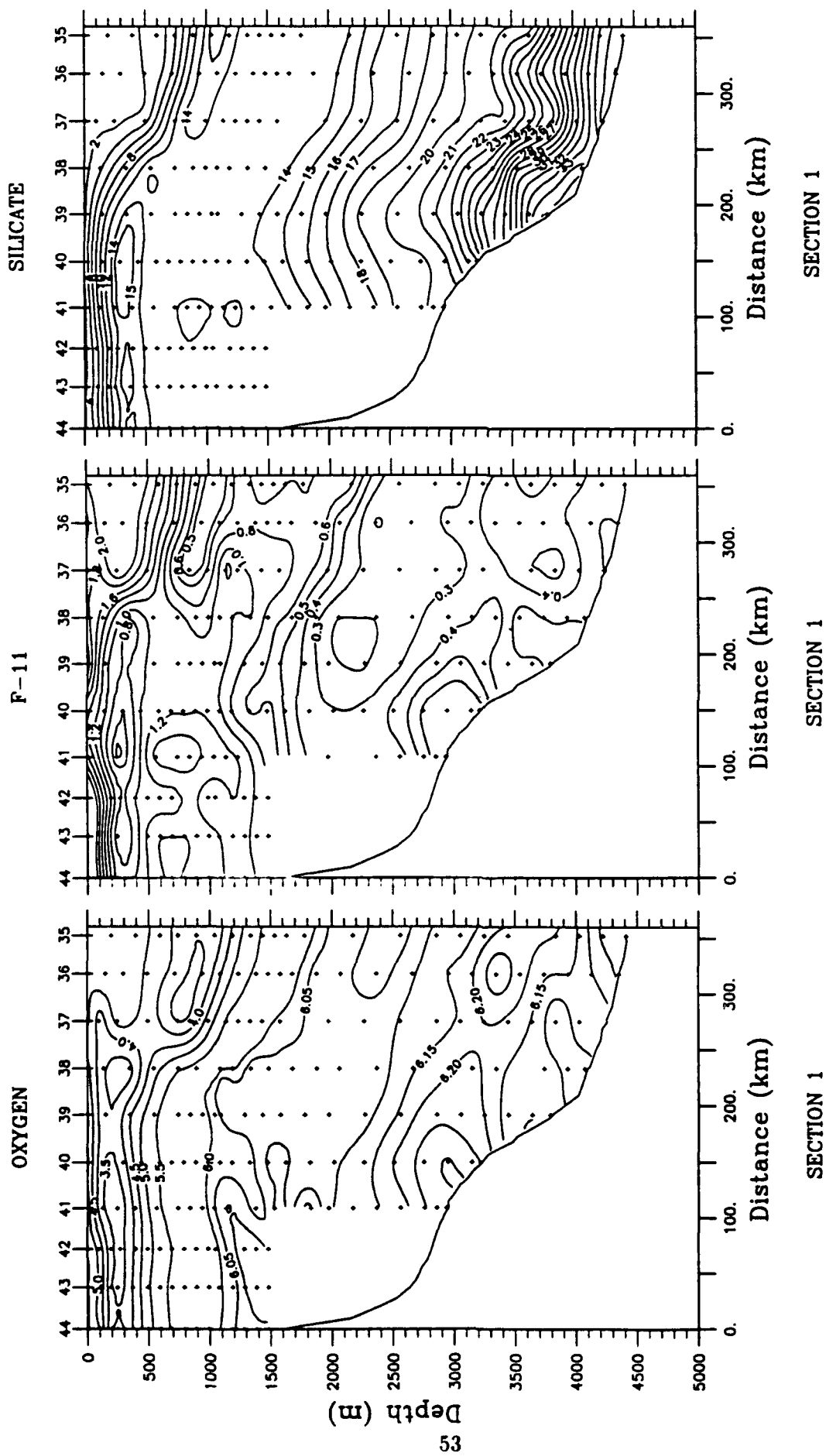


Figure 36.



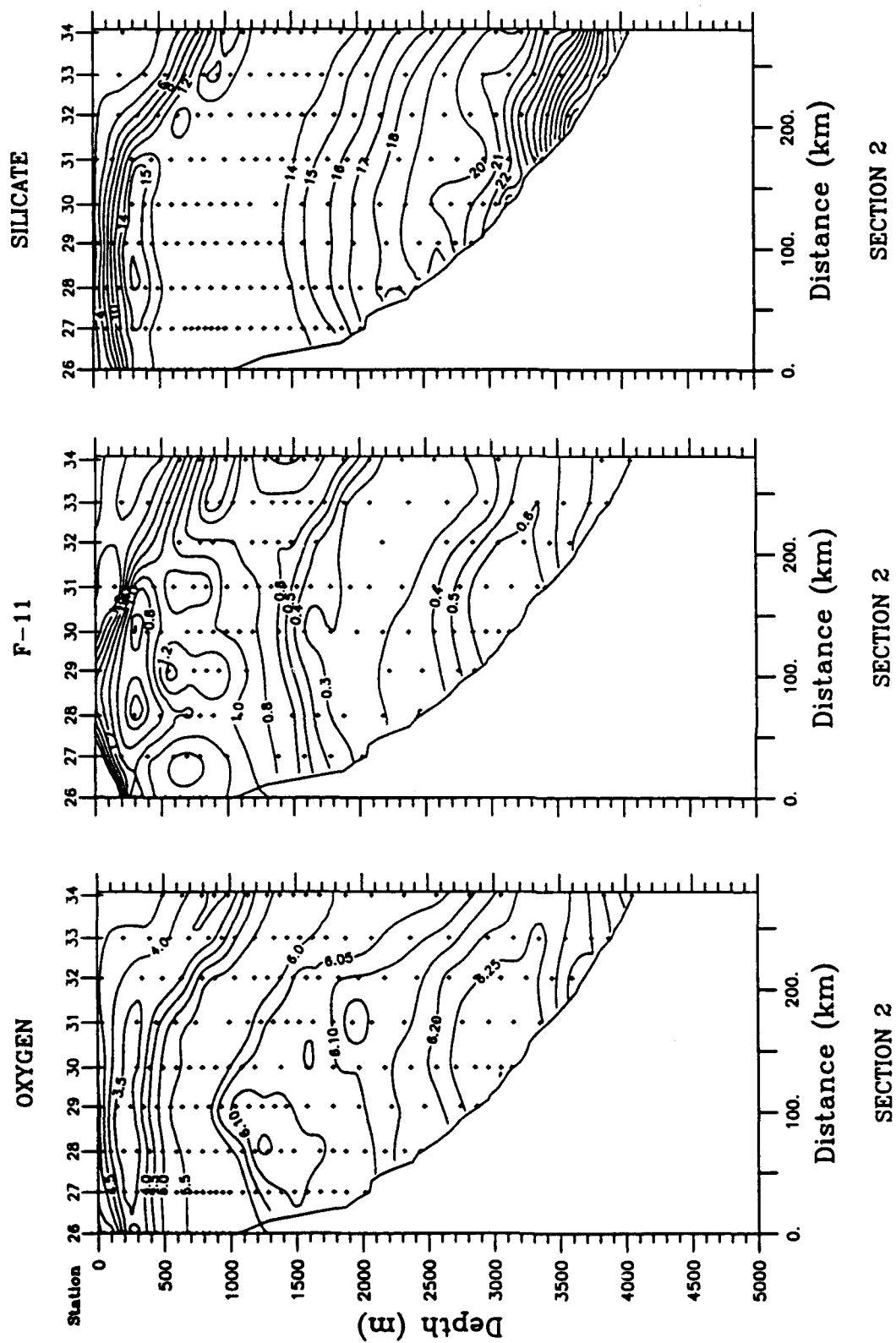


Figure 38.

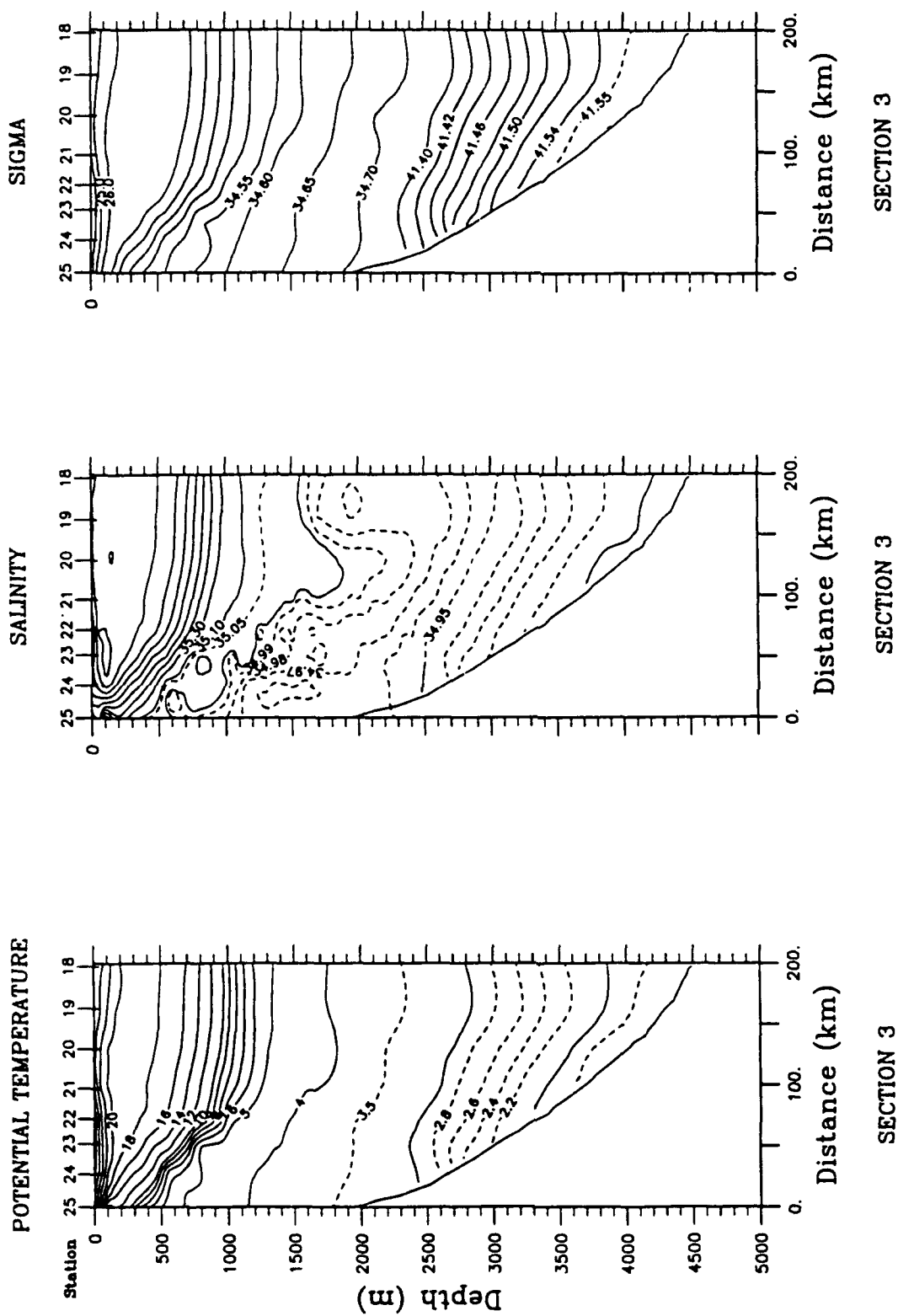


Figure 39.

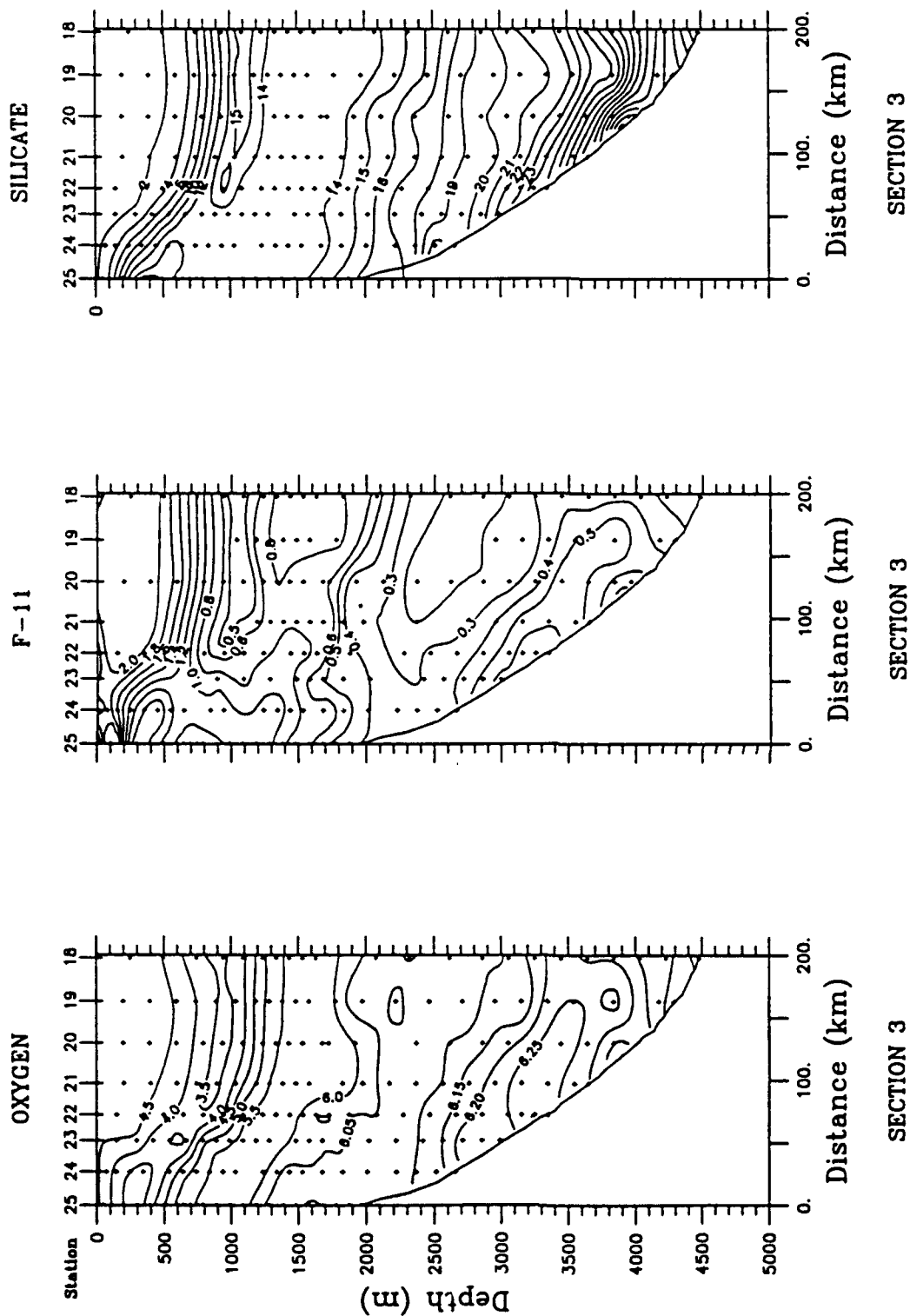


Figure 40.





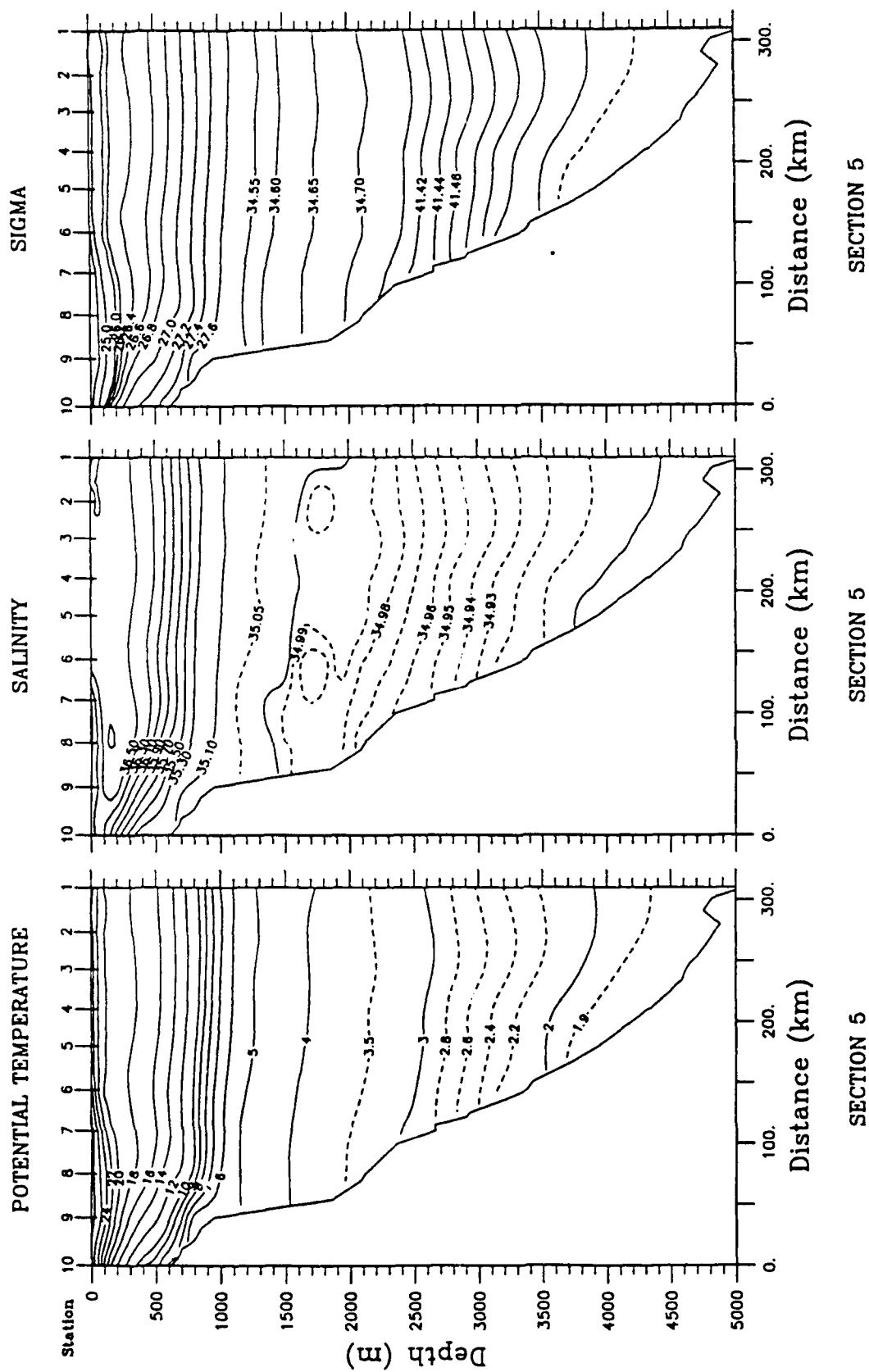


Figure 43.

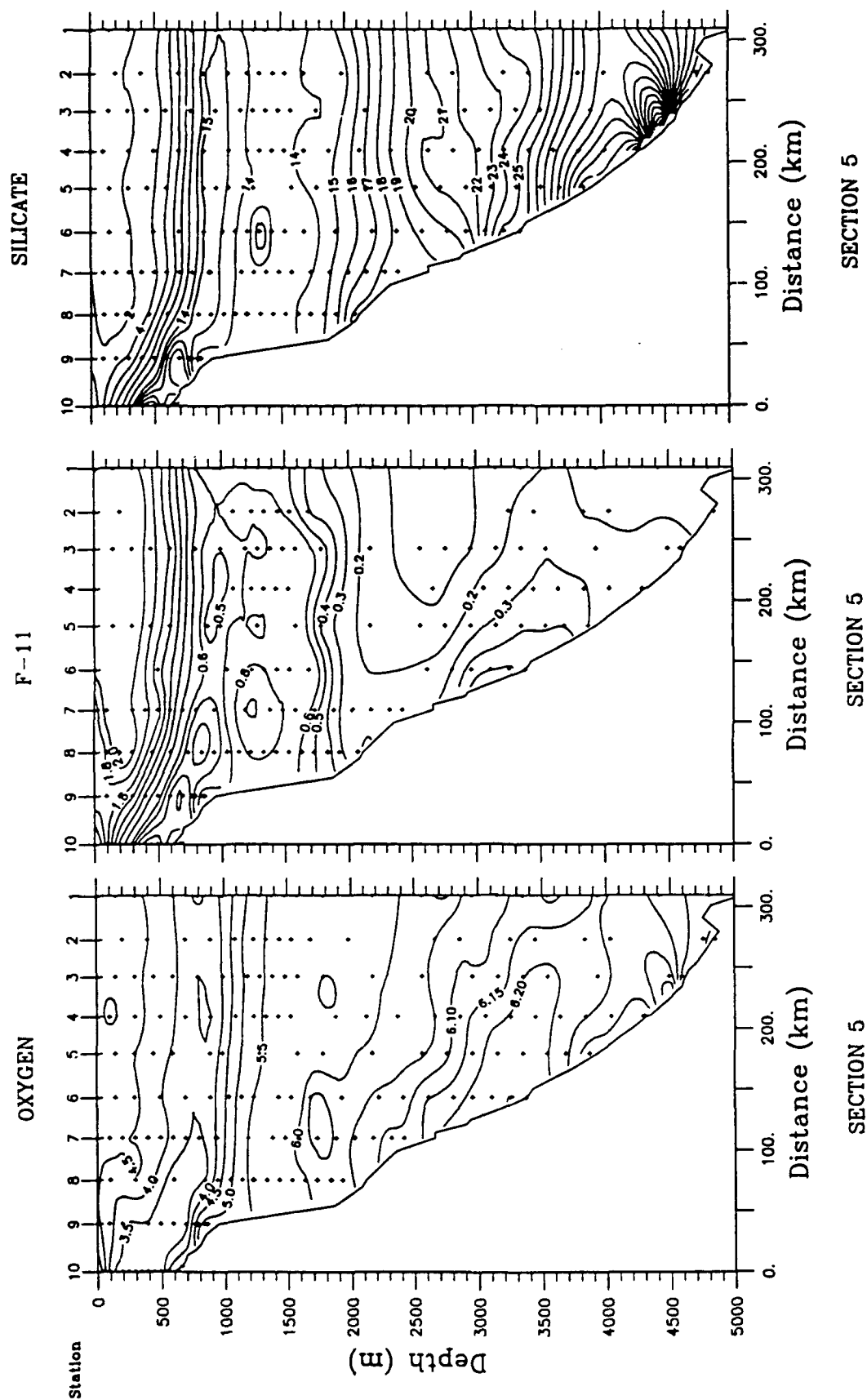


Figure 44.



### **13.3 Part 3. Bottle Data Listings for Individual Stations**



ENDEAVOR 214 Station 1 90- 6-24 Lat: 32.049 Lon: -73.824 Sonic Depth: 5062

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2<br>ml/l | SiO2 | Phos<br>umol/kg | NO2  | NO3   | F12   | F11<br>pm/kg |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|----------|------------|------|-----------------|------|-------|-------|--------------|
| 4.8         | 4.7          | 24.901     | {36.644  | 24.900         | 24.616 | 30.870  | 32.910  | 36.922  | 40.849}} | 4.780      | 1.0  | 0.09            | 0.00 | 0.00  | 1.064 | 1.956        |
| 148.9       | 147.8        | 19.060     | 36.618   | 19.033         | 26.251 | 32.631  | 34.711  | 38.803  | 42.807   | 4.721      | 1.2  | 0.11            | 0.02 | 1.40  | 1.153 | 2.217        |
| 299.1       | 296.8        | 18.153     | 36.515   | 18.101         | 26.409 | 32.812  | 34.900  | 39.006  | 43.024   | 4.572      | 1.6  | 0.23            | 0.00 | 3.80  | 1.057 | 2.070        |
| 599.0       | 594.0        | 14.834     | 35.977   | 14.742         | 26.783 | 33.278  | 35.395  | 39.560  | 43.633   | 4.051      | 4.9  | 0.69            | 0.00 | 11.80 | 0.745 | 1.407        |
| 798.2       | 791.1        | 10.890     | 35.415   | 10.789         | 27.138 | 33.753  | 35.909  | 40.150  | 44.297   | 3.402      | 11.6 | 1.37            | 0.00 | 21.30 | 0.327 | 0.601        |
| 998.1       | 988.7        | 7.075      | 35.116   | 6.975          | 27.514 | 34.259  | 36.457  | 40.779  | 45.005   | 4.126      | 15.0 | 1.50            | 0.00 | 22.80 | 0.265 | 0.497        |
| 1199.9      | 1188.1       | 5.485      | 35.077   | 5.378          | 27.592 | 34.495  | 36.712  | 41.071  | 45.332   |            | 14.0 | 1.36            | 0.00 | 20.10 | 0.325 | 0.590        |
| 1298.4      | 1285.4       | 5.098      | 35.064   | 4.985          | 27.728 | 34.546  | 36.768  | 41.136  | 45.407   | 5.378      | 13.7 | 1.32            | 0.00 | 19.60 | 0.270 | 0.522        |
| 1392.7      | 1378.4       | 4.840      | 35.046   | 4.721          | 27.744 | 34.573  | 36.798  | 41.172  | 45.449   | 5.553      | 13.6 | 1.31            | 0.00 | 19.10 | 0.292 | 0.549        |
| 1498.4      | 1482.7       | 4.547      | 35.030   | 4.421          | 27.765 | 34.605  | 36.834  | 41.216  | 45.499   | 5.729      | 13.2 | 1.27            | 0.00 | 18.70 | 0.276 | 0.536        |
| 1592.0      | 1574.9       | 4.334      | 35.015   | 4.201          | 27.777 | 34.626  | 36.857  | 41.245  | 45.533   | 5.835      | 13.4 | 1.25            | 0.00 | 18.50 | 0.255 | 0.472        |
| 1799.4      | 1779.2       | 4.094      | {35.006  | 3.944          | 27.797 | 34.655  | 36.890  | 41.284  | 45.579}} | 5.894      |      |                 | 0.00 | 18.60 | 0.168 | 0.309        |
| 2200.6      | 2173.8       | 3.658      | 34.997   | 3.476          | 27.837 | 34.714  | 36.955  | 41.361  | 45.667   | 5.956      | 17.1 | 1.27            | 0.00 | 18.60 | 0.082 | 0.129        |
| 2595.1      | 2561.2       | 3.218      | 34.967   | 3.004          | 27.858 | 34.755  | 37.002  | 41.420  | 45.737   | 6.015      | 20.5 | 1.32            | 0.00 | 18.70 | 0.052 | 0.067        |
| 2796.9      | 2759.1       | 3.056      | {34.955  | 2.825          | 27.866 | 34.769  | 37.019  | 41.441  | 45.763}} | 5.993      | 21.6 | 1.29            | 0.01 | 18.60 | 0.069 | 0.096        |
| 2995.0      | 2953.2       | 2.862      | 34.940   | 2.615          | 27.872 | 34.784  | 37.037  | 41.465  | 45.792   | 6.079      | 22.8 | 1.28            | 0.00 | 18.60 | 0.064 | 0.097        |
| 3195.7      | 3149.6       | 2.699      | 34.931   | 2.434          | 27.881 | 34.800  | 37.055  | 41.488  | 45.820   | 6.050      | 23.7 | 1.33            | 0.00 | 18.40 | 0.070 | 0.118        |
| 3395.7      | 3345.2       | 2.552      | 34.922   | 2.269          | 27.887 | 34.814  | 37.071  | 41.508  | 45.844   | 6.150      | 25.0 | 1.29            | 0.00 | 18.40 | 0.079 | 0.127        |
| 3596.7      | 3541.6       | 2.462      | {34.919  | 2.160          | 27.894 | 34.825  | 37.084  | 41.524  | 45.863}} | 6.081      | 25.1 | 1.27            | 0.00 | 18.00 | 0.121 | 0.207        |
| 3796.0      | 3736.1       | 2.380      | {34.914  | 2.058          | 27.898 | 34.833  | 37.093  | 41.536  | 45.878}} |            |      |                 |      |       |       |              |
| 3999.0      | 3934.0       | 2.330      | 34.903   | 1.987          | 27.895 | 34.834  | 37.094  | 41.539  | 45.883   | 6.153      | 29.7 | 1.31            | 0.00 | 18.80 | 0.080 | 0.149        |
| 4494.6      | 4416.6       | 2.284      | {34.900  | 1.884          | 27.901 | 34.844  | 37.106  | 41.553  | 45.900}} | 6.079      | 33.6 | 1.35            | 0.00 | 19.10 | 0.094 | 0.159        |
| 4894.0      | 4804.8       | 2.262      | 34.886   | 1.814          | 27.895 | 34.841  | 37.104  | 41.554  | 45.902   | 6.006      | 37.9 | 1.45            | 0.00 | 19.90 | 0.082 | 0.131        |
| 5133.4      | 5037.2       | 2.191      | 34.875   | 1.715          | 27.894 | 34.844  | 37.109  | 41.551  | 45.911   | 5.848      | 47.0 | 1.66            | 0.00 | 21.50 | 0.058 | 0.066        |

ENDEAVOR 214 Station 2 90- 6-25 Lat: 32.092 Lon: -74.157 Sonic Depth: 4833

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SiO2 | Phos<br>umol/kg | NO2  | NO3   | P12   | P11<br>pm/kg |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|------|-----------------|------|-------|-------|--------------|
| 0.9         | 0.9          | 24.613     | (36.304  | 24.613         | 24.447 | 30.709  | 32.751  | 36.769  | 40.701) |            |      |                 |      |       |       |              |
| 199.6       | 198.1        | 18.926     | (36.616  | 18.890         | 26.286 | 32.670  | 34.751  | 38.845  | 42.851) | 4.885      | 1.9  | 0.14            | 0.01 | 1.80  | 1.179 | 2.585        |
| 398.9       | 395.7        | 17.673     | 36.449   | 17.604         | 26.481 | 32.897  | 34.989  | 39.104  | 43.129  | 4.522      | 2.6  | 0.32            | 0.00 | 5.30  |       |              |
| 700.2       | 694.1        | 13.229     | 35.737   | 13.129         | 26.939 | 33.481  | 35.614  | 39.808  | 43.910  | 3.863      | 7.5  | 1.01            | 0.00 | 15.60 |       |              |
| 899.2       | 891.0        | 9.054      | 35.230   | 8.952          | 27.306 | 33.983  | 36.159  | 40.438  | 44.622  | 3.498      | 15.0 | 1.61            | 0.00 | 23.90 |       |              |
| 1098.1      | 1087.5       | 6.064      | 35.084   | 5.962          | 27.624 | 34.406  | 36.616  | 40.961  | 45.209  | 4.752      | 14.9 | 1.46            | 0.00 | 21.40 | 0.290 | 0.659        |
| 1249.1      | 1236.7       | 5.265      | (35.067  | 5.155          | 27.710 | 34.522  | 36.741  | 41.106  | 45.372) | 5.285      | 14.1 | 1.37            | 0.00 | 19.90 | 0.298 | 0.605        |
| 1348.5      | 1334.7       | 4.926      | 35.052   | 4.810          | 27.739 | 34.564  | 36.788  | 41.160  | 45.435  | 5.524      | 13.6 | 1.34            | 0.00 | 19.30 | 0.331 | 0.650        |
| 1457.5      | 1442.3       | 4.638      | 35.038   | 4.514          | 27.761 | 34.597  | 36.825  | 41.205  | 45.486  | 5.700      | 13.6 | 1.61            | 0.00 | 19.00 | 0.307 | 0.615        |
| 1548.8      | 1532.3       | 4.463      | 35.026   | 4.333          | 27.771 | 34.615  | 36.845  | 41.229  | 45.515  | 5.802      | 13.5 | 1.29            | 0.00 | 18.80 | 0.281 | 0.552        |
| 1699.9      | 1681.2       | 4.254      | 35.009   | 4.112          | 27.782 | 34.634  | 36.867  | 41.256  | 45.547  | 5.892      | 14.2 | 1.31            | 0.00 | 18.70 | 0.214 | 0.390        |
| 2001.7      | 1978.3       | 3.886      | (34.995  | 3.720          | 27.812 | 34.679  | 36.917  | 41.316  | 45.617) | 5.906      | 14.5 | 1.30            | 0.00 | 18.60 |       |              |
| 2398.9      | 2368.6       | 3.480      | (34.982  | 3.281          | 27.844 | 34.729  | 36.972  | 41.383  | 45.694) |            |      |                 |      |       |       |              |
| 2699.1      | 2653.2       | 3.191      | (34.962  | 2.967          | 27.858 | 34.756  | 37.003  | 41.422  | 45.741) | 6.048      | 21.0 | 1.36            | 0.00 | 18.70 |       |              |
| 2900.1      | 2860.2       | 2.999      | 34.949   | 2.759          | 27.867 | 34.773  | 37.023  | 41.447  | 45.771  | 6.096      | 21.7 | 1.33            | 0.00 | 18.60 |       |              |
| 3099.9      | 3055.8       | 2.866      | (34.942  | 2.608          | 27.875 | 34.787  | 37.039  | 41.468  | 45.795) |            |      |                 |      |       |       |              |
| 3299.2      | 3250.8       | 2.721      | 34.934   | 2.445          | 27.882 | 34.801  | 37.056  | 41.488  | 45.820  | 6.140      | 23.6 | 1.43            | 0.00 | 18.50 |       |              |
| 3500.0      | 3447.1       | 2.572      | (34.925  | 2.278          | 27.889 | 34.816  | 37.072  | 41.509  | 45.845) | 6.163      | 23.8 | 1.33            | 0.00 | 18.10 | 0.154 | 0.301        |
| 3700.3      | 3642.7       | 2.447      | (34.916  | 2.134          | 27.894 | 34.826  | 37.085  | 41.525  | 45.865) |            |      |                 |      |       |       |              |
| 3900.4      | 3837.9       | 2.362      | 34.921   | 2.029          | 27.906 | 34.843  | 37.103  | 41.546  | 45.889  | 6.166      | 28.5 | 1.49            | 0.00 | 18.60 | 0.111 | 0.189        |
| 4100.6      | 4033.1       | 2.312      | (34.906  | 1.957          | 27.900 | 34.840  | 37.101  | 41.546  | 45.891) | 6.139      | 30.4 | 1.41            | 0.00 | 18.90 | 0.095 | 0.168        |
| 4401.3      | 4325.8       | 2.279      | (34.901  | 1.890          | 27.901 | 34.844  | 37.106  | 41.553  | 45.899) |            |      |                 |      |       |       |              |
| 4844.2      | 4756.5       | 2.248      | 34.882   | 1.807          | 27.892 | 34.839  | 37.102  | 41.552  | 45.900  | 6.008      | 38.7 | 1.46            | 0.00 | 20.10 |       |              |
| 4940.7      | 4850.1       | 2.232      | (34.886  | 1.779          | 27.897 | 34.845  | 37.109  | 41.559  | 45.908) | 5.949      | 40.9 | 1.53            | 0.00 | 20.50 | 0.106 | 0.146        |

