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AA Data Report OAR AOML-38



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**CTD/O<sub>2</sub>, LADCP AND XBT MEASUREMENTS COLLECTED ABOARD  
THE *R/V SEWARD JOHNSON*, FEBRUARY-MARCH 2000: NORTH  
BRAZIL CURRENT RINGS EXPERIMENT CRUISE 3 (NBC-3)**

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Atlantic Oceanographic and Meteorological Laboratory  
Miami, Florida  
August 2000

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## CONTENTS

<b>1.</b>	<b>Introduction</b>	<b>1</b>
<b>2.</b>	<b>Standards and Pre-Cruise Calibrations</b>	<b>2</b>
2.1	Conductivity	2
2.2	Temperature	3
2.3	Pressure	3
2.4	Oxygen	4
<b>3.</b>	<b>Data Acquisition</b>	<b>5</b>
3.1	Data Acquisition/System Problems	5
3.2	Salinity Analyses	5
3.3	Oxygen Analyses	6
<b>4.</b>	<b>At Sea Processing of CTD data</b>	<b>6</b>
<b>5.</b>	<b>Post-Cruise Calibrations</b>	<b>7</b>
5.1	Conductivity	7
5.2	Temperature	8
5.3	Oxygen	8
<b>6.</b>	<b>Lowered Acoustic Doppler Current Profiler</b>	<b>9</b>
<b>7.</b>	<b>Final Data Presentation</b>	<b>10</b>
<b>8.</b>	<b>Acknowledgments</b>	<b>10</b>
<b>9.</b>	<b>References</b>	<b>10</b>
	<b>Figures and Tables</b>	<b>11</b>
	FIGURES:	
1	CTD station locations made on the R/V SEWARD JOHNSON from January 29 to February 24, 2000.	12
2	Calibrated CTD-bottle conductivity differences plotted against station number and pressure.	15
3	Calibrated CTD-bottle salinity differences plotted against station number and pressure.	16
4	Calibrated CTD-bottle oxygen differences plotted against station number and pressure.	17
	TABLES:	
1	CTD/LADCP cast summary	13
2	Oxygen values rejected by calibration routines	18
	<b>Hydrographic Data</b>	
	CTD Data Appendix A Tables and Profile Plots	21
	LADCP Data Appendix B Profile Plots	177



# CTD/O<sub>2</sub> and LADCP measurements collected aboard the *R/V Seward Johnson*, February-March 2000: North Brazil Current Rings Experiment Cruise 3 (NBC-3)

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**Abstract.** Summaries of Conductivity-Temperature-Depth (CTD/O<sub>2</sub>), and Lowered Acoustic Doppler Current Profiler (LADCP) measurements and hydrographic data acquired on an oceanographic research cruise during the winter of 2000 aboard the Harbor Branch Oceanographic Institution ship *R/V Seward Johnson* are presented. Data acquisition and processing systems are described, and calibration procedures are documented. Station location, CTD/O<sub>2</sub>, LADCP summary data listings, and profiles are included for each station.

## 1. Introduction

North Brazil Current rings are large (400 km diameter) anticyclones that pinch off from the North Brazil Current (NBC) retroflection in the western tropical Atlantic near 8°N, translate northwestward along the coast of South America, and decay through topographic interaction near the passages of the southeastern Caribbean. Advection within translating NBC rings has been proposed as one of several important pathways for the transport of South Atlantic upper-ocean water across the equatorial-tropical gyre boundary and into the North Atlantic subtropical gyre. Such transport is required to complete the Meridional Overturning Cell (MOC) in the Atlantic forced by the high-latitude production and southward export of North Atlantic Deep Water.

The mechanisms which contribute to NBC ring formation, and the structure and dynamics of the rings themselves, are not well understood. The specific objectives of the cruise are to:

1. Obtain a thorough description of the spatial and temporal evolution of the North Brazil Current retroflection and the separation of rings from the retroflection;
2. Determine the physical structure of the rings after separation from the NBC, including their sizes, vertical structure, horizontal swirl velocities, and the volume of South Atlantic water they trap and transport; and
3. Determine the rates of translation, decay, and mixing with resident North Atlantic waters as the rings move northwestward from their generation point toward the Caribbean Sea.

To accomplish these objectives, several complementary measurement techniques were employed during two previous cruises (NBC-1 and NBC-2). Primary elements of the observing strategy included: (1) an Inverted Echo Sounder (IES) array placed within TOPEX/GEOSAT-2 track lines to optimally monitor the evolution of the NBC retroflection and ring generation events; (2) moored current and temperature-salinity measurements along the ring translation corridor to determine the transport and water mass characteristics of the rings; (3) detailed shipboard CTD/ADCP surveys and (4) deployments of surface drifters and subsurface RAFOS floats in selected rings to track their propagation and decay at various stages of their life cycle. This report describes the CTD/LADCP survey data collected during the third cruise of this project (NBC-3), which took place from January 29 to February 24, 2000 aboard the *R/V Seward Johnson*.

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A total of 77 hydrographic stations were occupied during two legs of this cruise. Figure 1 shows station locations for legs 1 and 2. Table 1 provides a summary of CTD/LADCP cast information. At each station, profiles of temperature, salinity (conductivity) and dissolved oxygen concentration were collected to a depth of 2000 m or to within approximately 10 m of the bottom at shallower depths. LADCP measurements were taken concurrently with CTD/O<sub>2</sub> stations. Water samples for calibration of the salinity and dissolved oxygen profiles were collected at each station.

## 2. Standards and Pre-Cruise Calibrations

The CTD/O<sub>2</sub> system is a real-time data acquisition system with the data from a Sea Bird Electronics, Inc. (SBE) 9plus underwater unit transmitted via a conducting cable to a SBE 11plus deck unit. The serial data from the underwater unit is sent to the deck unit in RS-232 NRZ format. The deck unit decodes the serial data and sends it to a personal computer for display and storage in a disk file using Sea-Bird SEASOFT software.

The SBE 911plus system transmits data from primary and auxiliary sensors in the form of binary numbers equivalent to the frequency or voltage outputs from those sensors. These are referred to as the raw data. The SBE software performs the calculations required to convert raw data to engineering units.

The SBE 911plus system is electrically and mechanically compatible with the standard, unmodified carousel water sampler, also made by Sea-Bird Electronics, Inc. A modem and carousel interface allows the 911plus system to control the operations of the carousel directly without interrupting the flow of data from the CTD.

The SBE 9plus underwater unit is configured with dual standard modular temperature (SBE 3) and conductivity (SBE 4) sensors, which are mounted near the lower end cap. The conductivity cell entrance is co-planar with the tip of the temperature sensor probe. The pressure sensor is mounted inside the underwater unit main housing. A centrifugal pump module flushes water through sensor tubing at a constant rate independent of the CTD's motion to improve dynamic performance. Dual dissolved oxygen sensors are added to the pumped sensor configuration following the temperature-conductivity (TC) pair.

### 2.1 Conductivity

The flow-through conductivity-sensing element is a glass tube (cell) with three platinum electrodes. The resistance measured between the center electrode and the end electrode pair is determined by the cell geometry and the specific conductance of the fluid within the cell, and controls the output frequency of a Wein Bridge circuit. The sensor has a frequency output of approximately 3 to 12kHz corresponding to conductivity from 0 to 7 Siemens/meter (0 to 70 mmho/cm). The SBE 4 has a typical accuracy/stability of  $\pm 0.0003$  S/m and resolution of 0.00004 S/m at 24 scans per second.

Two conductivity sensors were used during NBC-3 (serial numbers 1346 and 1335). Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington. The following coefficients were entered into SEASOFT using the software module SEACON:

s/n 1346	s/n 1335
<u>November 18, 1999</u>	<u>November 18, 1999</u>
$g = -4.16755121e+00$	$g = -4.15649900e+00$
$h = 5.48628447e-01$	$h = 5.25089781e-01$
$i = 1.36786722e-04$	$i = 6.89152453e-05$
$j = 2.45113693e-05$	$j = 2.698973569e-05$
$ctcor = 3.25e-06$	$ctcor = 3.25e-06$
$cpcor = -9.57e-08$	$cpcor = -9.57e-08$



Conductivity calibration certificates show an equation containing the appropriate pressure-dependent correction term to account for the effect of hydrostatic loading (pressure) on the conductivity cell:

$$C \text{ (S/m)} = (g + hf^2 + if^3 + jf^4) / [10 (1 + ctcpr * t + cpcor * p)]$$

where  $g$ ,  $h$ ,  $i$ ,  $j$ ,  $ctcor$ , and  $cpcor$  are the calibration coefficients shown above,  $f$  is the instrument frequency (kHz),  $t$  is the water temperature (degrees Celsius), and  $p$  is the water pressure (dbar). SEASOFT automatically implements this equation.

## 2.2 Temperature

The temperature-sensing element is a glass-coated thermistor bead, pressure protected by a stainless steel tube. The sensor output frequency ranges from 5-13 kHz, corresponding to temperatures ranging from -5 to 35°C. The output frequency is inversely proportional to the square root of the thermistor resistance, which controls the output of a patented Wein Bridge circuit. The thermistor resistance is exponentially related to temperature. The SBE 3 thermometer has a typical accuracy/stability of  $\pm 0.004^\circ\text{C}$  per year and a resolution of  $0.0003^\circ\text{C}$  at 24 samples per second. The SBE 3 thermometer has a fast response time of 0.070 seconds.

The two temperature sensors used during NBC-3 (serial numbers 1652 and 1609). Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington. The following coefficients were entered into SEASOFT using SEACON:

s/n 1652	s/n 1609
November 16, 1999	November 16, 1999
$g = 4.83631288e-03$	$g = 4.86582916e-03$
$h = 6.76509921e-04$	$h = 6.79794105e-04$
$i = 2.52390033e-05$	$i = 2.61355163e-05$
$j = 1.87113927e-06$	$j = 2.01183951e-06$
$f_0 = 1000.0$	$f_0 = 1000.0$

Temperature (ITS-90) is computed according to

$$T [^\circ\text{C}] = [1 / (g + h \ln(f_0/f) + i \ln^2(f_0/f) + j \ln^3(f_0/f))] - 273.15$$

where  $g$ ,  $h$ ,  $i$ ,  $j$  and  $f_0$  are the calibration coefficients above and  $f$  is the instrument frequency (Hz). SEASOFT automatically implements this equation and converts between ITS-90 and IPTS-68 temperature scales as desired.

## 2.3 Pressure

The Paroscientific series 4000 DigiQuartz high pressure transducer uses a quartz crystal resonator whose frequency of oscillation varies with pressure induced stress, measuring changes in pressure as small as 0.01 parts per million with an absolute range of 0 to 10,000 psia (0 to 6885 dbar). Repeatability, hysteresis, and pressure conformance are 0.002% FS. The nominal pressure frequency (0 to full scale) is 34 to 38 kHz. The nominal temperature frequency is  $172 \text{ kHz} + 50 \text{ ppm}/^\circ\text{C}$ .

The pressure sensor utilized during NBC-3 was s/n 58808. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington. The following coefficients were entered into SEASOFT using the module SEACON:

s/n 58808  
 May 31, 1996  
 $c1 = -4.53844e+04$   
 $c2 = -1.963440e-01$   
 $c3 = 1.278040e-02$   
 $d1 = 3.779600e-02$   
 $d2 = 0$   
 $t1 = 3.010293e+01$   
 $t2 = -2.932600e-04$   
 $t3 = 3.610820e-06$   
 $t4 = 3.748630e-09$

Pressure coefficients are first formulated into

$$\begin{aligned}
 c &= c_1 + c_2 U + c_3 U^2 \\
 d &= d_1 + d_2 U \\
 t0 &= t1 + t2 * U + t3 * U^2 + t4 * U^3
 \end{aligned}$$

where  $U$  is temperature in degrees Celsius. Pressure is computed according to

$$P(\text{psia}) = c (1 - (t0^2 / t^2)) (1 - d (1 - (t0^2 / t^2)))$$

where  $t$  is pressure period ( $\mu$ s). SEASOFT automatically implements this equation.

## 2.4 Oxygen

The SBE 13Y dissolved oxygen sensor (Yellow Springs Instrument (YSI)) uses a polarographic type element. Oxygen sensors determine the dissolved oxygen concentration by counting the number of oxygen molecules per second (flux) that diffuse through a membrane. By knowing the flux of oxygen and the geometry of the diffusion path, the concentration of oxygen can be computed. The permeability of the membrane to oxygen is a function of temperature and ambient pressure. The interface electronics output voltages are proportional to membrane current (oxygen current) and membrane temperature (oxygen temperature). Oxygen temperature is used for internal temperature compensation. Initial computation of dissolved oxygen in engineering units is done in the software. The range for dissolved oxygen is 0 to 670  $\mu$ mol/kg; nominal accuracy is 4.45  $\mu$ mol/kg; resolution is 0.4  $\mu$ mol/kg. Response times are roughly 2 seconds at 25°C and 5 seconds at 0°C.

Oxygen sensors 130433 and 230531 were used during NBC-3. The following oxygen calibrations were entered into SEASOFT using SEACON:

s/n 130433	s/n 230531
September 9, 1998	August 31, 1998
$m = 1.0048e-5$	$m = 1.0059e-5$
$b = -4.8229e-9$	$b = -1.6094e-8$
$soc = .0785$	$soc = 0.0887$
$boc = -.0083$	$boc = -0.0209$
$tcor = -0.033$	$tcor = -0.033$
$pcor = 1.50e-4$	$pcor = 1.50-e4$
$\tau = 2.0$	$\tau = 2.0$
$wt = 0.85$	$wt = .85$
$k = 6.5742$	$k = 6.5121$
$c = -1.4886$	$c = -1.7991$



The use of these constants in linear equations of the form  $I = mV + b$  and  $T = kV + c$  yield sensor membrane current and temperature (with maximum error of about 0.5°C) as a function of sensor output voltage.

### **3. Data Acquisition**

CTD/O<sub>2</sub> measurements were made using a SBE 9plus CTD with dual sensor configuration. Each set of sensors included a temperature, conductivity, and dissolved oxygen sensor. The sets were placed as mirror images to each other mounted low in the CTD main housing with the intakes approximately 6-8 inches apart. The TC pairs were monitored for calibration drift and shifts by examining the differences between the two pairs on each CTD and comparing CTD salinity values with bottle salinity measurements.

AOML's SBE 9plus CTD/O<sub>2</sub> s/n 09P10779-0363 (sampling rate 24Hz) was mounted in a 24-position frame and employed as the primary package. Auxiliary sensors included a lowered acoustic doppler current profiler (LADCP) and a Simrad altimeter. Water samples were collected using a SBE bottle carousel and 10-liter Niskin bottles. Data from the primary sensor package was used for all final data in this report.

The package entered the water from the starboard side of the ship and was held within 5 meters of the surface for 1 minute in order to activate the pump. The package was lowered at a rate of 30 m/min to 100 m and 60 m/min generally to within 10 meters of the bottom, slowing on the approach. The altimeter monitored the position of the package relative to the bottom.

Upon completion of the cast, sensors were flushed repeatedly and stored with a dilute Triton-X solution in the plumbing. Niskin bottles were then sampled for oxygen and salinity.

A SBE 11plus deck unit received the data signal from the CTD. Digitized data were forwarded to a personal computer equipped with SEASOFT acquisition and processing software version 4.234. Preliminary temperature, salinity, and oxygen profiles were displayed in real time. Raw data files were archived to Castlewood Orb 2.2 gigabyte removable disks.

#### **3.1 Data Acquisition/System Problems**

Data acquisition problems incurred during the cruise was due to data flow interruption to the carousel. Bottle data from two stations (009 & 055) was sacrificed due to this data interruption. Due to time constraints during 4 stations during this cruise, bottle samples were not taken during the following stations, numbers 070, 071, 076, and 077. The performance of the temperature and conductivity sensors was outstanding. The performance of oxygen sensor 230531 surface values began to deteriorate after station 043. Therefore, surface values from stations 044-077 are only accurate beginning at a depth of 60 decibars and data above 60 decibars are not shown. The secondary oxygen sensor (130433) data was not utilized due to a cracked cell in the sensor.

#### **3.2 Salinity Analyses**

Bottle salinity analyses were performed in the ship's temperature-controlled salinity laboratory using a Guildline Model 8400B inductive autosalinometer, and a dedicated PC. Software allowed the user to standardize the autosal and perform a second standardization using a fresher standard (30 PSS) for a linearity check. IAPSO Standard Seawater was used as the standard. The autosal was standardized before each case of 24 samples was analyzed. The software limits set required that each successive reading be within  $\pm 0.002$  PSS or the program would reject that reading and seek another. Stable room temperature and high performance of the autosalinometer allowed these limits to be strictly set.



Duplicate samples were taken from the deepest bottle on several casts. Bottle salinities were compared with preliminary CTD salinity values to monitor CTD conductivity cell performance and drift. The expected precision of the autosal was 0.001 PSS, with an accuracy of  $\pm 0.0003$  PSS.

### 3.3 Oxygen Analyses

Bottle oxygen analyses were also performed in the ship's temperature-controlled salinity laboratory using a photometric automatic Winkler method titrator with a Carpenter modification, and a dedicated PC. The water samples were drawn (without air bubbles) from Niskin bottles immediately upon arrival on deck. Manganese sulfate (or chloride) was added to the sample, followed by the addition of an alkaline sodium hydroxide-sodium iodide solution. These solutions "pickled" the sample, causing it to precipitate and react with the dissolved oxygen in the water sample. The sample was then dissolved and photometrically titrated to an end point with a standardized sodium thiosulphate solution. The content of oxygen value was calculated utilizing the volume of the water sample bottle and the amount of added thiosulphate. Automated titrating systems can attain a precision of about  $\pm 4.46 \mu\text{mol/kg}$  (Friederich *et al.*, 1991).

## 4. At Sea Processing of CTD Data

SEASOFT consists of modular menu-driven routines for acquisition, display, processing, and archiving of oceanographic data acquired with SBE equipment. The software is designed to work with a PC. Raw data are acquired from the instruments and are stored in an unmodified format. The conversion module DATCNV uses the instrument configuration and pre-cruise factory calibration coefficients to create a converted engineering unit data file that is utilized by all SEASOFT post processing modules. Unless otherwise noted, all calibration parameters given are factory default values recommended by Sea Bird Electronics, Inc. The following is the SEASOFT processing module sequence and specifications used in the reduction of CTD/O<sub>2</sub> data from this cruise:

- DATCNV converted the raw data to pressure, temperature, conductivity, oxygen current, and oxygen temperature, and computed salinity, the time rate of change of oxygen current, and preliminary oxygen. DATCNV also extracted bottle information where scans were marked with a bottle confirmation bit during acquisition.
- ROSSUM created a summary of the bottle data. Bottle position, date, and time were output automatically. Pressure, temperature, conductivity, salinity, oxygen current, oxygen temperature, time rate of change of oxygen current, and preliminary oxygen values were averaged over a 2 second interval from 5 to 3 seconds prior to the confirm bit. ROSSUM computed potential temperature and sigma-theta.
- WILDEDIT marked extreme outliers in the data files. The first pass of WILDEDIT obtained an accurate estimate of the true standard deviation of the data. The data were read in blocks of 200 scans. Data greater than two standard deviations were flagged. The second pass computed a standard deviation over the same 200 scans excluding the flagged values. Values greater than 16 standard deviations were marked as bad values.
- SPLIT grouped data into up cast (pressure decreasing) and down cast (pressure increasing) files.
- FILTER performed a low-pass filter on pressure data with a time constant of 0.15 seconds. In order to produce no time shift, the filter first ran forward and then backwards through the data file.
- ALIGNCTD aligned conductivity, temperature, and oxygen in time relative to pressure to ensure that all calculations were made using measurements from the same parcel of water, which minimized salinity spiking and density errors. The SBE 11plus deck unit has factory settings to advance the primary conductivity cell; therefore, ALIGNCTD was not performed on this cell. The



secondary conductivity cell, however, is not advanced in the deck unit and so was advanced 0.073 seconds in the ALIGNCTD module. Since the SBE3 temperature sensor response is fast, (0.06 seconds), it was unnecessary to advance temperature relative to pressure. Oxygen sensors s/n 130433 and s/n 230531 were advanced 3 seconds in ALIGNCTD.

- CELLTM used a recursive filter to remove conductivity cell thermal mass effects from measured conductivity. Both conductivity cells were epoxy coated; the thermal anomaly amplitude ( $\alpha$ ) and time constant ( $1/\beta$ ) were 0.03 and 9.0, respectively for each sensor.

- DERIVE was used to re-compute the time rate of change of oxygen current ( $dox/dt$ ) and oxygen ( $\mu\text{mol/kg}$ ) with a time window size of 2 seconds.

- LOOPEDIT marked data scans where the CTD package was moving less than a minimum velocity of 0.25 m/s or travelling backwards due to ship roll.

- BINA VG averaged the data into 1 decibar (dbar) pressure bins starting at 1 dbar with no surface bin. The center value of the first bin was set to equal the bin size. The bin minimum and maximum values were the center value plus or minus half the bin size. Scans with pressure values greater than the minimum and less than or equal to the maximum were averaged. Scans were interpolated so that a data record existed for every decibar. The number of points averaged in each bin was added to the variables listed in the data file.

- DERIVE recomputed salinity and calculated other oceanographic parameters (e.g. density, etc.).

## 5. Post-Cruise Calibrations

Post cruise sensor calibrations were done at Sea-Bird Electronics, Inc. during April March 2000. The primary temperature/conductivity pair T1652/C1346 was selected for final data reduction for all stations. In addition to the SEASOFT processing modules, several programs obtained from the Pacific Marine Environmental Laboratory (PMEL) were used to further reduce the CTD/O<sub>2</sub> data:

- FILLSFC was used to copy the first good value of salinity, potential temperature, oxygen, and oxygen current back to the surface. FILLSFC then back-calculated temperature and conductivity and zeroed  $dox/dt$  of oxygen current for those records.

- DESPIKE1 removed spikes from primary oxygen current and oxygen temperature data, as well as removing spikes from the primary conductivity sensor. Data were linearly interpolated over de-spiked records. Conductivity was back calculated, and sigma-theta and potential temperature were recomputed for the interpolated records.

- DESPIKE2 removed spikes from secondary sensors in the same method as DESPIKE1.

- Package slowdown and reversals due to ship roll can move mixed water in tow in front of the CTD sensors. This mixture can create artificial density inversions and other artifacts. In addition to SEASOFT module LOOPEDIT, the PMEL program DELOOP computed values of density locally referenced between every 1 dbar of pressure to compute  $N^2 = (-g/\rho) (d\rho/dz)$  and linearly interpolated measured parameters over those records where  $N^2 \leq -1.0e-05\text{s}^{-2}$ .

- FILTDOC applied a median filter of width 5 dbar to the time rate of change in oxygen current ( $doc/dt$ ).

### 5.1 Conductivity

Conductivity slope and bias, along with a linear pressure term (modified beta), were computed by a least-squares minimization of CTD and bottle conductivity differences. The function minimized was

$$BC - m * CC - b - \beta * CP$$

where  $BC$  is bottle conductivity (S/m),  $CC$  is pre-cruise calibrated CTD conductivity (S/m),  $CP$  is the CTD pressure (dbar),  $m$  is the conductivity slope,  $b$  is the bias (S/m), and  $\beta$  is a linear pressure term (S/m/dbar). The final conductivity (S/m) is

$$m * CC + b + \beta * CP$$

The slope term  $m$  is a linear station dependent fit for the entire cruise. For s/n 1346 a series of fits were made, with each fit eliminating bottle values for locations having a residual between CTD and bottle conductivity greater than three standard deviations. The procedure was repeated with the remaining bottle values until no more bottle values were eliminated.

For s/n 1346, the slope correction was 1.0005, and the bias applied was -.0013. Of the 739 bottle samples collected, 80% were retained in the fit with a standard deviation of  $\pm 0.0002$  S/m. The PMEL program CALCTD applied these calibrations.

CTD-bottle conductivity differences were plotted against station number, for up cast data, to show the stability of the calibrated CTD conductivities relative to the bottle conductivities (Figure 2, upper panel). CTD-bottle conductivity differences were also plotted against pressure, for up cast data (Figure 2, lower panel).

After the final CTD conductivity was determined by CALCTD, final salinity values were computed. Salinity values were determined according to the UNESCO 1983 polynomial (Fofonoff and Millard, 1983). The standard deviation of the bottle salinity differences was  $\pm 0.002$ , with a mean of  $8.13 \times 10^{-5}$ . CTD-bottle salinity differences plotted against station number (Figure 3, upper panel) and pressure (Figure 3, lower panel) are shown.

## 5.2 Temperature

The pre-cruise calibration of T1652 was the mean of two post-cruise calibrations, and was within  $0.05 \times 10^{-3} \text{ } ^\circ\text{C}$  of the overall drift trajectory over the duration of the cruise, as determined by the calibration history of the sensor. The pressure correction for this sensor was determined by Sea Bird to be zero. However, a bias of  $-0.6 \times 10^{-3} \text{ } ^\circ\text{C}$  was applied to the temperature data in program CALCTD to account for the effect of viscous heating on SBE 3 sensors. An adjustment of  $-0.6 \times 10^{-3} \text{ } ^\circ\text{C}$  resulted in errors of no more than  $\pm 0.15 \times 10^{-3} \text{ } ^\circ\text{C}$  from this effect for the full range of oceanographic temperature and salinity.

## 5.3 Oxygen

Oxygen samples collected during CTD/ $\text{O}_2$  profiles were used for post measurement calibration. Due to a potential hysteresis problem with oxygen sensors, the PMEL program OXDWNP replaced up-profile Niskin sample data with corresponding processed down-profile CTD/ $\text{O}_2$  data at common pressure levels. Oxygen saturation values were computed according to Benson and Krausse (1984) in units of  $\mu\text{mol/kg}$ .

The algorithm used for converting oxygen sensor current and probe temperature measurements as described by Owens and Millard (1985) required a non-linear least squares regression technique in order to determine the best fit coefficients of the model for oxygen sensor behavior to the water sample observations. The Woods Hole Oceanographic Institution (WHOI) program OXFITMR employed the Numerical Recipe (Press *et al.*, 1986) Fortran routines of MRQMIN, MRQCOF, GAUSSJ, and COVSRT to perform non-linear least squares regressions using the Levenberg-Marquardt method. A Fortran subroutine, FOXY, described the oxygen model with the derivatives of the model with respect to six coefficients in the following order: oxygen current slope, temperature correction, pressure correction, weight, oxygen current bias, and oxygen current lag.



Program OXFITMR read the data for a group of stations. The data were edited to remove imprecise points where values were less than zero or greater than 1.2 times the saturation value. The routine varied the six (or fewer) parameters of the model in such a way as to produce the best least squares fit between the calibration oxygen values and the computed values. Individual differences between the calibration oxygen values and the computed values (residuals) were then compared with the standard deviation of the residuals. Any residuals exceeding a factor of 2.8 standard deviations were rejected. A factor of 2.8 had a 0.5% chance of rejecting a valid oxygen value for a normally distributed set of residuals. The iterative fitting process was continued until none of the data failed the edit criteria. Coefficients were applied using the AOML program CALIBOXY for plotting in Matlab.

By plotting the oxygen residuals versus station, appropriate station groupings for further refinements of fitting were obtained by looking for abrupt station-to-station changes in the residuals. For each grouping, one set of coefficients was determined by fitting bottles from the entire water column. Pressure correction, weight, and lag coefficients were fixed within a reasonable range from output of full water column group fits. Final coefficients were applied to downcast data using the AOML program CALCTDOX2. An overall correction (3<sup>rd</sup> order polynomial fit) was applied to final oxygen data to bring the standard deviation near the nominal WOCE standard accuracy of 0.5% for discrete oxygen titrations.

CTD-bottle oxygen differences were plotted against station number to show the stability of the calibrated CTD oxygen values relative to bottle oxygen values (Figure 4, upper panel). CTD-bottle oxygen differences were also plotted against pressure to show the fit (Figure 4, lower panel) through the water column. Oxygen sensor 230531 was selected for final data reduction for all stations. Of the 791 bottle samples collected, 90% was retained in the fit and had a standard deviation of 3.42  $\mu\text{mol/kg}$ . Table 2 shows the bottle oxygen values that were not used by the oxygen calibration routines to calculate the final oxygen values.

## 6. Lowered Acoustic Doppler Current Profiler

An RD Instruments 300 kHz Broadband ADCP (SN 207) was mounted in downward-looking mode near the center of the CTD/carousel frame. Velocity profiles were internally recorded during CTD casts, and post-processed using AOML-developed software to create velocity shear profiles. Absolute velocities were calculated by referencing shear profiles using ship drift obtained from P-code global positioning system (GPS) positions obtained at the beginning and end of each cast. The shear profile processing methods were similar to those described in Fischer and Visbeck (1993); see also Wilson (1994) for an analysis of the performance of the 300 kHz broadband ADCP in lowered applications. Significant setup parameters were:

Mode 1  
25, 8 m bins  
1 ping / sec  
1 ping / ensemble  
2 m s<sup>-1</sup> fixed ambiguity velocity  
Narrow Bandwidth

Velocity data were averaged into 10 m bins for presentation. The first valid bin was at 20 m; values plotted at 10 m and the surface were repeated from 20 m. The deepest bin was approximately 100 m below the maximum cast depth, or within 15 m of the bottom. Depth-averaged errors were estimated to be less than 1 cm s<sup>-1</sup>. Profiles shown were based on all shear profiles derived from up and downcasts. Positions and times listed are midpoints of start-down and at-surface values used in processing.

LADCP data from stations 008 and 043 were unrecoverable and therefore are not included in this data report.

## 7. Final Data Presentation

AOML Matlab program DATAREPORT processed the finalized CTD/O<sub>2</sub> data and computed ITS-90 temperature, ITS-90 potential temperature and dynamic height. The final calibrated data files were used to produce the tables and station profile plots presented in Appendix A for each CTD station. The table on the left is in "standard depths" and its corresponding profile plot is shown on the facing page. Bottle salinity values with an " \* " were not used in the final calibration of conductivity data. Niskin bottle depths are presented on the right side of the profile plot. Bottle salinity and oxygen values are plotted as points in the three smaller plots. LADCP profile plots showing U and V components are presented in Appendix B.

## 8. Acknowledgments

The assistance of Captain Vince Seiler and the crew of the *R/V Seward Johnson* are gratefully acknowledged. The scientific participation from Brazil was extremely helpful in all aspects of the cruise.

This research was carried out [in part] under the auspices of the Cooperative Institute for Marine and Atmospheric Studies (CIMAS), a Joint Institute of the University of Miami and the National Oceanic and Atmospheric Administration (NOAA), cooperative agreement #NA67RJ0149. The National Science Foundation and NOAA provided funding for the North Brazil Current Ring Survey.

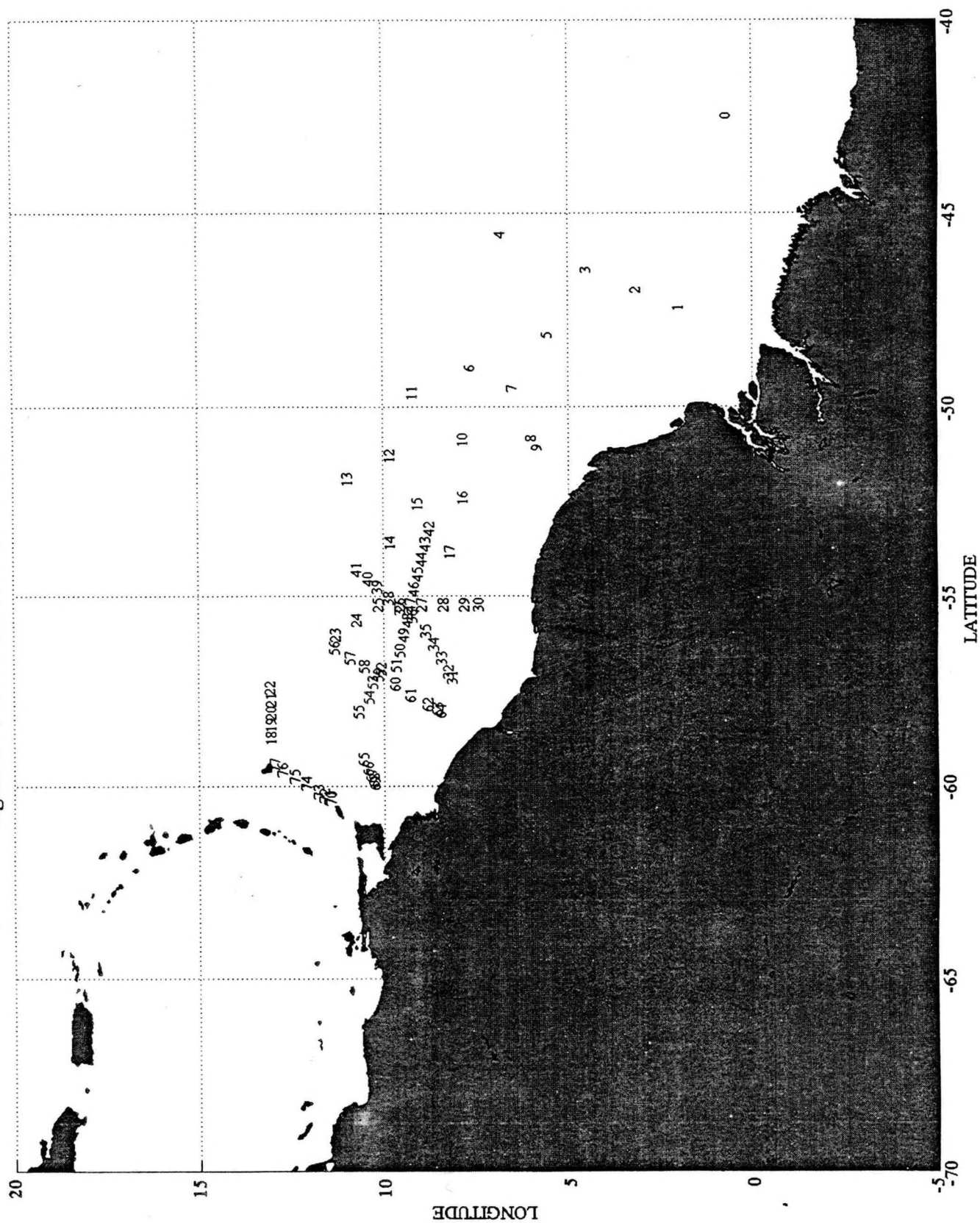
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## **FIGURES AND TABLES**

Figure 1: NBC-3 CTD/LADCP Station Locations



**Table 1: NBC-3 CTD/LADCP Cast Summary**

Station	Date	Time (Z)	Latitude	Longitude		Depth (m)
				N	W	
000	1/30/00	1812	0.615	42.657	1239	
001	1/31/00	2207	1.913	47.637	43	
002	2/1/00	0523	3.077	47.152	1759	
003	2/1/00	1606	4.412	46.652	1999	
004	2/2/00	0915	6.765	45.742	2003	
005	2/3/00	0213	5.498	48.323	1994	
006	2/3/00	1701	7.590	49.180	2000	
007	2/4/00	0136	6.460	49.707	1993	
008	2/4/00	1029	5.952	51.002	1998	
009	2/4/00	1501	5.800	51.250	1227	
010	2/5/00	0623	7.795	51.055	2000	
011	2/5/00	2041	9.147	49.808	2001	
012	2/6/00	0754	9.760	51.480	2002	
013	2/6/00	1748	10.905	52.077	2001	
014	2/7/00	0620	9.745	53.777	2005	
015	2/7/00	1531	9.000	52.745	2000	
016	2/7/00	2307	7.787	52.565	1999	
017	2/8/00	1147	8.151	54.038	938	
018	2/12/00	1751	13.000	58.917	1795	
019	2/12/00	2122	12.998	58.584	2007	
020	2/13/00	0055	12.999	58.250	1997	
021	2/13/00	0454	12.998	57.918	2002	
022	2/13/00	0827	13.012	57.587	2002	
023	2/13/00	2345	11.251	56.200	2002	
024	2/14/00	0537	10.667	55.802	2005	
025	2/14/00	1058	10.085	55.399	1999	
026	2/14/00	1529	9.499	55.400	2008	
027	2/14/00	2017	8.916	55.399	2003	
028	2/15/00	0103	8.332	55.401	2006	
029	2/15/00	0540	7.764	55.402	1810	
030	2/15/00	0855	7.392	55.399	583	
031	2/15/00	1916	8.114	57.330	1153	
032	2/15/00	2117	8.196	57.184	1734	
033	2/16/00	0114	8.400	56.817	2007	
034	2/16/00	0524	8.597	56.452	1998	
035	2/16/00	0945	8.797	56.083	2002	
036	2/16/00	1435	9.164	55.698	2001	
037	2/16/00	1819	9.496	55.499	2002	
038	2/16/00	2206	9.793	55.222	2003	
039	2/17/00	0305	10.116	54.950	2004	
040	2/17/00	0630	10.382	54.717	2004	
041	2/17/00	1003	10.682	54.467	2002	
042	2/18/00	0359	8.702	53.418	2004	
043	2/18/00	0737	8.798	53.799	1515	
044	2/18/00	1132	8.915	54.196	1520	
045	2/18/00	1510	9.017	54.585	2004	



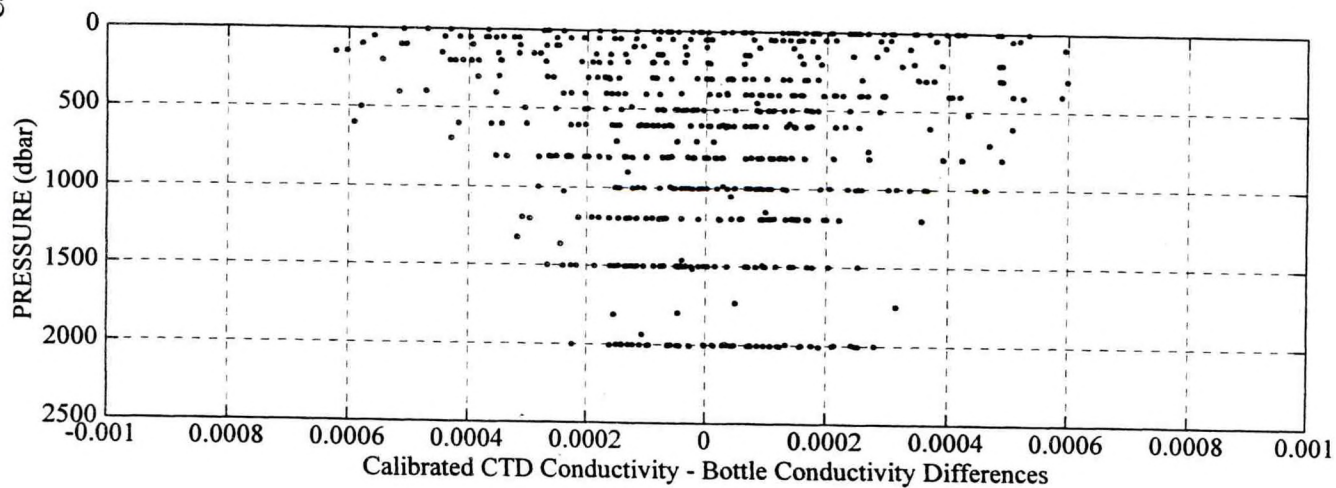
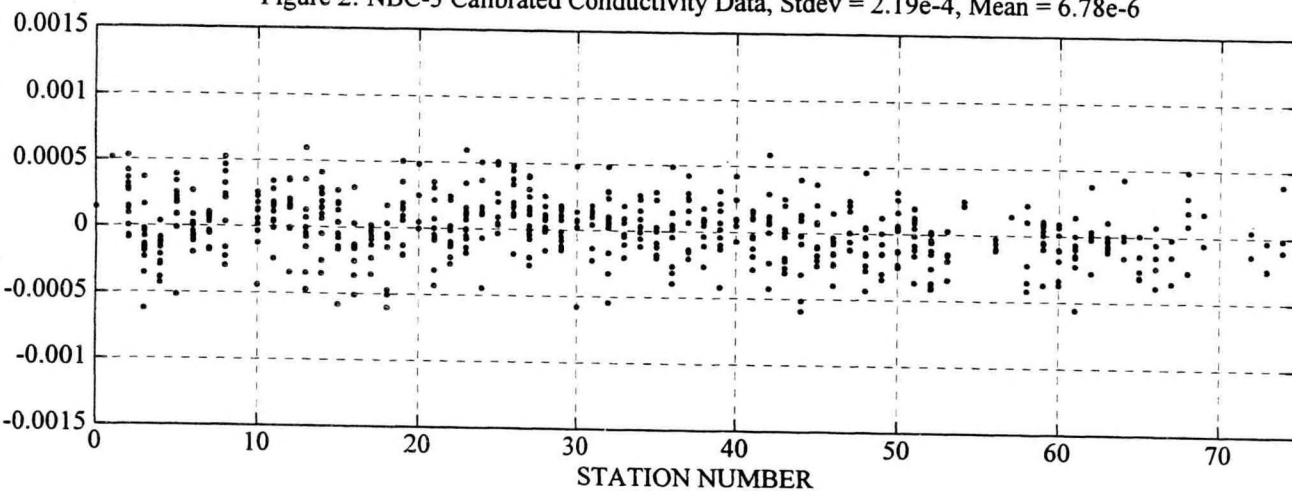
**Table 1: NBC-3 CTD/LADCP Cast Summary**

Station	Date	Time (Z)	Latitude		Longitude	Depth (m)
			N	W		
046	2/18/00	1855	9.101	54.997	2004	
047	2/19/00	0312	9.200	55.398	2002	
048	2/19/00	0706	9.298	55.799	2001	
049	2/19/00	1214	9.401	56.199	2002	
050	2/19/00	1612	9.500	56.600	2004	
051	2/19/00	1954	9.599	56.997	2004	
052	2/20/00	0014	10.000	57.104	2005	
053	2/20/00	0458	10.235	57.461	2000	
054	2/20/00	1000	10.343	57.846	1996	
055	2/20/00	1430	10.634	58.234	2000	
056	2/21/00	0530	11.271	56.538	2003	
057	2/21/00	0945	10.851	56.797	2002	
058	2/21/00	1359	10.466	57.034	2001	
059	2/21/00	1747	10.085	57.251	2002	
060	2/21/00	2204	9.630	57.502	2002	
061	2/22/00	0230	9.200	57.783	2001	
062	2/22/00	0655	8.750	58.049	2000	
063	2/22/00	1057	8.495	58.166	1461	
064	2/22/00	1301	8.410	58.205	519	
065	2/23/00	0100	10.500	59.500	1324	
066	2/23/00	0340	10.383	59.736	1026	
067	2/23/00	0545	10.283	59.917	700	
068	2/23/00	0725	10.217	60.040	453	
069	2/23/00	0837	10.182	60.104	302	
070	2/23/00	1603	11.370	60.500	138	
071	2/23/00	1636	11.432	60.484	1006	
072	2/23/00	1802	11.564	60.434	1055	
073	2/23/00	1943	11.699	60.335	1361	
074	2/23/00	2253	12.033	60.117	1937	
075	2/24/00	0216	12.365	59.930	1841	
076	2/24/00	0527	12.695	59.753	1118	
077	2/24/00	0728	12.896	59.636	570	



Calibrated CTD Conductivity - Bottle Conductivity Differences

Figure 2: NBC-3 Calibrated Conductivity Data, Stdev =  $2.19 \times 10^{-4}$ , Mean =  $6.78 \times 10^{-6}$



Calibrated CTD Salinity - Bottle Sallinity Differences

Figure 3: NBC-3 Calibrated Salinity Data, Stdev = .002, Mean = 8.13e-5

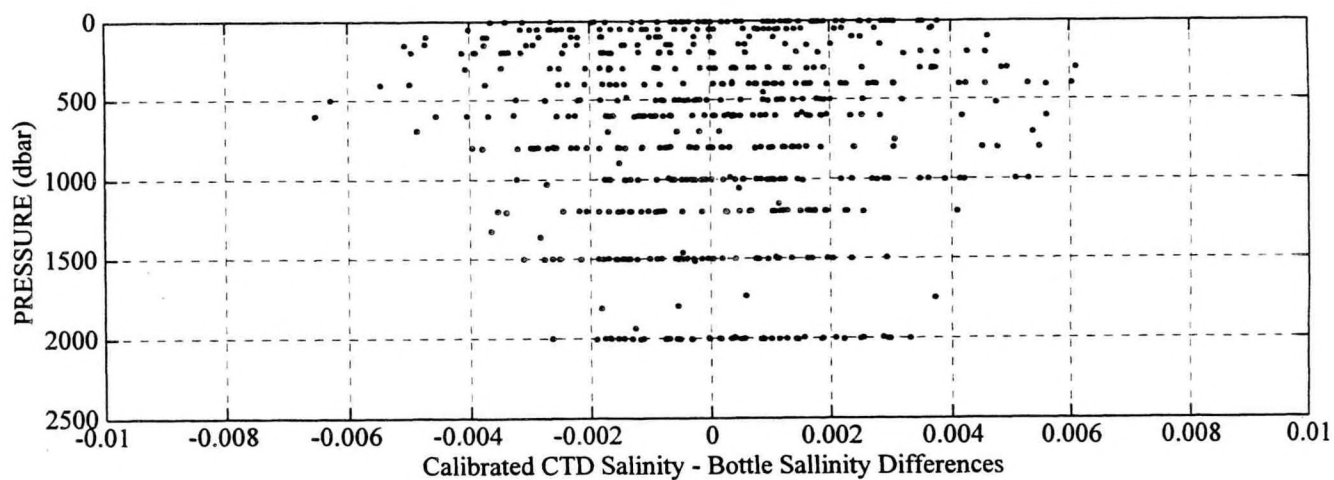
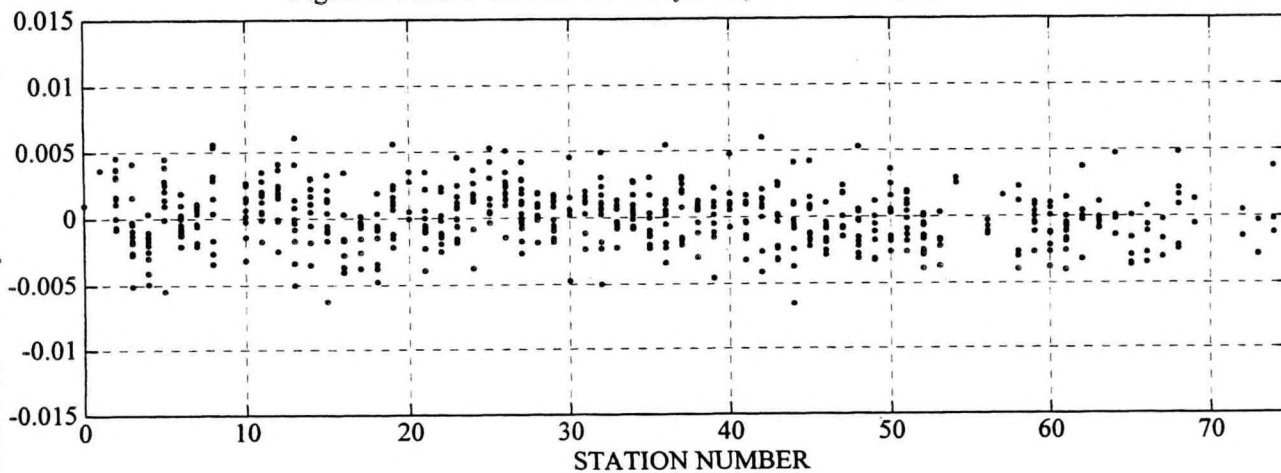
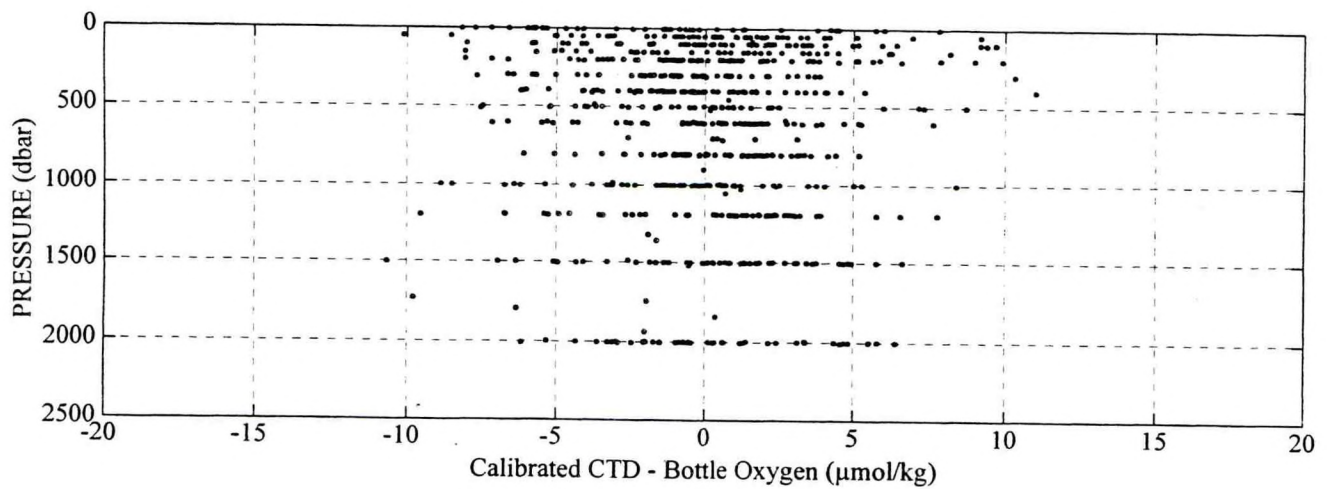
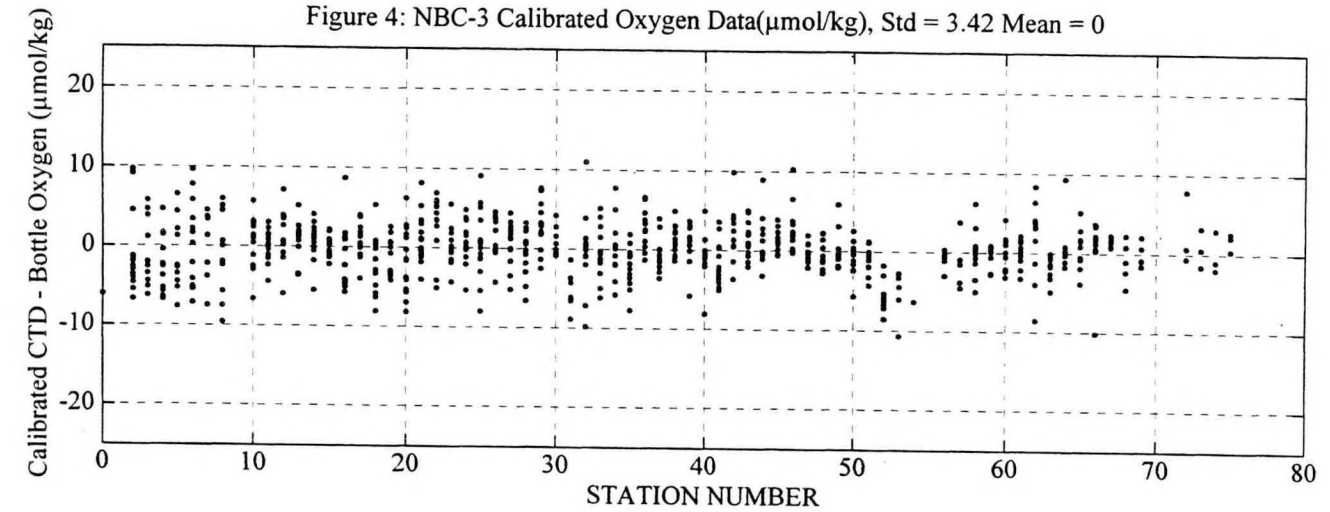


Figure 4: NBC-3 Calibrated Oxygen Data( $\mu\text{mol/kg}$ ), Std = 3.42 Mean = 0





**Table 2:** Oxygen values not used in calibration.

Station	Niskin
1	24
2	4
3	15
3	16
3	17
3	18
4	5
4	17
5	24
5	15
5	16
5	17
6	17
7	4
7	5
7	15
7	16
7	17
8	24
8	1
8	3
8	16
10	13
10	14
11	17
12	16
13	24
13	15
13	16
14	6
16	14
16	15
17	14
18	1
19	12
19	13
19	18
22	2
23	14
23	16
26	5
26	12
29	24
30	6
31	24
31	2
31	12

**Table 2:** Oxygen values not used in calibration.

Station	Niskin
31	13
31	14
34	12
37	12
39	12
39	13
40	1
42	2
42	13
44	13
44	16
45	5
45	16
46	16
47	16
48	16
49	2
49	5
49	16
50	16
51	16
52	24
52	1
52	15
52	16
53	24
54	24
54	2
57	24
57	1
57	5
57	12
57	14
57	15
57	16
58	16
59	1
59	5
59	16
60	12
60	16
61	16
62	16
63	24
63	14
63	16
64	12

**Table 2:** Oxygen values not used in calibration.

Station	Niskin
65	2
65	16
66	15
67	6
67	14
68	6
69	5



**HYDROGRAPHIC DATA**

**APPENDIX A**

**CTD DATA**

NBC-3 R/V SEWARD JOHNSON  
 CTD Station 1 (00001)  
 Latitude 1.913N Longitude 47.637W  
 31-Jan-2000 22:07Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	27.666	27.666	36.170	208.7	0.004	23.387
10	27.674	27.672	36.171	194.7	0.045	23.385
20	27.670	27.665	36.170	194.6	0.090	23.388
30	27.647	27.639	36.170	194.1	0.135	23.397
40	27.586	27.576	36.166	193.6	0.180	23.415
50	27.143	27.132	36.153	185.5	0.224	23.550

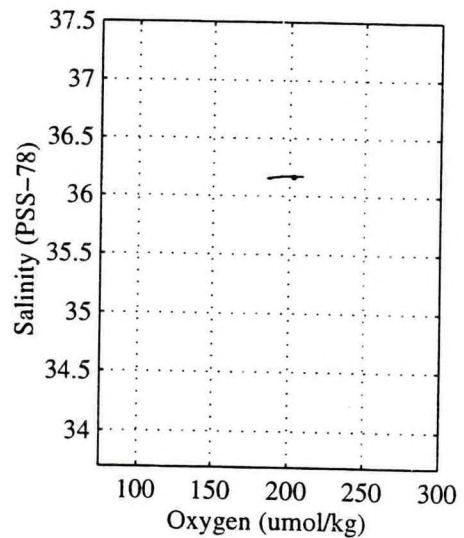
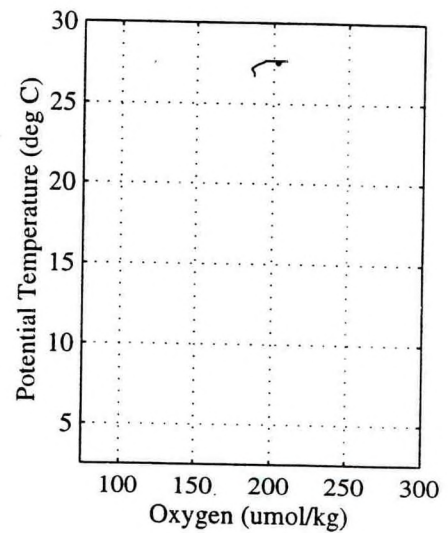
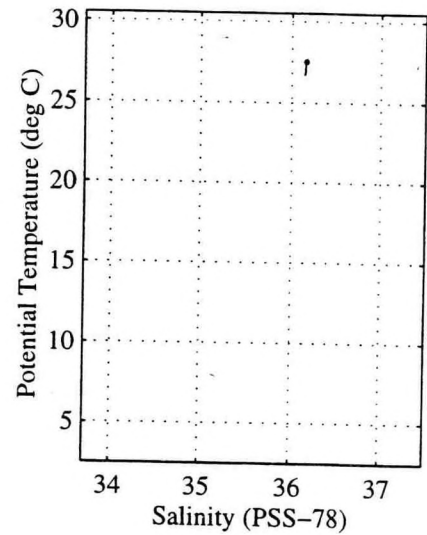
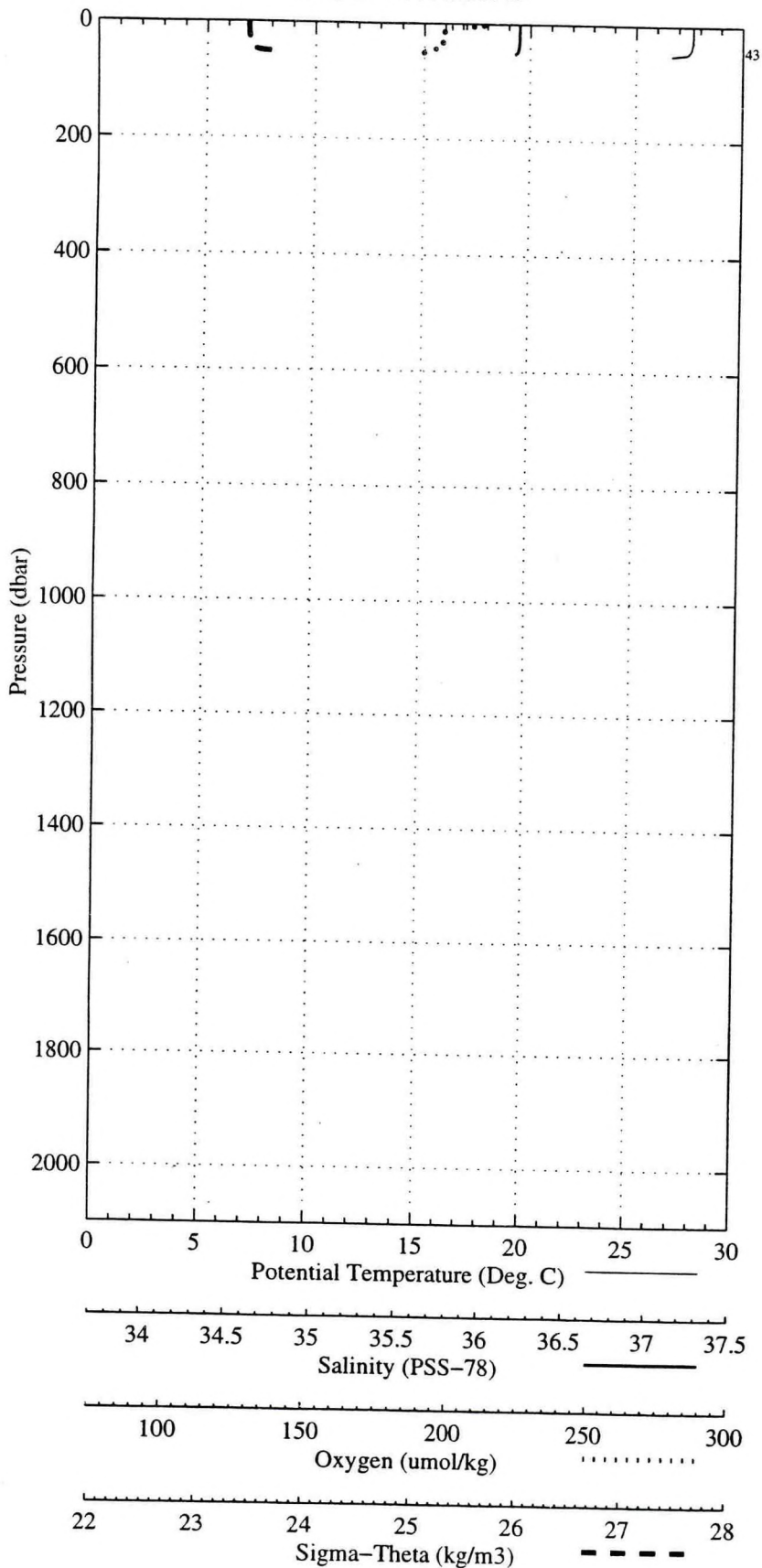
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
43	24	27.526	27.516	36.162	202.8

NBC-3 R/V SEWARD JOHNSON

CTD Station 1 (00001)

Latitude 1.913 N Longitude 47.637 W

31-Jan-2000 22:07 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 2 (00002)  
Latitude 3.077N Longitude 47.152W  
01-Feb-2000 05:23Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	27.665	27.665	36.036	205.0	0.005	23.286
10	27.662	27.659	36.037	194.9	0.046	23.289
20	27.664	27.660	36.034	194.8	0.092	23.287
30	27.669	27.662	36.035	194.6	0.138	23.288
40	27.675	27.665	36.065	194.6	0.184	23.310
50	27.671	27.660	36.085	194.7	0.229	23.328
60	27.562	27.548	36.156	195.4	0.275	23.419
70	26.941	26.925	36.234	193.2	0.318	23.679
80	26.349	26.331	36.195	189.1	0.360	23.839
90	24.564	24.545	36.527	184.0	0.395	24.642
100	22.814	22.794	36.441	176.7	0.427	25.094
110	18.025	18.006	35.917	162.4	0.451	25.979
120	17.515	17.494	35.886	171.8	0.471	26.081
130	17.349	17.327	35.886	174.2	0.491	26.122
140	17.174	17.151	35.859	174.7	0.510	26.145
150	17.017	16.992	35.827	175.0	0.529	26.158
160	16.945	16.919	35.829	175.6	0.548	26.177
170	16.882	16.854	35.820	176.0	0.567	26.186
180	16.532	16.502	35.744	174.8	0.586	26.211
190	16.003	15.973	35.686	173.6	0.604	26.289
200	14.968	14.937	35.514	167.5	0.621	26.390
250	12.463	12.429	35.177	157.6	0.698	26.651
300	10.340	10.304	34.907	158.0	0.766	26.833
350	8.078	8.042	34.668	155.4	0.828	27.013
400	7.142	7.104	34.600	163.1	0.881	27.095
450	7.133	7.090	34.598	164.6	0.932	27.096
500	6.584	6.538	34.553	164.6	0.984	27.136
550	5.920	5.872	34.522	161.5	1.033	27.197
600	5.680	5.628	34.505	163.2	1.080	27.215
650	5.414	5.360	34.483	168.2	1.126	27.230
700	5.310	5.251	34.487	168.4	1.172	27.246
750	5.256	5.193	34.493	166.2	1.217	27.258
800	5.159	5.092	34.494	163.8	1.262	27.272
900	4.738	4.666	34.530	163.1	1.348	27.349
1000	4.647	4.566	34.589	166.3	1.428	27.407
1500	4.327	4.203	34.997	248.6	1.726	27.775
1764	3.777	3.636	34.983	268.0	1.848	27.825

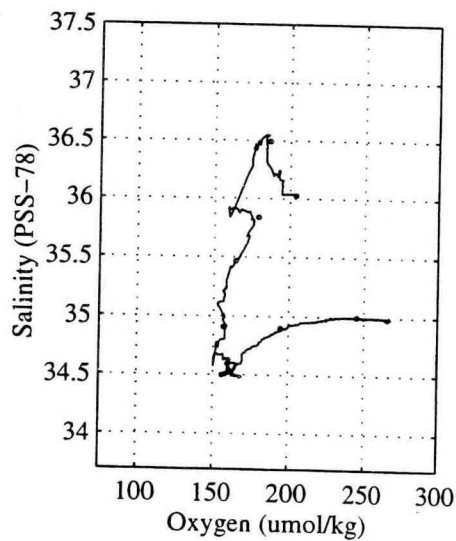
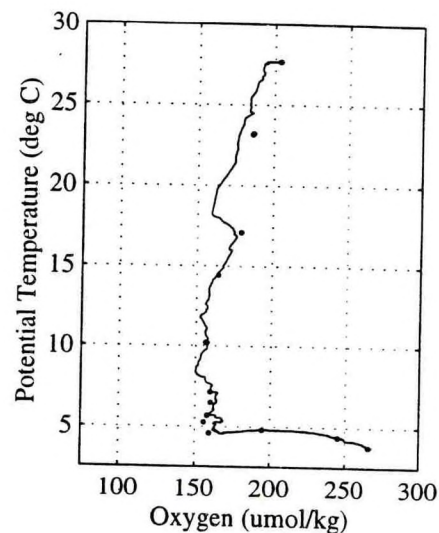
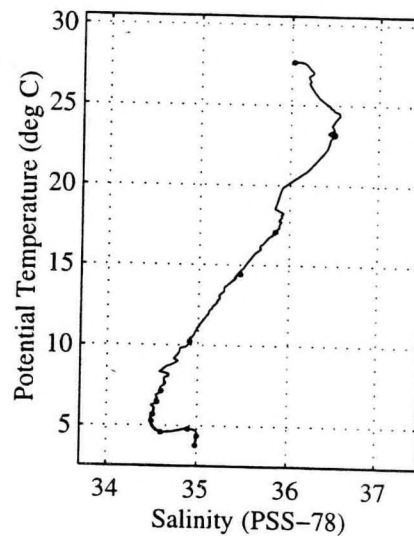
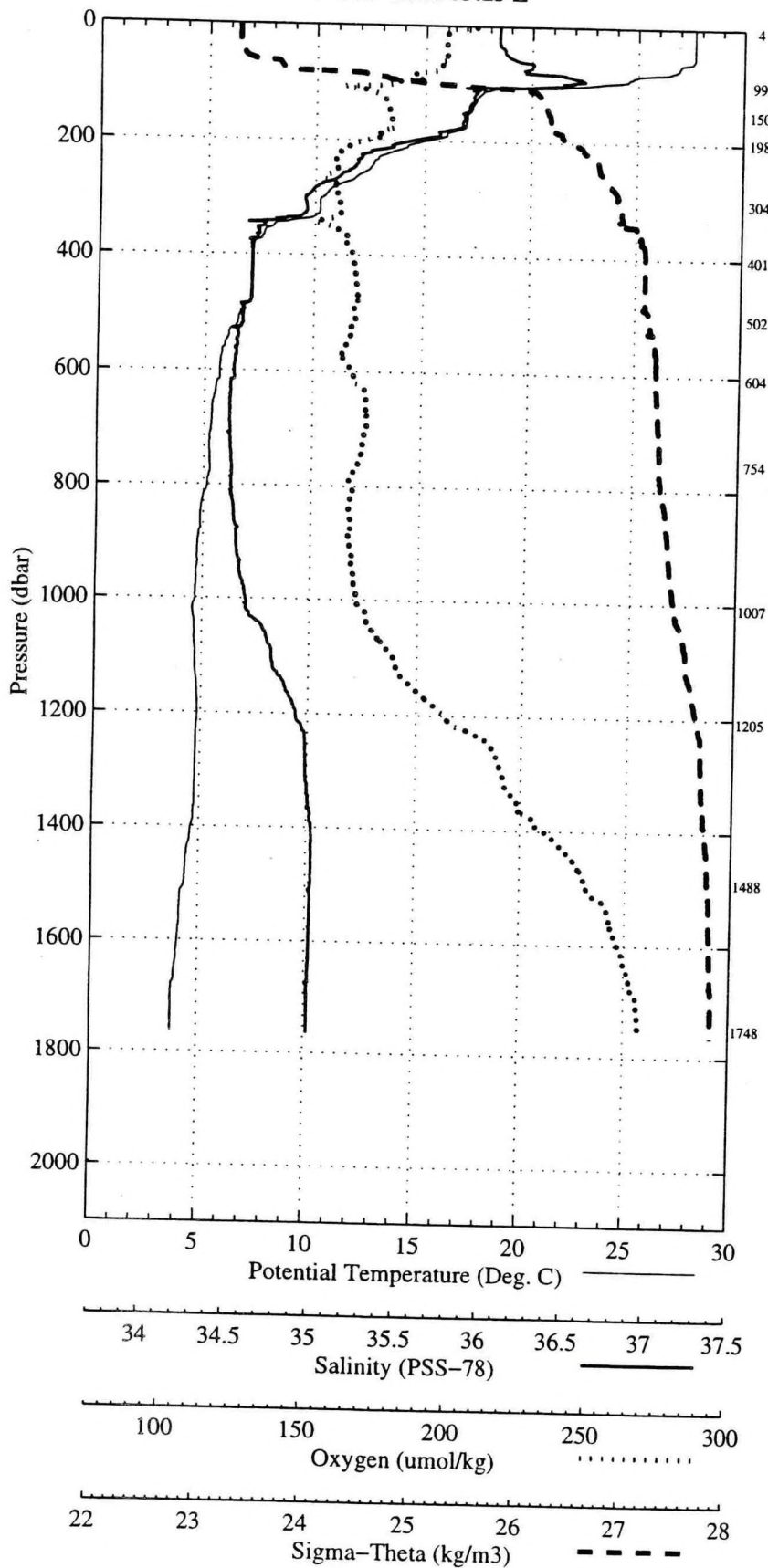
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen mol/kg
1748	24	3.774	3.634	34.982	265.9
1489	1	4.370	4.247	34.999	244.9
1205	2	4.806	4.705	34.900 *	194.6
1007	3	4.587	4.506	34.594	159.7
754	4	5.278	5.215	34.496	155.9
604	5	5.691	5.639	34.507	158.3
502	6	6.479	6.433	34.549	160.5
401	12	7.146	7.108	34.596	160.2
304	13	10.213	10.177	34.908	156.7
198	14	14.427	14.398	35.467	164.7
150	15	17.088	17.063	35.843	179.5
99	16	23.221	23.200	36.493	186.6
99	17	23.165	23.144	36.493 *	186.1
5	18	27.665	27.664	36.027	203.7

NBC-3 R/V SEWARD JOHNSON

CTD Station 2 (00002)

Latitude 3.077 N Longitude 47.152 W

01-Feb-2000 05:23 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 3 (00003)  
Latitude 4.412N Longitude 46.652W  
01-Feb-2000 16:06Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	27.423	27.421	35.981	193.0	0.041	23.324
20	27.372	27.368	35.983	192.9	0.086	23.344
30	27.199	27.192	36.129	192.0	0.131	23.511
40	26.915	26.906	36.277	190.1	0.174	23.715
50	26.863	26.852	36.290	189.5	0.215	23.743
60	26.742	26.729	36.311	188.9	0.257	23.799
70	26.596	26.580	36.350	188.3	0.298	23.877
80	26.326	26.308	36.454	188.1	0.338	24.042
90	26.001	25.981	36.537	188.4	0.376	24.208
100	24.981	24.959	36.419	179.3	0.412	24.435
110	23.790	23.767	36.438	176.1	0.445	24.808
120	23.241	23.217	36.474	175.0	0.476	24.998
130	22.491	22.465	36.449	174.9	0.505	25.196
140	21.941	21.913	36.402	174.9	0.532	25.317
150	20.351	20.322	36.268	169.2	0.558	25.652
160	17.727	17.699	35.913	164.0	0.581	26.054
170	14.949	14.923	35.526	156.5	0.599	26.401
180	14.434	14.408	35.461	159.1	0.615	26.463
190	14.037	14.009	35.411	160.3	0.631	26.509
200	13.626	13.597	35.352	159.0	0.647	26.551
250	12.119	12.086	35.142	151.9	0.721	26.690
300	11.149	11.111	35.028	154.5	0.788	26.785
350	10.211	10.169	34.916	153.8	0.854	26.865
400	8.832	8.788	34.761	159.0	0.914	26.972
450	8.008	7.962	34.674	163.6	0.971	27.030
500	7.653	7.603	34.646	162.6	1.026	27.061
550	6.674	6.623	34.566	161.3	1.078	27.136
600	6.318	6.264	34.593	157.1	1.127	27.205
650	5.302	5.248	34.493	157.9	1.173	27.251
700	5.177	5.119	34.488	164.4	1.218	27.262
750	5.067	5.005	34.490	165.4	1.262	27.278
800	5.014	4.949	34.499	163.9	1.306	27.292
900	4.933	4.859	34.582	154.1	1.391	27.369
1000	4.674	4.593	34.618	162.6	1.470	27.428
1500	4.483	4.358	35.006	242.5	1.785	27.766
2000	3.342	3.184	34.968	262.9	2.010	27.857

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1999	24	3.347	3.189	34.970	269.1
1503	1	4.479	4.353	34.998 *	247.7
1204	2	4.876	4.774	34.840	178.1
1005	3	4.685	4.603	34.620	157.0
803	4	5.006	4.940	34.503	159.4
605	5	5.813	5.760	34.543	146.5
504	6	7.586	7.536	34.639	159.7
402	12	8.809	8.766	34.758	159.9
302	13	11.133	11.095	35.022	152.0
202	14	13.510	13.481	35.330	163.0
152	15	20.336	20.307	36.270	186.2
100	16	25.495	25.473	36.492 *	193.4
52	17	26.860	26.848	36.290	202.1
4	18	27.434	27.433	35.980	205.0

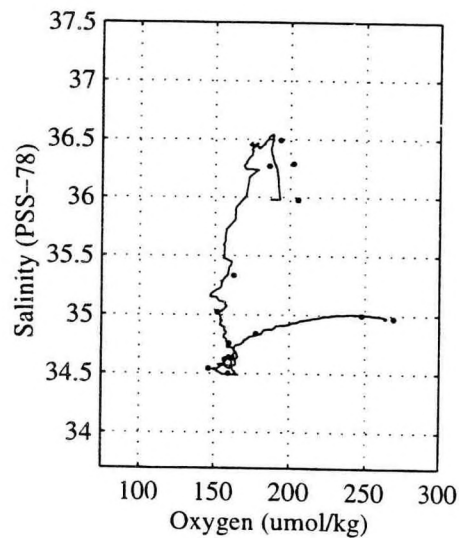
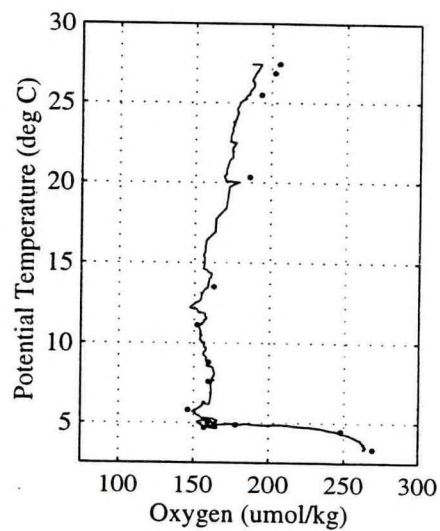
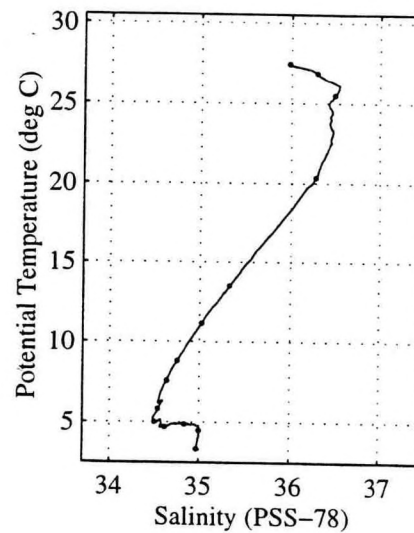
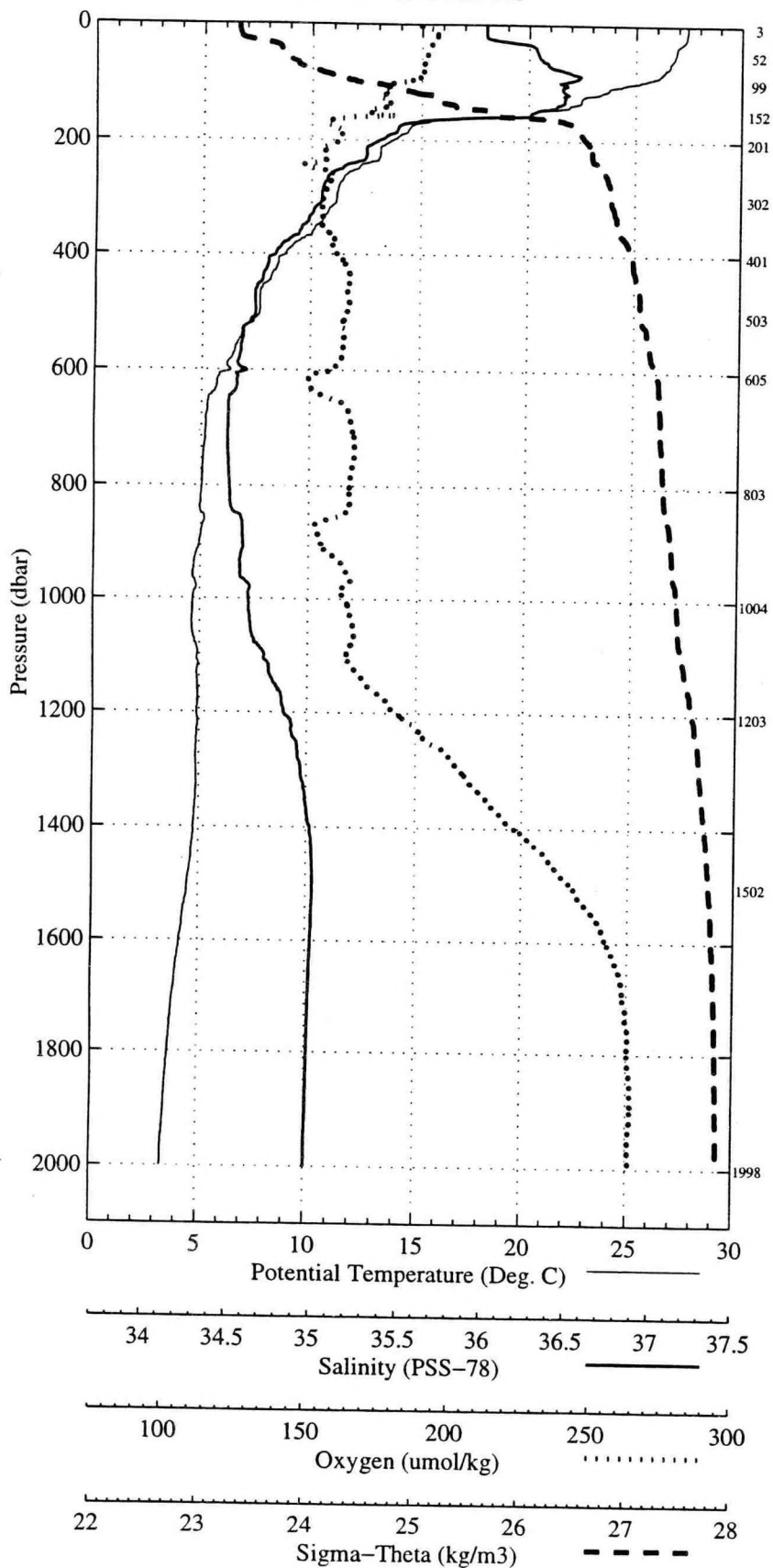


## NBC-3 R/V SEWARD JOHNSON

CTD Station 3 (00003)

Latitude 4.412 N Longitude 46.652 W

01-Feb-2000 16:06 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 4 (00004)  
Latitude 6.765N Longitude 45.742W  
02-Feb-2000 09:15Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.461	26.459	35.330	198.0	0.043	23.141
20	26.467	26.462	35.331	197.7	0.090	23.142
30	26.466	26.459	35.330	197.9	0.137	23.142
40	26.480	26.471	35.347	197.4	0.184	23.152
50	25.657	25.646	35.991	195.3	0.229	23.897
60	22.248	22.236	36.540	170.8	0.260	25.327
70	19.603	19.590	36.357	141.0	0.283	25.910
80	16.047	16.034	35.790	121.2	0.301	26.351
90	14.158	14.144	35.557	123.9	0.317	26.590
100	12.570	12.557	35.319	127.7	0.330	26.732
110	11.904	11.890	35.226	129.4	0.343	26.789
120	11.222	11.207	35.128	132.2	0.356	26.840
130	10.917	10.901	35.088	131.2	0.368	26.865
140	10.464	10.448	35.022	132.0	0.380	26.895
150	10.338	10.320	35.008	132.7	0.392	26.906
160	10.237	10.218	35.000	131.9	0.404	26.918
170	9.893	9.873	34.954	129.4	0.415	26.941
180	9.797	9.777	34.939	129.7	0.427	26.946
190	9.521	9.500	34.904	128.7	0.438	26.965
200	9.416	9.394	34.893	127.6	0.449	26.974
250	9.060	9.033	34.854	125.1	0.505	27.003
300	8.530	8.499	34.806	120.0	0.559	27.050
350	8.099	8.063	34.755	123.0	0.612	27.077
400	7.592	7.552	34.711	122.6	0.663	27.119
450	7.163	7.120	34.676	122.0	0.713	27.153
500	6.728	6.681	34.642	127.3	0.762	27.187
550	6.542	6.491	34.647	127.2	0.809	27.217
600	5.882	5.830	34.575	135.8	0.855	27.245
650	5.580	5.524	34.557	140.8	0.900	27.269
700	5.378	5.319	34.568	141.8	0.943	27.302
750	5.118	5.056	34.570	145.1	0.986	27.335
800	5.023	4.957	34.583	148.3	1.027	27.357
900	4.846	4.773	34.617	154.2	1.106	27.406
1000	4.905	4.822	34.706	158.9	1.182	27.472
1500	4.509	4.383	34.995	237.8	1.484	27.755
2000	3.586	3.424	34.977	259.4	1.720	27.842

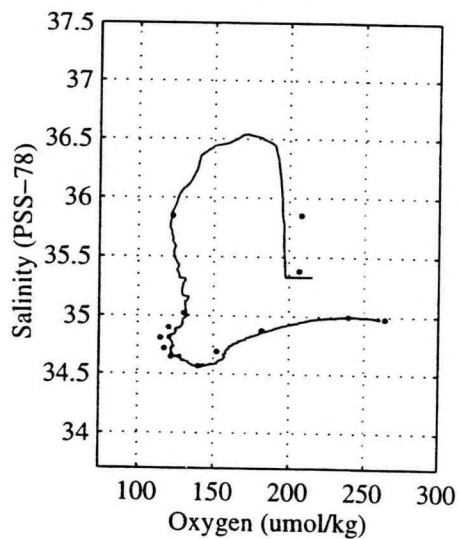
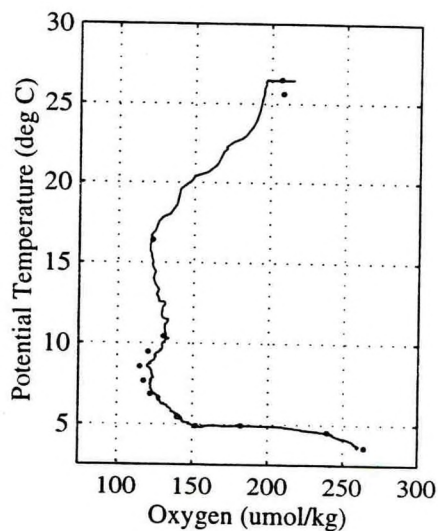
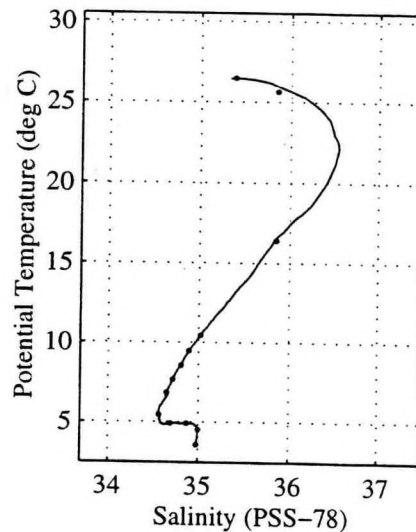
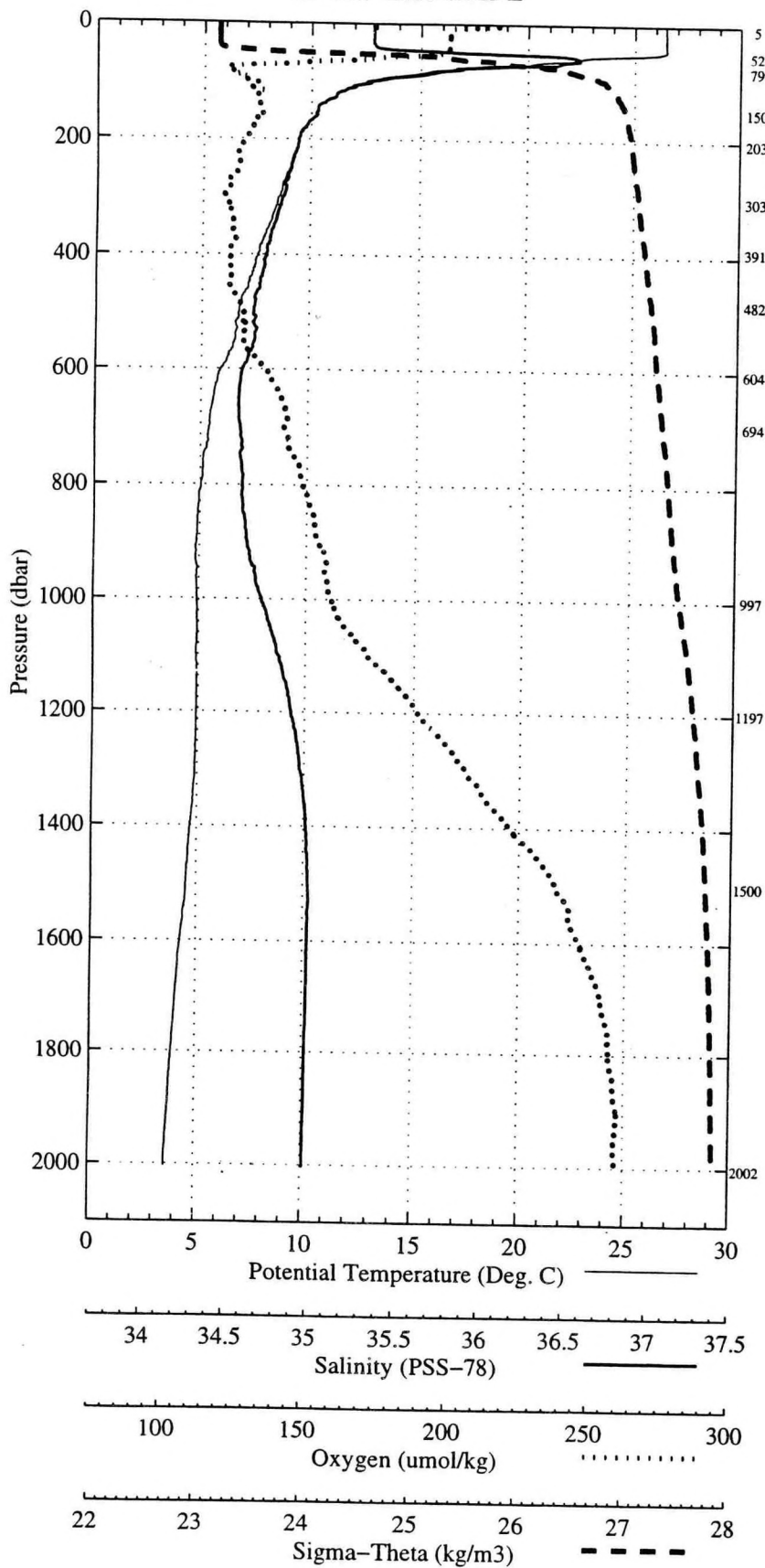
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2002	24	3.585	3.423	34.980	264.1
1500	1	4.527	4.401	34.998	239.3
1198	2	4.921	4.819	34.876	181.9
998	3	4.893	4.810	34.691	152.3
694	4	5.454	5.395	34.566	140.1
604	5	6.052	NaN	NaN *	NaN
482	6	6.840	6.795	34.647	122.0
391	12	7.659	7.620	34.717	117.5
303	13	8.553	8.521	34.811	115.0
204	14	9.464	9.441	34.899	120.4
150	15	10.435	10.417	35.023	130.5
79	16	16.416	16.403	35.847 *	122.8
53	17	25.633	25.621	35.854 *	207.7
6	18	26.496	26.495	35.382	206.5

NBC-3 R/V SEWARD JOHNSON

CTD Station 4 (00004)

Latitude 6.765 N Longitude 45.742 W

02-Feb-2000 09:15 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 5 (00005)  
Latitude 5.498N Longitude 48.323W  
03-Feb-2000 02:13Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	27.302	27.300	35.981	192.7	0.041	23.364
20	27.304	27.299	35.982	192.5	0.086	23.365
30	27.314	27.307	35.981	192.6	0.131	23.363
40	27.317	27.308	35.982	192.5	0.176	23.364
50	27.319	27.307	35.983	192.5	0.222	23.365
60	27.321	27.307	35.982	192.1	0.267	23.366
70	27.324	27.308	35.982	192.1	0.312	23.366
80	27.323	27.304	35.984	192.1	0.358	23.369
90	27.204	27.183	36.085	191.2	0.403	23.485
100	26.392	26.369	36.369	186.5	0.444	23.959
110	25.608	25.584	36.368	183.4	0.483	24.205
120	24.556	24.530	36.501	177.6	0.518	24.629
130	23.770	23.743	36.490	176.9	0.551	24.856
140	22.427	22.398	36.507	175.8	0.581	25.260
150	21.282	21.253	36.385	174.0	0.607	25.488
160	19.689	19.660	36.190	169.5	0.630	25.769
170	19.472	19.441	36.172	173.0	0.653	25.812
180	18.831	18.798	36.084	172.1	0.675	25.911
190	17.114	17.083	35.841	165.5	0.695	26.149
200	16.474	16.442	35.755	167.3	0.714	26.234
250	11.662	11.630	35.123	150.2	0.794	26.762
300	10.575	10.538	35.081	123.9	0.857	26.928
350	9.257	9.218	34.889	125.1	0.914	27.003
400	8.362	8.320	34.793	125.0	0.969	27.070
450	7.847	7.801	34.767	115.9	1.021	27.128
500	7.272	7.224	34.717	123.5	1.071	27.171
550	6.671	6.620	34.650	128.3	1.119	27.202
600	6.268	6.214	34.625	132.7	1.166	27.236
650	5.924	5.867	34.604	137.4	1.211	27.264
700	5.635	5.574	34.603	138.2	1.255	27.300
750	5.351	5.288	34.605	137.8	1.298	27.336
800	4.958	4.892	34.586	148.3	1.339	27.367
900	4.906	4.833	34.638	153.4	1.417	27.416
1000	4.769	4.687	34.682	160.7	1.492	27.468
1500	4.457	4.332	34.986	234.2	1.799	27.753
1997	3.476	3.317	34.974	262.0	2.030	27.849

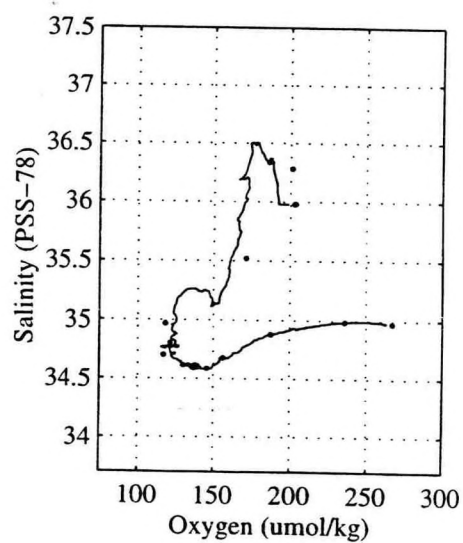
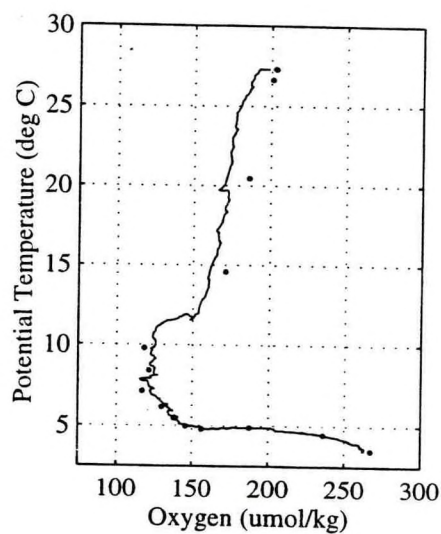
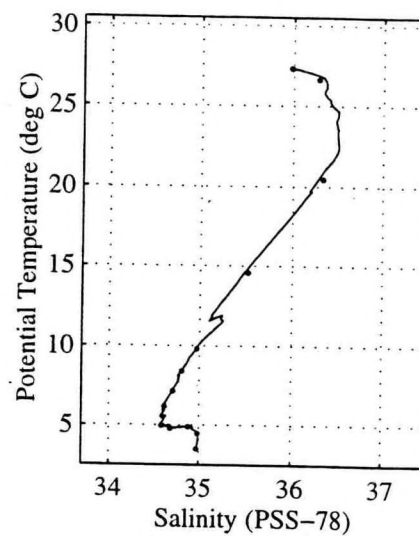
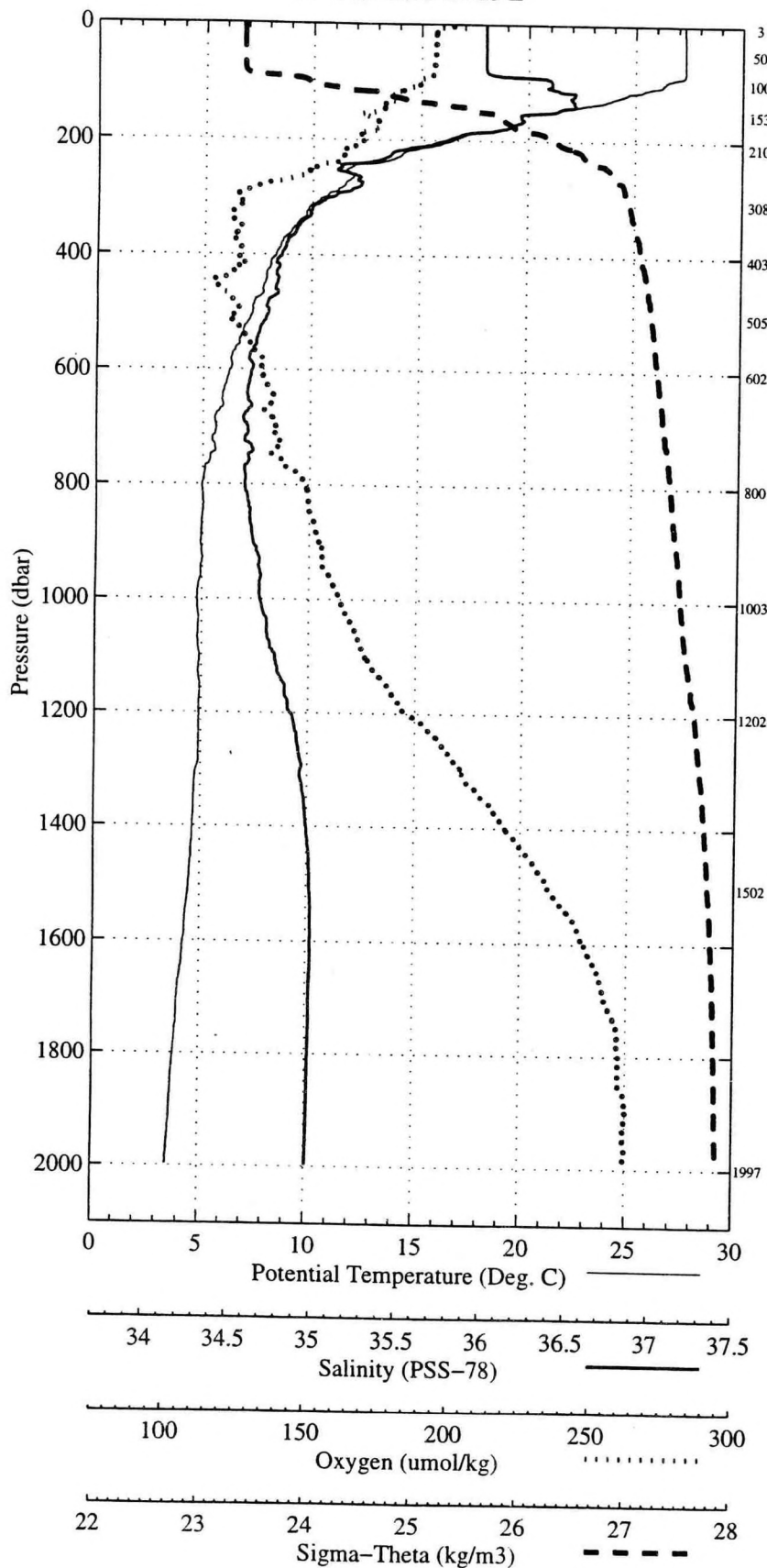
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1998	24	3.477	3.317	34.972	266.8
1502	1	4.460	4.334	34.986	235.7
1202	2	4.884	4.782	34.881	187.7
1003	3	4.774	4.692	34.679	156.5
801	4	4.972	4.907	34.586	145.7
603	5	6.172	6.118	34.616	130.0
505	6	7.169	7.120	34.705	116.9
404	12	8.424	8.381	34.804	121.3
309	13	9.793	9.757	34.970 *	118.1
210	14	14.588	14.557	35.522 *	171.3
153	15	20.468	20.439	36.335 *	186.1
101	16	26.631	26.608	36.282 *	201.0
51	17	27.316	27.304	35.978	202.7
3	18	27.303	27.302	35.981	203.0

NBC-3 R/V SEWARD JOHNSON

CTD Station 5 (00005)

Latitude 5.498 N Longitude 48.323 W

03-Feb-2000 02:13 Z



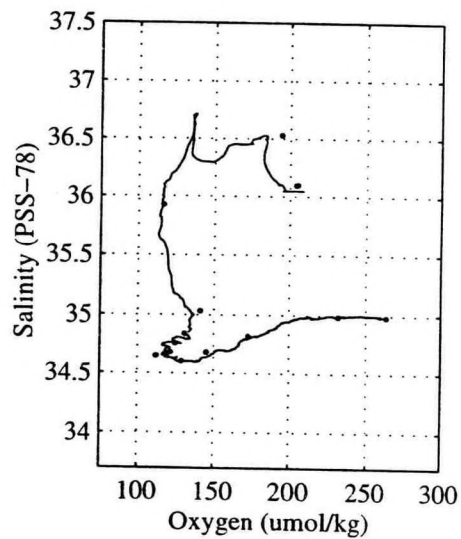
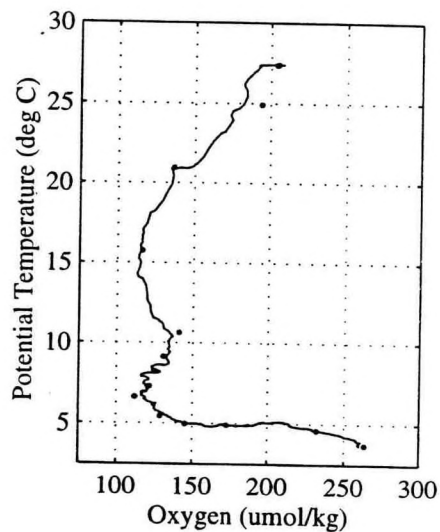
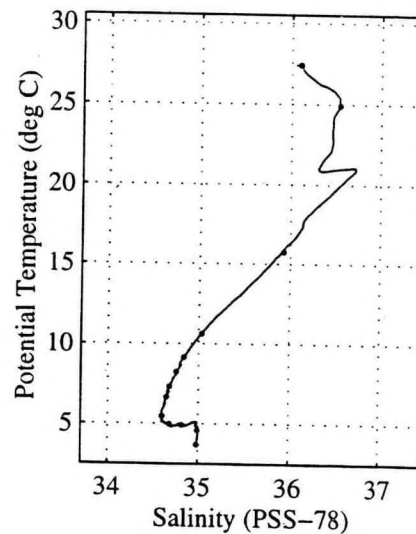
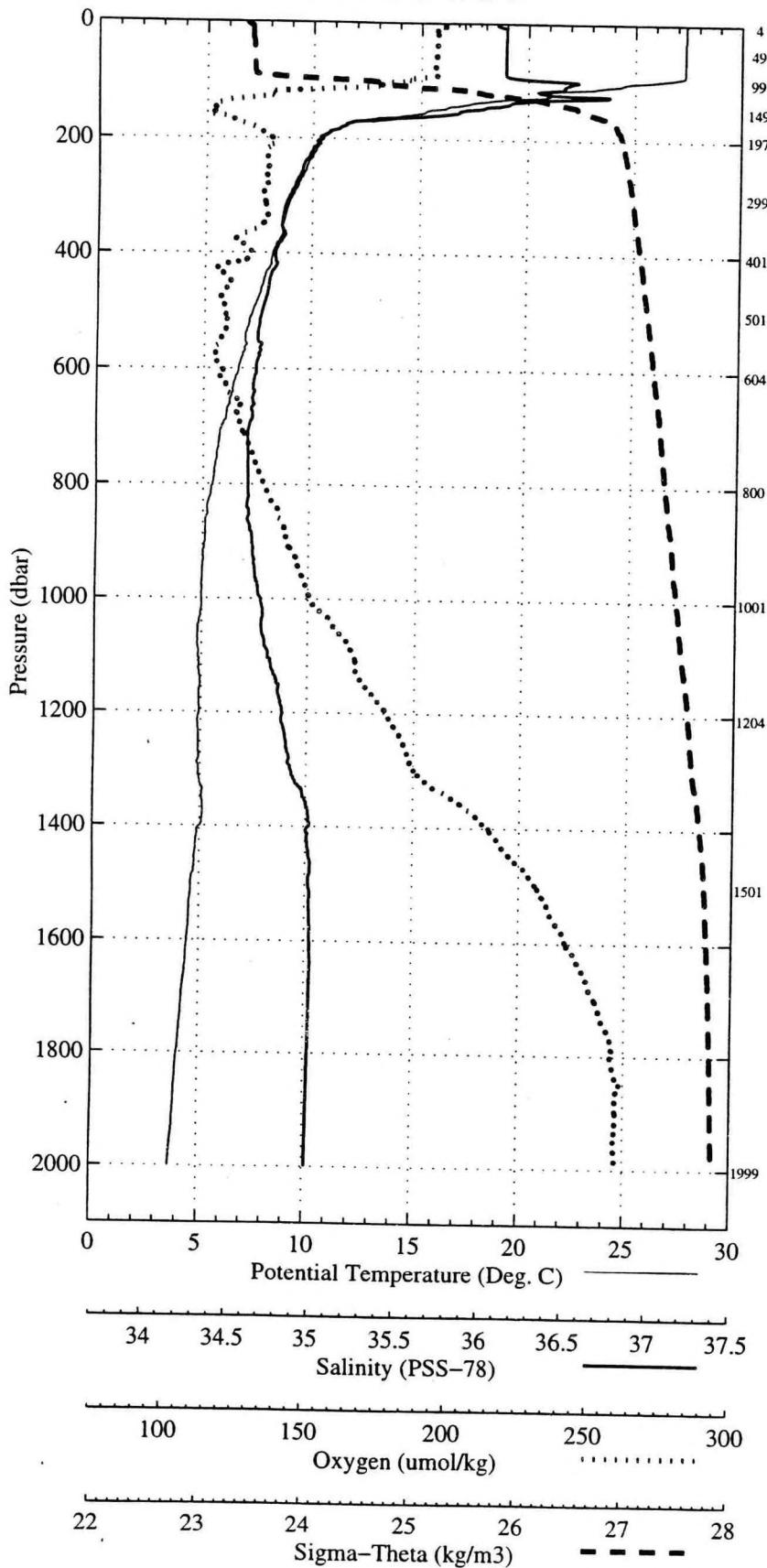
NBC-3 R/V SEWARD JOHNSON  
CTD Station 6 (00006)  
Latitude 7.590N Longitude 49.180W  
03-Feb-2000 17:01Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	27.411	27.411	36.050	208.3	0.004	23.379
10	27.386	27.383	36.102	192.9	0.045	23.427
20	27.386	27.381	36.102	193.1	0.089	23.429
30	27.378	27.371	36.101	193.0	0.134	23.432
40	27.355	27.346	36.100	192.9	0.178	23.441
50	27.355	27.344	36.100	192.9	0.223	23.442
60	27.353	27.339	36.100	192.7	0.268	23.444
70	27.350	27.334	36.100	192.4	0.312	23.447
80	27.351	27.332	36.100	192.2	0.357	23.448
90	27.265	27.244	36.106	192.9	0.402	23.481
100	24.933	24.911	36.530	182.0	0.442	24.534
110	23.185	23.163	36.450	169.5	0.474	24.995
120	20.838	20.815	36.355	134.6	0.501	25.584
130	18.881	18.857	36.333	129.4	0.523	26.084
140	17.046	17.022	36.097	116.4	0.541	26.358
150	15.404	15.381	35.847	114.1	0.557	26.547
160	14.066	14.043	35.641	114.0	0.572	26.679
170	11.751	11.729	35.209	123.0	0.585	26.808
180	11.276	11.254	35.130	128.7	0.598	26.836
190	10.802	10.779	35.057	132.4	0.610	26.865
200	10.505	10.481	35.010	135.7	0.622	26.881
250	9.722	9.693	34.910	134.6	0.681	26.939
300	9.082	9.049	34.834	133.0	0.739	26.986
350	8.653	8.616	34.791	132.8	0.795	27.022
400	8.188	8.146	34.754	128.8	0.849	27.065
450	7.762	7.717	34.718	121.3	0.902	27.102
500	7.256	7.207	34.678	119.6	0.953	27.143
550	6.926	6.874	34.655	118.0	1.002	27.171
600	6.626	6.570	34.647	119.0	1.051	27.206
650	6.239	6.180	34.625	123.5	1.098	27.241
700	5.848	5.787	34.606	125.5	1.143	27.276
750	5.623	5.559	34.601	130.5	1.187	27.301
800	5.440	5.371	34.602	134.0	1.230	27.324
900	5.096	5.021	34.629	142.5	1.313	27.387
1000	4.977	4.893	34.685	150.5	1.390	27.448
1500	4.593	4.466	34.987	230.9	1.714	27.739
1999	3.686	3.523	34.980	260.1	1.959	27.835

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1999	24	3.687	3.524	34.982	263.5
1501	1	4.594	4.467	34.989	231.3
1204	2	4.894	4.792	34.821	172.9
1001	3	4.973	4.889	34.682	145.2
800	4	5.441	5.373	34.603	128.9
604	5	6.640	6.584	34.648	112.1
502	6	7.294	7.245	34.682	121.8
402	12	8.220	8.178	34.756	124.7
300	13	9.135	9.102	34.839	130.9
198	14	10.631	10.607	35.031 *	141.0
150	15	15.760	15.736	35.926 *	116.3
100	16	24.901	24.879	36.532 *	194.0
50	17	27.364	27.352	36.097	203.9
4	18	27.395	27.394	36.100	204.6



NBC-3 R/V SEWARD JOHNSON  
 CTD Station 6 (00006)  
 Latitude 7.590 N Longitude 49.180 W  
 03-Feb-2000 17:01 Z

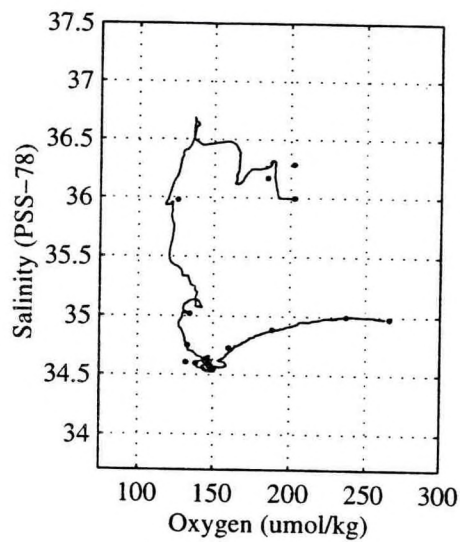
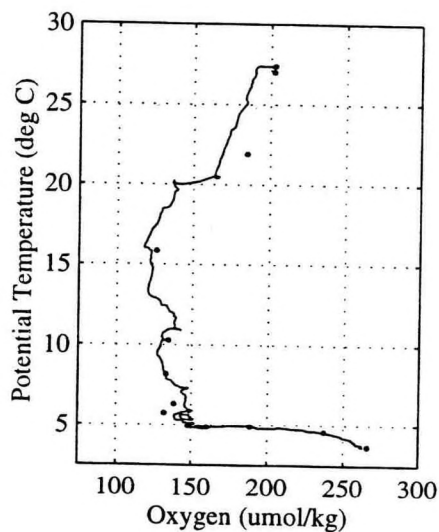
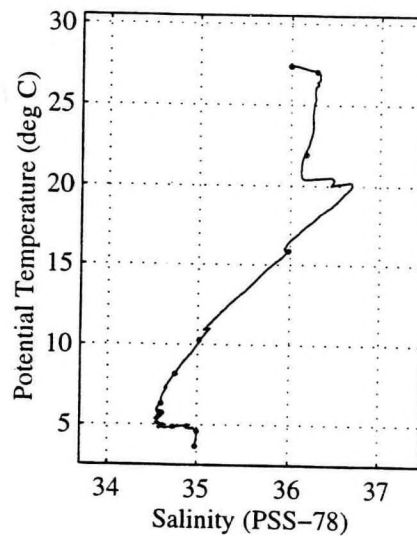
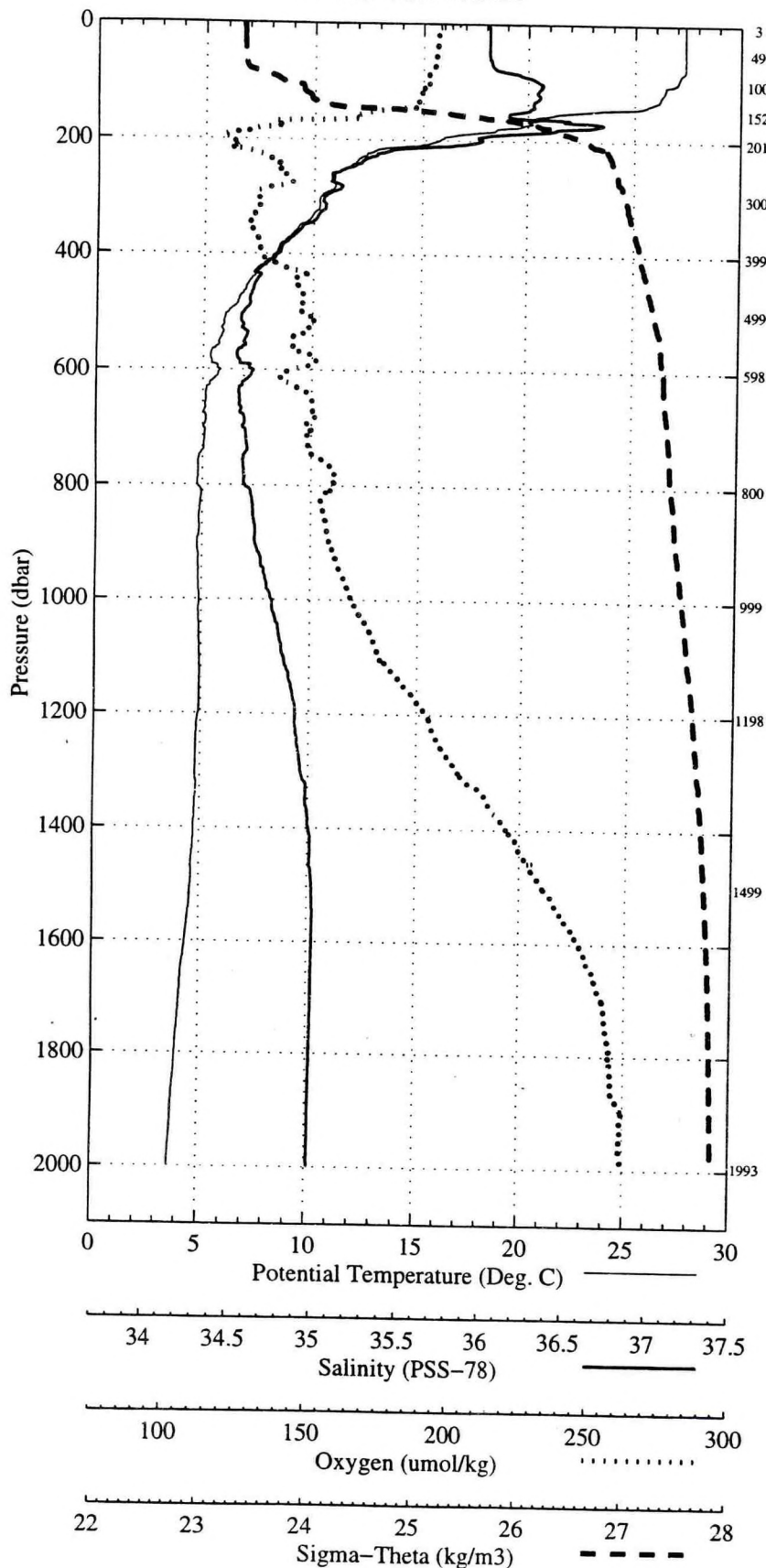


NBC-3 R/V SEWARD JOHNSON  
CTD Station 7 (00007)  
Latitude 6.460N Longitude 49.707W  
04-Feb-2000 01:36Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	27.390	27.389	35.994	200.5	0.005	23.344
10	27.386	27.384	35.998	193.0	0.045	23.349
20	27.386	27.381	35.999	193.0	0.091	23.351
30	27.386	27.379	35.999	192.7	0.136	23.353
40	27.390	27.381	35.999	192.6	0.181	23.353
50	27.396	27.384	35.999	192.4	0.227	23.352
60	27.400	27.386	36.000	192.1	0.272	23.353
70	27.399	27.383	36.014	191.9	0.318	23.366
80	27.363	27.344	36.063	191.2	0.363	23.416
90	27.125	27.104	36.216	189.7	0.407	23.609
100	27.001	26.978	36.299	190.0	0.450	23.713
110	26.456	26.431	36.314	187.9	0.491	23.900
120	26.306	26.279	36.294	187.1	0.531	23.933
130	26.154	26.125	36.288	187.1	0.571	23.977
140	25.538	25.507	36.267	184.1	0.610	24.154
150	22.493	22.462	36.201	171.3	0.645	25.009
160	20.368	20.338	36.155	164.9	0.672	25.562
170	20.207	20.175	36.653	137.4	0.694	25.986
180	18.521	18.489	36.416	132.7	0.714	26.243
190	16.757	16.725	36.048	121.1	0.732	26.393
200	15.836	15.805	35.960	122.7	0.748	26.539
250	11.406	11.374	35.154	138.4	0.816	26.833
300	10.351	10.315	35.036	130.8	0.878	26.932
350	9.364	9.325	34.912	127.2	0.936	27.003
400	8.251	8.209	34.760	132.0	0.991	27.061
450	7.020	6.977	34.629	144.0	1.043	27.135
500	6.101	6.057	34.562	146.2	1.092	27.205
550	5.687	5.640	34.567	143.0	1.137	27.261
600	5.732	5.680	34.622	142.9	1.180	27.301
650	5.121	5.068	34.542	150.0	1.222	27.310
700	5.027	4.970	34.562	149.3	1.264	27.338
750	4.840	4.779	34.567	151.4	1.304	27.364
800	4.789	4.725	34.579	158.5	1.344	27.380
900	4.777	4.704	34.640	156.9	1.420	27.432
1000	4.891	4.808	34.741	164.3	1.493	27.502
1500	4.600	4.473	34.994	232.6	1.795	27.744
1999	3.655	3.492	34.980	262.0	2.035	27.838

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1994	24	3.656	3.494	34.980	265.8
1499	1	4.588	4.461	34.997	237.1
1199	2	4.899	4.798	34.887	188.7
1000	3	4.875	4.792	34.732	160.3
800	4	4.941	4.876	34.615	147.8
599	5	5.744	5.692	34.606	132.0
499	6	6.323	6.278	34.598	138.7
400	12	8.176	8.135	34.752	133.2
301	13	10.282	10.246	35.018	134.5
202	14	15.856	15.824	35.980 *	126.1
152	15	21.921	21.891	36.170 *	185.1
101	16	27.013	26.990	36.289 *	202.1
49	17	27.389	27.378	35.996	202.6
4	18	27.362	27.361	35.997	202.3

NBC-3 R/V SEWARD JOHNSON  
 CTD Station 7 (00007)  
 Latitude 6.460 N Longitude 49.707 W  
 04-Feb-2000 01:36 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 8 (00008)  
Latitude 5.952N Longitude 51.002W  
04-Feb-2000 10:29Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	27.580	27.577	36.145	211.4	0.040	23.397
20	27.583	27.578	36.145	211.3	0.085	23.398
30	27.585	27.578	36.145	211.5	0.130	23.399
40	27.584	27.575	36.145	211.5	0.175	23.400
50	27.565	27.553	36.144	211.3	0.220	23.407
60	27.534	27.520	36.142	210.8	0.265	23.417
70	27.223	27.207	36.132	208.0	0.309	23.512
80	26.072	26.054	36.182	200.8	0.351	23.916
90	23.896	23.877	36.260	186.6	0.388	24.640
100	22.056	22.036	36.294	174.9	0.419	25.199
110	21.369	21.348	36.492	154.3	0.445	25.542
120	19.689	19.667	36.399	144.4	0.468	25.925
130	18.387	18.365	36.314	136.0	0.488	26.194
140	16.286	16.263	35.942	126.5	0.505	26.418
150	15.884	15.860	35.936	126.8	0.521	26.506
160	14.979	14.955	35.803	124.6	0.537	26.607
170	14.004	13.979	35.671	129.4	0.551	26.717
180	13.148	13.123	35.532	131.3	0.564	26.786
190	12.418	12.393	35.392	131.4	0.577	26.823
200	11.938	11.912	35.310	139.3	0.590	26.852
250	10.048	10.019	34.963	146.2	0.650	26.925
300	9.398	9.364	34.916	131.3	0.708	26.999
350	8.787	8.749	34.835	126.2	0.763	27.035
400	8.201	8.160	34.769	125.2	0.817	27.075
450	7.925	7.880	34.777	113.3	0.869	27.124
500	7.066	7.018	34.682	128.5	0.919	27.172
550	6.465	6.415	34.627	133.4	0.967	27.211
600	5.609	5.558	34.536	154.0	1.013	27.247
650	5.113	5.060	34.523	159.7	1.057	27.297
700	5.026	4.969	34.543	158.5	1.099	27.323
750	4.983	4.922	34.564	155.6	1.141	27.346
800	5.071	5.005	34.616	152.5	1.181	27.378
900	4.998	4.923	34.679	157.7	1.259	27.439
1000	4.951	4.868	34.759	170.1	1.331	27.509
1500	4.368	4.244	35.006	266.8	1.621	27.778
1997	3.514	3.354	34.973	285.3	1.850	27.845

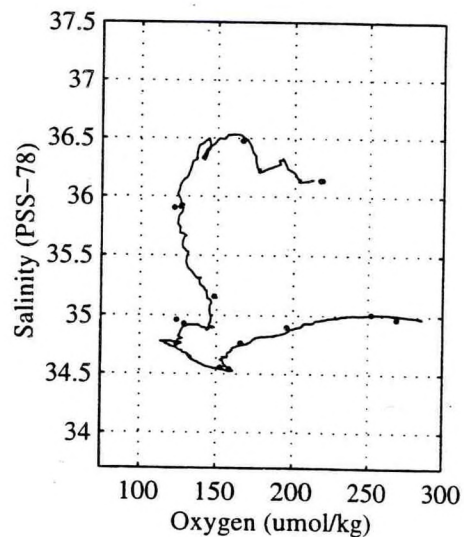
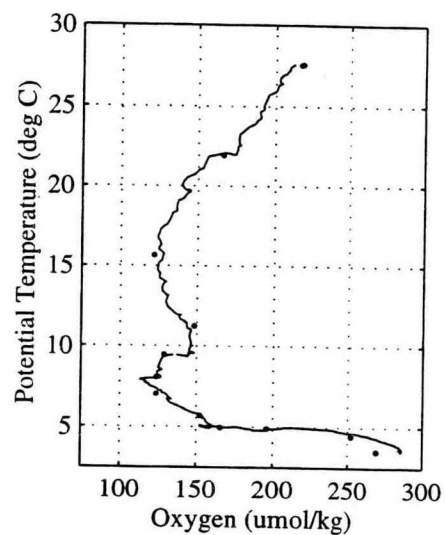
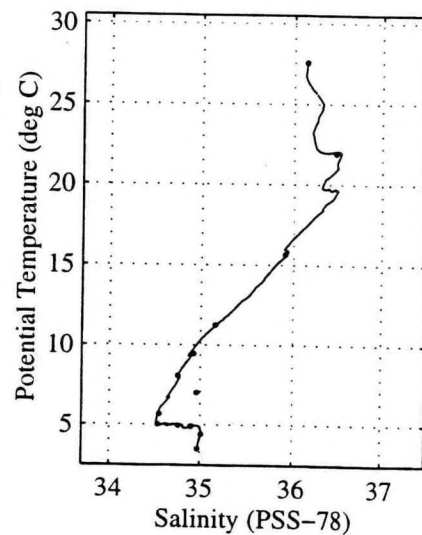
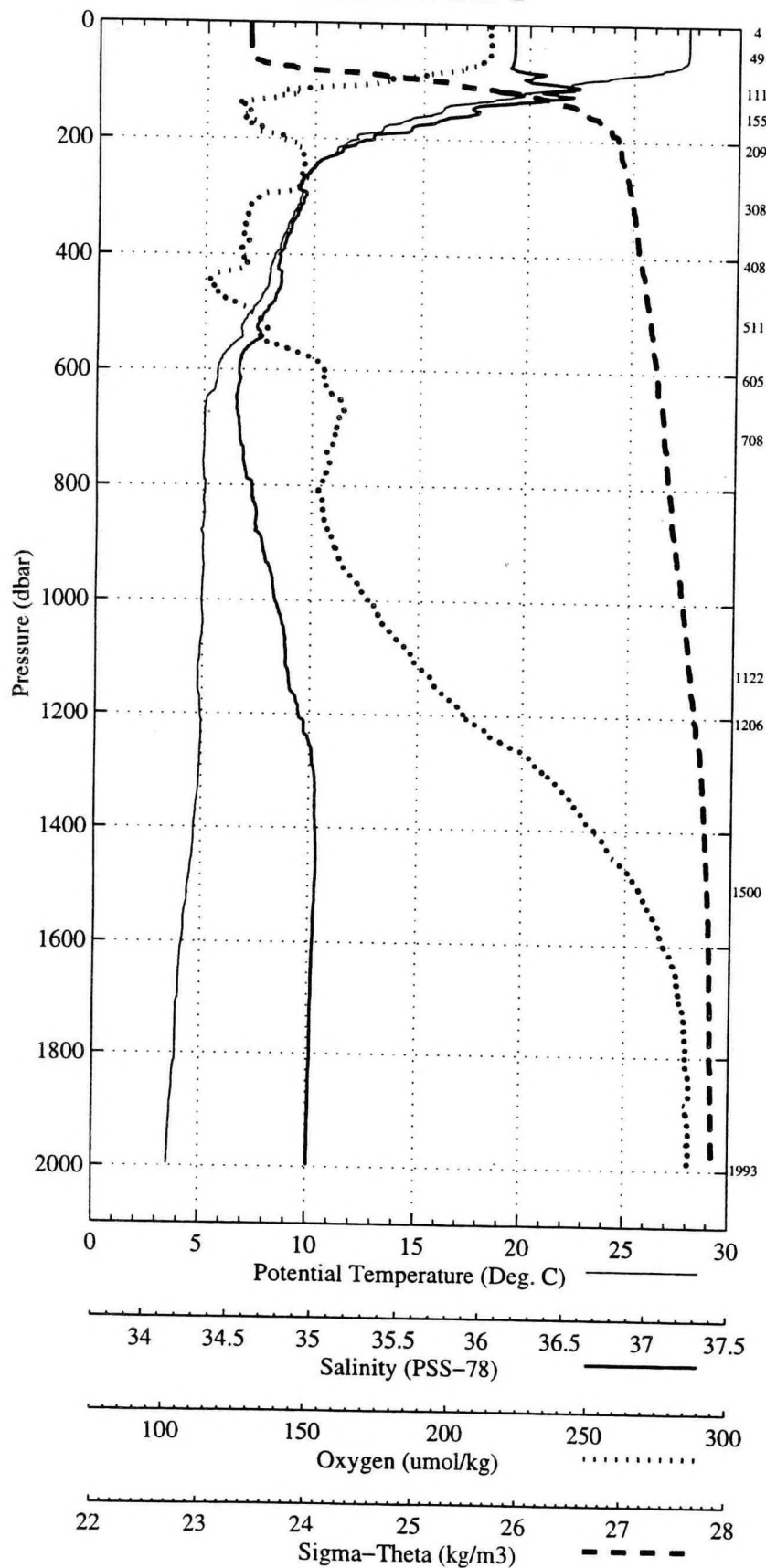
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1994	24	3.515	3.355	34.971	269.1
1500	1	4.428	4.303	35.012	252.0
1206	2	4.897	4.795	34.900	195.9
1123	3	4.952	4.857	34.764 *	165.8
708	4	5.029	4.971	34.540	158.6
606	5	5.671	5.619	34.554	152.4
512	6	7.017	6.968	34.961 *	124.0
408	12	8.075	8.033	34.757	124.2
309	13	9.462	9.427	34.929	129.0
210	14	11.240	11.214	35.159	148.4
156	15	15.663	15.639	35.905 *	121.9
111	16	21.904	21.882	36.476 *	166.3
49	17	27.548	27.536	36.136	216.4
4	18	27.576	27.575	36.140	217.4

NBC-3 R/V SEWARD JOHNSON

CTD Station 8 (00008)

Latitude 5.952 N Longitude 51.002 W

04-Feb-2000 10:29 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 9 (00009)  
Latitude 5.800N Longitude 51.250W  
04-Feb-2000 15:01Z

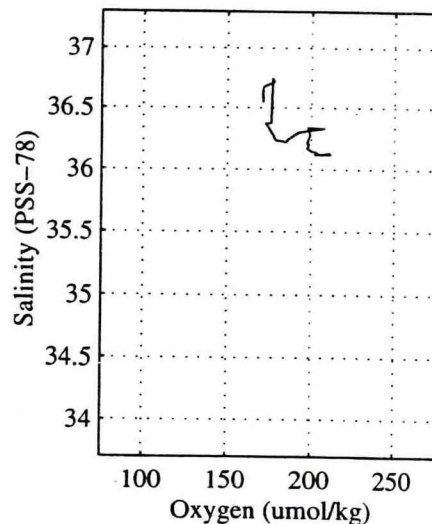
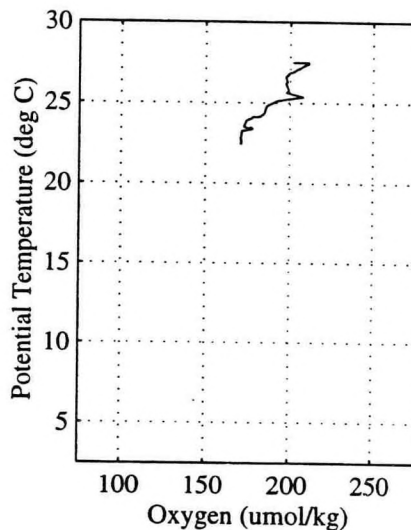
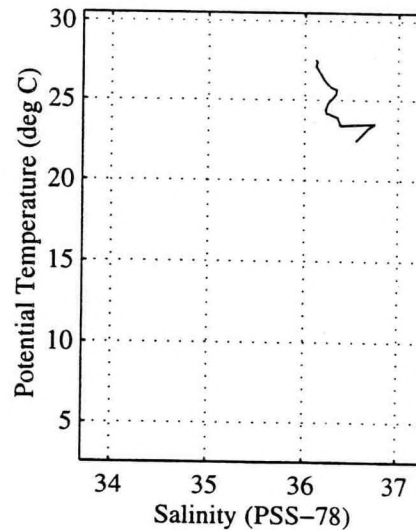
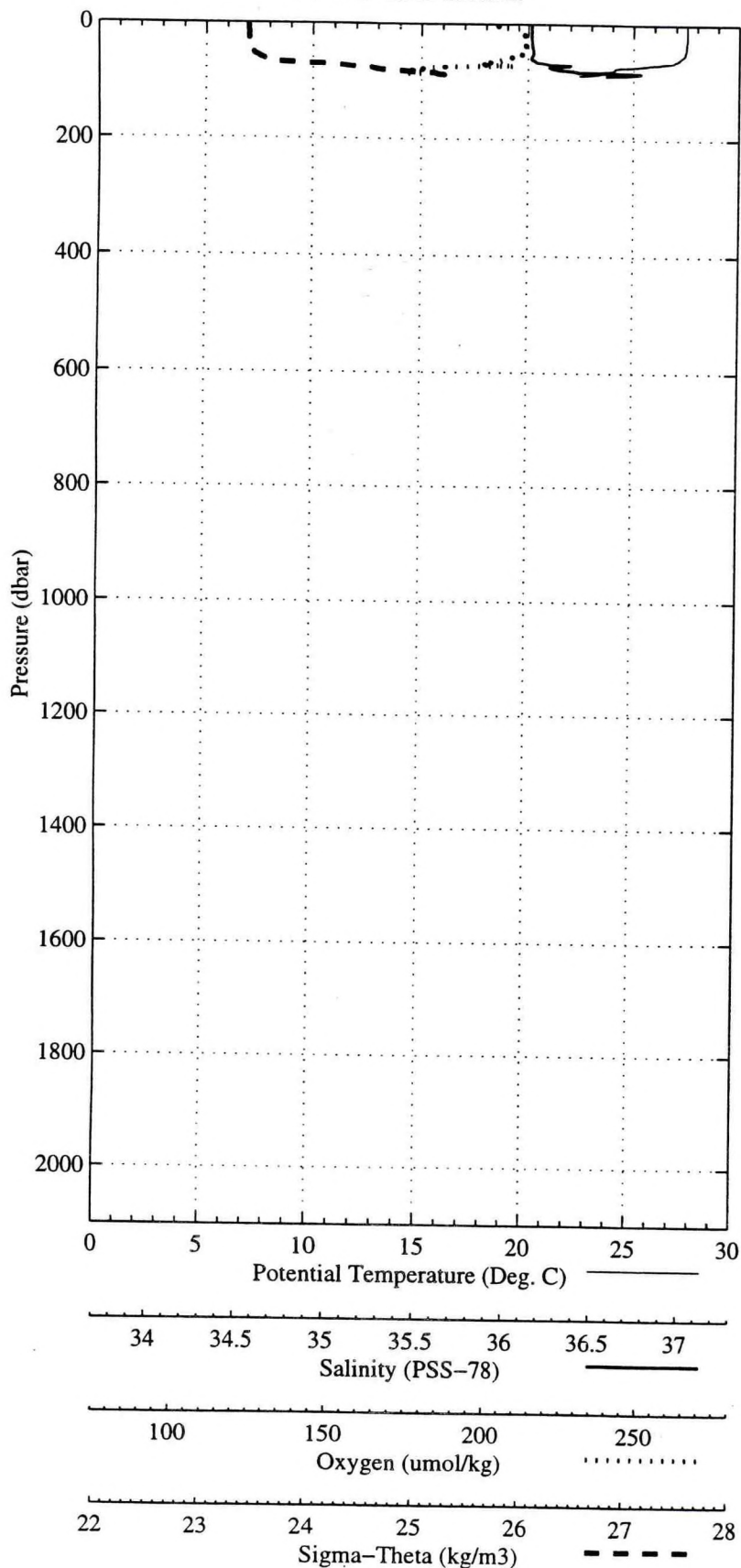
Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	27.518	27.516	36.119	209.9	0.040	23.398
20	27.512	27.507	36.120	210.6	0.085	23.401
30	27.505	27.498	36.121	210.7	0.130	23.406
40	27.475	27.465	36.126	210.9	0.175	23.421
50	27.422	27.410	36.130	210.5	0.219	23.443
60	27.156	27.142	36.118	205.5	0.264	23.521
70	26.223	26.207	36.213	197.4	0.306	23.891
80	24.053	24.036	36.275	177.7	0.342	24.603
90	22.421	22.402	36.544	171.6	0.372	25.284

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
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No bottle data available for this station.