ENDEAVOR 214 Station 3 90- 6-25 Lat: 32.158 Lon: -74.551 Sonic Depth: 4618

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2<br>ml/l | SiO2 | Phos<br>umol/kg | NO2  | NO3   | F12   | F11<br>pm/kg |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|----------|------------|------|-----------------|------|-------|-------|--------------|
| 1.2         | 1.2          | 24.401     | {36.474  | 24.401         | 24.640 | 30.905  | 32.948  | 36.967  | 40.901}} | 4.876      | 1.2  | 0.09            | 0.00 | 0.00  | 1.132 | 2.237        |
| 144.9       | 143.9        | 19.282     | 36.645   | 19.256         | 26.214 | 32.589  | 34.667  | 38.755  | 42.756   | 4.846      | 1.5  | 0.09            | 0.02 | 1.00  | 1.189 | 2.454        |
| 295.4       | 293.1        | 18.342     | 36.537   | 18.290         | 26.378 | 32.777  | 34.863  | 38.966  | 42.981   | 4.612      | 1.7  | 0.19            | 0.00 | 3.70  | 1.073 | 2.216        |
| 445.2       | 441.6        | 17.372     | 36.400   | 17.296         | 26.519 | 32.943  | 35.037  | 39.157  | 43.188   | 4.334      | 2.7  | 0.35            | 0.00 | 6.60  | 0.902 | 1.863        |
| 597.0       | 592.0        | 15.270     | 36.050   | 15.177         | 26.743 | 33.226  | 35.339  | 39.496  | 43.562   | 4.132      | 4.4  | 0.62            | 0.00 | 11.00 | 0.758 | 1.619        |
| 796.6       | 789.5        | 11.264     | 35.454   | 11.161         | 27.100 | 33.704  | 35.856  | 40.089  | 44.229   | 3.474      | 11.3 | 1.27            | 0.00 | 20.90 | 0.342 | 0.685        |
| 996.3       | 986.9        | 7.288      | 35.114   | 7.187          | 27.483 | 34.220  | 36.416  | 40.734  | 44.955   | 4.047      | 15.4 | 1.51            | 0.00 | 23.30 | 0.250 | 0.495        |
| 1195.9      | 1184.1       | 5.483      | 35.073   | 5.376          | 27.689 | 34.492  | 36.709  | 41.068  | 45.329   | 5.146      | 14.2 | 1.35            | 0.00 | 20.40 | 0.313 | 0.601        |
| 1296.2      | 1283.2       | 5.109      | 35.067   | 4.996          | 27.729 | 34.547  | 36.768  | 41.136  | 45.406   | 5.398      | 13.9 | 1.32            | 0.00 | 19.70 | 0.291 | 0.555        |
| 1397.0      | 1382.6       | 4.760      | {35.041  | 4.641          | 27.749 | 34.581  | 36.807  | 41.184  | 45.462}} | 5.634      | 13.7 | 1.29            | 0.00 | 19.20 | 0.309 | 0.589        |
| 1496.2      | 1480.5       | 4.454      | 35.011   | 4.329          | 27.760 | 34.604  | 36.834  | 41.218  | 45.504   | 5.834      | 13.3 | 1.27            | 0.00 | 18.70 | 0.388 | 0.785        |
| 1595.7      | 1578.5       | 4.241      | 34.993   | 4.109          | 27.769 | 34.622  | 36.854  | 41.245  | 45.536   | 5.927      | 13.3 | 1.26            | 0.00 | 18.50 | 0.370 | 0.764        |
| 1797.0      | 1776.8       | 4.044      | 34.992   | 3.895          | 27.791 | 34.652  | 36.887  | 41.282  | 45.579   | 6.010      | 13.8 | 1.26            | 0.00 | 18.40 | 0.291 | 0.557        |
| 2196.2      | 2169.5       | 3.727      | 34.993   | 3.544          | 27.827 | 34.702  | 36.942  | 41.346  | 45.650   | 5.992      | 16.7 | 1.27            | 0.00 | 18.70 | 0.104 | 0.139        |
| 2597.1      | 2563.1       | 3.303      | 34.968   | 3.088          | 27.852 | 34.744  | 36.990  | 41.406  | 45.722   | 6.040      | 20.1 | 1.31            | 0.00 | 18.70 | 0.058 | 0.073        |
| 2797.3      | 2759.4       | 3.112      | 34.963   | 2.880          | 27.867 | 34.768  | 37.017  | 41.438  | 45.759   |            | 20.7 | 1.29            | 0.00 | 18.70 | 0.063 | 0.075        |
| 2996.5      | 2954.6       | 2.928      | 34.947   | 2.679          | 27.872 | 34.782  | 37.033  | 41.459  | 45.785   | 6.103      | 22.5 | 1.29            | 0.00 | 18.60 | 0.071 | 0.092        |
| 3197.5      | 3151.3       | 2.771      | {34.938  | 2.504          | 27.880 | 34.797  | 37.051  | 41.482  | 45.812}} | 6.107      | 22.3 | 1.28            | 0.00 | 18.30 | 0.112 | 0.173        |
| 3397.1      | 3346.5       | 2.594      | 34.925   | 2.310          | 27.886 | 34.811  | 37.068  | 41.504  | 45.839   | 6.201      | 23.5 | 1.28            | 0.00 | 18.10 | 0.146 | 0.246        |
| 3597.7      | 3542.5       | 2.445      | 34.910   | 2.143          | 27.888 | 34.820  | 37.079  | 41.519  | 45.859   | 6.217      | 25.0 | 1.31            | 0.00 | 18.10 | 0.170 | 0.297        |
| 3796.8      | 3736.8       | 2.350      | {34.911  | 2.029          | 27.898 | 34.835  | 37.095  | 41.539  | 45.881}} |            |      |                 |      |       |       |              |
| 3998.2      | 3933.2       | 2.288      | 34.900   | 1.946          | 27.896 | 34.836  | 37.098  | 41.543  | 45.888   | 6.182      | 29.8 | 1.28            | 0.00 | 18.80 | 0.184 | 0.286        |
| 4568.9      | 4488.9       | 2.219      | {34.891  | 1.812          | 27.899 | 34.845  | 37.108  | 41.558  | 45.906}} | 6.196      | 24.0 | 1.28            | 0.00 | 18.10 | 0.128 | 0.229        |
| 4671.8      | 4588.9       | 2.232      | 34.887   | 1.812          | 27.896 | 34.842  | 37.105  | 41.555  | 45.903   | 6.043      | 38.2 | 1.43            | 0.00 | 19.90 | 0.135 | 0.220        |

ENDEAVOR 214 Station 4 90- 6-25 Lat: 32.203 Lon: -74.901 Sonic Depth: 4313

| PR<br>dbars | DR<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SiO2<br>umol/kg | Phos | NO2  | NO3   | P12<br>pm/kg | P11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|-----------------|------|------|-------|--------------|-------|
| 3.2         | 3.2          | 25.102     | 36.313   | 25.101         | 24.305 | 30.558  | 32.597  | 36.608  | 40.535  | 4.810      | 1.5             | 0.12 | 0.00 | 0.00  | 1.068        | 2.007 |
| 99.0        | 98.3         | 20.349     | (36.714  | 20.330         | 25.982 | 32.332  | 34.402  | 38.474  | 42.459) | 5.170      | 1.4             | 0.04 | 0.00 | 0.00  |              |       |
| 297.4       | 295.1        | 18.485     | 36.561   | 18.432         | 26.361 | 32.756  | 34.840  | 38.942  | 42.954  | 4.697      | 1.9             | 0.16 | 0.00 | 2.90  |              |       |
| 496.9       | 492.9        | 16.729     | 36.294   | 16.647         | 26.593 | 33.035  | 35.135  | 39.266  | 43.307  | 4.254      | 3.5             | 0.45 | 0.00 | 7.90  |              |       |
| 697.6       | 691.5        | 13.123     | 35.717   | 13.024         | 26.944 | 33.490  | 35.624  | 39.820  | 43.925  | 3.807      | 7.6             | 0.99 | 0.00 | 15.90 |              |       |
| 897.0       | 888.9        | 8.894      | 35.192   | 8.793          | 27.302 | 33.984  | 36.162  | 40.445  | 44.632  | 3.405      | 15.8            | 1.57 | 0.00 | 24.70 |              |       |
| 1098.3      | 1087.7       | 6.009      | 35.083   | 5.907          | 27.630 | 34.414  | 36.625  | 40.971  | 45.221  | 4.758      | 14.9            | 1.39 | 0.00 | 21.50 | 0.287        | 0.519 |
| 1247.3      | 1234.9       | 5.197      | 35.058   | 5.088          | 27.711 | 34.526  | 36.746  | 41.112  | 45.380  | 5.318      | 13.9            | 1.31 | 0.00 | 19.90 | 0.369        | 0.696 |
| 1345.6      | 1331.8       | 4.809      | 35.035   | 4.694          | 27.738 | 34.568  | 36.793  | 41.169  | 45.446  | 5.588      | 13.6            | 1.27 | 0.00 | 19.20 | 0.390        | 0.736 |
| 1442.8      | 1427.8       | 4.552      | 35.014   | 4.431          | 27.751 | 34.591  | 36.820  | 41.202  | 45.485  | 5.751      | 13.4            | 1.25 | 0.00 | 18.90 | 0.409        | 0.811 |
| 1540.4      | 1524.0       | 4.349      | 35.003   | 4.221          | 27.765 | 34.613  | 36.845  | 41.232  | 45.520  | 5.876      | 13.5            | 1.23 | 0.00 | 18.70 | 0.392        | 0.743 |
| 1695.6      | 1676.9       | 4.150      | (34.996  | 4.010          | 27.782 | 34.638  | 36.872  | 41.265  | 45.558) |            | 14.9            |      | 0.00 |       |              |       |
| 1895.2      | 1873.5       | 3.964      | 34.991   | 3.807          | 27.799 | 34.663  | 36.900  | 41.298  | 45.596  | 5.993      | 14.7            | 1.25 | 0.00 | 18.40 |              |       |
| 2146.2      | 2120.4       | 3.731      | 34.992   | 3.553          | 27.826 | 34.700  | 36.940  | 41.343  | 45.648  | 5.986      | 16.6            | 1.25 | 0.00 | 18.70 |              |       |
| 2399.4      | 2369.1       | 3.444      | 34.976   | 3.246          | 27.843 | 34.729  | 36.973  | 41.385  | 45.697  | 6.014      | 19.1            | 1.27 | 0.00 | 18.80 |              |       |
| 2699.4      | 2653.5       | 3.117      | 34.956   | 2.895          | 27.860 | 34.761  | 37.009  | 41.430  | 45.750  | 6.049      | 21.4            | 1.27 | 0.00 | 18.80 | 0.076        | 0.083 |
| 2897.9      | 2858.0       | 2.908      | 34.944   | 2.670          | 27.870 | 34.780  | 37.032  | 41.459  | 45.785  | 6.134      | 21.0            | 1.26 | 0.00 | 18.40 |              |       |
| 3098.6      | 3054.5       | 2.691      | 34.930   | 2.437          | 27.880 | 34.799  | 37.054  | 41.487  | 45.819  | 6.183      | 22.1            | 1.23 | 0.00 | 18.20 | 0.145        | 0.246 |
| 3298.2      | 3249.8       | 2.506      | 34.918   | 2.235          | 27.887 | 34.815  | 37.072  | 41.510  | 45.848  | 6.206      | 24.3            | 1.25 | 0.00 | 18.20 | 0.152        | 0.263 |
| 3497.6      | 3444.7       | 2.369      | 34.909   | 2.080          | 27.892 | 34.827  | 37.087  | 41.529  | 45.870  | 6.225      | 25.9            | 1.26 | 0.00 | 18.30 | 0.170        | 0.315 |
| 3698.7      | 3641.1       | 2.277      | 34.902   | 1.969          | 27.896 | 34.835  | 37.096  | 41.541  | 45.885  | 6.185      | 28.6            | 1.26 | 0.00 | 18.60 | 0.177        | 0.323 |
| 3903.1      | 3840.5       | 2.239      | 34.897   | 1.909          | 27.896 | 34.838  | 37.100  | 41.547  | 45.893  | 6.154      | 31.0            | 1.30 | 0.00 | 19.00 | 0.175        | 0.302 |
| 4103.6      | 4036.0       | 2.213      | 34.897   | 1.861          | 27.900 | 34.844  | 37.107  | 41.555  | 45.902  | 6.111      | 33.2            | 1.34 | 0.00 | 19.30 | 0.164        | 0.273 |
| 4367.9      | 4293.4       | 2.204      | 34.888   | 1.821          | 27.896 | 34.842  | 37.105  | 41.554  | 45.902  | 6.044      | 36.8            | 1.40 | 0.00 | 19.70 | 0.156        | 0.225 |

ENDRAVOR 214 Station 5 90- 6-26 Lat: 32.286 Lon: -75.251 Sonic Depth: 3933

| PR<br>dbars | DZ<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2<br>ml/l | SiO2<br>umol/kg | Phos<br>umol/kg | NO2  | NO3   | P12<br>pm/kg | P11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|----------|------------|-----------------|-----------------|------|-------|--------------|-------|
| 0.4         | 0.4          | 25.468     | {36.603  | 25.468         | 24.411 | 30.655  | 32.690  | 36.696  | 40.617}} | 4.760      | 1.8             | 0.09            | 0.00 | 0.10  | 1.050        | 2.358 |
| 146.4       | 145.3        | 19.186     | 36.617   | 19.159         | 26.218 | 32.595  | 34.674  | 38.764  | 42.766   | 4.543      | 1.8             | 0.15            | 0.01 | 2.20  | 1.105        | 2.458 |
| 295.5       | 293.2        | 18.220     | 36.520   | 18.168         | 26.396 | 32.798  | 34.884  | 38.990  | 43.007   | 4.507      | 2.2             | 0.24            | 0.01 | 4.20  | 1.050        | 2.214 |
| 445.2       | 441.6        | 17.036     | 36.356   | 16.961         | 26.566 | 32.999  | 35.096  | 39.221  | 43.257   | 4.252      | 3.2             | 0.44            | 0.00 | 7.60  | 0.856        | 1.833 |
| 596.5       | 591.5        | 14.595     | 35.946   | 14.504         | 26.811 | 33.313  | 35.432  | 39.601  | 43.679   | 3.981      | 5.5             | 0.78            | 0.01 | 12.80 | 0.676        | 1.448 |
| 795.7       | 788.6        | 10.492     | {35.357  | 10.394         | 27.163 | 33.791  | 35.952  | 40.201  | 44.356}} |            |                 |                 |      |       |              |       |
| 895.0       | 886.9        | 8.533      | 35.170   | 8.435          | 27.341 | 34.036  | 36.217  | 40.507  | 44.702   | 3.546      | 15.6            | 1.57            | 0.00 | 24.40 | 0.222        | 0.396 |
| 996.1       | 986.7        | 6.869      | 35.111   | 6.771          | 27.538 | 34.291  | 36.491  | 40.818  | 45.048   | 4.261      | 15.3            | 1.54            | 0.00 | 22.80 | 0.282        | 0.556 |
| 1095.8      | 1085.2       | 5.903      | 35.082   | 5.802          | 27.643 | 34.431  | 36.642  | 40.992  | 45.243   |            | 15.0            | 1.41            | 0.00 | 21.40 |              |       |
| 1196.0      | 1184.2       | 5.347      | {35.064  | 5.241          | 27.698 | 34.507  | 36.725  | 41.087  | 45.352}} |            |                 |                 |      |       |              |       |
| 1295.1      | 1282.1       | 5.001      | 35.067   | 4.889          | 27.741 | 34.563  | 36.786  | 41.157  | 45.429   | 5.448      | 14.0            | 1.34            | 0.00 | 19.80 | 0.298        | 0.532 |
| 1396.4      | 1382.0       | 4.705      | {35.042  | 4.587          | 27.756 | 34.590  | 36.817  | 41.195  | 45.474}} |            |                 |                 |      |       |              |       |
| 1496.3      | 1480.6       | 4.370      | {35.006  | 4.246          | 27.765 | 34.612  | 36.843  | 41.230  | 45.518}} |            |                 |                 |      |       |              |       |
| 1596.9      | 1579.7       | 4.201      | 34.993   | 4.069          | 27.773 | 34.627  | 36.861  | 41.252  | 45.544   | 5.937      | 13.4            | 1.28            | 0.00 | 18.70 | 0.364        | 0.704 |
| 1796.4      | 1776.2       | 4.068      | 34.997   | 3.919          | 27.792 | 34.652  | 36.887  | 41.282  | 45.578   | 5.961      | 14.4            | 1.27            | 0.00 | 18.70 | 0.210        | 0.375 |
| 2196.7      | 2169.9       | 3.641      | 34.993   | 3.460          | 27.836 | 34.714  | 36.955  | 41.361  | 45.667   | 6.010      | 16.9            | 1.30            | 0.01 | 18.70 | 0.094        | 0.146 |
| 2596.9      | 2562.9       | 3.224      | 34.970   | 3.010          | 27.860 | 34.756  | 37.003  | 41.421  | 45.739   | 6.038      | 20.2            | 1.30            | 0.00 | 18.70 | 0.075        | 0.130 |
| 2796.6      | 2758.7       | 3.007      | 34.949   | 2.777          | 27.865 | 34.771  | 37.021  | 41.444  | 45.768   | 6.086      | 21.2            | 1.29            | 0.01 | 18.60 | 0.098        | 0.135 |
| 2997.5      | 2955.5       | 2.782      | 34.938   | 2.536          | 27.877 | 34.793  | 37.046  | 41.476  | 45.806   | 6.168      | 21.6            | 1.30            | 0.00 | 18.20 | 0.146        | 0.247 |
| 3196.7      | 3150.5       | 2.568      | 34.927   | 2.306          | 27.888 | 34.813  | 37.070  | 41.506  | 45.841   | 6.225      | 22.7            | 1.26            | 0.00 | 18.10 | 0.171        | 0.308 |
| 3397.4      | 3346.8       | 2.398      | 34.911   | 2.119          | 27.891 | 34.824  | 37.083  | 41.524  | 45.864   | 6.236      | 24.6            | 1.27            | 0.00 | 18.20 | 0.205        | 0.392 |
| 3594.7      | 3539.5       | 2.275      | 34.905   | 1.978          | 27.897 | 34.836  | 37.097  | 41.542  | 45.886   | 6.203      | 27.5            | 1.29            | 0.00 | 18.50 | 0.229        | 0.393 |
| 3746.8      | 3688.0       | 2.217      | 34.896   | 1.905          | 27.896 | 34.838  | 37.100  | 41.547  | 45.893   | 6.162      | 30.1            | 1.31            | 0.00 | 18.80 | 0.225        | 0.404 |
| 3937.0      | 3873.5       | 2.177      | 34.892   | 1.845          | 27.897 | 34.842  | 37.105  | 41.553  | 45.901   | 6.064      | 34.7            | 1.36            | 0.00 | 19.40 | 0.189        | 0.299 |

ENDEAVOR 214 Station 6 90- 6-26 Lat: 32.334 Lon: -75.588 Sonic Depth: 3377

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SiO2 | Phos<br>umol/kg | NO2  | NO3   | F12   | F11<br>pm/kg |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|------|-----------------|------|-------|-------|--------------|
| 3.0         | 3.0          | 25.548     | 36.644   | 25.547         | 24.417 | 30.659  | 32.694  | 36.699  | 40.618  | 4.754      | 1.5  | 0.09            | 0.00 | 0.00  | 1.055 | 2.056        |
| 146.1       | 145.0        | 18.939     | 36.613   | 18.913         | 26.278 | 32.661  | 34.742  | 38.836  | 42.841  | 4.774      | 1.3  | 0.11            | 0.01 | 1.90  |       |              |
| 296.0       | 293.7        | 18.029     | 36.502   | 17.977         | 26.430 | 32.836  | 34.925  | 39.033  | 43.053  | 4.601      | 1.8  | 0.27            | 0.00 | 4.60  |       |              |
| 495.9       | 491.9        | 15.889     | {36.154  | 15.810         | 26.681 | 33.145  | 35.253  | 39.398  | 43.453  | 4.031      | 4.1  | 0.59            | 0.00 | 10.30 | 0.714 | 1.526        |
| 495.8       | 491.8        | 15.890     | {36.155  | 15.811         | 26.681 | 33.146  | 35.253  | 39.398  | 43.454  | 4.043      | 4.1  | 0.62            | 0.00 | 10.30 | 0.729 | 1.403        |
| 697.6       | 691.5        | 12.171     | {35.589  | 12.077         | 27.032 | 33.607  | 35.750  | 39.965  | 44.087  | 3.507      | 9.2  | 1.17            | 0.00 | 18.90 |       |              |
| 896.5       | 888.4        | 8.122      | {35.152  | 8.026          | 27.390 | 34.098  | 36.285  | 40.584  | 44.787  | 3.757      | 15.3 | 1.54            | 0.00 | 23.80 |       |              |
| 1046.0      | 1036.0       | 6.138      | 35.085   | 6.041          | 27.615 | 34.394  | 36.603  | 40.946  | 45.193  | 4.684      | 14.9 | 1.43            | 0.00 | 21.40 | 0.297 | 0.612        |
| 1146.7      | 1135.5       | 5.369      | 35.059   | 5.268          | 27.691 | 34.498  | 36.716  | 41.078  | 45.342  | 5.210      | 14.0 | 1.36            | 0.00 | 20.00 |       |              |
| 1245.9      | 1233.5       | 4.923      | 35.043   | 4.817          | 27.731 | 34.556  | 36.779  | 41.152  | 45.426  | 5.508      | 13.6 | 1.29            | 0.00 | 19.40 | 0.413 | 0.849        |
| 1345.9      | 1332.1       | 4.687      | 35.030   | 4.574          | 27.748 | 34.582  | 36.809  | 41.188  | 45.468  |            | 13.5 | 1.29            | 0.00 | 18.90 | 0.371 | 0.820        |
| 1345.9      | 1332.1       | 4.685      | {35.029  | 4.572          | 27.747 | 34.582  | 36.808  | 41.187  | 45.467  |            |      |                 |      |       |       |              |
| 1445.3      | 1430.2       | 4.526      | 35.031   | 4.405          | 27.768 | 34.608  | 36.837  | 41.220  | 45.504  | 5.768      | 13.5 | 1.27            | 0.00 | 18.80 | 0.318 | 0.614        |
| 1544.9      | 1528.4       | 4.293      | 35.000   | 4.165          | 27.769 | 34.619  | 36.851  | 41.240  | 45.529  | 5.879      | 13.0 | 1.23            | 0.00 | 18.40 | 0.359 | 0.690        |
| 1696.6      | 1677.9       | 4.017      | 34.978   | 3.878          | 27.782 | 34.643  | 36.879  | 41.275  | 45.571  | 6.060      | 13.1 | 1.23            | 0.00 | 18.30 | 0.372 | 0.751        |
| 1945.6      | 1923.0       | 3.923      | 34.996   | 3.762          | 27.808 | 34.674  | 36.911  | 41.309  | 45.609  | 6.007      | 14.8 | 1.26            | 0.00 | 18.50 |       |              |
| 2247.6      | 2220.0       | 3.539      | 34.979   | 3.354          | 27.835 | 34.717  | 36.959  | 41.368  | 45.678  | 6.061      | 16.6 | 1.24            | 0.00 | 18.40 |       |              |
| 2445.0      | 2413.9       | 3.322      | 34.955   | 3.122          | 27.838 | 34.730  | 36.975  | 41.390  | 45.705  | 6.072      | 18.2 | 1.25            | 0.00 | 18.40 |       |              |
| 2647.8      | 2612.8       | 3.113      | 34.953   | 2.896          | 27.857 | 34.758  | 37.007  | 41.427  | 45.748  | 6.154      | 19.2 | 1.24            | 0.00 | 18.30 | 0.125 | 0.221        |
| 2847.0      | 2808.1       | 2.878      | {34.944  | 2.646          | 27.872 | 34.784  | 37.035  | 41.462  | 45.789  | 6.178      | 19.9 | 1.24            | 0.00 | 18.00 | 0.153 | 0.299        |
| 2997.4      | 2955.4       | 2.705      | 34.932   | 2.461          | 27.879 | 34.798  | 37.052  | 41.484  | 45.816  | 6.215      | 20.5 | 1.22            | 0.00 | 17.80 | 0.242 | 0.448        |
| 3148.4      | 3103.2       | 2.512      | 34.921   | 2.257          | 27.888 | 34.815  | 37.072  | 41.509  | 45.846  | 6.235      | 22.9 | 1.24            | 0.00 | 17.90 | 0.267 | 0.495        |
| 3297.0      | 3248.6       | 2.376      | 34.914   | 2.108          | 27.894 | 34.828  | 37.087  | 41.528  | 45.868  | 6.198      | 25.4 | 1.26            | 0.00 | 18.00 | 0.263 | 0.513        |
| 3425.0      | 3373.7       | 2.317      | 34.910   | 2.037          | 27.897 | 34.833  | 37.093  | 41.536  | 45.879  | 6.191      | 27.6 | 1.28            | 0.00 | 18.30 | 0.252 | 0.479        |

ENDEAVOR 214 Station 7 90- 6-26 Lat: 32.356 Lon: -75.940 Sonic Depth: 2660

| PR     | DE     | T      | S       | Theta  | Sig 0  | Sig 1.5                | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2    | SiO2  | Phos         | NO2   | NO3   | F12   | F11   |
|--------|--------|--------|---------|--------|--------|------------------------|---------|---------|----------|-------|-------|--------------|-------|-------|-------|-------|
| dbars  | meters | deg C  | PSU     | deg C  | -----  | -----kg/m <sup>3</sup> | -----   | -----   | -----    | ml/l  | ----- | -----umol/kg | ----- | ----- | ----- | ----- |
| 2.0    | 2.0    | 28.130 | {36.169 | 28.130 | 23.234 | 29.432                 | 31.454  | 35.431  | 39.324}} | 4.589 | 2.0   | 0.08         | 0.00  | 0.10  | 0.912 | 1.643 |
| 96.6   | 95.9   | 21.842 | {36.700 | 21.823 | 25.562 | 31.878                 | 33.938  | 37.990  | 41.955}} | 5.088 | 1.3   | 0.06         | 0.00  | 0.10  | 1.115 | 2.156 |
| 197.1  | 195.6  | 19.207 | 36.618  | 19.171 | 26.215 | 32.592                 | 34.671  | 38.761  | 42.763   | 4.522 | 1.5   | 0.12         | 0.01  | 2.20  | 1.094 |       |
| 297.0  | 294.7  | 18.287 | 36.534  | 18.235 | 26.390 | 32.790                 | 34.876  | 38.981  | 42.996   | 4.474 | 1.9   | 0.21         | 0.00  | 4.10  | 1.045 | 1.978 |
| 397.5  | 394.3  | 17.638 | 36.444  | 17.570 | 26.486 | 32.903                 | 34.995  | 39.110  | 43.136   | 4.418 | 2.4   | 0.31         | 0.00  | 5.80  | 0.940 | 1.830 |
| 496.5  | 492.5  | 16.527 | 36.261  | 16.445 | 26.615 | 33.062                 | 35.164  | 39.298  | 43.343   | 4.251 | 3.4   | 0.49         | 0.00  | 8.50  | 0.852 | 1.762 |
| 596.0  | 591.0  | 14.418 | 35.932  | 14.328 | 26.838 | 33.345                 | 35.466  | 39.638  | 43.719   | 3.867 | 5.6   | 0.79         | 0.00  | 13.40 | 0.607 | 1.155 |
| 695.9  | 689.8  | 12.577 | 35.652  | 12.481 | 27.003 | 33.565                 | 35.704  | 39.910  | 44.025   | 3.581 | 8.8   | 1.10         | 0.00  | 18.10 | 0.375 | 0.769 |
| 800.9  | 793.7  | 10.130 | 35.327  | 10.033 | 27.202 | 33.843                 | 36.007  | 40.263  | 44.425   | 3.390 | 13.5  | 1.46         | 0.00  | 22.80 | 0.269 | 0.496 |
| 932.0  | 923.5  | 7.424  | 35.117  | 7.329  | 27.465 | 34.198                 | 36.392  | 40.706  | 44.924   | 3.984 | 15.5  | 1.55         | 0.00  | 23.50 | 0.241 |       |
| 945.0  | 936.3  | 7.266  | 35.117  | 7.171  | 27.487 | 34.226                 | 36.421  | 40.739  | 44.961   | 4.083 | 15.3  | 1.54         | 0.00  | 23.20 | 0.251 | 0.459 |
| 1095.2 | 1084.6 | 5.584  | {35.067 | 5.486  | 27.670 | 34.470                 | 36.686  | 41.042  | 45.301}} |       |       |              |       |       |       |       |
| 1195.1 | 1183.3 | 4.828  | 35.018  | 4.727  | 27.721 | 34.550                 | 36.775  | 41.150  | 45.426   | 5.534 | 13.6  | 1.30         | 0.00  | 19.40 | 0.504 | 1.024 |
| 1294.9 | 1281.9 | 4.546  | {35.004 | 4.439  | 27.742 | 34.582                 | 36.811  | 41.193  | 45.476}} |       |       |              |       |       |       |       |
| 1394.3 | 1379.9 | 4.343  | 34.989  | 4.229  | 27.753 | 34.601                 | 36.832  | 41.220  | 45.508   | 5.862 | 13.1  | 1.23         | 0.01  | 18.50 | 0.457 | 0.921 |
| 1494.0 | 1478.3 | 4.213  | 34.993  | 4.091  | 27.771 | 34.624                 | 36.857  | 41.248  | 45.539   | 5.951 | 13.1  | 1.23         | 0.01  | 18.30 | 0.406 | 0.808 |
| 1596.0 | 1578.8 | 4.053  | 34.989  | 3.923  | 27.786 | 34.645                 | 36.880  | 41.275  | 45.571   | 6.016 | 13.4  | 1.21         | 0.00  | 18.30 | 0.358 | 0.733 |
| 1745.8 | 1726.4 | 3.890  | {34.979 | 3.748  | 27.796 | 34.663                 | 36.900  | 41.299  | 45.599}} | 6.068 | 13.9  | 1.23         | 0.00  | 18.30 | 0.290 | 0.543 |
| 1897.8 | 1876.0 | 3.811  | 34.984  | 3.656  | 27.809 | 34.679                 | 36.918  | 41.319  | 45.621   | 6.043 | 14.9  | 1.22         | 0.00  | 18.30 | 0.189 | 0.331 |
| 2050.2 | 2026.0 | 3.646  | 34.984  | 3.479  | 27.827 | 34.704                 | 36.945  | 41.350  | 45.657   | 6.061 | 16.1  | 1.24         | 0.00  | 18.40 | 0.131 | 0.205 |
| 2046.1 | 2021.9 | 3.644  | 34.979  | 3.477  | 27.823 | 34.700                 | 36.941  | 41.347  | 45.653   | 6.056 | 16.1  | 1.23         | 0.00  | 18.40 | 0.143 | 0.231 |
| 2197.2 | 2170.4 | 3.449  | 34.971  | 3.271  | 27.837 | 34.722                 | 36.966  | 41.377  | 45.688   | 6.080 | 17.2  | 1.23         | 0.00  | 18.30 |       | 0.248 |
| 2347.9 | 2318.5 | 3.265  | 34.962  | 3.075  | 27.848 | 34.741                 | 36.988  | 41.404  | 45.720   | 6.116 | 18.3  | 1.24         | 0.00  | 18.20 | 0.138 | 0.238 |
| 2449.5 | 2418.3 | 3.158  | 34.954  | 2.960  | 27.852 | 34.750                 | 36.998  | 41.417  | 45.736   | 6.106 | 18.7  | 1.24         | 0.00  | 18.20 | 0.154 | 0.272 |

ENTRAVOR 214 Station 8 90- 6-26 Lat: 32.587 Lon: -76.184 Sonic Depth: 2117

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2<br>ml/l | SiO2 | Phos<br>umol/kg | NO2  | NO3   | F12   | F11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|----------|------------|------|-----------------|------|-------|-------|-------|
|             |              |            |          |                |        |         |         |         |          |            |      |                 |      |       |       |       |
| 5.1         | 5.0          | 27.989     | (36.004  | 27.988         | 23.156 | 29.358  | 31.381  | 35.361  | 39.256}} | 4.605      | 2.2  | 0.05            | 0.00 | 0.00  | 0.939 | 1.674 |
| 102.1       | 101.3        | 25.035     | 36.594   | 25.013         | 24.544 | 30.797  | 32.835  | 36.847  | 40.772   | 4.032      | 1.6  | 0.13            | 0.09 | 1.20  | 0.963 | 1.775 |
| 200.9       | 199.4        | 20.071     | 36.683   | 20.033         | 26.039 | 32.395  | 34.467  | 38.544  | 42.533   |            | 1.4  | 0.09            | 0.01 | 1.50  | 1.104 | 2.305 |
| 299.0       | 296.7        | 18.489     | 36.556   | 18.436         | 26.356 | 32.751  | 34.836  | 38.937  | 42.950   | 4.546      | 1.9  | 0.20            | 0.00 | 3.50  | 1.062 | 2.072 |
| 455.4       | 451.7        | 16.507     | 36.270   | 16.432         | 26.625 | 33.073  | 35.174  | 39.309  | 43.353   | 3.958      | 3.9  | 0.55            | 0.00 | 9.50  | 0.766 | 1.463 |
| 602.1       | 597.0        | 13.115     | 35.702   | 13.030         | 26.932 | 33.477  | 35.611  | 39.807  | 43.912   | 3.212      | 9.5  | 1.17            | 0.00 | 18.90 | 0.403 | 0.834 |
| 744.8       | 738.2        | 10.959     | 35.383   | 10.865         | 27.099 | 33.713  | 35.868  | 40.108  | 44.253   |            | 13.9 | 1.52            | 0.00 | 23.90 | 0.253 | 0.438 |
| 849.4       | 841.8        | 8.744      | 35.184   | 8.650          | 27.319 | 34.006  | 36.185  | 40.470  | 44.661   | 3.393      | 15.9 | 1.61            | 0.00 | 24.90 | 0.171 | 0.319 |
| 947.5       | 938.8        | 6.750      | 35.102   | 6.658          | 27.547 | 34.303  | 36.505  | 40.834  | 45.067   | 4.280      | 15.4 | 1.48            | 0.00 | 22.60 | 0.243 | 0.468 |
| 1051.6      | 1041.5       | 5.749      | 35.082   | 5.654          | 27.662 | 34.455  | 36.668  | 41.021  | 45.276   | 4.918      | 14.6 | 1.39            | 0.00 | 21.00 | 0.265 | 0.515 |
| 1148.8      | 1137.6       | 5.086      | 35.051   | 4.987          | 27.717 | 34.536  | 36.757  | 41.126  | 45.396   | 5.384      | 13.8 | 1.31            | 0.00 | 19.80 | 0.361 | 0.718 |
| 1234.3      | 1222.0       | 4.732      | 35.028   | 4.629          | 27.740 | 34.572  | 36.799  | 41.176  | 45.454   | 5.613      | 13.3 | 1.28            | 0.00 | 19.00 |       |       |
| 1244.2      | 1231.8       | 4.678      | 35.022   | 4.574          | 27.742 | 34.576  | 36.803  | 41.181  | 45.461   | 5.644      | 13.3 | 1.27            | 0.00 | 19.00 | 0.425 | 0.834 |
| 1348.7      | 1334.9       | 4.417      | 35.011   | 4.306          | 27.762 | 34.607  | 36.837  | 41.222  | 45.509   | 5.796      | 13.2 | 1.24            | 0.00 | 18.50 | 0.403 | 0.820 |
| 1449.5      | 1434.3       | 4.221      | 34.994   | 4.103          | 27.771 | 34.623  | 36.856  | 41.246  | 45.538   | 5.927      | 13.2 | 1.24            | 0.00 | 18.40 | 0.399 | 0.787 |
| 1548.2      | 1531.6       | 4.107      | 34.994   | 3.981          | 27.784 | 34.641  | 36.875  | 41.269  | 45.563   | 5.976      | 13.5 | 1.23            | 0.00 | 18.40 | 0.364 | 0.673 |
| 1650.6      | 1632.6       | 4.014      | 34.989   | 3.880          | 27.790 | 34.652  | 36.887  | 41.283  | 45.580   | 5.994      | 14.2 | 1.23            | 0.00 | 18.30 | 0.303 | 0.582 |
| 1744.2      | 1724.7       | 3.908      | 34.982   | 3.766          | 27.796 | 34.662  | 36.899  | 41.298  | 45.597   | 6.025      | 14.3 | 1.24            | 0.00 | 18.30 | 0.265 | 0.508 |
| 1747.4      | 1727.9       | 3.908      | 34.986   | 3.766          | 27.799 | 34.665  | 36.902  | 41.301  | 45.600   | 6.032      | 14.3 | 1.23            | 0.00 | 18.30 | 0.263 | 0.503 |
| 1858.1      | 1836.9       | 3.815      | 34.980   | 3.664          | 27.805 | 34.675  | 36.913  | 41.315  | 45.616   | 6.031      | 15.0 | 1.24            | 0.00 | 18.20 | 0.221 | 0.453 |
| 1851.0      | 1829.9       | 3.816      | 34.983   | 3.665          | 27.807 | 34.677  | 36.916  | 41.317  | 45.618   | 6.036      | 15.0 | 1.23            | 0.00 | 18.20 | 0.223 | 0.456 |
| 1947.7      | 1925.0       | 3.727      | 34.980   | 3.568          | 27.815 | 34.688  | 36.928  | 41.331  | 45.636   | 6.035      | 15.5 | 1.23            | 0.00 | 18.20 | 0.197 | 0.308 |
| 2101.2      | 2076.0       | 3.268      | 34.964   | 3.102          | 27.847 | 34.739  | 36.985  | 41.401  | 45.716   | 6.082      | 18.2 | 1.24            | 0.00 | 18.30 | 0.130 | 0.220 |
| 2097.6      | 2072.5       | 3.275      | 34.963   | 3.109          | 27.846 | 34.738  | 36.983  | 41.398  | 45.714   |            | 18.2 | 1.24            | 0.00 | 18.30 | 0.148 | 0.242 |