NBC-3 R/V SEWARD JOHNSON  
 CTD Station 9 (00009)  
 Latitude 5.800 N Longitude 51.250 W  
 04-Feb-2000 15:01 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 10 (00010)  
Latitude 7.795N Longitude 51.055W  
05-Feb-2000 06:23Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	27.235	27.233	36.071	213.5	0.040	23.453
20	27.240	27.235	36.071	213.4	0.084	23.453
30	27.241	27.235	36.071	213.4	0.129	23.454
40	27.236	27.226	36.074	213.2	0.173	23.459
50	27.219	27.208	36.077	213.0	0.217	23.469
60	27.200	27.186	36.081	212.8	0.262	23.479
70	27.092	27.076	36.083	212.7	0.306	23.517
80	27.048	27.029	36.115	212.8	0.350	23.556
90	27.015	26.994	36.124	211.8	0.393	23.575
100	26.449	26.427	36.185	201.5	0.436	23.803
110	25.719	25.694	36.249	189.8	0.476	24.081
120	24.532	24.507	36.330	188.6	0.512	24.506
130	22.382	22.356	36.445	164.4	0.543	25.224
140	20.995	20.968	36.174	179.3	0.570	25.405
150	20.782	20.753	36.149	180.7	0.596	25.445
160	18.432	18.404	35.923	176.8	0.620	25.887
170	16.548	16.521	35.716	171.7	0.640	26.185
180	14.989	14.961	35.528	156.4	0.658	26.395
190	12.355	12.329	35.188	163.6	0.673	26.677
200	12.411	12.384	35.251	166.9	0.687	26.716
250	11.827	11.794	35.265	135.9	0.753	26.841
300	10.164	10.128	35.005	132.8	0.814	26.940
350	8.942	8.904	34.835	139.1	0.871	27.011
400	8.527	8.484	34.827	120.9	0.926	27.071
450	8.031	7.985	34.780	113.9	0.978	27.111
500	7.637	7.587	34.755	116.7	1.029	27.150
550	7.341	7.287	34.736	117.0	1.079	27.179
600	6.932	6.875	34.703	119.7	1.127	27.210
650	6.531	6.471	34.673	124.9	1.175	27.242
700	6.159	6.096	34.652	128.5	1.220	27.274
750	5.882	5.815	34.645	132.7	1.265	27.304
800	5.589	5.520	34.646	136.1	1.308	27.341
900	5.383	5.306	34.689	142.3	1.390	27.402
1000	5.137	5.052	34.751	159.1	1.465	27.482
1500	4.383	4.259	34.992	258.1	1.760	27.766
1999	3.778	3.613	34.983	281.1	2.006	27.829

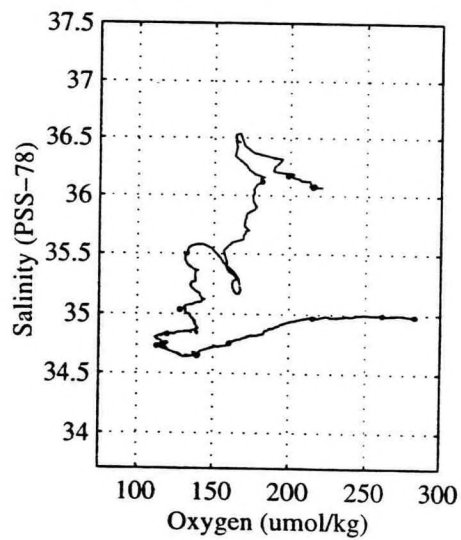
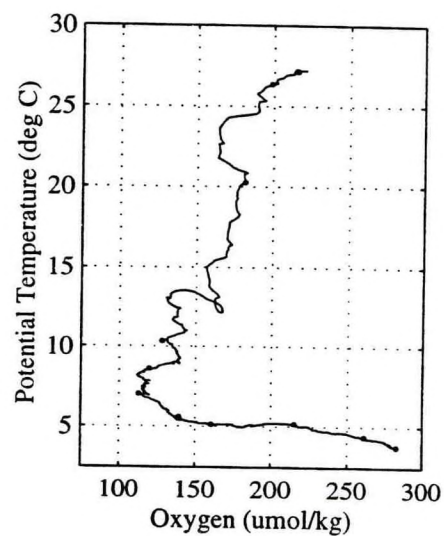
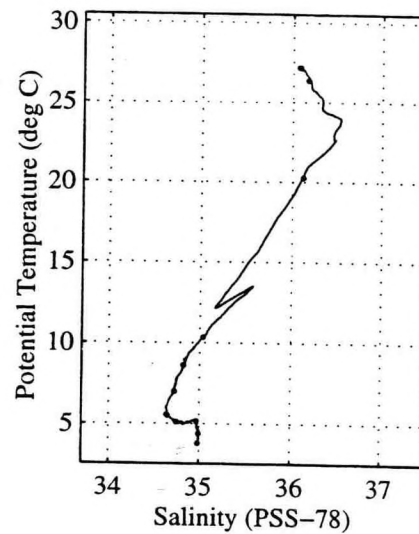
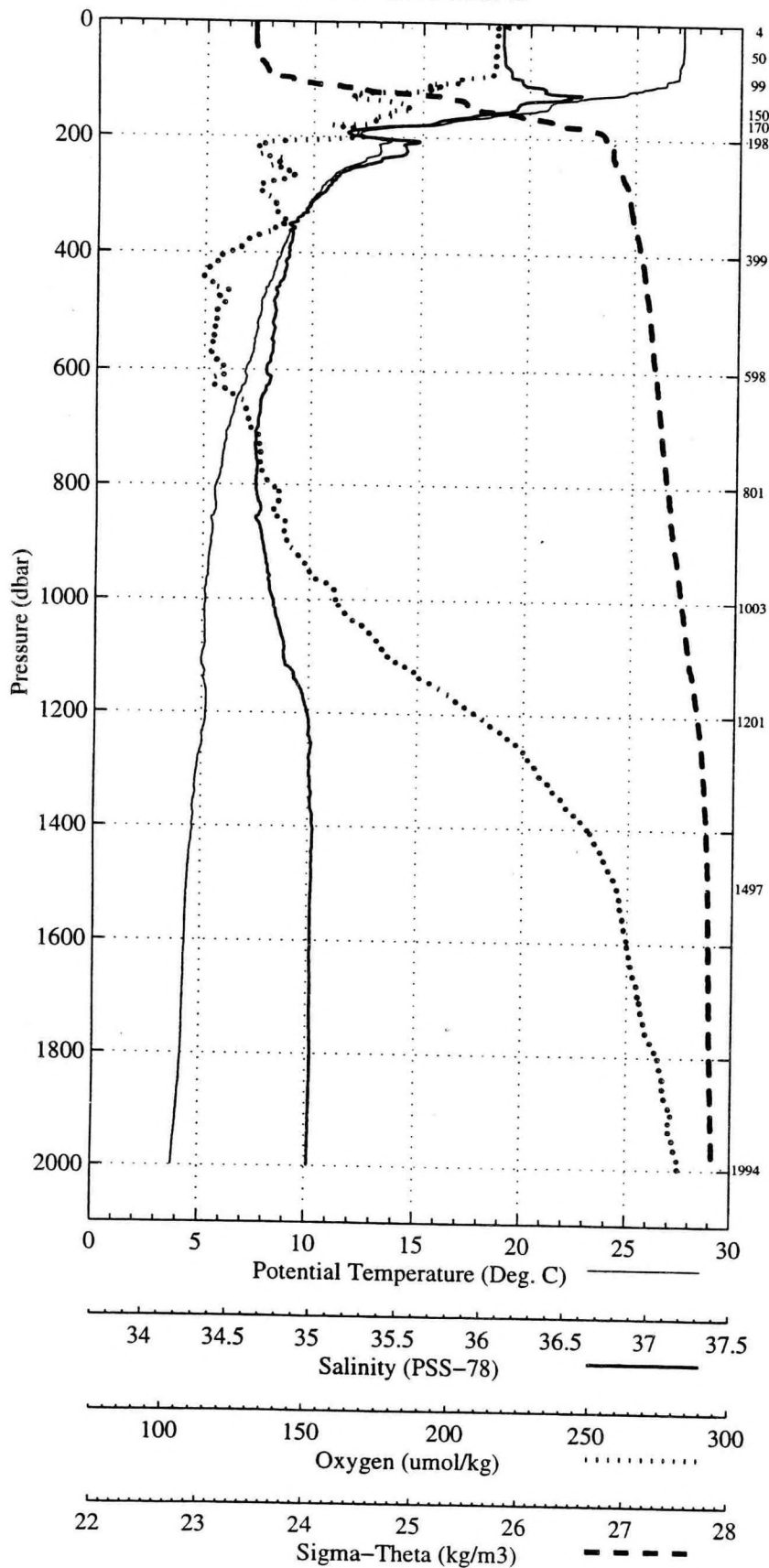
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1994	24	3.782	3.618	34.983	283.0
1498	2	4.377	4.253	34.992	261.1
1201	3	5.167	5.063	34.967	215.0
1003	4	5.114	5.029	34.752	160.6
801	5	5.577	5.508	34.645	139.5
598	6	7.010	6.953	34.727	113.0
400	12	8.599	8.556	34.826	119.8
171	13	10.330	10.310	35.035 *	128.5
199	14	12.117	NaN	NaN *	NaN
150	15	20.272	20.244	36.120 *	181.6
99	16	26.391	26.369	36.168	198.6
51	17	27.186	27.174	36.082	215.4
5	18	27.203	27.202	36.071	214.5

NBC-3 R/V SEWARD JOHNSON

CTD Station 10 (00010)

Latitude 7.795 N Longitude 51.055 W

05-Feb-2000 06:23 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 11 (00011)  
Latitude 9.147N Longitude 49.808W  
05-Feb-2000 20:41Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.739	26.739	35.765	216.8	0.004	23.380
10	26.746	26.744	35.766	215.5	0.045	23.379
20	26.745	26.740	35.766	215.9	0.090	23.381
30	26.750	26.743	35.768	215.8	0.135	23.383
40	26.727	26.718	35.794	215.1	0.180	23.411
50	25.830	25.819	36.246	194.5	0.223	24.035
60	25.439	25.425	36.599	184.6	0.260	24.426
70	24.099	24.084	36.783	182.8	0.292	24.973
80	22.733	22.717	36.647	166.5	0.321	25.272
90	19.461	19.444	36.023	174.7	0.345	25.694
100	17.629	17.612	35.791	175.1	0.368	25.979
110	15.703	15.686	35.583	170.6	0.386	26.273
120	13.211	13.195	35.294	165.9	0.402	26.585
130	12.094	12.077	35.149	161.9	0.416	26.694
140	11.530	11.512	35.081	165.1	0.429	26.748
150	11.032	11.013	35.019	161.9	0.442	26.792
160	10.744	10.724	35.008	160.8	0.455	26.835
170	10.207	10.187	34.915	165.1	0.467	26.858
180	10.101	10.080	34.899	168.8	0.480	26.863
190	10.093	10.071	34.899	169.6	0.492	26.865
200	10.080	10.056	34.897	169.7	0.504	26.866
250	9.939	9.910	34.878	170.3	0.565	26.877
300	9.866	9.832	34.873	168.7	0.627	26.888
350	9.602	9.562	34.886	164.0	0.687	26.944
400	9.048	9.004	34.865	133.1	0.744	27.019
450	8.374	8.326	34.786	128.1	0.799	27.064
500	7.893	7.842	34.751	125.7	0.852	27.109
550	7.650	7.594	34.752	117.0	0.904	27.147
600	7.183	7.125	34.716	119.5	0.954	27.186
650	6.761	6.699	34.679	122.8	1.002	27.216
700	6.601	6.536	34.682	123.8	1.050	27.240
750	6.221	6.153	34.666	126.4	1.096	27.278
800	6.019	5.947	34.670	127.1	1.140	27.308
900	5.528	5.450	34.657	137.2	1.226	27.360
1000	5.230	5.145	34.710	149.6	1.306	27.439
1500	4.513	4.387	34.987	245.2	1.622	27.748
2000	3.633	3.471	34.976	275.4	1.863	27.837

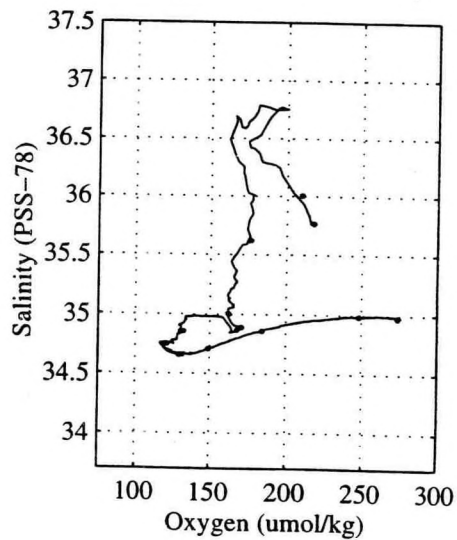
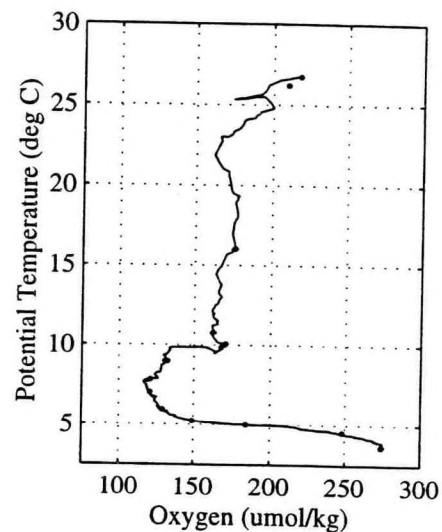
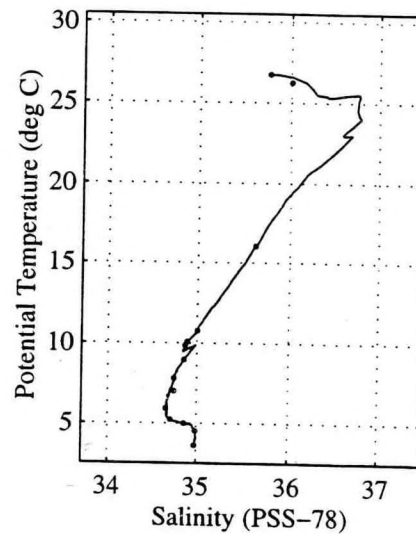
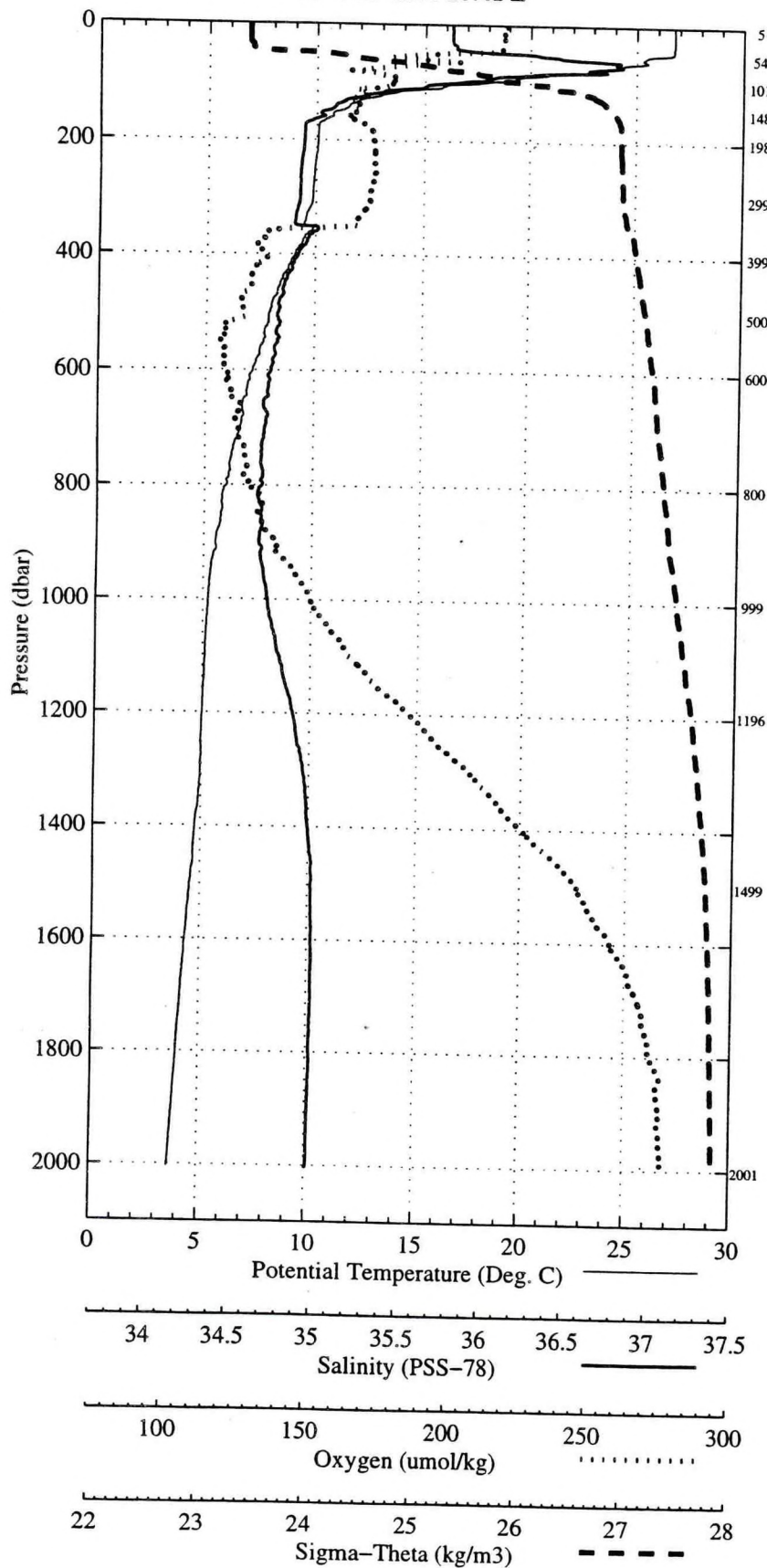
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2002	24	3.631	3.469	34.975	273.9
1500	1	4.523	4.397	34.986	248.2
1197	2	5.000	4.898	34.861	184.2
1000	3	5.237	5.152	34.707	149.2
801	4	5.921	5.850	34.656	129.4
601	5	7.021	6.963	34.747 *	120.9
500	6	7.819	7.768	34.748	121.3
399	12	8.981	8.937	34.855	130.7
299	13	9.855	9.820	34.868	167.8
199	14	10.083	10.060	34.889	170.7
149	15	10.772	10.754	35.002	162.3
101	16	16.027	16.011	35.623 *	176.3
54	17	26.214	26.202	36.007 *	209.6
5	18	26.728	26.727	35.767	217.7

NBC-3 R/V SEWARD JOHNSON

CTD Station 11 (00011)

Latitude 9.147 N Longitude 49.808 W

05-Feb-2000 20:41 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 12 (00012)  
Latitude 9.760N Longitude 51.480W  
06-Feb-2000 07:54Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.651	26.651	35.502	225.0	0.005	23.209
10	26.669	26.666	35.500	218.3	0.047	23.203
20	26.671	26.667	35.500	218.1	0.093	23.204
30	26.669	26.662	35.501	218.0	0.140	23.207
40	26.669	26.660	35.501	217.8	0.187	23.208
50	26.672	26.660	35.501	217.7	0.234	23.209
60	26.648	26.635	36.438	220.4	0.278	23.924
70	25.298	25.283	36.805	211.8	0.313	24.626
80	24.639	24.622	36.960	199.4	0.346	24.946
90	21.922	21.904	36.526	171.7	0.374	25.411
100	20.831	20.812	36.509	153.5	0.398	25.701
110	20.612	20.591	36.556	145.6	0.421	25.798
120	18.951	18.929	36.326	145.0	0.442	26.060
130	17.399	17.377	35.982	149.6	0.461	26.184
140	15.293	15.271	35.551	159.4	0.479	26.343
150	14.330	14.308	35.567	153.9	0.495	26.566
160	13.400	13.377	35.424	155.3	0.510	26.650
170	12.638	12.615	35.301	158.5	0.524	26.708
180	12.381	12.357	35.273	155.5	0.537	26.738
190	11.584	11.560	35.138	156.9	0.551	26.785
200	10.469	10.445	34.970	155.9	0.563	26.856
250	9.865	9.836	34.972	137.2	0.622	26.963
300	8.726	8.693	34.794	148.5	0.678	27.011
350	8.434	8.397	34.809	138.5	0.733	27.069
400	7.854	7.814	34.758	125.8	0.784	27.117
450	7.419	7.375	34.702	129.2	0.835	27.138
500	7.017	6.969	34.682	130.4	0.884	27.180
550	6.493	6.443	34.626	133.4	0.932	27.206
600	6.212	6.158	34.600	138.9	0.979	27.224
650	5.782	5.726	34.570	142.9	1.025	27.254
700	5.638	5.577	34.587	142.2	1.069	27.286
750	5.454	5.390	34.595	144.2	1.113	27.316
800	5.359	5.292	34.609	145.1	1.155	27.339
900	5.023	4.949	34.617	153.0	1.237	27.386
1000	5.148	5.063	34.712	159.2	1.315	27.449
1500	4.548	4.422	35.010	257.2	1.622	27.763
2000	3.449	3.290	34.972	282.5	1.855	27.851

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2002	24	3.449	3.289	34.971	282.7
1498	1	4.542	4.416	35.008	258.1
1200	2	5.252	5.147	34.937	202.7
1000	3	5.132	5.047	34.706	158.4
699	4	5.582	5.522	34.583	143.1
596	5	6.196	6.143	34.599	139.9
497	6	7.053	7.005	34.686	138.2
398	12	7.908	7.868	34.761	123.9
299	13	8.714	8.682	34.786	151.5
199	14	10.959	10.934	35.029 *	159.1
149	15	15.009	14.986	35.621 *	153.9
97	16	22.607	22.587	36.665 *	170.8
48	17	26.661	26.650	35.496	220.4
4	18	26.639	26.638	35.492	219.2

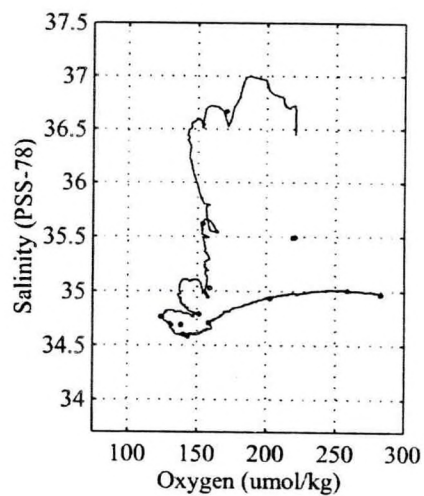
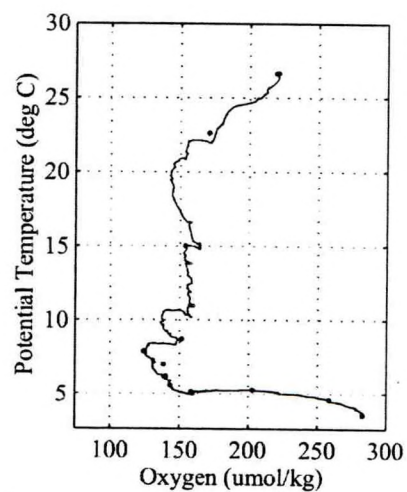
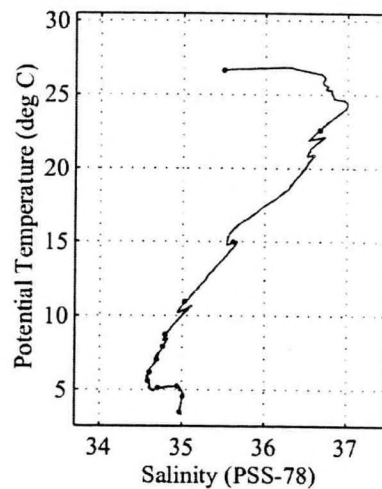
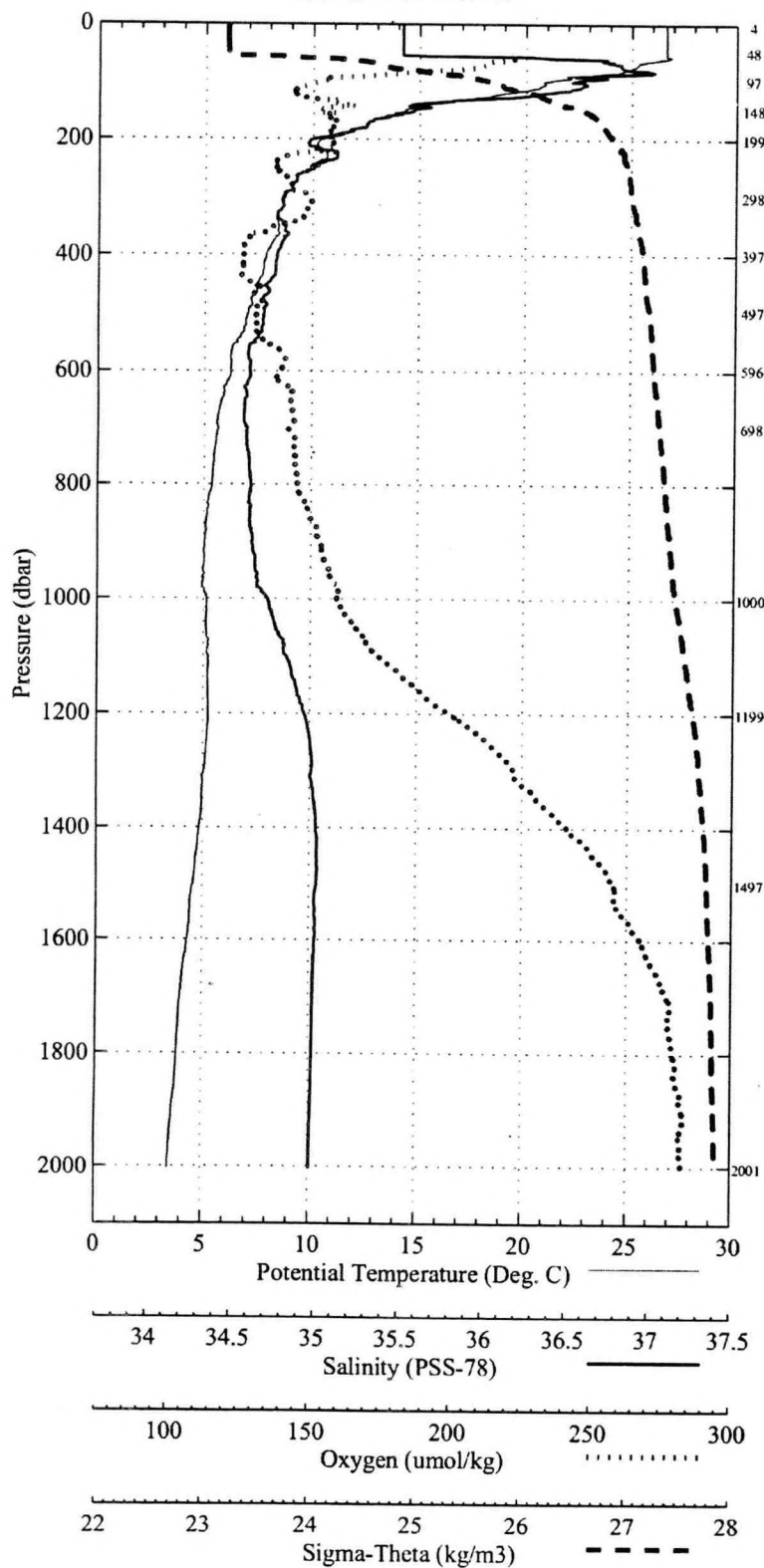


NBC-3 R/V SEWARD JOHNSON

CTD Station 12 (00012)

Latitude 9.760 N Longitude 51.480 W

06-Feb-2000 07:54 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 13 (00013)  
Latitude 0.905N Longitude 52.077W  
06-Feb-2000 17:48Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.277	26.276	35.511	220.2	0.005	23.334
10	26.276	26.274	35.518	219.2	0.045	23.341
20	26.244	26.240	35.523	219.4	0.091	23.357
30	26.217	26.210	35.540	219.3	0.136	23.379
40	26.348	26.339	35.804	218.3	0.181	23.538
50	25.883	25.871	36.254	210.8	0.222	24.026
60	24.842	24.829	36.470	200.5	0.258	24.511
70	24.229	24.214	36.783	199.9	0.291	24.935
80	23.670	23.653	37.080	192.3	0.320	25.327
90	22.793	22.775	37.019	174.0	0.346	25.538
100	21.664	21.644	36.906	162.1	0.369	25.774
110	19.434	19.414	36.503	140.8	0.390	26.070
120	18.767	18.746	36.456	139.2	0.409	26.206
130	17.998	17.976	36.402	143.2	0.427	26.359
140	17.119	17.095	36.260	137.1	0.444	26.466
150	15.962	15.938	36.065	137.3	0.459	26.588
160	15.285	15.261	35.944	136.4	0.474	26.649
170	14.899	14.873	35.867	136.2	0.488	26.675
180	14.055	14.028	35.691	134.0	0.502	26.722
190	13.285	13.258	35.563	132.6	0.516	26.783
200	12.318	12.291	35.403	129.6	0.529	26.852
250	10.682	10.652	35.133	125.4	0.589	26.947
300	10.085	10.050	35.048	124.9	0.647	26.987
350	9.369	9.330	34.949	122.7	0.703	27.031
400	8.612	8.570	34.843	127.8	0.757	27.071
450	7.853	7.807	34.742	132.1	0.809	27.107
500	7.415	7.366	34.714	124.6	0.860	27.149
550	7.205	7.152	34.709	125.1	0.910	27.176
600	6.774	6.718	34.666	130.1	0.958	27.202
650	6.270	6.211	34.619	136.1	1.006	27.232
700	6.046	5.983	34.606	138.7	1.052	27.252
750	5.898	5.832	34.622	136.4	1.097	27.284
800	5.636	5.566	34.611	138.0	1.141	27.308
900	5.066	4.992	34.586	151.1	1.226	27.357
1000	4.975	4.891	34.646	156.1	1.307	27.417
1500	4.751	4.622	34.997	241.8	1.634	27.731
2000	3.721	3.557	34.983	278.6	1.883	27.834

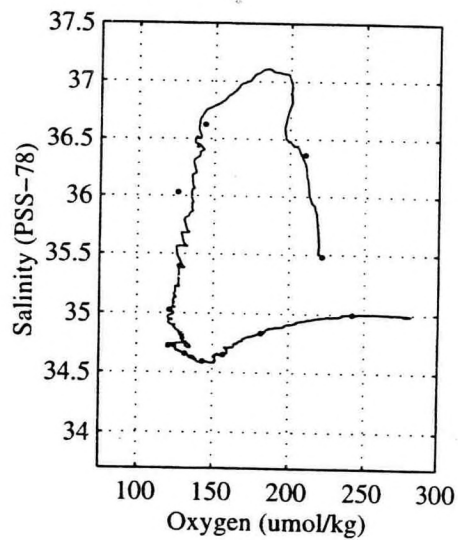
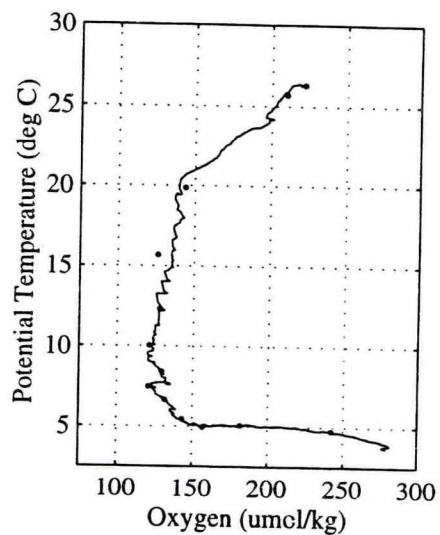
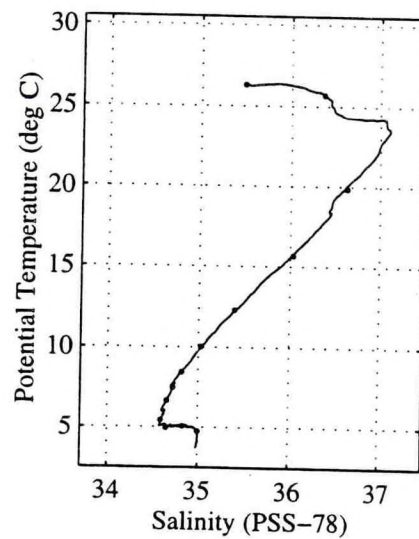
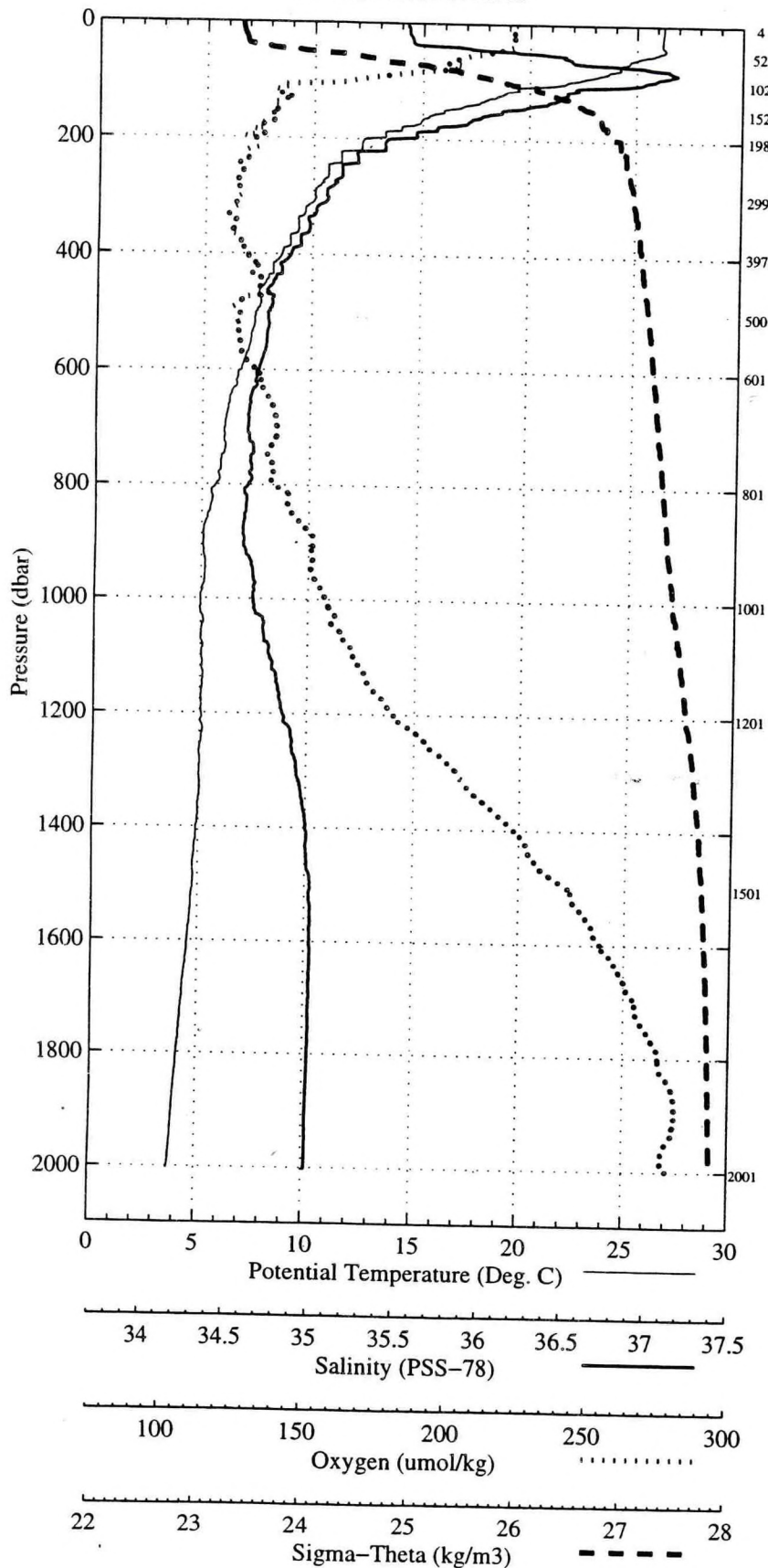
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2002	24	3.714	NaN	NaN *	NaN
1501	1	4.747	4.618	34.996	242.1
1202	2	5.074	4.971	34.833	181.8
1001	3	4.960	4.877	34.651	156.9
801	4	5.441	5.373	34.593	143.3
601	5	6.668	6.612	34.658	131.8
500	6	7.464	7.415	34.725	121.1
398	12	8.434	8.392	34.821	129.6
299	13	10.027	9.992	35.027	121.3
199	14	12.308	12.281	35.396	127.8
152	15	15.671	15.647	36.031 *	126.4
102	16	19.866	19.847	36.623 *	143.9
53	17	25.671	25.659	36.362 *	210.2
4	18	26.271	26.270	35.482	221.7

NBC-3 R/V SEWARD JOHNSON

CTD Station 13 (00013)

Latitude 10.905 N Longitude 52.077 W

06-Feb-2000 17:48 Z





**NBC-3 R/V SEWARD JOHNSON**  
**CTD Station 14 (00014)**  
**Latitude 9.745N Longitude 53.777W**  
**07-Feb-2000 06:20Z**

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.903	26.903	36.134	220.0	0.004	23.605
10	26.895	26.893	36.134	214.4	0.043	23.609
20	26.895	26.890	36.134	214.2	0.086	23.611
30	26.901	26.894	36.134	214.2	0.128	23.611
40	26.903	26.894	36.134	214.0	0.171	23.611
50	26.907	26.896	36.134	213.9	0.214	23.611
60	26.905	26.892	36.135	213.8	0.257	23.614
70	26.911	26.895	36.135	213.8	0.300	23.614
80	26.911	26.893	36.134	213.7	0.343	23.615
90	26.913	26.892	36.135	213.6	0.387	23.616
100	26.915	26.892	36.135	213.5	0.430	23.617
110	26.856	26.831	36.162	208.9	0.473	23.658
120	26.045	26.018	36.336	200.8	0.513	24.047
130	25.523	25.494	36.338	192.6	0.552	24.212
140	24.705	24.675	36.373	193.7	0.588	24.489
150	24.046	24.014	36.383	189.2	0.622	24.696
160	23.707	23.673	36.538	165.4	0.654	24.915
170	23.199	23.164	36.776	160.7	0.684	25.245
180	21.999	21.963	36.811	153.2	0.710	25.616
190	20.721	20.685	36.609	144.1	0.734	25.817
200	18.841	18.805	36.391	137.7	0.755	26.145
250	12.756	12.722	35.401	141.1	0.833	26.767
300	10.842	10.805	35.129	136.1	0.896	26.919
350	10.409	10.367	35.143	128.9	0.954	27.008
400	9.367	9.322	35.000	126.8	1.010	27.074
450	8.350	8.302	34.860	127.9	1.062	27.126
500	7.438	7.389	34.726	130.0	1.112	27.156
550	7.082	7.030	34.693	132.6	1.161	27.180
600	6.436	6.381	34.625	134.9	1.210	27.215
650	5.952	5.894	34.593	138.2	1.256	27.252
700	5.669	5.609	34.586	140.2	1.301	27.282
750	5.420	5.356	34.580	147.7	1.344	27.308
800	5.436	5.367	34.619	143.0	1.387	27.338
900	5.149	5.074	34.665	151.4	1.468	27.410
1000	5.110	5.026	34.744	163.4	1.544	27.479
1500	4.196	4.073	34.999	269.5	1.841	27.790
2000	3.563	3.402	34.975	285.7	2.066	27.842

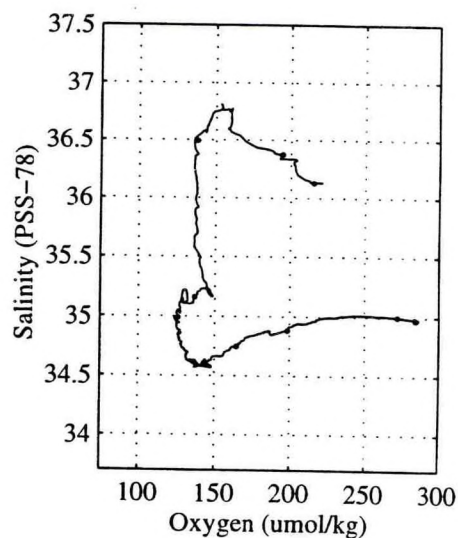
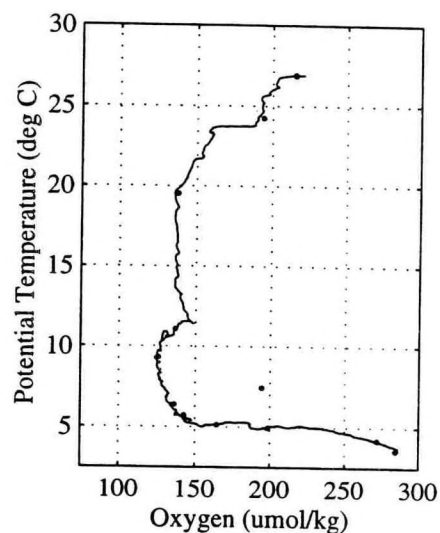
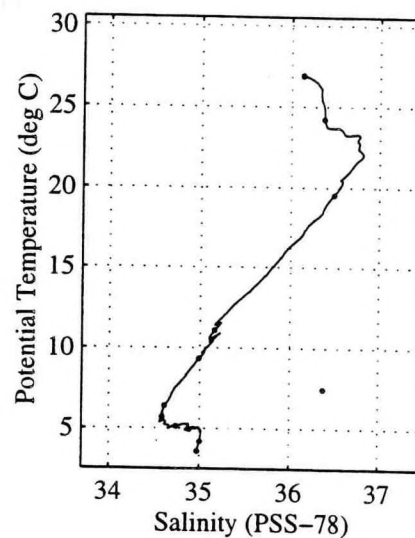
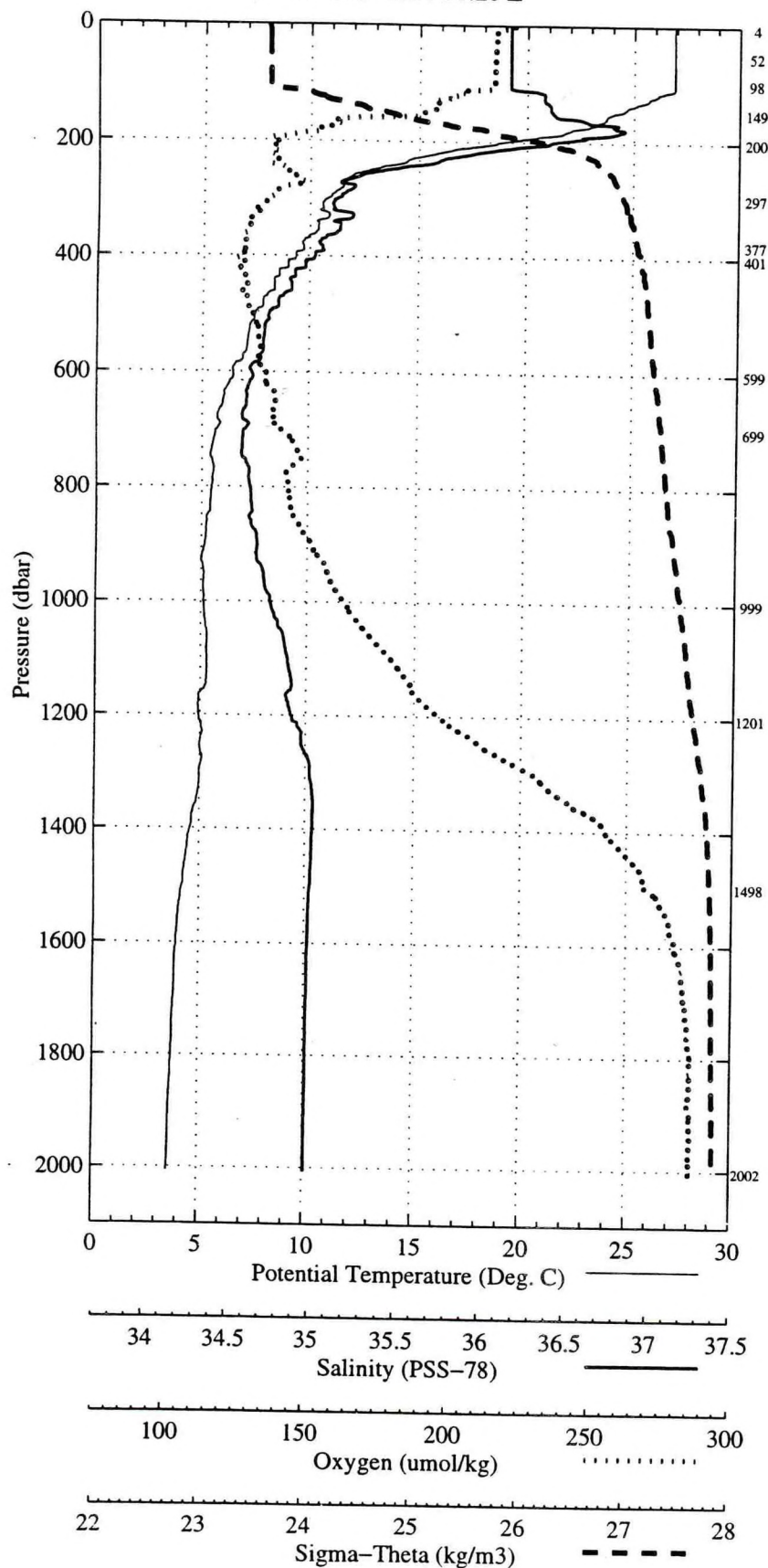
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2003	24	3.563	3.402	34.973	284.1
1498	1	4.200	4.078	35.000	271.7
1201	2	4.945	4.843	34.884	198.5
1000	3	5.128	5.043	34.745	164.3
700	4	5.693	5.632	34.592	143.0
600	5	6.387	6.332	34.614	136.8
378	6	7.449	7.411	36.375 *	194.4
401	12	9.329	9.284	34.989	126.1
298	13	11.076	11.039	35.160	137.0
200	14	19.532	19.495	36.492 *	138.2
149	15	24.230	24.198	36.373	194.2
99	16	26.914	26.891	36.130	215.0
52	17	26.902	26.890	36.129	215.0
4	18	26.876	26.875	36.130	215.0

# NBC-3 R/V SEWARD JOHNSON

CTD Station 14 (00014)

Latitude 9.745 N Longitude 53.777 W

07-Feb-2000 06:20 Z



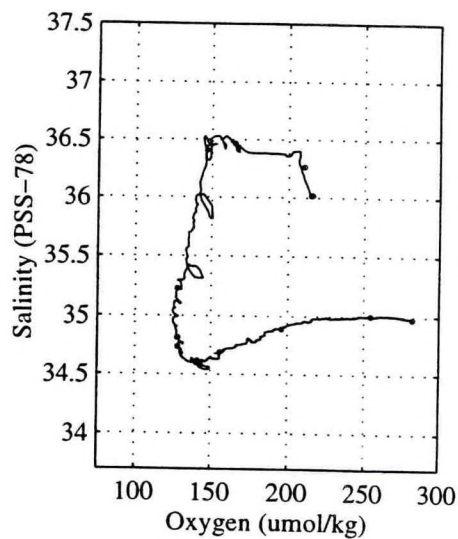
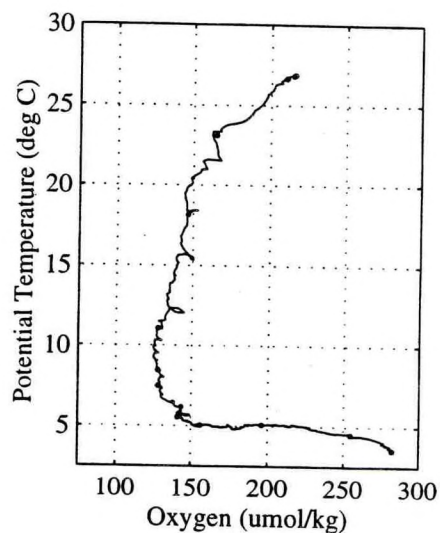
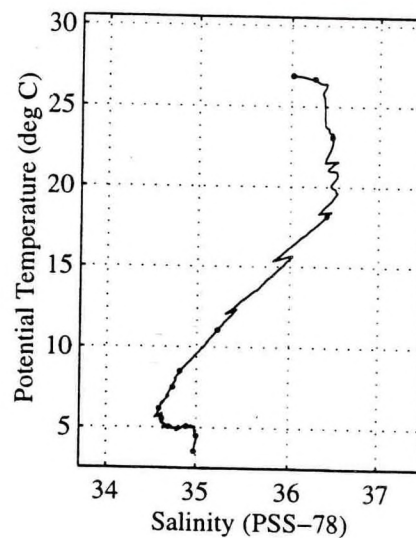
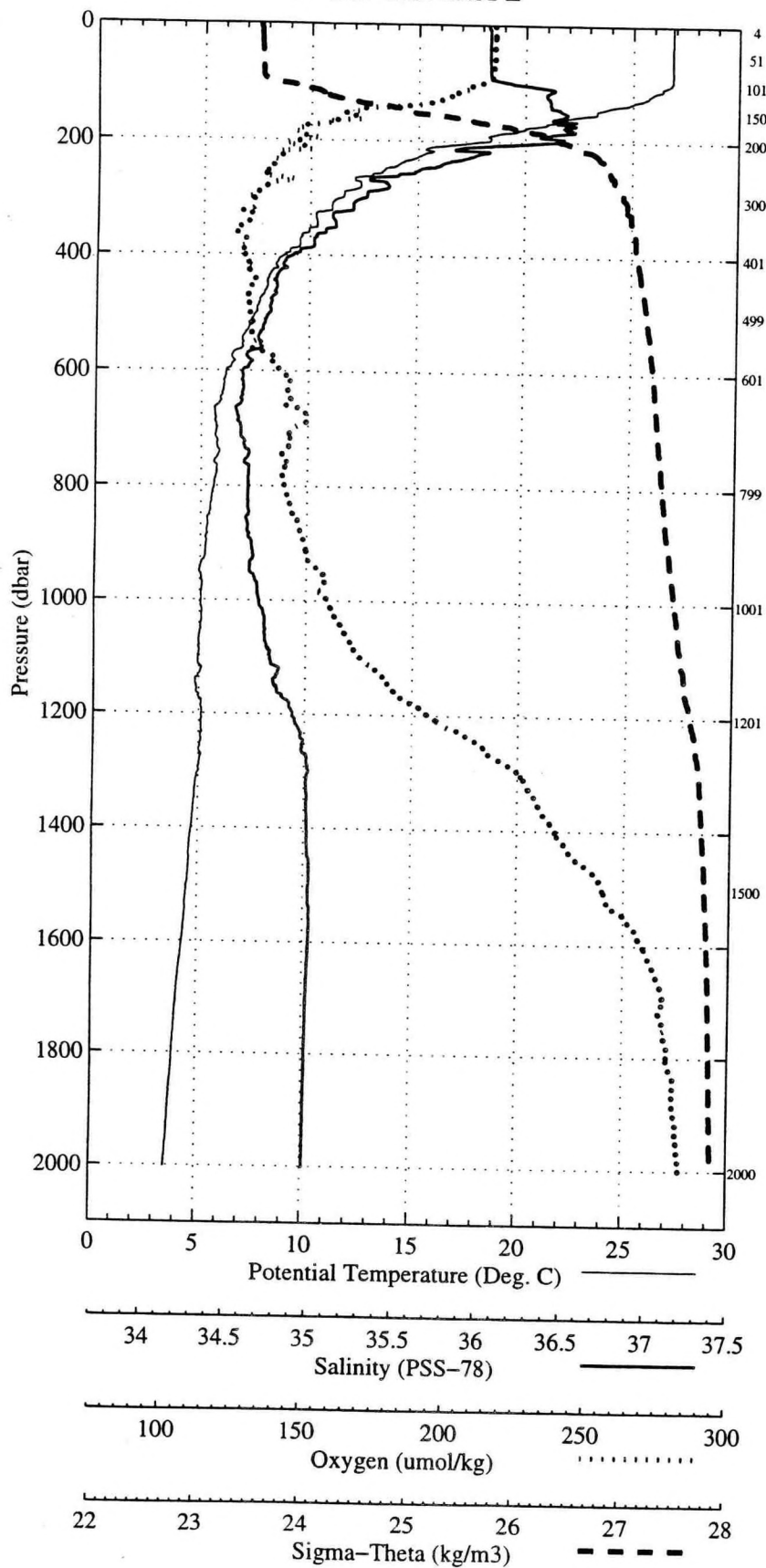
NBC-3 R/V SEWARD JOHNSON  
CTD Station 15 (00015)  
Latitude 9.000N Longitude 52.745W  
07-Feb-2000 15:31Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.863	26.862	36.017	214.5	0.004	23.530
10	26.868	26.865	36.026	214.7	0.043	23.537
20	26.869	26.864	36.027	214.4	0.087	23.538
30	26.868	26.861	36.026	214.4	0.131	23.540
40	26.858	26.849	36.026	214.3	0.174	23.544
50	26.857	26.845	36.026	214.3	0.218	23.546
60	26.858	26.844	36.026	214.2	0.261	23.547
70	26.859	26.843	36.027	213.9	0.305	23.549
80	26.861	26.843	36.029	213.9	0.349	23.551
90	26.859	26.838	36.036	213.6	0.392	23.559
100	26.780	26.758	36.154	210.1	0.436	23.674
110	26.405	26.380	36.402	206.9	0.477	23.982
120	25.773	25.746	36.357	199.4	0.516	24.147
130	25.074	25.045	36.378	194.5	0.553	24.380
140	23.977	23.948	36.384	181.7	0.588	24.716
150	23.349	23.318	36.464	165.3	0.619	24.963
160	21.799	21.768	36.406	165.9	0.648	25.362
170	20.998	20.965	36.478	157.2	0.673	25.640
180	19.829	19.796	36.513	145.9	0.695	25.980
190	18.425	18.391	36.337	145.7	0.715	26.208
200	18.190	18.155	36.410	146.0	0.733	26.323
250	13.405	13.369	35.607	135.2	0.807	26.796
300	11.426	11.388	35.282	129.9	0.870	26.931
350	10.341	10.299	35.118	127.0	0.927	27.000
400	8.806	8.763	34.868	127.3	0.983	27.059
450	8.033	7.987	34.772	130.9	1.036	27.104
500	7.495	7.445	34.731	129.2	1.086	27.151
550	6.958	6.905	34.686	130.9	1.136	27.192
600	6.171	6.117	34.580	140.5	1.183	27.213
650	5.932	5.875	34.577	143.1	1.230	27.241
700	5.726	5.665	34.572	144.3	1.275	27.264
750	5.720	5.655	34.608	140.7	1.320	27.294
800	5.613	5.544	34.617	141.9	1.363	27.316
900	5.256	5.180	34.639	148.8	1.448	27.377
1000	5.049	4.965	34.686	157.2	1.526	27.440
1500	4.480	4.354	34.999	255.0	1.834	27.761
2000	3.538	3.377	34.976	282.9	2.069	27.846

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2000	24	3.542	3.381	34.975	282.2
1501	1	4.494	4.368	35.001	254.5
1201	2	5.080	4.977	34.889 *	195.9
1001	3	5.052	4.968	34.689	156.0
800	4	5.531	5.462	34.616	141.0
601	5	6.153	6.099	34.581	143.3
500	6	7.482	7.433	34.734	128.0
401	12	8.472	8.430	34.814	127.7
301	13	11.067	11.029	35.226	127.7
201	14	18.165	18.130	36.407 *	146.6
151	15	23.107	23.076	36.467 *	164.8
101	16	26.682	26.659	36.265 *	209.8
51	17	26.861	26.849	36.018	214.5
5	18	26.894	26.893	36.019	215.4



NBC-3 R/V SEWARD JOHNSON  
 CTD Station 15 (00015)  
 Latitude 9.000 N Longitude 52.745 W  
 07-Feb-2000 15:31 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 16 (00016)  
Latitude 7.787N Longitude 52.565W  
07-Feb-2000 23:07Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	27.252	27.252	36.105	220.9	0.004	23.471
10	27.265	27.262	36.107	214.3	0.044	23.471
20	27.267	27.262	36.108	214.4	0.088	23.472
30	27.203	27.196	36.103	214.2	0.132	23.491
40	27.109	27.100	36.098	214.1	0.176	23.518
50	27.086	27.075	36.099	214.1	0.220	23.527
60	27.007	26.993	36.111	213.8	0.264	23.563
70	26.993	26.976	36.118	213.9	0.307	23.575
80	27.004	26.985	36.129	213.8	0.351	23.581
90	26.206	26.185	36.278	201.1	0.393	23.948
100	25.714	25.692	36.269	192.6	0.432	24.096
110	24.133	24.110	36.290	176.8	0.468	24.594
120	23.436	23.411	36.405	172.7	0.500	24.889
130	20.946	20.921	36.203	168.0	0.529	25.440
140	18.138	18.114	35.894	176.8	0.552	25.936
150	17.216	17.191	35.823	172.8	0.572	26.108
160	14.162	14.138	35.586	146.8	0.589	26.617
170	13.047	13.024	35.390	153.8	0.603	26.696
180	12.629	12.605	35.324	156.5	0.617	26.728
190	12.315	12.289	35.252	157.1	0.630	26.735
200	11.514	11.488	35.118	158.7	0.643	26.783
250	10.785	10.754	35.037	155.2	0.707	26.854
300	10.238	10.202	34.985	149.2	0.769	26.912
350	10.041	10.000	34.985	142.3	0.829	26.948
400	9.224	9.179	34.891	137.5	0.887	27.012
450	8.735	8.686	34.828	136.7	0.943	27.041
500	7.501	7.451	34.689	138.6	0.996	27.117
550	6.654	6.603	34.615	142.6	1.046	27.176
600	6.231	6.177	34.597	139.9	1.094	27.218
650	5.885	5.828	34.576	142.5	1.140	27.246
700	5.609	5.549	34.561	144.7	1.185	27.270
750	5.491	5.427	34.574	143.4	1.229	27.295
800	5.152	5.086	34.571	148.3	1.272	27.333
900	4.896	4.823	34.620	155.7	1.353	27.403
1000	4.885	4.802	34.714	167.0	1.428	27.481
1500	4.337	4.213	35.002	267.0	1.720	27.779
2000	3.513	3.353	34.973	285.1	1.954	27.845

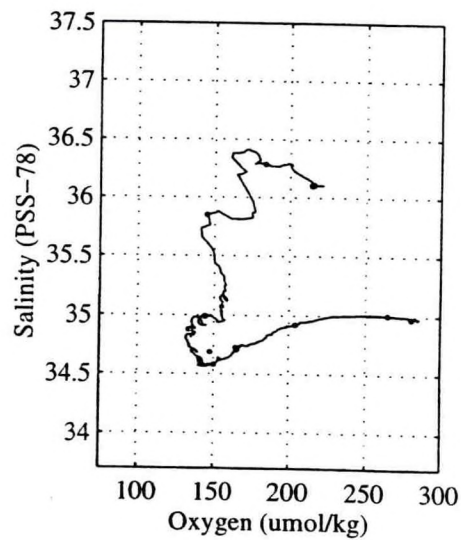
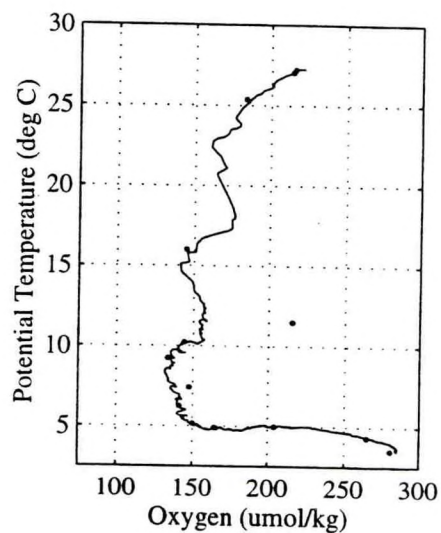
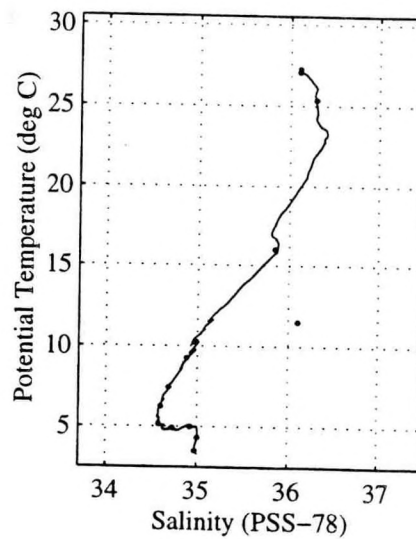
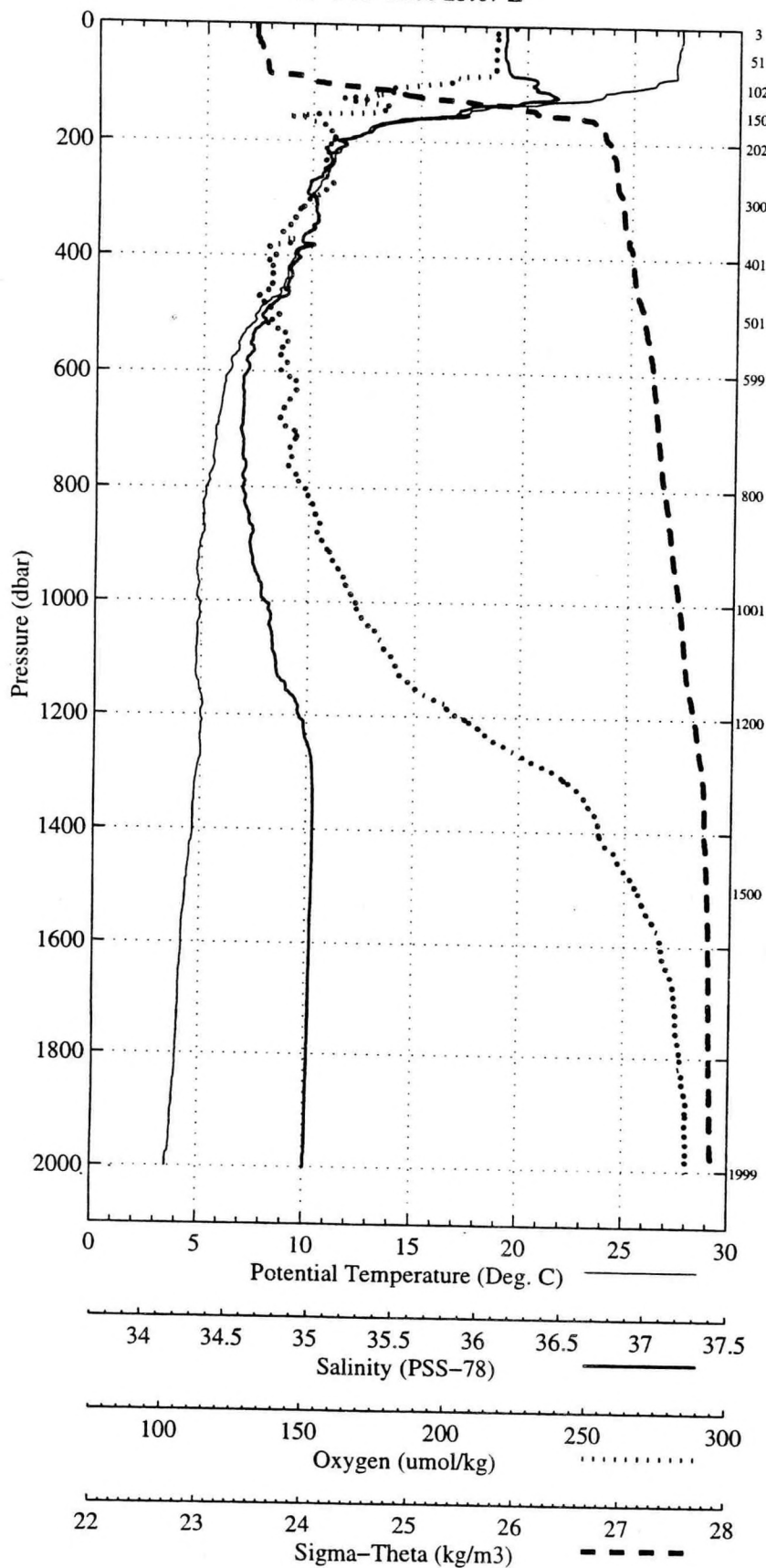
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2000	24	3.514	3.354	34.975	280.7
1501	1	4.331	4.207	35.005	264.7
1201	2	4.981	4.879	34.922	203.9
1001	3	4.917	4.834	34.724	164.5
801	4	5.144	5.077	34.578	150.0
600	5	6.231	6.177	34.599	141.1
502	6	7.426	7.377	34.685	147.5
401	12	9.242	9.197	34.880 *	133.4
301	13	10.242	10.206	34.987	144.2
202	14	11.504	11.478	36.103 *	214.9
151	15	16.017	15.993	35.850 *	144.8
102	16	25.366	25.343	36.286 *	183.7
51	17	27.049	27.037	36.103 *	213.8
4	18	27.233	27.232	36.108	215.2

# NBC-3 R/V SEWARD JOHNSON

CTD Station 16 (00016)

Latitude 7.787 N Longitude 52.565 W

07-Feb-2000 23:07 Z



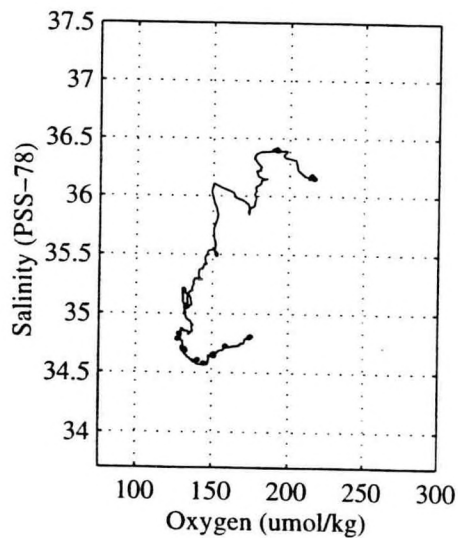
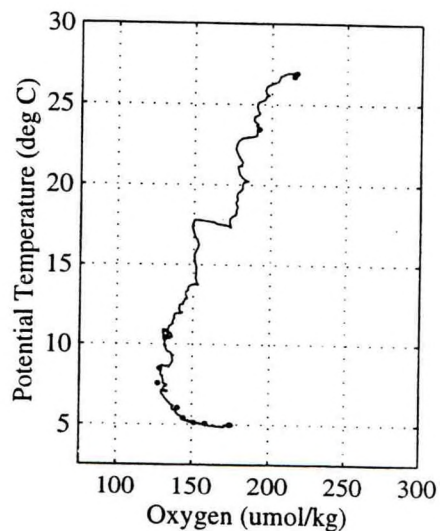
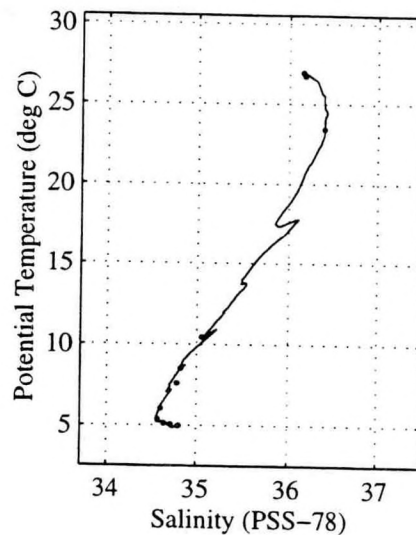
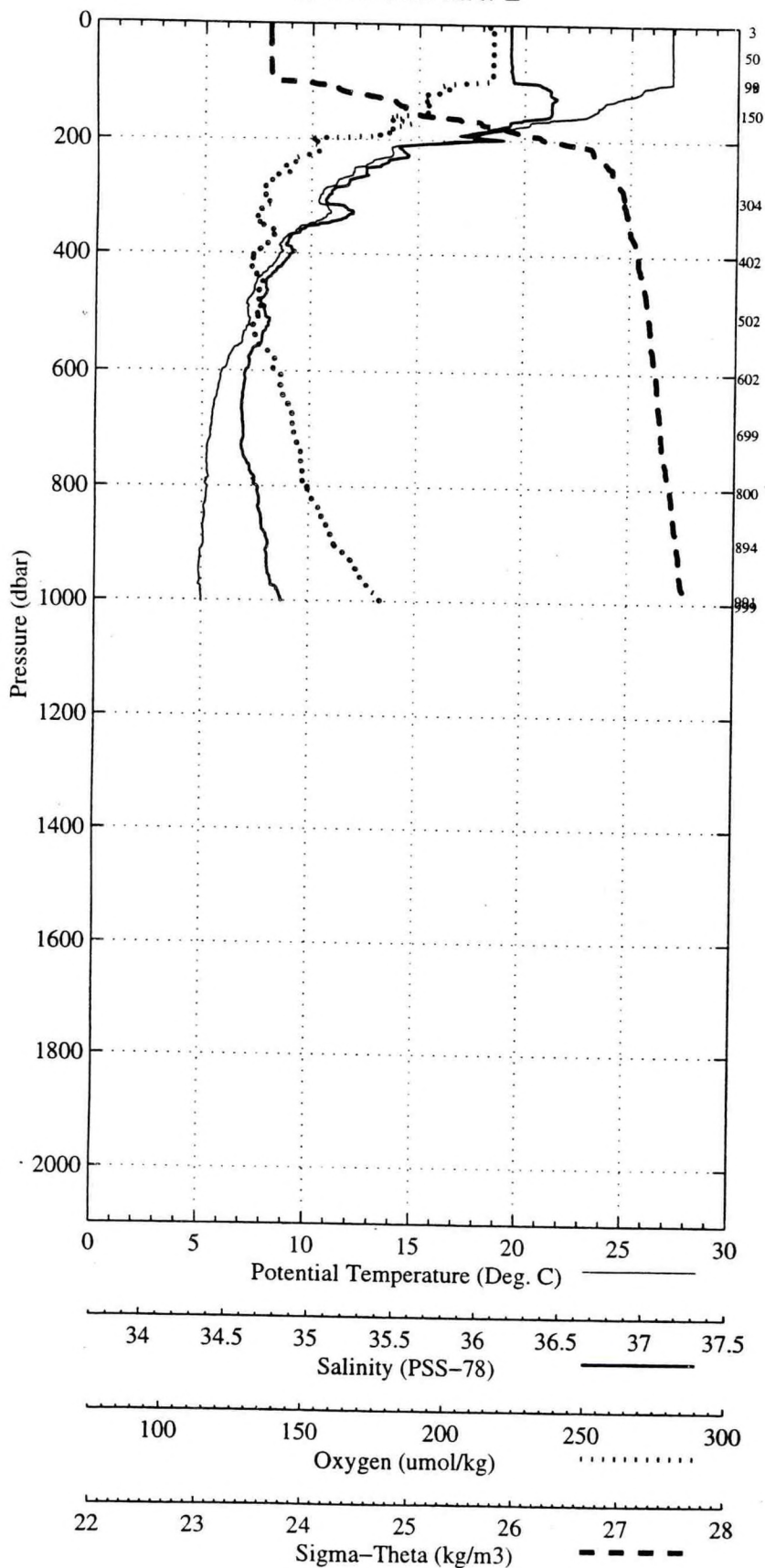


NBC-3 R/V SEWARD JOHNSON  
CTD Station 17 (00017)  
Latitude 8.151N Longitude 54.038W  
08-Feb-2000 11:47Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.915	26.912	36.145	213.5	0.038	23.612
20	26.917	26.913	36.146	213.7	0.081	23.613
30	26.916	26.909	36.146	213.7	0.124	23.615
40	26.921	26.912	36.146	213.7	0.167	23.615
50	26.929	26.917	36.146	213.7	0.210	23.614
60	26.933	26.919	36.147	213.6	0.253	23.615
70	26.937	26.921	36.151	213.6	0.296	23.618
80	26.934	26.916	36.148	213.6	0.339	23.617
90	26.944	26.923	36.157	213.5	0.382	23.622
100	26.736	26.713	36.224	205.5	0.425	23.741
110	25.556	25.532	36.378	197.7	0.464	24.229
120	25.125	25.099	36.389	191.5	0.501	24.371
130	24.229	24.202	36.408	189.3	0.535	24.658
140	23.650	23.621	36.395	191.1	0.567	24.821
150	23.304	23.272	36.395	190.6	0.599	24.924
160	22.473	22.441	36.353	177.4	0.629	25.132
170	20.254	20.222	36.145	184.4	0.655	25.586
180	19.105	19.072	36.042	178.1	0.679	25.809
190	17.913	17.880	35.887	173.7	0.701	25.990
200	17.380	17.346	36.041	149.1	0.720	26.239
250	11.998	11.965	35.289	142.4	0.793	26.828
300	10.433	10.397	35.070	134.0	0.854	26.944
350	9.879	9.839	35.011	132.9	0.912	26.995
400	8.594	8.551	34.855	130.0	0.967	27.083
450	7.488	7.444	34.706	133.5	1.019	27.131
500	7.099	7.051	34.701	131.9	1.068	27.183
550	6.831	6.780	34.682	131.4	1.116	27.206
600	5.902	5.849	34.588	139.0	1.162	27.253
650	5.570	5.515	34.567	141.6	1.207	27.278
700	5.387	5.328	34.576	144.3	1.250	27.307
750	5.207	5.145	34.581	147.6	1.292	27.334
800	5.215	5.148	34.660	149.5	1.333	27.396
900	5.071	4.996	34.727	158.9	1.408	27.468
1000	4.977	4.893	34.805	175.1	1.478	27.543

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1000	24	4.978	4.894	34.807	175.1
991	1	4.976	4.893	34.800	174.4
895	2	5.064	4.989	34.723	158.7
801	3	5.121	5.055	34.642	151.4
700	4	5.390	5.331	34.576	144.6
602	5	6.049	5.996	34.606	140.7
503	6	7.590	7.540	34.787	127.7
403	12	8.508	8.465	34.828	128.7
305	13	10.426	10.389	35.054 *	133.3
99	14	16.842	NaN	NaN *	NaN
150	15	23.440	23.409	36.395 *	192.0
99	16	26.705	26.682	36.174 *	214.7
50	17	26.929	26.917	36.151	216.2
4	18	26.918	26.917	36.152	216.2

NBC-3 R/V SEWARD JOHNSON  
 CTD Station 17 (00017)  
 Latitude 8.151 N Longitude 54.038 W  
 08-Feb-2000 11:47 Z



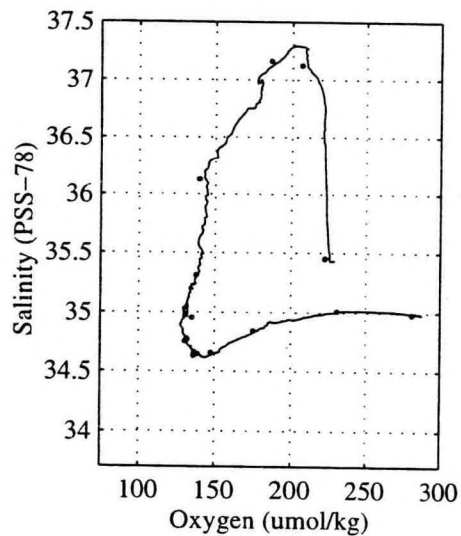
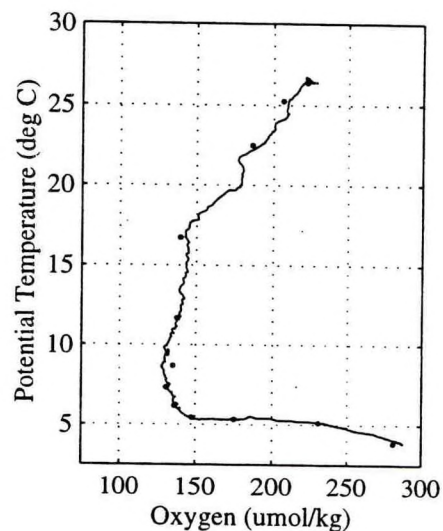
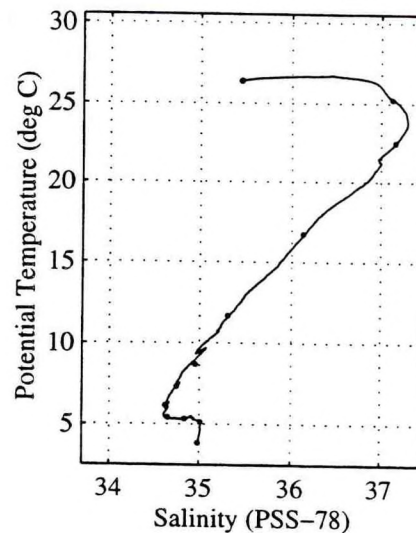
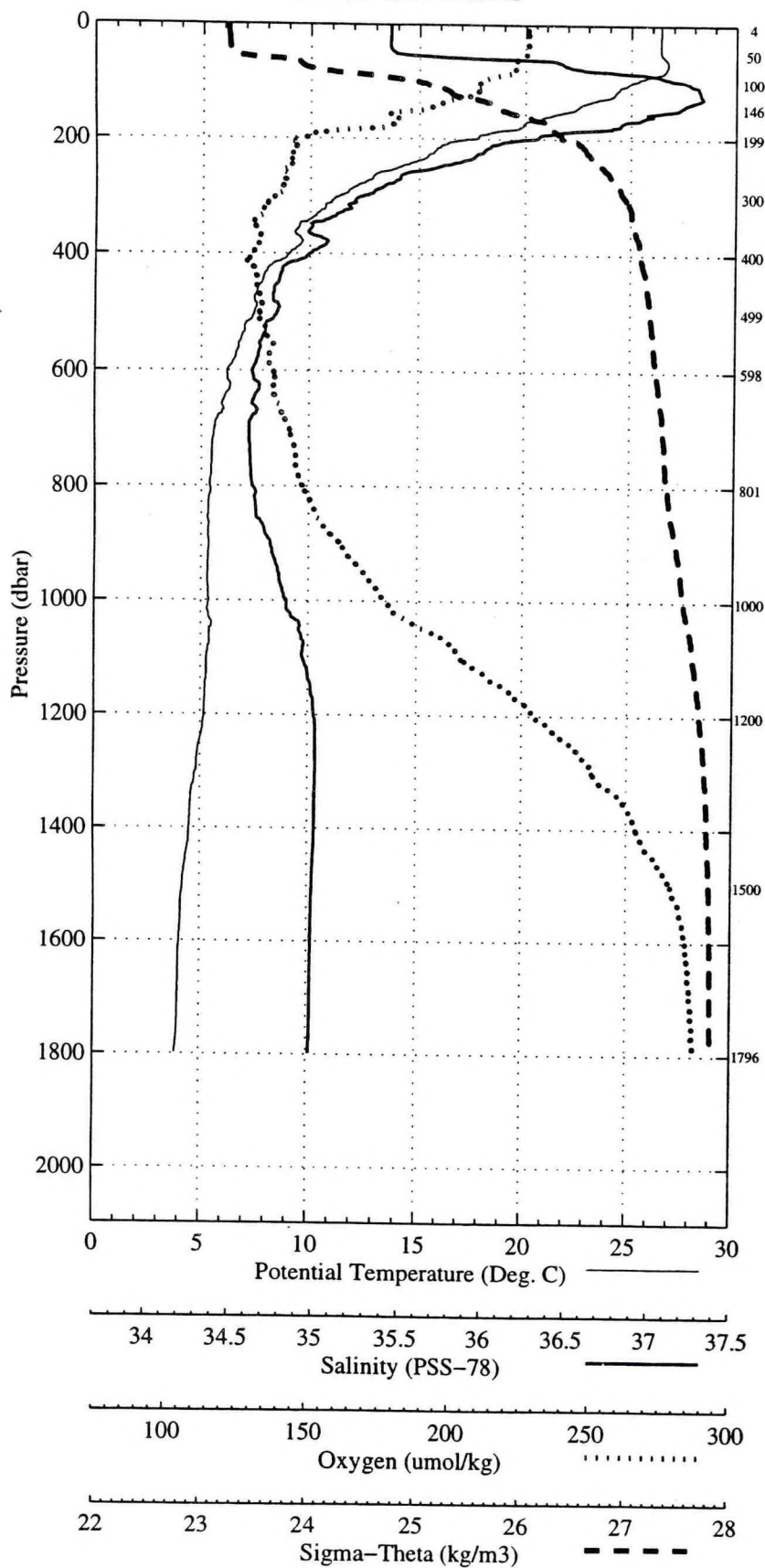
NBC-3 R/V SEWARD JOHNSON  
CTD Station 18 (00018)  
Latitude 3.000N Longitude 58.917W  
12-Feb-2000 17:51Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.392	26.392	35.430	228.9	0.005	23.237
10	26.397	26.395	35.431	225.8	0.046	23.237
20	26.390	26.386	35.430	226.0	0.093	23.240
30	26.374	26.368	35.428	226.0	0.139	23.245
40	26.372	26.363	35.429	226.0	0.185	23.248
50	26.400	26.388	35.461	225.4	0.232	23.265
60	26.676	26.663	36.168	222.3	0.277	23.712
70	26.716	26.700	36.469	221.0	0.317	23.928
80	26.591	26.572	36.685	221.4	0.356	24.132
90	25.715	25.695	37.040	214.5	0.392	24.677
100	25.025	25.003	37.192	208.9	0.423	25.006
110	24.478	24.454	37.271	209.3	0.452	25.234
120	24.253	24.228	37.284	208.2	0.480	25.313
130	23.487	23.460	37.292	201.0	0.506	25.548
140	22.671	22.643	37.198	194.1	0.530	25.715
150	22.250	22.220	37.132	187.9	0.553	25.786
160	21.128	21.097	36.996	180.1	0.575	25.998
170	20.015	19.983	36.834	179.0	0.595	26.176
180	19.714	19.681	36.762	175.8	0.614	26.201
190	18.306	18.272	36.415	153.3	0.632	26.298
200	17.664	17.630	36.283	145.9	0.650	26.356
250	14.083	14.046	35.715	141.8	0.725	26.738
300	11.389	11.350	35.279	137.6	0.789	26.936
350	9.518	9.478	34.978	131.5	0.846	27.029
400	9.027	8.983	34.966	130.1	0.900	27.102
450	7.772	7.726	34.782	131.1	0.951	27.150
500	7.444	7.394	34.778	132.6	0.999	27.195
550	6.777	6.725	34.680	135.9	1.047	27.211
600	6.199	6.145	34.632	137.3	1.093	27.250
650	6.031	5.973	34.638	138.3	1.138	27.278
700	5.601	5.541	34.615	143.2	1.181	27.313
750	5.475	5.411	34.620	145.3	1.223	27.333
800	5.390	5.322	34.633	148.0	1.265	27.355
900	5.343	5.266	34.742	160.9	1.344	27.448
1000	5.356	5.269	34.837	176.7	1.416	27.525
1500	4.170	4.048	34.996	278.1	1.692	27.791
1798	3.844	3.698	34.981	287.4	1.831	27.817

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1797	24	3.845	3.699	34.983	280.9
1500	1	4.169	NaN	NaN *	NaN
1200	2	5.121	5.017	35.011	230.6
1000	3	5.323	5.237	34.841	175.3
801	4	5.417	5.349	34.654	147.8
599	5	6.154	6.100	34.631	136.8
500	6	7.317	7.268	34.752	131.1
400	12	8.695	8.652	34.953 *	135.5
301	13	11.683	11.644	35.311	138.0
199	14	16.731	16.698	36.129 *	139.8
146	15	22.475	22.445	37.163	186.4
101	16	25.238	25.216	37.125	206.1
50	17	26.375	26.364	35.452 *	222.1
5	18	26.399	26.398	35.455	222.5



NBC-3 R/V SEWARD JOHNSON  
 CTD Station 18 (00018)  
 Latitude 13.000 N Longitude 58.917 W  
 12-Feb-2000 17:51 Z



NBC-3 R/V SEWARD JOHNSON  
 CTD Station 19 (00019)  
 Latitude 2.998N Longitude 58.584W  
 12-Feb-2000 21:22Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.447	26.447	35.532	236.5	0.005	23.296
10	26.452	26.449	35.540	224.6	0.046	23.302
20	26.452	26.447	35.540	224.6	0.091	23.304
30	26.453	26.446	35.541	224.3	0.137	23.305
40	26.454	26.445	35.543	224.3	0.183	23.308
50	26.686	26.675	35.744	230.0	0.229	23.388
60	27.458	27.444	36.809	227.0	0.270	23.944
70	26.680	26.664	36.893	225.0	0.309	24.259
80	25.580	25.563	37.167	217.5	0.343	24.813
90	25.205	25.185	37.243	218.2	0.374	24.989
100	24.694	24.673	37.262	208.4	0.403	25.161
110	23.899	23.876	37.259	195.0	0.430	25.399
120	23.223	23.198	37.248	192.9	0.455	25.591
130	21.760	21.734	37.050	177.4	0.478	25.860
140	20.625	20.598	36.891	168.9	0.499	26.053
150	19.671	19.643	36.745	165.4	0.518	26.196
160	18.816	18.788	36.623	166.9	0.536	26.325
170	18.419	18.389	36.548	162.1	0.554	26.369
180	17.245	17.215	36.320	148.3	0.570	26.484
190	16.743	16.712	36.234	148.9	0.586	26.539
200	16.248	16.216	36.161	148.8	0.602	26.600
250	13.384	13.349	35.650	131.5	0.671	26.833
300	11.076	11.039	35.259	125.4	0.732	26.977
350	9.873	9.833	35.076	125.9	0.788	27.047
400	8.859	8.816	34.935	125.2	0.841	27.104
450	8.220	8.174	34.858	126.9	0.892	27.144
500	7.655	7.604	34.816	127.4	0.941	27.195
550	6.922	6.870	34.715	130.8	0.989	27.219
600	6.591	6.535	34.692	133.4	1.035	27.247
650	6.120	6.061	34.636	138.4	1.080	27.264
700	5.972	5.909	34.639	139.7	1.125	27.287
750	5.716	5.651	34.633	142.5	1.168	27.315
800	5.543	5.474	34.634	145.5	1.211	27.337
900	5.323	5.246	34.679	151.9	1.293	27.401
1000	5.314	5.228	34.781	162.5	1.369	27.485
1500	4.254	4.131	35.001	277.2	1.651	27.786
2000	3.588	3.427	34.973	289.3	1.885	27.839

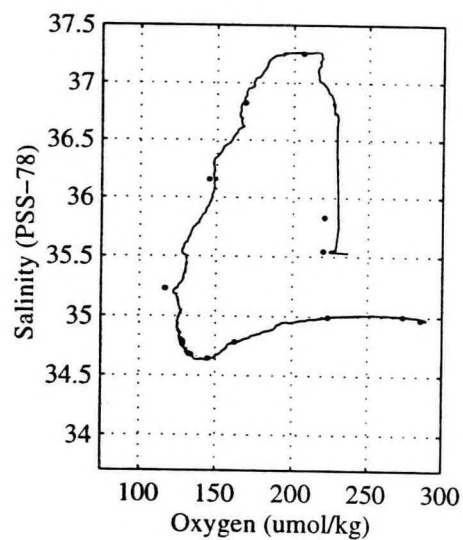
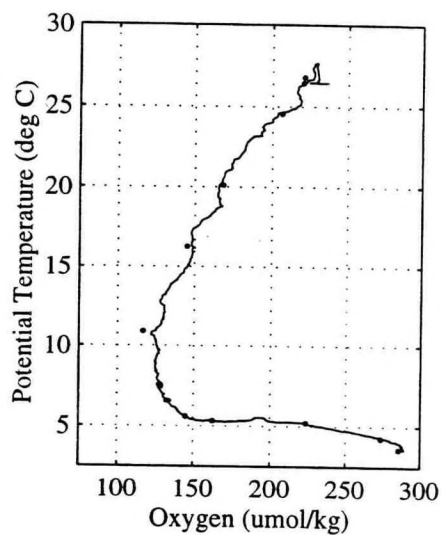
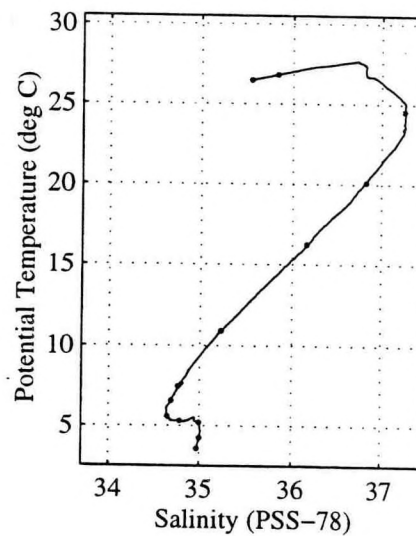
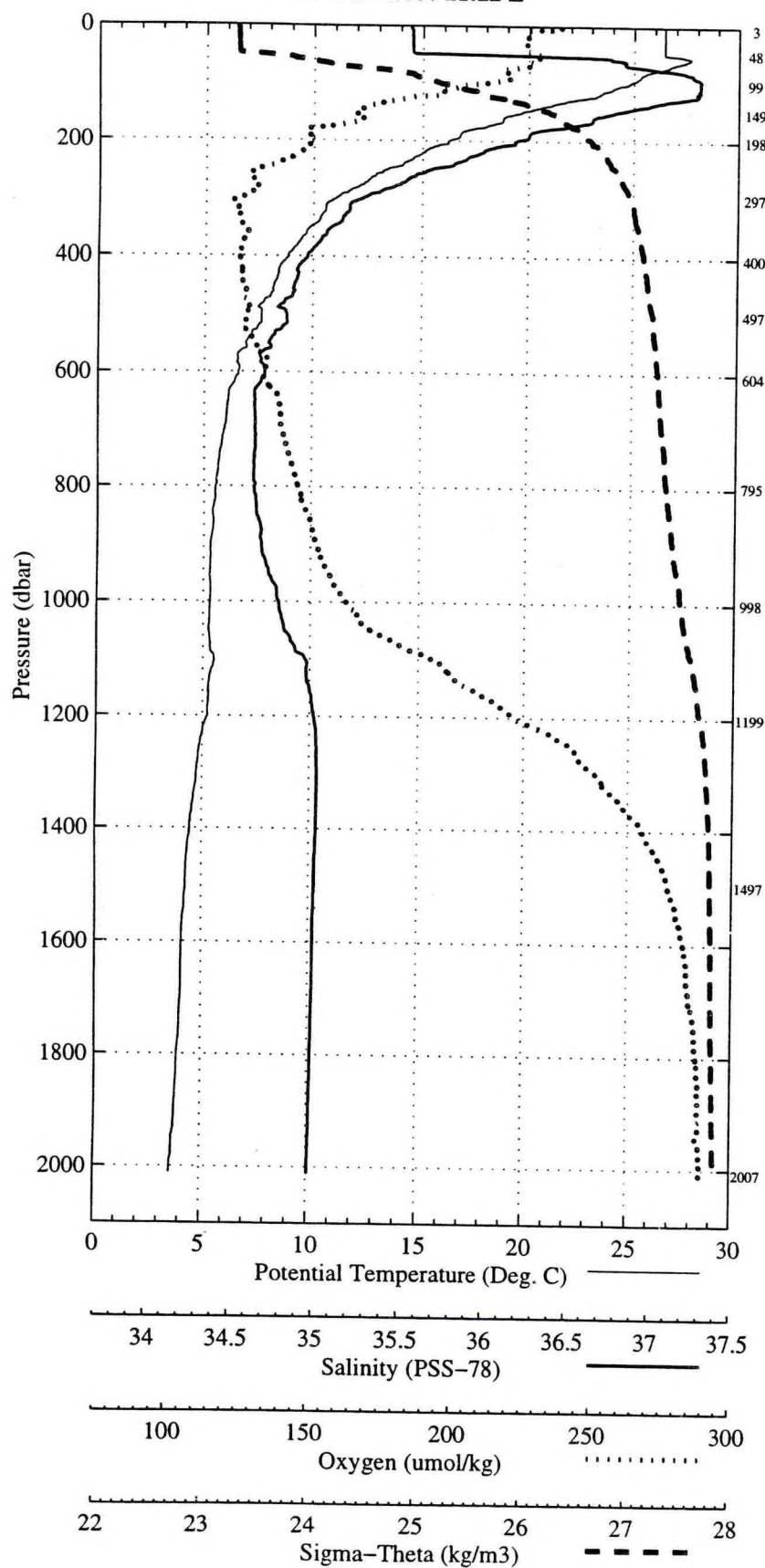
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2007	24	3.587	3.425	34.972	286.0
1497	1	4.252	4.129	35.001	273.8
1199	2	5.207	5.103	34.994	223.4
999	3	5.308	5.222	34.782	162.6
796	4	5.595	5.526	34.644	145.0
605	5	6.566	6.510	34.684	132.2
498	6	7.456	7.407	34.761	128.3
401	12	8.817	NaN	NaN *	NaN
298	13	10.902	10.865	35.228 *	116.4
198	14	16.266	16.234	36.159	145.2
149	15	20.116	20.088	36.822	168.2
99	16	24.545	24.524	37.254 *	206.1
48	17	26.799	26.788	35.834	220.7
4	18	26.446	26.445	35.548	220.1

## NBC-3 R/V SEWARD JOHNSON

CTD Station 19 (00019)

Latitude 12.998 N Longitude 58.584 W

12-Feb-2000 21:22 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 20 (00020)  
Latitude 2.999N Longitude 58.250W  
13-Feb-2000 00:55Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.256	26.254	35.491	225.4	0.041	23.327
20	26.265	26.261	35.494	225.4	0.086	23.328
30	26.266	26.259	35.493	225.4	0.132	23.328
40	26.270	26.261	35.495	225.3	0.178	23.329
50	26.317	26.306	35.538	225.1	0.223	23.349
60	26.577	26.563	35.847	223.0	0.268	23.501
70	27.078	27.062	36.309	225.8	0.311	23.692
80	26.222	26.204	36.901	221.6	0.350	24.412
90	25.616	25.596	37.094	217.7	0.383	24.749
100	25.091	25.069	37.200	211.5	0.414	24.992
110	24.302	24.279	37.240	202.4	0.443	25.264
120	23.854	23.828	37.298	200.4	0.469	25.443
130	22.960	22.933	37.234	190.1	0.494	25.658
140	22.288	22.259	37.134	182.9	0.517	25.776
150	21.075	21.046	36.954	168.9	0.539	25.979
160	19.585	19.556	36.708	165.2	0.559	26.191
170	18.415	18.385	36.460	155.4	0.577	26.303
180	17.750	17.719	36.414	154.8	0.594	26.434
190	16.709	16.678	36.240	150.8	0.610	26.551
200	16.055	16.023	36.121	146.0	0.625	26.613
250	13.227	13.192	35.622	136.0	0.694	26.844
300	11.256	11.219	35.287	126.3	0.755	26.967
350	9.981	9.940	35.078	116.8	0.812	27.031
400	9.302	9.257	34.980	123.7	0.867	27.068
450	8.328	8.281	34.839	127.0	0.919	27.112
500	7.957	7.905	34.812	128.7	0.970	27.148
550	7.519	7.465	34.771	129.5	1.020	27.180
600	6.997	6.939	34.706	132.3	1.069	27.204
650	6.665	6.604	34.681	134.1	1.117	27.230
700	6.336	6.272	34.679	136.5	1.163	27.272
750	6.294	6.225	34.711	139.3	1.207	27.304
800	5.842	5.771	34.664	142.9	1.251	27.325
900	5.616	5.537	34.682	148.9	1.335	27.369
1000	6.028	5.936	34.873	164.3	1.415	27.473
1500	4.341	4.217	35.009	277.5	1.705	27.784
2000	3.317	3.159	34.965	287.9	1.929	27.857

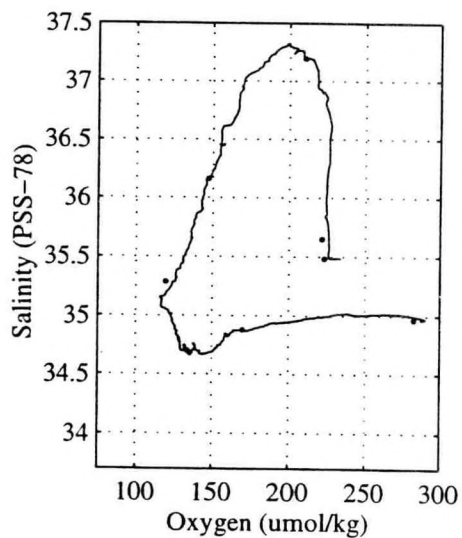
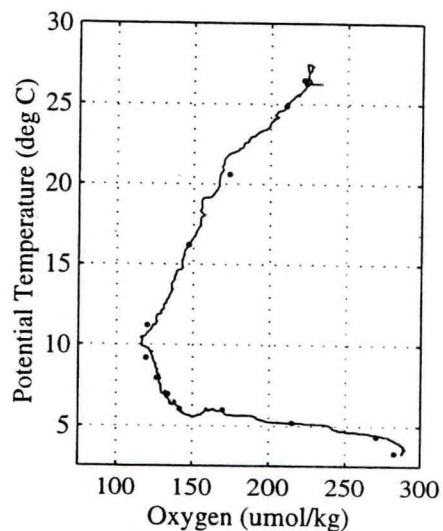
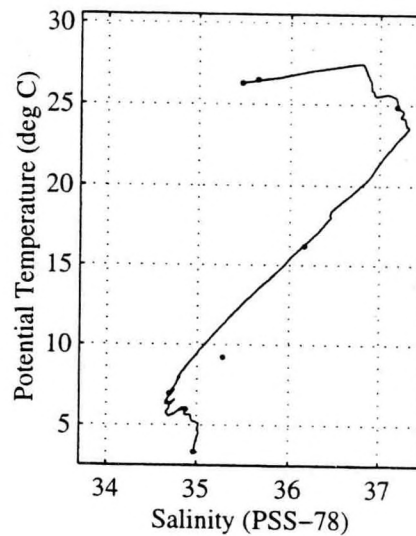
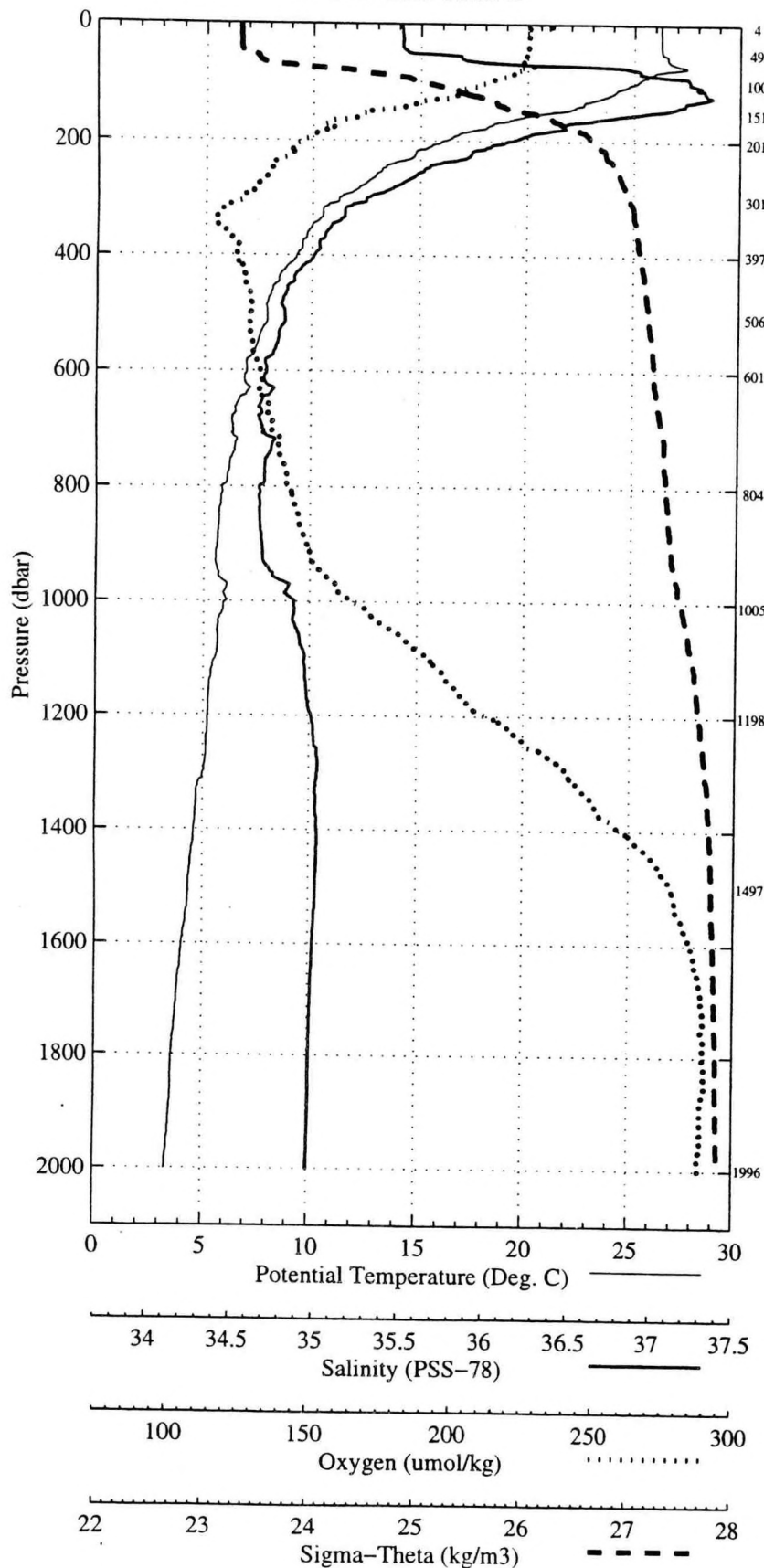
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1997	24	3.323	3.166	34.967	282.8
1497	1	4.351	NaN	NaN *	270.5
1199	2	5.198	NaN	NaN *	214.8
1005	3	5.983	5.891	34.878	170.0
804	4	6.049	NaN	NaN *	141.8
602	5	6.951	6.893	34.698	134.0
506	6	7.982	NaN	NaN *	127.0
398	12	9.204	9.160	35.286 *	119.8
301	13	11.204	NaN	NaN *	120.4
202	14	16.198	16.166	36.160 *	147.2
152	15	20.597	NaN	NaN *	174.1
101	16	24.852	24.830	37.195 *	209.9
49	17	26.484	26.473	35.652 *	221.0
4	18	26.259	26.258	35.486	222.6

NBC-3 R/V SEWARD JOHNSON

CTD Station 20 (00020)

Latitude 12.999 N Longitude 58.250 W

13-Feb-2000 00:55 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 21 (00021)  
Latitude 2.998N Longitude 57.918W  
13-Feb-2000 04:54Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.163	26.161	35.269	225.4	0.042	23.189
20	26.163	26.158	35.271	225.4	0.089	23.192
30	26.166	26.159	35.271	225.4	0.136	23.192
40	26.347	26.338	35.477	228.1	0.183	23.292
50	26.554	26.542	35.757	221.9	0.227	23.440
60	26.850	26.836	36.174	222.4	0.271	23.662
70	25.957	25.942	36.882	221.0	0.310	24.480
80	25.291	25.274	36.871	214.9	0.344	24.679
90	24.268	24.249	36.976	197.2	0.374	25.072
100	23.674	23.653	37.099	191.1	0.402	25.342
110	23.206	23.183	37.200	186.7	0.427	25.558
120	22.731	22.706	37.238	192.2	0.451	25.726
130	21.712	21.686	37.076	180.8	0.474	25.894
140	20.584	20.558	36.888	170.6	0.495	26.061
150	19.617	19.590	36.725	159.4	0.514	26.196
160	18.880	18.851	36.603	158.4	0.532	26.294
170	17.949	17.920	36.426	151.1	0.550	26.393
180	16.706	16.676	36.158	146.3	0.566	26.489
190	15.959	15.928	36.031	143.9	0.582	26.565
200	15.265	15.234	35.910	141.8	0.597	26.629
250	12.984	12.949	35.579	128.2	0.664	26.860
300	11.059	11.021	35.241	116.2	0.724	26.966
350	10.451	10.409	35.141	114.0	0.781	26.999
400	9.915	9.868	35.078	124.9	0.837	27.044
450	8.927	8.878	34.931	121.9	0.892	27.092
500	8.466	8.413	34.888	125.7	0.944	27.131
550	7.968	7.911	34.818	128.6	0.995	27.153
600	7.533	7.473	34.765	131.2	1.045	27.175
650	7.218	7.154	34.745	132.2	1.095	27.206
700	7.054	6.986	34.777	135.3	1.142	27.255
750	6.490	6.421	34.715	138.1	1.188	27.282
800	6.194	6.121	34.696	140.2	1.233	27.307
900	5.984	5.902	34.736	146.3	1.320	27.367
1000	6.039	5.947	34.889	167.7	1.399	27.483
1500	4.398	4.273	35.007	268.7	1.693	27.776
2000	3.470	3.310	34.974	286.3	1.922	27.850

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2002	24	3.466	3.306	34.975	285.4
1500	1	4.420	4.295	35.010	267.5
1199	2	5.180	5.076	34.976	215.4
1000	3	5.973	5.882	34.898	173.2
799	4	6.194	NaN	NaN *	142.1
601	5	7.466	NaN	NaN *	131.2
500	6	8.512	8.459	34.892	126.8
400	12	9.917	9.870	35.075	124.5
301	13	11.122	11.084	35.244	114.5
200	14	15.314	15.283	35.916	141.6
151	15	20.114	20.086	36.797	166.6
101	16	23.526	23.505	37.108 *	191.6
50	17	26.548	26.537	35.753	225.4
3	18	26.141	26.140	35.273	231.8

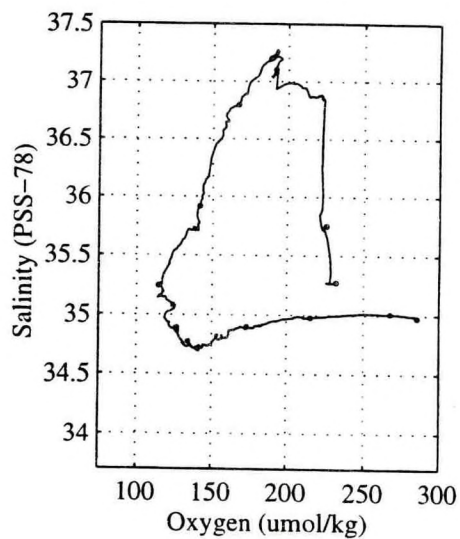
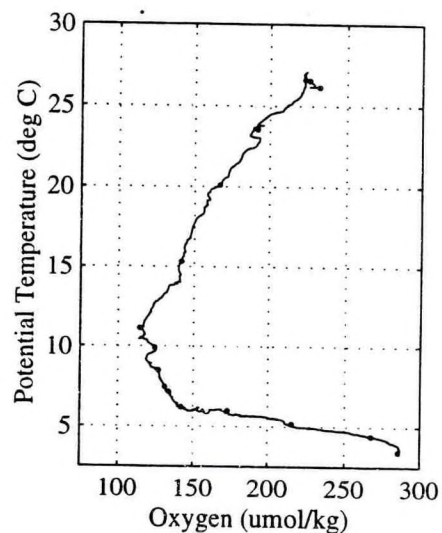
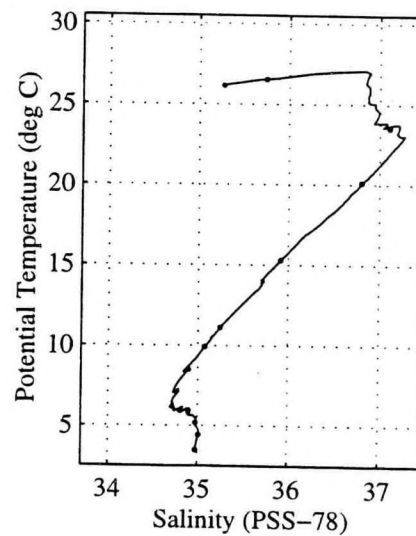
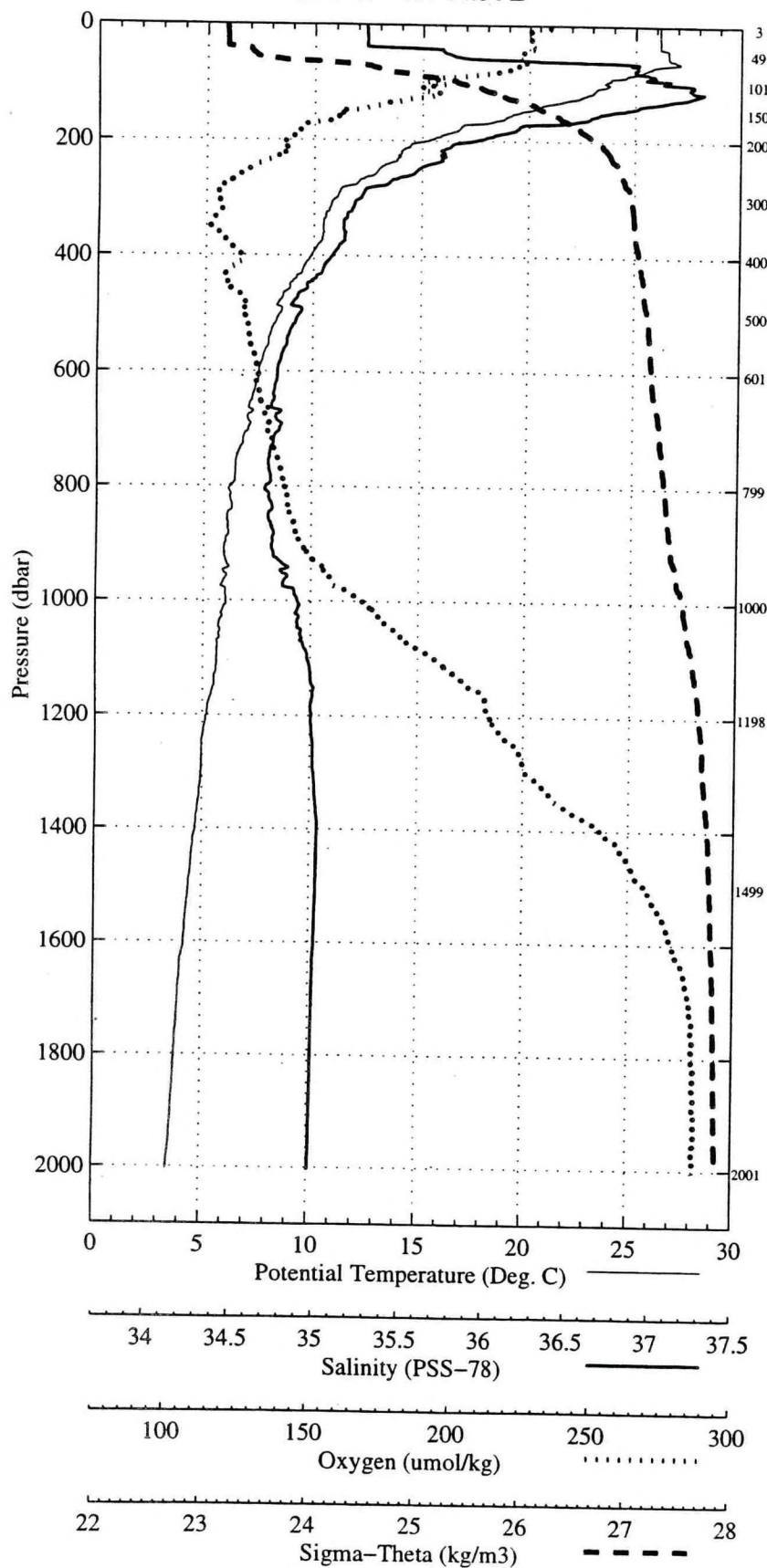


## NBC-3 R/V SEWARD JOHNSON

CTD Station 21 (00021)

Latitude 12.998 N Longitude 57.918 W

13-Feb-2000 04:54 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 22 (00022)  
Latitude 3.012N Longitude 57.587W  
13-Feb-2000 08:27Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.224	26.222	35.388	225.0	0.042	23.259
20	26.230	26.225	35.390	224.9	0.088	23.260
30	26.228	26.221	35.391	224.5	0.134	23.263
40	26.264	26.255	35.409	224.5	0.180	23.267
50	27.189	27.178	36.442	224.5	0.225	23.753
60	27.317	27.304	36.822	219.4	0.265	24.000
70	26.228	26.212	36.786	223.0	0.303	24.322
80	25.177	25.160	36.759	211.7	0.338	24.630
90	24.228	24.209	36.814	197.8	0.369	24.960
100	23.901	23.880	36.833	188.9	0.399	25.074
110	22.456	22.434	36.686	163.8	0.427	25.384
120	21.385	21.362	36.650	151.7	0.452	25.658
130	20.623	20.598	36.561	143.9	0.475	25.801
140	19.933	19.907	36.688	154.4	0.496	26.083
150	19.669	19.642	36.771	165.8	0.515	26.217
160	19.356	19.327	36.750	174.7	0.533	26.283
170	18.791	18.760	36.666	180.5	0.551	26.365
180	18.258	18.226	36.567	177.2	0.568	26.426
190	17.799	17.766	36.475	175.2	0.584	26.470
200	17.293	17.259	36.379	169.5	0.600	26.520
250	14.525	14.488	35.865	141.9	0.673	26.760
300	11.869	11.830	35.334	138.1	0.737	26.889
350	10.276	10.234	35.077	133.9	0.797	26.979
400	9.330	9.285	34.943	130.9	0.854	27.035
450	8.713	8.665	34.862	129.1	0.909	27.072
500	7.823	7.773	34.758	129.4	0.961	27.125
550	7.432	7.377	34.716	131.8	1.012	27.150
600	7.225	7.167	34.705	133.0	1.062	27.171
650	7.081	7.018	34.723	133.8	1.111	27.207
700	6.448	6.383	34.666	137.6	1.159	27.248
750	6.166	6.098	34.679	137.3	1.204	27.295
800	5.874	5.803	34.671	142.5	1.248	27.326
900	5.563	5.485	34.680	149.3	1.331	27.374
1000	5.284	5.199	34.700	157.3	1.413	27.424
1500	4.532	4.406	35.011	261.3	1.723	27.765
2000	3.535	3.375	34.977	285.6	1.956	27.847

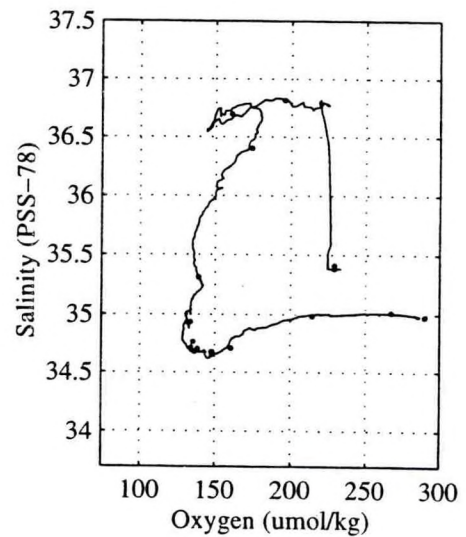
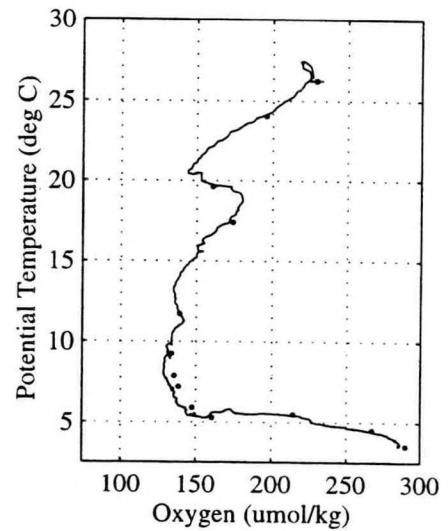
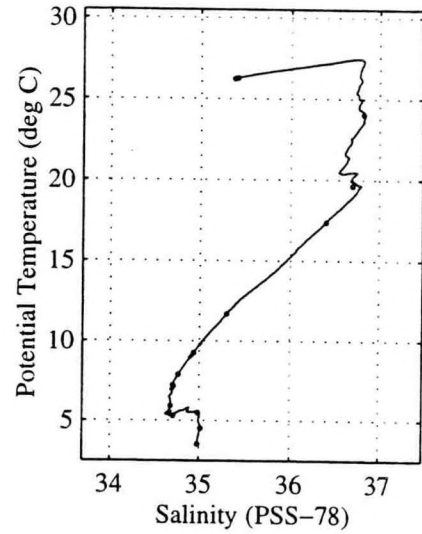
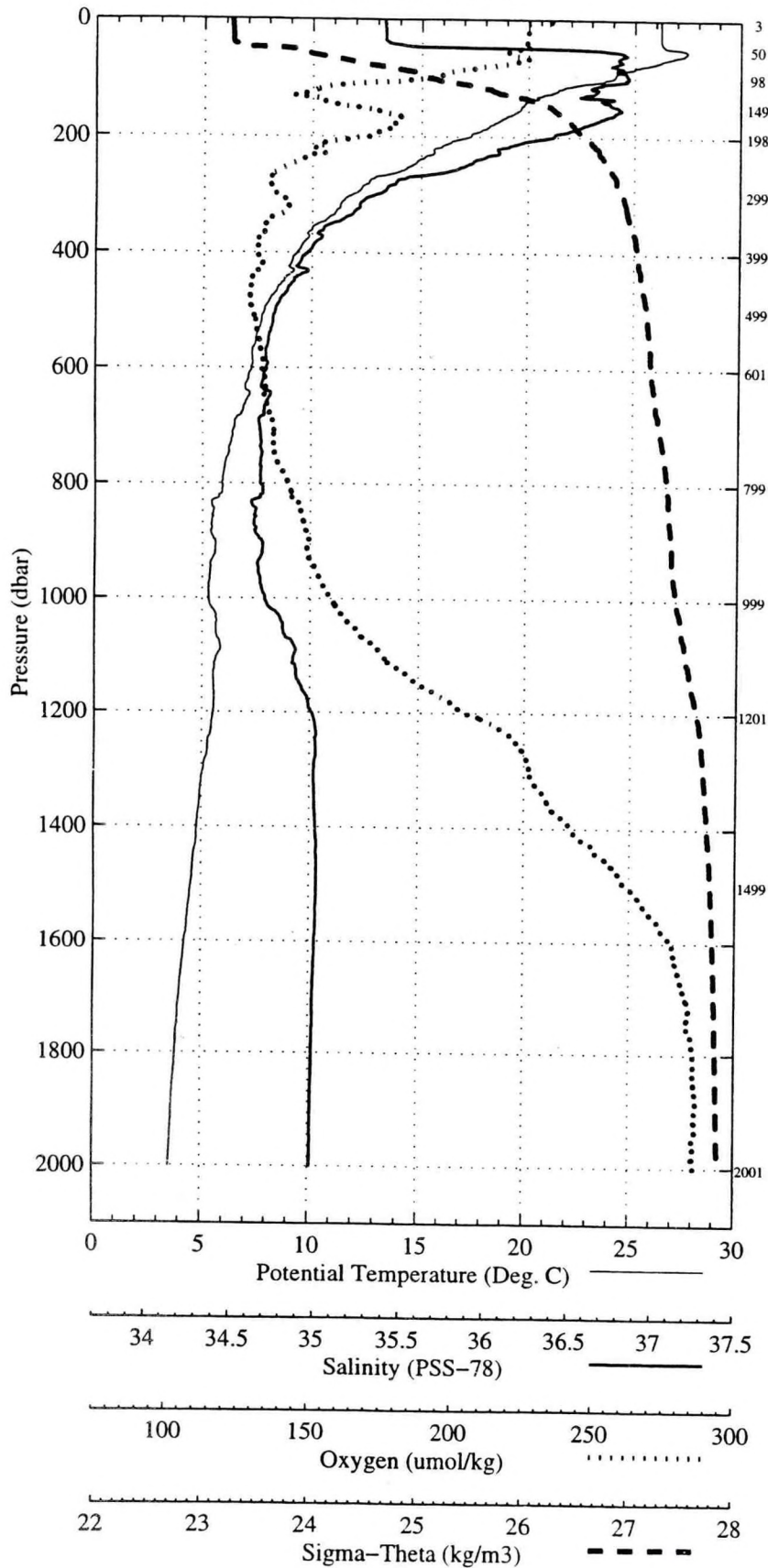
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2001	24	3.531	3.370	34.979	290.1
1500	1	4.526	4.400	35.014	267.1
1201	2	5.494	5.387	34.986	214.3
1000	3	5.292	5.206	34.705	160.8
799	4	5.906	5.835	34.674	147.7
601	5	7.198	7.139	34.700	138.3
500	6	7.876	7.825	34.762	135.4
400	12	9.255	9.210	34.936	133.6
299	13	11.697	11.658	35.308 *	139.0
199	14	17.379	17.345	36.402 *	174.4
150	15	19.627	19.599	36.696	160.7
98	16	24.034	24.013	36.817 *	195.8
51	17	26.244	26.233	35.413 *	228.9
3	18	26.203	26.202	35.382	229.0

## NBC-3 R/V SEWARD JOHNSON

CTD Station 22 (00022)

Latitude 13.012 N Longitude 57.587 W

13-Feb-2000 08:27 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 23 (00023)  
Latitude 1.251N Longitude 56.200W  
13-Feb-2000 23:45Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.407	26.407	35.383	229.4	0.005	23.196
10	26.425	26.423	35.389	225.0	0.047	23.197
20	26.501	26.497	35.486	224.8	0.093	23.247
30	26.531	26.524	35.535	224.6	0.139	23.277
40	26.541	26.531	35.549	224.3	0.185	23.286
50	26.547	26.535	35.562	224.2	0.231	23.295
60	26.697	26.683	36.025	220.0	0.276	23.598
70	25.614	25.599	36.389	191.4	0.317	24.214
80	25.163	25.145	36.787	193.2	0.352	24.656
90	24.211	24.192	36.817	178.7	0.384	24.968
100	22.679	22.659	36.791	162.3	0.412	25.399
110	21.267	21.246	36.699	153.7	0.436	25.728
120	20.709	20.686	36.709	155.7	0.459	25.889
130	20.183	20.158	36.682	156.3	0.479	26.011
140	19.355	19.330	36.677	157.2	0.499	26.226
150	18.857	18.830	36.672	174.6	0.517	26.352
160	18.687	18.659	36.644	175.8	0.534	26.374
170	18.369	18.339	36.587	172.3	0.551	26.412
180	17.827	17.796	36.500	176.8	0.567	26.481
190	17.117	17.085	36.346	170.2	0.583	26.537
200	16.327	16.294	36.187	160.5	0.599	26.601
250	12.857	12.823	35.544	137.4	0.666	26.858
300	10.972	10.935	35.206	129.7	0.727	26.955
350	10.254	10.213	35.109	128.6	0.784	27.008
400	9.037	8.993	34.917	128.4	0.839	27.062
450	8.674	8.626	34.905	129.7	0.892	27.111
500	7.931	7.880	34.783	131.0	0.944	27.129
550	7.170	7.117	34.680	135.3	0.994	27.158
600	7.060	7.002	34.699	134.1	1.044	27.189
650	6.613	6.552	34.653	134.0	1.092	27.215
700	6.091	6.028	34.598	139.4	1.139	27.239
750	5.931	5.864	34.611	142.3	1.185	27.271
800	5.784	5.714	34.626	140.6	1.230	27.302
900	5.368	5.291	34.625	146.8	1.316	27.353
1000	5.159	5.075	34.663	153.7	1.398	27.409
1500	4.739	4.610	35.013	252.6	1.727	27.744
2000	3.582	3.420	34.978	285.8	1.969	27.843

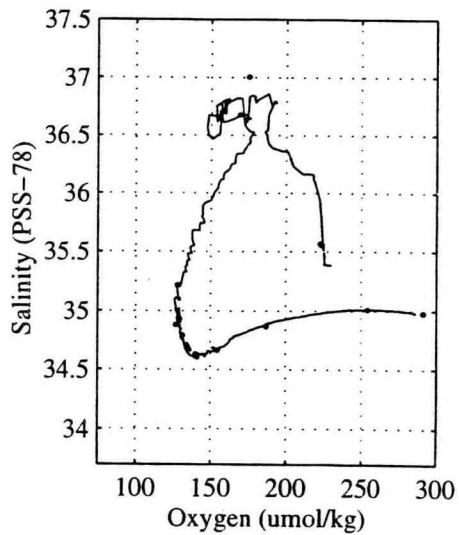
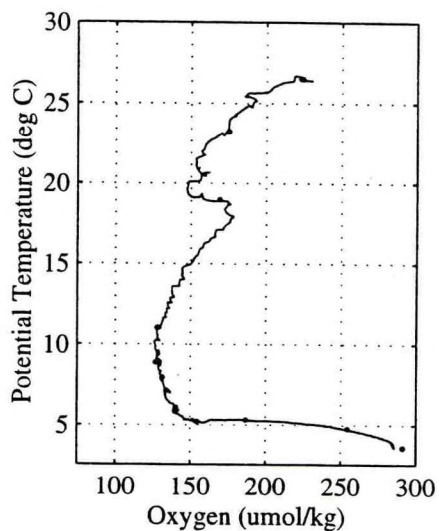
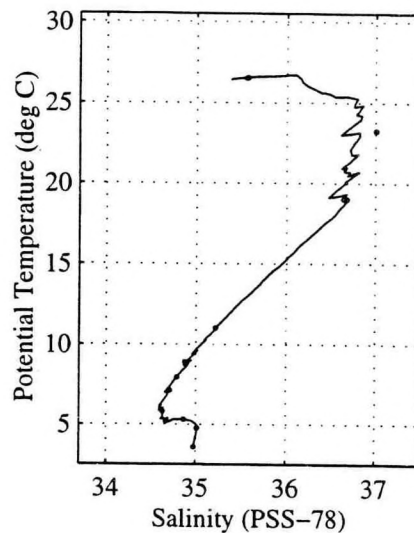
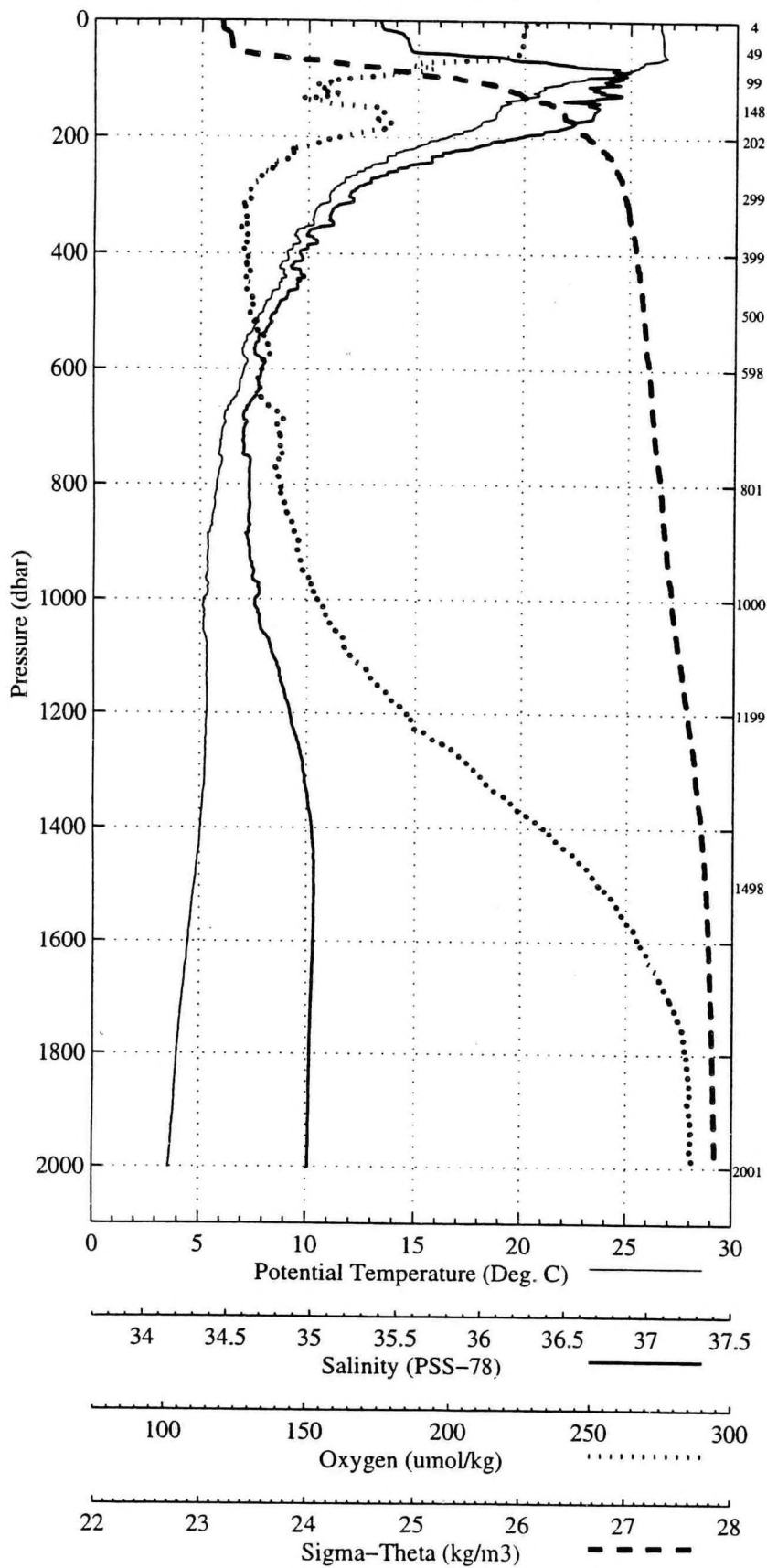
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2002	24	3.580	3.418	34.978	291.3
1499	1	4.779	4.650	35.013	254.3
1199	2	5.317	5.212	34.867	186.9
1001	3	5.200	5.115	34.662	154.7
801	4	5.832	5.761	34.628	140.1
599	5	7.128	7.070	34.707	133.9
501	6	7.942	7.891	34.789	131.2
400	12	8.890	8.846	34.880	126.8
299	13	11.032	10.995	35.215	127.8
202	14	15.486	NaN	NaN *	NaN
149	15	19.000	18.973	36.676	168.8
100	16	23.230	23.209	37.005	175.1
50	17	26.534	26.523	35.569	222.5
4	18	26.510	26.509	35.557	223.4

NBC-3 R/V SEWARD JOHNSON

CTD Station 23 (00023)

Latitude 11.251 N Longitude 56.200 W

13-Feb-2000 23:45 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 24 (00024)  
Latitude 0.667N Longitude 55.802W  
14-Feb-2000 05:37Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.394	26.391	34.325	224.0	0.049	22.404
20	26.404	26.400	34.340	224.1	0.103	22.414
30	26.628	26.621	35.507	221.7	0.153	23.225
40	26.602	26.593	35.631	219.8	0.199	23.327
50	26.611	26.599	35.914	217.3	0.244	23.540
60	26.643	26.629	36.147	209.8	0.287	23.706
70	25.778	25.763	36.300	195.7	0.327	24.095
80	24.841	24.823	36.318	184.5	0.364	24.398
90	24.151	24.131	36.347	175.8	0.398	24.630
100	23.442	23.421	36.622	176.6	0.429	25.049
110	23.271	23.248	36.970	173.1	0.457	25.365
120	21.502	21.479	36.622	157.3	0.483	25.605
130	20.055	20.031	36.394	157.3	0.506	25.825
140	19.624	19.598	36.390	155.2	0.528	25.936
150	18.821	18.794	36.419	147.5	0.547	26.167
160	18.542	18.514	36.377	147.0	0.566	26.206
170	18.065	18.035	36.291	144.2	0.585	26.261
180	16.468	16.439	36.053	142.2	0.602	26.464
190	15.857	15.827	35.975	139.1	0.618	26.545
200	14.855	14.825	35.780	140.9	0.633	26.619
250	12.894	12.859	35.545	135.0	0.701	26.851
300	11.255	11.217	35.277	126.7	0.762	26.959
350	10.433	10.391	35.147	127.7	0.819	27.006
400	9.266	9.221	34.974	127.8	0.874	27.069
450	8.420	8.373	34.840	128.7	0.928	27.100
500	7.697	7.647	34.743	129.3	0.979	27.131
550	7.303	7.250	34.703	133.3	1.030	27.157
600	6.697	6.641	34.652	134.5	1.079	27.202
650	6.225	6.166	34.608	136.5	1.126	27.230
700	6.061	5.998	34.632	137.9	1.172	27.270
750	5.649	5.584	34.588	141.3	1.217	27.287
800	5.378	5.310	34.573	147.7	1.261	27.308
900	5.210	5.134	34.617	150.4	1.346	27.365
1000	5.187	5.102	34.676	154.9	1.427	27.417
1500	4.685	4.557	35.017	257.2	1.747	27.754
2000	3.604	3.443	34.978	285.5	1.985	27.841

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2004	24	3.602	3.440	34.978	290.4
1498	1	4.667	4.539	35.017	260.6
1200	2	5.267	5.162	34.892	191.7
1001	3	5.186	5.101	34.679	155.5
800	4	5.387	5.319	34.571	149.7
600	5	7.020	6.962	34.680	135.2
496	6	7.848	7.798	34.754	128.3
401	12	9.123	9.079	34.932 *	127.8
302	13	11.233	11.195	35.295 *	128.1
199	14	15.296	15.265	35.873	139.8
152	15	18.810	18.783	36.413	145.3
101	16	23.466	23.445	36.592 *	176.7
51	17	26.615	26.603	35.938	219.4
4	18	26.389	26.388	34.331	223.9

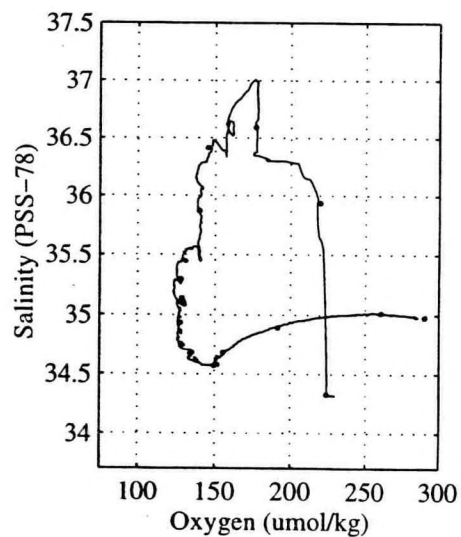
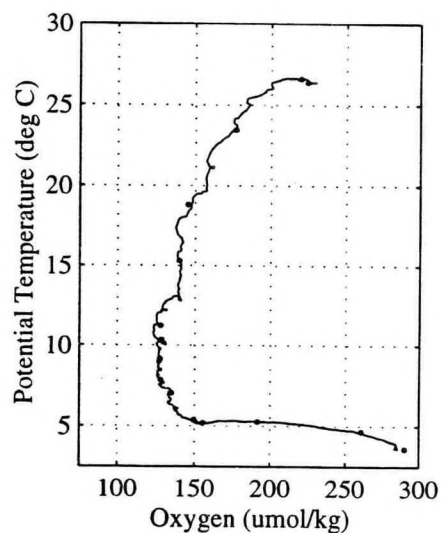
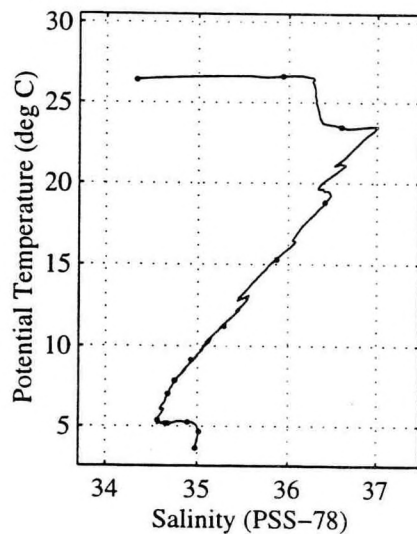
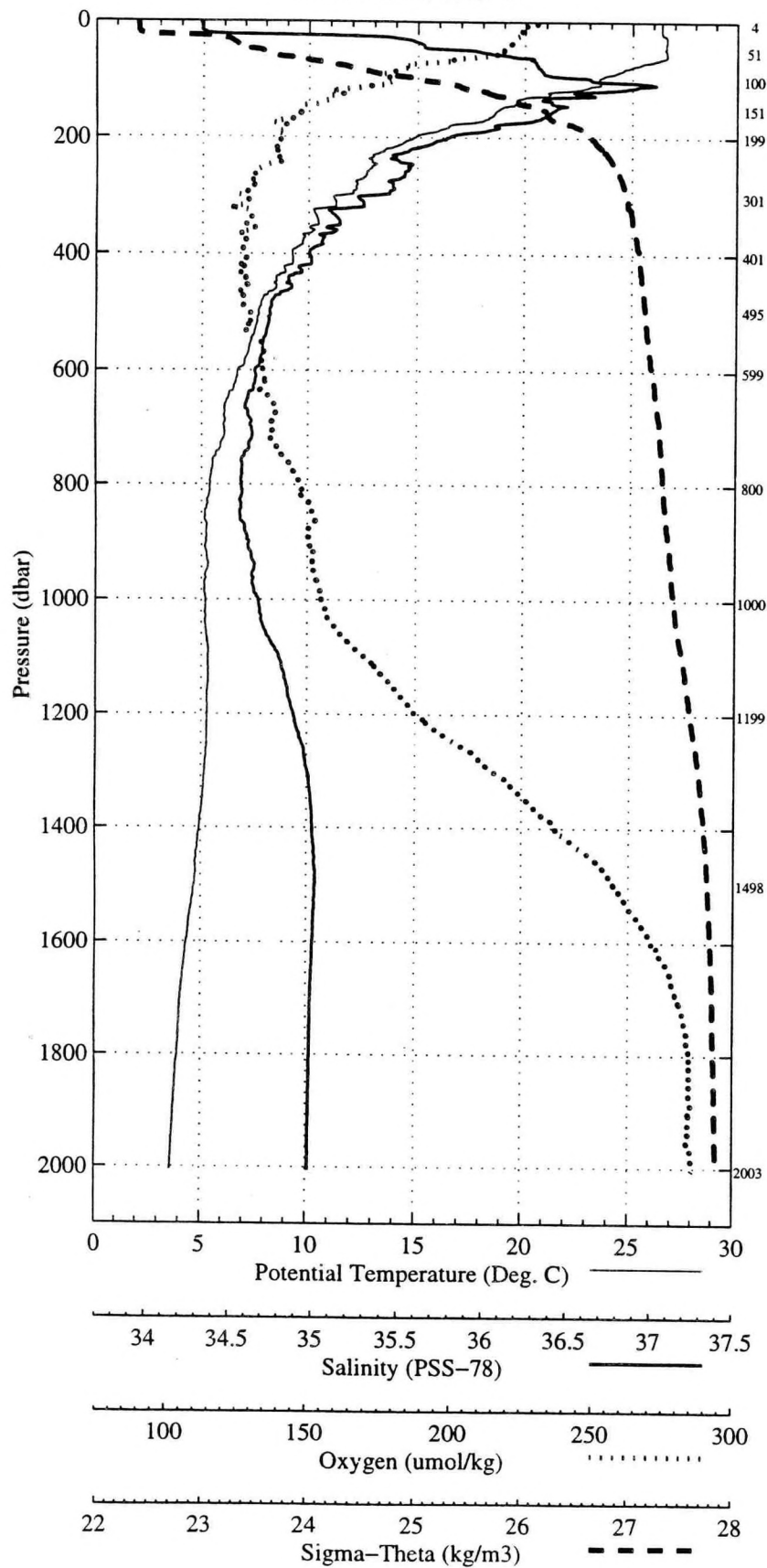


# NBC-3 R/V SEWARD JOHNSON

CTD Station 24 (00024)

Latitude 10.667 N Longitude 55.802 W

14-Feb-2000 05:37 Z



NBC-3 R/V SEWARD JOHNSON  
 CTD Station 25 (00025)  
 Latitude 0.085N Longitude 55.399W  
 14-Feb-2000 10:58Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.765	26.763	35.509	220.4	0.042	23.180
20	26.766	26.761	35.507	220.5	0.089	23.179
30	26.788	26.781	35.524	220.6	0.136	23.186
40	26.808	26.799	35.541	220.5	0.183	23.195
50	26.924	26.913	35.669	220.3	0.230	23.256
60	26.932	26.918	35.883	220.2	0.275	23.416
70	26.850	26.834	35.888	218.9	0.320	23.447
80	26.298	26.280	36.181	211.0	0.363	23.844
90	24.714	24.694	36.195	194.0	0.401	24.346
100	25.059	25.037	36.758	178.0	0.435	24.668
110	24.210	24.187	36.858	172.9	0.466	25.002
120	23.163	23.138	36.874	162.4	0.495	25.324
130	22.061	22.036	36.687	161.4	0.521	25.499
140	21.269	21.241	36.793	154.1	0.545	25.802
150	20.055	20.027	36.555	148.3	0.566	25.950
160	18.267	18.239	36.266	150.0	0.586	26.191
170	17.770	17.740	36.234	146.0	0.604	26.290
180	17.371	17.341	36.187	145.6	0.622	26.352
190	17.111	17.079	36.188	151.6	0.639	26.416
200	17.189	17.155	36.283	158.1	0.655	26.471
250	13.694	13.658	35.686	142.4	0.728	26.797
300	11.296	11.258	35.277	132.8	0.790	26.952
350	9.935	9.894	35.045	132.2	0.848	27.013
400	9.088	9.044	34.922	130.2	0.903	27.057
450	8.292	8.244	34.814	130.4	0.956	27.099
500	7.791	7.740	34.753	132.5	1.008	27.126
550	7.199	7.146	34.693	135.1	1.059	27.164
600	6.703	6.647	34.650	139.8	1.108	27.199
650	6.473	6.413	34.644	138.5	1.155	27.226
700	6.076	6.013	34.625	140.4	1.202	27.263
750	5.962	5.895	34.629	142.6	1.247	27.281
800	5.655	5.585	34.618	146.1	1.291	27.311
900	5.332	5.256	34.643	150.1	1.376	27.371
1000	5.161	5.076	34.690	159.6	1.456	27.430
1500	4.644	4.516	35.012	260.0	1.778	27.754
2000	3.533	3.372	34.976	289.6	2.015	27.846

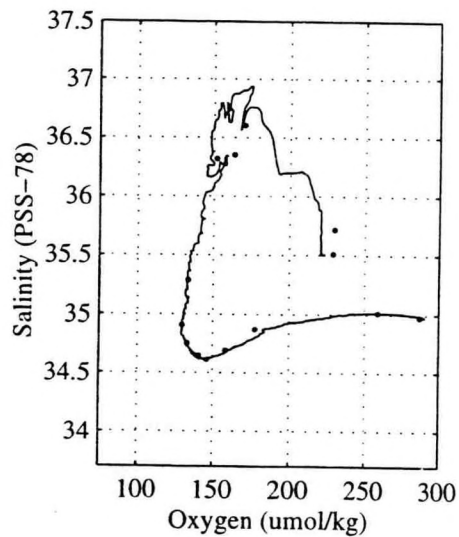
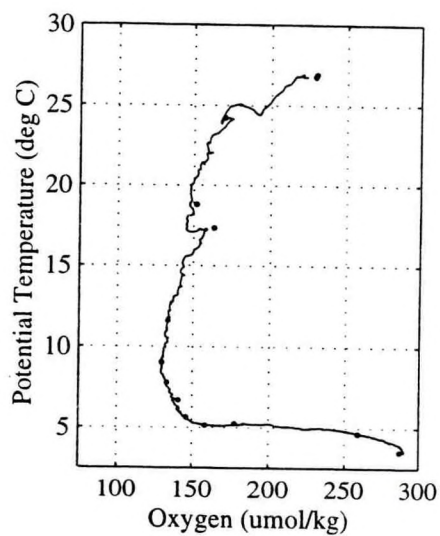
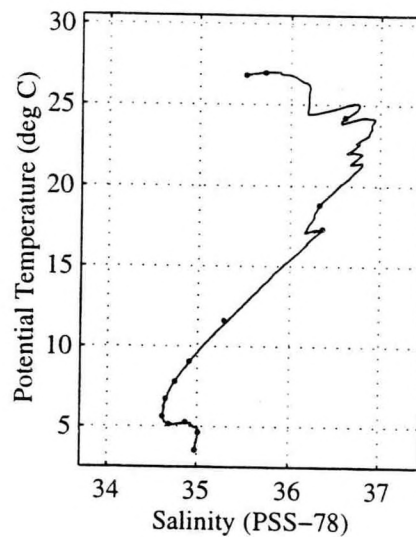
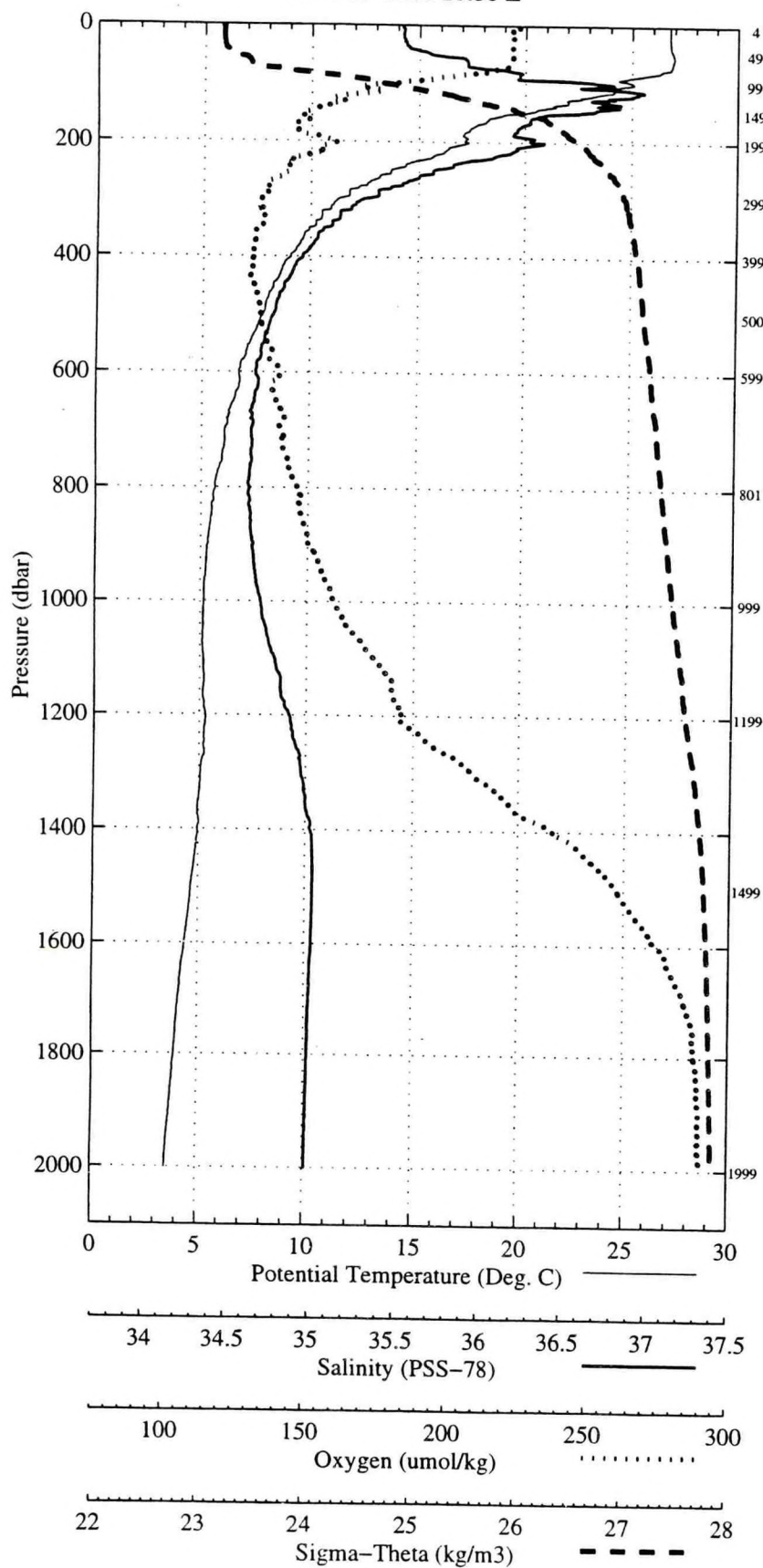
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2000	24	3.533	3.372	34.977	286.8
1499	1	4.651	4.523	35.013	258.7
1200	2	5.272	5.167	34.874	177.7
1000	3	5.150	5.065	34.691	158.3
801	4	5.641	5.571	34.612	146.2
599	5	6.707	6.651	34.648	140.8
501	6	7.797	7.746	34.752	133.1
399	12	9.051	9.007	34.910	129.5
299	13	11.597	11.559	35.287 *	133.5
200	14	17.337	17.303	36.352	163.2
150	15	18.814	18.787	36.318 *	151.8
100	16	24.210	24.189	36.605 *	170.0
49	17	26.939	26.928	35.720 *	229.5
4	18	26.775	26.774	35.512	228.6

NBC-3 R/V SEWARD JOHNSON

CTD Station 25 (00025)

Latitude 10.085 N Longitude 55.399 W

14-Feb-2000 10:58 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 26 (00026)  
Latitude 9.499N Longitude 55.400W  
14-Feb-2000 15:29Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.720	26.718	36.206	221.6	0.038	23.719
20	26.688	26.683	36.205	222.1	0.079	23.730
30	26.679	26.672	36.205	222.1	0.121	23.734
40	26.677	26.668	36.205	222.1	0.163	23.736
50	26.674	26.662	36.205	222.2	0.204	23.739
60	26.675	26.662	36.204	222.3	0.246	23.740
70	26.674	26.658	36.205	222.0	0.288	23.742
80	26.577	26.559	36.231	218.4	0.330	23.794
90	25.931	25.911	36.340	206.2	0.370	24.081
100	25.180	25.158	36.357	203.8	0.407	24.327
110	24.606	24.582	36.349	197.8	0.442	24.497
120	24.298	24.273	36.416	198.7	0.476	24.642
130	23.858	23.830	36.447	194.0	0.509	24.798
140	23.312	23.283	36.462	197.8	0.540	24.971
150	22.354	22.324	36.407	199.0	0.569	25.206
160	21.520	21.488	36.325	196.7	0.597	25.378
170	20.731	20.698	36.299	180.4	0.622	25.575
180	19.322	19.289	36.395	159.6	0.644	26.023
190	19.023	18.989	36.530	151.6	0.664	26.204
200	17.937	17.902	36.352	146.0	0.682	26.342
250	13.642	13.606	35.584	148.6	0.759	26.730
300	12.050	12.010	35.313	149.2	0.825	26.839
350	10.753	10.710	35.153	137.3	0.886	26.955
400	9.519	9.474	34.952	138.2	0.944	27.011
450	9.030	8.980	34.925	136.6	0.999	27.071
500	8.388	8.335	34.853	133.2	1.052	27.116
550	7.642	7.587	34.747	138.5	1.104	27.144
600	7.119	7.061	34.691	140.4	1.154	27.175
650	6.747	6.686	34.656	141.9	1.203	27.199
700	6.280	6.216	34.627	144.2	1.251	27.239
750	6.000	5.933	34.617	145.2	1.297	27.267
800	5.689	5.619	34.609	148.6	1.342	27.300
900	5.502	5.424	34.671	151.5	1.427	27.374
1000	5.176	5.091	34.693	162.8	1.506	27.431
1500	4.672	4.544	35.006	259.3	1.832	27.746
2000	3.523	3.363	34.976	294.7	2.071	27.847

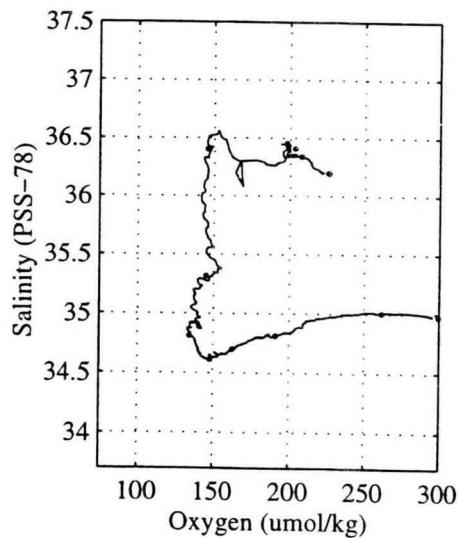
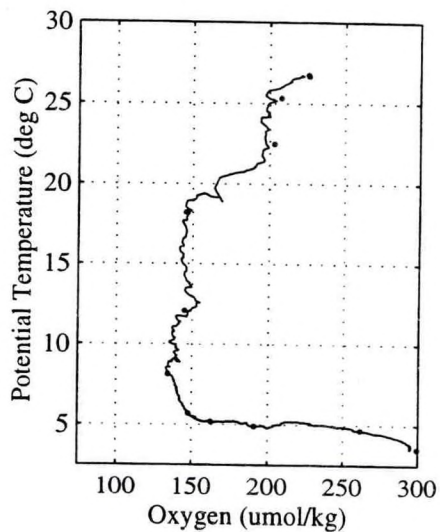
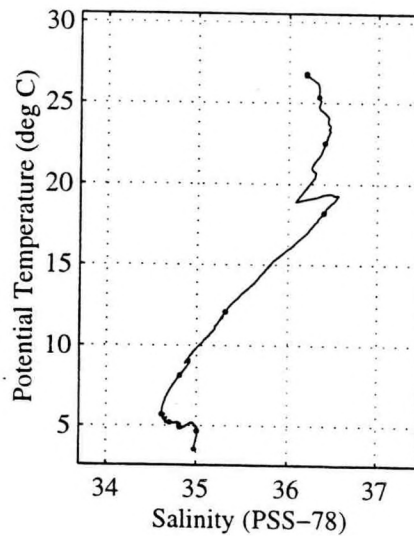
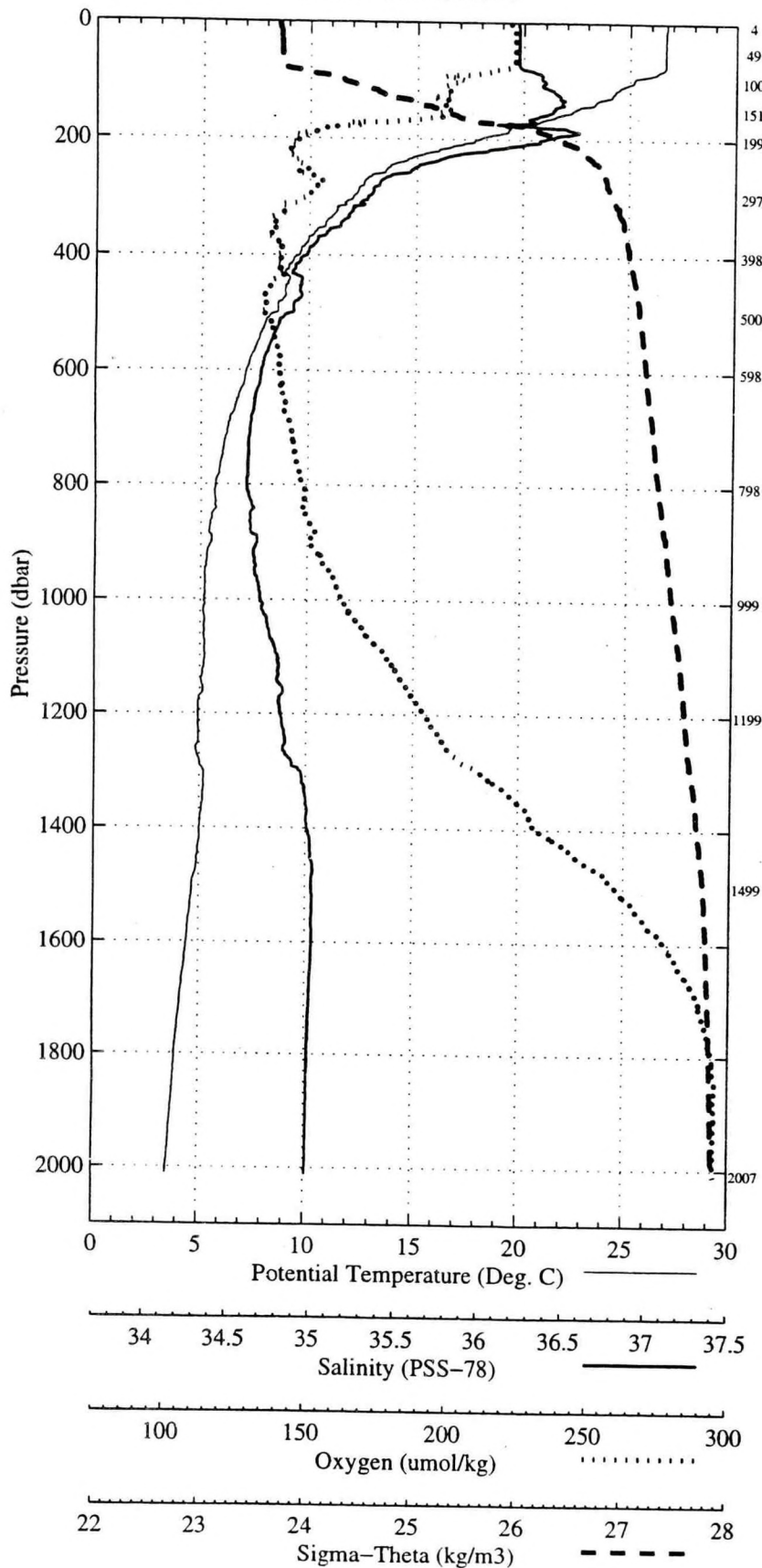
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2007	24	3.515	3.354	34.976	299.3
1500	1	4.676	4.548	35.005	261.5
1199	2	4.910	4.809	34.812	191.0
999	3	5.192	5.107	34.700	162.7
799	4	5.686	5.616	34.611	148.0
599	5	7.095	NaN	NaN *	NaN
500	6	8.142	8.090	34.812	134.0
398	12	9.272	NaN	NaN *	NaN
297	13	12.074	12.035	35.319	144.9
200	14	18.212	18.177	36.402 *	145.6
151	15	22.499	22.468	36.411	203.1
100	16	25.331	25.309	36.340	207.3
49	17	26.678	26.667	36.197	226.2
4	18	26.761	26.760	36.200	225.5

NBC-3 R/V SEWARD JOHNSON

CTD Station 26 (00026)

Latitude 9.499 N Longitude 55.400 W

14-Feb-2000 15:29 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 27 (00027)  
Latitude 8.916N Longitude 55.399W  
14-Feb-2000 20:17Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.849	26.849	36.102	221.1	0.004	23.599
10	26.847	26.845	36.106	222.8	0.043	23.604
20	26.788	26.784	36.103	222.9	0.086	23.622
30	26.732	26.725	36.102	223.8	0.128	23.640
40	26.723	26.714	36.103	223.6	0.171	23.645
50	26.728	26.716	36.111	223.6	0.213	23.651
60	26.756	26.742	36.145	223.4	0.256	23.669
70	26.765	26.749	36.174	222.9	0.298	23.690
80	26.748	26.730	36.192	222.3	0.341	23.710
90	26.054	26.033	36.284	205.2	0.382	24.001
100	25.806	25.783	36.318	204.6	0.421	24.105
110	25.412	25.388	36.291	198.9	0.459	24.207
120	24.370	24.344	36.328	195.6	0.495	24.554
130	24.130	24.103	36.352	196.4	0.529	24.645
140	23.756	23.726	36.390	196.9	0.562	24.786
150	23.217	23.186	36.478	199.1	0.593	25.012
160	22.664	22.632	36.423	197.2	0.622	25.131
170	21.880	21.847	36.342	187.7	0.650	25.292
180	20.638	20.604	36.189	175.3	0.677	25.518
190	19.831	19.795	36.565	159.3	0.699	26.021
200	19.612	19.575	36.607	155.2	0.719	26.111
250	14.916	14.878	35.822	140.2	0.802	26.642
300	11.284	11.246	35.212	143.4	0.868	26.903
350	10.420	10.378	35.138	135.2	0.927	27.002
400	8.839	8.795	34.893	134.1	0.982	27.074
450	8.018	7.972	34.785	133.8	1.035	27.116
500	7.639	7.589	34.751	136.8	1.086	27.147
550	6.973	6.921	34.666	143.0	1.135	27.174
600	6.667	6.611	34.649	140.1	1.184	27.203
650	6.407	6.347	34.644	142.2	1.231	27.235
700	6.035	5.972	34.625	143.7	1.277	27.268
750	5.712	5.647	34.614	146.4	1.321	27.300
800	5.580	5.511	34.631	148.3	1.365	27.331
900	5.259	5.182	34.654	155.4	1.447	27.389
1000	5.089	5.005	34.703	163.5	1.526	27.449
1500	4.598	4.471	35.014	268.5	1.838	27.760
2000	3.466	3.306	34.973	295.3	2.071	27.850

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2004	24	3.460	3.300	34.971	296.8
1497	1	4.601	4.474	35.015	270.6
1196	2	5.246	5.142	34.906	202.9
1001	3	5.039	4.955	34.701	164.7
798	4	5.566	5.497	34.608	150.4
599	5	6.777	6.721	34.660	142.0
502	6	7.641	7.591	34.752	131.3
402	12	8.951	8.907	34.899	132.9
299	13	11.195	11.157	35.192	142.6
201	14	19.446	19.409	36.575	151.8
150	15	23.112	23.081	36.464	202.4
100	16	25.766	25.744	36.322	204.6
46	17	26.726	26.715	36.098	225.5
4	18	26.818	26.817	36.099	225.0

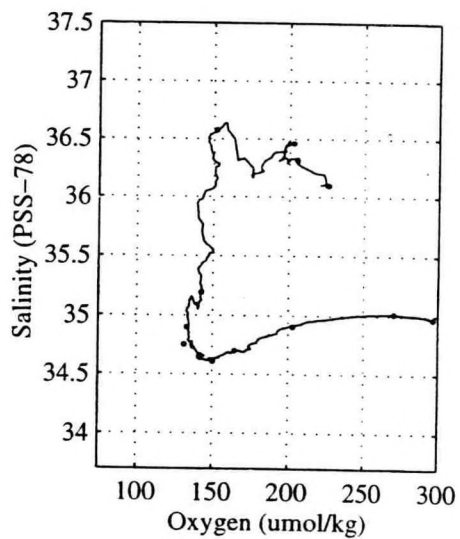
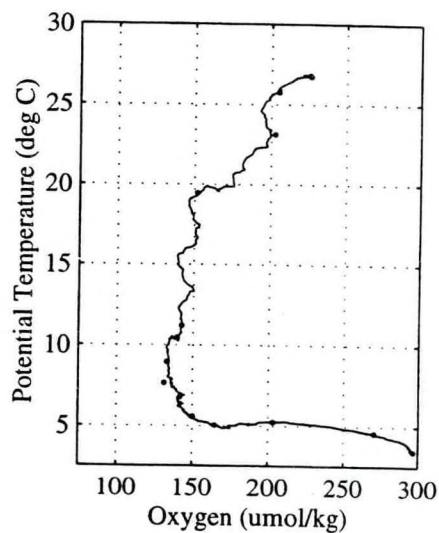
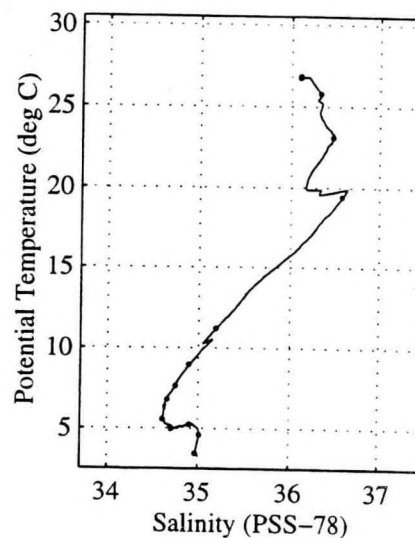
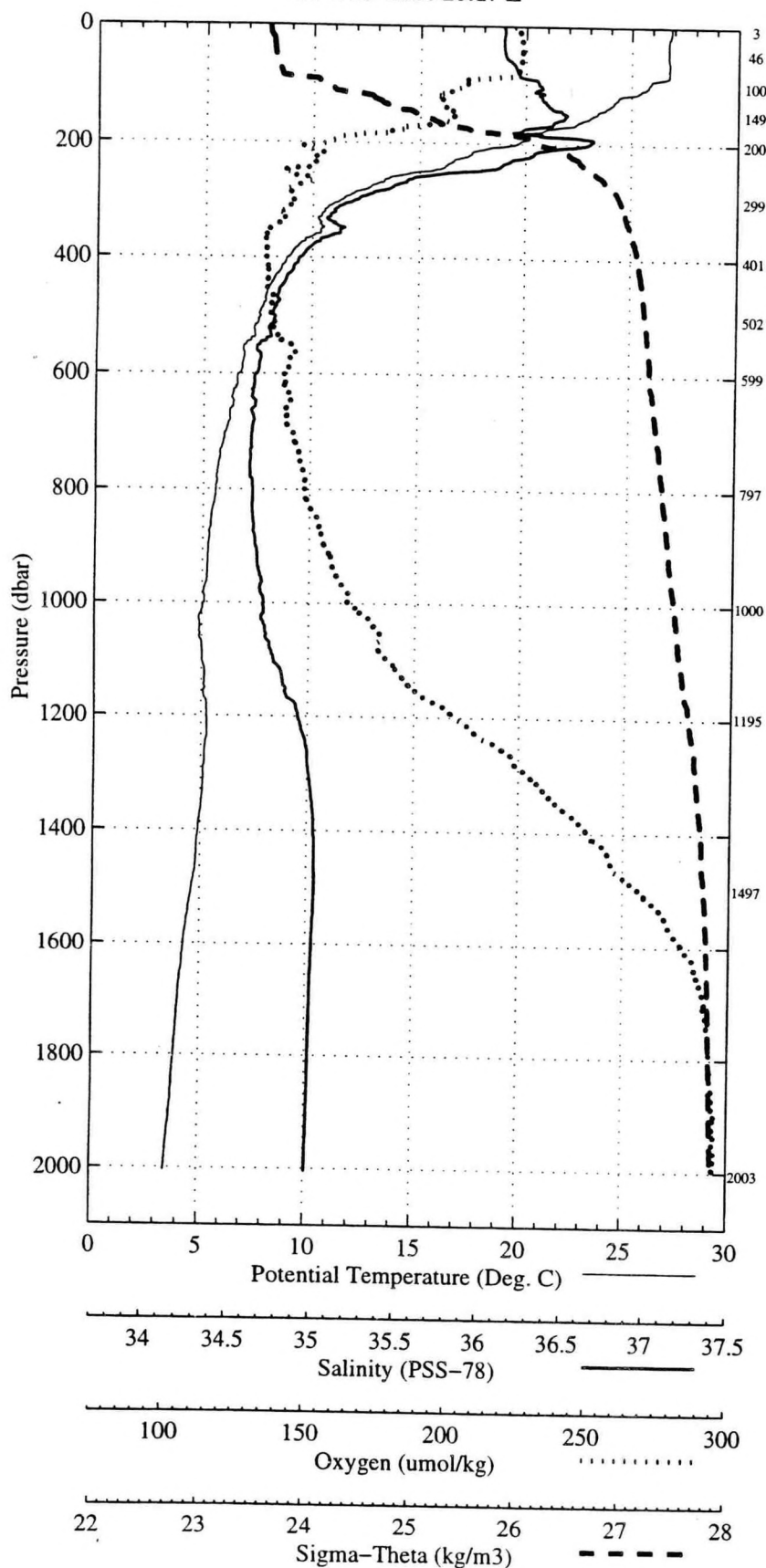


# NBC-3 R/V SEWARD JOHNSON

CTD Station 27 (00027)

Latitude 8.916 N Longitude 55.399 W

14-Feb-2000 20:17 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 28 (00028)  
Latitude 8.332N Longitude 55.401W  
15-Feb-2000 01:03Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	27.005	27.005	36.195	227.5	0.004	23.619
10	27.015	27.012	36.206	223.9	0.043	23.625
20	27.017	27.013	36.206	224.0	0.085	23.626
30	26.988	26.981	36.203	223.9	0.128	23.635
40	26.961	26.952	36.202	223.5	0.171	23.644
50	26.958	26.946	36.203	222.7	0.213	23.647
60	26.954	26.940	36.202	222.2	0.256	23.649
70	26.952	26.936	36.202	221.8	0.299	23.651
80	26.951	26.933	36.203	221.7	0.341	23.654
90	26.932	26.911	36.200	220.9	0.384	23.659
100	26.589	26.566	36.173	214.4	0.427	23.749
110	25.214	25.190	36.117	201.7	0.467	24.136
120	24.110	24.084	36.314	186.3	0.503	24.621
130	23.531	23.504	36.442	182.2	0.534	24.890
140	22.541	22.513	36.464	171.4	0.565	25.195
150	21.652	21.623	36.498	162.3	0.591	25.472
160	18.901	18.873	36.044	170.9	0.615	25.860
170	17.529	17.500	35.847	180.9	0.636	26.052
180	16.674	16.645	35.758	183.0	0.655	26.188
190	16.314	16.284	35.773	178.3	0.674	26.285
200	14.884	14.854	35.596	170.4	0.691	26.471
250	12.314	12.280	35.430	144.0	0.758	26.876
300	10.620	10.583	35.187	136.7	0.816	27.003
350	9.831	9.790	35.074	136.4	0.872	27.052
400	8.886	8.842	34.929	133.7	0.925	27.095
450	7.891	7.845	34.791	138.4	0.976	27.140
500	7.291	7.243	34.724	139.6	1.026	27.175
550	6.700	6.649	34.653	144.6	1.074	27.201
600	6.178	6.125	34.590	148.2	1.121	27.220
650	5.890	5.833	34.580	150.9	1.167	27.249
700	5.536	5.476	34.560	152.1	1.212	27.277
750	5.674	5.609	34.620	145.7	1.256	27.310
800	5.432	5.364	34.625	149.1	1.298	27.344
900	5.167	5.091	34.672	156.6	1.379	27.413
1000	4.992	4.909	34.730	169.2	1.454	27.482
1500	4.324	4.200	35.004	276.1	1.745	27.781
2000	3.373	3.215	34.968	292.2	1.966	27.854

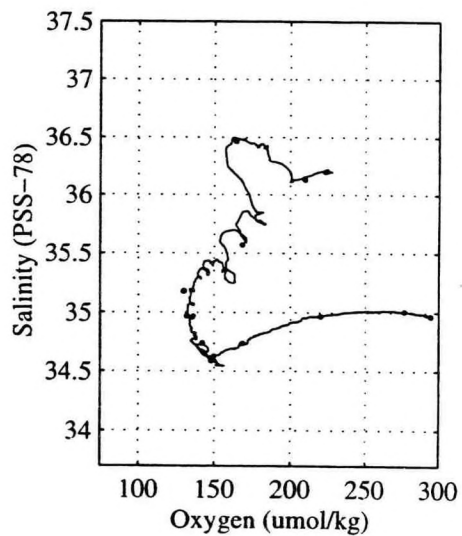
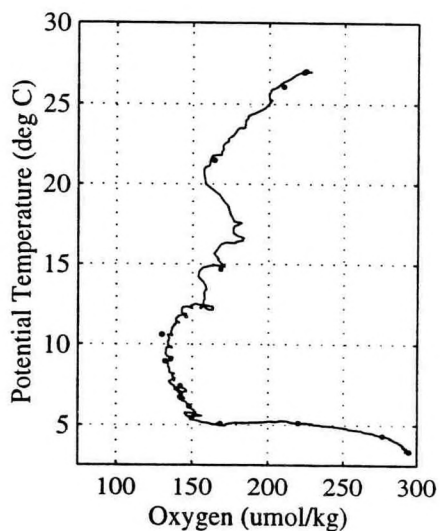
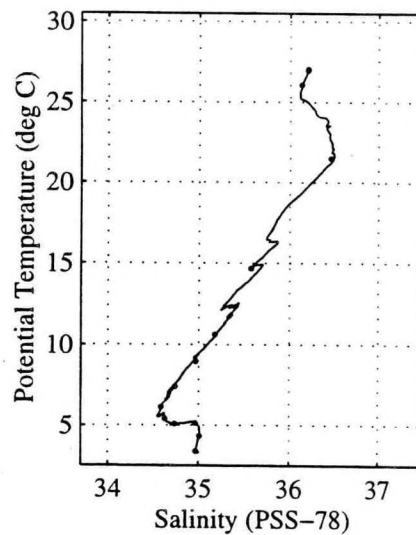
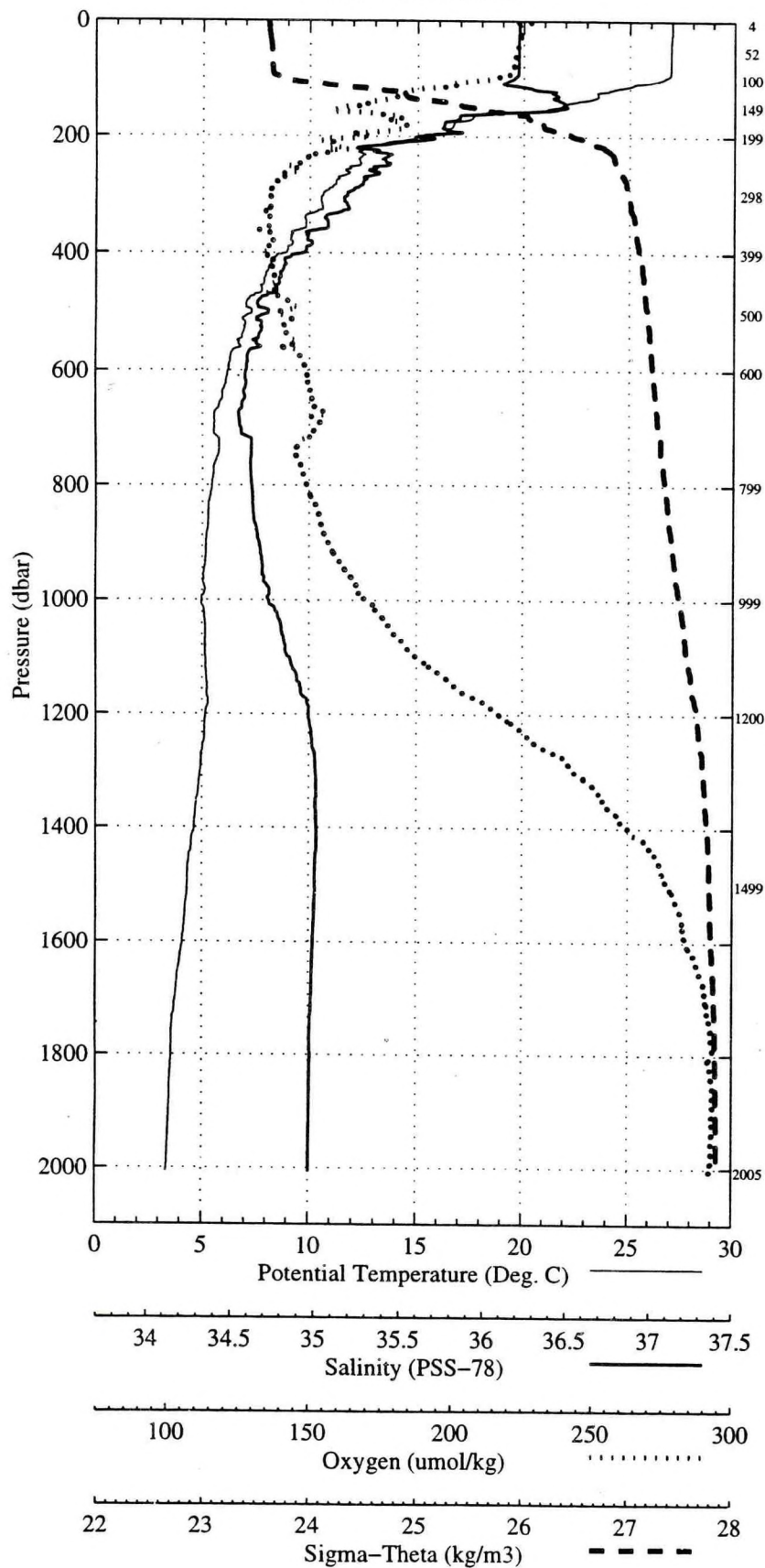
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2005	24	3.365	3.206	34.968	294.6
1500	1	4.324	4.200	35.007	276.5
1201	2	5.135	5.031	34.966	219.8
999	3	5.096	5.012	34.736	168.4
800	4	5.423	5.355	34.627	149.8
600	5	6.139	6.085	34.586	148.0
500	6	7.411	7.362	34.738	142.2
399	12	8.971	8.927	34.968 *	132.1
298	13	10.607	10.571	35.179	130.1
199	14	14.679	14.649	35.574 *	168.6
150	15	21.496	21.467	36.464 *	164.2
100	16	26.066	26.043	36.129 *	209.6
53	17	26.971	26.959	36.197	223.1
4	18	27.034	27.033	36.201	224.2

NBC-3 R/V SEWARD JOHNSON

CTD Station 28 (00028)

Latitude 8.332 N Longitude 55.401 W

15-Feb-2000 01:03 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 29 (00029)  
Latitude 7.764N Longitude 55.402W  
15-Feb-2000 05:40Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.588	26.585	35.955	224.5	0.039	23.572
20	26.595	26.590	35.956	224.5	0.082	23.572
30	26.586	26.579	35.961	224.0	0.125	23.580
40	26.385	26.376	36.089	219.6	0.168	23.742
50	26.031	26.020	36.118	198.4	0.209	23.876
60	25.226	25.213	36.209	193.1	0.248	24.196
70	23.883	23.868	36.356	187.8	0.282	24.714
80	22.672	22.656	36.368	180.7	0.313	25.077
90	21.813	21.795	36.267	187.8	0.341	25.245
100	20.894	20.875	36.217	188.3	0.368	25.462
110	20.295	20.275	36.240	178.7	0.393	25.642
120	19.326	19.304	36.219	164.9	0.415	25.881
130	18.558	18.535	36.086	168.6	0.436	25.977
140	17.770	17.746	36.166	150.4	0.456	26.235
150	16.907	16.883	36.126	150.9	0.473	26.414
160	16.467	16.441	36.081	146.1	0.489	26.484
170	15.792	15.765	35.966	146.2	0.505	26.552
180	14.496	14.469	35.702	140.1	0.520	26.636
190	13.299	13.273	35.513	147.7	0.534	26.741
200	12.499	12.472	35.364	148.6	0.547	26.786
250	10.036	10.007	34.986	145.3	0.609	26.945
300	9.229	9.196	34.921	138.1	0.665	27.030
350	8.340	8.303	34.803	134.9	0.719	27.079
400	7.715	7.675	34.750	134.5	0.770	27.131
450	7.266	7.222	34.715	133.6	0.819	27.169
500	6.720	6.674	34.663	136.5	0.867	27.205
550	5.991	5.943	34.586	143.6	0.913	27.239
600	5.750	5.698	34.603	144.7	0.958	27.284
650	5.656	5.600	34.623	144.9	1.000	27.311
700	5.562	5.502	34.621	146.1	1.043	27.322
750	5.291	5.228	34.601	150.0	1.085	27.340
800	5.277	5.210	34.643	152.8	1.126	27.375
900	4.985	4.910	34.680	162.2	1.203	27.440
1000	5.296	5.210	34.849	180.5	1.275	27.541
1500	4.153	4.031	34.996	281.9	1.547	27.793
1812	3.588	3.444	34.977	292.7	1.688	27.838

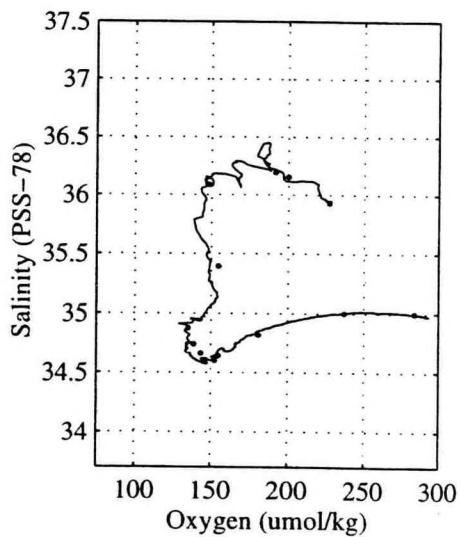
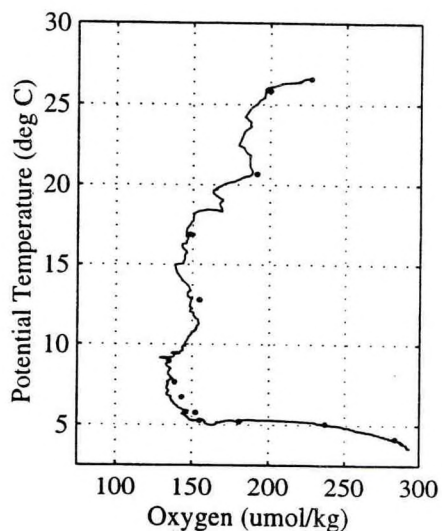
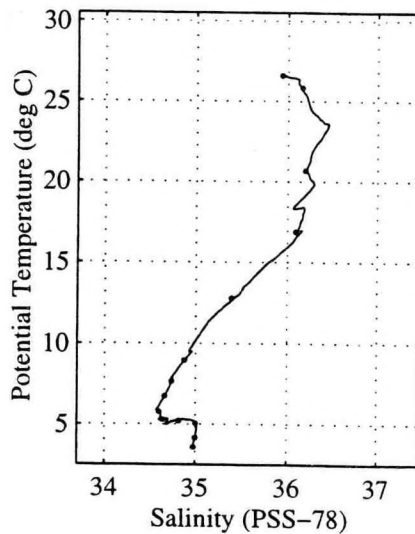
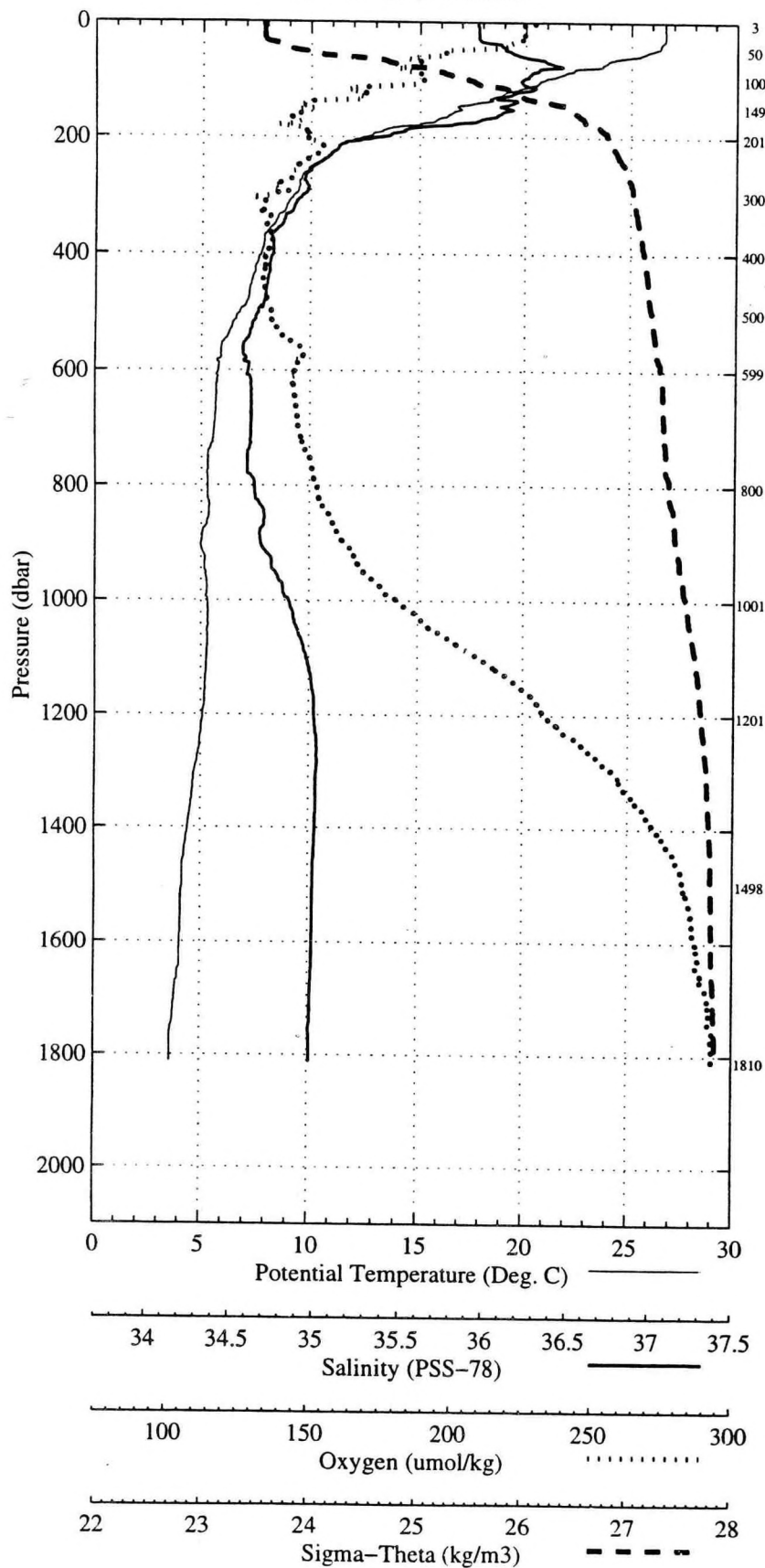
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1811	24	3.589	3.445	34.980	303.9
1499	1	4.156	4.034	34.998	283.7
1202	2	5.061	4.958	35.001	236.9
1002	3	5.205	5.119	34.819	180.8
801	4	5.276	5.209	34.641	154.8
600	5	5.771	5.719	34.602	152.4
501	6	6.737	6.690	34.661	143.6
400	12	7.648	7.608	34.739	138.9
301	13	8.963	8.930	34.877	135.0
201	14	12.791	12.763	35.393 *	154.7
149	15	16.885	16.860	36.087	148.4
100	16	20.680	20.661	36.192	191.6
51	17	25.815	25.804	36.155 *	200.0
3	18	26.565	26.564	35.932	226.7

NBC-3 R/V SEWARD JOHNSON

CTD Station 29 (00029)

Latitude 7.764 N Longitude 55.402 W

15-Feb-2000 05:40 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 30 (00030)  
Latitude 7.392N Longitude 55.399W  
15-Feb-2000 08:55Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.439	26.438	35.299	231.8	0.005	23.123
10	26.481	26.478	35.307	227.9	0.047	23.118
20	26.653	26.648	35.527	227.1	0.095	23.230
30	26.886	26.879	35.904	221.8	0.140	23.442
40	26.909	26.900	35.931	221.1	0.184	23.456
50	26.735	26.724	36.149	204.6	0.228	23.677
60	25.221	25.208	36.313	195.6	0.267	24.276
70	23.157	23.143	36.479	177.5	0.300	25.020
80	20.989	20.974	36.423	161.1	0.326	25.590
90	20.842	20.825	36.566	154.2	0.350	25.740
100	20.493	20.474	36.619	151.3	0.372	25.877
110	20.144	20.123	36.569	149.1	0.393	25.933
120	19.311	19.289	36.457	140.6	0.414	26.067
130	17.659	17.637	36.214	143.4	0.432	26.299
140	16.488	16.465	36.042	148.4	0.449	26.448
150	15.925	15.901	35.976	144.7	0.465	26.528
160	15.271	15.246	35.867	139.9	0.480	26.592
170	14.575	14.549	35.778	142.6	0.495	26.677
180	14.181	14.154	35.712	142.0	0.508	26.711
190	13.858	13.831	35.662	142.4	0.522	26.741
200	13.532	13.504	35.607	140.9	0.536	26.767
250	11.050	11.019	35.168	139.3	0.599	26.909
300	10.358	10.322	35.088	136.0	0.657	26.971
350	9.313	9.273	34.944	131.8	0.713	27.036
400	8.320	8.278	34.808	134.9	0.767	27.088
450	7.457	7.413	34.717	135.9	0.818	27.144
500	7.221	7.172	34.701	136.3	0.868	27.166
550	6.776	6.724	34.669	137.4	0.916	27.203

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
583	24	6.418	6.365	34.646	142.0
400	1	8.258	8.216	34.793	137.0
300	2	10.198	10.163	35.060	136.0
202	3	13.526	13.497	35.591	140.2
151	4	15.812	15.788	35.962 *	145.4
99	5	20.427	20.408	36.599	150.7
50	6	26.641	26.630	36.153 *	214.2
3	12	26.471	26.470	35.316	235.3

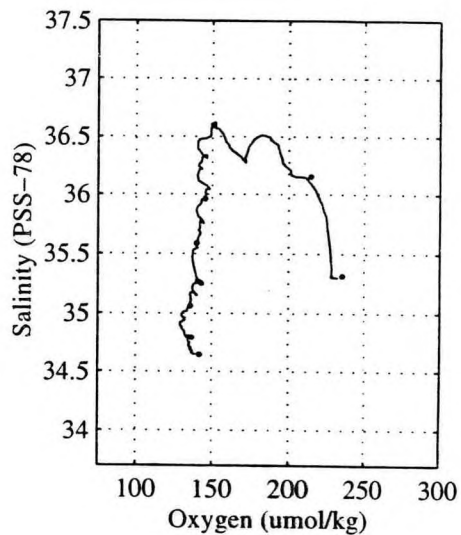
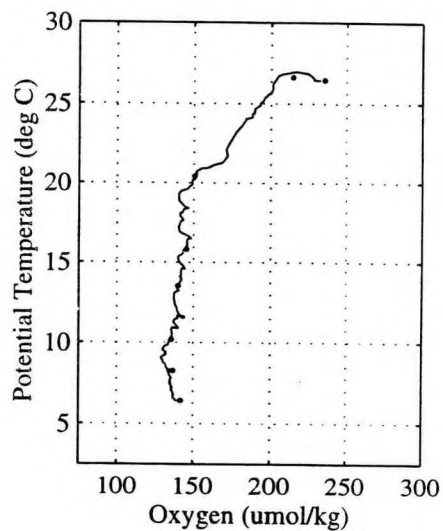
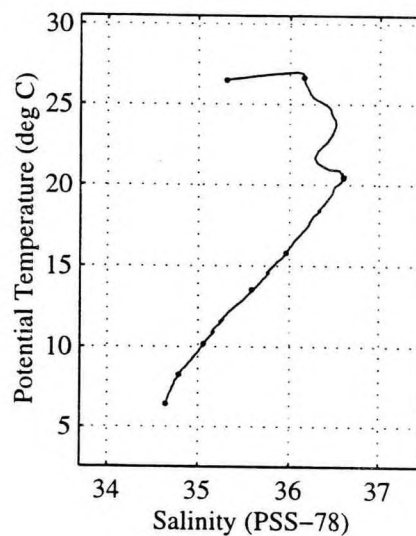
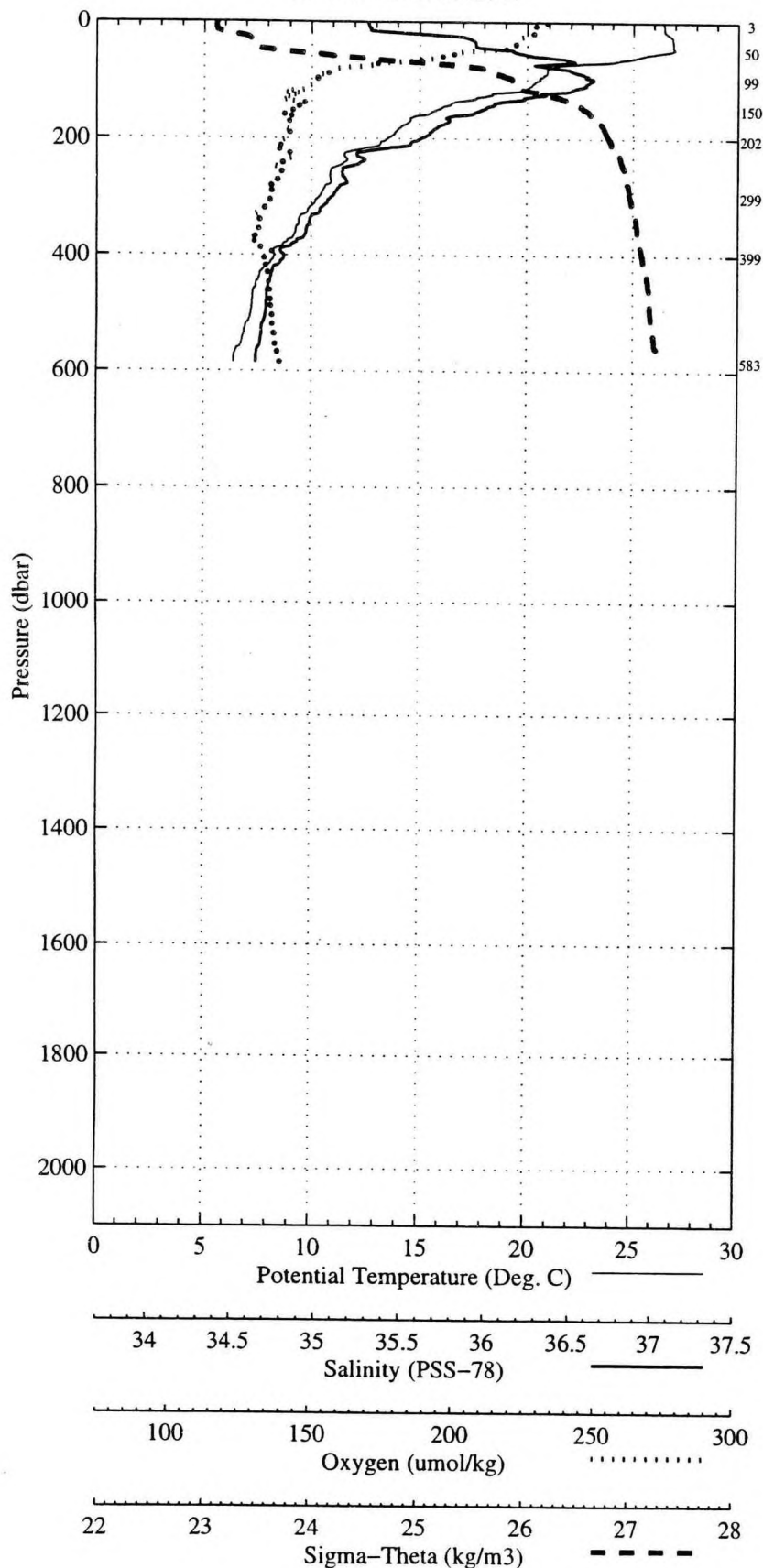


NBC-3 R/V SEWARD JOHNSON

CTD Station 30 (00030)

Latitude 7.392 N Longitude 55.399 W

15-Feb-2000 08:55 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 31 (00031)  
Latitude 8.114N Longitude 57.330W  
15-Feb-2000 19:16Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.847	26.846	34.380	225.8	0.006	22.302
10	26.874	26.872	34.394	225.4	0.055	22.305
20	27.197	27.193	35.761	222.3	0.107	23.233
30	27.168	27.161	35.942	222.0	0.153	23.380
40	27.080	27.071	35.993	221.3	0.197	23.448
50	26.813	26.801	36.043	213.7	0.242	23.573
60	25.140	25.127	36.288	195.2	0.280	24.282
70	23.645	23.631	36.338	189.7	0.314	24.770
80	22.628	22.611	36.352	181.3	0.345	25.078
90	22.135	22.117	36.422	175.8	0.373	25.272
100	21.134	21.115	36.441	168.9	0.399	25.567
110	20.260	20.239	36.423	162.4	0.422	25.791
120	19.017	18.995	36.249	162.7	0.444	25.985
130	17.808	17.785	36.212	157.4	0.463	26.261
140	17.967	17.942	36.354	151.8	0.481	26.331
150	17.290	17.265	36.294	153.6	0.498	26.451
160	16.599	16.572	36.205	157.2	0.514	26.549
170	16.377	16.349	36.171	158.1	0.529	26.575
180	16.274	16.245	36.152	157.9	0.544	26.585
190	15.793	15.762	36.060	154.4	0.559	26.626
200	15.355	15.324	35.979	151.9	0.573	26.663
250	11.853	11.820	35.322	137.0	0.640	26.881
300	10.630	10.593	35.135	135.9	0.699	26.961
350	9.628	9.588	34.986	131.8	0.756	27.017
400	8.461	8.419	34.811	135.3	0.811	27.069
450	8.066	8.020	34.795	130.5	0.864	27.117
500	7.448	7.399	34.725	134.6	0.914	27.153
550	7.143	7.090	34.695	134.6	0.964	27.173
600	6.753	6.696	34.664	136.4	1.012	27.204
650	6.307	6.247	34.638	139.0	1.059	27.243
700	5.959	5.897	34.622	141.2	1.105	27.275
750	5.656	5.591	34.615	144.6	1.149	27.308
800	5.506	5.438	34.625	147.6	1.192	27.335
900	5.308	5.231	34.751	160.2	1.271	27.460
1000	5.285	5.199	34.885	189.8	1.341	27.571

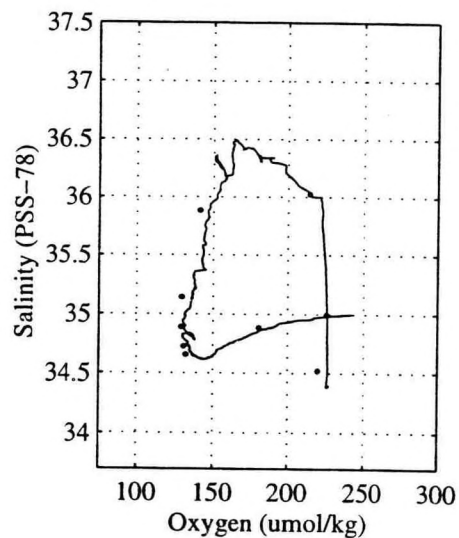
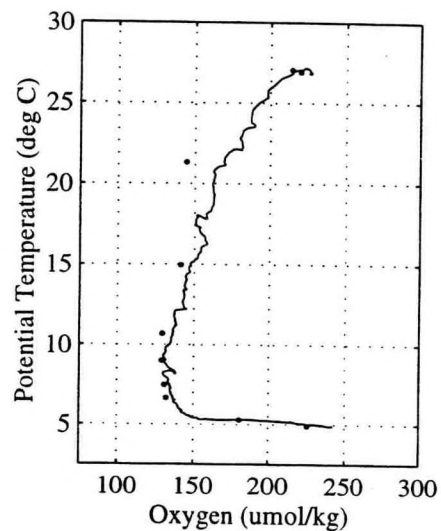
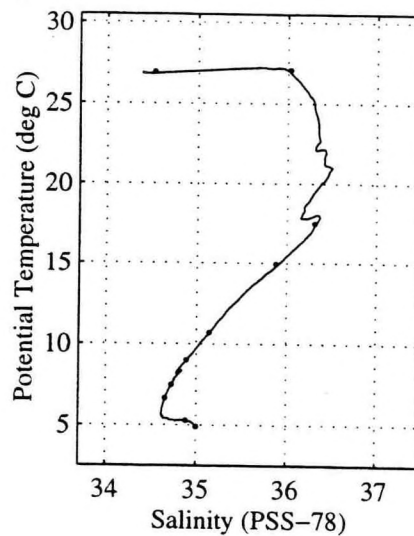
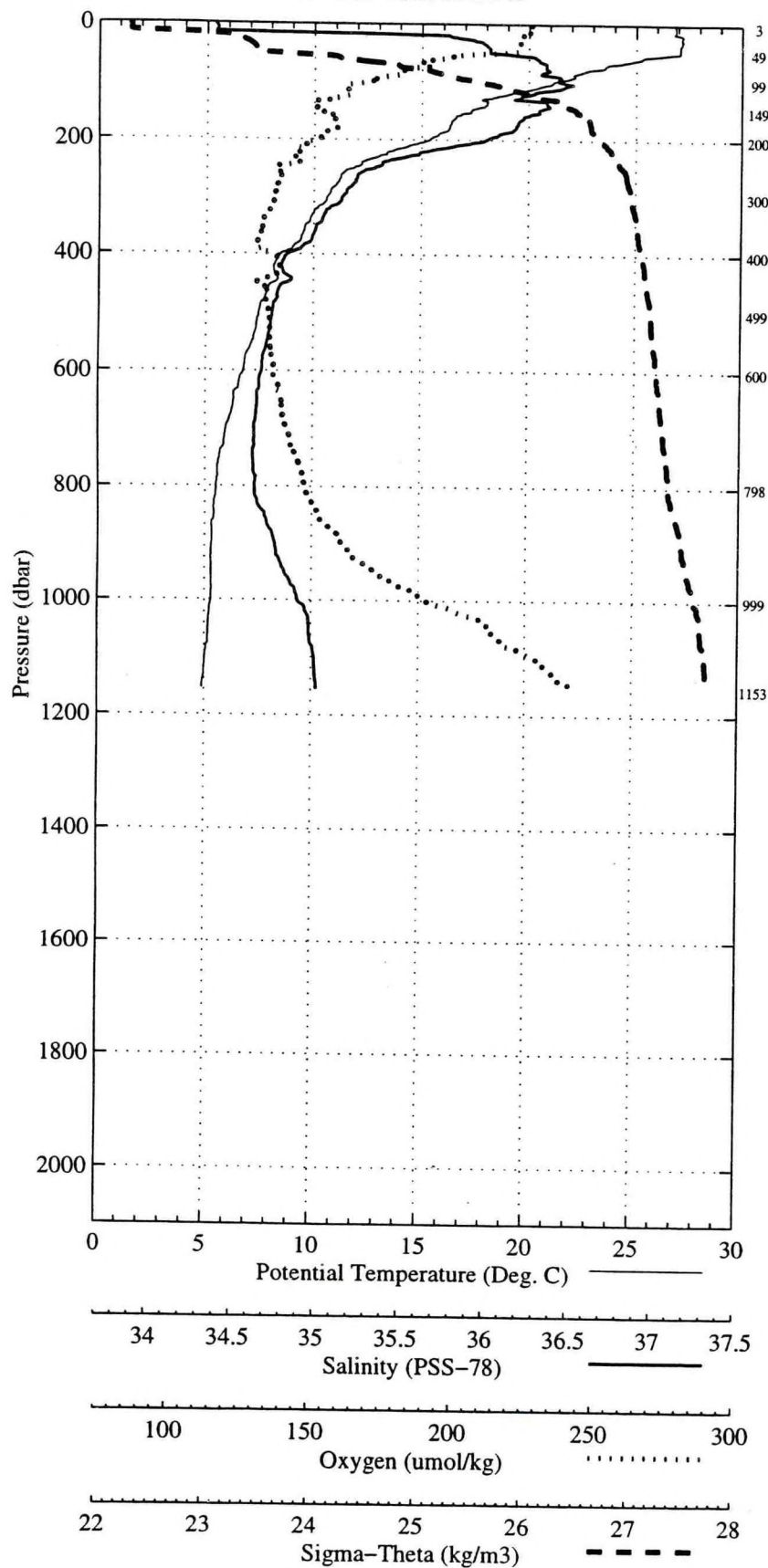
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1153	24	4.894	4.797	34.997	225.3
1000	1	5.287	5.201	34.883	180.7
799	2	5.506	NaN	NaN *	NaN
600	3	6.662	6.606	34.654	132.1
500	4	7.483	7.434	34.726	131.0
400	5	8.997	8.953	34.890	129.2
300	6	10.690	10.653	35.140	129.5
200	12	14.947	14.917	35.884 *	141.2
149	13	17.499	17.474	36.301	NaN
100	14	21.334	NaN	NaN *	144.4
50	15	27.067	27.056	36.028 *	213.8
3	16	26.921	26.920	34.521	219.5

NBC-3 R/V SEWARD JOHNSON

CTD Station 31 (00031)

Latitude 8.114 N Longitude 57.330 W

15-Feb-2000 19:16 Z





NBC-3 R/V SEWARD JOHNSON  
 CTD Station 32 (00032)  
 Latitude 8.196N Longitude 57.184W  
 15-Feb-2000 21:17Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	27.120	27.120	35.704	227.7	0.005	23.212
10	27.127	27.124	35.710	222.5	0.047	23.216
20	27.072	27.068	35.851	221.7	0.093	23.341
30	27.109	27.102	35.945	221.3	0.138	23.401
40	27.074	27.065	35.961	221.1	0.183	23.426
50	26.985	26.973	36.123	215.3	0.226	23.578
60	25.504	25.491	36.259	185.1	0.266	24.148
70	24.934	24.918	36.326	180.4	0.303	24.375
80	23.810	23.793	36.378	176.6	0.336	24.753
90	22.132	22.114	36.337	188.9	0.366	25.208
100	21.197	21.177	36.239	191.3	0.393	25.396
110	20.520	20.499	36.196	186.8	0.418	25.547
120	19.165	19.144	36.057	178.2	0.442	25.799
130	18.176	18.153	35.969	177.6	0.463	25.983
140	17.745	17.721	36.198	152.4	0.483	26.266
150	17.126	17.101	36.149	153.9	0.500	26.379
160	16.788	16.762	36.123	150.9	0.517	26.441
170	16.432	16.405	36.058	146.3	0.533	26.475
180	15.556	15.528	35.883	147.4	0.549	26.542
190	15.138	15.109	35.868	145.5	0.564	26.625
200	14.931	14.901	35.844	140.7	0.578	26.653
250	11.197	11.166	35.142	147.8	0.644	26.863
300	10.551	10.515	35.125	137.7	0.705	26.966
350	9.705	9.665	34.994	133.7	0.762	27.011
400	8.856	8.813	34.881	130.1	0.817	27.062
450	8.145	8.098	34.799	130.6	0.870	27.108
500	7.615	7.565	34.741	133.2	0.922	27.142
550	7.159	7.106	34.702	134.2	0.972	27.177
600	6.785	6.728	34.669	135.7	1.020	27.203
650	6.272	6.213	34.628	138.6	1.067	27.239
700	6.056	5.994	34.638	137.7	1.113	27.275
750	5.731	5.666	34.619	142.4	1.157	27.302
800	5.521	5.452	34.620	147.2	1.200	27.329
900	5.366	5.289	34.703	154.8	1.282	27.415
1000	5.251	5.165	34.804	172.6	1.355	27.510
1500	4.250	4.127	34.999	278.0	1.631	27.785
1733	3.920	3.779	34.987	290.2	1.741	27.813

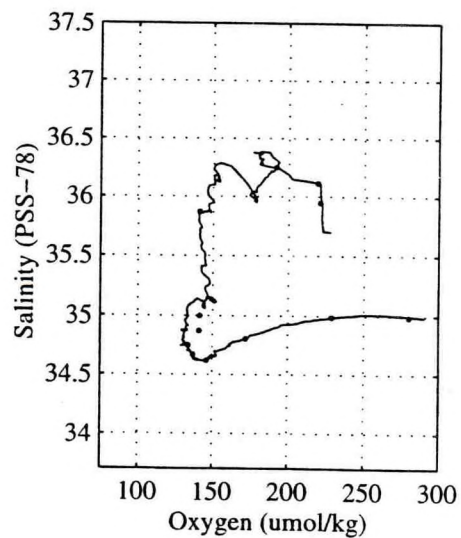
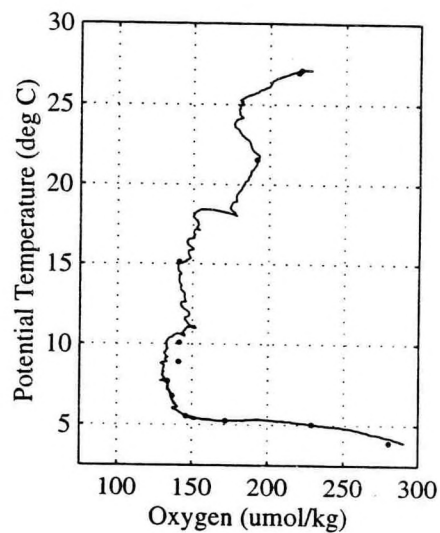
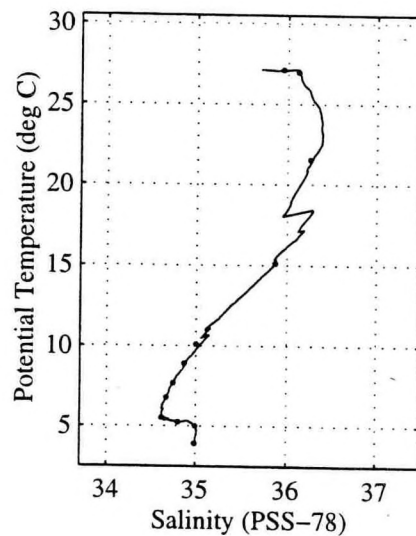
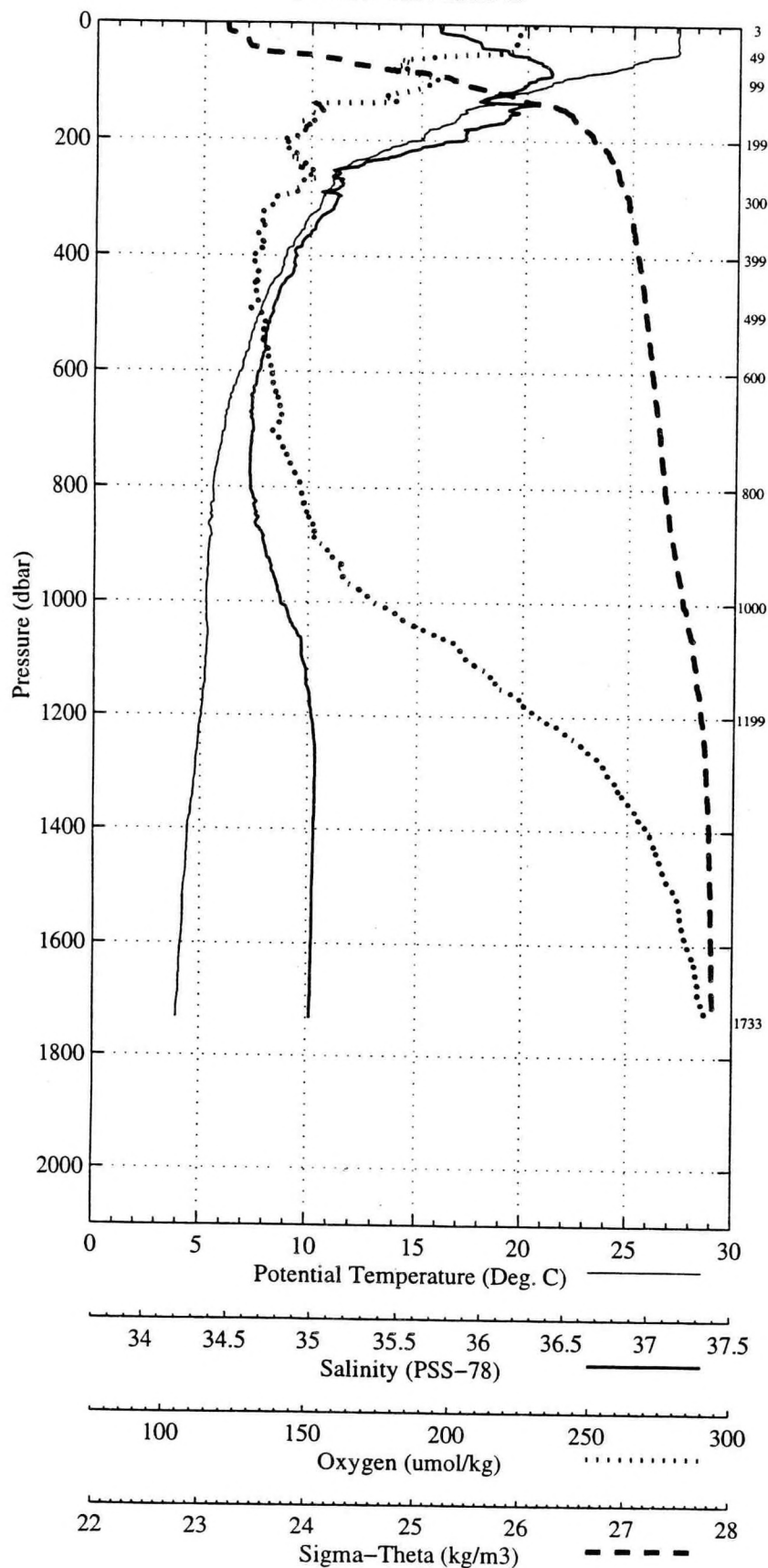
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1733	24	3.919	3.778	34.987	280.4
1200	1	5.019	4.916	34.989	228.7
1001	2	5.251	5.165	34.804	171.8
801	3	5.518	5.449	34.619	146.2
601	4	6.782	6.725	34.670	137.1
500	5	7.684	7.634	34.749	133.7
399	6	8.902	8.858	34.872	141.2
300	12	10.096	10.061	34.999	141.6
200	13	15.132	15.101	35.870	141.2
99	14	21.544	21.525	36.253	191.7
50	15	26.969	26.958	36.112	218.7
4	16	27.119	27.118	35.947	220.5

## NBC-3 R/V SEWARD JOHNSON

CTD Station 32 (00032)

Latitude 8.196 N Longitude 57.184 W

15-Feb-2000 21:17 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 33 (00033)  
Latitude 8.400N Longitude 56.817W  
16-Feb-2000 01:14Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.747	26.746	36.184	226.4	0.004	23.693
10	26.765	26.763	36.183	223.4	0.042	23.688
20	26.772	26.768	36.183	223.5	0.084	23.687
30	26.765	26.758	36.184	223.4	0.126	23.691
40	26.720	26.711	36.180	222.9	0.168	23.704
50	26.665	26.653	36.177	221.5	0.210	23.721
60	25.760	25.747	36.244	196.8	0.252	24.057
70	24.911	24.896	36.383	198.9	0.288	24.426
80	24.510	24.493	36.395	198.5	0.323	24.557
90	23.967	23.948	36.397	195.4	0.356	24.722
100	23.175	23.155	36.389	188.6	0.388	24.951
110	21.864	21.842	36.319	183.4	0.416	25.273
120	21.333	21.309	36.380	175.8	0.443	25.467
130	20.119	20.094	36.251	168.1	0.467	25.699
140	19.113	19.088	36.172	164.3	0.490	25.903
150	18.018	17.992	36.047	165.6	0.510	26.084
160	17.736	17.709	36.126	163.0	0.529	26.214
170	17.810	17.781	36.307	149.4	0.547	26.336
180	17.481	17.450	36.270	147.1	0.564	26.389
190	17.104	17.072	36.215	147.6	0.581	26.438
200	16.361	16.328	36.105	140.7	0.597	26.530
250	13.385	13.350	35.571	141.7	0.668	26.772
300	11.233	11.195	35.240	132.8	0.732	26.934
350	10.092	10.050	35.062	129.4	0.790	26.999
400	8.874	8.831	34.854	134.6	0.846	27.038
450	7.906	7.860	34.746	138.1	0.899	27.102
500	7.345	7.296	34.683	139.7	0.951	27.135
550	6.998	6.945	34.647	142.8	1.001	27.155
600	6.383	6.328	34.598	142.8	1.050	27.200
650	6.128	6.069	34.578	148.3	1.098	27.218
700	5.976	5.914	34.597	145.1	1.144	27.253
750	5.717	5.652	34.610	145.6	1.189	27.297
800	5.481	5.413	34.595	147.7	1.233	27.314
900	5.064	4.988	34.690	159.9	1.313	27.439
1000	5.137	5.052	34.800	175.4	1.385	27.521
1500	4.291	4.168	35.002	278.6	1.659	27.783
2000	3.732	3.569	34.978	292.8	1.893	27.829

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2007	24	3.729	3.565	34.979	286.5
1503	1	4.281	4.157	35.003	273.9
1199	2	5.017	4.914	34.993	232.8
1001	3	5.047	NaN	NaN *	175.1
802	4	5.549	NaN	NaN *	149.4
599	5	6.383	6.328	34.604	147.7
400	6	8.590	8.547	34.817	138.7
299	12	11.318	11.280	35.234 *	135.9
200	13	16.279	NaN	NaN *	139.9
99	14	23.358	23.338	36.384	190.0
50	15	26.691	26.680	36.176 *	218.7
4	16	26.780	26.779	36.179	223.6

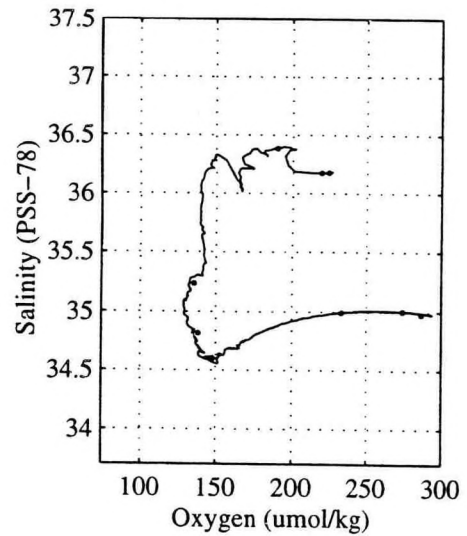
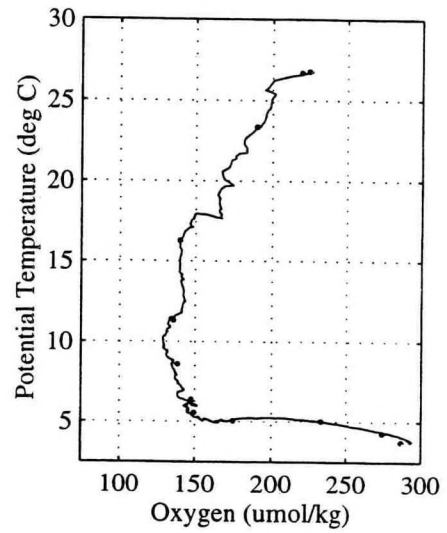
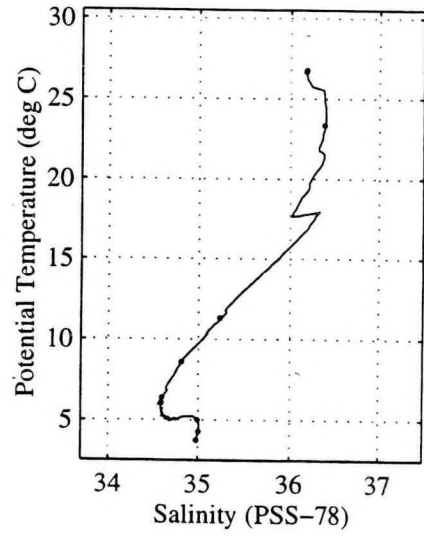
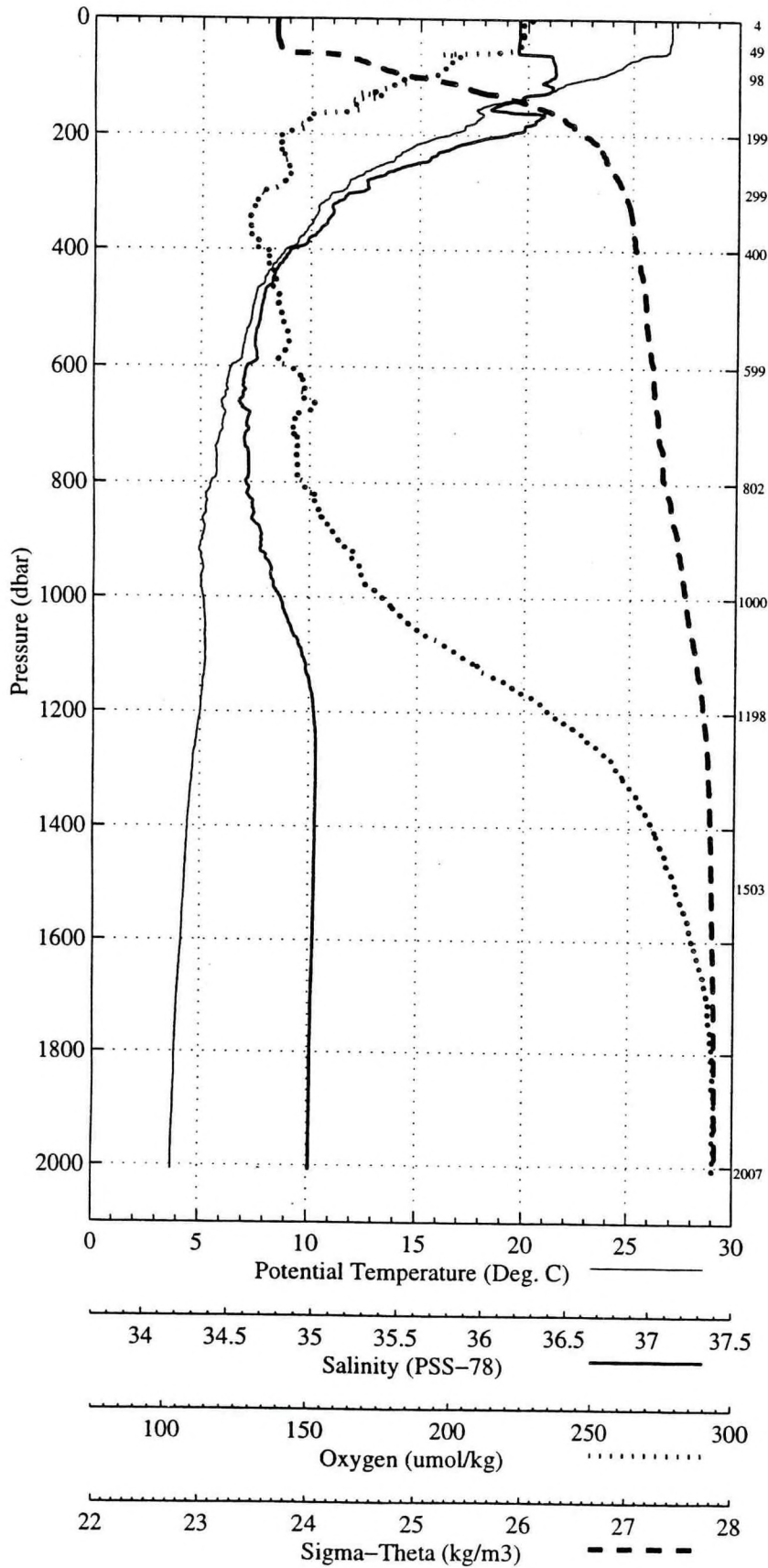


NBC-3 R/V SEWARD JOHNSON

CTD Station 33 (00033)

Latitude 8.400 N Longitude 56.817 W

16-Feb-2000 01:14 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 34 (00034)  
Latitude 8.597N Longitude 56.452W  
16-Feb-2000 05:24Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.909	26.906	36.195	222.1	0.038	23.651
20	26.916	26.912	36.195	222.2	0.081	23.650
30	26.919	26.913	36.195	222.2	0.123	23.651
40	26.921	26.912	36.196	222.1	0.166	23.652
50	26.917	26.906	36.194	221.6	0.208	23.654
60	26.910	26.896	36.194	221.4	0.251	23.657
70	26.133	26.117	36.270	205.8	0.293	23.962
80	25.114	25.096	36.329	198.3	0.330	24.324
90	24.646	24.627	36.375	196.9	0.366	24.502
100	23.855	23.834	36.382	195.7	0.399	24.746
110	23.437	23.414	36.451	197.3	0.431	24.922
120	22.927	22.902	36.455	199.1	0.461	25.074
130	22.499	22.473	36.408	194.5	0.490	25.163
140	21.479	21.451	36.282	185.3	0.517	25.355
150	20.901	20.873	36.246	181.6	0.543	25.487
160	19.493	19.464	36.118	178.0	0.567	25.765
170	17.980	17.950	36.078	164.8	0.588	26.118
180	17.281	17.251	36.040	165.8	0.607	26.261
190	17.288	17.256	36.218	148.7	0.624	26.396
200	16.396	16.364	36.108	146.6	0.641	26.524
250	13.773	13.737	35.635	143.3	0.714	26.742
300	11.330	11.292	35.210	143.9	0.779	26.893
350	10.088	10.047	35.021	137.9	0.839	26.968
400	9.461	9.416	34.950	133.3	0.896	27.020
450	8.767	8.718	34.870	131.3	0.951	27.069
500	7.838	7.787	34.753	135.4	1.004	27.119
550	7.242	7.189	34.681	140.9	1.055	27.149
600	6.955	6.897	34.680	137.0	1.105	27.189
650	6.251	6.192	34.616	139.6	1.152	27.233
700	5.806	5.745	34.594	142.8	1.198	27.271
750	5.656	5.591	34.618	145.5	1.242	27.310
800	5.548	5.479	34.619	147.2	1.285	27.325
900	5.293	5.216	34.654	153.8	1.368	27.384
1000	5.169	5.084	34.727	163.4	1.446	27.459
1500	4.210	4.088	34.998	281.1	1.728	27.788
2000	3.650	3.488	34.976	293.3	1.958	27.835

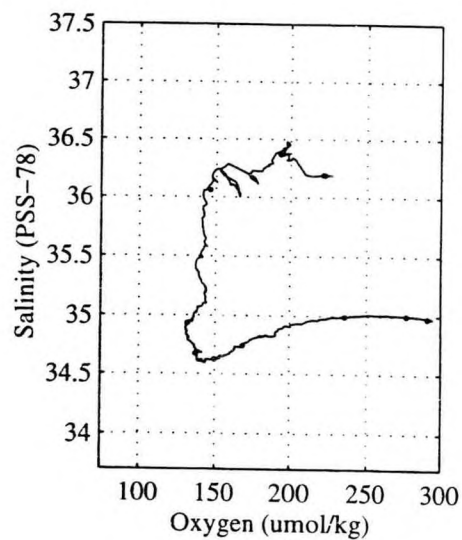
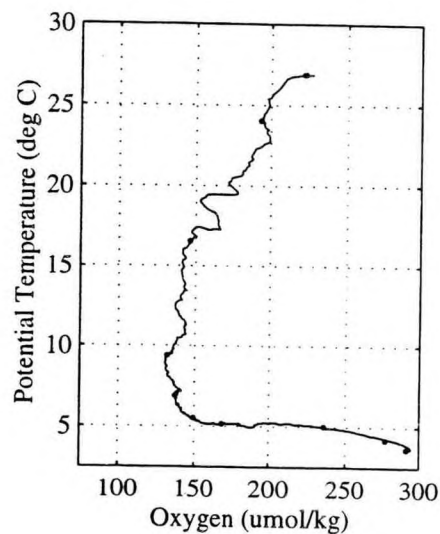
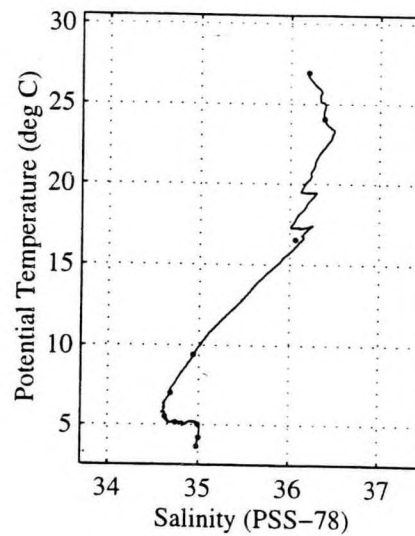
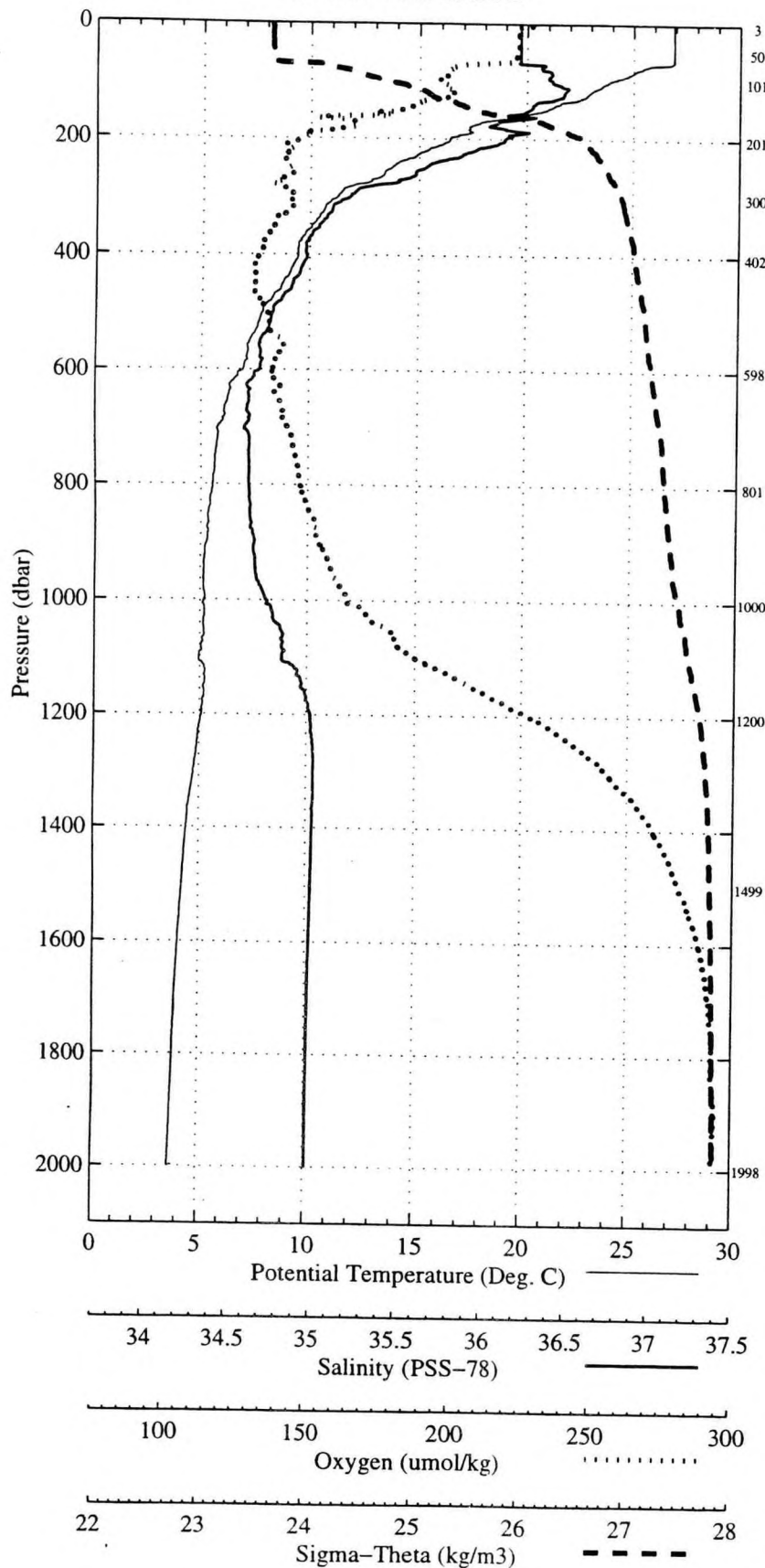
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1999	24	3.651	3.489	34.977	291.2
1500	1	4.199	4.076	34.999	277.0
1200	2	5.009	4.906	34.992	235.5
1001	3	5.151	5.066	34.740	168.4
801	4	5.511	5.442	34.622	149.4
598	5	6.987	6.930	34.683	138.0
402	6	9.410	9.365	34.935	131.8
301	12	11.148	NaN	NaN *	NaN
201	13	16.548	16.515	36.060 *	146.4
101	14	24.033	24.012	36.370	193.4
50	15	26.920	26.908	36.191	222.0
4	16	26.910	26.909	36.193	221.0

# NBC-3 R/V SEWARD JOHNSON

CTD Station 34 (00034)

Latitude 8.597 N Longitude 56.452 W

16-Feb-2000 05:24 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 35 (00035)  
Latitude 8.797N Longitude 56.083W  
16-Feb-2000 09:45Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.980	26.978	36.190	221.7	0.038	23.624
20	26.987	26.983	36.190	221.7	0.081	23.624
30	26.999	26.992	36.190	221.7	0.124	23.621
40	26.998	26.989	36.190	221.7	0.167	23.623
50	26.998	26.986	36.190	221.4	0.209	23.625
60	27.003	26.990	36.190	221.3	0.252	23.625
70	27.003	26.987	36.190	221.3	0.295	23.626
80	26.312	26.294	36.254	205.8	0.338	23.895
90	25.519	25.499	36.305	199.8	0.376	24.182
100	24.897	24.876	36.328	194.4	0.413	24.392
110	24.641	24.617	36.324	195.7	0.448	24.468
120	23.801	23.776	36.432	197.2	0.482	24.802
130	22.918	22.891	36.438	196.0	0.512	25.065
140	22.458	22.430	36.466	197.5	0.541	25.220
150	22.059	22.029	36.415	195.7	0.569	25.295
160	21.016	20.985	36.270	181.7	0.595	25.475
170	18.874	18.843	36.269	154.0	0.618	26.041
180	17.934	17.903	36.204	157.5	0.637	26.227
190	17.123	17.091	36.097	156.0	0.655	26.343
200	17.337	17.303	36.261	148.4	0.672	26.418
250	13.509	13.474	35.579	140.9	0.745	26.753
300	11.322	11.284	35.203	143.5	0.810	26.889
350	10.013	9.972	35.011	137.6	0.870	26.973
400	9.699	9.653	35.008	131.1	0.927	27.025
450	8.810	8.761	34.888	131.7	0.982	27.076
500	8.304	8.251	34.842	131.8	1.035	27.120
550	7.723	7.667	34.770	130.9	1.086	27.151
600	6.971	6.913	34.672	134.1	1.136	27.181
650	6.623	6.563	34.653	136.7	1.185	27.214
700	6.195	6.132	34.631	139.9	1.232	27.252
750	5.663	5.598	34.601	144.9	1.276	27.296
800	5.406	5.338	34.595	148.2	1.320	27.323
900	5.175	5.099	34.632	154.9	1.403	27.381
1000	4.924	4.841	34.661	163.6	1.481	27.434
1500	4.558	4.431	35.012	266.4	1.797	27.763
2000	3.580	3.419	34.977	289.6	2.032	27.842

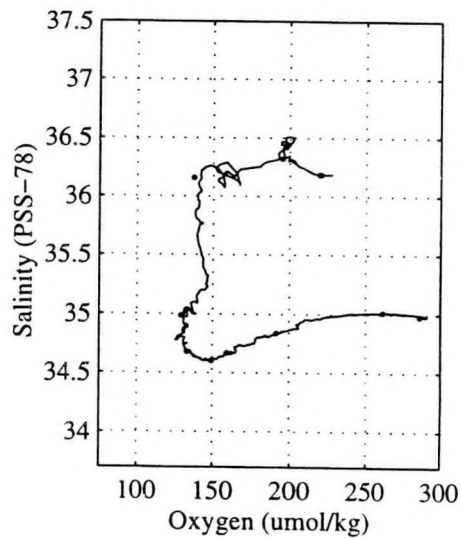
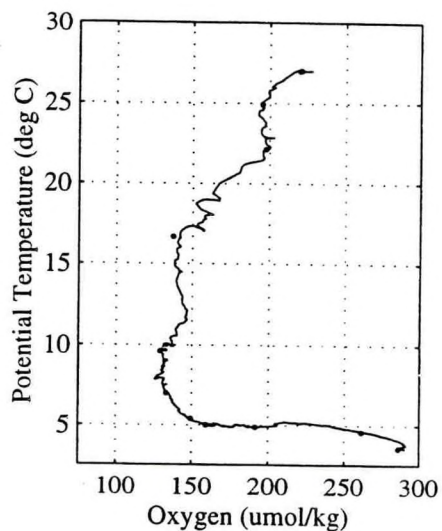
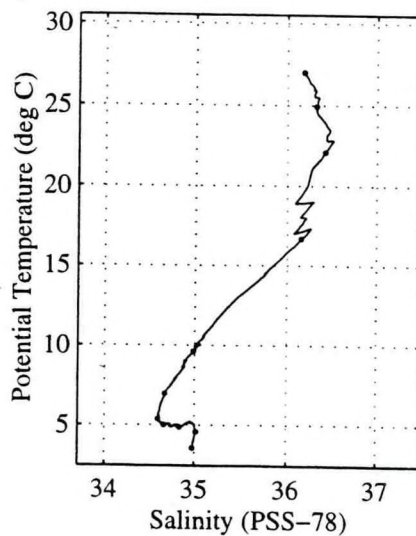
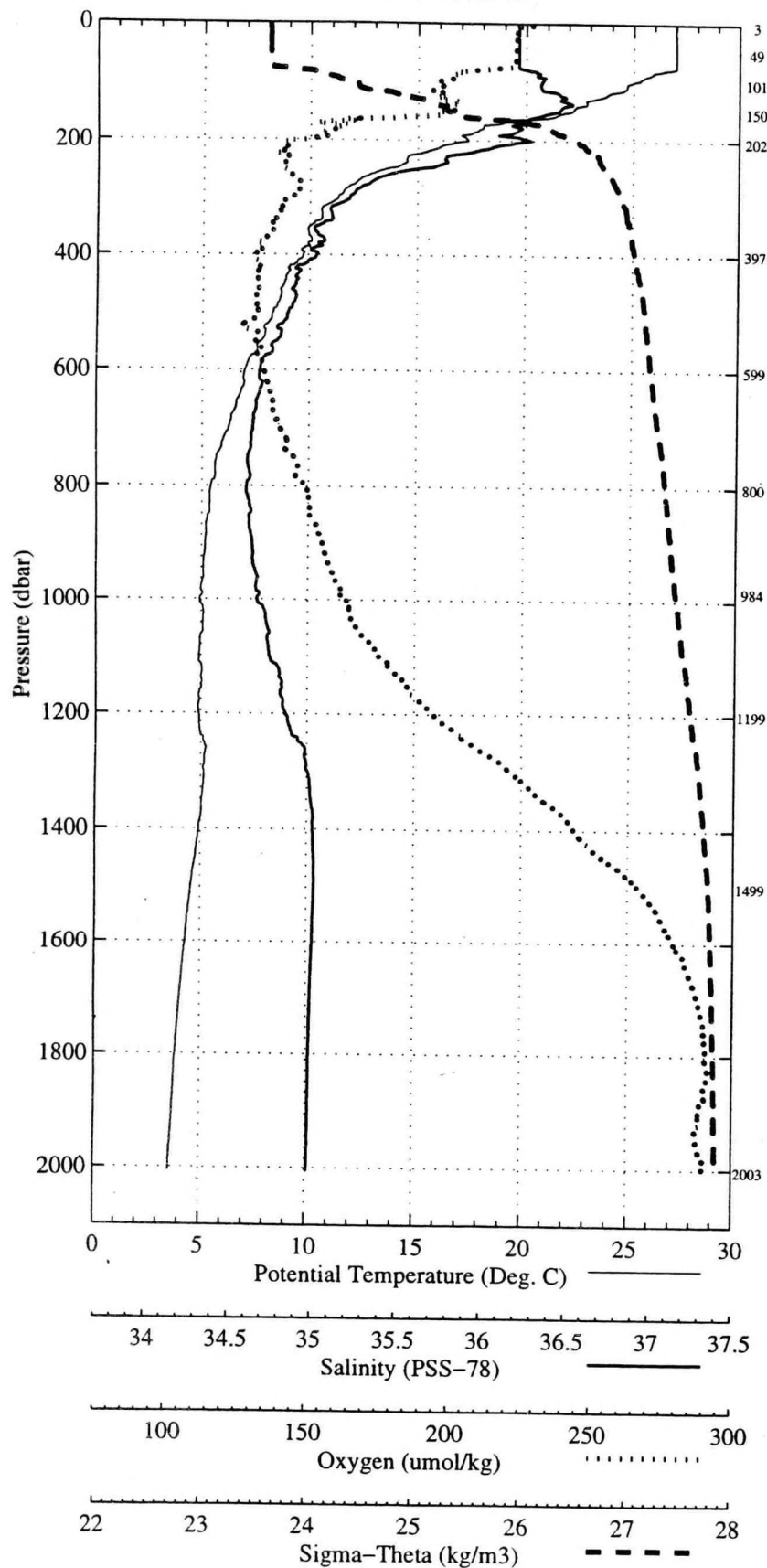
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2003	24	3.577	3.415	34.978	286.3
1500	1	4.582	4.455	35.014	261.3
1199	2	4.875	4.774	34.835	191.5
985	3	5.013	4.931	34.665	159.3
800	4	5.391	5.323	34.600	149.4
600	5	6.994	6.937	34.676	133.5
398	6	9.614	9.569	34.986	129.4
202	12	16.684	16.651	36.156 *	137.5
151	13	22.127	22.097	36.422 *	197.6
102	14	24.928	24.906	36.320 *	195.2
50	15	26.990	26.979	36.185	220.5
3	16	26.980	26.979	36.185	219.4

NBC-3 R/V SEWARD JOHNSON

CTD Station 35 (00035)

Latitude 8.797 N Longitude 56.083 W

16-Feb-2000 09:45 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 36 (00036)  
Latitude 9.164N Longitude 55.698W  
16-Feb-2000 14:35Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.729	26.729	36.115	216.2	0.004	23.646
10	26.725	26.723	36.130	216.9	0.042	23.661
20	26.736	26.732	36.130	217.1	0.085	23.659
30	26.727	26.720	36.130	217.2	0.127	23.663
40	26.724	26.715	36.131	216.9	0.169	23.666
50	26.724	26.712	36.131	217.0	0.212	23.668
60	26.724	26.711	36.136	216.1	0.254	23.673
70	26.722	26.706	36.149	216.5	0.297	23.685
80	26.719	26.701	36.160	216.1	0.339	23.696
90	26.626	26.605	36.190	212.1	0.381	23.749
100	25.884	25.862	36.352	197.1	0.421	24.105
110	25.447	25.422	36.353	194.5	0.459	24.244
120	24.883	24.856	36.325	189.9	0.495	24.397
130	24.118	24.090	36.344	188.1	0.530	24.642
140	23.924	23.894	36.421	189.1	0.563	24.760
150	23.216	23.185	36.459	192.9	0.594	24.998
160	22.319	22.286	36.353	186.2	0.623	25.176
170	21.417	21.384	36.295	187.6	0.651	25.385
180	20.310	20.276	36.200	179.6	0.676	25.615
190	18.918	18.884	36.159	154.2	0.699	25.947
200	17.793	17.759	36.170	148.7	0.719	26.238
250	15.073	15.035	35.832	140.1	0.800	26.615
300	12.207	12.167	35.349	142.0	0.870	26.836
350	11.796	11.750	35.382	127.9	0.933	26.942
400	10.465	10.416	35.156	129.1	0.991	27.011
450	8.946	8.897	34.913	130.8	1.046	27.075
500	7.982	7.931	34.762	132.9	1.099	27.105
550	7.334	7.280	34.696	132.4	1.151	27.148
600	7.062	7.004	34.685	132.6	1.201	27.178
650	6.833	6.771	34.677	131.9	1.250	27.204
700	6.344	6.279	34.636	136.3	1.297	27.238
750	5.953	5.886	34.616	138.5	1.343	27.272
800	5.948	5.877	34.663	137.9	1.388	27.311
900	5.261	5.184	34.635	147.0	1.472	27.373
1000	5.053	4.969	34.681	157.7	1.551	27.436
1500	4.726	4.598	35.010	246.9	1.872	27.744
2000	3.508	3.347	34.975	281.0	2.112	27.848

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2004	24	3.505	3.344	34.975	288.0
1498	1	4.747	4.618	35.012	253.1
1000	2	5.055	4.971	34.682	161.5
800	3	5.965	5.893	34.653	140.2
599	4	7.055	6.997	34.684	137.4
499	5	7.946	NaN	NaN *	136.5
399	6	10.431	NaN	NaN *	130.3
301	12	12.223	12.183	35.353	141.2
200	13	17.644	17.610	36.206	147.4
100	14	25.750	25.728	36.345	201.9
50	15	26.723	26.712	36.126	218.1
4	16	26.761	26.760	36.126	216.5

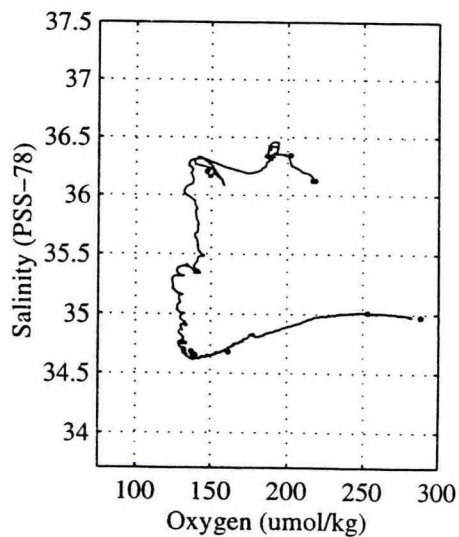
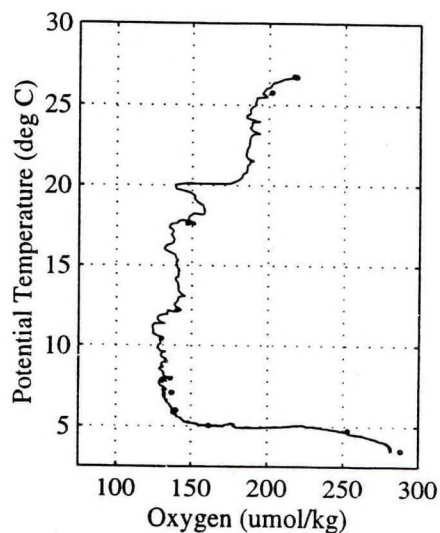
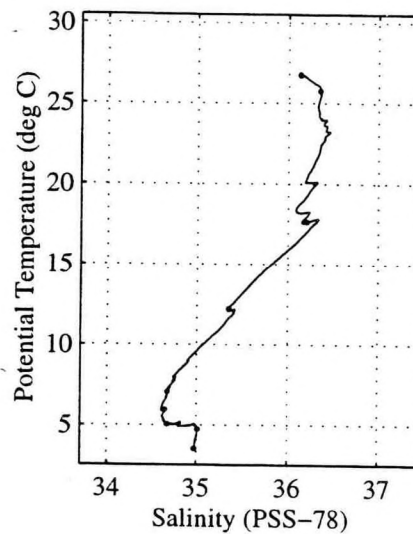
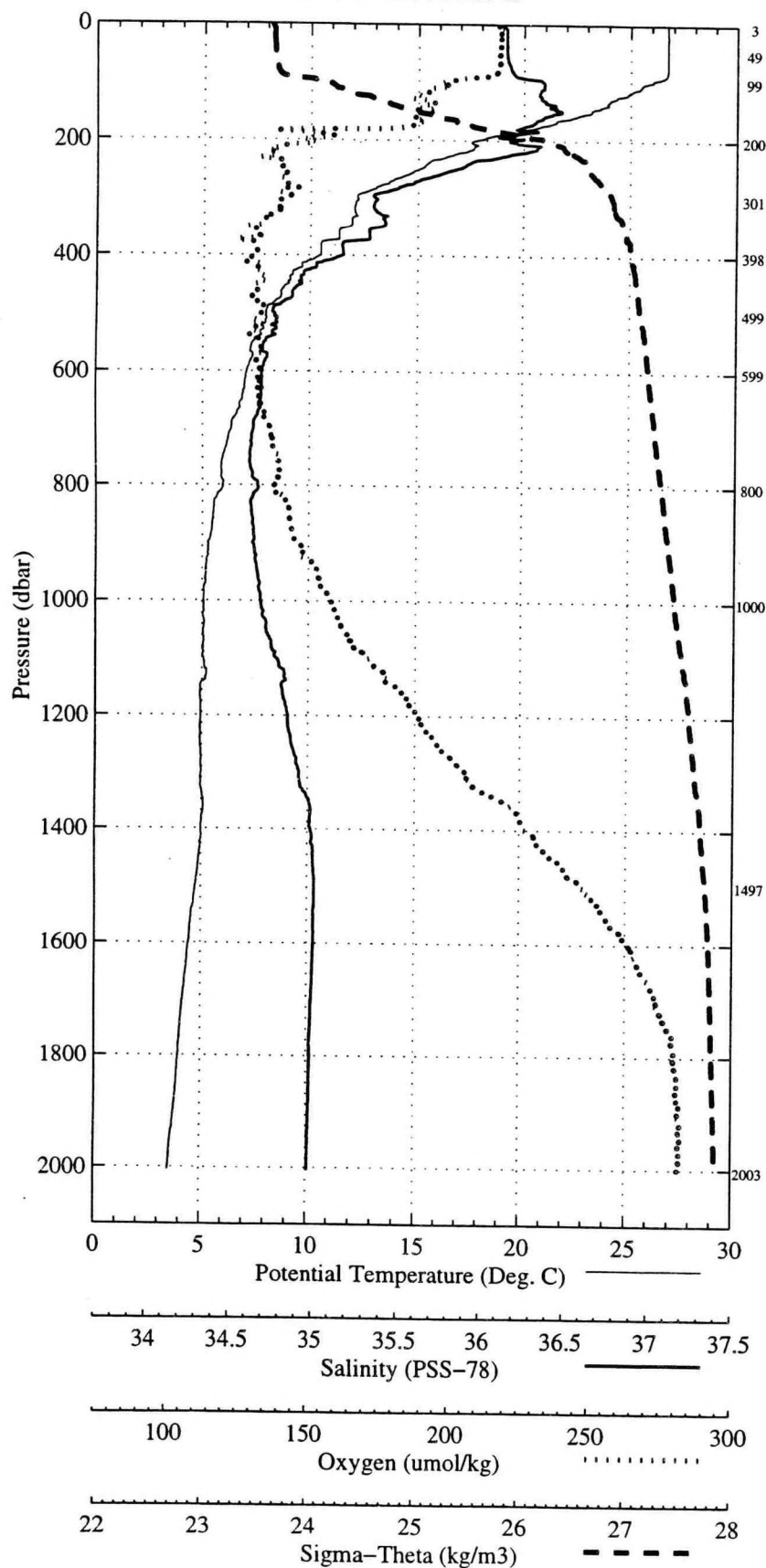


## NBC-3 R/V SEWARD JOHNSON

CTD Station 36 (00036)

Latitude 9.164 N Longitude 55.698 W

16-Feb-2000 14:35 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 37 (00037)  
Latitude 9.496N Longitude 55.499W  
16-Feb-2000 18:19Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.779	26.777	36.179	216.8	0.038	23.680
20	26.750	26.746	36.178	216.5	0.080	23.690
30	26.718	26.712	36.178	216.8	0.122	23.701
40	26.713	26.704	36.178	216.9	0.164	23.705
50	26.710	26.699	36.179	216.6	0.206	23.708
60	26.712	26.698	36.180	216.7	0.248	23.710
70	26.713	26.697	36.180	216.6	0.290	23.711
80	26.713	26.695	36.182	216.3	0.332	23.713
90	26.710	26.690	36.183	215.6	0.375	23.717
100	26.512	26.489	36.222	211.8	0.417	23.811
110	25.702	25.678	36.370	194.2	0.456	24.177
120	24.778	24.752	36.424	193.2	0.492	24.503
130	24.514	24.486	36.429	193.3	0.527	24.588
140	23.813	23.784	36.404	184.9	0.560	24.779
150	22.336	22.306	36.319	183.4	0.591	25.144
160	21.426	21.394	36.298	183.7	0.618	25.384
170	20.730	20.697	36.282	157.6	0.644	25.563
180	18.408	18.376	36.125	147.3	0.666	26.049
190	18.708	18.675	36.453	141.2	0.686	26.226
200	17.546	17.512	36.239	139.9	0.703	26.351
250	14.070	14.033	35.675	138.7	0.781	26.710
300	12.569	12.528	35.497	138.0	0.847	26.881
350	10.669	10.626	35.155	127.3	0.907	26.972
400	9.990	9.943	35.060	127.9	0.965	27.017
450	8.947	8.897	34.901	127.3	1.020	27.066
500	8.343	8.290	34.823	129.0	1.074	27.099
550	7.798	7.742	34.762	129.1	1.126	27.134
600	7.134	7.076	34.685	131.3	1.177	27.169
650	6.810	6.748	34.663	133.3	1.226	27.196
700	6.409	6.345	34.647	134.9	1.274	27.238
750	6.035	5.968	34.619	138.4	1.320	27.265
800	5.899	5.828	34.638	139.1	1.365	27.297
900	5.398	5.321	34.637	144.5	1.451	27.359
1000	5.180	5.095	34.691	154.8	1.532	27.429
1500	4.612	4.484	35.006	249.4	1.856	27.752
2000	3.492	3.332	34.974	281.9	2.092	27.848

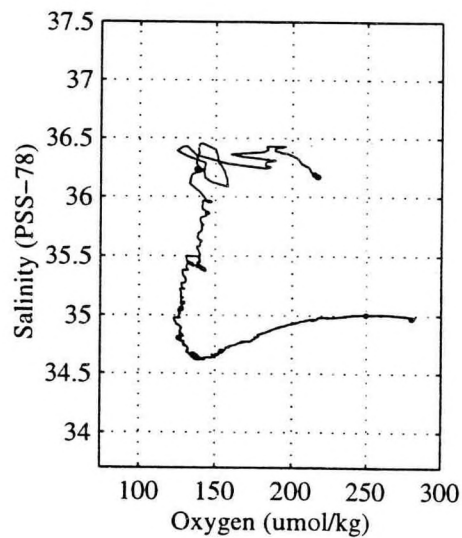
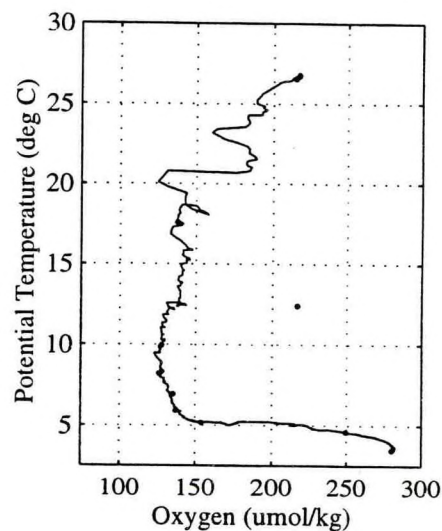
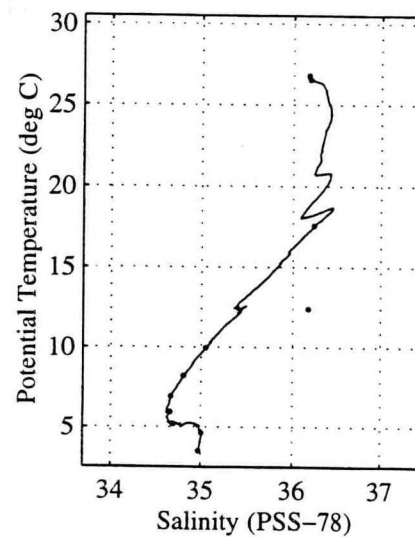
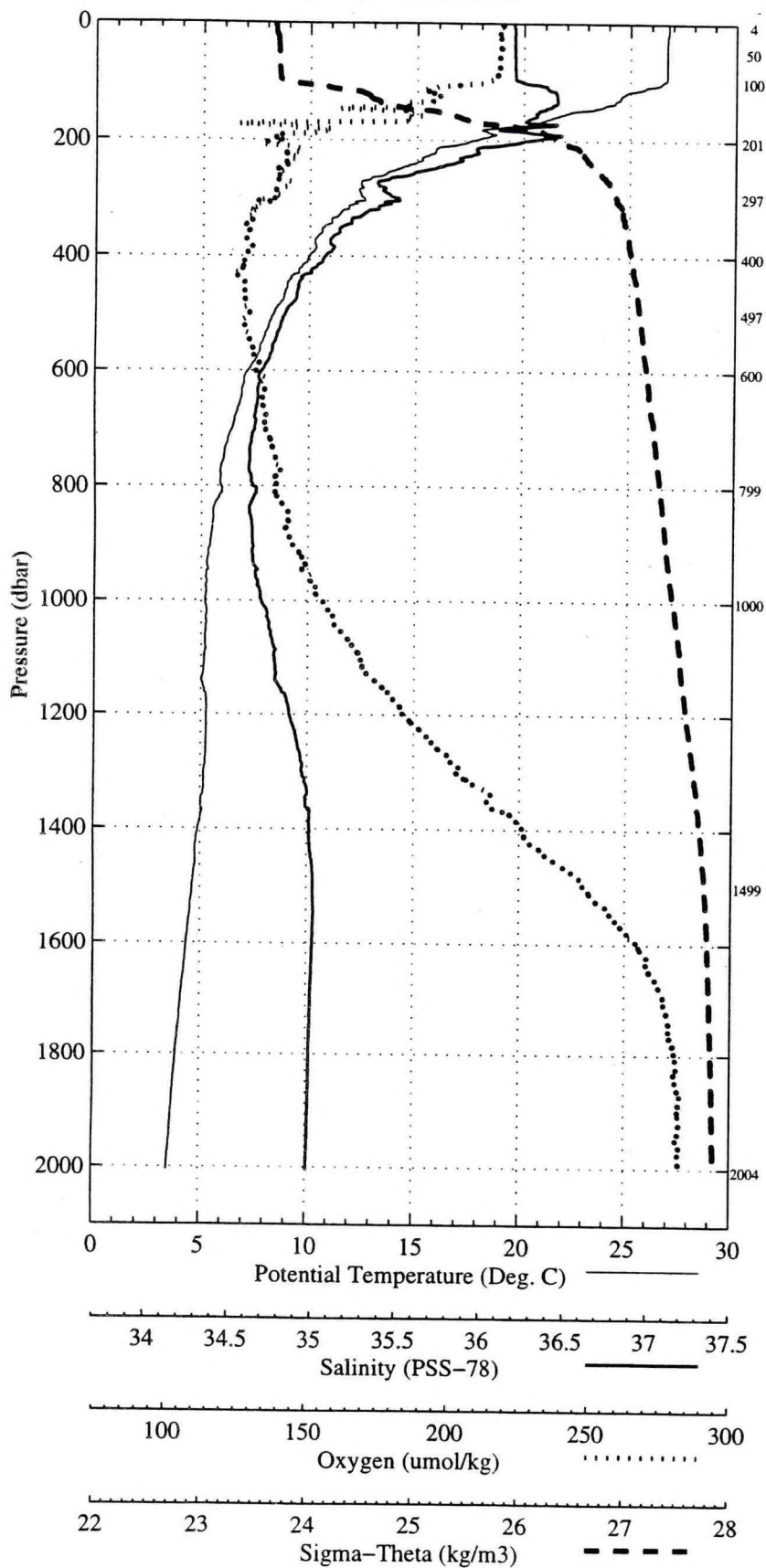
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2004	24	3.484	3.324	34.973	280.3
1499	1	4.615	4.488	35.005	249.5
1000	2	5.182	5.097	34.692	154.0
799	3	5.936	5.865	34.655	137.0
601	4	6.922	6.865	34.664	135.4
498	5	8.212	8.160	34.803	126.1
401	6	9.952	9.905	35.054	127.6
297	12	12.398	12.358	36.173 *	216.2
201	13	17.580	17.546	36.235 *	137.6
100	14	26.537	26.514	36.190 *	214.4
50	15	26.718	26.707	36.172	216.6
5	16	26.793	26.792	36.173	216.6

# NBC-3 R/V SEWARD JOHNSON

CTD Station 37 (00037)

Latitude 9.496 N Longitude 55.499 W

16-Feb-2000 18:19 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 38 (00038)  
Latitude 9.793N Longitude 55.222W  
16-Feb-2000 22:06Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.893	26.893	35.668	220.3	0.005	23.257
10	26.895	26.893	35.679	217.4	0.046	23.266
20	26.892	26.888	35.704	216.9	0.092	23.288
30	26.884	26.877	35.780	216.6	0.138	23.349
40	26.921	26.912	35.887	216.1	0.183	23.419
50	26.940	26.928	35.909	215.9	0.227	23.432
60	27.026	27.013	35.953	214.7	0.272	23.438
70	27.036	27.020	35.956	214.8	0.317	23.439
80	27.052	27.033	35.964	214.9	0.361	23.441
90	27.009	26.989	36.122	208.8	0.406	23.575
100	26.282	26.259	36.090	203.8	0.448	23.783
110	25.368	25.343	36.353	185.4	0.487	24.268
120	23.400	23.375	36.278	165.0	0.522	24.803
130	22.581	22.555	36.439	168.0	0.552	25.163
140	22.769	22.740	36.882	154.4	0.579	25.447
150	21.479	21.449	36.667	150.2	0.603	25.649
160	20.173	20.143	36.455	142.8	0.627	25.843
170	19.067	19.037	36.393	143.5	0.648	26.086
180	18.464	18.432	36.370	141.5	0.667	26.222
190	18.400	18.367	36.553	174.2	0.685	26.380
200	18.041	18.006	36.534	169.8	0.701	26.456
250	14.593	14.555	35.870	136.7	0.777	26.749
300	12.935	12.894	35.611	135.0	0.842	26.897
350	10.940	10.897	35.279	127.4	0.900	27.020
400	10.171	10.124	35.159	122.0	0.956	27.064
450	9.397	9.346	35.045	119.4	1.010	27.105
500	8.748	8.694	34.956	120.7	1.062	27.142
550	8.145	8.087	34.883	119.8	1.113	27.178
600	7.469	7.409	34.794	125.2	1.161	27.208
650	6.656	6.595	34.691	130.3	1.209	27.239
700	6.246	6.182	34.657	133.7	1.255	27.267
750	5.879	5.813	34.631	137.5	1.300	27.293
800	5.633	5.564	34.626	141.2	1.343	27.320
900	5.258	5.182	34.629	148.9	1.428	27.369
1000	5.131	5.047	34.689	156.8	1.507	27.433
1500	4.599	4.472	35.012	255.0	1.822	27.759
2000	3.435	3.276	34.971	282.4	2.056	27.851

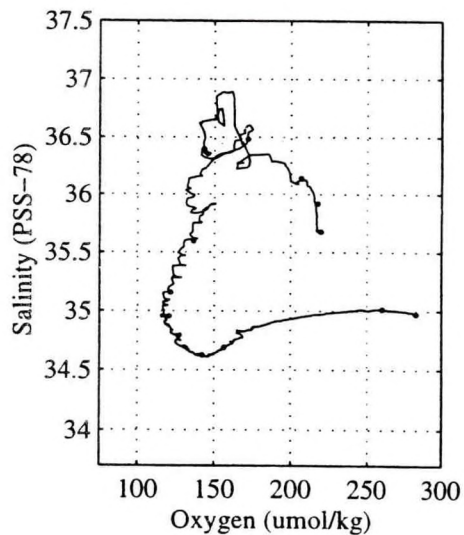
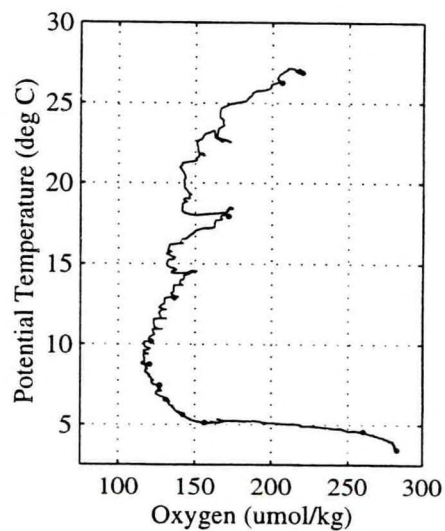
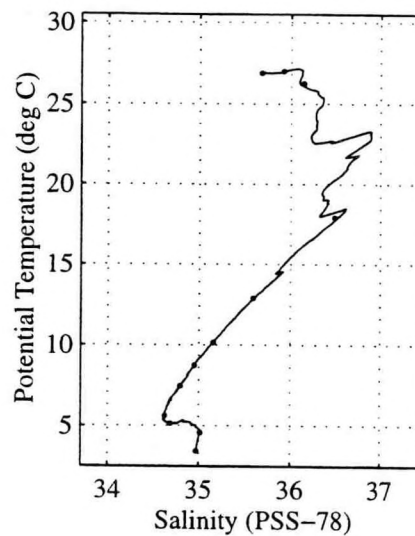
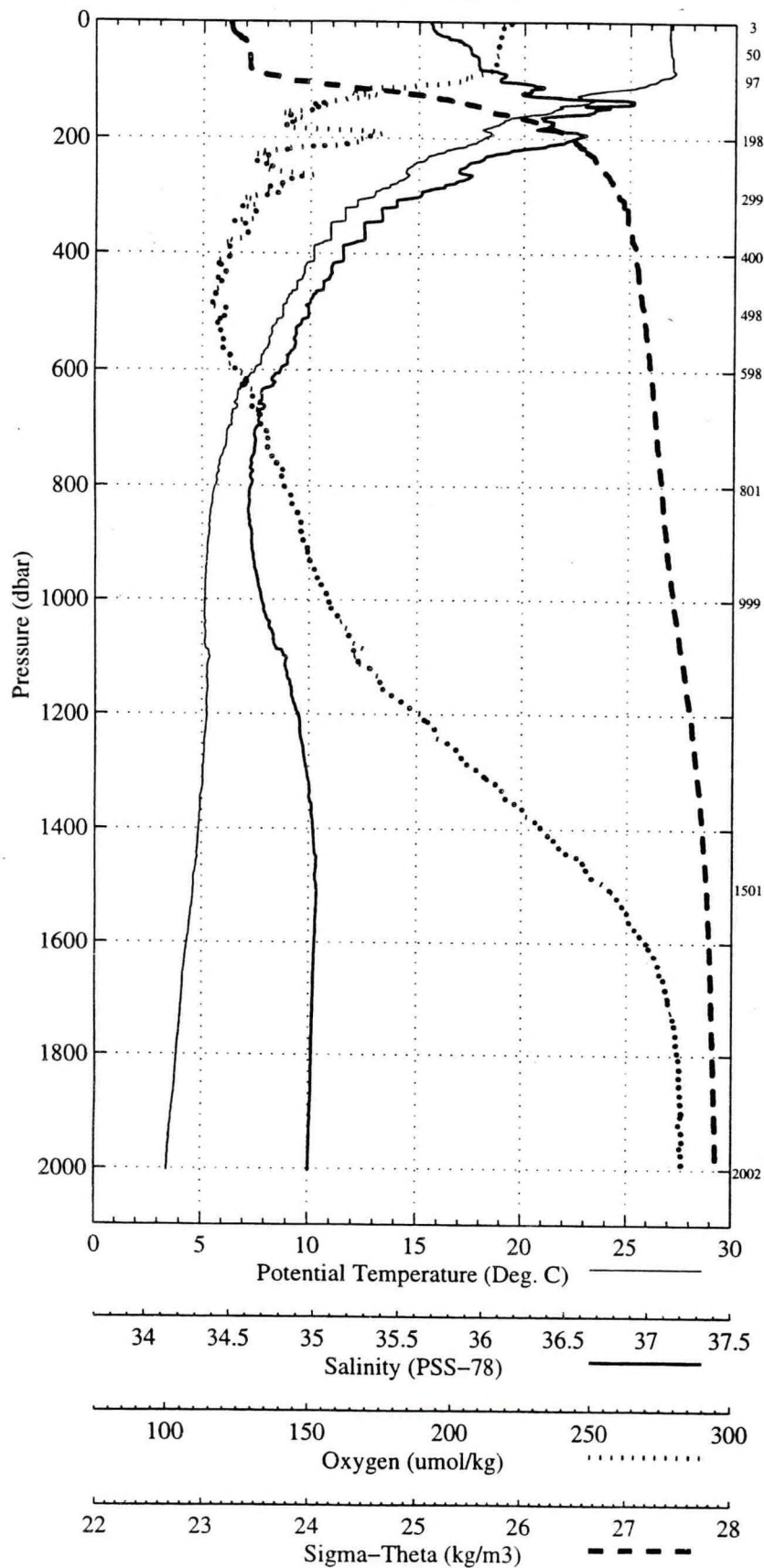
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2003	24	3.436	3.277	34.971	283.1
1501	1	4.583	4.456	35.015	260.2
999	2	5.135	5.050	34.688	156.4
801	3	5.620	5.550	34.627	142.2
598	4	7.471	7.411	34.796	127.0
499	5	8.743	8.689	34.953	120.3
400	6	10.169	10.121	35.154	121.3
300	12	12.894	12.853	35.595	136.5
199	13	17.933	17.899	36.483 *	171.8
97	14	26.251	26.229	36.137 *	206.5
50	15	26.988	26.976	35.920 *	217.3
4	16	26.882	26.881	35.680	219.5

NBC-3 R/V SEWARD JOHNSON

CTD Station 38 (00038)

Latitude 9.793 N Longitude 55.222 W

16-Feb-2000 22:06 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 39 (00039)  
Latitude 0.116N Longitude 54.950W  
17-Feb-2000 03:05Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.604	26.601	34.877	218.6	0.046	22.755
20	26.608	26.604	34.877	218.8	0.097	22.755
30	26.658	26.651	34.971	218.9	0.148	22.811
40	26.515	26.505	35.467	218.0	0.196	23.231
50	26.549	26.538	35.605	216.3	0.242	23.327
60	26.593	26.579	35.728	215.0	0.288	23.407
70	26.551	26.535	35.822	210.4	0.332	23.492
80	26.054	26.036	36.212	197.9	0.375	23.944
90	25.792	25.772	36.611	208.3	0.413	24.329
100	25.848	25.826	36.730	205.2	0.449	24.402
110	24.660	24.636	36.797	177.8	0.483	24.820
120	23.359	23.334	36.665	145.8	0.513	25.108
130	21.542	21.517	36.599	135.0	0.539	25.578
140	20.795	20.768	36.614	141.1	0.563	25.796
150	20.058	20.030	36.579	149.2	0.584	25.968
160	19.215	19.186	36.495	134.8	0.604	26.125
170	18.886	18.856	36.559	147.6	0.623	26.259
180	18.375	18.343	36.525	152.2	0.641	26.364
190	17.807	17.774	36.471	171.3	0.658	26.465
200	17.466	17.432	36.436	163.1	0.674	26.522
250	14.982	14.944	36.024	148.7	0.747	26.783
300	12.113	12.074	35.460	128.2	0.811	26.941
350	10.974	10.930	35.293	128.8	0.869	27.025
400	9.672	9.626	35.085	123.4	0.924	27.090
450	8.848	8.799	34.948	118.6	0.977	27.118
500	8.409	8.356	34.899	117.9	1.028	27.149
550	7.794	7.738	34.828	124.9	1.078	27.186
600	7.273	7.214	34.766	122.9	1.126	27.213
650	6.799	6.737	34.728	127.2	1.173	27.249
700	6.438	6.373	34.714	126.9	1.219	27.287
750	6.032	5.965	34.676	132.8	1.263	27.310
800	5.687	5.617	34.657	137.6	1.306	27.338
900	5.283	5.207	34.660	147.9	1.388	27.390
1000	5.266	5.181	34.755	156.3	1.465	27.470
1500	4.575	4.448	35.012	257.2	1.774	27.761
2000	3.497	3.337	34.975	281.2	2.009	27.848

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2004	24	3.489	3.329	34.976	283.0
1500	1	4.547	4.420	35.013	261.2
999	2	5.278	5.192	34.760	157.0
800	3	5.581	5.512	34.654	140.7
600	4	7.118	7.060	34.754	124.6
501	5	8.116	8.064	34.853	119.5
401	6	9.655	9.609	35.076	124.8
298	12	12.111	NaN	NaN *	NaN
200	13	17.414	17.380	36.421 *	177.6
102	14	25.542	25.519	36.774 *	199.3
51	15	26.478	26.466	35.589	219.0
4	16	26.614	26.613	34.884	218.4

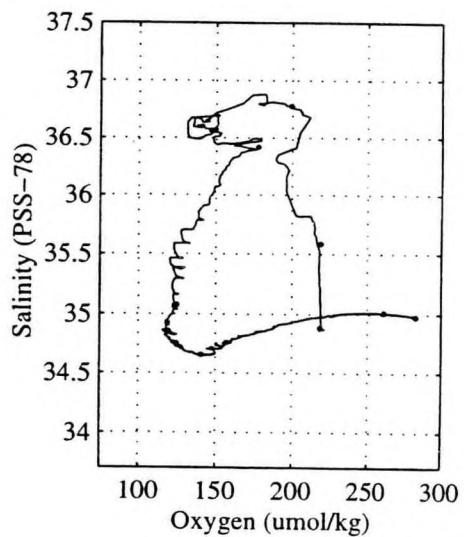
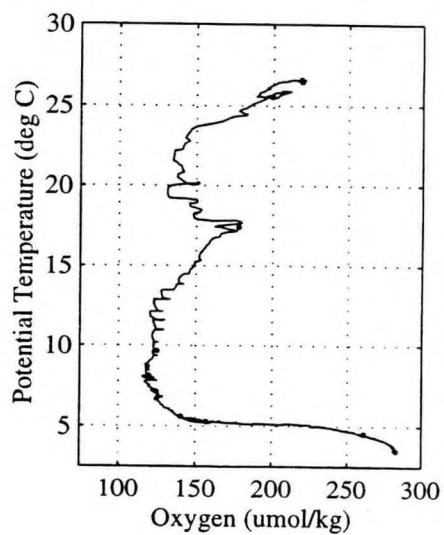
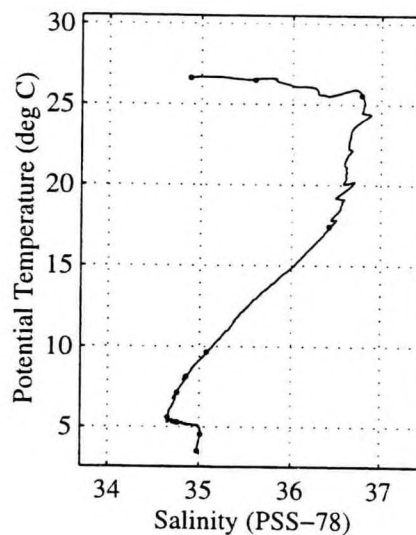
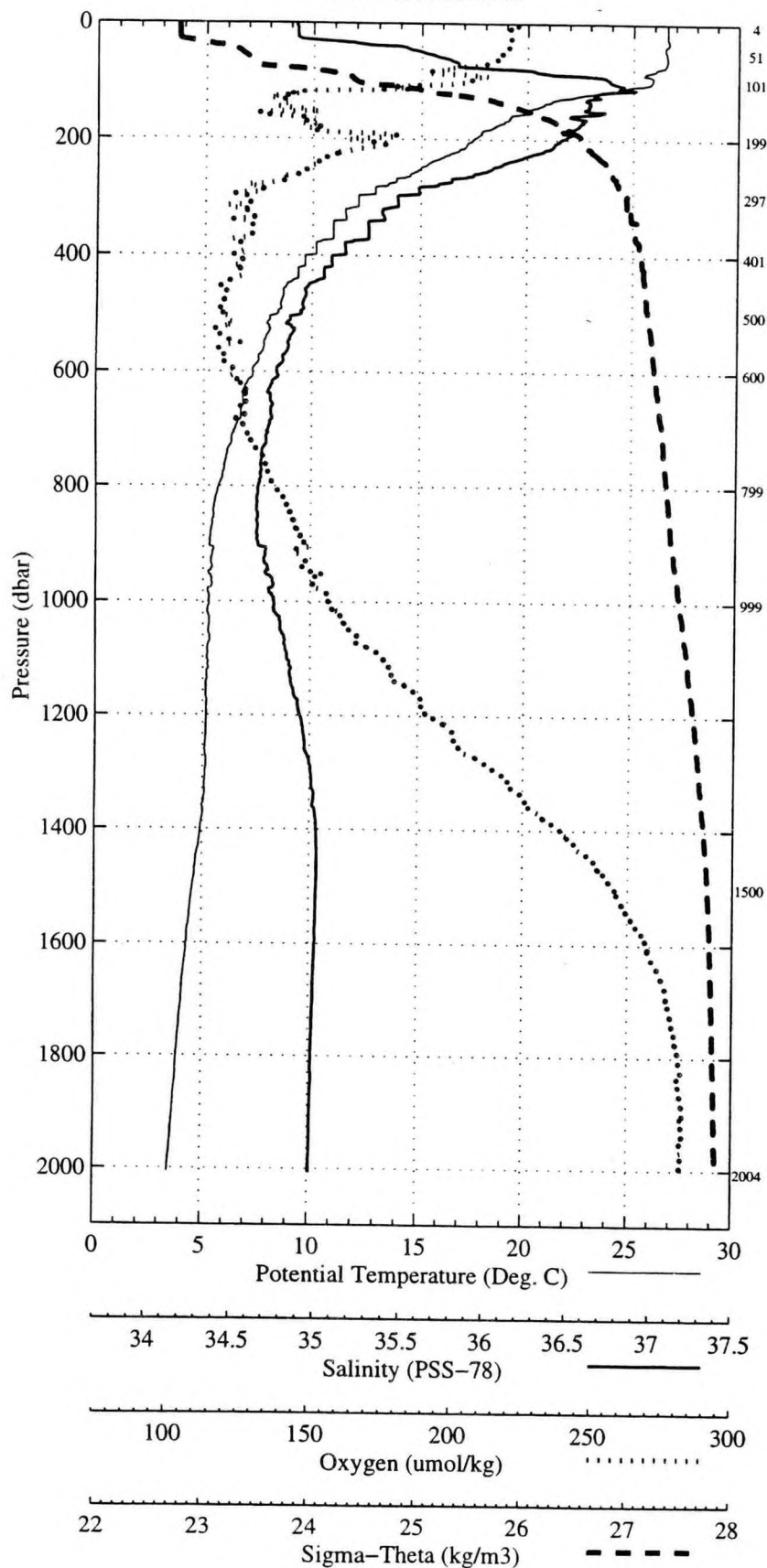


## NBC-3 R/V SEWARD JOHNSON

CTD Station 39 (00039)

Latitude 10.116 N Longitude 54.950 W

17-Feb-2000 03:05 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 40 (00040)  
Latitude 0.382N Longitude 54.717W  
17-Feb-2000 06:30Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.287	26.285	34.930	220.9	0.045	22.894
20	26.331	26.327	35.117	221.2	0.094	23.023
30	26.472	26.465	35.550	220.1	0.141	23.306
40	26.608	26.598	35.720	221.5	0.186	23.393
50	27.033	27.021	36.370	219.5	0.229	23.749
60	26.984	26.970	36.778	215.2	0.269	24.074
70	26.486	26.470	36.873	219.8	0.307	24.306
80	25.644	25.627	36.988	212.7	0.341	24.658
90	24.873	24.854	37.050	203.1	0.373	24.944
100	23.896	23.875	36.973	185.5	0.402	25.181
110	23.060	23.038	37.094	188.7	0.429	25.520
120	22.528	22.504	37.140	176.8	0.453	25.710
130	21.659	21.633	37.051	168.9	0.475	25.889
140	20.828	20.801	36.948	164.0	0.496	26.041
150	20.212	20.184	36.868	164.2	0.516	26.147
160	18.987	18.958	36.683	155.7	0.534	26.328
170	18.217	18.187	36.550	151.9	0.551	26.421
180	17.734	17.703	36.472	147.5	0.568	26.483
190	17.199	17.167	36.380	151.4	0.583	26.543
200	16.613	16.580	36.284	150.9	0.599	26.609
250	14.471	14.433	35.903	117.7	0.669	26.801
300	11.815	11.776	35.441	128.7	0.731	26.983
350	10.274	10.232	35.184	122.5	0.787	27.063
400	9.281	9.237	35.016	125.1	0.841	27.100
450	8.675	8.626	34.932	128.4	0.893	27.132
500	8.246	8.194	34.873	130.4	0.943	27.153
550	7.708	7.653	34.817	127.0	0.993	27.190
600	7.148	7.089	34.764	126.6	1.041	27.229
650	6.803	6.741	34.744	126.4	1.088	27.262
700	6.447	6.382	34.721	128.5	1.133	27.291
750	6.098	6.030	34.688	132.9	1.177	27.311
800	5.708	5.638	34.661	138.4	1.219	27.339
900	5.282	5.205	34.697	148.4	1.300	27.420
1000	5.337	5.251	34.791	158.6	1.375	27.490
1500	4.444	4.319	35.006	259.5	1.675	27.770
2000	3.465	3.305	34.970	283.3	1.906	27.848

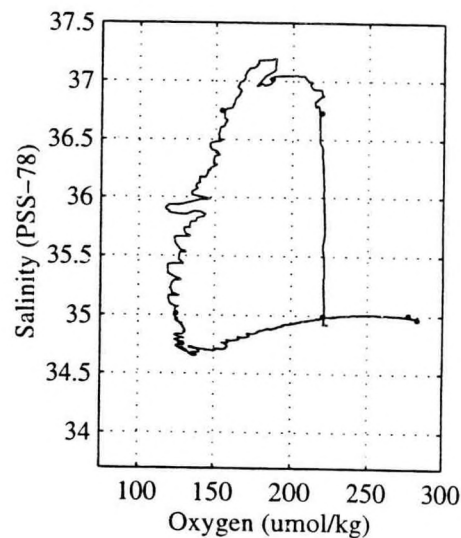
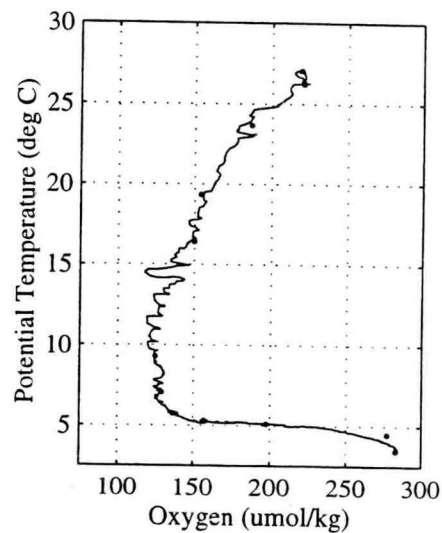
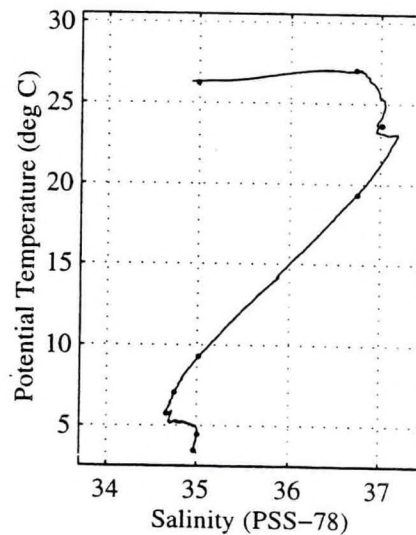
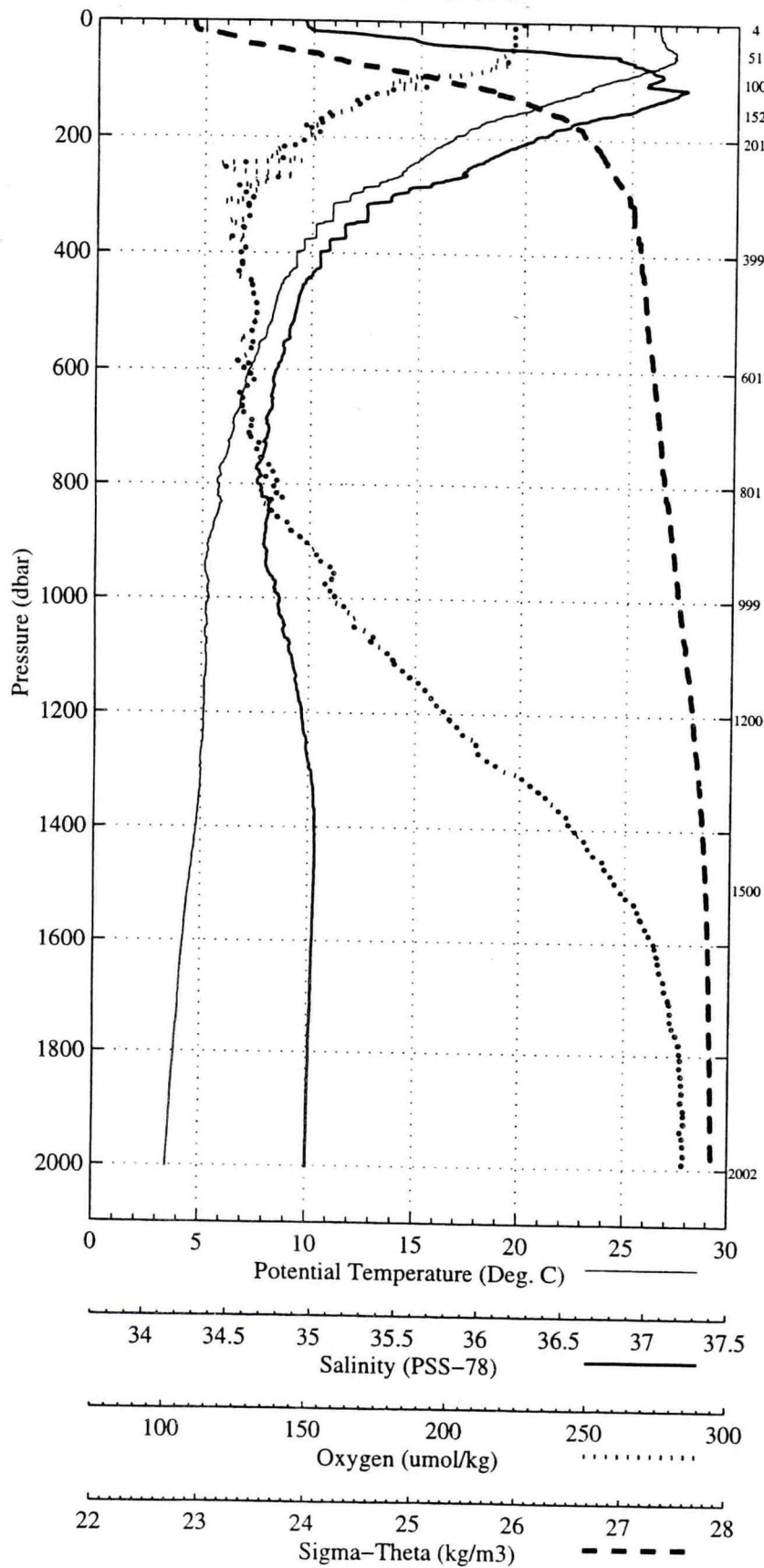
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2002	24	3.461	3.301	34.971	283.0
1500	1	4.466	4.340	35.007	277.1
1201	2	5.112	NaN	NaN *	197.7
999	3	5.303	NaN	NaN *	157.0
801	4	5.757	5.687	34.668	136.7
602	5	7.068	7.010	34.756	129.3
399	6	9.282	9.237	35.014	125.1
202	12	16.400	NaN	NaN *	149.9
153	13	19.325	19.297	36.747 *	154.2
100	14	23.668	23.647	37.018 *	186.9
51	15	27.054	27.042	36.729 *	218.8
4	16	26.223	26.222	34.993	220.3

NBC-3 R/V SEWARD JOHNSON

CTD Station 40 (00040)

Latitude 10.382 N Longitude 54.717 W

17-Feb-2000 06:30 Z



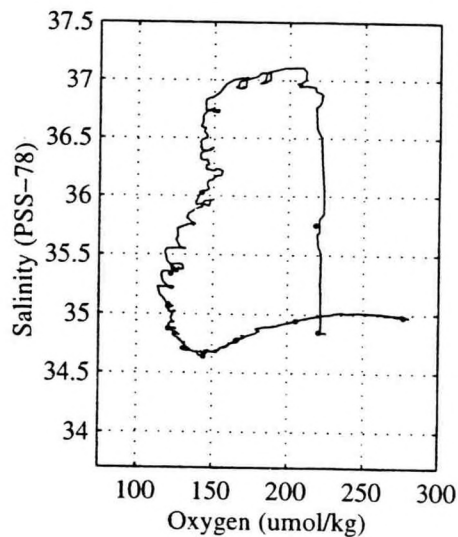
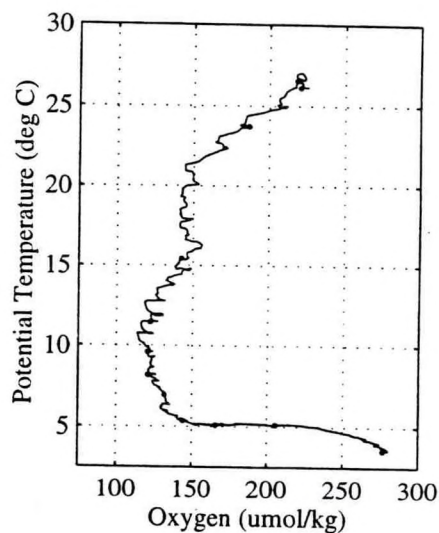
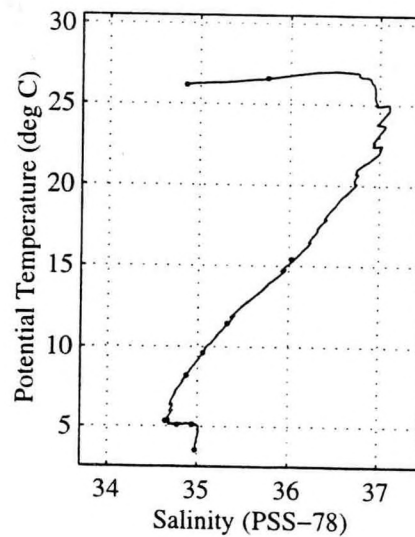
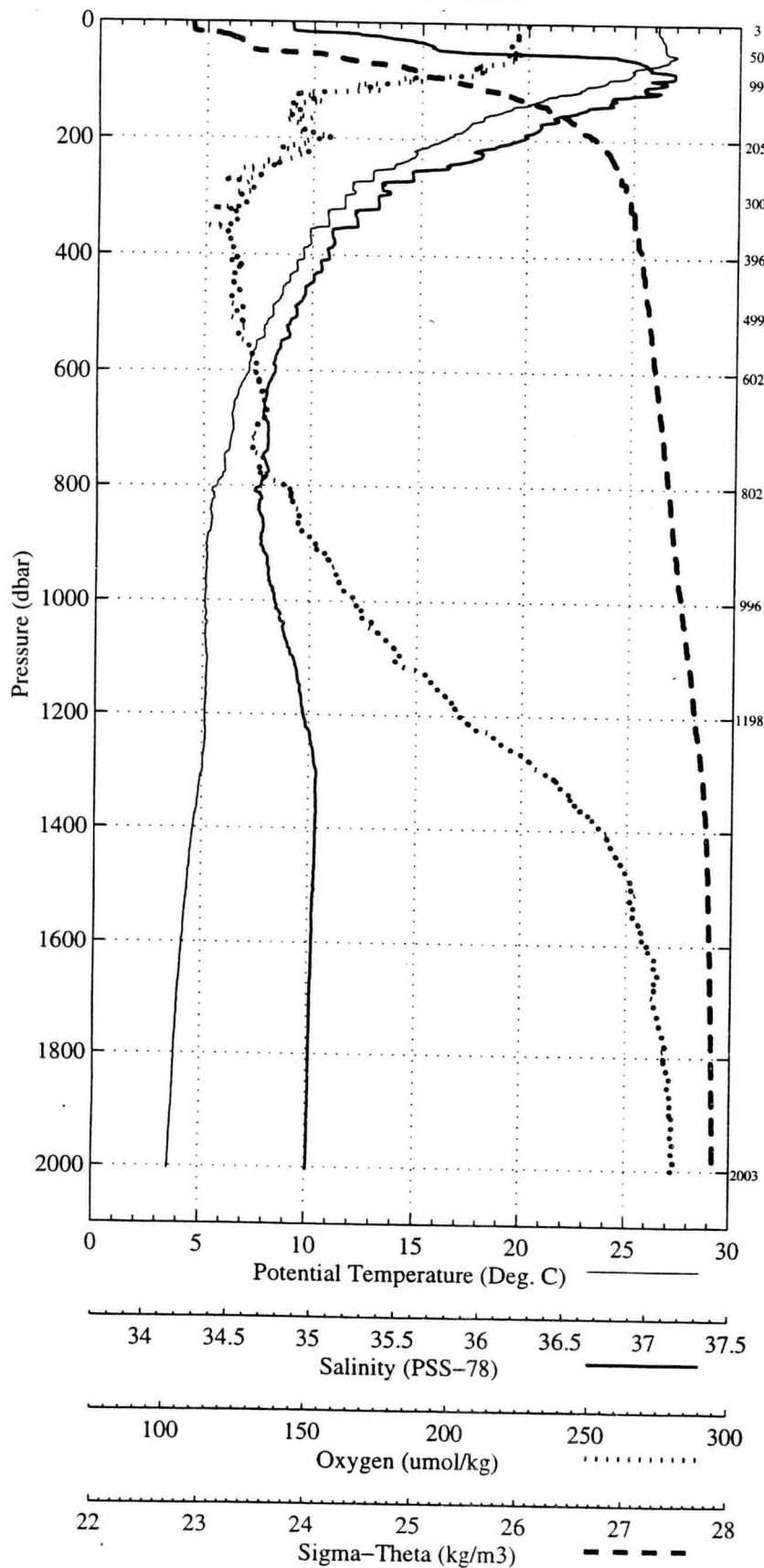


NBC-3 R/V SEWARD JOHNSON  
CTD Station 41 (00041)  
Latitude 0.682N Longitude 54.467W  
17-Feb-2000 10:03Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.146	26.143	34.844	220.8	0.045	22.874
20	26.281	26.276	35.222	221.2	0.094	23.118
30	26.416	26.410	35.510	221.3	0.141	23.293
40	26.469	26.460	35.659	218.8	0.186	23.391
50	26.586	26.574	35.809	220.3	0.231	23.468
60	26.651	26.637	36.817	220.8	0.271	24.210
70	26.108	26.092	36.943	214.8	0.307	24.478
80	24.898	24.880	37.005	210.6	0.339	24.901
90	24.808	24.788	37.111	205.6	0.369	25.010
100	23.682	23.661	37.062	187.5	0.398	25.312
110	22.649	22.626	36.927	168.4	0.424	25.512
120	21.845	21.821	36.963	158.1	0.448	25.769
130	20.708	20.683	36.729	150.3	0.470	25.906
140	20.019	19.993	36.732	145.5	0.490	26.094
150	18.977	18.950	36.545	143.9	0.509	26.224
160	18.036	18.009	36.400	141.8	0.527	26.351
170	17.575	17.546	36.348	141.0	0.544	26.425
180	17.134	17.104	36.303	146.0	0.560	26.498
190	16.628	16.596	36.230	144.9	0.576	26.564
200	16.128	16.096	36.184	155.3	0.591	26.645
250	13.753	13.717	35.759	133.7	0.658	26.842
300	11.476	11.438	35.349	125.7	0.719	26.975
350	10.748	10.705	35.229	121.1	0.776	27.016
400	9.607	9.561	35.064	123.1	0.830	27.084
450	8.789	8.740	34.952	122.7	0.883	27.130
500	8.215	8.163	34.879	122.8	0.933	27.163
550	7.446	7.391	34.787	127.7	0.982	27.203
600	7.112	7.054	34.756	131.5	1.030	27.227
650	6.505	6.445	34.699	133.2	1.076	27.265
700	6.384	6.320	34.718	131.2	1.121	27.297
750	5.963	5.896	34.687	133.7	1.164	27.327
800	5.610	5.540	34.674	140.6	1.206	27.361
900	5.134	5.058	34.678	151.5	1.285	27.422
1000	5.095	5.011	34.763	166.1	1.360	27.496
1500	4.341	4.217	35.001	264.0	1.652	27.777
2000	3.563	3.402	34.975	279.2	1.883	27.843

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2004	24	3.558	3.397	34.976	276.7
1199	1	5.126	5.022	34.944	205.2
997	2	5.090	5.006	34.774	166.0
802	3	5.337	5.269	34.637	144.1
603	4	6.959	NaN	NaN *	131.5
500	5	8.188	8.136	34.874	120.7
397	6	9.604	9.559	35.061	120.5
300	12	11.437	11.399	35.335	122.1
205	13	15.425	15.393	36.027	142.3
100	14	23.709	NaN	NaN *	186.8
50	15	26.554	26.543	35.756 *	217.9
3	16	26.129	26.128	34.846	220.2

NBC-3 R/V SEWARD JOHNSON  
 CTD Station 41 (00041)  
 Latitude 10.682 N Longitude 54.467 W  
 17-Feb-2000 10:03 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 42 (00042)  
Latitude 8.702N Longitude 53.418W  
18-Feb-2000 03:59Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.735	26.735	36.130	217.8	0.004	23.656
10	26.750	26.748	36.134	215.3	0.042	23.656
20	26.753	26.748	36.134	215.6	0.085	23.656
30	26.752	26.745	36.135	215.6	0.127	23.659
40	26.754	26.745	36.135	215.5	0.170	23.659
50	26.757	26.745	36.135	215.5	0.212	23.660
60	26.759	26.745	36.135	215.5	0.255	23.661
70	26.761	26.745	36.136	215.5	0.297	23.662
80	26.763	26.745	36.136	215.5	0.340	23.663
90	26.730	26.709	36.160	213.7	0.382	23.694
100	26.711	26.688	36.176	214.0	0.425	23.713
110	26.466	26.441	36.234	198.6	0.467	23.836
120	25.922	25.895	36.303	196.9	0.506	24.060
130	25.048	25.020	36.401	188.2	0.544	24.405
140	24.234	24.204	36.428	184.3	0.578	24.673
150	23.097	23.066	36.365	168.1	0.610	24.961
160	21.813	21.782	36.418	164.9	0.638	25.368
170	20.156	20.124	36.352	154.8	0.663	25.770
180	17.191	17.161	36.034	118.7	0.684	26.278
190	14.610	14.582	35.636	140.5	0.700	26.561
200	12.681	12.654	35.284	155.8	0.715	26.688
250	11.071	11.040	35.026	162.5	0.782	26.795
300	10.492	10.456	34.947	166.1	0.846	26.838
350	10.321	10.279	34.930	165.9	0.910	26.857
400	9.720	9.674	34.864	163.8	0.973	26.909
450	9.557	9.506	34.892	148.1	1.034	26.960
500	8.845	8.790	34.868	132.4	1.091	27.057
550	7.436	7.382	34.693	135.8	1.145	27.131
600	6.749	6.693	34.633	137.2	1.195	27.179
650	6.622	6.562	34.666	135.6	1.243	27.224
700	6.119	6.056	34.613	137.6	1.290	27.248
750	5.815	5.749	34.608	138.8	1.335	27.283
800	5.721	5.651	34.669	138.0	1.379	27.343
900	5.074	4.999	34.635	151.1	1.461	27.394
1000	5.019	4.935	34.734	163.4	1.536	27.482
1500	4.356	4.231	35.005	264.9	1.829	27.779
2000	3.363	3.205	34.966	282.4	2.055	27.853

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2004	24	3.358	3.200	34.965	284.8
1498	1	4.336	4.212	35.004	268.5
1200	2	5.127	NaN	NaN *	NaN
1002	3	5.024	4.940	34.751	167.8
801	4	5.504	5.435	34.651	142.4
600	5	6.690	6.634	34.629	137.7
398	6	9.816	9.770	34.882	161.2
202	12	12.051	12.025	35.190	167.2
151	13	22.874	22.843	36.366 *	184.0
100	14	26.645	26.622	36.175 *	214.5
51	15	26.751	26.739	36.132	216.8
4	16	26.738	26.737	36.132	216.5

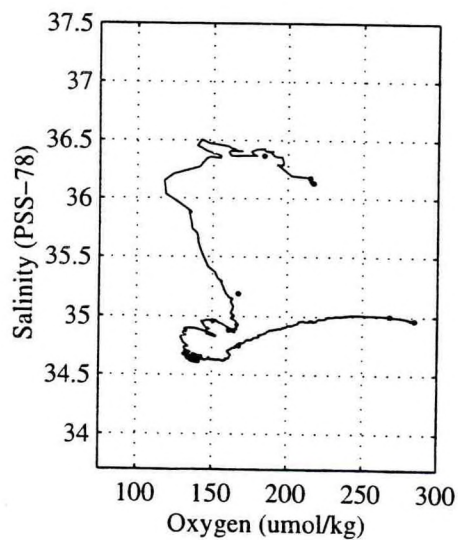
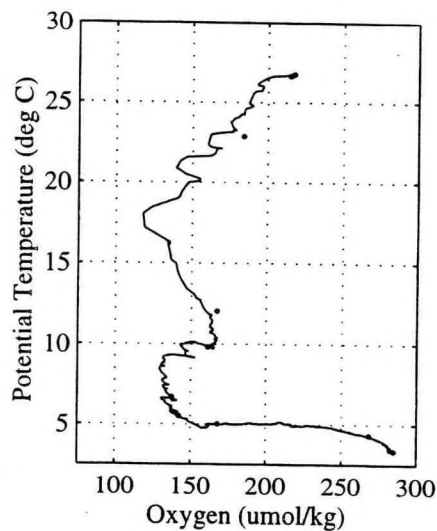
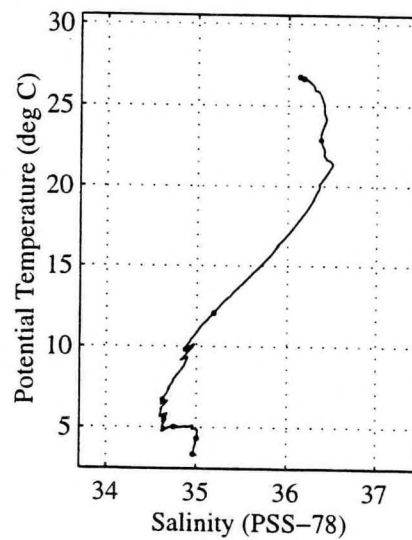
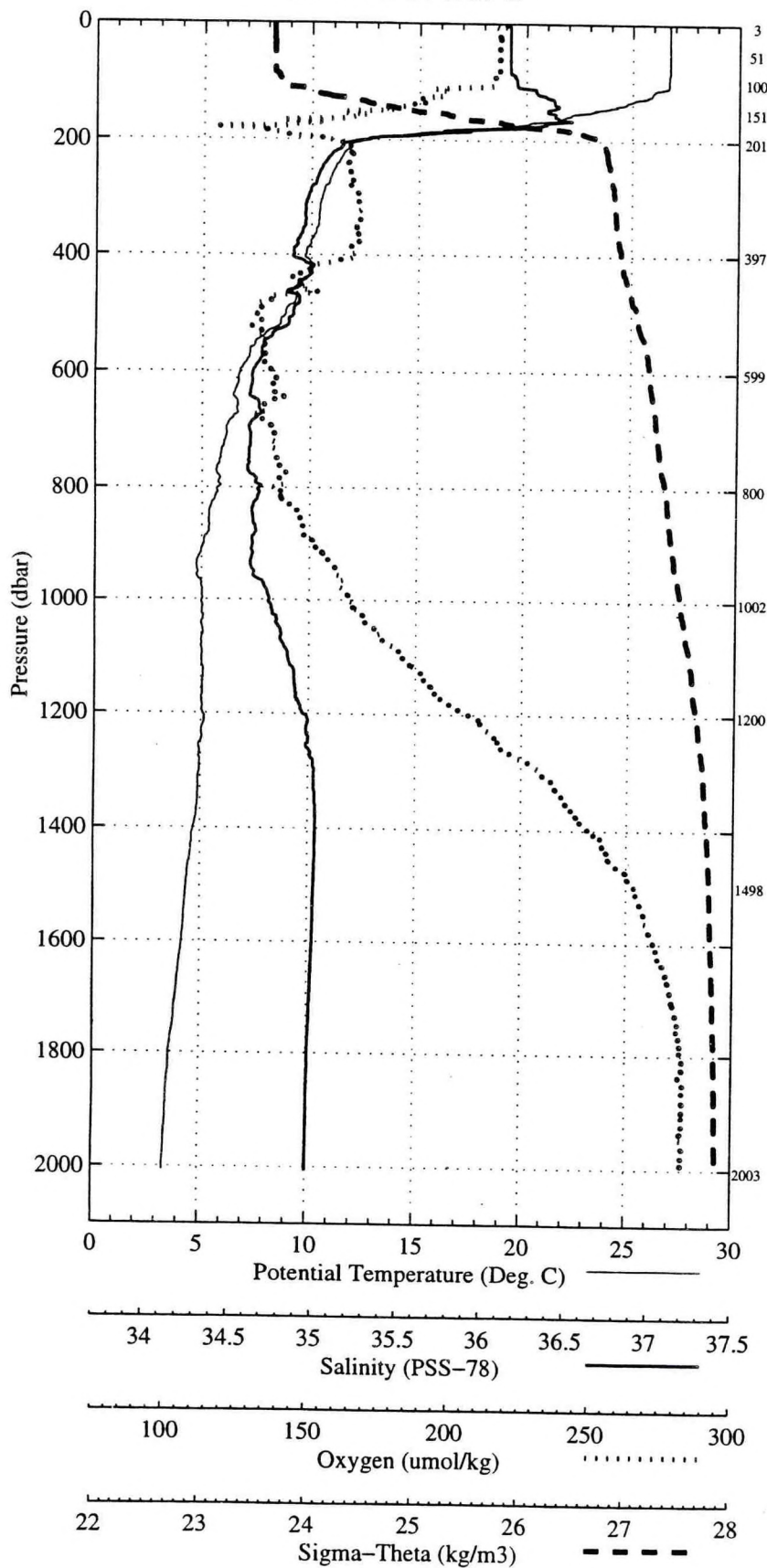