ENDEAVOR 214 Station 9 90- 6-27 Lat: 32.817 Lon: -76.424 Sonc Depth: 1129

| PR    | DE     | T             | S      | Theta  | Sig 0  | Sig 1.5      | Sig 2.0   | Sig 3.0      | Sig 4.0  | O2    | SiO2  | Phos  | NO2   | NO3   | P12   | P11   |
|-------|--------|---------------|--------|--------|--------|--------------|-----------|--------------|----------|-------|-------|-------|-------|-------|-------|-------|
| dbars | meters | deg C         | PSU    | deg C  |        | -----kg/m**3 | -----ml/l | -----umol/kg | -----    | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1.5   | 1.5    | 28.462        | 36.197 | 28.462 | 23.145 | 29.338       | 31.357    | 35.331       | 39.220   | 4.562 | 2.4   | 0.05  | 0.01  | 0.10  | 0.969 | 1.651 |
| 95.1  | 94.4   | 25.334        | 36.529 | 25.313 | 24.403 | 30.650       | 32.687    | 36.695       | 40.618   | 4.267 | 2.0   | 0.06  | 0.15  | 0.30  | 0.968 | 1.803 |
| 195.0 | 193.5  | 19.301        | 36.641 | 19.265 | 26.209 | 32.583       | 34.661    | 38.749       | 42.750   | 3.479 | 3.4   | 0.44  | 0.01  | 7.90  | 0.857 | 1.598 |
| 295.7 | 293.4  | 16.506        | 36.262 | 16.458 | 26.613 | 33.060       | 35.161    | 39.296       | 43.340   |       | 3.9   | 0.53  | 0.00  | 9.50  | 0.766 | 1.476 |
| 397.0 | 393.6  | 13.713        | 35.808 | 13.656 | 26.885 | 33.412       | 35.539    | 39.724       | 43.817   | 3.488 | 7.8   | 0.99  | 0.00  | 16.40 | 0.491 | 0.918 |
| 496.3 | 492.3  | 12.360        | 35.595 | 12.293 | 26.995 | 33.564       | 35.704    | 39.915       | 44.033   | 3.146 | 10.8  | 1.27  | 0.00  | 20.60 | 0.358 | 0.685 |
| 597.4 | 592.3  | 9.940((35.259 | 9.869  | 9.869  | 27.177 | 33.824       | 35.990    | 40.250       | 44.415)) | 3.010 | 16.4  | 1.64  | 0.00  | 25.70 | 0.194 | 0.344 |
| 696.1 | 690.0  | 8.556         | 35.097 | 8.480  | 27.277 | 33.971       | 36.152    | 40.442       | 44.636   | 3.081 | 18.8  | 1.80  | 0.00  | 27.50 | 0.133 | 0.248 |
| 766.0 | 759.2  | 6.252         | 35.086 | 6.181  | 27.597 | 34.371       | 36.579    | 40.919       | 45.162   | 4.490 | 15.8  | 1.48  | 0.00  | 22.50 | 0.204 | 0.377 |
| 775.7 | 768.8  | 5.937((35.079 | 5.867  | 5.867  | 27.632 | 34.417       | 36.628    | 40.976       | 45.226)) | 4.745 | 15.1  | 1.42  | 0.00  | 21.60 | 0.246 | 0.468 |
| 780.9 | 773.9  | 5.831         | 35.074 | 5.762  | 27.642 | 34.431       | 36.643    | 40.993       | 45.246   | 4.857 | 14.8  | 1.41  | 0.00  | 21.20 | 0.273 | 0.537 |
| 785.1 | 778.1  | 5.803         | 35.077 | 5.733  | 27.648 | 34.438       | 36.651    | 41.001       | 45.255   | 4.861 | 14.7  | 1.40  | 0.00  | 20.90 | 0.289 | 0.539 |
| 789.0 | 781.9  | 5.778         | 35.075 | 5.708  | 27.649 | 34.440       | 36.653    | 41.005       | 45.259   | 4.881 | 14.8  | 1.39  | 0.00  | 21.00 | 0.273 | 0.554 |
| 792.3 | 785.2  | 5.760((35.078 | 5.690  | 5.690  | 27.654 | 34.446       | 36.659    | 41.011       | 45.265)) |       |       |       |       |       |       |       |
| 794.3 | 787.2  | 5.741         | 35.078 | 5.671  | 27.656 | 34.449       | 36.662    | 41.014       | 45.269   | 4.913 | 14.9  | 1.39  | 0.00  | 21.00 | 0.289 | 0.551 |
| 798.3 | 791.1  | 5.672         | 35.072 | 5.602  | 27.660 | 34.455       | 36.669    | 41.023       | 45.280   | 4.951 | 14.7  | 1.39  | 0.00  | 21.00 | 0.293 | 0.569 |
| 840.4 | 832.8  | 5.356((35.062 | 5.284  | 5.284  | 27.691 | 34.498       | 36.716    | 41.078       | 45.341)) | 5.106 | 14.1  | 1.35  | 0.00  | 20.30 | 0.336 | 0.664 |
| 861.0 | 853.2  | 5.185((35.057 | 5.112  | 5.112  | 27.707 | 34.521       | 36.741    | 41.106       | 45.374)) |       |       |       |       |       |       |       |
| 860.1 | 852.3  | 5.190         | 35.054 | 5.117  | 27.705 | 34.518       | 36.738    | 41.103       | 45.371   | 5.302 | 13.9  | 1.33  | 0.00  | 19.90 | 0.344 | 0.672 |
| 861.0 | 853.2  | 5.186         | 35.052 | 5.113  | 27.703 | 34.517       | 36.737    | 41.103       | 45.370   | 5.292 | 13.9  | 1.33  | 0.00  | 19.90 | 0.349 | 0.669 |
| 862.1 | 854.3  | 5.183         | 35.051 | 5.110  | 27.703 | 34.517       | 36.737    | 41.102       | 45.370   | 5.291 | 13.8  | 1.34  | 0.00  | 19.70 | 0.343 | 0.675 |
| 865.9 | 858.1  | 5.163((35.056 | 5.090  | 5.090  | 27.709 | 34.523       | 36.744    | 41.110       | 45.378)) | 5.303 | 13.9  | 1.33  | 0.00  | 19.90 | 0.388 | 0.669 |
| 862.9 | 855.1  | 5.148         | 35.052 | 5.075  | 27.708 | 34.523       | 36.743    | 41.110       | 45.378   | 5.316 | 13.7  | 1.33  | 0.00  | 19.80 | 0.340 | 0.657 |
| 871.6 | 863.7  | 5.122((35.055 | 5.049  | 5.049  | 27.714 | 34.529       | 36.750    | 41.117       | 45.386)) | 5.328 | 13.7  | 1.33  | 0.00  | 19.90 | 0.341 | 0.658 |

ENDEAVOR 214 Station 10 90- 6-27 Lat: 33.007 Lon: -76.783 Sonic Depth: 614

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SiO2<br>umol/kg | Phos<br>umol/kg | NO2  | NO3   | P12   | P11<br>pm/kg |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|-----------------|-----------------|------|-------|-------|--------------|
| 1.6         | 1.6          | 26.909     | (36.231  | 26.909         | 23.677 | 29.897  | 31.925  | 35.916  | 39.822) |            |                 |                 |      |       |       |              |
| 45.7        | 45.4         | 25.535     | (36.373  | 25.525         | 24.220 | 30.464  | 32.500  | 36.507  | 40.428) | 4.782      | 1.8             | 0.04            | 0.00 | 0.10  | 0.995 | 2.038        |
| 96.1        | 95.4         | 19.085     | 36.429   | 19.068         | 26.098 | 32.479  | 34.559  | 38.651  | 42.656  | 3.629      | 4.0             | 0.47            | 0.08 | 7.90  | 0.840 | 1.671        |
| 139.5       | 138.5        | 16.000     | (36.136  | 15.978         | 26.628 | 33.089  | 35.195  | 39.337  | 43.390) | 3.324      | 6.1             | 0.82            | 0.02 | 13.60 | 0.638 | 1.212        |
| 195.7       | 194.2        | 13.771     | 35.824   | 13.743         | 26.879 | 33.403  | 35.530  | 39.713  | 43.804  | 3.364      | 8.7             | 1.05            | 0.01 | 17.10 | 0.487 | 0.905        |
| 246.2       | 244.3        | 12.387     | 35.616   | 12.354         | 27.000 | 33.566  | 35.706  | 39.915  | 44.032  | 3.332      | 10.0            | 1.20            | 0.01 | 19.50 | 0.392 | 0.730        |
| 295.7       | 293.4        | 11.371     | 35.465   | 11.333         | 27.077 | 33.675  | 35.826  | 40.056  | 44.192  | 3.167      | 12.7            | 1.39            | 0.01 | 22.10 | 0.299 | 0.533        |
| 344.7       | 342.0        | 9.992      | 35.283   | 9.952          | 27.182 | 33.825  | 35.990  | 40.249  | 44.413  | 3.122      | 15.3            | 1.57            | 0.01 | 24.70 | 0.194 | 0.328        |
| 395.5       | 392.3        | 9.100      | 35.148   | 9.056          | 27.225 | 33.899  | 36.074  | 40.352  | 44.534  | 2.932      | 18.3            | 1.77            | 0.01 | 27.30 | 0.142 | 0.234        |
| 445.3       | 441.7        | 8.772      | 35.110   | 8.724          | 27.249 | 33.934  | 36.113  | 40.398  | 44.587  | 2.968      | 19.0            | 1.82            | 0.00 | 27.80 | 0.133 | 0.209        |
| 495.4       | 491.4        | 8.613      | 35.094   | 8.560          | 27.262 | 33.953  | 36.134  | 40.422  | 44.615  | 3.010      | 19.1            | 1.82            | 0.00 | 27.90 | 0.184 | 0.192        |
| 545.3       | 540.8        | 7.286      | 35.094   | 7.232          | 27.460 | 34.197  | 36.392  | 40.709  | 44.929  | 3.963      | 16.6            | 1.58            | 0.00 | 24.20 |       |              |
| 565.1       | 560.4        | 6.775      | (35.095  | 6.722          | 27.533 | 34.287  | 36.488  | 40.816  | 45.048) | 4.244      | 15.8            | 1.53            | 0.00 | 23.00 | 0.226 | 0.413        |

ENDEAVOR 214 Station 11 90- 6-27 Lat: 34.325 Lon: -75.687 Sonic Depth: 1149

| PR<br>d-bars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2<br>ml/l | SiO2<br> ----- | Phos<br>umol/kg | NO2<br>----- | NO3<br>----- | F12<br> ----- | F11<br> ----- |
|--------------|--------------|------------|----------|----------------|--------|---------|---------|---------|----------|------------|----------------|-----------------|--------------|--------------|---------------|---------------|
| 3.2          | 3.2          | 28.393     | 36.307   | 28.392         | 23.251 | 29.444  | 31.463  | 35.437  | 39.326   | 4.504      | 12.8           | 1.26            | 0.00         | 18.70        | 0.911         | 1.637         |
| 47.4         | 47.1         | 25.749     | 36.443   | 25.738         | 24.206 | 30.446  | 32.480  | 36.484  | 40.402   | 4.479      | 12.8           | 1.26            | 0.00         | 18.60        |               |               |
| 46.5         | 46.2         | 25.760     | {36.441  | 25.750         | 24.201 | 30.441  | 32.475  | 36.478  | 40.396}} |            | 1.9            | 0.04            | 0.00         | 0.00         |               |               |
| 47.0         | 46.7         | 25.750     | {36.441  | 25.740         | 24.205 | 30.444  | 32.479  | 36.482  | 40.400}} |            | 1.3            | 0.04            | 0.00         | 0.00         |               |               |
| 47.5         | 47.2         | 25.750     | {36.443  | 25.739         | 24.206 | 30.445  | 32.480  | 36.483  | 40.401}} |            |                |                 |              |              |               |               |
| 47.7         | 47.4         | 25.735     | 36.440   | 25.724         | 24.208 | 30.448  | 32.483  | 36.486  | 40.405   | 4.486      |                |                 |              |              | 0.933         | 1.752         |
| 198.5        | 196.9        | 18.652     | 36.571   | 18.617         | 26.322 | 32.712  | 34.795  | 38.894  | 42.904   | 3.533      |                |                 |              |              | 0.834         | 1.569         |
| 248.3        | 246.4        | 17.604     | 36.422   | 17.562         | 26.471 | 32.888  | 34.980  | 39.096  | 43.122   | 3.578      | 1.0            | 0.03            | 0.00         | 0.00         |               |               |
| 298.9        | 296.5        | 16.277     | {36.191  | 16.229         | 26.612 | 33.066  | 35.169  | 39.307  | 43.356}} | 3.286      | 3.2            | 0.45            | 0.00         | 8.20         | 0.639         | 1.206         |
| 341.1        | 338.4        | 14.646     | {35.945  | 14.595         | 26.791 | 33.290  | 35.409  | 39.576  | 43.652}} | 3.380      | 3.7            | 0.54            | 0.00         | 9.60         |               |               |
| 396.3        | 393.1        | 13.138     | 35.729   | 13.082         | 26.942 | 33.486  | 35.619  | 39.814  | 43.917   | 3.746      | 5.5            | 0.78            | 0.00         | 13.30        | 0.535         | 1.040         |
| 447.0        | 443.3        | 12.175     | 35.588   | 12.115         | 27.024 | 33.598  | 35.741  | 39.955  | 44.076   | 3.338      | 7.0            | 0.94            | 3.00         | 15.40        |               |               |
| 498.7        | 494.6        | 10.139     | {35.300  | 10.080         | 27.173 | 33.812  | 35.976  | 40.231  | 44.393}} | 3.092      | 7.5            | 0.99            | 0.00         | 16.00        | 0.234         | 0.416         |
| 548.2        | 543.6        | 6.863      | 35.092   | 6.811          | 27.518 | 34.269  | 36.469  | 40.795  | 45.025   | 4.332      | 9.7            | 1.22            | 0.00         | 19.80        |               |               |
| 598.1        | 593.0        | 5.494      | 35.021   | 5.443          | 27.639 | 34.441  | 36.657  | 41.015  | 45.275   | 4.941      | 14.8           | 1.57            | 0.00         | 24.40        | 0.556         | 1.163         |
| 648.6        | 642.9        | 5.066      | *35.012  | 5.013          | 27.683 | 34.501  | 36.723  | 41.091  | 45.361** | 5.246      | 14.8           | 1.48            | 0.02         | 22.40        | 0.621         | 1.280         |
| 699.0        | 692.8        | 4.858      | *35.006  | 4.801          | 27.703 | 34.529  | 36.753  | 41.126  | 45.401** | 5.427      | 14.1           | 1.40            | 0.01         | 20.90        | 0.594         | 1.206         |
| 748.9        | 742.2        | 4.687      | 34.994   | 4.627          | 27.713 | 34.546  | 36.772  | 41.150  | 45.429   | 5.545      | 13.5           | 1.33            | 0.01         | 20.00        | 0.630         | 1.296         |
| 796.4        | 789.1        | 4.619      | 34.987   | 4.556          | 27.716 | 34.551  | 36.778  | 41.158  | 45.438   | 5.590      | 13.5           | 1.31            | 0.00         | 19.60        | 0.642         | 1.326         |
| 845.0        | 837.2        | 4.532      | 34.983   | 4.465          | 27.723 | 34.562  | 36.790  | 41.172  | 45.454   | 5.647      | 13.2           | 1.30            | 0.00         | 19.30        |               |               |
| 895.3        | 887.0        | 4.423      | 34.979   | 4.352          | 27.732 | 34.575  | 36.805  | 41.189  | 45.475   | 5.743      | 13.2           | 1.28            | 0.00         | 19.10        | 0.636         | 1.318         |
| 947.7        | 938.8        | 4.407      | 34.991   | 4.332          | 27.744 | 34.588  | 36.818  | 41.202  | 45.488   | 5.758      | 12.8           | 1.28            | 0.00         | 18.80        |               |               |
| 992.6        | 983.1        | 4.383      | 34.992   | 4.304          | 27.748 | 34.592  | 36.823  | 41.208  | 45.495   | 5.775      | 12.7           | 1.27            | 0.00         | 18.70        |               |               |
| 1033.1       | 1023.1       | 4.380      | 34.987   | 4.298          | 27.744 | 34.589  | 36.820  | 41.205  | 45.492   | 5.783      | 12.9           | 1.27            | 0.00         | 18.80        | 0.589         | 1.223         |

ENDEAVOR 214 Station 12 90- 6-28 Lat: 34.139 Lon: -75.393 Sonic Depth: 2953

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2<br>ml/l | SiO2<br>umol/kg | Phos<br>umol/kg | NO2  | NO3   | P12   | P11<br>pm/kg |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|----------|------------|-----------------|-----------------|------|-------|-------|--------------|
| 0.1         | 0.1          | 28.068     | 36.221   | 28.068         | 23.293 | 29.492  | 31.514  | 35.491  | 39.385   | 4.553      | 2.1             | 0.05            | 0.00 | 0.00  | 0.934 | 1.824        |
| 94.8        | 94.1         | 20.379     | 36.714   | 20.361         | 25.974 | 32.323  | 34.393  | 38.465  | 42.449   | 5.145      | 1.2             | 0.04            | 0.00 | 0.00  | 1.174 | 2.356        |
| 195.4       | 193.9        | 18.925     | 36.619   | 18.890         | 26.289 | 32.672  | 34.753  | 38.847  | 42.853   | 4.802      | 1.4             | 0.10            | 0.01 | 1.70  | 1.163 | 2.234        |
| 295.2       | 292.9        | 18.062     | 36.511   | 18.011         | 26.428 | 32.834  | 34.922  | 39.030  | 43.049   | 4.513      | 2.0             | 0.23            | 0.00 | 4.40  | 1.009 | 1.984        |
| 395.7       | 392.5        | 17.063     | 36.354   | 16.997         | 26.556 | 32.988  | 35.085  | 39.210  | 43.245   | 4.321      | 2.9             | 0.40            | 0.00 | 7.10  | 0.890 | 1.716        |
| 545.9       | 541.3        | 14.321     | 35.895   | 14.239         | 26.829 | 33.338  | 35.460  | 39.634  | 43.716   | 3.908      | 5.8             | 0.80            | 0.00 | 13.50 | 0.631 | 1.271        |
| 696.0       | 689.8        | 10.751     | 35.393   | 10.664         | 27.143 | 33.763  | 35.920  | 40.163  | 44.313   | 3.446      | 12.3            | 1.39            | 0.00 | 22.20 | 0.290 | 0.530        |
| 796.7       | 789.4        | 8.354      | 35.168   | 8.268          | 27.365 | 34.065  | 36.249  | 40.543  | 44.741   | 3.636      | 15.6            | 1.57            | 0.09 | 24.30 | 0.208 | 0.389        |
| 896.2       | 887.9        | 6.390      | {35.086  | 6.306          | 27.581 | 34.350  | 36.556  | 40.894  | 45.134}} | 4.466      | 15.1            | 1.46            | 0.00 | 22.00 | 0.266 | 0.516        |
| 995.8       | 986.3        | 5.211      | {35.055  | 5.126          | 27.704 | 34.517  | 36.737  | 41.102  | 45.369}} | 5.265      | 13.8            | 1.32            | 0.00 | 19.90 | 0.325 | 0.660        |
| 1096.1      | 1085.4       | 4.639      | 35.020   | 4.549          | 27.743 | 34.578  | 36.805  | 41.184  | 45.465   | 5.640      | 13.2            | 1.27            | 0.00 | 19.00 | 0.415 | 0.834        |
| 1196.3      | 1184.3       | 4.405      | 35.012   | 4.308          | 27.763 | 34.608  | 36.838  | 41.223  | 45.509   | 5.789      | 13.1            | 1.24            | 0.00 | 18.60 | 0.459 | 0.921        |
| 1296.2      | 1283.0       | 4.168      | {34.975  | 4.064          | 27.750 | 34.614  | 36.848  | 41.239  | 45.531}} |            |                 |                 |      |       |       |              |
| 1396.8      | 1382.2       | 4.052      | 34.983   | 3.941          | 27.779 | 34.638  | 36.873  | 41.267  | 45.563   | 5.982      | 13.3            | 1.23            | 0.00 | 18.30 | 0.471 | 0.950        |
| 1495.6      | 1479.6       | 3.962      | 34.969   | 3.843          | 27.778 | 34.641  | 36.877  | 41.274  | 45.572   | 6.020      | 13.5            | 1.22            | 0.00 | 18.20 | 0.448 | 0.859        |
| 1596.2      | 1578.7       | 3.892      | 34.969   | 3.764          | 27.786 | 34.652  | 36.889  | 41.288  | 45.588   | 6.040      | 13.8            | 1.22            | 0.00 | 18.20 | 0.385 | 0.736        |
| 1745.8      | 1726.1       | 3.766      | 34.976   | 3.626          | 27.806 | 34.677  | 36.916  | 41.318  | 45.621   | 6.058      | 14.5            | 1.22            | 0.00 | 18.10 | 0.329 | 0.631        |
| 1897.6      | 1875.5       | 3.749      | 34.981   | 3.595          | 27.813 | 34.685  | 36.925  | 41.328  | 45.631   | 6.021      | 15.2            | 1.23            | 0.00 | 18.20 | 0.165 | 0.301        |
| 2047.0      | 2022.5       | 3.606      | {34.979  | 3.440          | 27.826 | 34.705  | 36.946  | 41.353  | 45.660}} |            |                 |                 |      |       |       |              |
| 2246.3      | 2218.4       | 3.370      | 34.967   | 3.188          | 27.841 | 34.730  | 36.975  | 41.388  | 45.701   | 6.055      | 17.7            | 1.22            | 0.00 | 18.40 | 0.123 | 0.210        |
| 2445.4      | 2413.9       | 3.217      | 34.962   | 3.018          | 27.853 | 34.749  | 36.996  | 41.413  | 45.731   | 6.077      | 18.8            | 1.24            | 0.00 | 18.30 | 0.124 | 0.208        |
| 2645.6      | 2610.3       | 2.885      | 34.945   | 2.673          | 27.871 | 34.781  | 37.032  | 41.459  | 45.785   | 6.173      | 19.4            | 1.21            | 0.00 | 17.90 | 0.212 | 0.403        |
| 2845.5      | 2806.2       | 2.729      | 34.930   | 2.500          | 27.874 | 34.791  | 37.045  | 41.476  | 45.807   | 6.190      | 20.4            | 1.21            | 0.00 | 17.70 | 0.251 | 0.495        |
| 2963.7      | 2922.0       | 2.564      | 34.921   | 2.326          | 27.882 | 34.806  | 37.062  | 41.498  | 45.833   | 6.197      | 22.1            | 1.22            | 0.00 | 17.70 | 0.294 | 0.557        |

ENDEAVOR 214 Station 13 90- 6-28 Lat: 33.936 Lon: -75.109 Sonic Depth: 3296

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SI02<br> -----umol/kg | Phos<br> -----umol/kg | NO2  | NO3   | F12<br> -----pm/kg | F11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|-----------------------|-----------------------|------|-------|--------------------|-------|
| 0.2         | 0.2          | 24.400     | (36.586  | 24.400         | 24.724 | 30.989  | 33.031  | 37.050  | 40.983) |            |                       |                       |      |       |                    |       |
| 141.3       | 140.3        | 19.593     | 36.649   | 19.567         | 26.136 | 32.503  | 34.579  | 38.663  | 42.659  | 4.858      | 1.4                   | 0.07                  | 0.00 | 0.90  | 1.199              | 2.322 |
| 291.3       | 289.0        | 18.796     | 36.592   | 18.744         | 26.305 | 32.693  | 34.775  | 38.871  | 42.879  | 4.787      | 1.6                   | 0.12                  | 0.03 | 2.20  |                    |       |
| 444.5       | 440.8        | 17.678     | 36.442   | 17.601         | 26.477 | 32.893  | 34.985  | 39.099  | 43.125  | 4.498      | 2.4                   | 0.28                  | 0.00 | 5.30  |                    |       |
| 593.1       | 588.0        | 15.566     | (36.096  | 15.472         | 26.712 | 33.187  | 35.297  | 39.448  | 43.509) | 4.054      | 4.5                   | 0.63                  | 0.00 | 10.80 |                    |       |
| 745.7       | 739.0        | 12.011     | 35.543   | 11.911         | 27.029 | 33.609  | 35.754  | 39.972  | 44.097  | 3.443      | 10.1                  | 1.21                  | 0.00 | 19.60 |                    |       |
| 943.3       | 934.5        | 7.675      | 35.122   | 7.577          | 27.433 | 34.157  | 36.348  | 40.657  | 44.870  | 3.850      | 15.5                  | 1.53                  | 0.00 | 23.80 |                    |       |
| 1045.4      | 1035.3       | 6.183      | 35.066   | 6.085          | 27.594 | 34.372  | 36.580  | 40.923  | 45.168  | 4.682      | 14.7                  | 1.43                  | 0.00 | 21.60 | 0.321              | 0.652 |
| 1196.3      | 1184.4       | 5.183      | 35.054   | 5.079          | 27.709 | 34.524  | 36.744  | 41.111  | 45.379  | 5.311      | 13.7                  | 1.31                  | 0.00 | 19.50 | 0.393              | 0.772 |
| 1346.3      | 1332.3       | 4.582      | 35.004   | 4.470          | 27.739 | 34.577  | 36.806  | 41.187  | 45.469  | 5.697      | 13.2                  | 1.26                  | 0.00 | 18.90 | 0.473              | 0.943 |
| 1441.6      | 1426.4       | 4.357      | 34.991   | 4.238          | 27.754 | 34.601  | 36.833  | 41.219  | 45.508  | 5.824      | 13.2                  | 1.25                  | 0.00 | 18.50 | 0.453              | 0.922 |
| 1545.5      | 1528.8       | 4.139      | 34.976   | 4.013          | 27.766 | 34.622  | 36.856  | 41.249  | 45.542  | 5.951      | 13.2                  | 1.24                  | 0.00 | 18.20 | 0.478              | 0.972 |
| 1646.5      | 1628.4       | 4.154      | 34.990   | 4.018          | 27.776 | 34.632  | 36.866  | 41.259  | 45.552  | 5.932      | 13.4                  | 1.24                  | 0.00 | 18.30 | 0.315              | 0.621 |
| 1796.3      | 1775.9       | 3.961      | 34.976   | 3.814          | 27.787 | 34.651  | 36.887  | 41.285  | 45.583  | 6.012      | 13.9                  | 1.23                  | 0.00 | 18.20 | 0.310              | 0.586 |
| 1996.7      | 1973.0       | 3.777      | 34.972   | 3.613          | 27.804 | 34.676  | 36.915  | 41.317  | 45.620  | 6.031      | 14.6                  | 1.23                  | 0.00 | 18.20 |                    |       |
| 2196.9      | 2169.8       | 3.618      | 34.973   | 3.437          | 27.822 | 34.701  | 36.942  | 41.349  | 45.656  | 6.062      | 16.0                  | 1.24                  | 0.00 | 18.30 |                    |       |
| 2396.4      | 2365.8       | 3.415      | 34.966   | 3.218          | 27.838 | 34.725  | 36.970  | 41.382  | 45.695  | 6.054      | 17.7                  | 1.25                  | 0.00 | 18.40 | 0.116              | 0.196 |
| 2597.5      | 2563.1       | 3.193      | 34.951   | 2.980          | 27.848 | 34.745  | 36.993  | 41.411  | 45.730  | 6.099      | 18.9                  | 1.24                  | 0.00 | 18.30 |                    |       |
| 2747.1      | 2709.8       | 3.011      | 34.949   | 2.786          | 27.864 | 34.769  | 37.019  | 41.443  | 45.766  | 6.130      | 19.6                  | 1.24                  | 0.00 | 18.20 | 0.144              | 0.261 |
| 2897.1      | 2856.8       | 2.833      | 34.951   | 2.596          | 27.882 | 34.795  | 37.048  | 41.476  | 45.804  | 6.169      | 20.3                  | 1.23                  | 0.00 | 17.90 | 0.173              | 0.333 |
| 3047.3      | 3003.8       | 2.627      | 34.925   | 2.379          | 27.880 | 34.803  | 37.058  | 41.492  | 45.826  | 6.211      | 21.2                  | 1.22                  | 0.00 | 17.80 | 0.239              | 0.451 |
| 3148.1      | 3102.5       | 2.462      | 34.914   | 2.208          | 27.886 | 34.815  | 37.073  | 41.512  | 45.850  | 6.171      | 22.9                  | 1.23                  | 0.00 | 17.90 | 0.271              | 0.530 |
| 3246.1      | 3198.4       | 2.347      | 34.909   | 2.085          | 27.892 | 34.826  | 37.086  | 41.528  | 45.869  | 6.213      | 24.7                  | 1.23                  | 0.00 | 17.90 | 0.319              | 0.603 |
| 3343.4      | 3293.5       | 2.302      | 34.905   | 2.031          | 27.893 | 34.830  | 37.090  | 41.533  | 45.876  | 6.187      | 25.7                  | 1.26                  | 0.00 | 17.90 | 0.322              | 0.602 |

ENDEAVOR 214 Station 14 90- 6-28 Lat: 33.700 Lon: -74.819 Sonic Depth: 3750

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SiO2 | Phos<br>-umol/kg | NO2  | NO3   | F12<br> ---pm/kg--- | F11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|------|------------------|------|-------|---------------------|-------|
| 2.7         | 2.7          | 25.339     | (36.255  | 25.338         | 24.188 | 30.437  | 32.474  | 36.483  | 40.407  | 4.749      | 1.4  | 0.04             | 0.00 | 0.00  | 1.126               | 2.135 |
| 144.1       | 143.0        | 19.376     | (36.646  | 19.350         | 26.190 | 32.562  | 34.640  | 38.727  | 42.726  | 4.866      | 1.3  | 0.06             | 0.02 | 0.90  | 1.200               | 2.414 |
| 346.9       | 344.2        | 18.272     | (36.531  | 18.211         | 26.394 | 32.794  | 34.881  | 38.986  | 43.002  | 4.620      | 1.7  | 0.19             | 0.00 | 3.80  | 1.078               | 2.065 |
| 498.1       | 494.0        | 17.084     | (36.353  | 17.000         | 26.554 | 32.986  | 35.083  | 39.208  | 43.243  | 4.329      | 3.0  | 0.39             | 0.00 | 7.10  | 0.882               | 1.720 |
| 649.2       | 643.6        | 14.868     | (35.979  | 14.768         | 26.779 | 33.274  | 35.391  | 39.554  | 43.628  | 4.086      | 4.9  | 0.69             | 0.00 | 11.90 | 0.737               | 1.456 |
| 797.0       | 789.8        | 11.808     | 35.509   | 11.702         | 27.042 | 33.629  | 35.776  | 39.998  | 44.128  | 3.478      | 15.8 | 1.55             | 0.00 | 24.10 | 0.384               | 0.762 |
| 996.7       | 987.2        | 7.664      | (35.129  | 7.560          | 27.440 | 34.165  | 36.356  | 40.666  | 44.879  | 3.827      |      |                  |      |       | 0.187               | 0.369 |
| 1196.9      | 1185.0       | 5.688      | (35.079  | 5.579          | 27.669 | 34.465  | 36.679  | 41.033  | 45.290  |            |      |                  |      |       |                     |       |
| 1302.2      | 1288.9       | 5.088      | 35.039   | 4.975          | 27.709 | 34.528  | 36.750  | 41.119  | 45.390  | 5.385      | 13.6 | 1.30             | 0.00 | 19.60 | 0.371               | 0.737 |
| 1397.5      | 1382.9       | 4.819      | 35.028   | 4.699          | 27.732 | 34.562  | 36.787  | 41.163  | 45.440  | 5.567      | 13.0 | 1.28             | 0.00 | 19.20 | 0.342               | 0.686 |
| 1496.9      | 1481.0       | 4.541      | 35.015   | 4.415          | 27.754 | 34.594  | 36.823  | 41.205  | 45.489  | 5.735      | 13.0 | 1.25             | 0.00 | 18.80 | 0.385               | 0.749 |
| 1698.8      | 1679.8       | 4.223      | 34.986   | 4.082          | 27.767 | 34.620  | 36.853  | 41.244  | 45.536  | 5.901      | 13.2 | 1.24             | 0.00 | 18.40 | 0.332               | 0.647 |
| 1897.1      | 1875.1       | 3.956      | 34.972   | 3.799          | 27.785 | 34.650  | 36.886  | 41.284  | 45.583  | 6.005      | 13.8 | 1.23             | 0.00 | 18.40 | 0.277               | 0.521 |
| 2097.8      | 2072.5       | 3.786      | 34.971   | 3.612          | 27.803 | 34.675  | 36.914  | 41.317  | 45.620  | 6.012      | 14.9 | 1.24             | 0.00 | 18.40 | 0.165               | 0.300 |
| 2295.5      | 2266.8       | 3.591      | 34.966   | 3.401          | 27.820 | 34.700  | 36.942  | 41.350  | 45.658  | 6.033      | 16.2 | 1.24             | 0.00 | 18.40 | 0.124               | 0.199 |
| 2498.5      | 2466.1       | 3.384      | 34.958   | 3.177          | 27.835 | 34.725  | 36.969  | 41.383  | 45.697  | 6.057      | 17.8 | 1.24             | 0.00 | 18.40 | 0.111               | 0.163 |
| 2697.0      | 2660.8       | 3.190      | 34.951   | 2.967          | 27.849 | 34.747  | 36.995  | 41.414  | 45.733  | 6.076      | 19.2 | 1.25             | 0.00 | 18.30 | 0.107               | 0.189 |
| 2898.1      | 2857.8       | 2.974      | 34.938   | 2.734          | 27.860 | 34.767  | 37.018  | 41.443  | 45.768  | 6.120      | 20.0 | 1.24             | 0.00 | 18.20 | 0.134               | 0.238 |
| 3048.6      | 3005.2       | 2.776      | 34.926   | 2.525          | 27.869 | 34.785  | 37.038  | 41.469  | 45.799  | 6.188      | 20.2 | 1.22             | 0.00 | 17.80 | 0.201               | 0.406 |
| 3198.9      | 3152.3       | 2.641      | 34.920   | 2.377          | 27.877 | 34.799  | 37.054  | 41.489  | 45.822  | 6.215      | 21.5 | 1.23             | 0.00 | 17.80 |                     |       |
| 3348.7      | 3298.7       | 2.487      | 34.916   | 2.211          | 27.887 | 34.816  | 37.074  | 41.513  | 45.851  | 6.233      | 22.3 | 1.22             | 0.00 | 17.90 | 0.240               | 0.490 |
| 3499.5      | 3446.1       | 2.326      | 34.904   | 2.038          | 27.892 | 34.828  | 37.088  | 41.532  | 45.874  | 6.218      | 25.2 | 1.27             | 0.00 | 18.00 | 0.266               | 0.535 |
| 3649.5      | 3592.6       | 2.237      | 34.898   | 1.935          | 27.895 | 34.836  | 37.097  | 41.544  | 45.889  | 6.220      | 29.0 | 1.34             | 0.00 | 18.50 | 0.233               | 0.452 |
| 3780.5      | 3720.4       | 2.163      | (34.896  | 1.849          | 27.901 | 34.845  | 37.108  | 41.556  | 45.903  | 6.045      | 34.7 | 1.38             | 0.00 | 19.40 | 0.170               | 0.315 |