NBC-3 R/V SEWARD JOHNSON

CTD Station 42 (00042)

Latitude 8.702 N Longitude 53.418 W

18-Feb-2000 03:59 Z



NBC-3 R/V SEWARD JOHNSON  
 CTD Station 43 (00043)  
 Latitude 8.798N Longitude 53.799W  
 18-Feb-2000 07:37Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.978	26.975	36.186	214.0	0.038	23.622
20	26.986	26.981	36.186	214.1	0.081	23.621
30	26.988	26.981	36.186	213.9	0.124	23.622
40	26.991	26.982	36.186	213.8	0.167	23.622
50	26.993	26.981	36.186	213.7	0.210	23.623
60	26.994	26.980	36.186	214.0	0.252	23.624
70	26.994	26.978	36.186	213.9	0.295	23.626
80	26.997	26.979	36.187	213.5	0.338	23.627
90	26.997	26.976	36.186	213.6	0.381	23.628
100	26.697	26.674	36.209	206.9	0.424	23.742
110	26.100	26.076	36.325	190.3	0.465	24.019
120	25.597	25.571	36.359	194.5	0.504	24.203
130	25.065	25.036	36.396	188.8	0.541	24.396
140	24.325	24.295	36.436	182.3	0.575	24.651
150	22.747	22.716	36.429	166.0	0.606	25.110
160	21.412	21.381	36.459	138.0	0.634	25.511
170	19.800	19.769	36.450	137.0	0.657	25.939
180	17.673	17.642	36.144	127.9	0.676	26.246
190	13.305	13.279	35.403	135.0	0.693	26.654
200	12.175	12.148	35.184	160.1	0.707	26.709
250	10.955	10.924	35.009	165.3	0.774	26.802
300	10.383	10.348	34.937	165.2	0.838	26.849
350	9.619	9.579	34.842	167.8	0.900	26.907
400	9.288	9.244	34.806	168.1	0.961	26.934
450	9.479	9.428	34.909	143.9	1.020	26.986
500	8.428	8.375	34.804	134.2	1.077	27.072
550	7.660	7.604	34.717	137.9	1.130	27.118
600	6.957	6.900	34.632	141.8	1.182	27.151
650	6.370	6.310	34.631	137.1	1.231	27.229
700	5.785	5.724	34.579	140.3	1.277	27.263
750	5.410	5.346	34.581	141.6	1.321	27.310
800	5.293	5.226	34.618	145.8	1.363	27.354
900	5.024	4.949	34.668	155.0	1.442	27.427
1000	4.954	4.871	34.736	166.4	1.516	27.491
1500	4.063	3.942	34.990	268.7	1.808	27.797

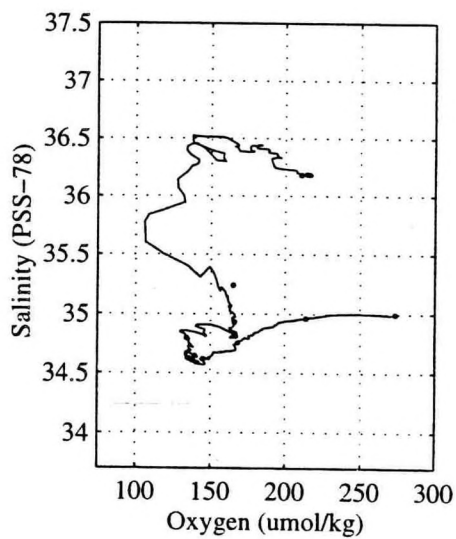
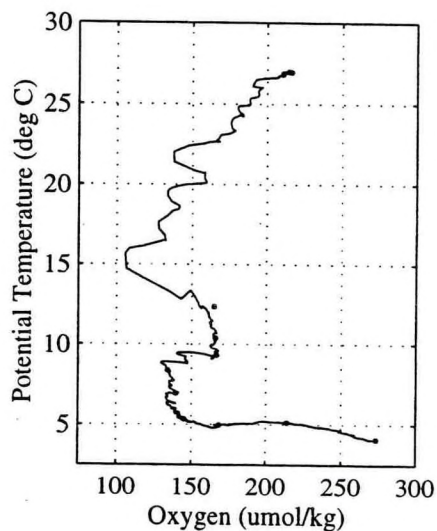
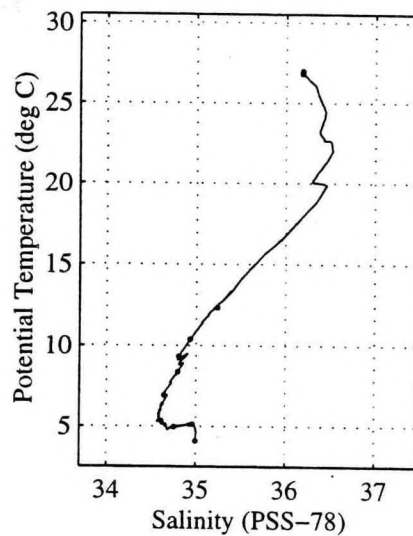
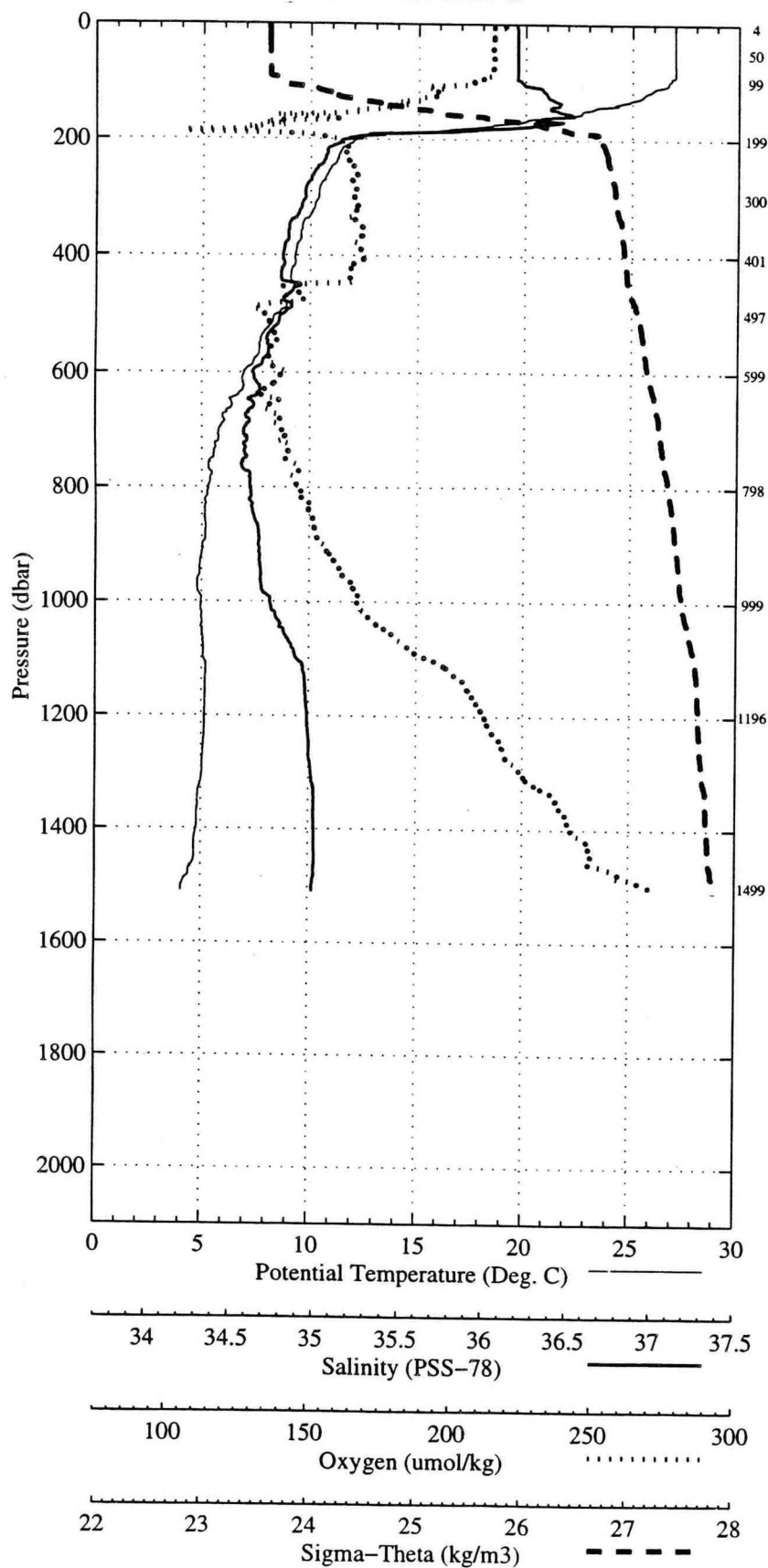
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1499	24	4.083	3.962	34.996	273.2
1196	1	5.132	5.029	34.962	213.8
999	2	4.972	4.889	34.755	168.4
799	3	5.329	5.261	34.616	145.1
599	4	6.922	6.865	34.644	139.8
498	5	8.369	8.316	34.798	134.3
401	6	9.310	9.265	34.809	166.8
300	12	10.390	10.354	34.931	166.0
200	13	12.354	12.327	35.239 *	165.2
99	14	26.823	26.800	36.182 *	210.5
50	15	26.988	26.976	36.187 *	214.2
4	16	26.965	26.964	36.184	216.0

NBC-3 R/V SEWARD JOHNSON

CTD Station 43 (00043)

Latitude 8.798 N Longitude 53.799 W

18-Feb-2000 07:37 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 44 (00044)  
Latitude 8.915N Longitude 54.196W  
18-Feb-2000 11:32Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	27.040	27.038	36.168	369.9	0.039	23.588
20	27.038	27.033	36.176	370.6	0.082	23.596
30	27.043	27.036	36.178	324.1	0.125	23.598
40	27.044	27.035	36.182	163.6	0.168	23.602
50	27.047	27.035	36.184	215.8	0.211	23.604
60	27.048	27.034	36.184	214.5	0.254	23.606
70	27.051	27.034	36.184	214.3	0.297	23.606
80	27.053	27.034	36.185	213.8	0.340	23.607
90	27.055	27.034	36.185	212.7	0.383	23.608
100	26.808	26.785	36.189	212.4	0.426	23.692
110	26.752	26.727	36.200	208.9	0.468	23.720
120	25.832	25.805	36.326	193.5	0.509	24.105
130	25.287	25.259	36.361	181.9	0.546	24.302
140	24.200	24.170	36.380	187.1	0.581	24.647
150	22.897	22.866	36.531	155.0	0.612	25.145
160	22.185	22.153	36.610	144.1	0.640	25.409
170	21.186	21.153	36.486	158.5	0.665	25.594
180	20.702	20.668	36.475	154.5	0.689	25.719
190	18.992	18.958	36.396	139.6	0.710	26.109
200	15.889	15.858	35.899	139.4	0.728	26.480
250	11.240	11.209	35.067	159.4	0.799	26.796
300	10.307	10.271	34.926	166.9	0.863	26.854
350	9.945	9.904	34.910	158.0	0.925	26.905
400	9.551	9.506	34.922	140.7	0.985	26.982
450	8.255	8.208	34.776	135.9	1.041	27.074
500	7.442	7.392	34.702	134.7	1.094	27.136
550	7.318	7.264	34.699	134.6	1.144	27.153
600	6.678	6.622	34.647	134.1	1.194	27.200
650	5.854	5.797	34.571	143.0	1.241	27.247
700	5.913	5.851	34.620	139.0	1.286	27.279
750	5.348	5.285	34.560	145.1	1.330	27.301
800	5.414	5.346	34.618	144.5	1.372	27.340
900	5.023	4.948	34.645	153.8	1.454	27.409
1000	4.955	4.871	34.776	171.6	1.527	27.522
1500	4.145	4.023	34.995	270.7	1.805	27.792
1518	4.147	4.023	34.995	271.9	1.813	27.792

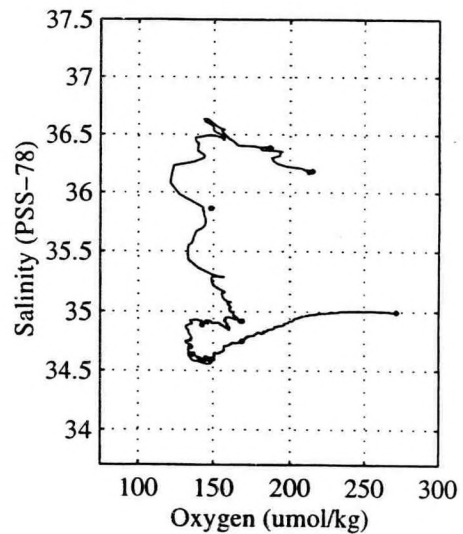
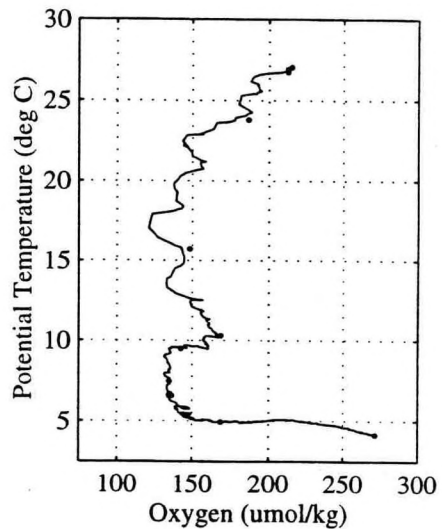
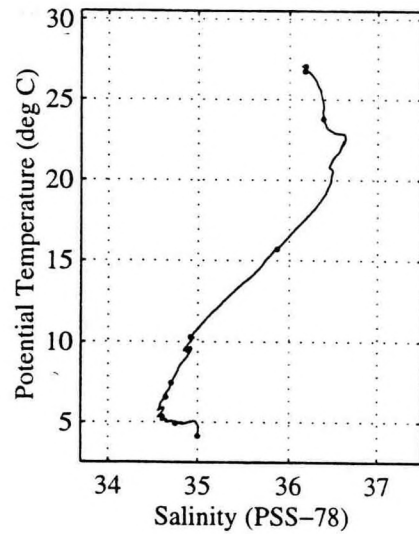
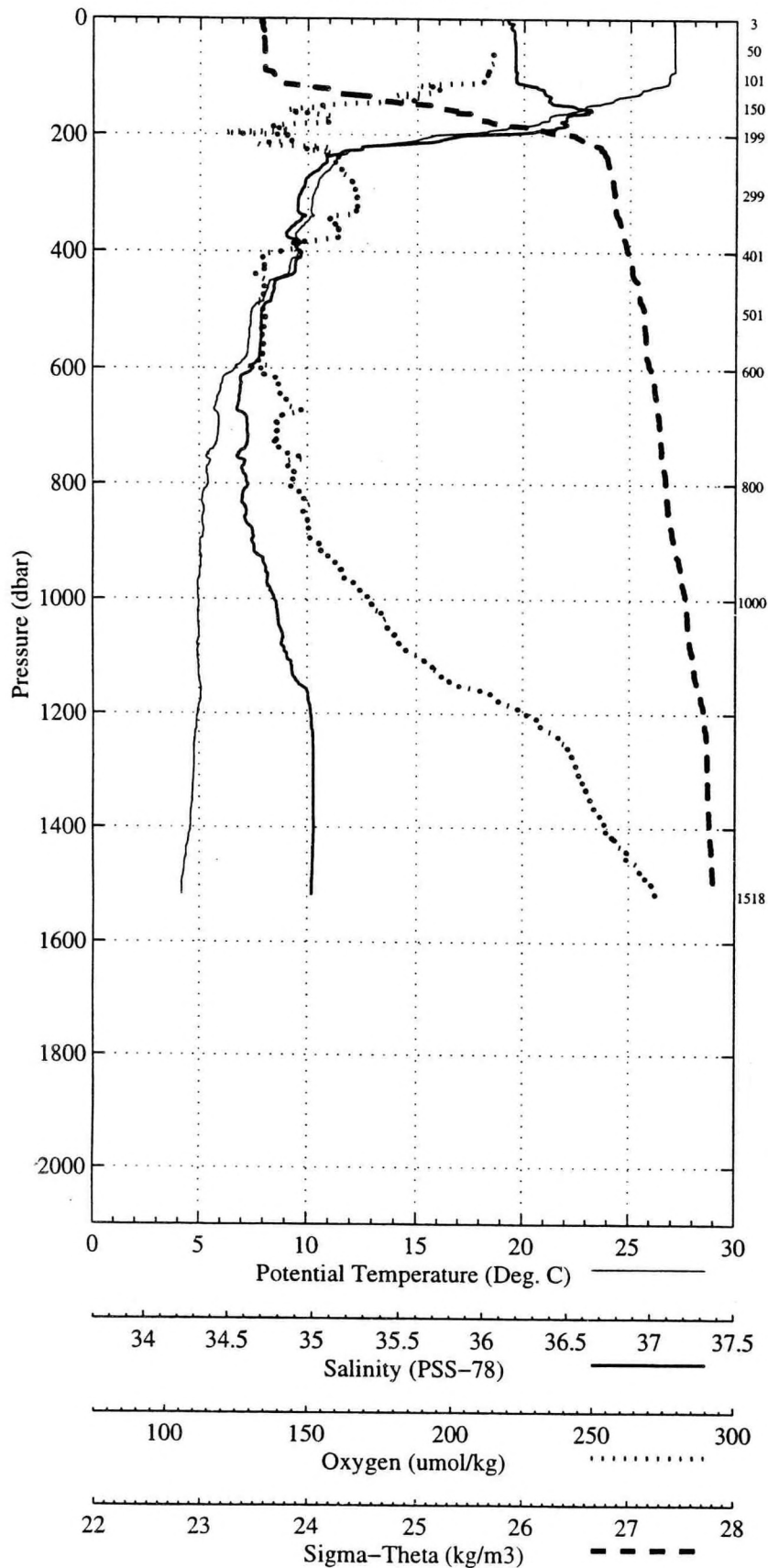
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1518	24	4.148	4.024	34.996	271.4
1000	1	4.933	4.850	34.750	168.8
800	2	5.346	5.278	34.605	145.5
601	3	6.560	6.504	34.640	136.4
502	4	7.451	7.401	34.703	134.8
402	5	9.477	9.431	34.888	142.7
300	6	10.295	10.259	34.920	169.0
199	12	15.711	15.680	35.864 *	148.4
151	13	23.795	23.763	36.387	186.7
102	14	26.744	26.721	36.176	212.3
51	15	27.048	27.036	36.182	214.8
4	16	27.041	27.040	36.182	214.7

NBC-3 R/V SEWARD JOHNSON

CTD Station 44 (00044)

Latitude 8.915 N Longitude 54.196 W

18-Feb-2000 11:32 Z



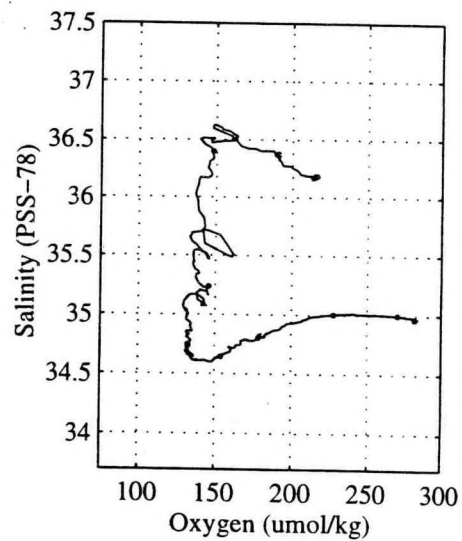
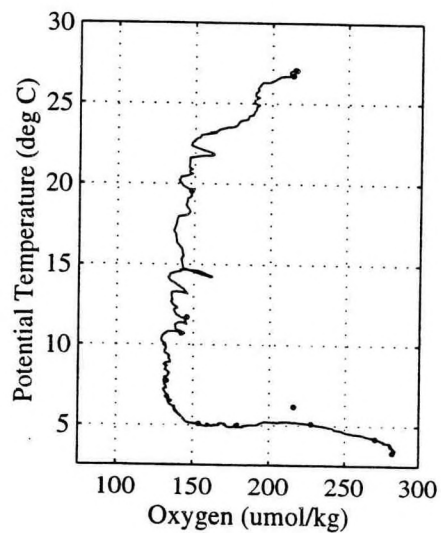
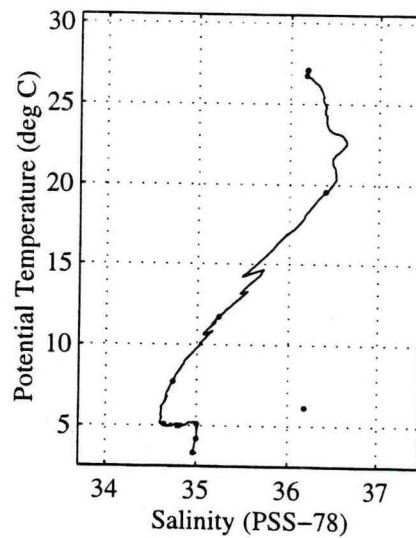
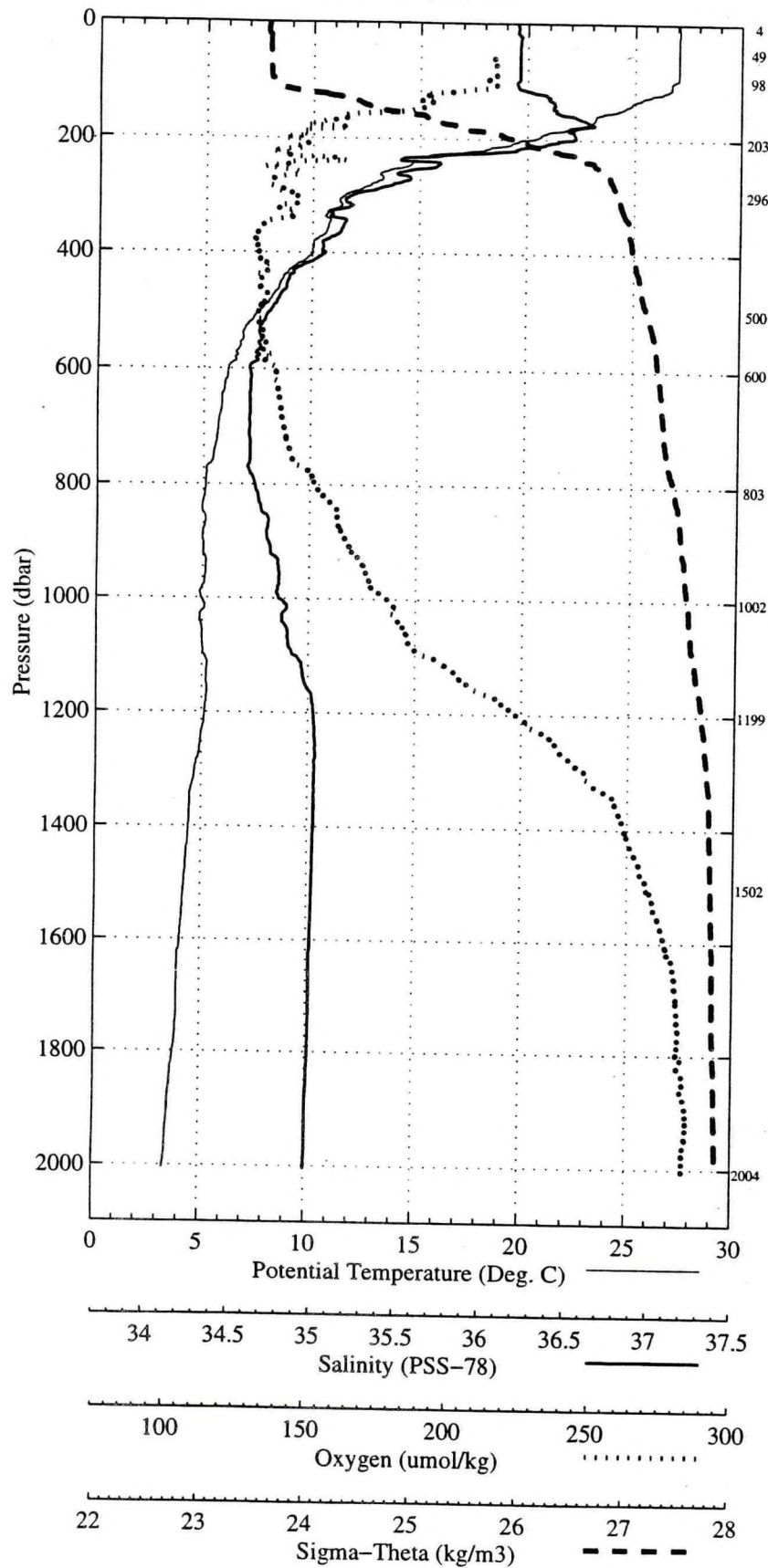
NBC-3 R/V SEWARD JOHNSON  
 CTD Station 45 (00045)  
 Latitude 9.017N Longitude 54.585W  
 18-Feb-2000 15:10Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	27.053	27.053	36.176	370.4	0.004	23.589
10	27.082	27.079	36.179	370.5	0.043	23.584
20	27.084	27.079	36.184	371.0	0.086	23.588
30	27.060	27.053	36.192	186.5	0.129	23.603
40	27.058	27.048	36.189	275.6	0.172	23.603
50	27.058	27.046	36.188	215.9	0.215	23.604
60	27.057	27.043	36.188	213.5	0.258	23.606
70	27.058	27.042	36.189	213.9	0.301	23.607
80	27.057	27.039	36.189	214.4	0.344	23.609
90	27.053	27.032	36.189	214.2	0.388	23.612
100	26.813	26.790	36.179	212.3	0.431	23.683
110	26.728	26.703	36.180	212.5	0.473	23.712
120	26.308	26.281	36.275	193.6	0.515	23.918
130	25.327	25.298	36.359	191.1	0.553	24.288
140	24.812	24.781	36.392	190.2	0.588	24.471
150	24.217	24.185	36.401	185.4	0.623	24.659
160	23.182	23.149	36.510	160.1	0.654	25.047
170	23.037	23.002	36.586	154.3	0.684	25.148
180	21.926	21.890	36.521	160.9	0.711	25.417
190	20.860	20.824	36.504	146.9	0.736	25.699
200	20.205	20.168	36.498	139.8	0.759	25.872
250	14.259	14.223	35.677	134.3	0.848	26.672
300	11.531	11.493	35.203	144.5	0.915	26.850
350	10.770	10.727	35.155	133.1	0.976	26.953
400	10.043	9.996	35.043	131.2	1.035	26.995
450	8.547	8.499	34.822	132.5	1.091	27.066
500	7.615	7.565	34.727	131.5	1.144	27.131
550	6.787	6.736	34.674	132.4	1.193	27.206
600	6.136	6.082	34.609	137.9	1.239	27.240
650	5.849	5.792	34.609	139.2	1.284	27.278
700	5.667	5.607	34.608	140.8	1.328	27.300
750	5.451	5.387	34.611	143.5	1.371	27.329
800	5.100	5.034	34.642	152.5	1.411	27.395
900	4.995	4.920	34.728	163.5	1.485	27.478
1000	4.934	4.851	34.791	177.4	1.554	27.536
1500	4.223	4.100	34.998	269.4	1.830	27.787
2000	3.344	3.186	34.965	282.3	2.056	27.855

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2005	24	3.332	3.174	34.965	282.3
1502	1	4.193	4.070	34.999	270.5
1200	2	5.111	5.007	35.004	227.3
1002	3	4.988	4.904	34.804	178.5
804	4	5.092	5.025	34.643	153.9
600	5	6.148	6.093	36.183 *	215.8
500	6	7.724	7.674	34.737	132.8
297	12	11.717	11.679	35.236	145.7
203	13	19.550	19.513	36.398 *	148.0
98	14	26.737	26.715	36.172	213.7
49	15	27.058	27.047	36.183	215.7
4	16	27.109	27.108	36.186	214.9



NBC-3 R/V SEWARD JOHNSON  
 CTD Station 45 (00045)  
 Latitude 9.017 N Longitude 54.585 W  
 18-Feb-2000 15:10 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 46 (00046)  
Latitude 9.101N Longitude 54.997W  
18-Feb-2000 18:55Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	27.100	27.098	36.176	366.6	0.039	23.576
20	27.091	27.086	36.182	367.4	0.082	23.584
30	27.060	27.053	36.202	368.8	0.125	23.611
40	27.039	27.030	36.202	212.3	0.168	23.619
50	27.027	27.015	36.197	214.8	0.211	23.620
60	27.020	27.006	36.196	212.7	0.254	23.624
70	26.951	26.935	36.191	212.7	0.296	23.643
80	26.708	26.689	36.177	212.3	0.339	23.712
90	26.680	26.659	36.180	214.5	0.381	23.724
100	26.676	26.653	36.183	214.8	0.423	23.729
110	26.683	26.658	36.192	214.7	0.465	23.735
120	26.660	26.632	36.195	209.4	0.507	23.746
130	25.238	25.210	36.317	190.8	0.547	24.284
140	25.257	25.227	36.393	196.4	0.584	24.336
150	24.922	24.889	36.395	185.3	0.620	24.442
160	24.084	24.050	36.401	178.3	0.654	24.699
170	22.582	22.547	36.339	186.1	0.685	25.092
180	21.249	21.214	36.319	156.4	0.713	25.451
190	21.022	20.986	36.538	155.4	0.738	25.681
200	19.997	19.959	36.651	145.0	0.759	26.044
250	14.030	13.994	35.651	137.5	0.844	26.700
300	11.670	11.631	35.274	134.5	0.910	26.880
350	10.332	10.290	35.115	130.3	0.970	26.999
400	9.114	9.070	34.943	126.5	1.025	27.070
450	8.185	8.139	34.810	126.7	1.078	27.111
500	7.666	7.616	34.756	125.8	1.128	27.147
550	6.982	6.929	34.685	131.1	1.178	27.188
600	6.514	6.459	34.649	134.9	1.225	27.223
650	6.029	5.971	34.610	141.3	1.271	27.255
700	5.860	5.799	34.619	138.9	1.316	27.285
750	5.502	5.438	34.603	141.9	1.359	27.317
800	5.188	5.121	34.589	148.2	1.401	27.343
900	5.104	5.029	34.644	152.6	1.482	27.398
1000	5.011	4.927	34.718	162.9	1.558	27.470
1500	4.357	4.233	35.005	265.7	1.859	27.779
2000	3.401	3.243	34.970	282.1	2.085	27.853

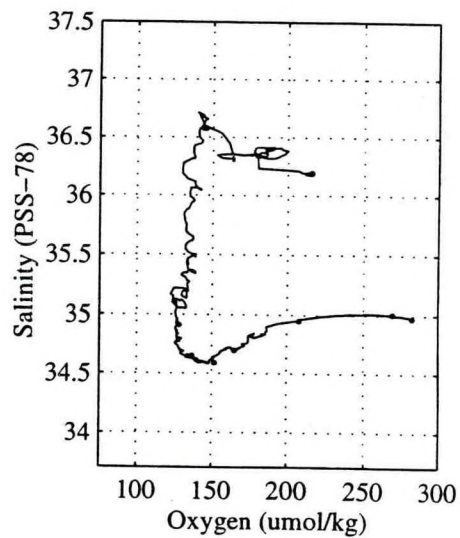
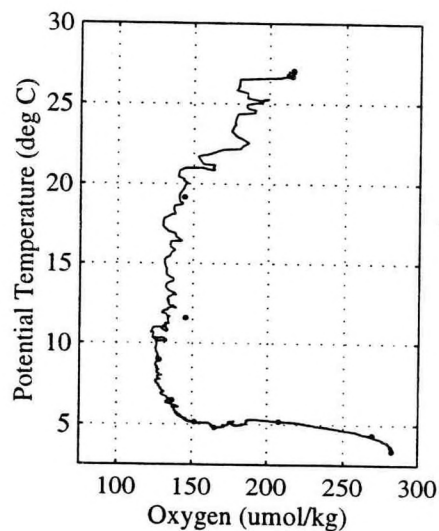
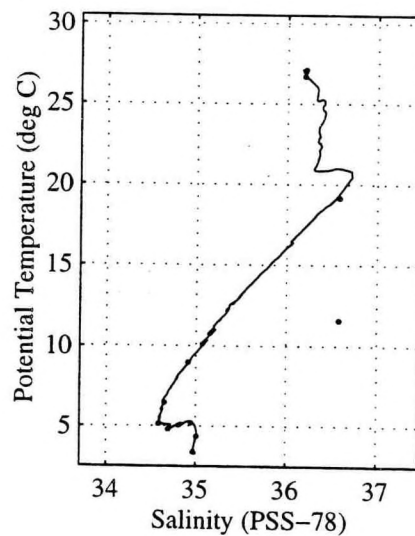
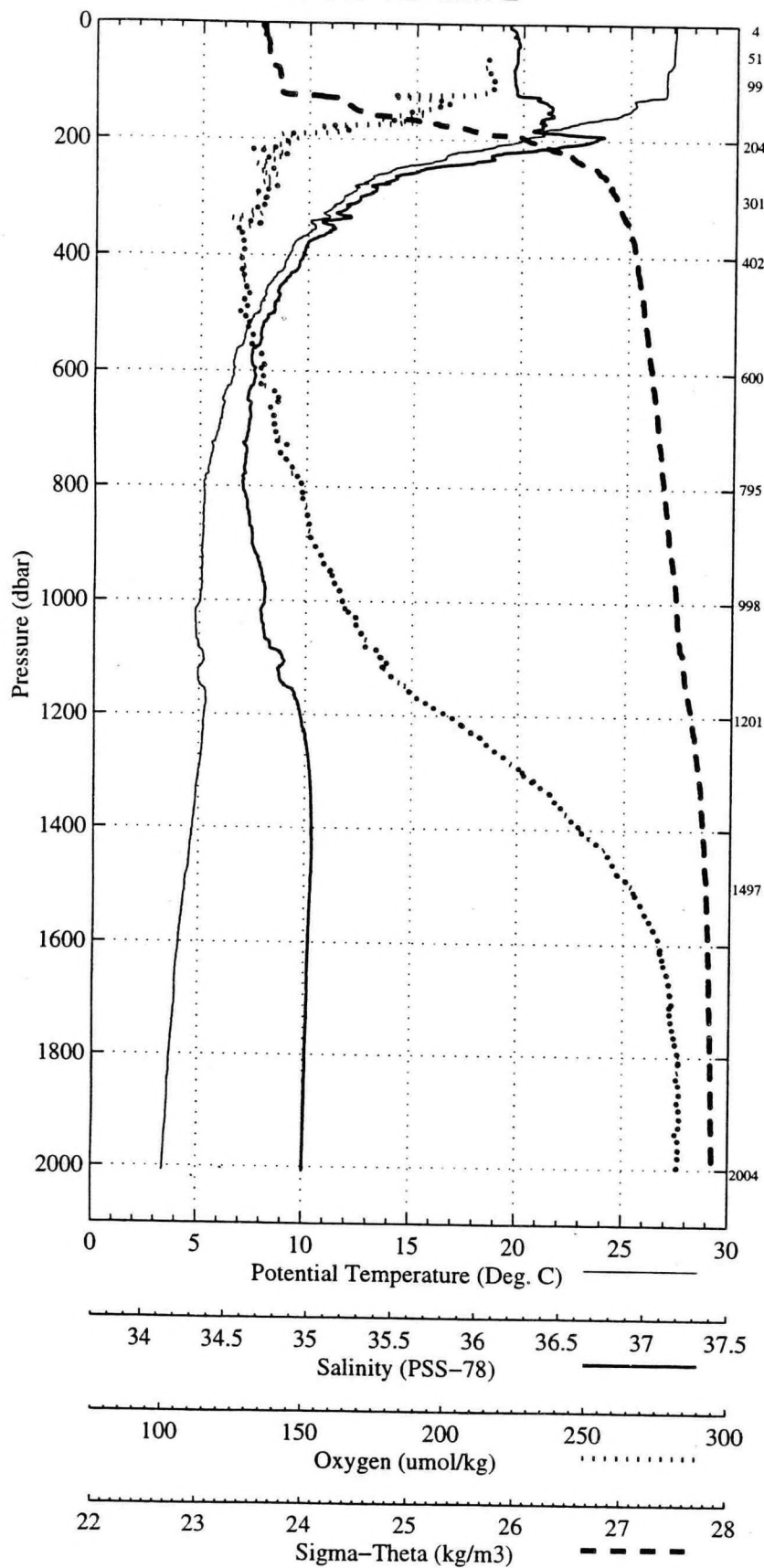
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2005	24	3.384	3.225	34.971	282.2
1498	1	4.349	4.225	35.008	269.1
1201	2	5.192	5.088	34.949	207.7
998	3	4.801	4.719	34.695	165.2
795	4	5.144	5.078	34.589	151.8
601	5	6.478	6.423	34.649	137.0
403	6	8.963	8.919	34.910	128.3
301	12	11.574	11.535	36.577 *	145.4
205	13	19.173	19.136	36.578 *	144.2
100	14	26.686	26.663	36.186	214.6
51	15	27.014	27.002	36.191	215.5
5	16	27.083	27.082	36.195	215.5

NBC-3 R/V SEWARD JOHNSON

CTD Station 46 (00046)

Latitude 9.101 N Longitude 54.997 W

18-Feb-2000 18:55 Z





NBC-3 R/V SEWARD JOHNSON  
 CTD Station 47 (00047)  
 Latitude 9.200N Longitude 55.398W  
 19-Feb-2000 03:12Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.822	26.821	36.115	376.3	0.004	23.617
10	26.829	26.827	36.123	376.6	0.043	23.622
20	26.833	26.829	36.160	376.9	0.085	23.650
30	26.828	26.821	36.171	377.5	0.128	23.662
40	26.826	26.816	36.172	207.4	0.170	23.664
50	26.820	26.808	36.172	216.7	0.213	23.668
60	26.813	26.799	36.170	216.1	0.255	23.670
70	26.730	26.714	36.161	215.4	0.297	23.691
80	26.680	26.662	36.159	215.6	0.340	23.707
90	26.667	26.647	36.158	215.4	0.382	23.712
100	26.667	26.644	36.161	215.3	0.424	23.715
110	26.661	26.636	36.161	215.6	0.466	23.719
120	26.659	26.632	36.163	215.1	0.509	23.723
130	26.163	26.134	36.270	185.7	0.550	23.961
140	25.111	25.081	36.375	187.9	0.588	24.367
150	24.165	24.133	36.352	183.4	0.623	24.637
160	22.666	22.634	36.325	174.4	0.654	25.055
170	21.805	21.771	36.338	170.0	0.683	25.310
180	20.528	20.494	36.217	174.9	0.709	25.569
190	18.341	18.307	36.130	158.4	0.731	26.070
200	18.352	18.317	36.348	137.5	0.750	26.235
250	15.197	15.159	35.957	140.3	0.830	26.684
300	12.018	11.979	35.401	130.1	0.895	26.913
350	10.715	10.672	35.222	126.7	0.953	27.016
400	8.876	8.832	34.904	124.9	1.008	27.077
450	8.063	8.016	34.780	127.7	1.061	27.106
500	7.467	7.417	34.713	130.1	1.112	27.141
550	7.135	7.082	34.688	132.1	1.162	27.169
600	6.809	6.752	34.663	134.2	1.211	27.195
650	6.478	6.418	34.643	134.8	1.258	27.224
700	6.105	6.042	34.627	136.4	1.305	27.260
750	5.747	5.682	34.606	140.6	1.350	27.290
800	5.596	5.526	34.621	141.7	1.393	27.321
900	5.351	5.274	34.668	147.0	1.477	27.389
1000	5.130	5.045	34.716	158.0	1.555	27.455
1500	4.535	4.409	35.006	254.5	1.868	27.761
2000	3.399	3.240	34.969	281.4	2.100	27.853

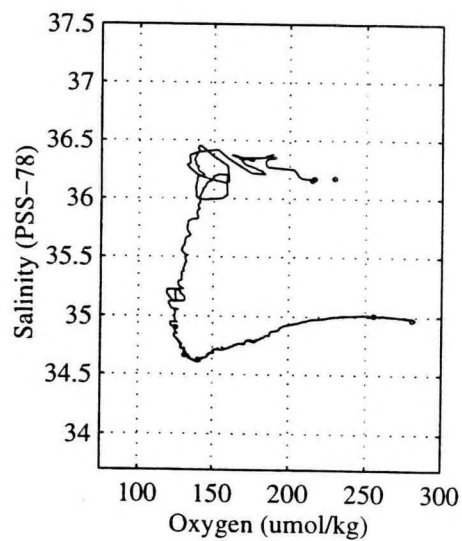
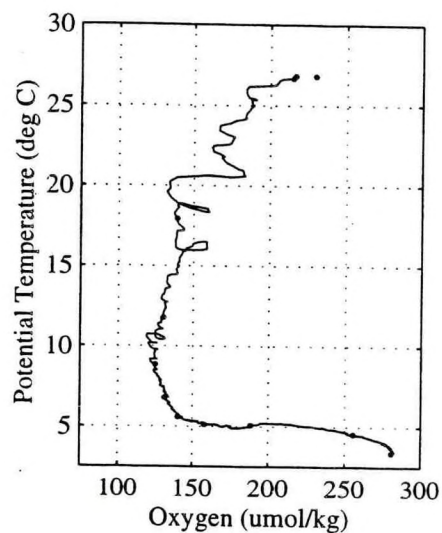
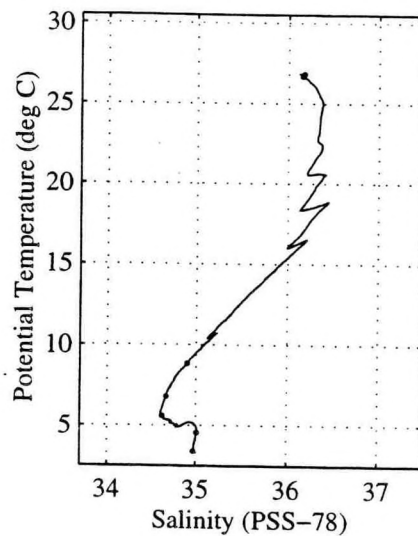
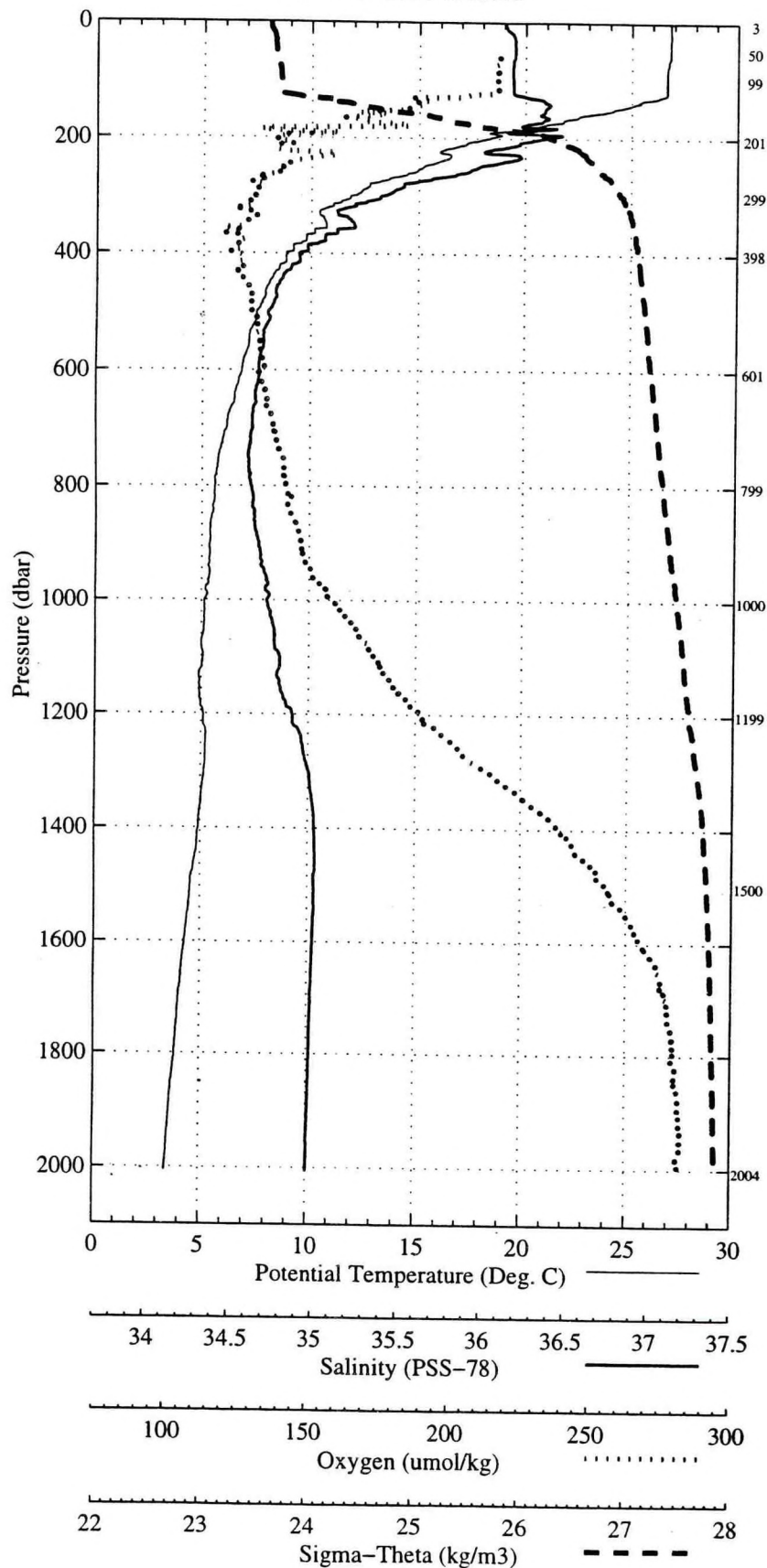
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2005	24	3.396	3.237	34.971	280.5
1500	1	4.535	4.409	35.008	255.4
1199	2	5.084	NaN	NaN *	188.5
1001	3	5.126	NaN	NaN *	158.0
800	4	5.593	5.524	34.622	140.3
601	5	6.796	6.739	34.665	131.4
399	6	8.842	8.799	34.902	125.0
300	12	11.773	NaN	NaN *	130.3
202	13	17.931	NaN	NaN *	139.2
99	14	26.672	26.649	36.152	214.6
51	15	26.826	26.814	36.170	215.9
4	16	26.820	26.819	36.173	229.2

# NBC-3 R/V SEWARD JOHNSON

CTD Station 47 (00047)

Latitude 9.200 N Longitude 55.398 W

19-Feb-2000 03:12 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 48 (00048)  
Latitude 9.298N Longitude 55.799W  
19-Feb-2000 07:06Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.653	26.653	36.147	379.3	0.004	23.695
10	26.643	26.641	36.151	379.6	0.042	23.703
20	26.650	26.645	36.149	380.0	0.084	23.701
30	26.652	26.645	36.151	380.6	0.126	23.702
40	26.655	26.646	36.151	231.7	0.168	23.703
50	26.659	26.648	36.151	215.2	0.210	23.703
60	26.661	26.647	36.152	215.4	0.252	23.705
70	26.662	26.646	36.152	215.8	0.294	23.706
80	26.668	26.650	36.153	216.6	0.336	23.706
90	26.658	26.638	36.158	215.6	0.379	23.715
100	26.650	26.627	36.163	215.6	0.421	23.722
110	26.214	26.189	36.271	201.0	0.462	23.943
120	25.337	25.311	36.334	187.1	0.501	24.265
130	24.220	24.192	36.363	179.1	0.536	24.626
140	22.887	22.859	36.312	174.2	0.567	24.980
150	22.242	22.212	36.318	155.1	0.597	25.170
160	20.560	20.530	36.221	172.5	0.623	25.561
170	19.345	19.314	36.273	147.4	0.646	25.922
180	18.482	18.450	36.319	148.3	0.666	26.179
190	17.814	17.781	36.238	144.2	0.685	26.284
200	16.755	16.722	36.087	143.4	0.702	26.424
250	12.947	12.913	35.426	146.1	0.778	26.748
300	11.466	11.428	35.240	137.1	0.843	26.892
350	9.954	9.914	34.991	136.2	0.903	26.967
400	9.335	9.290	34.924	129.3	0.960	27.019
450	8.636	8.587	34.838	128.6	1.015	27.065
500	8.413	8.360	34.861	124.9	1.068	27.119
550	7.482	7.428	34.722	130.0	1.120	27.148
600	6.924	6.867	34.667	133.4	1.169	27.183
650	6.460	6.400	34.643	133.7	1.218	27.227
700	6.136	6.073	34.625	136.7	1.264	27.255
750	5.899	5.833	34.638	135.5	1.309	27.296
800	5.400	5.332	34.592	144.0	1.353	27.321
900	5.040	4.965	34.587	150.9	1.437	27.360
1000	4.994	4.910	34.663	158.0	1.516	27.428
1500	4.656	4.528	35.011	250.8	1.836	27.752
2000	3.536	3.375	34.977	280.7	2.073	27.846

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2001	24	3.532	3.371	34.977	280.0
1501	1	4.643	4.515	35.015	253.1
1200	2	5.073	4.970	34.875	188.2
998	3	5.022	4.938	34.670	155.1
798	4	5.413	5.345	34.601	143.5
598	5	6.930	6.873	34.672	130.6
403	6	9.093	9.049	34.891	128.0
201	12	16.544	16.511	36.066 *	140.9
149	13	22.094	22.064	36.321	181.4
100	14	26.661	26.638	36.148 *	218.1
50	15	26.649	26.638	36.145	215.7
4	16	26.642	26.641	36.145	214.7

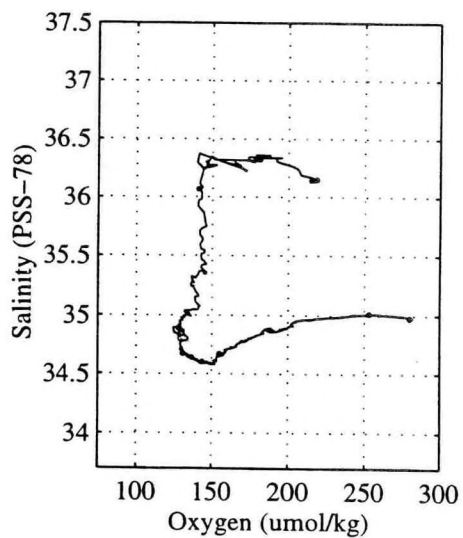
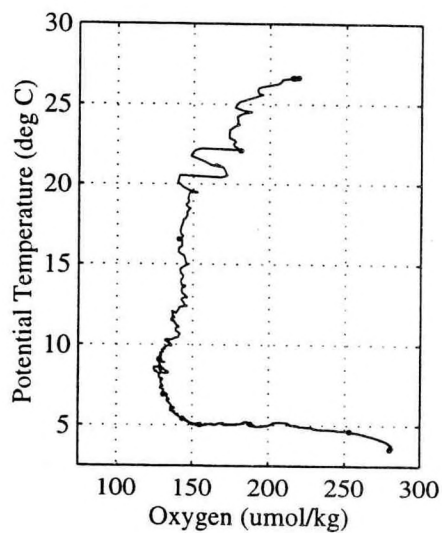
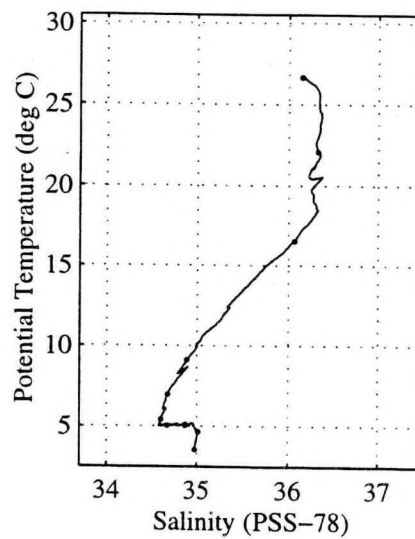
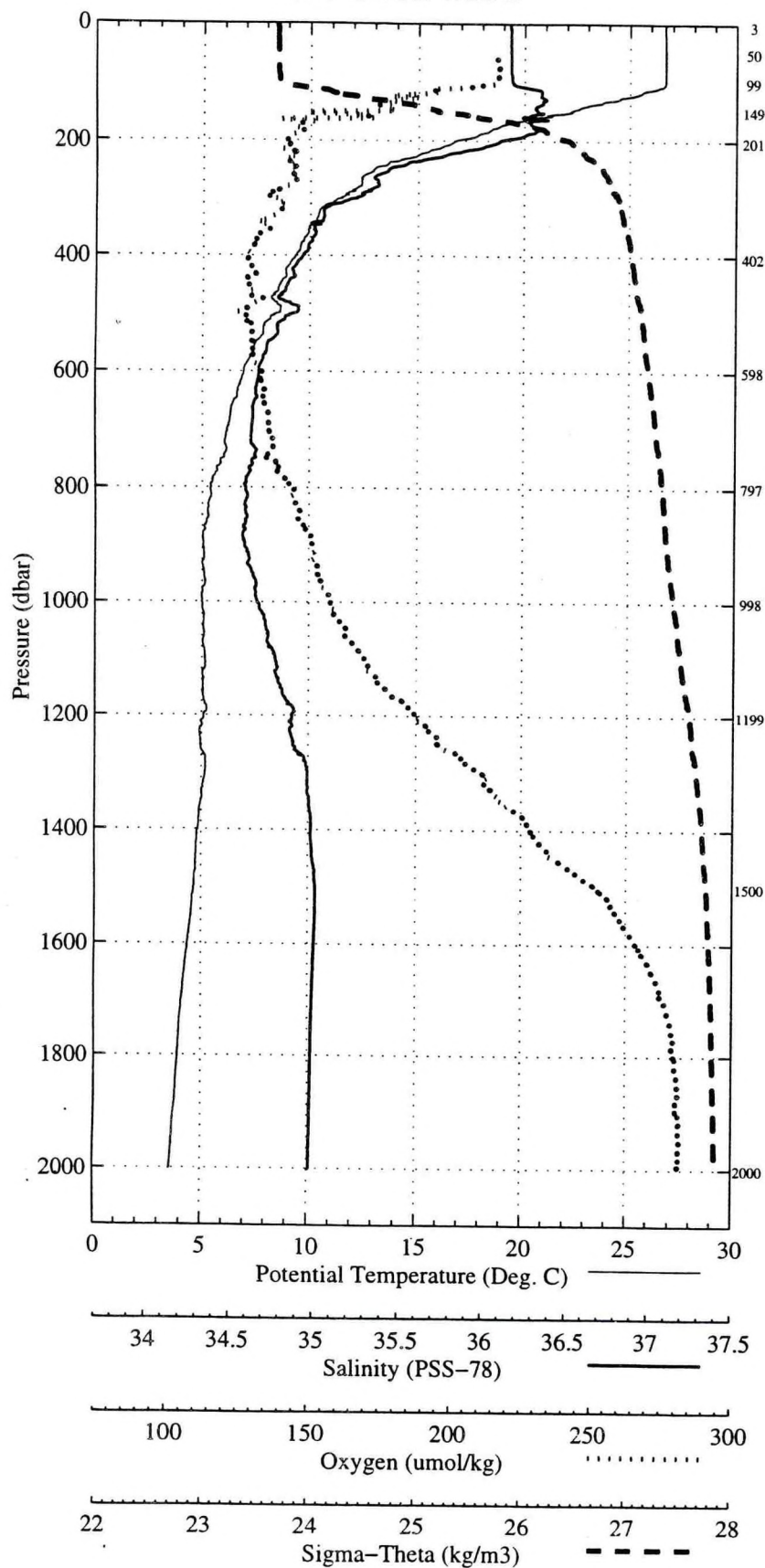


## NBC-3 R/V SEWARD JOHNSON

CTD Station 48 (00048)

Latitude 9.298 N Longitude 55.799 W

19-Feb-2000 07:06 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 49 (00049)  
Latitude 9.401N Longitude 56.199W  
19-Feb-2000 12:14Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.634	26.634	36.092	351.2	0.004	23.660
10	26.636	26.634	36.132	405.1	0.042	23.690
20	26.644	26.639	36.136	376.7	0.084	23.693
30	26.646	26.639	36.144	296.0	0.126	23.699
40	26.649	26.640	36.145	221.8	0.168	23.701
50	26.650	26.638	36.146	217.2	0.210	23.703
60	26.650	26.637	36.146	216.4	0.253	23.704
70	26.652	26.636	36.146	215.3	0.295	23.704
80	26.655	26.637	36.148	215.3	0.337	23.706
90	26.636	26.615	36.162	214.3	0.379	23.725
100	25.916	25.894	36.354	204.2	0.420	24.097
110	25.115	25.091	36.377	191.8	0.457	24.364
120	23.704	23.678	36.409	192.2	0.491	24.813
130	23.055	23.028	36.396	187.8	0.522	24.994
140	21.407	21.379	36.276	174.2	0.551	25.370
150	19.316	19.288	36.085	171.2	0.575	25.785
160	19.070	19.041	36.266	147.9	0.596	25.987
170	16.040	16.013	35.746	161.9	0.615	26.326
180	15.032	15.004	35.604	166.2	0.632	26.444
190	14.215	14.188	35.470	163.6	0.648	26.517
200	13.786	13.757	35.399	167.9	0.664	26.553
250	12.329	12.295	35.173	166.3	0.737	26.674
300	11.502	11.464	35.077	165.0	0.807	26.758
350	11.038	10.994	35.075	154.5	0.874	26.844
400	9.940	9.893	34.962	140.4	0.936	26.949
450	9.471	9.420	34.930	132.0	0.995	27.004
500	8.644	8.590	34.857	130.0	1.050	27.080
550	7.917	7.860	34.762	133.7	1.104	27.116
600	7.220	7.161	34.685	133.7	1.155	27.156
650	6.747	6.685	34.653	135.0	1.205	27.197
700	6.284	6.220	34.610	137.8	1.253	27.225
750	5.898	5.831	34.600	138.7	1.299	27.266
800	5.373	5.305	34.555	148.1	1.344	27.295
900	5.247	5.171	34.618	149.5	1.429	27.362
1000	4.982	4.899	34.686	158.8	1.508	27.447
1500	4.587	4.460	35.008	255.2	1.820	27.756
2000	3.771	3.606	34.980	282.1	2.065	27.827

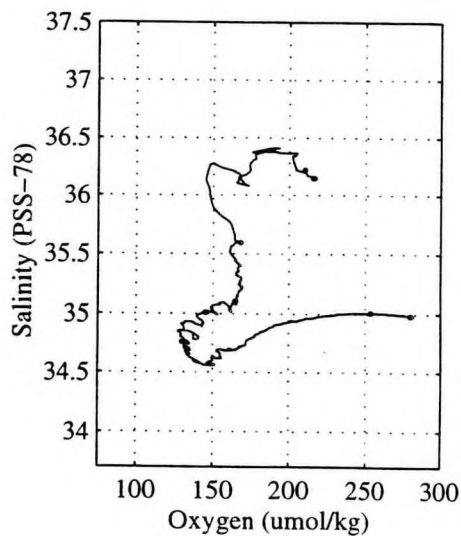
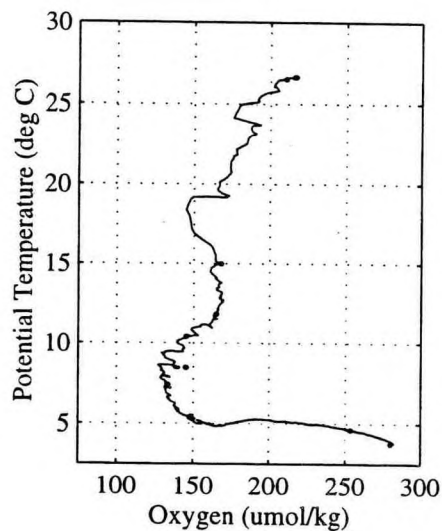
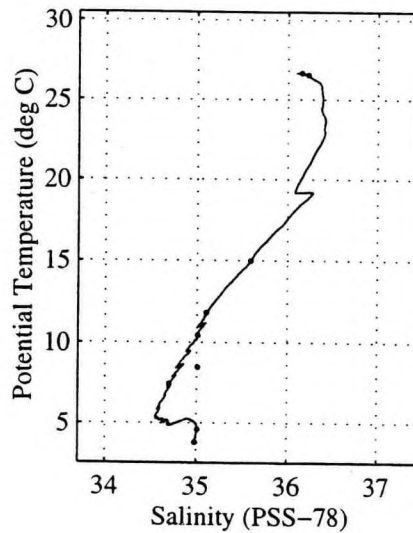
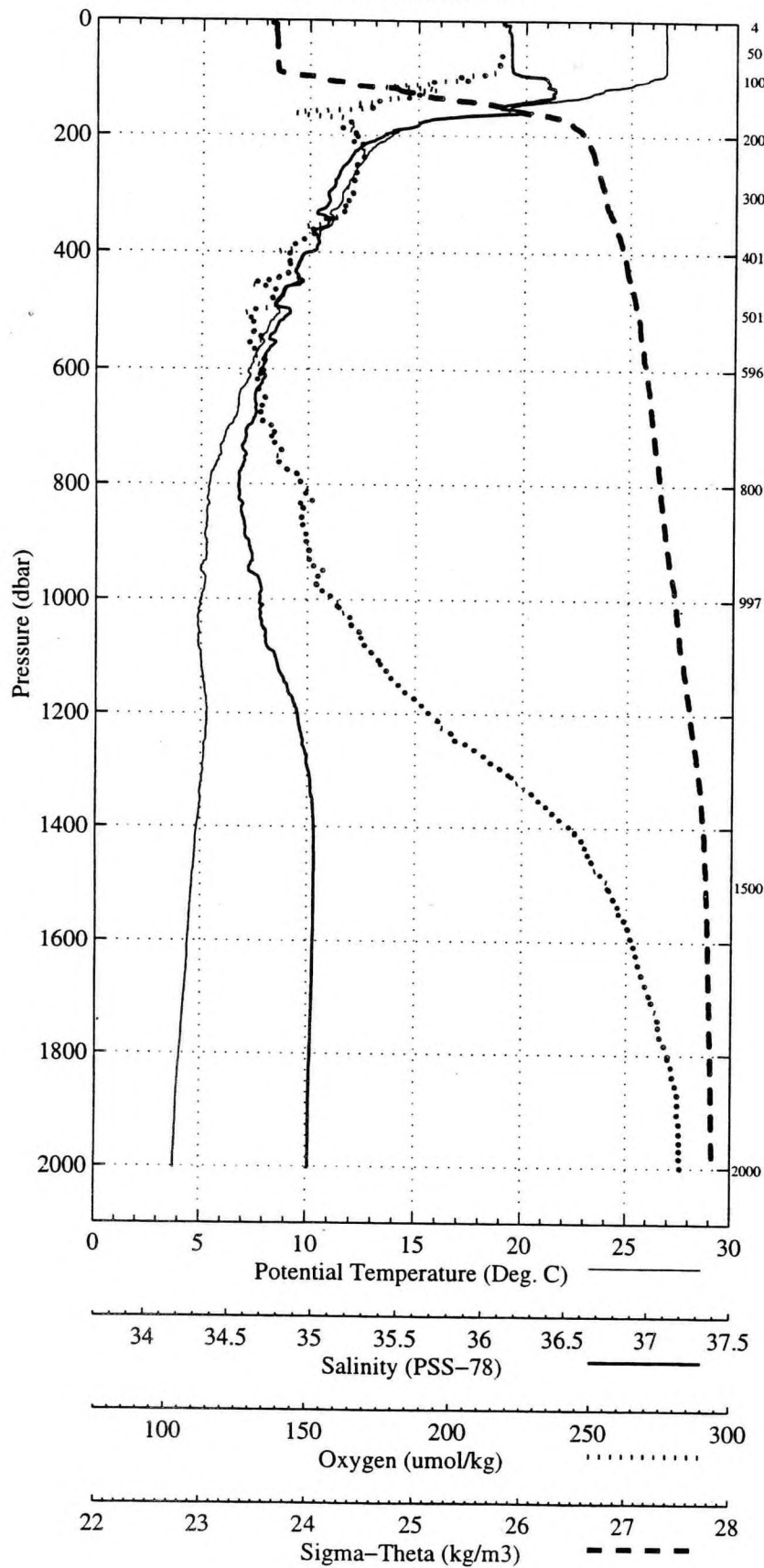
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2000	24	3.772	3.608	34.982	280.0
1500	1	4.609	4.482	35.009	253.4
997	2	5.183	NaN	NaN *	NaN
801	3	5.441	NaN	NaN *	148.5
597	4	7.420	7.361	34.700	133.3
502	5	8.460	8.407	35.010 *	145.1
401	6	10.415	10.367	35.010	145.5
301	12	11.802	11.763	35.102 *	164.6
200	13	14.985	14.955	35.596	167.6
101	14	26.523	26.500	36.219 *	210.1
50	15	26.655	26.644	36.148	216.2
4	16	26.653	26.652	36.147	215.6

NBC-3 R/V SEWARD JOHNSON

CTD Station 49 (00049)

Latitude 9.401 N Longitude 56.199 W

19-Feb-2000 12:14 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 50 (00050)  
Latitude 9.500N Longitude 56.600W  
19-Feb-2000 16:12Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.712	26.710	36.148	374.5	0.038	23.679
20	26.706	26.702	36.147	375.3	0.080	23.681
30	26.704	26.697	36.164	299.8	0.122	23.696
40	26.699	26.690	36.167	219.4	0.164	23.701
50	26.699	26.687	36.167	214.9	0.206	23.703
60	26.700	26.686	36.168	214.9	0.248	23.704
70	26.700	26.684	36.170	215.9	0.291	23.708
80	26.691	26.673	36.176	215.3	0.333	23.716
90	25.893	25.873	36.350	204.4	0.373	24.100
100	25.790	25.768	36.355	203.0	0.412	24.137
110	25.483	25.458	36.358	190.0	0.450	24.237
120	24.832	24.806	36.398	190.7	0.486	24.467
130	23.508	23.481	36.392	169.3	0.519	24.859
140	20.819	20.792	36.248	179.7	0.546	25.510
150	19.349	19.322	36.073	168.0	0.570	25.767
160	17.680	17.653	35.855	169.5	0.592	26.021
170	15.219	15.193	35.566	163.2	0.610	26.372
180	13.955	13.929	35.392	168.6	0.626	26.511
190	13.566	13.539	35.335	173.6	0.642	26.549
200	13.380	13.352	35.312	172.8	0.657	26.570
250	12.535	12.501	35.200	168.8	0.731	26.654
300	11.621	11.583	35.083	166.4	0.802	26.740
350	11.186	11.142	35.027	165.4	0.870	26.779
400	10.800	10.751	34.989	162.0	0.937	26.821
450	10.227	10.174	34.942	154.3	1.002	26.886
500	9.181	9.125	34.834	146.1	1.064	26.977
550	8.286	8.228	34.767	140.1	1.121	27.066
600	7.568	7.508	34.712	132.6	1.174	27.129
650	7.021	6.959	34.679	133.0	1.226	27.180
700	6.487	6.422	34.649	134.1	1.274	27.229
750	6.085	6.018	34.620	138.3	1.321	27.259
800	5.963	5.892	34.651	138.8	1.366	27.300
900	5.162	5.087	34.624	150.5	1.451	27.376
1000	5.108	5.023	34.725	160.6	1.528	27.465
1500	4.509	4.383	35.005	259.0	1.820	27.763
2000	3.841	3.676	34.982	282.2	2.066	27.822

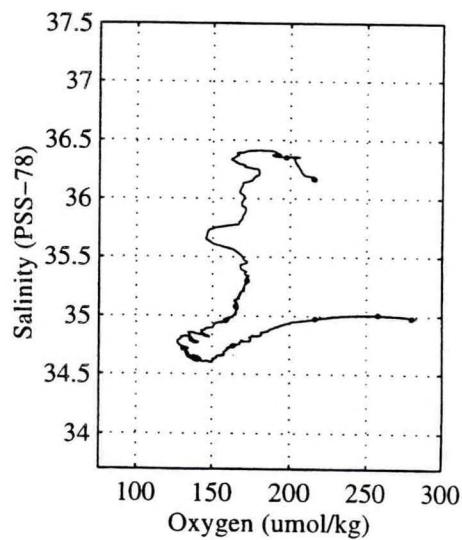
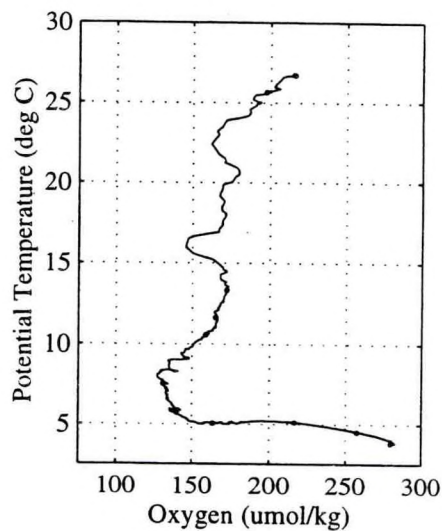
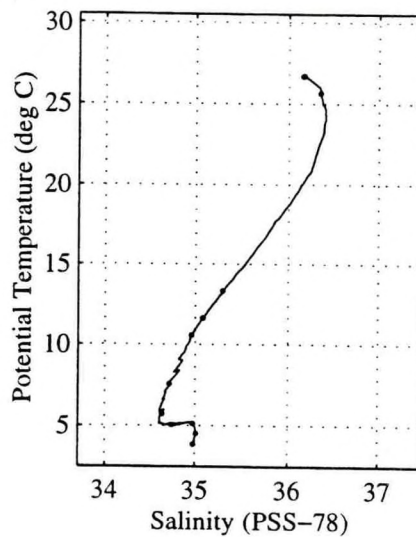
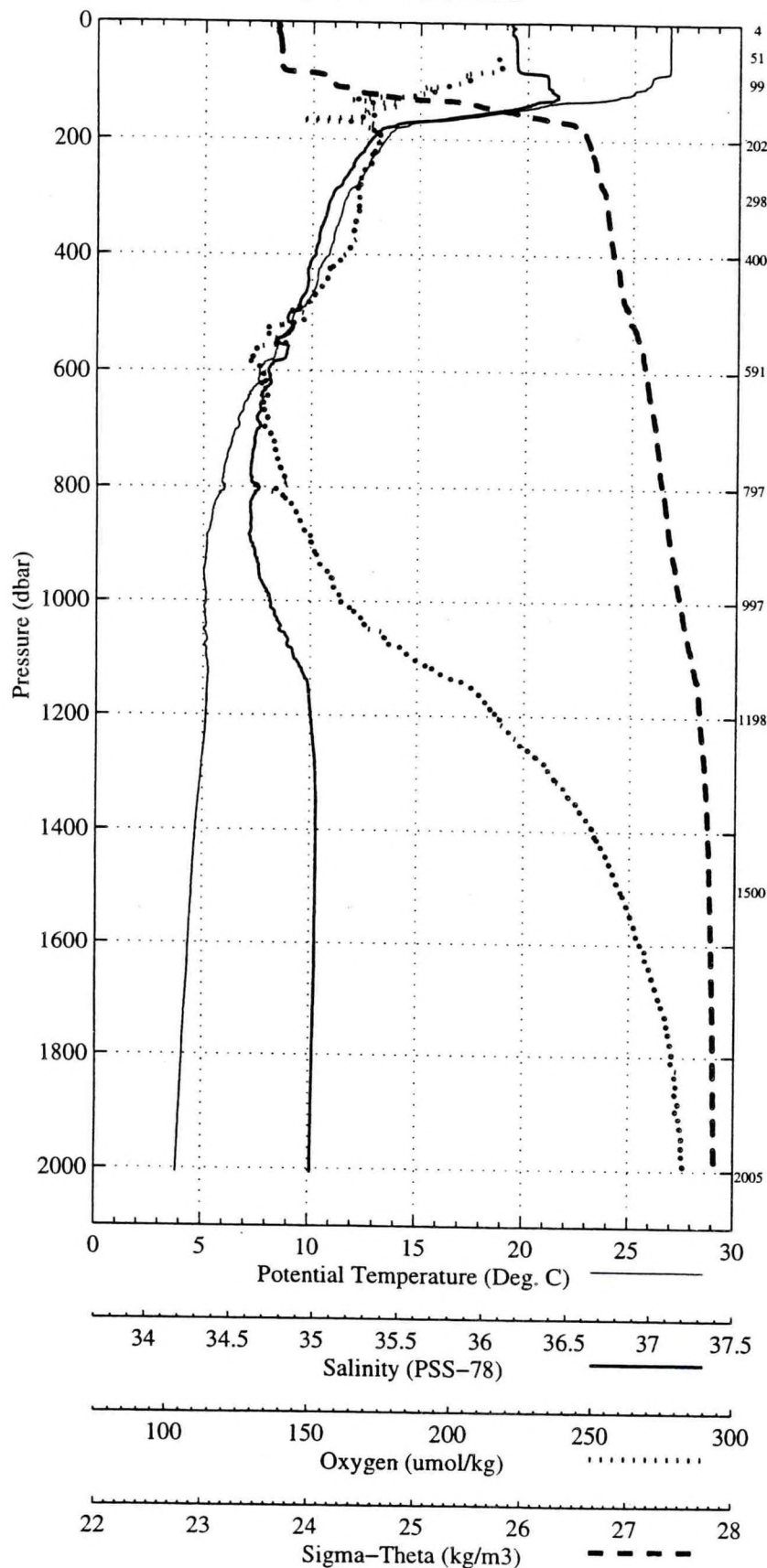
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2006	24	3.839	3.673	34.981	279.6
1501	1	4.512	4.386	35.009	257.5
1198	2	5.119	5.015	34.975	216.1
998	3	5.048	4.964	34.740	163.5
797	4	5.734	5.664	34.636	140.0
591	5	7.546	7.487	34.718	131.2
400	6	10.562	10.513	34.960	158.8
298	12	11.641	11.603	35.079	165.3
202	13	13.331	13.303	35.298	172.5
100	14	25.647	25.625	36.350 *	197.3
51	15	26.696	26.684	36.164	215.5
5	16	26.717	26.716	36.169	214.9

NBC-3 R/V SEWARD JOHNSON

CTD Station 50 (00050)

Latitude 9.500 N Longitude 56.600 W

19-Feb-2000 16:12 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 51 (00051)  
Latitude 9.599N Longitude 56.997W  
19-Feb-2000 19:54Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.876	26.874	36.171	375.9	0.038	23.643
20	26.879	26.874	36.187	376.3	0.081	23.656
30	26.882	26.875	36.185	376.2	0.123	23.655
40	26.886	26.876	36.191	191.8	0.166	23.660
50	26.880	26.869	36.195	215.3	0.208	23.666
60	26.869	26.855	36.195	214.1	0.250	23.671
70	26.848	26.832	36.200	210.7	0.293	23.683
80	25.853	25.835	36.311	199.5	0.333	24.082
90	25.525	25.505	36.353	193.8	0.371	24.217
100	24.910	24.888	36.383	191.1	0.407	24.430
110	24.179	24.155	36.352	188.5	0.442	24.628
120	23.748	23.723	36.367	187.0	0.475	24.768
130	21.741	21.715	36.340	160.1	0.505	25.325
140	20.438	20.411	36.194	178.7	0.530	25.571
150	18.847	18.821	36.011	173.0	0.554	25.848
160	15.950	15.925	35.641	163.6	0.574	26.264
170	14.594	14.569	35.472	171.8	0.590	26.437
180	13.749	13.723	35.357	173.0	0.606	26.527
190	13.461	13.434	35.322	172.4	0.622	26.560
200	13.252	13.224	35.295	172.5	0.637	26.583
250	12.477	12.444	35.191	168.0	0.711	26.659
300	11.632	11.593	35.084	166.4	0.781	26.739
350	11.218	11.174	35.032	163.9	0.849	26.777
400	10.796	10.747	34.984	163.1	0.916	26.818
450	10.384	10.330	34.946	157.4	0.982	26.863
500	9.526	9.469	34.861	149.7	1.045	26.943
550	9.254	9.192	34.897	140.1	1.105	27.017
600	8.396	8.333	34.810	126.0	1.161	27.084
650	7.466	7.401	34.719	132.6	1.214	27.151
700	6.720	6.654	34.652	134.9	1.264	27.201
750	6.131	6.064	34.619	137.8	1.312	27.252
800	5.794	5.723	34.634	137.7	1.357	27.307
900	5.204	5.128	34.628	148.8	1.441	27.375
1000	4.837	4.755	34.671	161.9	1.518	27.452
1500	4.493	4.368	35.005	260.0	1.810	27.765
2000	3.841	3.676	34.981	282.3	2.053	27.821

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2003	24	3.842	3.676	34.981	279.1
1502	1	4.504	4.378	35.007	256.1
1202	2	5.091	4.987	34.980	219.2
1001	3	4.835	4.753	34.670	161.7
804	4	5.678	5.608	34.624	140.9
602	5	8.457	8.393	34.822	126.9
403	6	10.776	10.726	34.979	162.1
303	12	11.573	11.534	35.073	165.5
202	13	13.152	13.124	35.275	171.4
101	14	24.264	24.242	36.343 *	188.1
50	15	26.882	26.871	36.193	213.3
5	16	26.868	26.867	36.193	196.8

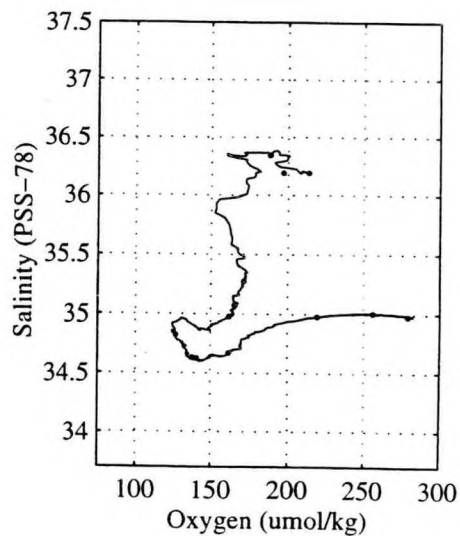
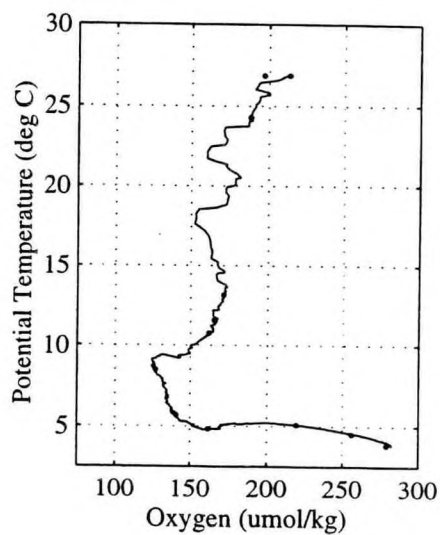
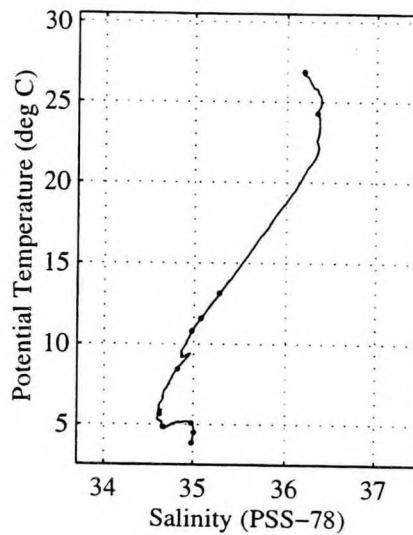
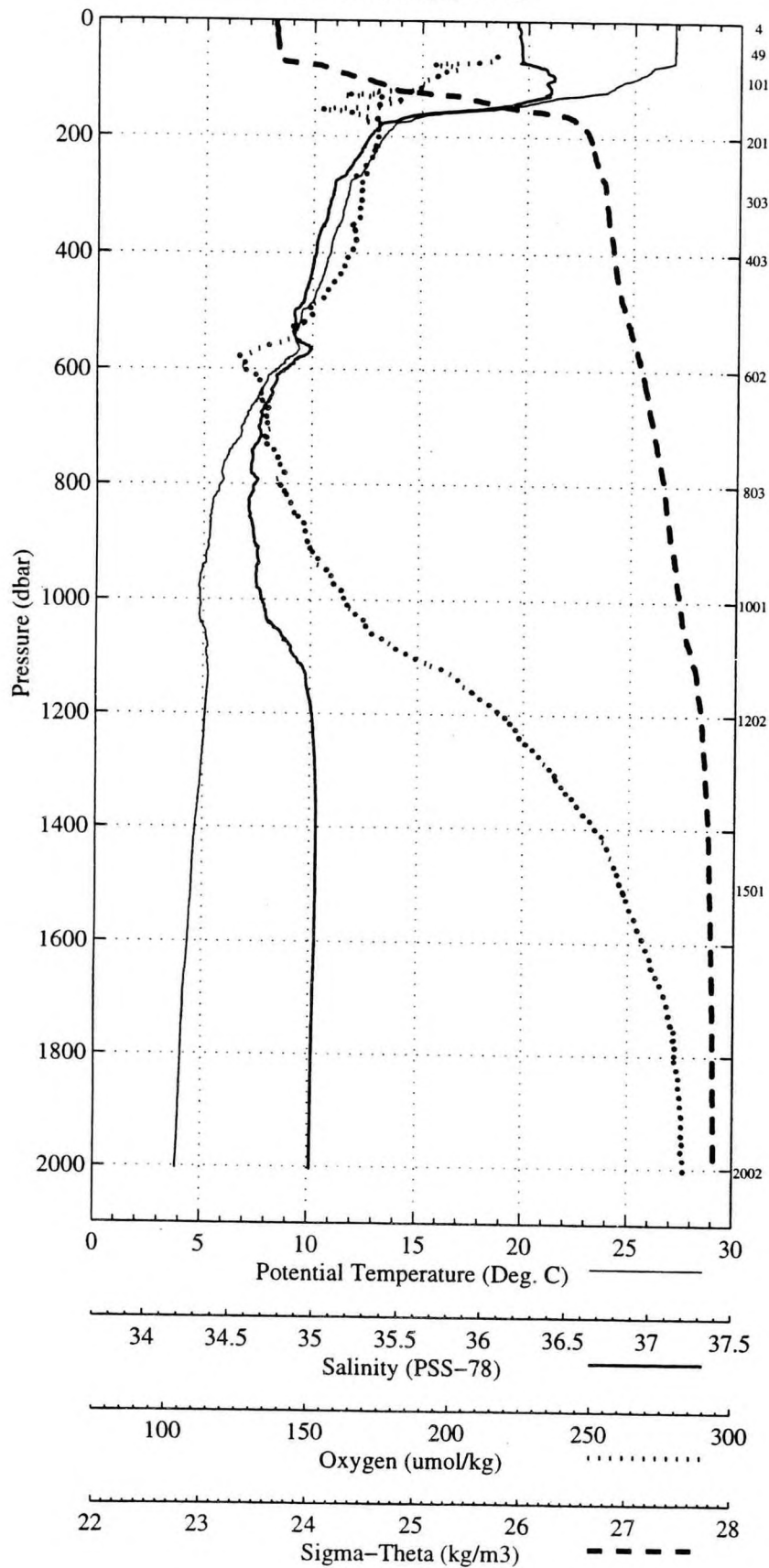


NBC-3 R/V SEWARD JOHNSON

CTD Station 51 (00051)

Latitude 9.599 N Longitude 56.997 W

19-Feb-2000 19:54 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 52 (00052)  
Latitude 0.000N Longitude 57.104W  
20-Feb-2000 00:14Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.807	26.805	36.179	377.6	0.038	23.671
20	26.810	26.805	36.184	378.2	0.080	23.676
30	26.816	26.809	36.198	284.1	0.122	23.686
40	26.817	26.808	36.201	226.2	0.165	23.689
50	26.818	26.807	36.205	217.3	0.207	23.693
60	26.821	26.807	36.206	216.1	0.249	23.694
70	26.762	26.746	36.214	210.8	0.291	23.721
80	25.775	25.757	36.283	193.6	0.331	24.085
90	25.386	25.366	36.357	191.7	0.369	24.263
100	24.473	24.452	36.332	182.4	0.405	24.523
110	23.583	23.560	36.392	188.2	0.438	24.834
120	22.563	22.538	36.441	182.5	0.468	25.169
130	19.633	19.609	36.130	164.4	0.494	25.734
140	18.403	18.378	35.960	176.0	0.516	25.920
150	16.610	16.585	35.732	163.8	0.536	26.182
160	15.269	15.244	35.561	175.2	0.553	26.356
170	14.303	14.278	35.441	169.1	0.570	26.475
180	14.008	13.982	35.399	173.9	0.586	26.506
190	13.682	13.655	35.353	174.0	0.602	26.539
200	13.539	13.511	35.332	173.8	0.617	26.553
250	12.610	12.576	35.209	169.5	0.691	26.647
300	11.959	11.919	35.124	167.8	0.763	26.709
350	11.456	11.411	35.061	166.0	0.833	26.756
400	11.071	11.021	35.013	165.1	0.901	26.792
450	10.720	10.665	34.974	163.3	0.969	26.826
500	10.309	10.249	34.940	157.4	1.035	26.873
550	9.629	9.566	34.907	145.4	1.097	26.964
600	8.466	8.401	34.830	129.3	1.154	27.089
650	7.387	7.323	34.704	134.7	1.207	27.150
700	6.681	6.615	34.644	135.0	1.257	27.200
750	6.395	6.326	34.627	136.3	1.306	27.225
800	6.212	6.139	34.630	137.0	1.353	27.252
900	5.332	5.255	34.613	142.8	1.442	27.347
1000	4.999	4.915	34.690	161.1	1.521	27.449
1500	4.435	4.310	35.005	261.5	1.813	27.770
2000	3.805	3.640	34.980	282.4	2.055	27.823

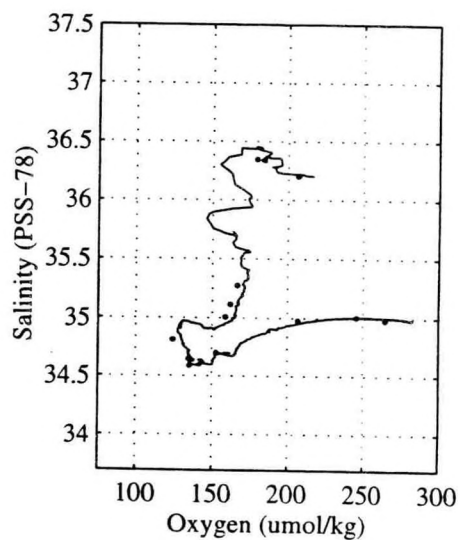
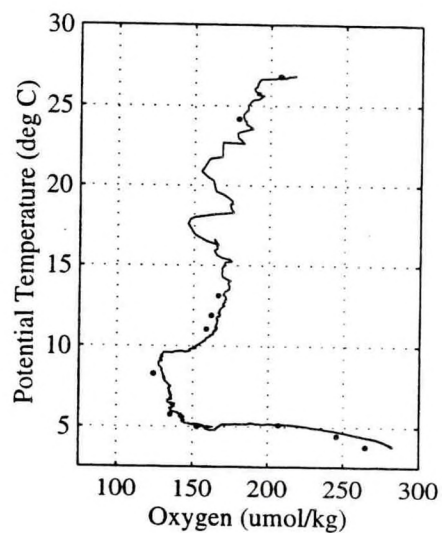
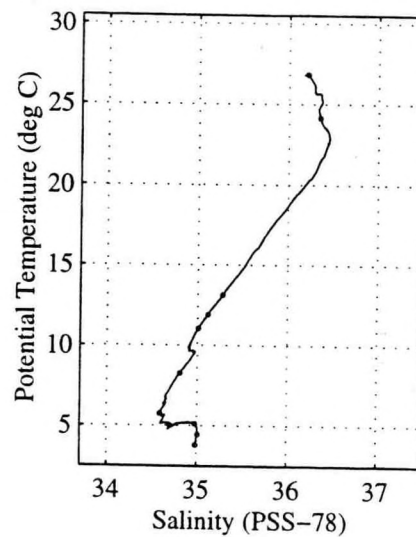
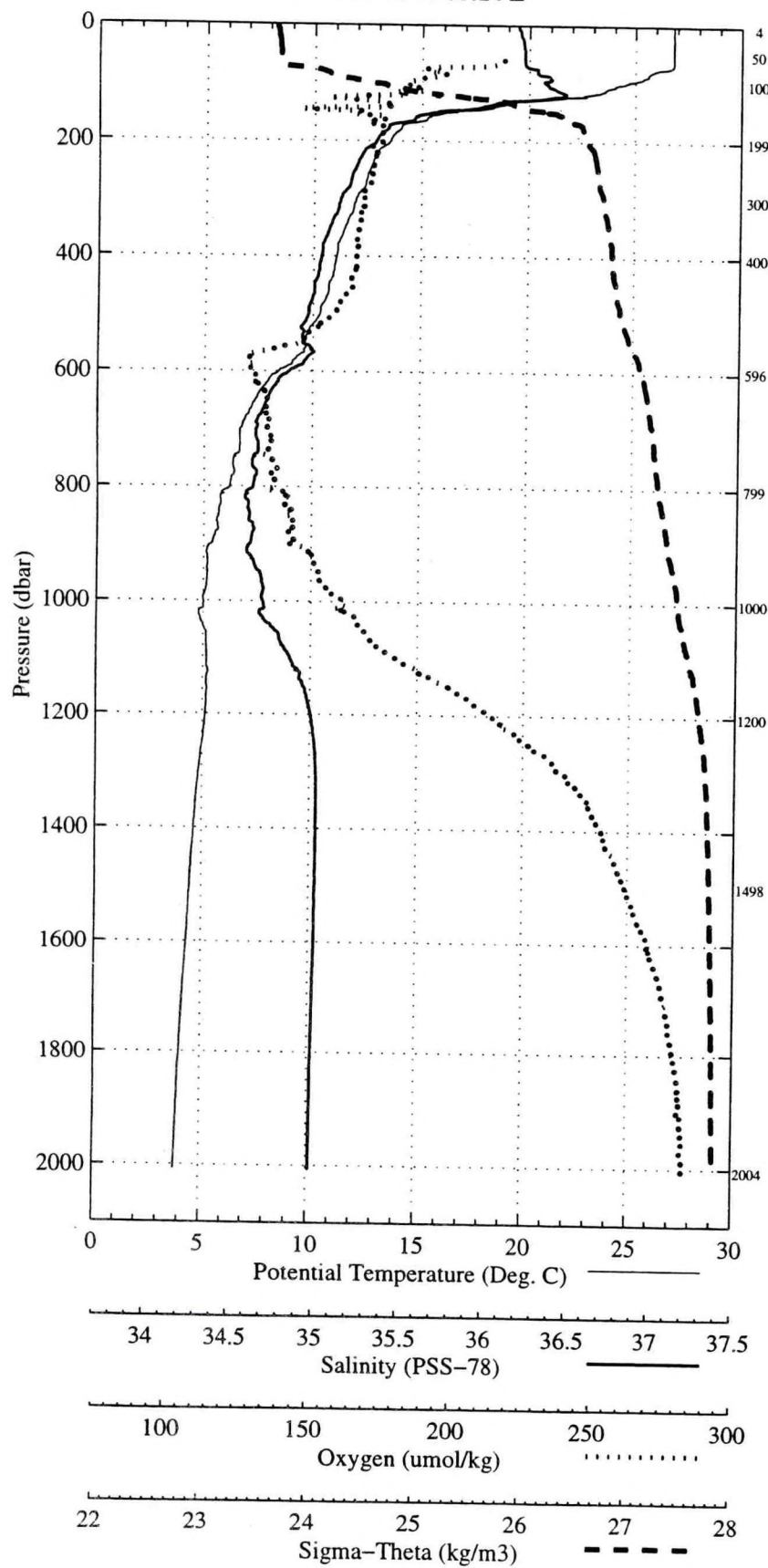
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2005	24	3.803	3.638	34.982	264.7
1498	1	4.445	4.320	35.007	245.7
1201	2	5.105	5.001	34.978	206.7
1000	3	5.003	4.919	34.700	152.8
800	4	5.746	5.676	34.585	135.3
597	5	8.268	8.205	34.809	124.2
401	6	11.036	10.986	35.007	158.9
301	12	11.894	11.855	35.117	162.2
200	13	13.120	13.092	35.277	166.7
101	14	24.146	24.125	36.344 *	179.2
50	15	26.816	26.804	36.203	206.4
4	16	26.807	26.806	36.206	206.9

## NBC-3 R/V SEWARD JOHNSON

CTD Station 52 (00052)

Latitude 10.000 N Longitude 57.104 W

20-Feb-2000 00:14 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 53 (00053)  
Latitude 0.235N Longitude 57.461W  
20-Feb-2000 04:58Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.867	26.867	36.176	375.6	0.004	23.649
10	26.859	26.857	36.196	376.1	0.042	23.668
20	26.864	26.860	36.213	376.6	0.085	23.680
30	26.865	26.859	36.216	238.0	0.127	23.683
40	26.869	26.860	36.218	216.7	0.169	23.686
50	26.870	26.859	36.220	215.3	0.211	23.688
60	26.874	26.860	36.220	214.3	0.253	23.689
70	25.669	25.653	36.312	191.3	0.294	24.139
80	25.279	25.261	36.304	187.1	0.332	24.254
90	24.636	24.617	36.366	189.5	0.367	24.498
100	23.844	23.823	36.373	187.6	0.401	24.742
110	22.749	22.726	36.451	186.7	0.431	25.122
120	21.523	21.499	36.368	177.7	0.459	25.406
130	18.368	18.345	36.029	146.6	0.482	25.982
140	16.582	16.559	35.764	168.5	0.502	26.212
150	15.479	15.456	35.591	171.0	0.520	26.332
160	14.877	14.853	35.516	171.7	0.537	26.408
170	14.297	14.272	35.447	170.6	0.553	26.481
180	13.780	13.754	35.369	173.1	0.569	26.530
190	13.587	13.560	35.340	173.9	0.584	26.548
200	13.452	13.424	35.320	173.4	0.599	26.561
250	12.764	12.729	35.229	168.4	0.674	26.632
300	11.888	11.849	35.119	166.4	0.746	26.719
350	11.365	11.321	35.050	166.2	0.815	26.765
400	10.963	10.914	35.003	163.8	0.883	26.803
450	10.544	10.489	34.975	158.8	0.949	26.857
500	10.286	10.226	35.060	135.6	1.013	26.971
550	8.998	8.937	34.901	131.4	1.071	27.061
600	7.869	7.808	34.748	134.2	1.125	27.114
650	7.431	7.366	34.702	135.6	1.177	27.142
700	6.740	6.674	34.633	137.3	1.228	27.183
750	6.363	6.294	34.624	137.6	1.276	27.227
800	6.063	5.991	34.623	139.6	1.323	27.265
900	5.176	5.100	34.598	149.2	1.410	27.354
1000	5.054	4.970	34.670	156.6	1.491	27.427
1500	4.406	4.281	35.004	262.3	1.796	27.773
2000	3.672	3.509	34.978	281.4	2.034	27.835

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2001	24	3.671	3.508	34.980	269.2
1502	1	4.454	4.328	35.008	251.9
1001	2	5.041	4.957	34.672	153.4
800	3	5.868	5.797	34.606	136.9
600	4	7.814	7.753	34.746	129.7
398	5	11.022	10.972	35.010 *	157.9

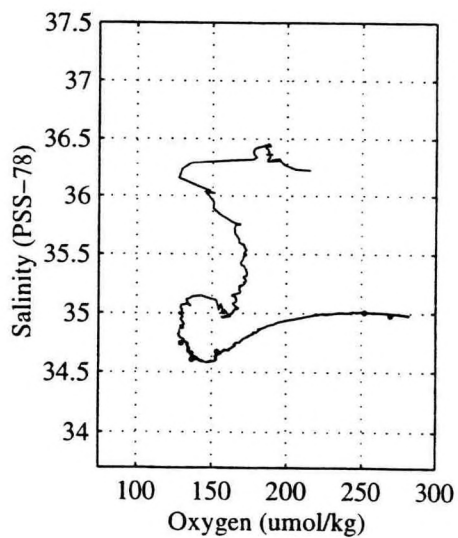
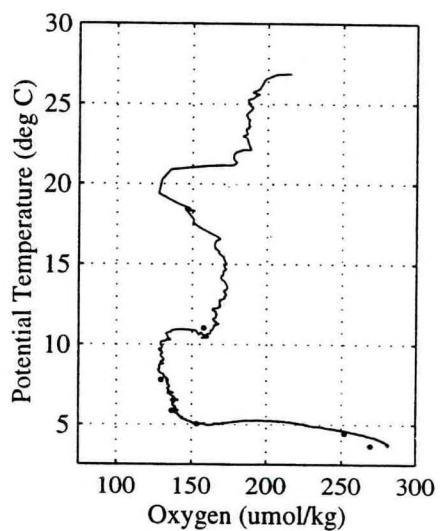
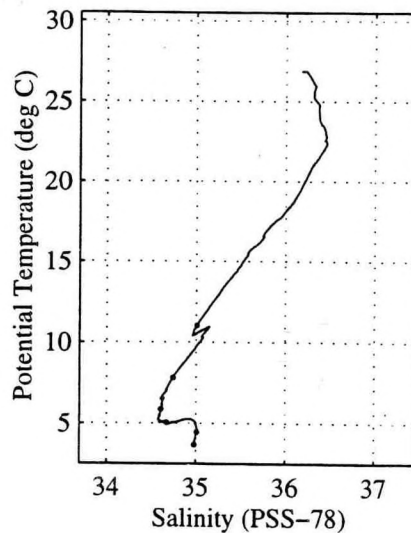
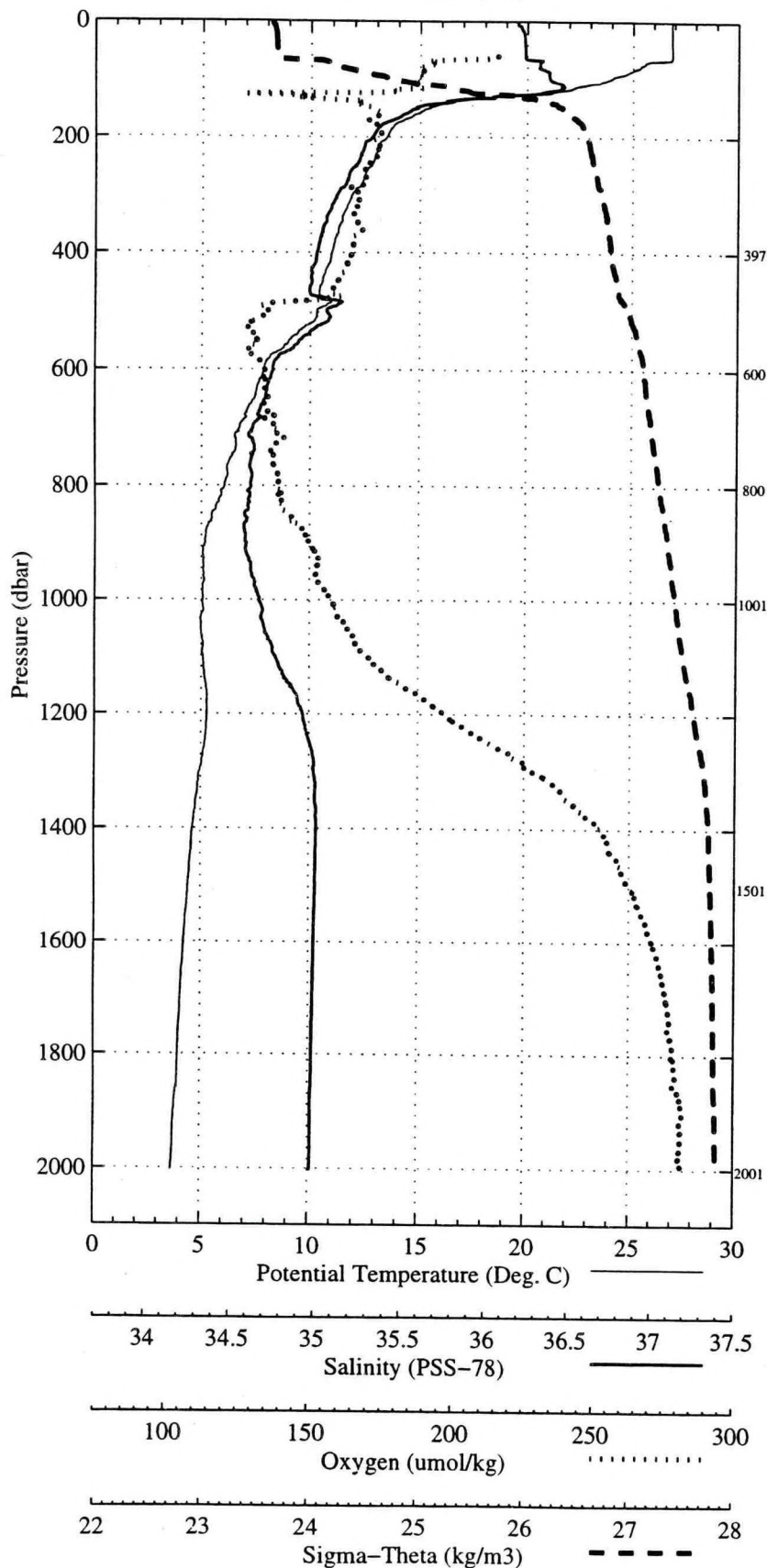
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NBC-3 R/V SEWARD JOHNSON

CTD Station 53 (00053)

Latitude 10.235 N Longitude 57.461 W

20-Feb-2000 04:58 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 54 (00054)  
Latitude 0.343N Longitude 57.846W  
20-Feb-2000 10:00Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.799	26.797	36.173	377.8	0.038	23.670
20	26.804	26.799	36.199	378.3	0.080	23.689
30	26.806	26.799	36.207	287.5	0.122	23.696
40	26.807	26.798	36.214	220.8	0.164	23.702
50	26.810	26.799	36.214	217.9	0.206	23.703
60	26.810	26.797	36.215	215.8	0.249	23.704
70	26.806	26.790	36.215	214.7	0.291	23.708
80	26.786	26.768	36.215	214.1	0.333	23.715
90	25.169	25.149	36.384	191.5	0.372	24.350
100	24.596	24.574	36.392	190.9	0.407	24.531
110	23.765	23.742	36.396	176.9	0.441	24.784
120	22.627	22.603	36.370	176.9	0.471	25.096
130	21.783	21.757	36.374	169.8	0.499	25.339
140	20.896	20.869	36.325	168.7	0.525	25.547
150	20.161	20.133	36.277	159.5	0.549	25.709
160	19.201	19.172	36.235	154.6	0.571	25.930
170	17.704	17.675	36.130	139.5	0.591	26.227
180	16.474	16.444	35.906	156.7	0.609	26.349
190	15.776	15.746	35.807	154.7	0.626	26.434
200	15.499	15.468	35.764	157.8	0.643	26.464
250	14.149	14.112	35.583	153.8	0.721	26.622
300	12.522	12.482	35.297	153.8	0.792	26.735
350	12.382	12.334	35.381	138.3	0.860	26.830
400	11.155	11.104	35.191	136.9	0.924	26.915
450	10.033	9.980	35.065	126.9	0.983	27.016
500	9.282	9.226	34.950	127.5	1.039	27.052
550	8.656	8.596	34.885	128.5	1.094	27.102
600	7.899	7.838	34.807	127.2	1.146	27.156
650	7.279	7.215	34.752	129.6	1.196	27.203
700	6.687	6.621	34.689	132.5	1.244	27.234
750	6.224	6.155	34.659	136.6	1.290	27.273
800	5.792	5.722	34.637	140.8	1.335	27.310
900	5.413	5.335	34.694	148.3	1.418	27.402
1000	5.235	5.149	34.739	158.9	1.495	27.461
1500	4.538	4.411	35.011	258.6	1.798	27.765
1998	3.421	3.262	34.969	282.6	2.030	27.851

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1997	24	3.421	3.262	34.968	272.0
1495	1	4.479	4.354	35.009	252.0
1200	2	5.205	NaN	NaN *	NaN

Remainder of bottle data for this station is missing due to a computer failure during the cast.

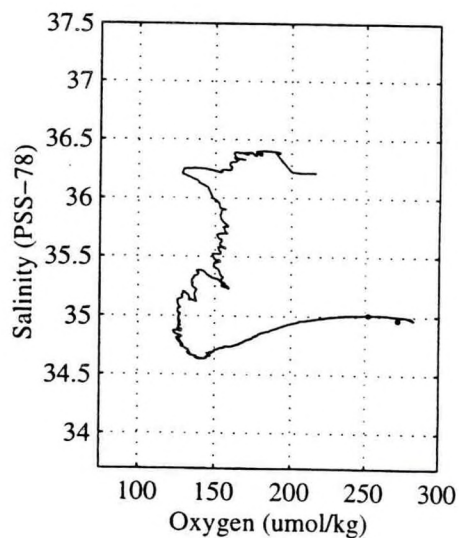
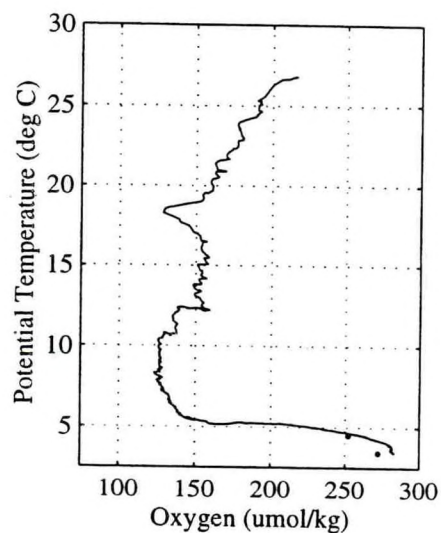
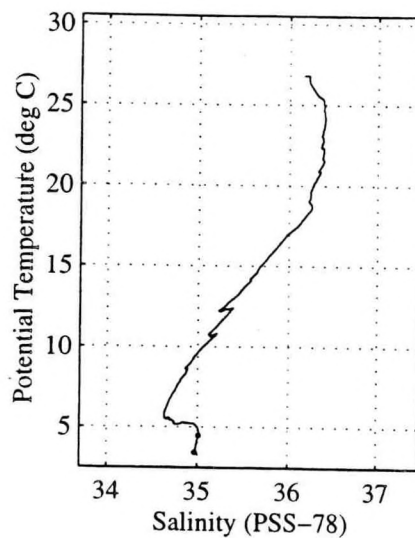
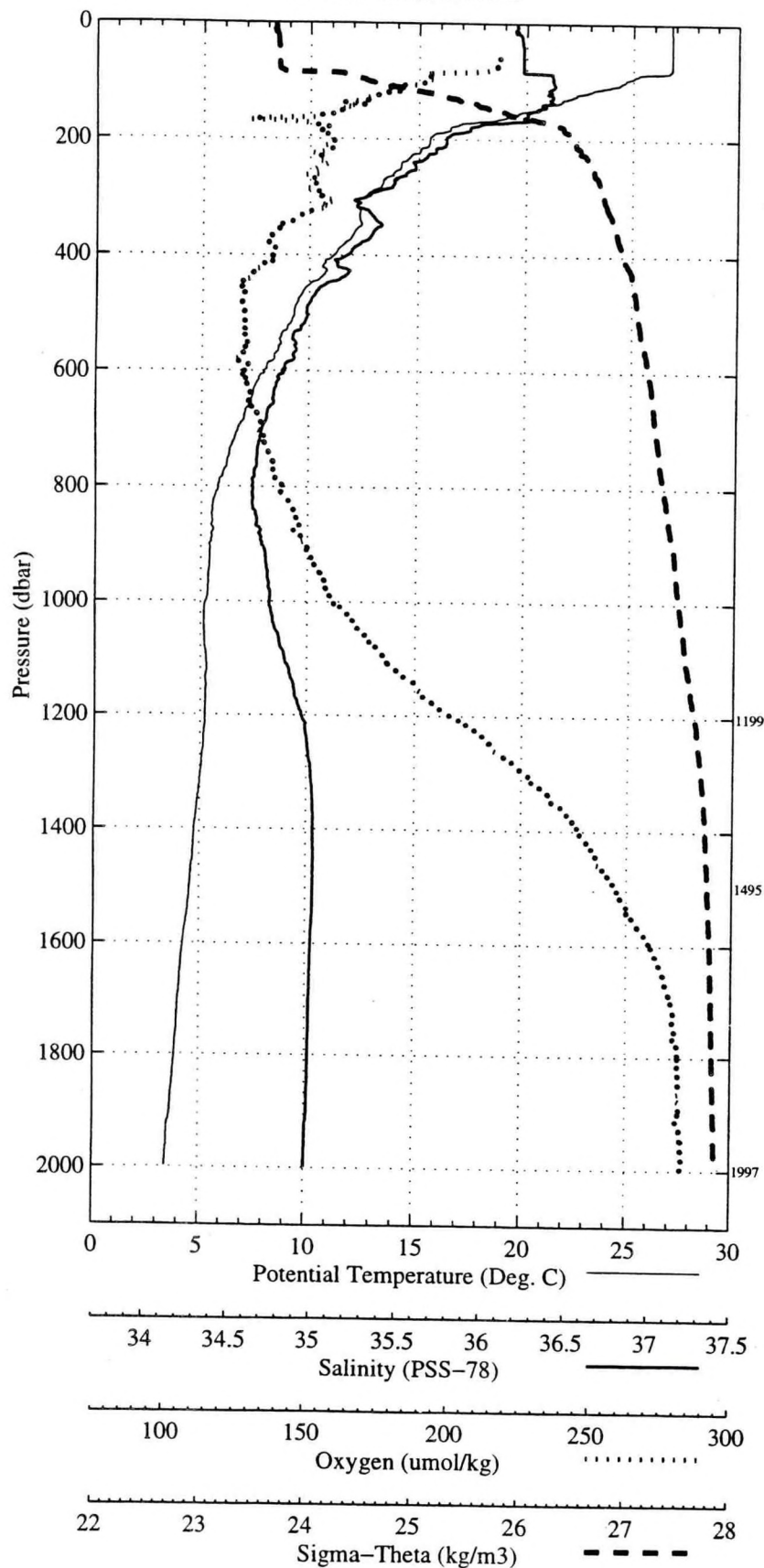


# NBC-3 R/V SEWARD JOHNSON

CTD Station 54 (00054)

Latitude 10.343 N Longitude 57.846 W

20-Feb-2000 10:00 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 55 (00055)  
Latitude 0.634N Longitude 58.234W  
20-Feb-2000 14:30Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.950	26.950	35.849	325.3	0.004	23.376
10	26.943	26.941	35.867	339.3	0.045	23.393
20	26.943	26.939	35.882	338.2	0.090	23.406
30	26.949	26.942	35.894	338.6	0.135	23.414
40	26.948	26.938	35.977	206.1	0.179	23.479
50	26.940	26.929	36.059	195.0	0.223	23.544
60	26.802	26.789	36.171	195.5	0.266	23.674
70	26.709	26.693	36.174	196.4	0.308	23.708
80	26.547	26.529	36.178	191.0	0.350	23.763
90	25.450	25.430	36.206	169.3	0.390	24.129
100	24.266	24.245	36.352	161.4	0.426	24.600
110	24.318	24.295	36.707	141.9	0.458	24.855
120	23.622	23.597	36.900	161.5	0.488	25.210
130	23.203	23.176	37.068	151.2	0.515	25.461
140	22.718	22.690	37.102	152.9	0.540	25.629
150	21.931	21.901	37.026	147.9	0.563	25.796
160	21.022	20.991	36.900	143.0	0.585	25.953
170	19.588	19.556	36.680	130.1	0.605	26.170
180	18.477	18.446	36.469	130.5	0.623	26.295
190	17.390	17.358	36.234	127.5	0.641	26.384
200	16.908	16.875	36.145	126.6	0.658	26.432
250	13.172	13.137	35.522	127.7	0.731	26.777
300	11.192	11.155	35.214	123.2	0.795	26.922
350	10.566	10.524	35.136	116.9	0.854	26.974
400	9.634	9.588	34.994	115.0	0.911	27.025
450	8.570	8.522	34.822	116.2	0.966	27.062
500	8.081	8.029	34.770	115.8	1.020	27.097
550	7.558	7.503	34.721	115.4	1.072	27.136
600	6.961	6.903	34.664	119.1	1.122	27.176
650	6.599	6.539	34.643	119.5	1.171	27.208
700	5.844	5.783	34.587	124.7	1.217	27.261
750	5.151	5.088	34.600	132.2	1.260	27.355
800	5.239	5.172	34.656	132.9	1.300	27.391
900	5.053	4.978	34.694	140.1	1.377	27.444
1000	5.067	4.982	34.775	151.5	1.449	27.509
1500	4.351	4.226	35.005	234.5	1.743	27.780
2000	3.391	3.233	34.969	249.6	1.970	27.854

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
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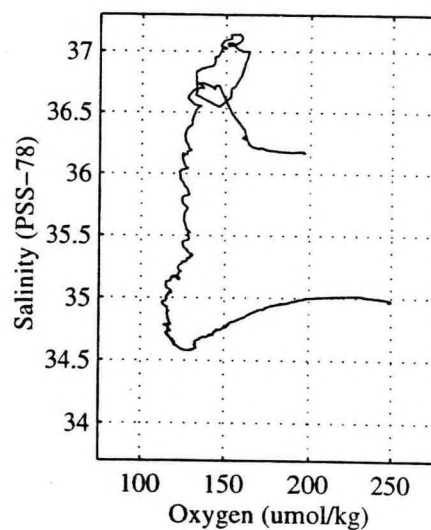
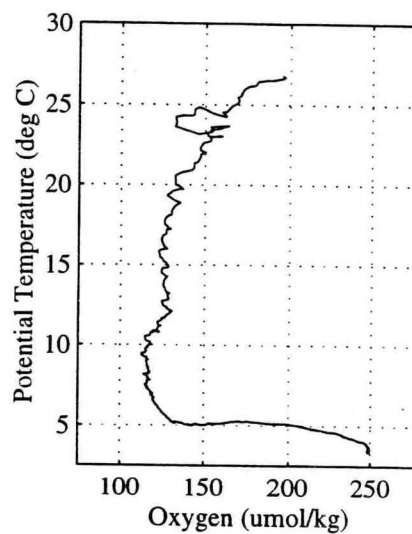
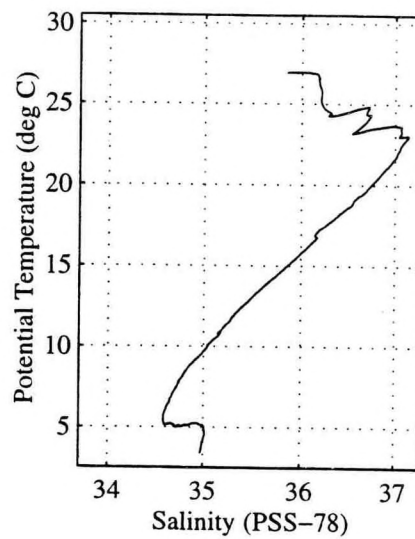
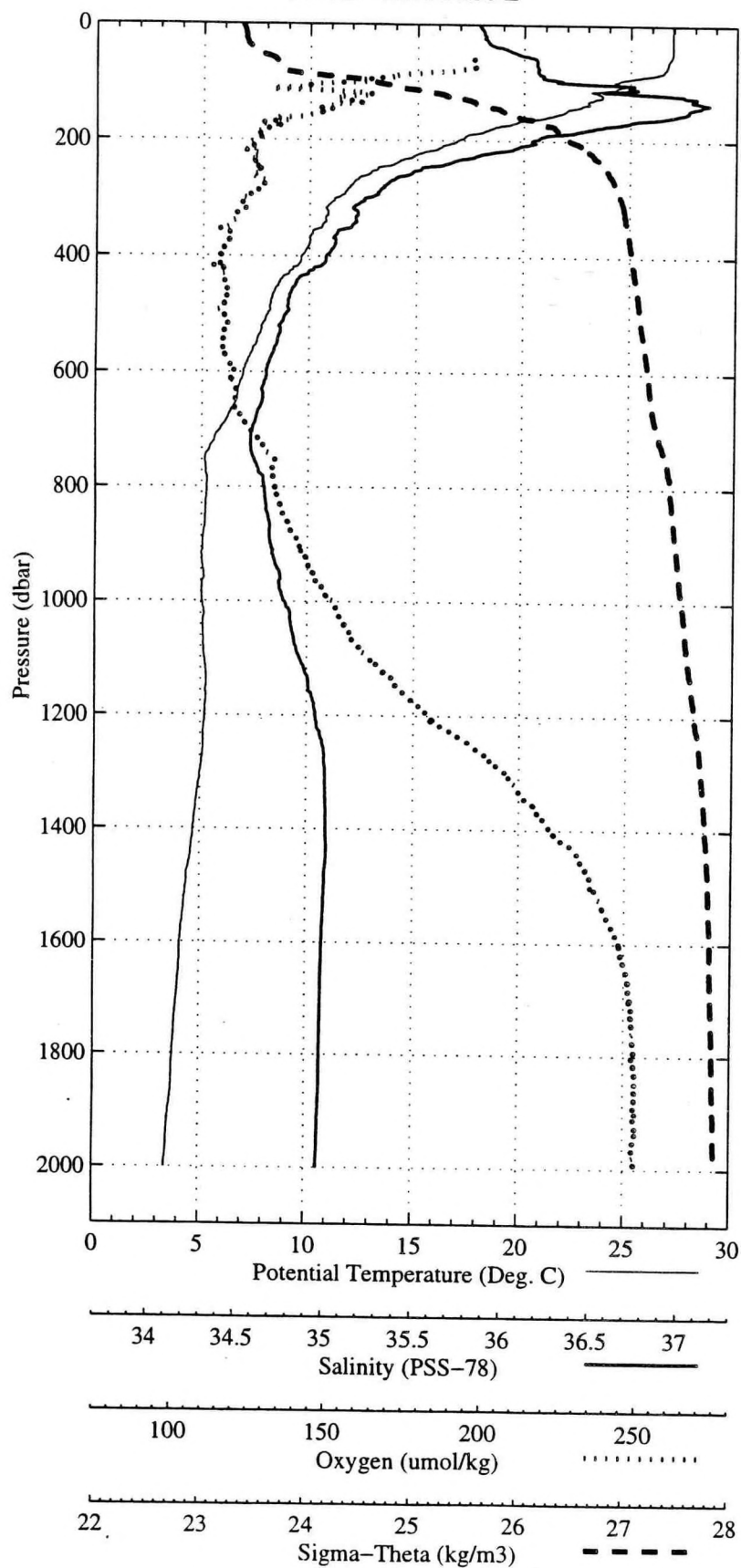
No bottle available for this station.

# NBC-3 R/V SEWARD JOHNSON

CTD Station 55 (00055)

Latitude 10.634 N Longitude 58.234 W

20-Feb-2000 14:30 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 56 (00056)  
Latitude 1.271N Longitude 56.538W  
21-Feb-2000 05:30Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.439	26.436	34.869	345.0	0.045	22.800
20	26.477	26.472	34.888	344.9	0.096	22.805
30	26.566	26.559	34.974	344.9	0.146	22.843
40	26.634	26.625	35.294	217.3	0.196	23.063
50	26.670	26.658	35.467	211.8	0.243	23.184
60	26.745	26.731	35.572	209.7	0.290	23.241
70	26.624	26.608	36.137	196.2	0.335	23.707
80	26.298	26.280	36.532	192.9	0.375	24.109
90	25.367	25.348	36.578	174.6	0.412	24.435
100	24.794	24.772	36.951	181.1	0.445	24.894
110	24.148	24.125	37.217	178.7	0.474	25.292
120	23.099	23.074	37.081	166.7	0.500	25.500
130	22.873	22.847	37.092	166.2	0.525	25.575
140	21.652	21.624	36.946	150.9	0.549	25.813
150	20.807	20.778	36.789	144.3	0.570	25.927
160	19.678	19.648	36.611	142.1	0.591	26.093
170	18.026	17.996	36.287	147.6	0.610	26.268
180	17.904	17.873	36.441	145.6	0.627	26.417
190	17.139	17.107	36.277	127.8	0.643	26.478
200	16.305	16.273	36.128	136.0	0.659	26.561
250	13.438	13.402	35.622	129.3	0.730	26.801
300	10.963	10.926	35.168	129.4	0.793	26.927
350	10.209	10.168	35.079	125.4	0.851	26.992
400	9.247	9.202	34.942	121.1	0.907	27.047
450	8.344	8.297	34.809	125.9	0.961	27.087
500	7.724	7.674	34.731	130.3	1.014	27.118
550	7.260	7.206	34.690	128.7	1.065	27.154
600	6.766	6.709	34.644	130.5	1.114	27.186
650	6.574	6.514	34.652	128.3	1.162	27.219
700	6.190	6.127	34.621	132.7	1.209	27.245
750	5.995	5.928	34.618	133.7	1.255	27.268
800	5.871	5.800	34.629	133.0	1.300	27.294
900	5.402	5.325	34.634	140.4	1.386	27.356
1000	5.204	5.118	34.666	147.3	1.468	27.407
1500	4.697	4.569	35.009	242.8	1.799	27.746
2000	3.663	3.500	34.980	272.3	2.043	27.837

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2001	24	3.663	3.500	34.981	272.7
1500	1	4.678	4.550	35.012	242.2
1001	2	5.188	5.103	34.667	146.3
803	3	5.781	5.710	34.624	132.7
602	4	6.828	6.771	34.657	128.3

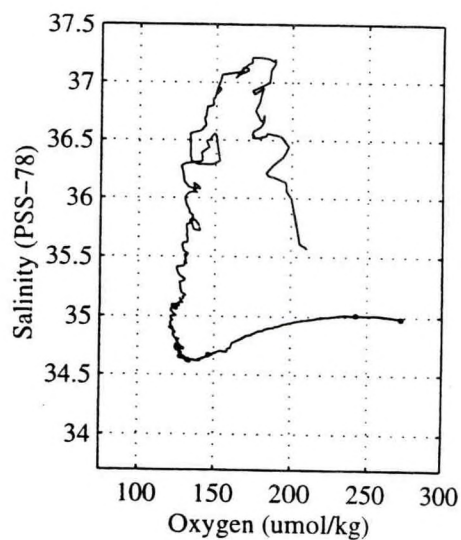
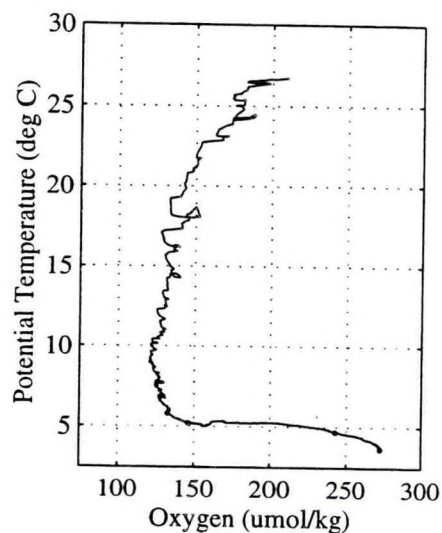
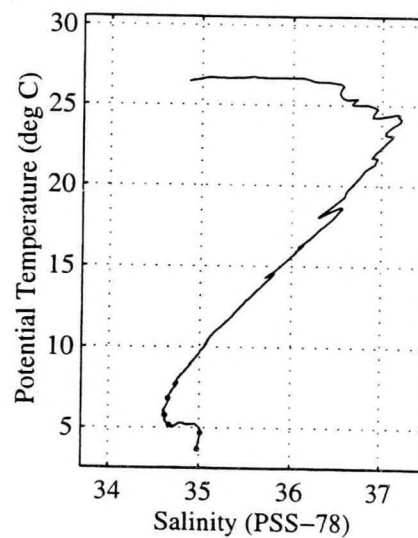
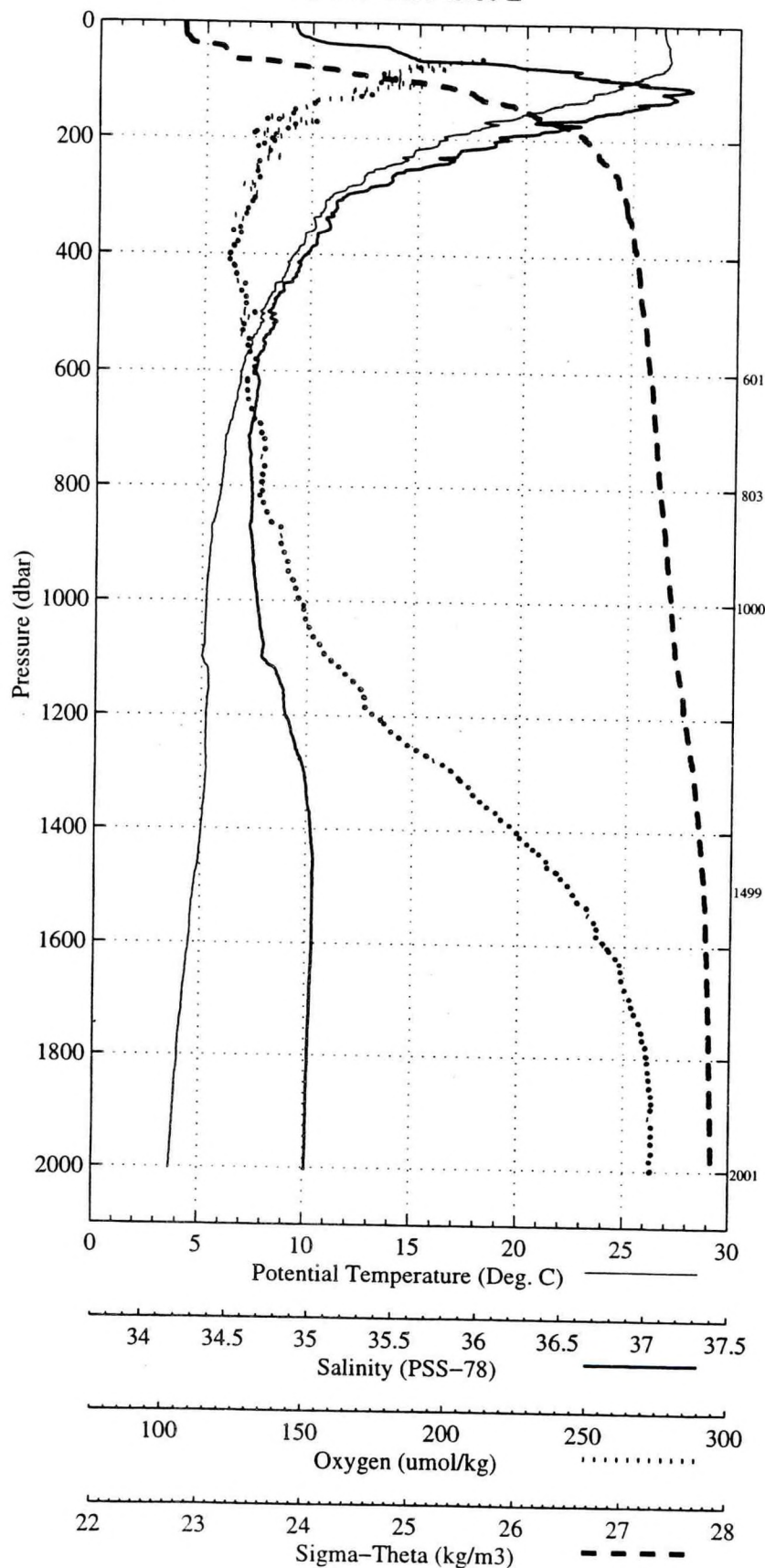
Remainder of bottle data for this station is missing due to a computer failure during the cast.