ENDEAVOR 214 Station 15 90- 6-28 Lat: 33.482 Lon: -74.513 Sonic Depth: 4180

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SiO2<br>umol/kg | Phos<br>umol/kg | NO2  | NO3   | P12<br>pm/kg | P11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|-----------------|-----------------|------|-------|--------------|-------|
| 2.9         | 2.9          | 24.475     | (36.388  | 24.474         | 24.552 | 30.816  | 32.859  | 36.878  | 40.811) | 4.815      | 1.2             | 0.02            | 0.00 | 0.00  | 1.068        | 2.164 |
| 146.4       | 145.3        | 19.399     | 36.653   | 19.372         | 26.190 | 32.562  | 34.639  | 38.726  | 42.724  | 4.916      | 1.2             | 0.03            | 0.06 | 0.70  |              |       |
| 292.6       | 290.3        | 18.400     | 36.549   | 18.348         | 26.373 | 32.770  | 34.855  | 38.958  | 42.972  | 4.572      | 1.7             | 0.16            | 0.01 | 3.60  |              |       |
| 496.5       | 492.4        | 17.074     | 36.358   | 16.990         | 26.560 | 32.993  | 35.090  | 39.214  | 43.250  | 4.411      | 2.6             | 0.35            | 0.00 | 6.90  |              |       |
| 701.4       | 695.2        | 13.575     | (35.779  | 13.473         | 26.900 | 33.433  | 35.562  | 39.750  | 43.846) | 3.810      | 6.8             | 0.91            | 0.00 | 15.50 |              |       |
| 844.2       | 836.5        | 10.629     | (35.388  | 10.524         | 27.164 | 33.788  | 35.947  | 40.193  | 44.345) | 3.483      | 11.8            | 1.33            | 0.00 | 21.50 |              |       |
| 1049.1      | 1039.0       | 6.974      | 35.106   | 6.870          | 27.521 | 34.270  | 36.469  | 40.794  | 45.022  | 4.164      | 15.4            | 1.49            | 0.00 | 23.30 | 0.212        | 0.432 |
| 1244.9      | 1232.4       | 5.356      | 35.057   | 5.246          | 27.692 | 34.500  | 36.719  | 41.081  | 45.345  | 5.198      | 13.7            | 1.31            | 0.00 | 20.30 | 0.357        | 0.721 |
| 1353.4      | 1339.4       | 4.729      | 35.009   | 4.614          | 27.727 | 34.560  | 36.786  | 41.164  | 45.443  | 5.593      | 13.1            | 1.26            | 0.00 | 19.30 | 0.498        | 0.993 |
| 1456.3      | 1440.9       | 4.478      | 34.997   | 4.356          | 27.746 | 34.589  | 36.818  | 41.202  | 45.488  | 5.762      | 12.8            | 1.24            | 0.00 | 18.80 | 0.502        | 0.999 |
| 1600.3      | 1582.9       | 4.314      | 34.997   | 4.181          | 27.765 | 34.614  | 36.846  | 41.235  | 45.524  | 5.867      | 13.1            | 1.25            | 0.00 | 18.80 | 0.381        | 0.752 |
| 1794.5      | 1774.2       | 4.146      | 35.001   | 3.996          | 27.788 | 34.644  | 36.878  | 41.271  | 45.565  | 5.914      | 13.6            | 1.23            | 0.00 | 18.70 | 0.260        | 0.437 |
| 1991.0      | 1967.5       | 3.959      | 34.996   | 3.793          | 27.805 | 34.669  | 36.906  | 41.304  | 45.603  | 5.942      | 14.7            | 1.23            | 0.00 | 18.80 |              |       |
| 2194.6      | 2167.7       | 3.734      | 34.986   | 3.551          | 27.821 | 34.695  | 36.935  | 41.339  | 45.644  | 5.989      | 16.0            | 1.23            | 0.00 | 18.70 |              |       |
| 2395.2      | 2364.7       | 3.521      | 34.980   | 3.322          | 27.839 | 34.722  | 36.965  | 41.375  | 45.685  | 5.978      | 18.3            | 1.25            | 0.00 | 18.80 |              |       |
| 2591.1      | 2556.9       | 3.289      | 34.960   | 3.074          | 27.846 | 34.740  | 36.986  | 41.402  | 45.718  | 6.067      | 18.3            | 1.23            | 0.00 | 18.60 |              |       |
| 2791.1      | 2753.0       | 3.097      | 34.958   | 2.866          | 27.864 | 34.766  | 37.015  | 41.436  | 45.758  | 6.034      | 21.6            | 1.26            | 0.00 | 19.00 |              |       |
| 2989.7      | 2947.6       | 2.882      | 34.940   | 2.635          | 27.870 | 34.782  | 37.034  | 41.461  | 45.788  | 6.114      | 21.7            | 1.25            | 0.00 | 18.60 | 0.108        | 0.201 |
| 3197.4      | 3150.9       | 2.649      | 34.926   | 2.385          | 27.881 | 34.803  | 37.058  | 41.492  | 45.825  | 6.173      | 22.4            | 1.23            | 0.00 | 18.30 | 0.157        | 0.306 |
| 3398.6      | 3347.6       | 2.466      | 34.910   | 2.185          | 27.885 | 34.815  | 37.073  | 41.512  | 45.851  | 6.188      | 24.3            | 1.24            | 0.00 | 18.30 | 0.175        | 0.347 |
| 3599.7      | 3544.1       | 2.337      | 34.908   | 2.038          | 27.895 | 34.831  | 37.091  | 41.535  | 45.877  | 6.193      | 26.5            | 1.25            | 0.00 | 18.70 | 0.194        | 0.365 |
| 3800.1      | 3739.6       | 2.268      | 34.901   | 1.949          | 27.897 | 34.837  | 37.098  | 41.544  | 45.888  | 6.156      | 29.5            | 1.27            | 0.00 | 18.80 | 0.171        | 0.334 |
| 4000.9      | 3935.4       | 2.213      | 34.894   | 1.873          | 27.897 | 34.840  | 37.103  | 41.550  | 45.897  | 6.095      | 32.7            | 1.31            | 0.00 | 19.40 | 0.159        | 0.295 |
| 4220.2      | 4149.1       | 2.182      | 34.887   | 1.817          | 27.896 | 34.841  | 37.105  | 41.554  | 45.902  | 5.990      | 37.5            | 1.38            | 0.00 | 20.00 | 0.143        | 0.257 |

ENDEAVOR 214 Station 16 90- 6-29 Lat: 33.250 Lon: -74.167 Sonic Depth: 4510

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SI02<br>umol/kg | Phos<br>umol/kg | NO2  | NO3   | F12   | F11<br>pm/kg |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|-----------------|-----------------|------|-------|-------|--------------|
| 3.1         | 3.1          | 24.504     | (36.203  | 24.503         | 24.403 | 30.669  | 32.712  | 36.731  | 40.665  | 4.792      | 1.3             | 0.02            | 0.00 | 0.10  | 1.118 | 2.080        |
| 199.2       | 197.7        | 18.981     | 36.621   | 18.945         | 26.276 | 32.658  | 34.739  | 38.832  | 42.837  | 4.857      | 1.4             | 0.07            | 0.01 | 1.60  | 1.177 | 2.464        |
| 397.7       | 394.5        | 17.747     | 36.459   | 17.678         | 26.471 | 32.885  | 34.976  | 39.089  | 43.114  | 4.510      | 2.2             | 0.26            | 0.01 | 5.00  | 1.002 | 1.932        |
| 598.5       | 593.4        | 15.444     | (36.074  | 15.350         | 26.723 | 33.200  | 35.312  | 39.465  | 43.529  | 4.144      | 4.1             | 0.59            | 0.00 | 10.40 | 0.784 | 1.517        |
| 797.7       | 790.5        | 11.597     | (35.504  | 11.492         | 27.078 | 33.671  | 35.820  | 40.047  | 44.180  | 3.574      | 10.0            | 1.19            | 0.00 | 19.30 | 0.409 | 0.781        |
| 948.6       | 939.8        | 8.607      | (35.179  | 8.502          | 27.338 | 34.030  | 36.211  | 40.500  | 44.693  | 3.561      | 15.1            | 1.53            | 0.00 | 23.70 | 0.205 | 0.440        |
| 1152.1      | 1140.8       | 5.918      | 35.086   | 5.812          | 27.645 | 34.432  | 36.644  | 40.993  | 45.244  | 4.792      | 14.4            | 1.38            | 0.00 | 21.10 | 0.290 | 0.580        |
| 1297.8      | 1284.6       | 5.169      | 35.055   | 5.055          | 27.713 | 34.528  | 36.749  | 41.116  | 45.385  | 5.328      | 13.5            | 1.29            | 0.00 | 19.70 | 0.331 | 0.677        |
| 1398.7      | 1384.1       | 4.831      | (35.036  | 4.711          | 27.737 | 34.566  | 36.791  | 41.166  | 45.443  | 5.553      | 13.2            | 1.26            | 0.00 | 19.00 | 0.351 | 0.708        |
| 1497.6      | 1481.7       | 4.457      | (35.000  | 4.332          | 27.750 | 34.594  | 36.824  | 41.209  | 45.495  | 5.784      | 12.9            | 1.23            | 0.00 | 18.50 | 0.445 | 0.907        |
| 1648.1      | 1630.0       | 4.137      | 34.975   | 4.001          | 27.766 | 34.623  | 36.857  | 41.250  | 45.544  | 5.945      | 12.9            | 1.22            | 0.00 | 18.30 | 0.453 | 0.911        |
| 1847.0      | 1825.8       | 3.960      | (34.974  | 3.808          | 27.785 | 34.650  | 36.886  | 41.284  | 45.582  | 6.036      | 13.5            | 1.22            | 0.00 | 18.10 | 0.339 | 0.671        |
| 2098.7      | 2073.5       | 3.763      | 34.980   | 3.589          | 27.812 | 34.685  | 36.925  | 41.328  | 45.631  | 6.026      | 14.6            | 1.21            | 0.00 | 18.10 | 0.222 | 0.413        |
| 2347.4      | 2317.9       | 3.569      | 34.982   | 3.374          | 27.835 | 34.717  | 36.959  | 41.367  | 45.676  | 5.989      | 16.3            | 1.22            | 0.00 | 18.30 | 0.131 | 0.234        |
| 2598.8      | 2564.6       | 3.323      | 34.968   | 3.107          | 27.850 | 34.742  | 36.988  | 41.403  | 45.718  | 6.074      | 17.8            | 1.23            | 0.00 | 18.30 | 0.124 | 0.222        |
| 2849.5      | 2810.3       | 3.038      | 34.947   | 2.802          | 27.861 | 34.766  | 37.015  | 41.439  | 45.761  | 6.116      | 19.6            | 1.23            | 0.00 | 18.10 | 0.127 | 0.251        |
| 3099.6      | 3055.3       | 2.768      | 34.950   | 2.512          | 27.889 | 34.805  | 37.059  | 41.490  | 45.820  | 6.188      | 20.7            | 1.23            | 0.00 | 17.90 | 0.178 | 0.337        |
| 3299.9      | 3251.2       | 2.575      | 34.916   | 2.302          | 27.880 | 34.805  | 37.062  | 41.498  | 45.833  | 6.228      | 22.0            | 1.23            | 0.00 | 17.90 | 0.190 | 0.405        |
| 3500.5      | 3447.3       | 2.420      | 34.925   | 2.129          | 27.901 | 34.834  | 37.092  | 41.533  | 45.873  | 6.228      | 24.0            | 1.23            | 0.00 | 18.00 | 0.199 | 0.412        |
| 3700.1      | 3642.1       | 2.319      | (34.907  | 2.009          | 27.897 | 34.834  | 37.095  | 41.539  | 45.882  | 6.188      | 27.1            | 1.27            | 0.00 | 18.30 | 0.173 | 0.372        |
| 3899.7      | 3836.8       | 2.269      | (34.903  | 1.938          | 27.899 | 34.839  | 37.101  | 41.547  | 45.892  | 6.150      | 30.2            | 1.28            | 0.00 | 18.80 | 0.149 | 0.282        |
| 4099.2      | 4031.3       | 2.241      | (34.898  | 1.889          | 27.899 | 34.842  | 37.104  | 41.551  | 45.898  | 6.120      | 32.4            | 1.31            | 0.00 | 19.20 | 0.124 | 0.254        |
| 4350.7      | 4276.2       | 2.225      | (34.895  | 1.844          | 27.900 | 34.845  | 37.108  | 41.556  | 45.903  | 6.081      | 34.6            | 1.35            | 0.00 | 19.50 | 0.138 | 0.264        |
| 4595.6      | 4514.4       | 2.236      | (34.894  | 1.825          | 27.900 | 34.846  | 37.109  | 41.558  | 45.906  | 6.045      | 36.0            | 1.36            | 0.00 | 19.60 | 0.134 | 0.272        |

ENDEAVOR 214 Station 17 90- 6-29 Lat: 33.002 Lon: -73.786 Sonic Depth: 4823

| PR     | DE     | T      | S       | Theta  | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | U     | SI02         | Phos  | NO2   | NO3   | P12   | P11   |
|--------|--------|--------|---------|--------|--------|---------|---------|---------|---------|-------|--------------|-------|-------|-------|-------|-------|
| dbars  | meters | deg C  | PSU     | deg C  | -----  | -----   | -----   | -----   | -----   | ml/l  | -----umol/kg | ----- | ----- | ----- | ----- | ----- |
| 6.0    | 5.9    | 24.375 | (36.529 | 24.374 | 24.690 | 30.955  | 32.998  | 37.017  | 40.951) | 4.853 | 1.1          | 0.02  | 0.00  | 0.10  | 1.069 | 2.244 |
| 146.0  | 144.9  | 19.138 | 36.634  | 19.112 | 26.243 | 32.621  | 34.700  | 38.791  | 42.794  | 4.849 | 1.3          | 0.05  | 0.02  | 1.40  | 1.185 | 2.408 |
| 347.2  | 344.5  | 17.973 | 36.489  | 17.913 | 26.436 | 32.844  | 34.933  | 39.043  | 43.063  | 4.612 | 1.9          | 0.22  | 0.00  | 4.50  | 0.995 | 1.974 |
| 548.2  | 543.6  | 16.170 | (36.196 | 16.081 | 26.650 | 33.108  | 35.212  | 39.353  | 43.404) | 3.960 | 3.4          | 0.52  | 0.00  | 9.30  | 0.793 | 1.537 |
| 747.3  | 740.7  | 12.729 | 35.651  | 12.625 | 26.973 | 33.531  | 35.669  | 39.873  | 43.985  | 3.810 | 8.2          | 1.05  | 0.00  | 17.40 | 0.508 | 0.962 |
| 895.7  | 887.5  | 9.405  | 35.245  | 9.301  | 27.261 | 33.926  | 36.098  | 40.370  | 44.547  | 3.688 | 14.2         | 1.52  | 0.00  | 24.00 | 0.228 | 0.437 |
| 1097.0 | 1086.4 | 6.404  | 35.093  | 6.299  | 27.587 | 34.357  | 36.563  | 40.901  | 45.141  | 4.532 | 14.8         | 1.43  | 0.00  | 21.90 | 0.251 | 0.512 |
| 1244.7 | 1232.2 | 5.392  | 35.064  | 5.281  | 27.693 | 34.500  | 36.718  | 41.079  | 45.343  | 5.195 | 13.8         | 1.32  | 0.00  | 20.20 | 0.323 | 0.625 |
| 1345.2 | 1331.4 | 5.019  | 35.049  | 4.902  | 27.726 | 34.547  | 36.770  | 41.140  | 45.413  | 5.458 | 13.2         | 1.28  | 0.00  | 19.50 | 0.347 | 0.706 |
| 1446.7 | 1431.5 | 4.696  | 35.030  | 4.573  | 27.748 | 34.582  | 36.809  | 41.188  | 45.468  | 5.676 | 12.9         | 1.25  | 0.00  | 18.90 | 0.373 | 0.753 |
| 1594.9 | 1577.6 | 4.445  | 35.021  | 4.311  | 27.770 | 34.614  | 36.844  | 41.229  | 45.515  | 5.826 | 13.0         | 1.23  | 0.00  | 18.80 | 0.263 | 0.513 |
| 1747.4 | 1727.8 | 4.195  | 35.004  | 4.049  | 27.784 | 34.639  | 36.872  | 41.264  | 45.556  | 5.959 | 13.1         | 1.22  | 0.00  | 18.70 | 0.262 | 0.498 |
| 1996.4 | 1972.9 | 3.942  | 34.990  | 3.776  | 27.802 | 34.667  | 36.904  | 41.302  | 45.601  | 6.002 | 14.4         | 1.22  | 0.00  | 18.60 | 0.177 | 0.340 |
| 2296.7 | 2268.1 | 3.679  | 34.990  | 3.487  | 27.831 | 34.707  | 36.948  | 41.354  | 45.660  | 5.997 | 16.9         | 1.24  | 0.00  | 18.60 | 0.066 | 0.101 |
| 2597.1 | 2562.9 | 3.383  | 34.972  | 3.166  | 27.847 | 34.737  | 36.982  | 41.396  | 45.709  | 6.040 | 19.2         | 1.26  | 0.00  | 18.70 | 0.049 | 0.066 |
| 2898.4 | 2858.3 | 3.112  | 34.973  | 2.869  | 27.876 | 34.777  | 37.026  | 41.447  | 45.768  | 6.077 | 21.1         | 1.27  | 0.00  | 18.80 | 0.056 | 0.069 |
| 3146.7 | 3101.4 | 2.854  | (34.939 | 2.591  | 27.873 | 34.787  | 37.039  | 41.468  | 45.796) | 6.157 | 21.1         | 1.22  | 0.00  | 18.30 | 0.114 | 0.221 |
| 3398.4 | 3347.6 | 2.614  | 34.929  | 2.330  | 27.888 | 34.812  | 37.068  | 41.503  | 45.838  | 6.167 | 22.6         | 1.22  | 0.00  | 17.90 | 0.141 | 0.296 |
| 3648.8 | 3592.1 | 2.437  | 34.913  | 2.130  | 27.892 | 34.824  | 37.083  | 41.524  | 45.864  | 6.237 | 24.5         | 1.23  | 0.00  | 18.20 | 0.180 | 0.351 |
| 3898.3 | 3835.5 | 2.334  | 34.899  | 2.002  | 27.891 | 34.829  | 37.089  | 41.534  | 45.877  | 6.194 | 27.7         | 1.27  | 0.00  | 18.40 | 0.154 | 0.283 |
| 4098.2 | 4030.4 | 2.285  | 34.911  | 1.931  | 27.906 | 34.847  | 37.108  | 41.554  | 45.899  | 6.104 | 30.8         | 1.30  | 0.00  | 19.00 | 0.117 | 0.224 |
| 4347.3 | 4273.0 | 2.257  | 34.894  | 1.875  | 27.897 | 34.840  | 37.102  | 41.550  | 45.897  | 6.124 | 32.9         | 1.31  | 0.00  | 19.20 | 0.138 | 0.270 |
| 4535.9 | 4456.5 | 2.250  | 34.892  | 1.846  | 27.897 | 34.842  | 37.105  | 41.553  | 45.900  | 6.096 | 34.4         | 1.34  | 0.00  | 19.40 | 0.139 | 0.261 |
| 4887.2 | 4797.8 | 2.246  | 34.887  | 1.799  | 27.897 | 34.844  | 37.107  | 41.557  | 45.905  | 6.013 | 39.0         | 1.40  | 0.00  | 20.20 | 0.113 | 0.185 |

ENDRAVOR 214 Station 18 90-6-29 Lat: 34.652 Lon: -72.868 Sonic Depth: 4494

| PR     | DE     | T      | S      | Theta  | Sig 0  | Sig 1.5           | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2    | SiO2    | Phos | NO2  | NO3   | P12   | P11   |
|--------|--------|--------|--------|--------|--------|-------------------|---------|---------|---------|-------|---------|------|------|-------|-------|-------|
| dbars  | meters | deg C  | PSU    | deg C  |        | kg/m <sup>3</sup> |         |         |         | ml/l  | umol/kg |      |      |       | pm/kg |       |
| 3.0    | 3.0    | 25.905 | 36.378 | 25.904 | 24.105 | 30.342            | 32.376  | 36.378  | 40.294  | 4.717 | 1.5     | 0.02 | 0.00 | 0.10  | 1.048 | 1.890 |
| 249.2  | 247.3  | 19.442 | 36.654 | 19.396 | 26.184 | 32.556            | 34.633  | 38.719  | 42.717  | 4.930 | 1.3     | 0.03 | 0.01 | 0.80  | 1.196 | 2.346 |
| 498.7  | 494.6  | 18.094 | 36.502 | 18.007 | 26.422 | 32.828            | 34.916  | 39.025  | 43.044  | 4.476 | 1.9     | 0.23 | 0.01 | 4.50  | 0.997 | 1.938 |
| 748.4  | 741.6  | 14.765 | 35.996 | 14.650 | 26.818 | 33.315            | 35.433  | 39.599  | 43.674  | 3.644 | 5.3     | 0.76 | 0.00 | 13.10 | 0.611 | 1.184 |
| 948.6  | 939.7  | 10.595 | 35.363 | 10.476 | 27.153 | 33.779            | 35.938  | 40.186  | 44.339  | 3.438 | 12.9    | 1.40 | 0.00 | 22.80 | 0.277 | 0.530 |
| 1099.0 | 1088.2 | 7.574  | 35.114 | 7.460  | 27.444 | 34.172            | 36.364  | 40.676  | 44.892  | 3.848 | 15.5    | 1.54 | 0.00 | 23.90 | 0.235 | 0.468 |
| 1248.2 | 1235.5 | 5.809  | 35.074 | 5.694  | 27.650 | 34.442            | 36.655  | 41.007  | 45.261  | 4.885 | 14.4    | 1.36 | 0.00 | 20.90 | 0.313 | 0.637 |
| 1348.7 | 1334.6 | 5.121  | 35.035 | 5.003  | 27.703 | 34.521            | 36.742  | 41.111  | 45.381  | 5.342 | 13.7    | 1.29 | 0.00 | 19.90 | 0.407 | 0.839 |
| 1448.1 | 1432.7 | 4.756  | 35.009 | 4.632  | 27.725 | 34.557            | 36.783  | 41.160  | 45.439  | 5.590 | 13.2    | 1.25 | 0.00 | 19.30 | 0.501 | 1.002 |
| 1548.4 | 1531.5 | 4.559  | 34.999 | 4.428  | 27.740 | 34.580            | 36.808  | 41.191  | 45.474  | 5.730 | 12.9    | 1.24 | 0.00 | 18.90 | 0.463 | 0.940 |
| 1648.8 | 1630.5 | 4.345  | 35.007 | 4.207  | 27.770 | 34.618            | 36.850  | 41.238  | 45.526  | 5.870 | 12.9    | 1.23 | 0.00 | 18.70 | 0.443 | 0.931 |
| 1849.0 | 1827.5 | 4.061  | 34.975 | 3.907  | 27.776 | 34.636            | 36.872  | 41.267  | 45.563  |       | 13.0    | 1.19 | 0.00 | 18.40 | 0.400 | 0.814 |
| 2099.1 | 2073.6 | 3.855  | 34.969 | 3.680  | 27.795 | 34.664            | 36.902  | 41.303  | 45.605  | 6.061 | 13.8    | 1.20 | 0.00 | 18.30 | 0.286 | 0.547 |
| 2348.1 | 2318.3 | 3.700  | 34.978 | 3.503  | 27.820 | 34.696            | 36.936  | 41.342  | 45.647  | 6.049 | 15.1    | 1.23 | 0.00 | 18.30 | 0.167 | 0.299 |
| 2649.3 | 2613.7 | 3.443  | 34.975 | 3.220  | 27.845 | 34.732            | 36.976  | 41.389  | 45.701  | 6.066 | 17.3    | 1.24 | 0.00 | 18.30 | 0.111 | 0.190 |
| 2899.6 | 2859.1 | 3.185  | 34.955 | 2.941  | 27.855 | 34.754            | 37.002  | 41.421  | 45.741  | 6.097 | 19.3    | 1.23 | 0.00 | 18.30 | 0.099 | 0.168 |
| 3100.8 | 3056.1 | 2.978  | 34.945 | 2.717  | 27.867 | 34.776            | 37.026  | 41.452  | 45.777  | 6.104 | 20.8    | 1.23 | 0.00 | 18.40 | 0.108 | 0.206 |
| 3299.4 | 3250.3 | 2.774  | 34.935 | 2.496  | 27.878 | 34.795            | 37.049  | 41.480  | 45.811  | 6.175 | 21.3    | 1.23 | 0.00 | 18.30 | 0.152 | 0.304 |
| 3500.0 | 3446.4 | 2.578  | 34.934 | 2.283  | 27.896 | 34.822            | 37.078  | 41.515  | 45.851  | 6.222 | 22.3    | 1.21 | 0.00 | 18.10 | 0.188 | 0.387 |
| 3700.8 | 3642.4 | 2.448  | 34.915 | 2.135  | 27.893 | 34.825            | 37.084  | 41.524  | 45.864  | 6.191 | 25.0    | 1.23 | 0.00 | 18.40 | 0.157 | 0.319 |
| 3901.1 | 3837.7 | 2.336  | 34.910 | 2.003  | 27.899 | 34.837            | 37.098  | 41.542  | 45.885  | 6.193 | 27.3    | 1.26 | 0.00 | 18.60 | 0.184 | 0.367 |
| 4100.0 | 4031.6 | 2.281  | 34.905 | 1.927  | 27.901 | 34.842            | 37.104  | 41.550  | 45.895  | 6.145 | 29.9    | 1.27 | 0.00 | 18.80 | 0.164 | 0.351 |
| 4301.9 | 4228.2 | 2.254  | 34.901 | 1.878  | 27.902 | 34.845            | 37.108  | 41.555  | 45.901  | 6.116 | 32.9    | 1.31 | 0.00 | 19.30 | 0.157 | 0.274 |
| 4554.8 | 4474.2 | 2.225  | 34.894 | 1.820  | 27.901 | 34.847            | 37.110  | 41.559  | 45.907  | 6.032 | 36.7    | 1.36 | 0.00 | 19.90 | 0.139 | 0.272 |

ENDEAVOR 214 Station 19 90- 6-30 Lat: 34.875 Lon: -73.121 Sonic Depth: 4295

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SiO2 | Phos<br>umol/kg | NO2  | NO3   | P12<br>pm/kg | P11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|------|-----------------|------|-------|--------------|-------|
| 0.6         | 0.6          | 25.226     | 36.490   | 25.226         | 24.400 | 30.649  | 32.687  | 36.696  | 40.620  | 4.759      | 1.5  | 0.02            | 0.00 | 0.10  |              |       |
| 196.2       | 194.7        | 19.534     | 36.635   | 19.498         | 26.143 | 32.512  | 34.589  | 38.674  | 42.671  | 4.953      | 1.1  | 0.03            | 0.02 | 0.90  |              |       |
| 395.9       | 392.7        | 18.665     | (36.585  | 18.594         | 26.338 | 32.729  | 34.812  | 38.911  | 42.921  | 4.826      | 1.4  | 0.12            | 0.01 | 2.50  |              |       |
| 597.1       | 591.9        | 17.261     | 36.381   | 17.159         | 26.537 | 32.965  | 35.061  | 39.183  | 43.215  | 4.461      | 2.4  | 0.33            | 0.00 | 6.40  |              |       |
| 743.8       | 737.1        | 15.201     | (36.034  | 15.085         | 26.751 | 33.237  | 35.351  | 39.509  | 43.576  | 4.033      | 4.6  | 0.68            | 0.00 | 11.70 |              |       |
| 895.5       | 887.2        | 11.948     | (35.542  | 11.828         | 27.044 | 33.627  | 35.772  | 39.992  | 44.119  | 3.518      | 9.8  | 1.19            | 0.00 | 19.60 |              |       |
| 1045.9      | 1035.7       | 8.677      | 35.183   | 8.560          | 27.332 | 34.022  | 36.202  | 40.490  | 44.682  | 3.505      | 15.4 | 1.57            | 0.00 | 24.60 | 0.199        | 0.410 |
| 1195.1      | 1183.1       | 6.213      | 35.069   | 6.100          | 27.595 | 34.372  | 36.580  | 40.922  | 45.167  | 4.643      | 14.6 | 1.42            | 0.00 | 21.90 | 0.325        | 0.655 |
| 1297.5      | 1284.2       | 5.433      | (35.049  | 5.317          | 27.677 | 34.483  | 36.701  | 41.061  | 45.324  | 5.127      | 13.6 | 1.32            | 0.00 | 20.20 | 0.401        | 0.815 |
| 1396.9      | 1382.2       | 4.904      | 35.020   | 4.783          | 27.716 | 34.543  | 36.767  | 41.141  | 45.416  | 5.513      | 13.1 | 1.28            | 0.00 | 19.60 | 0.467        | 0.955 |
| 1496.7      | 1480.6       | 4.639      | 35.025   | 4.512          | 27.751 | 34.588  | 36.815  | 41.195  | 45.477  | 5.703      | 13.0 | 1.26            | 0.00 | 19.10 | 0.475        | 0.923 |
| 1596.2      | 1578.6       | 4.467      | 35.001   | 4.332          | 27.752 | 34.595  | 36.825  | 41.210  | 45.496  | 5.813      | 12.8 | 1.23            | 0.00 | 18.90 | 0.441        | 0.891 |
| 1797.6      | 1777.0       | 4.101      | 34.990   | 3.952          | 27.783 | 34.642  | 36.877  | 41.271  | 45.566  | 6.018      | 12.8 | 1.21            | 0.00 | 18.50 | 0.429        | 0.885 |
| 1997.2      | 1973.4       | 3.944      | 34.979   | 3.778          | 27.793 | 34.658  | 36.895  | 41.294  | 45.593  | 6.072      | 13.2 | 1.20            | 0.00 | 18.40 |              |       |
| 2247.5      | 2219.4       | 3.784      | 34.969   | 3.595          | 27.803 | 34.676  | 36.915  | 41.318  | 45.622  | 6.047      | 14.5 | 1.21            | 0.00 | 18.40 |              |       |
| 2496.5      | 2463.8       | 3.607      | 34.975   | 3.396          | 27.828 | 34.708  | 36.950  | 41.358  | 45.666  | 6.064      | 16.1 | 1.21            | 0.00 | 18.40 |              |       |
| 2746.2      | 2709.7       | 3.392      | 34.983   | 3.159          | 27.857 | 34.747  | 36.992  | 41.405  | 45.719  | 6.051      | 18.9 | 1.24            | 0.00 | 18.60 |              |       |
| 2996.9      | 2954.3       | 3.129      | 34.968   | 2.876          | 27.871 | 34.773  | 37.021  | 41.442  | 45.763  | 6.124      | 19.1 | 1.23            | 0.00 | 18.20 | 0.121        | 0.226 |
| 3198.1      | 3151.2       | 2.924      | 34.941   | 2.654          | 27.869 | 34.780  | 37.032  | 41.459  | 45.786  | 6.097      | 20.5 | 1.22            | 0.00 | 18.30 | 0.117        | 0.230 |
| 3397.8      | 3346.4       | 2.728      | 34.936   | 2.441          | 27.884 | 34.803  | 37.058  | 41.490  | 45.822  | 6.219      | 20.8 | 1.21            | 0.00 | 18.00 | 0.171        | 0.337 |
| 3597.5      | 3541.5       | 2.522      | 34.917   | 2.218          | 27.887 | 34.816  | 37.074  | 41.512  | 45.850  | 6.254      | 21.9 | 1.20            | 0.00 | 17.80 | 0.243        | 0.504 |
| 3898.8      | 3835.4       | 2.338      | 34.907   | 2.006          | 27.897 | 34.835  | 37.095  | 41.539  | 45.882  | 6.275      | 24.3 | 1.21            | 0.00 | 17.80 | 0.290        | 0.626 |
| 4247.7      | 4175.4       | 2.224      | 34.907   | 1.855          | 27.909 | 34.853  | 37.115  | 41.563  | 45.910  | 6.114      | 32.5 | 1.31            | 0.00 | 19.10 | 0.184        | 0.383 |
| 4364.9      | 4289.5       | 2.219      | 34.887   | 1.836          | 27.894 | 34.839  | 37.102  | 41.551  | 45.898  | 6.075      | 34.7 | 1.34            | 0.00 | 19.40 |              |       |

ENDEAVOR 214 Station 20 90- 6-30 Lat: 35.040 Lon: -73.394 Sonic Depth: 4014

| PR     | DB     | T      | S       | Theta  | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2    | SiO2         | Phos  | NO2   | NO3   | F12   | F11   |
|--------|--------|--------|---------|--------|--------|---------|---------|---------|---------|-------|--------------|-------|-------|-------|-------|-------|
| dbars  | meters | deg C  | PSU     | deg C  | -----  | -----   | -----   | -----   | -----   | ml/l  | -----umol/kg | ----- | ----- | ----- | ----- | ----- |
| 0.7    | 0.7    | 24.715 | (36.516 | 24.715 | 24.576 | 30.835  | 32.875  | 36.891  | 40.821) | 4.811 | 1.2          | 0.02  | 0.00  | 0.10  | 1.101 | 2.108 |
| 196.5  | 195.0  | 19.234 | 36.652  | 19.198 | 26.234 | 32.610  | 34.689  | 38.778  | 42.779  | 4.956 | 1.2          | 0.03  | 0.01  | 1.10  | 1.208 | 2.458 |
| 394.2  | 391.0  | 18.568 | (36.569 | 18.498 | 26.350 | 32.744  | 34.828  | 38.928  | 42.940) | 4.740 | 1.4          | 0.14  | 0.00  | 3.00  | 1.132 | 2.100 |
| 596.7  | 591.5  | 17.011 | (36.339 | 16.911 | 26.565 | 32.999  | 35.097  | 39.223  | 43.260) | 4.415 | 2.6          | 0.37  | 0.00  | 7.00  | 0.907 | 1.754 |
| 796.8  | 789.5  | 13.475 | 35.757  | 13.360 | 26.907 | 33.443  | 35.573  | 39.763  | 43.861  | 3.718 | 7.0          | 0.95  | 0.00  | 15.90 | 0.542 | 1.002 |
| 944.2  | 935.3  | 10.208 | 35.324  | 10.092 | 27.190 | 33.828  | 35.992  | 40.247  | 44.408  | 3.331 | 12.7         | 1.43  | 0.00  | 22.80 | 0.271 | 0.581 |
| 1095.1 | 1084.3 | 7.616  | 35.122  | 7.502  | 27.444 | 34.170  | 36.363  | 40.673  | 44.888  | 3.869 | 15.4         | 1.54  | 0.00  | 23.80 | 0.204 | 0.389 |
| 1246.8 | 1234.1 | 5.670  | (35.065 | 5.557  | 27.660 | 34.457  | 36.672  | 41.027  | 45.284) | 4.968 |              |       |       |       | 0.314 | 0.616 |
| 1346.9 | 1332.8 | 5.017  | 35.039  | 4.900  | 27.718 | 34.540  | 36.763  | 41.133  | 45.405  | 5.457 | 13.2         | 1.27  | 0.00  | 19.40 | 0.382 | 0.836 |
| 1444.2 | 1428.8 | 4.852  | 35.039  | 4.727  | 27.738 | 34.566  | 36.791  | 41.166  | 45.442  | 5.594 | 13.0         | 1.25  | 0.00  | 19.20 | 0.356 | 0.703 |
| 1589.1 | 1532.2 | 4.637  | 35.029  | 4.505  | 27.755 | 34.592  | 36.819  | 41.200  | 45.481  | 5.725 | 13.1         | 1.24  | 0.00  | 18.90 | 0.349 | 0.670 |
| 1697.5 | 1678.4 | 4.357  | 35.012  | 4.214  | 27.773 | 34.621  | 36.853  | 41.240  | 45.529  | 5.868 | 12.9         | 1.22  | 0.00  | 18.60 | 0.321 | 0.624 |
| 1746.2 | 1726.4 | 4.287  | 35.005  | 4.140  | 27.775 | 34.627  | 36.859  | 41.248  | 45.538  | 5.908 | 13.0         | 1.22  | 0.00  | 18.50 | 0.317 | 0.590 |
| 1945.4 | 1922.4 | 3.911  | 34.991  | 3.750  | 27.805 | 34.671  | 36.909  | 41.308  | 45.607  | 6.002 | 14.5         | 1.22  | 0.00  | 18.40 | 0.175 | 0.308 |
| 2147.0 | 2120.7 | 3.744  | 35.003  | 3.566  | 27.833 | 34.707  | 36.946  | 41.350  | 45.654  |       | 15.9         | 1.23  | 0.00  | 18.60 | 0.218 | 0.352 |
| 2398.4 | 2367.5 | 3.524  | 34.975  | 3.325  | 27.835 | 34.718  | 36.961  | 41.370  | 45.680  | 6.053 | 17.3         | 1.23  | 0.00  | 18.50 | 0.078 | 0.129 |
| 2653.3 | 2617.6 | 3.287  | 34.964  | 3.066  | 27.850 | 34.744  | 36.990  | 41.407  | 45.723  | 6.105 | 18.3         | 1.22  | 0.00  | 18.30 | 0.107 | 0.181 |
| 2900.1 | 2859.5 | 3.037  | 34.946  | 2.796  | 27.861 | 34.766  | 37.016  | 41.439  | 45.762  | 6.136 | 20.0         | 1.22  | 0.00  | 18.40 | 0.103 | 0.206 |
| 3097.4 | 3052.6 | 2.850  | 34.932  | 2.592  | 27.868 | 34.781  | 37.034  | 41.462  | 45.790  | 6.186 | 21.0         | 1.22  | 0.00  | 18.20 | 0.141 | 0.240 |
| 3296.8 | 3247.7 | 2.630  | (34.929 | 2.356  | 27.885 | 34.808  | 37.064  | 41.499  | 45.833) | 6.244 | 21.3         | 1.22  | 0.00  | 17.80 | 0.172 | 0.356 |
| 3498.8 | 3445.1 | 2.400  | 34.917  | 2.110  | 27.896 | 34.830  | 37.089  | 41.530  | 45.870  | 6.280 | 22.6         | 1.22  | 0.00  | 17.70 | 0.282 | 0.567 |
| 3697.4 | 3638.9 | 2.262  | 34.900  | 1.954  | 27.895 | 34.835  | 37.096  | 41.542  | 45.887  | 6.233 | 26.6         | 1.26  | 0.00  | 18.30 | 0.257 | 0.497 |
| 3898.1 | 3834.7 | 2.192  | 34.893  | 1.864  | 27.897 | 34.841  | 37.103  | 41.551  | 45.898  | 6.143 | 31.9         | 1.31  | 0.00  | 19.10 | 0.184 | 0.362 |
| 4036.5 | 3959.8 | 2.178  | 34.899  | 1.836  | 27.904 | 34.849  | 37.112  | 41.560  | 45.908  |       | 34.4         | 1.35  | 0.00  | 19.40 | 0.177 | 0.335 |