# NBC-3 R/V SEWARD JOHNSON

CTD Station 56 (00056)

Latitude 11.271 N Longitude 56.538 W

21-Feb-2000 05:30 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 57 (00057)  
Latitude 0.851N Longitude 56.797W  
21-Feb-2000 09:45Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.576	26.573	36.118	340.9	0.038	23.699
20	26.577	26.573	36.112	341.4	0.080	23.695
30	26.580	26.574	36.190	260.0	0.122	23.755
40	26.582	26.573	36.193	210.0	0.163	23.758
50	26.585	26.574	36.201	209.0	0.205	23.764
60	26.588	26.574	36.201	208.1	0.246	23.765
70	26.593	26.577	36.201	208.0	0.288	23.765
80	26.511	26.493	36.212	201.2	0.329	23.801
90	24.740	24.721	36.358	169.9	0.367	24.461
100	23.326	23.306	36.379	178.6	0.400	24.898
110	22.012	21.990	36.314	175.7	0.429	25.227
120	20.538	20.516	36.243	170.5	0.455	25.580
130	19.909	19.885	36.175	177.2	0.479	25.697
140	19.529	19.503	36.180	157.2	0.502	25.801
150	17.843	17.817	36.049	154.5	0.523	26.128
160	17.334	17.307	35.984	157.5	0.542	26.203
170	16.267	16.239	35.844	156.5	0.559	26.349
180	15.510	15.482	35.735	154.1	0.576	26.439
190	14.963	14.934	35.658	155.7	0.593	26.501
200	14.597	14.567	35.617	153.0	0.608	26.549
250	12.703	12.669	35.266	159.9	0.682	26.673
300	12.010	11.970	35.185	153.3	0.753	26.747
350	11.727	11.681	35.257	140.2	0.819	26.859
400	10.293	10.246	35.076	124.1	0.880	26.978
450	9.541	9.490	34.973	122.7	0.937	27.026
500	8.620	8.567	34.850	122.1	0.992	27.078
550	8.012	7.955	34.770	123.8	1.046	27.109
600	7.159	7.100	34.671	129.5	1.098	27.154
650	6.938	6.876	34.660	129.9	1.148	27.177
700	6.553	6.488	34.640	129.5	1.197	27.214
750	6.234	6.165	34.627	132.2	1.244	27.246
800	5.931	5.859	34.602	135.4	1.291	27.265
900	5.441	5.364	34.611	142.0	1.379	27.333
1000	5.128	5.043	34.643	148.0	1.462	27.397
1500	4.742	4.613	35.010	240.7	1.798	27.742
2000	3.691	3.528	34.981	271.9	2.044	27.835

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2000	24	3.690	NaN	NaN *	NaN
1499	1	4.767	NaN	NaN *	NaN
1195	2	5.068	4.966	34.785	164.8
801	3	5.929	5.858	34.599 *	134.4
607	4	7.114	7.055	34.604 *	133.7
507	5	8.573	NaN	NaN *	NaN
409	6	10.280	10.231	34.844 *	122.0
299	12	12.081	12.042	35.075 *	124.6
198	13	15.171	15.141	35.197 *	152.0
102	14	23.452	23.431	35.628 *	153.0
49	15	26.753	26.742	36.369 *	174.6
5	16	26.567	NaN	NaN *	NaN

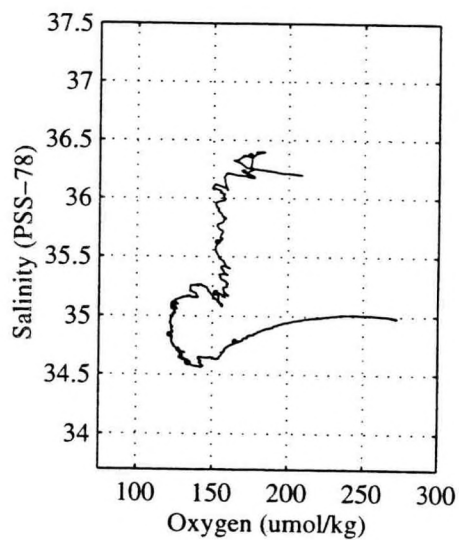
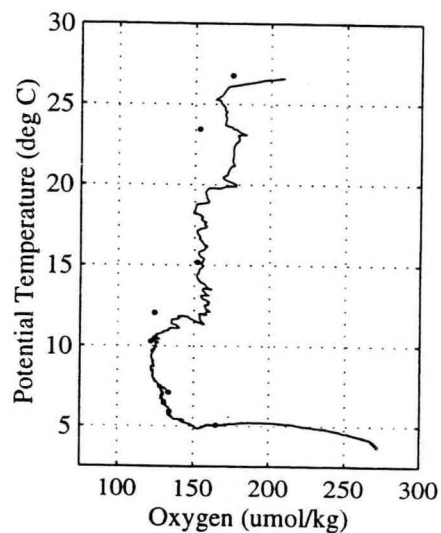
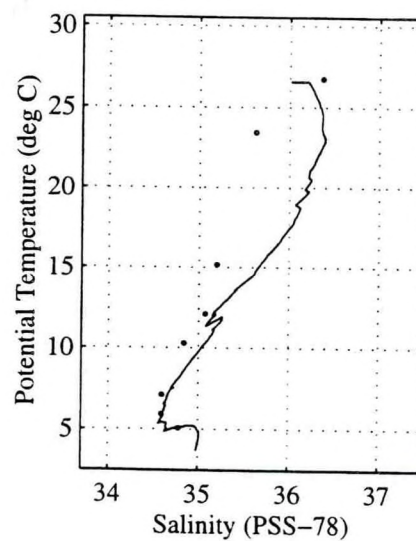
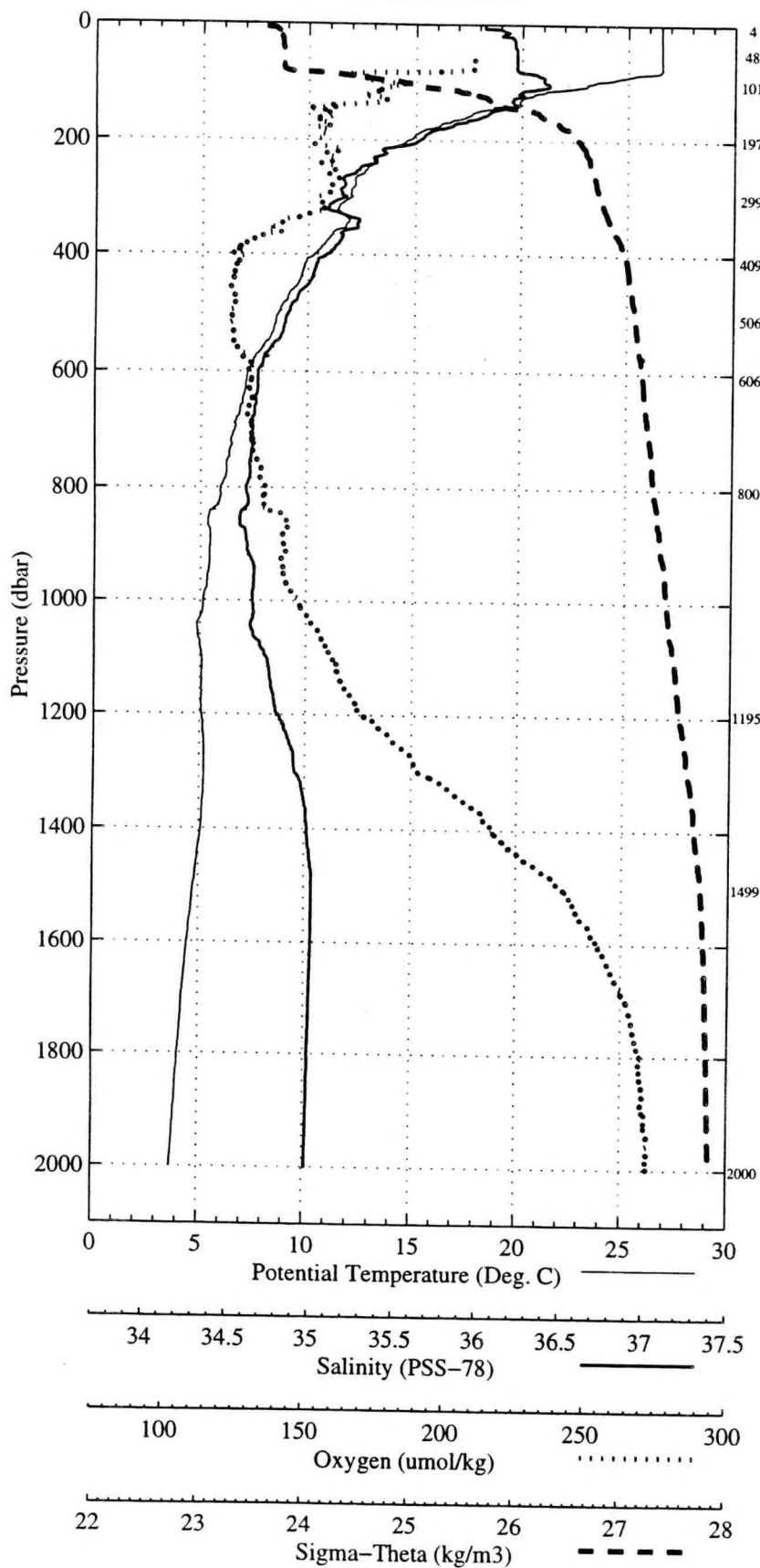


## NBC-3 R/V SEWARD JOHNSON

CTD Station 57 (00057)

Latitude 10.851 N Longitude 56.797 W

21-Feb-2000 09:45 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 58 (00058)  
Latitude 0.466N Longitude 57.034W  
21-Feb-2000 13:59Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.788	26.788	36.194	340.2	0.004	23.688
10	26.790	26.787	36.220	341.0	0.042	23.708
20	26.789	26.784	36.224	341.6	0.084	23.712
30	26.788	26.781	36.225	342.1	0.126	23.715
40	26.789	26.780	36.225	186.2	0.168	23.717
50	26.791	26.780	36.226	214.3	0.210	23.718
60	26.791	26.777	36.226	208.8	0.252	23.720
70	26.792	26.776	36.226	207.4	0.294	23.721
80	25.664	25.647	36.362	182.9	0.335	24.179
90	24.680	24.661	36.389	185.7	0.371	24.502
100	23.867	23.846	36.385	182.1	0.404	24.744
110	22.861	22.839	36.453	185.6	0.435	25.091
120	21.883	21.860	36.360	171.2	0.463	25.299
130	20.059	20.035	36.221	158.4	0.489	25.692
140	18.127	18.103	35.976	156.9	0.511	26.002
150	16.028	16.004	35.667	163.8	0.531	26.267
160	14.600	14.576	35.476	171.6	0.547	26.438
170	14.334	14.309	35.447	166.0	0.564	26.473
180	13.659	13.633	35.350	171.2	0.579	26.540
190	13.537	13.510	35.332	170.3	0.595	26.552
200	13.185	13.157	35.285	168.2	0.610	26.588
250	12.360	12.326	35.177	163.4	0.683	26.671
300	11.592	11.553	35.081	159.9	0.753	26.744
350	11.258	11.214	35.037	161.4	0.821	26.774
400	10.756	10.707	34.980	155.9	0.888	26.822
450	10.422	10.367	34.969	150.0	0.954	26.874
500	10.046	9.987	35.061	123.3	1.015	27.012
550	8.826	8.766	34.879	122.6	1.071	27.070
600	7.819	7.758	34.744	129.5	1.125	27.118
650	6.970	6.907	34.664	129.8	1.176	27.176
700	6.391	6.327	34.605	133.2	1.225	27.207
750	6.244	6.176	34.614	133.1	1.273	27.234
800	5.812	5.741	34.580	136.3	1.319	27.262
900	5.515	5.437	34.629	139.1	1.408	27.339
1000	5.135	5.050	34.668	149.0	1.490	27.416
1500	4.461	4.336	35.005	251.2	1.801	27.768
2000	3.672	3.509	34.976	272.9	2.041	27.833

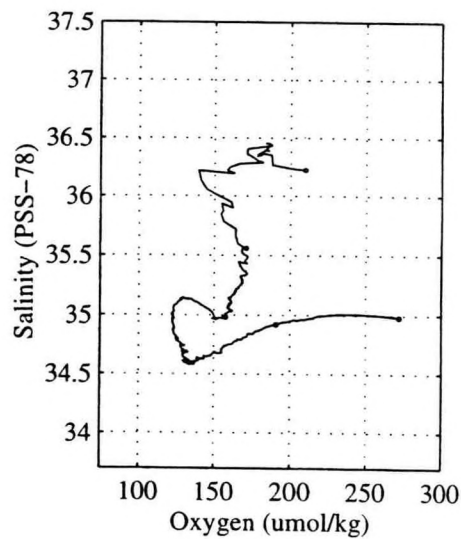
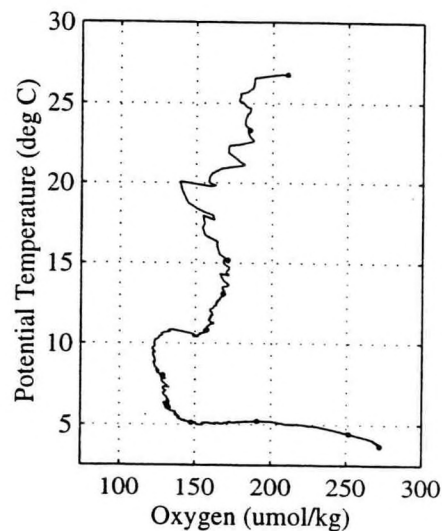
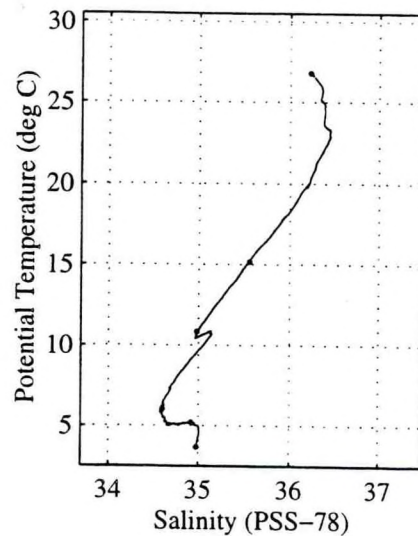
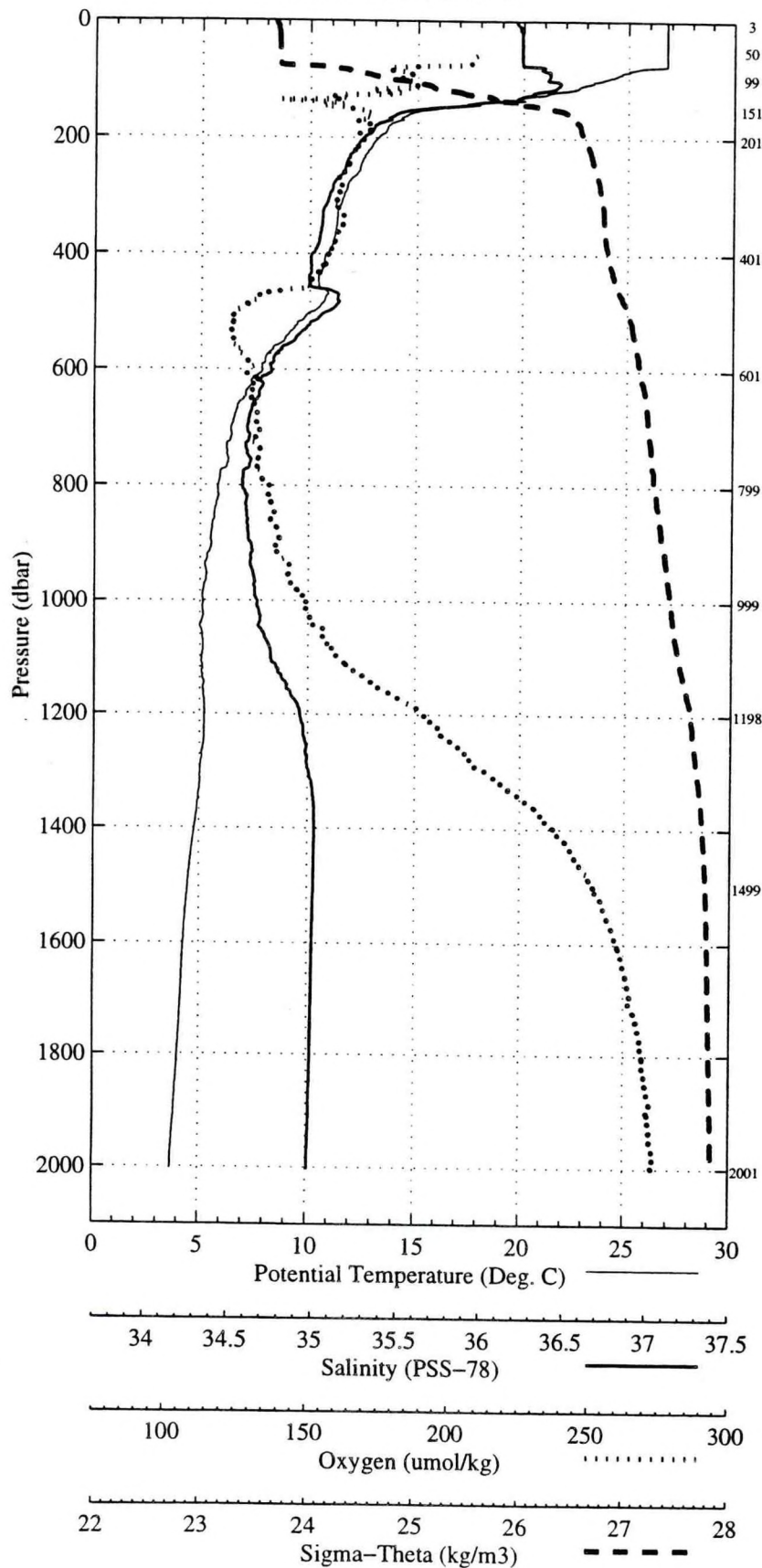
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2002	24	3.669	3.506	34.980	272.2
1499	1	4.461	NaN	NaN *	251.4
1199	2	5.213	5.109	34.920	190.8
999	3	5.116	NaN	NaN *	147.7
799	4	6.042	5.970	34.604	132.6
602	5	8.008	NaN	NaN *	128.9
401	6	10.831	10.782	34.983	157.4
201	12	13.074	NaN	NaN *	168.0
151	13	15.179	15.156	35.561*	170.9
100	14	23.314	NaN	NaN *	185.2
51	15	26.790	26.778	36.224	209.3
4	16	26.806	NaN	NaN *	NaN

NBC-3 R/V SEWARD JOHNSON

CTD Station 58 (00058)

Latitude 10.466 N Longitude 57.034 W

21-Feb-2000 13:59 Z





NBC-3 R/V SEWARD JOHNSON  
 CTD Station 59 (00059)  
 Latitude 0.085N Longitude 57.251W  
 21-Feb-2000 17:47Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.915	26.914	36.199	341.6	0.004	23.651
10	26.911	26.909	36.220	342.5	0.042	23.669
20	26.912	26.907	36.220	343.0	0.085	23.670
30	26.897	26.890	36.229	342.5	0.127	23.683
40	26.876	26.867	36.229	201.1	0.169	23.692
50	26.872	26.861	36.223	208.1	0.211	23.690
60	26.858	26.845	36.224	208.4	0.253	23.696
70	25.684	25.668	36.314	184.7	0.294	24.136
80	24.904	24.887	36.305	182.4	0.331	24.370
90	24.282	24.263	36.334	183.6	0.366	24.580
100	23.619	23.598	36.428	184.5	0.398	24.850
110	23.115	23.092	36.463	187.5	0.429	25.025
120	22.466	22.442	36.465	187.5	0.457	25.214
130	21.632	21.606	36.366	159.5	0.485	25.375
140	19.727	19.701	36.137	171.1	0.509	25.716
150	18.237	18.211	35.936	171.9	0.531	25.944
160	16.836	16.810	35.768	161.7	0.552	26.157
170	15.339	15.312	35.569	170.2	0.569	26.349
180	14.025	13.999	35.401	167.8	0.586	26.504
190	13.750	13.723	35.359	170.8	0.601	26.529
200	13.511	13.483	35.328	170.7	0.617	26.555
250	12.461	12.427	35.190	165.3	0.691	26.661
300	11.764	11.725	35.102	161.9	0.762	26.728
350	11.440	11.396	35.060	160.1	0.831	26.758
400	10.991	10.942	35.005	159.4	0.899	26.799
450	10.549	10.494	34.960	154.5	0.966	26.845
500	9.937	9.878	34.929	143.4	1.030	26.928
550	9.922	9.857	35.037	123.7	1.090	27.017
600	8.600	8.536	34.835	125.6	1.147	27.073
650	7.846	7.779	34.759	126.3	1.201	27.127
700	7.029	6.961	34.674	130.8	1.253	27.177
750	6.267	6.198	34.621	132.3	1.301	27.236
800	5.798	5.728	34.594	137.0	1.348	27.275
900	5.452	5.375	34.625	140.4	1.435	27.343
1000	5.083	4.999	34.681	150.2	1.517	27.432
1500	4.406	4.281	35.003	253.6	1.815	27.772
2000	3.761	3.597	34.979	272.3	2.055	27.827

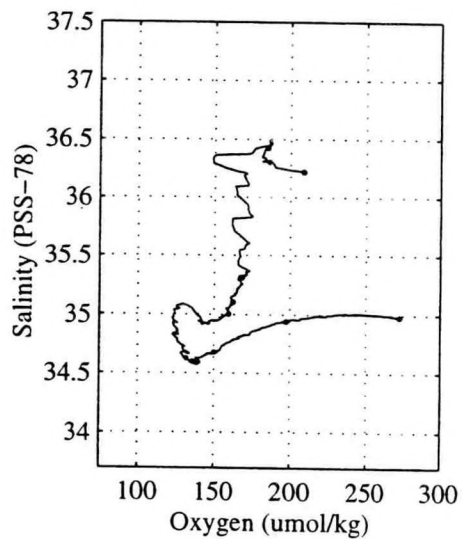
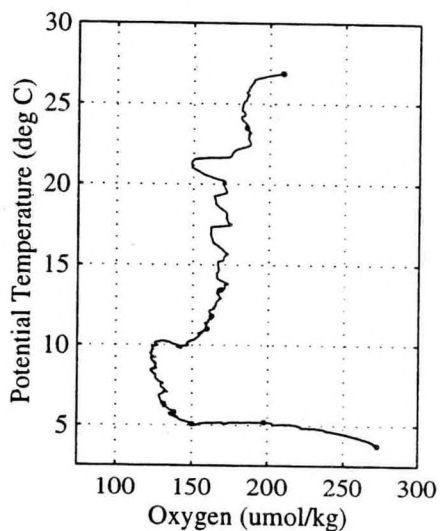
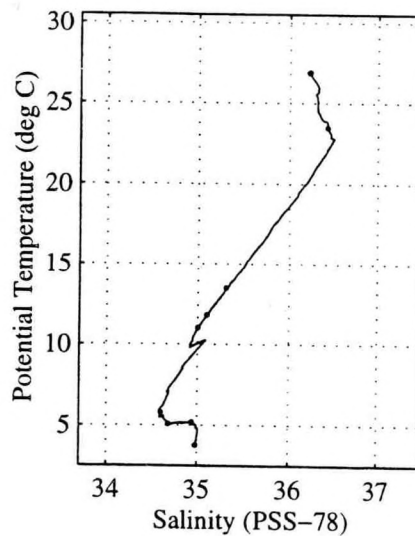
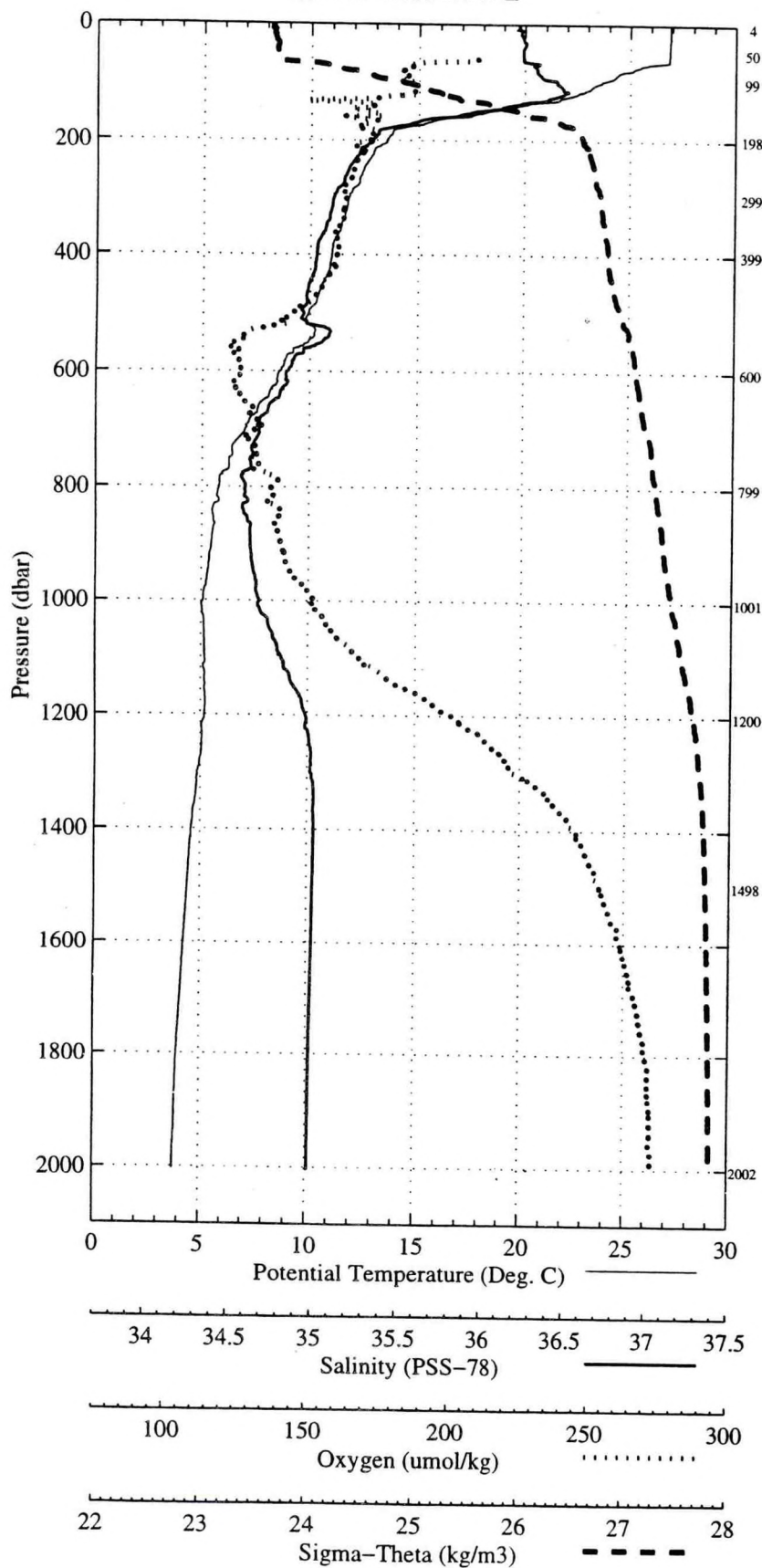
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2002	24	3.763	3.599	34.980	273.0
1499	1	4.424	NaN	NaN *	NaN
1201	2	5.203	5.099	34.940	197.4
1002	3	5.078	4.994	34.675	150.1
799	4	5.815	5.744	34.591	137.9
600	5	8.595	NaN	NaN *	NaN
400	6	11.014	10.964	35.003	159.7
299	12	11.804	11.765	35.102	162.7
198	13	13.453	13.425	35.311	168.4
99	14	23.486	23.465	36.423 *	185.1
50	15	26.873	26.861	36.218	208.4
4	16	26.912	26.911	36.222	208.2

NBC-3 R/V SEWARD JOHNSON

CTD Station 59 (00059)

Latitude 10.085 N Longitude 57.251 W

21-Feb-2000 17:47 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 60 (00060)  
Latitude 9.630N Longitude 57.502W  
21-Feb-2000 22:04Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.997	26.994	36.188	335.8	0.038	23.618
20	26.997	26.992	36.197	336.3	0.081	23.626
30	27.001	26.994	36.197	337.5	0.124	23.626
40	27.004	26.995	36.202	209.2	0.167	23.630
50	27.004	26.992	36.202	207.3	0.209	23.632
60	27.008	26.994	36.202	207.3	0.252	23.632
70	26.973	26.957	36.203	207.2	0.295	23.645
80	25.901	25.883	36.314	194.7	0.336	24.070
90	25.583	25.563	36.348	188.7	0.374	24.195
100	24.738	24.717	36.380	186.6	0.410	24.479
110	24.070	24.047	36.367	185.8	0.444	24.671
120	23.603	23.577	36.404	186.0	0.476	24.839
130	21.720	21.695	36.311	171.1	0.506	25.308
140	20.507	20.481	36.210	172.2	0.532	25.565
150	18.895	18.868	36.016	172.1	0.555	25.840
160	16.784	16.758	35.751	155.4	0.576	26.156
170	14.789	14.764	35.503	168.3	0.593	26.418
180	13.863	13.837	35.376	170.7	0.609	26.518
190	13.527	13.500	35.332	171.1	0.625	26.555
200	13.333	13.304	35.307	169.2	0.640	26.575
250	12.589	12.555	35.207	165.9	0.714	26.649
300	12.016	11.977	35.132	162.5	0.786	26.704
350	11.458	11.413	35.060	161.2	0.856	26.756
400	11.047	10.997	35.011	159.7	0.924	26.794
450	10.859	10.804	34.990	158.0	0.991	26.814
500	10.123	10.064	34.925	148.7	1.057	26.893
550	9.831	9.767	35.008	126.1	1.119	27.009
600	8.507	8.442	34.841	124.9	1.175	27.092
650	7.399	7.335	34.702	130.1	1.228	27.147
700	6.501	6.436	34.624	134.2	1.278	27.207
750	6.013	5.946	34.588	134.9	1.326	27.243
800	5.604	5.535	34.561	142.0	1.372	27.272
900	5.296	5.219	34.614	142.3	1.459	27.353
1000	5.121	5.036	34.700	152.8	1.539	27.443
1500	4.407	4.282	35.004	253.9	1.836	27.772
2000	3.759	3.595	34.979	272.4	2.075	27.827

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2004	24	3.753	3.589	34.980	270.5
1501	1	4.409	4.284	35.008	254.1
1201	2	5.166	5.062	34.955	201.0
1000	3	5.205	5.120	34.698	150.2
803	4	5.631	5.561	34.563	141.6
601	5	8.419	8.355	34.828	124.0
400	6	10.995	10.945	35.001	159.2
300	12	11.981	NaN	NaN *	208.0
199	13	13.231	13.203	35.277 *	166.9
98	14	25.051	25.030	36.371 *	185.2
50	15	26.977	26.966	36.198	211.5
4	16	26.966	NaN	NaN *	206.3

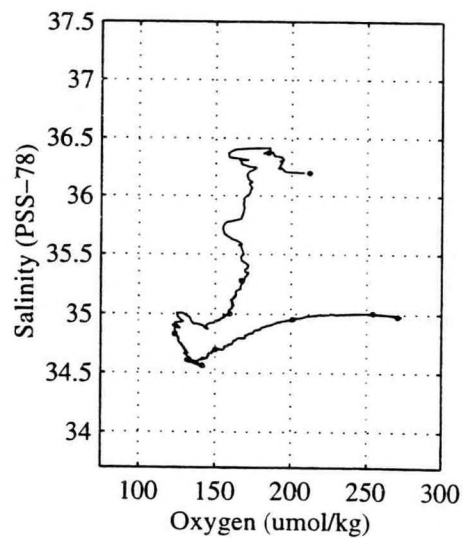
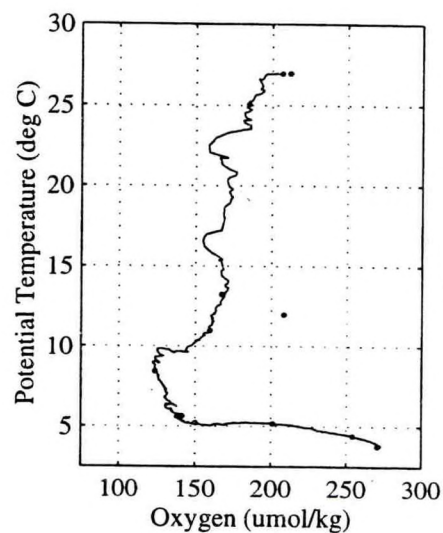
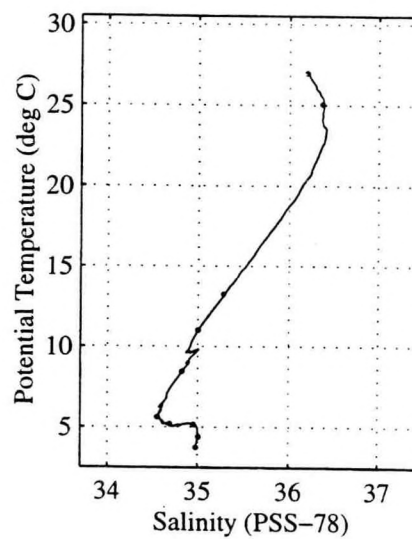
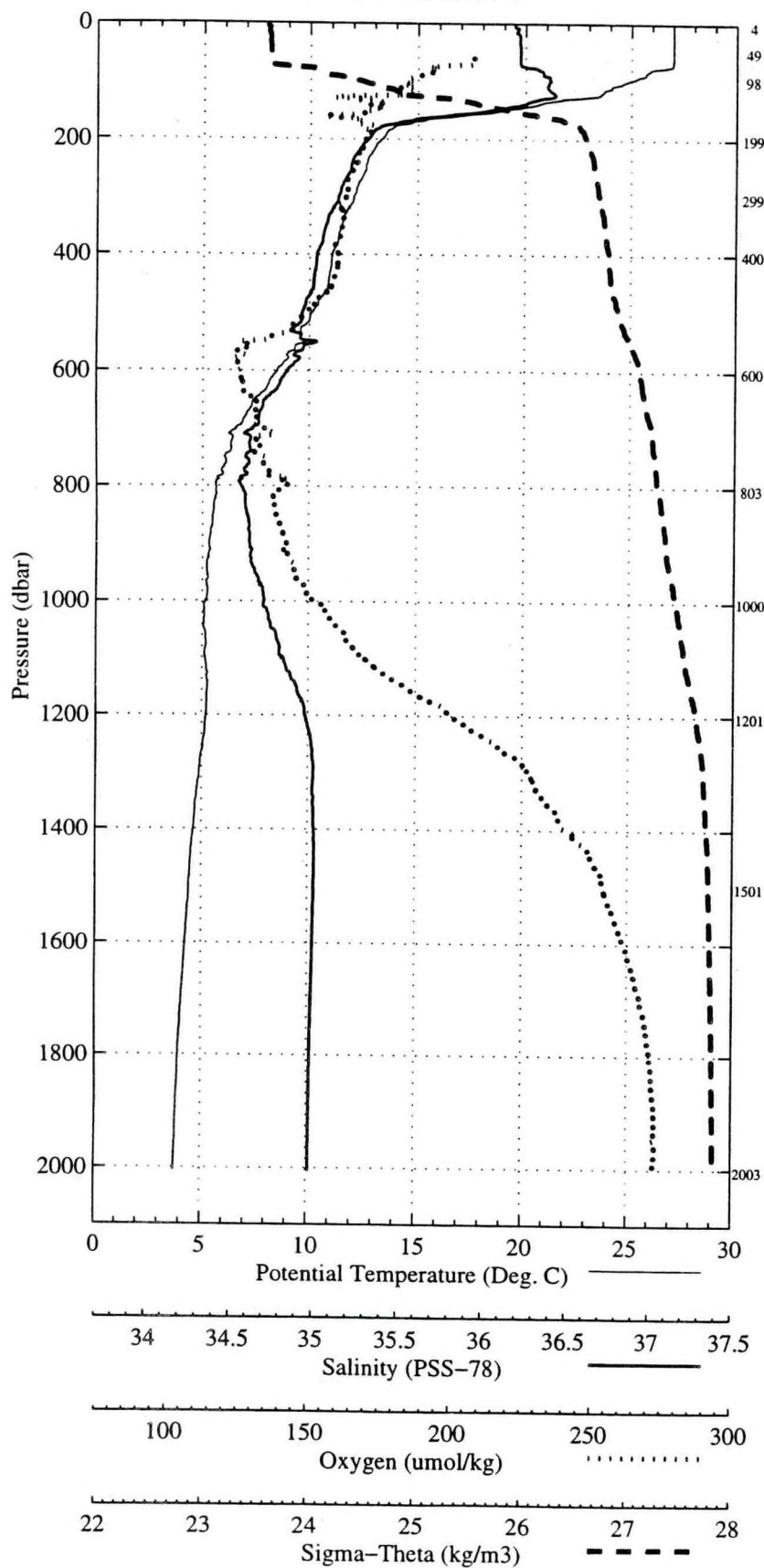


## NBC-3 R/V SEWARD JOHNSON

CTD Station 60 (00060)

Latitude 9.630 N Longitude 57.502 W

21-Feb-2000 22:04 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 61 (00061)  
Latitude 9.200N Longitude 57.783W  
22-Feb-2000 02:30Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.946	26.946	35.230	335.2	0.005	22.910
10	26.970	26.968	35.933	334.4	0.047	23.434
20	26.973	26.969	36.057	335.0	0.091	23.528
30	26.976	26.969	36.080	336.5	0.135	23.546
40	26.978	26.968	36.087	211.3	0.178	23.552
50	26.979	26.968	36.091	204.6	0.222	23.556
60	26.986	26.973	36.091	205.5	0.265	23.555
70	26.470	26.454	36.233	195.9	0.308	23.828
80	25.445	25.427	36.368	190.2	0.346	24.252
90	25.161	25.142	36.398	187.5	0.383	24.363
100	24.080	24.059	36.370	182.8	0.417	24.670
110	23.283	23.260	36.386	182.9	0.450	24.918
120	21.926	21.902	36.320	178.5	0.479	25.257
130	20.725	20.701	36.209	171.5	0.505	25.504
140	18.984	18.959	36.159	156.5	0.528	25.926
150	17.497	17.471	35.875	162.5	0.549	26.080
160	15.609	15.584	35.648	163.8	0.567	26.348
170	14.750	14.724	35.530	168.5	0.584	26.448
180	13.826	13.800	35.388	162.6	0.600	26.535
190	13.201	13.174	35.291	166.9	0.615	26.589
200	12.970	12.942	35.259	168.1	0.630	26.611
250	12.066	12.033	35.141	162.0	0.702	26.699
300	11.286	11.248	35.046	158.5	0.770	26.773
350	10.613	10.570	34.968	155.3	0.837	26.836
400	10.227	10.179	34.941	148.5	0.901	26.884
450	9.956	9.903	34.967	137.4	0.962	26.952
500	9.389	9.332	34.960	122.9	1.020	27.042
550	7.878	7.821	34.755	126.4	1.074	27.117
600	7.083	7.025	34.683	128.0	1.125	27.174
650	6.343	6.284	34.595	135.4	1.174	27.204
700	6.174	6.111	34.596	136.9	1.221	27.228
750	6.023	5.956	34.617	133.2	1.268	27.265
800	5.654	5.585	34.599	135.1	1.313	27.296
900	5.127	5.051	34.641	147.9	1.397	27.394
1000	5.049	4.965	34.718	155.8	1.473	27.465
1500	4.337	4.213	35.001	255.1	1.774	27.778
2000	3.621	3.459	34.975	271.6	2.007	27.837

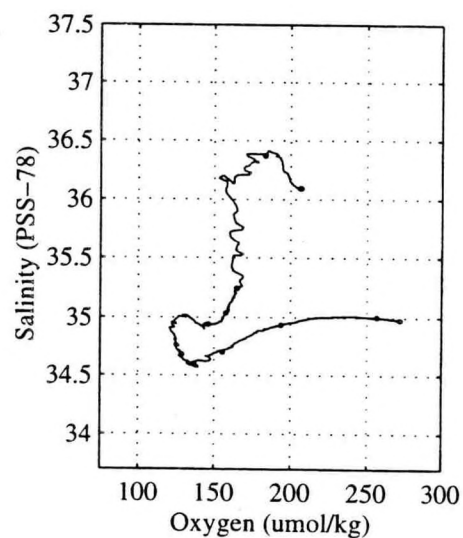
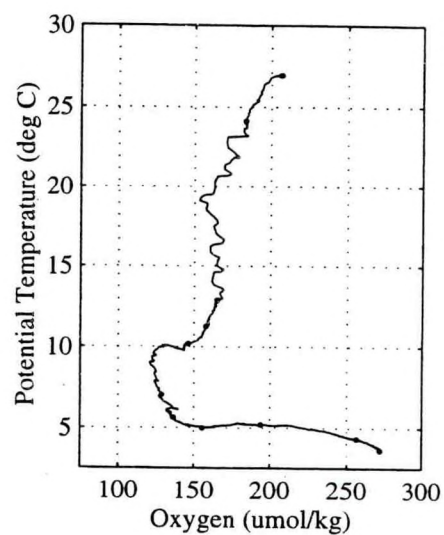
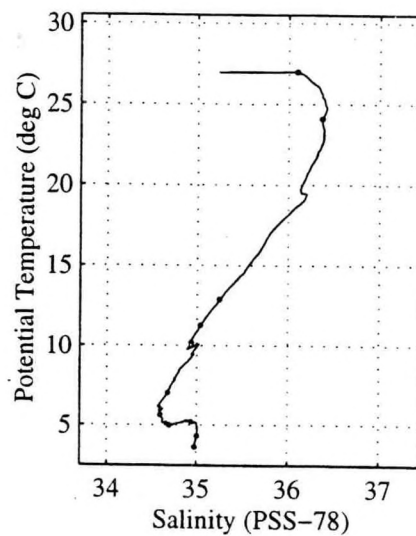
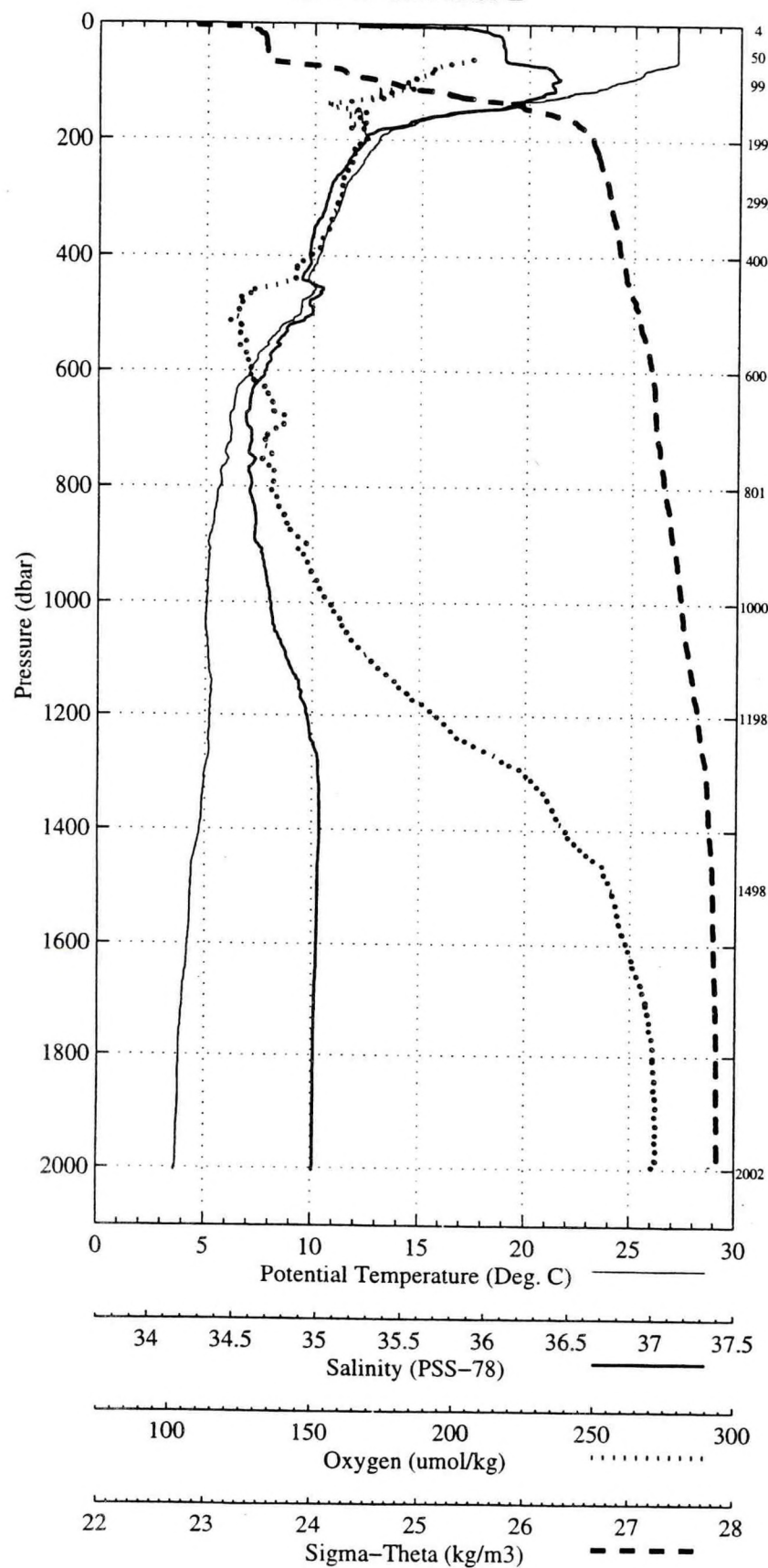
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
2003	24	3.622	3.460	34.978	271.7
1499	1	4.327	4.203	35.005	256.4
1198	2	5.202	5.098	34.936	193.8
1001	3	4.988	4.904	34.701	155.5
801	4	5.627	5.557	34.599	136.9
600	5	7.038	6.980	34.680	128.7
400	6	10.190	10.143	34.940	146.3
300	12	11.263	11.225	35.038	157.8
200	13	12.889	12.862	35.241	164.9
99	14	24.105	24.084	36.370 *	183.2
51	15	26.986	26.974	36.094	206.7
4	16	26.969	26.968	36.094	206.1

## NBC-3 R/V SEWARD JOHNSON

CTD Station 61 (00061)

Latitude 9.200 N Longitude 57.783 W

22-Feb-2000 02:30 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 62 (00062)  
Latitude 8.750N Longitude 58.049W  
22-Feb-2000 06:55Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.942	26.940	36.129	333.5	0.039	23.591
20	26.949	26.945	36.159	334.0	0.082	23.613
30	26.945	26.938	36.176	336.2	0.125	23.628
40	26.944	26.935	36.182	222.3	0.167	23.635
50	26.936	26.924	36.185	218.4	0.210	23.640
60	26.605	26.591	36.197	202.6	0.252	23.757
70	25.531	25.515	36.222	195.1	0.292	24.113
80	24.503	24.486	36.344	178.1	0.328	24.520
90	24.004	23.985	36.444	168.3	0.362	24.747
100	23.241	23.221	36.405	180.2	0.393	24.943
110	21.498	21.477	36.296	180.8	0.421	25.357
120	21.355	21.331	36.289	176.5	0.448	25.392
130	20.297	20.273	36.294	155.0	0.473	25.684
140	19.970	19.944	36.493	145.2	0.495	25.924
150	19.209	19.182	36.542	141.3	0.515	26.161
160	18.249	18.221	36.401	133.7	0.534	26.299
170	17.272	17.243	36.239	137.9	0.551	26.415
180	16.225	16.196	36.048	130.0	0.567	26.516
190	15.462	15.432	35.925	136.3	0.582	26.596
200	15.133	15.103	35.851	136.4	0.597	26.613
250	12.579	12.545	35.399	135.9	0.666	26.800
300	11.109	11.072	35.166	134.3	0.730	26.900
350	10.470	10.428	35.103	123.7	0.789	26.966
400	8.961	8.917	34.860	127.1	0.846	27.029
450	7.935	7.889	34.748	128.6	0.900	27.099
500	7.354	7.306	34.685	130.3	0.952	27.135
550	6.896	6.843	34.648	129.9	1.002	27.170
600	6.550	6.494	34.629	131.4	1.050	27.203
650	6.287	6.228	34.623	133.1	1.097	27.234
700	6.002	5.940	34.611	133.0	1.144	27.261
750	5.641	5.576	34.581	135.9	1.189	27.283
800	5.322	5.255	34.592	139.5	1.232	27.330
900	5.107	5.032	34.668	147.6	1.313	27.417
1000	5.244	5.158	34.839	166.2	1.385	27.539
1500	4.421	4.296	35.004	252.3	1.672	27.771
1999	3.696	3.533	34.977	270.9	1.908	27.832

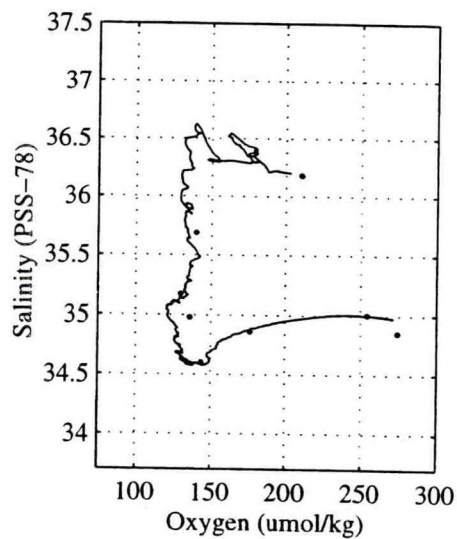
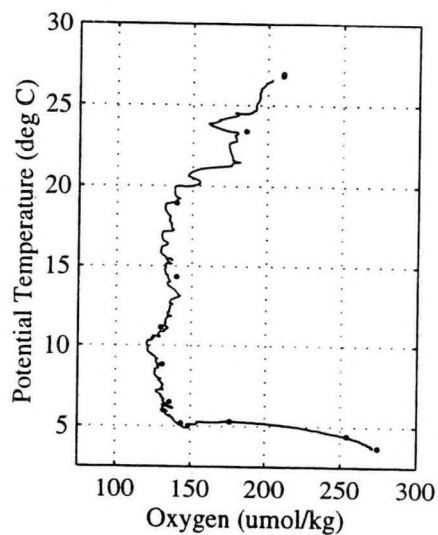
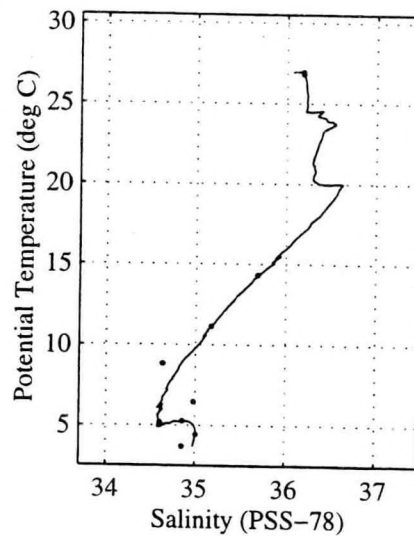
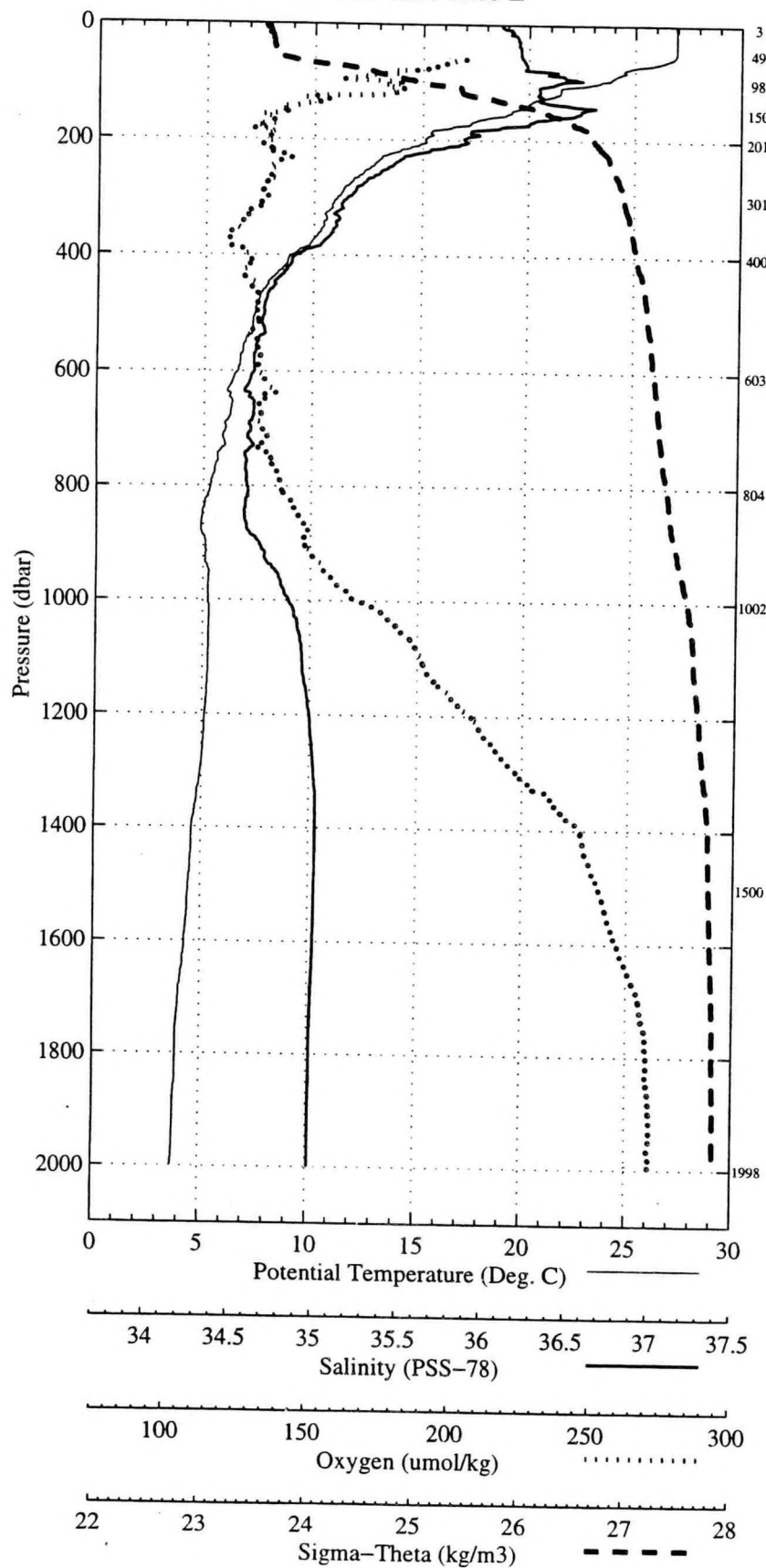
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1999	24	3.697	3.534	34.851 *	274.1
1501	1	4.432	4.307	35.006	253.9
1003	2	5.291	5.205	34.859	176.6
805	3	5.186	5.119	34.602	143.7
604	4	6.487	6.431	34.979 *	135.8
400	5	8.826	8.783	34.631 *	130.8
301	6	11.148	11.110	35.176	129.8
202	12	14.319	14.289	35.691 *	139.9
151	13	18.928	NaN	NaN *	139.6
99	14	23.400	NaN	NaN *	186.1
50	15	26.811	26.800	36.184 *	209.9
4	16	26.938	26.937	36.177	210.0

NBC-3 R/V SEWARD JOHNSON

CTD Station 62 (00062)

Latitude 8.750 N Longitude 58.049 W

22-Feb-2000 06:55 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 63 (00063)  
Latitude 8.495N Longitude 58.166W  
22-Feb-2000 10:57Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.168	26.166	35.664	365.7	0.040	23.485
20	26.219	26.215	35.737	365.3	0.084	23.526
30	26.318	26.311	35.870	362.9	0.127	23.596
40	26.324	26.315	36.171	263.5	0.170	23.823
50	25.739	25.728	36.148	212.0	0.210	23.990
60	24.974	24.961	36.176	190.9	0.248	24.248
70	23.844	23.829	36.205	182.1	0.283	24.611
80	22.680	22.664	36.243	176.6	0.315	24.980
90	21.965	21.947	36.408	171.3	0.343	25.310
100	20.781	20.761	36.268	169.4	0.369	25.531
110	19.972	19.952	36.316	155.1	0.393	25.785
120	19.338	19.316	36.302	155.4	0.414	25.942
130	18.961	18.938	36.370	146.1	0.434	26.092
140	17.341	17.318	36.001	150.4	0.454	26.213
150	17.367	17.342	36.306	149.4	0.470	26.442
160	16.569	16.543	36.196	149.5	0.486	26.548
170	16.377	16.349	36.167	149.6	0.501	26.572
180	16.030	16.001	36.102	147.3	0.516	26.603
190	15.688	15.658	36.040	146.3	0.531	26.634
200	15.557	15.526	36.024	145.6	0.546	26.652
250	12.551	12.518	35.459	134.4	0.613	26.852
300	10.881	10.844	35.177	130.4	0.674	26.949
350	9.418	9.379	34.954	126.1	0.731	27.027
400	8.683	8.640	34.857	126.5	0.786	27.070
450	8.280	8.233	34.827	128.7	0.838	27.110
500	7.437	7.388	34.714	128.8	0.889	27.146
550	7.043	6.990	34.681	130.2	0.939	27.177
600	6.712	6.656	34.659	131.3	0.987	27.205
650	6.373	6.314	34.638	133.0	1.034	27.234
700	6.013	5.950	34.623	135.9	1.080	27.269
750	5.736	5.671	34.617	139.5	1.124	27.300
800	5.542	5.473	34.649	143.3	1.167	27.350
900	5.310	5.233	34.757	160.6	1.245	27.464
1000	5.271	5.185	34.877	183.9	1.313	27.566

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1462	24	4.384	4.263	35.003	256.9
1200	1	5.087	4.984	34.974	215.2
999	2	5.277	NaN	NaN *	181.3
800	3	5.558	NaN	NaN *	142.6
600	4	6.718	6.662	34.660	130.7
501	5	7.396	7.347	34.713	128.5
401	6	8.737	8.694	34.860	126.5
298	12	10.814	10.777	35.162	128.6
203	13	15.134	15.103	35.933	141.7
102	14	20.626	20.607	36.438 *	152.5
49	15	25.710	25.699	36.150 *	208.8
4	16	26.168	26.167	35.768	215.5

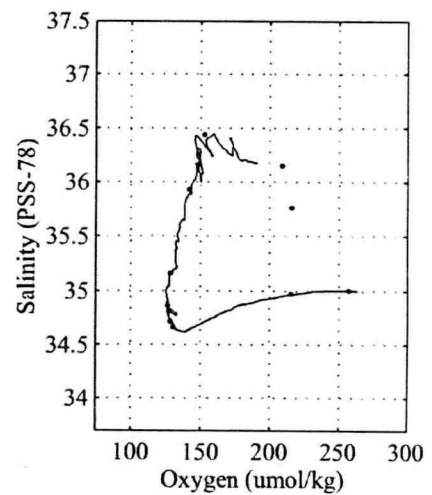
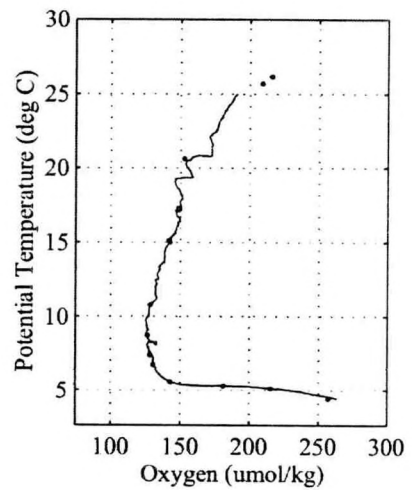
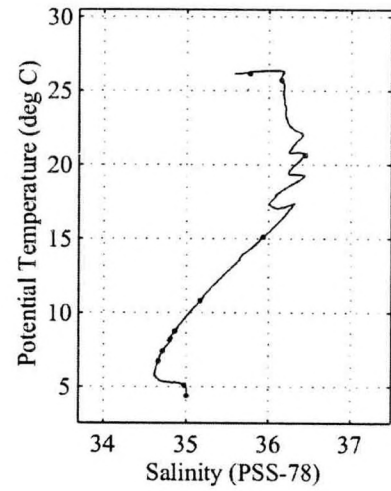
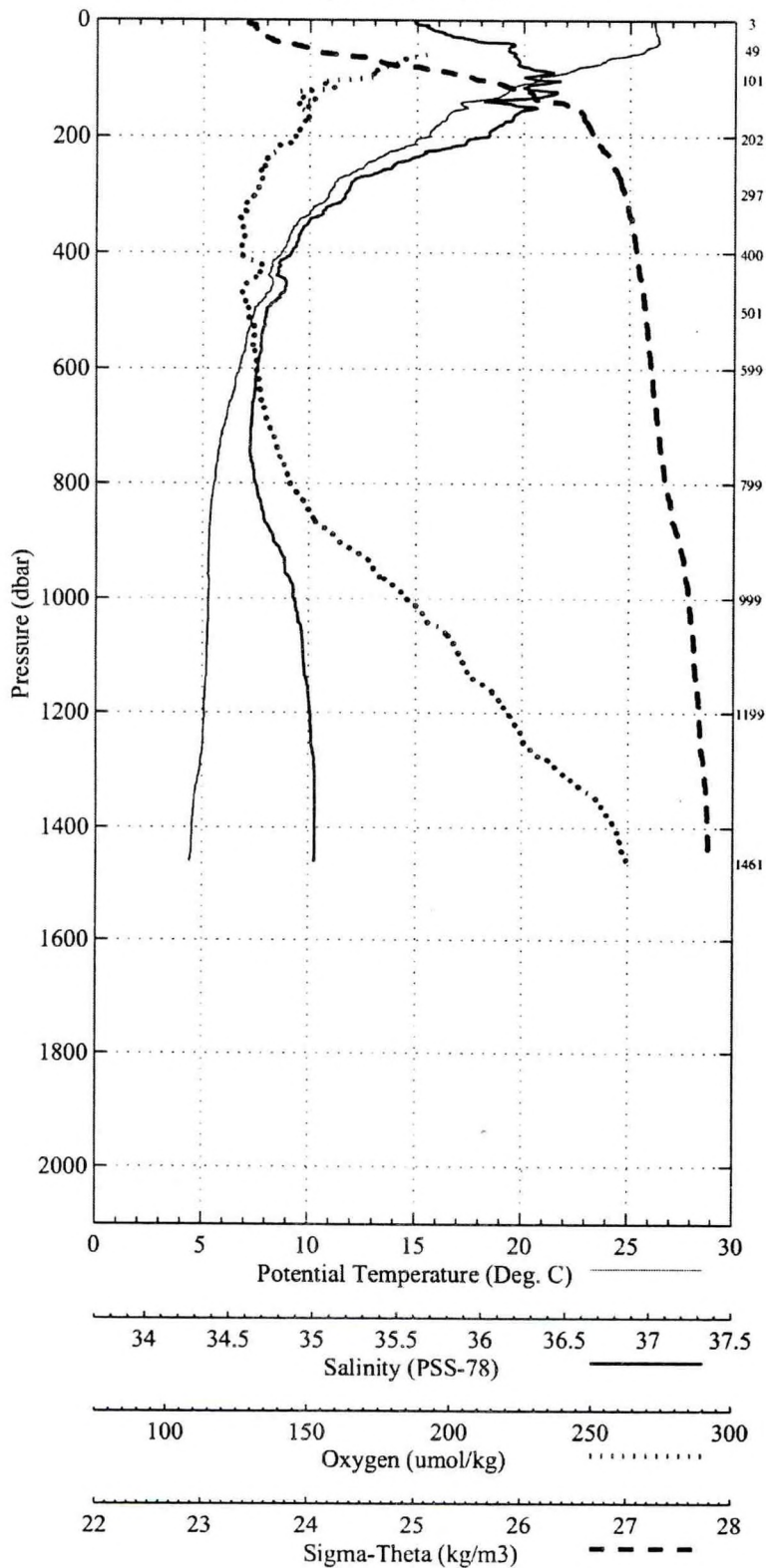


NBC-3 R/V SEWARD JOHNSON

CTD Station 63 (00063)

Latitude 8.495 N Longitude 58.166 W

22-Feb-2000 10:57 Z



NBC-3 R/V SEWARD JOHNSON  
 CTD Station 64 (00064)  
 Latitude 8.410N Longitude 58.205W  
 22-Feb-2000 13:01Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.398	26.396	35.302	360.1	0.043	23.140
20	26.387	26.383	35.319	360.6	0.090	23.158
30	25.664	25.657	36.111	367.7	0.133	23.983
40	25.716	25.707	36.026	209.2	0.173	23.904
50	25.604	25.593	36.123	209.7	0.212	24.013
60	25.252	25.239	36.165	199.2	0.251	24.155
70	24.599	24.584	36.178	187.6	0.287	24.365
80	24.039	24.022	36.209	180.5	0.322	24.557
90	22.855	22.837	36.352	172.3	0.354	25.013
100	21.592	21.572	36.508	154.1	0.381	25.491
110	19.612	19.592	36.140	170.6	0.405	25.746
120	19.448	19.427	36.300	156.8	0.427	25.912
130	19.044	19.020	36.315	144.7	0.447	26.029
140	18.104	18.079	36.253	135.9	0.467	26.219
150	17.219	17.194	36.153	138.3	0.484	26.360
160	16.569	16.543	36.084	136.2	0.501	26.462
170	15.994	15.967	36.021	138.3	0.517	26.548
180	15.384	15.356	35.935	140.5	0.532	26.621
190	14.997	14.968	35.865	139.3	0.547	26.654
200	14.402	14.372	35.752	137.1	0.561	26.696
250	13.313	13.277	35.596	136.3	0.628	26.807
300	11.146	11.108	35.213	131.2	0.690	26.929
350	9.999	9.958	35.038	127.5	0.749	26.996
400	8.970	8.927	34.896	126.9	0.805	27.055
450	7.755	7.710	34.752	128.5	0.858	27.129
500	7.150	7.102	34.702	130.9	0.907	27.177

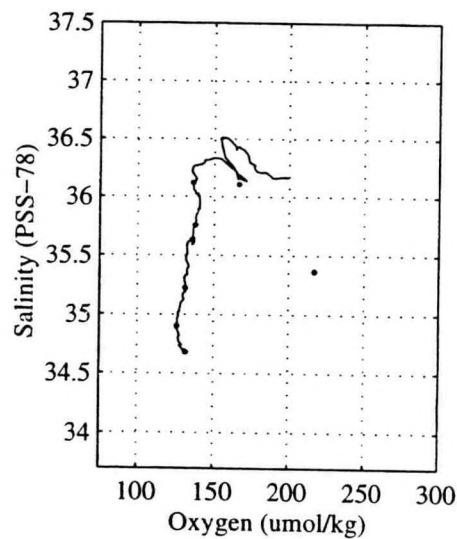
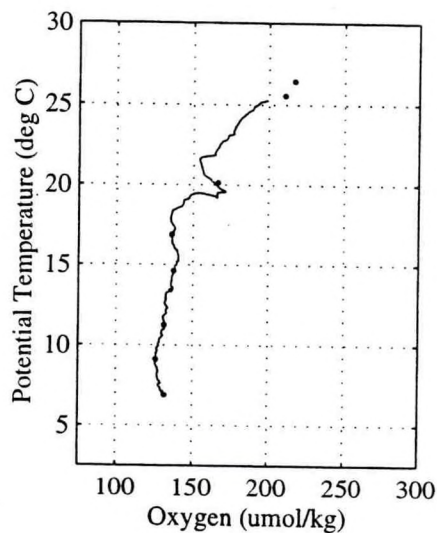
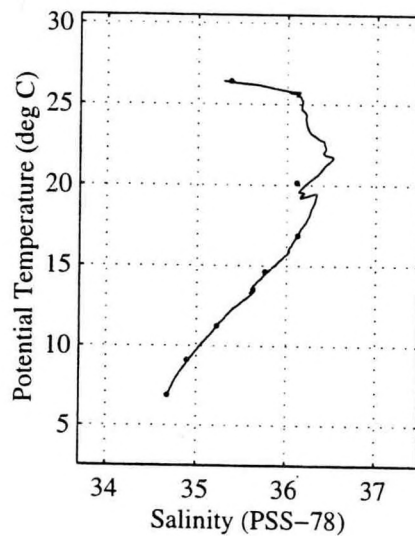
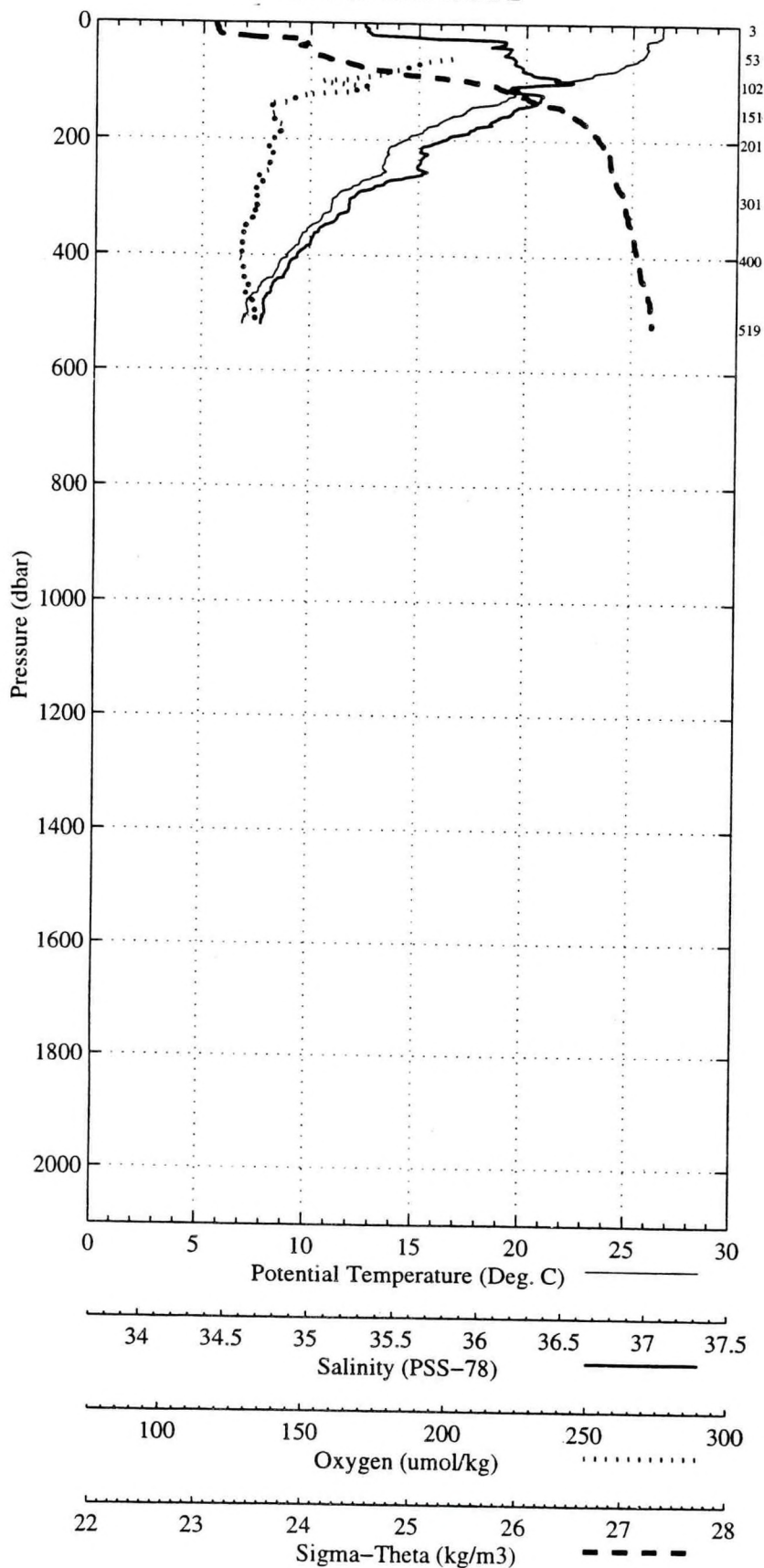
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
519	24	6.889	6.840	34.678	131.8
400	1	9.114	9.070	34.897 *	125.9
301	2	11.230	11.192	35.223	131.2
201	3	14.613	14.583	35.759 *	137.4
151	4	16.875	16.850	36.123	136.2
102	5	20.136	20.117	36.109 *	166.2
53	6	25.539	NaN	NaN *	210.6
3	12	26.408	26.407	35.367	217.1

NBC-3 R/V SEWARD JOHNSON

CTD Station 64 (00064)

Latitude 8.410 N Longitude 58.205 W

22-Feb-2000 13:01 Z





NBC-3 R/V SEWARD JOHNSON  
 CTD Station 65 (00065)  
 Latitude 0.500N Longitude 59.500W  
 23-Feb-2000 01:00Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.583	26.583	34.675	364.9	0.005	22.607
10	26.623	26.621	34.858	364.5	0.052	22.734
20	26.750	26.745	34.873	363.4	0.103	22.707
30	27.228	27.221	35.647	354.0	0.153	23.139
40	26.918	26.909	35.993	354.3	0.198	23.500
50	25.928	25.917	35.812	204.1	0.241	23.678
60	25.963	25.949	36.571	185.1	0.282	24.241
70	25.539	25.524	36.762	176.0	0.318	24.519
80	24.367	24.349	36.924	169.4	0.350	25.001
90	23.456	23.437	36.922	161.3	0.378	25.271
100	22.310	22.290	36.823	152.0	0.404	25.529
110	21.101	21.079	36.721	144.9	0.427	25.790
120	19.942	19.920	36.602	138.5	0.449	26.013
130	18.930	18.907	36.481	136.2	0.468	26.185
140	18.509	18.485	36.452	139.9	0.486	26.270
150	18.124	18.098	36.431	140.9	0.504	26.352
160	17.153	17.126	36.206	134.3	0.521	26.417
170	16.106	16.078	36.005	134.5	0.537	26.510
180	15.160	15.133	35.841	135.5	0.552	26.598
190	14.678	14.649	35.769	134.4	0.567	26.649
200	14.285	14.255	35.759	136.1	0.581	26.727
250	11.395	11.363	35.241	132.1	0.646	26.903
300	10.214	10.179	35.058	127.3	0.705	26.973
350	9.053	9.015	34.911	125.9	0.761	27.052
400	8.349	8.307	34.822	128.3	0.813	27.095
450	7.603	7.558	34.733	128.7	0.865	27.136
500	7.077	7.029	34.678	130.8	0.914	27.168
550	6.685	6.634	34.648	131.7	0.963	27.198
600	6.550	6.495	34.657	130.8	1.010	27.225
650	6.267	6.208	34.643	131.3	1.056	27.251
700	5.765	5.704	34.594	136.9	1.101	27.277
750	5.751	5.685	34.631	138.7	1.145	27.309
800	5.796	5.725	34.686	139.0	1.188	27.348
900	5.163	5.087	34.698	153.3	1.267	27.435
1000	5.295	5.209	34.808	165.8	1.341	27.509

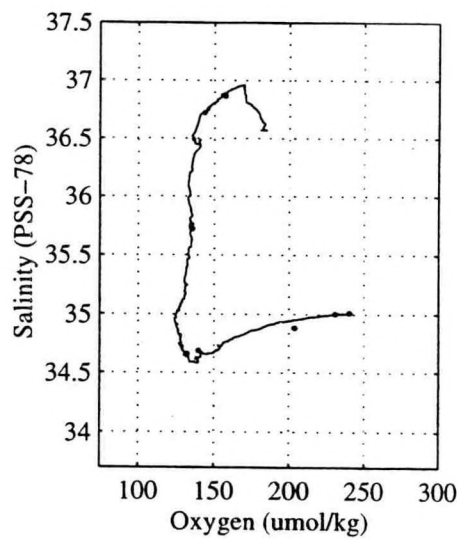
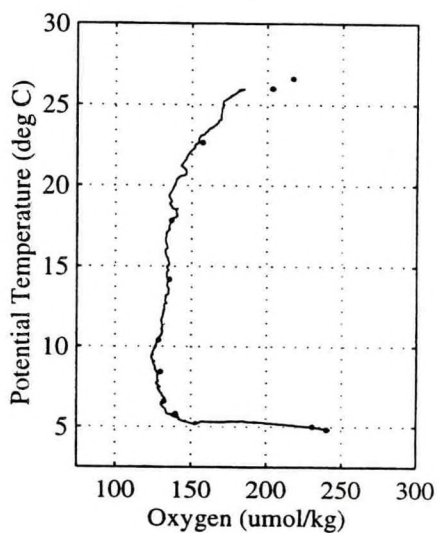
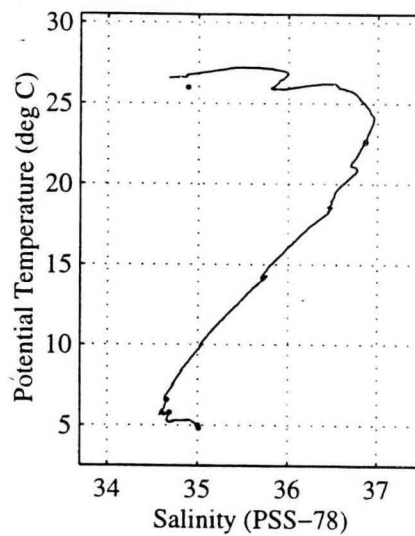
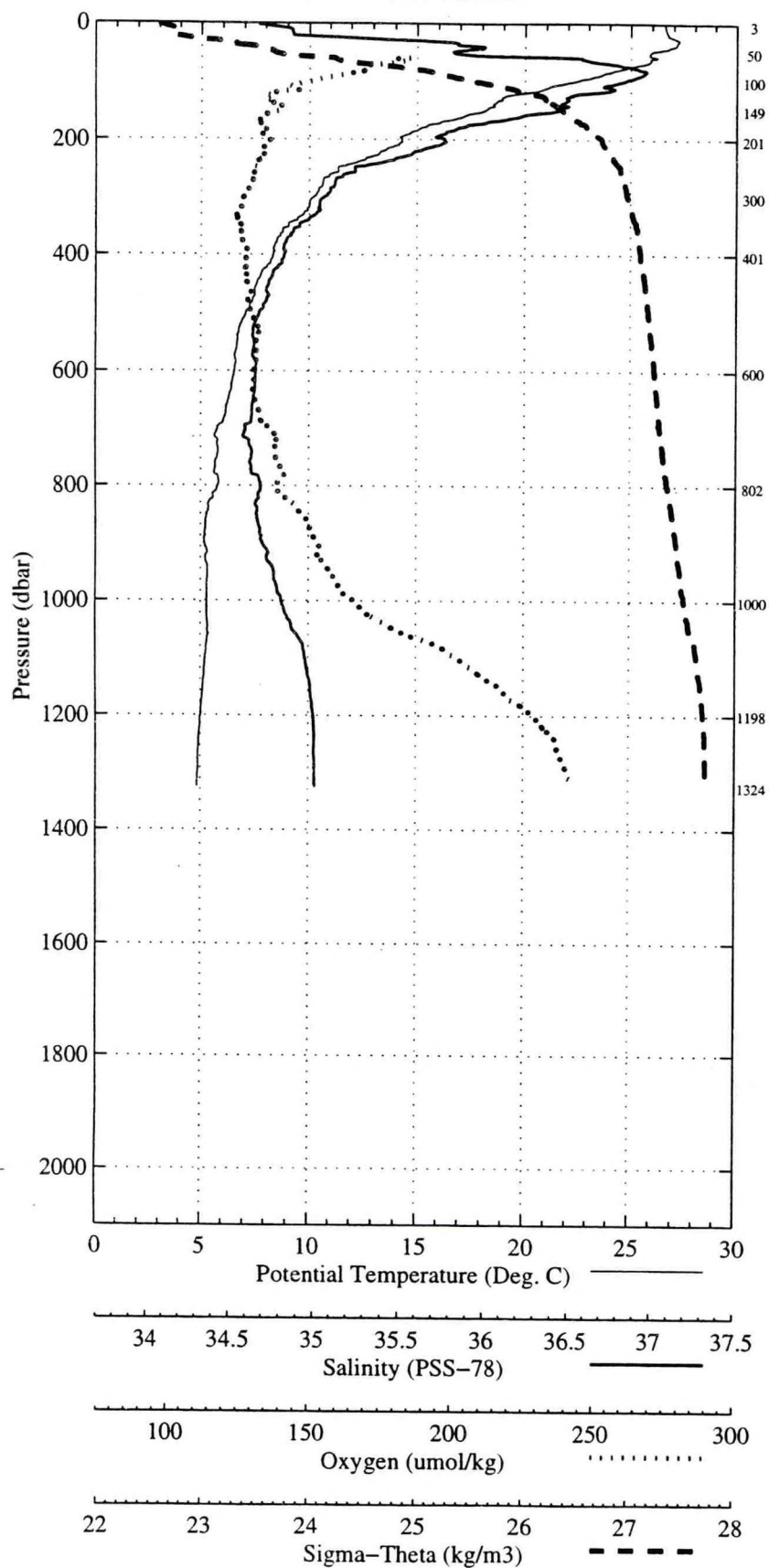
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1324	24	4.834	4.721	35.011	240.0
1198	1	5.011	4.908	35.002	230.5
1000	2	5.292	NaN	NaN *	NaN
802	3	5.796	5.725	34.690	140.0
600	4	6.583	6.527	34.660	132.4
401	5	8.396	NaN	NaN *	130.1
300	6	10.405	NaN	NaN *	128.9
202	12	14.178	14.148	35.725	135.7
149	13	17.816	NaN	NaN *	136.9
100	14	22.633	22.613	36.863 *	157.1
50	15	26.001	25.990	34.884 *	203.3
4	16	26.605	NaN	NaN *	217.0

# NBC-3 R/V SEWARD JOHNSON

CTD Station 65 (00065)

Latitude 10.500 N Longitude 59.500 W

23-Feb-2000 01:00 Z



NBC-3 R/V SEWARD JOHNSON  
 CTD Station 66 (00066)  
 Latitude 0.383N Longitude 59.736W  
 23-Feb-2000 03:40Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.350	26.348	34.704	368.0	0.046	22.704
20	26.357	26.353	34.717	368.3	0.098	22.713
30	26.368	26.361	35.428	364.6	0.147	23.247
40	26.385	26.376	35.821	221.0	0.192	23.539
50	26.406	26.394	35.981	211.1	0.235	23.655
60	26.207	26.194	36.618	190.9	0.276	24.200
70	25.762	25.747	36.790	186.4	0.312	24.470
80	24.754	24.736	36.884	175.2	0.345	24.853
90	24.491	24.472	37.081	178.7	0.375	25.083
100	23.839	23.818	37.232	175.0	0.402	25.395
110	22.596	22.573	37.085	160.5	0.427	25.647
120	20.501	20.478	36.708	143.7	0.449	25.945
130	19.320	19.296	36.559	143.0	0.469	26.144
140	18.207	18.182	36.403	140.5	0.488	26.309
150	17.148	17.123	36.228	143.1	0.505	26.435
160	16.753	16.726	36.192	143.8	0.521	26.502
170	17.140	17.112	36.366	162.5	0.536	26.544
180	15.819	15.791	36.112	150.1	0.551	26.659
190	15.611	15.581	36.084	151.0	0.566	26.686
200	15.272	15.241	36.015	147.0	0.580	26.709
250	12.404	12.370	35.494	129.1	0.644	26.908
300	11.390	11.352	35.338	122.7	0.703	26.982
350	10.262	10.220	35.169	117.6	0.759	27.054
400	9.331	9.286	35.033	114.6	0.812	27.105
450	8.663	8.614	34.935	120.0	0.863	27.136
500	7.939	7.888	34.852	120.3	0.913	27.182
550	7.486	7.432	34.799	121.3	0.962	27.208
600	6.868	6.811	34.722	127.0	1.009	27.234
650	6.575	6.515	34.709	127.9	1.055	27.263
700	6.096	6.033	34.672	132.7	1.099	27.297
750	5.895	5.829	34.678	136.6	1.143	27.328
800	5.638	5.568	34.682	140.7	1.184	27.364
900	5.334	5.257	34.749	154.3	1.262	27.456
1000	5.293	5.207	34.888	183.2	1.331	27.572

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1028	24	5.280	5.191	34.900	189.8
801	1	5.615	NaN	NaN *	142.5
600	2	6.894	6.837	34.728	127.7
500	3	8.072	NaN	NaN *	120.7
400	4	9.545	9.499	35.059	118.1
301	5	11.463	NaN	NaN *	123.7
201	6	15.622	15.590	36.080	149.6
151	12	17.742	NaN	NaN *	145.5
100	13	23.448	23.427	37.191 *	176.1
50	14	26.380	NaN	NaN *	200.2
4	15	26.336	26.335	34.725	218.8

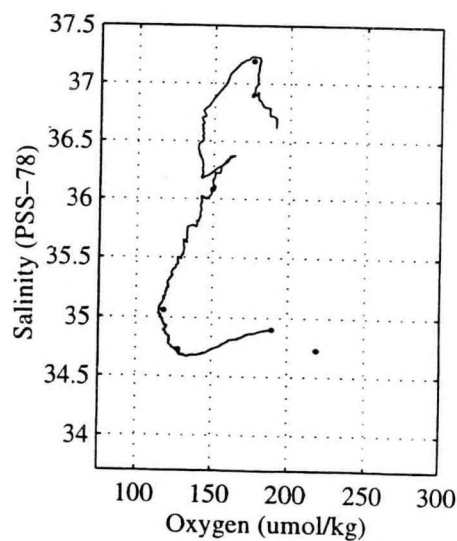
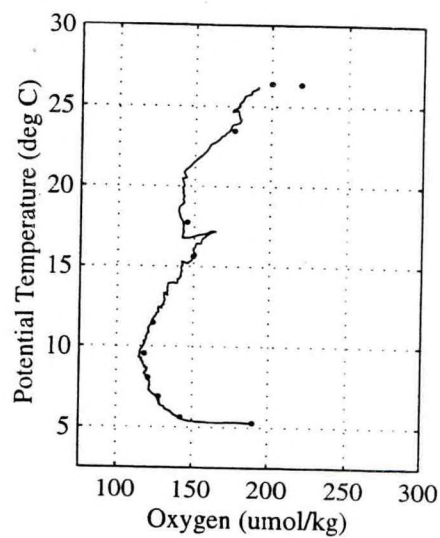
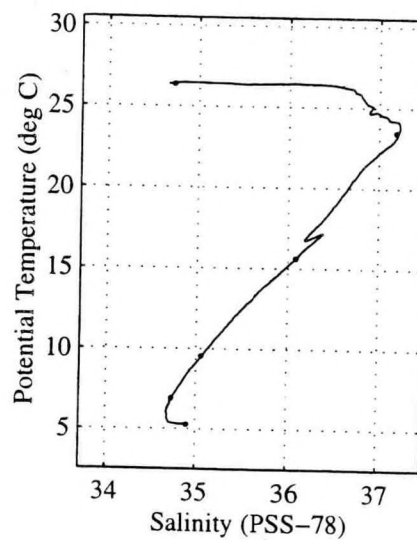
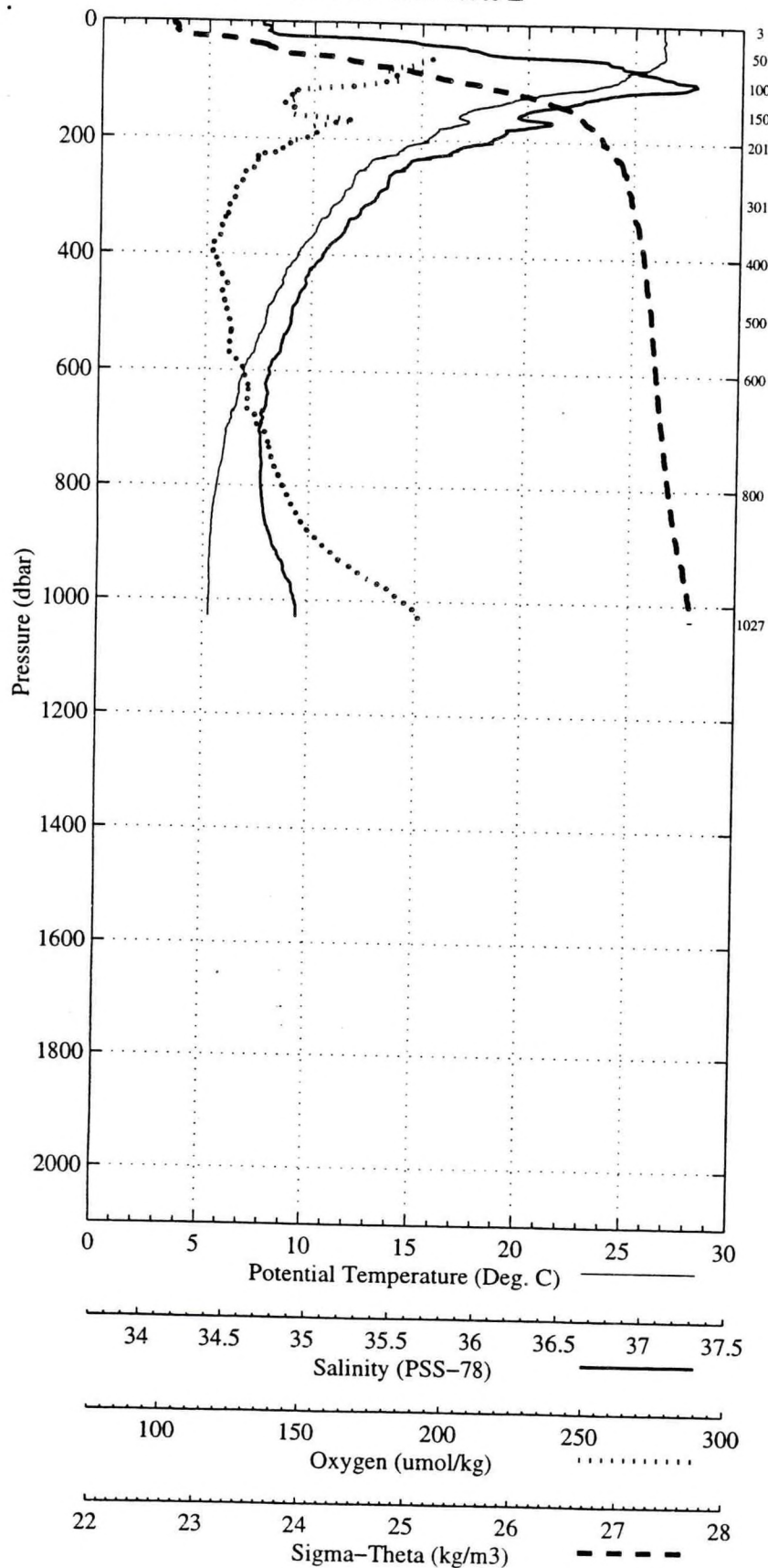


# NBC-3 R/V SEWARD JOHNSON

CTD Station 66 (00066)

Latitude 10.383 N Longitude 59.736 W

23-Feb-2000 03:40 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 67 (00067)  
Latitude 0.283N Longitude 59.917W  
23-Feb-2000 05:45Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.268	26.266	34.914	370.8	0.045	22.888
20	26.265	26.260	34.933	371.2	0.095	22.905
30	26.258	26.251	35.036	369.0	0.144	22.986
40	26.329	26.320	35.380	316.1	0.192	23.224
50	26.451	26.440	35.953	215.2	0.236	23.620
60	26.510	26.496	36.260	205.8	0.279	23.834
70	25.388	25.373	36.956	187.0	0.314	24.712
80	24.777	24.759	37.153	186.1	0.345	25.051
90	23.647	23.628	37.069	166.1	0.373	25.326
100	21.872	21.852	36.827	150.0	0.398	25.655
110	21.172	21.151	36.783	149.0	0.421	25.818
120	20.348	20.326	36.867	160.5	0.442	26.107
130	19.035	19.012	36.689	164.2	0.460	26.317
140	18.207	18.182	36.560	167.8	0.477	26.429
150	17.489	17.464	36.437	167.8	0.494	26.513
160	17.146	17.120	36.373	165.4	0.509	26.547
170	16.568	16.540	36.250	156.7	0.524	26.591
180	15.580	15.551	36.045	145.4	0.539	26.662
190	15.303	15.273	35.996	143.4	0.553	26.687
200	14.936	14.905	35.932	141.3	0.567	26.719
250	12.288	12.255	35.480	126.4	0.631	26.919
300	11.138	11.100	35.291	119.7	0.690	26.991
350	9.826	9.785	35.076	120.0	0.745	27.055
400	8.891	8.848	34.947	121.6	0.798	27.108
450	8.406	8.358	34.905	121.1	0.849	27.152
500	7.542	7.492	34.778	126.2	0.898	27.182
550	7.025	6.972	34.729	127.1	0.946	27.217
600	6.775	6.718	34.716	128.1	0.992	27.242
650	6.161	6.103	34.648	132.2	1.038	27.269
700	5.701	5.641	34.631	138.5	1.082	27.314

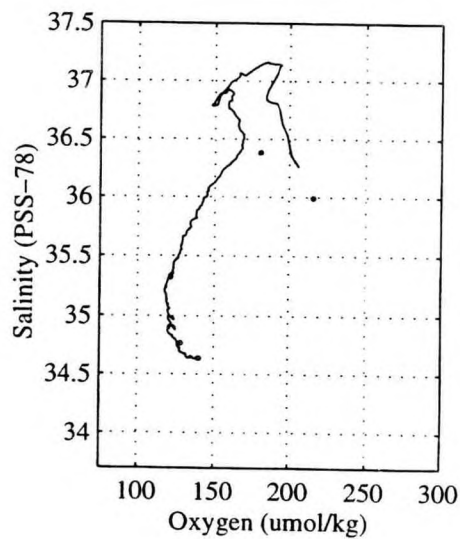
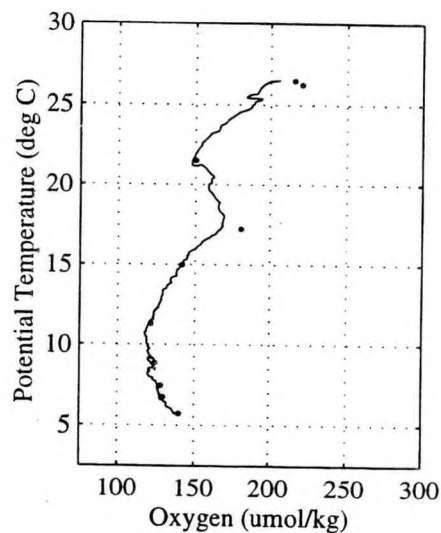
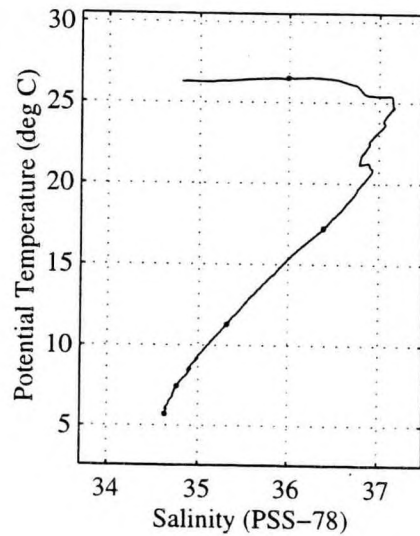
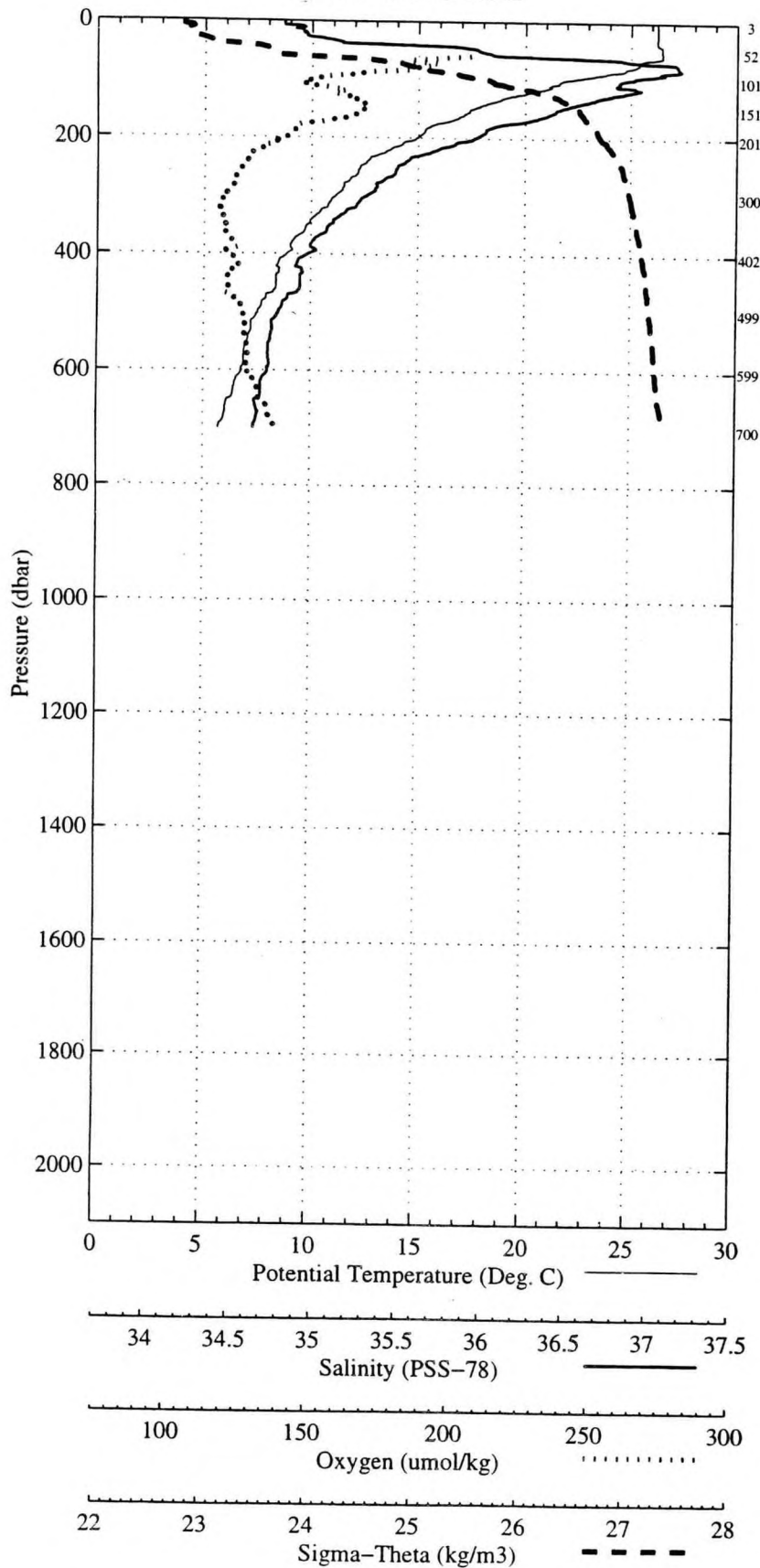
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
701	24	5.693	5.632	34.635	140.2
599	1	6.734	NaN	NaN *	129.9
499	2	7.446	7.397	34.766	128.5
403	3	8.861	NaN	NaN *	124.4
301	4	11.295	11.257	35.323 *	121.7
202	5	14.980	NaN	NaN *	141.6
152	6	17.242	17.217	36.384	180.5
102	12	21.512	NaN	NaN *	150.3
52	13	26.495	26.483	35.992 *	215.6
3	14	26.257	NaN	NaN *	220.8

NBC-3 R/V SEWARD JOHNSON

CTD Station 67 (00067)

Latitude 10.283 N Longitude 59.917 W

23-Feb-2000 05:45 Z





NBC-3 R/V SEWARD JOHNSON  
 CTD Station 68 (00068)  
 Latitude 0.217N Longitude 60.040W  
 23-Feb-2000 07:25Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.270	26.269	34.963	372.0	0.005	22.924
10	26.281	26.278	35.166	371.8	0.049	23.074
20	26.294	26.290	35.185	372.1	0.097	23.086
30	26.354	26.348	35.334	368.4	0.144	23.181
40	26.484	26.475	35.617	333.6	0.190	23.354
50	26.403	26.392	36.266	203.0	0.233	23.871
60	25.847	25.833	36.686	190.2	0.271	24.364
70	25.374	25.359	37.034	187.5	0.305	24.775
80	23.368	23.351	36.893	157.5	0.334	25.274
90	22.116	22.098	36.924	154.7	0.360	25.660
100	20.437	20.418	36.808	159.3	0.381	26.036
110	19.950	19.929	36.800	156.5	0.401	26.161
120	18.844	18.823	36.650	164.3	0.418	26.335
130	17.942	17.920	36.476	160.0	0.435	26.430
140	17.549	17.525	36.425	163.6	0.451	26.488
150	17.012	16.987	36.330	162.5	0.467	26.546
160	16.697	16.671	36.267	158.9	0.482	26.573
170	16.535	16.507	36.239	156.5	0.497	26.591
180	15.926	15.898	36.124	150.2	0.512	26.644
190	15.464	15.435	36.038	146.8	0.526	26.683
200	15.293	15.262	36.005	144.5	0.541	26.696
250	13.719	13.683	35.709	133.0	0.609	26.810
300	11.146	11.108	35.231	130.3	0.671	26.943
350	9.807	9.767	35.044	127.4	0.728	27.033
400	9.080	9.036	34.952	126.8	0.782	27.082
450	8.605	8.557	34.906	123.7	0.834	27.123

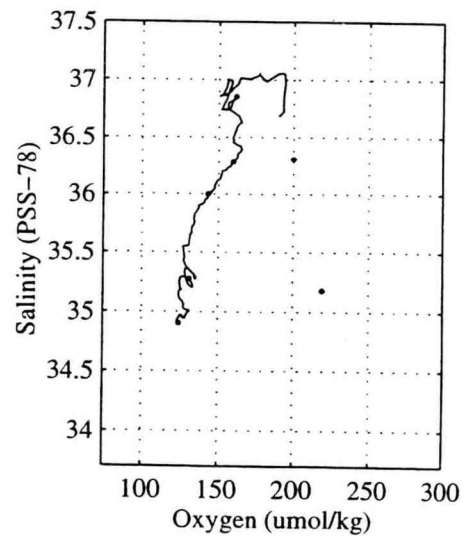
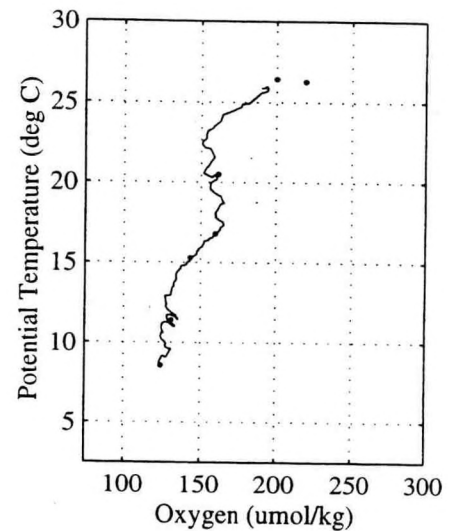
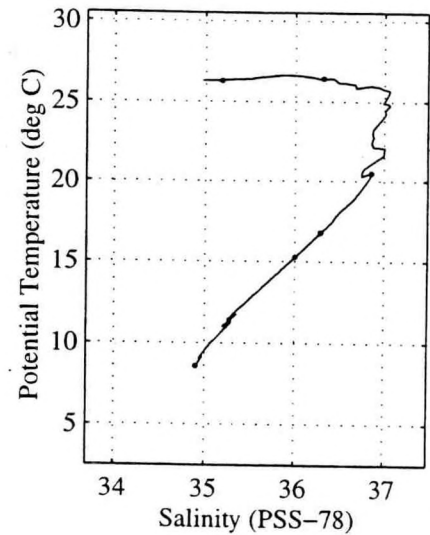
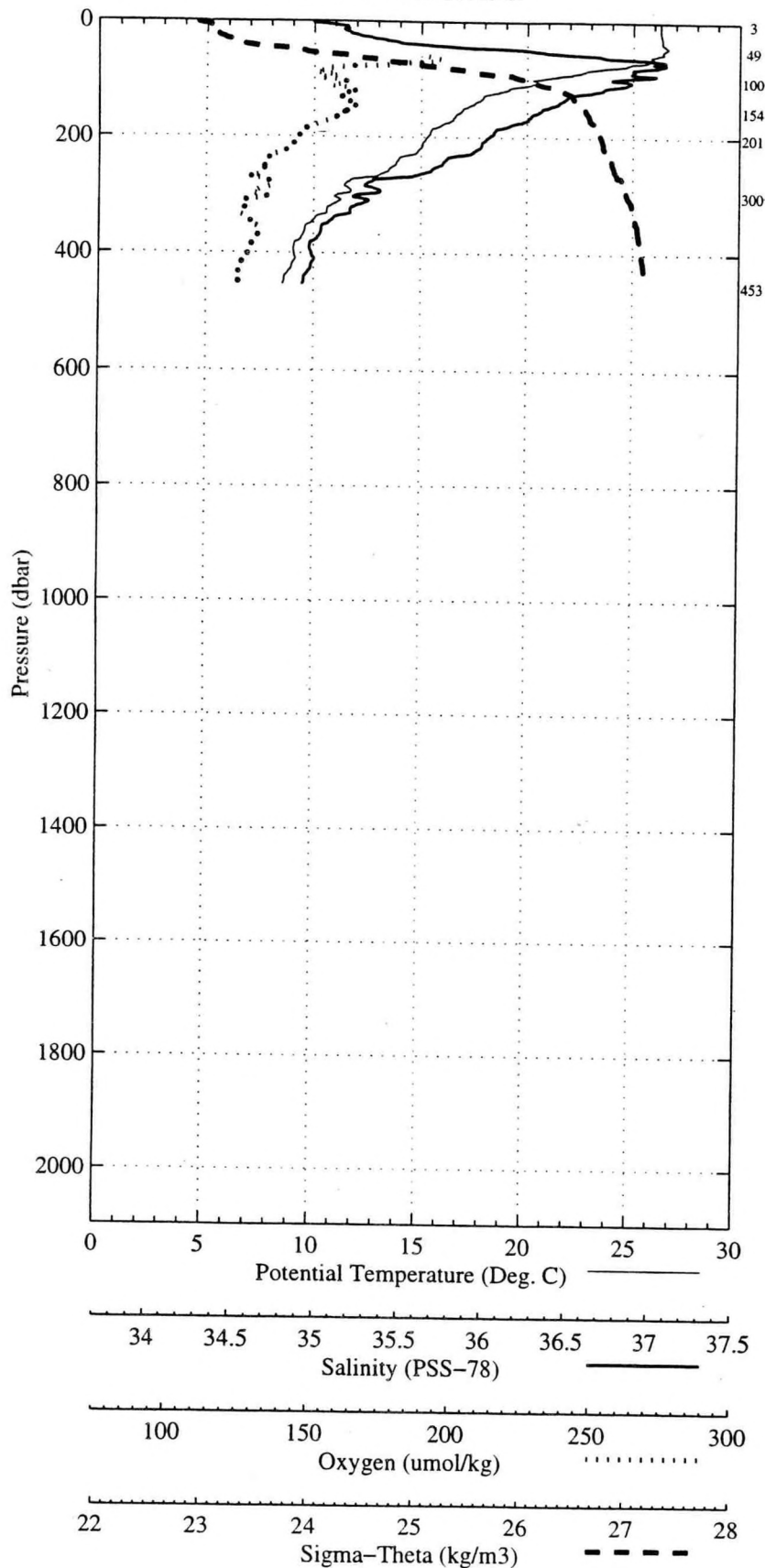
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
454	24	8.572	8.523	34.903	124.4
301	1	11.387	11.349	35.272	131.2
201	2	15.290	15.259	35.999	143.4
154	3	16.783	16.758	36.282	159.6
101	4	20.492	20.473	36.853	161.5
50	5	26.420	26.409	36.309 *	200.0
4	6	26.264	26.263	35.179	219.1

## NBC-3 R/V SEWARD JOHNSON

CTD Station 68 (00068)

Latitude 10.217 N Longitude 60.040 W

23-Feb-2000 07:25 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 69 (00069)  
Latitude 0.182N Longitude 60.104W  
23-Feb-2000 08:37Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.270	26.268	35.293	371.1	0.042	23.173
20	26.301	26.297	35.268	371.3	0.089	23.146
30	26.327	26.320	35.401	352.1	0.136	23.240
40	26.513	26.504	35.820	225.7	0.182	23.498
50	25.783	25.772	36.894	192.0	0.221	24.540
60	24.563	24.550	36.915	167.9	0.254	24.932
70	22.735	22.721	36.969	157.9	0.281	25.515
80	22.128	22.112	37.036	163.6	0.305	25.740
90	20.926	20.908	36.771	157.8	0.327	25.874
100	20.000	19.981	36.629	148.6	0.348	26.016
110	19.421	19.401	36.674	158.9	0.367	26.204
120	18.520	18.498	36.562	159.3	0.385	26.351
130	18.285	18.262	36.543	163.9	0.402	26.396
140	17.031	17.008	36.299	154.0	0.418	26.516
150	16.369	16.345	36.148	146.4	0.433	26.558
160	16.116	16.091	36.104	144.0	0.448	26.583
170	15.950	15.923	36.077	142.2	0.463	26.601
180	15.548	15.520	36.009	141.2	0.478	26.641
190	15.356	15.326	35.977	142.5	0.493	26.660
200	14.857	14.827	35.892	141.8	0.507	26.706
250	14.137	14.100	35.764	139.1	0.575	26.765
300	13.110	13.068	35.584	137.0	0.641	26.841

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
302	24	13.076	13.034	35.580	136.3
201	1	14.695	14.665	35.824 *	140.1
153	2	16.188	16.163	36.133 *	142.8
100	3	19.226	19.208	36.525 *	150.2
52	4	25.590	25.578	36.895	188.3
4	5	26.268	26.267	35.332 *	213.9

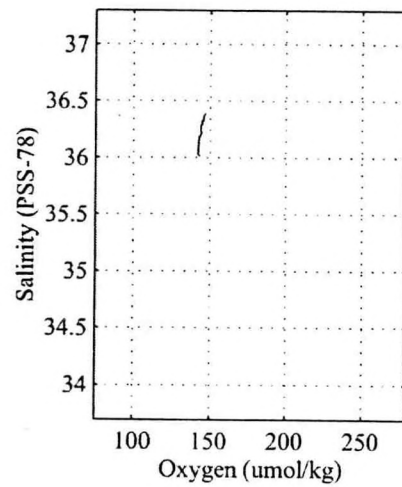
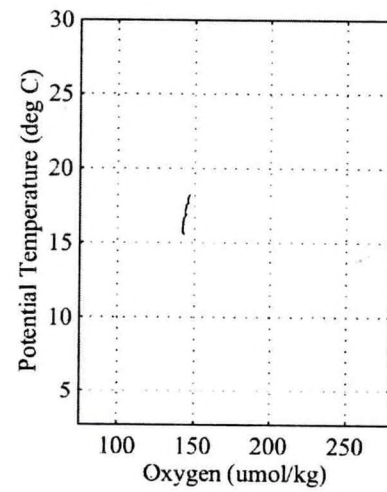
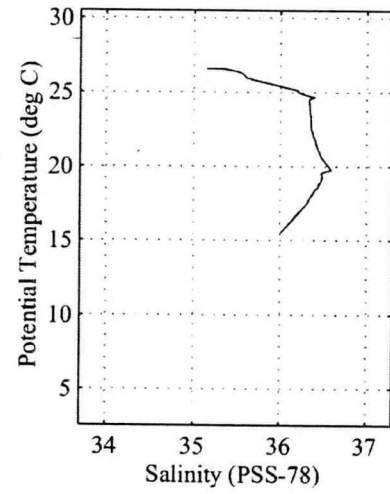
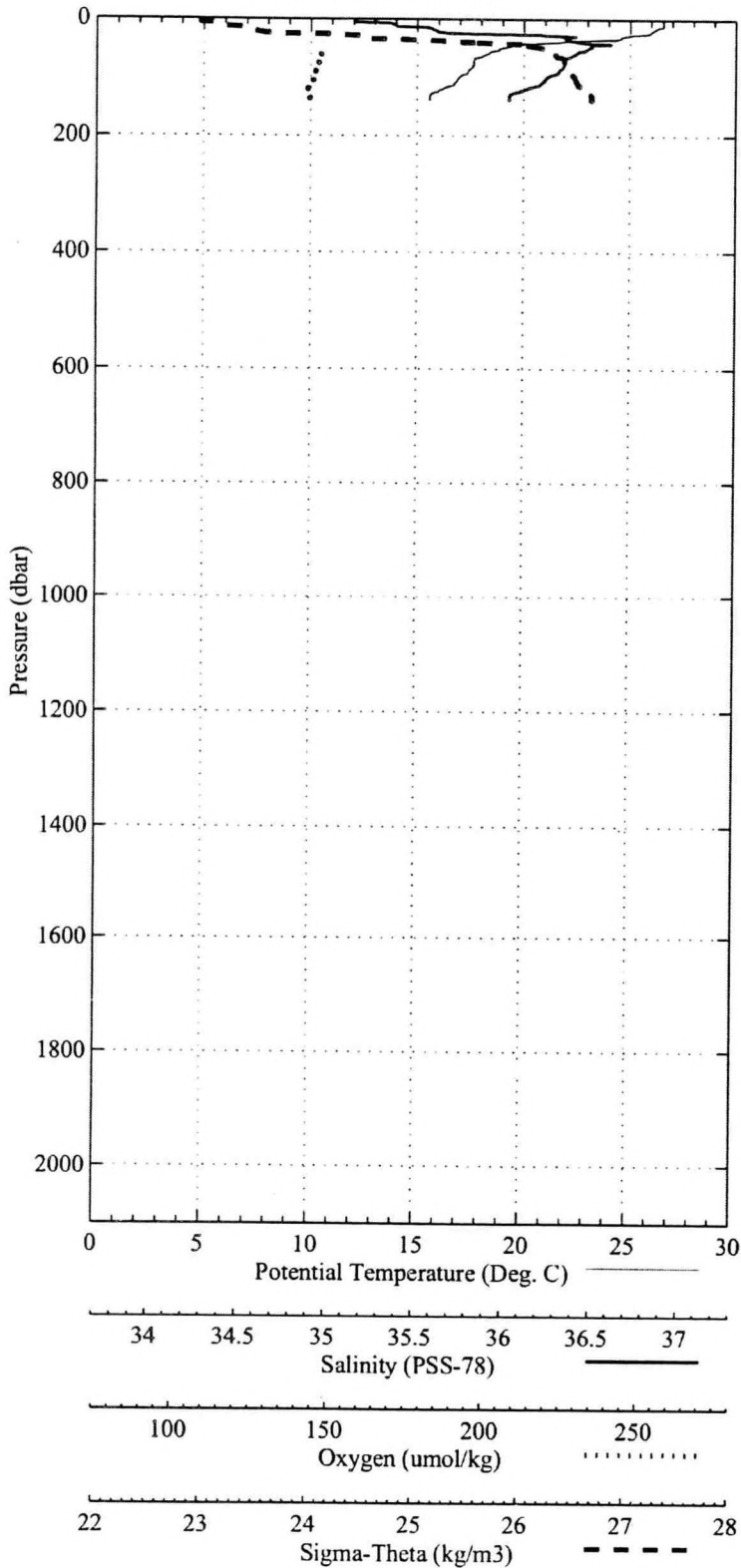


NBC-3 R/V SEWARD JOHNSON

CTD Station 70 (00070)

Latitude 11.370 N Longitude 60.500 W

23-Feb-2000 16:03 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 70 (00070)  
Latitude 1.370N Longitude 60.500W  
23-Feb-2000 16:03Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
1	26.549	26.549	35.149	350.7	0.005	22.975
10	26.568	26.566	35.373	350.4	0.048	23.140
20	26.053	26.049	35.604	356.5	0.094	23.477
30	24.614	24.608	36.367	373.6	0.133	24.498
40	20.415	20.407	36.949	215.9	0.154	26.143
50	18.882	18.873	36.462	150.0	0.173	26.175
60	18.247	18.236	36.388	146.8	0.191	26.280
70	17.667	17.655	36.323	145.8	0.208	26.375
80	17.611	17.598	36.323	145.3	0.225	26.389
90	17.372	17.357	36.293	144.8	0.242	26.426
100	16.944	16.927	36.227	144.1	0.258	26.479
110	16.740	16.722	36.197	143.7	0.273	26.505
120	16.151	16.132	36.108	142.4	0.289	26.575
130	15.608	15.587	36.020	142.7	0.303	26.632

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
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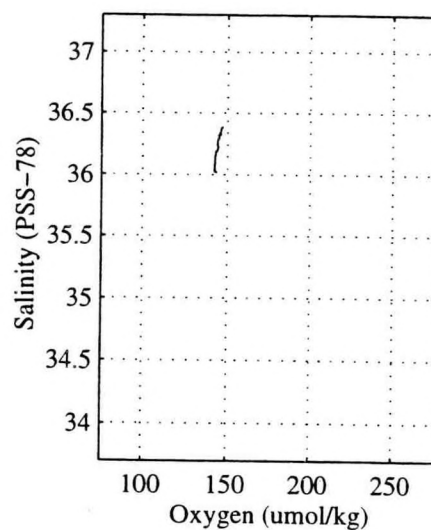
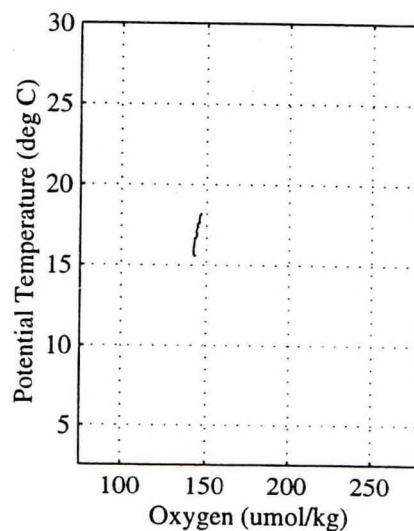
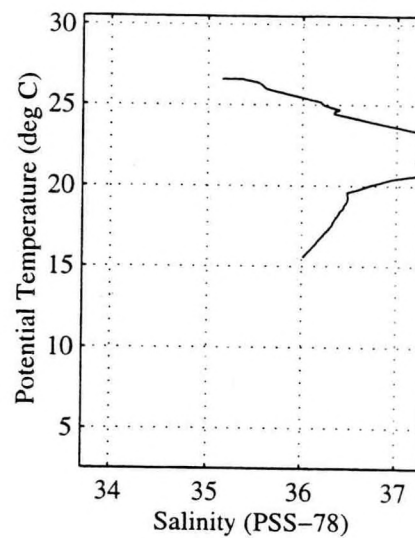
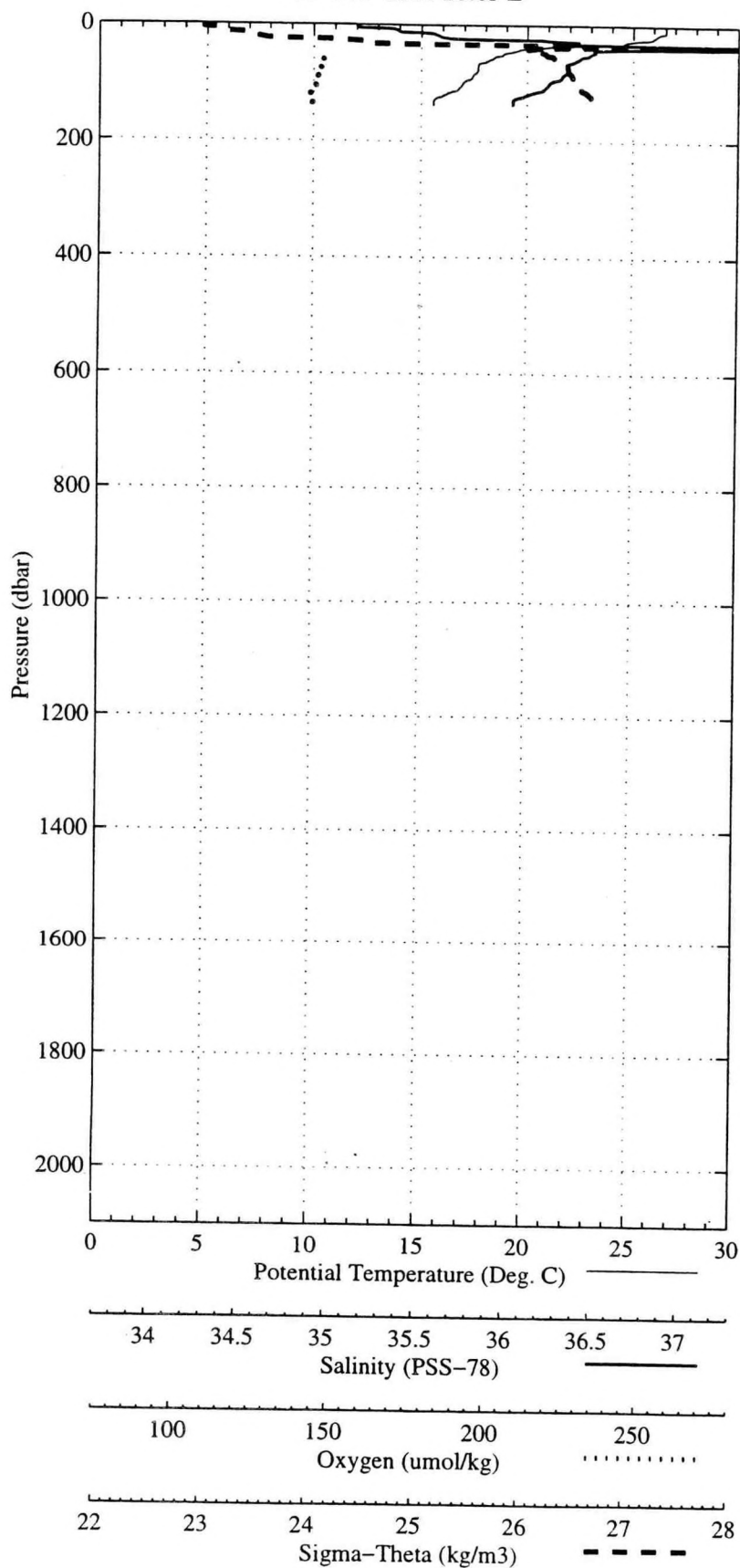
No bottle data available for this station.

# NBC-3 R/V SEWARD JOHNSON

CTD Station 70 (00070)

Latitude 11.370 N Longitude 60.500 W

23-Feb-2000 16:03 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 71 (00071)  
Latitude 1.432N Longitude 60.484W  
23-Feb-2000 16:36Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.572	26.569	35.350	361.1	0.043	23.121
20	26.492	26.487	35.390	362.4	0.090	23.178
30	26.534	26.527	35.662	335.8	0.136	23.371
40	26.416	26.407	35.863	214.9	0.180	23.561
50	25.140	25.129	36.246	167.8	0.220	24.249
60	19.816	19.805	36.479	149.6	0.246	25.947
70	19.326	19.313	36.480	147.7	0.266	26.077
80	19.042	19.028	36.489	145.4	0.285	26.157
90	18.581	18.565	36.444	143.5	0.304	26.242
100	18.163	18.146	36.397	143.6	0.321	26.311
110	17.935	17.916	36.368	143.6	0.339	26.347
120	17.659	17.639	36.330	143.8	0.356	26.386
130	17.331	17.309	36.292	143.1	0.372	26.439
140	17.111	17.087	36.261	143.1	0.388	26.468
150	16.790	16.766	36.212	142.1	0.404	26.508
160	16.340	16.314	36.142	143.7	0.420	26.560
170	16.012	15.984	36.098	143.9	0.435	26.603
180	15.639	15.611	36.029	142.4	0.449	26.636
190	15.383	15.353	35.982	142.4	0.464	26.658
200	15.219	15.189	35.959	142.7	0.478	26.677
250	14.054	14.017	35.744	138.2	0.548	26.767
300	11.400	11.361	35.320	124.1	0.610	26.966
350	10.333	10.291	35.157	120.8	0.667	27.032
400	8.909	8.866	34.953	120.7	0.720	27.110
450	8.134	8.087	34.847	124.8	0.771	27.148
500	7.595	7.545	34.785	124.0	0.820	27.180
550	7.207	7.154	34.745	125.6	0.868	27.204
600	6.768	6.711	34.711	130.1	0.916	27.238
650	5.936	5.879	34.589	142.2	0.961	27.250
700	6.117	6.054	34.662	135.7	1.006	27.287
750	5.747	5.681	34.659	139.2	1.050	27.331
800	5.608	5.539	34.668	142.6	1.091	27.357
900	5.428	5.350	34.746	156.3	1.170	27.442
1000	5.342	5.256	34.849	177.3	1.240	27.535

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
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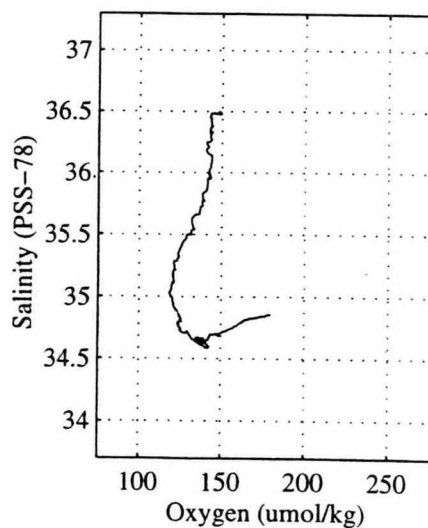
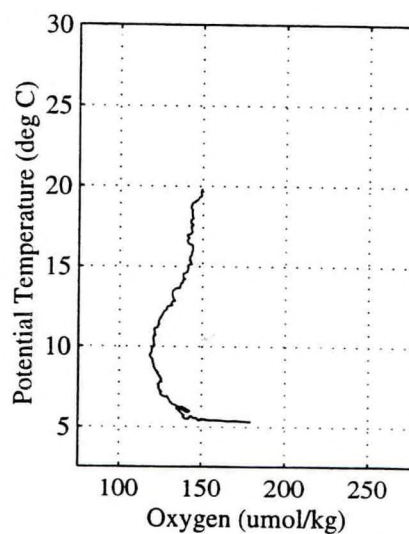
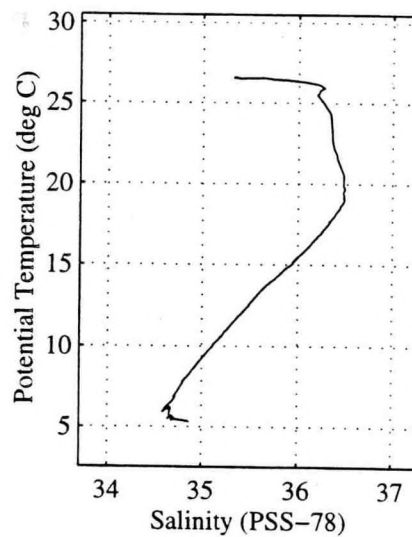
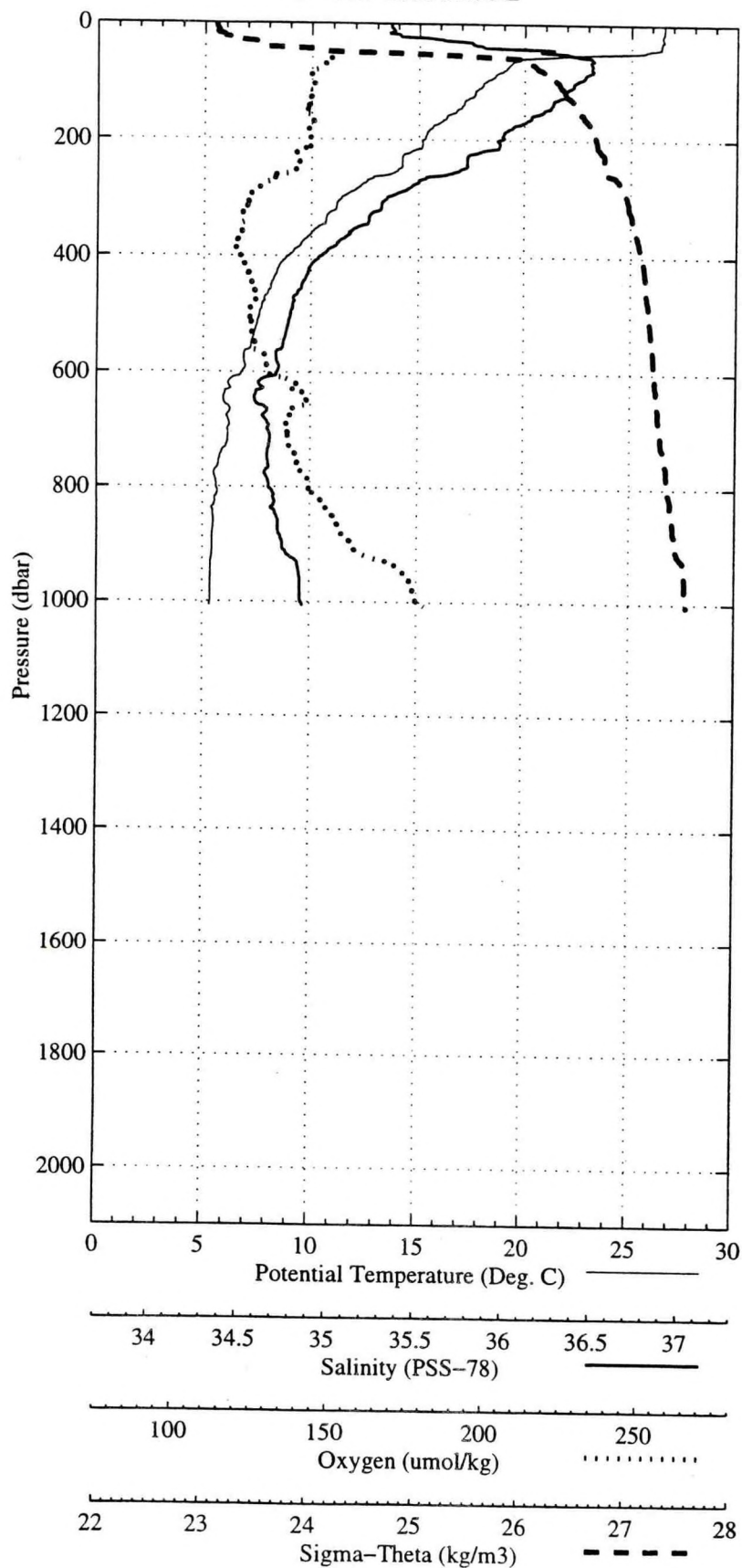
No bottle data available for this station.

NBC-3 R/V SEWARD JOHNSON

CTD Station 71 (00071)

Latitude 11.432 N Longitude 60.484 W

23-Feb-2000 16:36 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 72 (00072)  
Latitude 1.564N Longitude 60.434W  
23-Feb-2000 18:02Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.497	26.494	35.688	352.4	0.040	23.400
20	26.453	26.449	35.703	353.5	0.085	23.426
30	26.402	26.395	35.735	355.2	0.129	23.468
40	26.498	26.489	36.048	219.7	0.174	23.675
50	25.973	25.962	36.760	196.7	0.212	24.379
60	23.887	23.875	36.811	158.9	0.244	25.056
70	23.720	23.705	36.978	167.5	0.272	25.234
80	22.117	22.101	36.837	161.3	0.299	25.592
90	21.567	21.550	36.878	159.2	0.322	25.779
100	20.702	20.683	36.831	157.4	0.343	25.982
110	19.944	19.924	36.675	151.3	0.363	26.067
120	19.496	19.474	36.666	154.0	0.382	26.179
130	19.284	19.260	36.639	148.1	0.401	26.215
140	18.545	18.520	36.494	143.2	0.419	26.293
150	18.259	18.233	36.447	141.1	0.436	26.330
160	18.002	17.974	36.423	142.3	0.454	26.377
170	17.366	17.337	36.319	138.4	0.470	26.454
180	17.001	16.971	36.250	133.4	0.486	26.489
190	16.340	16.309	36.139	131.2	0.502	26.561
200	15.883	15.852	36.067	129.9	0.517	26.611
250	14.008	13.972	35.774	132.8	0.587	26.800
300	11.909	11.870	35.406	126.4	0.650	26.938
350	10.650	10.608	35.199	122.9	0.708	27.009
400	9.867	9.821	35.079	123.1	0.763	27.052
450	9.284	9.234	34.994	122.4	0.817	27.084
500	8.510	8.457	34.890	125.6	0.870	27.127
550	7.308	7.254	34.723	128.3	0.921	27.172
600	6.977	6.919	34.699	129.3	0.969	27.201
650	6.565	6.505	34.666	132.0	1.017	27.232
700	6.324	6.260	34.662	133.9	1.063	27.261
750	6.147	6.079	34.662	136.7	1.108	27.284
800	5.766	5.696	34.654	139.9	1.152	27.326
900	5.330	5.253	34.670	146.7	1.235	27.393
1000	5.390	5.303	34.850	172.5	1.310	27.531

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1054	24	5.308	5.217	34.925	193.8
799	2	5.949	5.878	34.664	139.2
200	4	15.279	15.248	35.972 *	138.3

The remainder of bottle data for this station is missing due to a computer failure during the cast.

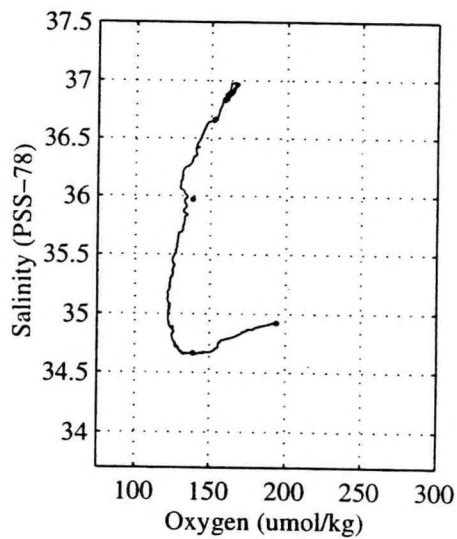
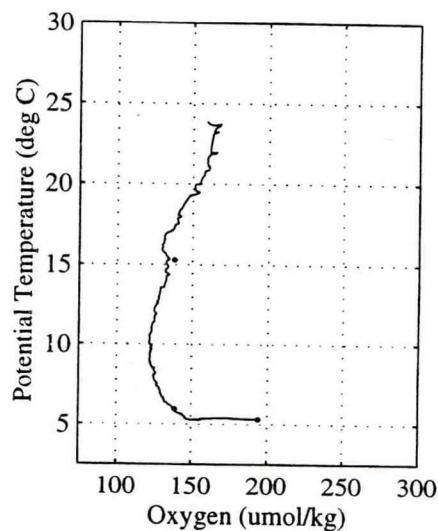
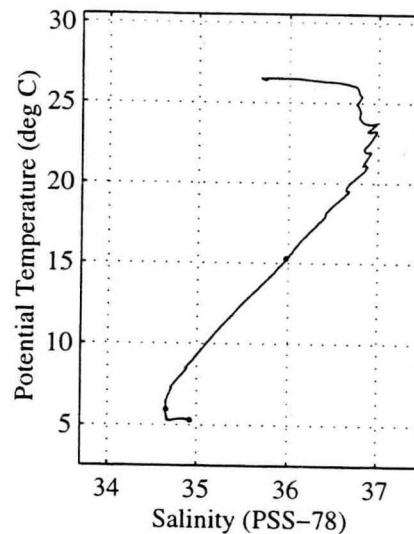
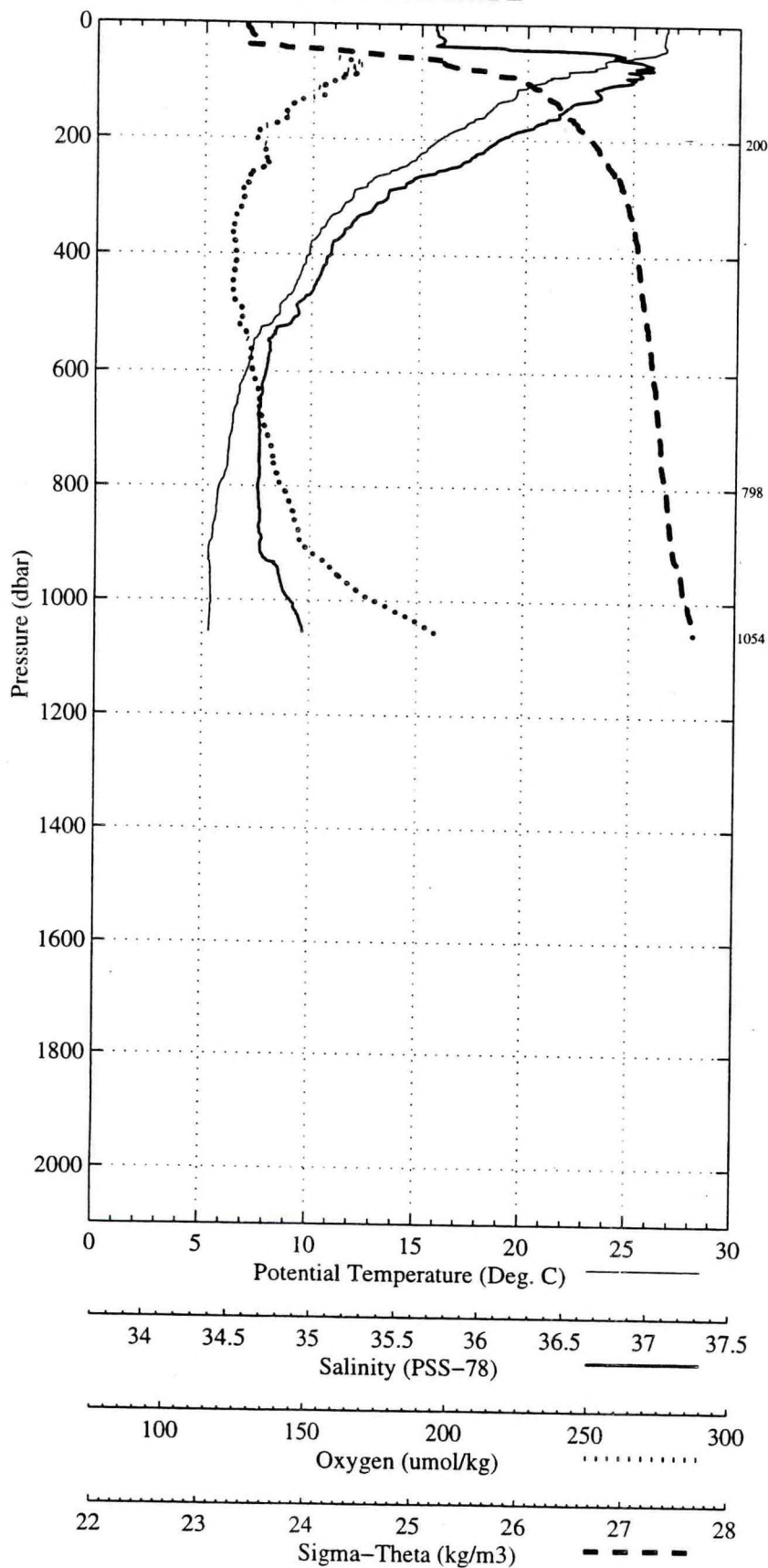


NBC-3 R/V SEWARD JOHNSON

CTD Station 72 (00072)

Latitude 11.564 N Longitude 60.434 W

23-Feb-2000 18:02 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 73 (00073)  
Latitude 1.699N Longitude 60.335W  
23-Feb-2000 19:43Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.527	26.524	35.564	352.7	0.041	23.297
20	26.369	26.365	35.628	355.0	0.086	23.396
30	26.453	26.446	35.637	355.4	0.131	23.378
40	26.548	26.539	36.055	230.6	0.176	23.665
50	25.828	25.817	36.721	192.1	0.215	24.395
60	25.160	25.147	37.075	183.5	0.248	24.871
70	23.461	23.447	36.843	156.1	0.277	25.208
80	21.953	21.937	36.821	147.9	0.302	25.626
90	21.654	21.636	36.906	154.4	0.326	25.775
100	21.491	21.471	37.019	165.5	0.347	25.908
110	21.103	21.082	36.967	164.0	0.368	25.977
120	19.472	19.450	36.682	152.7	0.388	26.198
130	18.147	18.125	36.433	142.3	0.406	26.346
140	17.371	17.348	36.305	137.2	0.423	26.439
150	16.493	16.469	36.161	129.5	0.439	26.539
160	15.867	15.842	36.060	129.9	0.454	26.607
170	15.686	15.659	36.035	128.9	0.469	26.629
180	15.119	15.091	35.943	127.4	0.483	26.686
190	15.030	15.000	35.931	128.0	0.497	26.697
200	14.742	14.712	35.883	128.5	0.511	26.724
250	12.862	12.827	35.570	126.5	0.577	26.877
300	11.631	11.592	35.357	125.7	0.637	26.952
350	10.005	9.964	35.053	130.3	0.695	27.007
400	9.536	9.491	35.006	126.8	0.751	27.050
450	8.595	8.547	34.870	125.4	0.804	27.096
500	8.133	8.081	34.829	125.0	0.856	27.135
550	7.245	7.191	34.727	128.7	0.906	27.185
600	7.316	7.257	34.781	123.7	0.954	27.219
650	6.180	6.122	34.626	135.2	1.001	27.249
700	6.031	5.968	34.629	137.1	1.046	27.271
750	5.702	5.637	34.613	139.1	1.091	27.301
800	5.465	5.397	34.627	142.1	1.134	27.341
900	5.368	5.290	34.737	155.8	1.213	27.442
1000	5.329	5.243	34.864	178.6	1.284	27.549
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	
1361	24	4.539	4.426	35.014	257.0	
799	2	5.396	5.328	34.633	145.2	
198	4	14.618	14.588	35.855	129.1	

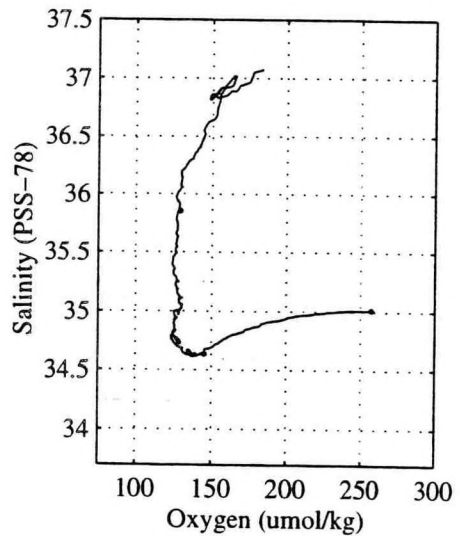
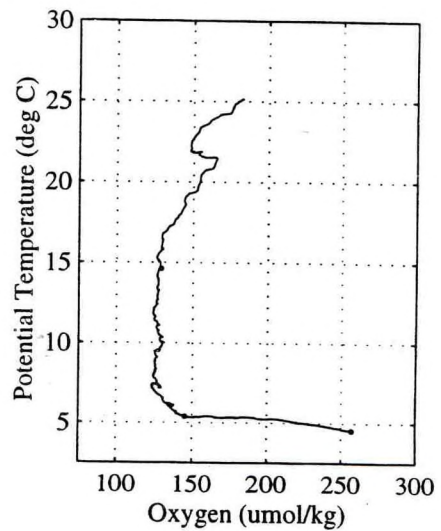
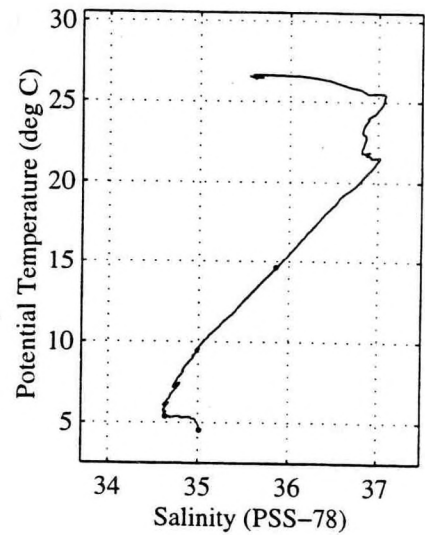
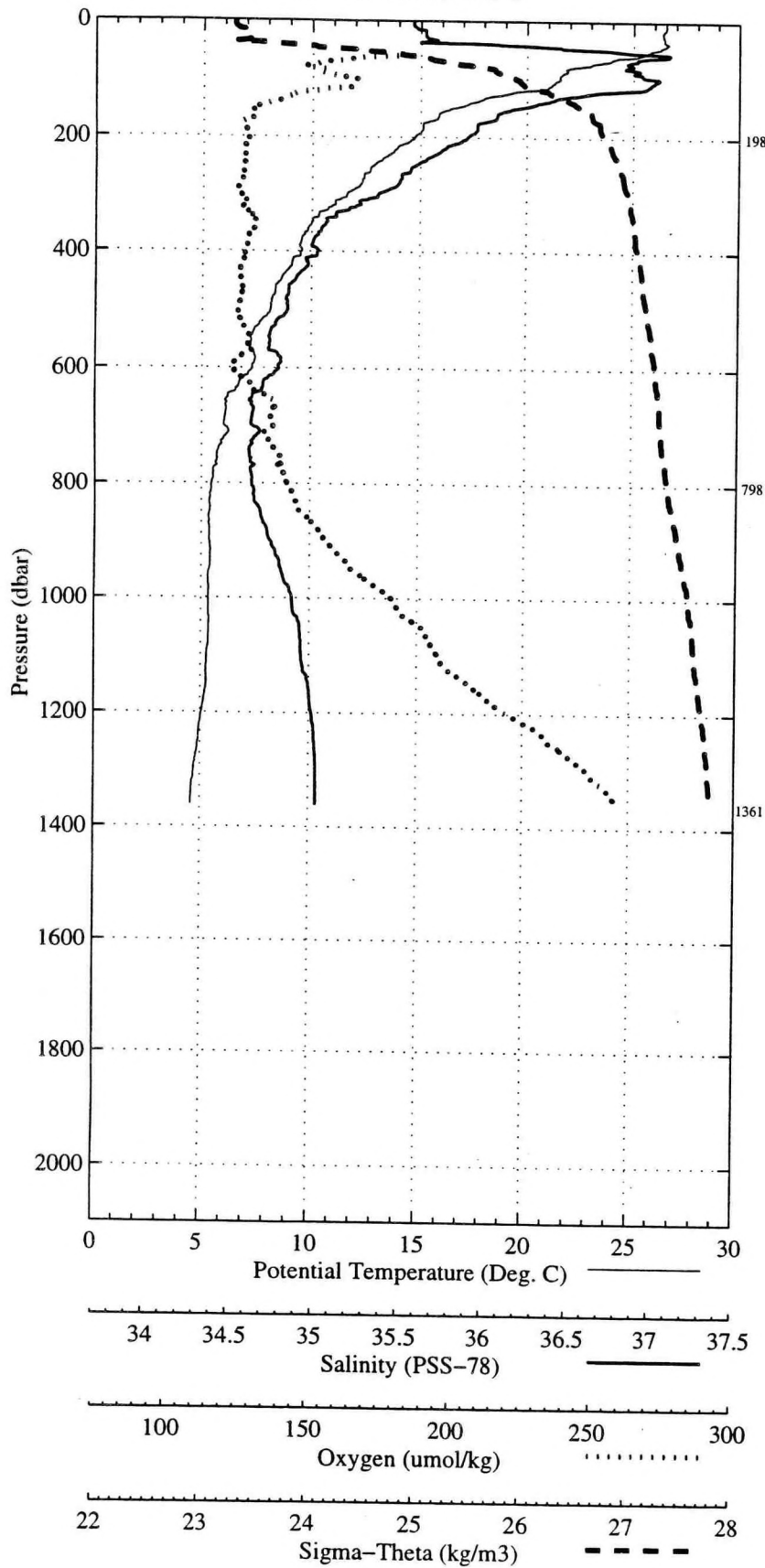
The remainder of the bottle data for this station is missing due to time constraints.

NBC-3 R/V SEWARD JOHNSON

CTD Station 73 (00073)

Latitude 11.699 N Longitude 60.335 W

23-Feb-2000 19:43 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 74 (00074)  
Latitude 2.033N Longitude 60.117W  
23-Feb-2000 22:53Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.464	26.461	35.158	367.5	0.044	23.010
20	26.496	26.492	35.144	367.6	0.092	22.991
30	26.648	26.641	35.350	363.5	0.140	23.100
40	26.621	26.612	35.454	218.2	0.188	23.188
50	26.647	26.635	35.829	210.3	0.233	23.465
60	26.642	26.628	35.916	207.8	0.277	23.533
70	26.561	26.546	36.004	199.0	0.320	23.627
80	25.701	25.683	36.648	180.0	0.359	24.384
90	24.651	24.631	37.044	178.2	0.392	25.007
100	24.129	24.108	37.158	187.3	0.420	25.252
110	22.984	22.961	37.174	176.9	0.446	25.603
120	21.733	21.709	37.045	168.7	0.469	25.863
130	20.032	20.008	36.721	152.9	0.490	26.081
140	17.423	17.400	36.260	142.2	0.508	26.392
150	16.303	16.279	36.029	139.9	0.525	26.482
160	15.063	15.038	35.828	145.5	0.540	26.609
170	14.055	14.030	35.639	145.1	0.554	26.681
180	13.491	13.465	35.531	149.8	0.568	26.716
190	13.138	13.111	35.483	147.9	0.582	26.750
200	12.484	12.457	35.344	152.4	0.595	26.774
250	11.035	11.004	35.047	164.7	0.660	26.817
300	10.310	10.274	34.925	165.9	0.724	26.853
350	9.855	9.815	34.871	166.2	0.787	26.890
400	9.597	9.552	34.849	165.2	0.848	26.917
450	9.558	9.507	34.886	157.3	0.909	26.955
500	9.019	8.964	34.842	146.5	0.967	27.009
550	9.043	8.982	34.939	130.4	1.023	27.084
600	7.874	7.813	34.783	128.4	1.076	27.141
650	7.212	7.148	34.710	130.0	1.127	27.179
700	6.692	6.626	34.671	131.7	1.177	27.220
750	6.031	5.964	34.646	136.5	1.223	27.286
800	6.059	5.986	34.727	140.0	1.266	27.348
900	5.413	5.335	34.734	154.6	1.347	27.434
1000	5.386	5.300	34.865	176.9	1.419	27.543
1500	4.053	3.932	34.991	274.6	1.683	27.798
1938	3.823	3.664	34.985	272.7	1.884	27.825

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
1937	24	3.823	3.664	34.987	270.7
802	2	6.218	6.145	34.718	139.0
201	4	12.387	12.360	35.306	155.6

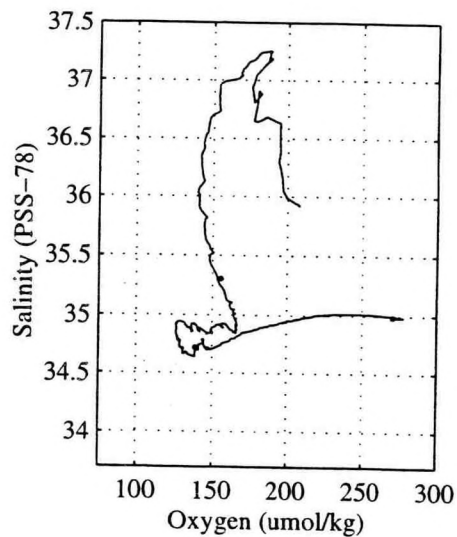
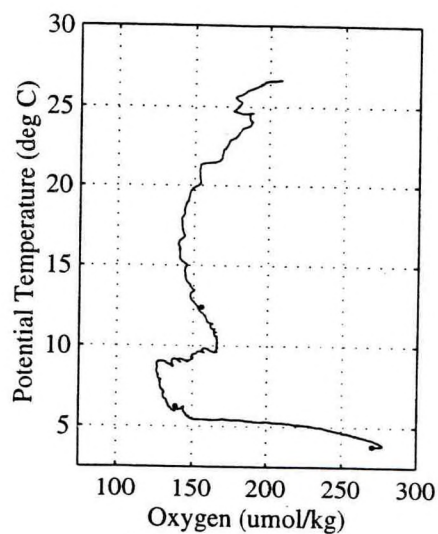
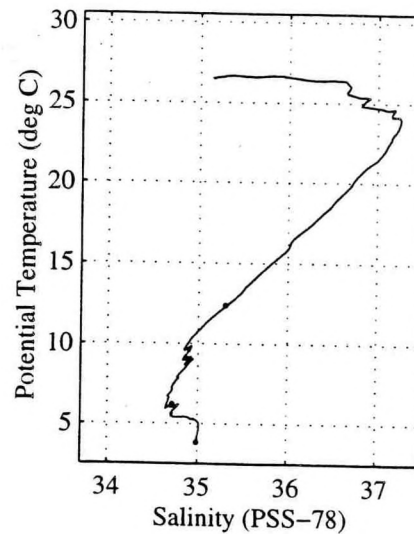
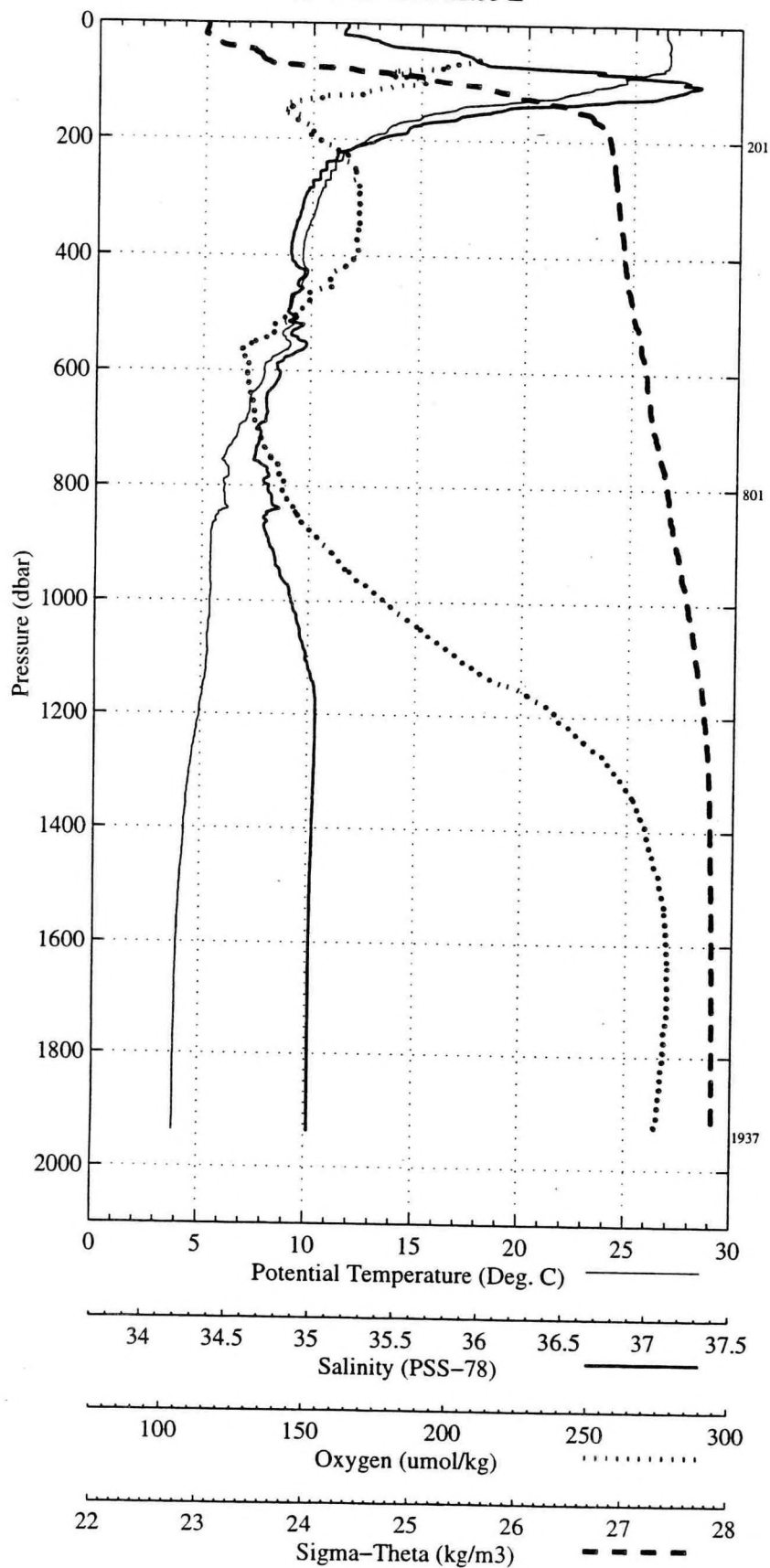
The remainder of the bottle data for this station is missing due to time constraints.

# NBC-3 R/V SEWARD JOHNSON

CTD Station 74 (00074)

Latitude 12.033 N Longitude 60.117 W

23-Feb-2000 22:53 Z



NBC-3 R/V SEWARD JOHNSON  
CTD Station 75 (00075)  
Latitude 2.365N Longitude 59.930W  
24-Feb-2000 02:16Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.406	26.404	34.706	370.7	0.046	22.688
20	26.426	26.421	34.863	370.5	0.097	22.802
30	26.472	26.465	35.198	364.3	0.147	23.041
40	26.561	26.552	35.711	226.1	0.194	23.401
50	26.595	26.584	35.843	213.3	0.238	23.491
60	26.584	26.570	36.248	204.7	0.281	23.801
70	26.265	26.249	36.607	198.5	0.321	24.175
80	25.930	25.912	36.906	199.8	0.357	24.507
90	24.263	24.244	36.993	176.5	0.389	25.086
100	22.118	22.098	36.930	159.4	0.414	25.665
110	19.780	19.760	36.529	145.4	0.436	25.999
120	18.287	18.266	36.304	139.4	0.456	26.211
130	17.372	17.350	36.158	141.3	0.474	26.326
140	15.713	15.691	35.916	143.9	0.490	26.529
150	14.498	14.476	35.708	145.2	0.505	26.638
160	13.881	13.858	35.580	149.6	0.519	26.671
170	12.978	12.954	35.410	151.9	0.533	26.725
180	12.347	12.323	35.283	155.5	0.546	26.752
190	11.700	11.676	35.156	161.6	0.560	26.777
200	11.669	11.644	35.151	162.8	0.573	26.779
250	10.673	10.643	34.977	166.6	0.637	26.828
300	10.251	10.215	34.916	166.6	0.701	26.856
350	9.958	9.918	34.880	166.4	0.764	26.880
400	9.669	9.623	34.850	165.9	0.826	26.906
450	9.362	9.311	34.818	164.7	0.887	26.934
500	9.108	9.052	34.809	160.0	0.947	26.969
550	8.606	8.547	34.802	142.8	1.005	27.044
600	8.219	8.156	34.796	126.3	1.060	27.100
650	7.354	7.289	34.714	130.0	1.112	27.162
700	6.841	6.775	34.667	131.2	1.162	27.196
750	6.615	6.544	34.677	132.5	1.211	27.236
800	5.819	5.748	34.611	138.3	1.257	27.286
900	5.362	5.285	34.640	147.5	1.343	27.366
1000	5.779	5.689	34.922	174.2	1.419	27.542
1500	4.111	3.989	34.993	272.7	1.683	27.794
1842	3.855	3.704	34.985	274.7	1.841	27.820
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	
1841	24	3.855	NaN	NaN *	275.1	
802	2	5.839	NaN	NaN *	141.1	
201	4	11.307	NaN	NaN *	163.7	

The remainder of the bottle data for this station is missing due to time constraints.

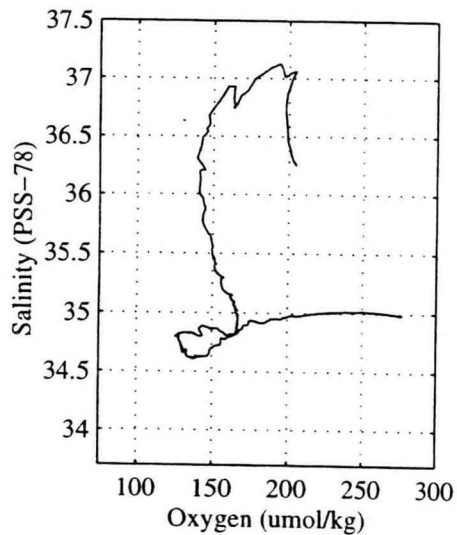
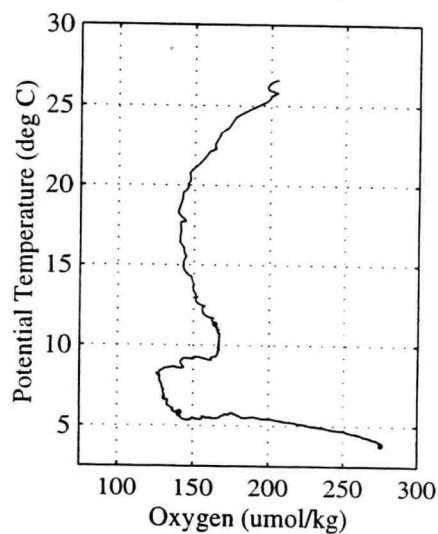
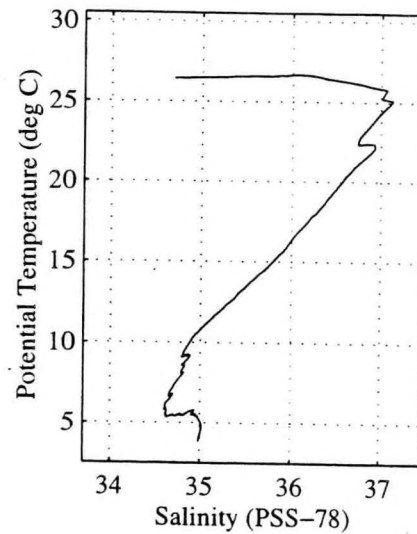
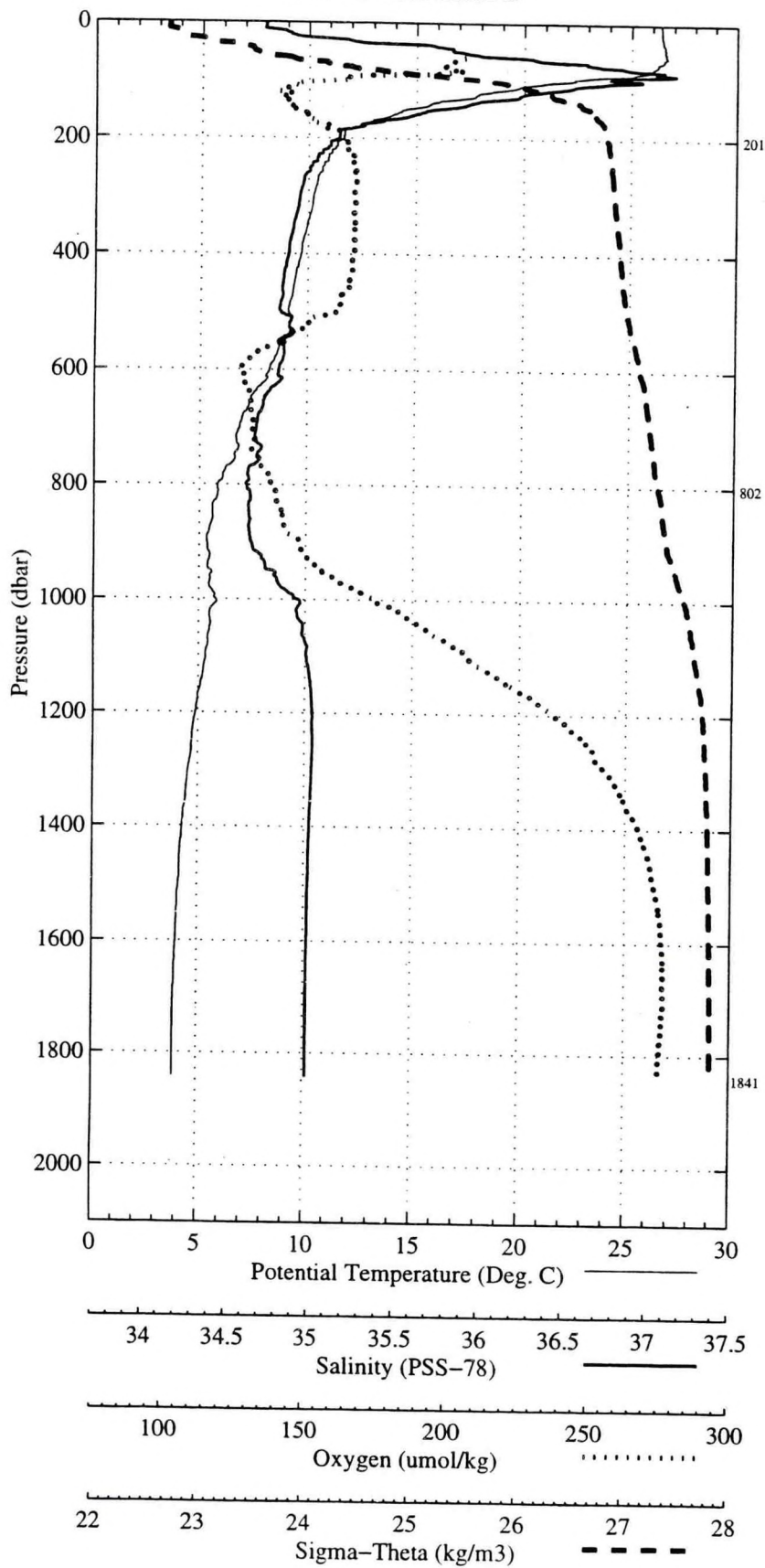


# NBC-3 R/V SEWARD JOHNSON

CTD Station 75 (00075)

Latitude 12.365 N Longitude 59.930 W

24-Feb-2000 02:16 Z



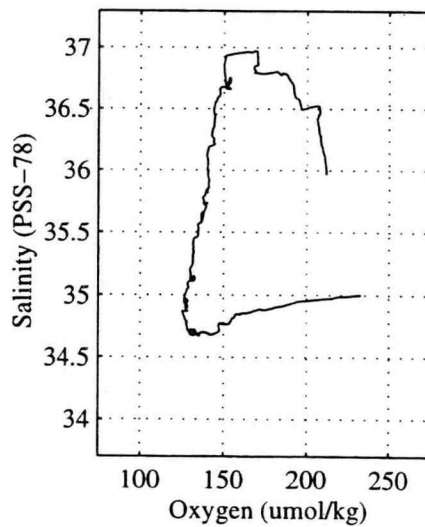
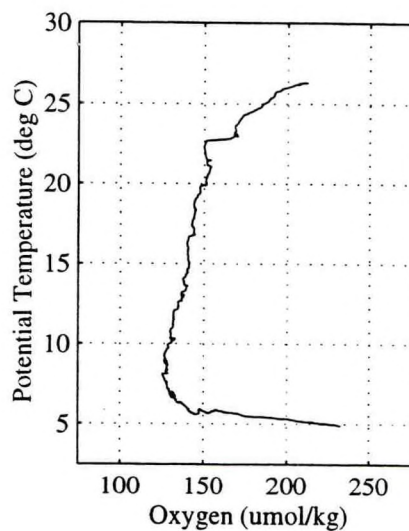
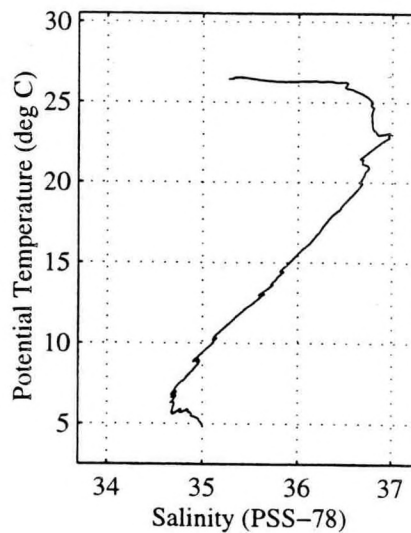
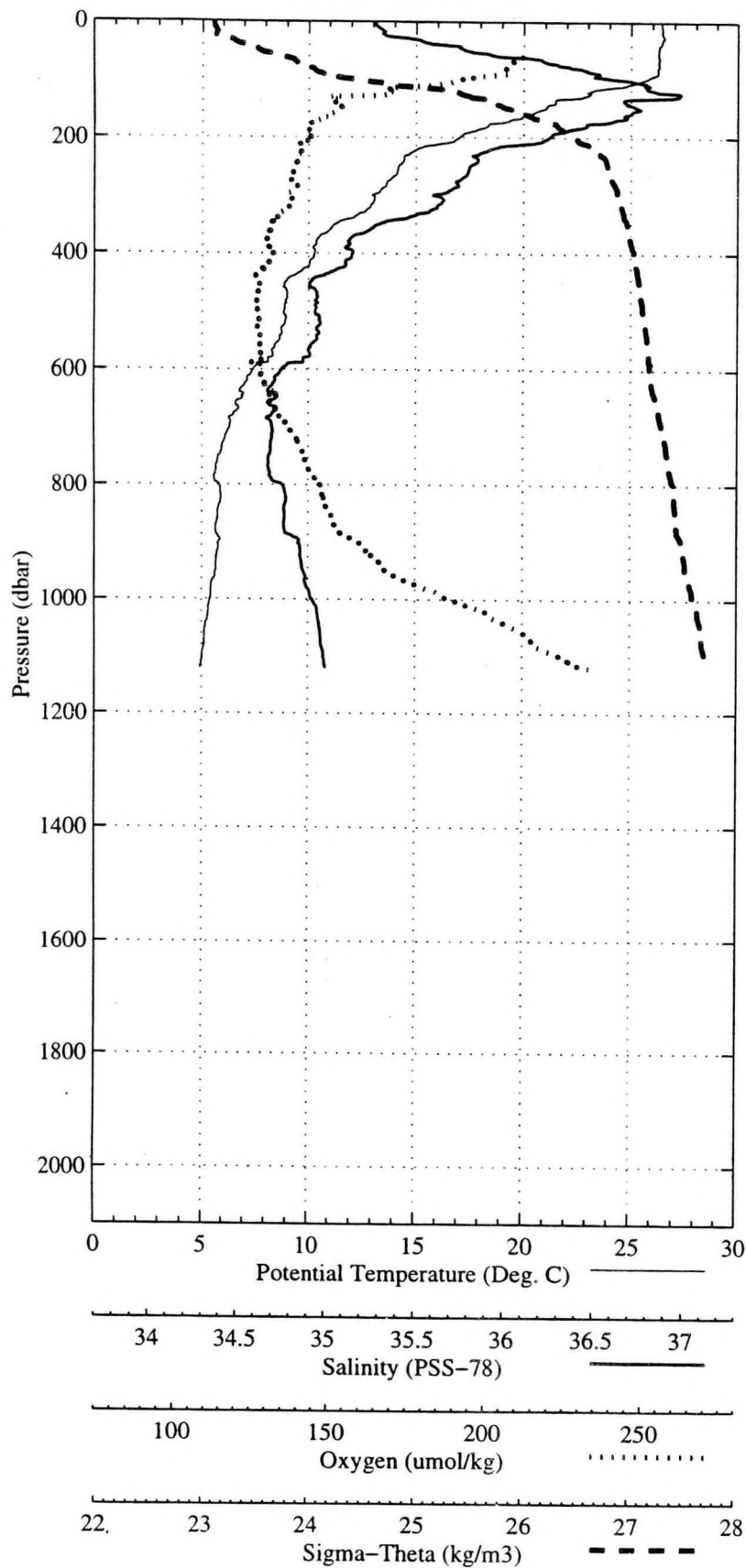
NBC-3 R/V SEWARD JOHNSON  
CTD Station 76 (00076)  
Latitude 2.695N Longitude 59.753W  
24-Feb-2000 05:27Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.435	26.432	35.288	368.3	0.043	23.118
20	26.442	26.438	35.317	368.5	0.090	23.139
30	26.483	26.476	35.473	365.3	0.137	23.245
40	26.354	26.345	35.633	217.2	0.183	23.408
50	26.276	26.265	35.777	214.5	0.227	23.542
60	26.277	26.264	35.966	211.6	0.270	23.686
70	26.278	26.262	36.227	208.4	0.311	23.884
80	26.239	26.221	36.394	206.4	0.350	24.024
90	26.198	26.178	36.526	206.6	0.389	24.137
100	25.532	25.510	36.680	192.0	0.426	24.463
110	24.690	24.667	36.804	182.2	0.459	24.816
120	23.048	23.023	36.843	168.2	0.488	25.334
130	22.701	22.675	36.933	151.1	0.514	25.504
140	21.459	21.432	36.673	152.1	0.538	25.658
150	20.944	20.915	36.753	153.4	0.561	25.862
160	20.148	20.118	36.675	150.9	0.582	26.018
170	19.401	19.370	36.609	147.4	0.602	26.165
180	18.359	18.327	36.452	144.8	0.620	26.312
190	17.585	17.553	36.312	143.1	0.638	26.397
200	17.015	16.981	36.238	144.1	0.654	26.478
250	14.184	14.147	35.801	139.1	0.726	26.784
300	13.005	12.964	35.605	137.3	0.791	26.878
350	11.287	11.242	35.292	131.6	0.852	26.968
400	10.308	10.260	35.150	132.1	0.909	27.033
450	8.925	8.876	34.913	127.6	0.964	27.078
500	8.853	8.799	34.939	127.2	1.018	27.112
550	8.625	8.566	34.945	128.2	1.070	27.154
600	7.437	7.378	34.749	128.1	1.120	27.177
650	6.899	6.837	34.718	130.2	1.169	27.228
700	6.316	6.252	34.698	136.8	1.214	27.290
750	5.785	5.719	34.680	141.7	1.257	27.343
800	5.844	5.773	34.756	147.2	1.298	27.397
900	5.812	5.732	34.846	158.9	1.376	27.475
1000	5.408	5.321	34.922	188.3	1.445	27.586

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg
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No bottle data available for this station.

NBC-3 R/V SEWARD JOHNSON  
 CTD Station 76 (00076)  
 Latitude 12.695 N Longitude 59.753 W  
 24-Feb-2000 05:27 Z





NBC-3 R/V SEWARD JOHNSON  
CTD Station 77 (00077)  
Latitude 2.896N Longitude 59.636W  
24-Feb-2000 07:28Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol/kg	DynHt	SigTh
10	26.115	26.112	35.623	373.6	0.040	23.471
20	26.118	26.113	35.655	373.8	0.084	23.495
30	26.122	26.116	35.667	370.7	0.128	23.504
40	26.125	26.116	35.672	245.8	0.172	23.509
50	26.101	26.089	35.672	223.5	0.215	23.518
60	26.112	26.098	35.738	217.3	0.259	23.566
70	26.175	26.159	36.126	209.3	0.301	23.840
80	25.994	25.976	36.486	198.5	0.340	24.170
90	25.501	25.481	36.667	190.3	0.377	24.461
100	25.179	25.157	36.752	187.6	0.411	24.627
110	24.634	24.610	36.839	182.1	0.443	24.860
120	24.136	24.110	36.892	177.6	0.474	25.051
130	23.492	23.465	36.873	171.6	0.503	25.228
140	22.779	22.750	36.830	166.5	0.530	25.405
150	22.397	22.366	36.966	160.1	0.555	25.619
160	20.640	20.609	36.669	150.5	0.578	25.881
170	20.096	20.065	36.638	149.5	0.600	26.004
180	19.117	19.085	36.525	148.1	0.619	26.175
190	18.744	18.710	36.448	146.1	0.638	26.212
200	18.035	18.000	36.332	138.6	0.657	26.302
250	13.982	13.945	35.716	138.8	0.733	26.760
300	12.744	12.703	35.568	142.2	0.797	26.901
350	11.175	11.131	35.252	136.2	0.858	26.957
400	9.721	9.675	35.025	130.3	0.915	27.035
450	8.872	8.823	34.935	127.9	0.969	27.104
500	7.986	7.935	34.826	128.8	1.021	27.155
550	7.753	7.697	34.802	129.8	1.070	27.172

Pressure dbar	Niskin	Temp90 Deg C	PoTemp90 Deg C	Salinity PSS-78	Oxygen umol/kg
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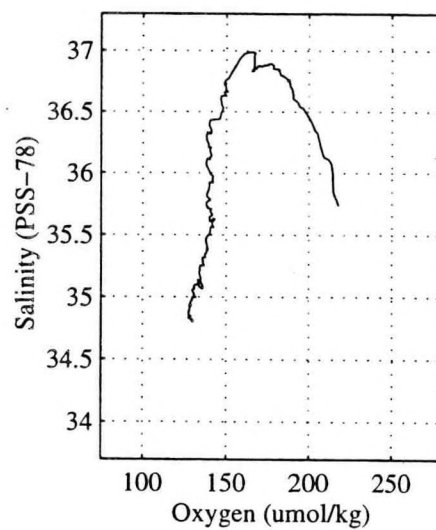
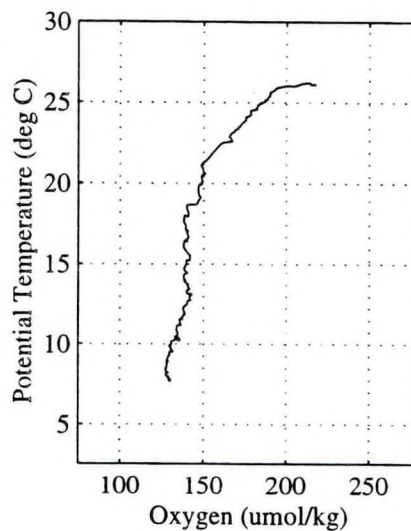
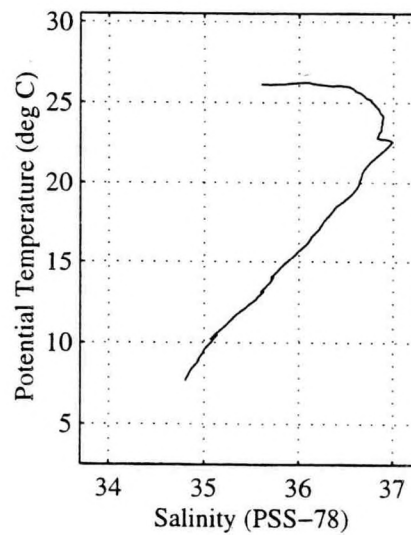
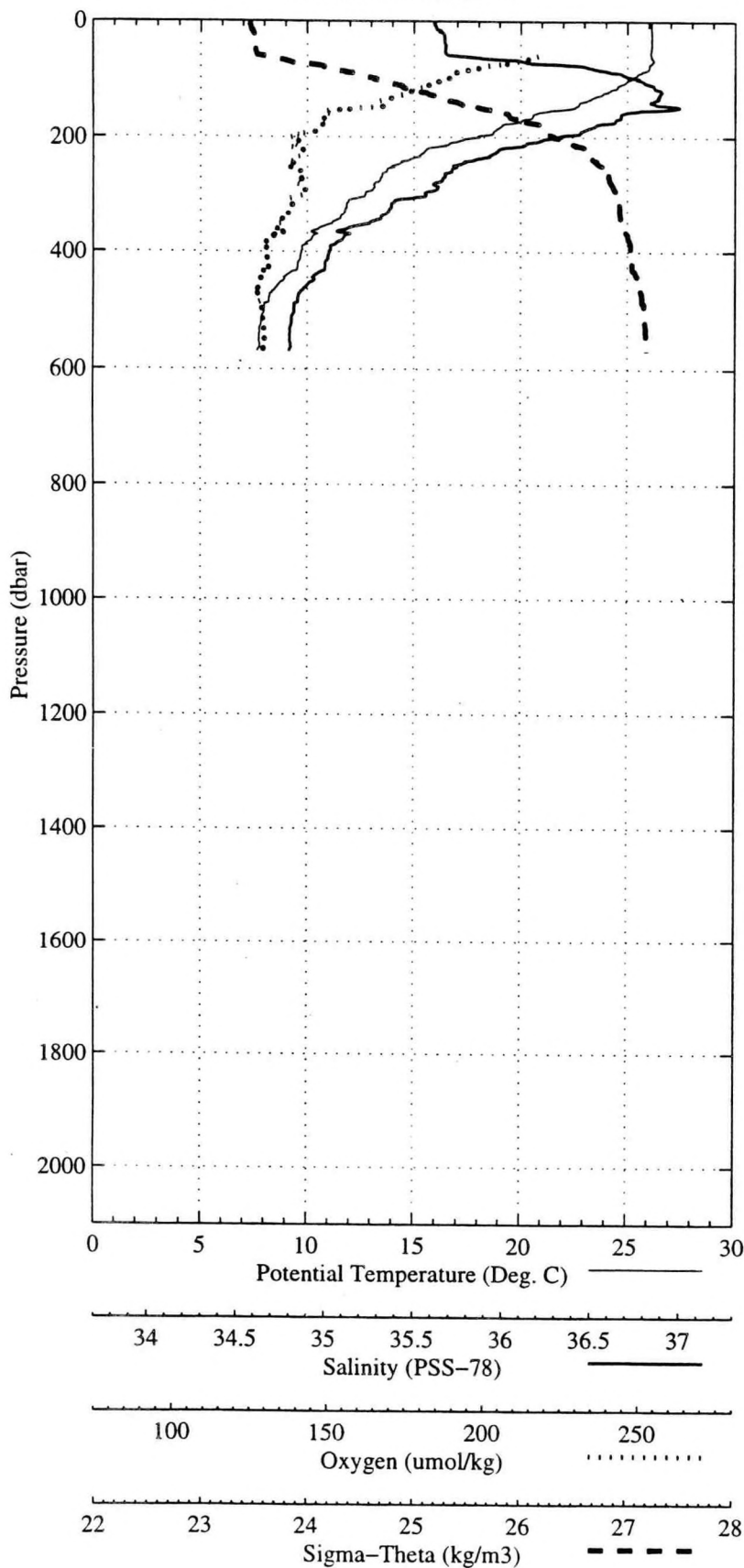
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NBC-3 R/V SEWARD JOHNSON

CTD Station 77 (00077)

Latitude 12.896 N Longitude 59.636 W

24-Feb-2000 07:28 Z

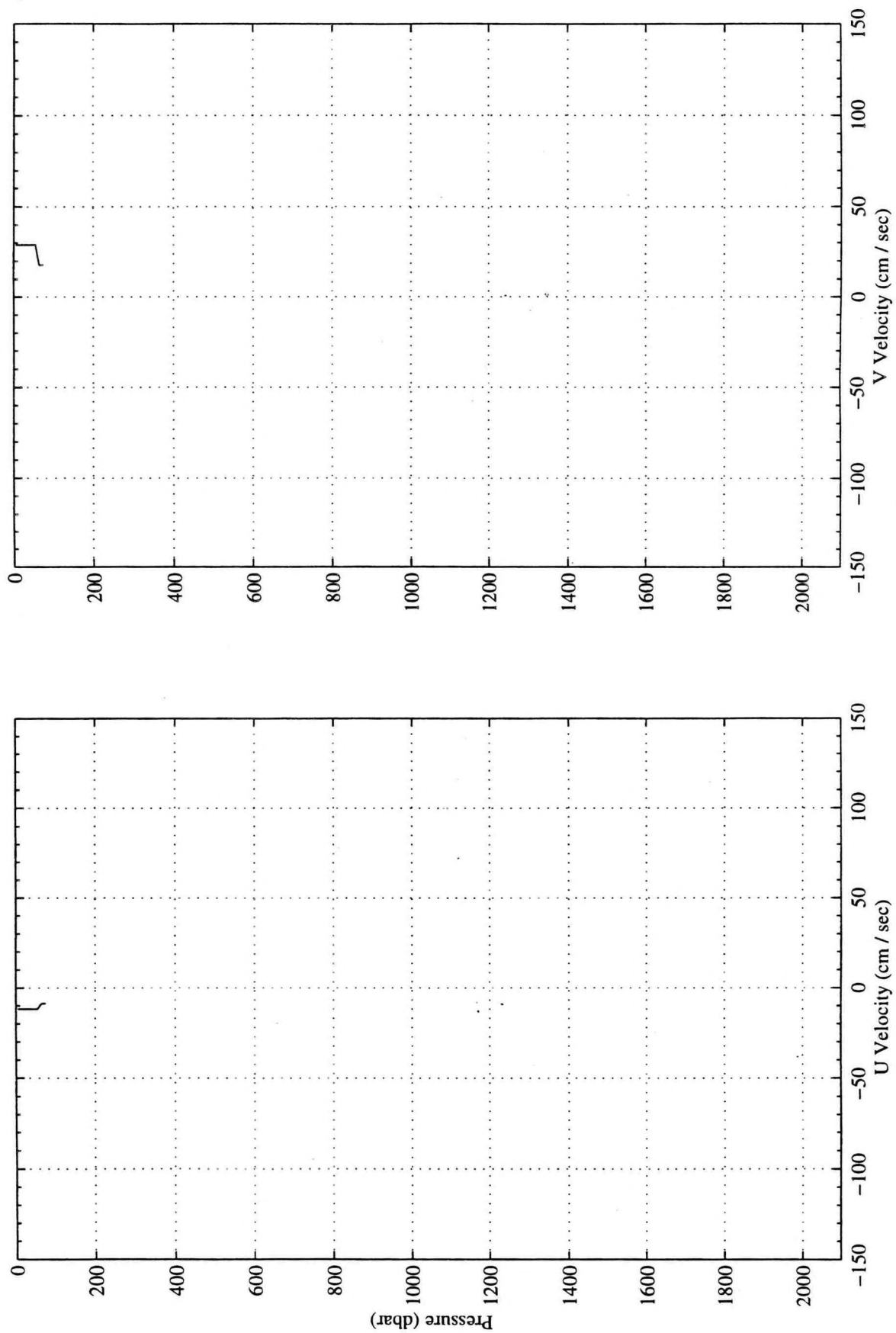




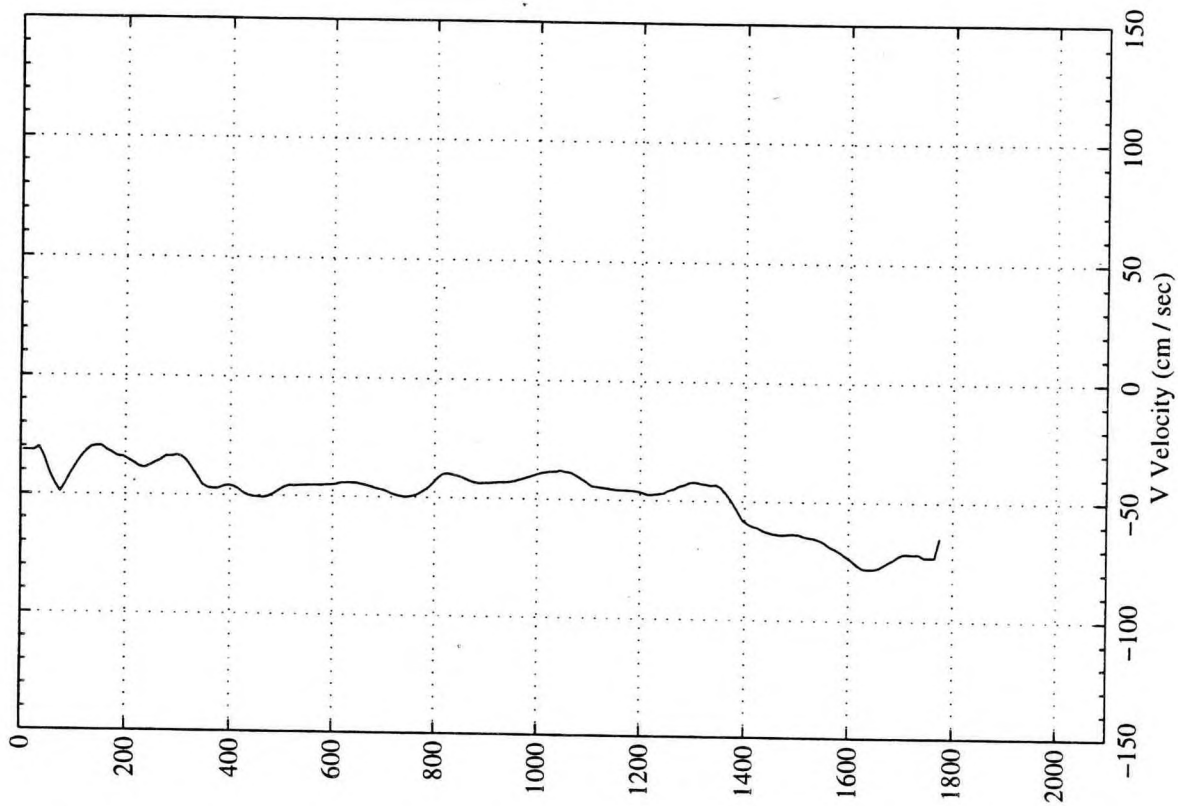
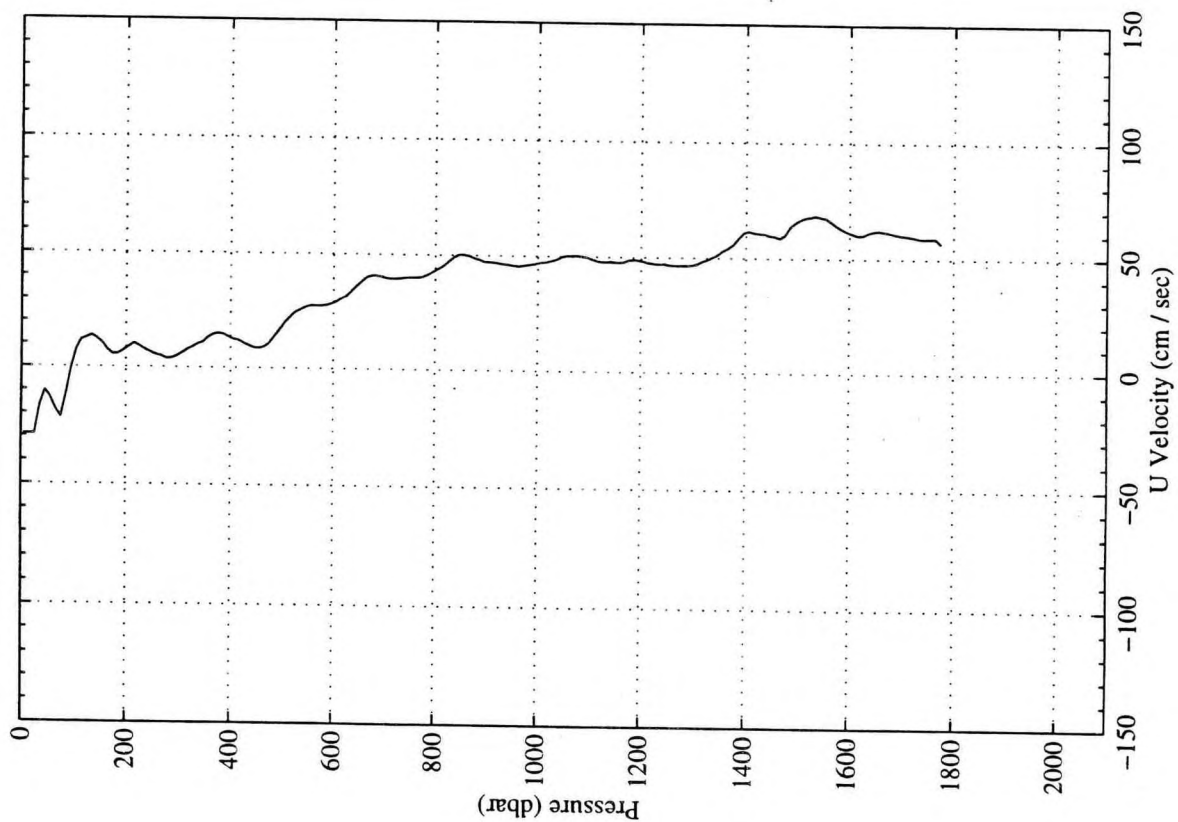


**APPENDIX B**  
**LADCP DATA**

NBC-3 R/V SEWARD JOHNSON  
LADCP Station 1 (00001)  
Latitude 1.916 N Longitude 47.639 W  
31-Jan-2000 22:13 Z

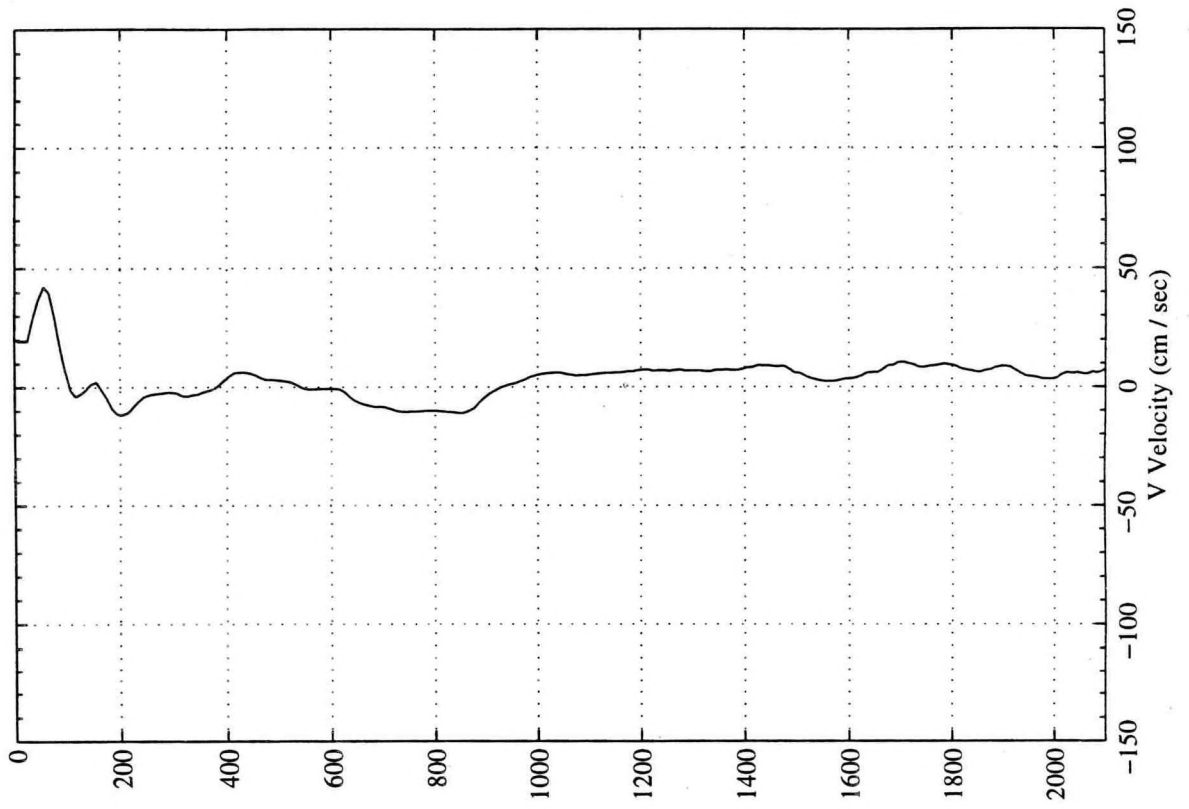
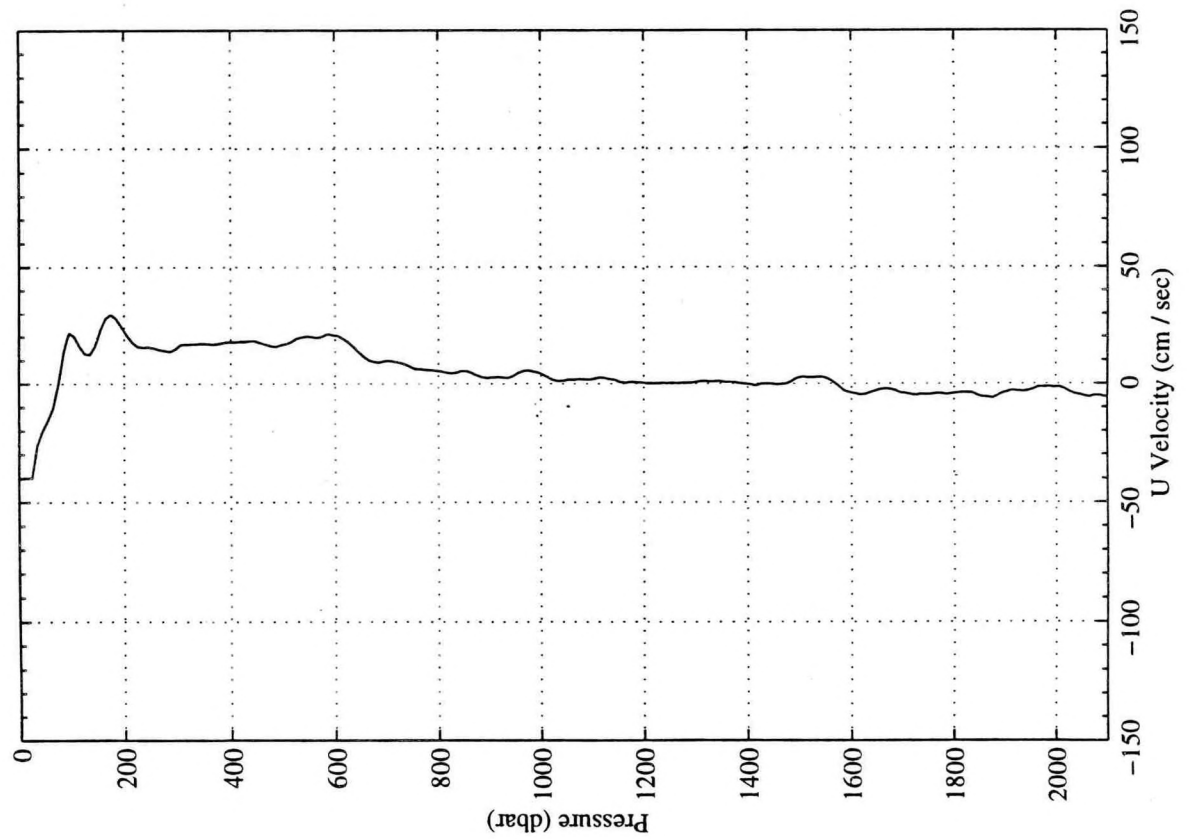


NBC-3 R/V SEWARD JOHNSON  
LADCP Station 2 (00002)  
Latitude 3.024 N Longitude 47.177 W  
01-Feb-2000 06:07 Z





NBC-3 R/V SEWARD JOHNSON  
LADCP Station 3 (00003)  
Latitude 4.423 N Longitude 46.661 W  
01-Feb-2000 16:51 Z

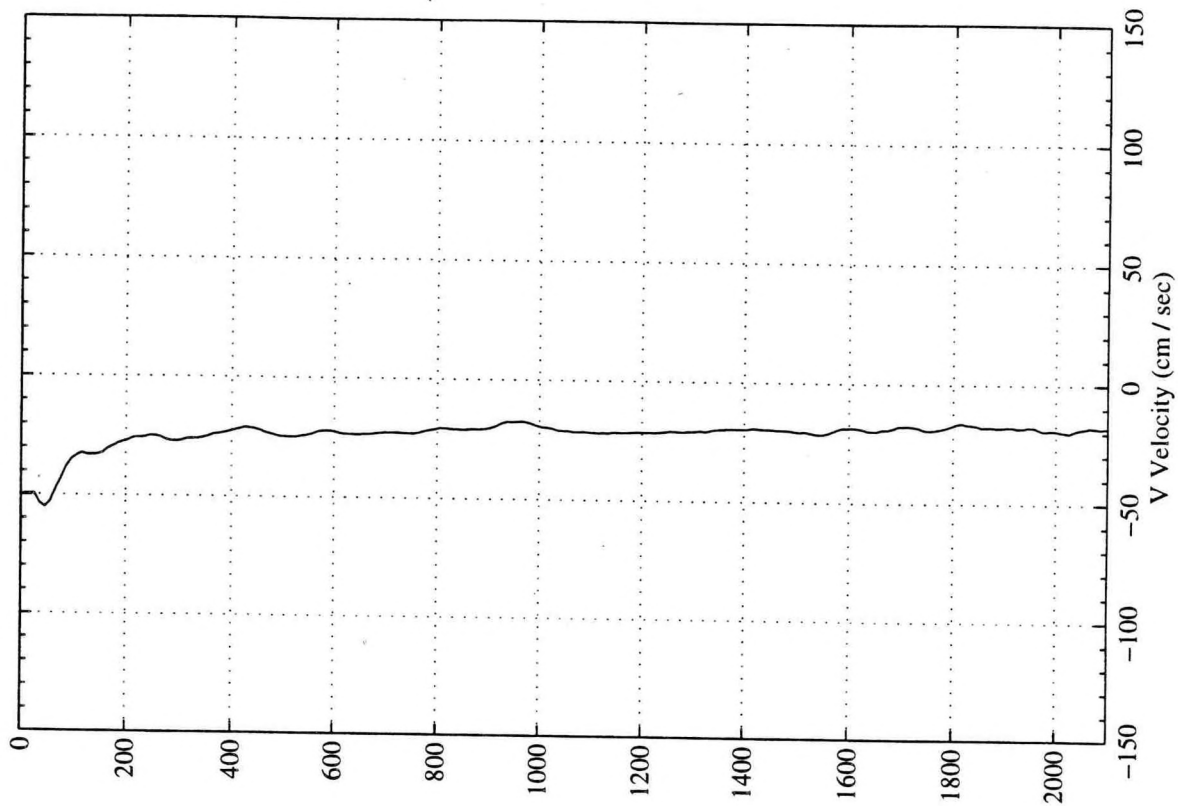
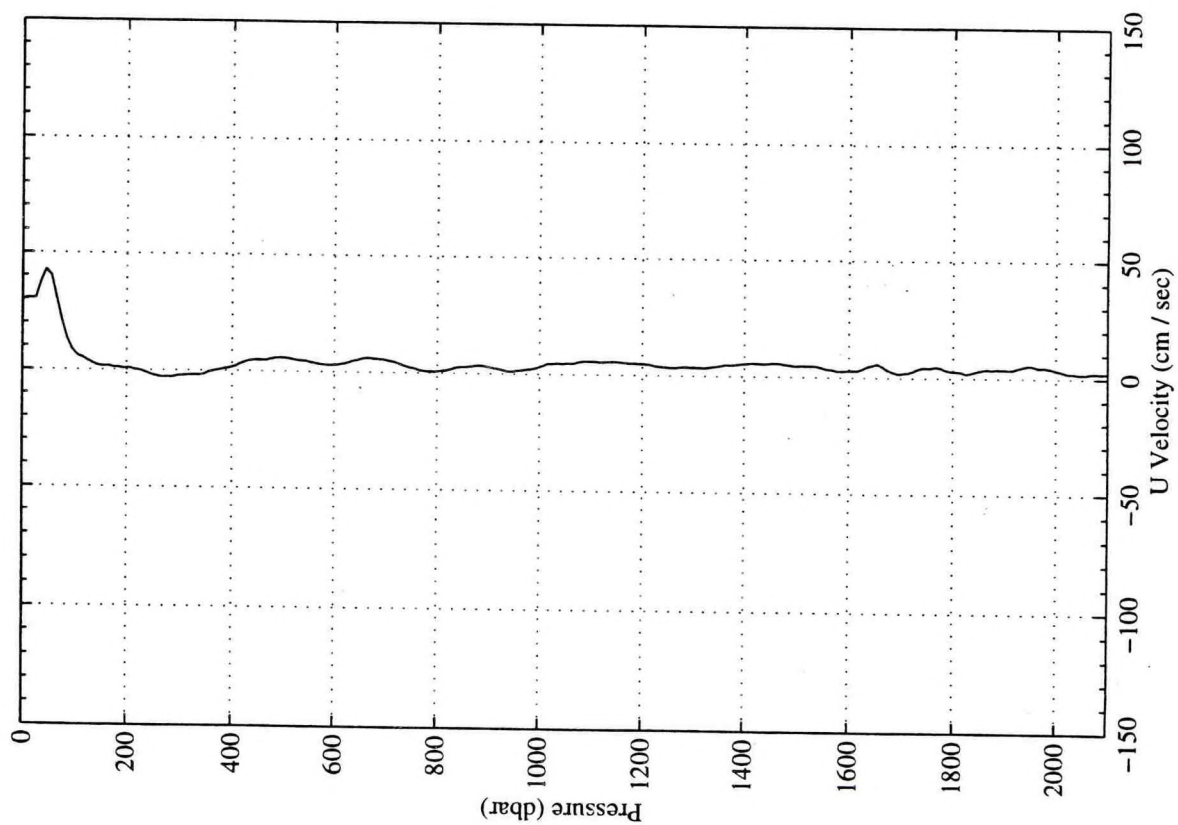


NBC-3 R/V SEWARD JOHNSON

LADCP Station 4 (00004)

Latitude 6.766 N Longitude 45.742 W

02-Feb-2000 10:05 Z

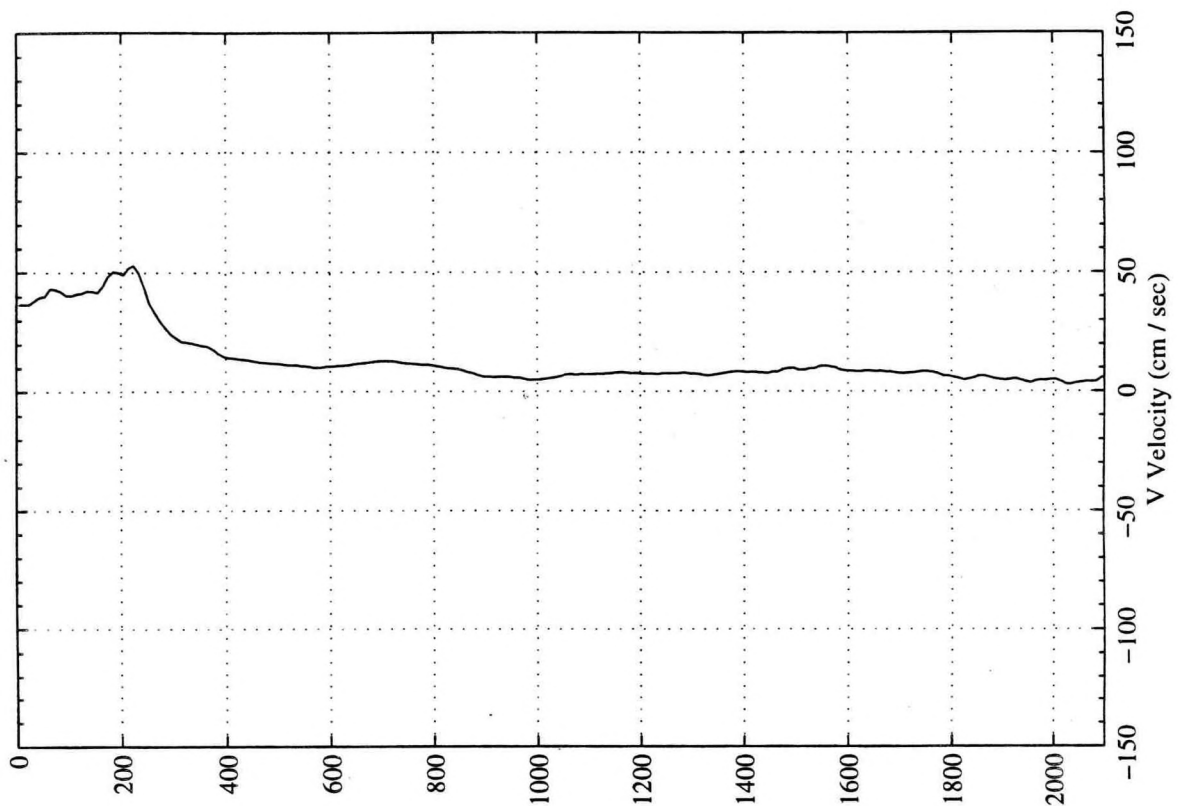
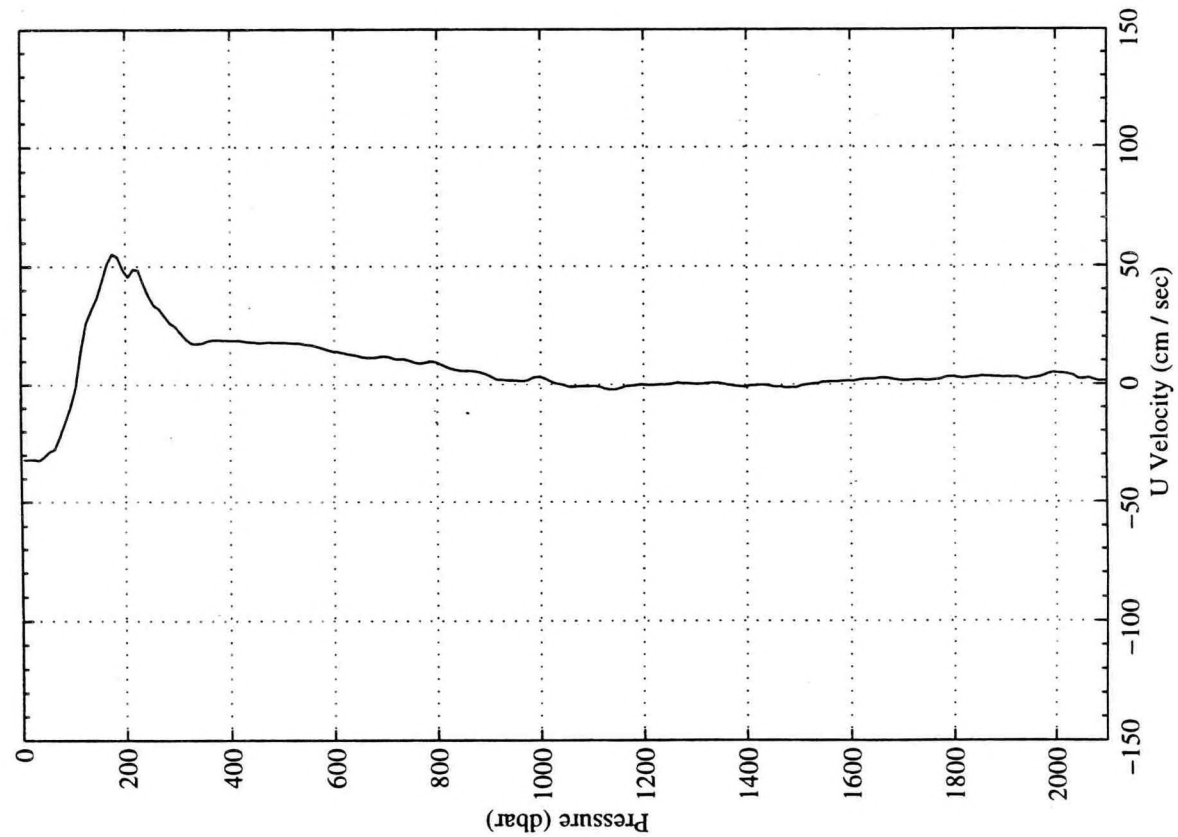


NBC-3 R/V SEWARD JOHNSON

LADCP Station 5 (00005)

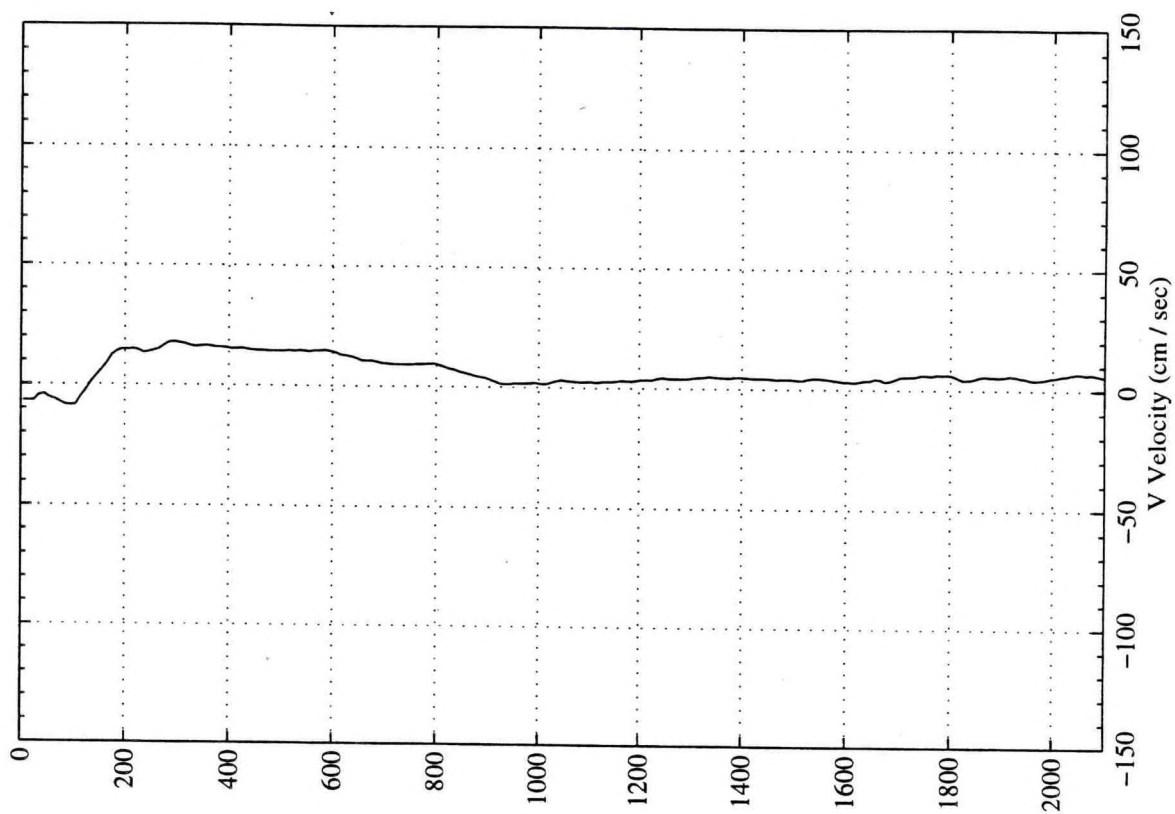
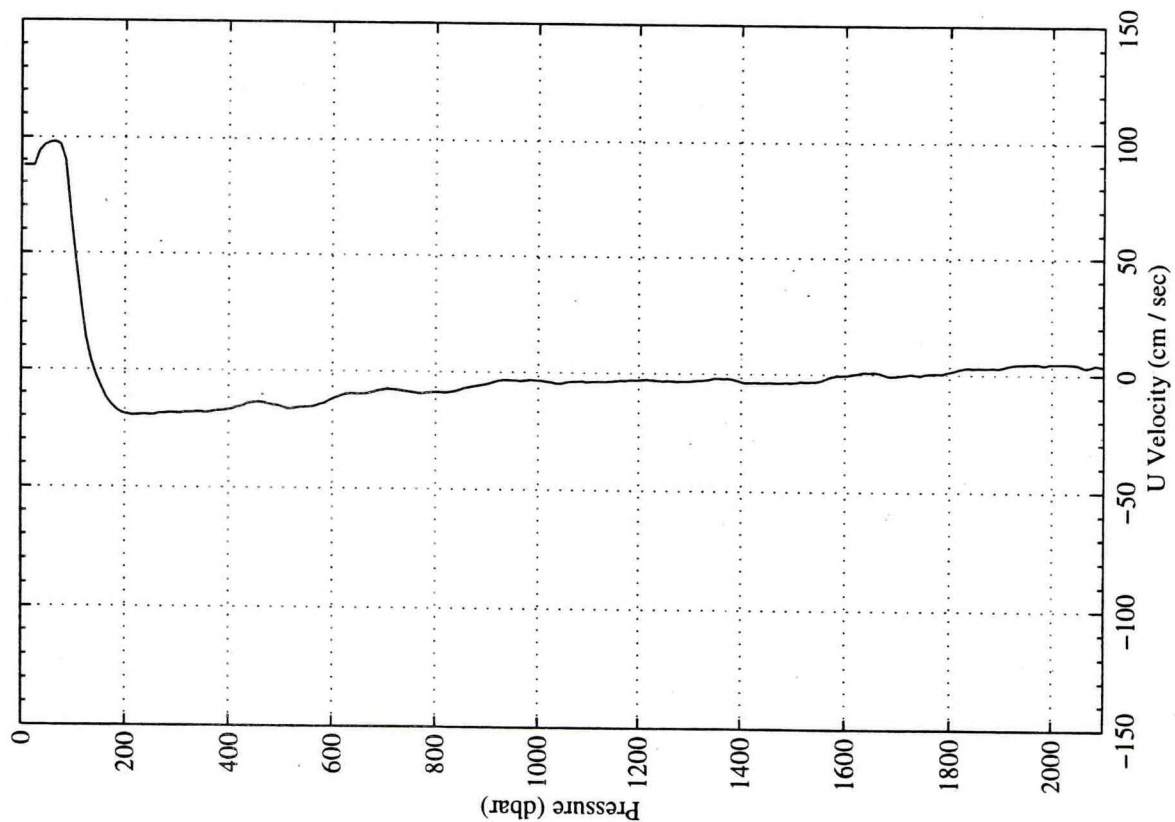
Latitude 5.519 N Longitude 48.329 W

03-Feb-2000 03:00 Z

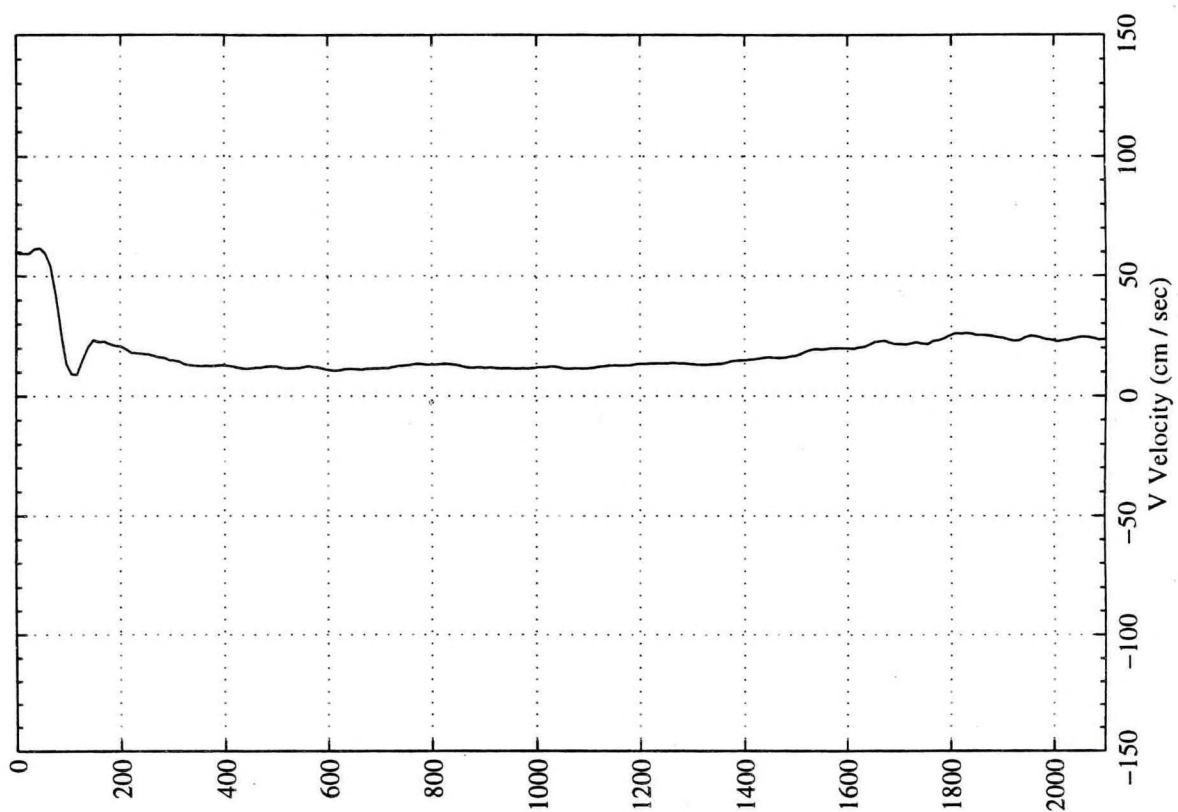
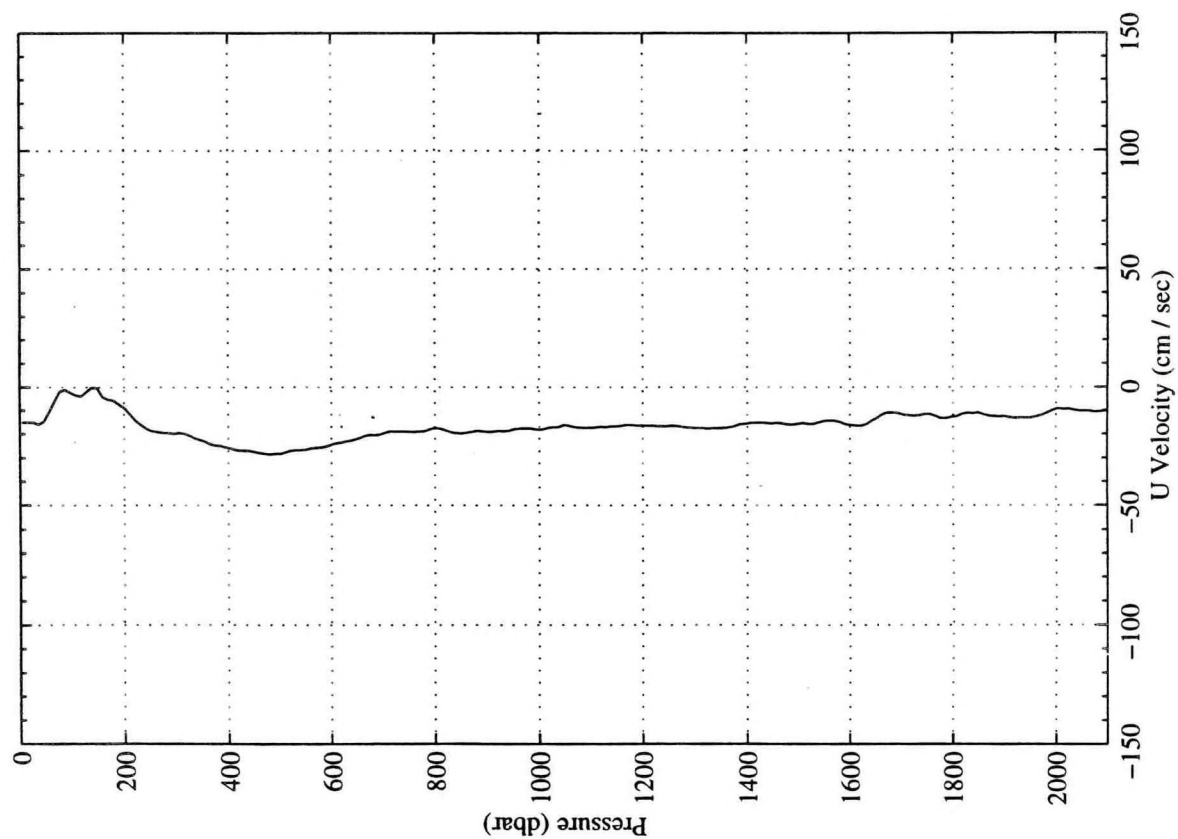




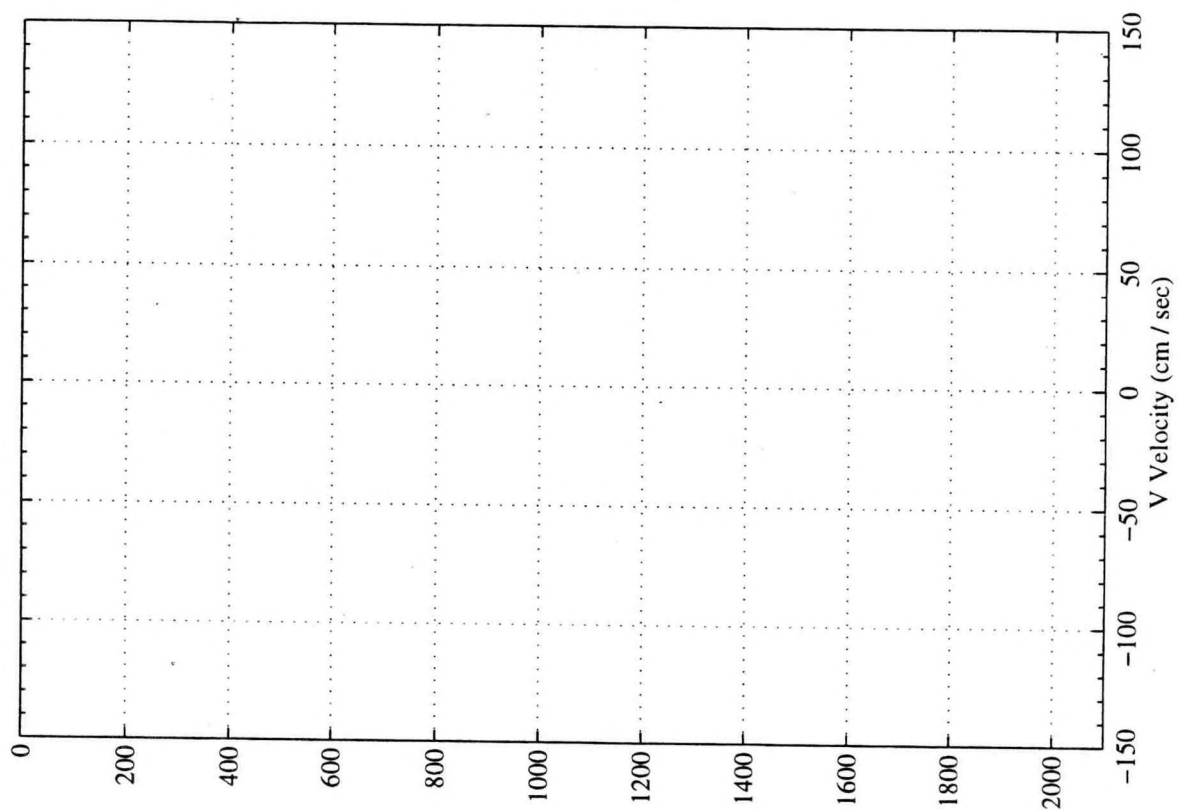
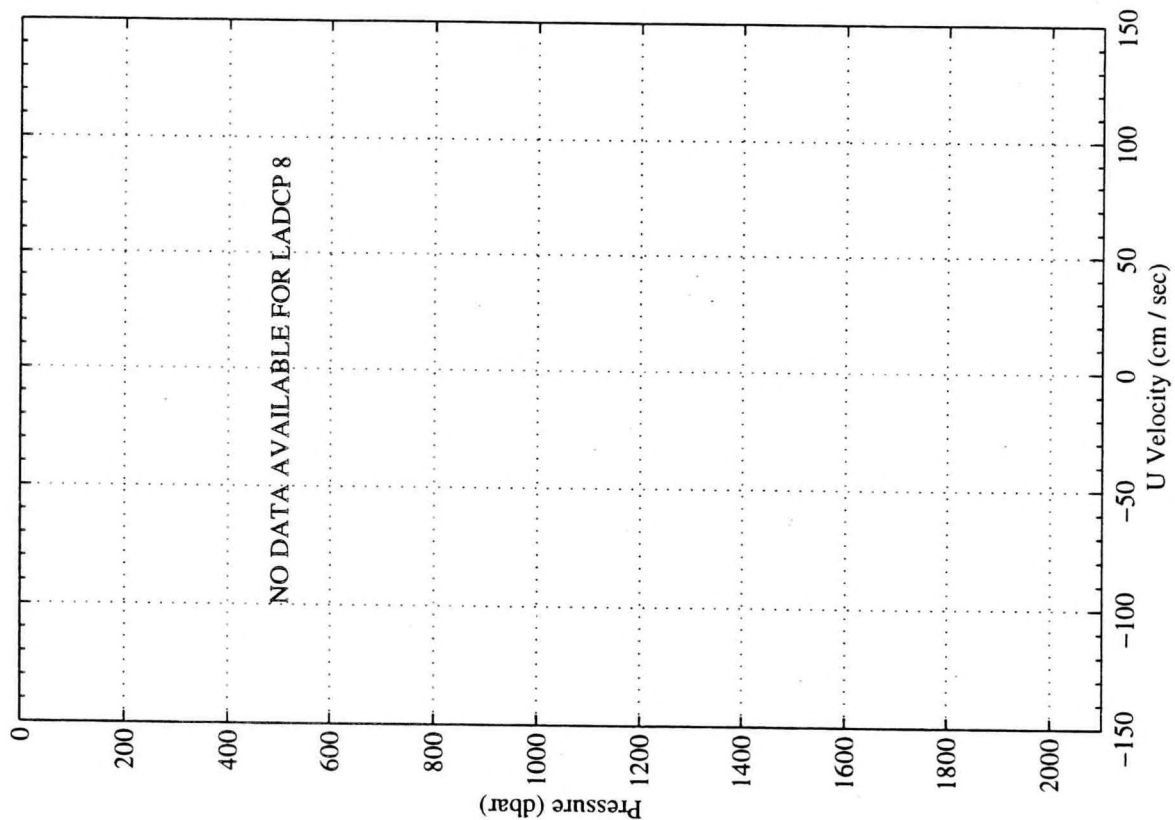
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LADCP Station 6 (00006)  
Latitude 7.594 N Longitude 49.182 W  
03-Feb-2000 17:41 Z



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04-Feb-2000 02:23 Z

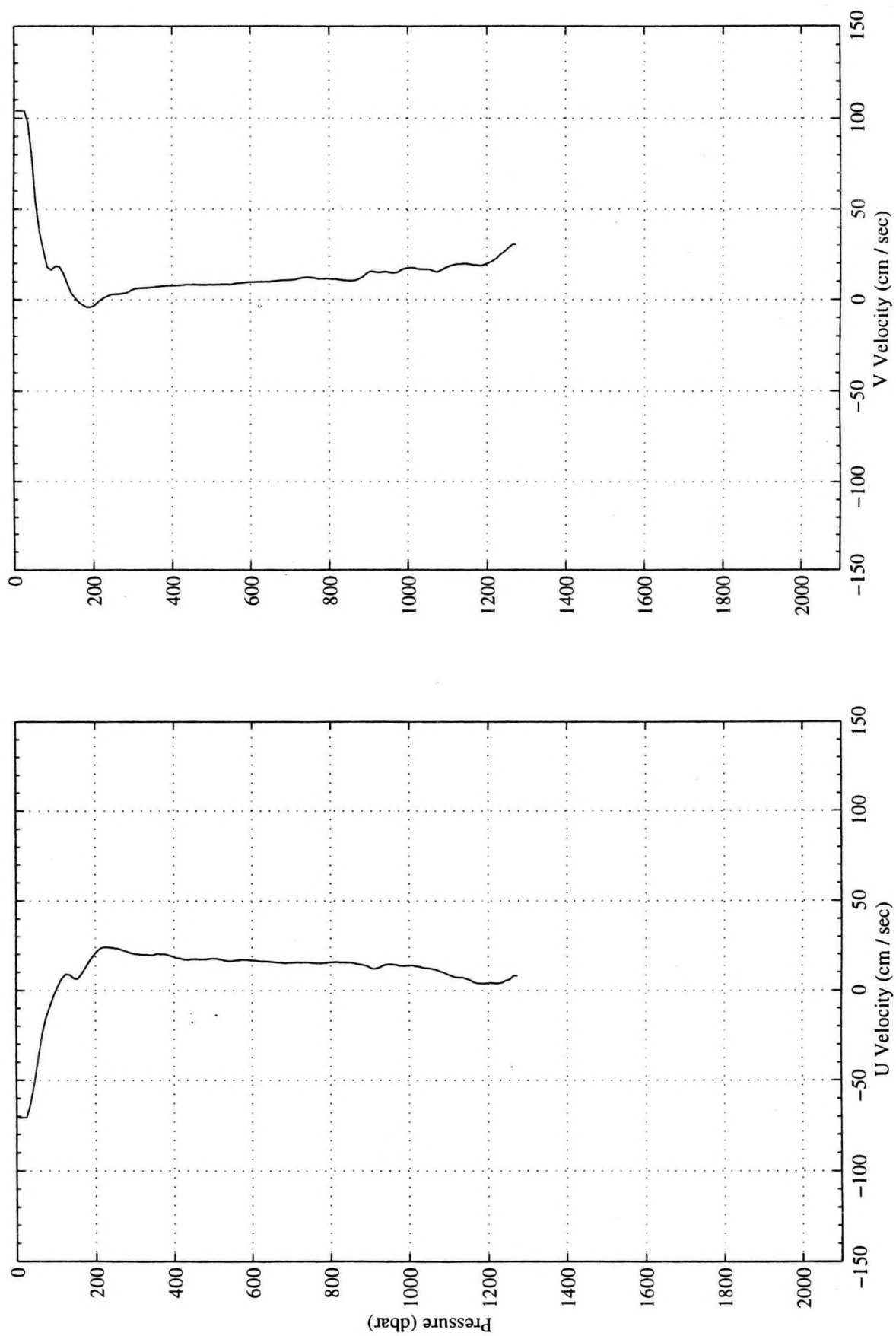


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04-Feb-2000 11:40 Z

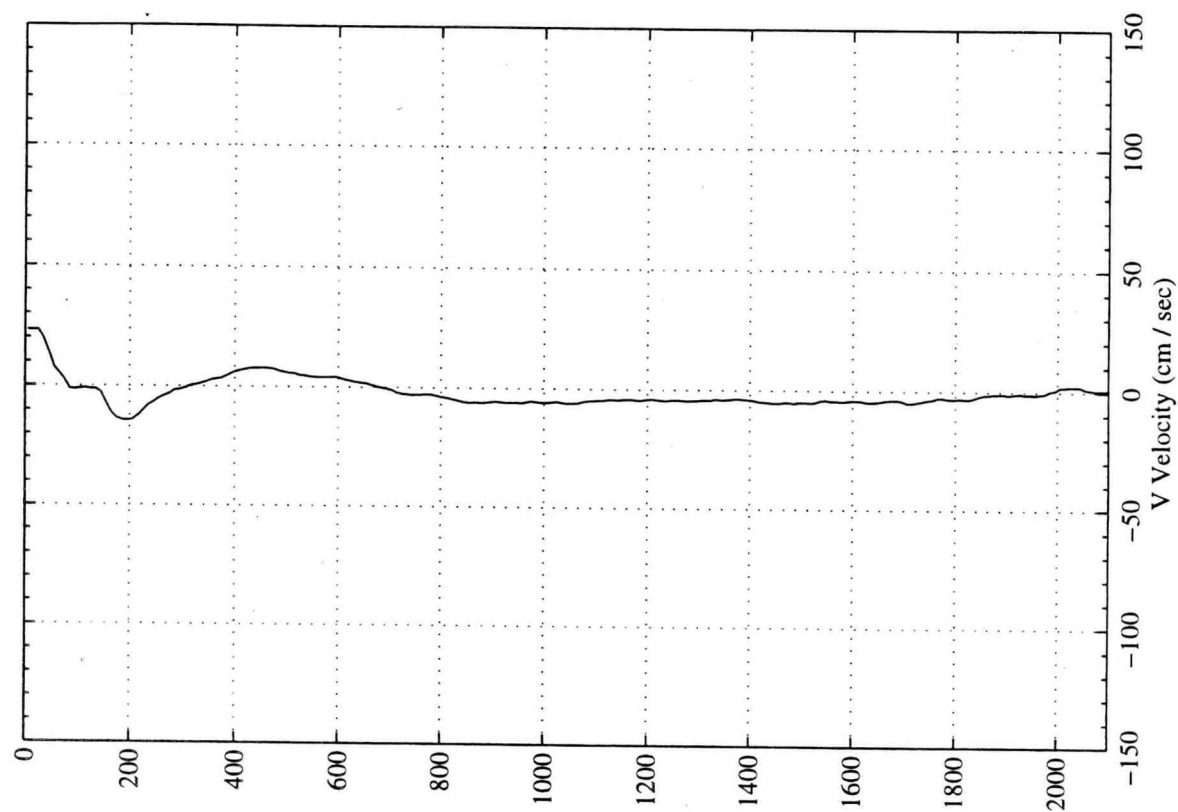
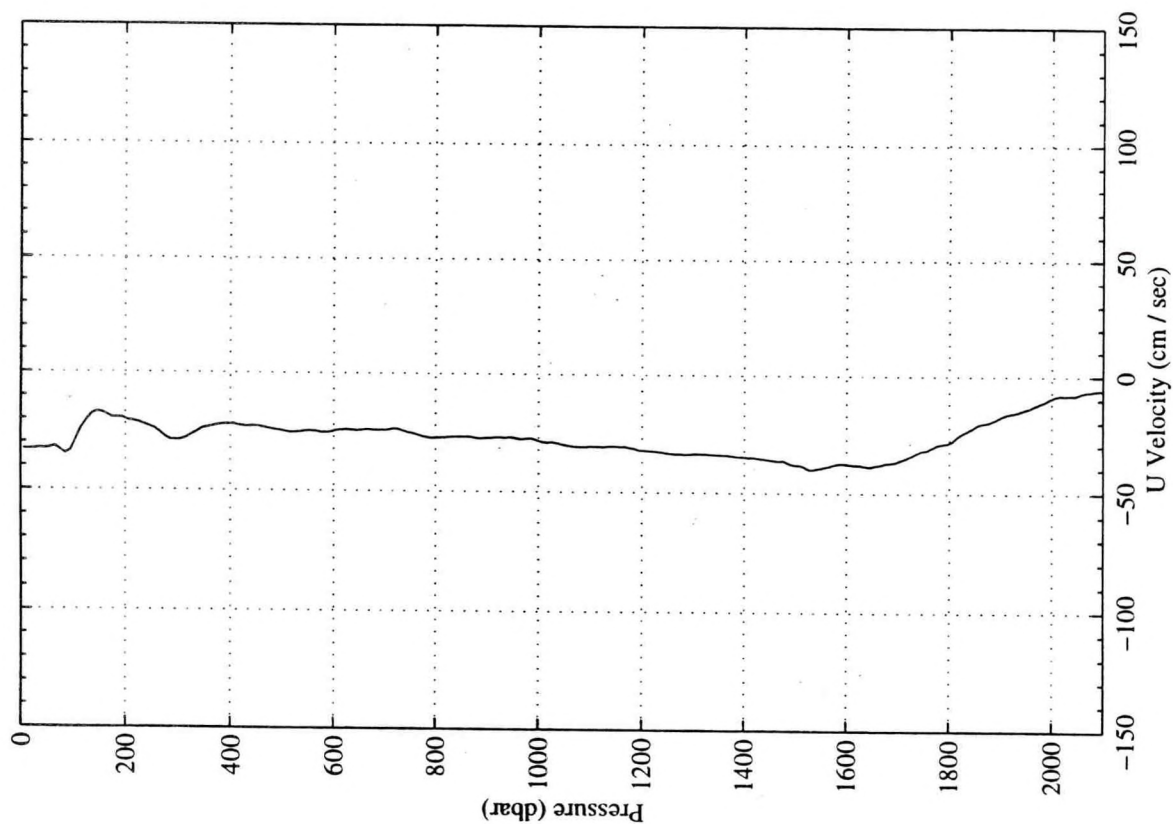




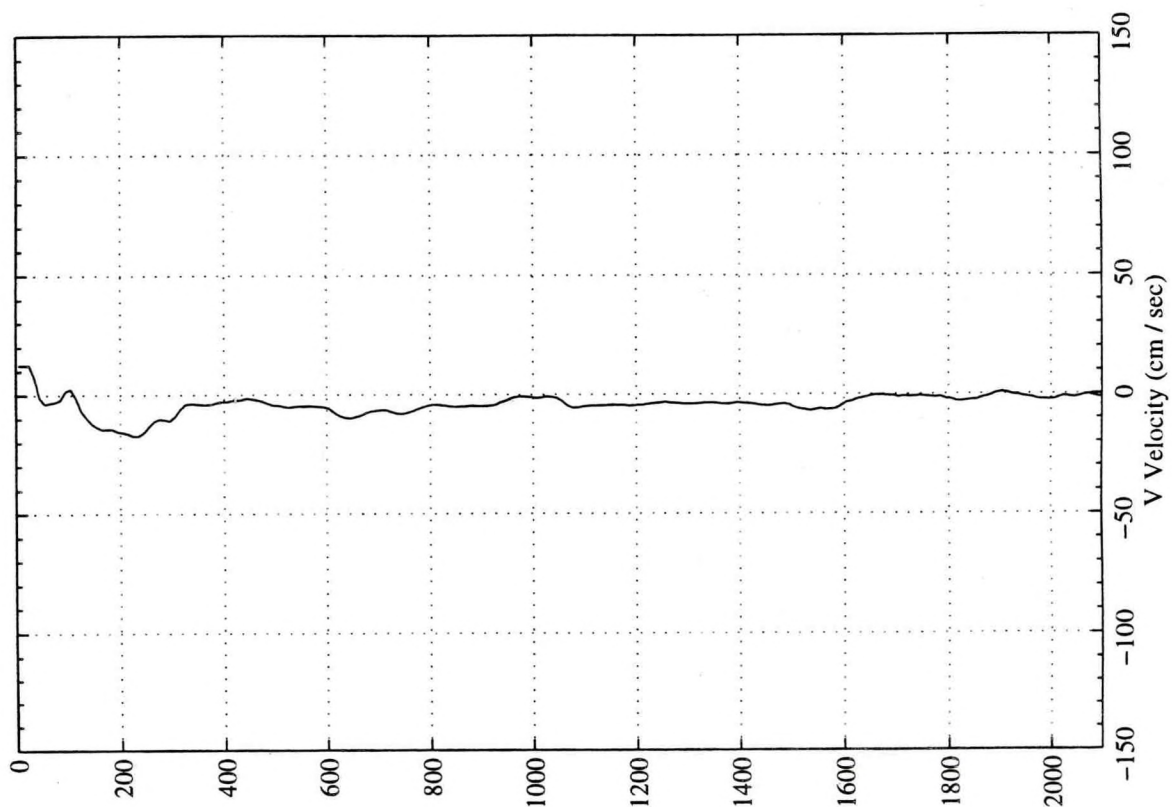
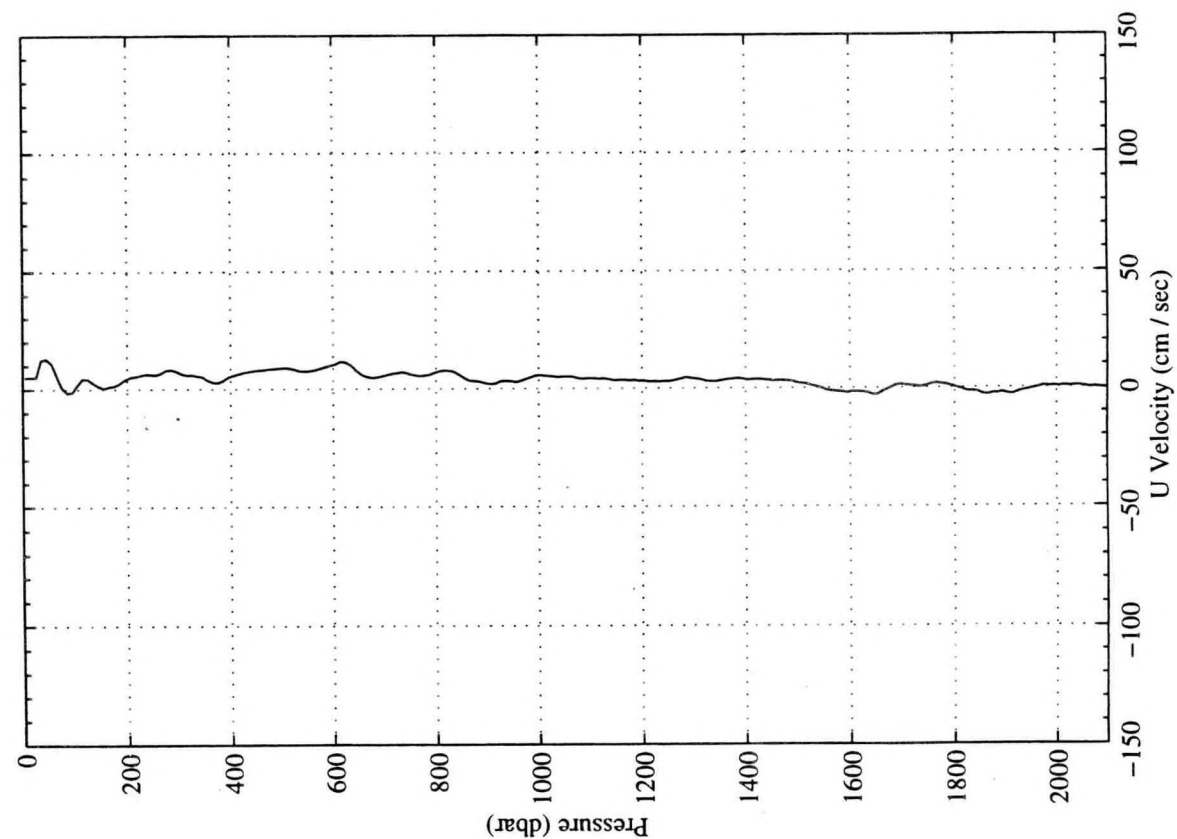
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Latitude 5.816 N Longitude 51.253 W  
04-Feb-2000 15:32 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 10 (00010)  
Latitude 7.809 N Longitude 51.158 W  
05-Feb-2000 07:08 Z

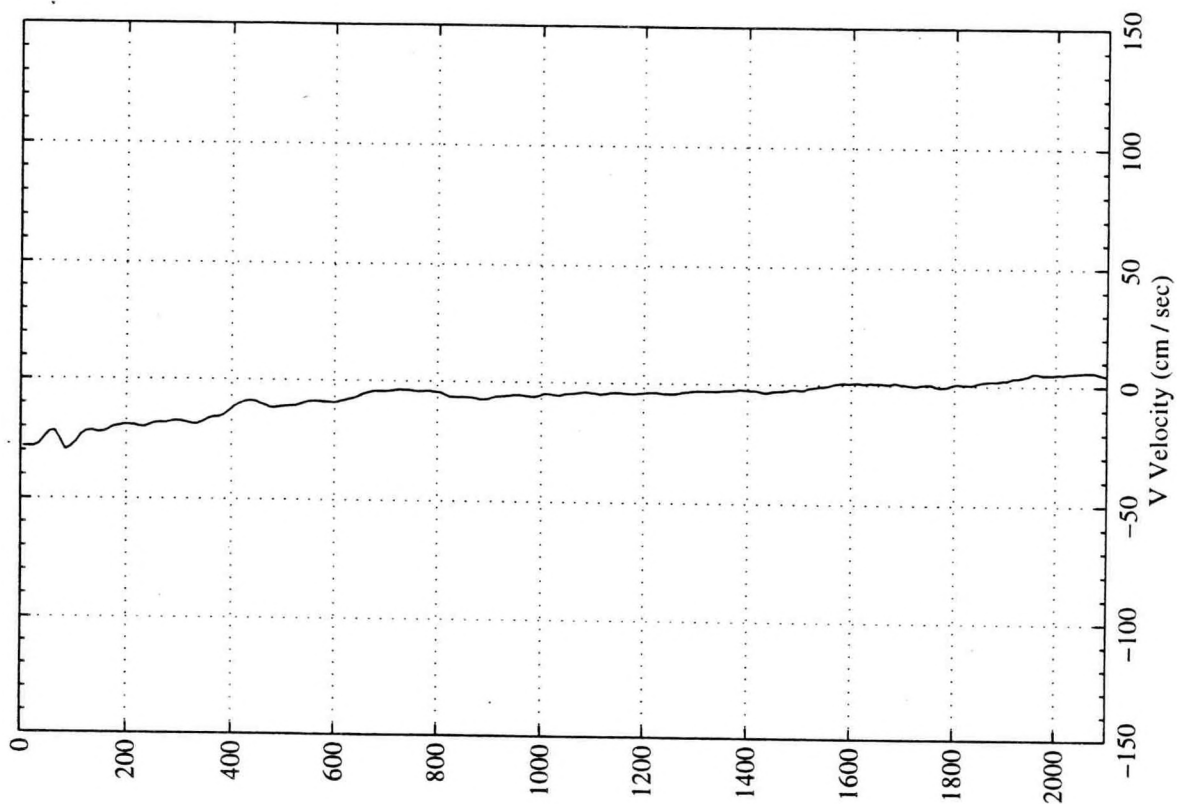
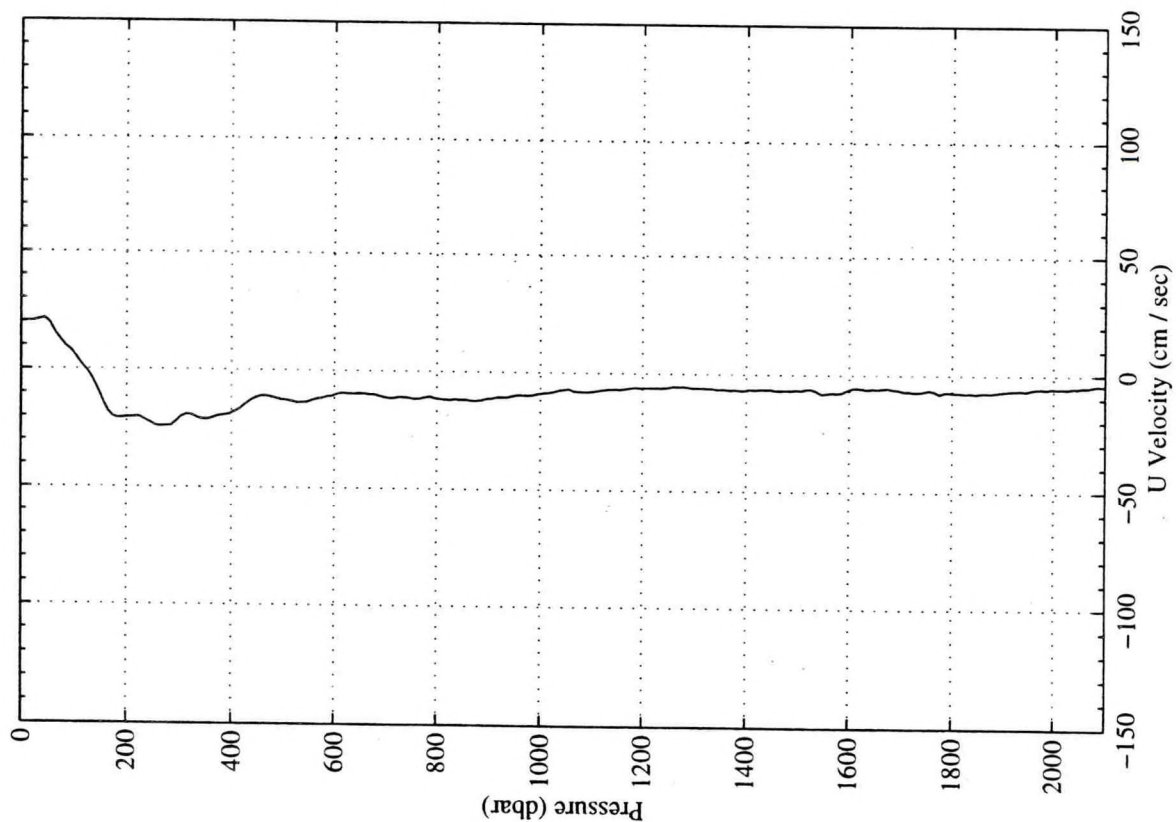


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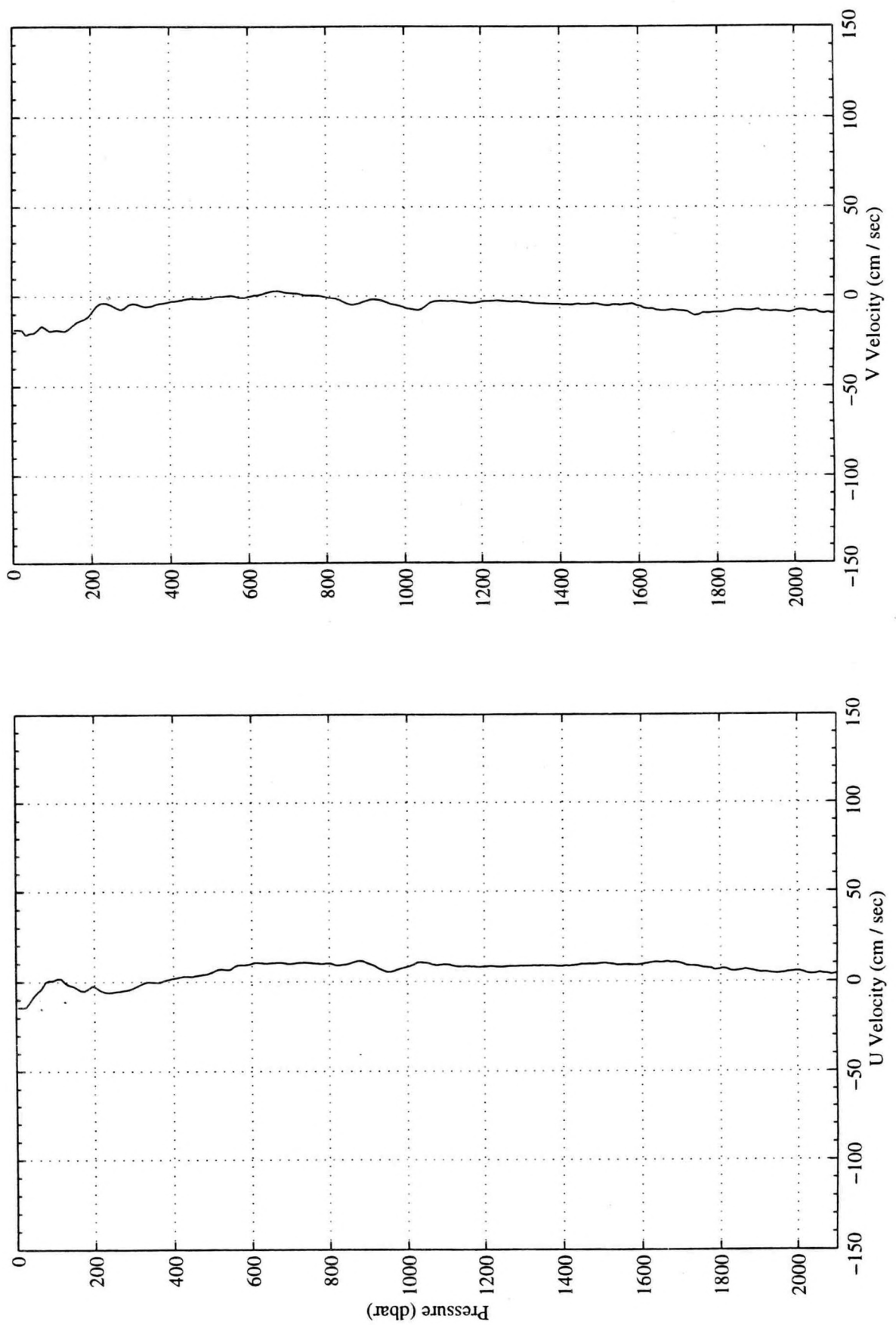




NBC-3 R/V SEWARD JOHNSON  
LADCP Station 12 (00012)  
Latitude 9.760 N Longitude 51.479 W  
06-Feb-2000 09:09 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 13 (00013)  
Latitude 10.910 N Longitude 52.077 W  
06-Feb-2000 18:27 Z

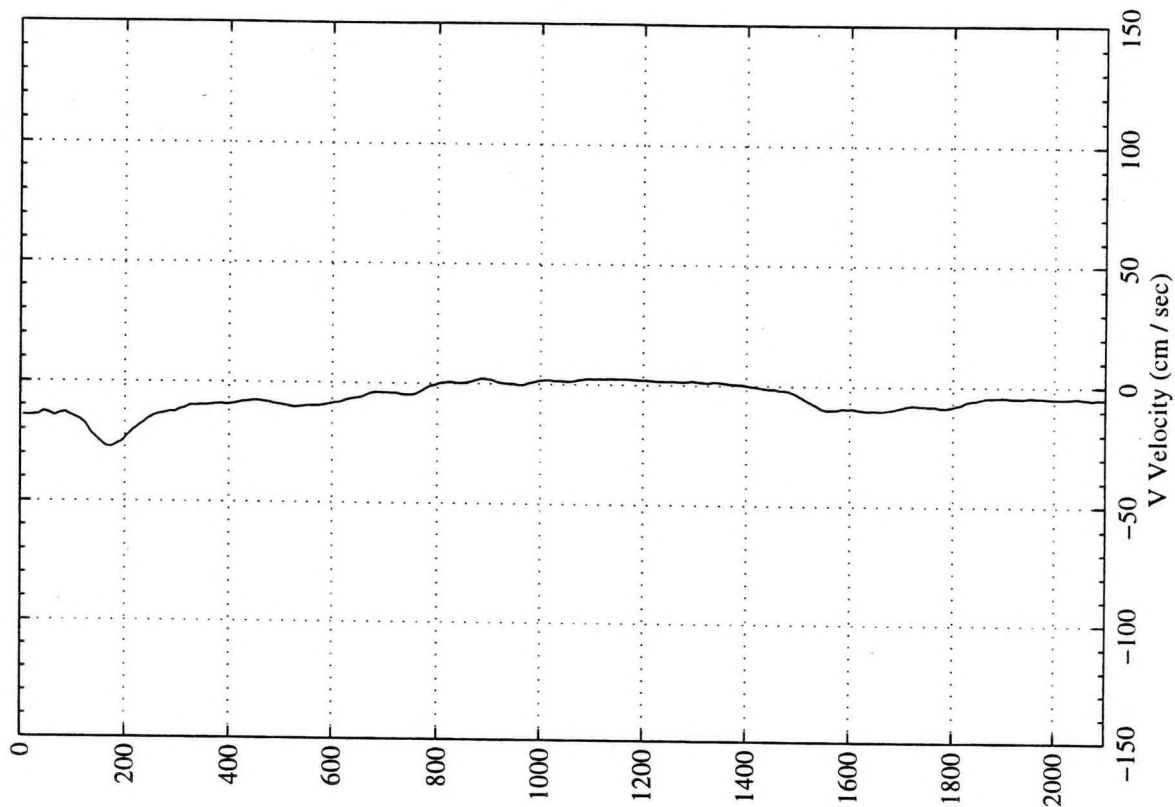
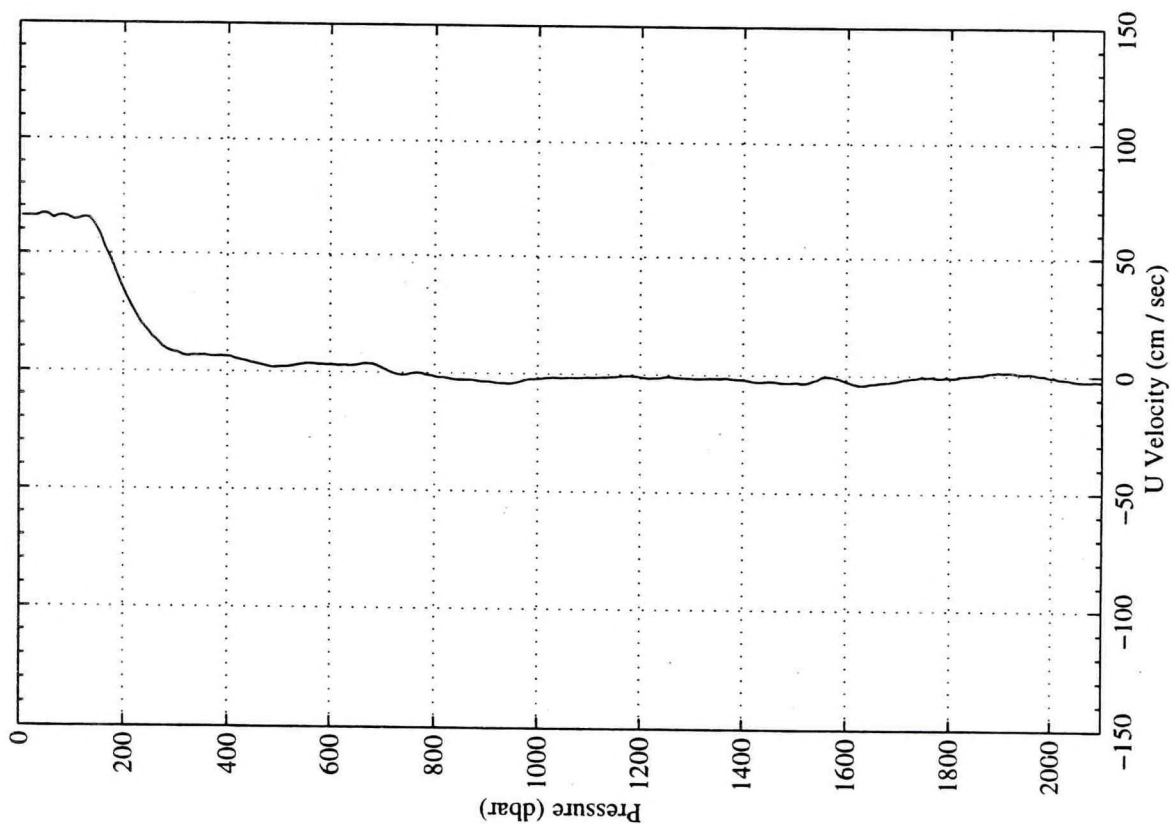


NBC-3 R/V SEWARD JOHNSON

LADCP Station 14 (00014)

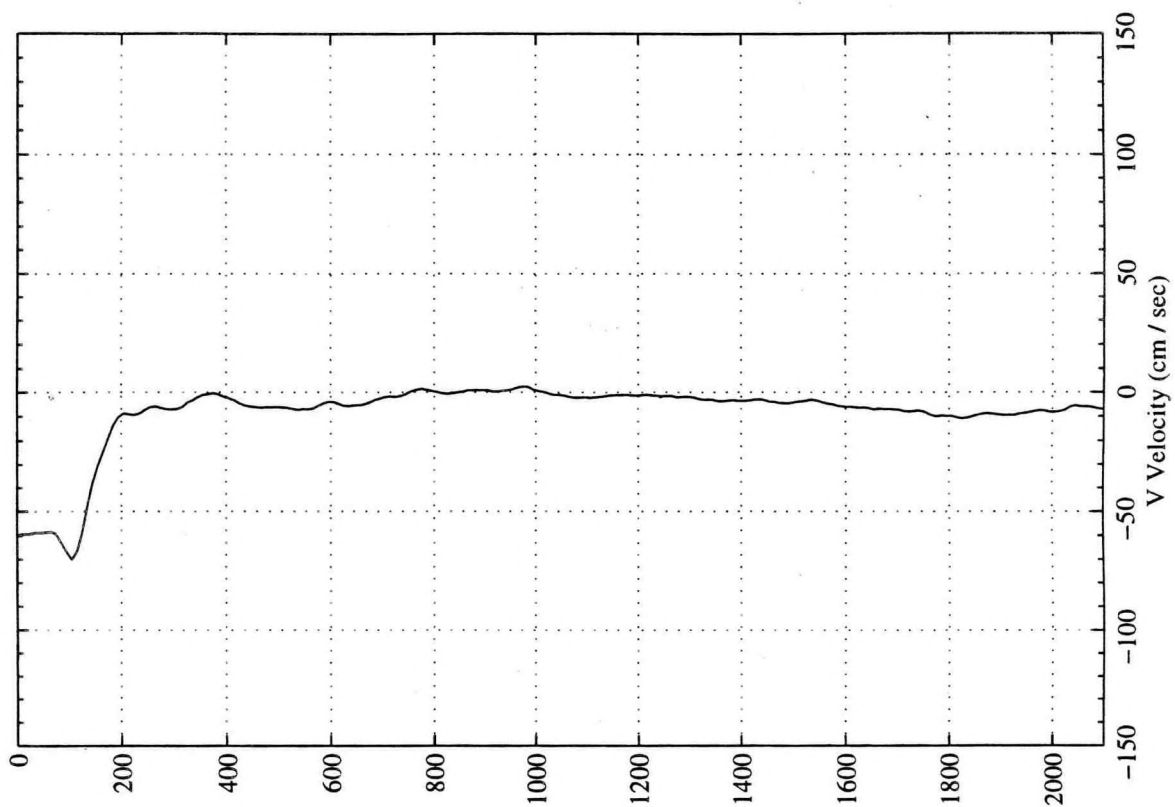
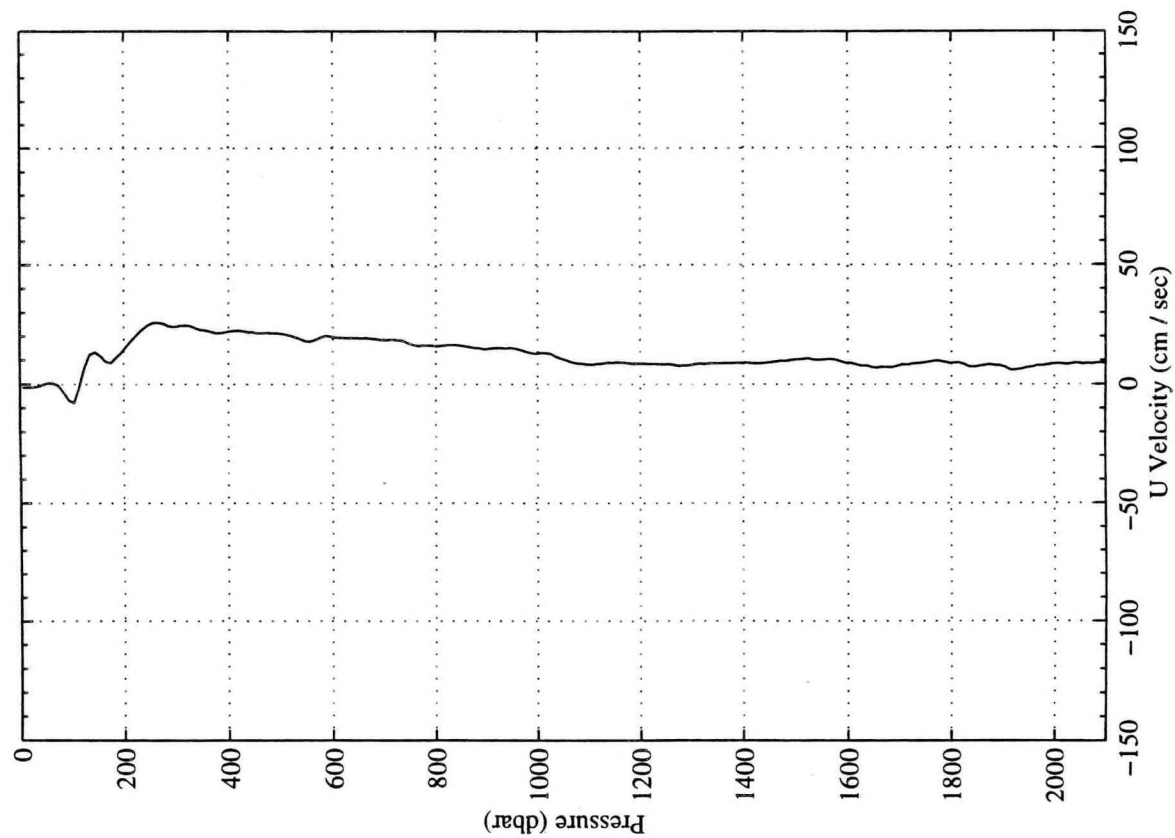
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07-Feb-2000 07:00 Z

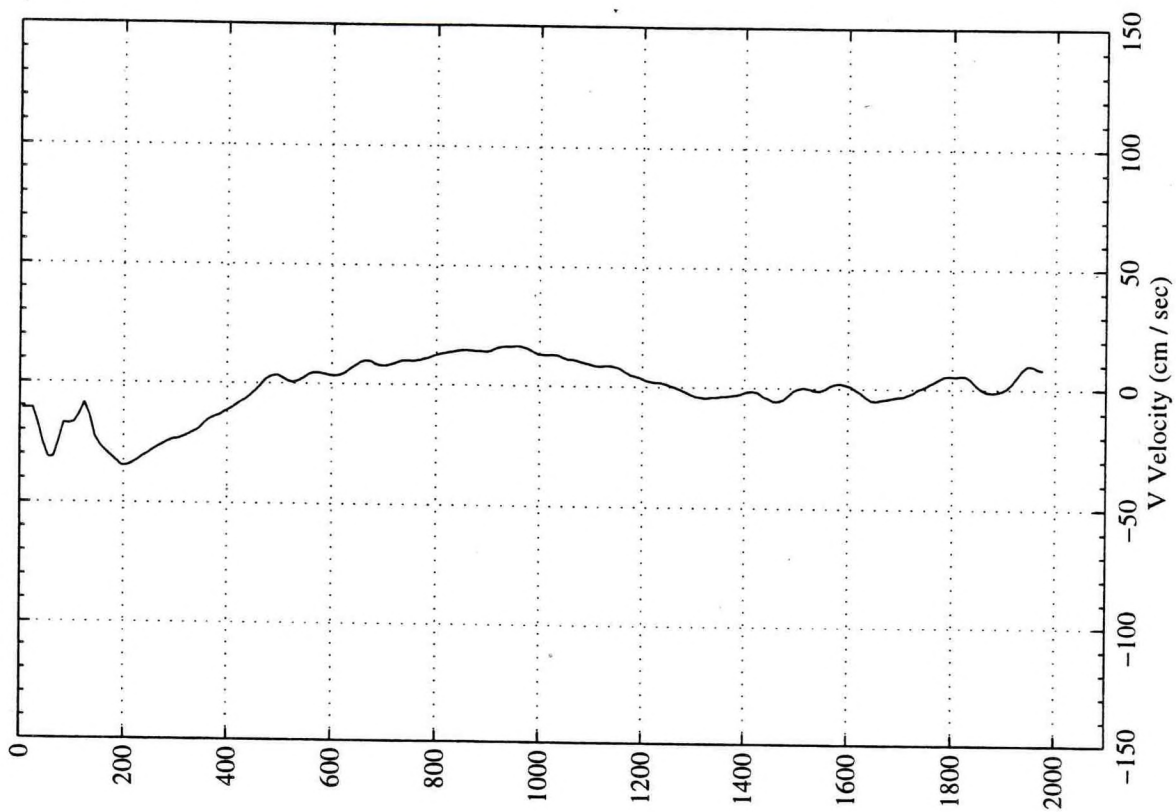
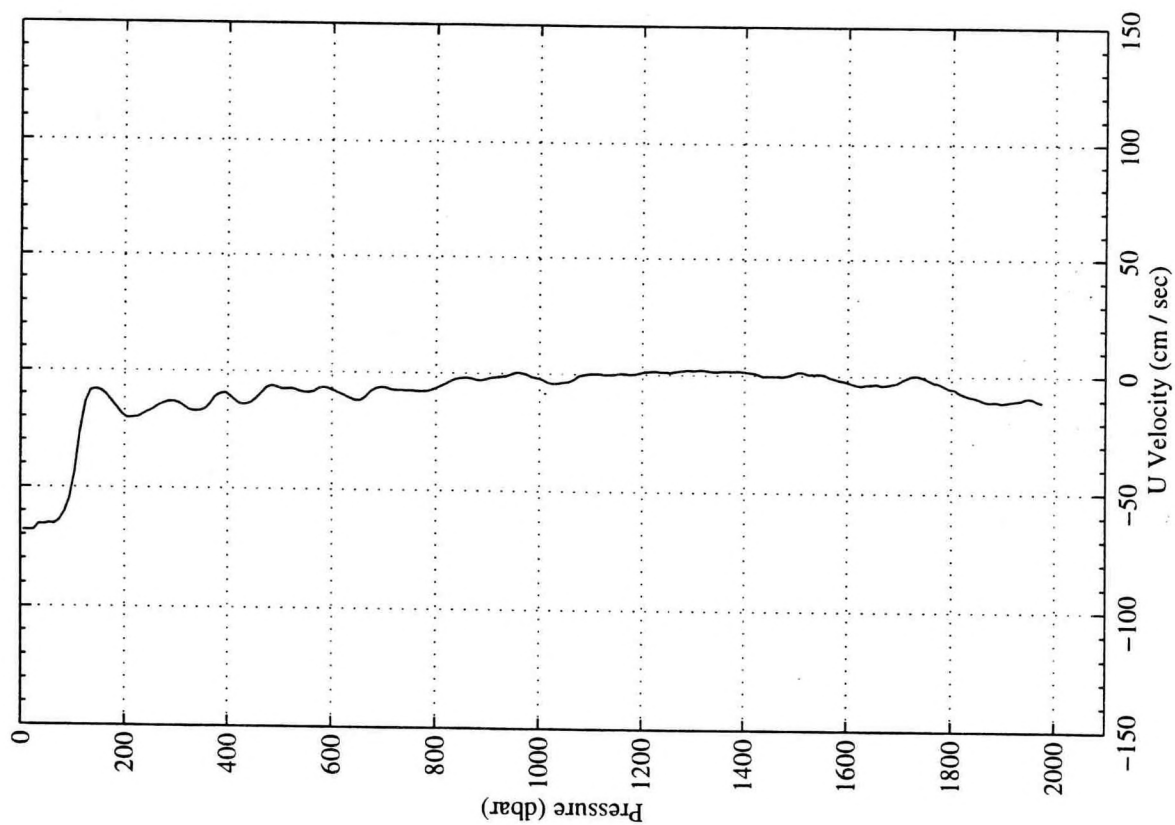




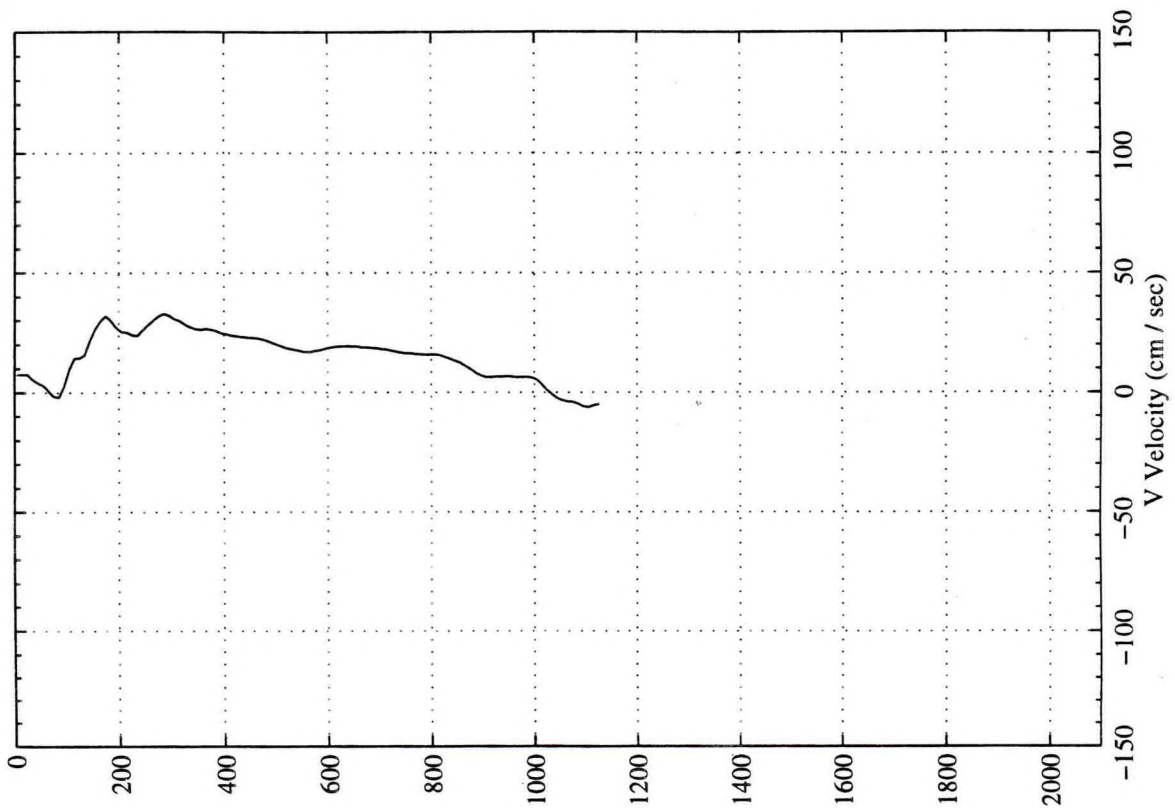
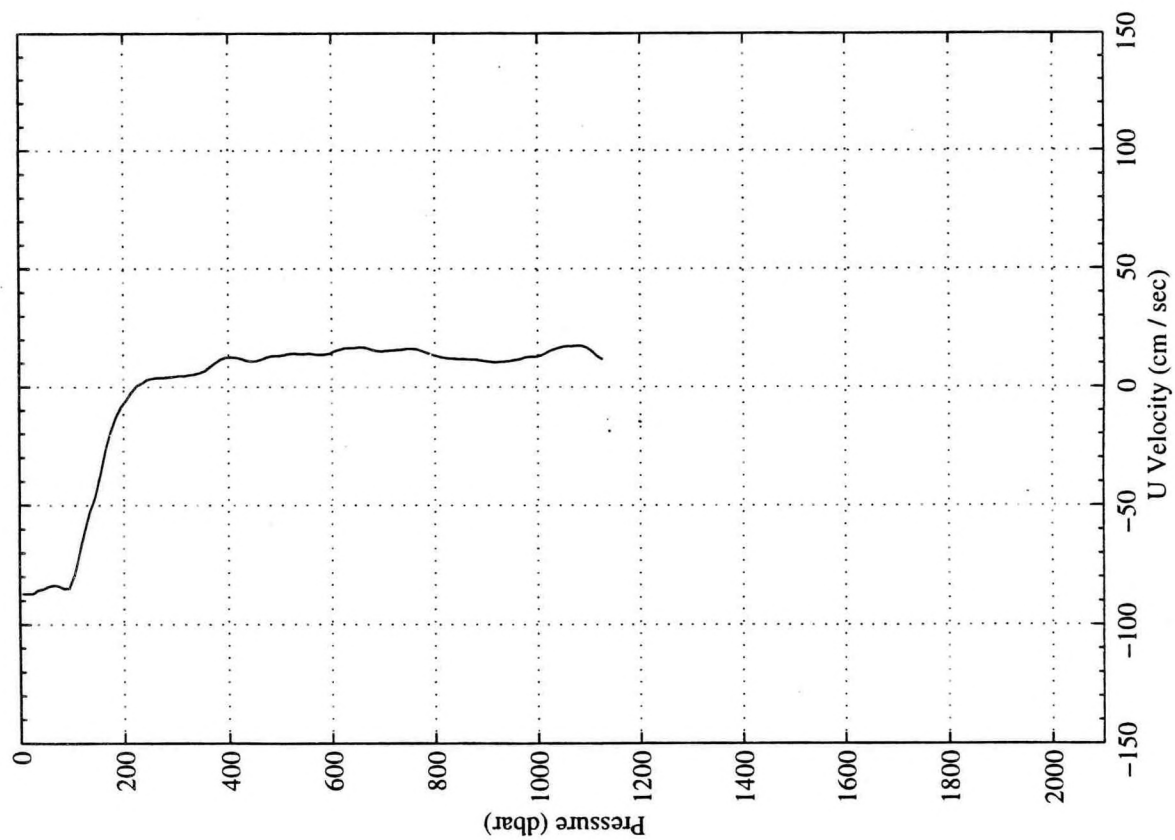
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LADCP Station 15 (00015)  
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07-Feb-2000 16:08 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 16 (00016)  
Latitude 7.796 N Longitude 52.573 W  
07-Feb-2000 23:44 Z

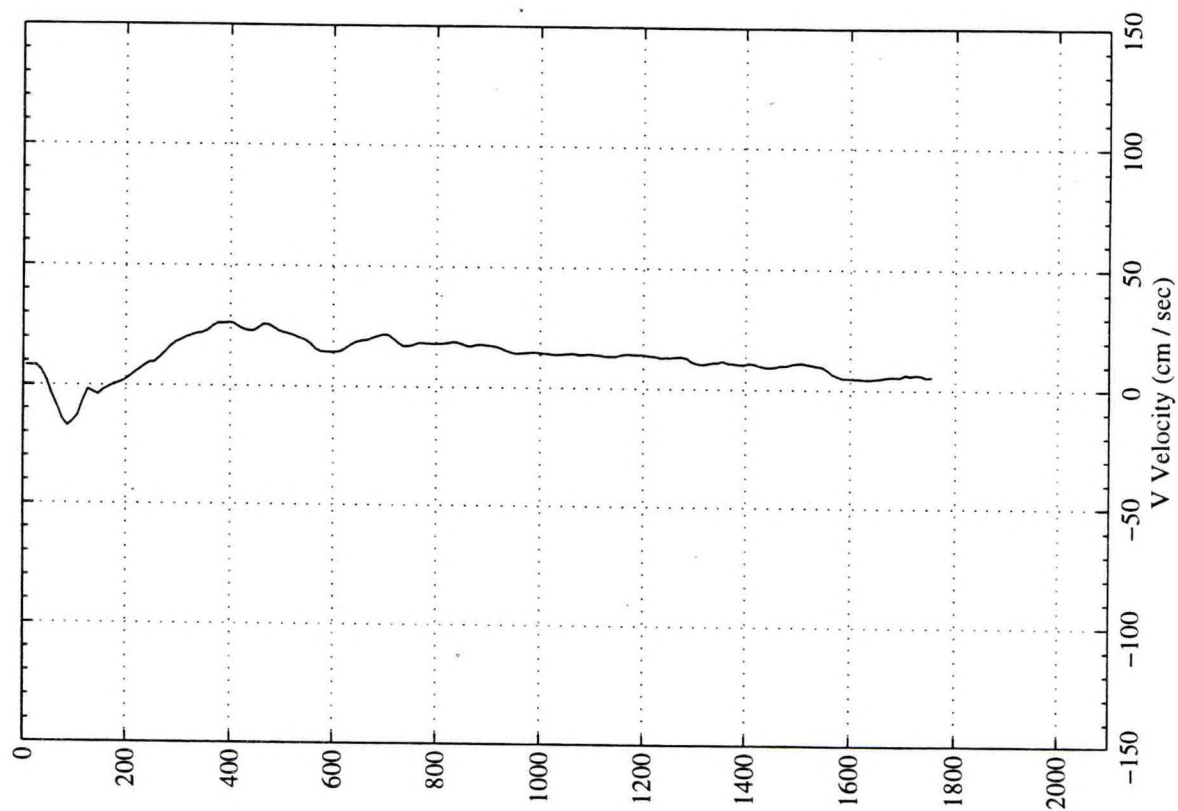
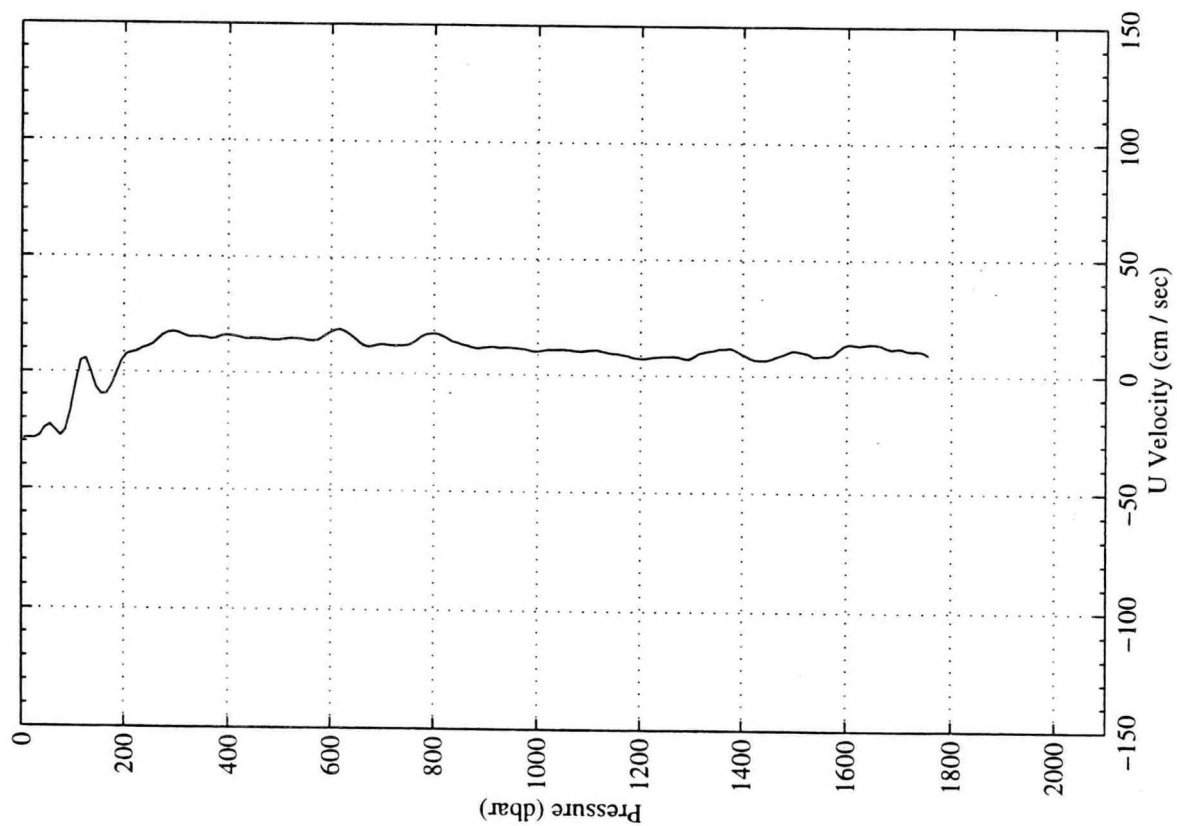


NBC-3 R/V SEWARD JOHNSON  
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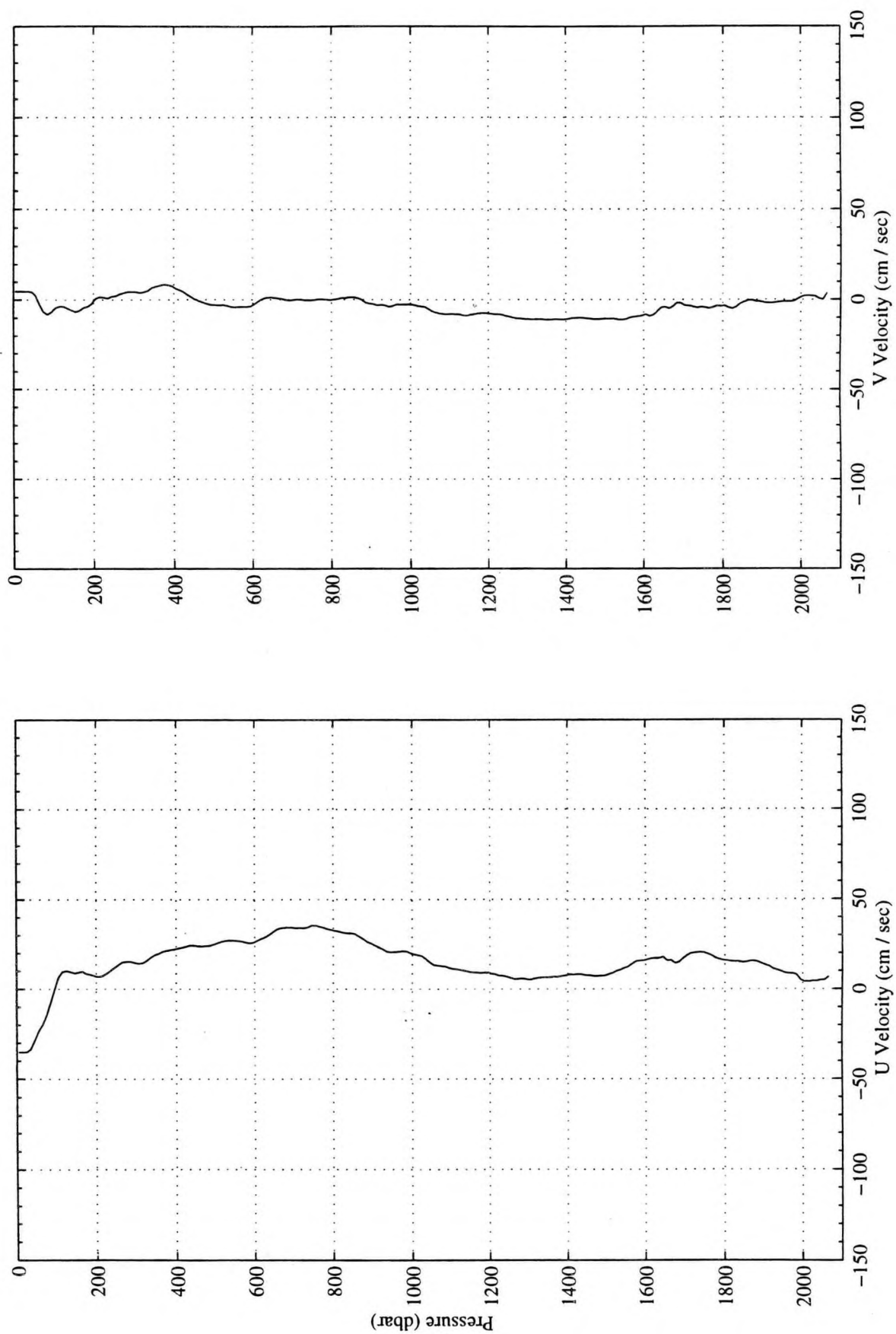




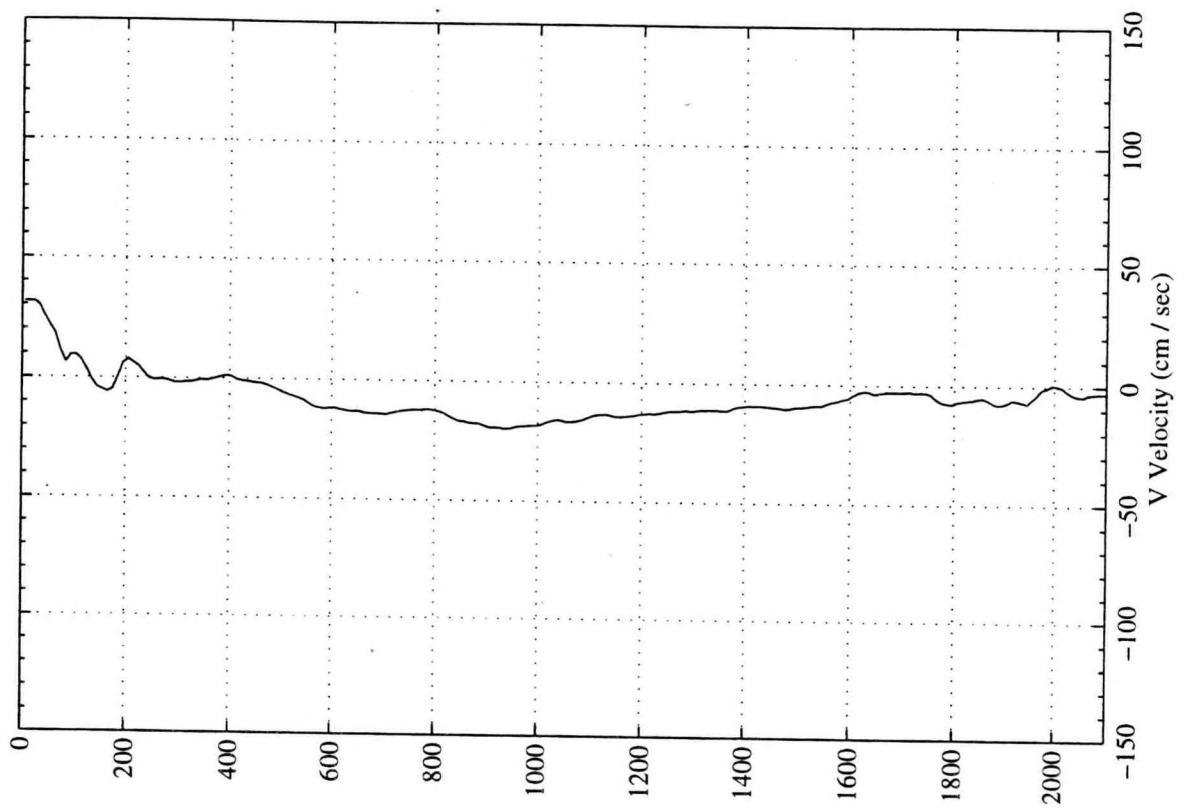
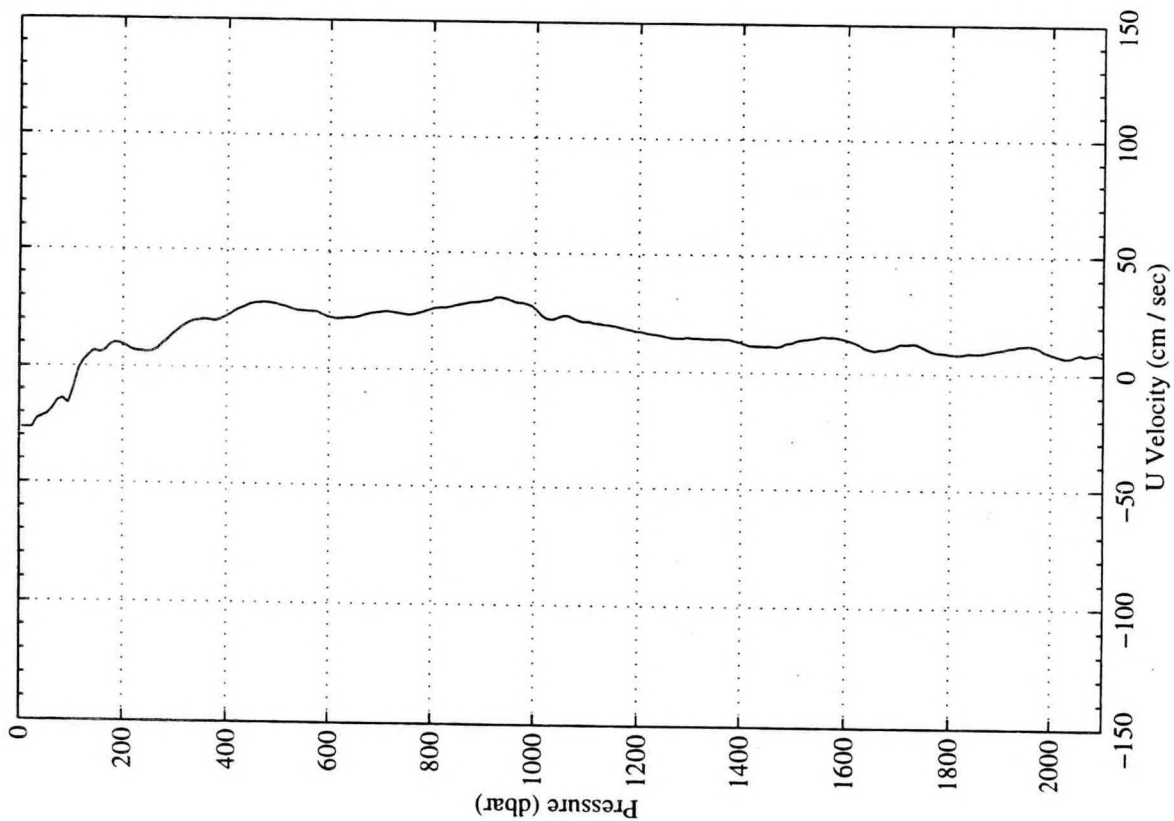
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 18 (00018)  
Latitude 13.007 N Longitude 58.915 W  
12-Feb-2000 18:26 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 19 (00019)  
Latitude 13.006 N Longitude 58.584 W  
12-Feb-2000 22:02 Z

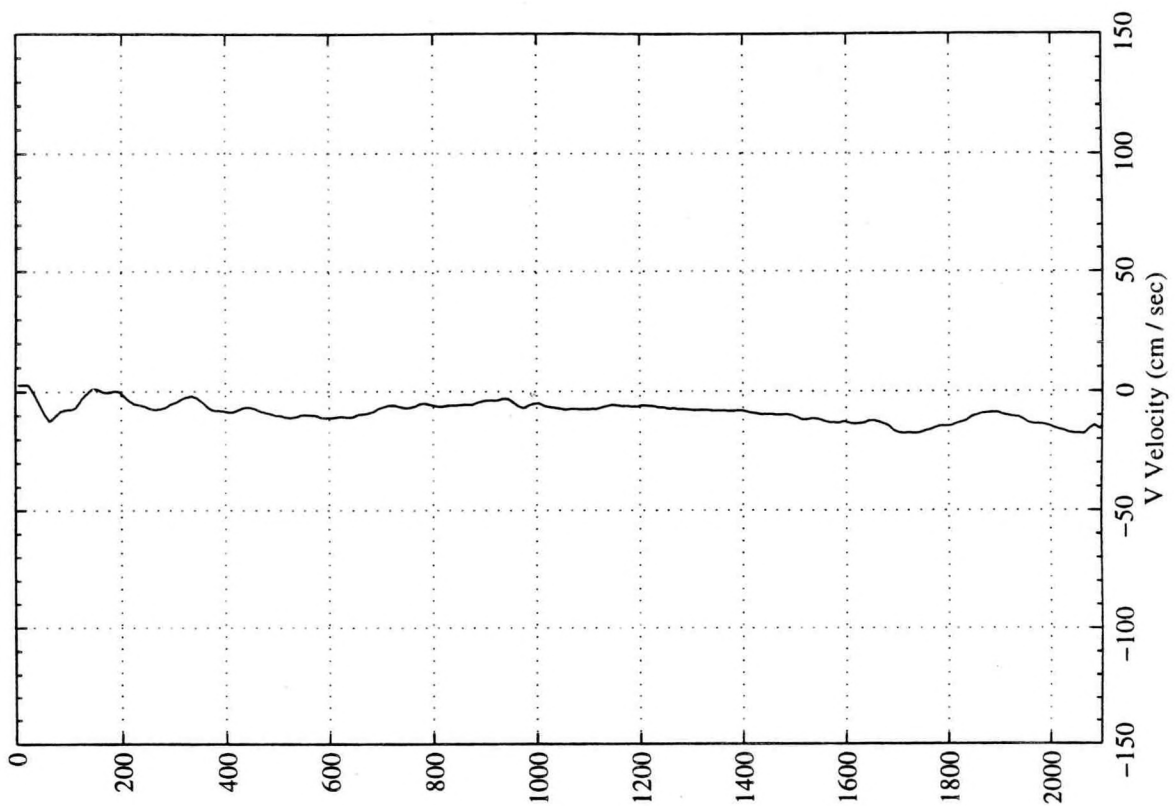
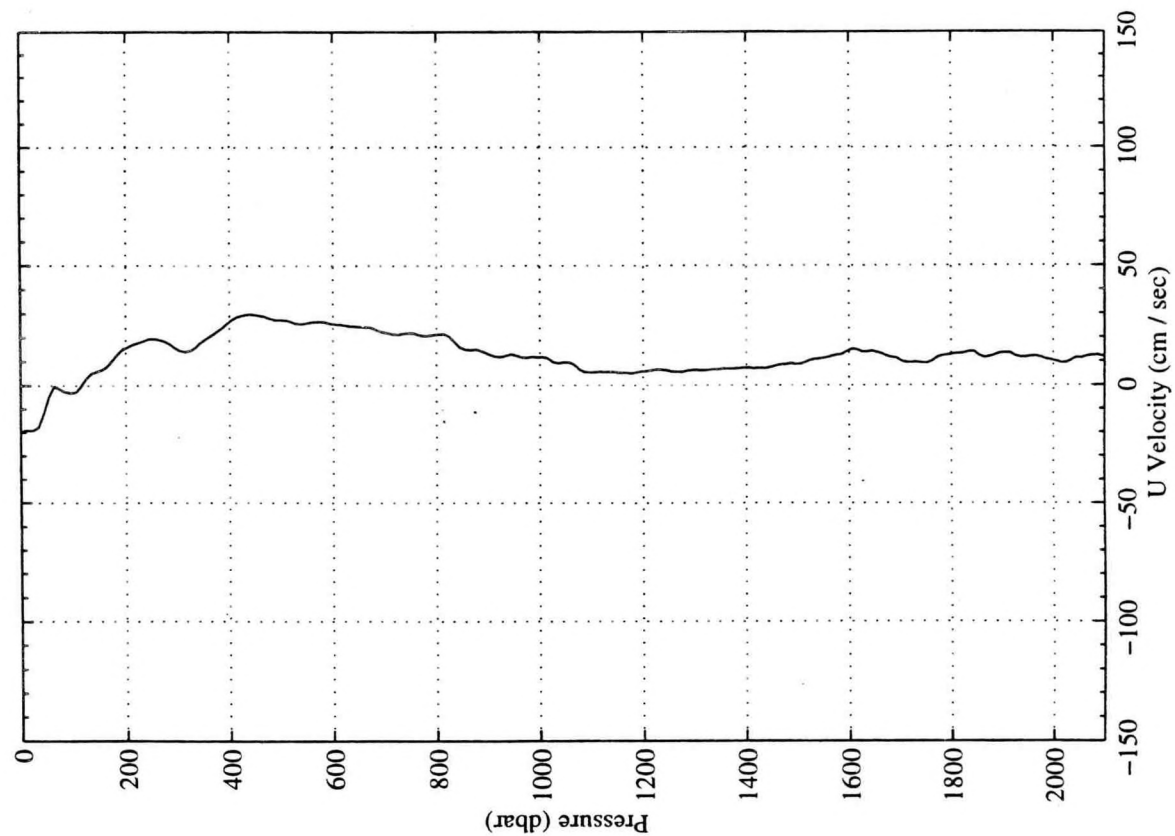


NBC-3 R/V SEWARD JOHNSON  
LADCP Station 20 (00020)  
Latitude 13.015 N Longitude 58.249 W  
13-Feb-2000 01:37 Z

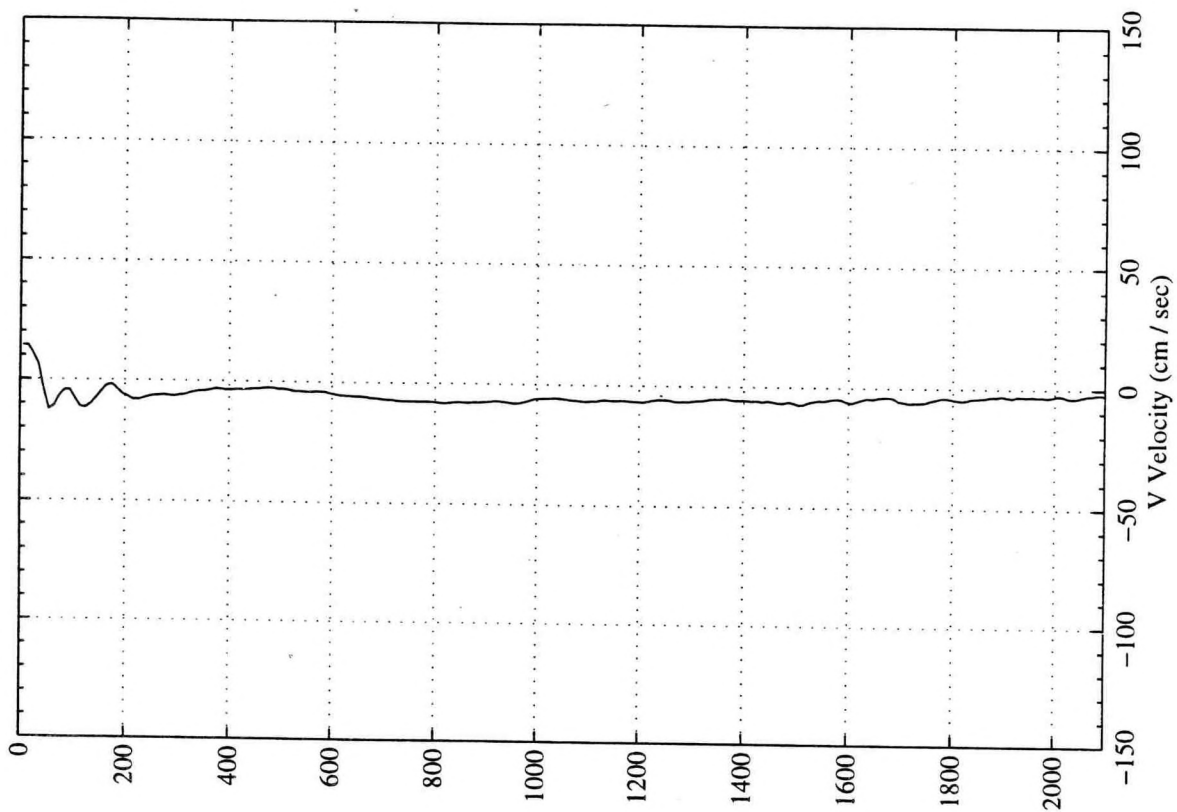
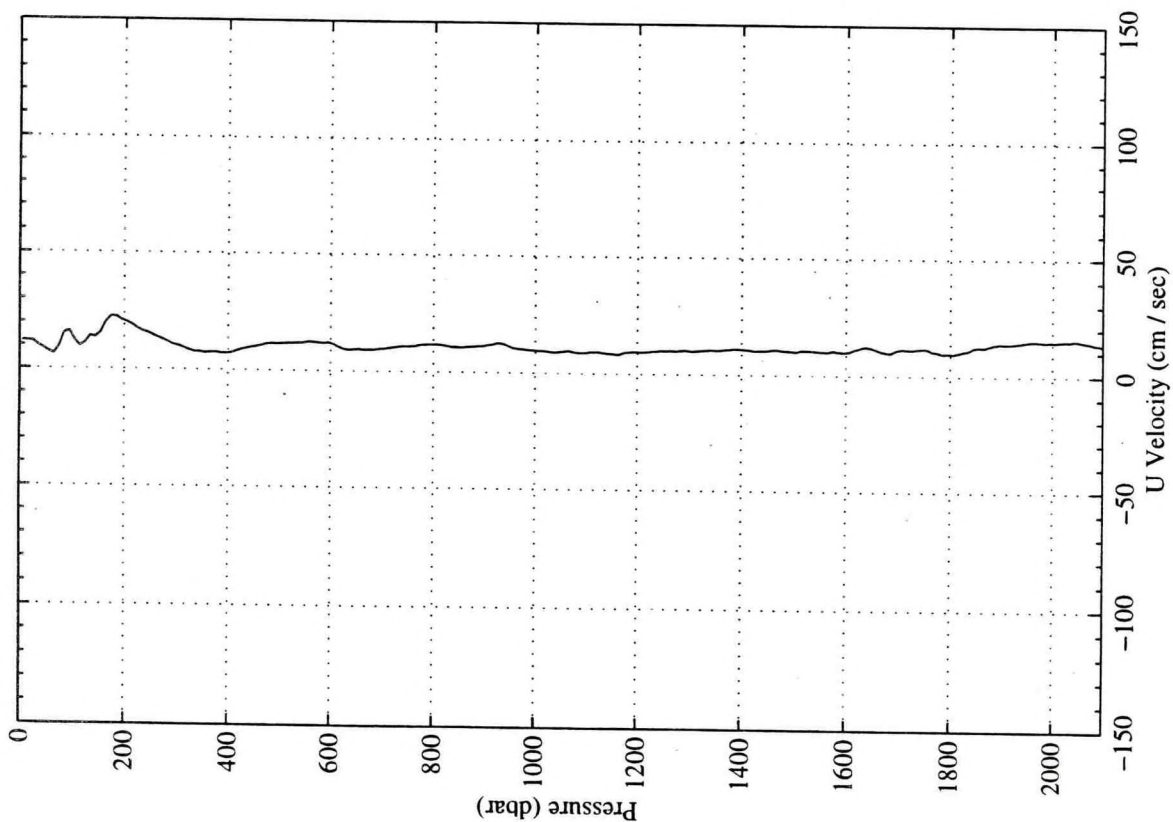