**BNDEAVOR 214**85

ENDEAVOR 214 Station 22 90- 6-30 Lat: 35.339 Lon: -73.816 Sonic Depth: 3330

| PR     | DB     | T      | S       | Theta  | Sig 0  | Sig 1.5      | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2    | SiO2         | Phos  | NO2   | NO3   | F12        | F11   |
|--------|--------|--------|---------|--------|--------|--------------|---------|---------|---------|-------|--------------|-------|-------|-------|------------|-------|
| dbars  | meters | deg C  | PSU     | deg C  |        | -----kg/m**3 | -----   | -----   | -----   | ml/l  | -----umol/kg | ----- | ----- | ----- | -----pm/kg |       |
| 2.4    | 2.4    | 28.291 | 36.245  | 28.290 | 23.238 | 29.433       | 31.453  | 35.428  | 39.319  | 4.534 | 2.0          | 0.02  | 0.00  | 0.10  | 0.952      | 1.699 |
| 148.0  | 146.9  | 19.468 | 36.648  | 19.441 | 26.168 | 32.538       | 34.615  | 38.701  | 42.699  | 4.855 | 1.4          | 0.04  | 0.03  | 1.10  | 1.189      | 2.367 |
| 349.4  | 346.6  | 18.106 | 36.505  | 18.045 | 26.415 | 32.820       | 34.908  | 39.015  | 43.034  | 4.530 | 1.9          | 0.21  | 0.00  | 4.40  | 1.036      | 1.981 |
| 498.2  | 494.0  | 16.649 | 36.290  | 16.567 | 26.609 | 33.053       | 35.153  | 39.285  | 43.328  | 4.251 | 3.2          | 0.44  | 0.00  | 8.20  | 0.834      | 1.647 |
| 647.8  | 642.1  | 13.884 | 35.830  | 13.789 | 26.874 | 33.397       | 35.523  | 39.705  | 43.796  | 3.860 | 6.3          | 0.85  | 0.00  | 14.50 | 0.607      | 1.178 |
| 797.6  | 790.3  | 10.719 | (35.380 | 10.619 | 27.140 | 33.762       | 35.920  | 40.164  | 44.314) | 3.342 | 12.3         | 1.38  | 0.00  | 22.30 | 0.307      | 0.591 |
| 950.4  | 941.4  | 7.426  | 35.113  | 7.329  | 27.462 | 34.194       | 36.388  | 40.703  | 44.921  | 3.945 | 15.6         | 1.52  | 0.00  | 23.90 | 0.234      | 0.469 |
| 1099.7 | 1088.8 | 4.997  | 35.041  | 4.904  | 27.719 | 34.541       | 36.763  | 41.134  | 45.406  | 5.430 | 13.4         | 1.27  | 0.00  | 19.80 | 0.368      | 0.740 |
| 1246.2 | 1233.5 | 4.598  | 35.022  | 4.495  | 27.750 | 34.588       | 36.816  | 41.196  | 45.478  | 5.693 | 13.0         | 1.23  | 0.00  | 19.00 | 0.388      | 0.769 |
| 1347.3 | 1333.2 | 4.393  | 35.008  | 4.282  | 27.763 | 34.608       | 36.839  | 41.224  | 45.511  | 5.823 | 13.1         | 1.22  | 0.00  | 18.80 |            |       |
| 1450.7 | 1435.2 | 4.142  | 34.976  | 4.025  | 27.765 | 34.621       | 36.854  | 41.247  | 45.540  | 5.956 | 12.9         | 1.22  | 0.00  | 18.50 | 0.450      | 0.912 |
| 1551.0 | 1534.0 | 4.058  | 34.970  | 3.932  | 27.770 | 34.629       | 36.864  | 41.259  | 45.554  | 6.028 | 13.0         | 1.20  | 0.00  | 18.50 | 0.418      | 0.881 |
| 1649.1 | 1630.7 | 3.914  | 34.965  | 3.781  | 27.781 | 34.647       | 36.884  | 41.282  | 45.581  | 6.059 | 13.5         | 1.20  | 0.00  | 18.30 | 0.399      | 0.787 |
| 1749.1 | 1729.2 | 3.868  | 34.982  | 3.726  | 27.800 | 34.668       | 36.905  | 41.305  | 45.605  | 6.058 | 13.7         | 1.22  | 0.00  | 18.40 | 0.299      | 0.544 |
| 1899.4 | 1877.1 | 3.772  | 34.973  | 3.617  | 27.804 | 34.676       | 36.915  | 41.317  | 45.620  | 6.050 | 14.7         | 1.22  | 0.00  | 18.50 | 0.231      | 0.425 |
| 2100.3 | 2074.7 | 3.627  | 34.987  | 3.455  | 27.831 | 34.709       | 36.951  | 41.357  | 45.664  | 6.046 | 15.9         | 1.22  | 0.00  | 18.50 |            |       |
| 2299.7 | 2270.6 | 3.406  | 34.974  | 3.218  | 27.844 | 34.732       | 36.976  | 41.388  | 45.701  | 6.061 | 17.3         | 1.23  | 0.00  | 18.40 | 0.156      | 0.267 |
| 2499.3 | 2466.5 | 3.152  | 34.949  | 2.949  | 27.849 | 34.748       | 36.996  | 41.415  | 45.734  | 6.124 | 18.0         | 1.22  | 0.00  | 18.20 | 0.175      | 0.329 |
| 2697.6 | 2661.0 | 2.952  | 34.942  | 2.733  | 27.863 | 34.771       | 37.021  | 41.446  | 45.771  | 6.160 | 19.3         | 1.21  | 0.00  | 18.10 | 0.173      | 0.331 |
| 2897.7 | 2857.1 | 2.730  | 34.926  | 2.496  | 27.871 | 34.789       | 37.042  | 41.474  | 45.804  | 6.206 | 20.1         | 1.22  | 0.00  | 17.90 | 0.222      | 0.429 |
| 3093.9 | 3049.1 | 2.453  | 34.916  | 2.205  | 27.888 | 34.817       | 37.075  | 41.514  | 45.852  | 6.250 | 22.1         | 1.20  | 0.00  | 17.90 | 0.264      | 0.544 |
| 3198.6 | 3151.6 | 2.339  | 34.911  | 2.082  | 27.894 | 34.828       | 37.088  | 41.530  | 45.871  | 6.260 | 22.8         | 1.19  | 0.00  | 17.80 | 0.317      | 0.652 |
| 3299.8 | 3250.5 | 2.275  | 34.908  | 2.009  | 27.897 | 34.835       | 37.095  | 41.539  | 45.882  | 6.250 | 24.6         | 1.21  | 0.00  | 18.00 | 0.323      | 0.649 |
| 3400.3 | 3348.7 | 2.244  | 34.907  | 1.969  | 27.900 | 34.839       | 37.100  | 41.545  | 45.889  | 6.216 | 26.8         | 1.24  | 0.00  | 18.20 | 0.300      | 0.598 |

ENDEAVOR 214 Station 23 90- 7- 1 Lat: 35.527 Lon: -73.984 S0nic Depth: 3026

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SiO2<br>-umol/kg | Phos<br>-umol/kg | NO2  | NO3   | P12<br>-pm/kg | P11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|------------------|------------------|------|-------|---------------|-------|
| 0.1         | 0.1          | 28.561     | 36.323   | 28.561         | 23.207 | 29.397  | 31.415  | 35.387  | 39.275  | 4.529      | 1.9              | 0.05             | 0.00 | 0.10  | 0.921         | 1.744 |
| 147.1       | 146.0        | 19.228     | 36.627   | 19.201         | 26.214 | 32.590  | 34.669  | 38.759  | 42.760  | 4.499      | 1.5              | 0.11             | 0.01 | 2.50  |               |       |
| 296.2       | 293.8        | 17.652     | 36.444   | 17.601         | 26.478 | 32.894  | 34.986  | 39.101  | 43.127  | 4.524      | 2.1              | 0.28             | 0.00 | 5.20  |               |       |
| 420.8       | 417.3        | 15.406     | 36.078   | 15.340         | 26.728 | 33.206  | 35.318  | 39.471  | 43.535  | 3.777      | 4.8              | 0.70             | 0.00 | 12.10 |               |       |
| 545.6       | 540.9        | 13.766     | 35.808   | 13.687         | 26.878 | 33.404  | 35.531  | 39.715  | 43.808  | 3.388      | 7.6              | 1.01             | 0.00 | 16.90 |               |       |
| 670.9       | 664.9        | 10.598     | 35.367   | 10.515         | 27.149 | 33.774  | 35.933  | 40.179  | 44.332  | 3.357      | 12.4             | 1.41             | 0.00 | 22.30 |               |       |
| 796.0       | 788.7        | 5.619      | 35.030   | 5.549          | 27.633 | 34.431  | 36.646  | 41.001  | 45.259  | 4.927      | 14.1             | 1.37             | 0.00 | 20.80 |               |       |
| 895.7       | 887.3        | 5.102      | 35.026   | 5.027          | 27.693 | 34.510  | 36.731  | 41.099  | 45.369  | 5.293      | 13.4             | 1.30             | 0.00 | 19.70 | 0.475         | 0.985 |
| 995.7       | 986.1        | 4.967      | 35.024   | 4.883          | 27.708 | 34.531  | 36.754  | 41.125  | 45.398  | 5.446      | 13.3             | 1.28             | 0.00 | 19.50 |               |       |
| 1097.1      | 1086.2       | 4.703      | 35.005   | 4.612          | 27.724 | 34.557  | 36.783  | 41.161  | 45.440  | 5.625      | 13.2             | 1.26             | 0.00 | 19.10 | 0.364         | 0.731 |
| 1195.9      | 1183.8       | 4.404      | 35.003   | 4.307          | 27.756 | 34.601  | 36.831  | 41.216  | 45.502  | 5.804      | 12.8             | 1.24             | 0.00 | 18.60 |               |       |
| 1296.0      | 1282.6       | 4.206      | 34.984   | 4.102          | 27.762 | 34.615  | 36.848  | 41.239  | 45.530  | 5.909      | 12.8             | 1.22             | 0.00 | 18.40 | 0.445         | 0.907 |
| 1396.2      | 1381.4       | 4.119      | 34.982   | 4.007          | 27.771 | 34.628  | 36.862  | 41.255  | 45.548  |            |                  |                  |      |       |               |       |
| 1496.5      | 1480.3       | 4.009      | 34.979   | 3.889          | 27.781 | 34.642  | 36.878  | 41.274  | 45.570  | 6.008      | 13.3             | 1.21             | 0.00 | 18.40 | 0.364         | 0.707 |
| 1596.5      | 1578.8       | 3.961      | 34.986   | 3.832          | 27.793 | 34.656  | 36.892  | 41.289  | 45.587  | 5.997      | 13.6             | 1.22             | 0.00 | 18.50 | 0.270         | 0.527 |
| 1696.7      | 1677.5       | 3.870      | 34.995   | 3.733          | 27.810 | 34.677  | 36.915  | 41.314  | 45.614  | 6.034      | 13.9             | 1.22             | 0.00 | 18.30 | 0.252         | 0.476 |
| 1846.8      | 1825.3       | 3.742      | 34.975   | 3.593          | 27.808 | 34.681  | 36.920  | 41.323  | 45.626  | 6.022      | 14.7             | 1.22             | 0.00 | 18.20 | 0.216         | 0.405 |
| 2045.8      | 2021.1       | 3.533      | 34.964   | 3.368          | 27.822 | 34.703  | 36.946  | 41.354  | 45.663  | 6.080      | 15.5             | 1.21             | 0.00 | 18.10 | 0.204         | 0.400 |
| 2246.4      | 2218.2       | 3.349      | 34.965   | 3.168          | 27.841 | 34.731  | 36.976  | 41.390  | 45.703  | 6.081      | 17.4             | 1.23             | 0.00 | 18.10 |               |       |
| 2446.9      | 2415.1       | 3.159      | 34.966   | 2.961          | 27.862 | 34.760  | 37.007  | 41.426  | 45.745  | 6.107      | 18.3             | 1.22             | 0.00 | 18.00 | 0.164         | 0.299 |
| 2597.2      | 2562.5       | 2.965      | 34.954   | 2.756          | 27.871 | 34.777  | 37.027  | 41.452  | 45.776  | 6.151      | 18.6             | 1.21             | 0.00 | 17.90 | 0.195         | 0.368 |
| 2747.9      | 2710.2       | 2.769      | 34.938   | 2.549          | 27.876 | 34.791  | 37.044  | 41.474  | 45.803  | 6.232      | 19.7             | 1.20             | 0.00 | 17.70 | 0.223         | 0.432 |
| 2895.5      | 2854.8       | 2.615      | 34.929   | 2.383          | 27.883 | 34.805  | 37.061  | 41.495  | 45.828  | 6.220      | 20.5             | 1.21             | 0.00 | 17.70 | 0.264         | 0.529 |
| 3031.7      | 2988.1       | 2.428      | 34.927   | 2.186          | 27.898 | 34.828  | 37.086  | 41.525  | 45.864  | 6.226      | 22.3             | 1.20             | 0.00 | 17.70 | 0.318         | 0.639 |

ENDEAVOR 214 Station 24 90- 7- 1 Lat: 35.642 Lon: -74.183 Sonic Depth: 2644

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SiO2<br>umol/kg | Phos<br>umol/kg | NO2  | NO3   | P12<br>pm/kg | P11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|-----------------|-----------------|------|-------|--------------|-------|
|             |              |            |          |                |        |         |         |         |         |            |                 |                 |      |       |              |       |
| 1.2         | 1.2          | 27.331     | (36.229  | 27.331         | 23.539 | 29.751  | 31.777  | 35.763  | 39.664) | 4.575      | 1.6             | 0.03            | 0.00 | 0.20  | 0.981        | 2.118 |
| 72.0        | 71.5         | 21.844     | 36.483   | 21.830         | 25.395 | 31.713  | 33.773  | 37.826  | 41.792  | 4.264      | 2.2             | 0.16            | 0.54 | 2.30  | 0.954        | 1.972 |
| 144.6       | 143.5        | 17.687     | 36.443   | 17.662         | 26.462 | 32.877  | 34.968  | 39.082  | 43.107  | 3.781      | 3.2             | 0.46            | 0.02 | 8.40  | 0.817        | 1.559 |
| 245.0       | 243.1        | 14.742     | (35.964  | 14.705         | 26.782 | 33.278  | 35.395  | 39.560  | 43.635) | 3.426      | 6.5             | 0.88            | 0.01 | 15.10 | 0.561        | 1.065 |
| 344.0       | 341.3        | 13.116     | (35.704  | 13.068         | 26.926 | 33.470  | 35.604  | 39.799  | 43.903) | 3.238      | 8.9             | 1.14            | 0.00 | 18.90 | 0.410        | 0.765 |
| 445.9       | 442.2        | 11.476     | 35.471   | 11.419         | 27.066 | 33.662  | 35.811  | 40.039  | 44.174  |            | 11.8            | 1.37            | 0.00 | 22.10 | 0.296        | 0.593 |
| 543.1       | 538.5        | 6.687      | 35.031   | 6.636          | 27.494 | 34.252  | 36.454  | 40.784  | 45.018  | 4.177      | 14.9            | 1.51            | 0.00 | 23.10 | 0.466        | 0.950 |
| 645.1       | 639.4        | 5.631      | (35.000  | 5.575          | 27.607 | 34.403  | 36.618  | 40.973  | 45.231) | 4.864      | 14.0            | 1.39            | 0.00 | 21.20 | 0.553        | 1.155 |
| 746.0       | 739.2        | 5.175      | 35.011   | 5.113          | 27.671 | 34.485  | 36.705  | 41.071  | 45.339  | 5.201      | 13.4            | 1.32            | 0.00 | 20.10 |              |       |
| 844.3       | 836.5        | 4.833      | 35.029   | 4.764          | 27.726 | 34.553  | 36.777  | 41.151  | 45.427  | 5.490      | 12.9            | 1.28            | 0.00 | 19.40 | 0.513        | 1.039 |
| 945.4       | 936.4        | 4.552      | 34.997   | 4.476          | 27.733 | 34.571  | 36.799  | 41.180  | 45.463  | 5.694      | 12.8            | 1.26            | 0.00 | 18.90 | 0.518        | 1.062 |
| 1041.1      | 1030.9       | 4.298      | (34.973  | 4.216          | 27.742 | 34.591  | 36.822  | 41.210  | 45.499) | 5.860      | 12.5            | 1.23            | 0.00 | 18.60 | 0.612        | 1.284 |
| 1144.3      | 1132.8       | 4.250      | (34.980  | 4.159          | 27.754 | 34.604  | 36.836  | 41.225  | 45.515) |            |                 |                 |      |       |              |       |
| 1245.7      | 1233.0       | 4.098      | 34.967   | 4.000          | 27.760 | 34.617  | 36.851  | 41.244  | 45.538  | 5.998      | 12.6            | 1.22            | 0.00 | 18.40 | 0.516        | 1.077 |
| 1351.4      | 1337.2       | 3.979      | 34.960   | 3.872          | 27.768 | 34.630  | 36.866  | 41.262  | 45.559  | 6.045      | 12.8            | 1.21            | 0.00 | 18.20 | 0.521        | 1.062 |
| 1447.2      | 1431.7       | 3.924      | 34.958   | 3.809          | 27.773 | 34.637  | 36.874  | 41.272  | 45.570  | 6.066      | 12.9            | 1.20            | 0.00 | 18.30 | 0.485        | 0.986 |
| 1545.9      | 1528.9       | 3.912      | 34.967   | 3.789          | 27.782 | 34.647  | 36.884  | 41.282  | 45.581  | 6.063      | 13.1            | 1.21            | 0.00 | 18.30 | 0.383        | 0.762 |
| 1696.0      | 1676.8       | 3.795      | 34.963   | 3.659          | 27.792 | 34.662  | 36.901  | 41.302  | 45.604  | 6.088      | 13.6            | 1.21            | 0.00 | 17.90 | 0.329        | 0.696 |
| 1849.2      | 1827.6       | 3.686      | 34.959   | 3.537          | 27.801 | 34.676  | 36.916  | 41.321  | 45.626  | 6.095      | 14.4            | 1.20            | 0.00 | 18.00 | 0.300        | 0.571 |
| 2032.7      | 2008.2       | 3.584      | 34.965   | 3.420          | 27.817 | 34.697  | 36.939  | 41.346  | 45.654  | 6.066      | 15.6            | 1.21            | 0.00 | 18.20 | 0.220        | 0.400 |
| 2248.0      | 2219.8       | 3.379      | 34.959   | 3.197          | 27.834 | 34.723  | 36.967  | 41.380  | 45.693  | 6.084      | 16.9            | 1.22            | 0.00 | 18.00 | 0.183        | 0.341 |
| 2396.8      | 2365.8       | 3.234      | 34.953   | 3.040          | 27.844 | 34.739  | 36.986  | 41.403  | 45.720  | 6.103      | 17.7            | 1.21            | 0.00 | 17.90 | 0.180        | 0.326 |
| 2547.0      | 2513.3       | 3.092      | 34.947   | 2.886          | 27.853 | 34.755  | 37.003  | 41.424  | 45.745  | 6.132      | 20.5            | 1.21            | 0.00 | 17.80 | 0.184        | 0.345 |
| 2694.6      | 2658.0       | 2.907      | 34.940   | 2.689          | 27.865 | 34.775  | 37.026  | 41.452  | 45.778  | 6.160      | 19.3            | 1.21            | 0.00 | 17.60 | 0.211        | 0.385 |

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ENDEAVOR 214 Station 25 90- 7- 1 Lat: 35.750 Lon: -74.453 Sonic Depth: 1949

| PR     | DE     | T      | S       | Theta  | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2    | SiO2    | Phos    | NO2  | NO3   | P12   | P11   |
|--------|--------|--------|---------|--------|--------|---------|---------|---------|---------|-------|---------|---------|------|-------|-------|-------|
| dbars  | meters | deg C  | PSU     | deg C  |        |         | kg/m**3 |         |         | ml/l  | umol/kg | umol/kg |      |       | pm/kg |       |
| 2.7    | 2.7    | 27.536 | (36.282 | 27.535 | 23.513 | 29.721  | 31.746  | 35.729  | 39.628) | 4.598 | 1.6     | 0.03    | 0.00 | 0.10  |       |       |
| 49.8   | 49.5   | 21.706 | (36.381 | 21.696 | 25.354 | 31.676  | 33.738  | 37.793  | 41.761) | 4.356 | 2.8     | 0.20    | 0.20 | 3.00  | 0.949 | 1.797 |
| 100.4  | 99.6   | 11.408 | (34.937 | 11.395 | 26.655 | 33.257  | 35.409  | 39.641  | 43.779) |       | 3.9     | 0.64    | 0.03 | 8.90  | 1.591 | 3.079 |
| 198.7  | 197.1  | 11.811 | 35.441  | 11.785 | 26.973 | 33.558  | 35.705  | 39.926  | 44.054  | 3.463 | 9.8     | 1.17    | 0.01 | 18.90 | 0.664 | 1.248 |
| 297.5  | 295.1  | 9.162  | 35.188  | 9.129  | 27.245 | 33.916  | 36.090  | 40.366  | 44.546  | 3.215 | 14.9    | 1.57    | 0.01 | 24.40 | 0.321 | 0.634 |
| 396.7  | 393.4  | 7.257  | 35.049  | 7.218  | 27.427 | 34.164  | 36.360  | 40.677  | 44.898  | 3.864 | 15.5    | 1.55    | 0.01 | 23.50 | 0.427 | 0.850 |
| 498.5  | 494.3  | 6.208  | 35.013  | 6.163  | 27.542 | 34.317  | 36.525  | 40.867  | 45.111  | 4.460 | 14.8    | 1.46    | 0.01 | 21.80 | 0.514 | 1.067 |
| 598.5  | 593.3  | 5.248  | 34.996  | 5.198  | 27.649 | 34.460  | 36.679  | 41.043  | 45.309  | 5.146 | 13.7    | 1.35    | 0.00 | 20.30 | 0.600 | 1.237 |
| 649.0  | 643.3  | 5.117  | 34.997  | 5.063  | 27.666 | 34.482  | 36.703  | 41.070  | 45.339  | 5.235 | 13.6    | 1.33    | 0.00 | 20.00 | 0.609 | 1.267 |
| 699.6  | 693.3  | 4.910  | (34.996 | 4.853  | 27.689 | 34.513  | 36.737  | 41.109  | 45.382) | 5.432 | 13.2    | 1.30    | 0.00 | 19.50 | 0.628 | 1.283 |
| 749.5  | 742.7  | 4.709  | (34.992 | 4.649  | 27.709 | 34.541  | 36.767  | 41.144  | 45.423) | 5.556 | 13.0    | 1.28    | 0.00 | 19.30 | 0.610 | 1.263 |
| 796.7  | 789.3  | 4.566  | 34.994  | 4.503  | 27.727 | 34.565  | 36.792  | 41.173  | 45.455  | 5.653 | 13.0    | 1.26    | 0.00 | 19.00 | 0.643 | 1.292 |
| 895.6  | 887.2  | 4.427  | 34.982  | 4.356  | 27.734 | 34.577  | 36.807  | 41.191  | 45.476  | 5.770 | 12.8    | 1.25    | 0.00 | 18.30 | 0.621 | 1.246 |
| 998.1  | 988.4  | 4.289  | 34.978  | 4.210  | 27.746 | 34.595  | 36.827  | 41.214  | 45.503  | 5.861 | 12.8    | 1.23    | 0.00 | 18.60 | 0.566 | 1.167 |
| 1097.4 | 1086.5 | 4.150  | 34.973  | 4.064  | 27.758 | 34.613  | 36.846  | 41.237  | 45.530  | 5.964 | 12.7    | 1.22    | 0.00 | 18.30 | 0.567 | 1.149 |
| 1197.3 | 1185.2 | 4.027  | 34.963  | 3.933  | 27.764 | 34.623  | 36.859  | 41.253  | 45.549  | 6.031 | 12.8    | 1.22    | 0.00 | 18.20 | 0.517 | 1.039 |
| 1298.3 | 1284.9 | 3.954  | 34.973  | 3.852  | 27.780 | 34.643  | 36.879  | 41.276  | 45.573  | 6.059 | 13.1    | 1.21    | 0.00 | 18.00 | 0.546 | 1.098 |
| 1398.6 | 1383.7 | 3.909  | 34.966  | 3.799  | 27.780 | 34.645  | 36.882  | 41.280  | 45.578  | 6.067 | 13.2    | 1.22    | 0.00 | 18.10 | 0.413 | 0.825 |
| 1496.7 | 1480.5 | 3.840  | 34.964  | 3.722  | 27.786 | 34.654  | 36.892  | 41.292  | 45.592  | 6.089 | 13.6    | 1.22    | 0.00 | 18.20 | 0.343 | 0.670 |
| 1597.3 | 1579.6 | 3.756  | 34.961  | 3.630  | 27.793 | 34.665  | 36.904  | 41.306  | 45.609  | 6.106 | 14.0    | 1.22    | 0.00 | 18.20 | 0.330 | 0.614 |
| 1698.1 | 1678.9 | 3.698  | 34.959  | 3.563  | 27.798 | 34.672  | 36.912  | 41.316  | 45.620  | 6.095 | 14.5    | 1.22    | 0.00 | 18.20 | 0.284 | 0.531 |
| 1800.1 | 1779.4 | 3.647  | (34.966 | 3.504  | 27.810 | 34.686  | 36.927  | 41.332  | 45.638) | 6.094 | 15.1    | 1.22    | 0.00 | 18.20 | 0.260 | 0.470 |
| 1900.2 | 1877.8 | 3.580  | 34.963  | 3.428  | 27.815 | 34.694  | 36.936  | 41.343  | 45.651  | 6.091 | 15.5    | 1.22    | 0.00 | 18.10 | 0.232 | 0.415 |
| 1985.9 | 1962.1 | 3.496  | 34.960  | 3.337  | 27.821 | 34.704  | 36.947  | 41.357  | 45.666  | 6.097 | 16.2    | 1.22    | 0.00 | 18.20 | 0.245 | 0.400 |

ENDEAVOR 214 Station 26 90- 7- 2 Lat: 37.831 Lon: -73.973 Sonic Depth: 1000 (est.)

| PR     | DE     | T      | S       | Theta  | Sig 0  | Sig 1.5 | Sig 2.0  | Sig 3.0 | Sig 4.0  | O2    | SiO2 | Phos    | NO2  | NO3   | F12   | F11       |
|--------|--------|--------|---------|--------|--------|---------|----------|---------|----------|-------|------|---------|------|-------|-------|-----------|
| dbars  | meters | deg C  | PSU     | deg C  |        |         | -kg/m**3 |         |          | ml/l  | ---- | umol/kg | ---- | ----  | ----  | pm/kg---- |
| -0.6   | -0.6   | 22.223 | 32.860  | 22.223 | 22.532 | 28.874  | 30.942   | 35.010  | 38.991   | 5.310 | 1.0  | 0.11    | 0.00 | 0.10  | 1.285 | 2.552     |
| 45.9   | 45.6   | 9.834  | {34.341 | 9.829  | 26.467 | 33.125  | 35.294   | 39.561  | 43.734}} |       |      |         |      |       |       |           |
| 45.8   | 45.5   | 9.844  | {34.335 | 9.839  | 26.460 | 33.118  | 35.287   | 39.554  | 43.727}} |       |      |         |      |       |       |           |
| 44.8   | 44.5   | 9.791  | {34.293 | 9.786  | 26.436 | 33.096  | 35.266   | 39.534  | 43.708}} | 5.841 |      |         |      |       |       |           |
| 44.8   | 44.5   | 9.791  | {34.292 | 9.786  | 26.435 | 33.095  | 35.265   | 39.533  | 43.707}} | 5.845 | 2.2  | 0.41    | 0.06 | 1.90  | 1.933 | 3.846     |
| 95.7   | 94.9   | 10.196 | {34.538 | 10.185 | 26.560 | 33.204  | 35.370   | 39.628  | 43.792}} | 5.882 | 2.4  | 0.52    | 0.02 | 6.40  |       |           |
| 144.0  | 142.9  | 12.035 | {35.213 | 12.016 | 26.752 | 33.333  | 35.477   | 39.696  | 43.821}} | 5.221 | 3.6  | 0.64    | 0.02 | 9.00  | 1.474 | 2.849     |
| 195.5  | 193.9  | 12.038 | {35.397 | 12.012 | 26.895 | 33.474  | 35.618   | 39.836  | 43.960}} | 3.986 | 7.9  | 1.00    | 0.01 | 15.80 |       |           |
| 245.9  | 243.9  | 10.864 | {35.354 | 10.834 | 27.082 | 33.697  | 35.853   | 40.093  | 44.239}} | 3.301 | 11.6 | 1.35    | 0.00 | 21.40 | 0.452 | 0.931     |
| 295.5  | 293.1  | 9.042  | 35.149  | 9.010  | 27.234 | 33.909  | 36.085   | 40.363  | 44.546   | 3.352 | 14.5 | 1.54    | 0.00 | 24.30 | 0.345 | 0.748     |
| 346.1  | 343.3  | 7.463  | 35.027  | 7.429  | 27.380 | 34.110  | 36.303   | 40.616  | 44.833   | 3.834 | 15.0 | 1.53    | 0.00 | 23.60 | 0.450 | 0.976     |
| 396.4  | 393.1  | 6.457  | {34.990 | 6.421  | 27.490 | 34.256  | 36.461   | 40.797  | 45.035}} | 4.284 | 14.9 | 1.48    | 0.00 | 22.40 |       |           |
| 445.0  | 441.2  | 5.745  | 34.995  | 5.707  | 27.586 | 34.378  | 36.592   | 40.944  | 45.198   | 4.758 | 14.1 | 1.40    | 0.00 | 21.30 | 0.550 | 1.194     |
| 494.8  | 490.6  | 5.315  | 34.998  | 5.274  | 27.641 | 34.450  | 36.668   | 41.030  | 45.294   | 5.063 | 13.7 | 1.35    | 0.00 | 20.40 |       |           |
| 529.8  | 525.2  | 5.178  | 35.004  | 5.135  | 27.663 | 34.476  | 36.696   | 41.062  | 45.329   | 5.188 | 13.4 | 1.32    | 0.00 | 20.20 | 0.584 | 1.257     |
| 592.8  | 587.5  | 4.995  | 34.987  | 4.947  | 27.671 | 34.492  | 36.714   | 41.084  | 45.356   | 5.334 | 13.1 | 1.30    | 0.00 | 19.70 |       |           |
| 645.4  | 639.6  | 4.839  | 34.985  | 4.787  | 27.688 | 34.515  | 36.739   | 41.113  | 45.388   | 5.462 | 12.7 | 1.28    | 0.00 | 19.40 | 1.303 |           |
| 696.7  | 690.3  | 4.738  | 34.988  | 4.682  | 27.702 | 34.533  | 36.759   | 41.135  | 45.413   | 5.540 | 12.7 | 1.27    | 0.00 | 19.30 |       |           |
| 746.1  | 739.2  | 4.618  | 34.985  | 4.559  | 27.714 | 34.549  | 36.776   | 41.156  | 45.436   | 5.637 | 12.7 | 1.25    | 0.00 | 19.10 | 1.281 |           |
| 795.5  | 788.0  | 4.527  | {34.988 | 4.464  | 27.727 | 34.566  | 36.794   | 41.176  | 45.458}} | 5.698 |      |         |      |       | 1.285 |           |
| 845.0  | 836.9  | 4.490  | 34.980  | 4.423  | 27.725 | 34.565  | 36.794   | 41.177  | 45.461   | 5.725 | 12.6 | 1.24    | 0.00 | 18.90 | 1.291 |           |
| 895.0  | 886.5  | 4.408  | 34.977  | 4.337  | 27.732 | 34.576  | 36.806   | 41.190  | 45.476   | 5.784 | 12.7 | 1.23    | 0.00 | 18.70 | 1.298 |           |
| 945.7  | 936.6  | 4.342  | 34.976  | 4.268  | 27.739 | 34.585  | 36.816   | 41.202  | 45.490   | 5.828 | 12.7 | 1.23    | 0.00 | 18.70 |       |           |
| 1000.1 | 990.2  | 4.262  | 34.970  | 4.184  | 27.743 | 34.593  | 36.825   | 41.213  | 45.503   | 5.882 | 12.7 | 1.23    | 0.00 | 18.60 | 1.194 |           |

ENDEAVOR 214 Station 27 90- 7- 2 Lat: 37.573 Lon: -73.736 Sonic Depth: 2049

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SiO2<br>umol/kg | Phos<br>umol/kg | NO2  | NO3   | P12<br>pm/kg | P11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|-----------------|-----------------|------|-------|--------------|-------|
| 1.1         | 1.1          | 21.182     | {33.160  | 21.182         | 23.046 | 29.409  | 31.483  | 35.564  | 39.557  | 5.424      | 1.0             | 0.11            | 0.00 | 0.00  | 1.380        | 2.616 |
| 97.0        | 96.2         | 12.169     | {35.177  | 12.156         | 26.697 | 33.274  | 35.417  | 39.633  | 43.756  | 4.804      | 4.7             | 0.70            | 0.02 | 10.30 |              |       |
| 196.4       | 194.8        | 10.805     | 35.340   | 10.781         | 27.081 | 33.697  | 35.854  | 40.095  | 44.243  | 3.281      | 12.0            | 1.36            | 0.00 | 21.80 | 0.444        | 0.893 |
| 296.3       | 293.9        | 8.307      | 35.100   | 8.276          | 27.311 | 34.011  | 36.195  | 40.489  | 44.688  | 3.454      | 15.4            | 1.58            | 0.00 | 24.60 |              |       |
| 396.9       | 393.6        | 6.171      | 34.995   | 6.136          | 27.531 | 34.308  | 36.516  | 40.858  | 45.103  | 4.481      | 14.3            | 1.44            | 0.00 | 21.90 | 0.560        | 1.179 |
| 496.7       | 492.5        | 5.279      | 34.972   | 5.238          | 27.625 | 34.435  | 36.654  | 41.017  | 45.282  | 5.115      | 13.4            | 1.34            | 0.00 | 20.20 |              |       |
| 596.9       | 591.6        | 4.902      | 34.969   | 4.854          | 27.668 | 34.492  | 36.716  | 41.088  | 45.362  | 5.388      | 12.8            | 1.29            | 0.00 | 19.60 | 0.676        | 1.437 |
| 697.5       | 691.1        | 4.731      | 34.966   | 4.675          | 27.686 | 34.517  | 36.743  | 41.119  | 45.397  | 5.528      | 12.7            | 1.26            | 0.00 | 19.20 | 0.695        | 1.481 |
| 746.4       | 739.5        | 4.621      | 34.974   | 4.562          | 27.705 | 34.540  | 36.767  | 41.147  | 45.427  | 5.625      | 12.4            | 1.26            | 0.00 | 19.00 |              |       |
| 796.7       | 789.2        | 4.583      | 34.969   | 4.520          | 27.706 | 34.542  | 36.770  | 41.151  | 45.432  | 5.681      | 12.6            | 1.24            | 0.00 | 18.80 | 0.663        | 1.419 |
| 849.8       | 841.7        | 4.455      | 34.976   | 4.388          | 27.726 | 34.568  | 36.797  | 41.180  | 45.465  | 5.717      | 12.5            | 1.24            | 0.00 | 18.80 |              |       |
| 897.1       | 888.5        | 4.373      | 34.977   | 4.303          | 27.736 | 34.581  | 36.811  | 41.197  | 45.484  | 5.822      | 12.2            | 1.22            | 0.00 | 18.60 |              |       |
| 947.8       | 938.6        | 4.340      | 34.977   | 4.265          | 27.740 | 34.586  | 36.817  | 41.204  | 45.491  | 5.848      | 12.3            | 1.22            | 0.00 | 18.60 |              |       |
| 1000.3      | 990.5        | 4.280      | 34.973   | 4.201          | 27.743 | 34.593  | 36.824  | 41.212  | 45.501  | 5.882      | 12.1            | 1.22            | 0.00 | 18.50 | 0.586        | 1.215 |
| 1099.2      | 1088.1       | 4.161      | 34.970   | 4.075          | 27.755 | 34.609  | 36.842  | 41.233  | 45.525  | 5.964      | 12.4            | 1.21            | 0.00 | 18.40 |              |       |
| 1197.5      | 1185.2       | 4.037      | 34.969   | 3.943          | 27.768 | 34.627  | 36.862  | 41.256  | 45.551  | 6.034      | 12.8            | 1.21            | 0.00 | 18.30 |              |       |
| 1297.0      | 1283.4       | 3.903      | 34.960   | 3.802          | 27.775 | 34.640  | 36.877  | 41.274  | 45.573  | 6.080      | 12.8            | 1.20            | 0.00 | 18.10 |              |       |
| 1397.1      | 1382.0       | 3.830      | 34.960   | 3.721          | 27.783 | 34.651  | 36.889  | 41.289  | 45.590  | 6.095      | 13.1            | 1.20            | 0.00 | 18.00 | 0.376        | 0.774 |
| 1498.3      | 1481.8       | 3.762      | 34.961   | 3.645          | 27.792 | 34.663  | 36.902  | 41.303  | 45.606  | 6.109      | 13.7            | 1.20            | 0.00 | 18.10 |              |       |
| 1597.6      | 1579.6       | 3.723      | 34.960   | 3.597          | 27.796 | 34.669  | 36.908  | 41.311  | 45.614  | 6.098      | 13.9            | 1.21            | 0.00 | 18.20 | 0.538        |       |
| 1697.3      | 1677.8       | 3.652      | 34.967   | 3.518          | 27.809 | 34.685  | 36.925  | 41.330  | 45.636  | 6.076      | 14.5            | 1.21            | 0.00 | 18.10 |              |       |
| 1800.8      | 1779.8       | 3.612      | 34.967   | 3.469          | 27.814 | 34.692  | 36.933  | 41.339  | 45.646  | 6.071      | 14.9            | 1.21            | 0.00 | 18.10 | 0.185        | 0.370 |
| 1897.3      | 1874.7       | 3.520      | 34.964   | 3.369          | 27.821 | 34.703  | 36.945  | 41.354  | 45.663  | 6.090      | 15.5            | 1.21            | 0.00 | 18.10 |              |       |
| 2041.7      | 2016.7       | 3.429      | 34.960   | 3.266          | 27.828 | 34.714  | 36.958  | 41.369  | 45.681  | 6.091      | 16.1            | 1.21            | 0.00 | 18.10 | 0.174        | 0.336 |

ENDRAVOR 214 Station 28 90- 7- 2 Lat: 37.351 Lon: -73.546 Sonic Depth: 2454

| PR     | DE     | T      | S        | Theta  | Sig 0       | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2    | SiO2         | Phos  | NC2   | NO3   | F12         | F11    |
|--------|--------|--------|----------|--------|-------------|---------|---------|---------|----------|-------|--------------|-------|-------|-------|-------------|--------|
| dbars  | meters | deg C  | PSU      | deg C  | -----kg/m*3 | -----   | -----   | -----   | -----    | ml/l  | -----umol/kg | ----- | ----- | ----- | ---pa/kg--- | ---    |
| 1.4    | 1.4    | 21.994 | (34.601  | 21.994 | 23.918      | 30.249  | 32.314  | 36.375  | 40.349)  | 5.317 | 1.4          | 0.05  | 0.00  | 0.10  |             |        |
| 98.5   | 97.7   | 13.281 | **35.486 | 13.267 | 26.716      | 33.257  | 35.389  | 39.583  | 43.684** | 3.901 | 7.2          | 0.90  | 0.04  | 14.60 |             |        |
| 196.5  | 194.9  | 10.735 | (35.378  | 10.711 | 27.123      | 33.741  | 35.898  | 40.141  | 44.290)  | 3.121 | 13.5         | 1.45  | 0.03  | 23.30 |             |        |
| 295.3  | 292.9  | 8.744  | (35.163  | 8.712  | 27.292      | 33.977  | 36.156  | 40.440  | 44.630)  | 3.217 | 16.4         | 1.63  | 0.01  | 25.50 | 0.195       | 0.381  |
| 395.8  | 392.5  | 6.649  | (35.052  | 6.612  | 27.513      | 34.272  | 36.474  | 40.805  | 45.039)  | 4.215 | 15.5         | 1.51  | 0.00  | 22.90 |             |        |
| 488.9  | 484.6  | 5.607  | 35.056   | 5.565  | 27.652      | 34.449  | 36.663  | 41.018  | 45.275   | 4.969 | 14.3         | 1.36  | 0.01  | 20.80 | 0.326       | 0.692  |
| 595.8  | 590.5  | 4.915  | 35.026   | 4.867  | 27.712      | 34.535  | 36.758  | 41.129  | 45.403   | 5.433 | 13.6         | 1.29  | 0.00  | 19.50 |             |        |
| 690.0  | 683.7  | 4.697  | 35.016   | 4.642  | 27.729      | 34.561  | 36.787  | 41.164  | 45.442   | 5.602 | 13.2         | 1.27  | 0.00  | 19.30 | 0.436       | 0.910  |
| 795.3  | 787.8  | 4.412  | 34.992   | 4.350  | 27.743      | 34.586  | 36.815  | 41.200  | 45.485   | 5.795 | 12.9         | 1.23  | 0.00  | 18.90 | 0.513       | 1.052  |
| 895.6  | 887.1  | 4.248  | 34.983   | 4.179  | 27.754      | 34.604  | 36.836  | 41.224  | 45.514   | 5.896 | 12.7         | 1.22  | 0.00  | 18.60 | 0.508       | 1.049  |
| 995.8  | 986.0  | 4.109  | 34.970   | 4.032  | 27.759      | 34.615  | 36.849  | 41.241  | 45.534   | 5.984 | 12.7         | 1.22  | 0.00  | 18.40 |             |        |
| 1097.9 | 1086.8 | 4.025  | 34.970   | 3.940  | 27.769      | 34.628  | 36.863  | 41.257  | 45.553   | 6.025 | 13.1         | 1.21  | 0.00  | 18.30 | 0.427       | 0.918  |
| 1196.8 | 1184.5 | 3.826  | 34.947   | 3.734  | 27.772      | 34.639  | 36.877  | 41.277  | 45.577   | 6.148 | 12.8         | 1.19  | 0.00  | 18.10 |             |        |
| 1296.2 | 1282.6 | 3.785  | 34.950   | 3.685  | 27.779      | 34.648  | 36.887  | 41.288  | 45.589   | 6.161 | 13.1         | 1.19  | 0.00  | 18.10 | 0.495       | #1.037 |
| 1396.8 | 1381.8 | 3.781  | 34.962   | 3.672  | 27.790      | 34.660  | 36.898  | 41.299  | 45.601   | 6.130 | 13.6         | 1.20  | 0.00  | 18.10 |             |        |
| 1495.3 | 1478.9 | 3.740  | 34.965   | 3.623  | 27.797      | 34.669  | 36.908  | 41.310  | 45.613   | 6.115 | 13.8         | 1.21  | 0.00  | 18.10 | 0.312       | 0.630  |
| 1596.3 | 1578.4 | 3.699  | 34.970   | 3.574  | 27.806      | 34.680  | 36.919  | 41.323  | 45.627   |       | 14.6         | 1.21  | 0.00  | 18.20 |             |        |
| 1695.1 | 1675.7 | 3.623  | 34.970   | 3.490  | 27.814      | 34.691  | 36.932  | 41.338  | 45.644   | 6.111 | 15.3         | 1.21  | 0.00  | 18.20 | 0.187       | 0.357  |
| 1796.5 | 1775.6 | 3.550  | 34.970   | 3.408  | 27.822      | 34.703  | 36.944  | 41.352  | 45.660   | 6.082 | 15.8         | 1.22  | 0.00  | 18.20 |             |        |
| 1895.4 | 1872.8 | 3.464  | 34.967   | 3.314  | 27.829      | 34.713  | 36.956  | 41.366  | 45.676   | 6.086 | 16.6         | 1.22  | 0.00  | 18.30 | 0.149       | 0.273  |
| 2042.5 | 2017.5 | 3.353  | 34.964   | 3.191  | 27.839      | 34.727  | 36.972  | 41.385  | 45.698   | 6.082 | 17.5         | 1.23  | 0.00  | 18.30 |             |        |
| 2196.5 | 2168.8 | 3.172  | 34.954   | 2.998  | 27.849      | 34.745  | 36.992  | 41.411  | 45.729   | 6.124 | 18.1         | 1.22  | 0.00  | 18.10 | 0.158       | 0.295  |
| 2347.0 | 2316.6 | 3.039  | 34.946   | 2.853  | 27.856      | 34.758  | 37.007  | 41.429  | 45.751   | 6.172 | 18.0         | 1.21  | 0.00  | 17.90 |             |        |
| 2470.9 | 2438.2 | 2.931  | 34.941   | 2.735  | 27.862      | 34.770  | 37.020  | 41.445  | 45.770   | 6.165 | 18.8         | 1.21  | 0.00  | 17.80 | 0.204       | 0.416  |

ENDEAVOR 214 Station 29 90- 7- 2 Lat: 37.093 Lon: -73.292 Sonic Depth: 2895

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SI02<br>umol/kg | Phos<br>umol/kg | NO2  | NO3   | F12   | F11<br>pm/kg |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|-----------------|-----------------|------|-------|-------|--------------|
| 3.8         | 3.7          | 22.691     | 34.812   | 22.690         | 23.881 | 30.196  | 32.255  | 36.306  | 40.270  | 5.176      | 1.3             | 0.05            | 0.00 | 0.10  |       |              |
| 42.6        | 42.3         | 15.871     | (35.162  | 15.864         | 25.904 | 32.377  | 34.487  | 38.638  | 42.698) |            | 1.9             | 0.15            | 0.00 | 0.10  |       |              |
| 145.2       | 144.1        | 11.333     | 35.426   | 11.315         | 27.050 | 33.650  | 35.800  | 40.031  | 44.168  | 3.234      | 11.3            | 1.31            | 0.01 | 21.30 |       |              |
| 246.9       | 244.9        | 8.773      | 35.156   | 8.746          | 27.281 | 33.965  | 36.144  | 40.428  | 44.616  | 3.223      | 16.0            | 1.62            | 0.01 | 25.70 |       |              |
| 348.6       | 345.8        | 6.548      | 35.059   | 6.516          | 27.532 | 34.294  | 36.497  | 40.830  | 45.067  | 4.282      | 15.2            | 1.48            | 0.01 | 22.90 |       |              |
| 445.7       | 441.9        | 5.579      | (35.031  | 5.541          | 27.635 | 34.433  | 36.648  | 41.004  | 45.261) | 4.929      | 14.1            | 1.38            | 0.01 | 21.10 |       |              |
| 550.6       | 545.8        | 4.722      | (34.972  | 4.679          | 27.690 | 34.521  | 36.747  | 41.123  | 45.401) | 5.552      | 12.8            | 1.26            | 0.00 | 19.40 | 0.754 | 1.569        |
| 639.7       | 634.0        | 4.480      | 34.978   | 4.430          | 27.723 | 34.563  | 36.792  | 41.174  | 45.458  | 5.749      | 12.4            | 1.23            | 0.00 | 18.90 |       |              |
| 747.1       | 740.2        | 4.367      | 34.979   | 4.309          | 27.737 | 34.582  | 36.812  | 41.197  | 45.484  | 5.814      | 12.6            | 1.22            | 0.00 | 18.80 | 0.614 | 1.270        |
| 843.0       | 835.0        | 4.146      | 34.960   | 4.082          | 27.746 | 34.600  | 36.833  | 41.224  | 45.516  | 5.986      | 12.1            | 1.20            | 0.00 | 18.30 | 0.689 | 1.423        |
| 937.6       | 928.6        | 4.000      | (34.953  | 3.929          | 27.756 | 34.616  | 36.852  | 41.246  | 45.542) | 6.081      | 12.1            | 1.19            | 0.00 | 18.10 | 0.668 | 1.376        |
| 1045.5      | 1035.1       | 3.918      | (34.953  | 3.838          | 27.766 | 34.629  | 36.865  | 41.262  | 45.560) | 6.119      | 12.6            | 1.19            | 0.00 | 18.10 |       |              |
| 1147.6      | 1136.0       | 3.867      | 34.959   | 3.779          | 27.777 | 34.642  | 36.879  | 41.278  | 45.577  | 6.122      | 12.8            | 1.19            | 0.00 | 18.20 | 0.511 | 1.021        |
| 1248.8      | 1235.9       | 3.848      | 34.970   | 3.752          | 27.788 | 34.655  | 36.892  | 41.291  | 45.591  | 6.102      | 13.0            | 1.20            | 0.00 | 18.10 |       |              |
| 1345.2      | 1330.9       | 3.787      | 34.962   | 3.683          | 27.789 | 34.658  | 36.896  | 41.297  | 45.599  | 6.114      | 13.4            | 1.20            | 0.00 | 18.10 |       |              |
| 1437.0      | 1421.5       | 3.736      | 34.973   | 3.624          | 27.803 | 34.675  | 36.914  | 41.316  | 45.619  | 6.110      | 13.9            | 1.20            | 0.00 | 18.20 |       |              |
| 1597.6      | 1579.7       | 3.682      | 34.970   | 3.557          | 27.808 | 34.682  | 36.922  | 41.326  | 45.630  | 6.074      | 14.9            | 1.21            | 0.00 | 18.10 |       |              |
| 1796.8      | 1775.9       | 3.528      | 34.979   | 3.386          | 27.832 | 34.713  | 36.955  | 41.363  | 45.671  | 6.088      | 15.8            | 1.21            | 0.00 | 18.30 |       |              |
| 1994.7      | 1970.5       | 3.359      | 34.953   | 3.202          | 27.829 | 34.717  | 36.962  | 41.375  | 45.688  | 6.093      | 17.1            | 1.22            | 0.00 | 18.50 |       |              |
| 2247.1      | 2218.6       | 3.127      | 34.941   | 2.949          | 27.843 | 34.742  | 36.989  | 41.409  | 45.728  |            | 18.2            | 1.21            | 0.00 | 18.30 | 0.171 | 0.317        |
| 2500.8      | 2467.6       | 2.905      | 34.945   | 2.707          | 27.868 | 34.777  | 37.028  | 41.453  | 45.778  | 6.153      | 19.7            | 1.22            | 0.00 | 18.20 | 0.153 | 0.305        |
| 2649.7      | 2613.6       | 2.760      | 34.930   | 2.550          | 27.870 | 34.785  | 37.038  | 41.468  | 45.797  | #6.14      | 19.0            | 1.18            | 0.00 | 17.70 |       |              |
| 2782.5      | 2743.8       | 2.623      | 34.931   | 2.402          | 27.883 | 34.804  | 37.059  | 41.493  | 45.826  | 6.245      | 20.3            | 1.19            | 0.00 | 17.90 | 0.252 | 0.491        |
| 2905.4      | 2864.2       | 2.437      | 34.916   | 2.208          | 27.888 | 34.817  | 37.075  | 41.513  | 45.851  | 6.250      | 22.4            | 1.20            | 0.00 | 17.90 | 0.311 | 0.625        |

ENDEAVOR 214 Station 30 90- 7- 3 Lat: 36.852 Lon: -73.093 Sonic Depth: 3148

| PR     | DE     | T      | S       | Theta  | Sig 0  | Sig 1.5                | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2    | SiO2         | Phos  | NO2   | NO3   | P12    | P11   |
|--------|--------|--------|---------|--------|--------|------------------------|---------|---------|----------|-------|--------------|-------|-------|-------|--------|-------|
| dbase  | meters | deg C  | PSU     | deg C  | -----  | -----kg/m <sup>3</sup> | -----   | -----   | -----    | ml/l  | -----umol/kg | ----- | ----- | ----- | -----  | ----- |
| 0.4    | 0.4    | 23.072 | 34.815  | 23.072 | 23.774 | 30.081                 | 32.137  | 36.183  | 40.142   | 5.072 | 1.1          | 0.06  | 0.00  | 0.00  | 1.224  | 2.243 |
| 147.6  | 146.5  | 11.745 | (35.453 | 11.726 | 26.994 | 33.581                 | 35.728  | 39.950  | 44.079)) |       |              |       |       |       |        |       |
| 296.6  | 294.2  | 8.335  | (35.130 | 8.304  | 27.330 | 34.030                 | 36.213  | 40.506  | 44.704)) | 3.344 | 16.2         | 1.63  | 0.01  | 25.70 | 0.202  | 0.380 |
| 392.6  | 389.3  | 6.310  | 35.055  | 6.275  | 27.561 | 34.332                 | 36.538  | 40.876  | 45.118   | 4.414 | 14.6         | 1.45  | 0.00  | 22.50 | 0.403  | 0.789 |
| 497.1  | 492.9  | 5.288  | (35.025 | 5.247  | 27.666 | 34.475                 | 36.693  | 41.056  | 45.321)) | 5.133 | 13.4         | 1.33  | 0.01  | 20.40 | 0.501  | 0.999 |
| 597.6  | 592.3  | 4.991  | (35.038 | 4.942  | 27.712 | 34.533                 | 36.755  | 41.124  | 45.396)) | 5.389 | 13.3         | 1.29  | 0.00  | 19.70 | #0.740 |       |
| 696.6  | 690.3  | 4.620  | (35.007 | 4.565  | 27.731 | 34.566                 | 36.793  | 41.172  | 45.452)) | 5.654 | 12.8         | 1.25  | 0.00  | 19.10 | 0.503  | 1.013 |
| 795.3  | 787.9  | 4.424  | 35.008  | 4.362  | 27.754 | 34.596                 | 36.826  | 41.210  | 45.495   | 5.782 | 12.6         | 1.23  | 0.00  | 18.50 | 0.483  | 0.982 |
| 895.5  | 887.0  | 4.232  | (34.983 | 4.163  | 27.756 | 34.606                 | 36.838  | 41.227  | 45.517)) | 5.897 | 12.5         | 1.22  | 0.00  | 18.50 | 0.511  | 1.010 |
| 997.1  | 987.3  | 4.087  | (34.975 | 4.010  | 27.765 | 34.622                 | 36.856  | 41.248  | 45.542)) | 5.997 | 12.5         | 1.22  | 0.00  | 18.40 | 0.468  | 0.941 |
| 1094.9 | 1083.9 | 3.971  | 34.982  | 3.887  | 27.784 | 34.645                 | 36.881  | 41.276  | 45.573   | 6.052 | 12.5         | 1.20  | 0.00  | 18.20 | 0.493  | 0.946 |
| 1196.8 | 1184.6 | 3.892  | 34.979  | 3.800  | 27.790 | 34.655                 | 36.892  | 41.290  | 45.588   | 6.069 | 13.0         | 1.20  | 0.00  | 18.20 | 0.432  | 0.829 |
| 1396.8 | 1381.8 | 3.784  | 34.977  | 3.675  | 27.801 | 34.671                 | 36.909  | 41.310  | 45.612   | 6.083 | 13.6         | 1.21  | 0.00  | 18.20 | 0.303  | 0.582 |
| 1596.5 | 1578.7 | 3.690  | (34.979 | 3.565  | 27.814 | 34.688                 | 36.927  | 41.331  | 45.635)) | 6.044 | 14.9         | 1.22  | 0.00  | 18.50 | 0.164  | 0.281 |
| 1798.8 | 1777.9 | 3.491  | 34.971  | 3.350  | 27.829 | 34.711                 | 36.954  | 41.363  | 45.672   | 6.094 | 15.9         | 1.23  | 0.00  | 18.30 | 0.176  | 0.305 |
| 1998.3 | 1974.1 | 3.322  | 34.968  | 3.165  | 27.844 | 34.734                 | 36.979  | 41.393  | 45.707   | 6.101 | 17.1         | 1.23  | 0.00  | 18.40 | 0.145  | 0.239 |
| 2197.5 | 2169.9 | 3.113  | 34.967  | 2.940  | 27.864 | 34.763                 | 37.011  | 41.431  | 45.750   | 6.138 | 18.3         | 1.22  | 0.00  | 18.30 | 0.171  | 0.289 |
| 2397.5 | 2366.3 | 2.908  | 34.954  | 2.720  | 27.874 | 34.782                 | 37.033  | 41.458  | 45.783   | 6.188 | 19.0         | 1.21  | 0.00  | 18.00 | 0.190  | 0.354 |
| 2596.6 | 2561.6 | 2.726  | 34.951  | 2.522  | 27.889 | 34.805                 | 37.058  | 41.489  | 45.819   | 6.218 | 20.1         | 1.20  | 0.00  | 17.90 | 0.210  | 0.406 |
| 2748.2 | 2710.2 | 2.562  | 34.921  | 2.346  | 27.880 | 34.804                 | 37.059  | 41.495  | 45.829   | 6.264 | 20.4         | 1.20  | 0.00  | 17.80 | 0.273  | 0.511 |
| 2895.9 | 2854.9 | 2.441  | 34.929  | 2.213  | 27.898 | 34.826                 | 37.084  | 41.523  | 45.860   | 6.287 | 20.9         | 1.18  | 0.00  | 17.50 | 0.301  | 0.601 |
| 2998.0 | 2954.9 | 2.376  | 34.920  | 2.139  | 27.896 | 34.829                 | 37.087  | 41.528  | 45.867   | 6.289 | 21.6         | 1.19  | 0.00  | 17.60 | 0.328  | 0.663 |
| 3096.6 | 3051.4 | 2.330  | 34.908  | 2.084  | 27.891 | 34.826                 | 37.085  | 41.527  | 45.868   | 6.300 | 22.4         | 1.21  | 0.00  | 17.70 | 0.356  | 0.690 |
| 3179.5 | 3132.4 | 2.278  | 34.915  | 2.025  | 27.902 | 34.839                 | 37.099  | 41.542  | 45.885   | 6.257 | 24.6         | 1.23  | 0.00  | 17.90 | 0.336  | 0.650 |

ENDRAVOR 214 Station 31 90- 7- 3 Lat: 36.582 Lon: -72.811 Sonic Depth: 3416

| PR     | DE     | T      | S       | Theta  | Sig 0       | Sig 1.5     | Sig 2.0     | Sig 3.0     | Sig 4.0     | O2    | SiO2         | Phos         | NO2          | NO3          | P12          | P11          |
|--------|--------|--------|---------|--------|-------------|-------------|-------------|-------------|-------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|
| dbars  | meters | deg C  | PSU     | deg C  | -----kg/m*3 | -----kg/m*3 | -----kg/m*3 | -----kg/m*3 | -----kg/m*3 | ml/l  | -----umol/kg | -----umol/kg | -----umol/kg | -----umol/kg | -----umol/kg | -----umol/kg |
| 1.1    | 1.1    | 26.726 | {35.731 | 26.726 | 23.358      | 29.586      | 31.616      | 35.612      | 39.522      | 4.686 | 1.5          | 0.03         | 0.00         | 0.10         | 1.003        | 1.853        |
| 147.5  | 146.4  | 12.404 | {35.329 | 12.384 | 26.771      | 33.340      | 35.480      | 39.691      | 43.809      | 4.74  | 5.2          | 0.72         | 0.02         | 11.00        | 1.270        | 2.560        |
| 298.7  | 296.3  | 9.568  | 35.203  | 9.534  | 27.190      | 33.848      | 36.017      | 40.285      | 44.457      | 3.251 | 14.2         | 1.52         | 0.01         | 24.20        | 0.367        | 0.832        |
| 446.3  | 442.5  | 6.431  | 35.010  | 6.390  | 27.510      | 34.277      | 36.482      | 40.818      | 45.058      | 4.341 | 14.7         | 1.46         | 0.00         | 22.60        | 0.503        | 0.996        |
| 596.2  | 591.0  | 5.050  | 34.981  | 5.001  | 27.660      | 34.479      | 36.701      | 41.069      | 45.340      | 5.288 | 13.0         | 1.30         | 0.00         | 19.90        | 0.668        | 1.386        |
| 747.6  | 740.7  | 4.644  | 34.986  | 4.585  | 27.712      | 34.546      | 36.773      | 41.152      | 45.432      | 5.636 | 12.4         | 1.25         | 0.00         | 19.00        | 0.645        | 1.325        |
| 843.8  | 835.9  | 4.425  | 34.995  | 4.359  | 27.744      | 34.587      | 36.816      | 41.200      | 45.486      | 5.63  | 12.6         | 1.26         | 0.00         | 19.00        | 0.676        | 1.349        |
| 1001.6 | 991.8  | 4.308  | 34.988  | 4.229  | 27.752      | 34.600      | 36.832      | 41.219      | 45.507      | 5.890 | 12.7         | 1.22         | 0.00         | 18.60        | 0.426        | 0.870        |
| 1144.4 | 1132.8 | 4.116  | 34.990  | 4.026  | 27.776      | 34.631      | 36.865      | 41.257      | 45.550      | 5.974 | 12.7         | 1.21         | 0.00         | 18.30        | 0.453        | 0.906        |
| 1244.7 | 1231.9 | 4.003  | 34.972  | 3.906  | 27.774      | 34.634      | 36.870      | 41.265      | 45.561      | 6.037 | 12.8         | 1.21         | 0.00         | 18.30        | 0.405        | 0.804        |
| 1340.5 | 1326.4 | 3.913  | 34.970  | 3.808  | 27.782      | 34.647      | 36.883      | 41.281      | 45.580      | 6.063 | 13.1         | 1.21         | 0.00         | 18.20        | 0.359        | 0.693        |
| 1446.2 | 1430.6 | 3.835  | 34.968  | 3.721  | 27.790      | 34.657      | 36.895      | 41.295      | 45.596      | 6.071 | 13.4         | 1.21         | 0.00         | 18.10        | 0.293        | 0.558        |
| 1539.5 | 1522.5 | 3.792  | 34.976  | 3.671  | 27.801      | 34.671      | 36.909      | 41.310      | 45.612      | 6.063 | 14.0         | 1.21         | 0.00         | 18.10        | 0.245        | 0.462        |
| 1645.5 | 1627.0 | 3.736  | 34.973  | 3.606  | 27.805      | 34.678      | 36.917      | 41.319      | 45.623      | 6.053 | 14.7         | 1.21         | 0.00         | 18.20        | 0.187        | 0.339        |
| 1797.6 | 1776.8 | 3.583  | 34.967  | 3.441  | 27.817      | 34.696      | 36.937      | 41.344      | 45.651      | 6.102 | 15.3         | 1.21         | 0.00         | 18.10        | 0.194        | 0.346        |
| 1949.1 | 1925.7 | 3.467  | 34.970  | 3.312  | 27.832      | 34.716      | 36.959      | 41.369      | 45.679      | 6.192 | 16.3         | 1.22         | 0.00         | 18.10        | 0.141        | 0.242        |
| 2097.0 | 2071.2 | 3.330  | 34.961  | 3.163  | 27.839      | 34.729      | 36.974      | 41.388      | 45.702      | 6.138 | 17.0         | 1.22         | 0.00         | 18.10        | 0.144        | 0.252        |
| 2348.8 | 2318.6 | 3.099  | 34.952  | 2.912  | 27.855      | 34.755      | 37.003      | 41.424      | 45.744      | 6.131 | 18.5         | 1.22         | 0.00         | 18.20        | 0.133        | 0.258        |
| 2597.4 | 2562.4 | 2.853  | 34.939  | 2.646  | 27.869      | 34.780      | 37.031      | 41.459      | 45.785      | 6.194 | 19.3         | 1.20         | 0.00         | 17.90        | 0.200        | 0.377        |
| 2797.3 | 2758.4 | 2.641  | 34.924  | 2.419  | 27.876      | 34.797      | 37.052      | 41.485      | 45.818      | 6.264 | 19.5         | 1.19         | 0.00         | 17.60        | 0.261        | 0.532        |
| 3002.5 | 2959.4 | 2.476  | 34.921  | 2.236  | 27.889      | 34.817      | 37.075      | 41.513      | 45.850      | 6.291 | 19.6         | 1.17         | 0.00         | 17.30        | 0.338        | 0.696        |
| 3196.6 | 3149.3 | 2.355  | 34.908  | 2.098  | 27.890      | 34.824      | 37.083      | 41.525      | 45.866      | 6.300 | 21.5         | 1.18         | 0.00         | 17.40        | 0.347        | 0.708        |
| 3399.7 | 3347.8 | 2.236  | 34.902  | 1.961  | 27.896      | 34.836      | 37.097      | 41.542      | 45.887      | 6.259 | 25.2         | 1.22         | 0.00         | 17.90        | 0.321        | 0.639        |
| 3458.1 | 3404.8 | 2.233  | 34.899  | 1.952  | 27.895      | 34.835      | 37.096      | 41.542      | 45.886      |       | 26.2         | 1.23         | 0.00         | 18.10        | 0.311        | 0.627        |

ENDEAVOR 214 Station 32 90- 7- 3 Lat: 36.379 Lon: -72.537 Sonic Depth: 3685

| PR     | DE     | T      | S       | Theta  | Sig 0  | Sig 1.5  | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2    | SiO2 | Phos    | NO2   | NO3   | P12   | P11   |
|--------|--------|--------|---------|--------|--------|----------|---------|---------|----------|-------|------|---------|-------|-------|-------|-------|
| dbars  | meters | deg C  | PSU     | deg C  |        | -kg/m**3 |         |         |          | ml/l  | ---- | umol/kg | ----- | ----- | ----- | ----- |
| 1.3    | 1.3    | 28.444 | 36.280  | 28.444 | 23.213 | 29.406   | 31.425  | 35.398  | 39.287   | 4.558 | 1.6  | 0.03    | 0.00  | 0.00  | 0.952 | 1.843 |
| 195.0  | 193.4  | 17.719 | 36.444  | 17.686 | 26.457 | 32.872   | 34.963  | 39.076  | 43.101   |       | 3.7  | 0.53    | 0.00  | 0.00  | 9.70  |       |
| 339.8  | 337.1  | 14.524 | 35.949  | 14.473 | 26.820 | 33.323   | 35.442  | 39.612  | 43.690   | 3.554 | 5.9  | 0.86    | 0.00  | 0.00  | 14.60 |       |
| 495.4  | 491.2  | 11.241 | (35.458 | 11.178 | 27.100 | 33.703   | 35.856  | 40.088  | 44.228)) | 3.465 | 10.7 | 1.27    | 0.00  | 0.00  | 20.60 |       |
| 639.8  | 634.1  | 7.352  | 35.052  | 7.288  | 27.419 | 34.154   | 36.349  | 40.665  | 44.884   | 3.879 | 15.0 | 1.53    | 0.00  | 0.00  | 23.60 | 0.841 |
| 800.0  | 792.6  | 5.037  | 35.042  | 4.971  | 27.712 | 34.531   | 36.753  | 41.122  | 45.393   | 5.383 | 13.1 | 1.30    | 0.00  | 0.00  | 19.70 | 0.408 |
| 896.9  | 888.4  | 4.732  | 35.027  | 4.659  | 27.736 | 34.567   | 36.793  | 41.169  | 45.447   | 5.586 | 13.1 | 1.27    | 0.00  | 0.00  | 19.20 | 0.427 |
| 1045.3 | 1035.0 | 4.417  | 35.008  | 4.333  | 27.757 | 34.601   | 36.831  | 41.215  | 45.501   | 5.799 | 12.8 | 1.24    | 0.00  | 0.00  | 18.70 | 0.414 |
| 1197.7 | 1185.5 | 4.261  | 35.010  | 4.165  | 27.777 | 34.627   | 36.859  | 41.247  | 45.537   | 5.887 | 13.1 | 1.23    | 0.00  | 0.00  | 18.60 | 0.339 |
| 1296.6 | 1283.1 | 4.139  | 35.001  | 4.036  | 27.783 | 34.639   | 36.872  | 41.264  | 45.557   | 5.948 | 13.0 | 1.22    | 0.00  | 0.00  | 18.50 | 0.322 |
| 1398.3 | 1383.4 | 4.020  | 34.988  | 3.909  | 27.796 | 34.647   | 36.882  | 41.277  | 45.573   | 5.998 | 13.3 | 1.22    | 0.00  | 0.00  | 18.40 | 0.323 |
| 1496.2 | 1479.9 | 3.898  | 34.975  | 3.779  | 27.789 | 34.655   | 36.892  | 41.290  | 45.589   | 6.056 | 13.3 | 1.22    | 0.00  | 0.00  | 18.20 | 0.343 |
| 1597.7 | 1579.9 | 3.818  | 34.966  | 3.691  | 27.791 | 34.660   | 36.898  | 41.299  | 45.600   | 6.067 | 13.9 | 1.21    | 0.00  | 0.00  | 18.20 |       |
| 1691.8 | 1672.6 | 3.774  | 34.991  | 3.639  | 27.816 | 34.687   | 36.926  | 41.328  | 45.630   | 6.057 | 14.2 | 1.22    | 0.00  | 0.00  | 18.40 | 0.215 |
| 1846.4 | 1824.8 | 3.624  | (34.965 | 3.477  | 27.811 | 34.689   | 36.930  | 41.336  | 45.642)) | 6.100 | 14.8 | 1.22    | 0.00  | 0.00  | 18.20 |       |
| 1998.7 | 1974.6 | 3.534  | 34.969  | 3.373  | 27.825 | 34.707   | 36.949  | 41.357  | 45.666   | 6.107 | 15.5 | 1.22    | 0.00  | 0.00  | 18.10 |       |
| 2200.4 | 2172.8 | 3.338  | 34.966  | 3.161  | 27.843 | 34.733   | 36.978  | 41.392  | 45.706   | 6.115 | 16.8 | 1.22    | 0.00  | 0.00  | 18.10 | 0.167 |
| 2447.9 | 2415.9 | 3.096  | 34.949  | 2.899  | 27.854 | 34.754   | 37.003  | 41.424  | 45.744   | 6.139 | 18.7 | 1.23    | 0.00  | 0.00  | 18.10 |       |
| 2697.1 | 2660.2 | 2.860  | 34.940  | 2.643  | 27.870 | 34.781   | 37.033  | 41.460  | 45.787   | 6.218 | 19.4 | 1.21    | 0.00  | 0.00  | 18.00 | 0.190 |
| 2897.9 | 2857.0 | 2.614  | 34.927  | 2.382  | 27.882 | 34.804   | 37.059  | 41.493  | 45.827   | 6.243 | 20.3 | 1.21    | 0.00  | 0.00  | 17.80 | 0.236 |
| 3170.7 | 3055.5 | 2.425  | 34.917  | 2.176  | 27.891 | 34.822   | 37.080  | 41.519  | 45.858   | 6.280 | 21.2 | 1.20    | 0.00  | 0.00  | 17.50 | 0.318 |
| 3297.2 | 3247.7 | 2.271  | 34.904  | 2.006  | 27.894 | 34.832   | 37.093  | 41.537  | 45.880   | 6.263 | 24.7 | 1.23    | 0.00  | 0.00  | 18.00 | 0.318 |
| 3495.3 | 3441.2 | 2.202  | 34.900  | 1.917  | 27.898 | 34.840   | 37.101  | 41.548  | 45.893   | 6.219 | 27.9 | 1.26    | 0.00  | 0.00  | 18.50 | 0.277 |
| 3652.0 | 3594.2 | 2.160  | 34.895  | 1.860  | 27.899 | 34.843   | 37.105  | 41.553  | 45.900   | 6.132 | 32.4 | 1.32    | 0.00  | 0.00  | 19.10 | 0.209 |