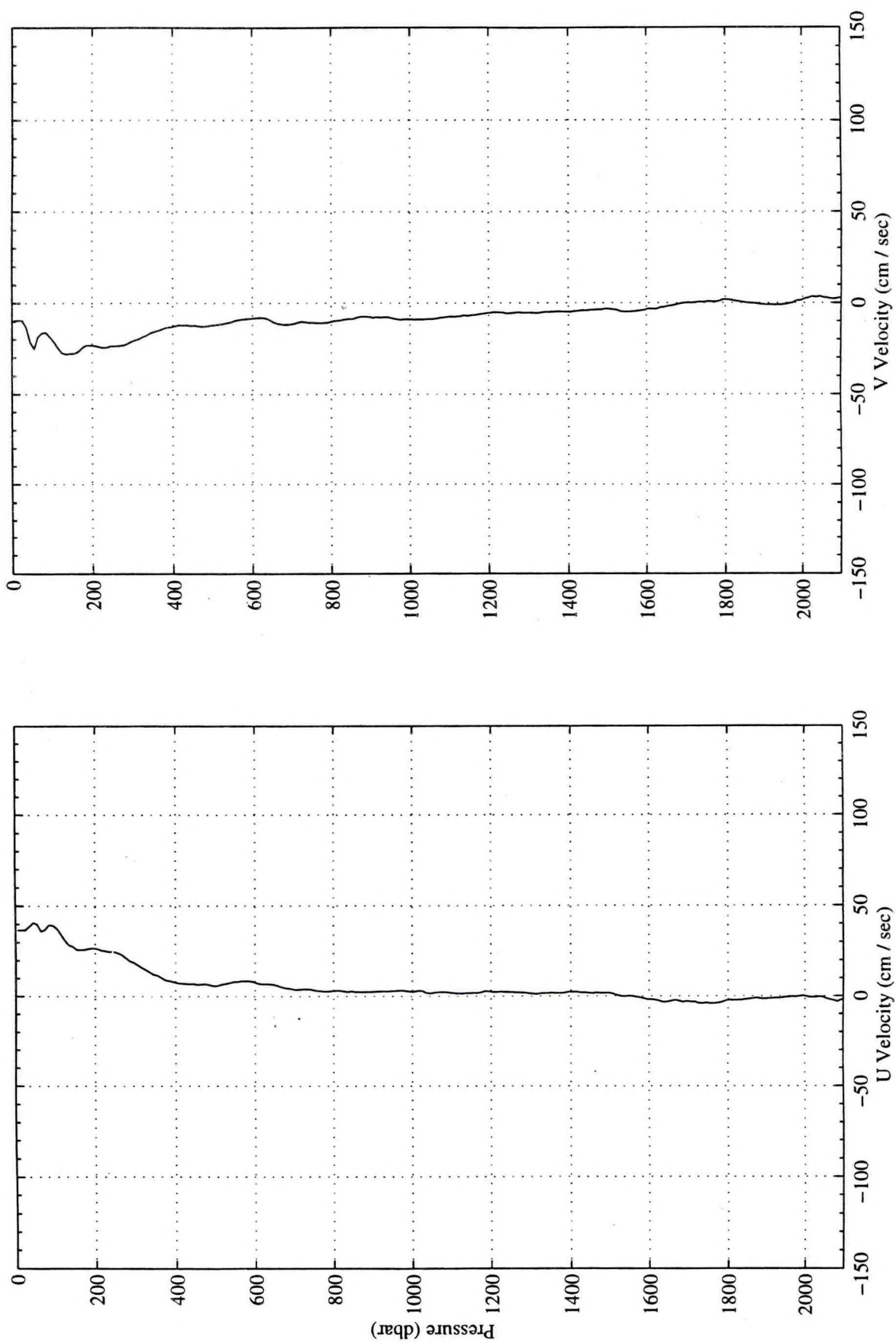
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 21 (00021)  
Latitude 13.003 N Longitude 57.914 W  
13-Feb-2000 05:29 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 23 (00023)  
Latitude 11.262 N Longitude 56.196 W  
14-Feb-2000 00:22 Z

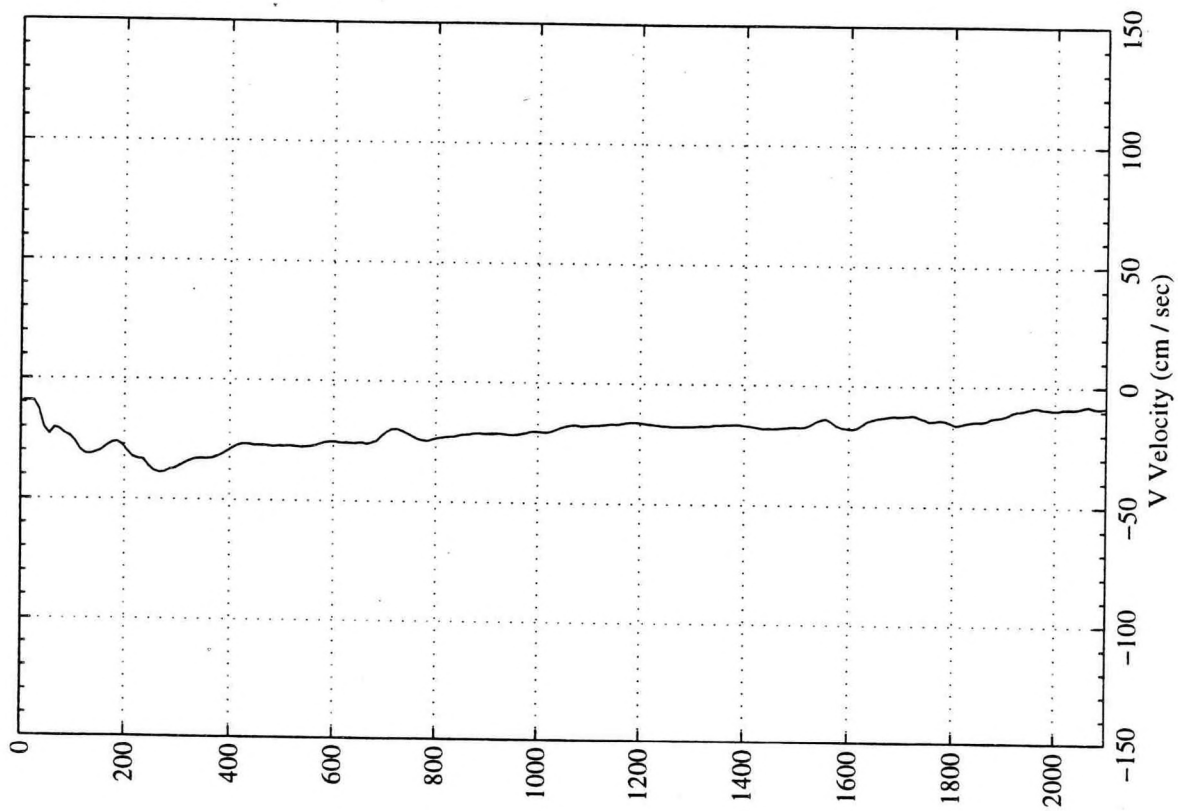
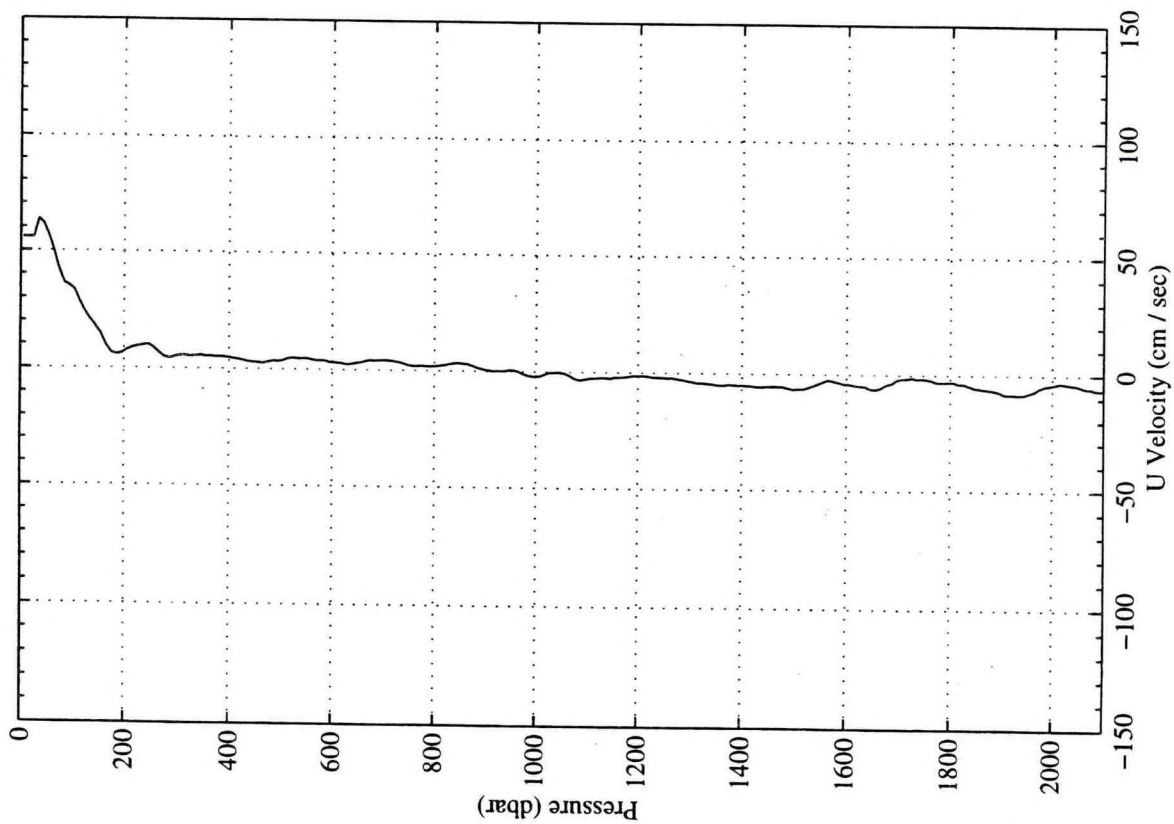


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14-Feb-2000 06:14 Z

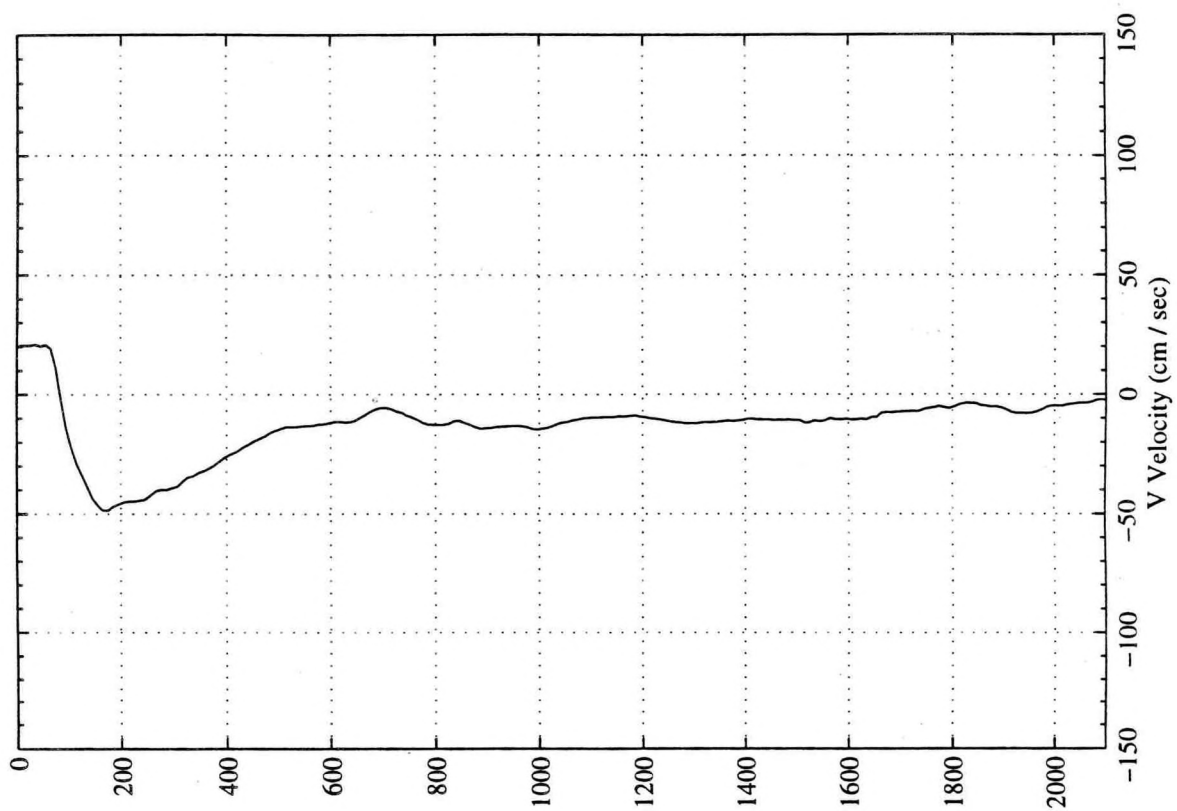
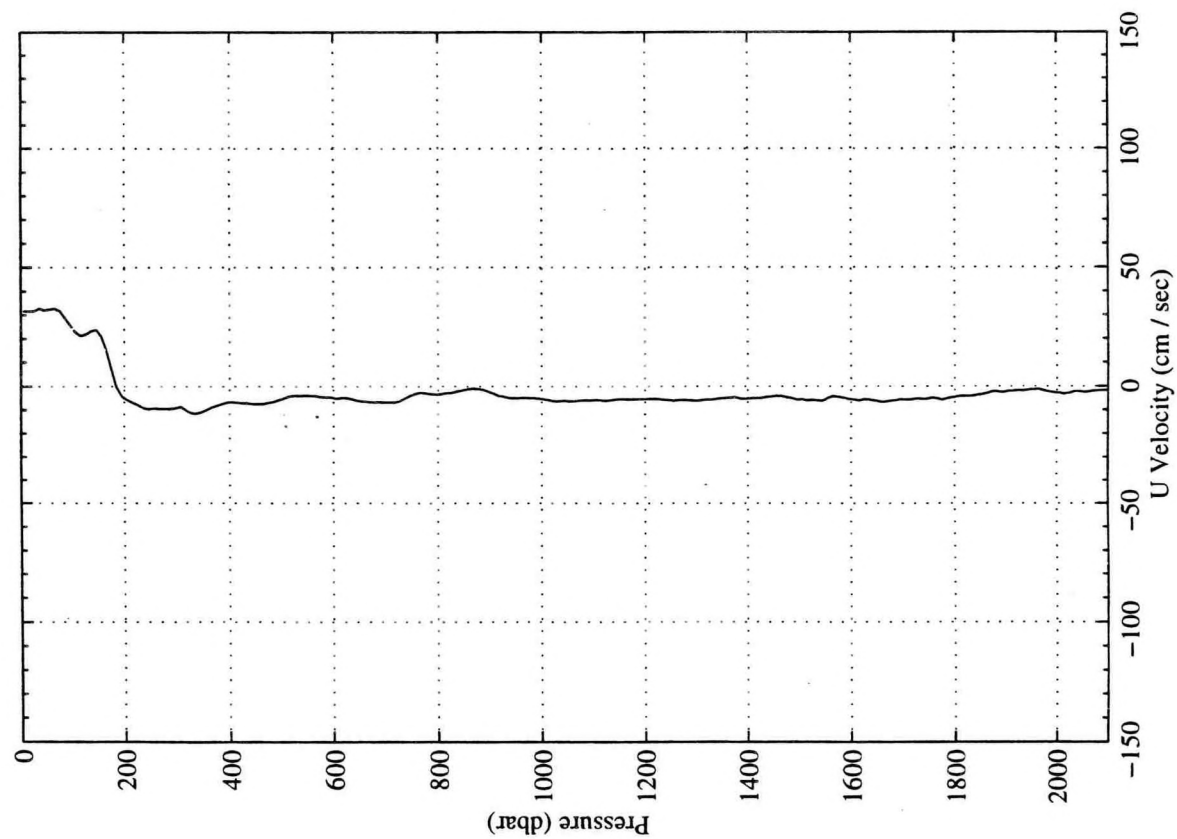




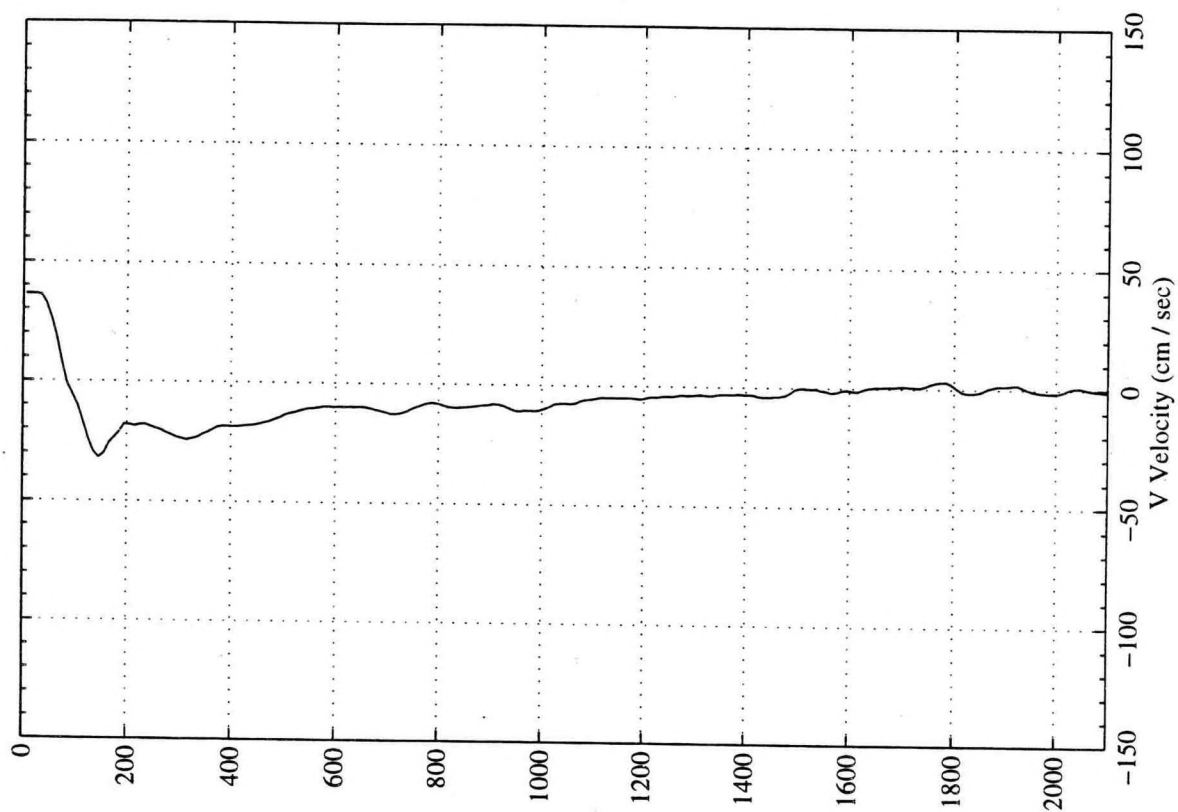
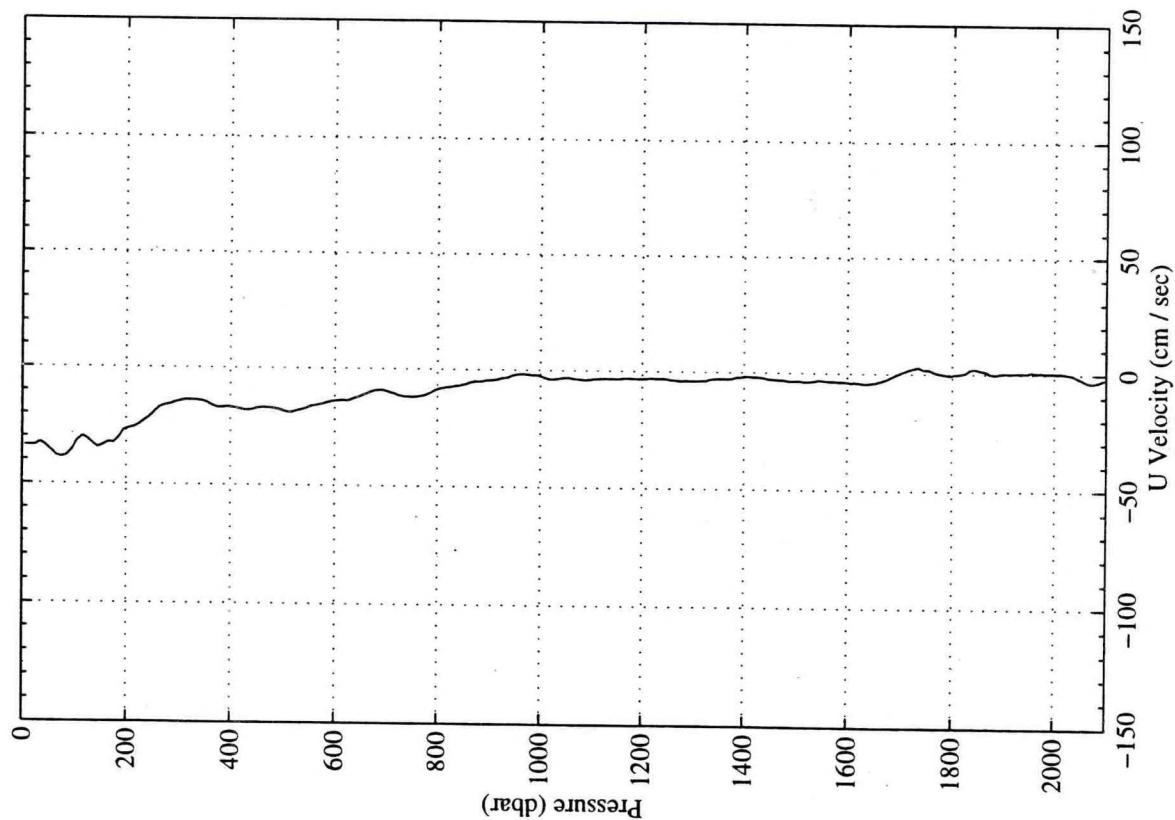
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 25 (00025)  
Latitude 10.083 N Longitude 55.392 W  
14-Feb-2000 11:36 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 26 (00026)  
Latitude 9.502 N Longitude 55.400 W  
14-Feb-2000 16:06 Z

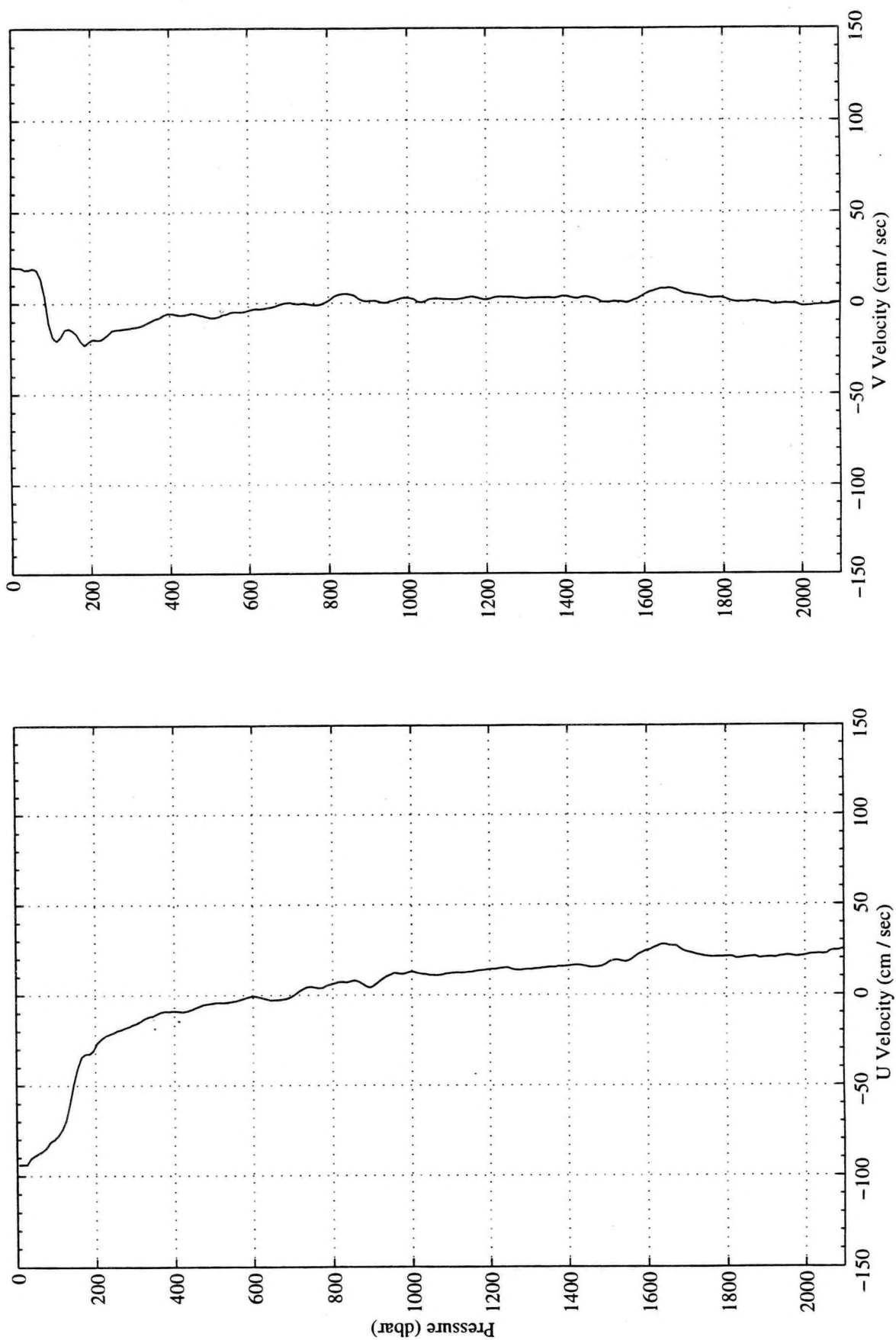


NBC-3 R/V SEWARD JOHNSON  
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Latitude 8.922 N Longitude 55.405 W  
14-Feb-2000 20:55 Z

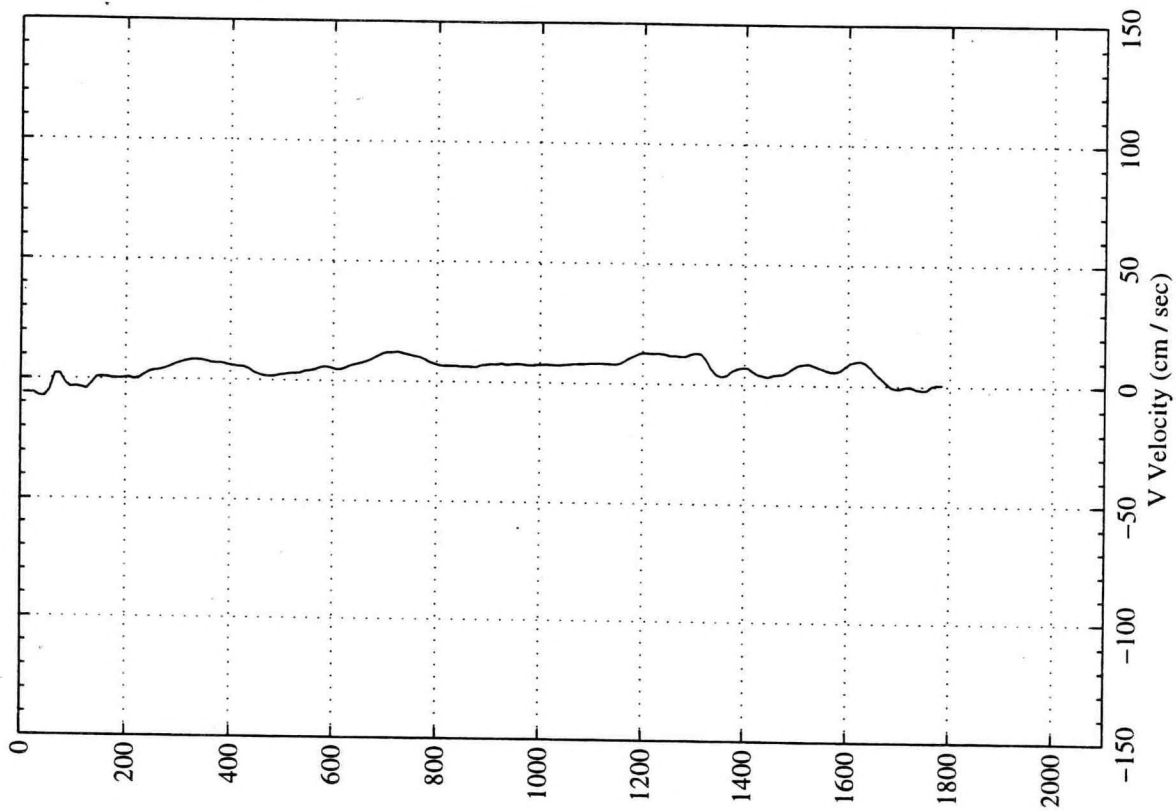
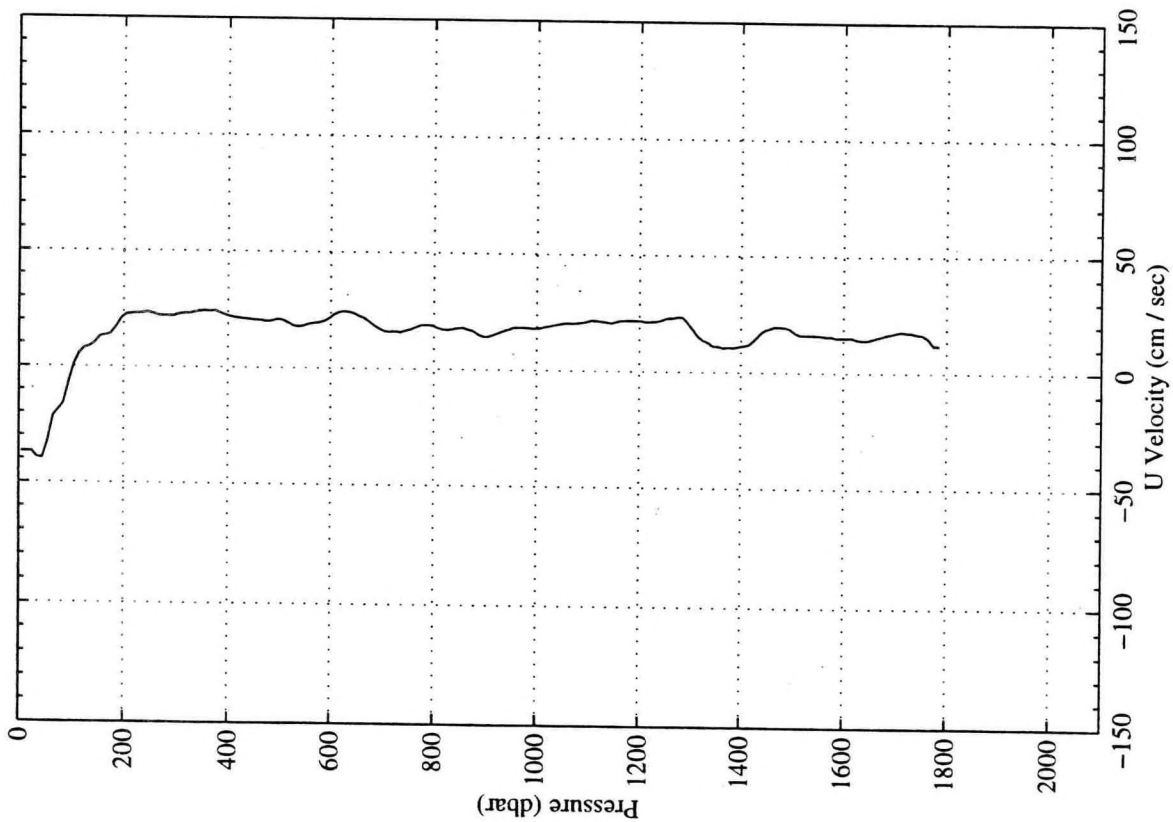




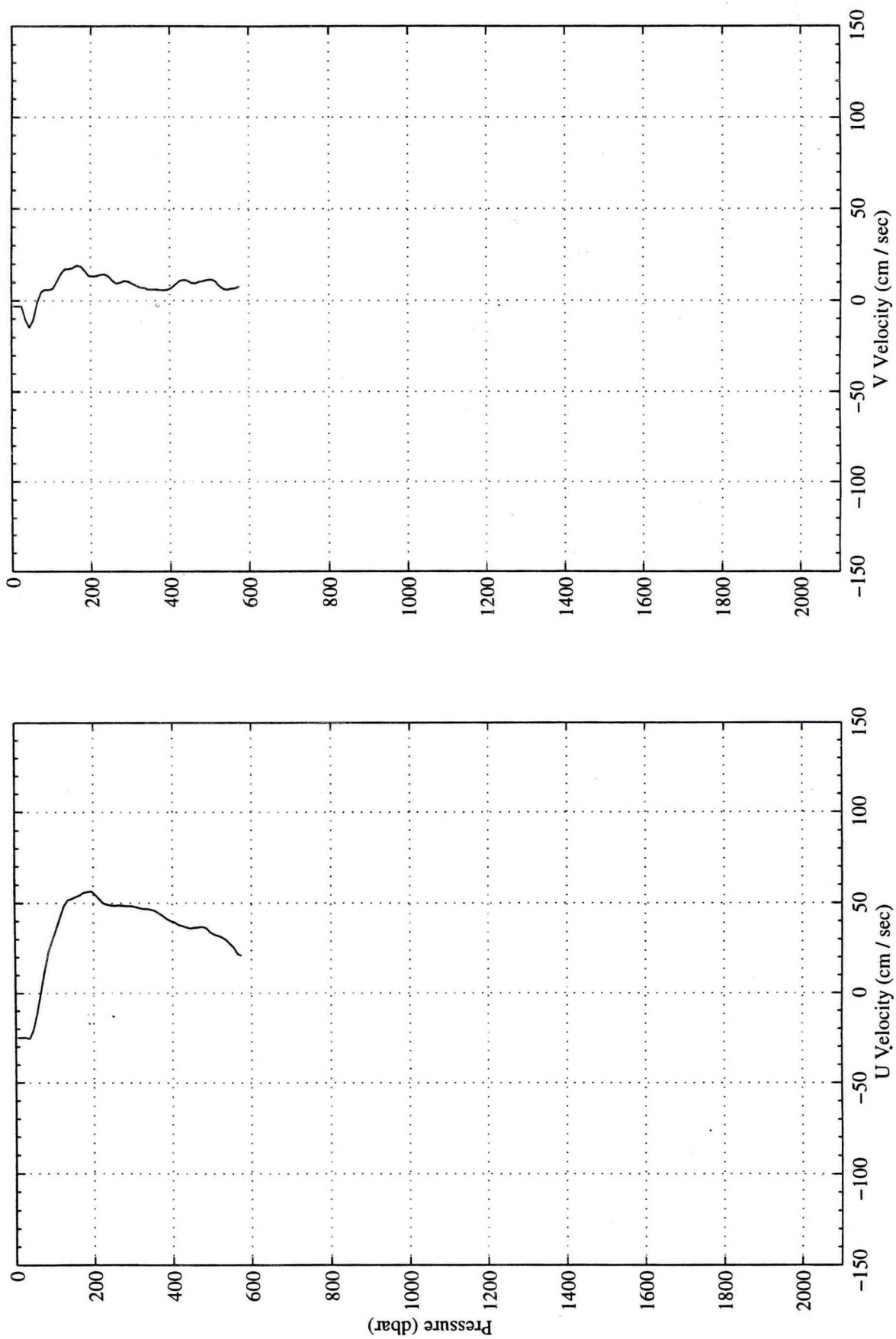
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 28 (00028)  
Latitude 8.341 N Longitude 55.408 W  
15-Feb-2000 01:39 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 29 (00029)  
Latitude 7.755 N Longitude 55.402 W  
15-Feb-2000 06:11 Z

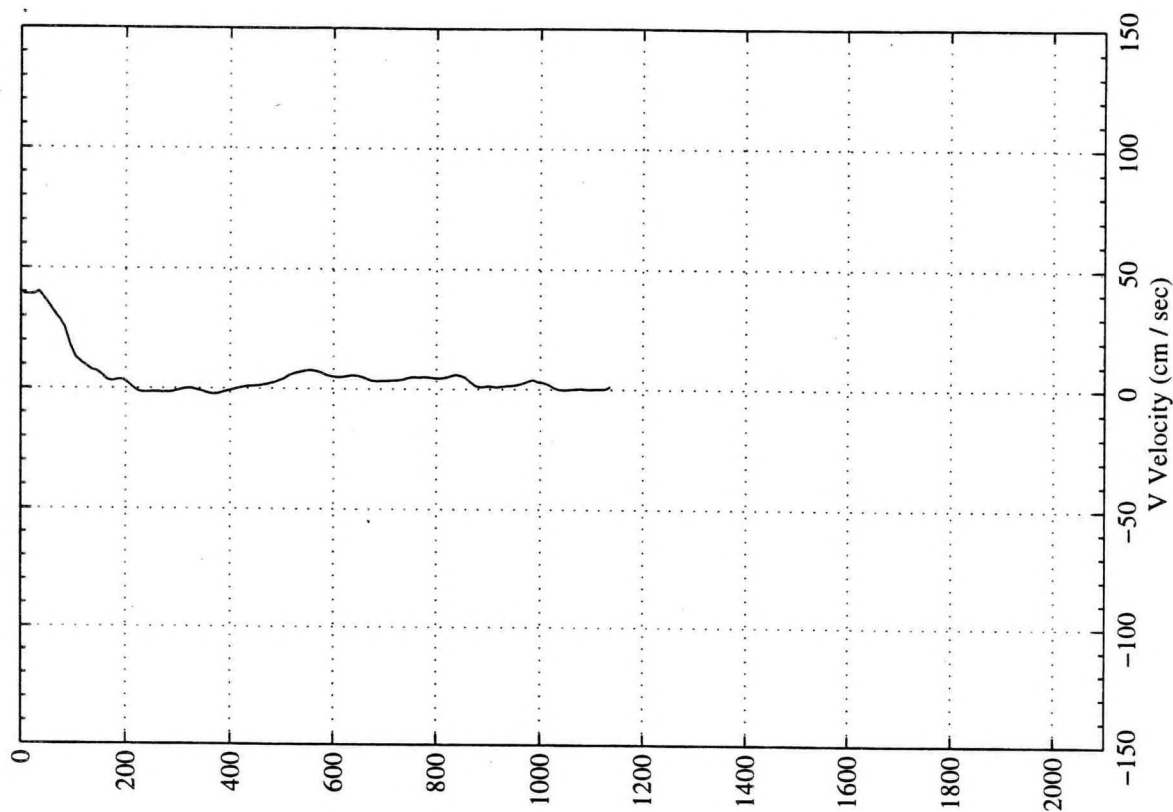
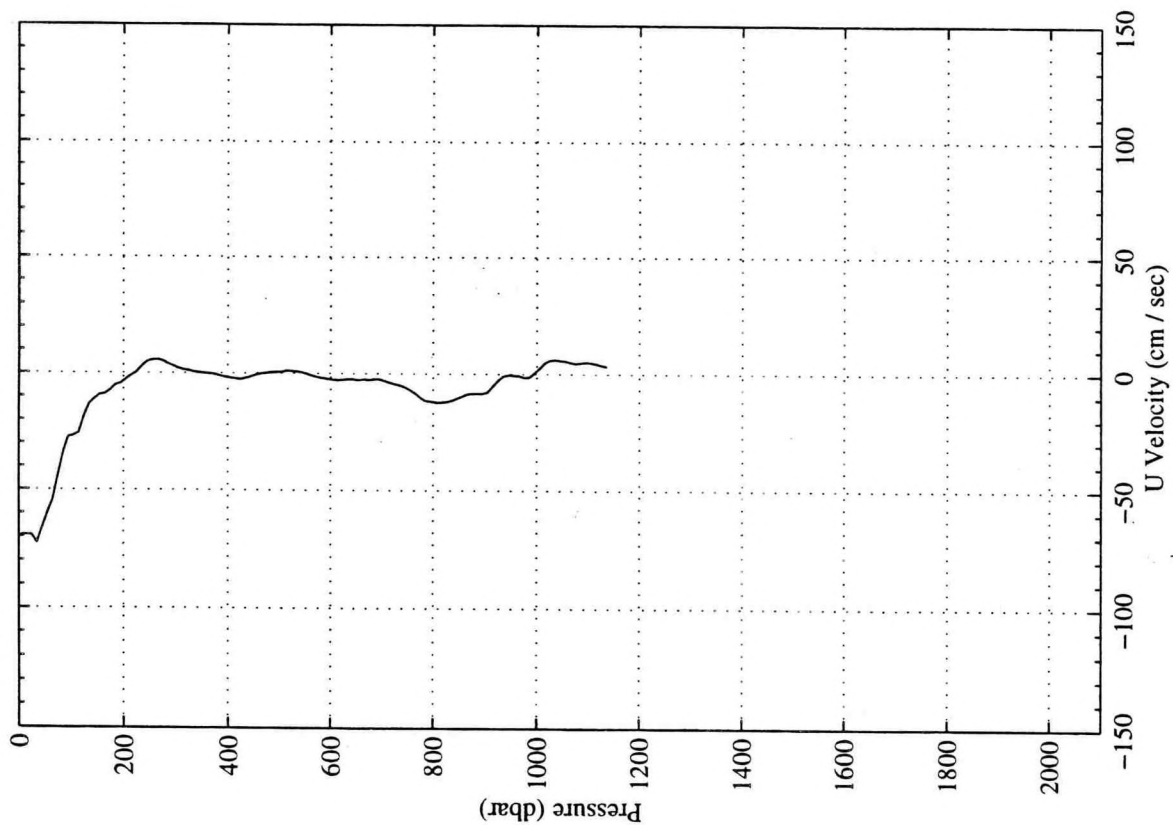


NBC-3 R/V SEWARD JOHNSON  
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 Latitude 7.396 N Longitude 55.399 W  
 15-Feb-2000 09:08 Z

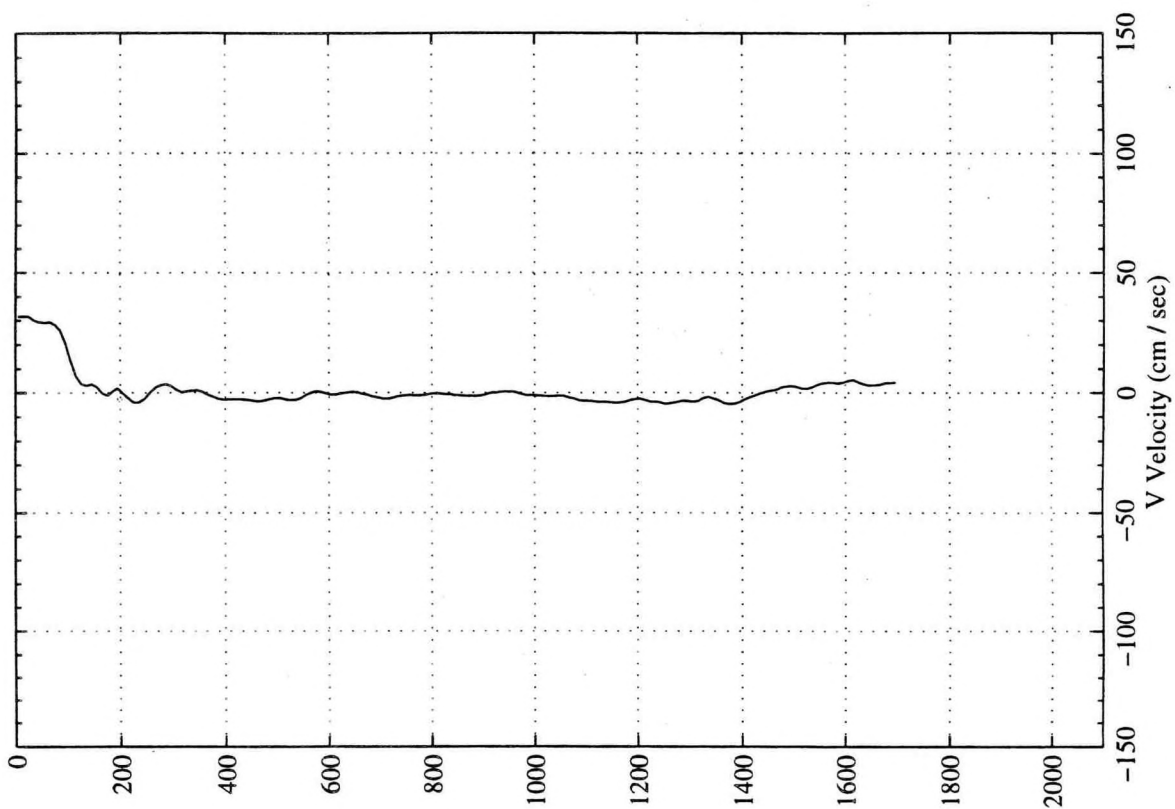
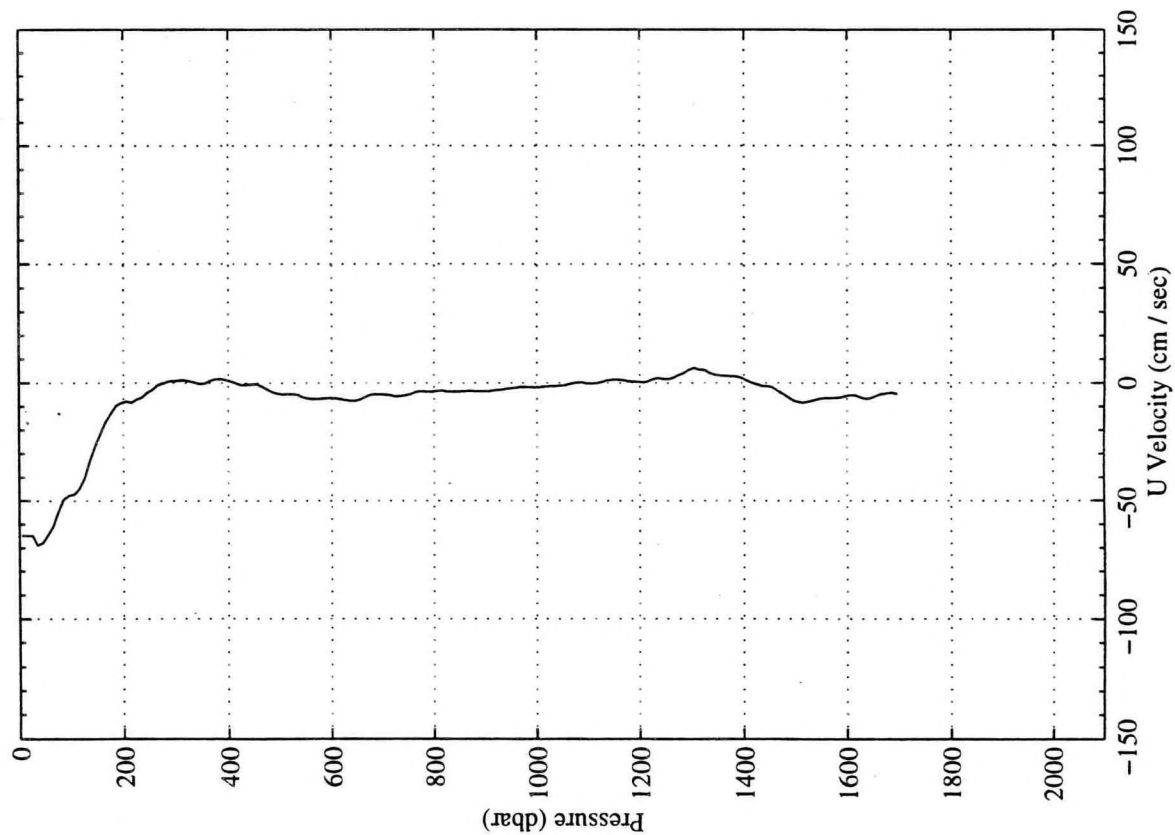




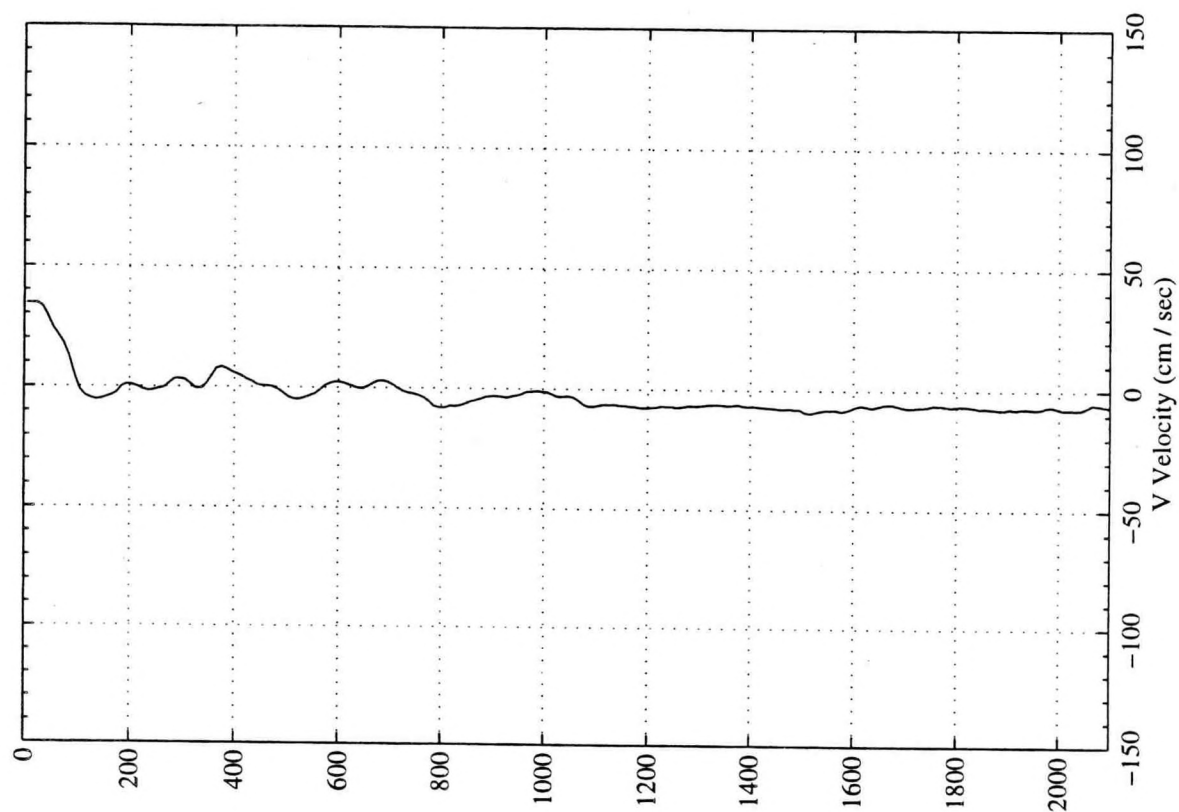
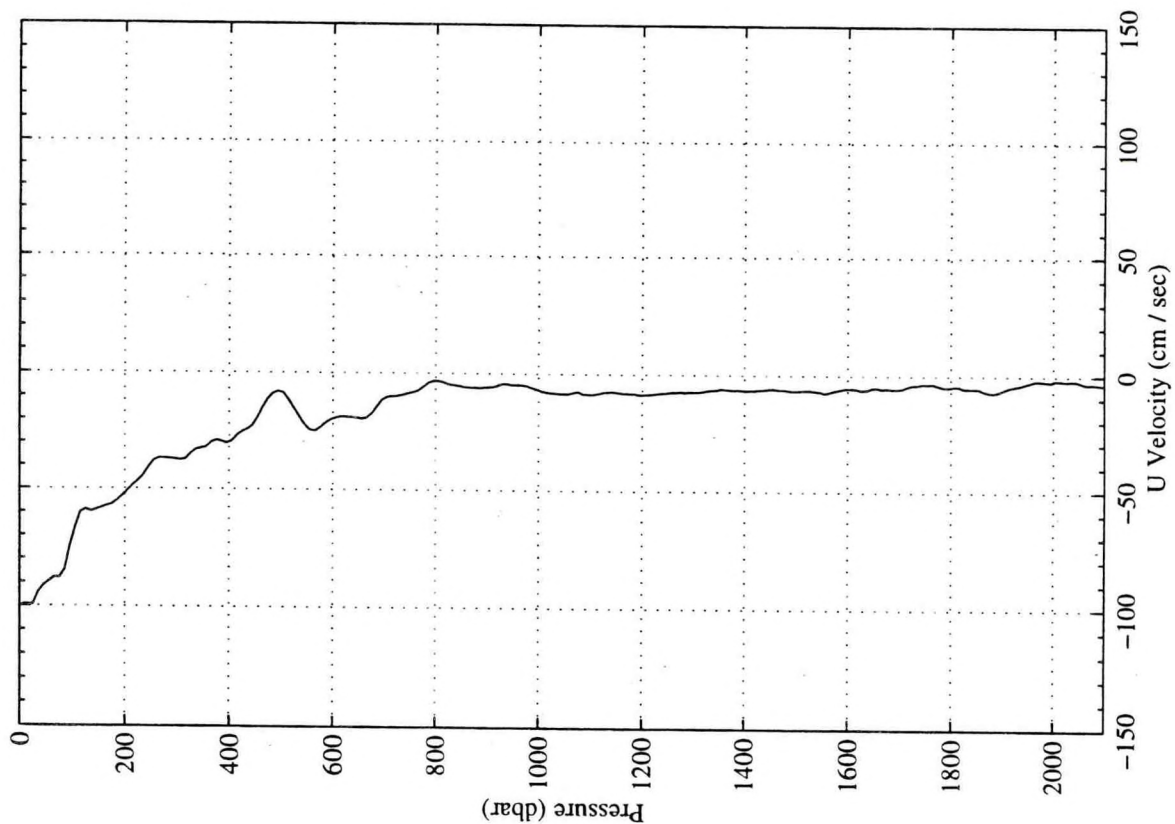
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LADCP Station 31 (00031)  
Latitude 8.124 N Longitude 57.333 W  
15-Feb-2000 19:40 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 32 (00032)  
Latitude 8.208 N Longitude 57.186 W  
15-Feb-2000 21:51 Z

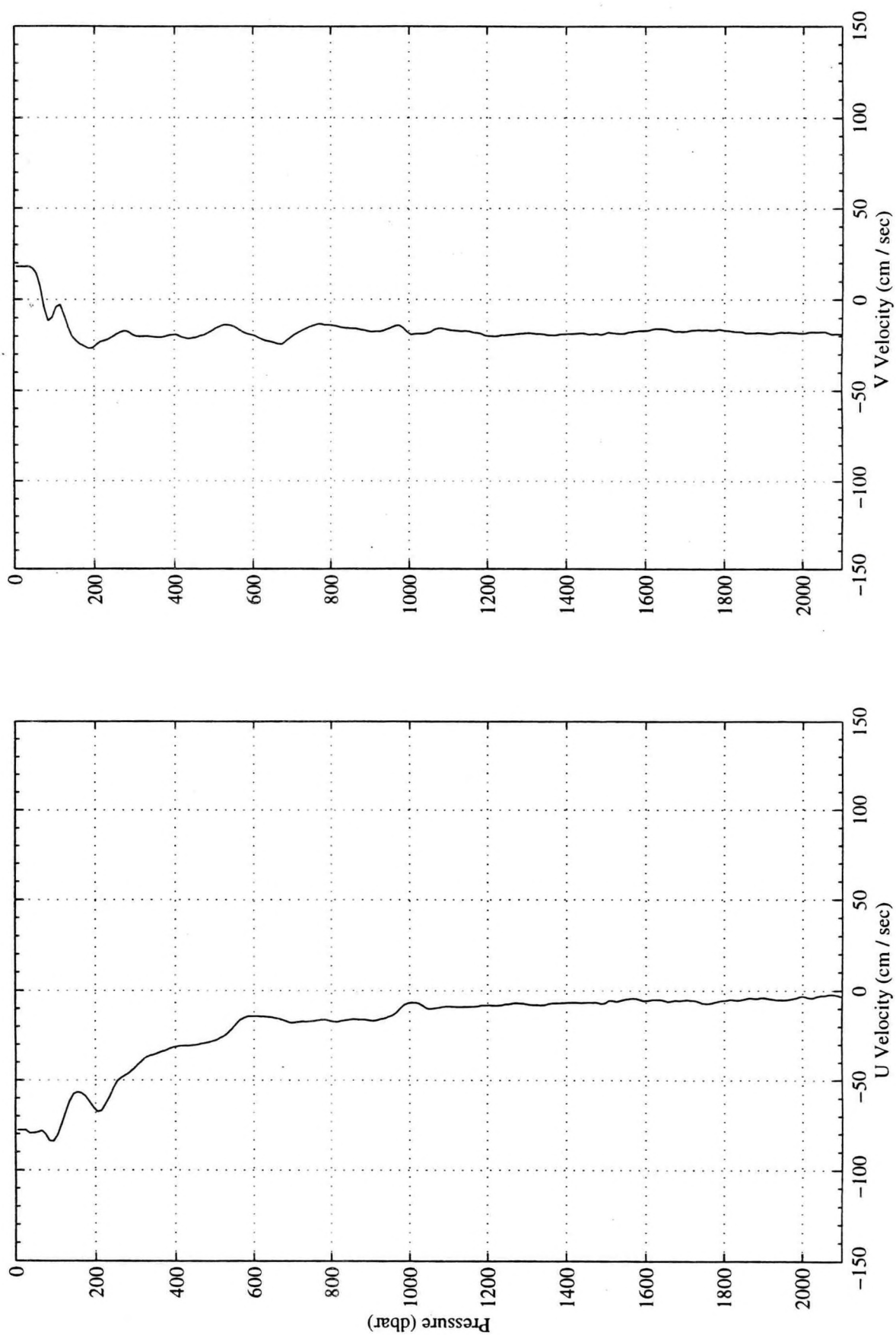


NBC-3 R/V SEWARD JOHNSON  
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Latitude 8.410 N Longitude 56.826 W  
16-Feb-2000 01:51 Z

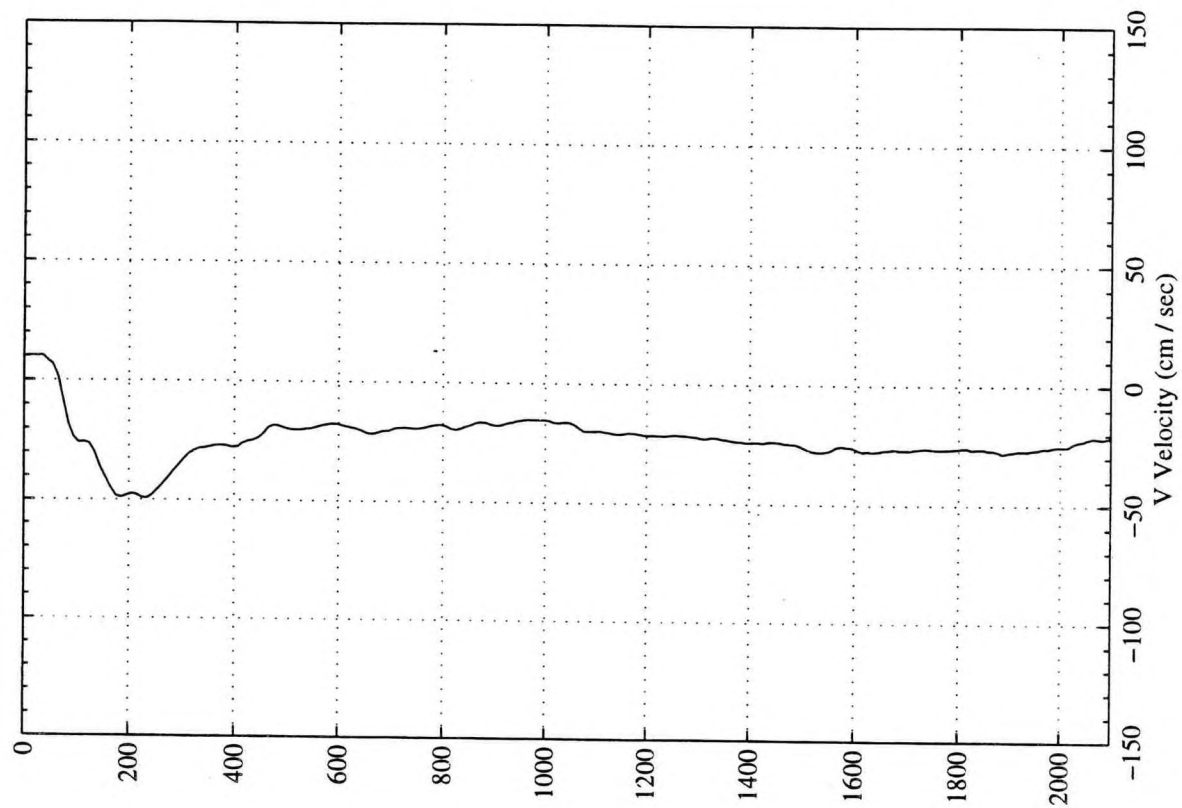
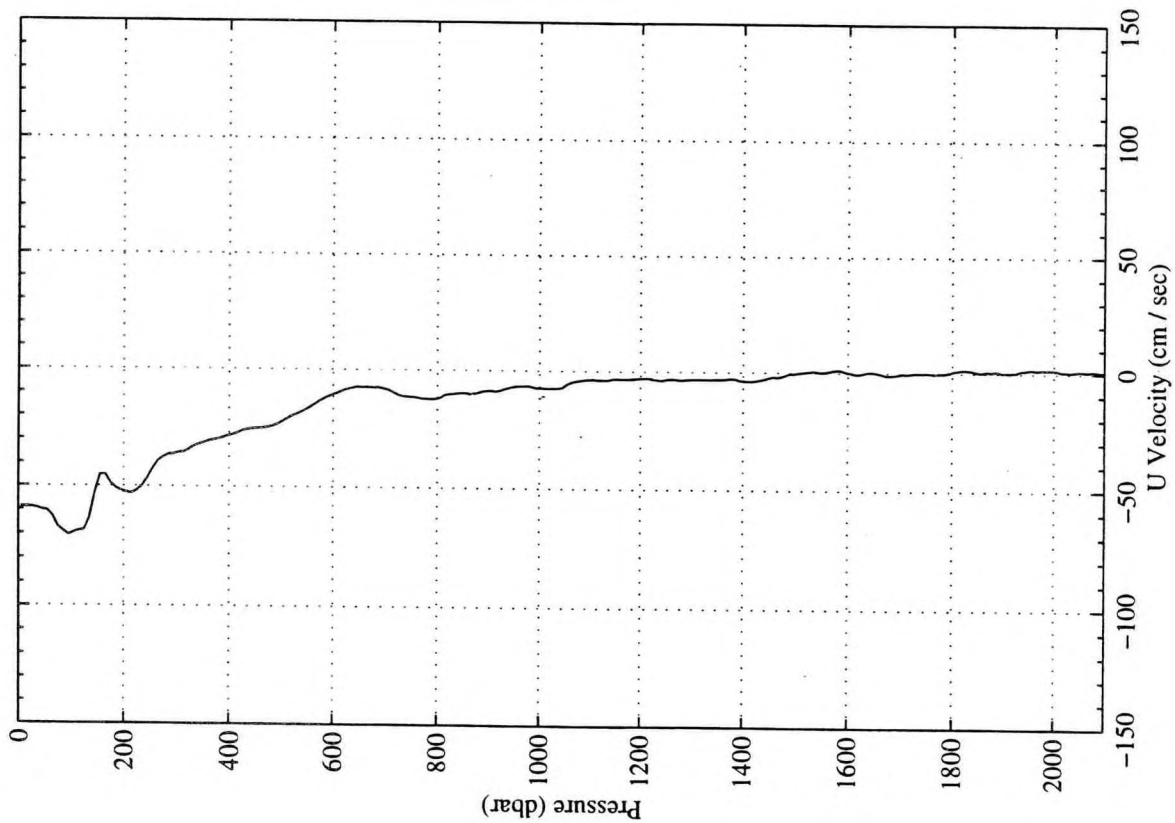




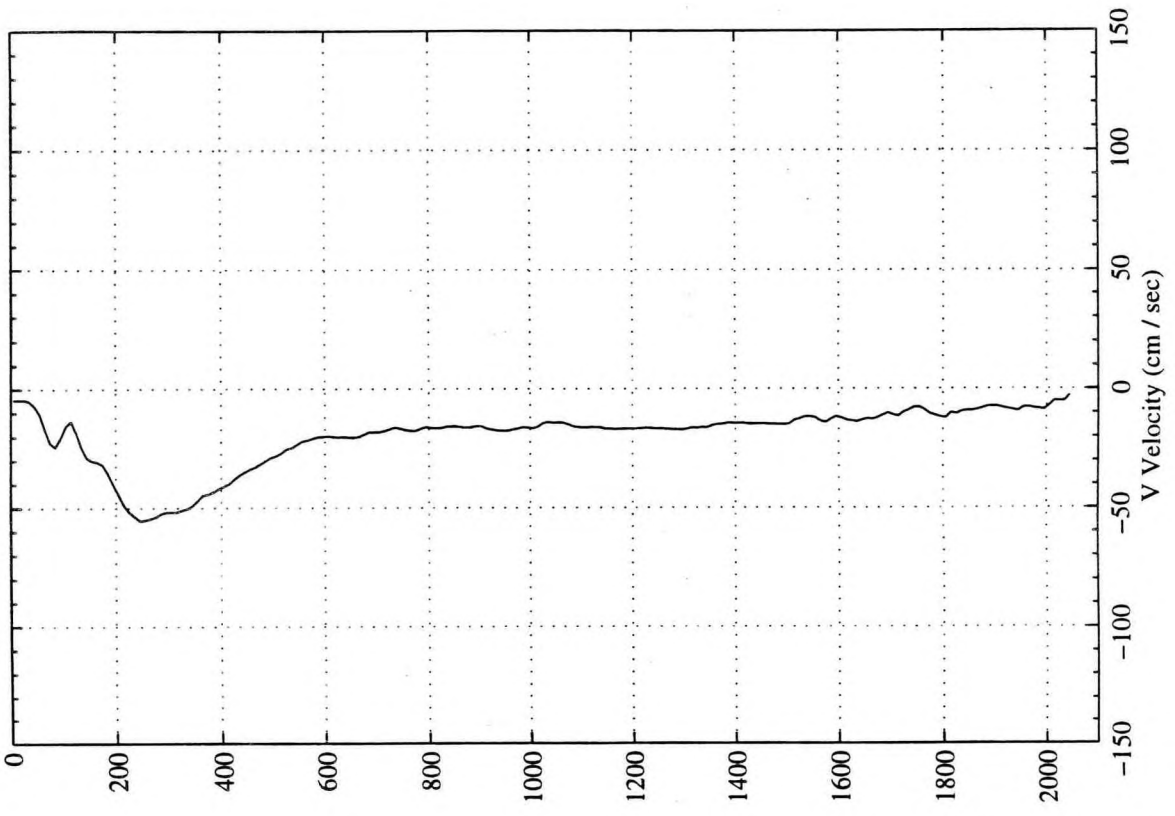
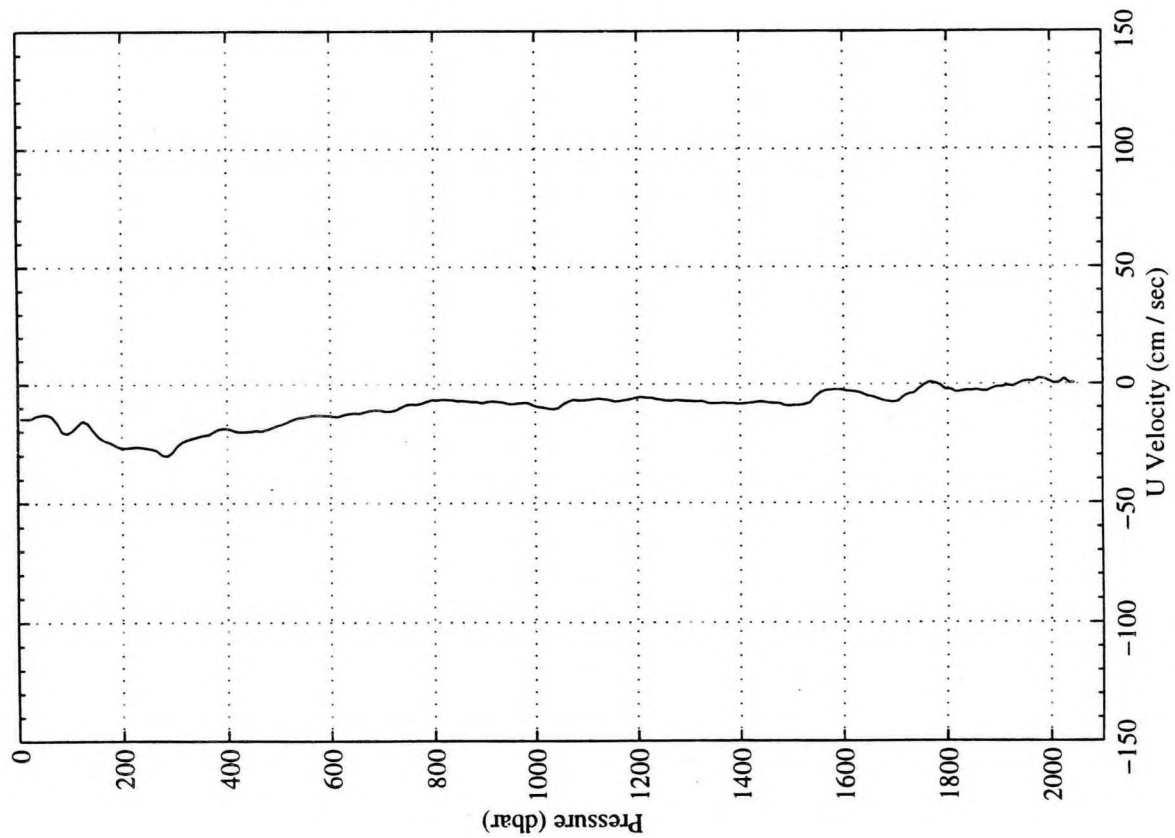
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Latitude 8.605 N Longitude 56.461 W  
16-Feb-2000 06:01 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 35 (00035)  
Latitude 8.803 N Longitude 56.090 W  
16-Feb-2000 10:23 Z

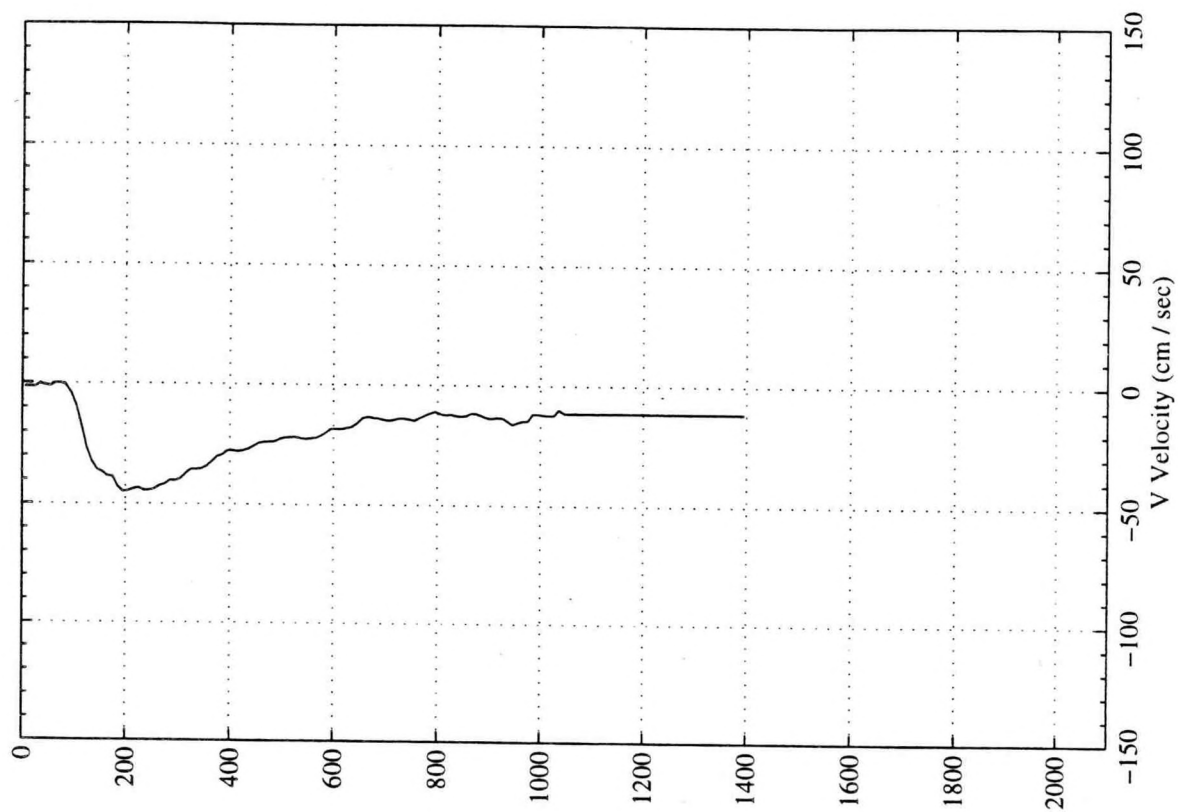
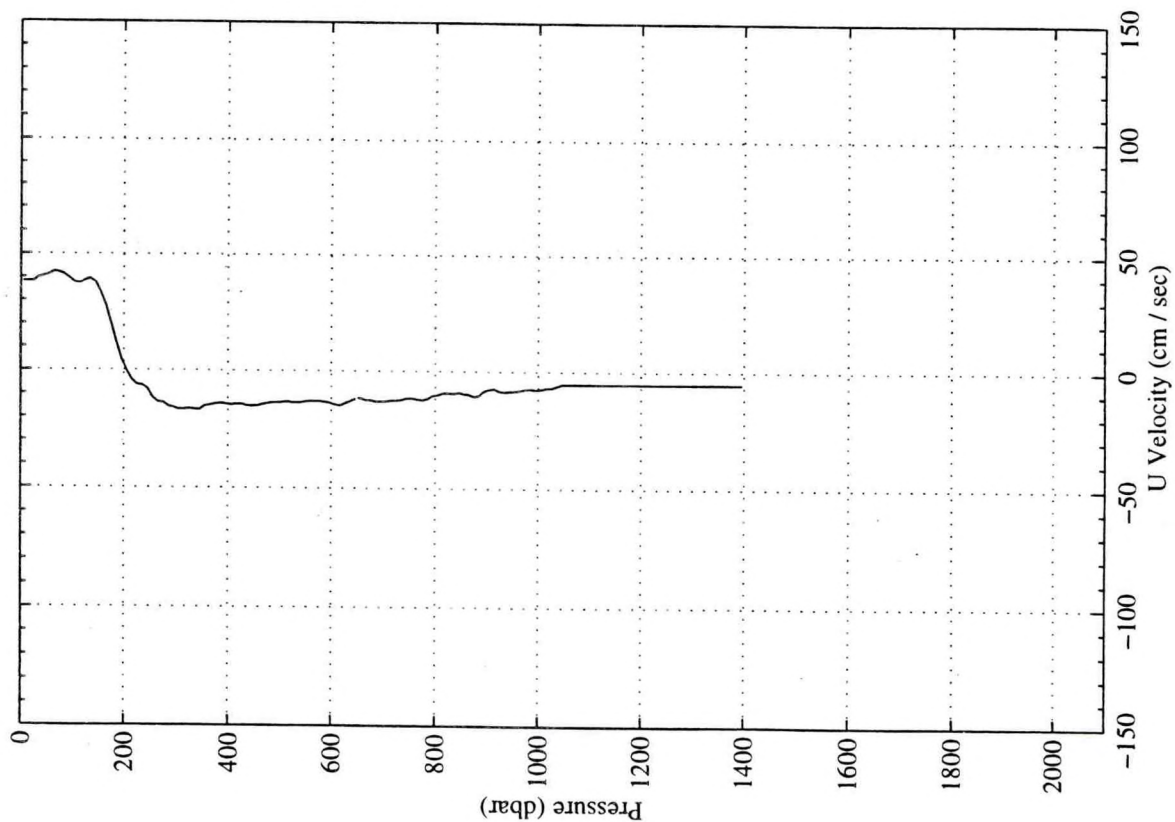


NBC-3 R/V SEWARD JOHNSON  
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Latitude 9.166 N Longitude 55.695 W  
16-Feb-2000 15:10 Z

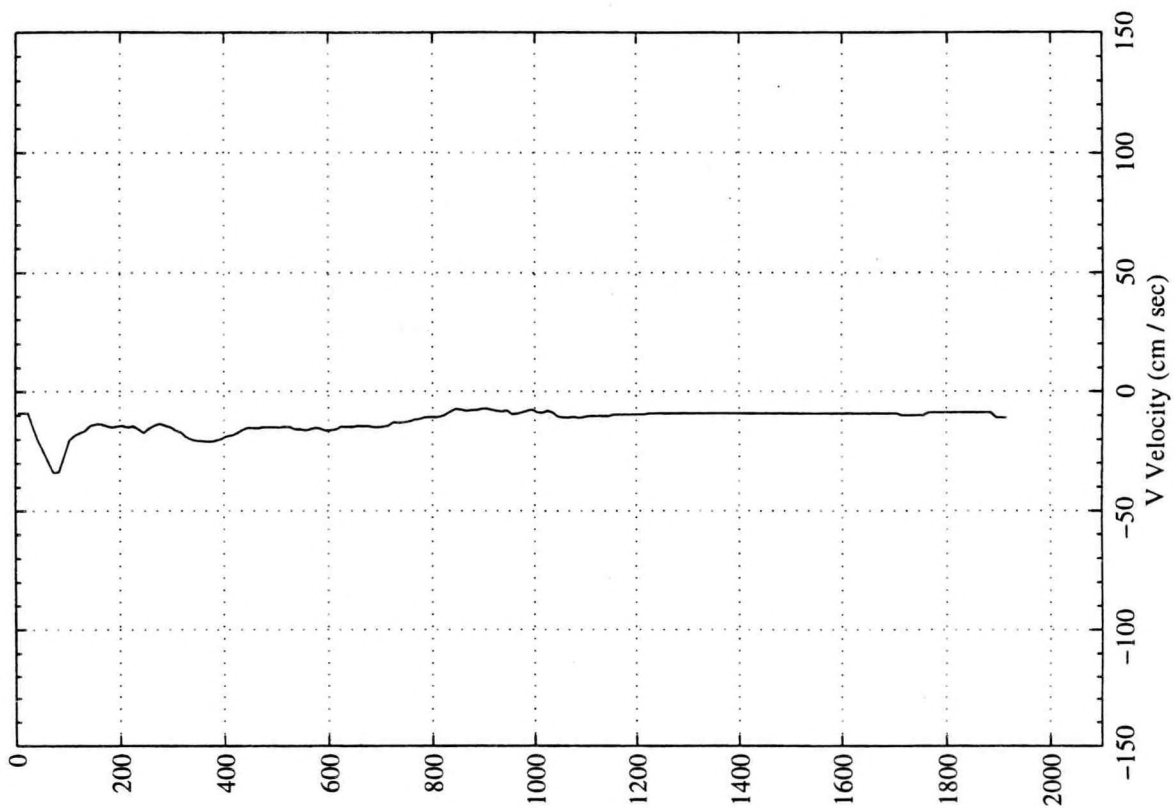
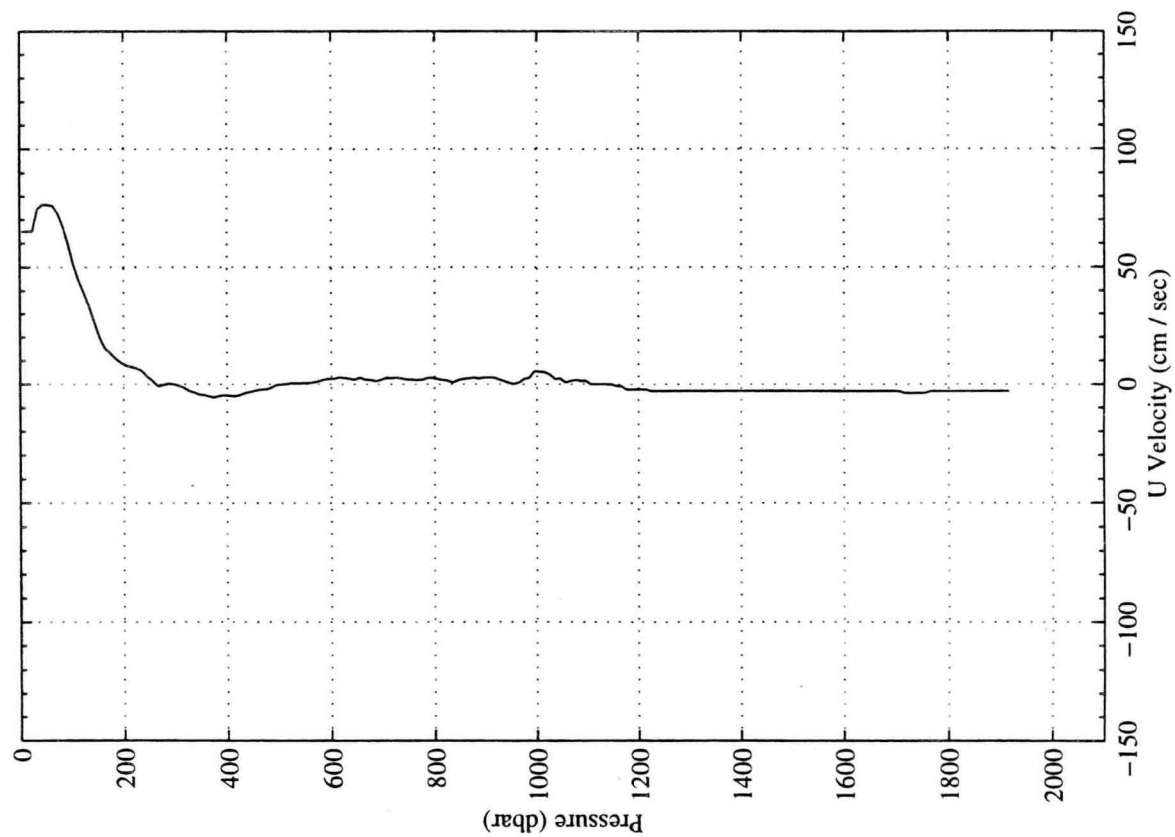




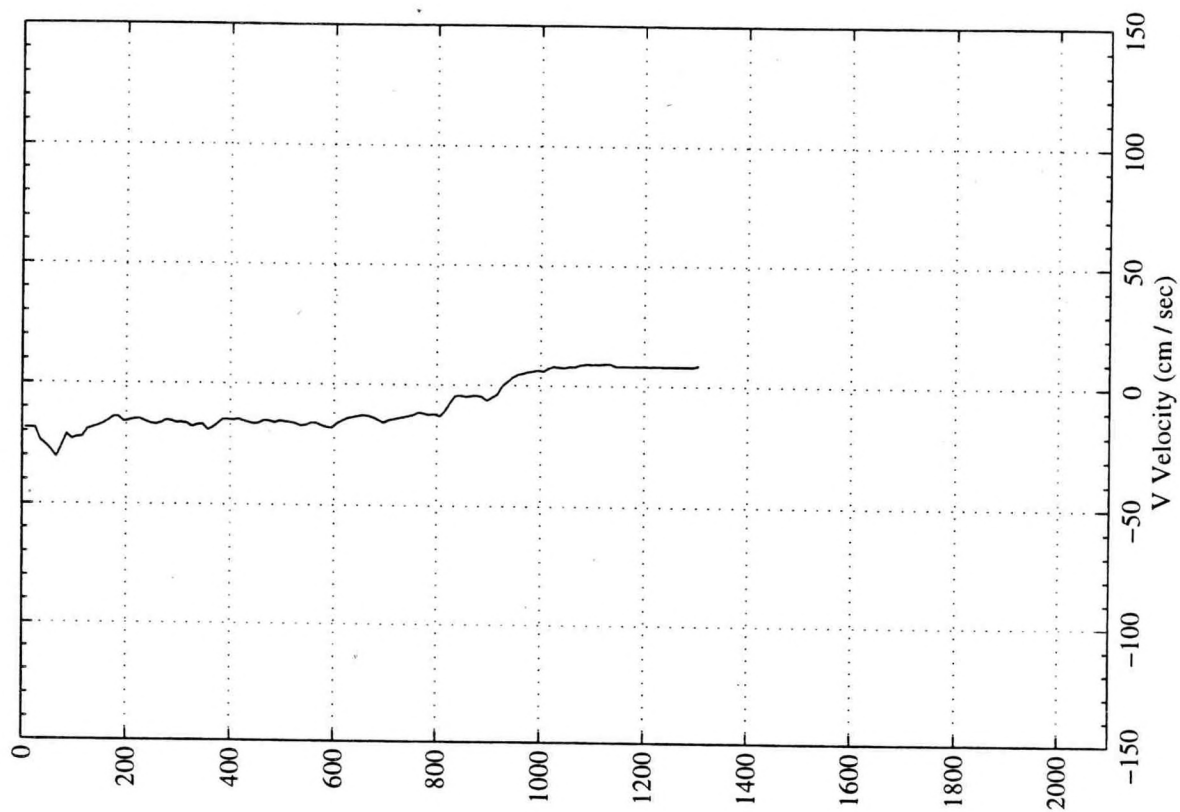
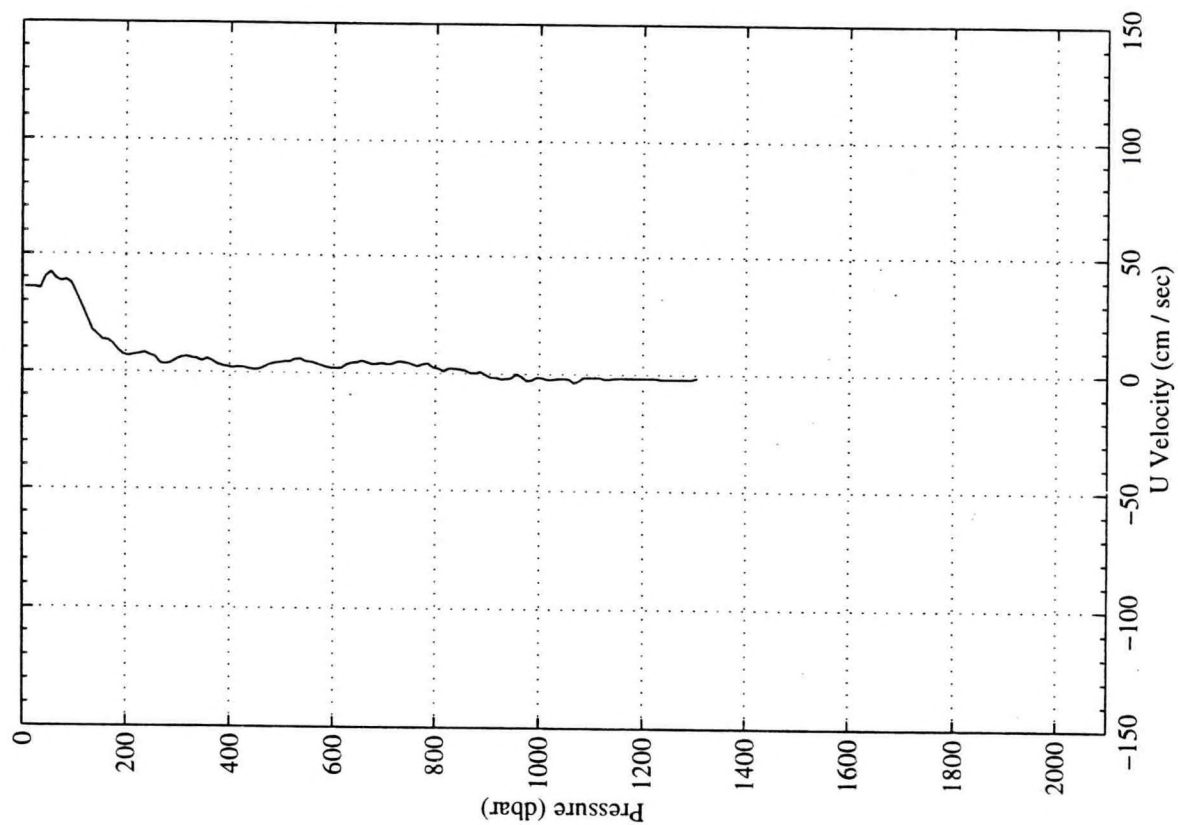
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LADCP Station 37 (00037)  
Latitude 9.497 N Longitude 55.499 W  
16-Feb-2000 18:55 Z



NBC-3 R/V SEWARD JOHNSON  
 LADCP Station 38 (00038)  
 Latitude 9.798 N Longitude 55.211 W  
 16-Feb-2000 22:43 Z

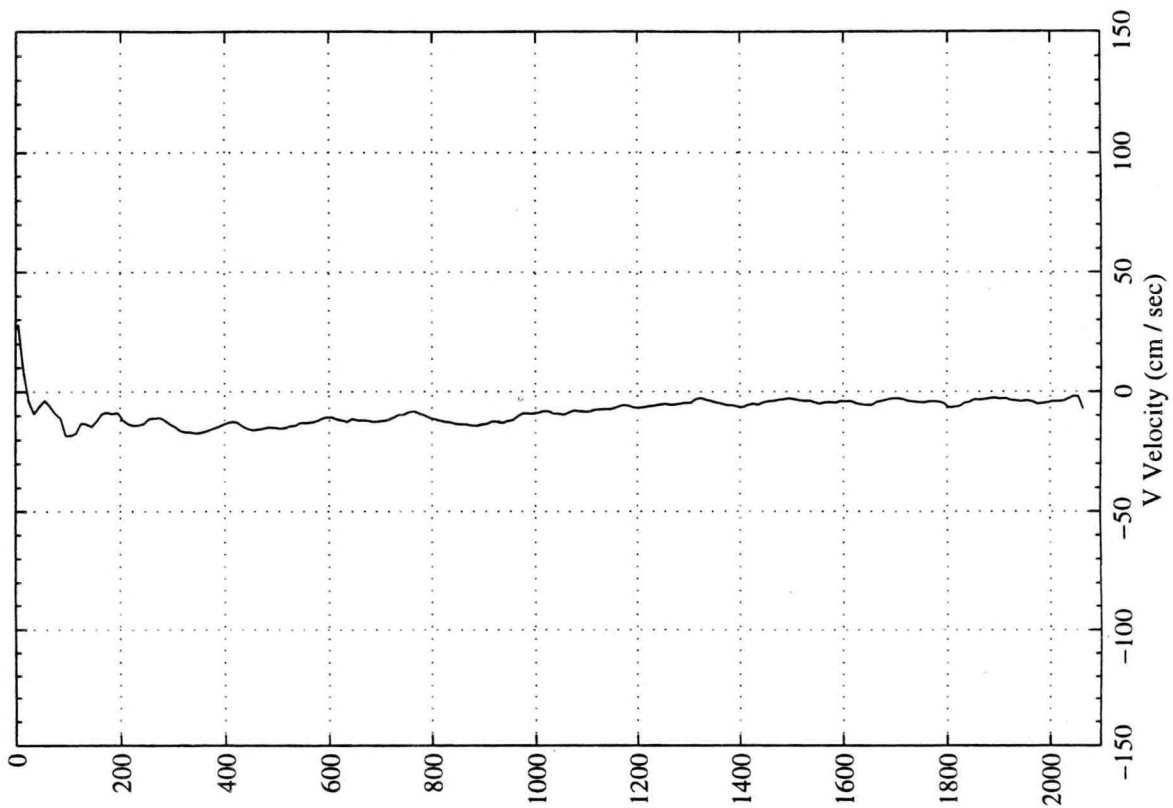
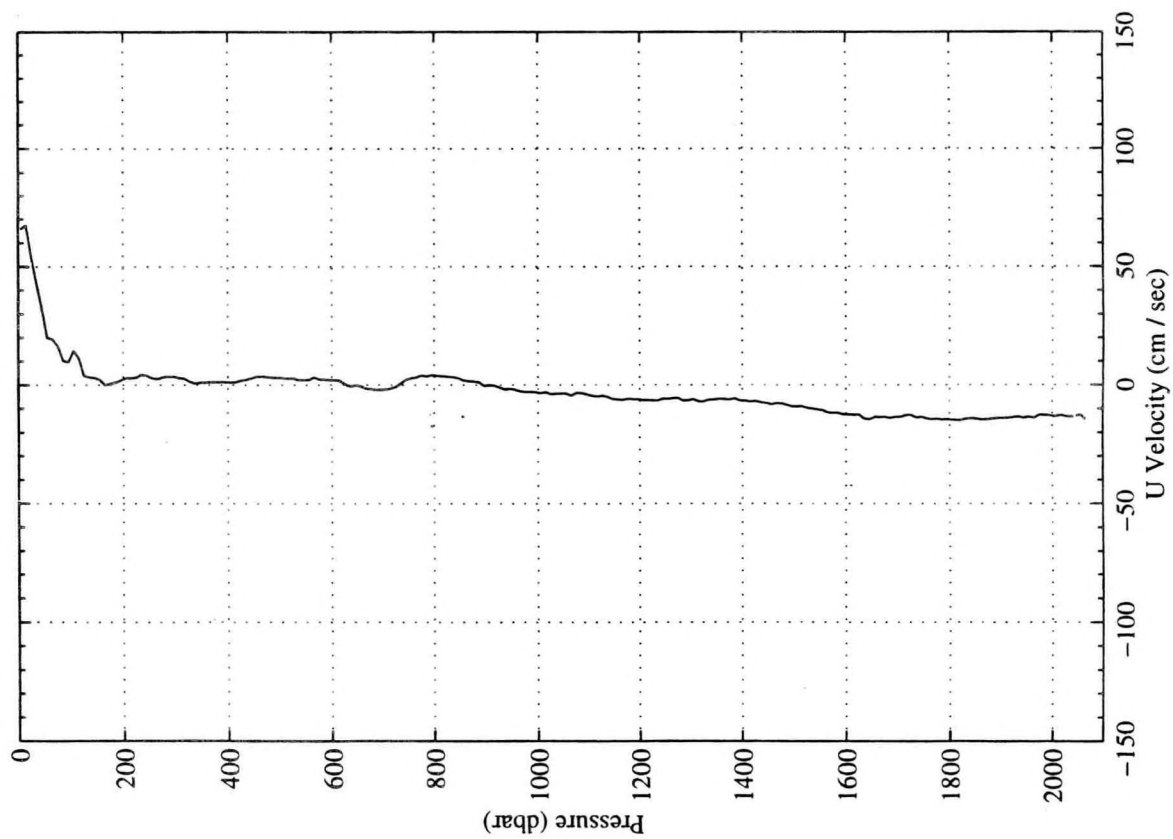


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LADCP Station 39 (00039)  
Latitude 10.117 N Longitude 54.944 W  
17-Feb-2000 03:40 Z

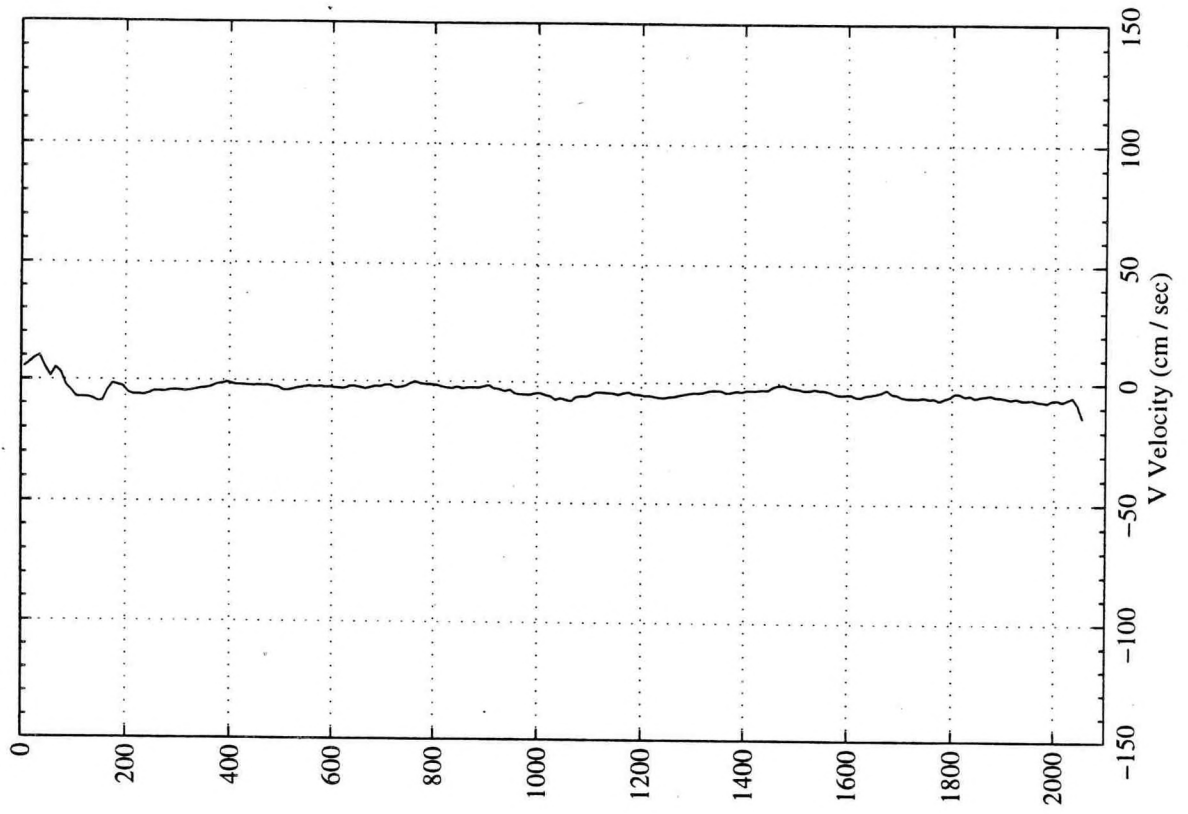
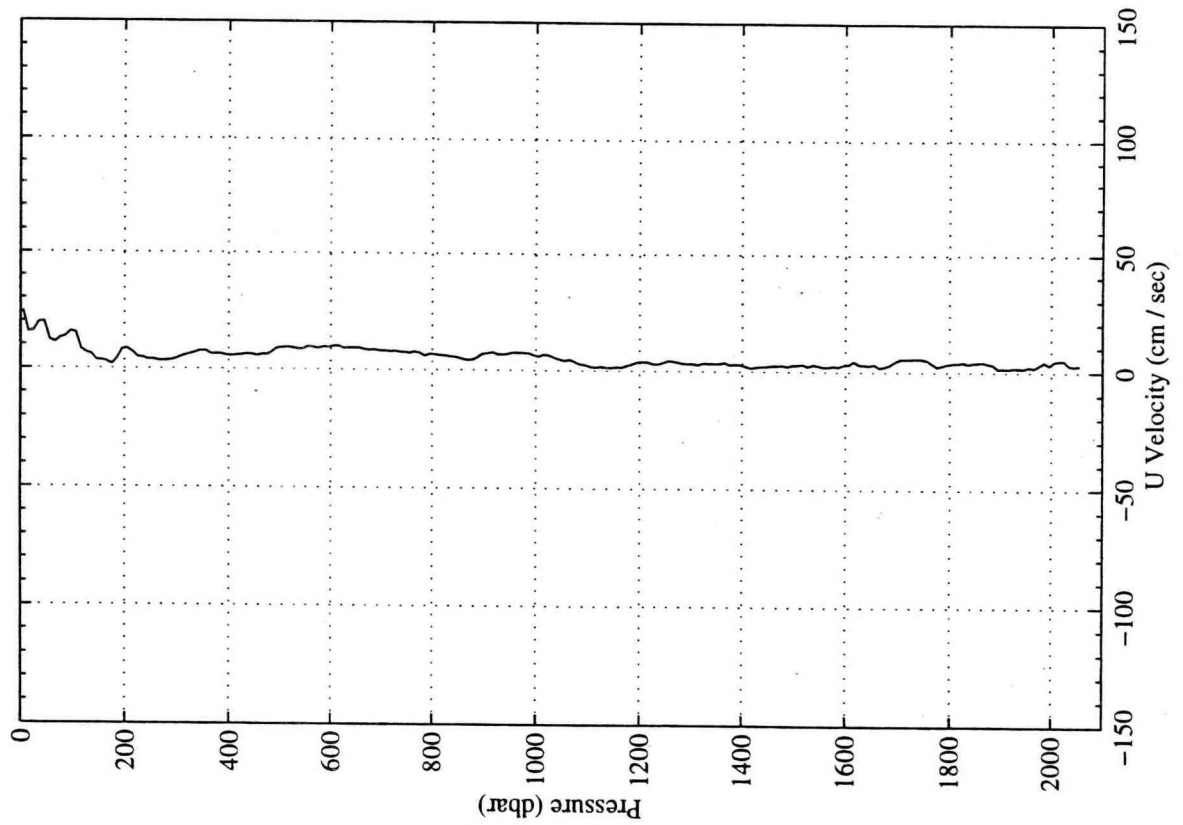




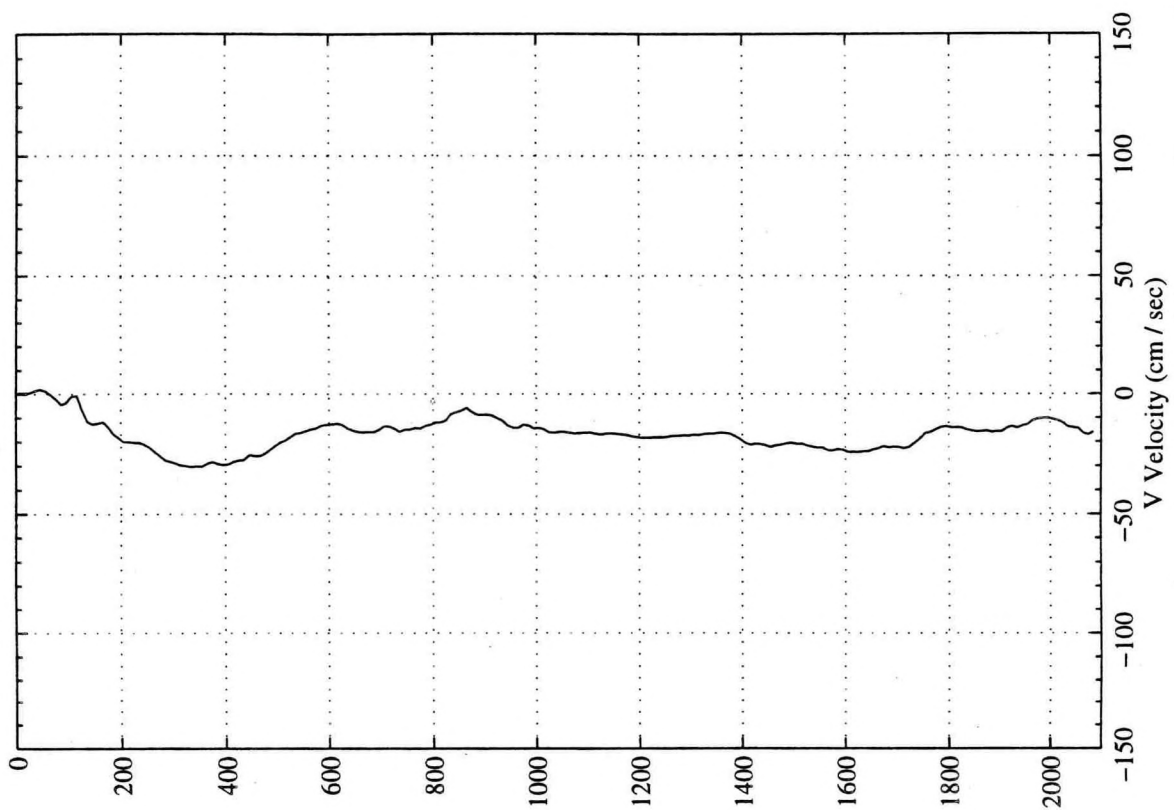
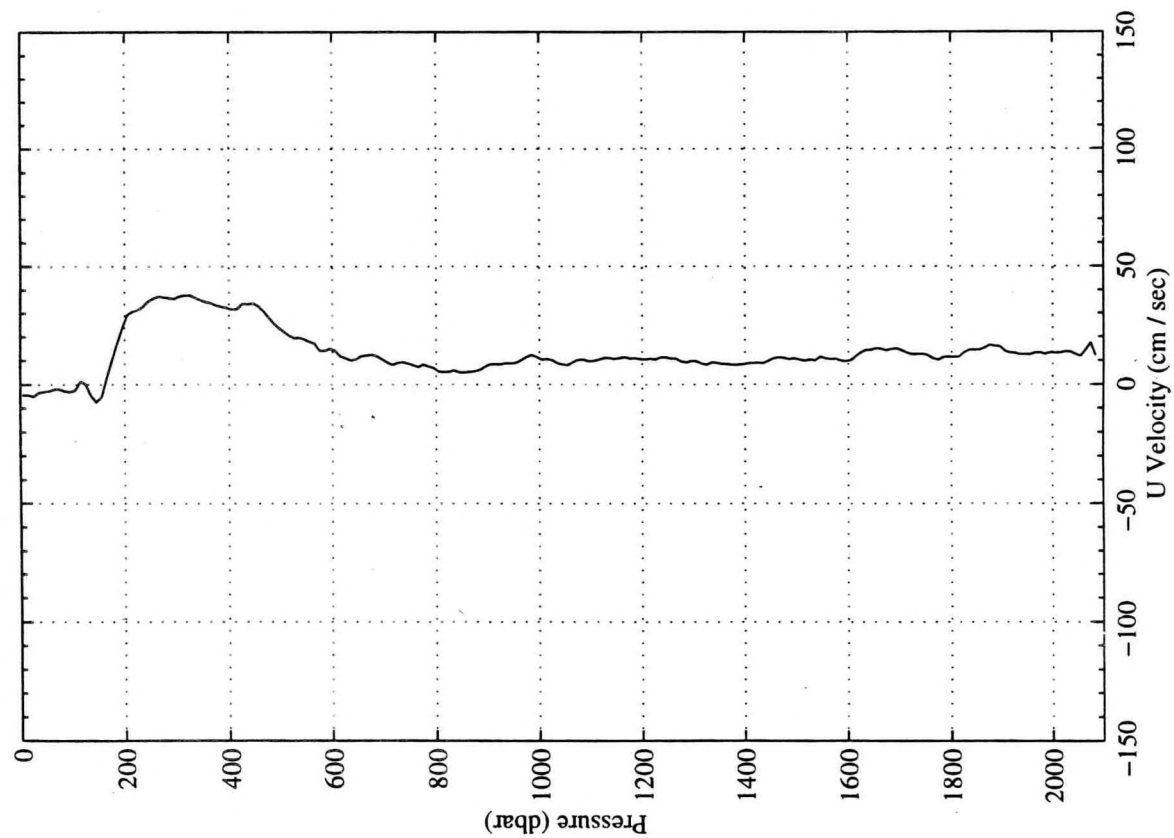
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 40 (00040)  
Latitude 10.390 N Longitude 54.712 W  
17-Feb-2000 07:08 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 41 (00041)  
Latitude 10.691 N Longitude 54.464 W  
17-Feb-2000 10:40 Z

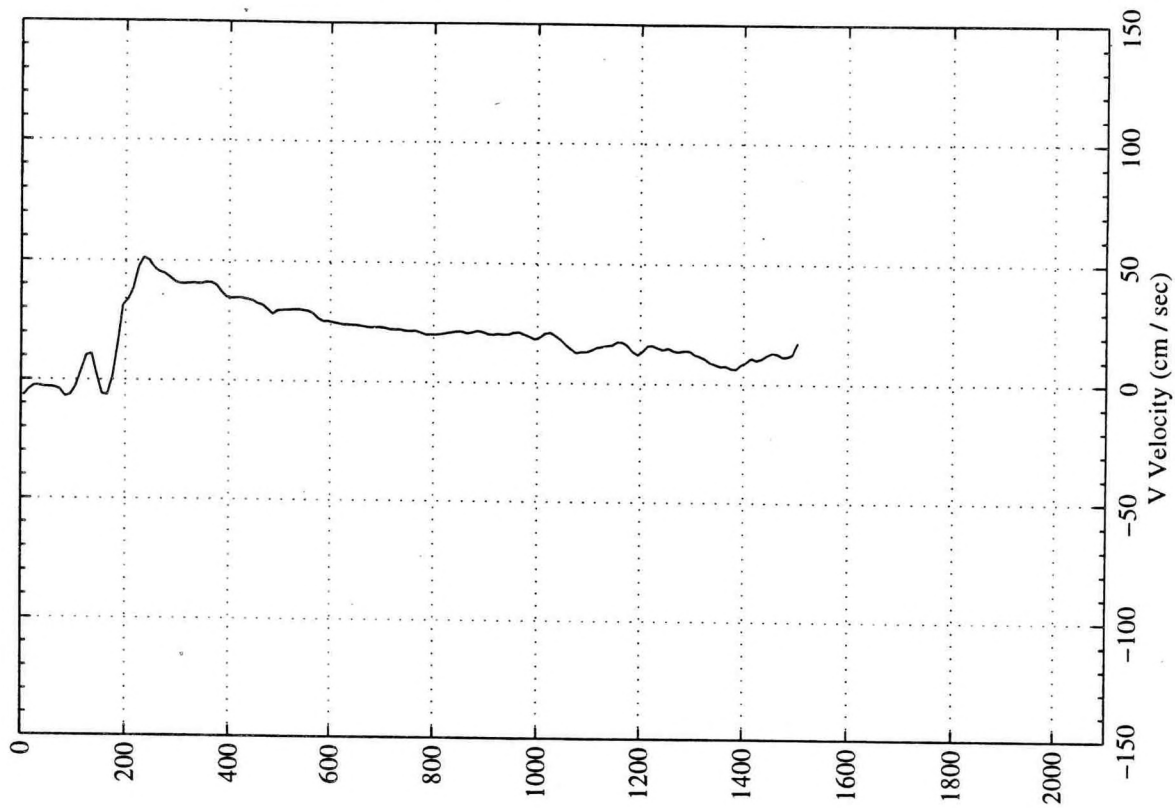
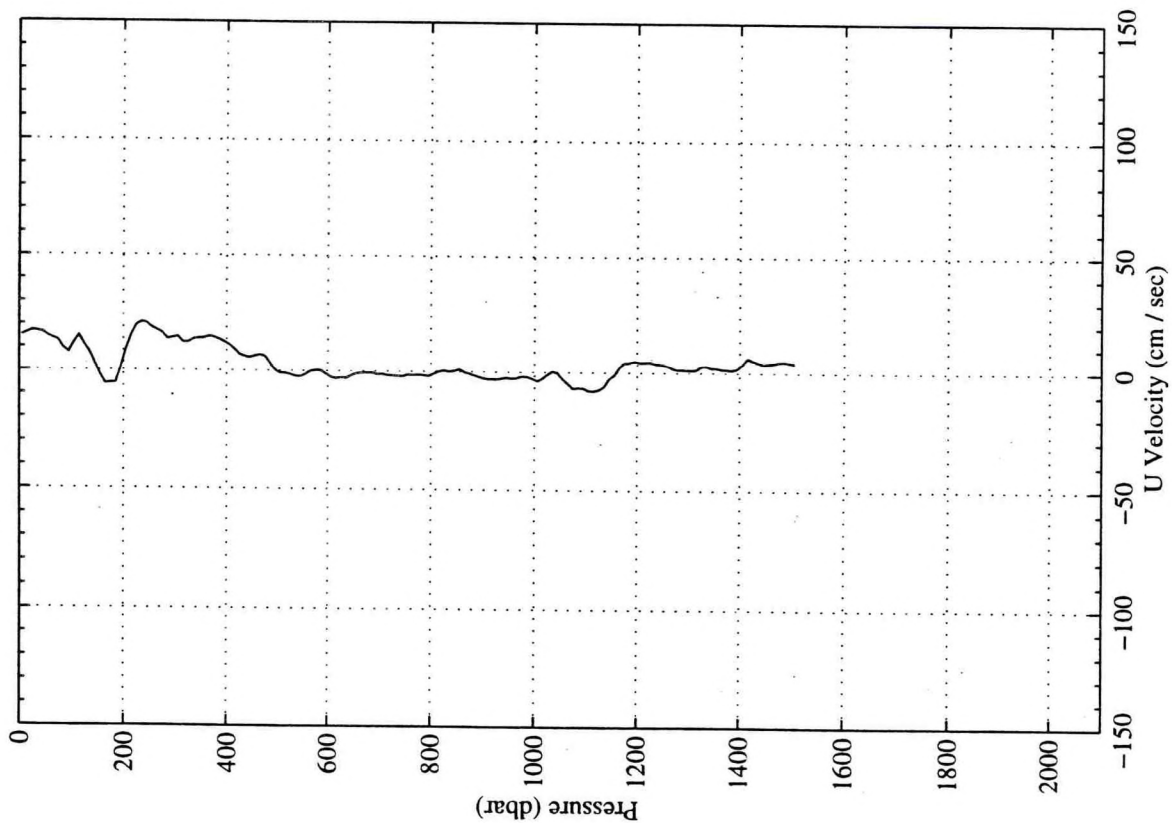


NBC-3 R/V SEWARD JOHNSON  
LADCP Station 42 (00042)  
Latitude 8.705 N Longitude 53.416 W  
18-Feb-2000 04:35 Z

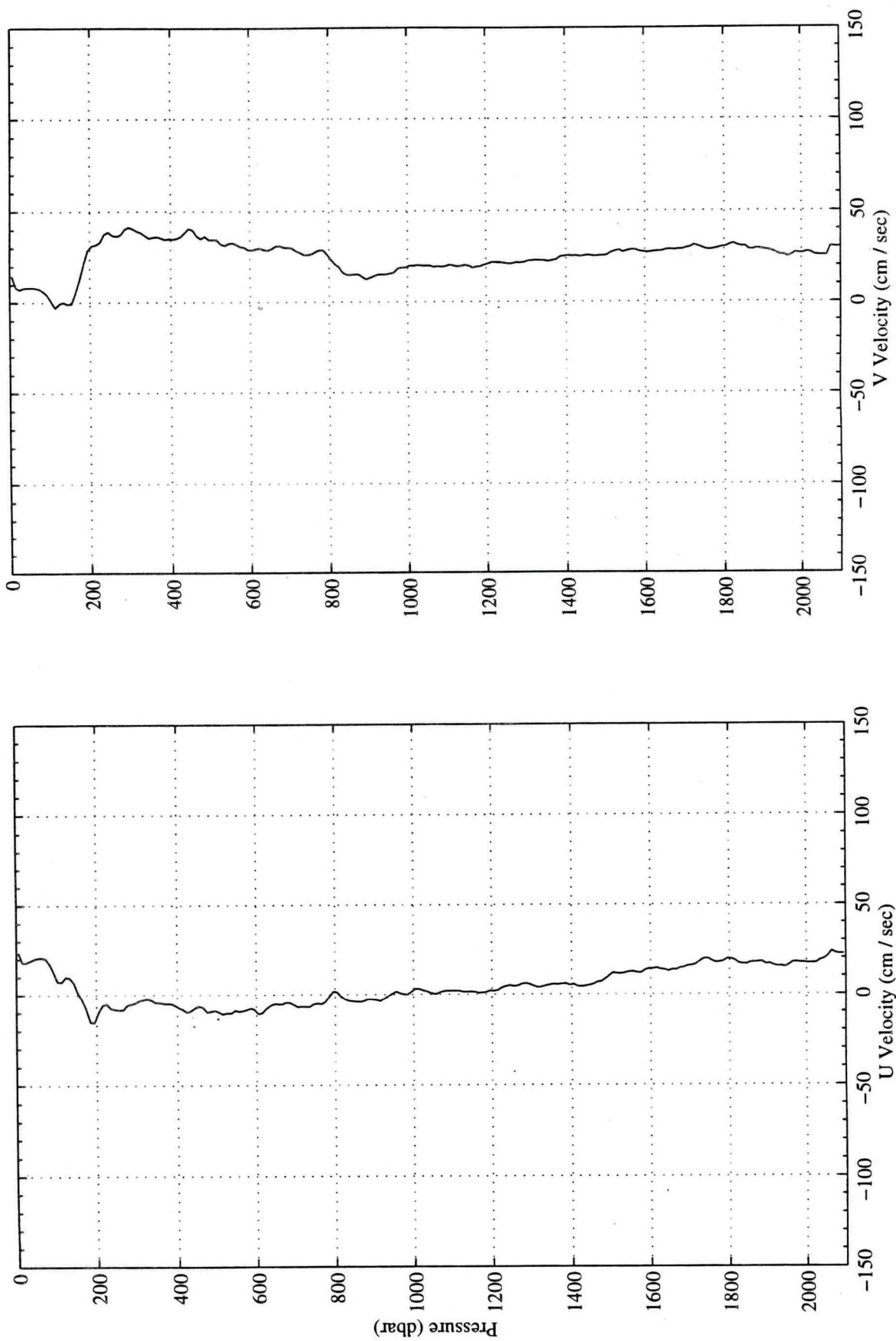




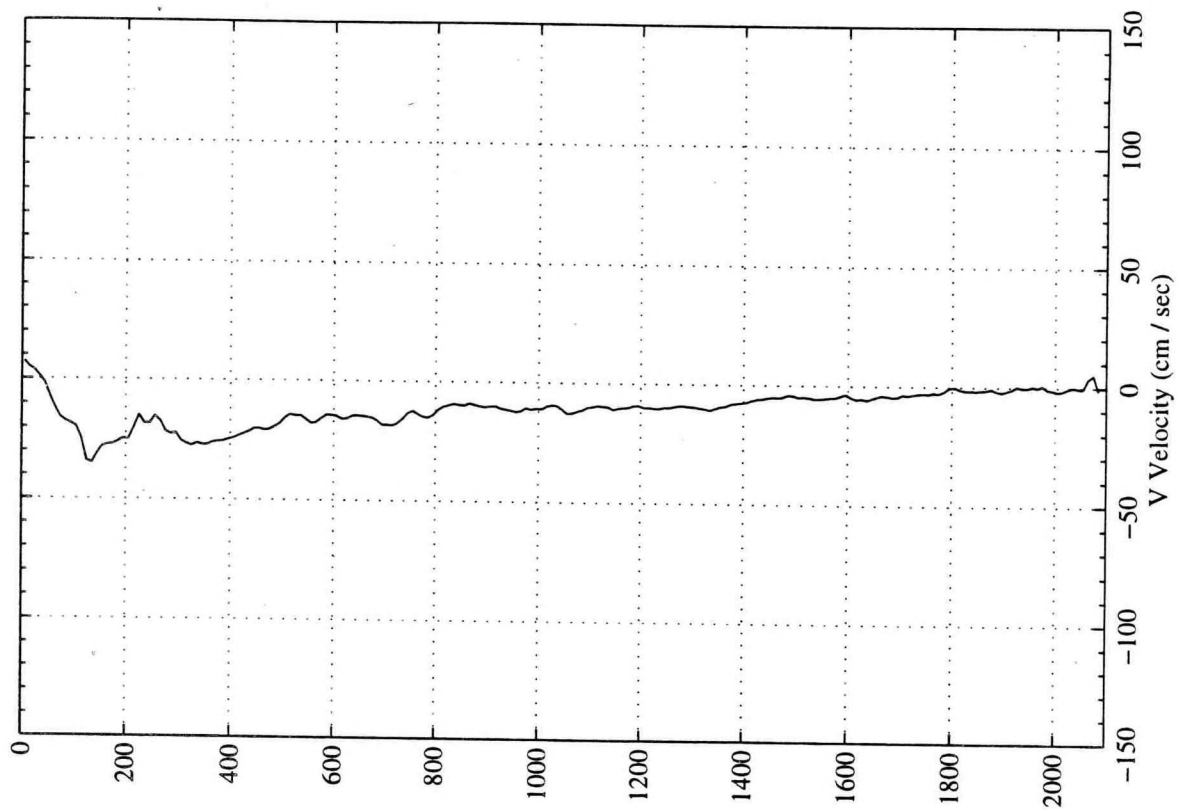
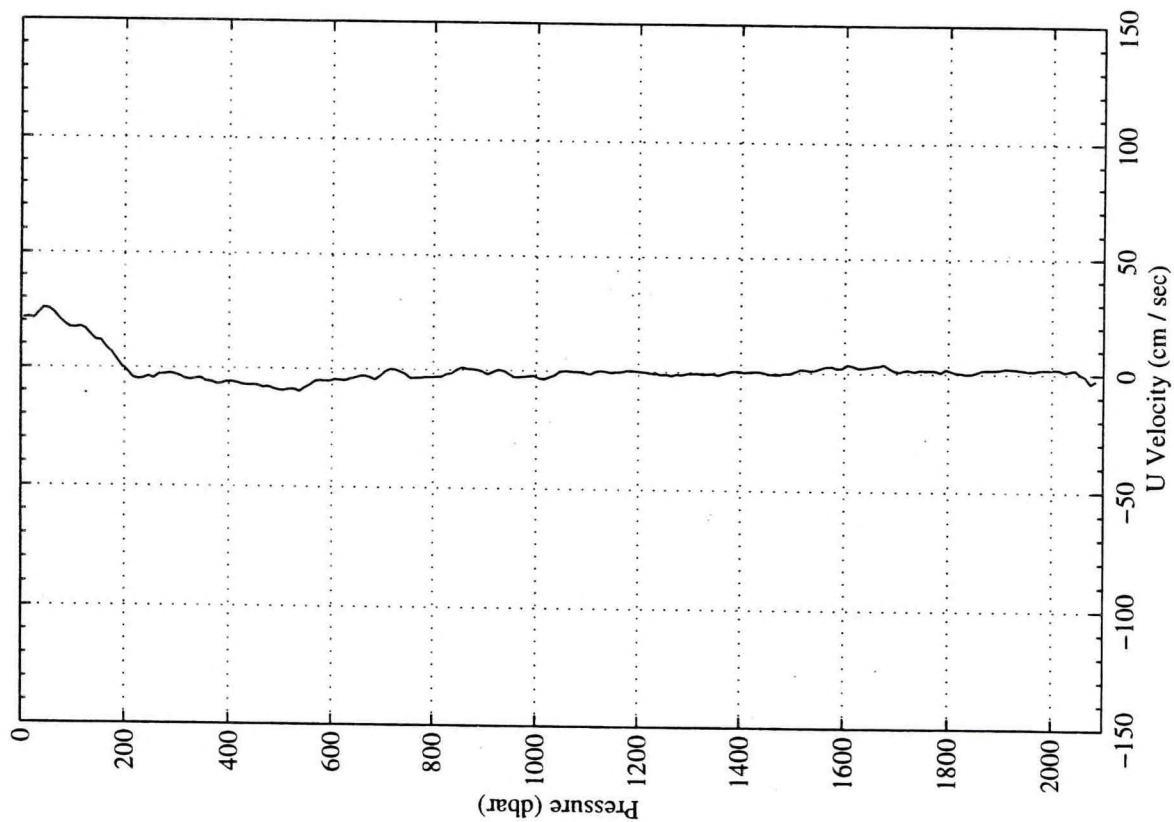
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 44 (00044)  
Latitude 8.923 N Longitude 54.196 W  
18-Feb-2000 12:02 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 45 (00045)  
Latitude 9.018 N Longitude 54.586 W  
18-Feb-2000 15:47 Z

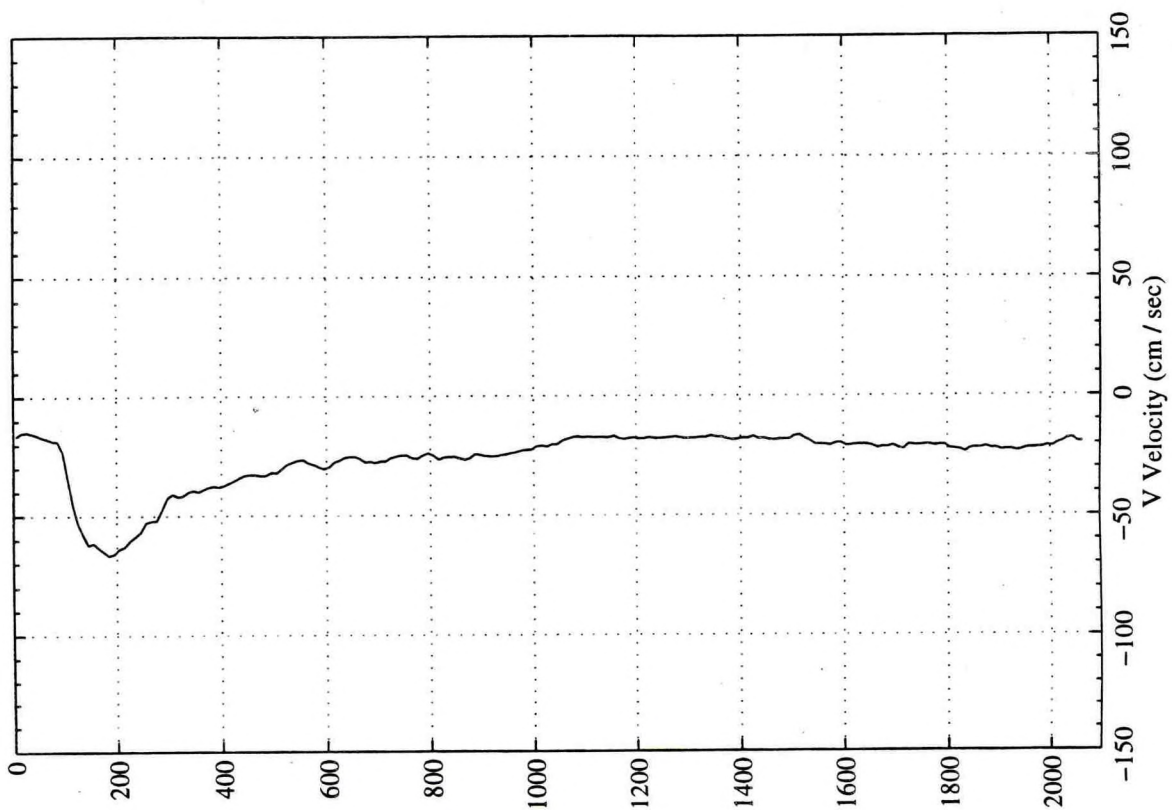
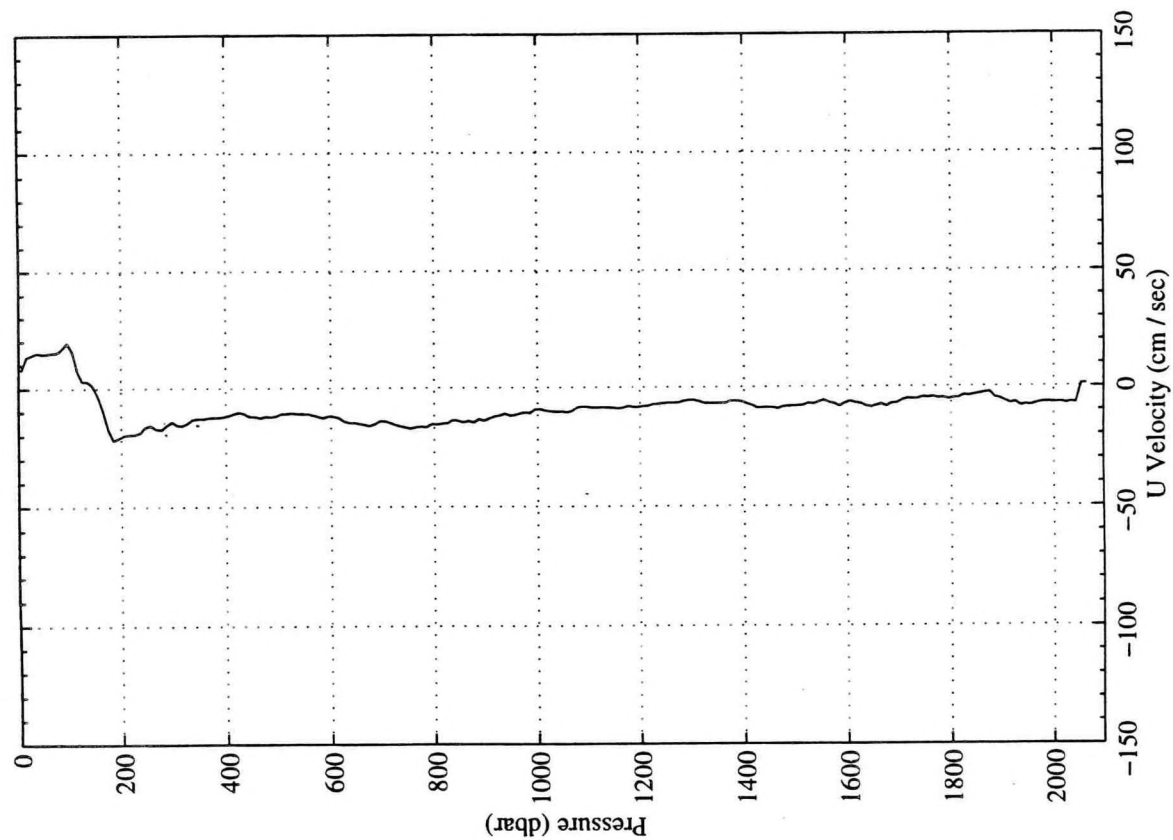


NBC-3 R/V SEWARD JOHNSON  
LADCP Station 47 (00047)  
Latitude 9.201 N Longitude 55.399 W  
19-Feb-2000 03:48 Z

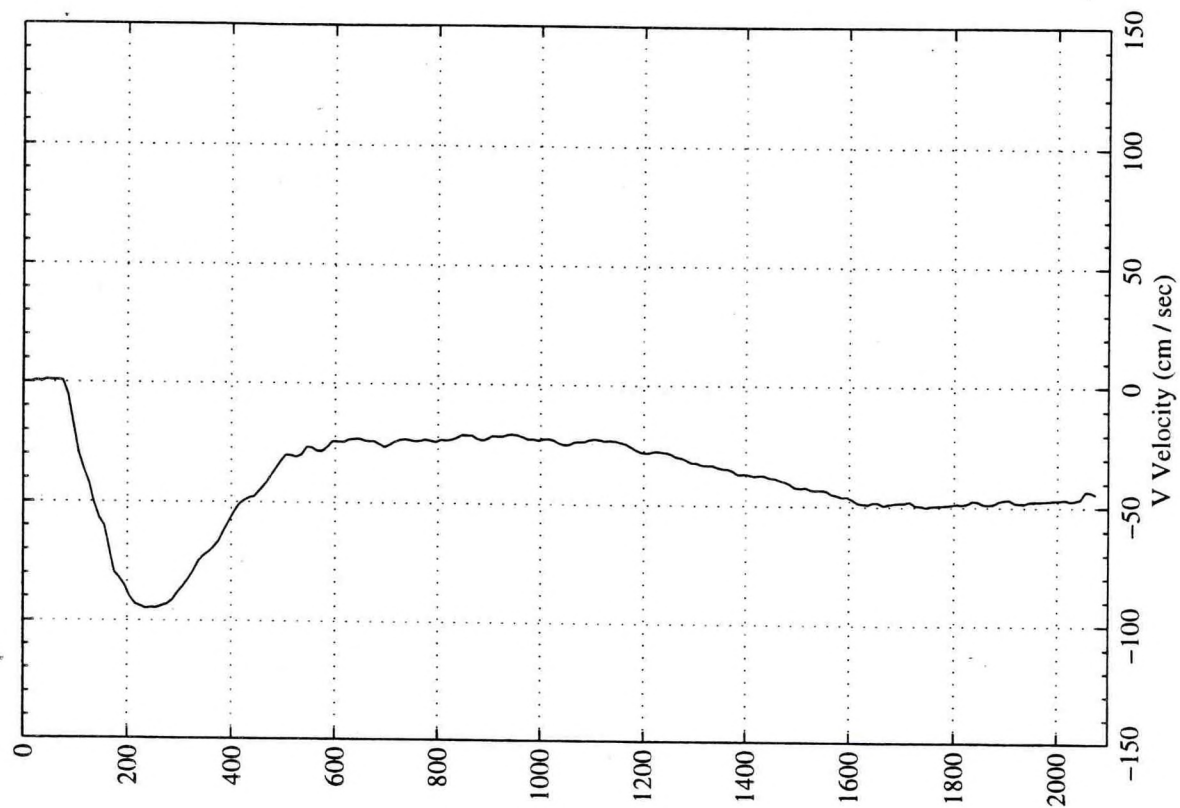
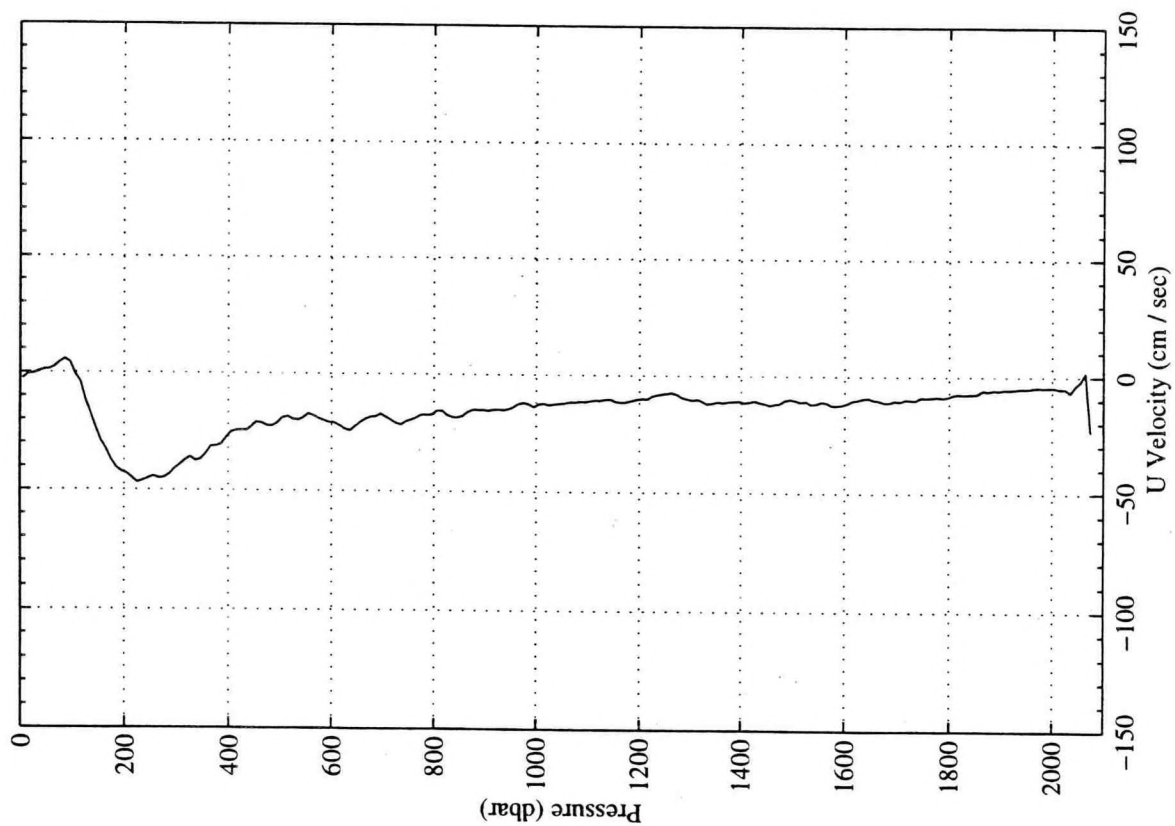




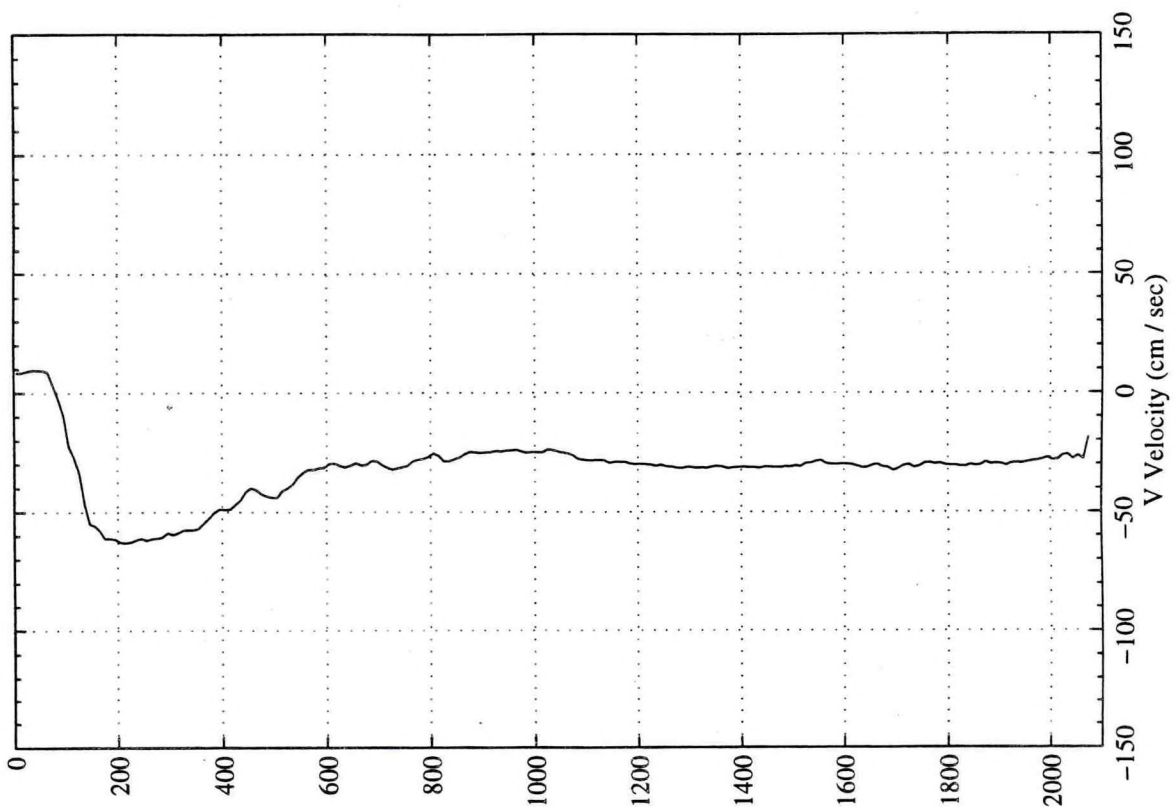
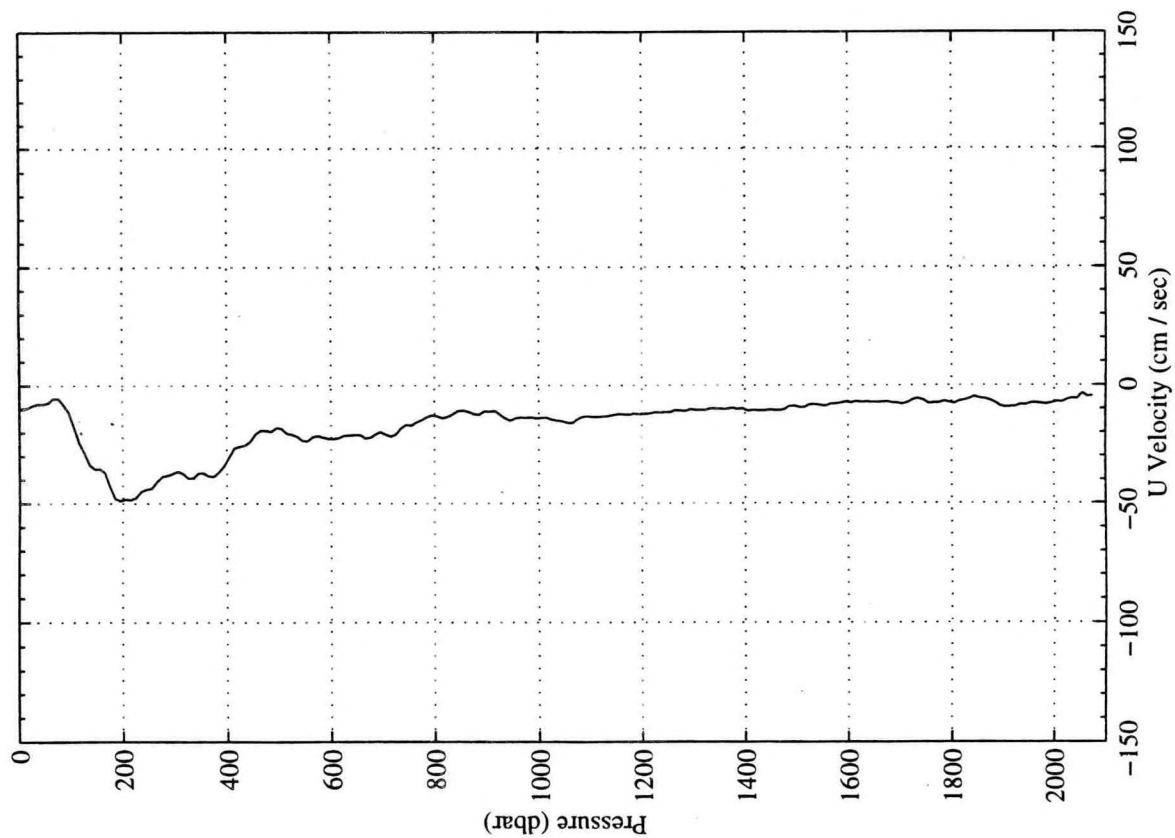
NBC-3 R/V SEWARD JOHNSON  
 LADCP Station 48 (00048)  
 Latitude 9.296 N Longitude 55.798 W  
 19-Feb-2000 07:40 Z



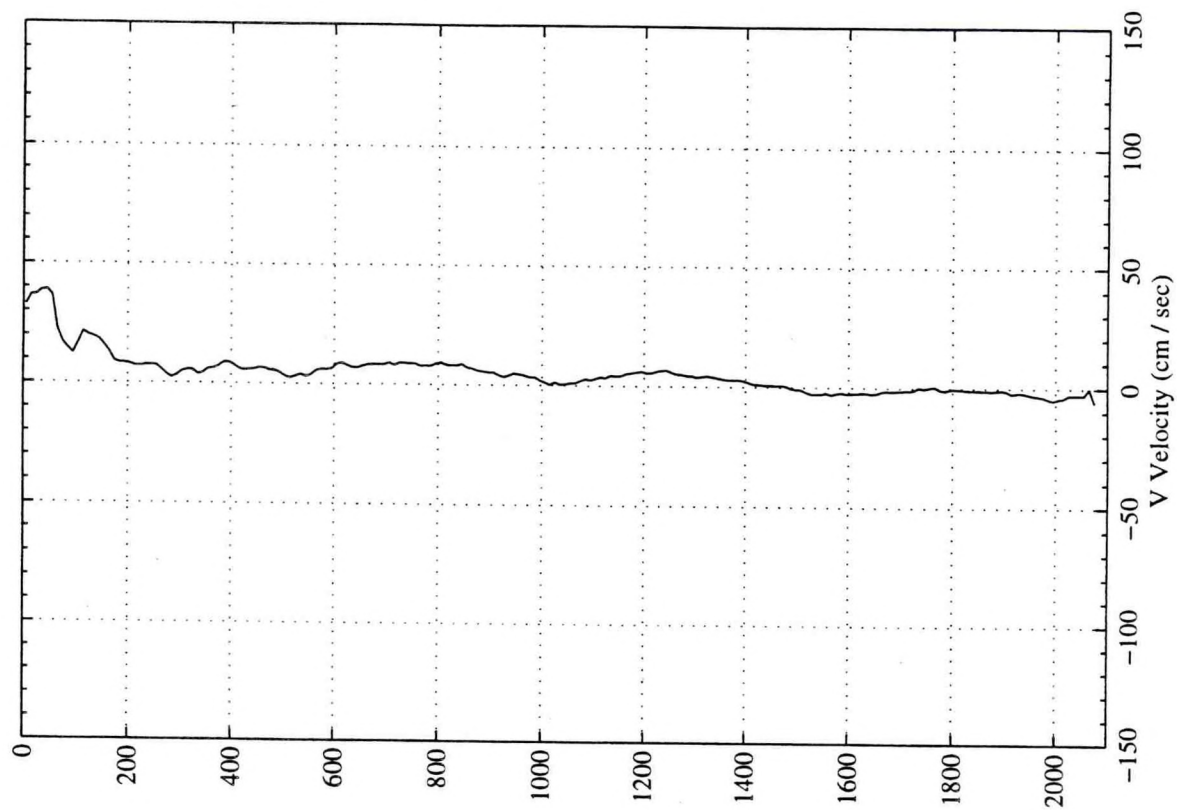
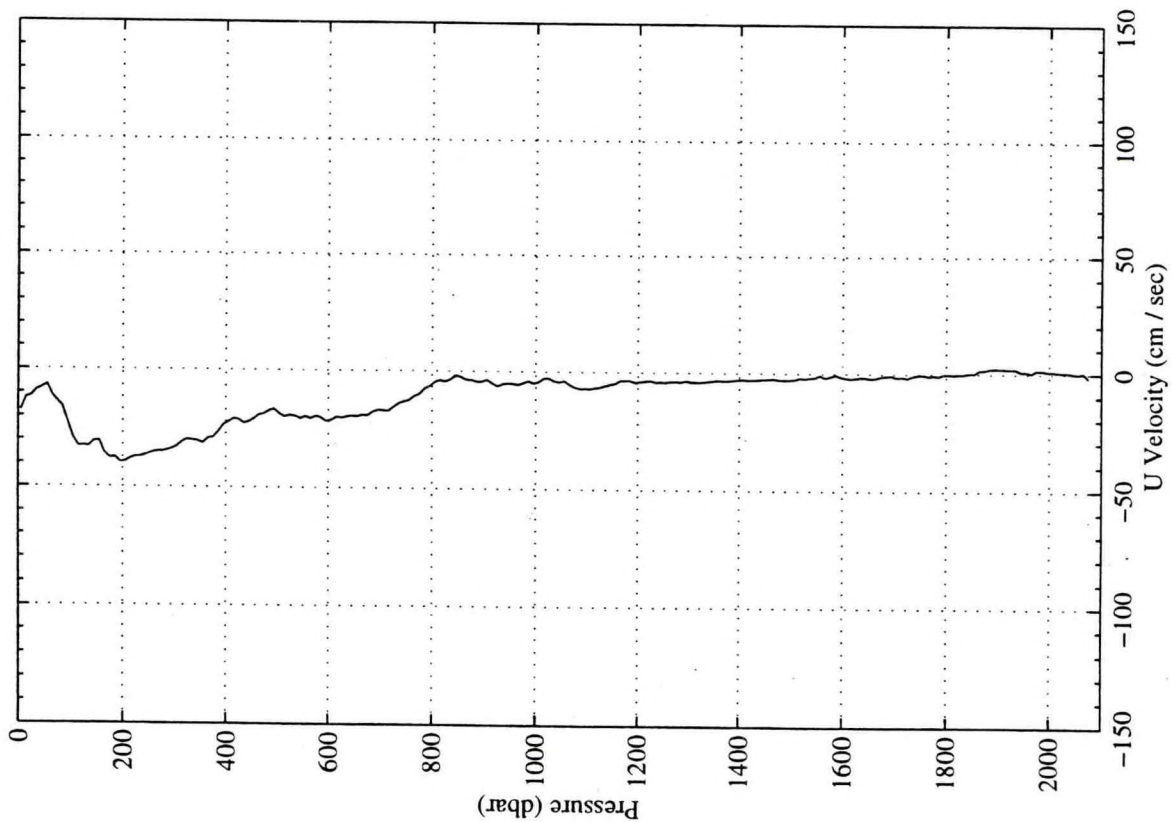
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 49 (00049)  
Latitude 9.399 N Longitude 56.204 W  
19-Feb-2000 12:49 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 50 (00050)  
Latitude 9.499 N Longitude 56.603 W  
19-Feb-2000 16:50 Z

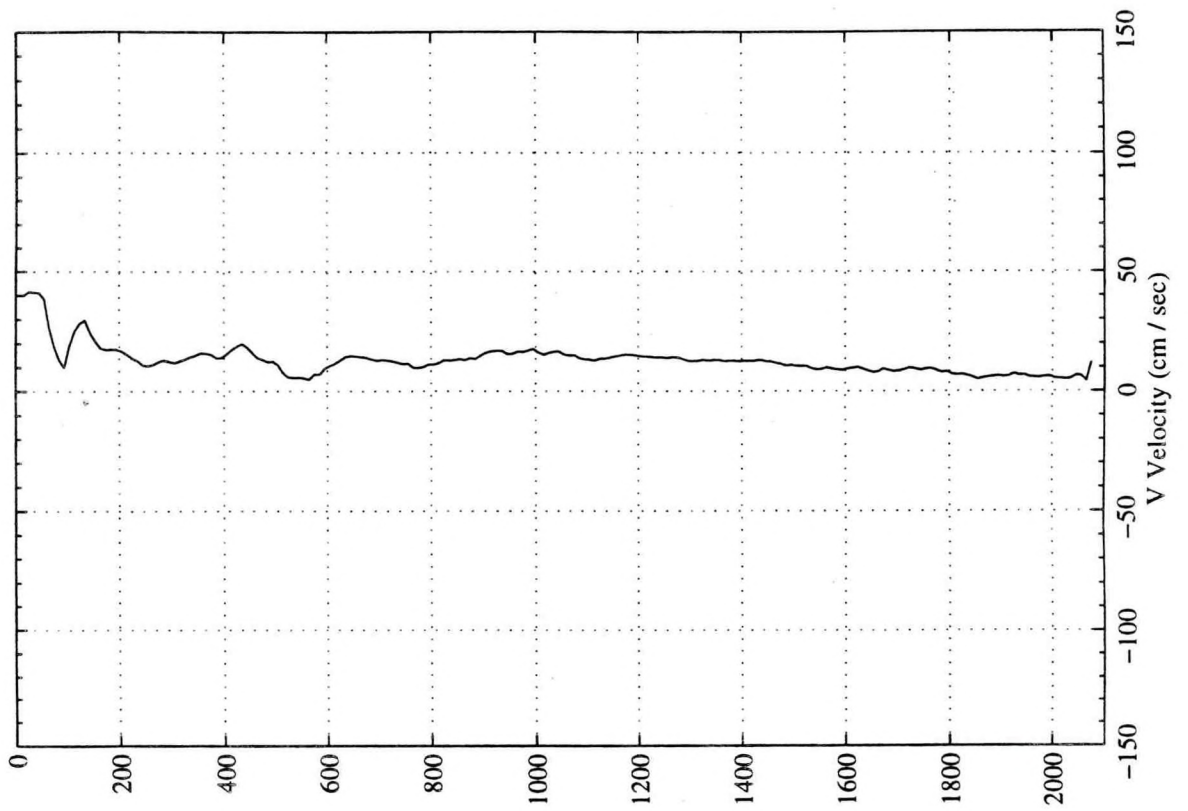
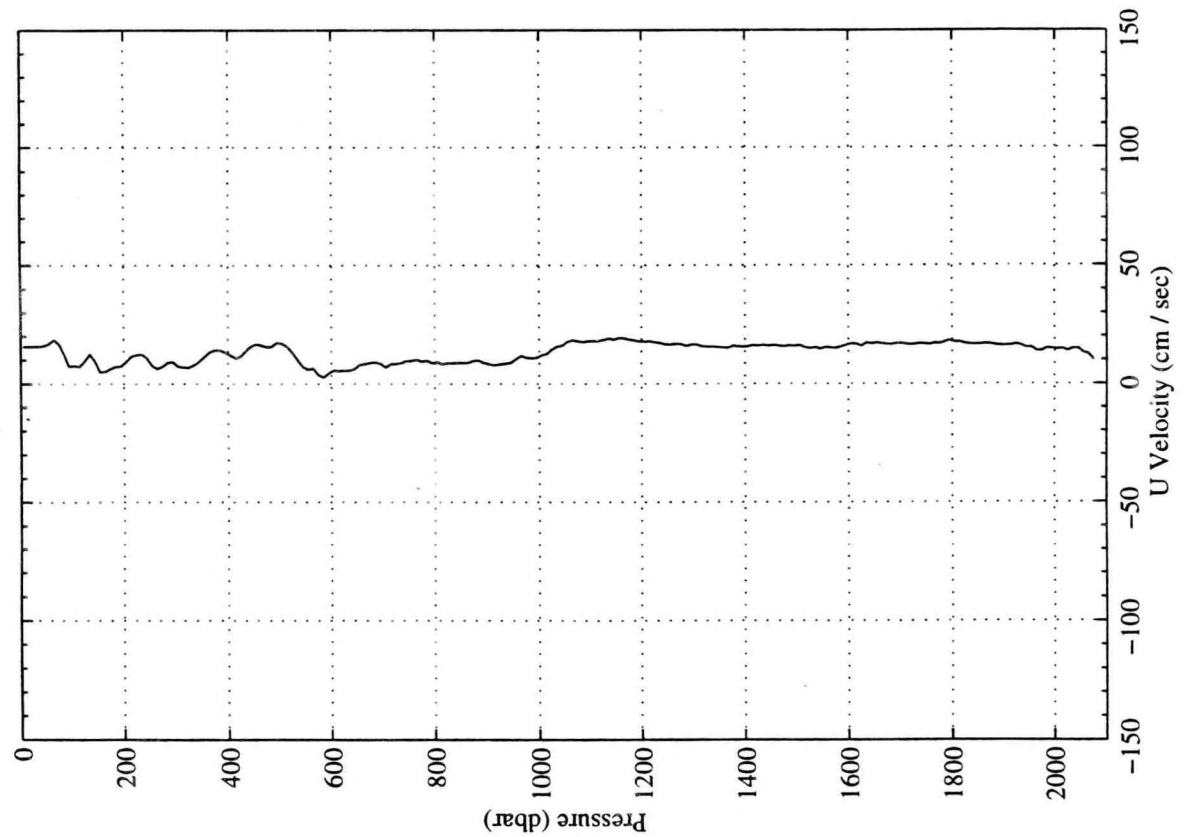


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LADCP Station 51 (00051)  
Latitude 9.609 N Longitude 57.001 W  
19-Feb-2000 20:32 Z

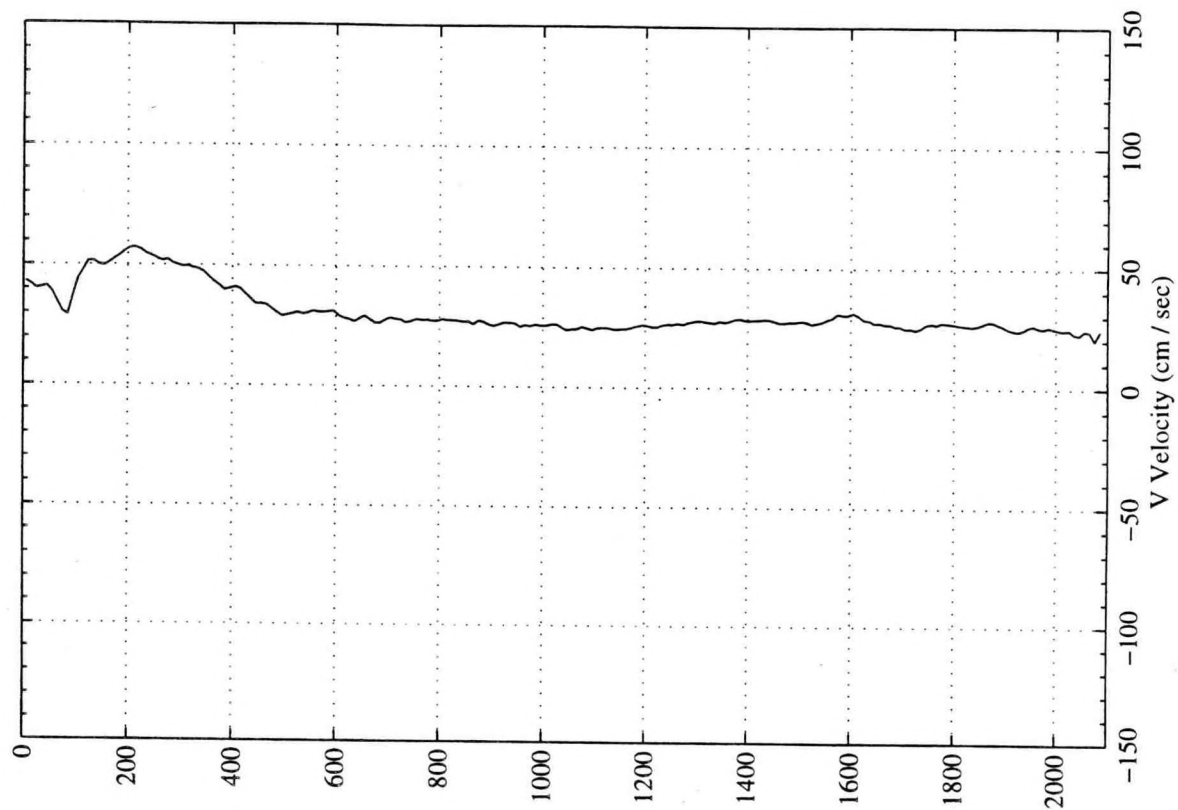
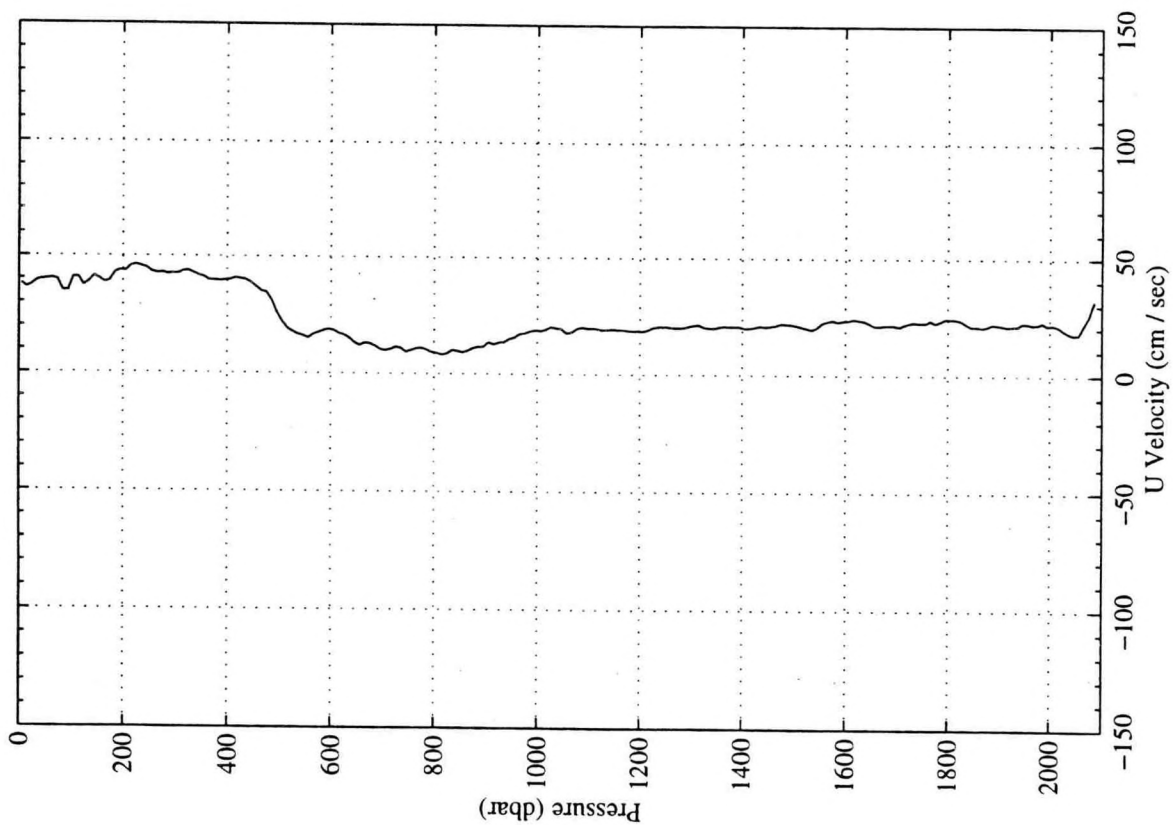




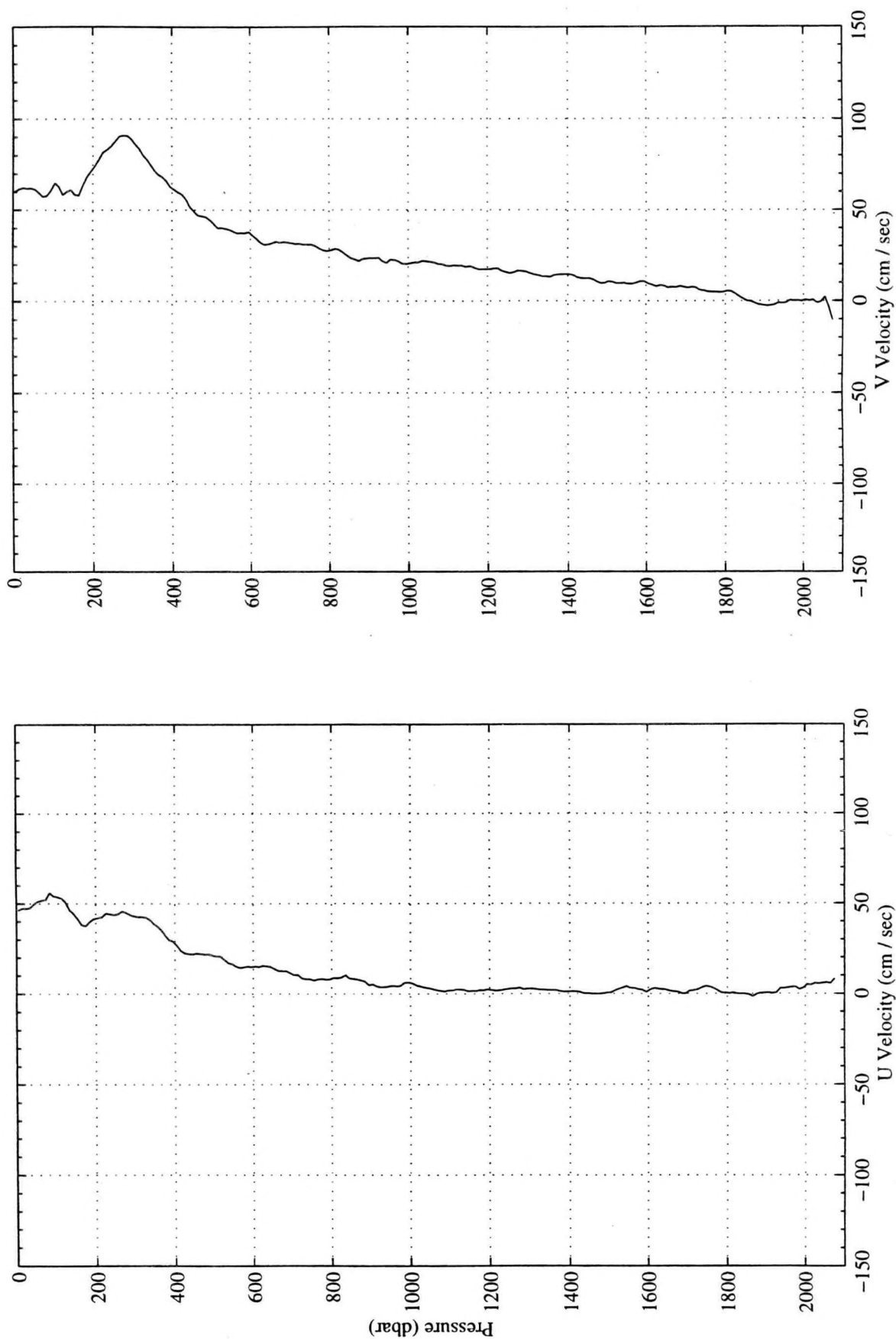
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LADCP Station 52 (00052)  
Latitude 10.011 N Longitude 57.103 W  
20-Feb-2000 00:51 Z



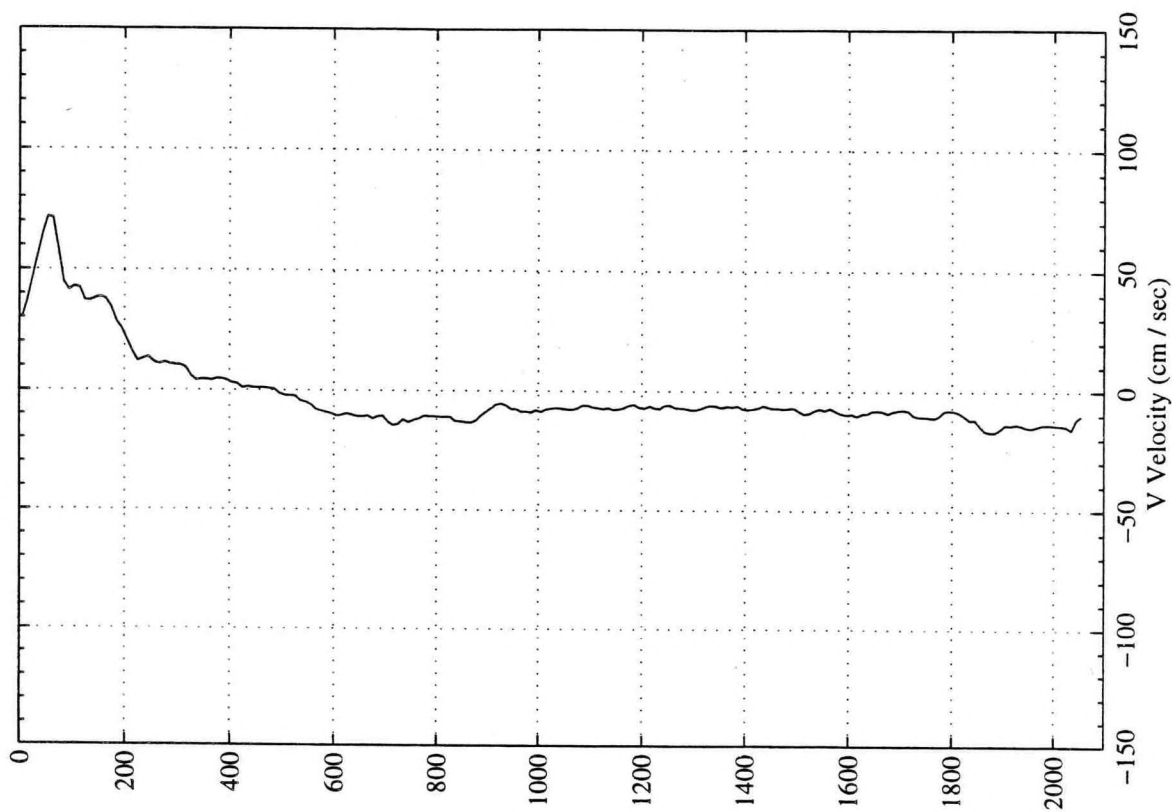
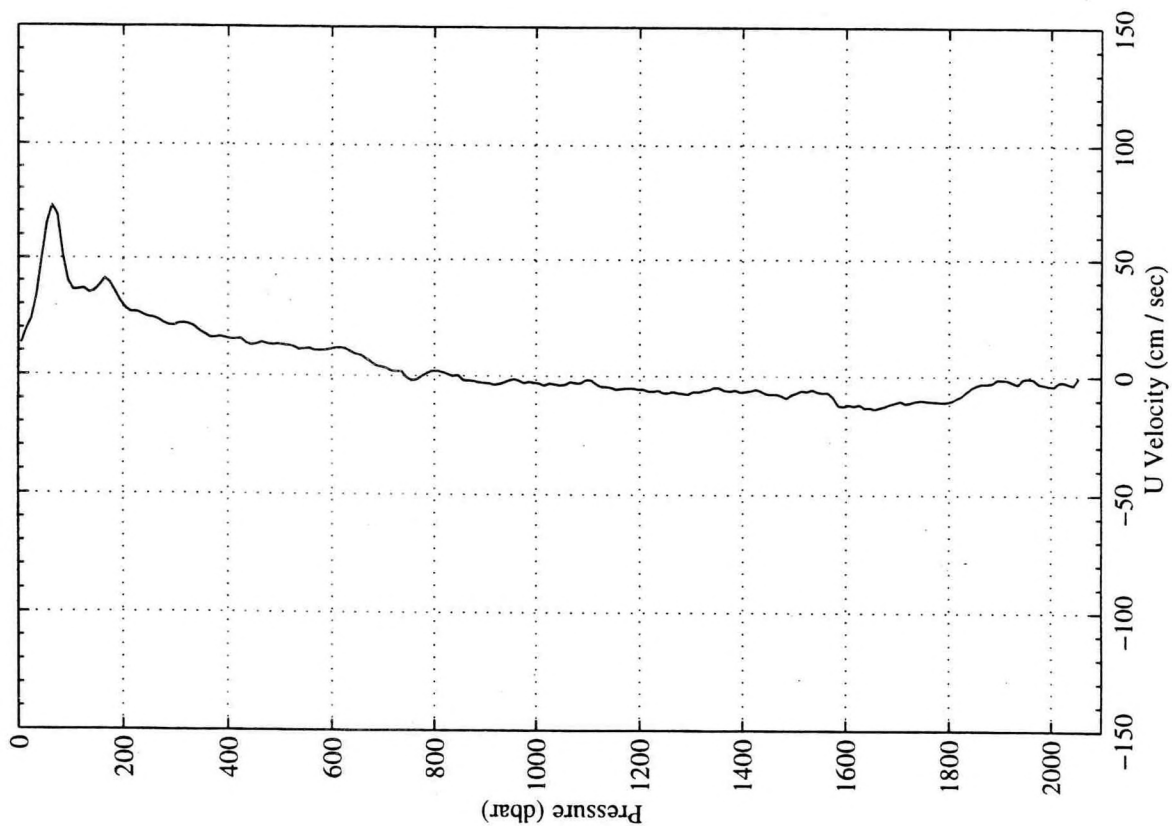
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 53 (00053)  
Latitude 10.246 N Longitude 57.456 W  
20-Feb-2000 05:34 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 54 (00054)  
Latitude 10.445 N Longitude 57.835 W  
20-Feb-2000 10:41 Z

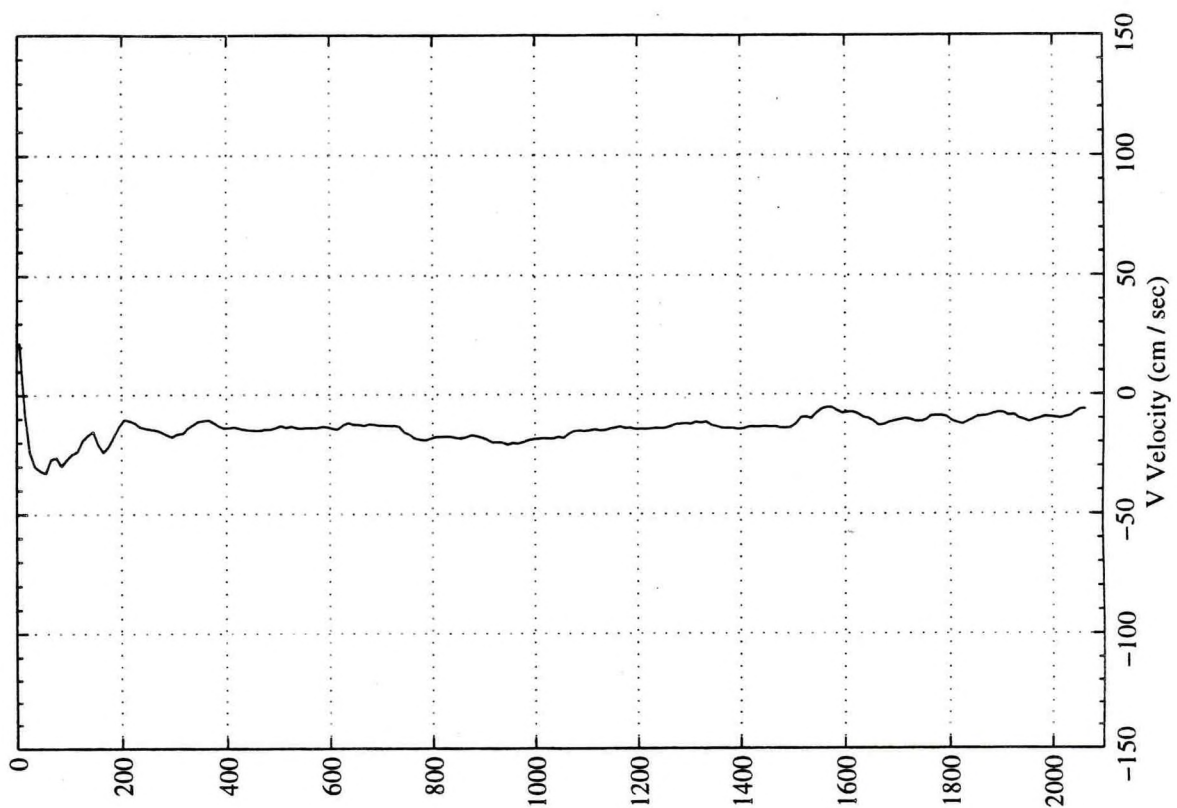
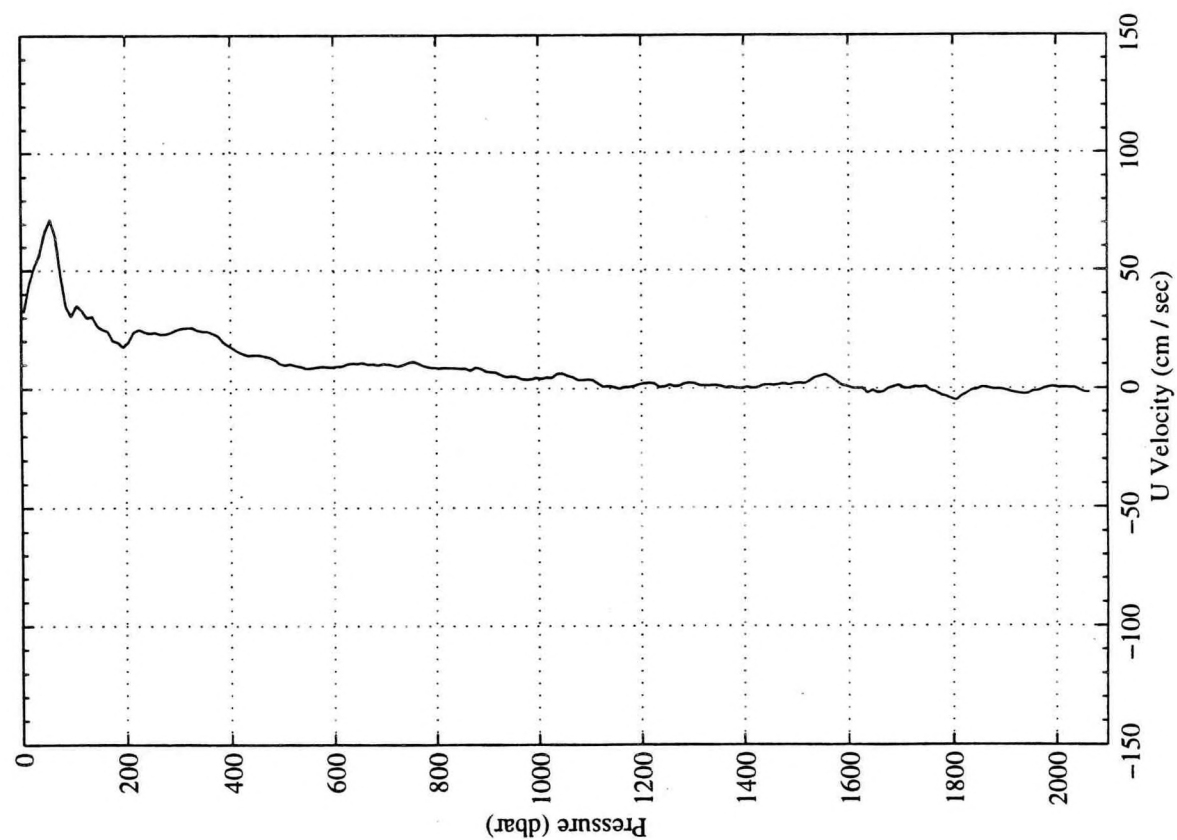


NBC-3 R/V SEWARD JOHNSON  
LADCP Station 55 (00055)  
Latitude 10.644 N Longitude 58.224 W  
20-Feb-2000 15:05 Z

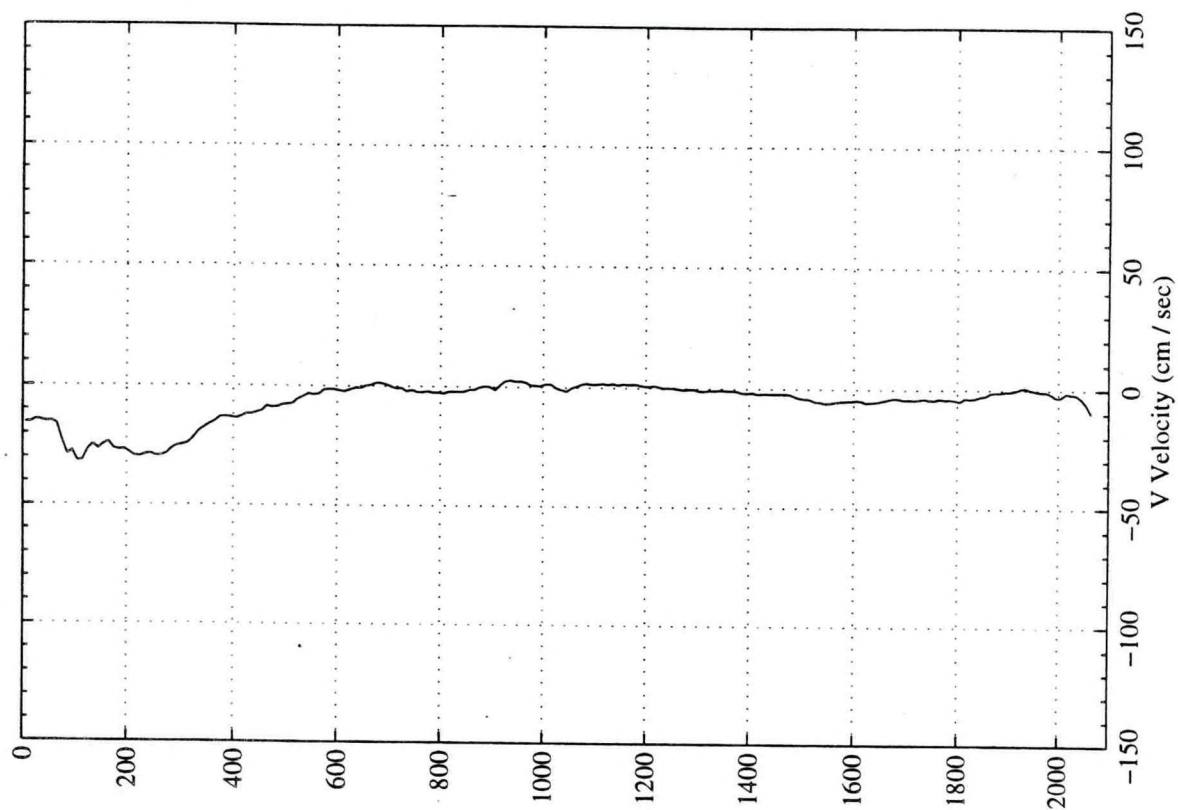
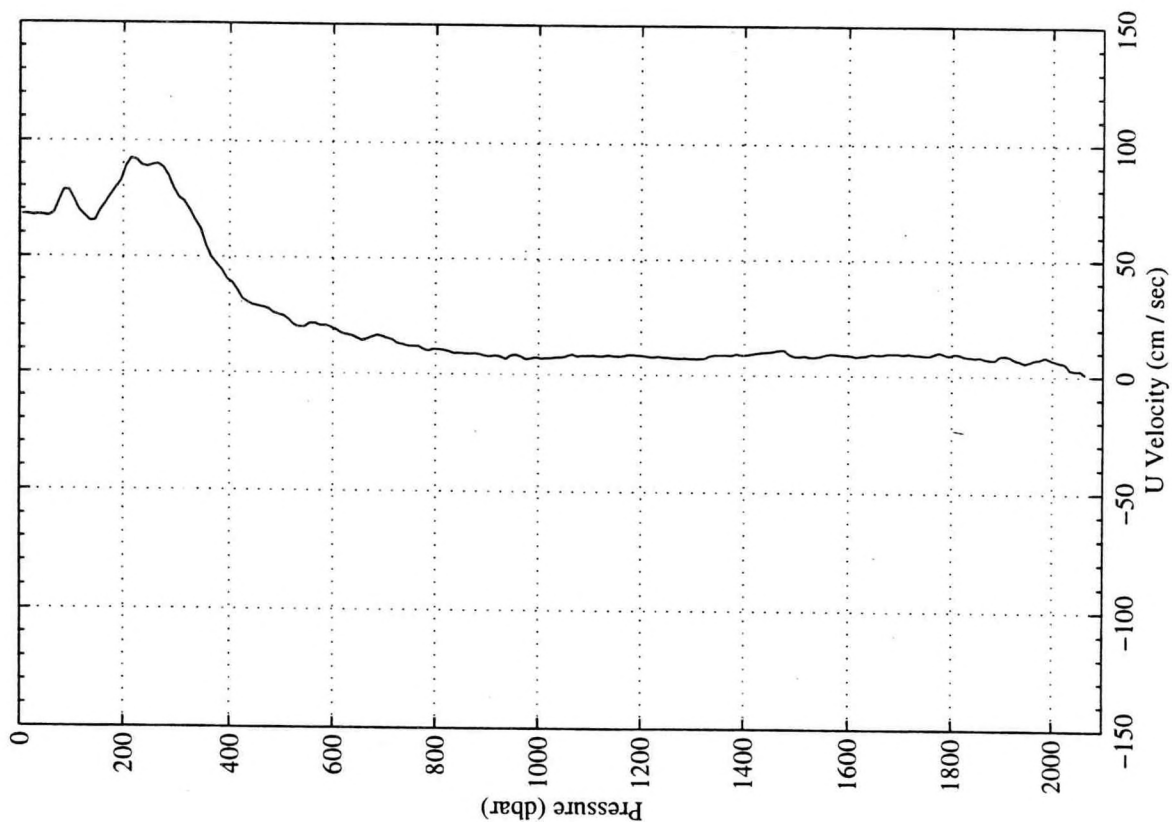




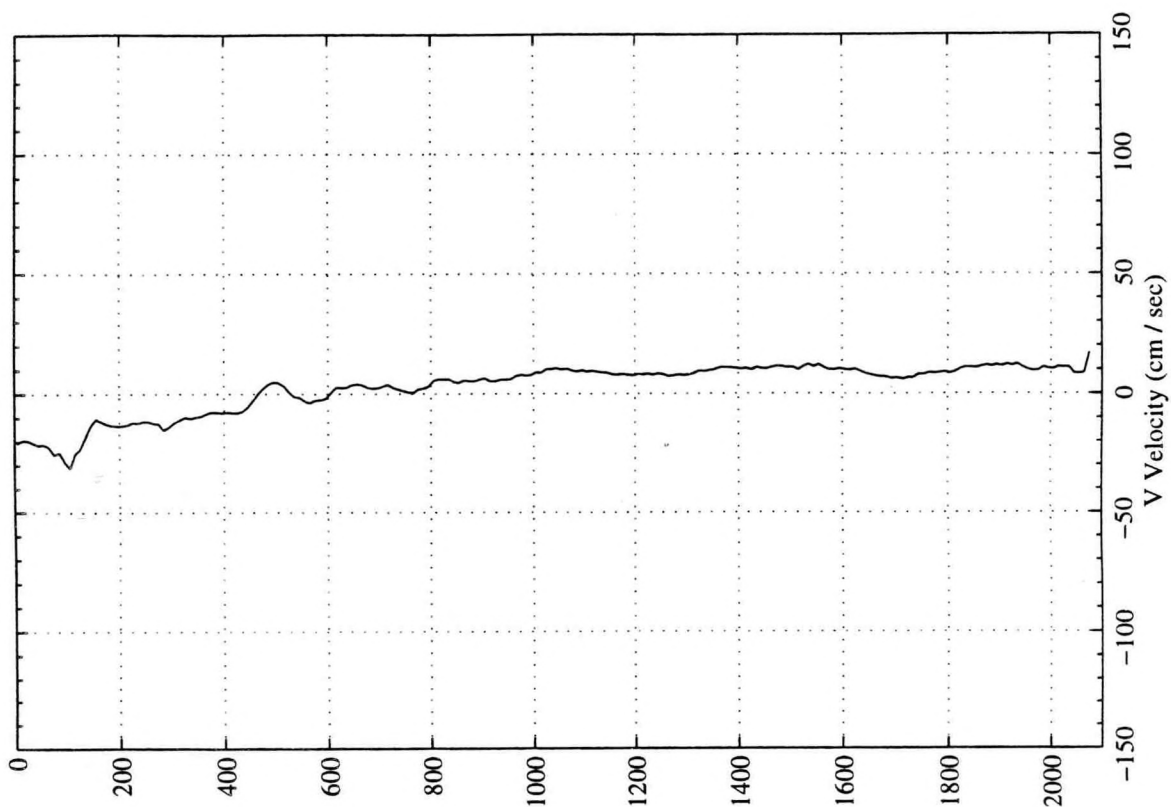
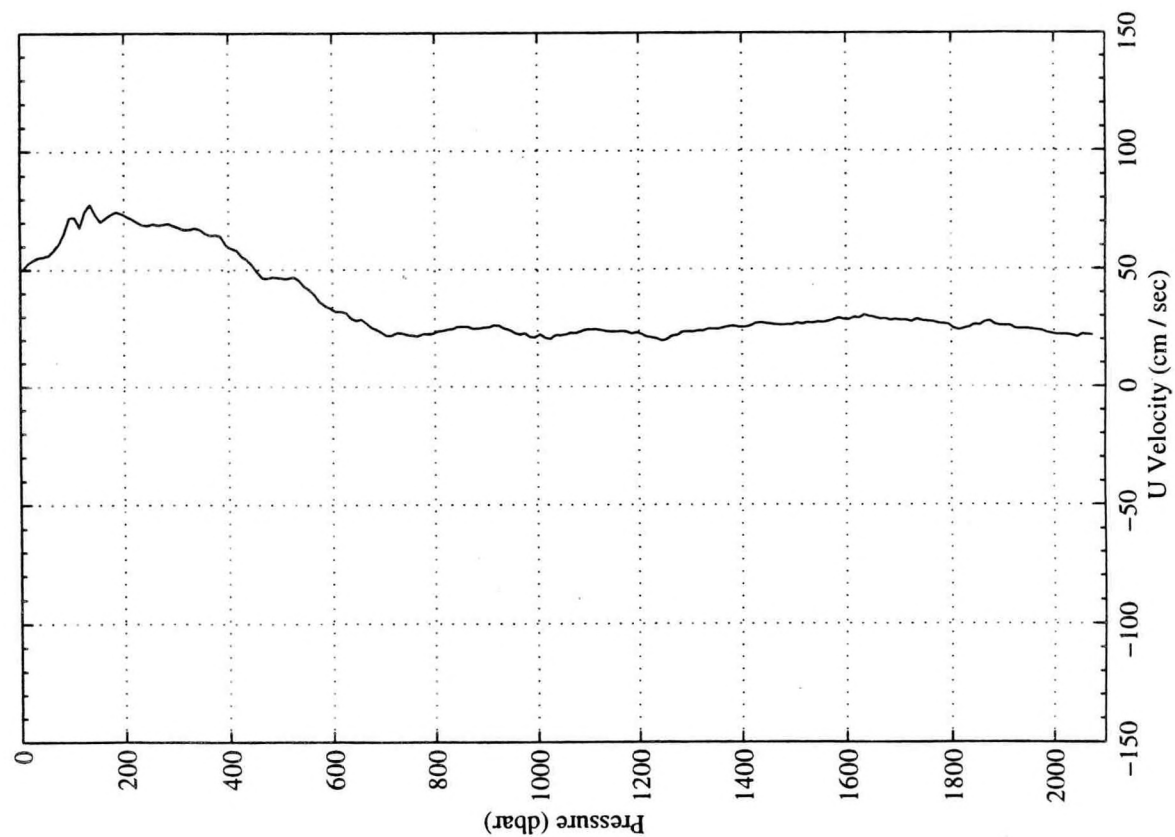
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 56 (00056)  
Latitude 11.274 N Longitude 56.529 W  
21-Feb-2000 06:07 Z



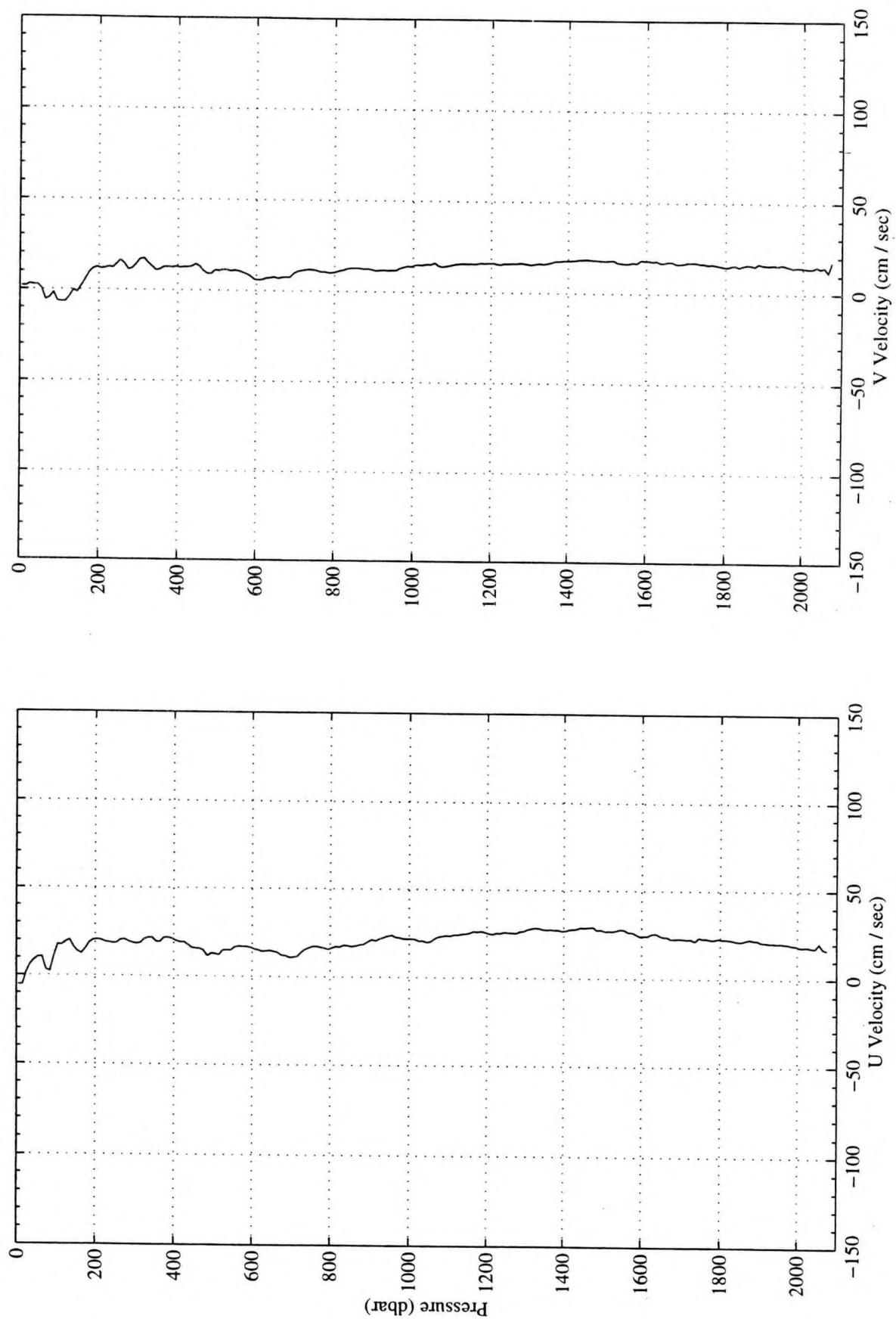
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 57 (00057)  
Latitude 10.854 N Longitude 56.782 W  
21-Feb-2000 10:27 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 58 (00058)  
Latitude 10.466 N Longitude 57.020 W  
21-Feb-2000 14:34 Z

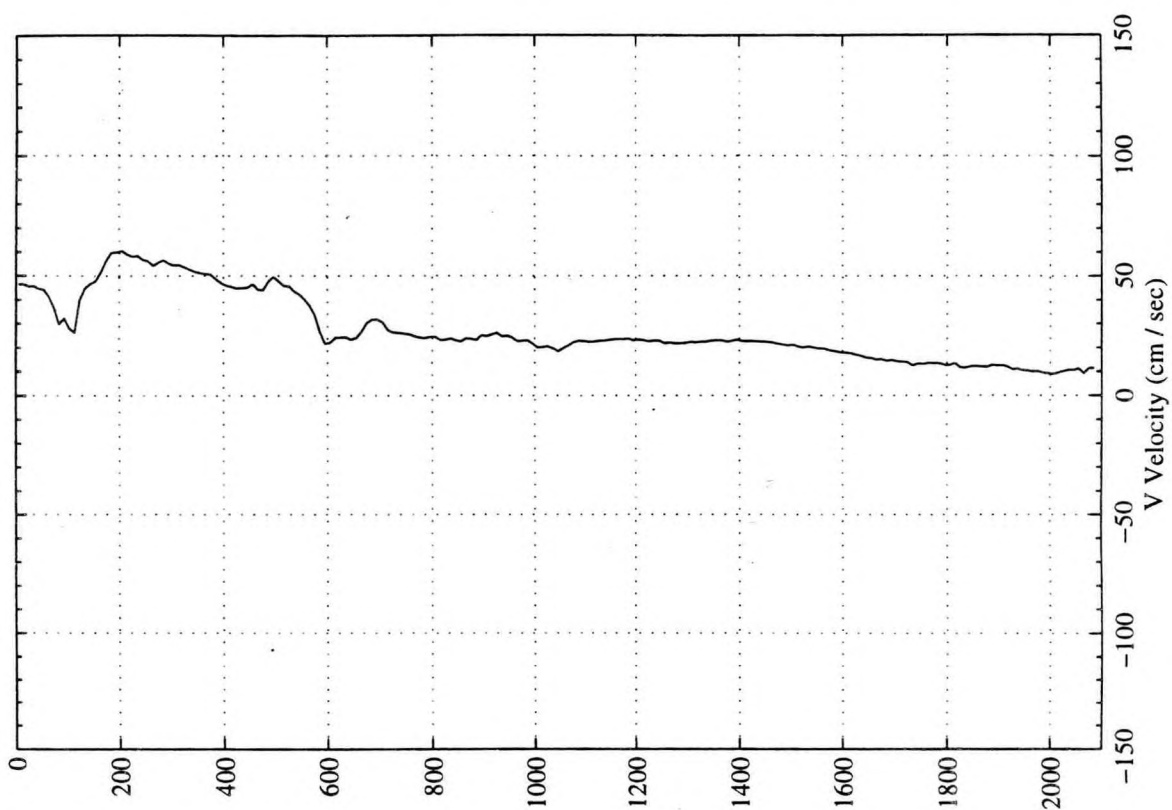
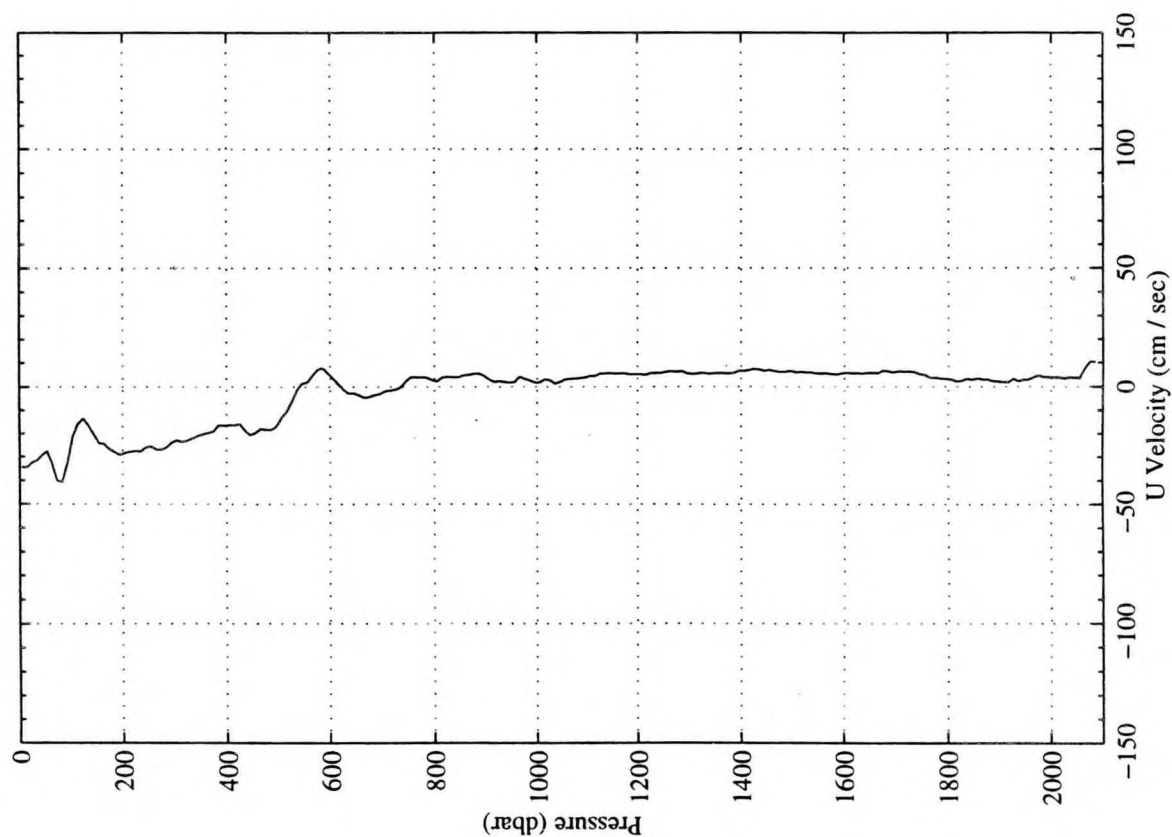


NBC-3 R/V SEWARD JOHNSON  
LADCP Station 59 (00059)  
Latitude 10.090 N Longitude 57.246 W  
21-Feb-2000 18:20 Z

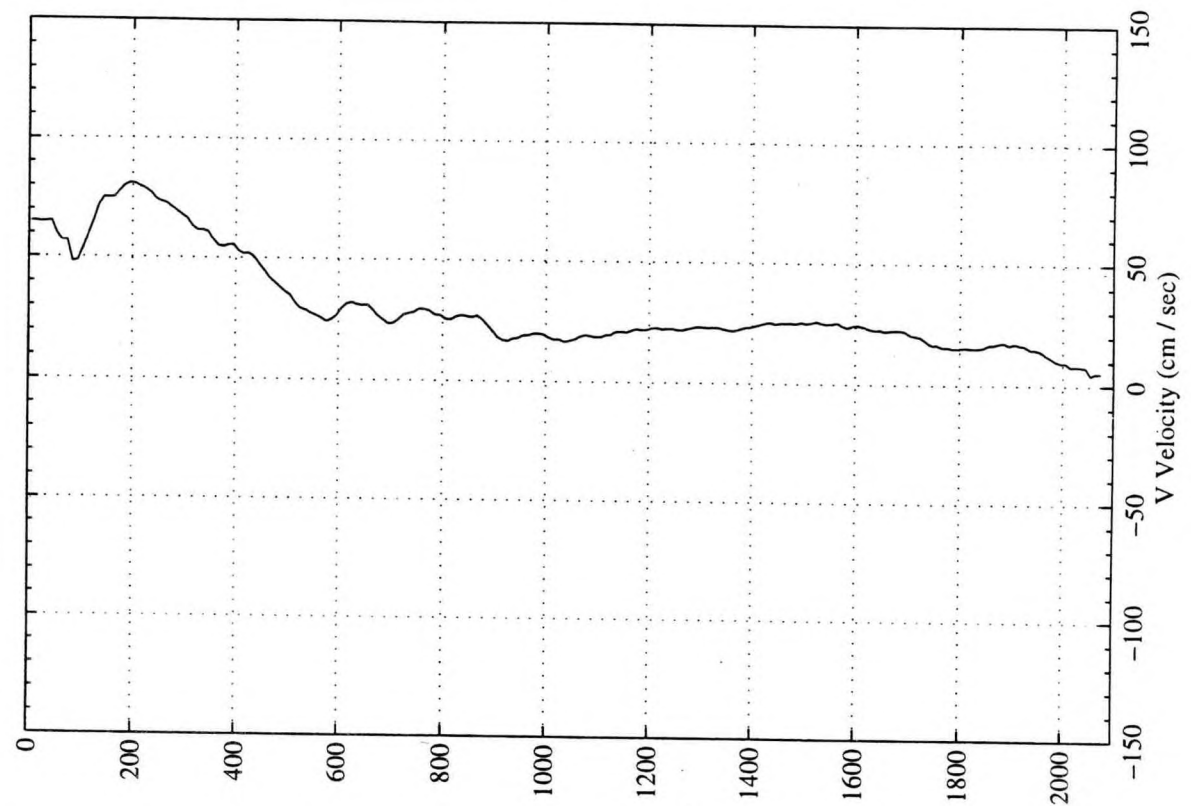
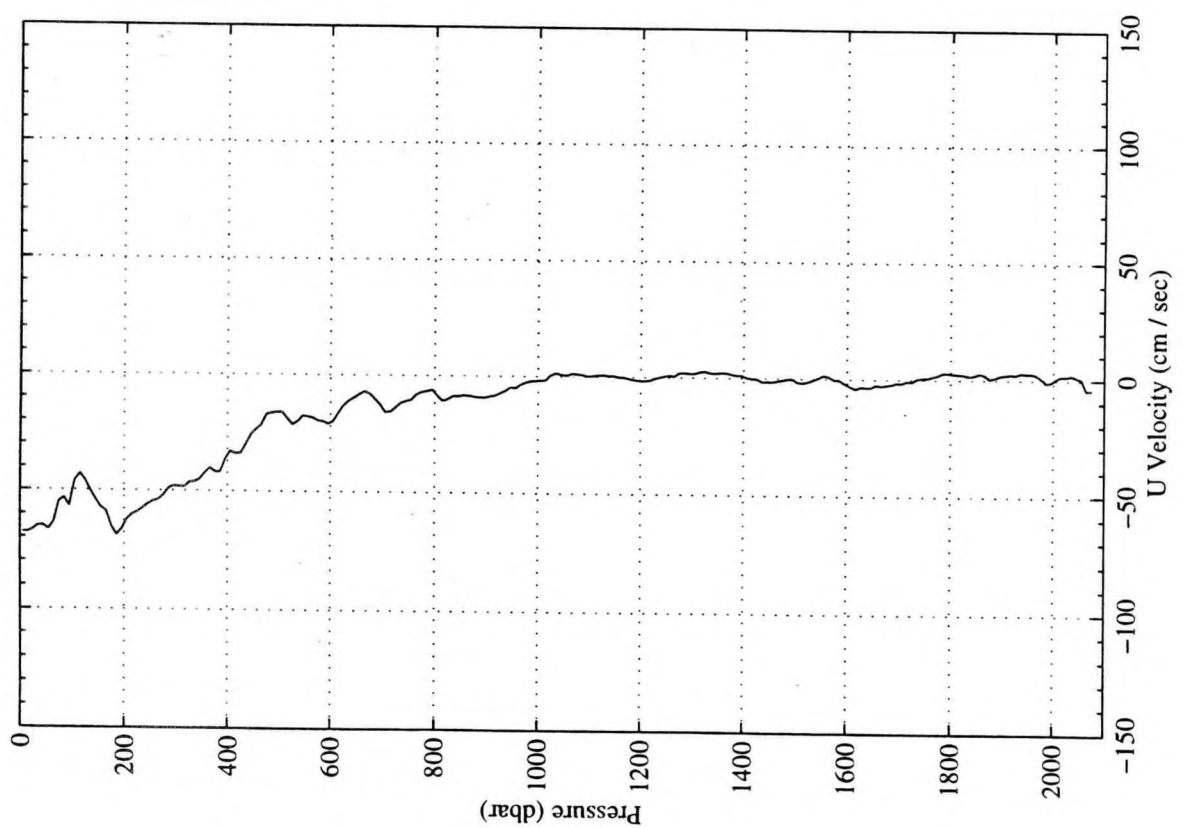




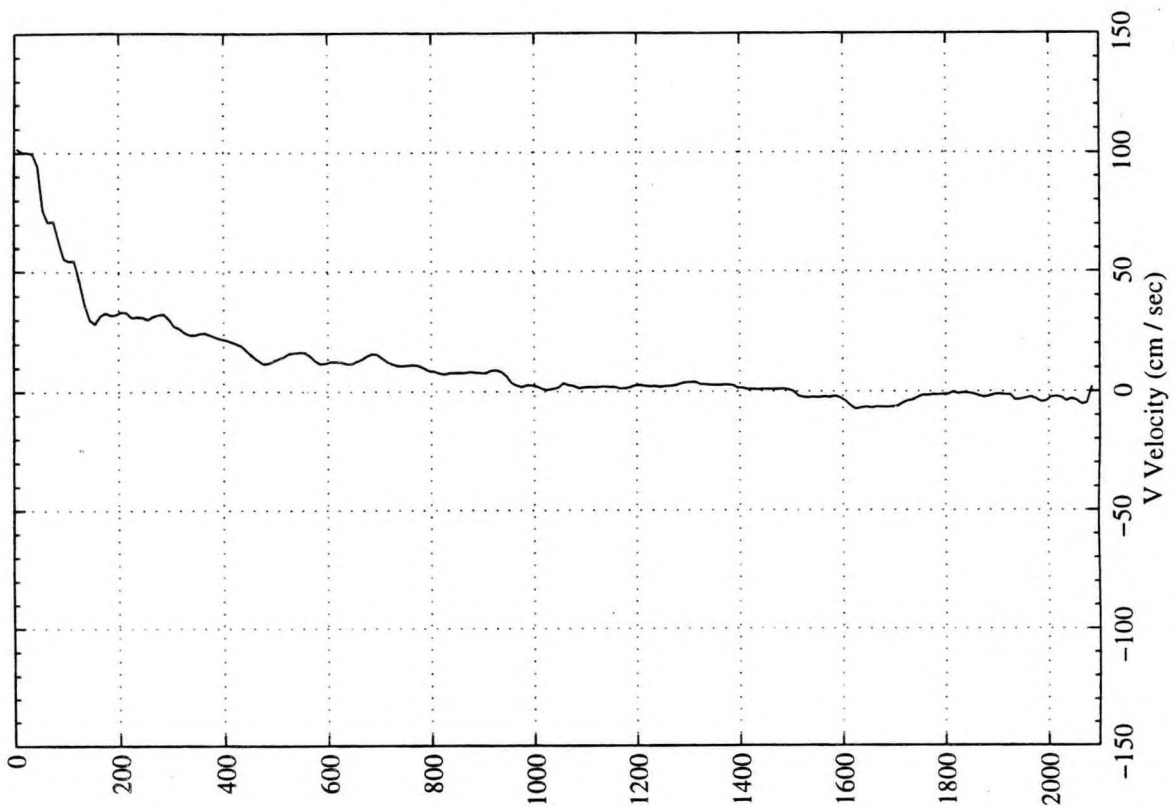
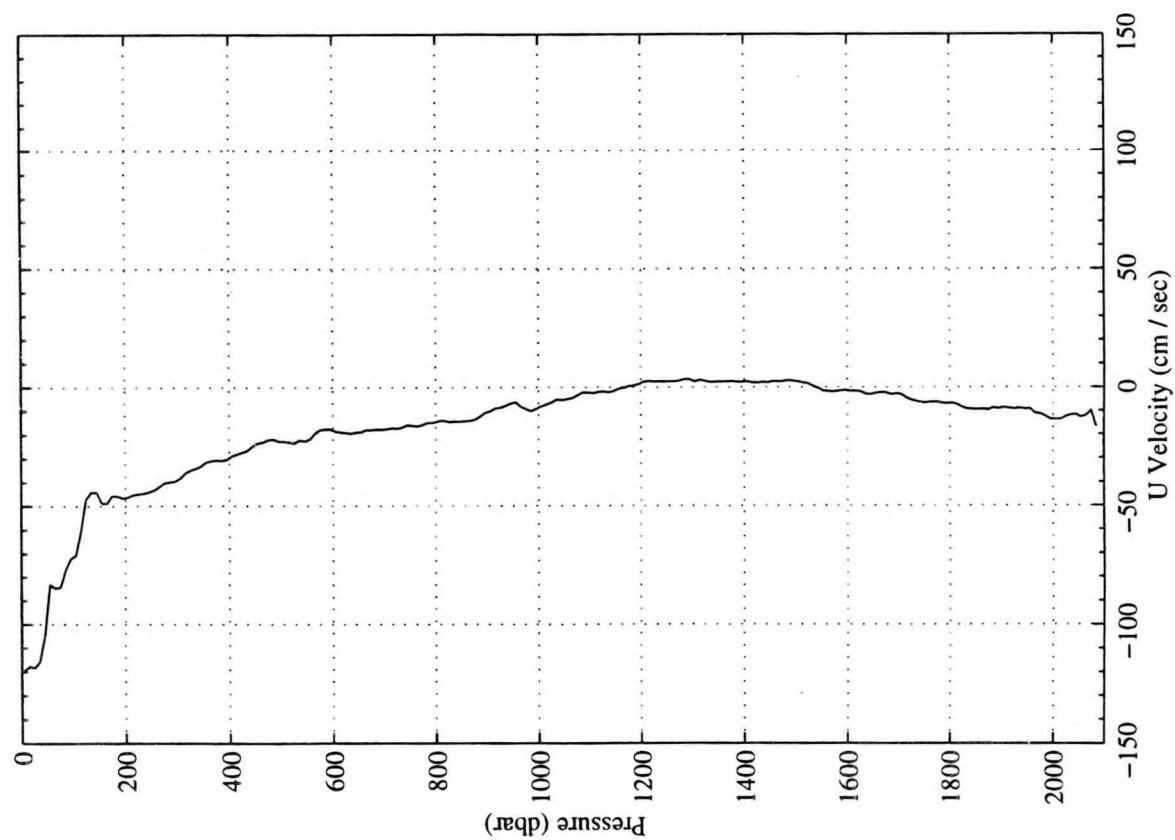
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 60 (00060)  
Latitude 9.643 N Longitude 57.500 W  
21-Feb-2000 22:42 Z



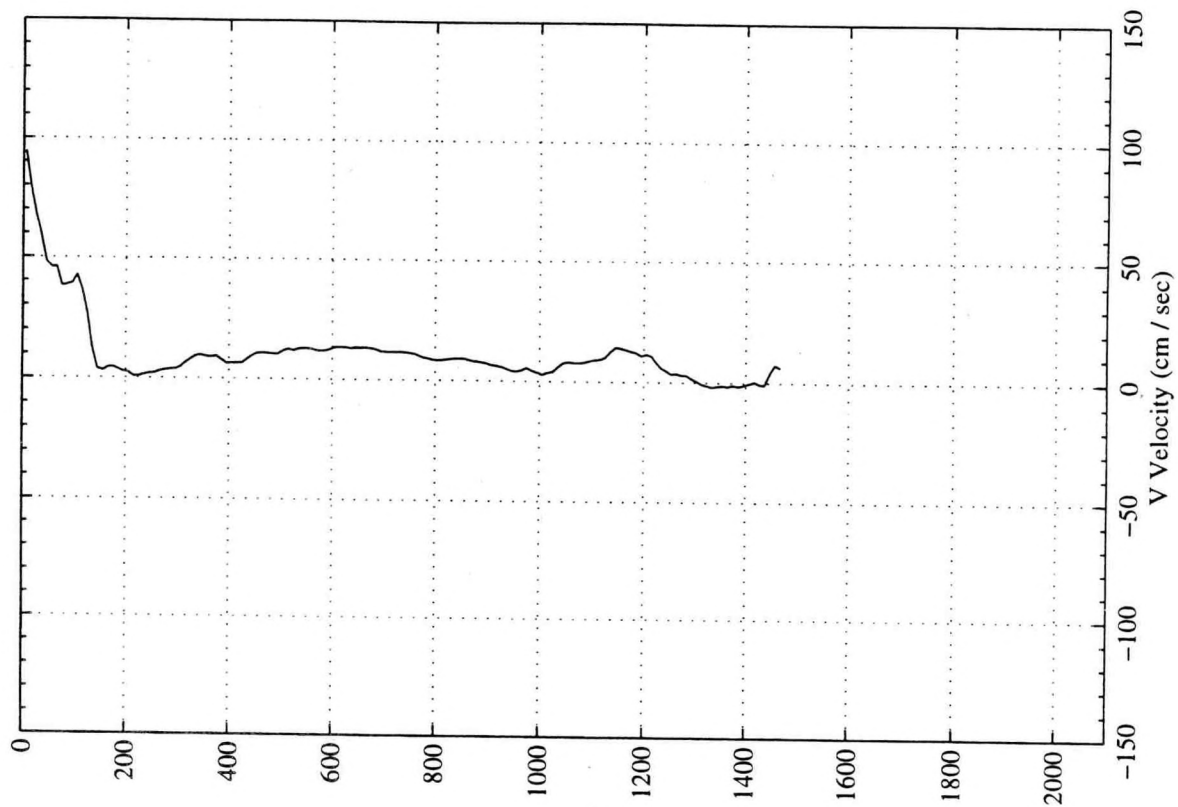
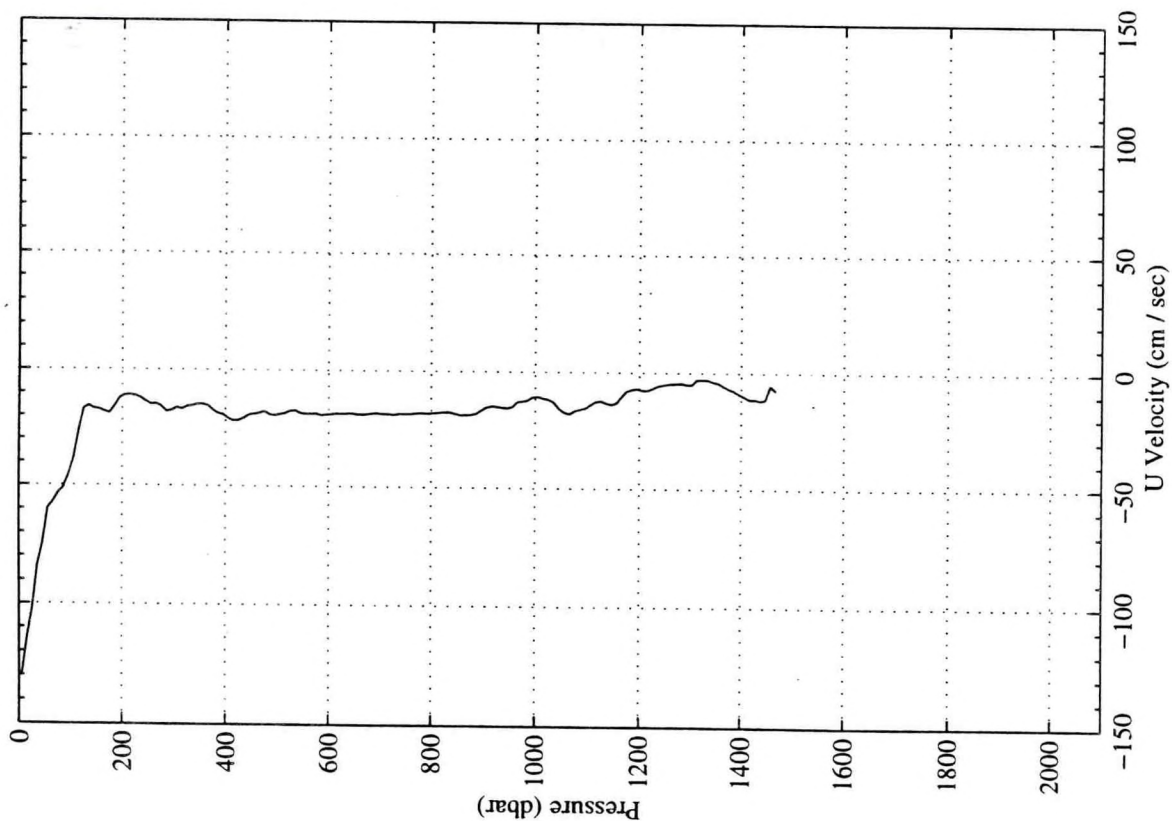
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 61 (00061)  
Latitude 9.218 N Longitude 57.787 W  
22-Feb-2000 03:06 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 62 (00062)  
Latitude 8.772 N Longitude 58.058 W  
22-Feb-2000 07:36 Z

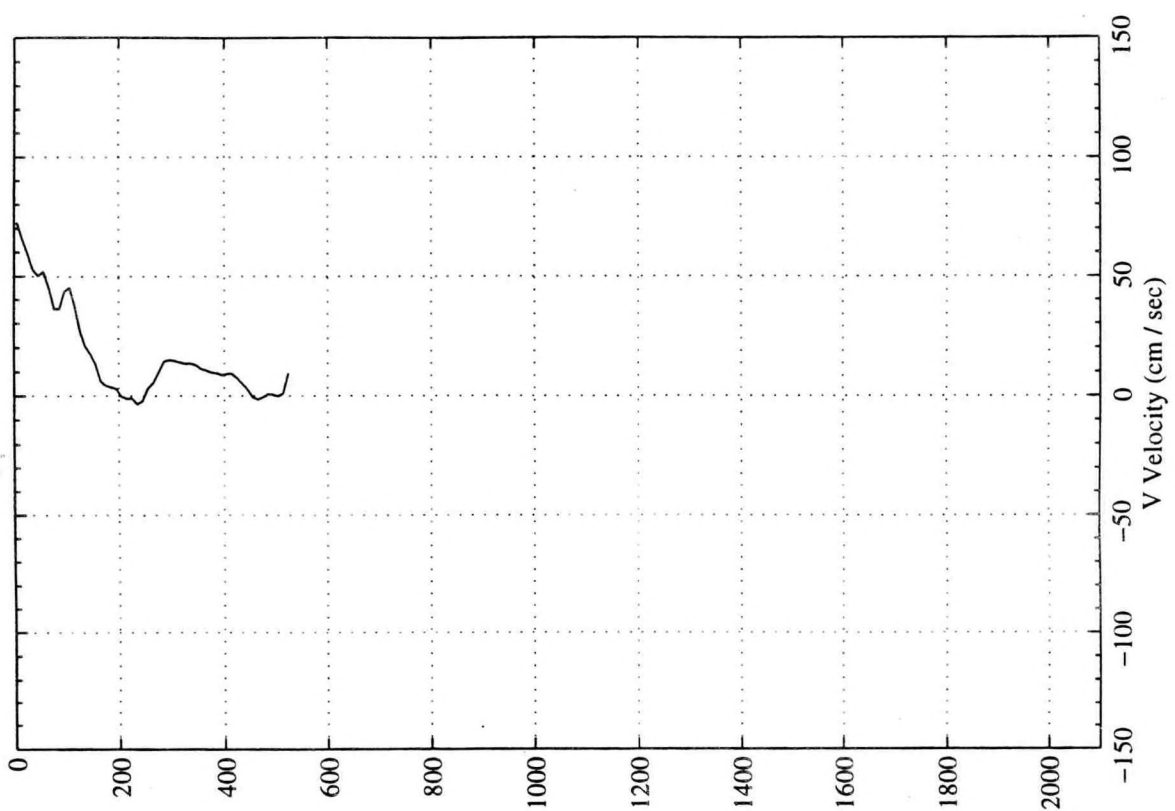
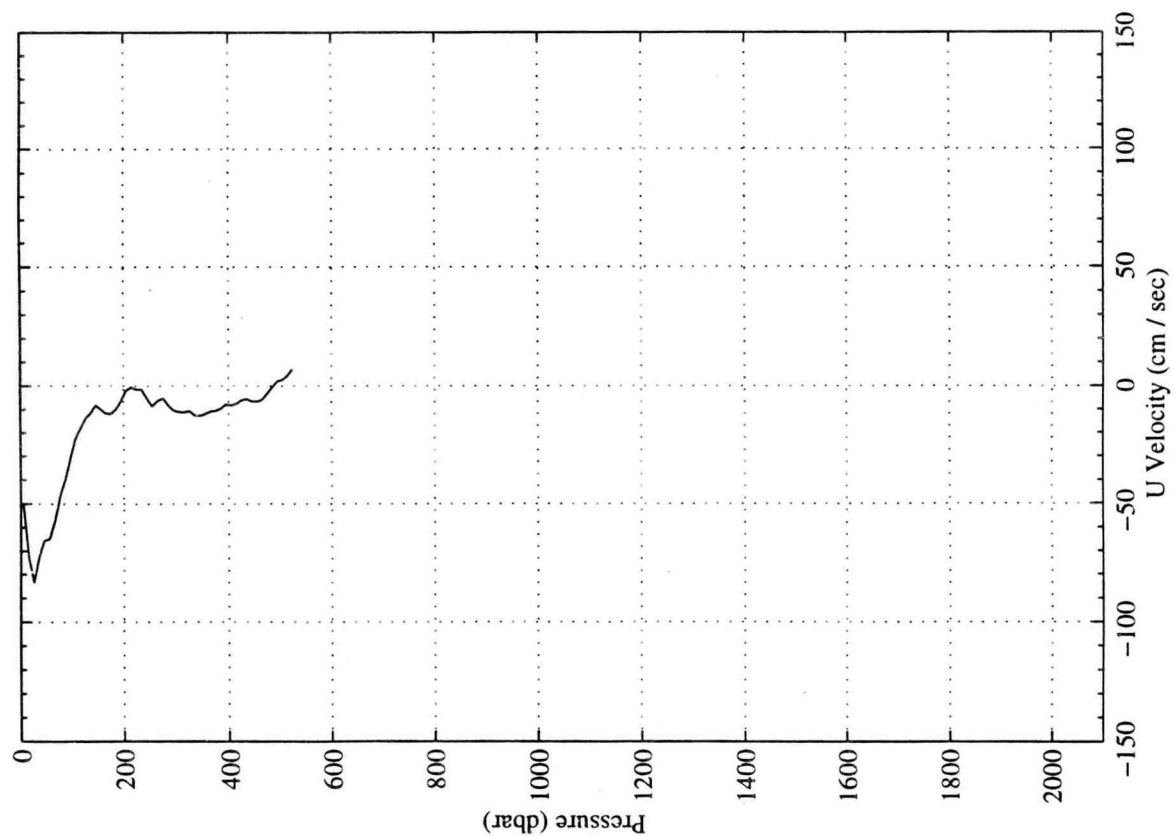


NBC-3 R/V SEWARD JOHNSON  
LADCP Station 63 (00063)  
Latitude 8.511 N Longitude 58.171 W  
22-Feb-2000 11:28 Z

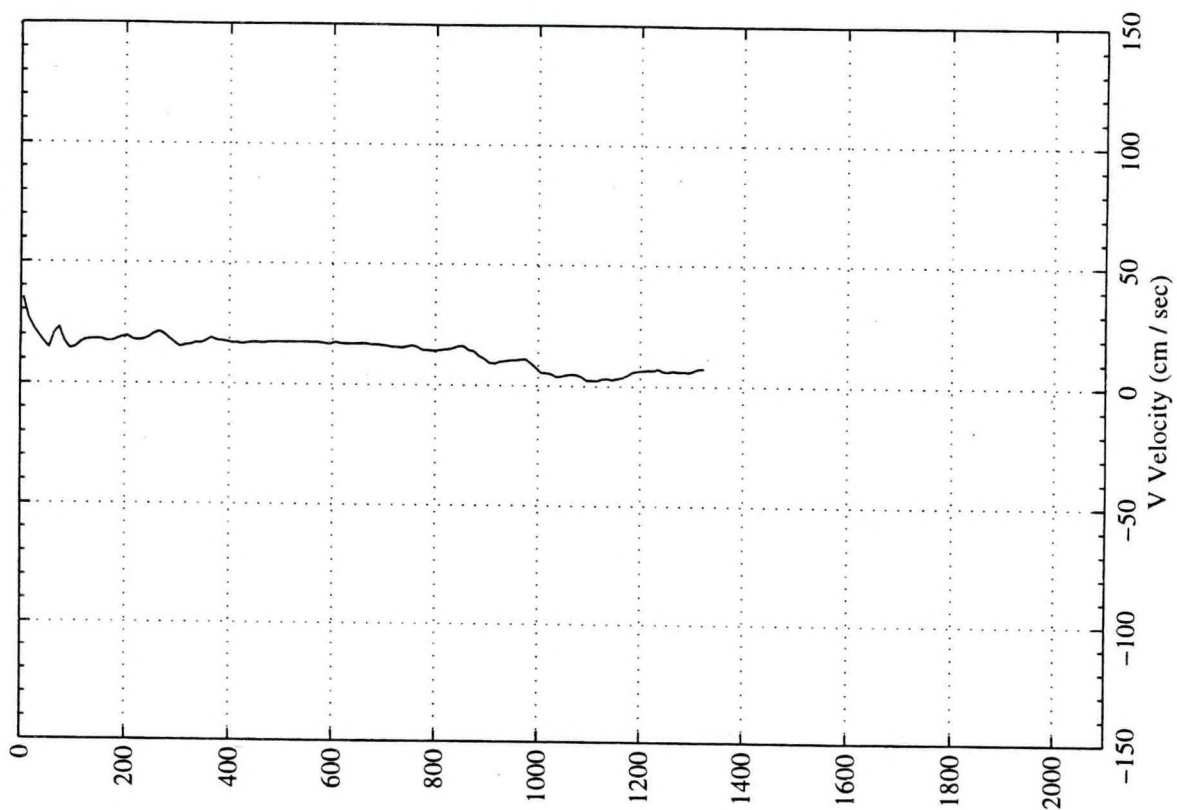
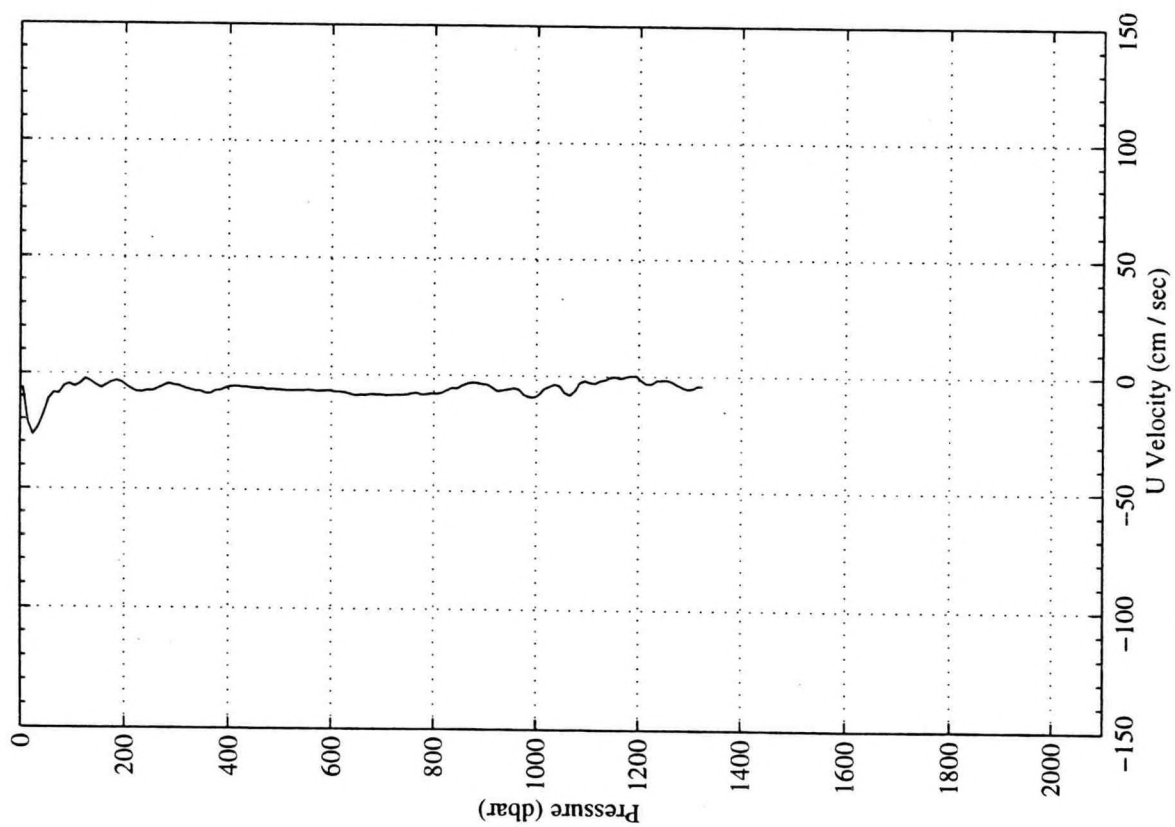




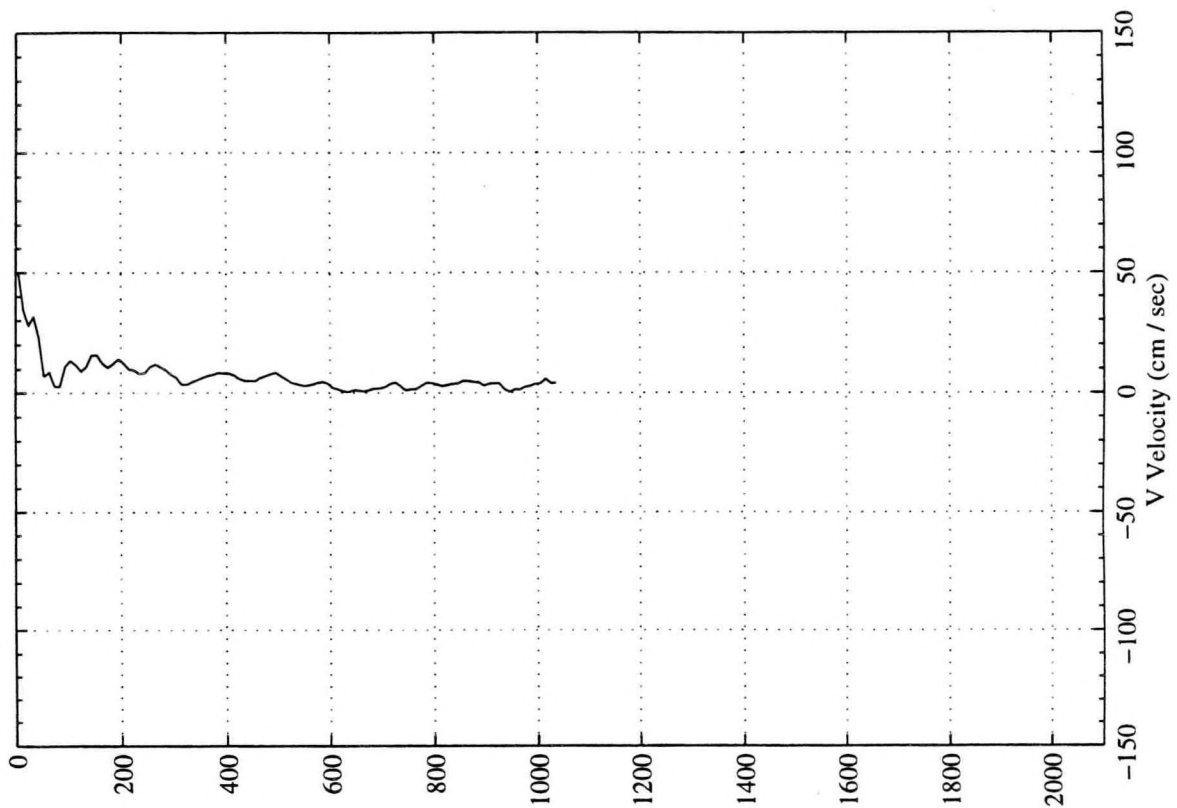
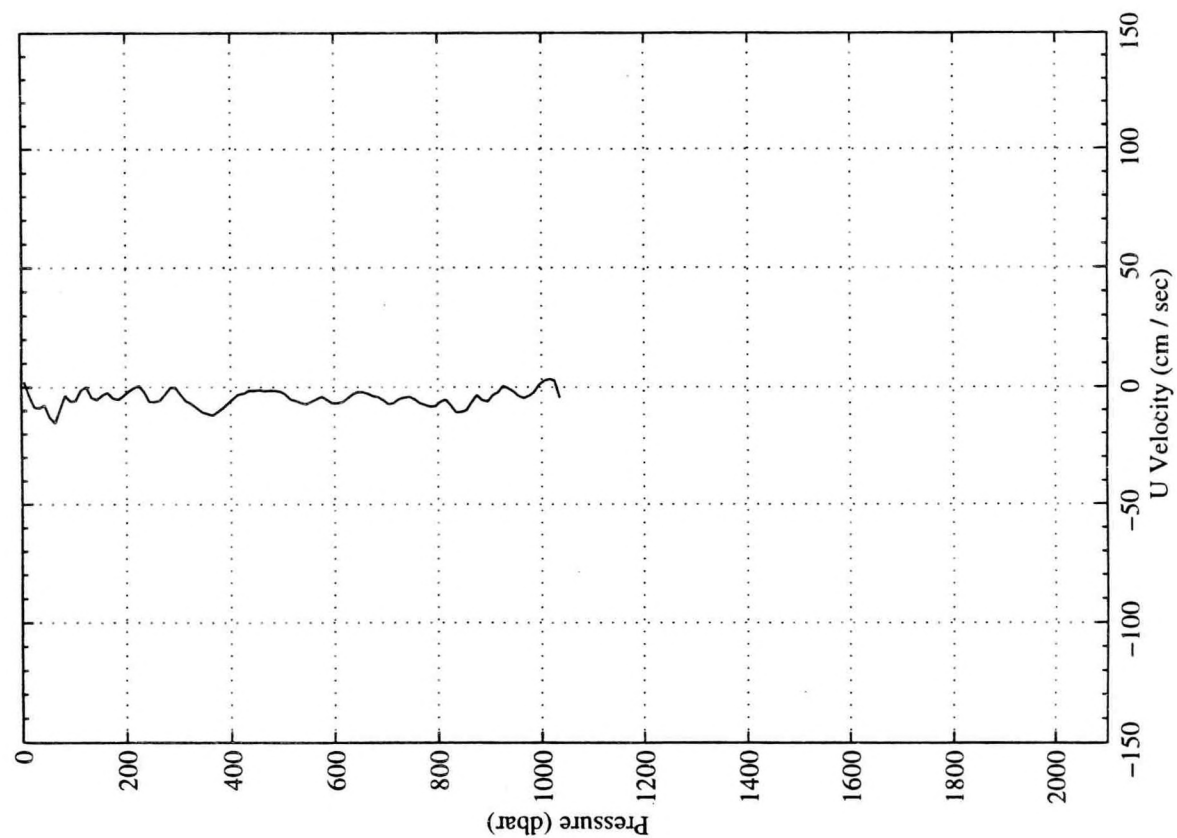
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 LADCP Station 64 (00064)  
 Latitude 8.416 N Longitude 58.206 W  
 22-Feb-2000 13:13 Z



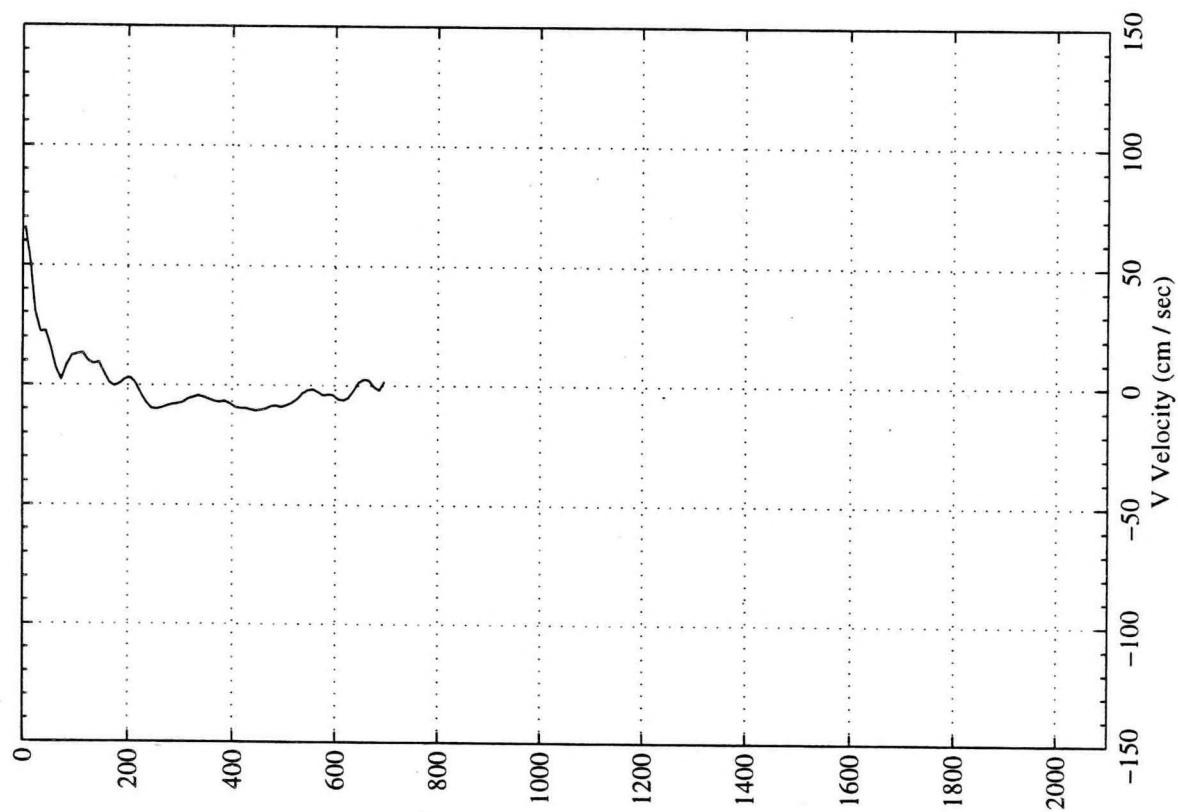
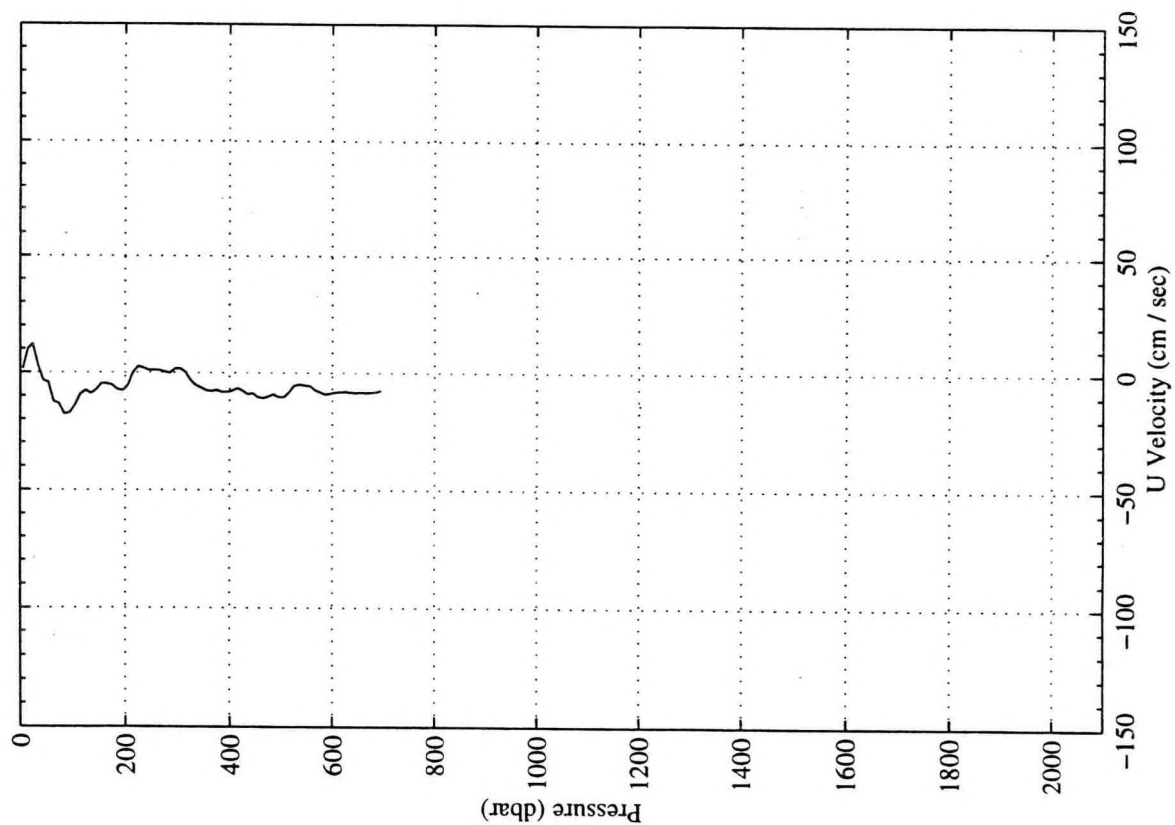
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 65 (00065)  
Latitude 10.514 N Longitude 59.497 W  
23-Feb-2000 01:27 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 66 (00066)  
Latitude 10.389 N Longitude 59.734 W  
23-Feb-2000 04:01 Z

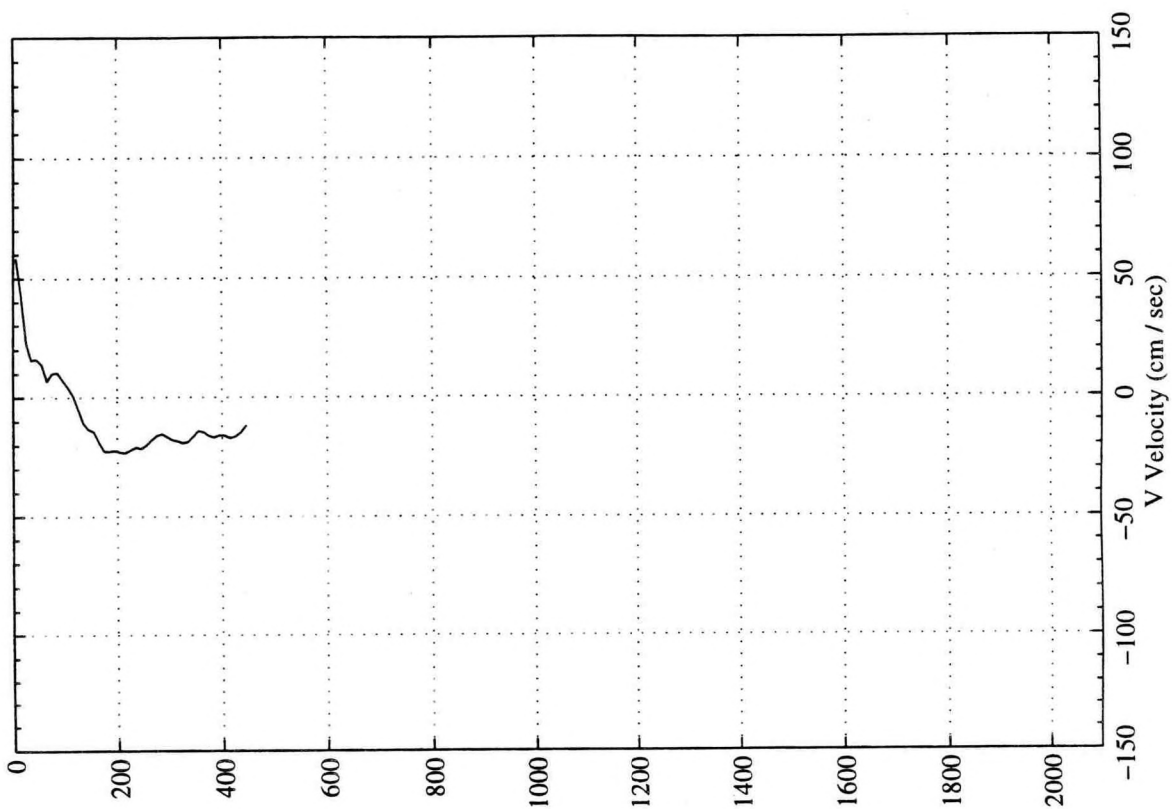
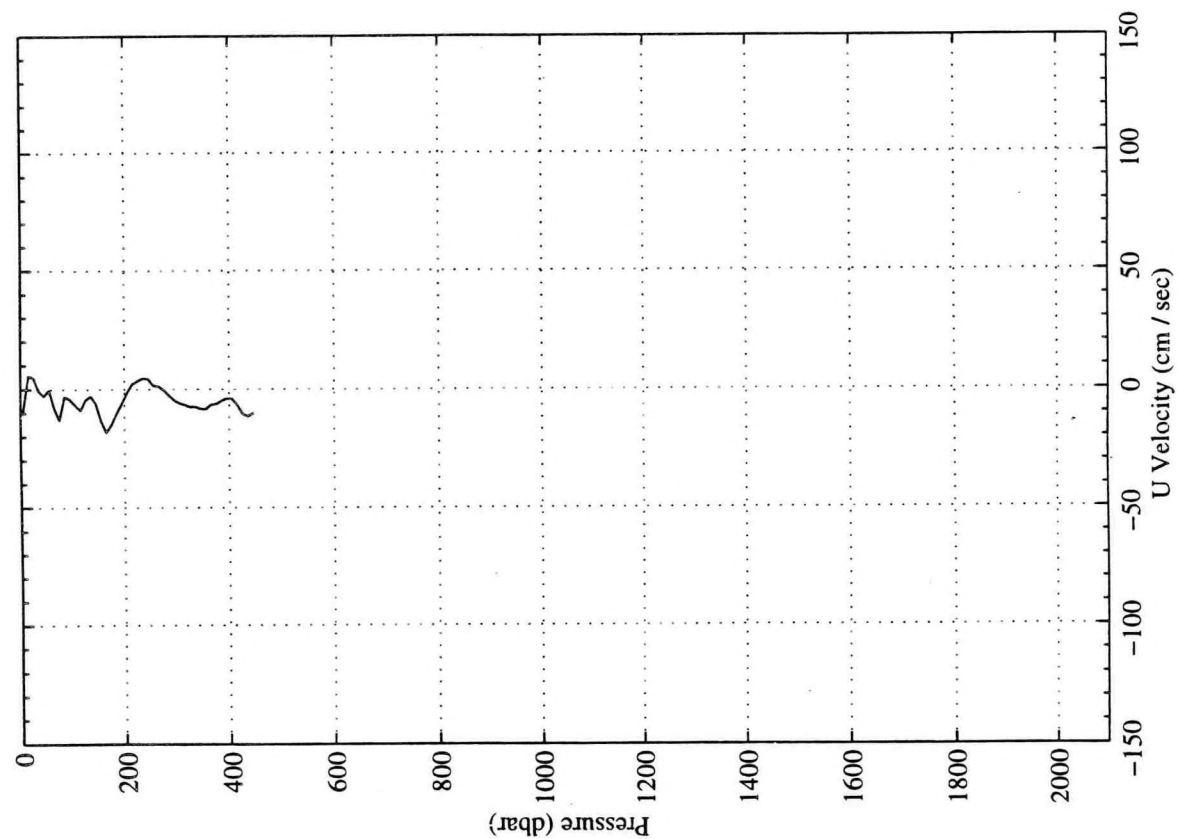


NBC-3 R/V SEWARD JOHNSON  
LADCP Station 67 (00067)  
Latitude 10.290 N Longitude 59.915 W  
23-Feb-2000 06:01 Z

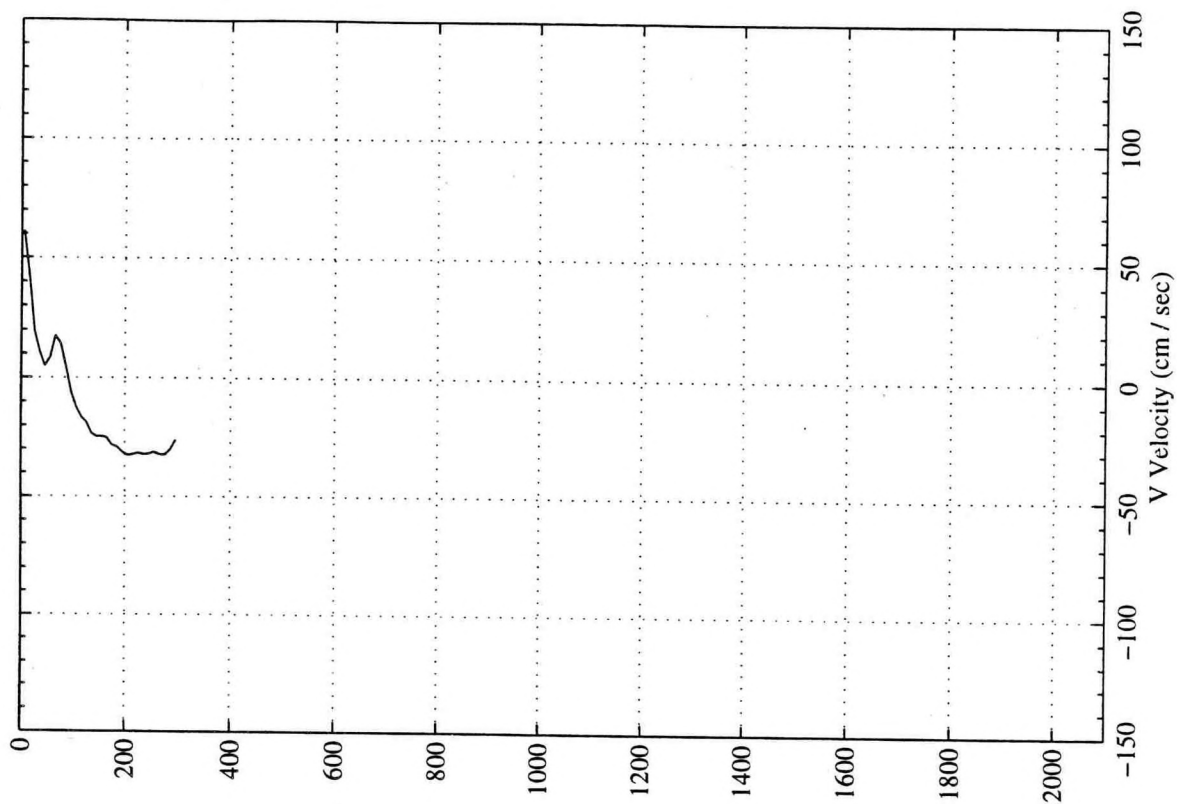
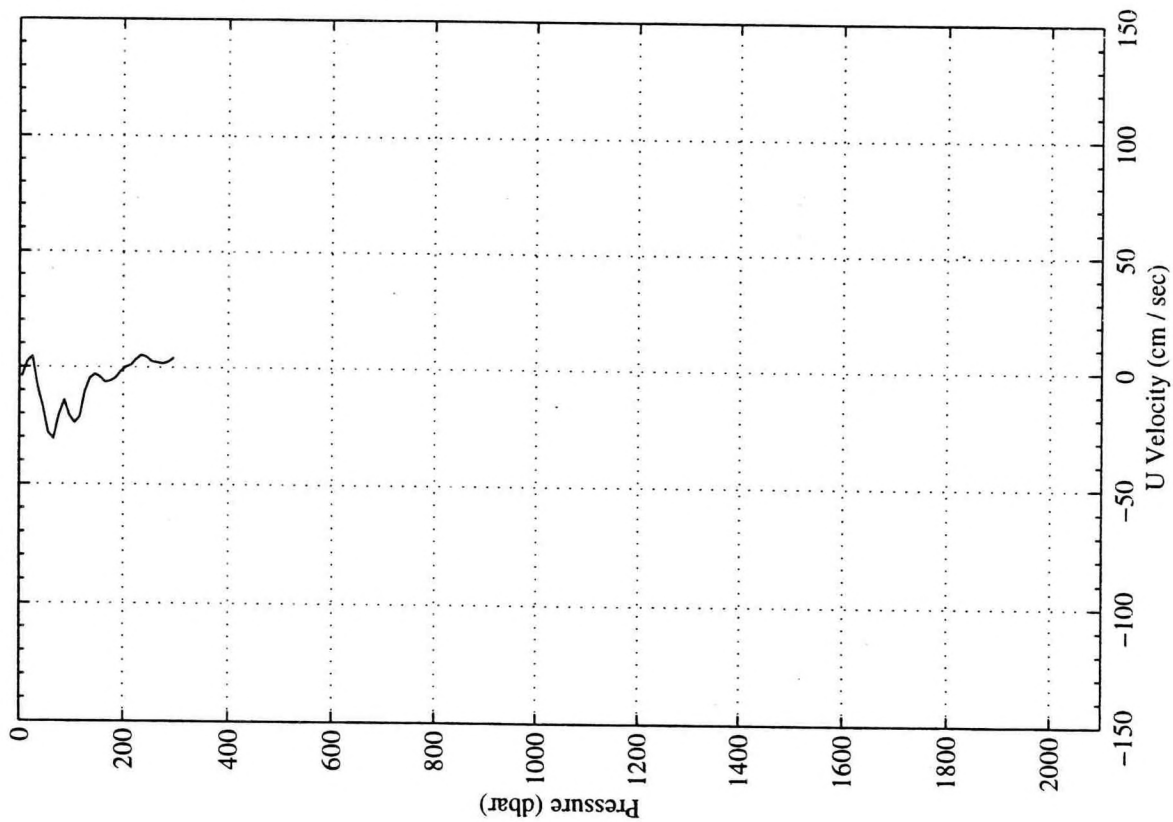




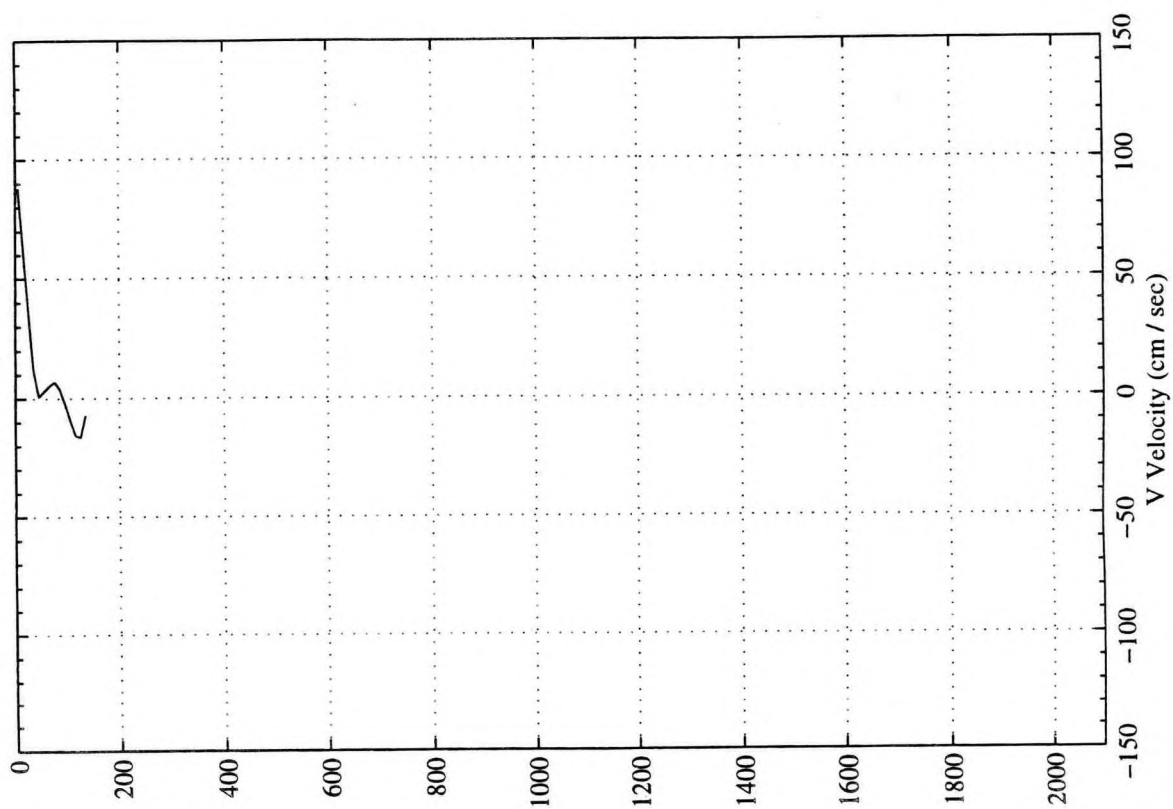
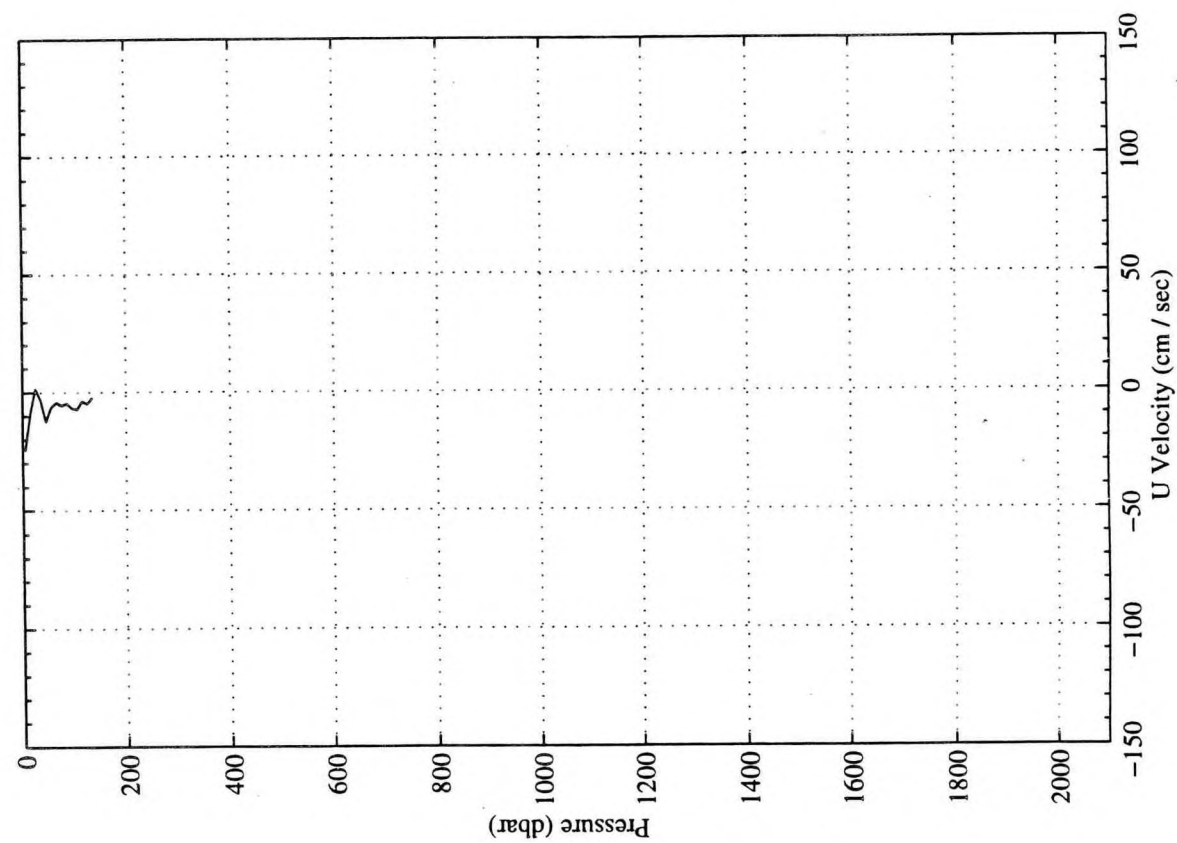
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LADCP Station 68 (00068)  
Latitude 10.224 N Longitude 60.040 W  
23-Feb-2000 07:35 Z



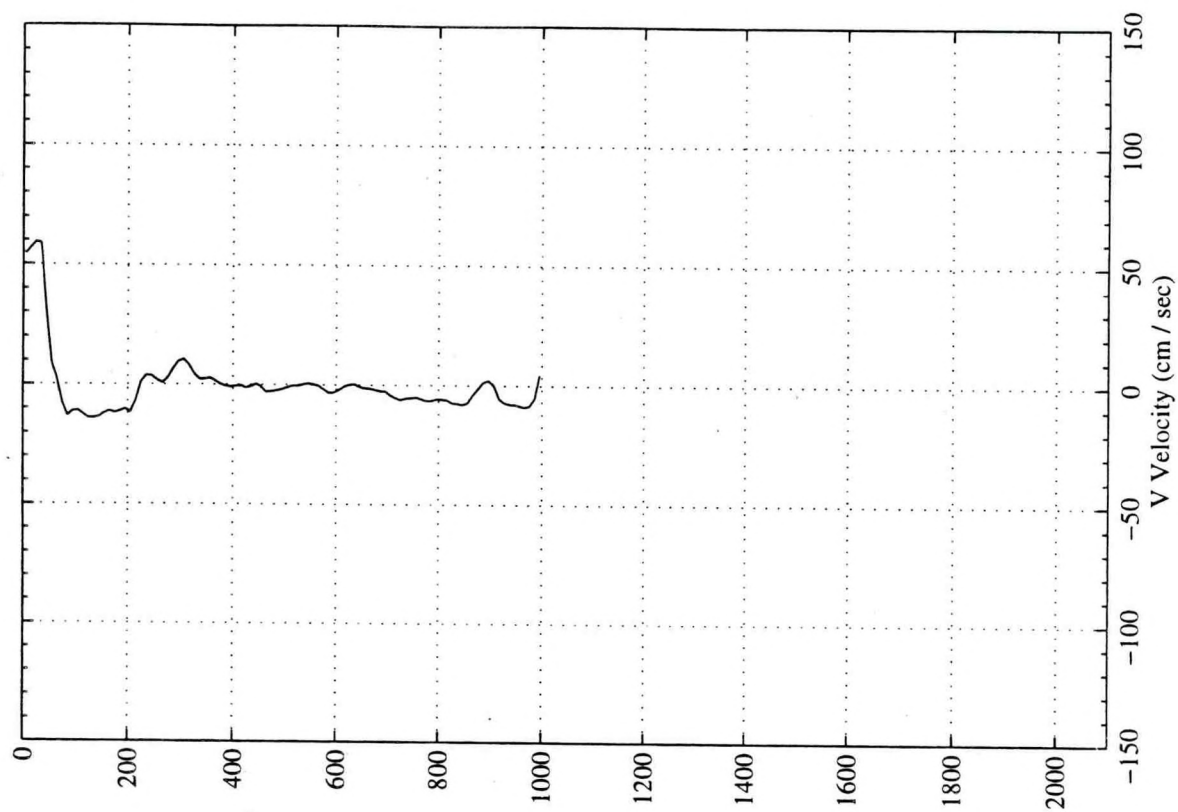
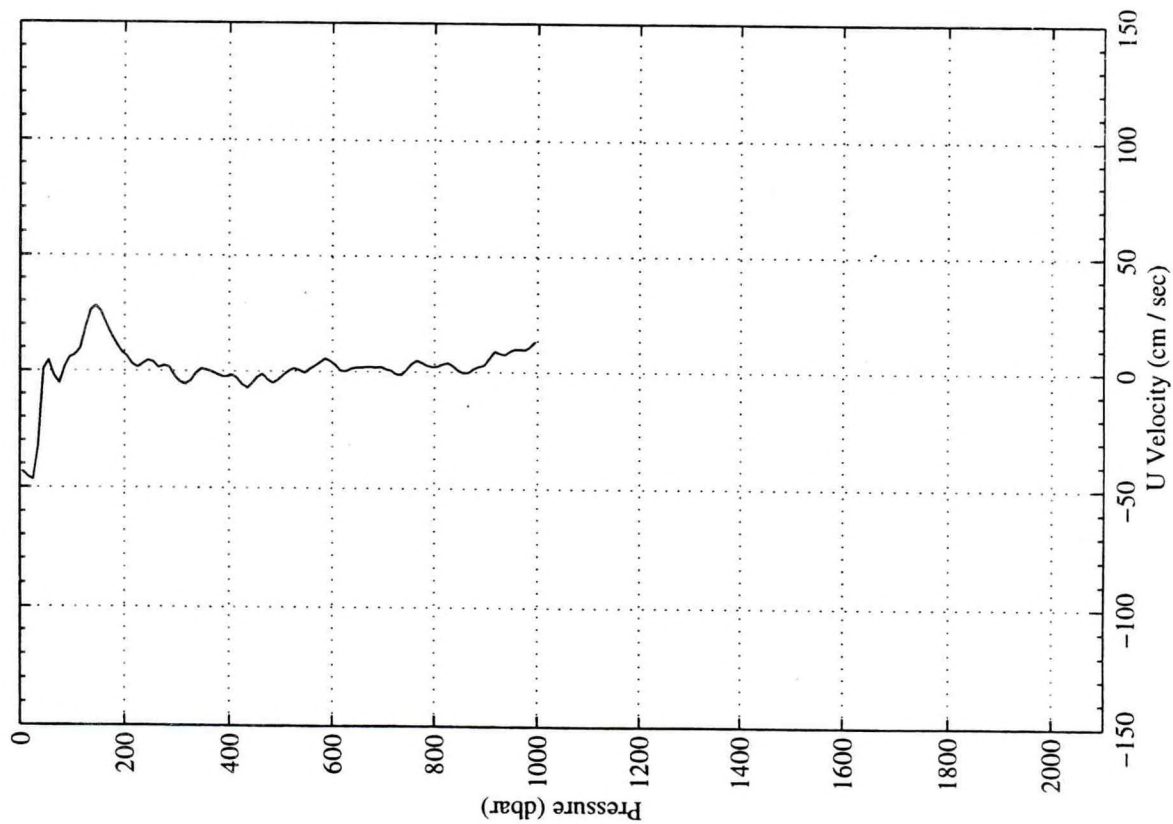
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 69 (00069)  
Latitude 10.187 N Longitude 60.103 W  
23-Feb-2000 08:45 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 70 (00070)  
Latitude 11.374 N Longitude 60.501 W  
23-Feb-2000 16:07 Z

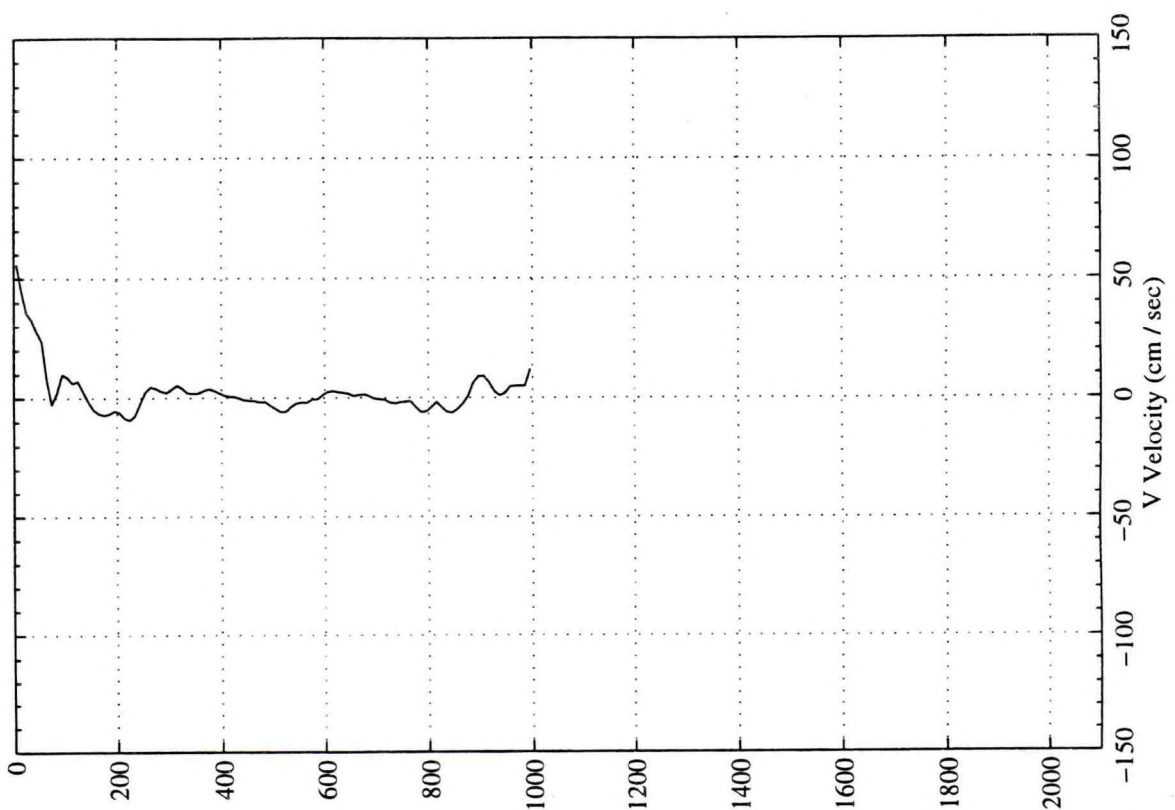
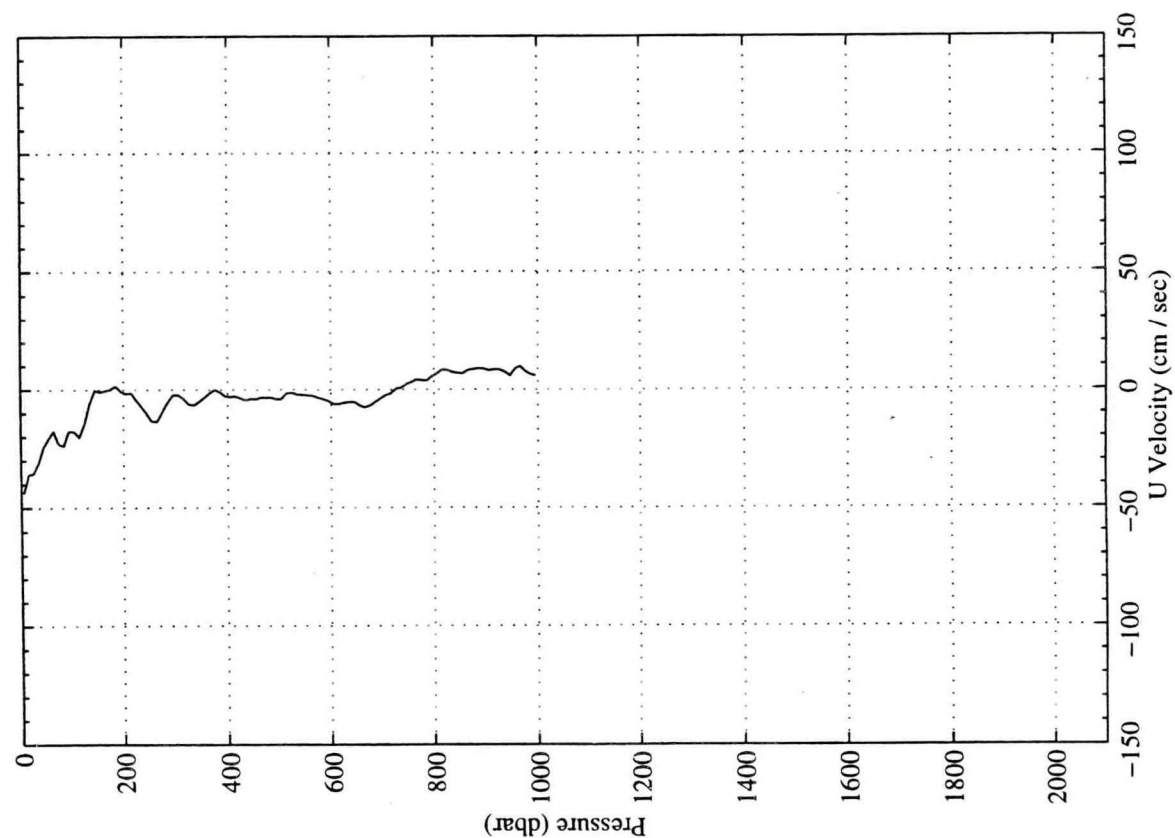


NBC-3 R/V SEWARD JOHNSON  
LADCP Station 71 (00071)  
Latitude 11.441 N Longitude 60.483 W  
23-Feb-2000 16:56 Z

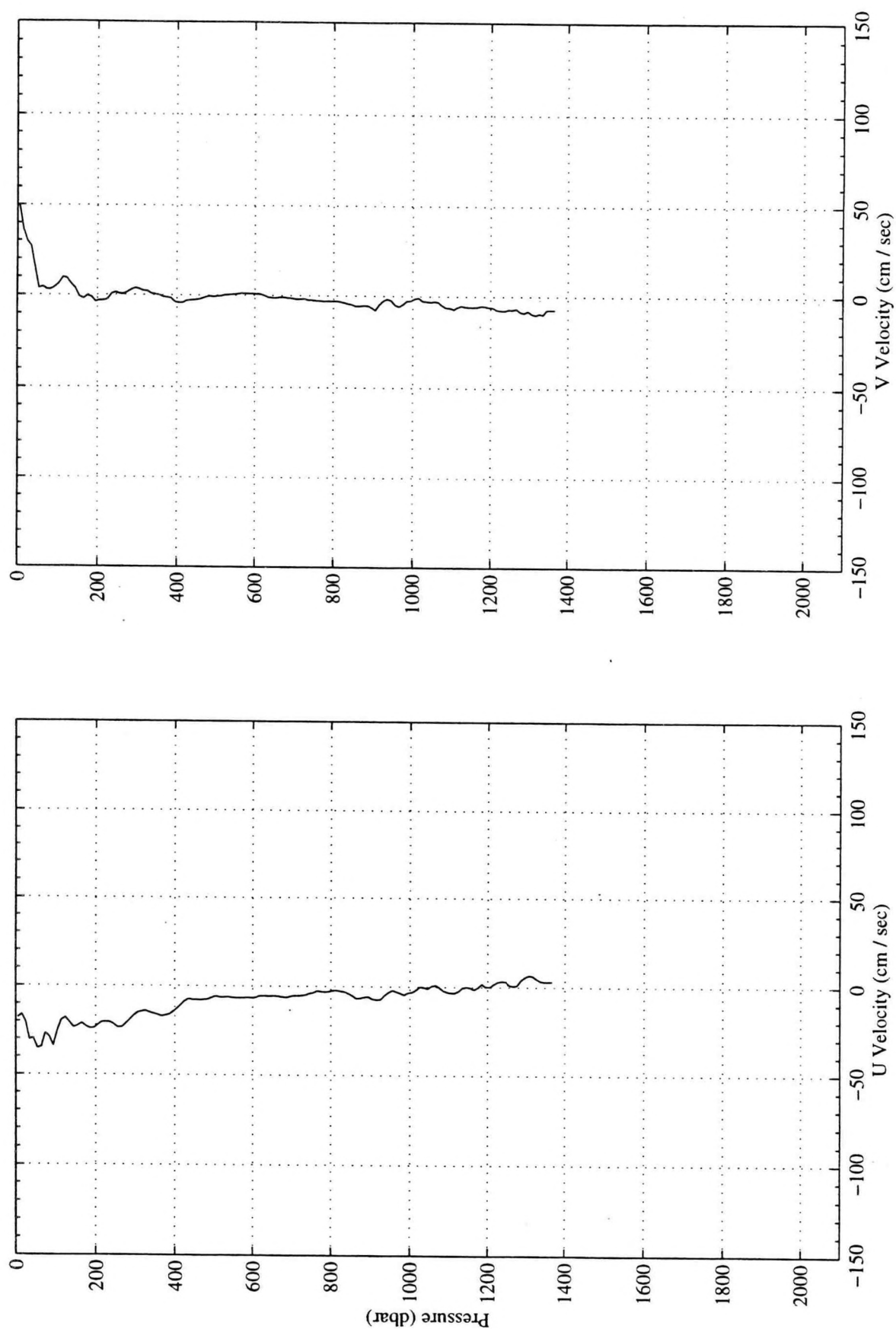




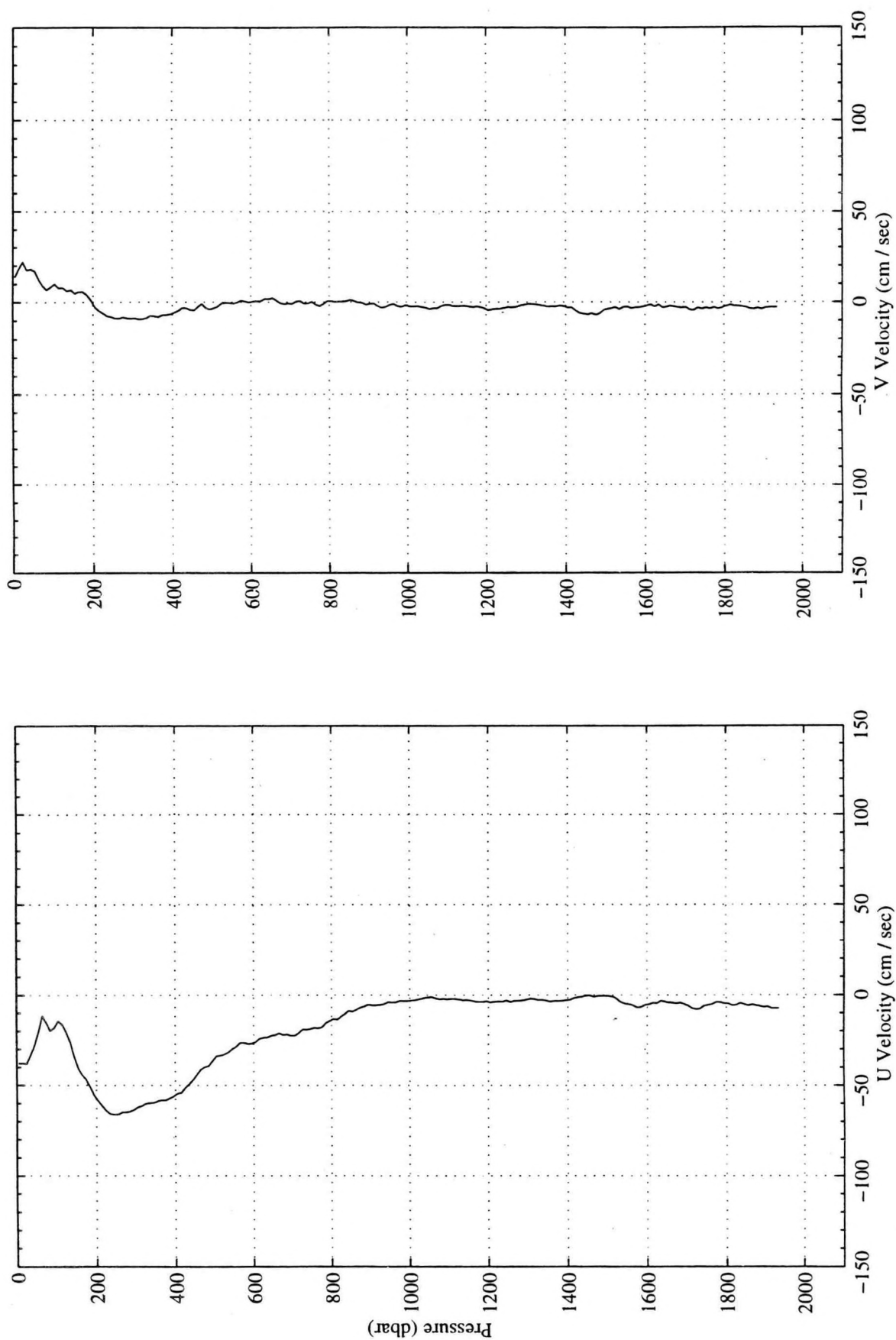
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 72 (00072)  
Latitude 11.572 N Longitude 60.432 W  
23-Feb-2000 18:21 Z



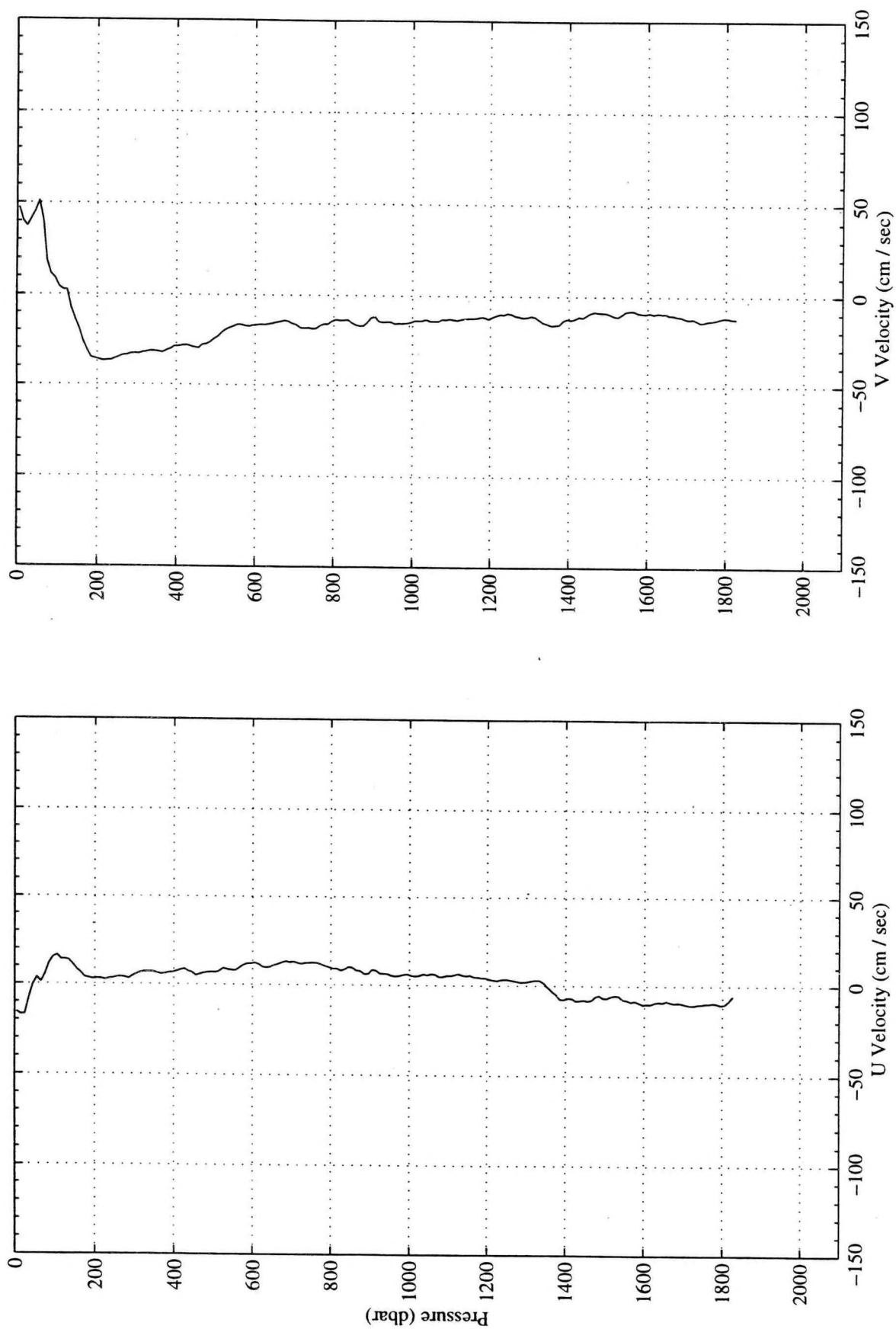
NBC-3 R/V SEWARD JOHNSON  
LADCP Station 73 (00073)  
Latitude 11.708 N Longitude 60.333 W  
23-Feb-2000 20:10 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 74 (00074)  
Latitude 12.035 N Longitude 60.128 W  
23-Feb-2000 23:28 Z

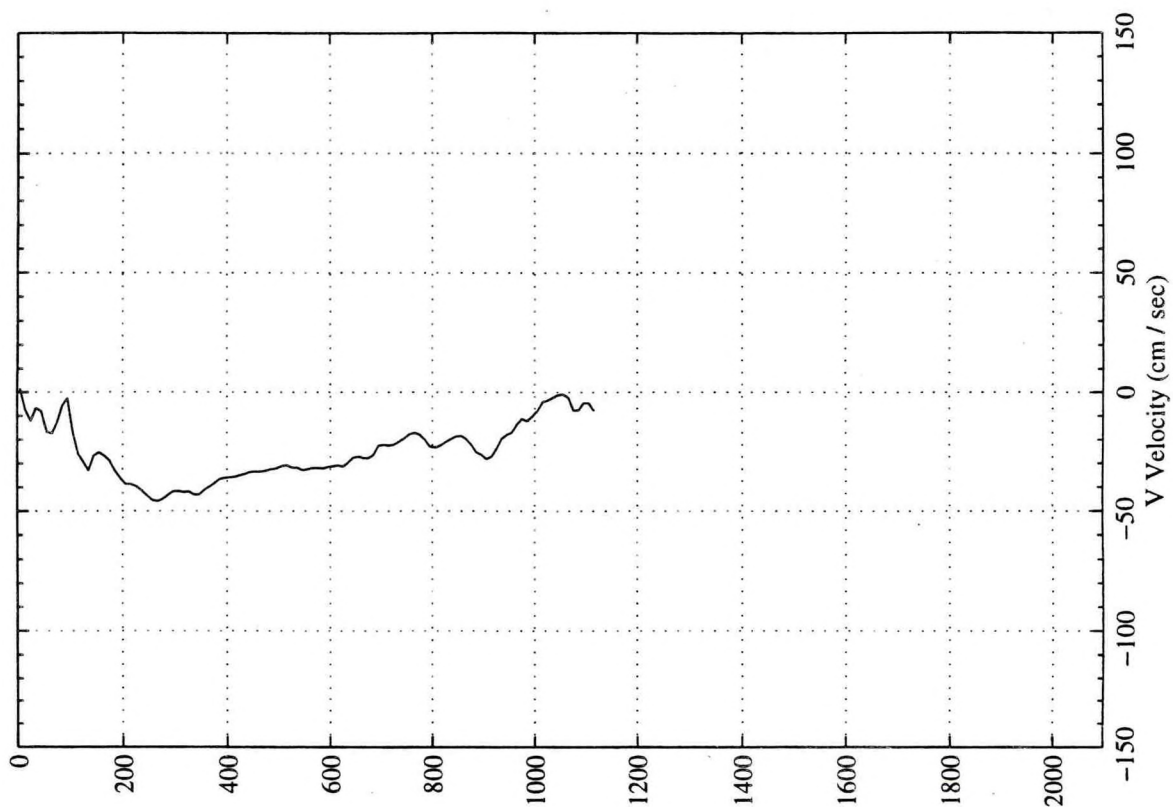
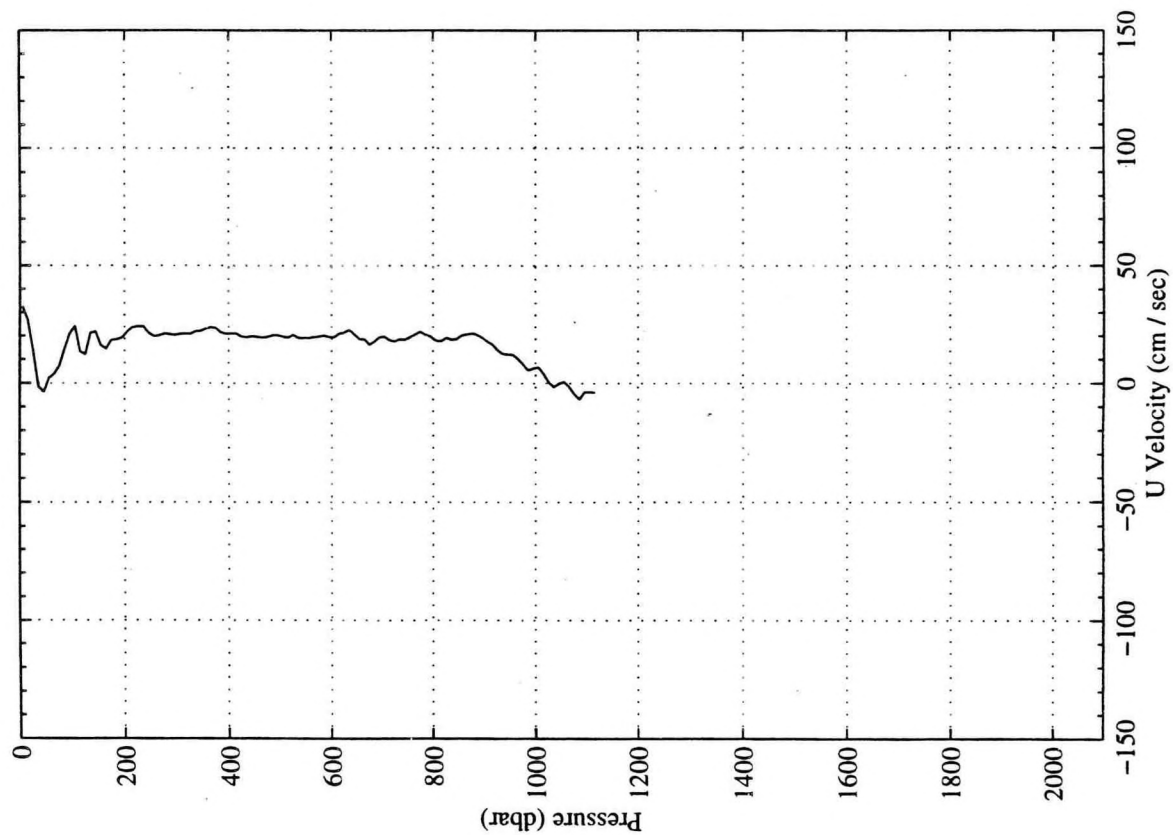


NBC-3 R/V SEWARD JOHNSON  
LADCP Station 75 (00075)  
Latitude 12.371 N Longitude 59.923 W  
24-Feb-2000 02:50 Z





NBC-3 R/V SEWARD JOHNSON  
LADCP Station 76 (00076)  
Latitude 12.698 N Longitude 59.748 W  
24-Feb-2000 05:46 Z



NBC-3 R/V SEWARD JOHNSON  
LADCP Station 77 (00077)  
Latitude 12.897 N Longitude 59.634 W  
24-Feb-2000 07:38 Z