ENDRAVOR 214 Station 33 90- 7- 4 Lat: 36.099 Lon: -72.348 Sonic Depth: 3894

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2<br>ml/l | SiO2<br>umol/kg | Phos<br>umol/kg | NO2  | NO3   | P12<br>pm/kg | P11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|----------|------------|-----------------|-----------------|------|-------|--------------|-------|
| 2.5         | 28.201       | 36.175     | 28.200   | 23.215         | 29.412 | 31.433  | 35.410  | 39.302  | 4.574    | 1.8        | 0.01            | 0.00            | 0.00 | 0.00  | 0.930        | 1.713 |
| 199.4       | 197.8        | 19.491     | 36.662   | 19.454         | 26.175 | 32.545  | 34.622  | 38.707  | 42.705   | 4.427      | 1.2             | 0.10            | 0.01 | 2.40  | 1.065        | 2.068 |
| 399.3       | 396.0        | 17.546     | 36.432   | 17.478         | 26.499 | 32.919  | 35.011  | 39.128  | 43.156   | 4.427      | 2.0             | 0.29            | 0.00 | 5.90  | 0.938        | 1.878 |
| 550.3       | 545.6        | 15.210**   | 36.108   | 15.124         | 26.800 | 33.283  | 35.397  | 39.554  | 43.620** | 4.023      | 4.4             | 0.65            | 0.00 | 11.60 | 0.730        | 1.412 |
| 698.5       | 692.2        | 11.547     | 35.491   | 11.456         | 27.074 | 33.669  | 35.818  | 40.045  | 44.179   | 3.419      | 10.5            | 1.25            | 0.00 | 20.60 |              |       |
| 848.9       | 841.0        | 8.287      | 35.170   | 8.196          | 27.378 | 34.081  | 36.265  | 40.560  | 44.760   | 3.664      | 15.2            | 1.54            | 0.00 | 24.40 | 0.225        | 0.423 |
| 949.0       | 940.0        | 6.878      | (35.101  | 6.785          | 27.528 | 34.280  | 36.481  | 40.807  | 45.037)) | 4.231      | 15.3            | 1.48            | 0.00 | 23.10 | 0.245        | 0.467 |
| 1048.4      | 1038.1       | 5.654      | (35.070  | 5.560          | 27.663 | 34.460  | 36.675  | 41.030  | 45.287)) | 4.969      | 14.3            | 1.35            | 0.00 | 21.00 | 0.304        | 0.604 |
| 1200.0      | 1187.8       | 4.842      | (35.033  | 4.741          | 27.732 | 34.560  | 36.784  | 41.159  | 45.435)) | 5.536      | 13.2            | 1.26            | 0.00 | 19.50 | 0.392        | 0.770 |
| 1350.2      | 1335.9       | 4.452      | 35.021   | 4.341          | 27.767 | 34.610  | 36.840  | 41.224  | 45.509   | 5.789      | 13.0            | 1.23            | 0.00 | 19.00 | 0.372        | 0.754 |
| 1449.8      | 1434.2       | 4.276      | 35.007   | 4.157          | 27.775 | 34.626  | 36.858  | 41.247  | 45.536   | 5.912      | 13.1            | 1.22            | 0.00 | 18.80 | 0.384        | 0.738 |
| 1549.2      | 1532.1       | 4.115      | 35.004   | 3.989          | 27.791 | 34.648  | 36.882  | 41.275  | 45.569   | 5.980      | 13.1            | 1.21            | 0.00 | 18.50 | 0.384        | 0.751 |
| 1646.3      | 1627.9       | 4.051      | 34.994   | 3.917          | 27.790 | 34.650  | 36.885  | 41.280  | 45.576   | 6.003      | 13.2            | 1.21            | 0.00 | 18.60 | 0.349        | 0.686 |
| 1751.6      | 1731.5       | 4.006      | 34.987   | 3.862          | 27.790 | 34.652  | 36.888  | 41.285  | 45.582   | 6.023      | 13.7            | 1.21            | 0.00 | 18.30 | 0.310        | 0.589 |
| 1899.9      | 1877.5       | 3.888      | 34.998   | 3.732          | 27.812 | 34.680  | 36.917  | 41.316  | 45.616   | 6.004      | 14.7            | 1.22            | 0.00 | 18.50 | 0.178        | 0.318 |
| 2098.5      | 2072.7       | 3.691      | 34.986   | 3.518          | 27.824 | 34.700  | 36.940  | 41.345  | 45.650   | 6.031      | 15.7            | 1.22            | 0.00 | 18.60 | 0.134        | 0.220 |
| 2399.3      | 2368.2       | 3.361      | 34.976   | 3.164          | 27.851 | 34.740  | 36.985  | 41.399  | 45.713   | 6.081      | 17.7            | 1.22            | 0.00 | 18.50 | 0.131        | 0.195 |
| 2699.4      | 2662.6       | 3.066      | 34.954   | 2.845          | 27.863 | 34.766  | 37.015  | 41.437  | 45.759   | 6.123      | 19.6            | 1.22            | 0.00 | 18.30 | 0.125        | 0.228 |
| 2999.3      | 2956.3       | 2.737      | 34.946   | 2.492          | 27.888 | 34.805  | 37.059  | 41.490  | 45.820   | 6.210      | 21.1            | 1.21            | 0.00 | 18.10 | 0.163        | 0.313 |
| 3199.4      | 3152.1       | 2.515      | (34.921  | 2.254          | 27.888 | 34.815  | 37.072  | 41.510  | 45.847)) | 6.214      | 21.2            | 1.19            | 0.00 | 17.70 | 0.272        | 0.503 |
| 3397.6      | 3345.9       | 2.352      | 34.920   | 2.074          | 27.902 | 34.836  | 37.096  | 41.538  | 45.879   | 6.268      | 23.1            | 1.20            | 0.00 | 17.70 | 0.317        | 0.613 |
| 3601.3      | 3544.8       | 2.247      | 34.913   | 1.950          | 27.906 | 34.846  | 37.107  | 41.553  | 45.897   | 6.197      | 27.5            | 1.25            | 0.00 | 18.40 | 0.246        | 0.465 |
| 3801.5      | 3740.1       | 2.196      | 34.905   | 1.878          | 27.905 | 34.848  | 37.111  | 41.558  | 45.904   | 6.153      | 31.1            | 1.29            | 0.00 | 19.00 | 0.212        | 0.399 |
| 3935.2      | 3870.5       | 2.180      | 34.896   | 1.848          | 27.900 | 34.845  | 37.108  | 41.556  | 45.903   | 6.101      | 33.8            | 1.32            | 0.00 | 19.40 | 0.210        | 0.371 |

ENDRAVOR 214 Station 34 90-7-4 Lat: 35.816 Lon: -72.170 Sonic Depth: 4055

| PR     | DE     | T              | S      | Theta  | Sig 0  | Sig 1.5             | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2    | SiO2         | Phos | NO2  | NO3   | P12   | P11             |
|--------|--------|----------------|--------|--------|--------|---------------------|---------|---------|----------|-------|--------------|------|------|-------|-------|-----------------|
| dbars  | meters | deg C          | PSU    | deg C  |        | --kg/m <sup>3</sup> |         |         |          | ml/l  | -----umol/kg |      |      |       | ----  | -----pm/kg----- |
| 1.1    | 1.1    | 28.096         | 36.240 | 28.096 | 23.298 | 29.497              | 31.518  | 35.495  | 39.388   | 4.496 | 1.7          | 0.03 | 0.00 | 0.10  | 0.934 | 1.690           |
| 227.2  | 225.5  | 19.020((36.620 | 18.979 | 18.979 | 26.267 | 32.648              | 34.728  | 38.821  | 42.826)) |       | 1.7          | 0.21 | 0.02 | 4.00  |       |                 |
| 495.0  | 490.9  | 17.872         | 36.470 | 17.786 | 26.453 | 32.864              | 34.954  | 39.066  | 43.089   | 4.509 | 1.9          | 0.24 | 0.00 | 4.90  | 0.999 | 2.011           |
| 645.5  | 639.8  | 15.839         | 36.140 | 15.735 | 26.687 | 33.153              | 35.261  | 39.408  | 43.464   | 4.143 | 3.9          | 0.55 | 0.00 | 9.90  | 0.802 | 1.557           |
| 795.6  | 788.2  | 12.751         | 35.658 | 12.640 | 26.976 | 33.533              | 35.671  | 39.874  | 43.986   | 3.635 | 8.2          | 1.04 | 0.00 | 17.40 | 0.497 | 0.923           |
| 891.1  | 882.8  | 10.560         | 35.373 | 10.449 | 27.165 | 33.792              | 35.952  | 40.200  | 44.353   | 3.368 | 12.4         | 1.38 | 0.00 | 22.20 | 0.311 | 0.567           |
| 995.6  | 985.9  | 8.350          | 35.157 | 8.241  | 27.361 | 34.062              | 36.246  | 40.540  | 44.739   | 3.552 | 15.6         | 1.55 | 0.00 | 24.30 | 0.216 | 0.413           |
| 1146.2 | 1134.7 | 5.937          | 35.066 | 5.831  | 27.627 | 34.413              | 36.625  | 40.974  | 45.225   | 4.729 | 14.6         | 1.39 | 0.00 | 21.40 | 0.344 | 0.693           |
| 1295.9 | 1282.5 | 4.952((35.021  | 4.841  | 4.841  | 27.710 | 34.534              | 36.758  | 41.130  | 45.404)) | 5.394 | 13.3         | 1.27 | 0.00 | 19.60 | 0.478 | 0.954           |
| 1393.0 | 1378.2 | 4.639          | 35.003 | 4.522  | 27.732 | 34.569              | 36.796  | 41.176  | 45.458   | 5.634 | 12.9         | 1.25 | 0.00 | 19.30 | 0.510 | 1.024           |
| 1498.9 | 1482.6 | 4.355          | 34.991 | 4.231  | 27.755 | 34.602              | 36.834  | 41.221  | 45.509   | 5.774 | 12.8         | 1.23 | 0.00 | 18.80 | 0.496 | 1.027           |
| 1595.2 | 1577.5 | 4.237          | 34.998 | 4.105  | 27.774 | 34.626              | 36.859  | 41.249  | 45.540   | 5.886 | 12.9         | 1.22 | 0.00 | 18.70 | 0.496 | 0.963           |
| 1699.2 | 1680.0 | 4.112          | 34.980 | 3.972  | 27.773 | 34.631              | 36.866  | 41.259  | 45.554   | 5.973 | 13.0         | 1.21 | 0.00 | 18.60 | 0.429 | 0.851           |
| 1899.4 | 1877.0 | 3.940          | 34.974 | 3.783  | 27.788 | 34.653              | 36.890  | 41.289  | 45.588   | 6.007 | 13.5         | 1.20 | 0.00 | 18.50 | 0.337 | 0.625           |
| 2099.4 | 2073.7 | 3.803          | 34.975 | 3.629  | 27.805 | 34.676              | 36.915  | 41.317  | 45.620   | 6.006 | 14.6         | 1.20 | 0.00 | 18.40 | 0.215 | 0.392           |
| 2349.9 | 2319.8 | 3.616          | 34.978 | 3.420  | 27.828 | 34.707              | 36.949  | 41.356  | 45.664   | 6.016 | 16.1         | 1.22 | 0.00 | 18.60 | 0.132 | 0.227           |
| 2600.7 | 2565.9 | 3.335**34.977  | 3.119  | 27.856 | 34.747 | 36.993              | 36.993  | 41.408  | 45.723** | 6.032 | 17.3         | 1.20 | 0.00 | 18.20 | 0.155 | 0.269           |
| 2852.2 | 2812.3 | 3.068          | 34.947 | 2.831  | 27.858 | 34.762              | 37.011  | 41.434  | 45.756   | 6.088 | 19.0         | 1.21 | 0.00 | 18.20 | 0.160 | 0.298           |
| 3100.0 | 3055.0 | 2.772((34.935  | 2.516  | 2.516  | 27.877 | 34.793              | 37.047  | 41.477  | 45.808)) | 6.164 | 20.1         | 1.19 | 0.00 | 18.00 | 0.222 | 0.421           |
| 3298.3 | 3248.9 | 2.565((34.923  | 2.293  | 2.293  | 27.886 | 34.812              | 37.069  | 41.505  | 45.841)) |       |              |      |      |       |       |                 |
| 3498.2 | 3444.2 | 2.404((34.915  | 2.114  | 2.114  | 27.894 | 34.828              | 37.087  | 41.528  | 45.868)) |       |              |      |      |       |       |                 |
| 3698.3 | 3639.6 | 2.293((34.908  | 1.984  | 1.984  | 27.899 | 34.838              | 37.098  | 41.543  | 45.887)) |       |              |      |      |       |       |                 |
| 3898.0 | 3834.3 | 2.215          | 34.896 | 1.886  | 27.897 | 34.840              | 37.102  | 41.550  | 45.896   | 6.100 | 31.2         | 1.30 | 0.00 | 19.10 | 0.200 | 0.375           |
| 4116.0 | 4046.8 | 2.186((34.895  | 1.833  | 1.833  | 27.901 | 34.846              | 37.109  | 41.558  | 45.905)) | 6.011 | 35.9         | 1.35 | 0.00 | 19.70 | 0.172 | 0.326           |

ENDEAVOR 214 Station 35 90-7-4 Lat: 36.250 Lon: -70.538 Sonic Depth: 4407

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SiO2 | Phos<br>umol/kg | NO2  | NO3   | P12   | P11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|------|-----------------|------|-------|-------|-------|
|             |              |            |          |                |        |         |         |         |         |            |      |                 |      |       |       |       |
| 2.5         | 2.5          | 25.470     | 36.410   | 25.469         | 24.265 | 30.510  | 32.546  | 36.553  | 40.474  | 4.663      | 1.8  | 0.03            | 0.00 | 0.10  | 1.022 | 1.988 |
| 196.2       | 194.6        | 19.623     | 36.651   | 19.587         | 26.132 | 32.499  | 34.575  | 38.658  | 42.654  | 4.866      | 1.4  | 0.04            | 0.01 | 1.10  | 1.198 | 2.271 |
| 398.0       | 394.7        | 18.622     | 36.568   | 18.551         | 26.336 | 32.728  | 34.812  | 38.911  | 42.922  | 4.682      | 1.8  | 0.12            | 0.01 | 2.90  | 1.130 | 2.217 |
| 598.6       | 593.4        | 17.183     | 36.360   | 17.082         | 26.540 | 32.970  | 35.066  | 39.190  | 43.224  | 4.319      | 2.8  | 0.36            | 0.00 | 7.10  | 0.904 | 1.743 |
| 746.8       | 740.0        | 14.647     | (35.942  | 14.533         | 26.802 | 33.303  | 35.422  | 39.590  | 43.668) | 3.819      | 5.5  | 0.76            | 0.00 | 13.50 | 0.635 | 1.206 |
| 898.8       | 890.3        | 11.232     | 35.447   | 11.116         | 27.103 | 33.708  | 35.861  | 40.095  | 44.236  | 3.514      | 11.1 | 1.29            | 0.00 | 21.20 | 0.352 | 0.669 |
| 1048.8      | 1038.5       | 8.231      | 35.149   | 8.117          | 27.374 | 34.079  | 36.264  | 40.561  | 44.763  | 3.616      | 15.5 | 1.54            | 0.00 | 24.30 | 0.218 | 0.401 |
| 1198.9      | 1186.7       | 6.206      | 35.092   | 6.092          | 27.614 | 34.391  | 36.599  | 40.941  | 45.187  | 4.640      | 14.6 | 1.40            | 0.00 | 21.60 | 0.300 | 0.571 |
| 1350.6      | 1336.3       | 5.202      | 35.045   | 5.083          | 27.701 | 34.516  | 36.737  | 41.103  | 45.371  | 5.280      | 13.4 | 1.29            | 0.00 | 20.00 | 0.395 | 0.774 |
| 1450.0      | 1434.4       | 4.817      | 35.017   | 4.692          | 27.724 | 34.554  | 36.780  | 41.155  | 45.433  | 5.554      | 13.1 | 1.25            | 0.00 | 19.40 | 0.457 | 0.900 |
| 1551.0      | 1533.9       | 4.594      | 35.009   | 4.462          | 27.744 | 34.582  | 36.811  | 41.192  | 45.475  | 5.691      | 12.8 | 1.24            | 0.00 | 18.90 | 0.454 | 0.882 |
| 1648.8      | 1630.3       | 4.419      | 34.999   | 4.280          | 27.756 | 34.601  | 36.832  | 41.218  | 45.505  | 5.808      | 12.8 | 1.22            | 0.00 | 18.80 | 0.408 | 0.794 |
| 1797.2      | 1776.4       | 4.148      | 34.978   | 3.998          | 27.769 | 34.626  | 36.860  | 41.253  | 45.547  | 5.955      | 13.1 | 1.21            | 0.00 | 18.50 | 0.418 | 0.817 |
| 2200.1      | 2172.6       | 3.809      | 34.962   | 3.625          | 27.795 | 34.666  | 36.905  | 41.308  | 45.610  | 6.078      | 14.0 | 1.20            | 0.00 | 18.30 | 0.340 | 0.623 |
| 2597.7      | 2567.8       | 3.568      | 34.973   | 3.347          | 27.831 | 34.713  | 36.956  | 41.365  | 45.674  | 6.026      | 16.5 | 1.21            | 0.00 | 18.40 | 0.154 | 0.257 |
| 2898.4      | 2857.5       | 3.256      | 34.951   | 3.010          | 27.845 | 34.741  | 36.988  | 41.406  | 45.724  | 6.112      | 18.1 | 1.21            | 0.00 | 18.20 | 0.167 | 0.282 |
| 3097.8      | 3052.7       | 3.078      | 34.945   | 2.815          | 27.858 | 34.762  | 37.012  | 41.435  | 45.757  | 6.115      | 19.6 | 1.22            | 0.00 | 18.30 | 0.142 | 0.253 |
| 3299.5      | 3250.0       | 2.835      | 34.932   | 2.556          | 27.871 | 34.786  | 37.039  | 41.468  | 45.797  | 6.178      | 20.2 | 1.20            | 0.00 | 18.00 | 0.200 | 0.379 |
| 3498.4      | 3444.3       | 2.631      | 34.921   | 2.335          | 27.881 | 34.805  | 37.061  | 41.496  | 45.831  | 6.216      | 21.2 | 1.19            | 0.00 | 17.90 | 0.236 | 0.445 |
| 3699.8      | 3640.9       | 2.472      | (34.916  | 2.158          | 27.892 | 34.823  | 37.082  | 41.522  | 45.861) |            |      |                 |      |       |       |       |
| 3899.4      | 3835.5       | 2.352      | 34.905   | 2.019          | 27.894 | 34.831  | 37.092  | 41.535  | 45.878  | 6.200      | 25.8 | 1.23            | 0.00 | 18.20 | 0.246 | 0.467 |
| 4097.4      | 4028.5       | 2.266      | 34.905   | 1.913          | 27.903 | 34.844  | 37.106  | 41.552  | 45.898  | 6.144      | 29.7 | 1.28            | 0.00 | 18.80 | 0.210 | 0.415 |
| 4297.5      | 4223.4       | 2.219      | 34.901   | 1.844          | 27.905 | 34.849  | 37.112  | 41.560  | 45.908  | 6.038      | 34.2 | 1.32            | 0.00 | 19.30 | 0.182 | 0.338 |
| 4489.2      | 4409.8       | 2.226      | 34.897   | 1.828          | 27.903 | 34.848  | 37.111  | 41.560  | 45.908  | 6.032      | 35.6 | 1.37            | 0.00 | 19.70 | 0.168 | 0.311 |

ENDEAVOR 214 Station 36 90- 7- 5 Lat: 36.520 Lon: -70.745 Sonic Depth: 4354

| PR     | DB     | T              | S      | Theta  | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2    | SiO2 | Phos    | NO2  | NO3   | F12   | F11   |
|--------|--------|----------------|--------|--------|--------|---------|---------|---------|----------|-------|------|---------|------|-------|-------|-------|
| dbars  | meters | deg C          | PSU    | deg C  |        |         | kg/m**3 |         |          | ml/l  |      | umol/kg |      |       | pm/kg |       |
| 2.6    | 2.6    | 26.458         | 36.179 | 26.457 | 23.781 | 30.009  | 32.040  | 36.037  | 39.948   | 4.631 | 1.5  | 0.01    | 0.00 | 0.10  | 0.960 | 1.741 |
| 150.2  | 149.1  | 19.608{(36.661 | 19.580 | 26.142 | 26.142 | 32.509  | 34.584  | 38.668  | 42.664}} | 4.889 | 1.0  | 0.02    | 0.05 | 0.60  | 1.163 | 2.195 |
| 298.7  | 296.3  | 18.705         | 36.584 | 18.652 | 26.323 | 32.712  | 34.795  | 38.893  | 42.902   | 4.755 | 1.1  | 0.10    | 0.00 | 2.40  | 1.117 | 2.227 |
| 497.8  | 493.6  | 17.479         | 36.423 | 17.394 | 26.513 | 32.934  | 35.028  | 39.146  | 43.175   | 4.423 | 2.1  | 0.30    | 0.00 | 6.00  | 0.942 | 1.787 |
| 722.5  | 715.9  | 13.996         | 35.845 | 13.889 | 26.865 | 33.385  | 35.510  | 39.690  | 43.778   | 3.858 | 5.8  | 0.83    | 0.00 | 14.30 | 0.616 | 1.158 |
| 948.0  | 938.9  | 9.001{(35.208  | 8.893  | 27.299 | 27.299 | 33.978  | 36.154  | 40.434  | 44.620}} | 3.448 | 14.5 | 1.52    | 0.00 | 24.20 | 0.205 | 0.381 |
| 1098.0 | 1087.0 | 6.496          | 35.083 | 6.390  | 27.568 | 34.334  | 36.539  | 40.874  | 45.113   | 4.457 | 14.6 | 1.43    | 0.00 | 22.20 | 0.293 | 0.568 |
| 1248.9 | 1236.0 | 5.315          | 35.085 | 5.205  | 27.703 | 34.513  | 36.732  | 41.095  | 45.360   | 5.234 | 13.4 | 1.29    | 0.00 | 20.00 | 0.350 | 0.691 |
| 1397.3 | 1382.4 | 4.820          | 35.051 | 4.700  | 27.750 | 34.580  | 36.805  | 41.180  | 45.457   | 5.560 | 12.8 | 1.24    | 0.00 | 19.10 | 0.405 | 0.782 |
| 1498.6 | 1482.3 | 4.585          | 35.032 | 4.458  | 27.762 | 34.601  | 36.829  | 41.211  | 45.493   | 5.740 | 12.7 | 1.23    | 0.00 | 18.80 | 0.377 | 0.728 |
| 1599.4 | 1581.6 | 4.389          | 35.028 | 4.255  | 27.781 | 34.628  | 36.859  | 41.245  | 45.532   | 5.841 | 12.8 | 1.22    | 0.00 | 18.70 | 0.358 | 0.691 |
| 1699.0 | 1679.6 | 4.181          | 35.002 | 4.040  | 27.784 | 34.639  | 36.872  | 41.264  | 45.557   | 5.963 | 12.7 | 1.20    | 0.00 | 18.40 | 0.378 | 0.761 |
| 1899.5 | 1877.0 | 3.911          | 34.973 | 3.754  | 27.790 | 34.657  | 36.894  | 41.293  | 45.593   | 6.072 | 13.2 | 1.19    | 0.00 | 18.20 | 0.364 | 0.714 |
| 2099.2 | 2073.4 | 3.831{(34.975  | 3.656  | 27.802 | 27.802 | 34.672  | 36.911  | 41.312  | 45.614}} | 6.055 | 14.0 | 1.21    | 0.00 | 18.40 | 0.251 | 0.438 |
| 2399.5 | 2368.3 | 3.655          | 34.992 | 3.453  | 27.836 | 34.714  | 36.955  | 41.361  | 45.668   | 6.019 | 16.2 | 1.23    | 0.00 | 18.50 | 0.113 | 0.173 |
| 2699.4 | 2662.5 | 3.324          | 34.964 | 3.098  | 27.847 | 34.740  | 36.986  | 41.401  | 45.717   | 6.097 | 17.3 | 1.21    | 0.00 | 18.30 | 0.124 | 0.235 |
| 3001.4 | 2958.3 | 2.985          | 34.950 | 2.734  | 27.869 | 34.777  | 37.027  | 41.452  | 45.777   | 6.156 | 19.0 | 1.21    | 0.00 | 18.10 | 0.176 | 0.318 |
| 3198.4 | 3151.0 | 2.756          | 34.935 | 2.490  | 27.879 | 34.796  | 37.050  | 41.482  | 45.812   | 6.196 | 20.3 | 1.21    | 0.00 | 18.10 | 0.178 | 0.350 |
| 3400.6 | 3348.7 | 2.584          | 34.927 | 2.300  | 27.889 | 34.814  | 37.070  | 41.507  | 45.842   | 6.294 | 21.1 | 1.19    | 0.00 | 17.80 | 0.260 | 0.497 |
| 3601.1 | 3544.5 | 2.415          | 34.924 | 2.114  | 27.902 | 34.835  | 37.094  | 41.535  | 45.875   | 6.227 | 24.3 | 1.22    | 0.00 | 18.20 | 0.213 | 0.402 |
| 3801.0 | 3739.5 | 2.302          | 34.918 | 1.981  | 27.908 | 34.846  | 37.107  | 41.552  | 45.895   | 6.157 | 27.1 | 1.24    | 0.00 | 18.50 | 0.220 | 0.400 |
| 4001.7 | 3935.1 | 2.249          | 34.902 | 1.907  | 27.901 | 34.842  | 37.104  | 41.551  | 45.897   | 6.154 | 29.8 | 1.27    | 0.00 | 18.90 | 0.206 | 0.395 |
| 4201.0 | 4129.3 | 2.218          | 34.896 | 1.855  | 27.900 | 34.844  | 37.107  | 41.555  | 45.902   | 6.103 | 33.2 | 1.32    | 0.00 | 19.40 | 0.172 | 0.310 |
| 4431.3 | 4353.4 | 2.216          | 34.895 | 1.826  | 27.901 | 34.847  | 37.110  | 41.559  | 45.907   | 6.037 | 36.2 | 1.36    | 0.00 | 19.80 | 0.170 | 0.302 |

ENDEAVOR 214 Station 37 90- 7- 5 Lat: 36.844 Lon: -70.823 Sonic Depth: 4256

| PR     | DB     | T      | S      | Theta  | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2    | SiO2         | Phos | NO2  | NO3   | F12   | F11   |
|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|-------|--------------|------|------|-------|-------|-------|
| dbars  | meters | deg C  | PSU    | deg C  |        |         | kg/m*3  |         |         | ml/l  | -----umol/kg |      |      |       | ----- | ----- |
| 7.3    | 7.2    | 28.014 | 36.253 | 28.012 | 23.335 | 29.535  | 31.557  | 35.535  | 39.429  | 4.553 | 1.7          | 0.02 | 0.00 | 0.00  | 0.951 | 1.922 |
| 96.1   | 95.3   | 22.589 | 36.891 | 22.569 | 25.495 | 31.793  | 33.847  | 37.888  | 41.842  | 3.672 | 1.7          | 0.21 | 0.02 | 4.00  | 0.921 | 1.704 |
| 246.9  | 245.0  | 18.913 | 36.605 | 18.869 | 26.283 | 32.667  | 34.749  | 38.843  | 42.849  | 4.788 | 1.2          | 0.09 | 0.01 | 1.90  | 1.157 | 2.272 |
| 496.5  | 492.3  | 16.558 | 36.265 | 16.476 | 26.611 | 33.057  | 35.159  | 39.292  | 43.336  | 4.253 | 2.9          | 0.44 | 0.00 | 8.20  | 0.840 | 1.613 |
| 744.3  | 737.4  | 10.772 | 35.395 | 10.679 | 27.142 | 33.761  | 35.919  | 40.161  | 44.311  | 3.338 | 11.9         | 1.37 | 0.00 | 22.10 | 0.304 | 0.534 |
| 843.8  | 835.9  | 8.436  | 35.163 | 8.344  | 27.350 | 34.047  | 36.230  | 40.522  | 44.719  | 3.574 | 14.7         | 1.54 | 0.00 | 24.20 | 0.211 | 0.434 |
| 996.8  | 987.0  | 6.088  | 35.079 | 5.996  | 27.616 | 34.397  | 36.606  | 40.951  | 45.198  | 4.707 | 14.3         | 1.40 | 0.00 | 21.60 | 0.298 | 0.573 |
| 1145.0 | 1133.4 | 4.792  | 35.011 | 4.696  | 27.719 | 34.549  | 36.774  | 41.150  | 45.427  | 5.557 | 12.7         | 1.26 | 0.00 | 19.20 | 0.513 | 1.290 |
| 1245.7 | 1232.8 | 4.492  | 35.010 | 4.390  | 27.752 | 34.594  | 36.823  | 41.206  | 45.491  | 5.736 | 12.4         | 1.23 | 0.00 | 18.70 | 0.548 | 1.103 |
| 1345.5 | 1331.2 | 4.373  | 34.998 | 4.263  | 27.756 | 34.603  | 36.834  | 41.220  | 45.507  | 5.800 | 12.3         | 1.21 | 0.00 | 18.40 | 0.455 | 0.896 |
| 1445.4 | 1429.8 | 4.177  | 34.979 | 4.060  | 27.763 | 34.618  | 36.851  | 41.243  | 45.535  | 5.943 | 12.4         | 1.20 | 0.00 | 18.30 | 0.490 | 0.977 |
| 1596.4 | 1578.6 | 4.024  | 34.969 | 3.895  | 27.773 | 34.634  | 36.869  | 41.265  | 45.561  | 6.021 | 12.6         | 1.19 | 0.00 | 18.20 | 0.458 | 0.944 |
| 1796.9 | 1776.0 | 3.868  | 34.976 | 3.722  | 27.796 | 34.664  | 36.901  | 41.301  | 45.602  |       |              |      |      |       |       |       |
| 1996.6 | 1972.4 | 3.757  | 34.969 | 3.593  | 27.803 | 34.676  | 36.916  | 41.319  | 45.622  | 6.071 | 13.9         | 1.19 | 0.00 | 18.20 | 0.253 | 0.505 |
| 2296.2 | 2266.8 | 3.570  | 34.970 | 3.380  | 27.825 | 34.706  | 36.949  | 41.357  | 45.666  | 6.068 | 15.6         | 1.20 | 0.00 | 18.20 | 0.157 | 0.291 |
| 2597.3 | 2562.3 | 3.307  | 34.972 | 3.091  | 27.854 | 34.747  | 36.993  | 41.408  | 45.724  | 6.105 | 17.0         | 1.20 | 0.00 | 18.20 | 0.166 | 0.285 |
| 2898.5 | 2857.5 | 3.045  | 34.948 | 2.804  | 27.862 | 34.766  | 37.016  | 41.439  | 45.762  | 6.123 | 19.3         | 1.20 | 0.00 | 18.20 | 0.125 | 0.258 |
| 3098.0 | 3052.7 | 2.875  | 34.938 | 2.617  | 27.870 | 34.783  | 37.035  | 41.463  | 45.790  | 6.154 | 19.9         | 1.20 | 0.00 | 18.20 | 0.148 | 0.280 |
| 3297.0 | 3247.4 | 2.729  | 34.930 | 2.453  | 27.878 | 34.797  | 37.052  | 41.484  | 45.816  | 6.199 | 21.0         | 1.19 | 0.00 | 18.10 | 0.171 | 0.325 |
| 3498.3 | 3444.0 | 2.548  | 34.923 | 2.254  | 27.889 | 34.816  | 37.073  | 41.511  | 45.848  | 6.188 | 21.0         | 1.18 | 0.00 | 17.70 | 0.272 | 0.522 |
| 3697.4 | 3638.4 | 2.425  | 34.915 | 2.113  | 27.895 | 34.828  | 37.087  | 41.528  | 45.868  | 6.147 | 23.3         | 1.21 | 0.00 | 17.90 | 0.257 | 0.501 |
| 3898.8 | 3834.8 | 2.325  | 34.904 | 1.993  | 27.895 | 34.834  | 37.094  | 41.539  | 45.882  | 6.058 | 25.7         | 1.22 | 0.00 | 18.30 | 0.278 | 0.551 |
| 4098.1 | 4029.0 | 2.238  | 34.896 | 1.886  | 27.897 | 34.840  | 37.103  | 41.550  | 45.896  | 6.132 | 30.7         | 1.27 | 0.00 | 19.00 | 0.217 | 0.413 |
| 4311.1 | 4236.4 | 2.205  | 34.890 | 1.829  | 27.897 | 34.842  | 37.105  | 41.554  | 45.902  |       | 35.4         | 1.37 | 0.01 | 19.70 | 0.156 | 0.297 |

ENDRAVOR 214 Station 38 90- 7- 5 Lat: 37.183 Lon: -71.095 Sonic Depth: 4093

| PR     | DE     | T      | S       | Theta  | Sig 0  | Sig 1.5 | Sig 2.0           | Sig 3.0 | Sig 4.0 | O2    | SiO2         | Phos | NO2  | NO3   | F12         | F11   |
|--------|--------|--------|---------|--------|--------|---------|-------------------|---------|---------|-------|--------------|------|------|-------|-------------|-------|
| dbars  | meters | deg C  | PSU     | deg C  |        |         | kg/m <sup>3</sup> |         |         | ml/l  | -----umol/kg |      |      |       | ---µm/kg--- |       |
| 0.6    | 0.6    | 27.064 | {35.905 | 27.064 | 23.381 | 29.601  | 31.629            | 35.620  | 39.526  | 4.663 | 1.2          | 0.02 | 0.00 | 0.10  | 1.000       | 1.850 |
| 132.0  | 131.0  | 19.084 | {36.443 | 19.060 | 26.110 | 32.491  | 34.571            | 38.664  | 42.668  | 3.535 | 3.5          | 0.46 | 0.14 | 8.50  | 0.823       | 1.505 |
| 346.5  | 343.7  | 12.932 | 35.673  | 12.884 | 26.939 | 33.489  | 35.624            | 39.823  | 43.930  | 3.230 | 9.0          | 1.15 | 0.00 | 19.30 | 0.408       | 0.747 |
| 547.0  | 542.3  | 5.937  | {35.037 | 5.889  | 27.596 | 34.381  | 36.592            | 40.940  | 45.190  | 4.797 | 14.0         | 1.38 | 0.00 | 21.40 | 0.515       | 1.090 |
| 746.2  | 739.3  | 4.817  | 35.001  | 4.757  | 27.704 | 34.532  | 36.757            | 41.131  | 45.407  | 5.479 | 12.8         | 1.27 | 0.00 | 19.50 | 0.547       | 1.097 |
| 897.8  | 889.3  | 4.527  | 35.015  | 4.455  | 27.749 | 34.588  | 36.816            | 41.198  | 45.481  | 5.716 | 12.7         | 1.23 | 0.00 | 18.90 | 0.446       | 0.885 |
| 1000.6 | 990.8  | 4.209  | {34.972 | 4.131  | 27.751 | 34.602  | 36.835            | 41.225  | 45.515  | 5.699 | 12.7         | 1.24 | 0.00 | 19.00 | 0.445       | 0.881 |
| 1095.8 | 1084.8 | 4.056  | 34.954  | 3.971  | 27.753 | 34.611  | 36.846            | 41.239  | 45.534  | 6.021 | 12.1         | 1.19 | 0.00 | 18.40 | 0.617       | 1.252 |
| 1198.4 | 1186.1 | 4.054  | 34.967  | 3.960  | 27.764 | 34.623  | 36.858            | 41.251  | 45.546  | 5.995 | 12.5         | 1.20 | 0.00 | 18.40 | 0.481       | 0.961 |
| 1351.3 | 1336.9 | 3.875  | {34.955 | 3.769  | 27.775 | 34.641  | 36.878            | 41.277  | 45.576  | 6.089 | 12.7         | 1.18 | 0.00 | 18.30 | 0.521       | 1.043 |
| 1499.8 | 1483.4 | 3.850  | 34.962  | 3.732  | 27.784 | 34.651  | 36.889            | 41.289  | 45.589  | 6.063 | 13.0         | 1.19 | 0.00 | 18.40 | 0.374       | 0.703 |
| 1698.3 | 1678.8 | 3.726  | 34.959  | 3.591  | 27.796 | 34.669  | 36.908            | 41.311  | 45.615  | 6.056 | 14.0         | 1.19 | 0.00 | 18.30 | 0.294       | 0.554 |
| 1897.9 | 1875.3 | 3.645  | 34.969  | 3.492  | 27.813 | 34.690  | 36.931            | 41.336  | 45.642  | 6.054 | 15.1         | 1.20 | 0.00 | 18.50 | 0.175       | 0.315 |
| 2087.1 | 2061.3 | 3.477  | 34.968  | 3.309  | 27.830 | 34.715  | 36.958            | 41.368  | 45.678  | 6.055 | 16.3         | 1.21 | 0.00 | 18.40 | 0.105       | 0.192 |
| 2096.0 | 2070.1 | 3.405  | 34.966  | 3.237  | 27.836 | 34.723  | 36.967            | 41.379  | 45.691  |       |              |      |      |       |             |       |
| 2400.6 | 2369.2 | 3.200  | 34.952  | 3.006  | 27.846 | 34.743  | 36.990            | 41.408  | 45.726  | 6.069 | 18.3         | 1.21 | 0.00 | 18.20 | 0.130       | 0.202 |
| 2700.3 | 2663.2 | 2.891  | 34.937  | 2.673  | 27.865 | 34.775  | 37.026            | 41.453  | 45.779  | 6.145 | 19.6         | 1.21 | 0.00 | 18.20 | 0.151       | 0.272 |
| 3000.9 | 2957.6 | 2.616  | 34.921  | 2.373  | 27.878 | 34.800  | 37.056            | 41.490  | 45.824  | 6.197 | 21.3         | 1.19 | 0.00 | 18.10 | 0.193       | 0.366 |
| 3197.3 | 3149.8 | 2.444  | 34.910  | 2.185  | 27.885 | 34.815  | 37.073            | 41.512  | 45.851  | 6.220 | 23.4         | 1.20 | 0.00 | 18.20 | 0.201       | 0.391 |
| 3399.8 | 3347.7 | 2.326  | {34.911 | 2.049  | 27.897 | 34.833  | 37.093            | 41.536  | 45.878  | 6.163 | 24.9         | 1.22 | 0.00 | 18.30 | 0.238       | 0.458 |
| 3598.7 | 3541.9 | 2.258  | 34.896  | 1.961  | 27.892 | 34.831  | 37.092            | 41.538  | 45.882  |       | 30.0         | 1.28 | 0.00 | 19.10 | 0.133       | 0.235 |
| 3800.3 | 3738.6 | 2.215  | 34.893  | 1.897  | 27.894 | 34.837  | 37.099            | 41.546  | 45.892  | 6.117 | 31.4         | 1.28 | 0.00 | 19.20 | 0.163       | 0.297 |
| 3997.3 | 3930.6 | 2.199  | 34.893  | 1.859  | 27.897 | 34.841  | 37.104            | 41.552  | 45.899  | 6.094 | 33.4         | 1.31 | 0.00 | 19.50 | 0.170       | 0.306 |
| 4143.3 | 4072.9 | 2.199  | 34.888  | 1.843  | 27.894 | 34.839  | 37.102            | 41.550  | 45.898  | 6.063 | 34.6         | 1.33 | 0.00 | 19.60 | 0.163       | 0.314 |

ENDEAVOR 214 Station 39 90- 7- 6 Lat: 37.508 Lon: -71.310 Sonic Depth: 3807

| PR     | DB     | T      | S       | Theta  | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2    | SI02  | Phos    | NO2   | NO3   | P12   | P11   |
|--------|--------|--------|---------|--------|--------|---------|---------|---------|---------|-------|-------|---------|-------|-------|-------|-------|
| dbars  | meters | deg C  | PSU     | deg C  | -----  | -----   | -----   | -----   | -----   | ml/l  | ----- | umol/kg | ----- | ----- | ----- | ----- |
| 2.0    | 2.8    | 23.228 | (34.813 | 23.227 | 23.728 | 30.031  | 32.087  | 36.130  | 40.087  | 5.065 | 1.4   | 0.06    | 0.00  | 0.00  | 1.198 | 2.146 |
| 149.4  | 148.2  | 12.740 | (35.625 | 12.720 | 26.935 | 33.490  | 35.627  | 39.829  | 43.940  | 3.433 | 9.0   | 1.11    | 0.01  | 17.60 | 0.563 | 1.047 |
| 348.8  | 346.0  | 6.279  | 35.075  | 6.248  | 27.580 | 34.352  | 36.558  | 40.897  | 45.139  | 4.508 | 14.8  | 1.45    | 0.01  | 21.80 |       |       |
| 548.8  | 544.0  | 4.860  | 35.015  | 4.816  | 27.709 | 34.534  | 36.758  | 41.131  | 45.405  | 5.439 | 13.1  | 1.30    | 0.00  | 19.10 | 0.578 | 1.155 |
| 748.6  | 741.7  | 4.430  | 35.004  | 4.372  | 27.750 | 34.592  | 36.821  | 41.205  | 45.490  | 5.755 | 12.5  | 1.25    | 0.00  | 18.50 | 0.551 | 1.124 |
| 848.3  | 840.3  | 4.254  | 34.986  | 4.188  | 27.755 | 34.605  | 36.836  | 41.225  | 45.514  | 5.879 | 12.6  | 1.23    | 0.00  | 18.30 | 0.545 | 1.097 |
| 948.3  | 939.1  | 4.103  | 34.985  | 4.030  | 27.771 | 34.627  | 36.861  | 41.253  | 45.546  | 5.962 | 12.7  | 1.22    | 0.00  | 18.10 | 0.546 | 1.104 |
| 1049.1 | 1038.6 | 3.991  | 34.967  | 3.910  | 27.769 | 34.630  | 36.865  | 41.260  | 45.556  | 6.032 | 12.7  | 1.22    | 0.00  | 17.90 | 0.543 | 1.082 |
| 1098.6 | 1087.5 | 3.934  | 34.975  | 3.850  | 27.782 | 34.645  | 36.881  | 41.278  | 45.575  | 6.055 | 12.7  | 1.21    | 0.00  | 17.90 | 0.531 | 1.069 |
| 1299.3 | 1285.7 | 3.847  | 34.977  | 3.746  | 27.794 | 34.661  | 36.898  | 41.298  | 45.597  | 6.088 | 13.4  | 1.22    | 0.00  | 17.90 | 0.395 | 0.773 |
| 1449.1 | 1433.3 | 3.772  | 34.985  | 3.659  | 27.809 | 34.680  | 36.918  | 41.319  | 45.621  | 6.089 | 13.9  | 1.22    | 0.00  | 18.00 | 0.331 | 0.632 |
| 1599.0 | 1581.0 | 3.668  | 34.969  | 3.543  | 27.808 | 34.683  | 36.923  | 41.328  | 45.632  | 6.070 | 14.7  | 1.22    | 0.00  | 17.90 | 0.268 | 0.500 |
| 1799.6 | 1778.6 | 3.542  | 34.972  | 3.400  | 27.825 | 34.705  | 36.947  | 41.355  | 45.663  | 6.080 | 15.4  | 1.23    | 0.00  | 18.00 | 0.205 | 0.390 |
| 1998.8 | 1974.5 | 3.386  | (34.965 | 3.238  | 27.835 | 34.723  | 36.967  | 41.379  | 45.692  | 6.066 | 16.9  | 1.24    | 0.00  | 18.10 | 0.133 | 0.221 |
| 2299.4 | 2269.8 | 3.122  | 34.962  | 2.939  | 27.860 | 34.759  | 37.007  | 41.427  | 45.746  | 6.079 | 19.3  | 1.25    | 0.00  | 18.20 | 0.110 | 0.182 |
| 2600.2 | 2565.0 | 2.801  | 34.945  | 2.595  | 27.878 | 34.791  | 37.043  | 41.472  | 45.800  | 6.157 | 20.5  | 1.23    | 0.00  | 18.10 | 0.157 | 0.293 |
| 2899.8 | 2858.6 | 2.506  | 34.927  | 2.276  | 27.891 | 34.817  | 37.074  | 41.511  | 45.847  | 6.234 | 22.0  | 1.22    | 0.00  | 17.80 | 0.223 | 0.431 |
| 3101.0 | 3055.5 | 2.376  | (34.915 | 2.129  | 27.893 | 34.826  | 37.085  | 41.525  | 45.865  | 6.220 | 23.6  | 1.23    | 0.00  | 17.90 | 0.268 | 0.531 |
| 3299.6 | 3249.7 | 2.270  | 34.907  | 2.004  | 27.897 | 34.835  | 37.095  | 41.539  | 45.883  | 6.201 | 27.0  | 1.26    | 0.00  | 18.30 | 0.215 | 0.416 |
| 3500.0 | 3445.5 | 2.200  | (34.901 | 1.915  | 27.899 | 34.841  | 37.102  | 41.549  | 45.894  | 6.124 | 29.0  | 1.31    | 0.00  | 18.80 | 0.173 | 0.323 |
| 3700.5 | 3641.2 | 2.161  | 34.895  | 1.855  | 27.899 | 34.843  | 37.106  | 41.554  | 45.901  | 6.102 | 33.5  | 1.34    | 0.00  | 19.30 | 0.177 | 0.325 |
| 3850.6 | 3787.6 | 2.159  | (34.894 | 1.837  | 27.900 | 34.844  | 37.107  | 41.556  | 45.903  | 6.068 | 35.2  | 1.36    | 0.00  | 19.60 | 0.167 | 0.324 |

ENDEAVOR 214 Station 40 90- 7- 6 Lat: 37.869 Lon: -71.484 Sonic Depth: 3229

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2<br>ml/l | SIO2<br>umol/kg | Phos<br>umol/kg | NO2  | NO3   | P12   | P11<br>pm/kg |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|----------|------------|-----------------|-----------------|------|-------|-------|--------------|
| 1.9         | 1.9          | 21.939     | {34.694  | 21.939         | 24.004 | 30.336  | 32.400  | 36.462  | 40.436}} | 5.182      | 1.6             | 0.10            | 0.00 | 0.00  |       |              |
| 144.1       | 143.0        | 11.484     | 35.416   | 11.466         | 27.014 | 33.609  | 35.759  | 39.986  | 44.120   | 3.374      | 10.8            | 1.26            | 0.02 | 20.10 | 0.553 | 1.072        |
| 294.1       | 291.7        | 7.544      | {35.096  | 7.515          | 27.421 | 34.148  | 36.340  | 40.650  | 44.865}} | 3.785      | 16.3            | 1.59            | 0.01 | 24.40 | 0.278 | 0.533        |
| 444.1       | 440.3        | 5.384      | 35.021   | 5.347          | 27.651 | 34.456  | 36.674  | 41.034  | 45.296   | 5.043      | 14.2            | 1.37            | 0.00 | 20.70 | 0.515 | 1.036        |
| 594.0       | 588.7        | 4.809      | 35.013   | 4.762          | 27.713 | 34.540  | 36.765  | 41.139  | 45.415   | 5.483      | 13.4            | 1.30            | 0.00 | 19.50 | 0.526 | 1.070        |
| 694.5       | 688.1        | 4.523      | 35.000   | 4.469          | 27.736 | 34.574  | 36.803  | 41.184  | 45.467   | 5.716      | 13.0            | 1.26            | 0.00 | 18.80 | 0.584 | 1.170        |
| 794.0       | 786.5        | 4.356      | 34.993   | 4.294          | 27.749 | 34.595  | 36.825  | 41.211  | 45.497   | 5.822      | 13.0            | 1.25            | 0.00 | 18.70 | 0.577 | 1.143        |
| 894.3       | 885.8        | 4.186      | 34.973   | 4.117          | 27.752 | 34.605  | 36.838  | 41.228  | 45.519   | 5.921      | 13.1            | 1.24            | 0.00 | 18.40 | 0.588 | 1.190        |
| 994.2       | 984.4        | 4.077      | 34.973   | 4.000          | 27.765 | 34.622  | 36.856  | 41.249  | 45.543   | 6.007      | 12.9            | 1.23            | 0.00 | 18.20 | 0.567 | 1.145        |
| 1093.6      | 1082.5       | 4.011      | 34.971   | 3.927          | 27.771 | 34.631  | 36.866  | 41.261  | 45.556   | 6.029      | 13.0            | 1.23            | 0.00 | 18.20 | 0.516 | 1.037        |
| 1194.4      | 1182.1       | 4.014      | {34.979  | 3.921          | 27.778 | 34.638  | 36.873  | 41.268  | 45.564}} | 6.025      | 13.1            | 1.23            | 0.00 | 18.30 | 0.397 | 0.778        |
| 1343.8      | 1329.4       | 3.912      | {34.982  | 3.807          | 27.792 | 34.657  | 36.893  | 41.291  | 45.589}} | 6.031      | 13.8            | 1.23            | 0.00 | 18.30 | 0.294 | 0.554        |
| 1493.6      | 1477.2       | 3.713      | 34.969   | 3.597          | 27.803 | 34.676  | 36.915  | 41.318  | 45.621   | 6.118      | 14.0            | 1.22            | 0.00 | 18.10 | 0.324 | 0.643        |
| 1644.0      | 1625.3       | 3.644      | 34.975   | 3.515          | 27.816 | 34.692  | 36.932  | 41.337  | 45.642   | 6.103      | 14.8            | 1.22            | 0.00 | 18.10 | 0.257 | 0.480        |
| 1844.1      | 1822.2       | 3.515      | 34.977   | 3.369          | 27.832 | 34.713  | 36.956  | 41.364  | 45.673   | 6.096      | 15.9            | 1.24            | 0.00 | 18.10 | 0.179 | 0.326        |
| 2044.0      | 2018.9       | 3.342      | 34.970   | 3.180          | 27.844 | 34.734  | 36.978  | 41.392  | 45.705   | 6.096      | 17.1            | 1.23            | 0.00 | 18.10 | 0.164 | 0.299        |
| 2295.3      | 2265.7       | 3.106      | 34.953   | 2.924          | 27.855 | 34.754  | 37.002  | 41.422  | 45.742   | 6.134      | 18.2            | 1.23            | 0.00 | 18.00 | 0.177 | 0.325        |
| 2545.3      | 2511.1       | 2.808      | 34.937   | 2.607          | 27.870 | 34.783  | 37.035  | 41.464  | 45.791   | 6.206      | 19.5            | 1.22            | 0.01 | 17.80 | 0.222 | 0.432        |
| 2793.6      | 2754.4       | 2.569      | 34.921   | 2.348          | 27.880 | 34.803  | 37.059  | 41.494  | 45.829   | 6.277      | 19.7            | 1.20            | 0.00 | 17.50 | 0.313 | 0.627        |
| 2993.4      | 2950.1       | 2.406      | 34.914   | 2.169          | 27.889 | 34.820  | 37.078  | 41.518  | 45.857   | 6.310      | 20.6            | 1.20            | 0.00 | 17.40 | 0.372 | 0.743        |
| 3195.5      | 3147.8       | 2.320      | 34.917   | 2.064          | 27.900 | 34.835  | 37.095  | 41.537  | 45.879   | 6.264      | 23.2            | 1.23            | 0.00 | 17.60 | 0.358 | 0.698        |
| 3265.6      | 3216.3       | 2.300      | {34.911  | 2.037          | 27.898 | 34.834  | 37.094  | 41.537  | 45.880}} | 6.253      | 23.8            | 1.23            | 0.00 | 17.70 | 0.334 | 0.692        |

ENDEAVOR 214 Station 41 90- 7- 6 Lat: 38.214 Lon: -71.662 Sonic Depth: 2953

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2<br>ml/l | SiO2 | Phos<br>umol/kg | NO2  | NO3   | P12   | P11<br>pm/kg--- |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|----------|------------|------|-----------------|------|-------|-------|-----------------|
|             |              |            |          |                |        |         |         |         |          |            |      |                 |      |       |       |                 |
| 1.5         | 1.5          | 21.241     | 34.438   | 21.241         | 24.002 | 30.352  | 32.422  | 36.494  | 40.479   | 5.284      | 1.2  | 0.10            | 0.00 | 0.00  |       |                 |
| 122.8       | 121.9        | 12.859     | 35.626   | 12.842         | 26.910 | 33.462  | 35.598  | 39.798  | 43.907   | 3.485      | 8.5  | 1.07            | 0.01 | 17.60 |       |                 |
| 244.9       | 242.9        | 9.479      | 35.211   | 9.451          | 27.210 | 33.870  | 36.041  | 40.310  | 44.484   | 3.085      | 15.1 | 1.61            | 0.00 | 25.20 | 0.217 | 0.401           |
| 395.0       | 391.7        | 6.797      | 35.074   | 6.760          | 27.511 | 34.264  | 36.465  | 40.792  | 45.023   | 4.193      | 14.6 | 1.49            | 0.00 | 22.90 |       |                 |
| 569.7       | 564.7        | 4.888      | (34.975  | 4.842          | 27.674 | 34.499  | 36.723  | 41.095  | 45.369)) | 5.409      | 12.7 | 1.30            | 0.00 | 19.50 | 0.727 | 1.502           |
| 745.6       | 738.6        | 4.415      | 34.970   | 4.357          | 27.724 | 34.567  | 36.797  | 41.181  | 45.467   | 5.789      | 12.0 | 1.24            | 0.00 | 18.70 | 0.751 | 1.546           |
| 845.5       | 837.5        | 4.258      | 34.958   | 4.193          | 27.733 | 34.582  | 36.814  | 41.202  | 45.492   | 5.904      | 11.8 | 1.22            | 0.00 | 18.40 | 0.737 | 1.518           |
| 945.6       | 936.4        | 4.166      | 34.957   | 4.093          | 27.742 | 34.596  | 36.829  | 41.220  | 45.511   | 5.967      | 11.8 | 1.22            | 0.00 | 18.30 | 0.676 | 1.400           |
| 1046.7      | 1036.2       | 4.032      | 34.951   | 3.951          | 27.752 | 34.611  | 36.846  | 41.241  | 45.536   | 6.052      | 12.0 | 1.21            | 0.00 | 18.00 | 0.667 | 1.365           |
| 1146.2      | 1134.5       | 3.932      | 34.946   | 3.844          | 27.760 | 34.623  | 36.859  | 41.256  | 45.554   | 6.111      | 12.0 | 1.20            | 0.00 | 17.90 | 0.628 | 1.266           |
| 1247.0      | 1234.0       | 3.882      | (34.955  | 3.786          | 27.773 | 34.638  | 36.875  | 41.274  | 45.573)) |            | 11.7 | 1.17            | 0.00 | 17.40 | 0.614 | 1.222           |
| 1391.8      | 1376.7       | 3.781      | 34.948   | 3.673          | 27.779 | 34.649  | 36.887  | 41.288  | 45.590   | 6.019      | 12.5 | 1.21            | 0.00 | 17.90 |       |                 |
| 1545.7      | 1528.4       | 3.729      | 34.952   | 3.608          | 27.788 | 34.661  | 36.900  | 41.303  | 45.606   | 6.116      | 13.2 | 1.21            | 0.00 | 17.90 |       |                 |
| 1696.9      | 1677.3       | 3.677      | 34.956   | 3.543          | 27.798 | 34.673  | 36.913  | 41.317  | 45.622   | #5.77      | 14.1 | 1.21            | 0.00 | 18.00 |       |                 |
| 1846.8      | 1824.9       | 3.614      | 34.964   | 3.467          | 27.812 | 34.690  | 36.931  | 41.337  | 45.644   | 5.980      | 14.8 | 1.21            | 0.00 | 18.10 |       |                 |
| 1996.1      | 1971.7       | 3.506      | 34.963   | 3.346          | 27.823 | 34.706  | 36.948  | 41.357  | 45.667   | 6.093      | 15.6 | 1.21            | 0.00 | 18.10 | 0.184 | 0.337           |
| 2197.4      | 2169.5       | 3.302      | 34.955   | 3.126          | 27.838 | 34.729  | 36.975  | 41.389  | 45.704   | 6.117      | 17.0 | 1.21            | 0.00 | 18.10 |       |                 |
| 2398.1      | 2366.6       | 3.124      | 34.949   | 2.932          | 27.851 | 34.750  | 36.998  | 41.418  | 45.738   | 6.146      | 17.7 | 1.21            | 0.00 | 17.90 | 0.178 | 0.348           |
| 2596.7      | 2561.4       | 2.922      | 34.939   | 2.714          | 27.863 | 34.771  | 37.022  | 41.447  | 45.772   | 6.172      | 19.2 | 1.21            | 0.00 | 17.90 | 0.178 | 0.347           |
| 2797.4      | 2758.1       | 2.688      | 34.928   | 2.465          | 27.876 | 34.794  | 37.048  | 41.480  | 45.812   | 6.245      | 19.5 | 1.19            | 0.00 | 17.40 | 0.270 | 0.542           |
| 2898.0      | 2856.6       | 2.523      | 34.916   | 2.293          | 27.880 | 34.806  | 37.063  | 41.499  | 45.835   | 6.275      | 20.5 | 1.20            | 0.00 | 17.40 | 0.328 | 0.644           |
| 2978.4      | 2935.3       | 2.477      | 34.913   | 2.240          | 27.883 | 34.811  | 37.068  | 41.506  | 45.843   | 6.269      | 21.0 | 1.19            | 0.00 | 17.40 | 0.340 | 0.680           |

ENDEAVOR 214 Station 42 90- 7- 6 Lat: 38.532 Lon: -71.865 Sonic Depth: 2815

| PR     | DE     | T      | S       | Theta  | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2    | SiO2 | Phos         | NO2   | NO3   | P12   | F11            |
|--------|--------|--------|---------|--------|--------|---------|---------|---------|----------|-------|------|--------------|-------|-------|-------|----------------|
| dbars  | meters | deg C  | PSU     | deg C  |        |         |         |         |          | ml/l  | ---- | -----umol/kg | ----- | ----- | ----  | -----pm/kg---- |
| 2.5    | 2.5    | 20.272 | 33.729  | 20.272 | 23.722 | 30.100  | 32.180  | 36.270  | 40.273   | 5.429 | 1.5  | 0.15         | 0.00  | 0.00  | 1.375 | 2.634          |
| 96.5   | 95.7   | 11.360 | (34.938 | 11.348 | 26.664 | 33.268  | 35.420  | 39.653  | 43.792}} | 4.954 | 5.1  | 0.74         | 0.02  | 10.50 | 1.465 | 2.961          |
| 196.5  | 194.9  | 11.430 | 35.376  | 11.405 | 26.994 | 33.592  | 35.742  | 39.971  | 44.106   | 3.522 | 10.4 | 1.21         | 0.01  | 19.20 | 0.650 | 1.262          |
| 271.2  | 269.0  | 9.124  | 35.170  | 9.094  | 27.236 | 33.909  | 36.084  | 40.360  | 44.542   | 3.251 | 14.8 | 1.55         | 0.00  | 24.40 | 0.357 | 0.688          |
| 396.6  | 393.2  | 6.800  | 35.006  | 6.763  | 27.457 | 34.210  | 36.411  | 40.739  | 44.970   | 4.144 | 14.8 | 1.48         | 0.00  | 22.80 | 0.526 | 1.057          |
| 496.2  | 491.9  | 5.776  | 35.014  | 5.733  | 27.598 | 34.389  | 36.602  | 40.953  | 45.207   | 4.769 | 13.9 | 1.39         | 0.00  | 21.20 | 0.511 | 1.023          |
| 596.7  | 591.4  | 5.152  | 35.015  | 5.103  | 27.675 | 34.490  | 36.710  | 41.076  | 45.344   | 5.252 | 13.2 | 1.32         | 0.00  | 19.90 | 0.558 | 1.113          |
| 696.1  | 689.7  | 4.854  | 35.010  | 4.798  | 27.707 | 34.533  | 36.757  | 41.130  | 45.405   | 5.477 | 12.8 | 1.28         | 0.00  | 19.30 | 0.534 | 1.059          |
| 796.3  | 788.7  | 4.430  | 34.968  | 4.368  | 27.722 | 34.564  | 36.794  | 41.178  | 45.463   | 5.791 | 12.1 | 1.24         | 0.00  | 18.60 | 0.713 | 1.497          |
| 895.5  | 886.9  | 4.293  | 34.970  | 4.223  | 27.739 | 34.587  | 36.819  | 41.206  | 45.495   | 5.891 | 12.1 | 1.22         | 0.00  | 18.40 | 0.667 | 1.342          |
| 996.1  | 986.2  | 4.250  | 34.979  | 4.172  | 27.751 | 34.602  | 36.834  | 41.222  | 45.512   | 5.910 | 12.3 | 1.22         | 0.00  | 18.30 | 0.517 | 1.039          |
| 1057.0 | 1046.3 | 4.145  | 34.977  | 4.063  | 27.761 | 34.616  | 36.849  | 41.241  | 45.533   | 5.978 | 12.6 | 1.21         | 0.00  | 18.30 | 0.508 | 1.029          |
| 1196.6 | 1184.2 | 3.930  | 34.949  | 3.837  | 27.763 | 34.626  | 36.863  | 41.260  | 45.557   |       | 12.3 | 1.19         | 0.00  | 18.00 | 0.606 | 1.213          |
| 1296.6 | 1282.9 | 3.855  | 34.949  | 3.754  | 27.771 | 34.638  | 36.875  | 41.274  | 45.574   | 6.143 | 12.3 | 1.18         | 0.00  | 17.90 | 0.577 | 1.151          |
| 1395.7 | 1380.5 | 3.831  | 34.952  | 3.722  | 27.777 | 34.645  | 36.883  | 41.283  | 45.583   | 6.127 | 12.9 | 1.19         | 0.00  | 17.90 | 0.474 | 0.957          |
| 1497.2 | 1480.6 | 3.790  | 34.961  | 3.672  | 27.789 | 34.659  | 36.897  | 41.298  | 45.600   | 6.108 | 13.2 | 1.19         | 0.00  | 18.00 | 0.405 | 0.799          |

ENDEAVOR 214 Station 43 90- 7- 7 Lat: 39.100 Lon: -72.167 S/c Depth: 2639

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0 | O2<br>ml/l | SI02 | Phos<br>umol/kg | NO2  | NO3   | F12   | F11   |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|---------|------------|------|-----------------|------|-------|-------|-------|
|             |              |            |          |                |        |         |         |         |         |            |      |                 |      |       |       |       |
| 2.8         | 2.8          | 20.142     | 33.591   | 20.141         | 23.652 | 30.034  | 32.114  | 36.208  | 40.213  | 5.504      | 1.7  | 0.27            | 0.00 | 0.00  | 1.424 | 2.696 |
| 103.0       | 102.2        | 11.410     | {35.043  | 11.397         | 26.737 | 33.338  | 35.489  | 39.720  | 43.858  | 5.039      | 5.2  | 0.76            | 0.02 | 10.70 |       |       |
| 195.5       | 193.9        | 11.163     | {35.367  | 11.139         | 27.036 | 33.642  | 35.795  | 40.029  | 44.170  | 3.405      | 11.2 | 1.30            | 0.00 | 20.70 |       |       |
| 247.5       | 245.5        | 9.958      | 35.265   | 9.929          | 27.172 | 33.816  | 35.981  | 40.240  | 44.405  | 3.122      | 14.3 | 1.55            | 0.00 | 24.40 | 0.298 | 0.575 |
| 374.2       | 371.0        | 6.908      | {35.039  | 6.873          | 27.467 | 34.217  | 36.416  | 40.741  | 44.970  | 4.080      | 15.3 | 1.54            | 0.00 | 23.50 |       |       |
| 496.7       | 492.4        | 5.523      | 34.984   | 5.481          | 27.605 | 34.406  | 36.622  | 40.979  | 45.239  | 4.931      | 13.8 | 1.40            | 0.00 | 20.90 | 0.629 | 1.269 |
| 598.8       | 593.4        | 4.987      | 34.981   | 4.938          | 27.668 | 34.488  | 36.711  | 41.081  | 45.353  | 5.366      | 13.4 | 1.37            | 0.00 | 19.70 | 0.712 | 1.421 |
| 698.3       | 691.8        | 4.708      | 34.982   | 4.652          | 27.701 | 34.533  | 36.759  | 41.136  | 45.414  | 5.587      | 12.7 | 1.29            | 0.00 | 19.20 | 0.700 | 1.410 |
| 799.2       | 791.6        | 4.503      | 34.978   | 4.440          | 27.722 | 34.561  | 36.790  | 41.172  | 45.456  | 5.748      | 12.5 | 1.26            | 0.00 | 18.90 | 0.691 | 1.420 |
| 900.0       | 891.3        | 4.354      | 34.975   | 4.283          | 27.736 | 34.582  | 36.813  | 41.199  | 45.486  | 5.851      | 12.7 | 1.25            | 0.00 | 18.50 | 0.646 | 1.352 |
| 1001.8      | 991.8        | 4.232      | 34.971   | 4.154          | 27.747 | 34.598  | 36.830  | 41.219  | 45.510  | 5.941      | 12.4 | 1.24            | 0.00 | 18.40 | 0.626 | 1.270 |
| 1084.5      | 1073.4       | 4.131      | 34.967   | 4.046          | 27.755 | 34.610  | 36.844  | 41.236  | 45.529  | 6.000      | 12.4 | 1.23            | 0.00 | 18.30 | 0.596 | 1.212 |
| 1200.1      | 1187.6       | 4.001      | 34.963   | 3.907          | 27.767 | 34.627  | 36.863  | 41.258  | 45.554  | 6.012      | 12.6 | 1.23            | 0.00 | 18.20 | 0.548 | 1.131 |
| 1300.8      | 1286.9       | 3.921      | 34.961   | 3.819          | 27.774 | 34.638  | 36.875  | 41.272  | 45.570  | 6.105      | 12.6 | 1.24            | 0.00 | 18.10 | 0.473 | 1.047 |
| 1400.3      | 1385.0       | 3.850      | 34.958   | 3.740          | 27.780 | 34.647  | 36.885  | 41.284  | 45.584  | 6.134      | 13.0 | 1.22            | 0.00 | 18.00 | 0.472 | 0.929 |
| 1499.6      | 1482.9       | 3.791      | 34.959   | 3.673          | 27.787 | 34.657  | 36.896  | 41.297  | 45.598  | 6.128      | 13.3 | 1.23            | 0.00 | 18.00 | 0.411 | 0.806 |

ENDEAVOR 214 Station 44 90- 7- 7 Lat: 39.111 Lon: -72.161 Sonic Depth: 1606

| PR<br>dbars | DE<br>meters | T<br>deg C | S<br>PSU | Theta<br>deg C | Sig 0  | Sig 1.5 | Sig 2.0 | Sig 3.0 | Sig 4.0  | O2<br>ml/l | SiO2<br>umol/kg | Phos<br>umol/kg | NO2  | NO3   | F12   | F11<br>ps/kg |
|-------------|--------------|------------|----------|----------------|--------|---------|---------|---------|----------|------------|-----------------|-----------------|------|-------|-------|--------------|
| 2.9         | 2.9          | 19.880     | 33.589   | 19.879         | 23.719 | 30.107  | 32.189  | 36.287  | 40.295   | 5.539      | 1.7             | 0.15            | 0.00 | 0.00  | 1.456 | 2.714        |
| 100.6       | 99.8         | 11.447     | {35.037  | 11.434         | 26.725 | 33.325  | 35.476  | 39.707  | 43.844}} | 5.044      | 5.0             | 0.75            | 0.01 | 10.40 | 1.459 | 2.940        |
| 199.9       | 198.3        | 11.400     | 35.399   | 11.375         | 27.018 | 33.616  | 35.766  | 39.996  | 44.132   | 3.400      | 10.7            | 1.27            | 0.00 | 20.00 | 0.589 | 1.124        |
| 249.3       | 247.3        | 10.230     | 35.277   | 10.200         | 27.134 | 33.770  | 35.932  | 40.186  | 44.345   | 3.188      | 13.4            | 1.47            | 0.00 | 23.10 | 0.416 | 0.801        |
| 373.7       | 370.6        | 7.192      | 35.027   | 7.156          | 27.418 | 34.158  | 36.355  | 40.674  | 44.896   | 3.919      | 15.3            | 1.54            | 0.00 | 23.60 | 0.479 | 0.945        |
| 500.8       | 496.4        | 5.594      | 34.977   | 5.551          | 27.591 | 34.389  | 36.604  | 40.960  | 45.218   | 4.832      | 14.3            | 1.40            | 0.00 | 21.10 |       | 1.254        |
| 602.5       | 597.1        | 5.022      | 34.983   | 4.973          | 27.665 | 34.485  | 36.707  | 41.076  | 45.347   | 5.300      | 13.5            | 1.33            | 0.00 | 19.80 | 0.676 | 1.376        |
| 695.6       | 689.1        | 4.714      | 34.979   | 4.659          | 27.698 | 34.529  | 36.756  | 41.132  | 45.411   | 5.558      | 13.0            | 1.29            | 0.00 | 19.30 | 0.710 | 1.446        |
| 801.2       | 793.5        | 4.475      | 34.982   | 4.412          | 27.728 | 34.569  | 36.798  | 41.181  | 45.465   | 5.738      | 12.9            | 1.26            | 0.00 | 18.90 | 0.670 | 1.364        |
| 894.9       | 886.3        | 4.341      | 34.976   | 4.271          | 27.738 | 34.585  | 36.816  | 41.202  | 45.489   | 5.835      | 12.9            | 1.25            | 0.00 | 18.60 | 0.638 | 1.326        |
| 1000.4      | 990.4        | 4.221      | 34.976   | 4.143          | 27.752 | 34.603  | 36.836  | 41.225  | 45.516   | 5.922      | 12.9            | 1.25            | 0.00 | 18.40 | 0.605 | 1.221        |
| 1095.8      | 1084.6       | 4.064      | 34.962   | 3.979          | 27.758 | 34.616  | 36.851  | 41.244  | 45.539   | 6.006      | 12.9            | 1.23            | 0.00 | 18.30 | 0.611 | 1.229        |
| 1195.5      | 1183.0       | 3.979      | 34.959   | 3.886          | 27.766 | 34.627  | 36.863  | 41.259  | 45.555   | 6.041      | 13.0            | 1.24            | 0.00 | 18.20 | 0.568 | 1.137        |
| 1296.5      | 1282.7       | 3.913      | 34.957   | 3.812          | 27.772 | 34.636  | 36.873  | 41.270  | 45.569   | 6.080      | 13.4            | 1.22            | 0.00 | 18.20 | 0.549 | 1.096        |
| 1400.4      | 1385.1       | 3.857      | 34.957   | 3.747          | 27.778 | 34.645  | 36.883  | 41.282  | 45.582   | 6.089      |                 | 1.24            | 0.00 | 18.10 |       | 0.965        |
| 1497.9      | 1481.2       | 3.805      | 34.960   | 3.687          | 27.787 | 34.656  | 36.894  | 41.295  | 45.596   | 6.086      | 13.6            | 1.26            | 0.00 | 18.10 | 0.444 | 0.854        |

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| <b>REPORT DOCUMENTATION PAGE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>1. REPORT NO.</b><br>WHOI-92-23 | <b>2.</b>                                               | <b>3. Recipient's Accession No.</b>                                |
| <b>4. Title and Subtitle</b><br>Hydrographic Data from Endeavor 214: A Study of the Gulf Stream-Deep Western Boundary Current Crossover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                    |                                                         | <b>5. Report Date</b><br>May 1992                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                    |                                                         | <b>6.</b>                                                          |
| <b>7. Author(s)</b> Robert S. Pickart, Theresa K. McKee and William M. Smethie, Jr.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                    |                                                         | <b>8. Performing Organization Rept. No.</b><br>WHOI-92-23          |
| <b>9. Performing Organization Name and Address</b><br><br>Woods Hole Oceanographic Institution<br>Woods Hole, Massachusetts 02543                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                    |                                                         | <b>10. Project/Task/Work Unit No.</b>                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                    |                                                         | <b>11. Contract(C) or Grant(G) No.</b><br>(C)OCE90-09464<br>(G)    |
| <b>12. Sponsoring Organization Name and Address</b><br><br>National Science Foundation and the Office of Naval Research                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                    |                                                         | <b>13. Type of Report &amp; Period Covered</b><br>Technical Report |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                    |                                                         | <b>14.</b>                                                         |
| <b>15. Supplementary Notes</b><br><br>This report should be cited as: Woods Hole Oceanog. Inst. Tech. Rept., WHOI-92-23.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                    |                                                         |                                                                    |
| <b>16. Abstract (Limit: 200 words)</b><br><br>In late June, 1990, a 17-day cruise aboard R/V ENDEAVOR was undertaken to investigate the manner in which the Deep Western Boundary Current (DWBC) crosses under the Gulf Stream. Forty-four CTD casts, comprising five sections, were made along with bottle measurements of Dissolved Oxygen, Nitrate, Nitrite, Phosphate, Silica, F-11, and F-12. An acoustic transport float (POGO) was deployed at each station to obtain a measurement of the upper layer transport. The shipboard Acoustic Doppler Current Profiler (ADCP) measured currents throughout the cruise. This report presents vertical profiles and sections of the bottle and CTD data, a vector map of the average POGO currents, and listings of the bottle data. |                                    |                                                         |                                                                    |
| <b>17. Document Analysis</b> <b>a. Descriptors</b><br><br>deep western boundary current<br>Gulf Stream<br>transient tracers<br><br><b>b. Identifiers/Open-Ended Terms</b><br><br><br><br><b>c. COSATI Field/Group</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                    |                                                         |                                                                    |
| <b>18. Availability Statement</b><br><br>Approved for public release; distribution unlimited.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                    | <b>19. Security Class (This Report)</b><br>UNCLASSIFIED | <b>21. No. of Pages</b><br>122                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                    | <b>20. Security Class (This Page)</b>                   | <b>22. Price</b>                                                   |